



COTTAGE GROVE CITY COUNCIL

October 18, 2023

12800 RAVINE PARKWAY SOUTH
COTTAGE GROVE, MINNESOTA 55016
COUNCIL CHAMBER- 7:00 PM

In accordance with the requirements of Minn. Stat. Section 13D.02, Councilmember Tony Khambata will appear remotely via interactive technology from the following public location:

Hilton Garden Inn Conference Room
101 East Hiawatha Drive
Wisconsin Dells, WI
53965

- 1 Call to Order
- 2 Pledge of Allegiance
- 3 Roll Call
- 4 Open Forum
- 5 Adoption of Agenda
- 6 Presentations
 - A Washington County Food Scrap Program
Staff Recommendation: Receive the Washington County Food Scrap Presentation.
- 7 Consent Agenda
 - A September 20, 2023, Special Meeting Minutes.
Staff Recommendation: Approve the September 20, 2023, Special Meeting Minutes.
 - B September 20, 2023, Regular Meeting Minutes.
Staff Recommendation: Approve the September 20, 2023, Regular Meeting Minutes.
 - C Rental License Approval
Staff Recommendation: Approve the issuance of rental licenses to the properties in the attached table.
 - D Commission Appointments
Staff Recommendation: Approve the Mayors Commission Appointments as follows: Mayor Pro Tem & Economic Development Authority - Tony Khambata, Investment Committee - Dave Thiede, and Cottage Grove Convention and Visitors Bureau Chair - Justin Olsen.
 - E Appointments to the Convention and Visitors Bureau (CVB)
*Staff Recommendation: Appoint Councilmember Olsen as Chairman of the CVB.
Appoint Erik Olson and Sarah Grecula to fill the two vacant positions on the CVB board.*
 - F Sergeant Positions
Staff Recommendation: Approve two additional Sergeant positions for the 2024 budget.

- G Sale of Surplus Property
Staff Recommendation: Authorize Public Safety to trade in surplus equipment to Guardian Fleet Safety.
- H Dunkin’/Baskin Robbins – Usage of SAC Credits
Staff Recommendation: Adopt Resolution 2023-135 authorizing the use of seven of the City’s SAC credits for Dunkin’/Baskin Robbins that will be located at 7584 80th Street South.
- I Utilities and Engineering Division Building – Approve Plans and Specifications and Establish a Bid Date
Staff Recommendation: Adopt resolution 2023-134 approving the plans and specifications and establishing a November 21, 2023 bid date for the Utilities and Engineering Division Building Project.
- J Glacial Valley Park - Change Order #2
Staff Recommendation: Approve Change Order #2, thereby increasing the contract amount by \$52,244.50 for a total contract amount of \$2,595,136.44.
- 8 Approve Disbursements
 - A Approve Disbursements
- 9 Public Hearings
 - A 2023 Pavement Management Assessment Hearing
Staff Recommendation: 1) Conduct the Public Hearing for the 2023 Pavement Management Project. 2) Adopt Resolution 2023-131 adopting the assessment roll for the 2023 Pavement Management Project.
 - B Tall Weeds Assessment Hearing
Staff Recommendation: 1. Hold Public Hearing. 2. Adopt resolution 2023-132, Adopting service charges for the removal of noxious weeds and plants from private property.
 - C Street Reconstruction and Overlay Plan Public Hearing
Staff Recommendation: 1. Conduct the Public Hearing for the Street Reconstruction and Overlay Plan. 2. Adopt Resolution 2023-133 Adopting a Street Reconstruction and Overlay Plan and approving the issuance of General Obligation Street Reconstruction Bonds.
- 10 Bid Awards
- 11 Regular Agenda
 - A Cannabis and Tobacco Use on Public Property & Public Places
Staff Recommendation: Discuss the ordinances and, if acceptable, move each ordinance separately for approval. 1. Motion to approve an Ordinance Amending Cottage Grove City Code by Enacting Title 5, Chapter 1, Section 6, Prohibiting Cannabis Use on Public Property and in Public Places. 2. Motion to approve an Ordinance Amending Cottage Grove City Code by Amending Title 7, Chapter 3, Section 4, Prohibiting Smoking and Vaping Tobacco Products in Public Parks. 3. Motion to approve an Ordinance Amending Cottage Grove City Code by Enacting Title 5, Chapter 1, Section 7, Underage Possession and Use of Cannabis Products
- 12 Council Comments and Requests
- 13 Workshops - Open to Public
- 14 Workshops – Closed to Public (License Revocation Hearing)
 - A Motion to close the meeting pursuant to Minnesota Statutes, Section 13D.05, subdivision 2(a)(2), to consider the tobacco license revocations of Cottage Grove Tobacco LLC and Cottage Grove 4G LLC, doing business as Smoke Leaf, which will involve the discussion of active investigative data as defined in Minnesota Statute, Section 13.82, subdivision 7.
- 15 Adjournment



City Council Action Request

6.A.

Meeting Date	10/18/2023
Department	Administration
Agenda Category	Action Item
Title	Washington County Food Scrap Program
Staff Recommendation	Receive the Washington County Food Scrap Presentation.
Budget Implication	
Attachments	None



City Council Action Request

7.A.

Meeting Date 10/18/2023

Department Administration

Agenda Category Action Item

Title September 20, 2023, Special Meeting Minutes.

Staff Recommendation Approve the September 20, 2023, Special Meeting Minutes.

Budget Implication

Attachments	1. 2023-09-20 City Council Special Meeting
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MINUTES

COTTAGE GROVE CITY COUNCIL

**COUNCIL CHAMBERS
12800 RAVINE PARKWAY SOUTH**

September 20, 2023

SPECIAL MEETING - 6:00 P.M.

Amphitheater

1. CALL TO ORDER
2. ROLL CALL
3. Presentations
 - A. Swearing-in and Badge Ceremony
Staff Recommendation: Perform the Swearing-in and Badge Ceremony for Tou Vue, Sam Lemay, Casey Banken, Nick Linder, Bill King, Ben Ferderer, Richard Green, Emile Langer, Sam Anderson, and Terry Johnson.

The Director of Public Safety, Pete Koerner, addressed everyone and noted that the Public Safety Department's goal has always been to offer the highest quality community-based services. Cottage Grove manages the Police, Fire, Ambulance, and Emergency Management Departments under the umbrella of Public Safety. This organizational structure guarantees that all of our departments serve the public with seamless, coordinated services. While some are having difficulty finding competent candidates, Cottage Grove continues to hire the finest. Director Koerner thanked Council for their support of the Public Safety Department.

Captain Rinzel provided a personal background on the two officers sworn in, Tou Vue and Sam Lemay. Administrator Levitt swore each of them in.

Fire Chief Rick Redenius addressed the fire department personnel and provided a personal background for each member: Casey Banken, Nick Linder, Bill King, Ben Ferderer, Richard Green, and Emile Langer. Eric Nybachen, Sam Anderson, and Terry Johnson. Administrator Levitt swore each of them in.

4. ADJOURNMENT

The meeting was adjourned at 6:23 p.m.

Minutes were transcribed by Tamara Anderson, City Clerk.



City Council Action Request

7.B.

Meeting Date 10/18/2023

Department Administration

Agenda Category Action Item

Title September 20, 2023, Regular Meeting Minutes.

Staff Recommendation Approve the September 20, 2023, Regular Meeting Minutes.

Budget Implication

Attachments

1.	2023-09-20 City Council Regular Meeting
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MINUTES

COTTAGE GROVE CITY COUNCIL

**COUNCIL CHAMBER
12800 RAVINE PARKWAY SOUTH**

September 20, 2023

REGULAR MEETING - 7:00 P.M COUNCIL CHAMBER

1. CALL TO ORDER

The City Council of the City of Cottage Grove, Washington County, Minnesota, held a regular meeting on September 20, 2023, at Cottage Grove City Hall, 12800 Ravine Parkway. Mayor Pro Tem Steve Dennis called the meeting to order at 7:00 p.m., as Mayor Bailey is away on business.

2. PLEDGE OF ALLEGIANCE

The audience, staff, and City Council Members stood and recited the Pledge of Allegiance.

3. ROLL CALL

City Clerk Tammy Anderson called the roll: Mayor Bailey - Not Present; Mayor Pro Tem Dennis - Here; Council Member Khambata - Here; Council Member Olsen - Here; Council Member Thiede - Here.

Also present: Jennifer Levitt, City Administrator; Kori Land, City Attorney-LeVander, Gillen & Miller, PA; Tammy Anderson, City Clerk; Gretchen Larson, Economic Development Director/Acting Communications Director; Zac Dockter, Parks and Rec Director; Pete Koerner, Public Safety Director; Brenda Malinowski, Finance Director; Emily Schmitz, Community Development Director.

4. OPEN FORUM

Mayor Pro Tem Dennis opened the Open Forum. As no one wished to address the Council, Mayor Pro Tem Dennis closed the Open Forum.

5. ADOPTION OF AGENDA

Council Member Olsen made a motion to approve the agenda; second by Council Member Thiede. Motion carried: 4-0.

6. PRESENTATIONS

- A. South Washington County School District's Informational Presentation
Staff Recommendation: Receive South Washington County School District's presentation.

Mayor Pro Tem Dennis introduced Julie Nielsen, Superintendent, and Dan Pyan, Director of Finance and Operations, who will give an informational update tonight on the School District.

Superintendent Nielsen thanked the City for the ability to share their presentation. She stated their slogan for their campaign for November 7 is "Securing our Future and Supporting our Students." She wants the City Council to know that they spent six-to-eight months going out and talking with community members, postcards were sent, and meetings were held; so, they really consider this to be our community's plan. There were a number of priorities on the table, some that individuals wanted on the ballot, but some did not rise to that level just based on the community feedback. She noted there will be two bond questions on the ballot:

Question 1: (Highest Priority) Safety and security enhancements, and expansions and renovations at our secondary schools. Cost Estimate: \$160 Million.

Question 2: Addresses elementary school space at schools expected to exceed capacity, and addition of a second set of restrooms at five elementary schools. Cost Estimate: \$40 Million. So, the total cost of those two bond issues is \$200 Million.

Question 3: Capital Projects Levy (Technology Projects Levy), addresses infrastructure, safety and security related to technology.

Tax Impact of Bond Questions: For Questions 1 & 2 on Median Home Value, which is \$409,000 across South Washington County Schools, for both question, it would be a cost of \$6 monthly, or \$75 annually. Question 3 is our Technology Levy, levied over 10 years; we are actually revoking what we have and asking to increase that. Additional dollars would be \$2.2 Million, for a total of \$5 Million; that would have a tax impact of an additional \$3 monthly, \$36 annually, on a Median Home Value.

Total Tax Impact: \$6 for Bond Questions 1 & 2, plus \$3 for Question 3, Capital Projects Levy, is a \$9 total monthly cost for a home of median value.

Bonds for Buildings: A Bond Referendum gives our voters the opportunity to authorize our District to raise construction funding through the sale of bonds. This is the only method to raise enough funds for new construction and extensive remodeling or expansion. People sometimes wonder why we don't just use our General Fund, as we must have money in that. General Fund dollars are really for operations. We are not holding onto \$200 Million, even in our General Fund. She displayed a sample ballot and noted it clearly states: *By voting yes on this ballot question, you are voting for a property tax increase.*

Bond Question 1, if passed:

*Construct new secured entryways at Park High School and Woodbury High Schools and Cottage Grove, Lake, and Woodbury Middle Schools. Those five schools currently do not have the highest secured entryway; she explained the different levels of security. Approximate Cost: \$25 Million

*Planned addition at East Ridge High School and renovations at Park and Woodbury High Schools. Approximate Cost: \$105 Million

*Planned addition at Oltman Middle School and small renovation at Woodbury Middle School, filling in the pool and making that usable space. Approximate Cost: \$30 Million
Those things would occur within approximately three years.

Bond Question 1, if it does not pass:

*Bond Question 2 also fails because Bond Question 2 is contingent upon Bond Question 1 passing.

*Because Bond Question 2 fails if Bond Question 1 fails, attendance boundary changes at elementary schools will be implemented for the 2024-2025 school year.

*Considering alternative scheduling and course delivery options for high schools.

*Reviewing grade configurations at all levels, as East Ridge High School is at about 130%+ capacity, Woodbury and Park are very close to that. By changing high school attendance boundaries, we would not really get any different results except overcrowding another school even more.

Bond Question 2, if passed:

*Elementary School Additions in areas where we are most growing: Pine Hill, Red Rock, Bailey, and Grey Cloud. Approximate Cost: \$31 Million.

*Construction of additional restrooms at elementary schools only containing a single set/four stalls: Crestview, Hillside, Pine Hill, Pullman, and Royal Oaks. Approximate Cost: \$9 Million. Approximate total cost for both=\$40 Million, or \$1 per month.

Bond Question 2, if it does not pass:

*Attendance boundary changes would occur at the elementary level for the 2024-2025 school year. Dan Pyan will speak about that.

*The five elementary schools above will continue with one set of restrooms.

Director Pyan stated if both Question 1 and Question 2 pass, there will not be any elementary school boundary changes for the 2024-2025 school year. If Question 1 passes, and Question 2 fails, then we will implement these attendance boundary changes at the elementary schools for the 2024-2025 school year. Some middle school boundaries will be adjusted to keep elementary school cohorts together as much as possible. At this time, there will be no changes to high school boundaries.

With the potential boundary changes, we wanted to know how many students this would affect if the boundary changes had to be made. Using last year's student totals as a sample base, it would affect about 427 students, which is about 310 to 320 families. On our website, under Facility Planning, there are maps also Boundary Change information; anybody who wants to know where their child will attend elementary school next year if Question 2 does not pass can simply go on there, type in their home address, and it will show the elementary, middle, and high schools their children would be attending.

Question 3 is a Capital Projects Levy, so this is a levy and not a bond; this one is not contingent on either Question 1 or Question 2, it's simply asking the voters if we can levy more for capital projects related solely to technology. This will provide funds for improved instructional technology, support staffing, maintenance, and support for student and staff devices, and of course to enhance technology infrastructure and enhance technology security. The question on the ballot will read: *Shall the revocation of the existing capital project levy authorization and the replacement with a new capital project levy authorization proposed by the Board of Independent School District No. 833 (South Washington County Schools), Minnesota, be approved?* He noted that will change it from \$2 Million to \$5 Million. Once again, it reads, *By voting "yes" on this ballot question, you are voting for a property tax increase.*

As we connected with community members for feedback about the upcoming bond referendum, safety and security rose to the top of all the priorities. This levy will address safety and security related to technology; it seems like almost every week now another School District's technology has been compromised by ransomware, etc. We'd use these dollars to beef up our cybersecurity.

The levy is based on a tax rate, and as property values go up, it raises more money. If this is approved, the tax impact is about \$3 per month on a median-valued home in our District. Right now, we levy about \$137 per student; if this passes, our number will probably go up to about \$270 per student.

Question 3, if it passes:

- *Enhance cybersecurity
- *Maintain technology infrastructure
- *Upgrade security cameras
- *Expand digital access to curriculum and learning tools
- *Update educational and business software licensing
- *Maintain the devices distributed to students and staff during the pandemic with a refresh cycle to keep devices updated

Question 3, if it fails:

- *Device and technology costs would come from the General Fund
- *Technology support and device maintenance for families and staff would be limited
- *Device upgrade cycles would be delayed

Summary

Two Bond Questions: Question 1 is about safety and security enhancements, expansions and renovations at secondary schools; Question 2 addresses elementary school space issues at schools projected to exceed capacity, and addition of a second set of restrooms at five elementary schools. Question 3 is a Capital Projects Levy (Technology Projects Levy): Is not contingent on the other two questions, addresses infrastructure and safety and security relating to technology.

Director Pyan stated if all three ballot questions pass, it would mean a \$9 per month tax increase on a median value home of \$409,000.

Superintendent Nielsen added on their website www.sowashco/facilityplanning, there is a tax calculator, a boundary calculator, and all of the important information can be found there, including polling locations, etc. She thanked the Council for their time, we really appreciate that you take time each year to hear our presentation and our ask of our community.

Mayor Pro Tem Dennis stated he appreciated both of them speaking tonight. He asked if any Council Members had any questions.

Council Member Olsen thanked both Julie and Dan for being here. He applauds that they went back to the drawing board and really engaged in community outreach to try to better understand the pulse of the community. He thinks they captured what seems to be most important to residents. He asked how do they differentiate for the voter that you're trying to educate between what you're attempting to accomplish and just the regular funding of the schools. He guarantees there's somebody who's going to say, well, the legislature passed an awesome education bill, why do they need more money? How do you educate that person and help them understand the differences between the two?

Superintendent Nielsen replied they have tried to have updates once a month on finances, to talk about different funding streams, how those come in, including the one-time COVID dollars that got School Districts got. We had to be careful about what we spent it on. He's correct, as we hear we got so much from the State; we also have to consider the legislative expectations that came out of the legislature and the impact of those individual items that were approved, and what those items are going to cost us. Implementing law comes at a cost; one example is the Read Act, which we 120% support students being literate. Part of it is also professional development for our staff, and that's going to take a day each month to implement and make sure our staff is trained. So, while there were some additional dollars out there from the State, it feels like it was a landslide, but in the implementation portion of it, that's not what we see when we look at our overall budget. She let Director Pyan address the specifics.

Council Member Olsen stated there are unfunded mandates, and the State just made some long overdue corrections on some of the mandates they've placed in the past.

Director Pyan stated he always hopes people remember that bonds are for building, and levies are for learning. Our operations are all concentrated on learning. If you look at a dollar bill, all but 15% of our expenses goes directly into the classroom or it goes to cleaning the classroom or it goes to bringing kids to the classroom. It's just the way that buildings are funded in Minnesota for School Districts; he doesn't have expertise on how cities do it, but he knows you run into the same issues. We are not part of the State Bonding Bill, so they've said if you want to build a building, you're going to have to ask the taxpayers to borrow a lot of money; that's the only way we can do it, so hopefully, they just remember that it's a bond, they're building something. It's tangible, they'll see it go up, they'll see some kind of improvement. With the levy, it's day-to-day operations. As we look at the money we got from the State, it was very good news. If you look at Special Education, the difference of what we take from General Fund operations to fund

what's not funded by the State for Special Education, for us it's about a \$22 Million difference. The State put a lot of money towards it, but they only put so much; they cut into like half of it. So, we're still looking at \$11 Million deficit; it's just a matter of explaining where the money came from and where it's going.

Council Member Olsen stated he asked the same question last year, focusing on Special Ed; he has a son with autism, and he had a wonderful educational experience all the way through his time in ISD 833 schools. It was very clear that there was expense associated with that, and the State is famous for unfunded mandates. He appreciated their explanation, and they made some big changes, but perhaps they were just correcting what should have been dealt with previously. He thanked them again.

Council Member Khambata stated from what he remembered from the bond and levy questions last year, he got some feedback from people with whom he communicated on a personal level that they were frustrated that we keep going back and asking for more money. He reminded them that the School District again bonds are for building, levies are for learning, and they stated they didn't realize that. So, he thinks many people really don't understand how schools operate or how they're funded, anymore than when we need to raise taxes, they ask why do we need to raise taxes. We have to pay for certain things that are required by the City, and schools have to pay for certain things that are required in order for our kids to get a proper education. He asked them to repeat the website information and what some of those links are, so in the future, when he's asked these same questions, he can direct them to what he thought was a pretty good explanation of where the money goes and what it does. Many people he spoke with last year either hadn't taken any initiative to go find that information or didn't think it was readily available.

Superintendent Nielsen stated they heard that through their community sessions, because there aren't local newspapers, that it's really difficult. Residents in our communities aren't searching out our website, looking for information, so we were intentional about having cards that got mailed out. As a result of our failed election last August, our Communications Department is now doing a quarterly mailing; so, all residents should have gotten one as we opened the school year, and now, in the middle of October, we will be doing another one that will go out to all of our taxpayers. Again, we want to talk about the School District, but we also want to make sure that individuals who don't have kids in school are informed on what's happening. We have great systems for our families who have children in schools and in programming, but for other people within our communities, our outreach now will be through that quarterly mailing.

Director Pyan stated our website is sowashco.org/facilityplanning, so it's easy to remember. Council Member Khambata stated he appreciated that information.

Mayor Pro Tem Dennis thanked them again for being here to speak to the Council.

B. Public Works & Parks Open House Overview

Staff Recommendation: Receive information about the Public Works & Parks Open House.

Mayor Pro Tem Dennis stated Ryan Burfeind, Public Works Director, will provide a little bit of an overview on the Public Works & Parks Open House.

Director Burfeind stated our Public Works & Parks Open House is tomorrow night, September 21, from 3:00 to 7:00 p.m., at our Public Works facility, off West Point Douglas Road and the Jamaica Avenue roundabout; it is on the south side of Highway 61. This is something we do every other year. We invite the whole community, we open our facility, and we have all of our different pieces of equipment out. You can see loaders and dump trucks, our paver, our graders, mowers, all of our equipment. We also allow people to get in a loader, and children, with the assistance of our staff, can actually drive a loader and scoop into the bit sealcoat rock pile. There are lots of other fun things with vendors in our big truck bay. We'll also have facepainting, balloons, a bounce house, and we also do hayrides around the property. It's a really good time, the weather is going to be great tomorrow night, more like early August than late September, but it will be sunny and nice. He thanked all of our staff, as this is a huge amount of work from Public Works and Parks & Rec to plan this event and get everything cleaned up. It's actually really great because it gives a good excuse to clean all of the equipment, and clean all of our wash bays and the different equipment bays. He invited everyone to come down and get a hot dog with the family and have a good time.

Mayor Pro Tem Dennis stated he knows they always do a great job, as he's attended that a few times over the years. It's very well attended, and he thinks especially with tomorrow's weather, it will be good, and the hot dogs are amazing, too. He thanked everyone down there for all of their hard work.

C. HERO Center Open House Overview

Staff Recommendation: Receive HERO Center Open House Overview.

Peter Koerner, Public Safety Director, kiddingly stated we're going to try to outdo the Public Works & Parks Open House; they'll have a phenomenal Open House tomorrow. Next week, Monday night, September 25, from 4:00 to 7:00 p.m., we'll have a HERO Center Open House. This is a joint Open House with the City of Woodbury because we're co-owners of the HERO Center. Last year, we did both, our Public Safety Department and the HERO Center, and it really stretched people thin; so, this year, we're putting all efforts on the HERO Center.

There are a few events listed on our flyer, but what he thinks is really cool about our Open House is Dan Schoen, our Community Engagement Officer, has been working with a lot of our partners, so the BCA Mobile Crime Lab is coming, Washington County Mounted Patrol, our partners, Woodbury Police, and even the State Patrol Aviation and Minnesota Air Rescue Team. He thinks it will show the community all the different partnerships. We'd love to see the Council Members and community members there. He's hoping for good weather, just like Public Works & Parks is going to have tomorrow night.

Mayor Pro Tem Dennis stated hopefully the weather will cooperate. He noted that earlier this evening, we had a swearing in of some new police officers and firefighters. Not only our organization, but also Woodbury does an excellent job of providing excellent service to all communities, with our mutual aid response. Having the HERO Center here and the advantages that that's brought to our community has been absolutely amazing; he knows it has saved us a lot of money in travel expense, etc., and it's great to have all those training opportunities right here in our back yard. We'll be looking forward to that. He thanked Director Koerner for speaking here tonight and told him to keep up the good work. Director Koerner stated he hopes to see everyone there, and thanked Mayor Pro Tem Dennis for his words.

7. CONSENT AGENDA

Mayor Pro Tem Dennis noted that with Item P, Kwik Trip Development-Escrow Agreement, we usually don't have speakers on Consent Agenda items, but a special guest is here tonight, Lisa Watson, the Real Estate Manager for Kwik Trip. Kwik Trip conducts business in six different states, and they're looking to bring an investment to the City of Cottage Grove. Gretchen Larson, our Economic Development Director, introduced Lisa. Mayor Pro Tem Dennis welcomed her to the City of Cottage Grove.

Lisa Watson thanked the Council and Cottage Grove team, as she's been working this opportunity since she joined Kwik Trip in April. We are very excited to come to this community, as it's the first Kwik Trip here; we have continued expansion throughout the Twin Cities and the six states. We have been fortunate enough to work with the Cottage Grove team. She displayed a prototype rendering of the Cottage Grove location; this is what we call a Gen 3 store, which is 9,200 square feet, which has:

- An expanded grocery area with an island for fruit and vegetables, expanded refrigerated section, an expanded pop, water, walk-in cooler, so you can buy 12 packs or larger that are already chilled for your own special events
- There's a nice seating area for those people who want to be able to walk in and have a cool place to sit and eat their lunch, with 10-to-12 high-top and low-top seating areas to provide an additional site, and also some nice outside seating
- There's a side diesel canopy that provides opportunities for larger trucks and RVs, so they're able to pull behind the building, to not interrupt the traffic flow under the gas canopies
- There are dual stations on the five aisles, to handle a lot of traffic
- A two-bay car wash, so there should be no backup of car wash lines at the facility
- Care and effort taken in our landscape and design plans to ensure that we have technically a LEED-certified building; we control light pollution on our site, a building that she thinks far surpasses any other convenience store here

We are excited to be a part of this community, and we significantly give back to our communities; during the grand opening process, we typically pick two organizations to which we give donations. We will be reaching out as to what those two organizations will be, maybe police, fire, or another significant organization in the community. We welcome this opportunity, and we're excited to be here. Thank you for having us.

Mayor Pro Tem Dennis thanked Lisa, said we've been anticipating partnership with Kwik Trip for years, and we know that you will be a great corporate partner and will do excellent things for the City of Cottage Grove.

Council Member Thiede stated just so there's no confusion, this will be a Kwik Trip because Kwik Star is what you're called in Iowa.

Lisa replied this was a rendering done for another state, and to clarify, the reason there is Kwik Star is because Quik Trip, with a Q, already has the naming rights in some of those other states. So, this is a Kwik Trip, but it's named Kwik Star.

We hope to have one of the biggest grand openings, so she asks the community to come out and support us when that happens. We'd love to be able to list you in our books as one of the best grand openings we've had.

Mayor Pro Tem Dennis told Council Member Thiede that was a great eye to pick that up out of the rendering. He asked Lisa to tell her executives and colleagues in LaCrosse that we look forward to this partnership and working together.

- A. Approve the August 16, 2023 City Council Regular Meeting Minutes.
- B. Authorize issuance of a Massage Therapist license to Sarah Joy Crandall.
- C. Approve the Gambling Premises Permit application for the Saint Thomas Academy Alumni Association to conduct gambling at Applebee's Grill & Bar at 8380 East Point Douglas Road.
- D. Approve the issuance of rental licenses to the properties in the attached table.
- E. Adopt Resolution 2023-126 reestablishing election precincts and adding an 8th polling location at Cottage Grove Elementary (7447 65th Street South) for the City of Cottage Grove, Minnesota, pursuant to Minnesota Statute Section 204B.14, Subd. 1, with a legally active date of December 1, 2023.
- F. Adopt Resolution 2023-117, updating the Personnel Policy.
- G. Accept the Certified Local Government Scholarship Grant in the amount of \$460 from the Minnesota Department of Administration State Historic Preservation Office.
- H. Authorizing executing agreement for professional services with Keith Streff as the Animal Appeal Hearing Officer.
- I. Hold the Public Hearing and adopt the assessment for the removal of weeds on private property.
- J. Approve revised budget amounts to purchase pickups approved with the 2023 City budget.
- K. Authorize Public Works to advertise and sell surplus property on Cranky Ape and Municibid.
- L. Authorize staff to place the order for certain equipment in the 2024 Equipment Replacement, Water, and River Oaks budgets.

- M. Adopt Resolution 2023-120 restricting parking on the south side of Hillside Trail from the crosswalk pavement markings at the intersection of Hillside Trail and 83rd Street to a point 50 feet west on Hillside Trail.
- N. Approve Resolution 2013-118 calling for a Public Hearing regarding the Establishment of a Street Reconstruction and Overlay Plan.
- O. 1) Adopt Resolution 2023-121 declaring the costs to be assessed for the 2023 Pavement Management Project. 2) Adopt Resolution 2023-124 calling for a Public Hearing to be held on October 18, 2023 for the 2023 Pavement Management Project.
- P. Approve the Escrow Agreement between the City and Kwik Trip Inc., for the preparation of the Public Improvement Plans necessary for development of Lot 1, Block 2 of Lake Flora 2nd Addition Plat with minor modifications by the City Attorney.

None of the Council Members wished to pull any Consent Agenda items for further comment and/or discussion.

Motion by Council Member Khambata to approve the Consent Agenda; second by Council Member Olsen. Motion carried: 4-0.

8. APPROVE DISBURSEMENTS

- A. Approve payments for the period of 9-06-2023 through 9-13-2023 in the amount of \$5,627,571.85.

Motion by Council Member Olsen to approve disbursements; second by Council Member Thiede. Motion carried: 4-0.

9. PUBLIC HEARINGS - None.

10. BID AWARDS - None.

11. REGULAR AGENDA - None.

12. COUNCIL COMMENTS AND REQUESTS

Council Member Khambata commended all of the fire and police personnel that we were able to swear in earlier this evening on their hard work and dedication. He wanted to give them a warm and official welcome to Cottage Grove.

Council Member Thiede agreed with Council Member Khambata's comment; he welcomed the newly sworn fire and police personnel to the family.

Council Member Olsen stated for those of you who may not be aware, there is a fundraising event this weekend at the Cottage Grove VFW for the Teddy's Heart

Foundation. It's going to be a taco feed, and he knows that there will be all kinds of fun there for the whole family, so he encouraged everyone to mark their calendars and get out there to support a really, really great organization.

Council Member Olsen said thank you to all of the Cottage Grove staff members, who worked so hard over the last few months to coordinate and organize this past Saturday's first Cottage Grove Food Truck Festival; it was sponsored by *Discover Cottage Grove*, which is our Convention and Visitors Bureau arm. He thought we really outdid ourselves, as for the first year doing this, the crowds were amazing. We had over 20 trucks that were onsite, two different bands, and there was a ton of energy in Kingston Park the whole day, from 11:00 a.m. to 6:00 p.m., when it ended; he thought some people even stayed longer. Our Cottage Grove Lions were present; we had our monthly Lions Club meeting last night, and the club was incredibly impressed with the way that things went. We are already talking about what we can do differently to make it better next year. Our Chair for this event said she'd like to do it again next year, and had more ideas. He thought it was a really well received event by the community. He wants to make sure that all of the people who worked on it, including administrative, economic development, public safety, and parks department personnel, everybody came together to make it a really special event for the community.

Mayor Pro Tem Dennis stated he has one announcement that does not come easily; it's an announcement that he would like to share with all of his friends, his colleagues, our staff team, and the community at large. Serving our community has been one of the truly great honors of his life, and when he looks back on the time that we've been here together and the accomplishments that we've made, it's been absolutely incredible. He thought back over the course of the years of the involvement that he's had, including being on a commission, serving our Police Department, and being on the City Council for nine years. He has dedicated over 25% of his life here, so our next meeting, which is October 4, will be his final meeting. At this point, he's not going to say anything more about it, but he will have some statements to make at that meeting, but it's been an absolute pleasure and he appreciated every moment.

13. WORKSHOPS - OPEN TO PUBLIC - None.

14. WORKSHOPS - CLOSED TO PUBLIC - None.

15. ADJOURNMENT

Motion by Council Member Thiede, second by Council Member Khambata, to adjourn the meeting at 7:41 p.m. Motion carried: 4-0.

Minutes prepared by Judy Graf and reviewed by Tamara Anderson, City Clerk.



City Council Action Request

7.C.

Meeting Date 10/18/2023

Department Community Development

Agenda Category Action Item

Title Rental License Approval

Staff Recommendation Approve the issuance of rental licenses to the properties in the attached table.

Budget Implication N/A

Attachments

1.	Rental License Approval CC Memo
2.	Rental License Approvals Table

TO: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

FROM: Samantha Drewry, Code Enforcement Officer

DATE: October 11, 2023

RE: Rental License Approvals

Background/Discussion

Rental licenses are required for nonowner-occupied residential properties (City Code Title 9-13, Property Maintenance, and Title 9-14, Rental Licensing) and are issued on a biennial basis. The licensing process includes submittal of the rental license application, payment of \$180, and public criminal history report. Rental inspections are conducted on all rental properties as part of the licensing process. Once all information has been submitted and the inspection satisfactorily completed, the Council must approve the license prior to it being issued.

The properties listed in the attached table have completed the licensing process and are ready to have their licenses issued following Council approval.

Recommendation

Approve the issuance of rental licenses to the properties in the attached table.

2023 RENTAL LICENSES
CITY COUNCIL APPROVAL - OCTOBER 18, 2023

RENTAL LICENSE NUMBER	PROPERTY STREET #	PROPERTY STREET NAME	PROPERTY OWNER
RENT-001893	6987	94TH STREET SOUTH	Colsen, Travis



City Council Action Request

7.D.

Meeting Date	10/18/2023
Department	Administration
Agenda Category	Action Item
Title	Commission Appointments
Staff Recommendation	Approve the Mayors Commission Appointments as follows: Mayor Pro Tem & Economic Development Authority - Tony Khambata, Investment Committee - Dave Thiede, and Cottage Grove Convention and Visitors Bureau Chair - Justin Olsen.
Budget Implication	N/A
Attachments	None



TO: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

FROM: Tammy Anderson

DATE: October 18, 2023

RE: Commission Appointments

Discussion

The Mayor appoints Council Liaison positions for multiple Commissions and Committees on an annual basis. Following the resignation of Councilmember Steve Dennis on October 4, 2023, the various positions have been made vacant and must be filled by Mayor appointment. The following positions are listed below with their Council appointments.

Committee/Position	2023
Mayor Pro Tem	Tony Khambata
Economic Development Authority	Tony Khambata
Investment Committee	Dave Thiede
Cottage Grove Convention and Visitors Bureau (Chair)	Justin Olsen

Recommendation

Approve the Mayors Commission Appointments as follows: Mayor Pro Tem & Economic Development Authority - Tony Khambata, Investment Committee - Dave Thiede, and Cottage Grove Convention and Visitors Bureau Chair - Justin Olsen.

Attachments

None



City Council Action Request

7.E.

Meeting Date	10/18/2023
Department	Economic Development
Agenda Category	Action Item
Title	Appointments to the Convention and Visitors Bureau (CVB)
Staff Recommendation	Appoint Councilmember Olsen as Chairman of the CVB. Appoint Erik Olson and Sarah Grecula to fill the two vacant positions on the CVB board.
Budget Implication	N-A.
Attachments	None



TO: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

FROM: Gretchen Larson, Economic Development Director

DATE: October 18, 2023

RE: Appointments to the Convention and Visitors Bureau (CVB)

Discussion

The CVB currently has two vacant positions. On July 11, Councilmember Dennis and I interviewed five applicants. Of those interviewed, Erick Olson and Sarah Grecula, were selected to be forwarded to the City Council for consideration to serve on the CVB board.

Mr. Olson has been a resident for over 22 years and currently works for the International Paper Company as a senior sales representative. He is very active and interested in the development of our city parks and other outdoor recreational opportunities. As a member of the Cottage Grove Lions Club, he also has a strong interest in promoting and assisting with recreational events and sporting activities.

Ms. Grecula has been a resident for seven years and works in higher education as a business analyst in the field of financial aid services. She also shared that her family especially enjoys our parks, the summer parks and recreation programs, Park Grove library and our local restaurants and shops. She is currently working on obtaining her MBA.

Both Mr. Olson and Ms. Grecula bring a wealth of knowledge in both their professional and personal life experiences and will also bring a fresh perspective to the CVB board.

Also, since July we have gone through a number of transitions, including the resignation of Councilmember Dennis on October 4. As a result of his resignation, the position of Chairman of the CVB became vacant and I am recommending that Councilmember Olsen be considered for appointment as Chairman of the CVB.

Recommendation

Appoint Councilmember Olsen as Chairman of the CVB.
Appoint Erik Olson and Sarah Grecula to fill the two vacant positions on the CVB board.

Attachments

None



City Council Action Request

7.F.

Meeting Date	10/18/2023		
Department	Administration		
Agenda Category	Action Item		
Title	Sergeant Positions		
Staff Recommendation	Approve two additional Sergeant positions for the 2024 budget.		
Budget Implication	N/A		
Attachments	<table border="1"><tr><td>1.</td><td>Memo Sergeant Positions</td></tr></table>	1.	Memo Sergeant Positions
1.	Memo Sergeant Positions		



To: Honorable Mayor and City Council Members
Jennifer Levitt, City Administrator

From: Peter J. Koerner, Director of Public Safety

Date: October 11, 2023

Subject: **TWO ADDITIONAL SERGEANTS IN 2024**

Deputy Director of Public Safety – Police Captain Randy McAlister announced his upcoming retirement for March of 2024. This created a vacancy and allowed us time to do a selection process and transition. By selecting the candidates now, this allows us to select other positions to have the 2024 patrol schedule set for January. During this process, we have evaluated our current leadership team and feel we are at a pivotal point in setting the department up for future growth.

With the Sergeants process, the original intent was to fill a vacant Sergeant position due to the Captain promotion. In the internal job posting, it stated the top three candidates may be put on an eligibility list in the event that other Sergeant positions become available. We had ten applicants for the job posting and they were required to present their qualifications, experience, leadership, fiscal management, and departmental vision to an interview panel. The top three candidates were selected to undergo a full battery of tests administered by Martin-McAllister Consulting Psychologists office. The testing measured the candidates' intelligence, leadership, management style, social skills, basic personality traits and communications skills.

The results of the panel interview and assessment testing revealed three outstanding candidates.

To ensure we have adequate supervision moving forward, we are recommending a Sergeant to provide direct supervision of our community outreach positions (Case Management, Community Engagement, School Resource Officers, Major Crimes and Narcotics). This position would work in conjunction with the Detective Sergeant to ensure the span of control within investigations is within practical application. The current Detective Sergeant supervises 9 sworn positions and two civilian positions. With this addition, the Community Engagement Officer would be supervised by a Sergeant and not the Captain.

We also recommend an Administrative Sergeant to relieve the Patrol Sergeants of many of their additional duties (fleet procurement and maintenance, CSO supervision, external training requests, internal training management, fixed asset inventory, Reserve program and oversight, etc.) that take them away from the patrol division.

The Administrative Sergeant would allow our Patrol Sergeants to free their time to provide more “street” supervision. We have a young department, and the Patrol Sergeants provide guidance, mentorship, and coaching.

This allows us to set up our department not only for future growth, but succession planning to ensure future leaders have career development opportunities. These additions complete our command structure for years to come.

These two additional Sergeant positions also allow opportunity for change for the Sergeants. Not all Sergeants seek a promotion yet want other opportunities. Currently, there are six Patrol positions and one Detective position. This allows the Sergeants to have the ability to work in different areas and different shifts.

With these two additional sergeants, the approved 2024 budget would not be negatively impacted due to salary savings of four new officers starting in February and savings from new promotion wages versus veteran wages. This does not change the budgeted authorized staff of 46 for 2024.

RECOMMENDATION

Approve two additional Sergeant positions for the 2024 budget.



City Council Action Request

7.G.

Meeting Date	10/18/2023		
Department	Administration		
Agenda Category	Action Item		
Title	Sale of Surplus Property		
Staff Recommendation	Authorize Public Safety to trade in surplus equipment to Guardian Fleet Safety.		
Budget Implication	N/A		
Attachments	<table border="1"><tr><td>1.</td><td>Surplus Equipment Memo</td></tr></table>	1.	Surplus Equipment Memo
1.	Surplus Equipment Memo		



To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Peter Koerner, Director of Public Safety

Date: October 4, 2023

RE: Sale of Surplus Property

Introduction

Public Safety is requesting this property be traded into Guardian Fleet Supply. This equipment was replaced.

Unit Number	Equipment	Asset Number
1858	2018 Ford Explorer	4118
1951	2019 Ford Explorer	4214
1263	2013 Ford Taurus	3667
1845	2018 Ford Explorer	4117
1949	2019 Ford Explorer	4304

Requested Action

Authorize Public Safety to trade in surplus equipment to Guardian Fleet Safety.



City Council Action Request

7.H.

Meeting Date	10/18/2023				
Department	Community Development				
Agenda Category	Action Item				
Title	Dunkin'/Baskin Robbins – Usage of SAC Credits				
Staff Recommendation	Adopt Resolution 2023-135 authorizing the use of seven of the City's SAC credits for Dunkin'/Baskin Robbins that will be located at 7584 80th Street South.				
Budget Implication	N/A				
Attachments	<table><tr><td>1.</td><td>Dunkin SAC CC Memo</td></tr><tr><td>2.</td><td>Dunkin SAC Resolution</td></tr></table>	1.	Dunkin SAC CC Memo	2.	Dunkin SAC Resolution
1.	Dunkin SAC CC Memo				
2.	Dunkin SAC Resolution				

TO: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

FROM: Emily Schmitz, Community Development Director

DATE: October 11, 2023

RE: Dunkin'/Baskin Robbins – Usage of SAC Credits

Background/Discussion

A building permit application was submitted for a Dunkin'/Baskin Robbins at 7584 80th Street South. The SAC (Sewer Area Charge) determination from the Metropolitan Council Environmental Services (MCES) required that seven SAC units be charged for the restaurant use.

Given the project is not a redevelopment of the site, installation of the segment of sidewalk along Hemingway Avenue from 80th Street to the property's north boundary is not required; however, the City recognizes the value of providing safe pedestrian connectivity to and from our commercial and residential areas. Additionally, a sidewalk is proposed along Hemingway from 79th Street to the north property line of the proposed Dunkin'/Baskin Robbins project with the anticipated senior housing project to the north of this proposed project. Without the addition of the sidewalk adjacent to this proposed project, there would be a major pedestrian facility gap along a transportation sidewalk. To support the additional infrastructure as part of the improvements to the site, the City is proposing to use seven SAC credits from the City's current balance of 42 SAC units towards the Dunkin'/Baskin Robbins project.

Plans prepared by Civil Site Group dated September 8, 2023, with modifications as approved by the City Engineer will be used for the installation of the sidewalk. The City typically maintains, including snow removal, the City's transportation sidewalk and trail systems.

Recommendation

Approve the resolution authorizing the use of seven of the City's SAC credits for Dunkin'/Baskin Robbins that will be located at 7584 80th Street South.

CITY OF COTTAGE GROVE, MINNESOTA
CITY COUNCIL
RESOLUTION 2023-135

**RESOLUTION AUTHORIZING THE USE OF SEVEN OF THE
CITY'S SAC CREDITS FOR THE DUNKIN'/BASKIN ROBBINS AT
7584 80TH STREET SOUTH TO OFFSET THE CONSTRUCTION
OF A SIDEWALK SEGMENT ALONG HEMINGWAY AVENUE**

WHEREAS, a conditional use permit and variance were granted to Dunkin'/Baskin Robbins on July 20, 2022, for a restaurant with drive-through at 7584 80th Street South; and

WHEREAS, Dunkin'/Baskin Robbins submitted a building permit application for the tenant remodel. The Sewer Area Charge (SAC) determination from the Metropolitan Council Environmental Services (MCES) requires seven SAC units be charged for the restaurant use; and

WHEREAS, given the project is not a redevelopment of the site, installation of a segment of sidewalk along Hemingway Avenue from 80th Street to the property's north boundary is not required. However, the City recognizes the value to providing safe pedestrian connectivity to and from our commercial and residential areas. Additionally, a sidewalk is proposed along Hemingway Avenue from 79th Street to the north property line of the Dunkin'/Baskin Robbins project as part of a proposed senior housing project to the north; and

WHEREAS, without the addition of the sidewalk adjacent to this proposed project, there would be a major pedestrian facility gap along a transportation sidewalk; and

WHEREAS, to support the additional infrastructure as part of the improvements to the site, the City is proposing to use seven SAC credits from the City's current balance of 42 SAC units towards the Dunkin'/Baskin Robbins project.

NOW THEREFORE BE IT RESOLVED, the City Council of the City of Cottage Grove, County of Washington, State of Minnesota, authorizes the use of seven of the City's SAC credits for the Dunkin'/Baskin Robbins project that will be located at 7584 80th Street South.

BE IT FURTHER RESOLVED, that no public improvements may be constructed without a letter of credit in the amount of 125 percent of the cost to complete the work within City right-of-way being issued to City of Cottage Grove.

Passed this 18th day of October 2023.

Myron Bailey, Mayor

Attest:

Tamara Anderson, City Clerk



City Council Action Request

7.I.

Meeting Date 10/18/2023

Department Public Works

Agenda Category Action Item

Title Utilities and Engineering Division Building – Approve Plans and Specifications and Establish a Bid Date

Staff Recommendation Adopt resolution 2023-134 approving the plans and specifications and establishing a November 21, 2023 bid date for the Utilities and Engineering Division Building Project.

Budget Implication The estimate for the construction of the improvements in this bid package is \$10,200,000. The project will be funded with a combination of utility funds on hand and utility revenue bonds.

Attachments

1.	2023-10-18 Approve P&S and Set Bid Date memo
2.	Utility and Engineering Division Building Approve P&S and set Bid Date Resolution 2023-10-18
3.	Council meeting drawings PWUEB



To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Ryan Burfeind, P.E., Public Works Director/City Engineer

Date: October 13, 2022

Re: Utilities and Engineering Division Building – Approve Plans and Specifications and Establish a Bid Date

Background

At the April 4th City Council meeting, the Council reviewed the preliminary design and authorized staff to prepare final plans and specifications for the Utilities and Engineering Building. This building would be the first module of the eventual full Public Works Building being contemplated to be located on the Smallidge Property just north of the Low Zone Water Treatment Plant.

Discussion

Summary of Improvements

The Utilities and Engineering Division building is sized for the full buildout of the utilities and engineering divisions current and future staff/equipment needs. The north side of the building and access/parking is designed to easily connect with the future full Public Works Building project. The grading for the building, and the sewer, water and storm sewer extensions from the north needed to serve the building, are all being completed with the Low Zone Water Treatment Plant project that is being constructed to the south on the same property.

Plans and Specifications

Plans and specifications have been prepared in accordance with City standards and specifications. The construction manager's estimate for the construction of the improvements in this bid package is \$10,200,000. The project will be funded with a combination of utility funds on hand and utility revenue bonds.

Bid Date

A bid date of November 21, 2023, will provide ample time to provide required notification to contractors. A pre-bid meeting will also be held to allow contractors to ask clarifying questions prior to bidding.

Recommendation

It is recommended that the City Council adopt resolution 2023-134 approving the plans and specifications and establishing a November 21, 2023 bid date for the Utilities and Engineering Division Building Project.

CITY OF COTTAGE GROVE, MINNESOTA
CITY COUNCIL
RESOLUTION 2023-134

**RESOLUTION APPROVING THE PLANS AND SPECIFICATIONS
AND ESTABLISHING A BID DATE FOR THE
UTILITIES AND ENGINEERING DIVISION BUILDING PROJECT**

WHEREAS, plans and specifications have been prepared in accordance with the City Standards and Specifications for the Utilities and Engineering Division Building Project; and

WHEREAS, a bid date has been established for November 21, 2023; and

WHEREAS, the Public Works Director has presented such plans and specifications to the City Council for approval.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Cottage Grove, County of Washington, State of Minnesota, approves the plans and specifications and establishes a bid date of November 21, 2023, for the Utilities and Engineering Division Building Project.

Passed this 18th day of October 2023.

Myron Bailey, Mayor

Attest:

Tamara Anderson, City Clerk

NEW UTILITY & ENGINEERING BUILDING

CITY OF COTTAGE GROVE

COTTAGE GROVE, MN



NEW UTILITY & ENGINEERING BUILDING
10875 IDEAL AVENUE S.
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016

Wold

WOLD ARCHITECTS AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101

woldae.com | 651 227 7773

KRAUS-ANDERSON®

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Minneapolis, MN 55404
krausanderson.com | 612 332 7281

CIVIL

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C809	STANDARD DETAILS
C810	STANDARD DETAIL
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A2.02a	MEZZANINE LEVEL FLOOR PLAN - AREA A
A2.02b	MEZZANINE LEVEL FLOOR PLAN - AREA B
A2.03b	MEZZANINE LEVEL FLOOR PLAN - AREA B
A2.095a	ROOF PLAN - AREA A
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A2.901	DOOR/ FRAME/ WINDOW TYPES
A3.01a	MAIN LEVEL REFLECTED CEILING PLAN - AREA A
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A4.203	DETAILS - VERTICAL CIRCULATION AND RAILING DETAILS
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A4.701	DETAILS - WALL TYPES
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S2.02a	MEZZANINE AND LOW ROOF FRAMING
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FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

70th St. S.

80th St. S.

90th St. S.

95th St. S.

100th St. S.

110th St. S.

Mod Ave. S.

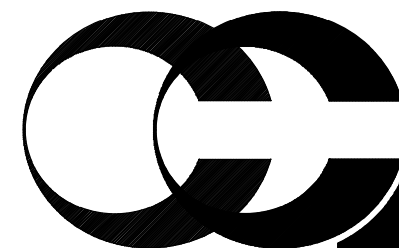
Bradley Ave. S.

Ideal Ave. S.

Keats Ave. S.

State Highways 10 & 67

PROJECT LOCATION



Cottage Grove

Where Pride and Prosperity Meet

UTILITY & ENGINEERING BUILDING

STANTEC PROJECT NO. 193806146

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C6.01	STREETS PLAN	L101	OVERALL PLANTING PLAN
C8.01	PEDESTRIAN CURB RAMP DETAILS	L102	ENLARGED PLANTING PLAN
C8.02	PEDESTRIAN CURB RAMP DETAILS	L501	PLANTING DETAILS
C8.03	PEDESTRIAN CURB RAMP DETAILS	L502	LANDSCAPING DETAILS
C8.04	PEDESTRIAN CURB RAMP DETAILS		
C8.05	PEDESTRIAN CURB RAMP DETAILS		
C8.06	PEDESTRIAN CURB RAMP DETAILS		
C8.07	STANDARD DETAILS		
C8.08	STANDARD DETAILS		
C8.09	STANDARD DETAILS		
C8.10	STANDARD DETAILS		
C8.11	STANDARD DETAILS		

THIS PLAN SET CONTAINS 40 SHEETS

MYRON BAILEY
DAVE THIEDE
JUSTIN OLSEN
TONY KHAMBATA
JENNIFER LEVITT
RYAN BURFEIND
AMANDA MEYER
KORI LAND

MAYOR
COUNCILMEMBER
COUNCILMEMBER
COUNCILMEMBER
CITY ADMINISTRATOR
DIRECTOR OF PUBLIC WORKS
CITY ENGINEER
ATTORNEY



Stantec

HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT
 WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION
 AND THAT I AM A DULY LICENSED ENGINEER
 UNDER THE LAWS OF THE STATE OF MINNESOTA

PRINT NAME: DAVID S. SANOCKI

SIGNATURE: *David S. Sanocki*

DATE: 10/1/2009 PAGE: 10/1

CITY OF COTTAGE GROVE, MINNESOTA
COTTAGE GROVE UTILITY & ENGINEERING BUILDING

TITLE SHEET

NO	REVISION	DATE
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SURVEY	PB
DRAWN	EF
DESIGNED	D
CHECKED	LM
APPROVED	D
PROJ. NO.	1938061

SHEET NUMBER

G001

NO	REVISION	DATE
SURVEY	PBW	
DRAWN	EPV	
DESIGNED	DRS	
CHECKED	LMM	
APPROVED	DRS	
PROJ. NO.	193806148	
SHEET NUMBER G002		

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Plot Date: 10/12/2023 - 10:50am
Drawing name: U:\193806146\CAD\Drawg\Plan Sheets\193806146_G003.dwg
User: 193806146_BOWDER

CONSTRUCTION NOTES

1. THE GRADING GRADE IS DEFINED AS THE BOTTOM OF THE SELECT GRANULAR BORROW OR AGGREGATE BASE WHERE NO SELECT BORROW IS PROPOSED.
2. SUITABLE GRADING MATERIAL ON THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED EXCEPT TOPSOIL, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL.
3. GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B
4. SELECT GRANULAR BORROW REGARDLESS OF SOURCE SHALL MEET THE REQUIREMENTS OF MnDOT SPEC. 3149.2B2.
5. SLOPE DRESSING IS DEFINED AS THE INPLACE TOPSOIL OR OTHER SOIL PLACED DURING PRIOR CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF.
6. ANY DEBRIS WHICH MAY BE ENCOUNTERED BY THE CONTRACTOR DURING GRADING SHALL BE DISPOSED OF BY THE CONTRACTOR OFF THE PROJECT RIGHT OF WAY IN A SUITABLE DISPOSAL AREA AS APPROVED BY THE ENGINEER.
7. BITUMINOUS AND CONCRETE ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE RECYCLED TO THE EXTENT ALLOWED IN THE BASE AND SURFACING ITEMS OR DISPOSED OF OFF OF THE RIGHT OF WAY IN ACCORDANCE WITH MNDOT SPECIFICATION 2104.3C.
8. THE NEW UTILITY INSTALLATIONS AND IMPROVEMENTS WHICH ARE DEEPER THAN THE SUBGRADE IMPROVEMENT ZONE SHOULD BE PERFORMED PRIOR TO SUBGRADE PREPARATION. PROPER BEDDING OF PIPES APPEARS ON THE ATTACHED SHEET ENTITLED "BEDDING/FOUNDATION SUPPORT OF BURIED PIPE." BACKFILL COMPACTION SHALL MEET THE REQUIREMENTS OF MNDOT 2106.3F1 (SPECIFIED DENSITY METHOD). (INCIDENTAL)
9. MATERIALS DEFINED AS UNSUITABLE (TOPSOIL, ORGANIC, DEBRIS) MUST BE REMOVED FROM THE EMBANKMENT FOUNDATION. THE UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH SPEC. 2104 AND 2106.
10. WHERE SOILS ARE DRY AND STABLE, THE SUBCUT BOTTOM SHALL BE COMPACTED BY THE QUALITY COMPACTION METHOD AND INCLUDE A MINIMUM OF 4 PASSES WITH AN APPROVED ROLLER. COMPACTION SHALL BE COMPLETED TO THE SATISFACTION OF THE ENGINEER AND ACCORDING TO MNDOT SPECIFICATION 2106.3F2.
11. TEST ROLLING WILL BE REQUIRED. (INCIDENTAL)
12. IF INSTABILITY IS NOTED UNDER THE COMPACTION PROCESS, A COMPACTION SUBCUT SHALL BE PERFORMED. THE COMPACTION SUBCUT THICKNESS SHALL BE ONE FOOT, OR AS DIRECTED BY THE ENGINEER, PAID FOR AS SUBGRADE EXCAVATION.
13. COMPACTION OF SUITABLE GRADING MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFIED DENSITY METHOD.
14. COMPACTION OF AGGREGATE BASE SHALL BE IN ACCORDANCE WITH THE SPECIFIED DENSITY METHOD.
15. PROVIDE FOR A UNIFORM BITUMINOUS TACK COAT BETWEEN ALL BITUMINOUS COURSES. THE TACK SHALL BE APPLIED IN ACCORDANCE WITH MNDOT SPECIFICATION 2357. THE ROADWAY SURFACE SHALL BE CLEAN AND FREE OF DEBRIS PRIOR TO APPLYING TACK. BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.03 TO 0.05 GAL/SQ YD BETWEEN NEW BITUMINOUS LAYERS PLACED THAT HAVE BEEN SUBJECTED TO TRAFFIC AND A RATE OF 0.07 TO 0.10 GAL/SQ YD ON TRAFFICKED BITUMINOUS SURFACES TO BE OVERLAID. THESE APPLICATION RATES ARE FOR UNDILUTED EMULSION (AS SUPPLIED FROM THE REFINERY) OR MC LIQUID ASPHALT. (INCIDENTAL)
16. ALL BITUMINOUS MIXTURES SHALL MEET THE REQUIREMENTS OF SPEC. 2360.

17. ALL BITUMINOUS FINAL SURFACES WILL BE SUBJECT TO STRAIGHT EDGE SMOOTHNESS REQUIREMENTS AS FOLLOWS:
 - THE SURFACE OF THE FINAL TWO LIFTS PLACED SHALL SHOW NO VARIATION GREATER THAN 1/4 INCH FROM THE EDGE OF A 10 FOOT STRAIGHTEDGE LAID PARALLEL TO OR AT RIGHT ANGLES TO THE CENTERLINE.
 - SHOULDER SURFACING AND SURFACING ON TEMPORARY CONNECTIONS AND BYPASS SHALL SHOW NO VARIATIONS GREATER THAN 1/4 INCH FROM THE EDGE OF A 10 FOOT STRAIGHTEDGE LAID PARALLEL TO THE CENTERLINE.
18. PROVIDE A SAWCUT TO ENSURE A UNIFORM JOINT WHERE PLACING NEW PAVEMENT NEXT TO INPLACE PAVEMENT.
19. WHERE CONNECTING TO INPLACE ROADWAYS AT THE TERMINI OF PROPOSED NEW CONSTRUCTION, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE BOTTOM OF THE NEW PROPOSED SURFACING, WHICHEVER IS DEEPER, THEN AT A 1:20 TAPER TO THE BOTTOM OF THE RECOMMENDED EXCAVATION.
20. PROVIDE 1:20 TAPERS WHERE APPLICABLE FOR CHANGES IN MATERIAL TYPES TO PREVENT AN ABRUPT SOIL DIFFERENTIAL. TAPERS BETWEEN PLASTIC AND GRANULAR SOILS SHOULD BE CONSTRUCTED SO THAT THE GRANULAR SOIL OVERLAYS THE PLASTIC SOIL.
21. AS A PRECAUTIONARY MEASURE FROM A SOILS STANDPOINT, TRAFFIC LANES TO BE USED DURING CONSTRUCTION MUST BE DELINEATED TO KEEP VEHICLES A SAFE DISTANCE AWAY FROM THE ADJACENT EXCAVATION. THE DELINEATION SHOULD COINCIDE WITH POINTS ESTABLISHED BY PROJECTING 1:2 OR GREATER (FLATTER) SLOPE BETWEEN THE EDGE OF THE TRAFFIC SURFACE AND THE BOTTOM OF THE EXCAVATION. A 1:3 OR FLATTER SLOPE WILL BE REQUIRED IN SWAMP EXCAVATION AREAS.
22. THE TOP OF BACKSLOPES AND THE TOE OF FILL SLOPES SHALL BE ROUNDED TO NATURALIZE THE CONSTRUCTION EVEN THOUGH THE CROSS SECTIONS DO NOT SHOW ROUNDING.
23. THE CONTRACTOR IS HEREBY REMINDED OF THE RESPONSIBILITY UNDER STATE LAW TO CONTACT ALL UTILITIES THAT MAY HAVE FACILITIES IN THE AREA. CONTACT MUST BE MADE THROUGH GOPHER STATE ONE-CALL.
24. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN AREAS OF POSSIBLE CONFLICTS WITH PROPOSED UTILITIES. ALL LOCATING, GRADE CHANGES TO PROPOSED UTILITIES, CUTTING, INVERT CHANGES, MODIFICATIONS TO STRUCTURES, CONSTRUCTION CREW "DOWN TIME" AND ADDITIONAL ADJUSTMENT RINGS REQUIRED TO CONSTRUCT PROPOSED UTILITIES UNDER/OVER EXISTING UTILITIES SHALL BE CONSTRUCTED AS INCIDENTAL.
25. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT THE TEMPORARY EROSION ITEMS ARE USED THROUGHOUT THE PROJECT. WHENEVER PRACTICAL, EVEN THOUGH SPECIFIC LOCATIONS FOR THEIR USE MAY NOT BE DESIGNATED DUE TO CONSTRUCTION STAGING.
26. THE CONTRACTOR IS RESPONSIBLE FOR CONDUCTING CONSTRUCTION IN A MANNER THAT WILL CONTROL EROSION, SEE THE EROSION CONTROL PLANS FOR SUGGESTED LOCATIONS AND DEVICES TO DO SO.
27. NO EXTRA PAYMENT WILL BE MADE FOR TEMPORARY STOCKPILING OF EXCAVATION, EMBANKMENT AND/OR BORROW MATERIAL.
28. WATER WILL BE REQUIRED FOR DUST CONTROL ON ALL GRAVEL SURFACES.
29. AS PART OF TRAFFIC CONTROL, WHEN CLOSING PATHS OR SIDEWALKS, PROVIDE SIGNAGE FOR USERS. PER THE MN MUTCD.
30. DO NOT BLOCK SIDEWALKS OR PATHS, WHICH REMAIN OPEN, WITH CONSTRUCTION EQUIPMENT OR MATERIALS.
31. PAVING JOINTS ON FINAL LIFT SHALL MATCH PROPOSED LANE LINES.

SUBSURFACE UTILITY INFORMATION:

THE SUBSURFACE UTILITY INFORMATION ON THIS PLAN IS SHOWN TO UTILITY QUALITY LEVELS IN ACCORDANCE WITH THE LEGEND PROVIDED BELOW. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA. UTILITY DESIGNATIONS ARE SHOWN ON DRAWING G0.02.

UTILITY QUALITY LEVELS:

LEVEL D - INFORMATION COMES SOLELY FROM EXISTING UTILITY RECORDS.

LEVEL C - SURVEYING ABOVE GROUND UTILITY FACILITIES, SUCH AS MANHOLES, VALVE BOXES, ETC; AND CORRELATING THIS INFORMATION WITH EXISTING UTILITY RECORDS.

LEVEL B - THE USE OF SURFACE GEOPHYSICAL TECHNIQUES TO DETERMINE THE EXISTENCE AND HORIZONTAL POSITION OF UNDERGROUND UTILITIES.

LEVEL A - THE USE OF NONDESTRUCTIVE DIGGING EQUIPMENT AT HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL AND OTHER CHARACTERISTICS.

PRIVATE UTILITIES ARE SHOWN IN THE LOCATIONS PROVIDED BY THE UTILITY OWNER PRIOR TO CONSTRUCTION.

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL PERMITTEES, CONTRACTORS, AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PLAN AND THE STATE OF MINNESOTA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES PHASE II PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS AND IS RESPONSIBLE TO COMPLY WITH ALL REQUIREMENTS STATED WITHIN.
2. THE BMP'S SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES, THE PERMITTEE/CONTRACTOR SHALL ANTICIPATE THAT ADDITIONAL BMP'S MAY BE REQUIRED AS SITE CONDITIONS CHANGE AND SHALL PROVIDE ADDITIONAL BMP'S TO MEET APPLICABLE REQUIREMENTS.
3. ALL WORK AND MATERIALS SHALL BE CONSTRUCTED ACCORDING TO THE APPROVED PLANS AND SWPPP. ANY DEVIATION FROM THE APPROVED PLANS SHALL REQUIRE WRITTEN APPROVAL FROM THE CITY OF COTTAGE GROVE.

NOTES:

1. INSTALL PVC SCHEDULE 40 CONDUIT CROSSINGS AS DIRECTED BY ENGINEER IN FIELD. CONDUIT TO BE USED AT A LATER DATE BY PRIVATE UTILITY CONTRACTORS AND THE CITY OF COTTAGE GROVE.

PROJECT CONTROL NOTES:

1. ALL COORDINATES ARE WASHINGTON COUNTY COORDINATE SYSTEM
2. HORIZONTAL COORDINATES ARE BASED ON GEODETIC POSITION NAD 83 (1996 ADJUSTMENT)
3. VERTICAL ELEVATIONS ARE BASED ON NAVD88
4. PIPE LENGTH AND ELEVATIONS IN PROFILES ARE TO CENTER OF STRUCTURE

STORM SEWER SCHEDULE					
STRUCTURE	TYPE	STD PLATE	CASTING	DIA	SPECIAL COMMENTS
FES 601	FES	STO-11	TRASH GUARD	27"	
CBMH 602	CBMH	STO-6	R-3067-V	60"	3' SUMP
CBMH 603	CBMH	STO-5	R-3067-V	48"	
CBMH 604	CBMH	STO-5	R-3067-V	48"	
CBMH 605	CBMH	STO-5	R-3067-V	48"	
CBMH 606	CBMH	STO-5	R-3067-V	48"	
CBMH 607	CBMH	STO-6	R-3067-VB	48"	LOW POINT, 3' SUMP
CBMH 608	CBMH	STO-5	R-3067-VB	48"	LOW POINT
CBMH 609	CBMH	STO-5	R-3067-VB	48"	LOW POINT
CB 610	CB	STO-7	R-3067-VB	2'X3'	LOW POINT
CBMH 611	CBMH	STO-5	R-3067-V	48"	
CB 612	CB	STO-7	R-3067-V	2'X3'	
CBMH 613	CBMH	STO-5	R-3067-VB	48"	LOW POINT
CBMH 614	CB	STO-7	R-3067-VB	2'X3'	LOW POINT



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Minneapolis, MN 55412
www.stantec.com

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PRINT NAME: DAVID S. SANDOCK

SIGNATURE: *David S. Sandock*

DATE: 10/25/2023 UC NO. 40973

CITY OF COTTAGE GROVE, MINNESOTA

COTTAGE GROVE UTILITY & ENGINEERING BUILDING

CONSTRUCTION, STAGING, & GENERAL NOTES

NO REVISION DATE

SURVEY	PBW
DRAWN	EPV
DESIGNED	DRS
CHECKED	LMM
APPROVED	DRS
PROJ. NO.	193806146

SHEET NUMBER

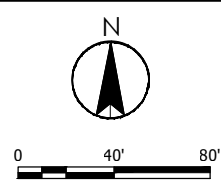
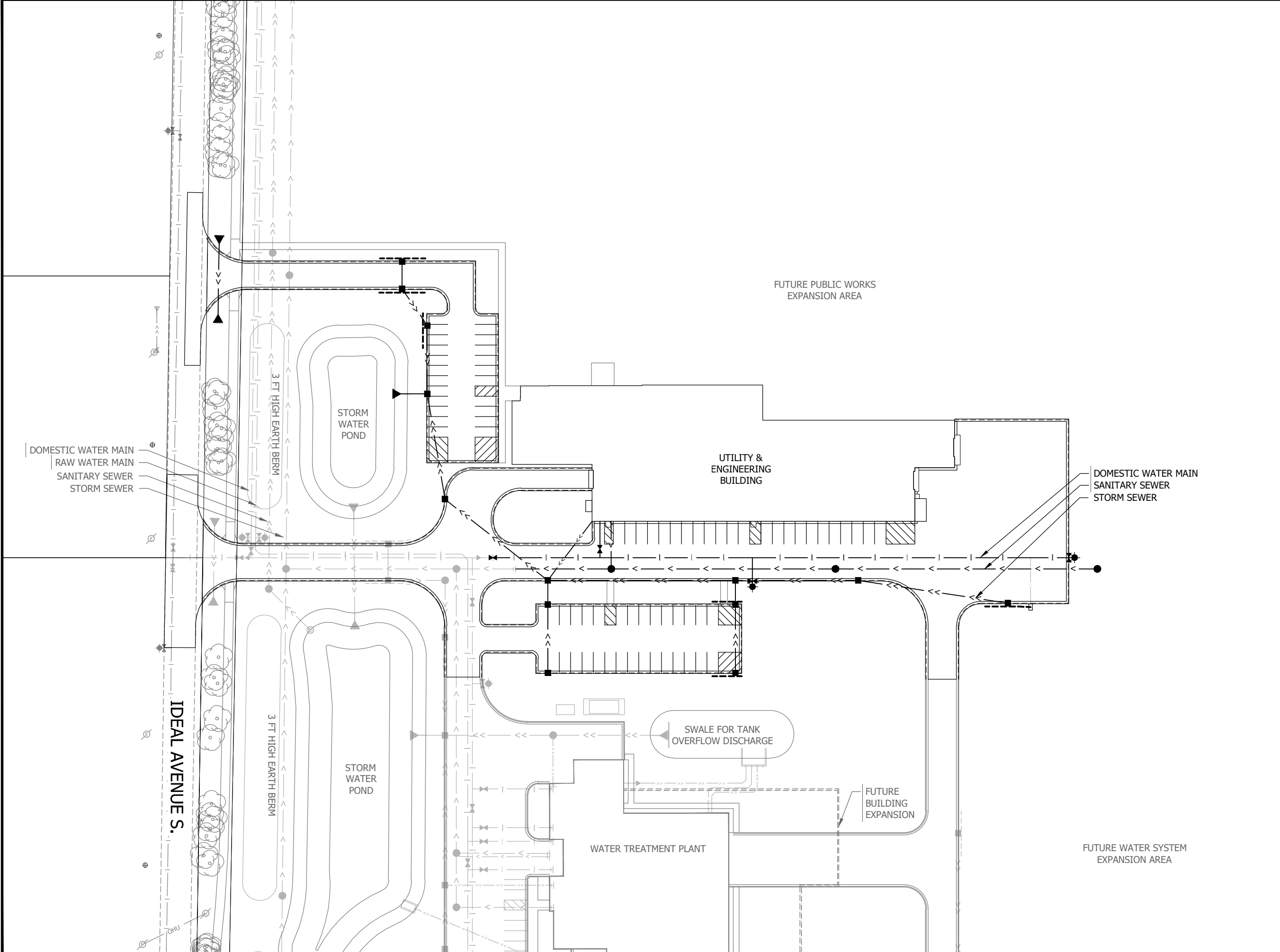
G003



CITY OF COTTAGE GROVE, MINNESOTA
COTTAGE GROVE UTILITY & ENGINEERING BUILDING
SITE PLAN

NO.	REVISION	DATE
SURVEY	P8W	
DRAWN	EPV	
DESIGNED	DRS	
CHECKED	LMM	
APPROVED		
PROJ. NO.		193806146
SHEET NUMBER		
C001		

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UNDER THE LAWS OF THE STATE OF MINNESOTA
PRINT NAME: DAVID S. SANDOCK
SIGNATURE: *David S. Sandock*
DATE: 12/25/2023 LIC. NO. 4973

CITY OF COTTAGE GROVE, MINNESOTA
COTTAGE GROVE UTILITY & ENGINEERING BUILDING

SITE PLAN

NO.	REVISION	DATE

SURVEY	PBW
DRAWN	EPV
DESIGNED	DRS
CHECKED	LMM
APPROVED	DRS
PROJ. NO.	193806146
SHEET NUMBER	C002

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SIGNATURE: *David S. Sandock*
DATE: 10/25/2023 UC NO. 4973

CITY OF COTTAGE GROVE, MINNESOTA

COTTAGE GROVE UTILITY & ENGINEERING BUILDING

DEMOLITION PLAN

NO	REVISION	DATE

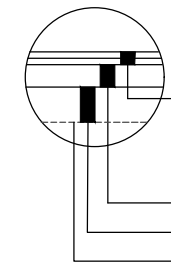
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DESIGNED	DRS
CHECKED	LMM
APPROVED	DRS
PROJ. NO.	193806146
SHEET NUMBER	C003

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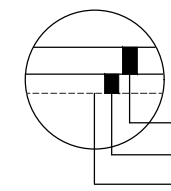


GENERAL NOTES:

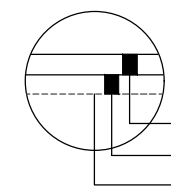
INSET B - BITUMINOUS PAVEMENT



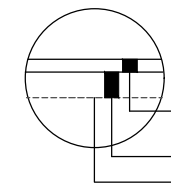
CONCRETE SECTION FOR SIDEWALK & FILL STATION



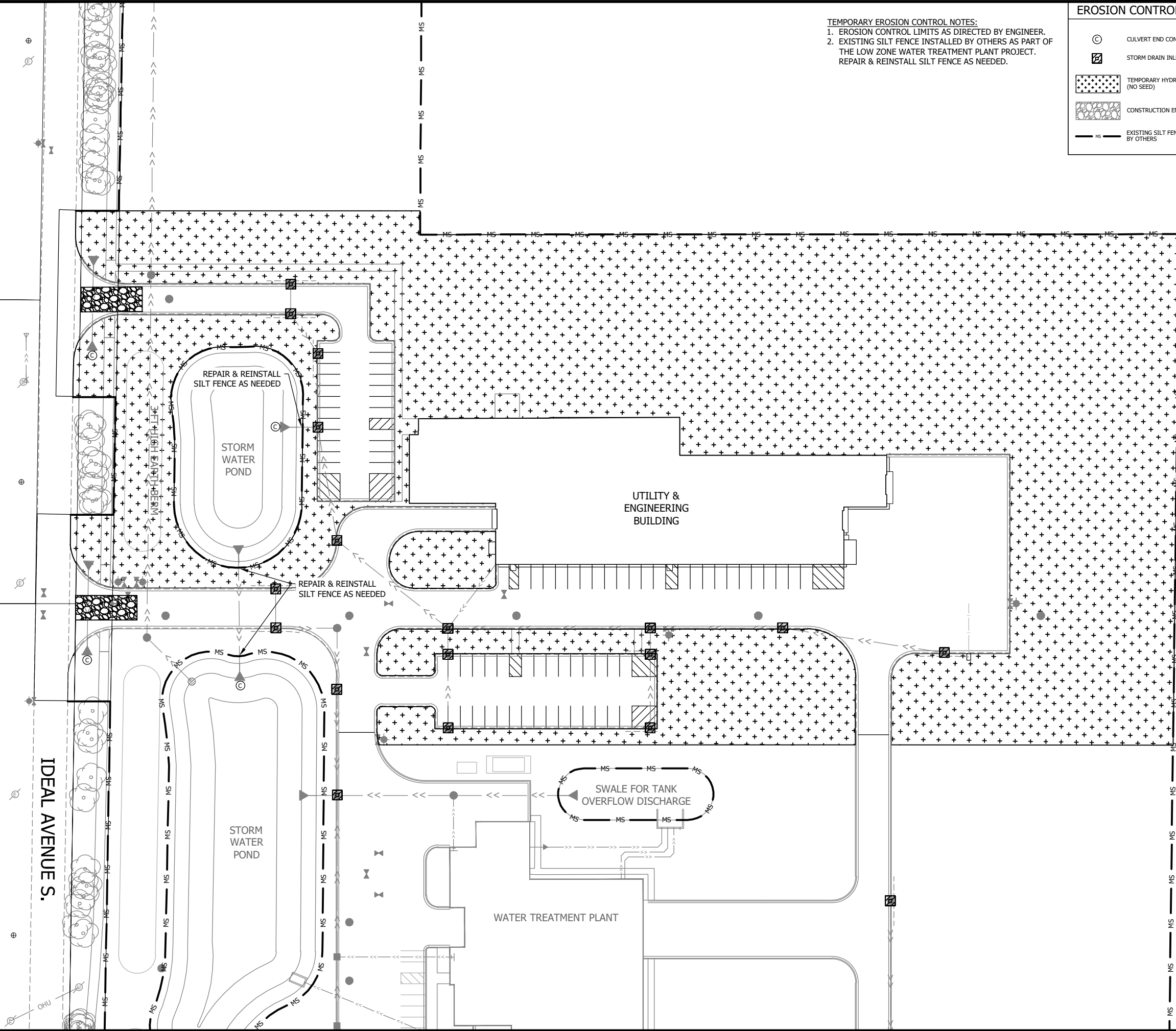
CONCRETE SECTION FOR PAD & BUILDING APRON



BITUMINOUS PATH

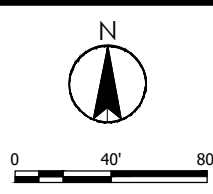


- 3" TYPE 9.5 WEARING COURSE MIX (2,C (SPWEA230C) (TWO LIFTS)
- 6" AGGREGATE BASE (CV) CL 5 (VIRGIN)
- COMPACTED SUB-BASE



EROSION CONTROL LEGEND

- | | |
|---|---|
|  | CULVERT END CONTROL |
|  | STORM DRAIN INLET PROTECTION |
|  | TEMPORARY HYDROMULCH
(NO SEED) |
|  | CONSTRUCTION ENTRANCE / EXIT |
|  | EXISTING SILT FENCE, TYPE MS
BY OTHERS |



TEMPORARY EROSION CONTROL NOTES:

1. EROSION CONTROL LIMITS AS DIRECTED BY ENGINEER.
2. EXISTING SILT FENCE INSTALLED BY OTHERS AS PART OF THE LOW ZONE WATER TREATMENT PLANT PROJECT. REPAIR & REINSTALL SILT FENCE AS NEEDED.



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PRINT NAME: DAVID S. SANOCKI

SIGNATURE: *David S. Sanocki*

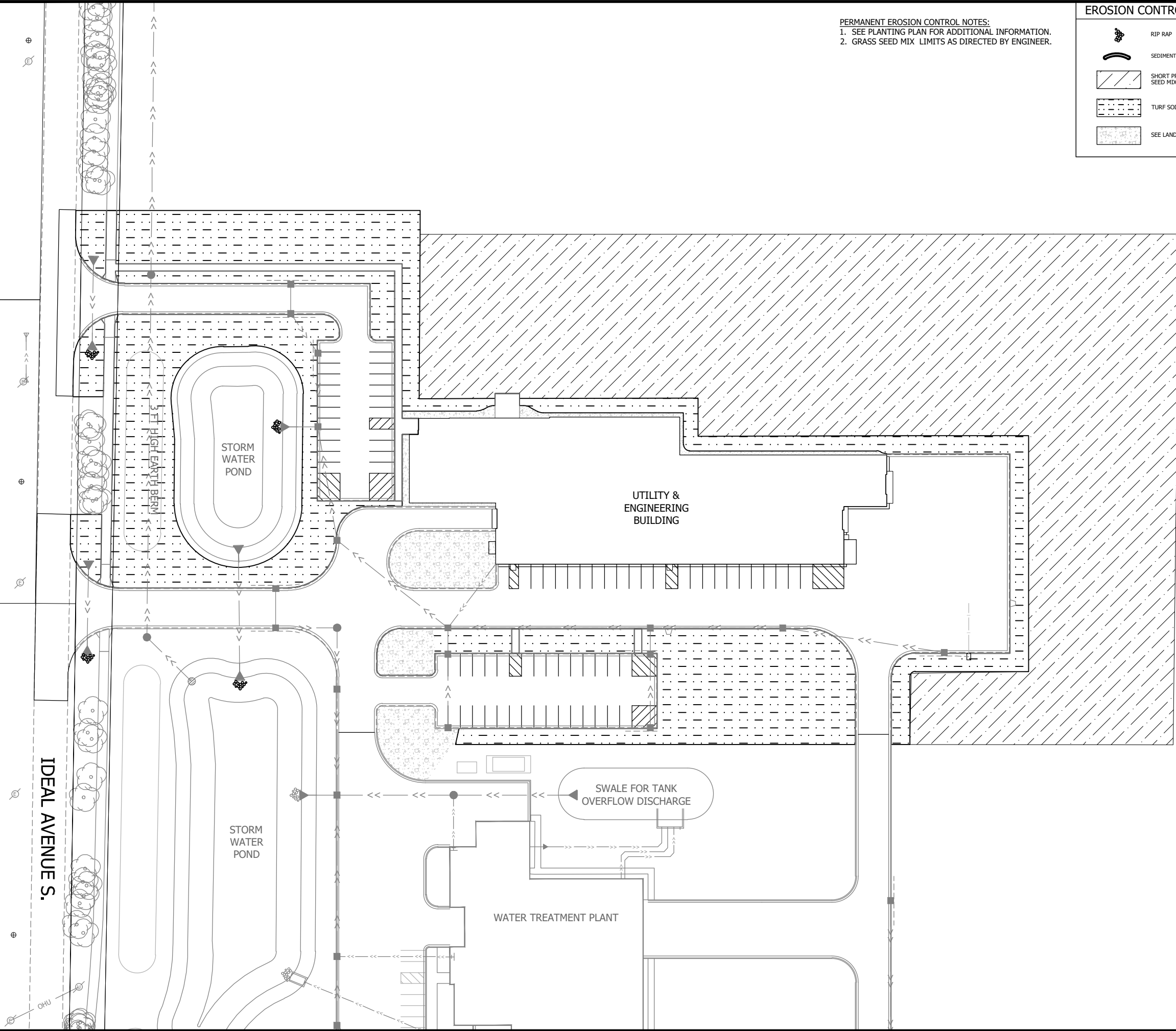
DATE: 10/26/2023 LIC. NO. 40973

CITY OF COTTAGE GROVE, MINNESOTA

COTTAGE GROVE UTILITY & ENGINEERING BUILDING

NO	REVISION	DATE
SURVEY		PBW
DRAWN		EPV
DESIGNED		DRS
CHECKED		LMM
APPROVED		DRS
PROJ. NO.	193806146	

SHEET NUMBER
C201



EROSION CONTROL LEGEND



RIP RAP



SEDIMENT CONTROL LOG



SHORT PRAIRIE GRASS



Turf sod



SEE LANDSCAPING PLAN



0 40' 80'

Stantec



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PRINT NAME: DAVID S. SANOCKI

SIGNATURE: David R. Smith IIC NO. 40973
DATE: 10/26/2023

CITY OF COTTAGE GROVE, MINNESOTA

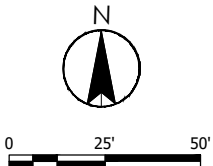
COTTAGE GROVE UTILITY & ENGINEERING BUILDING

PERMANENT EROSION CONTROL PLAN

NO	REVISION	DATE
SURVEY	PBY	
DRAWN	EPI	
DESIGNED	DR	
CHECKED	LMM	
APPROVED	DR	
PROJ. NO.	19380614	

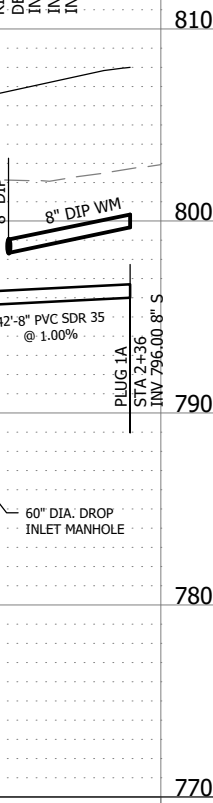
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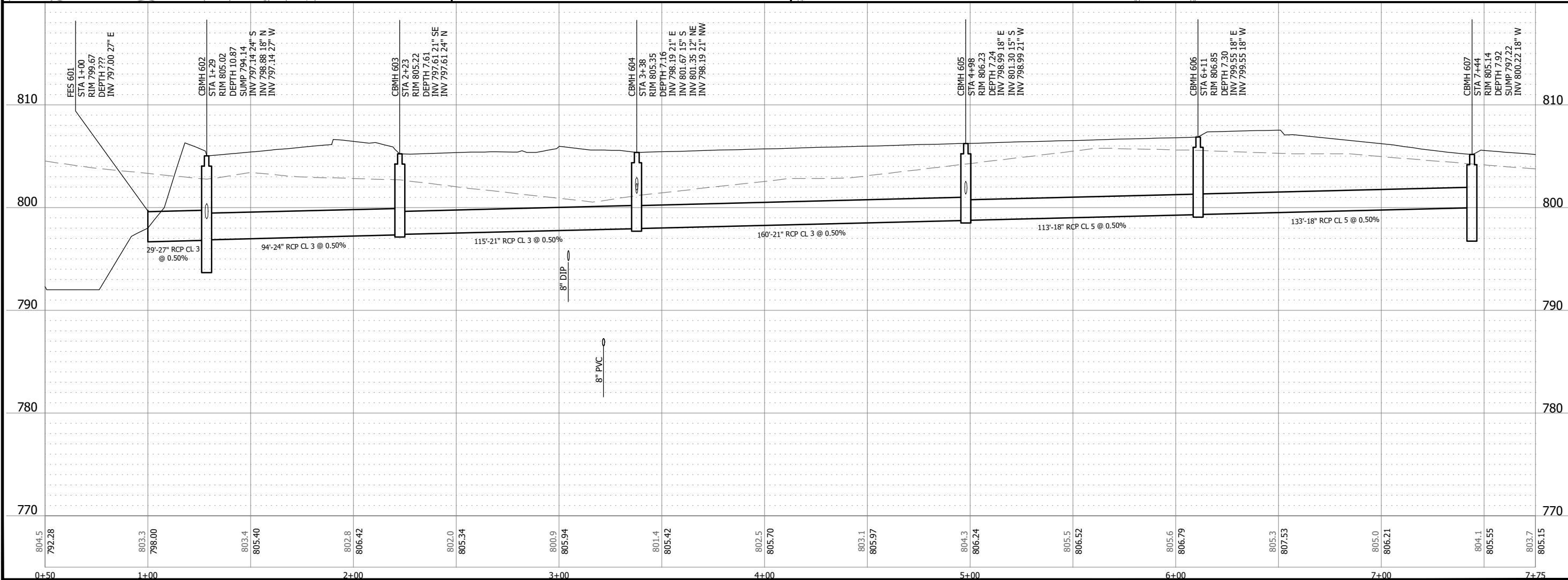
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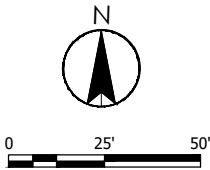
WATER MAIN NOTES:

1. ALL WATER MAIN SHALL BE DIP CLASS 52 WRAPPED IN POLYETHYLENE.
2. WATER MAIN SHALL HAVE A MINIMUM OF 7.5 FEET OF COVER.
3. HYDRANT ELEVATIONS ARE GIVEN TO TOP NUT OF HYDRANT.



[illegible]

793.0
798.0
801.0

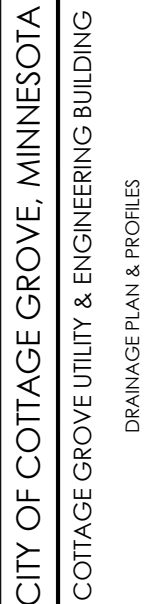
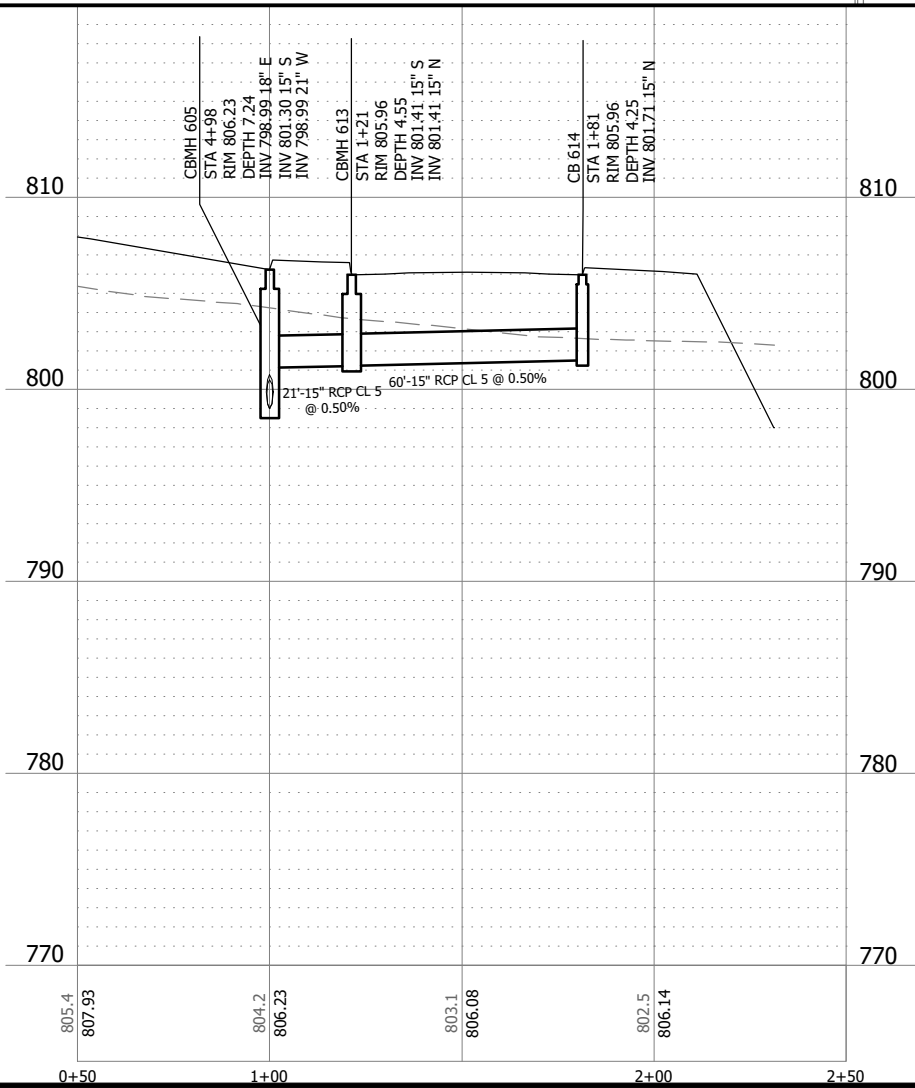


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PRINT NAME: DAVID S. SANOCKI

SIGNATURE: *David S. Sanocki*

DATE: 10/26/2023 LIC. NO. 40973



NO REVISION	DATE
SURVEY	PBW
DRAWN	EPV
DESIGNED	DRS
CHECKED	LMM
APPROVED	DRS
PROJ. NO.	193806146
SHEET NUMBER	
C502	

STORM SEWER NOTES:
1. EXTEND 4" DRAINTILE 20' BOTH DIRECTIONS OUT OF ALL CATCH BASINS AT LOW POINTS.

UTILITY & ENGINEERING BUILDING (FFE 808.0)

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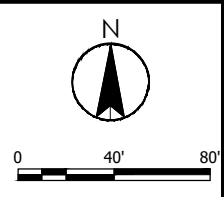
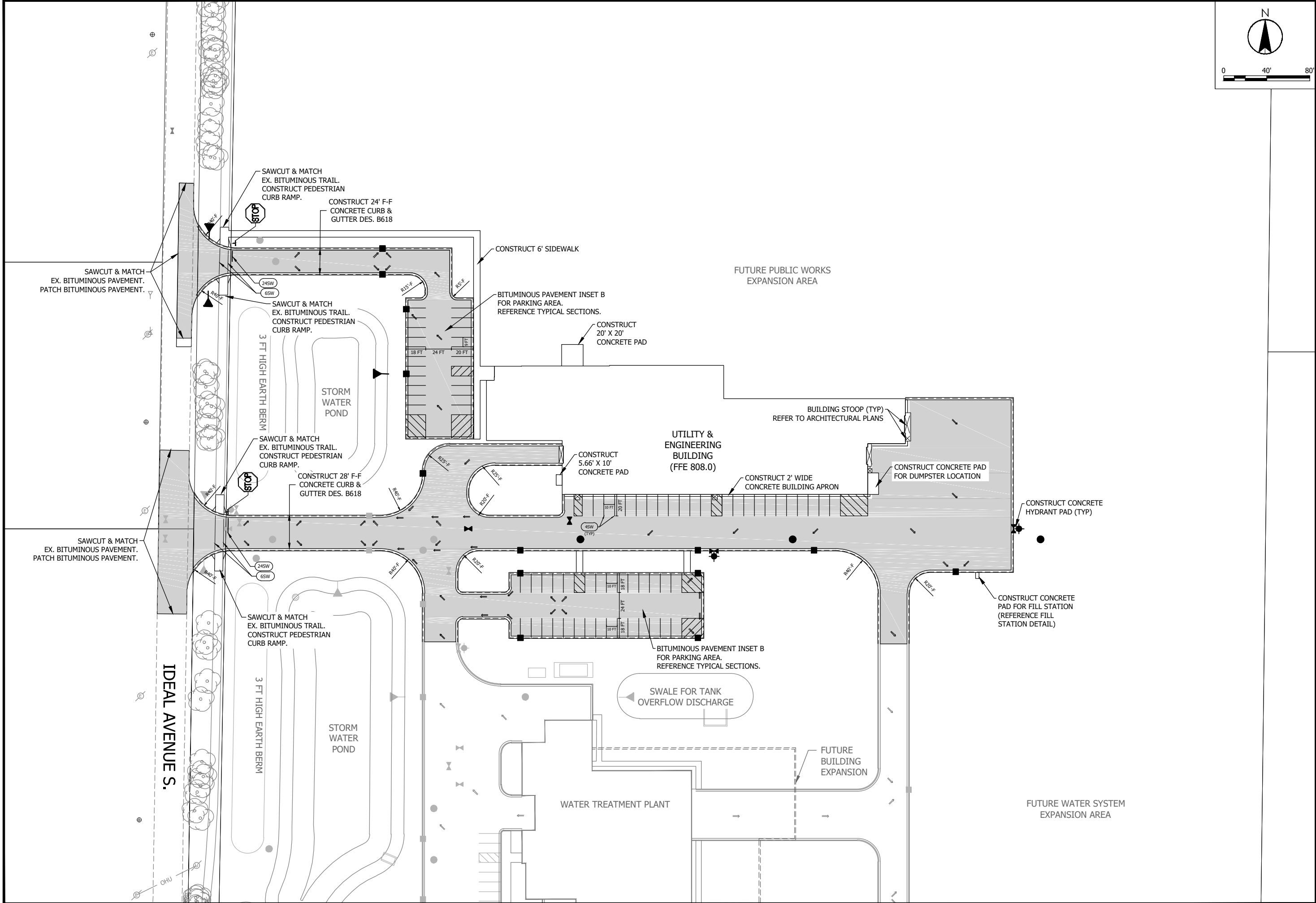
PRINT NAME: DAVID S. SANOCKI
 SIGNATURE: *David S. Sanocki*
 DATE: 10/26/2023 LIC. NO. 40973

DRAINAGE PLAN & PROFILES

SHEET NUMBER

C503

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PRINT NAME: DAVID S. SANDOCK
SIGNATURE: *David S. Sandock*
DATE: 10/25/2023 LIC. NO. 40973

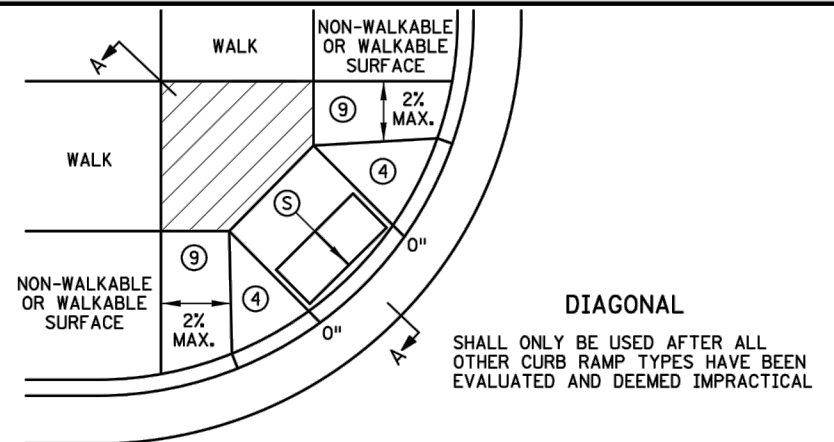
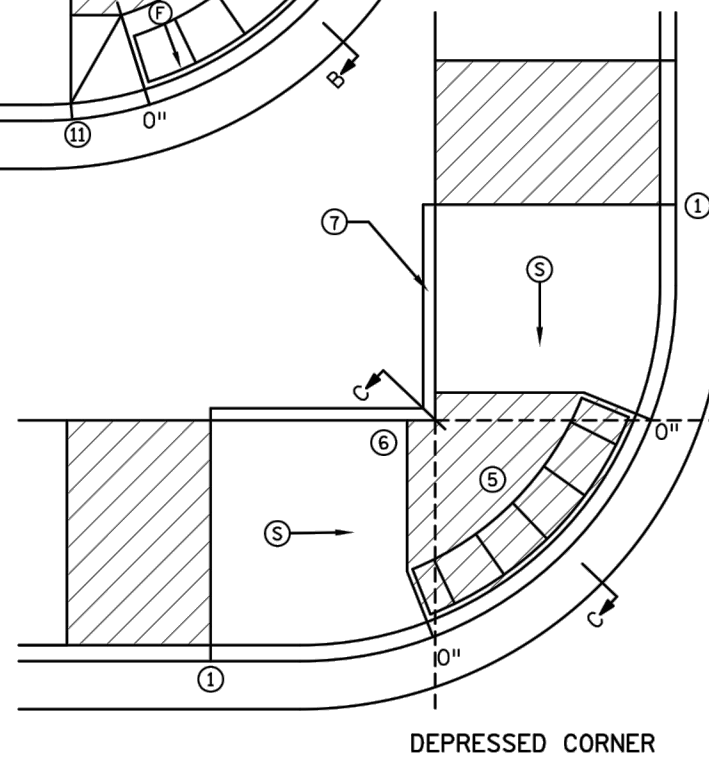
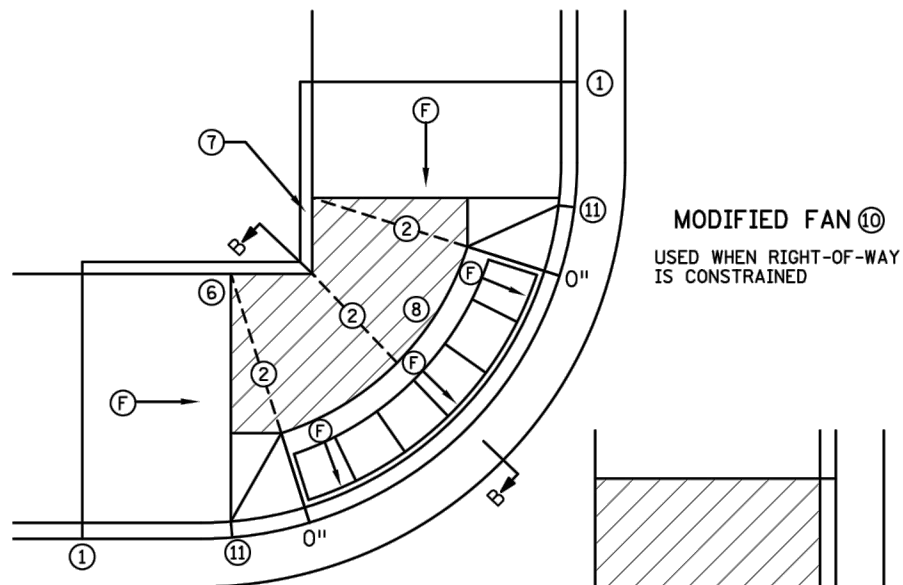
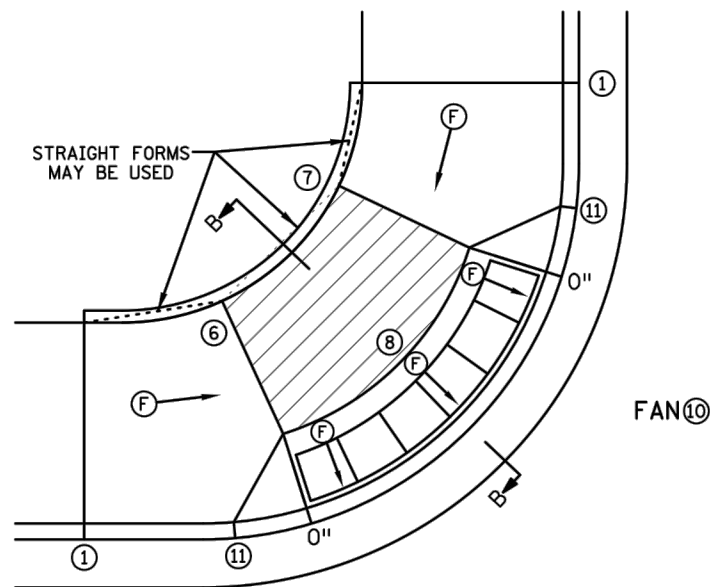
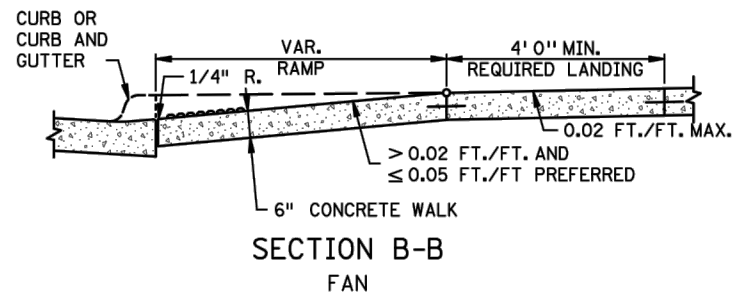
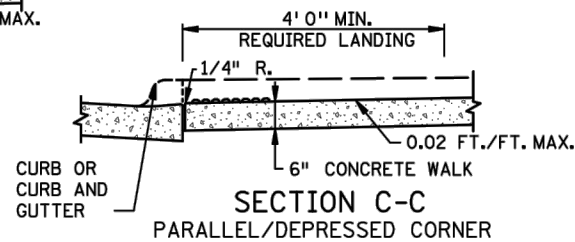
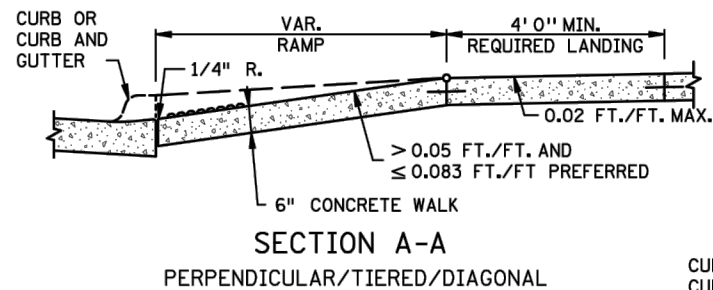
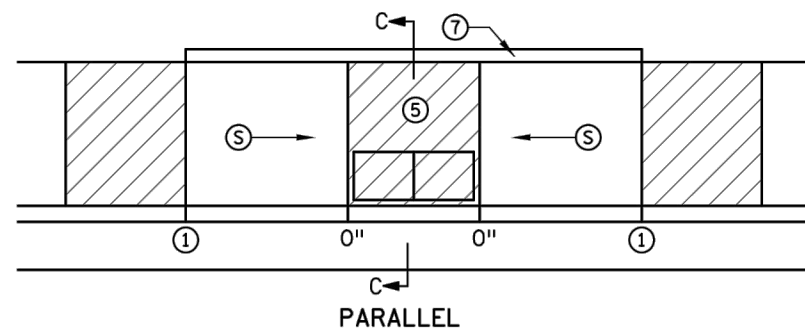
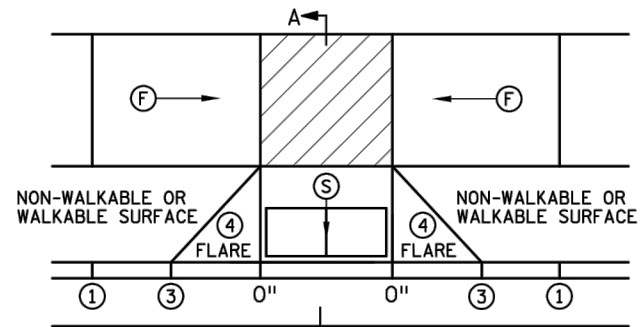
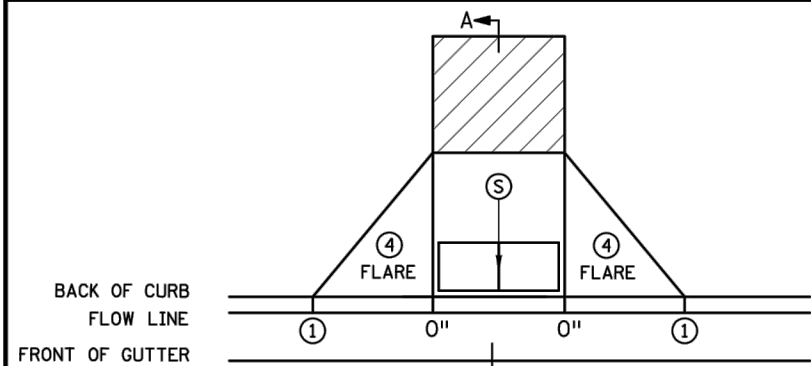
CITY OF COTTAGE GROVE, MINNESOTA

COTTAGE GROVE UTILITY & ENGINEERING BUILDING

STREETS PLAN

NO.	REVISION	DATE

SURVEY	PBW
DRAWN	EPV
DESIGNED	DRS
CHECKED	LMM
APPROVED	DRS
PROJ. NO.	193806146
SHEET NUMBER	C601



NOTES:

- LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.
- INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.
- SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30' OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.
- CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.
- ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH, EXCEPT AS STATED IN ⑥ BELOW.
- TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.
- WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE. MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.
- ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.
- 4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNING SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNING IS ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.
- WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNING SHOULD NOT BE GREATER THAN 20 FEET.
- RECTANGULAR DETECTABLE WARNING SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNING SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

- ① MATCH FULL HEIGHT CURB.
- ② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
- ③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
- ④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
- ⑤ DETECTABLE WARNING MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
- ⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
- ⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
- ⑧ A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.
- ⑨ PAVE FULL WALK WIDTH.
- ⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.
- ⑪ INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

- THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.
- ⑤ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
 - ⑥ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
 - ⑦ LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.
 - X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

Jeffrey J. Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

m
MINNESOTA
DEPARTMENT
OF
TRANSPORTATION

STANDARD PLAN 5-297.250

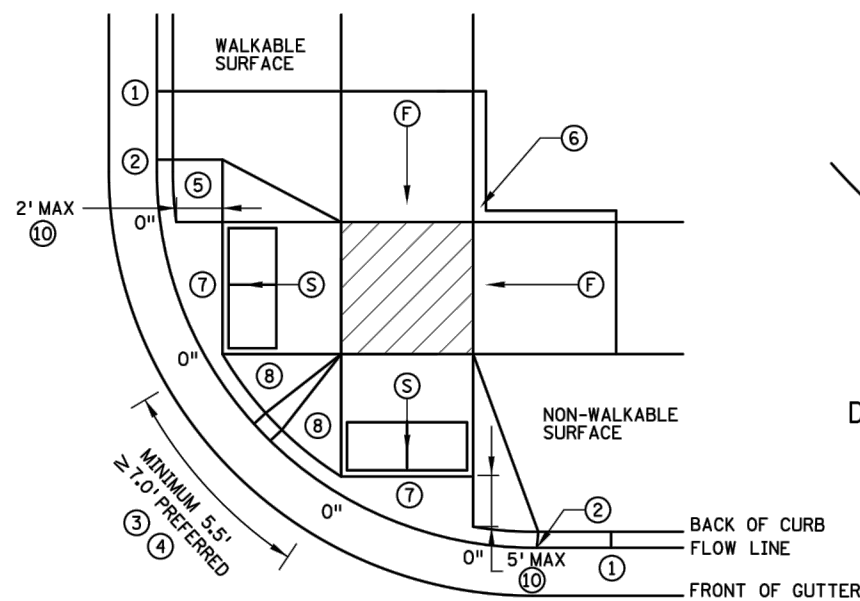
1 OF 6

Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

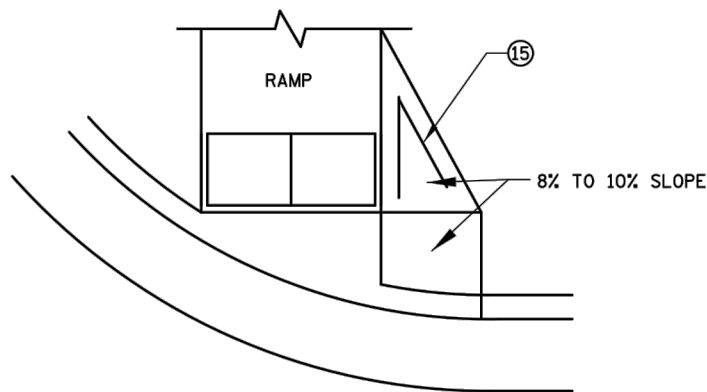
APPROVED: 11-04-2021
REVISED:

PEDESTRIAN CURB RAMP DETAILS

SHEET : C801

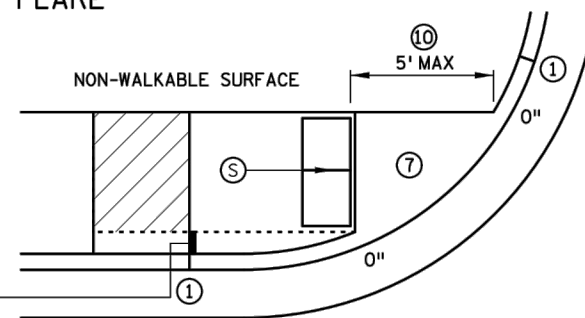


COMBINED DIRECTIONAL

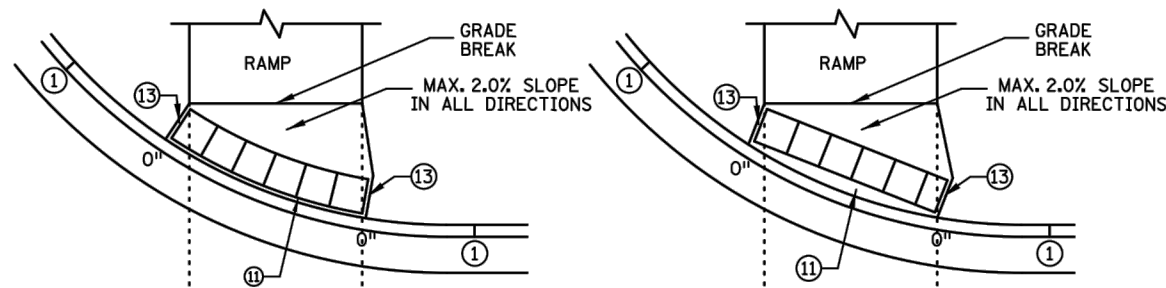


DIRECTIONAL RAMP WALKABLE FLARE

IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.

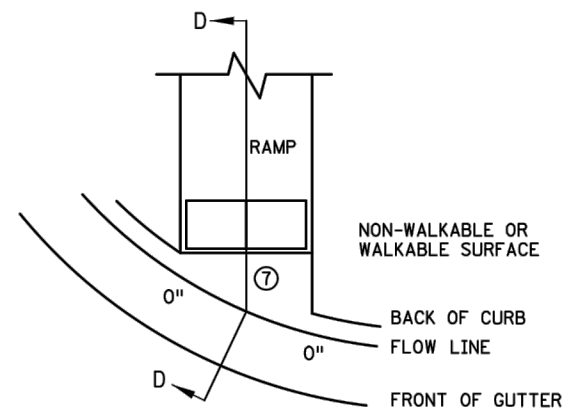


STANDARD ONE-WAY DIRECTIONAL ⑨

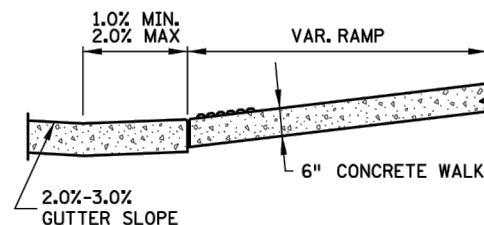


DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

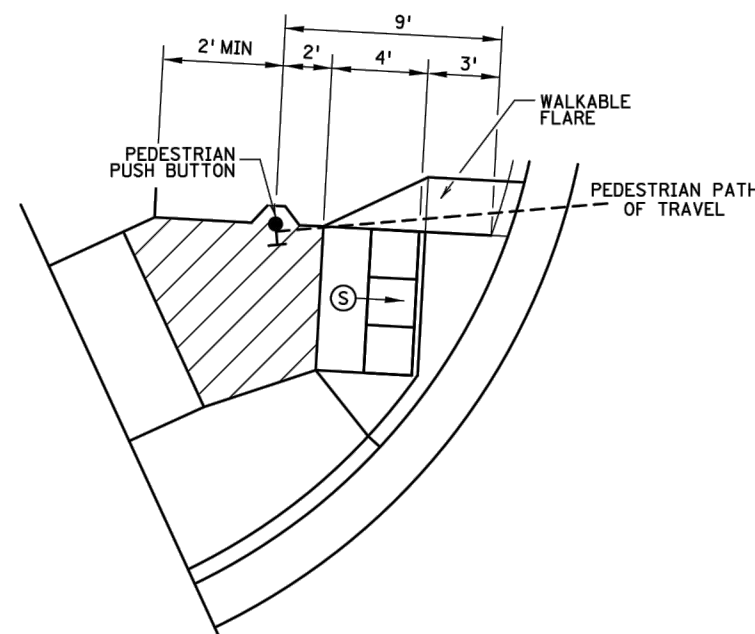
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB



CURB FOR DIRECTIONAL RAMPS ⑭



SECTION D-D



SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB
PRIMARYLY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY, FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

⑤ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

⑥ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

⑦ LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.

X" CURB HEIGHT

REVISION:
APPROVED: 11-04-2021
<i>Jeffrey J. Perkins</i>
JEFFREY PERKINS
OPERATIONS DIVISION

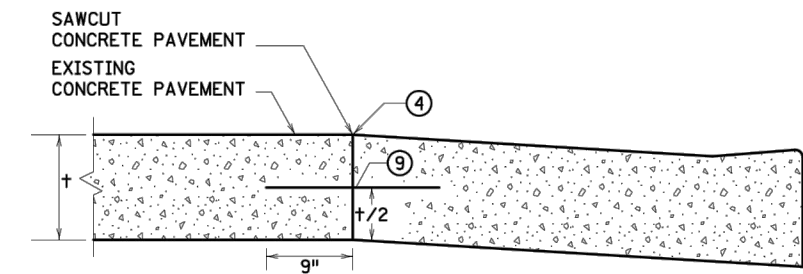
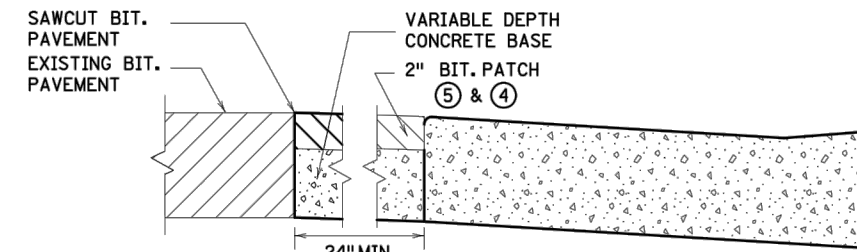
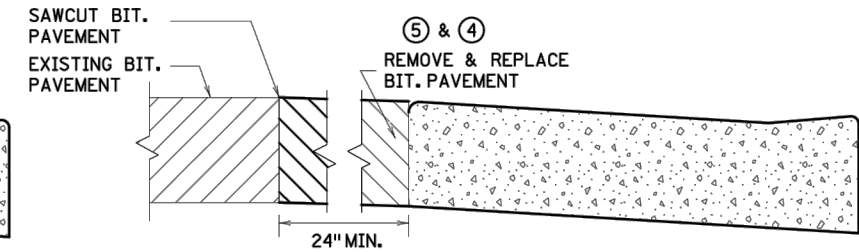
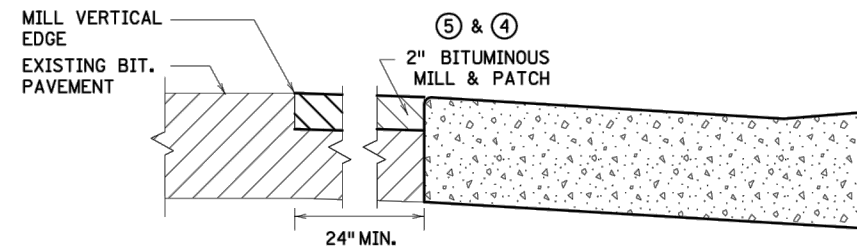
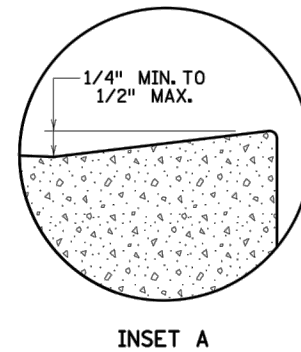
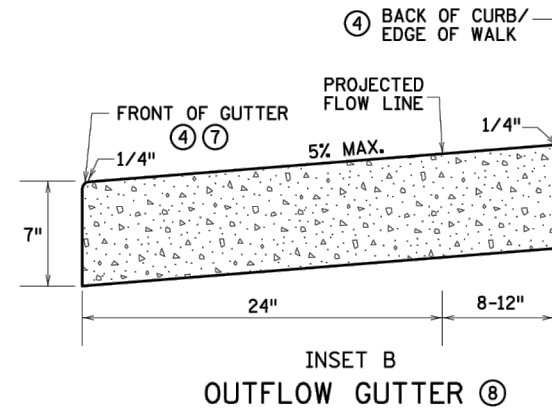
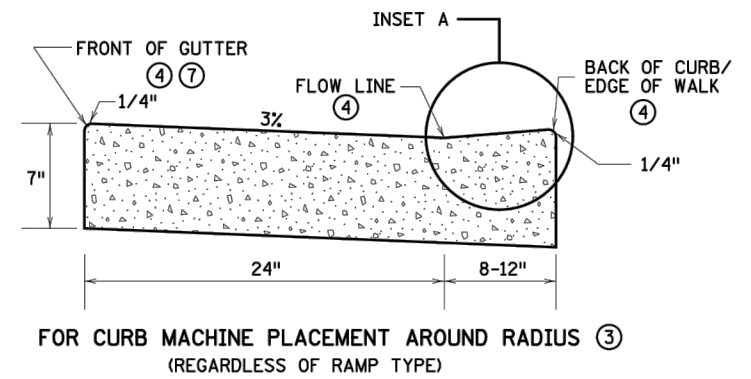
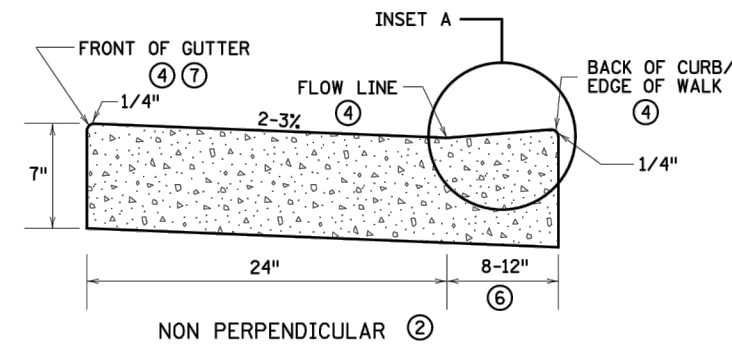
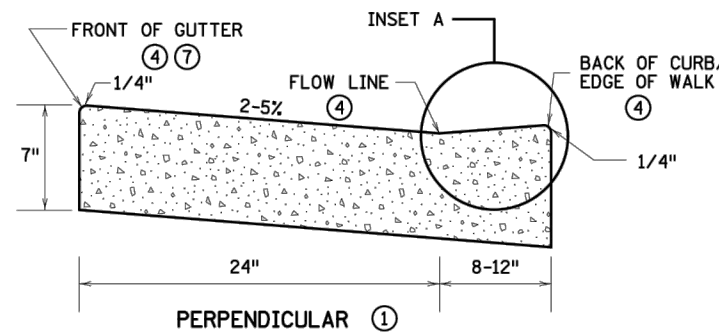
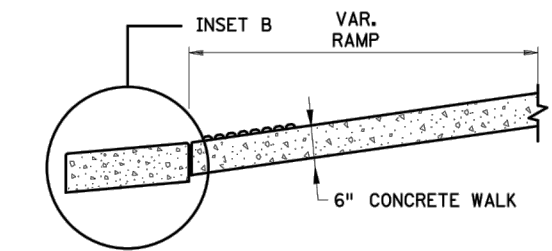


STANDARD PLAN 5-297.250
2 OF 6
APPROVED: 11-04-2021
REVISD:

Thomas Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

SHEET : C802

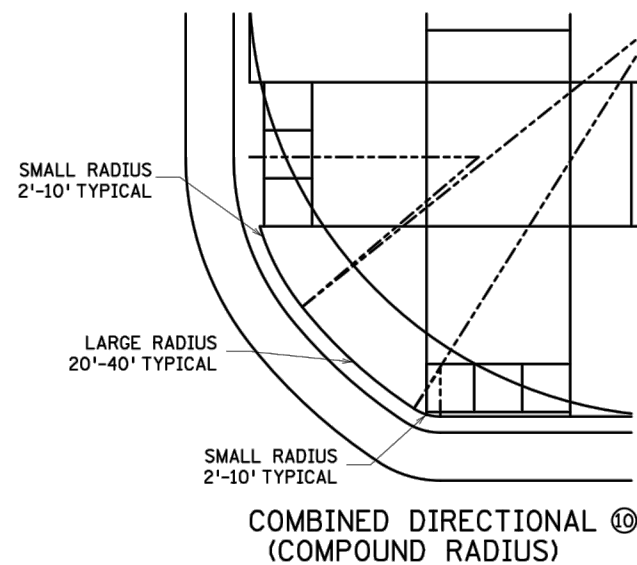
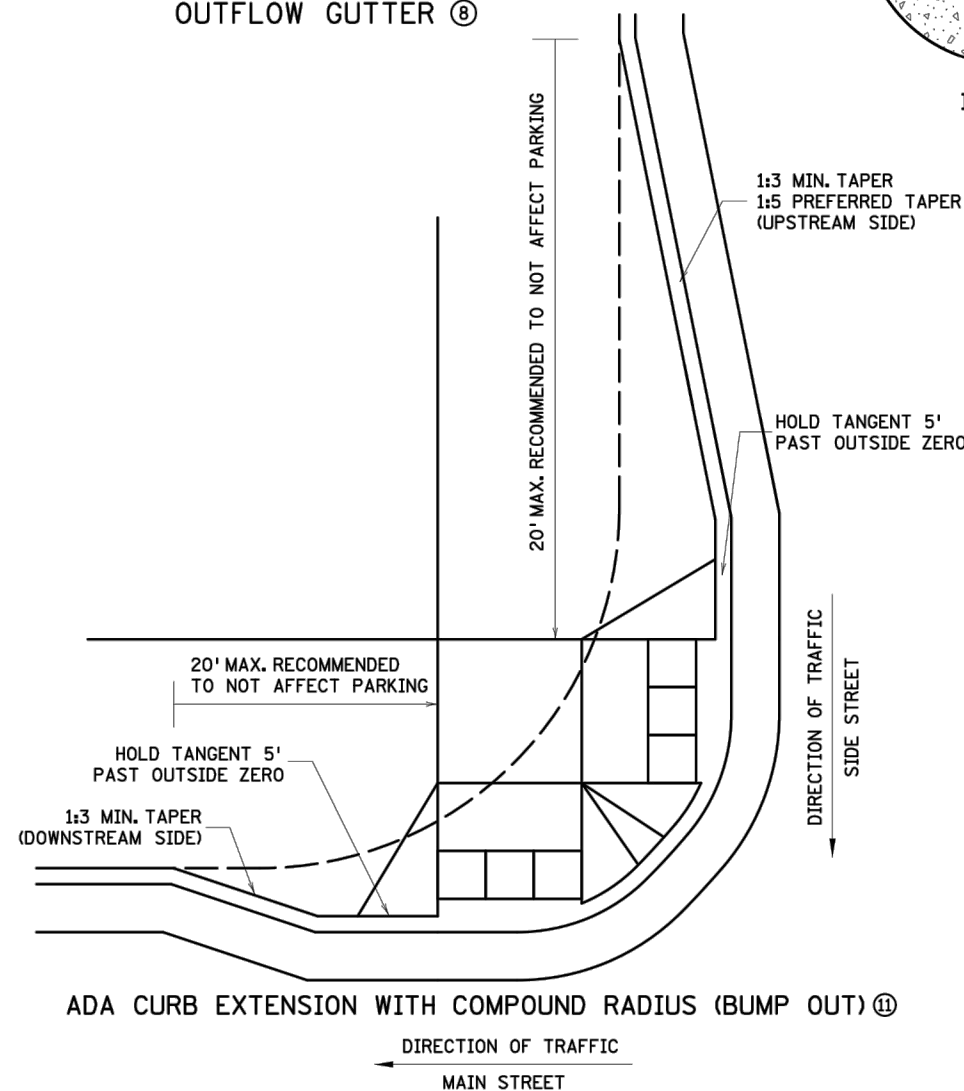


ONLY ALLOWED PER ENGINEER'S APPROVAL

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER FOR USE ON CURB RAMP RETROFITS

NOTES:

- POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM. NO PONDING SHALL BE PRESENT IN THE PAR.
- ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.
- ① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.
- ② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.
- ③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.
- ④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".
- ⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.
- ⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.
- ⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.
- ⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.
- ⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.
- ⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.
- ⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.



COMBINED DIRECTIONAL ⑩ (COMPOUND RADIUS)

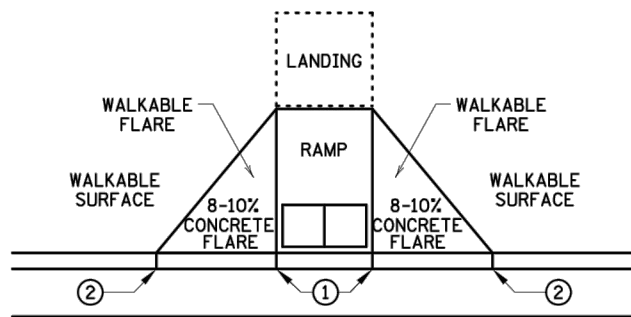
REVISION:
APPROVED: 11-04-2021
<i>Jeffrey J. Perkins</i>
JEFFREY PERKINS OPERATIONS DIVISION



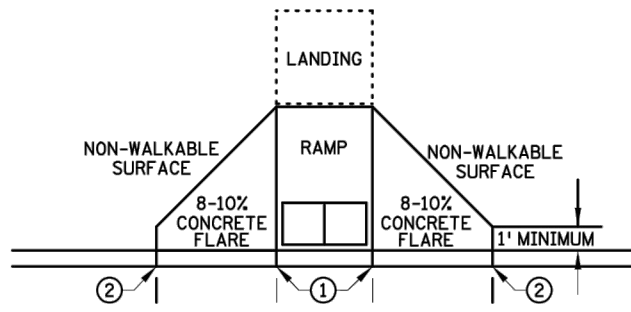
STANDARD PLAN 5-297.250	3 OF 6
<i>Tom Styrzbecki</i>	APPROVED: 11-04-2021
THOMAS STYRZBECKI STATE DESIGN ENGINEER	REVISED:

PEDESTRIAN CURB RAMP DETAILS

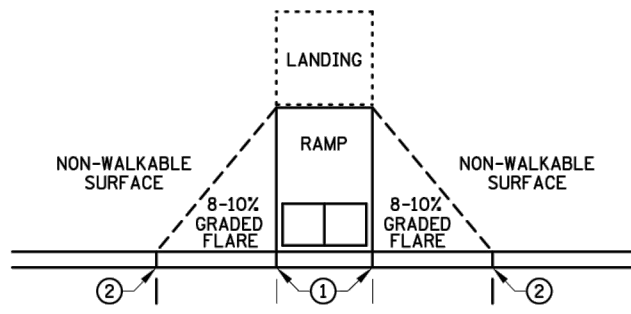
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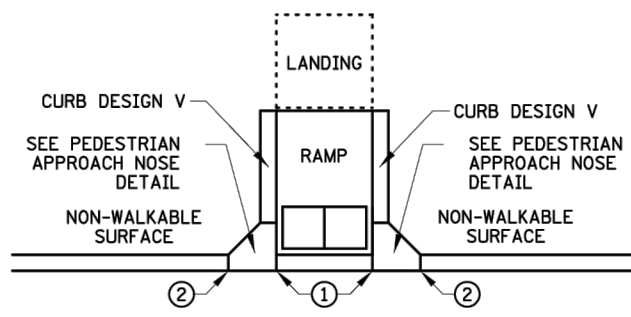
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

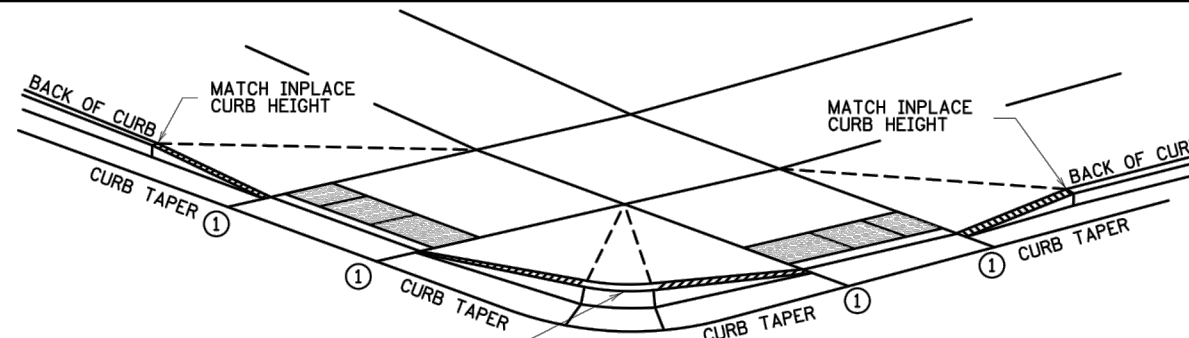


GRADED FLARES



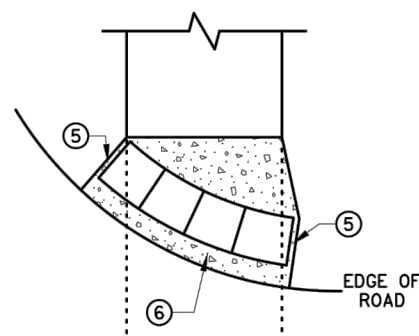
RETURNED CURB ④

TYPICAL SIDE TREATMENT OPTIONS ③ ⑩

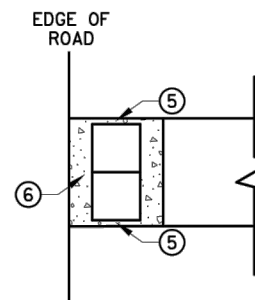


3" MINIMUM CURB HEIGHT, 4" PREFERRED
(MEASURED AT FRONT FACE OF CURB)
FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH
CURB AND GUTTER ⑦

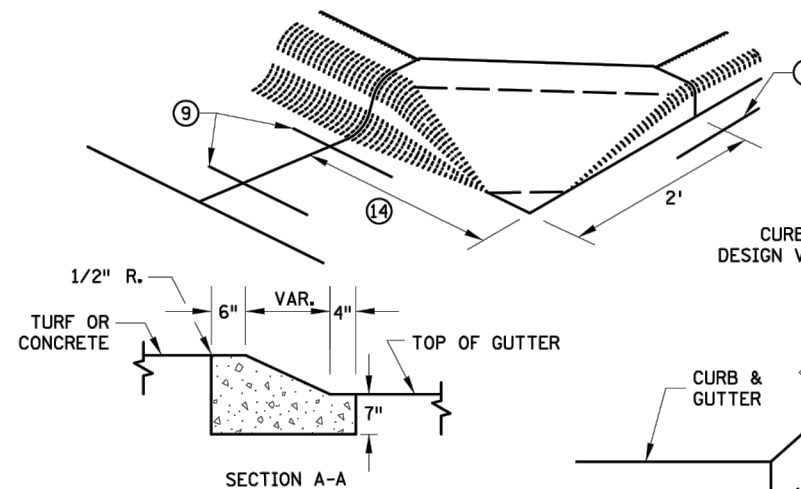


RADIAL DETECTABLE WARNING

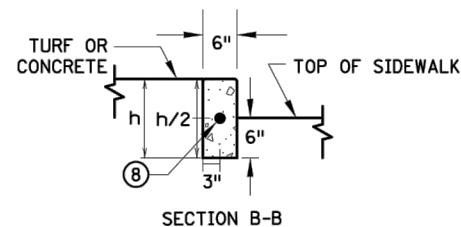


RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

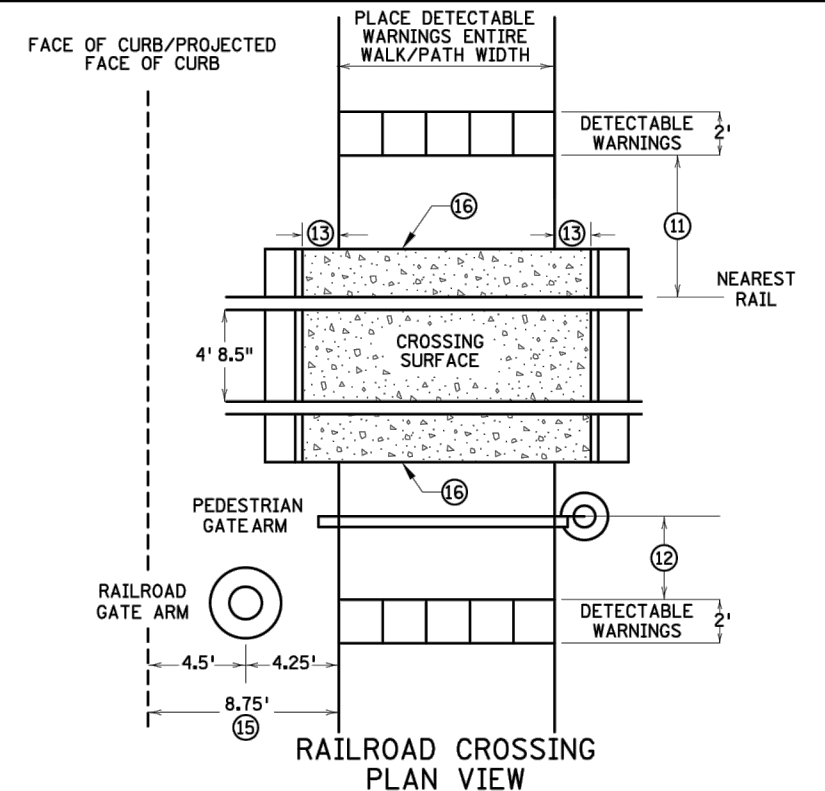


SECTION A-A



SECTION B-B

PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.

② FULL CURB HEIGHT.

③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

④ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS. AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.

⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.

⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:
APPROVED: 11-04-2021
<i>Jeff J. Perkins</i>
JEFFREY PERKINS OPERATIONS DIVISION



STANDARD PLAN 5-297.250

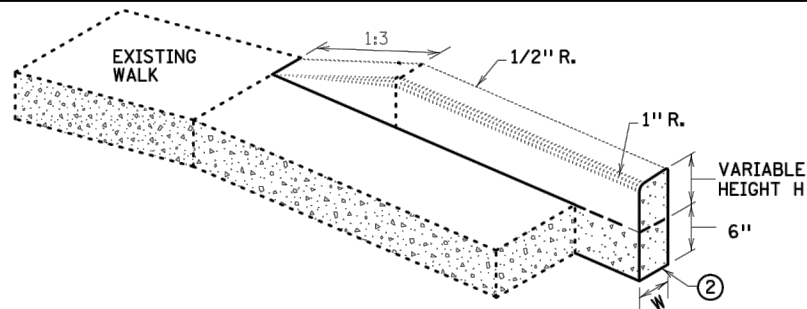
4 OF 6

Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

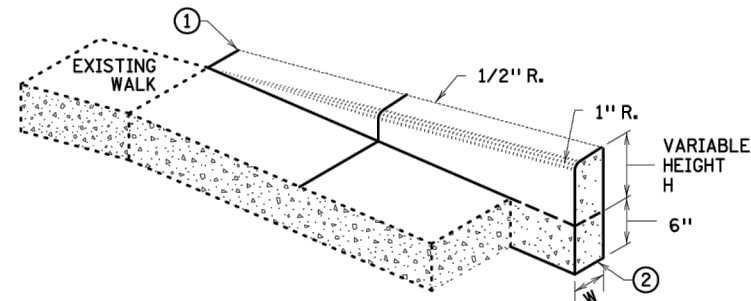
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PEDESTRIAN CURB RAMP DETAILS

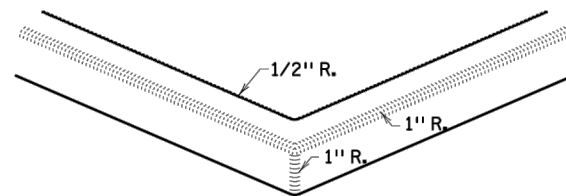
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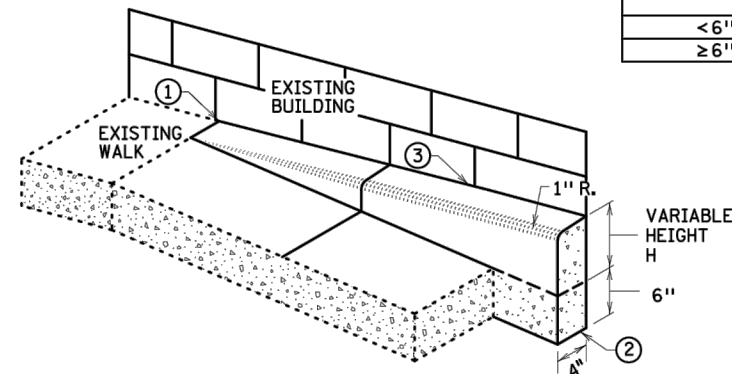
V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS



V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS

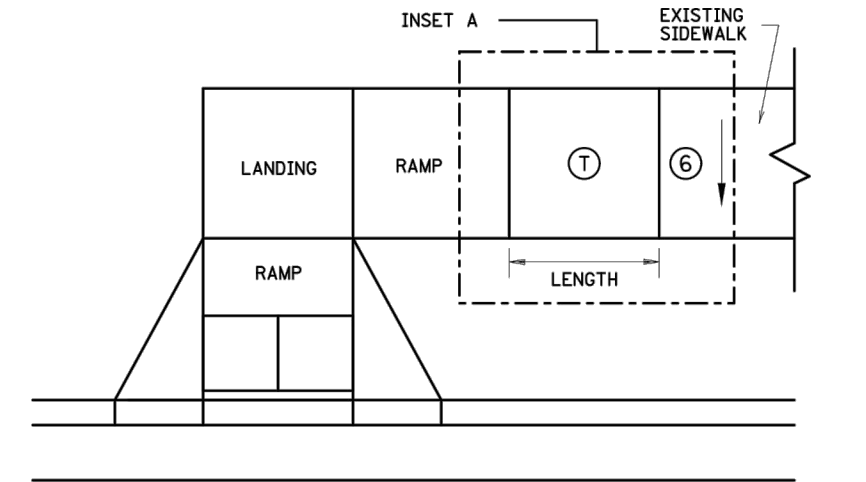


V CURB INTERSECTION

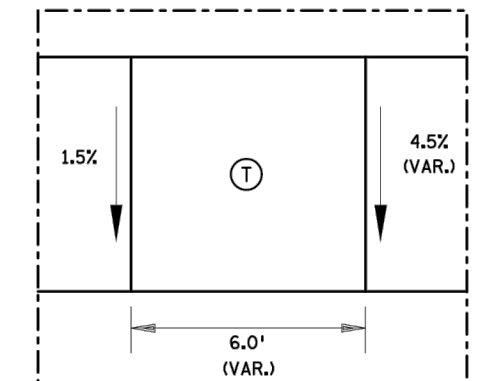


V CURB ADJACENT TO BUILDING
OR BARRIER

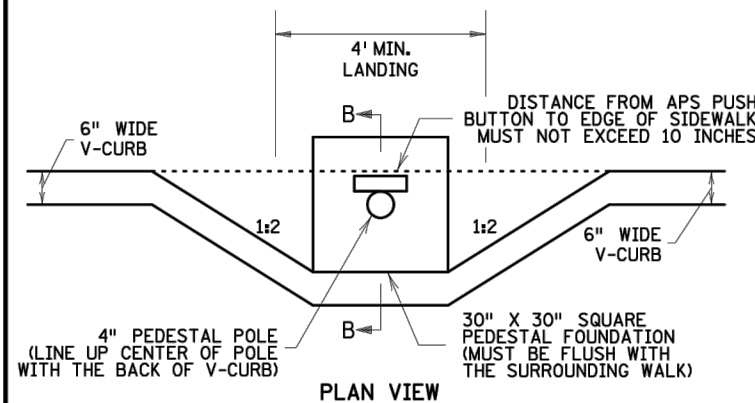
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



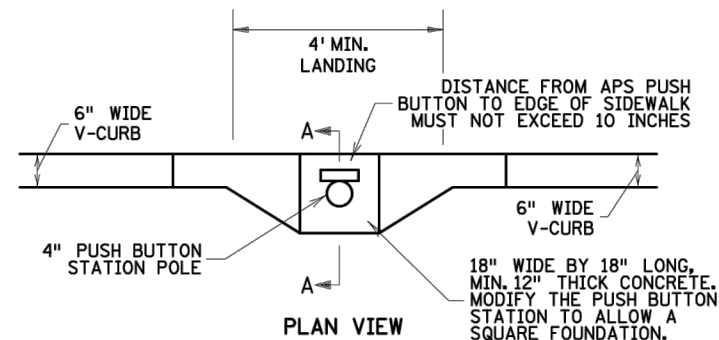
TRANSITION PANEL ④ ⑤



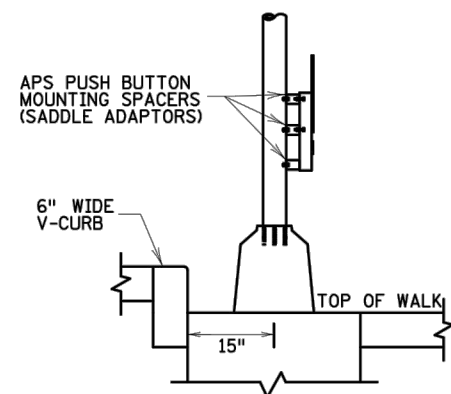
INSET A



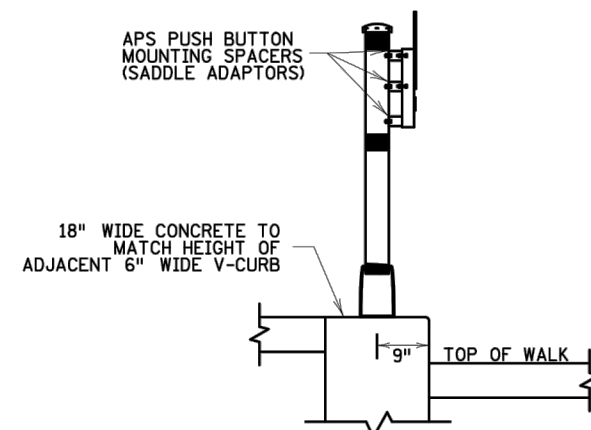
PLAN VIEW



PLAN VIEW



SECTION B-B
SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A
PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.

② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.

③ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM 1/2" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.

④ THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.

⑤ TRANSITION PANEL(S) ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).

⑥ EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

⑤ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

④ LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.

① TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

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Jeffrey J. Perkins
OPERATIONS DIVISION



STANDARD PLAN 5-297.250

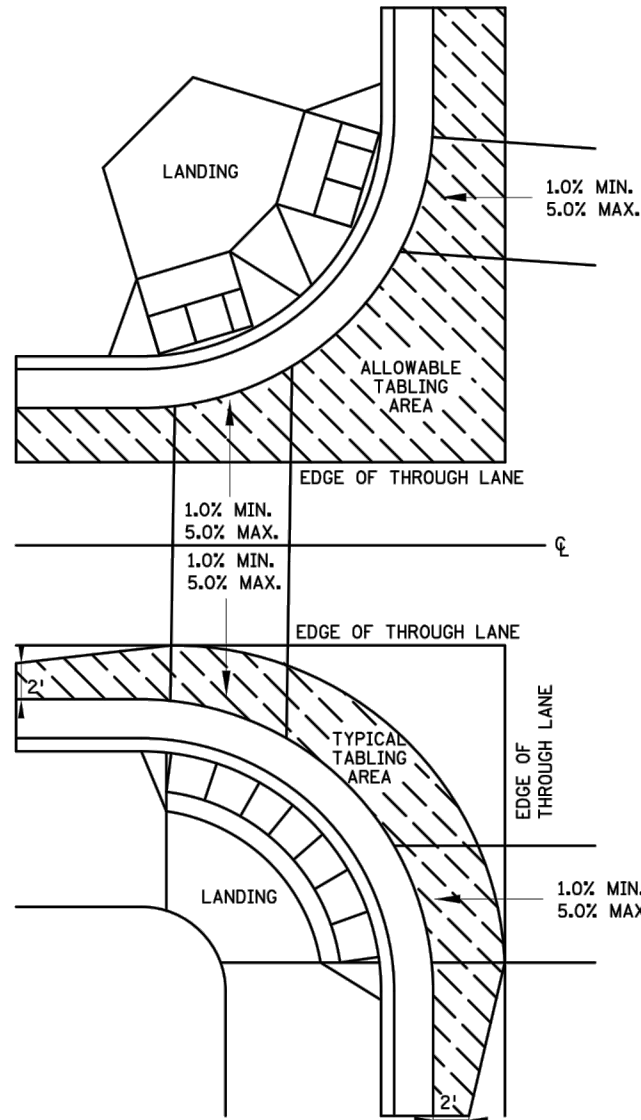
5 OF 6

THOMAS STYRBICKI
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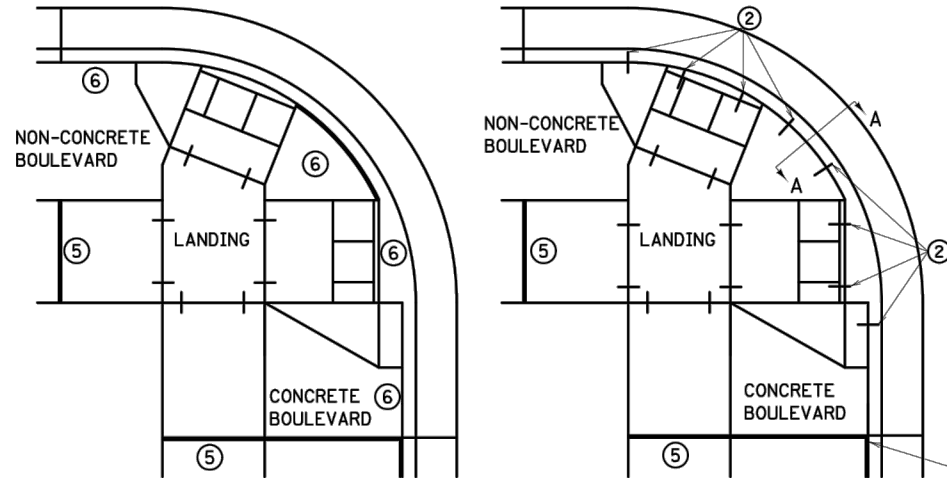
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PEDESTRIAN CURB RAMP DETAILS

SHEET : C805

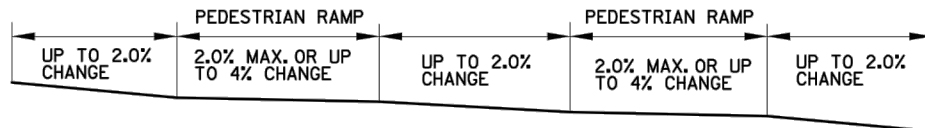


CURB LINE AND ROAD CROSSING ADJUSTMENTS

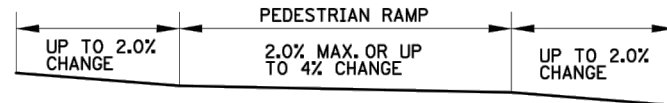


EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS

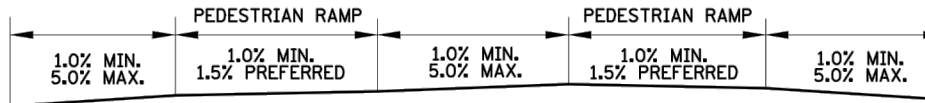
CURB LINE REINFORCEMENT PLACEMENT ON BITUMINOUS ROADWAYS



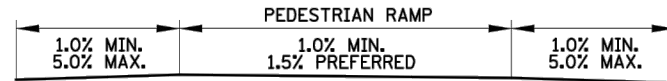
FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



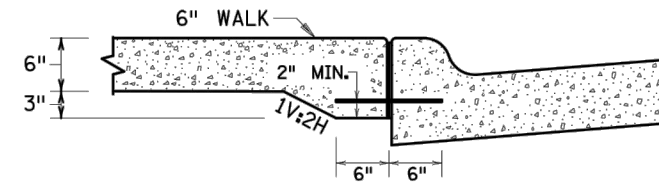
FLOW LINE PROFILE "TABLE" - FAN



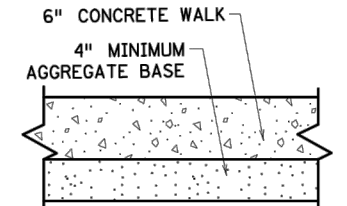
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



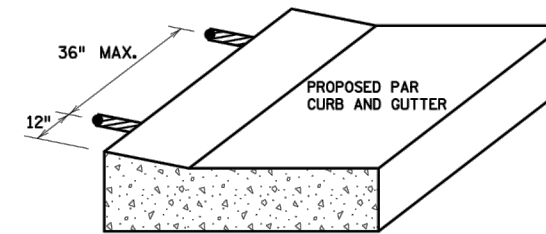
FLOW LINE PROFILE RAISE - FAN



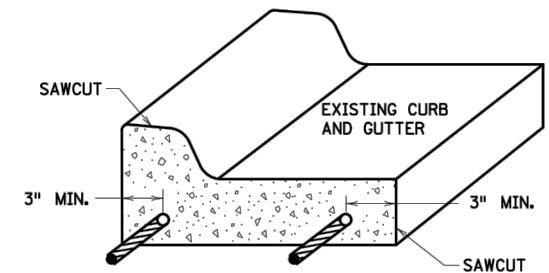
SECTION VIEW A-A THICKENED SECTION THROUGH CURB RAMP FLARES



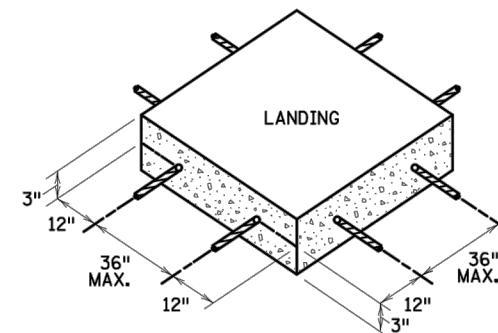
TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER



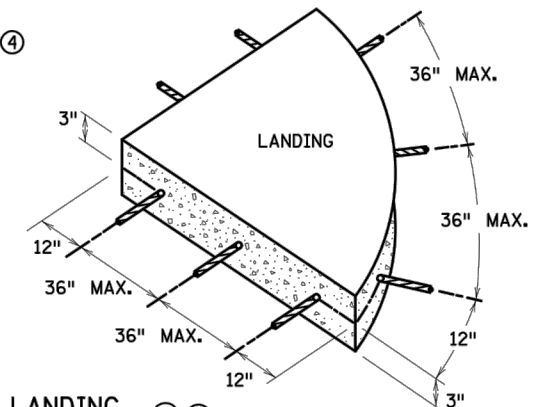
CURB RAMP REINFORCEMENT DETAILS



CURB AND GUTTER REINFORCEMENT



SEPARATE LANDING POUR REINFORCEMENT



GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:

- 1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
- 2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
- 3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
- 4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:

- 1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
- 2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
- 3) 5.0% RECOMMENDED MAX. FLOW LINE
- 4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

- 1) TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.
- 2) DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.
- 3) DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.
- 4) THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.
- 5) CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.
- 6) USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021

Jeffrey J. Perkins
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MINNESOTA
DEPARTMENT
OF
TRANSPORTATION

STANDARD PLAN 5-297.250

6 OF 6

Thomas Styrbicki
Thomas Styrbicki
STATE DESIGN ENGINEER

APPROVED: 11-04-2021
REVIS:

PEDESTRIAN CURB RAMP DETAILS

SHEET : C806

UNDISTURBED VEGETATION

SLOPE

TRACKED EQUIPMENT TREADS CREATE GROOVES PERPENDICULAR TO SLOPE DIRECTION.



**Cottage
Grove**
Where Pride and Prosperity Meet

PLATE NO.
ERO-13

PLAN

PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

SECTION

CASTING AND ADJUSTMENT RINGS AS SPECIFIED. PER DETAIL PLATE STR-23.

VARIES 36" - 48"

VARIES - 24"

VARIES *

27"

MANHOLE STEPS 16" MAX ON CENTER.

* DETERMINED BY PIPE SIZE

PIPE SHALL BE CUT TO BE 2"-4" INSIDE MANHOLE WALL AND HAVE A WATER TIGHT SEAL. SEE SPECIFICATION.

ALL DOG HOUSES SHALL BE MORTARED ON INSIDE AND OUTSIDE.



**Cottage
Grove**
Where Tradition and Prosperity Meet

PLATE NO.
SAN-1

PLAN

PRECAST INVERT MUST BE 1/2 DIAMETER OF THE PIPE AND BENCHES SLOPED 2" TOWARD THE INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

SECTION

CASTING AND ADJUSTMENT RINGS AS SPECIFIED. PER DETAIL PLATE STR-23.

VARIES 36" - 48"

27"

MANHOLE STEPS 16" MAX ON CENTER.

VARIES *

* DETERMINED BY PIPE SIZE

PIPE SHALL BE CUT TO BE 2"-4" INSIDE MANHOLE WALL AND HAVE A WATER TIGHT SEAL. SEE SPECIFICATION.

ALL DOG HOUSES SHALL BE MORTARED ON INSIDE AND OUTSIDE.



**Cottage
Grove**
Where Good and Prosperity Meet

PLATE NO.
SAN-2

CASTING AND ADJUSTMENT RINGS AS SPECIFIED. PER DETAIL PLATE STR-23.

CUT OFF TOP PORTION OF TEE

TEE DETAIL

12" MIN

27"

36" - 48"

4' DIA

4'X5' MANHOLE TRANSITION

MANHOLE STEPS 16" MAX ON CENTER.

HOLE FOR TEE SHALL BE 4" LARGER THAN PIPE SIZE TO ALLOW BELL TO BE POSITIONED INSIDE MANHOLE WALL. DOGHOUSES SHALL BE MORTARED TO PROVIDE A WATER TIGHT SEAL.

VARIES 12" - 24"

20' C-900 (SIZE VARIES)

TEE MODIFIED * (SEE ABOVE)

ALL DROP MANHOLES SHALL BE LINED UNLESS OTHERWISE NOTED.*

STAINLESS STEEL PIPE BRACKET * (MIN 2 REQUIRED, 5' SPACING)

90° BEND *. INSTALL 0.2' ABOVE THROUGH INVERT. POSITION BEND TO ANGLE DOWNSTREAM.

PIPE SHALL BE CUT TO BE 2"-4" INSIDE MANHOLE WALL AND HAVE A WATER TIGHT SEAL. SEE SPECIFICATION.

INVERT AND BENCHES ARE TO BE POURED IN THE FIELD AND INCLUDE THE 90° BEND. INVERT SHOULD BE 1/2 DIAMETER OF PIPE AND BENCHES SLOPED 2" TOWARD INVERT.

2" - 3"

C-900 DROP (LENGTH & SIZE VARIES)

SECTION

*** SEE SPECIFICATIONS**

ALL DOG HOUSES SHALL BE MORTARED ON INSIDE AND OUTSIDE.



**Cottage
Grove**
Where Good and Prosperity Meet

PLATE NO.
SAN-4

PLAN

MORTAR BOTTOM OF MANHOLE TO 1/2 DIAMETER AT PIPE AND SLOPE MORTAR 2" TOWARD INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

SECTION

CASTING AND ADJUSTMENT RINGS AS SPECIFIED. PER DETAIL PLATE STR-23.

VARIES 36" - 48"

VARIES 12" - 24"

VARIES

27"

MANHOLE STEPS 16" MAX ON CENTER.

* DETERMINED BY PIPE SIZE

PIPE SHALL BE CUT TO BE 2"-4" INSIDE MANHOLE WALL.

DOGHOUSES SHALL BE MORTARED BOTH INSIDE AND OUTSIDE OF MANHOLE.

PLACE 2 BEADS OF RAMNEK OR EQUAL, BETWEEN BOTTOM SLAB AND BARREL SECTION

3"

MORTARED INVERT

FLOW



**Cottage
Grove**
Where Prosperity Meets

PLATE NO.
STO-1

PLAN

MORTAR BOTTOM OF MANHOLE TO 1/2 DIAMETER AT PIPE AND SLOPE MORTAR 2" TOWARD INVERT.

MANHOLE STEPS SHALL BE PLACED SO THAT OFFSET VERTICAL PORTION OF CONE IS FACING DOWNSTREAM.

SECTION

CASTING AND ADJUSTMENT RINGS AS SPECIFIED. PER DETAIL PLATE STR-23.

VARIES 36" - 48"

27"

MANHOLE STEPS 16" MAX ON CENTER.

* DETERMINED BY PIPE SIZE

PIPE SHALL BE CUT TO BE 2"-4" INSIDE MANHOLE WALL.

DOGHOUSES SHALL BE MORTARED BOTH INSIDE AND OUTSIDE OF MANHOLE.

PLACE 2 BEADS OF RAMNEK OR EQUAL, BETWEEN BOTTOM SLAB AND BARREL SECTION

3"

VARIES 12" - 24"

VARIES

MORTARED INVERT



**Cottage
Grove**

PLATE NO.
STO-2

PLAN

MORTAR BOTTOM OF MANHOLE TO 1/2 DIAMETER AT PIPE AND SLOPE MORTAR 2" TOWARD INVERT.

SECTION

VARIES 12" - 24"

VARIES *

3"

CASTING AND ADJUSTMENT RINGS AS SPECIFIED. PER DETAIL PLATE STR-23.

TOP OF BARREL SECTION BELOW TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL.

MANHOLE STEPS 16" MAX ON CENTER.

* DETERMINED BY PIPE SIZE

PIPE SHALL BE CUT TO BE 2"-4" INSIDE MANHOLE WALL.

DOGHOUSES SHALL BE MORTARED BOTH INSIDE AND OUTSIDE OF MANHOLE.

PLACE 2 BEADS OF RAMNEK OR EQUAL BETWEEN BOTTOM SLAB AND BARREL SECTION.



**Cottage
Grove**
Where Prosperity Meets

PLATE NO.
STO-3

PLAN

24"X36" SLAB OPENING FOR CASTING SPECIFIED

DIMENSION FROM BACK OF CURB TO CENTER OF PIPE:

- 4' DIA. MH - 9" IN FROM BACK OF CURB
- 5' DIA. MH - 3" IN FROM BACK OF CURB
- 6' DIA. MH - 3" BEHIND BACK OF CURB
- 7' DIA. MH - 9" BEHIND BACK OF CURB
- 8' DIA. MH - 15" BEHIND BACK OF CURB

SECTION

VARIES 12" - 24"

VARIES

VARIES

3"

CASTING AND ADJUSTMENT RINGS AS SPECIFIED. PER DETAIL PLATE STR-23.

TOP OF BARREL SECTION BELOW TOP SLAB TO HAVE FLAT TOP EDGE SEALED WITH 2 BEADS OF RAMNEK OR EQUAL.

MANHOLE STEPS 16" MAX ON CENTER.

MORTAR BOTTOM

DOGHOUSES SHALL BE MORTARED BOTH INSIDE AND OUTSIDE OF MANHOLE.

PLACE 2 BEADS OF RAMNEK OR EQUAL BETWEEN BOTTOM SLAB AND BARREL SECTION.

PIPE DIA



**Cottage
Grove**
Where Prosperity Meets

PLATE NO.
STO-5

C808

Plot Date: 10/12/2023 - 2:34pm
Drawing name: U:\193806146\CAD\Dwg\Plan Sheets\193806146_C802.dwg
Kref.: 193806146_BORDER



JANUARY 2023

PLATE NO.
STR-25



JANUARY 2023

PLATE NO.
STR-28



JANUARY 2023

PLATE NO.
STR-34



JANUARY 2023

PLATE NO.
STR-37



- 
- Cottage
Grove**
Where Prosperity Meets

JANUARY 2023

PLATE NO.
STR-41



JANUARY 2023

PLATE NO.
WAT-1



JANUARY 2023

PLATE NO.
WAT-3

θ - SEE NOTE 4

B₃

A₂

A

MEGALUGS (TYP.)

PLAN 90° BENDS

PLAN 90° BENDS

PLAN 45° BENDS

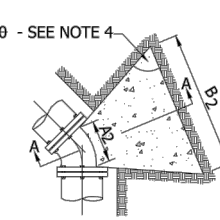


CONCRETE SHALL
BE IN CONTACT
WITH THIS
QUADRANT OF PIPE

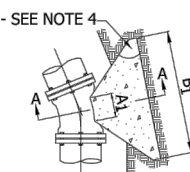
BEDDING
UNDISTURBED

θ - SEE NOTE 4-

PLAN 22 1/2° BENDS



PLAN 45° BENDS



PLAN 22 1/2° BENDS



HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT
WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION
AND THAT I AM A DULY LICENSED ENGINEER
UNDER THE LAWS OF THE STATE OF MINNESOTA

PRINT NAME: DAVID S. SANOCKI

CITY OF COTTAGE GROVE, MINNESOTA
COTTAGE GROVE UTILITY & ENGINEERING BUILDING

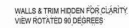
STANDARD DETAILS

NO	REVISION	DATE
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SURVEY	PBW
DRAWN	EPV
DESIGNED	DRS
CHECKED	LMM
APPROVED	DRS
PROJ. NO.	193806146

SHEET NUMBER

C810



FILL STATION CONCRETE PAD DETAIL

THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS. DO NOT SCALE THE DRAWING. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO STANTEC WITHOUT DELAY. STANTEC SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS. ANY REPRODUCTION OR USE FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY STANTEC IS PROHIBITED.

ONE-LINE DIAGRAM
SYMBOLS

	INCOMING LINE
	POWER CIRCUIT BREAKER
	OIL CIRCUIT BREAKER
	CIRCUIT BREAKER
	DRAW-OUT CIRCUIT BREAKER
	LOAD BREAK INTERRUPTING SWITCH
	SINGLE THROW DISCONNECTING SWITCH
	DOUBLE THROW DISCONNECTING SWITCH
	FUSE
	DISCONNECTING FUSE
	SWITCH AND FUSE
	RESISTOR1
	RESISTOR2
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
	LIGHTNING ARRESTER
	TRANSFORMER
	CAPACITOR
	MOTOR
	GENERATOR
	RELAY (* RELAY NO.)
	STRESS CONE
	FUSE CUTOUT
	ENCLOSED FUSE CUTOUT
	AMMETER
	AMMETER SWITCH
	DEMAND METER
	POWER FACTOR METER
	VOLTMETER
	VOLTMETER SWITCH
	WATTMETER
	WATTHOUR METER
	WATTHOUR METER WITH DEMAND REGISTER
	MULTI-FUNCTION METER
	METER
	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	KEY INTERLOCK
	AUTOMATIC TRANSFER SWITCH (A.T.S.)

PANELBOARD NAMING CONVENTION

TYPICAL UNLESS INDICATED OTHERWISE

	EQUIPMENT TYPE
	VOLTAGE
	EQUIPMENT NUMBER
EQUIPMENT TYPE:	
SE	= SERVICE ENTRANCE PANELBOARD
LP	= LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARD
PP	= POWER PANELBOARD
L	= LIGHTING CONTROL PANEL
VOLTAGE:	
A	= 120/240 1 ϕ
B	= 208/120 3 ϕ
C	= 240/120 3 ϕ
D	= 480/277 3 ϕ

LIGHTING SYMBOLS

	FIXTURE TYPE
	EMERGENCY BALLAST
	CIRCUIT NUMBER
	FLUORESCENT FIXTURE
	SWITCH DESIGNATION
	MOUNTING HEIGHT
MOUNTING HEIGHT:	
	CEILING RECESSED MOUNTED
	CEILING SURFACE MOUNTED
	PENDANT MOUNTED AT X' A.F.F.
	WALL MOUNTED AT X' A.F.F.
	WALL MOUNT FIXTURE
	FLUORESCENT OR INCANDESCENT RECESSED DOWNLIGHT
	FLUORESCENT OR INCANDESCENT RECESSED WALLWASHER
	WALL MOUNTED UNIT (NO BRACKET = CEILING MOUNT)
	EXIT LIGHT
	INDICATES ARROW DIRECTION (IF ANY)
	FACE(S) ON WHICH LETTERING APPEARS
	EXIT/BATTERY PACK LIGHT
	TRACK LIGHTING
	COVE LIGHT
	MISCELLANEOUS FIXTURES

POWER SYMBOLS

	WEATHERPROOF
	DUPLEX RECEPTACLE - 18"AFF
	CIRCUIT NUMBER
	GROUND FAULT TYPE
	PEDESTAL MOUNTED FLOOR BOX
	DOUBLE DUPLEX RECEPTACLE - 18"AFF
	EMERGENCY POWER DUPLEX RECEPTACLE - 18"AFF
	CEILING PENDENT RECEPTACLE DROP
	FLOOR MOUNTED RECEPTACLE OUTLET
	PLUG STRIP - LETTER DESIGNATES TYPE - 18"AFF
	HOME RUN SURFACE MOUNT
	HOME RUN UNDER-GROUND OR IN-SLAB
	CEILING MOUNTED RECEPTACLE
	WELDING RECEPTACLE - 18"AFF
	SPECIAL PURPOSE RECEPTACLE - 18"AFF

POWER SYMBOLS (CONT)

	ISOLATES GROUND
	DUPLEX RECEPTACLE - 18"AFF
	CIRCUIT NUMBER
	TRANSIENT VOLTAGE SURGE SUPPRESSION
	SPLIT WIRE RECEPTACLE - 18"AFF
	CLOCK OUTLET MOUNT AT +7-6" AFF, OR AS NOTED ON DRAWINGS.
	REMOTE CONNECTION FOR CD / TAPE PLAYER
	MICROPHONE RECEPTACLE WITH VOLUME CONTROL
	SINGLE POLE SWITCH - 48"AFF SWITCH DESIGNATION
	DOUBLE POLE SWITCH - 48"AFF
	THREE-WAY SWITCH - 48"AFF
	FOUR-WAY SWITCH - 48"AFF
	DIMMER SWITCH - 48"AFF
	KEY OPERATED SWITCH - 48"AFF
	SWITCH AND PILOT LIGHT - 48"AFF
	MANUAL MOTOR STARTER
	OCCUPANCY SENSOR (WALL MOUNTED) - 48"AFF
	OCCUPANCY SENSOR (CEILING MOUNTED)
	RECEPTACLE PANEL
	LIGHTING PANEL - 54"AFF
	DISTRIBUTION PANEL - 54"AFF
	DISCONNECT SWITCH - 54"AFF
	FUSED DISCONNECT SWITCH - 54"AFF
	WALL MOUNTED CIRCUIT BREAKER - 54"AFF
	COMBINATION STARTER DISCONNECT - 54"AFF
	MOTOR 3 PHASE
	MOTOR 1 PHASE
	METER SOCKET

TELEPHONE AND INTERCOM SYMBOLS

	TELEPHONE OUTLET - 18"AFF
	WALL MOUNT TELEPHONE OUTLET - 54"AFF
	FLOOR MOUNTED TELEPHONE OUTLET
	DATA COMMUNICATIONS OUTLET - 18"AFF
	VOICE/DATA OUTLET - 18"AFF
	POWER/DATA COMMUNICATIONS CEILING POLE DROP
	FLOOR MOUNTED DATA COMMUNICATIONS OUTLET
	TELEPHONE TERMINAL CABINET
	INTERCOM DOOR STATION - WALL MOUNTED 54"AFF
	INTERCOM MASTER STATION WALL OR DESK MOUNTED
	INTERCOM HANDSET STATION WITH HANDSET AND SPEAKER AMPLIFIER 54"AFF
	INTERCOM SPEAKER

FIRE ALARM SYMBOLS

	MANUAL PULL STATION - 48"AFF
	FIRE ALARM HORN/STROBE - 80"AFF (WP-WEATHERPROOF) (WG-WIRE GUARD)
	FIRE ALARM STROBE - 80"AFF
	FLOW SWITCH
	TAMPER SWITCH
	SMOKE DETECTOR - PHOTOELECTRIC
	SMOKE DETECTOR - IONIZATION
	DUCT SMOKE DETECTOR
	SMOKE DETECTOR - ELEVATOR RECALL
	HEAT DETECTOR
	DOOR HOLDER
	FIRE ALARM HORN
	FIRE ALARM BELL
	FIREMANS TELEPHONE

SECURITY SYMBOLS

	GLASS MOUNTED GLASS BREAK DETECTOR
	GLASS BREAK DETECTOR SENSING DIRECTION
	MOTION DETECTOR SENSING DIRECTION
	HELP BUTTON
	KEYPAD TYPE ARMING STATION - 48"AFF
	EMERGENCY TELEPHONE
	DOOR CONTACT
	ELECTRIC LOCK
	ELECTRIC STRIKE
	REQUEST TO EXIT (REX) MOTION SENSOR
	CARD READER - 48"AFF
	CCTV CAMERA - FIXED MOUNT
	CCTV CAMERA - PANT/TILT/ZOOM
	DATA GATHERING PANEL - BURGLAR ALARM
	ACCESS CONTROL PANEL

CONTROL/MISC SYMBOLS

	WALL MOUNTED JUNCTION BOX
	CEILING MOUNTED JUNCTION BOX
	SOLENOID
	LEVEL TRANSDUCER
	EMERGENCY STOP SWITCH
	ANALYSIS SENSOR
	LIMIT SWITCH
	FLOW SWITCH
	PRESSURE SWITCH
	TEMPERATURE SWITCH
	TRANSMITTER
	SPEED SWITCH
	FLOOD SWITCH
	LEVEL (FLOAT) SWITCH
	DAMPER
	SURGE SUPPRESSOR
	PUSHBUTTON STATION
	PUSHBUTTON WITH ILLUMINATED STOP
	SELECTOR SWITCH
	SELECTOR SWITCH WITH INDICATING LIGHT
	BELL
	BUZZER
	HORN
	DOOR HOLDER
	PLUG

CONTROL/KEY NOTES SYMBOLS

	KEYNOTE
	KEYNOTE
	KEYNOTE
	KEYNOTE
	KEYNOTE
	KEYNOTE
	KEYNOTE

CONTROL SCHEMATIC SYMBOLS

	NORMALLY CLOSED PUSHBUTTON
	NORMALLY OPEN PUSHBUTTON
	THREE - POSITION SELECTOR SWITCH
	TWO - POSITION SELECTOR SWITCH
	NORMALLY CLOSED LIMIT SWITCH - HELD OPEN
	NORMALLY OPEN LIMIT SWITCH

CONTROL SCHEMATIC SYM. (CONT)

	NORMALLY OPEN LIMIT SWITCH - HELD CLOSED
	NORMALLY CLOSED LIMIT SWITCH
	OPEN SWITCH WITH TIME DELAY CLOSING
	CLOSED SWITCH WITH TIME DELAY OPENING
	OPEN SWITCH WITH TIME DELAY OPENING
	CLOSED SWITCH WITH TIME DELAY CLOSING
	FLOW SWITCH (CLOSES ON INCREASE IN FLOW)
	FLOW SWITCH (OPENS ON INCREASE IN FLOW)
	LEVEL SWITCH (CLOSES ON RISING LEVEL)
	LEVEL SWITCH (OPENS ON RISING LEVEL)
	PRESSURE SWITCH (CLOSES ON RISING PRESSURE)
	PRESSURE SWITCH (OPENS ON RISING PRESSURE)
	TEMPERATURE SWITCH (CLOSES ON RISING TEMP.)
	TEMPERATURE SWITCH (OPENS ON RISING TEMP.)
	NORMALLY OPEN CONTACTS
	NORMALLY CLOSED CONTACTS
	INDICATING LIGHT
	* - A - AMBER N - NEON B - BLUE OP - OPAL C - CLEAR OR - ORANGE G - GREEN P - PURPLE
	PUSH TO TEST INDICATING LIGHT
	CONTROL SYSTEM OUTPUT
	SOLENOID
	MANUAL STARTER
	CURRENT TRANSFORMER
	TIMING RELAY
	RELAY
	MOTOR STARTER COIL AND OVERLOAD CONTACTS
	GROUND
	CONTROL CIRCUIT TRANSFORMER
	OVERLOAD

Stantec

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PRINT NAME: MICHAEL L. LEZPABACK
SIGNATURE: _____
DATE: _____ LIC. NO.: 55073

CITY OF COTTAGE GROVE, MINNESOTA
COTTAGE GROVE UTILITY & ENGINEERING BUILDING

SYMBOLS SHEET

NO.	REVISION	DATE

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User: jgibson
Printer: HP DesignJet 5000 Series
Plot Device: HP DesignJet 5000 Series
Plot Style: HP DesignJet 5000 Series
Plot Size: A
Plot Scale: 1:1
Plot Orientation: Landscape
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Plot Lineweight: 0.25
Plot Linetype: Solid
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Plot Date: 10/11/2023 - 5:21pm
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Plot Size: A
Plot Scale: 1:1
Plot Orientation: Landscape
Plot Range: All
Plot Color: Black
Plot Lineweight: 0.25
Plot Linetype: Solid
Plot Font: Arial, 10
Plot Title: 19380146_E101.dwg



1. SEE SITE CIVIL DRAWINGS FOR EXACT LOCATION OF EQUIPMENT AND UTILITIES.
2. SEE LUMINAIRE SCHEDULE FOR MORE INFORMATION.
3. SEE ELECTRICAL DETAIL SHEETS FOR MORE INFORMATION.



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PRINT NAME: MICHAEL I. FITZPATRICK

SIGNATURE: *Michael I. Fitzpatrick*

DATE: June 5, 2023 UC NO. 53078

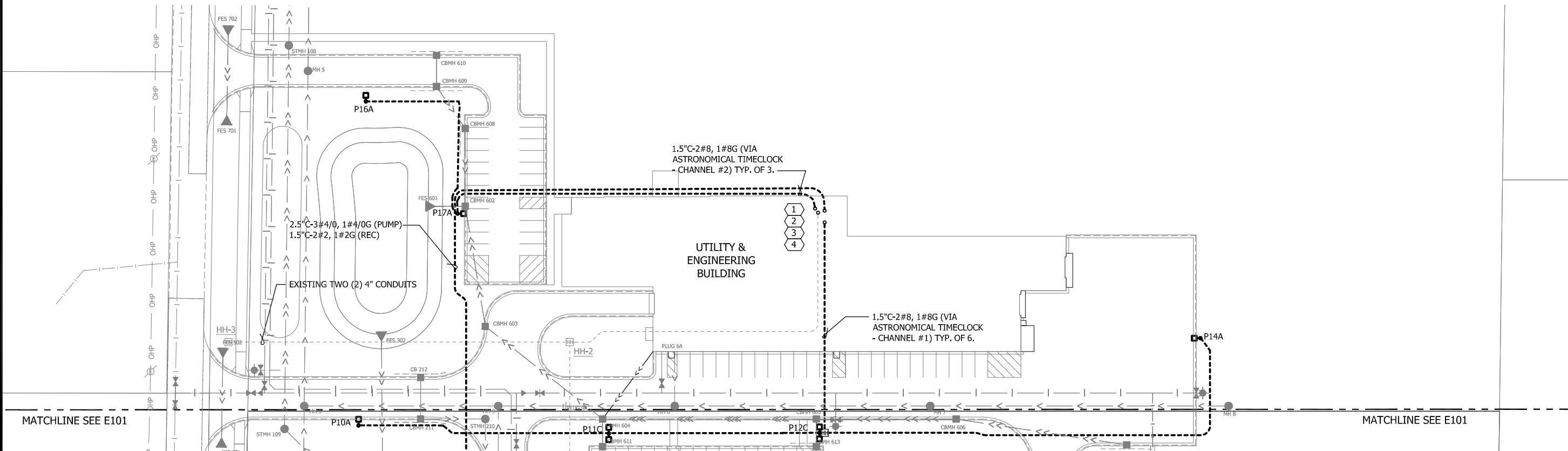
CITY OF COTTAGE GROVE, MINNESOTA
COTTAGE GROVE UTILITY & ENGINEERING BUILDING
ELECTRICAL SITE PLAN

NO	REVISION	DATE
SURVEY		PBW
DRAWN		ERL
DESIGNED		AB
CHECKED		MTF
APPROVED		MTF
PROJ. NO.		193806146

SHEET NUMBER

E101

Plot Date: 10/11/2023 - 5:20pm
Drawing name: U:\193806146\CAD\Drawn\Plan Sheets\193806146_E101.dwg



ELECTRICAL - SITE PLAN

SCALE 1" = 40'

0 40' 80

[illegible]

1. SEE SITE CIVIL DRAWINGS FOR EXACT LOCATION OF EQUIPMENT AND UTILITIES.
2. SEE LUMINAIRE SCHEDULE FOR MORE INFORMATION.
3. SEE ELECTRICAL DETAIL SHEETS FOR MORE INFORMATION.

1. PROVIDE (1) 20A 208V BRANCH CIRCUIT BREAKER FOR SITE LIGHTING. CONNECTED LOAD: 153W
2. PROVIDE (1) 20A 208V BRANCH CIRCUIT BREAKER FOR SITE LIGHTING. CONNECTED LOAD: 408W
3. PROVIDE (1) 90A 280V, 3P BRANCH CIRCUIT BREAKER FOR IRRIGATION PUMP. CONNECTED LOAD: 42 FLA.
4. PROVIDE (1) 20A 208V BRANCH CIRCUIT BREAKER FOR IRRIGATION PUMP CONTROL PANEL RECEPTACLE.

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PRINT NAME: MICHAEL T. HITZPATRICK

NEW YORK, N.Y. (AP) —

SIGNATURE: David R. Lawrence

CITY OF COTTAGE GROVE, MINNESOTA

COTTAGE GROVE UTILITY & ENGINEERING BUILDING

ELECTRICAL SITE PLAN

NO	REVISION	DATE
SURVEY	PBW	
DRAWN	ERL	
DESIGNED	AB	
CHECKED	MTF	
APPROVED	MTF	
PROJ. NO.	193806146	

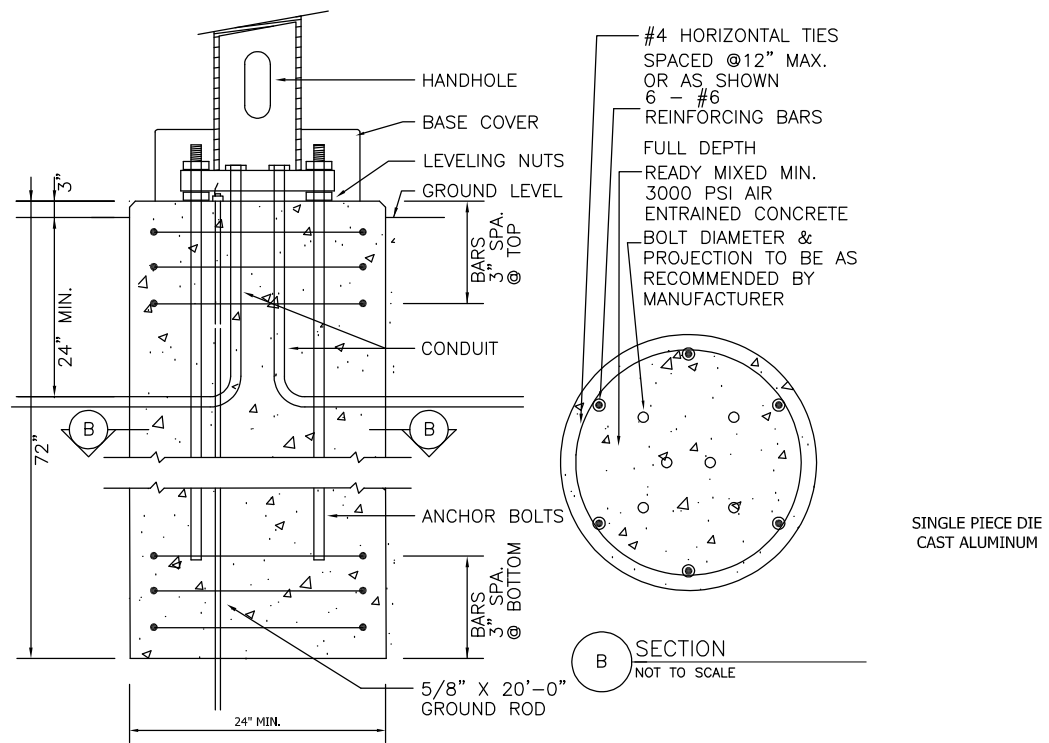
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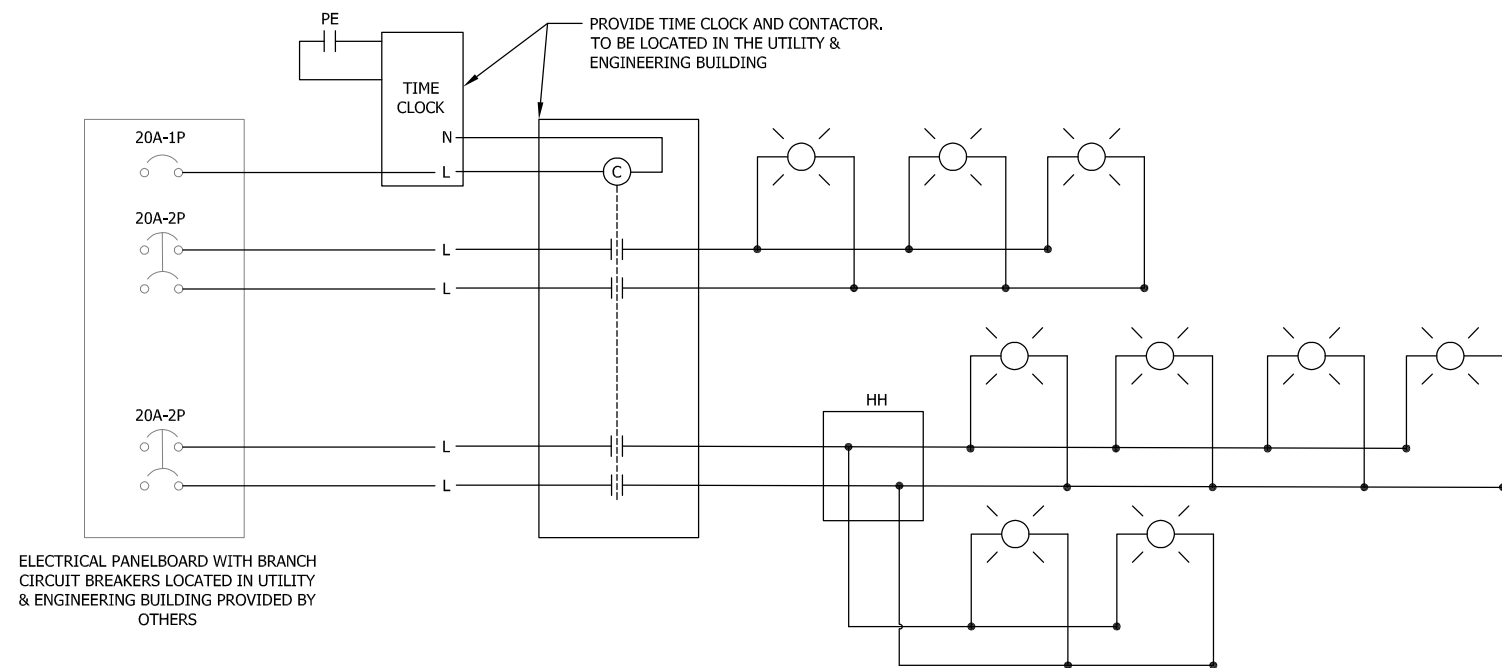


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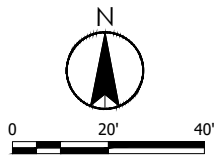
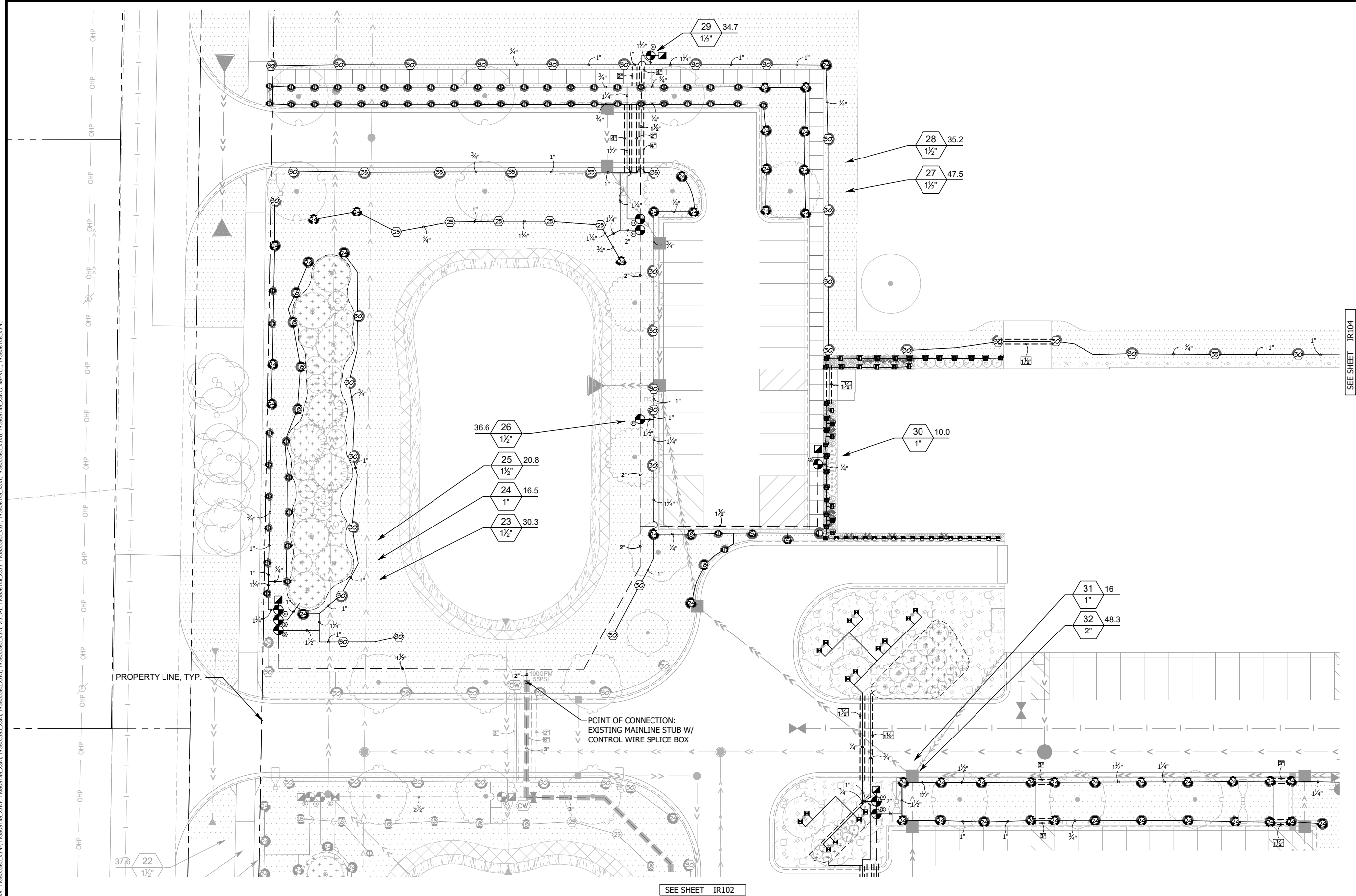


1 LIGHT POLE BASE - 3" ABOVE GRADE FOR ALL LIGHTING UNITS
NOT TO SCALE



2 LIGHTING CONTROLS WIRING DIAGRAM
NOT TO SCALE

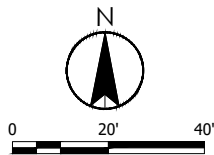
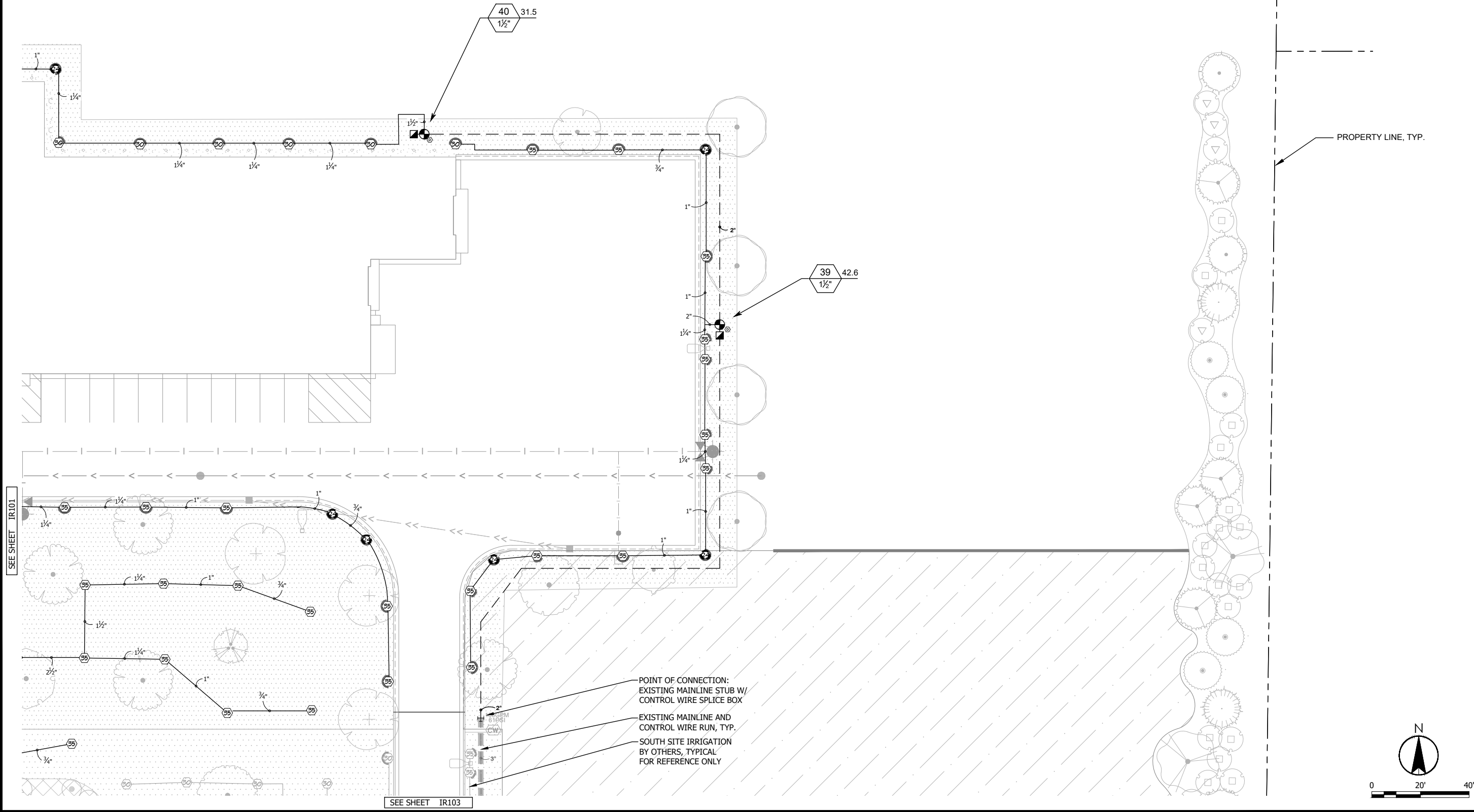
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User: jgalea
Scale: 102800/245 BORDER 102800/245 VIEW 102800/245 VENT 102800/245 VENT 102800/245



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Plot Date: 10/12/2023 - 2:02pm
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User: jgale_102805245 BORNER 102805245 VSVL 102805245 XSNL 102805144 VSWH



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 AND THAT I AM A DULY LICENSED **LANDSCAPE ARCHITECT**
 UNDER THE LAWS OF THE STATE OF MINNESOTA

PRINT NAME: JACOB C. BURGSTALLER

SIGNATURE: _____

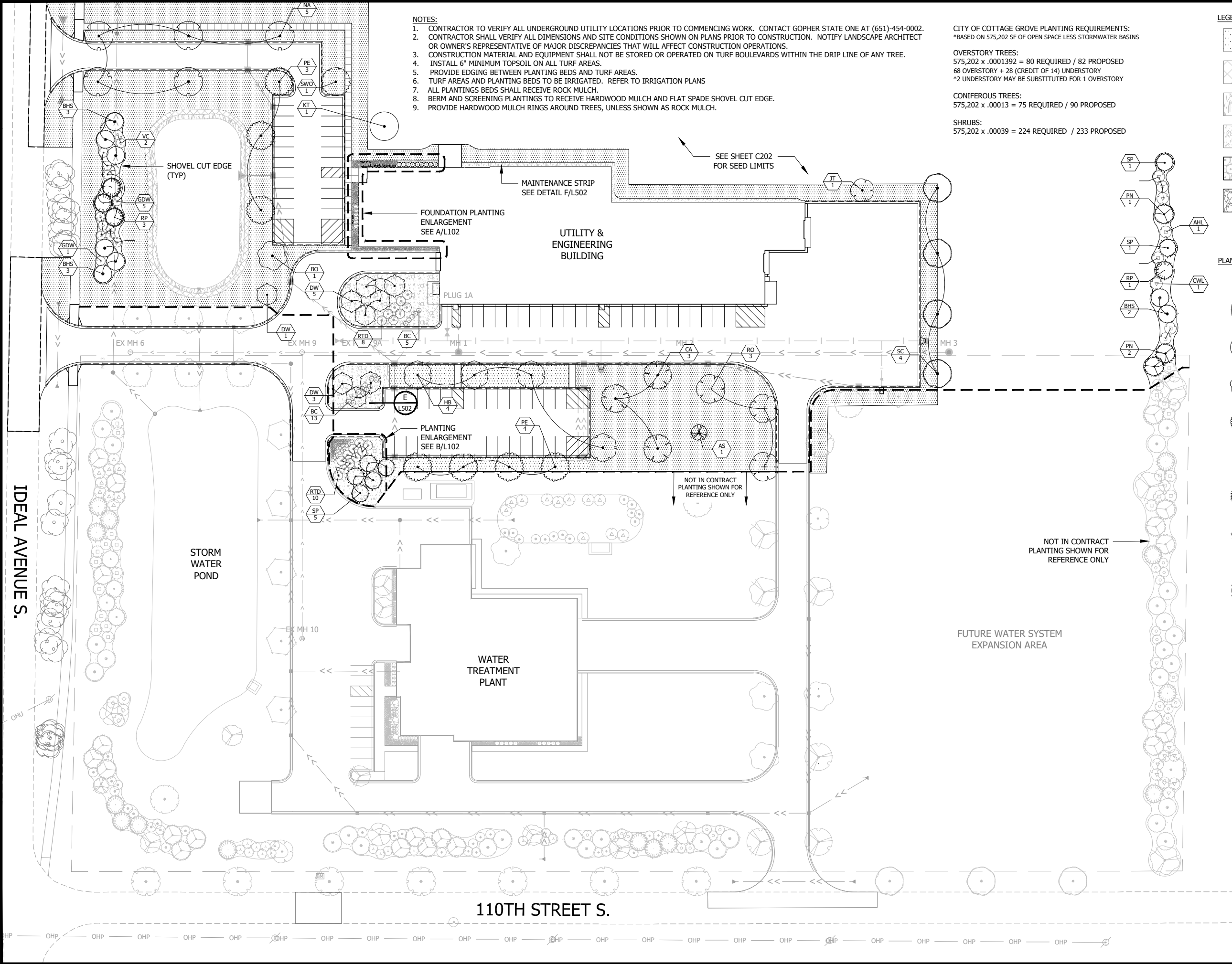
DATE: _____ LIC. NO. 54476

CITY OF COTTAGE GROVE, MINNESOTA
COTTAGE GROVE UTILITY & ENGINEERING BUILDING
IRRIGATION PLAN

NO REVISION		DATE
SURVEY		
DRAWN	JCB	
DESIGNED	JCB	
CHECKED	TRW	
APPROVED	DRS	
PROJ. NO.		193806146
SHEET NUMBER		
IR104		

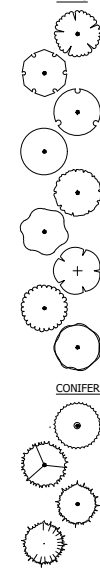


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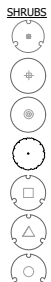
	MINERAL SOD, AS SPECIFIED
	SEED MIXTURE 33-261 FERTILIZER TYPE 1 (20-10-20) EC BLANKET CAT 3N
	SEED MIXTURE 34-261 FERTILIZER TYPE 1 (20-10-20) EC BLANKET CAT 3N
	ROCK MULCH, AS SPECIFIED
	PERENNIALS PLANTING BED
	EXIST. TREE TO REMAIN

TREES



DECIDUOUS UNDERSTORY TREE

CODE	QT
CA	3
HB	4
NA	5
KT	1
SWO	1
BO	1
RO	3
PE	7
SC	4
CODE	QT
BHS	8
PN	3
SP	7
RP	4
CODE	QT
AS	1
DW	9
JT	1
CODE	QT
BC	24
GDW	6
RTD	18
DB	9
AHL	4
CWL	4
VC	8



0 40' 80'

Plot Date: 10/12/2023 - 1:30pm
Drawing name: U:\193806146\CADD\Drawg Plan Sheets\193806146_L101.dwg
Xrefs: 193805363 BORDER, 48PRCL, 193806146_XSNF, 193805365_XSNF-wfp, 193806146_XSS, 193806146_XSNU, 193806146_XST, 193806146_XSNO, 193806146_XSNO-wfp



TREES

CONIFERS

DECIDUOUS

SHRUBS

PERENNIAL

CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT
CA	3	CATALPA SPECIOSA	NORTHERN CATALPA	2.5' 88B
HB	4	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2.5' 88B
NA	5	GLEDITSIA TRIACANTHOS 'HARVE'	NORTHERN ACCLAIM HONEYLOCUST	2.5' 88B
KT	1	GYMNOCLADUS DIOICA	KENTUCKY COFFEE TREE	2.5' 88B
SWO	1	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5' 88B
BO	1	QUERCUS MACROCARPA	BUR OAK	2.5' 88B
RO	3	QUERCUS RUBRA	NORTHERN RED OAK	2.5' 88B
PE	7	ULMUS AMERICANA 'LEWIS & CLARK'	PRAIRIE EXPEDITION ELM	2.5' 88B
SC	4	ULMUS AMERICANA 'ST CROIX'	ST. CROIX ELM	2.5' 88B
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT
BHS	8	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	6' HT. 88B
PN	3	PINUS PONDEROSA	PONDEROSA PINE	6' HT. 88B
SP	7	PINUS PONDEROSA	SCOTCH PINE	6' HT. 88B
RP	4	PINUS RESINOSA	RED PINE	6' HT. 88B
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT
AS	1	AMELANCHIER GRANDIFLORA 'AUTUMN BRILLANCE'	AUTUMN BRILLANCE SERVICEBERRY	1.5' BB
DW	9	MALUS X 'DONALD WYMAN'	DONALD WYMAN CRAB APPLE	1.5' BB
JT	1	SYRINGA RETICULATA 'IVORY SILK'	JAPANESE TREE LILAC	1.5' BB
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT
BC	24	ARONIA MELANOCARPA 'ELATA'	GLOSSY BLACK CHOKEBERRY	#5
GDW	6	CORNUS RACEMOSA	GRAY DOGWOOD	#5
RTD	18	CORNUS SERICEA	RED TWIG DOGWOOD	#5
DB	9	HYDRANGEA PANICULATA 'LVOBO'	BOBO HYDRANGEA	#5
AHL	4	SYRINGA VULGARIS 'ALBERT F HOLDEN'	ALBERT F HOLDEN LILAC	#5
CWL	4	SYRINGA VULGARIS 'ALBA'	COMMON WHITE LILAC	#5
VC	8	VIBURNUM TRILOBUM 'WENTWORTH'	WENTWORTH CRANBERRY BUSH VIBURNUM	#5
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT
AB	18	ACHILLEA MILLEFOLIUM 'BALDWINITE'	NEW VINTAGE™ WHITE COMMON YARROW	#1 CONT.
AP	19	ACHILLEA MILLEFOLIUM 'PRETTY BELINDA'	PRETTY BELINDA COMMON YARROW	#1 CONT.
AS2	36	ACHILLEA MILLEFOLIUM 'STRAWBERRY SEDUCTION'	STRAWBERRY SEDUCTION COMMON YARROW	#1 CONT.
CG	12	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER'S FEATHER GRASS	#2 CONT.
ES	21	ECHINACEA X 'SUNDOWN'	SUNDOWN PURPLE CONEFLOWER	#1 CONT.
ES2	17	ECHINACEA X 'SUNRISE'	SUNRISE CONEFLOWER	#1 CONT.
ET	18	ECHINACEA X 'TWILIGHT'	BIG SKY™ TWILIGHT CONEFLOWER	#1 CONT.
EBF	34	ELIIAH BLUE FESCUE	FESTUCA OVINA 'ELIIAH BLUE'	#1 CONT.
SBD	19	HEMEROCALLIS X 'STRUTTERS BALL'	STRUTTERS BALL DAYLILY	#1 CONT.
HD	8	HOSTA X 'BIG DADDY'	BIG DADDY HOSTA	#1
LA	19	LIATRIS SPICATA 'ALBA'	WHITE BLAZING STAR	#1 CONT.
LK	31	LIATRIS SPICATA 'KOBOLD'	KOBOLD BLAZING STAR	#1 CONT.
PV	56	PANICUM VIRGATUM 'RR1'	RUBY RIBBONS™ SWITCH GRASS	#1 CONT.
BES	20	RUDIBECKIA HIRTA FULGIDA	BLACK-EYED SWATH	#1 CONT.
AJS	15	SEDUM X 'AUTUMN JOY'	AUTUMN JOY SEDUM	#1 CONT.

1. CONTRACTOR TO VERIFY THE FOLLOWING INFORMATION IN THE FIELD PRIOR TO COMMENCING WORK. CONTACT OWNERS REPRESENTATIVE IF CONFLICTS ARE FOUND.
2. VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. VERIFY THAT GRADING AND CONSTRUCTION IN THE IMMEDIATE AREA IS COMPLETED BEFORE INSTALLING PLANTING MATERIAL.
3. VERIFY THAT IRRIGATION SLEEVING IS IN PLACE BENEATH HARDSCAPE SURFACES.
4. VERIFY THAT TREE PROTECTION MEASURES ARE IN PLACE AND CLEARLY VISIBLE.
5. VERIFY ALL QUANTITIES PROVIDED IN THE PLANT SCHEDULE AND ON THE PLANS. QUANTITIES SHOWN ARE FOR REFERENCE ONLY; CONTRACTOR IS RESPONSIBLE FOR VERIFICATION.
6. ALL NEW PLANT MATERIAL SHALL BE INSTALLED TO AVOID CONFLICTS WITH DRAINAGE SWALES, POORLY DRAINED AREAS AND UTILITIES. NOTIFY OWNERS REPRESENTATIVE IF CONDITIONS IN THE FIELD WILL NOT ALLOW PLANS TO BE IMPLEMENTED.
7. ALL DISTURBED AREAS WITHIN CONSTRUCTION LIMITS TO BE SEED, OR PLANTED. NO EXPOSED SOIL MAY BE LEFT OPEN. BLEND NEW GROUND COVER INTO EXISTING GROUND COVER FOR CONTINUOUS COVERAGE.



STANDARD DETAILS
TYPICAL EVERGREEN TREE
PLANTING
COTTAGE GROVE, MINNESOTA

JANUARY 2023

PLATE NO.
LAN-1



STANDARD DETAILS
TYPICAL DECIDUOUS TREE
PLANTING
COTTAGE GROVE, MINNESOTA

JANUARY 2023

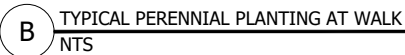
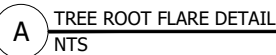
PLATE NO.
LAN-2



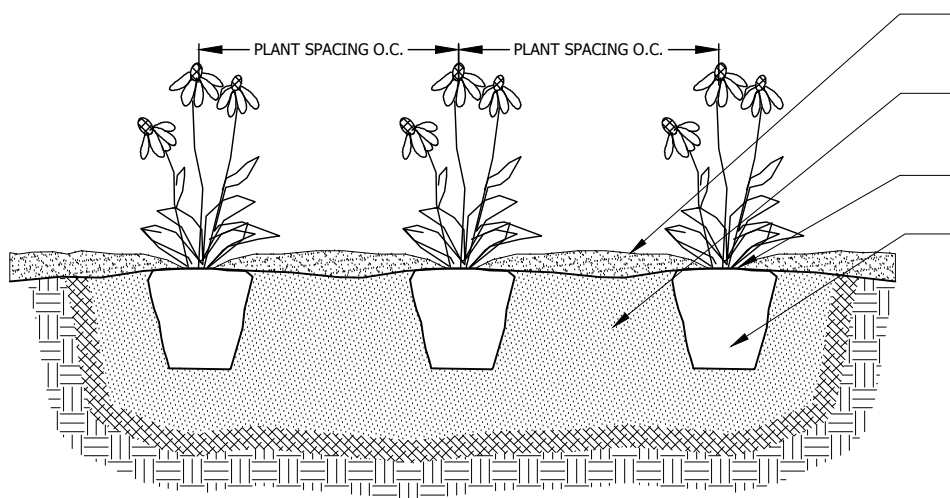
STANDARD DETAILS
TYPICAL SHRUB PLANTING
B&B OR CONTAINER GROWN
COTTAGE GROVE, MINNESOTA

JANUARY 2023

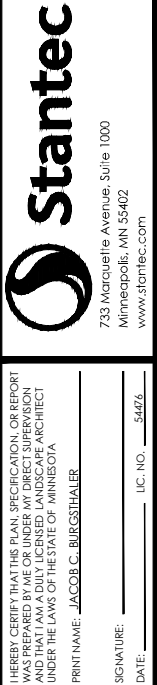
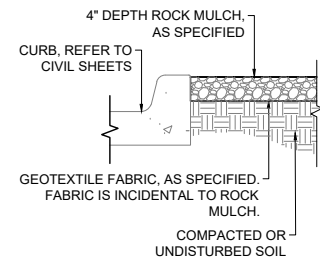
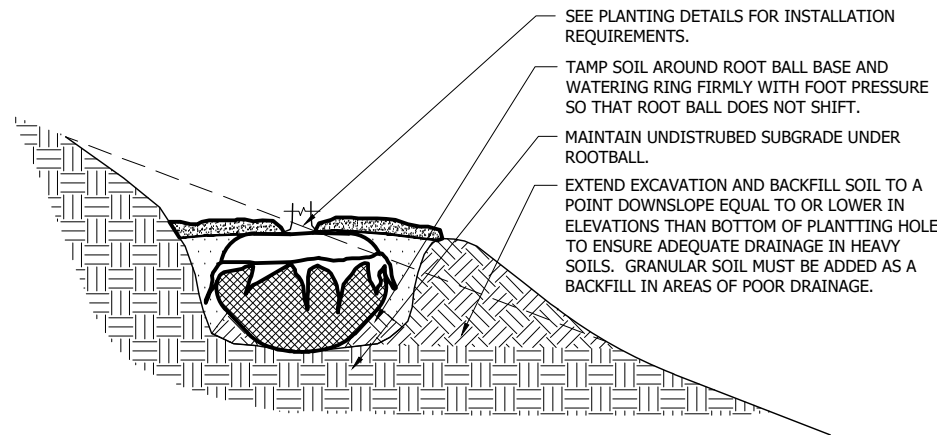
PLATE NO.
LAN-3



Plot Date: 10/12/2023 - 1:56pm
Drawing name: U:\193806146\CAD\Dwg\Plan Sheets\193806146_L501.dwg
Xrefs: 193805345_BORDER, Limestone Bench On Concrete Pad



PLANT SPACING (ON CENTER)	
P= PLANT SPACING, R= ROW SPACING	
P (FT.)	R (FT.)
.50	.43
.67	.58
.83	.72
1.00	.87
1.25	1.08
1.50	1.30
2.00	1.73
2.50	2.17
3.00	2.60
4.00	3.46
5.00	4.33
6.00	5.20



CITY OF COTTAGE GROVE, MINNESOTA
COTTAGE GROVE UTILITY & ENGINEERING BUILDING
LANDSCAPING DETAILS

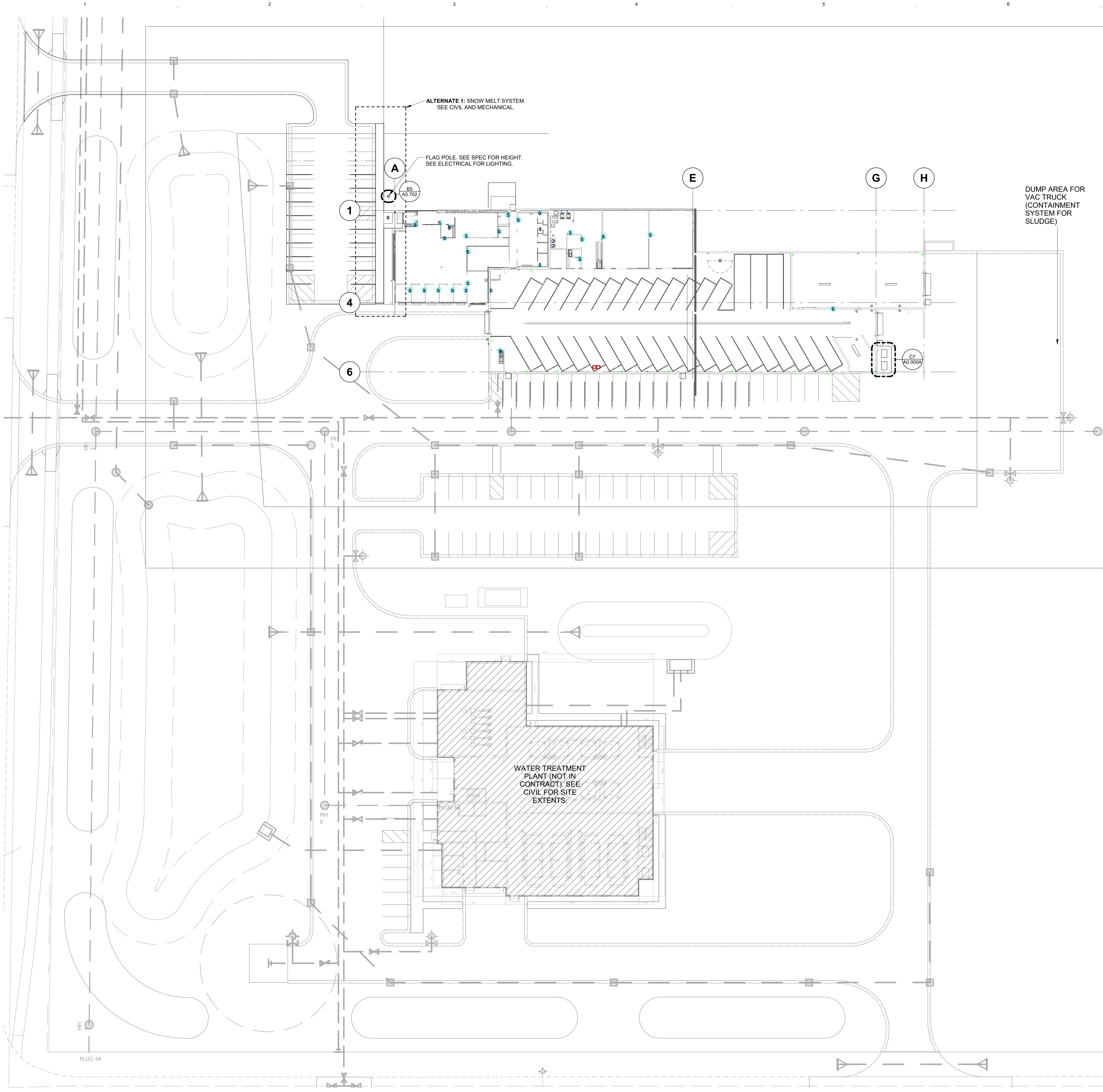
[illegible]

MN

A

1
2
3
4
5
6
7
8

A
B
C
D
E
F



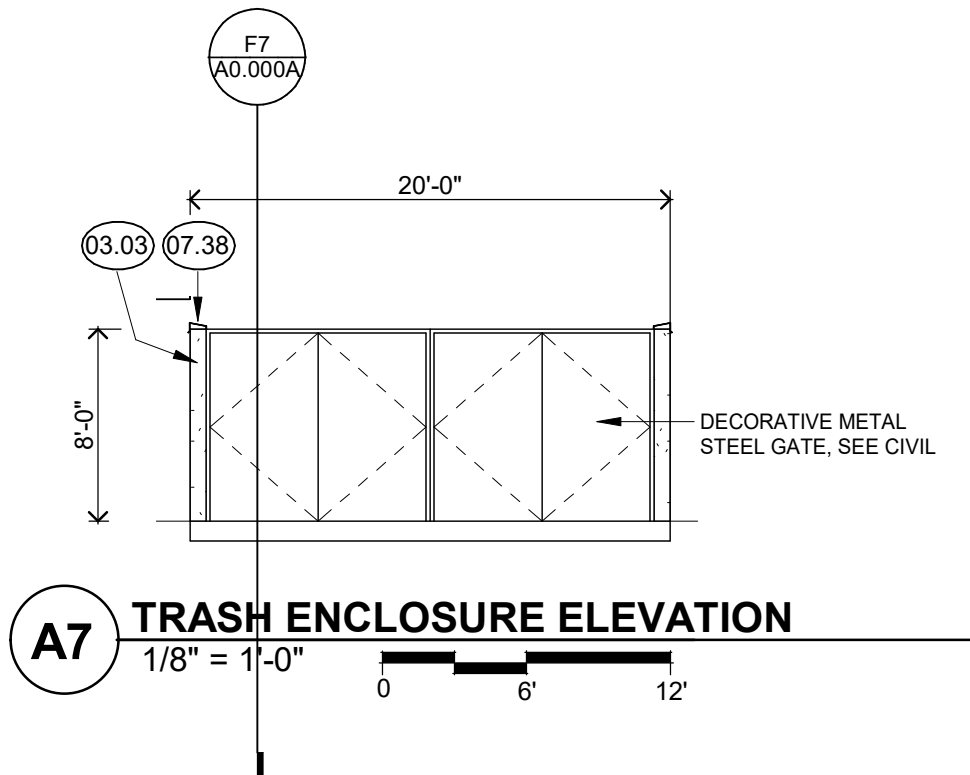
F1 SITE PLAN
1" = 30'-0"
0 22'-6" 45'

ALTERNATE 1: SNOW MELT SYSTEM.
SEE CIVIL AND MECHANICAL.

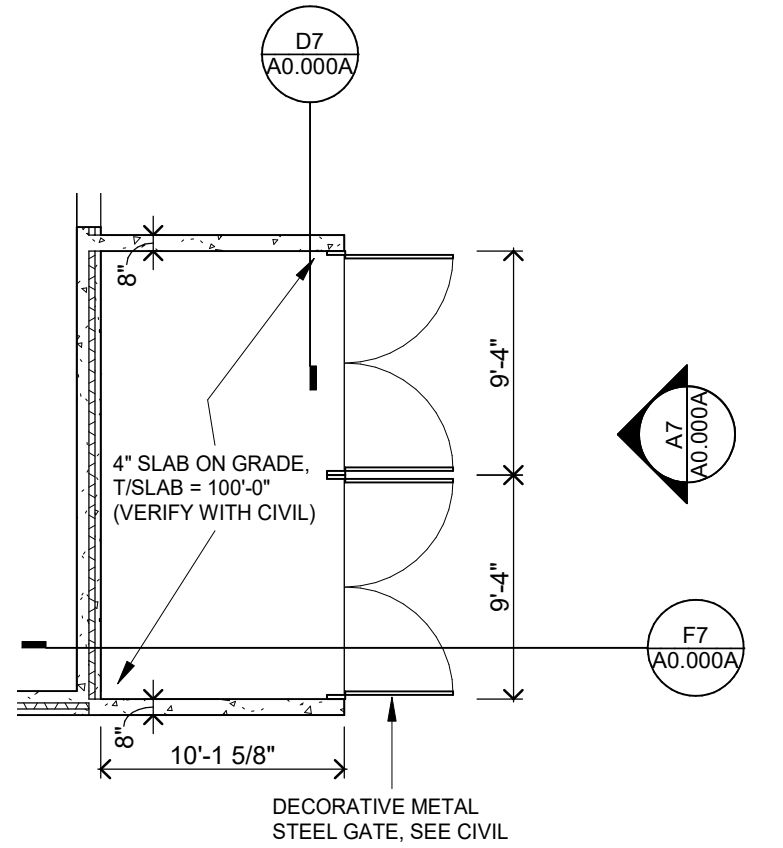
FLAG POLE. SEE SPEC FOR HEIGHT.
SEE ELECTRICAL FOR LIGHTING.

DUMP AREA FOR
VAC TRUCK
(CONTAINMENT
SYSTEM FOR
SLUDGE)

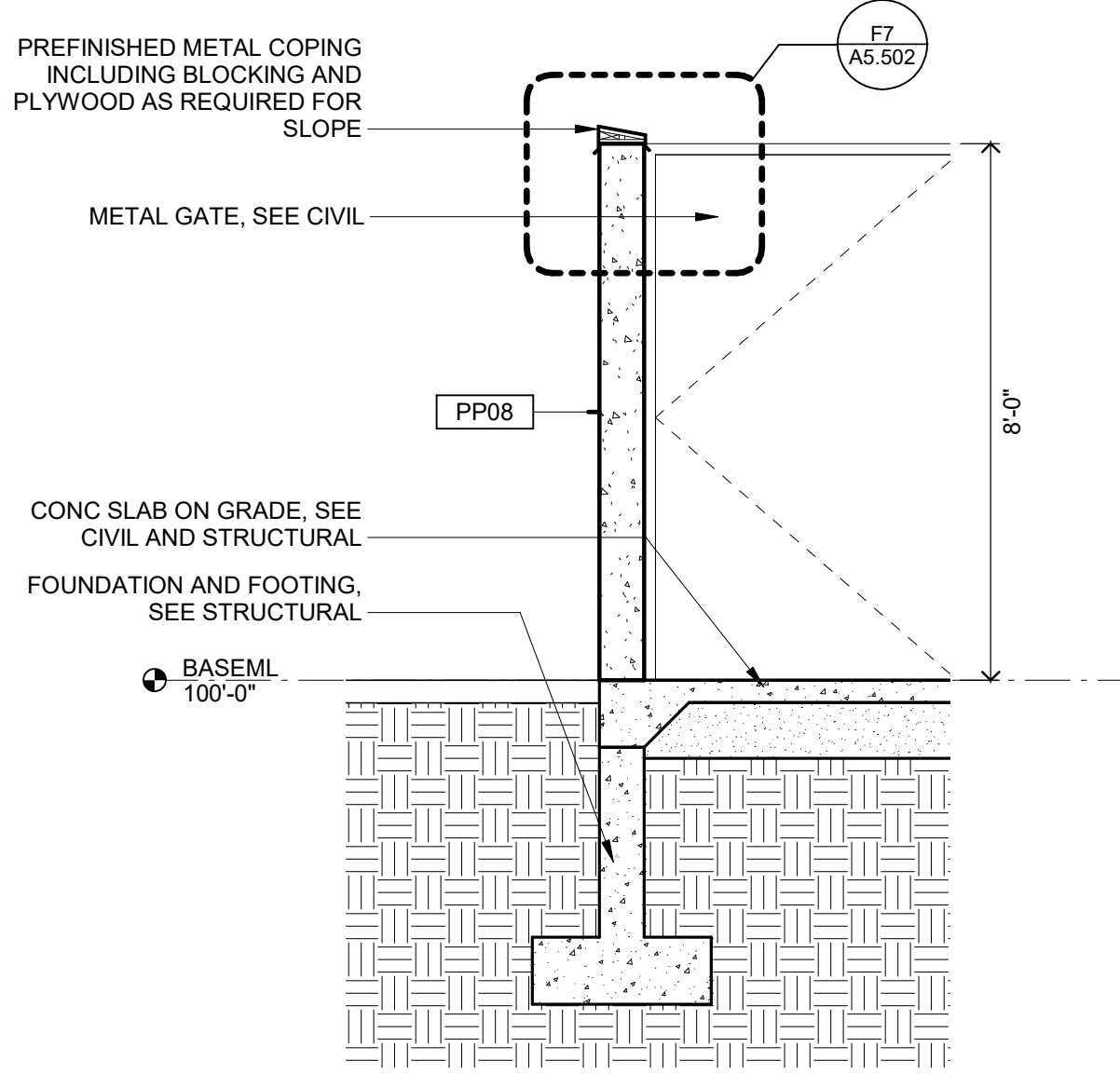
WATER TREATMENT
PLANT (NOT IN
CONTRACT). SEE
CIVIL FOR SITE
EXTENTS.



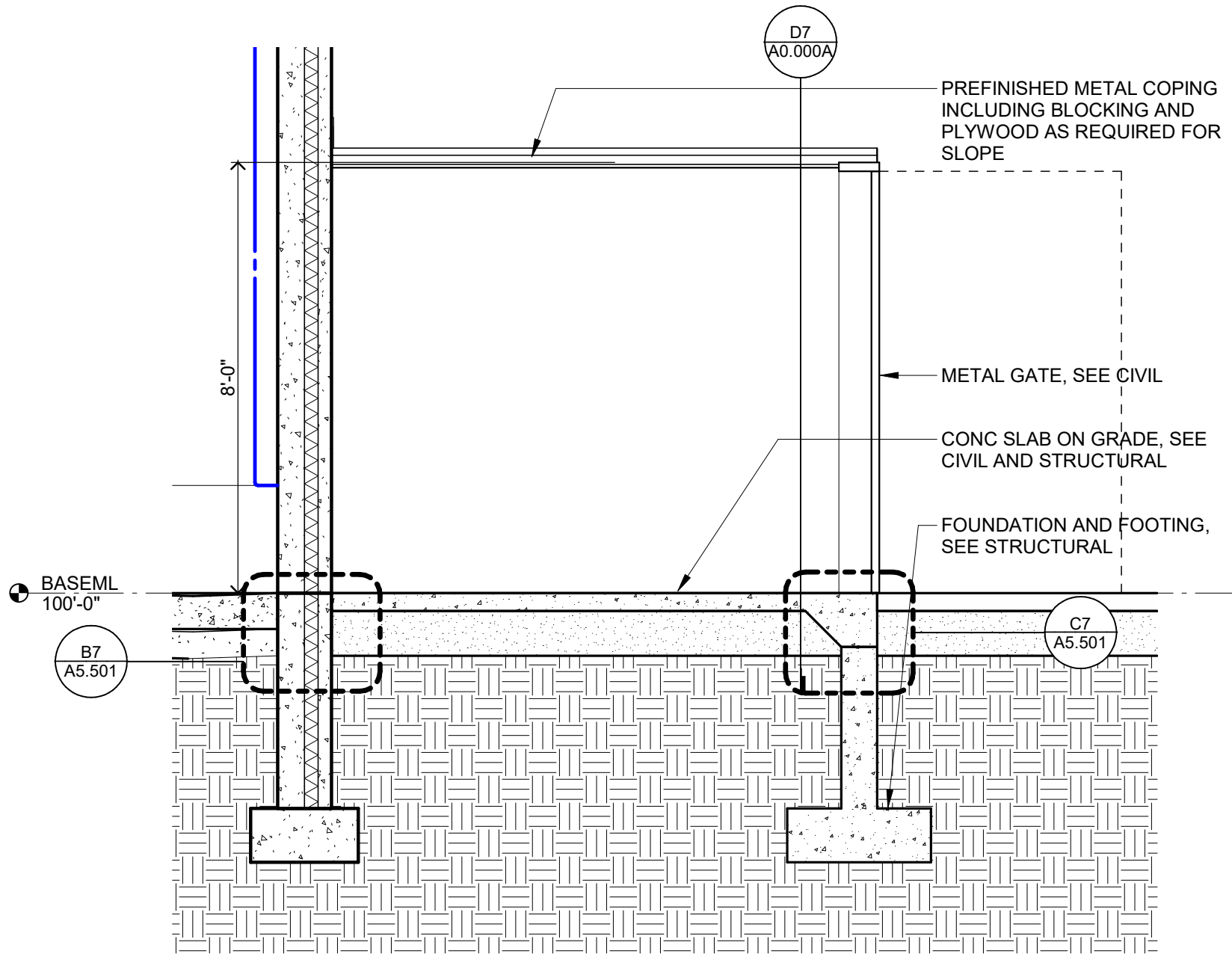
A7 TRASH ENCLOSURE ELEVATION
1/8" = 1'-0"
0 6' 12'



C7 TRASH ENCLOSURE ENLARGED PLAN
1/8" = 1'-0"
0 6' 12'



D7 TRASH ENCLOSURE SECTION
3/8" = 1'-0"
0 2 4'



F7 TRASH ENCLOSURE SECTION
3/8" = 1'-0"
0 2 4'

**NEW UTILITY &
ENGINEERING
BUILDING**
10875 IDEAL AVENUE S.
COTTAGE GROVE, MN 55016

**CITY OF COTTAGE
GROVE**
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016



**WOLD ARCHITECTS
AND ENGINEERS**
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101

woldae.com | 651 227 7773



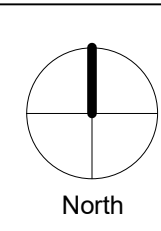
501 South Eighth Street
Minneapolis, MN 55404
krausanderson.com | 612 332 7281

I hereby certify that this plan, specification or report was prepared by
me or under my direct supervision and that I am a duly Licensed
ARCHITECT
under the laws of the State of **Minnesota**

John McNamara
License Number: **24281** Date: **09/12/2023**

Description	Revisions		Num
	Date		

Comm: **232010**
Date: **09/12/2023**
Drawn: **Author**
Check: **Checker**



SITE PLAN

Scale: As indicated

**FINAL CD SET DRAFT
NOT FOR CONSTRUCTION**

A0.000A

BUILDING # 1

CODE ANALYSIS (IBC 2018)
FULLY SPRINKLERED

1. OCCUPANCY CLASSIFICATIONS

SECTION 302

- A. SECTION 304, BUSINESS:
SECTION 311, STORAGE:
GROUP B
GROUPS S-2
2. INCIDENTAL USE AREAS
- FURNACE ROOM (400,000 BTU)
BOILER ROOM (15 PSI OR 10 HP)
STATIONARY LEAD-ACID BATTERY SYSTEMS FOR STANDBY,
EMERGENCY OR UNINTERRUPTED POWER SUPPLIES

TABLE 509

1 HR OR SPRINKLER AND CONST. RESISTING SMOKE
1 HR OR SPRINKLER AND CONST. RESISTING SMOKE
1 HR (GROUP B, S)

3. MIXED OCCUPANCIES

SECTION 508

- A. SEPARATIONS
TABLE 508.4
1. GROUP B TO S-2
1 HR
- B. NOTES:
1. NO SEPARATION IS REQUIRED BETWEEN ACCESSORY OCCUPANCIES OR THE MAIN OCCUPANCY PER 508.2.4.
2. PER 508.2, ACCESSORY OCCUPANCIES ARE DEFINED AS NOT OCCUPYING MORE THAN 10% OF MAIN OCCUPANCY. SMALL ASSEMBLY AREAS OF LESS THAN 750 S.F. (303.1.2) OR ASSEMBLY AREAS ACCESSORY TO GROUP E (303.1.3) COMMERCIAL KITCHENS AND DEDICATED RESTAURANT SEATING AREAS DO NOT REQUIRE A SEPARATION.

4. CONSTRUCTION TYPE / FIRE RESISTANCE

TABLE 601 / 602

- A. TYPE II-B
- BUILDING ELEMENT FIRE RESISTANCE
- STRUCTURAL FRAME 0 HR (OR PER TABLE 602)
EXT. BEARING WALLS 0 HR
INT. BEARING WALLS 0 HR
EXT. NON-BEARING WALLS 0 HR
INT. NON-BEARING WALLS 0 HR
FLOOR CONSTRUCTION 0 HR
ROOF CONSTRUCTION 0 HR
VERTICAL SHAFTS 1 HR - 4 STORIES; 2 HR - 4 STORIES +
CORRIDORS (TABLE 1020.709) 2 STORIES UNENCLOSED (EXCEPTION 1)
EXIT ACCESS STAIRWAY (1009.3) 1 HR - 4 STORIES; 2 HR - 4 STORIES +
INTERIOR EXIT STAIRWAY (1023)

5. GENERAL BUILDING HEIGHT AND AREA

SECTION 504 / 506

GROUP	CONST TYPE	ALLOWABLE HEIGHT TABLE 504.3	ALLOWABLE NUMBER OF STORIES TABLE 506.2	ALLOWABLE AREA TABLE 506.2	MOST RESTRICTIVE NON-SEPARATED OCCUPANCY 508.3
E	II B	55 FT	3 STORIES	14,500 S.F.	
A-3	II B	55 FT	3 STORIES	9,500 S.F.	X

6. ALLOWABLE AREA MODIFICATIONS

SECTION 506

- A. MIXED OCCUPANCY, ONE-STORY BUILDING 508.2.2
1. GROUP B
- a. EQUATION 5-1 (506.2.1):
 $A(a) = A(1) + [NS * (1/10)]$
 $A(a) = 92,000 + [92,000 * 0.32]$
 $A(a) = 121,440$ SF
- b. EQUATION 5-5 (506.3.3): AREA INCREASE DUE TO FRONTAGE
 $(1/1) = [P/P - 0.25] * W/30$
 $(1/1) = [0.57 - 0.25] * 30/30$
 $(1/1) = 0.32$
2. GROUP S-2
- a. EQUATION 5-1 (506.2.1):
 $A(a) = A(1) + [NS * (1/10)]$
 $A(a) = 154,000 + [154,000 * 0.32]$
 $A(a) = 137,280$ SF
- b. EQUATION 5-5 (506.3.3): AREA INCREASE DUE TO FRONTAGE
 $(1/1) = [P/P - 0.25] * W/30$
 $(1/1) = [0.57 - 0.25] * 30/30$
 $(1/1) = 0.32$
3. MIXED OCCUPANCY RATIO 508.4.2
- | GROUP B | GROUP S-2 |
|---|--|
| ACTUAL AREA / ALLOWABLE AREA
6760 / 121,440 (0.06) | ACTUAL AREA / ALLOWABLE AREA
29253 / 137,280 (0.21) |
| | <1
0.27 |
- B. ACTUAL AREA
- | GROUP | MAIN LEVEL | * MEZZANINE |
|---------|------------|-------------|
| B | 6760 | |
| S-2 | 29,253 | 4510 |
| TOTALS: | 36,013 | |

NOTES: * THE MEZZANINE IS LESS THAN 1/3 THE AREA OF THE ROOM IT SERVES AND IS NOT COUNTED SQUARE FOOTAGE OR A STORY OF THE ROOM IT SERVES PER 505.2.

7. MEANS OF EGRESS

CHAPTER 10

FUNCTION	S.F. / OCCUPANT	S.F. / SPACE	OCCUPANCY SPACE
STORAGE, MECH	300 GROSS	4611	15
ASSEMBLY			
LOOSE TABLES & CHAIRS	15 NET	557	37
BUSINESS	150 GROSS	4,940	32
LOCKER ROOMS	50 GROSS	1034	20
PARKING GARAGES	200 GROSS	24,871	124
TOTAL MAIN LEVEL		36,013	228

FUNCTION	S.F. / OCCUPANT	S.F. / SPACE	OCCUPANCY SPACE
STORAGE, MECH	300 GROSS	4510	15
TOTAL MEZZ. LEVEL			15

8. WALL AND CEILING FINISHES

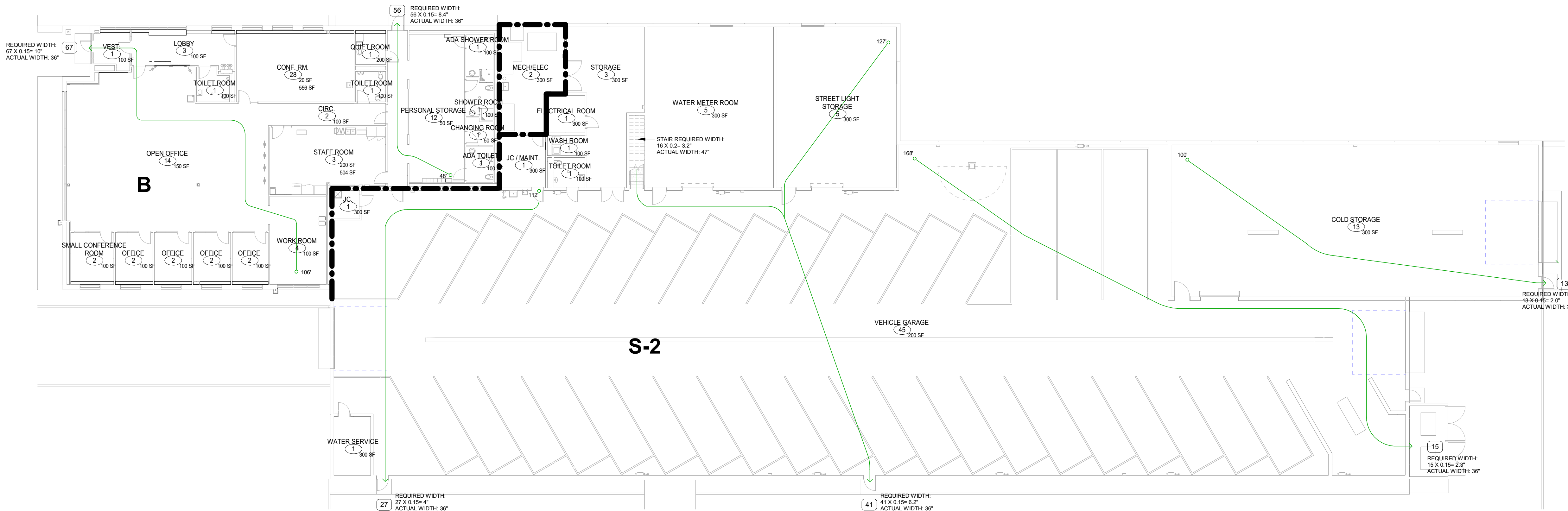
TABLE 803.13

GROUP	EXIT ENCLOSURES AND EXIT PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES
B	B / A	C / B	C / C
S	C / B	C / B	C / C

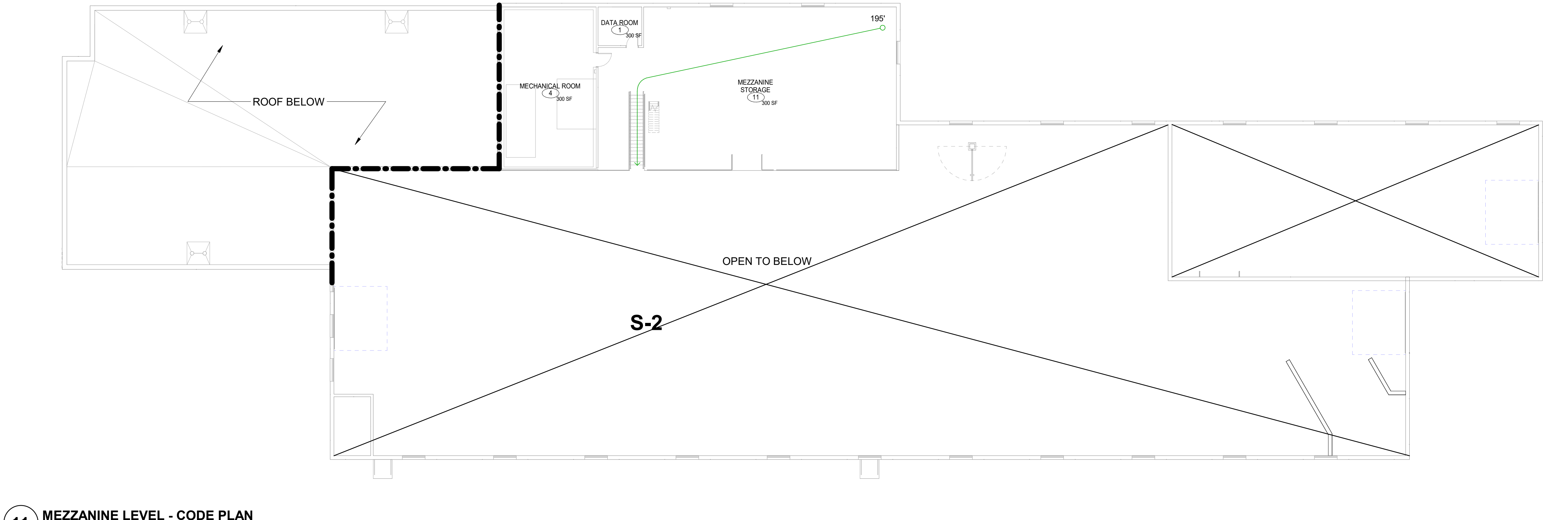
9. RECYCLING SPACE

MN CODE 1303.15

USE	FACTOR	S.F. / USE	S.F. REQUIRED
AUDITORIUMS, STADIUMS, GYMNASIUMS (EXCLUDES PLAYING AREAS, COURTS AND FIELDS)	0.001	6000	6
CONFERENCE ROOMS	0.0025	500	1
DINING ROOMS	0.003	2000	6
CLASSROOMS	0.002	3456	69
COURTROOMS	0.001	0	0
EXERCISE ROOMS	0.001	234	0
PARKING GARAGE	0.001	6890	7
KITCHEN, COMMERCIAL	0.003	1523	5
LIBRARIES (INC. ASSOC. INCIDENTAL AREAS)	0.002	345	1
LOCKER ROOMS	0.001	3456	3
MECHANICAL EQUIP ROOM	0.001	345	0
OFFICES	0.0025	1	0
SCHOOL, SHOPS AND VOCATIONAL ROOMS	0.0025	1	0
STORAGE AND STOCK ROOMS	0.0025	1	0
ALL OTHERS	0.0025	345	1
TOTAL RECYCLING SPACE REQUIRED			99 S.F.



10 MAIN LEVEL - CODE PLAN
1/16" = 1'-0"



11 MEZZANINE LEVEL - CODE PLAN
1/16" = 1'-0"

7. MEANS OF EGRESS

CHAPTER 10

- B. EGRESS WIDTH 1005.3.1, 1005.3.2
1. MAIN LEVEL OCCUPANCY: 228
- A. OTHER
- | FACTOR | REQUIRED WIDTH | DR WIDTH | # DOORS REQUIRED |
|--------|----------------|----------|------------------|
| 15 | 34" | / 32" * | 2 |
2. MEZZANINE LEVEL OCCUPANCY: 15
- A. STAIRS
- | FACTOR | REQUIRED WIDTH | # STAIRS | WIDTH PER STAIR ** |
|--------|----------------|----------|--------------------|
| 2 | 3" | 1 | 48" |
- B. OTHER
- | FACTOR | REQUIRED WIDTH | DR WIDTH | # DOORS REQUIRED |
|--------|----------------|----------|------------------|
| 15 | 2.25" | / 32" * | 1 |
- * MINIMUM DOOR WIDTH TO BE 36" TO ACHIEVE 32" CLEAR WIDTH PER 1010.1.1.
- ** MINIMUM STAIRWAY WIDTH TO BE 44" PER 1009.3.2 (INCLUDING LANDING WIDTH) UNLESS SERVING LESS THAN 50 OCCUPANTS PER 1011.2. FOR ACCESS TO UNOCCUPIED ROOFS AND INTERIOR MECHANICAL ROOMS - 1208.3

C. TRAVEL DISTANCES/ EXIT SYSTEMS

1. COMMON PATH OF EGRESS TRAVEL (TABLE 1006.2.1) = 1 FT.
(TO A POINT WHERE OCCUPANT HAS TWO MEANS OF EGRESS.)
2. EXIT ACCESS TRAVEL DISTANCE (TABLE 1017.2
(TRAVEL DISTANCE TO AN EXIT OR A RATED EXIT SYSTEM))
- | OCCUPANCY | W/ SPRINKLER |
|-----------|--------------|
| B | 300 |
| S-2 | 400 |
3. CORRIDORS 1020
- A. MINIMUM WIDTH (TABLE 1020.2) = 44" OR 36" FOR LESS THAN 50 OCCUPANTS
MINIMUM WIDTH 12" FOR GROUP E OVER 100 OCCUPANTS.
- B. DEAD ENDS (1020.4):
50' IN ALL GROUPS EXCEPT A AND H WITH SPRINKLERED CONSTRUCTION;
OR
LENGTH = 2.5 TIMES THE LEAST WIDTH OF THE DEAD-END CORRIDOR.

10. PLUMBING FIXTURE COUNT

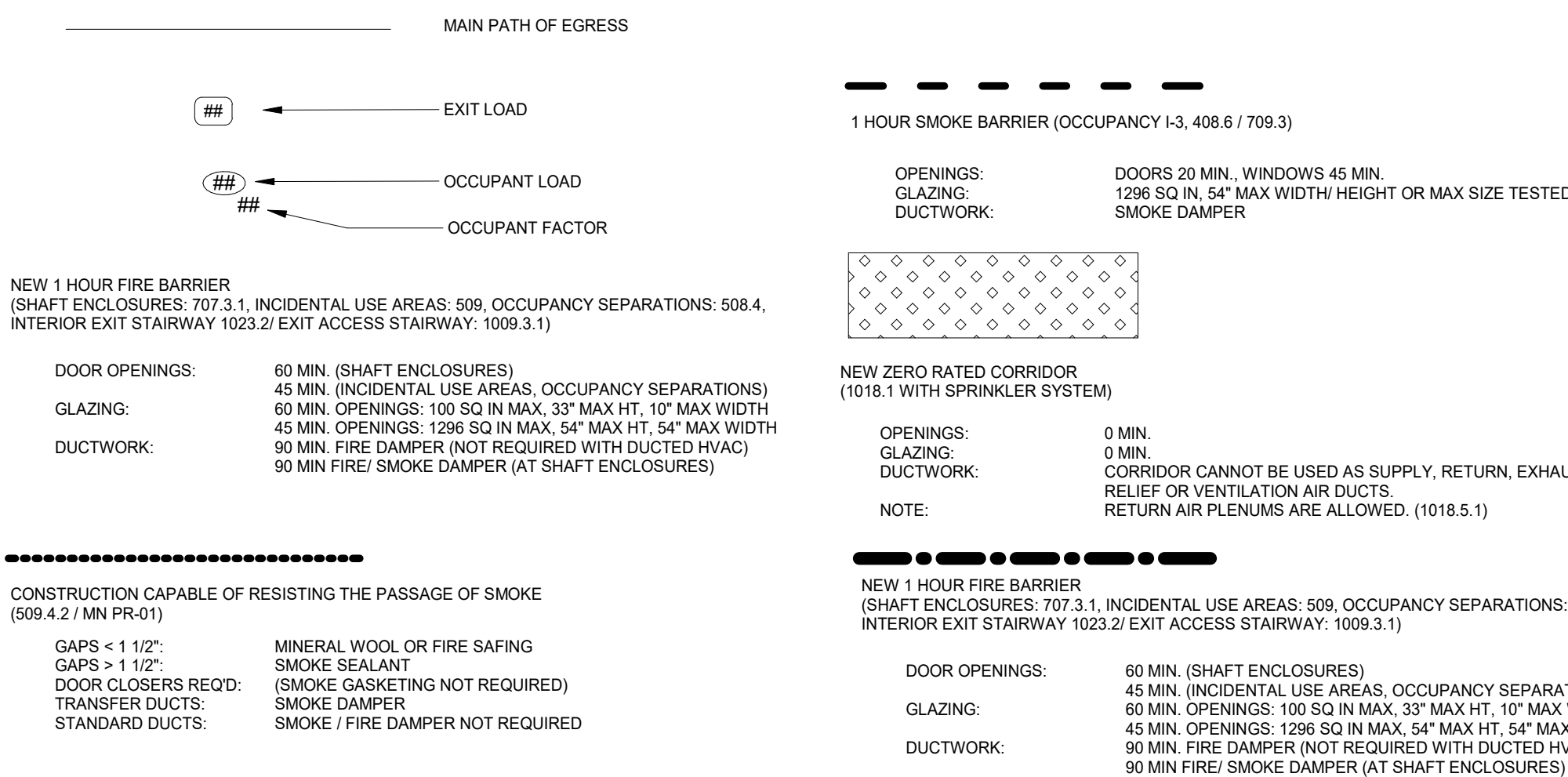
TABLE 2902.1

- A. "B" OCCUPANCY
- | 1. OCCUPANTS | MEN | WOMEN | TOTAL |
|--------------|-----|-------|-------|
| 44 | 44 | 45 | 40 |
2. FIXTURE RATIO
- | WC | URINAL | LAV | WC | LAV | DRINKING | SERVICE |
|--------------------------|------------------------|--------------------------|--------------------------|--------------------------|----------|---------|
| 1.25 1ST 50
THEN 1.50 | <20 OF WC
THEN 1.80 | 1.40 1ST 80
THEN 1.80 | 1.25 1ST 50
THEN 1.50 | 1.40 1ST 80
THEN 1.80 | 1:100 | 1 |
3. FIXTURES REQUIRED 2 NONE 2 2 2 1 1
4. ACTUAL FIXTURES 4 4 7 4 7 1 1
- * URINALS ARE BEING SUBSTITUTED FOR 0 MEN'S WATER CLOSETS.
- B. "S-2" OCCUPANCY
- | 1. OCCUPANTS | MEN | WOMEN | TOTAL |
|--------------|-----|-------|-------|
| 70 | 70 | 69 | 40 |
2. FIXTURE RATIO
- | WC | URINAL | LAV | WC | LAV | DRINKING | SERVICE |
|--------------------------|------------------------|--------------------------|--------------------------|--------------------------|----------|---------|
| 1.25 1ST 50
THEN 1.50 | <20 OF WC
THEN 1.80 | 1.40 1ST 80
THEN 1.80 | 1.25 1ST 50
THEN 1.50 | 1.40 1ST 80
THEN 1.80 | 1:100 | 1 |
3. FIXTURES REQUIRED 3 NONE 2 3 2 1 1
4. ACTUAL FIXTURES 1 1 1 1 1 1 1
- * URINALS ARE BEING SUBSTITUTED FOR 0 MEN'S WATER CLOSETS.

12. ENERGY CODE

THE ENERGY CODE USED FOR THIS PROJECT IS
2018 INTERNATIONAL ENERGY CONSERVATION CODE
THE BUILDING IS IN ZONE # 6

CODE LEGEND



NEW UTILITY &
ENGINEERING
BUILDING

10875 IDEAL AVENUE S.
COTTAGE GROVE, MN 55016

CITY OF COTTAGE
GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016



WOLD ARCHITECTS
AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101

woldac.com | 651.227.7773



EFFECTIVE 2018 South Eighth Street
Minneapolis, MN 55404
2020 MINNESOTA STATE MECHANICAL AND
FUEL GAS CODE, CHAPTER 1346
2020 NATIONAL ELECTRICAL CODE (NEC)
2015 MINNESOTA STATE PLUMBING CODE,
CHAPTER 4714
2020 MINNESOTA STATE FIRE CODE, WHICH
ADOPTS AND AMENDS THE 2018
INTERNATIONAL FIRE CODE
2020 MINNESOTA COMMERCIAL ENERGY CODE,
CHAPTERS 1322 & 1323
2020 MINNESOTA ACCESSIBILITY CODE,
CHAPTER 1341
2020 MINNESOTA ELEVATOR AND RELATED
DEVICES CODE, CHAPTER 1307

I hereby certify that this plan, specification or report was prepared by
me or under my direct supervision and that I am a duly Licensed
ARCHITECT
under the laws of the State of Minnesota

John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	Date	Num

Comm: 232010
Date: 09/12/2023
Drawn: Author
Check: Checker

CODE PLAN

Scale: 1/16" = 1'-0"

FINAL CD SET DRAFT
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A0.001

MN

DOOR / OPENING SCHEDULE - MAIN LEVEL - AREA A												
DOOR NO	DOOR / OPENING			LABEL / RATING	OVERALL WIDTH	FRAME			MOUNTING CONDITIONS			HWD / GRP
	TYPE	QTY	WIDTH	HEIGHT		DEPTH	MATL	GL	HEAD	JAMB	SILL	
A100	AL	1	3'-0"	7'-8"	AL	--	3'-0"	CW1	--	AL	--	
A101	AL	1	3'-0"	7'-8"	AL	--	3'-0"	SF 1	--	AL	--	
A103	G	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A104	FG	1	3'-0"	7'-0"	WD	--	3'-0"	FR 2	--	HM	--	
A105	FG	1	3'-0"	7'-0"	WD	--	3'-0"	FR 2	--	HM	--	
A106	FG	1	3'-0"	7'-0"	WD	--	3'-0"	FR 2	--	HM	--	
A107	FG	1	3'-0"	7'-0"	WD	--	3'-0"	FR 2	--	HM	--	
A108	FG	1	3'-0"	7'-0"	WD	--	3'-0"	FR 2	--	HM	--	
A110	N	1	3'-0"	7'-0"	WD	--	5'-4"	FR 2A	--	HM	--	
A113	F	2	4'-6"	7'-10"	WD	--	9'-4"	FR 1	--	HM	--	
A114	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A114A	G	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A115	F	1	3'-0"	7'-0"	WD	--	5'-4"	FR 2A	--	HM	--	
A115B	G	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A115C	F	1	3'-0"	7'-0"	WD	--	5'-4"	FR 2A	--	HM	--	
A117	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A118	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A119	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A121	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A123	G	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A124	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A125	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A126A	F	2	4'-0"	7'-0"	HM	--	8'-4"	FR 1	--	HM	--	
A126B	F	2	3'-0"	7'-0"	WD	--	6'-4"	FR 1	--	HM	--	
A127	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A128	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A130	F	1	3'-8"	7'-0"	HM	--	4'-0"	FR 1	--	HM	--	
A130A	MCDF	1	8'-0"	8'-5"	HM	--	8'-4"	CDF	--	HM	--	
A131	F	1	3'-4"	7'-0"	HM	--	4'-0"	FR 1	--	HM	--	
A131A	MCDF	1	8'-0"	8'-4"	HM	--	8'-4"	CDF	--	HM	--	
A132	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A133	OHG-1	1	16'-0"	14'-0"		--	16'-0"	OH-2	--		--	
A134A	N	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1A	--	HM	--	
A134B	G	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A134C	--	--	12'-0"	8'-0"	--	--	12'-0"	GS 1	--	AL	--	
A178	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	
A175	F	1	3'-8"	7'-0"	WD	--	3'-10"	FR 1	--	HM	--	
A176	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--	

DOOR SCHEDULE GENERAL NOTES

- ALL DOORS ARE 1 3/4" THICK UNLESS OTHERWISE NOTED.
- FOR FRAME DEPTH, ONLY EXCEPTIONS TO THE FOLLOWING TABLE ARE SCHEDULED:
GYPSUM BOARD PARTITIONS: THROAT OF FRAME TO MATCH WALL THICKNESS.
MASONRY PARTITIONS:
4" WALL: 3 3/4" FRAME
6" WALL: 5 3/4" FRAME
8" AND GREATER WALL: 7 3/4" FRAME
FRAME DEPTHS ARE SCHEDULED IN NOMINAL DIMENSIONS. SEE FRAME / DOOR TYPES (DETAIL SECTION 51000) FOR CORRESPONDING ACTUAL DIMENSIONS.
- FOR GLASS TYPES, ONLY EXCEPTIONS TO THE FOLLOWING TABLE ARE SCHEDULED:
INTERIOR NON RATED:
CLEAR (SAFETY WHEN REQUIRED BY TABLE IN GLAZING SPECIFICATION)
INTERIOR AND EXTERIOR RATED:
FIRE RATED
EXTERIOR NON-RATED:
CLEAR INSULATED (SAFETY INSULATED WHEN REQUIRED BY TABLE IN GLAZING SPECIFICATION)
- SEE SHEET A2.901 FOR FRAME TYPES.
- SEE SHEET A2.901 FOR DOOR TYPES.
- AT DOOR SCHEDULE, LABEL DESIGNATION "4520" INDICATES:
FOR ALL OPENINGS WITH SIDE LITES AND SCHEDULED TO BE RATED FOR 20 MINUTES, THE DOOR AND ANY GLASS WITHIN THE DOOR IS TO BE RATED FOR 20 MINUTES. THE FRAME AND ADJACENT SIDELITE(S) GLASS AND FRAME IS TO BE RATED FOR 45 MINUTES.

DOOR SCHEDULE REMARKS

-
-
- PROVIDE FIRE NUMBER AT EXTERIOR DOORS
DOOR NUMBER IN "1".

ROOM FINISH SCHEDULE - AREA A - MAIN LEVEL												
ROOM NO	ROOM NAME	FLOOR	BASE	N WALL - TYP		E WALL		S WALL		W WALL		REMARKS
				MATL	FIN	MATL	FIN	MATL	FIN	MATL	FIN	
A100	VEST.	CPT-1	VB-1	SF	...	SF	...	GWB	PT-6A	SF	...	
A101	LOBBY	CPT-1	VB-1	SF	...	GWB	PT-6A	GWB	PT-6A	SF	...	
A102	TOILET ROOM	P TILE-1	P TILE-1	GWB	CT-5	GWB	CT-5	GWB	CT-5	GWB	CT-5	
A103	OPEN OFFICE	CPT-1	VB-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A104	SMALL CONFERENCE ROOM	CPT-1	VB-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A105	OFFICE	CPT-1	VB-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A106	OFFICE	CPT-1	VB-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A107	OFFICE	CPT-1	VB-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A108	OFFICE	CPT-1	VB-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A109	WORK ROOM	CPT-1	VB-1	GWB	PT-6A	CONC	PT-6A	GWB	PT-6A	GWB	PT-6A	
A110	STAFF ROOM	P CONC	VB-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A111	CONF. RM.	CPT-1	VB-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A112	CIRC.	P TILE-2	P TILE-2	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	...	...	
A113	TOILET ROOM	P TILE-1	P TILE-1	GWB	CT-5	GWB	CT-5	GWB	CT-5	GWB	CT-5	
A114	QUIET ROOM	CPT-1	VB-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A115	CIRC.	P TILE-2	P TILE-2	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A116	PERSONAL STORAGE	P TILE-2	P TILE-2	CONC	PT-6A	GWB	CONC	GWB	PT-6A	GWB	PT-6A	
A117	ADA SHOWER ROOM	P TILE-1	P TILE-1	CONC	PT-6A	CONC	PT-6A	GWB	CT-5	GWB	PT-6A	
A118	SHOWER ROOM	P TILE-1	P TILE-1	GWB	PT-6A	GWB	PT-6A	GWB	CT-5	GWB	PT-6A	
A119	CHANGING ROOM	P TILE-1	P TILE-1	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	GWB	PT-6A	
A121	ADA TOILET	P TILE-1	P TILE-1	GWB	CT-5	CONC	PT-6A	CONC	GWB	CT-5	GWB	
A123	JC.	P TILE-1	P TILE-1	CONC	PT-6A	GWB	PT-6A	GWB	PT-6A	CONC	PT-6A	
A124	JC / MAINT.	S CONC	...	CONC	PT-6A	CONC	PT-6A	CMU	PT-6A	CONC	PT-6A	
A125	MECH/ELEC	S CONC	...	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A	
A128	STORAGE	S CONC	...	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A	
A127	ELECTRICAL ROOM	S CONC	...	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A	
A128	TOILET ROOM	P TILE-1	P TILE-1	CONC	CT-5	CONC	PT-6A	GWB	CT-5	GWB	CT-5	
A130	WATER METER ROOM	S CONC	...	CONC	PT-6A	CMU	PT-6A	CMU	PT-6A	CONC	PT-6A	
A131	STREET LIGHT STORAGE	S CONC	...	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A	
A132	WATER SERVICE	S CONC	...	CMU	PT-6A	CMU	PT-6A	CONC	PT-6A	CONC	PT-6A	
A134	VEHICLE GARAGE	S CONC	...	CONC	CONC/CMU	...	...	CONC	CONC	CONC	...	
A138	WASH ROOM	S CONC	...	CONC	...	CMU	...	CMU	...	CONC	...	
A175	MECHANICAL ROOM	TT	TT	CONC	PT-6A	CONC/CMU	PT-6A	CMU	PT-6A	CONC	PT-6A	
A176	DATA ROOM	S CONC	...	CONC	PT-6A	CMU	PT-6A	...	...	CONC	PT-6A	
A177	MEZZANINE STORAGE	S CONC	...	CONC	PT-6A	CMU	PT-6A	...	...	CONC	PT-6A	

ROOM FINISH SCHEDULE REMARKS

- SEE INTERIOR ELEVATIONS FOR LOCATIONS OF GLAZED BLOCK, PAINTED BLOCK, BRICK, SOUND BLOCK, VWC AND PAINT.
- PROVIDE CERAMIC TILE TO A HEIGHT OF 4'-6" WITH EPOXY PAINT ABOVE. SEE DETAIL ____ FOR TILE PATTERN INFORMATION.
- PROVIDE GYPSUM BOARD SOFFIT ABOVE CASEWORK. (SEE CASEWORK ELEVATIONS AND REFLECTED CEILING PLANS.)
- SEE AS.1 STAIR DETAILS, ELEVATIONS, AND SECTIONS FOR FINISH MATERIALS.
- SEE DETAIL ____ FOR TILE FLOOR PATTERN INFORMATION.
- PAINT CEILING AND ALL EXPOSED STRUCTURE, PIPING, CONDUIT, MECHANICAL DUCTS AND VENTS.
- PROVIDE VINYL BASE AT CASEWORK.
- PROVIDE TACK WALL FINISH ON ENTIRE INDICATED WALL - SEE PLANS FOR LOCATIONS. PROVIDE FORM FINISHED FLOOR TO 4" ABOVE THE CEILING, WALL TO WALL.
- PROVIDE EPOXY PAINT AT ALL WALLS THROUGHOUT THIS ROOM.
-
- SLOPE CONC. FLOOR TOWARDS EXTERIOR DOOR. SEE PLANS FOR FLOOR SLOPING INFORMATION.
-

FLOOR PLAN KEY NOTES:

- DOOR ACTUATORS
- BOLLARD - SEE DETAIL B7/A5.702
- TUB SINK - SEE MECHANICAL
- NEW CONCRETE STOOP. SEE DETAIL C5/A5.502
- EMERGENCY EYE WASH. SEE MECH.
- CABINET UNIT HEATER. SEE DETAIL ____ SEE MECH. FOR SPECIFICATIONS, COORDINATE LOCATION WITH MECH.
- NEW CONCRETE APRON. SEE STRUCTURAL
- LOCATION OF SEMI-RECESSED DEFIBRILLATOR CABINET.
- LOCATION OF WASHER AND DRYER (NIC)
- SQUARE BRICK ACCENT - SEE ELEVATIONS/ SECTIONS FOR ADDITIONAL INFORMATION
- BASE MOUNTED CRANE SYSTEM
- ELEC FLOOR BOX. SEE ELEC
- CONCRETE PAD. COORDINATE SIZE AND LOCATION WITH MECHANICAL. SEE DETAILS: D4/A4.706 C6/A4.706 B8/A4.706
- HOLD OPEN. SEE DETAILS: E1/A4.801 F1/A4.801
- ALTERNATE NO. 1: PROVIDE ACCESS PANEL (AP-1) FOR MANIFOLD/SNOW MELT SYSTEM. SEE MECH. COORDINATE EXACT LOCATION WITH MECH. CONTRACTOR.
- PROVIDE SHUT OFF VALVE ON HOSE CONNECTION. SEE MECH.
- TRENCH DRAIN. SEE DETAIL D6/A4.706
- PROVIDE FIRE TREATED PLYWOOD BACKING AS REQUIRED FOR OWNER PROVIDED TECHNOLOGY. COORDINATE WITH OWNER/ARCHITECT ON EXACT LOCATION.
- FRP FROM FLOOR TO 8'-0" AFF.
- STAINLESS STEEL CORNER GUARD UP TO 7'-2".
- STAINLESS STEEL CORNER GUARD UP TO BOTTOM OF BENCH.
- FLAG POLE. SEE SPEC FOR HEIGHT. SEE ELECTRICAL FOR LIGHTING.
- LOCATION OF FIRE EXTINGUISHER CABINET (SEMI-RECESSED IN RM. A110).

NEW UTILITY & ENGINEERING BUILDING

10875 IDEAL AVENUE S.
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016



WOLD ARCHITECTS AND ENGINEERS

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woldae.com | 651.227.7773



501 South Eighth Street
Minneapolis, MN 55404
krausanderson.com | 612.332.7281

PLAN GENERAL NOTES

- ALL PLAN DIMENSIONS ARE NOMINAL TO FACE OF WALL. WALL THICKNESSES ARE SHOWN NOMINAL. SEE WALL TYPES FOR ACTUAL THICKNESS.
- ALL GYP. WALLS ARE TO BE 5 INCHES THICK UNLESS OTHERWISE NOTED.
- ALL CONCRETE BLOCK WALLS ARE TO BE 8 INCHES THICK UNLESS OTHERWISE NOTED.
- COORDINATE SIZE AND LOCATION OF ALL DUCT AND SHAFT OPENINGS IN WALLS AND FLOORS W/ MECH. AND ELEC. PROVIDE ALL REQUIRED UNITS FOR OPENINGS. SEE LITEL SCHEDULE.
- FIELD VERIFY ALL MILLWORK OPENINGS.
- SET FLOOR DRAINS 3/4" BELOW FINISHED CONCRETE FLOORS UNLESS OTHERWISE NOTED. PROVIDE CONSISTENT SLOPE FROM WALL TO DRAIN BY SLOPING CONCRETE, MIN. 1/4" PER FOOT.
- VERIFY LOCATION, SIZE AND QUANTITY OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS.
- ALL DOOR/SIDELITE OPENINGS TO BEGIN 4" FROM ADJACENT WALL UNLESS OTHERWISE NOTED.
- ALL GYP. WALLS ARE CENTERED ON GRID UNLESS OTHERWISE NOTED.
- FIRE RATED WALLS ARE INDICATED ON CODE PLANS.

KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed ARCHITECT under the laws of the State of Minnesota

John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	Date	Num

Comm: 232010
Date: 09/12/2023
Drawn: KH
Check: JW
North

MAIN LEVEL FLOOR PLAN - AREA A

Scale: As indicated

A2.01a

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

F1 MAIN LEVEL FLOOR PLAN - AREA A
1/8" = 1'-0"

0 6' 12'

MN

DOOR / OPENING SCHEDULE - MAIN LEVEL - AREA A														
DOOR NO	TYPE	DOOR / OPENING			LABEL / RATING	OVERALL			FRAME	MATL	GL	MOUNTING CONDITIONS		
		QTY	WIDTH	HEIGHT		WIDTH	TYPE	DEPTH				HEAD	JAMB	SILL
B133	F	1	4'-0"	7'-0"	HM	--	4'-4"	FR 1	--	HM	--	1xx/A4xxx	1xx/A4xxx	--
B133A	-	1	3'-0"	9'-0"	ST	--	3'-4"	OH-1	--	--	--	--	--	--
B133C	N	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1A	--	HM	--	--	--	--
B133D	OHG-2	1	16'-0"	14'-0"	--	--	16'-0"	OH-2	--	--	--	--	--	--
B134B	N	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1A	--	HM	--	--	--	--
B134C	N	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1A	--	HM	--	--	--	--
B134D	OHG-2	1	16'-0"	14'-0"	--	--	16'-0"	OH-2	--	--	--	--	--	--

ROOM FINISH SCHEDULE - AREA B - MAIN LEVEL											
ROOM NO	ROOM NAME	FLOOR	BASE	N WALL - TYP		E WALL		S WALL		W WALL	
				MATL	FIN	MATL	FIN	MATL	FIN	MATL	FIN
B133	COLD STORAGE	S. CONC	...	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A
B134	VEHICLE GARAGE	S. CONC	...	CONC/CMU	PT-6A	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A
B135	WASH BAY	USF	USF	...	...	CONC	PT-6A	CONC	PT-6A	CONC	PT-6A

ROOM FINISH SCHEDULE REMARKS

- SEE INTERIOR ELEVATIONS FOR LOCATIONS OF GLAZED BLOCK, PAINTED BLOCK, BRICK, SOUND BLOCK, VWC AND PAINT.
- PROVIDE CERAMIC TILE TO A HEIGHT OF 4'-6" WITH EPOXY PAINT ABOVE. SEE DETAIL ____ FOR TILE PATTERN INFORMATION.
- PROVIDE GYPSUM BOARD SOFFIT ABOVE CASEWORK. (SEE CASEWORK ELEVATIONS AND REFLECTED CEILING PLANS).
- SEE A5.1 STAIR DETAILS, ELEVATIONS, AND SECTIONS FOR FINISH MATERIALS.
- SEE DETAIL ____ FOR TILE FLOOR PATTERN INFORMATION.
- PAINT CEILING AND ALL EXPOSED STRUCTURE, PIPING, CONDUIT, MECHANICAL DUCTS AND VENTS.
- PROVIDE VINYL BASE AT CASEWORK.
- PROVIDE TACK WALL FINISH ON ENTIRE INDICATED WALL - SEE PLANS FOR LOCATIONS. PROVIDE FORM FINISHED FLOOR TO 4" ABOVE THE CEILING, WALL TO WALL.
- PROVIDE EPOXY PAINT AT ALL WALLS THROUGHOUT THIS ROOM.
-
- SLOPE CONC. FLOOR TOWARDS EXTERIOR DOOR. SEE PLANS FOR FLOORSLOPING INFORMATION.
-
-

FLOOR PLAN KEY NOTES:

- DOOR ACTUATORS
- BOLLARD - SEE DETAIL B7/A5.702
- TUB SINK - SEE MECHANICAL
- NEW CONCRETE STOOP, SEE DETAIL C5/A5.502
- EMERGENCY EYE WASH. SEE MECH.
- CABINET UNIT HEATER, SEE DETAIL ____ SEE MECH. FOR SPECIFICATIONS, COORDINATE LOCATION WITH MECH.
- NEW CONCRETE APRON, SEE STRUCTURAL
- LOCATION OF SEMI-RECESSED DEFIBRILLATOR CABINET.
- LOCATION OF WASHER AND DRYER (NIC)
- SQUARE BRICK ACCENT - SEE ELEVATIONS/ SECTIONS FOR ADDITIONAL INFORMATION
- BASE MOUNTED CRANE SYSTEM
- ELEC FLOOR BOX, SEE ELEC
- CONCRETE PAD, COORDINATE SIZE AND LOCATION WITH MECHANICAL. SEE DETAILS: D4/A4.706 C6/A4.706 B6/A4.706
- HOLD OPEN, SEE DETAILS: E1/A4.801 F1/A4.801
- ALTERNATE NO. 1: PROVIDE ACCESS PANEL (AP-1) FOR MANIFOLD/SNOW MELT SYSTEM, SEE MECH. COORDINATE EXACT LOCATION WITH MECH. CONTRACTOR.
- PROVIDE SHUT OFF VALVE ON HOSE CONNECTION. SEE MECH.
- TRENCH DRAIN, SEE DETAIL D6/A4.706
- PROVIDE FIRE TREATED PLYWOOD BACKING AS REQUIRED FOR OWNER PROVIDED TECHNOLOGY. COORDINATE WITH OWNER/ARCHITECT ON EXACT LOCATION.
- FRP FROM FLOOR TO 8'-0" AFF.
- STAINLESS STEEL CORNER GUARD UP TO 7'-2".
- STAINLESS STEEL CORNER GUARD UP TO BOTTOM OF BENCH.
- FLAG POLE, SEE SPEC FOR HEIGHT. SEE ELECTRICAL FOR LIGHTING
- LOCATION OF FIRE EXTINGUISHER CABINET (SEMI-RECESSED IN RM. A110).

NEW UTILITY & ENGINEERING BUILDING

10875 IDEAL AVENUE S.
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE

12800 RAVINE PKWY
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WOLD ARCHITECTS
AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101

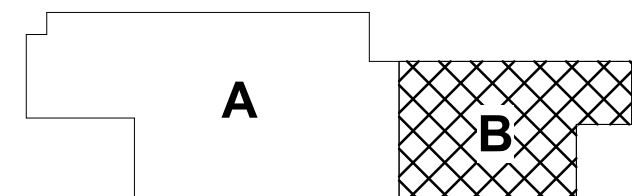
woldae.com | 651 227 7773



501 South Eighth Street
Minneapolis, MN 55404
krausanderson.com | 612 332 7281

PLAN GENERAL NOTES

- ALL PLAN DIMENSIONS ARE NOMINAL TO FACE OF WALL. WALL THICKNESSES ARE SHOWN NOMINAL, SEE WALL TYPES FOR ACTUAL THICKNESS.
- ALL GYP. WALLS ARE TO BE 5 INCHES THICK UNLESS OTHERWISE NOTED.
- ALL CONCRETE BLOCK WALLS ARE TO BE 8 INCHES THICK UNLESS OTHERWISE NOTED.
- COORDINATE SIZE AND LOCATION OF ALL DUCT AND SHAFT OPENINGS IN WALLS AND FLOORS W/ MECH. AND ELEC. PROVIDE ALL REQUIRED UNITS FOR OPENINGS. SEE INT'L. SCHEDULE.
- FIELD VERIFY ALL MILLWORK OPENINGS.
- SET FLOOR DRAINS 3/4" BELOW FINISHED CONCRETE FLOORS UNLESS OTHERWISE NOTED. PROVIDE CONSISTENT SLOPE FROM WALL TO DRAIN BY SLOPING CONCRETE, MIN. 1/4" PER FOOT.
- VERIFY LOCATION, SIZE AND QUANTITY OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS.
- ALL DOOR/SIDELITE OPENINGS TO BEGIN 4" FROM ADJACENT WALL UNLESS OTHERWISE NOTED.
- ALL GYP. WALLS ARE CENTERED ON GRID UNLESS OTHERWISE NOTED.
- FIRE RATED WALLS ARE INDICATED ON CODE PLANS.



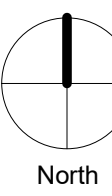
KEY PLAN

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed ARCHITECT under the laws of the State of Minnesota

John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	
	Date	Num

Comm: 232010
Date: 09/12/2023
Drawn: KH
Check: JW



MAIN LEVEL FLOOR PLAN - AREA B

Scale: As indicated

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

A2.01b

MN

DOOR / OPENING SCHEDULE - MEZZ LEVEL - AREA A														
DOOR NO	DOOR / OPENING			LABEL / RATING	OVERALL			FRAME	MOUNTING CONDITIONS			HOW GRP	REMARKS	
	TYPE	QTY	WIDTH		WIDTH	HEIGHT	MATL		DEPTH	MATL	GL	HEAD	JAMB	SILL
A205	N	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1B	--	HM	--			
A217	F	1	3'-0"	7'-0"	WD	--	3'-4"	FR 1	--	HM	--			

DOOR SCHEDULE GENERAL NOTES

- ALL DOORS ARE 1 3/4" THICK UNLESS OTHERWISE NOTED.
- FOR FRAME DEPTH, ONLY EXCEPTIONS TO THE FOLLOWING TABLE ARE SCHEDULED:
GYPSUM BOARD PARTITIONS: THROAT OF FRAME TO MATCH WALL THICKNESS.
MASONRY PARTITIONS:
4" WALL: 3 3/4" FRAME
6" WALL: 5 3/4" FRAME
6" AND GREATER WALL: 7 3/4" FRAME
FRAME DEPTHS ARE SCHEDULED IN NOMINAL DIMENSIONS. SEE FRAME/ DOOR TYPES (DETAIL SECTION 51000) FOR CORRESPONDING ACTUAL DIMENSIONS.
- FOR GLASS TYPES, ONLY EXCEPTIONS TO THE FOLLOWING TABLE ARE SCHEDULED:
INTERIOR NON RATED:
CLEAR (SAFETY WHEN REQUIRED BY TABLE IN GLAZING SPECIFICATION)
INTERIOR AND EXTERIOR RATED:
FIRE RATED
EXTERIOR NON-RATED:
CLEAR INSULATED (SAFETY INSULATED WHEN REQUIRED BY TABLE IN GLAZING SPECIFICATION.)
SEE SHEET A2.901 FOR FRAME TYPES.
SEE SHEET A2.901 FOR DOOR TYPES.
AT DOOR SCHEDULE, LABEL DESIGNATION "4520" INDICATES:
FOR ALL OPENINGS WITH SIDE LITES AND SCHEDULED TO BE RATED FOR 20 MINUTES, THE DOOR AND ANY GLASS WITHIN THE DOOR IS TO BE RATED FOR 20 MINUTES. THE FRAME AND ADJACENT SIDELITE(S) GLASS AND FRAME IS TO BE RATED FOR 45 MINUTES.

DOOR SCHEDULE REMARKS

-
-
- PROVIDE FIRE NUMBER AT EXTERIOR DOORS
DOOR NUMBER IN " - "

ROOM FINISH SCHEDULE												
ROOM NO	ROOM NAME	FLOOR	BASE	N WALL - TYP		E WALL		S WALL		W WALL		REMARKS
				MATL	FIN	MATL	FIN	MATL	FIN	MATL	FIN	
A175	MECHANICAL ROOM	TT	TT	CONC	PT-6A	CONC/CMU	PT-6A	CMU	PT-6A	CMU	PT-6A	
A176	DATA ROOM	S. CONC	---	CONC	PT-6A	CMU	PT-6A	CMU	CT-5	CONC	PT-6A	
A177	MEZZANINE STORAGE	S. CONC	---	CONC	PT-6A	CMU	PT-6A	CMU	---	CONC	PT-6A	
A200	DATA ROOM	S. CONC	---	CONC	PT-6A	CMU	PT-6A	CMU	CT-5	CONC	PT-6A	
A201	MEZZANINE STORAGE LEVEL	S. CONC	---	CONC	PT-6A	CMU	PT-6A	---	---	CONC	PT-6A	

ROOM FINISH SCHEDULE REMARKS

- SEE INTERIOR ELEVATIONS FOR LOCATIONS OF GLAZED BLOCK, PAINTED BLOCK, BRICK, SOUND BLOCK, VWC AND PAINT.
- PROVIDE CERAMIC TILE TO A HEIGHT OF 4'-6" WITH EPOXY PAINT ABOVE. SEE DETAIL ____ FOR TILE PATTERN INFORMATION.
- PROVIDE GYPSUM BOARD SOFFIT ABOVE CASEWORK. (SEE CASEWORK ELEVATIONS AND REFLECTED CEILING PLANS.)
- SEE AS.1 STAIR DETAILS, ELEVATIONS, AND SECTIONS FOR FINISH MATERIALS.
- SEE DETAIL ____ FOR TILE FLOOR PATTERN INFORMATION.
- PAINT CEILING AND ALL EXPOSED STRUCTURE, PIPING, CONDUIT, MECHANICAL DUCTS AND VENTS.
- PROVIDE VINYL BASE AT CASEWORK.
- PROVIDE TACK WALL FINISH ON ENTIRE INDICATED WALL - SEE PLANS FOR LOCATIONS. PROVIDE FORM FINISHED FLOOR TO 4" ABOVE THE CEILING, WALL TO WALL.
- PROVIDE EPOXY PAINT AT ALL WALLS THROUGHOUT THIS ROOM.
-
- SLOPE CONC. FLOOR TOWARDS EXTERIOR DOOR. SEE PLANS FOR FLOORSLOPING INFORMATION.
-
-

FLOOR PLAN KEY NOTES:

- DOOR ACTUATORS
- BOLLARD - SEE DETAIL B7/A5.702
- TUB SINK - SEE MECHANICAL
- NEW CONCRETE STOOP, SEE DETAIL C5/A5.502
- EMERGENCY EYE WASH. SEE MECH.
- CABINET UNIT HEATER. SEE DETAIL ____ SEE MECH. FOR SPECIFICATIONS, COORDINATE LOCATION WITH MECH.
- NEW CONCRETE APRON, SEE STRUCTURAL
- LOCATION OF SEMI-RECESSED DEFIBRILLATOR CABINET.
- LOCATION OF WASHER AND DRYER (NIC)
- SQUARE BRICK ACCENT - SEE ELEVATIONS/ SECTIONS FOR ADDITIONAL INFORMATION
- BASE MOUNTED CRANE SYSTEM
- ELEC FLOOR BOX, SEE ELEC
- CONCRETE PAD, COORDINATE SIZE AND LOCATION WITH MECHANICAL. SEE DETAILS: D4/A4.706 C6/A4.706 B6/A4.706
- HOLD OPEN, SEE DETAILS: E1/A4.801 F1/A4.801
- ALTERNATE NO. 1: PROVIDE ACCESS PANEL (AP-1) FOR MANIFOLD/SNOW MELT SYSTEM. SEE MECH. CONTRACTOR. COORDINATE EXACT LOCATION WITH MECH. CONTRACTOR.
- PROVIDE SHUT OFF VALVE ON HOSE CONNECTION. SEE MECH.
- TRENCH DRAIN, SEE DETAIL D6/A4.706
- PROVIDE FIRE TREATED PLYWOOD BACKING AS REQUIRED FOR OWNER PROVIDED TECHNOLOGY. COORDINATE WITH OWNER/ARCHITECT ON EXACT LOCATION.
- FRP FROM FLOOR TO 8'-0" AFF.
- STAINLESS STEEL CORNER GUARD UP TO 7'-2".
- STAINLESS STEEL CORNER GUARD UP TO BOTTOM OF BENCH.
- FLAG POLE. SEE SPEC FOR HEIGHT. SEE ELECTRICAL FOR LIGHTING.
- LOCATION OF FIRE EXTINGUISHER CABINET (SEMI-RECESSED IN RM. A110).

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Saint Paul, MN 55101

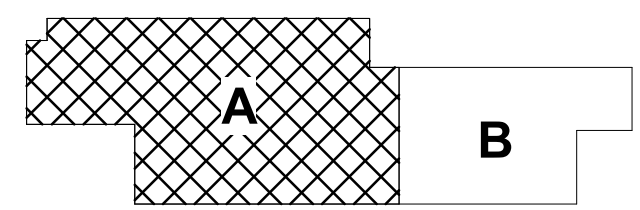
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Minneapolis, MN 55404
krausanderson.com | 612.332.7281

PLAN GENERAL NOTES

- ALL PLAN DIMENSIONS ARE NOMINAL TO FACE OF WALL. WALL THICKNESSES ARE SHOWN NOMINAL. SEE WALL TYPES FOR ACTUAL THICKNESS.
- ALL GYP. WALLS ARE TO BE 5 INCHES THICK UNLESS OTHERWISE NOTED.
- ALL CONCRETE BLOCK WALLS ARE TO BE 8 INCHES THICK UNLESS OTHERWISE NOTED.
- COORDINATE SIZE AND LOCATION OF ALL DUCT AND SHAFT OPENINGS IN WALLS AND FLOORS W/ MECH. AND ELEC. PROVIDE ALL REQUIRED UNITS FOR OPENINGS. SEE UNTEL. SCHEDULE.
- FIELD VERIFY ALL MILLWORK OPENINGS.
- SET FLOOR DRAINS 3/4" BELOW FINISHED CONCRETE FLOORS UNLESS OTHERWISE NOTED. PROVIDE CONSISTENT SLOPE FROM WALL TO DRAIN BY SLOPING CONCRETE, MIN. 1/4" PER FOOT.
- VERIFY LOCATION, SIZE AND QUANTITY OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS.
- ALL DOOR/SIDELITE OPENINGS TO BEGIN 4" FROM ADJACENT WALL UNLESS OTHERWISE NOTED.
- ALL GYP. WALLS ARE CENTERED ON GRID UNLESS OTHERWISE NOTED.
- FIRE RATED WALLS ARE INDICATED ON CODE PLANS.



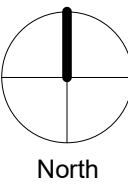
KEY PLAN

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John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	
	Date	Num

Comm: 232010
Date: 09/12/2023
Drawn: KH
Check: JW

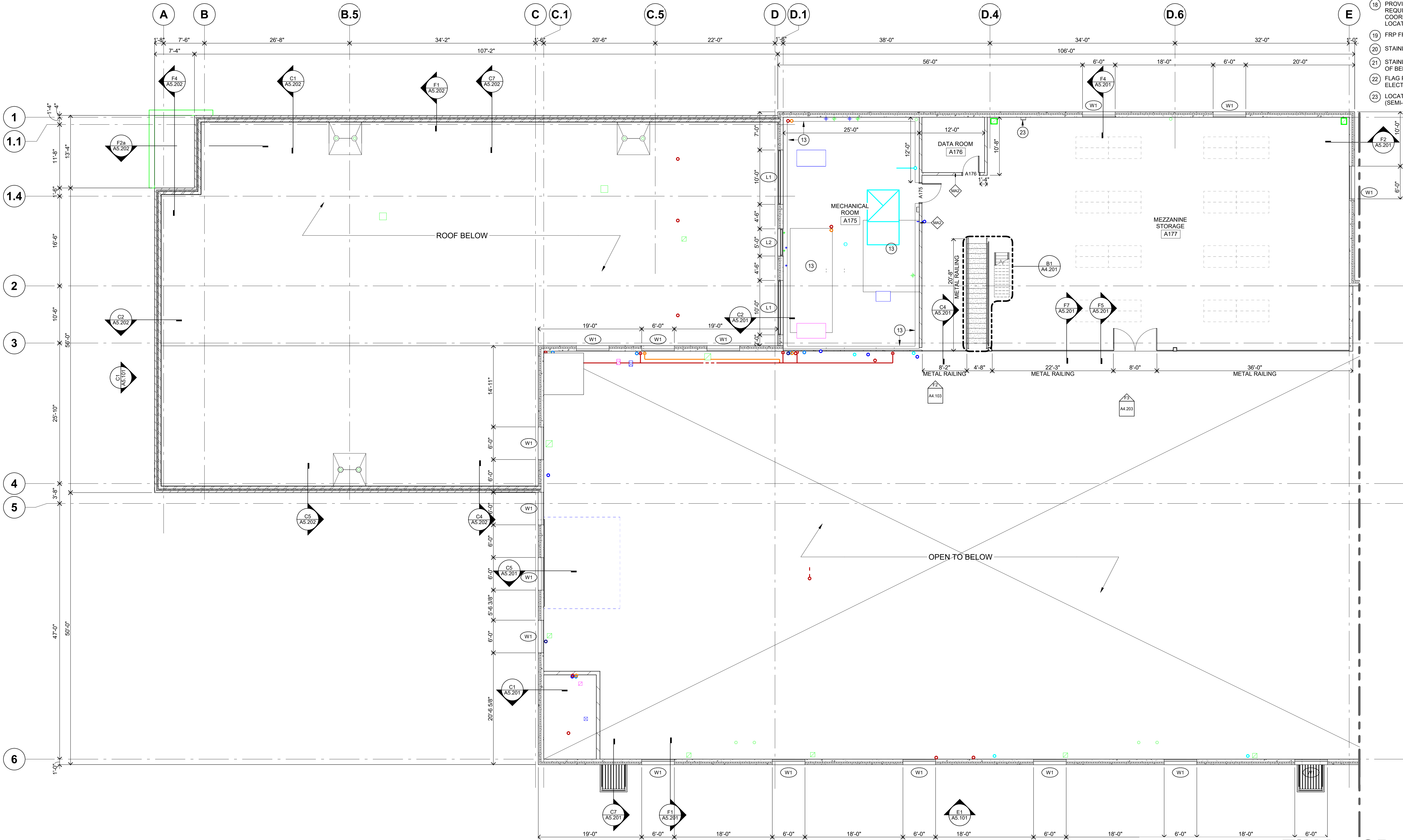


MEZZANINE LEVEL FLOOR PLAN - AREA A

Scale: As indicated

A2.02a

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION



F1 MEZZANINE LEVEL AREA A
1/8" = 1'-0"

Subsided Doors (202019) - MM CI Collage Grove - New Utility Building R1 nr
 Building R1 nr
 Jilly Building R1 nr
 Subsided Doors (202019) - MM CI Collage Grove - New Utility Building (202019) - MM CI Collage Grove - New
 Subsided Doors (202019) - MM CI Collage Grove - New Utility Building (202019) - MM CI Collage Grove - New

MN

NEW UTILITY & ENGINEERING BUILDING

10875 IDEAL AVENUE S.
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016

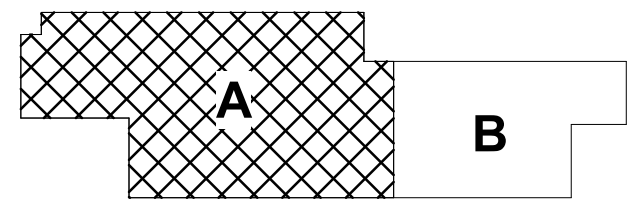


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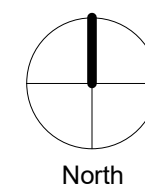
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ROOF PLAN - AREA A

Scale: As indicated

A2.095a

ROOF LEGEND

- ROOF DRAIN (R.D.)
OVERFLOW DRAIN (O.R.D.)
- MECH HOOD
- EQUIPMENT CURB AT MECHANICAL EQUIPMENT
- ROOF EXHAUST
- EQUIPMENT CURB SUPPORTING PIPING OR CONDUIT. INSTALL MAXIMUM SPACING OF 6'-0" O.C.
- VENT STACK, PIPE OR CONDUIT
- COMBUSTION STACK
- SKYLIGHT
- CRICKET FOR POSITIVE DRAINAGE
- SLOPE OF TAPERED INSULATION
- DIAMOND CRICKET (SEE TYPICAL DETAIL)
- SLOPED STRUCTURE
- ROOF LADDER

ROOF PLAN GENERAL NOTES

- TAPERED ROOF INSULATION AND CRICKETS SHALL SLOPE AT 1/4" PER 1'-0". THE THICKNESS OF THE BASE INSULATION IS TO BE 5 1/2".
- SHOP DRAWING DESIGN AND INSTALLATION OF TAPERED INSULATION MUST ACCOUNT FOR CAMBER IN STRUCTURE TO INSURE THAT THE ROOF DRAINS AS DESIGNED.
- AT MECH. OPENINGS AND CURBS ON ROOF, PROVIDE CRICKETS AS REQUIRED FOR POSITIVE DRAINAGE OR CUT OPENINGS IN FREE-STANDING CURBS AS AN ALTERNATIVE.
- MECHANICAL ITEM LOCATIONS ARE SHOWN FOR REFERENCE ONLY. REFER TO MECH. DRAWINGS FOR EXTENT OF MECH. EQUIP. AND SIZE AND LOCATION OF ALL ROOF PENETRATIONS.
- ALL MECHANICAL AND ELECTRICAL ROOFTOP EQUIPMENT, PIPING, CONDUIT, ETC. TO BE PAINTED.
- COORDINATE ROOF AND OVERFLOW DRAIN LOCATIONS WITH STRUCTURAL COMPONENTS TO AVOID LOCATING ROOF OR OVERFLOW DRAINS OVER TOP OF BEAMS OR JOISTS.
- REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF OVERFLOW SCUPPERS AND OUTFLOWS.
- AT ALL LADDERS, TOP AND BOTTOM, PROVIDE AND INSTALL A 4'-0" X 4'-0" CONCRETE PAVER LANDING.
- ROOF LADDERS WITH NUMBER IN PARENTHESIS INDICATE RELATIVE ROOF DECK ELEVATION DIFFERENCES, NOT INCLUDING PARAPET. VERIFY EXACT LADDER HEIGHT REQUIREMENTS.

F1 ROOF PLAN

1/8" = 1'-0"



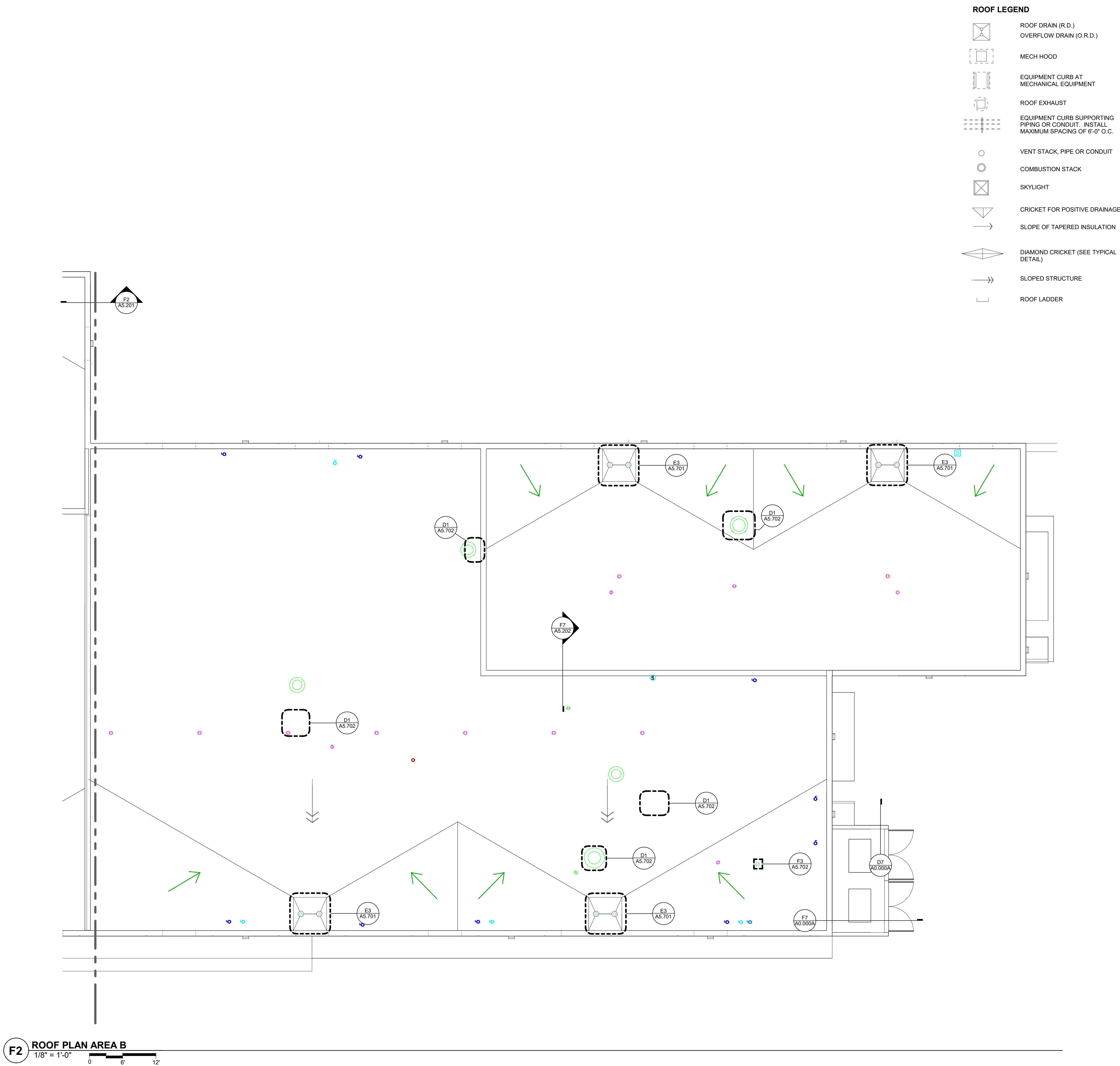
FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

MN

Architect: John McNamara, AIA, 12000 Ravine Parkway, Suite 200, Cottage Grove, MN 55016
Engineer: John McNamara, AIA, 12000 Ravine Parkway, Suite 200, Cottage Grove, MN 55016
10/10/2023 10:23:23 AM

A

A
B
C
D
E
F



NEW UTILITY & ENGINEERING BUILDING

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COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
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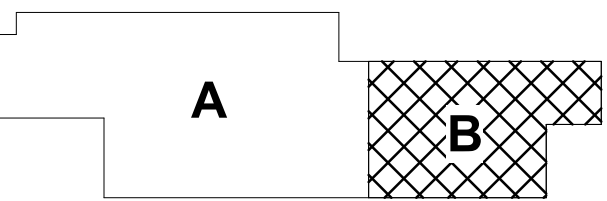


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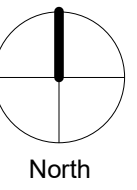
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ROOF PLAN - AREA B

Scale: As indicated

**FINAL CD SET DRAFT
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A2.095b

MN

A

Architect: John McNamara, AIA, 12000 Ravine Parkway, Suite 500, Minneapolis, MN 55404
Engineer: John McNamara, AIA, 12000 Ravine Parkway, Suite 500, Minneapolis, MN 55404
Date: 09/12/2023
Scale: 1/4" = 1'-0"

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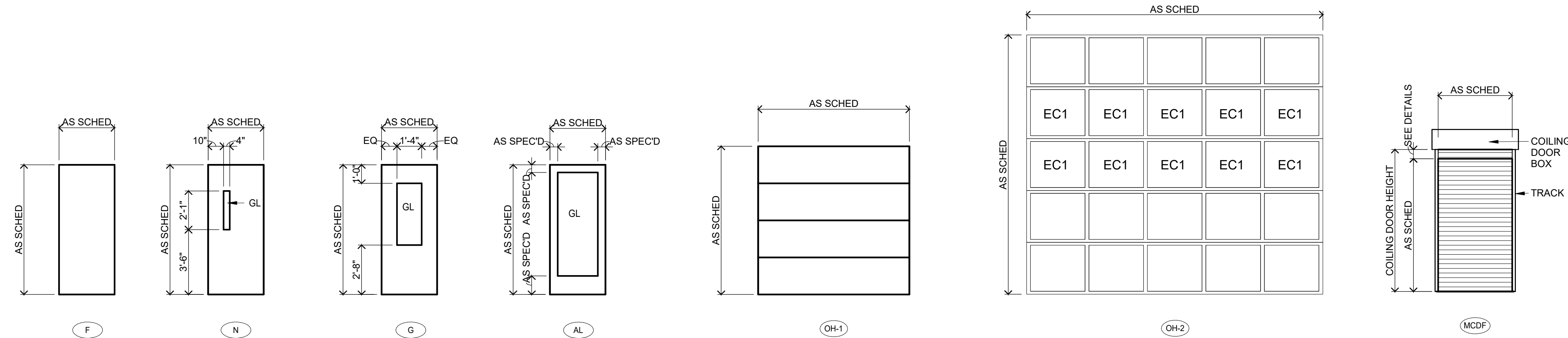


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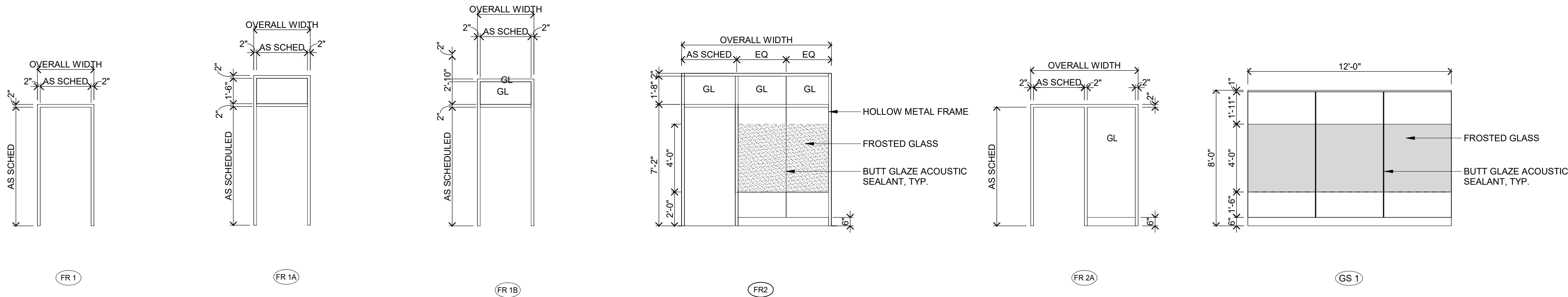
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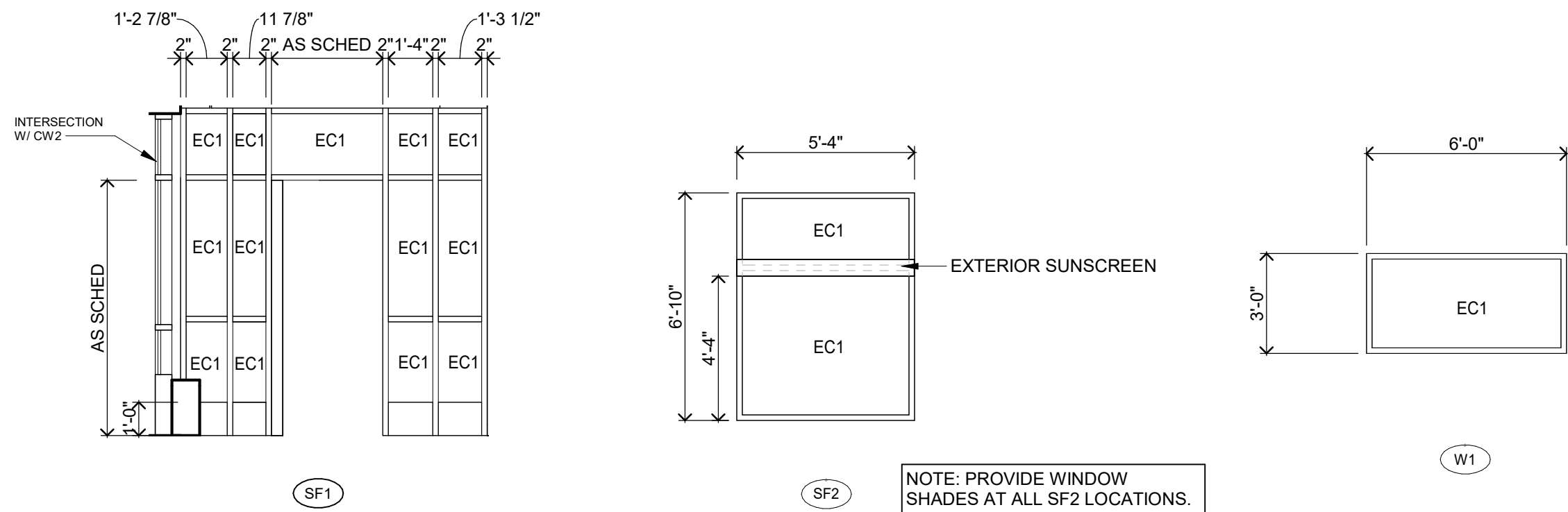
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DOOR TYPES

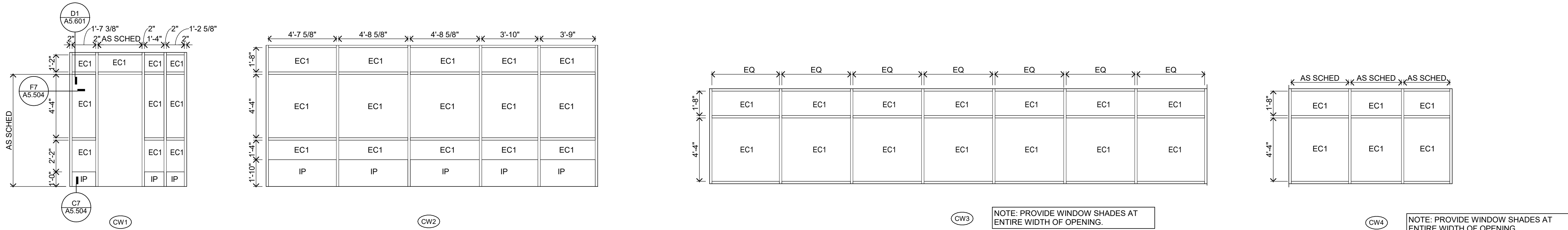


FRAME TYPES



STOREFRONT ELEVATIONS

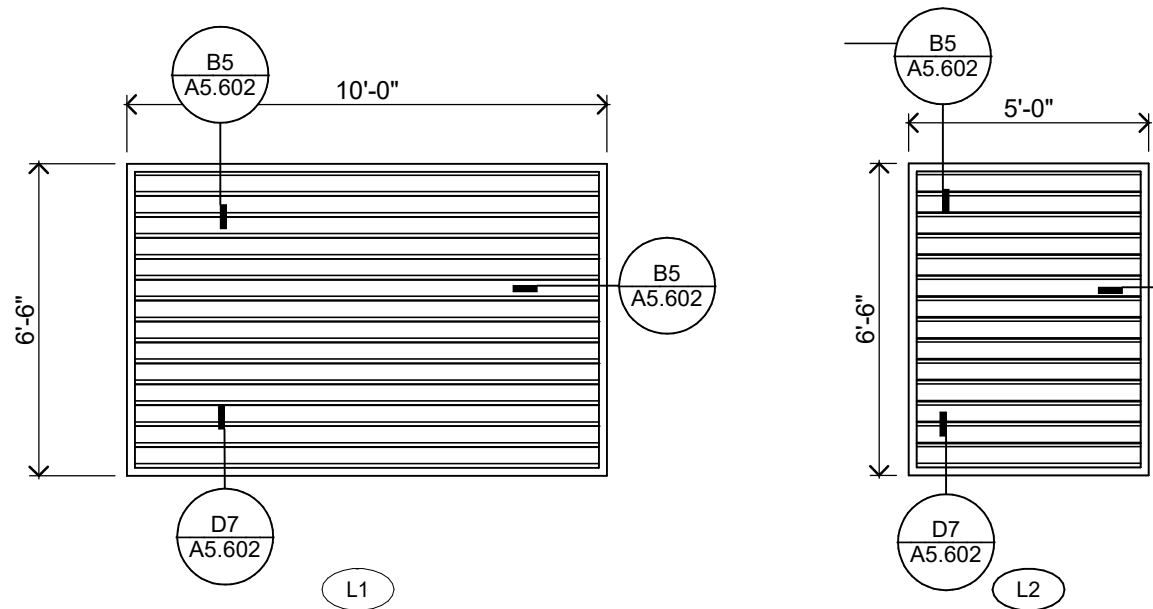
WINDOW ELEVATIONS



CURTAIN WALL ELEVATIONS

NOTE: CURTAIN WALL MULLIONS TO BE 2" x 6" UNLESS OTHERWISE NOTED

NOTE: PROVIDE INSULATED INFILL PANEL AT LOCATIONS NOTED WITH "IP".



LOUVER ELEVATIONS

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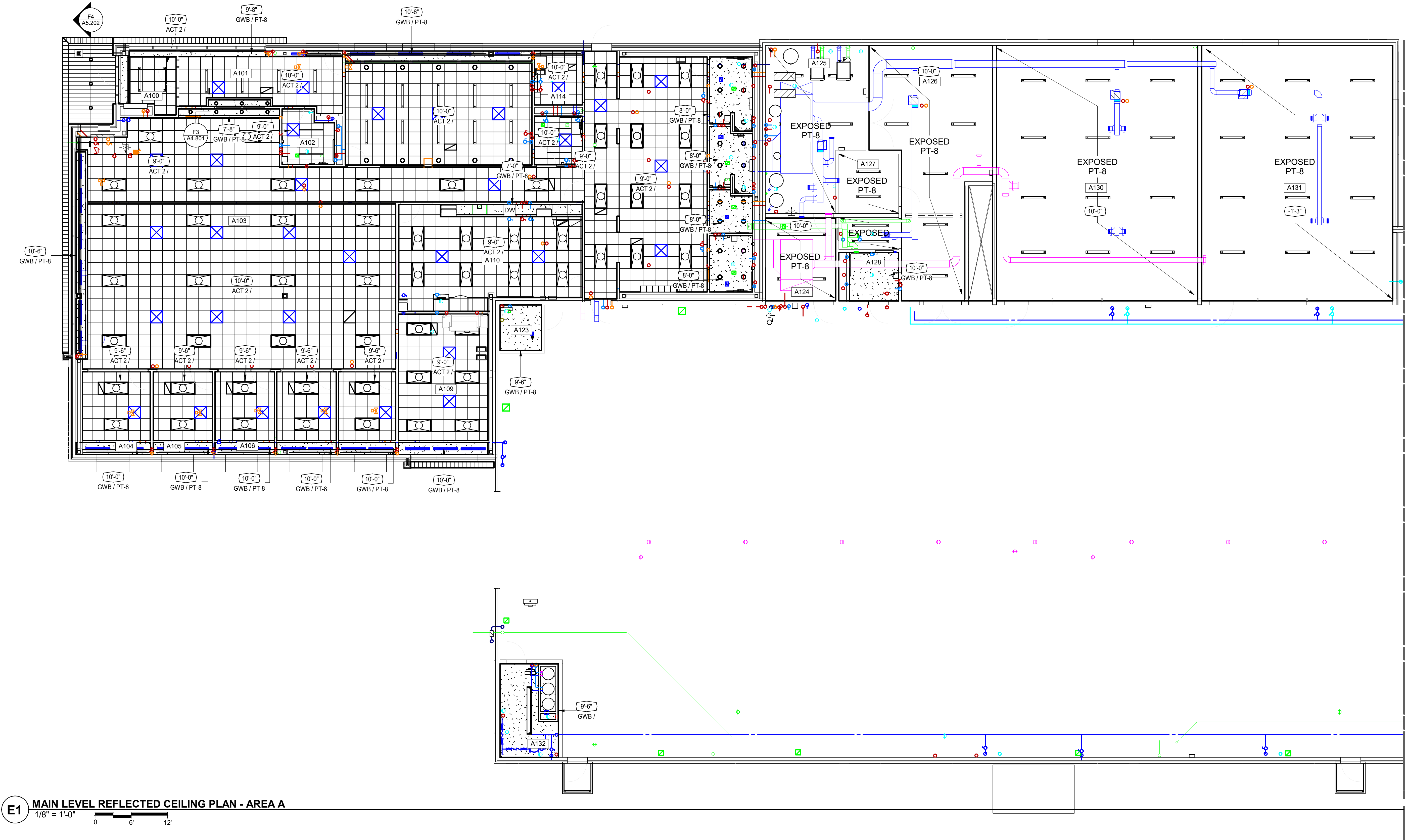
DOOR/ FRAME/ WINDOW TYPES

Scale: 1/4" = 1'-0"

A2.901

MN

A



RCP GENERAL NOTES

- FOR WALLS THAT PENETRATE CEILINGS SEE WALL TYPES SHOWN ON THE FLOOR PLAN. LOCATE ALL SPRINKLER HEADS IN THE CENTER OF CEILING TILES.
- FOR DIFFUSER AND RETURN GRILL SIZES, SEE MECHANICAL PLANS.
- FOR LIGHT FIXTURE TYPES, SEE ELECTRICAL LIGHTING PLANS.
- CEILINGS HEIGHTS INDICATED ON PLAN (E.G. 9'-0") ARE FROM FINISHED FLOOR OF LEVEL OF PLAN SHOWN OR INDICATED AS 109'-0".
- ACOUSTICAL TILE CEILING GRID IS TO BE CENTERED IN RECTANGULAR ROOM OR CENTERED BETWEEN LONGEST WALLS OF IRREGULARLY SHAPED ROOMS UNLESS OTHERWISE NOTED.
- VERIFY GWB CONTROL JOINT LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION.

RCP LEGEND

- CANLIGHT
- 1 X 4 LIGHT FIXTURE
- 4' STRIP LIGHT FIXTURE
- 8' STRIP LIGHT FIXTURE
- 2 X 2 LIGHT FIXTURE (IN CEILING GRID)
- 2 X 4 LIGHT FIXTURE (IN CEILING GRID)
- CEILING MOUNTED LIGHT FIXTURE
- SPEAKER
- AIR DIFFUSER (IN CEILING GRID)
- RETURN AIR GRILLE (IN CEILING GRID)
- AIR DIFFUSER
- EXHAUST GRILLE
- ACCESS PANEL
- LINEAR DIFFUSER (IN CEILING GRID)
- PTD. GYPSUM BOARD CEILING / SOFFIT
- PENDANT LIGHT FIXTURE

RCP KEY NOTES:

- PAINT ALL EXPOSED STRUCTURE, MECHANICAL AND ELECTRICAL PT-XX. DO NOT PAINT FIRE ALARM WIRES OR EQUIPMENT TAGS.
- MODIFY CEILING GRID AS REQUIRED FOR NEW WORK.

NEW UTILITY & ENGINEERING BUILDING

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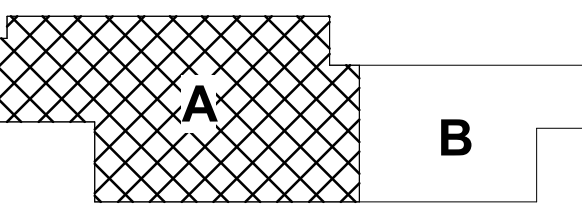


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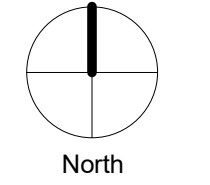


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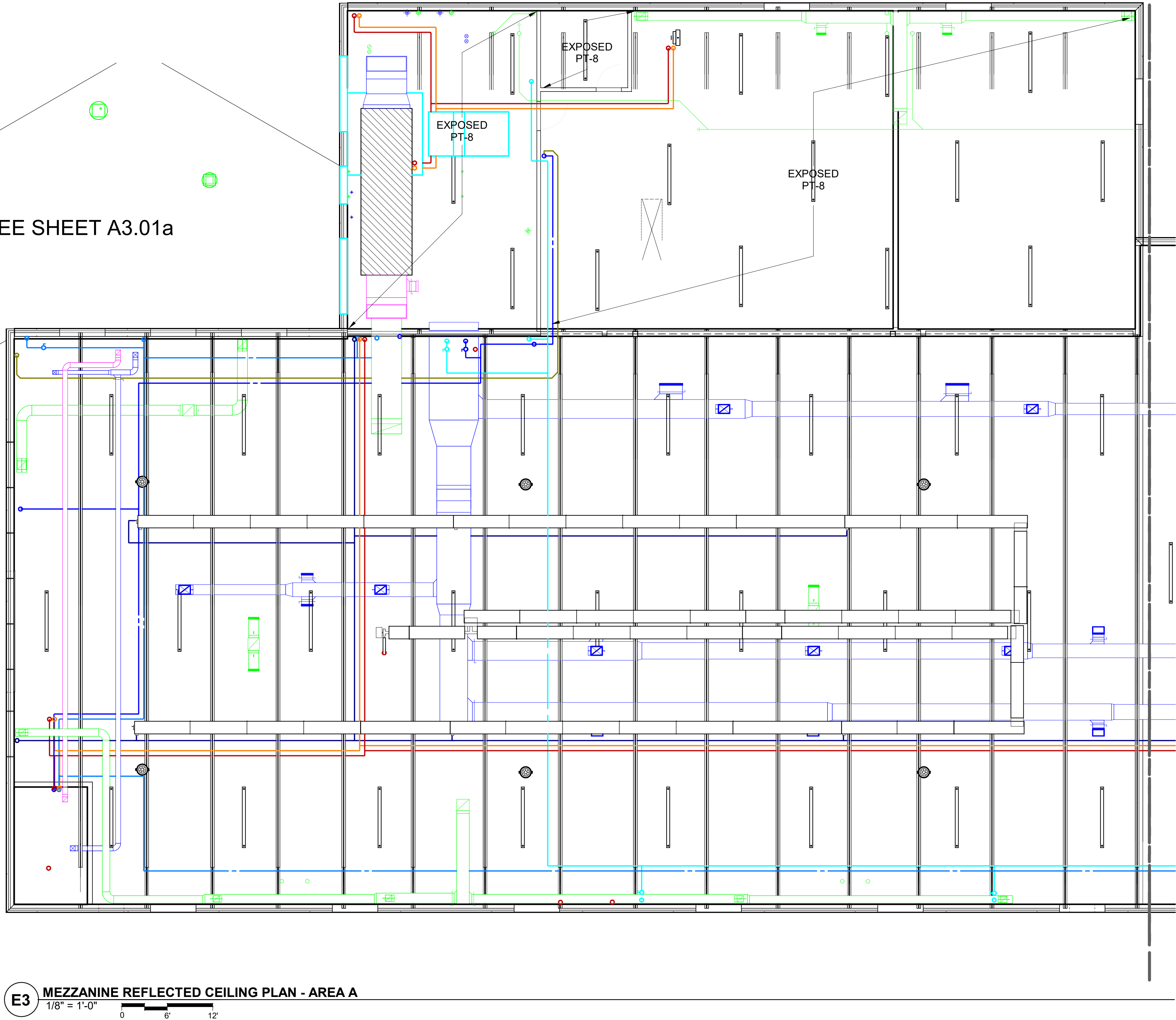
MAIN LEVEL REFLECTED CEILING PLAN - AREA A

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

Scale: 1/8" = 1'-0"
A3.01a

MN

FOR OFFICE RCP, SEE SHEET A3.01a



E3 MEZZANINE REFLECTED CEILING PLAN - AREA A
1/8" = 1'-0"

RCP GENERAL NOTES

- FOR WALLS THAT PENETRATE CEILINGS SEE WALL TYPES SHOWN ON THE FLOOR PLAN.
- SPRINKLER HEADS ARE NOT SHOWN. LOCATE ALL SPRINKLER HEADS IN THE CENTER OF CEILING TILES.
- FOR DIFFUSER AND RETURN GRILL SIZES, SEE MECHANICAL PLANS.
- FOR LIGHT FIXTURE TYPES, SEE ELECTRICAL LIGHTING PLANS.
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RCP LEGEND

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- AIR DIFFUSER (IN CEILING GRID)
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- EXHAUST GRILLE
- ACCESS PANEL
- LINEAR DIFFUSER (IN CEILING GRID)
- PTD, GYPSUM BOARD CEILING / SOFFIT
- PENDANT LIGHT FIXTURE

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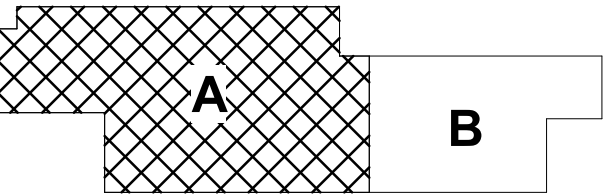


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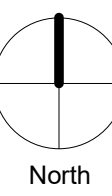


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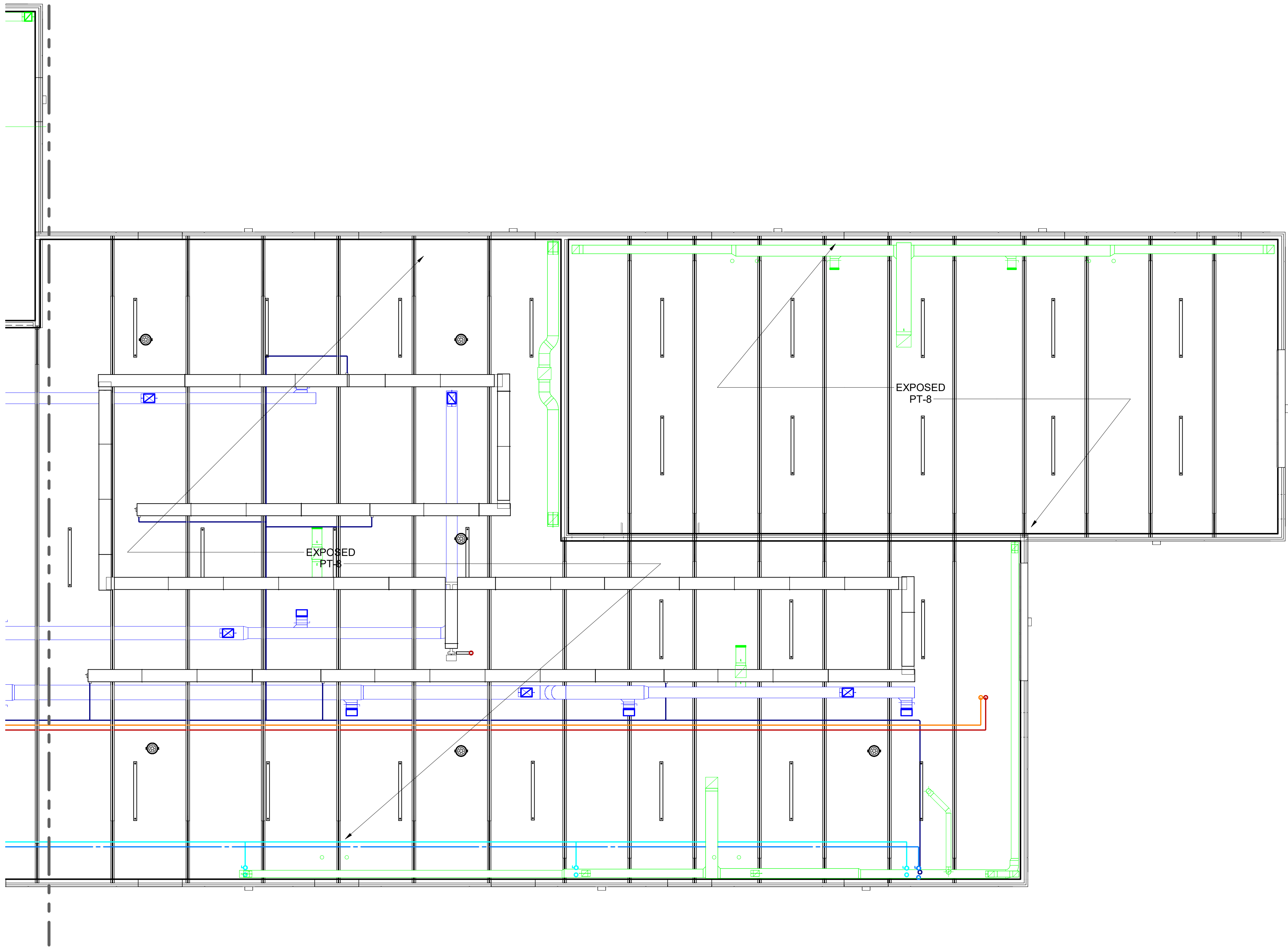
MEZZANINE LEVEL REFLECTED CEILING PLAN - AREA A

Scale: 1/8" = 1'-0"

FINAL CD SET DRAFT
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A3.02a

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E2 MEZZANINE LEVEL REFLECTED CEILING PLAN AREA B
1/8" = 1'-0"
0 6 12

Architect: Wold Architects and Engineers, Inc. 332 Minnesota Street, Suite W2000, Saint Paul, MN 55101
Engineer: Kraus-Anderson, Inc. 501 South Eighth Street, Minneapolis, MN 55404
Scale: 1/8" = 1'-0"

A

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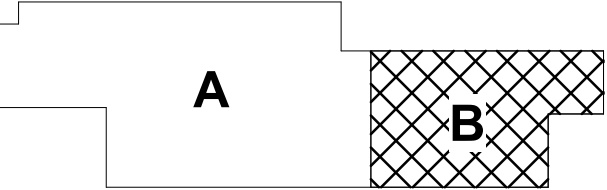


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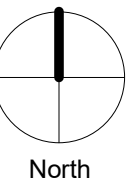


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MEZZANINE LEVEL REFLECTED CEILING PLAN - AREA B

Scale: 1/8" = 1'-0"

**FINAL CD SET DRAFT
NOT FOR CONSTRUCTION**

A3.02b

MN

A

F

INTERIOR MATERIAL FINISH/ COLOR SCHEDULE

Key	Item	Manufacturer	Color/ Finish
03 45 00	Architectural Precast Concrete		
	Portland cement	As specified	Color: Color mix to match mortar sample.
	Aggregate-Color	As specified	Color:
	Aggregate-Size	As specified	Size:
04 20 00	Unit Masonry		
	Brick 1	As specified	Color: Color to match sample supplied by Architect
	Glazed Block Pointing Mortar	Hydramant U-Poxy	Color to match sample supplied by Architect
	Mortar Colorant	As specified	Color to match sample supplied by Architect
06 40 00	Architectural Woodwork (Cabinets, Trim, Paneling)		
	Hardwood Wood Countertops- Stained	Sherwin Williams	Color to match sample supplied by Architect
	Solid Surface Fabrications		
	Solid Surface Fabrications	Corian	Color: Weathered Aggregate
07 42 13	Preformed Aluminum Wall Panels and Coping		
	Anodized Metal Panel and Coping	AaCron, Inc.	Color:
	Rainscreen Aluminum Wall Panels and Coping		
	Sealant	Una-Clad	Color: Standard or custom to match panels
08 14 00	Wood Doors		
	Prefinished Stained Wood Door	Masonite	Color: Natural Birch Nutmeg
	Coiling Doors		
	Coiling Shutter		
08 36 00	Sectional Metal Overhead Doors		
	Factory Painted Door Panels	As specified	Color:
	Aluminum Entrances, Storefronts, and Curtain Walls		
	Prefinished Doors Curtainwalls And Accessories	EFCO	Color: Clear anodized
08 51 13	Aluminum Windows		
	Anodized Windows And Accessories	EFCO	Color: Clear
	Sealant-Window	As specified	Color: To match sample supplied by Architect
08 71 00	Finish Hardware		
	Butt Hinges-Exterior	As specified	US32D on stainless steel
	Butt Hinges-Interior	As specified	US26D on steel
	Flush Bolts	As specified	US26D on brass or bronze
08 91 00	Louvers		
	Exit Devices	As specified	US26D on brass or bronze
	Locks	As specified	US26D on brass or bronze
	Pulls And Push Plates/ Bars	As specified	US32D on stainless steel
08 91 00	Louvers		
	Coordinators	As specified	USP on steel
	Closers	As specified	Sprayed AL on cast iron or aluminum
	Protective Plates	As specified	US32D on stainless steel
08 91 00	Louvers		
	Overhead Stops	As specified	US26D on brass, bronze, or steel
	Wall Stops	As specified	US26D on brass, bronze, or steel
	Magnetic Holders	As specified	Sprayed SA on cyclocac
08 91 00	Louvers		
	Thresholds	As specified	Mill aluminum
	Weatherstrips And Sweep Strips	As specified	Clear anodized aluminum
	Key Cabinets	As specified	Gray enamel on steel
08 91 00	Louvers		
	Miscellaneous	As specified	US26D on brass or bronze

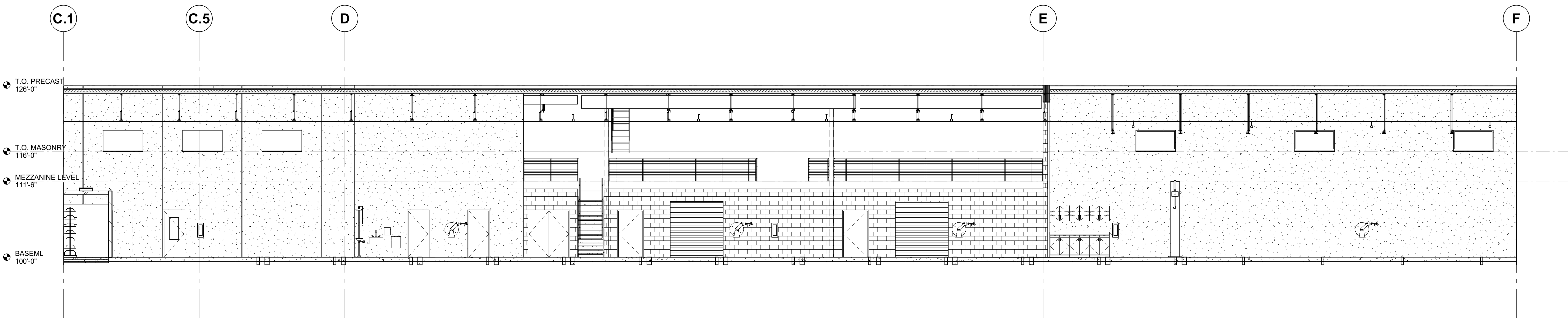
INTERIOR MATERIAL FINISH/ COLOR SCHEDULE

Key	Item	Manufacturer	Color/ Finish
09 21 16	Gypsum Board		
	Painted Reveal Trim	Sherwin Williams	Color to match:
	CT-1		
	CT-5		
09 30 00	Tile		
	Ceramic Floor Tile- Field 1	Kate-Lo Tile & Stone	Color: 639G3R New York Sand
	Ceramic Wall Tile- Field	Dal Tile	Color:
	Ceramic Wall Tile- Accent	Dal Tile	Color:
09 51 23	Acoustical Ceilings		
	2 x 2 ACT		
09 65 00	Resilient Flooring		
	VCT-1	Armstrong	Imperial texture #:
	VCT-2	Armstrong	Imperial texture #:
	Reducer/ Transition Strips	Mercer	Color:
09 68 00	Carpet		
	CPT-1	J + J Flooring	Pattern/ Color: 1758 Finale
	CPT-1	Mercer	Color:
09 72 00	Wall Covering		
	Vinyl Wall Covering VWC	Lanark	Pattern/ Color:
	Vinyl Wall Covering VWC	Lanark	Pattern/ Color:
09 83 13	Acoustic Wall Panels		
	Acoustic Wall Panel	Kirei	Color: 444 Smoke
	Acoustic Wall Panel	Kirei	Color: 442 Grey
	Acoustic Wall Panel	Kirei	Color: 365 Navy
09 91 00	Painting		
	PT-1	Sherwin Williams	Color: Black Magic SW6991
	PT-2	Sherwin Williams	Color: Black Magic SW6991
	PT-3	Sherwin Williams	Color: Black Magic SW6991
10 11 00	Visual Display Boards		
	Anodized Aluminum Trim	As specified	Color: Clear
	Tackboard	Natin Cork	Color: Tan
10 14 19	Dimensional Letter Signage		
	Anodized Aluminum Letters/ Numbers	As specified	Color: Clear
	Painted Letters/ Numbers	As specified	Color:
10 26 13	Wall Surface Protection Systems		
	Corner Guard	InPro	Color:
12 21 13	Horizontal Louver Blinds		
	Blinds	Levelor	Color:
12 32 16	Plastic Laminate Casework		
	Plastic Laminate Vert Surface	Wilsonart	Color: Handspan Slate 5035
	PVC Edging-Countertop	TMI	Color:
	PVC Edging-Casework	TMI	Color:
Grand total: 418	Wire Pulls	TMI	Color:

D5 ENLARGED FLOOR PLAN - CLOTHING STORAGE ROOM AREA "A"

1/4" = 1'-0"

0 3 6'



F2 Elevation 13 - a

1/8" = 1'-0"

0 6 12'

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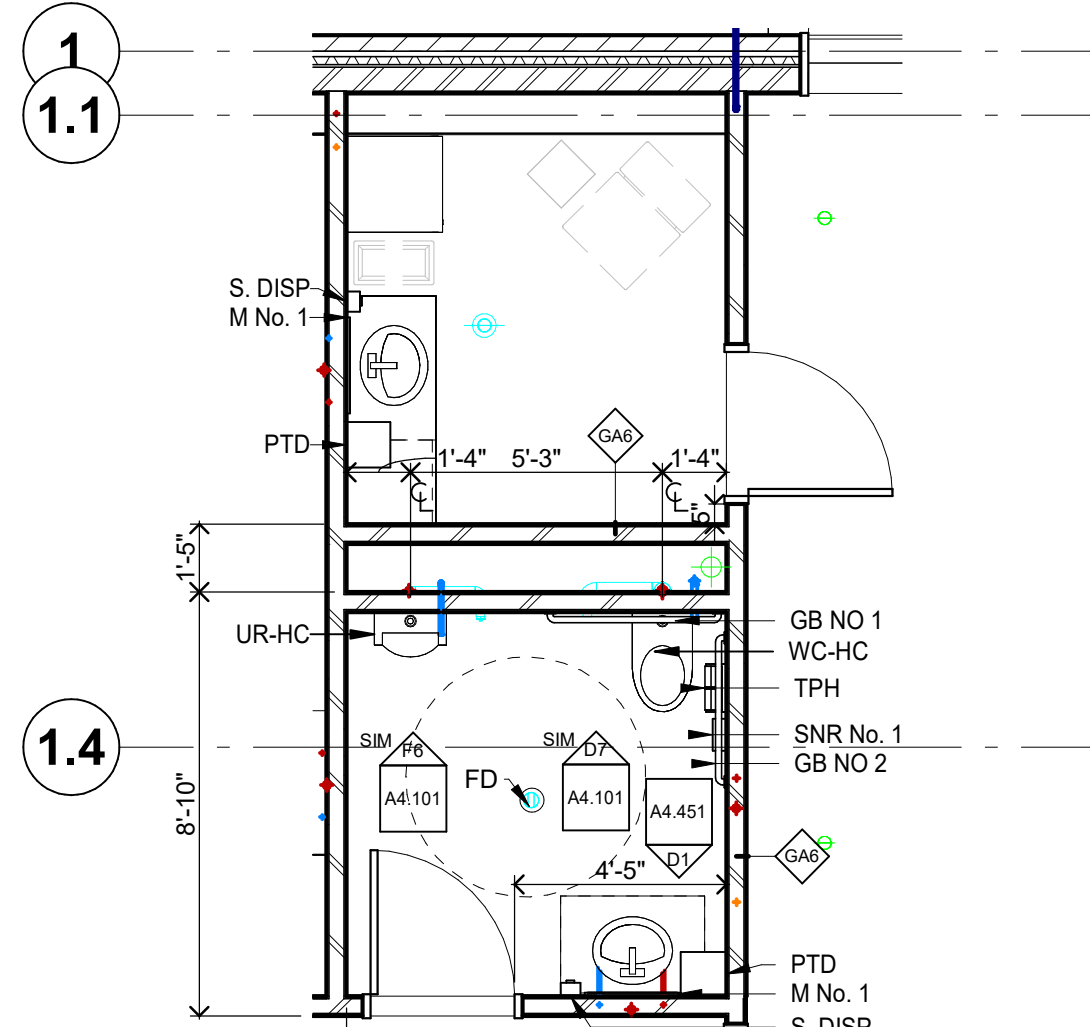
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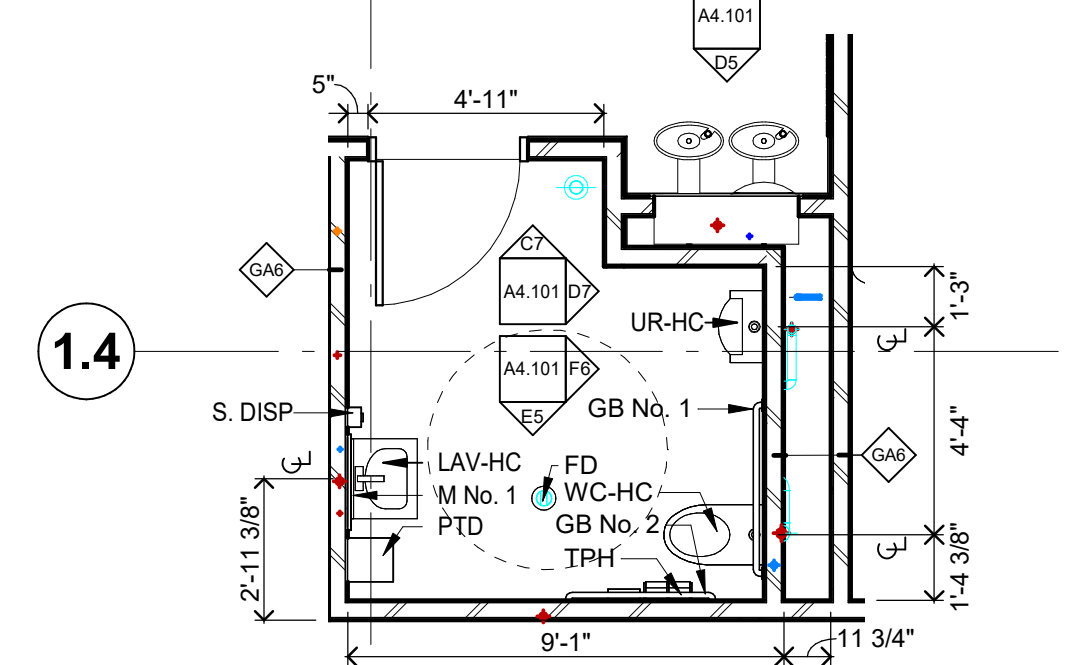
501 South Eighth Street
Minneapolis, MN 55404
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B7 A113 - ENLARGED TOILET PLAN

1/4" = 1'-0"

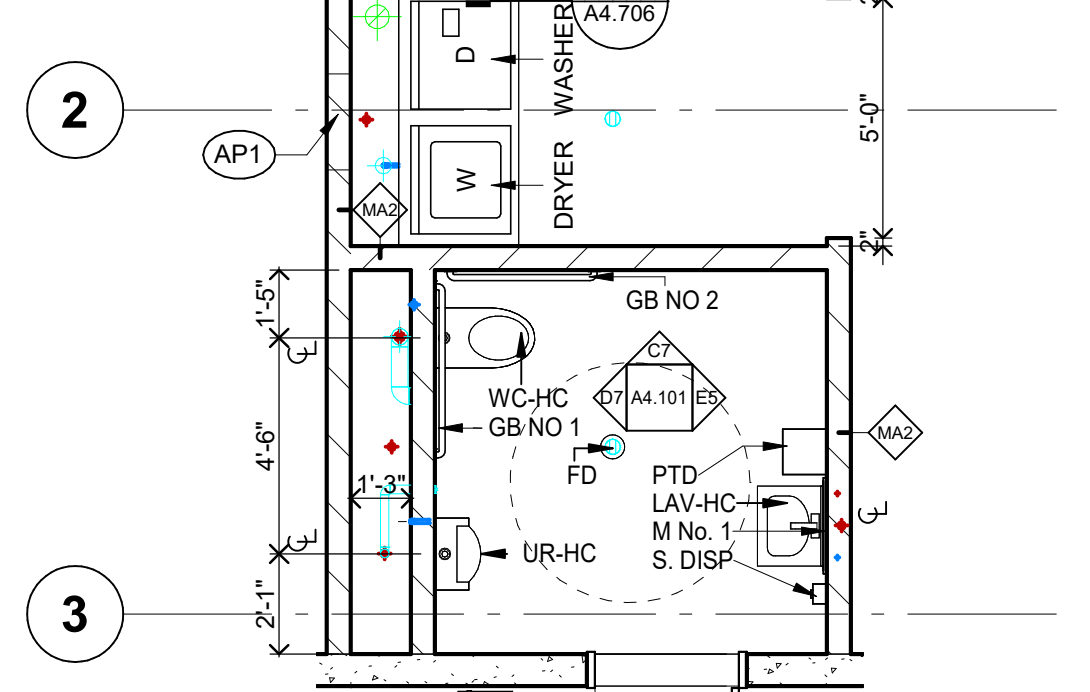
0 3 6'



C7 A102 ENLARGED TOILET PLAN

1/4" = 1'-0"

0 3 6'



D7 A128 / A136 ENLARGED TOILET PLAN

1/4" = 1'-0"

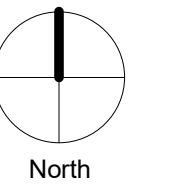
0 3 6'

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John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	
	Date	Num

Comm: 232010
Date: 09/12/2023
Drawn: KH
Check: JW



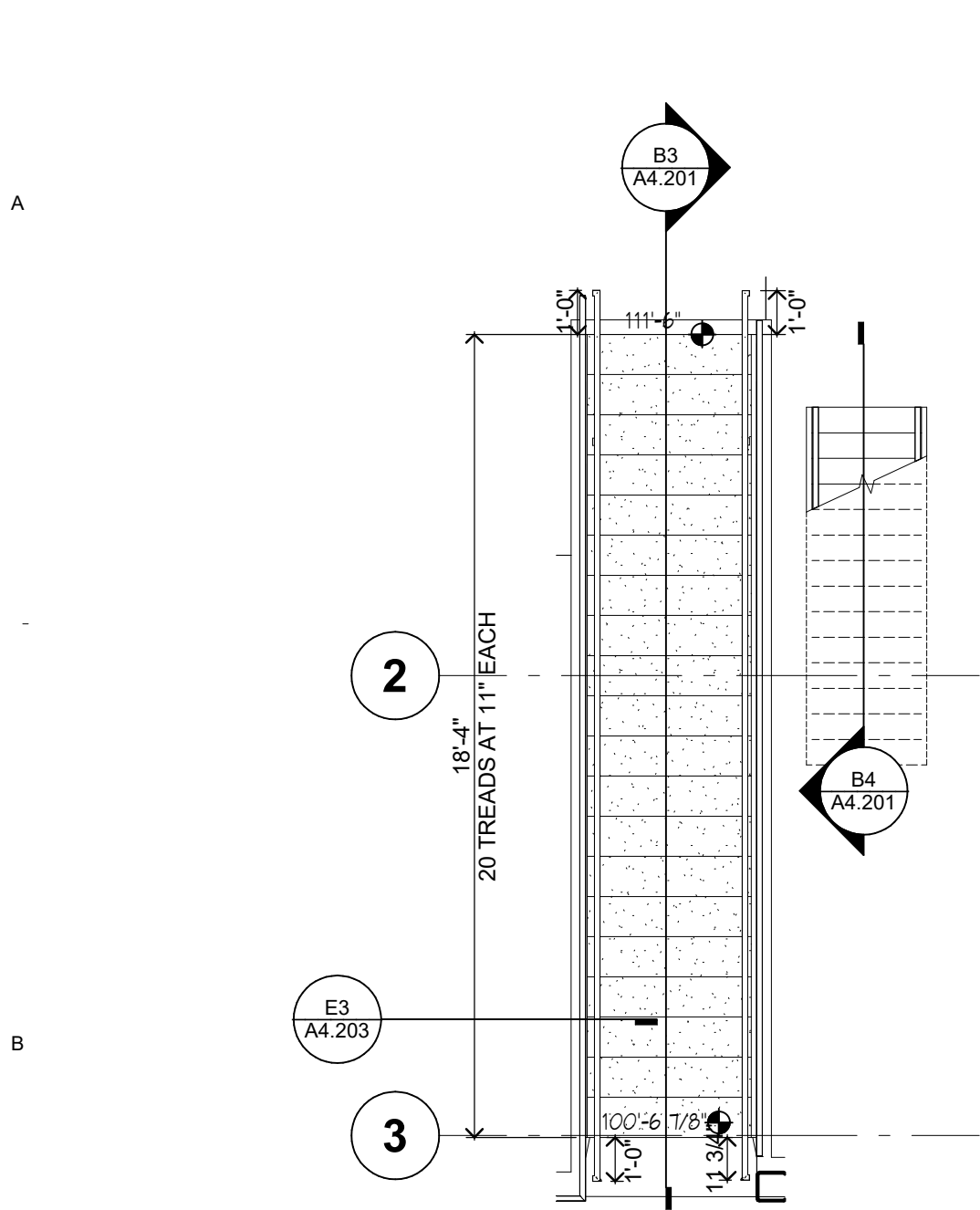
ENLARGED TOILET PLANS

Scale: As indicated

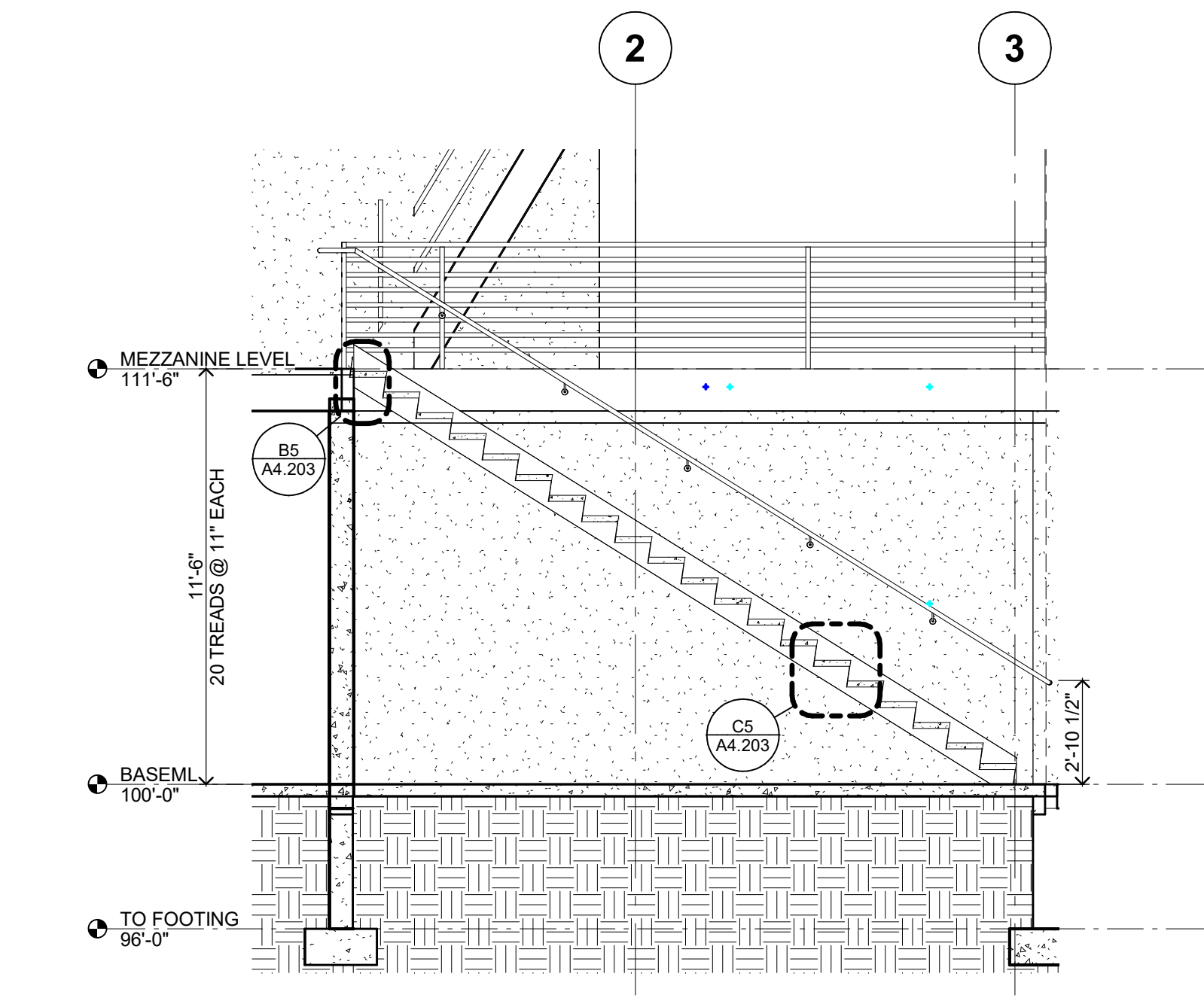
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A4.103

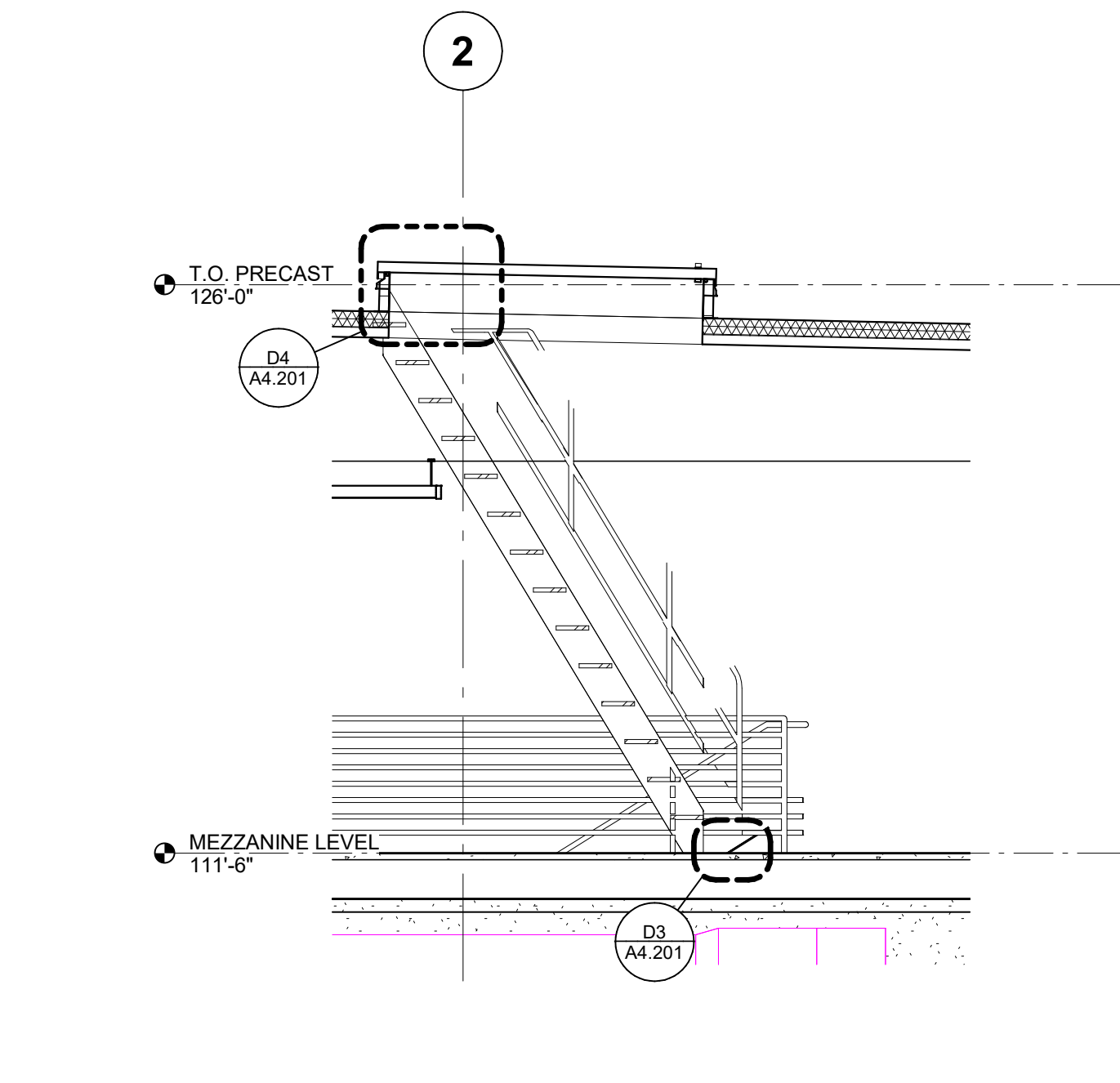
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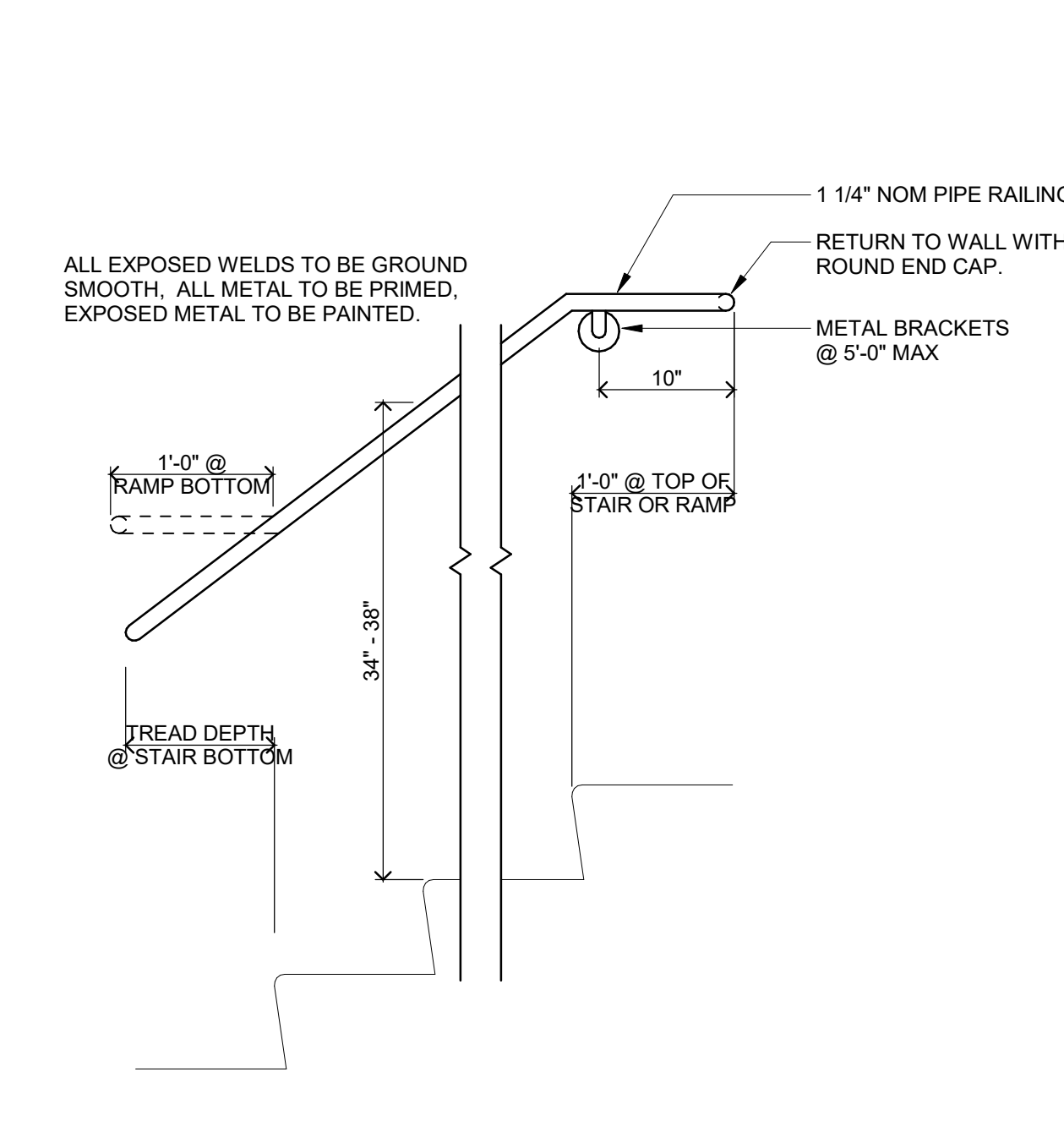
B1 MEZZANINE LEVEL ENLARGED STAIR PLAN
1/4" = 1'-0"



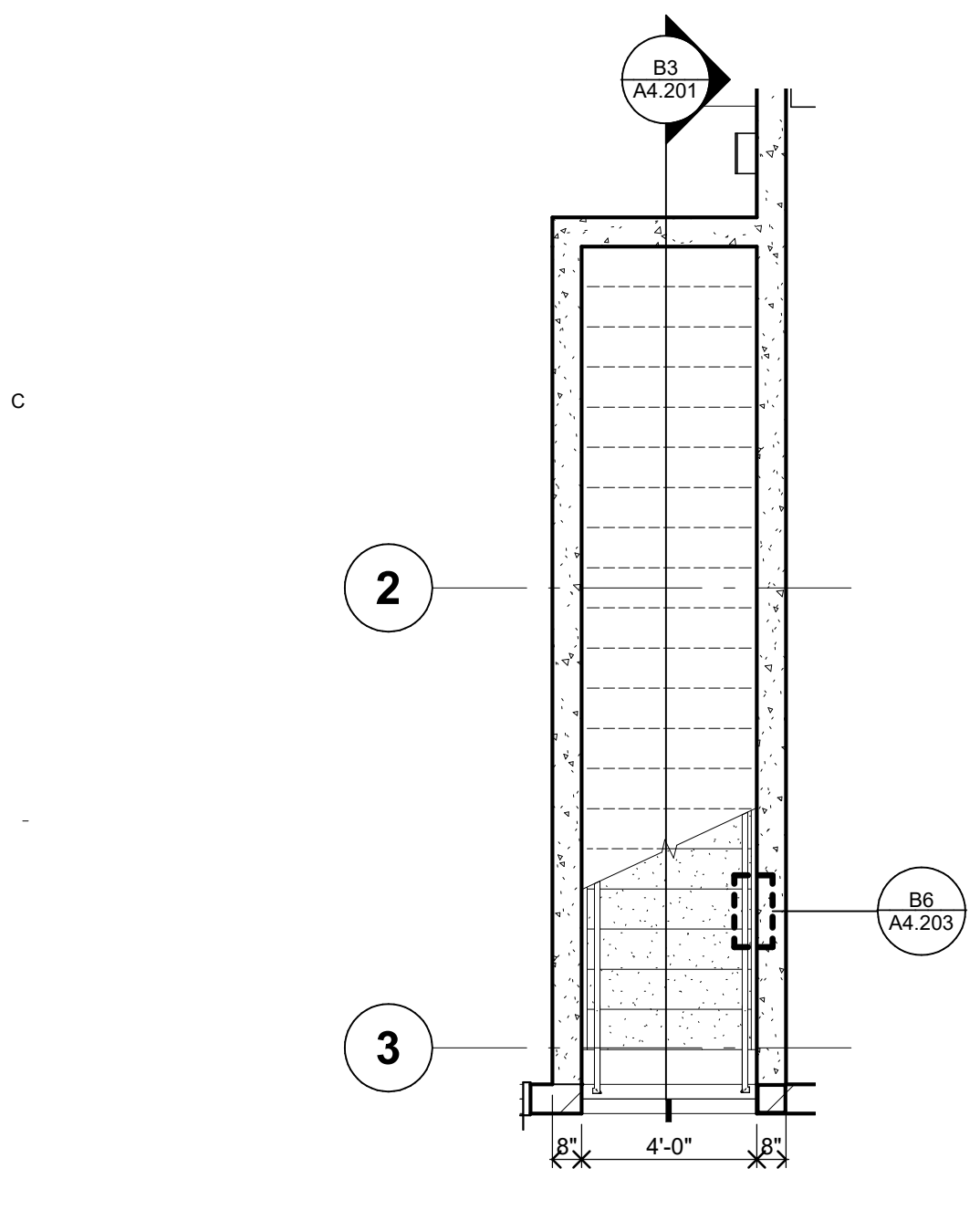
B3 STAIR SECTION
1/4" = 1'-0"



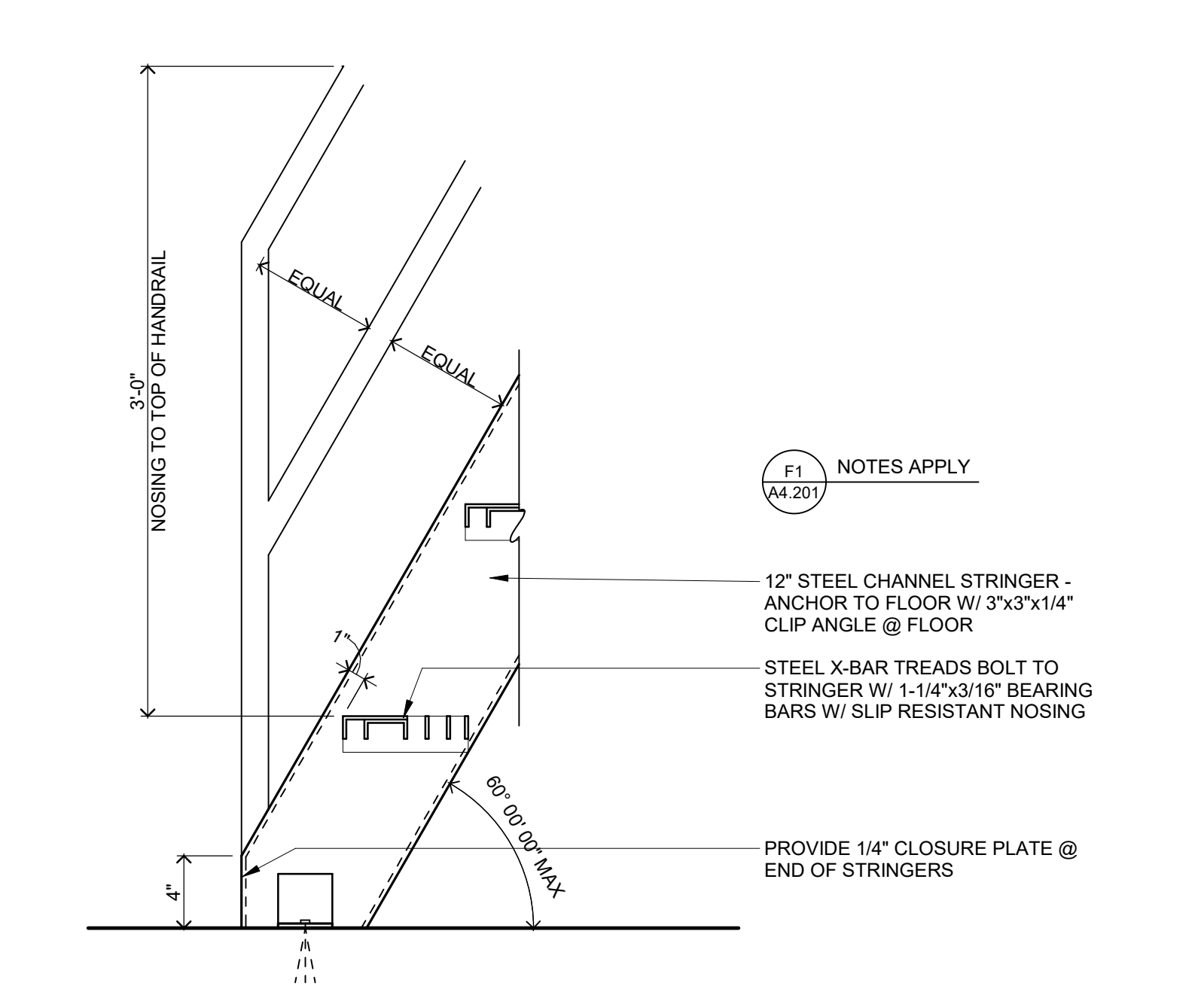
B4 SHIPS LADDER SECTION
1/4" = 1'-0"



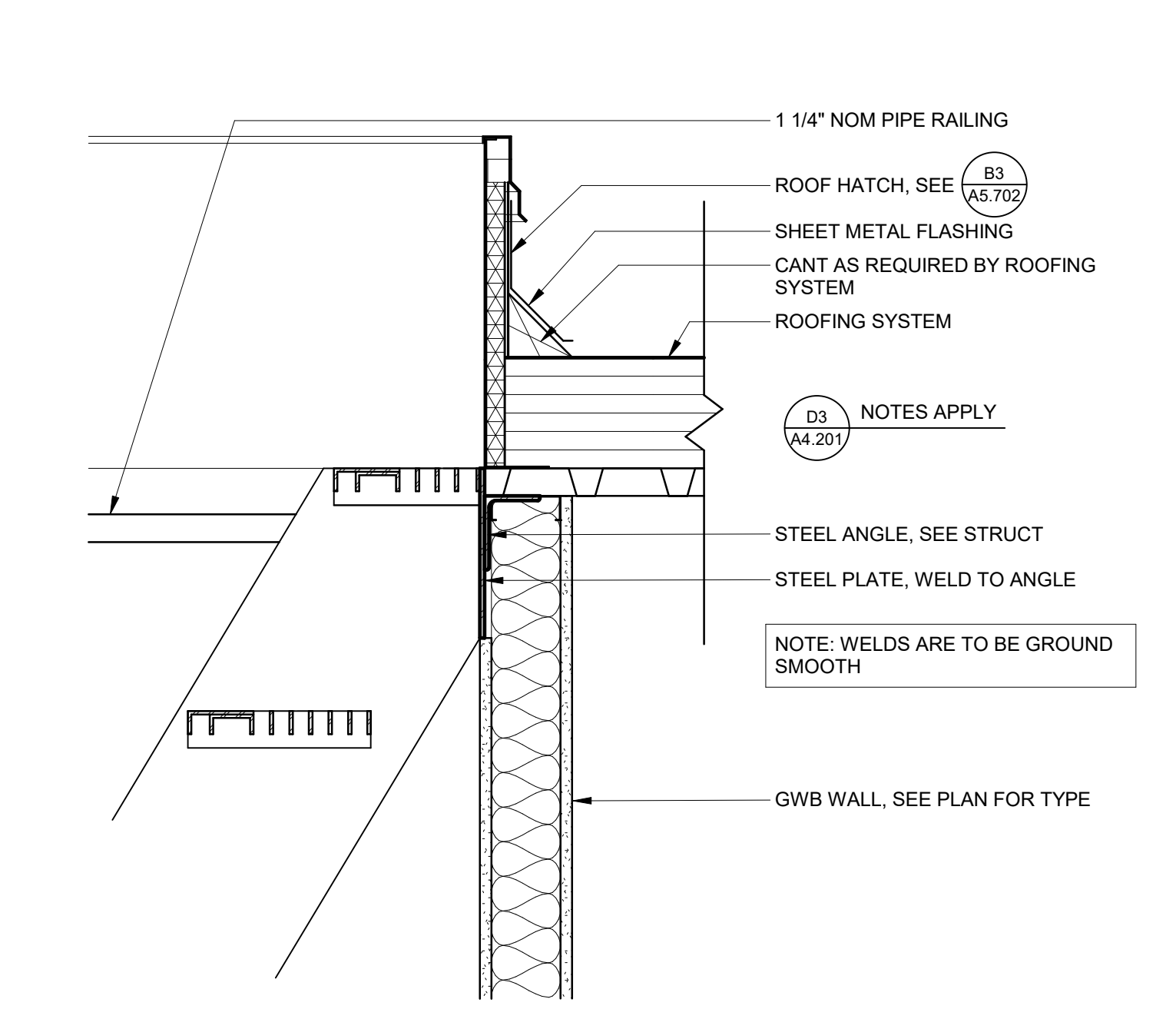
B7 WALL MOUNTED HANDRAIL
1" = 1'-0"



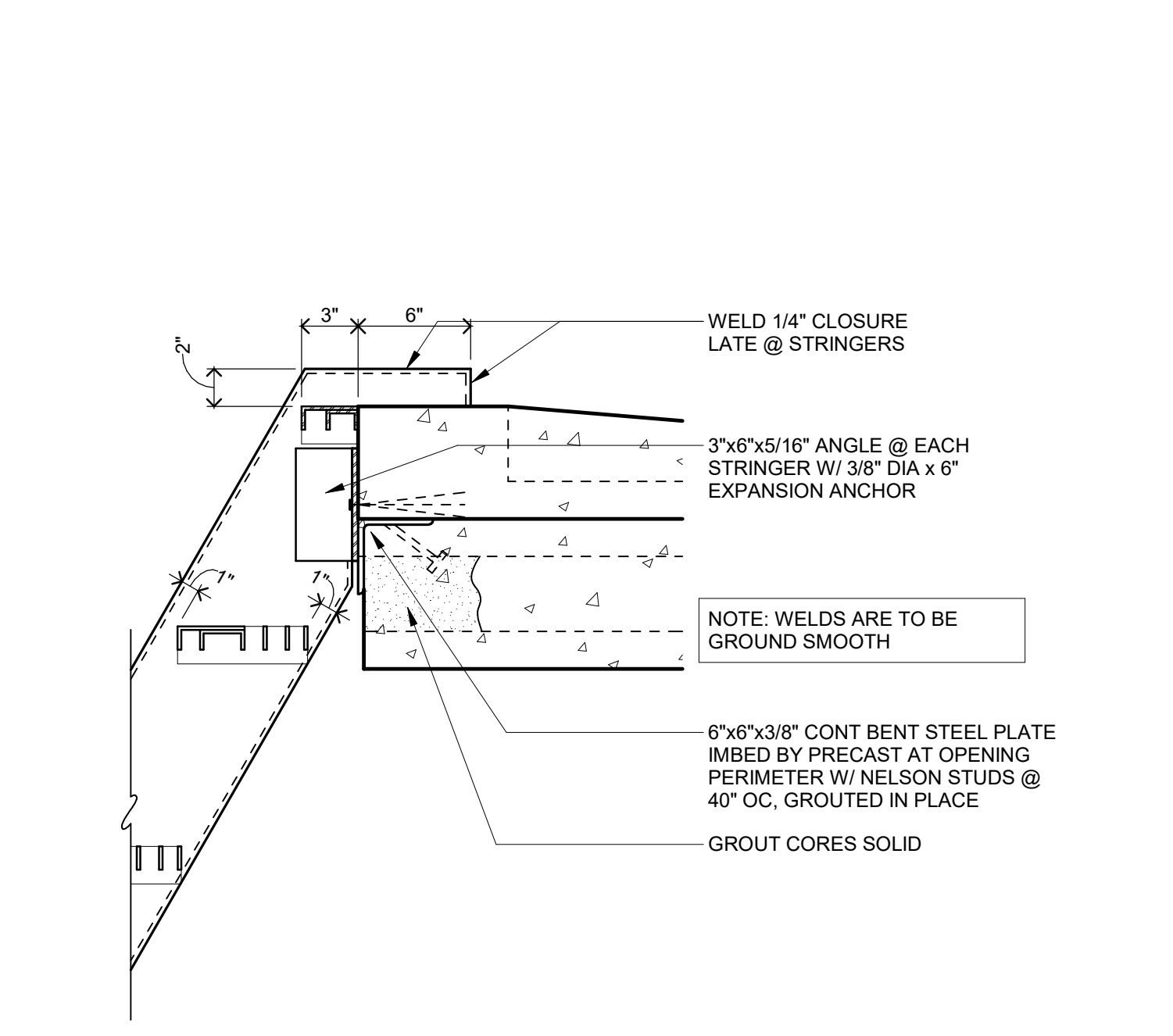
D1 MAIN LEVEL FLOOR PLAN - AREA A
1/4" = 1'-0"



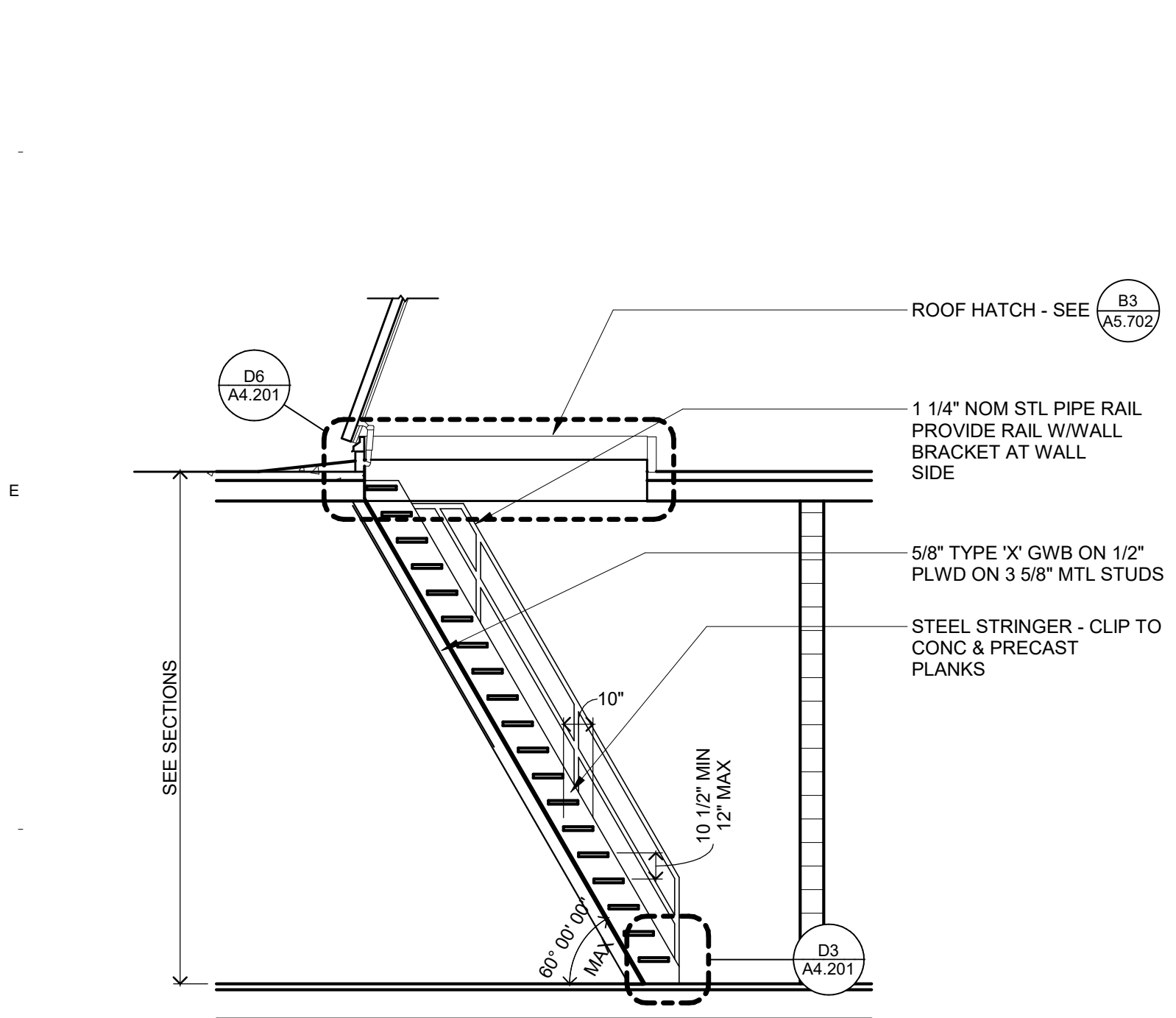
D3 FLOOR AT SHIPS LADDER
1 1/2" = 1'-0"



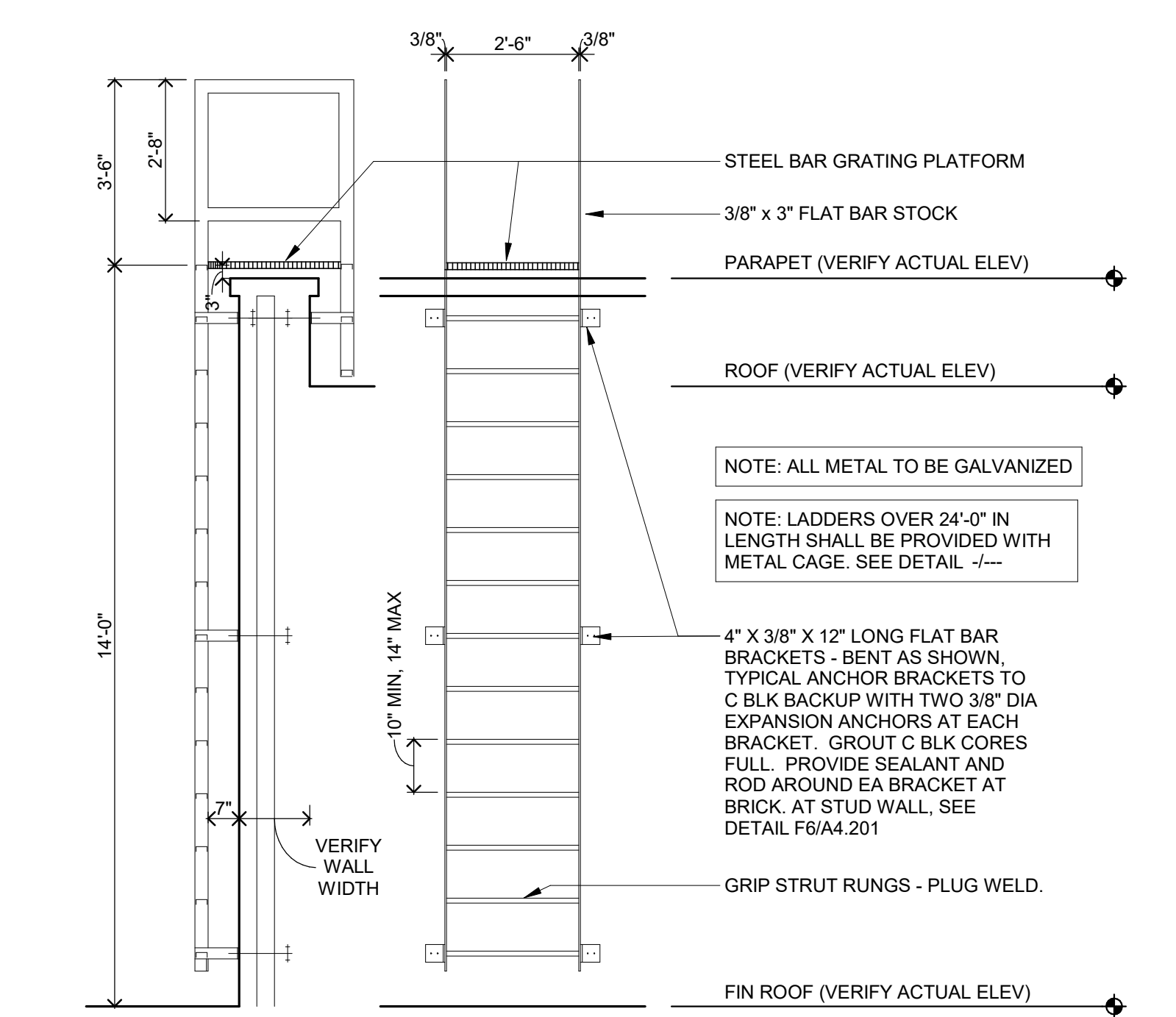
D4 LANDING AT SHIPS LADDER & HATCH
1 1/2" = 1'-0"



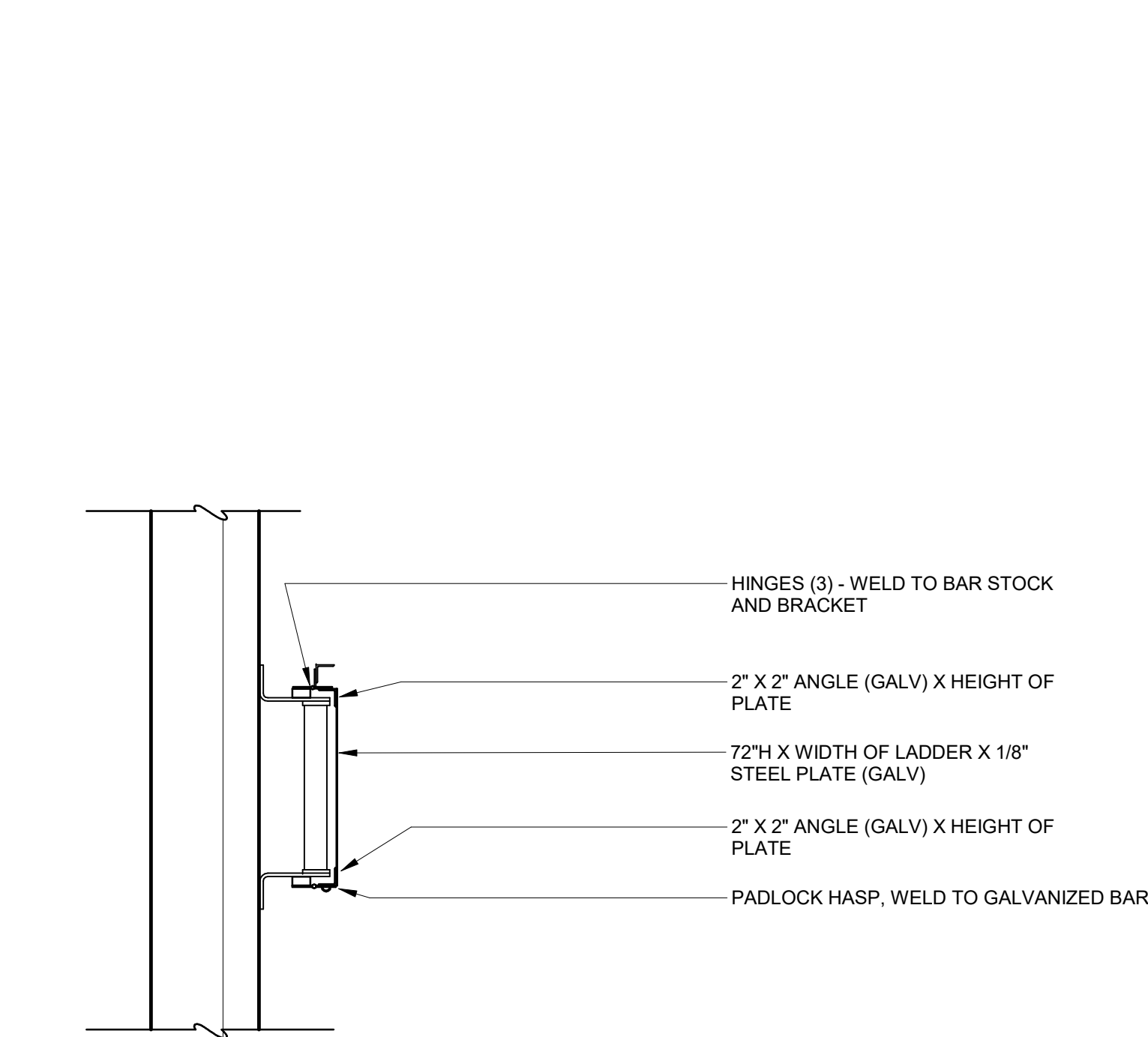
D6 LANDING AT SHIPS LADDER
1 1/2" = 1'-0"



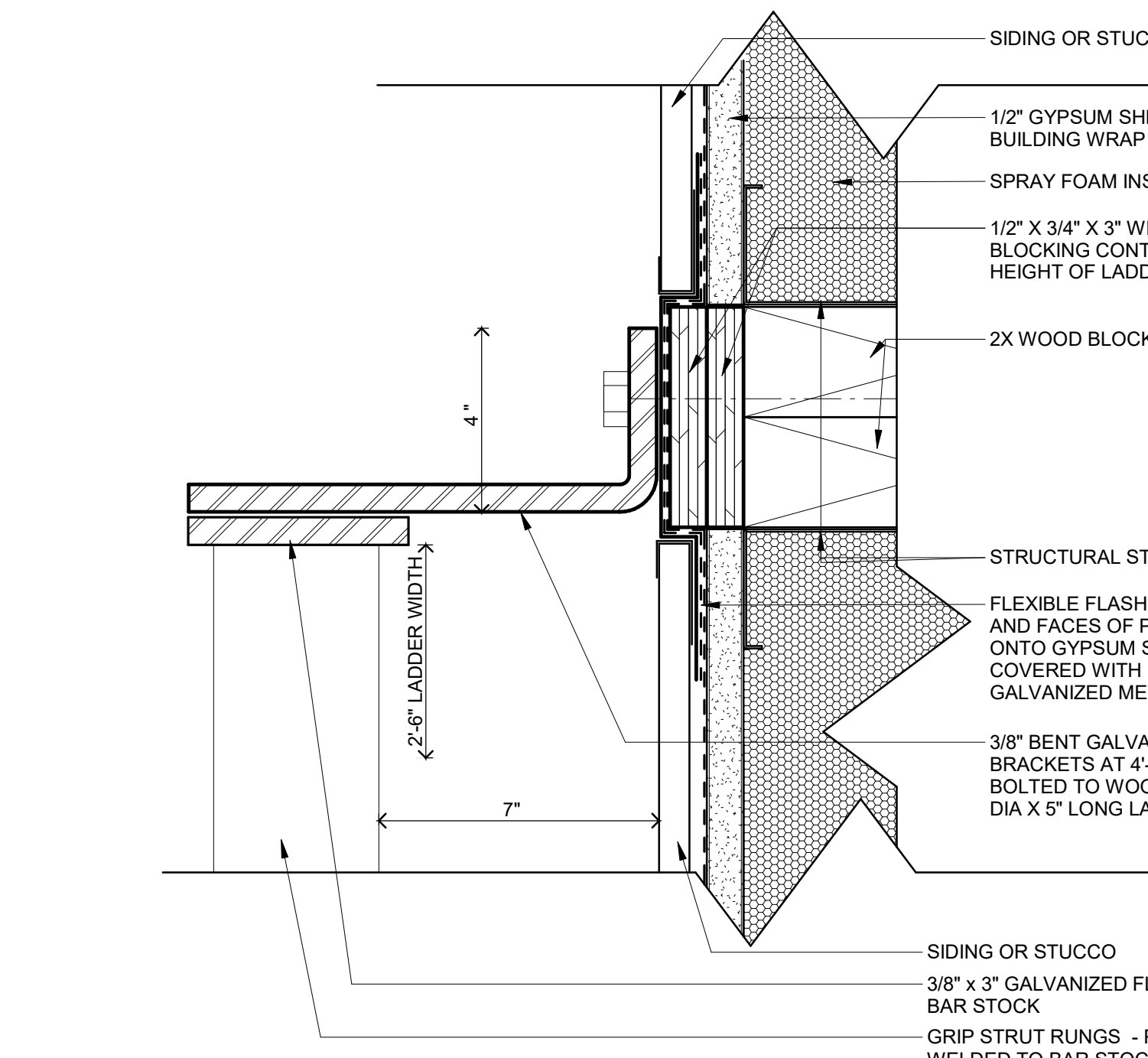
F1 TYPICAL SHIPS LADDER SECTION
1/4" = 1'-0"



F3 ROOF LADDER ELEV/SECTION
3/8" = 1'-0"



F4 SECTION AT ROOF LADDER
3/4" = 1'-0"

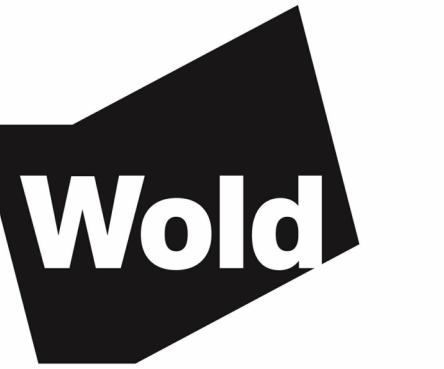


F6 SECTION OF ROOF LADDER AT STUD WALL
6" = 1'-0"

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John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	Num
	Date	

Comm: 232010
Date: 09/12/2023
Drawn: KH
Check: JW

DETAILS - VERTICAL CIRCULATION

Scale: As indicated

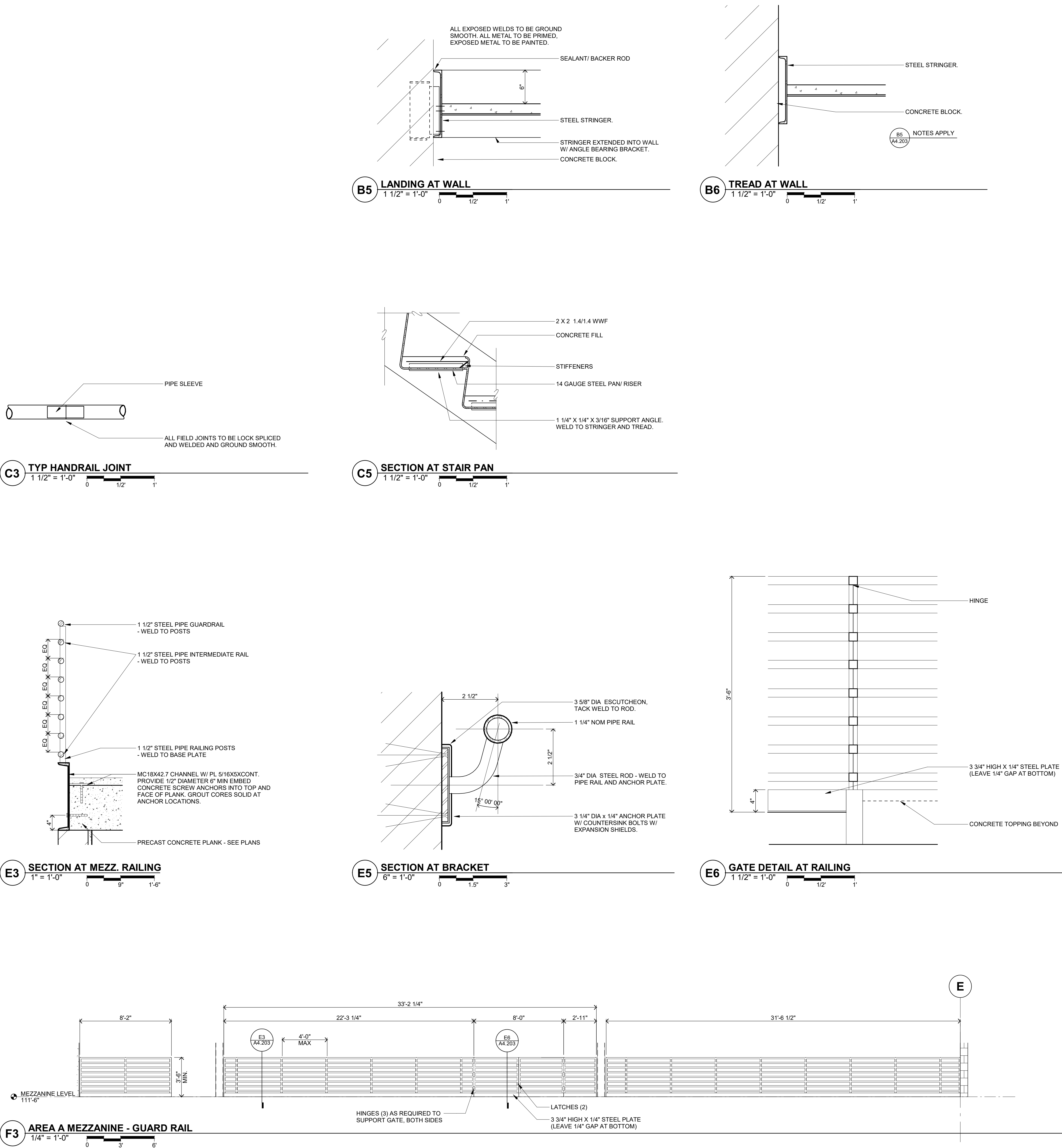
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A4.201

MN

A

Architect: John McNamara, AIA, 232010
License Number: 24281
Date: 09/12/2023
Drawn: KH
Check: JW
10/10/2023 10:22 AM



NEW UTILITY & ENGINEERING BUILDING

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DETAILS - VERTICAL CIRCULATION AND RAILING DETAILS

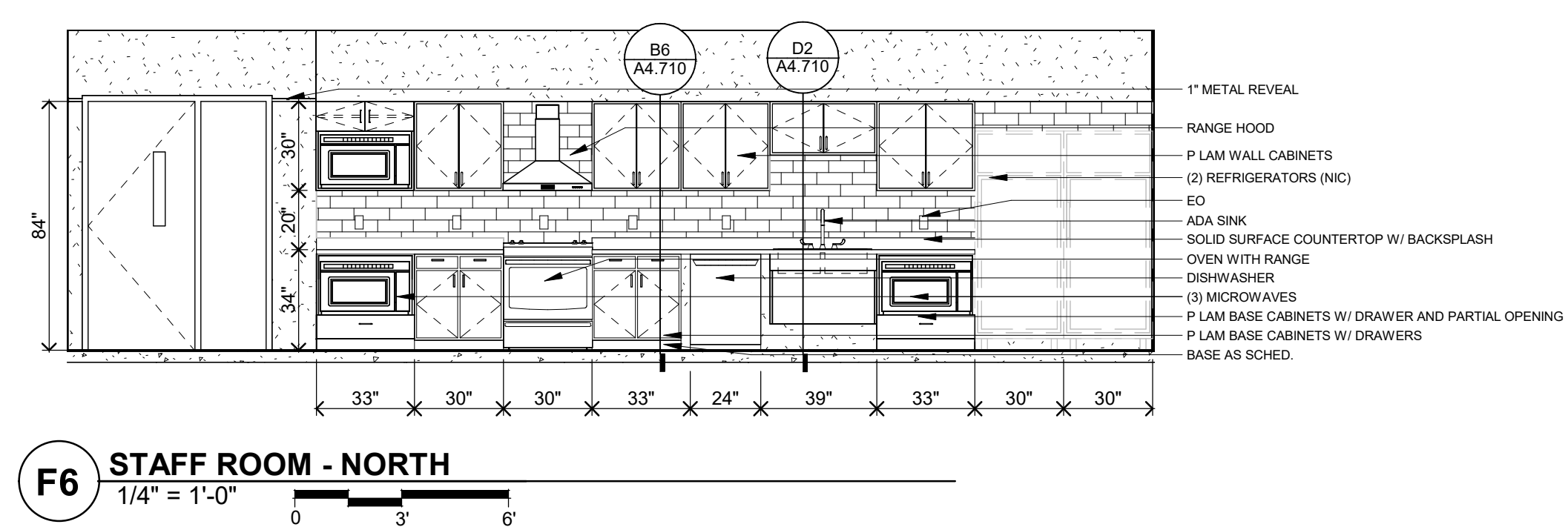
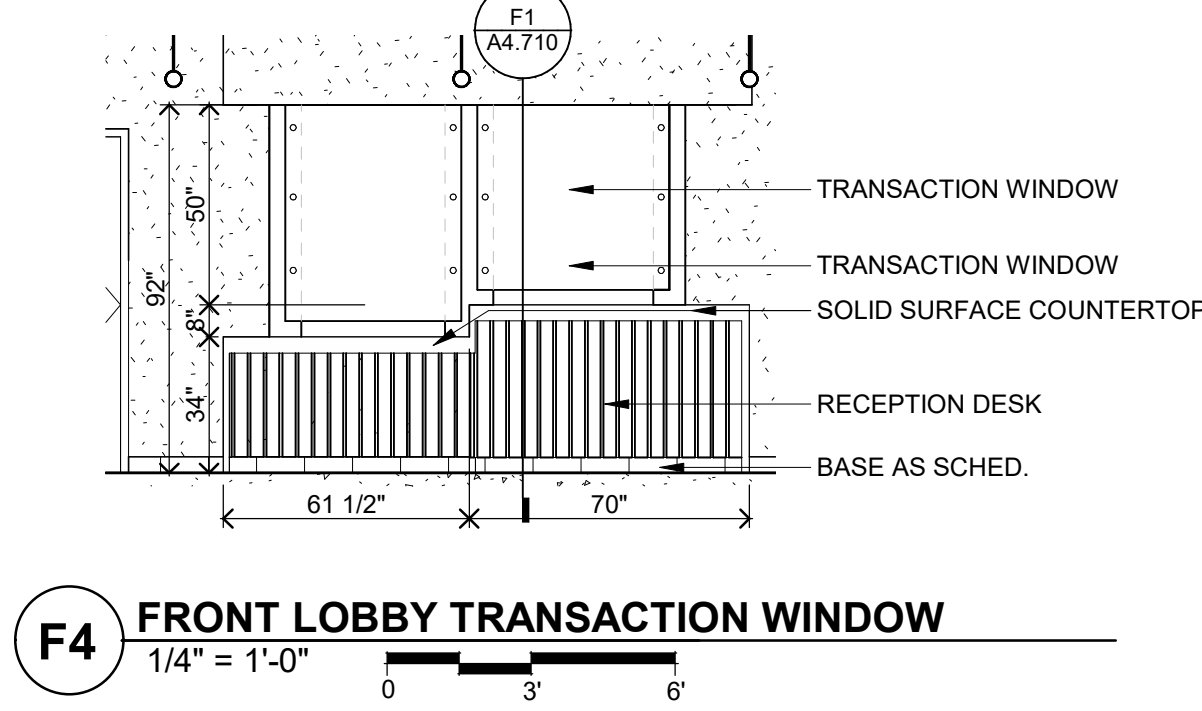
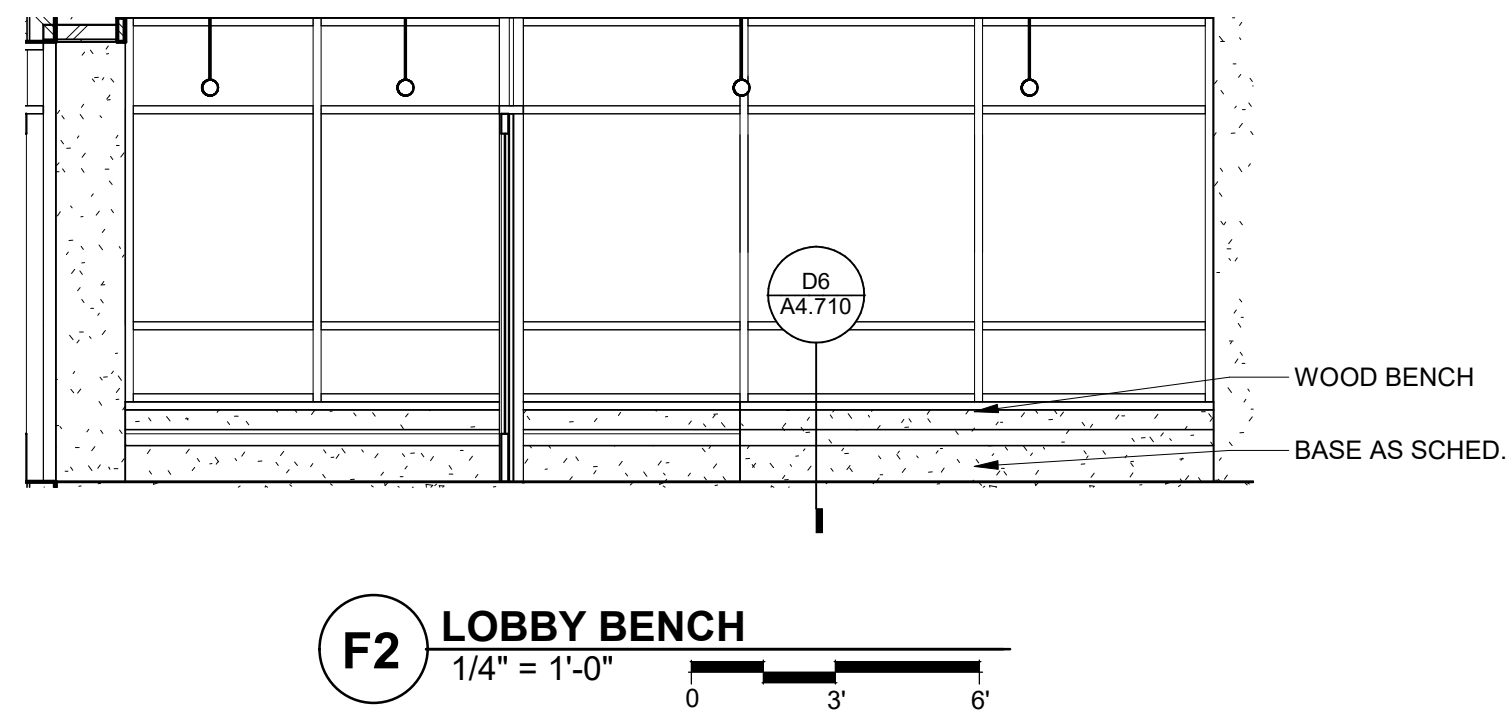
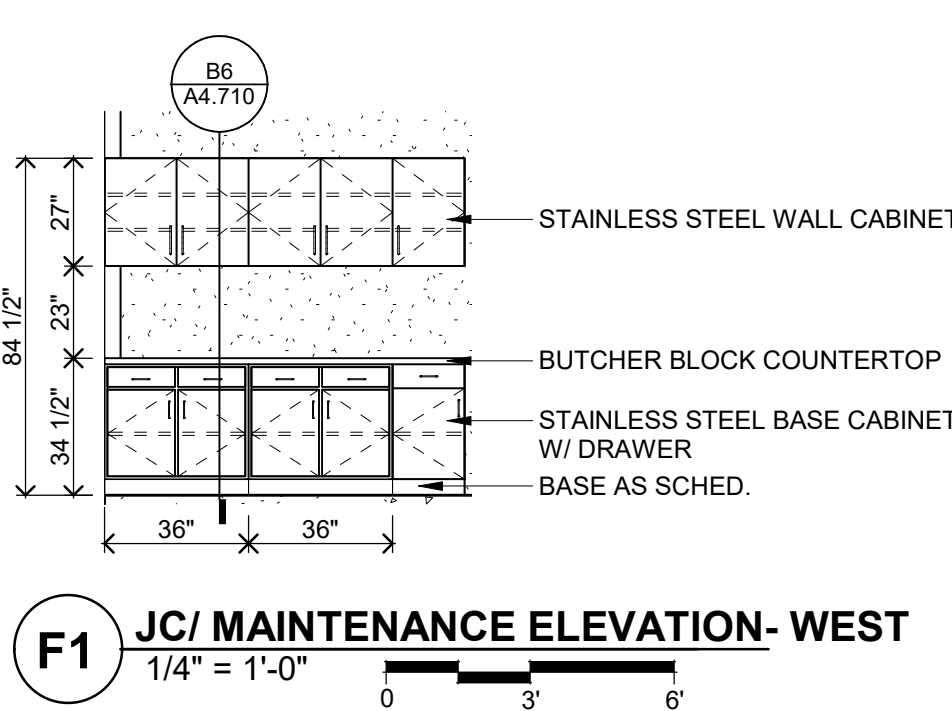
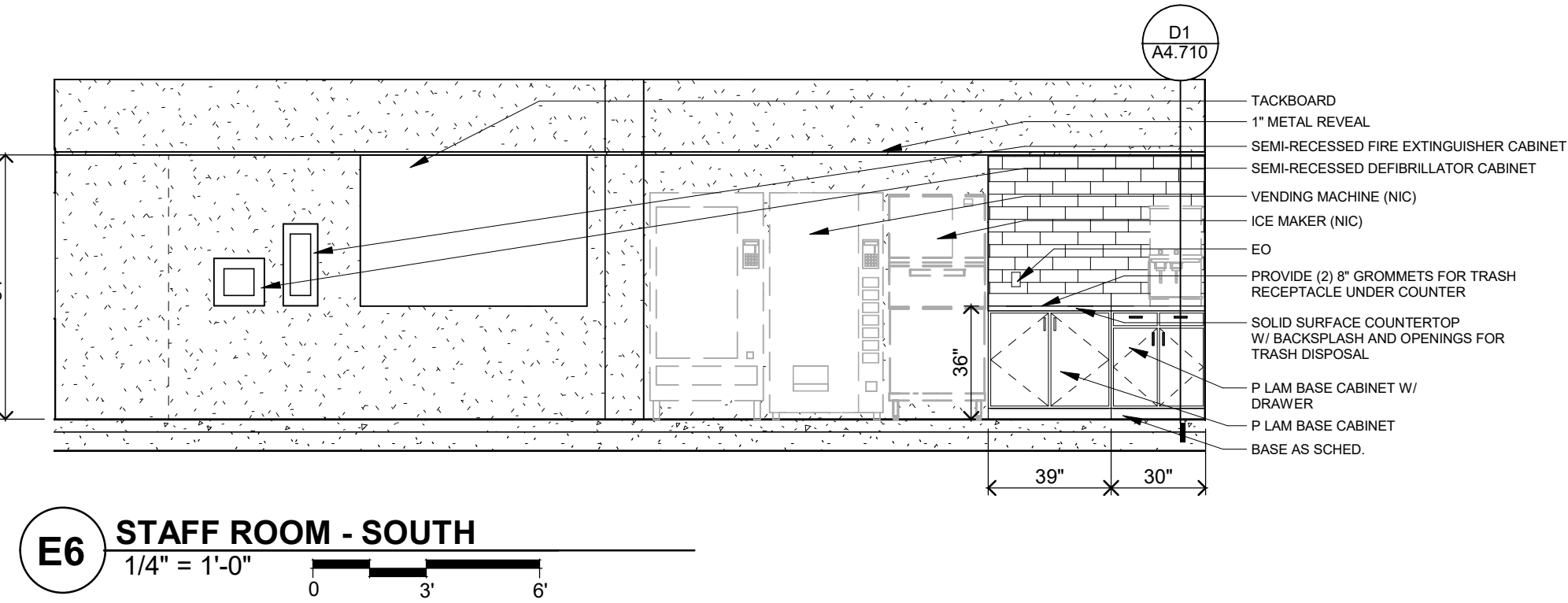
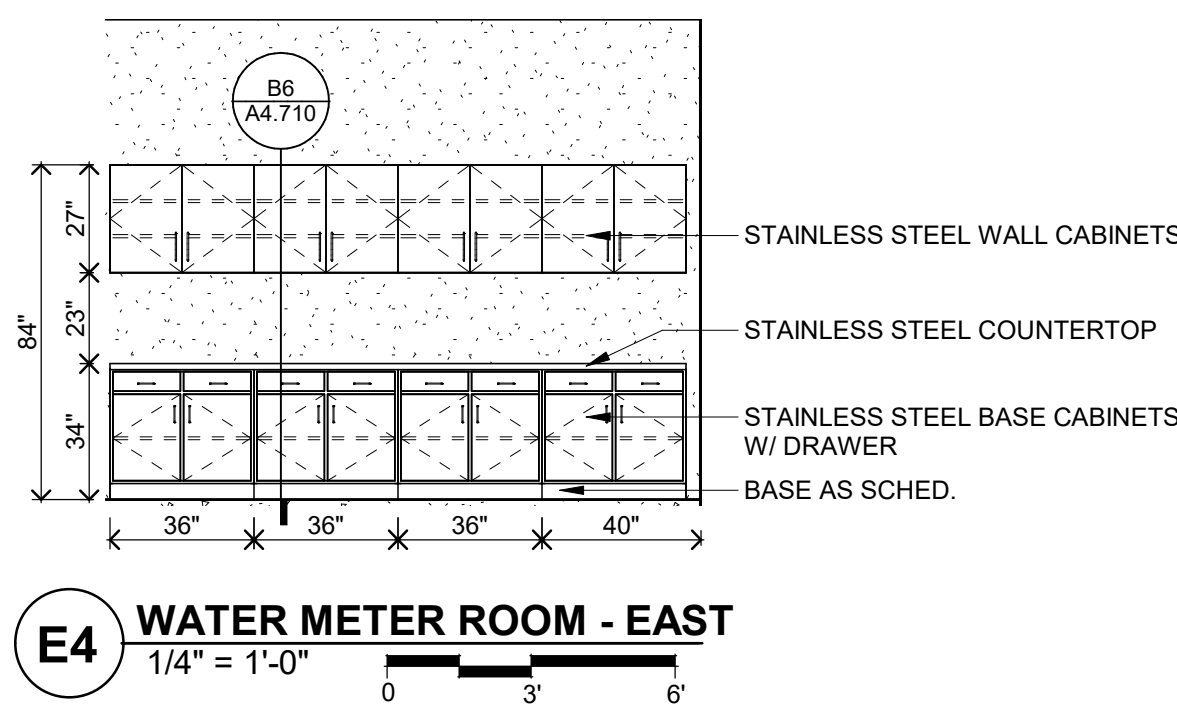
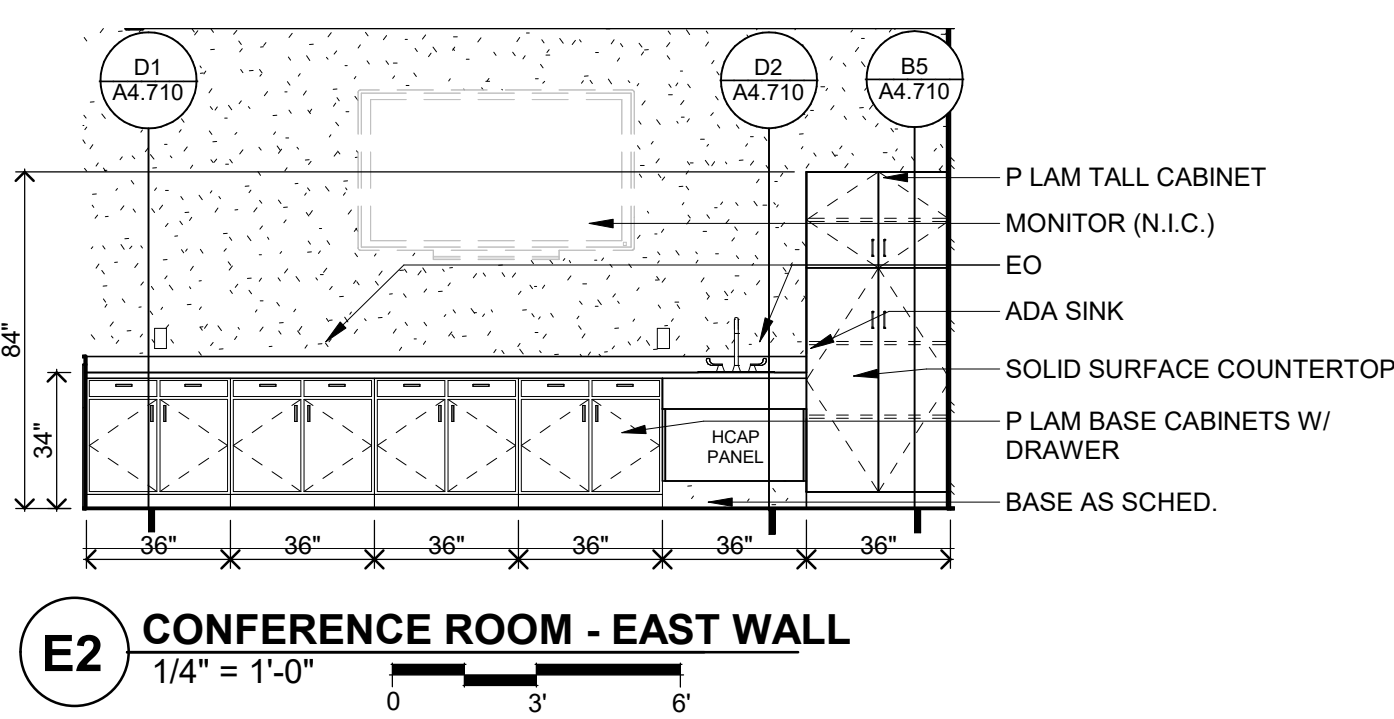
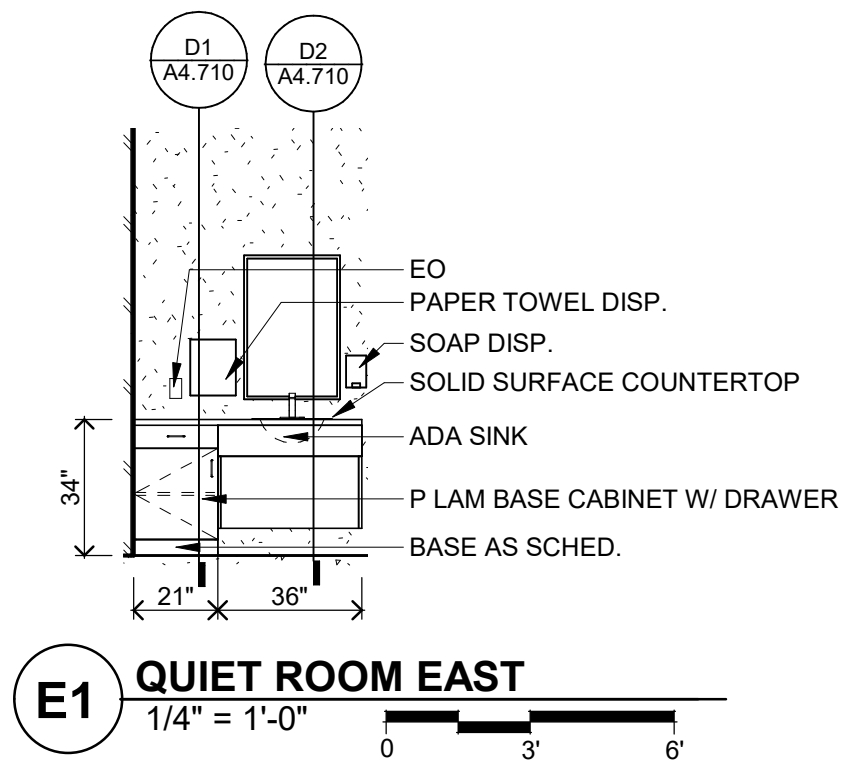
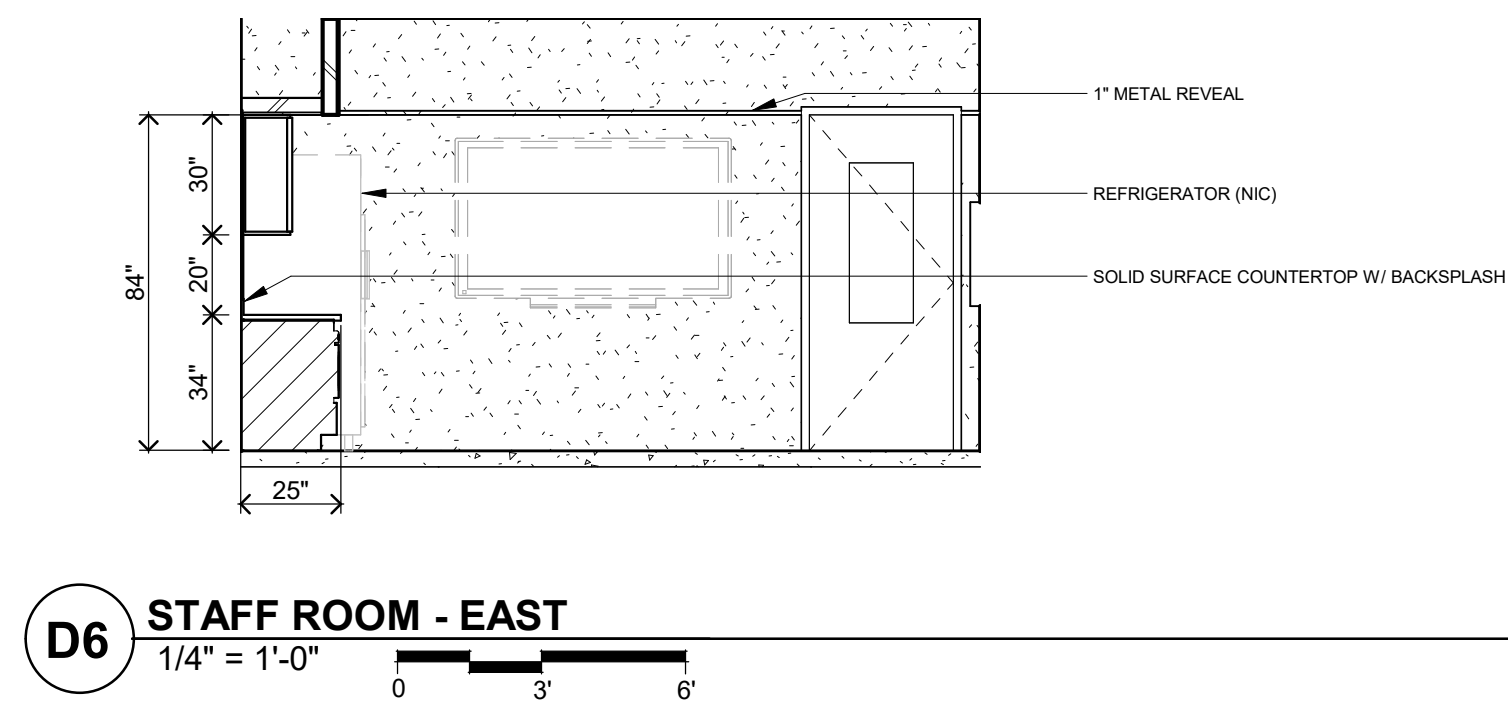
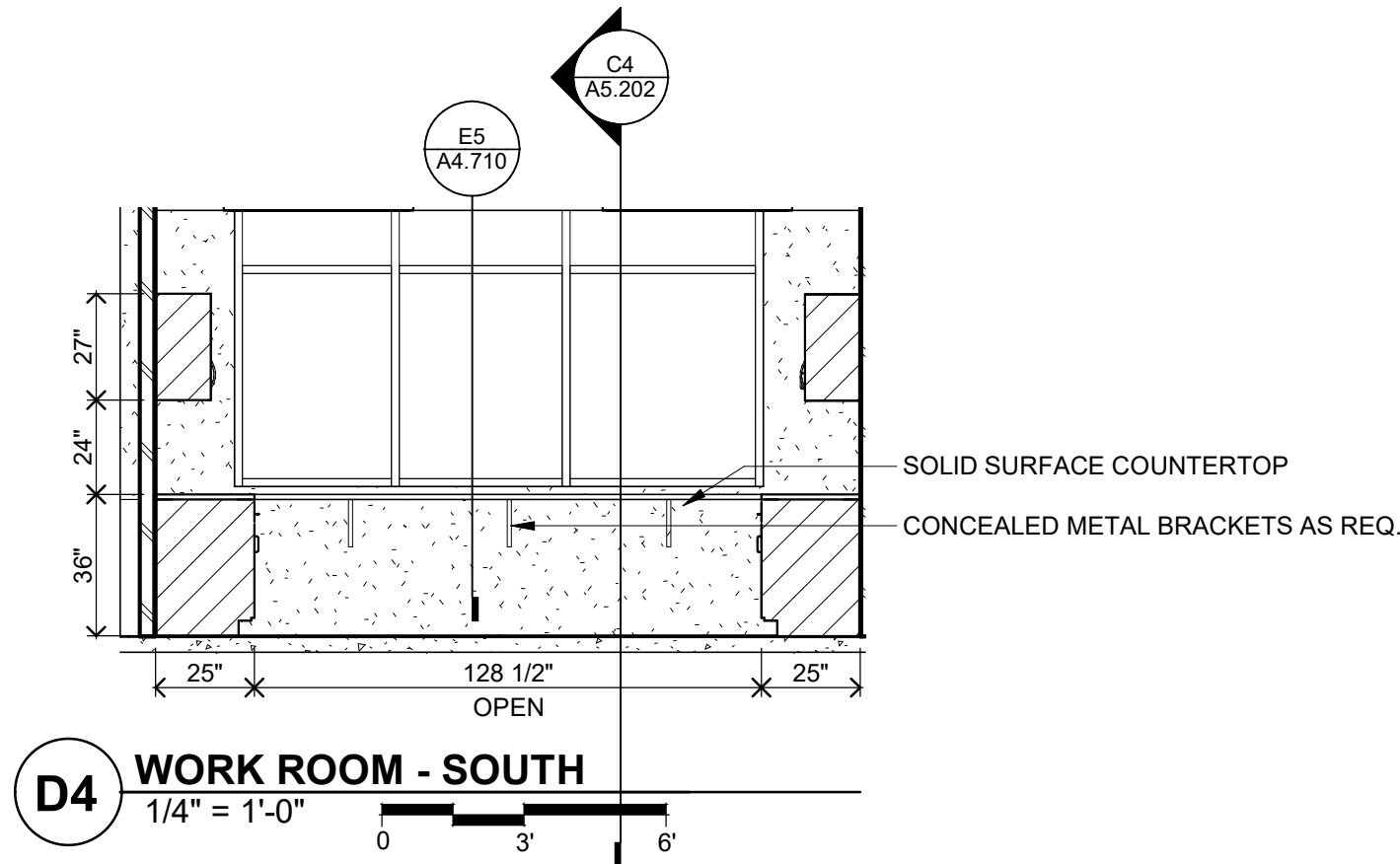
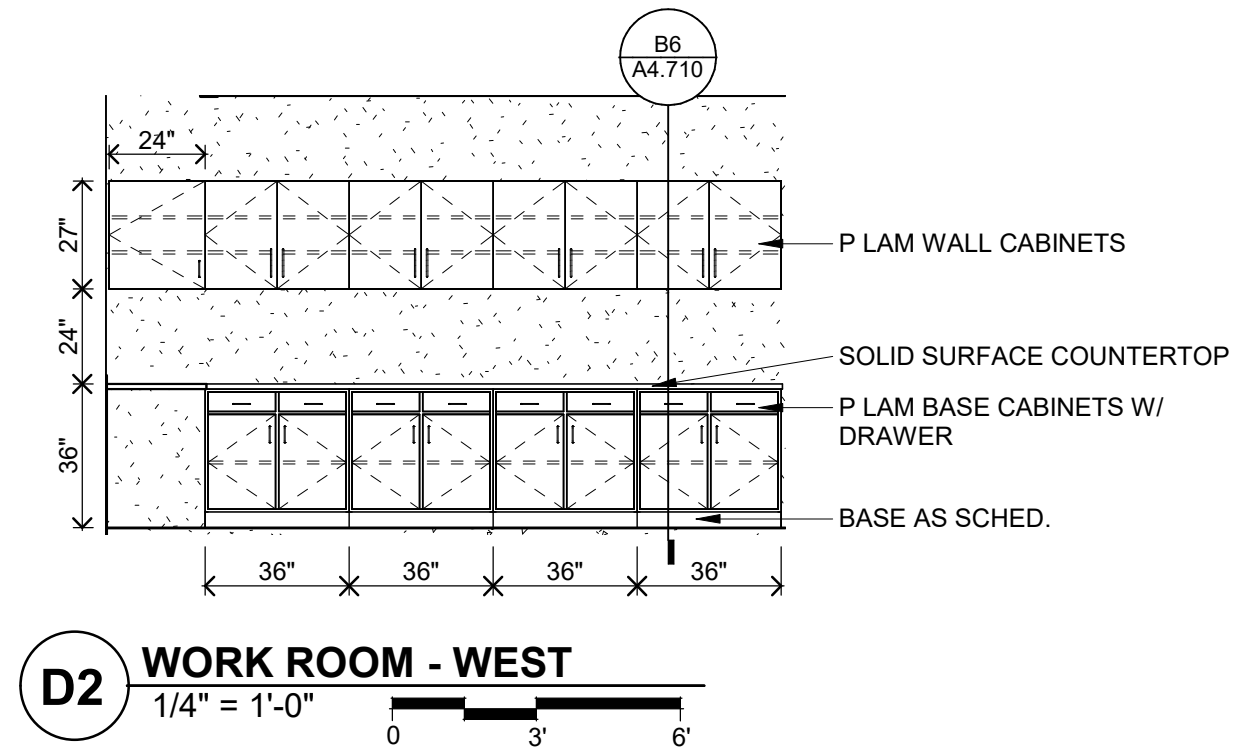
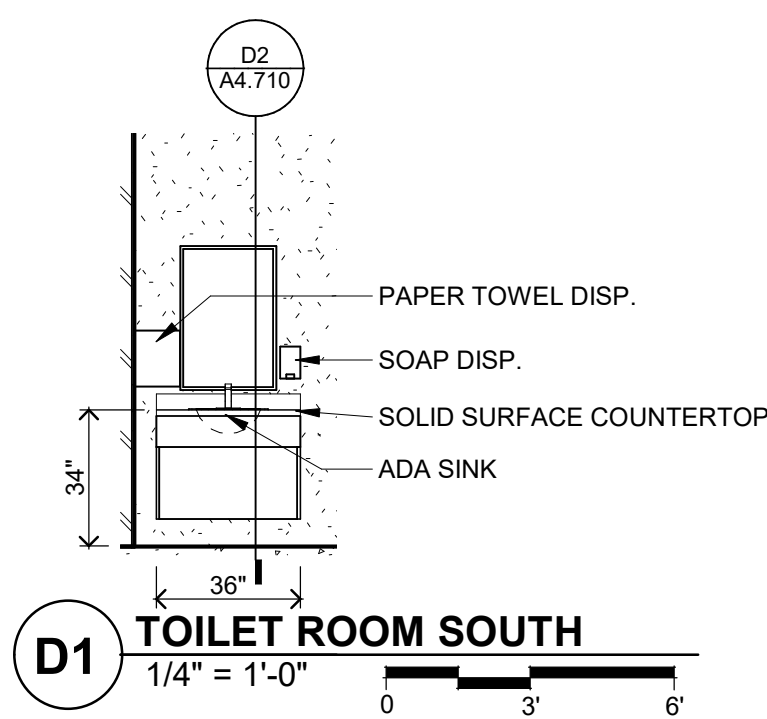
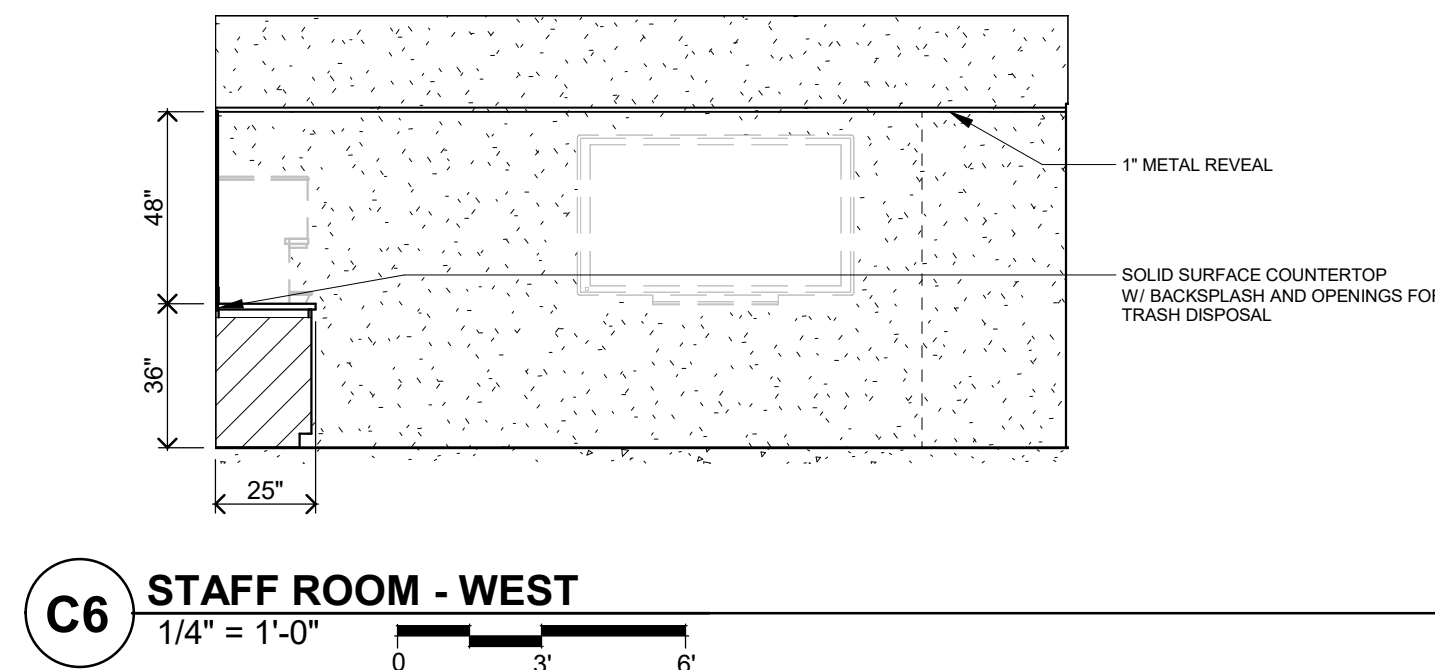
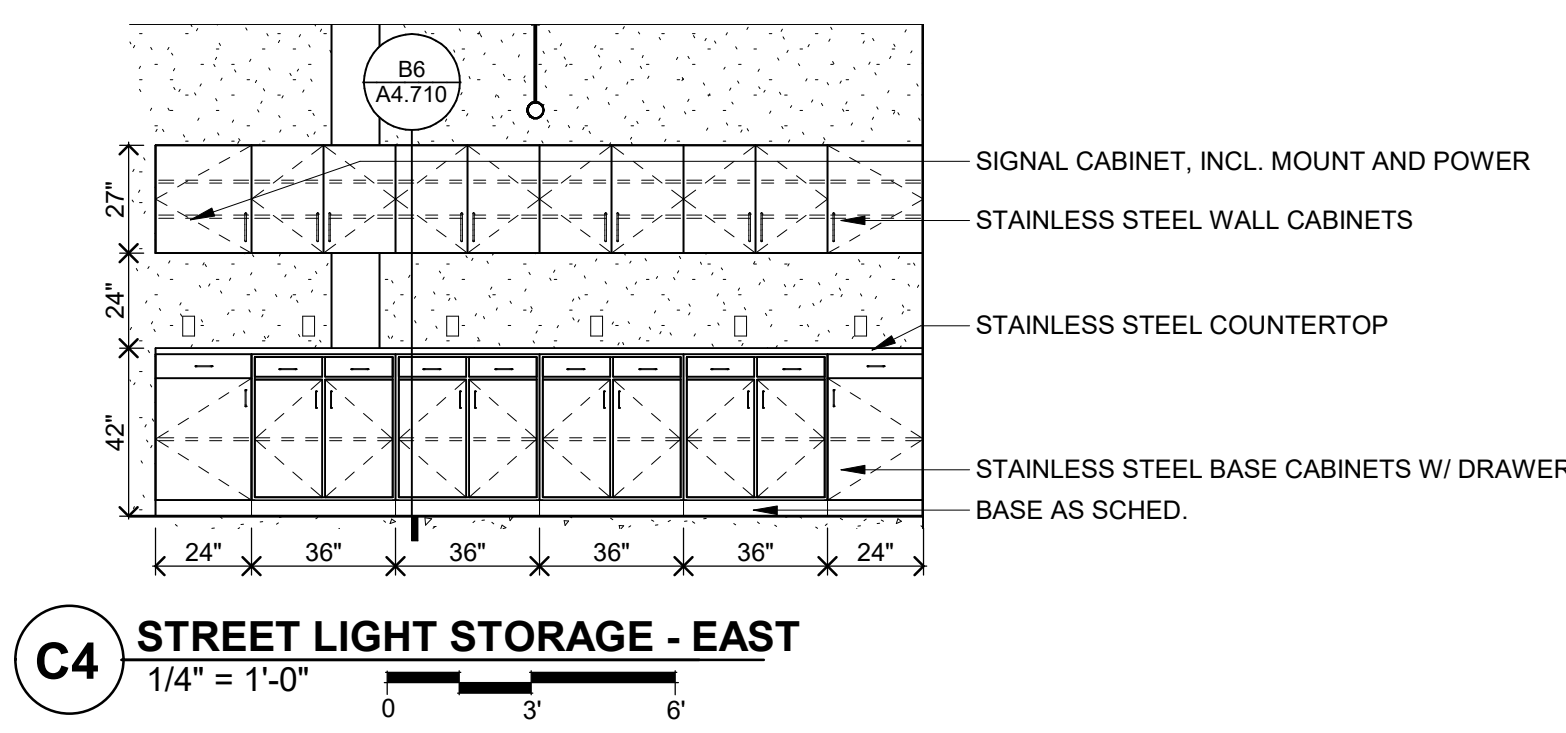
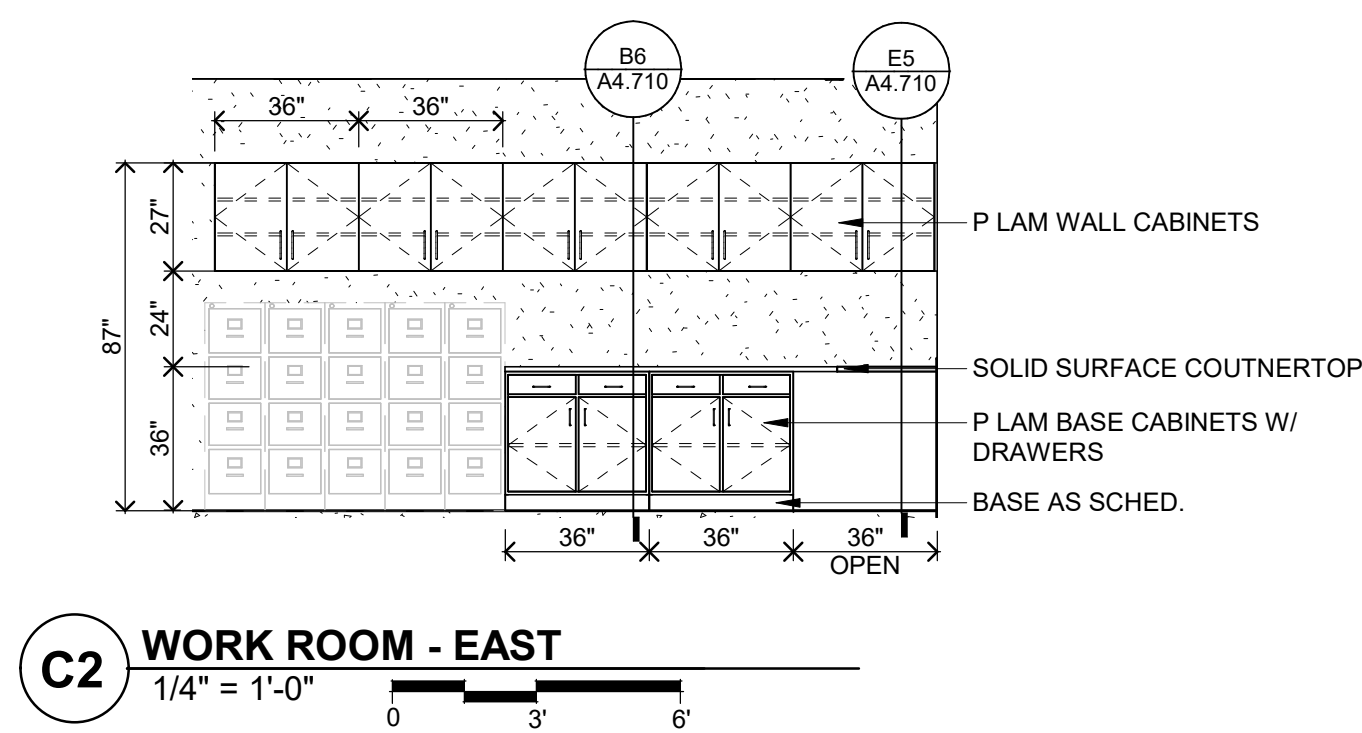
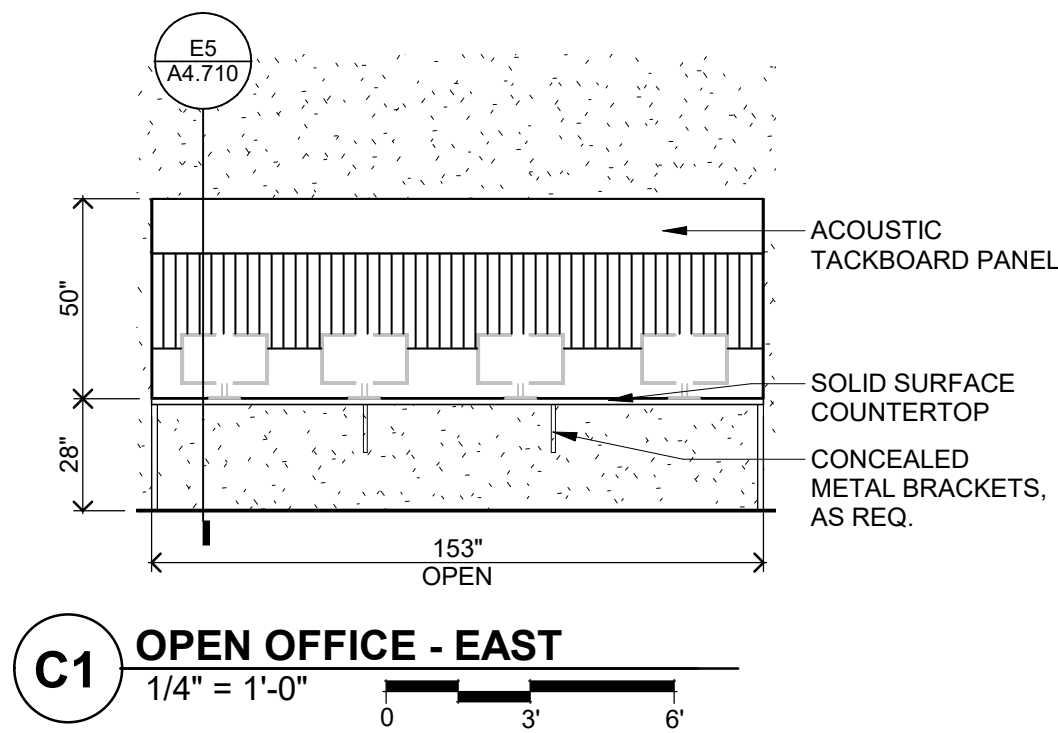
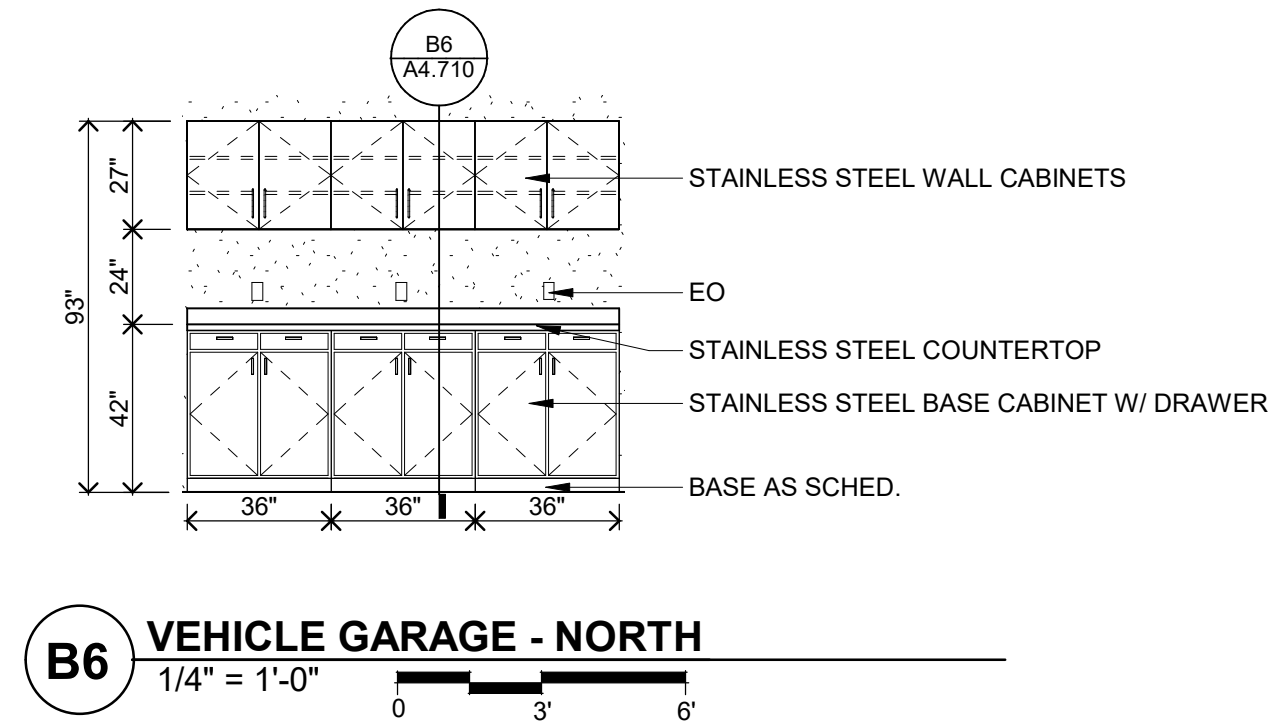
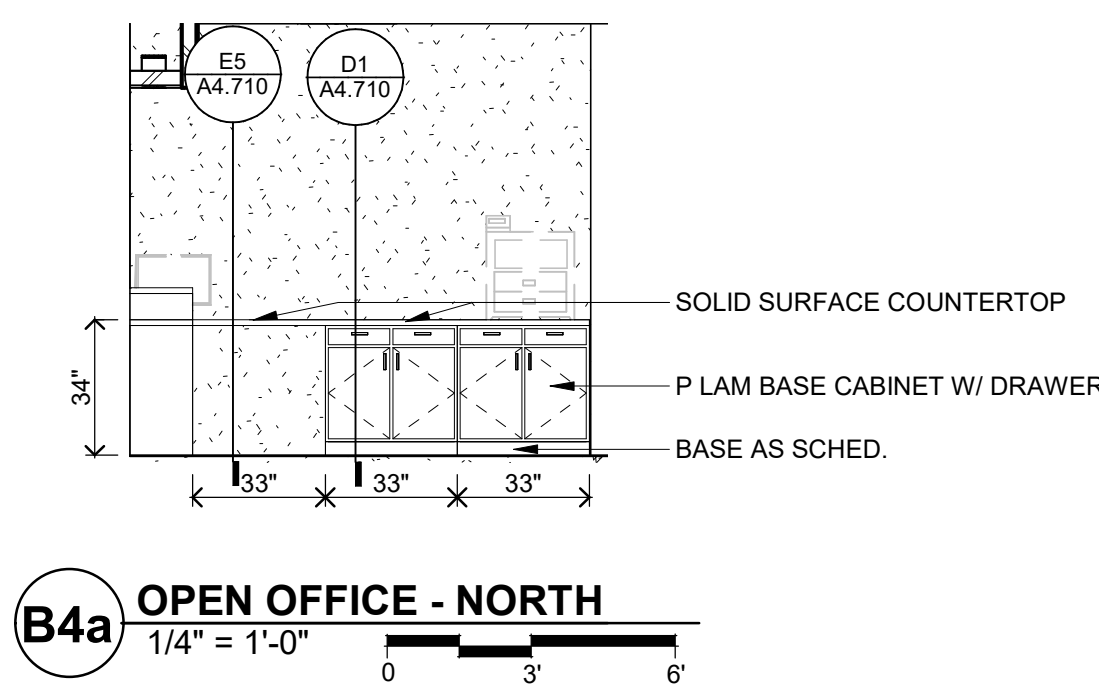
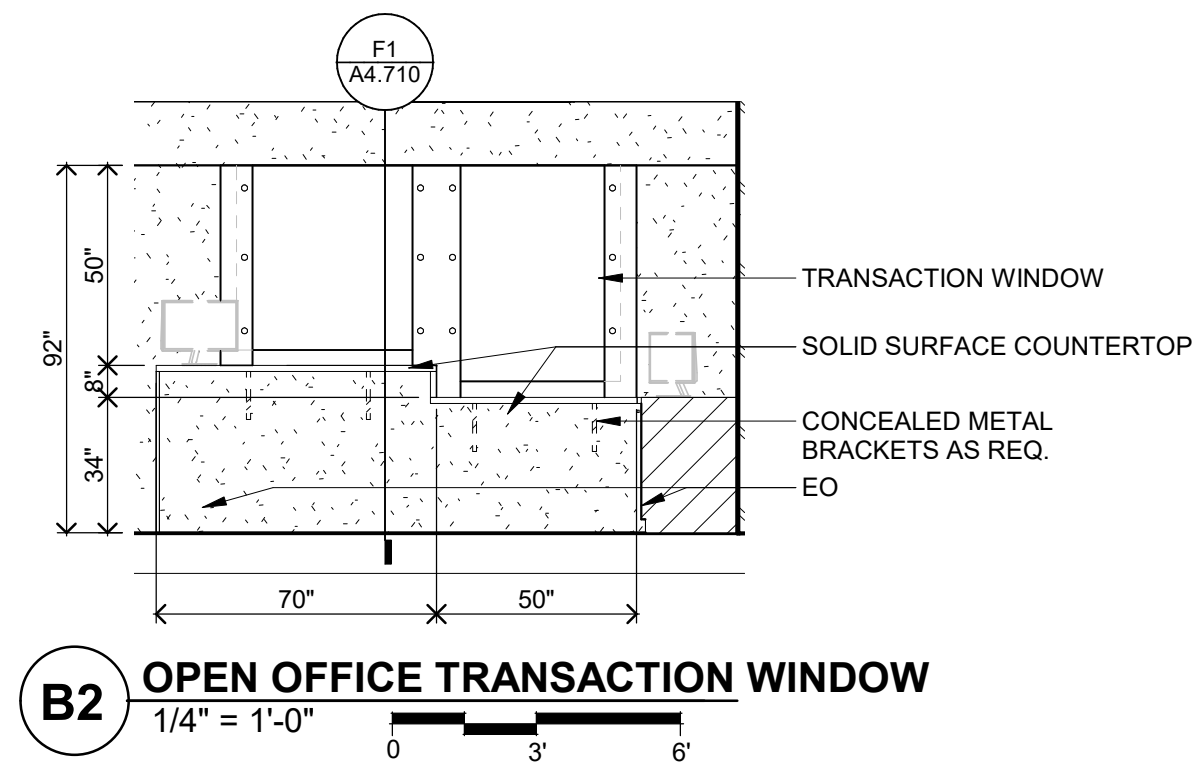
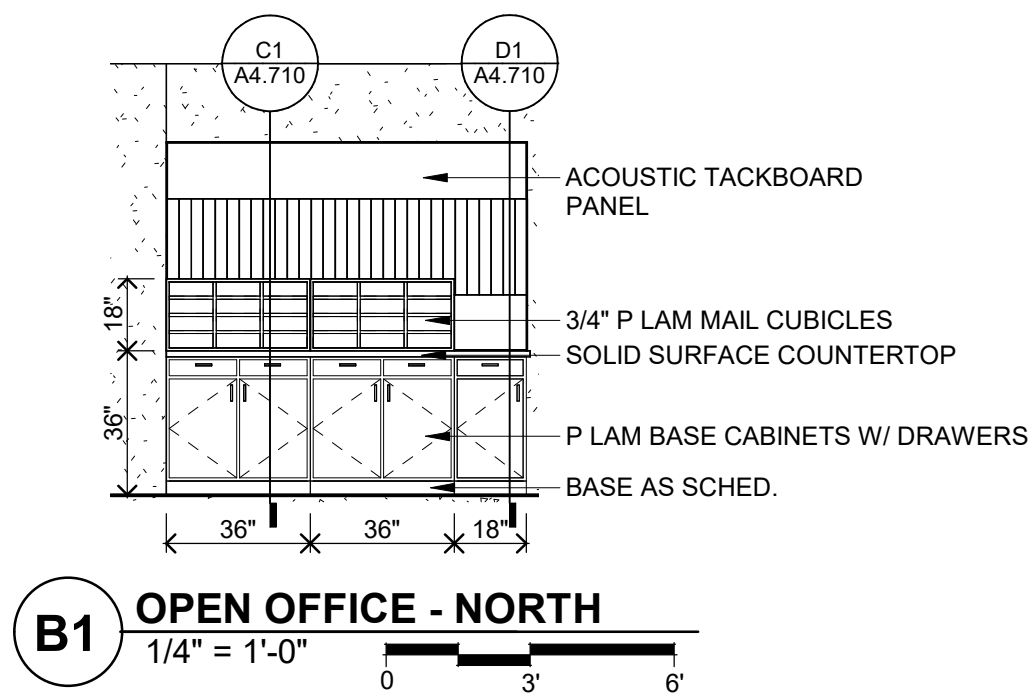
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A4.203

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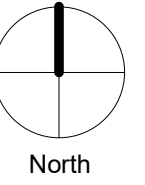
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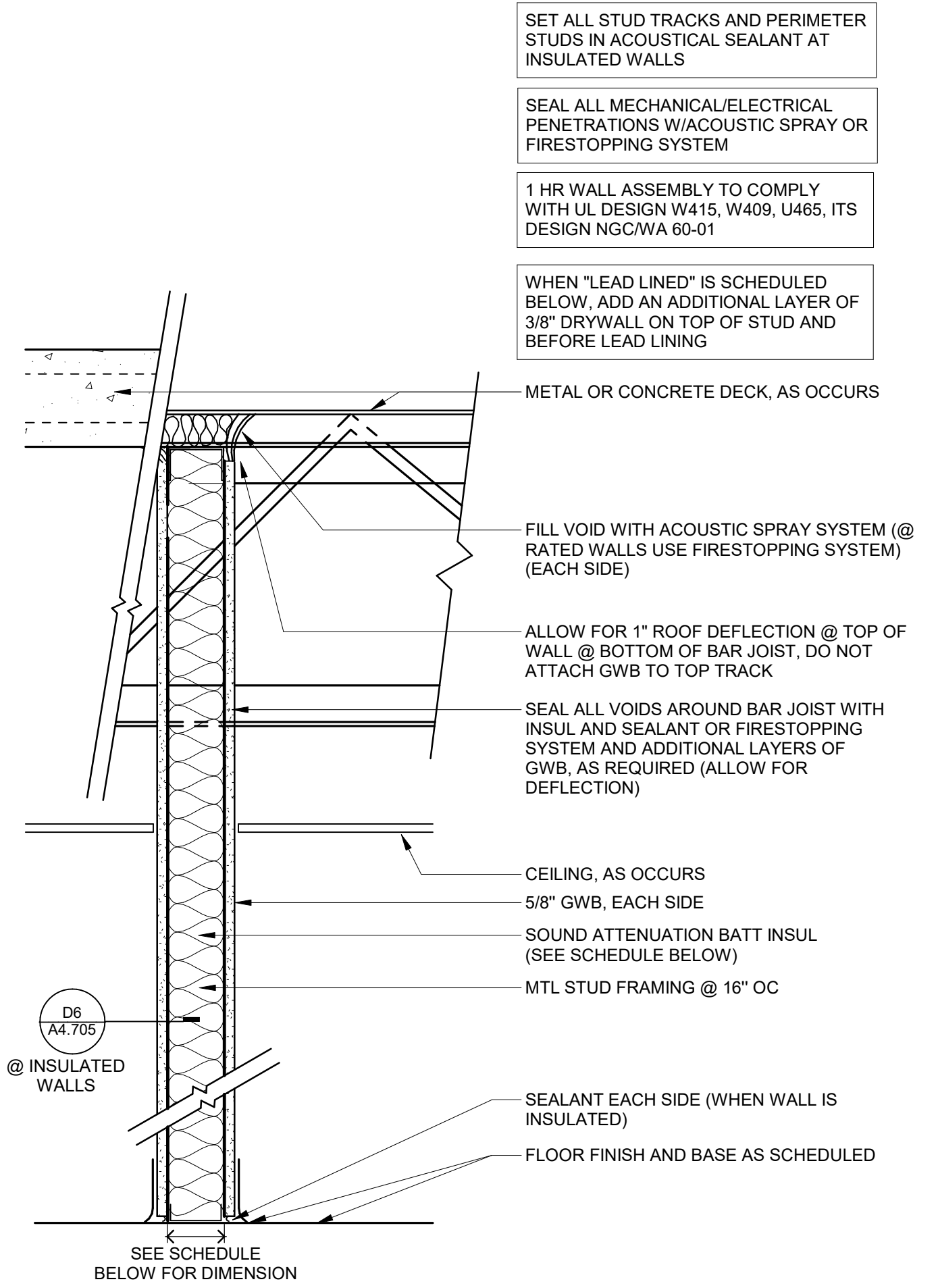


CASEWORK ELEVATIONS

Scale: 1/4" = 1'-0"

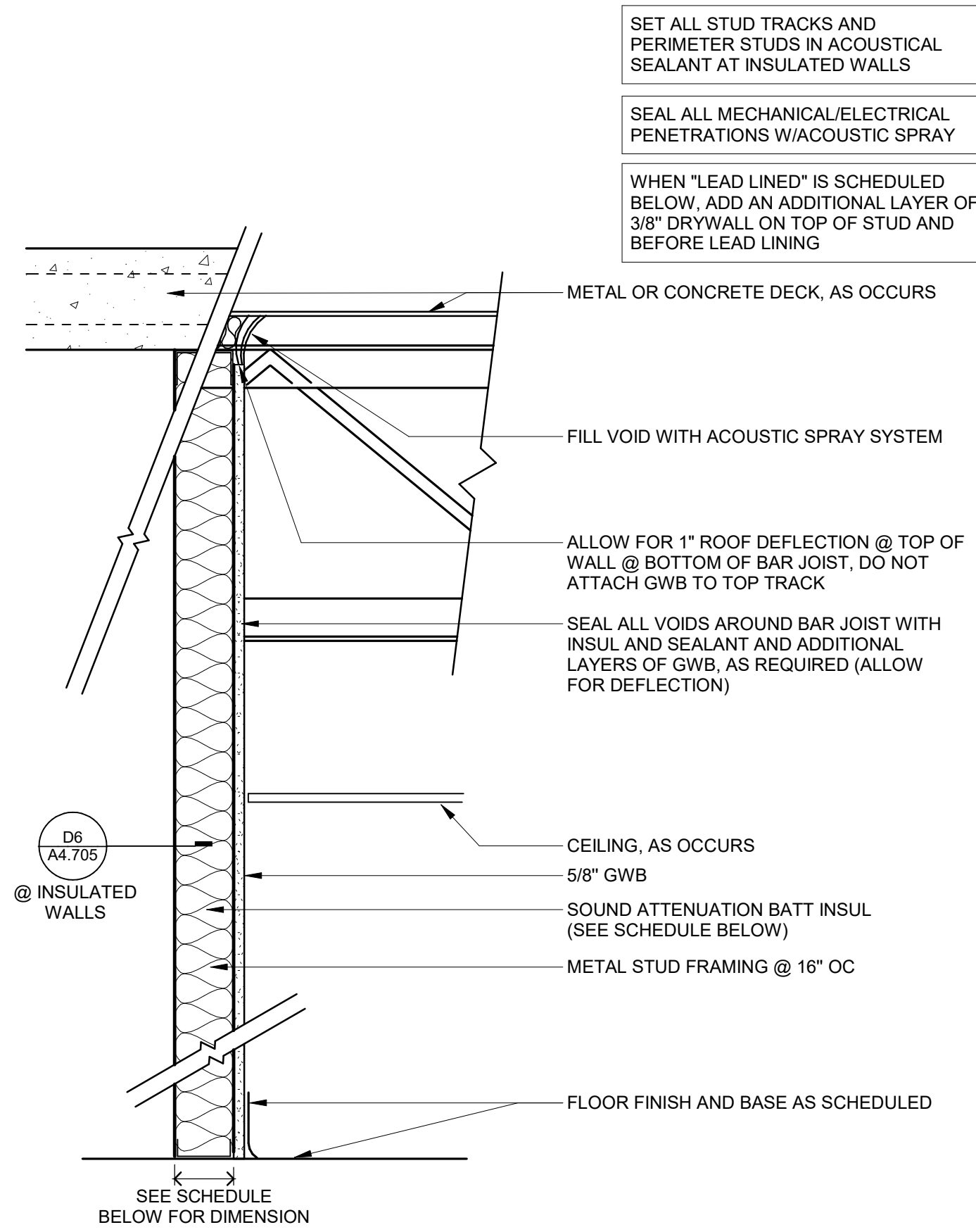
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A4.451

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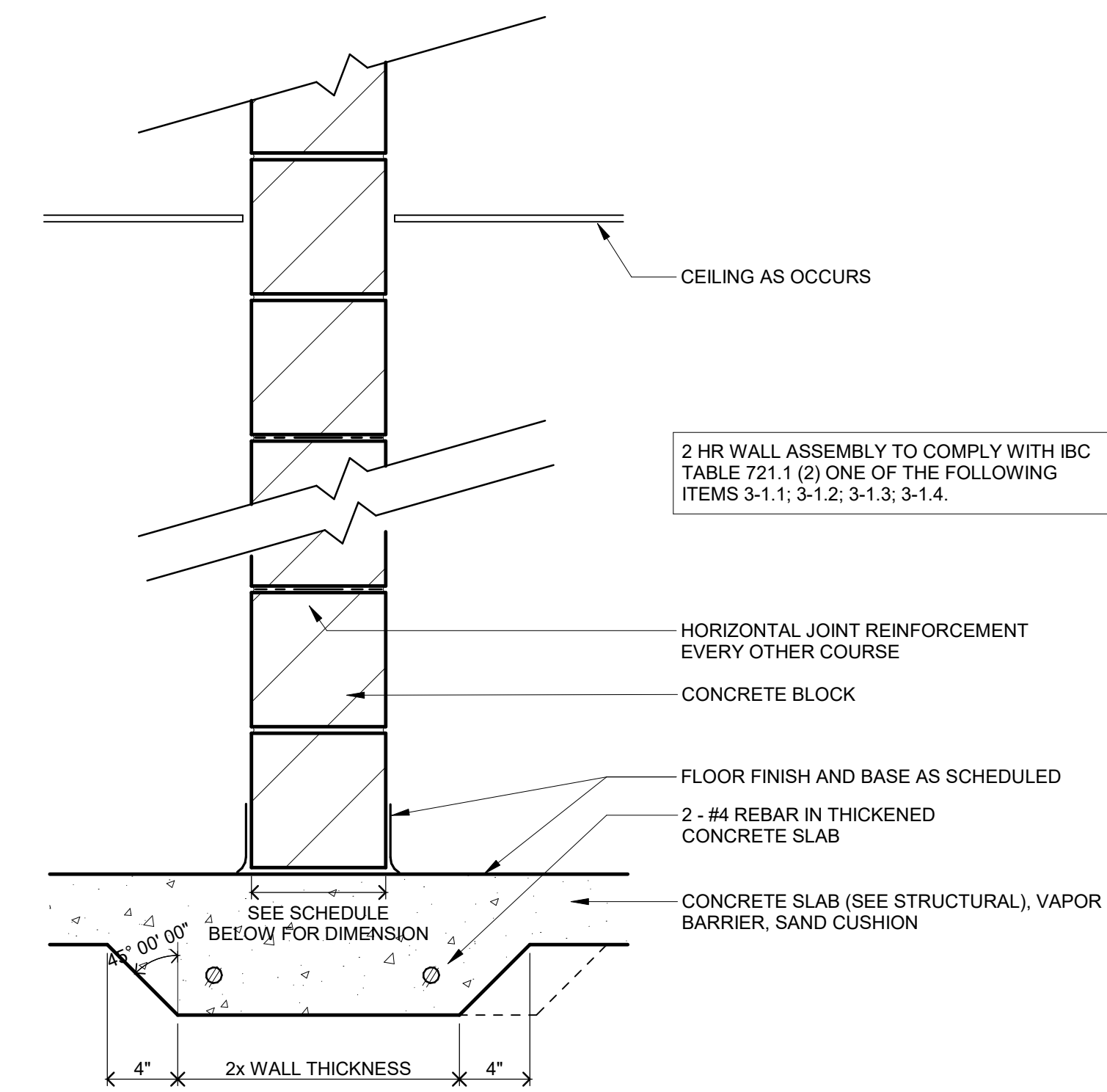
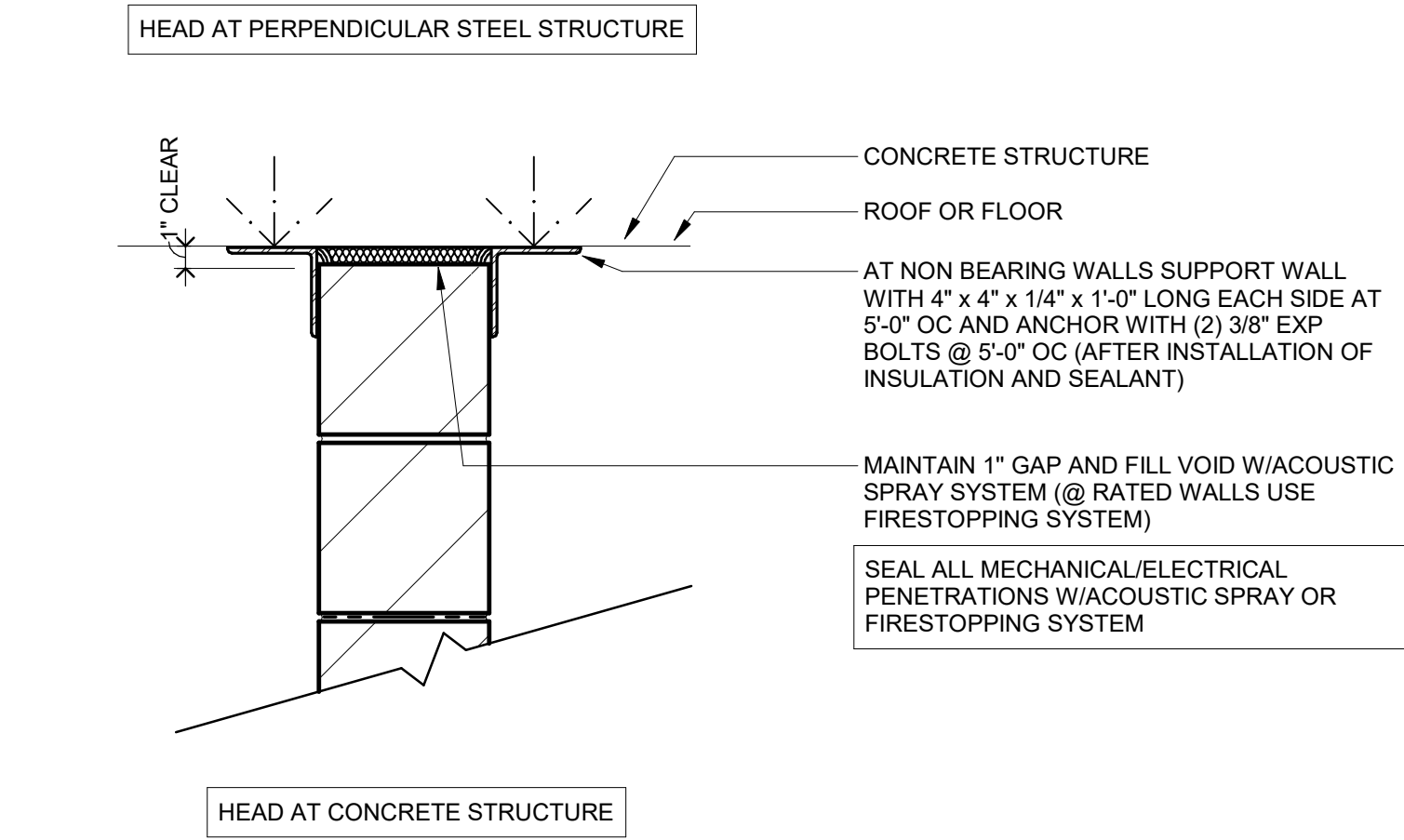
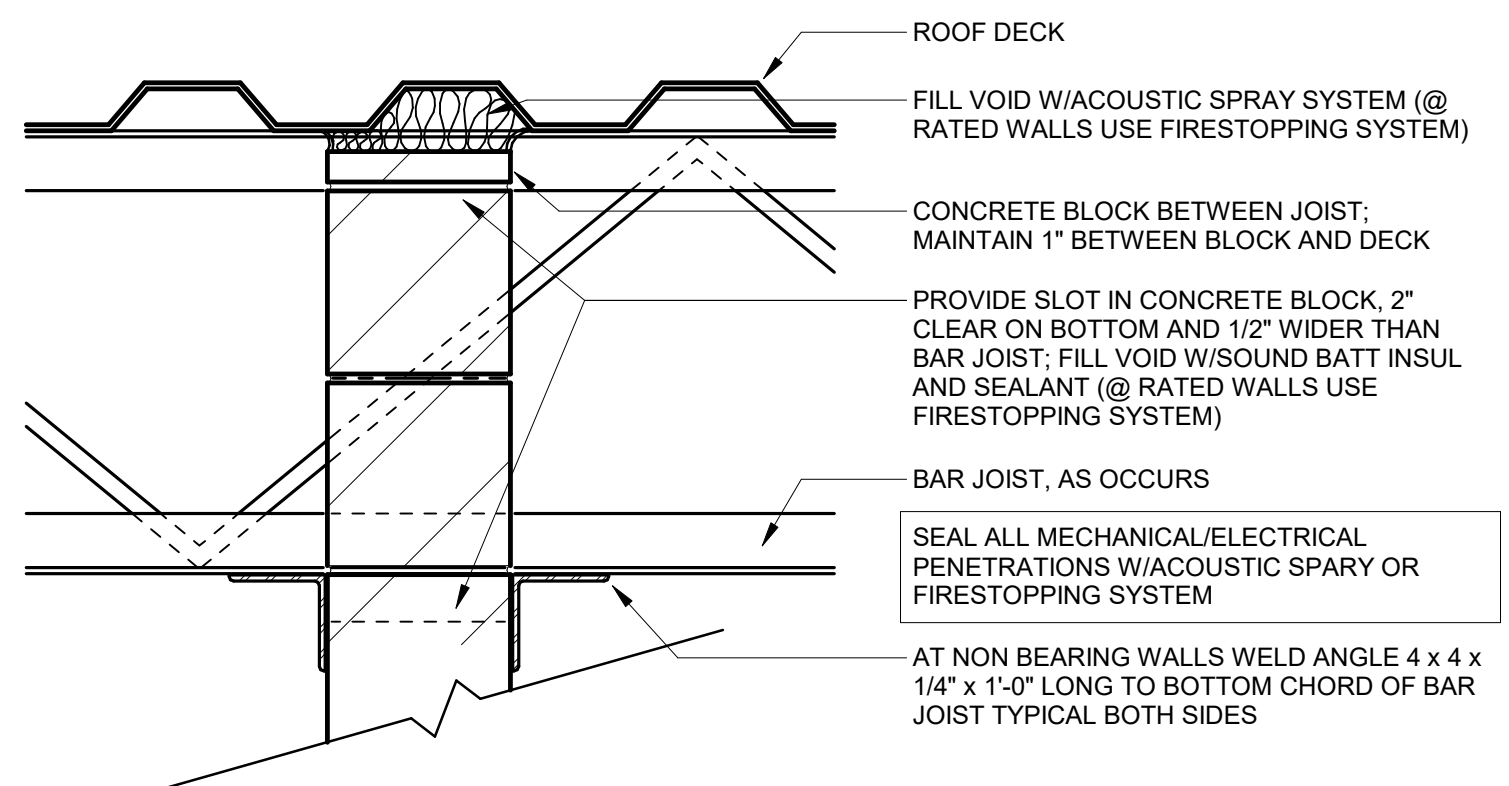
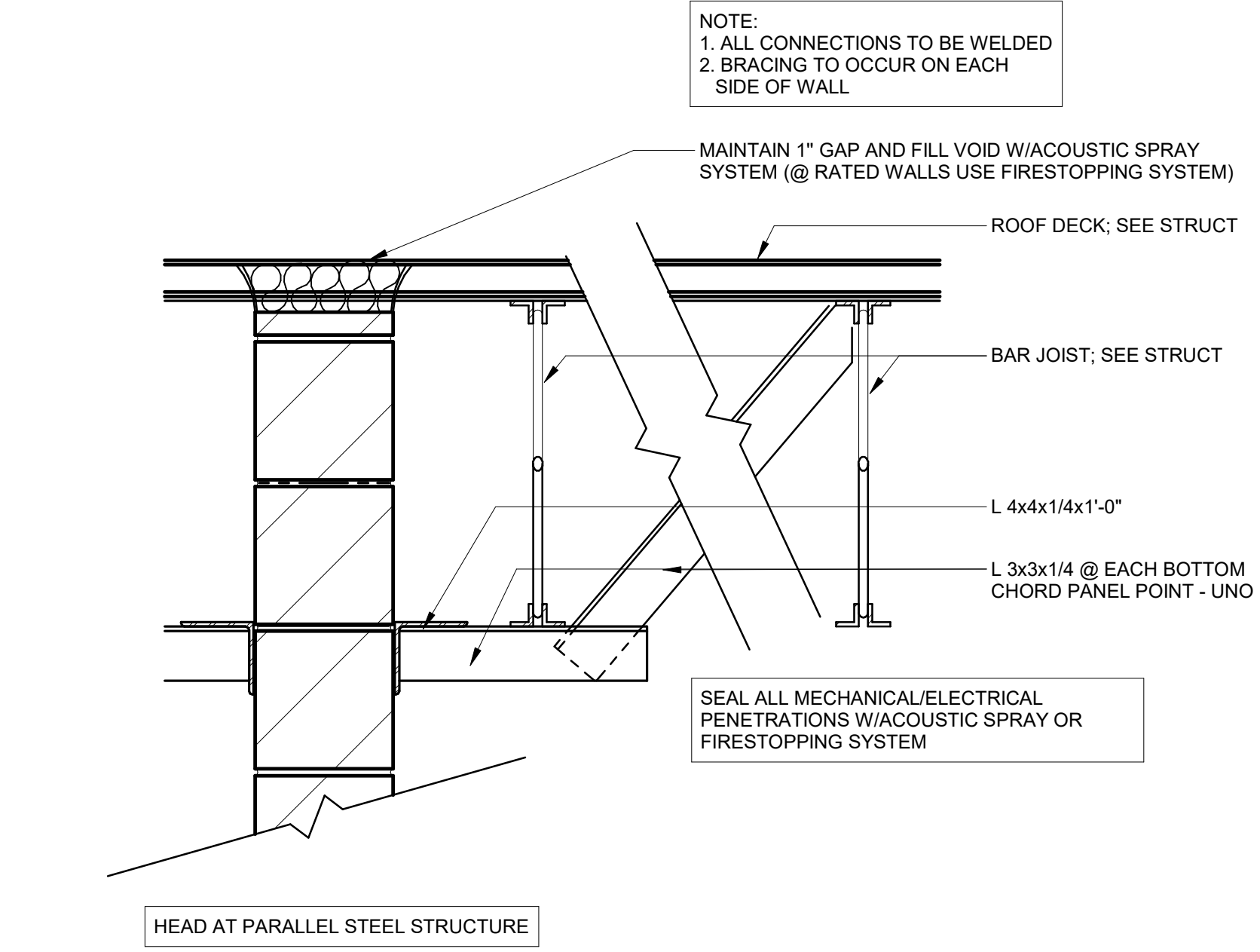
WALL TYPE GA
1 1/2" = 1'-0"

TYPE	STUD SIZE	INSULATION	MIN STC	NOTES
GA6	3 5/8"	SOUND BATT	48	



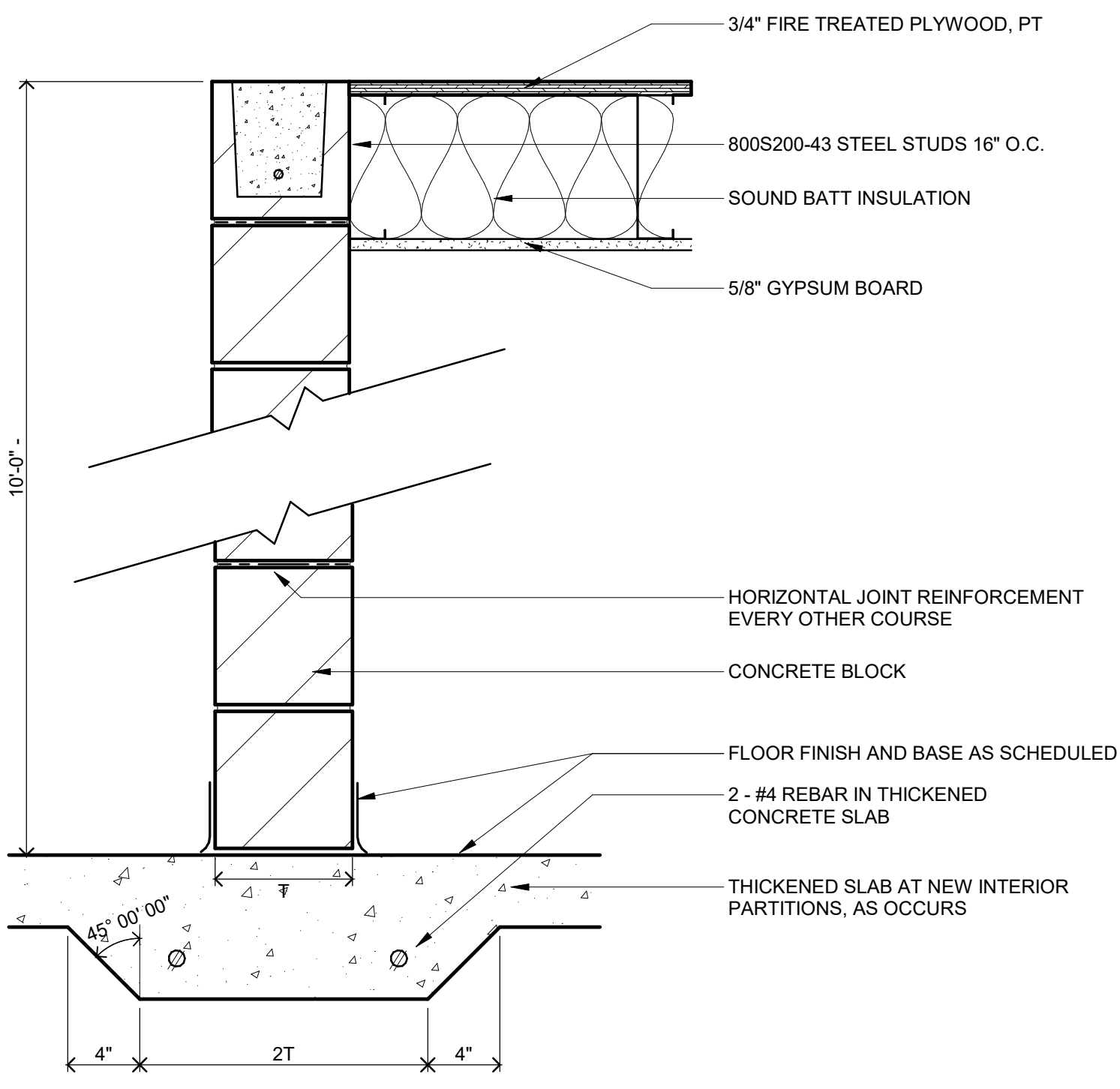
WALL TYPE GB
1 1/2" = 1'-0"

TYPE	STUD SIZE	INSULATION	MIN STC	NOTES
GB2	3 5/8"	NONE		
GB6	3 5/8"	SOUND BATT	48	

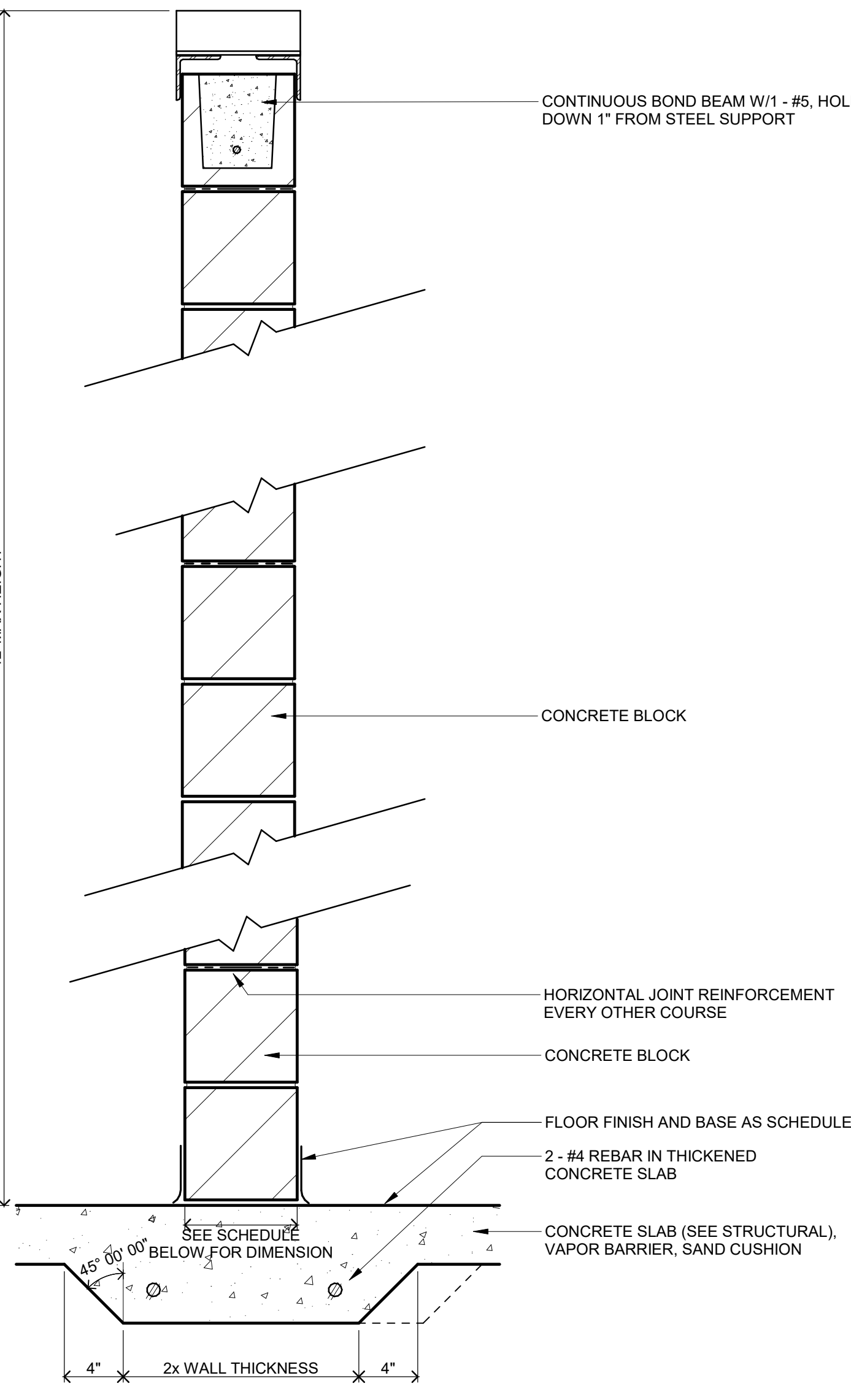


WALL TYPE MA
1 1/2" = 1'-0"

TYPE	BLOCK SIZE	INSULATION	MIN STC	NOTES
MA2	8"	NONE	45	
MA3	8"	NONE	48	



CEILING CAP DETAIL
1 1/2" = 1'-0"



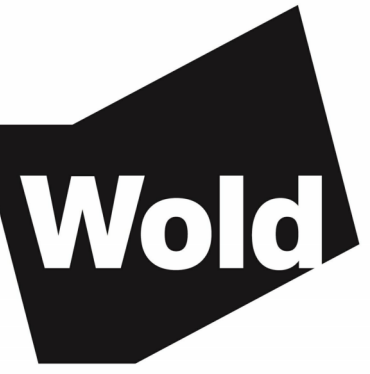
WALL TYPE MD
1 1/2" = 1'-0"

TYPE	BLOCK SIZE	INSULATION	MIN STC	NOTES
MD1	12"	NONE	45	

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DETAILS - WALL TYPES

Scale: 1 1/2" = 1'-0"

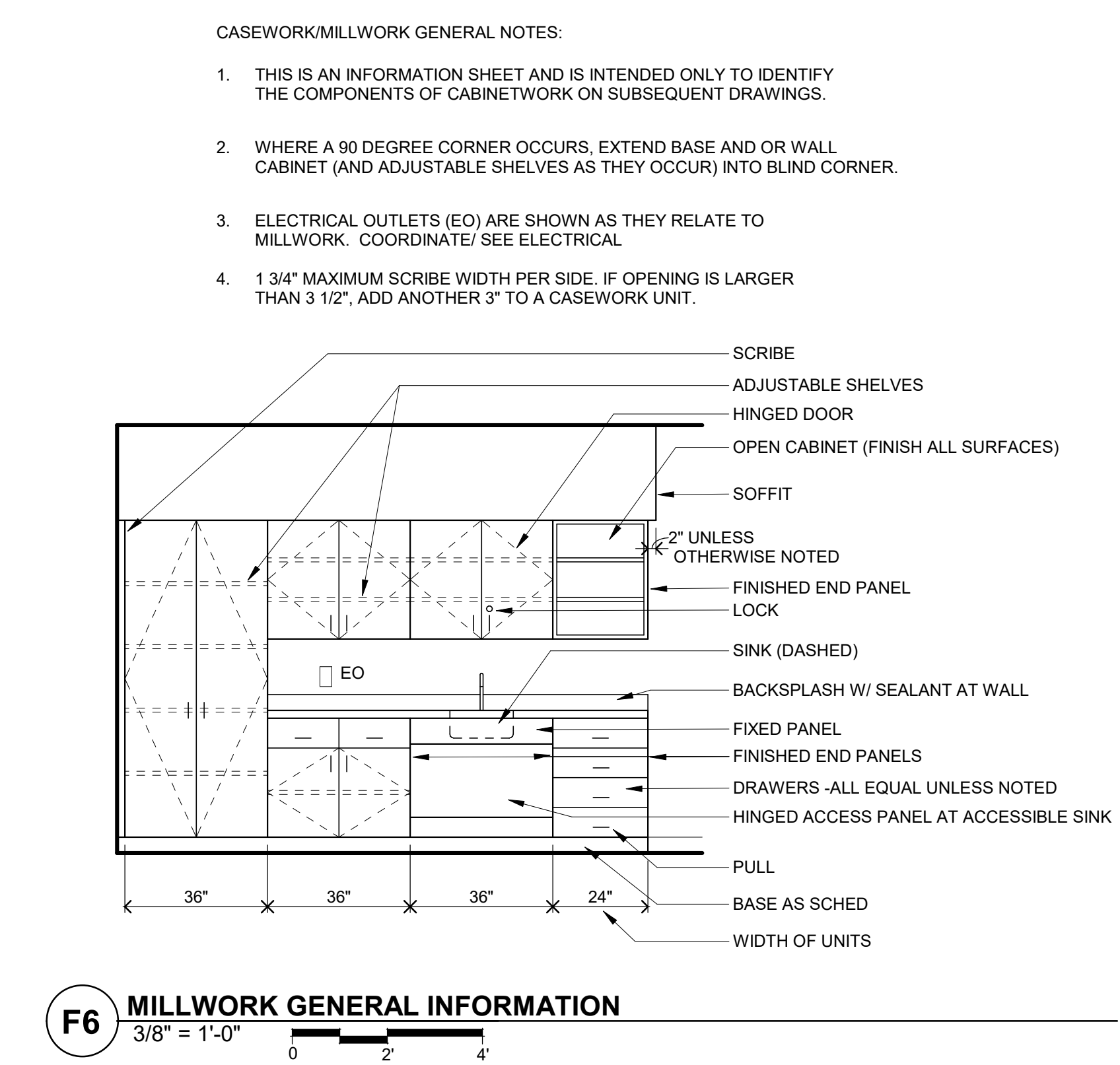
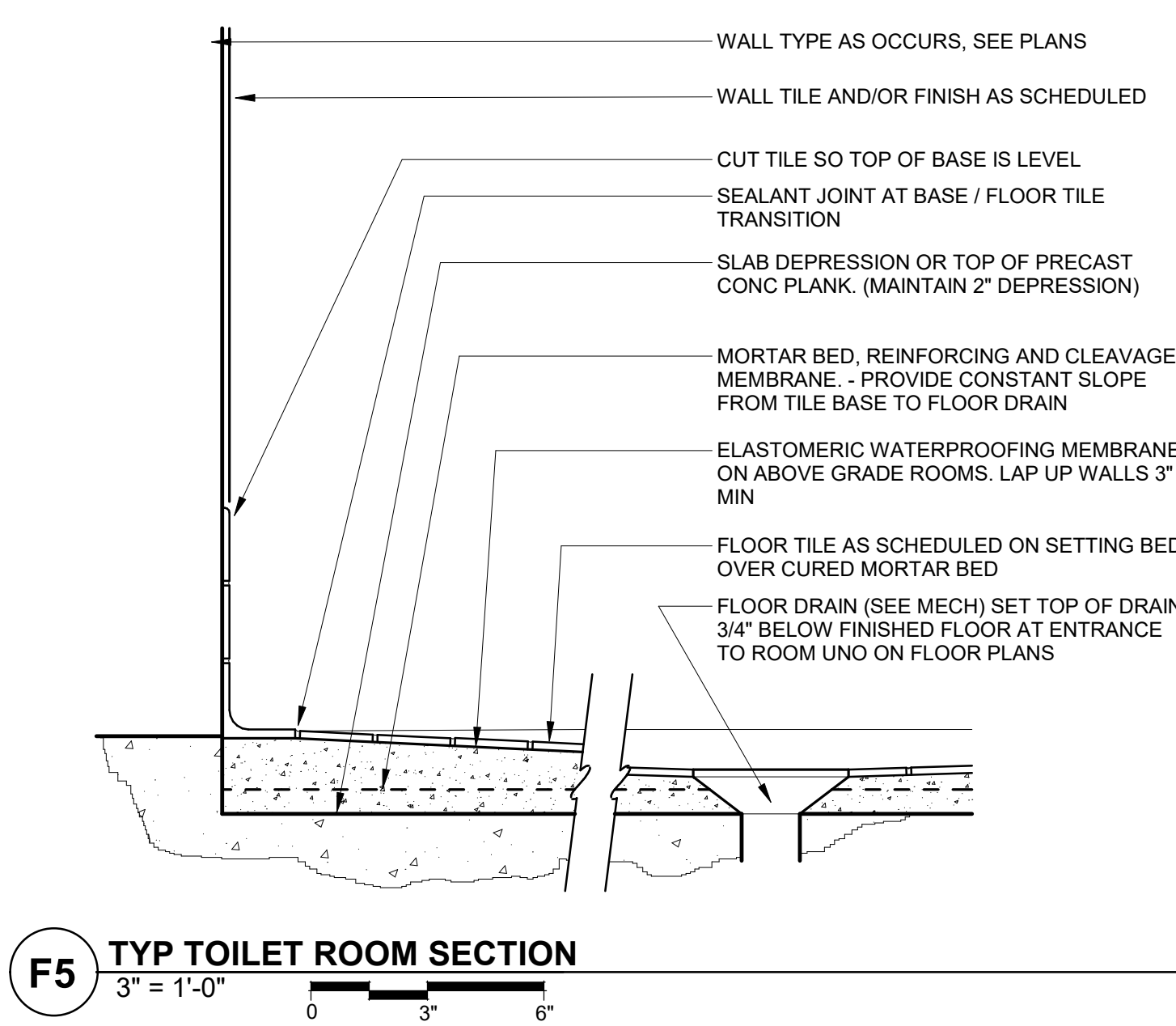
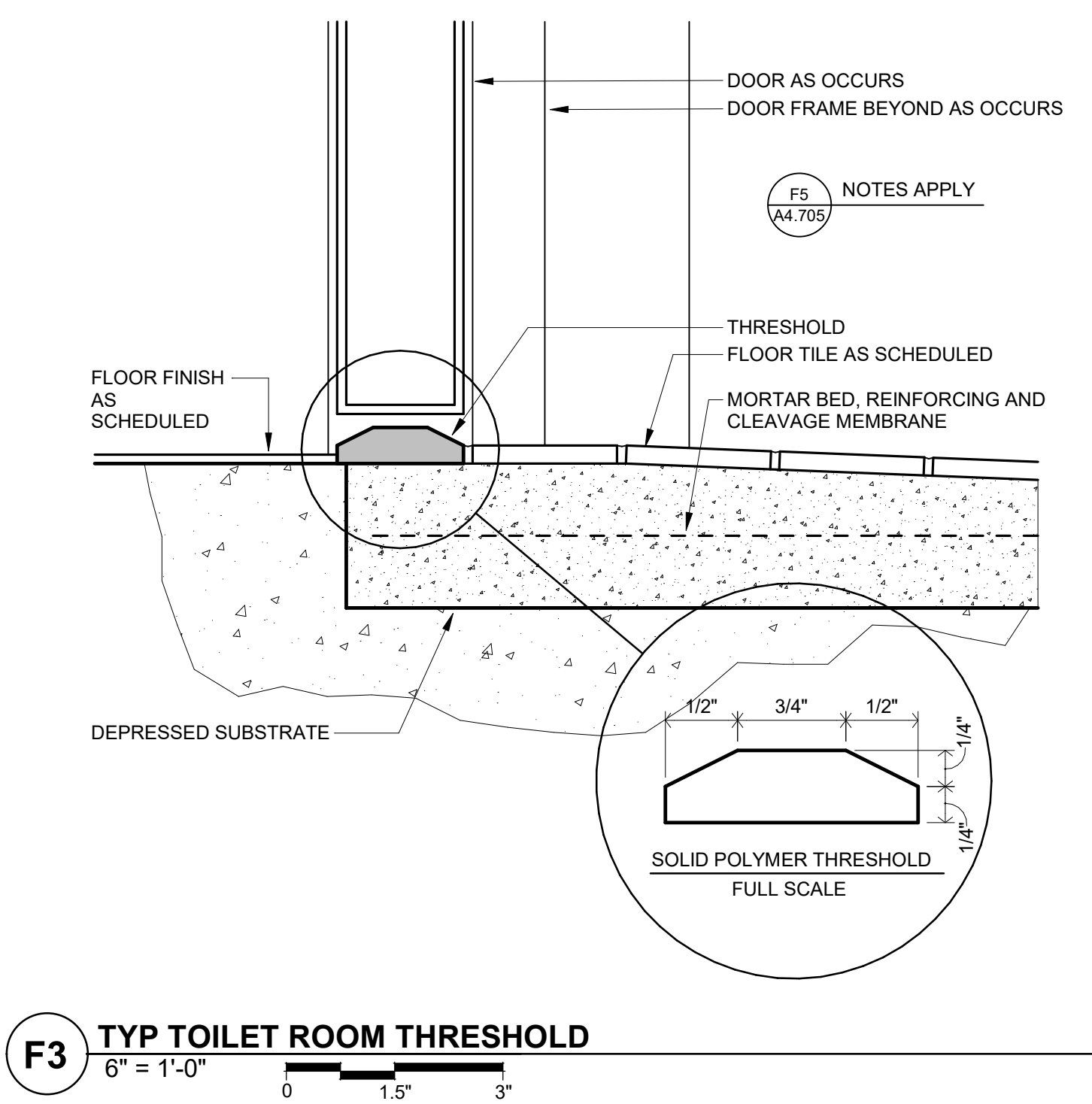
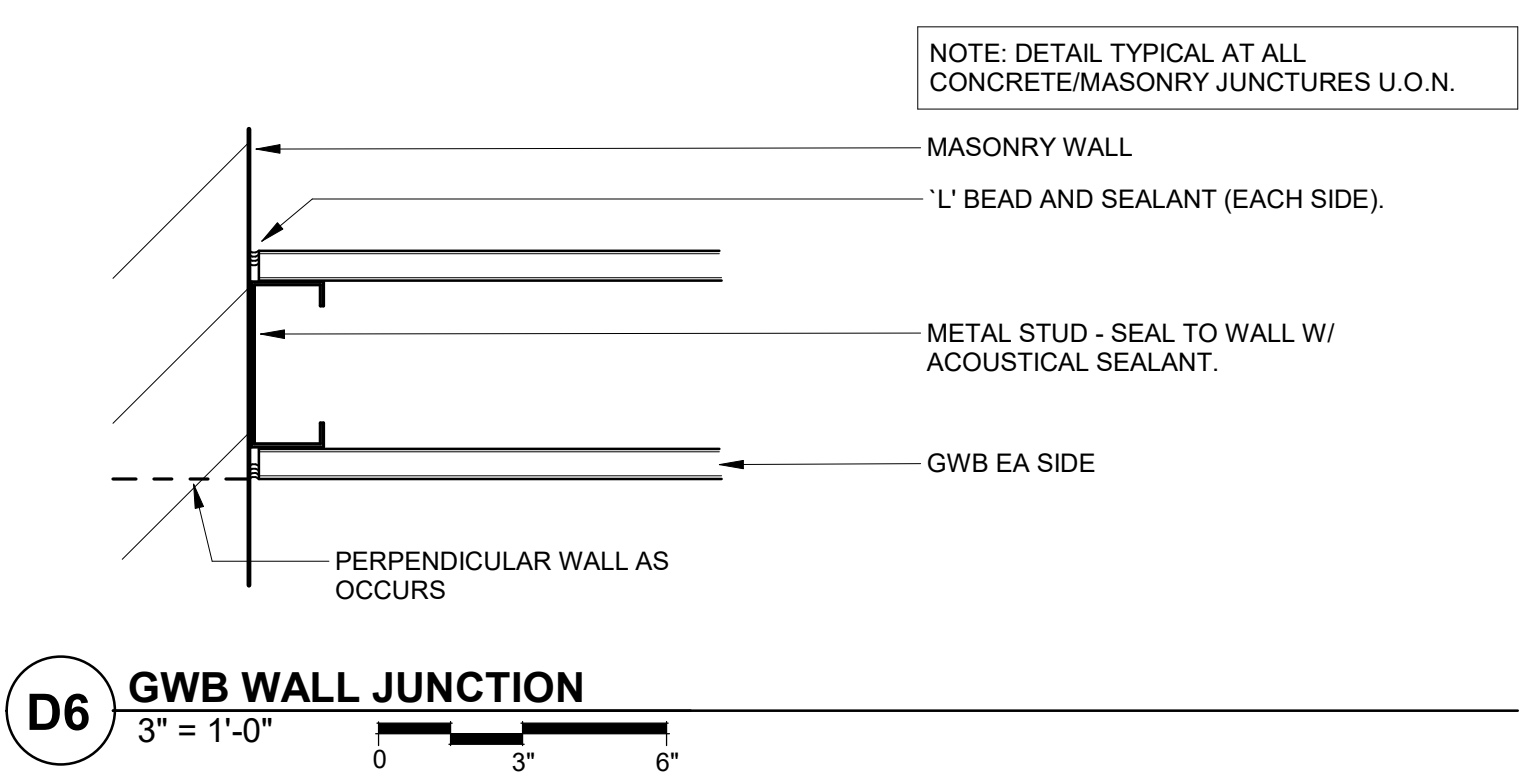
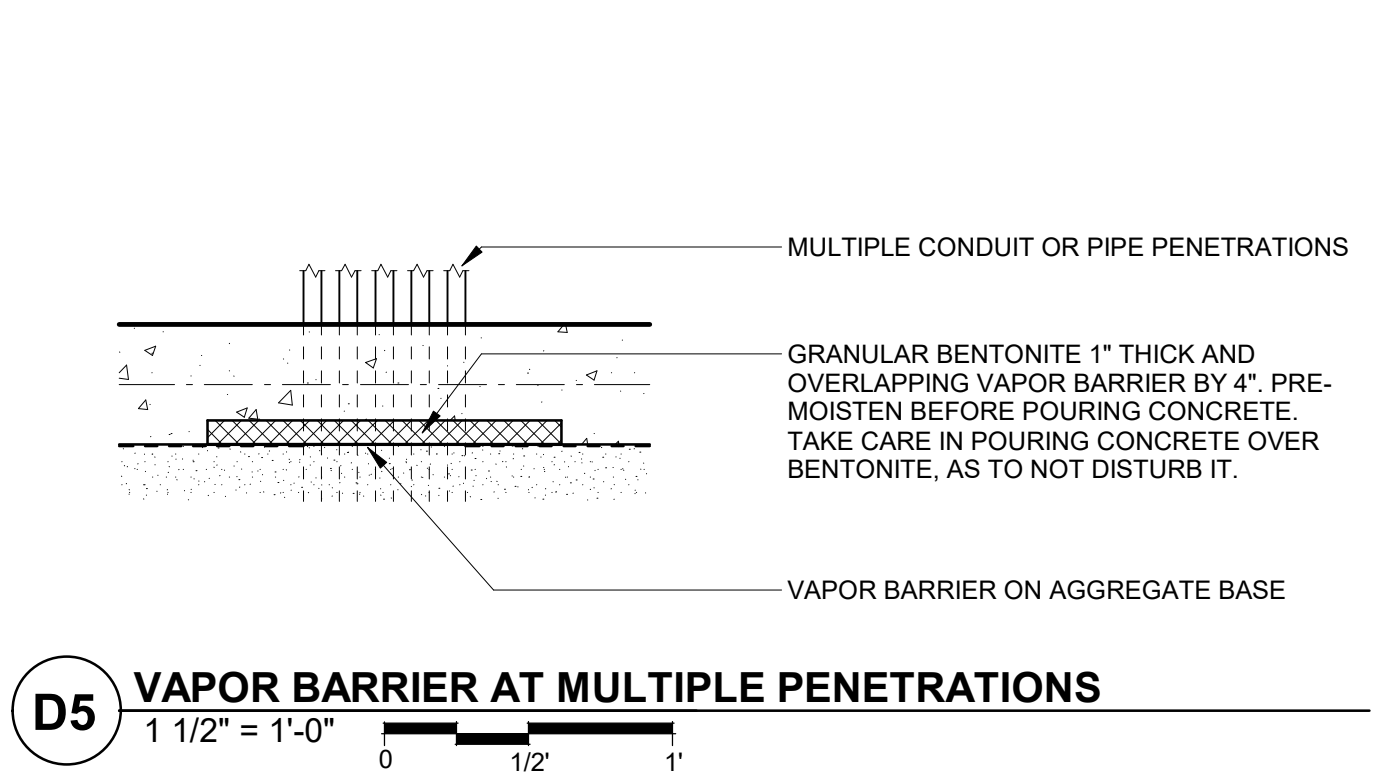
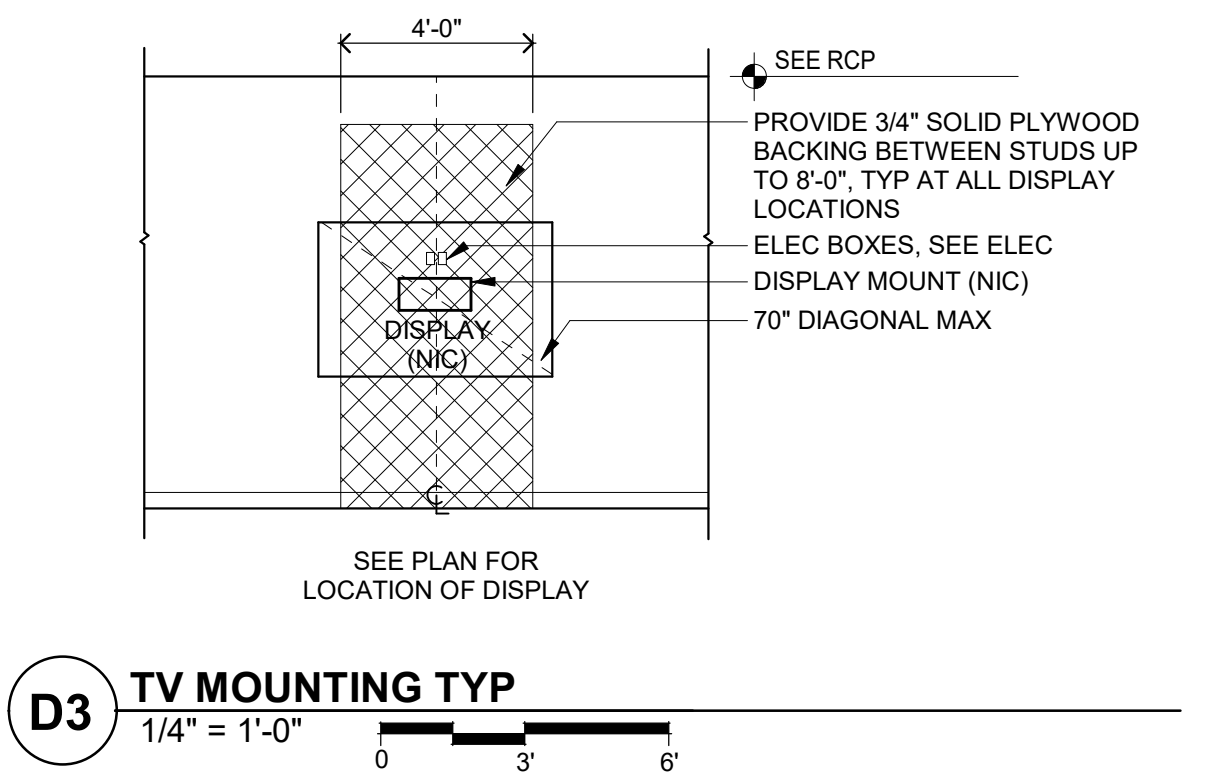
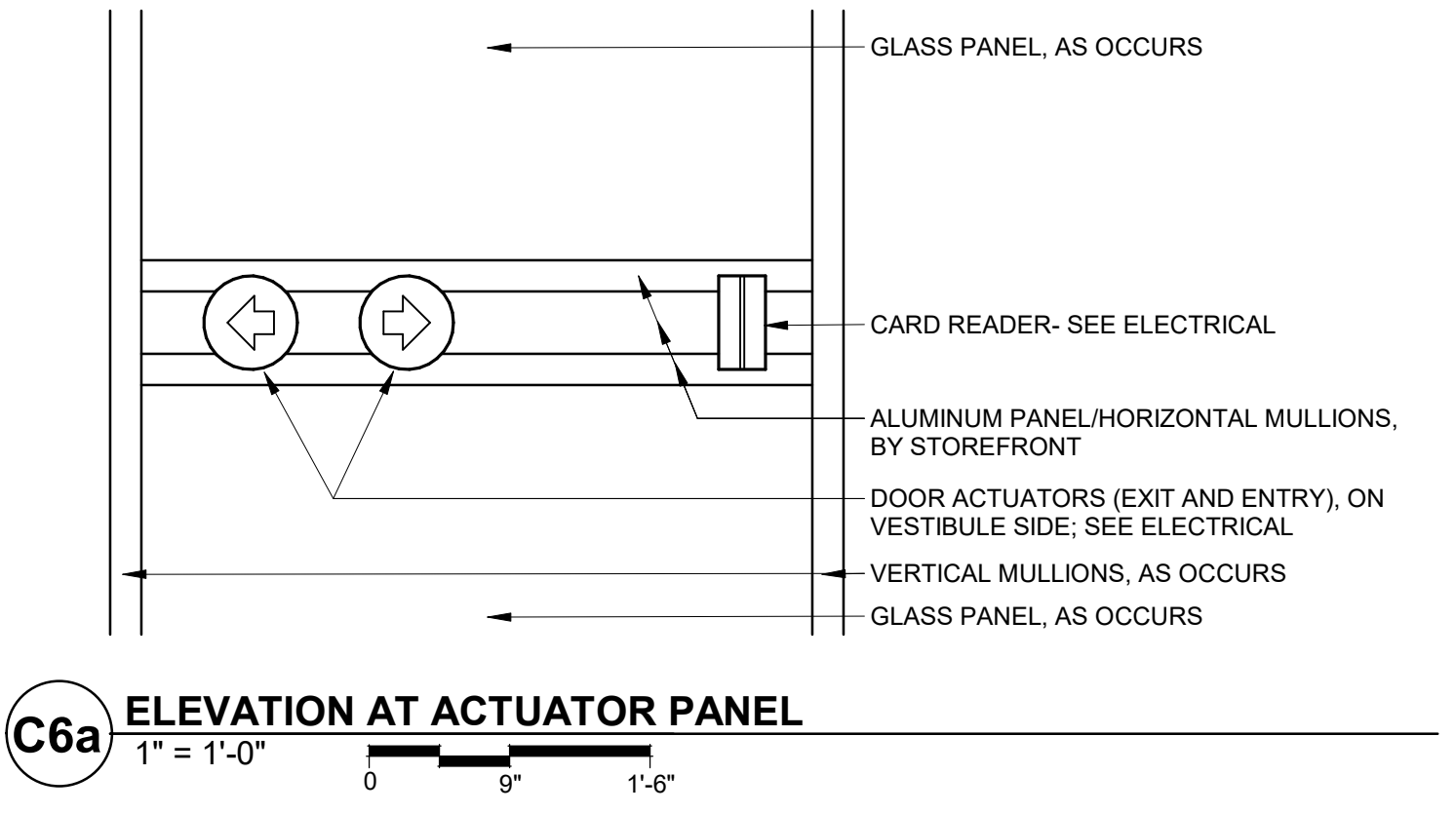
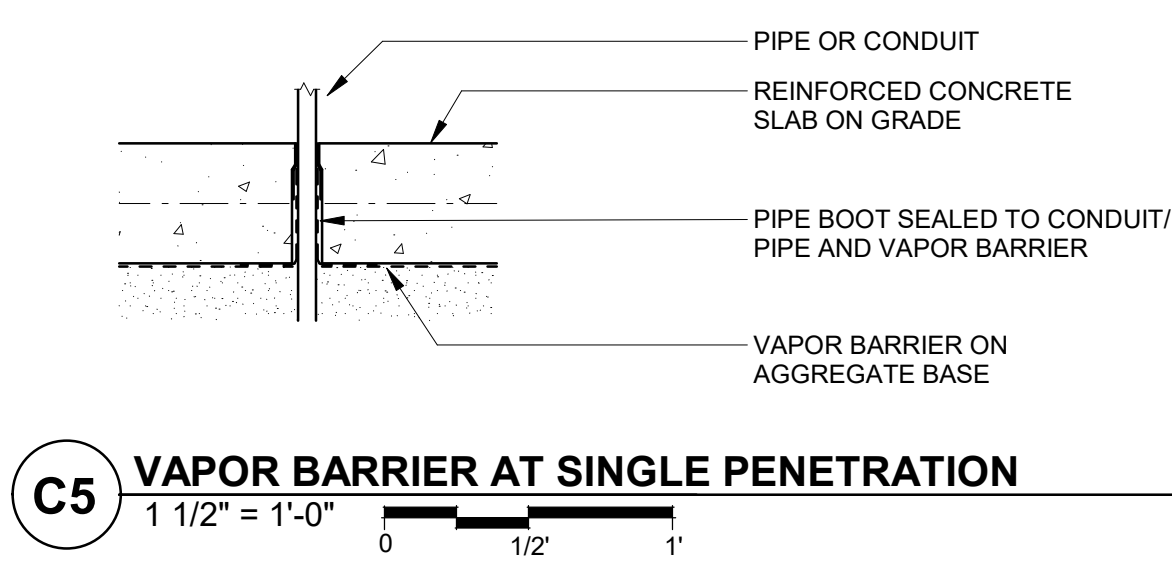
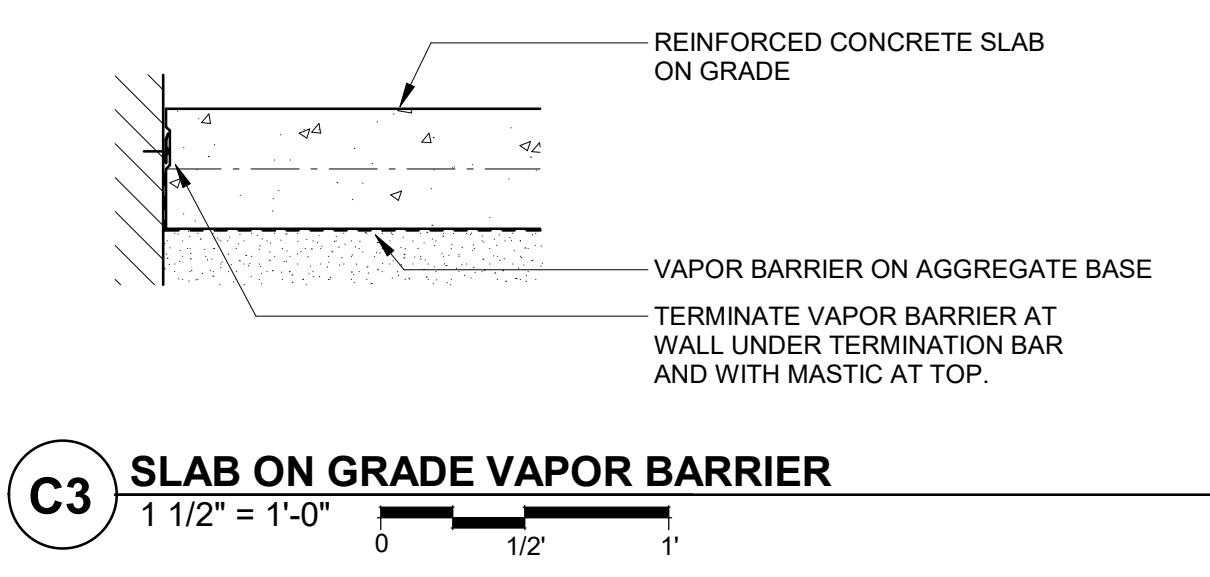
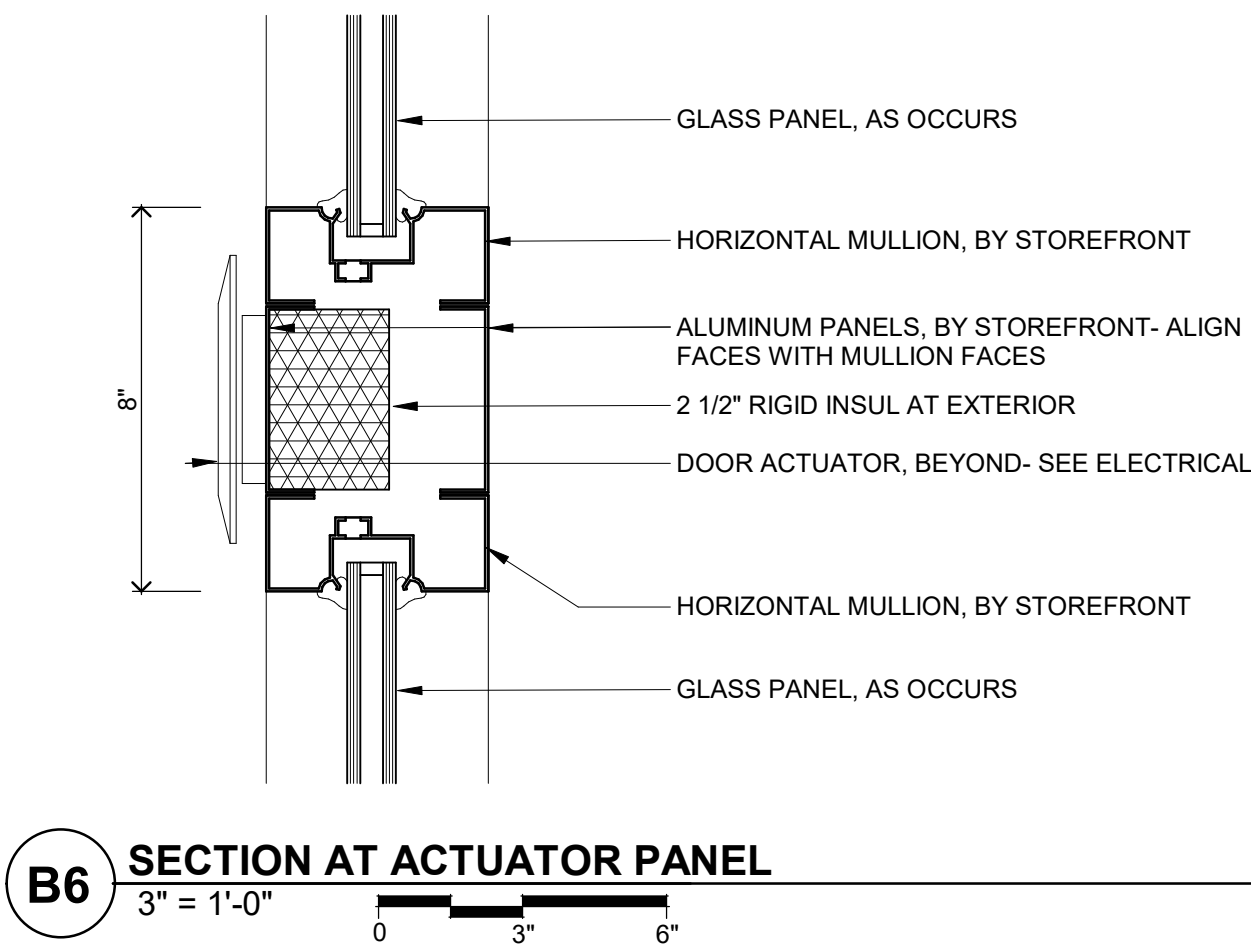
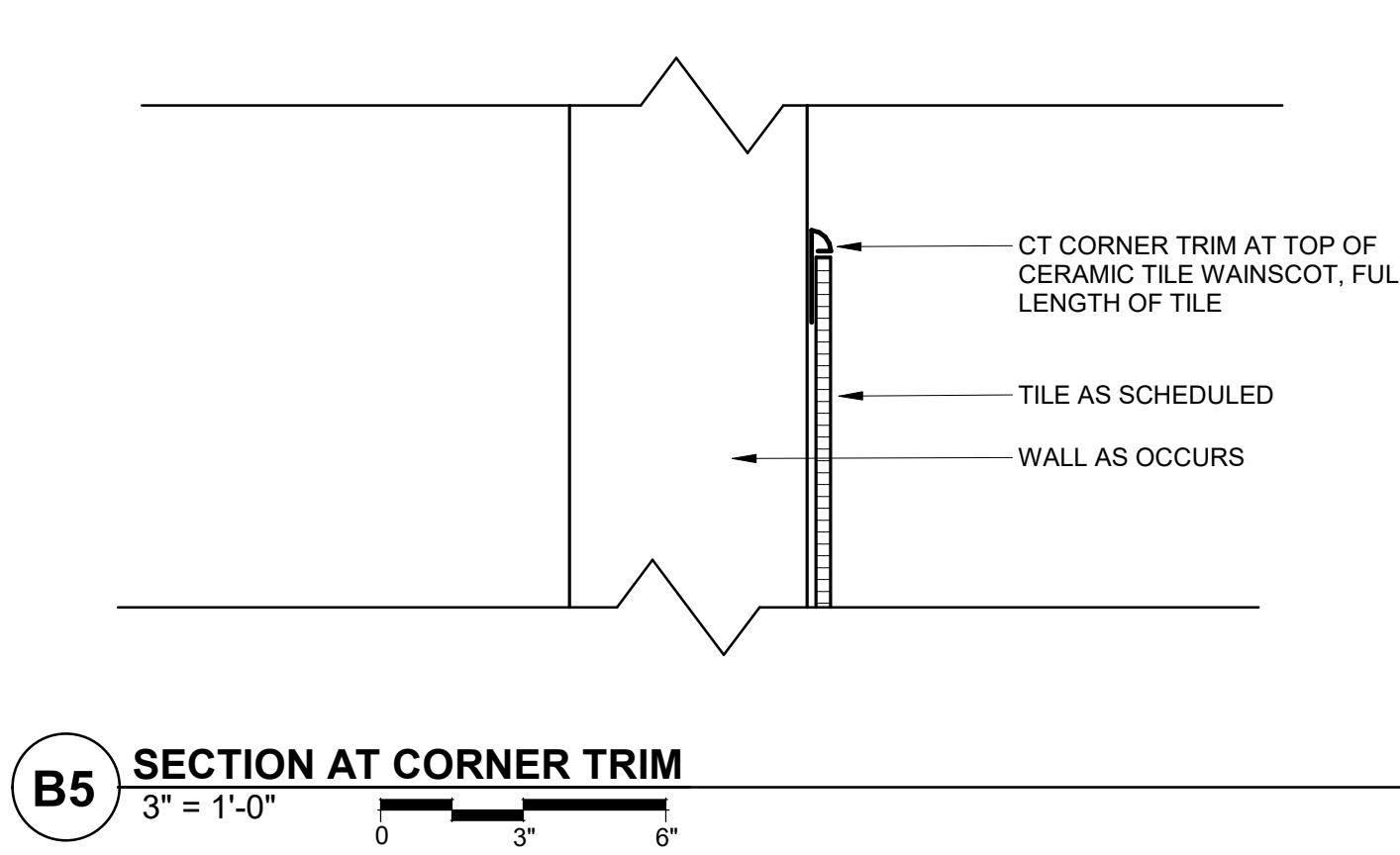
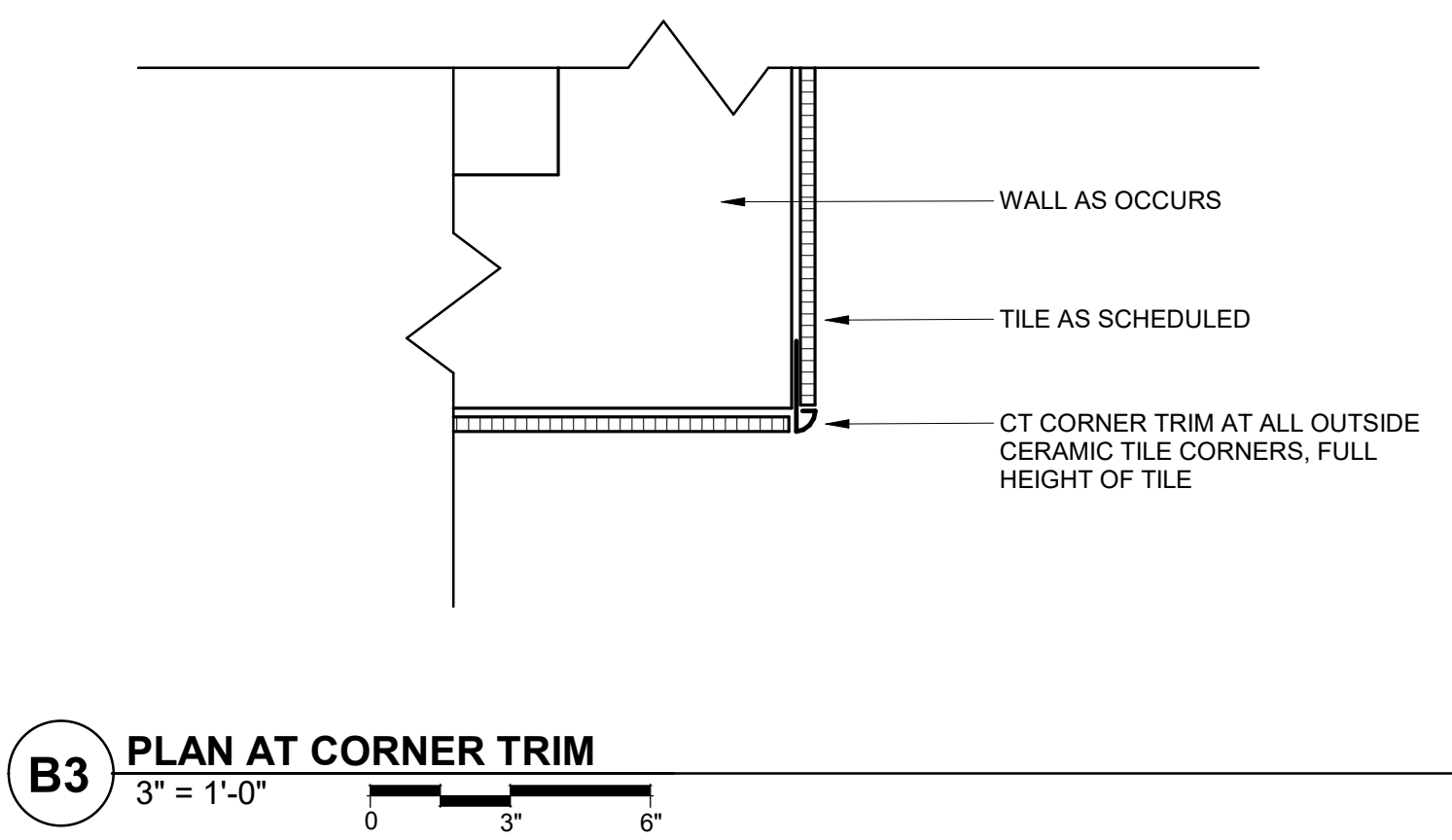
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A4.701

MN

A

Architect: John McNamara, AIA, 12000 Ravine Parkway, Suite 200, Cottage Grove, MN 55016
Engineer: John McNamara, AIA, 12000 Ravine Parkway, Suite 200, Cottage Grove, MN 55016
Date: 09/12/2023
Project: 24281 - NEW UTILITY & ENGINEERING BUILDING
Sheet: A4.705 - DETAILS - WALL DETAILS



- CASEWORK/MILLWORK GENERAL NOTES:
- THIS IS AN INFORMATION SHEET AND IS INTENDED ONLY TO IDENTIFY THE COMPONENTS OF CABINETWORK ON SUBSEQUENT DRAWINGS.
 - WHERE A 90 DEGREE CORNER OCCURS, EXTEND BASE AND OR WALL CABINET (AND ADJUSTABLE SHELVES AS THEY OCCUR) INTO BLIND CORNER.
 - ELECTRICAL OUTLETS (EO) ARE SHOWN AS THEY RELATE TO MILLWORK. COORDINATE/ SEE ELECTRICAL.
 - 1 3/4" MAXIMUM SCRIBE WIDTH PER SIDE. IF OPENING IS LARGER THAN 3 1/2", ADD ANOTHER 3" TO A CASEWORK UNIT.

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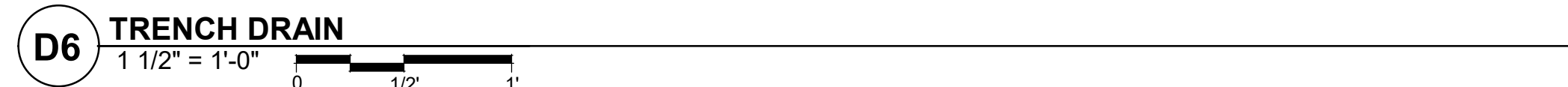
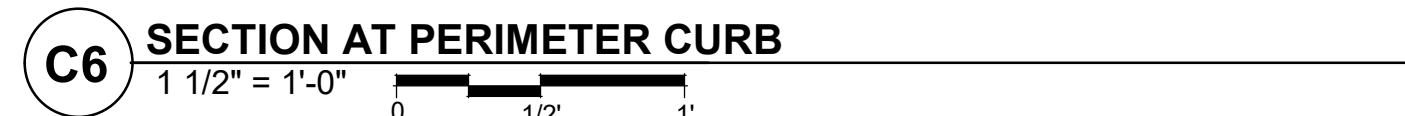
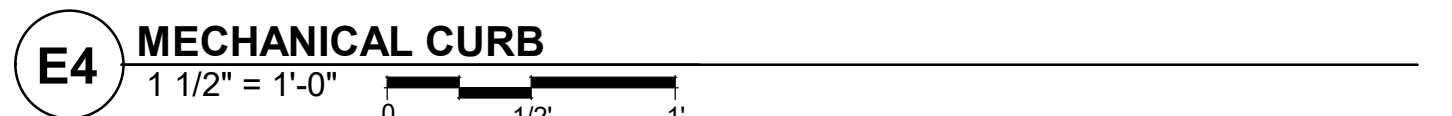
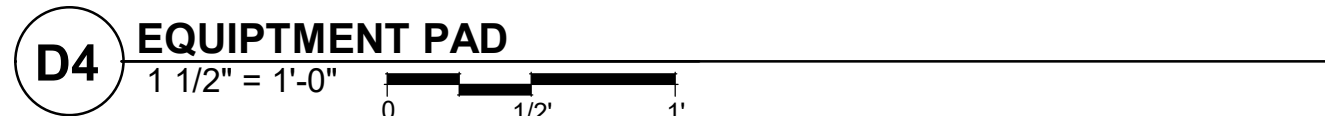
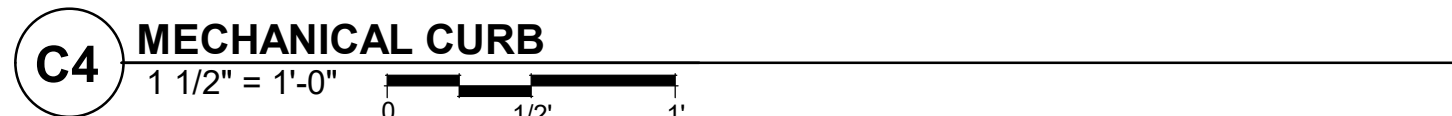
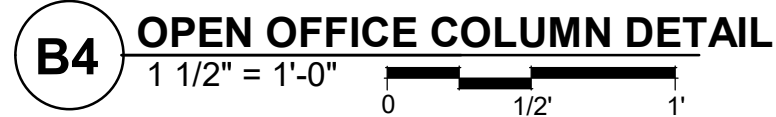
DETAILS - WALL DETAILS

Scale: As indicated

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A4.705

Autodesk Docs/2320219 - MN CI College Grove - New Utility Building R1 Int
Central Autodesk Docs/2320216 - MN CI College Grove - New Utility Building/2320218 - MN CI College Grove - New
Utility Building R1 Int
13/10/2023 2:27:36 PM



501 South Eighth Street
Minneapolis, MN 55404
krausanderson.com | 612 332 7281

Comm: **232010**
Date: **09/12/2023**
Drawn: **KH**
Check: **JW**

Scale: 1 1/2" = 1'-0"

A4.706

MN

NEW UTILITY & ENGINEERING BUILDING

10875 IDEAL AVENUE S.
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016

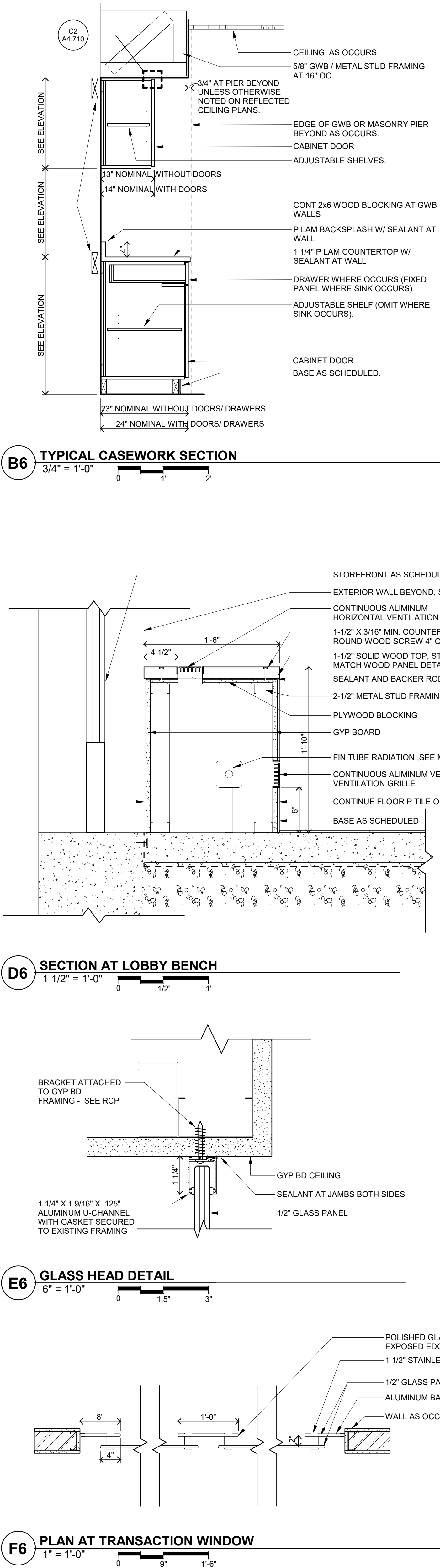
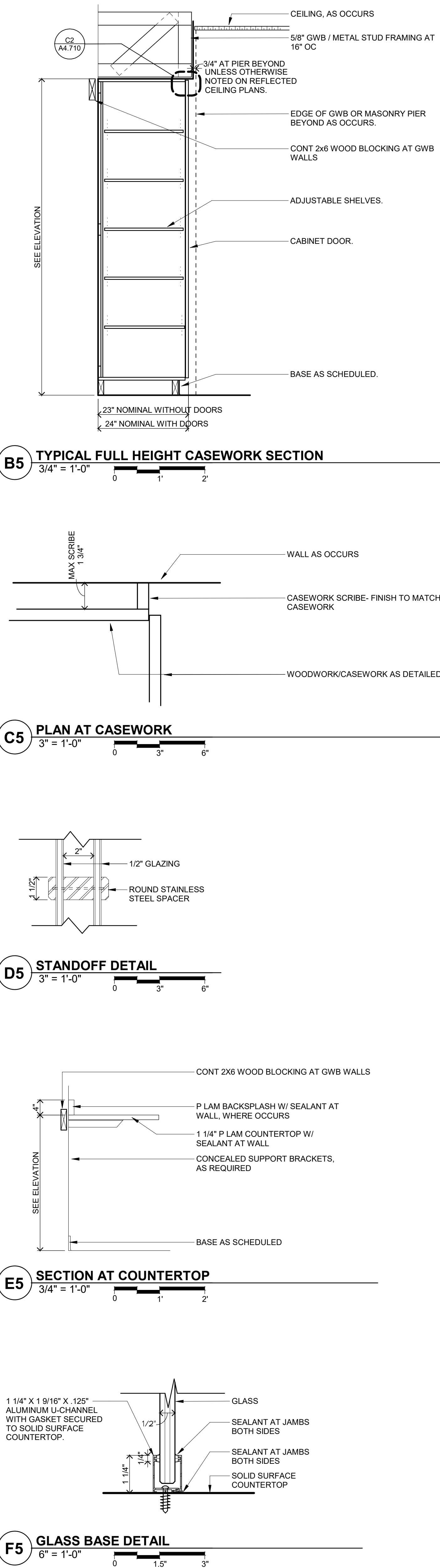
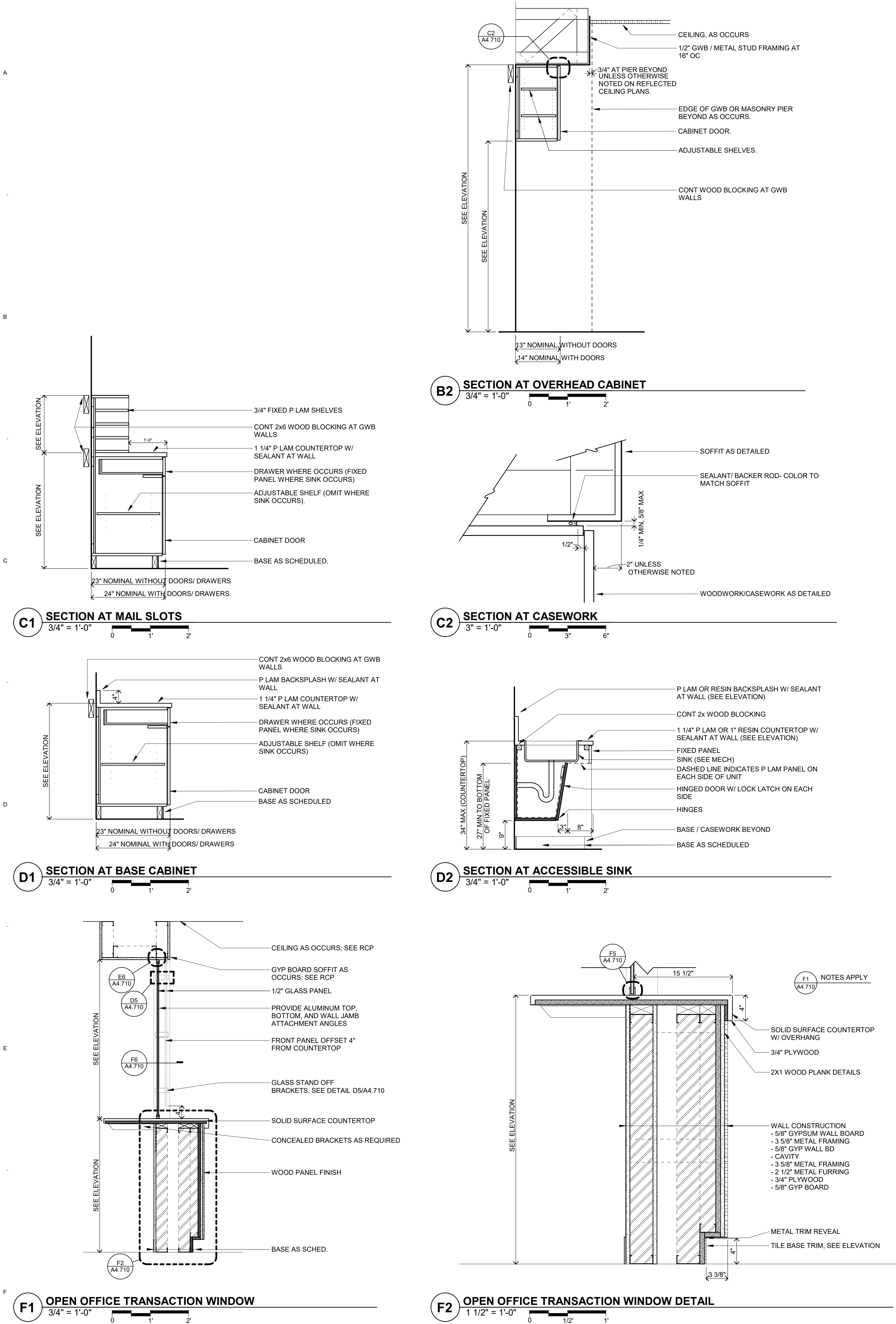


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John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	
	Date	Num

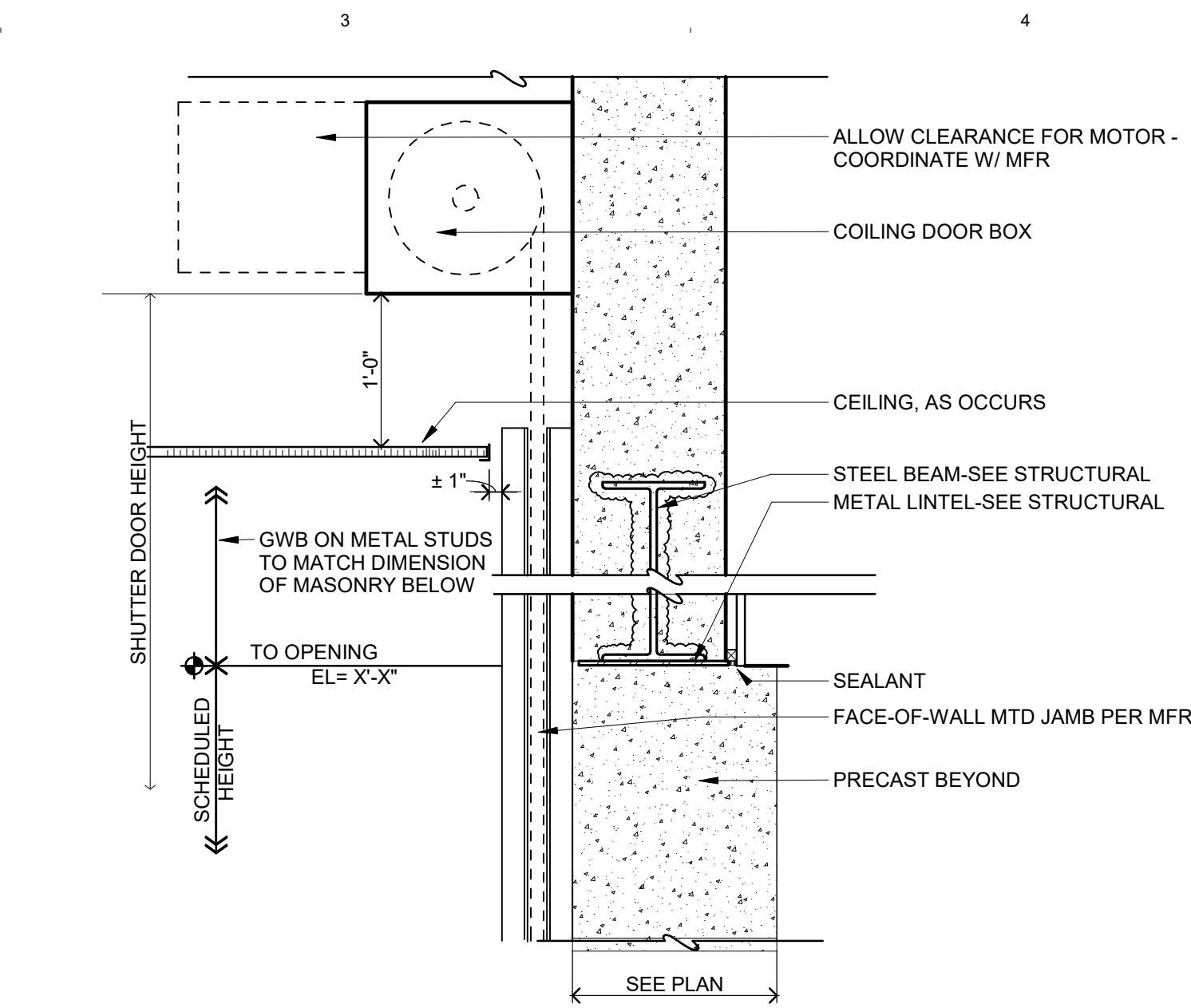
Comm: 232010
Date: 09/12/2023
Drawn: KH
Check: JW

DETAILS -
INTERIOR
CASEWORK
SECTIONS

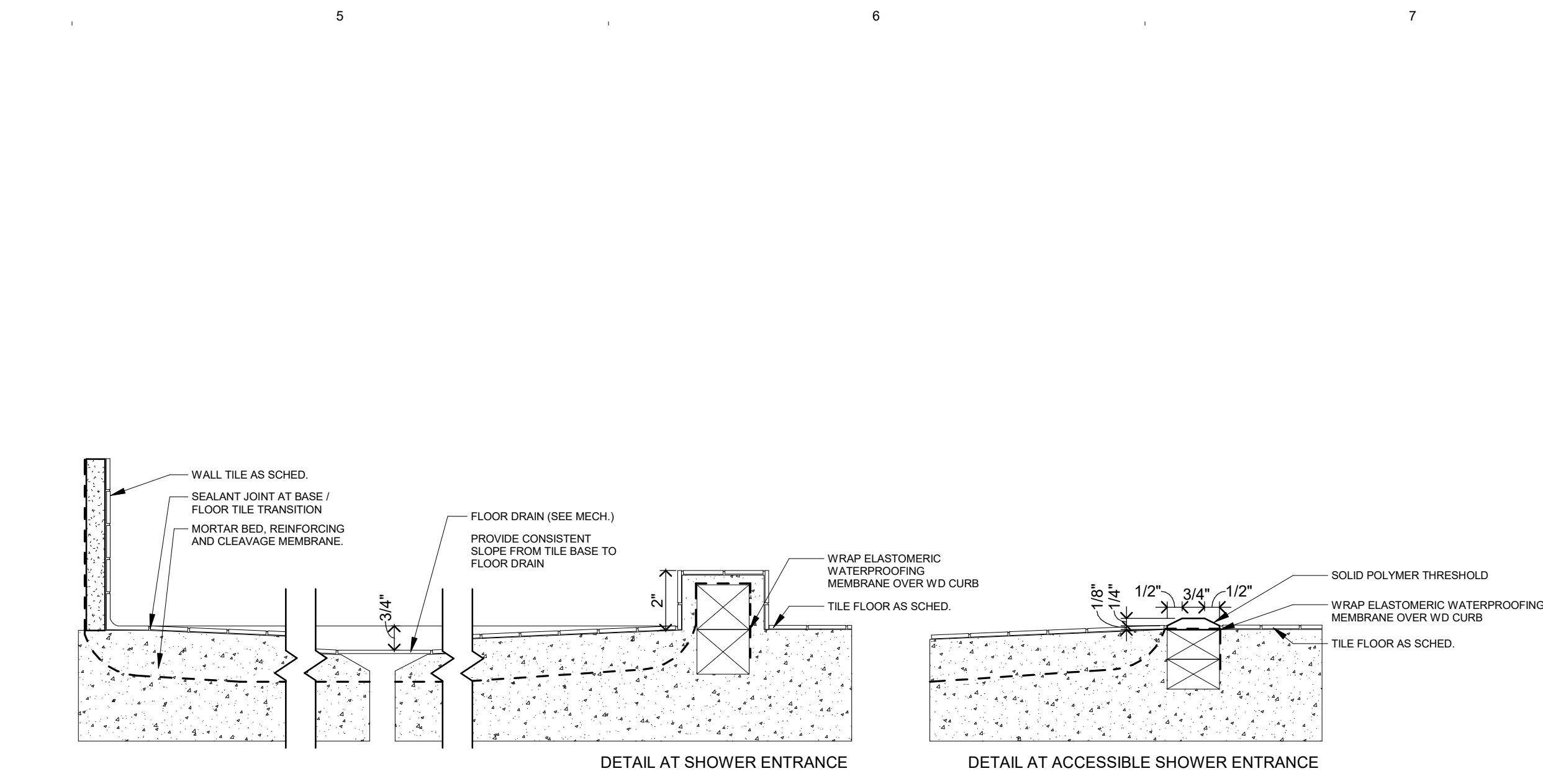
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FINAL CD SET DRAFT
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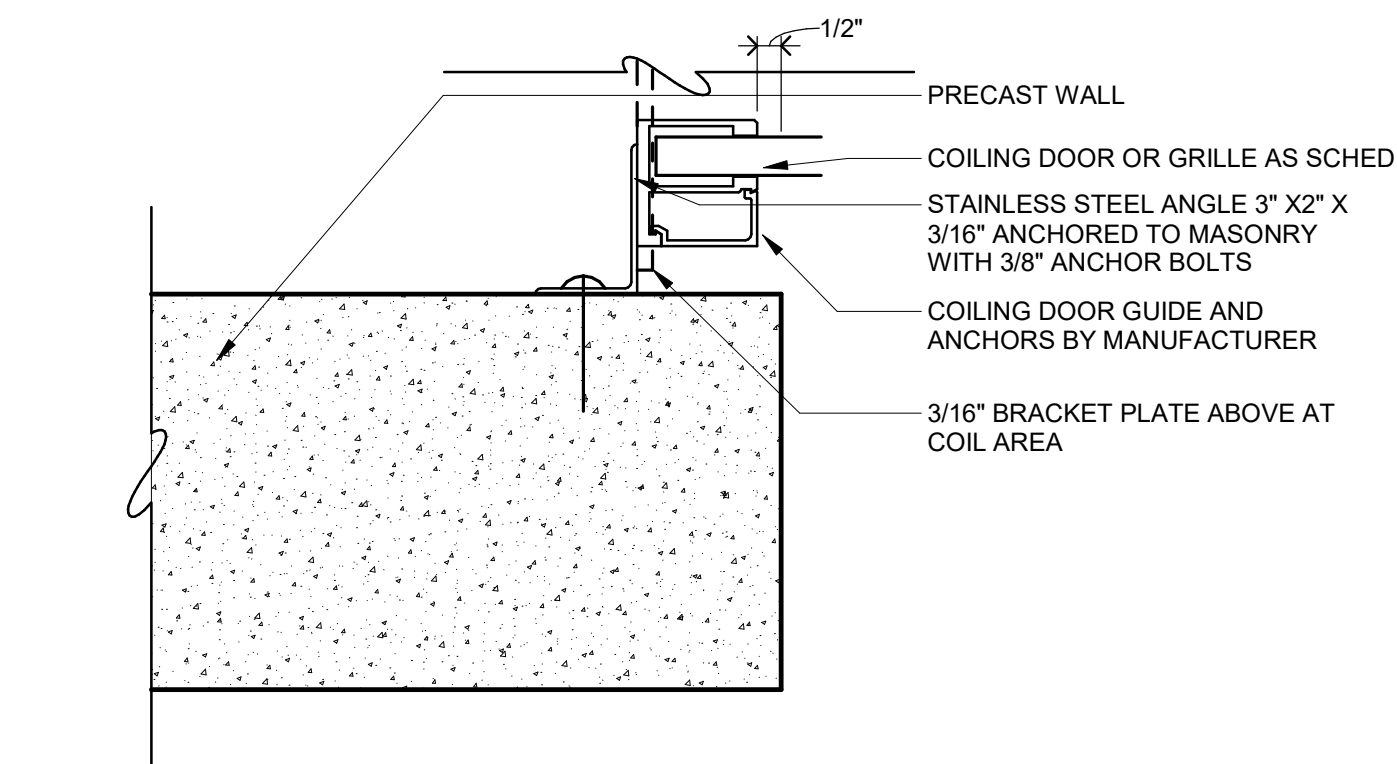
A4.710



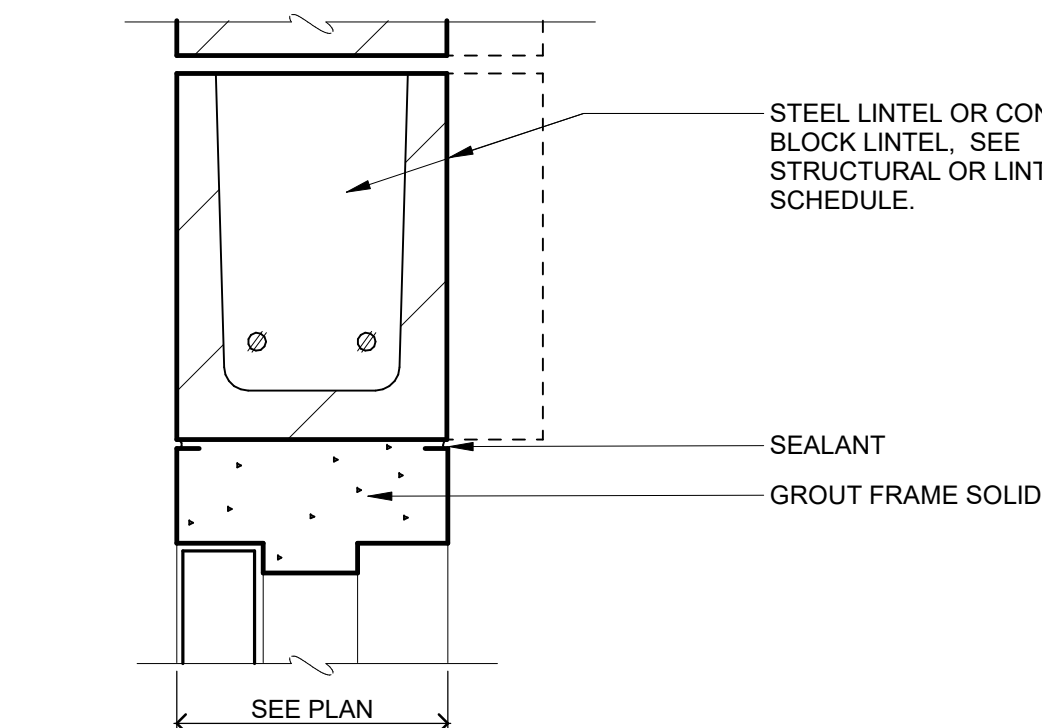
B3 HEAD AT COILING DOOR
1" = 1'-0"



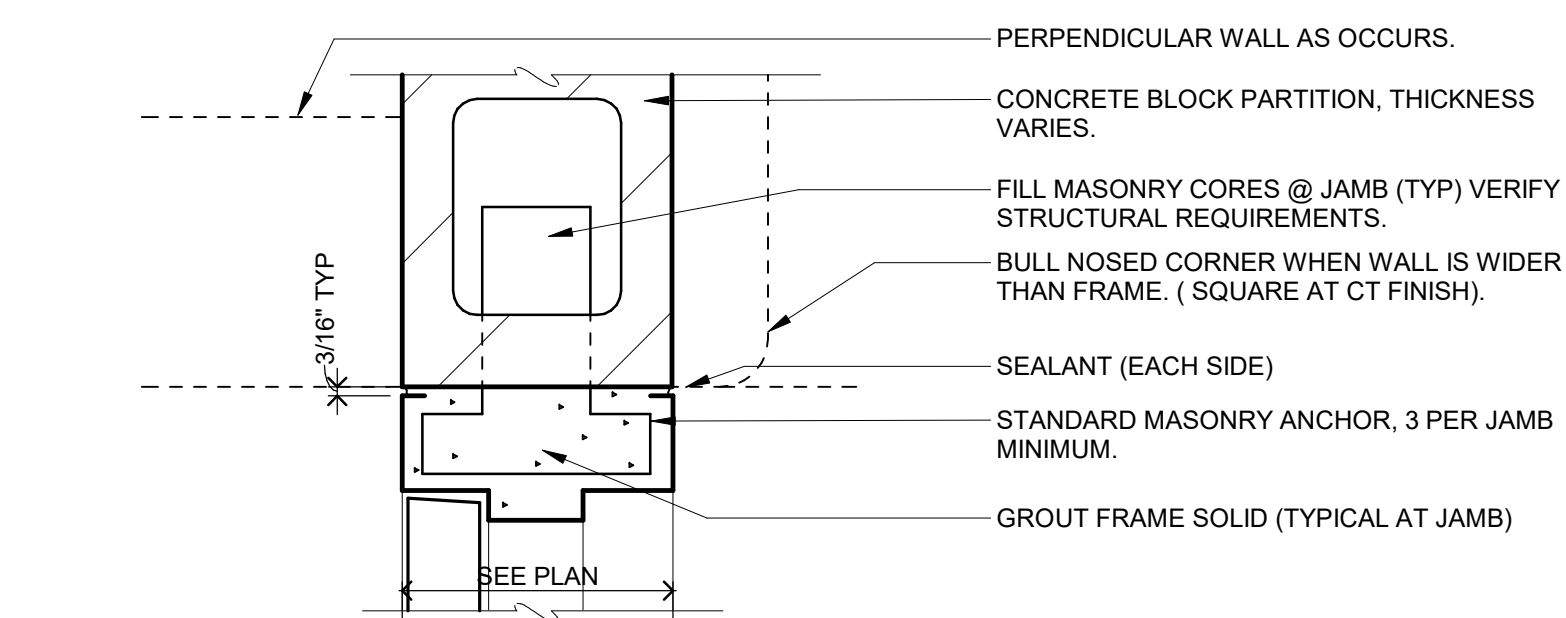
B4 THRESHOLD AT SHOWER ENTRANCE
3" = 1'-0"



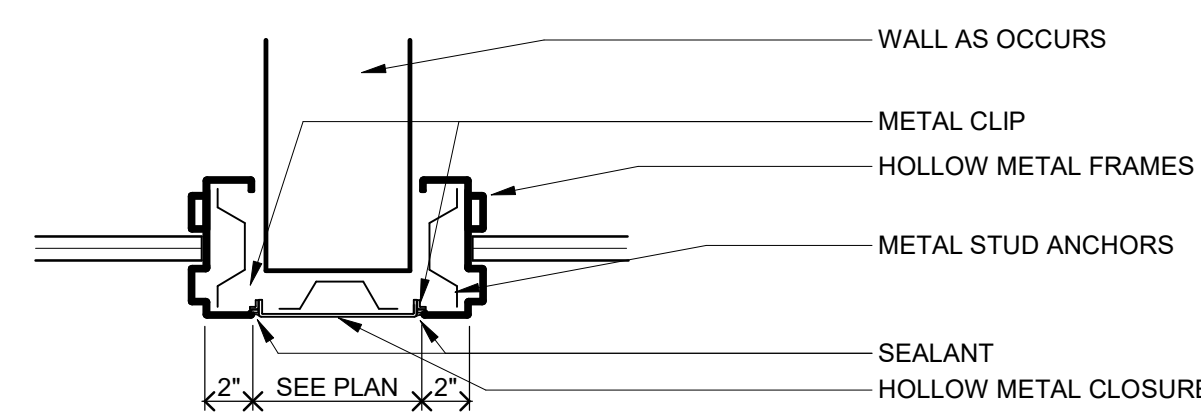
C3 COILING DOOR JAMB
3" = 1'-0"



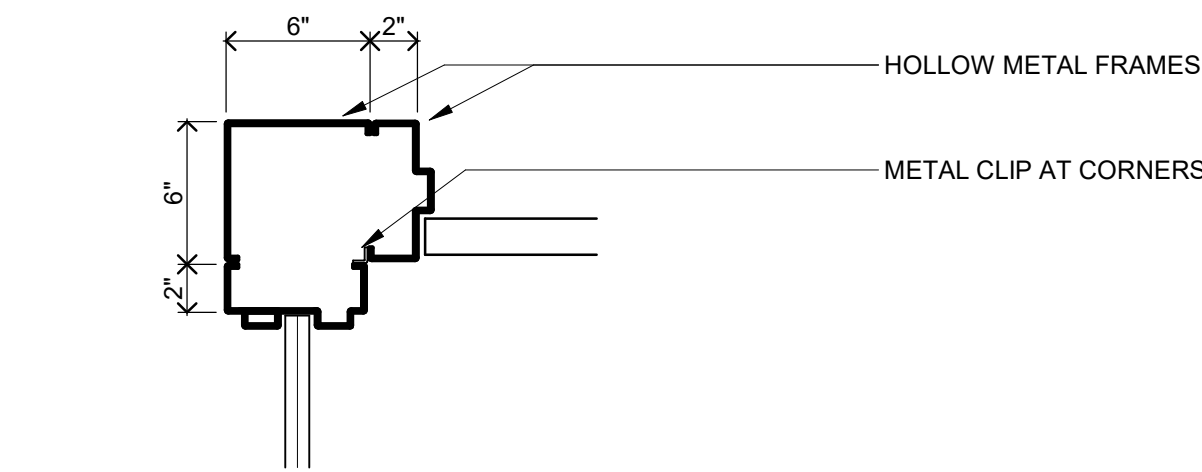
C4 HM HEAD AT MASONRY
3" = 1'-0"



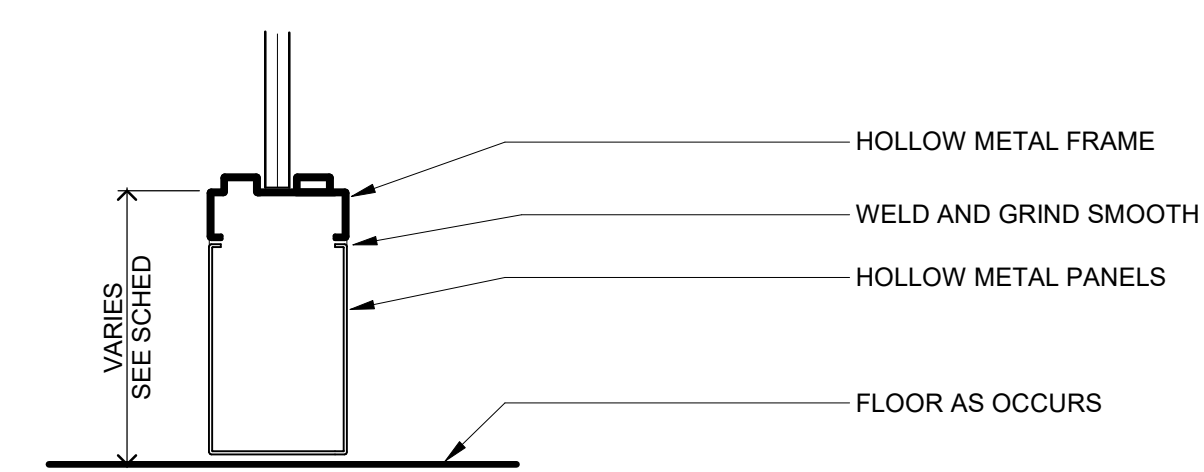
C6 HM JAMB AT MASONRY (SILL SIMILAR)
3" = 1'-0"



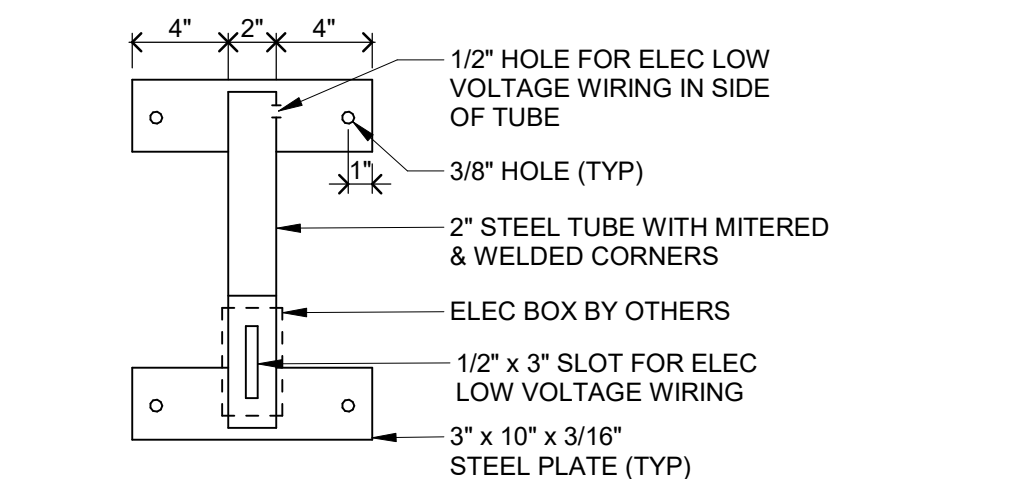
D3 **JAMB DETAIL**
1 1/2" = 1'-0"



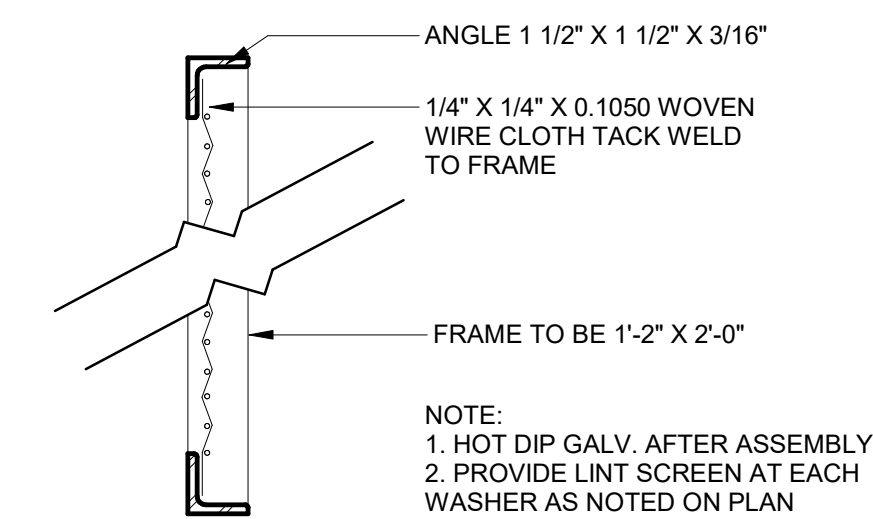
D4 CORNER DETAIL
1 1/2" = 1'-0"



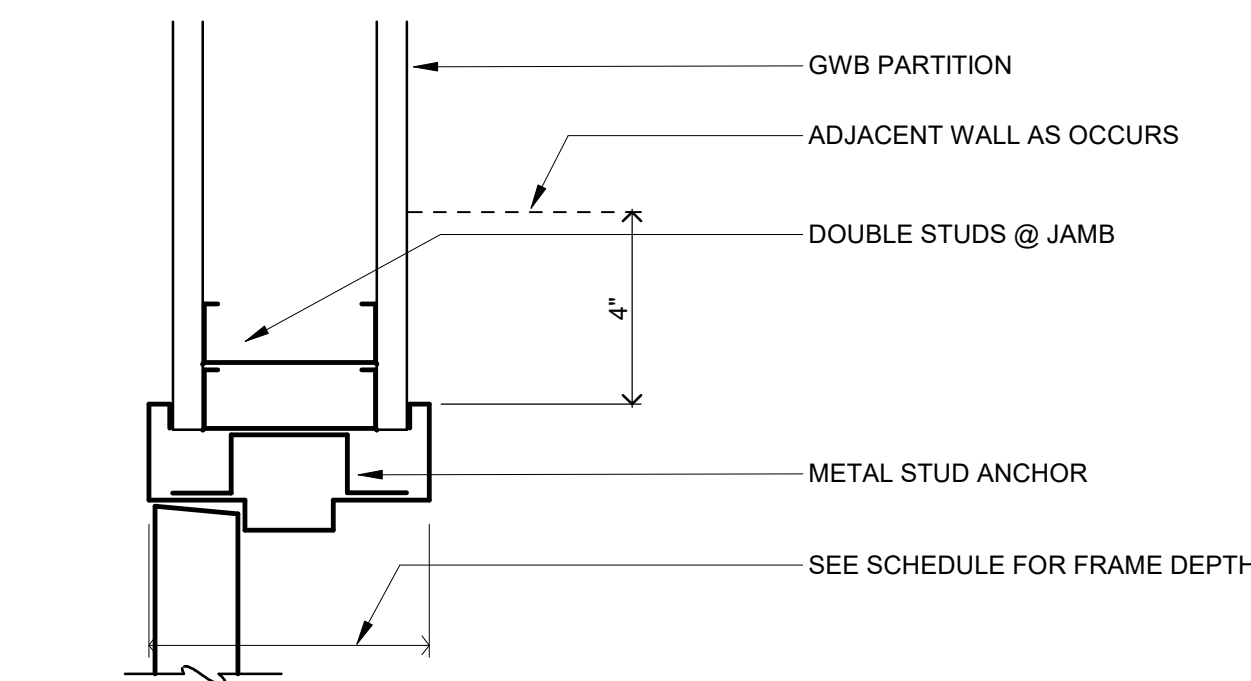
D6 **SILL DETAIL**
1 1/2" = 1'-0"



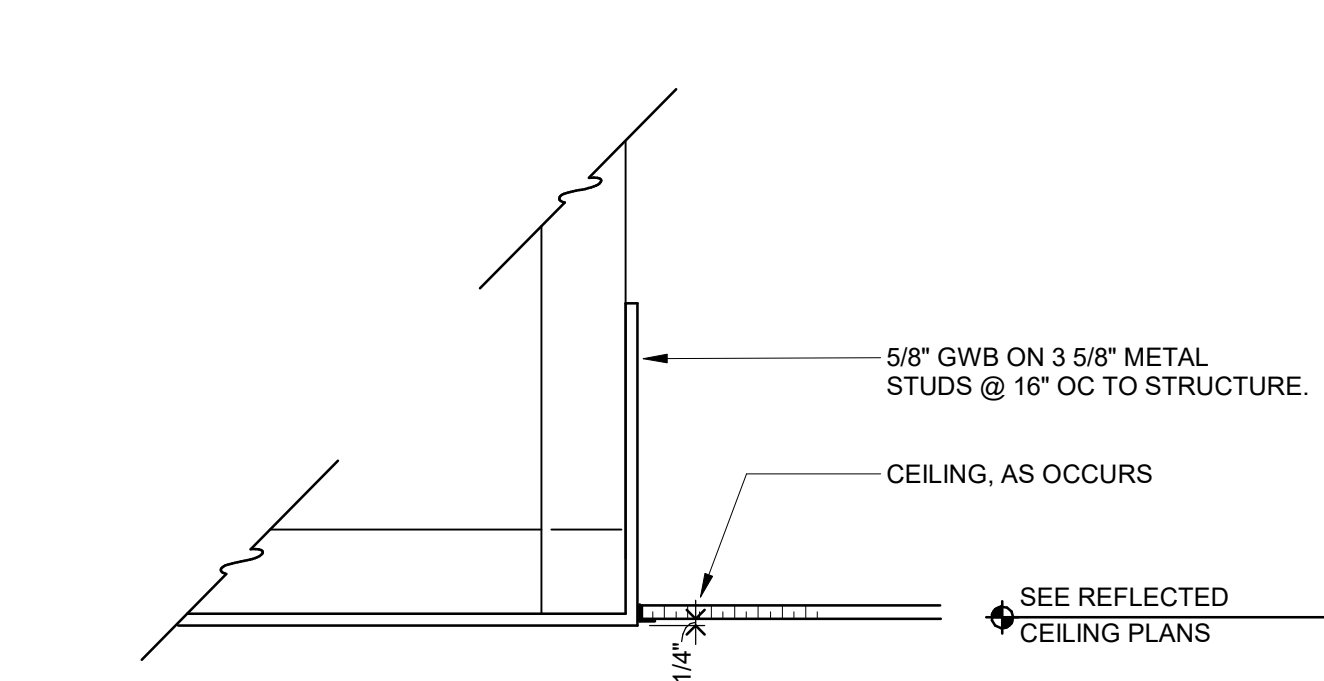
E1 FRONT ELEVATION - HOLD OPEN SUPPORT
1 1/2" = 1'-0"



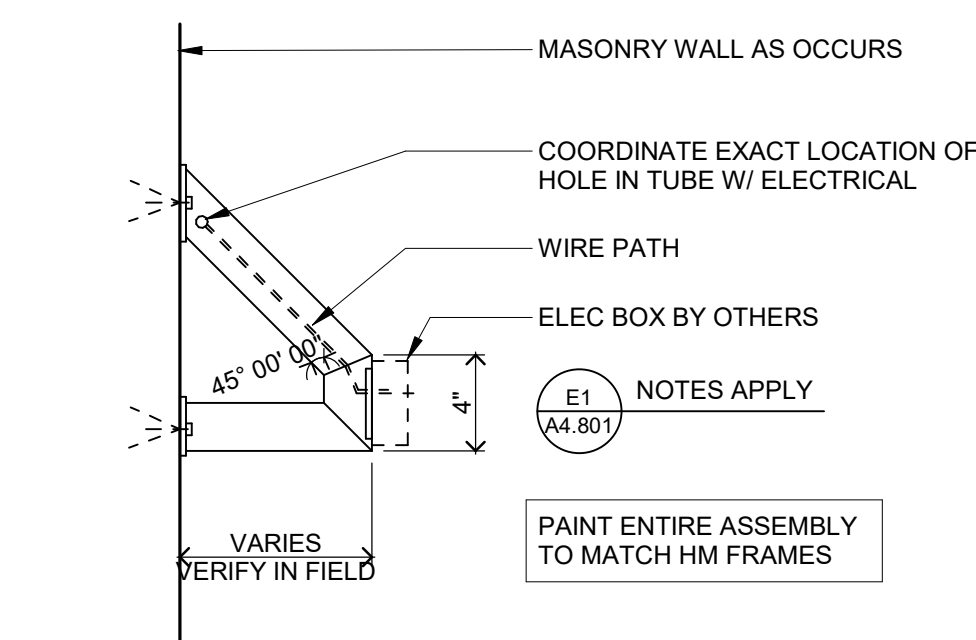
E3 REMOVABLE LINT SCREEN
3" = 1'-0"



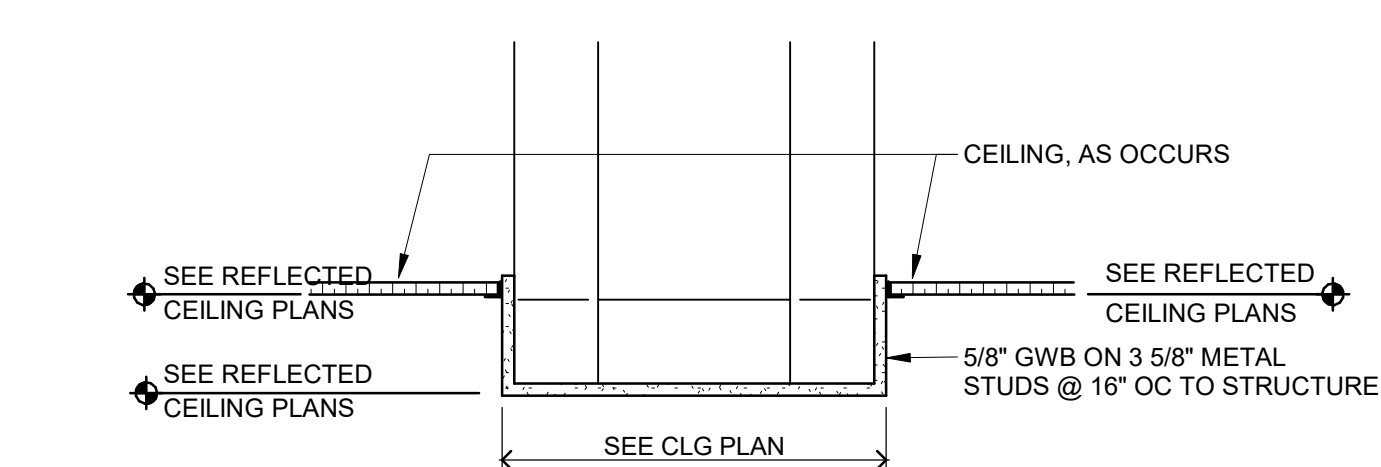
E4 JAMB (HEAD & SILL AT BORROWED LITE, SIMILAR)
3" = 1'-0"



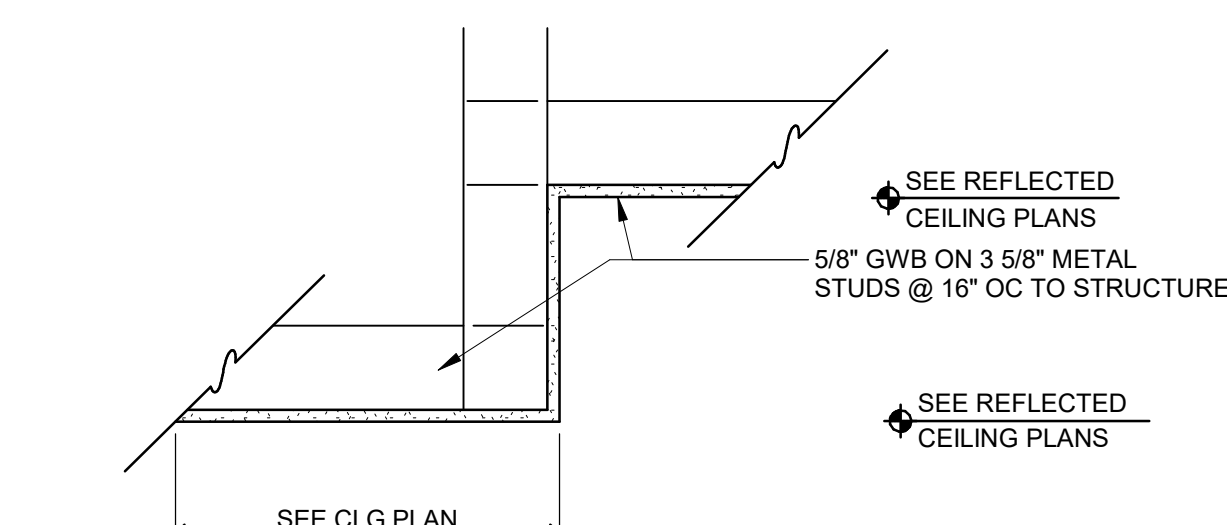
E6 GYPSUM BOARD SOFFIT
1 1/2" = 1'-0"



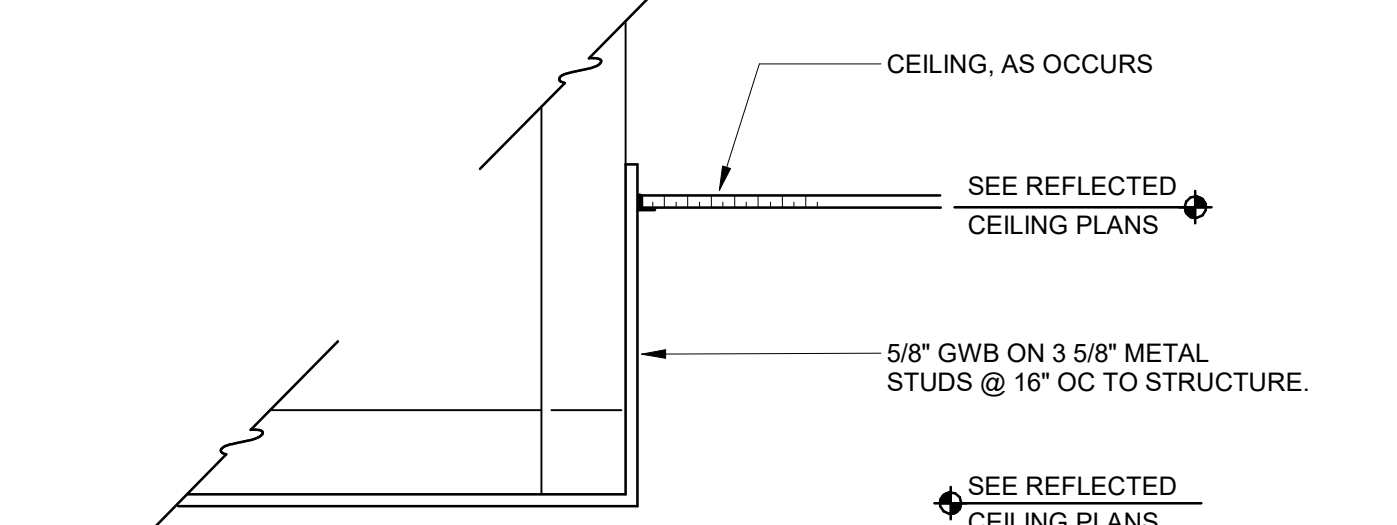
F1 SIDE ELEVATION - HOLD OPEN SUPPORT



F3 GYPSUM BOARD SOFFIT
1 1/2" = 1'-0"



F4 GYPSUM BOARD SOFFIT
1 1/2" = 1' 0"



F6 GYPSUM BOARD SOFFIT
1 1/2" = 1' 0"

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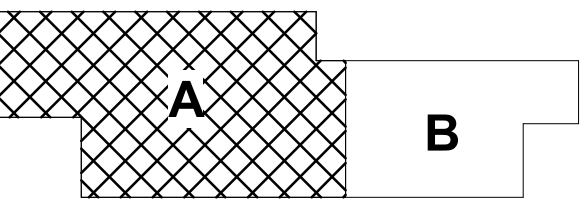
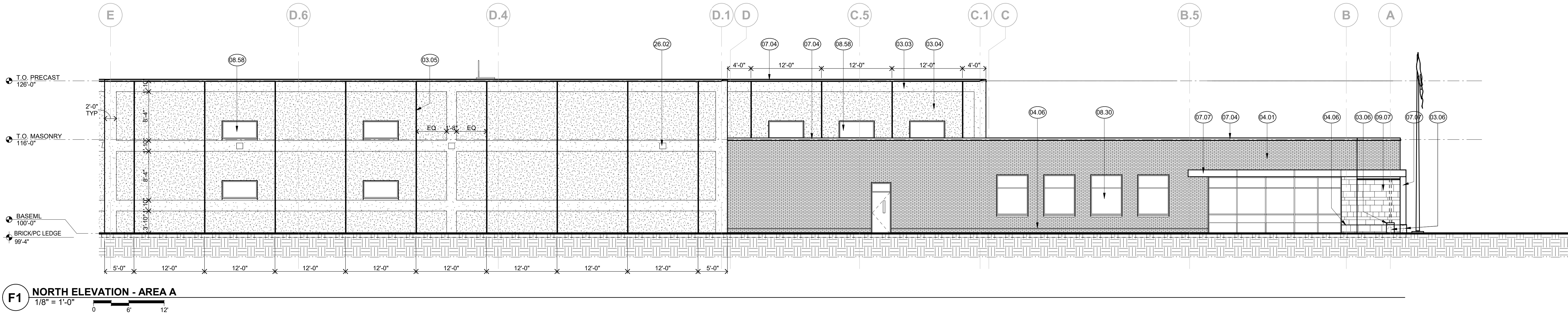
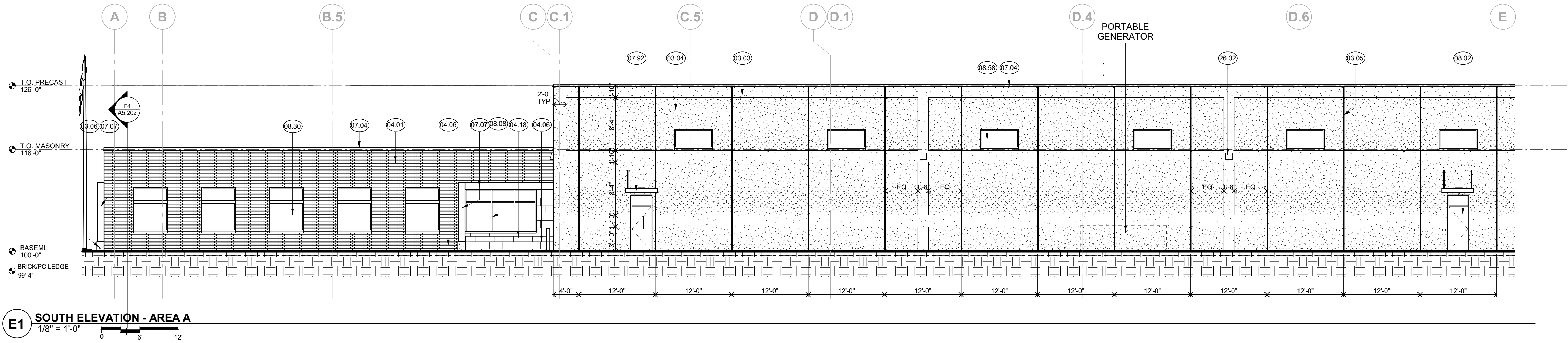
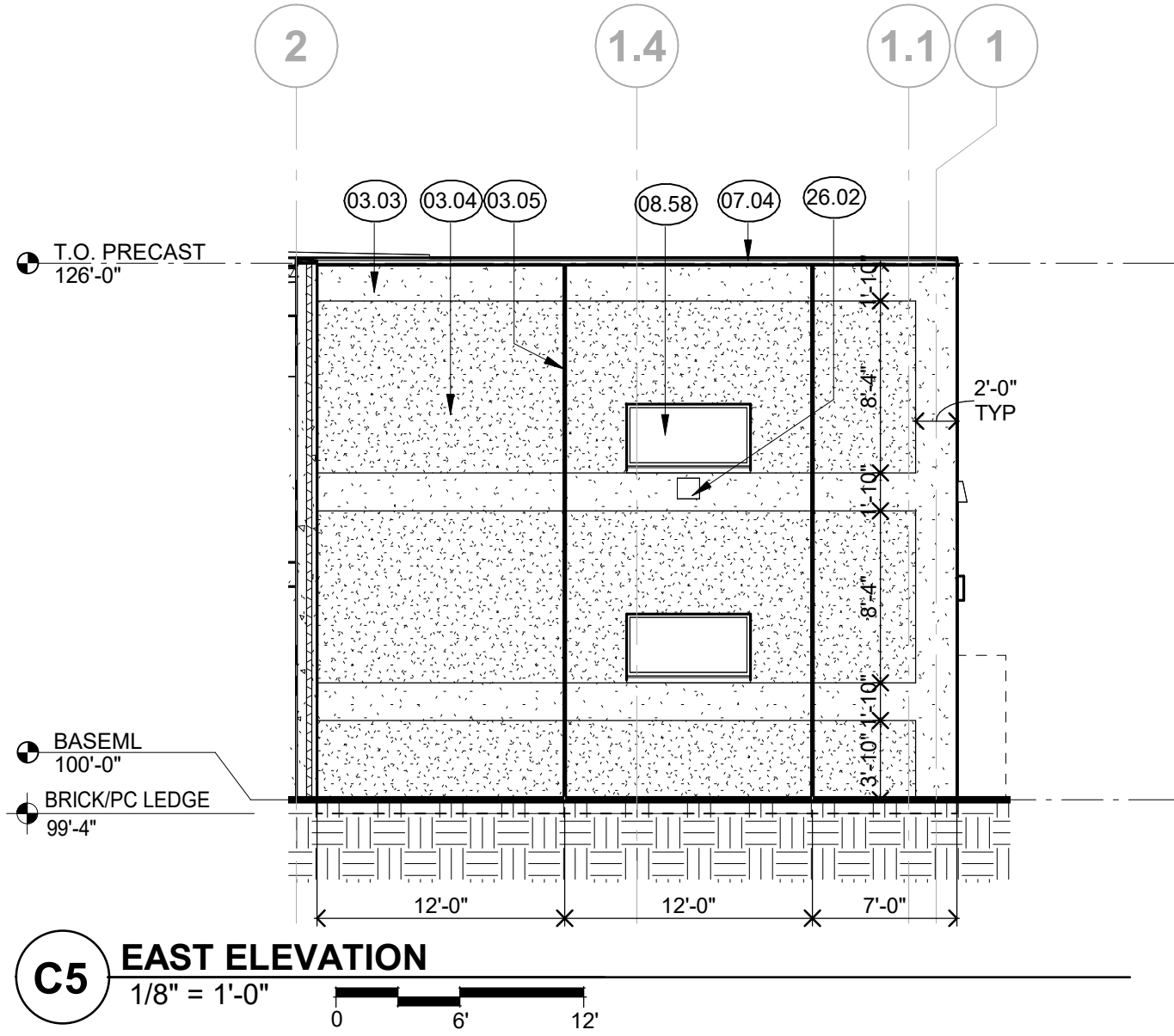
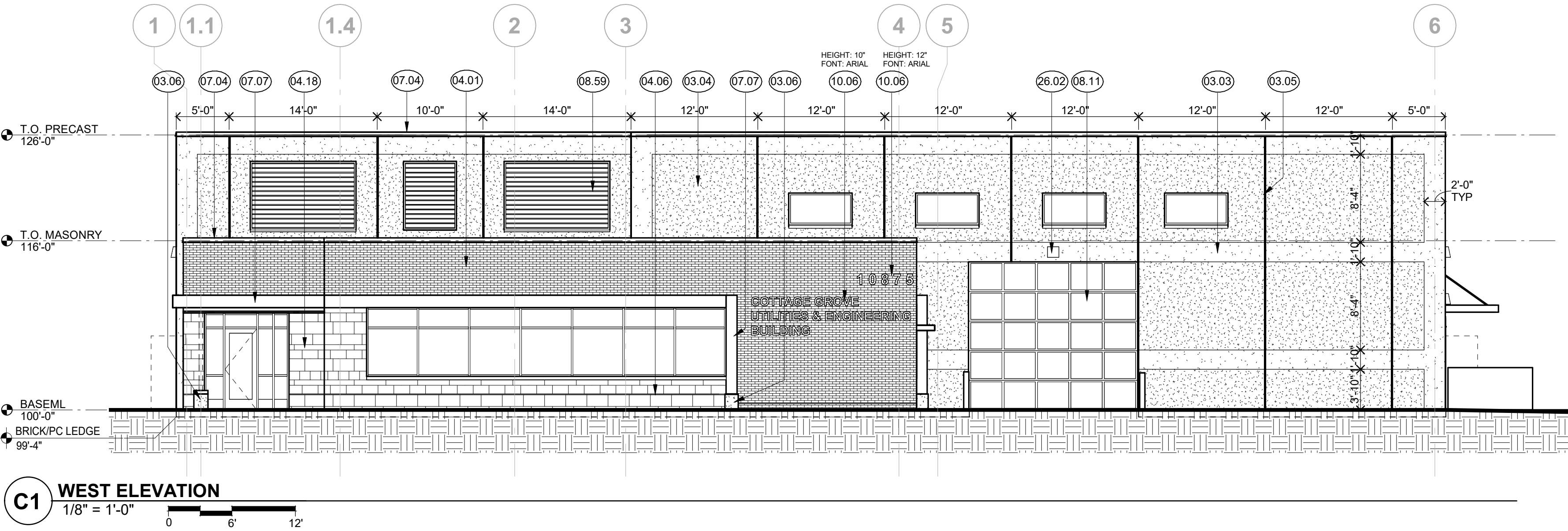
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MATERIALS KEY	
KEY	MATERIAL
03.03	PRECAST STRUCTURAL CONCRETE (ACCENT: SANDBLAST FINISH)
03.04	PRECAST STRUCTURAL CONCRETE (FIELD: ACID WASH FINISH)
03.05	PRECAST STRUCTURAL CONCRETE PANEL JOINT
03.06	ARCHITECTURAL PRECAST CONCRETE
04.01	BRICK 1
04.06	PREFINISHED METAL FLASHING
04.18	STONE MASONRY VENEER
07.04	PREFINISHED METAL COPING
07.07	ANODIZED ALUMINUM PANEL
07.92	USER DEFINED
08.02	HOLLOW METAL DOOR (08 11 13)
08.06	ANODIZED ALUMINUM FRAME
08.11	SECTIONAL METAL OVERHEAD DOOR
08.30	PREFINISHED ALUMINUM WINDOW
08.58	EXTERIOR GLAZING
08.59	PREFINISHED METAL LOUVER
09.07	GYPSUM BOARD
10.06	ANODIZED ALUMINUM DIMENSION LETTER SIGNAGE
26.02	EXTERIOR LIGHT FIXTURE



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Description	Revisions	
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EXTERIOR ELEVATIONS - AREA A

Scale: 1/8" = 1'-0"

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A5.101

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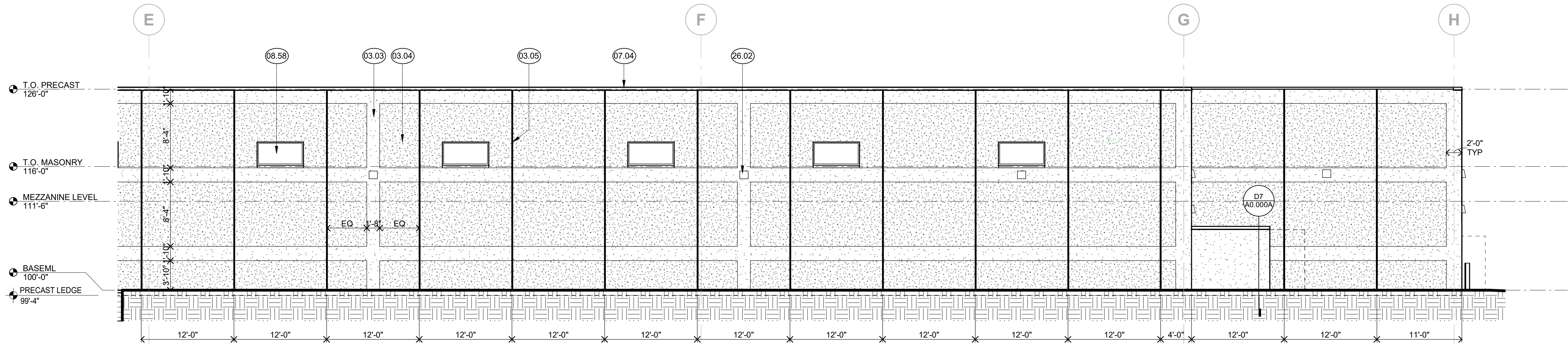
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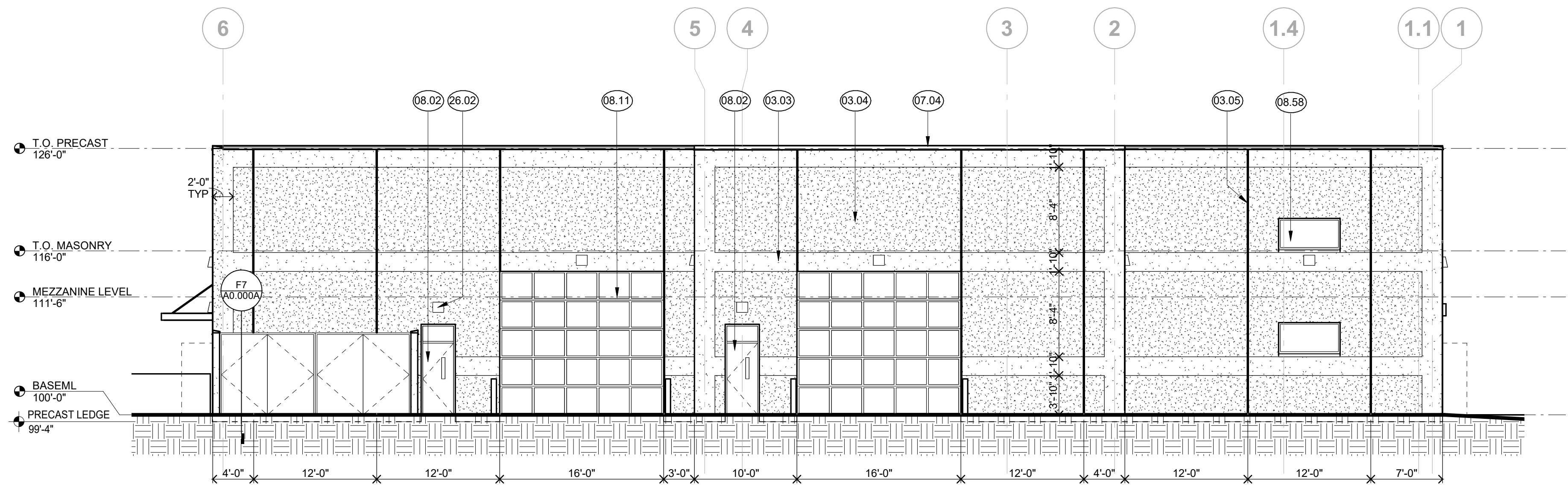
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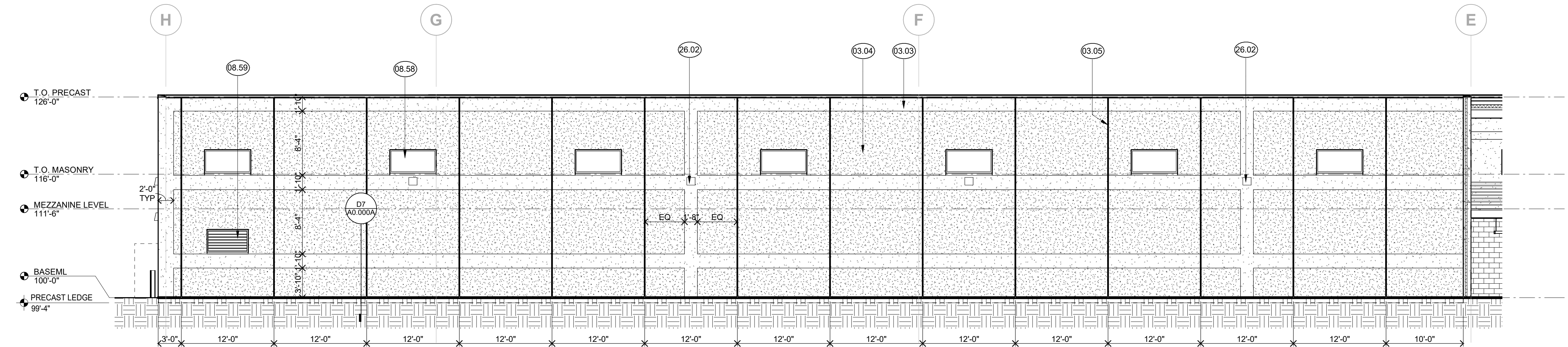
MATERIALS KEY	
KEY	MATERIAL
03.03	PRECAST STRUCTURAL CONCRETE (ACCENT: SANDBLAST FINISH)
03.04	PRECAST STRUCTURAL CONCRETE (FIELD: ACID WASH FINISH)
03.05	PRECAST STRUCTURAL CONCRETE PANEL JOINT
07.04	PREFINISHED METAL COPING
08.02	HOLLOW METAL DOOR (08 11 13)
08.11	SECTIONAL METAL OVERHEAD DOOR
08.58	EXTERIOR GLAZING
08.59	PREFINISHED METAL LOUVER
26.02	EXTERIOR LIGHT FIXTURE



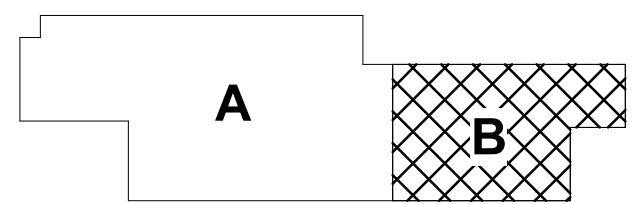
C3 SOUTH ELEVATION - AREA B
1/8" = 1'-0"



D3 EAST ELEVATION - AREA B
1/8" = 1'-0"



F3 NORTH ELEVATION - AREA B
1/8" = 1'-0"



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EXTERIOR ELEVATIONS - AREA B

Scale: 1/8" = 1'-0"

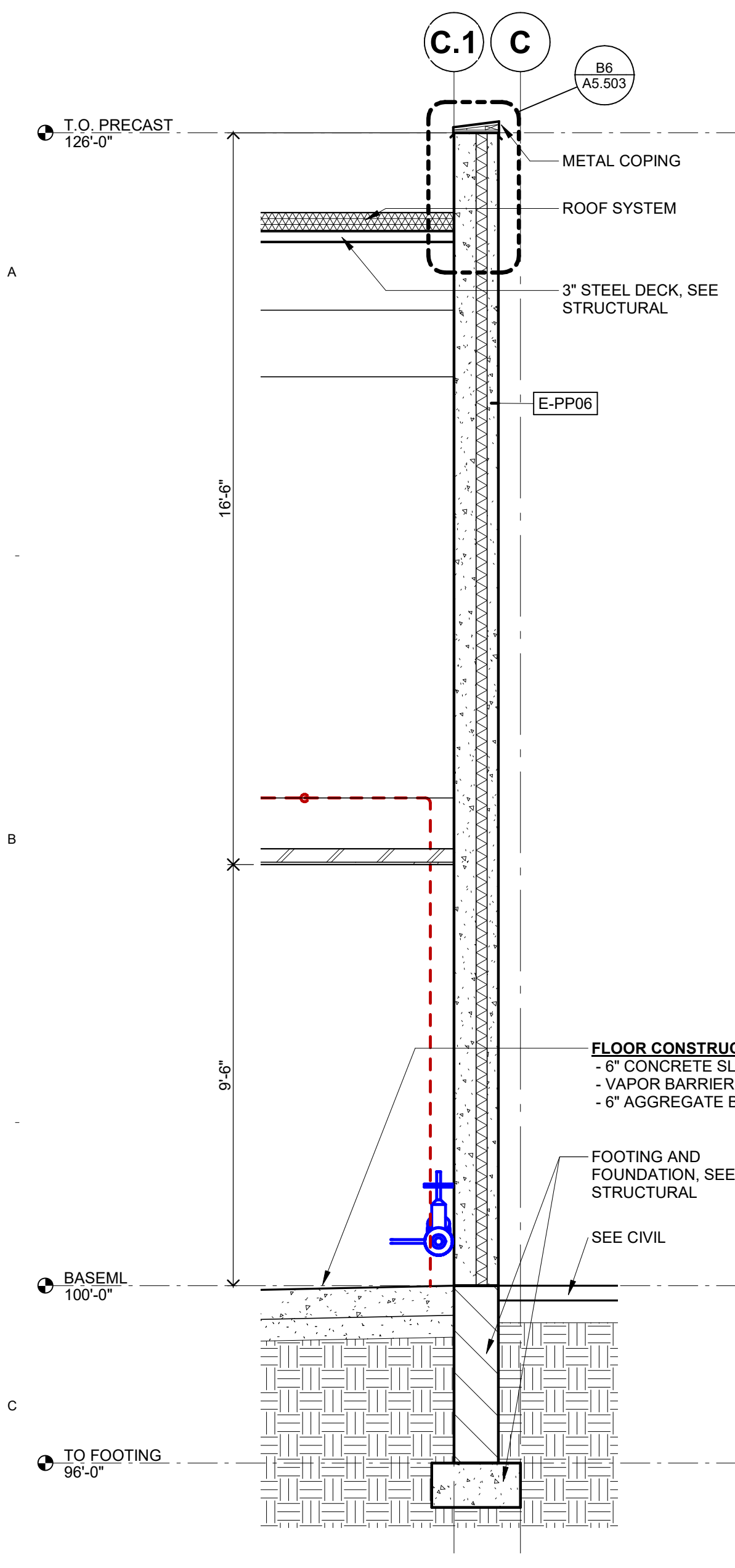
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A5.102

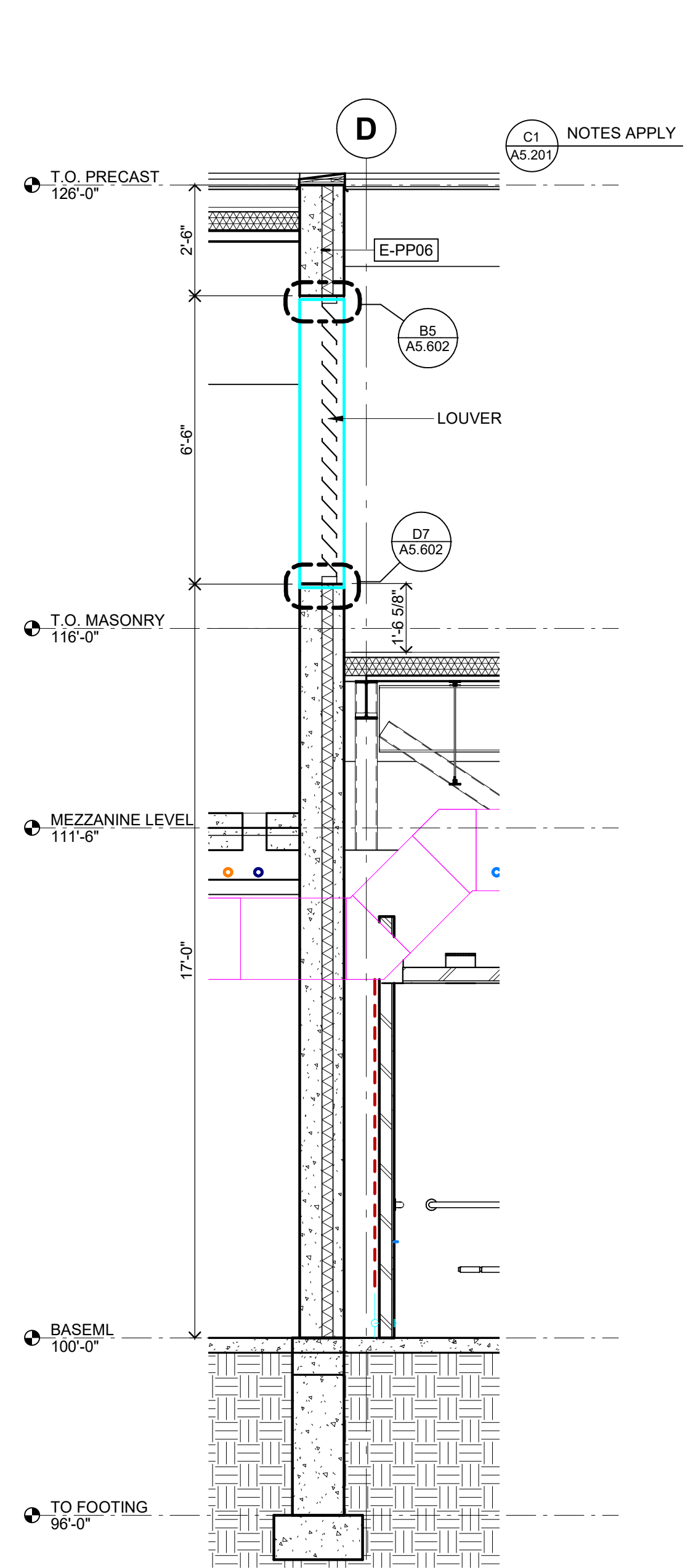
Architect: John McNamara, License No. 24281, State of Minnesota
Engineer: John McNamara, License No. 24281, State of Minnesota
Draftsman: John McNamara, License No. 24281, State of Minnesota
Date: 09/12/2023
Project: NEW UTILITY & ENGINEERING BUILDING
Sheet: A5.102

A

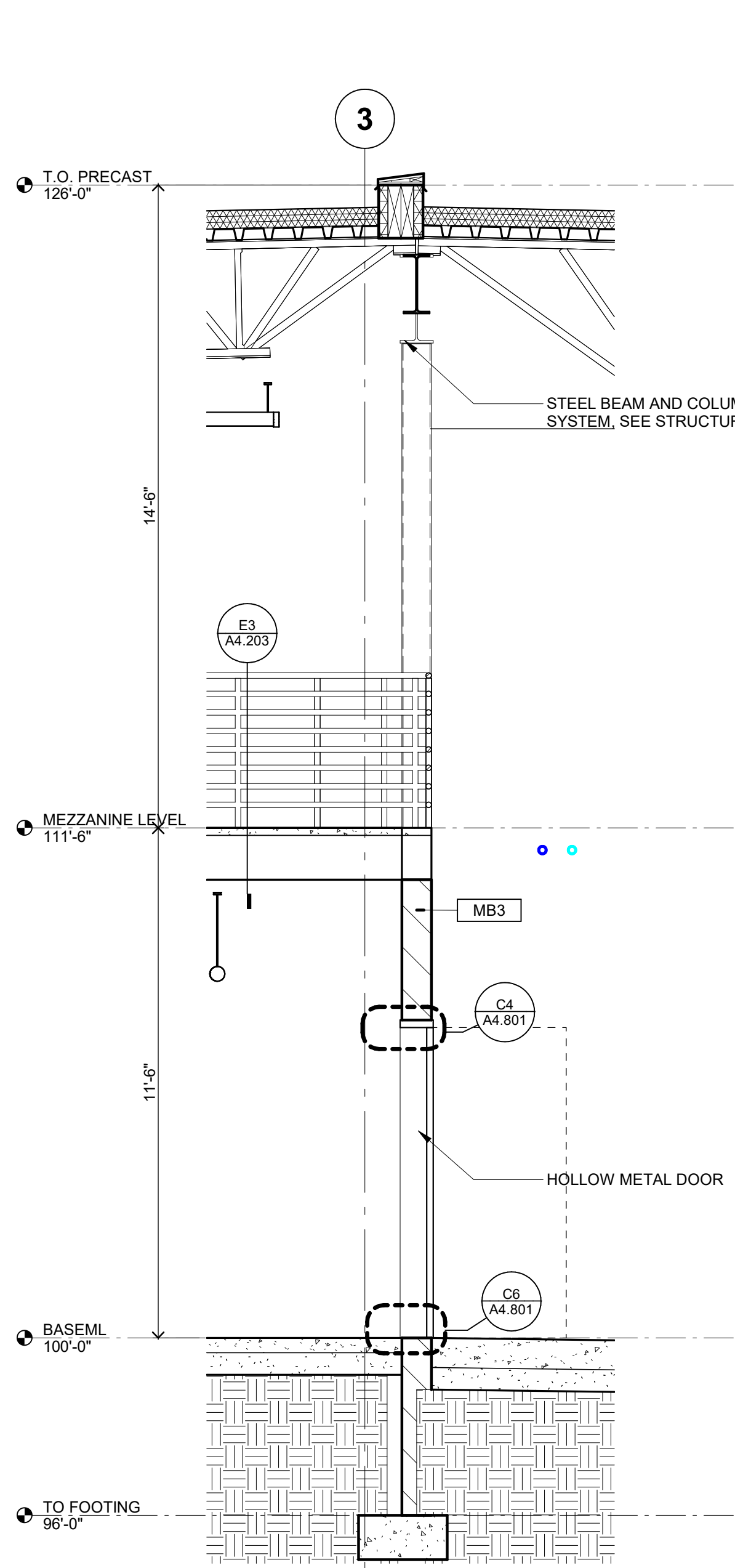
MN



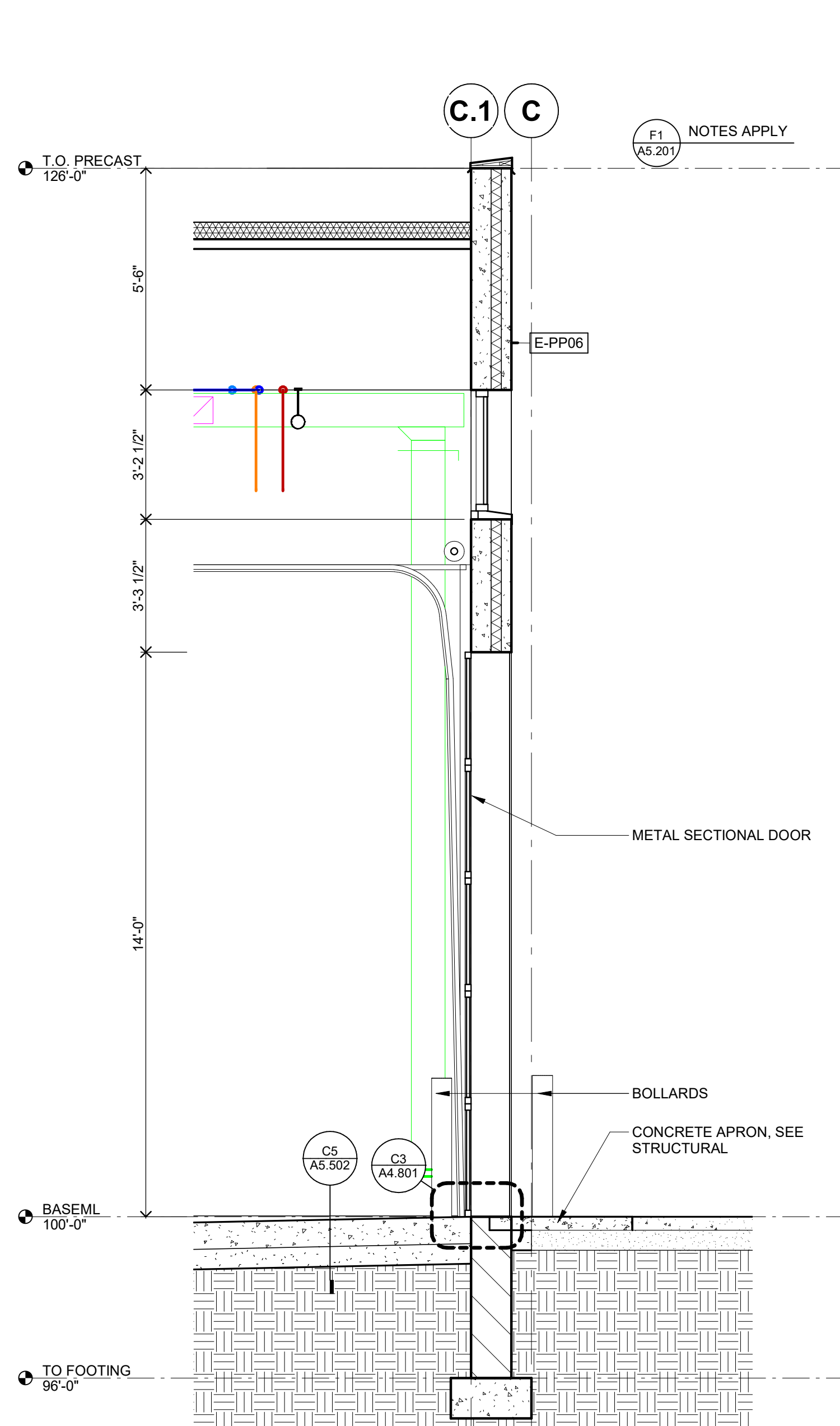
C1 SECTION AT VEHICLE GARAGE
3/8" = 1'-0"



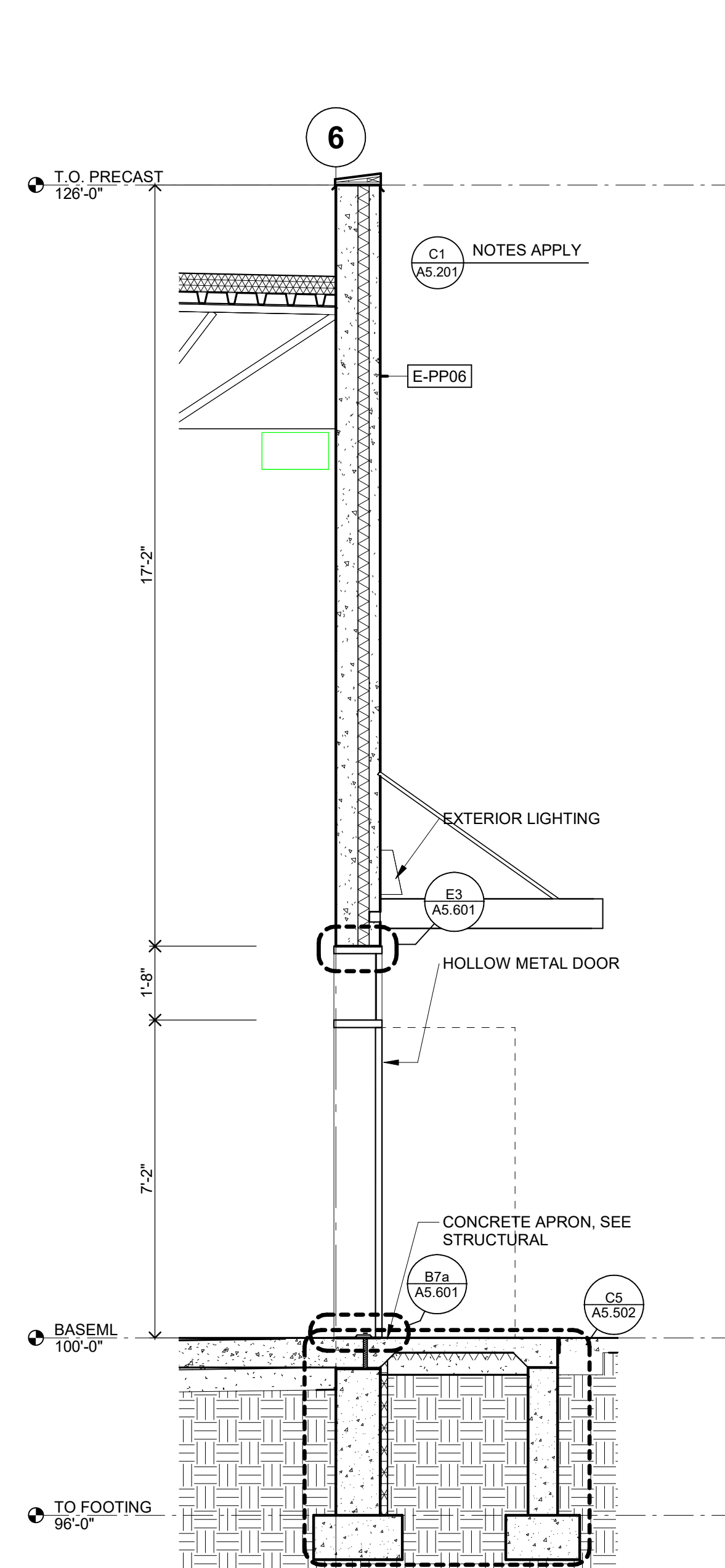
C2 SECTION AT MECHANICAL LOUVER
3/8" = 1'-0"



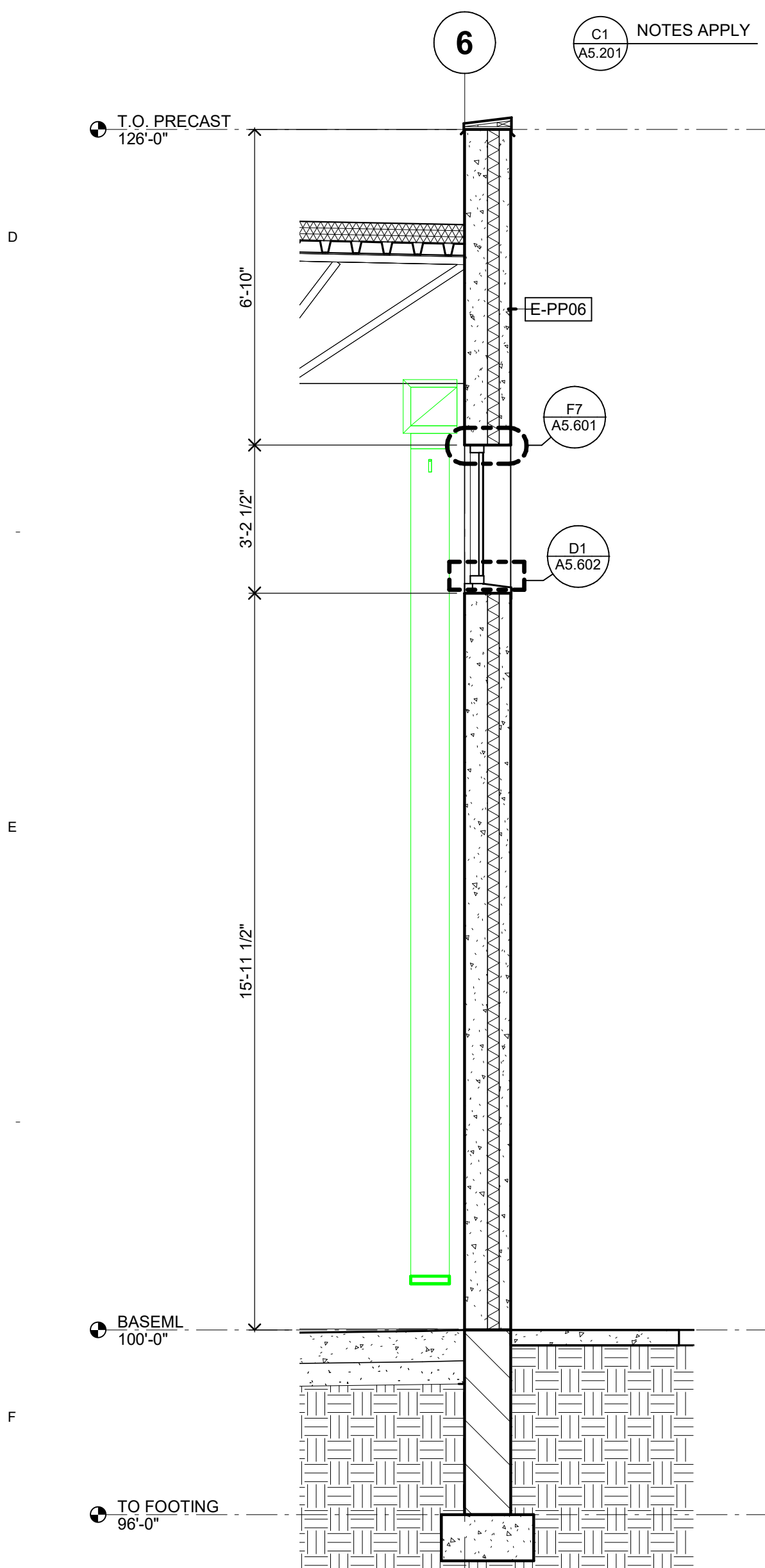
C4 SECTION AT DOOR A126B
3/8" = 1'-0"



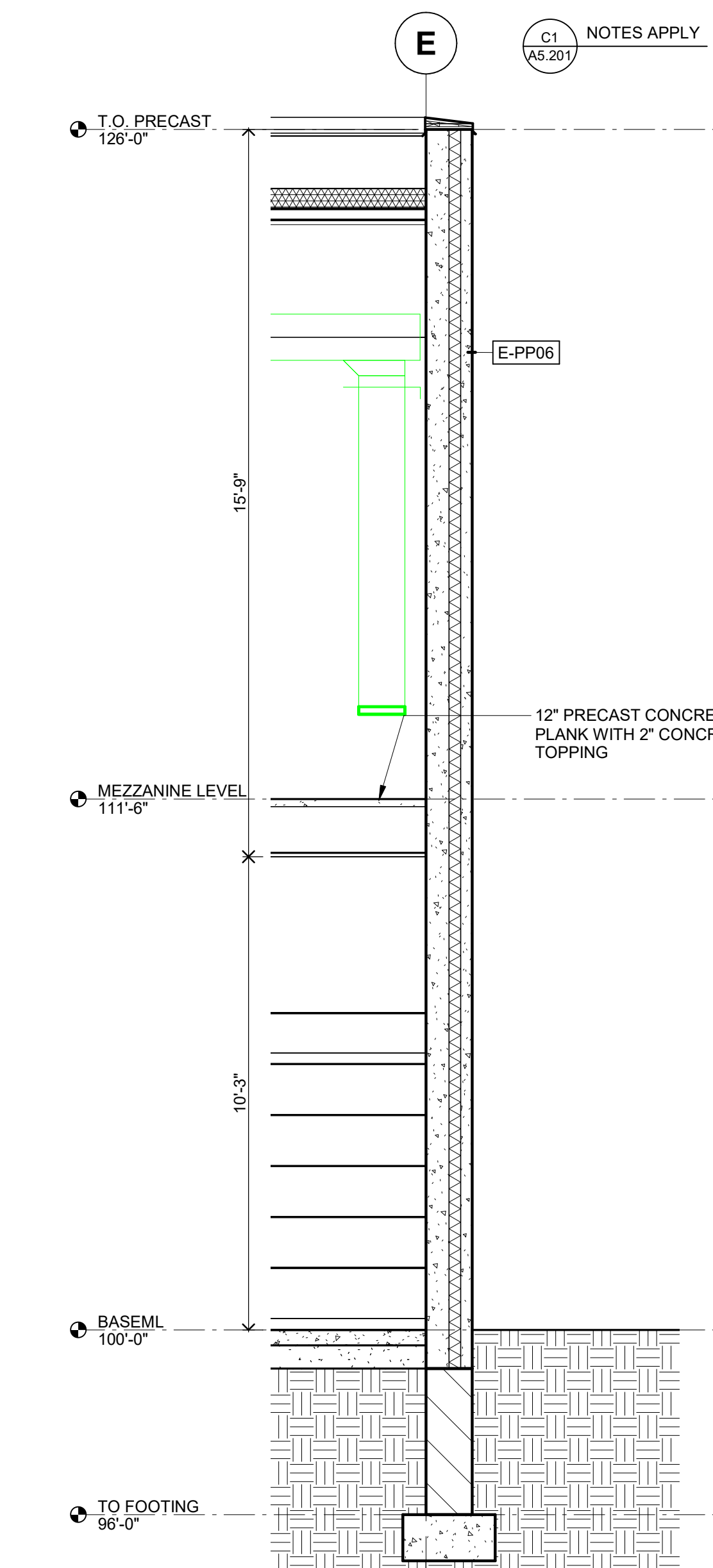
C5 SECTION AT DOOR A133
3/8" = 1'-0"



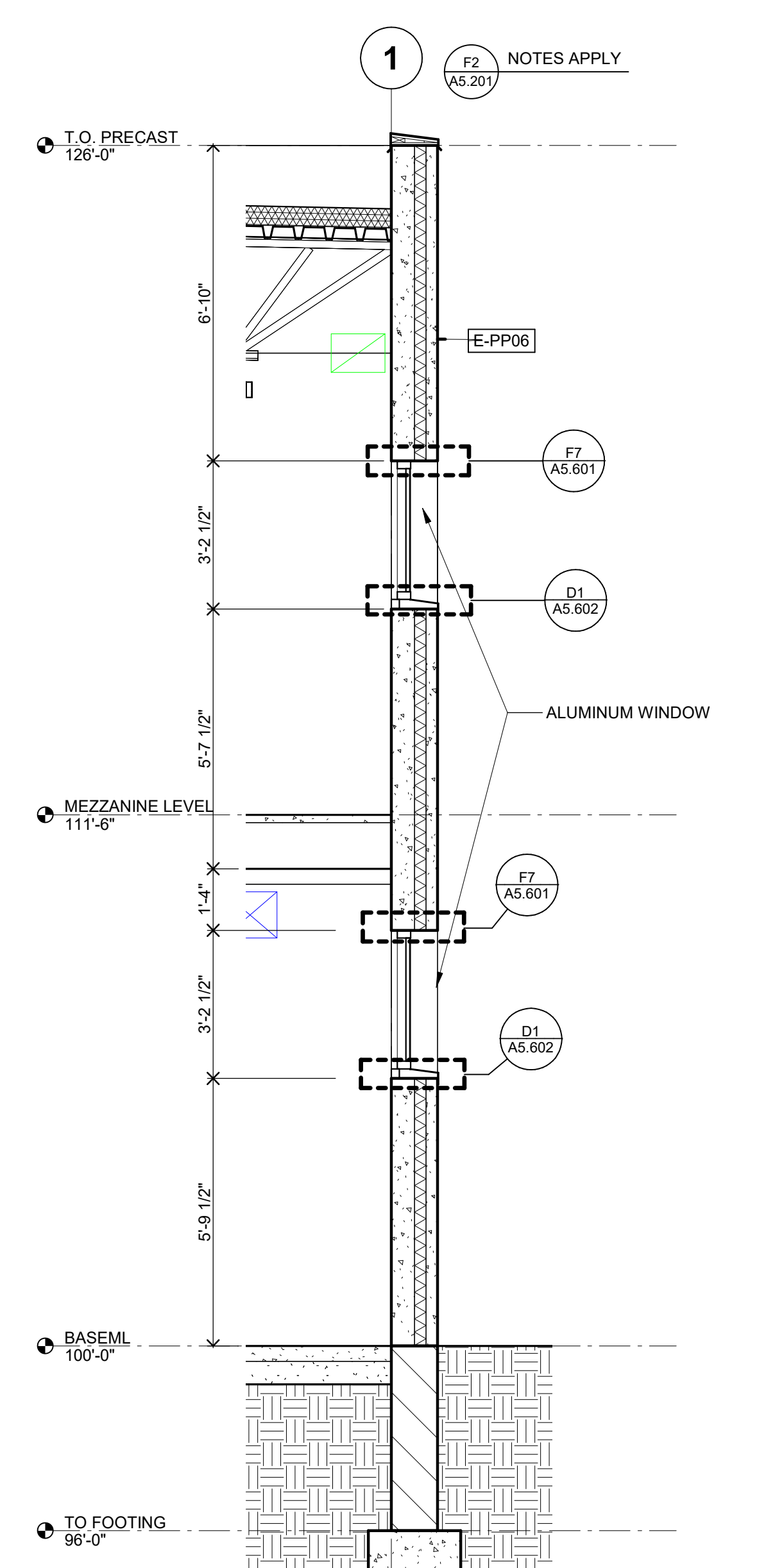
C7 SECTION AT DOOR B134A
3/8" = 1'-0"



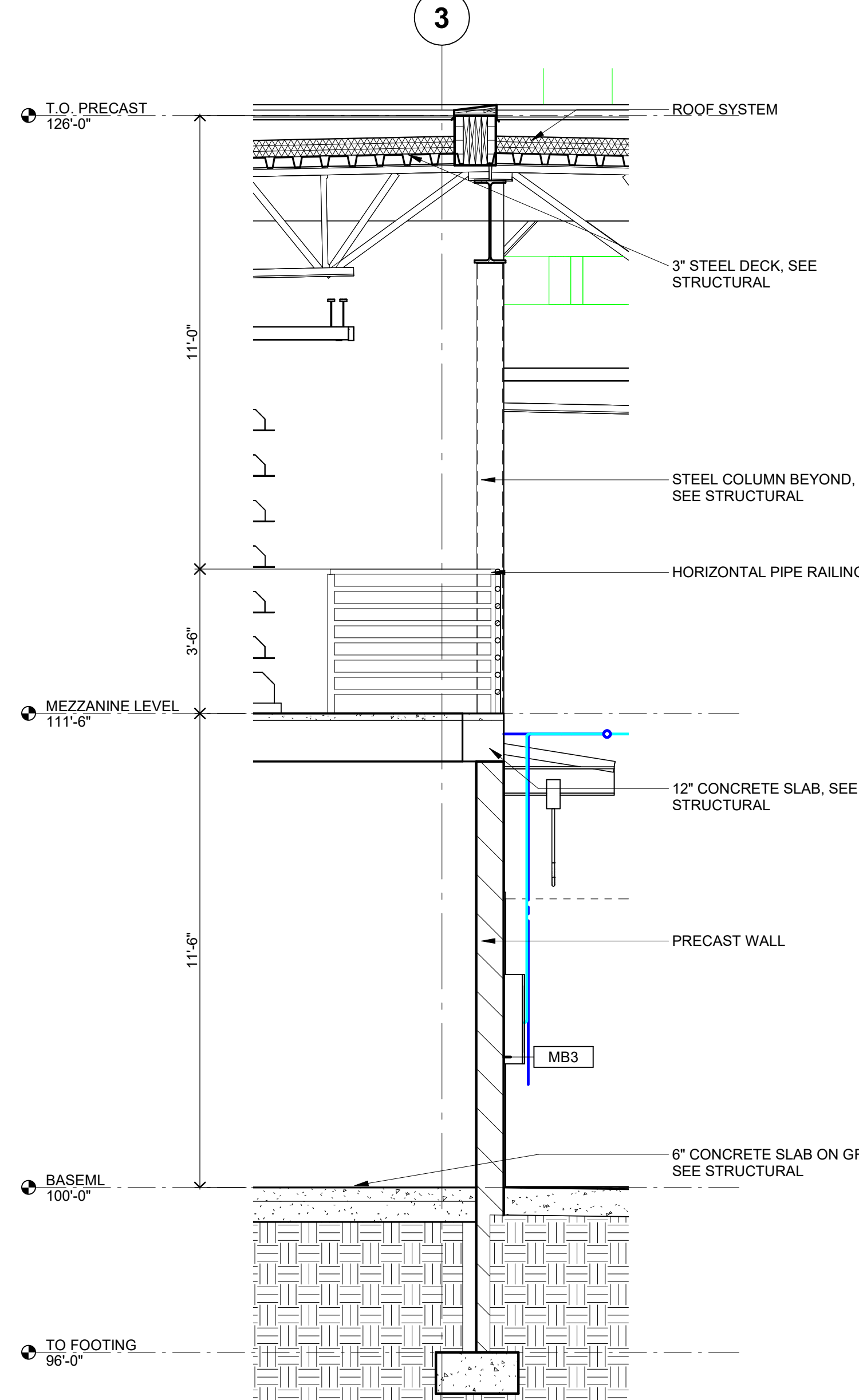
F1 SECTION AT VEHICLE GARAGE
3/8" = 1'-0"



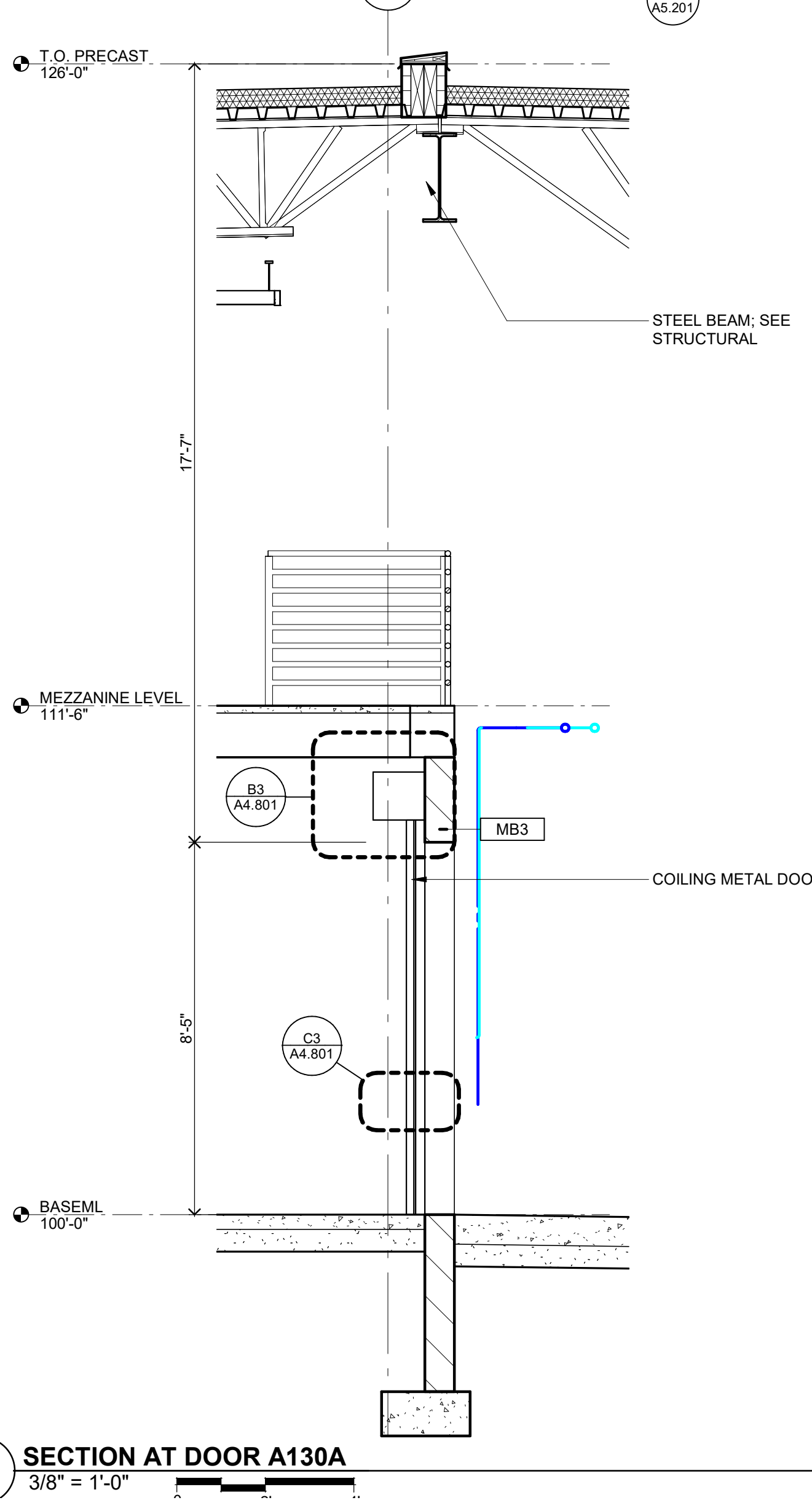
F2 SECTION AT STREET LIGHT STORAGE
3/8" = 1'-0"



F4 SECTION AT WATER METER ROOM 2
3/8" = 1'-0"



F5 SECTION THROUGH WATER METER ROOM
3/8" = 1'-0"



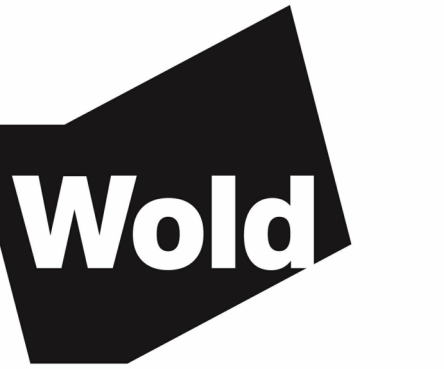
F7 SECTION AT DOOR A130A
3/8" = 1'-0"

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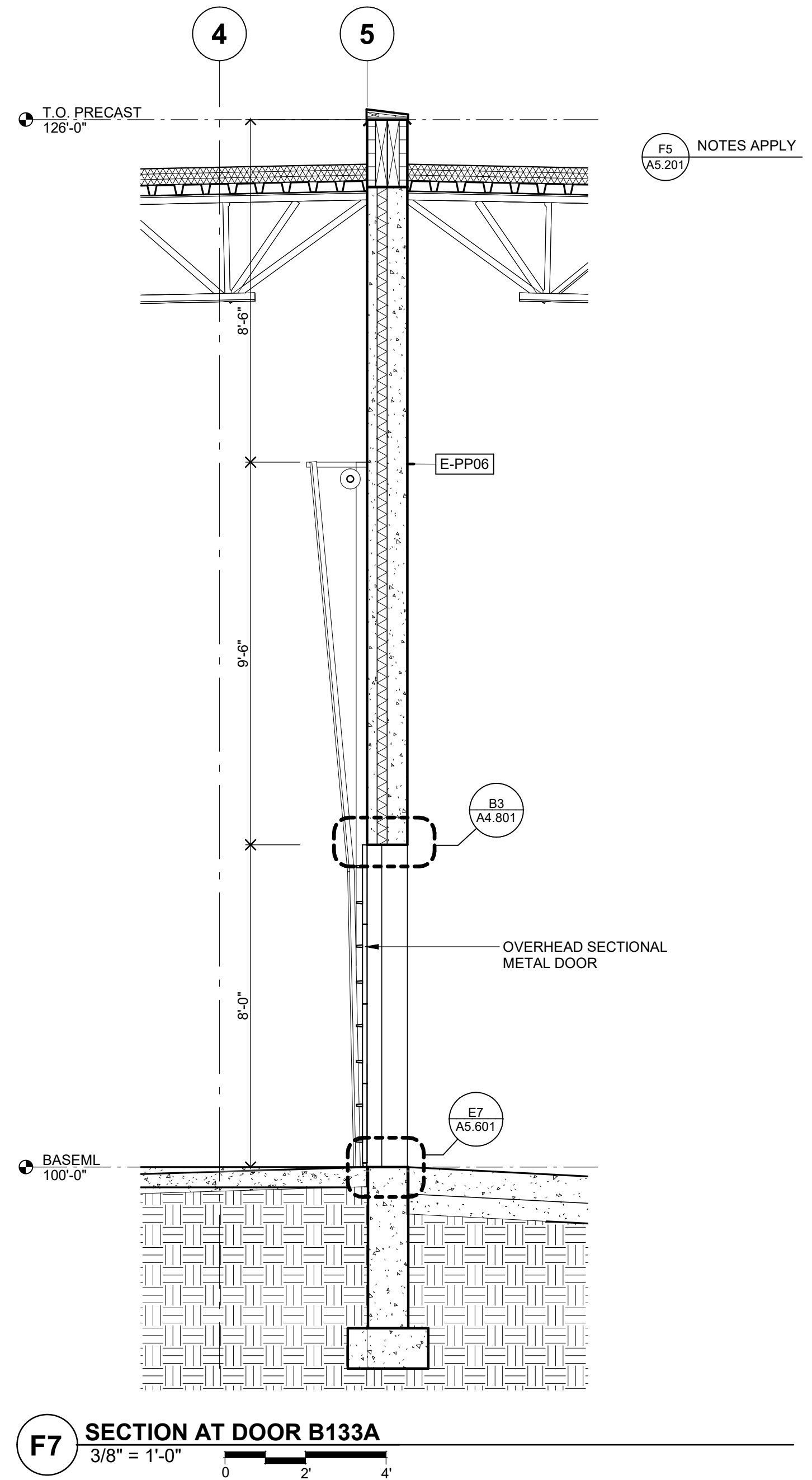
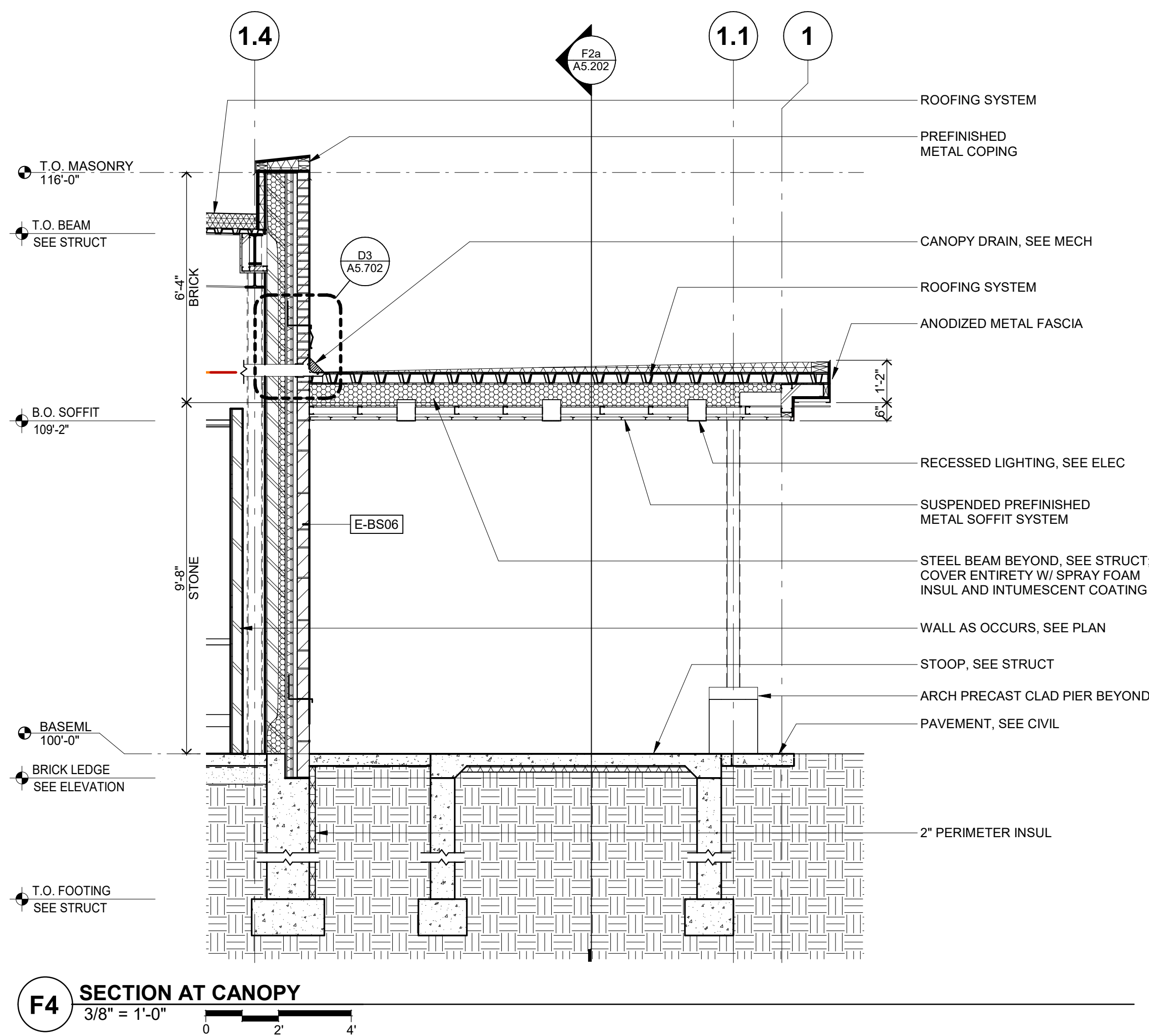
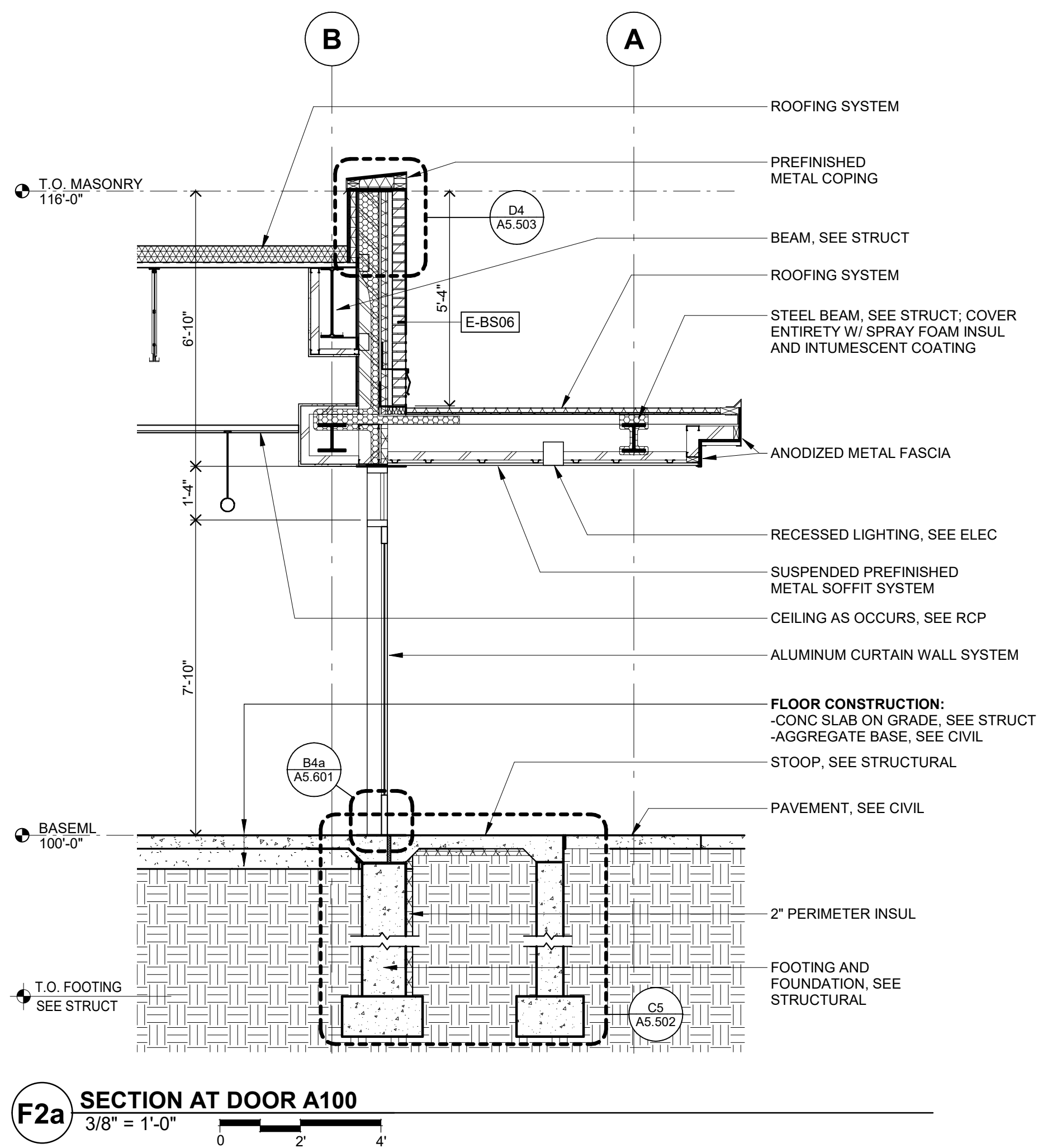
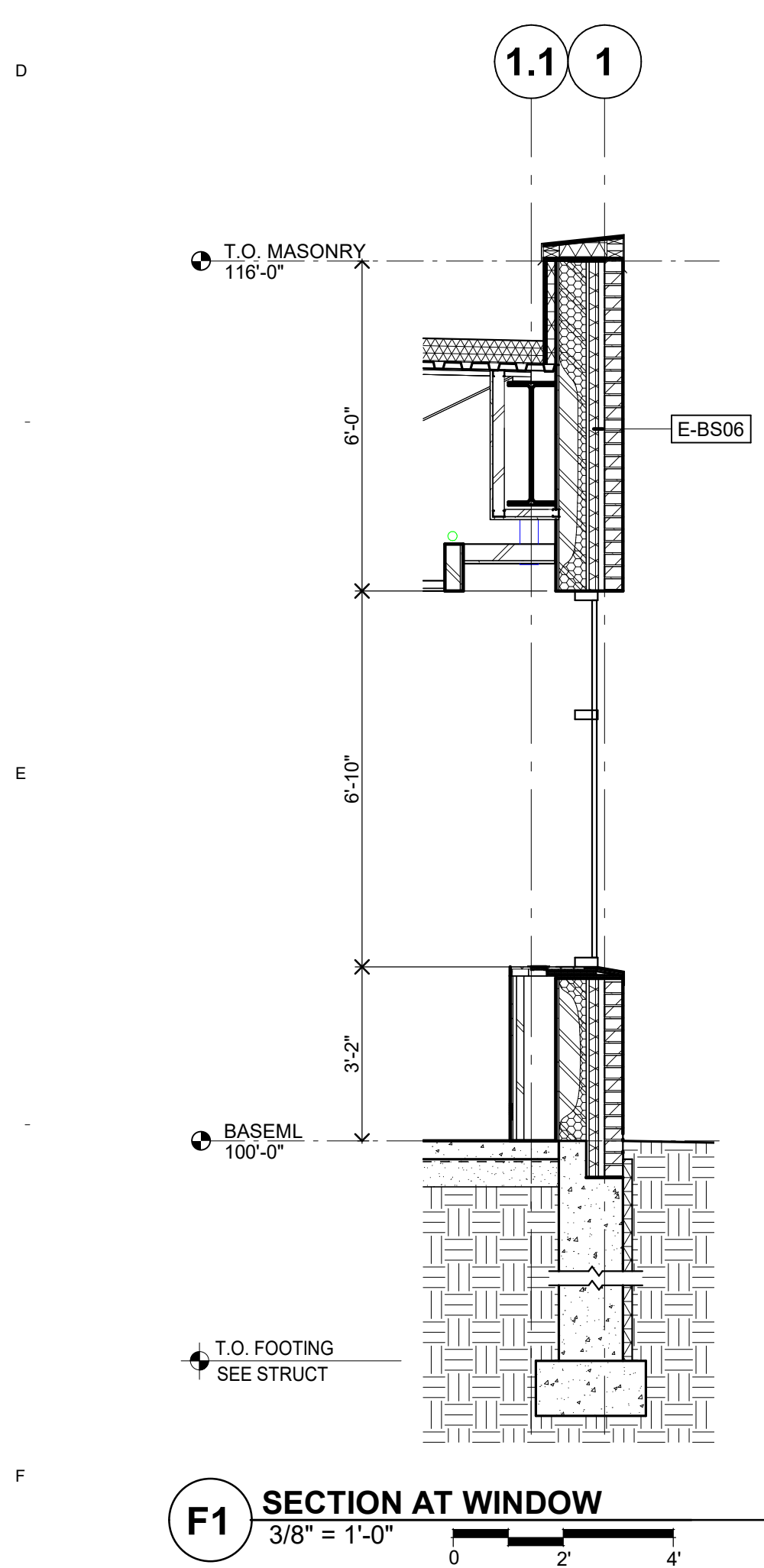
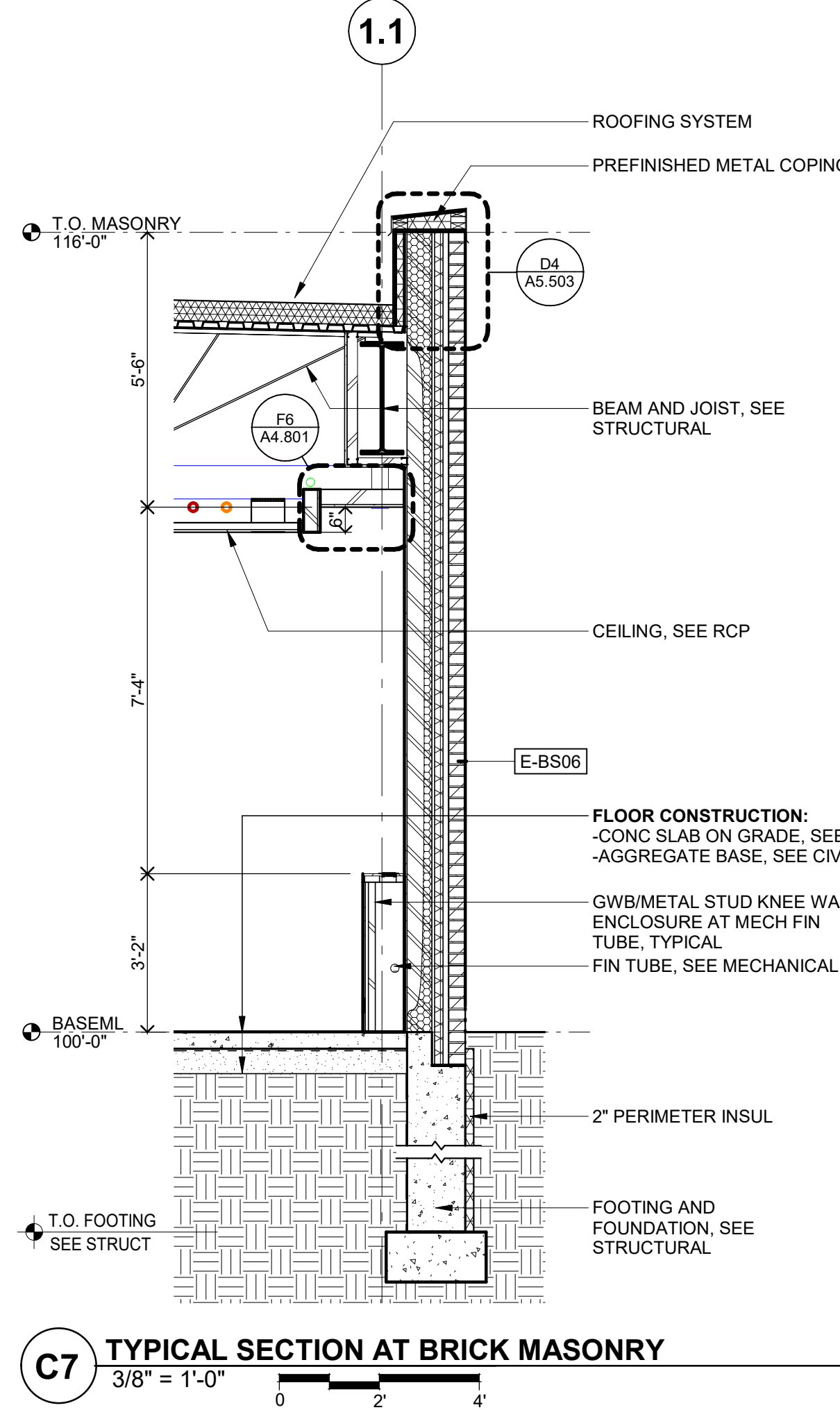
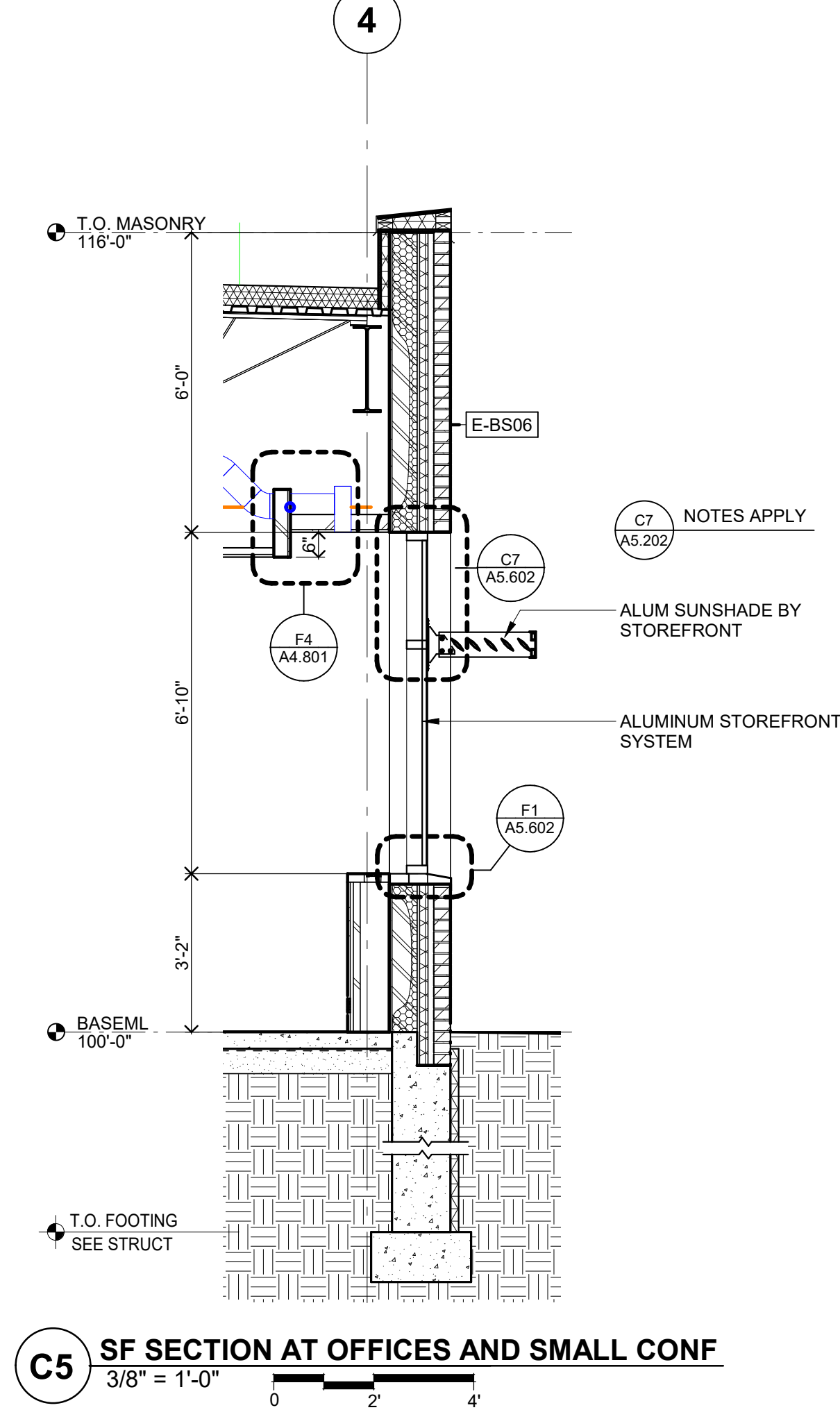
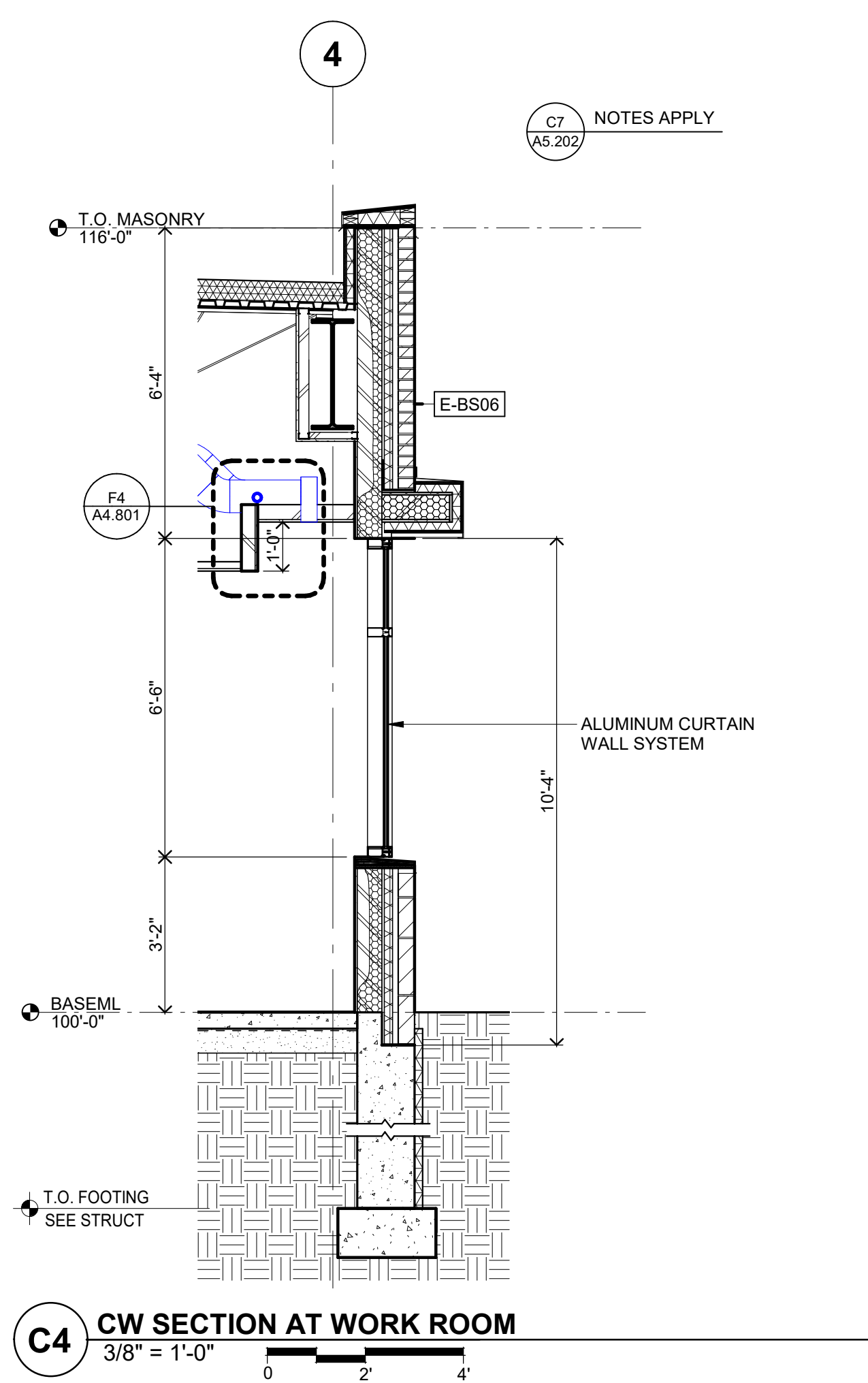
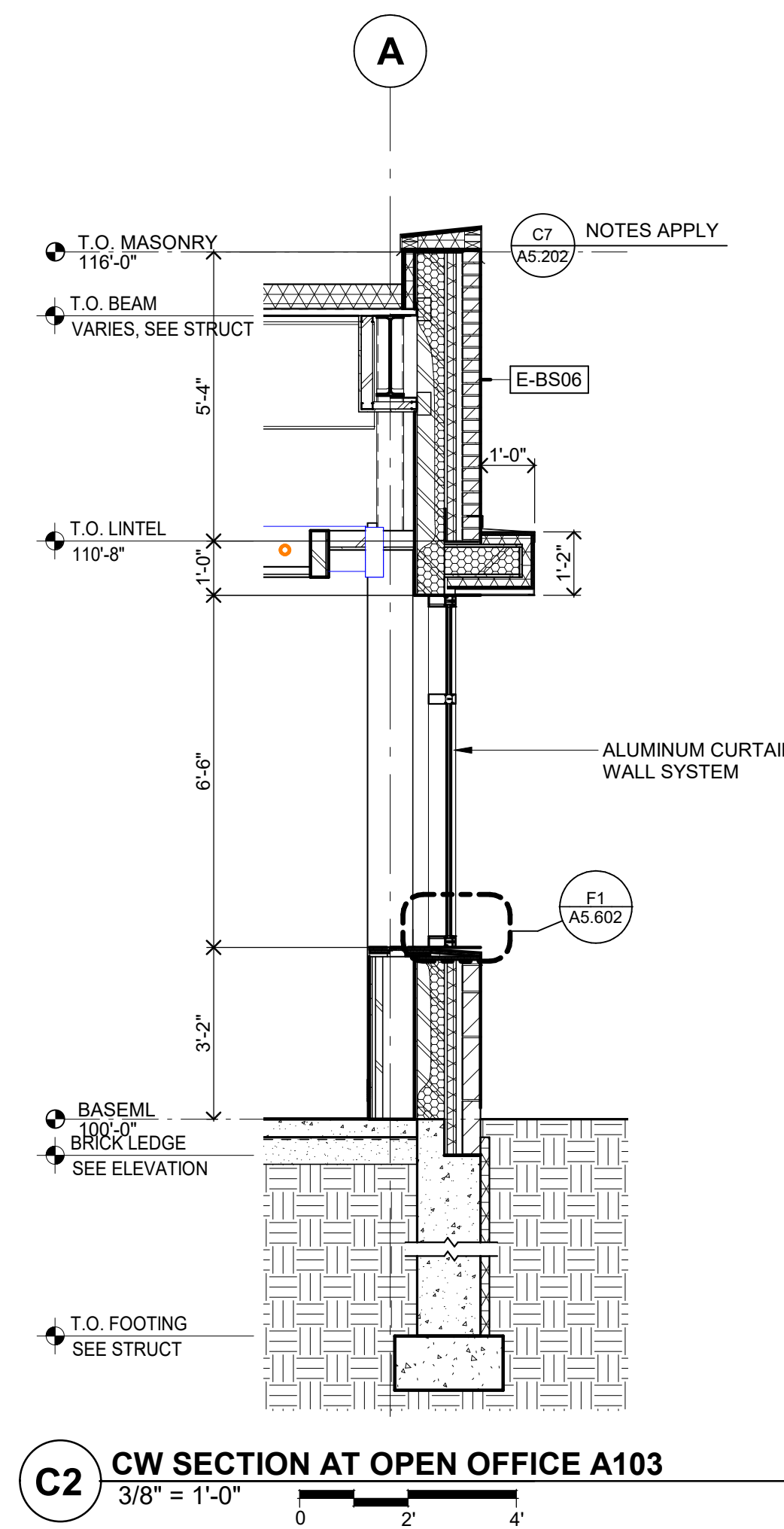
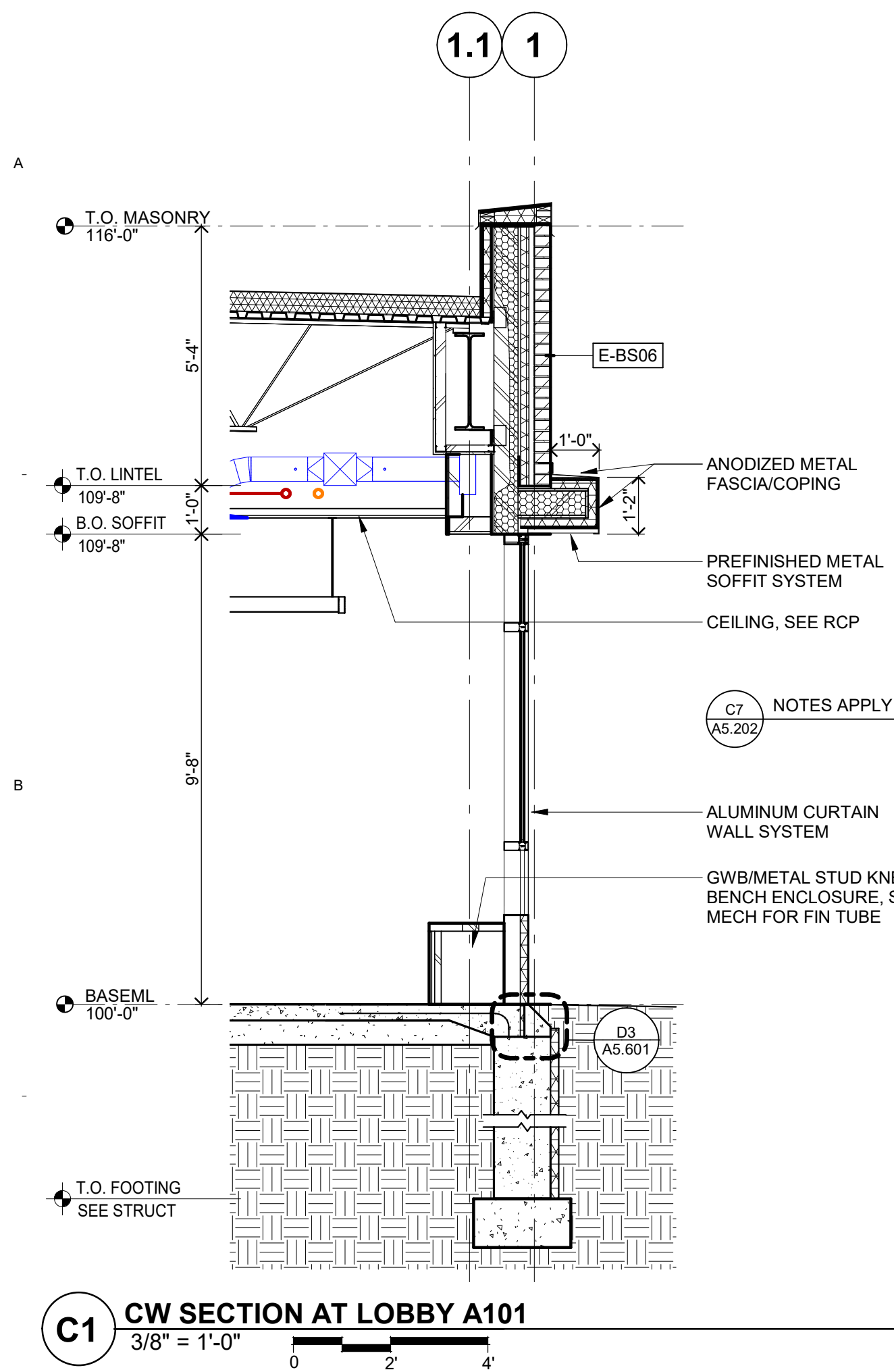
Comm: 232010
Date: 09/12/2023
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Check: JW

WALL SECTIONS

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

A5.201

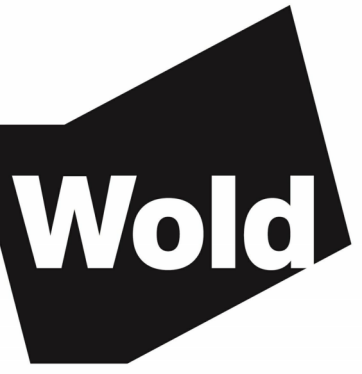
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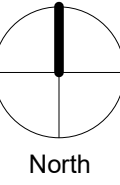
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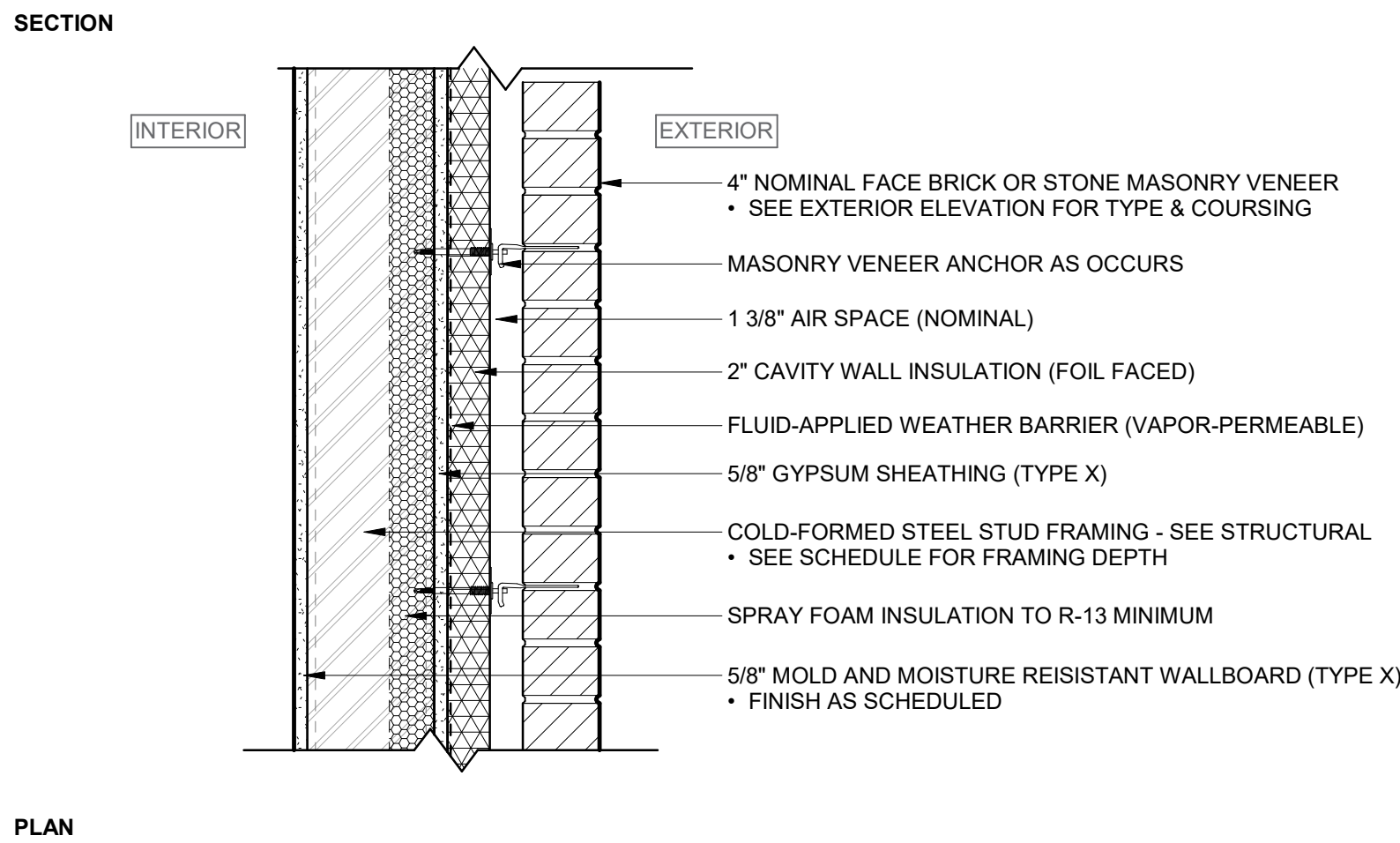


WALL SECTIONS

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

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A5.202

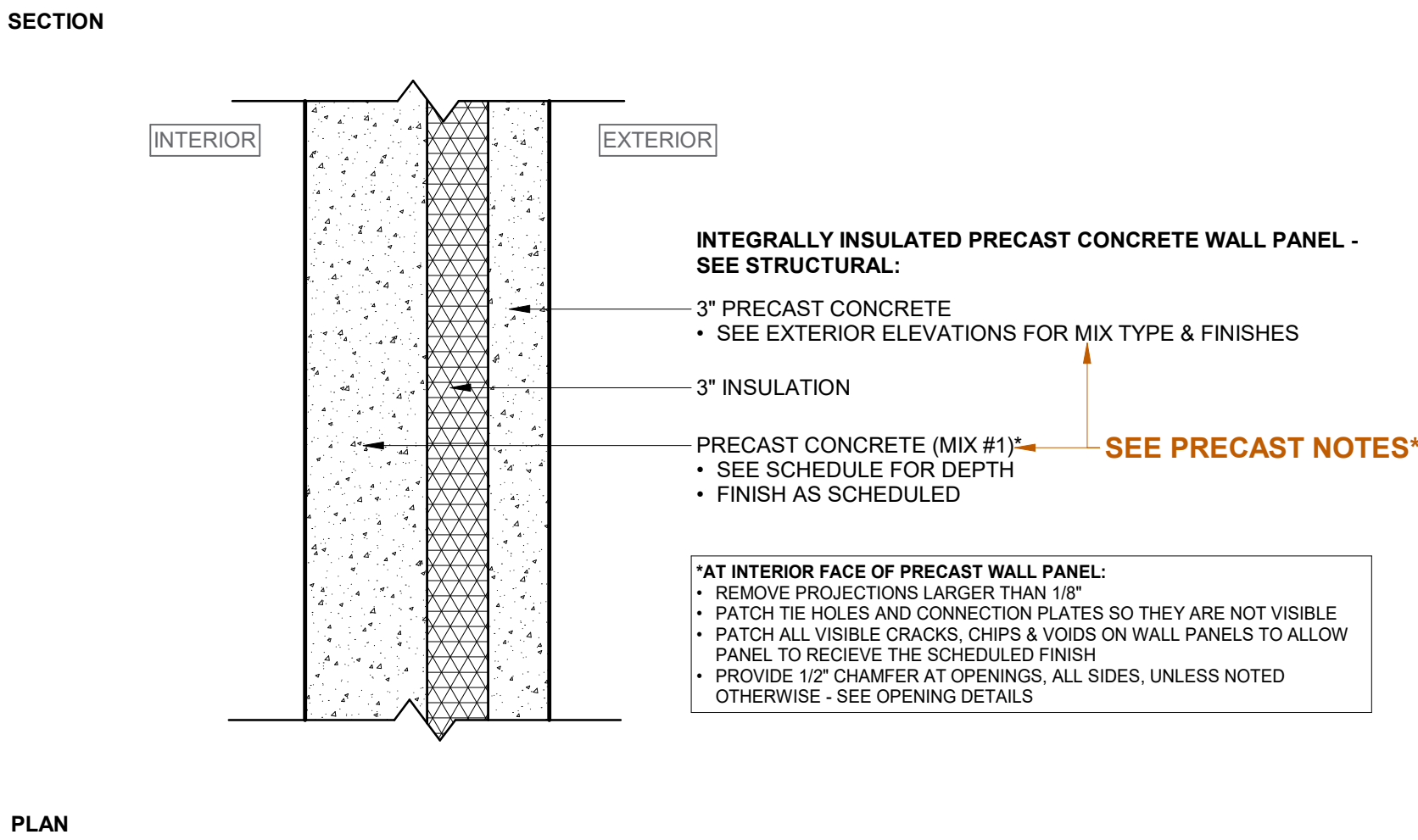


ENERGY CODE: EXPECTED R-VALUE, INSULATION: R-13.3 CONTINUOUS AND R-13 CAVITY
EXPECTED R-VALUE, ASSEMBLY:

NFPA 285: THIS WALL ASSEMBLY IS DESIGNED AROUND AN ENGINEERING EVALUATION #10123 (CURRENT REVISION) PERFORMED BY PRIEST & ASSOCIATES CONSULTING, LLC BASED ON NFPA 285 TESTS FOR HUNTER PANELS, PROVIDER OF POLYISOCYANURATE CONTINUOUS INSULATION.

TYPE	STUD SIZE	NOTES
E-BS06	6"	

F1 ASSEMBLY E-BS - BRICK VENEER ON STEEL STUD BACK-UP
1 1/2" = 1'-0"



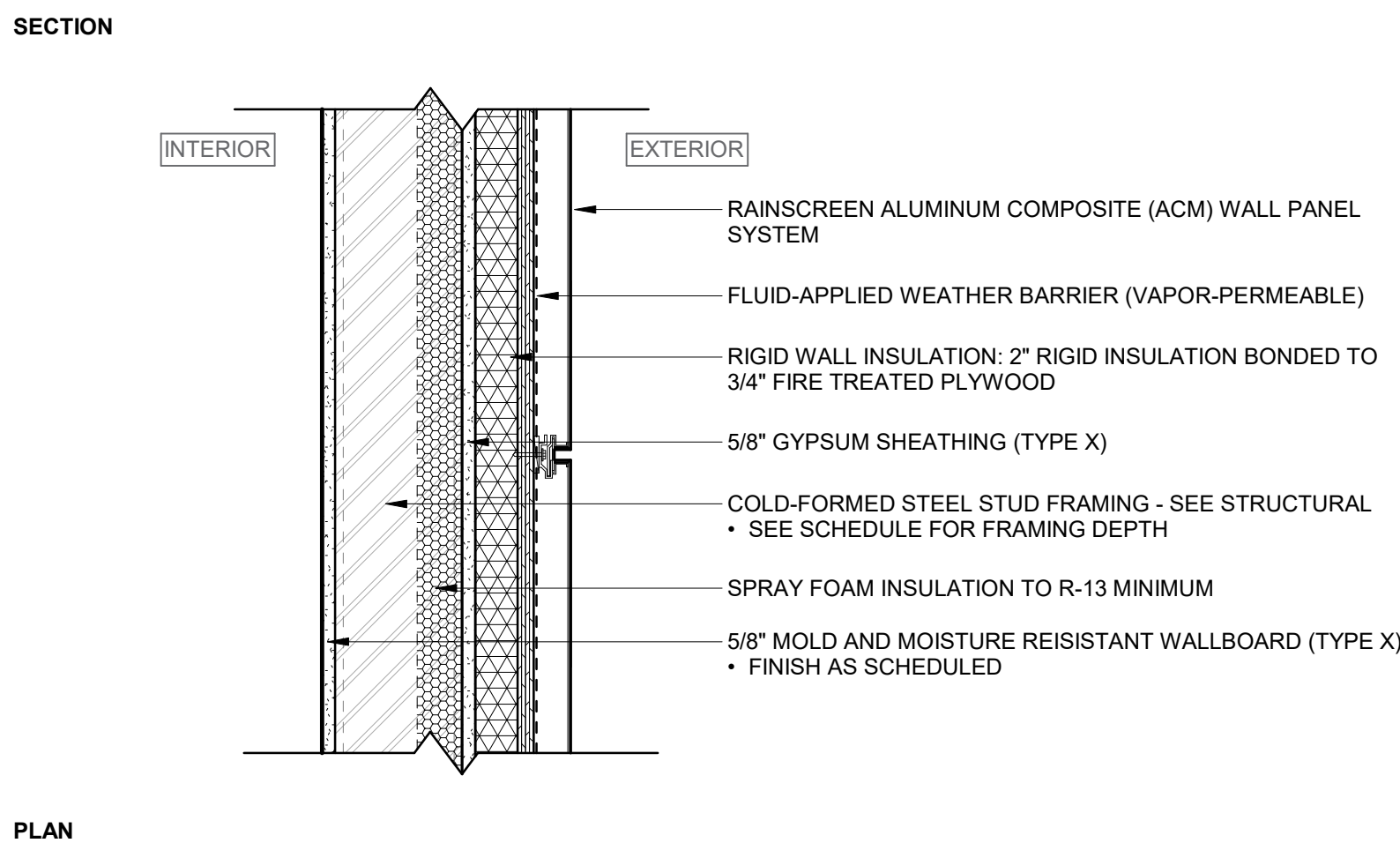
**NOTE: CONTINUOUS SEALANT OR FIRESTOPPING AT PANEL JOINT - SEE CODE PLAN FOR RATING. 1 & 2 HOUR WALL ASSEMBLIES TO COMPLY WITH IBC TABLE 722.2.1.1. JOINTS TO COMPLY WITH SECTION 722.2.1.3.

ENERGY CODE: EXPECTED R-VALUE, INSULATION: R-16 CONTINUOUS
EXPECTED R-VALUE, ASSEMBLY: (VARIES WITH BACKUP DEPTH)

NFPA 285: THIS WALL ASSEMBLY IS DESIGNED WITH NO AIRSPACE BETWEEN THE INSULATION AND CONCRETE / MASONRY (EACH SIDE) AND IS NOT REQUIRED TO BE TESTED FOR COMPLIANCE WITH NFPA 285 PER 2003.5.5, EXCEPTION 2.1

TYPE	BACKUP SIZE	NOTES
E-PP06	6"	

F4 ASSEMBLY E-PP - PRECAST WALL PANEL
1 1/2" = 1'-0"



ENERGY CODE: EXPECTED R-VALUE, INSULATION: R-13.1 CONTINUOUS AND R-13 CAVITY
EXPECTED R-VALUE, ASSEMBLY: (VARIES WITH BACKUP DEPTH)

NFPA 285: THIS WALL ASSEMBLY IS DESIGNED AROUND AN ENGINEERING EVALUATION #10123 (CURRENT REVISION) PERFORMED BY PRIEST & ASSOCIATES CONSULTING, LLC BASED ON NFPA 285 TESTS FOR HUNTER PANELS, PROVIDER OF POLYISOCYANURATE CONTINUOUS INSULATION.

TYPE	STUD SIZE	NOTES

F6 ASSEMBLY E-AS - ACM ON STEEL STUD BACK-UP
1 1/2" = 1'-0"

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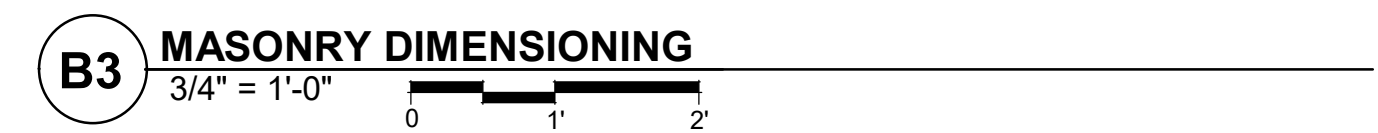
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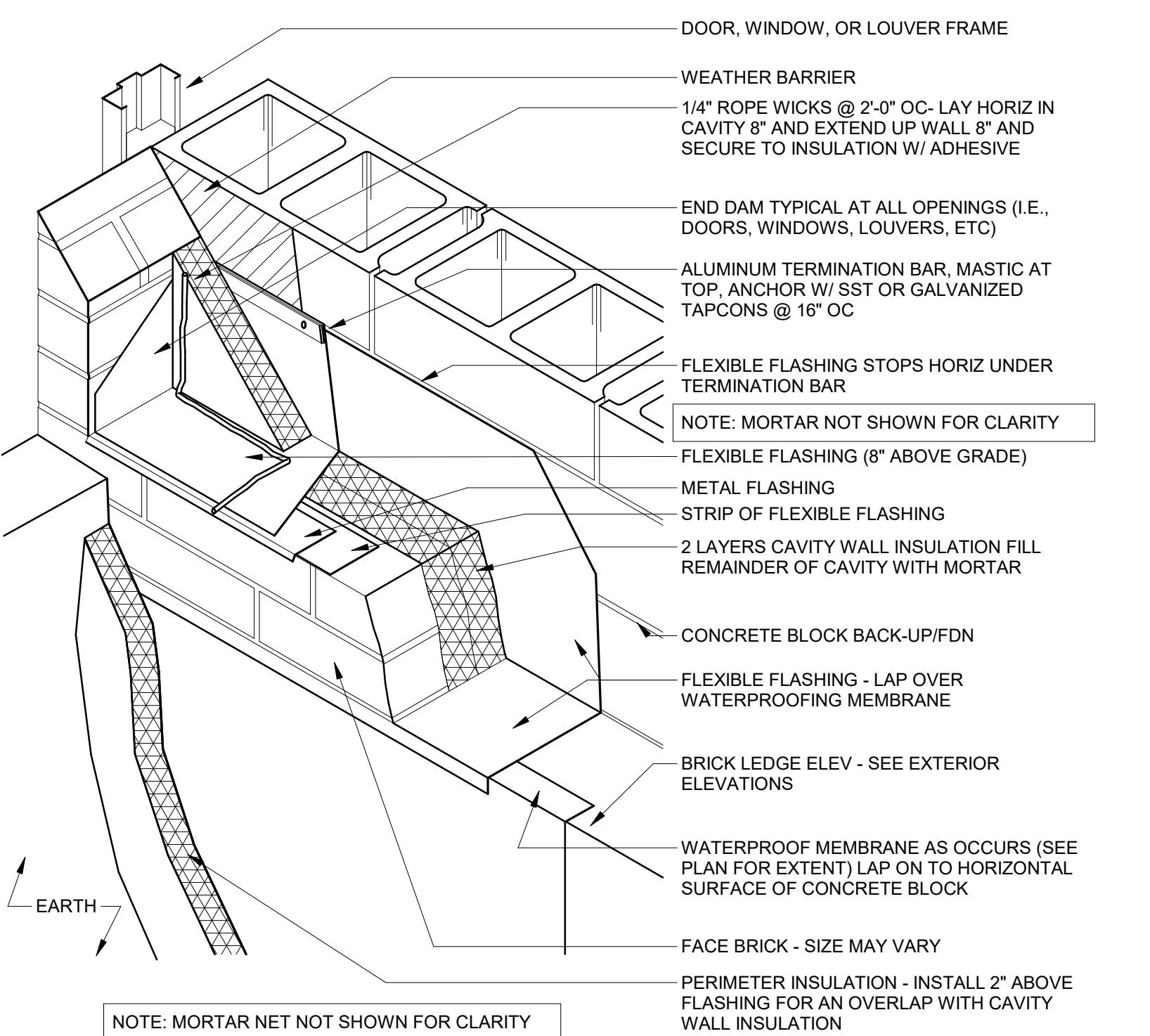
EXTERIOR ASSEMBLIES - WALLS

Scale: 1 1/2" = 1'-0"

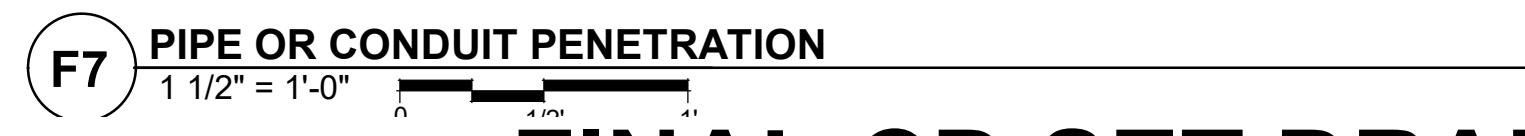
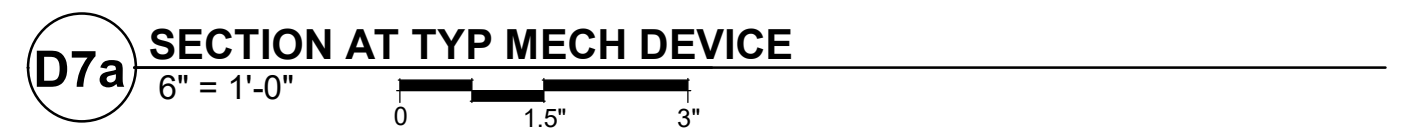
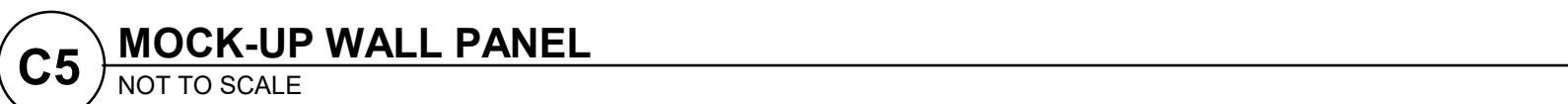
A



E3a **TYPICAL INTERIOR CONTROL JOINT**



F3 FLASHING DETAIL
NOT TO SCALE



**FINAL CD SET DRAFT
NOT FOR CONSTRUCTION**

A5.501

MN

A

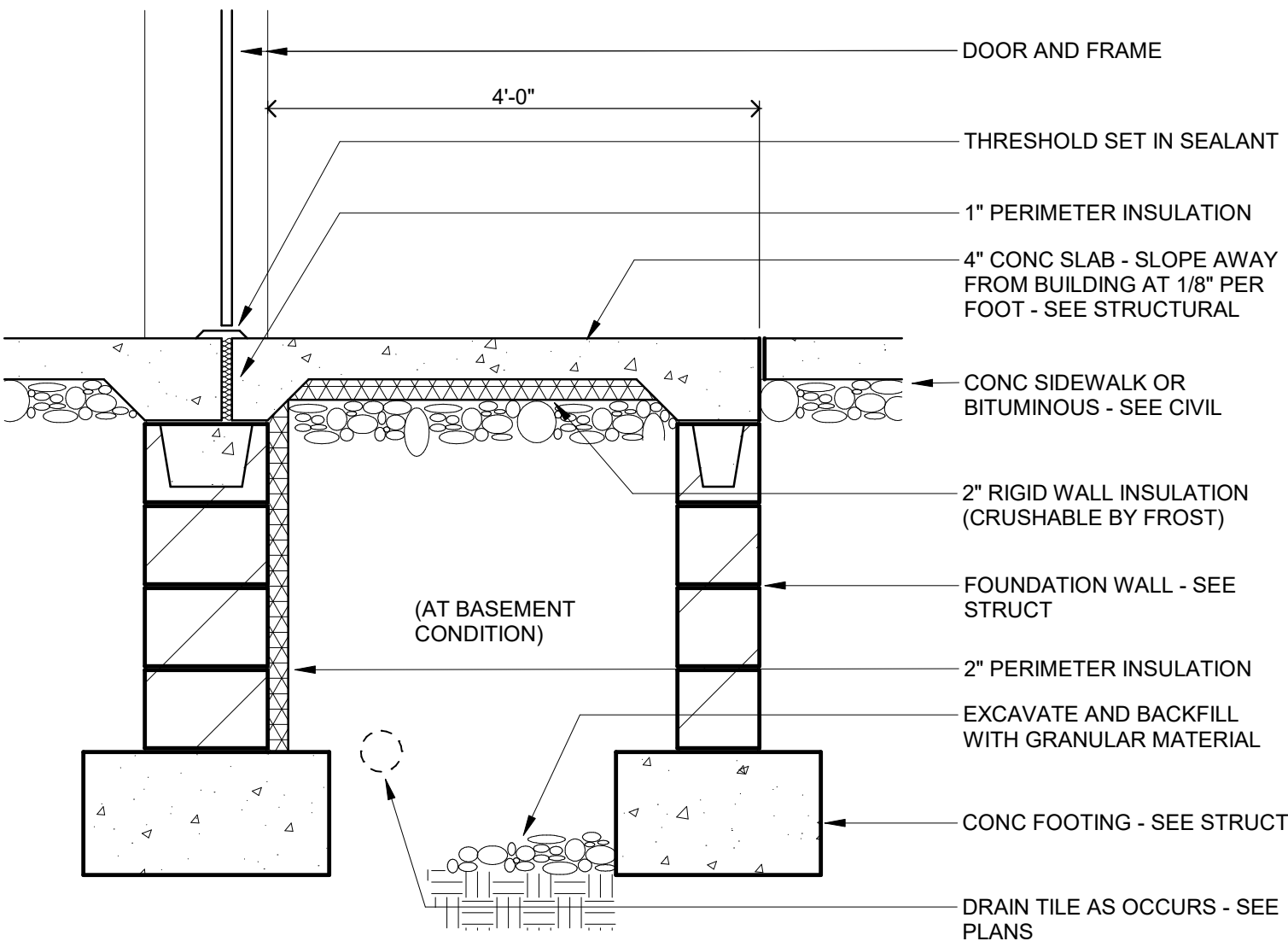
NEW UTILITY & ENGINEERING BUILDING
10875 IDEAL AVENUE S.
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016

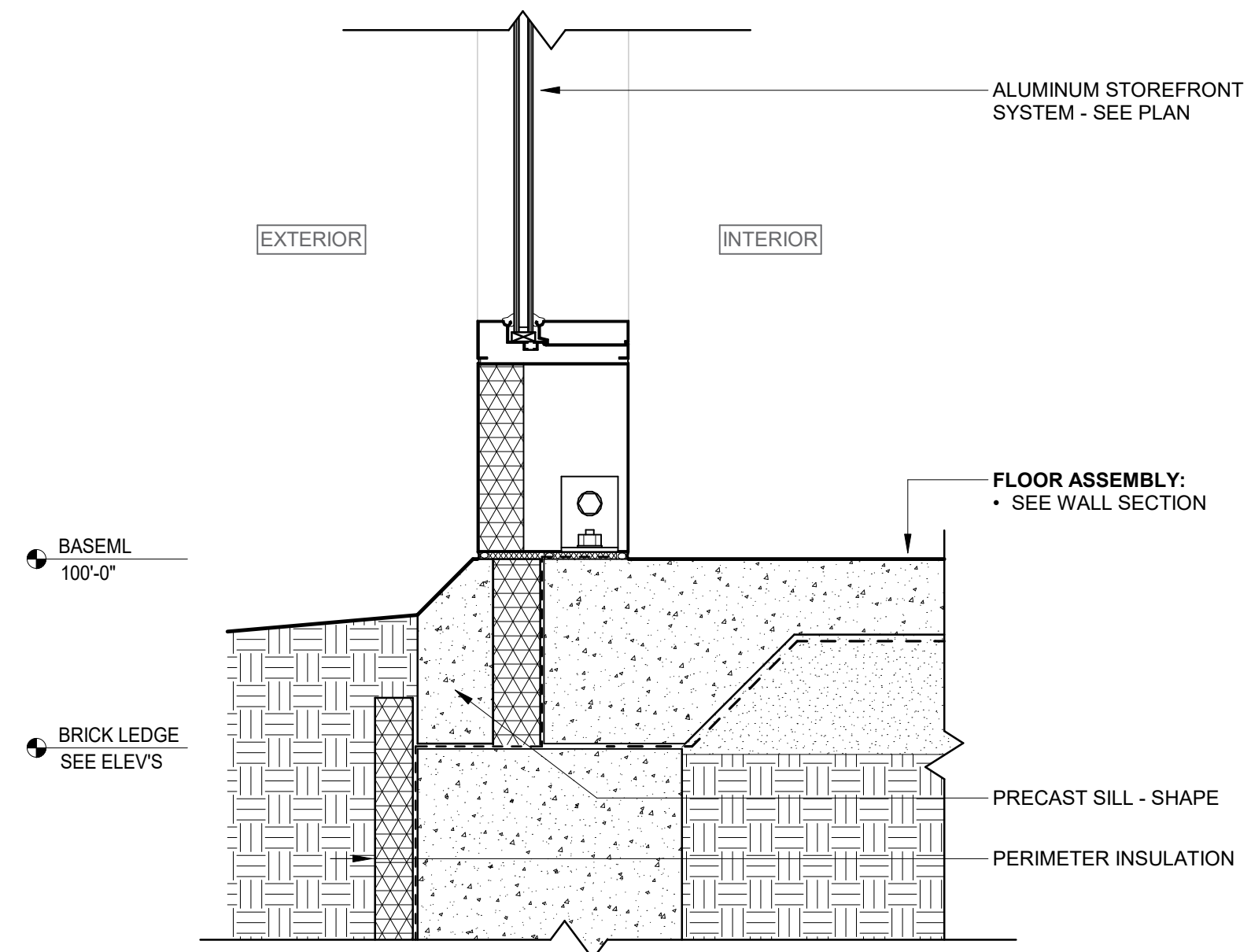


WOLD ARCHITECTS AND ENGINEERS
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Saint Paul, MN 55101
woldae.com | 651 227 7773

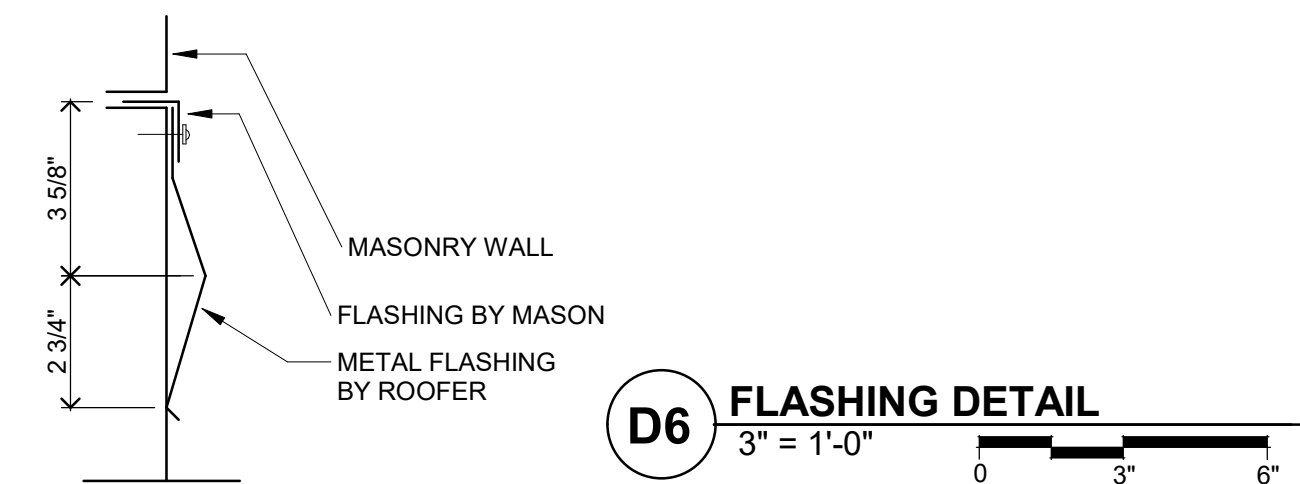
KRAUS-ANDERSON®
501 South Eighth Street
Minneapolis, MN 55404
krausanderson.com | 612.332.7281



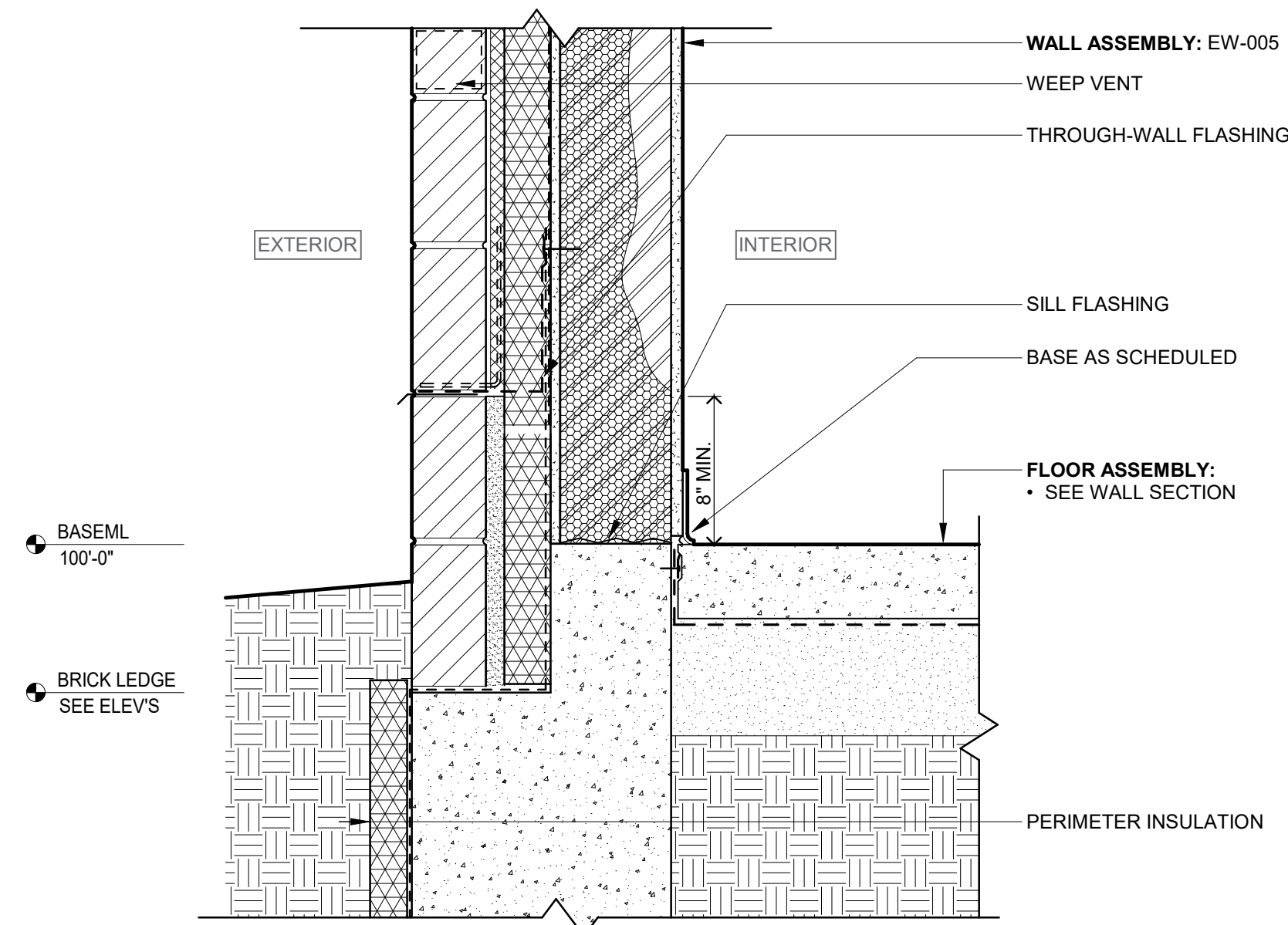
C5 SECTION AT STOOP - TYPICAL
3/4" = 1'-0" 0 1' 2'



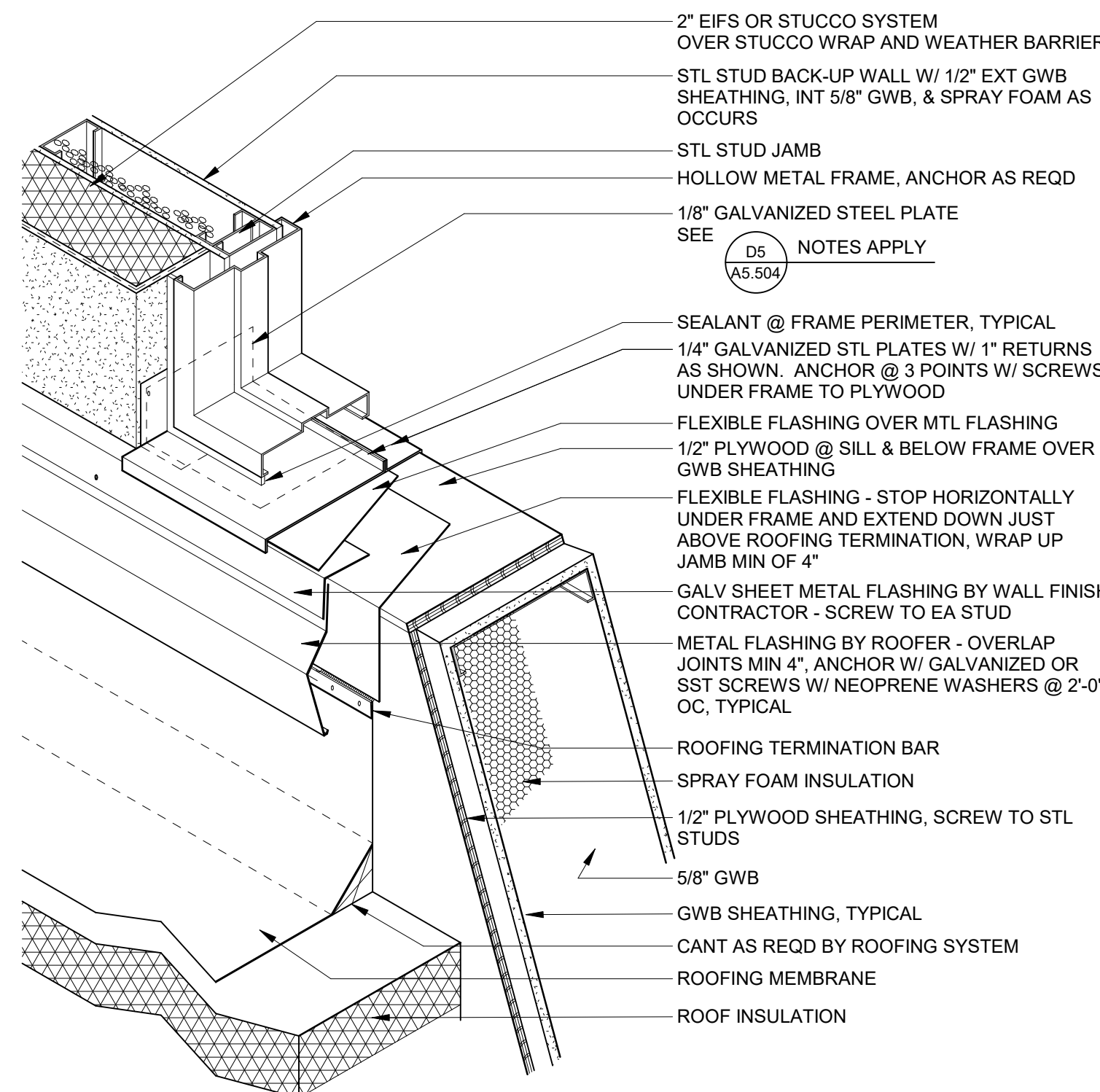
C7 BASE OF WALL DETAIL AT STOREFRONT
1 1/2" = 1'-0" 0 1/2' 1'



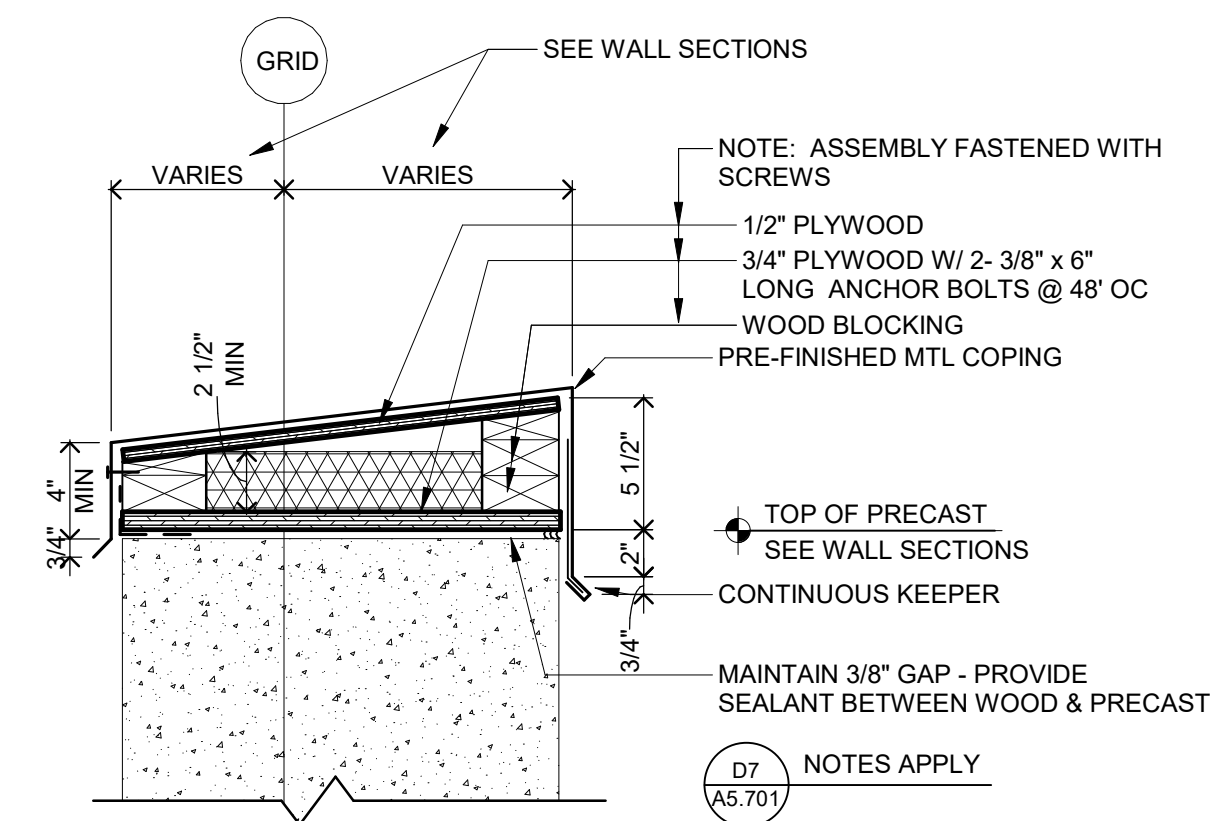
D6 FLASHING DETAIL
3" = 1'-0" 0 3' 6"



E7 BASE OF WALL DETAIL - EW-005
1 1/2" = 1'-0" 0 1/2' 1'



F5 FLASHING DETAIL
NOT TO SCALE



F7 COPING AT TRASH ENCLOSURE
1 1/2" = 1'-0" 0 1/2' 1'

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John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	
	Date	Num

Comm: 232010
Date: 09/12/2023
Drawn: KH
Check: JW

DETAILS - EXTERIOR WALL

Scale: As indicated

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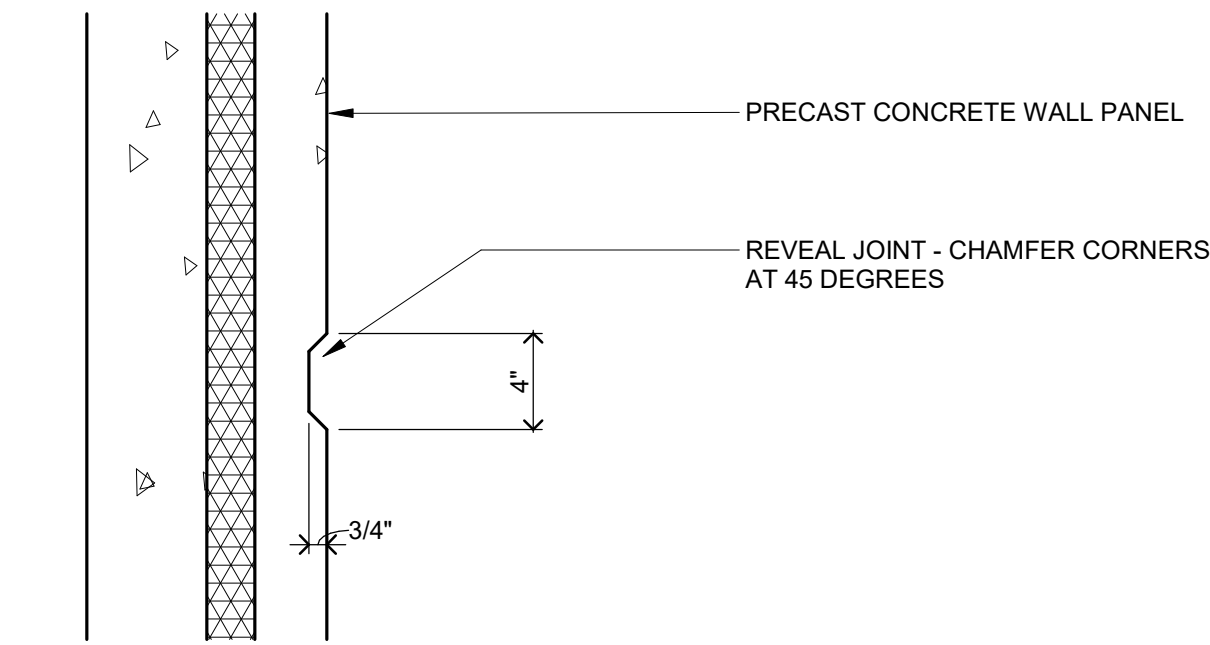
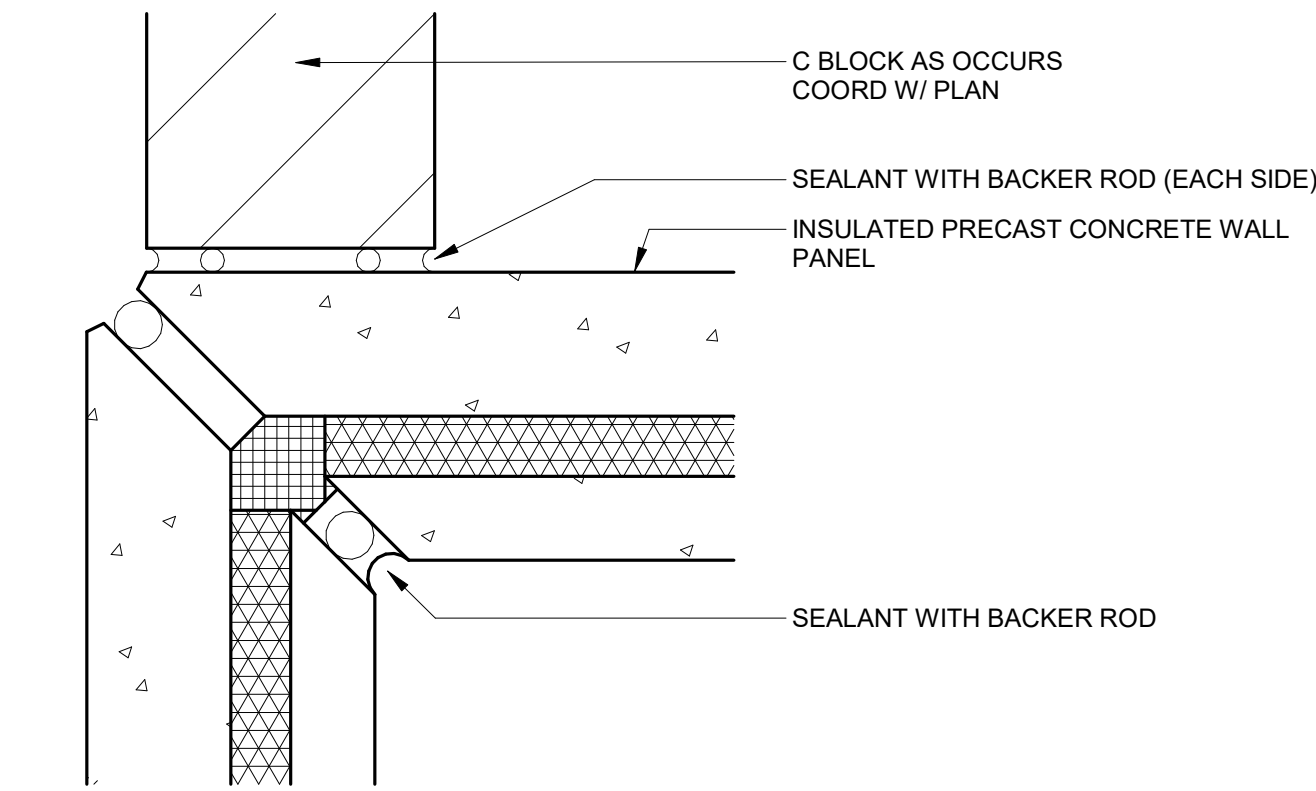
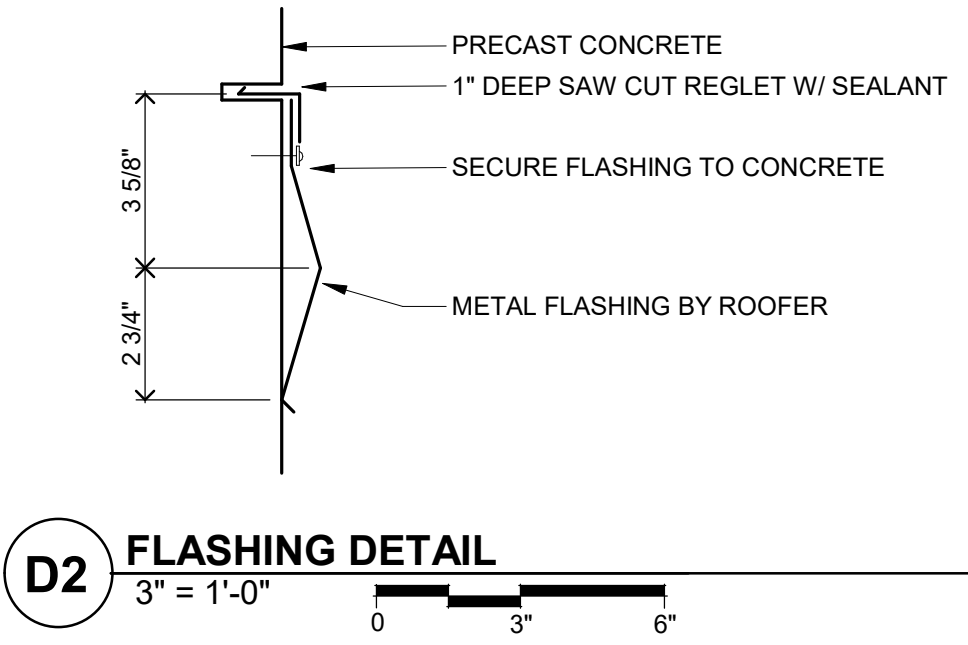
A5.502

Architect: John McNamara, AIA, 332 Minnesota Street, Suite W2000, Saint Paul, MN 55101
Engineer: Wold Architects and Engineers, 332 Minnesota Street, Suite W2000, Saint Paul, MN 55101
City of Cottage Grove, 12800 Ravine Parkway, Cottage Grove, MN 55016
Kraus-Anderson, 501 South Eighth Street, Minneapolis, MN 55404
Date: 09/12/2023
Sheet: A5.502 of 5

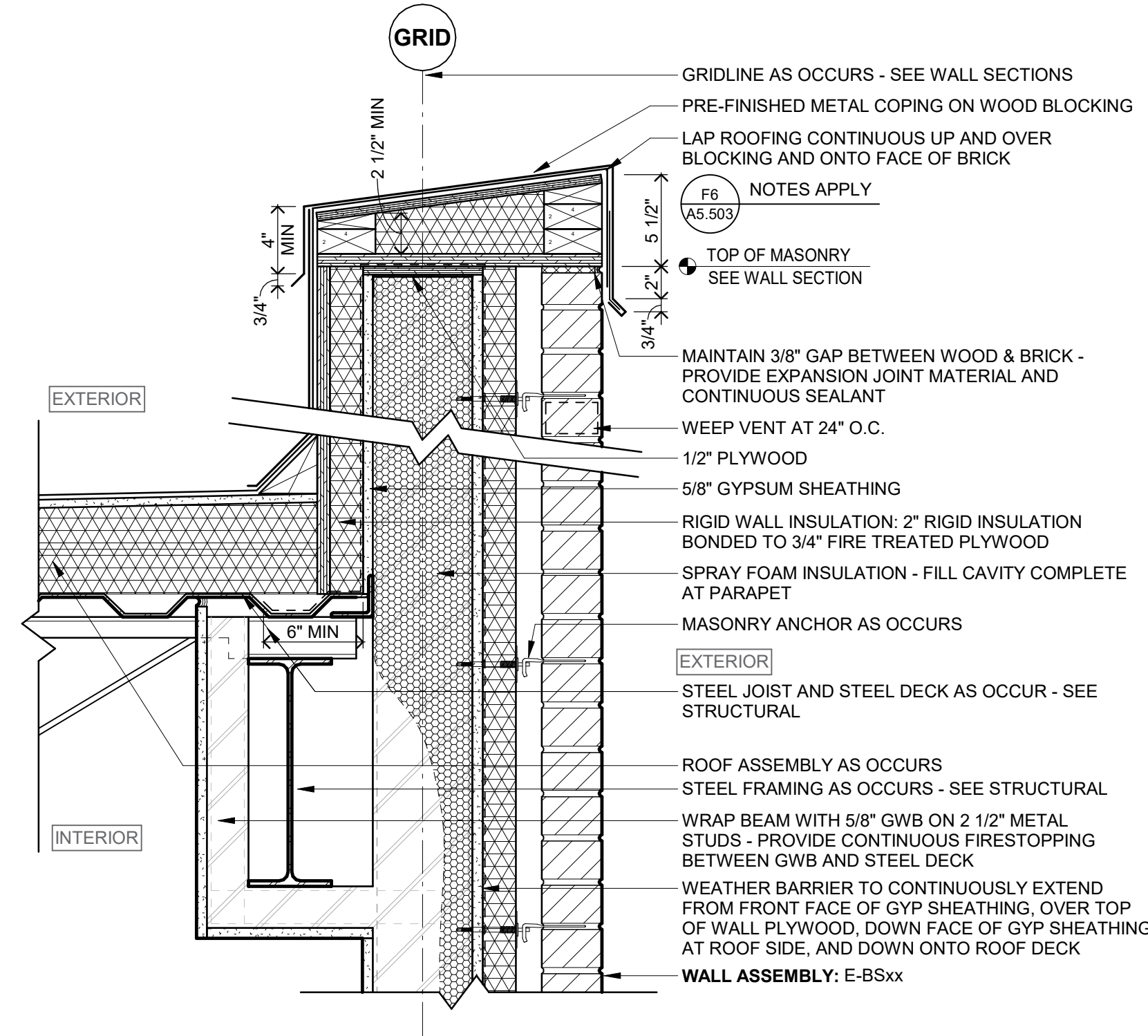
MN

A

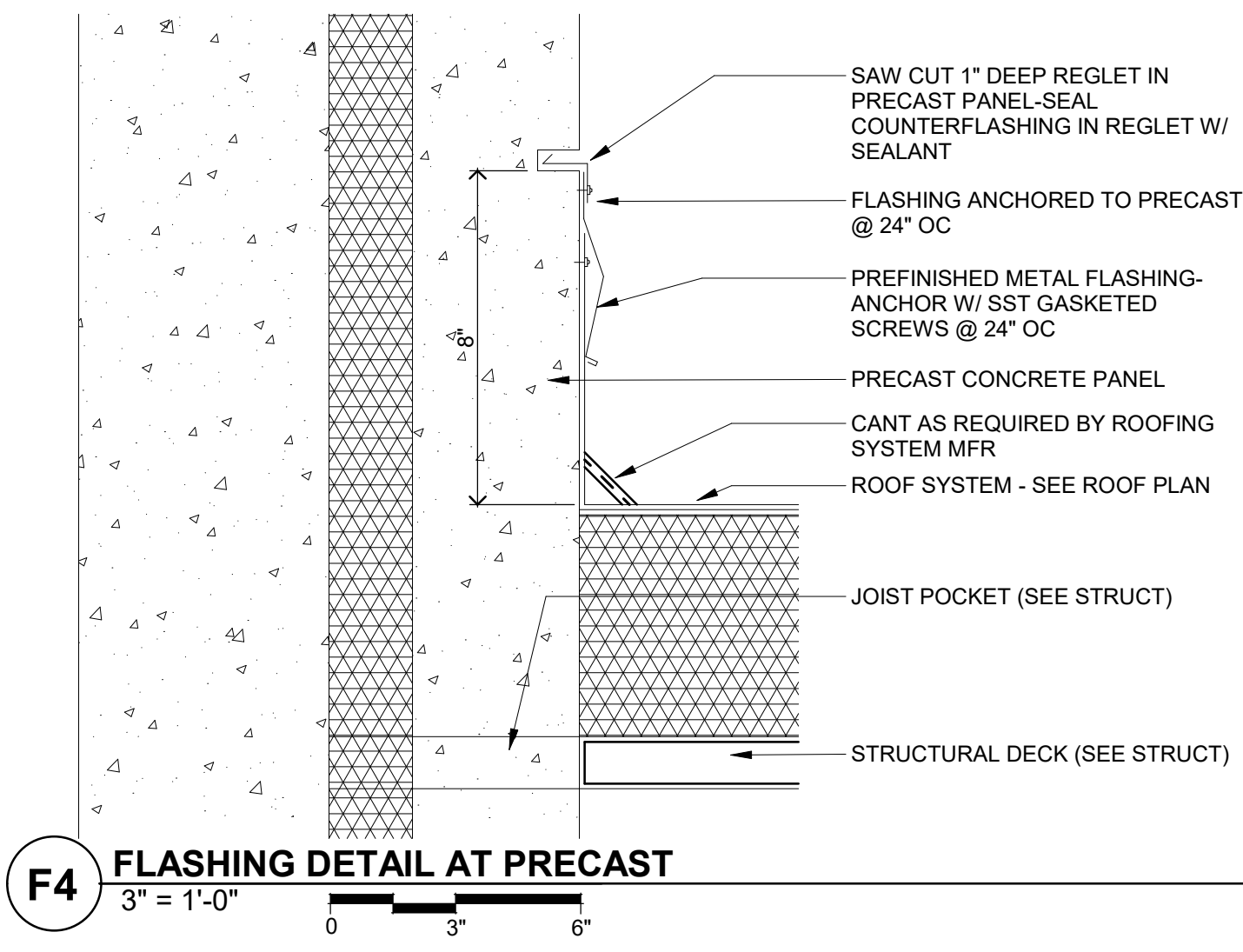
Architect: John McNamara, AIA, 12121 Highway 100, Suite 200, Cottage Grove, MN 55016
Engineer: John McNamara, AIA, 12121 Highway 100, Suite 200, Cottage Grove, MN 55016
Scale: As Indicated
Date: 09/12/2023
Drawn: KH
Check: JW



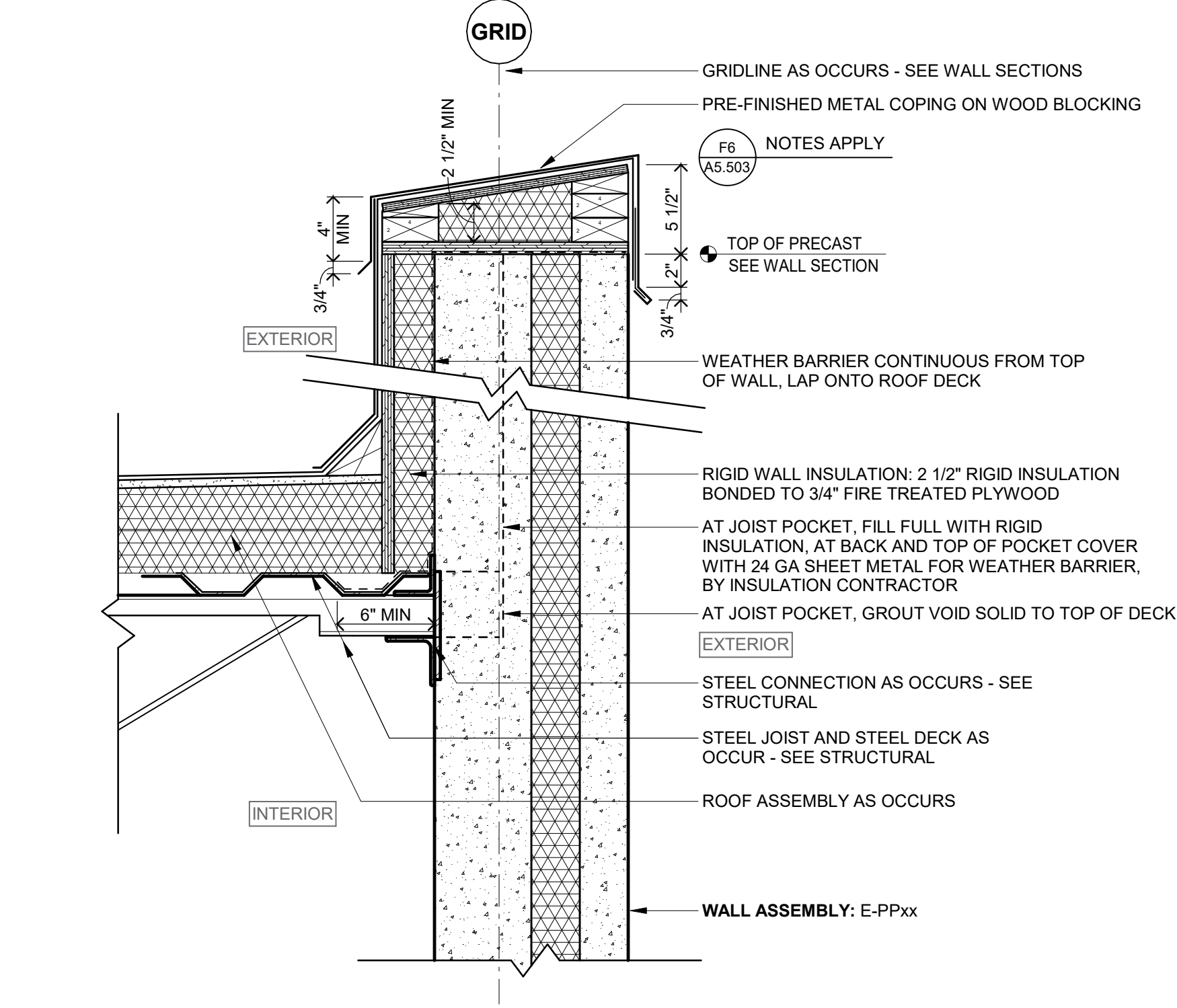
F2 SECTION AT PRECAST REVEAL JOINT
1 1/2" = 1'-0"



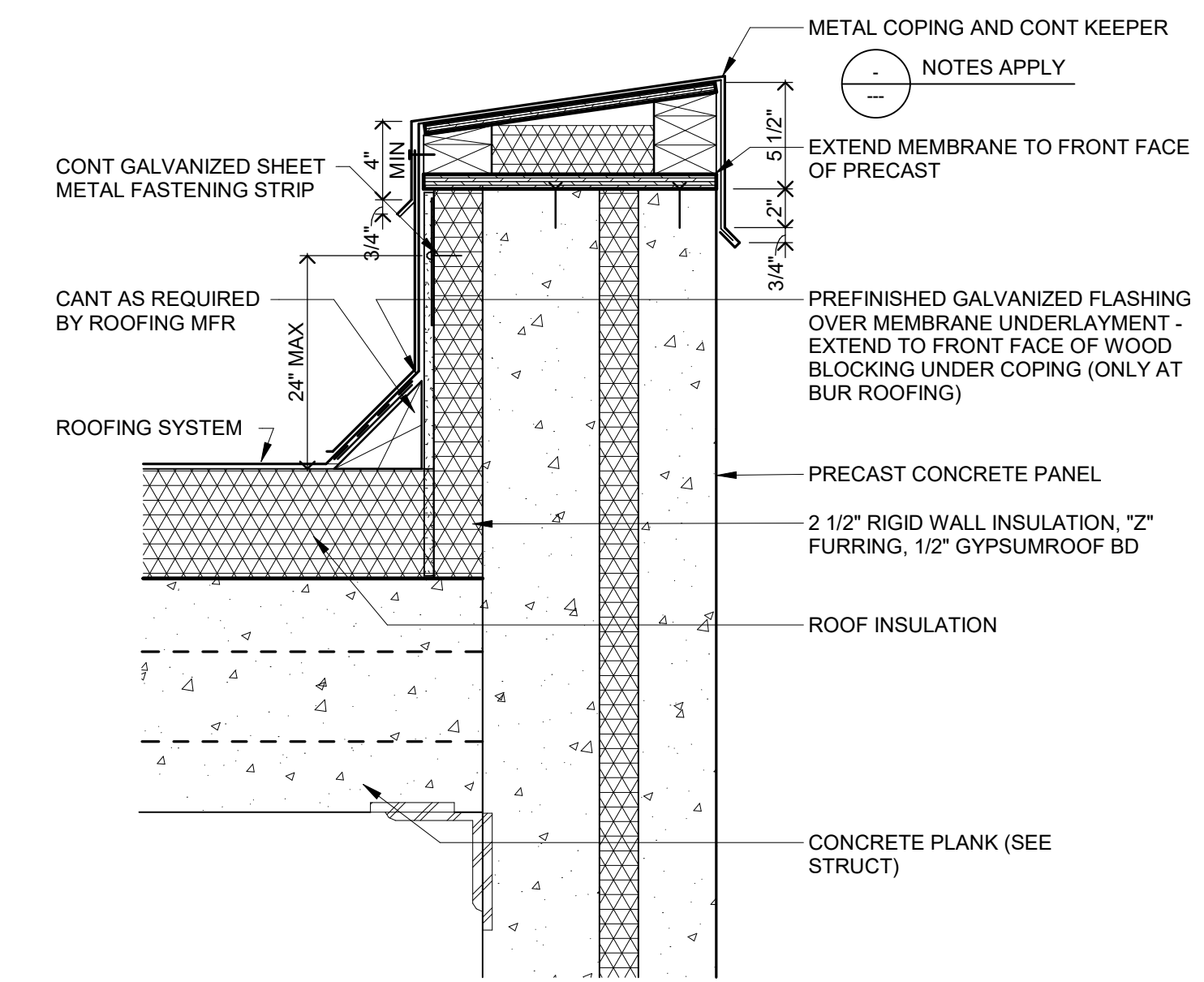
D4 SECTION AT PARAPET - ASSEMBLY E-BS06 AND STEEL DECK
1 1/2" = 1'-0"



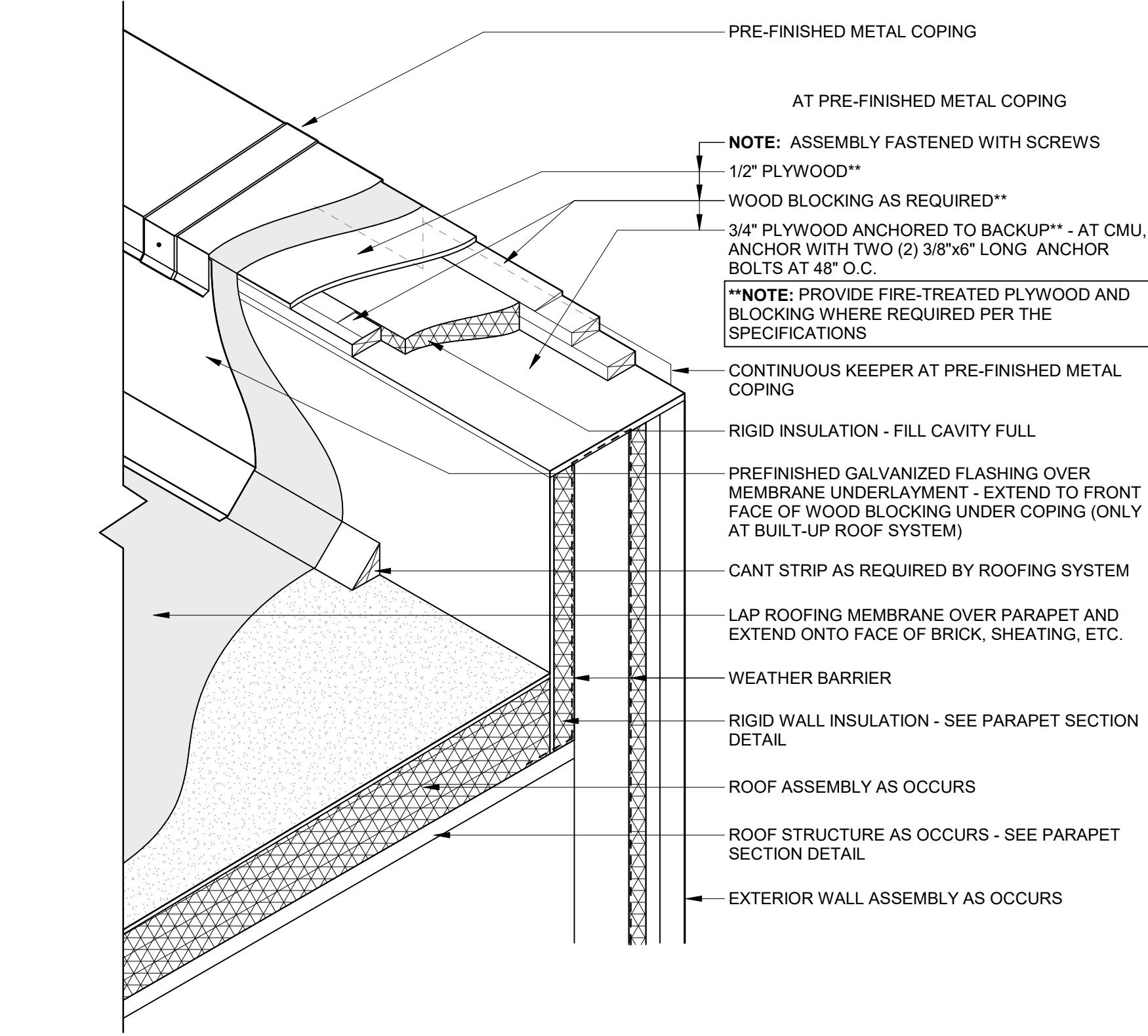
F4 FLASHING DETAIL AT PRECAST
3" = 1'-0"



B6 SECTION AT PARAPET - ASSEMBLY E-PP06 & STEEL DECK
1 1/2" = 1'-0"



D6 SECTION AT PARAPET
1 1/2" = 1'-0"



F6 COPING DETAIL AT PARAPET
3/4" = 1'-0"

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John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	Num
	Date	

Comm: 232010
Date: 09/12/2023
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DETAILS - EXTERIOR WALL

Scale: As indicated

A5.503

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10875 IDEAL AVENUE S.
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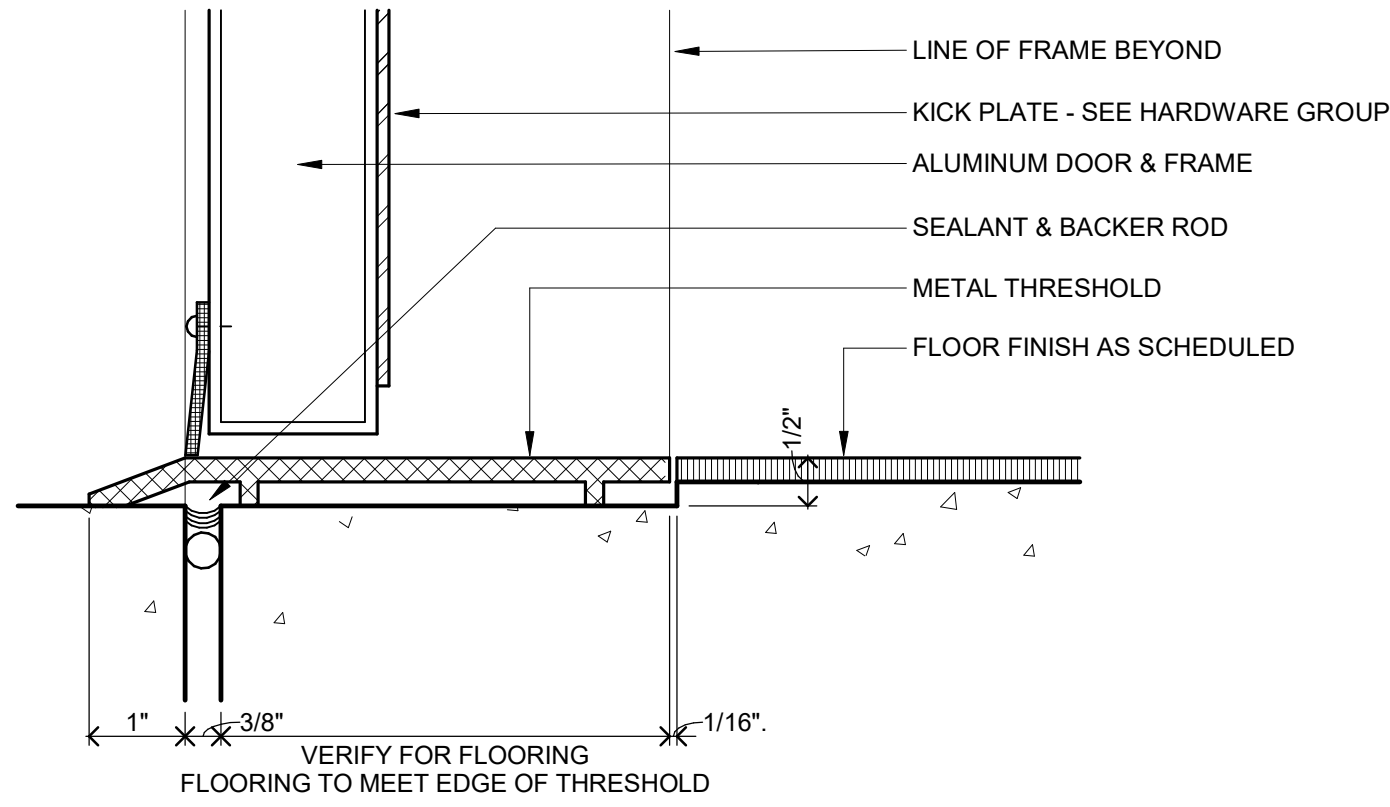


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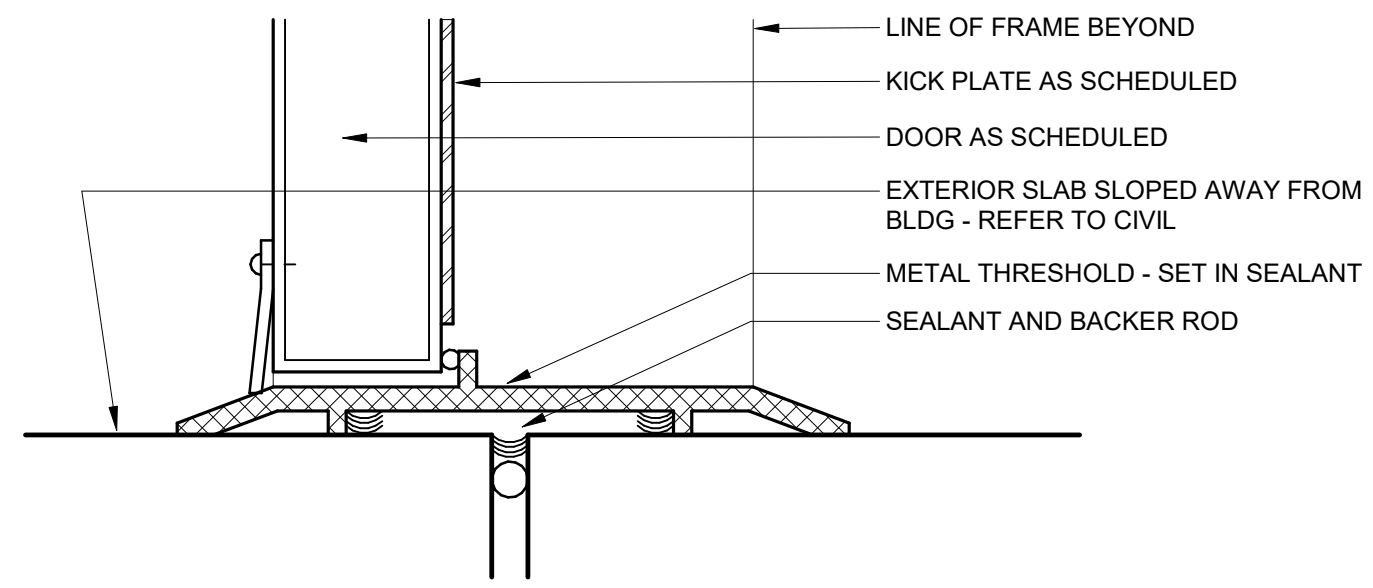
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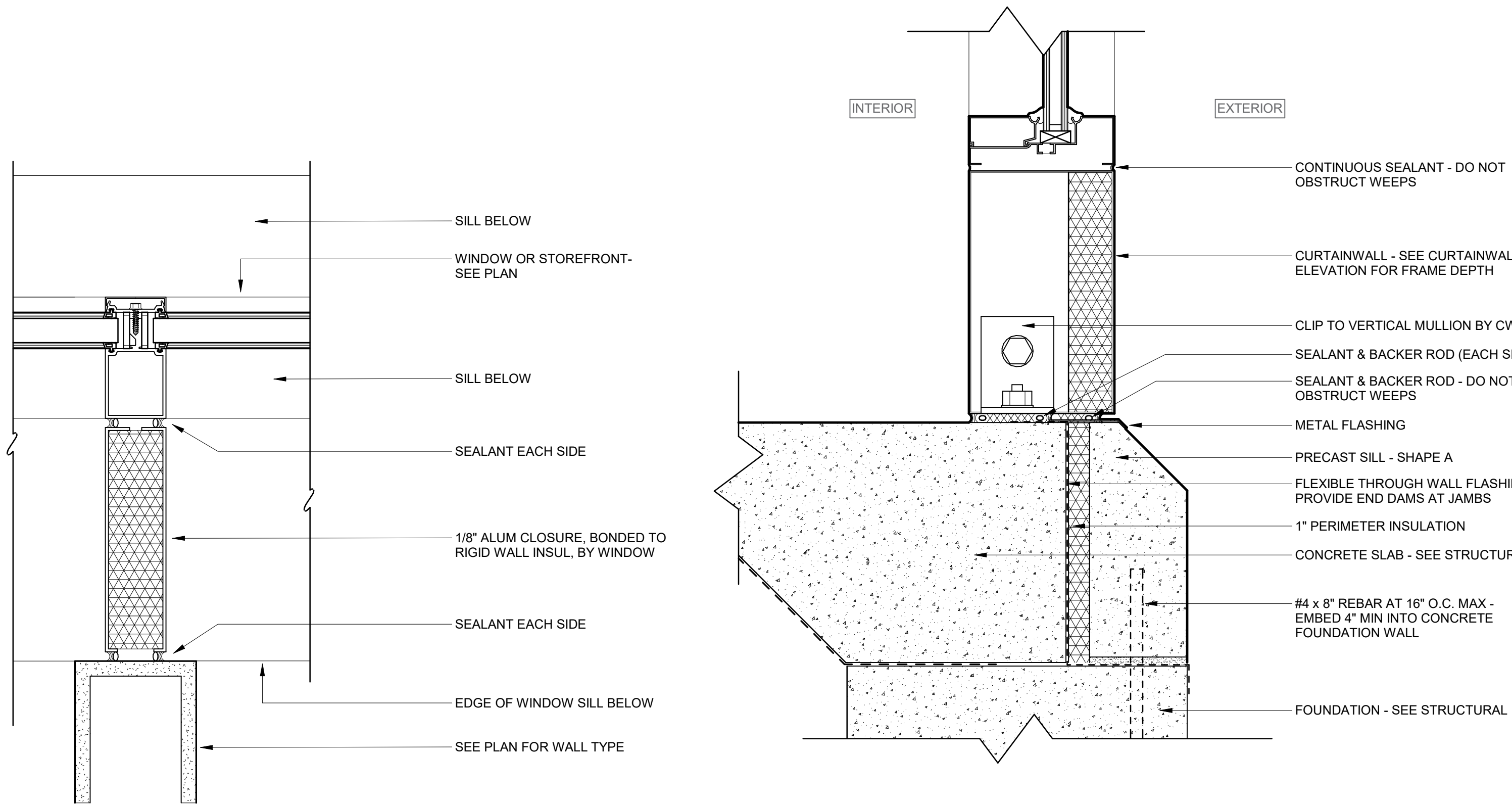
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B4a MAIN ENTRY THRESHOLD

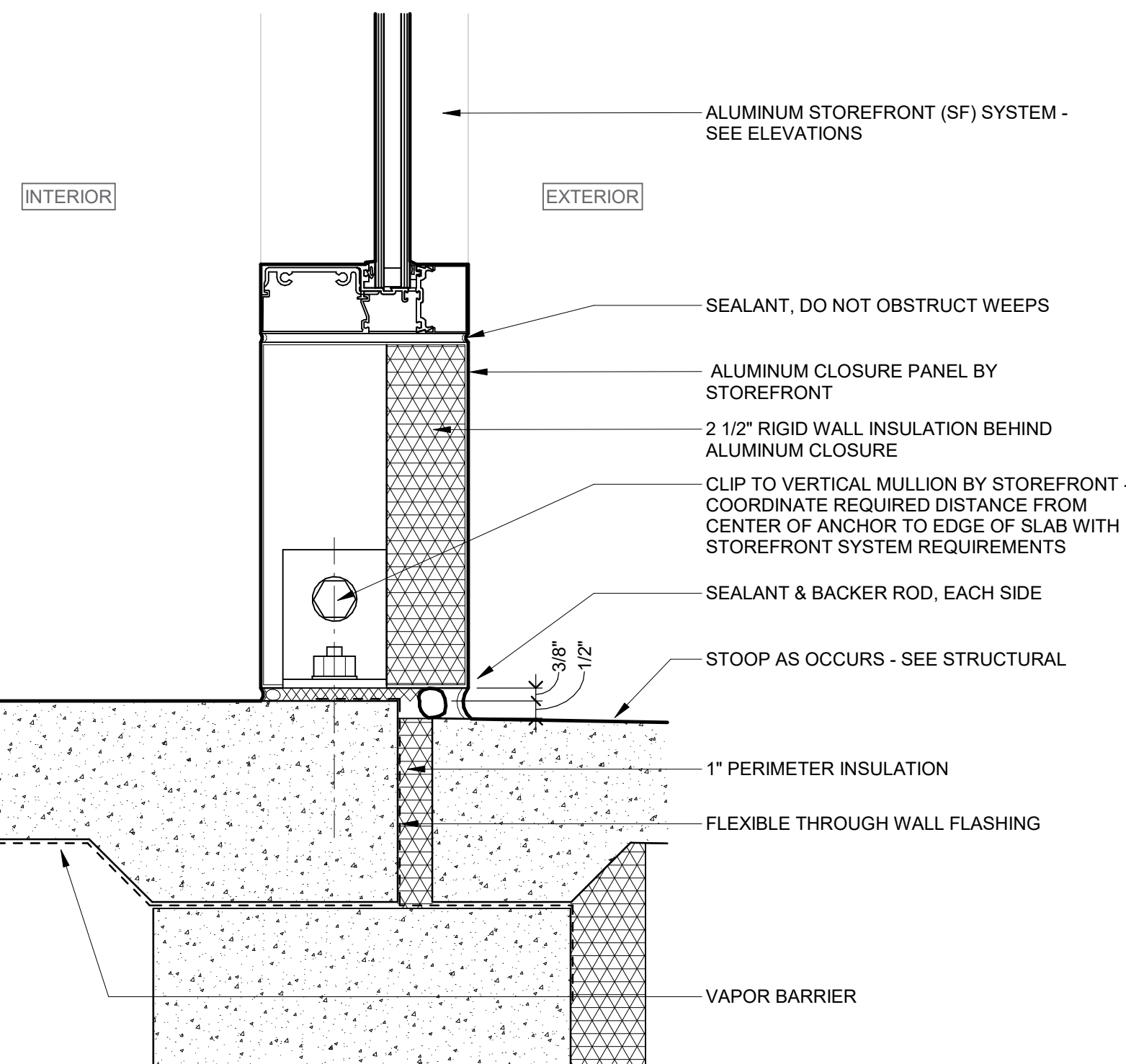


B7a SECONDARY ENTRY & EXIT DOOR THRESHOLD

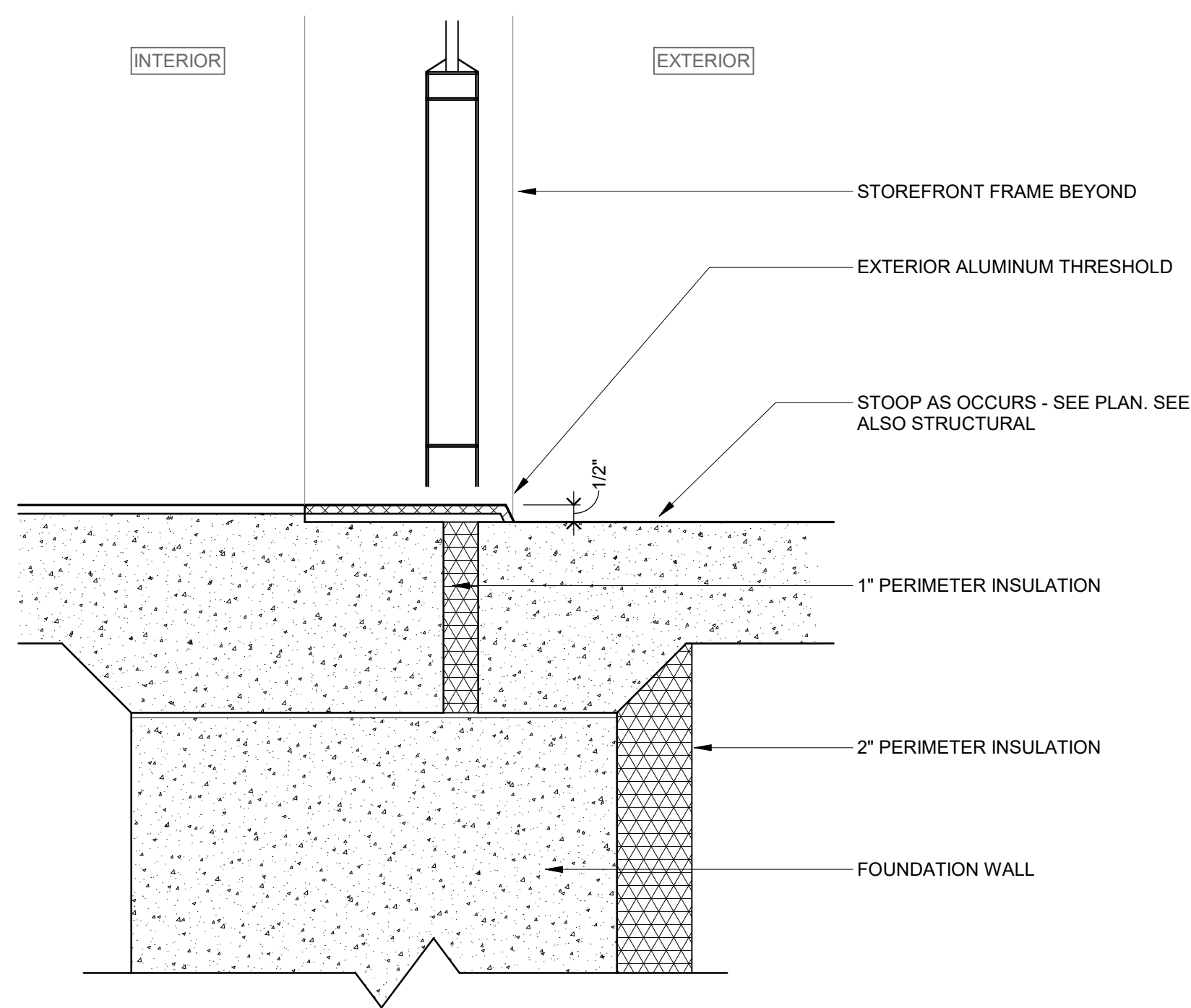


D1 STOREFRONT MULLION CONDITION

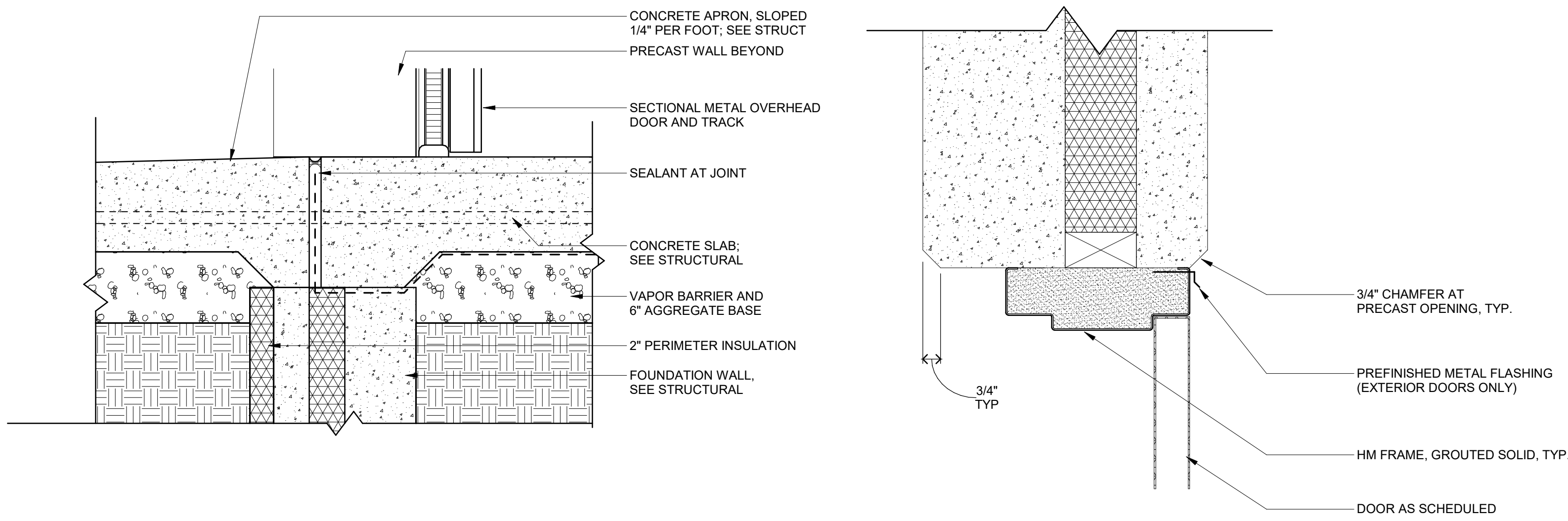
D3 SILL AT ALUMINUM STOREFRONT (SF) SYSTEM - PRECAST SILL



D4 SILL AT ALUMINUM STOREFRONT (SF) SYSTEM - CONCRETE STOOP

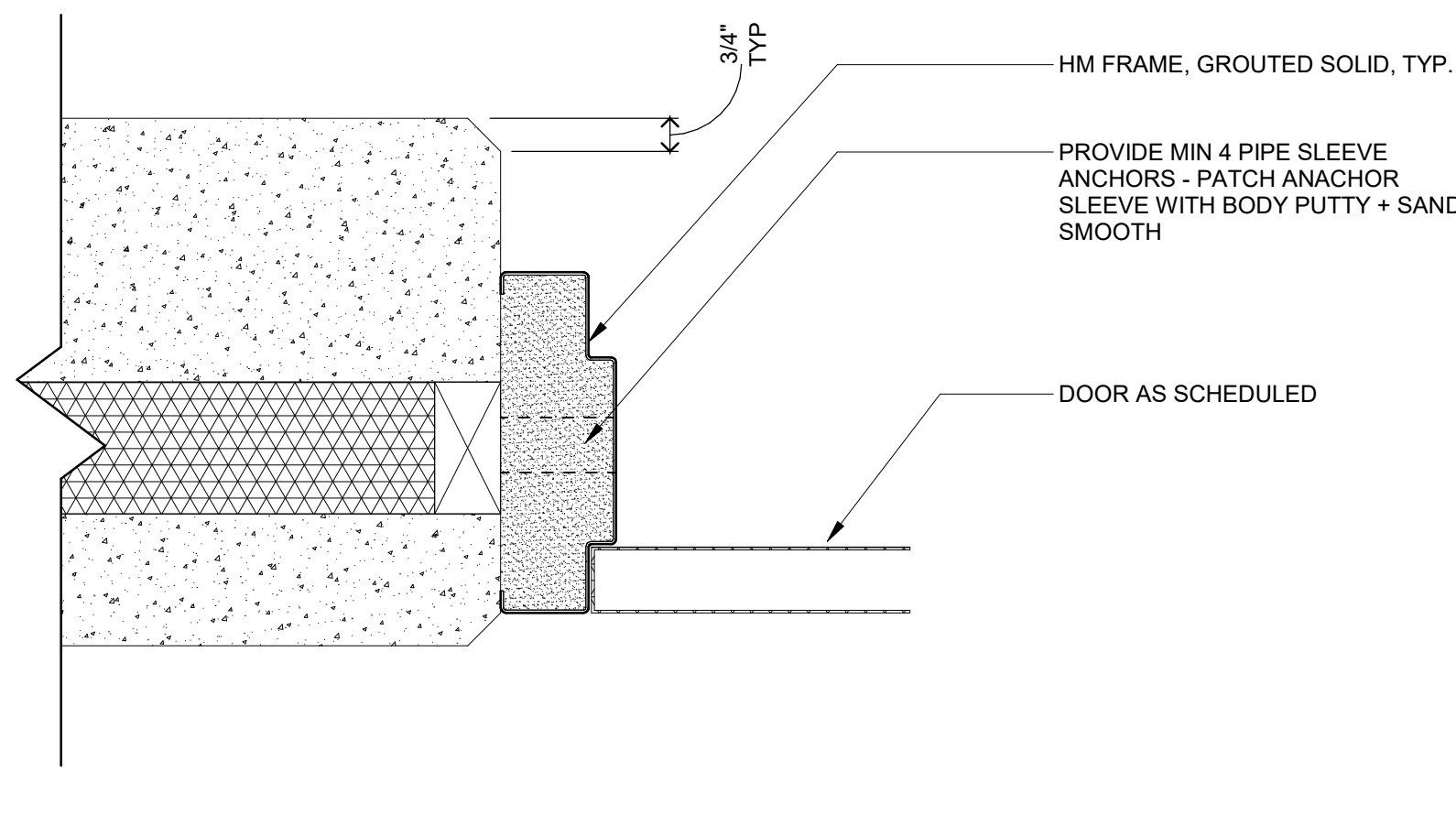


D7 THRESHOLD AT ALUM DOOR

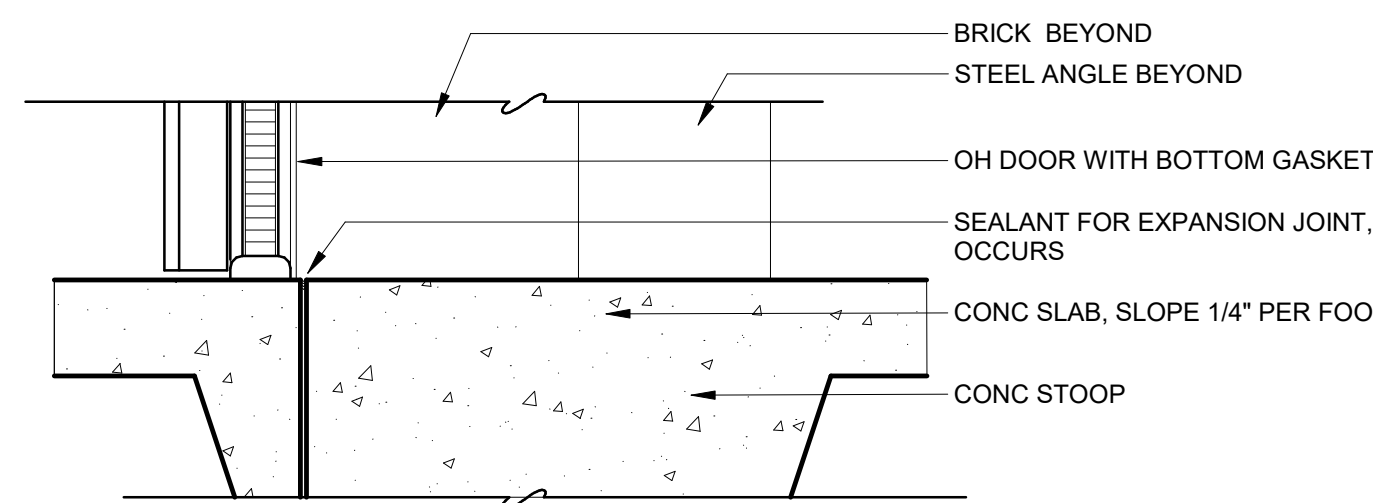


E1 EXT OH DOOR SILL

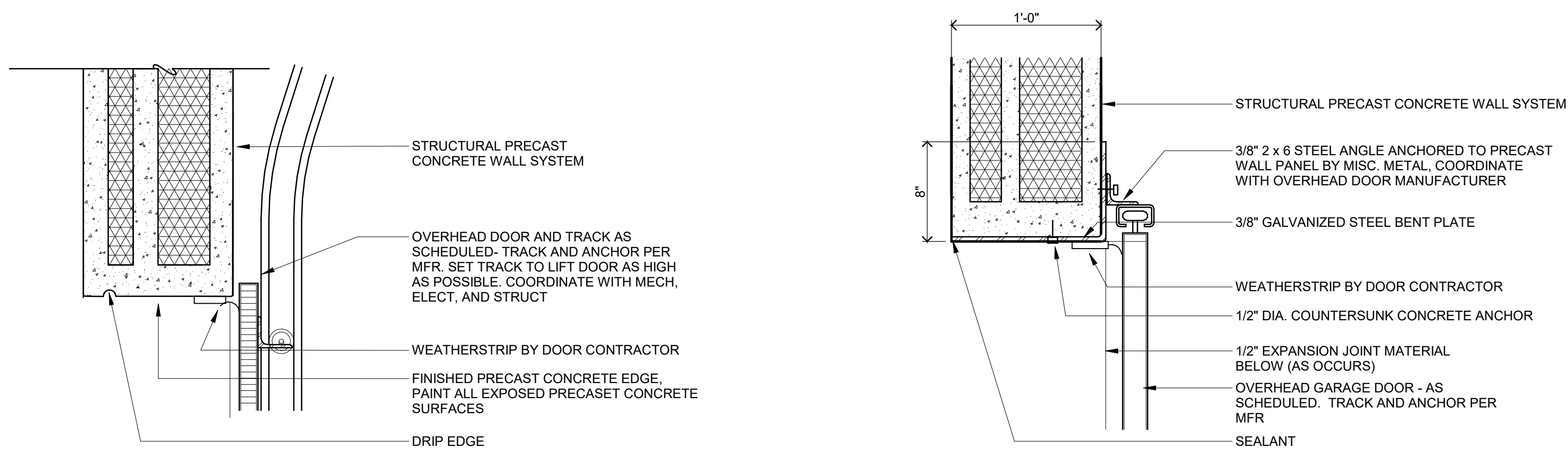
E3 HM HEAD AT PRECAST WALL



E5 HM JAMB AT PRECAST WALL

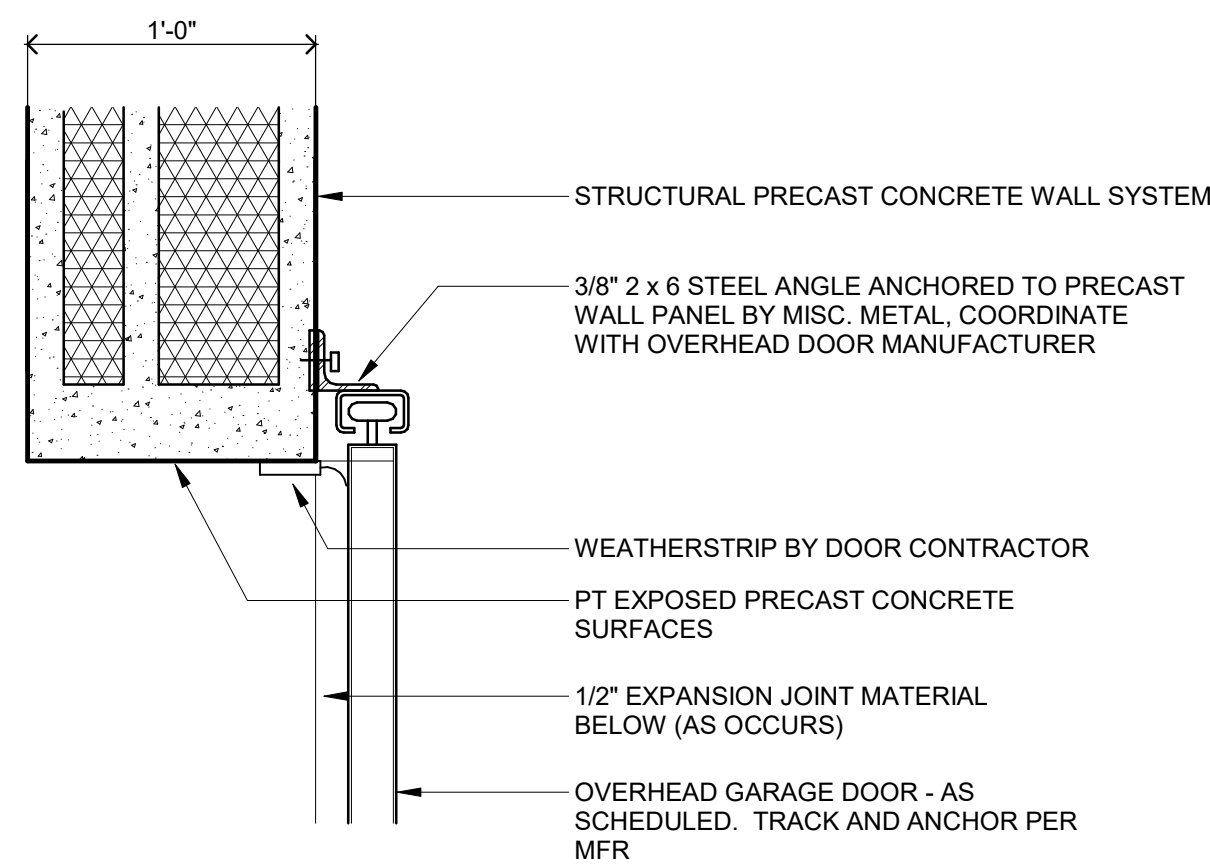


E7 EXT OH DOOR SILL

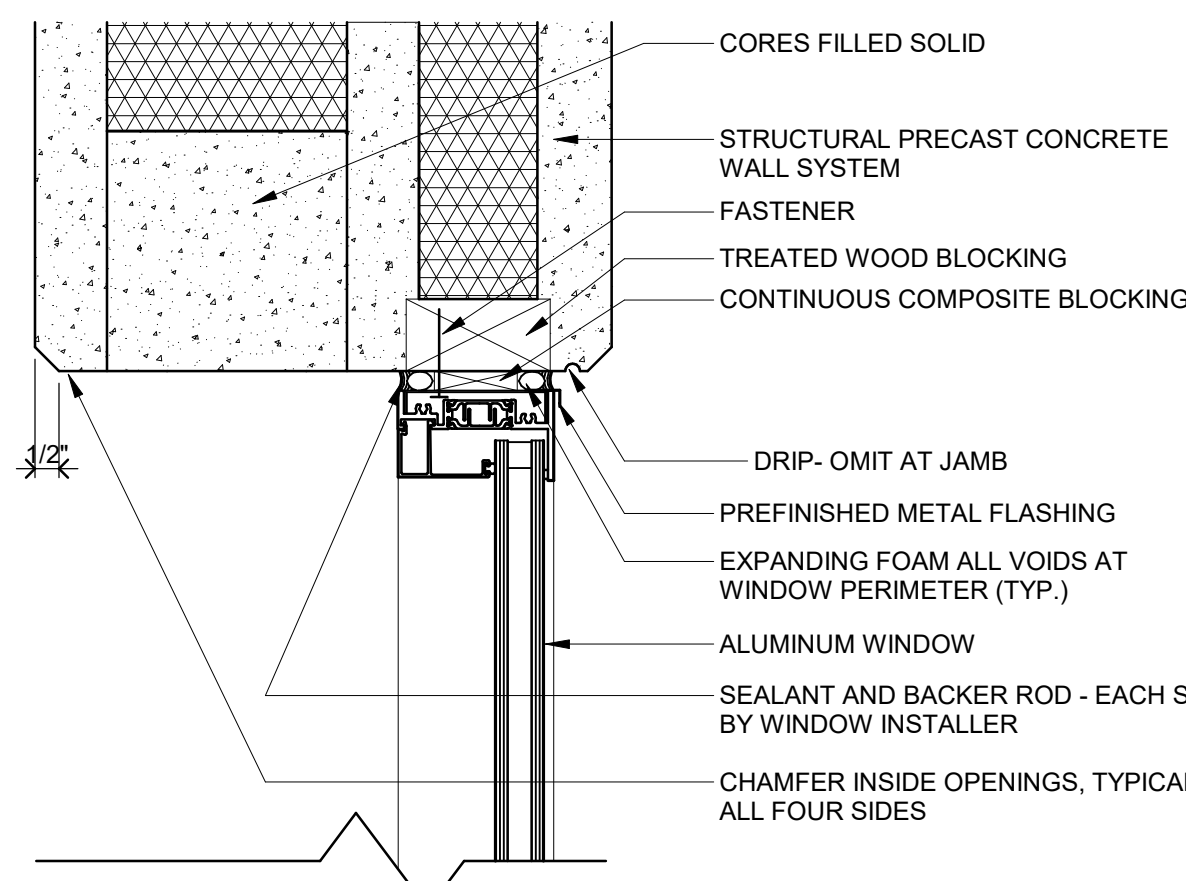


F1 EXT OH DOOR HEAD AT PRECAST

F3 EXT OH DOOR JAMB AT C111A



F5 EXT OH DOOR JAMB AT PRECAST



WINDOW HEAD DETAIL (JAMB SIM) AT PRECAST

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John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	
	Date	Num

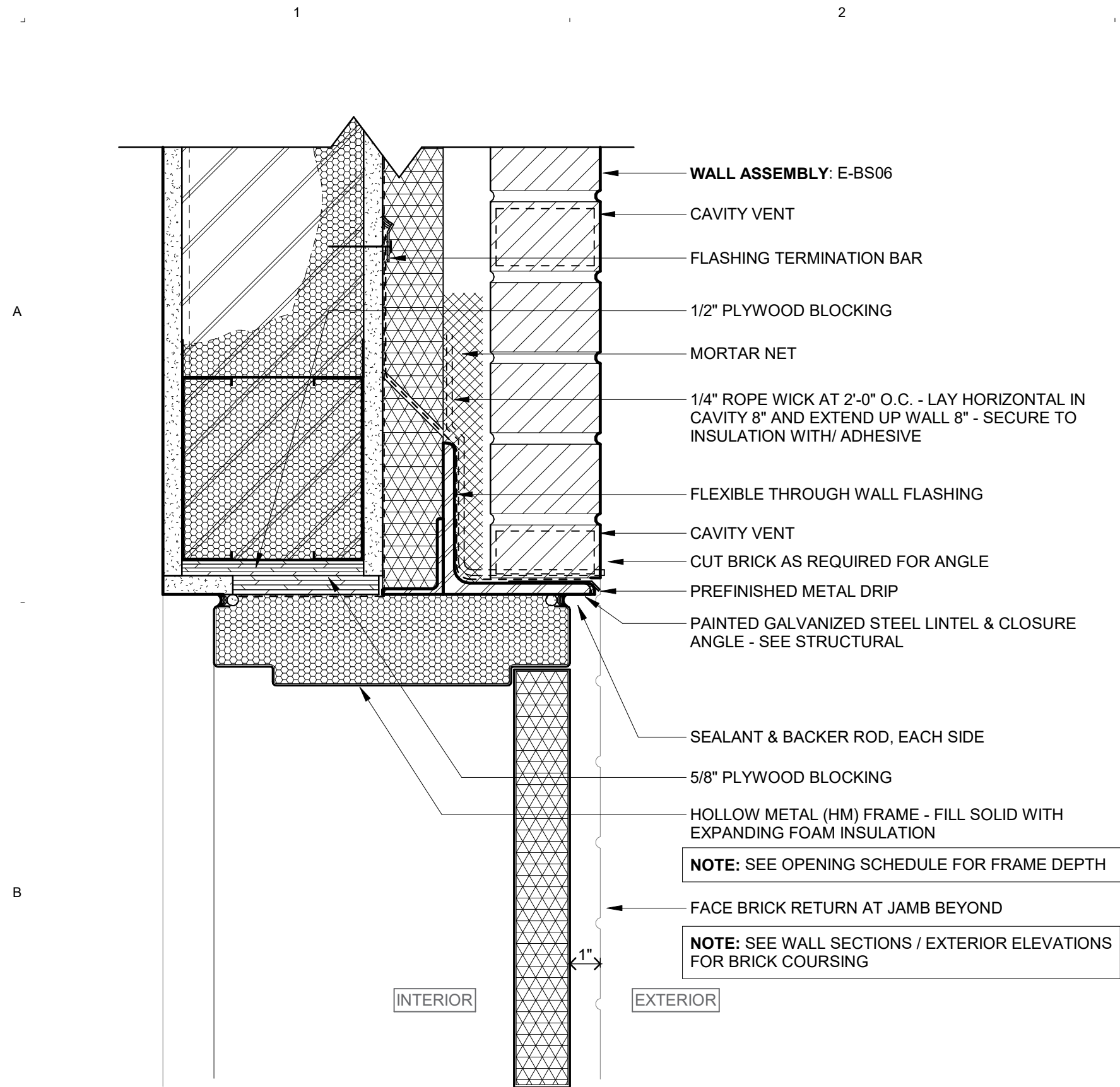
Comm: 232010
Date: 09/12/2023
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Check: JW

DETAILS - EXTERIOR OPENINGS

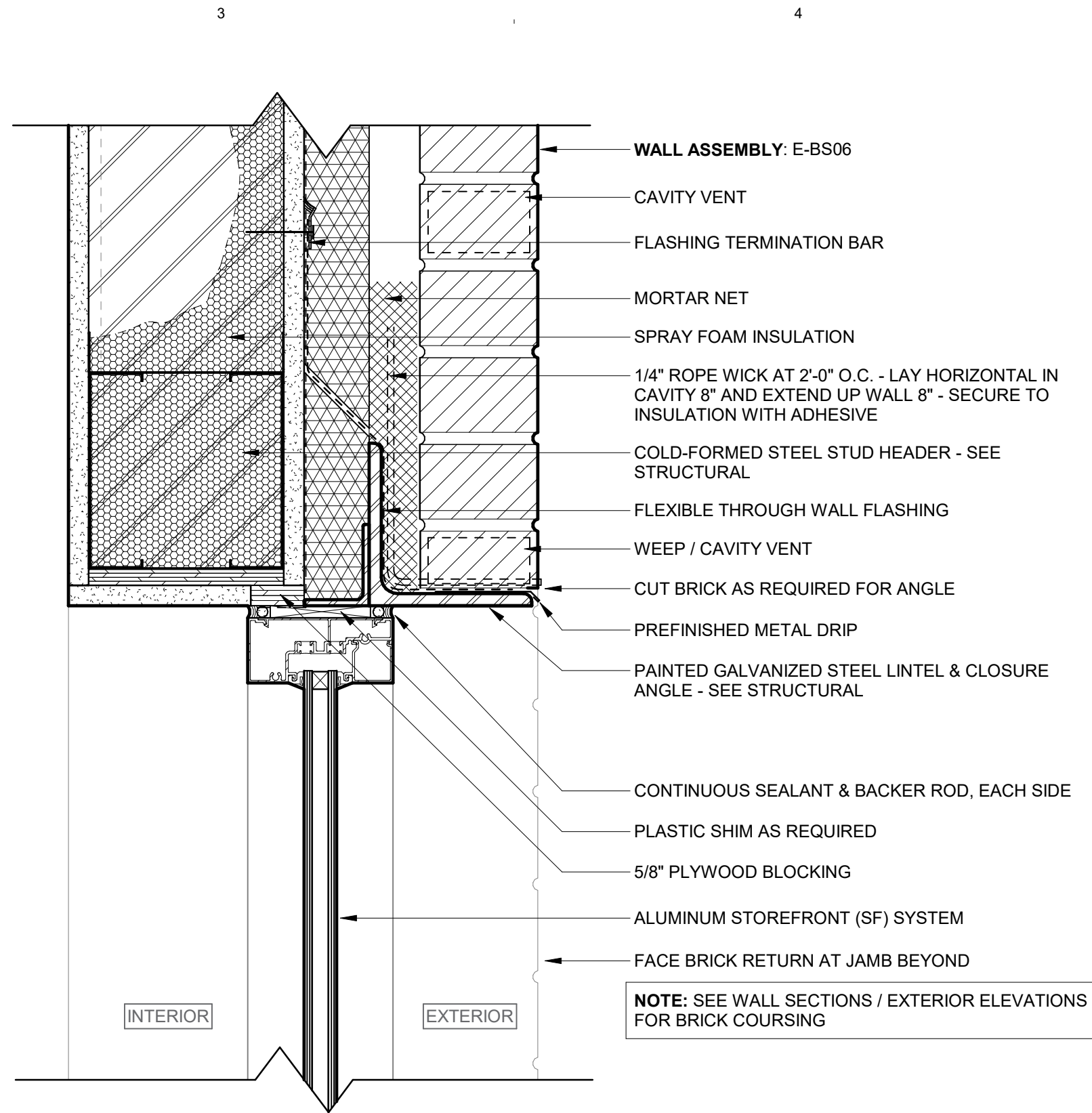
Scale: As indicated

A5.601

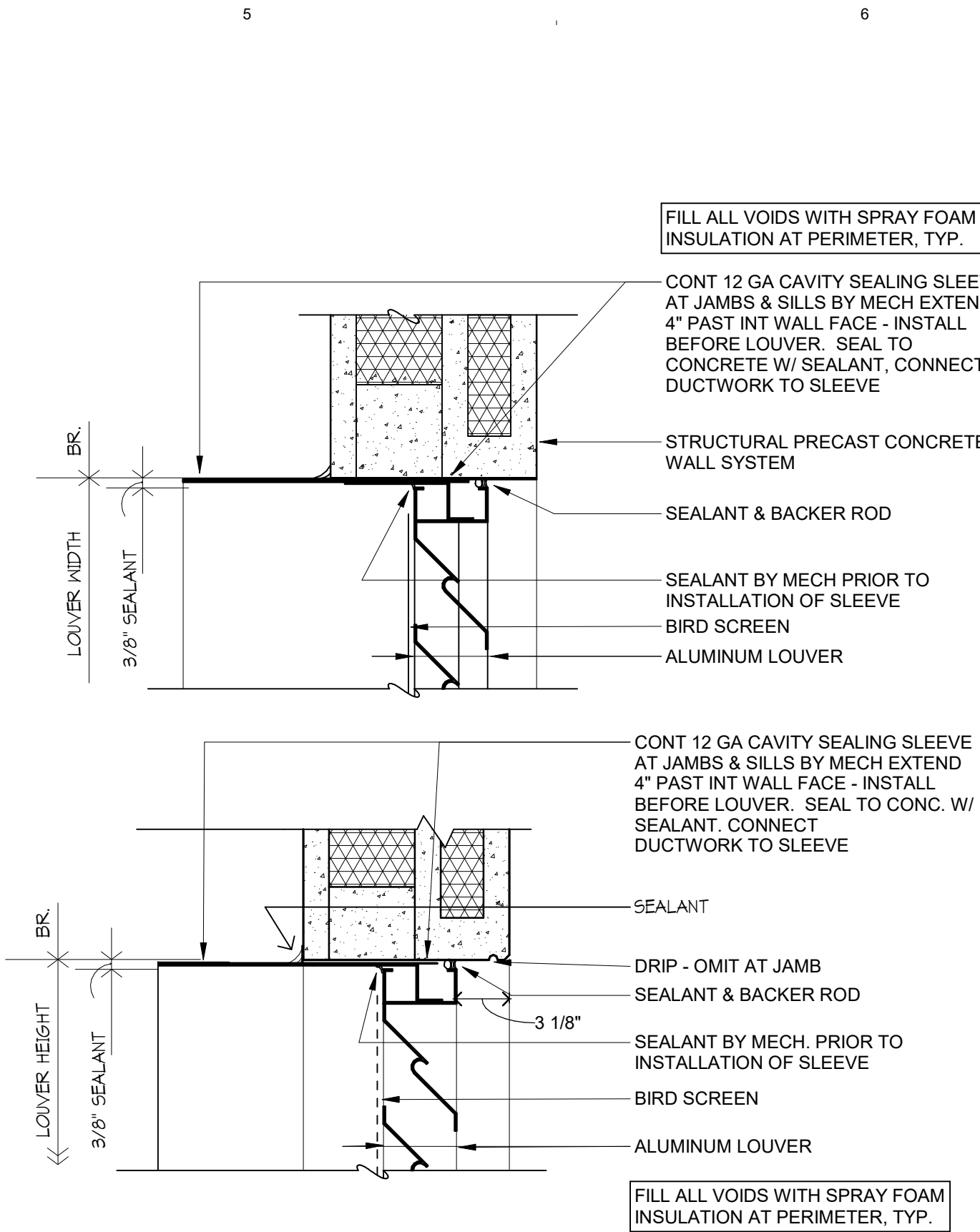
MN



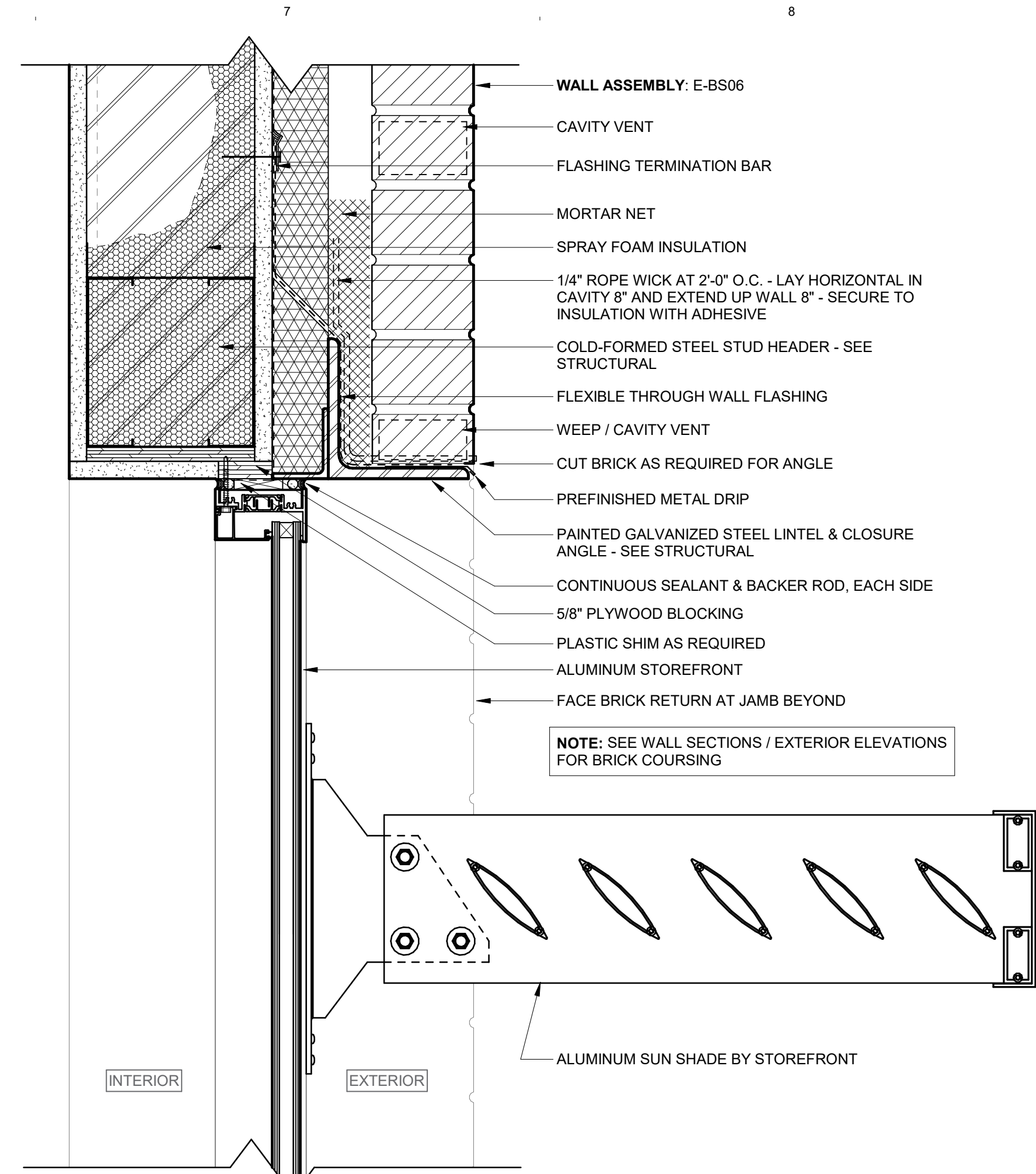
B1a HEAD DETAIL AT EXTERIOR HM FRAME - ASSEMBLY E-BS06
3" = 1'-0"



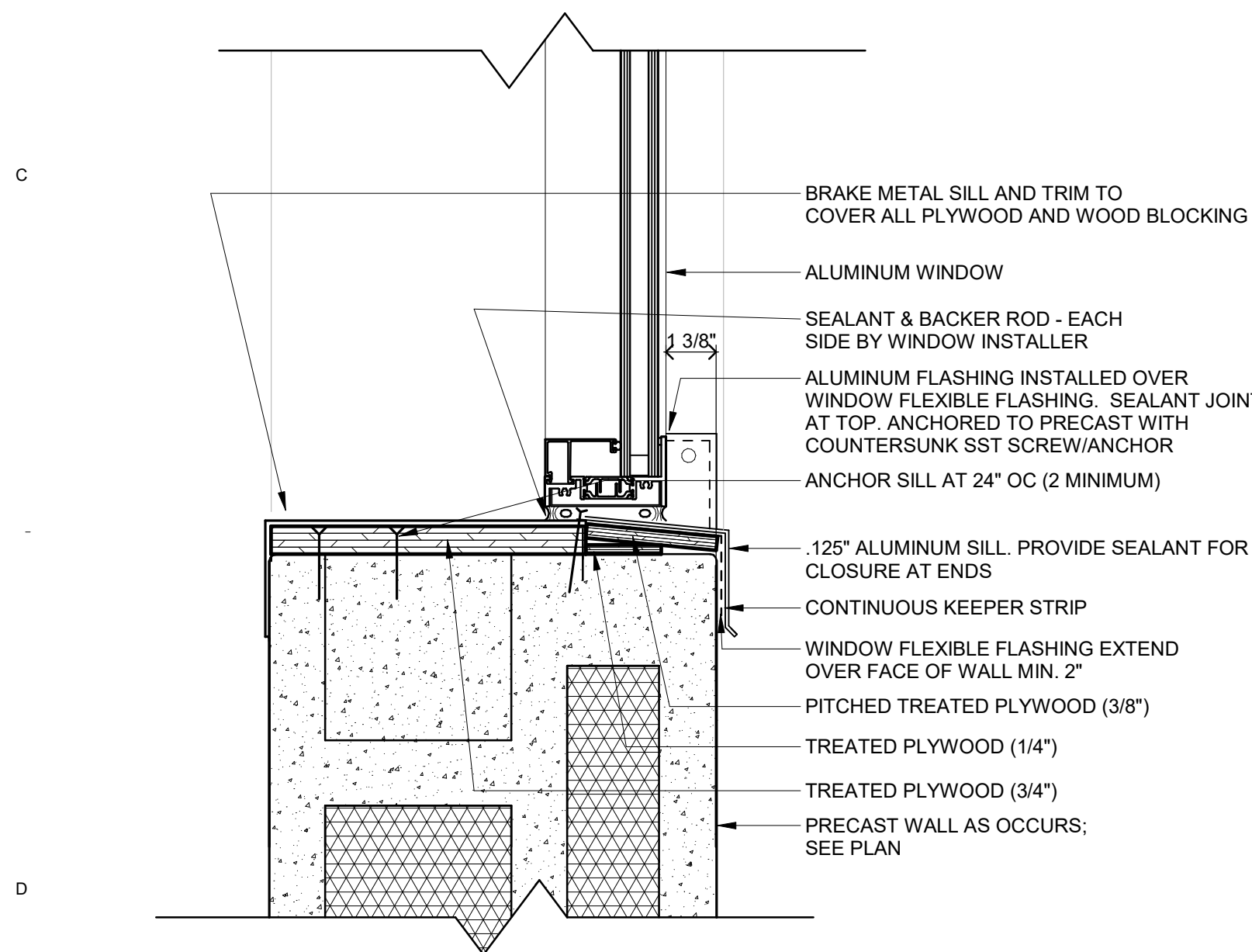
B3 HEAD DETAIL AT ALUMINUM STOREFRONT (SF) - ASSEMBLY E-BS06
3" = 1'-0"



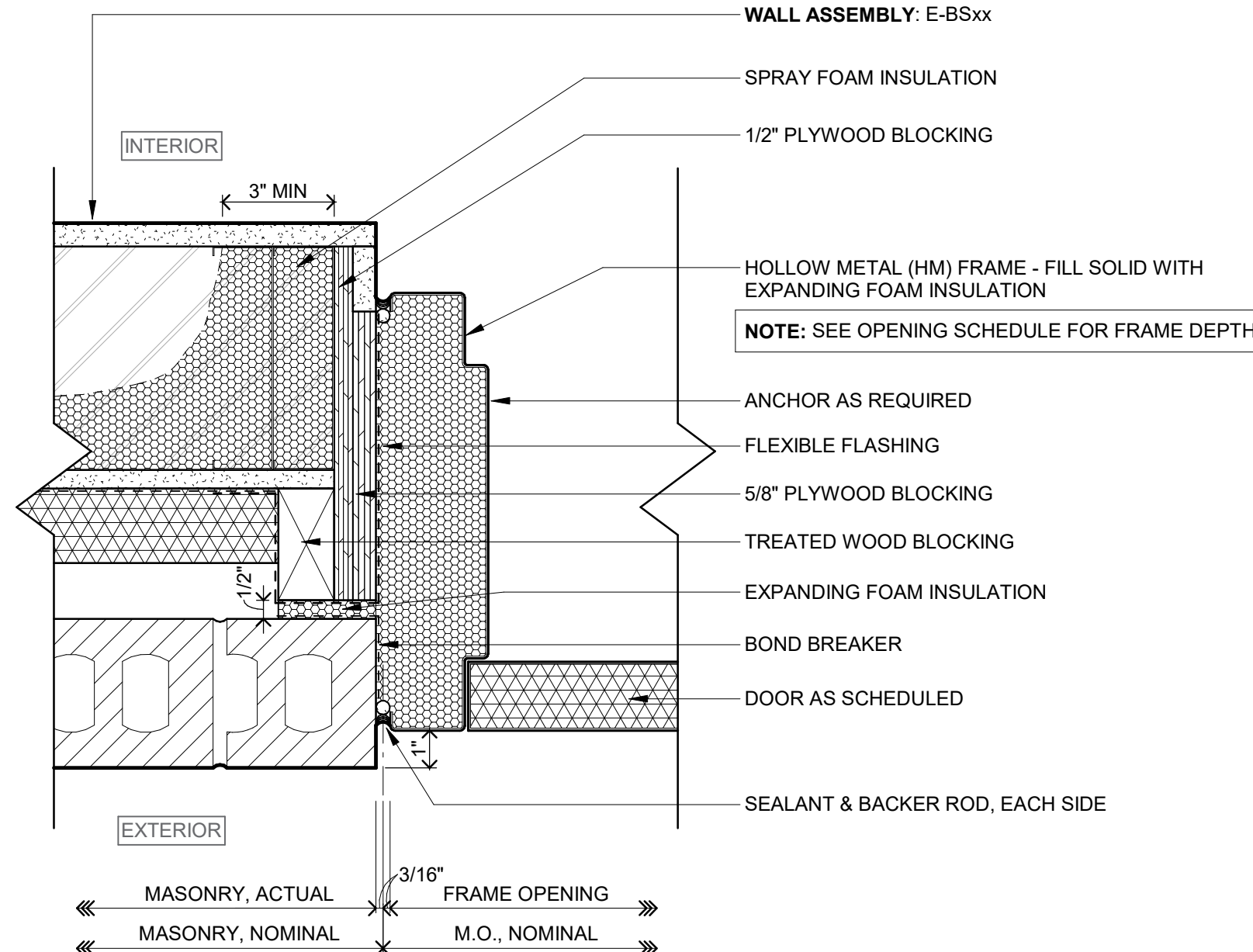
B5 LOUVER HEAD AND JAMB
1 1/2" = 1'-0"



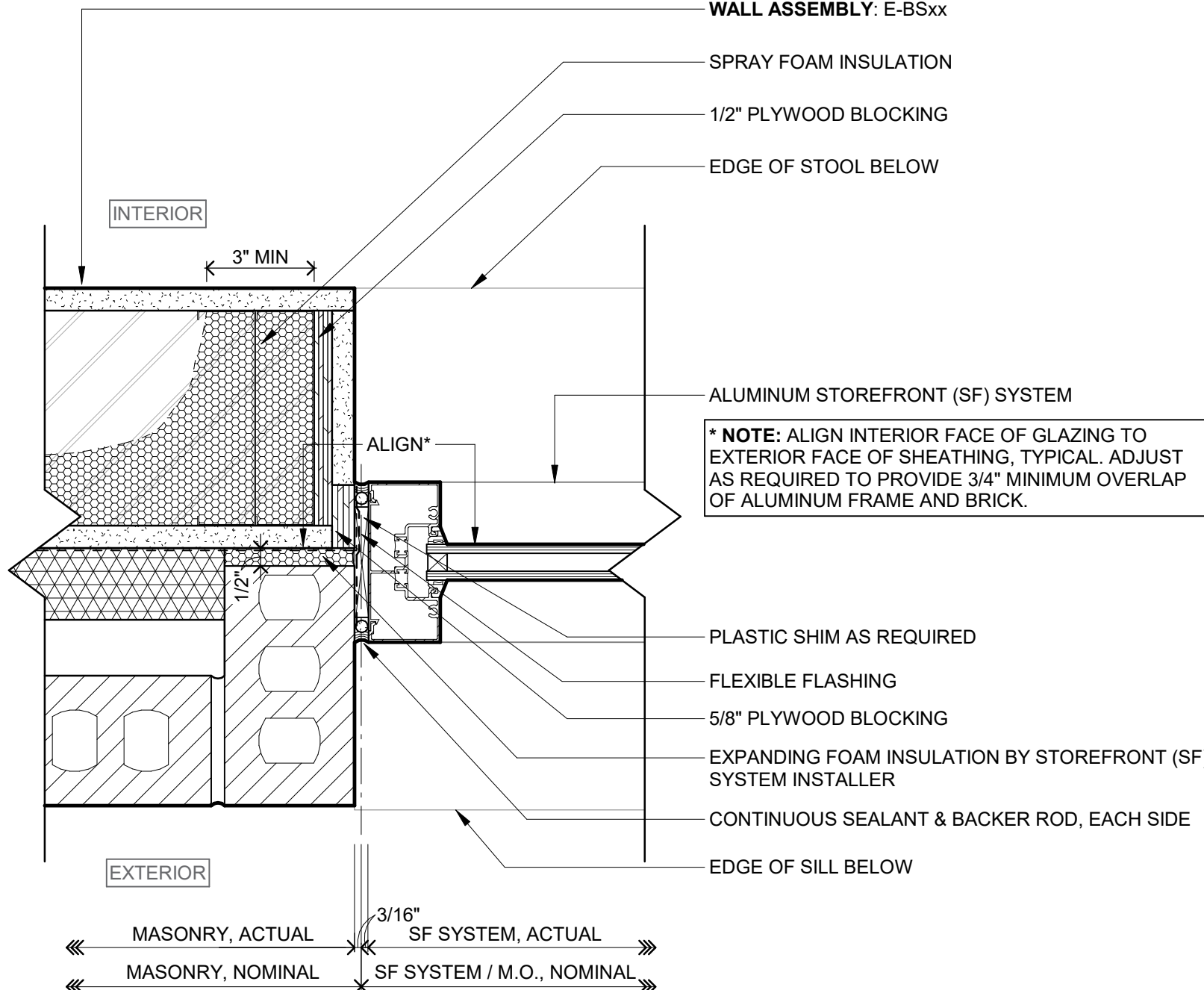
C7 HEAD DETAIL AT ALUMINUM WINDOW - ASSEMBLY E-BS06
3" = 1'-0"



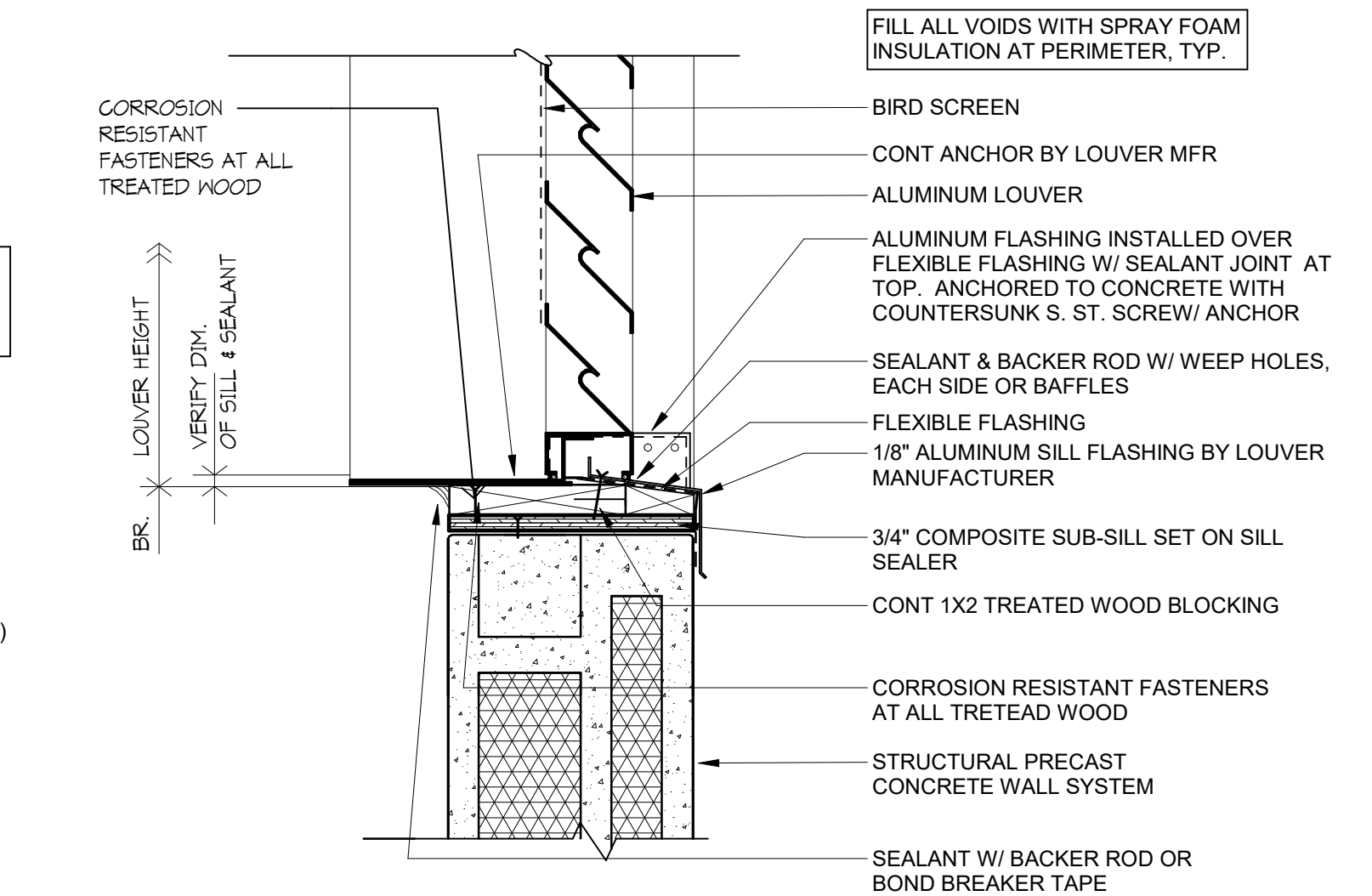
D1 SILL DETAIL AT PRECAST
3" = 1'-0"



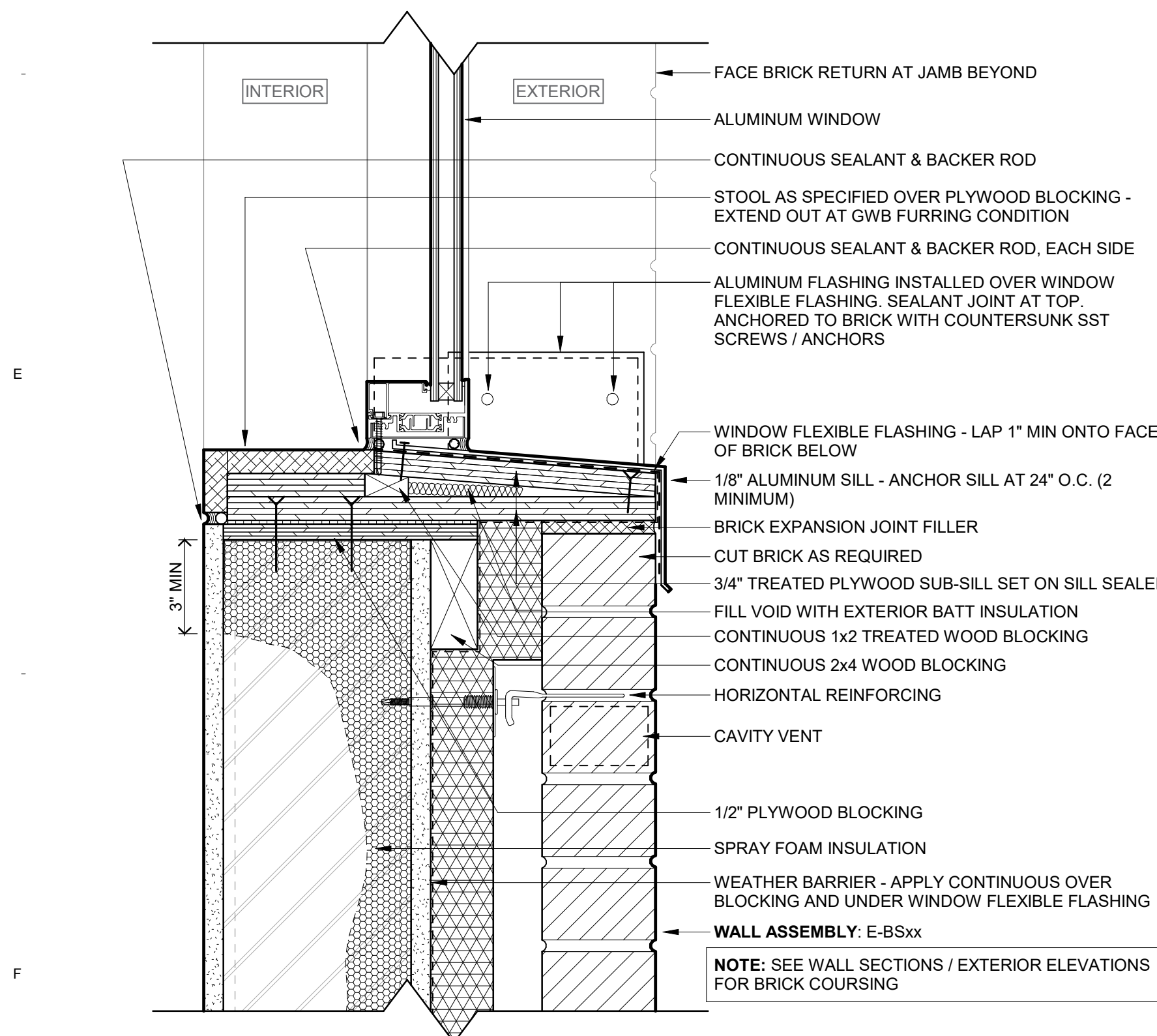
D3 JAMB DETAIL AT EXTERIOR HM FRAME - ASSEMBLY E-BS06
3" = 1'-0"



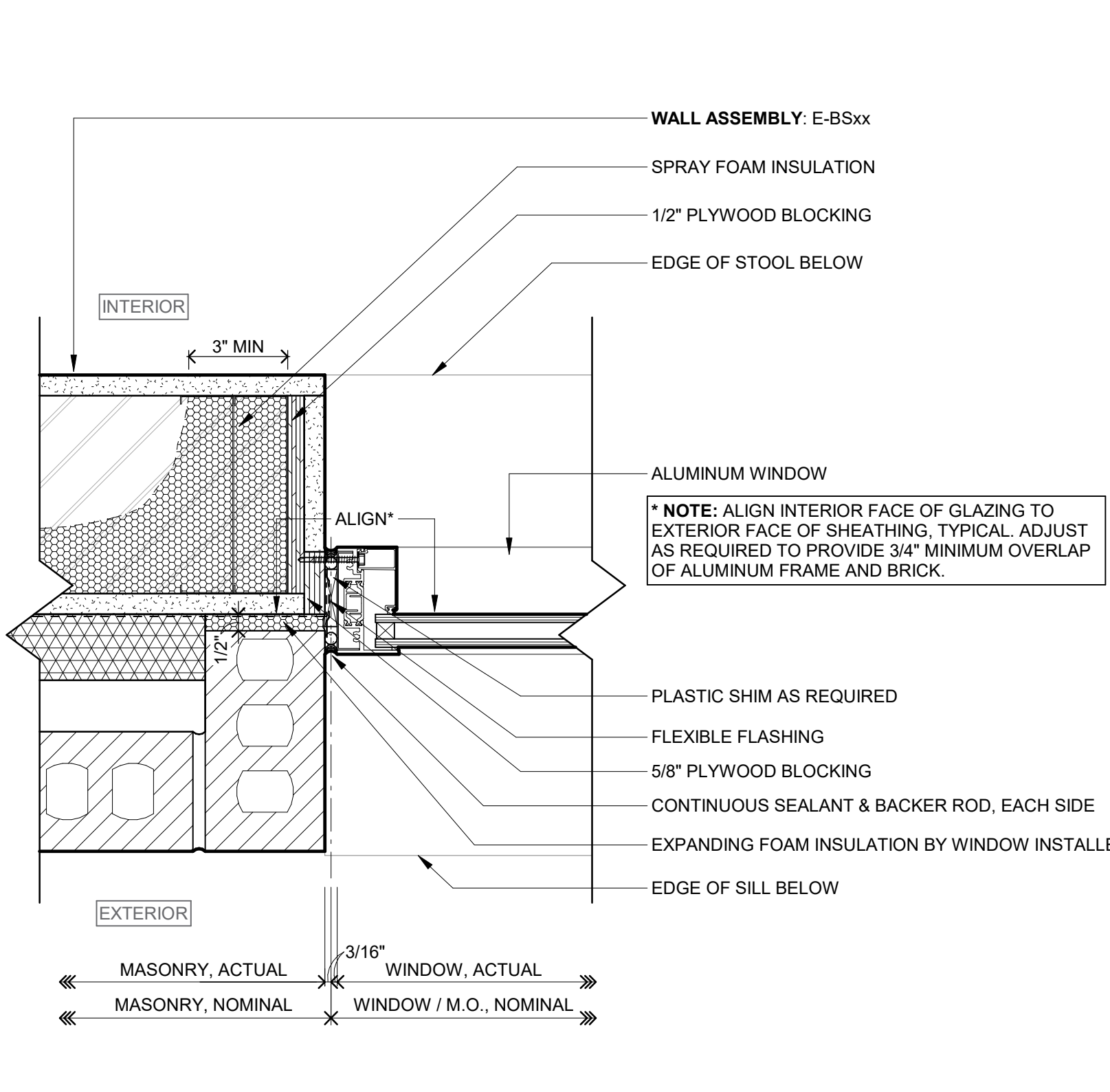
D5 JAMB DETAIL AT ALUMINUM STOREFRONT (SF) - ASSEMBLY E-BS06
3" = 1'-0"



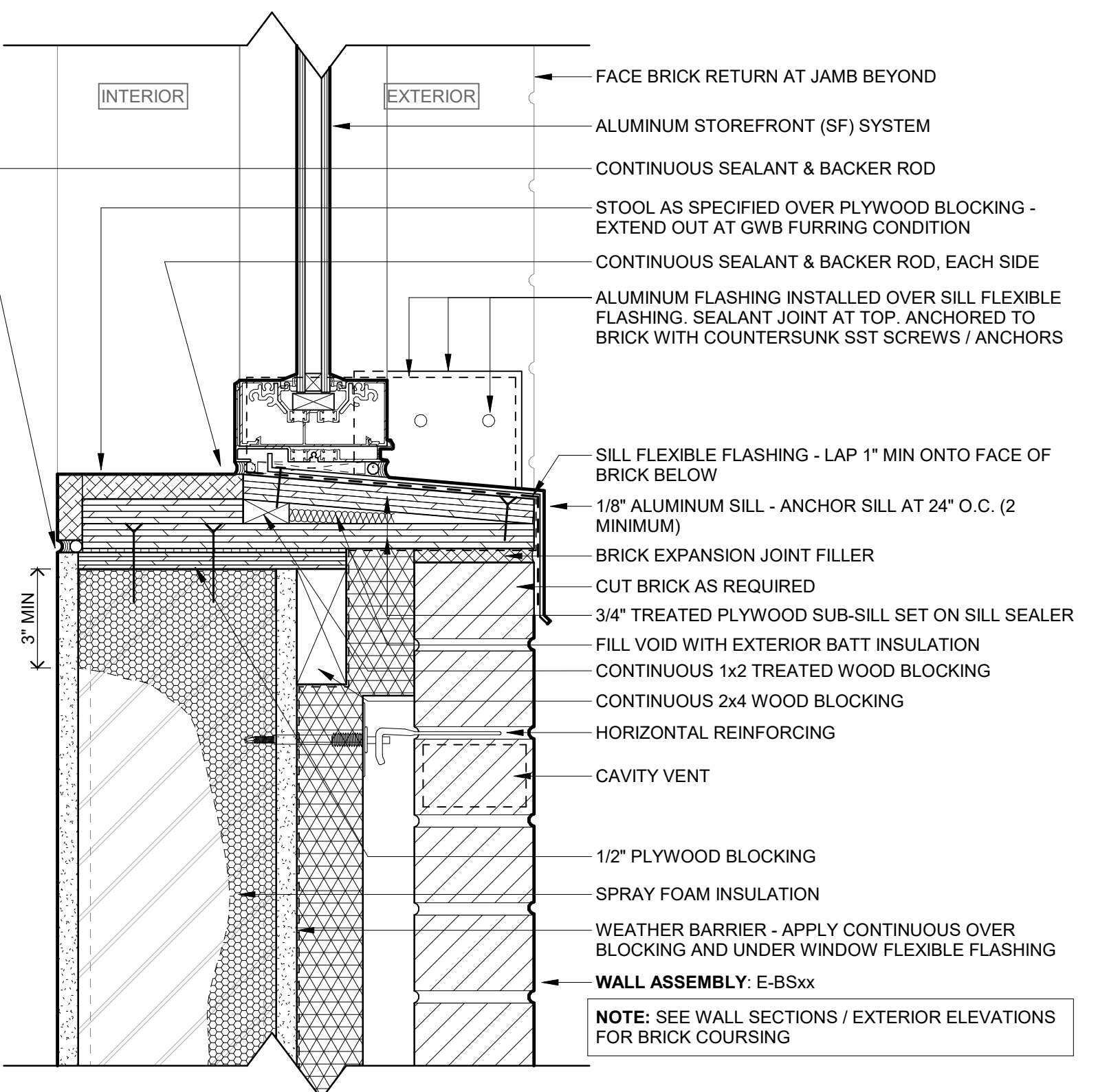
D7 LOUVER SILL AT PRECAST
1 1/2" = 1'-0"



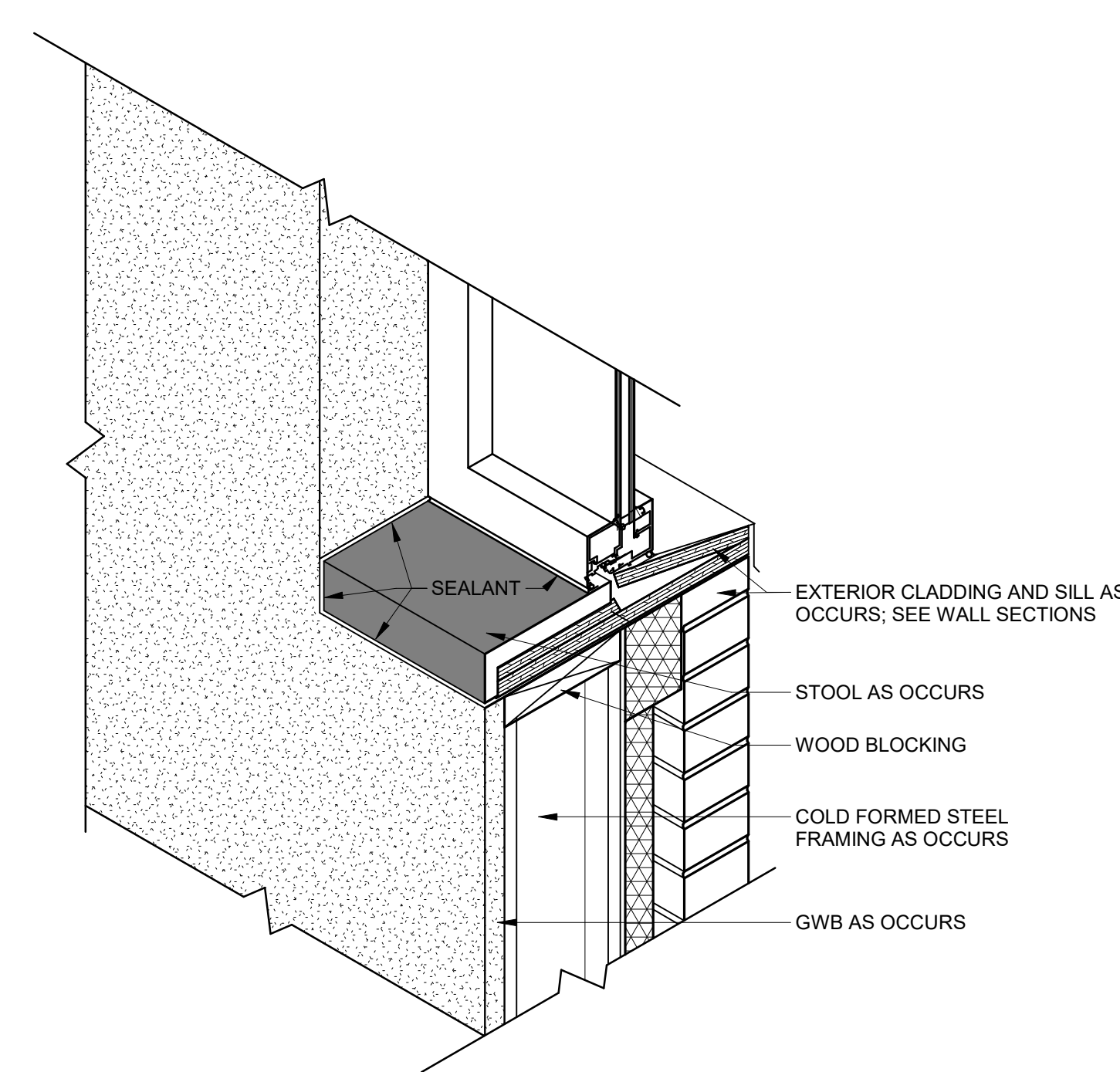
F1 SILL DETAIL AT ALUMINUM WINDOW - ASSEMBLY E-BS06
3" = 1'-0"



F3 JAMB DETAIL AT ALUMINUM WINDOW - ASSEMBLY E-BS06
3" = 1'-0"



F5 SILL DETAIL AT ALUMINUM STOREFRONT (SF) - ASSEMBLY E-BS06
3" = 1'-0"

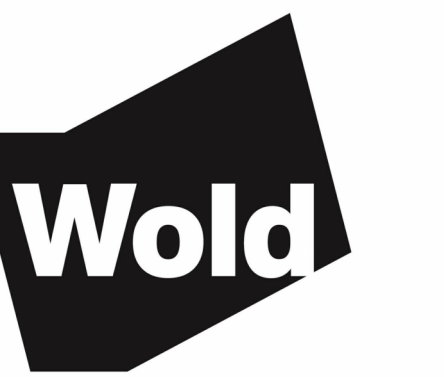


F7 STOOL DETAIL AT WINDOW, STEEL STUD BACKUP
1 1/2" = 1'-0"

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John McNamara
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Date		

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Drawn: KH
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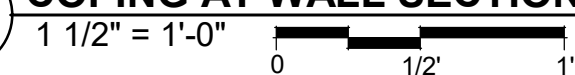
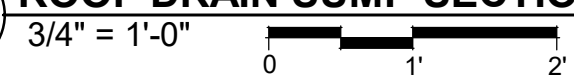
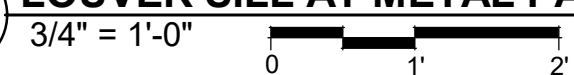
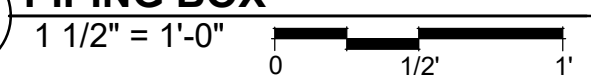
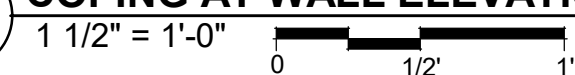
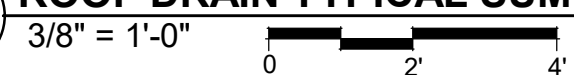
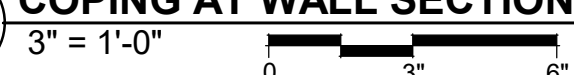
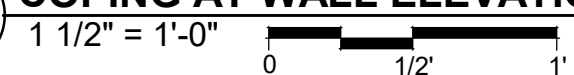
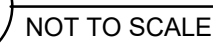
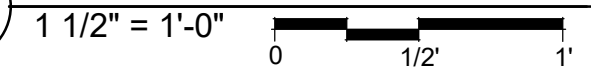
DETAILS - EXTERIOR OPENINGS

Scale: As indicated

FINAL CD SET DRAFT
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A5.602

A5.701



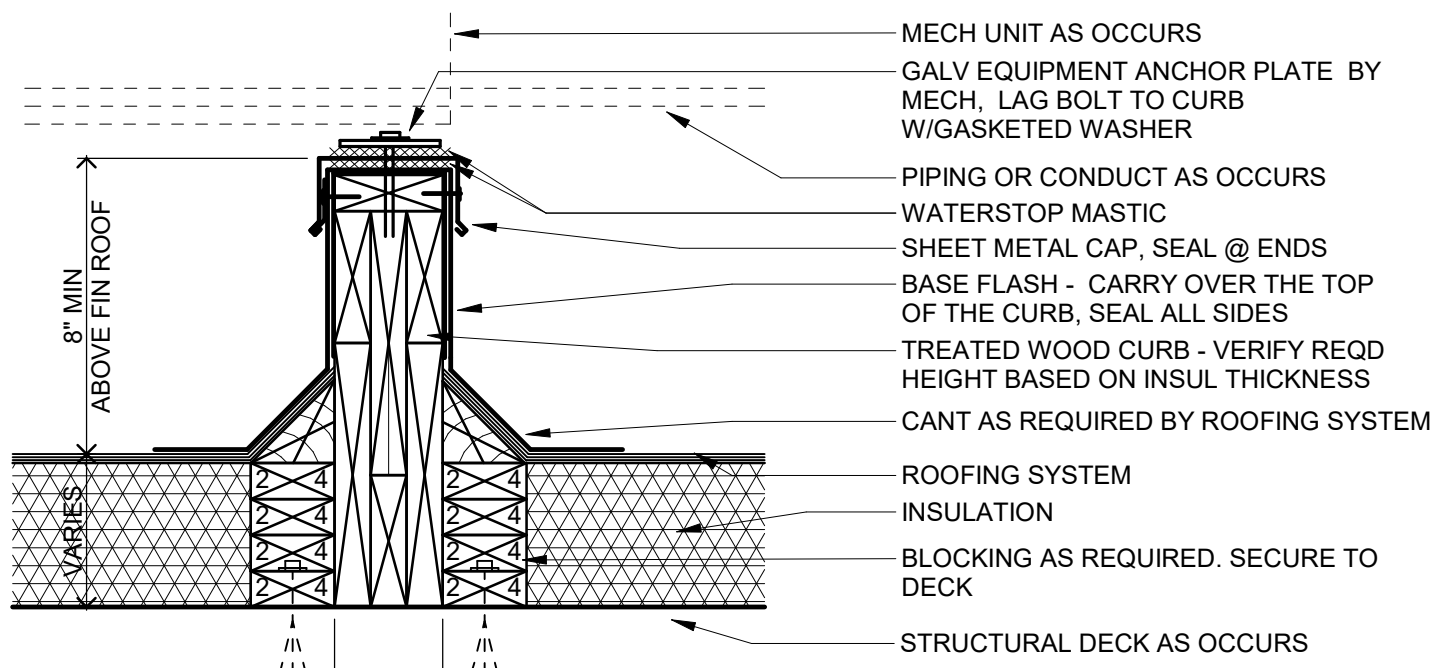
**FINAL CD SET DRAFT
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DETAILS - EXTERIOR ROOF

MN

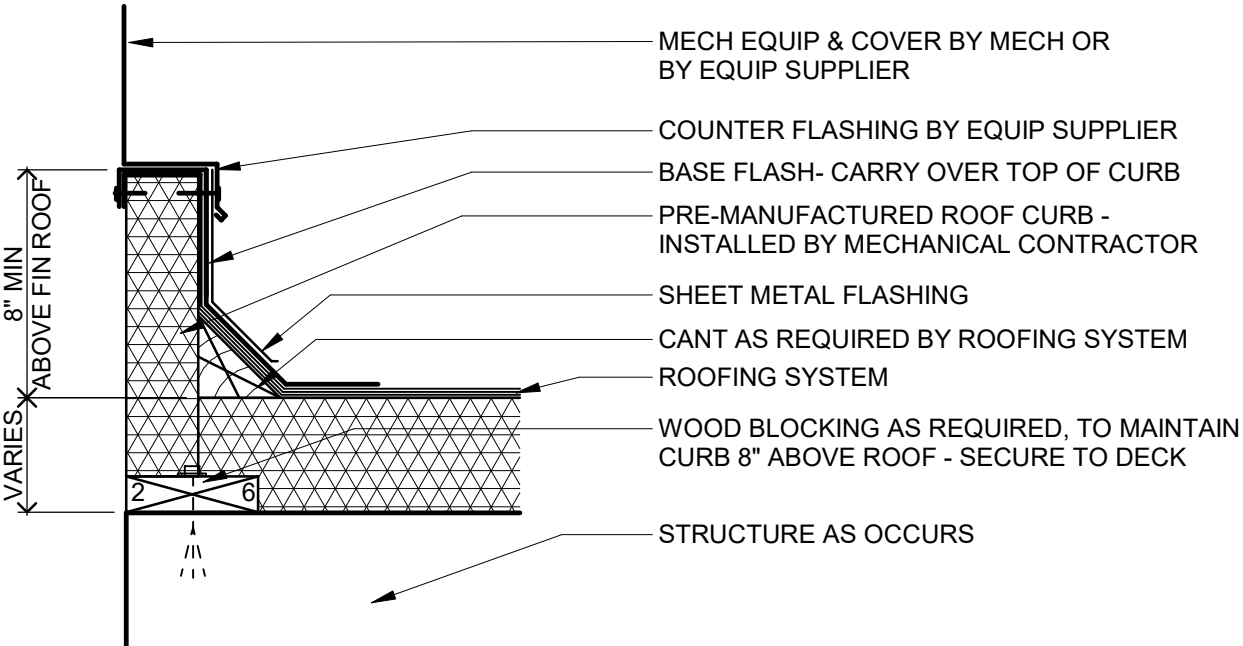
A

Architect: John McNamara, AIA, 501 South Eighth Street, Minneapolis, MN 55404
Engineer: John McNamara, AIA, 501 South Eighth Street, Minneapolis, MN 55404
Date: 09/12/2023
Drawn: KH
Check: JW
10/10/2023 2:52 PM



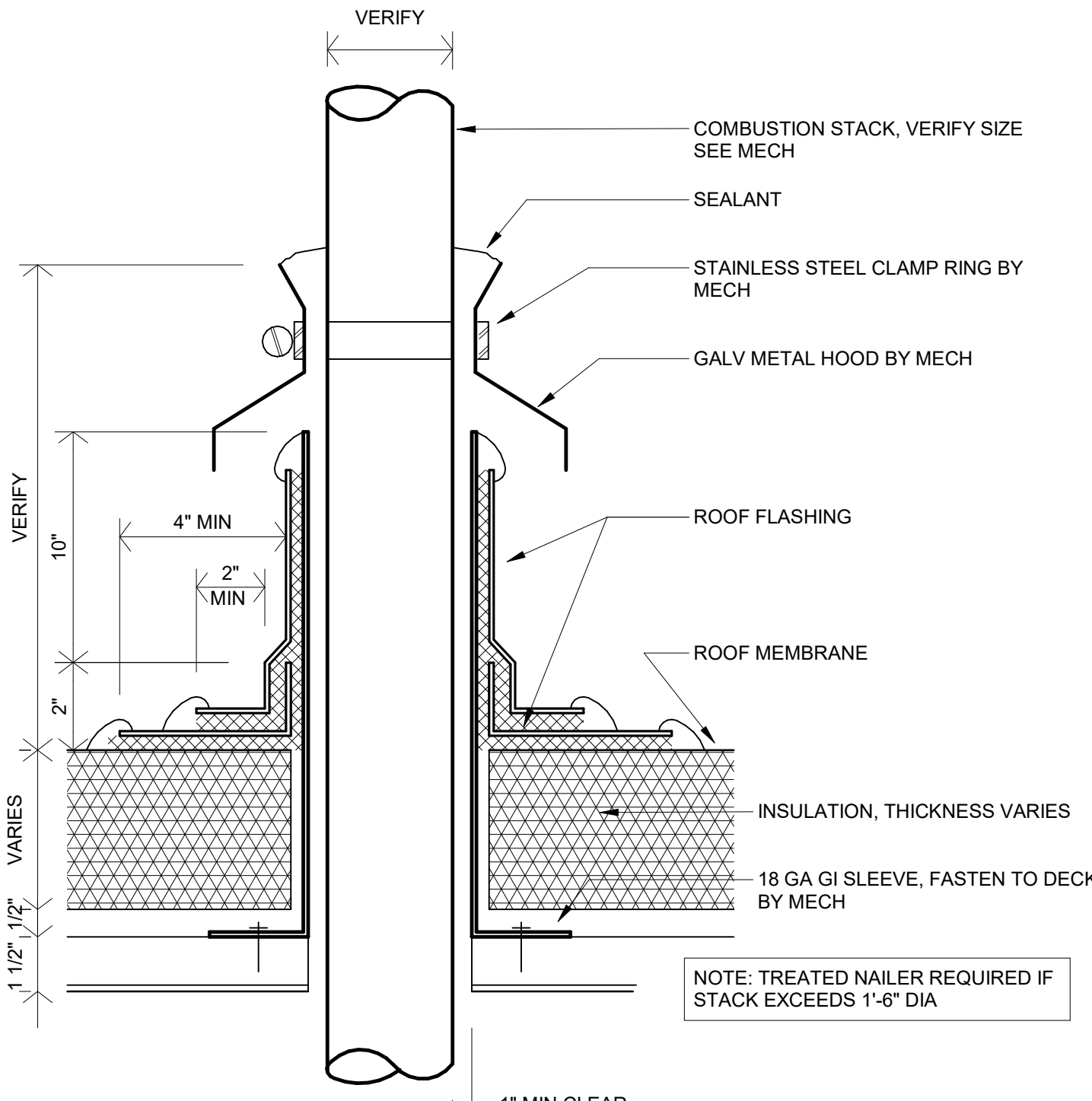
C1a EQUIPMENT CURB

1 1/2" = 1'-0"



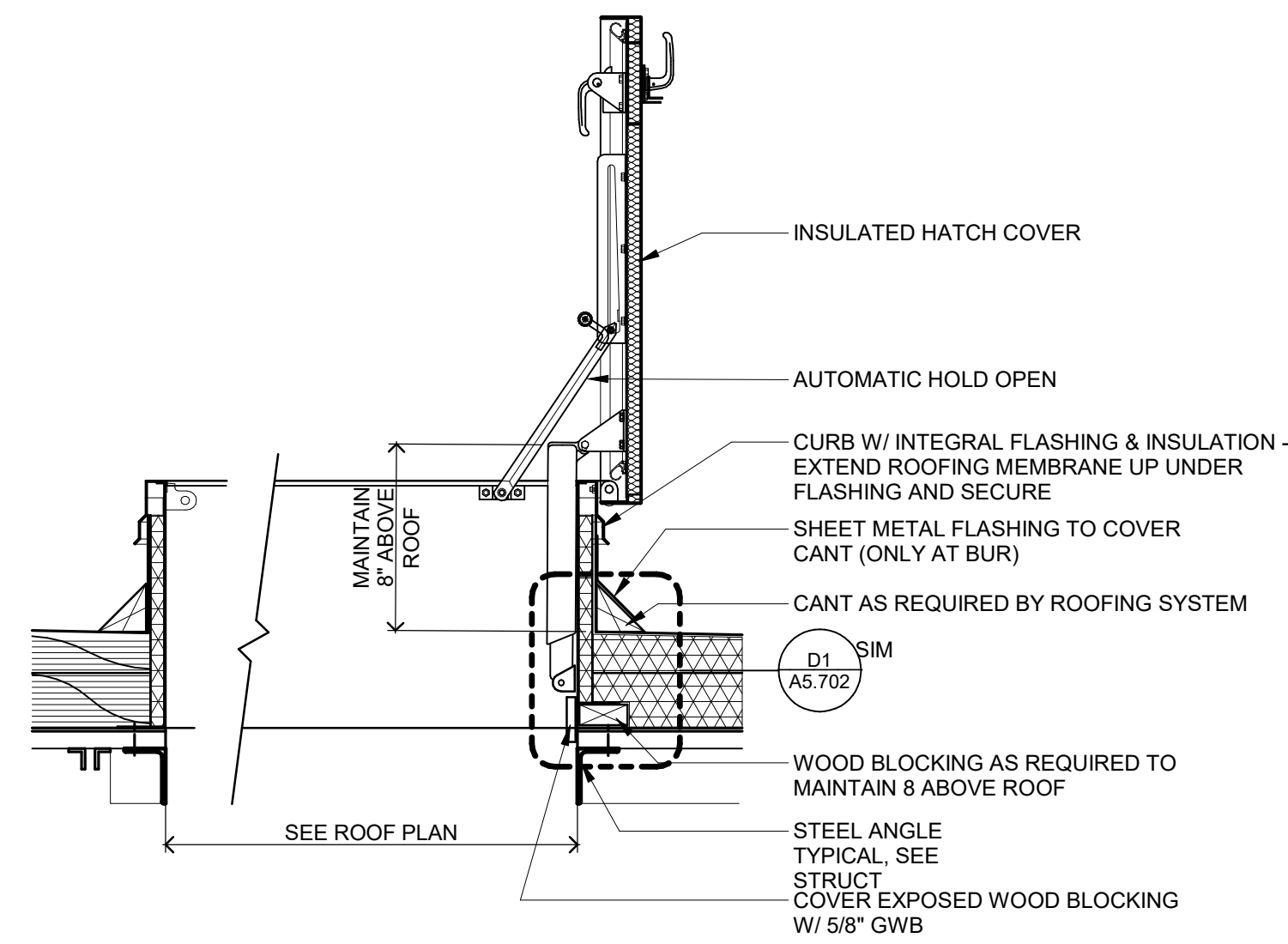
D1 PENETRATION CURB

1 1/2" = 1'-0"



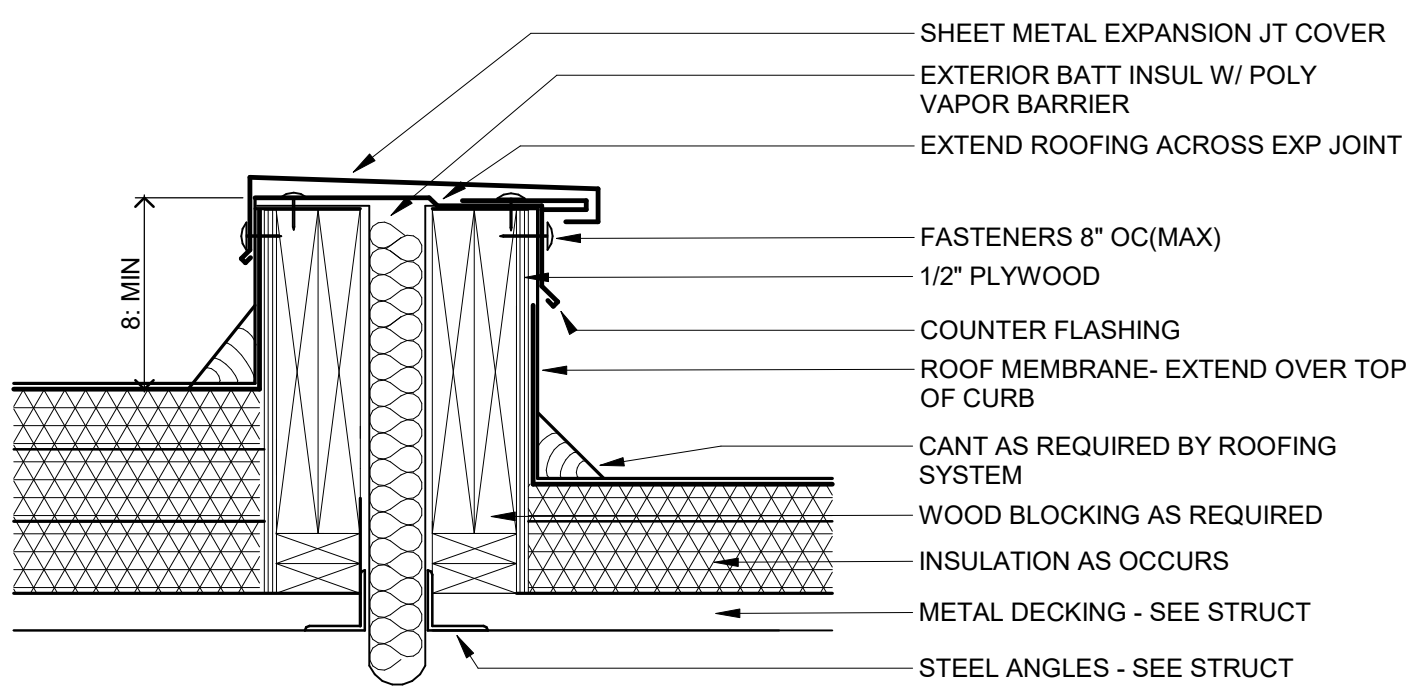
F1 MEMBRANE ROOF COMBUSTION STACK

NOT TO SCALE



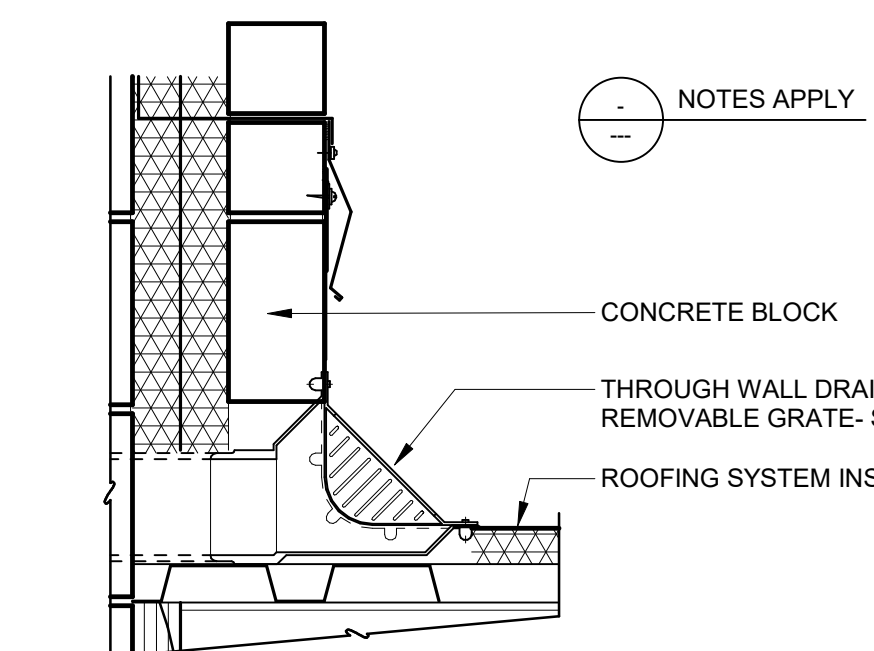
B3 ROOF HATCH

1" = 1'-0"



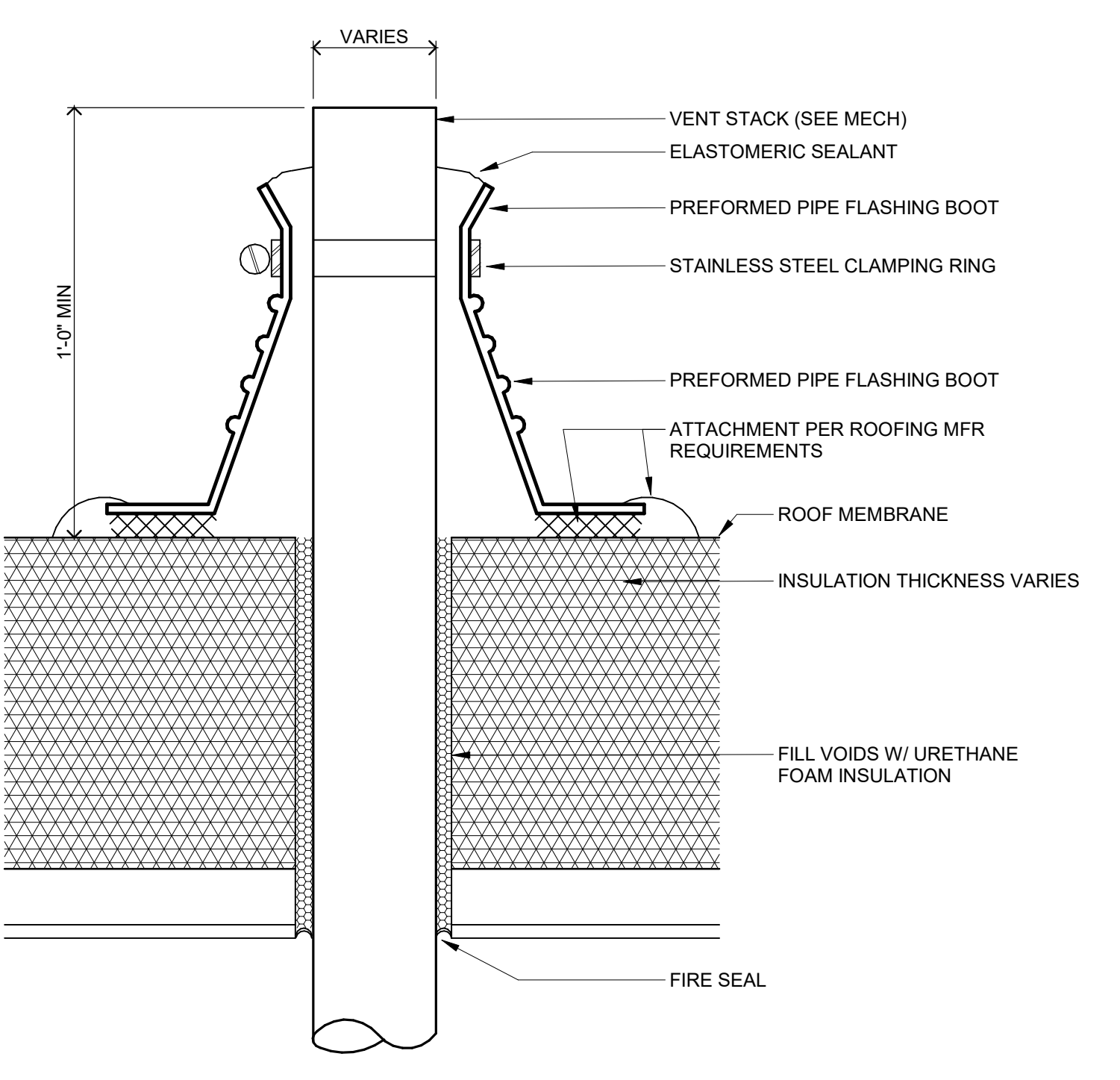
C3 BUILDING EXPANSION JOINT

1 1/2" = 1'-0"



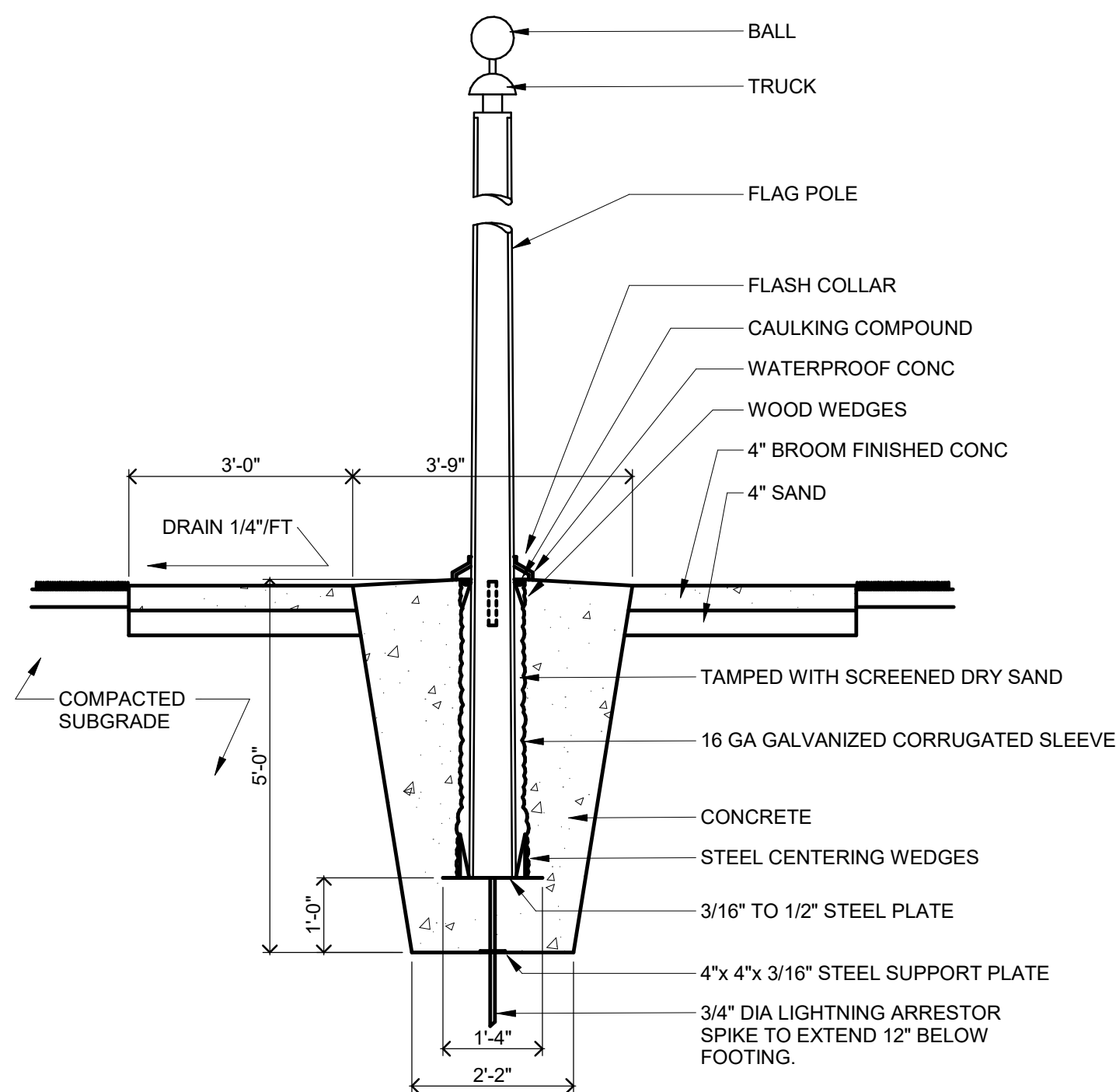
D3 DRAIN AT CANOPY

1 1/2" = 1'-0"



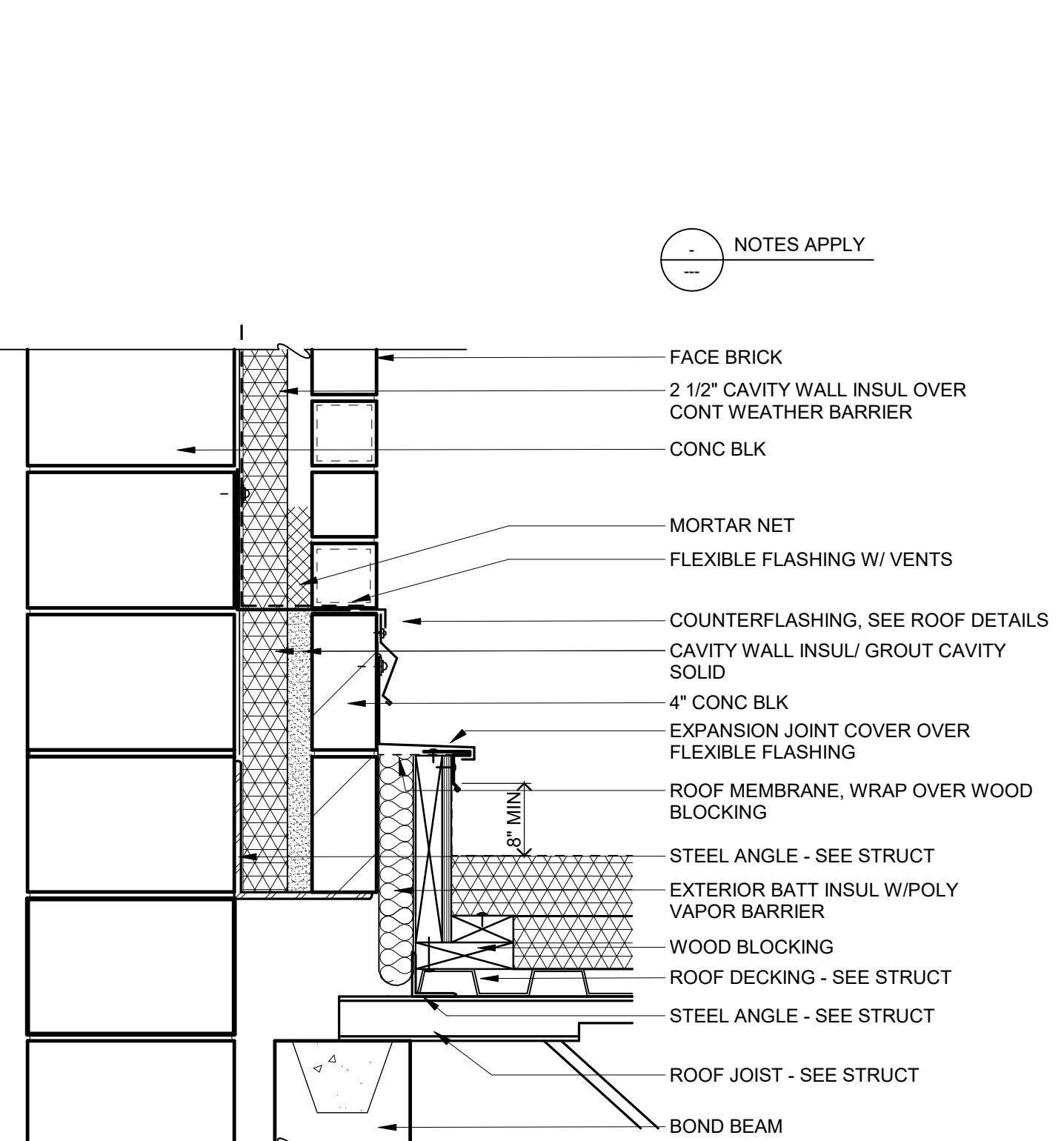
F3 MEMBRANE ROOF VENT

NOT TO SCALE



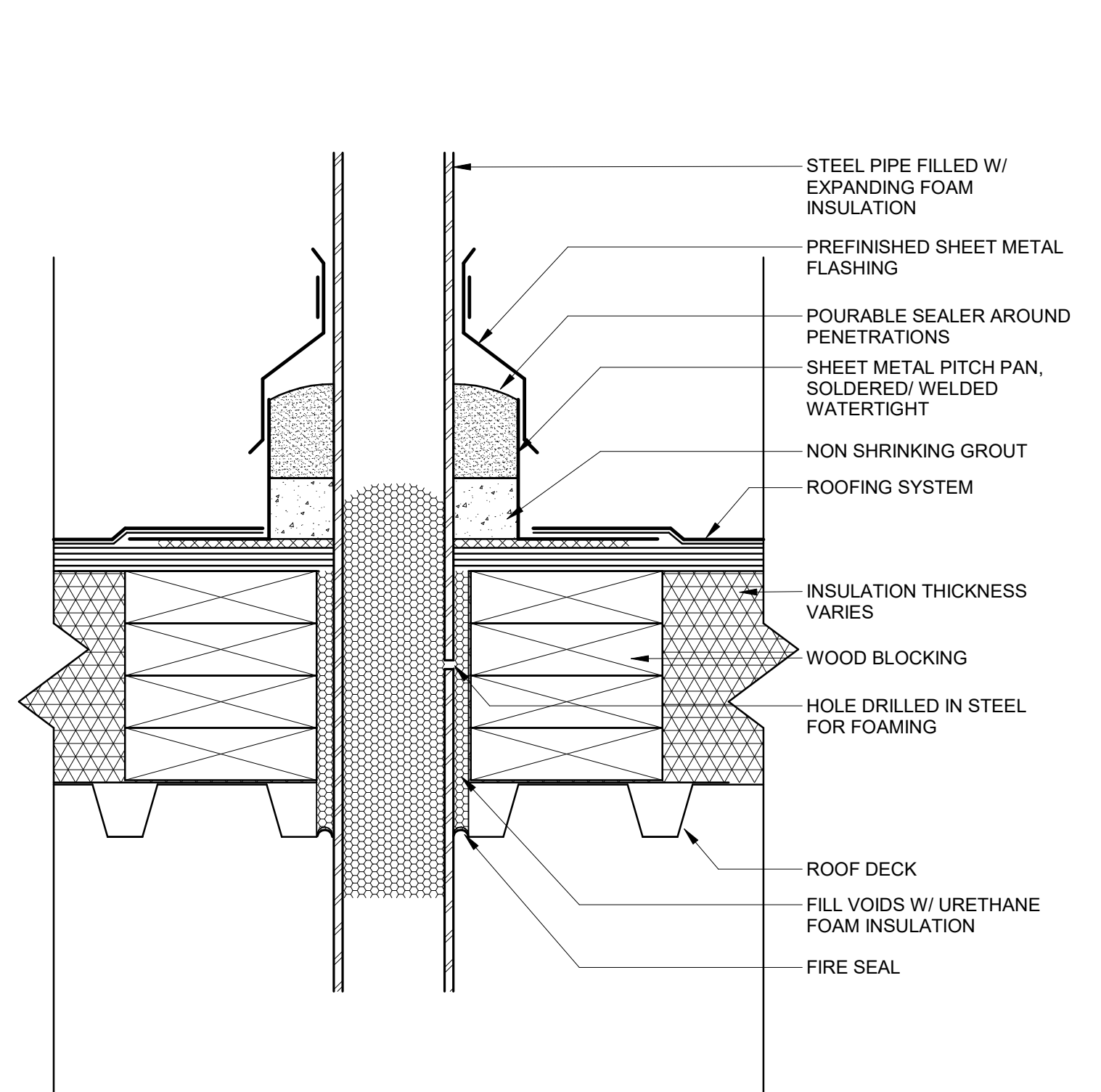
B5 FLAGPOLE DETAIL

1/2" = 1'-0"



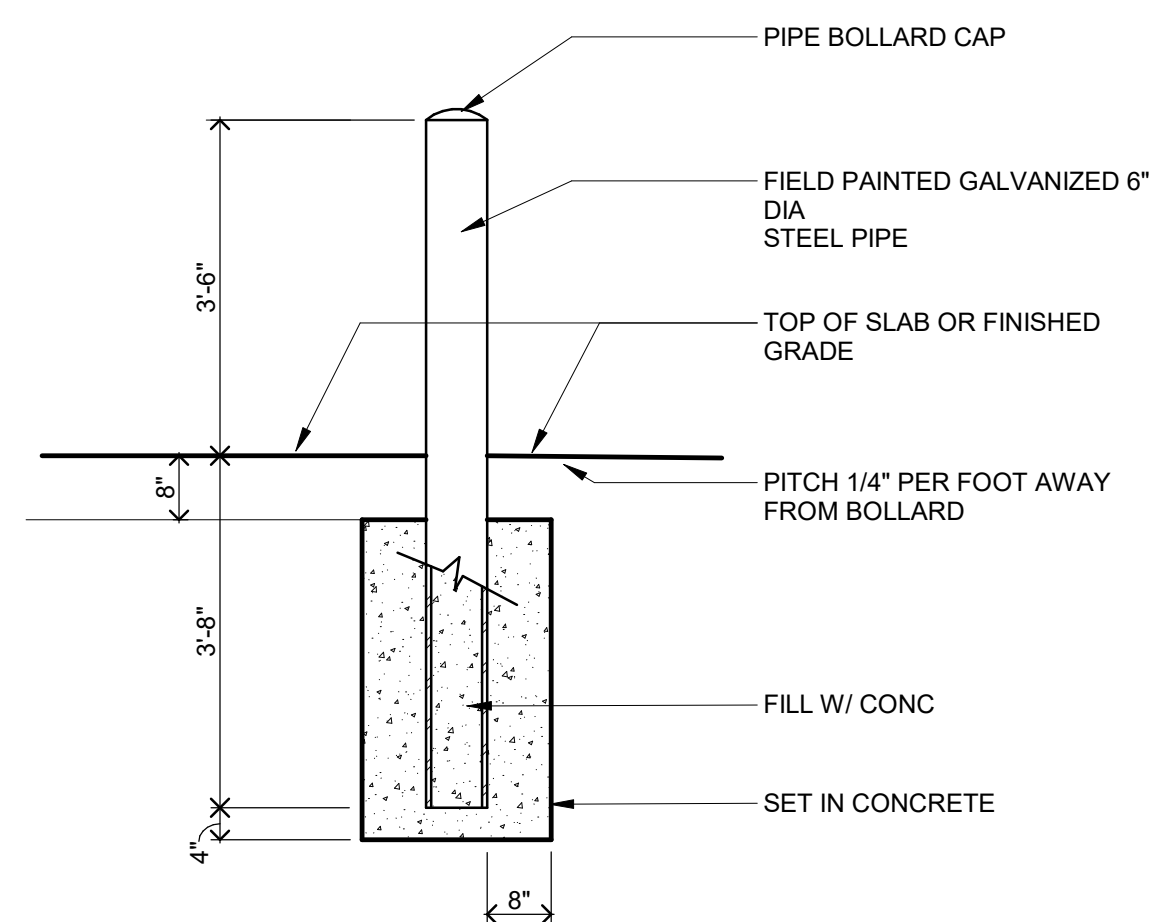
D5 BUILDING EXPANSION JOINT

1 1/2" = 1'-0"



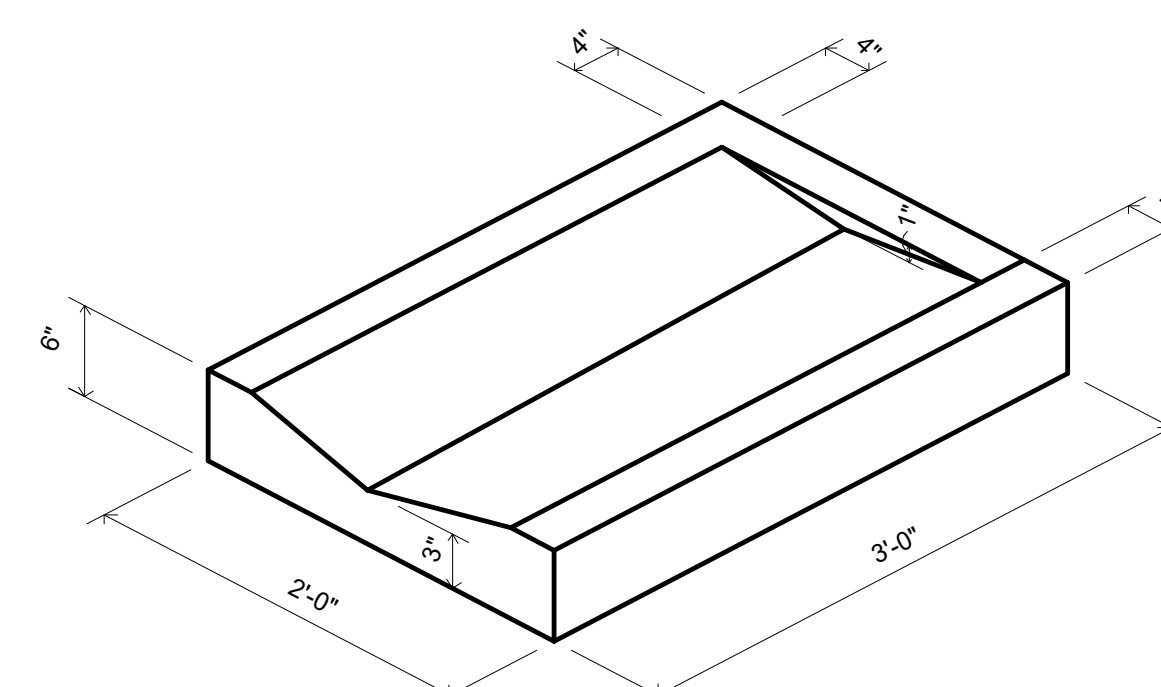
F5 STEEL TUBE ROOF PENETRATION DETAIL

NOT TO SCALE



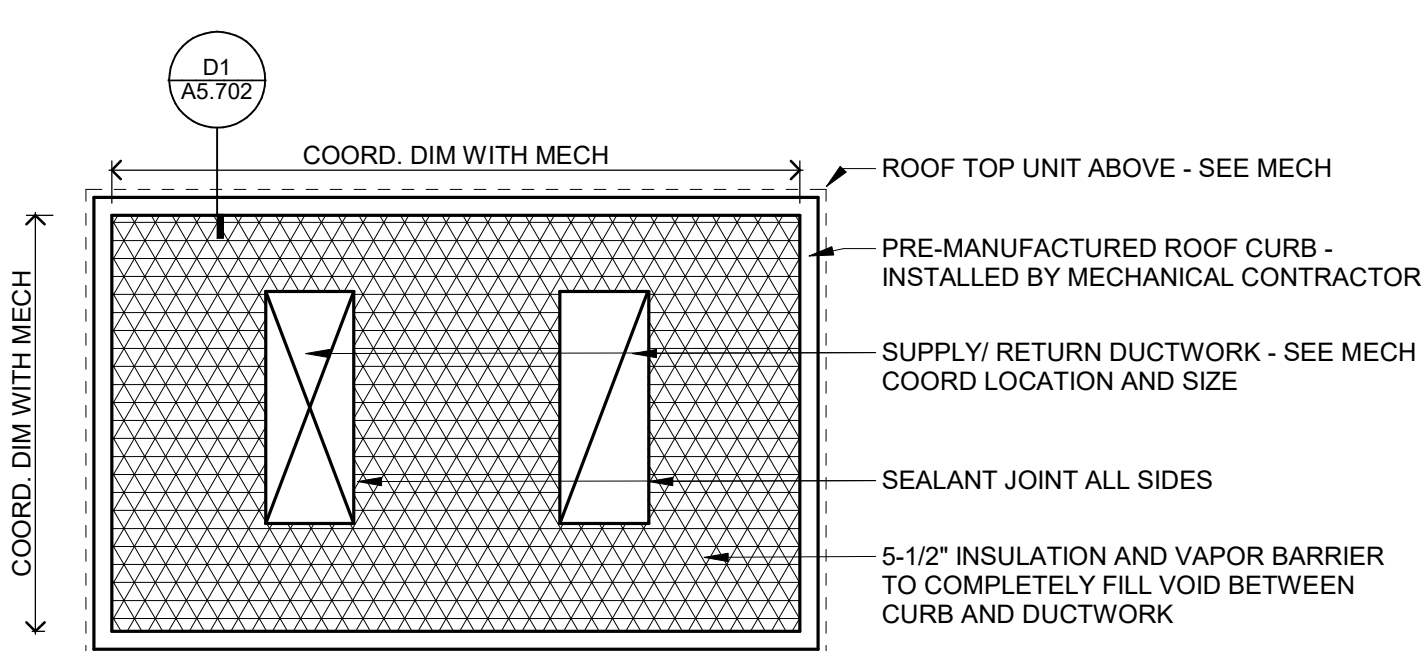
B7 BOLLARD DETAIL

1/2" = 1'-0"



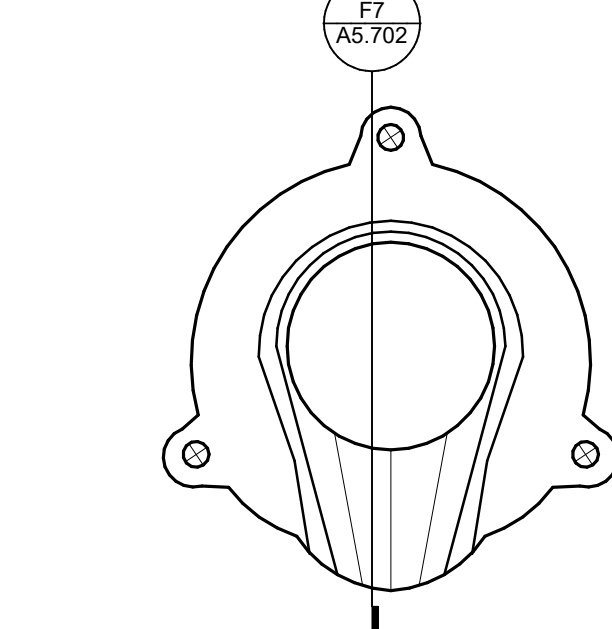
C7 CONCRETE SPLASHBLOCK

1" = 1'-0"



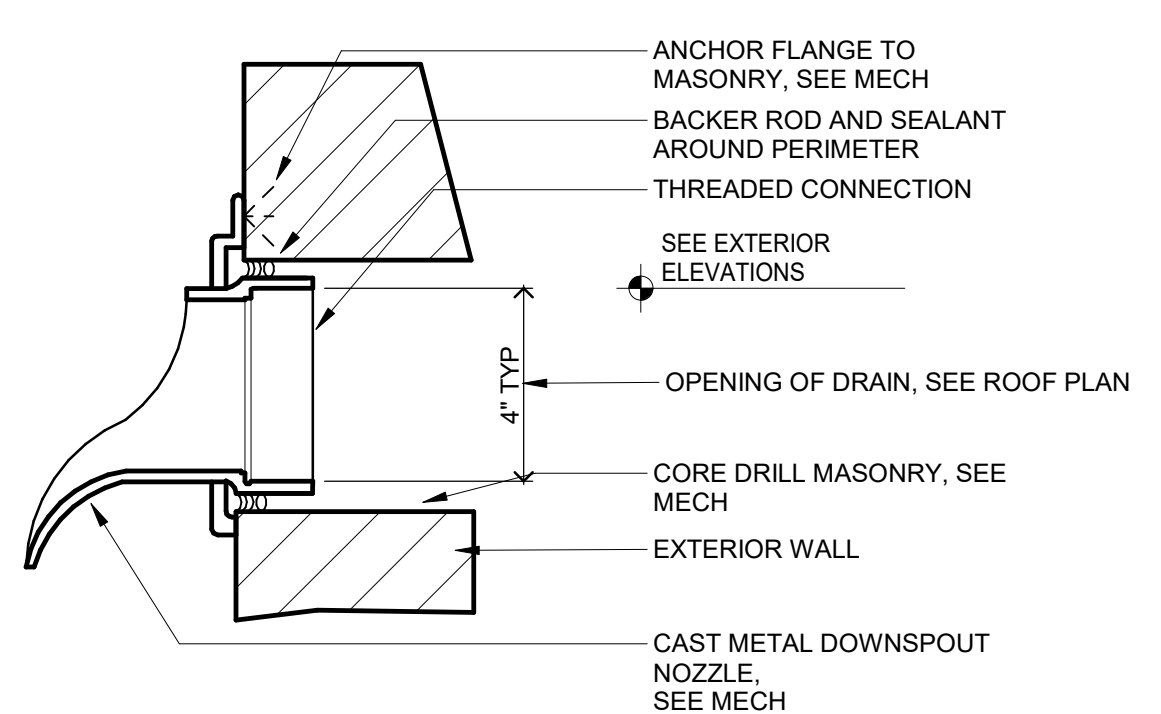
D7 PLAN DETAIL AT INSUL. UNDER RTU

1/2" = 1'-0"



E7a DOWNSPOUT NOZZLE ELEVATION

3" = 1'-0"



F7 DOWNSPOUT NOZZLE SECTION

3" = 1'-0"

NEW UTILITY & ENGINEERING BUILDING

10875 IDEAL AVENUE S.
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE

12800 RAVINE PKWY
COTTAGE GROVE, MN 55016



WOLD ARCHITECTS AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101

woldae.com | 651 227 7773



501 South Eighth Street
Minneapolis, MN 55404
krausanderson.com | 612.332.7281

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed ARCHITECT under the laws of the State of Minnesota

John McNamara
License Number: 24281 Date: 09/12/2023

Description	Revisions	Num
	Date	

Comm: 232010
Date: 09/12/2023
Drawn: KH
Check: JW

DETAILS - EXTERIOR ROOF

Scale: As indicated

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

A5.702

STRUCTURAL SYMBOLS

DIMENSIONAL LUMBER

WOOD BLOCKING

STEEL OR METAL

CONCRETE BLOCK - HOLLOW OR SOLID

FACE OR COMMON BRICK

RIGID INSULATION

STRUCTURAL INSULATED PANELS (SIPs)

SHEATHING

EARTH, FILL OR BACKFILL

SAND

GROUT OR CONCRETE TOPPING

CONCRETE

EXISTING ELEMENT - MATERIAL VARIES

AREA DESIGNED FOR SOLAR PANEL SURCHARGE LOAD

SNOW DRIFT SURCHARGE LOAD

TOP OF SLAB ELEVATION CHANGE (STEPPED OR SLOPED)

TOP OR BOTTOM OF SLAB ELEVATION CHANGE (STEPPED)

TOP RETURN WELD AND LENGTH

BOTTOM RETURN WELD AND LENGTH

RETURN WELD SYMBOL

BP1

BEARING PLATE MARK - SEE SCHEDULE

CJ

CMU CONTROL JOINT

SCI

CCI

CCI

COLUMN MARK - STEEL, CONCRETE, OR PRECAST - SEE SCHEDULE

XXX PLF

TOTAL IN-PLANE SHEAR FORCE TO BE RESISTED BY PRECAST WALL PANEL. NEED NOT BE SUPERIMPOSED WITH DRAG/STRIUT FORCES INDICATED BY KEYNOTE.

DP1

DETERMINED PIER MARK - SEE SCHEDULE

EP1

EMBED PLATE MARK - SEE SCHEDULE

CF40

FOOTING MARK FOR COLUMNS - SEE SCHEDULE

WF20

FOOTING MARK FOR WALLS - SEE SCHEDULE

1

KEY NOTES - SPECIFIC NOTES KEYED TO AN ELEMENT OR AREA, SEE SCHEDULE

LI

LINTEL MARK - SEE SCHEDULE

MP1

CP1

PIER MARK - MASONRY OR CONCRETE - SEE SCHEDULE

PCI

PILE CAP MARK - SEE SCHEDULE

1

REVISION MARK - INDICATES A CHANGE AFTER CONTRACT DOCUMENT ISSUE

SW1

SHEAR WALL MARK - SEE SCHEDULE

SRT

STUD RAIL MARK - SEE SCHEDULE

WW1

CW1

WALL REINFORCING MARK - MASONRY OR CONCRETE - SEE SCHEDULE

WW1

STRUCTURAL WOOD WALL MARK - SEE SCHEDULE

A

GRID BUBBLE

XXX

SECTION NUMBER

XXX

DRAWING NUMBER WHERE SECTION IS FOUND

XXX

DRAWING NUMBER WHERE DETAIL IS FOUND

XXX

ELEVATION NUMBER

XXX

STEEL DECK INSTITUTE RD-2017 - Standard for Steel Roof Deck - Stabs (SDI C)

MATCHLINE

EXISTING BUILDING LINE

HIDDEN EXISTING BUILDING LINE

BREAK LINE

DIRECTION OF SLOPE

STEEL BEAM OR COLUMN SPLICE

STEEL BEAM CONTINUOUS OVER SUPPORT

MOMENT CONNECTION FOR STEEL BEAMS

LOCATION OF BEAM BRACE

SPAN OF STRUCTURAL ELEMENT

LOCATION OF BRACED FRAME

SLAB REINFORCING - TOP BARS

SLAB REINFORCING - BOTTOM BARS

DIMENSION LINES

MATERIAL LIMIT LINES

MATERIAL NOT INCLUDED IN LIMIT LINES

FOOTING STEP

TOP OF WALL STEP

CENTERLINE

POINT (ADD) LOAD (KIPS) ON ELEMENT (DEAD/SNOW/WIND) - POSITIVE NUMBER REPRESENTS LOAD DOWN. AT JOISTS: DESIGN FOR OFF-PANEL LOAD OR COORDINATE LOCATION TO ALIGN PANEL POINT WITH LOAD.

STRUCTURAL ABBREVIATIONS									
#	Pound or Number	FDN	Foundation	NO	Number	FDN	Foundation	NO	Number
&	And	FE	Effective Force (P.T.)	NOM	Nominal	FE	Effective Force (P.T.)	NOM	Nominal
/	Per	FFE	Finished Floor Elevation	N-S	North-South	FFE	Finished Floor Elevation	N-S	North-South
@	At	FLG	Floor	N-TS	Not To Scale	FLG	Floor	N-TS	Not To Scale
Ø	Diameter	FLR	Floor	NWC	Normal Weight Concrete	FLR	Floor	NWC	Normal Weight Concrete
AB	Anchor Bolt	FRT	Fire Retardant Treated	OC	On Center	FRT	Fire Retardant Treated	OC	On Center
ADDN	Additional	FT	Foot	OD	Outside Diameter	FT	Foot	OD	Outside Diameter
AF	Above Finished Floor	FTG	Footings	OF	Opening	FTG	Footings	OF	Opening
ALT	Alternate	FV	Field Verify	OPNG	Opening	FV	Field Verify	OPNG	Opening
ARCH	Architect or Architectural	GA	Gauge	OPP	Opposite	GA	Gauge	OPP	Opposite
BI	Bottom of Element	GALV	Galvanized	PAP	Power Actuated Fasteners	GALV	Galvanized	PAP	Power Actuated Fasteners
BB	Bond Beam	GB	Grade Beam	PCF	Precast	GB	Grade Beam	PCF	Precast
BLDG	Building	GC	General Contractor	PCF	Pounds per Cubic Foot	GC	General Contractor	PCF	Pounds per Cubic Foot
BM	Beam	GLU-LAM	Glue Laminated Wood	PDF	Power Driven Fasteners	GLU-LAM	Glue Laminated Wood	PDF	Power Driven Fasteners
BOT	Bottom	H	H Shaped Column	PERP	Perpendicular	H	H Shaped Column	PERP	Perpendicular
BP	Bearing Plate or Bent Plate	HAS	Hot-Dip Galvanized	PJP	Partial Joint Penetration	HAS	Hot-Dip Galvanized	PJP	Partial Joint Penetration
BRG	Bearing	HDC	Hot-Dip Galvanized	PL	Plate	HDC	Hot-Dip Galvanized	PL	Plate
BSMT	Basement	HK	Hook	PLF	Pound per Linear Foot	HK	Hook	PLF	Pound per Linear Foot
BTWN	Between	HORIZ	Horizontal	PSF	Pound per Square Foot	HORIZ	Horizontal	PSF	Pound per Square Foot
C	Channel	HSS	Hollow Structural Section	PSI	Pound per Square Inch	HSS	Hollow Structural Section	PSI	Pound per Square Inch
CANT	Canter	ID	Inside Diameter	PSI	Parallel Strand Lumber	CANT	Canter	PSI	Parallel Strand Lumber
CFS	Cold-Formed Steel	IE	Invert Elevation	PT	Post-Tensioned/Tensioning	CFS	Cold-Formed Steel	PT	Post-Tensioned/Tensioning
COS	Center of Gravity of Steel	IF	Inside Face	REBAR	Reinforcing Bar	COS	Center of Gravity of Steel	REBAR	Reinforcing Bar
CIP	Cast in Place	IN	Inside Face	REIN	Reinforcing or Reinforce	CIP	Cast in Place	REIN	Reinforcing or Reinforce
CJ	Control Joint	IN	Inside Face	REQD	Required	CJ	Control Joint	REQD	Required
CJP	Complete Joint Penetration	INSUL	Insulation	SCH	Schedule	CJP	Complete Joint Penetration	SCH	Schedule
CL	Center Line	INT	Interior	SHT	Sheet	CL	Center Line	SHT	Sheet
CLR	Clear	IS(TS)	Joist(s)	SIM	Similar	CLR	Clear	SIM	Similar
CMU	Concrete Masonry Unit	JT	Joint	SIPS	Structural Insulated Panels	CMU	Concrete Masonry Unit	SIPS	Structural Insulated Panels
COL	Column	K	Kips	SOG	Slab on Grade	COL	Column	SOG	Slab on Grade
COMP	Composite	KIP	1 Kip = 1,000 lbs	SPEC	Specification	COMP	Composite	SPEC	Specification
CONC	Concrete	KLP	Kips per Linear Foot	SPE	Species	CONC	Concrete	SPE	Species
CONN	Connection	KSF	Kips per Square Foot	SQ	Square	CONN	Connection	SQ	Square
CONST	Continuous	KSI	Kips per Square Inch	STD	Standard	CONST	Continuous	STD	Standard
CTR	Center	L	Angle	STL	Steel	CTR	Center	STL	Steel
CTRD	Centered	LL	Line Load	STRUCT	Structure	CTRD	Centered	STRUCT	Structure
DBA	Deformed Bar Anchor	LLH	Long Leg Horizontal	T&B	Top and Bottom	DBA	Deformed Bar Anchor	T&B	Top and Bottom
DEFL	Deflection	LLV	Long Leg Vertical	TI	Top of Element	DEFL	Deflection	TI	Top of Element
DIA	Diameter	LSH	Long Side Horizontal	TEMP	Temporary or Temperature	DIA	Diameter	TEMP	Temporary or Temperature
DIAG	Diagonal	LSL	Laminated Strand Lumber	THRU	Through	DIAG	Diagonal	THRU	Through
DIM	Dimension	LVS	Long Side Vertical	TOT	Top of Beam	DIM	Dimension	TOT	Top of Beam
DL	Dead Load	LVL	Laminated Veneer Lumber	TOP	Top of Footing	DL	Dead Load	TOP	Top of Footing
DTL	Detail	LWC	Light Weight Concrete	TOS	Top of Slab	DTL	Detail	TOS	Top of Slab
DWG(S)	Drawing(s)	M	Moment	TYP	Typical	DWG(S)	Drawing(s)	TYP	Typical
DWL(S)	Dwell(s)	MAS	Masonry	UNO	Unless Noted Otherwise	DWL(S)	Dwell(s)	UNO	Unless Noted Otherwise
E	East	MAT	Material	V	Verify	E	East	V	Verify
EA	Each	MAX	Maximum	VER	Vertical	EA	Each	VER	Vertical
EF	Each Face	MC	Miscellaneous Channel	VIF	Verify in Field	EF	Each Face	VIF	Verify in Field
EJ	Expansion Joint	MECH	Mechanical	WI	With	EJ	Expansion Joint	WI	With
EL	Elevation	MEP	Mechanical, Electrical, and Plumbing	WO	Without	EL	Elevation	WO	Without
ELEC	Electrical	MEZZ	Mezzanine	W	Wood	ELEC	Electrical	W	Wood
ELEV	Elevator	MFG	Manufacturer or Manufacturing	WND	Window	ELEV	Elevator	WND	Window
EOR	Engineer of Record	MIN	Minimum	WPD	Workpoint	EOR	Engineer of Record	WPD	Workpoint
EQ	Each Way	MO	Masonry Opening	W	West or Wide Flange	EQ	Each Way	W	West or Wide Flange
E-W	East - West	MPH	Miles per Hour	WT	Weight	E-W	East - West	WT	Weight
EXP	Expansion	N	North	WWF	Welded Wire Fabric	EXP	Expansion	WWF	Welded Wire Fabric
EXT	Exterior					EXT	Exterior		

GENERAL STRUCTURAL NOTES

GENERAL STRUCTURAL NOTES

These notes are provided for typical conditions. See plans and details for specific requirements in other areas.

DEFERRED STRUCTURAL SUBMITTALS

Deferred submittals are those items of the design which are not submitted at the time of permit application but are to be submitted to the building official prior to installation. Deferred submittals are governed by Minnesota State Building Code section 1300.0130. The following items are to be issued as deferred submittals:

Precast concrete units

Steel connections

Steel joist girders, special joists, and bridging

Cold-formed steel framing

Curtainwall systems

Steel stairs and landings, railings

For all deferred structural submittals, include design and calculations prepared and certified by an engineer licensed to practice in the state in which the project is located as part of the submittal documents. See specification for additional shop drawing requirements. Provide deferred submittals a minimum of 30 days prior to installation, and after contractor's review, to the architect for review for general conformance to the contract documents. After architect's review, submit to building official for review and approval. Do not install deferred submittal items until submittal documents have been reviewed and approved by the building official.

Refer to architectural, civil, mechanical, and electrical drawings for additional deferred submittal components.

COORDINATION - ARCHITECTURAL, MECHANICAL AND ELECTRICAL ITEMS

Verify all depressions, dimensions, elevations, openings, equipment supports, and details and coordinate to reference to architectural, mechanical, and electrical drawings.

OPENINGS

Verify size and location of all openings with architectural, mechanical, and electrical drawings. Structural drawings do not necessarily show all openings.

Place openings in floor and roof not shown on structural drawings between structural members. Notify Structural Engineer before openings larger than 12" in any dimension are added.

Obtain prior approval from Structural Engineer before making any openings through structural members if the openings are not shown on the structural drawings.

DESIGN CODES AND STANDARDS

International Building Code (IBC) 2018 - As amended by the Minnesota State Building Code 2020

American Society of Civil Engineers (ASCE) 7-16 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures

International Code Council (ICC) 500-14 - ICC-NSA Standard for the Design and Construction of Storm Shelters

American Concrete Institute (ACI) 318-14 - Building Code Requirements and Specification for Structural Concrete

The Masonry Society (TMS) 402/602-2016 - Building Code Requirements and Specification for Masonry Structures

American Institute of Steel Construction 360-16 - Specification for Structural Steel Buildings (AISC 360)

American Institute of Steel Construction - Steel Construction Manual - Fifteenth Edition (AISC 15th)

American Welding Society D1.1-2015 - Structural Welding Code - Steel and D1.3-2008 - Structural Welding Code - Steel Sheet as modified by AISC Specifications

Steel Joist Institute (SJI) 100-2020 - Standard Specification for K-Series, LH-Series, and DLH-Series Open Web Steel Joists and for Joist Girders

Steel Joist Institute (SJI) 200-2015 - Standard Specification for C-Series Composite Steel Joists

Steel Deck Institute RD-2017 - Standard for Steel Roof Deck (SDI RD)

Steel Deck Institute C-2017 - Standard for Composite Steel Floor Deck - Stabs (SDI C)

DESIGN STRESSES

Reinforcing Steel (F_y)

60,000 psi (A615, Grade 60)

Concrete (f'_c) (28-day compressive strength)

5,000 psi for exterior concrete

4,000 psi for interior concrete

4,000 psi for interior slab on grade

3,000 psi for footings

3,000 psi (pre-mixed grout) for masonry cores, inlets, and bond beams

5,000 psi for non-shrink grout (ASTM C1107)

Masonry (28-day compressive strength)

2,000 psi prism strength (f_m)

2,000 psi CMU compressive strength

3,000 psi grout strength

Structural Steel (F_y)

50,000 psi (A992 or A572 Grade 50 for W shapes

36,000 psi (A36) for bars, plates, angles, and other shapes

50,000 psi (A500, Grade C) for rectangular structural tubing

46,000 psi (A500, Grade C) for round structural tubing

50,000 psi (A663, Type E or S, Grade B) for pipes

55,000 psi (F1554, Grade 55) for anchor rods

65,000 psi F_y (A108) for headed studs

70,000 psi (E70XX) for welding electrodes

DESIGN LOADS

Roof Dead Load: 22 psf superimposed.

Includes allowance for ballasted roof. Limit dead load to 13 psf for roof uplift calculation to allow for fully-adequate membrane roof system.

Solar-Ready Roof: 15 psf additional dead load.

Do not include solar panel load in uplift calculation.

Roof Snow Load Parameters

Ground Snow Load: 50 psf

Exposure Factor (C_e): 1.0

Occupancy Importance Factor: 1.0

Thermal Factor (C_t): 1.0 typical, 1.2 at Cold Storage

Flat-Roof Snow Load (P_s): 35 psf

Snow Drift Loads: In accordance with ASCE 7 Chapter 7.

Mechanical Room: Snow Load = 20 psf hanging load.

See Steel Joist and Bridging section for additional bend-check load.

Floor Live Loads:

Mechanical Rooms: 150 psf

Stairs and Corridors: 100 psf

Storage: 150 psf

Star Stairs: 300 # concentrated load

Wind Loads:

ASCE 7 Directional Procedure Parameters:

Risk Category: II

Exposure: C

Basic design wind speed: 109 MPH (3 second gust)

Altitude stress design wind speed: 85 MPH

Internal Pressure Coefficient (C_{pi}): +0.18

Components and Cladding Wind Loads (ultimate):

Roof Uplift:

Interior Zones: 33 psf

Specification

Edge Zones: 44 psf (within 15'-0" of edge, away from corner zone)

Corner Zones: 49 psf (within 15'-0" of corner and 5'-0" of edge)

Overhangs: 84 psf

Walls:

Interior Zones: 26 psf

Corner Zones: 29 psf (within 10'-0" of corner)

Parapets: 107 psf

Seismic Loads

Seismic design not required per MSBC 1305.001 Subparagraph 4.

SOLAR-READY ROOFS

Portions of the roof have been designed for a ballasted solar panel system. The solar panel system is to include tube spreaders below the ballast racks to obtain a uniform load on the primary structure.

TEMPORARY BRACING

This structure is a non-self-supporting steel frame that requires interaction with slabs, steel deck, and masonry or concrete walls to provide the required lateral stability. Provide temporary bracing for structural steel until permanent bracing: slabs, steel deck, and walls are in place.

Provide temporary bracing for all walls (concrete, masonry, or cold formed steel) until they are of adequate design strength and are properly anchored in final form.

GEOTECHNICAL INFORMATION

The foundation design is based on the recommendations contained in Geotechnical Report number _____, prepared by _____ and dated _____. Allowable foundation pressures are to be verified in field by a licensed professional geotechnical engineer. Foundation design requires the use of _____ backfill outlined in the geotechnical report. Foundation design parameters are as follows:

Net soil bearing capacity

Strip footings: _____ psf

Spread footings: _____ psf

Lateral Soil Pressure (equivalent fluid pressure)

Lateral pressure on foundation walls: _____ psf/ft

Lateral pressure on cantilever retaining walls: _____ psf/ft

Passive soil pressure: _____ psf/ft

Coefficient of friction: 0. _____

BACKFILLING

Backfill and materials behind foundation and retaining walls shall be as outlined in the Geotechnical Report.

Do not backfill or compact earth against walls retaining earth until supporting slabs have reached 75% of their design strength or adequate bracing is in place. Provide bracing drawings designed and certified by an Engineer licensed in the state in which the project is located for record only.

Backfill evenly on both sides of foundation walls to prevent overturning or lateral wall movement.

CONCRETE REINFORCING GENERAL

Provide standard hooks where hook lengths are not specified.

Fabricate in accordance with AISC Specification.

See Class "K" and "B" Tension Lap Splice Tables on sheet SS.201 for required reinforcing splice lengths.

Provide epoxy coated reinforcing for all concrete exposed to weather such as stoops, retaining walls, exterior walls, piers, columns, slabs, and paving. Epoxy coated reinforcing is not required for building foundation walls unless specifically noted.

CONCRETE COVER ON REINFORCING

Footings and Drilled Piers:

3" clear bottom and sides

2" clear top

1 1/2" clear outside face and surfaces exposed to earth or weather (2" for #6 bars or larger)

2 1/4" clear inside face

1 1/2" clear to ties or stirrups

Place reinforcing in upper third of slab (minimum 3/4" clear top)

Masonry Walls & Columns:

Place reinforcing in upper third of slab (minimum 3/4" clear top)

1/2" from inside face of cell if not centered

Place bottom reinforcing within 4" of bottom of lintel

FOOTINGS

For wall footings, provide 32 bar diameter lap at reinforcing splices and full crossing lap at intersections.

Unless otherwise noted, center wall footings under walls and column footings under columns.

Footing elevations shown on plan are to top of footing (TOF).

Hook wall and column dowels at 3" clear bottom of footing.

CONCRETE SLABS ON GRADE

Provide thickened slab below non-bearing masonry walls. See section 9/55.201.

Maximum of 250 pounds in any 5'-0"x5'-0" square area.

If control joints are not shown on plan, place control/contraction joints at columns and provide additional joints to meet the spacings indicated below:

Exterior slabs, 10'-0" or maximum

Interior slabs, 12'-0" or maximum

1" shaped panels and rectangular panels (with length to width ratio greater than 1.5) are not allowed.

All control/contraction joints must be continuous and not staggered or offset.

POURED CONCRETE WALLS

See detail 8/55.201 for horizontal reinforcing at intersecting walls.

All openings 12" or larger, in walls shall have:

1 - 4# x 4'-0" each face diagonal at each corner

1 - 4# each face, each side of opening, extend 2'-0" beyond opening

Wall reinforcing is continuous through openings, unless detailed otherwise.

See detail 7/55.201 for typical vertical control/contraction joints.

CONCRETE TOPPING

Unless otherwise noted, provide synthetic macro fiber reinforcing (minimum 4 pounds per cubic yard) in all concrete topping slabs.

PRECAST CONCRETE UNITS

The design of all precast concrete units shall conform to ACI 318.

Precast units shall contain the superimposed loads indicated on the plans in addition to all other dead loads.

Precast floor framing is to be designed to meet the fire rating requirement specified, see Architectural. Any framing assumed to be restrained for fire rating is to be indicated in shop drawings.

Submit complete shop drawings to Architect/Engineer for review, showing the erection plan, all bearing conditions, and anchorage details.

Design of precast units and anchorages shall be prepared by an engineer licensed in the state in which the project is located. Design loads used shall be indicated on the shop drawings.

Provide necessary headers at floor or wall openings.

Upon installation, plan shall be essentially past the effects of deformation due to creep and shall have camber not over 1/360 of the span. Camber shall be uniform from plank to plank with similar spans and loading.

Place openings not shown on plans between webs in precast plank units. Verify acceptability with precast supplier.

For precast bearing on masonry construction, design connection to limit bearing stress on masonry to 0.33 f_m.

For precast bearing on concrete construction, design connection to limit bearing stress on concrete in accordance with ACI 318.

Precast concrete walls shall be designed to foundation walls, to all floor and roof levels, and to each other at stairs and corners. The anchorages shall provide a positive direct connection capable of resisting the loading from the following conditions:

A. IBC minimum per IBC 1604.8.2/ASCE 7.1.4.4 or 12.11.

B. Required design reaction from lateral loading.

C. ACI 16.2.4.3(b) and 16.3.3.1 requirements of two connections per wall panel with a tensile capacity of 10,000 pounds per connection.

STRUCTURAL UNIT MASONRY WALLS

When one bay is required in a single core, place in center, unless noted otherwise.

See Masonry Vertical Reinforcing Lap Length Schedule on sheet SS.201 for required vertical reinforcing splice lengths.

Lap horizontal bond-beam reinforcing 48 bar diameters at splices.

Extend vertical reinforcing from footings to 2" clear top of wall or to beam bearing for reinforcing below beams.

Fill block core at vertical reinforcing 18" minimum length along wall with concrete or grout. Vibrate in place. Rodding and puddling are not allowed.

For high lift grouting, maximum grout pour height is 4'-8" for plan masonry units or for open core block. Provide clearest if pour height exceeds 5'-4". Maximum grout lift height within a grout pour is 5'-4". See Specification 042600 for grouting requirements if low-lift grouting or plan shapes are being used.

Provide horizontal joint reinforcing at 18".

STRUCTURAL STEEL

Structural steel fabrication and construction shall conform to the AISC "Manual of Steel Construction" and the AISC "Code of Standard Practice for Steel Buildings and Bridges".

Galvanize structural steel exposed to weather and brack support angles in exterior walls according to ASTM A123.

Do not field cut or alter structural members without approval of the Structural Engineer.

LATERAL LOAD RESISTING SYSTEM FOR STRUCTURAL STEEL BUILDINGS

The following elements comprise the primary lateral load resisting system:

Roof Diaphragm: Steel roof decking.

Floor Diaphragm: Grouted precast plank.

Collector element/struts: See plan.

Lateral load resisting system: Steel bracing and precast walls.

STRUCTURAL STEEL CONNECTIONS

Typically, provide welded or bolted shop connections and bolted field connections.

Typical bolts are 3/4" Ø A325-N bolts in standard or short slotted holes.

See SS.201 for standard roof beam splices.

Provide shear connections according to the standard Connection Tables on sheet SS.201 and as follows:

Use double angles for all girders and for all beams W24 and larger.

Double angle connection or single plate connection may be used for other beams.

For skewed girder connections, use a single plate connection with a capacity equal to or greater than the double angle connection for that beam size.

Beams that connect to a column or wall on either end and support the load from another beam are considered girders. Beams supporting precast plank floors are considered girders.

Beams requiring a non-typical connection will be noted on the drawings as D-A-X for double angle connections or S-P-X for single plate connections (where X denotes the number of bolt rows in the connection).

STEEL JOISTS AND BRIDGING

Design steel joists in accordance with AISC and SJI Standard Specifications.

Fabricate in accordance with AISC Specification.

See Class "K" and "B" Tension Lap Splice Tables on sheet SS.201 for required bridging splice lengths.

Weld "K" series joists to beams and bearing plates with two 1/2" fillet welds 2'-2" long. Weld "LH20-18" series joists to beams and bearing plates with two 3/16" fillet welds 2'-0" long. Weld "LH07-17" and "DLH10-17" series joists to beams and bearing plates with two 1/2" fillet welds 2'-2" long. Weld "LH04H18-25" series joists to beams and bearing plates with two 1/2" fillet welds 4" long. Weld "LHSP" and "DLHSP" series joists to beams and bearing plates. Joist supplier to specify welded connection where not detailed in the drawings.

Positively anchor all bridging to walls and beams parallel to joists.

Provide horizontal bridging in lintel joist space. See detail _____ for anchorage of bridging to precast.

Supplier shall design joist headers to support 100% of joist reaction for supported joist capacity at given span or reaction from special joist designed by supplier.

Supplier shall incorporate joist header reaction on adjacent joists as an add-load and coordinate panel joints or design for bend-check.

See detail 4/55.221 for reinforcing at concentrated loads (piping, mech rooftop equip curbs, etc.) at new joists.

Mechanical Room roof joist top and bottom chords to be designed for 1,000-lb bend-check load anywhere along span.

Joists designated as "XSP" have joist self-weight included in designation. Joists designated as "LHSP" and "DLHSP" do not have joist self-weight included in designation. Joist supplier to include joist self-weight in joist design.

STEEL ROOF DECK

See detail 1/55.221 for deck fastening.

Provide reinforcing at openings that cut vertical flute webs, including, but not limited to, roof drains, mechanical duct work, and piping. See detail 3/55.221 for reinforcing at 1/2" wide rib deck. For openings in all other deck types, see detail 2/55.221 for angle frames.

Weld deck to angle frames with 5/8" diameter puddle welds at 12"OC.

Allowable point loads applied to steel deck are controlled by the following:

Maximum of 250 pounds in any 5'-0"x5'-0" square area.

Maximum of 100 pounds on any individual hanger location.

The total mechanical load applied to a deck-supporting member shall not exceed 5 pounds per square foot uniform load (typical) or 25 pounds per square foot in mechanical rooms.

LOOSE ANGLE BRICK LINTELS

Bear lintel a minimum of 8" each side of opening. Locate vertical leg a maximum of 2" from back face of masonry veneer assembly.

Provide minimum lintels as follows based on opening width:

Up to 4'-0": 8 x 5/8 x 3/8 bent plate (LLV) for up to 16'-8" brick height.

4'-0" to 8'-0": 8 x 5/8 x 3/8 bent plate (LLV) for up to 8'-0" brick height.

Provide longer horizontal leg, if needed, to extend to between 1/2" and 1" clear outside face of brick.

See details or notify engineer for lintels outside of the above parameters.

Provide 1 x 1/2" (LLV) continuous closure angle on back side of brick angle at window (non-curtain wall) locations. Coordinate with architectural for glazing conditions. Prior to galvanizing, weld top and bottom of closure angle vertical leg to lintel with minimum 2" of weld every 12" of angle length.

COLD-FORMED STEEL FRAMING

Design and construct cold-formed steel framing according to AISI Specification for Design of Cold-Formed Steel Structural Members. Gravity and lateral loads shall be according to IBC Chapter 16. Provide calculations, prepared and certified by an engineer licensed to practice in the state in which the project is located, and detailed shop drawings for review.

The drawings are intended to express the minimum design performance. Alternate design of equivalent capacity will be considered if compatible with architectural requirements and if calculations and detailed shop drawings are submitted for review.

The designations for cold-formed steel follow the recommendations of the Steel Framing Alliance and are as follows:

xxx0yy-zzz (e.g. 600S162-33)

xxx = Member depth in 1/100 inches (e.g. 600 = 6")

D = Member type designator as follows:

S = Stud or joist section with flange stiffeners (Cee shapes)

T = Track section

U = Cold-rolled channel or channel studs without flange stiffeners

F = Furring channels

yyy = Flange width in 1/100 inches (e.g. 162 = 1 1/2")

zzz = minimum base metal thickness in mils (e.g. 33 = 0.033")

Provide members based on material thickness. The following table of approximate equivalent gages is provided for reference only.

MINIMUM THICKNESS (IN) APPROXIMATE STEEL GAGE

0.033 20

0.043 18

0.054 16

0.068 14

0.097 12

0.118 10

Material strengths are as follows:

For studs 0.054" and thicker: F_y = 50,000 psi.

For studs thinner than 0.054": F_y = 33,000 psi.

For tracks and furring channels: F_y = 33,000 psi.

Weld or screw multiple members together at 12" oc max. Provide 2 rows of #10 screws at webs for double stud members. Provide one #10 screw at each flange for track to stud connections.

Steel studs to be welded shall have a minimum thickness of 0.043".

Self-drilling or self-tapping screws shall be 1/2" type S-12. At least 3 threads on point side of screw must extend through the material.

Fit all studs snug to bottom of track.

Attach all steel sections at window heads and sills to jamb studs with a minimum of one screw or weld each side of each member.

Align runner track accurately and secure to the structure at 24" max. oc and at all jambs.

Provide a minimum of two full height studs at all window jambs.

Space studs at 16" oc maximum.

Laterally brace studs at 4'-0" maximum on center.

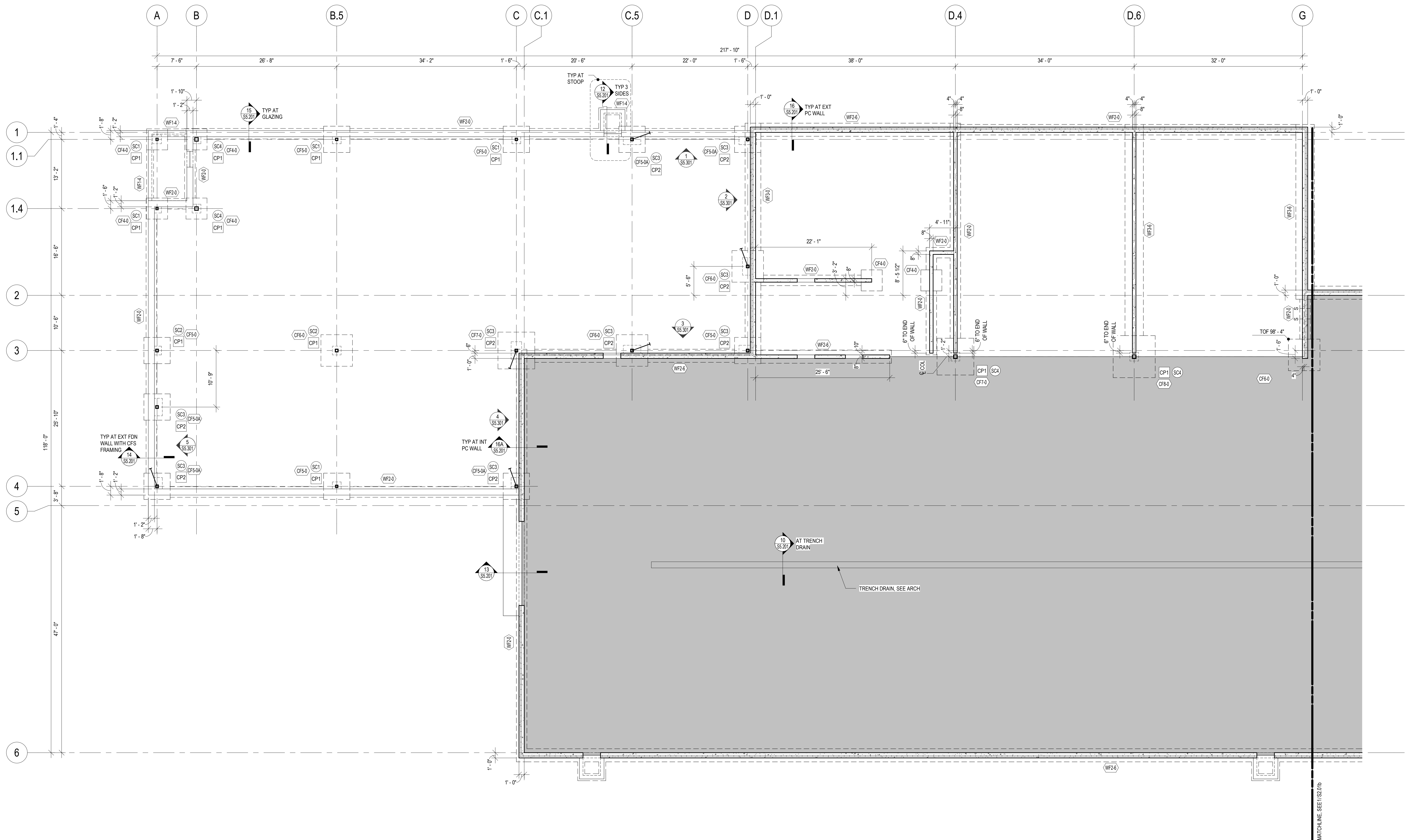
Do not splice members unless splices are

KEYNOTES

1 FOOTING AND FOUNDATION PLAN - AREA A
C2.01- UNLESS NOTED OTHERWISE

- UNLESS NOTED OTHERWISE:
1. SPEC SHEET 30.000 FOR GENERAL STRUCTURAL NOTES, ABBREVIATIONS AND SYMBOLS.
 2. SPEC SHEET 30.010 FOR GENERAL FOUNDATION DETAILS.
 3. SPEC SHEET 30.020 FOR GENERAL FOOTING AND FOUNDATION DETAILS.
 4. SPEC SHEET 30.030 FOR SCHEDULES.
 5. TOP OF SLAB ELEVATION.
 6. PROVIDE 4" SLAB ON GROUND (W/MICRO FIBER REINFORCING (MINIMUM 15 POUNDS PER CUBIC YARD)) TO SECTION 9.053(2) FOR THICKENED SLABS BELOW NON-BEARING MASONRY WALLS.
 7. INDICATES THE RANGE OF 8" SLAB ON GROUND.
 8. TOP OF EXTERIOR FOOTING ELEVATION (TOP AT WALLS AND COLUMNS = 5'-4"; TOP OF INTERIOR FOOTING ELEVATION AT WALLS AND COLUMNS = 5'-9").
 9. PROVIDE SLEEVES FOR ALL PIPES THAT INTERSECT BUILDING FOUNDATIONS. STEP OR THICKEN FOOTINGS AS SHOWN IN SECTION 135.201 AND DETAIL 253.201. SEE 335.201 FOR PIPES RUNNING ABOVE TO FOOTINGS. COORDINATE LOCATIONS AND ELEVATIONS WITH CIVIL AND MECHANICAL.
 10. TOP OF FIBER AND MECHANICAL REINFORCING = 9'-4".
 11. PROVIDE THE FOLLOWING CONCRETE FIRST WALL REINFORCING:
 - 6" WALLS: #4@18"00 VERTICAL EACH FACE; #4@16"00 HORIZONTAL CENTERED IN WALL
 - 8" WALLS: #4@18"00 VERTICAL EACH FACE; #4@16"00 HORIZONTAL CENTERED IN WALL
 - 10" WALLS: #4@18"00 VERTICAL EACH FACE; #4@16"00 HORIZONTAL CENTERED IN WALL
 - 12" WALLS: #4@18"00 VERTICAL EACH FACE; #4@16"00 HORIZONTAL EACH FACE
 - 14" WALLS: #4@18"00 VERTICAL EACH FACE; #4@16"00 HORIZONTAL EACH FACE
 - 16" WALLS: #4@18"00 VERTICAL EACH FACE; #5@18"00 HORIZONTAL EACH FACE
 12. LAP REINFORCING AS FOLLOWS:
 - #3: 1'-2"
 - #5: 2'-1"
 13. PROVIDE DIMENSIONS FROM FOOTING INTO CONCRETE WALLS TO MATCH VERTICAL WALL REINFORCING SIZE AND SPACING. PROJECT WALL TO MATCH VERTICAL REINFORCING LAP SPACE. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL INFORMATION.
 14. FOOTINGS FOR WALLS NOT NOTED SHALL BE 12" THICK WITH A MINIMUM PROJECTION OF 4" EACH SIDE. REINFORCE WITH 2x45 CONTINUOUS. ADD 1x45 CONTINUOUS FOR EACH 4" WALL OVER 24".
 15. PLACE ALL STEP SLABS WITH CLEAN GRANULAR FILL MATERIAL THAT EXTENDS DOWN TO BOTTOM OF FOOTING.
 16. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATINGS OF STRUCTURAL MASONRY WALLS AND FOR LOCATIONS AND FIRE RATINGS OF NON-BEARING MASONRY WALLS.
 17. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RAMPS, SLAB SLOPES, STEPPED WALLS AND PARTITIONS.
 18. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.

S2.01a



Architect: Davis (2001) - MM C1 College Grove - New Utility Building/2250_2252_civil.m
Central: Autodesk Docs (2006) - MM C1 College Grove - New Utility Building/2200-0 - MM C1 College Grove - New
Utility Building.m

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S2.01a

KEYNOTES	
1	FOOTING FOR SWING CRANE. LOCATE PER ARCHITECTURAL DRAWINGS.

1	FOOTING AND FOUNDATION PLAN - AREA B
S2.01b/	UNLESS NOTED OTHERWISE: 1. SEE 1/S2.01a FOR TYPICAL PLAN NOTES.

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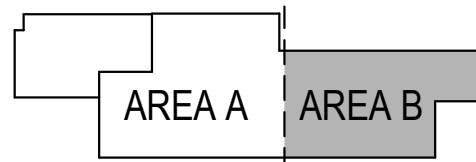


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KEYPLAN



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James E. Dorr		
License Number:	Date	Issue Date
52566		
Revisions		
Description	Date	Num

Comm: 232010
Date: 08/04/2023
Drawn: KLC
Check: KTK
North

FOOTING AND FOUNDATION PLAN - AREA B

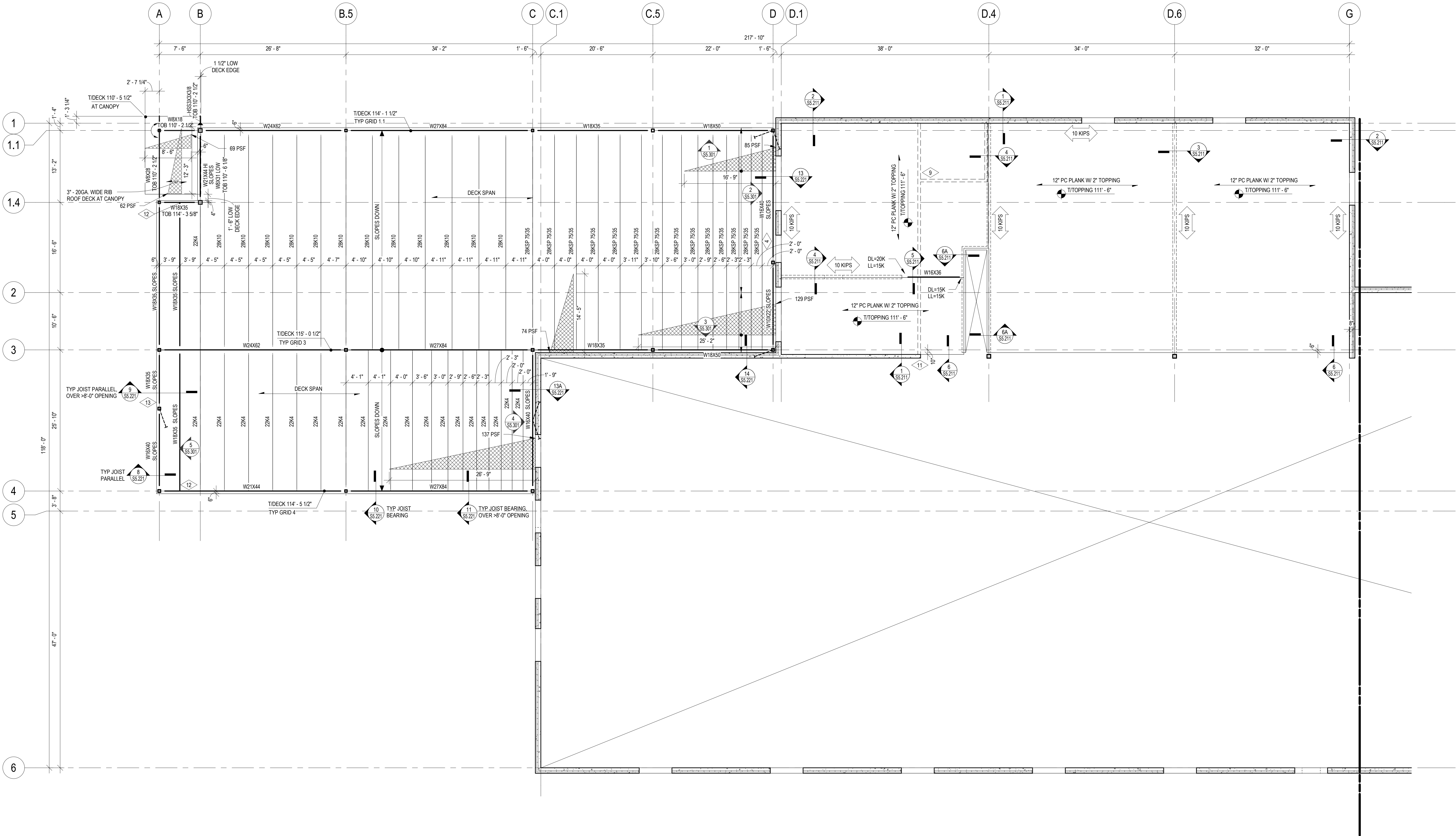
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S2.01b

Architect: James E. Dorr, P.E., License No. 52566, State of Minnesota
Engineer: James E. Dorr, P.E., License No. 52566, State of Minnesota
10/20/2023 10:52:39 AM

KEYNOTES	
4	HALF-CAMBER THIS JOIST.
9	LIVE LOAD FROM CMU WALL. DL=500 PLF SERVICE (SEE ARCH FOR LOCATIONS/EXTENTS). DESIGN PLANK FOR L/800 DEFLECTION LIMIT DUE TO SUPERIMPOSED DL+LL LESS TOPPING WEIGHT. INSTALL CMU WALL AFTER TOPPING INSTALLED.
11	PRECAST SUPPLIER TO PROVIDE 8" WIDE EMBED IN END OF WALL TO SUPPORT NON-STRUCTURAL CMU LINTEL (SEE ARCH) OVER DOOR. COORDINATE ELEVATION WITH DOOR SCHEDULE. DESIGN EMBED FOR DL + 2 KIP (DOWN) APPLIED 2" FROM FACE OF EMBED. STEEL SUPPLIER TO PROVIDE L4X3X3/8X7-8" LLH SEAT ANGLE WELDED (1/4"x4" TOP AND BOTTOM WELD) TO EMBED FOR LINTEL SUPPORT.
12	PROVIDE SINGLE PLATE CONNECTION TO GIRDER. COPE BEAM TO 2 1/2" DEEP AND EXTEND TOP FLANGE/WEB TO WITHIN 1" OF DECK EDGE ANGLE.
13	PROVIDE STD HOLES THIS END OF BEAM.

- 2
S2.02a
- MEZZANINE AND LOW ROOF FRAMING PLAN
- UNLESS NOTED OTHERWISE:
- SEE SHEET S0.000 FOR GENERAL STRUCTURAL NOTES, ABBREVIATIONS, AND SYMBOLS.
 - SEE SHEET S0.201 FOR SCHEDULES.
 - 12" PRECAST CONCRETE PLANK, W/ 2" STRUCTURAL TOPPING, REINFORCE WITH SYNTHETIC MACRO FIBER REINFORCING (MINIMUM 4.0 POUNDS PER CUBIC YARD). SEE ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE RATING OF PRECAST PLANK.
 - TOP OF PRECAST CONCRETE PLANK AND TOPPING ELEVATION = +111'-6".
 - PRECAST PLANK SUPERIMPOSED DEAD LOAD (DOES NOT INCLUDE TOPPING AND PARTITION WALLS) = 5 PSF.
 - SEE GENERAL STRUCTURAL NOTES FOR LIVE LOADS.
 - SEE SHEET S5.211 FOR TYPICAL PRECAST CONCRETE PLANK BEARING DETAILS.
 - 1 1/2" - 20GA. WIDE RIB ROOF DECK.
 - TOP OF DECK ELEVATION VARIES. SEE PLAN.
 - SEE 1/5S.221 FOR TYPICAL DECK ATTACHMENT TO JOISTS.
 - PROVIDE 2.5x16" WEB STIFFENER PLATES AT STEEL BEAMS RUNNING OVER COLUMNS OR WALLS. CENTER ON SUPPORT.
 - AT ALL COLUMNS THAT SUPPORT JOISTS, SEE SECTIONS 6 & 7/5S.221. AT ALL COLUMNS NOT SUPPORTING JOISTS, PROVIDE 1/4" CAP PLATE AND EXTEND COLUMN TO DECK BEARING ELEVATION. WELD DECK W/ 4-5/8"x9" PUDDLE WELDS. 6" GAGE EACH WAY.
 - SEE GENERAL STRUCTURAL NOTES FOR TYPICAL ROOF FRAMING AT OPENINGS WIDER THAN 6". COORDINATE WITH ARCHITECTURAL/MECHANICAL DRAWINGS FOR OPENING LOCATION AND SIZE.
 - JOIST SUPPLIER TO DESIGN JOISTS FOR:
TOTAL LOAD/LIVE LOAD (PSF) NOTED IN JOIST DESIGNATION. INCLUDE LOAD COMBINATION LESS SUPERIMPOSED DEAD LOAD ALLOWANCE FOR SOLAR PANELS NOTED ON S0.000.
MECHANICAL POINT LOADS AND SNOW DRIFT LOADS SHOWN ON PLAN.
LOADS SHOWN ON DETAILS.
 - JOIST SEAT DEPTHS:
K-SERIES: 2 1/2"
LVL/H-SERIES (CHORD SECTION NUMBER 2-17): 5"
DLH-SERIES (CHORD SECTION NUMBER 18-25): 7 1/2"
 - SEE GENERAL STRUCTURAL NOTES FOR CONCENTRATED LOADS (PIPING, MECHANICAL ROOF TOP EQUIPMENT, CURBS, ETC) ON JOISTS.
 - DIAPHRAGM SHEAR LOADS SHOWN ON PLAN ARE DUE TO WIND (STRENGTH).
 - SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RAMPS, SLAB SLOPES, STEPPED SLABS AND PARTITION WALLS.
 - REFER TO ARCHITECTURAL DRAWINGS AND/OR COORDINATE WITH ARCHITECT REGARDING ANY DIMENSIONS.



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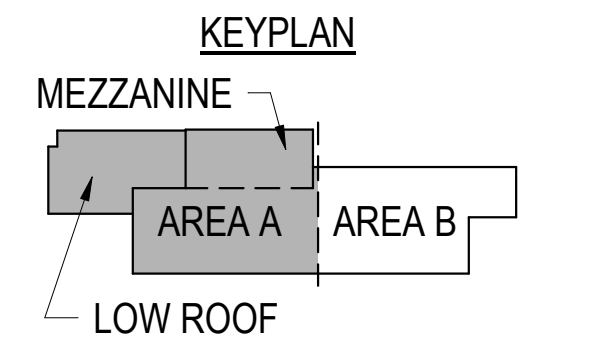


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MEZZANINE AND LOW ROOF FRAMING PLAN - AREA A

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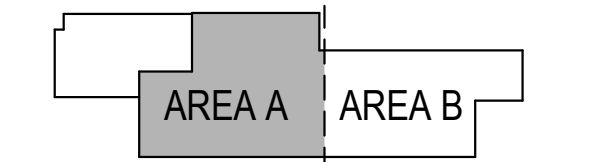
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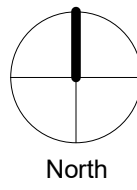
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ROOF FRAMING PLAN - AREA A

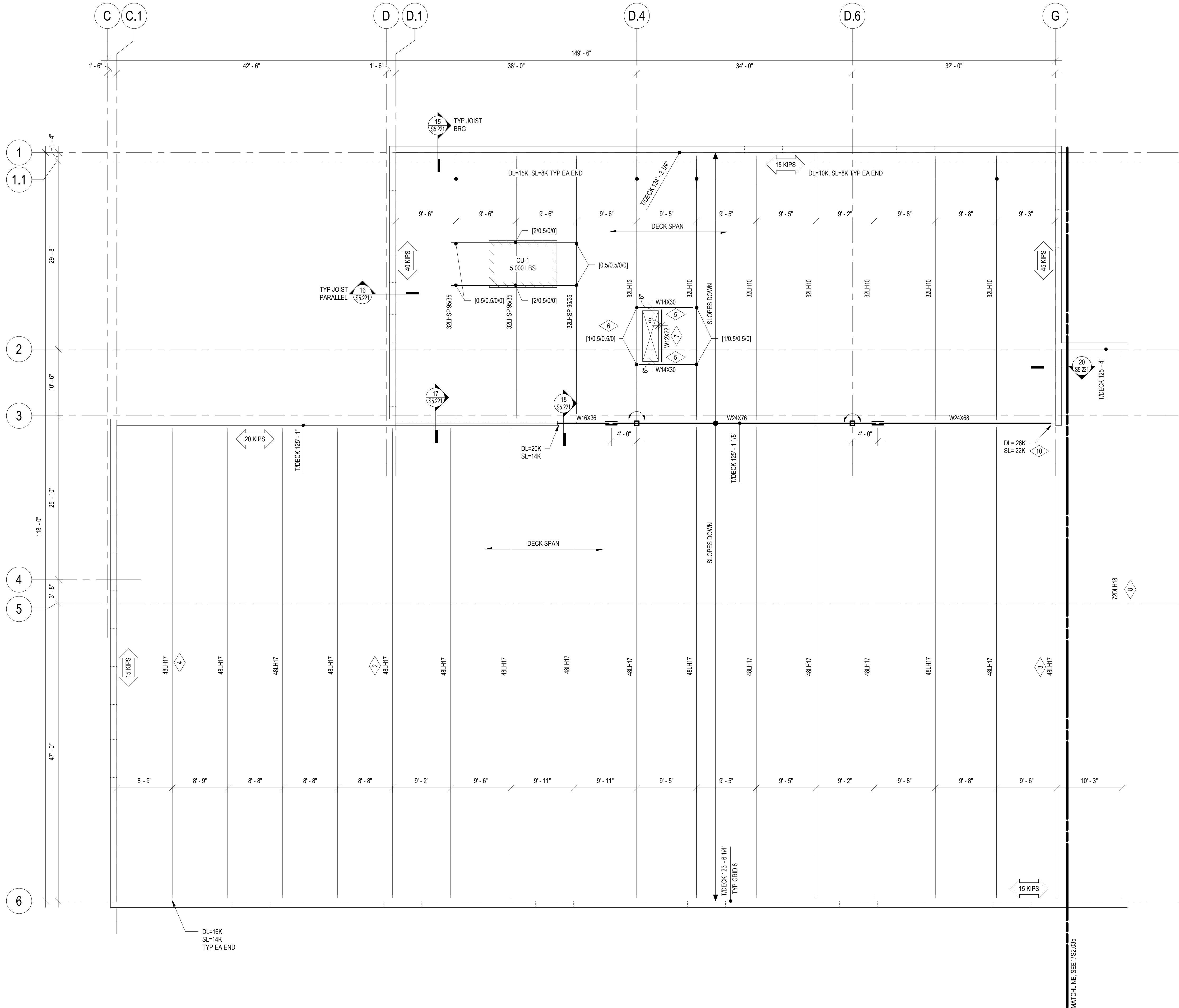
S2.03a

KEYNOTES

- DESIGN JOIST TOP CHORD FOR ADDITIONAL 20 KIP AXIAL LOAD (ULTIMATE, WIND).
- DESIGN JOIST TOP CHORD FOR ADDITIONAL 40 KIP AXIAL LOAD (ULTIMATE, WIND).
- HALF-CAMBER THIS JOIST.
- SEE FOR JOIST HEADER CONNECTION. COORDINATE LOCATION WITH STEEL SUPPLIER AND ARCHITECT. SET TOB CENTERLINE 3" BELOW DECK BEARING ELEVATION. ORIENT BEAMS PLUMB (DO NOT CANT BEAMS).
- DECK SUPPLIER TO PROVIDE CONTINUOUS DECK SPAN IN THIS BAY TO CONTINUE OVER JOIST ON GRID D.4 TO FRAME EDGE OF SHIPS LADDER OPENING.
- SEE FOR BEAM CONNECTION TO JOIST HEADER.
- THREE-QUARTER-CAMBER THIS JOIST.
- 8" DEEP JOIST SEAT THIS END. JOIST SUPPLIER TO DESIGN SEAT TO TRANSFER AXIAL LOAD INTO COLUMN CAP.

1 ROOF FRAMING PLAN - AREA A

- UNLESS NOTED OTHERWISE:
 - SEE SHEET S0.000 FOR GENERAL STRUCTURAL NOTES, ABBREVIATIONS, AND SYMBOLS.
 - SEE SHEET S6.201 FOR SCHEDULES.
 - 3" x 20GA, WIDE RIB ROOF DECK.
 - TOP OF DECK ELEVATION VARIES. SEE PLAN.
 - SEE 1/SS.221 FOR TYPICAL DECK ATTACHMENT TO JOISTS.
 - PROVIDE 2x3/16" WEB STIFFENER PLATES AT STEEL BEAMS RUNNING OVER COLUMNS OR WALLS. CENTER ON SUPPORT.
 - AT ALL COLUMNS THAT SUPPORT JOISTS, SEE SECTIONS 6 & 7/SS.221. AT ALL COLUMNS NOT SUPPORTING JOISTS, PROVIDE 1/4" CAP PLATE AND EXTEND COLUMN TO DECK BEARING ELEVATION. WELD DECK W/ 4-5/8"x10 PURLIN WELDS. 6" GAGE EACH WAY.
 - DIAPHRAGM SHEAR LOADS SHOWN ON PLAN ARE DUE TO WIND (STRENGTH).
 - SEE GENERAL STRUCTURAL NOTES FOR TYPICAL ROOF FRAMING AT OPENINGS WIDER THAN 6". COORDINATE WITH ARCHITECTURAL/MECHANICAL DRAWINGS FOR OPENING LOCATION AND SIZE.
 - JOIST SUPPLIER TO DESIGN JOISTS FOR:
 - TOTAL LONGITUDINAL LOAD (PSF) NOTED IN JOIST DESIGNATION. INCLUDE LOAD COMBINATION LESS SUPERIMPOSED DEAD LOAD ALLOWANCE FOR SOLAR PANELS NOTED ON S0.000.
 - MECHANICAL POINT LOADS AND SNOW DRIFT LOADS SHOWN ON PLAN. LOADS SHOWN ON DETAILS.
 - JOIST SEAT DEPTHS:
 - K-SERIES: 2 1/2"
 - LHDLH-SERIES (CHORD SECTION NUMBER 2-17): 5"
 - DLH-SERIES (CHORD SECTION NUMBER 18-25): 7 1/2"
 - SEE GENERAL STRUCTURAL NOTES FOR CONCENTRATED LOADS (PIPPING, MECHANICAL ROOF TOP EQUIPMENT, CURBS, ETC) ON JOISTS.
 - SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RAMPS, SLAB SLOPES, STEPPED SLABS AND PARTITION WALLS.
 - REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.



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KEYNOTES	
2	DESIGN JOIST TOP CHORD FOR ADDITIONAL 20 KIP AXIAL LOAD (ULTIMATE, WIND).
3	DESIGN JOIST TOP CHORD FOR ADDITIONAL 40 KIP AXIAL LOAD (ULTIMATE, WIND).
4	HALF-CAMBER THIS JOIST.
8	THREE-QUARTER-CAMBER THIS JOIST.
10	8" DEEP JOIST SEAT THIS END. JOIST SUPPLIER TO DESIGN SEAT TO TRANSFER AXIAL LOAD INTO COLUMN CAP.

- 1
- ROOF FRAMING PLAN - AREA B
- S2.03b
- UNLESS NOTED OTHERWISE:
1. SEE 1/52.03a FOR TYPICAL PLAN NOTES.

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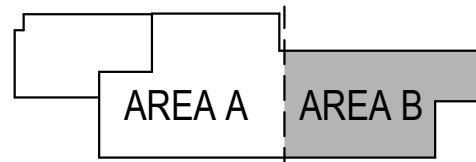
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ROOF FRAMING
PLAN - AREA B

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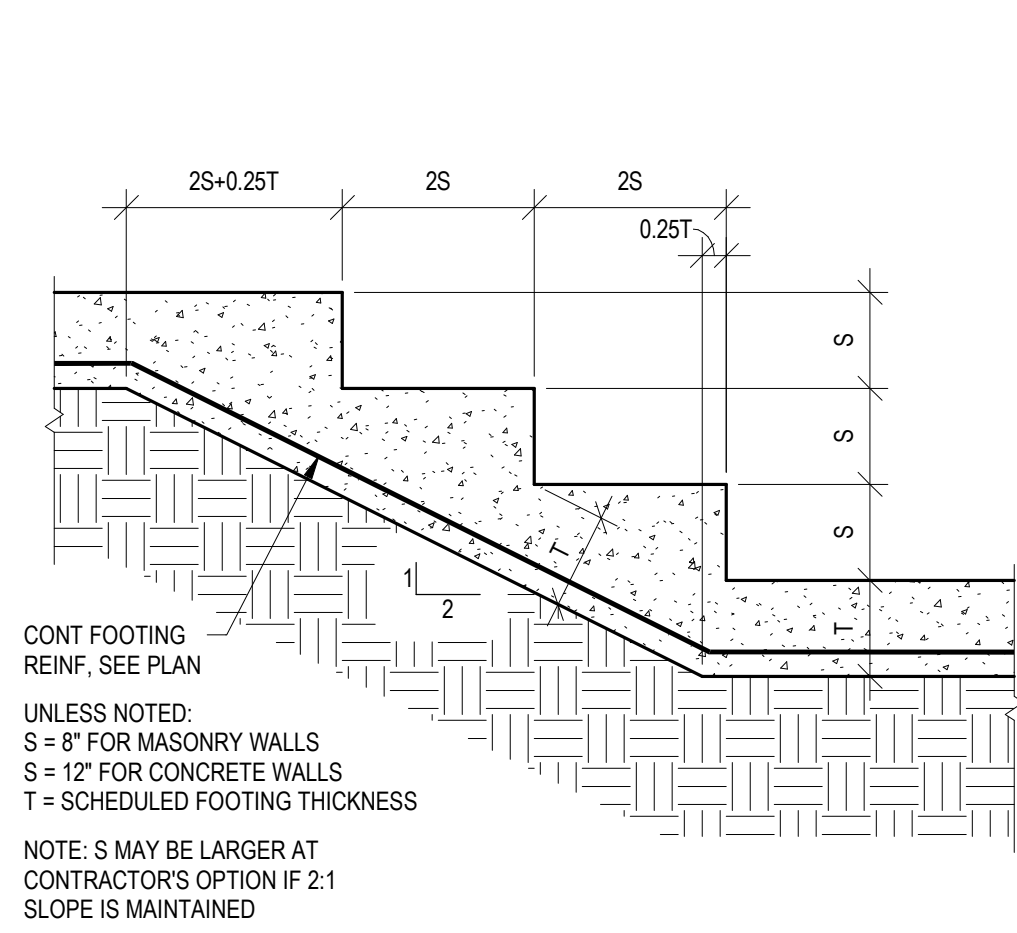
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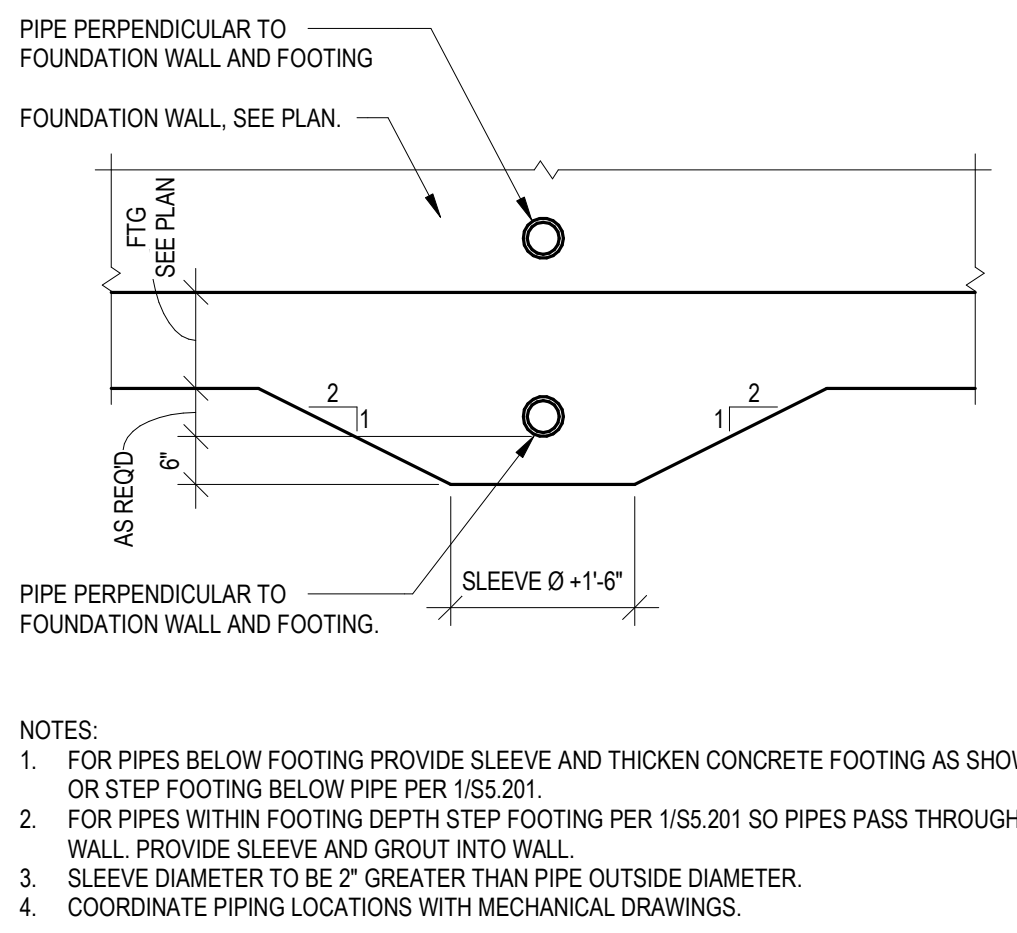
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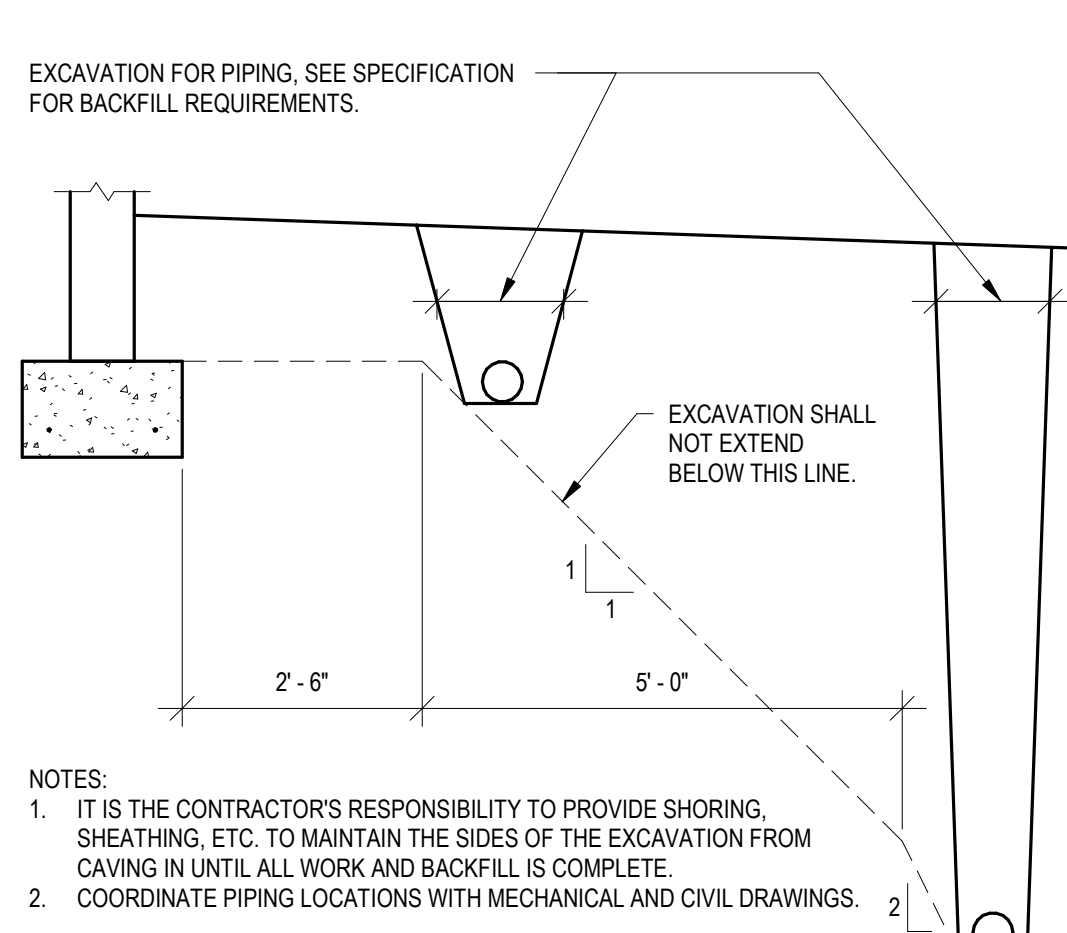
SECTIONS AND DETAILS



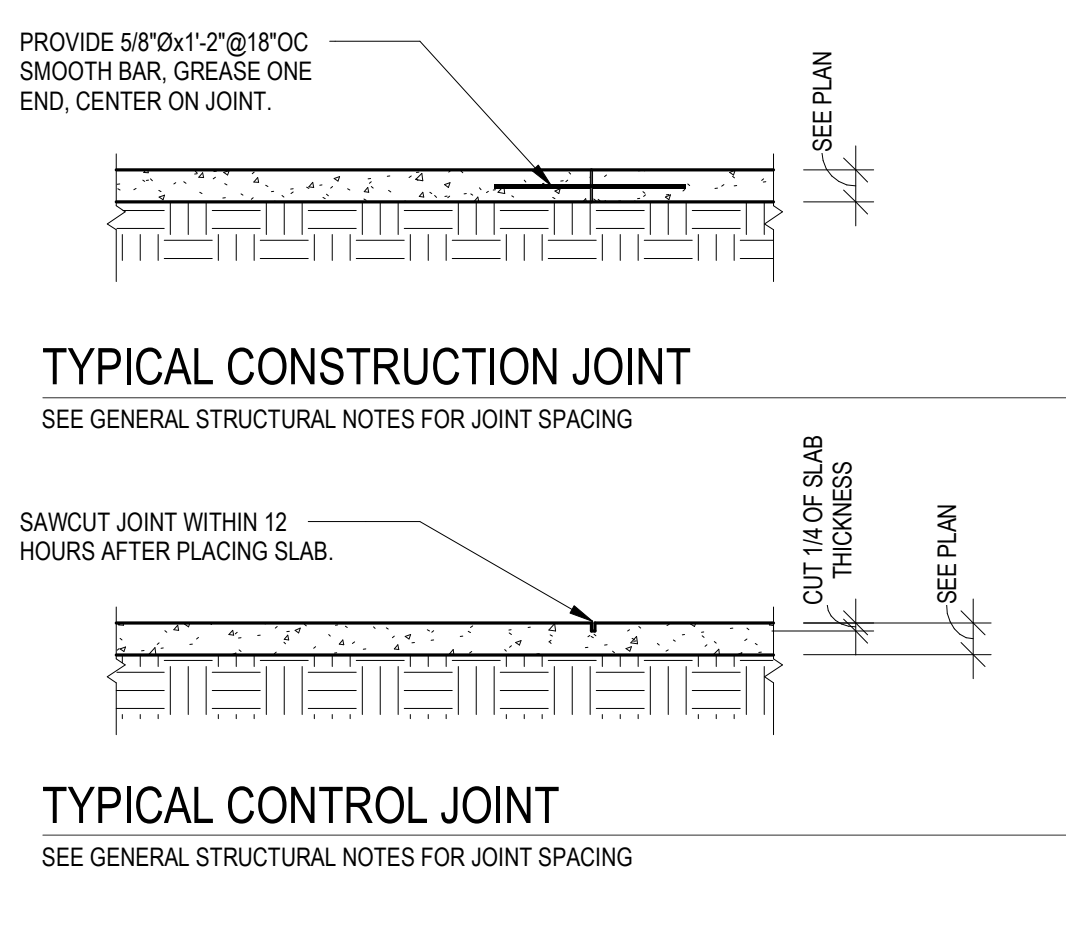
1 TYPICAL FOOTING STEP SECTION
S5.201



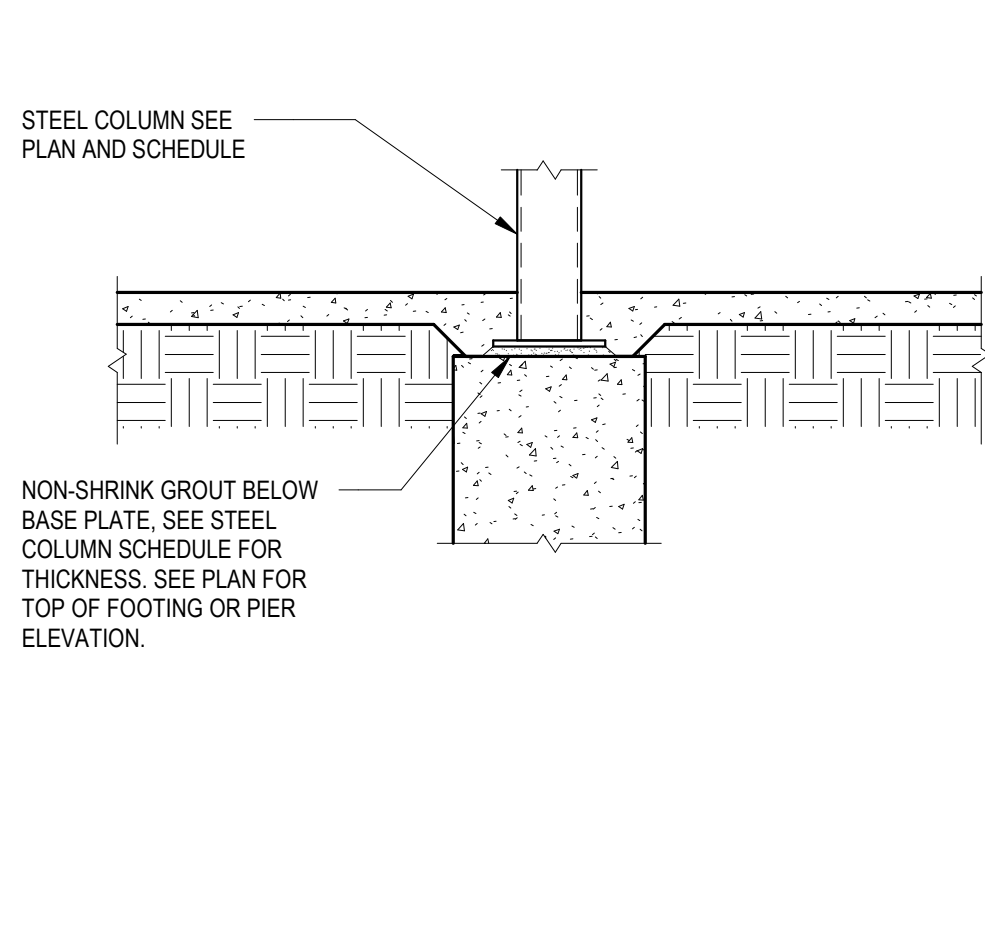
2 DETAIL
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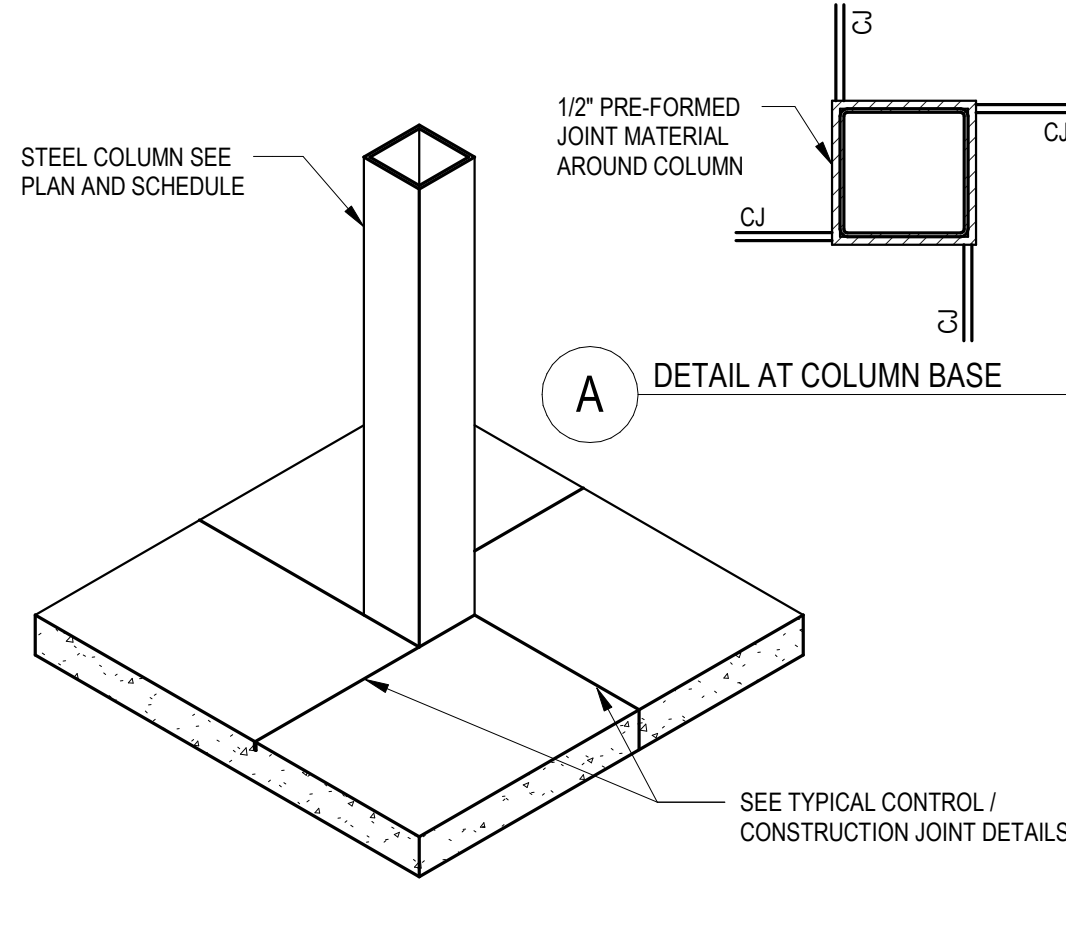
3 PIPING EXCAVATION ADJACENT TO FOOTINGS
S5.201



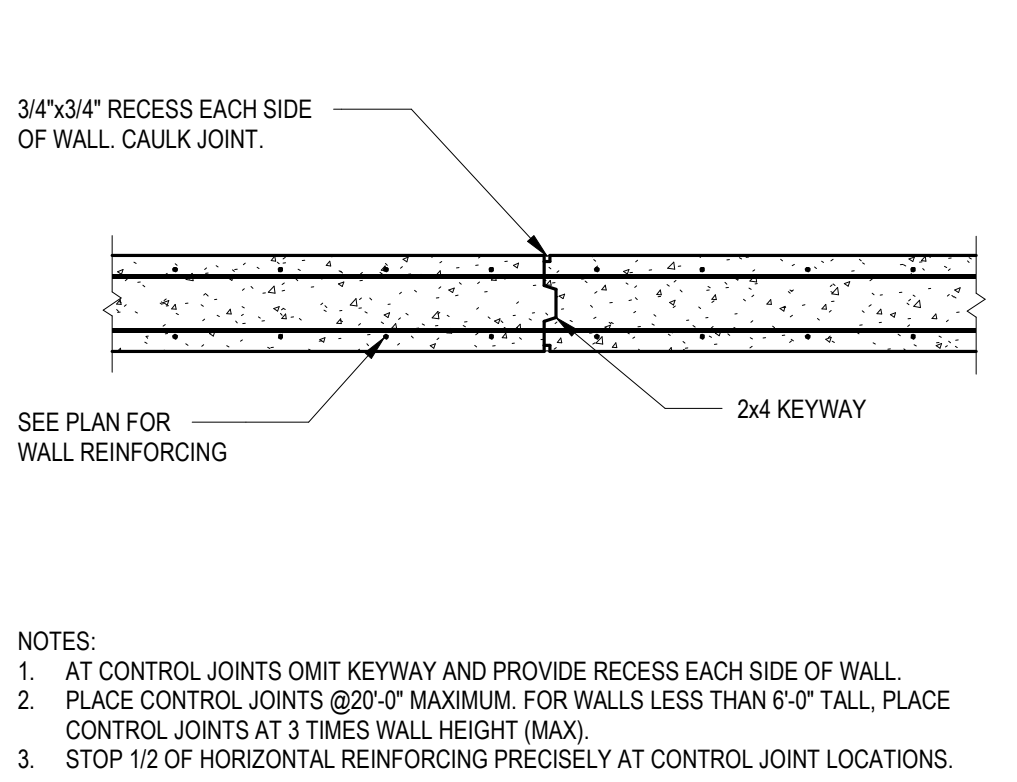
4 TYPICAL CONTROL/CONSTRUCTION JOINT
S5.201



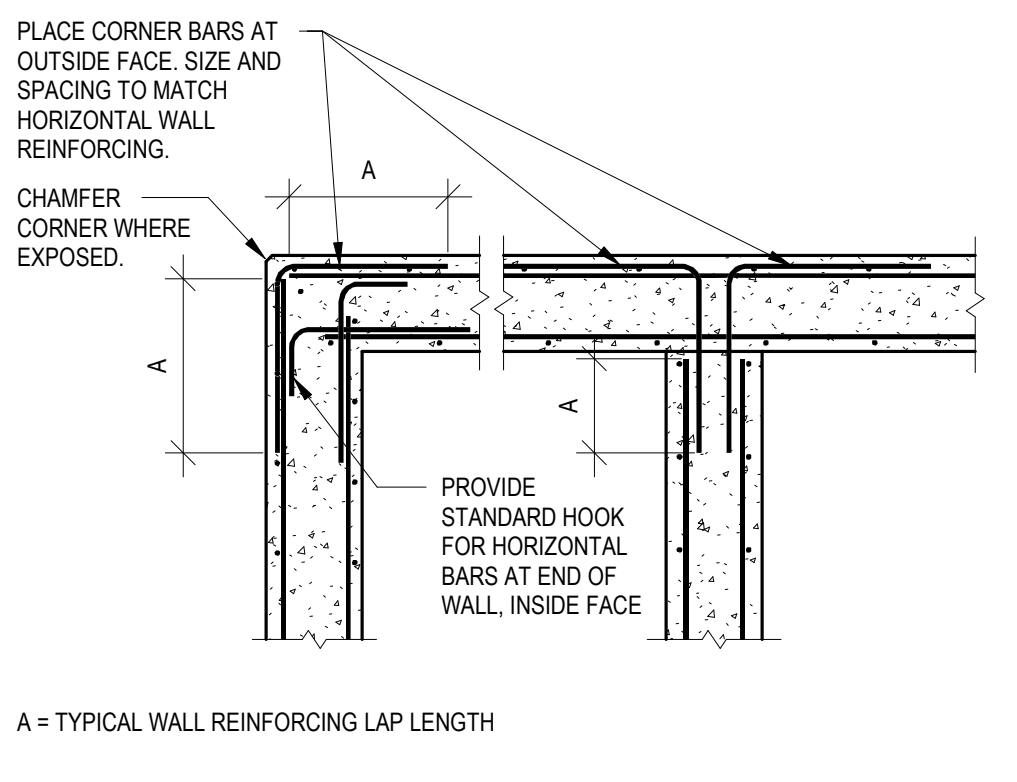
5 TYPICAL INTERIOR COLUMN AT SLAB ON GRADE DETAIL
S5.201



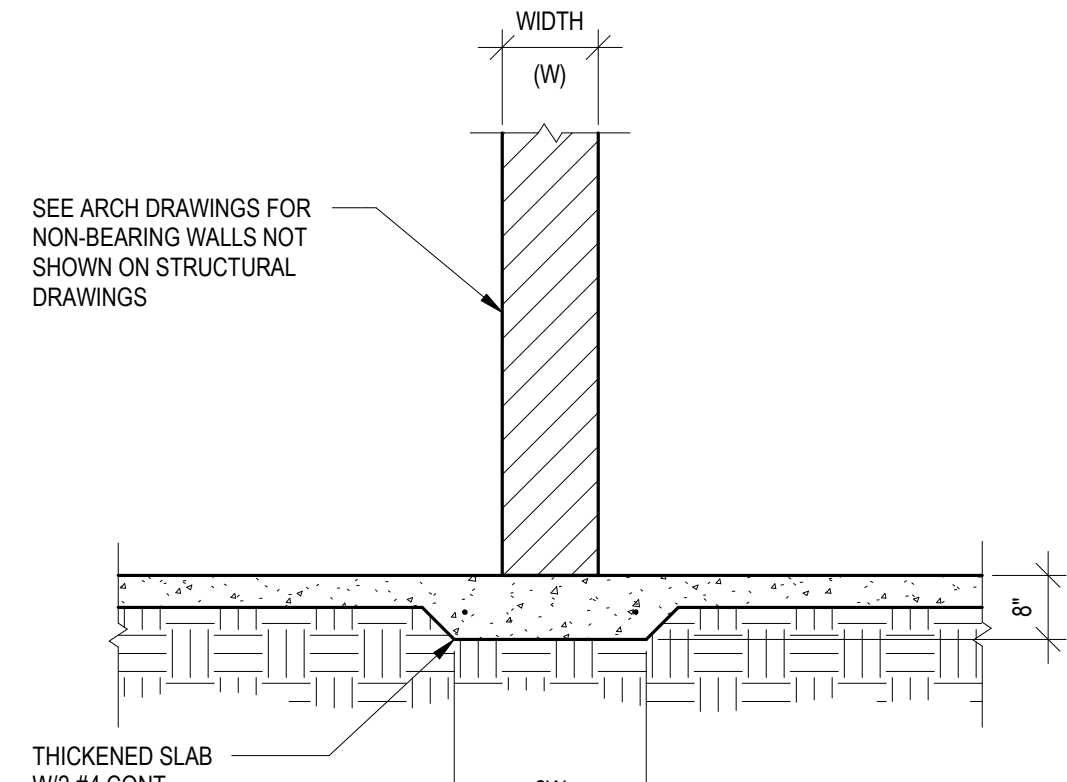
6 TYPICAL SLAB AT STEEL TUBE COLUMN DETAIL
S5.201



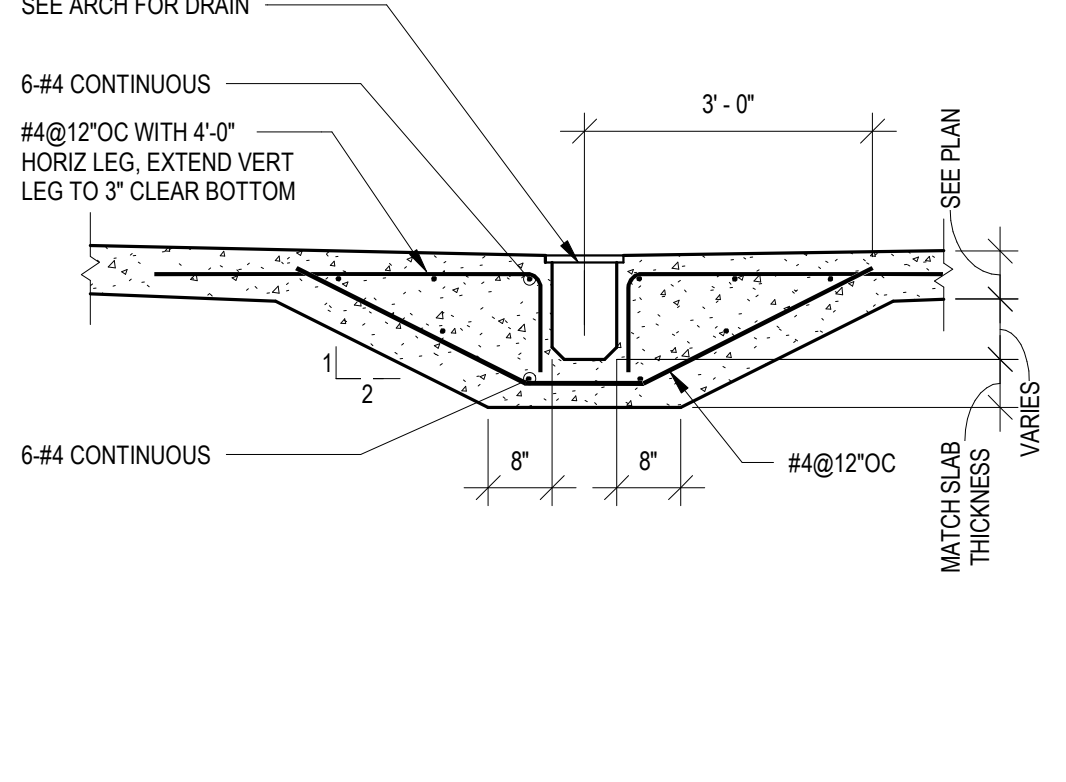
7 TYPICAL VERTICAL CONTROL/CONSTRUCTION JOINT IN CONC WALL
S5.201



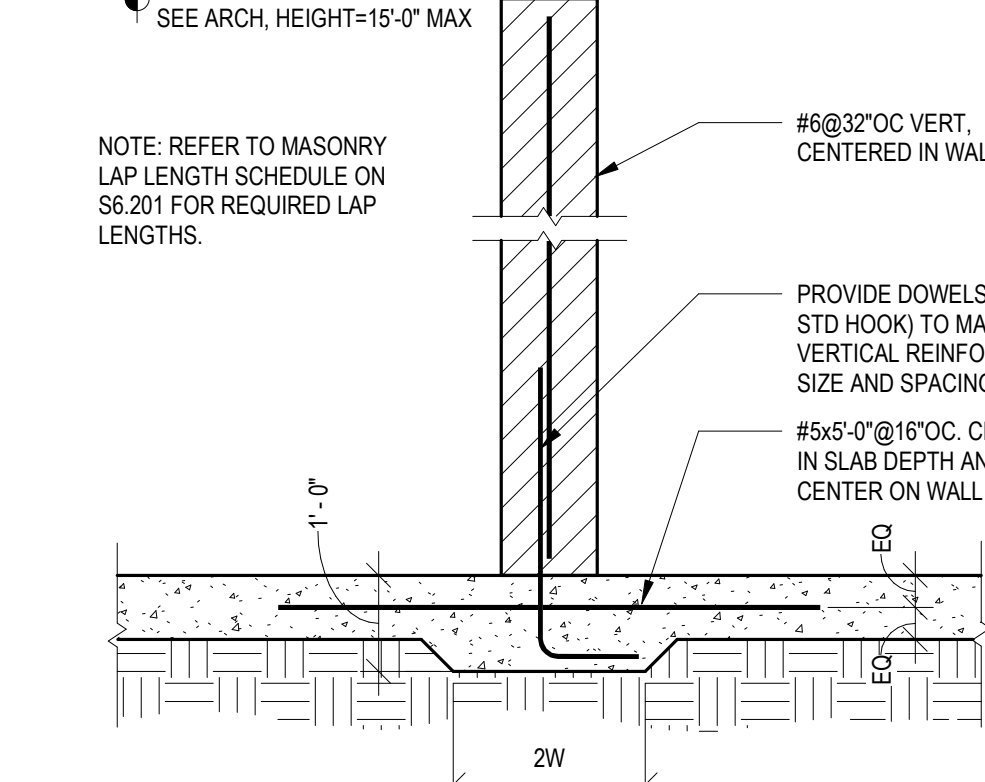
8 TYPICAL CONCRETE WALL INTERSECTION REINFORCING - PLAN
S5.201



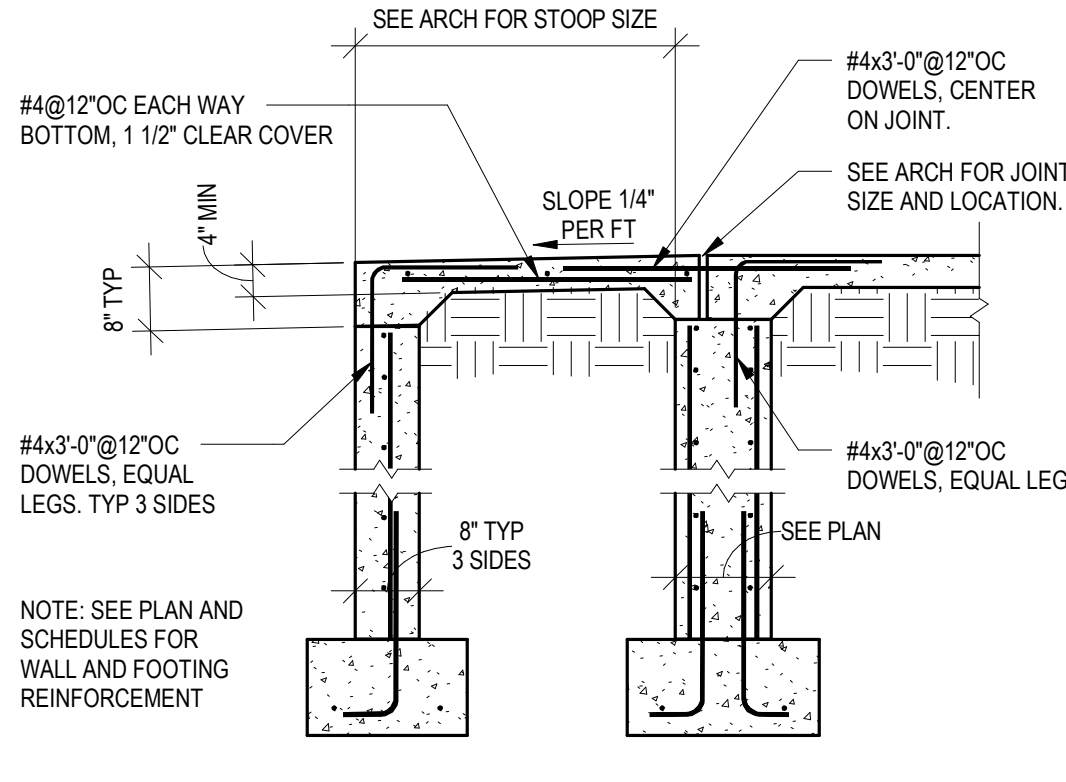
9 TYPICAL NON-STRUCTURAL CMU WALL SUPPORT AT 4" SOG
S5.201



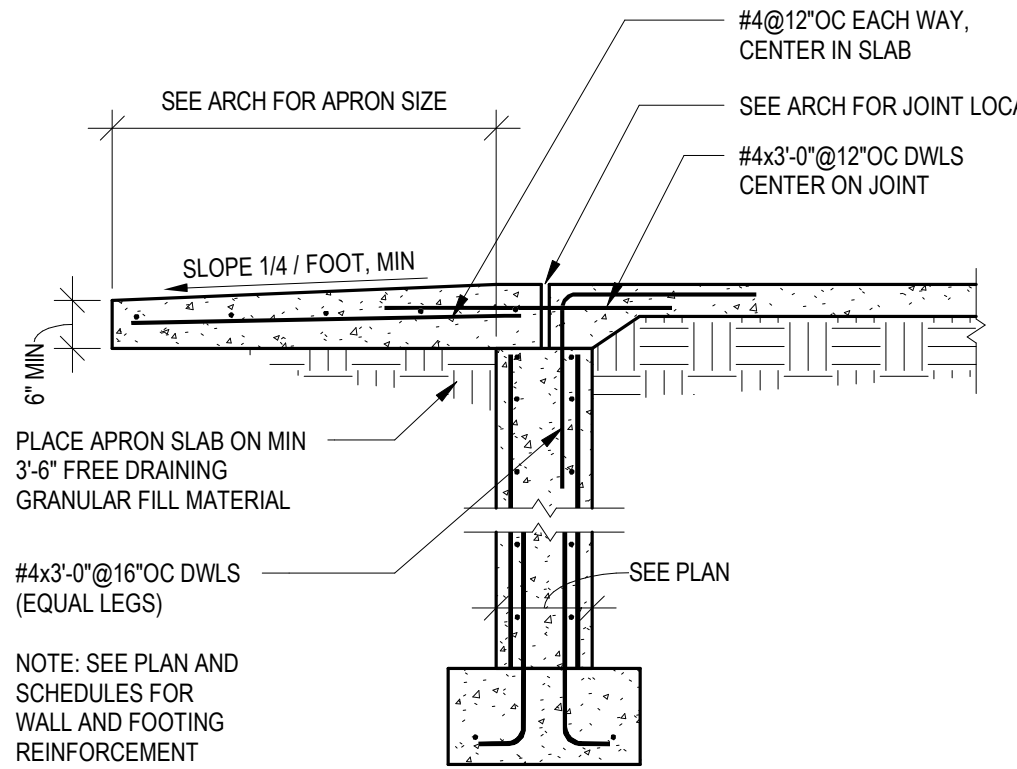
10 SECTION
S5.201



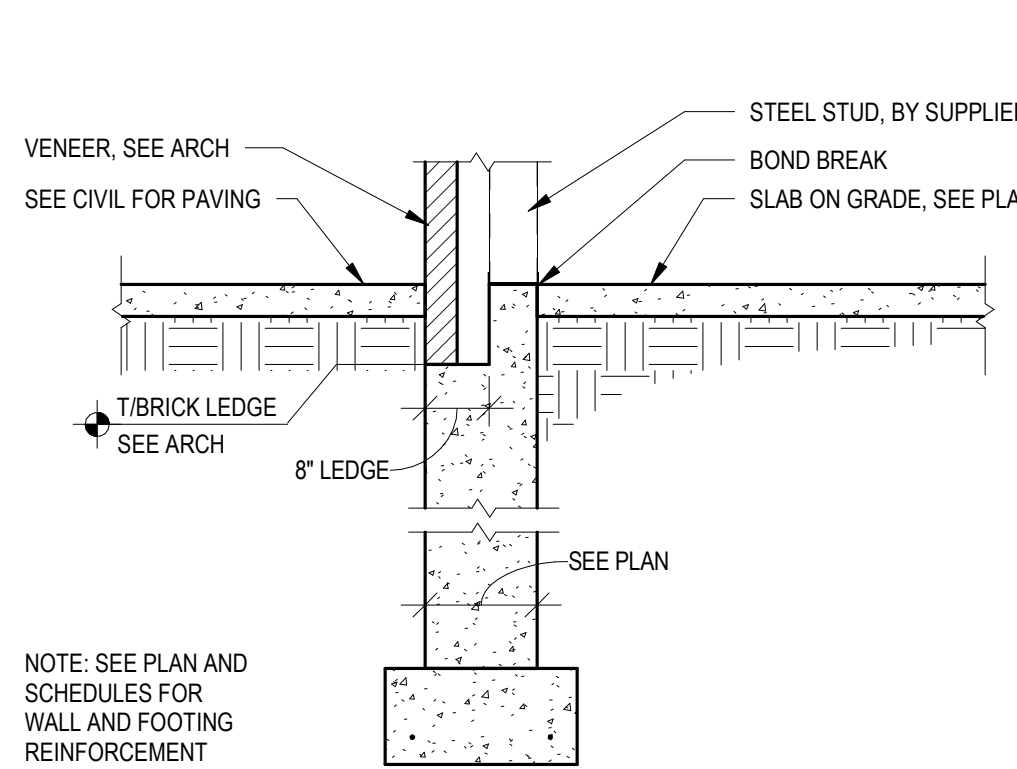
11 SECTION
S5.201



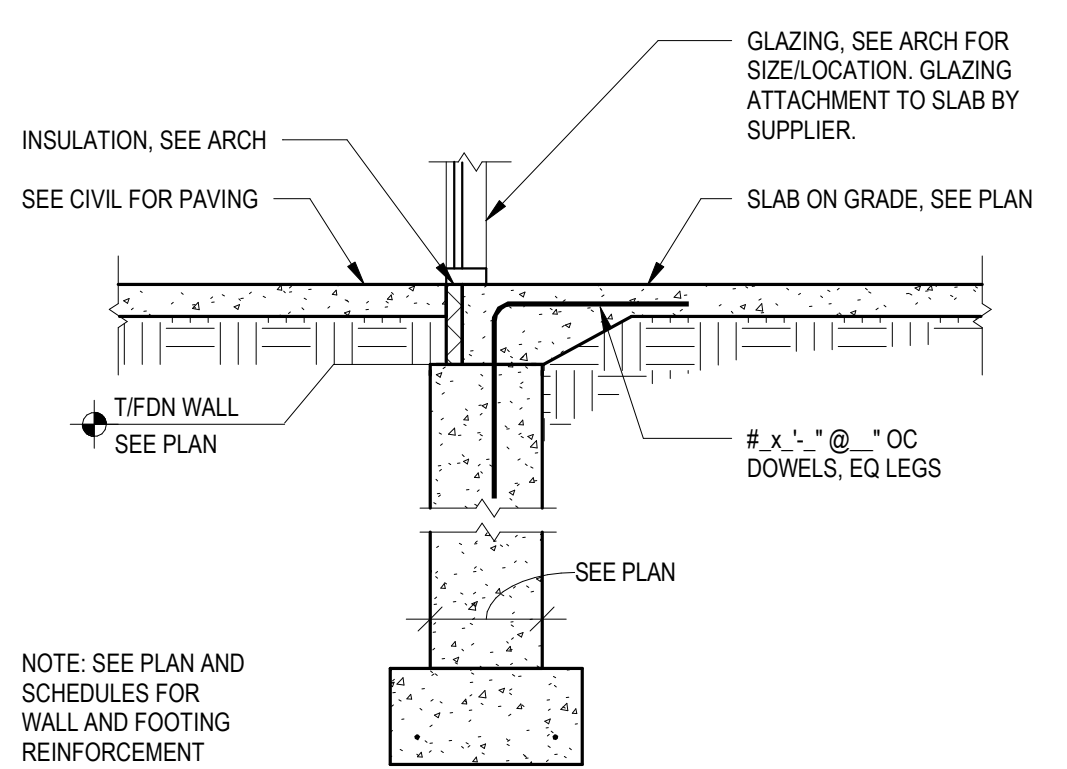
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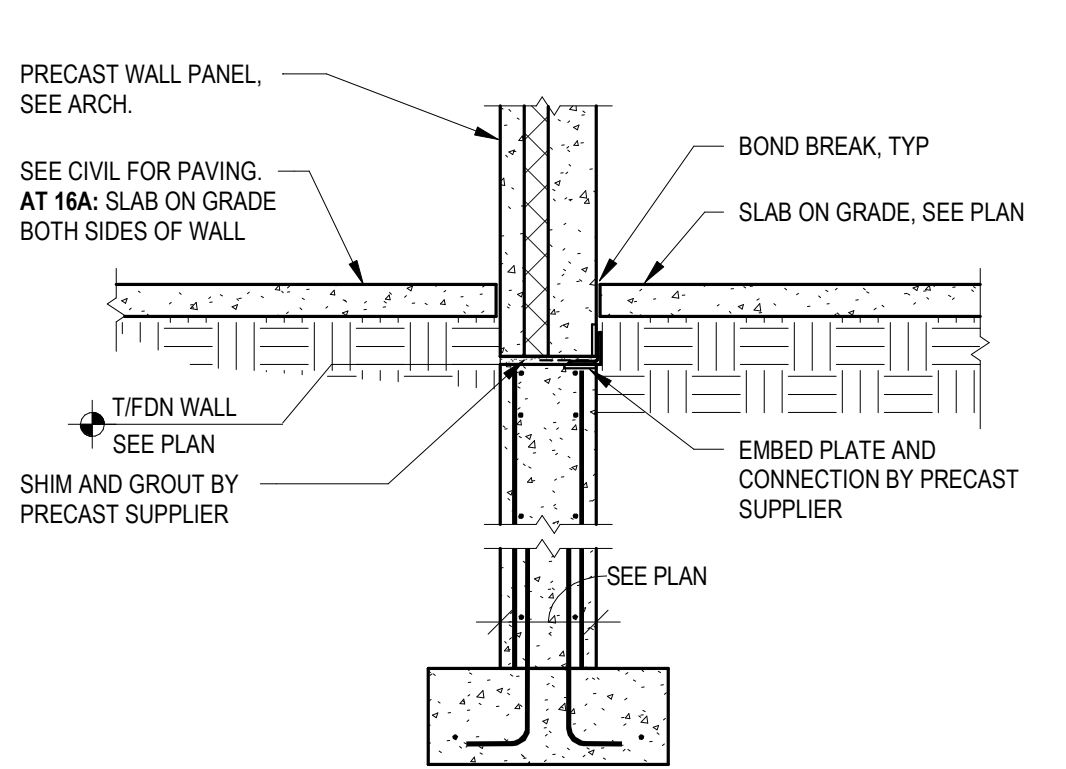
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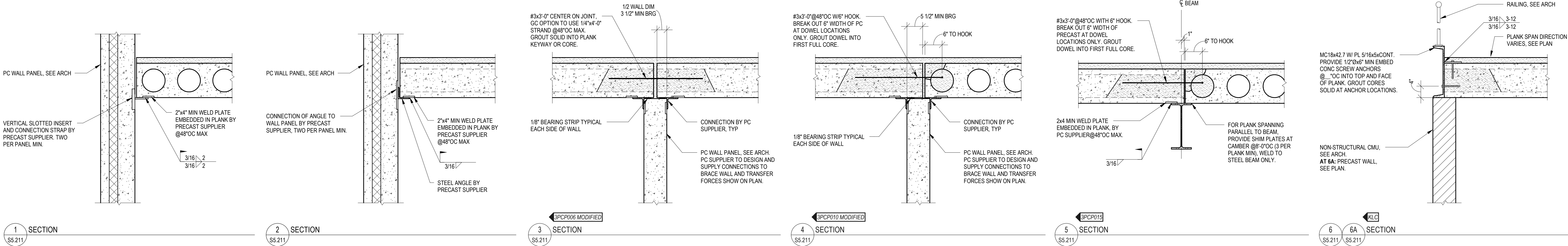
14 SECTION
S5.201



15 SECTION
S5.201



16 16A SECTION
S5.201 S5.201



NEW UTILITY & ENGINEERING BUILDING
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COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016



WOLD ARCHITECTS AND ENGINEERS
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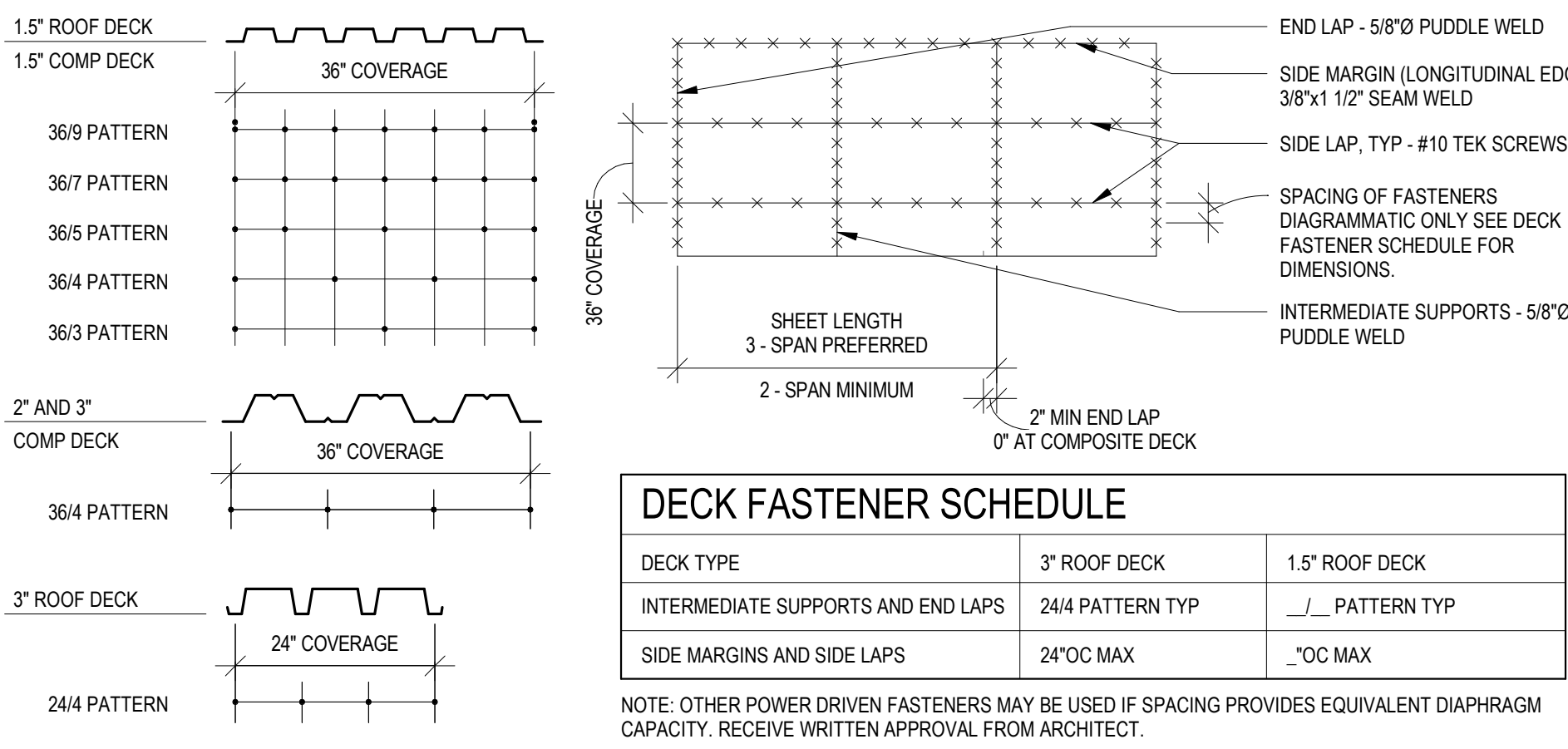
James E. Dorr		
License Number:	Date	Issue Date
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Revisions		
Description	Date	Num

Comm: 232010
Date: 08/04/2023
Drawn: KLC
Check: KTK

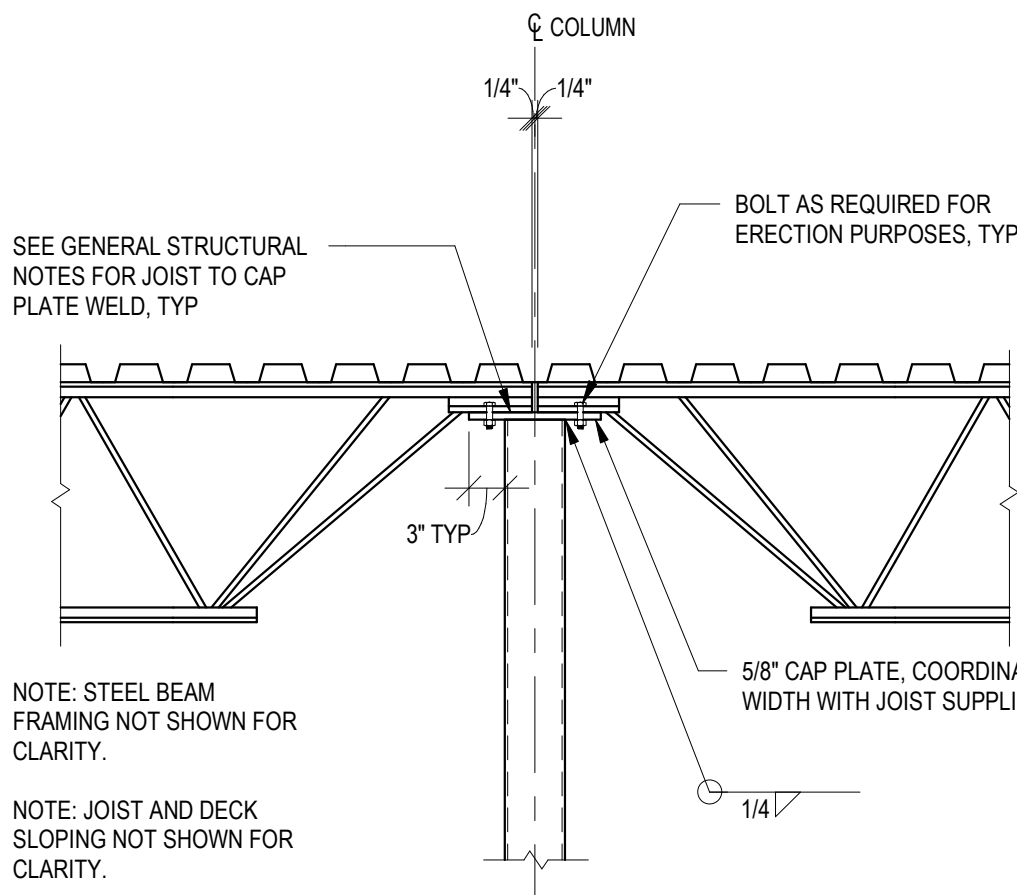
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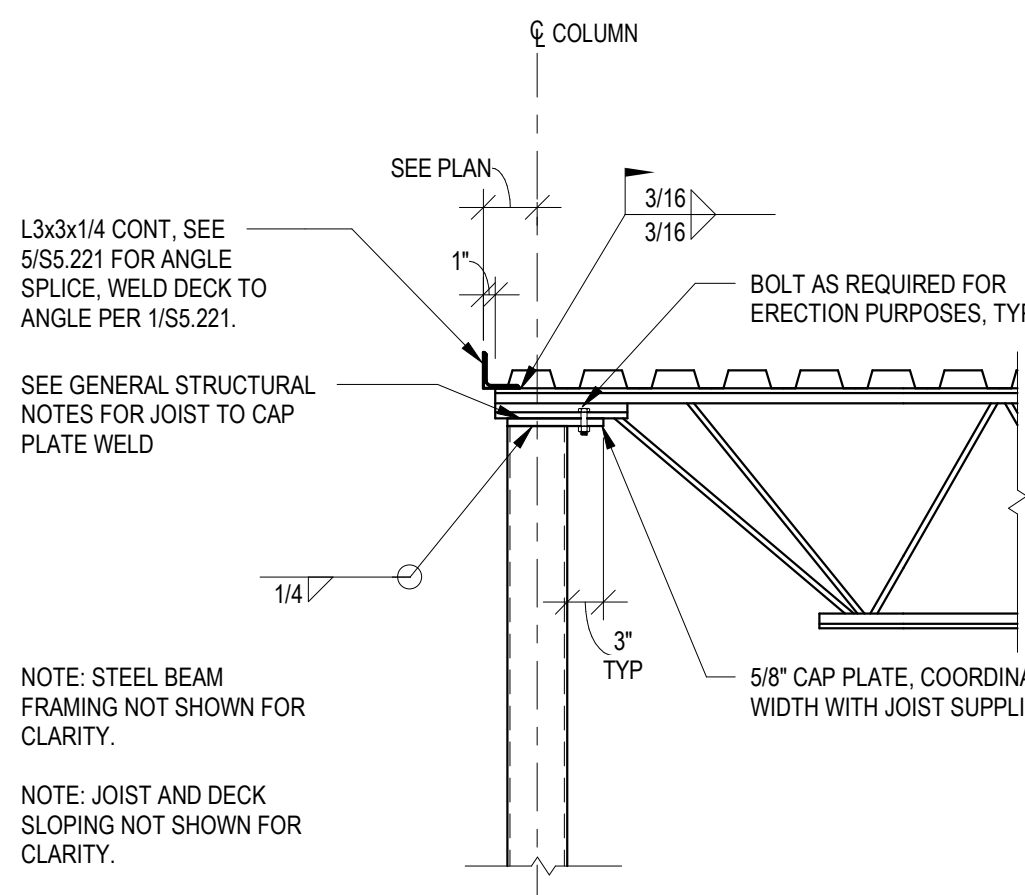
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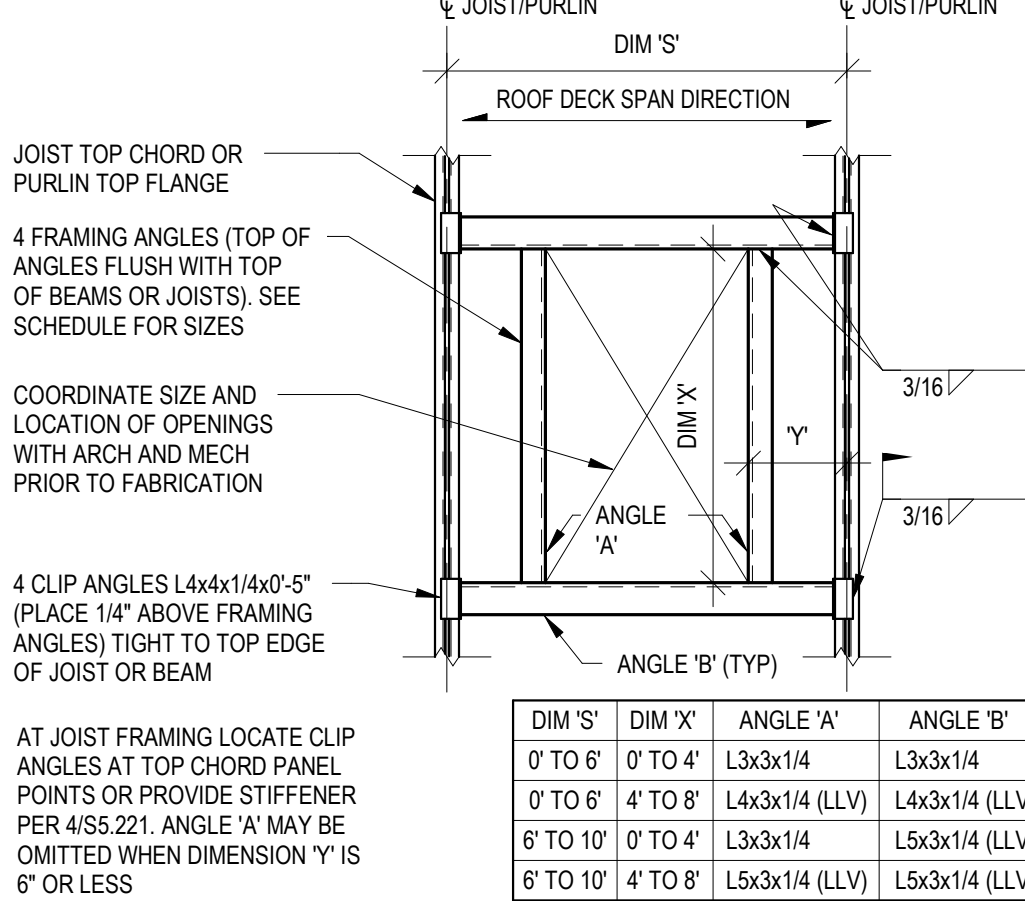
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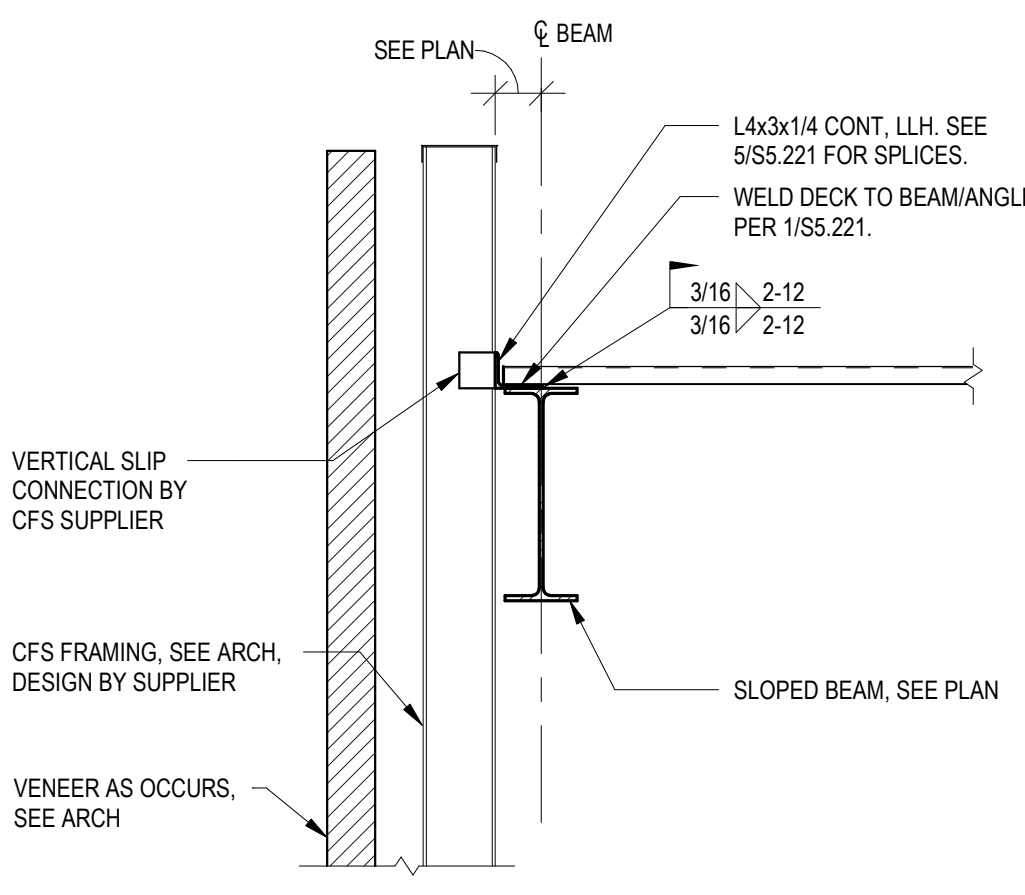
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S5.221



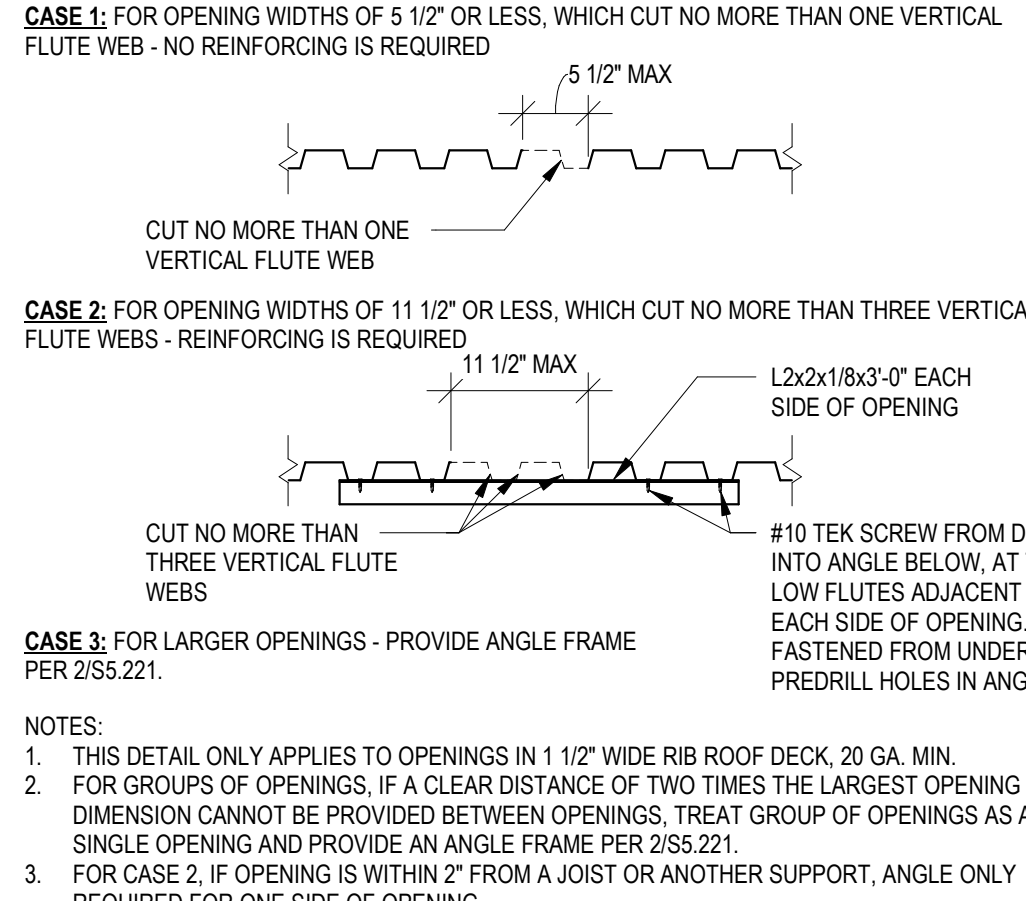
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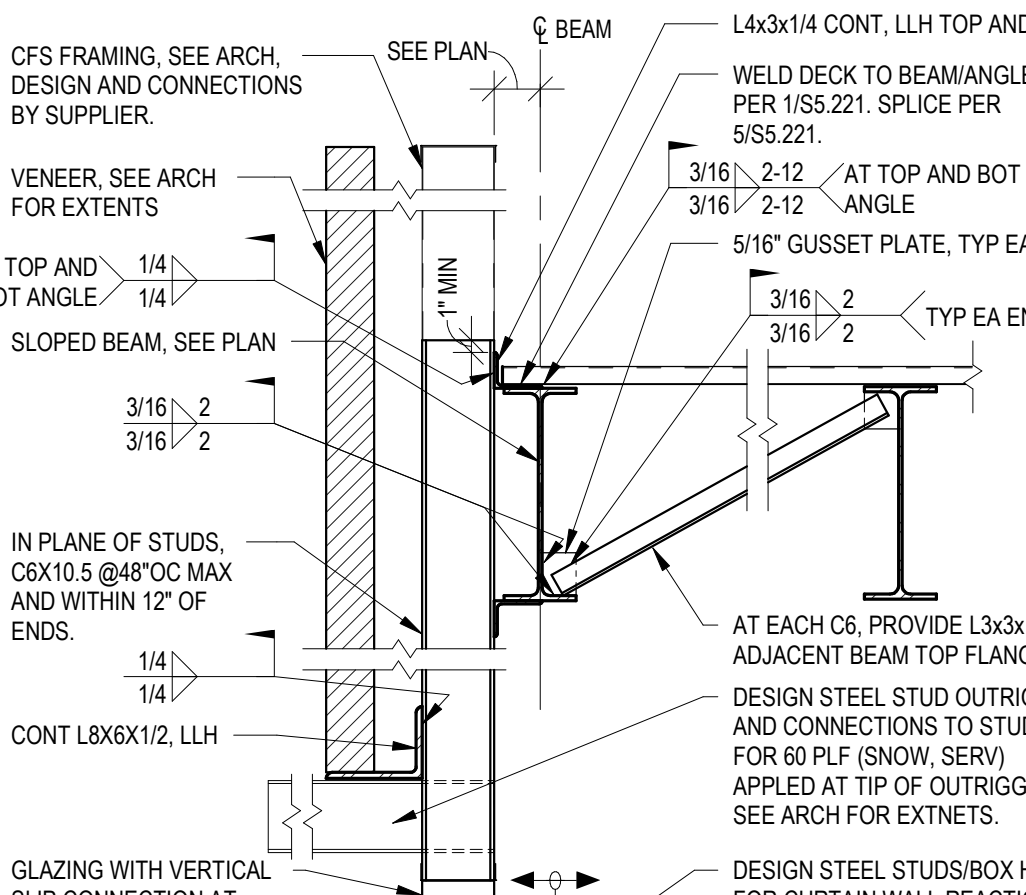
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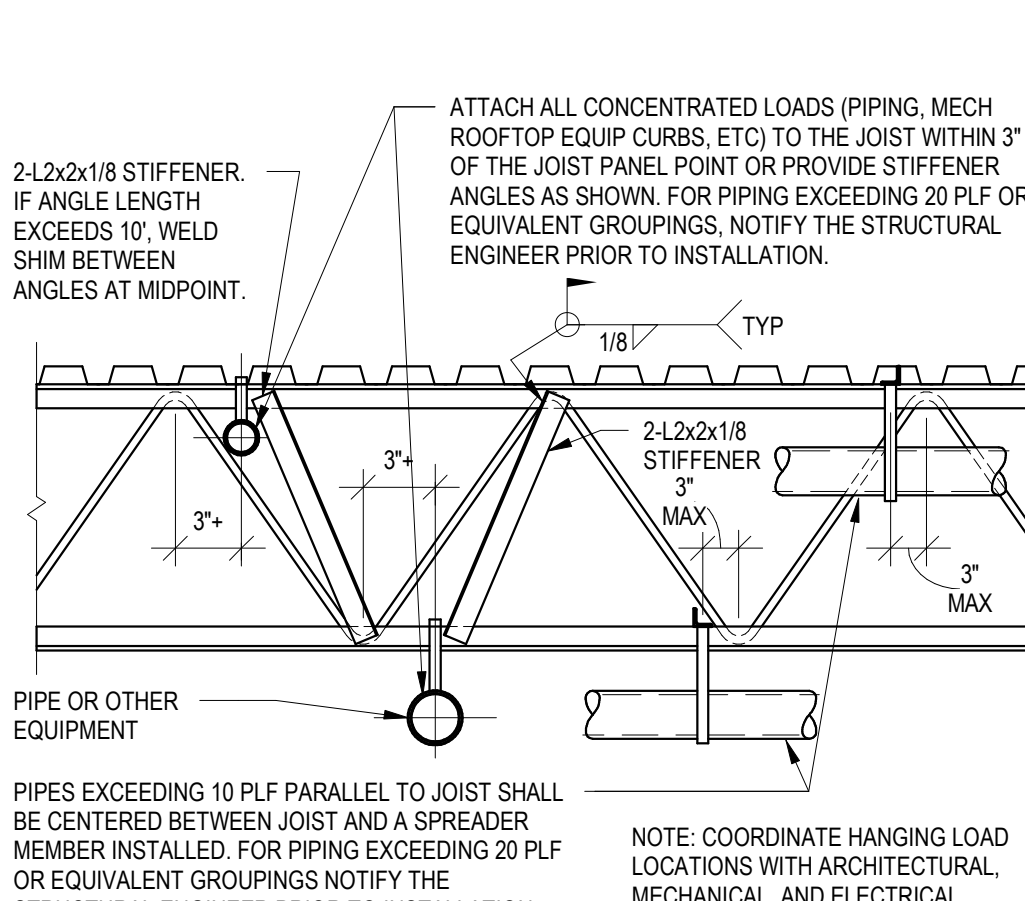
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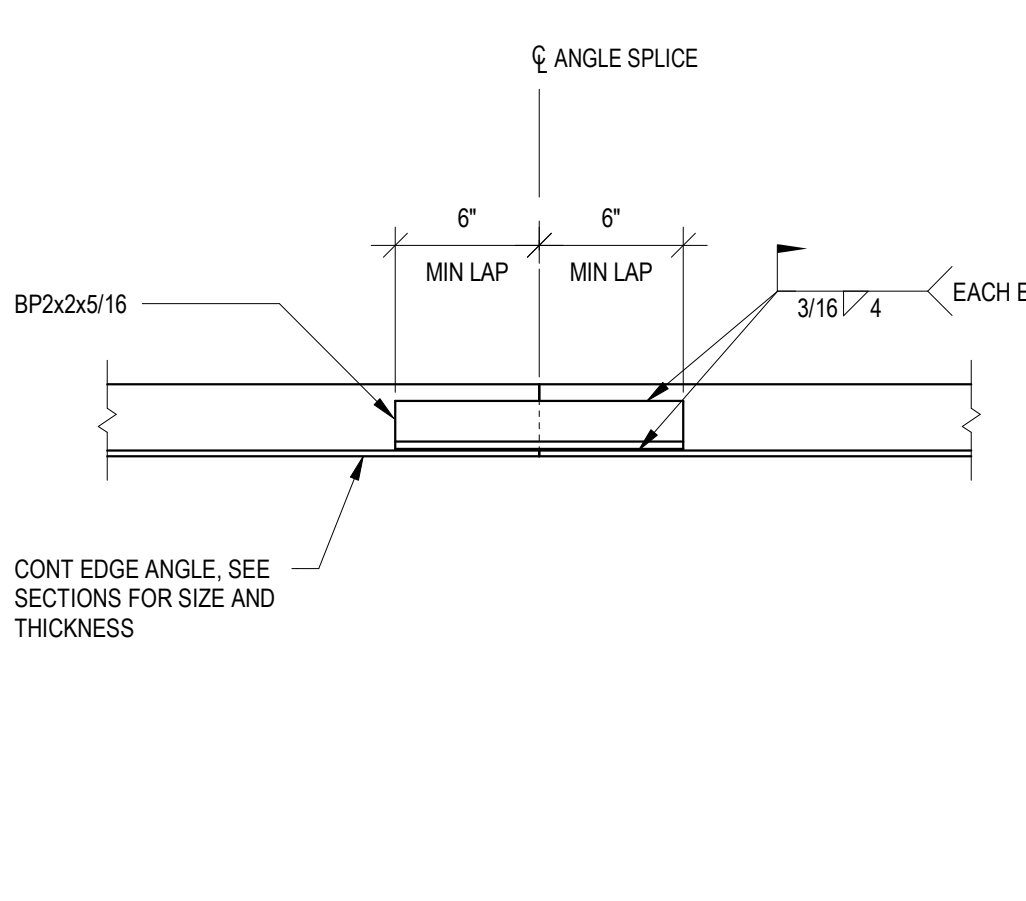
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9 SECTION
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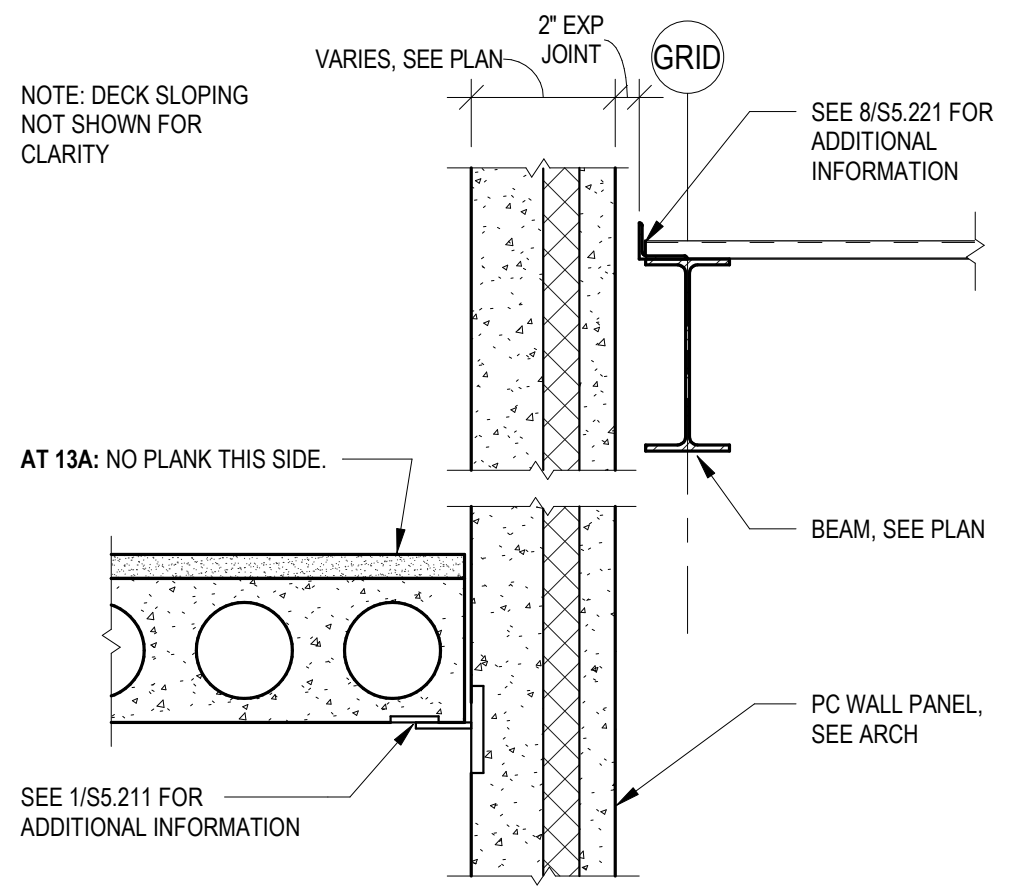


4 CONCENTRATED LOADS ON NEW JOIST
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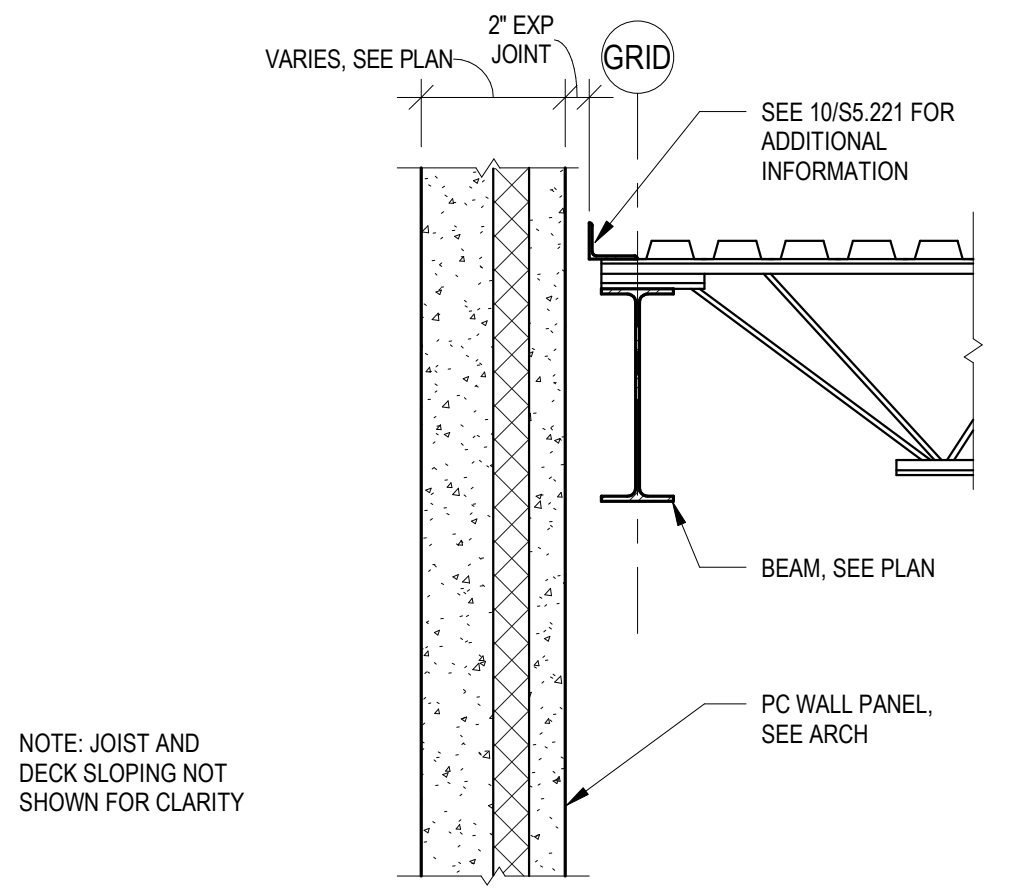


5 DETAIL
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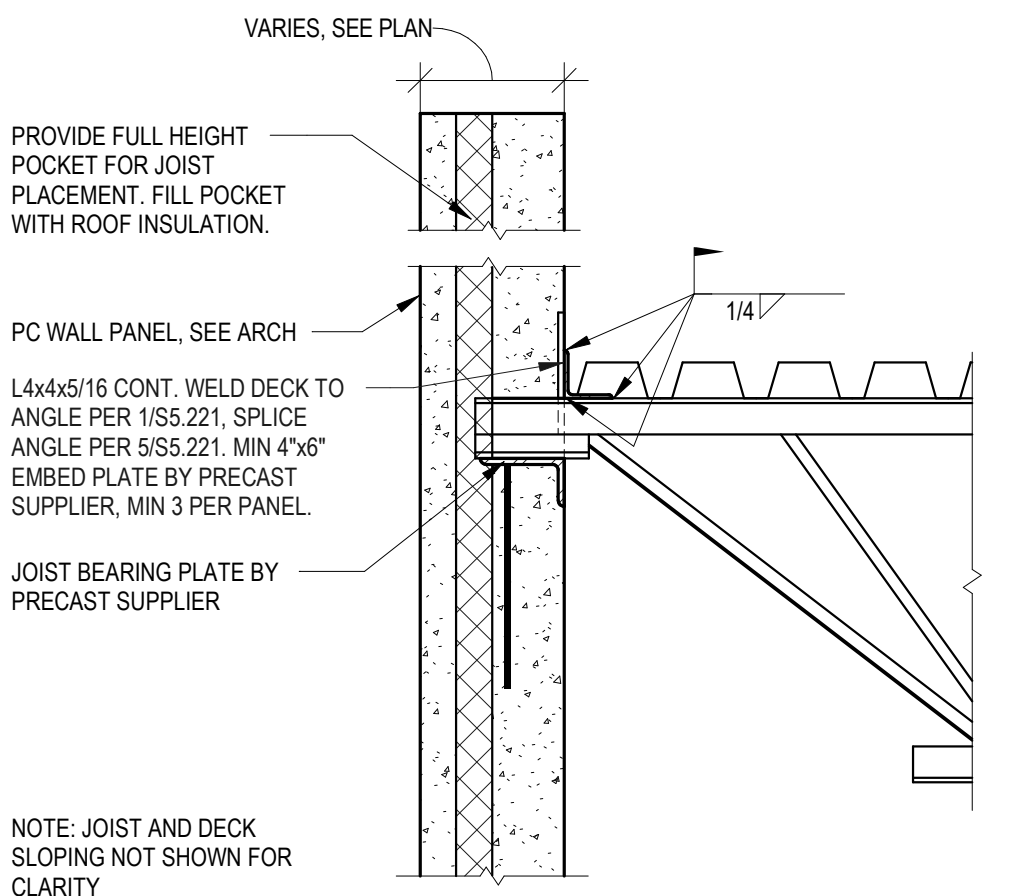
12 IS NO LONGER USED AND
MAY BE TAKEN BY A NEW
DETAIL



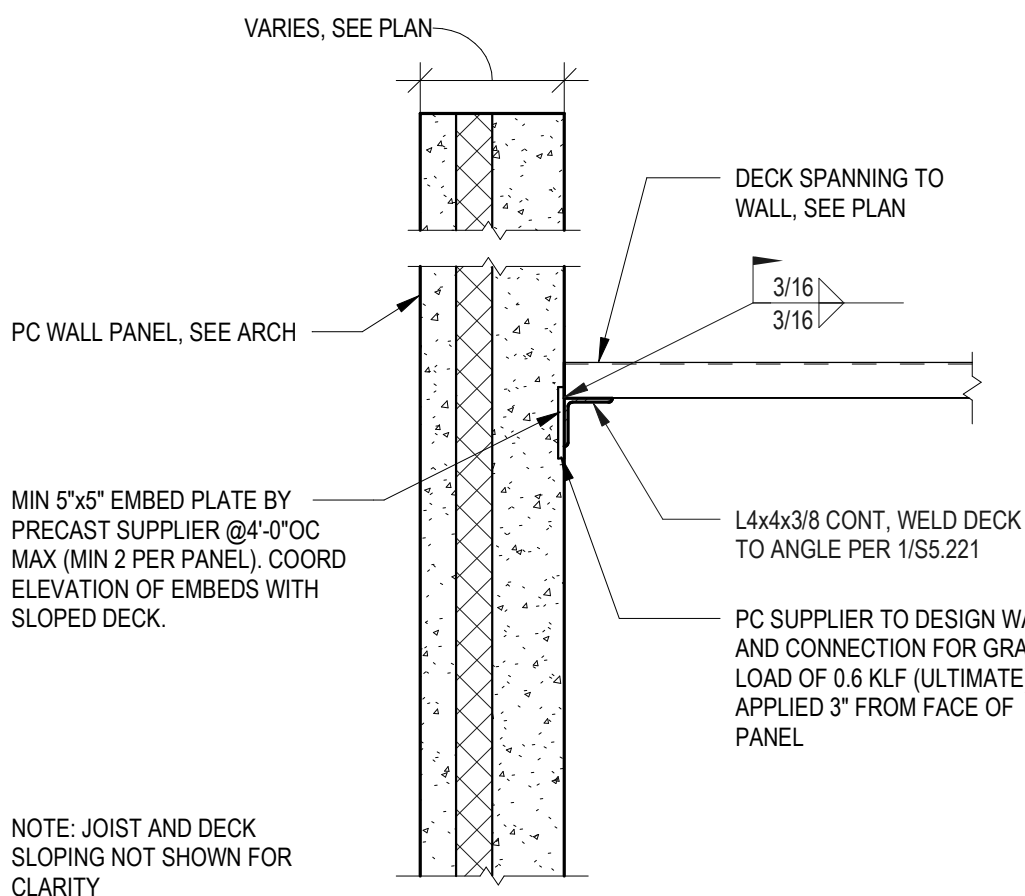
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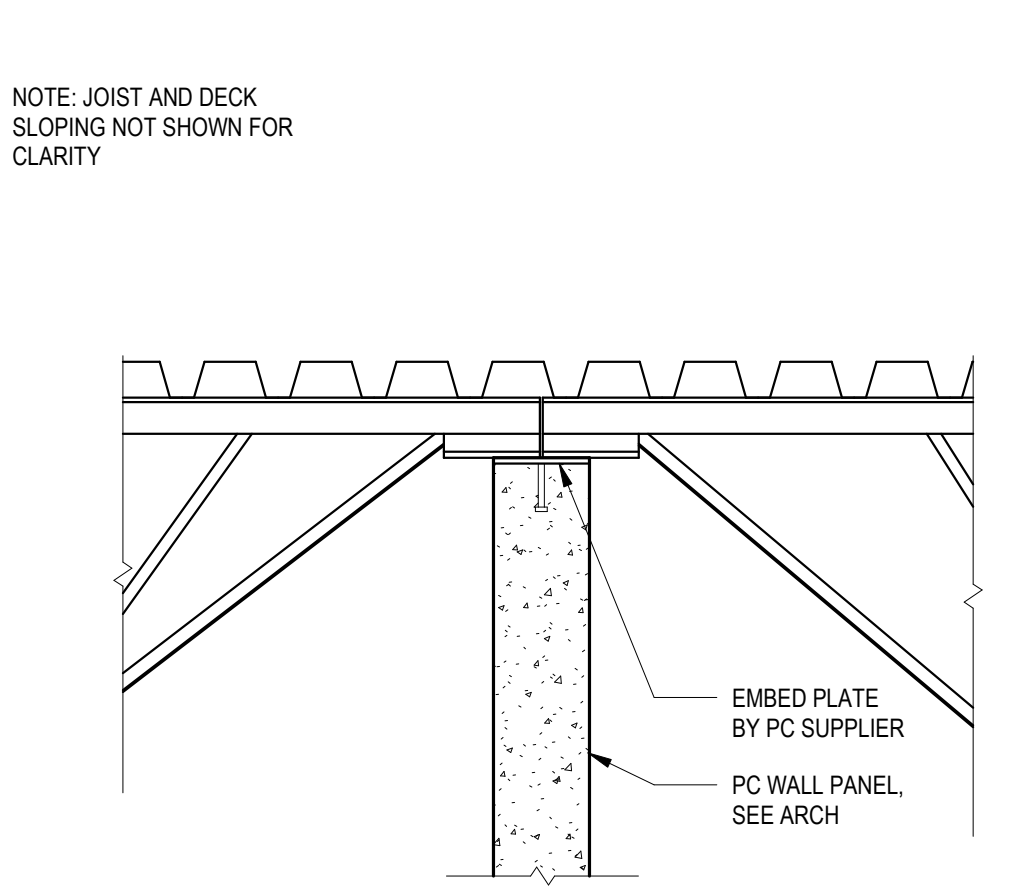
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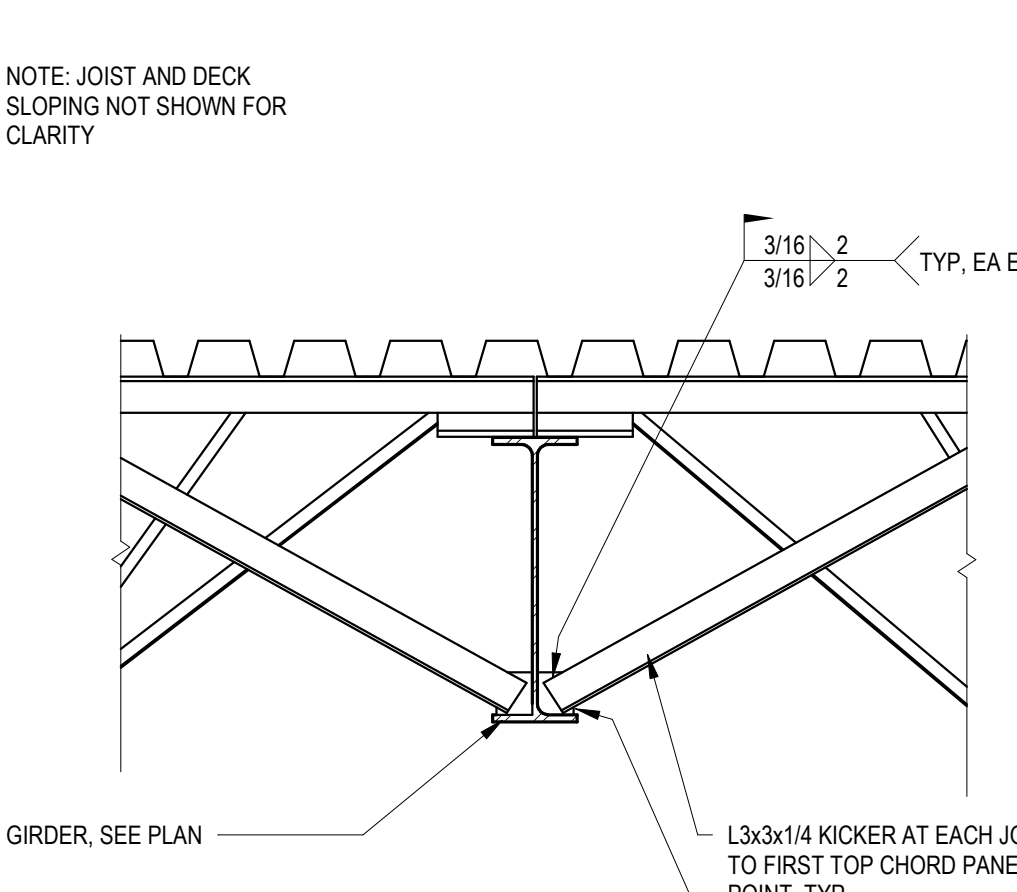
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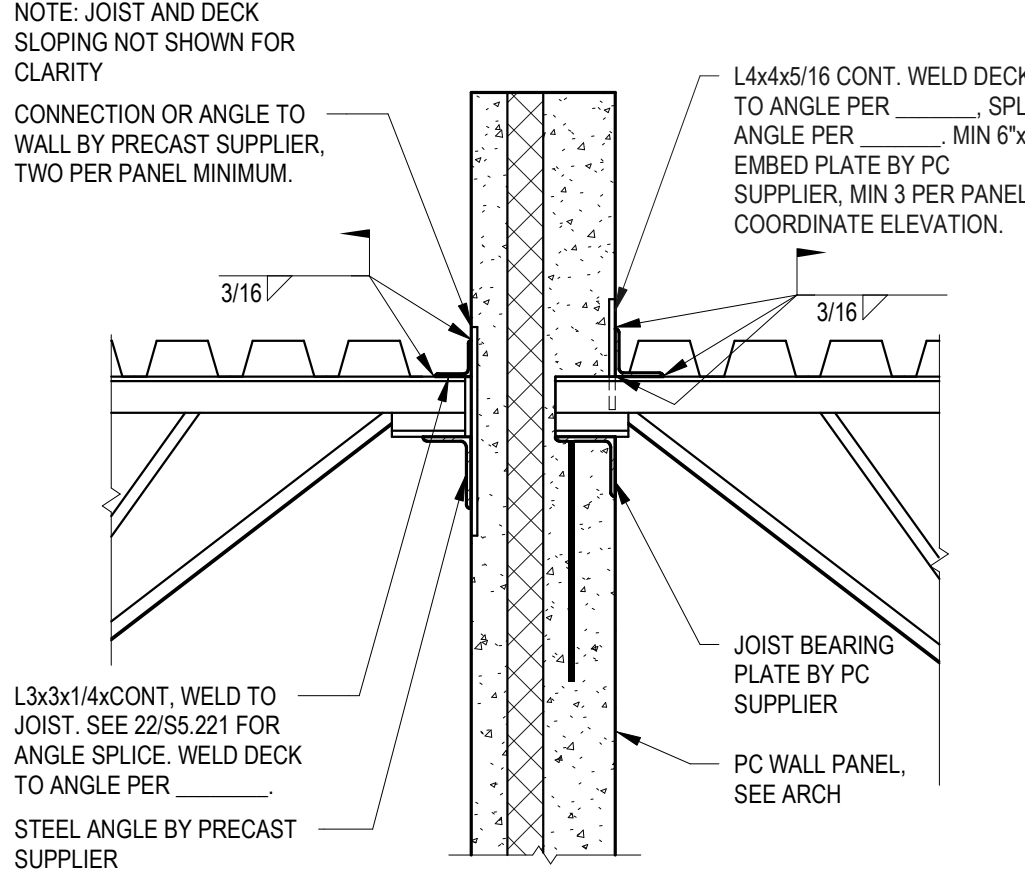
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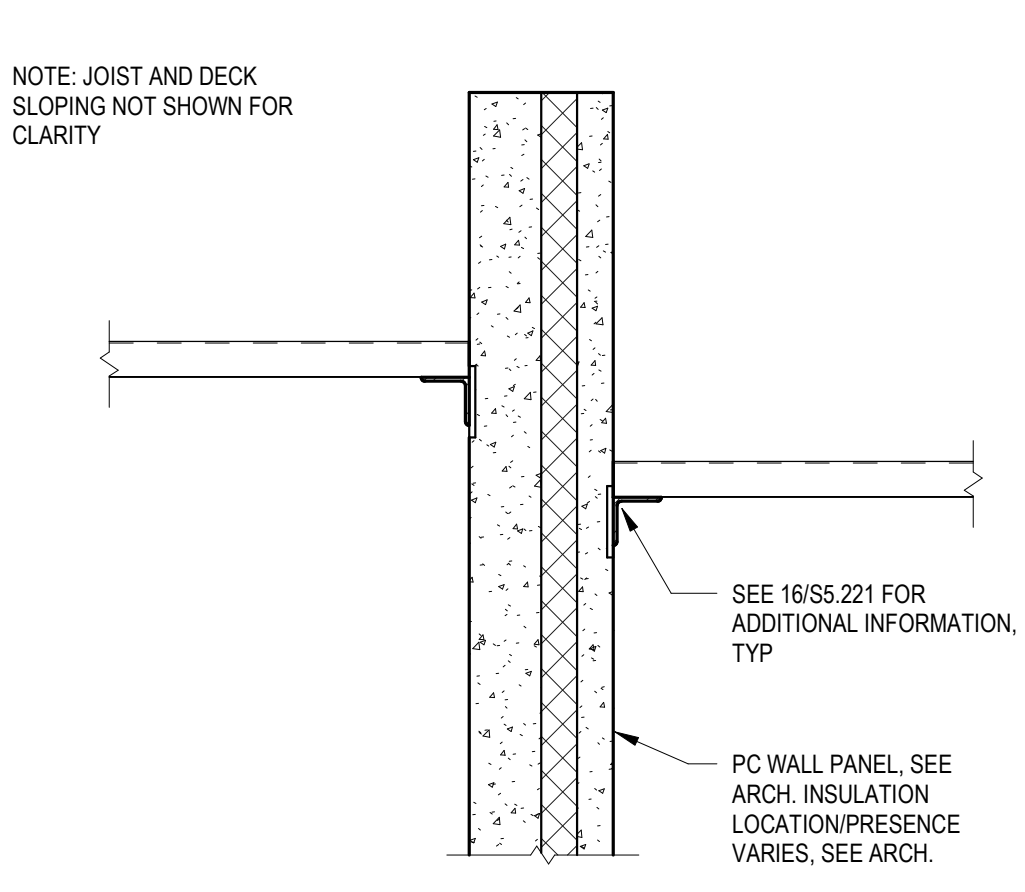
17 SECTION
S5.221



18 SECTION
S5.221



19 SECTION
S5.221



20 SECTION
S5.221

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James E. Dorr
License Number: 52566 Date: Issue Date

Description	Revisions	
	Date	Num

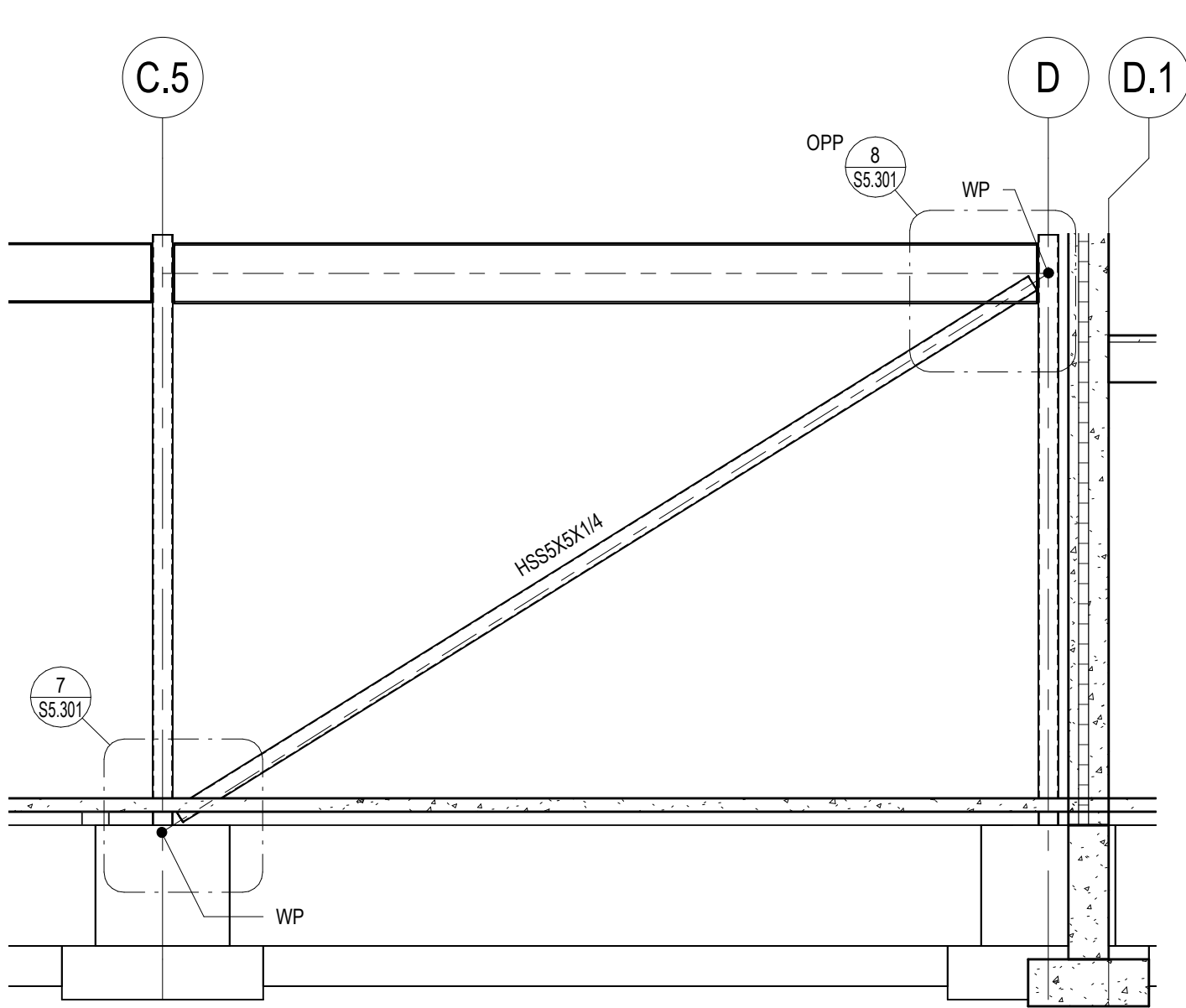
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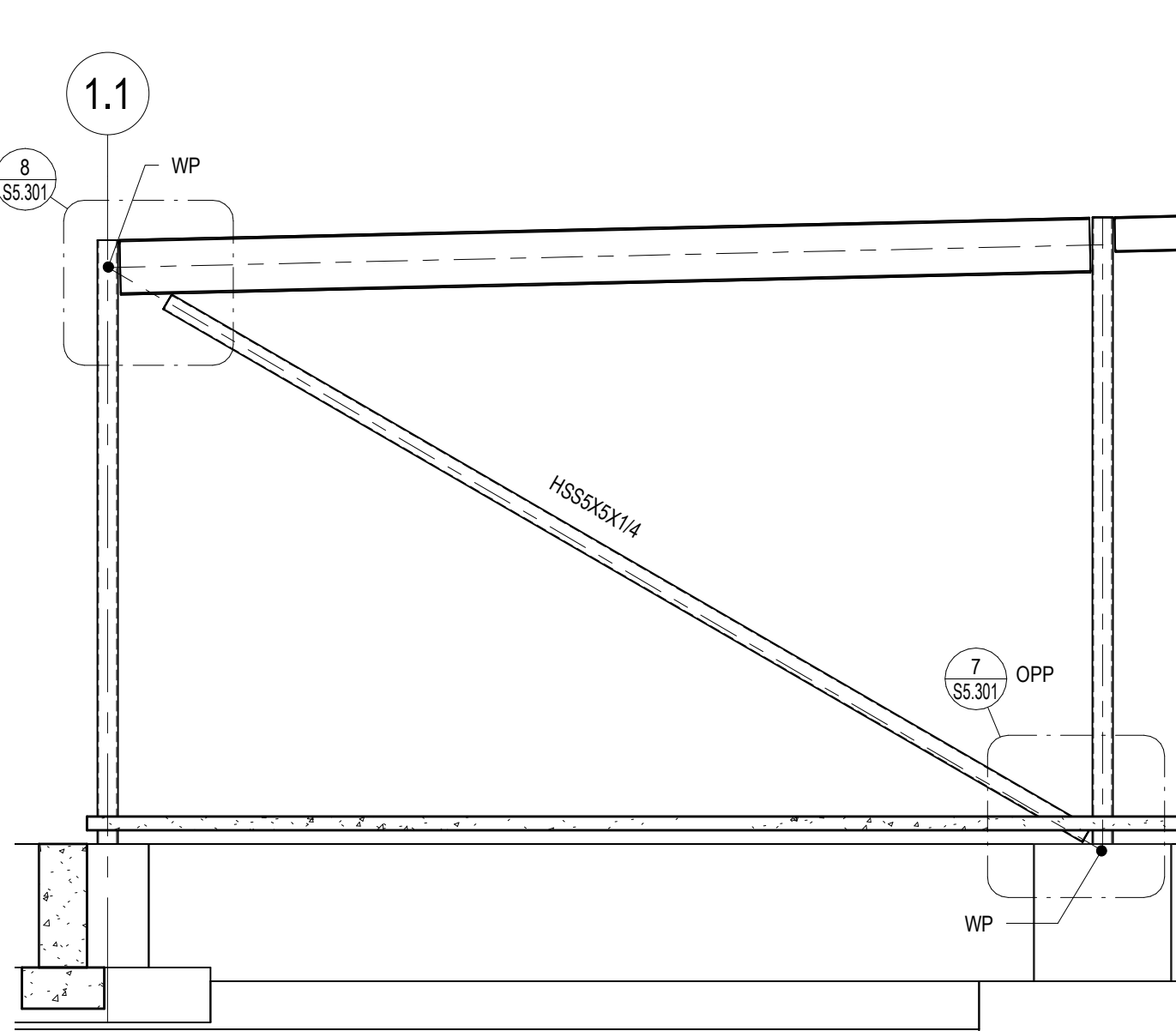
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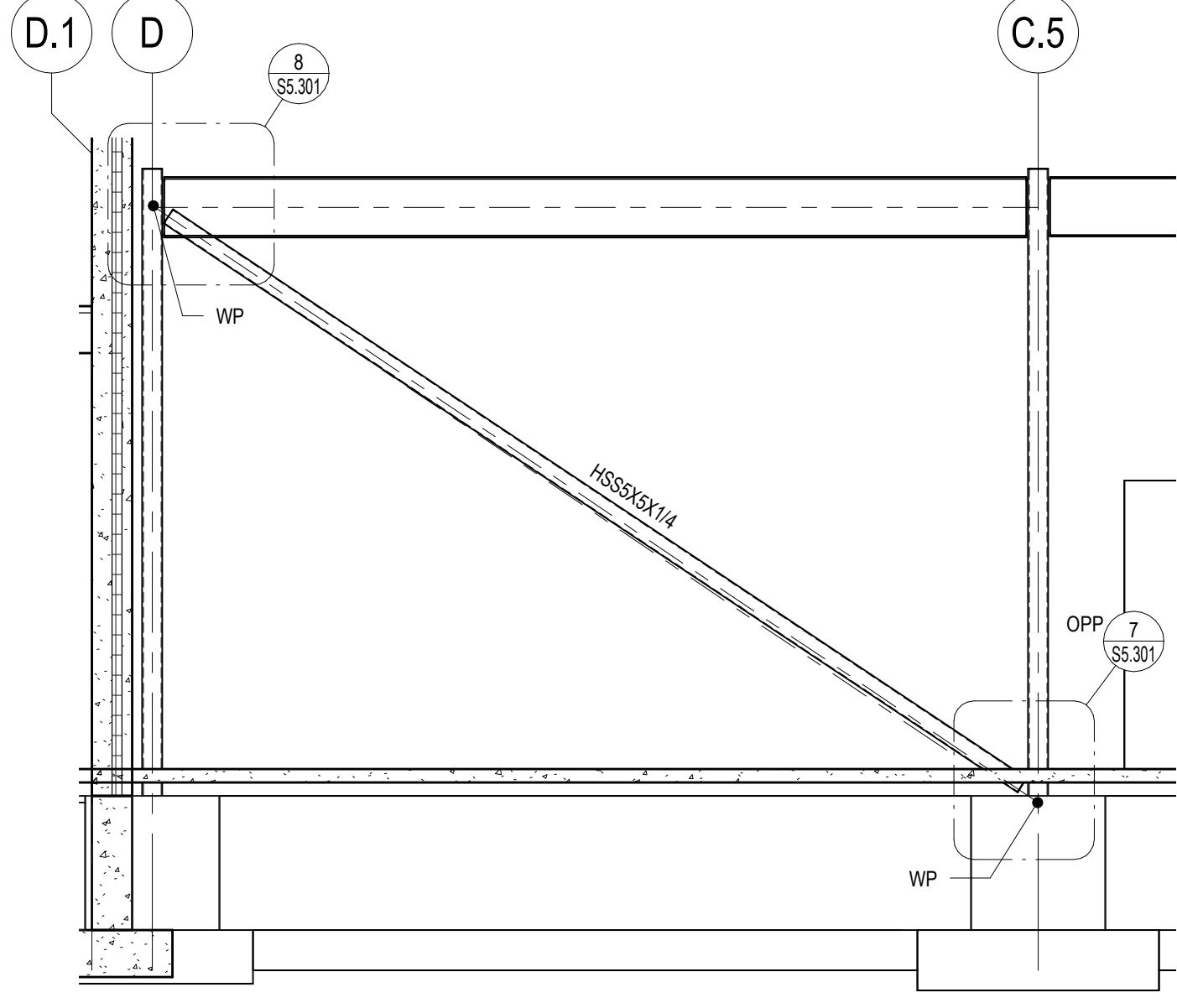
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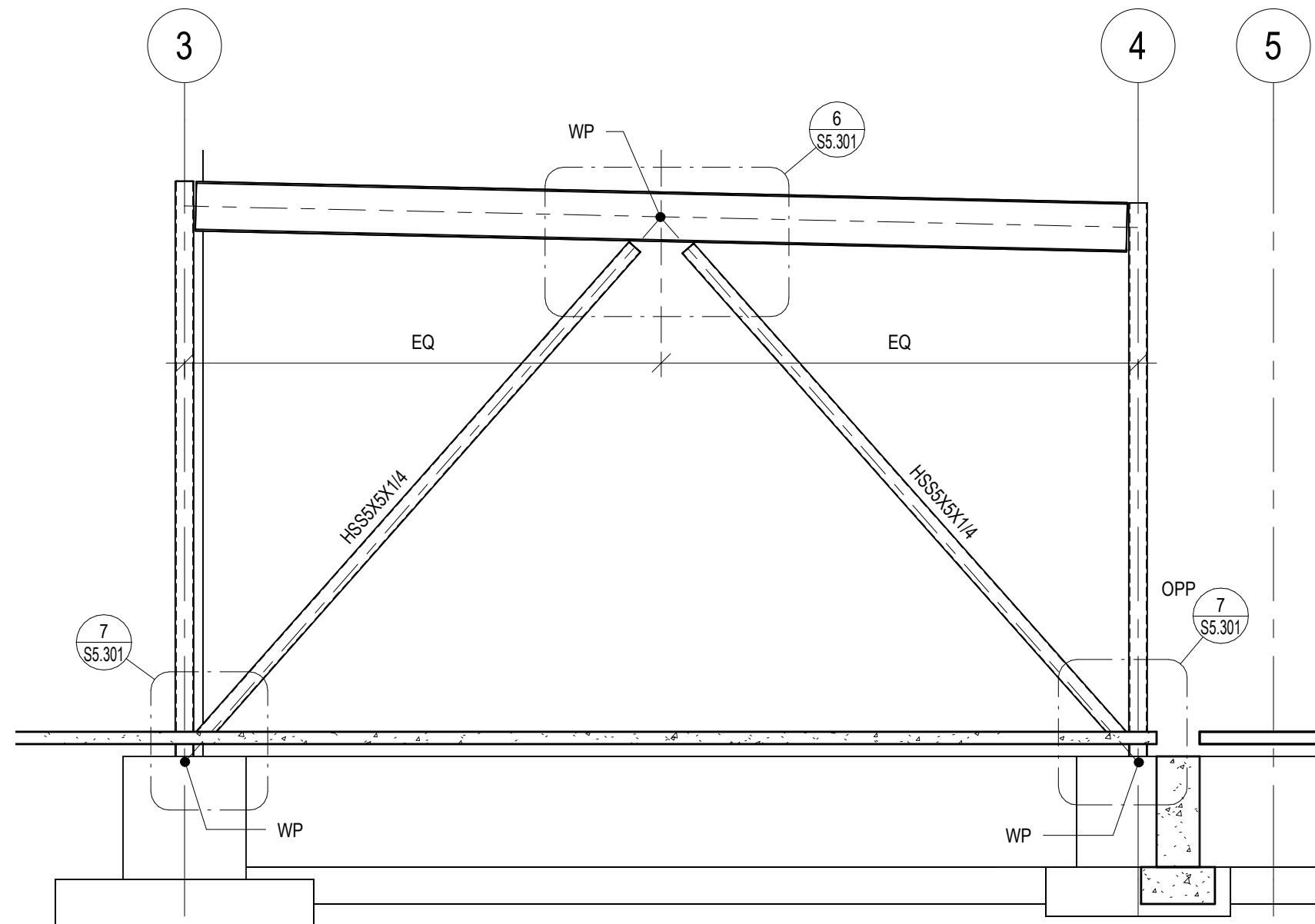
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S5.301
ELEVATION ALONG GRID 1.1



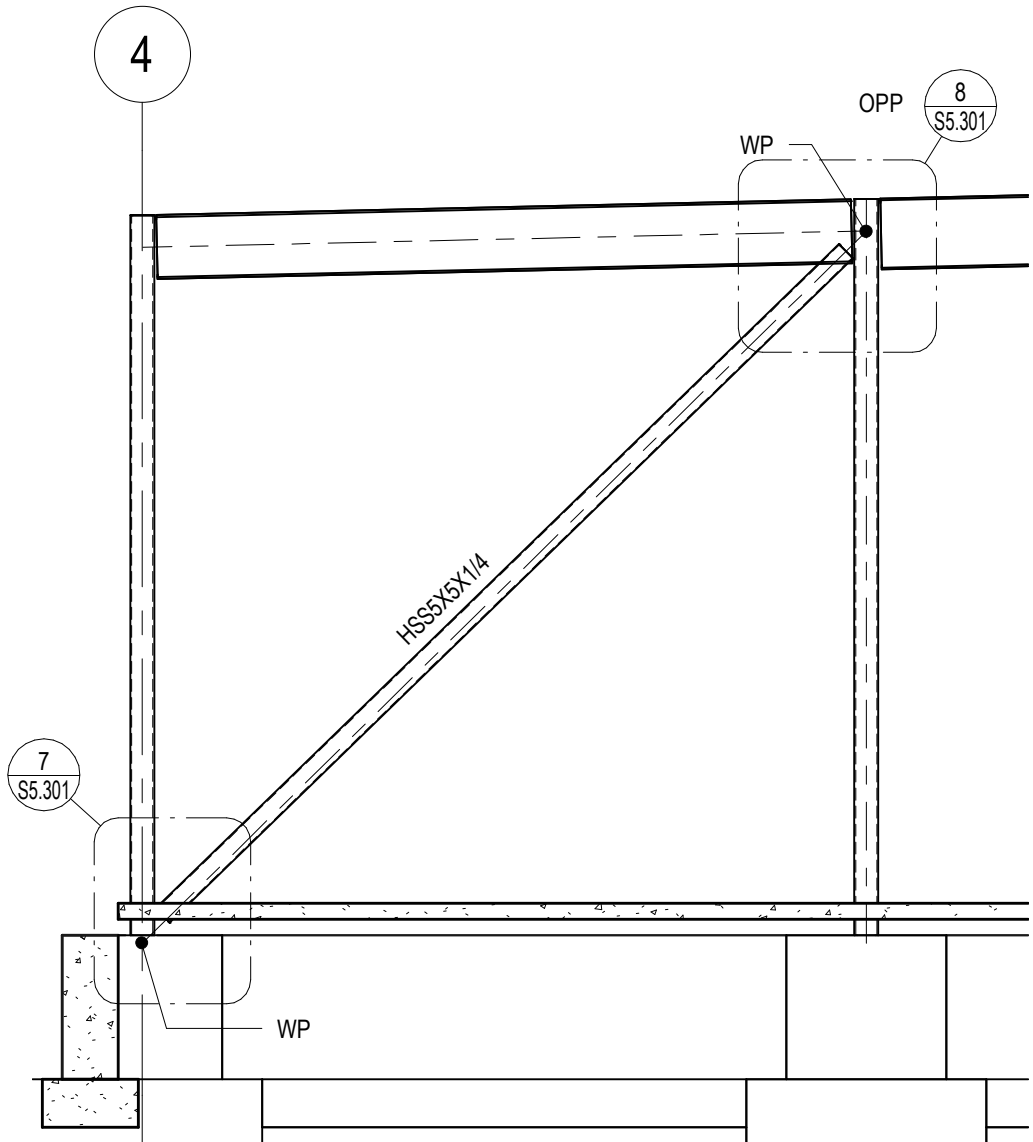
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ELEVATION ALONG GRID D



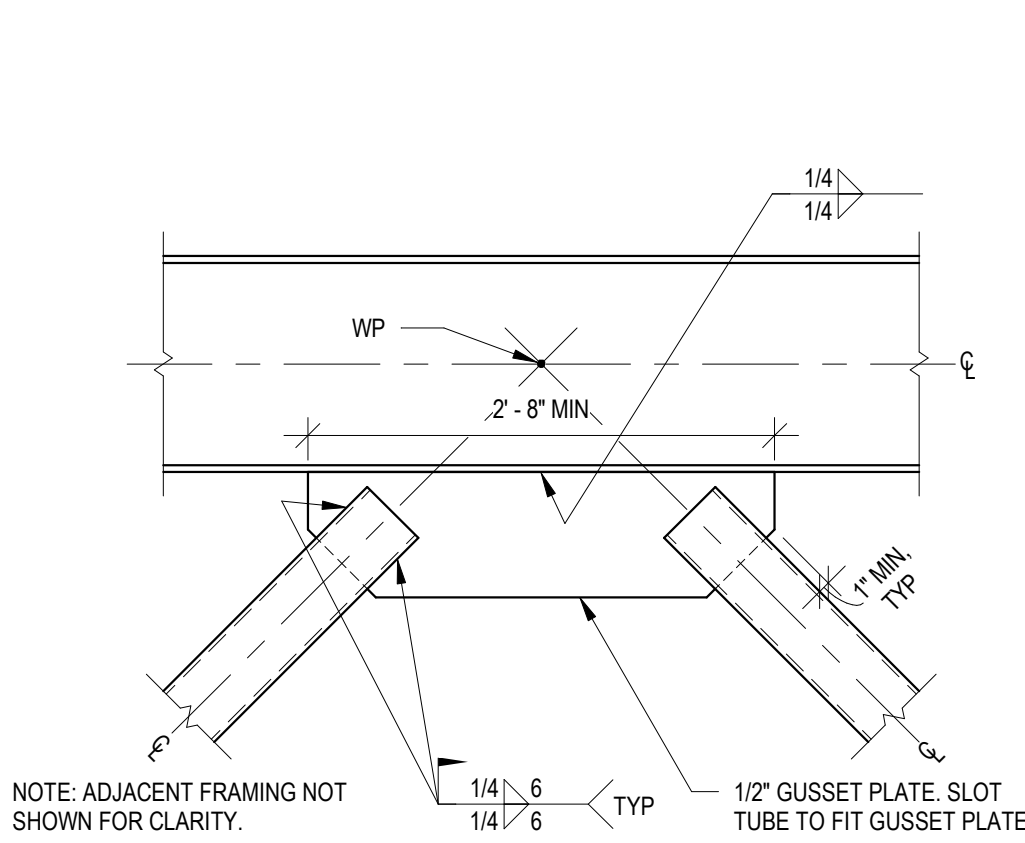
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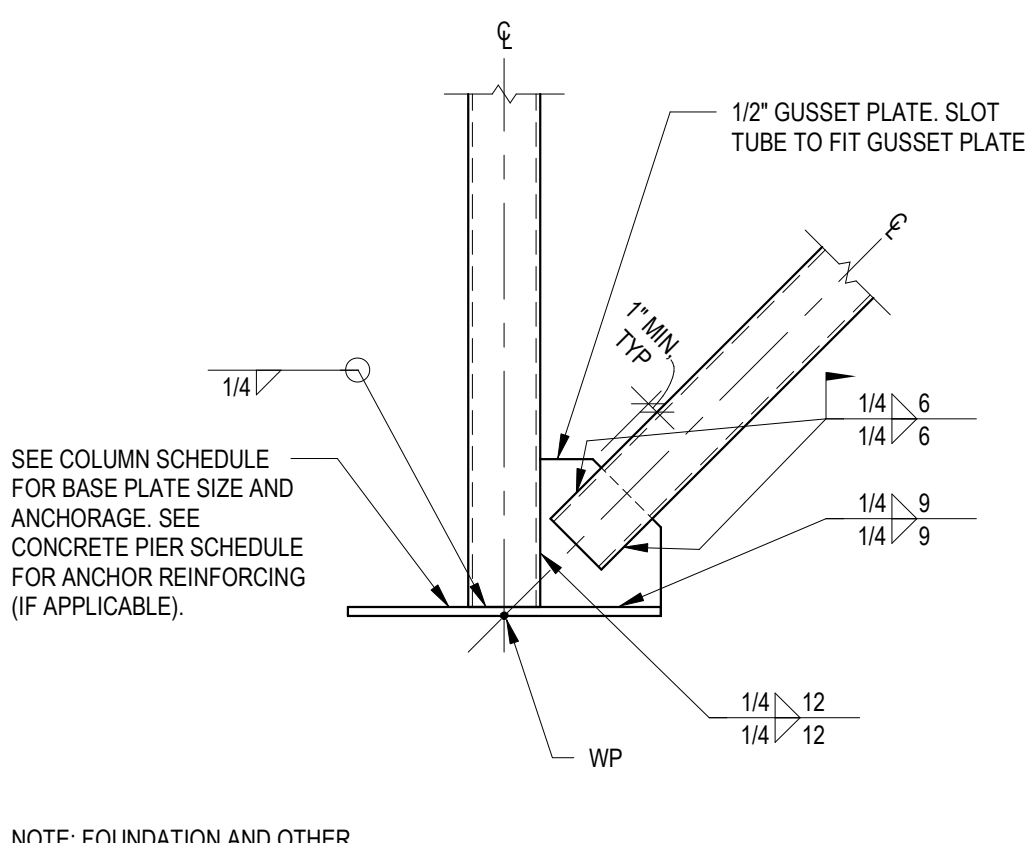
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ELEVATION ALONG GRID C



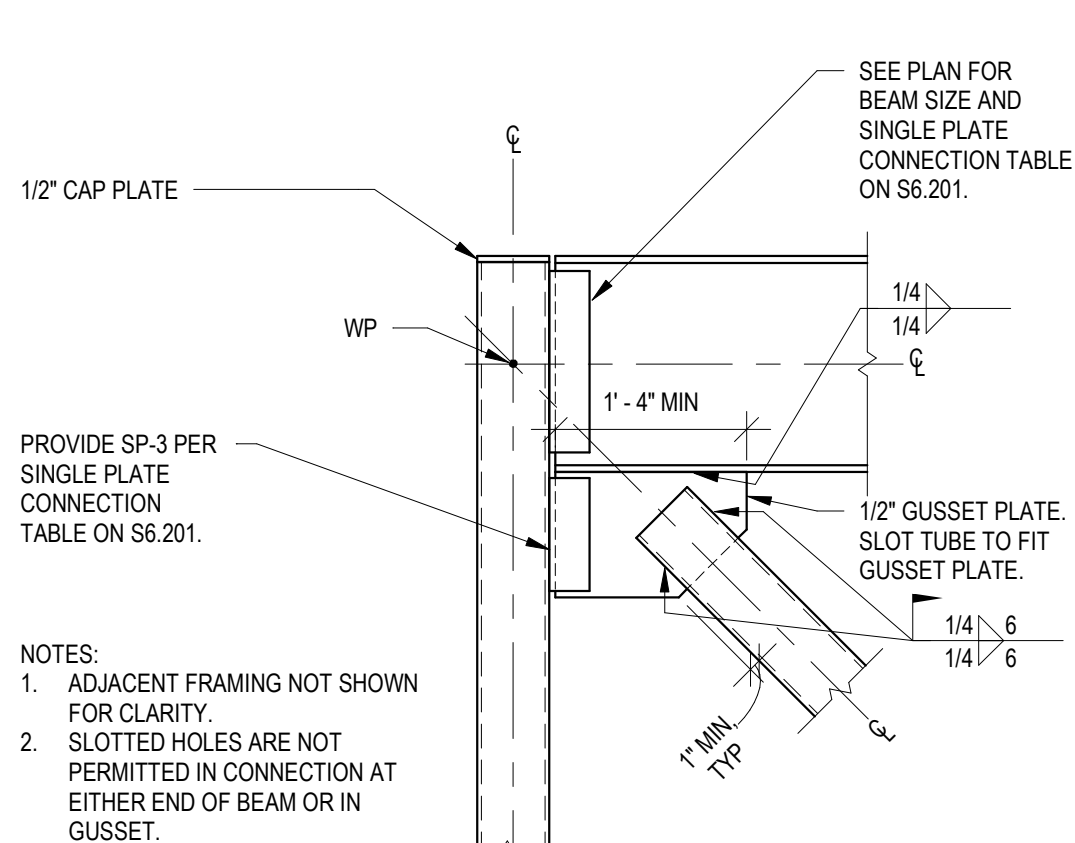
5
S5.301
ELEVATION ALONG GRID A



6
S5.301
DETAIL



7
S5.301
DETAIL



8
S5.301
DETAIL

* ASSUMES AISI STANDARD CONNECTION CONFIGURATION.

- 1. ALL BOLTS 3/4"Ø A325-N. PLATE WELDS 2-1/4" FULL LENGTH FILLET WELDS.
- 2. ALL PLATES 5/16" THICK ASTM A36. ALL BEAMS ASTM A992.
- 3. FOR CAPPED BEAMS 1/2" MINIMUM LEAF+1/4" MINIMUM PARAMETERS PER AISI 15TH EDITION. MAXIMUM CORD LENGTH = 5" MAXIMUM CORN DEPTH = 20% OF BEAM DEPTH.
- 4. HORIZONTAL SLOTTED HOLES PERMITTED IN BEAM WEB.
- 5. COORDINATE PLATE LENGTH WITH DRAWINGS AND COORDINATE BOLT LOCATIONS FOR ERECTION PURPOSES.
- 6. BEAMS REQUIRING ADDITIONAL BOLT WILL BE NOTED ON THE DRAWINGS THRU "SP-X" (X=NUMBER OF ROWS OF BOLTS).
- 7. CONNECTIONS SHOWN REPRESENT MINIMUM CONNECTION CAPACITY FOR THE RANGE OF SIZES GIVEN.
- 8. AT PURIN TO HSS COLUMN CONNECTIONS, MINIMUM HSS TUBE WALL THICKNESS 1/4". PROVIDE DOUBLE ANGLE CONNECTION OR CONTACT EOR IF MINIMUM IS NOT MET.

ALL W33 AND W36	6	187	187	
BEAMS AS NOTED	7	193 (165K FOR W24)	217	UNCOPED CAPACITY ASSUMES $t_w=0.36$
BEAMS AS NOTED	8	222	247	UNCOPED CAPACITY ASSUMES $t_w=0.36$
BEAMS AS NOTED	9	256	278	UNCOPED CAPACITY ASSUMES $t_w=0.36$
BEAMS AS NOTED	10	308	308	UNCOPED CAPACITY ASSUMES $t_w=0.36$

- UNLESS NOTED OTHERWISE:
 *ASSUMES AISC STANDARD CONNECTION CONFIGURATION.
1. ALL BOLTS 3/4"Ø A325-N.
 2. ALL ANGLES MINIMUM 5/16" THICK ASTM A36, ALL BEAMS ASTM A992.
 3. FOR COUPED BEAM $L_{\text{Hole}} \leq 1/2$ MINIMUM; $L_{\text{Hole}} \geq 1/4$ MINIMUM (PARAMETERS PER AISC 15TH EDITION), MAXIMUM COUPED BEAM LENGTH $L_{\text{Hole}} \leq$ MAXIMUM COUPED DEPTH 20% OF BEAM DEPTH.
 4. HORIZONTAL, SHORT SLOTTED HOLES PERMITTED IN BEAM WEB AND OUTSTANDING ANGLE LEGS.
 5. COORDINATE ANGLE LENGTHS WITH DRAWINGS AND COORDINATE BOLT LOCATIONS FOR ERECTION.
 6. BEAMS REQUIRING ADDITIONAL BOLTS WILL BE NOTED ON THE DRAWINGS THUS: "DA-X" (X=NUMBER OF BOLTS).
 7. CAPACITIES SHOWN REPRESENT MINIMUM CONNECTION CAPACITY FOR THE RANGE OF SIZES GIVEN.

CLASS 'B' TENSION LAP SPlice TABLE								
BAR SIZE	f'_c (psi)							
	2500	3000	3500	4000	5000	6000	7000	8000
#3	1'-11"	1'-10"	1'-8"	1'-7"	1'-5"	1'-4"	1'-2"	1'-2"
#4	2'-7"	2'-5"	2'-3"	2'-1"	1'-11"	1'-9"	1'-7"	1'-6"
#5	3'-3"	3'-0"	2'-9"	2'-7"	2'-4"	2'-2"	2'-0"	1'-10"
#6	3'-11"	3'-7"	3'-4"	3'-1"	2'-10"	2'-7"	2'-4"	2'-3"
#7	5'-8"	5'-5"	4'-10"	4'-6"	4'-1"	3'-9"	3'-5"	3'-3"
#8	6'-6"	6'-3"	5'-8"	5'-2"	4'-8"	4'-3"	3'-11"	3'-8"
#9	7'-5"	7'-2"	6'-7"	6'-3"	5'-9"	4'-9"	4'-2"	4'-2"
#10	8'-3"	7'-8"	6'-11"	6'-6"	5'-9"	5'-3"	4'-11"	4'-7"
#11	9'-2"	8'-2"	7'-7"	7'-1"	6'-4"	5'-10"	5'-5"	5'-0"

- NOTES:
1. THESE TABLES SHOW LENGTHS FOR PLAIN, BOTTOM ASTM A615 GRADE 80 BARS IN NORMAL WEIGHT, MEANING THE SPACING AND DEVELOPMENT LENGTHS GIVEN BELOW. MULTIPLE BAR LENGTHS BY ALL OF THE APPLICABLE FACTORS GIVEN FOR OTHER CONDITIONS, SPECIFIC EMBEDMENT, LAP, OR PROJECTION LENGTHS SHOWN ON DRAWINGS GOVERN OVER THESE TABLES.
 2. SPACING AND COVER REQUIREMENTS
 - a. CLEAR SPACING BETWEEN BARS AT SPICE 2x2db AND CLEAR COVER 2xdb OR
 - b. CLEAR SPACING BETWEEN BARS AT SPICE 2x2db AND CLEAR COVER 2xdb AND STIRRUPS OVER FULL LENGTH OF SPICE, STIRRUPS TO BE SPACED SUCH THAT:
 - s = n x 2db FOR #3 TIE/STIRRUPS
 - s = n x 16 FOR #4 TIE/STIRRUPS
 - s = n x 20 FOR #5 TIE/STIRRUPS
 3. MULTIPLE BARS PER SPICE LENGTHS BY ALL OF THE FOLLOWING APPLICABLE FACTORS:
 - a. MULTIPLY BY 1.5 IF INCHES OR COVER REQUIREMENTS ARE NOT MET.
 - b. MULTIPLY BY 1.3 FOR TOP BARS. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF FRESH CONCRETE BELOW.
 - c. MULTIPLY BY 2.0 FOR #3 OR #4 EPOXY COATED BARS SPACED 4" MIN OR WITH 1 1/2" MIN CLEAR COVER.
 - d. MULTIPLY BY 1.31 FOR OTHER EPOXY COATED TOP BARS.
 - e. MULTIPLY BY 1.5 FOR OTHER EPOXY COATED BARS (EXCEPT TOP BARS).
 - f. MULTIPLY BY 1.3 FOR LIGHTWEIGHT CONCRETE.
 - g. MULTIPLY BY 1.60 FOR BARS WITH YIELD STRESS 80ksi OR
 4. USE 1.5 FOR TENSION LAP SPICES UNLESS OTHERWISE NOTED OTHERWISE.
 5. COMPRESSION LAP LENGTH, ONLY WHERE NOTED. TO BE 3xdb, INCREASE TO 4xdb FOR Fy = 75ksi, AND 5xdb FOR Fy = 90ksi

UNLESS NOTED OTHERWISE:

1. BASED ON $F_y = 60$ KSI.
2. MULTIPLY LAPS BY 1.5 FOR EPOXY COATED REINFORCEMENT (MINIMUM LAP IS 18").
3. #6 BAR CENTERED IN 12" AND LARGER WALLS MAY BE REDUCED TO 26".
4. SEE GENERAL STRUCTURAL NOTES FOR LAP LENGTH OF HORIZONTAL REINFORCING.
5. LAP LENGTHS ARE VALID FOR 8" (AND LARGER) SINGLY REINFORCED OR 10" (AND LARGER) DOUBLY/CEMENTED REINFORCED WALLS WHERE DISTANCE FROM CENTER OF BAR TO OUTSIDE FACE OF CMU IS $\geq 3"$. FOR OTHER CONDITIONS, CONFIRM LAP WITH ENGINEER.

COLUMN FOOTING SCHEDULE				
MARK	FOOTING SIZE			REINFORCING
	WIDTH	LENGTH	THICKNESS	
CF4-0	4'-0"	4'-0"	1'-2"	4#5 BOTTOM, EA WAY
CF5-0	5'-0"	5'-0"	1'-4"	6#5 BOTTOM, EA WAY
CF5-0A	5'-0"	5'-0"	1'-4"	6#5 TOP AND BOTTOM, EA WAY
CF6-0	6'-0"	6'-0"	1'-6"	6#6 BOTTOM, EA WAY
CF7-0	7'-0"	7'-0"	1'-8"	7#6 BOTTOM, EA WAY
CF8-0	8'-0"	8'-0"	1'-10"	9#6 BOTTOM, EA WAY
CF8-0A	8'-0"	8'-0"	1'-10"	9#6 TOP & BOT, EA WAY

1. PROVIDE 4-3/4"Ø UNHEADED ANCHOR RODS WITH HEX NUT AT EMBED END, SEE 1/S6.201. EXTEND 9" INTO CONCRETE TO TOP OF NUT.
2. PROVIDE 1 1/2" NON-SHRINK GROUT BELOW BASE PLATE.
3. PROVIDE 2"x1/4" THICK WASHER AND NUT ON TOPSIDE OF BASE PLATE. CIRCULAR OR SQUARE WASHERS ARE ACCEPTABLE.
4. USE 1/2" COLUMN CAP PLATE AT TOP.



- UNLESS NOTED OTHERWISE:
1. PROVIDE PIER TYPE CP1 FOR BEAM BEARINGS AND OPENING JAMBS WHERE PIER IS NOT SHOWN. CONFORM WITH ENGINEER PRIOR TO PLACEMENT.
 2. PROVIDE CROSSLIES DOWELS INTO JOINTS TO MATCH VERTICAL REINFORCING. PROJECT INTO PIER PER CLASS B TENSION LAP SPlice TABLE. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL INFORMATION.
 3. PROVIDE CROSSLIES AS SHOWN WITH #8 HOOK ONE END AND 135° HOOK OTHER END. SIZE TO MATCH TIES. ALTERNATE THE CONFIGURATIONS MEETING ACI 318, SECTION 25.7.2.3 ARE ACCEPTABLE.
 4. PROVIDE FIRST THE MAXIMUM OF ONE-HALF THE SPACING ABOVE TOP OF FOOTING.
 5. EXTEND TO WITHIN ONE-HALF THE SPACING OF TOP OF PIER. PROVIDE MINIMUM OF 2-#4 OR 3-#3 TIES WITHIN 5' OF PIER.
 6. EXTEND VERTICAL REINFORCING TO 2' CLEAR TOP OF PIER.

DETAIL A

DETAIL B

DETAIL C

3
S6.201

MN

MECHANICAL SYMBOLS

PRESSURE GAGE	TWO WAY TEMPERATURE CONTROL VALVE	AIR DEVICE TAGS: SUPPLY DIFFUSER TYPE FACE SIZE & NECK DIA. AIR FLOW (CFM) TYPE FACE SIZE & NECK DIA. AIR FLOW (CFM)
AIR VENT	THREE WAY TEMPERATURE CONTROL VALVE	
STRAINER	UNION	
PIPING GUIDE	THERMOMETER	
PIPING ANCHOR	SHUTOFF VALVE	LINEAR SUPPLY DIFFUSER TYPE LENGTH IN FT. NUMBER OF SLOTS & NECK DIA. AIR FLOW (CFM)
EXPANSION JOINT	CHECK VALVE	
FLEXIBLE CONNECTION	PRESSURE OR PRESSURE/TEMPERATURE RELIEF VALVE	
DIRECTION OF FLOW	ANGLE VALVE	
CONCENTRIC REDUCER	PRESSURE REDUCING VALVE	SUPPLY REGISTER OR GRILLE TYPE FACE SIZE AIR FLOW (CFM)
ECCENTRIC REDUCER	SOLENOID VALVE	
STEAM TRAP ASSEMBLY	WALL HYDRANT	
ELBOW DOWN	HOSE BIBB	
ELBOW UP	LUBRICATED PLUG GAS COCK	RETURN GRILLE TYPE (24x24) TYPE (24x12) TYPE FACE SIZE NECK DIA. AIRFLOW (CFM)
TEE CONNECTION DOWN	BALANCING VALVE	
TEE CONNECTION UP	RPZ VALVE	
PIPING CONNECTION	BACKFLOW PREVENTOR	
CAPPED PIPE	FLOOR CLEANOUT	EXHAUST, TRANSFER & RETURN REGISTERS & GRILLES TYPE SIZE AIR FLOW (CFM)
FINNED TUBE RADIATION	CLEANOUT	
FLOOR DRAIN	DUCT SMOKE DETECTOR	
SHOCK ABSORBER	MOTORIZED O.B. DAMPER	
SUPPLY DUCT ELBOW DOWN	ACCESS PANEL	
SUPPLY DUCT ELBOW UP	ELBOW W/ TURNING VANES	
RETURN/EXHAUST ELBOW DOWN	LONG RADIUS DUCT ELBOW	
RETURN/EXHAUST ELBOW UP		
OUTSIDE AIR ELBOW DOWN	SUPPLY AIR DIFFUSER	
OUTSIDE AIR ELBOW UP	RETURN/EXHAUST AIR REGISTER/GRILLE	
SUPPLY AIR FLOW	SUPPLY AIR REGISTER	
RETURN AIR FLOW	SUPPLY DIFFUSER TAKE-OFF W/ VOLUME DAMPER, MAXIMUM FLEX DUCT LENGTH 5'-0"	
FIRE DAMPER	THERMOSTAT	
FIRE/SMOKE DAMPER		
SMOKE DAMPER		
RADIATION DAMPER		
MANUAL VOLUME DAMPER		
CONNECT TO EXISTING		

MECHANICAL LINETYPES

DOMESTIC SOFT COLD WATER PIPING	DOMESTIC COLD WATER PIPING
DOMESTIC HOT WATER PIPING	HEAT TRACE DOMESTIC HOT WATER PIPING
DOMESTIC CIRCULATING HOT WATER PIPING	VENT PIPING
ACID RESISTANT VENT PIPING	SANITARY WASTE ABOVE GROUND PIPING
SANITARY WASTE BELOW GROUND PIPING	ACID RESISTANT WASTE ABOVE GROUND PIPING
ACID RESISTANT WASTE BELOW GROUND PIPING	PUMP DISCHARGE PIPING
STORM DRAIN ABOVE GROUND PIPING	STORM DRAIN BELOW GROUND PIPING
CONDENSATE DRAIN PIPING	INDUSTRIAL AIR PIPING
VACUUM PIPING	NATURAL GAS PIPING
INTERRUPTIBLE NATURAL GAS PIPING	FIRM NATURAL GAS PIPING
LIQUEFIED PETROLEUM GAS PIPING	FUEL OIL SUPPLY PIPING
FUEL OIL RETURN PIPING	FUEL OIL GAGE PIPING
FIRE PROTECTION PIPING	BUILDING HEATING WATER SUPPLY PIPING
BUILDING HEATING WATER RETURN PIPING	LOW PRESSURE STEAM PIPING
MEDIUM PRESSURE STEAM PIPING	HIGH PRESSURE STEAM PIPING
LOW PRESSURE CONDENSATE RETURN PIPING	MEDIUM PRESSURE CONDENSATE RETURN PIPING
HIGH PRESSURE CONDENSATE RETURN PIPING	REVERSE RETURN HYDRONIC PIPING (EXISTING)
DISTRICT HEATING SUPPLY PIPING	DISTRICT HEATING RETURN PIPING
BUILDING CHILLED WATER SUPPLY PIPING	BUILDING CHILLED WATER RETURN PIPING
BUILDING CHILLER CONDENSER WATER SUPPLY PIPING	BUILDING CHILLER CONDENSER WATER RETURN PIPING
DX REFRIGERATION SYSTEM LIQUID PIPING	DX REFRIGERATION SYSTEM SUCTION PIPING
DX REFRIGERATION SYSTEM HOT GAS PIPING	BOILER FEED PIPING
EXTERIOR HYDRONIC SUPPLY PIPING	INTERIOR HYDRONIC SUPPLY PIPING
CAMPUS CHILLED WATER SUPPLY	CAMPUS CHILLED WATER RETURN
OXYGEN PIPING	VACUUM PIPING
MEDICAL AIR PIPING	NITROGEN PIPING
WASTE ANESTHESIA GAS DISPOSAL PIPING	NITROUS OXIDE PIPING
CARBON DIOXIDE PIPING	INSTRUMENT AIR PIPING

MECHANICAL ABBREVIATIONS

AD	AREA DRAIN	GR	GRILLE
AFF	ABOVE FINISHED FLOOR	HB	HOSE BIBB
AHAP	AS HIGH AS POSSIBLE	HCW	HARD COLD WATER
BFF	BELOW FINISHED FLOOR	HP	HORSE POWER
BLDG	BUILDING	HW	HOT WATER
BSMT	BASEMENT	INV	INVERT
BTWN	BETWEEN	KW	KILOWATT
CB	CATCH BASIN	LAT	LEAVING AIR TEMPERATURE
CFM	CUBIC FEET/MINUTE	LWT	LEAVING WATER TEMPERATURE
CHW	CIRCULATING HOT WATER	MAX	MAXIMUM
CLG	CEILING	MBH	1000 BTU
CO	CLEANOUT	MECH	MECHANICAL
CONCR	CONCRETE	MH	MANHOLE
CONTR	CONTRACTOR	MIN	MINIMUM
CW	COLD WATER	NTS	NOT TO SCALE
DB	DRY BULB	OA	OUTSIDE AIR
DEG	DEGREE	OBD	OPPOSED BLADE DAMPER
DIA	DIAMETER	ORD	OVERFLOW ROOF DRAIN
DIFF	DIFFUSER	P-#	PLUMBING FIXTURE NUMBER
EAT	ENTERING AIR TEMPERATURE	P & T	PRESSURE AND THERMOSTATIC
EDR	SQUARE FEET RADIATION	PD	PRESSURE DROP
EFF	EFFICIENCY	PLBG	PLUMBING
EL	ELBOW	QUAN	QUANTITY
ELEC	ELECTRICAL	RA	RETURN AIR
ELEV	ELEVATION	RD	ROOF DRAIN
EWI	ENTERING WATER TEMPERATURE	REG	REGISTER
EXH	EXHAUST	REQ'D	REQUIRED
EXIST	EXISTING	RPM	REVOLUTIONS/MINUTE
F	DEGREES FAHRENHEIT	SA	SUPPLY AIR
F & T	FLOAT AND THERMOSTATIC	SCW	SOFT COLD WATER
FD	FLOOR DRAIN	SHT	SHEET
FH	FIRE HYDRANT	SP	STATIC PRESSURE
FLA	FULL LOAD AMPS	TD	TEMPERATURE DIFFERENCE
FLR	FLOOR	VTR	VENT THROUGH ROOF
FTR	FINNED TUBE RADIATION	W/	WITH
GEN	GENERAL	WB	WET BULB
GPM	GALLONS/MINUTE	WH	WALL HYDRANT

MECHANICAL SHEET LIST

10.10	CO/NO LAYOUT
IR-02	SCHEDULES
IR-03	IR DETAILS
IR-04	DESTRAT. DETAILS
M0.00	MECHANICAL TITLE SHEET
M1.00a	PLUMBING PLAN - UNDERGROUND AREA 'A'
M1.00b	PLUMBING PLAN - UNDERGROUND AREA 'B'
M1.01a	PLUMBING PLAN - MAIN LEVEL AREA 'A'
M1.01b	PLUMBING PLAN - MAIN LEVEL AREA 'B'
M1.02a	PLUMBING PLAN - UPPER LEVEL AREA 'A'
M2.000	IR Layout (Do not include)
M2.001	SCHEDULES
M2.01a	HYDRONIC PLAN - MAIN LEVEL AREA 'A'
M2.01b	HYDRONIC PLAN - MAIN LEVEL AREA 'B'
M2.002	IR DETAILS
M2.02a	HYDRONIC PLAN - UPPER LEVEL AREA 'A'
M2.003	DESTRAT. DETAILS
M3.01a	HVAC PLAN - MAIN LEVEL AREA 'A'
M3.01b	HVAC PLAN - MAIN LEVEL AREA 'B'
M3.02a	HVAC PLAN - UPPER LEVEL AREA 'A'
M4.01	FIRE PROTECTION PLAN - MAIN AND UPPER LEVEL
M5.10	ROOF PLAN
M5.20	MECH ROOM PLAN
M6.10	SUPPLY RISERS
M6.20	WASTE RISERS
M7.10	MECHANICAL DETAILS
M7.20	MECHANICAL DETAILS
M7.30	MECHANICAL DETAILS & SCHEMATICS
M7.40	MECHANICAL DETAILS
M7.50	SCHEDULES
M7.60	SCHEDULES

NEW UTILITY AND ENGINEERING BUILDING

10875 Ideal Avenue South
Cottage Grove, MN 55016

CITY OF COTTAGE GROVE

12800 Ravine Parkway South
Cottage Grove, MN 55016



WOLD ARCHITECTS AND ENGINEERS

332 Minnesota Street, Suite W2000
Saint Paul, MN 55101

woldac.com | 651 227 7773



501 South Eighth Street

Minneapolis, MN 55404

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License Number: Date:

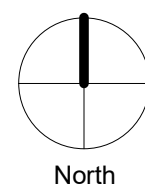
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MECHANICAL TITLE SHEET

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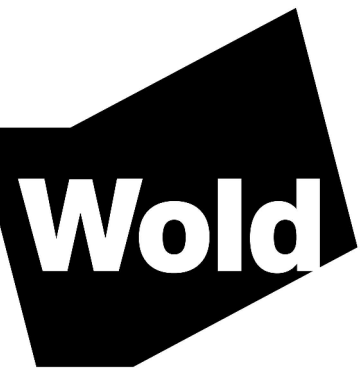
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PLUMBING PLAN GENERAL NOTES:

1. MECHANICAL CONTRACTOR SHALL DETERMINE LIMITATIONS AND/OR CONFLICTS RELATIVE TO THE EXECUTION OF HIS WORK PRIOR TO BID. VERIFY EXACT DETAIL OF INSTALLATION REQUIRED TO PROVIDE SYSTEMS SHOWN WITHIN SPACE INTENDED.

2. ALL RISES AND DROPS IN PIPING ARE NOT NECESSARILY SHOWN. LAYOUT ROUTING AND COORDINATE WORK WITH OTHER TRADES BEFORE CONSTRUCTION.

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4. LOCATE ALL VALVES, METERS, GAUGES AND PIPING SPECIALTIES ABOVE ACCESSIBLE CEILINGS.

5. COORDINATE ALL UTILITY CONNECTION SIZES, LOCATIONS, AND INVERTS WITH THE SITE UTILITY CONTRACTOR.

6. INSTALL WALL HYDRANTS AT 2'-0" ABOVE FINISHED GRADE. FIELD VERIFY EXACT LOCATION.

7. THE MECHANICAL CONTRACTOR SHALL REMOVE ALL EXISTING CEILING TILES AND GRIDS BEYOND EXTENT SHOWN ON ARCHITECTURAL PLANS AS REQUIRED FOR INSTALLATION OF NEW WORK. ANY DAMAGED TILES AND OR GRIDS SHALL BE REPLACED WITH NEW TO MATCH AT THE CONTRACTORS EXPENSE.

8. REFER TO PLUMBING RISER DIAGRAMS FOR
ADDITIONAL PIPE SIZES NOT SHOWN ON DRAWING.

9. PROVIDE AND INSTALL ALL LOW VOLTAGE WIRING TO ELECTRONIC PLUMBING FIXTURES IN A CONTINUOUS RACEWAY SYSTEM TO CONFORM TO ALL DIVISION 26 REQUIREMENTS. WORK TO INCLUDE TRANSFORMERS AS NECESSARY FOR THE CONNECTED QUANTITY OF FIXTURES, WIRING, CONDUIT, JUNCTION BOXES, AND FINAL CONNECTIONS. THE ELECTRICAL CONTRACTOR WILL PROVIDE 120/1 VOLT POWER AND CONNECTIONS TO LINE VOLTAGE SIDE OF THE TRANSFORMER. REFER TO THE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

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PLUMBING PLAN KEYED NOTES:

- ① BALANCE TO INDICATED GPM.
- ② ROUTE OVERFLOW STORM DRAIN THRU WALL AS HIGH AS POSSIBLE.
- ③ PROVIDE HEAT TRACE FOR STORM DRAIN. COORDINATE WITH DIV. 26 FOR ELEC. CONNECTIONS.
PROVIDE 1/2" SCW LINE TO WALL OUTLET BOX FOR HEAT TRACE. PROVIDE WITH INLINE CARBON FILTER AND BALL VALVES ON BOTH SIDES. PROVIDE ASSE 1022 BACKFLOW PREVENTER ON SUPPLY PIPING WITH CORRESPONDING PIPING TO FLOOR DRAIN.
- ④ PROVIDE 1/2" HCW LINE TO WALL OUTLET BOX FOR COUNTERTOP ICEMAKER. PROVIDE WITH INLINE CARBON FILTER AND BALL VALVES ON BOTH SIDES. PROVIDE ASSE 1022 BACKFLOW PREVENTER ON SUPPLY PIPING. PROVIDE 1" INDURITE DRAIN PIPING TO FLOOR DRAIN DRAIN LARGE ICEMAKER.
- ⑤ ROUTE 3/4" DRAIN LINE FROM ROOF HYDRANT TO MOP SINK.
- ⑥ ROUTE PIPES TIGHT ALONG WALL BELOW MEZZANINE RAILING.
- ⑦ PROVIDE 1" CAPPED AND VALVED PIPE FOR HOT/RY PRESSURE WASHER. COORDINATE EXACT LOCATION.

D1 PLUMBING PLAN - UNDERGROUND AREA 'A'
1/8" = 1'-0"

A

B

KEY PLAN

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me or under my direct supervision and that I am a duly Licensed
PROFESSIONAL ENGINEER
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License
Number: _____ Date _____

[illegible]

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North

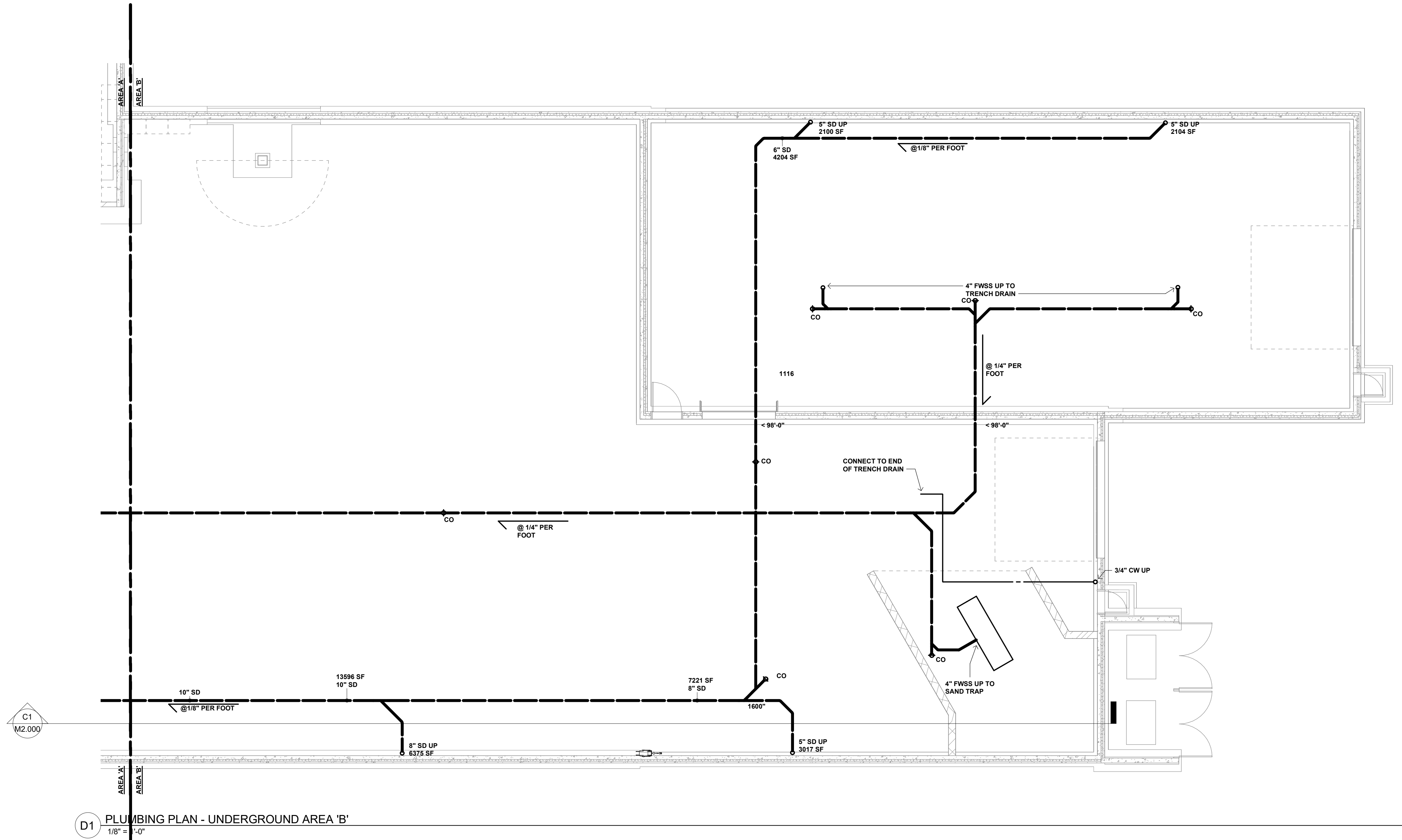
PLUMBING PLAN - UNDERGROUND AREA 'A'

Scale: 1/8" = 1'-0"

M1.00a

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- PLUMBING PLAN GENERAL NOTES:**
1. MECHANICAL CONTRACTOR SHALL DETERMINE LIMITATIONS AND/OR CONFLICTS RELATIVE TO THE EXECUTION OF HIS WORK PRIOR TO BID. VERIFY EXACT DETAIL OF INSTALLATION REQUIRED TO PROVIDE SYSTEMS SHOWN WITHIN SPACE INTENDED.
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 4. LOCATE ALL VALVES, METERS, GAUGES AND PIPING SPECIALTIES ABOVE ACCESSIBLE CEILINGS.
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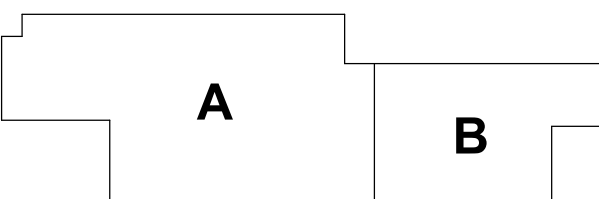
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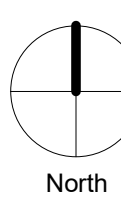


KEY PLAN

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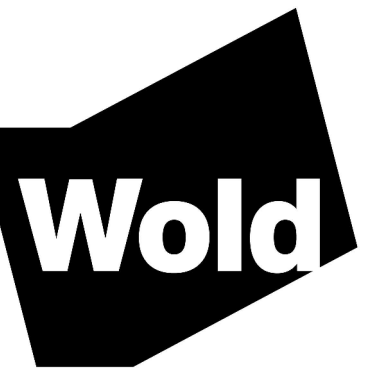
PLUMBING PLAN - UNDERGROUND AREA 'B'

Scale: 1/8" = 1'-0"

M1.00b

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

Scale: 1/8" = 1'-0"



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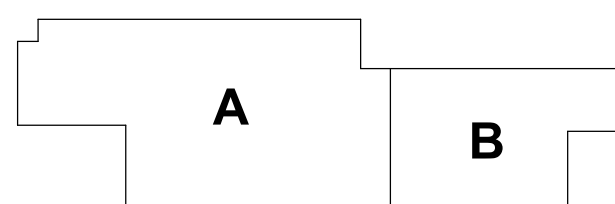
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PLUMBING PLAN KEYED NOTES:

- 1 BALANCE TO INDICATED GPM.
- 2 ROUTE OVERHEAD STEAM DRAIN THRU WALL AS HIGH AS POSSIBLE
- 3 PROVIDE HEAT TRACE FOR STEAM DRAIN. COORDINATE WITH DWG. 28 FOR ELEC. CONNECTIONS.
- 4 PROVIDE 1/2" SCH LINE TO WALL OUTLET BOX FOR 1/2" NUNO CARBON FILTER AND BALL VALVES ON BOTH SIDES. PROVIDE ASSE 1022 BACKFLOW PREVENTER ON SUPPLY PIPING WITH 1" NUNO WASTE PIPING TO FLOOR DRAIN.
- 5 PROVIDE 1/2" HGW LINE TO WALL OUTLET BOX FOR COUNTERTOP ICEMAKER. PROVIDE WITH NUNO CARBON FILTER AND BALL VALVES ON BOTH SIDES. PROVIDE ASSE 1022 BACKFLOW PREVENTER ON SUPPLY PIPING. PROVIDE 1" NUNO WASTE PIPING TO FLOOR DRAIN UNDER LAZER CREAMER.
- 6 ROUTE 3/4" DRAIN LINE FROM ROOF FLOOR DRAIN TO MOP SINK.
- 7 ROUTE PIPES TIGHT ALONG WALL BELOW MEZZANINE RAILING.
- 8 PROVIDE 1" WAPPED AND VALVED PIPE FOR HOTSPY PIPING TO CASHIER. COORDINATE EXACT LOCATION.



KEY PLAN

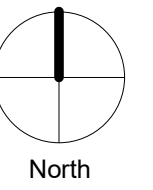
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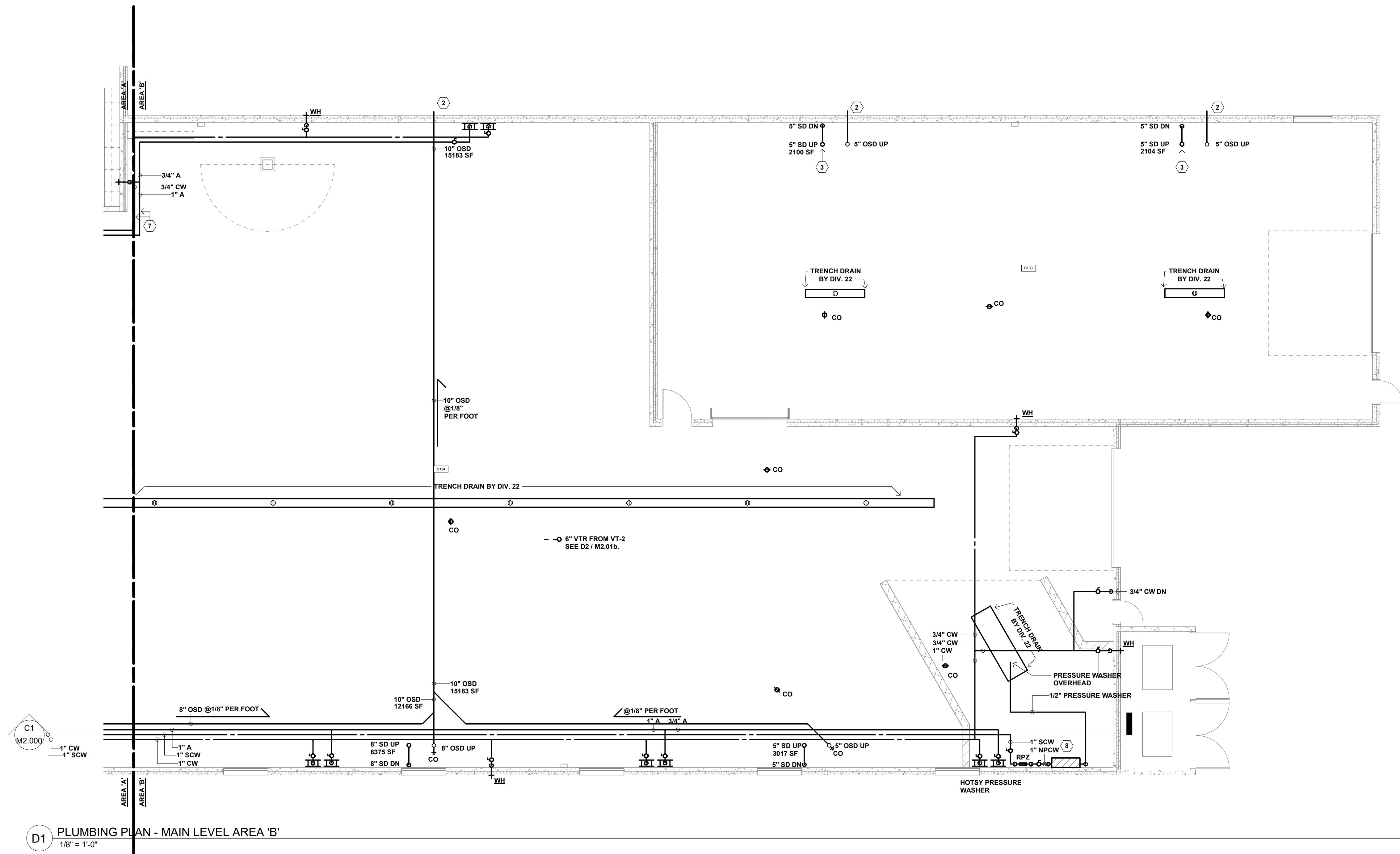


PLUMBING PLAN - MAIN LEVEL AREA 'B'

Scale: 1/8" = 1'-0"

M1.01b

**FINAL CD SET DRAFT
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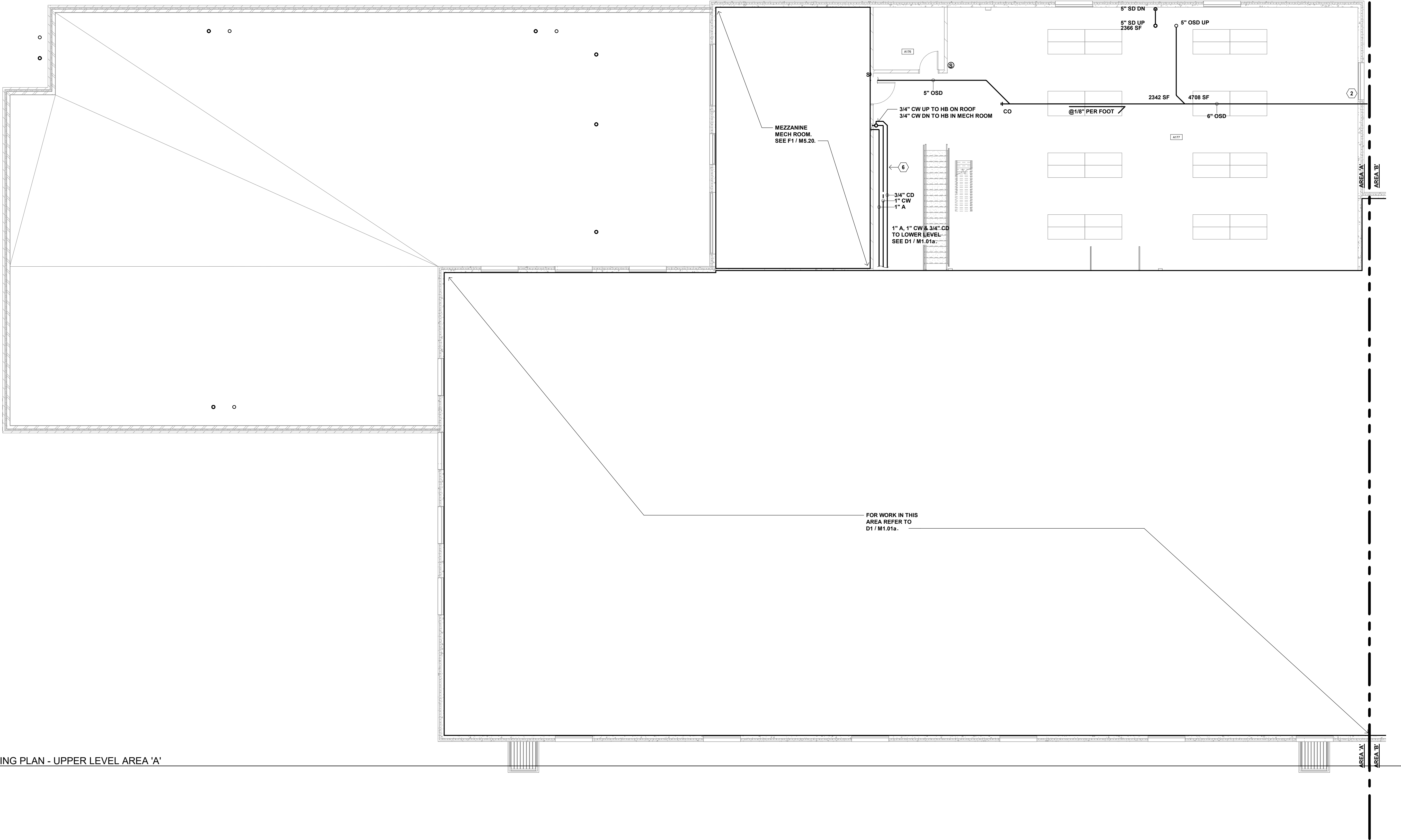


MN

D1 PLUMBING PLAN - UPPER LEVEL AREA 'A'
1/8" = 1'-0"

1
2
3
4
5
6
7
8

A
B
C
D
E
F



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 4. LOCATE ALL VALVES, METERS, GAUGES AND PIPING SPECIALTIES ABOVE ACCESSIBLE CEILINGS.
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1. BALANCE TO INDICATED GPM.
 2. ROUTE OVERFLOW STORM DRAIN THRU WALL AS HIGH AS POSSIBLE.
 3. PROVIDE HEAT TRACE FOR STORM DRAIN. COORDINATE WITH DIV. 26 FOR ELEC. CONNECTIONS.
 4. PROVIDE 1/2" SCW LINE TO WALL OUTLET BOX FOR ICEMAKER. PROVIDE WITH INLINE CARBON FILTER AND BALL VALVES ON BOTH SIDES. PROVIDE ASSE 1022 BACKFLOW PREVENTER ON SUPPLY PIPING WITH 1" INDIRECT WASTE PIPING TO FLOOR DRAIN.
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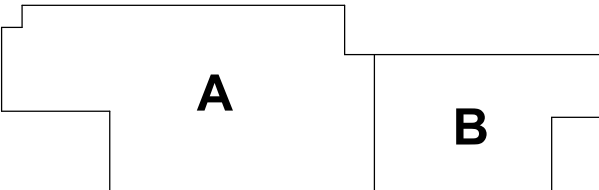
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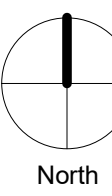


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PLUMBING PLAN - UPPER LEVEL AREA 'A'

Scale: 1/8" = 1'-0"

M1.02a

FINAL CD SET DRAFT NOT FOR CONSTRUCTION

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NEW UTILITY AND
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BUILDING

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HYDRONIC PLAN GENERAL NOTES:

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3. LOCATE ALL VALVES, METERS, GAUGES, AND PIPING SPECIALTIES ABOVE ACCESSIBLE CEILINGS.
4. COORDINATE TEMPERATURE SENSOR LOCATIONS WITH OTHER TRADES, BUILDING ELEMENTS, MARKER BOARDS, AND ELECTRICAL SWITCHES. ADJUST THE EXACT LOCATIONS AS REQUIRED TO AVOID CONFLICTS.
5. BRANCH PIPING TO EQUIPMENT TO BE 3/4" UNLESS OTHERWISE NOTED.
6. ROUTE PIPES BETWEEN JOIST WEBS WHERE REQUIRED TO COORDINATE WITH THE INSTALLATION OF OTHER TRADES AND TO MAINTAIN CEILING HEIGHTS. COORDINATE LOCATIONS PRIOR TO CROSS BRACING TO ENSURE THERE ARE NO CONFLICTS.
7. THE MECHANICAL CONTRACTOR SHALL REMOVE ALL EXISTING CEILING TILES AND GRIDS BEYOND EXTENT SHOWN ON ARCHITECTURAL PLANS AS REQUIRED FOR INSTALLATION OF NEW WORK. ANY DAMAGED TILES AND GRIDS SHALL BE REPLACED WITH NEW TO MATCH AT THE CONTRACTORS EXPENSE.
8. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED REINFORCEMENT OF NEW AND EXISTING STRUCTURAL MEMBERS FOR MECHANICAL SYSTEMS. REFER TO "MECHANICAL SUPPORT REINFORCEMENT DETAIL" FOR ADDITIONAL REQUIREMENTS.

HYDRONIC PLAN KEYED NOTES:

1. BALANCE TO INDICATED GPM.
2. PROVIDE SENSOR IN SNOW MELT. REFER TO DETAIL E4 / M7.30. PROVIDE UNDER ALTERNATE #1 ONLY.
3. PROVIDE SNOW MELT MANIFOLD AND SHROUD. REFER TO DETAIL D6 / M7.30. ALL TUBING SHALL BE ROUTED DIRECTLY UNDERGROUND FROM THE MANIFOLD TO THE SIDEWALK PER THE DETAIL. PROVIDE UNDER ALTERNATE #1 ONLY.
4. PROVIDE GAS MAIN SHUTOFF VALVE 5' AFF. ON VERTICAL GAS PIPE.
5. IR HEATING CONTROL PANEL.

E1 HYDRONIC PLAN - MAIN LEVEL AREA 'A'
1/8" = 1'-0"

A B

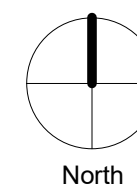
KEY PLAN

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License Number: Date:

Description	Revisions	
	Date	Num

Comm: 232010
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Check: PJ



HYDRONIC PLAN -
MAIN LEVEL AREA
'A'

Scale: 1/8" = 1'-0"

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M2.01a

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1. ALL RISES AND DROPS IN PIPING ARE NOT NECESSARILY SHOWN. LAYOUT ROUTING AND COORDINATE WORK WITH OTHER TRADES BEFORE CONSTRUCTION.

2. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND PATCHING OF CONSTRUCTION UNLESS OTHERWISE NOTED ON THE PLANS. NO CUTTING OF STRUCTURAL MEMBERS OR STRUCTURE WHICH WILL DETERIORATE THE INTEGRITY AND STRENGTH OF THE BUILDING WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

3. LOCATE ALL VALVES, METERS, GAUGES, AND PIPING SPECIALTIES ABOVE ACCESSIBLE CEILINGS.

4. COORDINATE TEMPERATURE SENSOR LOCATIONS WITH OTHER TRADES, BUILDING ELEMENTS, MARKER BOARDS, AND ELECTRICAL SWITCHES. ADJUST THE EXACT LOCATIONS AS REQUIRED TO AVOID CONFLICTS.

5. BRANCH PIPING TO EQUIPMENT TO BE 3/4" UNLESS OTHERWISE NOTED.

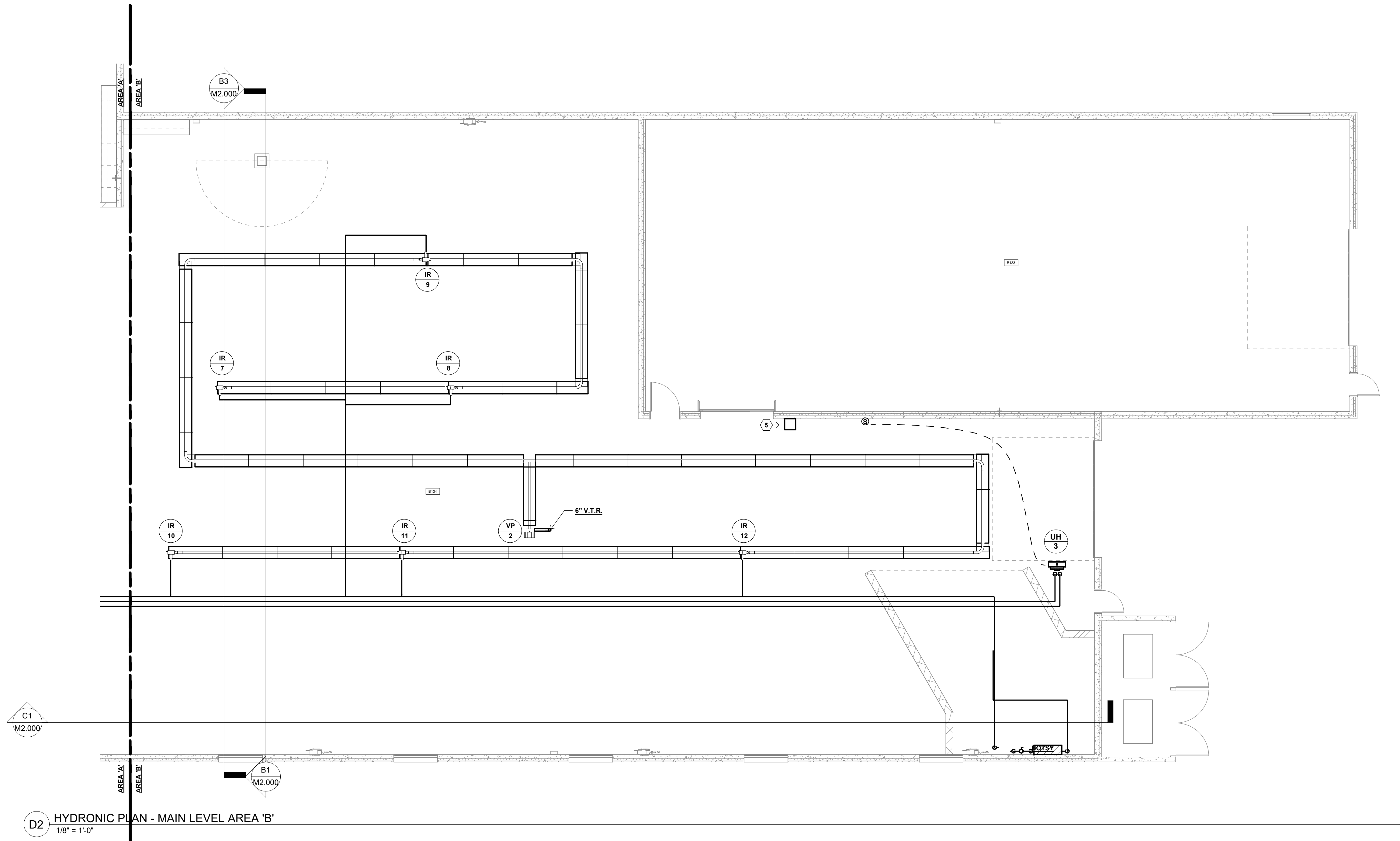
6. ROUTE PIPES BETWEEN JOIST WEBS WHERE REQUIRED TO COORDINATE WITH THE INSTALLATION OF OTHER TRADES AND TO MAINTAIN CEILING HEIGHTS. COORDINATE LOCATIONS PRIOR TO CROSS BRACING TO ENSURE THERE ARE NO CONFLICTS.

7. THE MECHANICAL CONTRACTOR SHALL REMOVE ALL EXISTING CEILING TILES AND GRIDS BEYOND EXTENT SHOWN ON ARCHITECTURAL PLANS AS REQUIRED FOR INSTALLATION OF NEW WORK. ANY DAMAGED TILES AND OR GRIDS SHALL BE REPLACED WITH NEW TO MATCH AT THE CONTRACTORS EXPENSE.

8. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED REINFORCEMENT OF NEW AND EXISTING STRUCTURAL MEMBERS FOR MECHANICAL SYSTEMS. REFER TO "MECHANICAL SUPPORT REINFORCEMENT DETAIL" FOR ADDITIONAL REQUIREMENTS.

1 BALANCE TO INDICATED GPM.

- 1 BALANCE TO INDICATED GPM.
- 2 PROVIDE SENSOR IN SNOW MELT. REFER TO DETAIL E4 / M7.30. PROVIDE UNDER ALTERNATE # ONLY.
- 3 PROVIDE SNOW MELT MANIFOLD AND SHROUD. REFER TO DETAIL D6 / M7.30. ALL TUBING SHALL BE ROUTED DIRECTLY UNDERGROUND FROM THE MANIFOLD TO THE SIDEWALK PER THE DETAIL. PROVIDE UNDER ALTERNATE #1 ONLY.
- 4 PROVIDE GAS MAIN SHUTOFF VALVE 5' AFF. ON VERTICAL GAS PIPE.
- 5 IR HEATING CONTROL PANEL.



The diagram shows two adjacent rectangular blocks, labeled A and B, representing the two parts of the system. Block A is on the left and block B is on the right. They are separated by a vertical line, indicating they are distinct components of the system.

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Comm: **232010**
Date: **10/26/2023**
Drawn: **RR**
Check: **PJ**


North

HYDRONIC PLAN - MAIN LEVEL AREA 'B'

Scale: 1/8" = 1'-0"

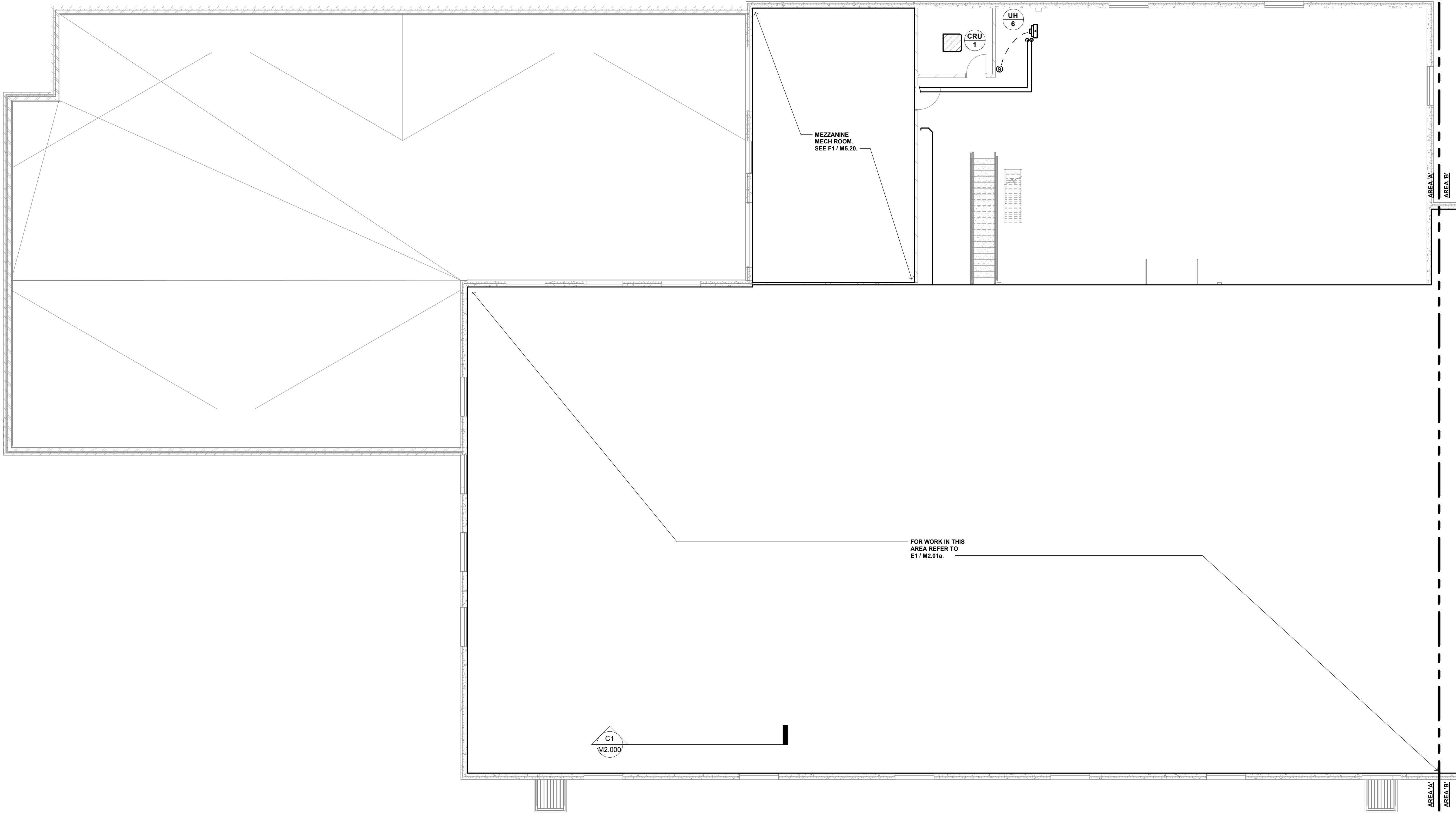
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- HYDRONIC PLAN GENERAL NOTES:**
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 2. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND PATCHING OF CONSTRUCTION UNLESS OTHERWISE NOTED ON THE PLANS. NO CUTTING OF STRUCTURAL MEMBERS OR STRUCTURE WHICH WILL DETERIORATE THE INTEGRITY AND STRENGTH OF THE BUILDING WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
 3. LOCATE ALL VALVES, METERS, GAUGES, AND PIPING SPECIALTIES ABOVE ACCESSIBLE CEILINGS.
 4. COORDINATE TEMPERATURE SENSOR LOCATIONS WITH OTHER TRADES, BUILDING ELEMENTS, MARKER BOARDS, AND ELECTRICAL SWITCHES. ADJUST THE EXACT LOCATIONS AS REQUIRED TO AVOID CONFLICTS.
 5. BRANCH PIPING TO EQUIPMENT TO BE 3/4" UNLESS OTHERWISE NOTED.
 6. ROUTE PIPES BETWEEN JOIST WEBS WHERE REQUIRED TO COORDINATE WITH THE INSTALLATION OF OTHER TRADES AND TO MAINTAIN CEILING HEIGHTS. COORDINATE LOCATIONS PRIOR TO CROSS BRACING TO ENSURE THERE ARE NO CONFLICTS.
 7. THE MECHANICAL CONTRACTOR SHALL REMOVE ALL EXISTING CEILING TILES AND GRIDS BEYOND EXTENT SHOWN ON ARCHITECTURAL PLANS AS REQUIRED FOR INSTALLATION OF NEW WORK. ANY DAMAGED TILES AND GRIDS SHALL BE REPLACED WITH NEW TO MATCH AT THE CONTRACTORS EXPENSE.
 8. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED REINFORCEMENT OF NEW AND EXISTING STRUCTURAL MEMBERS FOR MECHANICAL SYSTEMS. REFER TO "MECHANICAL SUPPORT REINFORCEMENT DETAIL" FOR ADDITIONAL REQUIREMENTS.

- HYDRONIC PLAN KEYED NOTES:**
1. BALANCE TO INDICATED GPM.
 2. PROVIDE SENSOR IN SNOW MELT. REFER TO DETAIL E4 / M7.30. PROVIDE UNDER ALTERNATE #1 ONLY.
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 5. IR HEATING CONTROL PANEL.

D1 HYDRONIC PLAN - UPPER LEVEL AREA 'A'
1/8" = 1'-0"

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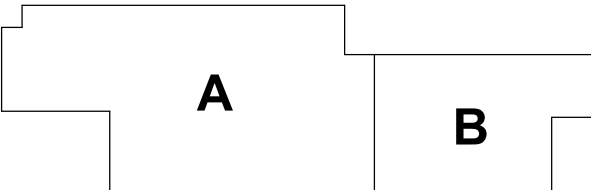
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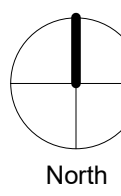
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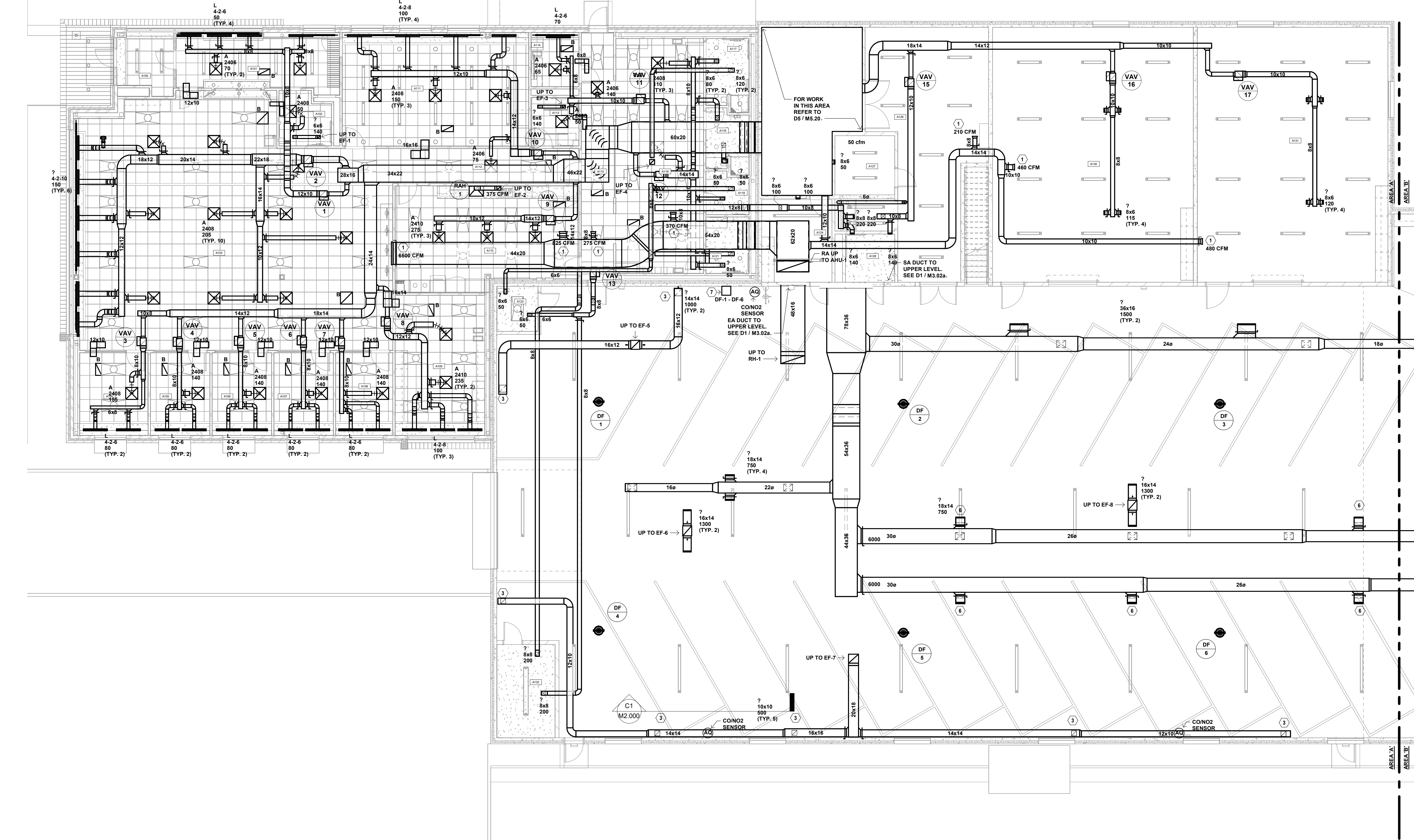
HYDRONIC PLAN - UPPER LEVEL AREA 'A'

Scale: 1/8" = 1'-0"

M2.02a

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D1 HVAC PLAN - MAIN LEVEL AREA 'A'
1/8" = 1'-0"

- HVAC PLAN GENERAL NOTES:**
- TRANSFER DUCTS AND DUCTS CONNECTED TO TRANSFER FANS SHALL HAVE 1" INTERNAL SOUND ATTENUATING LINER
 - DO NOT INSTALL FLEXIBLE DUCT CONNECTIONS ABOVE INACCESSIBLE CEILINGS
 - DIFFUSER DUCT RUNOUTS AND FLEXIBLE DUCT CONNECTIONS SHALL BE THE SAME SIZE AS THE DIFFUSER NECK.
 - THE VARIABLE AIR VOLUME CONTROL BOX SHALL BE LOCATED IN A POSITION TO ENSURE ACCESSIBILITY. VARIABLE AIR VOLUME COIL CONNECTIONS SHALL BE ON THE SAME SIDE AS THE CONTROL BOX.
 - LOCATE BALANCING DAMPERS ABOVE ACCESSIBLE CEILINGS WHERE POSSIBLE.
 - COORDINATE LOCATIONS OF ANY ACCESS PANELS REQUIRED IN WALLS OR CEILINGS WITH GENERAL CONTRACTOR.
 - ROUTE DUCTS BETWEEN JOISTS AND THROUGH JOIST WEBS WHERE REQUIRED TO COORDINATE WITH THE INSTALLATION OF OTHER TRADES AND TO MAINTAIN CEILING HEIGHTS. COORDINATE LOCATIONS PRIOR TO CROSS BRACING TO ENSURE THERE ARE NO CONFLICTS. AREAS KEYNOTED ARE MINIMUM REQUIRED.
 - DIFFUSER AND REGISTER LOCATIONS SHALL BE COORDINATED WITH LIGHT FIXTURE LOCATIONS AND SHALL BE IN ACCORDANCE WITH CEILING PATTERNS AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS.
 - ALL RISES AND DROPS IN DUCTWORK ARE NOT NECESSARILY SHOWN. LAYOUT ROUTING AND COORDINATE WORK WITH OTHER TRADES BEFORE CONSTRUCTION.
 - ALL SUPPLY DUCTWORK ROUTED IN CONCEALED SPACES AND ABOVE CEILINGS SHALL BE EXTERNALLY INSULATED. DO NOT INSULATE RETURN DUCTWORK. INSULATE RELIEF DUCTWORK AS SPECIFIED.
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 - MECHANICAL CONTRACTOR SHALL DETERMINE LIMITATIONS AND/OR CONFLICTS RELATIVE TO THE EXECUTION OF HIS WORK PRIOR TO BID. VERIFY EXACT DETAIL OF INSTALLATION REQUIRED TO PROVIDE SYSTEMS SHOWN WITHIN SPACE INTENDED.
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 - PROVIDE SMOKE DETECTOR IN RETURN AIR DUCT.
 - ROUTE DUCT ABOVE WINDOW SO DUCT IS NOT VISIBLE THROUGH WINDOW.
 - MOUNT TAKEOFF AT 45°.
 - DESTRAT FAN CONTROL.

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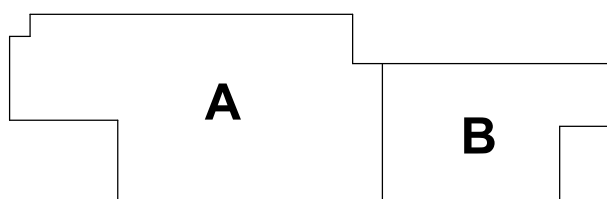
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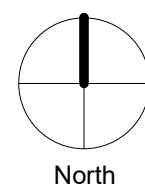


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HVAC PLAN - MAIN LEVEL AREA 'A'

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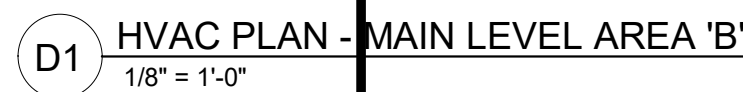
Scale: 1/8" = 1'-0"

M3.01a

Architect: Wold Architects and Engineers, Inc. 332 Minnesota Street, Suite W2000, Saint Paul, MN 55101
Engineer: Kraus-Anderson, Inc. 501 South Eighth Street, Minneapolis, MN 55404
Date: 10/26/2023
Project: NEW UTILITY AND ENGINEERING BUILDING
Sheet: M3.01a of 2

M3.01b

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- 7 DESTRAIT FAN CONTROL.

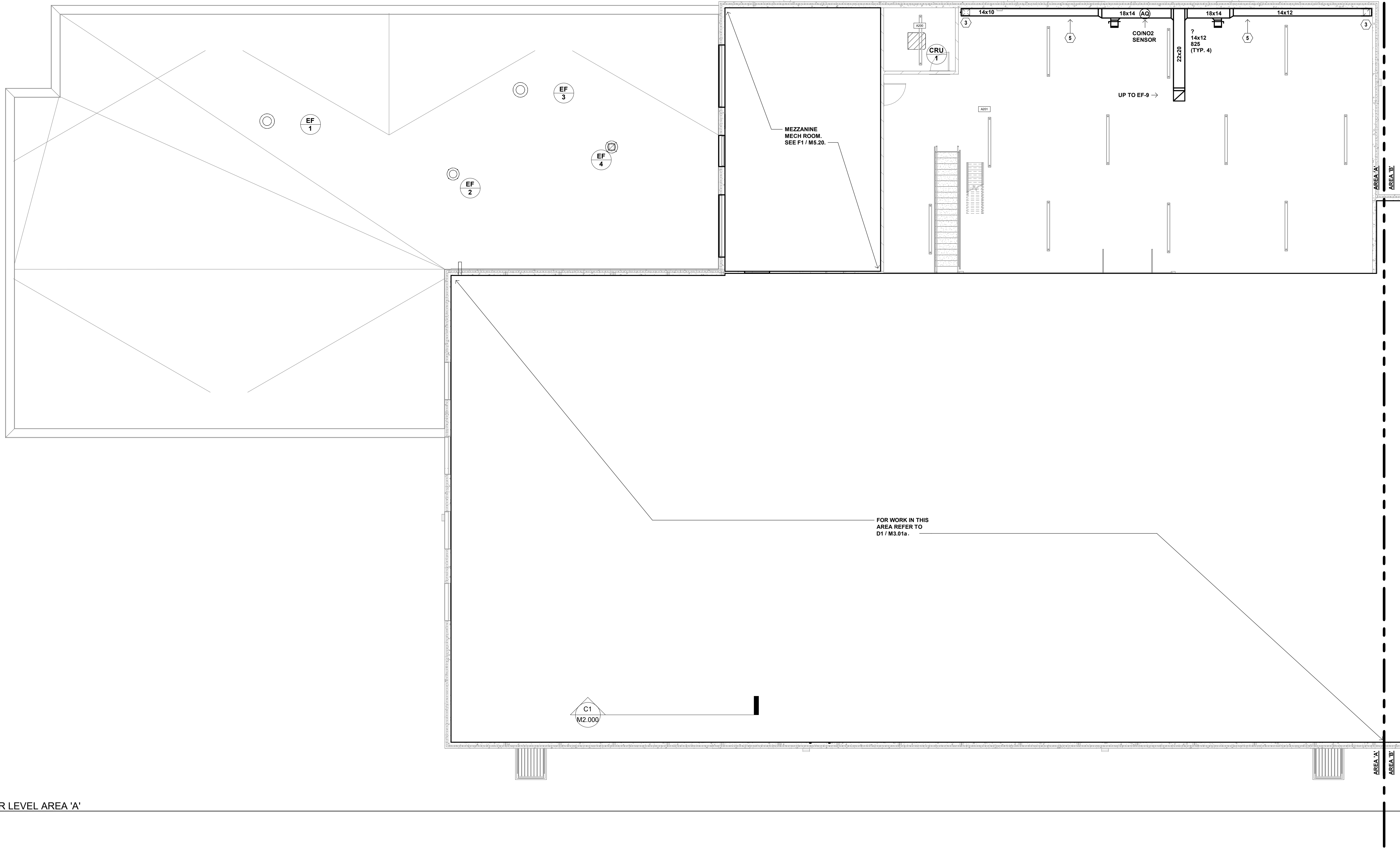


Architect: Davis Brody Bond
Building MECH: general fit-out
General Architect: DMJM-HK
MECH Building MECH: general fit-out

M

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D1 HVAC PLAN - UPPER LEVEL AREA 'A'
1/8" = 1'-0"

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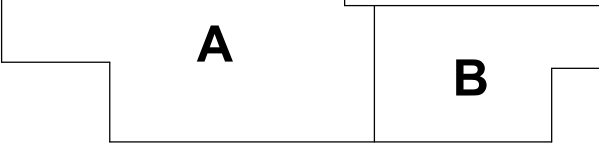
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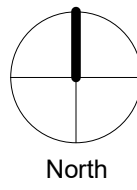


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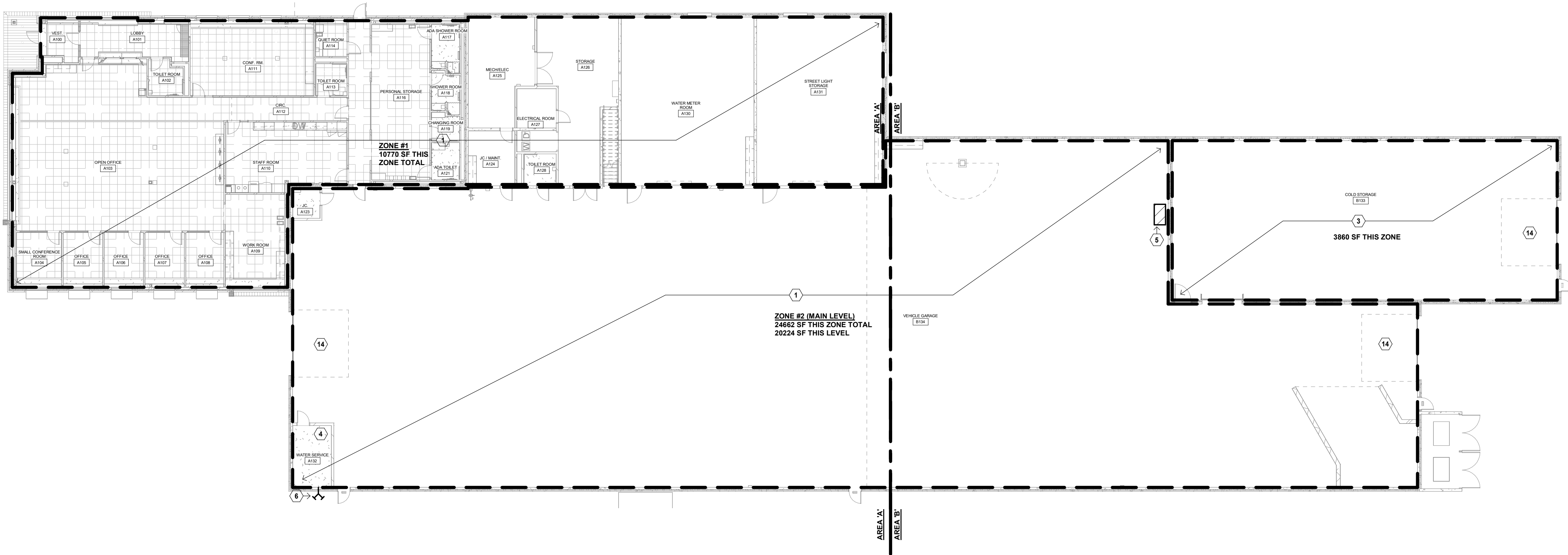
HVAC PLAN - UPPER LEVEL AREA 'A'

Scale: 1/8" = 1'-0"

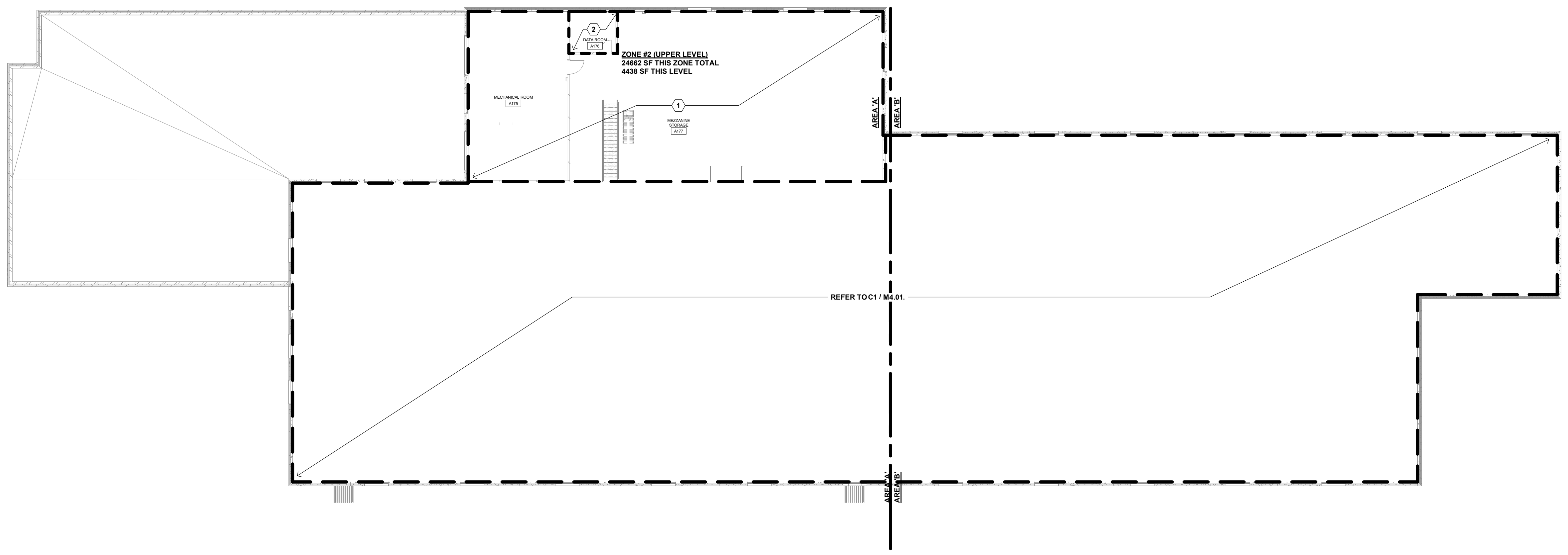
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C1 FIRE PROTECTION PLAN - MAIN LEVEL
1/16" = 1'-0"



F1 FIRE PROTECTION PLAN - UPPER LEVEL
1/16" = 1'-0"

- FIRE PROTECTION PLAN GENERAL NOTES:**
1. NO PIPING SHALL BE SUPPORTED FROM JOIST BRIDGING OR OTHER PIPING, DUCTWORK, OR CONDUIT.
 2. ALL PIPING SHALL BE SUPPORTED FROM TOP CORDS OF JOISTS OR FROM CONCRETE DECKING BY APPROVED MEANS.
 3. FIRE PROTECTION CONTRACTOR IS REQUIRED TO PROVIDE SLEEVES FOR ALL PIPING PENETRATIONS OF FIRE RESISTIVE OR SMOKE TIGHT WALLS AND FLOOR OPENINGS. SEAL ALL PIPE PENETRATION OPENINGS AND FIRE CAULK ALL SLEEVE LOCATIONS AS REQUIRED TO MAINTAIN RATING. REFER TO ARCHITECTURAL CODE PLAN FOR RATING LOCATIONS.
 4. ALL SPRINKLER PIPING WITH LAY-IN ACOUSTIC, OR GYPSUM BOARD, CEILINGS SHALL BE ROUTED ABOVE THE CEILING.
 5. DO NOT RUN SPRINKLER PIPE NEAR INTAKE LOUVER OR FRESH AIR INTAKES.
 6. PROVIDE AN INSPECTORS TEST AT REMOTE POINT FOR EACH ZONE. ROUTE TEST AND DRAIN PIPES TO GRADE. PIPES ROUTED TO GRADE SHALL TERMINATE WITH A BRASS DRAIN FITTING. EXPOSED GALVANIZED PIPE IS NOT ACCEPTABLE.
 7. FIRE PROTECTION CONTRACTOR TO CONDUCT A FLOW TEST AT HYDRANT NEAREST BUILDING AND RECORD WATER MAIN SIZE, STATIC AND RESIDUAL PRESSURES, AND G.P.M. FLOW. CONTACT AND COORDINATE FLOW TIME WITH CITY WATER DEPARTMENT. SEE SPEC SECTION 21 10 00, PARAGRAPH 1.04.
 8. HEADS SHALL BE LOCATED WITHIN 2" OF CENTER OR QUARTER POINTS OF 2'x4' CEILING TILES AND WITHIN 2" OF CENTER OF 2'x2' CEILING TILES.
 9. PROVIDE SPRINKLER HEADS BELOW ALL DUCTWORK THAT CREATES AN OBSTRUCTION TO SPRAY PATTERN AND ALL DUCTWORK GREATER THAN 48" WIDE.
 10. FURNISH AND INSTALL PERMANENT PLASTIC LAMINATED SIGNS TO IDENTIFY EACH SPRINKLER VALVE, THE AREA IT CONTROLS, AND HYDRAULIC DESIGN DATA.
 11. FURNISH AND INSTALL PERMANENT PLASTIC LAMINATE SIGN TO IDENTIFY INSPECTOR TEST CONNECTIONS AND THE ZONE IT SERVES.
 12. THE INSTALLATION OF THE FIRE PROTECTION SYSTEM SHALL CONFORM TO I.S.O. AND N.F.P.A. REQUIREMENTS.
 13. COORDINATE ALL FIRE PROTECTION PIPING WITH OTHER TRADES. COORDINATION SHALL BE THE RESPONSIBILITY OF THE FIRE PROTECTION CONTRACTOR.
 14. ALL AREAS SHALL BE LIGHT HAZARD EXCEPT AS FOLLOWS. REFER TO ARCHITECTURAL FLOOR PLANS FOR ROOM TYPES.
ORDINARY GROUP I
JANITORS CLOSET
MECHANICAL ROOMS
VEHICLE GARAGE
ORDINARY GROUP II
KITCHEN AND STAFF ROOM
STORAGE ROOMS
BOILER ROOM
COLD STORAGE
 15. ELECTRICAL ROOMS (ALL VOLTAGES) TO BE SPRINKLED AND BE PROVIDED WITH SHIELDING.
 16. ALL SPRINKLER HEADS INSTALLED 7'-0" OR LESS SHALL HAVE HEAVY DUTY PROTECTIVE GUARDS.
 17. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED REINFORCEMENT OF NEW AND EXISTING STRUCTURAL MEMBERS FOR MECHANICAL SYSTEMS. REFER TO "MECHANICAL SUPPORT REINFORCEMENT DETAIL" FOR ADDITIONAL REQUIREMENTS.

- FIRE PROTECTION PLAN KEYED NOTES:**
1. PROVIDE WET-TYPE FIRE SUPPRESSION SYSTEM IN AREA INDICATED PER ALL NFPA AND LOCAL CODES. PROVIDE FIRE SUPPRESSION SYSTEM PLAN AND HYDRAULIC CALCULATION PER SPECIFICATION SECTION 21 10 00.
 2. PROVIDE CLEAN AGENT FIRE SUPPRESSION SYSTEM PER SPECIFICATION 21 22 00 AND ALL ASSOCIATED CONTROLS, STROBES, AND ACCESSORIES.
 3. PROVIDE DRY-TYPE FIRE SUPPRESSION SYSTEM IN AREA INDICATED PER ALL NFPA AND LOCAL CODES.
 4. MAIN SERVICE LOCATION AND RISER ASSEMBLY. REFER TO PLUMBING PLAN DIAGRAMS FOR WATER MAIN ROUTED INTO THE BUILDING AND TO DETAIL.
 5. DRY SYSTEM ASSEMBLY AND COMPRESSOR.
 6. FDC LOCATION. COORDINATE EXACT LOCATION WITH LOCAL AUTHORITY HAVING JURISDICTION.
 7. PROVIDE FIRE SUPPRESSION CONTROL PANEL.
 8. MAINTENANCE OVERRIDE SWITCH.
 9. PROVIDE CLEAN AGENT TANK.
 10. MANUAL RELEASE PULL STATION.
 11. ABORT BUTTON.
 12. SMOKE DETECTION HORNS/STROBES INSIDE ROOM.
 13. DISCHARGE HORN/STROBE OUTSIDE ROOM.
 14. PROVIDE SPRINKLER COVERAGE ABOVE AND BELOW OVERHEAD DOORS.
 15. PROVIDE VESDA DETECTION PANEL.
 - 16.

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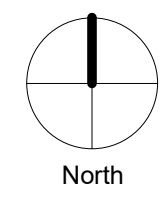
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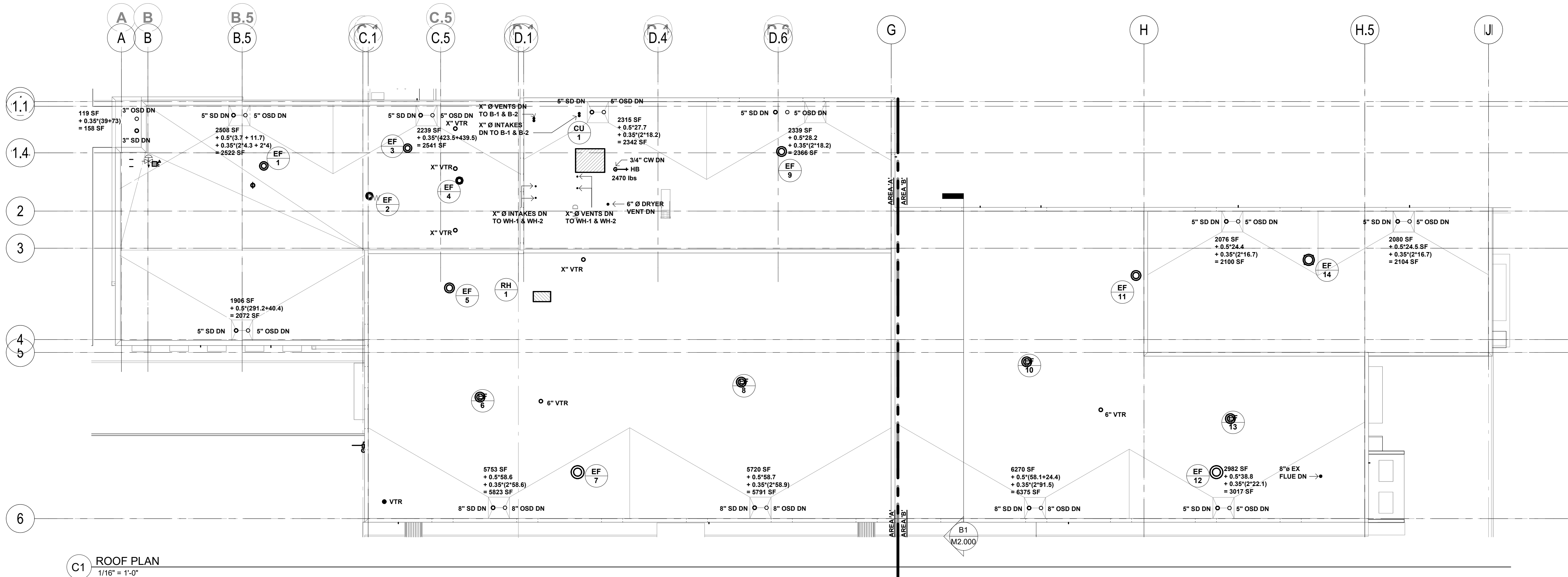
FIRE PROTECTION PLAN - MAIN AND UPPER LEVEL

Scale: As indicated

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M4.01

MN



C1 ROOF PLAN
1/16" = 1'-0"

ROOF PLAN GENERAL NOTES:

1. MECHANICAL CONTRACTOR SHALL DETERMINE LIMITATIONS AND/OR CONFLICTS RELATIVE TO THE EXECUTION OF HIS WORK PRIOR TO BID. VERIFY EXACT DETAIL OF INSTALLATION REQUIRED TO PROVIDE SYSTEMS SHOWN WITHIN SPACE INTENDED.
2. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND PATCHING OF CONSTRUCTION UNLESS OTHERWISE NOTED ON THE PLANS. NO CUTTING OF STRUCTURAL MEMBERS OR STRUCTURE WHICH WILL DETERIORATE THE INTEGRITY AND STRENGTH OF THE BUILDING WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
3. BUILDING EXHAUST AND PLUMBING VENTS SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ALL VENTILATION INTAKES.
4. ANY MECHANICAL EQUIPMENT REQUIRING MAINTENANCE SHALL BE LOCATED A MINIMUM 10 FEET FROM ALL ROOF EDGES UNLESS A GUARD RAIL IS PROVIDED.
5. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED REINFORCEMENT OF NEW AND EXISTING STRUCTURAL MEMBERS FOR MECHANICAL SYSTEMS. REFER TO "MECHANICAL SUPPORT REINFORCEMENT DETAIL" FOR ADDITIONAL REQUIREMENTS.

ROOF PLAN KEYED NOTES:

- 1 6" Ø DRYER EXHAUST DOWN. SEE DETAIL.

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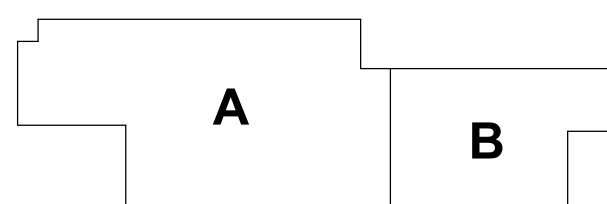
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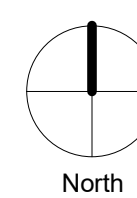
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ROOF PLAN

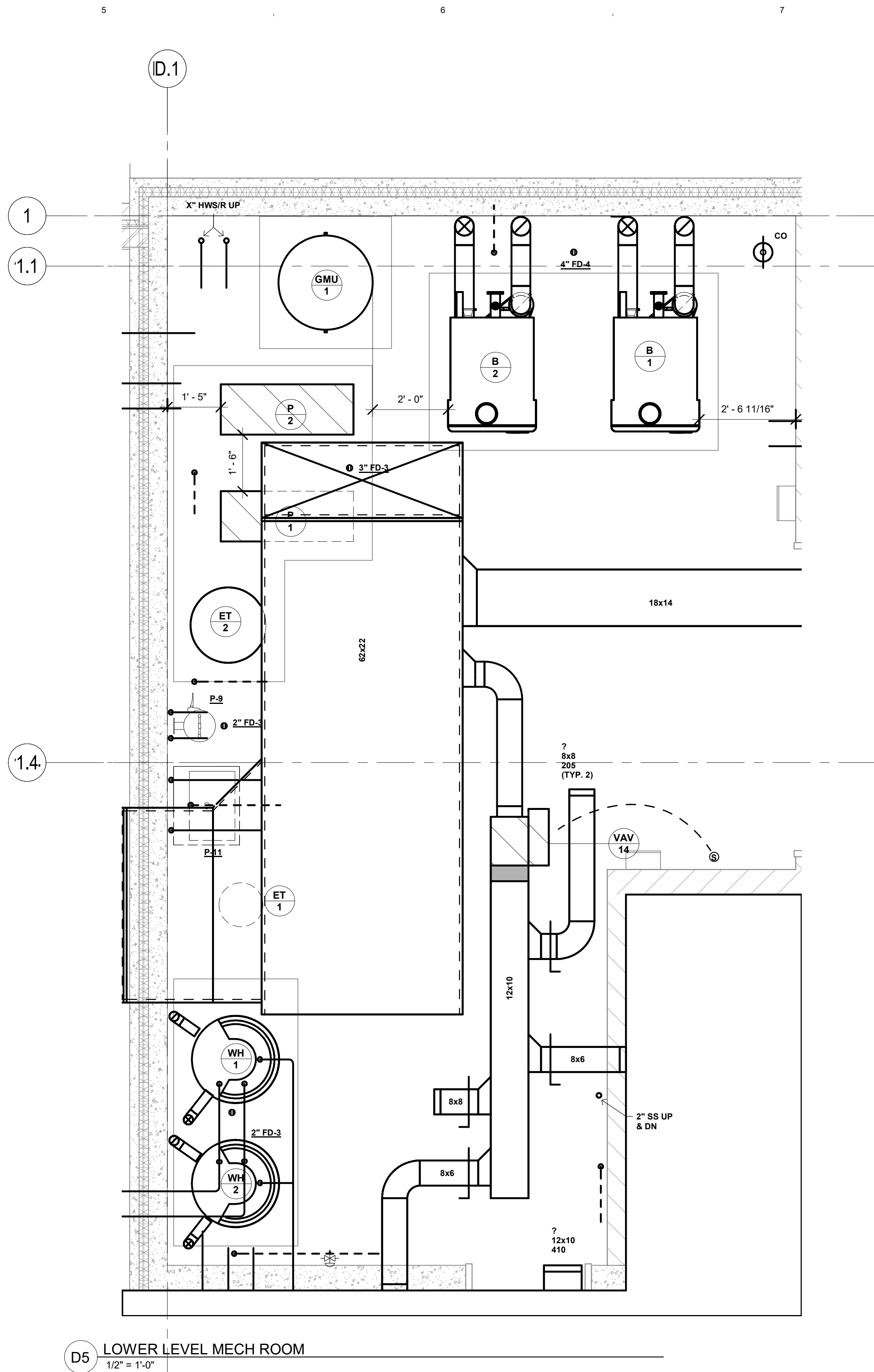
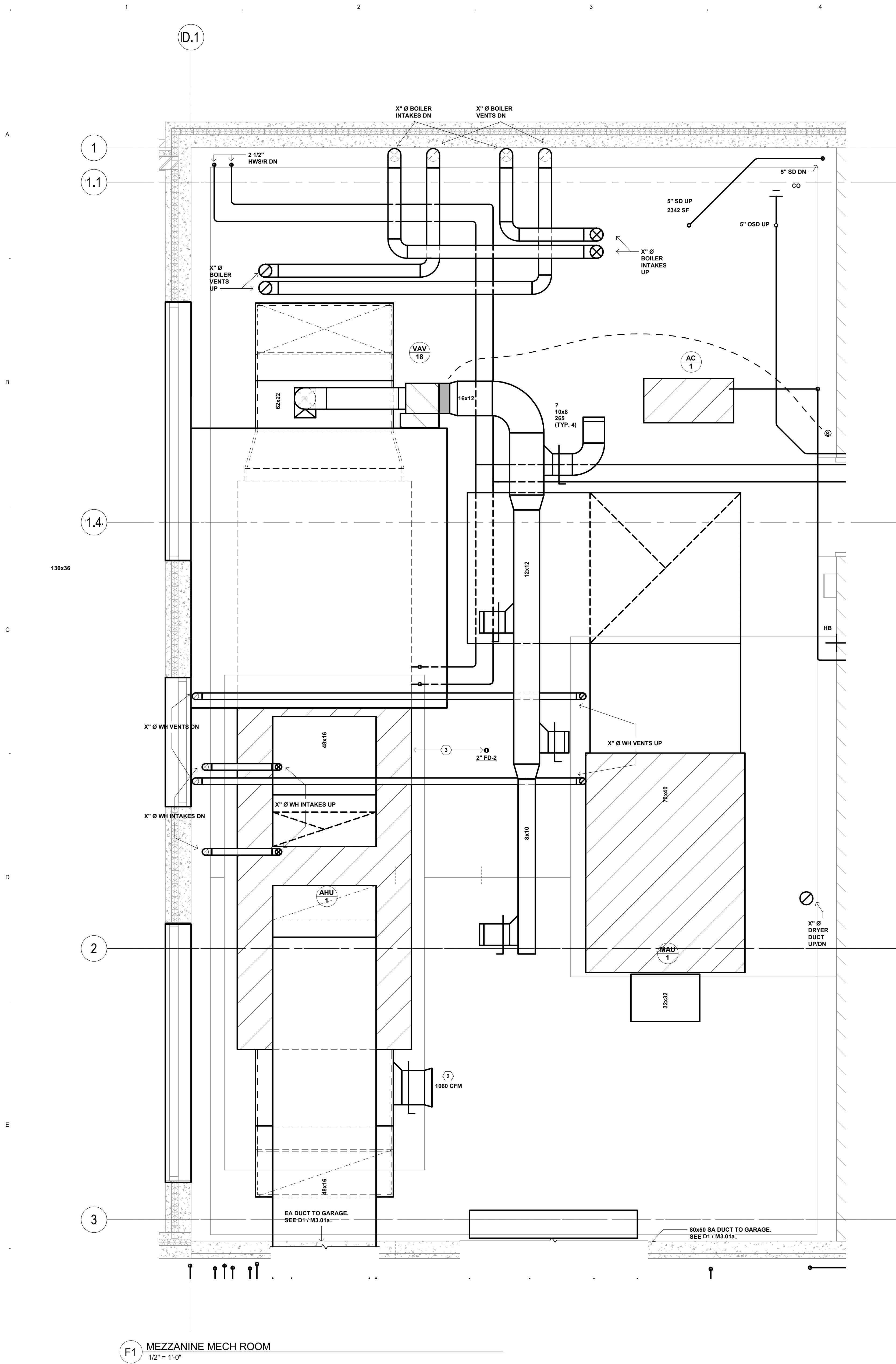
Scale: As indicated

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M5.10

MN

M



- BOILER ROOM PLAN GENERAL NOTES:**
1. ALL RISES AND DROPS IN DUCTWORK ARE NOT NECESSARILY SHOWN. LAYOUT ROUTING AND COORDINATE WORK WITH OTHER TRADES BEFORE CONSTRUCTION.
 2. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND PATCHING OF CONSTRUCTION UNLESS OTHERWISE NOTED ON THE PLANS. NO CUTTING OF STRUCTURAL MEMBERS OR STRUCTURE WHICH WILL DETERIORATE THE INTEGRITY AND STRENGTH OF THE BUILDING WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
 3. MECHANICAL CONTRACTOR SHALL DETERMINE LIMITATIONS AND/OR CONFLICTS RELATIVE TO THE EXECUTION OF HIS WORK PRIOR TO BID. VERIFY EXACT DETAIL OF INSTALLATION REQUIRED TO PROVIDE SYSTEMS SHOWN WITHIN SPACE INTENDED.
 4. VERIFY EXACT LOCATIONS OF FLOOR DRAINS WITH ARCHITECTURAL PLANS.
 5. SLEEVE AND FIRESTOP ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS.
 6. REFER TO ARCHITECTURAL PLANS FOR CONCRETE CURBS AND PADS. COORDINATE EXACT SIZES AND LOCATIONS.
 7. VARIABLE FREQUENCY DRIVES ARE PROVIDED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
 8. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED REINFORCEMENT OF NEW AND EXISTING STRUCTURAL MEMBERS FOR MECHANICAL SYSTEMS. REFER TO "MECHANICAL SUPPORT REINFORCEMENT DETAIL" FOR ADDITIONAL REQUIREMENTS.

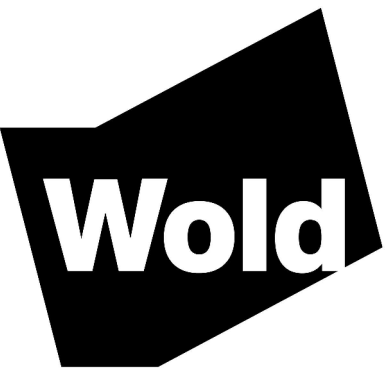
- BOILER ROOM PLAN KEYED NOTES:**
- 1 PROVIDE EMERGENCY BOILER AND WATER HEATER SHUT-OFF BUTTON.
 - 2 BALANCE TO INDICATED CFM.
 - 3 PROVIDE 1 1/4" CONDENSATE DRAIN FROM AHU TO FLOOR DRAIN.

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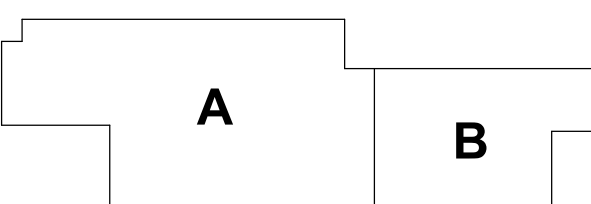


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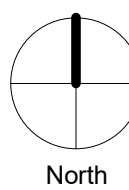
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**MECH ROOM
PLAN**

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SUPPLY RISERS

Scale:

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M6.10

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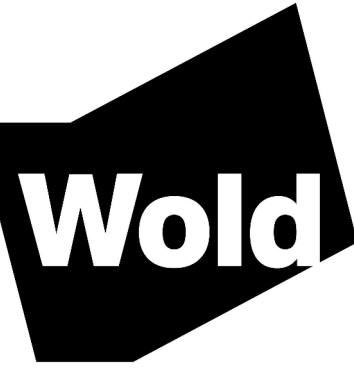
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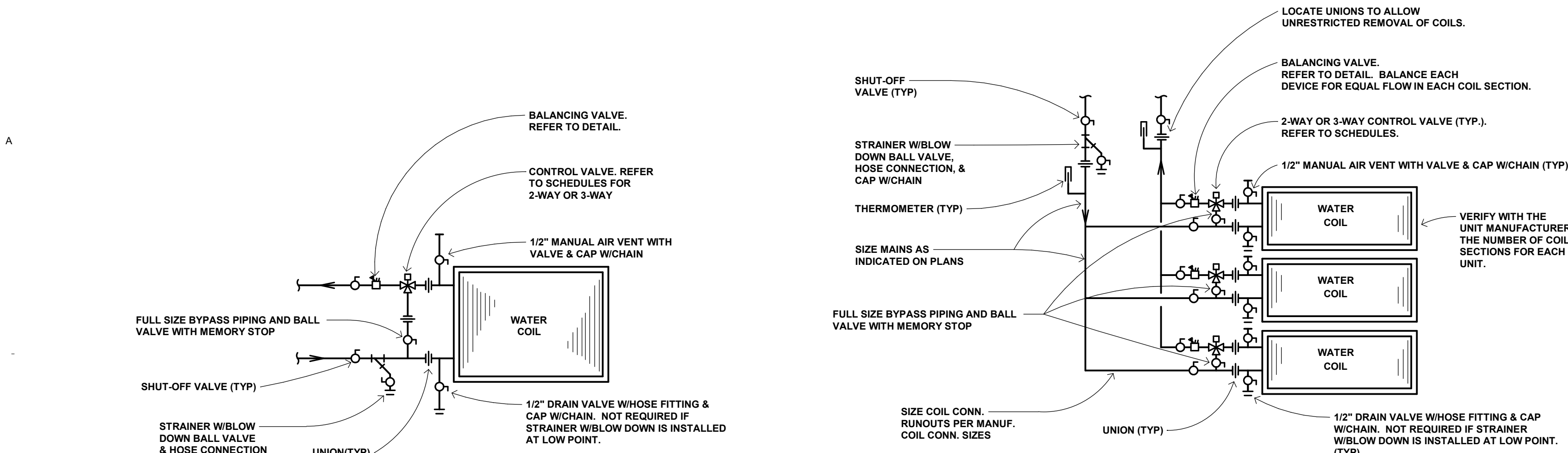
WASTE RISERS

Scale

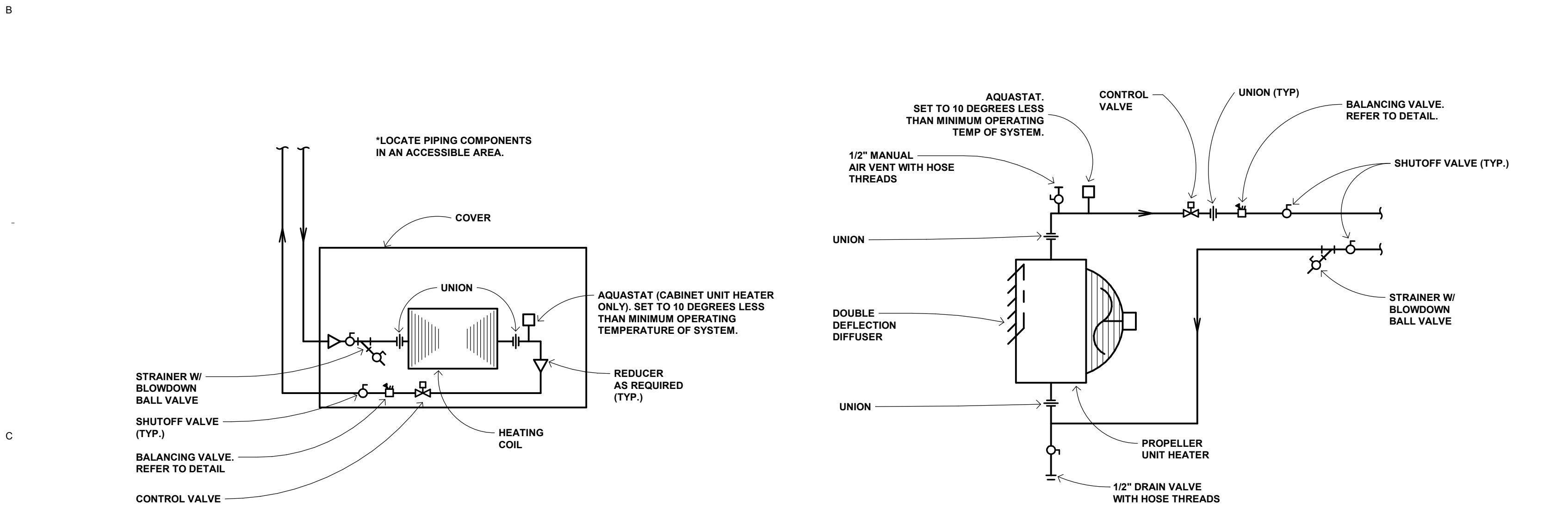
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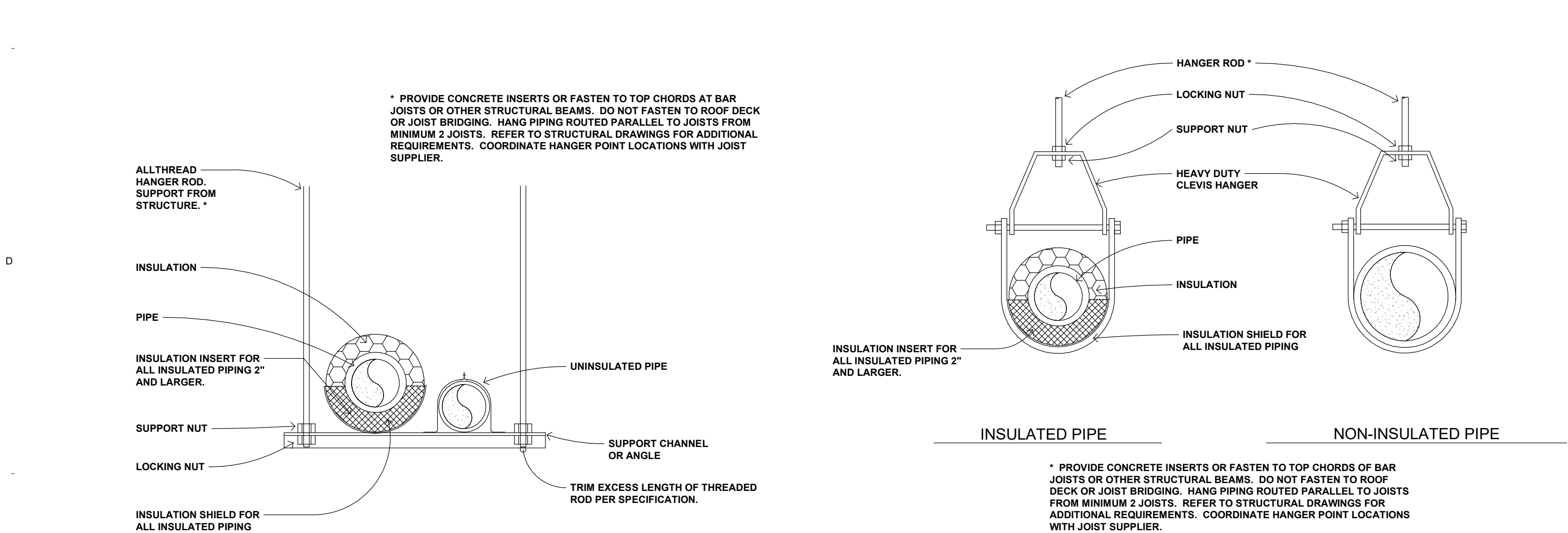


B1 WATER COIL TYPE B PIPING
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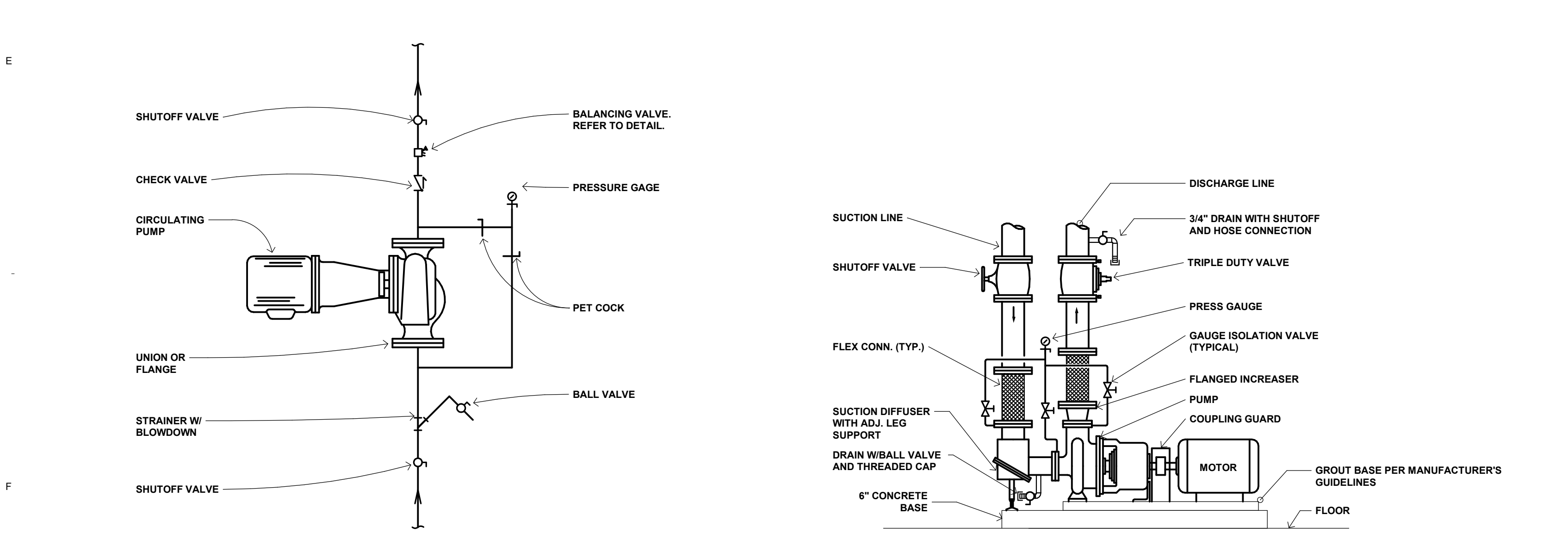
B2 WATER COIL TYPE E PIPING
NOT TO SCALE

C1 CABINET UNIT HEATER OR CONVECTOR DETAIL
NOT TO SCALE



C2 PROPELLER UNIT HEATER PIPING DETAIL
NOT TO SCALE

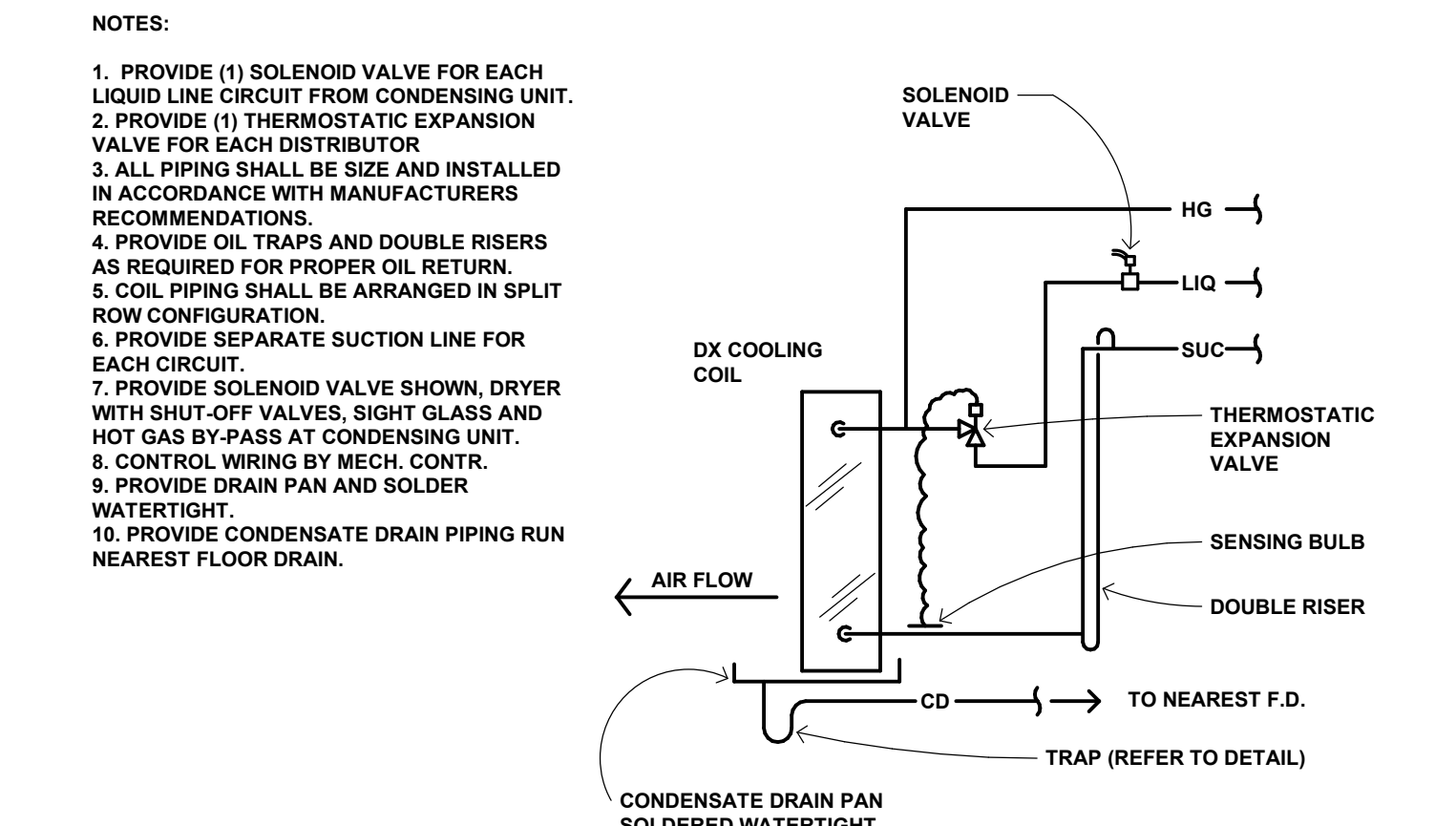
E1 TRAPEZE PIPE HANGER DETAIL
NOT TO SCALE



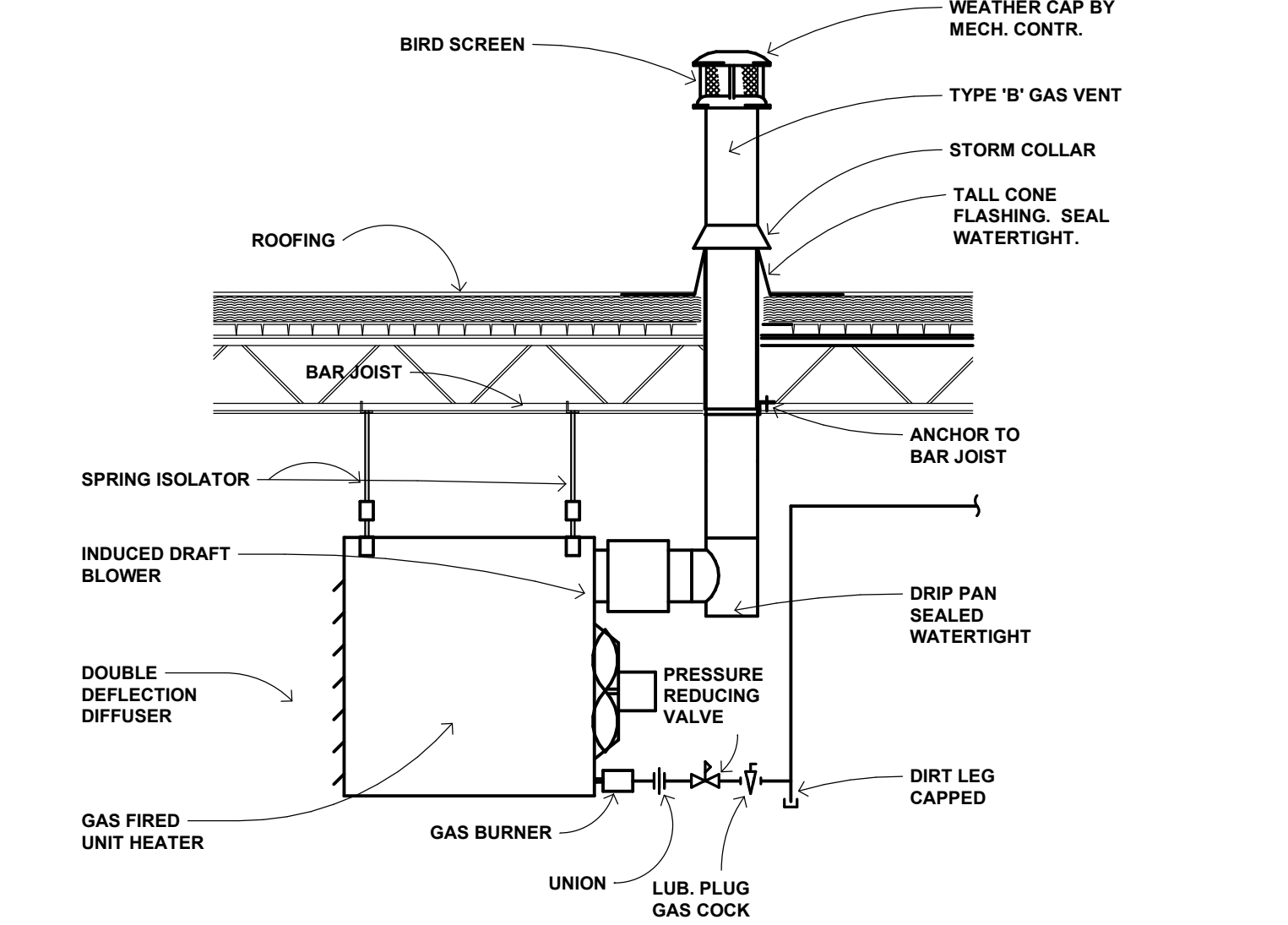
E2 CLEVIS PIPE HANGER DETAIL
NOT TO SCALE

F1 INLINE CIRCULATING PUMP DETAIL
NOT TO SCALE

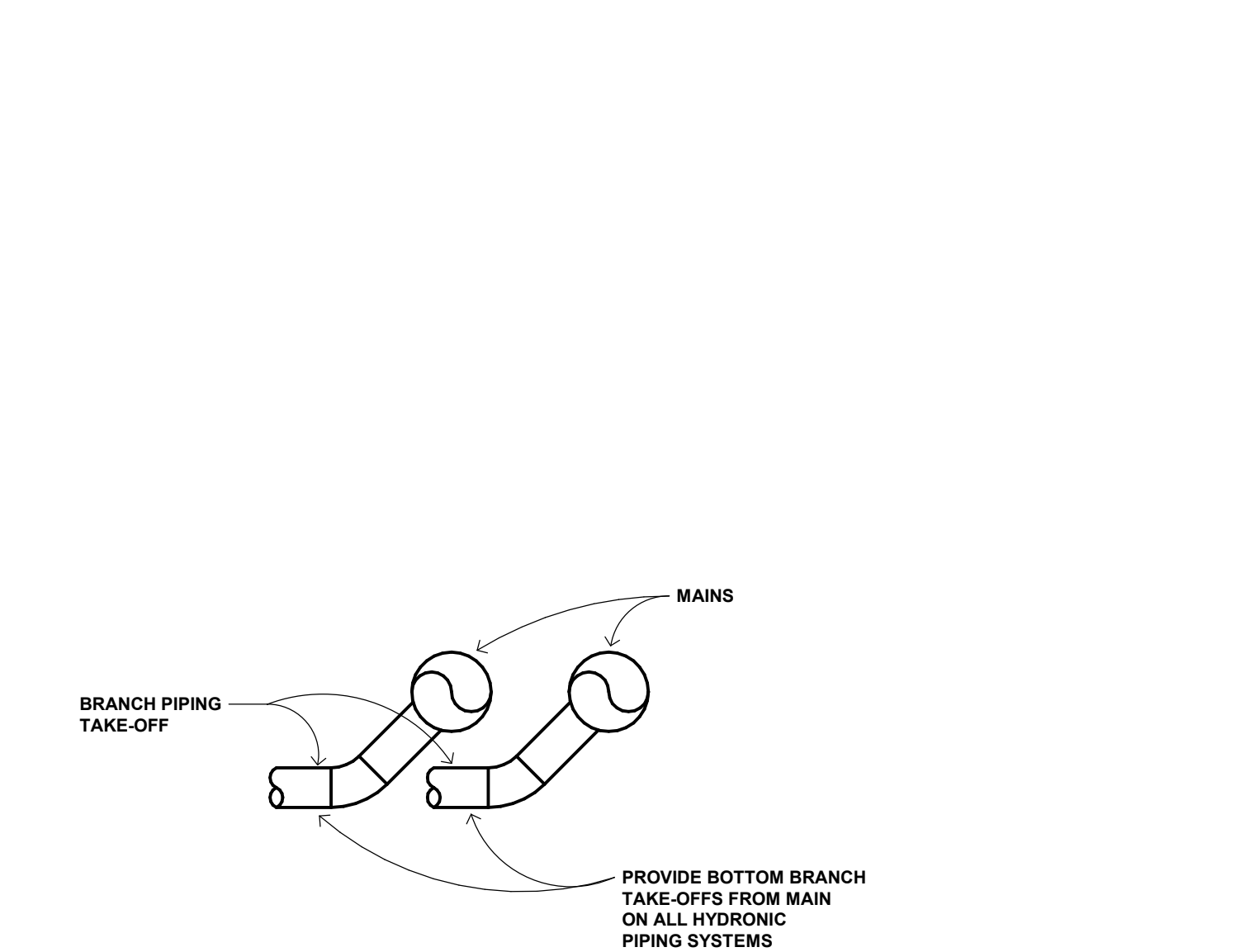
F2 BASE MOUNTED PUMP PIPING DETAIL
NOT TO SCALE



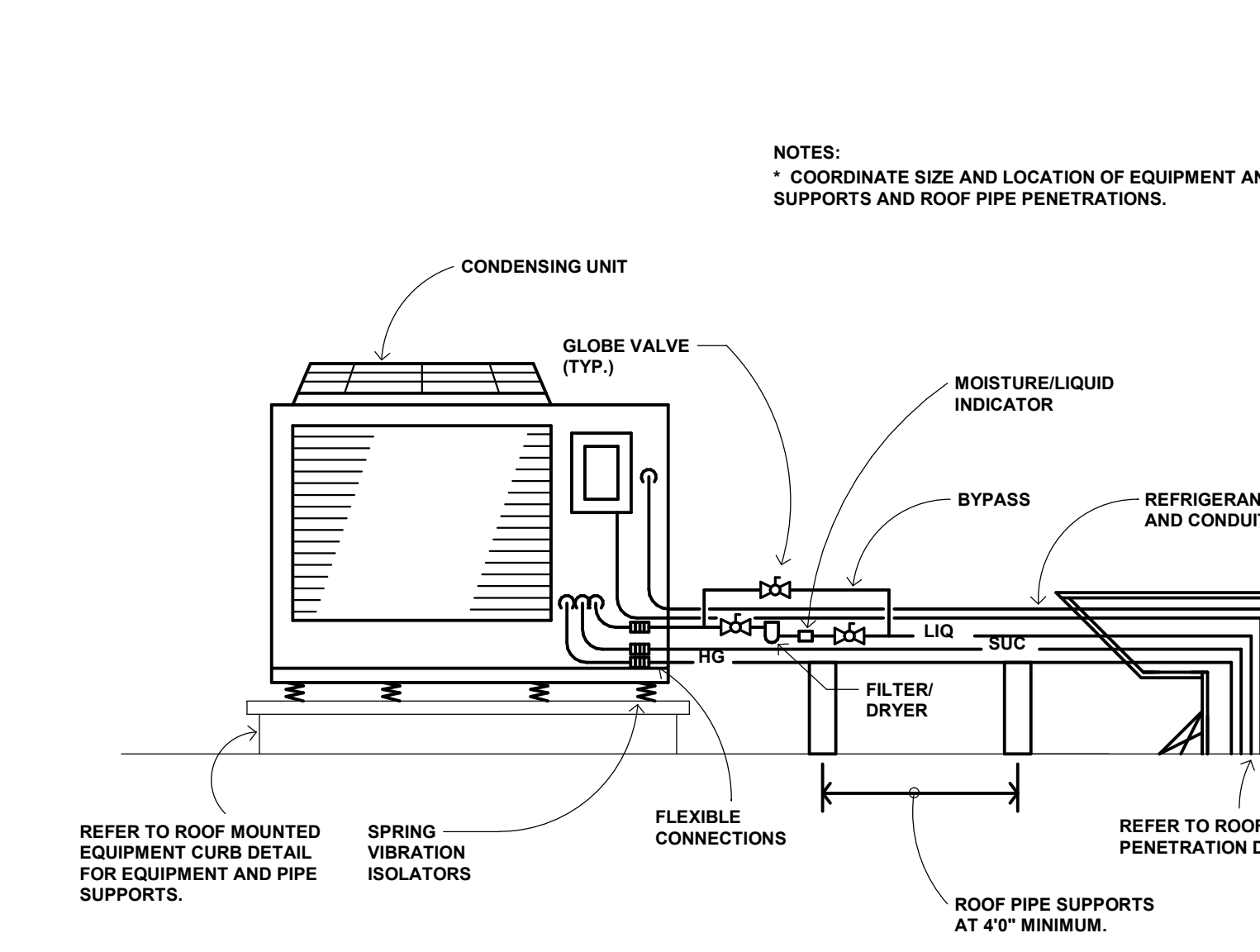
B5 DIRECT EXPANSION COOLING COIL DETAIL (SINGLE CIRCUIT)
NOT TO SCALE



C5 GAS FIRED UNIT HEATER DETAIL
NOT TO SCALE

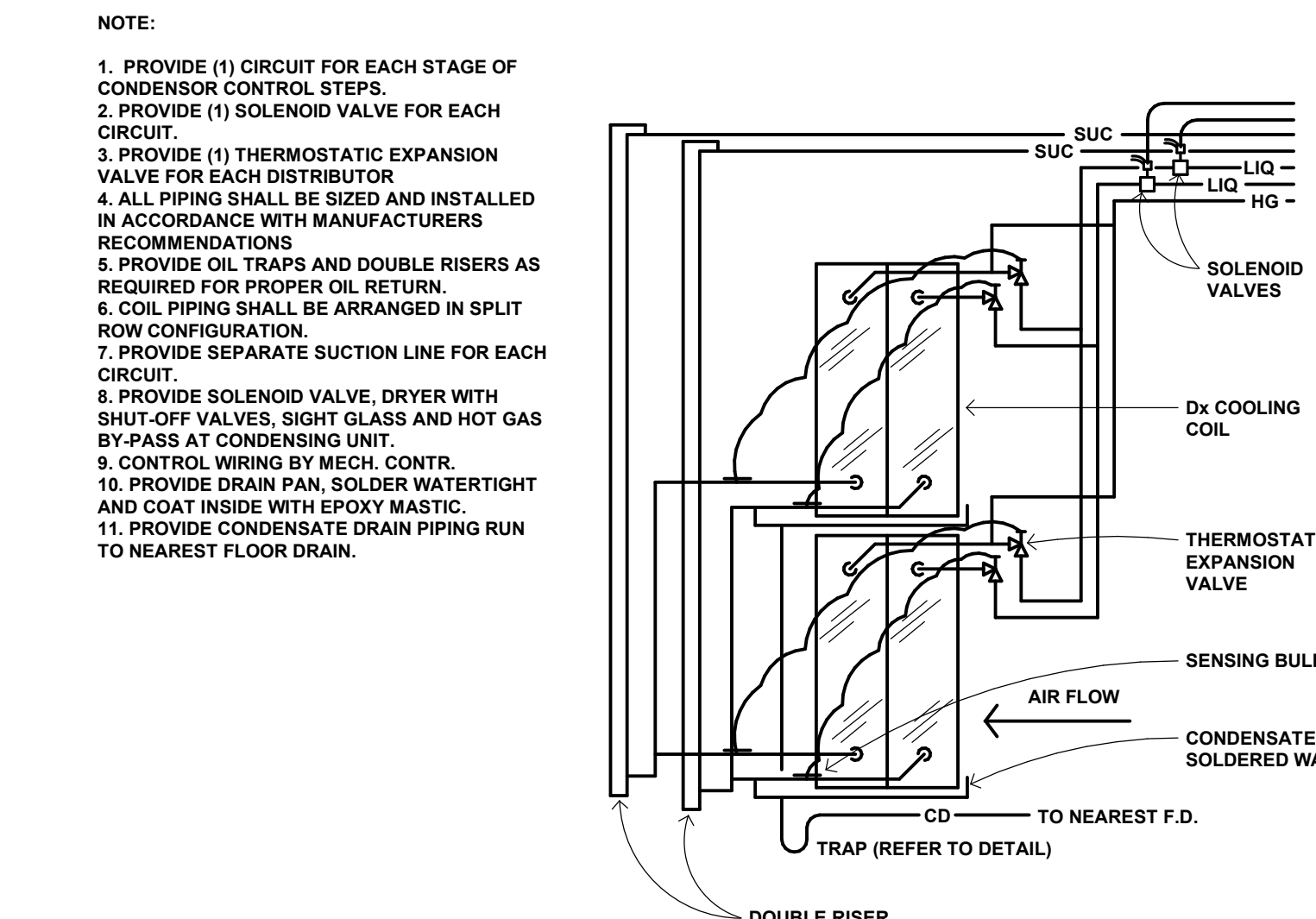


E5 HYDRONIC BRANCH PIPING TAKE-OFF DETAIL
NOT TO SCALE

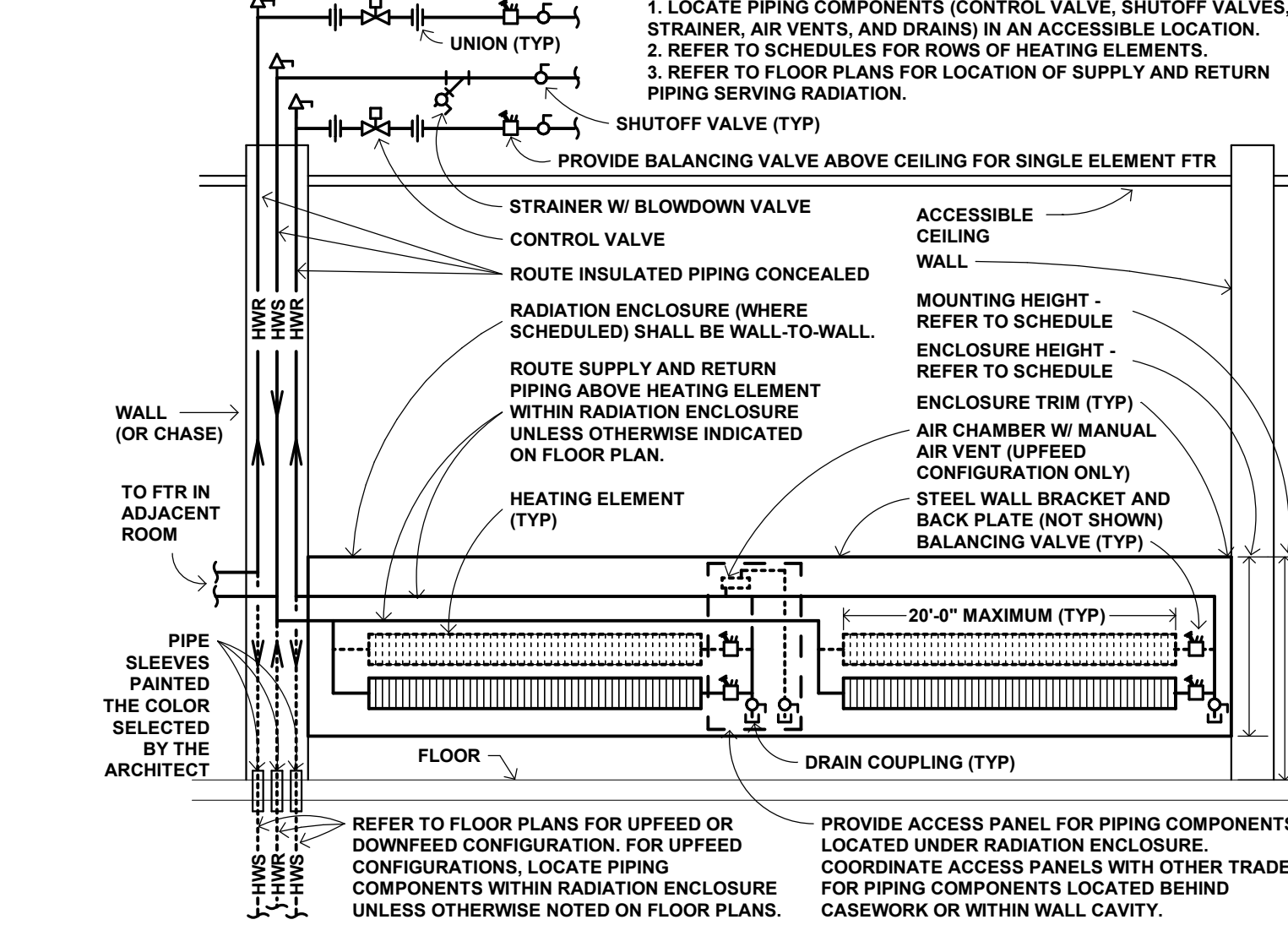


F5 ROOFTOP CONDENSING UNIT DETAIL
NOT TO SCALE

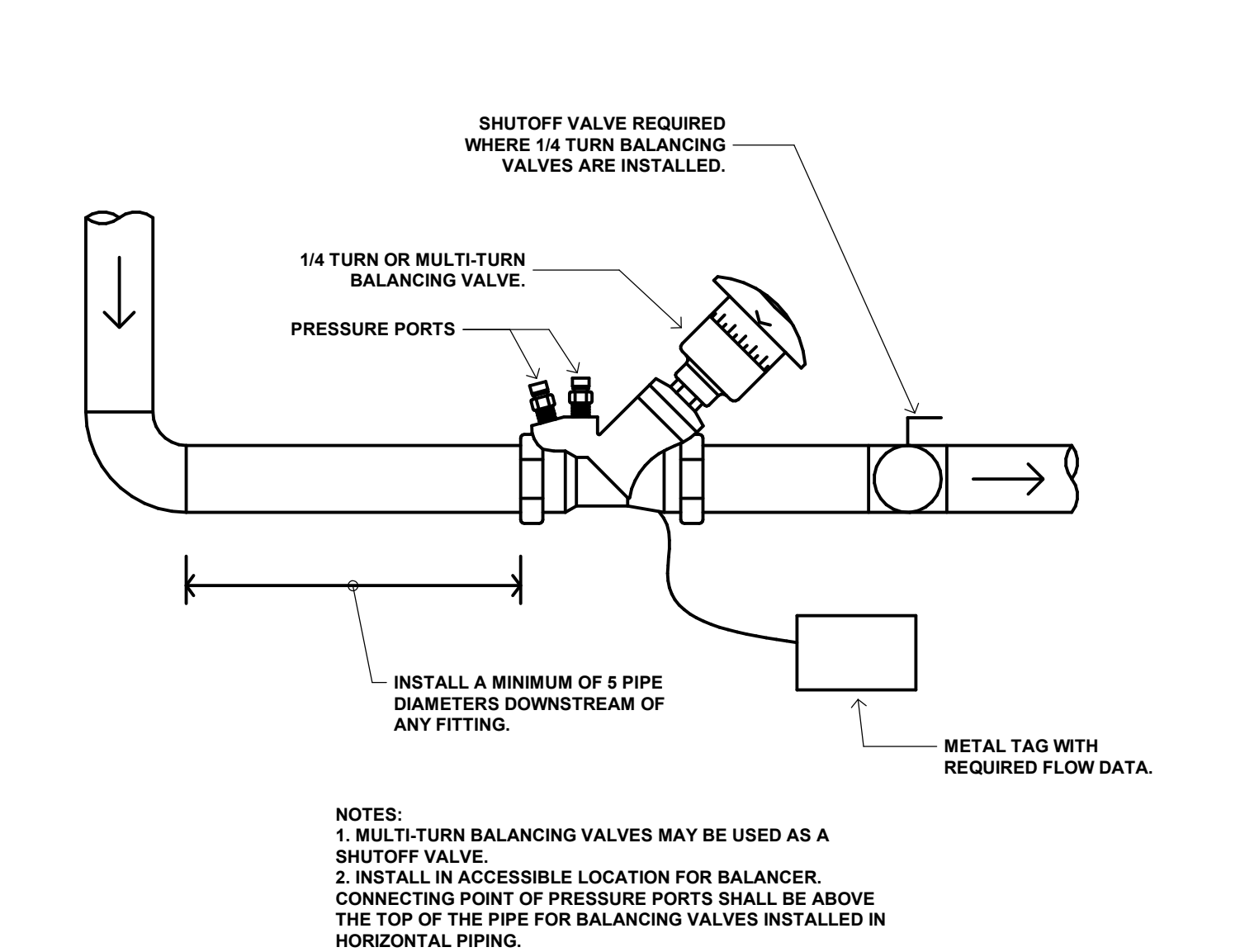
F5 ROOFTOP CONDENSING UNIT DETAIL
NOT TO SCALE



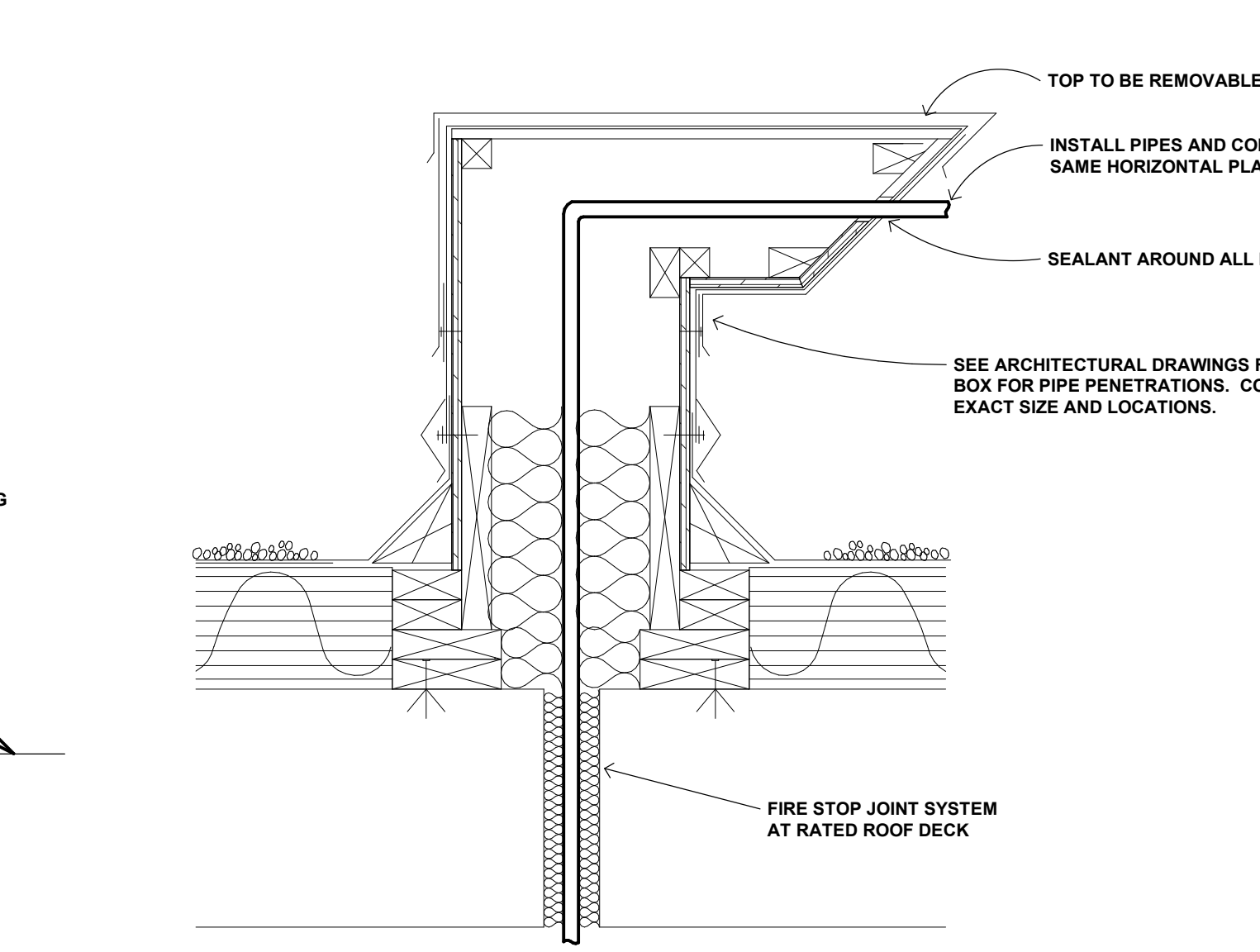
B7 DIRECT EXPANSION COOLING COIL DETAIL (MULTIPLE CIRCUITS)
NOT TO SCALE



C7 TYPICAL RADIATION DETAIL - MULTIPLE ZONES
NOT TO SCALE



E7 BALANCING VALVE DETAIL
NOT TO SCALE



F7 ROOF PIPE PENETRATION DETAIL
NOT TO SCALE

F7 ROOF PIPE PENETRATION DETAIL
NOT TO SCALE

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MECHANICAL DETAILS

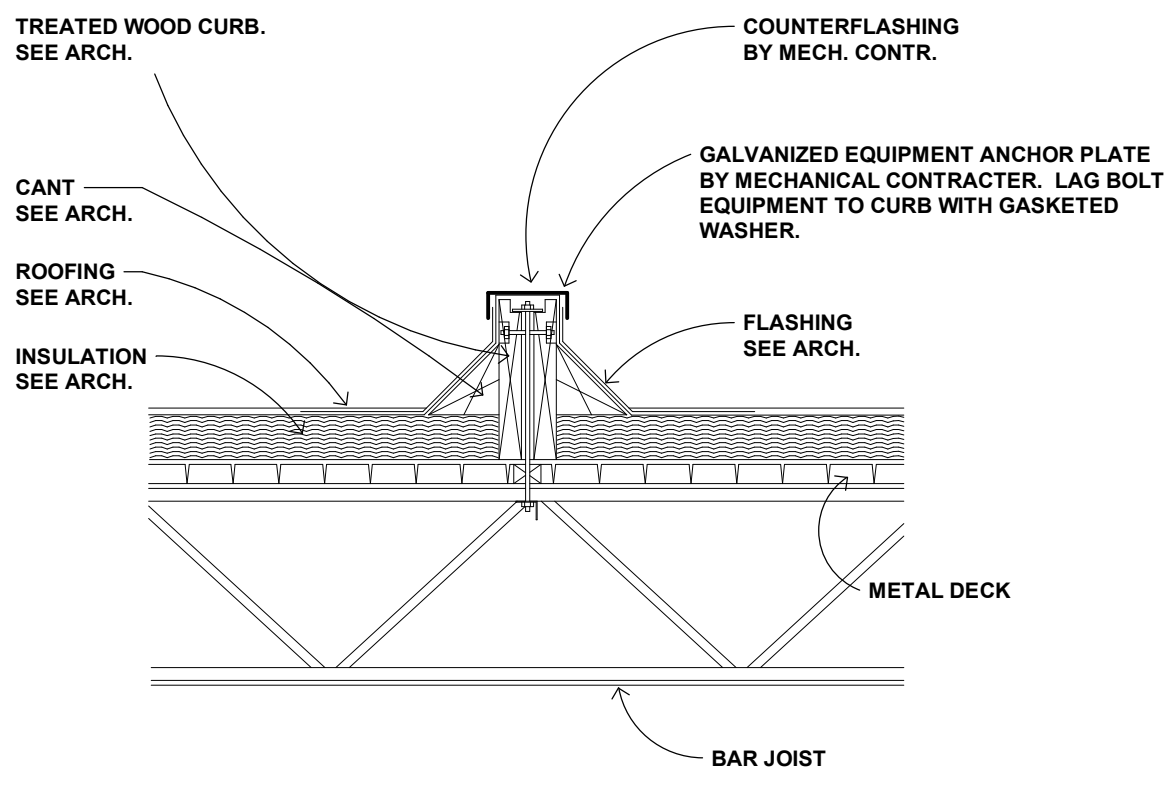
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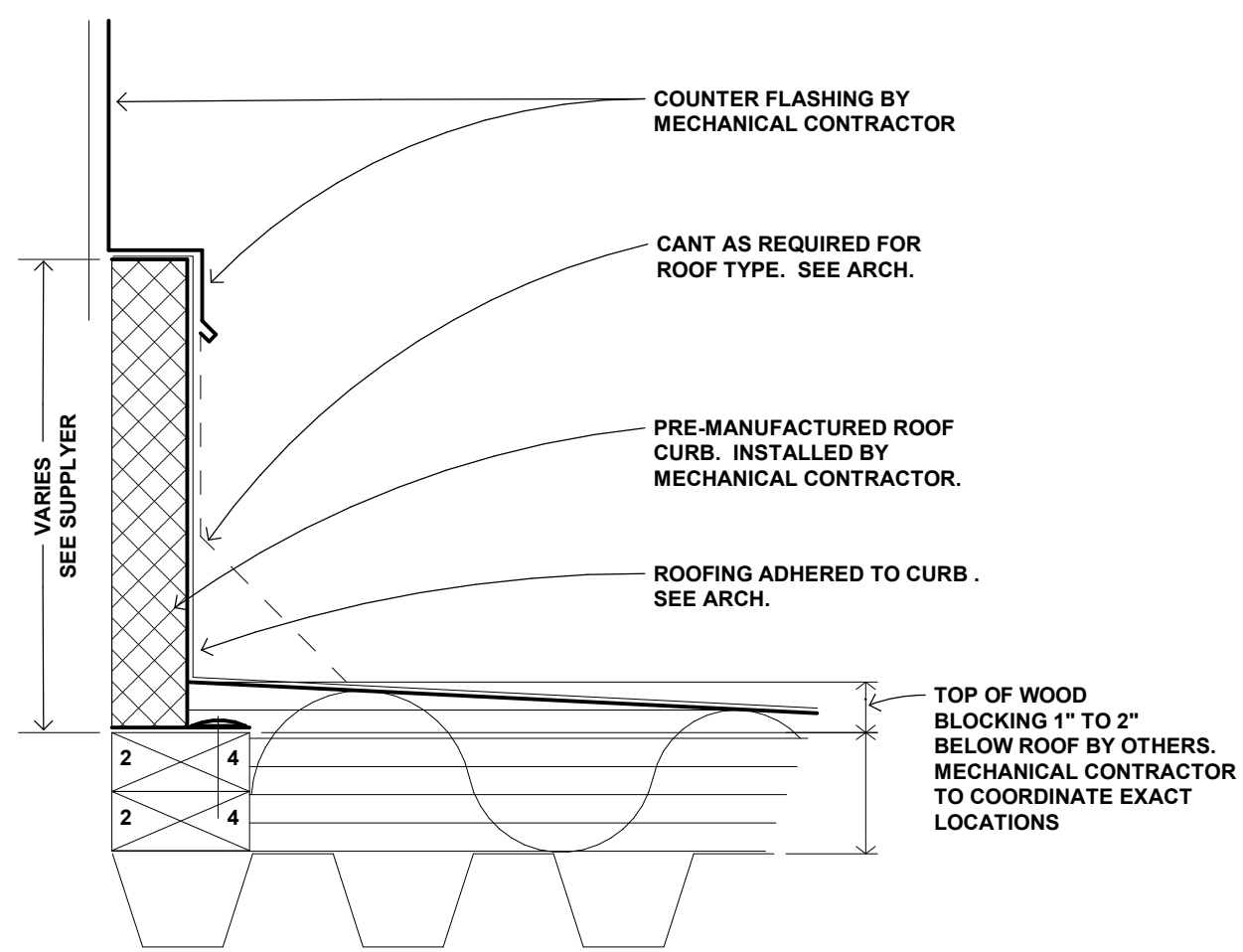
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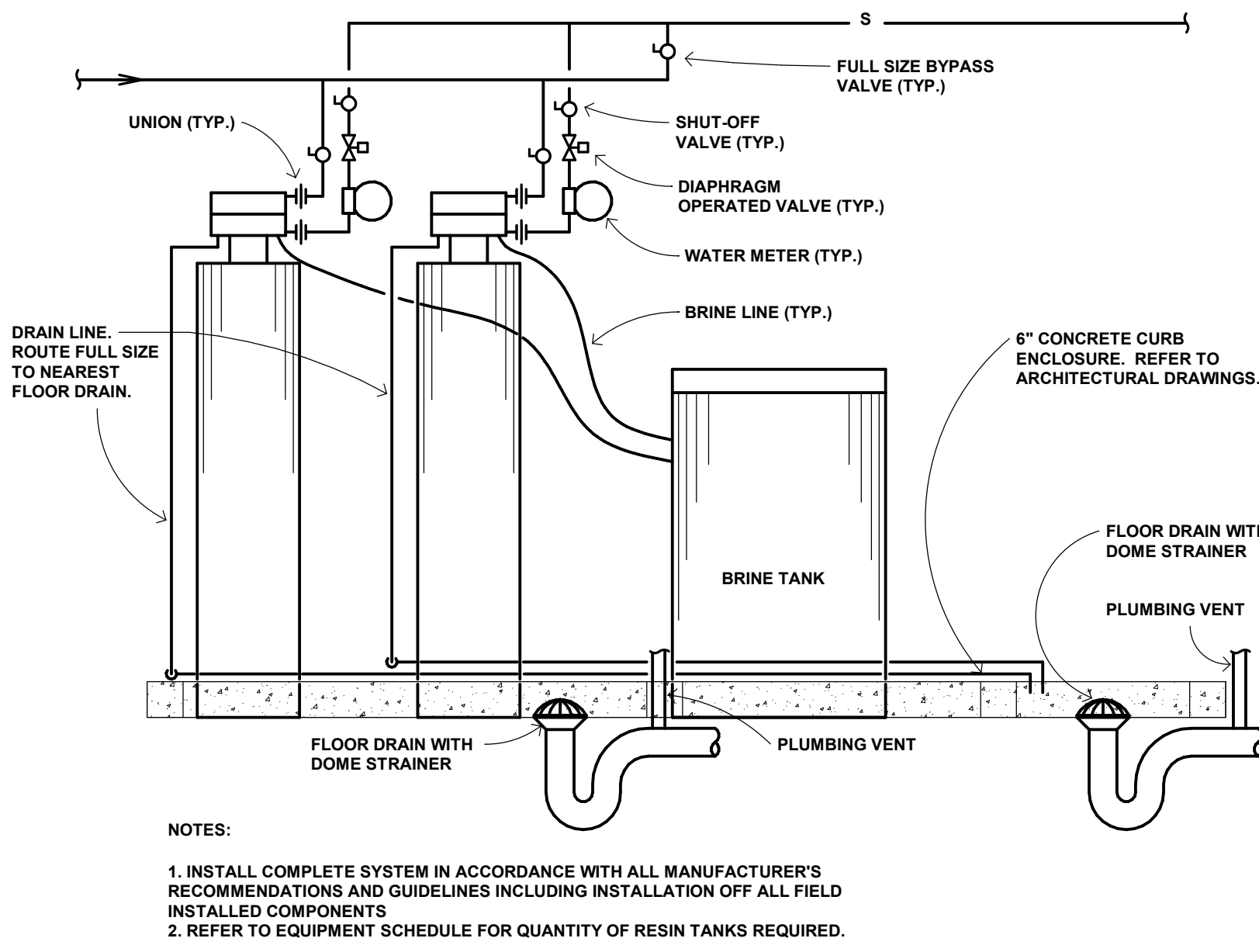
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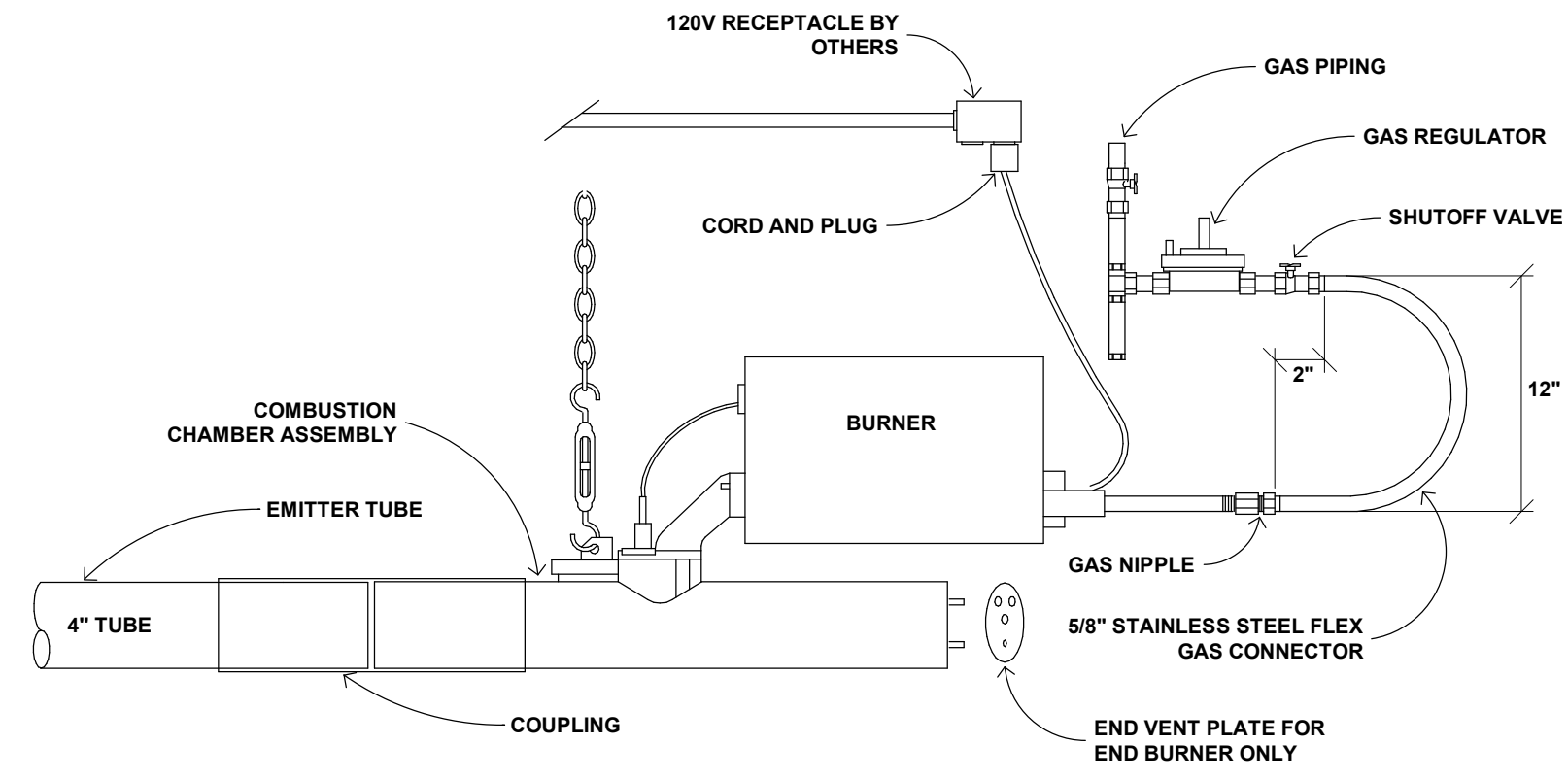
B1 ROOF MOUNTED EQUIPMENT CURB DETAIL
NOT TO SCALE



B3 MANUFACTURED CURB DETAIL
NOT TO SCALE

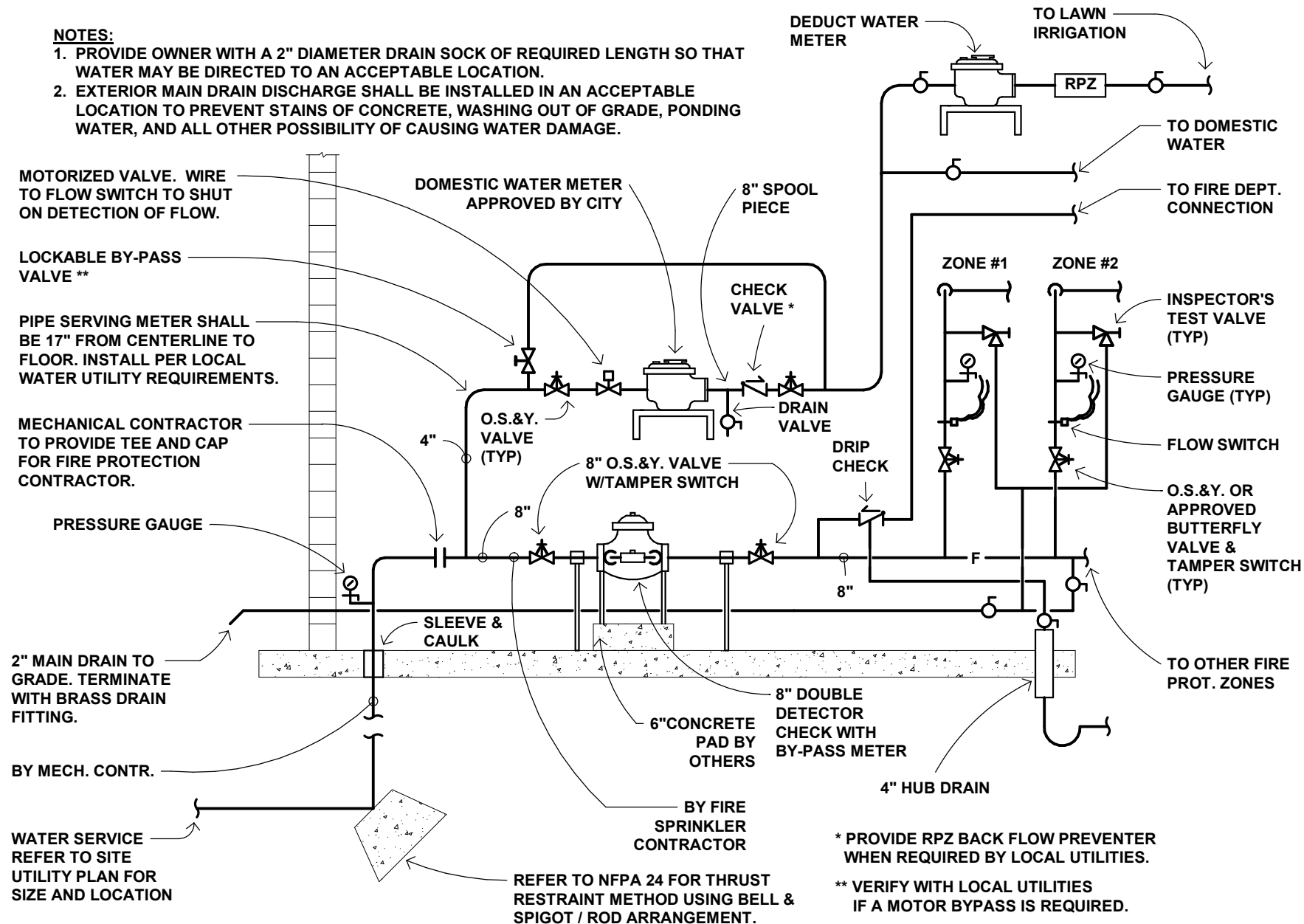


B4 WATER SOFTENER DETAIL
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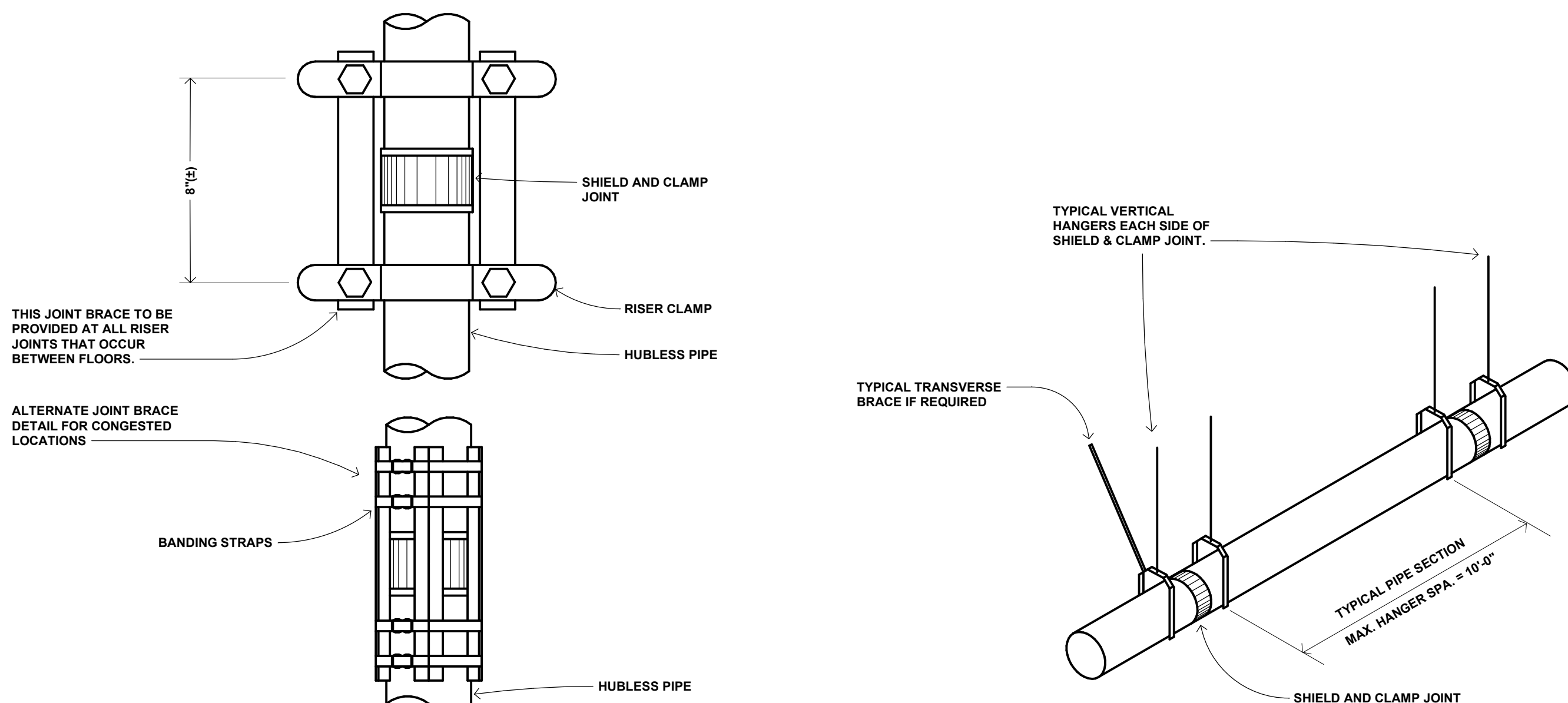


B7 GAS FIRED INFRA-RED BURNER DETAIL
NOT TO SCALE

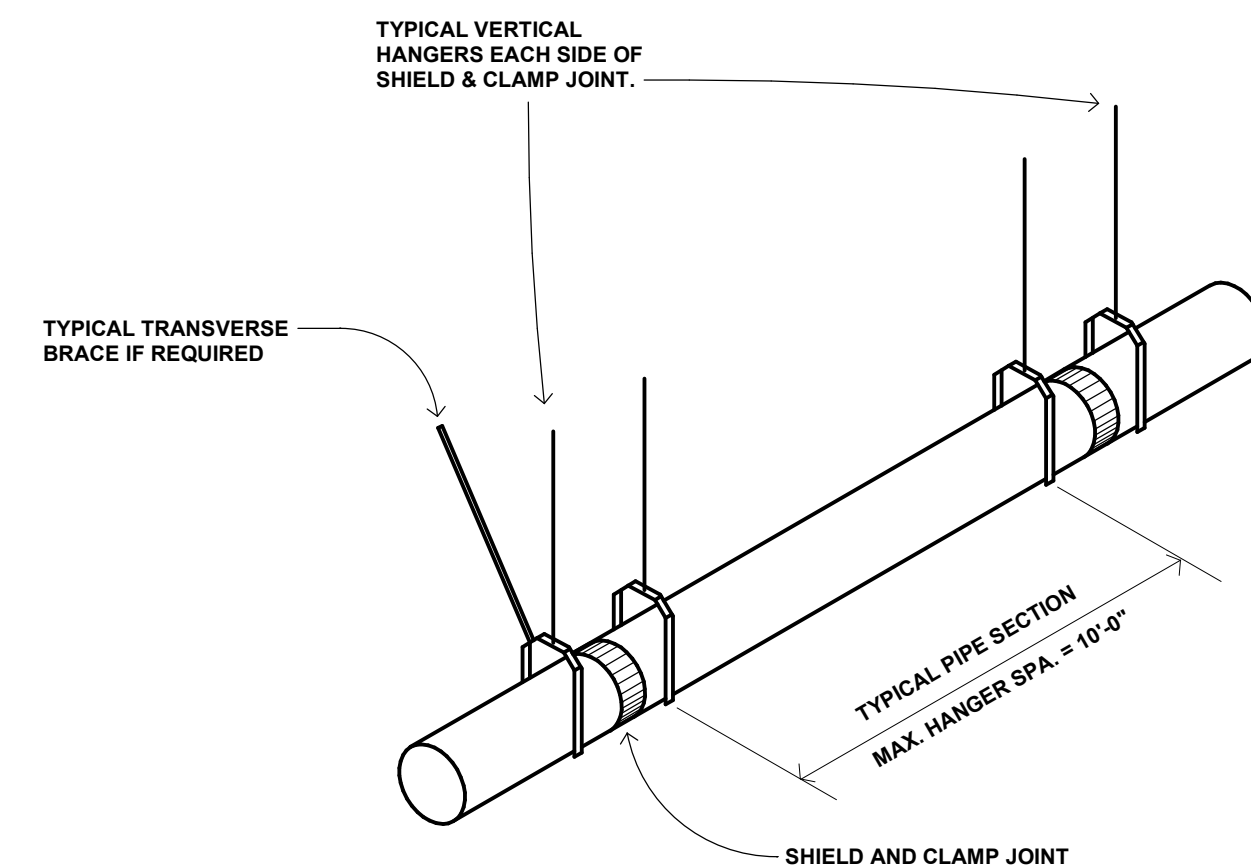
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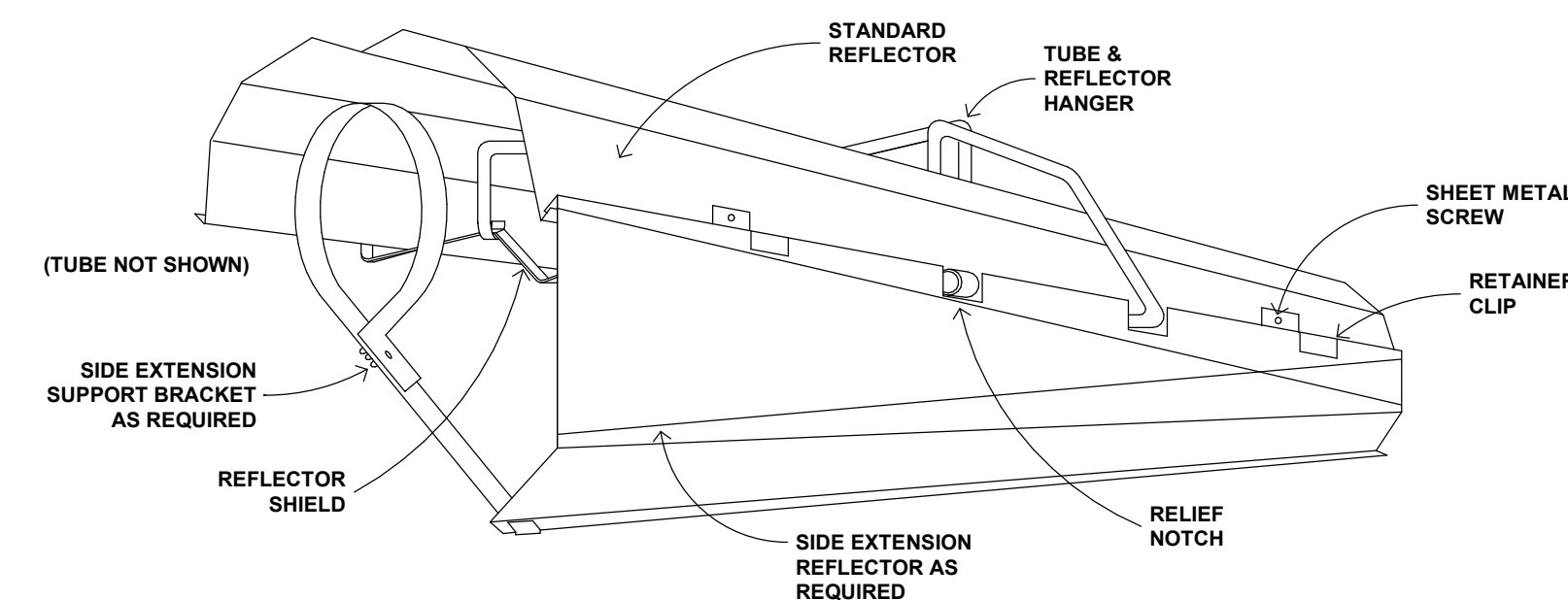
D1 FIRE PROTECTION AND DOMESTIC WATER DETAIL
NOT TO SCALE



D3 HUBLESS PIPE RISER DETAIL
NOT TO SCALE

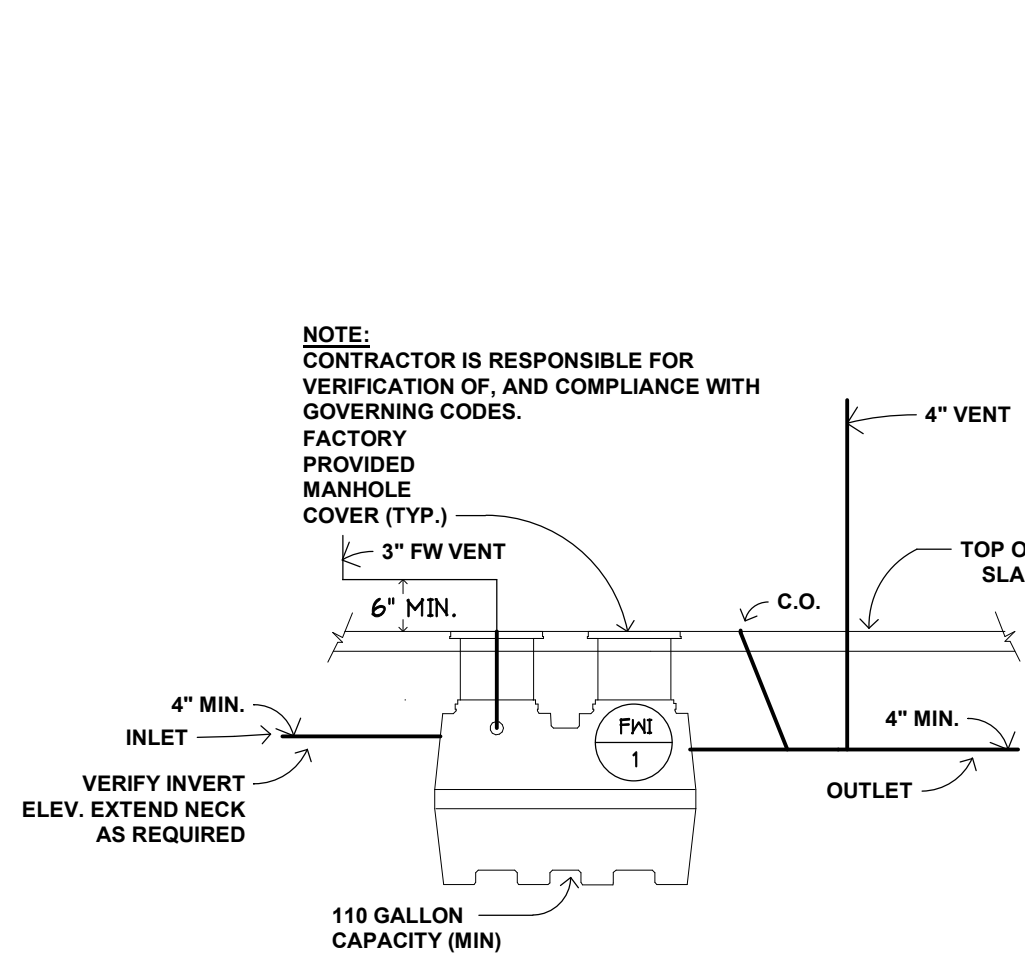


D5 HUBLESS PIPE INSTALLATION DETAIL
NOT TO SCALE

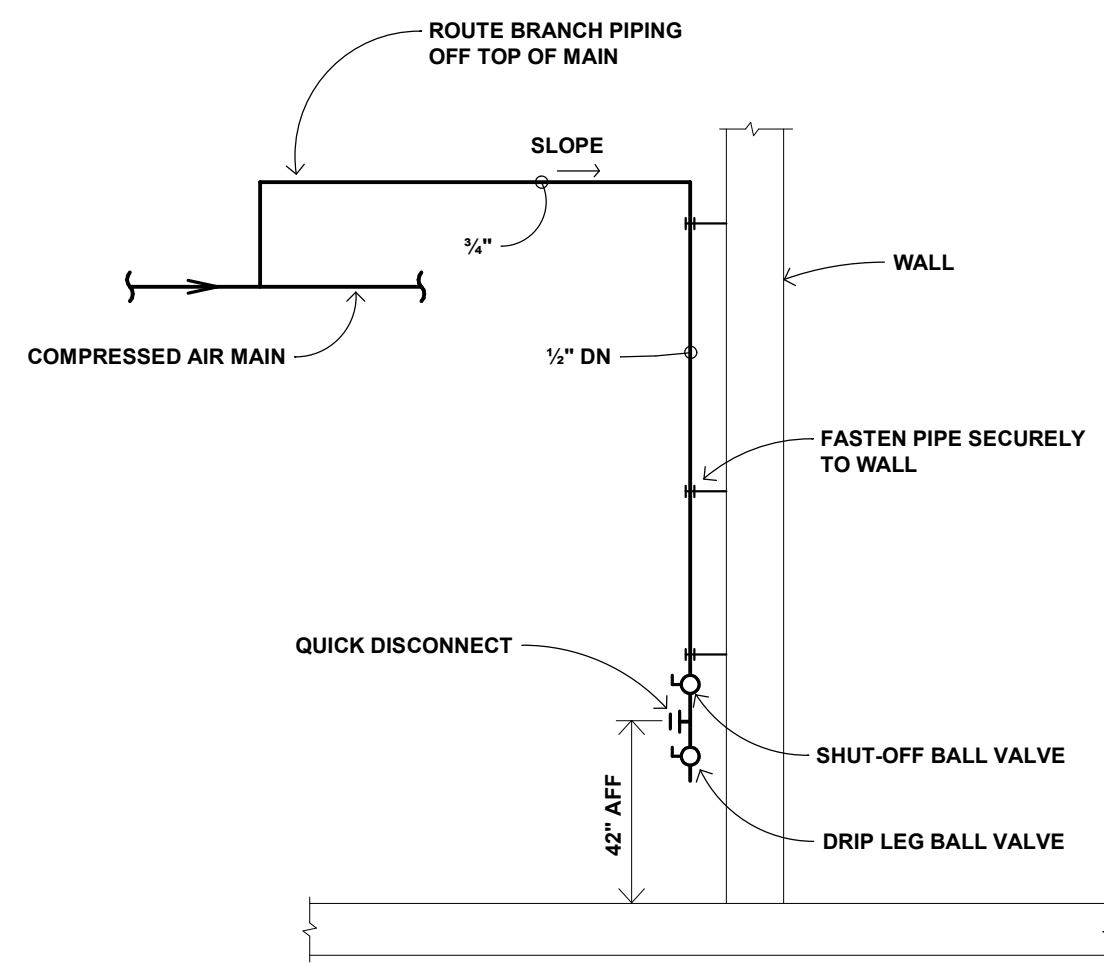


D7 GAS FIRED INFRA-RED REFLECTOR DETAIL
NOT TO SCALE

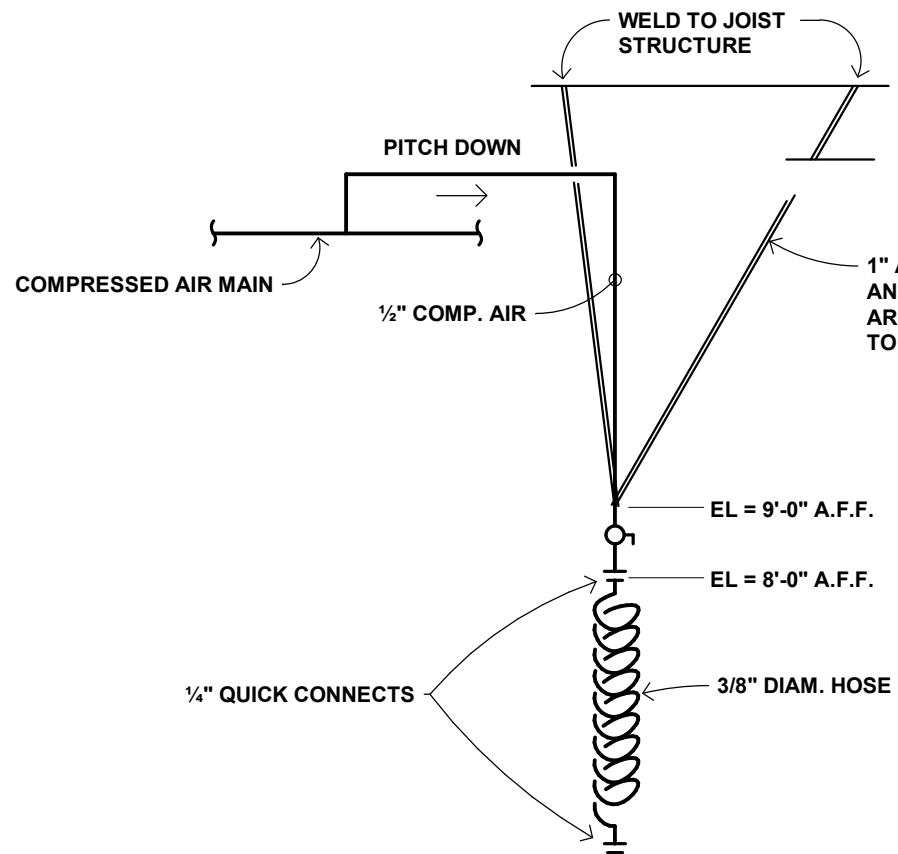
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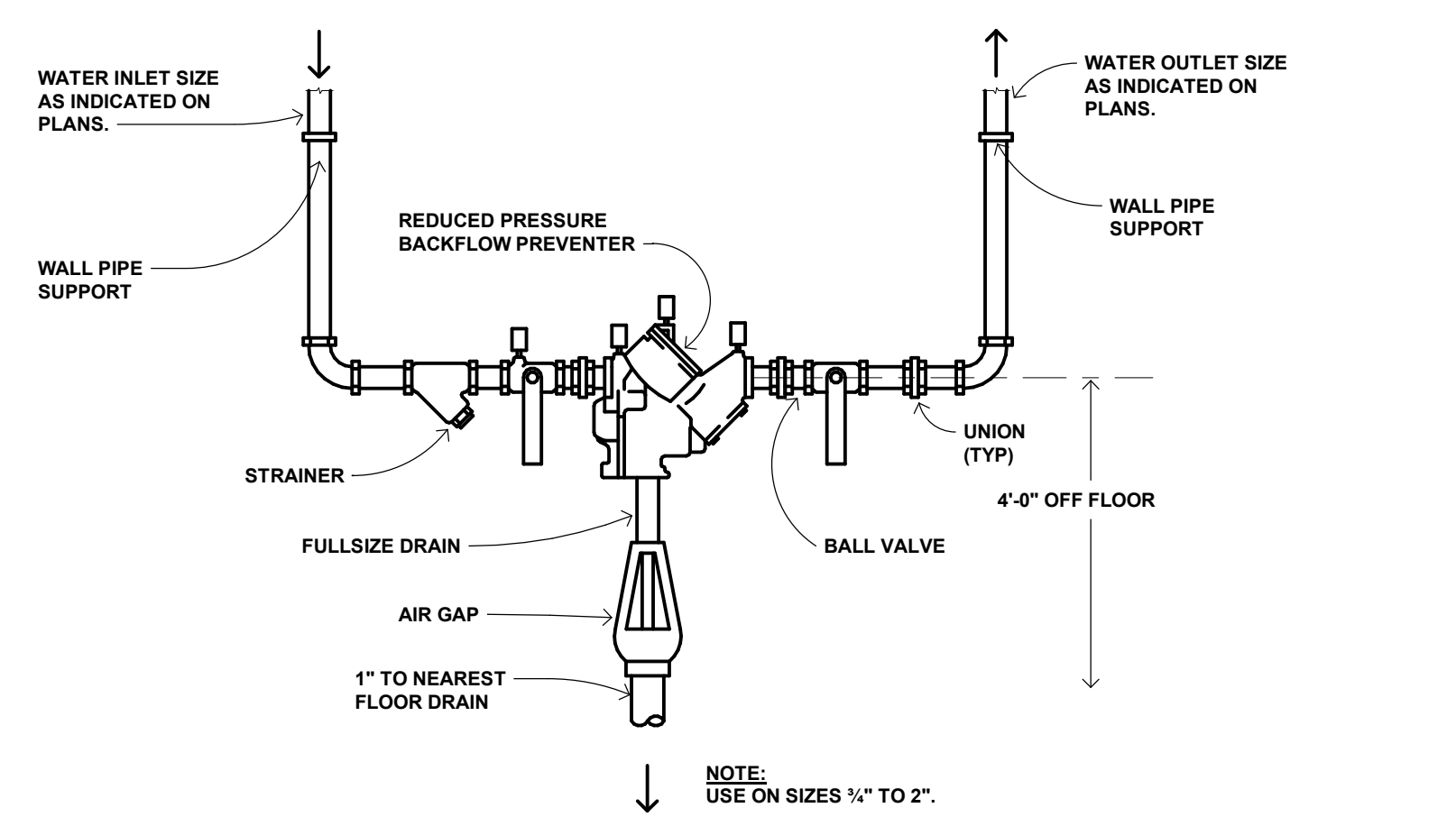
E1 FLAMMABLE WASTE TRAP DETAIL
NOT TO SCALE



E3 AIR PIPING SUPPORT DETAIL
NOT TO SCALE

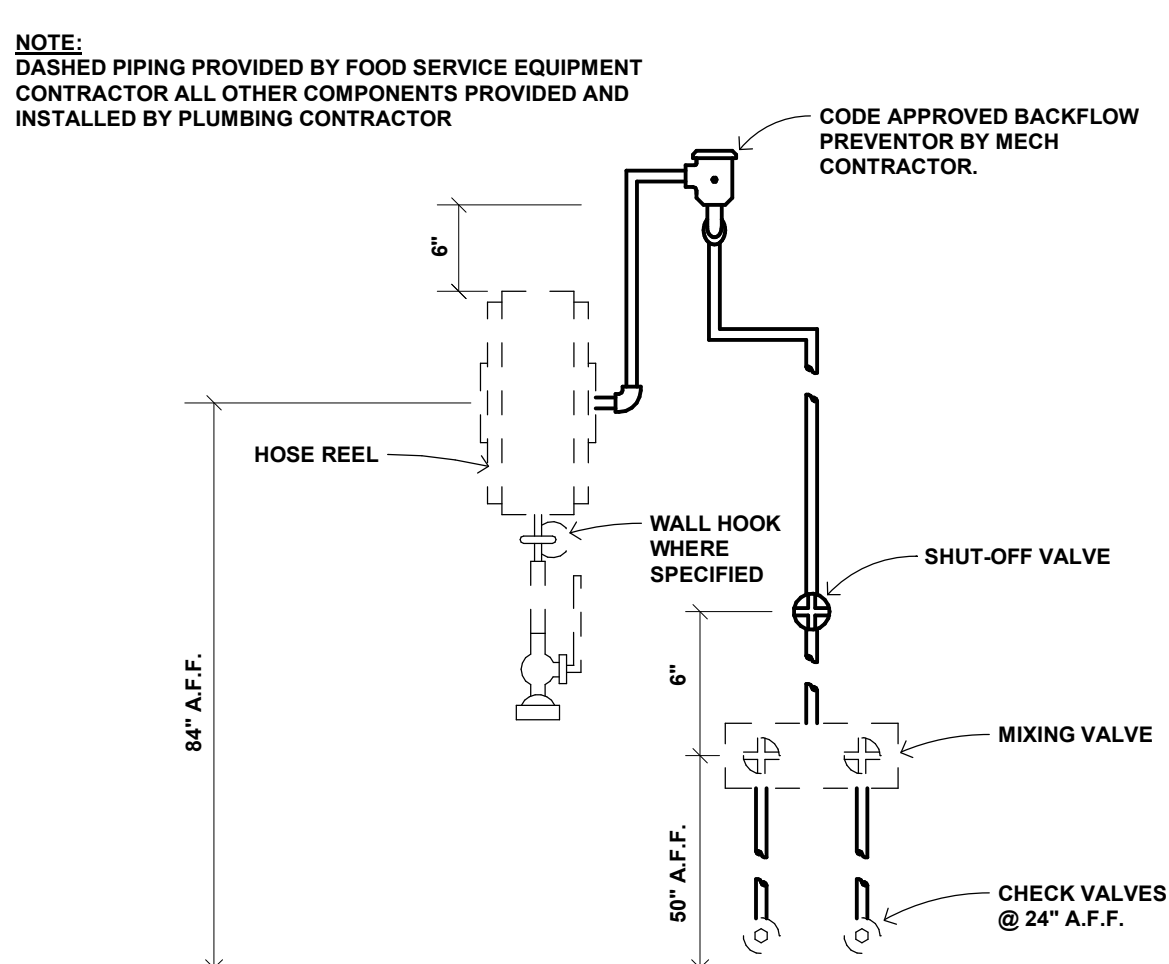


E4 AIR PIPING SUPPORT DETAIL
NOT TO SCALE

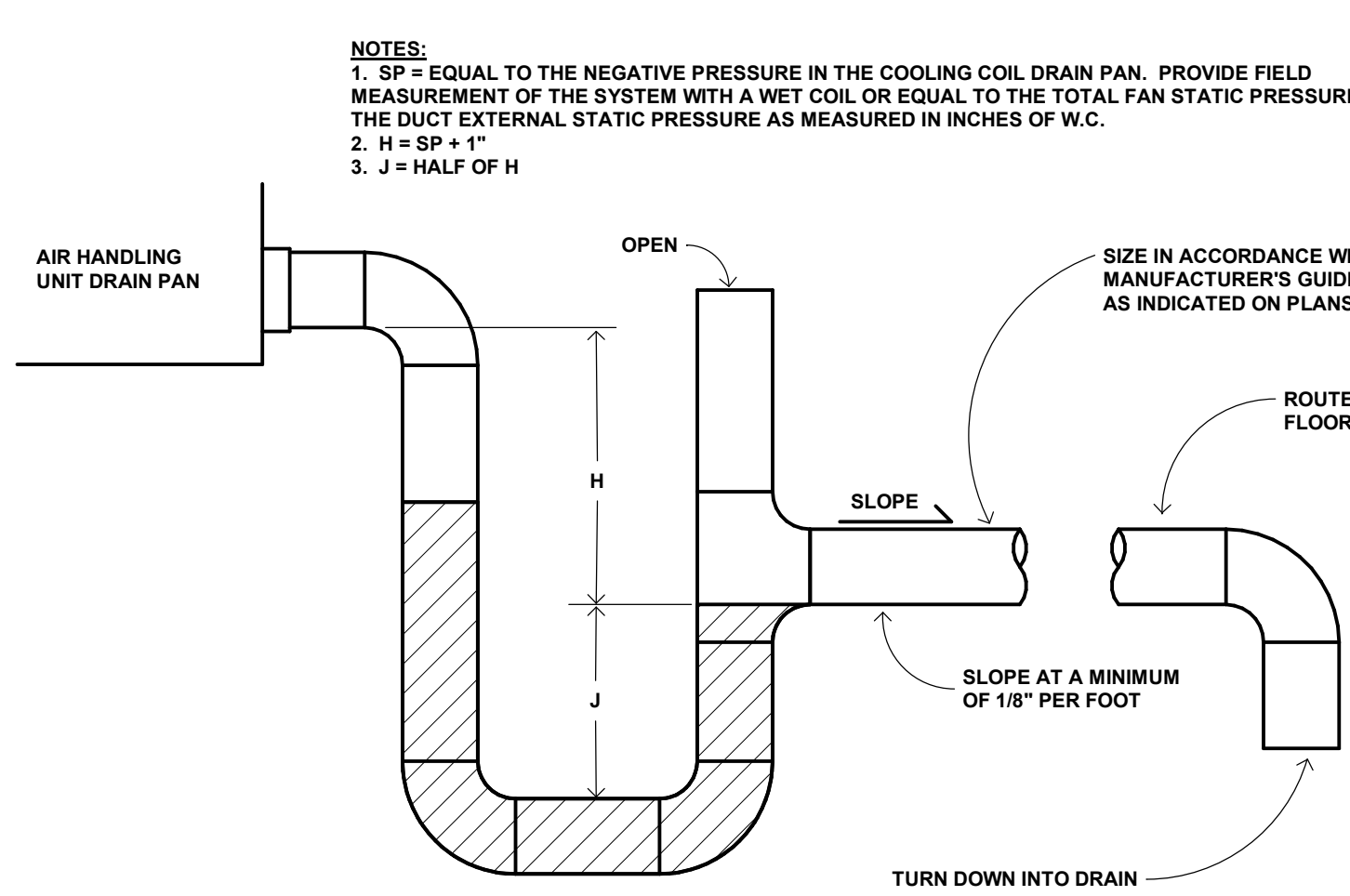


E7 REDUCED PRESSURE BACKFLOW PREVENTER DETAIL
NOT TO SCALE

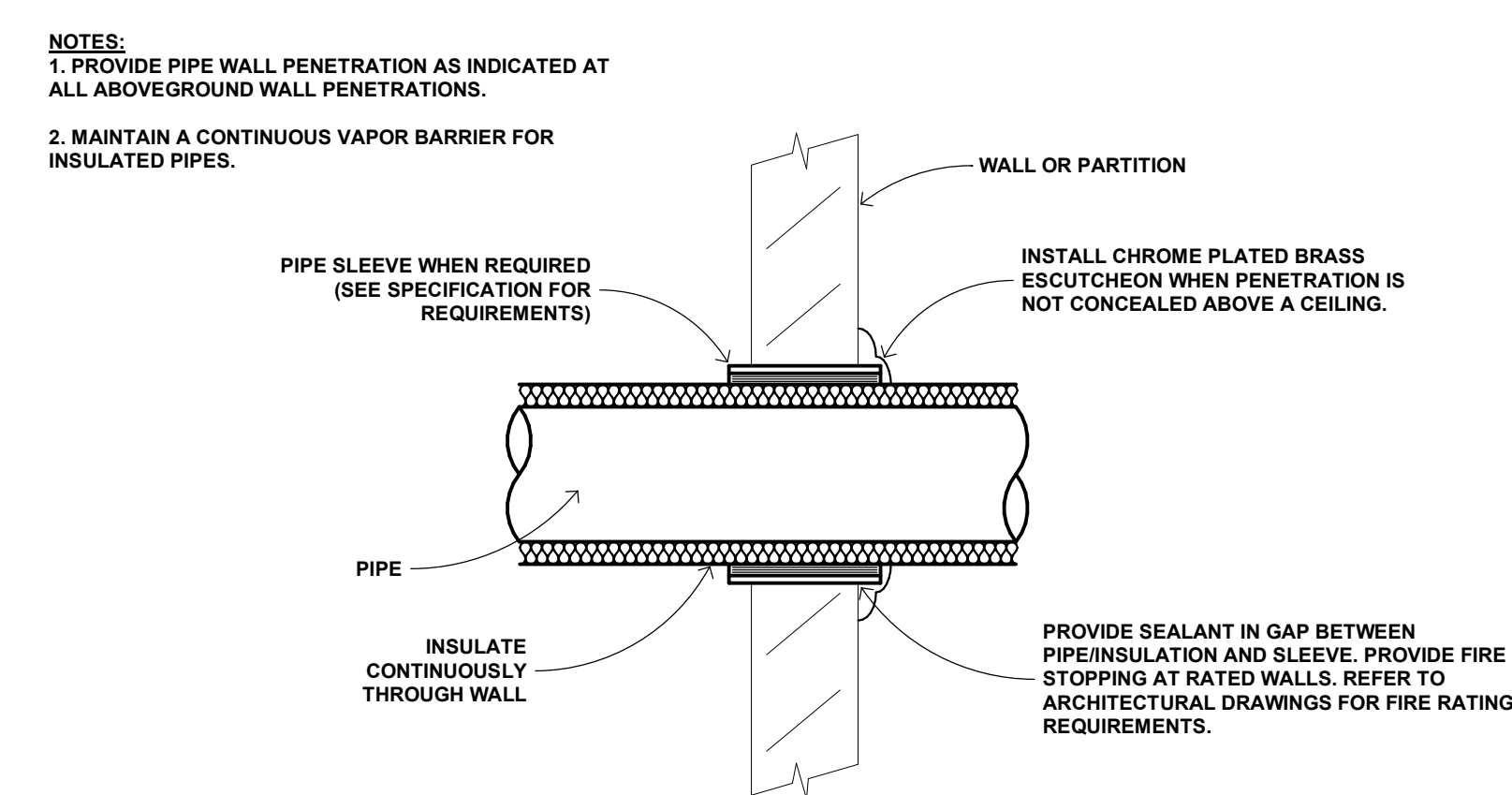
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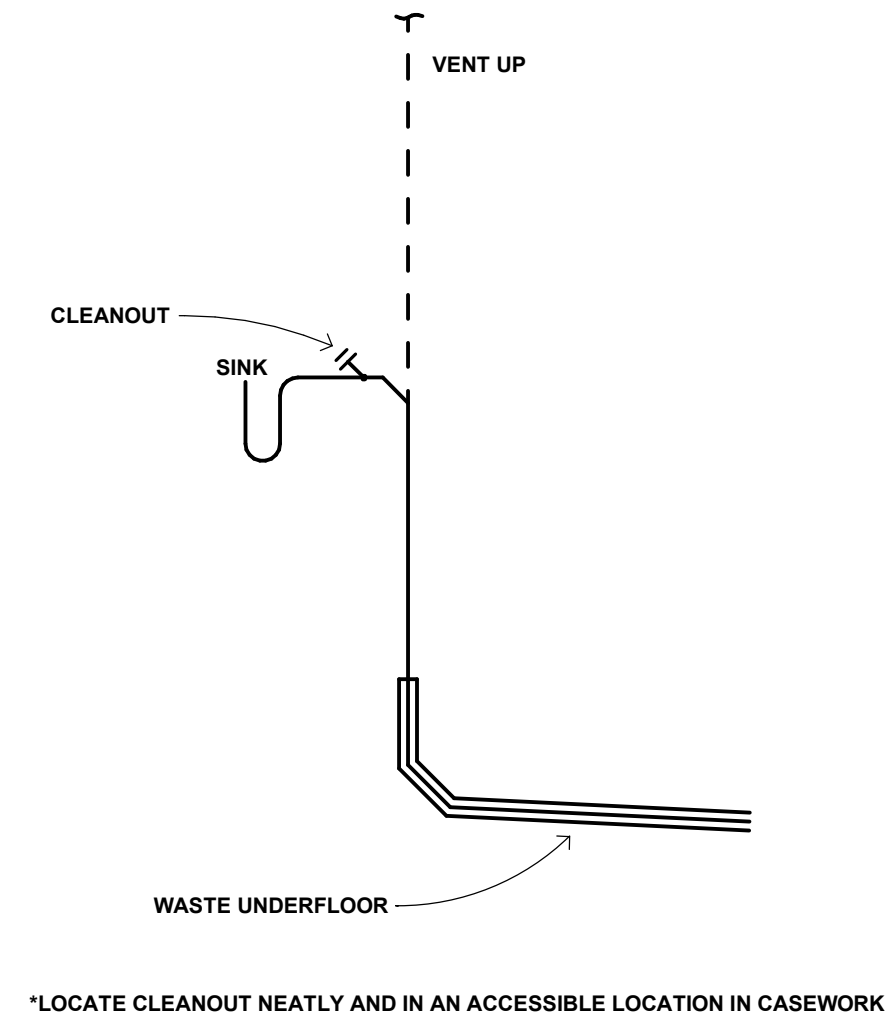
F1 HOSE REEL DETAIL
NOT TO SCALE



F3 DRAW-THRU CONDENSATE DRAIN
NOT TO SCALE



F5 PIPE WALL PENETRATION DETAIL
NOT TO SCALE



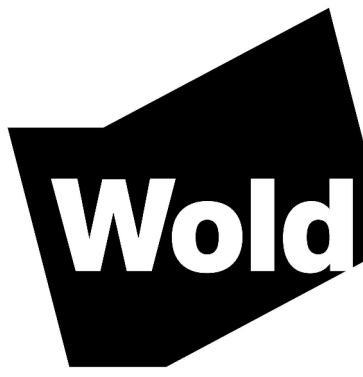
*LOCATE CLEANOUT NEATLY AND IN AN ACCESSIBLE LOCATION IN CASEWORK

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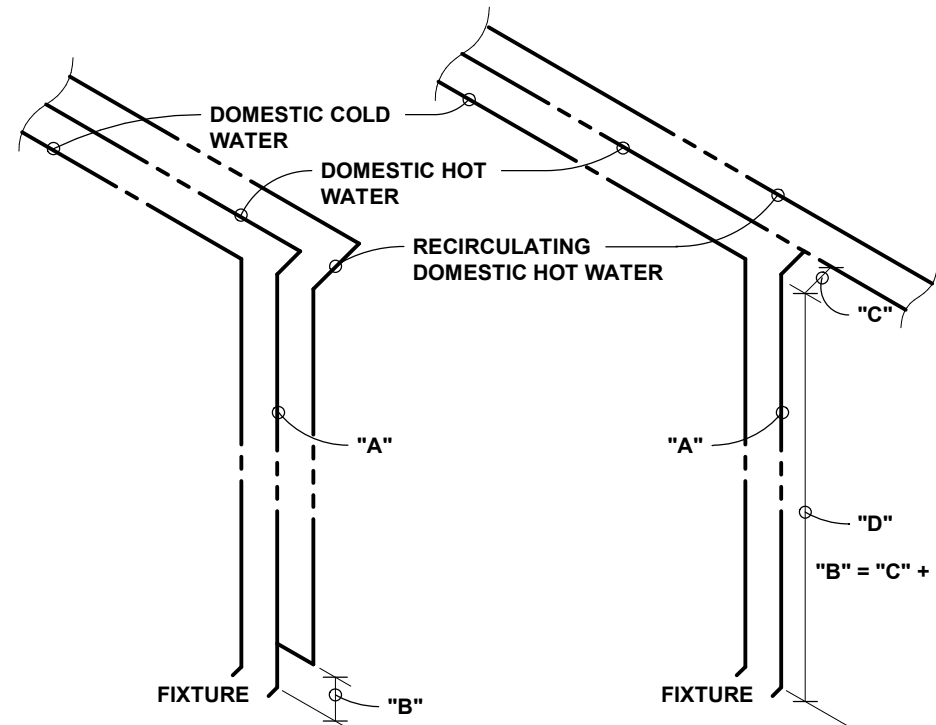
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MECHANICAL DETAILS

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M7.20

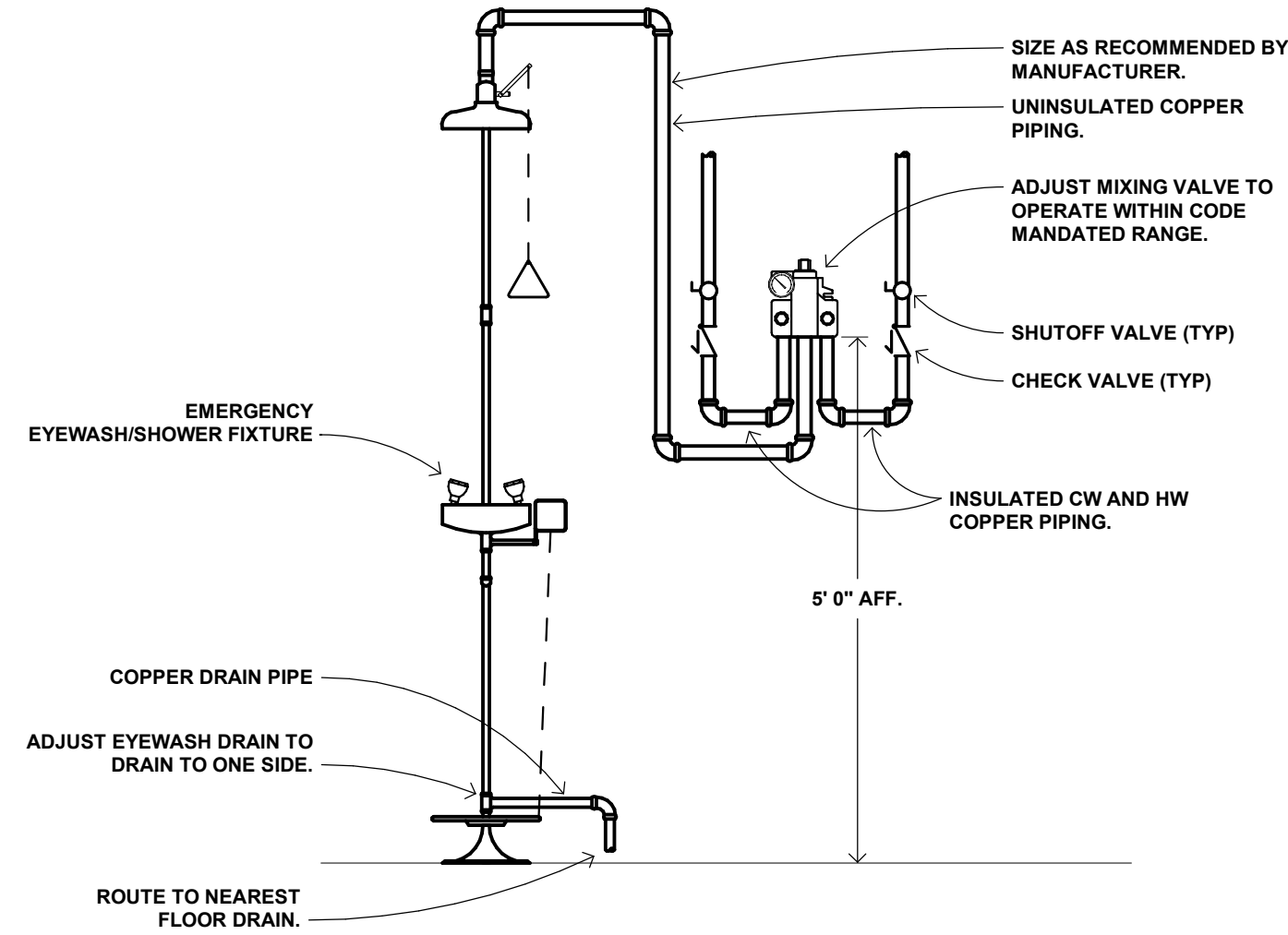
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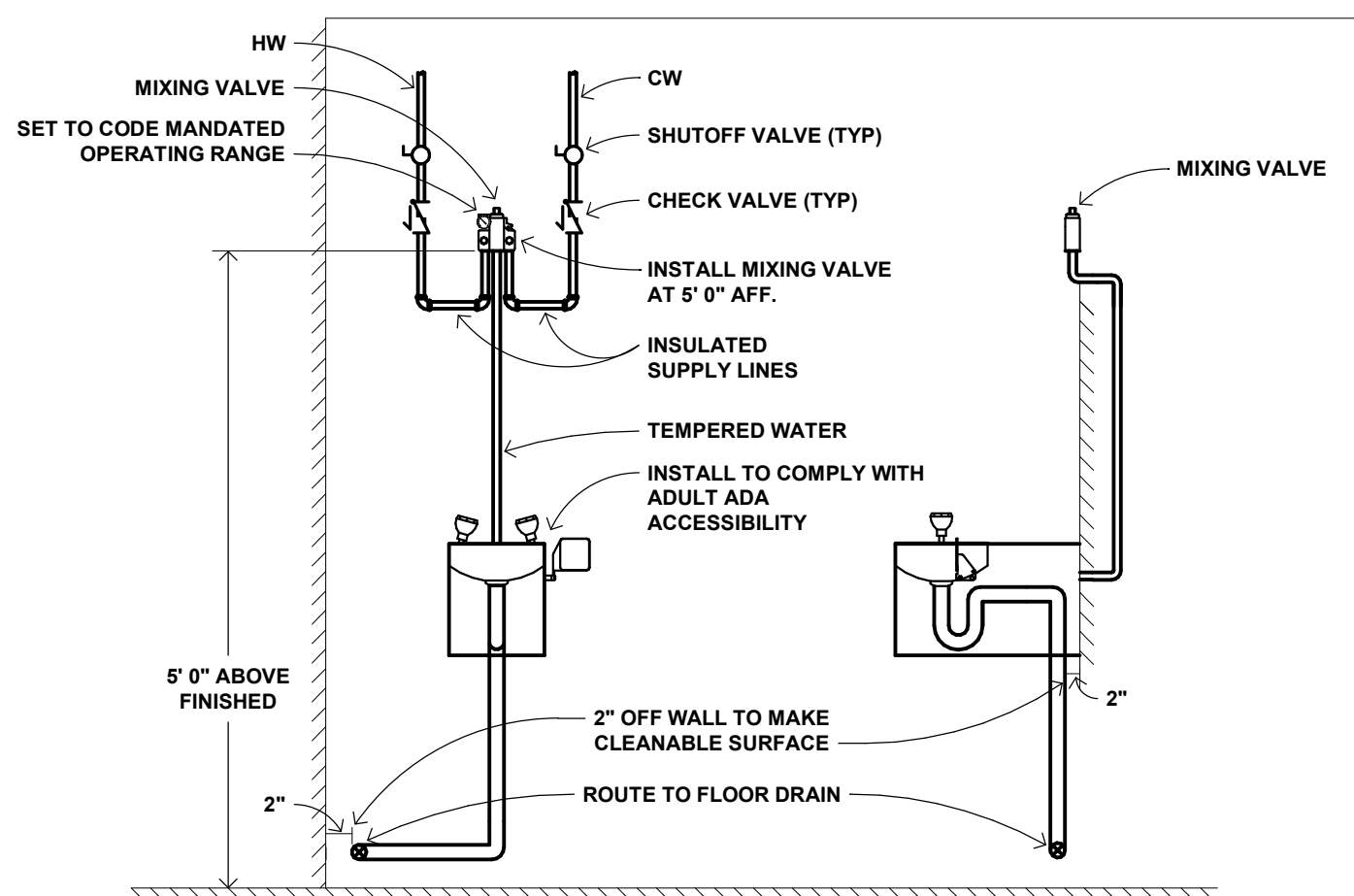
DOMESTIC HOT WATER NOMINAL PIPE SIZE ("A")	MAXIMUM PIPE LENGTH ("B") PUBLIC LAVATORY	OTHER FIXTURES
1/2"	2'-0"	43'-0"
3/4"	6"	21'-0"
1"	6"	13'-0"
1-1/4"	6"	8'-0"
1-1/2"	6"	6'-0"
> OR = 2"	6"	4'-0"

REFER TO PLANS AND RISER DIAGRAMS FOR SPECIFIC PIPE SIZES.

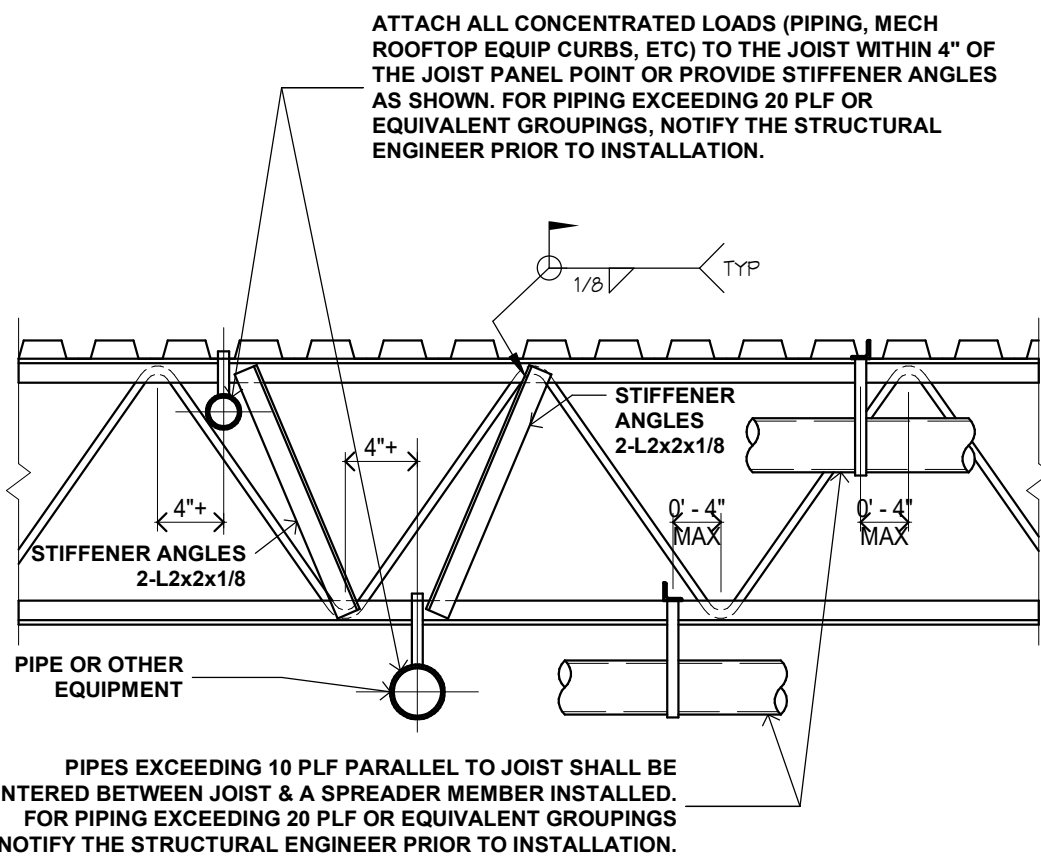
B1 DOMESTIC CIRCULATING HOT WATER SCHEMATIC
NOT TO SCALE



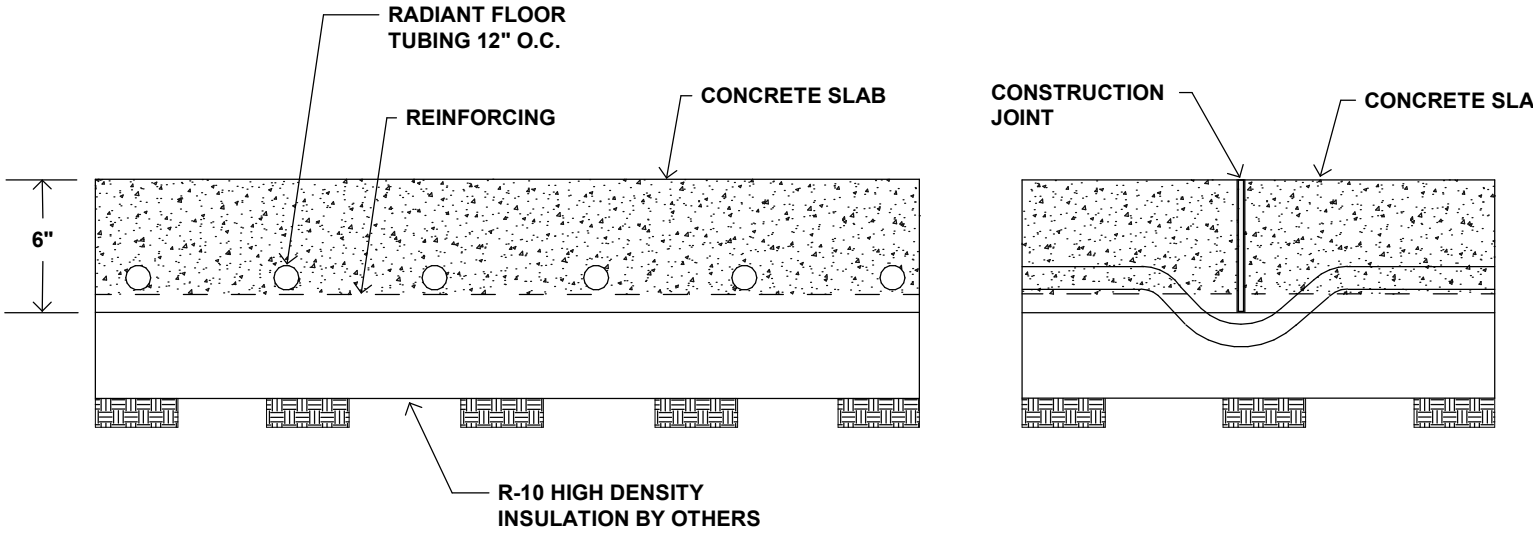
B3 EMERGENCY EYEWASH/SHOWER DETAIL
NOT TO SCALE



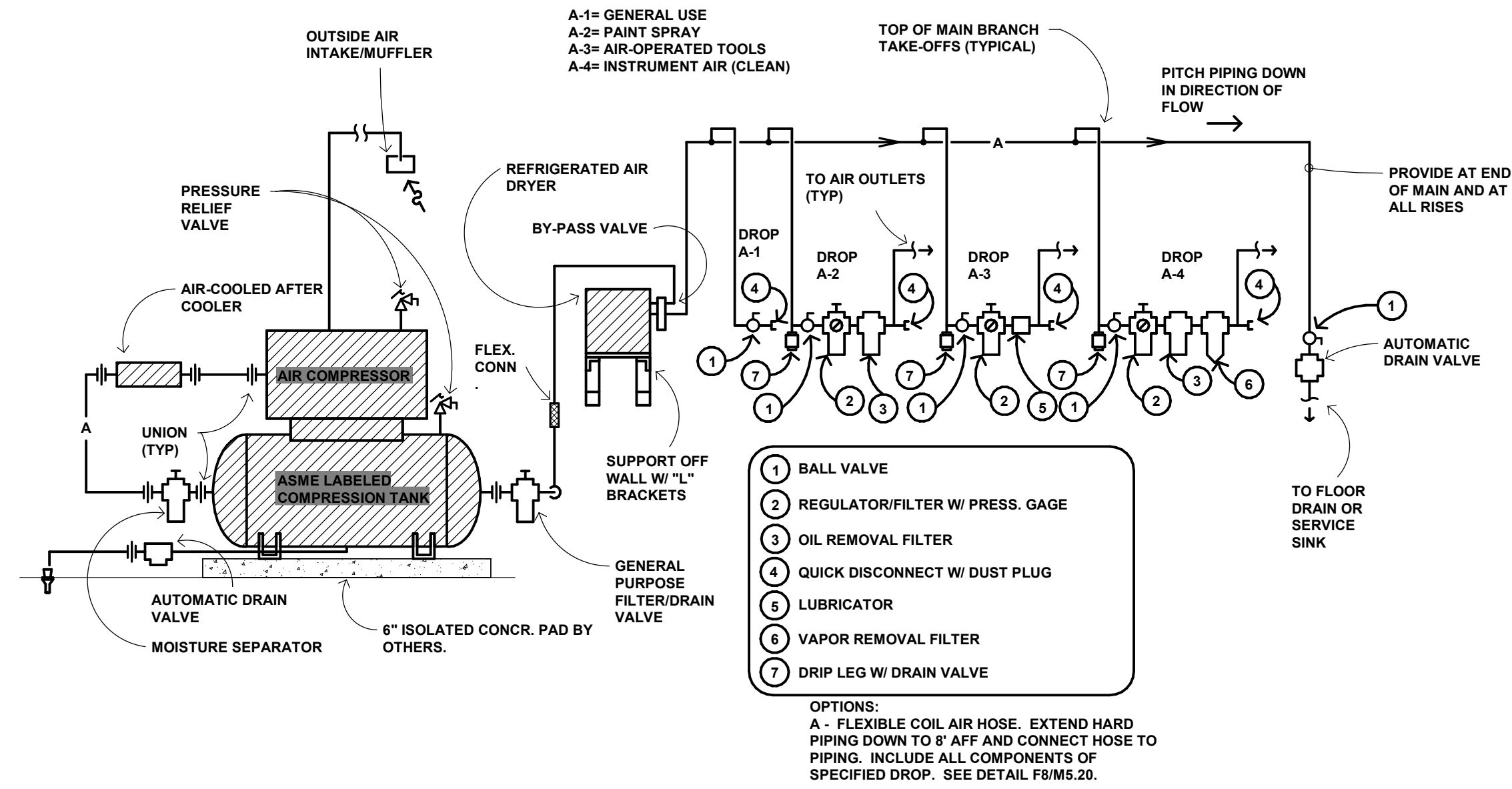
B5 EMERGENCY EYEWASH DETAIL
NOT TO SCALE



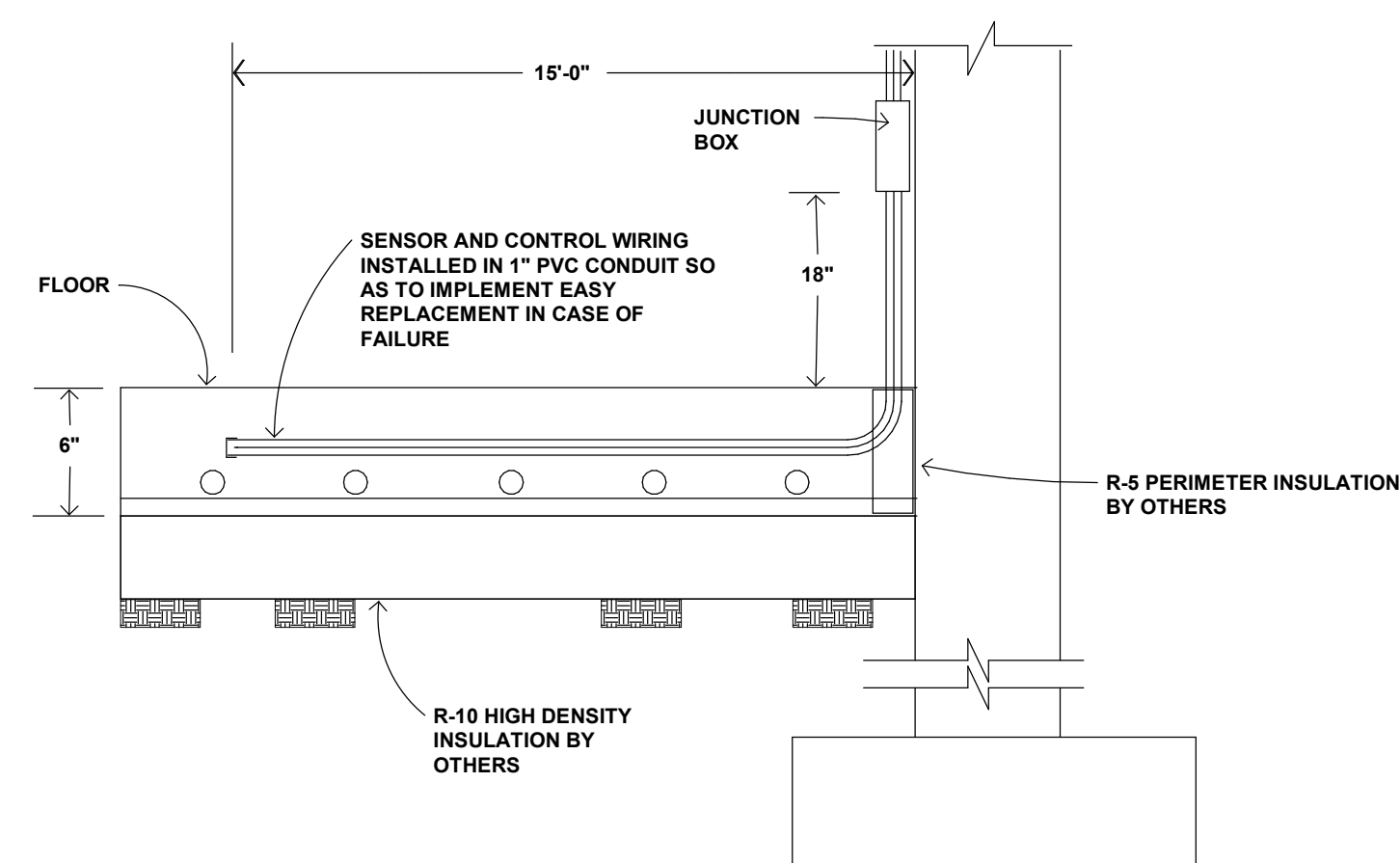
B7 MECHANICAL SUPPORT REINFORCEMENT DETAIL
NOT TO SCALE



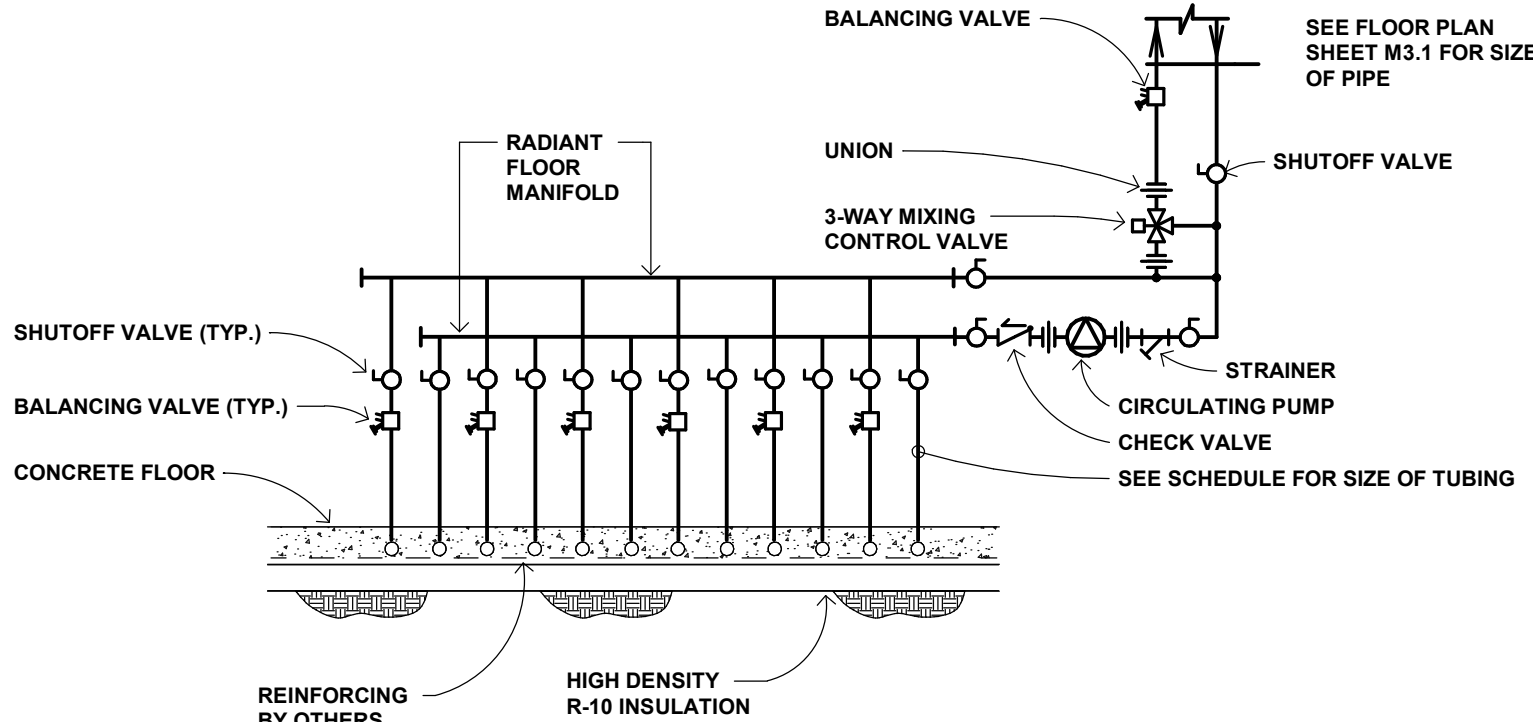
C6 SNOW MELT FLOOR SLAB DETAIL
NOT TO SCALE



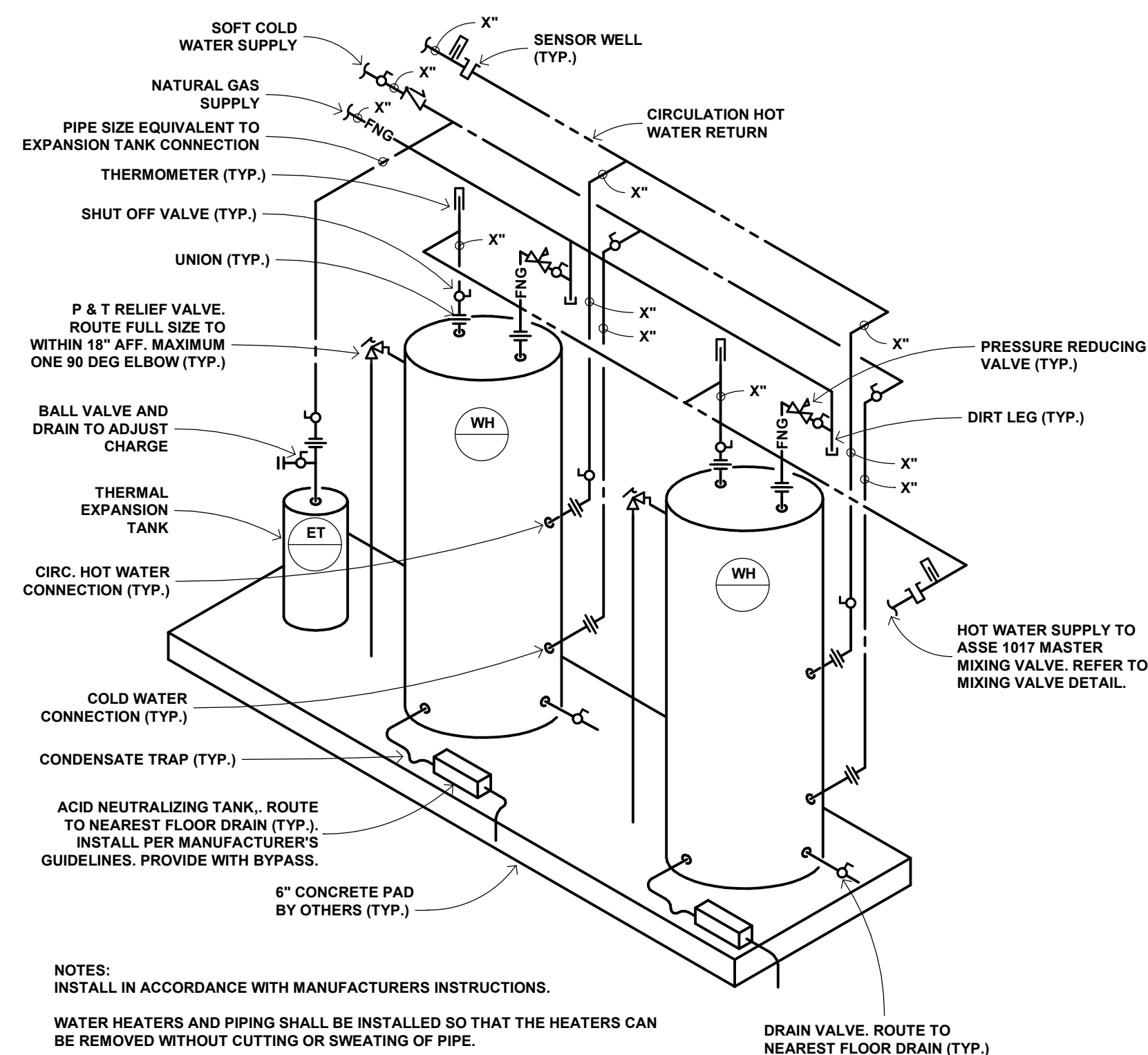
E1 COMPRESSED AIR SYSTEM PIPING SCHEMATIC
NOT TO SCALE



E4 SNOW MELT SENSOR INSTALLATION DETAIL
NOT TO SCALE



D6 SNOW MELT FLOOR MANIFOLD DETAIL
NOT TO SCALE



F6 DUPLEX WATER HEATER PIPING SCHEMATIC
NOT TO SCALE

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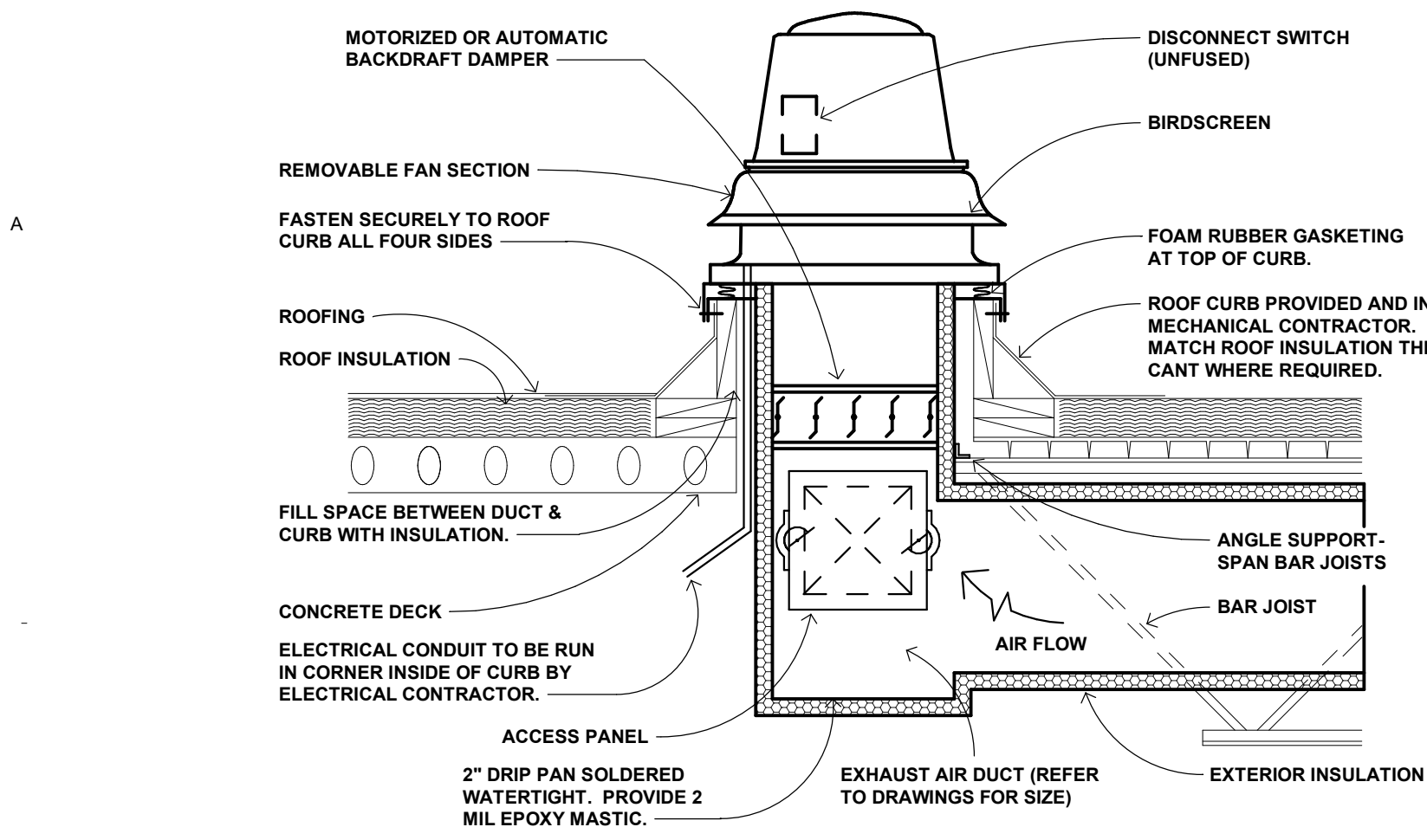
MECHANICAL DETAILS & SCHEMATICS

Scale: As indicated

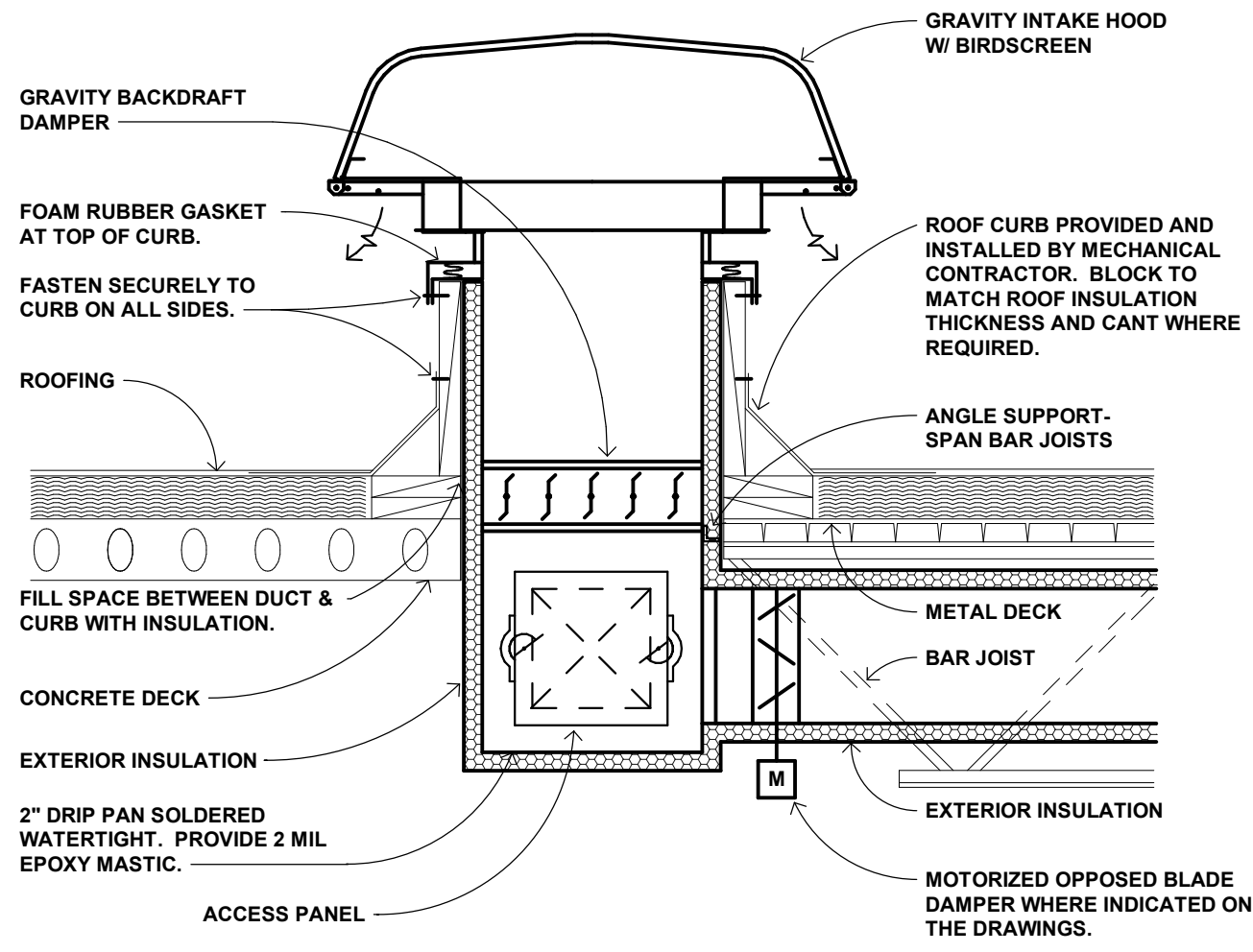
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M7.30

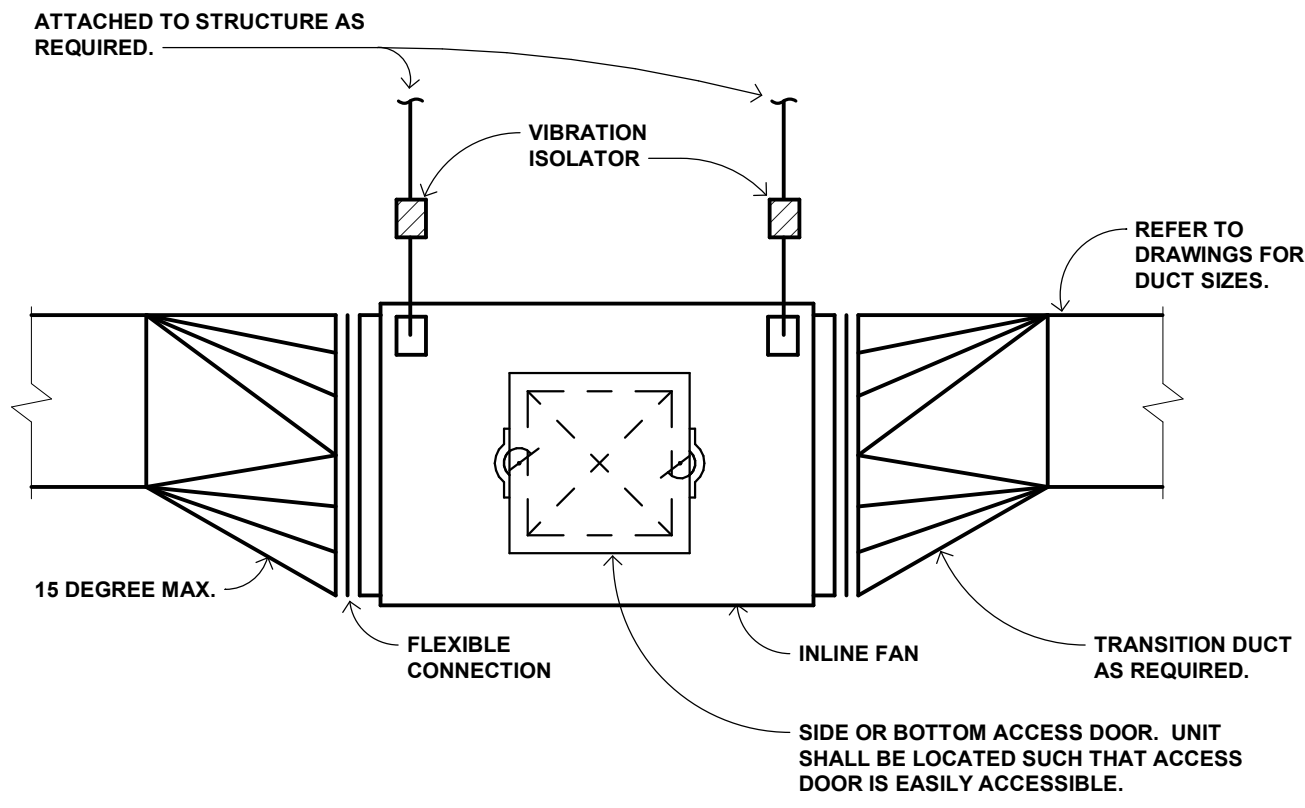
MN



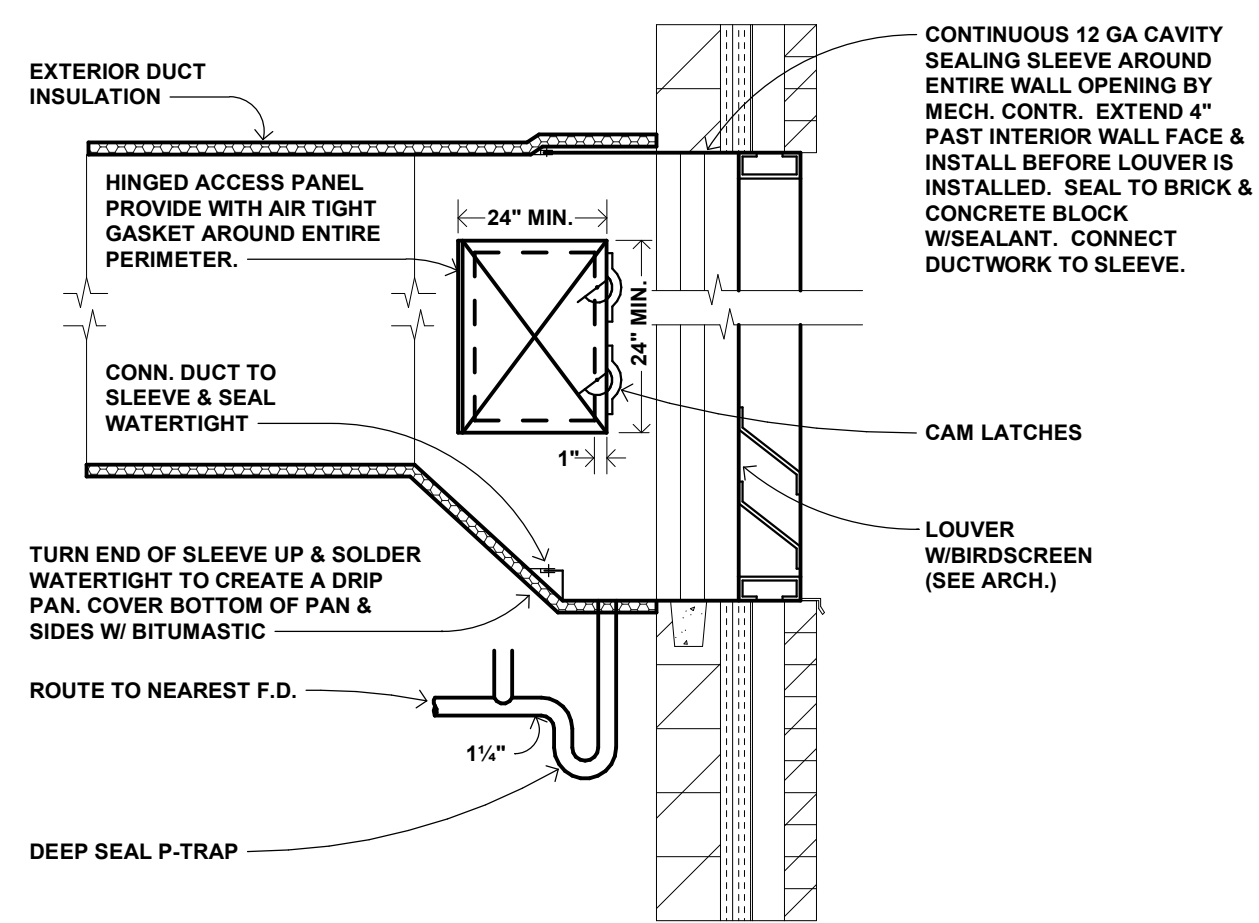
B1 TYPICAL P.R.V. EXHAUST FAN DETAIL
NOT TO SCALE



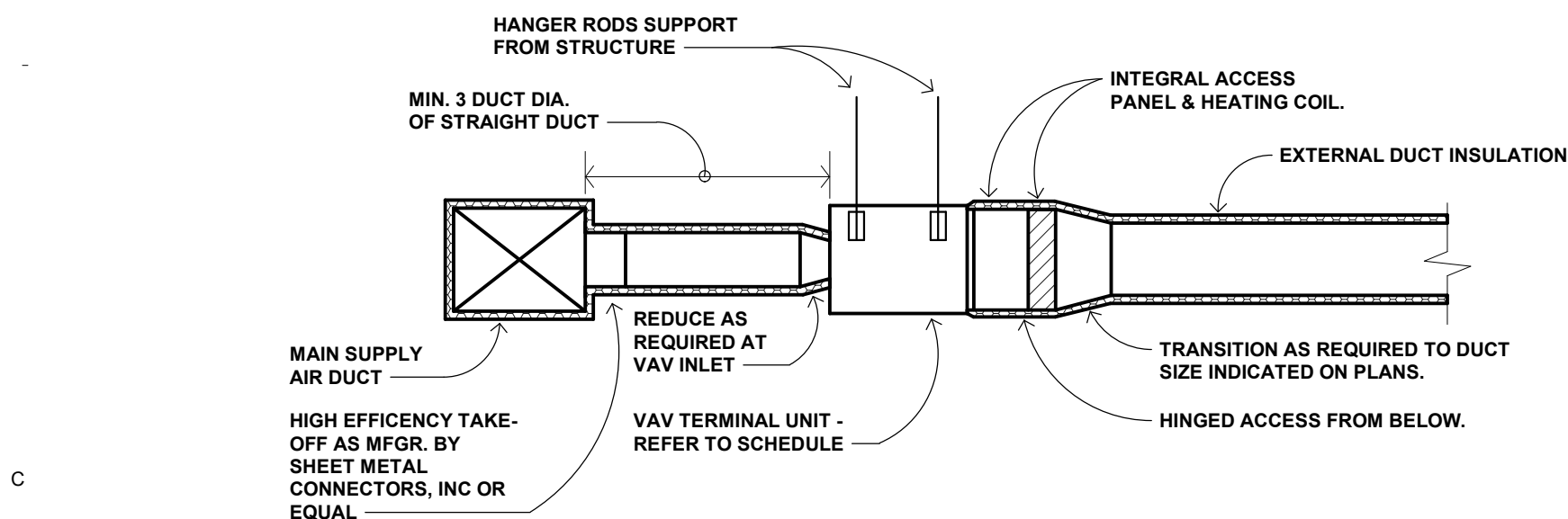
B3 GRAVITY RELIEF HOOD DETAIL
NOT TO SCALE



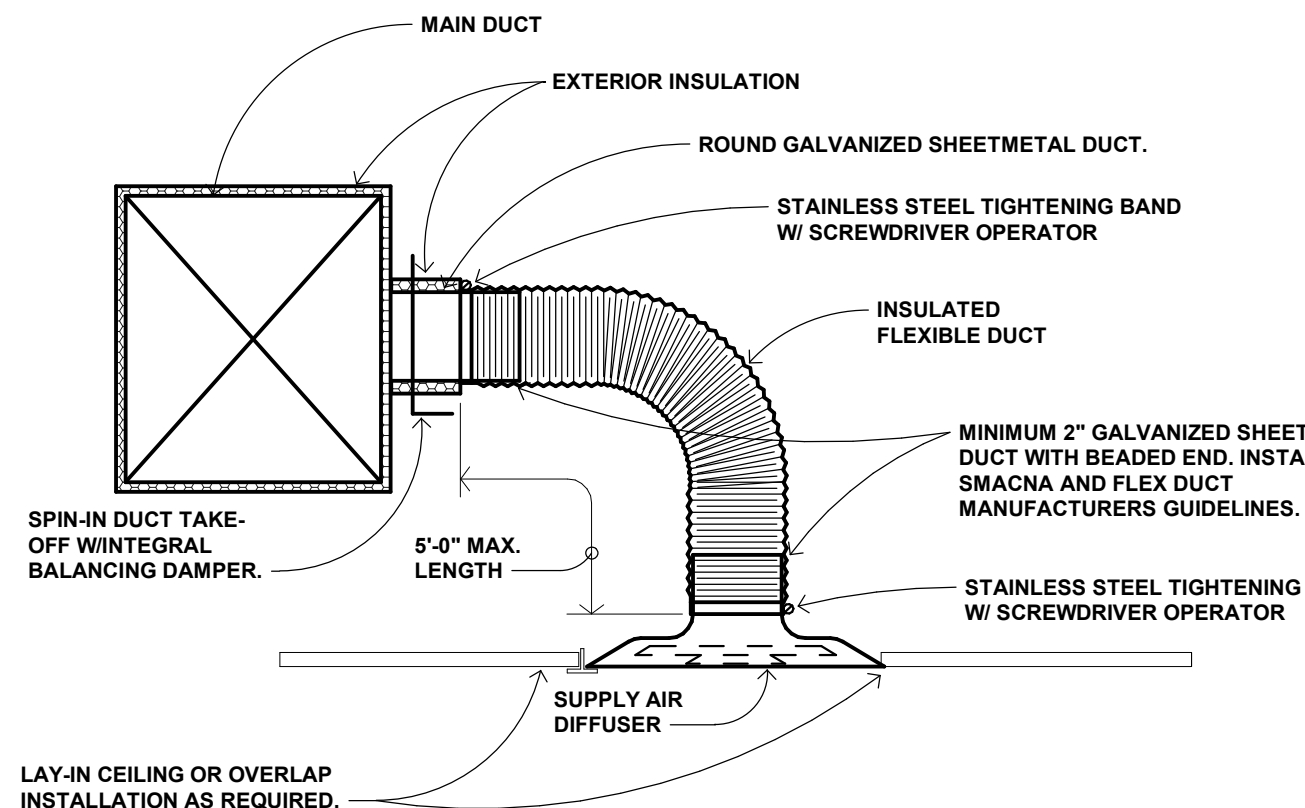
B5 INLINE FAN DETAIL
NOT TO SCALE



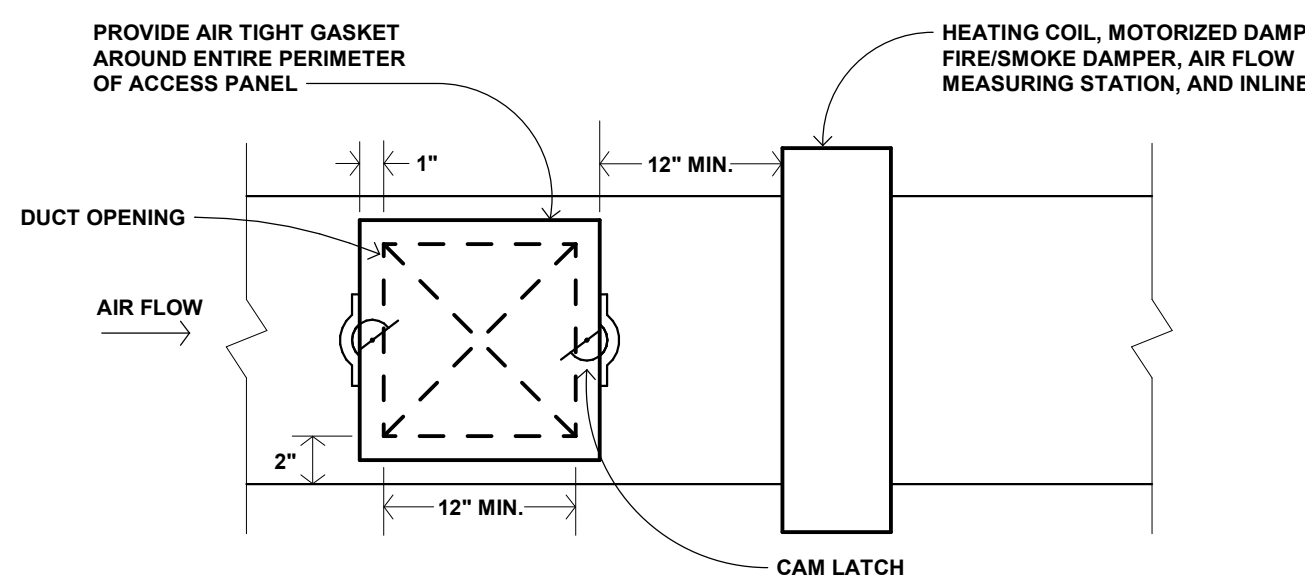
B7 V-08 LOUVER INSTALLATION DETAIL
1/8" = 1'-0"



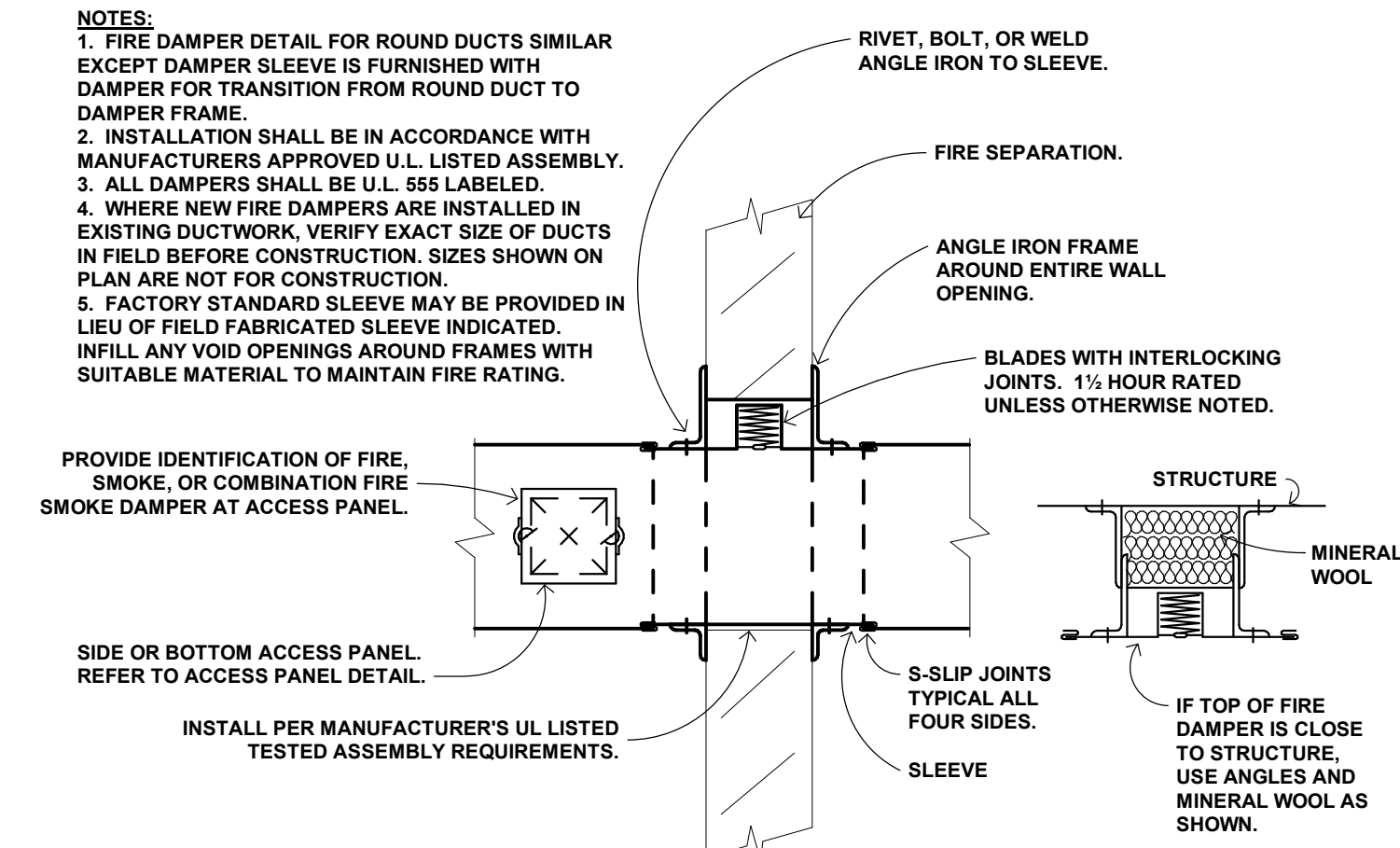
C1 TYPICAL VAV TERMINAL UNIT DETAIL
NOT TO SCALE



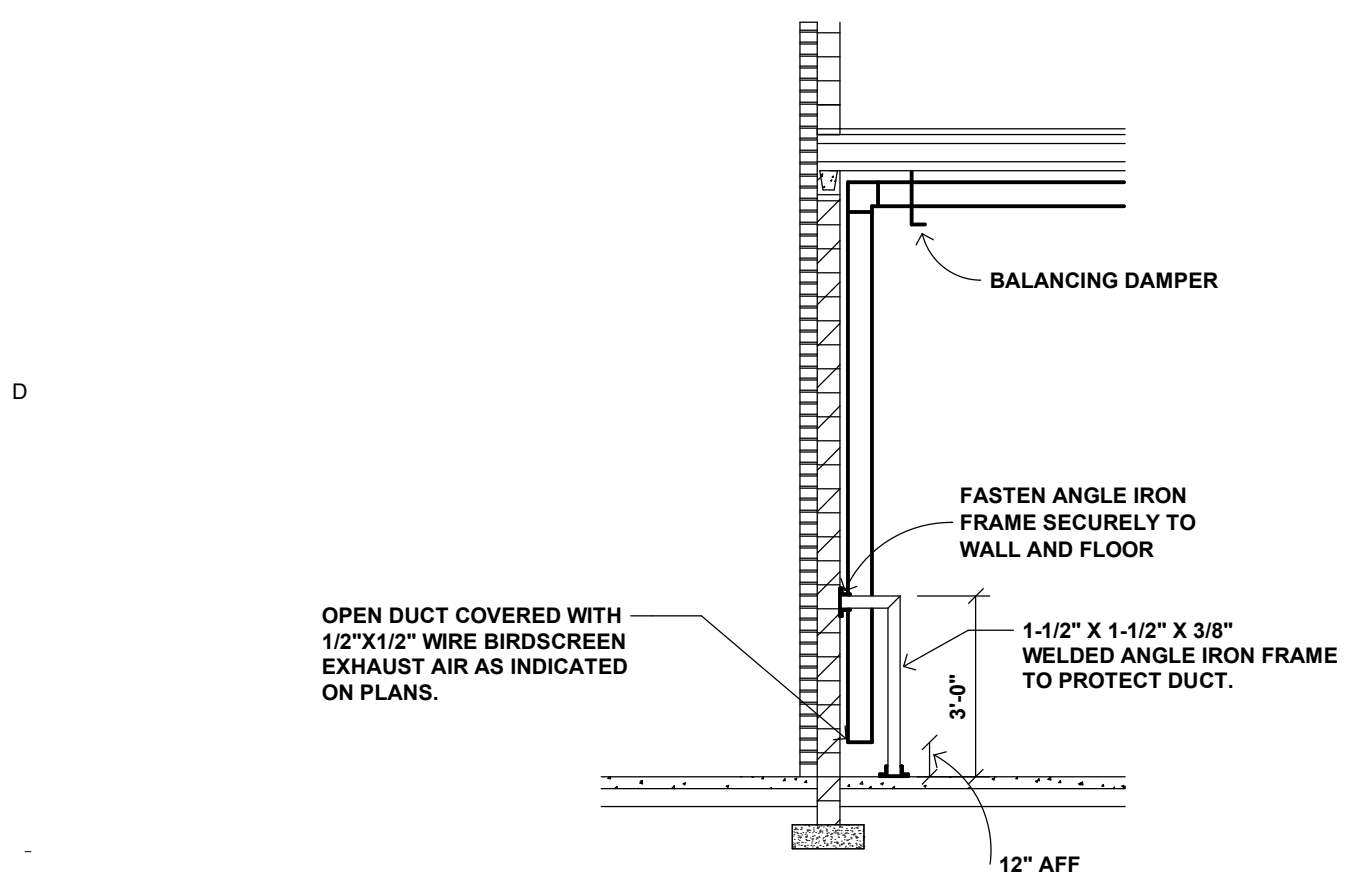
C3 FLEXIBLE DUCT CONNECTION DETAIL
NOT TO SCALE



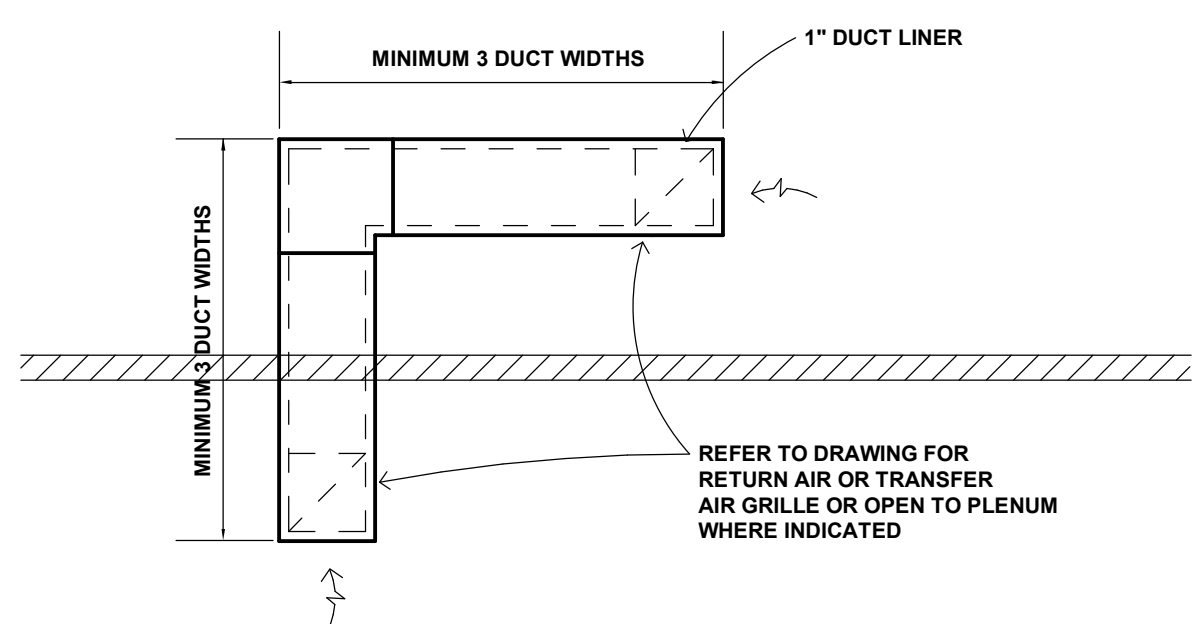
C5 ACCESS PANEL DETAIL
NOT TO SCALE



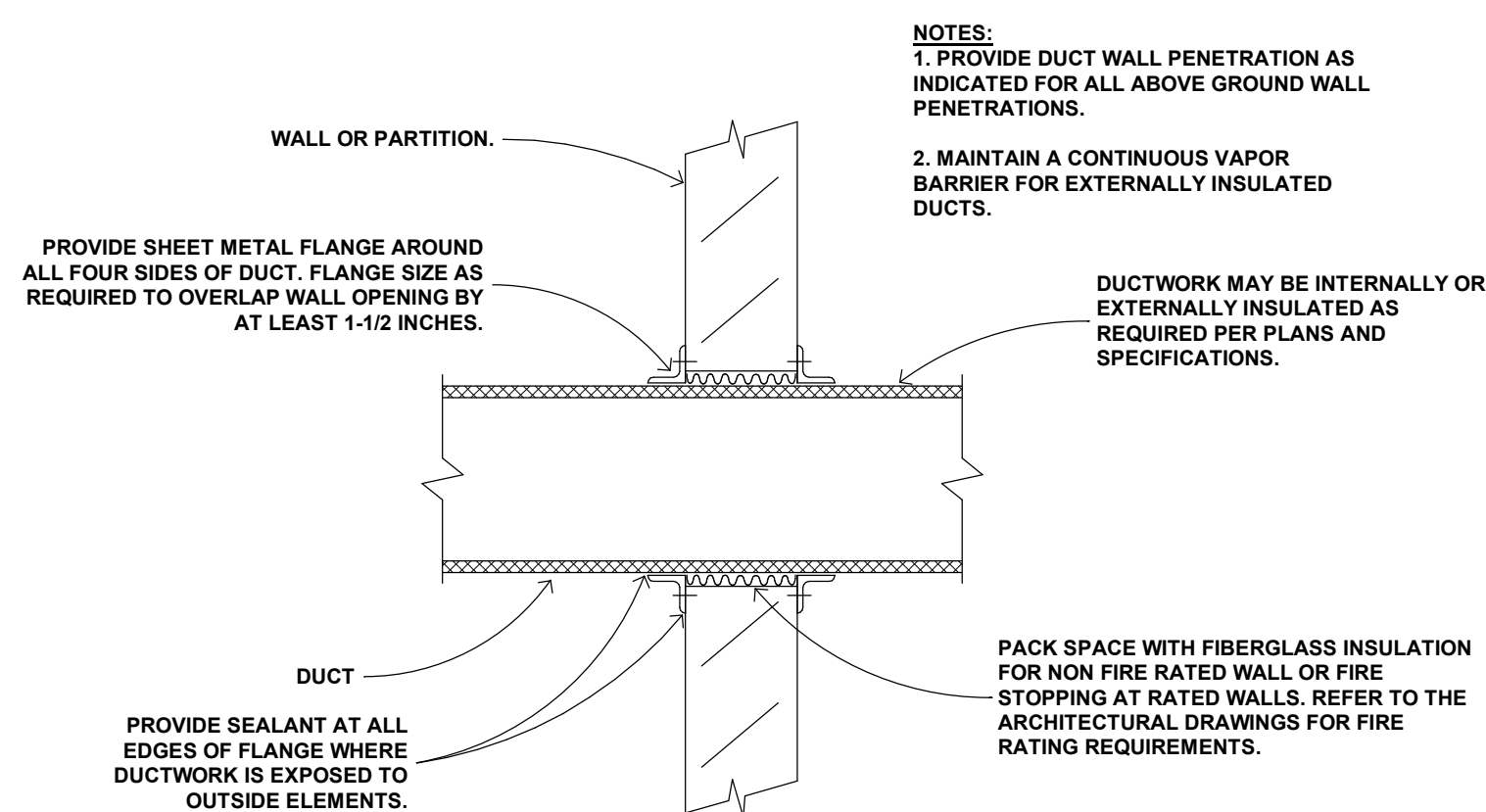
C7 V-13 FIRE DAMPER AT WALL DETAIL
NOT TO SCALE



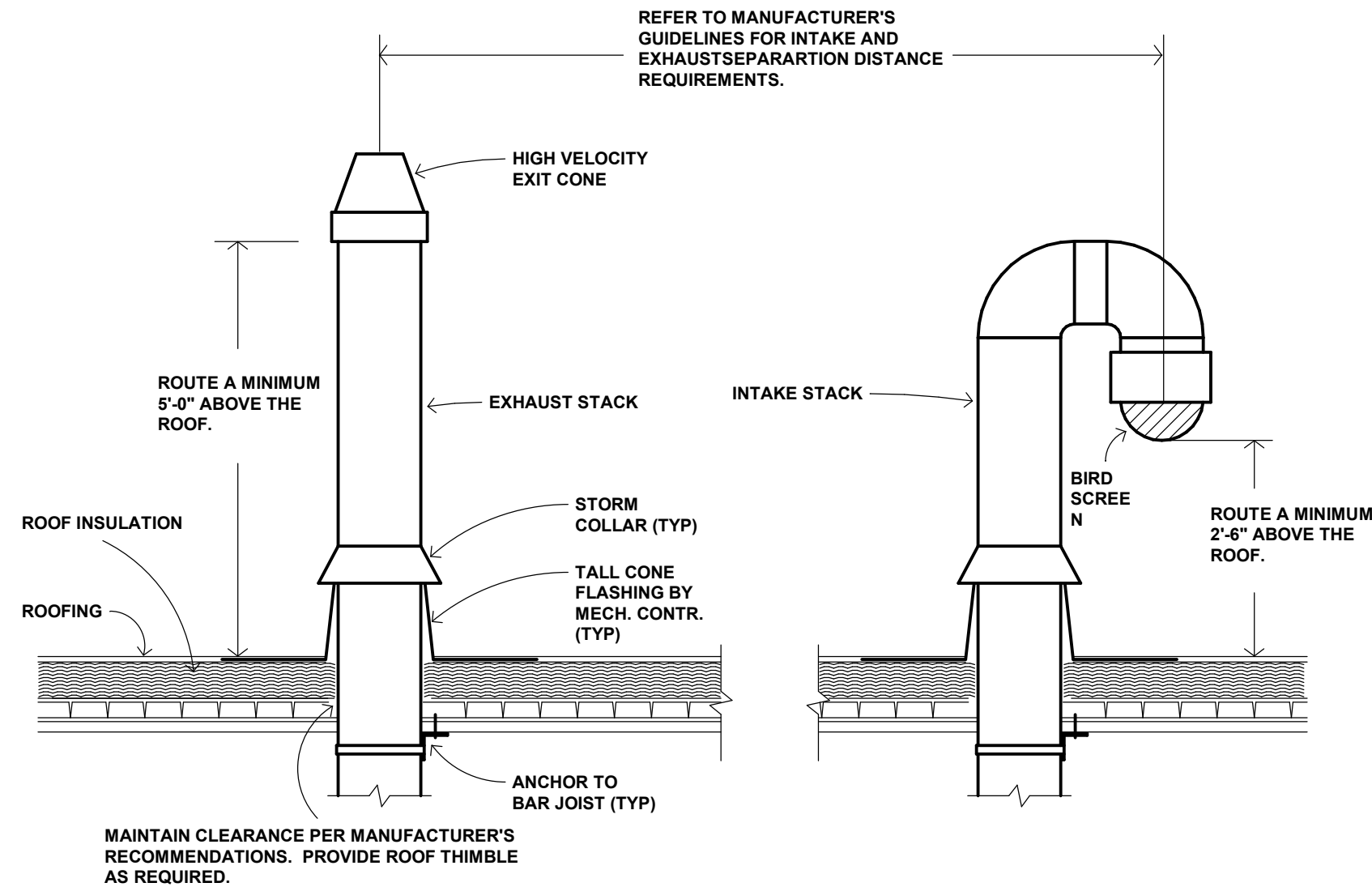
E1 GARAGE FLOOR EXHAUST DETAIL
NOT TO SCALE



E2 TRANSFER AIR DUCT
NOT TO SCALE



E4 DUCT WALL PENETRATION DETAIL
NOT TO SCALE

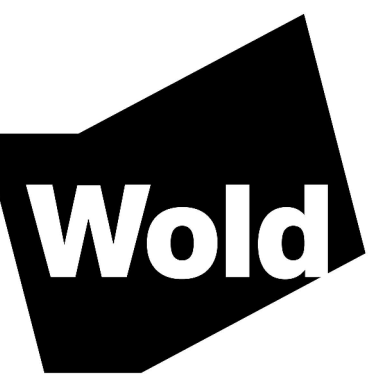


E6 HIGH EFFICIENCY BOILER EXHAUST/INTAKE VENT DETAIL
NOT TO SCALE

NEW UTILITY AND ENGINEERING BUILDING

10875 Ideal Avenue South
Cottage Grove, MN 55016

CITY OF COTTAGE GROVE
12800 Ravine Parkway South
Cottage Grove, MN 55016



WOLD ARCHITECTS AND ENGINEERS
332 Minnesota Street, Suite W2000
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Minneapolis, MN 55404
krausanderson.com | 612 332 7281

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

License Number: Date:

Description	Revisions	
	Date	Num

Comm: 232010
Date: 10/26/2023
Drawn: RR
Check: PJ

MECHANICAL DETAILS

Scale: 1/8" = 1'-0"

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

M7.40

MN

AIR HANDLING UNIT SCHEDULE (AHU-X)																																																	
UNIT NO.	SERVES	MANUFAC.	MODEL NO.	UNIT TYPE	TOTAL CFM	OUTDOOR AIR			SUPPLY FAN			RETURN/RELIEF FAN										COOLING COIL						HEATING COIL						FILTERS		REMARKS													
						CO2 MIN	CO2 MAX	ECON	FAN #	SYSTEM DESIGN CFM	FAN TYPE	FAN SIZE	TOTAL S.P.	EXTERNAL S.P.	RPM	BHP	MOTOR HP	VFD	VOLTS/PH	FAN #	SYSTEM DESIGN CFM	FAN TYPE	FAN SIZE	TOTAL S.P.	EXTERNAL S.P.	RPM	BHP	MOTOR HP	VFD	VOLTS/PH	COIL TYPE	PIPING TYPE	COIL #	ENT AIR DBWB	LVG AIR DBWB		SENS. MBH	TOTAL MBH	COIL TYPE	PIPING TYPE	COIL #	ENT AIR DBWB	LVG AIR DBWB	SENS. MBH	TOTAL MBH	TOTAL GPM	CONTROL VALVE	PRE TYPE	FINAL TYPE
AHU-1	OFFICE	DAIKIN	CAH26GDM	VAV	12550				1	11200			5.10	2.00	1848	--	20.0	YES	208/3	1	11200			2.41	1.50	1989	8.08	7.5	YES	208/3			AHU-1: CC-1	80.0/67.0	55.0/54.3	312	439			AHU-1: HC-1	20.0	83.0	764	764	80.9		MERV-8	MERV-13	

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 2. SMOKE DETECTORS ARE PROVIDED BY ELECTRICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE EXACT LOCATIONS.
 3. REFER TO DETAIL SHEETS FOR COIL PIPING CONNECTIONS.
 4. REFER TO SECTIONS OF UNITS ON MECHANICAL ROOM SHEETS FOR UNIT COMPONENTS.
 5. ENTERING HOT WATER TEMPERATURE IS XXX° F, LEAVING TEMPERATURE IS XXX° F. UNIT IS SELECTED BASED ON XX% (ETHYLENE) (PROPYLENE) GLYCOL.
 6. ENTERING CHILLED WATER TEMPERATURE IS XX° F, LEAVING TEMPERATURE IS XX° F. UNIT IS SELECTED BASED ON XX% (ETHYLENE) (PROPYLENE) GLYCOL.
 7. PROVIDE ACCESS SECTION BETWEEN HEATING AND COOLING COILS.
 8. SUPPLY AND RETURN/RELIEF FANS INDICATED ARE CONTROLLED BY VARIABLE FREQUENCY DRIVES PROVIDED BY THE BUILDING AUTOMATION SYSTEM CONTRACTOR. ALL VARIABLE FREQUENCY DRIVES FOR THE ENTIRE PROJECT SHALL BE BY THE SAME MANUFACTURER.
 9. PROVIDE INTERMINED CIRCUITING ON DX COIL.
 10. PROVIDE UNIT WITH MINIMUM 6" BASERAIL. PROVIDE ADDITIONAL BASERAIL HEIGHT AS REQUIRED SUCH THAT THE CONDENSATE DRAIN CONNECTION IS AT LEAST X" ABOVE THE FINISHED FLOOR. REFER TO THE PLANS FOR THE CONCRETE PAD HEIGHT. REFER TO THE CONDENSATE DRAIN PIPING DETAIL.
 11. REFER TO THE ENERGY RECOVERY UNIT SCHEDULE FOR THE ASSOCIATED ENERGY RECOVERY SECTION OF THE AIR HANDLING UNIT.

AIR FLOW STATION SCHEDULE (AFS-X)								
UNIT NO.	SERVES	MANUF.	MODEL	LOCATION	CFM	SIZE (LxH)	FACE VELOCITY (FPM)	REMARKS
AFS-1								
AFS-2								

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

COMPUTER ROOM UNIT SCHEDULE																	CRU X	
UNIT NO.	SERVES	MANUFAC.	MODEL NO.	UNIT TYPE	CFM	SUPPLY FAN					COOLING COIL						FILTER TYPE	REMARKS
						CFM	EXT S.P.	HP	VOLTS	PHASE	COIL TYPE	COIL ROWS	ENT AIR	LVG AIR	SENS. MBH	TOTAL MBH		
CRU-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

CONDENSING UNIT SCHEDULE - AIR COOLED														CU X
UNIT NO.	SERVES	MFGR.	MODEL NO.	NOMINAL TONS	COMPRESSOR TYPE	VOLTS	PHASE	MCA	SCCR	CIRCUITS	STAGES	IEER	REFRIG.	REMARKS
CU-1	AHU-1	DAIKIN	RC5045D	45	SCROLL	208	3	198.9	10	2	4	15.1	R-410A	

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 2. PROVIDE WITH SPRING VIBRATION ISOLATORS.
 3. PROVIDE WITH HOT GAS BYPASS ON FIRST STAGE.
 4. PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION AND TRANSFORMER FOR CONTROL CIRCUIT.
 5. PROVIDE WITH SINGLE POINT DISCONNECT.

DESTRATIFICATION FAN SCHEDULE (DF-X)									
UNIT NO.	SERVES	MANUFACTURER	MODEL NO.	MOTOR TYPE	MAX RPM	VOLTS	WATTS	PH	REMARKS
DF-1	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-2	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-3	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-4	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-5	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-6	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-7	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-8	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-9	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-10	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-11	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		
DF-12	GARAGE	ZOOFANS	H25 EC	1640	115	55	1		

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 2. PROVIDE ADDITIONAL SAFETY CHAIN. ATTACH CHAIN BETWEEN UNIT AND STRUCTURE.
 3. PROVIDE WITH VARIABLE SPEED CONTROLLER. REFER TO SPECIFICATIONS FOR SPEED SWITCH TYPE.

EXHAUST FAN AND TRANSFER FAN SCHEDULE (EF-X) (TF-X)															
UNIT NO.	SERVES	LOCATION	MANUFACTURER	MODEL NO.	TYPE	CFM	TOTAL S.P. W.C.	DRIVE	EC MOTOR	RPM	HP	VOLTS/ PHASE	MAKE-UP AIR SOURCE	MOTORIZED DAMPER	REMARKS
EF-1	A102 TOILET			120 ACED OR70	PRV	140	0.4	DIRECT	YES	1725	1/8	120/1			
EF-2	BREAK ROOM RANGE HOOD RAH-1			100 ACEH	PRV	375	0.4	DIRECT	YES	1725	1/8	120/1			
EF-3	A113 TOILET			120 ACED OR70	PRV	140	0.4	DIRECT	YES	1725	1/8	120/1			
EF-4	LOCKER ROOM TLTS/SHOWER ROOMS			100 ACEM	PRV	380	0.5	DIRECT	YES	1725	1/8	120/1			
EF-5	NW GARAGE (LOW)/A128 TOILET			210 ACEB	PRV	4565	0.75	BELT	YES	1725	1-1/2	208/3			
EF-6	W GARAGE (HIGH)			225 ACEB	PRV	3760	0.4	BELT	YES	1725	1	208/3			
EF-7	SW GARAGE (LOW)			210 ACEB	PRV	4425	0.75	BELT	YES	1725	1-1/2	208/3			
EF-8	W GARAGE (HIGH)			225 ACEB	PRV	3760	0.4	BELT	YES	1725	1	208/3			
EF-9	MEZZANINE			210 ACEB	PRV	4400	0.75	BELT	YES	1725	1-1/2	208/3			
EF-10	E GARAGE (HIGH)			225 ACEB	PRV	3760	0.4	BELT	YES	1725	1	208/3			
EF-11	N GARAGE (LOW)			165 ACEB	PRV	1770	0.8	BELT	YES	1725	1	208/3			
EF-12	SE GARAGE (LOW)			210 ACEB	PRV	4425	0.75	BELT	YES	1725	1-1/2	208/3			
EF-13	E GARAGE (HIGH)			225 ACEB	PRV	3760	0.4	BELT	YES	1725	1	208/3			
EF-14	COLD STORAGE			195 ACEB	PRV	3860	0.75	BELT	YES	1725	1	208/3			

- NOTES:
1. 120V VOLT FANS SHALL BE PROVIDED WITH A FACTORY MOUNTED DISCONNECT SWITCH.
 2. 120V VOLT FANS THAT ARE NOT PROVIDED WITH SPEED ADJUSTABLE EC MOTORS SHALL HAVE A FACTORY MOUNTED SPEED SWITCH IN MOTOR COMPARTMENT FOR BALANCING.
 3. PROVIDE WITH A GRAVITY BACK DRAFT DAMPER UNLESS A MOTORIZED DAMPER IS INDICATED TO BE PROVIDED.
 4. WHERE MOTORIZED DAMPERS ARE INDICATED, THE DAMPERS AND ACTUATORS SHALL BE PROVIDED BY THE BAS CONTRACTOR AND INSTALLED BY DIV 23 CONTRACTOR.
 5. PROVIDE WITH VARIABLE SPEED DRIVE. INSTALLED BY DIV 26. COORDINATE INSTALLATION LOCATION.
 6. INLINE FANS SHALL BE PROVIDED HANGER TYPE VIBRATION ISOLATORS.

GAS FIRED MAKE-UP AIR UNIT SCHEDULE													
UNIT NO.	SERVES	MANUFACTURER	MODEL NO.	TYPE	MOUNTING	CFM	EXTERNAL STATIC PRESSURE	VOLTAGE	PHASE	H.P.	TEMP RISE	OUTPUT MBH	REMARKS
MAU-1	GARAGE	ABSOLUTE/TAIRE	AAGHO		PAD	21000	1.25	208	3	20	100	2324	

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 2. PROVIDE GAS PRESSURE REGULATOR ON ALL 2" W.C. GAS SERVICE.
 3. PROVIDE INTAKE HOOD WITH BIRDSCREEN, MOTORIZED DAMPER AND FILTER SECTION (65% EFFICIENT)

INTAKE AND RELIEF HOOD SCHEDULE (IH-X) (RH-X)									
UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	TYPE	CFM	MAX. SP IN W.C.	THROAT SIZE	BACKDRAFT DAMPER (YES/NO)	REMARKS
IH-1									
IH-2									
IH-3									

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 2. ALL INTAKE AND RELIEF HOODS ARE SHALL HAVE LOCKABLE HINGED OPENINGS.

RANGE HOOD SCHEDULE (RAH-X)									
UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	TYPE	DIMENSIONS	CFM	THROAT SIZE	VOLTS	REMARKS
RAH-1		BROAN	BCDF130SS	UNDERCABINET	30" x 19 5/8" X 6"	375	3 1/4" X 10"	120	1, 2, 3

- NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 2. ORDER RANGE HOOD WITHOUT FAN.
 3. REFER TO SPECIFICATION FOR HOOD OPTIONS.

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE				
TYPE	SERVICE	MANUF. & MODEL NO.	DESCRIPTION	REMARKS
A	SUPPLY AIR DIFFUSER (LAY-IN CEILING MOUNT)	TITUS MODEL TMS BORDER TYPE 3	24" x 24" STEEL 3 CONE LOUVERED FACE SUPPLY AIR DIFFUSER WITH ROUND INLET NECK, HEAVY GAUGE STEEL BACK PAN, AND FACTORY BAKED WHITE ENAMEL FINISH.	
B	RETURN GRILLE (LAY-IN CEILING MOUNT)	TITUS MODEL 50F BORDER TYPE 7	ALUMINUM 1/2" x 1/2" x 1/2" EGG CRATE GRILLE OF THE SIZE INDICATED ON THE PLANS. PROVIDE WITH BORDER CHANNEL, AND FACTORY BAKED WHITE ENAMEL FINISH.	
C	SUPPLY REGISTER (SURFACE MOUNT)	TITUS MODEL 300RL	ALL STEEL SUPPLY REGISTER OF THE SIZE AS INDICATED ON THE PLANS. PROVIDE WITH DOUBLE DEFLECTION HORIZONTAL FRONT BLADES, 1/2" SPACING, OPPOSED BLADE DAMPER, AND BAKED WHITE ENAMEL FINISH.	
D	EXHAUST REGISTER (SURFACE MOUNT)	TITUS MODEL 350RL	ALL STEEL EXHAUST REGISTER OF THE SIZE AS INDICATED ON THE PLANS. PROVIDE WITH SINGLE DEFLECTION HORIZONTAL BLADES AT A FIXED 35° PATTERN AT 1/2" SPACING, OPPOSED BLADE DAMPER, AND FACTORY BAKED WHITE ENAMEL FINISH.	
E	RETURN, EXHAUST, TRANSFER GRILLE (SURFACE MOUNT)	TITUS MODEL 350RL	SAME AS EXHAUST REGISTER D EXCEPT WITHOUT THE OPPOSED BLADE DAMPER.	
F	SUPPLY AIR DIFFUSER (LAY-IN CEILING MOUNT)	TITUS MODEL PSS-AA BORDER TYPE 3	SAME AS TYPE A EXCEPT ALL ALUMINUM CONSTRUCTION.	
G	SUPPLY REGISTER (SURFACE MOUNT)	TITUS MODEL 350FL	SAME AS TYPE C EXCEPT ALL ALUMINUM CONSTRUCTION.	
H	REGISTER (SURFACE MOUNT)	TITUS MODEL 350FL	SAME AS TYPE D EXCEPT ALL ALUMINUM CONSTRUCTION.	
I	EXHAUST OR TRANSFER GRILLE (SURFACE MOUNT)	TITUS MODEL 350FL	SAME AS TYPE H EXCEPT WITHOUT OPPOSED BLADE DAMPER.	
J	HEAVY DUTY RETURN OR TRANSFER GRILLE (SURFACE MOUNT)	TITUS MODEL 33RL	HEAVY DUTY 16 GAUGE BORDER AND 14 GAUGE BLADE ALL STEEL CONSTRUCTION AT THE SIZE INDICATED ON THE DRAWINGS. PROVIDE WITH 1/2" BAR SPACING AT 36° DEFLECTION WITH BARS IN THE LONG DIMENSION. PROVIDE WITH FACTORY BAKED WHITE ENAMEL FINISH.	
K	ROUND SUPPLY AIR DIFFUSER (SURFACE MOUNT)	TITUS MODEL TMR	STEEL ROUND LOUVERED FACE SUPPLY AIR DIFFUSER OF THE SIZE AS INDICATED ON THE PLANS. PROVIDE WITH REMOVABLE INNER CORE, GASKETING AROUND EDGE WHEN CEILING MOUNTED, AND WHITE ENAMEL FINISH. PROVIDE WITH SAFETY CABLES TO SECURE DIFFUSER TO THE DUCT IN OYMS OR SIMILAR AREAS WHERE DIFFUSER IS SUBJECT TO ABUSE.	
L	LINEAR SUPPLY DIFFUSER (LAY-IN CEILING MOUNT)	TITUS MODEL ML-38 BORDER TYPE 9A	EXTRUDED ALUMINUM 3/4" SLOT WITH LENGTH AND NUMBER OF SLOTS AS INDICATED ON THE PLANS. PROVIDE WITH END PLATES, OPTIONAL PLENUM WITH INLET AS INDICATED ON DRAWINGS. BLANK-OFF PLATES AS REQUIRED. STEEL PATTERN CONTROLLERS (PAINTED BLACK) CAPABLE OF 180° AIR FLOW ADJUSTMENT, AND FACTORY BAKED WHITE ENAMEL FINISH.	

V A V TERMINAL UNIT SCHEDULE																												
UNIT NO.	SERVES	MANUFACTURER	MODEL NO.	COOLING		HEATING		MAX PRESS. DROP W/COL (IN W.G.)	INLET SIZE	REHEAT COIL DATA					LWT	P.D. (FT)	CONTROL VALVE	REMARKS										
				MAX CFM	MIN CFM	MAX CFM	MIN CFM			EAT	LAT	MBH	GPM	EWI														
1-1	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-2	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-3	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-4	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-5	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-6	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-7	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-8	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-9	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-10	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-11	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-12	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-13	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-14	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-15	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-16	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										
1-17	XXXX	TITUS	DESV	XXXX	XXXX	XXXX	XXXX	0.45	XX"	55	XXXX	XXXX	XXXX	160	XXXX	5.0 MAX	2-WAY	1,2,3,4,5,6,7,8										

MN

B

C

D

E

F

AIR SEPARATOR SCHEDULE AS X							
UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	MAX. GPM	INLET/OUTLET SIZE	BLOWDOWN SIZE	REMARKS
AS-1	BOILER						

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - PROVIDE AUTOMATIC AIR VENT PIPED TO NEAREST FLOOR DRAIN.

BOILER SCHEDULE												
UNIT NO.	MANUFACTURER	MODEL NUMBER	NOMINAL HP	TYPE	FUEL	FIRING RATE MBH/GPH	GROSS OUTPUT MBH	BLOWER MOTOR HP	OIL PUMP MOTOR HP	VOLTS	PHASE	REMARKS
B-1	LOCHINVAR	FTX500	-	CONDENSING	FNG	500	489			120	1	
B-2	LOCHINVAR	FTX500	-	CONDENSING	FNG	500	489			120	1	

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

CONNECTOR SCHEDULE CV X										
UNIT NO.	SERVES	MANUFACTURER	MODEL NO.	TYPE	SIZE LxHxD	ENT. WATER	LVG. WATER	MBH	GPM	REMARKS
CV-1	A102 TLT	ZEHNDER	CV-1	HW						
CV-2	A113 TLT	ZEHNDER	CV-2	HW						
CV-3	A119 TLT	ZEHNDER	CV-3	HW						
CV-4	A120 TLT	ZEHNDER	CV-4	HW						
CV-5	A121 TLT	ZEHNDER	CV-5	HW						
CV-6	A122 SHOWER	ZEHNDER	CV-6	HW						

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

EXPANSION TANK SCHEDULE												ET X
UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	TANK TYPE	AVERAGE WATER TEMP.	MINIMUM PRECHARGE PRESS (PSIG)	MAXIMUM OPER. PRESSURE (PSIG)	TANK VOLUME (GALLONS)	ACCEPTANCE VOLUME (GALLONS)	TANK HEIGHT	TANK DIA.	REMARKS
ET-1	WATER HEATERS		PLT-35									
ET-2	BOILERS											

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - PROVIDE AUTOMATIC AIR VENT PIPED TO NEAREST FLOOR DRAIN.

SIDE STREAM FILTER SCHEDULE F X									
UNIT NO.	SERVES	MANUFACTURER	MODEL NO.	FILTER TYPE	DESIGN FLOW RATE (GPM)	MAXIMUM FLOW RATE (GPM)	CONNECTION SIZE	MAXIMUM PRESSURE DROP (PSI)	REMARKS
F-		WESBELS	4NBF12-2F	BAG	0-60	100	2"	0.75	1, 2, 3

- NOTES:
- FIELD INSTALLED ACCESSORIES INCLUDE AT A MINIMUM PRESSURE GAUGES ON THE INLET/OUTLET, ISOLATION SHUTOFF VALVES, UNION CONNECTIONS, AND A BALANCING VALVE FOR THE FLOW INDICATED.
 - THE MECHANICAL CONTRACTOR SHALL VERIFY INLET AND OUTLET CONFIGURATION.
 - MAXIMUM PRESSURE DROP IS BASED UPON A 5 MICRON CLEAN FILTER.

FIN TUBE RADIATION SCHEDULE - HOT WATER														
UNIT NO.	MANUFACTURER	MODEL NUMBER	TUBE SIZE	TUBE/FIN CONSTRUCTION	FIN SIZE	FINS PER FOOT	ENCLOSURE HEIGHT	ENCLOSURE TYPE	EWT	LWT	EAT	ROWS	BTU/FT	REMARKS
TYPE 'A'	DUNHAM-BUSH	S	3/4"	COPPER/ALUMINUM				SLOPE-TOP				1		
TYPE 'B'	DUNHAM-BUSH	ATLB	3/4"	COPPER/ALUMINUM				FLAT TOP				1		PEDESTAL MOUNTED
TYPE 'C'	DUNHAM-BUSH	S	3/4"	COPPER/ALUMINUM				SLOPE-TOP				1		
TYPE 'D'	DUNHAM-BUSH	BARE FIN	3/4"	COPPER/ALUMINUM				CUSTOM				1		

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - PROVIDE TAMPER RESISTANT ACCESS DOORS FOR AIR VENTS AND DRAIN VALVES.

GLYCOL MAKE-UP UNIT SCHEDULE										
UNIT NO.	SERVES	MANUFACTURER	MODEL NO.	CAPACITY GAL	FLOW GPM	PRESSURE PSI	PUMP			REMARKS
							HP	VOLTS	PH	
GMU-1	BOILERS	-	-	-	-	-	-	120	1	1, 2, 3

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - PROVIDE SWITCH FOR MANUAL OPERATION.
 - FILL UNIT WITH 35% PROPYLENE GLYCOL.

INFRARED RADIANT HEATER SCHEDULE											
UNIT NO.	SERVES	MANUFACTURER	MODEL NO.	BURNER FUNCTION	MBH INPUT		VOLTS	PHASE	AMPS	HP	REMARKS
					MAX.	MIN.					
IR-1	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-2	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-3	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-4	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-5	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-6	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-7	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-8	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-9	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-10	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-11	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
IR-12	GARAGE	ROBERTS GORDON LLC	CRV B-10	MODULATING	100	60	120	1	0.3	-	
VP-1	GARAGE	ROBERTS GORDON LLC	EP 203	-	-	-	208	3	2.4	3/4	
VP-2	GARAGE	ROBERTS GORDON LLC	EP 203	-	-	-	208	3	2.4	3/4	

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - PROVIDE WITH HONEYWELL LOW VOLTAGE THERMOSTAT AND CONTROL TRANSFORMER. FIELD VERIFY INSTALLATION LOCATION AND VERIFY WITH OWNER.
 - PROVIDE SHIELDING AT ALL LOCATIONS OF POWER CORDS, GARAGE DOORS AND ALL COMBUSTIBLE ELEMENTS.

UNIT HEATER/CABINET UNIT HEATER SCHEDULE														UH	CUH
UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	TYPE (GAS, HW OR ELEC)	CABINET	CFM	RPM	HP	VOLTS	PHASE	MBH	GPM	REMARKS		
UH-1	B134 GARAGE			HW				1/10	120	1					
UH-2	A132 WATER SERVICE			HW				1/10	120	1					
UH-3	B134 GARAGE			HW				1/10	120	1					
UH-4	MEZZANINE							1/10	120	1					
CUH-1	A100 VEST			HW				1/10	120	1					

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - UNITS ARE SELECTED WITH 180 DEGREE ENTERING WATER AND 140 DEGREE LEAVING WATER WITH A 60 DEGREE ENTERING AIR TEMPERATURE.
 - UNITS SHALL BE VERTICAL WALL MOUNTED WITH BOTTOM INLET AND TOP OUTLET.
 - SEMI-RECESSED WITH 2 1/2" EXPOSED CABINET.

PUMP SCHEDULE																	P X		
UNIT NO.	SERVES	LOCATION	MANUFACTURER	SERIES	MODEL NUMBER	TYPE	DESIGN GPM	DESIGN HEAD	50% FLOW HEAD	SHUTOFF HEAD	IMP. SIZE	EFF.	SUC. SIZE	DISCH. SIZE	MOTOR				REMARKS
															RPM	H.P.	VOLTS	PHASE	
P-1	BOILERS	MECH ROOM	B&G	E-1510	1.25BC	BASE										5	208	3	YES
P-2	BOILERS	MECH ROOM	B&G	E-1510	1.25BC	BASE										5	208	3	YES
P-3	DOMESTIC	MECH ROOM														1/3	120	1	NO
P-4	SNOW MELT	MECH ROOM														1/2	208	3	NO
P-5																			

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - PROVIDE AND INSTALL A STRAP-ON LINE VOLTAGE AQUASTAT TO CYCLE PUMP. COORDINATE INSTALLATION WITH THE ELECTRICAL CONTRACTOR FOR WIRING.
 - VARIABLE FREQUENCY DRIVES SHALL BE PROVIDED BY THE BUILDING AUTOMATION SYSTEM CONTRACTOR. ALL VARIABLE FREQUENCY DRIVES FOR THE ENTIRE PROJECT SHALL BE BY THE SAME MANUFACTURER.

DOMESTIC WATER HEATER SCHEDULE WH X													
UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	TYPE (GAS OR ELEC)	MBH INPUT	STORAGE CAP. (GALLONS)	GPH RECOVERY @ 100° RISE	WATER TEMP.	VENT SIZE	VOLTS	PHASE	AMPS	REMARKS
WH-1	DOMESTIC		BTH-199	GAS				140		120	1	5	
WH-1	DOMESTIC		BTH-199	GAS				140		120	1	5	

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - PROVIDE WITH ASME RATED PRESSURE/TEMPERATURE RELIEF VALVE.
 - PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION.
 - PROVIDE WITH INLET AND OUTLET MANIFOLD KIT FOR MULTIPLE HEATER INSTALLATION.

FLAMMABLE WASTE INTERCEPTOR SCHEDULE FWI X									
UNIT NO.	SERVES	MANUFACTURER	MODEL NUMBER	INLET/OUTLET SIZE	VAPOR VENT SIZE	LIQUID CAPACITY	OIL CAPACITY	SAND CAPACITY	REMARKS
FWI-1	GARAGE	STRIEM	FLI-X	4"	3"	- GAL	- GAL	- GAL	1, 2

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND MINNESOTA PLUMBING CODE.
 - PROVIDE CUSTOM TELESCOPING ACCESS RISER AS REQUIRED TO ACCOMMODATE INVERT ELEVATION.

WATER SOFTENER SCHEDULE WS X												
UNIT NO.	MANUFACTURER	MODEL NUMBER	TYPE	EXCHANGE CAPACITY PER TANK (GRAINS)	FLOW RATE (GPM)	RESIN (CU. FT.)	BACKWASH FLOW RATE (GPM)	BRINE TANK STORAGE (LBS)	SOFTENER TANK SIZE	BRINE TANK SIZE	INLET/OUTLET HEADER PIPE SIZE	REMARKS
WS-1				6 LBS SALT PER CU. FT.	STD. @ 15 PSI PEAK @ 25 PSI							

- NOTES:
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - PROVIDE WITH DIGITAL DISPLAY PROGRAMMABLE CONTROLLER.
 - CONNECT MECHANICAL CONTROLLER TO INLET AND OUTLET HEADER AS INDICATED ON DRAWINGS.
 - PROVIDE THE SYSTEM WITH BRINE RECLAMATION.

PLUMBING FIXTURE SCHEDULE							
FIX. NO.	FIXTURE TYPE	MINIMUM TRAP SIZE	WASTE	VENT	CW	HW	REMARKS
P-1	WATER CLOSET	3"	4"	2"	1 1/4"	-	+
P-1H	WATER CLOSET (ADA)	3"	4"	2"	1 1/4"	-	ADA COMPLIANT
P-2	URINAL	2"	2"	1 1/2"	3/4"	-	+
P-2H	URINAL (ADA)	2"	2"	1 1/2"	3/4"	-	ADA COMPLIANT
P-3Ha	LAVATORY (ADA)	1 1/2"	2"	1 1/2"	1/2"	1/2"	ADA COMPLIANT WALL MOUNTED
P-3Hb	LAVATORY (ADA)	1 1/2"	2"	1 1/2"	1/2"	1/2"	ADA COMPLIANT COUNTER MOUNTED
P-4	MOP BASIN	2"	3"	1 1/2"	3/4"	3/4"	+
P-5a	WATER COOLER	1 1/2"	1 1/2"	1 1/2"	1/2"	-	RECESS MOUNTED, DUAL HEIGHT
P-5b	WATER COOLER	1 1/2"	1 1/2"	1 1/2"	1/2"	-	SURFACE MOUNTED
P-6H	SINGLE SINK (ADA)	1 1/2"	2"	1 1/2"	1/2"	1/2"	ADA COMPLIANT COUNTER MOUNTED
P-7H	2-COMP SINK (ADA)	1 1/2"	2"	1 1/2"	1/2"	1/2"	ADA COMPLIANT COUNTER MOUNTED
P-8	SERVICE SINK	3"	3"	1 1/2"	3/4"	3/4"	WALL MOUNTED
P-9	EMERGENCY EYEWASH	-	-	-	1/2"	1/2"	WALL MOUNTED
P-10	EMERGENCY EYEWASH / SHOWER	X	-	-	1"	1"	+
P-11	SHOWER	-	-	-	1/2"	1/2"	+
P-11H	SHOWER (ADA)	-	-	-	1/2"	1/2"	ADA COMPLIANT

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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

License Number: Date:

Description	Revisions	
	Date	Num

Comm: 232010

Date: 10/26/2023

Drawn: RR

Check: PJ

SCHEDULES

Scale: 1/8" = 1'-0"

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

M7.60

MN

C

B

C

D

E

F

ELECTRICAL SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	MOUNTING HEIGHT	SYMBOL	DESCRIPTION	MOUNTING HEIGHT	SYMBOL	DESCRIPTION	MOUNTING HEIGHT	SYMBOL	DESCRIPTION	MOUNTING HEIGHT
GENERAL ELECTRICAL SYMBOLS					COMMUNICATION DEVICES					POWER AND MOTOR DEVICES			
A. DEVICES SHALL BE MOUNTED AT THE HEIGHT INDICATED, UNLESS NOTED OTHERWISE. HEIGHTS ARE MEASURED FROM DEVICE CENTER TO FINISHED FLOOR. DEVICES MOUNTED IN BLOCK/BRICK WALLS SHALL CORRESPOND WITH BLOCK/BRICK COURSEING. SEE MASONRY SCHEDULE MOUNTING HEIGHT DETAIL.					xx INDICATES THE FOLLOWING: WG = WIREGUARD, PA = P.A. SYSTEM (3/4" C. BUSHED EMT TO ACCESSIBLE CEILING). GFI = INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER. GFI CB = GROUND FAULT CIRCUIT INTERRUPTER IN CIRCUIT BREAKER TR = TAMPER RESISTANT. USB = (2) USB PORTS INTEGRAL WITH RECEPTACLE WP = WEATHERPROOF.					RECEPTACLE NOTATION: xx INDICATES THE FOLLOWING: AB = ABOVE COUNTER, BOTTOM OF BOX 2" ABOVE BACKSPASH G = ISOLATED GROUND GFI = INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER GFI CB = GROUND FAULT CIRCUIT INTERRUPTER IN CIRCUIT BREAKER TR = TAMPER RESISTANT. USB = (2) USB PORTS INTEGRAL WITH RECEPTACLE WP = WEATHERPROOF.			
B. ALL MOUNTING HEIGHTS INDICATED ARE FROM THE FINISH FLOOR TO THE CENTER OF THE BOX.					INTERCOM: x INDICATES THE FOLLOWING: M = MASTER STATION, IC = REFER TO AV SYMBOLS, HS = REFER TO AV SYMBOLS. (1/2" C. BUSHED EMT TO ACCESSIBLE CEILING).					MICROPHONE OUTLET (WALL, CEILING, OR HANGING). HA = HANGING, 1 GANG J-BOX AT CEILING DECK OR AS NOTED. (1/2" C. BUSHED EMT TO ACCESSIBLE CEILING).			
C. ON DEMOLITION DRAWINGS, DASHED ELECTRICAL ITEMS DENOTES EXISTING ITEMS TO BE REMOVED. SOLID SCREENED ELECTRICAL ITEMS DENOTES EXISTING ITEMS TO REMAIN, UNLESS NOTED OTHERWISE.					VOLUME CONTROL: (1/2" C. BUSHED EMT TO ACCESSIBLE CEILING).					TV/VIDEO CAMERA CLOSET CIRCUIT. WALL OR CEILING MOUNTED. (1/2" C. BUSHED EMT TO ACCESSIBLE CEILING). MOUNT PER DRAWINGS. CAMERA BY OTHERS.			
D. ON NEW WORK LIGHTING, POWER AND SYSTEMS DRAWINGS, SCREENED ELECTRICAL ITEMS DENOTES EXISTING ITEMS TO REMAIN. SOLID ELECTRICAL ITEMS DENOTES NEW ITEMS, UNLESS NOTED OTHERWISE.					CALL BACK SWITCH: (1/2" C. BUSHED EMT TO ACCESSIBLE CEILING).					AV CONTROL PANEL (TOUCHSCREEN OR BUTTON PANEL). WALL MOUNTED. REFER TO KEYNOTE.			
DEVICES TO BE DEMOLISHED:					CLOCK OUTLET: (3/4" C. BUSHED EMT TO ACCESSIBLE CEILING FOR WIRED CLOCKS ONLY). D = DOUBLE FACED.					AV WALL INPUT WALLPLATE/TRANSMITTER. REFER TO AV DETAILS.			
EXISTING DEVICES TO REMAIN:					BELL/AUDIBLE DEVICE: (3/4" C. BUSHED EMT TO ACCESSIBLE CEILING).					AV INPUT IN FURNITURE. REFER TO AV DETAILS.			
NEW DEVICES:					WALL DATA AND COMMUNICATIONS OUTLET: (BUSHED EMT TO ACCESSIBLE CEILING SPACE OR AS INDICATED). DF INDICATES TYPE OF OUTLET. SEE DETAIL SHEETS.					AV TECH IO PANEL (NUMBER). REFER TO AV PANEL DETAILS FOR DIMENSIONS AND ADDITIONAL INFORMATION.			
KEYED NOTE:					WALL MOUNT DATA OUTLET FOR ROOM SCHEDULING EQUIPMENT. REFER TO DETAILS.					ANTENNA J-BOX/WALLPLATE. 1-GANG, FOR WIRELESS MICS OR A.L.S. REFER TO AV WALLPLATE DETAILS.			
FEEDER OR EQUIPMENT DRAWING NOTE:					WALL PHONE COMMUNICATIONS OUTLET: (1" BUSHED EMT TO ACCESSIBLE CEILING SPACE). SEE DETAIL SHEETS.					PRODUCTION IT/IZ CAMERA AND J-BOX/WALLPLATE. REFER TO AV WALLPLATE DETAILS.			
ELEVATION, SEE DETAIL # ON SHEET EK					DISTRIBUTED ANTENNA SYSTEM (DAS) ANTENNA.					PRODUCTION INTERCOM HEADSET STATION.			
POWER DISTRIBUTION AND EQUIPMENT					FIRE ALARM DEVICES					PRODUCTION INTERCOM OUTLET WALLPLATE. REFER TO AV WALLPLATE DETAILS.			
SWITCHBOARD WITH CONCRETE PAD: FLOOR MOUNTED.					FIRE ALARM ANNUNCIATOR PANEL: (TOP AT 60" AFF)					CEILING OR WALL MOUNTED AV JUNCTION BOX. REFER TO KEYNOTE FOR DIMENSIONS AND ADDITIONAL INFORMATION.			
RELAY/CONNECTION CABINET: WALL MOUNTED, WITH TOP AT 72" AFF					FIRE ALARM CONTROL PANEL (MASTER): (TOP AT 68" AFF)					AV (S) Z#4 AV (S) Z#4			
PANELBOARD: WALL MOUNTED WITH TOP AT 78" AFF					FIRE ALARM NOTIFICATION APPLIANCE CIRCUIT PANEL. MOUNT TOP 62" AFF PLUS OR MINUS 2".					AVIP(S) Z#4			
AUTOMATIC TRANSFER SWITCH: WALL OR FLOOR MOUNTED					FIRE ALARM MANUAL PULL STATION.					SUSPENDED SPEAKER ENCLOSURE OR ARRAY, AND RIGGING. REFER TO AV DETAILS.			
TRANSFORMER, WITH SIZE AS NOTED. SEE RISER DIAGRAM, SCHEDULE OR FLOOR PLANS, VERIFY.					FIRE ALARM HORN (AUDIBLE), WALL MOUNTED.					RECESSED CABLE ENCLOSURE IN FURNITURE.			
PULLBOX					FIRE ALARM CHIME (WP FOR EXTERIOR MOUNTING), B = BELL.								
HANDHOLE					FIRE ALARM STROBE (VISUAL) DEVICE (WALL OR CEILING MOUNTED). xx INDICATES THE FOLLOWING: WG=WIRE GUARD; WP=WEATHER PROOF.								
MOTOR CONTROL CENTER (W/CONCRETE PAD); FLOOR MOUNTED.					FIRE ALARM HORN/STROBE (COMBINATION) (WALL OR CEILING MOUNTED). xx INDICATES THE FOLLOWING: WG=WIRE GUARD; WP=WEATHER PROOF.								
PLUG-IN BUS DUCT SWITCH, SIZE AS INDICATED AND SPECIFIED. VERIFY MOUNTING HEIGHT.					FIRE ALARM SPEAKER/STROBE (COMBINATION) (WALL OR CEILING MOUNTED). xx INDICATES THE FOLLOWING: WG=WIRE GUARD; WP=WEATHER PROOF.								
METERSOCKET ASSEMBLY, MOUNT TOP AT 72" AFF					FIRE ALARM SPEAKER (WALL OR CEILING MOUNTED). xx INDICATES THE FOLLOWING: WG=WIRE GUARD; WP=WEATHER PROOF.								
BRANCH CIRCUIT, FEEDER, AND RACEWAY					FIREMAN PHONE JACK, MOUNT TOP 54" AFF PLUS OR MINUS 2".								
INDICATES CONDUIT ROUTED BELOW, IN FLOOR STRUCTURE, BELOW GRADE, OR AS NOTED.					MAGNETIC DOOR HOLD-OPEN (WALL MOUNTED), MOUNT PER DWGS.								
GROUND					SPRINKLER FLOW-SWITCH; MOUNT PER DWGS.								
INDICATES CONDUIT IS SURFACE MOUNTED					SPRINKLER TAMPER-SWITCH; MOUNT PER DWGS.								
INDICATES CONDUIT ROUTED CONCEALED ABOVE FLOOR OR GRADE (IN CEILING OR WALL)					SMOKE DETECTOR-CEILING MOUNTED. S-CO = COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR. S-H = COMBINATION SMOKE AND HEAT DETECTOR.								
INDICATES CONDUIT UP					HEAT DETECTOR (RATE-OF-RISE), R# = FIXED TEMPERATURE - CEILING MOUNTED.								
INDICATES CONDUIT DOWN					DUCT SMOKE DETECTOR; MOUNT PER DWGS.								
CONDUIT STUB - TERMINATION INDICATED BY NOTE					FIRE ALARM INDIVIDUAL ADDRESSABLE MODULE; MOUNT PER DWGS.								
CONDUIT CONTINUATION					FIRE ALARM CONTROL MODULE; MOUNT PER DWGS.								
CONDUIT SLEEVE WITH BUSHINGS ON BOTH ENDS. SEE SCHEDULE FOR QUANTITIES AND SIZES OF SLEEVES					FIRE/SMOKE DAMPER; MOUNT PER DWGS.								
CABLE TRAY (WIDTH X DEPTH)													
INDICATES 1" CONDUIT. (3) NO. 4 AWG CONDUCTORS AND (1) NO. 3 GROUND WIRE													
SURFACE RACEWAY ASSEMBLY, PROVIDE AS SPECIFIED, UNLESS NOTED OTHERWISE.													

ELECTRICAL DRAWINGS

E0.00	ELECTRICAL SYMBOLS AND ABBREVIATIONS
E0.02	ELECTRICAL SITE PLAN
E1.11a	MAIN LEVEL LIGHTING PLAN - AREA 'A'
E1.11b	MAIN LEVEL LIGHTING PLAN - AREA 'B'
E1.21a	UPPER LEVEL LIGHTING PLAN - AREA 'A'
E1.21b	UPPER LEVEL LIGHTING PLAN - AREA 'B'
E2.11a	MAIN LEVEL POWER PLAN - AREA 'A'
E2.11b	MAIN LEVEL POWER PLAN - AREA 'B'
E2.21a	UPPER LEVEL POWER PLAN - AREA 'A'
E2.21b	UPPER LEVEL POWER PLAN - AREA 'B'
E3.11a	MAIN LEVEL SYSTEMS PLAN - AREA 'A'
E3.11b	MAIN LEVEL SYSTEMS PLAN - AREA 'B'
E3.21a	UPPER LEVEL SYSTEMS PLAN - AREA 'A'
E3.21b	UPPER LEVEL SYSTEMS PLAN - AREA 'B'
E4.10	ROOF PLAN - ELECTRICAL
E5.00	RISER DIAGRAM
E6.10	LUMINAIRE SCHEDULE
E6.20	MOTOR SCHEDULE
E7.00	ELECTRICAL DETAILS
E7.10	ELECTRICAL DETAILS - SYSTEMS
E7.11	ELECTRICAL DETAILS - SYSTEMS

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GENERAL ELECTRICAL NOTES

- A. INSTALL CONCEALED CONDUIT WITH FLUSH J.B.'S IN WALLS AND CEILINGS UNLESS NOTED OTHERWISE. IN FINISHED AREAS WITH INACCESSIBLE WALLS OR CEILINGS, PROVIDE SURFACE (WIREMOLD) RACEWAY; PAINT TO MATCH COLOR OF ADJACENT WALL OR CEILING.
- B. RACEWAYS SHALL CONTAIN A GROUNDING CONDUCTOR.
- C. CIRCUITS SUPPLYING LINE TO NEUTRAL LOADS SHALL HAVE DEDICATED NEUTRALS, I.E. ONE NEUTRAL PER PHASE. NEUTRAL CONDUCTORS SHALL HAVE TRACER STRIPE ALONG ENTIRE LENGTH INDICATING ASSOCIATED PHASE.
- D. BUILDING CONDUCTORS SHALL BE THWN/THHN. CONDUCTORS IN UNDERGROUND CONDUIT OUTSIDE OF BUILDINGS SHALL BE XHHW.
- E. NUMBERS AT RECEPTACLES AND LIGHT FIXTURES CORRESPOND DIRECTLY WITH PANELBOARD CIRCUIT NUMBERS AS SCHEDULED. BRANCH CIRCUIT WIRING AND HOMERUNS ARE NOT SHOWN FOR CLARITY. ACCURATE RECORD DRAWING INFORMATION IS TO BE PROVIDED AT THE PROJECT COMPLETION. TYPICAL THROUGHOUT. REFER TO SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
- F. REFER TO CONTRACT DOCUMENTS FOR SEQUENCE OF CONSTRUCTION AND PHASING OF THE CONTRACT.
- G. SWITCHES SHALL BE MOUNTED PER ADA REQUIREMENTS, 46" AFF. UNLESS OTHERWISE NOTED, RECEPTACLES AND TELECOMMUNICATION OUTLETS IN FINISHED AREAS SHALL BE MOUNTED 18" AFF. RECEPTACLES IN UNFINISHED SPACES SHALL BE MOUNTED AT 46" OR 4" ABOVE WORK SURFACE. COORDINATE RECEPTACLE MOUNTING HEIGHTS WITH MILLWORK LOCATIONS, ARCHITECTURAL ELEVATIONS, AND MASONRY COURSING.
- H. CRITICAL DEVICES / EQUIPMENT, INCLUDING TELEPHONE, COMPUTER, SECURITY, AND FIRE ALARM, AFFECT ASSOCIATED SYSTEMS BUILDING-WIDE. THESE SYSTEMS MUST REMAIN OPERATIONAL DURING THE CONSTRUCTION. INDIVIDUAL DEVICES MAY BE DISCONNECTED AND/OR RECONNECTED DURING CONSTRUCTION. COORDINATE POWER OUTAGES WITH OWNER. PROVIDE TEMPORARY PANEL(S) AND/OR CIRCUIT(S) AS/IF NECESSARY TO MAINTAIN CONTINUITY. PROTECT FROM PHYSICAL AND DUST DAMAGE.
- I. THE BUILDING SHALL MAINTAIN POWER THROUGHOUT THE CONSTRUCTION PROCESS. COORDINATE ENERGIZATION OF NEW EQUIPMENT AND THE CORRESPONDING RECONNECTION OF EXISTING AFFECTED ELECTRICAL DISTRIBUTION EQUIPMENT.
- J. SEE RELATED PLUMBING AND HVAC DRAWINGS FOR LOCATION OF EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS. COORDINATE INTERCONNECTION REQUIREMENTS WITH EQUIPMENT SHOP DRAWINGS.
- K. WIRING FOR MISCELLANEOUS HVAC DEVICES AND CONTROLLERS SUCH AS DAMPER MOTORS, THERMOSTATS, DUCT SMOKE DETECTORS, FREEZE/STATS, DIFFERENTIAL PRESSURE SWITCHES, OCCUPIED AND UNOCCUPIED SELECTOR SWITCHES, ALARM LIGHTS, ETC., NOT SHOWN ON ELECTRICAL DRAWINGS IS DIVISION 23 WORK.
- L. FIELD VERIFY EXISTING CONDITIONS. DISCREPANCIES BETWEEN THE DRAWING AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BIDS.
- M. MAINTAIN EXISTING CIRCUIT CONTINUITY ON ALL SYSTEMS ON THE SITE THAT ARE EXISTING TO REMAIN.
- N. PROVIDE ALL CONDUIT HOMERUNS AS 3/4" C. MIN.
- O. COORDINATE ALL WORK WITH OTHER CONTRACTORS AND OWNER.
- P. ALL CUTTING AND PATCHING FOR DIV. 28 WORK SHALL BE UNDER SUPERVISION AND APPROVAL OF ARCHITECT.
- Q. REMOVE AND/OR REINSTALL ELECTRICAL DEVICES IN ALL AREAS OF WORK AS REQUIRED AND REPLACE ANY ELECTRICAL DEVICES DAMAGED BY WORK. NOT ALL DEVICES MAY BE SHOWN ON DRAWINGS.
- R. PROVIDE ALL BOXES, FITTINGS, CONDUIT, WIRING, TERMINATIONS, EQUIPMENT, ETC. FOR A COMPLETE INSTALLATION.
- S. BRANCH 20A CIRCUIT CONDUCTORS SHOULD BE SIZED AS FOLLOWS:

120V CCT LENGTH	277V CCT LENGTH	AWG
< 75'	< 130'	12
75' - 120'	130' - 215'	10
120' - 200'	215' - 330'	8

ELECTRICAL ABBREVIATIONS LIST

< ANGLE	C CONDUIT	J-BOX JUNCTION BOX	N.C. NORMALLY CLOSED	QNT QUANTITY	UE UNDERGROUND ELECTRICAL
@ AT	CB CIRCUIT BREAKER	KV KILOVOLT	NEG. NATIONAL ELECTRICAL CODE	UG UNIT HEATER	UF UNDERGROUND
# FEET	CCTV CLOSED CIRCUIT TELEVISION	KVA KILOVOLT-AMPERE	NEMA NATIONAL ELECTRICAL MANUFACTURERS'S ASSOCIATION	REQ REQUIRED	UNO UNLESS NOTED OTHERWISE
* NUMBER	CIRCUIT CIRCUIT	KVAR KILOVOLT-AMPERE REACTIVE	NFS NON-FUSED SAFETY SWITCH	REL RELOCATED	UT UNDERGROUND TELEPHONE
1P 1 POLE (OP, 3P, 4P, ETC.)	CLG CEILING	KWH KILOWATT HOUR	NOT IN CONTRACT	RSC RIGID STEEL CONDUIT	UV UNIT VENTILATOR OR UL TRIVOLET
A AMPERE	CMR COMPRESSOR	LOC LOCATE OR LOCATION	NL NEW LOCATION	RTU ROOF TOP UNIT	V VOLT
AC AIR CONDITIONER	CONN CONNECTION	LT LIGHT	N.O. NORMALLY OPEN	S SURFACE CONDUIT	V- VOLT-AMPERES
ACLG ABOVE CEILING	CONT CONTINUATION OR CONTINUOUS	LTG LIGHTING	NTS NOT TO SCALE	SEC SECONDARY	VERT VERTICAL
ADA AUTOMATIC DOOR ACTUATOR	CONTR CONTRACTOR	LV LOW VOLTAGE	OFE OWNER FURNISHED EQUIPMENT	SHT SHEET	VFD VARIABLE FREQUENCY DRIVE
AFF ABOVE FINISHED FLOOR	CONV CONVECTOR	LVG LIGHTING	OH OVERHEAD	SM SINGULAR	VOL VOLUME
AFG ABOVE FINISHED GRADE	CTR CURRENT TRANSFORMER	LTG LIGHTING	OL OVERLOADS	SIN SOLID NEUTRAL	W WATT
AFI ARC-FAULT CIRCUIT INTERRUPTER	CU CENTER	MAG.S MAGNETIC STARTER	PA PUBLIC ADDRESS	SPR SPARKER	W/ WITH
AHU AIR HANDLING UNIT	CJ COPPER	MIC MOMENTARY CONTACT	PB PULL BOX	SR SURFACE RACEWAY	WG WIRE GUARD
AL ALUMINUM	DCP DOMESTIC WATER CIRCULATING PUMP	MCB MAIN CIRCUIT BREAKER	PE PNEUMATIC ELECTRIC	SS STAINLESS STEEL	WH WATER HEATER
ALT AMP	EX EXISTING TO REMAIN	MCC MOTOR CONTROL CENTER	PEP PEDESTAL	SW SELECTOR SWITCH	WO WITHOUT
ANNUN ANNUNCIATOR	FOL FIBER OPTIC LINE	MDC MAIN DISTRIBUTION CENTER	PF POWER FACTOR	STD STANDARD	WP WEATHERPROOF
AD-STAT AUTOMATIC TRANSFER SWITCH	FS FUSIBLE SWITCH	MDF MANUFACTURER	PH PHASE	SIS STATION	XFM TRANSFORMER
AV AUDIO VISUAL	HTR HEATER	MFS MAIN FUSED DISCONNECT SWITCH	PNL PANEL	STO STOP/START PUSHBUTTONS	XFR TRANSFER
AWG AMERICAN WIRE GAUGE	HP HIGH VOLTAGE	MMS MANUAL MOTOR STARTER	PP POWER POLE	SW SWITCH	
BATT BATTERY	HV HYDROVIC WATER PUMP	MOA MULTIOULET ASSEMBLY	PR PRIMARY	SWB SWITCHBOARD	
BD BOARD	IC INTERRUPTING CAPACITY	MSP MOTOR STARTER PANELBOARD	PROJ PROJECTION	SYM SYMMETRICAL	
BAS BUILDING AUTOMATION SYSTEM	IS ISOLATED GROUND	MSB MAIN SWITCHBOARD	PRV POWER ROOF VENTILATOR	TERMINAL	
	INCAND INCANDESCENT	MT MOUNT	PT POTENTIAL TRANSFORMER	TR TAMPER RESISTANT	
	IR INFRARED	MC CIRCUIT MONITOR	PVSTAT POLYVINYL CHLORIDE (CONDUIT)	T-STAT THERMOSTAT	
	INT INTERLOCK WITH	MTR MOTOR, MOTORIZED	PWR POWER	TV TELEVISION TERMINAL CABINET	
				TYP TYPICAL	

Version 5.2.23

FINAL CD SET DRAFT
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Scale: As indicated

E0.00

XXXX IDEAL AVENUE
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- A. ALL LIGHTING AND POWER CONDUCTORS SHALL BE INSTALLED BETWEEN 24" (MINIMUM) AND 36" (MAXIMUM) BELOW FINISHED GRADE.
- B. ALL COMMUNICATIONS CONDUIT AND CABLES SHALL BE INSTALLED 36" (MINIMUM) BELOW FINISHED GRADE.
- C. ALL CONDUCTORS FOR EXTERIOR LIGHTING AND POWER CIRCUITS SHALL BE #10 AWG MINIMUM.
- D. PROVIDE PVC-40 IN GREEN SPACES AND PVC-80 UNDER HARD SURFACES.
- E. PROVIDE PULL WIRE IN ALL EMPTY CONDUITS.
- F. PROVIDE DETECTABLE UNDERGROUND TAPE ABOVE EACH UNDERGROUND CONDUIT.
- G. SET BACK CENTER OF POLE BASES 6 FEET FROM FACE OF CURB OR SIDEWALK.
- H. SEE LIGHTING PLANS FOR EXACT LOCATIONS OF BUILDING MOUNTED LIGHTING.
- I. HANDHOLES AND PULLBOXES MAY NOT BE INDICATED ON PLANS. PROVIDE AS REQUIRED FOR INSTALLATION.

1. NOTES.

License	BRADLEY R. JOHANSEN		
Number:	43936	Date	Issue Date

Comm: **232010**
Date: **Issue Date**
Drawn: **D PETERSON**
Check: **S MCNAMARA**


North

Autodesk Docs/2320119 - MM CI College Grove - New Utility Building/2320119 New Utility Building 2nd Flr
Central Autodesk Docs/2320160 - MM CI Cottage Grove - New Utility Building/2320160 New Utility Building Elec
10/26/2022 2:26:47 PM

MN

E

E1 ML - Lighting - Dependent 1
1/8" = 1'-0"

Architect: Peter J. Johnson, P.E., 10000 Highway 100, Suite 100, Cottage Grove, MN 55016
General Architectural: Peter J. Johnson, P.E., 10000 Highway 100, Suite 100, Cottage Grove, MN 55016
Electrical: Peter J. Johnson, P.E., 10000 Highway 100, Suite 100, Cottage Grove, MN 55016
10/20/2010 10:30:00 AM



GENERAL SHEET NOTES

A. SOME NOTES MAY NOT APPLY TO THIS SHEET.

B. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON THIS DRAWING.

C. ALL RECESSED LIGHTING FIXTURES IN LAY-IN CEILINGS SHALL BE INSTALLED WITH 6' LONG FLEXIBLE METAL CONDUIT.

D. ALL MOUNTING HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.

E. SEE ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF EXTERIOR LIGHTING FIXTURES.

F. CIRCUIT WIRING IS NOT SHOWN EXCEPT FOR SWITCHING INTENT OF FIXTURES AND CONTROL OF DEVICES.

G. PROVIDE PROPER NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.

H. CIRCUIT NUMBERS AT DEVICES CIRCUIT NUMBERS SHOWN ARE FOR SCHEMATIC PURPOSES AND ARE FOR DISTINGUISHING CIRCUITS. RECORD AS-BUILT CIRCUITING IN A TYPED AND DATED PANELBOARD SCHEDULE. BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.

I. SEE BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE ON SHEET E0.00.

J. ALL OCCUPANCY SENSORS SHALL HAVE AUXILIARY CONTACTS OR ADDITIONAL DEVICES TO ENABLE HVAC INTERFACE.

LEGEND:

NORMAL OPERATING LIGHT FIXTURE. FEED FIXTURE USING EXISTING LIGHTING CIRCUITRY FROM NORMAL PANEL.

SWITCHED EMERGENCY LIGHT. FEED FIXTURE FROM EMERGENCY PANEL ~~xxx~~ VIA EMERGENCY RELAY AS INDICATED ON PLAN.

UNSWITCHED EMERGENCY LIGHT (NIGHT LIGHT). FEED FIXTURE FROM UNSWITCHED CIRCUIT IN EMERGENCY PANEL ~~xxx~~.

EMERGENCY LIGHTING UNIT AND EXIT LIGHT. FEED FROM UNSWITCHED CIRCUIT IN EMERGENCY PANEL ~~xxx~~.

FIXTURE TYPE
A NL
a-b f-1
RELAY #/
PANEL CIRCUIT #
SWITCHING SCHEME

1. MAXIMUM ALLOWABLE WATTAGE FOR A LIGHTING CIRCUIT WILL NOT EXCEED 3500 (277V) OR 1600 (120V) WATTS.
2. REFER TO DIVISION 23 SPECIFICATIONS FOR MORE INFORMATION ON BAS LIGHTING CONTROLS.

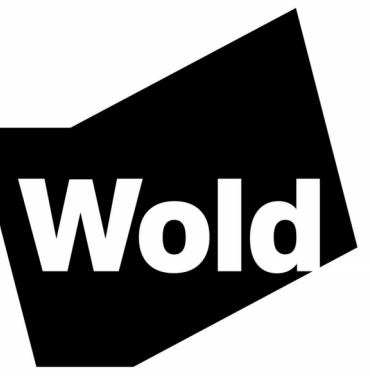
KEYED SHEET NOTES

1. EXIT SIGNS WITH EMERGENCY LIGHTING.

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Saint Paul, MN 55101

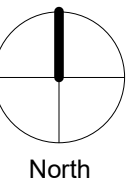
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Description	Revisions	
	Date	Num

Comm: 232010
Date: Issue Date
Drawn: D PETERSON
Check: S MCNAMARA



MAIN LEVEL LIGHTING PLAN - AREA 'A'

Scale: 1/8" = 1'-0"

**FINAL CD SET DRAFT
NOT FOR CONSTRUCTION**

E1.11a

MN



E2 ML - Lighting - Dependent 2
1/8" = 1'-0"

GENERAL SHEET NOTES

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D. ALL MOUNTING HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.

E. SEE ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF EXTERIOR LIGHTING FIXTURES.

F. CIRCUIT WIRING IS NOT SHOWN EXCEPT FOR SWITCHING INTENT OF FIXTURES AND CONTROL OF DEVICES.

G. PROVIDE PROPER NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.

H. CIRCUIT NUMBERS AT DEVICES CIRCUIT NUMBERS SHOWN ARE FOR SCHEMATIC PURPOSES AND ARE FOR DISTINGUISHING CIRCUITS. RECORD AS-BUILT CIRCUITING IN A TYPED AND DATED PANELBOARD SCHEDULE. BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.

I. SEE BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE ON SHEET E0.00.

J. ALL OCCUPANCY SENSORS SHALL HAVE AUXILIARY CONTACTS OR ADDITIONAL DEVICES TO ENABLE HVAC INTERFACE.

LEGEND:

NORMAL OPERATING LIGHT FIXTURE. FEED FIXTURE USING EXISTING LIGHTING CIRCUITRY FROM NORMAL PANEL.

SWITCHED EMERGENCY LIGHT. FEED FIXTURE FROM EMERGENCY PANEL ~~XXX~~ VIA EMERGENCY RELAY AS INDICATED ON PLAN.

UNSWITCHED EMERGENCY LIGHT (NIGHT LIGHT). FEED FIXTURE FROM UNSWITCHED CIRCUIT IN EMERGENCY PANEL ~~XXX~~.

EMERGENCY LIGHTING UNIT AND EXIT LIGHT. FEED FROM UNSWITCHED CIRCUIT IN EMERGENCY PANEL ~~XXX~~.

FIXTURE TYPE

FIXTURE NOTES

RELAY # / PANEL CIRCUIT #

SWITCHING SCHEME

1. MAXIMUM ALLOWABLE WATTAGE FOR A LIGHTING CIRCUIT WILL NOT EXCEED 3500 (277V) OR 1600 (120V) WATTS.

2. REFER TO DIVISION 23 SPECIFICATIONS FOR MORE INFORMATION ON BAS LIGHTING CONTROLS.

KEYED SHEET NOTES

1. EXIT SIGNS WITH EMERGENCY LIGHTING.

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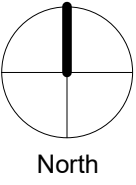
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License Number: **BRADLEY R. JOHANSEN** 43936 Date: **Issue Date**

Description	Revisions	
	Date	Num

Comm: **232010**
Date: **Issue Date**
Drawn: **D PETERSON**
Check: **S MCNAMARA**



MAIN LEVEL LIGHTING PLAN - AREA 'B'

Scale: 1/8" = 1'-0"

E1.11b

**FINAL CD SET DRAFT
NOT FOR CONSTRUCTION**

MN



E1 UL - Lighting - Dependent 1
1/8" = 1'-0"

GENERAL SHEET NOTES

A. SOME NOTES MAY NOT APPLY TO THIS SHEET.

B. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON THIS DRAWING.

C. ALL RECESSED LIGHTING FIXTURES IN LAY-IN CEILINGS SHALL BE INSTALLED WITH 6 LONG FLEXIBLE METAL CONDUIT.

D. ALL MOUNTING HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.

E. SEE ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF EXTERIOR LIGHTING FIXTURES.

F. CIRCUIT WIRING IS NOT SHOWN EXCEPT FOR SWITCHING INTENT OF FIXTURES AND CONTROL OF DEVICES.

G. PROVIDE PROPER NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.

H. CIRCUIT NUMBERS AT DEVICES CIRCUIT NUMBERS SHOWN ARE FOR SCHEMATIC PURPOSES AND ARE FOR DISTINGUISHING CIRCUITS. RECORD AS-BUILT CIRCUITING IN A TYPED AND DATED PANELBOARD SCHEDULE. BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATINGS. UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.

I. SEE BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE ON SHEET E0.00.

J. ALL OCCUPANCY SENSORS SHALL HAVE AUXILIARY CONTACTS OR ADDITIONAL DEVICES TO ENABLE HVAC INTERFACE.

NORMAL OPERATING LIGHT FIXTURE. FEED FIXTURE USING EXISTING LIGHTING CIRCUITRY FROM NORMAL PANEL.

SWITCHED EMERGENCY LIGHT. FEED FIXTURE FROM **EMERGENCY PANEL xxx** VIA EMERGENCY RELAY AS INDICATED ON PLAN.

UNSWITCHED EMERGENCY LIGHT (NIGHT LIGHT). FEED FIXTURE FROM UNSWITCHED CIRCUIT IN **EMERGENCY PANEL EHH1**.

EMERGENCY LIGHTING UNIT AND EXIT LIGHT. FEED FROM UNSWITCHED CIRCUIT IN EMERGENCY PANEL **xxx**.

FIXTURE TYPE
NL ← FIXTURE NOTES
RELAY #
PANEL CIRCUIT #
SWITCHING SCHEME

1. MAXIMUM ALLOWABLE WATTAGE FOR A LIGHTING CIRCUIT WILL NOT EXCEED 3000 (277V) OR 1600 (120V) WATTS.
2. REFER TO DIVISION 23 SPECIFICATIONS FOR MORE INFORMATION ON BAS LIGHTING CONTROLS.

KEYED SHEET NOTES

1. EXIT SIGNS WITH EMERGENCY LIGHTING.

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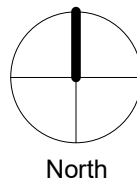
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	Date	Num

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Date: Issue Date
Drawn: D PETERSON
Check: S MCNAMARA



UPPER LEVEL LIGHTING PLAN - AREA 'A'

Scale: 1/8" = 1'-0"

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

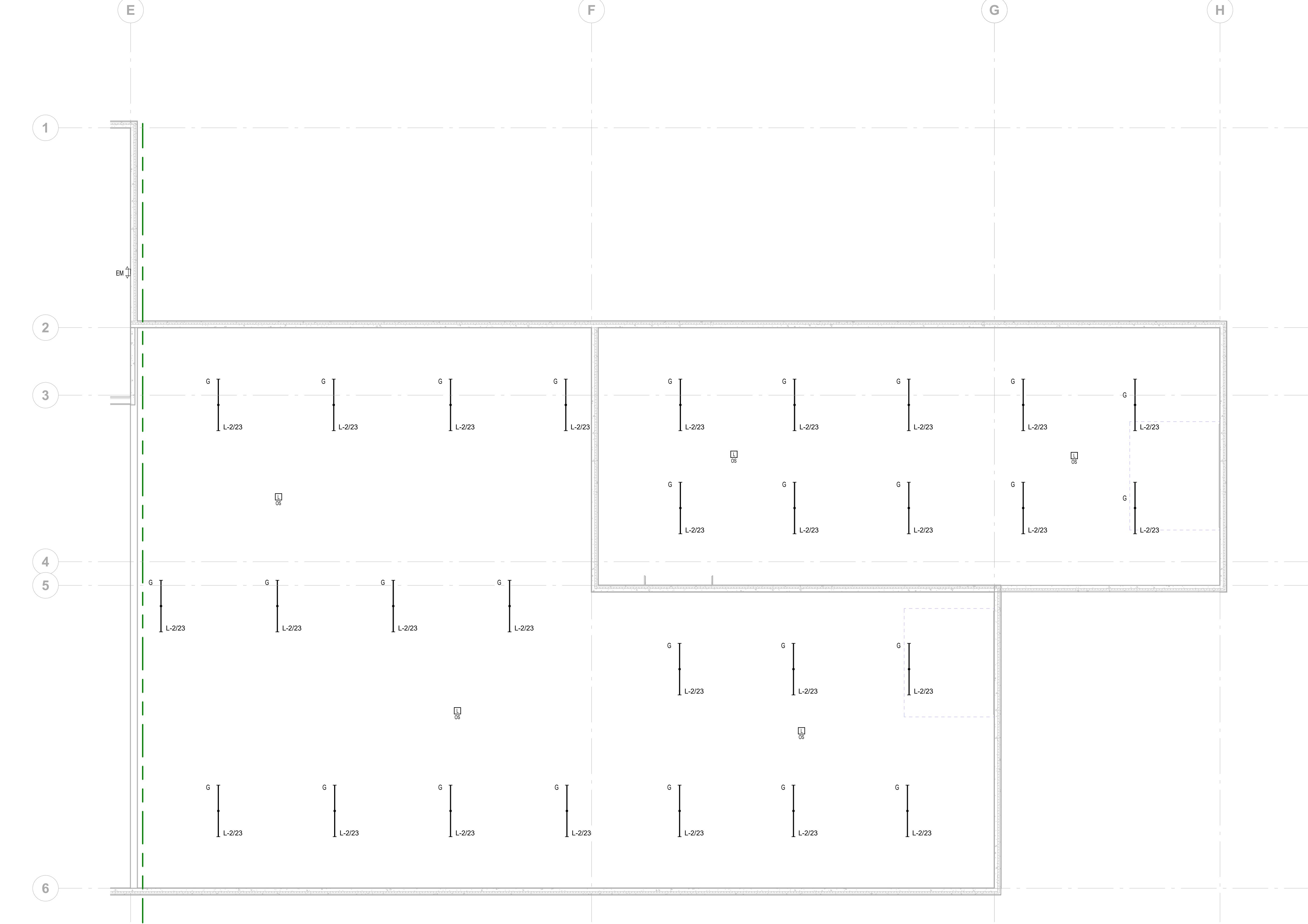
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MN

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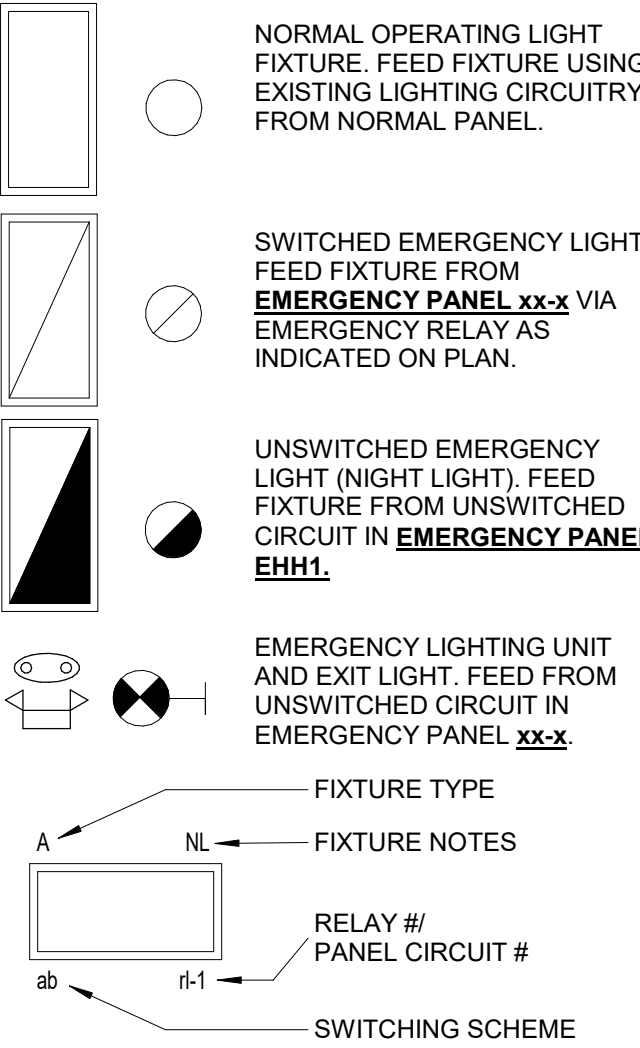
Architect: Peter Johansen, LLC
General Contractor: Peter Johansen, LLC
Contract Agreement Date: 10/20/2023
10/20/2023 10:52:39AM

E1 UL - Lighting - Dependent 2
1/8" = 1'-0"



GENERAL SHEET NOTES

- A. SOME NOTES MAY NOT APPLY TO THIS SHEET.
- B. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON THIS DRAWING.
- C. ALL RECESSED LIGHTING FIXTURES IN LAY-IN CEILINGS SHALL BE INSTALLED WITH 6' LONG FLEXIBLE METAL CONDUIT.
- D. ALL MOUNTING HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.
- E. SEE ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF EXTERIOR LIGHTING FIXTURES.
- F. CIRCUIT WIRING IS NOT SHOWN EXCEPT FOR SWITCHING INTENT OF FIXTURES AND CONTROL OF DEVICES.
- G. PROVIDE PROPER NUMBER OF CONDUCTORS TO ACHIEVE CIRCUITING AND SWITCHING SHOWN.
- H. CIRCUIT NUMBERS AT DEVICES CIRCUIT NUMBERS SHOWN ARE FOR SCHEMATIC PURPOSES AND ARE FOR DISTINGUISHING CIRCUITS. RECORD AS-BUILT CIRCUITING IN A TYPED AND DATED PANELBOARD SCHEDULE. BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.
- I. SEE BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE ON SHEET E0.00.
- J. ALL OCCUPANCY SENSORS SHALL HAVE AUXILIARY CONTACTS OR ADDITIONAL DEVICES TO ENABLE HVAC INTERFACE.



1. MAXIMUM ALLOWABLE WATTAGE FOR A LIGHTING CIRCUIT WILL NOT EXCEED 3500 (277V) OR 1600 (120V) WATTS.
2. REFER TO DIVISION 23 SPECIFICATIONS FOR MORE INFORMATION ON BAS LIGHTING CONTROLS.

KEYED SHEET NOTES

1. EXIT SIGNS WITH EMERGENCY LIGHTING.

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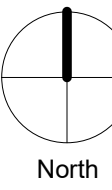
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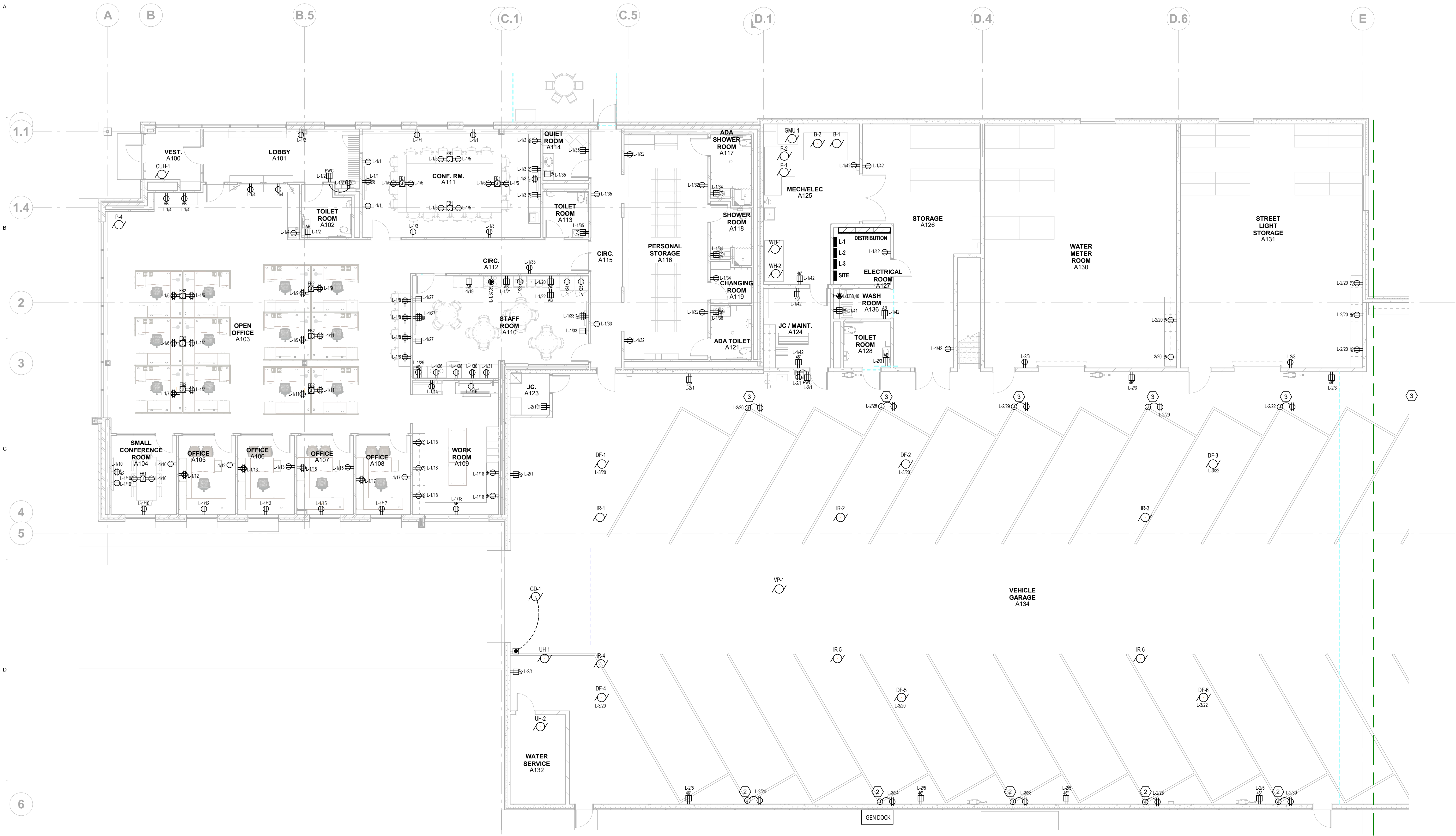


UPPER LEVEL LIGHTING PLAN - AREA 'B'

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

Scale: 1/8" = 1'-0"
E1.21b

MN



E1 ML - Power - Dependent 1
1/8" = 1'-0"

FLOOR BOX (FB) & POKETHRU (PT) SCHEDULE			
TYPE	DESCRIPTION	FACEPLATE	COVER
FB1	3-GANG, 4 POWER, 2 DATA, RECESSED DUAL SERVICE FLOORBOX CAST IRON, ROUND WIREMOLD RESOURCE RFB4E SERIES OR APPROVED EQUAL	(2) DUPLICATION FACEPLATE FOR POWER WIREMOLD RFB60P OR APPROVED EQUAL (1) STYLELINE FACEPLATES FOR SIGNAL WIREMOLD RFB60GF OR APPROVED EQUAL	FLUSH, FLANGED LID BRUSHED ALUMINUM FINISH SUITABLE FOR TILE/CARPET INSTALLATION WIREMOLD CT2 OR APPROVED EQUAL PROVIDE SILICON BEAD AROUND OUTER EDGE OF COVER TO SEAL FROM MOISTURE
FB2	5-GANG, 8 POWER, 2 DATA, RECESSED DUAL SERVICE FLOORBOX CAST IRON, ROUND WIREMOLD RESOURCE RFB4E SERIES OR APPROVED EQUAL	(2) QUADPLEX FACEPLATE FOR POWER WIREMOLD RFB60P OR APPROVED EQUAL (2) STYLELINE FACEPLATES FOR SIGNAL WIREMOLD RFB60GF OR APPROVED EQUAL	FLUSH, FLANGED LID BRUSHED ALUMINUM FINISH SUITABLE FOR TILE/CARPET INSTALLATION WIREMOLD CT2 OR APPROVED EQUAL PROVIDE SILICON BEAD AROUND OUTER EDGE OF COVER TO SEAL FROM MOISTURE
GENERAL NOTES A. CONTRACTOR TO REQUEST DIMENSIONING OF FLOORBOXES FROM ARCHITECT/ENGINEER PRIOR TO INSTALLATION. B. CONTRACTOR TO VERIFY FLOOR TYPE (CARPET OR TILE) PRIOR TO ORDERING. C. PROVIDE (1) 3/4" CONDUIT FOR POWER AND ROUTE AS REQUIRED. D. PROVIDE (2) 1-1/4" CONDUIT FOR LOW VOLTAGE AND ROUTE TO NEAREST ACCESSIBLE CEILING SPACE ABOVE AS REQUIRED. E. PROVIDE DEVICES AND PLATES AS INDICATED ON PLANS AND SPECS. F. PROVIDE LABELING FOR EMPTY CONDUITS IN A MANNER THAT INDICATES TO WHICH FLOOR BOX/POKE-THROUGH THE CONDUIT IS ASSOCIATED. G. PROVIDE UTP CABLES AS SPECIFIED UNLESS INDICATED OTHERWISE ON PLANS.			

F3 FLOOR BOX SCHEDULE
1 : 95

GENERAL SHEET NOTES

- SOME NOTES MAY NOT APPLY TO THIS SHEETS.
- ALL BOXES, CONDUIT AND WIRING TO BE CONCEALED. NO EXPOSED BOXES, CONDUIT AND WIRING SHALL BE ALLOWED UNLESS NOTED OTHERWISE.
- COORDINATE DEVICE LOCATIONS WITH OTHER TRADES INCLUDING HVAC EQUIPMENT, DUCTWORK, SPRINKLER PIPING AND BUILDING STRUCTURAL MEMBERS.
- NO MULTI-BRANCH CIRCUIT ALLOWED, PROVIDE A SEPARATE NEUTRAL WITH EACH CIRCUIT.
- VERIFY LOCATIONS AND ROUGH-IN REQUIREMENTS OF ALL OWNER FURNISHED EQUIPMENT PRIOR TO ROUGH-IN.
- CIRCUIT WIRING IS NOT SHOWN EXCEPT FOR SWITCHING INTENT OF FIXTURES AND CONTROL OF DEVICES.
- GFCI RECEPTACLES SHALL BE WIRED TO PROTECT ONLY THE DEVICES IN THAT OUTLET BOX. DOWNSTREAM DEVICES SHALL NOT BE PROTECTED BY GFCI.
- CIRCUIT NUMBERS SHOWN ARE FOR SCHEMATIC PURPOSES AND ARE FOR DISTINGUISHING CIRCUITS. RECORD AS-BUILT CIRCUITING IN A TYPED AND DATED PANELBOARD SCHEDULE.
- PROVIDE SEPARATED CONDUITS FOR ALL EMERGENCY CIRCUITS. DO NOT COMBINE WITH NORMAL BUILDING WIRING.
- COORDINATE HEIGHTS OF ALL DEVICES WITH MILLWORK AND MODULAR FURNITURE SHOP DRAWINGS PRIOR TO ROUGH-IN.
- OFFSET BACK TO BACK BOXES AT LEAST 12 INCHES EXCEPT IN RESIDENT ROOMS WHERE PUTTY-PADS SHALL BE PROVIDED (3M MPP+ OR EQUIVALENT).
- ALL RECEPTACLES TO BE HOSPITAL GRADE.
- ALL RECEPTACLES TO BE TAMPER RESISTANT.
- SEE BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE ON SHEET E0.00
- SEE FLOORBOX AND POKE-THRU SCHEDULE ON SHEET E8.20.
- SEE MOTOR AND EQUIPMENT SCHEDULE ON SHEET E8.40.
- REFER TO MECHANICAL SHEETS FOR EXACT MOTOR LOCATIONS.

KEYED SHEET NOTES

- REFER TO VIEW D4 ON SHEET E7.10 FOR DATA ROOM DETAILS.
- PROVIDE HUBBELL 45' INDUSTRIAL CORD REEL WITH 20A FFCI MODULE, WALL MOUNTED, PART NUMBER BRY45123GF20.
- PROVIDE HUBBELL 45' INDUSTRIAL CORD REEL WITH 20A FFCI MODULE, CEILING MOUNTED, PART NUMBER BRY45123GF20.

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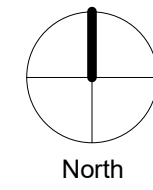
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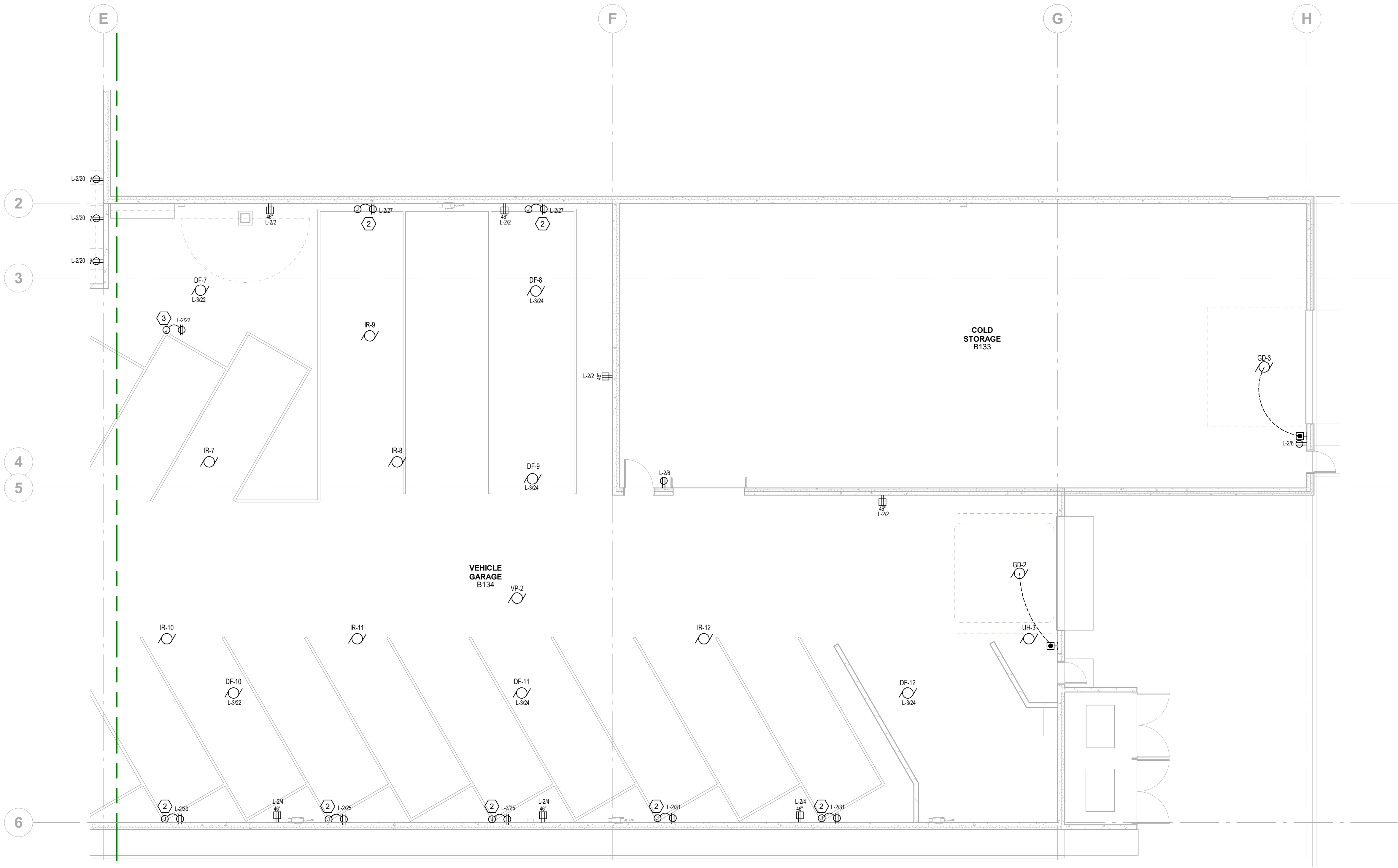
MAIN LEVEL
POWER PLAN -
AREA 'A'

Scale: As indicated

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

E2.11a

MN



E2 ML - Power - Dependent 2
1/8" = 1'-0"

- GENERAL SHEET NOTES**
- A. SOME NOTES MAY NOT APPLY TO THIS SHEETS.
 - B. ALL BOXES, CONDUIT AND WIRING TO BE CONCEALED. NO EXPOSED BOXES, CONDUIT AND WIRING SHALL BE ALLOWED UNLESS NOTED OTHERWISE.
 - C. COORDINATE DEVICE LOCATIONS WITH OTHER TRADES INCLUDING HVAC EQUIPMENT, DUCTWORK, SPRINKLER PIPING AND BUILDING STRUCTURAL MEMBERS.
 - D. NO MULTI-BRANCH CIRCUIT ALLOWED. PROVIDE A SEPARATE NEUTRAL WITH EACH CIRCUIT.
 - E. VERIFY LOCATIONS AND ROUGH-IN REQUIREMENTS OF ALL OWNER FURNISHED EQUIPMENT PRIOR TO ROUGH-IN.
 - F. CIRCUIT WIRING IS NOT SHOWN EXCEPT FOR SWITCHING INTENT OF FIXTURES AND CONTROL OF DEVICES.
 - G. GFCI RECEPTACLES SHALL BE WIRED TO PROTECT ONLY THE DEVICES IN THAT OUTLET BOX. DOWNSTREAM DEVICES SHALL NOT BE PROTECTED BY GFCI.
 - H. CIRCUIT NUMBERS SHOWN ARE FOR SCHEMATIC PURPOSES AND ARE FOR DISTINGUISHING CIRCUITS. RECORD AS-BUILT CIRCUITING IN A TYPED AND DATED PANELBOARD SCHEDULE.
 - I. PROVIDE SEPARATED CONDUITS FOR ALL EMERGENCY CIRCUITS. DO NOT COMBINE WITH NORMAL BUILDING WIRING.
 - J. COORDINATE HEIGHTS OF ALL DEVICES WITH MILLWORK AND MODULAR FURNITURE SHOP DRAWINGS PRIOR TO ROUGH-IN.
 - K. OFFSET BACK TO BACK BOXES AT LEAST 12 INCHES EXCEPT IN RESIDENT ROOMS WHERE PUTTY-PADS SHALL BE PROVIDED (3M MPP+ OR EQUIVALENT).
 - L. ALL RECEPTACLES TO BE HOSPITAL GRADE.
 - M. ALL RECEPTACLES TO BE TAMPER RESISTANT.
 - N. SEE BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE ON SHEET E0.00
 - O. SEE FLOORBOX AND POKE-THRU SCHEDULE ON SHEET E6.20.
 - P. SEE MOTOR AND EQUIPMENT SCHEDULE ON SHEET E6.40.
 - Q. REFER TO MECHANICAL SHEETS FOR EXACT MOTOR LOCATIONS.

- KEYED SHEET NOTES**
- 1. REFER TO VIEW D4 ON SHEET E7.10 FOR DATA ROOM DETAILS.
 - 2. PROVIDE HUBBELL 45' INDUSTRIAL CORD REEL WITH 20A FFCI MODULE, WALL MOUNTED, PART NUMBER BRY45123GF20.
 - 3. PROVIDE HUBBELL 45' INDUSTRIAL CORD REEL WITH 20A FFCI MODULE, CEILING MOUNTED, PART NUMBER BRY45123GF20.

NEW UTILITY & ENGINEERING BUILDING

XXXX IDEAL AVENUE
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016



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332 Minnesota Street, Suite W2000
Saint Paul, MN 55101

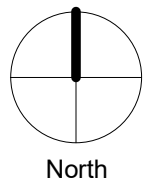
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License: **BRADLEY R. JOHANSEN**
Number: **43936** Date: **Issue Date**

Description	Revisions	
	Date	Num

Comm: **232010**
Date: **Issue Date**
Drawn: **D PETERSON**
Check: **S MCNAMARA**

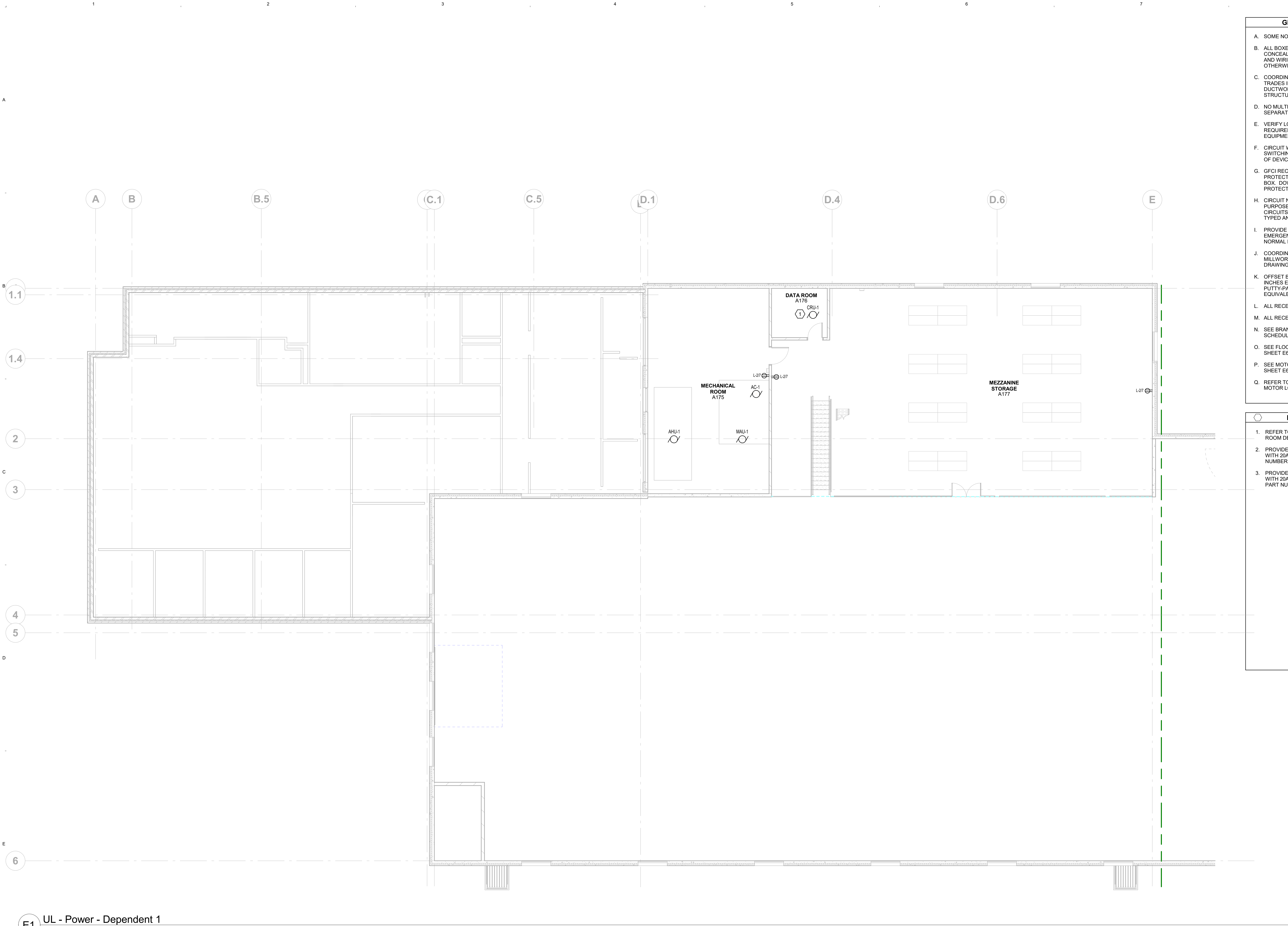


**MAIN LEVEL
POWER PLAN -
AREA 'B'**

**FINAL CD SET DRAFT
NOT FOR CONSTRUCTION**

Scale: 1/8" = 1'-0"
E2.11b

MN



- GENERAL SHEET NOTES**
 - A. SOME NOTES MAY NOT APPLY TO THIS SHEETS.
 - B. ALL BOXES, CONDUIT AND WIRING TO BE CONCEALED. NO EXPOSED BOXES, CONDUIT AND WIRING SHALL BE ALLOWED UNLESS NOTED OTHERWISE.
 - C. COORDINATE DEVICE LOCATIONS WITH OTHER TRADES INCLUDING HVAC EQUIPMENT, DUCTWORK, SPRINKLER PIPING AND BUILDING STRUCTURAL MEMBERS.
 - D. NO MULTI-BRANCH CIRCUIT ALLOWED. PROVIDE A SEPARATE NEUTRAL WITH EACH CIRCUIT.
 - E. VERIFY LOCATIONS AND ROUGH-IN REQUIREMENTS OF ALL OWNER FURNISHED EQUIPMENT PRIOR TO ROUGH-IN.
 - F. CIRCUIT WIRING IS NOT SHOWN EXCEPT FOR SWITCHING INTENT OF FIXTURES AND CONTROL OF DEVICES.
 - G. GFCI RECEPTACLES SHALL BE WIRED TO PROTECT ONLY THE DEVICES IN THAT OUTLET BOX. DOWNSTREAM DEVICES SHALL NOT BE PROTECTED BY GFCI.
 - H. CIRCUIT NUMBERS SHOWN ARE FOR SCHEMATIC PURPOSES AND ARE FOR DISTINGUISHING CIRCUITS. RECORD AS-BUILT CIRCUITING IN A TYPED AND DATED PANELBOARD SCHEDULE.
 - I. PROVIDE SEPARATED CONDUITS FOR ALL EMERGENCY CIRCUITS, DO NOT COMBINE WITH NORMAL BUILDING WIRING.
 - J. COORDINATE HEIGHTS OF ALL DEVICES WITH MILLWORK AND MODULAR FURNITURE SHOP DRAWINGS PRIOR TO ROUGH-IN.
 - K. OFFSET BACK TO BACK BOXES AT LEAST 12 INCHES EXCEPT IN RESIDENT ROOMS WHERE PUTTY-PADS SHALL BE PROVIDED (3M MPP+ OR EQUIVALENT).
 - L. ALL RECEPTACLES TO BE HOSPITAL GRADE.
 - M. ALL RECEPTACLES TO BE TAMPER RESISTANT.
 - N. SEE BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE ON SHEET E0.00
 - O. SEE FLOORBOX AND POKE-THRU SCHEDULE ON SHEET E6.20.
 - P. SEE MOTOR AND EQUIPMENT SCHEDULE ON SHEET E6.40.
 - Q. REFER TO MECHANICAL SHEETS FOR EXACT MOTOR LOCATIONS.
- KEYED SHEET NOTES**
 - 1. REFER TO VIEW D4 ON SHEET E7.10 FOR DATA ROOM DETAILS.
 - 2. PROVIDE HUBBELL 45' INDUSTRIAL CORD REEL WITH 20A FFCI MODULE, WALL MOUNTED, PART NUMBER BRY45123GF20.
 - 3. PROVIDE HUBBELL 45' INDUSTRIAL CORD REEL WITH 20A FFCI MODULE, CEILING MOUNTED, PART NUMBER BRY45123GF20.

NEW UTILITY & ENGINEERING BUILDING
XXXX IDEAL AVENUE
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016



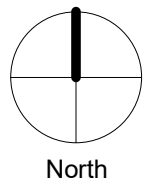
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Description	Revisions	
	Date	Num

Comm: 232010
Date: **Issue Date**
Drawn: **D PETERSON**
Check: **S MCNAMARA**



UPPER LEVEL POWER PLAN - AREA 'A'

Scale: 1/8" = 1'-0"

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

E2.21a

XXXX IDEAL AVENUE
COTTAGE GROVE, MN 55016



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A. SOME NOTES MAY NOT APPLY TO THIS SHEETS.

- B. SOME NOTES MAY NOT APPLY TO THIS SHEETS.
- C. ALL BOXES, CONDUIT AND WIRING TO BE CONCEALED. NO EXPOSED BOXES, CONDUIT AND WIRING SHALL BE ALLOWED UNLESS NOTED OTHERWISE.
- D. COORDINATE DEVICE LOCATIONS WITH OTHER TRADES INCLUDING HVAC EQUIPMENT, DUCTWORK, SPRINKLER PIPING AND BUILDING STRUCTURAL MEMBERS.
- E. NO MULTI-BRANCH CIRCUIT ALLOWED. PROVIDE A SEPARATE NEUTRAL WITH EACH CIRCUIT.
- F. VERIFY LOCATIONS AND ROUGH-IN REQUIREMENTS OF ALL OWNER FURNISHED EQUIPMENT PRIOR TO ROUGH-IN.
- G. CIRCUIT WIRING IS NOT SHOWN EXCEPT FOR SWITCHING INTENT OF FIXTURES AND CONTROL OF DEVICES.
- H. GFCI RECEPTACLES SHALL BE WIRED TO PROTECT ONLY THE DEVICES IN THAT OUTLET BOX. DOWNSTREAM DEVICES SHALL NOT BE PROTECTED BY GFCI.
- I. CIRCUIT NUMBERS SHOWN ARE FOR SCHEMATIC PURPOSES AND ARE FOR DISTINGUISHING PURPOSES ONLY. DO NOT BUILD CIRCUITING IN A TYPED AND DATED PANELBOARD SCHEDULE.
- J. PROVIDE SEPARATED CONDUITS FOR ALL EMERGENCY CIRCUITS. DO NOT COMBINE WITH NORMAL BUILDING WIRING.
- K. MINORANCE HEIGHTS OF ALL DEVICES WITH WELDKWAKE AND MODULAR FURNITURE SHOP DRAWINGS PRIOR TO ROUGH-IN.
- L. OFFSET BACK TO BACK BOXES AT LEAST 12 INCHES. PROVIDE IN RESIDENT ROOMS WHERE PUTTY-PADS SHALL BE PROVIDED (3MM IMP-OR EQUIVALENT).
- M. ALL RECEPTABLES TO BE HOSPITAL GRADE.
- N. ALL RECEPTABLES TO BE TAMPER RESISTANT.
- O. SEE BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE ON SHEET E6.00
- P. SEE FLOORBOX AND POKE-THRU SCHEDULE ON SHEET E6.20
- Q. SEE MOTOR AND EQUIPMENT SCHEDULE ON SHEET E6.40
- R. REFER TO MECHANICAL SHEETS FOR EXACT MOTOR LOCATIONS.

1. REFER TO VIEW D4 ON SHEET E7.10 FOR DATA ROOM DETAILS.
2. PROVIDE HUBBELL 45" INDUSTRIAL CORD REEL WITH 20A FFCI MODULE, WALL MOUNTED, PART NUMBER BRY45123GF20.
3. PROVIDE HUBBELL 45" INDUSTRIAL CORD REEL WITH 20A FFCI MODULE, CEILING MOUNTED, PART NUMBER BRY45123GF20.

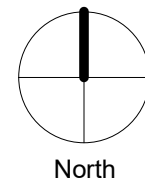
E1 UL - Power - Dependent 2
1/8" = 1'-0"

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License: **BRADLEY R. JOHANNSSEN**
Number: **43936** Date: **Issue Date:**

[illegible]

Comm: **232010**
Date: **Issue Date**
Drawn: **D PETERS**
Check: **S MCNAMA**

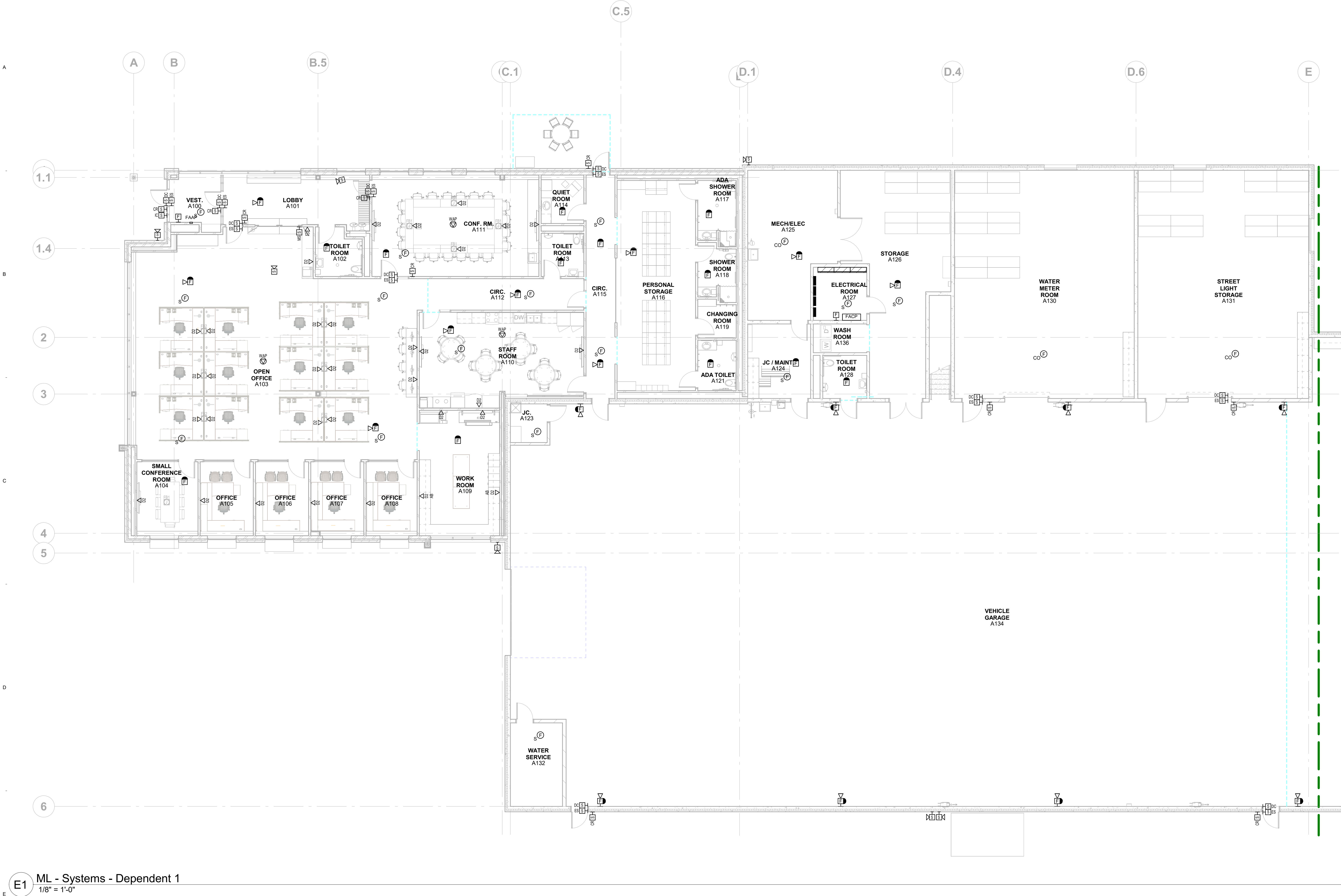


Scale: 1/8" = 1'-0"

E2.21b

**FINAL CD SET DRAFT
NOT FOR CONSTRUCTION**

MN



E1 ML - Systems - Dependent 1
1/8" = 1'-0"

GENERAL SHEET NOTES

- SOME NOTES MAY NOT APPLY TO THIS SHEET.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON THE DRAWINGS, EXCEPT ITEMS LISTED ON SHEET E0.01 GENERAL ELECTRICAL NOTES.
- COORDINATE WITH OTHER TRADES AND REFER TO DIV. 27 & DIV. 28 SPECIFICATIONS FOR FULL REQUIREMENTS.
- MAINTAIN WORKING CLEARANCES AROUND ELECTRICAL EQUIPMENT FOR COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110.
- INSTALL DATA / SYSTEMS / AV CONDUIT WITH NO MORE THAN (2) 90° BENDS BETWEEN PULL BOXES AND NO MORE THAN 100'-0" BETWEEN PULL BOXES. PULL BOXES SHALL BE INSTALLED FOR STRAIGHT THROUGH PULLS ONLY. NOT ALL PULL BOXES ARE SHOWN ON PLANS.
- ALL COMMUNICATIONS CABLES AND OTHER LOW VOLTAGE CABLES SHALL BE INSTALLED IN CONDUIT, CABLE TRAY, OR SUPPORTED BY CABLE HOOKS. PROVIDE BUSHINGS AT THE ENDS OF ALL CONDUIT WHERE STUBBED ABOVE ACCESSIBLE CEILINGS OR WHERE DROPPED INTO CABLE TRAY. PROVIDE CABLE HOOKS ABOVE ACCESSIBLE CEILINGS FOR CABLE INSTALLATION WHERE NOT INSTALLED IN CONDUIT OR CABLE TRAY.
- FLOOR BOXES SHALL NOT BE DAISY CHAINED TOGETHER BETWEEN ADJACENT FLOOR BOXES FOR LOW VOLTAGE CABLE ROUTING. ALL CONDUITS FOR FLOOR BOXES SHALL BE HOME RUNS TO NEAREST ACCESSIBLE CEILING SPACE.
- REFER TO FLOORBOX AND POKE-THRU SCHEDULE FOR FULL REQUIREMENTS AT EACH LOCATION. COORDINATE LOCATIONS PRIOR TO ROUGH-IN. (NEEDS DISCUSSION WITH THE ELECTRICAL TEAM)
- LOCATIONS OF FLOOR BOXES AND FLOOR PENETRATIONS SHALL NOT BE MEASURED FROM THIS SET OF DRAWINGS. INSTALLER SHALL REQUEST PRECISE LOCATIONS FROM ARCHITECT.
- COORDINATE RECESSED CASEWORK DEVICES AND ABOVE COUNTER (AB) DEVICES WITH ARCHITECTURAL ELEVATION DRAWINGS AND DETAILS. WHERE CONFLICTS OCCUR, SUBMIT RFI.
- COORDINATE WITH ASSOCIATED ELECTRICAL DEVICE AND OTHER TRADES. WHERE CONFLICTS OCCUR, SUBMIT RFI.
- REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATED PARTITIONS. PROVIDE AN APPROVED FIRE STOP SYSTEM FOR EACH RACEWAY OR CABLE ROUTED THROUGH A RATED WALL. REFER TO DIV. 7 AND DIV. 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- SYMBOLS USED ON TECHNOLOGY DRAWINGS ARE NOT A SCALED SIZE, THEREFORE LOCATIONS OF THE SYMBOLS ARE APPROXIMATE AND NEED TO BE COORDINATED WITH OTHER DEVICES AND ELEMENTS IN THE VICINITY. GENERAL GUIDELINES:
- VOICE, DATA, AND TV OUTLETS SHALL BE INSTALLED WITHIN 8 INCHES OF A POWER OUTLET SHOWN ON THE ELECTRICAL DRAWINGS.
- WALL PHONE OUTLET PLACEMENT SHALL PROVIDE ADEQUATE CLEARANCE TO INSTALL THE TELEPHONE HANDSET. COORDINATE CLEARANCE WITH OTHER TRADES (CARPENTRY, MECHANICAL, ELECTRICAL, ETC.)
- WHERE MULTIPLE TECHNOLOGY SYMBOLS ARE SHOWN ADJACENT TO EACH OTHER, THE SPACING BETWEEN OUTLETS SHALL BE CONSISTENT IF NO ELEVATION IS SHOWN ON THE DRAWINGS.
- WHEN THE INSTALLER IS UNCERTAIN ABOUT ADJACENCIES OF DEVICES, THE QUESTION SHALL BE PRESENTED VIA RFI.

KEYED SHEET NOTES

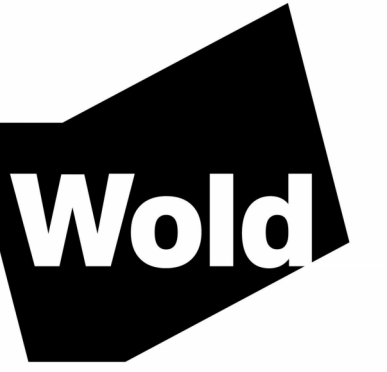
- NOTE

NEW UTILITY & ENGINEERING BUILDING

XXXX IDEAL AVENUE
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE

12800 RAVINE PKWY
COTTAGE GROVE, MN 55016



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AND ENGINEERS**
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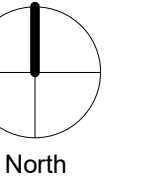
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License Number: **BRADLEY R. JOHANNSSEN**
43936 Date: **Issue Date**

Description	Revisions		Num
	Date		

Comm: **232010**
Date: **Issue Date**
Drawn: **D PETERSON**
Check: **S MCNAMARA**



MAIN LEVEL SYSTEMS PLAN - AREA 'A'

Scale: 1/8" = 1'-0"

E3.11a

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

XXXX IDEAL AVENUE
COTTAGE GROVE, MN 55016



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Saint Paul, MN 55101

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GENERAL SHEET NOTES

- SOME NOTES MAY NOT APPLY TO THIS SHEET
 B. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON THE DRAWINGS, EXCEPT FOR THE SHEET ED-01 GENERAL ELECTRICAL NOTES.
 C. COORDINATE WITH OTHER TRADES AND ROOMS TO VERIFY FOR COMPLIANCE WITH ALL FIRE REQUIREMENTS.
 D. MAINTAIN WORKING CLEARANCES AROUND ELECTRICAL EQUIPMENT FOR COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110.
 E. ALL RACEWAY / SYSTEMS / AV CONDUIT WITH NO MORE THAN (2) 90° BENDS BETWEEN PULL BOXES AND NO MORE THAN 100'-0" BETWEEN PULL BOXES. ALL RACEWAYS SHALL BE INSTALLED FOR STRAIGHT THROUGH RUNS. ALL PULL BOXES SHALL BE SHOWN ON PLANS.
 F. ALL COMMUNICATIONS CABLES AND OTHER CABLES SHALL BE INSTALLED IN CONDUIT, CABLE TRAY, OR SUPPORTED BY CABLE HOOKS. PROVIDE 18" MIN. CLEARANCE FROM ALL ACCESSIBLE CEILINGS OR WHERE DROPPED INTO CABLE TRAYS. ALL CABLES SHALL BE INSTALLED ABOVE ACCESSIBLE CEILINGS FOR CABLE INSTALLATION WHERE NOT INSTALLED IN ACCESSIBLE FLOOR BOXES SHALL BE DAISY CHAINED TOGETHER BETWEEN ADJACENT FLOORS. PROVIDE 18" MIN. CLEARANCE FROM ALL ROUTING ALL CONDUITS FOR FLOOR BOXES SHALL BE HOME RUNS TO NEAREST ACCESSIBLE CHASE.
 H. REFER TO FLOORBOX AND POKE-THRU SCHEDULE FOR FLOOR REQUIREMENTS AT ALL FLOOR PENETRATIONS. PROVIDE ALL PENETRATIONS ROUN TO ROUGH-IN. **(NEEDS DISCUSSION WITH THE ELECTRICAL TEAM)**
 I. ALL LOW VOLTAGE AND FLOOR PENETRATIONS SHALL NOT BE MEASURED FROM THIS SET OF DRAWINGS. INSTALLER SHALL VERIFY PROPER PENETRATIONS FROM ARCHITECT.
 J. COORDINATE RECESSED CASEWORK DEVICES ABOVE COUNTER (AB) DEVICES WITH ARCHITECTURAL ELEVATION DRAWINGS. PROVIDE ALL PENETRATIONS FOR CONFLICTS OCCUR. **SUBMIT RFI.**
 K. COORDINATE WITH ASSOCIATED TRADES AND ROOMS TO VERIFY FOR COMPLIANCE WITH ALL FIRE TRADES. WHERE CONFLICTS OCCUR, **SUBMIT RFI.** REFER TO ARCHITECTURAL DRAWINGS FOR ALL PENETRATIONS. PROVIDE ALL PENETRATIONS APPROVED FIRE STOP SYSTEM FOR EACH RACEWAY OR CABLE ROUTED THROUGH A WALL OR FLOOR. PROVIDE ALL PENETRATIONS TO MEET ALL CITY AND DIV. 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 M. COORDINATE ON TECHNOLOGY DRAWINGS ARE NOT A SCALED SIZE, THEREFORE LOCATIONS OF THE SYMBOLS ARE NOT TO SCALE. COORDINATE AND COORDINATED WITH OTHER DEVICES AND ELEMENTS IN THE VICINITY. GENERAL.
 N. VOICE, DATA, TV OUTLETS SHALL BE INSTALLED WITHIN 6" INCHES OF A POWER OUTLET. PROVIDE ALL PENETRATIONS FOR CONFLICTS OCCUR. **SUBMIT RFI.**
 O. W/ PHONE OUTLET PLACEMENT SHALL PROVIDE SUFFICIENT CLEARANCE TO INSTALL THE TELEPHONE HANSET.
 P. COORDINATE WITH ALL OTHER TRADES (CARPENTRY, MECHANICAL, ELECTRICAL, ETC.).
 Q. PROVIDE ALL TECHNOLOGY SYMBOLS ARE SHOWN ADJACENT TO EACH OTHER. THE SPACING BETWEEN OUTLETS SHALL BE ON CENTER. NO CLEARANCE IS SHOWN ON THE DRAWINGS.
 Q. WHEN THE INSTALLER IS UNCERTAIN ABOUT THE CORRECT METHOD OF INSTALLATION, THE CONTRACTOR SHALL BE PRESENTED VIA RFI.

KEYED SHEET NOTES

1. NOTE

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License
Number: **BRADLEY R. JOHANSEN**
43936 Date Issue Date

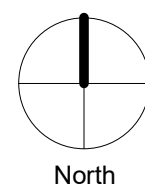
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Comm: 232010

Date: Issue Date:

Drawn: D PETERSON

Check: S MCNAMARA



MAIN LEVEL SYSTEMS PLAN - AREA 'B'

Scale: 1/8" = 1'-0"

E3.11b

**FINAL CD SET DRAFT
NOT FOR CONSTRUCTION**

E2 ML - Systems - Dependent 2
1/8" = 1'-0"

MN

E

Architect: Peter Johansen, P.E., 10000 Highway 100, Suite 100, Cottage Grove, MN 55016
General Contractor: Peter Johansen, P.E., 10000 Highway 100, Suite 100, Cottage Grove, MN 55016
10/20/2010 10:30:00 AM



E1 UL - Systems - Dependent 1
1/8" = 1'-0"

GENERAL SHEET NOTES

A. SOME NOTES MAY NOT APPLY TO THIS SHEET

B. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON THE DRAWINGS, EXCEPT ITEMS LISTED ON SHEET E01 GENERAL ELECTRICAL NOTES.

C. COORDINATE WITH OTHER TRADES AND REFER TO DIV. 27 & DIV. 28 SPECIFICATIONS FOR FULL REQUIREMENTS.

D. MAINTAIN WORKING CLEARANCES AROUND ELECTRICAL EQUIPMENT FOR COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110.

E. INSTALL DATA / SYSTEMS / AV CONDUIT WITH NO MORE THAN (2) 90° BENDS BETWEEN PULL BOXES AND NO MORE THAN 100'-0" BETWEEN PULL BOXES. PULL BOXES SHALL BE INSTALLED FOR STRAIGHT THROUGH PULLS ONLY. NOT ALL PULL BOXES ARE SHOWN ON PLANS.

F. ALL COMMUNICATIONS CABLES AND OTHER LOW VOLTAGE CABLING SHALL BE INSTALLED IN CONDUIT, CABLE TRAY, OR SUPPORTED BY CABLE HOOKS. PROVIDE BUSHINGS AT THE ENDS OF ALL CONDUIT WHERE STUBBED ABOVE ACCESSIBLE CEILINGS OR WHERE DROPPED INTO CABLE TRAY. PROVIDE CABLE HOOKS ABOVE ACCESSIBLE CEILINGS FOR CABLE INSTALLATION WHERE NOT INSTALLED IN CONDUIT OR CABLE TRAY.

G. FLOOR BOXES SHALL NOT BE DAISY CHAINED TOGETHER BETWEEN ADJACENT FLOOR BOXES FOR LOW VOLTAGE CABLE ROUTING. ALL CONDUITS FOR FLOOR BOXES SHALL BE HOME RUNS TO NEAREST ACCESSIBLE CEILING SPACE.

H. REFER TO FLOORBOX AND POKE-THRU SCHEDULE FOR FULL REQUIREMENTS AT EACH LOCATION. COORDINATE LOCATIONS PRIOR TO ROUGH-IN. *(NEEDS DISCUSSION WITH THE ELECTRICAL TEAM)*

I. LOCATIONS OF FLOOR BOXES AND FLOOR PENETRATIONS SHALL NOT BE MEASURED FROM THIS SET OF DRAWINGS. INSTALLER SHALL REQUEST PRECISE LOCATIONS FROM ARCHITECT.

J. COORDINATE RECESSED CASEWORK DEVICES AND ABOVE COUNTER (AB) DEVICES WITH ARCHITECTURAL ELEVATION DRAWINGS AND DETAILS. WHERE CONFLICTS OCCUR, SUBMIT RFI.

K. COORDINATE WITH ASSOCIATED ELECTRICAL DEVICE AND OTHER TRADES WHERE CONFLICTS OCCUR. SUBMIT RFI.

L. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATED PARTITIONS. PROVIDE AN APPROVED FIRE STOP SYSTEM FOR EACH RACEWAY OR CABLE ROUTED THROUGH A RATED WALL. REFER TO DIV. 7 AND DIV. 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.

M. SYMBOLS USED ON TECHNOLOGY DRAWINGS ARE NOT A SCALED SIZE THEREFORE LOCATIONS OF THE SYMBOLS ARE APPROXIMATE AND NEED TO BE COORDINATED WITH OTHER DEVICES AND ELEMENTS IN THE VICINITY. GENERAL GUIDELINES:

N. VOICE, DATA, AND TV OUTLETS SHALL BE INSTALLED WITHIN 6 INCHES OF A POWER OUTLET SHOWN ON THE ELECTRICAL DRAWINGS.

O. WALL PHONE OUTLET PLACEMENT SHALL PROVIDE ADEQUATE CLEARANCE TO INSTALL THE TELEPHONE HANDSET. COORDINATE CLEARANCE WITH OTHER TRADES (CARPENTRY, MECHANICAL, ELECTRICAL, ETC.)

P. WHERE MULTIPLE TECHNOLOGY SYMBOLS ARE SHOWN ADJACENT TO EACH OTHER, THE SPACING BETWEEN OUTLETS SHALL BE CONSISTENT IF NO ELEVATION IS SHOWN ON THE DRAWINGS.

Q. WHEN THE INSTALLER IS UNCERTAIN ABOUT ADJACENCIES OF DEVICES, THE QUESTION SHALL BE PRESENTED VIA RFI.

KEYED SHEET NOTES

1. NOTE

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CITY OF COTTAGE GROVE
12800 RAVINE PKWY
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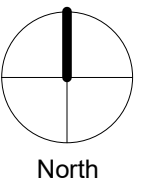
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Number: 43936 Date: Issue Date

Description	Revisions	
	Date	Num

Comm: 232010
Date: Issue Date
Drawn: D PETERSON
Check: S MCNAMARA



UPPER LEVEL
SYSTEMS PLAN -
AREA 'A'

Scale: 1/8" = 1'-0"

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

E3.21a

MN



E2 UL - Systems - Dependent 2
1/8" = 1'-0"

GENERAL SHEET NOTES

A. SOME NOTES MAY NOT APPLY TO THIS SHEET.

B. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON THE DRAWINGS, EXCEPT ITEMS LISTED ON SHEET E0.01 GENERAL ELECTRICAL NOTES.

C. COORDINATE WITH OTHER TRADES AND REFER TO DIV. 27 & DIV. 28 SPECIFICATIONS FOR FULL REQUIREMENTS.

D. MAINTAIN WORKING CLEARANCES AROUND ELECTRICAL EQUIPMENT FOR COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110.

E. INSTALL DATA / SYSTEMS / AV CONDUIT WITH NO MORE THAN (2) 90° BENDS BETWEEN PULL BOXES AND NO MORE THAN 100'-0" BETWEEN PULL BOXES. PULL BOXES SHALL BE INSTALLED FOR STRAIGHT THROUGH PULLS ONLY. NOT ALL PULL BOXES ARE SHOWN ON PLANS.

F. ALL COMMUNICATIONS CABLES AND OTHER LOW VOLTAGE CABLING SHALL BE INSTALLED IN CONDUIT, CABLE TRAY, OR SUPPORTED BY CABLE HOOKS. PROVIDE BUSHINGS AT THE ENDS OF ALL CONDUIT WHERE STUBBED ABOVE ACCESSIBLE CEILINGS OR WHERE DROPPED INTO CABLE TRAY. PROVIDE CABLE HOOKS ABOVE ACCESSIBLE CEILINGS FOR CABLE INSTALLATION WHERE NOT INSTALLED IN CONDUIT OR CABLE TRAY.

G. FLOOR BOXES SHALL NOT BE DAISY CHAINED TOGETHER BETWEEN ADJACENT FLOOR BOXES FOR LOW VOLTAGE CABLE ROUTING. ALL CONDUITS FOR FLOOR BOXES SHALL BE HOME RUNS TO NEAREST ACCESSIBLE CEILING SPACE.

H. REFER TO FLOORBOX AND POKE-THRU SCHEDULE FOR FULL REQUIREMENTS AT EACH LOCATION. COORDINATE LOCATIONS PRIOR TO ROUGH-IN. *(NEEDS DISCUSSION WITH THE ELECTRICAL TEAM)*

I. LOCATIONS OF FLOOR BOXES AND FLOOR PENETRATIONS SHALL NOT BE MEASURED FROM THIS SET OF DRAWINGS. INSTALLER SHALL REQUEST PRECISE LOCATIONS FROM ARCHITECT.

J. COORDINATE RECESSED CASEWORK DEVICES AND ABOVE COUNTER (AB) DEVICES WITH ARCHITECTURAL ELEVATION DRAWINGS AND DETAILS. WHERE CONFLICTS OCCUR, SUBMIT RFI.

K. COORDINATE WITH ASSOCIATED ELECTRICAL DEVICE AND OTHER TRADES. WHERE CONFLICTS OCCUR, SUBMIT RFI.

L. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATED PARTITIONS. PROVIDE AN APPROVED FIRE STOP SYSTEM FOR EACH RACEWAY OR CABLE ROUTED THROUGH A RATED WALL. REFER TO DIV. 7 AND DIV. 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.

M. SYMBOLS USED ON TECHNOLOGY DRAWINGS ARE NOT A SCALED SIZE. THEREFORE LOCATIONS OF THE SYMBOLS ARE APPROXIMATE AND NEED TO BE COORDINATED WITH OTHER DEVICES AND ELEMENTS IN THE VICINITY. GENERAL GUIDELINES:

N. VOICE, DATA, AND TV OUTLETS SHALL BE INSTALLED WITHIN 6 INCHES OF A POWER OUTLET SHOWN ON THE ELECTRICAL DRAWINGS.

O. WALL PHONE OUTLET PLACEMENT SHALL PROVIDE ADEQUATE CLEARANCE TO INSTALL THE TELEPHONE HANDSET. COORDINATE CLEARANCE WITH OTHER TRADES (CARPENTRY, MECHANICAL, ELECTRICAL, ETC.).

P. WHERE MULTIPLE TECHNOLOGY SYMBOLS ARE SHOWN ADJACENT TO EACH OTHER, THE SPACING BETWEEN OUTLETS SHALL BE CONSISTENT IF NO ELEVATION IS SHOWN ON THE DRAWINGS.

Q. WHEN THE INSTALLER IS UNCERTAIN ABOUT ADJACENCIES OF DEVICES, THE QUESTION SHALL BE PRESENTED VIA RFI.

KEYED SHEET NOTES

1. NOTE

NEW UTILITY & ENGINEERING BUILDING

XXXX IDEAL AVENUE
COTTAGE GROVE, MN 55016

CITY OF COTTAGE GROVE
12800 RAVINE PKWY
COTTAGE GROVE, MN 55016



WOLD ARCHITECTS AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101

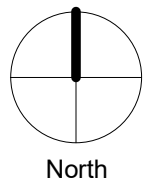
woldae.com | 651 227 7773

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

License: BRADLEY R. JOHANSEN
Number: 43936 Date: Issue Date

Description	Revisions	
	Date	Num

Comm: 232010
Date: Issue Date
Drawn: D PETERSON
Check: S MCNAMARA



UPPER LEVEL SYSTEMS PLAN - AREA 'B'

Scale: 1/8" = 1'-0"

FINAL CD SET DRAFT
NOT FOR CONSTRUCTION

E3.21b

XXXX IDEAL AVENUE
COTTAGE GROVE, MN 55016

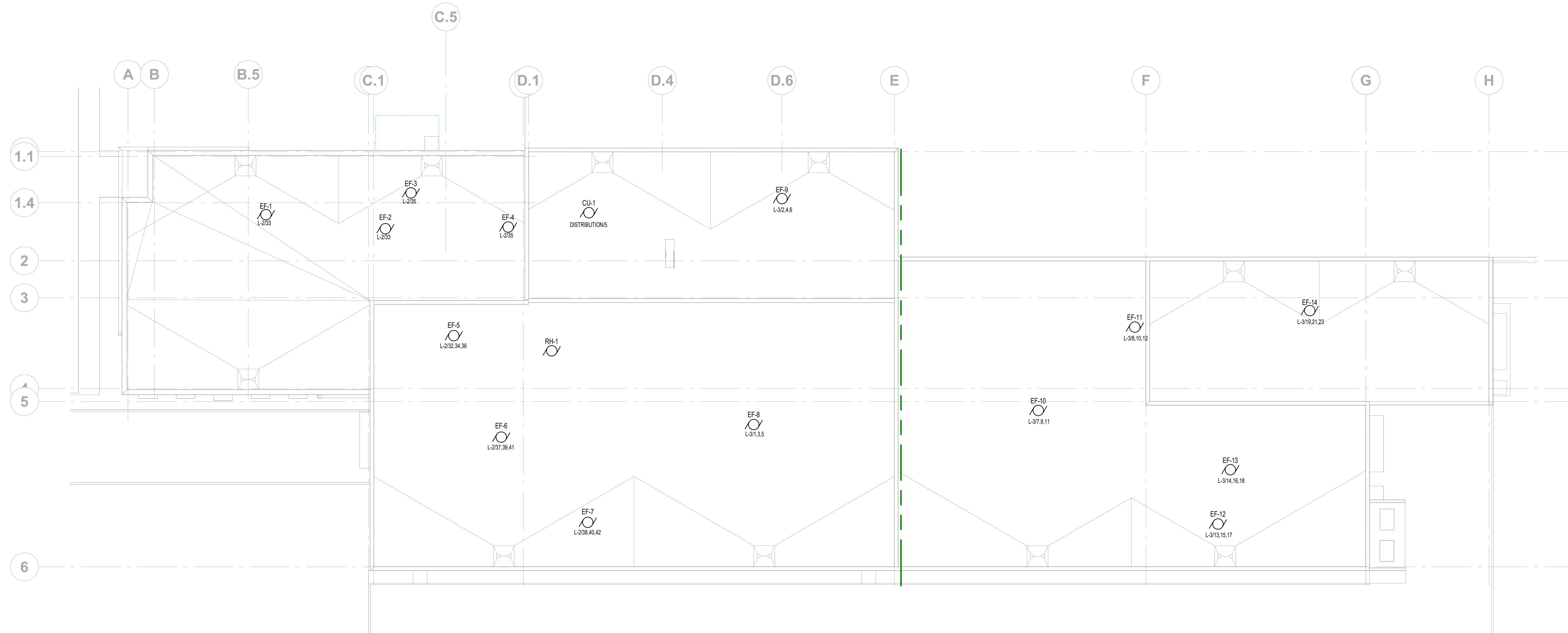


332 Minnesota Street, Suite W2000
Saint Paul, MN 55101

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- A. ALL BOXES, CONDUIT AND WIRING TO BE CONCEALED. NO EXPOSED BOXES, CONDUIT AND WIRING SHALL BE ALLOWED UNLESS NOTED OTHERWISE.
- B. NO MULTI-BRANCH CIRCUIT ALLOWED. PROVIDE A SEPARATE NEUTRAL WITH EACH CIRCUIT.
- C. PROVIDE SEPARATED CONDUITS FOR ALL EMERGENCY AND EGRESS CIRCUITS. DO NOT COMBINE WITH NORMAL BUILDING WIRING.
- D. ALL MOUNTING HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.
- E. SEE BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE ON SHEET E0.00.
- F. VERIFY LOCATIONS AND ROUGH-IN REQUIREMENTS OF ALLOWER FURNISHED EQUIPMENT PRIOR TO ROUGH-IN.

1. NOTES.

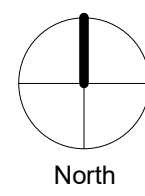


PROFESSIONAL ENGINEER
under the laws of the State of **MINNESOTA**

License	BRADLEY R. JOHANSEN		
Number:	43936	Date	Issue Date

[illegible]

Comm: **232010**
Date: **Issue Date**
Drawn: **D PETERS**
Check: **S MCNAMA**



ROOF PLAN - ELECTRICAL

Scale: **As indicated**

**FINAL CD SET DRAFT
NOT FOR CONSTRUCTION**

E4.10

MN

SWITCHBOARD: DISTRIBUTION									
LOCATION: ELECTRICAL ROOM A127				VOLTAGE: 208Y/120 V, 3 ø 4 W.					
MAIN DEVICE:				A.F.C. RATING: SEE SHORT CIRCUIT STUDY					
MAINS RATING: 400 A				SPECIAL:					
BUS AMPS:									
FED FROM:									
CKT	NAME	SWITCH	P	FUSE SIZE	PHASE A KVA	PHASE B KVA	PHASE C KVA	NOTES	
1	L-1	200 A	3	20 A	6500 VA	7560 VA	8280 VA		
2	L-2	200 A	3	20 A	9334 VA	8285 VA	9425 VA		
3	L-3	200 A	3	20 A	4347 VA	4347 VA	4347 VA		
4	SITE	200 A	3	20 A	4000 VA	3800 VA	3900 VA		
5	CU-1	200 A	3	20 A	23886...	23886...	23886...		
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
LOAD CLASSIFICATION		CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS				
LTG		8162 VA	125.00%	10203 VA					
MTR		93223 VA	119.22%	111138 VA					
RCPT		32960 VA	65.17%	21480 VA					
Spare		11700 VA	100.00%	11700 VA					
XX_SPEC		0 VA	0.00%	0 VA					
					CONN. LOAD: 145690 VA				
					EST. DEMAND LOAD: 154081 VA				
					CONN. CURRENT: 404 A				
					EST. DEMAND...: 429 A				
Load Types: COOL - Summer Cooling, ELEV- Elevator, EQ - Equipment, EX -Existing, GND - Grounding, HEAT - Winter Heating, KTCH- Kitchen, L MTR - Largest Motor, LTG -Lighting, MTR - Motor, RCPT - Receptacle									
NOTES:									

PANELBOARD: L-1														
LOCATION: ELECTRICAL ROOM A127					VOLTAGE: 208Y/120 V, 3 ø 4 W.									
MOUNTING: SURFACE					A.F.C.... SEE SHORT CIRCUIT STUDY									
MAINS TYPE:					SPECIAL:									
MAINS AMPS:														
BUS AMPS:														
FED FROM: DISTRIBUTION														
#	BT	LOAD DESCRIPTION	LT	BKR	P	PHASE A KVA	PHASE B KVA	PHASE C KVA	P	BKR	LT	LOAD DESCRIPTION	BT	#
1		CONF RM A111	RCPT	20 A	1	1.1	0.7			1	20 A	RCPT	LOBBY A101,102	2
2		CONF RM A111	RCPT	20 A	1		1.3	0.9		1	20 A	RCPT	OPEN OFFICE A103	4
3		CONF RM A111	RCPT	20 A	1			1.4	0.5	1	20 A	RCPT	OPEN OFFICE A103	6
5		OPEN OFFICE A103	RCPT	20 A	1	0.5	0.7			1	20 A	RCPT	OPEN OFFICE A103	8
7		OPEN OFFICE A103	RCPT	20 A	1		0.5	1.3		1	20 A	RCPT	CONFERENCE A104	10
11		OPEN OFFICE A103	RCPT	20 A	1			0.5	0.7	1	20 A	RCPT	OFFICE A105	12
13		OFFICE A106	RCPT	20 A	1	0.7	0.2			1	20 A	RCPT	WORK RM COPIER	14
15		OFFICE A107	RCPT	20 A	1		0.7	0.2		1	20 A	RCPT	WORK RM PLOTTER	16
17		OFFICE A108	RCPT	20 A	1			0.7	1.1	1	20 A	RCPT	WORK RM A109	18
19		STAFF RM A110	RCPT	20 A	1	0.2	1.1			1	20 A	RCPT	STAFF RM A110 MICRO	20
21		STAFF RM A110	RCPT	20 A	1		0.2	0.2		1	20 A	RCPT	STAFF RM A110	22
23	GF	STAFF RM A110 DISH	RCPT	20 A	1			0.2	0.2	1	20 A	RCPT	STAFF RM A110 FRIDGE	GF 24
25	GF	STAFF RM A110 FRIDGE	RCPT	20 A	1	0.2	0.2			1	20 A	RCPT	STAFF RM A110	26
27		STAFF RM A110	RCPT	20 A	1		0.7	0.2		1	20 A	RCPT	STAFF RM A110	28
29		STAFF RM A110	RCPT	20 A	1			0.2	0.2	1	20 A	RCPT	STAFF RM A110	30
31		STAFF RM A110	RCPT	20 A	1	0.2	0.7			1	20 A	RCPT	PERSONAL STOR A116	32
33		STAFF RM A110	RCPT	20 A	1		0.9	0.5		1	20 A	RCPT	SHOWER/CHANGING	34
35		TOILET/QUIET A114,115	RCPT	20 A	1			0.7	0.2	1	20 A	RCPT	TOILET RMS A120, 121	36
37	GF	STAFF RM A110 RANGE	XX_S...	20 A	2	0.0	0.0			2	20 A	XX_S...	WASH ROOM DRYER	GF 38
39	--	--	--	--	--	0.0	0.0			--	--	--	--	-- 40
41		WASH RM A136	RCPT	20 A	1			0.2	1.4	1	20 A	RCPT	A124, 125, 126, 127	42
TOTAL LOAD:						7 kVA	8 kVA	8 kVA						
TOTAL AMPS:						54 A	64 A	70 A						
LOAD CLASSIFICATION			CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS								
RCPT			22340 VA	72.38%	16170 VA									
XX_SPEC			0 VA	0.00%	0 VA	CONNECTED LOAD: 22340 VA								
						ESTIMATED DEMAND: 16170 VA								
						CONNECTED CURRENT: 62 A								
						EST. DEMAND CURRENT: 45 A								
Load Types (LT): COOL - Summer Cooling, ELEV- Elevator, EQ - Equipment, EX -Existing, GND - Grounding, HEAT - Winter Heating, KTCH- Kitchen, L MTR - Largest Motor, LTG -Lighting, MTR - Motor, RCPT - Receptacle														
Breaker Types (BT): AF = Arc Fault, GF = Ground Fault Circuit Interrupt, GE = Ground Fault Equipment Protection (30mA), SH = Shunt Trip, EX = Existing, NX = New Breaker For Existing Panel, M = Metered														
NOTES:														

PANELBOARD: L-3														
LOCATION: ELECTRICAL ROOM A127						VOLTAGE: 208Y/120 V, 3 ø 4 W.								
MOUNTING: SURFACE						A.F.C.... SEE SHORT CIRCUIT STUDY								
MAINS TYPE:						SPECIAL:								
MAINS AMPS:														
BUS AMPS:														
FED FROM: DISTRIBUTION														
#	BT	LOAD DESCRIPTION	LT	BKR	P	PHASE A KVA	PHASE B KVA	PHASE C KVA	P	BKR	LT	LOAD DESCRIPTION	BT	#
1		MTR		20 A	3	0.6	0.8			3	20 A	MTR	MTR	2
3	--	--	--	--	--		0.6	0.8		--	--	--	--	4
5	--	--	--	--	--			0.6	0.8	--	--	--	--	6
7	MTR		MTR	20 A	3	0.6	0.6			3	20 A	MTR	MTR	8
9	--	--	--	--	--		0.6	0.6		--	--	--	--	10
11	--	--	--	--	--			0.6	0.6	--	--	--	--	12
13	MTR		MTR	20 A	3	0.8	0.6			3	20 A	MTR	MTR	14
15	--	--	--	--	--		0.8	0.6		--	--	--	--	16
17	--	--	--	--	--			0.8	0.6	--	--	--	--	18
19	MTR		MTR	20 A	3	0.6	0.0			1	20 A	MTR	MTR	20
21	--	--	--	--	--		0.6	0.0		1	20 A	MTR	MTR	22
23	--	--	--	--	--			0.6	0.0	1	20 A	MTR	MTR	24
25														26
27														28
29														30
31														32
33														34
35														36
37														38
39														40
41														42
TOTAL LOAD:						4 kVA	4 kVA	4 kVA						
TOTAL AMPS:						36 A	36 A	36 A						
LOAD CLASSIFICATION		CONNECTED	DEMAND		ESTIMATED		PANEL TOTALS							
MTR		13042 VA	104.56%		13636 VA									
							CONNECTED LOAD: 13042 VA							
							ESTIMATED CURRENT: 13636 VA							
							CONNECTED CURRENT: 36 A							
							EST. DEMAND CURRENT: 38 A							
Load Types (LT): COOL - Summer Cooling, ELEV- Elevator, EQ - Equipment, EX- Existing, GND - Grounding, HEAT - Winter Heating, KTCH- Kitchen, L MTR - Largest Motor, LTG -Lighting, MTR - Motor, RCPT - Receptacle														
Breaker Types (BT): AF = Arc Fault, GF = Ground Fault Circuit Interrupt, GE = Ground Fault Equipment Protection (30mA), SH = Shunt Trip, EX = Existing, NX = New Breaker For Existing Panel, M = Metered														
NOTES:														

XXXX IDEAL AVENUE
COTTAGE GROVE, MN 55016

MN

E

MOTOR SCHEDULE																									
LOAD INFORMATION						CONDUIT			WIRE QUANTITY AND SIZE				WIRE TYPE		STARTER		DISCONNECT				CTRL'S		NOTES		MTR
MTR	DESCRIPTION	LOC	LOAD	UNIT	PANEL	SET(S)	SIZE	TYPE	P-N	PHASE	NEUT	CMD	TYPE	INSUL	SUPPLIED	INSTALLED	SIZE	LOC	SUPPLIED	INSTALLED	TYPE	TYPE	LOC	BY	
AHU-1A	AIR HANDLING UNIT: SUPPLY FAN		20	HP	208/3	1	1"	EMT	3	4 AWG		8 AWG	CU	THHN	ELEC	ELEC	SIZE 3	MTR	ELEC	ELEC	FS	100A	MTR	MECH	AHU-1A
AHU-1B	AIR HANDLING UNIT: RETURN FAN		7.5	HP	208/3	1	3/4"	EMT	3	10 AWG		10 AWG	CU	THHN	ELEC	ELEC	SIZE 1	MTR	ELEC	ELEC	FS	60A	MTR	MECH	AHU-1B
CRU-1	COMPUTER ROOM UNIT			HP	208/3	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	CU	THHN	ELEC	ELEC	#N/A	MTR	ELEC	ELEC	FS	#N/A	MTR	MECH	CRU-1
CU-1	CONDENSING UNIT		198.9	MCA	208/3	1	2"	EMT	3	3/0 AWG		6 AWG	CU	THHN	MFR	MFR		MTR	ELEC	ELEC	FS	200A	MTR	MECH	CU-1
DF-1	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-1
DF-2	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-2
DF-3	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-3
DF-4	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-4
DF-5	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-5
DF-6	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-6
DF-7	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-7
DF-8	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-8
DF-9	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-9
DF-10	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-10
DF-11	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-11
DF-12	DESTRATIFICATION FAN		.055	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	DF-12
EF-1	EXHAUST FAN		1/6	HP	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN	ELEC	ELEC		MTR	ELEC	ELEC	MMS	15A	MTR	MECH	EF-1
EF-2	EXHAUST FAN		1/6	HP	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN	ELEC	ELEC		MTR	ELEC	ELEC	MMS	15A	MTR	MECH	EF-2
EF-3	EXHAUST FAN		1/6	HP	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN	ELEC	ELEC		MTR	ELEC	ELEC	MMS	15A	MTR	MECH	EF-3
EF-4	EXHAUST FAN		1/6	HP	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN	ELEC	ELEC		MTR	ELEC	ELEC	MMS	15A	MTR	MECH	EF-4
EF-5	EXHAUST FAN		1.5	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-5
EF-6	EXHAUST FAN		1	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-6
EF-7	EXHAUST FAN		1.5	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-7
EF-8	EXHAUST FAN		1	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-8
EF-9	EXHAUST FAN		1.5	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-9
EF-10	EXHAUST FAN		1	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-10
EF-11	EXHAUST FAN		1	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-11
EF-12	EXHAUST FAN		1.5	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-12
EF-13	EXHAUST FAN		1	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-13
EF-14	EXHAUST FAN		1	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	EF-14
MAU-1	MAKE-UP AIR UNIT		20	HP	208/3	1	1"	EMT	3	4 AWG		8 AWG	CU	THHN	ELEC	ELEC	SIZE 3	MTR	ELEC	ELEC	FS	100A	MTR	MECH	MAU-1
B-1	BOILER		1	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	B-1
B-2	BOILER		1	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	B-2
GMU-1	GLYCOL MAKE-UP UNIT		1	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	GMU-1
IR-1	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-1
IR-2	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-2
IR-3	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-3
IR-4	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-4
IR-5	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-5
IR-6	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-6
IR-7	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-7
IR-8	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-8
IR-9	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-9
IR-10	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-10
IR-11	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-11
IR-12	INFRARED RADIANT HEATER		.3	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	IR-12
VP-1	INFRARED RADIANT HEATER		3/4	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	VP-1
VP-2	INFRARED RADIANT HEATER		3/4	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	VP-2
UH-1	UNIT HEATER		1/4	HP	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN	ELEC	ELEC		MTR	ELEC	ELEC	MMS	15A	MTR	MECH	UH-1
UH-2	UNIT HEATER		1/4	HP	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN	ELEC	ELEC		MTR	ELEC	ELEC	MMS	15A	MTR	MECH	UH-2
UH-3	UNIT HEATER		1/4	HP	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN	ELEC	ELEC		MTR	ELEC	ELEC	MMS	15A	MTR	MECH	UH-3
CUH-1	CABINET UNIT HEATER		1/4	HP	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN	ELEC	ELEC		MTR	ELEC	ELEC	MMS	15A	MTR	MECH	CUH-1
P-1	PUMP		5	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 1	MTR	ELEC	ELEC	FS	30A	MTR	MECH	P-1
P-2	PUMP		5	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 1	MTR	ELEC	ELEC	FS	30A	MTR	MECH	P-2
P-3	PUMP		1/3	HP	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN	ELEC	ELEC		MTR	ELEC	ELEC	MMS	15A	MTR	MECH	P-3
P-4	PUMP		1/2	HP	208/3	1	3/4"	EMT	3	12 AWG		12 AWG	CU	THHN	ELEC	ELEC	SIZE 00	MTR	ELEC	ELEC	FS	30A	MTR	MECH	P-4
WH-1	WATER HEATER		1	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	WH-1
WH-2	WATER HEATER		1	KVA	120/1	1	3/4"	EMT	2	12 AWG	12 AWG	12 AWG	CU	THHN					ELEC	ELEC	MMS	15A	MTR	MECH	WH-2
AC-1	AIR COMPRESSOR		7.5	HP	208/3	1	3/4"	EMT	3	10 AWG		10 AWG	CU	THHN	ELEC	ELEC	SIZE 1	MTR	ELEC	ELEC	FS	60A	MTR	MECH	AC-1
GENERAL NOTES: A. ALL FUSE SIZES/BREAKER TRIPS ARE ESTIMATED. CONTRACTOR TO FIELD VERIFY INSTALLED MOTOR REQUIREMENTS.																									

GENERAL SCHEDULE NOTES

A. OBTAIN SHOP DRAWINGS OF EQUIPMENT AND COMPARE CONNECTION, LOAD, AND VOLTAGE INFORMATION TO CONTRACT DOCUMENTS BEFORE INSTALLING FEEDER CONDUITS. NOTIFY ARCHITECT OF ANY DISCREPANCIES. BEFORE MAKING EQUIPMENT POWER CONNECTIONS, COMPARE EQUIPMENT NAMEPLATE DATA TO SHOP DRAWINGS AND CONTRACT DOCUMENTS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.

B. PROVIDE RK1 FUSING FOR FUSIBLE DISCONNECTS SIZED AT 130% OF MOTOR FLC.

C. SIZE OVERLOAD PROTECTION BASED ON ACTUAL NAMEPLATE DATA OF EQUIPMENT.

D. MANUAL MOTOR STARTERS (MMS) TO BE SQUARE D FRACTIONAL HP MANUAL STARTERS WITH MELTING ALLOY TYPE THERMAL OVERLOAD OR APPROVED EQUAL. PROVIDE TOGGLE SWITCH WITH HANDLE GUARD AND RED PILOT LIGHT.

E. WHEN STARTERS ARE PROVIDED BY ELEC PROVIDE A NON-REVERSING FVNR COMBINATION STARTER WITH FUSIBLE DISCONNECT UNLESS NOTED OTHERWISE. PROVIDE 120V CONTROL CIRCUIT WITH TRANSFORMER, (2) AUXILIARY CONTACTS, HOA SELECTOR SWITCH AND RED RUNNING PILOT LIGHT.

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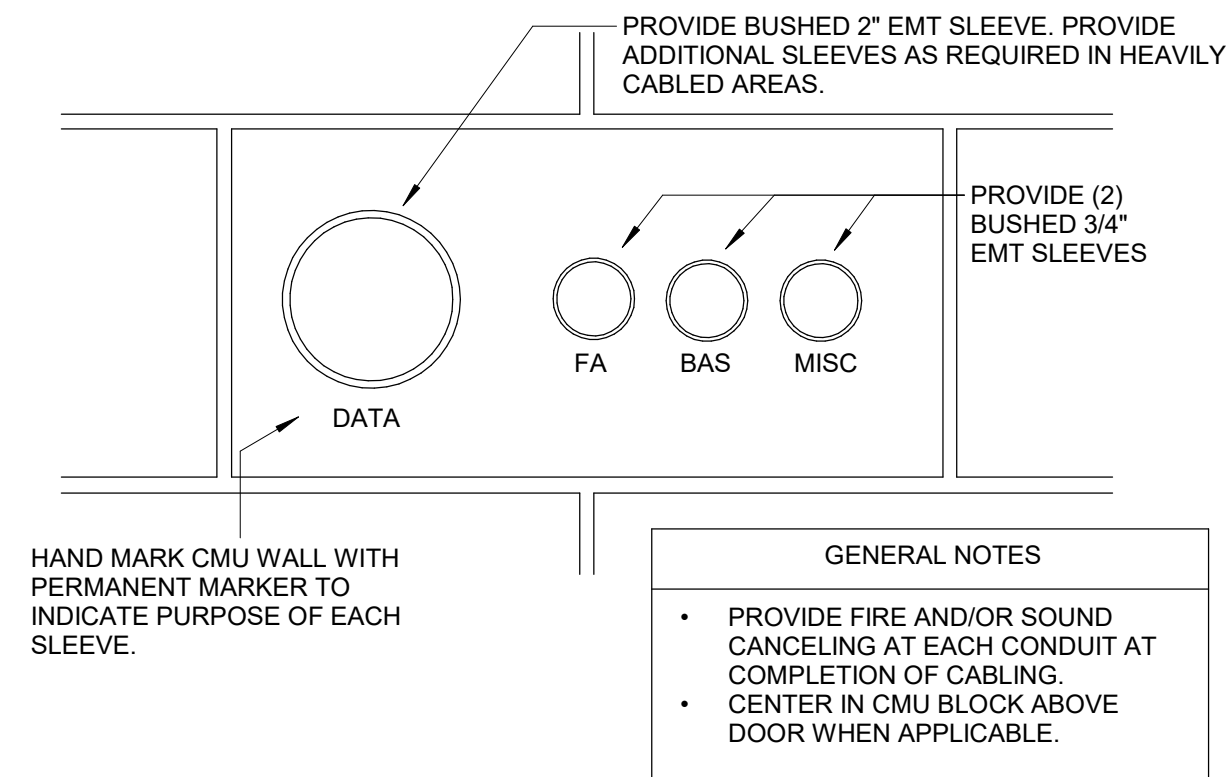
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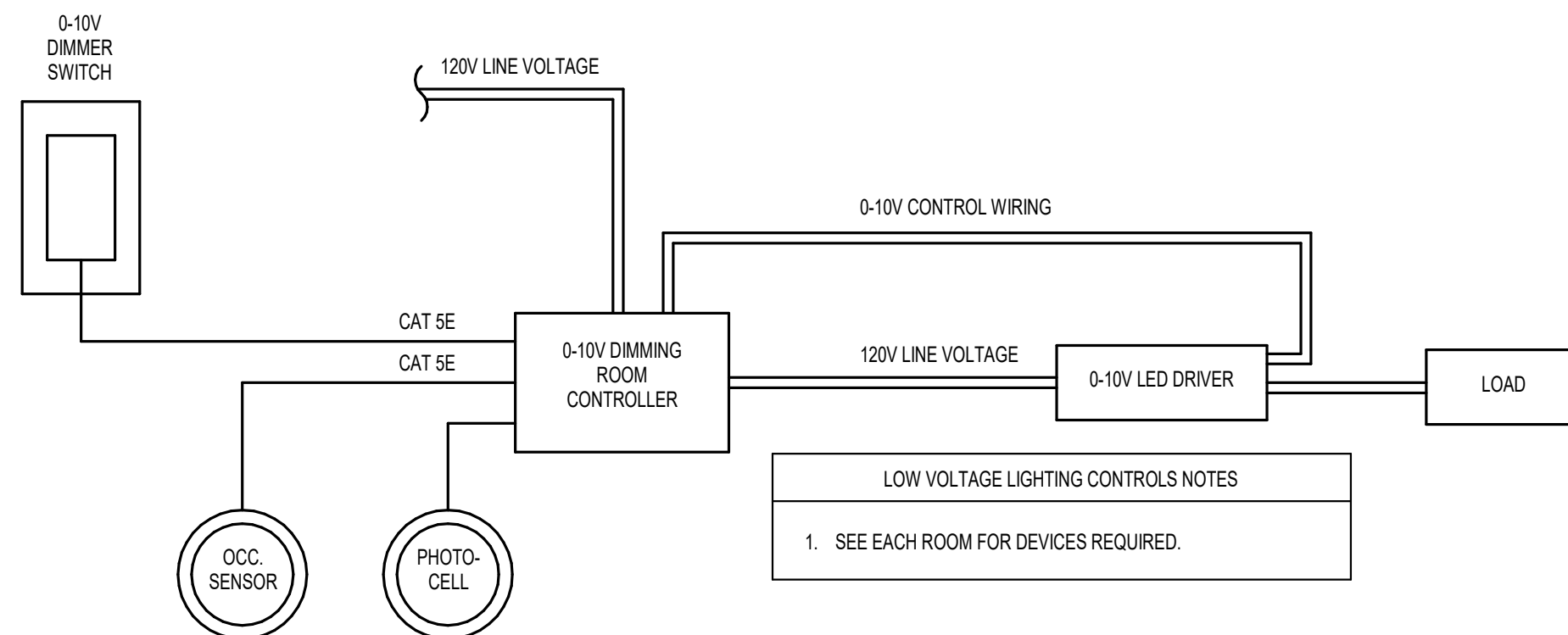
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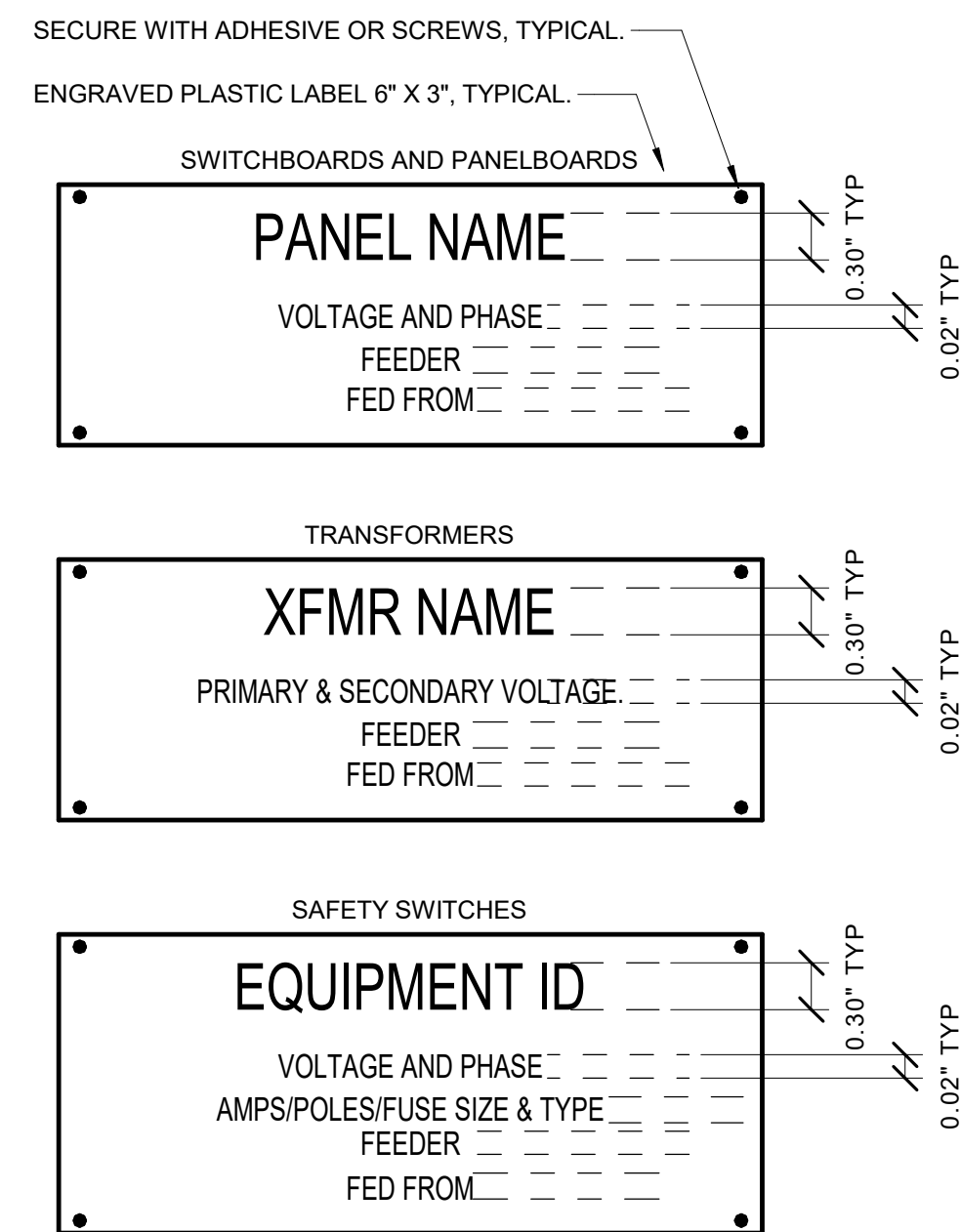
B3 CABLING SLEEVES DETAIL
N.T.S.

CABLING SLEEVE SCHEDULE						
TYPICAL LOCATIONS	TYPE 	DATAP/A	FA	BAS	MISC	
CLASSROOMS	SL-1	(1) 2"	(1) 3/4"	(1) 3/4"	(1) 3/4"	
WINGS, PC LAB, GYM	SL-2	(2) 4"	(1) 3/4"	(1) 3/4"	(1) 3/4"	
CONFERENCE	SL-3	(1) 2"	(1) 3/4"	(1) 3/4"	(1) 3/4"	
IT ROOMS	SL-4	(4) 4"	N/A	(1) 3/4"	(1) 3/4"	
BATHROOMS	SL-5	N/A	(1) 3/4"	(1) 3/4"	N/A	
OFFICE	SL-6	(1) 2"	N/A	(1) 3/4"	(1) 3/4"	
STORAGE, VESTIBULE	SL-7	(1) 3/4"	N/A	(1) 3/4"	N/A	
GYM/CLASS BELOW I.T.	SL-8	(4) 4"	(1) 3/4"	(1) 3/4"	(1) 3/4"	
LL MECHANICAL	SL-9	(1) 3/4"	(1) 3/4"	(1) 3/4"	(1) 3/4"	
DOCK	SL-10	(1) 3/4"	(1) 2 1/2"	(1) 2"	(1) 3/4"	

C3 CABLING SLEEVES DETAIL AND SCHEDULE
N.T.S



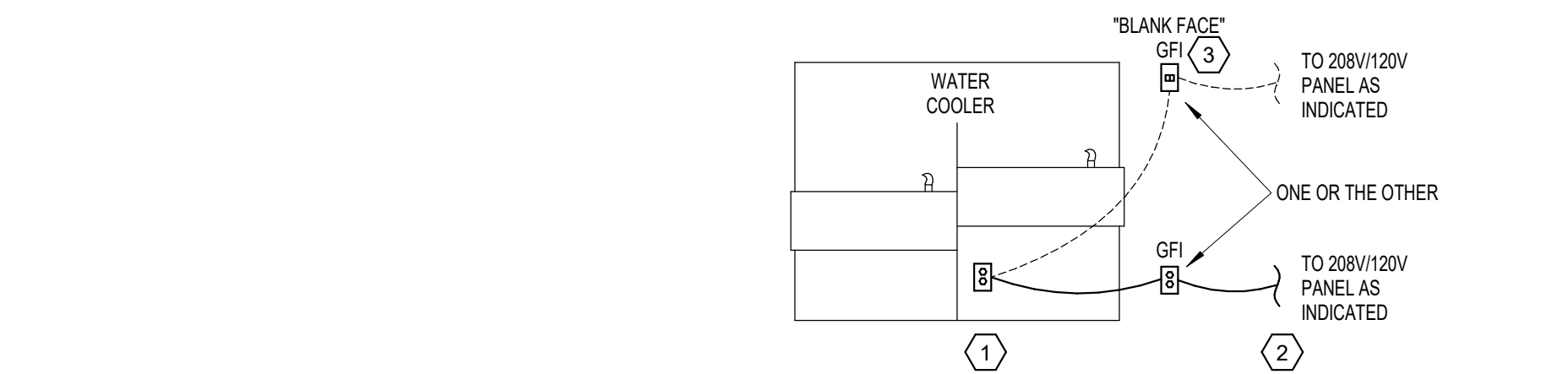
D3 GENERAL LOW VOLTAGE LIGHTING CONTROLS
N.T.S.



NOTE

- A. PROVIDE LABELS FOR ALL ELECTRICAL EQUIPMENTS BEING INSTALLED, INCLUDING SWITCHBOARDS, PANELBOARDS, SAFETY SWITCHES, TRANSFORMERS, ETC.
- B. FEEDER TO BE IN THE FOLLOWING FORM: (1) 1/2", 2#12+1#12G.
- C. PROVIDE WHITE LETTERS ON BLACK BACKGROUND FOR EQUIPMENT ON NORMAL POWER.
- D. PROVIDE WHITE LETTERS ON RED BACKGROUND FOR EQUIPMENT ON EMERGENCY POWER.
- E. VERIFY ACCURACY OF ALL INFORMATION WITH ENGINEER PRIOR TO FABRICATION.

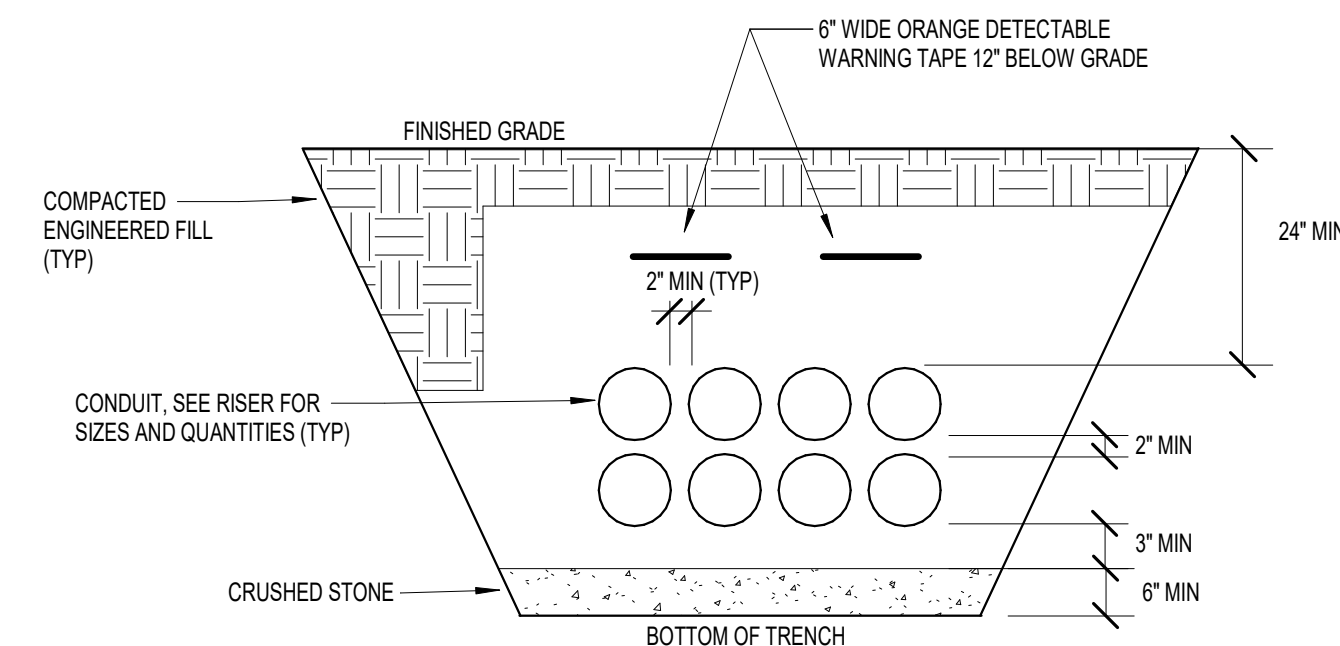
C5 EQUIPMENT LABELS
N.T.S.



KEY NOTES:

- 1 PROVIDE A RECEPTACLE BEHIND EACH WATER COOLER. COORDINATE DEVICE LOCATION AND MOUNT HEIGHT TO BE CONCEALED BEHIND COOLER. REFER TO FLOOR PLANS FOR NUMBER OF DEVICES. CONNECT TO EITHER GFI RECEPTACLE OR GFI "BLANK" FAN AS INDICATED ON PLANS.
- 2 PROVIDE GFI RECEPTACLE ON WALL. WIRE TO RECEPTACLES. EXTENDING GFI PROTECTION TO DEVICES DOWNSTREAM AND THE RESET FUNCTION AFFECTS DOWNSTREAM DEVICES. LABEL RECEPTACLE AS WATER COOLER. MOUNT 18" AFF UNLESS INDICATED OTHERWISE.
- 3 PROVIDE REMOTE "BLANK" FACE GFCI DEVICE LEVITON 7599 OR EQUAL. EXTENDING GFI PROTECTION TO DEVICES DOWNSTREAM AND THE RESET FUNCTION AFFECTS DOWNSTREAM DEVICES. LABEL AS WATER COOLER. MOUNT 48" AFF UNLESS INDICATED OTHERWISE.

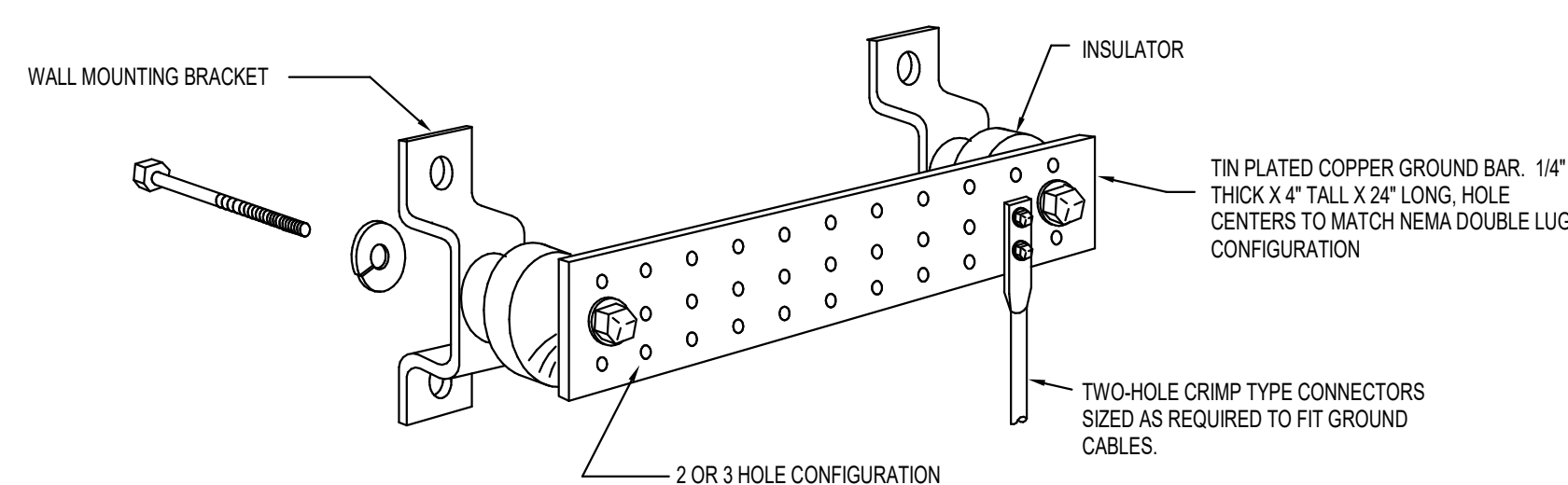
B7 ELECTRIC WATER COOLER DETAIL
N.T.S.



NOTES:

1. PROVIDE PULL LINE IN EACH SPARE CONDUIT.
2. PROVIDE WUNPEECE DUCT SPACERS WITH 2" SPACING BETWEEN CONDUITS. PROVIDE 6 O.C. TO MAINTAIN CONDUIT SPACING, BEGINNING 1'-0" FROM END OF DUCT.
3. MAINTAIN MINIMUM OF 12" CLEARANCE FROM OTHER UTILITIES (WATER, FIRE, COMMUNICATION, ETC) THAT ARE LOCATED IN THE SAME TRENCH.
4. SEE RISER DIAGRAMS FOR QUANTITIES AND SIZES OF EACH CONDUIT.

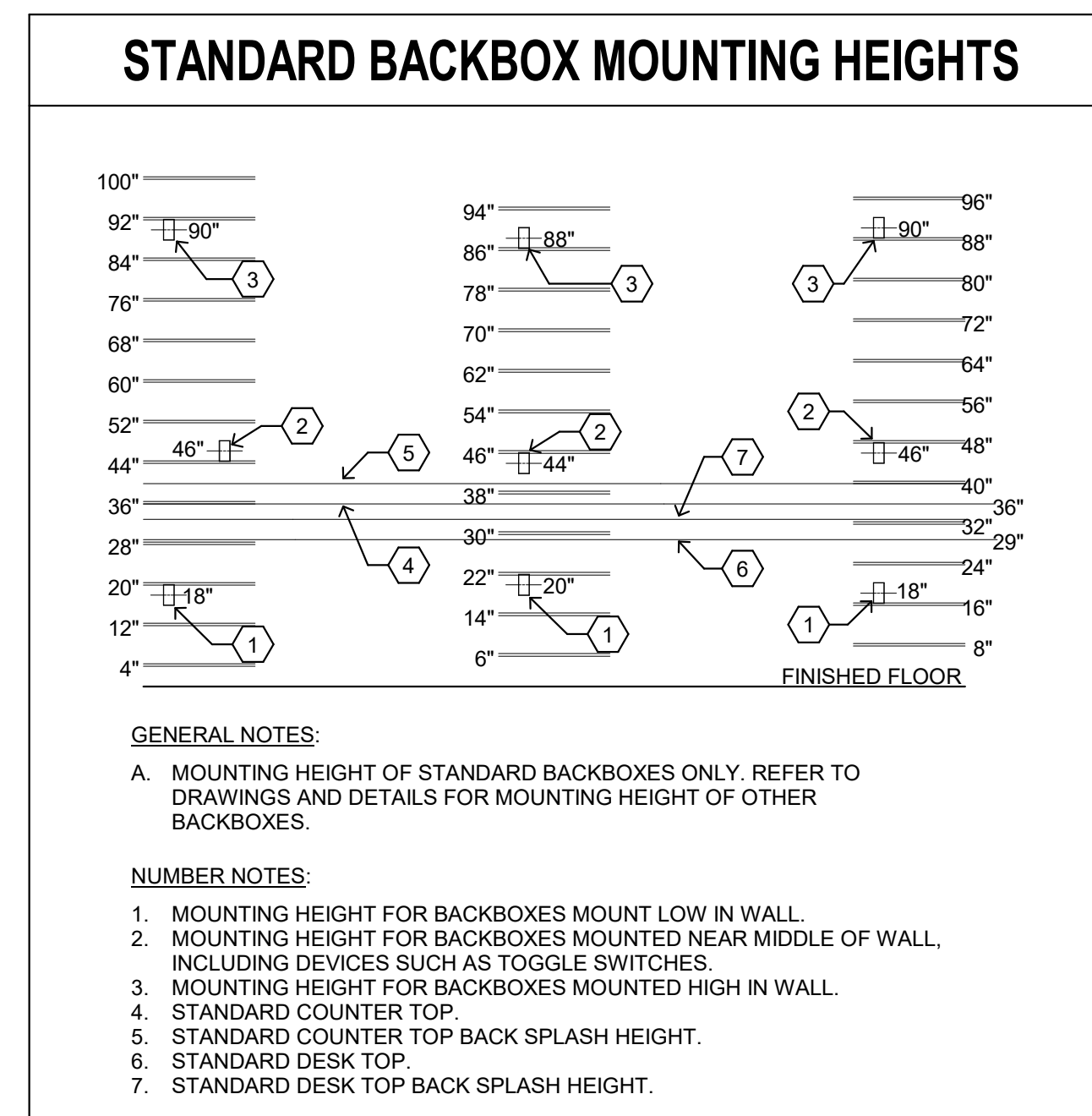
D6 UNDERGROUND CONDUIT DETAIL - ELECTRICAL SERVICE AND GENERATOR
N.T.S.



NOTES:

1. PROVIDE EXOTHERMIC WELD CONNECTIONS AND BOLTED LUG CONNECTIONS AS PER SPECIFICATIONS.
2. REFER TO TELECOMMUNICATION GROUND BUS DETAIL FOR REQUIREMENTS IN TELECOMMUNICATION ROOMS.

F3 GROUND BUS
N.T.S.



GENERAL NOTES:

A. MOUNTING HEIGHT OF STANDARD BACKBOXES ONLY. REFER TO DRAWINGS AND DETAILS FOR MOUNTING HEIGHT OF OTHER BACKBOXES.

NUMBER NOTES:

1. MOUNTING HEIGHT FOR BACKBOXES MOUNT LOW IN WALL.
2. MOUNTING HEIGHT FOR BACKBOXES MOUNTED NEAR MIDDLE OF WALL, INCLUDING DEVICES SUCH AS TOGGLE SWITCHES.
3. MOUNTING HEIGHT FOR BACKBOXES MOUNTED HIGH IN WALL.
4. STANDARD COUNTER TOP.
5. STANDARD COUNTER TOP BACK SPLASH HEIGHT.
6. STANDARD DESK TOP.
7. STANDARD DESK TOP BACK SPLASH HEIGHT.

F6	STANDARD BACKBOX MOUNTING HEIGHT
	N.T.S.

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Number: **43936** Date: **Issue Date**

[illegible]

Comm: 232010
Date: Issue Date
Drawn: D PETERSON
Check: S MCNAMARA

ELECTRICAL DETAILS

Scale: **As indicated**

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Diagram illustrating the installation of a cable tray system, showing the connection between a wall mounting bracket, an insulator, and a cable tray (SBB) mounted to a building structure.

Labels and Callouts:

- WALL MOUNTING BRACKET
- INSULATOR
- #6 AWG STRANDED GREEN WIRE TO EACH EQUIPMENT RACK ENCLOSURE (TYPE) (PROVIDED BY DIV. 27)
- SBB MOUNTED AT +96" AFF WITH MIN DIMENSIONS OF 0.25" THICK X 4" WIDE AND VARIABLE LENGTH WITH ROOM FOR 150% GROWTH (PROVIDED BY DIV. 26)
- TWO HOLE COMPRESSION LUGS (PROVIDED BY DIV. 26 AND 27)
- BOND CABLE RUNWAY TO BUSBAR (DIV. 27)
- CABLE RUNWAY

Notes:

- (3) NACEG-MIN. #6 AWG WIRE
- (1) PHASED GREEN TO NEAREST ELECTRICAL PANEL
- (1) TO BUILDING VERTICAL STEEL
- (1) TO TELECOMMUNICATIONS BONDING BACKBONE
- SIZE CONDUCTOR APPROPRIATE TO ANSI/TIA-607 GUIDELINES (PROVIDED BY DIV. 26.)

NOTES:
1. SECONDARY BONDING BUSBAR (SBB) FOR THE TELECOMMUNICATIONS GROUNDING AND BONDING SYSTEM
2. SBB SHALL MEET ANSI/TIA-607 (CURRENT EDITION) REQUIREMENTS FOR NETWORK SYSTEMS BONDING APPLICATIONS
3. IDENTIFY BUSBAR TO MEET ANSI/TIA-606 LABELING STANDARDS.

NUMBERED NOTES: DATA RACK CABINET DETAIL

PROVIDE 19" X 48" X 24" RACK MOUNTS, 45 RACK MOUNTING UNITS (RMU)
TELECOMMUNICATION RACK. PROVIDE RACK QUANTITIES AS REQUIRED TO
ACCOMMODATE ALL EQUIPMENT. PROVIDE RACKS WITH COMPLETE
VERY EASY CONFIGURATION WITH OWNER PRIOR TO ANY WORK.
PROVIDE 48-PORT MODULAR PATCH PANELS IN QUANTITIES AS REQUIRED TO
ACCOMMODATE ALL EQUIPMENT. PROVIDE RACKS WITH 10% EXTRA 10%
ADDITIONAL SPACE CAPACITY.

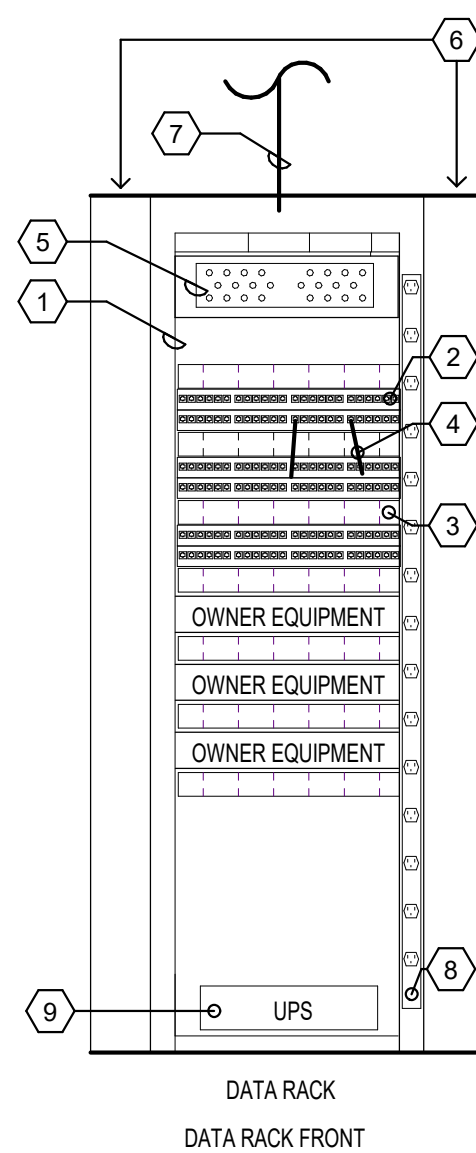
PROVIDE CABLE CABLE MANAGEMENT PANELS. ALL CABLES IN
RACKS TO BE ORDERED. PROVIDE CABLES INDICATED IN SCHEDULE
FOR HORIZONTAL CABLE PATCH CORD QUANTITIES AS PER SPECIFICATIONS.
VERIFY EASY PATCH CORD LENGTH AND COLOR WITH THE OWNER PRIOR TO
INSTALLATION.

PROVIDE FIBER OPTIC DISTRIBUTION CENTER (FDC) WITH CONNECTORS AS
PER SPECIFICATIONS. PROVIDE FIBER PATCH CORD QUANTITIES AS
PER SPECIFICATIONS.

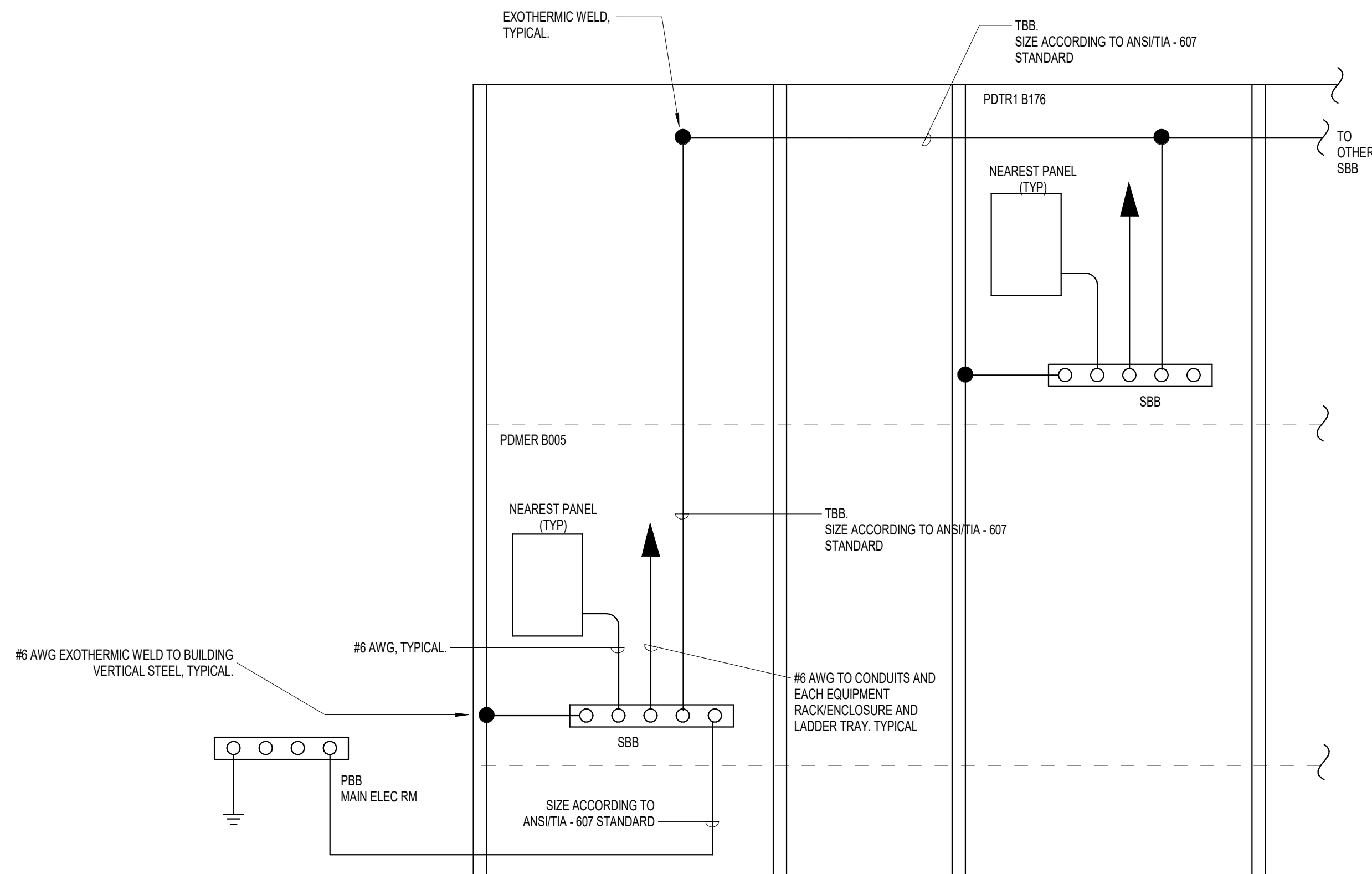
PROVIDE VERTICAL WIRE MANAGEMENT AS PER SPECIFICATIONS. ALL CABLE IN
RACKS TO BE ORDERED. PROVIDE CABLES INDICATED IN SCHEDULE
FOR VERTICAL WIRE MANAGEMENT AS PER SPECIFICATIONS.

PROVIDE IDENTIFICATION SYSTEM FOR DATA RACKS AS SPECIFIED. SEE
TELECOM CABINET DIAGRAMS AND REFER TO DIVISION 27 SPECIFICATIONS.
PROVIDE IDENTIFICATION SYSTEM FOR DATA RACKS AS SPECIFIED.
AS REQUIRED IN EACH RACK TO POWER EQUIPMENT.

PROVIDE ADEQUATE SPACE IN THE BOTTOM OF OWNER EQUIPMENT RACK FOR



D3 DATA RACK DETAIL



NOTES:

1. DIVISION 26 TO PROVIDE ALL WIRING AND EQUIPMENT SHOWN AS "NEW" ACCORDING TO THE LINE TYPE UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. ELECTRICAL MAIN GROUND BAR = MGB (MGB BY DIV. 26)
3. PRIMARY BONDING BUSBAR = PBB.
4. SECONDARY BONDING BUSBAR = SBB.
5. REFER TO BONDING BUSBAR DETAIL FOR PBB AND SBB REQUIREMENTS
6. TELECOM BONDING BACKBONE = TBB

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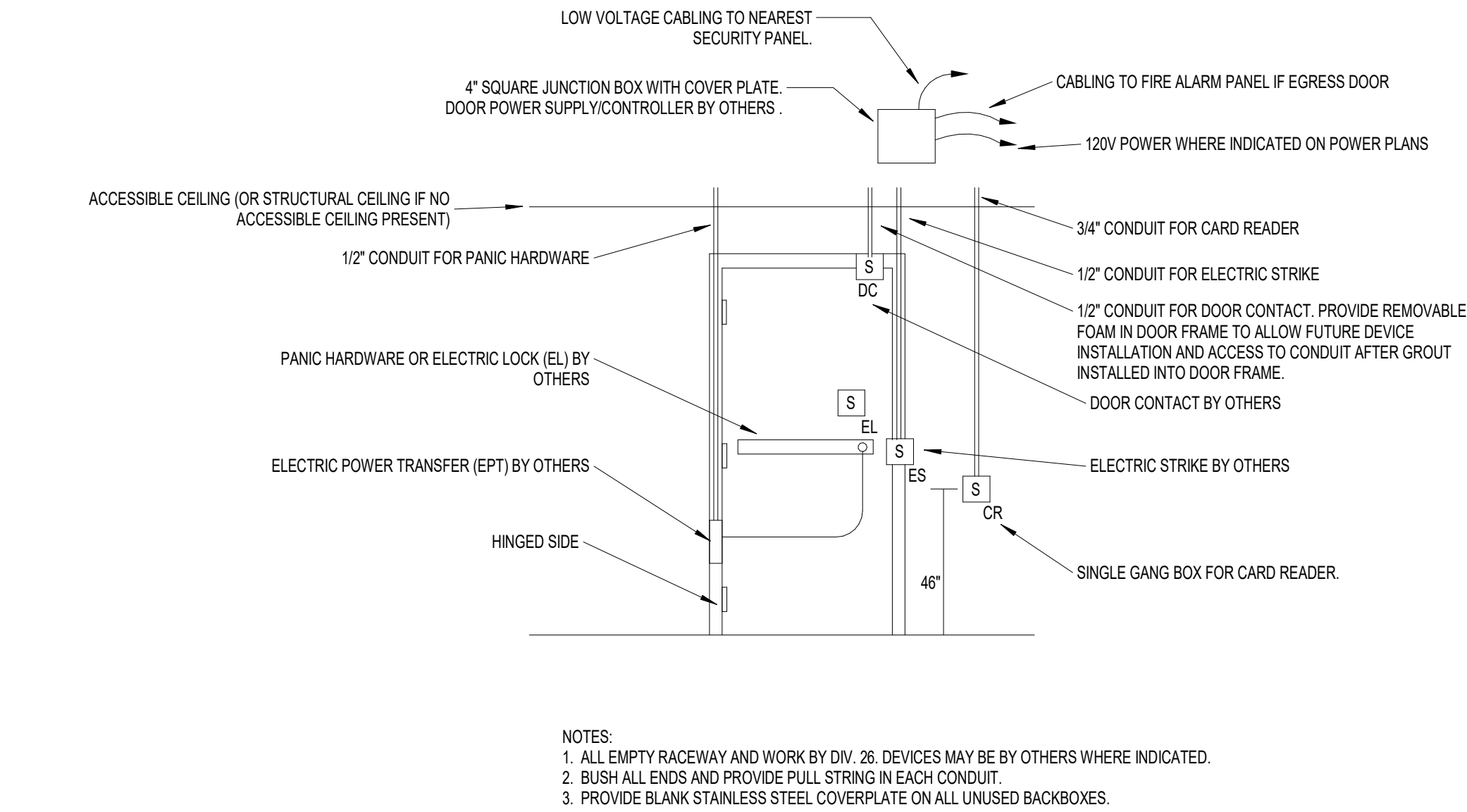
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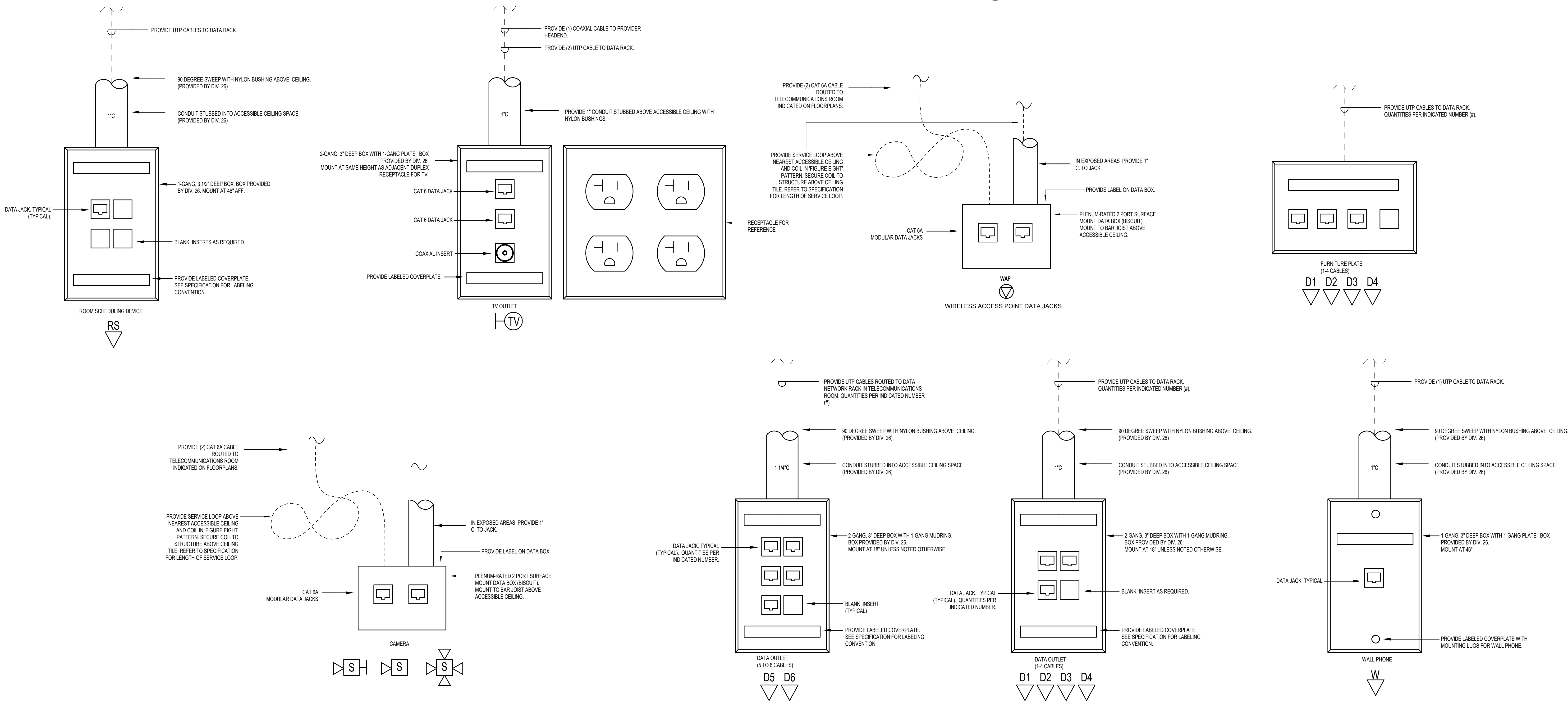
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B5 DOOR SECURITY ROUGH-INS
N.T.S.



GENERAL NOTES:

- A. DETAILS TO INDICATE CONDUIT, WIRING AND MOUNTING HEIGHTS. SEE FLOORPLANS FOR LOCATION OF EACH DEVICE.
- B. SEE DETAILS ON E7X SERIES FOR ADDITIONAL INFORMATION.
- C. DIVISION 26 TO PROVIDE EMPTY CONDUIT WITH PULLSTRINGS, BACKBOXES AND POWER. DIVISION 27 TO PROVIDE ALL OTHER EQUIPMENT (LABELLED WALLPLATE, JACKS, CABLEING, ETC) UNLESS INDICATED TO BE PROVIDED BY OTHERS.
- D. ALL CABLEING TO BE PLENUM RATED.
- E. TERMINATE ALL CABLEING ON JACK INSERTS UNLESS OTHERWISE NOTED.
- F. UTP CABLEING FROM EACH JACK INSERT SHALL HOMERUN BACK TO THE MERITT ROOM INDICATED ON PLANS WITHOUT SPLICES OR TAPS. CABLE LENGTHS SHALL NOT EXCEED 295'. RE-ROUTE AS REQUIRED IF 295' LIMITATION IS EXCEEDED.
- G. PROVIDE BLANK INSERTS FOR ALL UNUSED PORTS.
- H. 2-GANG BOX TO BE MINIMUM OF 4 1/16" X 4 1/16" DEPTH AS INDICATED.
- I. LABEL TO BE PER SPECIFICATION AND VERIFIED WITH OWNER.

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	Date	

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ELECTRICAL DETAILS - SYSTEMS

Scale: N.T.S.

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SCALE : N/A

CABLE #'S :

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INDEX SHEET

DWG NUMBER :

AV000

INDEX

PAGE	DESCRIPTION
	COVER SHEET
AV000	INDEX, AV SYMBOLS & NOTES
AV100	FLOOR PLANS
AV101	CONFERENCE ROOM A111
AV102	STAFF ROOM A110



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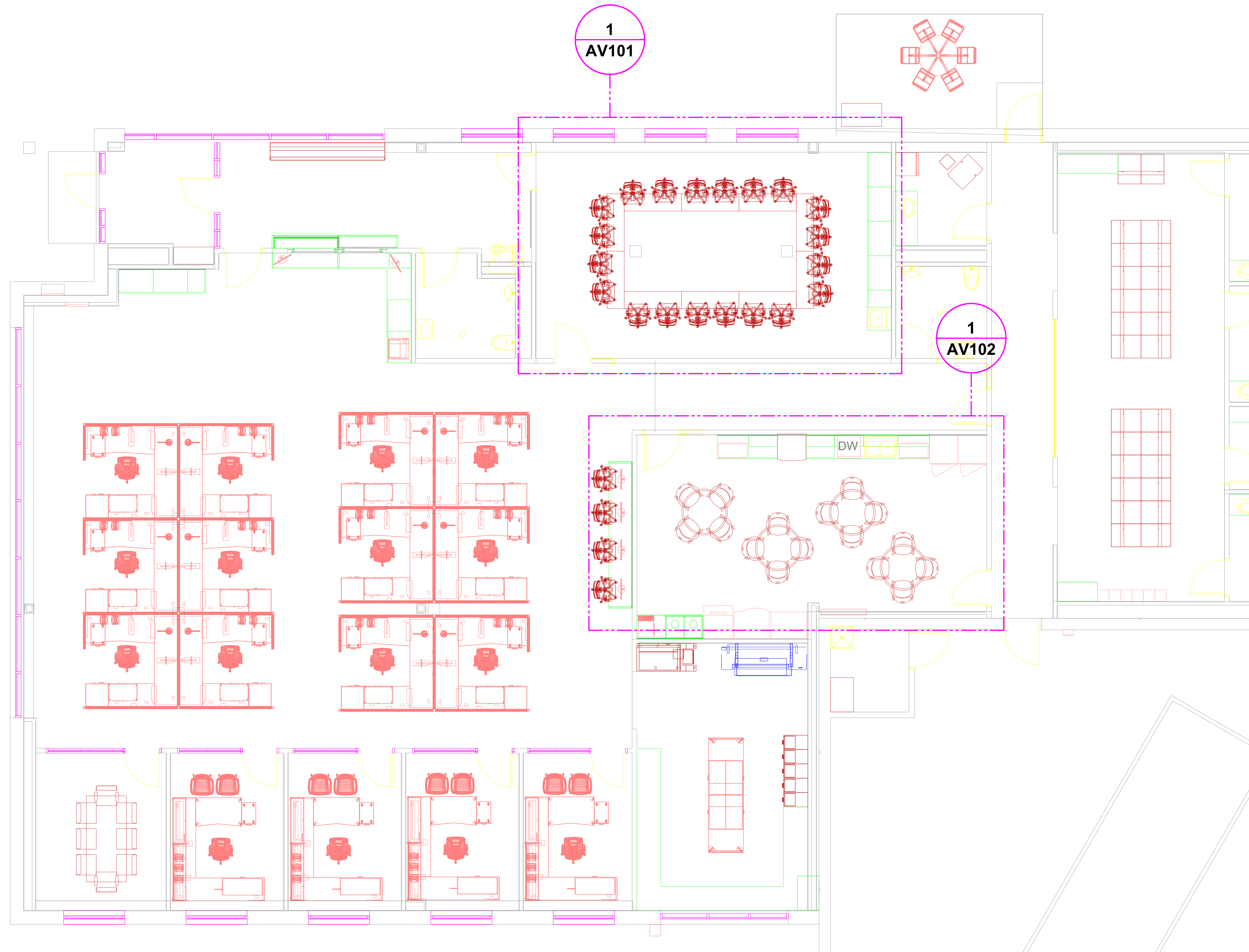
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CONFERENCE ROOM A111

DWG NUMBER :

AV100



**FLOOR PLAN
PLAN VIEW**

SCALE: 1/4"=1'

1



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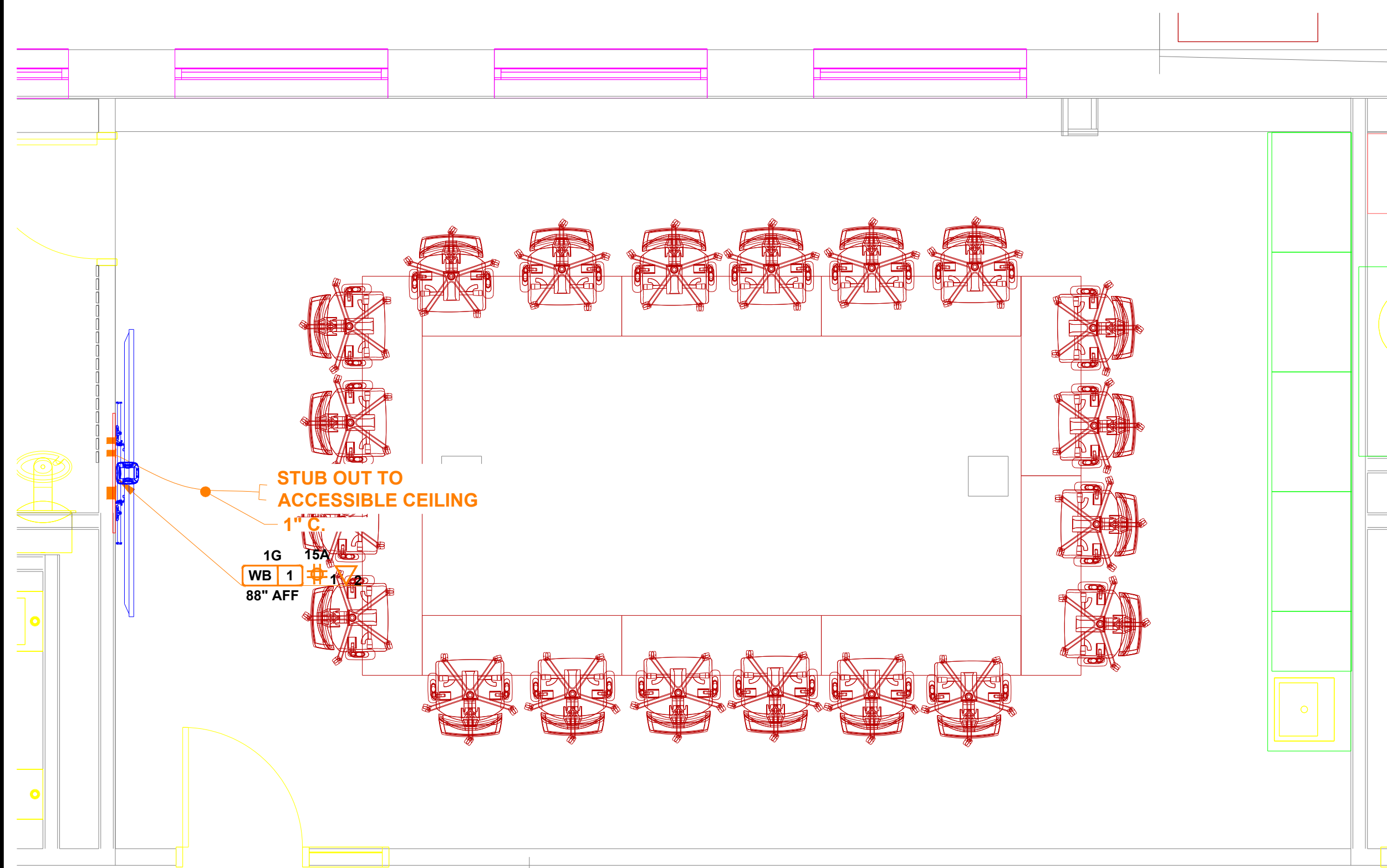
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SHEET TITLE :

CONFERENCE ROOM A111

DWG NUMBER :

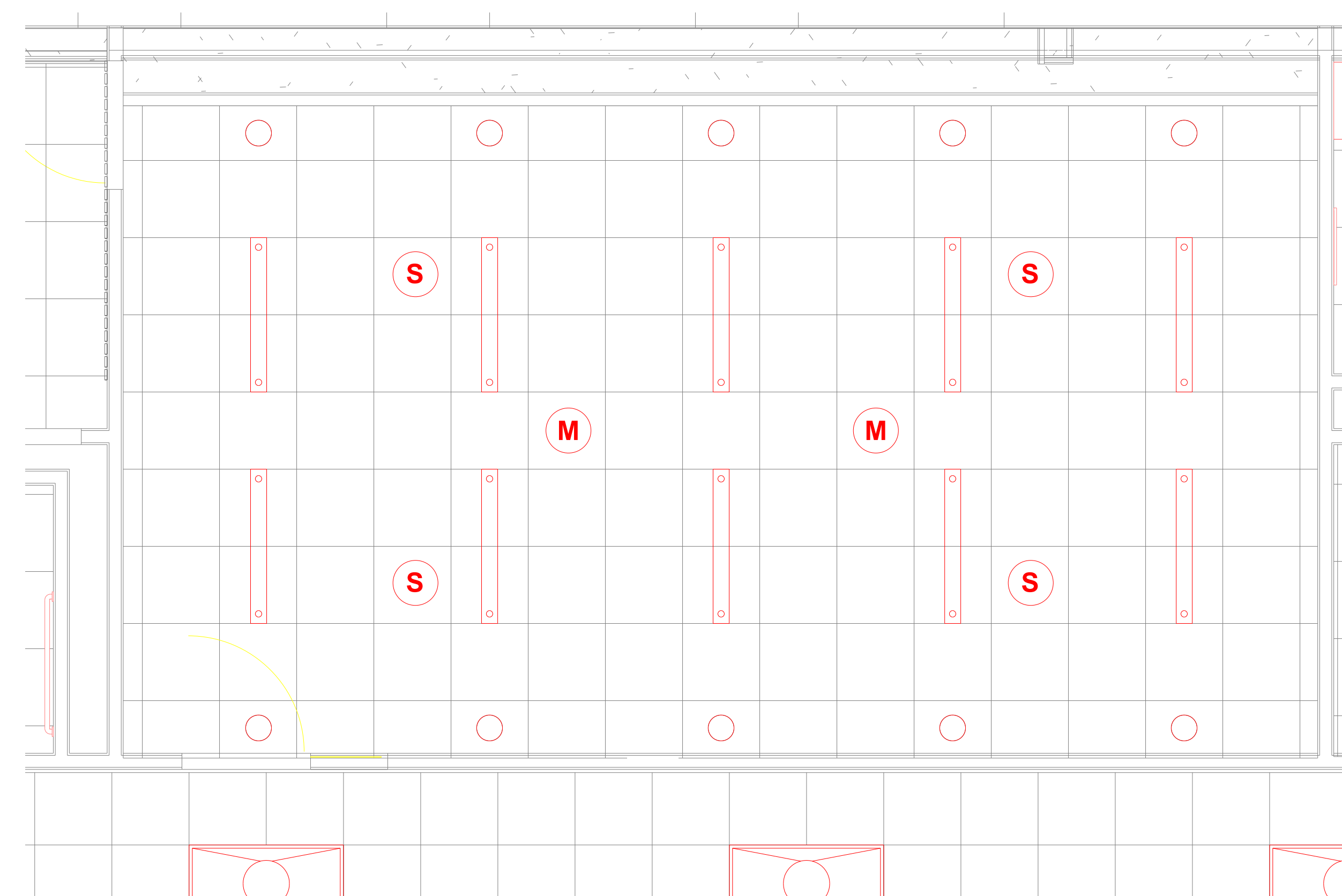
AV100



CONFERENCE ROOM A111

PLAN VIEW

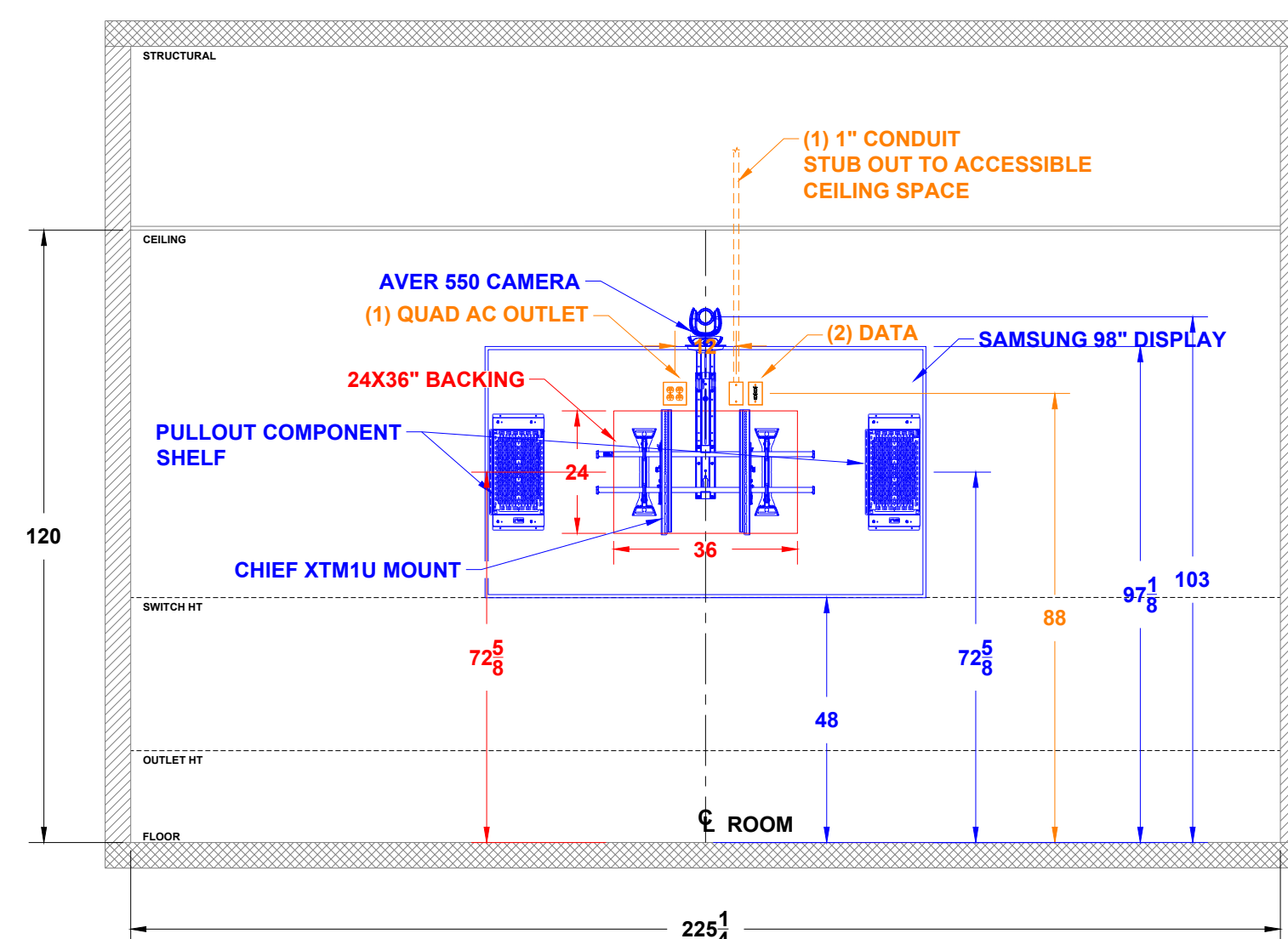
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CONFERENCE ROOM A111

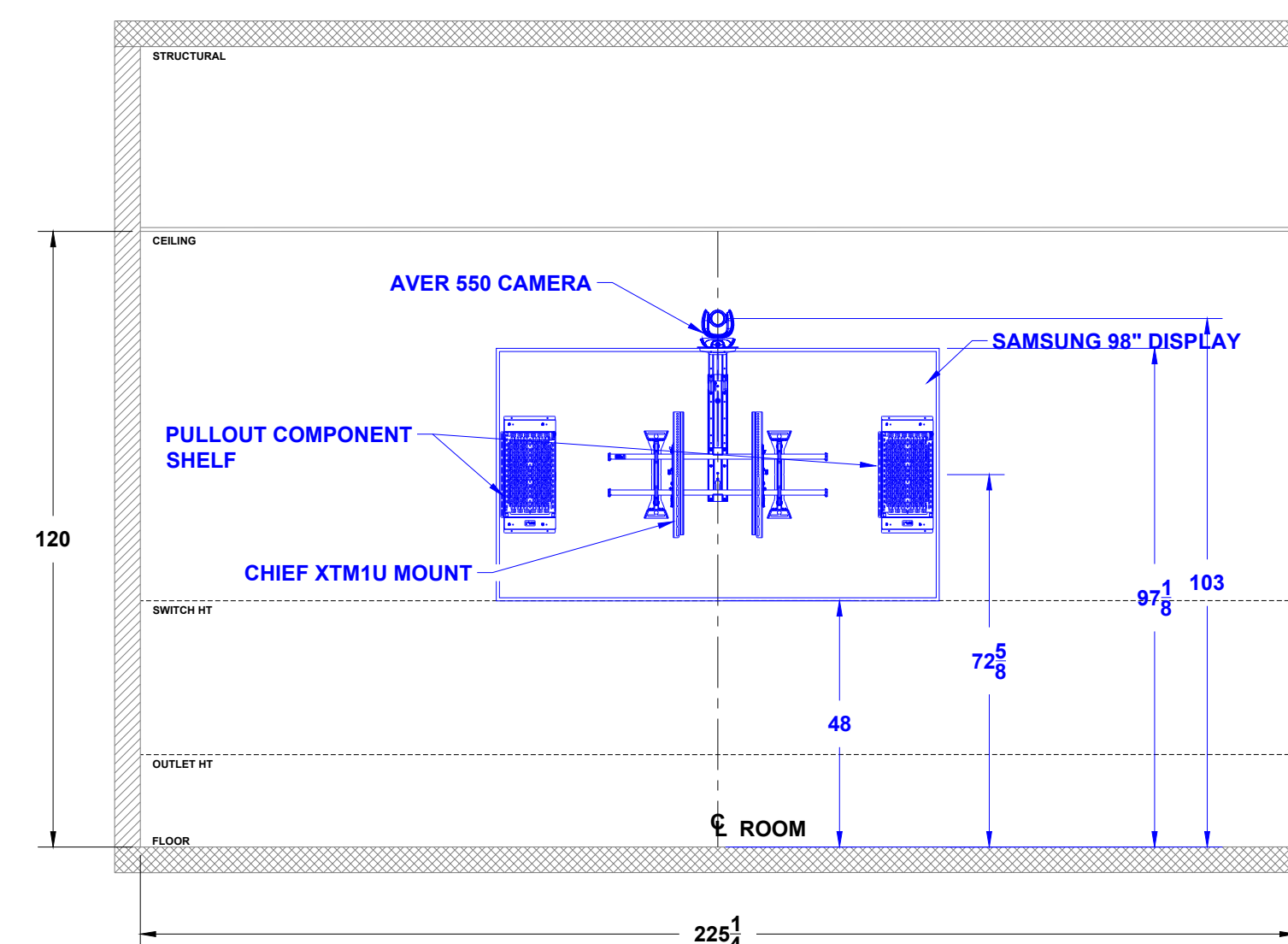
RCP

SCALE: 3/8"=1'



**CONFERENCE ROOM A111
ELEVATION - COMBINED**

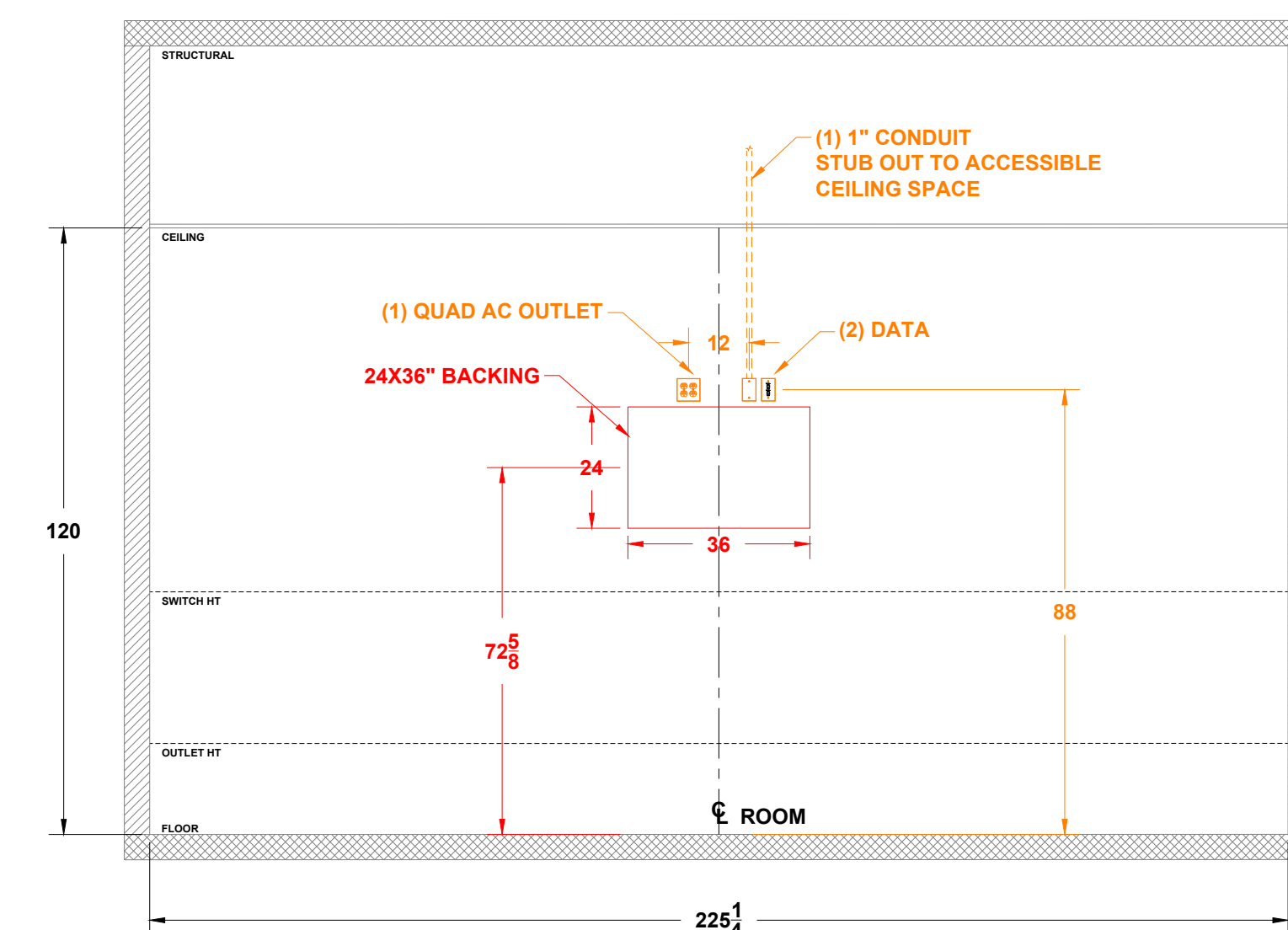
SCALE: 3/8"=1'



CONFERENCE ROOM A111

ELEVATION - EQUIPMENT ONLY

SCALE: 3/8"=1'



CONFERENCE ROOM A111

ELEVATION - INFRASTRUCTURE

SCALE: 3/8"=1'

DWG NUMBER :



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EDEN PRAIRIE, MN 55344
PHONE: 952-949-3700 FAX: 952-949-6000
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CITY OF COTTAGE
GROVE**

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COTTAGE GROVE
MINNESOTA 55016

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☐ PRELIMINARY ☐ OTHER:

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CLIENT : LONNIE GARLAND
JOB NUMBER : #####
ENGINEERED BY : K.GUSTAFSON
DRAFTER : K.GUSTAFSON
CHECKED BY :

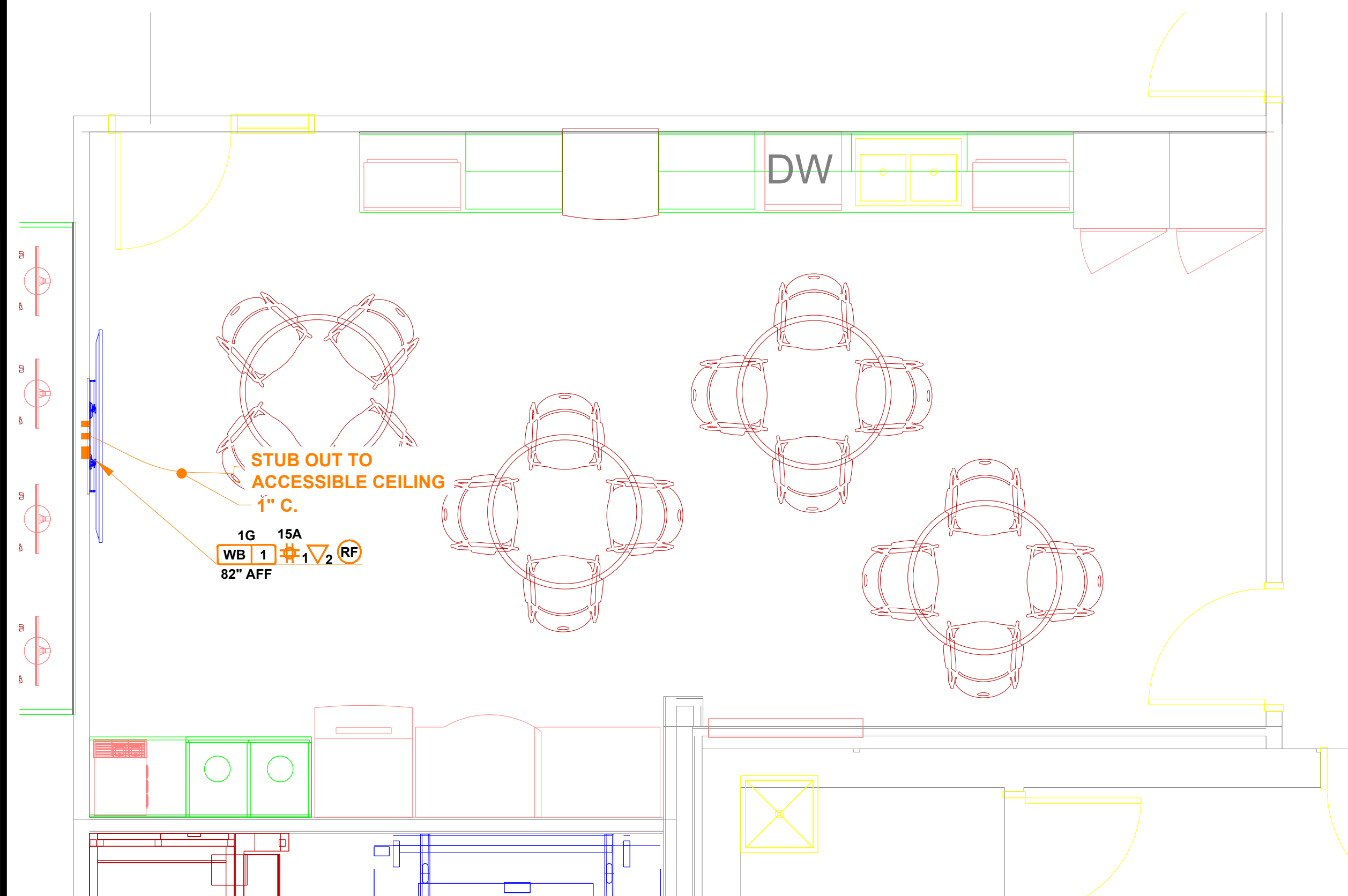
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CITY OF COTTAGE GROVE
PUBLIC WORKS BUILDING

SHEET TITLE :

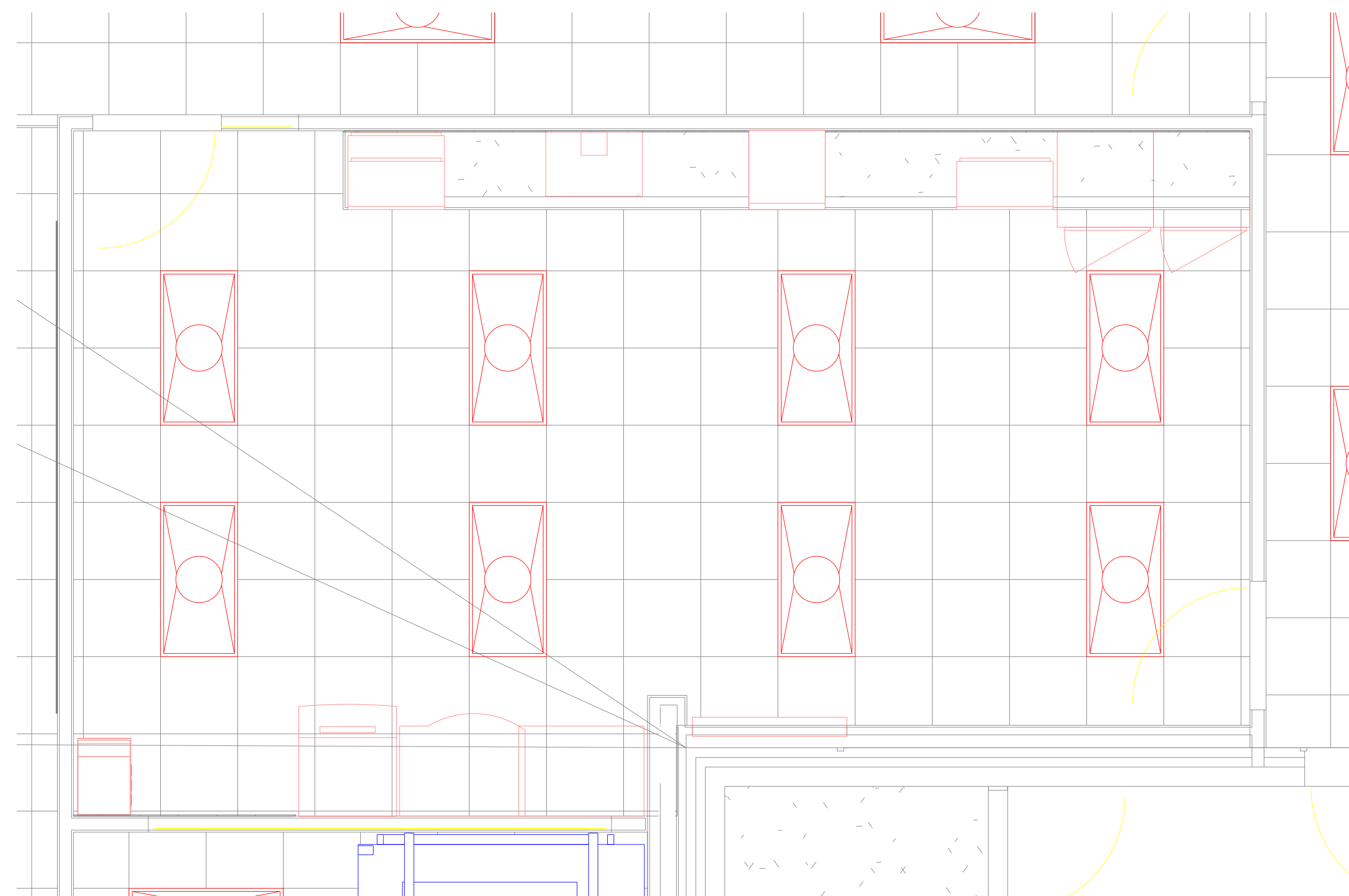
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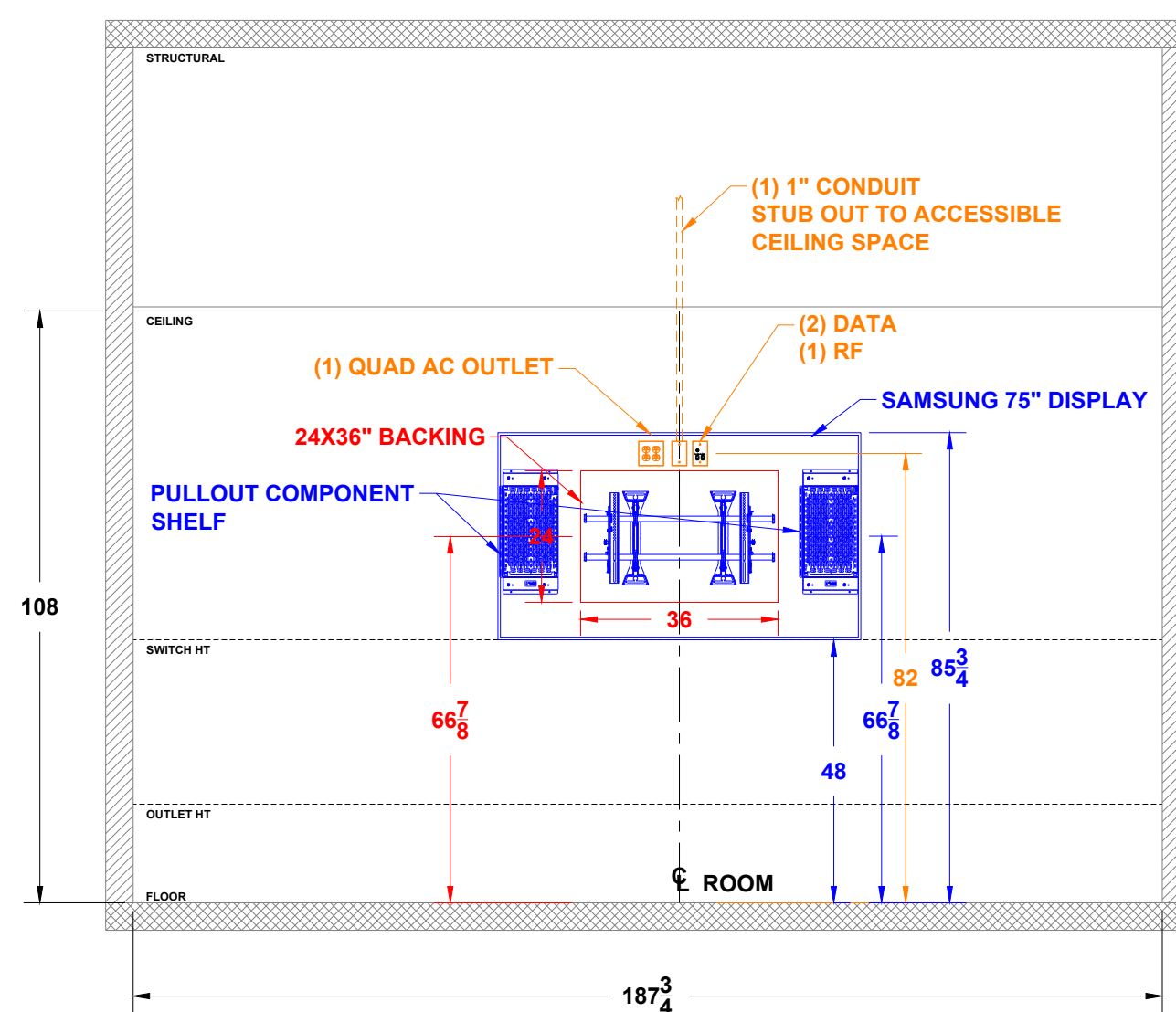
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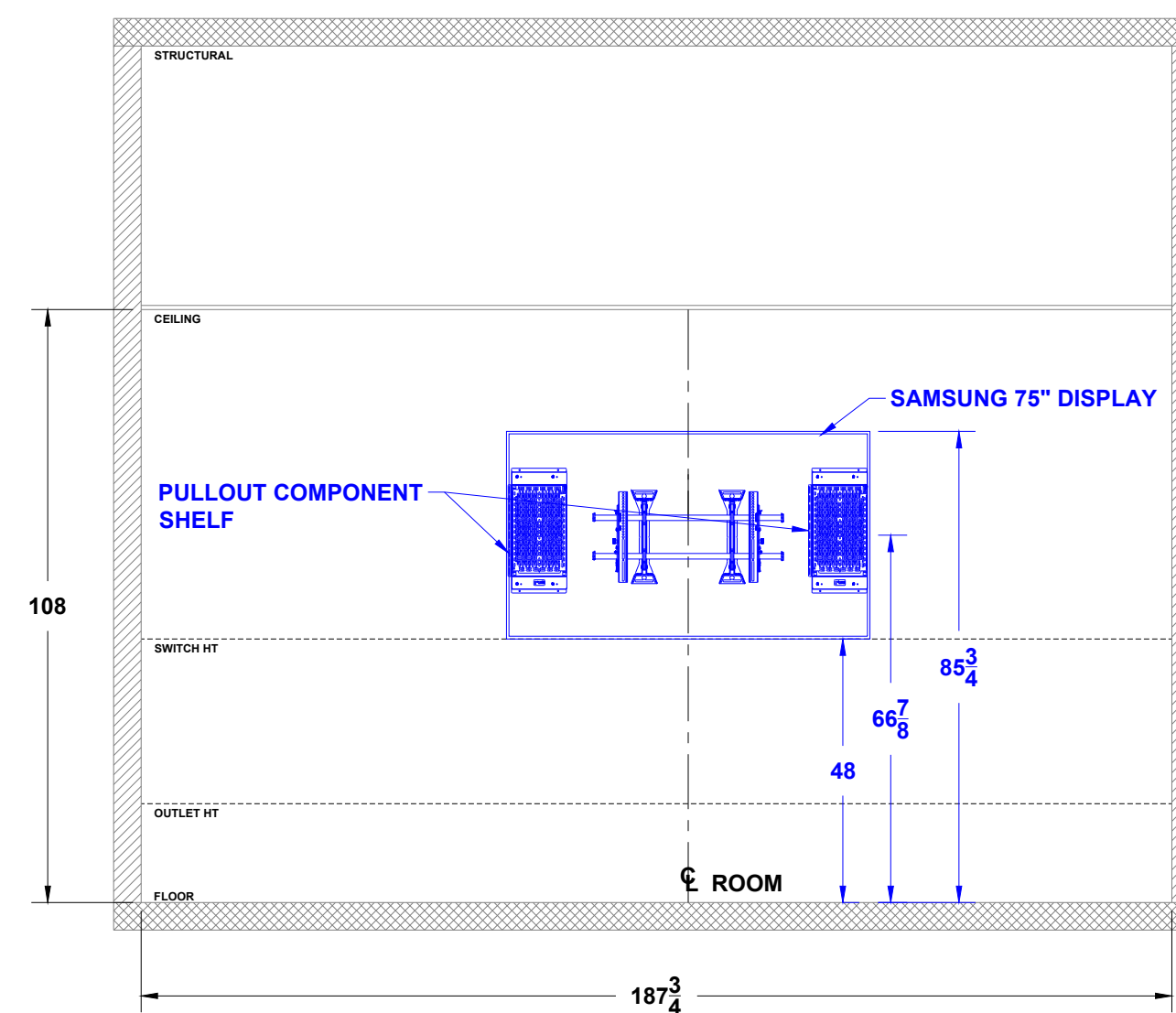
1 STAFF ROOM A110
PLAN VIEW
SCALE: 3/8"=1'



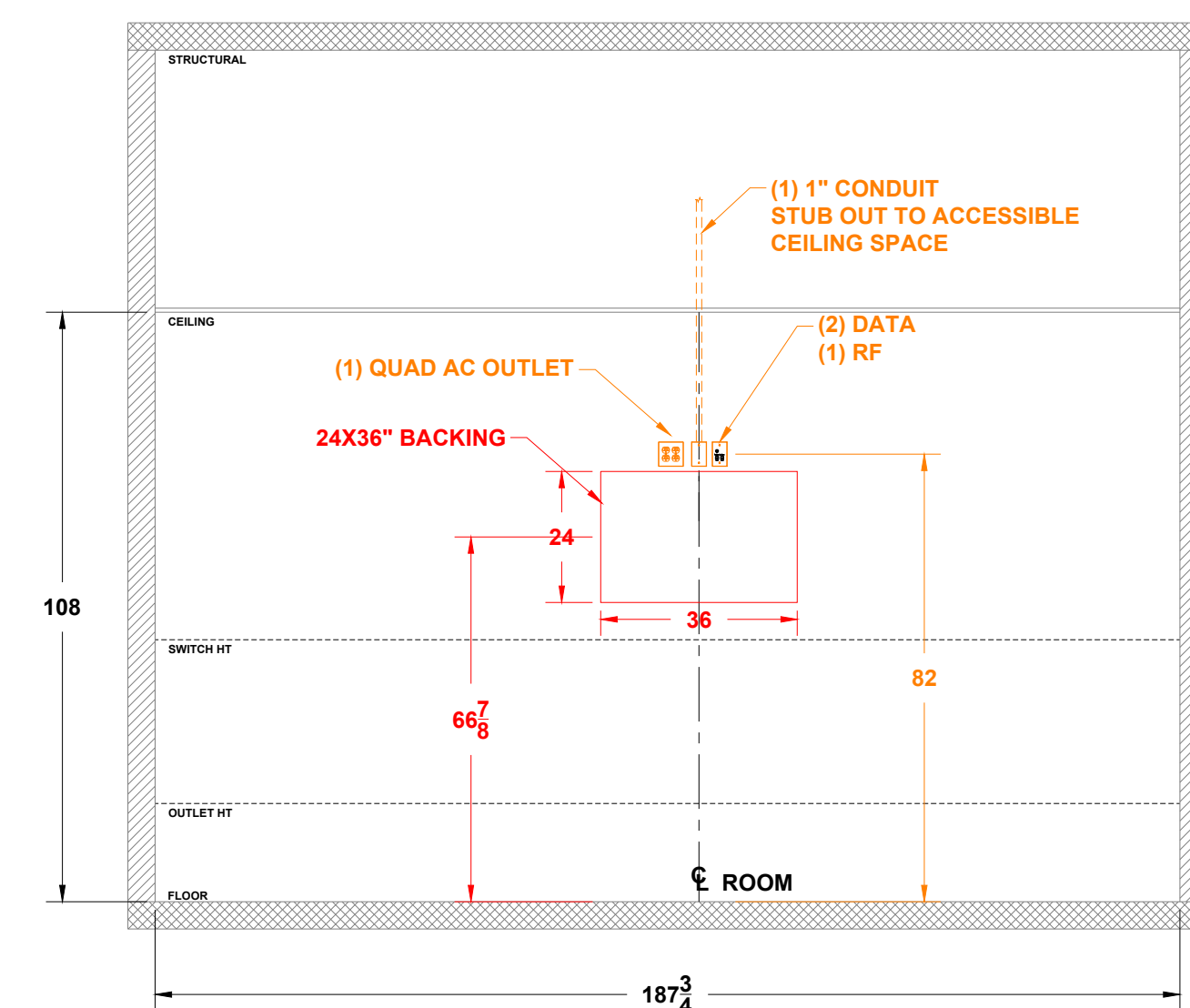
2 STAFF ROOM A110
RCP
SCALE: 3/8"=1'



**3 STAFF ROOM A110
ELEVATION - COMBINED
SCALE: 3/8"=1'**



4 STAFF ROOM A110
ELEVATION - EQUIPMENT ONLY
SCALE: 3/8"=1'



5 STAFF ROOM A110
ELEVATION - INFRASTRUCTURE
SCALE: 3/8"=1'



City Council Action Request

7.J.

Meeting Date	10/18/2023				
Department	Engineering				
Agenda Category	Action Item				
Title	Glacial Valley Park - Change Order #2				
Staff Recommendation	Approve Change Order #2, thereby increasing the contract amount by \$52,244.50 for a total contract amount of \$2,595,136.44.				
Budget Implication	\$52,244.50 from Park Trust Fund				
Attachments	<table><tr><td>1.</td><td>Memo - Glacial Valley Park Change Order</td></tr><tr><td>2.</td><td>Change Order</td></tr></table>	1.	Memo - Glacial Valley Park Change Order	2.	Change Order
1.	Memo - Glacial Valley Park Change Order				
2.	Change Order				



To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Joe Fox, PE, Project Engineer

Date: October 12, 2023

Re: Glacial Valley Park – Change Order #2

Background/Discussion

As the construction at Glacial Valley Park nears completion, the need for additional work, and changes to planned work, around the new building has become apparent. When the first phase of work on the park grounds was contracted, the exact building footprint and elevations were not known. This change order consists of work immediately adjacent to the building.

At this time of year, as the temperature drops, the city requires that an additive be used in the concrete on public infrastructure, so the concrete hardens more quickly than usual. This “high early strength” concrete additive has an additional cost. Installing irrigation and topsoil in the planter beds that have been added around the building was not considered in earlier plans as well and needed to be included. The area around the building also requires grading and compaction to prepare the ground for concrete above and beyond what was originally anticipated due to some adjustments during building construction.

Change Order #2 increases costs by \$52,244.50. Considering this change order, the total contract amount for this phase of park construction would increase to \$2,595,136.44.

Recommendation

It is recommended that the City Council approve Change Order #2, thereby increasing the contract amount by \$52,244.50 to a total contract amount of \$2,595,136.44.

CHANGE ORDER NO.: 2

Owner:

City of Cottage Grove

Owner’s Project No.:

125682

Engineer:

Bolton and Menk, Inc.

Engineer’s Project No.:

0N1.125682

Contractor:

Sunram Construction, Inc.

Contractor’s Project No.:

N/A

Project:

Glacial Valley Park

Date Issued:

October 13, 2023

Effective Date of Change Order:

October 13, 2023

The Contract is modified as follows upon execution of this Change Order:

Description:

WHEREAS, Change Order No. 2 modifies the completion dates in Article 4.02.A.1. of the Agreement as follows:
Substantial Completion: November 3, 2023.
And WHEREAS, Change Order No. 2 modifies Article 4.02.A.2 of the Agreement as follows: Final Completion: May 30, 2024
And
WHEREAS, Change Order No. 2 modifies Article 5.01 of the Agreement to add/change the items to the Schedule of Unit Prices as shown on Page 2 of this Change Order related to revisions to the grading, concrete, irrigation, flag installation, topsoil placement in planter beds, and restoration around the building under construction concurrently with the contract.

Attachments:

Revised Plan Sheets C1.16, I2.01, and I2.02

Change in Contract Price		Change in Contract Times [State Contract Times as either a specific date or a number of days]	
Original Contract Price:		Original Contract Times:	
\$ 2,562,073.00		Substantial Completion:	9/29/2023
		Final Completion:	10/27/2023
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. [Number of previous Change Order]:		[Increase] [Decrease] from previously approved Change Orders No.1 to No. [Number of previous Change Order]:	
\$ (19,181.06)		Substantial Completion:	0 days
		Final Completion:	0 days
Contract Price prior to this Change Order:		Contract Times prior to this Change Order:	
\$ 2,542,891.94		Substantial Completion:	9/29/2023
		Final Completion:	10/27/2023
[Increase] [Decrease] this Change Order:		[Increase] [Decrease] this Change Order:	
\$ 52,244.50		Substantial Completion:	35 days
		Final Completion:	216 days
Contract Price incorporating this Change Order:		Contract Times with all approved Change Orders:	
\$ 2,595,136.44		Substantial Completion:	11/3/2023
		Final Completion:	5/30/2024

DocuSigned by

Reviewed by Engineer (if required)

By: Jeff Tountant

Title: Construction Manager

Date: October 13, 2023

DocuSigned by

Accepted by Contractor

By: Ryan Sunram

Title: President

Date: October 13, 2023

Authorized by Owner

Approved by Funding Agency (if applicable)

By: _____

Title: _____

Date: _____

EJCDC® 00 63 63, Change Order, Rev.1.

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Page 1 of 1

CHANGE ORDER NO.: 2

Continued

Project: Glacial Valley Park
Engineer’s Project No.: 0N1.125682
Owner: City of Cottage Grove
Contractor: Sunram Construction, Inc.

Item No.	Description	Estimated Quantity	Unit	Unit Price	Change in Contract Amount
1	Mobilization	1	LS	\$6,700.00	\$ 6,700.00
2	High Early Concrete Sidewalk	1070	SY	\$12.25	\$ 13,107.50
3	High Early Concrete Pedestrain Ramp	100	SF	\$1.40	\$ 140.00
4	Irrigation System Revision	1	LS	\$11,315.00	\$ 11,315.00
5	Common Embankment (CV)	93	CY	\$74.00	\$ 6,882.00
6	Excavation-Common (Onsite Embankment)(EV)	103	CY	\$40.00	\$ 4,120.00
7	Excavation-Common (Haul Offsite)(LV)	60	CY	\$101.00	\$ 6,060.00
8	Loam Topsoil Borrow (LV)	20	CY	\$196.00	\$ 3,920.00
				Subtotal	\$ 52,244.50

Original Contract Amount:	\$2,562,073.00
Change Order No. 1:	-\$19,181.06
Change Order No. 2:	\$52,244.50
New Contract Amount:	\$2,595,136.44

Certificate Of Completion

Envelope Id: 8BF4CEF7A54A42FA9D49E45E23868511

Status: Delivered

Subject: DocuSign: Glacial Valley Park - Change Order No. 2

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Document Pages: 2

Signatures: 2

Certificate Pages: 5

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Courtney Maul

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MANKATO, MN 56001

courtney.maul@bolton-menk.com

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Signer Events

Ryan Sunram

ryan@sunramconstructioninc.com

President

SUNRAM CONSTRUCTION INC

Security Level: Email, Account Authentication
(None)**Signature**

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Signature Adoption: Pre-selected Style

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Signed: 10/13/2023 10:53:50 AM

Electronic Record and Signature Disclosure:

Accepted: 7/1/2022 12:55:24 PM

ID: b8b286ce-33f8-499a-8345-11d66d3aa3d6

Jeff Toutant

Jeffrey.Toutant@bolton-menk.com

Const. Manager

Security Level: Email, Account Authentication
(None)

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Signature Adoption: Pre-selected Style

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Electronic Record and Signature Disclosure:

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Joe Fox

joefox@cottagegrovemn.gov

Project Engineer

Security Level: Email, Account Authentication
(None)

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Electronic Record and Signature Disclosure:

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Carbon Copy Events	Status	Timestamp
Joe Fox joefox@cottagegovemn.gov Project Engineer Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 7/27/2022 11:08:04 AM ID: f41fee77-ddd4-4ba7-8db2-b0a67f741de8	COPIED	Sent: 10/13/2023 11:52:39 AM Viewed: 10/13/2023 11:53:20 AM
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Ryan Burfeind rburfeind@cottagegovemn.gov PW Director/City Engineer Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 6/8/2020 8:13:05 AM ID: abbf7a29-1956-490b-9b54-cf8d18fe390d	COPIED	Sent: 10/13/2023 12:04:10 PM Viewed: 10/13/2023 12:08:37 PM
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Envelope Summary Events	Status	Timestamps
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City Council Action Request

8.A.

Meeting Date	10/18/2023
Department	Finance
Agenda Category	Action Item
Title	Approve Disbursements
Staff Recommendation	Approve disbursements in the amount of \$2,319,129.40
Budget Implication	n/a
Attachments	None



City Council Action Request

9.A.

Meeting Date 10/18/2023

Department Engineering

Agenda Category Action Item

Title 2023 Pavement Management Assessment Hearing

Staff Recommendation 1) Conduct the Public Hearing for the 2023 Pavement Management Project. 2) Adopt Resolution 2023-131 adopting the assessment roll for the 2023 Pavement Management Project.

Budget Implication N/A

Attachments

1.	2023 PM Assessment Hearing CC Memo
2.	2023 PM Final Assessment Roll
3.	2023 PM Assessment Roll Resolution
4.	2023 PM Hope Community Church Objection
5.	8156 - C Grove 2023 Pvmt Mgmt Special Benefits Appraisal



To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Amanda Meyer, PE, City Engineer
Brenda Malinowski, Finance Director

Date: October 10, 2023

Re: Conduct Public Hearing on the 2023 Pavement Management Project and
Consider Adopting the Assessment Roll for the 2023 Pavement Management
Project

Background

On October 5, 2022, the City Council authorized a feasibility report for the 2023 Pavement Management Project as outlined in the Capital Improvement Plan for the following areas:

- **Thompson Grove Estates Neighborhood (1st, 6th, 7th, & 10th Additions):** Streets include Hemingway Avenue from 80th Street to Hyde Avenue; Henslowe Avenue from 80th Street to Hemingway Avenue; Henna Avenue from Hemingway Avenue to Homestead Avenue; Homestead Avenue from 80th Street to Hyde Avenue; Homestead Court; Hornell Avenue from 80th Street to Hyde Lane; Hynes Avenue from 80th Street to Hyde Lane; Hyde Lane from Homestead Avenue to Hyde Avenue; Hyde Avenue from 80th Street to Hillside Trail; Hyde Court; and 83rd Street from Hyde Avenue to Hillside Trail.
- **80th Street Frontage Road:** 80th Street south frontage road from Hemingway Avenue to Hyde Avenue

The roadways listed above are 25 to 27 years old. Based upon review of the project area, a full pavement replacement and spot curb replacement was recommended for the project areas outlined above. Minor utility maintenance was also recommended, including sections of sanitary sewer and several service wyes were identified as needing maintenance to extend the lifespan of the system, some sanitary and storm structures noted that needed repair, possible valve bolt replacement, and replacement of the pressure reducing valve located within the project limits. Additionally, street lighting maintenance was recommended.

A special benefit appraisal was completed in 2022 in accordance with the City's policy for those properties with direct access from the streets included in the project area. The feasibility report was approved by the City Council on January 4, 2023. A neighborhood meeting was also held January 12, 2023, to discuss the various improvements proposed, the findings of the special benefit appraisal, and the proposed assessments. There were seven residents in attendance at the meeting.

The Public Hearing for the project was held on February 1, 2023, and the project was ordered. The plans and specifications were approved on March 1, 2023, and the project was awarded to OMG Midwest Inc. dba Minnesota Paving & Materials on April 5, 2023.

On September 20, 2023, the City Council declared costs on the 2023 Pavement Management Project and called for a public hearing to be held on October 18, 2023. All required notifications have been made per State Statute 429. The action requested at this meeting is to hold the public hearing. Following the hearing, Council is asked to consider the adoption of the assessments.

Discussion

The proposed assessment amounts follow the adopted Infrastructure Management Task Force (IMTF) policy calling for 45 percent of the project costs to be assessed equally to all properties within a residential development as similar individual units regardless of lot frontage, and 75 percent of the project costs to be assessed to religious institutions. The costs for the project are \$3,413,454.93. The proposed assessment amount is \$4,234.50 per residential buildable lot equivalent (RBLE). This compares to the original projected assessment amount based on the engineer's estimate of \$4,965.80. Single-family residential is assessed at a rate of 1.0 RBLE. Special benefit appraisals were completed for single-family residential lots in this area, which found the special benefit to single-family residential properties to be between \$5,800 and \$7,100, which supports the proposed assessment of \$4,234.50. For the religious institution, the initial engineer's estimate resulted in an assessment amount of \$43,733.08, but the special benefit appraisal that was completed for this property provided a maximum benefit to this property of \$21,900. Therefore, the assessment amount for Hope Community Church remains at the special benefit appraisal amount.

On October 10, 2023 City staff received an objection from Hope Community Church regarding their assessment amount of \$21,900 for their property at 8300 Hyde Avenue South, Cottage Grove, MN 55016. The letter received has been attached to this memo.

Recap of the project costs and funding:

Thompson Grove Estates	Feasibility Report Construction Cost	As-Bid Construction Cost	Estimated Final Construction Cost	Total Cost (1)
Streets	\$2,218,988.00	\$2,238,927.63	\$2,070,905.22	\$2,560,116.47
Sanitary Sewer	\$335,940.00	\$292,234.90	\$294,269.25	\$363,784.66
Water Main	\$197,722.00	\$126,730.34	\$117,252.30	\$144,950.88
Storm Sewer	\$205,431.93	\$171,971.61	\$166,841.16	\$206,254.15
Street Lighting	\$133,630.00	\$110,089.88	\$111,911.78	\$138,348.77
Totals	\$3,091,711.93	\$2,939,954.36	\$2,761,179.71	\$3,413,454.93

1. Includes actual indirect costs.

Payment Options

If the assessment roll is adopted after the public hearing, property owners will have 30 days to pay the entire assessment, or make a partial payment of at least \$500, without incurring interest charges. Assessments not paid within 30 days will be certified to Washington County for collection over the next 15 years. If certified to the County, annual principal and interest payments will be added to the property taxes of the affected parcel.

The interest rate outlined in the IMTF policy indicates that the interest rate be 1.5 percent plus the bond sale rate. Based on this policy, the proposed interest rate for the assessment is 5 percent. This rate is based on the bonds for this project that were issued on May 9, 2023.

Recommendation

It is recommended the City Council:

- Conduct the public hearing for the 2023 Pavement Management Project.
- Adopt Resolution 2023-131 to adopt the assessment roll for the 2023 Pavement Management Project.

Final Assessment Roll 2023 Pavement Management

Thompson Grove Estates 1st, 6th, 7th, and 10th Improvements

Parcel ID	Owner	Property Address	Units	\$/Unit	Total/Unit
1602721220001	KILOLOMA MLASI R	8025 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220002	WILLIAMS CAMI L	8043 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220003	JDA GROUP LLC	8055 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220004	VEESENMEYER MARK & RENE J	8071 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220005	MOSENG JEFFREY L & BRENDA J	8087 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220006	MEEMKEN KEITH M & GERALDINE	8105 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220007	NEUFELD CURT C	8119 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220008	ANDERSON ALLEN D TRS & GLORIA L ANDERSON	8139 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220009	CORNEJO BRIAN G	8153 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220010	CARLSON JESSE & DANA PHILLIPS	8167 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220011	BETTIS LEIA M	8183 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220012	BIRAWER RICHARD J JR & GENEV	8199 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220013	CHRISTENSEN CHAZ & JESSICA L	8215 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220014	HAGEN BRIAN J & MARY JO M	8026 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220015	BLAISDELL CONNIE L	8183 80TH ST S	1	\$4,234.50	\$4,234.50
1602721220016	ZUNIGA OSCAR & APRIL	8161 80TH ST S	1	\$4,234.50	\$4,234.50
1602721220017	KVASAGER JEFFREY	8143 80TH ST S	1	\$4,234.50	\$4,234.50
1602721220018	FRANDRUP CURTIS R	8121 80TH ST S	1	\$4,234.50	\$4,234.50
1602721220019	HAUSCHILD JAMES B & SHARON A	8101 80TH ST S	1	\$4,234.50	\$4,234.50
1602721220020	DIAZ JOSEPHINE H & JOSE D	8081 80TH ST S	1	\$4,234.50	\$4,234.50
1602721220021	PEDERSON MAXINE E	8027 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220022	POLANCO ASAE L E R	8051 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220023	YANNARELL ROBERT & HOLLY	8063 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220024	IVERSON JODI L	8073 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220025	LUND LEONARD M	8081 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220026	STARR JAMES A & ANNETTE R	8074 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220027	OTT JAMES L	8068 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220028	KONS DOROTHY A	8066 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220029	CARLSON MATTHEW S	8050 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220030	GIBBS IAN	8026 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220031	HOME SFR BORROWER LL	8011 80TH ST S	1	\$4,234.50	\$4,234.50
1602721220032	GERFERS DAVID	8077 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220033	OYER JOHN P	8085 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220034	WILLIAMS AMY S & GREGORY H BAUER	8093 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220035	THOMPSON MICHAEL R	8095 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220036	KORTUS JEROME P & BECK A	8105 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220037	LANGE JOHN M & SUSAN M	8123 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220038	SCHMOTTER PAUL W	8141 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220039	PEREZ ONESIMO R	8098 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220040	IH2 PROPERTY ILLINOIS LP	8082 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220041	NILSEN JOANN E	8074 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220042	LANGLIE ALVIN T & JUDITH A	8066 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220043	FREESTONE LLC	8056 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220044	OLSON LORRAINE S	8042 HYNES AVE S	1	\$4,234.50	\$4,234.50
1602721220045	WRISLEY CASSANDRA S & CRAIG E	8120 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220046	HALL PHILLIP	8128 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220047	LUCKHARDT KENNETH & JAMIE	8136 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220048	VUE XIA	8144 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220049	BRADLEY VINCE & TIFFANY	8152 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1602721220050	LONG THOMAS J JR	8218 HYDE LN S	1	\$4,234.50	\$4,234.50

Final Assessment Roll 2023 Pavement Management

Thompson Grove Estates 1st, 6th, 7th, and 10th Improvements

Parcel ID	Owner	Property Address	Units	\$/Unit	Total/Unit
1602721220051	ADEBAYO WASIU	8199 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220052	ROTHWEILER IAN	8193 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220053	VOLKERT JOHN L & LARSON ANNETT	8185 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220054	BERRY BENJAMIN R	8171 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220055	BESKY BRITTANY	8258 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220056	JULIAN JUSTINA M	8236 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220057	ESQUIVEL RODOLFO	8222 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220058	MCDONOUGH TROY L	8212 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220059	KILIAN THOMAS S & SHEENA C	8204 HOMESTEAD CT S	1	\$4,234.50	\$4,234.50
1602721220060	MARTY DALE W & AMANDA E	8196 HOMESTEAD CT S	1	\$4,234.50	\$4,234.50
1602721220061	OLSON LISA	8186 HOMESTEAD CT S	1	\$4,234.50	\$4,234.50
1602721220064	THAE WIN W & AH TIEN	8255 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220065	KARSIKAS EARL	8257 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220066	KOEHLER JOSEPH V & PATRICIA A JELINEK	8096 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220067	FUNG ERIC & ANN E DINGLE	8101 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220068	TWO RIVERS COMMUNITY LAND TRUST	8107 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220069	LUGER DOUGLAS J	8135 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220070	JOHNSON JAMES F & DEBORAH S	8149 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220071	JOHNSON JANET MARIE	8165 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220072	TSCHIDA LINDA ETAL	8181 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220073	REIHE LINDSEY & CHRISTOPHER	8213 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220074	BUTZE SCOTT C & MARY E	8229 HYDE LN S	1	\$4,234.50	\$4,234.50
1602721220075	FIELDS WAYNE R & BRIGET A	8221 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220076	BARBARA J HAYDEN REV LIV TRS	8237 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1602721220077	MILLER JOHN L & MARLENE A	8234 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220078	AHRENS MICHAEL J	8224 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220079	DEAN DOUGLAS R & AMY M	8212 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220080	GUTIERREZ DWAYNE W & LAURA B WETT	8194 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220081	STAR MANAGEMENT LLC	8178 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220082	SCHMITZ ANN M & JEFFREY L AEGERTER	8162 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220083	EVANS MARCIA A	8146 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220084	MCNEARNEY MATTHEW A & MICHELE	8132 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721220085	CHRISTIANSSEN ROBERT & LAURA	8114 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721230001	ORR BILL H	8321 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1602721230002	ATTISSO KOSSI & AKOU M DAKLOU	8333 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1602721230003	FEDOR LINDA & DENNIS	8265 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230004	LAINE WESTED & AMANDA	8271 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230005	HIBER JOHN E	8279 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230006	IH2 PROPERTY ILLINOIS LP	8285 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230007	BADACZEWSKI TIMOTHY & MARISSA MOELLER	8293 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230008	ELWELL LINDSAY E	8299 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230009	STOLL JASON & MARSHA K	8307 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230011	MARSHALL MEGAN E & PETER D KELLER	8321 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230012	ERIE DEAN M & JONI K	8327 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230013	NELSON GORDON R & JUDITH L TRS	8335 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230014	AMUNDSON RYAN D & ERIN C	8341 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230015	FRIEL JEREMIAH & ANGELA MCCARRON	8349 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230016	EMMS KEVIN	8351 HYDE CT S	1	\$4,234.50	\$4,234.50
1602721230017	XIONG KANGBAO	8104 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230018	WOJCIECHOWSKI JEFFREY R & JESSICA	8122 83RD ST S	1	\$4,234.50	\$4,234.50

Final Assessment Roll 2023 Pavement Management

Thompson Grove Estates 1st, 6th, 7th, and 10th Improvements

Parcel ID	Owner	Property Address	Units	\$/Unit	Total/Unit
1602721230019	KENNEDY KATORIA	8140 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230020	FRAZIER EVAN & TERRA	8158 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230021	LONG KEITH A & REBECCA A	8176 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230022	SADOWSKI MARK & CHRISTINE	8196 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230023	GREEN TESS & JOSHUA D	8210 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230024	TINUCCI RICHARD W & DORIS J	8222 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230025	FISCHER KARL C	8240 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230026	DORGAN JAMES M & KATHLEEN M	8401 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721230027	TRUAX ALLYN E	8383 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721230028	MYHRE JEFFERY J	8375 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721230029	JONES MARGIE ANN	8357 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721230030	KONOBECK ERVIN C & MARY L	8101 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230031	MOUA TOU & CHIA	8117 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230032	BURRELL AMARI & DENISE	8133 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230033	GREGORY TODD & ERIN	8151 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230034	BEISELL DANIELLE ELISE	8169 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230035	LASKA COREY M & JESSICA	8185 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230036	DIAZ VICTORIA L	8201 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230037	PRIGGE DONNA	8215 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230038	PEHRSON KIM V	8223 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230039	VANG PAO C & PANG YANG	8241 83RD ST S	1	\$4,234.50	\$4,234.50
1602721230052	NIEHAUS TIMOTHY J & MARLYS J	8402 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721230053	ZWAKMAN DANIEL J & MARLA J	8354 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1602721230054	DAVIS LANA & RICHARD E JR	8386 HYDE AVE S	1	\$4,234.50	\$4,234.50
1602721230069	PARK GROVE ALLIANCE	8300 HYDE AVE S	1	\$21,900.00	\$21,900.00
1602721240047	KAYFES MICHAEL J & JACQUELINE	8447 83RD ST S	1	\$4,234.50	\$4,234.50
1602721240048	BOWMAN NICHOLAS	8435 83RD ST S	1	\$4,234.50	\$4,234.50
1602721240049	HISLE ROBERT T & ANGELA L ANDERSON	8421 83RD ST S	1	\$4,234.50	\$4,234.50
1602721240053	ROYSETH KATELYN ETAL	8275 83RD ST S	1	\$4,234.50	\$4,234.50
1602721240062	PRETASKY STEVEN M	8259 83RD ST S	1	\$4,234.50	\$4,234.50
1702721110001	PETRIE CAROLYN A	7991 80TH ST S	1	\$4,234.50	\$4,234.50
1702721110002	HUEBSCH ALISSA C & JACOB F KROSKA	7971 80TH ST S	1	\$4,234.50	\$4,234.50
1702721110003	RODRIGUEZ AARON L & SAVANNAH L JAMIESON	7957 80TH ST S	1	\$4,234.50	\$4,234.50
1702721110004	TEOREY PATRICIA K & LISA K WEBB	7943 80TH ST S	1	\$4,234.50	\$4,234.50
1702721110005	IVERSON JENNY & JAMES BODSBERG	7929 80TH ST S	1	\$4,234.50	\$4,234.50
1702721110006	MOUA MAY-CHOUA	7913 80TH ST S	1	\$4,234.50	\$4,234.50
1702721110007	SENTY DENNIS M & KATHLEEN M	7897 80TH ST S	1	\$4,234.50	\$4,234.50
1702721110008	VOGE JOSHUA O & JENNIFER A	8007 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110009	HOME SFR BORROWER LLC	8017 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110010	SZUKICS PETER & LAURA	8025 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110011	MICKO GREGORY P & PATRICIA A	8035 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110012	FISCHBACH STEVEN F & KARIN RAUBA-FISCHBACH	8043 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110013	DEEP HARMONY HOME CARE LLC	8051 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110014	SCHENK DARREL W	8059 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110015	GELHAR HEIDI B	8067 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110016	FREDRICK MARLO R	8006 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110017	LEE MAI C M	8014 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110018	ERICKSON LOREN D	8024 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110019	WATSON TIMOTHY & REBECCA	8032 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110020	NEVINS SUSAN & ANDREW	8042 HORNELL AVE S	1	\$4,234.50	\$4,234.50

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Thompson Grove Estates 1st, 6th, 7th, and 10th Improvements

Parcel ID	Owner	Property Address	Units	\$/Unit	Total/Unit
1702721110021	BJORNSON MATTHEW S & LISA	8050 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110022	REICHEL KAYLEE & BRANDON	8058 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110023	HARTFIEL ZACHARY F	8068 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110024	LOPEZ PATRICIA A & RUBEN	8076 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110025	DOFFING NICHOLAS	8086 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110026	STEVENS THOMAS H JR & MELISSA M STEVENS	8094 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110027	TWO RIVERS COMMUNITY LAND TRS	8102 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110028	MARTINEZ ANTHONY M & SARAH L	8110 HORNELL AVE S	1	\$4,234.50	\$4,234.50
1702721110029	RUIZ ROBERTA L	8163 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110030	WCCDA FAMILY HOUSING LLC	8151 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110031	MARTINEZ RAFAEL C & ILDA V MANCILLA	8143 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110032	ANDERSON LIVING TRS	8131 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110033	ODEGAARD JOHN S & LISA A	8123 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110034	ANDERSON ALEXANDRA	8111 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110035	LARSON MICHAEL D & KIMBERLY A	8101 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110036	DRIGANS JACOB	8091 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110037	CAMPBELL MONICA J	8083 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110038	JOHNSON MARK E	8075 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110039	SCHMUCK DAVID & BONNIE L	8063 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110040	NELSON CONNOR D	8053 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110041	ALM RICHARD H & BARBARA L	8045 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110042	JONES JEREMY L & MICHELE D	8037 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110043	BAKER JAY K & JULIE L	8027 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110044	TUCKER DENNIS R & KATHRYN A	8019 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110045	ALLEN BRANCH I & SHELENE M	8011 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110046	NITCH LARRY D JR & HOLLY A	8010 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110047	FRAMPTON TRACEY L	8018 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110048	CORBIN JACQIE	8028 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110049	SCOFIELD SPENCER J	8034 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110050	GOECKE TRS	8044 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110051	VALENCIA MARIO A G & LISBETH M CRUZ	8054 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110052	KOTTKE ROBERT L & PATRICIA A	8062 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110053	REED ROBIN D & MELISSA A BEVINS	8070 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110054	YANG ALEXANDER	8078 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110055	LINDQUIST CHELSEA A & JACOB R VANDER HE	8158 HENNA AVE S	1	\$4,234.50	\$4,234.50
1702721110056	KELLEY COLLEEN M	8178 HOMESTEAD CT S	1	\$4,234.50	\$4,234.50
1702721110057	FEIL MEGAN K	8170 HOMESTEAD CT S	1	\$4,234.50	\$4,234.50
1702721110058	SAUER DANIEL J & NELL I	8162 HOMESTEAD CT S	1	\$4,234.50	\$4,234.50
1702721110059	OPP CHARLES W & MARGARET E	8152 HOMESTEAD CT S	1	\$4,234.50	\$4,234.50
1702721110060	MAY TERRANCE L	8148 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110061	DEVRIES JEREMY & OLIVIA WEINBERGER	8142 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110062	FLESLAND BUFORD L & MARLYS A	8138 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110063	BLANK EDWARD & ALLISON MARCUS	8130 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110064	BROOKS SUSAN	8122 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110065	CHAVIE PAUL A & SUSAN K	8110 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110066	WEISS JEFFREY D & JENNIFER J	8102 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110067	GERALD & KATHLEEN THIELEN TRS & GERALD	8094 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110068	SCHMITZ KATHRYN L & DANIEL A KOLAND	8086 HOMESTEAD AVE S	1	\$4,234.50	\$4,234.50
1702721110069	DOUGHERTY JACOB P & ELISABETH K	8151 HENNA AVE S	1	\$4,234.50	\$4,234.50
1702721110070	ALONSO RICARDO & DAWAN	8165 HENNA AVE S	1	\$4,234.50	\$4,234.50

Final Assessment Roll 2023 Pavement Management

Thompson Grove Estates 1st, 6th, 7th, and 10th Improvements

Parcel ID	Owner	Property Address	Units	\$/Unit	Total/Unit
1702721110071	JOHNSON TANIYA Y	7775 80TH ST S	1	\$4,234.50	\$4,234.50
1702721110072	PEREZ REYNA	8141 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110073	ANDERSON TRENT C	8153 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110074	STAVES GREGORY L & CINDY L	8165 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110075	WETTIG TRAVIS A & JANEL C	8177 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110076	RIDGEWAY STEVEN J & ROSEMARY	8189 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110077	KORN DENNIS H	8201 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110078	LINDBERG ANDREW P & CLAIRE ZAIS	8213 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110079	THOMAS LEWIS O	8176 HENNA AVE S	1	\$4,234.50	\$4,234.50
1702721110080	AULTMAN HAROLD A	8264 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110081	CRAIG BRIAN S & ANGELA BLUM-CRAIG	8262 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110082	CONSTABLE IAN & TAYLER J	8256 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110083	ALLEN DAVID M ETAL	8244 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110084	OLSEN RONALD J JR & LOIS C	8245 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110085	THEODORE & BARBARA MALMSTEN REV LIV T	8232 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110086	RIVERA ERUE D	8224 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110087	FAIR L GERALD & KRISTINE E	8214 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110088	SILVA JOSE D & SARAH L	8206 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110089	BERGER RANDOLPH E	8196 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721110090	THIGPEN JEREMY	8203 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110091	ISAZA SANDRA L A & JUAN C G LOPEZ	8215 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110092	APP DALE & BRENDA	8229 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110093	GONZALEZ DIEGO E & KORNICIA	8241 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110094	TUMAN MICHAEL R & TAMMY M	8243 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721110095	VOIGHTS RUTH M	8179 HENNA AVE S	1	\$4,234.50	\$4,234.50
1702721110096	BRUSTAD ROSS L & KRIS E	8191 HENNA AVE S	1	\$4,234.50	\$4,234.50
1702721110098	ARENDT CHRISTY & AARON	7881 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120001	JOHNSON ARLO W & TOSHIKO	7753 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120002	JDA GROUP LLC	7731 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120003	BURG RONALD L & NANCY	7709 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120004	PAURUS PAUL R & COLLEEN M	7695 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120005	KIMMES MARK D & LISA	7677 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120006	KONG NHIA & CHUA LOR	7655 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120007	KOCH SCOTT L & MARY F TRS	8069 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120008	KUNERT JEFFREY R	8081 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120009	HORNER JACK DEMPSEY	8093 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120010	ALEXANDER JESSE & GLEN	8105 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120011	NJOWIR BRUNO F	8117 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120012	WESTPHAL GREGORY & WENDY BAKER	8129 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120013	LINKER BENJAMIN & JESSICA M	7637 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120014	KANE PATRICIA H	7617 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120015	VOGEL BRIAN C	7597 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120016	XIONG MAY L & VANG P LEE	7575 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120017	GRONINGER MARIANNE L	7557 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120018	GOEBEL JOHN & TIFFANY	7539 80TH ST S	1	\$4,234.50	\$4,234.50
1702721120019	XIONG SIA	8007 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120020	HALEY CHAD S & KIRSTEN M	8013 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120021	ASHLEY BRODRICK A & BRENDA M	8021 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120022	FREUND JARID D & ALEXIA R	8033 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120023	STROOZAS NICOLE & MICHAEL	8045 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50

Final Assessment Roll 2023 Pavement Management

Thompson Grove Estates 1st, 6th, 7th, and 10th Improvements

Parcel ID	Owner	Property Address	Units	\$/Unit	Total/Unit
1702721120024	WREN EDWARD J	8057 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120025	FITZPATRICK LOIS M	8138 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120026	WEVERKA LAWRENCE P & KATHERINE	8126 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120027	GARCIA TITO & ANDY G	8114 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120028	GORACKE-EBERHARDT CAROL M & STEVEN S	8118 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120029	KELLERMAN PATRICK D & COLLEEN	8108 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120030	OKESON BRUCE D JR	8098 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120031	JOHNSON BRIAN	8084 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120032	VU VANDY	8070 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120033	HER BEE	8060 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120034	CONCHA'S RANCH LLC	8050 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120035	PATNODE KELLY A	8038 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120036	SCHULZ MICHAEL D & KRISTIE L	8028 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120037	HOME SFR BORROWER LLC	8018 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120038	SUMIDA KATHERINE L	8010 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120039	YOUNG DIANE C	8238 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120040	FULLER CHRISTOPHER P & SARAH J	8222 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120041	HARDING AARON & STRANGE SARAH	8210 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120042	CLATT LARRY J JR & SUSAN F	8198 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120043	NOLAND ROBERT T & ROBYN L	8188 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120044	MOSER THOMAS G II & DIANE	8176 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120045	LONNIE R STOLTE & LOIS A STOLTE JT REV LIV	8166 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120046	ERNEST J TIMMERS LIV TRS	8160 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120047	MARUSKA PAUL J & MARY M	8150 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120048	LEHRKE DUSTIN & HEIDI	8186 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120049	HOGUE JAY CHRISTOPHER	8178 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120050	GILES MATTHEW K & JEANNE M	8166 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120051	KHATHIYA CHANTHA & SOVANDY SUM	8154 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120052	GRANDE-BONILLA JULIO A & SANDRA D R C G	8144 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120053	BACKER JOSEPH E & CATHLEEN A	8136 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120054	JANICE E PEREYRA TRS	8126 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721120055	MILLER HENRY G	8093 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120056	WAHLIN JOSHUA D & TAVIFA S	8119 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120057	DONNER JAMES C & KATHY A	8135 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120058	CAMERON NEAL & EMILY	8145 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120059	ANDERSON WAYNE R & CHARLOTTE	8151 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120060	WAHLIN TAVIFA S & JOSHUA D	8159 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120061	DEL RIO JOYCE E & JACINTA DEL RIO	8171 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120062	TAACK WILLIAM H	8183 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721120063	ROGERS LOREN D	8191 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721140001	MURPHY SHANE M	8279 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140002	MORAN DANIEL	8285 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140003	KELLY NANCY & DANA CRONIN	8291 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140004	SCANLON JOHN C & MONICA M	8297 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140005	SKARA NOAH & JENA	8303 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140006	VANG DER	8309 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140007	HOLLERUNG RICHARD D & BARBAR	8315 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140021	CROCKETT JUDITH M & STEPHEN	8250 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140022	GREEN CARLY A & RICHARD M	8258 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140023	ROBERTS JAKE S & LENA	8266 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50

Final Assessment Roll 2023 Pavement Management

Thompson Grove Estates 1st, 6th, 7th, and 10th Improvements

Parcel ID	Owner	Property Address	Units	\$/Unit	Total/Unit
1702721140024	BROWN JEFFREY S	8274 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140025	CRAIG A & LILLIAN M WENDLAND REV TRS	8282 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140026	CASE JAYLEN & BAYLEE	8290 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140027	JERILYN A WIELER REVOCABLE TRUST	8298 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140028	KEELIN SUZANNE M	8308 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140029	BELETE HAREGIE & ASMARE MESHESHA	8318 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140030	BUCKNER ROBERT R & BARBARA A	8332 HEMINGWAY AVE S	1	\$4,234.50	\$4,234.50
1702721140085	SMITH ANDREA M & KEITH A	8260 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
1702721140086	ADAMS JEREMIAH & LISA M	8258 HENSLOWE AVE S	1	\$4,234.50	\$4,234.50
			309		\$1,326,126.00

CITY OF COTTAGE GROVE, MINNESOTA
CITY COUNCIL
RESOLUTION 2023-131

**RESOLUTION ADOPTING ASSESSMENTS FOR THE
2023 PAVEMENT MANAGEMENT PROJECT**

WHEREAS, pursuant to proper notice duly given as required by law, the City Council has met and heard and passed upon all objections to the proposed assessment of the 2023 Pavement Management Project.

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of Cottage Grove, County of Washington, State of Minnesota, as follows:

1. Such proposed assessment, in the amount of \$1,326,126.00, a copy of which is attached hereto and made a part hereof, is hereby accepted and shall constitute the special assessment against the lands named therein, and each tract of land therein included is hereby found to benefit by the proposed improvement in the amount of the assessment levied against it.
2. Such assessment shall be payable in equal annual installments extending over a period of 15 years, at an interest rate of 5 percent, the first of the installments to be payable on or before the first Monday in January 2024 and shall bear interest on the entire assessment from the date of this resolution until December 31, 2024. To each subsequent installment when due shall be added interest for one year on all unpaid installments.
3. The owner of any property so assessed may, at any time prior to certification of such assessment to the County Auditor, pay the whole of the assessment on such property, with interest accrued to the date of payment, to the City Treasurer, except no interest shall be charged if the entire assessment or on any amount \$500 or greater is paid within 30 days from the adoption of this resolution; and she/he may, at any time thereafter, pay to the City Treasurer the entire amount of the assessment remaining unpaid, with interest accrued to December 31 of the year in which payment is made. Such payment must be made before November 15 or interest will be charged through December 31 of the next succeeding year.
4. The Director of Finance shall transmit a certified duplicate of this assessment to the County Auditor to be extended on the property tax lists of the County. Such assessment shall be collected and paid over in the same manner as other municipal taxes.

Passed this 18th day of October 2023.

Myron Bailey, Mayor

Attest:

Tamara Anderson, City Clerk

Jason Stoll
8300 Hyde Ave S
Cottage Grove, MN 55016
Tax Parcel ID Number: 16.027.21.23.0069
Treasurer@got-hope.org
651-785-6301
10/10/2023

Brenda Malinowski
Municipal Clerk
City of Cottage Grove
12800 Ravine Parkway
Cottage Grove, MN 55016

Subject: Formal Objection to Assessment of Improvements Proposal

Dear Brenda,

I hope this letter finds you well. I am writing on behalf of Hope Community Church (f.k.a. Park Grove Alliance), located at 8300 Hyde Ave S, to formally object to the assessment for street improvements proposed in our area. We believe that the proposed assessment unfairly burdens our church and its congregation, and we wish to express our concerns and reservations regarding the project.

While we understand the importance of maintaining and improving the infrastructure in our community, we have serious reservations about the specific assessment as it relates to our church property. Our objections are based on the following grounds:

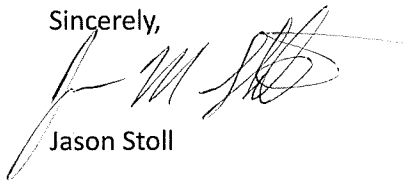
1. Special Use: Our church is primarily used for religious and charitable purposes. It is not a commercial property, and therefore, its valuation should consider its special use and limitations. The proposed assessment does not take into account the restrictions on its use, which significantly impact its market value.
2. Disproportionate Financial Burden: The proposed assessment appears to disproportionately burden our church property, which is a nonprofit organization that relies on the generosity of its members and donors to operate. The financial strain that would result from this assessment could hinder our ability to carry out our charitable and community outreach activities.
 - a. Our current annual tax responsibility would increase by over 500% based on the proposal (currently \$554.32, the increased annual rate based on this proposal over 15 years would be \$3109.32)
3. Clerical Errors: I received 2 notices of improvements from the municipality, one for an amount of \$21,900.00 and another for \$4,234.50. Being a resident of the Thompson Estates neighborhood, I recognize the latter as the standard form for residents. Both notices have the same Parcel ID and I believe only one of the two notices should have been issued.

We kindly request that our objections be considered seriously, and we seek a review of the assessment proposal in light of the concerns we have raised. We are open to engaging in discussions and working collaboratively to find a fair and equitable resolution that ensures the well-being of our church and its mission.

Please provide us with information on the process for formally addressing our objections and any upcoming meetings or hearings where we can present our case.

Thank you for your attention to this matter, and we look forward to a productive dialogue that addresses our concerns and ensures the equitable treatment of our church in this assessment process.

Sincerely,

A handwritten signature in black ink, appearing to read 'J M Stoll', written over the printed name 'Jason Stoll'.

Jason Stoll

Treasurer

Hope Community Church

A SPECIAL BENEFITS APPRAISAL
RESTRICTED APPRAISAL REPORT
(BRKW File No. 8156)

FOUR PROPERTIES:
THREE SINGLE-FAMILY RESIDENTIAL
AND ONE PUBLIC/INSTITUTIONAL
(HOPE COMMUNITY CHURCH)
COTTAGE GROVE, MINNESOTA

CITY OF COTTAGE GROVE
2023 ROADWAY REHABILITATION PROJECT

VALUATION DATE: DECEMBER 29, 2022

FOR

AMANDA MEYER, P.E.
ASSISTANT CITY ENGINEER
CITY OF COTTAGE GROVE
12800 RAVINE PARKWAY S.
COTTAGE GROVE, MN 55016

BY

PAUL J. GLEASON, MAI

December 31, 2022

Amanda Meyer, P.E.
Assistant City Engineer
City of Cottage Grove
12800 Ravine Parkway
Cottage Grove, MN 55016

Re: Special Benefits Appraisal
4 Properties: 3 Single-Family Residential and 1 Public/Institutional
(Hope Community Church)
Cottage Grove, Minnesota
City of Cottage Grove 2023 Roadway Rehabilitation Project

Dear Ms. Meyer:

In accordance with your request, I am providing you with a special benefits appraisal pertaining to four subject properties fronting one or more of the streets proposed for improvements via the City of Cottage Grove 2023 Pavement Management project. This appraisal is presented in a **Restricted Appraisal Report** format, in accordance with the requirements of the Uniform Standards of Professional Appraisal Practice.

The opinion of the special benefits resulting from the public improvement project is as of December 29, 2022, the date of viewing of the project area and subject properties. The purpose of the appraisal is to provide an opinion of the increase in market value, if any, to the subject properties resulting from the proposed street/utility improvements project, which is planned for construction in 2023. The intended use of the appraisal is for assisting City of Cottage Grove officials in levying in an equitable manner special assessments to the properties benefited by the project. The intended users are officials of the City of Cottage Grove.

The value benefits, if any, of street, utility and other such public improvements accrue to the land component of a property, not to the value of buildings and other improvements on the land. Consequently, this special benefits analysis is limited to the valuation of only the land components of the properties appraised.

The before-and-after valuation methodology has been used in this appraisal, which analyzes the market value of the land components of the subject properties prior to the proposed project in relation to the market value of the land after the project is completed. The difference between the before and after opinions of land value reflects the value of special benefits.

In my opinion, the special value benefits to the subject properties resulting from completion of the City of Cottage Grove 2023 Pavement Management project, as of December 29, 2022, are as follows:

City of Cottage Grove, Minnesota 2023 Pavement Management Special Benefits Opinions				
Property No.	Property Type/ Fee Owner	Address	PID #	Opinion of Special Benefit
1	Small Single-Family Lot Property Connie Blaisdell	8183 80th St. S.	16-027-21-22-015	\$5,800
2	Medium-Size Single-Family Lot Property Anderson Living Trust	8131 Homestead Ave. S.	17-027-21-11-0032	\$6,500
3	Large Single-Family Lot Property Lawrence and Katherine Weverka	8126 Henslowe Ave. S.	17-027-21-12-0026	\$7,100
4	Hope Community Church Park Grove Alliance	8300 Hyde Ave. S.	16-027-21-23-0069	\$21,900

The following **hypothetical condition** has been applied in this appraisal: In the “after improvements” position on the effective date of valuation, which is December 29, 2022, it is assumed for valuation purposes that the proposed street and utility improvements have been completed, when in fact they are proposed but have not yet been completed. Applying the hypothetical condition as described above might have affected the assignment results.

I have not performed services as an appraiser regarding the properties that are the subject of the report within the three-year period immediately preceding acceptance of this assignment. This appraisal assignment is not based on a requested minimum valuation or a specific valuation for approval of a loan. The opinions of market value and special benefits in the appraisal were developed independent of any undue influence.

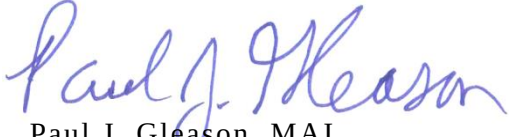
The appraised values assume all real estate taxes and special assessment balances, if any, have been paid in full. The values are gross values with no allowances made for brokerage commissions, real estate taxes or other carrying costs associated with a property during its marketing period. The values are based on an exposure time of 0 to 12 months. This appraisal report has been prepared in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) as promulgated by the Appraisal Foundation.

The facts and information contained in this report were obtained from sources that are considered to be reliable and are true to the best of my knowledge and belief, but are not guaranteed. This appraisal report is contingent upon the assumptions and limiting conditions included within this report.

Your attention is directed to the following report which summarizes the data, analyses and conclusions that support the opinions of value.

Sincerely,

BRKW APPRAISALS, INC.



Paul J. Gleason, MAI

Certified General Real Property Appraiser

Minnesota License #4003073

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IDENTIFICATION OF PROPERTIES APPRAISED/LEGAL DESCRIPTIONS

The owners, addresses, tax parcel numbers and legal descriptions of the appraised subject properties are presented below. A map depicting the area of the proposed improvement project and the location of the subject properties within the project area is shown on the next page. The properties are described in greater detail later in this report.

Subject Properties Summary				
Property No.	Property Type/ Fee Owner	Address	Tax Parcel I.D. No.	Legal Description
1	Small Single-Family Lot Property Connie Blaisdell	8183 80th St. S.	16-027-21-22-0015	Lot 2, Block 2, Thompson Grove Estates 6th Addn.
2	Medium-Size Single-Family Lot Property Anderson Living Trust	8131 Homestead Ave. S.	17-027-21-11-0032	Lot 27, Block 4, Thompson Grove Estates 6th Addn.
3	Large Single-Family Lot Property Lawrence and Katherine Weverka	8126 Henslowe Ave. S.	17-027-21-12-0026	Lot 2, Block 3, Thompson Grove Estates 7th Addn.
4	Hope Community Church Park Grove Alliance	8300 Hyde Ave. S.	16-027-21-23-0069	Outlot 1, Thompson Grove Estates 1st Addn.

PURPOSE/INTENDED USE OF THE APPRAISAL/INTENDED USERS

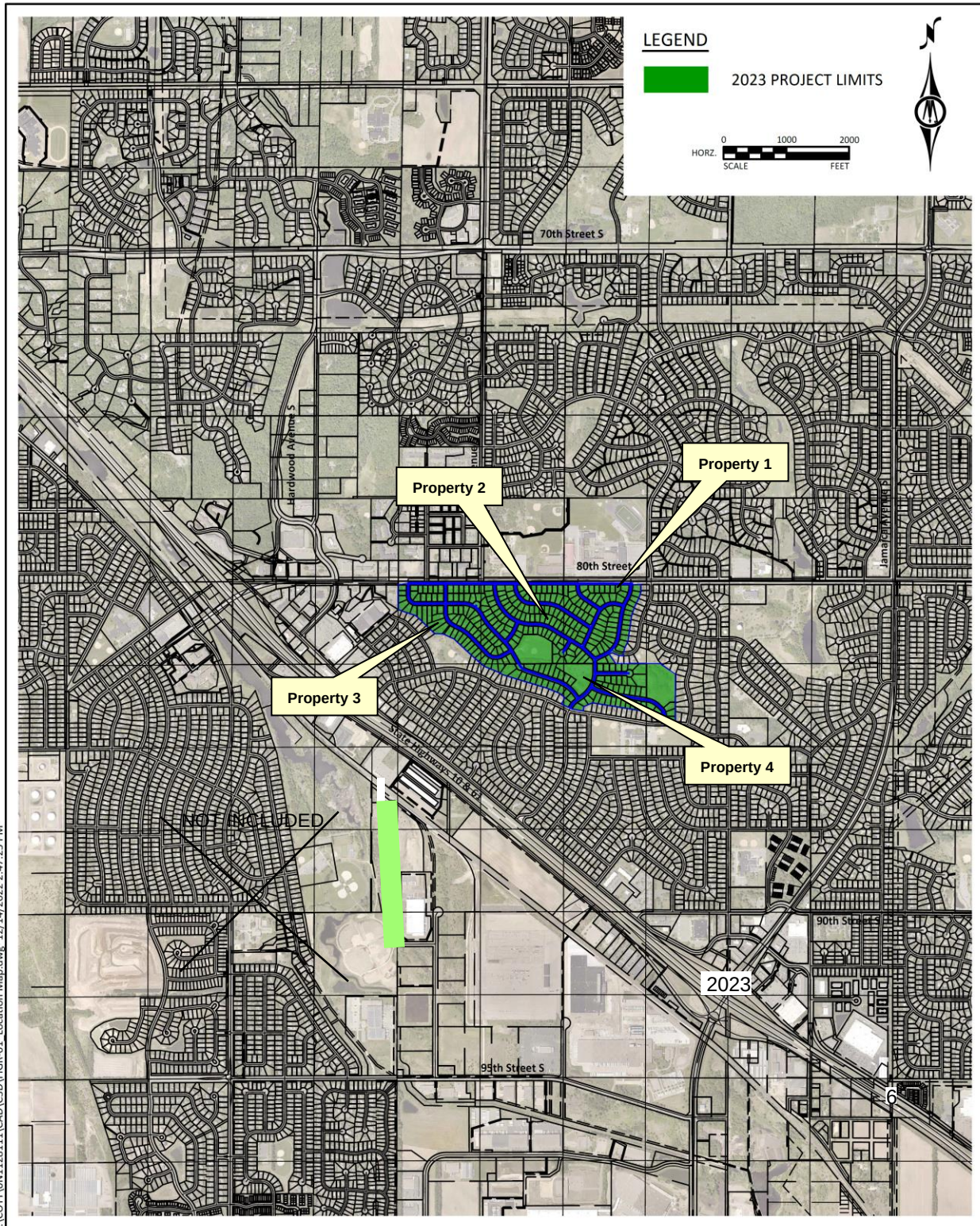
The purpose of the appraisal is to provide an opinion of the increase in market value, if any, to each of four subject properties resulting from the proposed City of Cottage 2023 Pavement Management project. The intended use of the appraisal is for assisting City officials in levying in an equitable manner special assessments to properties benefited by the improvement project. The intended users are City of Cottage Grove officials, and the client of the appraisal is the City of Cottage Grove.

PROPERTY RIGHTS APPRAISED

The property rights appraised are those of the fee simple estate.

DATES OF INSPECTION AND VALUATION

The effective date of this appraisal is December 29, 2022. On this date, the project area of the proposed Cottage Grove 2023 Pavement Management project was visited by the appraiser, and an exterior viewing was made of the subject properties from adjoining public roadways.



Project Location and Subject Properties Identification Map

SCOPE OF WORK

The City of Cottage Grove plans to rehabilitate several residential streets in the Thompson Grove Estates 1st, 6th, 7th, and 10th Additions within an area lying south of 80th Street, north of Hillside Trail and west of Ingleside and Ideal Avenues. The opinions of special benefits, if any, accruing to the appraised properties as a result of the project are intended to assist the client in determining the appropriate assessments to be levied to all benefiting properties.

The subject properties are appraised for special benefits purposes by completing a before-and-after valuation approach. The properties are valued in their current state before the project has commenced, and then again after, assuming the project improvements have been completed. The difference between the before and after values reflects the concluded increase in value, or special benefits, accruing to each subject property as a result of the improvement project.

The special benefits of public improvement projects such as street rehabilitation accrue to the land component of properties only, and not to the buildings and supporting site improvements. Consequently, the focus of valuation in this report is on land only. Opinions of the market value of the subject property land components have been developed in this appraisal using the Sales Comparison Approach method of valuation. The Sales Comparison Approach involves the comparison and analysis of land parcels recently sold which are similar to the subject land.

The application of the Cost and Income Approaches typically applies only when a property valuation includes buildings and other improvements having contributory value. For the purposes of this appraisal, which focuses on land value, neither of these approaches was necessary for developing credible opinions of special benefits resulting from the proposed project. Consequently, the Cost and Income Approaches were not applied in this appraisal.

This report is presented in a **restricted appraisal report format** in compliance with the reporting requirements of Standards Rule 2-2 (b) of the Uniform Standards of Appraisal Practice (USPAP). The results of the analysis and the conclusions pertaining to the market value of the subject property are presented in an abbreviated manner in this report, at a level of detail sufficient for the needs of the intended user, which is the client. Additional notes, analyses, and supporting data are retained in the appraiser's office work file. The report does not contain supporting rationale for all of the opinions and conclusions stated in this report. The report is intended to be read and used only by the client identified herein.

EXTRAORDINARY ASSUMPTIONS/HYPOTHETICAL CONDITIONS

An Extraordinary Assumption is defined in the Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021 Edition ©The Appraisal Foundation, Page 4, as:

An assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions.

A Hypothetical Condition is defined in the Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021 Edition ©The Appraisal Foundation, Page 4, as:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

Comments: The following **hypothetical condition** has been applied in this appraisal:

- In the “after improvements” position on the effective date of valuation, which is December 29, 2022, it is assumed for valuation purposes that the proposed street and utility improvements have been completed, when in fact they are proposed but have not yet been completed. Applying the hypothetical condition as described above might have affected the assignment results.

See Contingent and Limiting Conditions, which are standard assumptions that apply to the appraisal, later in this report.

MARKET VALUE DEFINITION

Although the appraisal communicated in this report was not prepared for a financial institution, the commonly-used definition of market value found in the federal regulations of the agencies that regulate financial institutions has been used in this assignment.

CONTINGENT AND LIMITING CONDITIONS

This appraisal report is subject to the following Limiting Conditions and Assumptions:

1. The subject property legal descriptions referenced in this report and/or relied upon when completing this appraisal are assumed to be correct.
2. The appraiser assumes no responsibility for matters legal in nature affecting the property appraised or the title thereto, nor does the appraiser render any opinion as to the title, which is assumed to be good and marketable. The property is appraised as though under responsible ownership.
3. No survey has been prepared of the property by the appraiser and no responsibility is assumed in connection with such matters. Sketches in this report are included only to assist the reader in visualizing the property.
4. Information furnished by others is assumed to be reliable. However, the appraiser assumes no responsibility for its accuracy.
5. In cases where no soil tests have been submitted, the appraiser has assumed a good subsoil condition, subject to visual observations noted in the report.
6. The appraiser assumes that there are no hidden or unapparent conditions of the property, subsoil or structures, which would render it more or less valuable. The appraiser assumes no responsibility for such conditions or for engineering that might be required to discover such factors.
7. The appraiser is not required to give testimony or appear in court because of having made this appraisal with reference to the property in question, unless arrangements have been previously made.
8. The distribution of the total valuation in this report between land and improvements applies only under the highest and best use of the property.
9. The Bylaws and Regulations of the professional appraisal organizations with which the appraiser is affiliated govern disclosure of the contents of the appraisal report.
10. Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written consent of the appraiser, and, in any event, only with proper written qualifications and only in its entirety.
11. Neither all nor any part of the contents of this report, or a copy thereof, shall be conveyed to the public through advertising, public relations, news, sales or any other media without written consent and approval of the appraiser. Nor shall the appraiser, firm or professional organization of which the appraiser is a member be identified without the written consent of the appraiser.
12. The value conclusion assumes all taxes and special assessments are paid in full.
13. The after improvements valuation in this appraisal assumes proposed improvements have been completed in accordance with the description of the proposed work provided to the appraiser by the City of Cottage Grove.

Environmental Disclaimer: The value opinions in this report are based on the assumption that the subject properties are not adversely affected by the existence of hazardous substances or detrimental environmental conditions. A routine inspection of the properties did not reveal or indicate any such conditions. In that the appraiser is not qualified in this field of expertise, the client is encouraged to retain an expert in such investigations, if so desired.

COMPETENCY PROVISION

Paul J. Gleason, MAI has been a full-time professional real estate appraiser since 1992. Provided later in this report is a summary of his professional qualifications. Mr. Gleason has completed numerous special benefit valuations, similar to that contained within this report, within the past two decades. The educational training and extensive work experience of the appraiser, who is licensed as a Certified General Real Property Appraiser, enables completion of this appraisal assignment in a professional manner consistent with the intent of the competency provision of the Uniform Standards of Professional Appraisal Practice.

ZONING

All four subject properties are zoned R-3, Single Family Residential District.

HISTORY OF OWNERSHIP

There are no apparent recorded transfers of the subject properties within at least three years prior to the date of valuation; and the appraiser is not aware of any current listing, pending sale or purchase option pertaining to any of the subject properties as of the effective date of valuation.

DESCRIPTION OF SUBJECT NEIGHBORHOOD AND PROPERTIES

Neighborhood

The subject properties are located in the northwest portion of the sizable Thompson Oaks Estates residential development, which consists of several additions containing predominantly single-family homes developed in the 1960s in the central part of Cottage Grove. The subject neighborhood area lies south of 80th Street, east of the retail shopping area anchored by Hy-Vee, north of Hillside Trail and generally west of Ingleside and Ideal Avenues. The subject area appears to be developed solely with moderate to modest-priced single-family homes, together with two city parks and a church.

Properties

Description Of Subject Properties				
Property No./Type		Land Area (Ac.) ¹	Use/Improvements	Comments
1	Small Single-Family Lot Property	0.23	Single-family home built in 1963	Generally level, moderately irregular shaped lot with 80' of frontage on the south side of the 80th Street south frontage road.
2	Medium-Size Single-Family Lot Property	0.31	Single-family home built in 1964	Generally level, generally rectangular-shaped lot with about 75' of frontage on the northerly side of Homestead Ave. S.
3	Large Single-Family Lot Property	0.74	Single-family home built in 1967	Moderately irregular but generally rectangular lot with about 71' on the southwest side of Henslowe Ave. S. Moderately to significantly downward sloping topography toward rear of lot; most of lot is thickly wooded with mature trees.
4	Hope Community Church	3.90	Church built in 1980	Irregular, somewhat L-shaped site with about 599' of frontage on the west side of Hyde Ave. S. and 209' of frontage on the north side of Hemingway Ave. S. Two access openings along Hyde Ave. Topography ranges from generally level, to downward sloping toward the south within the south approximately 40% of the site.

¹ Land area is net of road right of way, if any; is based primarily on information provided in county records; and is subject to survey.

DESCRIPTION OF EXISTING INFRASTRUCTURE

A feasibility report pertaining to the proposed 2023 Pavement Management project, completed by Bolton & Menk, Inc. and dated January 4, 2023, was provided by the City of Cottage Grove and reviewed by the appraiser. The area existing infrastructure, as well as the proposed improvements, are summarized on the following pages, with text primarily copied and pasted directly from the feasibility report into this appraisal report. Some paraphrasing, minor editing and consolidating of text from the feasibility report has been completed by the appraiser as well.

Streets – The streets are urban-residential and are generally 36 feet wide with B618 type concrete curb and gutter. The 80th Street frontage road varies from this standard at 22 feet wide. The streets were originally constructed between 1963 and 1966 and were then reconstructed between 1996 to 1998 with two different reconstruction methods. A majority of the project area reclaimed the original bituminous pavement, installed new concrete curb and gutter and then paved over the reclaim material. The eastern portion of 83rd Street and the entire 80th Street frontage road were fully reconstructed. The average street section in the neighborhood consists of approximately 4 inches of bituminous over 10 inches of base.

Many of the street sections show signs of stripping, which is generally described as the separation of asphalt cement from the aggregate due to moisture, which degrades the durability of the pavement. A visual inspection was performed in 2022 to evaluate pavement surface conditions. A Pavement Surface Evaluation and Rating (PASER) rating was determined, reflecting the pavement condition as represented by a numerical index between 0 and 10, where 0 is worst and 10 is best. The pavement condition of the roadways in the project area generally range from 3 to 5 (poor/fair condition).

Concrete Curb/Gutter – For its age, the existing concrete curb and gutter is in good condition as it would require only approximately 15% to be removed and replaced.

Utilities

Sanitary Sewer – The sanitary sewer system was primarily constructed in the early to mid-1960s. The existing sanitary sewer primarily consists of 9-inch vitrified clay pipe with several sections of 12-inch ductile iron pipe. The existing sanitary sewer was televised in 2022 to evaluate pipe condition. The televising reports show that the pipe is generally in fair condition. Due to the age of the sanitary sewer, sections of sewer were identified as needing additional maintenance work to extend the lifespan of the pipe. The televising identified locations where service wyes or pipe sections were cracked and needing repair.

Additionally, sanitary sewer structures were inspected in 2022. Miscellaneous needed structure repairs such as adjusting structure castings, adding or replacing barrel and cone sections, and replacing lids were noted as a result of the inspection.

Watermain – The watermain within the project area consists primarily of 6- to 12-inch diameter cast iron pipe, which was installed prior to the street construction in the early 1960s. The watermain is believed to be in good condition but due to the age of the water main, valve bolts and fittings should be checked for corrosion prior to street reconstruction. Public Works keeps records of watermain breaks and due to the relative infrequency within these neighborhoods, replacement is not warranted at this time. Public Works has found all valves to be operational.

Storm Sewer – The storm sewer within the project area was installed during the street construction in the 1960s and consists of reinforced concrete pipe ranging in size from 12 to 33 inches in diameter. The existing storm sewer was televised in 2022 to determine pipe condition and necessary repairs. Storm structures were also inspected in 2022. Storm sewer mains are generally in fair condition. However, several existing storm sewer pipes presented problems with crack separation requiring repair. Structures were generally in good condition with some miscellaneous needed structure patching, lining, minor replacements, and other repairs noted as a result of the inspection.

DESCRIPTION OF PROPOSED IMPROVEMENTS

Streets –Due to the types of distress present in the existing pavement, the anticipated acceleration of deterioration due to asphalt stripping, and risks associated with a mill-overlay at this age, the streets within the project area are proposed to undergo a full pavement replacement with 3.5 inches of new pavement. The concrete curb and gutter is proposed to undergo spot curb replacement. Preliminary estimates indicate that approximately 15% will need to be removed and replaced, with the same style B618 concrete curb and gutter.

Traffic signs are proposed to be replaced as a part of this project to meet federal retro reflectivity requirements. In addition, signs will be evaluated for conformance to the adopted City sign policy and signs will be removed or supplemented as required.

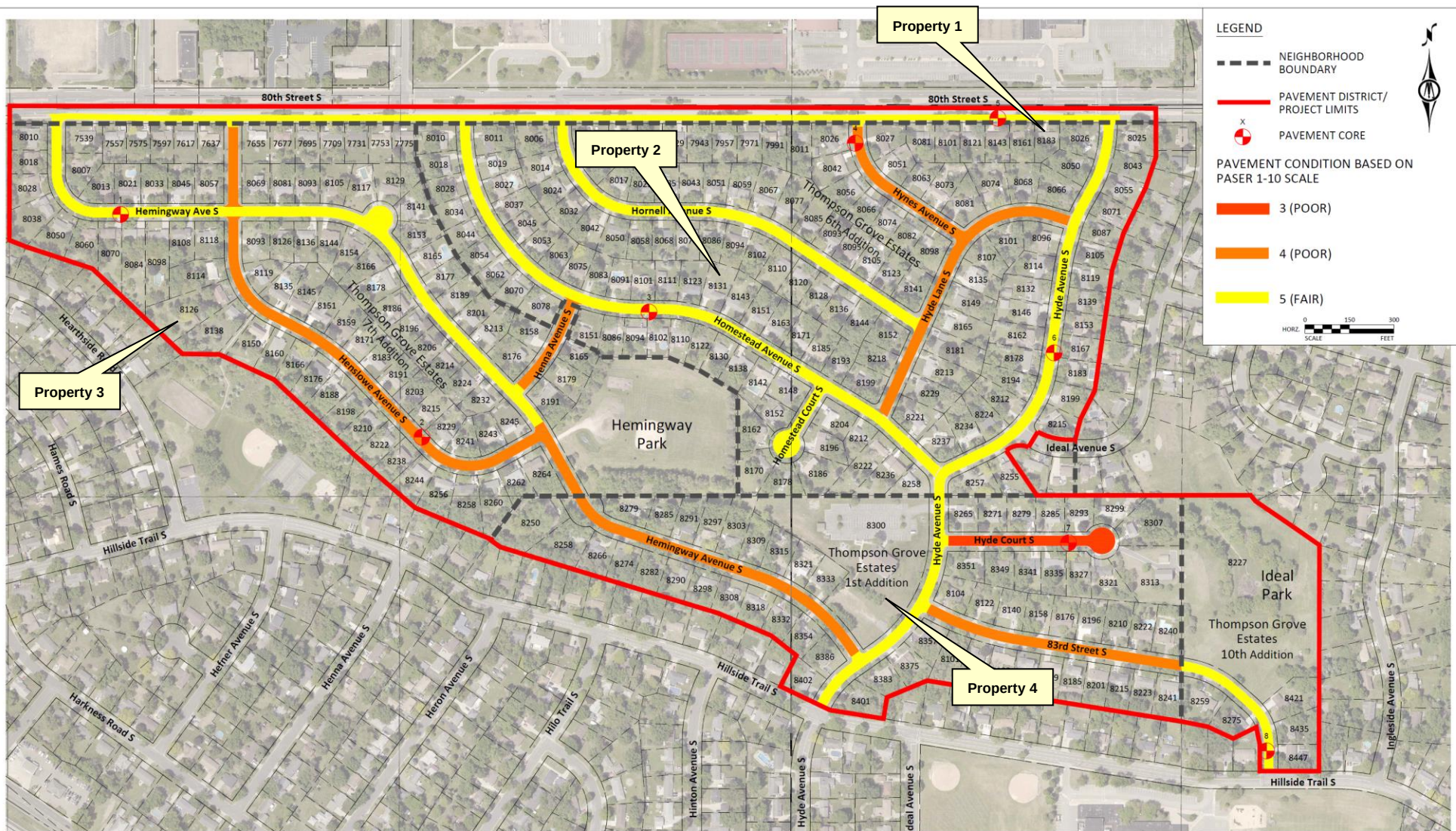
Street Lighting – Though the existing streetlights and wire throughout the neighborhood are generally in acceptable condition, Public Works has identified several streets that need the wiring to be replaced due to the amount of past maintenance that has been required. Conduit will be directionally drilled behind the curb to reduce disturbance and increase the durability of the lines.

Utilities

Sanitary Sewer – The sanitary sewer manhole castings will be salvaged and reinstalled. The existing concrete adjusting rings will be replaced with new high-density polyethylene adjusting rings to conform to current City standards, and 1-foot sections will be added to structures where necessary. Several sanitary pipes were identified from the televising as needing to be replaced. Wherever feasible, short cure-in-place pipe liners will be installed to repair cracked pipes to avoid repairs requiring street excavation in the future.

Watermain – It is proposed that broken valve top sections be removed and replaced as a part of this project. It is anticipated that a small sample of valves be dug up and checked for bolt corrosion prior to street construction. Any corroded bolts would be replaced if necessary, and additional valves with like conditions could be dug up and checked if warranted. As a part of this process, the valve box would be replaced in conjunction with the work. Also, it is proposed to extend the hydrant barrel on any hydrant requiring adjustment. Public Works has identified the pressure reducing valve as needing to be replaced as part of the project. Finally, hydrants will be reconditioned by sandblasting and painting, and concrete hydrant access pads are proposed to be constructed in accordance with current City standards.

Storm Sewer – The proposed design includes replacing existing adjusting rings with new high-density polyethylene adjusting rings to conform to current City standards on any structure adjacent to curb in poor condition. Wherever the curb is in good condition, the rings will be spray lined to improve the ring conditions as well as avoid extra disturbance. Other storm sewer repairs will include adding 1-foot sections to structures where necessary, replacing failing pipe sections, and repairing or replacing structures and castings that are in poor condition. Existing castings in good condition will be salvaged and reinstalled on the new rings. Miscellaneous structure patching and other repairs will be performed as needed.





HIGHEST AND BEST USE

Conclusion of Highest and Best Use – Before Project

As Vacant

Property	Highest and Best Use, As Vacant
1. Small Single-Family Lot Property	Development with one single-family home
2. Medium-Size Single-Family Lot Property	Development with one single-family home
3. Large Single-Family Lot Property	Development with one single-family home
4. Hope Community Church	Low-density residential development

As Improved

Only an exterior inspection from public roadways was made of the subject properties; no interior inspections were made of the buildings on the properties. Though an in-depth highest and best use analysis of the properties, as improved, was not completed, it appears to be reasonable to conclude that in the case of each subject property, its highest and best use, as improved, is continuation of its current use. Consequently, such is my conclusion.

Conclusion of Highest and Best Use – After Project

After the proposed street and utility improvements are completed, the highest and best use of the subject properties is unchanged relative to the before project position.

SPECIAL BENEFIT CONSIDERATIONS AND CONCLUSIONS

1. Before the proposed improvements, the street surfaces in the project area are relatively old and deteriorated. A recent visual inspection performed by the City of Cottage Grove indicates the pavement condition ratings of the streets range from fair to poor (3, 4 or 5 on a scale of 0 to 10, with 10 being best). It can be anticipated that further deterioration will result in a worsening of problems associated with advanced age, including improper drainage, uneven driving surfaces, increased formation of potholes, etc.
2. Though most of the concrete curb/gutter adjoining the streets is in good overall condition for its age, some sections are in need of replacement (about 15% of total).
3. Though the utility infrastructure in the project area is in generally satisfactory to good overall condition, minor repairs and replacements of various components within the infrastructure are needed.
4. The condition and quality of streets and utilities serving and fronting commercial, residential and other properties influences the value, curb appeal and general desirability of the properties.
5. The proposed rehabilitation of streets serving the subject properties, via full pavement replacement, will substantially improve the safety, convenience and general appeal of access into and out of the subject properties. The project will reverse the deteriorating state of the existing streets and result in new surfacing and, in some areas, replacement of deteriorated concrete curb and gutter, where needed.
6. Safety aspects for vehicles traveling on a rehabilitated street are enhanced by the elimination of potholes, cracks, etc. Street icing problems are reduced as water is more efficiently diverted off the roadway surface that could otherwise collect in the deteriorated street areas during frost seasons.
7. The proposed repairs and replacements, as necessary, of water main, sanitary sewer and storm sewer utility components in the project area will preempt potential major problems and disruptions in these systems, as well as extend the life of this infrastructure, deferring the need for total replacement to a significantly later point in time.
8. The proposed project improvements may result in some general benefit to neighborhoods and properties beyond the immediate subject neighborhood. However, a significant amount of benefit resulting from the project is special, attaching to the properties directly fronting the improved streets in the project area, including the subject properties.

9. The land value increase for each property, on a percentage, per-square-foot and/or per-front-foot basis, resulting from the street and related improvements can vary, and in this appraisal they do vary in some cases. This is due to differences among the properties in highest and best use, parcel land value, parcel size, parcel configuration and/or amount of street frontage. Following are comments on specific circumstances that influence the special benefits resulting from the proposed public improvements:

Single-Family Lot Properties: Generally, larger home lots have higher values than smaller lots, other factors being similar. Additionally, higher-valued lots tend to have the capacity absorb more special benefits from a street and utility project, relative to lower-valued lots. Primarily for these reasons, the special benefit conclusions for the three single-family lot properties increase with the size of each property's lot.

Hope Community Church Property: This property has a significantly larger land area than the single-family lot properties and as a result its conclusion of special benefits accruing from the project is much larger on a total dollars basis. On the other hand, the benefit on a per-square-foot-of-land and per-front-foot basis is much lower, relative to the single-family properties. The primary reason for this is that significantly larger residential land parcels such as the church property have much lower values per square foot than smaller residential lots, and thus they tend to absorb lower benefits from street/utility projects on a per-square-foot-of-land basis, relative to smaller land parcels.

SPECIAL BENEFIT ANALYSIS PROCESS

Arriving at an opinion of special value benefits accruing to the subject properties as a result of completion of the proposed City of Cottage Grove 2023 Pavement Management project is accomplished by developing "before project" and "after project" opinions of market value for the subject property parcels. The improvements on the land are concluded to have the same value contributions to the total property value in both the "before and after" project positions. Consequently, the extent of special value benefits resulting from the public improvements project can be reliably derived by analyzing the value of the land component only of each property.

The Sales Comparison Approach, which involves the comparison of recently sold land parcels similar to the appraised property, is applied to the valuation of each of the subject properties. The comparable sale prices are analyzed and adjustments are made for value-related differences relative to the subject property. The result of the analysis and adjustments is the generation of a range of value indications for the subject land. The strengths and weaknesses of each comparable sale and its value indication are evaluated before arriving at a final value opinion for the subject land parcel, before and after the proposed improvement project.

Retained in the appraiser's office work file for this assignment are market data, notes and other supporting information pertaining to the application of before-and-after valuation analyses completed for each subject property for the purpose of arriving at opinions of special benefit. Shown below is the result of these analyses, presenting the opinions of the special benefit values as of December 29, 2022 resulting from the City of Cottage Grove 2023 Pavement Management project:

City of Cottage Grove, Minnesota 2023 Pavement Management Special Benefits Opinions				
Property No.	Property Type/ Fee Owner	Address	PID #	Opinion of Special Benefit
1	Small Single-Family Lot Property Connie Blaisdell	8183 80th St. S.	16-027-21-22-015	\$5,800
2	Medium-Size Single-Family Lot Property Anderson Living Trust	8131 Homestead Ave. S.	17-027-21-11-0032	\$6,500
3	Large Single-Family Lot Property Lawrence and Katherine Weverka	8126 Henslowe Ave. S.	17-027-21-12-0026	\$7,100
4	Hope Community Church Park Grove Alliance	8300 Hyde Ave. S.	16-027-21-23-0069	\$21,900

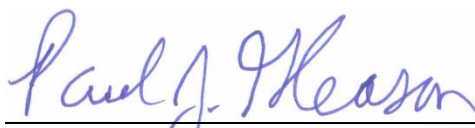
EXPOSURE TIME

The preceding opinions of special benefits reflect an increase in the market values of the subject properties resulting from the proposed public improvement project. The before and after project property market values associated with these conclusions of special benefits are based on estimated property exposure times of 0 to 12 months. Exposure time is defined as “an opinion, based on supporting market data, of the length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal” (Source: 2020-2021 Uniform Standards of Appraisal Practice, p. 4).

CERTIFICATION

The undersigned does hereby certify that in this appraisal report:

1. This appraisal assignment is not based on a requested minimum valuation or specific valuation for approval of a loan. The estimate of market value identified in this report was developed independent of any undue influence.
2. Neither my engagement to make this appraisal (or any future appraisals for this client), nor any compensation, therefore, are contingent upon the development or report of a predetermined value or direction in value that favors the cause of the client, the amount of value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of the appraisal.
3. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
4. I have no present or contemplated future interest in the real estate that is the subject of this appraisal report.
5. I have no personal interest or bias with respect to the subject matter of this appraisal report or the parties involved.
6. To the best of my knowledge and belief the statements of fact contained in this appraisal report upon which the analyses, opinions and conclusions expressed herein are based, are true and correct.
7. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased analyses, opinions, and conclusions.
8. This appraisal report has been made in conformity with and is subject to the requirements of the Code of Professional Ethics and Standards of Professional Conduct of the Appraisal Institute, and the Uniform Standards of Professional Appraisal Practice.
9. No one provided significant professional assistance to the person(s) signing this certification.
10. I have made a personal inspection of the property that is the subject of this report.
11. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
12. As of the date of this report, I have completed the continuing education program for Designated Members of the Appraisal Institute.
13. The by-laws and regulations of the Appraisal Institute govern disclosure of the contents of this appraisal report.
14. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser or the firm with which he/she is connected, or any reference to the Appraisal Institute or MAI designation) shall be disseminated to the public through advertising media, public relations media, news media, sales media, or any other public means of communication without the prior written consent and approval of the undersigned.
15. I have the knowledge and experience to complete this appraisal in a competent manner. Neither my company nor I have been sued by a regulatory agency or financial institution for fraud or negligence involving an appraisal report.
16. I have performed no services as an appraiser regarding the properties that are the subject of the report within the three-year period immediately preceding acceptance of this assignment.



Paul J. Gleason, MAI

Certified General Real Property Appraiser

Minnesota License #4003073

PROFESSIONAL QUALIFICATIONS
PAUL J. GLEASON, MAI

PROFESSIONAL MEMBERSHIPS AND ASSOCIATIONS

MAI Member – The Appraisal Institute

APPRAISER LICENSE

Certified General Real Property Appraiser – State of Minnesota –
License #4003073

EDUCATION

University of Wisconsin at La Crosse, Wisconsin – 1985
Bachelor of Science Degree in Business Administration

PROFESSIONAL EXPERIENCE

Principal – BRKW Appraisals, Inc., Minneapolis, MN, 2007-present

Staff Appraiser – BRKW Appraisals, Inc., St. Paul, MN, 1993-2006

Appraiser – Certified Appraisers, Excelsior, MN, 1993

Appraiser – Stiles Appraisals, Inc., Plymouth, MN, 1992-1993

Expert Witness Testimony – For real estate litigation in numerous condemnation commissioners' hearings, arbitration hearings and in District Court

Presenter/Speaker at Minnesota Department of Transportation's 2016 Right of Way Professionals Workshop, Brainerd, MN

Presenter/Speaker at Minnesota Department of Transportation's 2014 Right of Way Professionals Workshop, Brainerd, MN

Presenter/Speaker at Minnesota Department of Transportation's 2012 Right of Way Professionals Workshop, Brainerd, MN

Presenter/Speaker at Minnesota Department of Transportation's 2010 Right of Way Professionals Workshop, Breezy Point, MN

Appraisal assignments have been completed for the following purposes:

Condemnation – Partial and total acquisitions, in fee title and in easement form

Property Damage Claims Litigation

Special Benefits Valuation

Mortgage Financing

General Valuation Needs – Purchase negotiations, listing prices, internal family or partnership transactions, estate planning/taxes, marriage dissolution, etc.

PROPERTY TYPES APPRAISED

Land – Commercial, industrial, residential acreage, agricultural, finished lots
Commercial Buildings – Office, industrial, retail, medical office, auto dealerships
Apartment Buildings/Complexes
1-4 Family Residential – Single-family home, townhome, condo, duplex, fourplex

PROFESSIONAL REAL ESTATE STUDIES

Appraisal Institute courses, including all required for MAI designation:

Course 110: Appraisal Principles (examination passed)
Course 120: Appraisal Procedures (examination passed)
Course 210: Residential Case Study
Course 310: Basic Income Capitalization
Course 410: National Uniform Standards of Professional Appraisal Practice
Course 420: Business Practices and Ethics
Course 510: Advanced Income Capitalization
Course 520: Highest and Best Use and Market Analysis
Course 530: Advanced Sales Comparison and Cost Approaches
Course 540: Report Writing and Valuation Analysis
Course 550: Advanced Applications

Numerous additional classes and seminars for appraisal pre-license and continuing education requirements, on an ongoing basis, from Appraisal Institute and other sources

CLIENTS INCLUDE

Minnesota Cities of Afton, Austin, Apple Valley, Blaine, Cambridge, Cottage Grove, Eagan, Lino Lakes, Maplewood, Northfield, Oak Park Heights, Owatonna, Prior Lake, Rochester, Savage, Wabasha and Woodbury, among others

Associated Bank	BMO Harris Bank N.A.
Bremer Bank	Bridgewater Bank
Dougherty, Molenda, Solfest, Hills & Bauer, P.A.	Eckberg Lammers, P.C.
Everett Law, LLC	Greene Espel PLLP
LeVander, Gillen & Miller, P.A.	Kennedy & Graven, Chartered
Metropolitan Council	Minnesota Dept. of Transportation
US Bank	Western Bank

And various other individuals, attorneys, communities and counties

Revised: July 1, 2022



City Council Action Request

9.B.

Meeting Date	10/18/2023						
Department	Finance						
Agenda Category	Action Item						
Title	Tall Weeds Assessment Hearing						
Staff Recommendation	1. Hold Public Hearing. 2. Adopt resolution 2023-132, Adopting service charges for the removal of noxious weeds and plants from private property.						
Budget Implication	n/a						
Attachments	<table><tr><td>1.</td><td>07 Adopt SA Memo Tall Weeds 2023</td></tr><tr><td>2.</td><td>08 Adopt Assessment Resolution Tall Weeds 2023</td></tr><tr><td>3.</td><td>09 Tall Weeds Assessment Roll</td></tr></table>	1.	07 Adopt SA Memo Tall Weeds 2023	2.	08 Adopt Assessment Resolution Tall Weeds 2023	3.	09 Tall Weeds Assessment Roll
1.	07 Adopt SA Memo Tall Weeds 2023						
2.	08 Adopt Assessment Resolution Tall Weeds 2023						
3.	09 Tall Weeds Assessment Roll						



To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Brenda Malinowski, Finance Director
Michael Hoppe, Assistant Finance Director

Date: October 18, 2023

Subject: Assessment of Removal of Weeds on Private Property

Introduction

City Ordinance 4-3-1 (Noxious Weeds and Plants; Height Restrictions) states that it is unlawful to allow or permit any growth of grasses or weeds, to a height greater than eight inches (8"). The City was required to contract for the abatement of these conditions on several properties and Minnesota State Statute 429.101 provides cities the ability to assess the costs associated with the removal or elimination of weeds from these private properties.

Discussion

In 2023, the Code Enforcement Officer issued 36 letters to property owners for violations of the City's Noxious Weeds and Plants; Height Restrictions ordinance. The property owners were provided a forty-eight (48) hour deadline after receipt of the letter to abate the conditions, after which the City would perform the necessary work and invoice the property owner for the cost of the mowing and an abatement fee.

The City contracted with a vendor to have these properties mowed. This assessment is for the actual cost of the mowing and a tall weed abatement fee which is charged as follows:

- \$50.00 for first violation in 24-months.
- \$100.00 for second violation in 24-months commencing within first violation.
- \$200.00 for third and subsequent violations in 24-months commencing within first violation.

At the Council Meeting on September 20th, costs were declared, and an assessment hearing was called for October 18th for these properties. As required, an assessment notice for these weed violations was published on October 3rd, 2023, and individual notices were sent to the four property owners. One property owner paid after receiving the notice, which resulted in this property being removed from the Assessment Roll. An additional property owner has indicated they will be prepaying their property's assessment before the November 17th certification date.

Once the costs are assessed on the remaining three properties, they become a lien on the property that will be collected along with property taxes over a one-year period.

PID	Owner's Name at the Time of Abatement	Property Address	Abatement Reason	Cost of Abatement
18.027.21.41.0110	Kayla Birk	8538 Grenadier Ave S	Tall Weeds	\$ 323.39
22.027.21.23.0074	Ali Sahal & Husno Yusuf	9455 Jarrod Ave S	Tall Weeds	\$ 258.97
09.027.21.24.0001	Jeanne Alexis-Dimanche	7553 Inman Ave Ct S	Tall Weeds	\$ 569.01
Total				\$ 1,151.37

Recommendation

Hold the public hearing and then adopt the assessment for the removal of weeds on private property.

CITY OF COTTAGE GROVE
CITY COUNCIL
RESOLUTION 2023-132

**RESOLUTION ADOPTING SERVICE CHARGES FOR THE REMOVAL OF NOXIOUS
WEEDS AND PLANTS FROM PRIVATE PROPERTY**

WHEREAS, State Statutes provide for the assessment of costs associated with the removal or elimination of noxious weeds and plants from private property; and

WHEREAS, pursuant to proper notice duly given as required by law, the Council has met and heard and passed upon all objections to the proposed assessment.

NOW THEREFORE BE IT RESOLVED, the City Council of Cottage Grove, County of Washington, State of Minnesota, as follows:

1. Such proposed assessment, in the amount of \$1,151.37, a copy of which is attached hereto and made a part hereof, is hereby accepted and shall constitute the special assessment against the lands named therein, and each tract of land therein included is hereby found to benefit by the proposed improvement in the amount of the assessment levied against it.
2. Such assessment shall be payable in equal annual installments extending over a period of 1 year, at an interest rate of 7%, the first of the installments to be payable on or before the first Monday in January 2024 and shall bear interest on the entire assessment from the date of this resolution until December 31, 2024. To each subsequent installment when due shall be added interest for one year on all unpaid installments.
3. The owner, of any property so assessed may, at any time prior to certification of the assessment to the County Auditor, pay the whole of the assessment on such property, with interest accrued to the date of payment, to the City Treasurer, except no interest shall be charged if the entire assessment is paid within 30 days from the adoption of this resolution; and she/he may, at any time thereafter, pay to the City Treasurer the entire amount of the assessment remaining unpaid, with interest accrued to December 31 of the year in which payment is made. Such payment must be made before November 17 or interest will be charged through December 31 of the next succeeding year.
4. The Director of Finance shall transmit a certified duplicate of this assessment to the County Auditor to be extended on the property tax lists of the County. Such assessment shall be collected and paid over in the same manner as other municipal taxes.

Passed this 18th day of October 2023.

Myron Bailey, Mayor

Attest:

Tamara Anderson, City Clerk

Tall Weeds Assessment Roll - 2023

Property Address	PID	Owner	Svc Type	Svc Date	Amount	Tax	Admin Fee	Assessment Costs	Total Assessment
8538 Grenadier Ave S	18.027.21.41.0110	Kayla Birk	Mowing Abatement	5/26/2022	\$ 240.00	\$ 21.39	\$ 50.00	\$ 12.00	\$ 323.39
9455 Jarrod Ave S	22.027.21.23.0074	Ali Sahal & Husno Yusuf	Mowing Abatement	8/26/2022	\$ 180.00	\$ 16.97	\$ 50.00	\$ 12.00	\$ 258.97
7553 Inman Ave Ct S	09.027.21.24.0001	Jeanne Alexis-Dimanche	Mowing Abatement	6/9/2023	\$ 468.75	\$ 38.26	\$ 50.00	\$ 12.00	\$ 569.01
					\$ 888.75	\$ 76.62	\$ 150.00	\$ 36.00	\$ 1,151.37



City Council Action Request

9.C.

Meeting Date	10/18/2023						
Department	Finance						
Agenda Category	Action Item						
Title	Street Reconstruction and Overlay Plan Public Hearing						
Staff Recommendation	1. Conduct the Public Hearing for the Street Reconstruction and Overlay Plan. 2. Adopt Resolution 2023-133 Adopting a Street Reconstruction and Overlay Plan and approving the issuance of General Obligation Street Reconstruction Bonds.						
Budget Implication	N/A						
Attachments	<table><tr><td>1.</td><td>CC Memo SROP 10-18-2023</td></tr><tr><td>2.</td><td>Street Recon & Overlay Plan 2024-2028</td></tr><tr><td>3.</td><td>2023-133 Cottage Grove Resolution Adopting Street Reconstruction and Overlay Plan</td></tr></table>	1.	CC Memo SROP 10-18-2023	2.	Street Recon & Overlay Plan 2024-2028	3.	2023-133 Cottage Grove Resolution Adopting Street Reconstruction and Overlay Plan
1.	CC Memo SROP 10-18-2023						
2.	Street Recon & Overlay Plan 2024-2028						
3.	2023-133 Cottage Grove Resolution Adopting Street Reconstruction and Overlay Plan						



To: Honorable Mayor and City Council Members
Jennifer Levitt, City Administrator

From: Brenda Malinowski, Finance Director

Date: October 18, 2023

Subject: Public Hearing for Street Reconstruction and Overlay Plan (SROP)

Background

A Street Reconstruction and Overlay Plan (SROP) was discussed during the Financial Management Plan (FMP) process as a method of scheduling street projects and issuing debt for those street projects that will not have 20% assessments. A SROP is a plan governed under Minnesota Statute, 475.58, subdivision 3b. An SROP is designed to anticipate street reconstruction expenditures and schedule them over a 5-year period so that they may be constructed in the most efficient and cost-effective manner.

Now that the street projects have been identified in the Capital Improvement Plan and the costs to pay for those street projects have been included in the FMP, the next step is to begin the process of adopting the SROP. Before a SROP can be adopted, a public hearing must be held for public input regarding the SROP.

Street projects that are included in the SROP are listed below.

Project	Anticipated Year	Estimated SROP cost
East Point Douglas	2024	\$3.5M
Jamaica Avenue from 80 th to 90 th	2024	\$4M
80 th Street from Ideal to Highway 61	2026	\$4.5M
80 th Street Roundabout at Keats	2026	\$1.5M
100 th Street	2026	\$5M
Harkness Avenue	2027	\$2M
Jamaica (Rose of Sharon to Military)	2028	\$5M

Note-higher inflationary costs were included in the 2026-2028 projects. Amounts and/or years can be shifted between projects, but total bonds of all projects cannot exceed the total of all projects without adopting a new SROP.

Recommendation

It is recommended that the City Council:

1. Conduct the public hearing for the Street Reconstruction and Overlay Plan.
2. Adopt Resolution, 2023-133 Adopting a Street Reconstruction and Overlay Plan and Approving the Issuance of General Obligation Street Reconstruction Bonds.

October 18, 2023

FIVE - YEAR STREET RECONSTRUCTION & OVERLAY
PLAN:

City of Cottage Grove, MN

2024 - 2028



Prepared by:

Ehlers
3060 Centre Pointe Drive
Roseville, Minnesota 55113

BUILDING COMMUNITIES. IT'S WHAT WE DO.

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I. INTRODUCTION

In 2002, the Minnesota State Legislature passed into law a bill which generally exempts city bonds issued under a street reconstruction program from the referendum requirements usually required for bonding expenditures. In 2013 the Legislature amended the law to allow bituminous overlays to be included in the street reconstruction program. In 2021 the Legislature amended the definition of street reconstruction and bituminous overlays to include the addition or reconstruction of turn lanes, bicycle lanes, sidewalks and paths. In addition, bicycle lanes, sidewalks and paths were added as allowable costs when widening a street. The authorization is contained in Minnesota Statutes, Section 475.58, subdivision 3b (the “Act”).

II. PURPOSE

A street reconstruction program represents a major expenditure of city funds for the reconstruction or bituminous overlay of public streets. As defined in the Act, street reconstruction and bituminous overlay projects may include utility replacement and relocation and other incidental costs, turn lanes and other improvements having a substantial public safety function, realignments, other modifications to intersect with state and county roads, and the local share of state and county road projects. Except in the case of turn lanes, safety improvements, realignments, intersection modifications, and local share of state and county road projects, street reconstruction and overlays do not include the portion of project costs allocable to widening a street or adding curbs and gutters where none previously existed.

A Street Reconstruction and Overlay Plan (SROP) is a document designed to anticipate street reconstruction and overlay expenditures and schedule them over a five-year period so that they may be purchased in the most efficient and cost-effective method. A SROP allows the matching of expenditures with anticipated income. As potential expenditures are reviewed, the city considers the benefits, costs, alternatives and impact on operating expenditures.

The City of Cottage Grove, Minnesota (the “City”) believes the street reconstruction and overlay process is an important element of

responsible fiscal management. Major capital expenditures can be anticipated and coordinated to minimize potentially adverse financial impacts caused by the timing and magnitude of capital outlays. This coordination of capital expenditures is important to the City in achieving its goals of adequate physical assets and sound fiscal management. Good planning is essential for the wise use of limited financial resources. The SROP is designed to be updated on an as needed basis.

III. PLANNING PROCESS

The City Council annually reviews its capital expenditures according to their priority, fiscal impact, and available funding as part of its Capital Improvement Plan (CIP) process. The City assembles the specific capital expenditures to be undertaken within the next five years. The City Council prepares a plan based on the available funding sources. From this information, a preliminary CIP is prepared for public discussion from citizens and other governmental units. Changes are made based on that input, and a final plan is established.

Over the life of the CIP, once the funding becomes available the individual capital expenditures can be made as part of individual project approvals. In subsequent years, the process is repeated as expenditures are completed and new needs arise.

If bonding is necessary, the City works with its municipal advisor to prepare a bond sale and repayment schedule. Street reconstruction and overlay planning occurs separately from the CIP process focusing specifically on street reconstruction and overlay projects to be financed with general obligation street reconstruction bonds under provisions of the Act. The SROP is to describe the identified street reconstruction and overlay projects to be financed, their estimated costs, and any planned reconstruction or overlay of other streets in the City over the next five years.

For a city to use its authority under the Act to finance street reconstruction and bituminous overlay expenditures with general obligation bonds, it must meet the requirements provided therein.

Specifically, the city must hold a public hearing for public input on a SROP. Notice of such hearing must be published in the official newspaper of the city at least 10, but not more than 28 days prior to the date of the public hearing. In addition, the council must approve the SROP and issuance of street reconstruction bonds by a two-thirds majority vote of its membership present at the meeting following a public hearing.

Although a referendum is not required, a reverse referendum is allowable. If a petition requesting a vote on the issuance of bonds bearing the signatures of at least 5 percent of the votes cast in the last municipal general election is filed with the municipal clerk within 30 days after the public hearing, a referendum vote on the issuance of the bonds shall be required to authorize the issuance. If the municipality elects not to submit the question to the voters, the municipality shall not propose the issuance of bonds under the Act for the same purpose for a period of 365 days from the date of receipt of the petition.

IV. PROJECT SUMMARY

The expenditures to be undertaken with this 2024 to 2028 SROP are limited to those listed in Appendix A and further discussed in the following section. All other foreseeable capital expenditures within the City government will come through other means or through an amendment to this SROP.

V. FINANCING

The total amount of requested expenditures under the SROP is up to \$23,000,000. If these expenditures are to be funded, that amount of money is anticipated to be generated through a combination of tax levy, special assessments and sale of general obligation street reconstruction plan bonds over the five-year period.

In the financing of the SROP, one statutory limitation applies. Under Chapter 475, with few exceptions, cities cannot incur debt in excess of

3% of the assessor's estimated market value (EMV) for the city. The City's Pay 2023 EMV is \$5,517,714,600. As noted in the table below, the City's debt subject to this requirement, including the proposed bond issue, is within the required threshold:

Net Debt Limit	
Assessor's Estimated Market Value	5,517,714,600
Multiply by 3%	0.03
Statutory Debt Limit	165,531,438
Less: Debt Paid Solely from Taxes	(12,770,000)
Less: Proposed Bond Issue(s)	(25,500,000)
Unused Debt Limit	127,261,438

Under the SROP, the City plans to issue up to \$25,500,000 in general obligation bonds in the years 2024 through 2028 to finance the projects listed in Appendix A and further described below.

Year	Street	Description
2024	East Point Douglas	Reconstruction and realignment of the intersection at Jamaica Avenue and the entrance to Cub Foods and Target
	Jamaica Avenue	Reconstruction of the road from 80th to 90th street
2025	None Anticipated	
2026	80th Street	Reconstruction from Ideal Avenue to Highway 61
	80th Street	Local share of a County improvement project at 80th Street and Keats Avenue
	100th Street	Local share of a County reconstruction and realignment project
2027	Harkness Avenue	Reconstruction from Oakwood Park north to Hardwood Avenue intersection
2028	Jamaica Avenue	Local share of a County reconstruction project from Rose of Sharon Church to Military Road

The bond sizing is based upon funding the estimated project amounts listed in Appendix A plus estimated cost of issuance, underwriter discount, capitalized interest and contingency.

VI. PLAN CONTINUATION

This SROP should be reviewed annually as needed by the City Council using the process outlined in this document. It should review proposed expenditures, make priority decisions, and seek funding for those expenditures it deems necessary for the City. If deemed appropriate, the Council should prepare an update to this SROP.

APPENDIX A

Plan Project Costs:

The 2024 through 2028 capital expenditures are estimated to be approximately \$23,000,000 for the planned road reconstruction and bituminous overlay projects. The project costs have been increased to account for inflation and contingency. The project costs are anticipated to be funded with up to \$25,500,000 in bond proceeds.

Project Costs			
Year	Project	Amount	
2024	2024 Road Reconstruction	\$	7,000,000
2025	None Anticipated	\$	-
2026	2026 Road Reconstruction	\$	10,500,000
2027	2027 Road Reconstruction	\$	1,500,000
2028	2028 Road Reconstruction	\$	4,000,000
TOTAL		\$	23,000,000

Proposed SROP Bond Issues:

The 2024 through 2028 bond proceed amounts are noted in the table below. For purposes of the SROP, the bond proceed amounts were determined by including cost of issuance, underwriter discount and capitalized interest costs.

Proposed SROP Bond Issues			
Year	Amount		
2024	\$	7,500,000	
2025	\$	-	
2026	\$	11,000,000	
2027	\$	2,000,000	
2028	\$	5,000,000	
TOTAL	\$	25,500,000	

CITY OF COTTAGE GROVE, MINNESOTA
CITY COUNCIL
RESOLUTION 2023-133

**RESOLUTION ADOPTING A STREET RECONSTRUCTION AND
OVERLAY PLAN AND APPROVING THE ISSUANCE OF
GENERAL OBLIGATION STREET RECONSTRUCTION BONDS**

WHEREAS, the City of Cottage Grove, Minnesota (the "City"), has determined that it is in the best interest of the City to authorize the issuance and sale of general obligation street reconstruction bonds pursuant to Minnesota Statutes, Section 475.58, subdivision 3b, as amended (the "Act"), to finance the cost of street reconstruction projects, as described in the proposed street reconstruction and overlay plan described below, a copy of which is on file in the City Clerk's office; and

WHEREAS, pursuant to the Act, the City is authorized to issue and sell general obligation street reconstruction bonds for street reconstruction under the circumstances and within the limitations set forth in the Act. The Act provides that a street reconstruction and overlay plan may be financed with general obligation street reconstruction bonds, following adoption of a street reconstruction and overlay plan, after a public hearing on the street reconstruction and overlay plan and on the issuance of general obligation street reconstruction bonds and other proceedings conducted in accordance with the requirements of the Act; and

WHEREAS, pursuant to the Act, the City has prepared a five-year street reconstruction and overlay plan for calendar years 2024 through 2028, which describes the streets to be reconstructed, the estimated costs and any planned reconstruction of other streets in the City, including the issuance of general obligation street reconstruction bonds under the Act (the "Plan"), to determine the funding strategy for street reconstruction projects; and

WHEREAS, on October 18th, 2023, the City Council held a public hearing on the adoption of the Plan and the issuance of not to exceed \$25,500,000 general obligation street reconstruction bonds (the "Bonds") under the Plan for street reconstruction improvements to those streets described in the Plan (the "Street Reconstruction Projects") after publication of the notice of public hearing not less than 10 days nor more than 28 days prior to the date thereof in the City's official newspaper; and

WHEREAS, all parties who appeared at the public hearing were given an opportunity to express their views with respect to the proposal to adopt the Plan and to undertake and finance the Street Reconstruction Projects by the issuance of Bonds and any written comments submitted prior to the public hearing were considered.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Cottage Grove, County of Washington, State of Minnesota, as follows:

1. City Policies and Goals. The financing of the Street Reconstruction Projects and the issuance and sale of the Bonds would further the policies and goals of the City as set forth in the Plan, hereby adopted by the City Council in connection with the issuance of the Bonds.
2. Public Hearing Notice. The City Council hereby ratifies the actions of the City Clerk in causing the publication of the Notice of Public Hearing to be published in the City's official newspaper as required by law; and
3. Adoption of Street Reconstruction and Overlay Plan. Based on information received at the public hearing, such written comments (if any) and such other facts and circumstances as the City Council deems relevant, it is hereby found, determined and declared that:
 - a. the Street Reconstruction Projects proposed in the Plan will allow the City to upgrade its transportation infrastructure to accommodate anticipated and existing residential and commercial development; and
 - b. the Plan is hereby approved and adopted in the form presently on file with the City.
4. Authorization and Approval of Bonds. The City is hereby authorized to issue the Bonds, the proceeds of which will be used, together with any additional funds of the City which might be required, to finance certain costs of the Street Reconstruction Projects and to pay costs of issuance of the Bonds.
5. Execution of Documents. The Mayor and City Clerk are authorized and directed to execute such other documents and instruments as may be required to give effect to the transactions herein contemplated.
6. Voter Referendum Contingency. Pursuant to the Act, a petition requesting a vote on the question of issuing the Bonds, signed by voters equal to five percent of the votes cast in the last municipal general election, may be filed within thirty days of the public hearing. Upon receipt of such petition within the prescribed time period, the City may issue the Bonds only after obtaining the approval of a majority of the voters voting on the question of the issuance of the Bonds. The authorizations and approvals contained herein are subject to and contingent upon not receiving such a petition, or, in the event such a petition is filed, the

approving vote of a majority of the voters voting on the question of the issuance of the Bonds.

Passed this 18th day of October 2023.

Myron Bailey, Mayor

Attest:

Tamara Anderson, City Clerk



City Council Action Request

11.A.

Meeting Date 10/18/2023

Department Administration

Agenda Category Ordinance

Title Cannabis and Tobacco Use on Public Property & Public Places

Staff Recommendation Discuss the ordinances and, if acceptable, move each ordinance separately for approval. 1. Motion to approve an Ordinance Amending Cottage Grove City Code by Enacting Title 5, Chapter 1, Section 6, Prohibiting Cannabis Use on Public Property and in Public Places. 2. Motion to approve an Ordinance Amending Cottage Grove City Code by Amending Title 7, Chapter 3, Section 4, Prohibiting Smoking and Vaping Tobacco Products in Public Parks. 3. Motion to approve an Ordinance Amending Cottage Grove City Code by Enacting Title 5, Chapter 1, Section 7, Underage Possession and Use of Cannabis Products

Budget Implication

Attachments

1.	CC memo for cannabis and tobacco use in public and underage penalty 10-18-23
2.	Joint Commission Survey Results
3.	Tobacco/Cannabis Use in City Parks (metro area)
4.	Tobacco Use In Park Comparable
5.	Cannabis Use in Public Ordinance 1074
6.	Smoking in Public Ordinance 1077
7.	Underage Use Ordinance 1078



To: Honorable Mayor and City Council
Jennifer Levitt, City Administrator

From: Kori Land, City Attorney

Date: October 18, 2023

Subject: Ordinance Amendments regarding: Adult Use Cannabis Smoking/Vaping in Public Places, Tobacco Use in Public Parks, and Penalties for Underage Cannabis Use

BACKGROUND

In 2022, the Minnesota legislature enacted a law legalizing the sale and use of CBD (low potency cannabis), which is typically sold in the form of edibles and beverages. In 2023, the legislature legalized adult use cannabis (over .3% THC). While adult use cannabis is currently legal to use, its use is restricted to specific locations. Unfortunately, there is no penalty for violating that law. At a work session on September 5, 2023, the City Council discussed the idea of prohibiting cannabis use in public places, as well as prohibiting tobacco use in public parks, and it was determined that the questions should be forwarded to the Parks Commission as well as the Public Safety Commission to weigh in on these topics.

Another challenge that was discussed out of the new legislation is that while it is illegal for anyone under 21 to use any cannabis products, there is no penalty for underage consumption. This topic was also forwarded to the commissions for input.

On Sept. 11, 2023, the Parks Commission and Public Safety Commission held a joint meeting and discussed the prohibition of smoking/vaping of adult use cannabis in public places, the prohibition of tobacco use in city parks and the imposition of a penalty for underage use of cannabis. There were 15 members from the commissions who participated in the joint meeting. There was a good discussion about public safety's enforcement and time commitment involved, protection of the public health and the consistency of prohibiting cannabis vs. tobacco use in public places. At the end of the discussion, by show of hands, a majority of the commissioners supported the proposed ordinances. A follow-up written survey by the commissioners confirmed the responses.

PROPOSED ORDINANCES

Prohibition on Cannabis Use in Public Places

The new state law authorizes the use of adult use cannabis, but only in the following locations:

1. A private residence; or
2. Private property with permission of the owner (not a place open and accessible to the public); or
3. A business licensed by the OCM for on-site consumption. (Will not happen until 2025)

The proposed ordinance prohibits smoking/vaping of adult use cannabis in public places and on public property, which are defined as follows:

PUBLIC PLACE: Property that is generally open to or accessible by the public, and includes public property, but does not include those premises licensed by the State of Minnesota to permit on-site consumption.

PUBLIC PROPERTY: Property, real and personal, that is owned, managed, or controlled by the City, including, but not limited to: City buildings and all the land thereon, parking lots, parks, pathways and trails, and city rights-of-way consisting of both the traveled portion and the abutting boulevard, sidewalks and trails, and any City personal property, such as motor vehicles and city equipment.

A “public place” is open and accessible to the general public, such as a commercial parking lot or private sidewalk around a shopping center. It is private property, because it is not owned by the City, but there is access to it by the general public. “Public property,” on the other hand, is owned by the City or controlled by the City, such as City parks, City-owned unimproved land, sidewalks, trails and City parking lots.

The legislature specifically stated that any penalty imposed for public use could be no more than a petty misdemeanor. A petty misdemeanor is an “offense” under the law, *not a crime*. It carries no long-term criminal record or criminal history implications. A petty is punishable by a maximum \$300 fine. We have proposed a penalty in the ordinance of \$100, but the Council can adjust it as it sees fit.

Tobacco Use in Public Parks

While it is not currently an issue that garners many complaints, in order to be consistent, it was felt that tobacco smoking/vaping should also be prohibited in public parks. There is an exception in the proposed ordinance that removes River Oaks from the definition of a “public park” for purposes of tobacco use, since it is a facility that requires payment to participate and is not used in the same manner as a free, open-to-the-public City park.

Underage Use

The joint commissions discussed imposing a penalty for underage use and overwhelmingly supported a penalty that mirrors the statutory penalty for the underage consumption of alcohol. Under state law, underage consumption of alcohol is a misdemeanor with a mandatory minimum fine of \$100. It should be noted that all ordinance violations (trash, junk cars, building permit violations) are also a misdemeanor, including underage use of tobacco. The proposed ordinance provides the same penalty as the underage consumption of alcohol.

Each ordinance has been prepared separately so that each one can be considered on its own merits.

REQUESTED ACTION

Discuss the ordinances and if acceptable, move each ordinance separately for approval.

Motion to approve An Ordinance Amending Cottage Grove City Code by Enacting Title 5, Chapter 1, Section 6, Prohibiting Cannabis Use on Public Property and in Public Places

Motion to approve An Ordinance Amending Cottage Grove City Code by Amending Title 7, Chapter 3, Section 4, Prohibiting Smoking and Vaping Tobacco Products in Public Parks

Motion to approve An Ordinance Amending Cottage Grove City Code by Enacting Title 5, Chapter 1, Section 7, Underage Possession and Use of Cannabis Products

Joint Commission Survey Results

Cannabis & Tobacco use in the City of Cottage Grove

Now that the legislature has legalized marijuana, there is limited guidance and oversight on the use of the substance. The law allows it to be used in private homes (not in the presence of children), in private smoking lounges. Please respond yes or no to the following locations if it should be permitted to be smoked in these locations in the community.

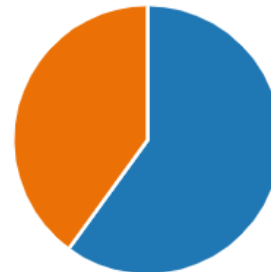
1. Should the use of Marijuana be prohibited in the city?



2. Should the use of marijuana be prohibited in public right-of-way (in the street, and on trails and sidewalks immediately next to street)?



3. Should the use of marijuana be prohibited in other public spaces (grocery store parking lots, restaurant parking lots, retail parking lots, etc.)?



4. Please feel free to provide comments, concerns, or questions regarding your selections.

Commissioner Comment - If there is to be a ban on smoking, there needs to be consideration for vapes, cigarettes, cigars, etc. The argument could be made that all of the following are intoxicating substances. Marijuana comes in many forms, so if the intoxication is concern...there needs to be a look at other forms as well.

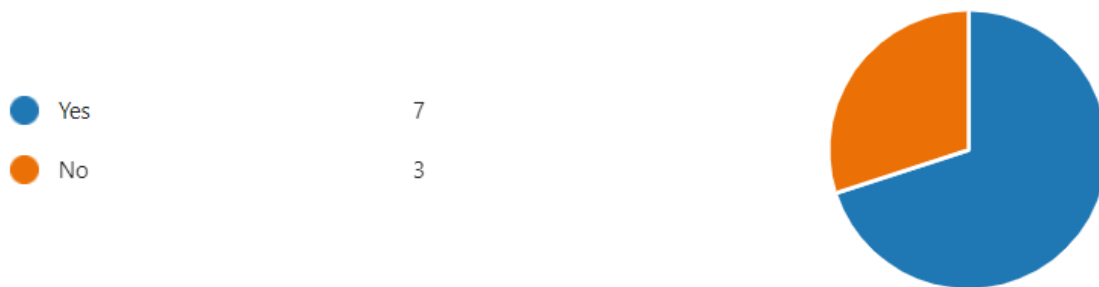
Commissioner Comment - Why would we regulate it any differently than alcohol?

Commissioner Comment - There should be some restrictions with distance to Schools, public and private.

Commissioner Comment - I don't think marijuana should be treated differently from tobacco. If tobacco smoking/vaping is prohibited, then marijuana should be too. Smoked substances should be treated the same for consistency in our policies. If a new smokable substance becomes legalized, it could be considered within the same policy too.

Commissioner Comment - Just like I don't think smoking should be allowed in the parks, I don't think marijuana should be allowed due to secondhand smoke. I think Marijuana should be treated like alcohol in public right-of-way and public spaces. Just like you can't get drunk in a parking lot or on the street, you shouldn't be allowed to get high in a parking lot or on the street.

5. Should tobacco smoking/vaping be prohibited in city parks?



6. Please feel free to provide comments, concerns, or questions regarding your selection

Commissioner Comment - If we treat smokable marijuana differently from tobacco, a new policy for every smokable substance to come will be required. Prohibiting marijuana while allowing tobacco continues to criminalize marijuana - which is what this legislation is meant to correct

Commissioner Comment - I was surprised to find out smoking was allowed in Cottage Grove City Parks. I have worked in multiple Park Systems (located in WI, CA, and MN) all of which prohibited smoking in the Parks. My reason for saying it should be prohibited is due to secondhand smoke, promoting a healthy community and that families/children are the main users of parks. Based on comments from the meeting, I think it should still be allowed outdoors at the golf course - since the golf course is mainly used by adults, people are generally spread out and I believe there is an outdoor restaurant patio.

Restrictions within public?			
<i>The state recently approved amendments to Chapter 152 of MN Statutes related to "Drugs; Controlled Substances" which provides for the regulation of adult use cannabis. Specifically, the law authorizes the City to adopt an ordinance establishing a petty misdemeanor offense for a person who unlawfully uses cannabis flower, cannabis products, lower-potency hemp edibles, or hemp-</i>			
City	1) Being Considered 2) Approved - Regulations in place 3) No Discussion yet 4) Discussed - No Regulations	City Code Language (or include links if published)	Other Comments
Apple Valley	2	https://www.cityofapplevalley.org/DocumentCenter/View/17519/07-10-2023-Amend-Chpt-130-General-Offenses-Cannabis-Use	
Arden Hills	1		This is being considered at our August 21 work session.
Blaine	Approved	https://www.blainemn.gov/Search?searchPhrase=smoking	Blaine had a smoking policy in place as allowed by council so we were able to amend quickly without an ordinance change. At this time the focus is education re: where products can be used so there is no penalty in place outside of trespass from parks but if concerns
Brooklyn Park	1		Brooklyn Park city council has a discussion at the 8/28 meeting to determine if they would like to increase distances from schools, as well as implement distances from playgrounds or athletic fields used by kids, as well as potentially implementing a distance between low potency retailers. Our tobacco free parks will likely be updated to include use of cannabis products, however, what I've heard from an enforcement standpoint is asking those in violation to
Chanhassen	2	https://s3-us-west-2.amazonaws.com/municipalcodeonline.com-new/chanhassen/ordinances/pdf/Ord_713.pdf and https://s3-us-west-2.amazonaws.com/municipalcodeonline.com-new/chanhassen/ordinances/pdf/Ord_714.pdf	Ordinance 713 prohibits smoking (tobacco and cannabis) in all city parks, in all public parking lots that are adjacent to city parks, and inside all motor vehicles located in any city park or adjacent public parking lot. Ordinance 714 prohibits smoking cannabis or hemp in a public place.
Cottage Grove	1		The council directed an investigation on how to define a public place and whether to ban only cannabis smoking in public areas or open it up to all smoking in public areas. A Joint Commission meeting was held between our Pubilc Service Commission and Parks and Recreation Commission to consider whether or not to recommend
Eden Prairie			No smoking in parks "inhaling, exhaling, burning, or carrying any lighted cigar, cigarette, e cigarette, pipe, <u>weed, or plant in any</u>
Hastings			Prohibited in City Facilities and Parks

Hopkins	2	https://lf.hopkinsmn.com/WebLink/DocView.aspx?id=448687&dbid=1&repo=Hopkins	Prohibits the use of cannabis or hemp products in public places, does not include edible products and prohibits smoking in all City
Inver Grove Heights	2	https://codelibrary.amlegal.com/codes/invergrovehstmn/latest/invergrovehst_mn/0-0-0-26015	
Lakeville	2	https://la-img.lakevillemn.gov/weblink/DocView.aspx?dbid=0&id=1860654&cr=1	Prohibits the use of cannabis or hemp products in public places, does not include edible products
Lakeville	2	https://la-img.lakevillemn.gov/weblink/DocView.aspx?dbid=0&id=1860645	Prohibits smoking in all city parks, in all public parking lots that are adjacent to city parks, and inside all motor vehicles located in any city park or adjacent public parking lot
Maple Grove	2	https://www.maplegrovmn.gov/AgendaCenter/ViewFile/Item/4545?fileID=16568	Ordinance 23-13 was adopted at the August 7 city council meeting. It prohibits smoking, vaping, or other use of cannabis in prohibited public spaces. Prohibited public spaces includes all property owned, controlled or managed by the city that is generally accessible to the public, including sidewalks, crosswalks, trails, streets, parking lots, open spaces, outdoor and open-air areas of
Oakdale			Prohibited in public places
Plymouth	2	https://library.municode.com/mn/plymouth/codes/code_of_ordinances	Prohibits smoking cannabis or hemp in a public place which encompasses all governmental property. The ordinance does not prohibit public use of edibles or beverages. City Council also removed the draft language of prohibiting use on private property that is regularly and frequently open to or made available for use by
Plymouth			Is voting on banning all smoking in the park at next meeting
Prior Lake			No Smoking, vaping or use of marijuana in public parks and other public spaces. No Smoking, vaping or use of marijuana in public
Ramsey	1		
Richfield	1.99 (second reading scheduled for 10-10-23)	chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://cms9files.revize.com/richfieldmn/09-26-2023%20City%20Council%20Agenda%20(Amended).pdf	Richfield had a tobacco-free policy in place so tied the cannabis ordinance to this existing law. Does not include edible products and public spaces like sidewalk and streets
Rosemount	1	In process - Rosemount City Council Meeting Memo 8.15.23: https://civicclerk.blob.core.windows.net/stream/ROSEMOUNTMN/d3d00853-1463-45a0-81a0-f90640d39a09.pdf?sv=2022-11-02&st=2023-08-18T13%3A30%3A47Z&se=2024-08-18T13%3A35%3A47Z&sr=b&sp=r&sig=7XbNEukPBVABDg10IATy4daUpKw1gesRMIVm4mTdzcrc%3D	Direction was given by Council to investigate how to define a public place and to only limit the smoking of cannabis in public places due to a higher intoxicating factor than tobacco. Considering adopting an ordinance establishing a petty misdemeanor offense for a person who unlawfully uses cannabis in a public place. Staff would propose to define public place as "property owned, leased, or controlled by a governmental unit". This would cover parks, trails, and facility grounds.
Stillwater			Prohibited in public places

West St. Paul			Similar to Blaine, WSP already had a tobacco-free policy in place as allowed by council so we were able to amend quickly without an ordinance change. It is now a smoke-free policy. Focus is also on
White Bear Lake	2	https://www.whitebearlake.org/ordinances/ordinance-amending-municipal-code-city-white-bear-lake-prohibit-use-cannabis-products	"It is unlawful for a person to use a cannabis product in a public place within the city." [Defintion: "Public place" means any park, right-of-way, or parking lot. The term does not include any of the following: a private residence, including the person's curtilage or yard; private property not generally accessible by the public, unless the person is explicitly prohibited from consuming cannabis flower, cannabis products, lower-potency hemp edibles, or hemp-derived consumer products on the property by the owner of the property; or the
Woodbury	2	8/9/23: https://library.municode.com/mn/woodbury/ordinances/code_of_ordinances?nodeId=1231034	Woodbury banned all cannabis smoking in public places and aligned the definintion of smoking to the MN Clean Indoor Air Act. Public can still consume edible/beverage products in public places.

Tobacco Use In Park Comparable

Community	Tobacco Use Allowed in Parks?	By Policy or Ordinance
Hastings	No	Policy – soon to be ordinance
West St Paul	No	Policy
Woodbury	Yes, but not within 100 feet of any playground, athletic facility, beach or Central Park	Ordinance
Inver Grove Heights	No	Ordinance
Rosemount	Yes	N/A
Eagan	Yes, but not within 100 feet of any playground, athletic facility, beach or Central Park	Ordinance
Mendota Heights	No	Ordinance
South St Paul	Yes	Currently working on ordinance to ban smoking tobacco
Prior Lake	Yes	Currently working on ordinance to ban smoking tobacco
Lakeville	No	Ordinance
Farmington	Yes	Reviewing potential tobacco ban with Dakota County Public Health and Tobacco-Free Alliance
Burnsville	Yes, but not within 30 feet of any youth activity	Policy

CITY OF COTTAGE GROVE, MINNESOTA
ORDINANCE NO. 1074

**AN ORDINANCE AMENDING COTTAGE GROVE CITY CODE BY ENACTING
TITLE 5, CHAPTER 1, SECTION 6, PROHIBITING CANNABIS USE ON PUBLIC
PROPERTY AND IN PUBLIC PLACES**

The City Council of the City of Cottage Grove, Washington County, Minnesota, does hereby ordain as follows:

SECTION 1. ENACTMENT. The Code of the City of Cottage Grove, County of Washington, State of Minnesota, Title 5, Chapter 1, Section 6 is hereby enacted as follows:

§5-1-6 – CANNABIS USE ON PUBLIC PROPERTY AND IN PUBLIC PLACES

- A. Definitions. The following words, terms, and phrases when used in this Chapter have the meaning ascribed to them in this Section except where the context clearly indicates a different meaning:

PUBLIC PLACE: Property that is generally open to or accessible by the public, and includes public property, but does not include those premises licensed by the State of Minnesota to permit on-site consumption.

PUBLIC PROPERTY: Property, real and personal, that is owned, managed, or controlled by the City, including, but not limited to: City buildings and all the land thereon, parking lots, parks, pathways and trails, and city rights-of-way consisting of both the traveled portion and the abutting boulevard, sidewalks and trails, and any City personal property, such as motor vehicles and city equipment.

CANNABIS FLOWER, CANNABIS PRODUCTS, LOWER-POTENCY HEMP EDIBLES, AND HEMP DERIVED CONSUMER PRODUCTS shall have the same meanings as defined in Minn. Stat. §342.01.

- B. Prohibition. No person shall vaporize or smoke cannabis flower, cannabis products, artificially derived cannabinoids, or hemp-derived consumer products on public property or in a public place.
- C. Penalty. A violation of this Section is a petty misdemeanor.

SECTION 2. FINE. The fine for a violation of this section shall be \$100.

SECTION 3. SUMMARY PUBLICATION. Pursuant to Minnesota Statutes Section 412.191, in the case of a lengthy ordinance, a summary may be published. While a copy of the entire ordinance is available without cost at the office of the City Clerk, the following summary is approved by the City Council and shall be published in lieu of publishing the entire ordinance.

The City prohibits the smoking or vaping of cannabis products or lower-potency hemp derived consumer products on public property or in a public place. The penalty is a petty misdemeanor with a fine of \$100.

SECTION 4. EFFECTIVE DATE. This ordinance shall be in full force and effect from and after its passage and publication according to law.

CITY OF COTTAGE GROVE, MINNESOTA
ORDINANCE NO. 1074

Passed this _____ day of _____, 2023.

Myron Bailey, Mayor

Attest:

Tamara Anderson, City Clerk

Published in the *St. Paul Pioneer Press* on [Date].

CITY OF COTTAGE GROVE, MINNESOTA
ORDINANCE NO. 1077

**AN ORDINANCE AMENDING COTTAGE GROVE CITY CODE BY AMENDING
TITLE 7, CHAPTER 3, SECTION 4, PROHIBITING SMOKING AND VAPING
TOBACCO PRODUCTS IN PUBLIC PARKS**

The City Council of the City of Cottage Grove, Washington County, Minnesota, does hereby ordain as follows:

SECTION 1. AMENDMENT. The Code of the City of Cottage Grove, County of Washington, State of Minnesota, Title 7, Chapter 3, Section 4 is hereby amended as follows:

§7-3-4 PROHIBITED ACTS:

J. Smoking and Vaping of Tobacco Products: It shall be unlawful to vaporize or smoke tobacco products in a public park. For purposes of this section, River Oaks Golf Course shall not be considered a public park. A violation of this provision shall be a petty misdemeanor with a fine of \$100.

SECTION 2. SUMMARY PUBLICATION. Pursuant to Minnesota Statutes Section 412.191, in the case of a lengthy ordinance, a summary may be published. While a copy of the entire ordinance is available without cost at the office of the City Clerk, the following summary is approved by the City Council and shall be published in lieu of publishing the entire ordinance.

The City prohibits the smoking or vaping of tobacco products in a public park, except River Oaks Golf Course. The penalty is a petty misdemeanor with a fine of \$100.

SECTION 3. EFFECTIVE DATE. This ordinance shall be in full force and effect from and after its passage and publication according to law.

Passed this _____ day of _____, 2023.

Myron Bailey, Mayor

Attest:

Tamara Anderson, City Clerk

| Published in the *St. Paul Pioneer Press* on _____.

CITY OF COTTAGE GROVE, MINNESOTA
ORDINANCE NO. 1078

**AN ORDINANCE AMENDING COTTAGE GROVE CITY CODE BY ENACTING
TITLE 5, CHAPTER 1, SECTION 7, UNDERAGE POSSESSION AND USE OF
CANNABIS PRODUCTS**

The City Council of the City of Cottage Grove, Washington County, Minnesota, does hereby ordain as follows:

SECTION 1. AMENDMENT. The Code of the City of Cottage Grove, County of Washington, State of Minnesota, Title 5, Chapter 1, Section 7 is hereby enacted as follows:

§5-1-7 UNDERAGE POSSESSION, USE OR CONSUMPTION OF CANNABIS PRODUCTS:

It shall be unlawful for anyone under 21 years of age to possess, use or consume a cannabis flower, cannabis product, lower potency hemp edible and hemp-derived consumer products. The penalty shall be a misdemeanor with a mandatory minimum fine of \$100.

SECTION 2. SUMMARY PUBLICATION. Pursuant to Minnesota Statutes Section 412.191, in the case of a lengthy ordinance, a summary may be published. While a copy of the entire ordinance is available without cost at the office of the City Clerk, the following summary is approved by the City Council and shall be published in lieu of publishing the entire ordinance.

The City prohibits the use, possession or consumption of cannabis products by anyone under the age of 21. The penalty is a misdemeanor with a fine of \$100.

SECTION 3. EFFECTIVE DATE. This ordinance shall be in full force and effect from and after its passage and publication according to law.

Passed this _____ day of _____, 2023.

Myron Bailey, Mayor

Attest:

Tamara Anderson, City Clerk

Published in the *St. Paul Pioneer Press* on [Date].



City Council Action Request

14.A.

Meeting Date	10/18/2023
Department	Administration
Agenda Category	Action Item
Title	Motion to close the meeting pursuant to Minnesota Statutes, Section 13D.05, subdivision 2(a)(2), to consider the tobacco license revocations of Cottage Grove Tobacco LLC and Cottage Grove 4G LLC, doing business as Smoke Leaf, which will involve the discussion of active investigative data as defined in Minnesota Statute, Section 13.82, subdivision 7.
Staff Recommendation	
Budget Implication	
Attachments	None