Waterway® Carwash

WATERWAY GAS AND WASH
2070 NW LOWENSTEIN DR
LEE'S SUMMIT, MO 64063

PROJECT TEAM

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PROJECT NOTES

GENERAL NOTES

1. ALL WORK, MATERIALS, AND METHODS SHALL BE IN ACCORDANCE WITH ACCEPTED PROFESSIONAL STANDARDS, APPLICABLE GOVERNING CODES PERTAINING TO THE AMERICANS WITH DISABILITIES ACT (ADA) TITLE III ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES.
2. IN THE EVENT OF CONFLICTS, EXPLANATORY NOTES IN THE DRAWINGS TAKE PRECEDENCE OVER GRAPHIC INDICATIONS; LARGE-SCALE DRAWINGS AND DETAILS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS, AND FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. ALL DIMENSIONS MUST BE VERIFIED ON THE JOB AND THE ARCHITECT MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
3. IF AND TO THE EXTENT OF ANY INCONSISTENCY, AMBIGUITY, DISCREPANCY, OR ERROR IN THE CONTRACT DOCUMENTS (REFERRED TO AS "DISCREPANCY" COLLECTIVELY IN THIS PARAGRAPH), THE CONTRACTOR SHALL IMMEDIATELY SEEK CLARIFICATION FROM THE ARCHITECT. IN INTERPRETING THE CONTRACT DOCUMENTS, ALL TERMS AND CONDITIONS SHALL BE HARMONIZED AND EFFECTUATED, AND NONE SHALL BE RENDERED SUPERFLUOUS OR MEANINGLESS. IN THE EVENT OF A DISCREPANCY THAT CANNOT BE HARMONIZED, THE INTERPRETATION THAT IMPOSES THE MOST STRINGENT PERFORMANCE OBLIGATION ON THE CONTRACTOR SHALL CONTROL.
4. EACH PRIME SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT OF HIS OWN WORK AND BE RESPONSIBLE FOR ALL LINES, ELEVATIONS AND WORK AND MEASUREMENTS, AND OTHER ITEMS AS MAY BE REQUIRED OF AND FOR HIS WORK. HE SHALL BE RESPONSIBLE FOR VERIFYING ALL FIGURES AND DETAILS SHOWN ON THE DRAWINGS WHICH RELATE TO HIS WORK, PRIOR TO LAYING OUT HIS WORK HE SHALL BE HELD RESPONSIBLE FOR ANY ERRORS RESULTING FROM HIS FAILURE TO TAKE SUCH PRECAUTIONS.
5. IT SHALL BE THE RESPONSIBILITY FOR ALL SUB-CONTRACTORS TO HAVE EXAMINED AND REVIEWED THE COMPLETE SET OF WORKING DRAWINGS AND OR SPECIFICATIONS AND TO PROVIDE ALL LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND OR SPECIFICATIONS, WHETHER OR NOT, SHALL BE IN COMPLIANCE WITH ALL BUILDING CODES AND ORDINANCES WHICH ARE APPLICABLE TO THE PROJECT.
6. PRODUCTS, SUBMITTALS, EXECUTION AND OTHER PERTINENT INFORMATION ARE TO BE PROVIDED IN THE ACCORDANCE WITH ACCOMPANYING PROJECT MANUAL.
7. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SUPERVISION AND COORDINATION OF ALL CONSTRUCTION PROCEDURES.
8. PRODUCTS, SUBMITTALS, EXECUTION AND OTHER PERTINENT INFORMATION ARE TO BE PROVIDED IN THE ACCORDANCE WITH PRODUCT MANUFACTURER'S SPECIFICATIONS.
9. ALL DIMENSIONS ARE TO THE FACE OF FINISHED WALLS AND TO THE FACE OF MASONRY WALLS AS SHOWN, UNLESS NOTED OTHERWISE.
10. ALL FLOOR ELEVATIONS ARE TO CONCRETE SLAB UNLESS NOTED OTHERWISE.
11. INSTALL SEALANT AT EXTERIOR SIDE OF ALL JOINTS, SEAMS, CONNECTIONS OR OPENINGS AS WELL AS SIDEWALKS ABUTTING TO BUILDING, WHICH WOULD ALLOW WATER OR AIR INFILTRATION EXCEPT AS NOTED OTHERWISE. SEALANT COLOR IS TO MATCH ADJACENT SURFACE. CONTRACTOR SHALL VERIFY COMPATIBILITY OF SEALANTS WITH ALL CONTIGUOUS MATERIALS.
12. ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID. MOLECULAR BREAKDOWN.
13. DOOR OPENINGS IN FRAME CONSTRUCTION WHICH ARE NOT DIMENSIONED ARE EITHER CENTERED IN THE WALL OR LOCATED 4" FROM THE FACE OF STUD TO THE FINISHED JAMB ON THE HINGED SIDE.
14. ALL SPECIAL ACCESSIBLE FACILITIES SHALL BE IDENTIFIED WITH APPROVED SIGNAGE.
15. THE CONTRACTOR IS RESPONSIBLE FOR PRODUCING A WEATHER TIGHT BUILDING - - DETAILS AND OMISSIONS TO DRAWINGS NOT WITHSTANDING. ALL DRAWING CONFLICTS WHICH MAY NOT ALLOW THIS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
16. DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND PLANS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
17. ALL FLOORS WITH DRAINS ARE SLOPED A MINIMUM OF 1/8" PER FOOT TO DRAIN UNLESS NOTED OTHERWISE.
18. LOCATIONS OF EXISTING UTILITIES ARE SHOWN TO THE BEST OF OUR KNOWLEDGE. CONTRACTOR SHALL HAVE THE RESPONSIBILITY OF VERIFYING IN THE FIELD BEFORE CONSTRUCTION STARTS, AND COORDINATING ALL NEW UTILITY LOCATIONS, CONNECTIONS, AND PENETRATIONS.
19. ALL REQUIRED EXITS SHALL BE OPERABLE FROM THE INSIDE WITHOUT SPECIAL KNOWLEDGE OR THE USE OF A KEY.
20. BLOCKING AT OPENINGS, DOORS, WINDOWS AND GRAB BARS, TO BE 2X MATERIALS. AT WALL MOUNTED EQUIPMENT LOCATIONS, USE 1/2" PLYWOOD SHEET MATERIALS. ALTERNATES: MINIMUM OF 16 GAUGE X 8" MATERIAL TO BE USED WITH METAL FASTENERS (WOOD BLOCKING SHALL BE FIRE TREATED)
21. PROVIDE BLOCKING AS REQUIRED TO SECURELY ANCHOR ALL WALL MOUNTED EQUIPMENT (E.G., CABINETS, TOILET ROOM, ACCESSORIES, HARDWARE, ETC.) BLOCKING SHALL PROVIDE A RIGID CONNECTION CAPABLE OF SUPPORTING LOADS AS DETERMINED BY MANUFACTURER. PROVIDE SOLID BLOCKING SECURED TO 2 MAIN WALL STUDS TO SECURELY SUPPORT ALL WALL STOPS (DOOR BUMPER).
22. THE GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE WITH ALL TRADES, SIZES AND LOCATIONS OF ALL OPENINGS MECHANICAL & ELECTRICAL EQUIPMENT, EQUIPMENT PADS OR BASES, AS WELL AS POWER, WATER, AND DRAIN INSTALLATIONS, BEFORE PROCEEDING WITH WORK. ANY CONCERNS OR STRUCTURAL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
23. ALL FLOOR OR WALL OPENINGS REQUIRED FOR PIPES, DUCTS, CONDUITS, ETC. SHALL BE SEALED IN AN APPROVED MANNER.
24. PROVIDE RIGID INSULATION AT SLAB EDGE PER LOCAL ENERGY CODE.
25. STRUCTURAL NOTES GOVERN TYPICAL CONDITIONS WHETHER OR NOT SPECIFICALLY DETAILED OR NOTED.
26. REFER TO STRUCTURAL DRAWINGS FOR LAYOUT, SIZE, AND LOCATION OF ALL STRUCTURAL MEMBERS.
27. THE COLOR, CHARACTER, AND QUALITY OF ALL MATERIALS ARE TO MATCH ARCHITECT'S SAMPLES.
28. CONTROL JOINTS SHALL BE PROVIDED IN CONCRETE FLOOR SLABS AND MASONRY WALLS WHETHER OR NOT SPECIFICALLY REFERENCED ON PLANS. THE MAXIMUM AREA PERMITTED BETWEEN JOINTS SHALL BE 400 SQUARE FEET FOR REINFORCED CONCRETE SLABS, 250 SQUARE FEET FOR NON-REINFORCED SLABS AND 400 SQUARE FEET FOR MASONRY UNLESS SHOWN OTHERWISE. PROVIDE EXPANSION JOINTS AS REQUIRED AND/ OR AS SHOWN ON THE DRAWINGS.
29. ALL ELECTRICAL, MECHANICAL AND PLUMBING WORK SHALL BE CONCEALED FROM VIEW EXCEPT WHERE EXPOSED TO STRUCTURE. LOCATE PIPING AND SUPPORTS IN A NEAT AND CONSISTENT MANNER.
30. IT IS THE CONTRACTORS RESPONSIBILITY TO FOLLOW DRAWINGS FOR LOCATION OF ELECTRICAL RECEPTACLES OR SWITCHES TO AVOID CASEWORK, DOORS, ETC.DRAWINGS SHALL SUPERSEDE ALL OTHERS.

1. PROVIDE FINISHED SURFACE UNDER AND BEHIND ALL EQUIPMENT AND CASEWORK.
2. THERE SHALL BE NO BACK-TO-BACK ELECTRICAL, TELEPHONE, OR OTHER SIM ITEMS
3. COORDINATE LOCATIONS AND/OR ELEVATIONS OF FLOOR DRAINS, REGISTERS, GRILLES, LOUVERS, DUCTS, UNIT HEATERS, PANELS, ETC. WITH MECHANICAL AND ELECTRICAL CONTRACTORS AND ARCHITECT.
4. CONTRACTOR SHALL COMPLY WITH LOCAL BUILDING CODES IN FIRESTOPPING ALL RATED WALLS AND FLOOR PENETRATIONS.
5. SHOULD ANY CONFLICT OCCUR BETWEEN MEP FP, STRUCTURAL, AND ARCHITECTURAL DRAWINGS, ARCHITECTURAL DRAWINGS SHALL SUPERSEDE ALL OTHERS.

1 DETAILS NOT SHOWN ARE SIMILAR TO THOSE DETAILED.

37. THE ANCHORAGE, ATTACHMENT ANGLES, SHAPES AND DETAILS FOR GLAZING, PRECAST, AND STONE BASE ARE SUGGESTIVE AND ARE TO BE ENGINEERED AND DETAILED AS REQUIRED TO MEET CURRENT CODES.
38. ALL EXTERIOR FINISHES AND DETAILS MUST BE REVIEWED AND ACCEPTED BY THE ARCHITECT PRIOR TO FABRICATION.
39. CONTRACTOR TO PROVIDE ALL LABOR & EQUIPMENT TO PERFORM THE WORK INDICATED ON THESE DRAWINGS. CONTRACTOR SHALL VISIT THE SITE FOR VERIFICATION OF ALL CONDITIONS THAT MAY AFFECT THE PROJECT, PRIOR TO THE START OF CONSTRUCTION.
40. ALL EXCAVATION AND BACKFILL SHALL FOLLOW ALL GEOTECHNICAL (SOILS) REPORTS RECOMMENDATIONS.
41. SIGNAGE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHOP DRAWINGS TO OWNER AND CITY AGENCIES FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
42. GENERAL CONTRACTOR TO PROVIDE TEMPORARY ON-SITE TOILET FACILITIES DURING ALL CONSTRUCTION PHASES.
43. FURNISH ALL ANCHORAGE FOR MILLWORK
44. ALL LUMBER IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED.

1. UNLESS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS AS BEING NOT IN CONTRACT (N.I.C.) OR EXISTING, ALL OTHER ITEMS, MATERIALS AND INSTALLATION ARE PART OF THE CONTRACT, AS DEFINED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL ACCESSORIES, COMPONENTS AND ASSEMBLIES REQUIRED FOR THE WORK DEPICTED OR SPECIFIED
2. CONTRACTORS ARE RESPONSIBLE FOR ALL WORK REGARDLESS OF THE LOCATION OF THE INFORMATION ON THE DOCUMENTS
3. PROVIDE METAL TRIM OR CASING AT ALL EDGES OF DRYWALL SURFACES WHERE IT TERMINATES OR MEETS ANY OTHER MATERIAL, UNLESS NOTED OTHERWISE
4. PROVIDE METAL CORNER BEADS AT ALL OUTSIDE CORNERS OF EXTERIOR CEMENT PLASTER AND DRYWALL SURFACES, UNLESS NOTED OTHERWISE.
5. ALL EXTERIOR AND INTERIOR EXPOSED METAL, TRIM, TRELLISES RAILINGS, MOLDING, FRAMES, CASTING, ETC., SHALL BE PRIMED AND PAINTED UNLESS NOTED OTHERWISE
6. INTERIOR CONCRETE SLABS SHALL BE POURED LEVEL (UNLESS OTHERWISE INDICATED) 1/8" TOLERANCE ON A 10'-0" EDGE IN ANY GIVEN DIRECTION
7. SECURE ALL PIPING AS CLOSE TO WALLS AS POSSIBLE
8. ALL PENETRATIONS OF 1-HOUR FIRE RESISTIVE CONSTRUCTION SHALL BE PROTECTED WITH APPROVED FIRE ASSEMBLIES.
9. ALL EXPOSED ELECTRICAL EQUIPMENT SHALL BE PAINTED TO MATCH ADJACENT SURFACES (MIN. 2 COATS OF PAINT)

SAFETY/EXITING

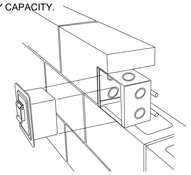
1. COORDINATE LOCATIONS AND/OR ELEVATIONS OF FLOOR DRAINS, REGISTERS, GRILLES, LOUVERS, DUCTS, UNIT HEATERS, PANELS, ETC. WITH MECHANICAL AND ELECTRICAL CONTRACTORS AND ARCHITECT.
2. CONTRACTOR SHALL COMPLY WITH LOCAL BUILDING CODES IN FIRESTOPPING ALL RATED WALLS AND FLOOR PENETRATIONS.
3. SHOULD ANY CONFLICT OCCUR BETWEEN MEP FP, STRUCTURAL, AND ARCHITECTURAL DRAWINGS, ARCHITECTURAL DRAWINGS SHALL SUPERSEDE ALL OTHERS.
4. DETAILS NOT SHOWN ARE SIMILAR TO THOSE DETAILED.
5. THE ANCHORAGE, ATTACHMENT ANGLES, SHAPES AND DETAILS FOR GLAZING, PRECAST, AND STONE BASE ARE SUGGESTIVE AND ARE TO BE ENGINEERED AND DETAILED AS REQUIRED TO MEET CURRENT CODES.
6. ALL EXTERIOR FINISHES AND DETAILS MUST BE REVIEWED AND ACCEPTED BY THE ARCHITECT PRIOR TO FABRICATION.
7. CONTRACTOR TO PROVIDE ALL LABOR & EQUIPMENT TO PERFORM THE WORK INDICATED ON THESE DRAWINGS. CONTRACTOR SHALL VISIT THE SITE FOR VERIFICATION OF ALL CONDITIONS THAT MAY AFFECT THE PROJECT, PRIOR TO THE START OF CONSTRUCTION.
8. ALL EXCAVATION AND BACKFILL SHALL FOLLOW ALL GEOTECHNICAL (SOILS) REPORTS RECOMMENDATIONS.
9. SIGNAGE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHOP DRAWINGS TO OWNER AND CITY AGENCIES FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
10. GENERAL CONTRACTOR TO PROVIDE TEMPORARY ON-SITE TOILET FACILITIES DURING ALL CONSTRUCTION PHASES.
11. FURNISH ALL ANCHORAGE FOR MILLWORK
12. ALL LUMBER IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED.
13. UNLESS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS AS BEING NOT IN CONTRACT (N.I.C.) OR EXISTING, ALL OTHER ITEMS, MATERIALS AND INSTALLATION ARE PART OF THE CONTRACT, AS DEFINED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL ACCESSORIES, COMPONENTS AND ASSEMBLIES REQUIRED FOR THE WORK DEPICTED OR SPECIFIED
14. CONTRACTORS ARE RESPONSIBLE FOR ALL WORK REGARDLESS OF THE LOCATION OF THE INFORMATION ON THE DOCUMENTS
15. PROVIDE METAL TRIM OR CASING AT ALL EDGES OF DRYWALL SURFACES WHERE IT TERMINATES OR MEETS ANY OTHER MATERIAL, UNLESS NOTED OTHERWISE
16. PROVIDE METAL CORNER BEADS AT ALL OUTSIDE CORNERS OF EXTERIOR CEMENT PLASTER AND DRYWALL SURFACES, UNLESS NOTED OTHERWISE.
17. ALL EXTERIOR AND INTERIOR EXPOSED METAL, TRIM, TRELLISES RAILINGS, MOLDING, FRAMES, CASTING, ETC., SHALL BE PRIMED AND PAINTED UNLESS NOTED OTHERWISE
18. INTERIOR CONCRETE SLABS SHALL BE POURED LEVEL (UNLESS OTHERWISE INDICATED) 1/8" TOLERANCE ON A 10'-0" EDGE IN ANY GIVEN DIRECTION
19. SECURE ALL PIPING AS CLOSE TO WALLS AS POSSIBLE
20. ALL PENETRATIONS OF 1-HOUR FIRE RESISTIVE CONSTRUCTION SHALL BE PROTECTED WITH APPROVED FIRE ASSEMBLIES.
21. ALL EXPOSED ELECTRICAL EQUIPMENT SHALL BE PAINTED TO MATCH ADJACENT SURFACES (MIN. 2 COATS OF PAINT)

FIRE AND LIFE SAFETY NOTES

1. A MINIMUM OF ONE 2A10BC CLASSIFICATION FIRE EXTINGUISHER (IN RECESSED CABINET) SHALL BE PROVIDED WITHIN 75' TRAVEL DISTANCE FROM ANY POINT IN THE CORRIDOR SYSTEM OR ONE FOR EACH 3,000 SQUARE FEET OR PORTION THEREOF. LOCATION AND MOUNTING REQUIREMENTS ARE SUBJECT TO FIRE DEPARTMENT APPROVAL AND MAY BE FIELD COORDINATED WITH THE FIRE INSPECTOR.
2. THE LIFE SAFETY SYSTEM (EITHER NEW OR EXISTING TO BE MODIFIED) TO BE DESIGN/BUILD. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING THE FIRE ALARM/LIFE SAFETY SHOP DRAWINGS TO PROVIDE THE INFORMATION REQUIRED BY THE GOVERNING AGENCY.
3. PLANS FOR ALL FIRE PROTECTION EQUIPMENT SUCH AS FIRE ALARM SYSTEMS, MUST BE SUBMITTED TO THE BUILDING DEPARTMENT AND APPROVED BY THE FIRE DEPARTMENT BEFORE EQUIPMENT IS INSTALLED AND OR MODIFIED.
4. EXIT SIGNS SHALL BE LOCATED IN ACCORDANCE WITH FBC "EXIT SIGNS" AND NFPA 101 SECTION 5-10, "MARKING OF MEANS OF EGRESS"

KNOX BOX

FINAL LOCATION OF KNOX BOX TO BE COORDINATED & APPROVED IN WRITING WITH AND BY THE FIRE MARSHALL & BUILDING INSPECTOR. G.C. TO REVIEW BUILDING PLANS FOR LOCATION WITH FIRE MARSHALL & WALK THROUGH BUILDING PRIOR TO SUBSTANTIAL COMPLETION TO VERIFY LOCATION. ARCHITECT IS NOT RESPONSIBLE FOR THE FINAL LOCATION OF KNOX BOX IN ANY CAPACITY.



SPECIAL INSPECTIONS

SPECIAL INSPECTIONS SHALL BE PERFORMED BY A CERTIFIED INSPECTOR APPROVED BY THE ARCHITECT OF RECORD, AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR OR AGENCY SHOULD BE UNDER THE RESPONSIBILITY DIRECTION OF A REGISTERED ARCHITECT.

1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND TIMELY NOTIFICATION OF THE NEED FOR SPECIAL INSPECTION AND TESTS.

2. DUTIES OF THE SPECIAL INSPECTOR:

   A. THE SPECIAL INSPECTOR WILL OBSERVE THE ASSIGNED ITEMS IN A STATEMENT OF THE SPECIAL INSPECTION FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

   B. THE SPECIAL INSPECTOR WILL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE ARCHITECT OF RECORD WITHIN 48 HOURS AFTER COMPLETING INSPECTIONS.

   C. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR CORRECTION. IF DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE ARCHITECT.

   D. UPON COMPLETION OF THE WORK THE SPECIAL INSPECTOR SHALL COMPLETE AND SIGN FINAL REPORT CERTIFYING THAT TO THE BEST OF THE INSPECTORS KNOWLEDGE THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISION OF THE CODE.

3. INSPECTIONS: REFER TO THE BUILDING CODE FOR THE DEFINITION OF PERIODIC AND CONTINUOUS INSPECTIONS AND SPECIFIC REQUIREMENTS.

DEFERRED SUBMITALLS

THE FOLLOWING APPROVED DEFERRED SUBMITTAL ITEMS AND/OR DESIGN DRAWINGS SHALL BE SUBMITTED BY THE RESPONSIBLE DESIGN PROFESSIONAL TO THE CITY OF RICHMOND HEIGHTS BUILDING DIVISION FOR REVIEW NOT MORE THAN SIXTY (60) DAYS AFTER THE DATE THAT THE BUILDING PERMIT IS ISSUED AND PRIOR TO THE WORK BEING PERFORMED:

- FIRE ALARM SYSTEM
- FUEL CANOPY SHOP DRAWINGS
- SALES COUNTER SHOP DRAWINGS

SUBMITTALS

BY SUBMITTING SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND SIMILAR SUBMITTALS, THE CONSTRUCTOR REPRESENTS TO THE OWNER AND ARCHITECT THAT THE CONTRACTOR HAS:

1. REVIEWED AND APPROVED THEM
2. DETERMINED AND VERIFIED MATERIALS, FIELD MEASUREMENTS, AND FIELD CONSTRUCTION CRITERIA RELATED THERETO, OR WILL DO SO
3. CHECKED AND COORDINATED THE INFORMATION WITH THE REQUIREMENTS OF THE WORK AND OF THE CONSTRUCTION DOCUMENTS.

THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK FOR WHICH THE CONTRACT DOCUMENTS REQUIRE SUBMITTALS UNTIL THE SUBMITTAL HAS BEEN APPROVED BY THE ARCHITECT.

THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR DEVIATIONS FROM THE CONTRACT DOCUMENTS BY THE ARCHITECT'S APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES, OR SIMILAR SUBMITTALS UNLESS THE CONTRACTOR HAS INFORMED THE ARCHITECT IN WRITING OF SUCH DEVIATION AT THE TIME OF THE SUBMITTAL AND:

1. THE ARCHITECT HAS GIVEN WRITTEN APPROVAL FOR THE DEVIATION AS A MINOR CHANGE IN THE WORK, OR
2. A CHANGE ORDER OR CONSTRUCTION CHANGE DIRECTIVE HAS BEEN ISSUED AUTHORIZING THE DEVIATION.

IT IS THE RESPONSIBILITY OF EACH PROJECT CONSULTANT TO REVIEW SHOP DRAWINGS FOR COORDINATION WITH THEIR SCOPE OF WORK. THE ARCHITECT SHALL NOT BE HELD RESPONSIBLE FOR ANY DISCREPANCIES BETWEEN TRADES.

BUILDING CODE BLOCK

PROJECT
ONE STORY CONVENIENCE STORE AND STAND-ALONE CARE WASH

LOCATION
2070 NW LOWENSTEIN DR
LEE'S SUMMIT, MO 64063

REVIEWING AGENCIES
THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND COMPLYING WITH THE FOLLOWING REVIEWING AGENCIES IN CONNECTION WITH THE PERMIT APPLICATION, PERIODIC INSPECTION AND ALL REQUIRED APPROVALS FOR THIS PROJECT:

CITY OF LEE'S SUMMIT, MO
https://cityofls.net/development-services/construction

APPLICABLE BUILDING CODES
THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COMPLETING THE CONSTRUCTION OF THIS PROJECT IN ACCORDANCE WITH THE LATEST APPLICABLE FEDERAL, STATE, AND LOCAL CODES INCLUDING THE FOLLOWING AND ALL AMENDMENTS THEREOF:

2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2017 NATIONAL ELECTRIC CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 UNIFORM PLUMBING CODE
2018 INTERNATIONAL FIRE CODE
2018 INTERNATIONAL FUEL GAS CODE
ICC/ANSI A117.1-2009

TYPES OF CONSTRUCTION
TYPE IIB
UNPROTECTED / NON-COMBUSTIBLE
NON-SPRINKLERED

USE / OCCUPANCY
M MERCANTILE - CONVENIENCE STORE
B BUSINESS - CAR WASH

BUILDINGS
1 STORY

FLOOR AREA
PER TABLE 506.2 TYPE IIB

B- ALLOWABLE	23,000 SF
M-ALLOWABLE	2,500 SF

BUILDING SQUARE FOOTAGE

TOTAL SQUARE FOOTAGE	8,371 GSF
M-CONVENIENCE STORE	835 SF
B-CAR WASH	7,536 SF

FIRE RESISTANCE RATING REQUIREMENTS
TABLE 601

STRUCTURAL FRAMING	0 HOUR
EXTERIOR NON-LOAD BEARING	0 HOUR
EXTERIOR LOAD BEARING	0 HOUR
INTERIOR NON-LOAD BEARING	0 HOUR
ROOF CONSTRUCTION	0 HOUR

BUILDING ENVELOPE DESIGN REQUIREMENTS MINIMUMS

ROOF INSULATION ENTIRELY ABOVE DECK	R-30 ci
WALLS (ABOVE GRADE)	
MASS	R-9.5 ci
SLAB ON GRADE FLOORS	R-10 FOR 24" BELOW
OPAQUE DOORS	
SWINGING (ASSEMBLY)	U-0.61
ROLLING (ASSEMBLY)	U-0.31
FENESTRATION - METAL FRAMING	
FIXED	U-0.38
OPERABLE	U-0.45
ENTRANCE DOOR	U-0.77

BUILDING HEIGHT
PER TABLE 504.3 & .4 TYPE IIB

B-ALLOWABLE	3 STORIES / 55'
M-ALLOWABLE	2 STORIES / 55'
CONVENIENCE STORE	
M-ACTUAL	1 STORY, 13'-10"
CAR WASH	
B-ACTUAL	1 STORY, 18'-8"

TRAVEL DISTANCE
MAXIMUM TRAVEL DISTANCE B, M - 200' (1017.2)
DEAD END CORRIDORS 20' (1020.4)

OCCUPANT LOAD AND EXITING CALCS
PER TABLE 1005.1

M-CONVENIENCE STORE	704/60	12 OCCUP
B-CAR WASH	12 EMP	12 OCCUP
OCCUPANT LOAD		24

ENTRY DOORS (100A, 100B)	108"
EXIT DOORS (110E, 110F)	72"
WIDTH PROVIDED	180"
WIDTH REQUIRED	24x.2= 4.8"

TOILET REQUIREMENTS

FIXTURE REQUIREMENT

CONVENIENCE STORE	
FEMALE	'1' FIXT PER 15
MALE	'1' FIXT PER 50
CAR WASH	
FEMALE	'1' FIXT PER 100
MALE	'1' FIXT PER 100
TOTAL PROVIDED	2

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E1.0	SITE PLAN - ELECTRICAL	●	
E1.1	SITE PLAN - FUEL SYSTEM	●	
E2.0	FLOOR PLAN - POWER & SYSTEMS	●	
E2.1	ROOF PLAN - POWER & SYSTEMS	●	
E2.2	SIGNAGE	●	
E3.0	CEILING PLAN - LIGHTING	●	
E4.0	ENLARGED FLOOR PLANS - POWER & SYSTEMS	●	
E5.0	ELECTRICAL DETAILS & SCHEDULES	●	
E5.1	ELECTRICAL DETAILS & SCHEDULES	●	
E5.2	ELECTRICAL DETAIL & SCHEDULES	●	
E6.1	ELECTRICAL PANELBOARD SCHEDULES	●	
E6.2	ELECTRICAL PANELBOARD SCHEDULES	●	
	PLUMBING		
P0.0	PLUMBING TITLE SHEET	●	
P1.0	UNDERGROUND PLAN - PLUMBING	●	
P2.1	FIRST FLOOR PLAN - PLUMBING	●	
P2.2	ROOF PLAN - PLUMBING	●	
P4.0	ENLARGED FLOOR PLANS - PLUMBING	●	
P5.0	PLUMBING DETAILS	●	
P6.0	PLUMBING SCHEDULES		

ANDREW SCHOESSEL
NUMBER A-2004024872
8-6-24

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Revisions:

1	PERMIT COMMENTS	8/6/24

COVER SHEET

A0.0

Issue Date: 05/31/2024

ACCESSIBLE ROUTE - EXTERIOR

4.1.2(1) Where required
At least one accessible route complying with this section shall be provide within the boundary of the site from the following areas to an accessible building entrance.
Public transportation stops
Accessible parking spaces
Passenger loading zone, if provided
Public streets and sidewalks

4.1.2(2) Where required
At least one accessible route complying with this section shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

4.3.2(1) Location
The accessible route shall, to the maximum extent feasible, coincide with the route for the general public.

4.3.3 Width
Minimum clear width: 36" (except as allowed at doors)

4.3.3 Width of Turns
36" clear width is permitted for a 90 turn if no additional turn is required within 48".
Clear width with turns around an obstruction less than 48" wide shall be 42" minimum, with 48" minimum width at turn.

4.3.4 Passing Space
If an accessible route is less than 60" wide, passing spaces are required at maximum 200' intervals. Passing space may be either a 60" X 60" space, or a T-intersection of two walks or corridors.

4.3.5 4.4.2 Headroom
Minimum clear headroom: 80"
If vertical clearance of an area adjoining an accessible route is reduced to less than 80", a barrier shall be provided.

4.3.7 Slope
Running slope shall not exceed 1:20. (If slope exceeds 1:20, refer to `ramps' or `curb ramps' section.)
Cross slope shall not exceed 1:50 (2%).

4.3.8 4.5.2 Changes in Level
Up to 1/4": requires no edge treatment (vertical edge permitted).
1/4" to 1/2": Edge shall be beveled with a slop no greater than 1:2.
Greater than 1/2": Requires curb ramp, ramp, elevator, or platform lift.
Stairs shall not be part of an accessible route.

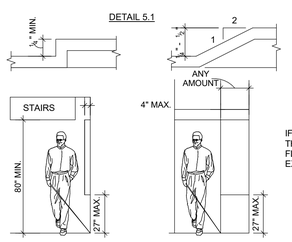
4.3.6 4.5 Ground and Floor Surfaces
Shall be firm, stable and slip-resistant. (If carpet is used, refer to requirements under Element 5: Accessible Route).

4.29 Detectable Warnings
At Hazardous Vehicular Ares. If a walk crosses or adjoins a vehicular way, and the walking surfaces are not separated by curbs, railings, or other elements between the pedestrian areas and vehicular areas, the boundary between the areas shall be defined by a continuous detectable warning 36" wide, complying with the requirements below.
At Reflecting Pools. The edges of reflecting pools not protected by railings, walls, or curbs, shall have detectable warnings complying with the requirements below.
Detectable Warnings. Surface shall consist of a raised truncated domes with the following features:
Diameter: 0.9" nominal
Height: 0.2" nominal
The surface shall contrast visually with adjoining surfaces.

4.54 Gratings
If gratings are located in walking surfaces, then they shall have spaces no greater than 1/2" wide inn one direction.
If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

4.1.2(3) 4.4.1 Protruding Object
Objects projecting from walls with their leading edges between 27" and 80" above the finished floor shall protrude no more than 4" into walks or corridors.
Objects projecting from walls with their leading edges at or below 27" above the finished floor may protrude any amount.
Free-standing objects mounted on posts or pylons may overhand 12" maximum from 27" to 80" above the finished floor or ground.
Protruding objects hall not reduce the required clear width of an accessible route or maneuvering space.

DETAIL 5.1



DETAIL 5.2

DETAIL 5.3

ACCESSIBLE PARKING

4.1.2(5)(c) PassengerLoading Zones
If passenger loading zones are provided, at least one shall comply with this section.

4.1.2(5)(3) Valet Parking
Valet parking facilities shall provide a passenger loading zone complying with this section.
Valet parking facilities are not required to provide accessible parking spaces. (It is recommended that some accessible self-parking spaces be provided, as some persons with disabilities have vehicles equipped with special controls which may not be operable by a parking attendant.)

4.6.2 4.1.2(5)(b) Location
Accessible parking spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance.
In buildings with multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located closest to the accessible entrances.
All van accessible spaces may be groped on one level of parking structure. (`Universal' spaces, when provided, may also be grouped on one level of a parking structure).
In parking facilities that do not serve a particular building, accessible parking shall be located on the shortest accessible route of travel to an accessible pedestrian entrance to the facility.

4.1.2(5)(a) 4.6.3 `Standard' Accessible Spaces
Accessible spaces shall have the following minimum dimensions:
Parking space width: 96"
Access aisle width: 60"
Vertical clearance: 60"

4.1.2(5)(b) 4.6.5 `Van AccessibleSpaces
`Van accessible' spaces shall have the following minimum dimensions:
Parking space width: 96"
Access aisle width: 96"
Vertical clearance: 98" (at parking space and along at least one vehicular route to the space)

A4.6 `Universal' Accessible Spaces
`Universal' parking design spaces shall have the following minimum dimensions:
Parking space width: 132"
Access aisle width: 60"
Vertical clearance: 98" (at parking space and along at least one vehicular route to the space)

4.6.5 Passenger LoadingZones
Passenger loading zones shall have the following minimum dimensions:
Vehicle pull-up space width: (not specified)
Access aisle width: 60"
Access aisle length: 20" (adjacent and parallel to vehicle space)
Vertical clearance: 114" (at loading zone and along at least one vehicular route tothe loading zone).

4.6.3 Access Aisle
Parking access aisles shall be part of an accessible route to the building or facility entrance.
Two accessible parking spaces may share a common access aisle.
Parked vehicle overhangs shall not reduce the clear width of an accessible route.

4.6.3 4.6.6 Slope
Parking spaces, passenger loading zones, and access aisles shall have a maximum slope of 1:50 (2%) in all directions. (Curb ramps are not permitted within the required area of access aisles and loading zones.)

4.1.2(7)(d) 4.6.4 Signage
Accessible parking spaces shall be designated as reserved by a sign showing the International Symbol of Accessibility.
`Van accessible' spaces shall have an additional sign state `Van-Accessible' below the symbol of accessibility. (This additional sign is not required when all `universal' accessible spaces are provided.)
Accessible passenger loading zones shall be identified by a sign showing the International Symbol of Accessibility.
Signs shall be located so that they cannot be obscured by a vehicle parked in the space.

CURB RAMPS

4.7.2 4.8.2 4.1.6(3)(a) Slope
Least possible slope shall be used.
Maximum slope: 1:12
Transitions shall be flush and free of abrupt changes.
Maximum slope of adjacent surfaces: 1:20.

Alterations/Existing Conditions:
Where space limitation prohibit use of 1:12 ramp, following slopes are acceptable:
Max. rise of 6": 1:10 to 1:12 slope
Max. rise of 3": 1:8 to 1:10 slope
Slope greater than 1:8 is prohibited.

4.7.3 Clear Width
Minimum: 36"

4.7.4.4.5 Surface
Shall be firm, stable, and slip-resistant.

4.7.5 Sides
If located where pedestrians may walk across the ramp, the sides of the ramp shall be flared, with a maximum slope of 1:10.
If the width of the walking surface at the top of the ramp is less than 48" wide, the flared sides shall have a maximum slope of 1:12.
Returned curbs may be used only where pedestrians would not normally walk across the ramp.

4.7.6 Built-Up Curb Ramps
Shall be located so they do not project into traffic lanes.

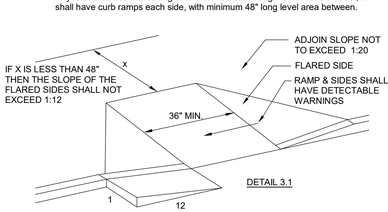
4.7.7 4.29.2 Detectable Warnings
Required for full width and depth of ramp.
Surface shall consist of raised truncated domes with following features:
Diameter: 0.9" nominal
Height: 0.2" nominal
Center to Center spacing: 2.35" nominal
The surface shall contrast visually with adjoining surfaces.
The material providing contrast shall be an integral part of the walking surface.

4.7.8 Obstructions
Shall be located to prevent obstruction by parked vehicles.

4.7.9 Location at Marked Crossings
If at marked crossing, shall be fully contained within marked area, excluding flared sides.

4.7.10 Diagonal Curb Ramps
With returned curb, must be parallel to pedestrian flow.
If at marked crossing, minimum 48" wide area at bottom of ramp shall be contained within the marked crossing.
If flared sides, at least 24" of straight curb required within crossing area.

4.7.11 Islands
Any raised islands in crossing shall either be cut through level with the street, or shall have curb ramps each side, with minimum 48" long level area between.



DETAIL 3.1

ENTRANCES

4.1.3(8)(a)(ii) Minimum number
The number of accessible entrances shall be equivalent to the number of exits required by the applicable building/fire code. (Example: If a building is being designed with 5 public entrances, and 4 exits are required by local code, then at least 4 of the public entrances must be accessible. Note: This section does not require an increase in the planned number of entrances to a building: e.g. if a building is being designed with 3 public entrances, and 4 exits are required by local code, all 3 public entrances must be accessible, but a fourth accessible entrance need not be added.)

4.1.3(8)(a)(iii) Where required
An accessible entrance shall be provided to each tenancy in a facility (e.g. individual stores in a strip shopping center).

4.1.3(8)(b)(i) Where required
If direct pedestrian access is provided into the building from an enclosed parking garage, at least one entrance from the garage to the building shall be accessible.

4.1.3(8)(b)(ii) Where required
If pedestrian access is provided from pedestrian tunnels or elevated walkways, at least one building entrance from each tunnel or walkway shall be accessible.

4.1.3(8)(c) Where required
If the only entrance to a building, or tenancy in a facility, is a service entrance, the entrance shall be accessible.

4.1.3(8)(c) Location
Where feasible, accessible entrances shall be the entrances used by the majority of people visiting or working in the building.

4.1.2(7)(d) 4.1.3(8)(d) 4.1.6(1)(h) 4.30 Signage
When all entrances are not accessible, accessible entrances shall be identified by a sign showing the International Symbol of Accessibility. Entrances which are not accessible (including altered entrances which are not made accessible) shall have directional signage indicating the location of the nearest accessible entrance.
The signage shall comply with the requirements for:
Character Proportion Character Height
Finish and Contrast (Refer to Element 16: Signage for specific requirements.)
This signage shall be installed in a location which will prevent a person with a disability from having to retrace his approach route to the inaccessible entrance.

4.1.3(7)(a) Doors
At each accessible entrance, at least one door shall be accessible.

ACCESSIBLE ROUTE - INTERIOR

4.1.3(1) Where required
At least one accessible route complying with this section shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility.

4.3.2(4) Where required
An accessible route shall connect at least one accessible entrance of each accessible dwelling unit with those exterior and interior spaces and facilities that serve the accessible dwelling unit.

4.1.3(5) 4.1.6(1)(k)(ii) Where required
In multi-story buildings not required to have an elevator (refer to Element 8: Elevators), floors located above and below the accessible ground floor entrance shall comply with other requirements of Elements 1-20.
In existing multi-story buildings without an elevator, alterations to floors above and below the accessible ground floor shall comply with other requirements of Elements 1-20.

4.3.3 Width
Minimum clear width: 36" (except as allowed at doors).

4.3.3 Width at Turns
36" clear width is permitted for a 90 turn if no additional turn is required within 48".
Clear width with turns around an obstruction less than 48" wide shall be 42" minimum, with 48" minimum width at turn.

4.3.4 Passing Space
If an accessible route is less than 60" wide, passing spaces are required at maximum 200' intervals. Passing space may be either 60" by 60" space, or a T-intersection of two walks or corridors.

4.3.5 4.4.2 Headroom
Minimum clear headroom: 80"
If vertical clearance of an area adjoining an accessible route is reduced to less than 80", a barrier shall be provided.

4.3.7 Slope
Running slope shall not exceed 1:20. (If slope exceeds 1:20, refer to `ramps' section).
Cross slope shall not exceed 1:50 (2%).

4.3.8 4.5.2 4.1.6(1)(f) Changes in Level
Up to 1/4": requires no edge treatment (vertical edge permitted).
1/4" to 1/2": Edge shall be beveled with a slope no greater than 1:2.
Greater than 1/2": Requires a ramp, elevator, or platform lift.

Stairs shall not be part of an accessible route.

Alterations/Existing Conditions:
If an escalator or stair is added where none existed previously, and major structural modifications are necessary for such installation, then a means of accessible vertical access (ramp, elevator, or platform lift) shall be provided.

4.3.6 4.5 Ground and Floor Surfaces
Shall be firm, stable, and slip-resistent. (If gratings are used, refer to requirements under Element 1: Accessible Route.)

4.5.3 Carpet
If carpet is used, it shall have the following features:
Shall be securely attached;
A firm cushion, pad, or backing (or none);
A level loop, textured loop, level cut pile or level cut/uncut pile texture;
Maximum pile thickness 1/2";
Exposed edges fastened to floor surfaces with carpet edge trim.

4.4.1 Protruding Objects
Objects protruding from walls with their leading edges between 27" and 80" above the finished floor shall protrude no more than 4" into walks or corridors.
Objects projecting from walls with their leading edges at or below 27" above the finished floor may protrude any amount.
Free-standing objects mounted on posts or pylons may overhang 12" maximum from 27" to 80" above the finished floor or ground.
Protruding objects shall not reduce the required clear width of an accessible route or maneuvering space.

4.2.4 Clear Floor Space
The minimum clear floor space required to accommodate a single, stationary wheelchair is 30" by 48", and may be positioned for either a forward or parallel approach.
If a forward approach clear floor space extends more than 24" into an alcove, the minimum alcove width shall be 36".
If a parallel approached clear floor space extends more than 15" into an alcove, the minimum alcove length shall be 60".

4.2.5 Reach Ranges
If a clear floor space allows only a forward approach, the maximum high forward reach shall be 48".
The minimum low forward reach shall be 15".
If the high forward reach is over an obstruction, the following conditions shall be met: Knee space below obstruction shall equal or exceed reach length required above the obstruction.

If the obstruction is less than 20" deep, the maximum high forward reach shall be 48".
If the obstruction is 20-25" deep, the maximum high forward reach shall be 44".
If the clear floor space allows a parallel approach, the maximum high side reach shall be 54".
The minimum low side reach shall be 9".
If the high side reach is over an obstruction, the following conditions shall be met: Obstruction shall be 34" maximum in height, 24" in depth, maximum high side reach shall be 46".

4.1.3(13) 4.27 Controls and Operating Mechanisms
All controls and operating mechanisms in accessible spaces, along accessible routes, and as parts of accessible elements, shall comply with the following:
1. Clear floor space shall be provided to allow forward or parallel approach.
2. Heights of all operable portions shall comply with the reach ranges above. Electrical and communications system receptacles on walls shall be 15" minimum above the floor.
Exception: The height requirements do not apply where the use of special equipment dictates otherwise or where electrical and communications systems receptacles are not normally intended for use by building occupants.
3. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
4. The force required to activate controls shall be no greater than 5 lbf.

4.1.3(9) 4.1.6(1)(g) 4.3.10 Means of Egress
In buildings or facilities, or portions of buildings and facilities, required to be accessible, accessible means of egress shall be provided in the same number as required for exits by local building/life safety regulations.
Accessible routes serving any space or element shall also serve as a means of egress for emergencies or connect to an accessible area of rescue assistance.
Where a required exit from an occupiable level above or below a level or accessible exit discharge is not accessible, an area of rescue assistance shall be provided on each level (in a number equal to that of inaccessible required exits).
Areas of rescue assistance shall comply with requirements listed below.
Exception: A horizontal exit, meeting the requirements of local building/life safety regulations, shall satisfy the requirement for an area of rescue assistance.
Exception: Areas of rescue assistance are not required in buildings or facilities having a supervised automatic sprinkler system.

4.3.11 Areas of Rescue Assistance
Location and Construction: An area of rescue assistance shall be one of the following:
1. A portion of a stairway landing within a smoke proof enclosure (complying with local requirements).
2. A portion of an exterior exit balcony (complying with local requirements) located immediately adjacent to an exit stairway. Openings to the interior of the building located within 20' of the area of rescue assistance shall be protected with fire assemblies having a 3/4 hour fire protection rating.
3. A portion of a 1 hour fire-resistive corridor (complying with local requirements) located immediately adjacent to an exit enclosure.
4. A vestibule located immediately adjacent to an exit enclosure and constructed to the same fire-resistive standards as required for corridors and openings.
5. A portion of a stairway landing within an exit enclosure which is vented to the exterior and is separated from the interior of the building with not less than 1 hour fire-resistive doors.
6. When approved by the appropriate local authority, an area or room which is separated from other portions of the building by a smoke barrier. Smoke barriers shall have a fire-resistive rating of not less than 1 hour and shall completely enclose the area or room. Doors in the smoke barrier shall be tight-fitting smoke and draft control assemblies having a fire -protection rating of not less than 20 minutes and shall be self-or automatic-closing. The area or room shall be provided with an exit directly to an exit enclosure. Where the room or area exits into an exit enclosure which is required to be of more than 1 hour fire-resistive construction, the room or area shall have the same fire-resistive construction, including the same opening protection, as required for the adjacent exit enclosure.
7. An elevator lobby when elevator shafts and adjacent lobbies are pressurized as required for smoke proof enclosures by local regulations. Such pressurization system shall be activated by smoke detectors on each floor located in a manner approved by the local authority. Pressurization equipment and its duct work shall be separated from other portions of the building by a minimum 2 hour fire-resistive construction.

Size: Each area of rescue assistance shall provide a minimum of 2 accessible spaces each being not less than 30" by 48". These spaces shall not encroach on any required exit width. The total number of spaces per story shall not be less than 1 per 200 persons of calculated occupant load served by the area of rescue assistance.
Exception: The local authority may reduce the minimum number of spaces to 1 for each area of rescue assistance on floors where the occupant load is less than 200.
Stairway Width: Each stairway adjacent to an area of rescue assistance shall have a minimum clear width of 48" between handrails.

Two-way Communication: A method of two-way communication, with both visible and audible signals, shall be provided between each area of rescue assistance and the primary building entry. The fire department or local authority may approve a location other than the primary entry.
Identification: Each area of rescue assistance shall be identified by a sign which states "AREA OF RESCUE ASSISTANCE" and displays the International Symbol of Accessibility. The sign shall be illuminated when exit sign illumination is required. Signage shall also be installed at all inaccessible exits and where otherwise necessary to clearly indicate the direction to areas of rescue assistance. In each area of rescue assistance, instructions on the use of the area under emergency conditions shall be posted adjoining the two-way communication system.

RAMPS

4.8.1 Where required
Wherever the slope of the accessible route exceeds 1:20 (5%).

4.8.2 Slope
Least possible slope shall be used
Maximum slope 1:12
Transitions shall be flush and free of abrupt changes
Maximum slope of adjacent surfaces: 1:20

4.8.3 Clear Width
Minimum: 36".

4.8.4 Landings
Level landings required at top and bottom of each run, with the following features:
1. Minimum Width: Equal to width of ramp.
2. Length: Minimum 60" clear.
3. If ramp changes direction at landing, landing shall be minimum 60" by 60".
4. If doorway is located at landing, maneuvering space is required (refer to Element 10: Doors).

4.8.5 Handrails
Required if: Rise exceeds 6: or Run (horizontal projection) exceeds 72".

Shall be provided on both sides of ramps.
Inside rail on switchback or dogleg ramps shall be continuous.

Where not continuous, rails shall extend at least 12" beyond top and bottom of ramp, parallel to ground surface.

Height: 34-38" above ramp surface.
Clear floor space between rail and any wall shall be 1-1/2".
Gripping surfaces shall be continuous (uninterrupted).
Ends shall be rounded, or returned smoothly to floor, wall, or post.
Handrails shall not rotate in their fittings.
Diameter or width of gripping surface shall be 1-1/4" to 1-1/2", or shall provide an equivalent gripping surface.
May be located in a recess provided that the recess is 3" deep maximum and extends 18" minimum above the top of the handrail.
Rails and adjacent surfaces shall be free of abrasive or sharp elements. Edges shall have a minimum radius of 1/8".

4.8.6 Cross Slope
Maximum cross slope of ram surface shall be 1:50.

4.8.6, 4.5 Surfaces
Ramp surface shall be firm, stable, and slip-resistent (If carpeted, refer to requirements under Element 5: Accessible Routes.)

4.8.7 Edge Protection
Ramps and landings with vertical side drop-offs shall have walls, railings, projecting surfaces, or minimum 2" high curbs, to prevent people from slipping off the ramp

4.8.8 Outdoor Conditions
Outdoor ramps and their approaches shall be designed so that water will not accumulate on their walking surfaces.

STAIRS

4.1.3(4) When applicable
Interior and exterior stairs connecting levels not served by an elevator, ramp, or other accessible means of vertical access shall comply with this section.

4.9.2 Treads and Risers
All steps on a flight of stairs shall have uniform riser heights and tread widths.
Minimum tread depth shall be 11", measured from riser to riser (not including nosing). Open risers are not permitted.

4.9.3 Nosings
Undersides of nosings shall not be abrupt.
Radius of curvature at leading tread edge shall not exceed 1/2".
Risers shall be sloped or underside of nosing shall have an angle not less than 60 .
Nosings shall project no more than 1-1/2".

4.9.4 Handrails
Required on both sides of all stairs.

Inside rail on switchback or dogleg stairs shall be continuous.

Where not continuous, handrail extensions shall be provided as follows:
Top of stair flights: Parallel to floor, 12" minimum beyond top riser nosing.
Bottom of stair flights: Continue sloping for one tread width beyond bottom riser, plus 12" minimum parallel to floor.

Height: 34"-38", measured from stair nosing.
Clear floor space between rail and any wall shall be 1-1/2".
Gripping surfaces shall be uninterrupted by newel posts, other construction elements, or obstructions.
Ends shall be rounded, or returned smoothly to floor, wall, or post.
Handrails shall not rotate in their fittings.

4.26.2 Handrails
Diameter or width of gripping surface shall be 1-1/4" to 1-1/2", or shall provide an equivalent gripping surface.
May be located in a recess provided that the recess is 3" deep maximum and extends 18" minimum above the top of the handrail.

4.26.4 Handrails
Rails and adjacent surfaces shall be free of abrasive or sharp elements.
Edges shall have a minimum radius of 1/8".

4.9.6 Outdoor Conditions
Outdoor stairs and their approaches shall be designed so that water will not accumulate on walking surfaces.

PLATFORM LIFTS

4.1.3(5) Excep. 4 4.1.6(3)(g) Where permitted
Platform lifts complying with this section and all applicable state and local codes are permitted only under the following conditions:
a. To provide an accessible route to a performing area in an assembly occupancy.
b. To comply with wheelchair viewing position line-of-sight and dispersion requirements.
c. To provide access to incidental occupiable spaces which are not open to the general public and which house no more than five persons (ie. equipment control rooms, projection booths).
d. To provide access where existing site constraints or other constraints make use of a ramp or an elevator infeasible.

4.11.2 Other Requirements
Platform lifts shall comply with ASME/ANSI A17.1 Safety Code for Elevators and Escalators, Section XX, 1990.

4.11.3 Entrance
Lifts shall facilitate unassisted entry, operation, and exit.

4.2.4.1 Clear Floor Space
Minimum 30" by 48" space is required for a single wheelchair.

4.2.4.2 Maneuvering Clearance
The platform lift shall provide maneuvering clearances as required for alcoves on the accessible route.

4.5.1 Floor Surface
Shall be stable, firm, and slip-resistant. (If carpeted, refer to requirements under Element 5: Accessible Route.)

4.11.2 4.27.2 Controls and Operating Mechanisms
Clear floor space allowing a proper forward or parallel wheelchair approach to all controls is required.
Heights permitted:
Forward reach: minimum 15", maximum 48"
Side reach: minimum 9", maximum 54"
(If reach is over an obstruction, refer to requirements under Element 5: Accessible Route.)
Mechanisms
1. Shall be operable with one hand.
2. Shall not require tight grasping, pinching, or twisting of the wrist.
3. Maximum force required to activate controls shall be 5 lbf.

DOORS

4.1.3(7) Where applicable
At each accessible entrance to a building or facility, at least one door shall comply with this section.
Within a building or facility, at least one door at each accessible space shall comply with this section.
Each door that is an element of an accessible route shall comply with this section.
Each door serving as part of an accessible means of egress or connecting to an area of rescue assistance shall comply with this section.
Exception: This requirement does not apply to existing buildings or alterations.

4.13.2 Revolving Doors and Turnstiles
Revolving doors or turnstiles shall not be the only means of passage at an accessible entrance or along an accessible route.
An accessible gate or door shall be provided adjacent to the turnstile or revolving door and shall facilitate the same use pattern.

4.13.3 Gates
Gates, including ticket gates, shall comply with all applicable portions of this section.

4.13.4 Double-leaf Doorways
If doorways have two independently operated door leaves, then at least one leaf shall comply with this section. That leaf shall be an active leaf.

4.13.5 4.3.3 4.1.6(3)(d)(i) Clear Width
Doorways shall provide a clear opening of 32" minimum, with the door open 90° .
Clear openings shall be measured between the face of the door and stop.
Openings more than 24" in depth shall provide a clear opening of 36" minimum.
Exception: Doors not requiring full user passage, such as shallow closets, shall have a clear opening of 20" minimum.

Alterations/Existing Conditions:
Where it is technically infeasible to comply with clear opening requirements, a maximum projection of 5/8" shall be permitted for the latch side stop (reducing the required clear opening to 31-3/8" minimum).

4.13.6 Maneuvering Clearances
The following maneuvering clearances, in addition to doorway width, are required at swinging doors that are not automatic or power-assisted (all dimensions are minimum):
1. Front approach to pull side: 18" beyond latch side of door, 60" perpendicular to doorway.
2. Front approach to push side, if door has a closer and a latch: 12" beyond latch side of door, 48" perpendicular to doorway.
3. Front approach to push side, without closer and latch: same width as doorway, 48" perpendicular to doorway.
4. Hinge side approach to pull side: 36" beyond latch side of door, 60" perpendicular to doorway; or 42" beyond latch side of door, 54" perpendicular to doorway.
5. Hinge side approach to push side, if door has a closer and a latch: 54" parallel to doorway (from latch side, extending beyond hinge side), 48" perpendicular to doorway.
6. Hinge side approach to push side, without closer and latch: 54" parallel to doorway (from latch side, extending beyond hinge side), 42" perpendicular to doorway.
7. Latch side approach to pull side, without closer: 24" beyond latch side of door, 54" perpendicular to doorway.
8. Latch side approach to push side, without closer: 24" beyond latch side of door, 48" perpendicular to doorway.
9. Latch side approach to push side, if door has closer: 24" beyond latch side of door, 48" perpendicular to doorway.
10. Latch side approach to push side, without closer: 24" beyond latch side of door, 42" perpendicular to doorway.

The following maneuvering clearances, in addition to doorway width, are required at sliding and folding doors that are not automatic or power-assisted (all dimensions are minimum):
1. Front approach: same width as doorway, 48" perpendicular to doorway.
2. Slide side approach: 54" parallel to doorway (from latch side, extending beyond slide side), 42" perpendicular to doorway.
3. Latch side approach: 24" beyond latch side of door, 42" perpendicular to doorway.

The floor or ground area within the required clearances shall be level and clear.
Exception: Entry doors to acute care hospital bedrooms for in-patients are exempt from the latch side extensions if the door is at least 44" wide.

4.13.7 Two Doors in Series
The minimum space between two hinged or pivoted doors in series shall be 48" plus the width of any door swinging into the space.
Doors in series shall swing either in the same direction or away from the space between the doors.

4.13.8 4.1.6(3)(d)(ii) Thresholds at Doorways
Maximum threshold height: 1/2" (3/4" at exterior sliding doors).
Raised thresholds and floor level changes shall be beveled with a slope no greater than 1:2.
Alternations/Existing Conditions:
If existing thresholds are 3/4" high maximum, and have (or are modified to have) a beveled edge on each side, they may remain.

4.13.8 Door Hardware
Handles, pulls, latches, locks, and other operating devices shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate.
Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.
When sliding doors are fully open, operating hardware shall be exposed and usable from both sides.
Hardware required for passage shall be mounted no higher than 48" above finished floor.

4.13.10 Door Closers
If a door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70 , the door will take at least 3 second to move to a point 3" from the latch, measured to the leading edge of the door.

4.13.11 Door Opening Force
The maximum force for pushing or pulling open a door shall be as follows:
1. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority.
2. Other doors
a. Exterior hinged doors: (No requirement at this time)
b. Interior hinged doors: 5 lbf
c. Sliding or folding doors: 5 lbf

These forces do not apply to the force required to retract latch bolts or disengage other devices that may hold the door in a closed position.

4.13.12 Automatic Doorsand Power-Assisted
If an automatic door is used, then it shall comply with ANSI/BHMA A156.10-1985. Slowly opening, low-powered, automatic doors shall comply with ANSI A156.19-1984. Such doors shall not open to back check faster than 3 second and shall require no more than 15 lbf to stop door movement.
If a power-assisted door is used, its door opening force shall comply with forces listed above (see `Door Opening Force') and its closing force shall comply with ANSI A156.19-1984.

DRINKING FOUNTAINS

4.1.3(10)(a) Where applicable
Where only one drinking fountain or water cooler is provided per floor, accessible drinking facilities shall be provided for both wheelchair users and for persons who have difficulty stooping or bending. This may be accomplished by the following means:
Providing a "hi-lo" fountain, with spouts at wheelchair and standard height;
Providing an accessible drinking fountain complying with this section and a water cooler;
By other means providing accessibility for each group.

4.1.3(10)(b) Where required
If more than one drinking fountain or water cooler is provided on a floor, 50% of those provided shall comply with this section and shall be located on an accessible route. (If an odd number of fountains is provided, the 50% figure can be rounded down to determine the required number of accessible fountains.)

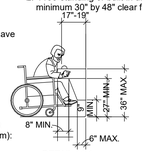
4.15.2 Spout Height
Spouts shall be no higher than 36", measured from the floor or ground surface to the spout outlet.

4.15.3 Spout Location
Spouts shall be located at the front of the unit and shall direct the water flow in a trajectory that is parallel or nearly parallel to the front of the unit.
The spout shall provide a flow of water at least 4" high.
If the fountain has a round or oval bowl, the spout must be positioned so the flow of water is within 3" of the front edge of the fountain.

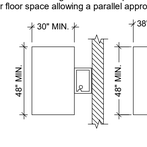
4.15.4 Controls
Unit controls shall be front mounted or side mounted near the front edge.

4.27.4 Operation
Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
The force required to activate controls shall be no greater than 5 lbf.

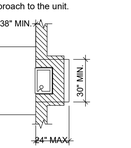
4.15.5 Clearances
1. Wall and post mounted cantilevered fountains shall have clear knee space as follows:
Minimum 27" high (from apron bottom to floor), minimum 30" wide, and 17" -19" deep.
A minimum 30" by 48" clear floor space allowing a forward approach to the unit shall also be provided.
2. Free-standing or built-in units not having a clear knee space shall have a minimum 30" by 48" clear floor space allowing a parallel approach to the unit.



DETAIL 11.1



DETAIL 11.2



DETAIL 11.3

TOILET ROOMS AND BATHROOMS

4.1.2(6) Where required
If toilet facilities are provided on a site, then each such public or common use toilet facility shall comply with this section.
If bathing facilities are provided on a site, then each such public or common use bathing facility shall comply with this section.
For single user portable toilet or bathing units clustered at a single location, at least 5%, but not less than 1 toilet unit or bathing unit shall be provided at each cluster. Accessible units shall be identified by the International Symbol of Accessibility.
Exception: Portable toilet facilities at construction sites used exclusively by construction personnel are not required to comply.

4.1.3(11) 4.1.6(3)(e) 4.1.7(3)(c)
If toilet rooms are provided, then each public or common use toilet room shall comply with this section.
Other toilet rooms provided for the specific use of occupants of specific spaces (e.g. a private toilet room for a private office) shall be adaptable. (Room will need to be capable of complying with this section.)
If bathing rooms are provided, then each such public and common use bathroom shall comply with this section.

4.22.1 Location
Accessible toilet rooms and bathrooms shall be on an accessible route.

4.22.2 4.23.2 Doors
Doors to accessible toilet/bathrooms shall be accessible (Refer to Element 10: Doors). Doors shall not swing into the clear floor space required for any fixture.

4.22.3 4.23.3 Clear Floor Space
All accessible fixtures and controls shall be on an accessible route.
An unobstructed turning space is required within the toilet/bathroom. This space shall be either a 60" diameter circle or a T-shaped space, 60" square, with 36" legs.
The clear space at fixtures and controls, the accessible route, and the turning space may overlap.

4.1.7(7)(d)4.1.6(3)(e)(iii) Signage
Where all toilet and bathrooms are not accessible, accessible toilet and bathrooms shall be identified by a sign showing the International Symbol of Accessibility.

4.23.7 Controls andDispensers
If controls, dispensers, receptacles, or other equipment are provided, then at least one of each type shall be on an accessible route and shall comply with the height, clear floor space, and operation requirements specified in Element 5: Accessible Route.

CITY STANDARDS
CONTRACTOR(S) TO COMPLY WITH CITY STANDARDS BUT SHALL NOT VIOLATE THE STANDARDS LISTED IN ADA AND LOCAL ACCESSIBILITY STANDARDS (L.A.S.).

AMERICAN'S WITH DISABILITIES ACT
ALL EXISTING AND NEW HARDWARE, EQUIPMENT, MOUNTING HEIGHTS, ACCESSIBLE ROUTES, ETC. SHALL COMPLY WITH THE AMERICAN'S WITH DISABILITIES ACT & LOCAL ACCESSIBILITIES STANDARDS.

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Revisions:

ACCESSIBILITY REQUIREMENTS

A0.1

Issue Date: 05/31/2024

WATER CLOSETS

4.16.2
Water closets shall be located 18" from a side wall or partition.
Clear water space for water closets not located in toilet stalls is required as follows, depending on approach provided to the fixture (all dimensions are minimum):
1. Front approach: 66" from back wall, 48" from side wall (lavatory may protrude 12" maximum into clear space along back wall).
2. Side approach: 56" from back wall, 48" from side wall (lavatory may protrude 12" maximum into clear space along back wall).
3. Front and Side approach: 56" from back wall, 60" from side wall (lavatory may not protrude into clear space).

Clear floor space may be arranged to allow either a left-handed or right-handed approach.

4.16.3 Height
The height to the top of the toilet seats shall be 17" to 19".
Seats shall not be sprung to return to a lifted position.

4.16.4 4.26 Grab Bars
For water closets not located in toilet stalls, the following grab bars shall be provided, 33-36" above the finish floor:
Side Wall: 42" long minimum, 12" from back wall.
Back Wall: 36" long minimum, 12" minimum each side of water closet centerline.

4.16.5 4.27.4 Flush Controls
Controls shall be 44" maximum above the finish floor.
Controls for flush valves shall be mounted on the wide side of toilet areas.
Controls shall be hand operated or automatic.
Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
The force required to activate controls shall be no greater than 5 lbf.

4.16.6 Dispensers
Toilet paper dispensers shall be installed on the side wall, below the grab bar, a minimum 19" above the floor, and a maximum 36" from the rear wall.
Dispensers that control delivery, or do not permit continuous paper flow, shall not be used.

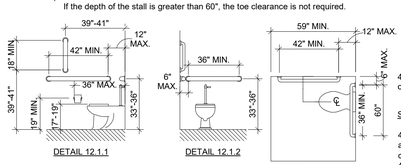
TOILET STALLS

4.22.4 Where applicable
If toilet stalls are provided in a toilet room or bathroom, then at least one shall be a `standard' accessible toilet stall (for wheelchair users) complying with this section.
If 6 or more toilet stalls are provided in a toilet room or bathroom, in addition to the `standard' accessible stall required, an addition `alternate A' accessible stall (for ambulatory persons with disabilities) complying with this section shall be provided.

4.17.2 Water Closets
Water closets located within toilet stalls shall comply with Element 12.1: Water Closets.

4.17.3 Size and Arrangement
Toilet stalls may be arranged to provide either a left- or a right-hand approach.
Accessible toilet stalls shall have the following dimensions:
`Standard' Accessible Stall
Minimum Width: 60"
Minimum Depth, with floor mounted water closet: 59"
Minimum Depth, with wall mounted water closet: 56"
Door: Outward swinging (if door swings into stall, depth shall be increased by 36")
`Alternate A' Accessible Stall (required when more than 6 stalls provided; permitted in lieu of `standard' stalls in certain alterations).
Width: 36"
Minimum Depth: with floor mounted water closet: 69"
Minimum Depth: with wall mounted water closet: 66"
Door: Outward swinging
`Alternate B' Accessible Stall (permitted in lieu of standard stall only in certain alterations)
Minimum Width: 48"
Minimum Depth: 54"
Door: Outward Swinging

4.17.4 Toe Clearance
In `standard' accessible stalls, the front partition and at least one side partition shall provide a toe clearance of at least 9" above the floor.
If the depth of the stall is greater than 60", the toe clearance is not required.



DETAIL 12.1.1 DETAIL 12.1.2 DETAIL 12.2.1

4.17.5 Doors
Toilet stall doors, including hardware, shall comply with Element 10: Doors. If toilet stall approach is from the latch side of the stall door, clearance between the door side of the stall and any obstruction shall be 42" minimum. (This an exception from typical door maneuvering clearances).

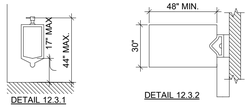
4.17.6 Grab Bars
Grab Bars, mounted 33"-36" above the floor, shall be provided as follows:
`Standard' Accessible Stall: One 40" side wall grab bar (on near wall), one 18" vertical side wall grab bar, one rear wall grab bar.
`Alternate A' Accessible Stall: 42" side wall grab bar each side
`Alternate B' Accessible Stall: One 42" side wall grab bar (on near wall), one 18" vertical side wall grab bar, one rear wall grab bar.

Side Wall Grab Bar: Minimum length as indicated, mounted 12" maximum off rear wall.
Side Wall Vertical Grab Bar: Minimum length as indicated, mounted 39"-41" off rear wall.
Rear Wall Grab Bar: Minimum length 36", 12" minimum each side of water closet centerline.
Refer to Element 12.8: Grab Bars for size and structural requirements.

URINALS

4.18.2 Height
Urinals shall be stall-type or wall hung with an elongated rim at 17" maximum above the floor.
4.18.3 Clear Floor Space
A clear space 30" wide by 48" deep minimum shall be provided in front of urinal to allow a forward approach.
This space shall adjoin or overlap an accessible route.
Urinal shields that do not extend beyond the front edge of the urinal rim may be provided with 29" clearance between them.

4.18.4 Flush Controls
Controls shall be 44" maximum above the finished floor.
Controls shall be hand operated or automatic.
Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
The force required to activate controls shall be no greater than 5 lbf.



DETAIL 12.3.1 DETAIL 12.3.2

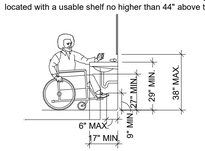
LAVATORIES & MIRRORS

4.19.2 Height and Clearance
Lavatories shall be mounted with the rim or counter surface no higher than 34" above the finish floor.
Lavatories shall extend 17" minimum from the wall.
Clearance of 29" minimum shall be provided from finish floor to bottom of apron.
Knee clearance of 27" minimum shall extend 8" minimum under the edge of the lavatory.
Toe clearance of 9" minimum shall be provided for the full depth of the lavatory.

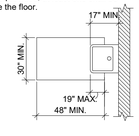
4.19.3 Clear Floor Space A clear floor space 30" by 48" shall be provided in front of a lavatory to allow forward approach.
The clear floor space shall adjoin or overlap an accessible route and shall extend a maximum of 19" underneath the lavatory.
4.19.4 Exposed Pipes and Surfaces Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact.
There shall be no sharp or abrasive surfaces under lavatories.
4.27.4 Faucets Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
The force required to activate controls shall be no greater than 5 lbf.
Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs.
If self-closing valves are used the faucet shall remain open for at least 10 seconds.

4.19.6 Mirrors Mirrors shall be mounted with the bottom edge of the reflecting surface 38" maximum above the finish floor.

4.23.9 Medicine Cabinets If medicine cabinets are provided, at least one shall be located with a usable shelf no higher than 44" above the floor.



DETAIL 12.5.1



DETAIL 12.5.2

SINKS

4.24.2 Height Sinks shall be mounted with the rim or counter surface no higher than 34" above the finish floor.
4.24.3 Knee Clearance Knee clearance of 27" high minimum, 30" wide minimum, and 19" deep minimum shall be provided underneath sinks.
4.24.4 Depth Each sink shall be a maximum 6-1/2" deep.
4.24.5 Clear Floor Space A clear floor space 30" by 48" shall be provided in front of a sink to allow forward approach.
The clear floor space shall adjoin or overlap an accessible route and shall extend a maximum of 19" underneath the sink.

4.24.6 Exposed Pipes and Surfaces Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact.
There shall be no sharp or abrasive surfaces under lavatories.

4.27.4 Faucets Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
The force required to activate controls shall be no greater than 5 lbf.
Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs.
If self-closing valves are used the faucet shall remain open for at least 10 seconds.

GRAB BARS

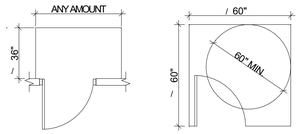
4.26.2 Size and Spacing Diameter or width of gripping surface shall be 1-1/4" to 1-1/2", or the shape shall provide an equivalent gripping surface.
The space between grab bars and adjacent walls shall be 1-1/2".

4.26.3 Structural Strength Grab Bars and mounting devices shall meet the following requirements:
1. Bending stress induced by maximum bending moment from application of 250 lbf shall be less than allowable stress for material used.
2. Shear stress induced by application of 250 lbf shall be less than allowable shear stress for material used. If connection between grab bar and mounting bracket is considered to be fully restrained, then direct and torsional shear stresses shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress.
3. Shear stress induced in a fastener or mounting device from application of 250 lbf shall be less than allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load.
4. Tensile force induced in a fastener by a direct tension force of 250 lbf plus the maximum moment from the application of 250 lbf shall be less than the allowable withdrawal load between the fastener and the supporting structure.
5. Grab bars shall not rotate within their fittings.

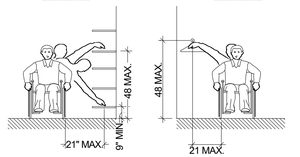
4.26.4 Eliminating Hazards Grab bars and adjacent wall surfaces shall be free of sharp or abrasive surfaces. Edges shall have a radius of 1/8" minimum.

STORAGE

4.1.3(12)(a) If fixed or built-in storage facilities such as cabinets, shelves, closets, and drawers are provided in accessible spaces, at least one type provided shall contain storage space complying with this section.
4.1.3(12)(b) Where applicable Shelves or display units allowing self-service by customers in mercantile occupancies shall be located on an accessible route.
4.1.7(3)(e) Where required Historic Preservation:
Displays and written information, documents, etc. should be located where they can be seen by a seated person. Exhibits and signage displayed horizontally (e.g., open books) should be no higher than 44" above the floor.
4.25.2 Clear Floor Space A clear floor space at least 30" by 48" that allows either a forward or parallel approach by a person using a wheelchair shall be provided at accessible storage facilities.
4.25.3 Height Where a forward reach is required, accessible storage spaces shall be 48" maximum and 15" minimum above the floor. If the forward reach is over an obstruction (with knee space equal to or greater than reach distance) 20-25" deep, the maximum height shall be 44"; if the obstruction is less than 20", maximum height shall be 48".
Where a side reach is provided, accessible storage spaces shall be 54" maximum and 9" minimum above the floor. Maximum height shall be 46" for side reach over an obstruction 34" maximum high and 24" maximum deep.
Clothes rods or shelves shall be a maximum 54" above floor where a side reach is required.
Where the distance from the wheelchair to the clothes rod or shelf exceeds 10" (as at closets with inaccessible doors) the following criteria shall be met:
Shelves: maximum reach: 21"; height: 48" maximum, 9" minimum.
Clothes rods: 21" maximum reach; Height: 48" maximum.
4.27.4 Hardware Hardware for accessible storage facilities shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
The force required to activate hardware shall be no greater than 5 lb.



DETAIL 14.1 DETAIL 14.2



DETAIL 14.3 DETAIL 14.4

ALARMS

4.1.3(14) If emergency warning systems are provided, then they shall include both audible and visible alarms complying with this section.
4.28.1 Where required When required, visual alarms shall be provided in each of the following areas, as a minimum: restrooms and any other general usage areas (e.g., meeting rooms), hallways,lobbies, and any other area for common use.
4.28.2 Audible Alarms If provided, audible alarms shall produce a sound that exceeds the prevailing equivalent sound level in the room or space by at least 15 dba or exceeds any maximum sound level with a duration of 60 second by 5 dba, whichever is louder.
Sound levels for alarm signals shall not exceed 120 dba.
4.28.3 Visual Alarms Visual alarm signal appliances shall be integrated into the building or facility alarm system. If single station audible alarms are provided then single station visual alarm signals shall be provided.
Visual alarm appliances shall have the following features:
1. The lamp shall be a xenon strobe type or equivalent.
2. The color shall be clear or nom. white (i.e., unfiltered or clear filtered white light).
3. The maximum pulse duration shall be two-tenths of one second with a maximum duty cycle of 40%. (The pulse duration is defined as the time interval between initial and final points of 10% of maximum signal.)
4. The intensity shall be a minimum of 75 candela.
5. The flash rate shall be a minimum of 1 Hz and a maximum of 3 Hz.
6. The appliance shall be placed 80" above the highest floor level within the space

7. In general, no place in any room or space shall be more than 50' from the signal (measured in a horizontal plane).
In large rooms and spaces exceeding 100' across, without obstructions 6' above the finish floor, such as auditoriums, devices may be placed around the perimeter, spaced a maximum 100' apart, in lieu of suspending appliances from the ceiling.
8. No place in common corridors or hallways shall be more than 50' from the signal.

4.28.4 Auxiliary Alarms Units and sleeping accommodations shall have a visual alarm connected to the building emergency alarm system or shall have a standard 110-volt electrical receptacle into which such an alarm can be connected and a means by which a signal from the building emergency alarm can trigger such an auxiliary alarm.
When visual signals are in place, the signal shall be visible in all areas of the unit or room.

Instructions for use of the auxiliary alarm or receptacle shall be provided.

SIGNAGE

4.1.3(16)(a)
Where applicable
Signs which designate permanent rooms and spaces shall comply with the requirements listed below for:
Raised and Brailled Characters and Pictograms
Finish and Contrast
Mounting Location and Height
4.1.2(7)
4.1.3(16)(b)
4.1.2(7) 4.1.3(16)(b) Where applicable. Signs which provide direction to, or information about, functional spaces of the building shall comply w/ the requirements listed below for:
Character Proportion
Character Height
Finish and Contrast
Exception: Building directories, menus, and all other signs which are temporary are not required to comply.
4.1.2(7) Where applicable Elements and spaces of accessible facilities which shall be identified by the International Symbol of Accessibility are:
a. Parking spaces designated as reserved for persons with disabilities;
b. Accessible passenger loading zones;
c. Accessible entrances when not all are accessible (inaccessible entrances shall have directional signage to indicate route to nearest accessible entrance);
d. Accessible toilet and bathing facilities when not all are accessible.
4.30.2 Character Proportion
Letters and numbers on signs shall have a width-to-height ratio between 3:5 and 1:1, and a stroke-width-to-height ratio between 1:5 and 1:10.

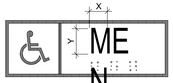
4.30.3 Character Height Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read.
For signs higher than 80" above the finish floor, character size shall be 3" minimum.
Lower case letters are permitted.

4.30.4 Raised and Brailled Characters
Letters and numerals shall be raised 1/32", upper case, sans serif or simple serif type and shall be accompanied by grade 2 Braille.
Raised character height: 5/8" minimum, 2" high maximum.
Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram.
The border dimensions of the pictogram shall be 6" minimum.

4.30.5 Finish and Contrast
The characters and background of signs shall be eggshell, matte, or other non-glare finish. Characters and symbols shall contrast with their background (either light characters on a dark background or dark characters on a light background).
4.30.6 Mounting Location and Height
Where permanent identification is provided for rooms and spaces,signs shall be installed on the wall adjacent to the latch side of the door.
Where there is no wall space to the latch side of the door, including at double-leaf doors, signs shall be placed on the nearest adjacent wall.
Mounting height shall be 60" above the finish floor to the centerline of the sign.
Mounting location for such signage shall be so that a person may approach within 3" of signage without encountering protruding objects or standing within the swing of a door.
4.30.7 Symbols of Accessibility
1. Facilities and elements required to be identified as accessible shall use the International Symbol of Accessibility.
2. Volume Control Telephones, when required, shall be identified by a sign containing a depiction of a telephone handset with radiating sound waves.
3. Text Telephones, when required, shall be identified by the International TDD Symbol. In addition, if a facility has a public text telephone, directional signage indicating the location of the nearest text telephone shall be placed adjacent to all banks of telephones which do not contain a text telephone. Such directional signage shall include the international TDD symbol. If a facility has no banks of telephones, the directional signage shall be provided at the entrance (e.g. in a building directory).
4. Assistive Listening Systems. In assembly areas where permanently installed assistive listening systems are required, the availability of such systems shall be identified with signage that includes the International Symbol of Access for Hearing Loss.

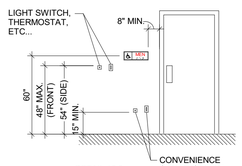
International Symbol of Accessibility

DETAIL 16.1



Letter & numbers on signs shall have a width to height ratio of between 3:5 & 1:1 and a stroke - width to height ratio between 1:5 & 1:10. Letters and numbers shall be raised 1/32", upper case, sans serif or simple serif type and shall be accompanied with grade 2 Braille, raised characters shall be at least 5/8" high, but no higher than 2".

DETAIL 16.2



DETAIL 16.3

PUBLIC TELEPHONES

4.1.3(17)(a) Where applicable If public pay telephones, public closed circuit telephones, or other public telephones are provided, then they shall comply with this section in the quantities indicated below:
1. If one or more single unit of a type of public telephone is provided on a floor, then at least one of those phones shall comply with this section.
2. If one bank (defined as two or more adjacent public telephones, often installed as a unit) of a type of telephone is provided on a floor, then at least one of the telephones at the bank shall comply with this section.
3. If two or more banks of a type of public telephone are provided on a floor, then at least one telephone per bank shall comply with this section. The accessible unit may be installed as a single unit in proximity (either visible or with signage) to the bank. At least one public telephone per floor shall meet the requirements for a forward reach telephone.

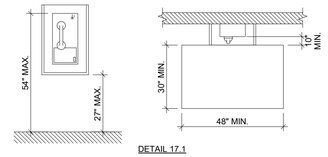
Exception: For exterior installations only, if dial tone first service is available then a side reach telephone may be installed instead of the required forward reach telephone (i.e., one telephone in proximity to each bank shall comply with this section).
Additional public telephones may be installed at any height.
Unless otherwise specified, accessible telephones may be either forward or side reach.
4.1.3(17)(b) Where applicable All telephones required to be accessible shall be equipped with a volume control. In addition, 25%, but never less than one, of all other public telephones provided shall be equipped with a volume control and shall be dispersed among all types of telephones, including closed circuit telephones, throughout the building or facility.
Signage displaying the International Symbol of Access for Hearing Loss shall be provided at each telephone equipped with a volume control.
4.1.3(17)(c) Text Telephones:
Where required
1. If a total number of 4 or more public pay telephones (including both interior and exterior phones) is provided at a site, and at least one is in an interior location, then at least one interior public text telephone shall be provided.
2. If an interior public pay telephone is provided in a stadium or arena, in a convention center, in a hotel with a convention center, or in a covered mall, at least one interior public text telephone shall be provided in the facility.
3. If a public telephone is located in or adjacent to a hospital emergency room, hospital recover room, or hospital waiting room, one public text telephone

Where a bank of telephones in the interior of a building consists of 3 or more public pay telephones, at least one public pay telephone in each such bank shall be equipped with a shelf and outlet to accommodate a portable text telephone as described below.
4.1.6(1)(e) Where required Alterations/Existing Conditions:
At least one interior public text telephone shall be provided if:
1. Alterations to existing buildings or facilities with less than 4 exterior or interior public pay telephones would increase the total number to 4 or more telephones with at least one in an interior location; or
2. Alterations to one or more exterior or interior public pay telephones occur in an existing building or facility with 4 or more public telephones with at least one in an interior location.

4.31.2 Clear Floor Space A clear floor or ground space at least 30" by 48" that allows either a forward or parallel approach by a person using a wheelchair shall be provided at telephones.
Bases, enclosures, and fixed seats shall not impede approaches to telephones by people who use wheelchairs.
4.31.3 Mounting Height The highest operable part of the telephone shall be 48" max. above the floor where a forward reach is req., and 54" max. where a side reach is req.
If the forward reach is over an obstruction (with knee space equal to or greater than reach distance) 20-25" deep the maximum height shall be 44"; if the obstruction is less than 20" deep, maximum height shall be 48".
Maximum height shall be 46" for side reach over an obstruction 34" maximum high and 24" maximum deep.
4.4.1 Protruding Objects Objects projecting from walls with their leading edges between 27" and 80" above the finished floor shall protrude no more than 4" into walks or corridors. Objects projecting from walls with their leading edges at or below 27" above the finished floor may protrude any amount.
Free-standing objects mounted on posts or pylons may overhang 12" maximum from 27" to 80" above the finished floor or ground.
Protruding objects shall not reduce the required clear width of an accessible route or maneuvering space.

4.31.5 Hearing Aid Compatible and Volume Control Telephones
Where required:
1. Telephones shall be hearing aid compatible.
2. Volume controls, capable of a minimum of 12 dbA and a maximum of 18 dbA above normal, shall be provided. If an automatic reset is provided, then 18 dbA may be exceeded.

4.31.7 Telephone Books Telephone books, if provided, shall be located in a position that complies w/ the same reach ranges noted above for operable parts of telephones.
4.31.8 Cord Length The cord from the telephone to the handset shall be at least 29" long.
4.31.9 Text Telephones Where required:
1. Text telephones used with a pay telephone shall be permanently affixed within, or adjacent to, the telephone enclosure. If an acoustic coupler is used, the telephone cord shall be sufficiently long as to allow connection of the text telephone and the telephone receiver.
2. Pay telephones designed to accommodate a portable text telephone shall be equipped with a shelf and an electrical outlet within or adjacent to the telephone enclosure. The telephone handset shall be capable of being placed flush on the surface of the shelf. The shelf shall be capable of accommodating a text telephone and shall have 6" minimum vertical clearance in the area where the text telephone is to be placed.
3. Equivalent facilitation may be provided, for example, a portable text telephone may be made available in a hotel at the registration desk if it is available on a 24 hour basis for use with nearby public pay telephones. In this instance, at least 1 pay telephone shall be designed to accommodate the portable text telephone.)



DETAIL 17.1

SEATING AND TABLES

4.1.3(18) Where applicable
If fixed or built-in seating or tables (including, but not limited to study carrels and student laboratory stations) are provided in accessible public or common use areas, at least 5%, but not less than 1, shall comply with this section.
An accessible route shall lead to and through such areas.
4.32.2 Seating If seating spaces for people in wheelchairs are provided at fixed tables or counters, a minimum clear floor space for 30" by 48" shall be provided.
Clear floor space may extend under the table or counter (into the knee space) 19" maximum.
4.32.3 Knee clearances If seating for people in wheelchairs is provided at fixed tables or counters, knee spaces at least 27" high, 30" wide, and 19" deep shall be provided.
4.32.4 Height of Tables or Counters
The tops of accessible tables and counters shall be 28" minimum, and 34" maximum, above the finish floor.

AUTOMATIC TELLER MACHINES

4.34.2 Clear Floor Space A clear floor space at least 30" by 48" that allows either a forward or parallel approach by a person using a wheelchair shall be provided.
Exception: Drive-up-only ATM's need not comply with this item.

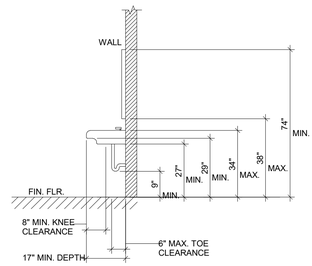
4.27.3 Height Where a forward reach is required, controls and operating mechanisms shall be 48" maximum and 15" minimum above the floor. If the forward reach is over an obstruction (with knee space equal to or greater than reach distance) 20-25" deep, maximum height shall be 48".
Where a side reach is provided, controls and operating mechanisms shall be 54" maximum and 9" minimum above the floor. Maximum height shall be 46" for side reach over an obstruction 34" maximum high and 24" maximum deep.
Exception: Drive-up-only ATM's need not comply with this item.

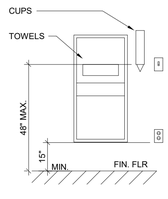
4.27.4 Controls and Operating Mechanisms
Shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
The force required to activate controls shall be no greater than 5 lbf.

4.34.3 Clearances and Reach Ranges
Free standing or built-in units not having a clear space under them shall provide for a parallel approach and both a forward and side reach to the unit.
Exception: Drive-up-only ATM's need not comply with this item.
independently usable by persons with vision impairments.
4.34.4 Equipment for Persons with Vision Impairments
Instructions and all information for use shall be made accessible to and notes/sketches:

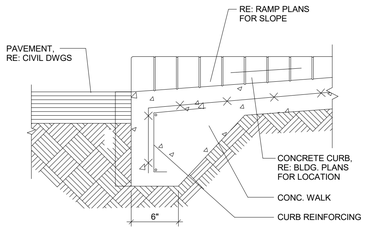
REACH DEPTH	MAXIMUM HEIGHT	REACH DEPTH	MAXIMUM HEIGHT	REACH DEPTH	MAXIMUM HEIGHT
IN INCHES	IN INCHES	IN INCHES	IN INCHES	IN INCHES	IN INCHES
10 OR LESS	54	15	51	20	48 1/2
11	53 1/2	16	50 1/2	21	47 1/2
12	53	17	50	22	47
13	52 1/2	18	49 1/2	23	46 1/2
14	51 1/2	19	49	24	46

NOTE : ABOVE DOES NOT APPLY TO DRIVE UP MACHINES

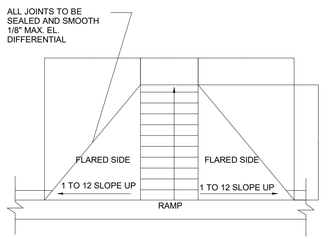




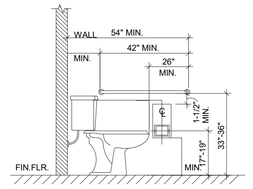
FRONT APPROACH

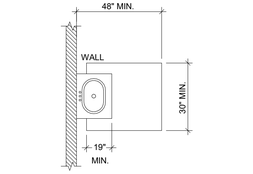


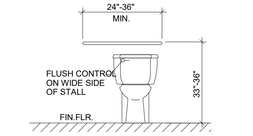
TYPICAL HANDICAP RAMP SECTION

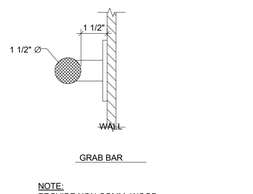


TYPICAL HANDICAP RAMP PLAN



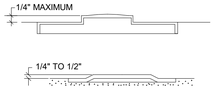




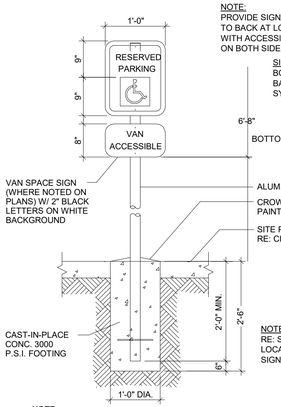


GRAB BAR

NOTE:
PROVIDE NON-COMM. WOOD BLOCKING IN WALLS FOR FIXTURES AS REQUIRED, (TYP.)



THRESHOLDS



NOTE:
SIGN AND INSTALLATION TO BE IN ACCORDANCE W/ ALL ADA, STATE AND CITY CODES. CONTRACTOR SHALL VERIFY COMPLIANCE W/ ALL CODES BEFORE FABRICATION.

TYPICAL HANDICAP SIGNAGE

CITY STANDARDS

CONTRACTOR(S) TO COMPLY WITH THE ACCESSIBILITY STANDARDS BUT SHALL NOT VIOLATE THE STANDARDS LISTED IN ADA AND LOCAL ACCESSIBILITY STANDARDS (L.A.S.).

AMERICAN'S WITH DISABILITIES ACT

ALL EXISTING AND NEW HARDWARE, EQUIPMENT, MOUNTING HEIGHTS, ACCESSIBLE ROUTES, ETC. SHALL COMPLY WITH THE AMERICAN'S WITH DISABILITIES ACT & LOCAL ACCESSIBILITIES STANDARDS.

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LEE'S SUMMIT, MO 64063

STATE OF MISSOURI ANDREW SCHOPPEL NUMBER A-2004024872 ARCHITECT
8-6-24

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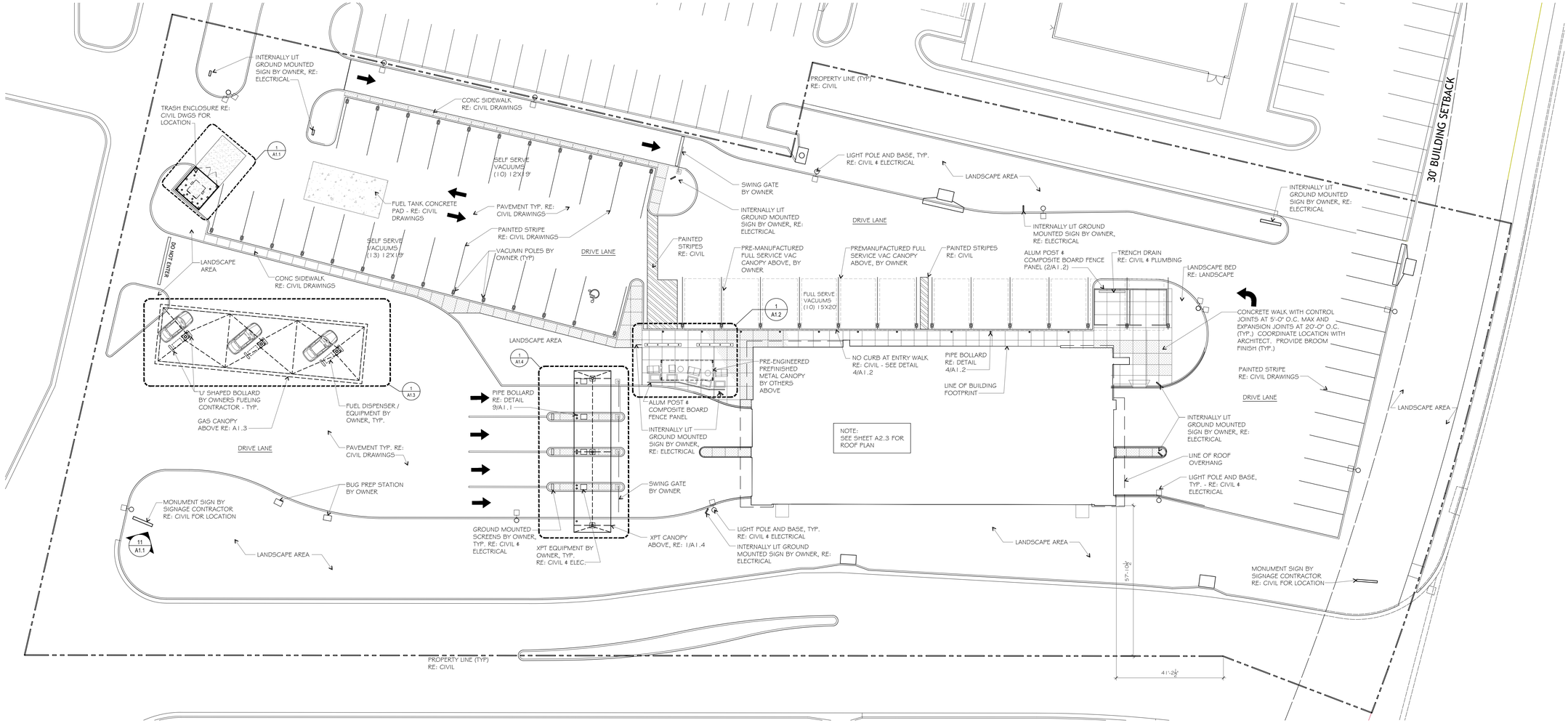
Revisions:

ACCESSIBILITY REQUIREMENTS

A0.2

Issue Date: 05/31/2024



1 ARCHITECTURAL SITE PLAN

1"=20'

NORTH

REFERENCE CIVIL DRAWINGS FOR:

- SITE LAYOUT
- PAVEMENT LAYOUT, DETAILS AND SPECS
- CURB AND GUTTER LAYOUT AND DETAILS
- PAVEMENT STRIPING
- RAMP DETAILS
- SITE (DIVISION "2") SPECIFICATIONS

REFERENCE LANDSCAPE DRAWINGS FOR:

- PLANT LAYOUT
- PLANT SPECIES

REFERENCE ELECTRICAL DRAWINGS FOR:

- LIGHTING LOCATIONS
- FIXTURE SPECIFICATIONS

SITE PLAN NOTES:

1. CONTRACTOR TO PROVIDE AND INSTALL CONDUIT ELECTRIC TO KIOSK AND GATE. VERIFY GATE LOCATION WITH CIVIL.
2. ALL IRRIGATION FOR LANDSCAPE BEDS AND SURROUNDING GRASS AREAS SHALL BE DESIGN BUILD.
3. VACUUM AREA CONTRACTOR TO PROVIDE CONDUIT TO VACUUM STATION RE: ELECTRICAL DRAWINGS. VACUUMS PROVIDED AND INSTALLED BY OWNER.
4. GC TO COORDINATE WITH OWNER SUPPLIED VACUUM LINES AND FOOTINGS.
5. XPT ISLANDS TO BE 42" EDGE OF CURB TO EDGE OF CURB
6. PROVIDE HEAVE SLABS AT ALL EXTERIOR DOORS. HEAVE SLABS TO BE LEAN CONCRETE TO 3'-0" OUT FROM WALL TO FROST DEPTH FOR WIDTH OF DOOR. CONCRETE SLAB DOWELED TO STRUCTURE RE: STRUCTURAL DRAWINGS
7. GC TO COORDINATE WITH OWNER SUPPLIED VACUUM LINES AND FOOTINGS.

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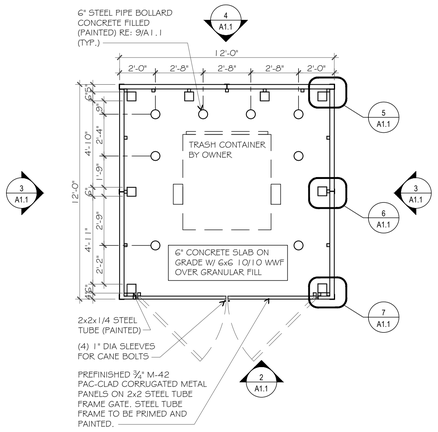
Revisions:

#	Description:	Date:
Rev 1	NO CHANGES THIS SHEET	

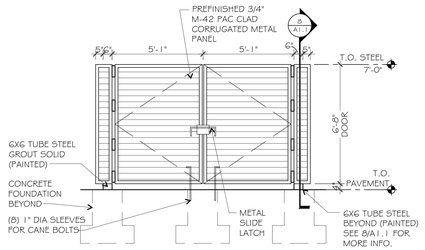
SITE PLAN

A1.0

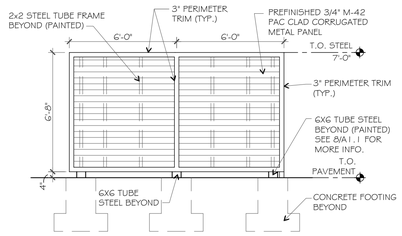
Issue Date: 05/31/2024



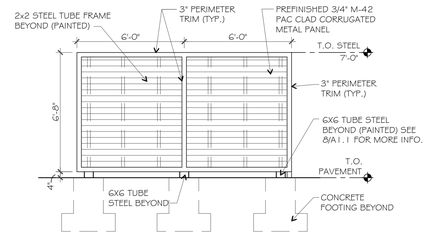
1 TRASH ENCLOSURE PLAN
1/4" = 1'-0"



2 TRASH ENCLOSURE FRONT ELEVATION
1/4" = 1'-0"

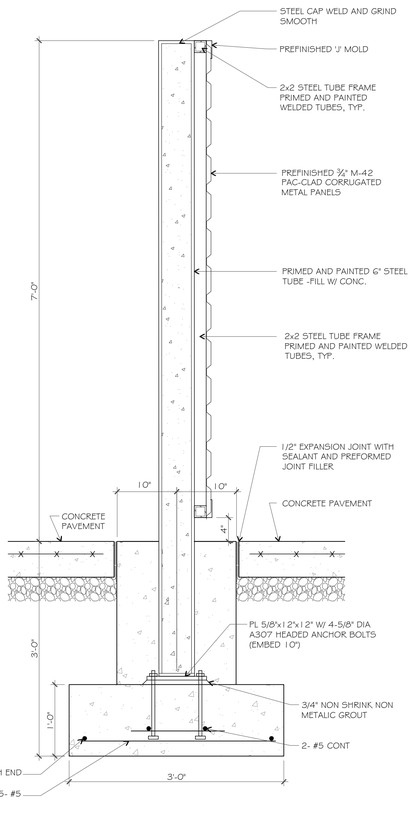


3 TRASH ENCLOSURE SIDE ELEVATION
1/4" = 1'-0"

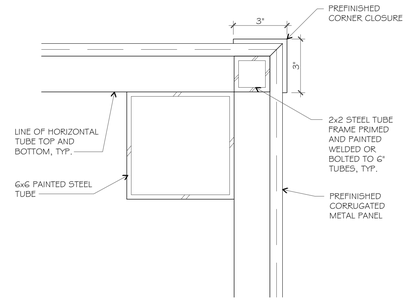


4 TRASH ENCLOSURE REAR ELEVATION
1/4" = 1'-0"

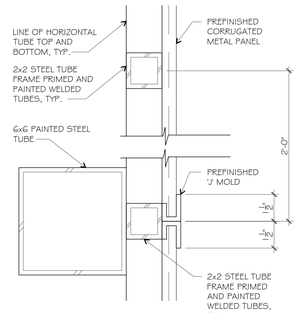
NOTE:
SEE SHEET A5.0 FOR MATERIAL LEGEND



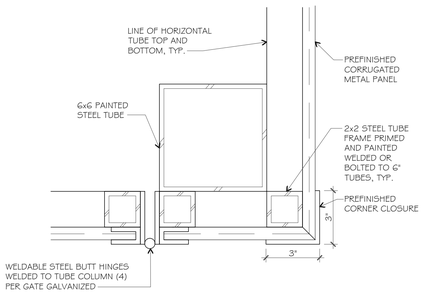
8 STEEL SUPPORT TUBE TYP DETAIL
1" = 1'-0"



5 PLAN DETAIL
3" = 1'-0"

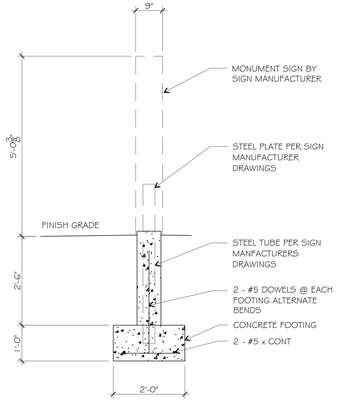


6 PLAN DETAIL
3" = 1'-0"

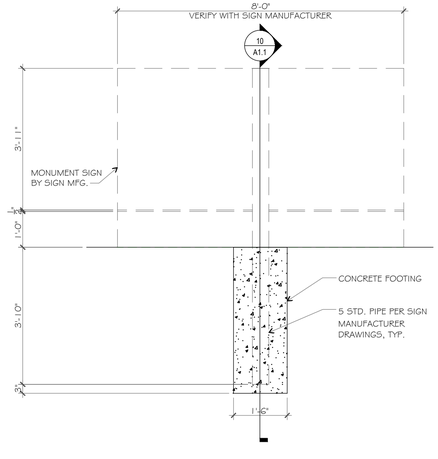


7 PLAN DETAIL
3" = 1'-0"

9 PIPE BOLLARD SECTION
3/4" = 1'-0"



10 MONUMENT SIGN SECTION
1/2" = 1'-0"



11 MONUMENT SIGN ELEVATION
1/2" = 1'-0"

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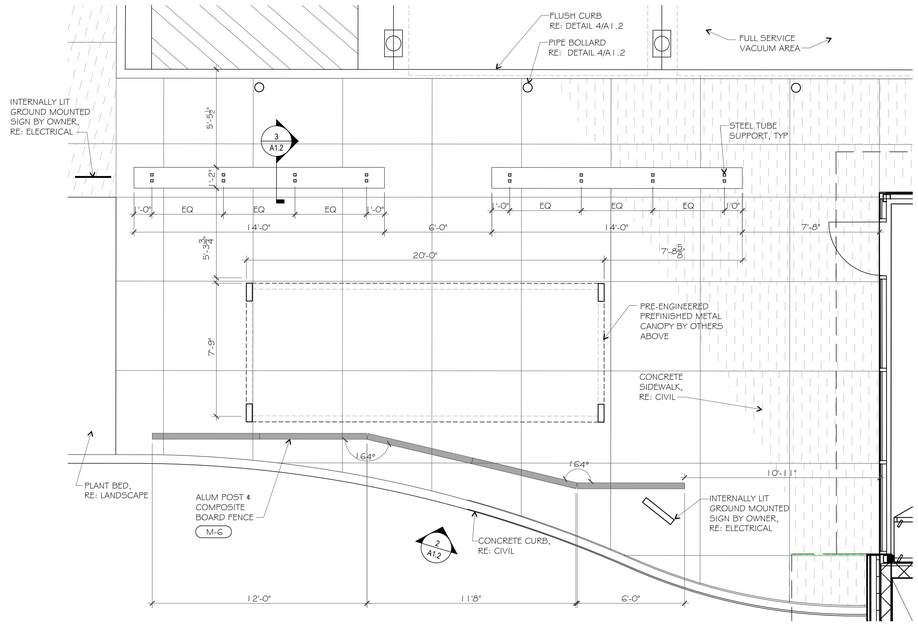
Revisions:

#	Description:	Date:
Rev 1	NO CHANGES THIS SHEET	

SITE DETAILS

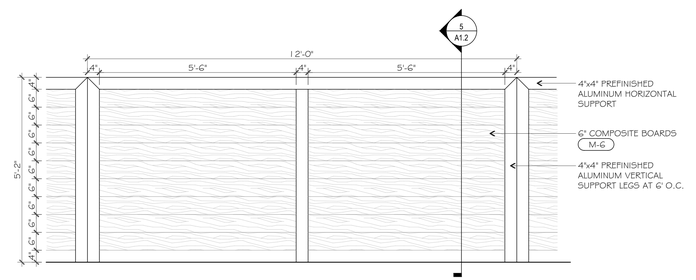
A1.1

Issue Date: 05/31/2024

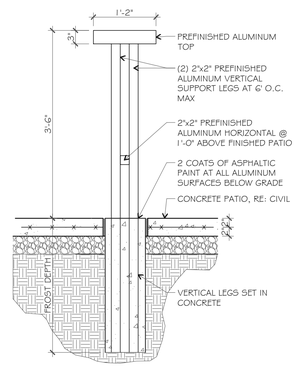


1 ENLARGED PLAN DETAIL
1/4" = 1'-0" NORTH

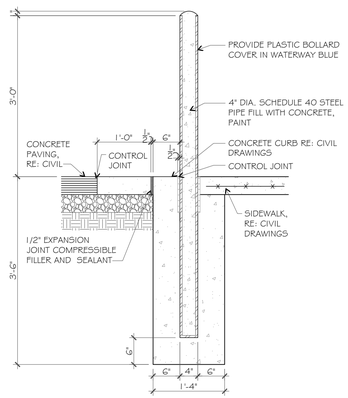
NOTE:
SEE SHEET A5.0 FOR MATERIAL LEGEND



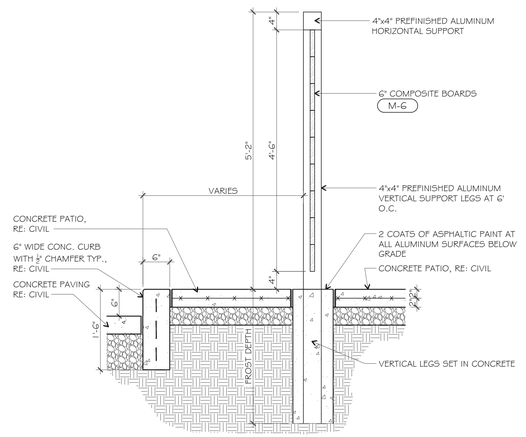
2 PARTIAL FENCE ELEVATION
1/2" = 1'-0"



3 RAIL SECTION
3/4" = 1'-0"



4 FLUSH CURB DETAIL
3/4" = 1'-0"



5 FENCE SECTION
3/4" = 1'-0"

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Waterway Carwash
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STATE OF MISSOURI
ANDREW SCHOESSEL
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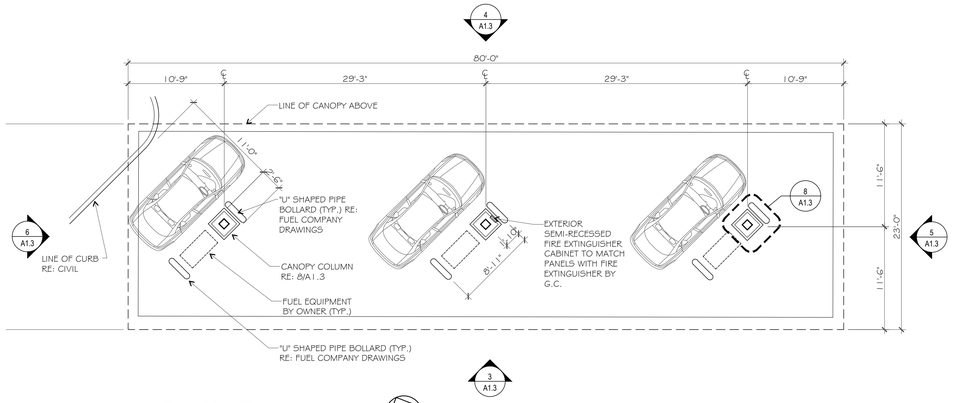
Revisions:

#	Description:	Date:
Rev 1	NO CHANGES THIS SHEET	

SITE DETAILS

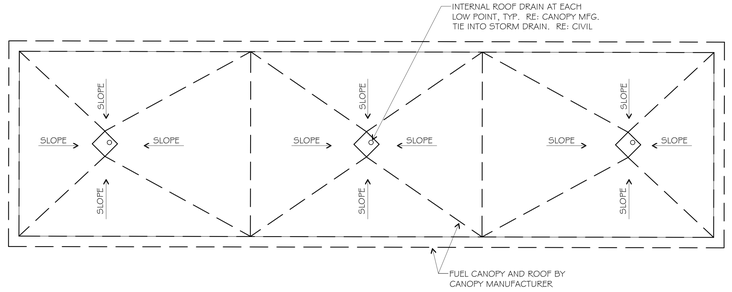
A1.2

Issue Date: 05/31/2024



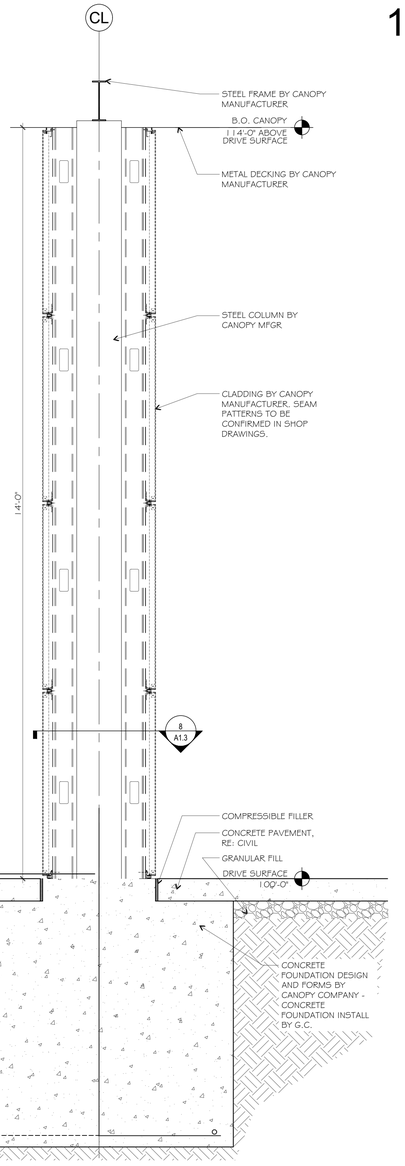
1 CANOPY PLAN
1/8" = 1'-0"

NORTH

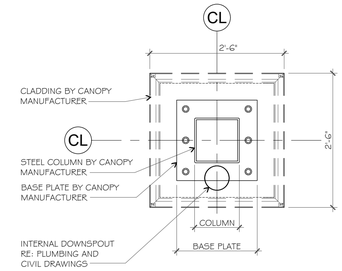


2 ROOF PLAN (FUEL CANOPY)
1/8" = 1'-0"

NORTH

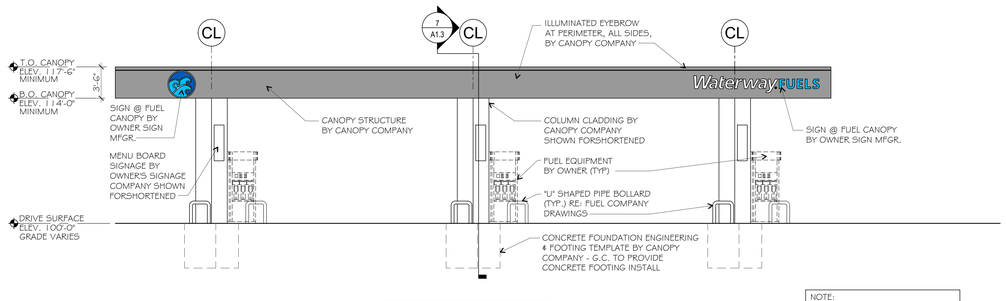


7 SECTION AT COLUMN
3/4" = 1'-0"



8 TYP. PLAN DETAIL AT COLUMN
3/4" = 1'-0"

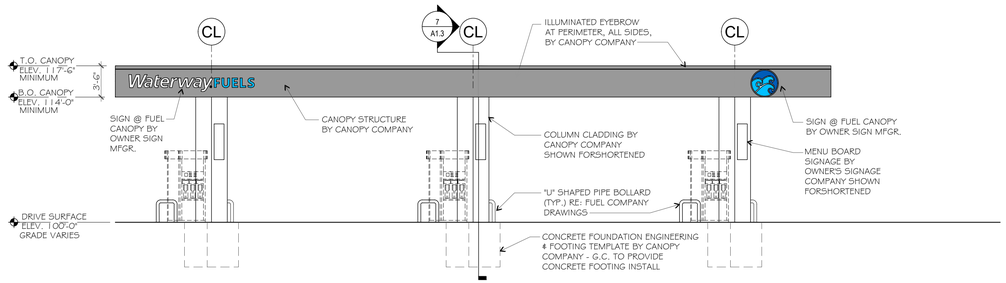
NOTE:
SEE SHEET A.5 FOR MATERIAL LEGEND



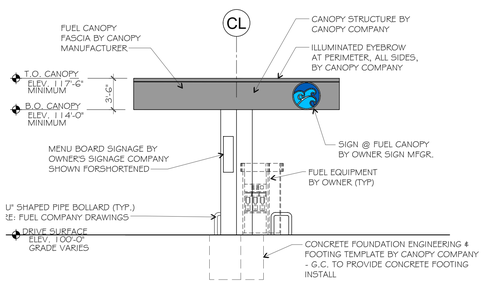
3 CANOPY ELEVATION
1/8" = 1'-0"

NOTE:
CONCRETE FOOTING SHOWN FOR GENERAL BIDDING PURPOSES ONLY. FINAL DESIGN AND ENGINEERING BY CANOPY COMPANY.

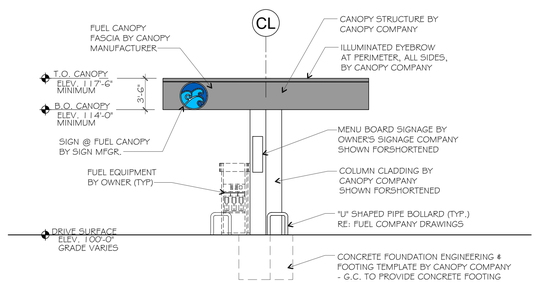
NOTE:
SIGNAGE PROVIDED BY OWNER'S SIGNAGE CONTRACTOR. COORDINATE INSTALL REQUIREMENTS AND EXACT ELECTRICAL REQUIREMENTS FOR LOCATIONS AT CANOPY.



4 CANOPY ELEVATION
1/8" = 1'-0"



5 CANOPY ELEVATION
1/8" = 1'-0"



6 CANOPY ELEVATION
1/8" = 1'-0"

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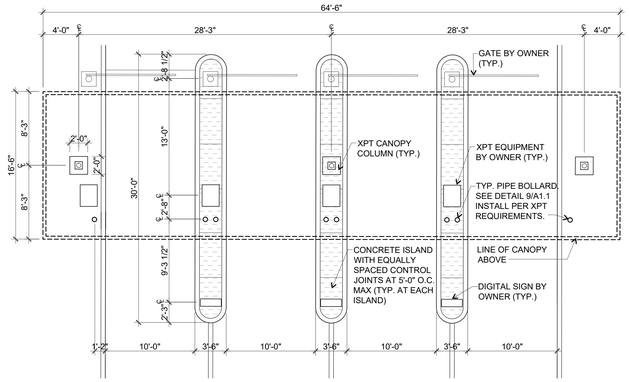
Revisions:

#	Description:	Date:
Rev 1	NO CHANGES THIS SHEET	

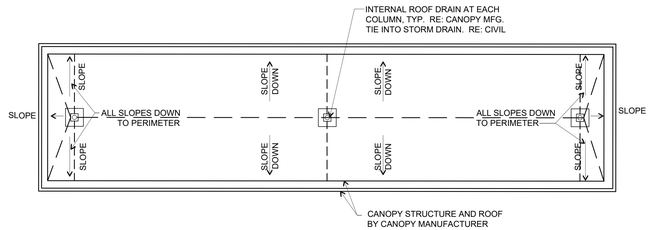
FUEL CANOPY

A1.3

Issue Date: 05/31/2024

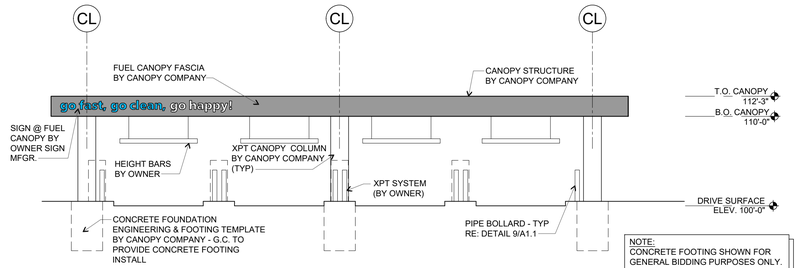


1 XPT CANOPY PLAN
1/8" = 1'-0"
NORTH



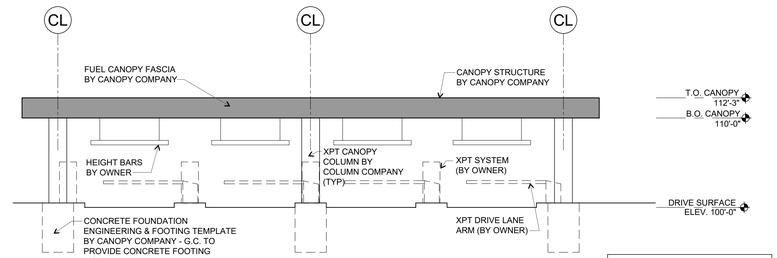
NOTE:
SEE SHEET A5.0 FOR MATERIAL LEGEND

2 ROOF PLAN (XPT CANOPY)
1/8" = 1'-0"
NORTH



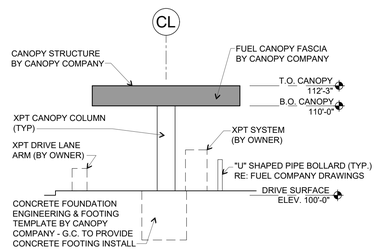
NOTE:
CONCRETE FOOTING SHOWN FOR GENERAL BIDDING PURPOSES ONLY. FINAL DESIGN AND ENGINEERING BY CANOPY COMPANY PROVIDED LICENSED ENGINEER.

3 XPT WEST ELEV
1/8" = 1'-0"

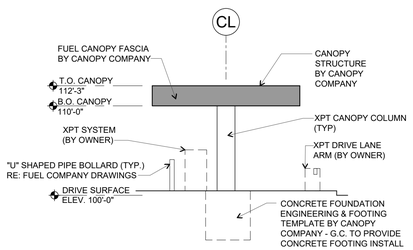


NOTE:
CANOPY COMPANY FINISHES
FASCIA - MIDNIGHT BLUE
COLUMNS - CAYMAN BLUE / WATERWAY BLUE

4 XPT EAST ELEV
1/8" = 1'-0"



5 XPT SOUTH ELEV
1/8" = 1'-0"



6 XPT NORTH ELEV
1/8" = 1'-0"

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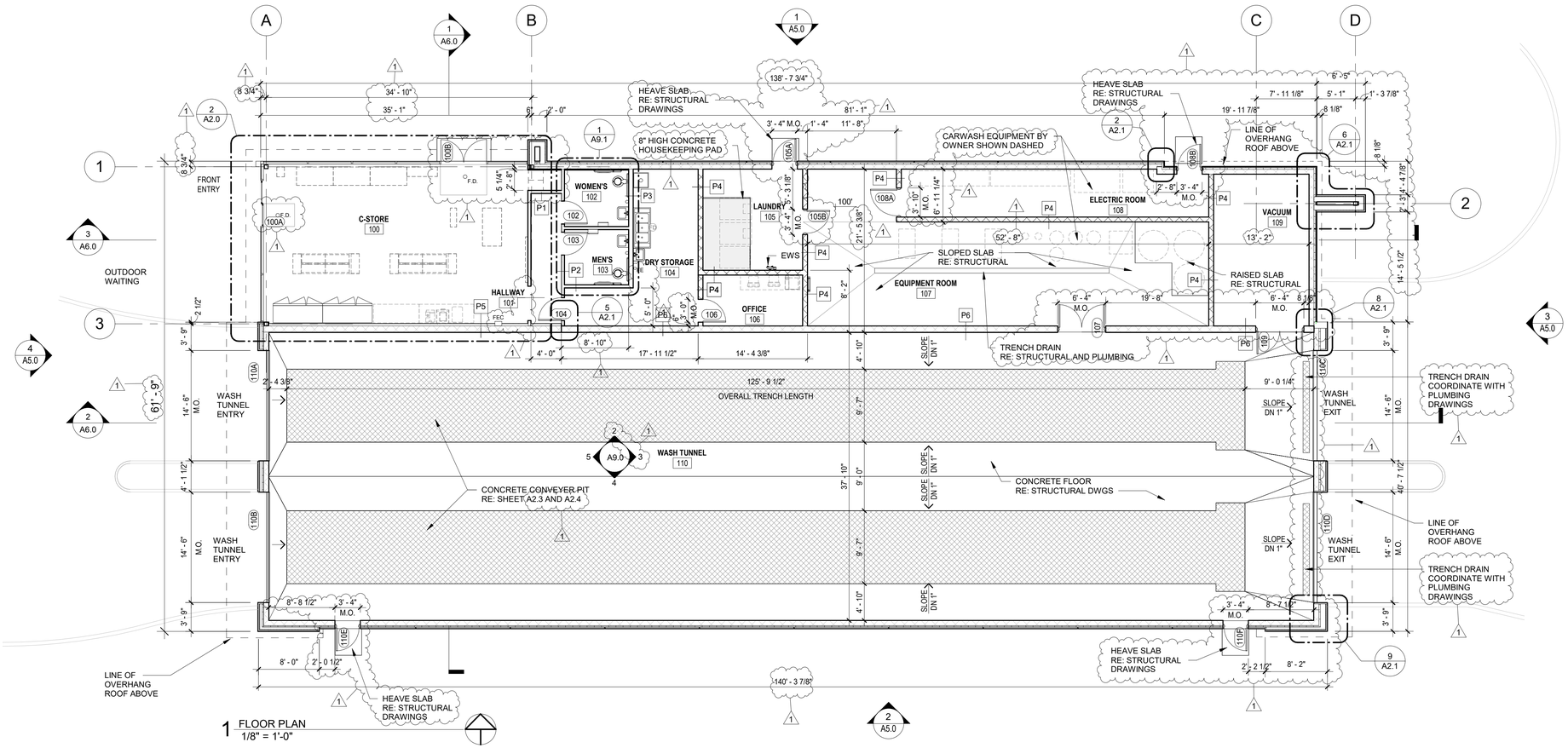
Revisions:

#	Description:	Date:
Rev 1	NO CHANGES THIS SHEET	

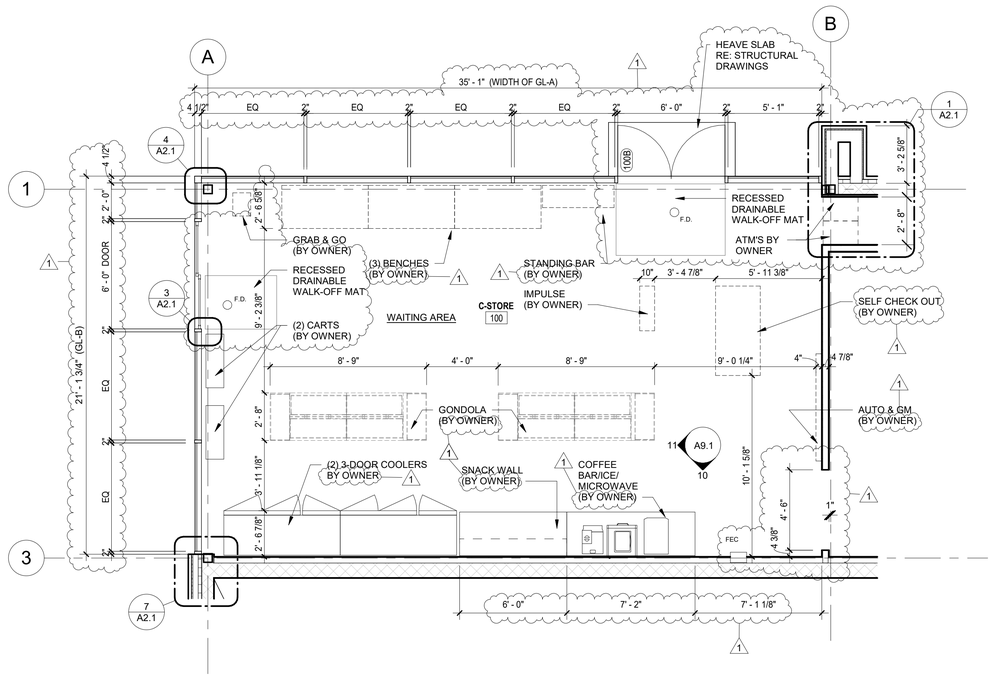
XPT CANOPY AND DETAIL

A1.4

Issue Date: 05/31/2024



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



2 ENLARGED C-STORE PLAN
1/4" = 1'-0"

GENERAL NOTES:

1. ALL CASEWORK PROVIDED BY OWNER AND INSTALLED BY OWNER.
2. CONTRACTOR TO COORDINATE W/ OWNER EQUIPMENT AS NOTED.
3. ALL DIMENSIONS TO FACE OF METAL OPENINGS.
4. FIRE EXTINGUISHER & FIRE EXTINGUISHER CABINET LOCATIONS SHOWN ARE TO BE CONFIRMED WITH AHJ. ALL FINAL LOCATIONS SHALL BE CONFIRMED WITH ARCHITECT PRIOR TO INSTALLATION.
   FE: SURFACE MOUNTED FIRE EXTINGUISHER
   FEC: FIRE EXTINGUISHER IN SEMI-RECESSED CABINET
5. ALL EXTERIOR DIMS ARE TO THE OUTSIDE FACE OF THE PANELS.
6. EWS = EYE WASH STATION. RE: PLUMBING DRAWINGS
7. CMU DIMENSIONS ARE NOMINAL

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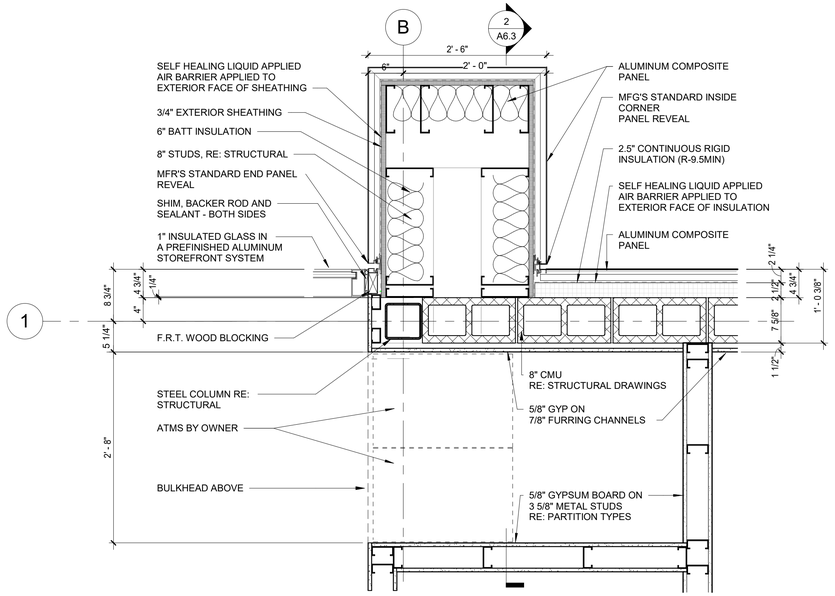
Revisions:

1	PERMIT COMMENTS	8/6/24

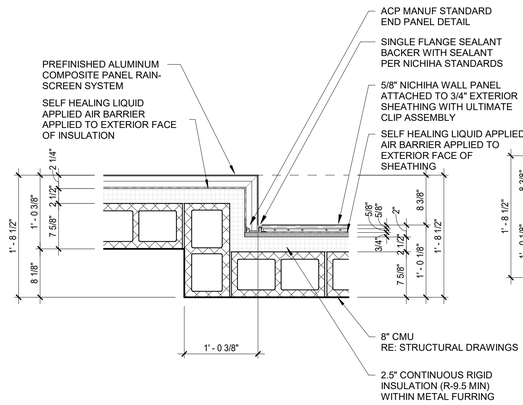
ARCHITECTURAL PLAN

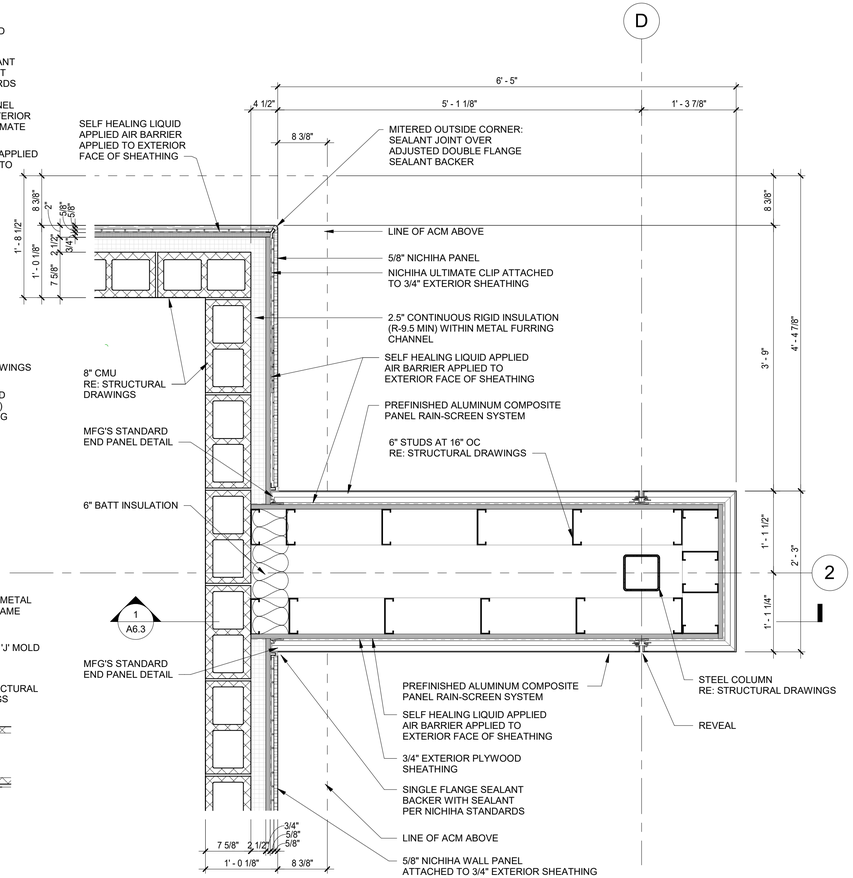
A2.0

Issue Date: 05/31/2024



1 ENLARGED PLAN DETAIL AT ATM
1" = 1'-0"



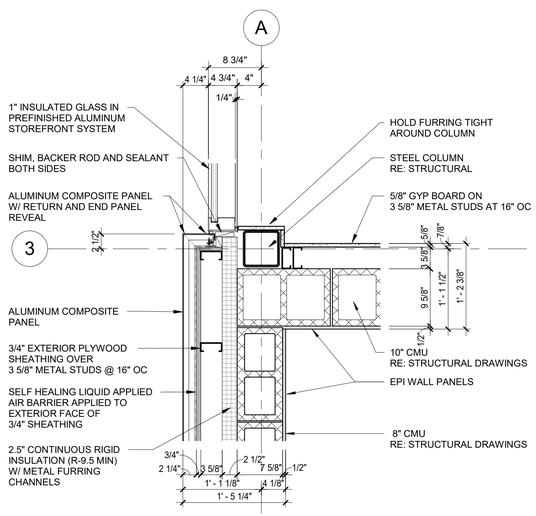


2 PLAN DETAIL
1" = 1'-0"

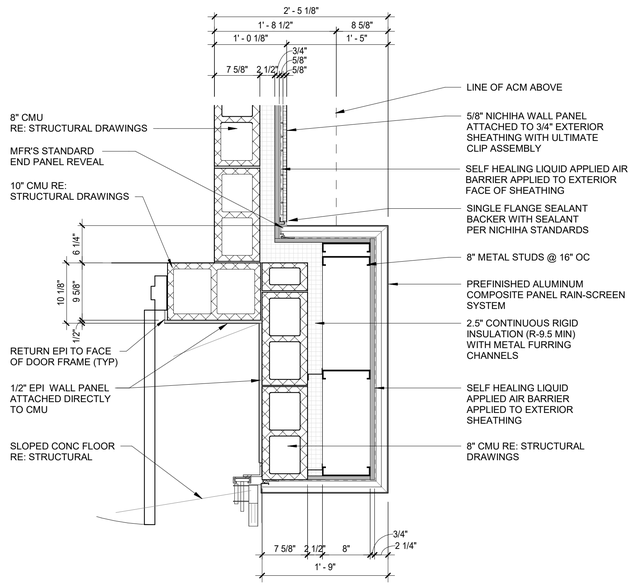
3 JAMB DETAIL AT DOORS 100A AND 100B
1" = 1'-0"

4 CORNER DTL AT COL LINE A-1
1" = 1'-0"

5 PLAN DETAIL AT DOOR 104
1" = 1'-0"

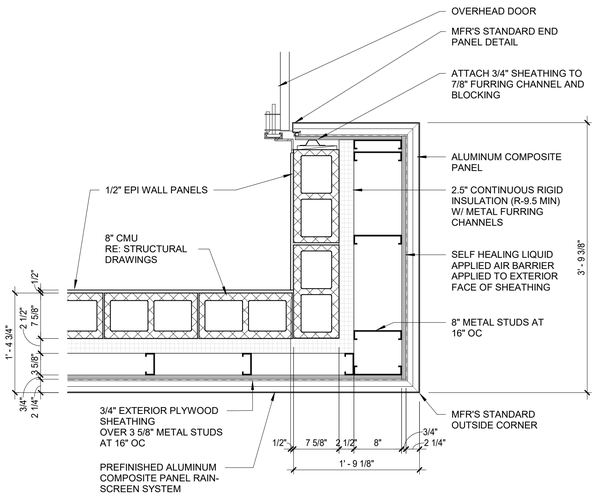


7 PLAN DETAIL AT COLUMN LINE A-3
1" = 1'-0"



8 PLAN DETAIL AT OHD BUMP OUT
1" = 1'-0"

6 ENLARGED PLAN DETAIL
1" = 1'-0"



9 PLAN DETAIL AT SE OUTSIDE CORNER
1" = 1'-0"

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Revisions:

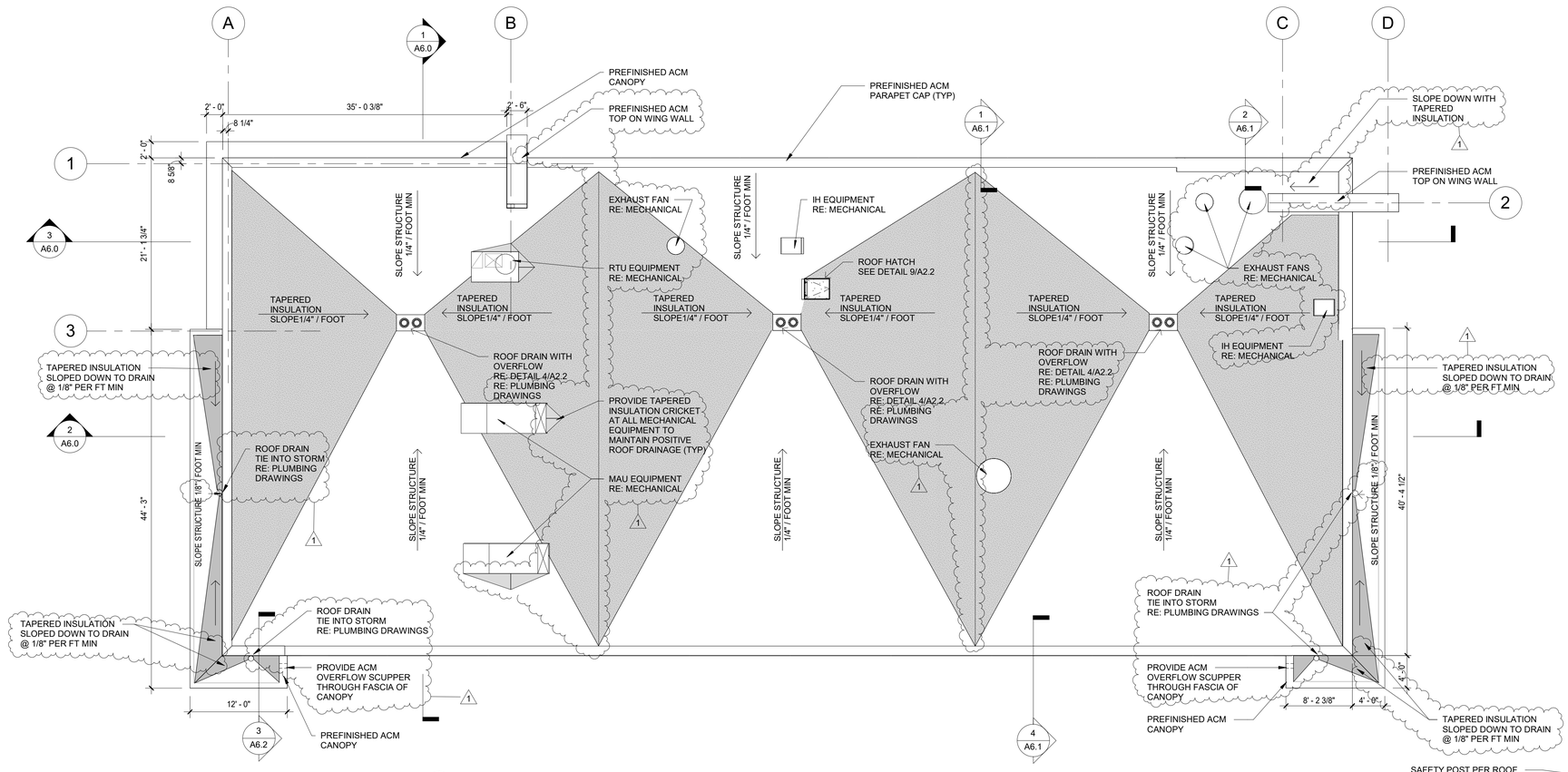
1	PERMIT COMMENTS	8/6/24

PLAN DETAILS

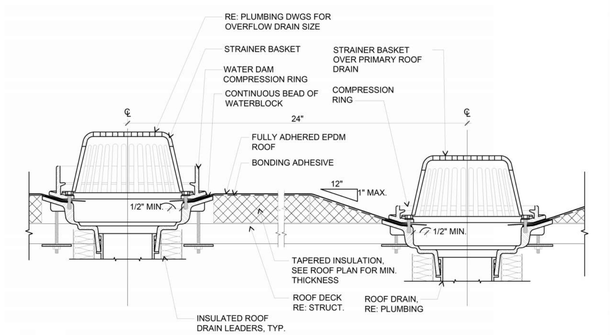
1

A2.1

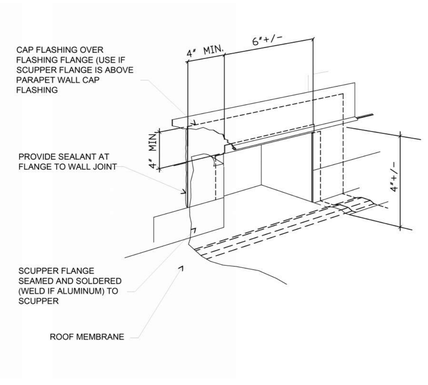
Issue Date: 05/31/2024



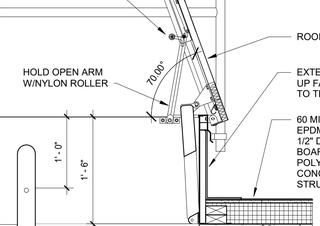
1 ROOF PLAN
1/8" = 1'-0"



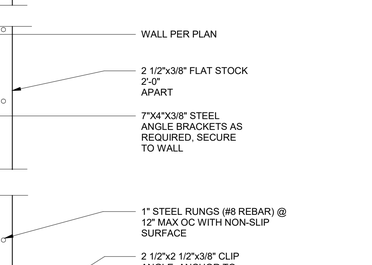
4 ROOF DRAIN WITH OVERFLOW
3" = 1'-0"



5 THROUGH WALL DRAIN DETAIL
3" = 1'-0"

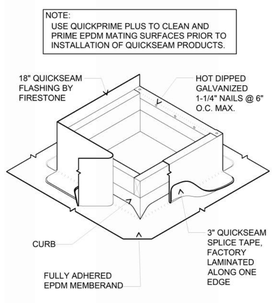


2 ROOF - GAS PIPING DETAIL
3" = 1'-0"

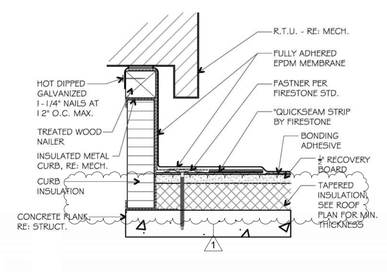


3 ROOF LADDER ANCHOR DETAIL
1 1/2" = 1'-0"

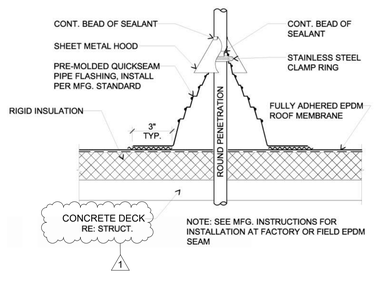
9 ROOF HATCH LADDER SECTION
1" = 1'-0"



6 TYPICAL ROOF CURB DETAIL
1" = 1'-0"



7 MECHANICAL CURB
3" = 1'-0"



8 TYP PIPE PENETRATION DETAIL
1" = 1'-0"

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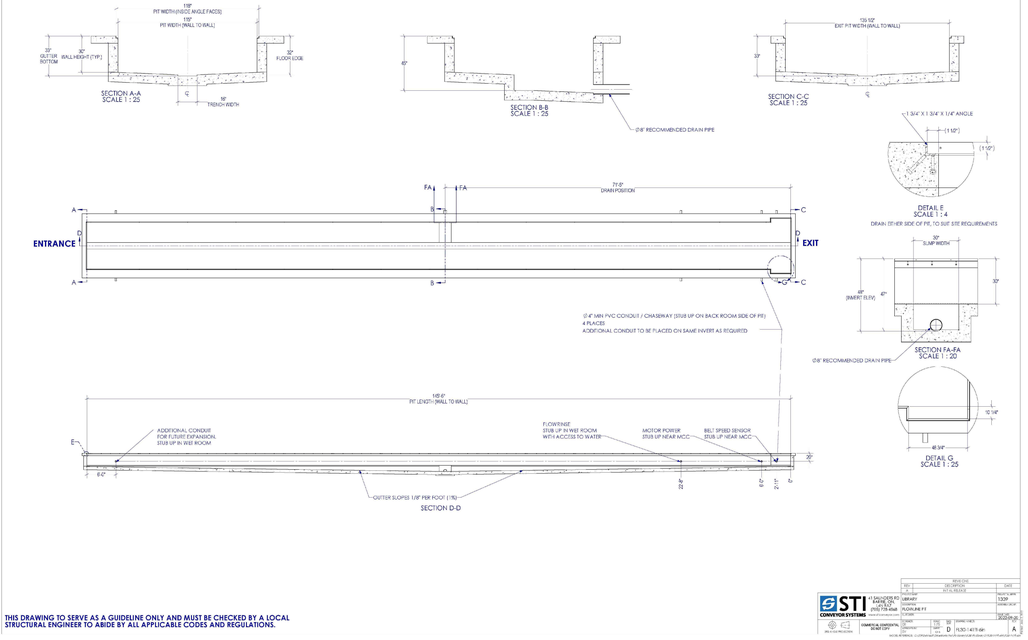
Revisions:

1	PERMIT COMMENTS	8/6/24

ROOF PLAN & DETAILS

A2.2

Issue Date: 05/31/2024



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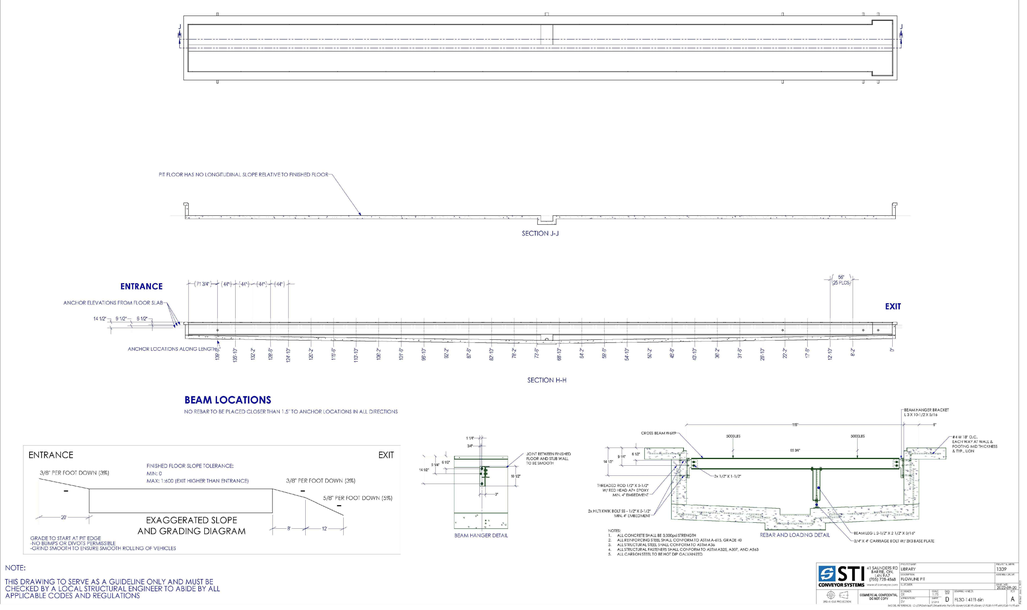
REVISIONS		
NO.	DESCRIPTION	DATE
1	ADD ELEVATION	05/31/2024

STI CONVEYOR SYSTEMS — 41 SAUCKSEE RD, KANSAS CITY, KANSAS 66111, (913) 728-6868

PROJECT NAME	LIBRARY
CUSTOMER	FLOORLINE FT
SYSTEMS	
DRAWING TITLE	COMMERCIAL CONVEYORS, SECRET COPY
DRAWN BY	DC
CHECKED BY	DC
DRAWING NO.	1309
SHEET NO.	FL30-1419-6M
REVISION	D
SCALE	A



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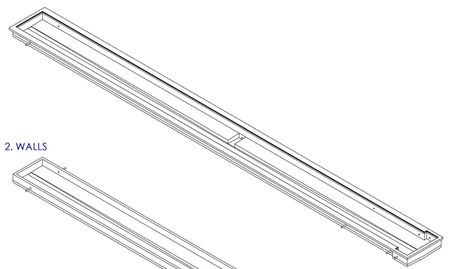
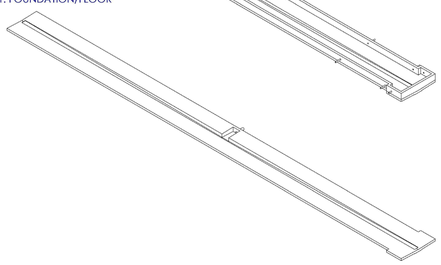
POURING STAGES

3. FINISHED FLOOR SLAB



2. WALLS

1. FOUNDATION/FLOOR



NOTE:

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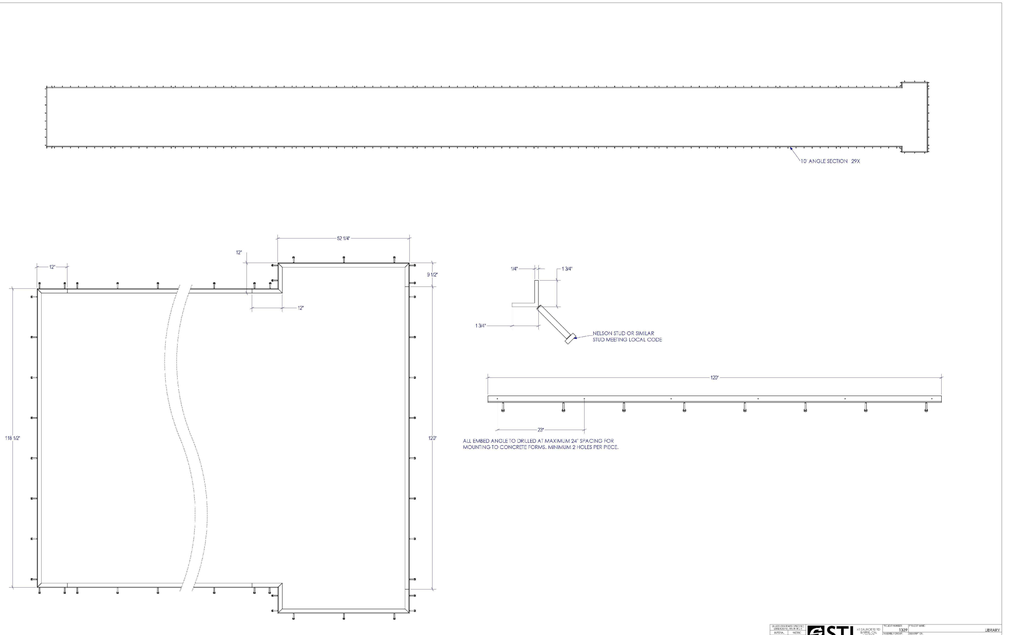
REVISIONS		
NO.	DESCRIPTION	DATE
1	ADD ELEVATION	05/31/2024

STI CONVEYOR SYSTEMS — 41 SAUCKSEE RD, KANSAS CITY, KANSAS 66111, (913) 728-6868

PROJECT NAME	LIBRARY
CUSTOMER	FLOORLINE FT
SYSTEMS	
DRAWING TITLE	COMMERCIAL CONVEYORS, SECRET COPY
DRAWN BY	DC
CHECKED BY	DC
DRAWING NO.	1309
SHEET NO.	FL30-1419-6M
REVISION	D
SCALE	A



REVISIONS		
NO.	DESCRIPTION	DATE
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1 CONVEYOR TRENCH DETAILS
NTS

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Waterway Carwash

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STATE OF MISSOURI
ANDREW SCHOESSEL
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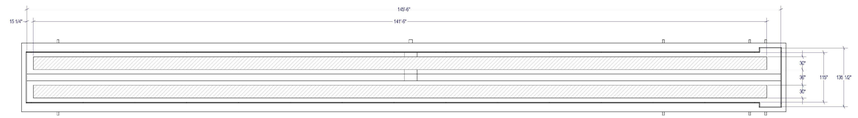
Revisions:

#	Description:	Date:
Rev 1	NO CHANGES THIS SHEET	

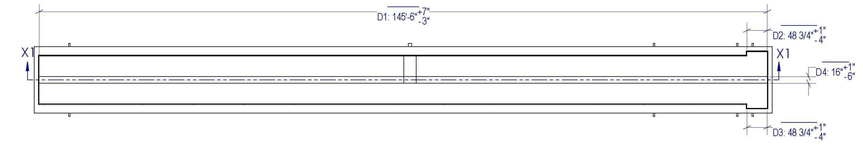
CARWASH CONVEYOR TRENCH DETAILS

A2.3

Issue Date: 05/31/2024



PIT INSPECTION



SECTION X1-X1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCH							
IMPERIAL	METRIC						
.XX ± .05	X ± 1.5						
.X ± .1	X.X ± 0.4						
.XXX ± .005	X.XX ± 0.13						
.XXXX ± .0005	X.XXX ± 0.013						
X/X ± 1/16							
X.X° ± 0.5°	X.X° ± 0.5°						

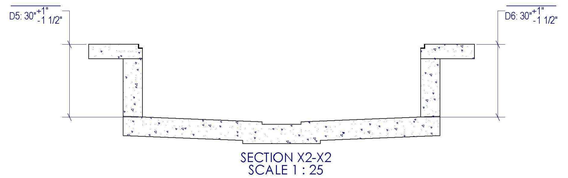
sti conveyor systems — 41 SAUNDERS RD BARRIE, ON, L4N 9A7 (705) 728-4668 www.sticonveyor.com

COMMERCIAL CONFIDENTIAL DO NOT COPY

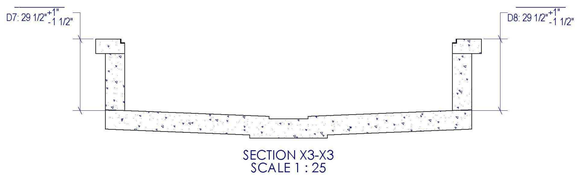
PROJECT NUMBER: 1339	PROJECT NAME: LIBRARY		
ASSEMBLY GROUP:	DESCRIPTION: FLOWLINE PIT		
ISSUE DATE: 2022-09-20	MASS: 900.99 LBS	FILE NAME (note file name and drawing number should match): FL30-141ft-6in	
DESIGNER: ER	SCALE: 1:45	DWG SIZE: B	DRAWING NUMBER: FL30-141ft-6in
APPROVED BY: SV	SHEET: 1 OF 1		REV: A

Printed: June 7, 2023

MODEL REFERENCE: C:\1STPDM\Vault Drive\Works Per\1 RF Library\1 RF Library 2\FL30-141ft-6in\FL30-141ft-6in



SECTION X2-X2
SCALE 1 : 25



SECTION X3-X3
SCALE 1 : 25

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCH							
IMPERIAL	METRIC						
.XX ± .05	X ± 1.5						
.X ± .1	X.X ± 0.4						
.XXX ± .005	X.XX ± 0.13						
.XXXX ± .0005	X.XXX ± 0.013						
X/X ± 1/16							
X.X° ± 0.5°	X.X° ± 0.5°						

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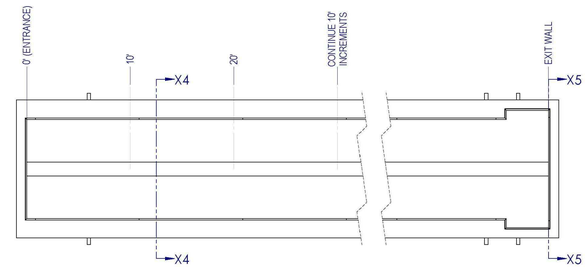
APPROVED BY: SV	SHEET: 2 OF 2		REV: A

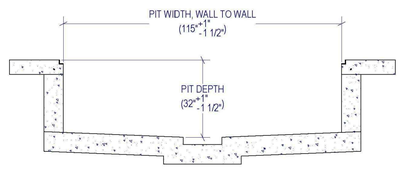
Printed: June 7, 2023

MODEL REFERENCE: C:\1STPDM\Vault Drive\Works Per\1 RF Library\1 RF Library 2\FL30-141ft-6in\FL30-141ft-6in

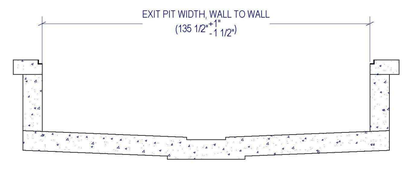
DISTANCE FROM ENTRANCE PIT WALL	PIT WIDTH	PIT DEPTH
0'		
10'		
20'		
30'		
40'		
50'		
60'		
70'		
80'		
90'		
100'		
110'		
120'		
130'		
140'		
EXIT WALL		

MEASURE PIT DEPTH AND WIDTH AT EVERY 10'
INCREMENT STARTING AT ENTRANCE END





SECTION X4-X4
SCALE 1 : 25



SECTION X5-X5
SCALE 1 : 25

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCH							
IMPERIAL	METRIC						
.XX ± .05	X ± 1.5						
.X ± .1	X.X ± 0.4						
.XXX ± .005	X.XX ± 0.13						
.XXXX ± .0005	X.XXX ± 0.013						
X/X ± 1/16							
X.X° ± 0.5°	X.X° ± 0.5°						

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APPROVED BY: SV	SHEET: 2 OF 2		REV: A

Printed: June 7, 2023

MODEL REFERENCE: C:\1STPDM\Vault Drive\Works Per\1 RF Library\1 RF Library 2\FL30-141ft-6in\FL30-141ft-6in

1 CONVEYOR TRENCH DETAILS
NTS

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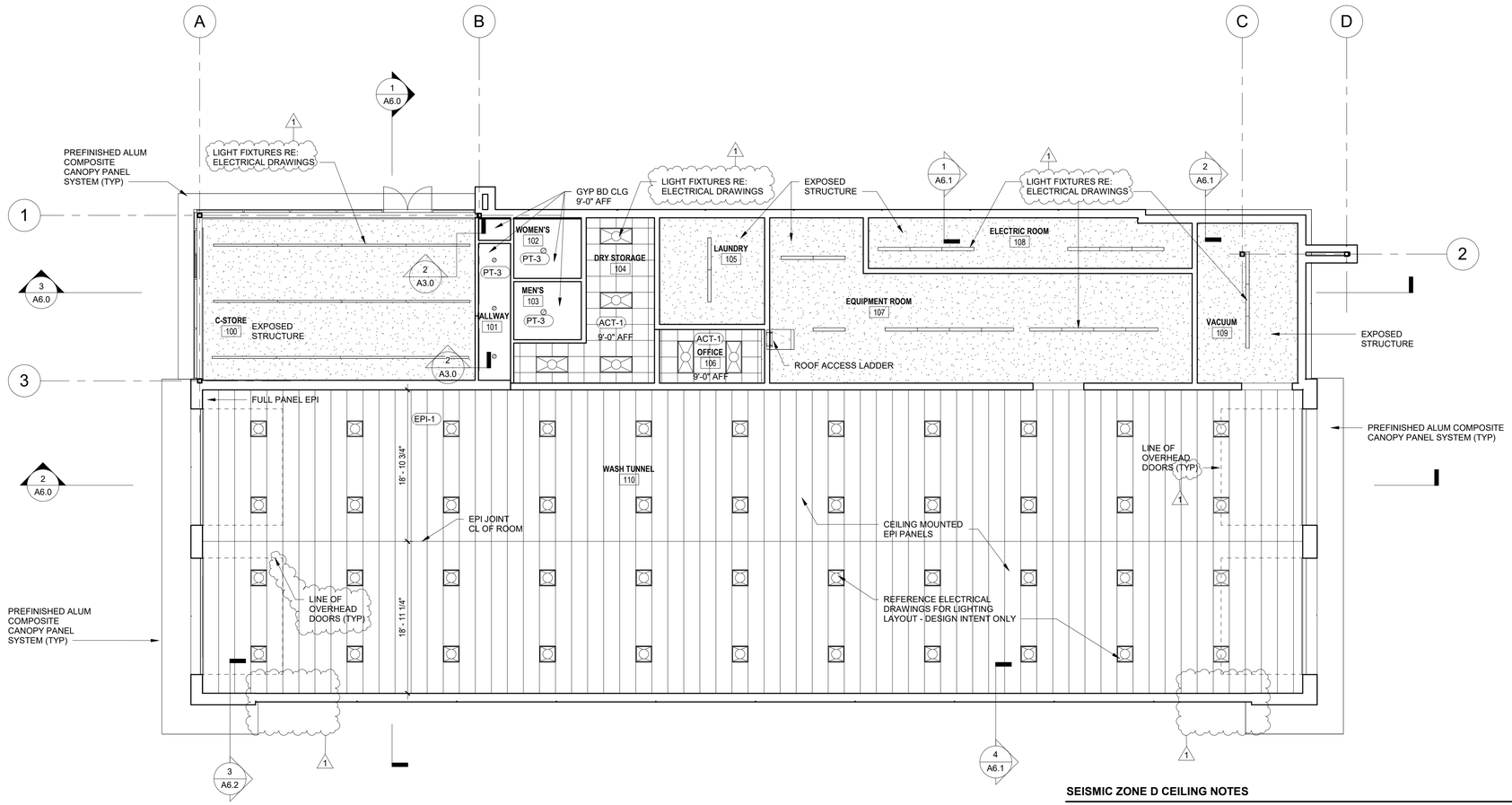
Revisions:

#	Description:	Date:
Rev 1	NO CHANGES THIS SHEET	

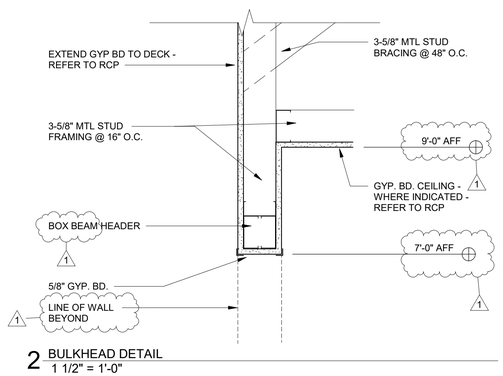
CARWASH CONVEYOR TRENCH DETAILS

A2.4

Issue Date: 05/31/2024



1 REFLECTED CEILING PLAN
1/8" = 1'-0"



2 BULKHEAD DETAIL
1 1/2" = 1'-0"

REFLECTED CEILING PLAN NOTES

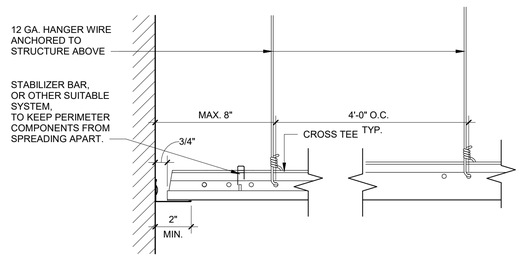
1. SEE ELECTRICAL DRAWINGS FOR FIXTURE TYPES
2. CONTRACTOR TO PAINT ALL EXPOSED STRUCTURE, DUCTWORK, AND PIPING
3.

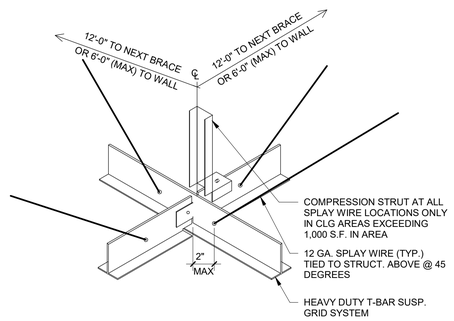
REFLECTED CEILING LEGEND

⊙	RECESSED CAN LIGHT
	2'x2' SURFACE MOUNTED LIGHT FIXTURE
	2'X4" LIGHT FIXTURE IN GRID ASSEMBLY
	SUSPENDED LIGHT FIXTURE MOUNTED AT 12'-0" AFF RE: ELECTRICAL
	1'X4' SUSPENDED LIGHT FIXTURE MOUNTED AT 12'-0" AFF
PT-X	CEILING FINISH, RE: FINISH SCHEDULE

SEISMIC ZONE D CEILING NOTES

1. ATTACHMENT OF WIRE TIES SHALL BE TO STEEL MEMBER OR CONCRETE.
2. PROVIDE 12 GA. HANGER WIRE WITHIN 2" OF EACH CORNER OF LIGHT FIXTURES. PROVIDE TWO 12 GA. SLACK WIRES ATTACHED TO EACH FIXTURE @ OPP. CORNERS AND PROVIDE CLIPS TO CLG. GRID.
3. ALL PENETRATIONS, INCLUDING SPRINKLER HEADS, SHALL HAVE A 2" OVERISZE RING, SLEEVE, OR ADAPTOR THROUGH THE CEILING TILE TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1" IN ALL HORIZONTAL DIRECTIONS.
4. A HEAVY DUTY T-BAR GRID SYSTEM SHALL BE USED.
5. LIGHT FIXTURES MUST BE POSITIVELY ATTACHED TO THE CEILING GRID WITH AN ATTACHMENT CAPABLE OF CARRYING 100% OF THE WEIGHT OF THE LIGHT FIXTURE ACTING IN ANY DIRECTION. THIS ATTACHMENT SHALL CONSIST OF FOUR EQUALLY SPACED ATTACHMENT POINTS USING SCREWS, RIVETS, BOLTS, OR OTHER APPROVED POSITIVE ATTACHMENT DEVICES. LIGHT FIXTURES WEIGHING LESS THAN 10 POUNDS SHALL HAVE ONE NO. 12 GAUGE WIRE CONNECTED TO THE CENTER OF THE FIXTURE HOUSING AND THE STRUCTURE ABOVE. LIGHT FIXTURES WEIGHTING MORE THAN 10 POUNDS OR MOR BUT LESS THAN UP TO 56 POUNDS REQUIRE TWO VERTICAL SUPPORT WIRES. THESE WIRES MAY BE SLACK. LIGHT FIXTURES WEIGHING MORE THAN 56 POUNDS SHALL REQUIRE INDEPENDENT SUPPORT FROM THE SHELL BUILDING STRUCTURE ABOVE THE CEILING.
6. MECHANICAL AIR TERMINALS WEIGHING LESS THAN 20 POUNDS SHALL BE POSITIVELY ATTACHED TO THE CEILING GRID CAPABLE OF CARRING 100% OF THE WEIGHT OF THE MECHANICAL AIR TERMINAL ACTING IN ANY DIRECTION. THIS ATTACHMENT SHALL CONSIST OF FOUR EQUALLY SPACED ATTACHMENT POINTS USING SCREWS, RIVETS, BOLTS, OR OTHER APPROVED POSITIVE ATTACHMENT DEVICES. AIR TERMINALS WEIGHING 20 POUNDS BUT NOT MORE THAN 56 POUNDS SHALL BE SECURED TO THE SHELL BUILDING STRUCTURE ABOVE THE CEILING IN ADDITIONAL TO ATTACHING THE AIR TERMINAL TO THE CEILING GRID. THESE TWO NO. 12 GAUGE WIRES MAY BE SLACK. AIR TERMINALS WEIGHTING MORE THAN 56 POUNDS SHALL REQUIRE INDEPENDENT SUPPORT FROM THE SHELL BUILDING STRUCTUE ABOVE THE CEILING.
7. SPRINKLER HEADS AND OTHER PENETRATIONS OF THE SUSPENDED CEILING SHALL HAVE A 2" OVERSIZE RING, SLEEVE, OR ADAPTOR THROUGH THE CEILING TILE TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1" IN ALL HORIZONTAL DIRECTIONS.
8. ALL WALL PARTITIONS GREATER THAN 6'-0" IN HEIGHT SHALL BE INDEPENDENTLY BRACED TO THE BUILDING SHELL STRUCTURE. WALL PARTITIONS MAY NOT BE SUPPORTED BY THE BRACED SUSPENDED CEILING ALONE.
9. SUSPENDED CEILINGS EXCEEDING 2,500 SQUARE FEET SHALL HAVE A SEPARATION JOINT OR A FULL HEIGHT WALL PARTITION SEPARATING THE SUSPENDED CEILING INTO AREAS LESS THAN 2,500 SQUARE FEET.





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Revisions:

1	PERMIT COMMENTS	8/6/24

REFLECTED CEILING PLAN & DETAILS

A3.0

Issue Date: 05/31/2024

HARDWARE SET OH-1

O.H. DOORS 110A, 110B, 110C, 110D
EACH O.H. TO RECEIVE:

1	CYLINDER	BEST LOCKS
	NOTE	BALANCE OF HARDWARE, BY O.H.D. SUPPLIER

HARDWARE SET 1

PAIR STOREFRONT DOORS 100B
PAIR TO RECEIVE:

2	EA CONT HINGE	BY STOREFRONT MFG	
1	EA CYLINDER	TYPE TO OPERATE MFGRS LOCK	CLEAR ANOD. BEST LOCKS
2	SET PUSH/PULL	BF15747 X REQD CTC X T3HD	CLEAR ANOD. ROCKWOOD
2	EA CLOSER	BY STOREFRONT MFG	CLEAR ANOD.
0	NOTE	FLUSHBOLTS, LOCKS, SEALS, & THRESHOLD, BY STOREFRONT MFG	
0	NOTE	AUTO OPERATORS, IF REQUIRED, BY OTHERS	
1	EA RIM EXIT DEVICE	BY STOREFRONT MFG	
1	EA SWEEP	BY STOREFRONT MFG	

HARDWARE SET 2

DOORS: 102, 103
EACH DOOR TO HAVE:

3	HINGES	BB1279 4 1/2 X 4 1/2	US26D	HAGER
1	PRIVACY SET	9K3-0L14D S3	626	BEST LOCKS
1	CLOSER	5200	ALM	HAGER
1	KICK PLATE	194S 10" X 2" LDW	US32D	HAGER
1	WALL STOP	236W	US26D	HAGER
3	DOOR SILENCERS	307D	GREY	HAGER

HARDWARE SET 3

DOORS: 104
EACH DOOR TO HAVE:

3	HINGE	BB1191 4.5 X 4.5 NRP X SH	US32	HAGER
1	STOREROOM	93K7D14D X S3	US26	BEST LOCKS
1	CLOSER	P4041	US32	LCN
3	SILENCER	GJ64		GLYNN-JOHNSON CO.
1	KICKPLATE	10" X 2" LDW B4E	US32	ROCKWOOD

HARDWARE SET 4

SINGLE DOOR 105A
TO RECEIVE:

3	HINGE	BB1191 4.5 X 4.5 NRP X SH	US32D	HAGER
1	CLASSROOM	8T37 S	US26	BEST LOCKS
1	PUSH PLATE	8200 4" X 16"	630	IVE
1	PULL PLATE	8303 10" X 16"	630	IVE
1	OH STOP	90S	630	GLYNN-JOHNSON CO.
1	SURF. AUTO OPP.	4642 WMS	689	LCN
2	ACTUATOR TOUCHLESS	8310-813	BLK	LCN
1	CLOSER TEMPLATING, BRACKETS, SHOES, SPACERS, ETC AS REQUIRED			LCN
1	RAIN DRIP	16A X DR WIDTH +4"	ALUM	NGP
1	GASKETING	160VA X HEAD & JAMBS	AA	NGP
1	DOOR SWEEP	202NA X REQ'D WIDTH	A	NGP
1	THRESHOLD	426 X REQ'D WIDTH	A	NGP
1	KEY SWITCH	653-04 12/24 VDC	626	SCE

HARDWARE SET 5

SINGLE DOOR 105B, 106
TO RECEIVE:

3	HINGE	BB1191 4.5 X 4.5 NRP X SH	US32	HAGER
1	STOREROOM	93K7D14D X S3	US26	BEST LOCKS
1	CLOSER	4041-SCUSH	US32	LCN
1	KICKPLATE	10" X 2" LDW B4E	US32	ROCKWOOD
3	SILENCER	GJ64		GLYNN-JOHNSON CO.

SINGLE DOOR 108B
TO RECEIVE **HARDWARE SET 5** WITH PANIC HARDWARE

HARDWARE SET 6 (NOT USED)

HARDWARE SET 7

PAIR DOORS 107, 109
TO RECEIVE:

2	SS CONT HINGE	HG-305 X 1" LESS THAN DOOR HGT X S.S. THRU BOLTS	US32D	MARKAR PRODUCTS, INC.
2	SURFACE BOLT	630-12 X S.S THRU BOLTS	US32D	ROCKWOOD
1	MORT. LOCK	CLASSROOM 35H7J14H	US32D	BEST LOCKS
2	FL STOP & HOLD	473	US32D	ROCKWOOD
1	S.S. THRESH	814SS 4" X REQ'D WIDTH	304 SS	NAT GUARD
1	S.S. THRESH	STOP STRIP BAR2SS (DRILLED FOR SCREWS) X REQ'D WIDTH	304 SS	NAT GUARD
1	KICKPLATE	10" X 2" LDW B4E	US32D	ROCKWOOD
1	DRIP CAP	16A X DR WIDTH + 4"	ALUM	NAT GUARD
1	S.S. SEAL	129NSS X HEAD & JAMBS	S.S.	NAT GUARD
2	SWEEP	200NSS X REQ'D WIDTH	S.S.	NAT GUARD
1	ASTRAGAL INACTIVE LEAF	109NSS X REQ'D HGT	S.S.	NAT GUARD

HARDWARE SET 8

SINGLE DOOR 108
TO RECEIVE:

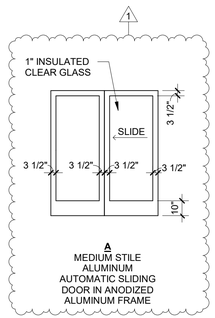
3	HINGE	BB1191 4.5 X 4.5 NRP X SH	US32D	HAGER
1	PANIC W/ LVR. TRIM			
1	CLOSER	P4041	ALUM	LCN
3	SILENCER	GJ64		GLYNN-JOHNSON CO.
1	KICKPLATE	10" X 2" LDW B4E	US32D	ROCKWOOD

NOTES

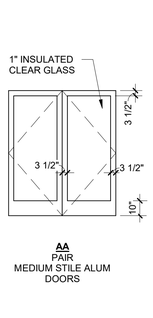
1. LEAVE MANUFACTURER'S PROTECTIVE FILM INTACT AND PROVIDE PROPER PROTECTION FOR ALL OTHER FINISH HARDWARE ITEMS THAT DO NOT HAVE PROTECTIVE MATERIAL FROM THE MANUFACTURE UNTIL OWNER ACCEPTS PROJECT AS COMPLETE.
2. GUIDE: DOOR HARDWARE ITEMS HAVE BEEN PLACED IN SETS WHICH ARE INTENDED TO BE A GUIDE OF DESIGN, GRADE, QUALITY, FUNCTION, OPERATION, PERFORMANCE, EXPOSURE, AND LIKE CHARACTERISTICS OF DOOR HARDWARE, AND MAY NOT BE COMPLETE. PROVIDE DOOR HARDWARE REQUIRED TO MAKE EACH SET COMPLETE AND OPERATIONAL.
3. HARDWARE SCHEDULE DOES NOT REFLECT HANDING, BACKSET, METHOD OF FASTENING, AND LIKE CHARACTERISTICS OF DOOR HARDWARE AND DOOR OPERATION.
4. REVIEW DOOR HARDWARE SETS WITH DOOR TYPES, FRAMES, SIZES AND DETAILS ON DRAWINGS. VERIFY SUITABILITY AND ADAPTABILITY OF ITEMS SPECIFIED IN RELATION TO DETAILS AND SURROUNDING CONDITIONS.

DOOR SCHEDULE

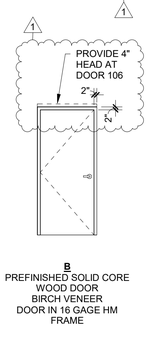
Door Number	LOCATION	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	FIRE RATING	HARDWARE	COMMENTS
100A	C-STORE	SLIDING PAIR 3'-0"	8'-0"	0' - 1 3/4"	A	ALUM	ANODIZED		ALUM	ANODIZED						BY STOREFRONT MANUFACTURER
100B	C-STORE	PAIR 3'-0"	8' - 0"	0' - 1 3/4"	AA	ALUM	ANODIZED		ALUM	ANODIZED					1	
102	WOMENS TOILET	3' - 0"	7' - 0"	0' - 1 3/4"	B	WD	PAINT	B	HM	PAINT	1/A4.0	1/A4.0			2	
103	MENS TOILET	3' - 0"	7' - 0"	0' - 1 3/4"	B	WD	PAINT	B	HM	PAINT	1/A4.0	1/A4.0			2	
104	DRY STORAGE	3' - 0"	7' - 0"	0' - 1 3/4"	B	WD	PAINT	B	HM	PAINT	1/A4.0	1/A4.0			3	
105A	LAUNDRY	3' - 0"	7' - 0"	0' - 1 3/4"	C	HM	PAINT	C	HM	PAINT					4	
105B	LAUNDRY	3' - 0"	7' - 0"	0' - 1 3/4"	C	HM	PAINT	C	HM	PAINT					5	
106	OFFICE	3' - 0"	7' - 0"	0' - 1 3/4"	B	WD	PAINT	B	HM	PAINT					5	DOOR FRAME TO HAVE 4" HEAD
107	EQUIPMENT ROOM	PAIR 3'-0"	8' - 0"	0' - 1 3/4"	E	E.P.I	E.P.I.	E	E.P.I	E.P.I.					7	
108A	ELECTRIC ROOM	3' - 6"	7' - 0"	0' - 1 3/4"	F	HM	PAINT	F	HM	PAINT					8	PROVIDE 2" UNDERCUT @ ELEC R
108B	ELECTRIC ROOM	3' - 0"	7' - 0"	0' - 1 3/4"	C	HM	PAINT	C	HM	PAINT					5 SIM	
109	VACUUM ROOM	PAIR 3'-0"	8' - 0"	0' - 1 3/4"	E	E.P.I	E.P.I.	E	E.P.I	E.P.I.					7	
110A	WASH TUNNEL	14' - 6"	10' - 0"	0' - 1 1/2"	G	POLY-CARB				PREFINISHED					OH-1	
110B	WASH TUNNEL	14' - 6"	10' - 0"	0' - 1 1/2"	G	POLY-CARB				PREFINISHED					OH-1	
110C	WASH TUNNEL	14' - 6"	10' - 0"	0' - 1 1/2"	G	POLY-CARB				PREFINISHED					OH-1	
110D	WASH TUNNEL	14' - 6"	10' - 0"	0' - 1 1/2"	G	POLY-CARB				PREFINISHED					OH-1	
110E	WASH TUNNEL	3' - 0"	7' - 0"	0' - 1 3/4"	C	HM	PAINT	C	HM	PAINT					3	
110F	WASH TUNNEL	3' - 0"	7' - 0"	0' - 1 3/4"	C	HM	PAINT	C	HM	PAINT					3	



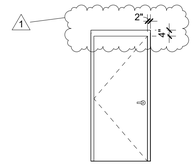
A
MEDIUM STILE ALUMINUM AUTOMATIC SLIDING DOOR IN ANODIZED ALUMINUM FRAME



AA
PAIR
MEDIUM STILE ALUM DOORS

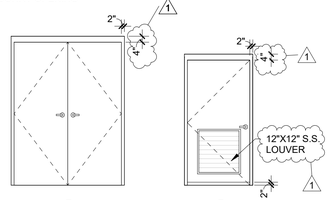


B
PREFINISHED SOLID CORE WOOD DOOR
BIRCH VENEER
DOOR IN 16 GAGE HM FRAME



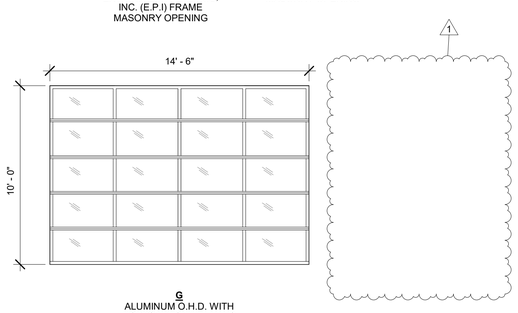
C
14 GAGE HOLLOW METAL DOOR IN 14 GAGE HM FRAME
MASONRY OPENING

D
NOT USED



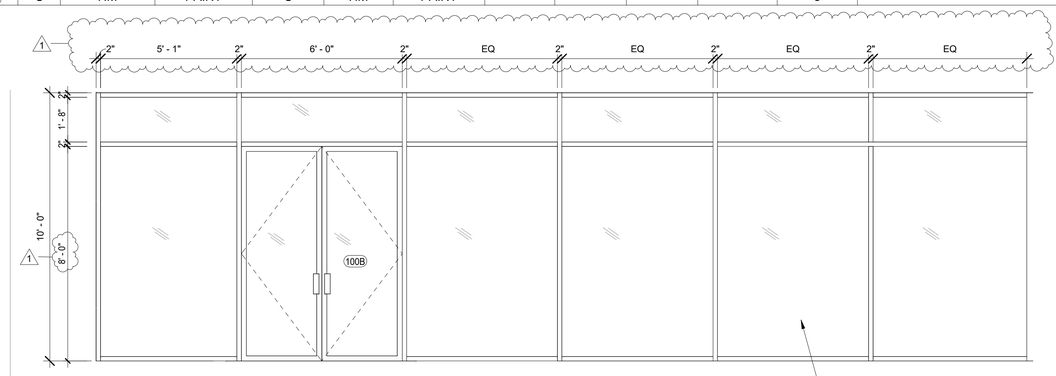
E
PAIR
EXTRUTECH PLASTICS, INC (E.P.I.) DOOR IN EXTRUCTECH PLASTICS, INC. (E.P.I) FRAME
MASONRY OPENING

F
14 GAGE HOLLOW METAL DOOR IN 14 GAGE HM FRAME
MASONRY OPENING

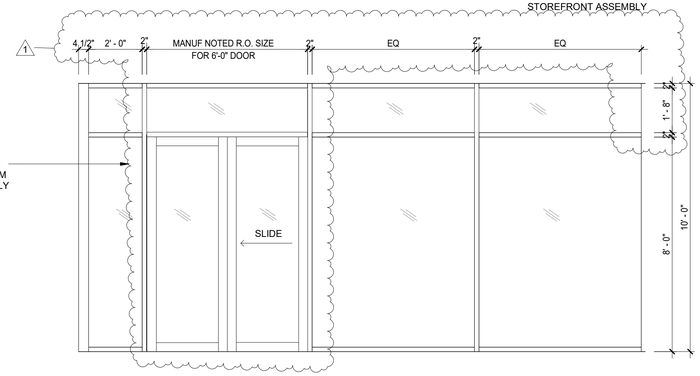


G
ALUMINUM O.H.D. WITH POLYCARBONATE LITES
MASONRY OPENING

? DOOR AND FRAME TYPES
1/4" = 1'-0"



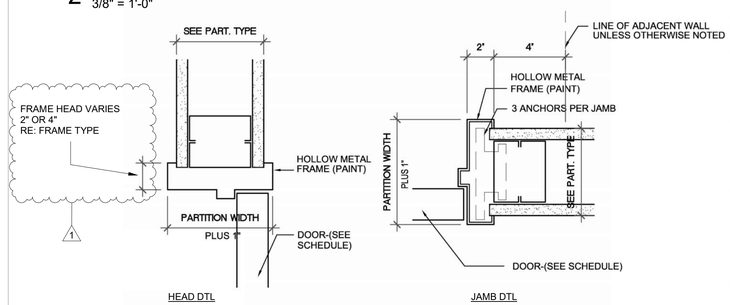
STOREFRONT TYPE GL-A



NOTE:
1. ALL GLASS TEMPERED

STOREFRONT TYPE GL-B

2 EXTERIOR WINDOW TYPES
3/8" = 1'-0"



1 GYP BD HEAD & JAMB DETAIL
1 1/2" = 1'-0"

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LEE'S SUMMIT, MO 64063

STATE OF MISSOURI ANDREW SCHOESSEL NUMBER A-2004024872 ARCHITECT
8-6-24

The seal(s) and signature(s) apply only to the document to wich they are affixed and we expressly disclaim any responsibility for all other plans, specifications, estimates, reports or other documents or instraments relating to or inteded to be used for any part or parts of the project

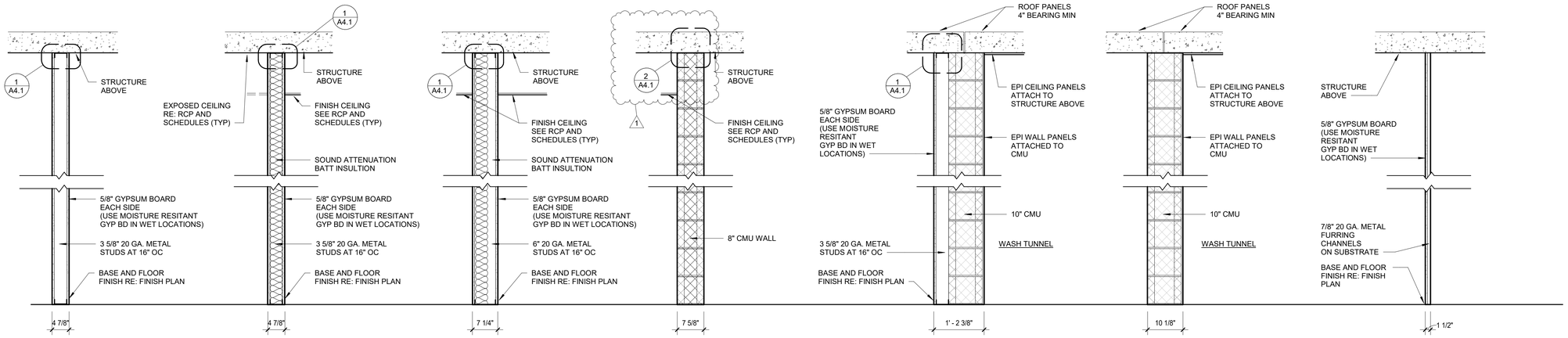
Revisions:

1	PERMIT COMMENTS	8/6/24

DOOR SCHEDULE & DETAILS

A4.0

Issue Date: 05/31/2024



P1 TYP PARTITION

P2 RESTROOM PARTITION W/ SOUND ATTENUATION

P3 PLUMBING PARTITION

P4 8" CMU PARTITION

P5 10" LOAD BEARING CMU PARTITION AT FINISHED AREAS

P6 10" LOAD BEARING CMU PARTITION

P7 FURRED PARTITION

PARTITION TYPES & NOTES

FRAMING

1. ALL NON-BEARING PARTITIONS SHALL BE CONSTRUCTED TO LIMIT DEFLECTION PER BUILDING CODE RESTRICTIONS AND MANUFACTURERS WHICH EVER IS GREATER. CHASE WALLS SHALL RESIST LOADS PERPENDICULAR TO SHAFT.
2. ALL LOAD BEARING PARTITIONS SHALL BE CONSTRUCTED PER STRUCTURAL DRAWINGS AND SPECIFICATIONS.
3. PROVIDE DOUBLE FRAMING AT JAMBS OF FRAMESAND CASED OPENINGS.
4. SCREW ATTACH STUDS TO RUNNER TRACK AT BOTH SIDES.
5. ISOLATE NON-BEARING FRAMING FROM STRUCTURAL ELEMENTS SLIP CONNECTIONS TO PREVENT TRANSFER OF LOADS TO PARTTION FRAMING.
6. CONTROL JOINTS SHALL BE INSTALLED AT 30'-0" O.C. MAX. AND AT MAJOR INTERRUPTIONS IN THE WALL IE. DOORS, WINDOWS, AND EQUIPMENT.VERIFY LOCATIONS WITH ARCHITECT.
7. PROVIDE FIRE RETARDANT BLOCKING FOR ALL WALL MOUNTED ARCHITECTURAL WOODWORK, FINISH CARPENTRY, TOILET PARTITIONS, AND ACCESSORIES, RAILINGS, SHELVING, AND SIMILAR MOUNTED ITEMS.
8. CROSS BRACING AT ALL CHASE WALL FRAMING TO BE 12" HIGH, 1/2" GYP. BD. OR MIN. 2 1/2" METAL STUDS AT THIRD POINTS.
9. FRAMING SHALL COORDINATE WITH ALL REQUIRED MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, DATA, AND OTHER RELATED WORK.
10. PROVIDE APPROVED FIRE STOPPING MATERIALS AT THE CEILING OPLANE IN PARTITIONS WHICH PENETRATE THE CEILING.

VAPOR BARRIER

1. ADHERE 6 MIL POLY VAPOR BARRIER OVER METAL STUDS AND INSULATION AT ALL EXTERIOR WALL FURRING

GYPSUM BOARD

1. GYPSUM BOARD SHALL BE INSTALLED PER ASTM C 840
2. INSTALL CEMENTITIOUS WATER RESISTANT GYPSUM BOARD AT PLUMBING CHASE WALLS WITH IN ALL TOILET ROOMS, JANITORS CLOSETS, AND WHERE INDICATED.
3. FINISH ALL CORNERS AND EXPOSED EDGES OF GYPSUM BOARD WITH TAPED IN METAL TRIM ACCESSORIES. USE EXPOSED TRIM ONLY WHEN SPECIFICALLY INDICATED.
4. GYPSUM BOARD PARTITIONS SHALL BE TAPED AND SANDED WITH NO VISIBLE JOINTS.
5. RECESSED ITEMS SHALL BE INSTALLED FLUSH WITH PARTITION UNLESS NOTED OTHERWISE.PARTITION DEPTH SHALL BE ADJUSTED TO ACCOMMODATE DEPTH OF RECESSED ITEM.
6. PROVIDE EXPANSION JOINTS EVERY 30'-0" WITH RELIEF AND 50'-0" WITHOUT RELIEF.

FIRE-RESISTANT RATED PARTITIONS

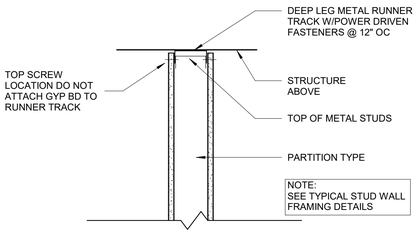
1. ALL PARTITIONS INDICATED TO BE FIRE RATED SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE REFERENCED FIRE RESISTANCE TEST. IF NO TEST IS REFERENCED, AN INDUSTRY RECONIZED FIRE RESISTANCE TEST SHALL BE USED.
2. FIRE RESISTANT RATED PARTITIONS SHALL EXTEND FROM FLOOR TO STRUCTURAL DECK ABOVE.
3. APPROVED FIRE RESISTIVE MATERIALS MUST BE USED AT ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.

SOUND-RESISTANT RATED PARTITIONS

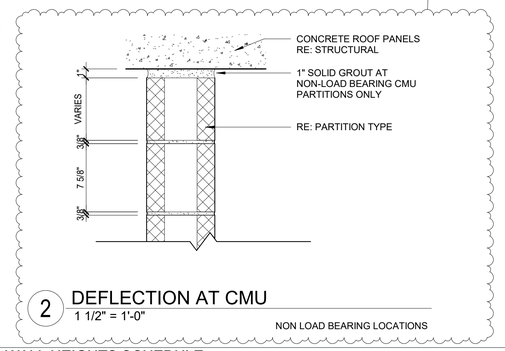
1. ALL PARTITIONS INDICATED TO BE SOUND RESISTANCE RATED SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REFERENCED TEST.
2. GYPSUM BOARD PARTITIONS SHALL BE CONSTRUCTED WITH SOUND ATTENUATION INSULATION AS SCHEDULED. INSULATION SHALL BE CONTINUOUS.
3. ALL PENETRATIONS SHALL BE SEALED WITH ACOUSTICAL SEALANT TO MAINTAIN STC RATING. IF PARTITION HAS A FIRE RATING SEALANT MUST MAINTAIN FIRE RATING.
4. RECESSED ITEMS IN PARTITION SHALL NOT BE INSTALLED BACK TO BACK.

MASONRY

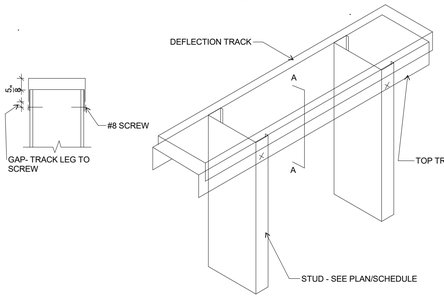
1. ALL BEARING CMU PARTITIONS SHALL BE CONSTRUCTED PER STRUCTURAL DARWINGS.
2. SEE STRUCTURAL DRAWINGS FOR FOOTING DOWEL AND REINFORCING CONDITIONS UNLESS OTHERWISE NOTED.



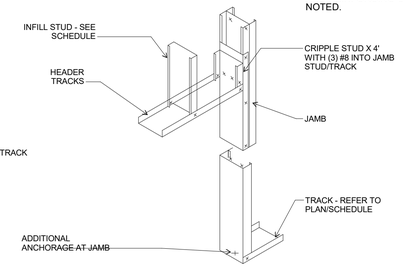
1 DEFLECTION TRACK DETAIL
1 1/2" = 1'-0"



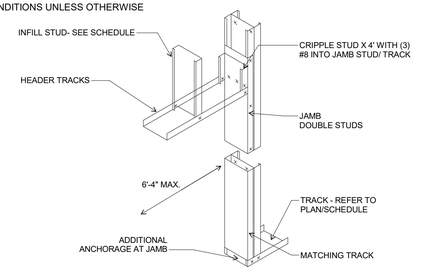
2 DEFLECTION AT CMU
1 1/2" = 1'-0"
NON LOAD BEARING LOCATIONS



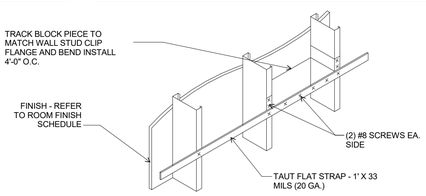
SECTION A-A DEFLECTION TRACK ASSEMBLY - DOUBLE DEFLECTION TRACK

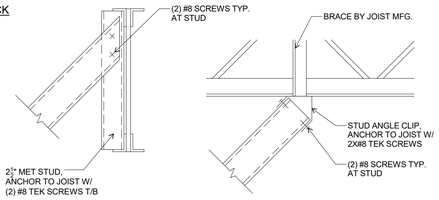


DOOR - NON-LEAD BEARING SINGLE TRACK HEADER SINGLE JAMB (SMALL OPENING)

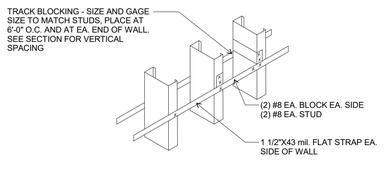


DOOR- NON-LOADED BEARING SINGLE TRACK HEADER BACK TO BACK JAMB (LARGE OPENING)

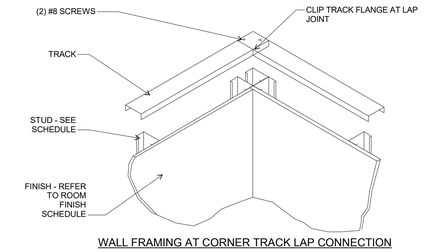




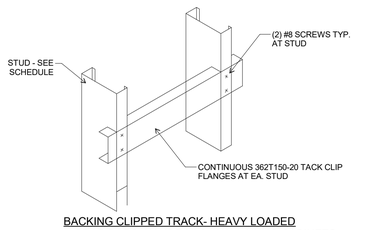
'A' TOP TRACK SUPPORT DETAILS - TOP CONNECTIONS AT STRUCTURE



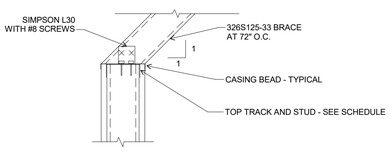
BRIDGING SINGLE FLAT STRAP WITH BLOCKING



WALL FRAMING AT CORNER TRACK LAP CONNECTION



BACKING CLIPPED TRACK- HEAVY LOADED (GRAB BARS, HANDRAILS, WALL HUNG CABINETS)



'A' TOP TRACK SUPPORT DETAIL - TOP CONNECTIONS

2 TYPICAL STUD WALL FRAMING
N.T.S.

LIGHT GAUGE STEEL (L.G.S.) STUD WALL HEIGHTS SCHEDULE

L.G.S. STUD SIZE	TOP AND BOTTOM TRACK	SPACING	WALL HEIGHT
162S125-18	162T125-18	16	6'-11"
		24	6'-0"
162S125-27	162T125-27	16	8'-1"
		24	7'-1"
162S125-33	162T125-33	16	8'-7"
		24	7'-6"
250S125-18	250T125-18	16	9'-6"
		24	8'-4"
250S125-27	250T125-27	16	11'-2"
		24	9'-9"
250S125-33	250T125-33	16	11'-11"
		24	10'-5"
362S125-18	362T150-18	16	12'-5"
		24	10'-10"
362S125-27	362T150-27	16	14'-6"
		24	12'-5"
362S125-33	362T150-33	16	15'-6"
		24	13'-6"
362S125-43	362T150-43	16	14'-9"
		24	13'-9"
400S125-18	400T150-18	16	13'-9"
		24	12'-0"
400S125-27	400T150-27	16	16'-0"
		24	15'-0"
400S125-33	400T150-33	16	17'-3"
		24	20'-10"
550S125-33	550T150-33	16	23'-0"
		24	19'-8"
600S125-27	600T150-27	16	22'-4"
		24	19'-6"
600S125-33	600T150-33	16	23'-11"
		24	20'-10"
600S125-43	600T150-43	16	26'-0"
		24	22'-9"
600S125-54	600T150-54	16	21'-11"
		24	24'-4"
800S125-43	800T150-43	16	33'-1"
		24	28'-11"

GENERAL METAL STUD STRUCTURAL NOTES:

A. STEEL:

1. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE AISC, "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING", (9TH EDITION). ALL STEEL FABRICATED SHALL BE PERFORMED BY A LICENSED FACILITY.
2. ALL STEEL FABRICATED ITEMS SHALL SATISFY THE FOLLOWING SPECIFICATIONS.

MEMBER	ASTM	Fy (ksi)
STRUCTURAL TUBING (HSS)	A500 (GRADE B)	46
STEEL PIPE	A53 (TYPE E, GR B)	35
PLATES/OTHER ROLLED SHAPES	A36	36
CONNECTION BOLTS	A325	92
NUTS	A563	N/A
WASHERS	A436	N/A
ANCHOR AND THROUGH BOLTS	A307	36
THREADED RODS	A36	36
STAINLESS STEEL RODS (S.S.) (304/316)	F593 CW	65

3. ALL WELDING SHALL BE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF A.W.S. D1.1 USING E10XX ELECTRODES.
4. BOLT HOLES SHALL BE PUNCHED OR DRILLED AND NOT GREATER THAT 1/16" IN DIAMETER THAT THE SPECIFIED BOLT. ALL HOLES SHALL HAVE SMOOTH SURFACES. FIELD CUTTING OF HOLES IS NOT PERMITTED.
5. ALL HEADED STUDS SHALL CONFORM AND ARE TO BE INSTALLED TO THE LATEST STANDARD OF ASTM-A-108.
6. ALL SHOP OR FIELD WELDING OF STRUCTURAL STEEL, STEEL REINFORCEMENT, AND LIGHT GAUGE STEEL SHALL BE COMPLETED BY AN A.W.S. CERTIFIED WELDER.
7. PROTECTIVE COATINGS DAMAGED DURING THE TRANSPORT, ERECTION AND FIELD WELDING PROCESSES SHALL BE RESTORED IN THE FIELD TO EQUAL THE SHOP APPLIED COATING.
8. THE STRUCTURAL STEEL FABRICATOR SHALL SUPPLY SHOP DRAWINGS OF ALL STEEL WORK FOR THE ARCHITECT'S/ENGINEER'S REVIEW AND APPROVAL PRIOR TO FABRICATION.

B. LIGHT GAUGE STEEL (L.G.S.):

1. ALL STRUCTURAL STEEL STUDS AND TRACK SHALL BE SPECIFIED, DESIGNED, DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE ANSI (1996), "DESIGN OF COLD-FORMED STEEL STRUCTURED". THE DESIGN OF ALL SECTION SHALL BE BASED ON THE CROSS-SECTIONAL PROPERTIES PURSUANT OF THAT STATED IN ICBO REPORT ER4943-P.
2. STUDS, TRACK, AND CONNECTIONS (STRAPS, CLIPS, ETC) SHALL BE MANUFACTURED FROM STEEL MEETING THE REQUIREMENTS OF ASTM A 653 RESPECTIVE OF THE FOLLOWING GRADES:
   A. 18 GAUGE AND THINNER GRADE 33 (33 ksi)
   B. 16 GAUGE AND THICKER GRADE 50 (50 ksi)
3. STUDS, TRACKS, AND HAT CHANNEL SECTIONS NOTED ON THE PLANS AND/OR DETAILS SHALL BE UPON SSMA PRODUCT IDENTIFICATION.

SSMA PRODUCT IDENTIFICATION

STYLE:
S= STUD OR JOINT SECTIONS
T= TRACK SECTIONS

362S162-54

MEMBER DEPTH:
3 5/8" = 362 X 1/1000"

4. ALL SCREWS SHALL MEET THE REQUIREMENTS OF AISI SPECIFICATIONS E4 FOR SCREW CONNECTIONS. SCREWS SHALL CONFORM TO SAE J78 AND HAVE A PHILLIPS DRIVE WAFER HEAD. SCREES SHALL HAVE SUFFICIENT THREADED LENGTH THAT A MINIMUM OF FOUR (4) FULL THREADS COMPLETELY PENETRATE EACH LAYER OF THE CONNECTED PARTS. SCREWS SHALL NOT BE SPACED CLOSER THAN 4 DIAMETERS APART. SCREW MARK AND DIAMETER ARE AS FOLLOWS:

	MATERIAL THICKNESS IN MILLS 1 MILL =1/1000"
A. #6 (0.138" DIA.- SHANK)	
B. #8 (0.164" DIA.- SHANK)	

5. LVF - (LOW VELOCITY FASTENERS). HILTI, ICBO ER 2388.
   A. IN NORMAL WEIGHT CONCRETE: 0.145" DIA. X-DNI SERIES, 1 1/4" EMBED. MIN. 3" EDGE DISTANCE, MIN. 24" O.C. SPACING
6. WELDING AND WELDER QUALIFICATIONS PER AWS D1.3, STRUCTURAL WELDING CODE, SHEET STEEL. USE E60XX ELECTRODES. WELDS TO BE INSPECTED PER IBC 1704.3.1 AND TABLE 1704.3 FOR MATERIAL LESS THAN OR EQUAL TO 0.1242" THICK, DRAWINGS SHOW NOMINAL WELD SIZE, FOR SUCH MATERIALS. THE EFFECTIVE THROAT OF WELDS SHALL NOT BE LESS THAN THE THICKNESS OF THE THINNEST CONNECT PART.
7. ALL ATTACHING CLIPS AND SIMILAR CONNECTIONS SHALL MEET ASTM A653, SS GRADE, CLASS 1 STEEL AND BE HOT-DIPPED GALVANIZED COATED PER G-90 (Z275).

C. SPECIAL CONNECTORS AND MATERIALS:

1. WOOD ADHESIVE (GLUE) USED FOR WOOD TO WOOD APPLICATIONS SHALL BE "PL400 HEAVY DUTY CONSTRUCTION ADHESIVE" AND SHALL BE APPLIED AS A 3/8" CONTINUOUS BEAD.
2. ANY EPOXY ANCHORS INSTALLED IN CONCRETE SHALL CONFORM TO AND BE INSTALLED PER ICBO REPORT #ER-5279 AND BE SIMPSON "SET ADHESIVE ANCHOR SYSTEM". REFER TO PLAN AND/OR DETAILS FOR ALL SIZES AND EMBEDMENTS.

FLANGE WIDTH:
1-5/8" = 1.625" = 162 X 1/1000"

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ANDREW SCHOPPEL
NUMBER A-2004024872
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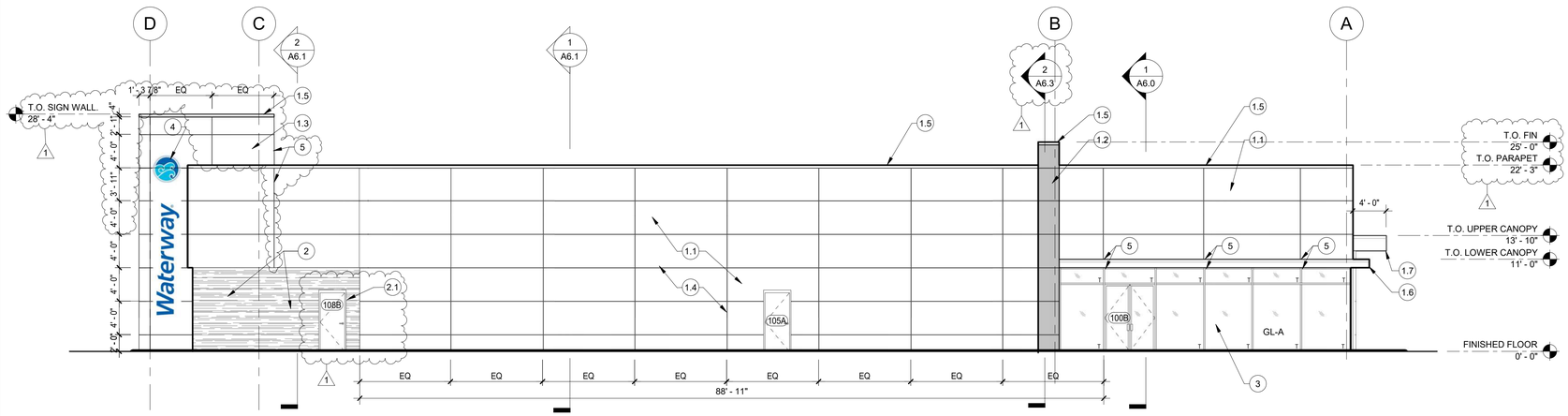
Revisions:

1	PERMIT COMMENTS	8/6/24

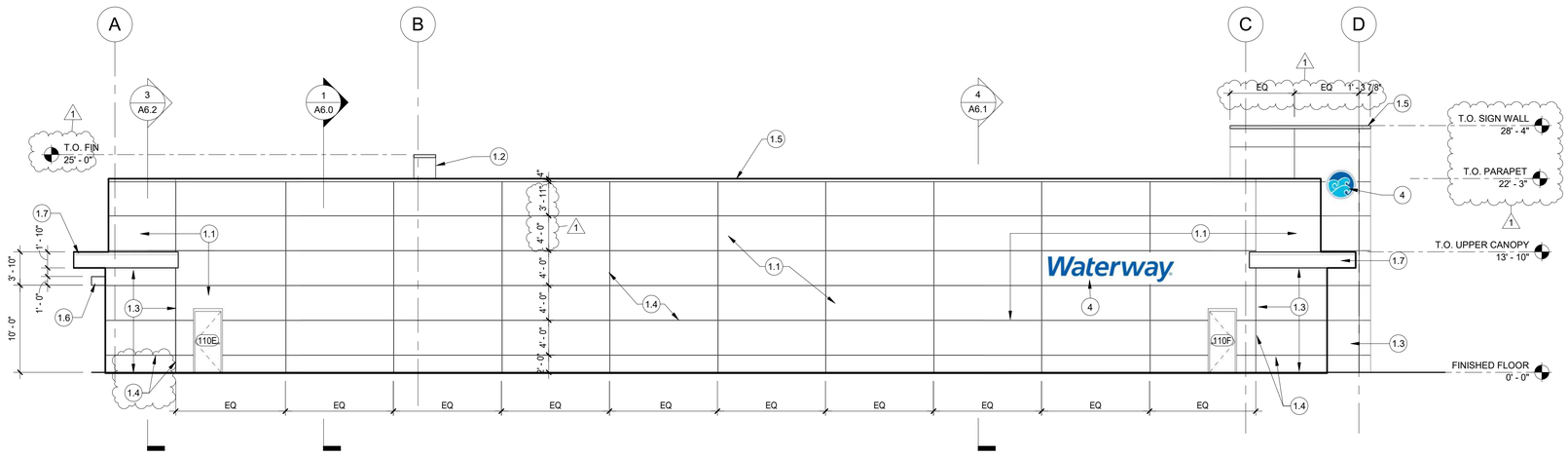
PARTITION TYPES & DETAILS

A4.1

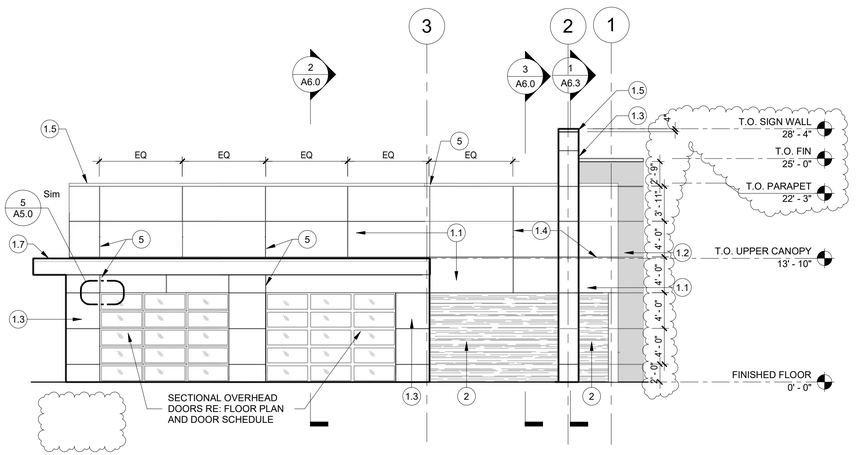
Issue Date: 05/31/2024



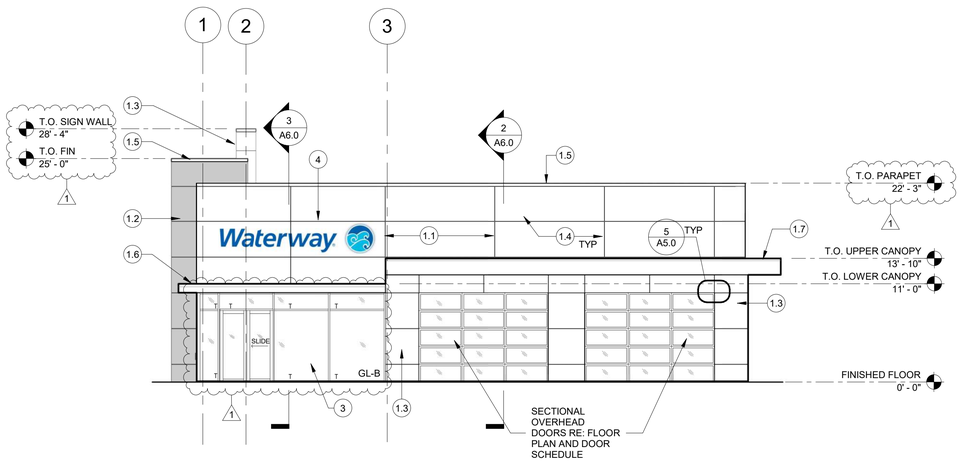
1 NORTH ELEVATION
1/8" = 1'-0"



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



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



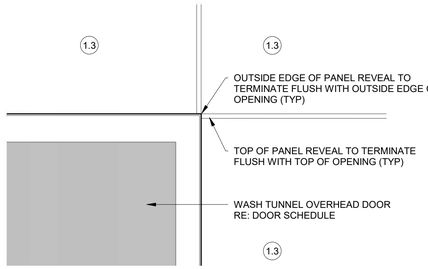
4 WEST ELEVATION
1/8" = 1'-0"

ELEVATION KEYED NOTES	
NOTE NUMBER	NOTE
1.1	PREFINISHED ALUMINUM COMPOSITE PANEL SYTEM (M-1)
1.2	PREFINISHED ALUMINUM COMPOSITE PANEL SYTEM (M-2)
1.3	PREFINISHED ALUMINUM COMPOSITE PANEL SYTEM (M-3)
1.4	ACP REVEAL (TYP)
1.5	PREFINISHED ACP PARAPET CAP - MATCH ACP TYPE
1.6	PREFINISHED ACP CANOPY 1
1.7	PREFINISHED ACP CANOPY 2
2	NICHIHA WALL PANEL ASSEMBLY, WOOD SERIES, VINTAGEWOOD, CEDAR 9 (M-5)
2.1	NICHIHA DEEPER J-MOLD AROUND PERIMETER OF DOOR
3	1" INSULATED GLAZING IN PREFINISHED ALUM STOREFRONT SYSTEM
4	SIGNAGE BY OWNER
5	ALIGN

MATERIAL LEGEND

M-1	PREFINISHED ALUMINUM COMPOSITE PANEL SYSTEM AND PARAPET CAP ALPOLIC, BNT WHITE (WP), #052119
M-2	PREFINISHED PANEL SYSTEM CUSTOM COLOR CAYMAN BLUE
M-3	PREFINISHED PANEL SYSTEM REYNOBOND, COLORWELD 300, MIDNIGHT BLUE, R4CW3MBFR
M-4	PREFINISHED PANEL SYSTEM REYNOBOND, COLORWELD 500XL, BRIGHT SILVER MET., RB4CW5XBSM
M-5	PREFINISHED PANEL SYSTEM NICHIHA, WOOD SERIES, VINTAGEWOOD, CEDAR
M-6	COMPOSITE BOARD NEWTECH WOOD, ULTRA SHEILD NATURALS, US07, TEAK, H6

NOTES:
1. COMPOSITE PANEL MANUFACTURER TO SUPPLY COIL STOCK FOR ALL FABRICATED SHEET METAL DETAILING.
2. ALL METAL PANELS TO HAVE FACTORY EDGE AND CORNERS. TRIMMING/BENDING IN THE FIELD IS NOT ACCEPTABLE
3. ALL PARAPETS & CANOPIES TO HAVE PRE-MANUFACTURED ALUMINUM COMPOSITE PARAPET CAP UNO FIELD BENT METAL IS NOT AN ACCEPTABLE COPING CAP
4. ALL NICHIHA TO HAVE PREFINISHED FACTORY OUTSIDE CORNERS
5. CONTRACTOR TO COORDINATE COMPOSITE PANEL JOINTS WITH ARCH PRIOR TO FABRICATION



5 REVEAL DTL AT OVERHEAD DOOR - TYP
1 1/2" = 1'-0"

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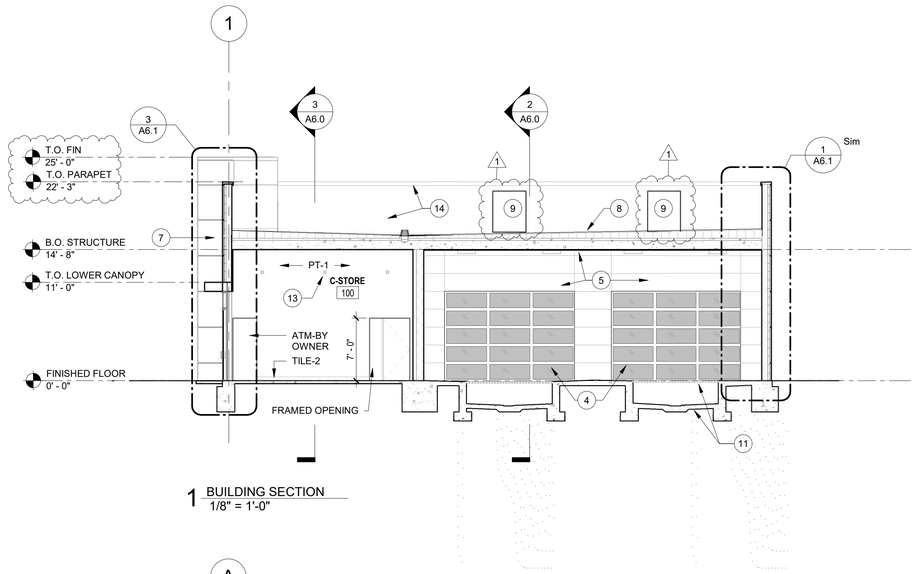
Revisions:

1	PERMIT COMMENTS	8/6/24

EXTERIOR ELEVATIONS

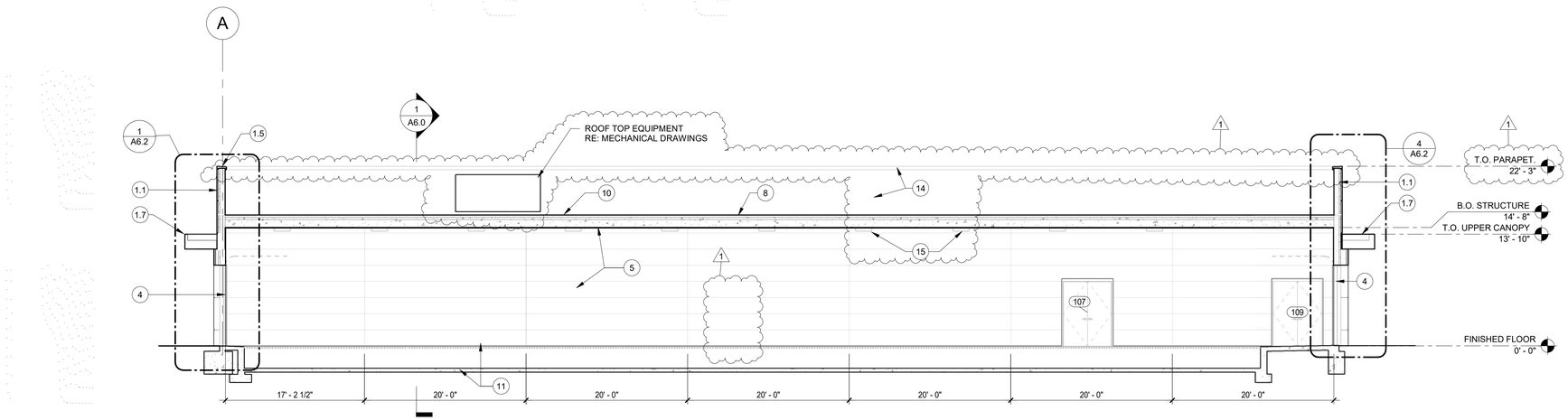
A5.0

Issue Date: 05/31/2024

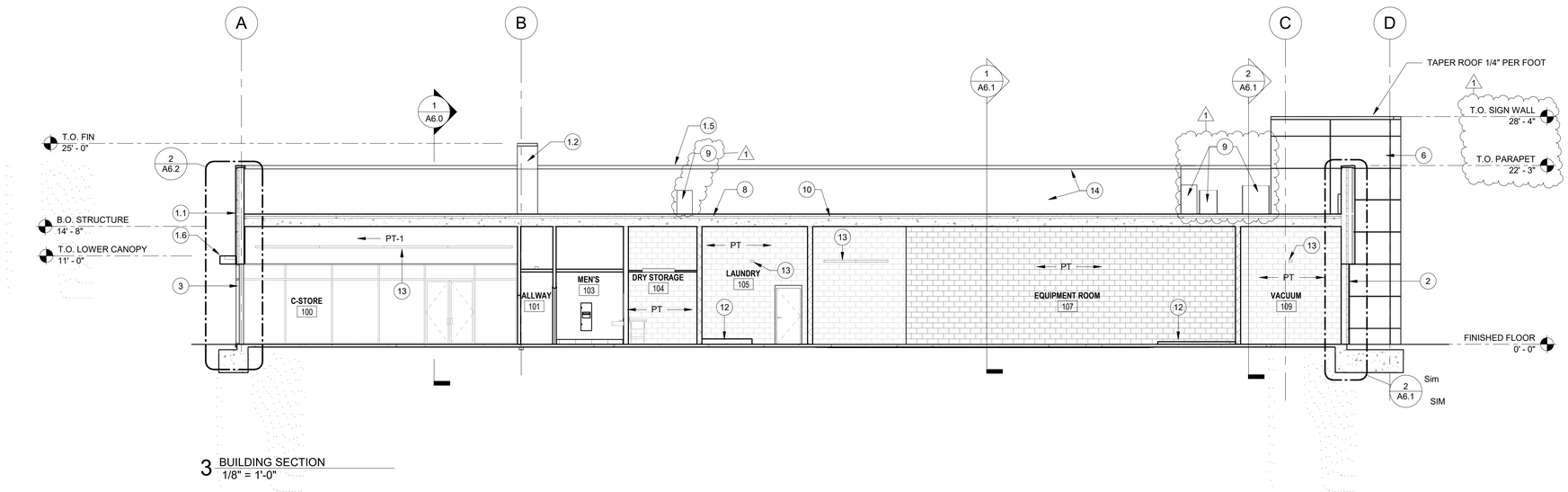


1 BUILDING SECTION
1/8" = 1'-0"

BUILDING SECTION KEYED NOTES	
NOTE NUMBER	NOTE
1.1	PREFINISHED ALUMINUM COMPOSITE PANEL SYTEM (M-1)
1.2	PREFINISHED ALUMINUM COMPOSITE PANEL SYTEM (M-2)
1.5	PREFINISHED ACP PARAPET CAP - MATCH ACP TYPE
1.6	PREFINISHED ACP CANOPY 1
1.7	PREFINISHED ACP CANOPY 2
2	NICHIHA WALL PANEL ASSEMBLY, WOOD SERIES, VINTAGEWOOD, CEDAR (M-5)
3	INSULATED GLAZING IN PREFINISHED ALUM STOREFRONT SYSTEM
4	WASH TUNNEL DOOR - RE: DOOR SCHEDULE
5	EPI PANELS RE: RFS
6	SIGN WALL (M-3)
7	FIN WALL (M-2)
8	SLOPE STRUCTURE 1/4" PER FOOT RE: ROOF PLAN AND STRUCTURAL
9	ROOF TOP EQUIPMENT, RE: MEP DRAWINGS
10	60 MIL FULLY ADHERED EPDM MEMBRANE, OVER 1/2" DENSDECK COVER BOARD, OVER 3" MIN POLYISO (R-30 MIN), OVER 3" TOPPING SLA AND CONCRETE PLANKS (RE: STRUCTURAL)
11	PIT ASSEMBLY AND GRATE SUPPORT, RE: STRUCTURAL
12	RAISED SLAB RE: STRUCTURAL
13	SUSPENDED LIGHTING RE: ELECTRICAL PLAN
14	EXTEND ROOF MEMBRANE UP AND OVER PARAPET (TYP)
15	SURFACE MOUNTED LIGHTS RE: ELECTRICAL DRAWINGS



2 BUILDING SECTION
1/8" = 1'-0"



3 BUILDING SECTION
1/8" = 1'-0"

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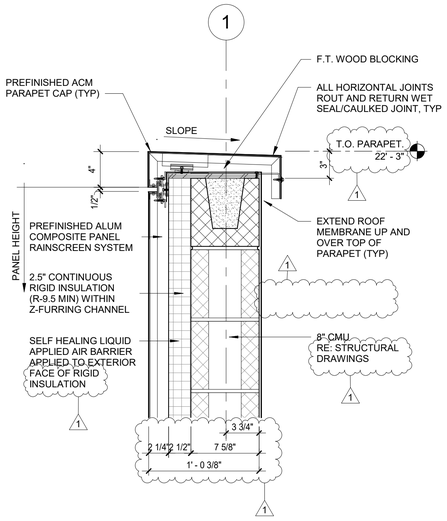
Revisions:

1	PERMIT COMMENTS	8/6/24

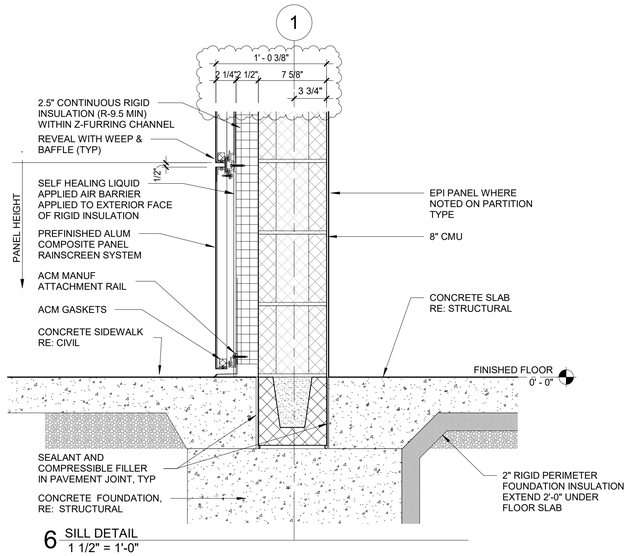
BUILDING SECTIONS

A6.0

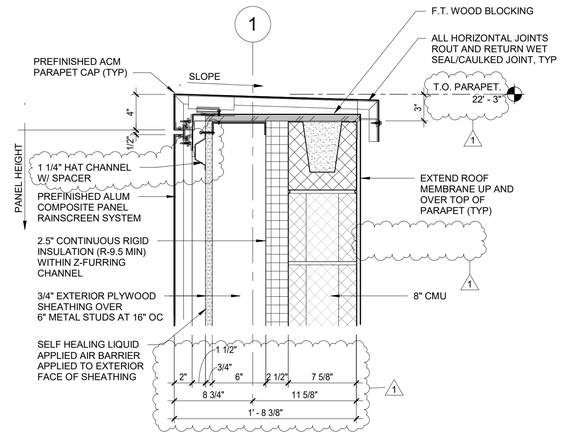
Issue Date: 05/31/2024



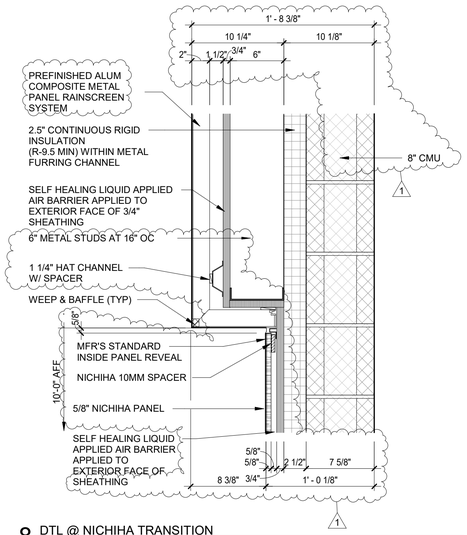
5 PARAPET DETAIL
1 1/2" = 1'-0"



6 SILL DETAIL
1 1/2" = 1'-0"



7 PARAPET DTL @ NICHIHA LOCATION
1 1/2" = 1'-0"



8 DTL @ NICHIHA TRANSITION
1 1/2" = 1'-0"

1 TYPICAL WALL SECTION
1/2" = 1'-0"

2 WALL SECTION AT NICHIHA PANEL
1/2" = 1'-0"

3 NORTH SECTION AT STOREFRONT
1/2" = 1'-0"

4 SOUTH WALL SECTION AT TUNNEL
1/2" = 1'-0"

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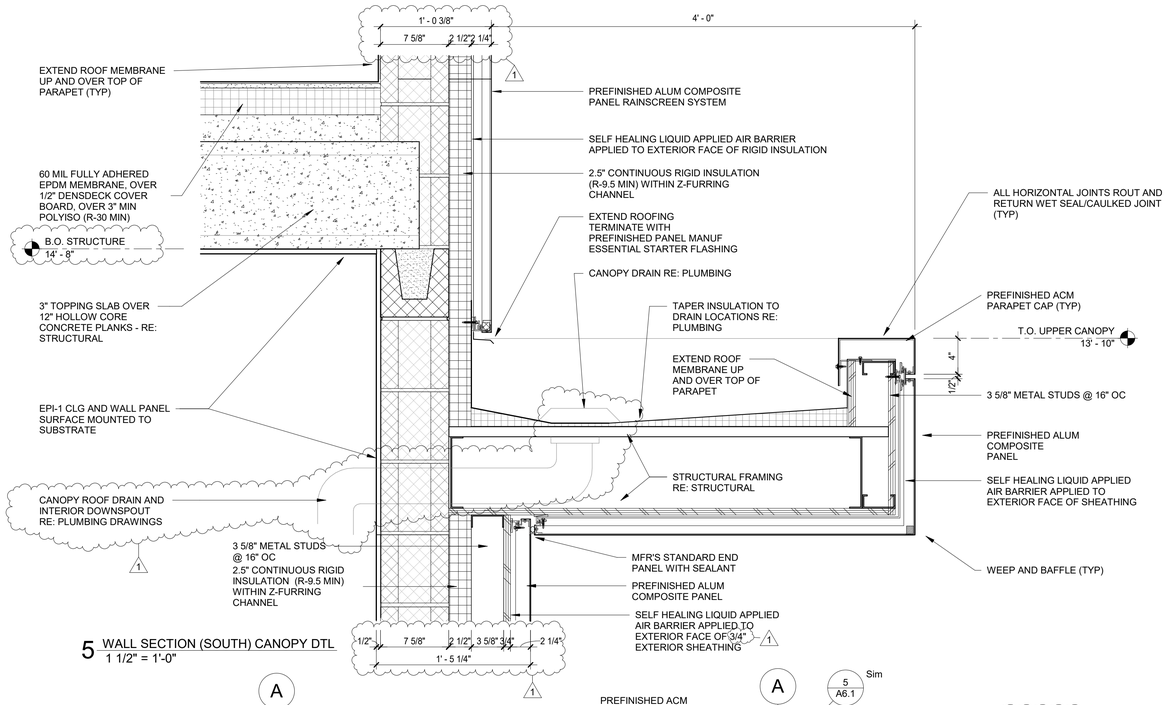
Revisions:

1	PERMIT COMMENTS	8/6/24

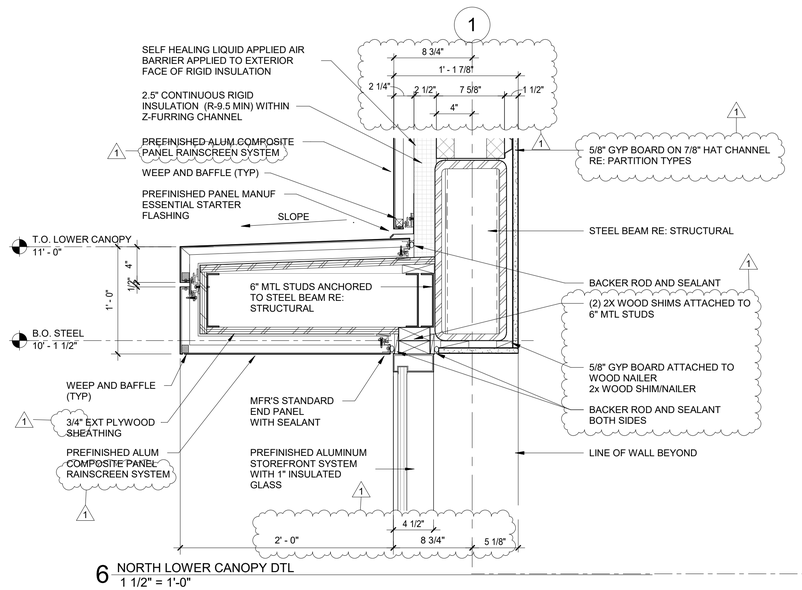
WALL SECTIONS (NORTH)

A6.1

Issue Date: 05/31/2024

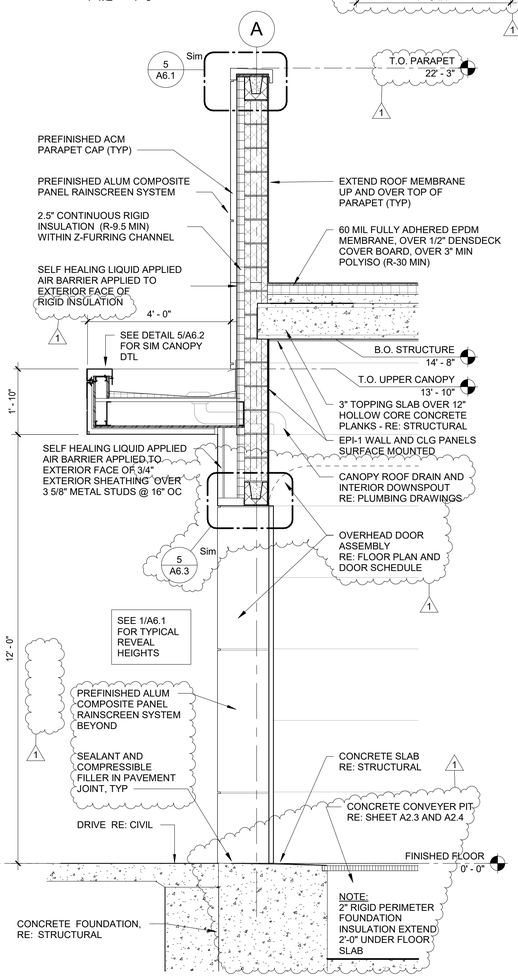


5 WALL SECTION (SOUTH) CANOPY DTL
1 1/2" = 1'-0"

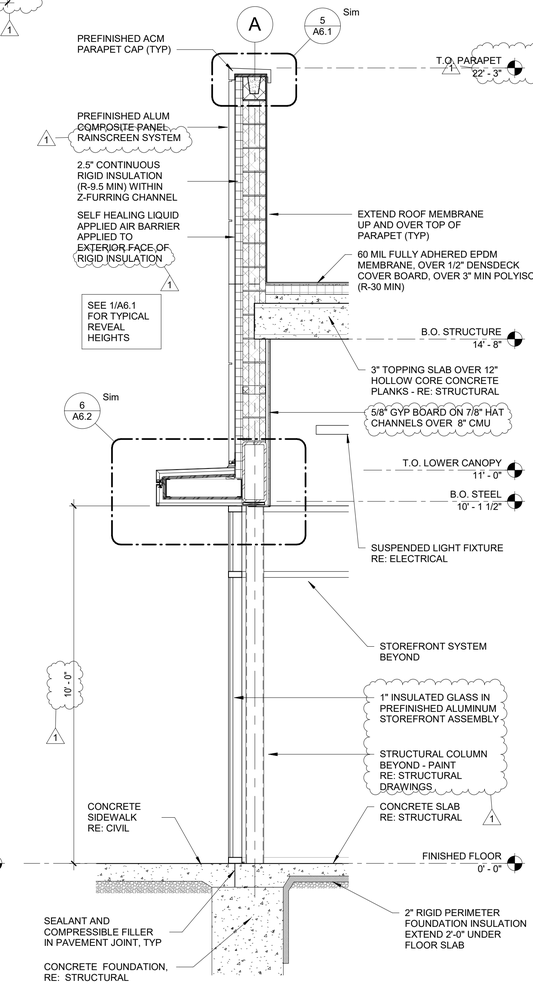


6 NORTH LOWER CANOPY DTL
1 1/2" = 1'-0"

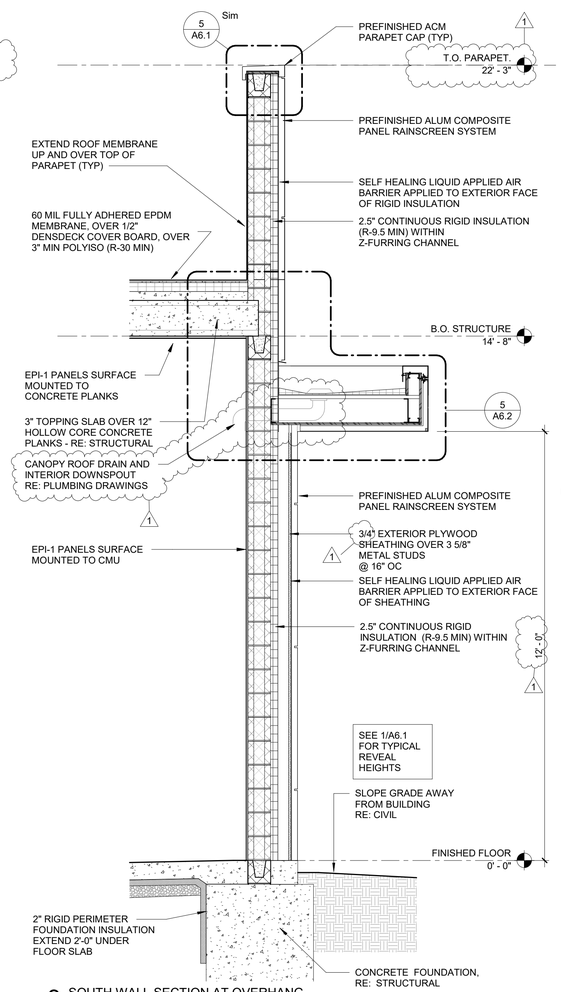
T.O. FIN 25' - 0"



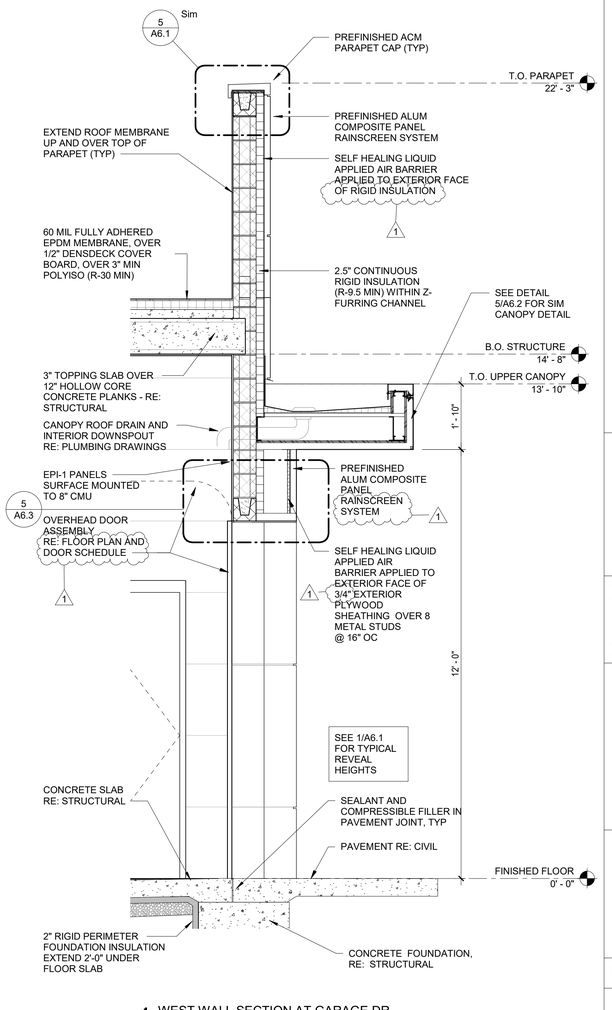
1 EAST WALL SECTION AT GARAGE DOOR
1/2" = 1'-0"



2 WEST WALL SECTION AT STOREFRONT
1/2" = 1'-0"



3 SOUTH WALL SECTION AT OVERHANG
1/2" = 1'-0"



4 WEST WALL SECTION AT GARAGE DR
1/2" = 1'-0"

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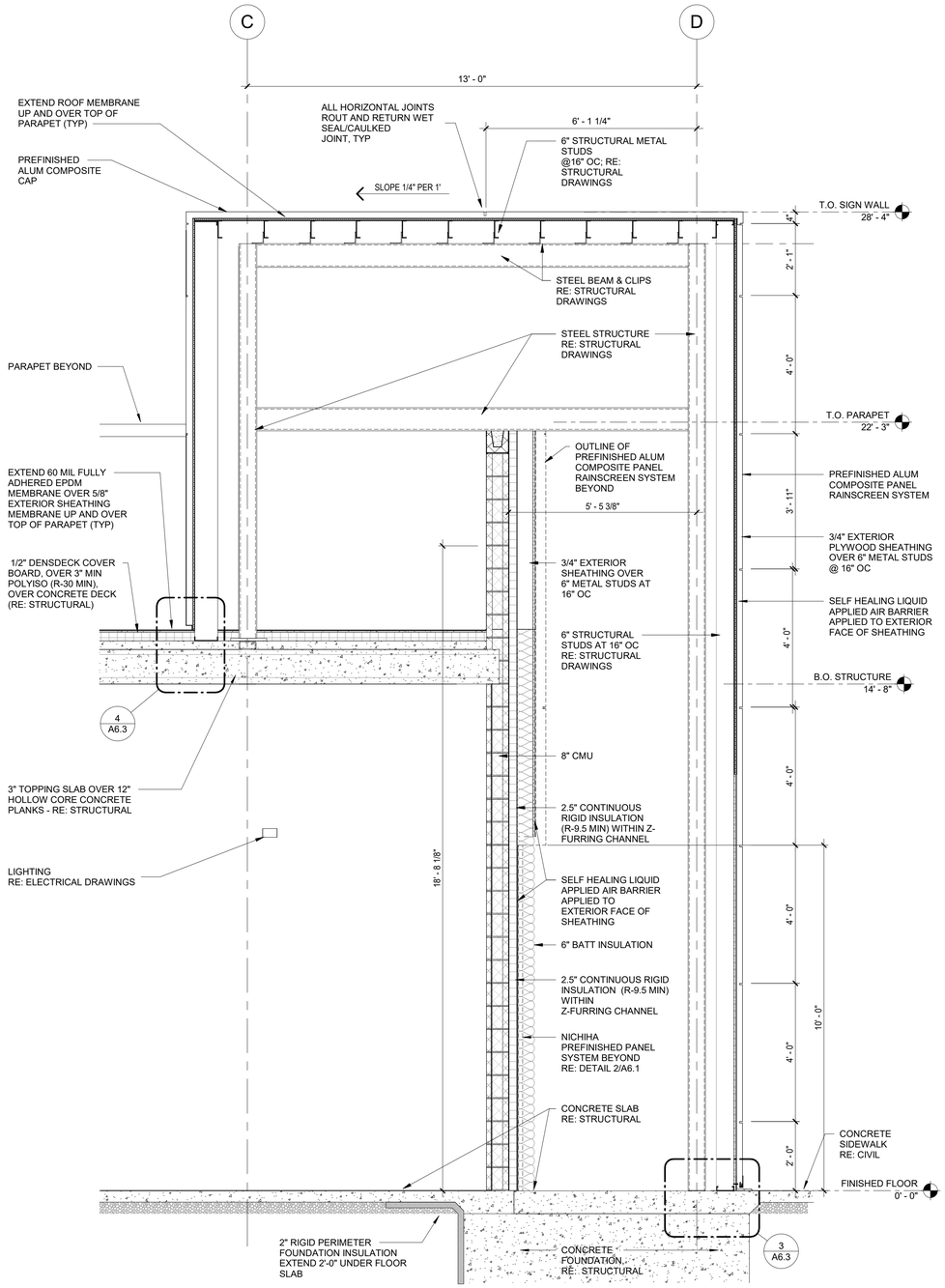
Revisions:

1	PERMIT COMMENTS	8/6/24

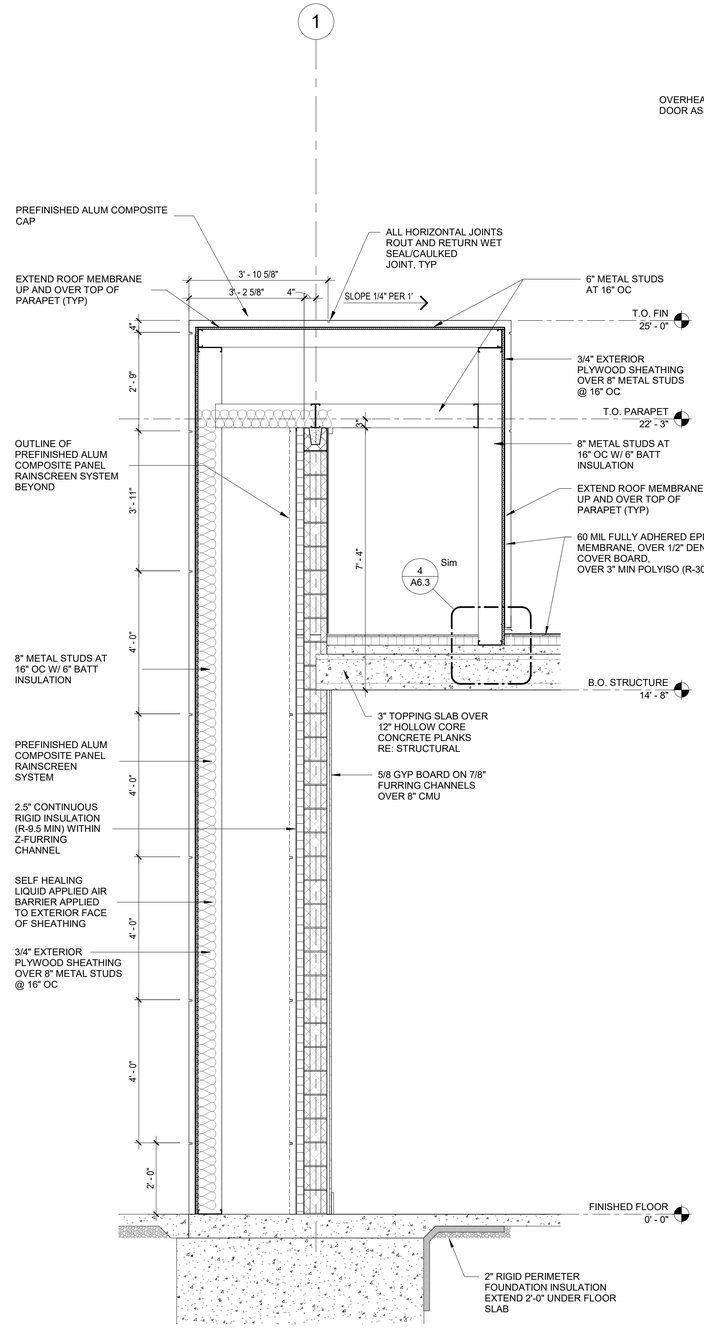
SECTION DETAILS

A6.2

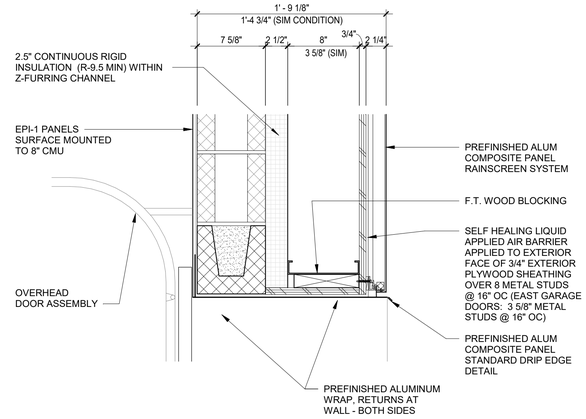
Issue Date: 05/31/2024



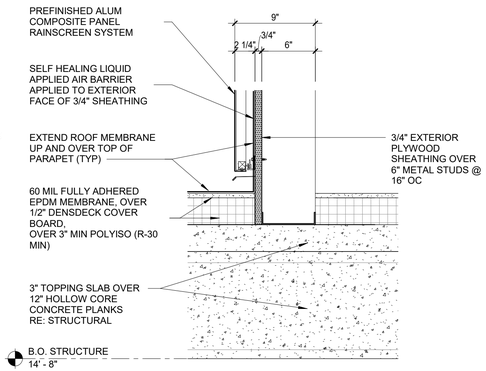
1 WALL SECTION AT SIGN WALL
1/2" = 1'-0"



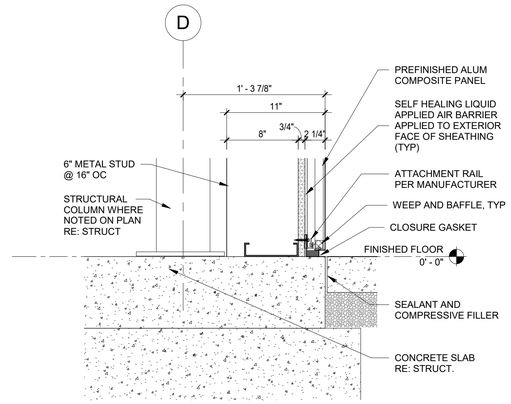
2 Section at North Element
1/2" = 1'-0"



5 DETAIL AT WEST GARAGE DOORS
1 1/2" = 1'-0"



4 ROOF DETAIL
1 1/2" = 1'-0"



3 SILL DETAIL AT SIDEWALK
1 1/2" = 1'-0"

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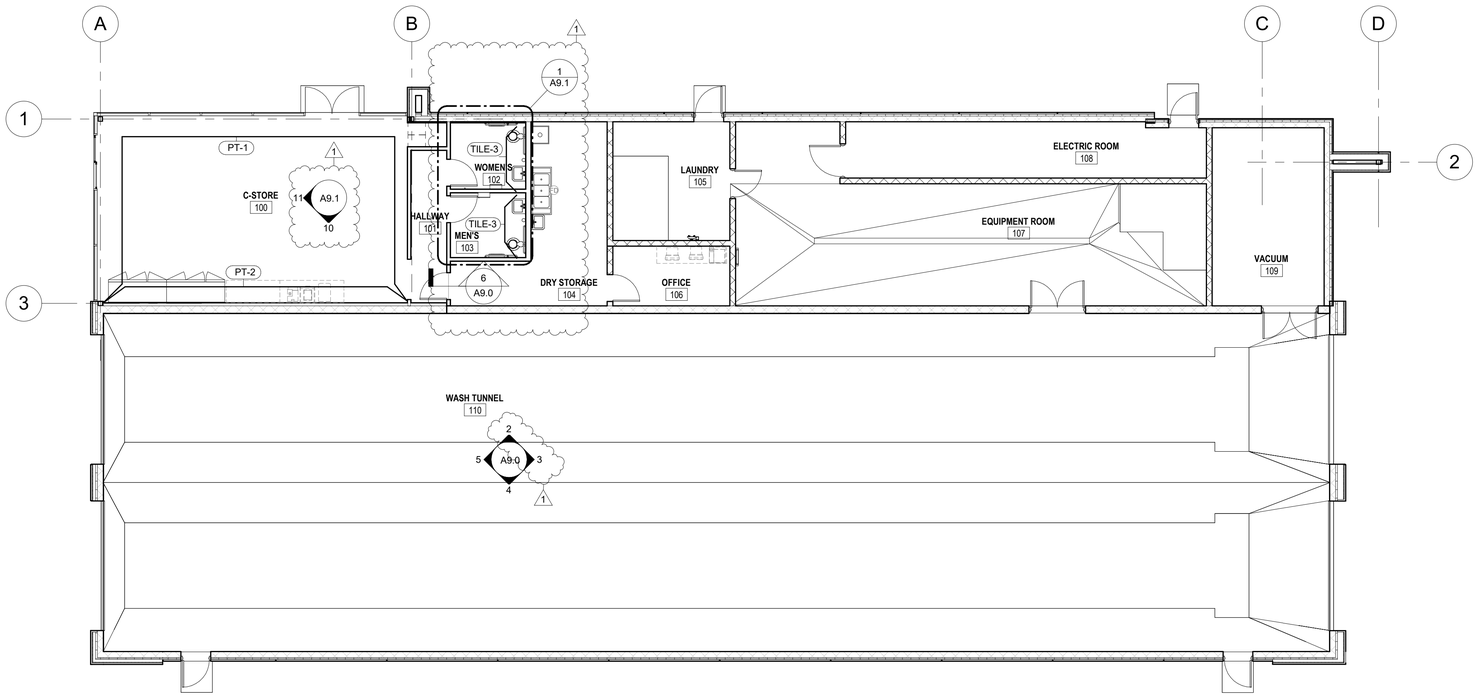
Revisions:

1	PERMIT COMMENTS	8/6/24

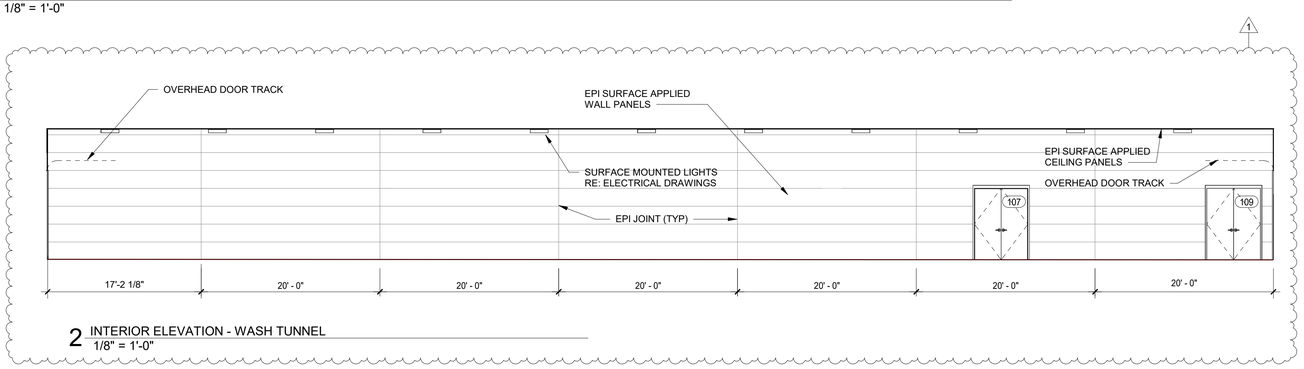
WALL SECTIONS & DETAILS

A6.3

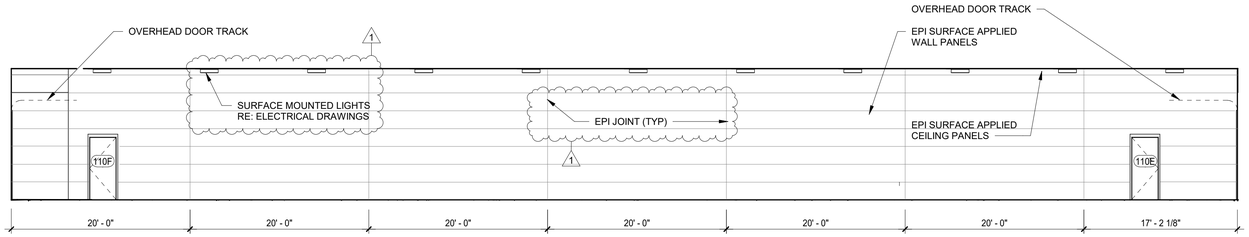
Issue Date: 05/31/2024



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



2 INTERIOR ELEVATION - WASH TUNNEL
1/8" = 1'-0"



4 INTERIOR ELEVATION - WASH TUNNEL
1/8" = 1'-0"

ROOM FINISH SCHEDULE							
ROOM NUMBER	NAME	FLOOR FINISH	BASE	WALL FINISH	CEILING FINISH	CEILING HEIGHT	COMMENTS
100	C-STORE	TILE-1	TILE-2	PT-1/PT-2	PT-3	14' - 8"	
101	HALLWAY	TILE-1	TILE-2	PT-1	PT-3	9' - 0"	
102	WOMEN'S	TILE-1	TILE-2	TILE-3/PT-1	PT-3	9' - 0"	RE INTERIOR ELEVATIONS AND FINISH PLAN
103	MEN'S	TILE-1	TILE-2	TILE-3/PT-1	PT-3	9' - 0"	RE INTERIOR ELEVATIONS AND FINISH PLAN
104	DRY STORAGE	EPXY-1	WB-1	PT-1	ACT-1	9' - 0"	
105	LAUNDRY	SC-1	WB-1	PT-1	PT	14' - 8"	
106	OFFICE	TILE-1	TILE-2	PT-1	ACT-1	9' - 0"	
107	EQUIPMENT ROOM	SC-1		PT-1	PT	14' - 8"	
108	ELECTRIC ROOM	SC-1		PT-1	PT	14' - 8"	
109	VACUUM	SC-1		PT-1	PT	14' - 8"	
110	WASH TUNNEL	CONC-1	EPI-1	EPI-1	EPI-1	14' - 8"	

INTERIOR FINISH LEGEND

TILE

TILE-1 (FLOOR)
BEAVER TILE
AIR SERIES
COLOR: FANGO (BONE)
FINISH: MATT
SIZE: 12"x24"
INSTALL: STACK BOND
GROUT: GR-1
NOTE: PROVIDE "SCHLUTER-DILEX-AHK IN ALUM AT WALL TILE TO FLOOR TILE TRANSITIONS AS OCCUR

TILE-2 (BASE)
TILE-1
SIZE: 6"X12"

TILE-3 (WALL TILE IN BATHROOM)
AMERICAN OLEAN
COLOR STORY WALL
COLOR: ICE WHITE 0025
SIZE: 4"x16"
INSTALL: STACK BOND
GROUT: GR-2
NOTE: PROVIDE "SCHLUTER-DILEX-AHK IN ALUM AT WALL TILE TO FLOOR TILE TRANSITIONS AS OCCUR

GROUT

GR-1
CUSTOM BUILDING PRODUCTS
COLOR: GRAYSTONE #542

GR-2
TEC
ACCUCOLOR
COLOR: CHARCOAL #929

SEALED CONRETE

SC-1
SEALED CONCRETE
LOCATION: AS NOTED ON DRAWINGS

EPOXY

EPXY-1

PAINT

PT-1 (WALLS)
BENJAMIN MOORE
COLOR: 0C-17 WHITE DOVE

PT-2 (ACCENT)
BENJAMIN MOORE
COLOR: 2063-10 OLD NAVY

PT-3 (CEILING)
BENJAMIN MOORE
COLOR: 0C-17 WHITE DOVE

VINYL WALL BASE

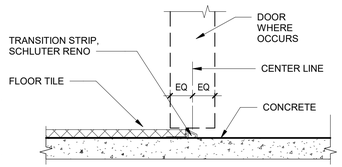
WB-1
FLEXCO
COLOR: STONE 024
SIZE: 4" COVE

PLASTIC WALL PANELS

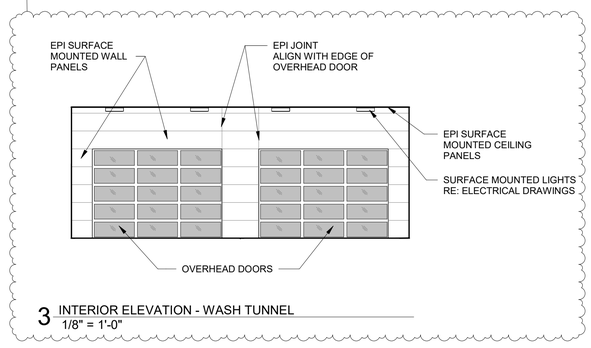
EPI-1
EXTRUTECH PLASTICS, INC
P2400 FLAT PANELS
SIZE: 2'-0" X REQUIRED HEIGHT
1/2" THICK
COLOR: WHITE
LOCATION: WASH TUNNEL

ACOUSTICAL CEILING TILE

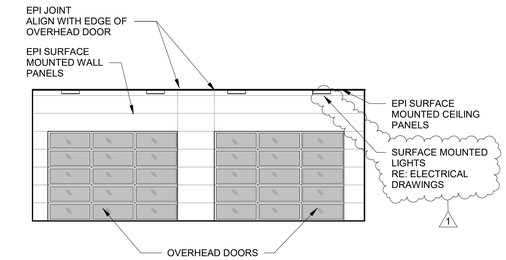
ACT-1
ARMSTRONG
CIRRUS BEVELED TEGULAR
SIZE: 2'X2'
COLOR: WHITE
LOCATION: OFFICE, DRY STORAGE



6 FLOOR TRANS - CONCRETE TO TILE
3" = 1'-0"



3 INTERIOR ELEVATION - WASH TUNNEL
1/8" = 1'-0"



5 INTERIOR ELEVATION - WASH TUNNEL
1/8" = 1'-0"

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STATE OF MISSOURI
ANDREW SCHOPPEL
NUMBER A-2004024872
ARCHITECT
8-6-24

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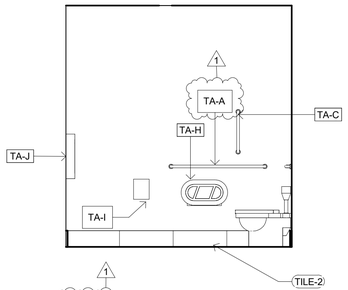
Revisions:

1 PERMIT COMMENTS 8/6/24

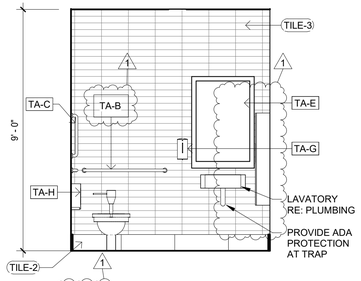
FINISH FLOOR PLAN

A9.0

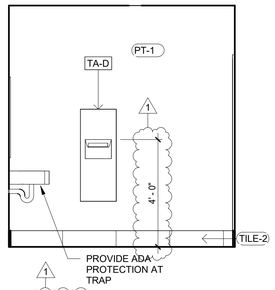
Issue Date: 05/31/2024



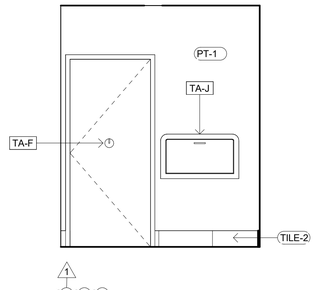
2 WOMENS INTERIOR ELEVATION
3/8" = 1'-0"



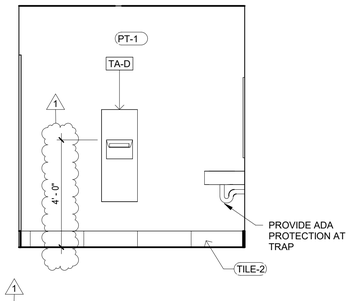
3 WOMENS INTERIOR ELEVATION
3/8" = 1'-0"



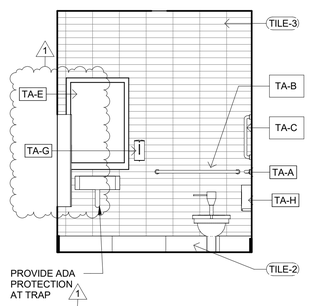
4 WOMENS INTERIOR ELEVATION
3/8" = 1'-0"



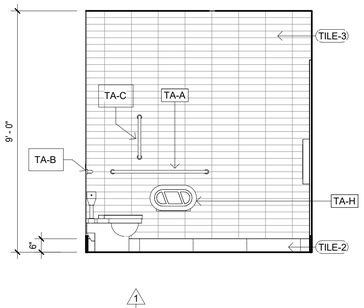
5 WOMENS INTERIOR ELEVATION
3/8" = 1'-0"



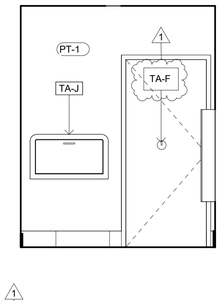
6 MENS INTERIOR ELEVATION
3/8" = 1'-0"



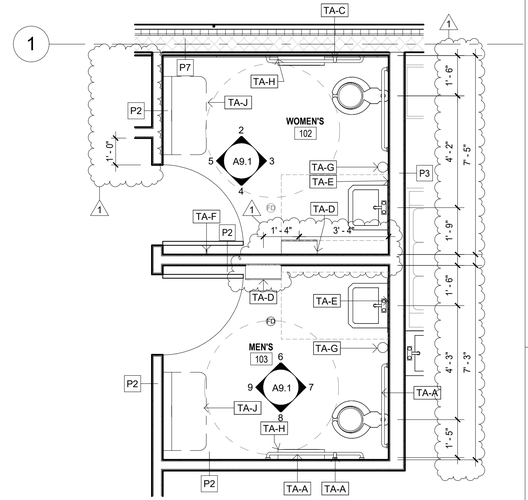
7 MENS INTERIOR ELEVATION
3/8" = 1'-0"



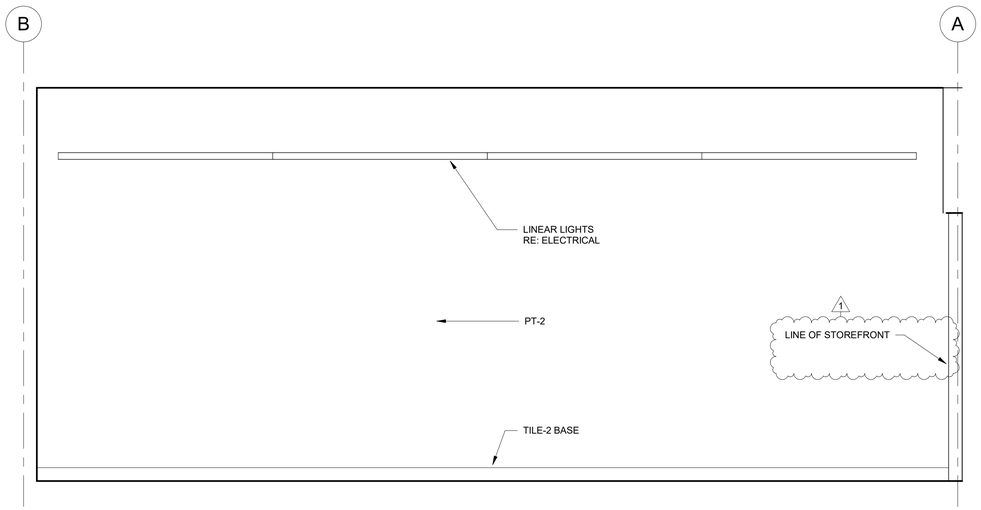
8 MENS INTERIOR ELEVATION
3/8" = 1'-0"



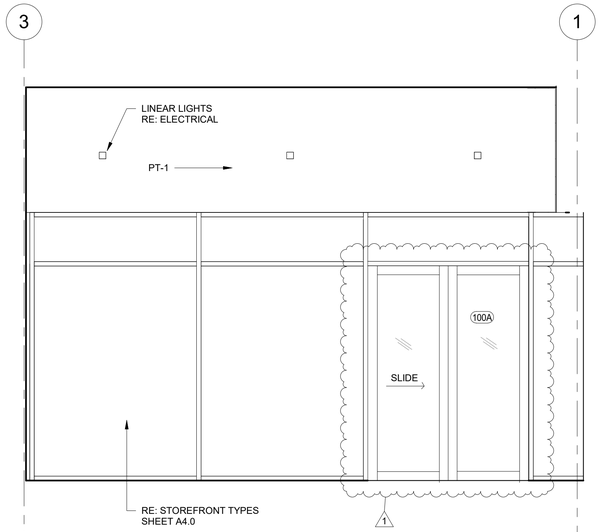
9 MENS INTERIOR ELEVATION
3/8" = 1'-0"



1 WOMEN'S - ENLARGED PLAN
3/8" = 1'-0"



10 INTERIOR ELEVATION - C-STORE
3/8" = 1'-0"



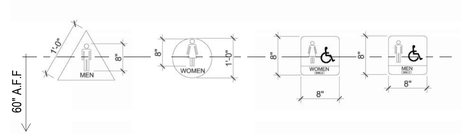
11 INTERIOR ELEVATION - C-STORE
3/8" = 1'-0"

TOILET ROOM ACCESSORIES

SYMBOL	ITEM	MFG	MODEL
TA-A	GRAB BARS (CONCEALED ANCHORS)	ASI	3700 42"
TA-B	GRAB BARS (CONCEALED ANCHORS)	ASI	3700 36"
TA-C	GRAB BARS (CONCEALED ANCHORS	ASI	3700 18"
TA-D	PAPER TOWEL DISPENSER / TRASH CAN SEMI-RECESSED NOTE: OWNER TO PROVIDE (1)	ASI	64696A-6
TA-E	MIRROR	ASI	0620
TA-F	COAT HOOKS	ASI	7308
TA-G	AUTOMATIC SOAP DISPENSER NOTE: OWNER TO PROVIDE (1)	ASI	0360
TA-H	TOILET PAPER DISPENSER (SURFACE MOUNTED, JUMBO ROLL) (1)	ASI	0039
TA-I	SANITARY WASTE RECEPTACLE (SURFACE MOUNTED)	ASI	20852
TA-J	BABY CHANGING STATION	KOALA KARE	KB310-SSWM

TOILET ROOM AND ACCESSORY NOTES

1. REFER TO SHEETS A0.1 AND A0.2 FOR ADA MOUNTING HEIGHTS.
2. ALL FAUCETS SHALL BE ADA ACCESSIBLE, LEVER OPERATED
3. RESTROOM SIGNAGE:
   - A. DOOR SIGN
     - a. DOORWAYS LEADING TO THE MEN'S RESTROOM SHALL BE IDENTIFIED BY AN EQUILATERAL TRIANGLE WITH EDGES 12" LONG AND A VERTEX POINTING UPWARD
     - b. DOORWAYS LEADING TO THE WOMEN'S RESTROOM SHALL BE IDENTIFIED BY A CIRCLE 12" IN DIAMETER
     - c. BACKGROUND COLOR: BLUE, FIGURE COLOR: WHITE - NON GLARE FINISH
     - d. MOUNTING HEIGHT: CENTER OF SIGN 5'-0" AFF ON DOOR
     - e. MOUNTING METHOD: DOUBLE STICK FOAM TAPE, SCOTCH BRAND 3M
     - f. THICKNESS: 1/4"
     - g. FABRICATION METHOD: NEW PLEXIGLASS SIGN WITH SUBSURFACE GRAPHICS AND BACK SPRAY PAINT FINISH
     - h. APPLICABLE CODES: ADA 2010 STANDARDS
   - B. WALL SIGN
     - a. 1/32" RAISED SANS-SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2 BRAILLE CHARACTERS MIN. 5/8" HIGH
     - b. MOUNTING HEIGHT: CENTER OF SIGN 5'-0" AFF ON THE WALL - LATCH SIDE
     - c. MOUNTING METHOD: DOUBLE STICK FOAM TAPE, SCOTCH BRAND 3M
     - d. THICKNESS: 1/4"
     - e. APPLICABLE CODES: ADA 2010 STANDARDS



DOOR SIGNS WALL SIGN

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Revisions:

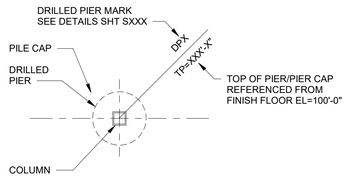
1	PERMIT COMMENTS	8/6/24

INTERIOR ELEVATIONS

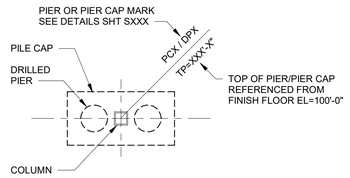
A9.1

Issue Date: 05/31/2024

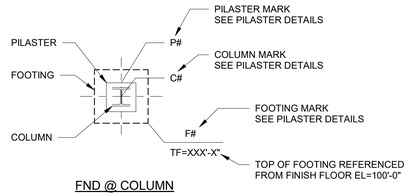
FOUNDATION LEGEND



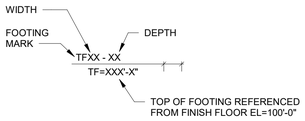
DRILLED PIER



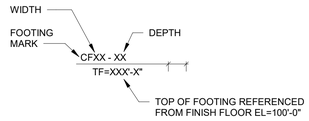
PILE CAP



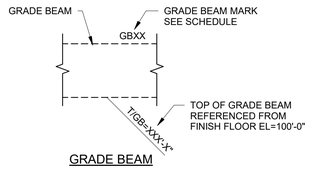
FND @ COLUMN



TRENCH FTG

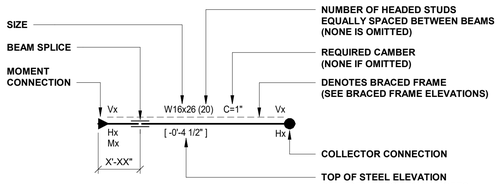


STEM WALL FTG



GRADE BEAM

STEEL BEAM LEGEND



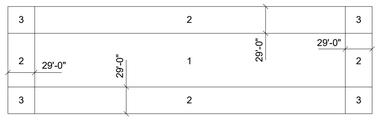
Ax/Hx INDICATES AXIAL TENSION/COMPRESSION IN KIPS
Mx INDICATES END MOMENT IN KIP-FEET (SEE SCHEDULE IF OMITTED)
Vx INDICATES VERTICAL SHEAR IN KIPS
(Vx=50% UTL OR Vu=16kips/Va=11kips U.N.O. ON DRAWINGS)

NOTE: x = a (ASD)
x = u (LRFD)

STRUCTURAL ABBREVIATIONS KEY

ABBREVIATION	DEFINITION___	ABBREVIATION	DEFINITION___
AB	ANCHOR BOLTS	F, FTG	FOOTING
ADDNL	ADDITIONAL	GB	GRADE BEAM
AFF	ABOVE FINISH FLOOR	HGT	HEIGHT
ALT	ALTERNATIVE	HK	HOOK
ARCH	ARCHITECT	HORIZ	HORIZONTAL
ARCHT	ARCHITECTURAL	IF	INNER FACE
B, BOTT	BOTTOM	INT	INTERIOR
BB	BOND BEAM	JB	JOIST BEARING
BS	BRICK SHELF/LEDGE	JT	JOINT
BLDG	BUILDING	L	LEDGE
BM	BEAM	LAT	LATERAL
BMD	BOTTOM OF METAL DECK	LLH	LONG LEG HORIZONTAL
BRG	BEARING	LLV	LONG LEG VERTICAL
CC	CENTER TO CENTER	LONG	LONGITUDINAL
CJ	CONTROL JOINT	MAS	MASONRY
CL	CENTERLINE	MAX	MAXIMUM
CLR	CLEAR	MECH	MECHANICAL
CMU	CONCRETE MASONRY UNIT	MFR	MANUFACTURER
COL	COLUMN	MIN	MINIMUM
C, CONC	CONCRETE	MTL	METAL
CONN, CONNX	CONNECTION	NIC	NOT IN CONTRACT
CONST	CONSTRUCTION	NOM	NOMINAL
CONT	CONTINUOUS	NS	NEAR SIDE
DET, DTL	DETAIL	OF	OUTER FACE
DIM	DIMENSION	OH	OPPOSITE HAND
DK	DECK	OPNG	OPENING
DS	DIAGONAL SHEATHING	PC	PRECAST
DWGS	DRAWINGS	PL	PLATE
DWL	DOWELS	REINF	REINFORCING
EA	EACH	REQD	REQUIRED
EE	EXTENDED END	RET	RETAINING
EF	EACH FACE	SC	SLIP CRITICAL
EFF	EFFECTIVE	SCHED	SCHEDULE
EJ	EXPANSION JOINT	SECT	SECTION
EL, ELEV	ELEVATION	SPA	SPACING
EF	EACH FACE	STIFF	STIFFENER
ES	EACH SIDE	STL	STEEL
EW	EACH WAY	T	TOP
EXIST	EXISTING	Txx	TOP OF XX
EXP	EXPANSION	TRAN	TRANSVERSE
EXT	EXTERIOR, EXTENSION	TYP	TYPICAL
FF	FINISH FLOOR	UNO	UNLESS NOTED OTHERWISE
FL	FLOOR	VERT	VERTICAL
FS	FAR SIDE	W	WIDE, WIDTH
FP	FULL PENETRATION	WWF	WELDED WIRE FABRIC

COMPONENTS & CLADDING DIAGRAM



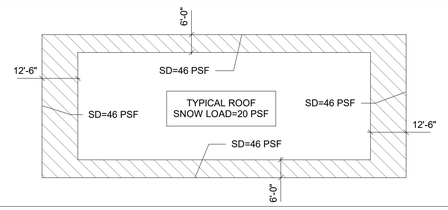
ROOF

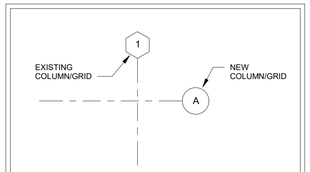
WALL

COMPONENT AREA	ZONE 1		ZONE 2		ZONE 3		ZONE 4		ZONE 5	
	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)
≤ 10 PSF	16 PSF	47 PSF	27 PSF	32 PSF	27 PSF	62 PSF	27 PSF	29 PSF	27 PSF	36 PSF
50 PSF							24 PSF	27 PSF	24 PSF	31 PSF
100 PSF	16 PSF	37 PSF	23 PSF	49 PSF	23 PSF	49 PSF				
200 PSF	16 PSF	34 PSF	22 PSF	45 PSF	22 PSF	45 PSF	22 PSF	24 PSF	22 PSF	26 PSF
>500 PSF	16 PSF	30 PSF	20 PSF	40 PSF	20 PSF	40 PSF	20 PSF	23 PSF	20 PSF	23 PSF

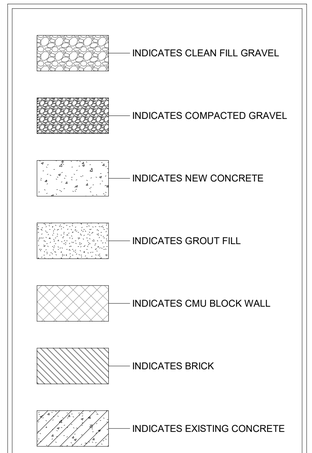
NOTE: ALL LOADS SHOWN ARE FACTORED LOADS

SNOW DRIFT DIAGRAM

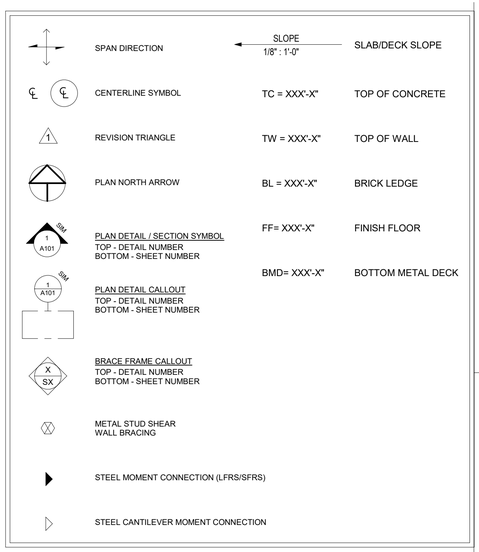




PLAN GRAPHICS LEGEND



MATERIAL LEGEND



PLAN SYMBOLS LEGEND

DESIGN CRITERIA

DESIGN CRITERIA

1. RISK CATEGORY: II
2. DEAD LOAD:
   ROOF:
   - MEP/CEILING/DECK/MISC 55 PSF
   - RTU#1 800 LBS
   - MAU#1 1200 LBS
   - MAU#2 1200 LBS
   - EF-1 500 LBS
3. LIVE LOAD:
   ROOF:
   - MAIN ROOF 20 PSF
4. SNOW LOAD:
   - TERRAIN CATEGORY C
   - IMPORTANCE FACTOR I=1.0
   - THERMAL FACTOR C_t=1.0
   - EXPOSURE FACTOR C_e=1.0
   - GROUND SNOW LOAD P_g=20 PSF
   - ROOF SNOW LOAD P_f=20 PSF
   - ROOF SNOW DRIFT LOAD P_d=THIS SHEET
5. WIND LOAD:
   MAIN BUILDING:
   - BASIC WIND SPEED V=115 MPH
   - IMPORTANCE FACTOR I_w=1.0
   - EXPOSURE CATEGORY C
   - TOPOGRAPHIC FACTOR K_{zt} = 1.0
   - WIND DIRECTIONALITY FACTOR K_d=0.85
   - INTERNAL PRESSURE COEFFICIENT GC_{pi}=±0.18
   - C&C WIND FORCES SEE THIS SHEET
6. SEISMIC LOAD:
   - IMPORTANCE FACTOR I_e=1.0
   - MAPPED SPECTRAL RESPONSE ACCELERATIONS
     - SHORT PERIOD PARAMETER S_s=0.100
     - 1 SECOND PARAMETER S_1=0.068
   - SOIL SITE CLASS D
   - DESIGN SPECTRAL RESPONSE ACCELERATIONS
     - SHORT PERIOD PARAMETER S_{DS}=0.107
     - 1 SECOND PARAMETER S_{D1}=0.109
   - SEISMIC DESIGN CATEGORY B
   - ANALYSIS METHOD:
     EQUIVALENT LATERAL FORCE PROCEDURE

   BASIC SEISMIC-FORCE-RESISTING SYSTEM:
   ORDINARY REINFORCED MASONRY SHEAR WALL
   - RESPONSE MODIFICATION FACTOR R=2.0
   - DEFLECTION AMPLIFICATION FACTOR C_d=1.75
   - OVERSTRENGTH FACTOR Ω_o=2.50
   - SEISMIC RESPONSE COEFFICIENT C_s=0.053
7. FOUNDATIONS: ALLOWABLE BEARING PRESSURE
   - SPREAD FOOTINGS 1500 PSF
   - CONTINUOUS FOOTINGS 1000 PSF
   - FROST PROTECTION 36 INCHES

CODES AND STANDARDS

CODES AND STANDARDS (LATEST EDITION, U.N.O.)

1. PROJECT BUILDING CODE: IBC 2018
2. DESIGN LOADS:
   A. ASCE 7-16
3. CONCRETE CONSTRUCTION:
   A. ACI 301
   B. ACI 304
   C. ACI 305
   D. ACI 306
   E. ACI 308
   F. ACI 309
   G. ACI 315
   H. ACI 318
   I. ACI 347
4. STEEL CONSTRUCTION:
   A. AISC 360
   B. AISC 341
   C. AISC 358
   D. AWS
   E. SJI COSP
   F. SDI COSP
5. COLD-FORMED METAL FRAMING:
   A. AISI
   B. SSMA
6. MASONRY CONSTRUCTION:
   A. TMS 402/602
7. WOOD CONSTRUCTION:
   A. NDS

SHEET LIST

SHEET NO.	SHEET NAME	ISSUE DATE	CURRENT REVISION	REVISION DATE
S0.0	LEGENDS AND SYMBOLS	05/31/24		
S0.0.1	GENERAL NOTES	05/31/24		
S0.0.2	GENERAL NOTES	05/31/24		
S0.0.3	SPECIAL INSPECTIONS	05/31/24		
S0.2	CONCRETE TYPICAL DETAILS	05/31/24		
S0.3	MASONRY TYPICAL DETAILS	05/31/24	1	08/06/24
S1.0	FOUNDATION PLAN	05/31/24	1	08/06/24
S1.1	ROOF FRAMING PLAN	05/31/24	1	08/06/24
S2.0	FOUNDATION DETAILS AND SECTIONS	05/31/24	1	08/06/24
S2.1	FOUNDATION DETAILS AND SECTIONS	05/31/24	1	08/06/24
S4.0	ROOF FRAMING DETAILS AND SECTIONS	05/31/24	1	08/06/24
S4.1	ROOF FRAMING DETAILS AND SECTIONS	08/06/24	1	08/06/24
S6.0	BUILDING SIGNAGE DETAILS	05/31/24	1	08/06/24

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REGISTERED PROFESSIONAL ENGINEER
8-6-24
Exp 12-31-25

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Revisions:

LEGENDS AND SYMBOLS

S0.0

Issue Date: 08/06/2024

Job Number: 21-002.07

8/5/2024 3:40:07 PM
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GENERAL NOTES:

THE GENERAL NOTES ARE NOT A SUBSTITUTE OR A REPLACEMENT TO THE PROJECT SPECIFICATIONS. THESE NOTES ARE INTENDED AS A GUIDE TO THE DESIGN AND/OR CONSTRUCTION REQUIREMENTS ESTABLISHED FOR THIS PROJECT. NO CONTRACTOR SHOULD ATTEMPT TO DESIGN, BID OR CONSTRUCT ANY PORTION OF THE WORK HEREIN WITHOUT CONSULTING THE PROJECT SPECIFICATIONS. WHERE CONFLICTS OCCUR BETWEEN THESE NOTES AND THE SPECIFICATIONS THE MORE STRINGENT REQUIREMENTS SHALL APPLY UNLESS A WRITTEN CLARIFICATION IS ISSUED BY THE STRUCTURAL ENGINEER. VARIATION IN THE FIELD CONDITIONS RELATIVE TO THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ARCHITECT. WORK SHALL NOT PROGRESS UNTIL WRITTEN PERMISSION FROM THE ARCHITECT IS OBTAINED.

CONSTRUCTION AND SAFETY:

1. THE CONTRACTOR AND THIER SUBCONTRACTORS ARE SOLELY RESPONSIBLE FOR ALL SAFETY REGULATIONS, PROGRAMS AND PRECAUTIONS RELATED TO ALL WORK ON THIS PROJECT.
2. THE CONTRACTOR AND THIER SUBCONTRACTORS ARE SOLELY RESPONSIBLE FOR THE PROTECTION OF PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.
3. MEANS AND METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIALS ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY.
4. THE STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE DRAWINGS OF OTHER CONSULTANTS AND TRADES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE VARIOUS REQUIREMENTS.
5. THE CONTRACTOR AND THIER SUBCONTRACTORS ARE RESPONSIBLE FOR LIMITING THE AMOUT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE DURING DEMOLITION AND OR CONSTRUCTION. SUCH LOADS SHALL NOT EXCEED THE CAPACITY IF THE STRUCTURE AT ANY TIME.
6. ALL DEMOLITION AND OR CONSTRUCTION PROCEDURES SHALL BE REVIEWED BY A SPECIALTY CONSTRUCTION ENGINEER, SEE **DEFERED SUBMITTALS** SECTION OF THE GENERAL NOTES.
7. NO CHANGES IN SIZE, DIMENSION OR LOCATION, SHALL BE MADE IN ANY STRUCTURAL ELEMENTS WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
8. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH NEW WORK IN AREAS AFFECTED BY EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE INFORMED IN WRITING OF CONFLICTS BETWEEN EXISTING AND PROPOSED NEW CONSTRUCTION.
9. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS. INCONSISTENCIES ON THE STRUCTURAL DRAWINGS OR BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER CONTRACT, SHOP FABRICATION, OTHER DRAWINGS OR INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH AFFECTED WORK.
10. DO NOT SCALE THESE DRAWINGS, USE THE DIMENSION SHOWN.
11. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION AND ANY TEMPORARY BRACING FOR LOADS INDUCED DURING CONSTRUCTION OR SUPPORT REQUIRED TO ACCOMODATE THE CONTRACTOR'S MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
12. THE CONTRACTOR SHALL INFORM THE STRUCTURAL ENGINEER, CLEARLY AND EXPLICITLY IN WRITING OF ANY DEVIATION OR SUBSTITUTION OF REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS BY VIRTUE OF THE STRUCTURAL ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS CLEARLY AND EXPLICITLY INFORMED THE STRUCTURAL ENGINEER IN WRITING OF ANY DEVISTIONS OR SUBSTITUTIONS AT TIME OF SUBMISSION, AND THE STRUCTURAL ENGINEER HAS BEEN GIVEN WRITTEN APPROVAL FOR THE SPECIFIC DEVIATIONS OR SUBSTITUTIONS.

SUBMITTALS:

1. SHOP DRAWING REVIEW:
   REVIEW OF SHOP DRAWING IS ONLY FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS TO BE CONFIRMED AND CORRELATED AT THE SITE; FOR INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES, TEMPORARY SHORING BRACING AND PROCEDURES OF CONSTRUCTION; AND FOR COORDINATION OF WORK OF ALL TRADES.
2. SHOP DRAWINGS SHALL BE APPROVED BY THE ARCHITECT / ENGINEER OF RECORD PRIOR TO FABRICATION. FABRICATION OF ITEMS BEFORE APPROVAL WILL BE THE REPONSIBILITY OF THE CONTRACTOR FOR ERRORS AND OMMISIONS.
3. CONCRETE MIX DESIGN:
   SUBMIT WRITTEN REPORTS OF EACH PROPOSED CONCRETE MIX NOT LESS THAN 15 DAYS PRIOR TO THE START OF PLACEMENT. MIX DESIGNS SHALL INCLUDE WATER CEMENT RATIO, SLUMP AND AIR CONTENT. SUBMITTAL SHALL BE PREPARED IN ACCORDANCE WITH ACI 301-84, CHAPTER 3 EXCEPT NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS.
4. CONCRETE REINFORCING STEEL:
   SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING AND PLACEMENT OF CONCRETE REINFORCEMENT. COMPLY WITH ACI DETAILING MANUAL (SP-66) SHOWING BAR SCHEDULES, STIRRUP SPACING, DIAGRAMS OF BENT BARS, ARRANGEMENT OF CONCRETE REINFORCING. INCLUDE SPECIAL REINFORCMENT REQUIRED AT OPENINGS THROUGH CONCRETE STRUCTURES. INCLUDE ALL ACCESSORIES SPECIFIED / REQUIRED TO SUPPORT REINFORCING.
5. MASONRY WALL REINFORCING STEEL:
   SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING AND PLACEMENT OF MASONRY REINFORCEMENT. COMPLY WITH ACI DETAILING MANUAL (SP-66) SHOWING BAR SCHEDULES, DIAGRAMS OF BENT BARS, BAR LAP SPLICES AND SPACING OF REINFORCING. INCLUDE SPECIAL REINFORCMENT REQUIRED AT OPENINGS, CONTROL JOINTS AND BEAM POCKETS. INCLUDE ALL ACCESSORIES SPECIFIED / REQUIRED TO SUPPORT REINFORCING.
6. STRUCTURAL STEEL:
   SUBMIT SHOP DRAWINGS FOR DETAILS, FABRICATION AND ERECTION OF STRUCTURAL STEEL. COMPLY WITH AISC "STEEL CONSTRUCTION MANUAL" AISC "DETAILING FOR STEEL CONSTRUCTION" AND AISC "ENGINEERING FOR STEEL CONSTRUCTION" PUBLICATIONS. CONNECTIONS MUST BE SHOWN ON SHOP DRAWINGS AND INDICATE THE TYPE BOLT USED AND ALL CLIP ANGLES OR PLATES IN EACH CONNECTION. INDICATE ALL TYPES OF WELDS. ELECTRODES REQUIRED FOR EACH CONNECTION.
13. PRECAST FRAMING:
    SUBMIT TRUSS SHOP DRAWINGS FOR REVIEW PRIOR TO THE FABRICATION PREPARED BY CONTRACTORS SUPPLIER FOR CONFORMANCE WITH DESIGN CONCEPT. SHOP DRAWING SHALL INCLUDE A PLAN LAYOUT SHOWING THE LOCATION OF ALL FLOOR PLANKS, BEAMS AND COLUMNS. INCLUDE DESIGN LOADS AND ALLOWABLE UNIT STRESS. INCLUDE PLANS FOR TEMPORARY ERECTION AND PERMENANT BRACING PER DESIGN CRITERIA LOADING, AND HANDLING AND ERECTION INSTRUCTIONS. ALL PRECAST COMPONENT DESIGNS SHALL BEAR THE NAME, SEAL AND/OR REGISTERED NUMBER OF A LICENSED PROFESSIONAL ENGINEER OF THE STATE IN WHICH THE BUILDING OCCURS.

DEFFERED SUBMITTALS:

1. THE DESIGNED RESPONSIBILITY OF THE ELEMENTS LISTED BELOW IS BEING DELEGATED TO A SPECIALTY STRUCTURAL ENGINEER HIRED BY THE CONTRACTOR. THE DELEGATED ELEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE BUILDING CODEAND SPECIFIC REQUIREMENTS NOTED IN THE CONTRACT DOCUMENTS BY A PROFESSIONAL STRUCTRUAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMITTALS SHALL BE SIGNED AND SEALED BY THE PROESSIONAL LICENSED STRUCTURAL ENGINEER.
   - 1.1 EXCAVATION SUPPORT-BANK STABILIZATION.
   - 1.2 TEMPORARY BRACING AND SHORING.
   - 1.3 STRUCTURAL STEEL CONNECTIONS.
   - 1.4 SEISMIC ANCHORAGE AND SWAY BRACING OF MECHANICAL, ELECTRICAL AND PLUMBING SYSTEM COMPONENTS.
   - 1.5 PRECAST CONCRETE PLANKS, CONNECTION HANGERS AND ANCHORAGE.
   - 1.6 LADDERS AND THEIR CONNECTIONS AND ANCHORAGES
2. SUBMITTALS SHALL INCLUDE SIGNED AND SEALED CALCULATIONS AND INCLUDE FABRICATION DRAWING.
3. THE CONTRACTOR'S BID SHALL INCLUDE A LIST OF SPECIALTY STRUCTURAL ENGINEER FOR EACH DELEGATED DESIGN RESPONSIBILITY.

FOUNDATIONS

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE GEOTECHNICAL REPORT PRIOR TO BIDDING FOR CONSTRUCTION PROCEDURES REQUIRED DUE TO EXISTING CONDITIONS SUCH AS PLASTIC SOILS, UNACCEPTABLE FILL, ETC.
2. CONTINUOUS WALL FOOTINGS HAVE BEEN PROPORTIONED FOR A NEW ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. SPREAD FOOTING HAVE BEEN PROPORTIONED FOR A NET ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF.
3. SOIL BEARING PRESSURE IS BASED ON THE GEOTECHNICAL REPORT DATED MAY 2, 2024. FURNISHED BY COOK, FLATT & STROBEL ENGINEERS.
4. GEOTECHNICAL ENGINEER SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF ALL FOUNDATION AND/OR SLAB BEARING STRATA.
5. CONTRACTOR SHALL REMOVE AND REPLACE UNACCEPTABLE SOILS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. ALL ORGANIC MATERIAL AND SOILS WHICH "PUMP" AFTER PROOF ROLLING WITH A FULLY LOADED TRUCK SHALL BE REMOVED.
6. BOTTOM OF FOOTINGS MUST EXTEND 1'-6" BELOW PRESENT GRADE OR INTO "ENGINEERED FILL" AND 3'-0" BELOW PROPOSED GRADE UNLESS NOTED OTHERWISE IN GEOTECHNICAL REPORT.
7. ENGINEERED FILL. ALL FILL MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. EIXSTING ON SITE MATERIALS SUCH AS THE NEAR-SURFACE FILL SOILS (SILTS AND CLAYS) SHOULD NOT BE USED AS ENGINEERED FILL MATERIALS.
8. UNLESS NOTED OTHERWISE IN GEOTECHNICAL REPORT, EARTH FILL PLACEMENT SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAT 95% OF THE STANDARD PROCTOR. AND WELL GRADED GRANULAR FILL SHOULD BE COMPACTED TO DRY DENSITY OF NOT LESS THAN 100% OF THE STANDARD PROCTOR. FILL SHALL BE PLACED IN LAYERS NOT EXCEEDING A LOOSE THICKNESS OF 8 INCHES.
9. FOUNDATION WALL OR GRADE BEAMS HAVING EARTH PLACED ON EACH SIDE SHALL BE FILLED SIMULTANEOUSLY TO MAINTAIN A COMMON ELEVATION.
10. CONCRETE FOOTINGS PLACED IN EARTH TRNECHED FORMS SHALL BE FREE OF STANDING WATER AND FROST. CONCRETE FOOTINGS SHALL BE PROTECTED FROM FREEZING FOR A PERIOD OF NOT LESS THAN 5 DAYS.

CONCRETE REINFORCING STEEL

1. REINFORCING BARS ARE TO BE DOMESTIC NEW BILLET STEEL CONFORMING TO ASTM A615-GRADE 60 STEEL INCLUDING STIRRUPS AND TIES U.N.O. REINFORCING WHICH IS REQUIRED TO BE WELDED SHALL CONFORM TO ASTM A706. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185
2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS AND THEIR SUPPORT IN THE FORMS WITH ACCESSORIES MUST FOLLOW THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315-LATEST)
3. CONCRETE COVER OVER PRIMARY REINFORCING, TIES AND STIRRUPS SHALL BE AS FOLLOWS:

   FOOTING ---------- 3"
   SLABS ON GRADE---------- 1 1/2"
   WALL EXPOSED---------- 2"
   WALL NOT EXPOSED ---------- 3/4"
   BEAMS AND COLUMNS -------- 1 1/2"

   ALL BARS INCLUDING TEMPERATURE BARS ARE TO EXTEND WITHIN 3" OF THE OUTER FACES OF THE MEMBER INTO WHICH THEY FRAME.
4. WELDED WIRE FABRIC MUST LAP 8" AT SIDES AND 8" AT ENDS AND BE WIRED TOGETHER
5. REINFORCING BARS SHALL BE WELDED ONLY WHERE SHOWN ON THE STRUCTURAL DRAWINGS AND WELDS SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE- REINFORCING STEEL" (AWS D1.4) NO OTHER REINFORCING MAY BE WELDED WITH THE APPROVAL OF THE STRUCTURAL ENGINEER. TACK WELDING OF ANY REINFORCING IS STRICTLY PROHIBITED
6. DOWELS IN WALL FOOTINGS TO BE EQUIVALENT IN SIZE AND NUMBER TO VERTICAL BARS.
   - 6.1. ALL HOOKED OR BENT DOWELS MUST BE IN POSITION BEFORE PLACING CONCRETE, PUSHING BARS INTO FRESHLY PLACED CONCRETE IS NOT ACCEPTABLE.
   - 6.2. ALL STRAIGHT DOWELS CAN BE PUSHED INTO FRESHLY PLACED CONCRETE
7. PROVIDE THE FOLLOWING ADDITIONAL REINFORCING UNLESS OTHERWISE CALLED FOR ON STRUCTURAL PLANS:
   - 7.1. CORNER BARS AT ALL CORNERS AND INTERSECTIONS OF CONCRETE WALLS AND FOOTINGS TO MATCH HORIZONTAL REINFORCING. WHERE WALL HAS NO OUTSIDE REINFORCING PROVIDE #4 CORNER BARS SPACED HORIZONTALLY AT 1'-0" cc WITH (3)- #3 VERTICAL SUPPORT BARS
   - 7.2. PROVIDE #4 SLAB DOWELS AT 8" CENTERS AT DOORS UNLESS NOTED
8. ALL BARS SHALL LAP PER TABLE BELOW:

TENSION DEVELOPMENT LAP SPLICE LENGTHS FOR UNCOATED BARS

BAR SIZE	LENGTH (in.) PER CONCRETE STRENGTH (psi)							
	4500 psi				4000 psi			
	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2
#3	23"	34"	18"	27"	24"	37"	19"	28"
#4	31"	46"	24"	35"	33"	49"	25"	37"
#5	38"	57"	30"	44"	41"	61"	31"	47"
#6	46"	68"	35"	53"	49"	73"	37"	56"

NOTES:

1. SPACING REQUIRMENTS: CASE 1
   - 1.1 BEAMS AND COLUMNS - C.C. SPACING AT ≥ 2.0db
   - 1.2 ALL OTHER - C.C. SPACING AT ≥ 3.0db
2. SPACING REQUIRMENTS: CASE 2
   - 2.1 BEAMS AND COLUMNS - C.C. SPACING AT < 2.0db
   - 2.2 ALL OTHER - C.C. SPACING AT < 3.0db
3. TOP HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
4. TABULATED VALUES ARE BASED ON GRADE 60 REINFORCING CAST IN NORMAL WEIGHT CONCRETE.
5. FOOTING BARS SHALL BE LAPPED 48.0db

9. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED FOR INSPECTION OF REBAR PLACEMENT.

CONCRETE

1. STANDARDS
   - 1.1. ACI 318 BUILDING CODE REQUIREMENT FOR REINFORCED CONCRETE
   - 1.2. ACI 315 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.
   - 1.3. ACI 347 RECOMMENDED PRACTICE FOR CONCRETE FRAMEWORK
   - 1.4. ACI 304 RECOMMENDED PRACTICE FOR MEASURING, MIXING TRANSPORTING AND PLACING CONCRETE
   - 1.5. ACI 309 RECOMMENDED PRACTICE FOR CONSOLIDATION OF CONCRETE (ACI 309-72)
   - 1.6. ACI 308 RECOMMENDED PRACTICE FOR CURING CONCRETE
   - 1.7. ACI 306 RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING
   - 1.8. ACI 305 RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING.
2. ALL POURED IN PLACE CONCRETE SHALL BE READY- MIXED AND HAULED IN ACCORDANCE WITH ASTM C94.

LOCATION	28 DAY COMPRESSIVE STRENGTH	SLUMP	ENTRAINED AIR CONTENT	CEMENT CONTENT (4)
EXTERIOR SLABS ON GRADE (2)	5000 psi NORMAL WEIGHT 3/4" MAX AGGREGATE	2" TO 4"	6% ± 1.0%	6 SACKS W/ C=0.40
LEAN FILL	2500 psi NORMAL WEIGHT 3/4" MAX AGGREGATE	4" TO 6"	5.5% ± 1.5%	4.5 SACKS W/ C=0.55
FOOTINGS, WALLS & GRADE BEAMS	4000 psi NORMAL WEIGHT 3/4" MAX AGGREGATE	2" TO 5"	6% ± 1.0%	6 SACKS W/ C=0.45
INTERIOR SLABS ON GRADE	4000 psi NORMAL WEIGHT 1 1/2" MAX AGGREGATE	2" TO 4"	2% MAX (3)	6 SACKS W/ C=0.42
PRECAST PLANK COMPOSITE TOPPING SLAB	5000 psi NORMAL WEIGHT 3/8" MAX AGGREGATE	2" TO 4"	2% MAX (3)	6.5 SACKS W/ C=0.40

FOOTNOTES:

(1) SLUMPS NOTED ARE BEFORE USE OF PLASTICIZER. MAX SLUMP POST USE OF PLASTICIZER.
(2) INCLUDES SIDEWALKS ONLY. SEE CIVIL DRAWINGS FOR PAVING AT CURB DESIGN.
(3) DO NOT ADD AIR ENTRAINMENT TO DESIGN MIX.
(4) LIMIT FLY ASH CONTENT TO 25% OF TOTAL CEMENT. REDUCE TO 15% IN COLD WEATHER APPLICATION.

PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE
NORMAL WEIGHT AGGREGATE SHALL CONFORM TO ASTM C 33 #67
WATER REDUCING AGENT SHALL CONFORM TO (ASTM C494 TYPE A OR D).
AIR RETAINING AGENT SHALL CONFORM TO (ASTM C260).

3. ALL INGREDIENTS MUST BE COMPATIBLE WITH EACH OTHER AND ALL OTHER INGREDIENTS IN THE CONCRETE. FINE AGGREGATES SHALL BE CLEAN, HARD, DURABLE AND FREE OF DELETERIOUS SUBSTANCES. COARSE AGGREGATES SHALL BE CLEAN, HARD AND DURABLE WITHOUT FLAT OR ELONGATED PIECES.
4. PREPARE TEST CYLINDERS FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE EXCEEDING 5 CUBIC YARDS, BUT LESS THAN 25 CUBIC YARDS, PLUS ONE SET FOR EACH ADDITIONAL 50 CUBIC YARDS. TEST ONE AT 7 DAYS AND 2 IN 28 DAYS PER ASTM C39. SUBMIT ALL TEST REPORTS TO THE ARCHITECT AND ENGINEER.
5. FORMS SHALL BE PLYWOOD IN GOOD CONDITION. APPLY A FORM RELEASE AGENT TO ALL FORMS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
6. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES AND CONFORM TO THE REQUIREMENTS SPECIFIED. REQUEST SUCH SPECIFICATION FROM THE ARCHITECT/STRUCTURAL ENGINEER.
7. UNLESS NOTED OTHERWISE IN PROJECT SPECIFICATIONS FINISHING TOLERANCE SHALL BE WITHIN CLASS B IN ACCORDANCE WITH ACI 301 AND CONSIDERATION SHALL BE GIVEN TO SEQUENCING OF CONCRETE PLACEMENT TO FACILITATE CONTROL OF FINISH ELEVATIONS.
8. ALL CONSTRUCTION JOINTS AND POUR STRIPS SHOWN ON THE DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE UNLESS THEIR ELIMINATION IS APPROVED BY THE STRUCTURAL ENGINEER.
9. TOLERANCE FOR ANCHOR BOLTS SUPPORT ANGLES AND OTHER EMBEDDED ITEMS SHALL BE PER THE ACI CODE OF STANDARD PRACTICE SECTION 7.5
10. BASE PLATES, ANCHOR BOLTS, SUPPORT ANGLES AND OTHER EMBEDDED ITEMS EXPOSED TO EARTH OR GRANULAR FILL SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE
11. PIPES SLEEVES OR SLOTS SHALL NOT RUN THROUGH CONCRETE UNLESS SIZE AND LOCATION HAVE BEEN SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
12. THE ARCHITECTURAL AND MECHANICAL DRAWINGS MUST BE REFERRED TO FOR ALL MECHANICAL FLOOR REQUIREMENTS AND THE VARIOUS TRADES ARE RESPONSIBLE FOR THE PLACING OF SLEEVES, OUTLET BOXES, ANCHORS ETC., THAT MAY BE REQUIRED.
13. CONCRETE SHALL BE PLACED IN A TIMELY MANNER TO AVOID THE FORMATION OF COLD JOINTS. CONCRETE WALLS AND COLUMNS SHALL BE VIBRATED.
14. CONCRETE WALLS SHALL HAVE CONSTRUCTION JOINTS NOT FURTHER THAN 100'-0" APART.
15. UNLESS SHOWN OTHERWISE ALL SLAB-ON-GRADE CONSTRUCTION SHALL HAVE CONTROL JOINTS AT APPROX. 12'-0"o.c. IN BOTH DIRECTIONS

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NUMBER E-25562
REGISTERED PROFESSIONAL ENGINEER
8-6-24
Exp 12-31-25

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Revisions:

GENERAL NOTES

S0.0.1

Issue Date: 08/06/2024

Job Number: 21-002.07

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING:
   - 1.1. AISC "SPECIFICATIONS FOR STRUCTURAL STEEL FOR BUILDINGS ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN
   - 1.2. ASIC CODE OF STANDARD PRACTICE" WITH THE DELETION OF THE FOLLOWING SENTENCE FROM PARAGRAPH 4.2.1: "THIS APPROVAL CONSTITUTES THE OWNER'S ACCEPTANCE OF ALL RESPONSIBILITY FOR THE DESIGN ADEQUACY OF ANY DETAIL CONFIGURATION OF CONNECTIONS DEVELOPED BY THE FABRICATOR AS PART OF HIS PREPARATION FOR THESE SHOP DRAWINGS"

2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING GRADES:
   CHANNELS, ANGLES, PLATES, ETC. (U.N.O.) ASTM A36
   W SHAPES ---------- ASTM A992 GR. 50
   STRUCTURAL TUBE ---------- ASTM A500 GR. B (Fy=46)
   STEEL PIPE ---------- ASTM A500 GR. B (Fy=42)
   ANCHOR BOLTS ---------- ASTM F1554
   BOLTS ---------- ASTM A325
   WELDING ELECTRODES ---------E70XX

3. GALVANIZED FINISHES: ZINC COATING BY HOT DIPPED PROCESS ASTM A123
   - 3.1. GALVANIZE ALL EXTERIOR LINTELS AND SHELF ANGLES

4. CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR FOR THE MINIMUM OF: ONE-HALF (1/2) THE MAXIMUM UNIFORM LOAD ON THE MEMBER AS DEFINED IN TABLE 3-6, "MAXIMUM TOTAL UNIFORM LOAD" TABLE IN THE 15th EDITION OR 11 KIPS-ASD OR 16 KIPS-LRFD. REACTIONS AS NOTED ON THE DRAWINGS SHALL SUPERSEDE MINIMUM REQUIREMENTS NOTED ABOVE. CONNECTIONS SHALL COMPLY WITH "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."
   SEE PLAN FOR BEAM REACTIONS:
   VERTICAL SHEAR — Va (ASD), Vu (LRFD)
   AXIAL TENSION/COMPRESSION — Aa (ASD), Au (LRFD)

5. BOLTED CONNECTIONS
   - 5.A. SLIP CRITICAL CONNECTIONS WITH A325-SC OR A490-SC BOLTS SHALL BE USED IN ALL BOLTED MOMENT OR BRACING MEMBER CONNECTIONS. OVERSIZED AND LONG SLOTTED HOLES ARE PERMITTED
   - 5.B. BEARING -TYPE CONNECTION WITH A325-N OR A429-N BOLTS SHALL BE USED TO ALL OTHER BOLTED CONNECTIONS. OVERSIZED AND LONG-SLOTTED HOLES ARE NOT PERMITTED.

6. WELDED CONNECTIONS
   - 6.A. ALL WELDING SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE STEEL" AWS D1.1 OF THE AMERICAN WELDING SOCIETY
   - 6.B. ELECTRODES FOR WELDING SHALL COMPLY WITH THE REQUIREMENTS OF TABLE 4.1.1 OF THE AWS CODE.

7. ALL WELDING WILL BE MADE ONLY BY OPERATORS WHO HAVE BEEN PREVIOUSLY QUALIFIED BY TESTS, AS PRESCRIBED IN THE "STANDARD QUALIFICATIONS PROCEDURE" OF THE AMERICAN WELDING SOCIETY.

8. BOLTING IN COMBINATION WITH WELDING SHALL NOT BE CONSIDERED AS SHARING THE STRESS AND WELDS SHALL BE PROVIDED TO CARRY THE ENTIRE STRESS FOR WHICH THE CONNECTION IS DESIGNED.

9. NO CHANGE IN SIZE OR POSITION OF ANY STRUCTURAL ELEMENT NOR HOLES, SLOTS, CUTS, ETC. SHALL BE MADE UNLESS DETAILED AND NOTED AS A PROPOSED CHANGE ON THE SHOP DRAWINGS AND REVIEWED AND ACCEPTED BY THE STRUCTURAL ENGINEER.

10. DO NOT USE GAS CUTTING TORCHES IN THE FIELD FOR CORRECTING FABRICATION ERRORS IN THE PRIMARY STRUCTURAL FRAMING.

11. THE FRAME OF THE STEEL SKELETON SHALL BE CARRIED UP TRUE AND PLUMB AND TEMPORARY BOLTING AND BRACING SHALL BE INTRODUCED TO SAFELY CARRY ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED INCLUDING EQUIPMENT AND THE OPERATION OF THE SAME. INDIVIDUAL COLUMNS MUST BE BRACED BEFORE CONNECTIONS ARE MADE AND BRACING SHALL BE LEFT IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY. NO BOLTING OR WELDING SHALL BE DONE UNTIL AS MUCH OF THE STRUCTURE AS WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.

12. ALL COLUMN BASE PLATES SHALL BE SET ON STEEL SHIMS TO TRUE LEVEL LINE. GENERAL CONTRACTOR SHALL RAM A NON-SHRINK GROUT SOLIDLY UNDER ENTIRE BASE PLATE AREA. PROVIDE 1" DEPTH NON-SHRINK GROUT BELOW PLATES. (UNLESS OTHERWISE NOTED).

13. PROVIDE FULL HEIGHT SOLID MASONRY UNDER BEARING ENDS OF ALL STRUCTURAL STEEL. BEAMS AND LINTELS TO BEAR MINIMUM 8" ON MASONRY.

14. PROVIDE ANCHOR BOLTS (3/4" x 1'-4") AT BEARING ENDS AT ALL STRUCTURAL STEEL BEARING ON CONCRETE AND MASONRY.

15. UNLESS OTHERWISE NOTED ANCHOR BOLTS SHALL EXTEND INTO CONCRETE NOT LESS THAN 9" WHERE POSSIBLE PLUS 4"± HOOK AND SHALL BE HELD AT 2 1/2" MINIMUM FROM OUTSIDE FACE OF CONCRETE. ALL ANCHOR BOLTS SHALL BE HELD 1 1/2" FROM EDGE OF BASE PLATE WHERE POSSIBLE.

16. ALL STRUCTURAL STEEL MUST BE PROTECTED BY 3" OF CONCRETE WHERE EARTH WOULD OTHERWISE BE IN CONTACT WITH STEEL.

MASONRY

1. STANDARDS:
   - 1.1. ACI 530 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"
   - 1.2. NCMA TEK "MANUAL FOR CONCRETE MASONRY DESIGN AND CONSTRUCTION
   - 1.3. BIA TECHNICAL NOTES ON BRICK CONSTRUCTION

2. MASONRY UNITS SHALL COMPLY WITH ASTM C90 AND TESTED PER ASTM C140 MORTAR SHALL COMPLY WITH ASTM C270
   GROUT SHALL COMPLY WITH ASTM C476 AND TESTED PER ASTM C1019
   REINFORCING BARS ARE TO BE ASTM A615 - GRADE 60 STEEL
   JOINT REINFORCING SHALL CONFORM TO ASTM A82. GALVANIZED

3. GROUTING AND PLACING OF REINFORCING SHALL BE PERFORMED BY MASON CRAFTWORKERS WHO HAVE SUCCESSFULLY COMPLETED THE INTERNATIONAL MASONRY INSTITUTE TRAINING COURSE FOR "GROUTING AND REINFORCED MASONRY CONSTRUCTION" OR EQUAL

4. PRISM STRENGTH (f'm) OF CMU'S SHALL BE 2500 PSI MINIMUM (NORMAL WEIGHT BLOCKS)

5. NET COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS SHALL BE 3250 PSI (NORMAL WEIGHT BLOCKS GRADE N-1 OR BETTER)

6. GROUT CELLS SOLID AT REINFORCING ONLY WITH 3000 PSI CONCRETE GROUT UNLESS OTHERWISE NOTED.

7. MORTAR SHALL BE TYPE "S" FOR ALL REINFORCED MASONRY WALL AND TYPE "N" FOR ALL MASONRY VENEERS.

8. USE "LOW- LIFT" METHOD OF CONSTRUCTION WITH VERTICAL BARS LAPPED PER "BAR SPLICE SCHEDULE".

9. MORTAR SHALL BE PLACED AT ALL HEAD JOINTS, FACE SHELLS, AND WEBS ADJACENT TO THE CELLS CONTAINING VERTICAL REINFORCEMENT.

10. VERTICAL REINFORCEMENT MUST BE POSITIONED IN THE CENTER OF THE CELL USING MASONRY POSITIONING TIES AT 8'-0" cc MAXIMUM UNLESS NOTED ON THE STRUCTURAL DRAWINGS. PLACEMENT OF THE BAR MUST BE KEPT WITHIN 1/2" OF CENTER. IF REINFORCEMENT PLACEMENT NEEDS TO EXCEED 1/2" DUE TO PLACEMENT OF THE EMBEDDED ITEMS OF CONDUIT, THE ENGINEER MUST BE NOTIFIED TO APPROVE RESULTING LOCATION.

11. MASONRY SHALL BE LAID IN A RUNNING BOND UNLESS NOTED OTHERWISE.

12. PROVIDE CONTROL JOINTS IN ALL MASONRY AT A MAXIMUM OF 20'-0" APART UNLESS NOTED OTHERWISE ON DRAWING.

13. UNLESS NOTED OTHERWISE ALL LOAD BEARING AND NONLOAD BEARING CMU WALLS TO BE REINFORCED WITH 9 ga HORIZONTAL JOINT REINFORCING AT 16" o.c. AND VERTICAL BARS AS INDICATED BELOW:
   - 13.1. PROVIDE VERTICAL REINFORCING AT CORNERS OF INTERSECTING WALLS, AT EACH JAMB OF OPENINGS, AND ON EACH SIDE OF CONTROL JOINTS AND EXPANSION JOINTS.
   - 13.2. VERTICAL REINFORCING: #4's @ 48"o.c. @ 6" CMU; #5's @ 48"o.c. @ 8" CMU; #6's @ 48"o.c. @ 10" & 12" CMU

14. VERTICAL REINFORCING IN MASONRY WALLS SHOWN HERE ON THE DRAWINGS ARE NOT A SUBSTITUTE FOR TEMPORARY BRACING REQUIRED FOR MASONRY WALLS DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DESIGN AND INSTALLATION OF THE TEMPORARY BRACING AS REQUIRED.

15. PROVIDE FULL HEIGHT SOLID MASONRY UNDER BEARING ENDS OF ALL STRUCTURAL STEEL BEAMS AND LINTELS MINIMUM 8" BEARING ON MASONRY UNO

16. PROVIDE 8" MIN. OF SOLID MASONRY UNDER ENDS OF ALL JOISTS BEARING ON MASONRY OR AS OTHERWISE SHOWN ON DRAWINGS.

17. BLOCK CORES SHALL BE FILLED SOLID AT LOCATIONS OF ANCHOR EXPANSION BOLTS.

18. PROVIDE CONTINUOUS BOND BEAMS w/(2)- #4 HORIZONTAL BARS EVERY 10'-0" MAX. VERTICALLY. U.N.O.

19. AT MASONRY VENEER WITH CMU BACKUP PROVIDE VENEER ANCHORAGE SPACED AT 16"x24". USE LADDER JOINT REINFORCING AT CMU BACKUP WITH BUILT-IN EYELETS. PLACE ADJUSTABLE PINTEL AT EACH EYELET.

POST INSTALLED ANCHORS

DEFINITIONS:

WEDGE ANCHOR: THREADED STUD ANCHOR WITH AN EXPANSION CONE AND EXPANDING WEDGE TYPE CLIPS.

UNDERCUT ANCHOR: THREADED STUD TYPE ANCHOR THAT PERFORM SELF-UNDERCUTTING. UNDERCUT PORTION OF ANCHOR MUST HAVE A PROJECTED BEARING AREA 2.5 TIMES THE BOLT DIAMETER.

ADHESIVE ANCHOR: TWO PART ACRYLIC EPOXY ADHESIVE WITH MIXING NOZZLE. THREADED ANCHOR ROD SHALL MEET ASTM A36. SCREEN TUBE MUST BE USED FOR HOLLOW CMU APPLICATIONS.

SCREW ANCHOR: ONE PIECE ANCHOR WITH FIXED HEAD AND THE ANCHOR BODY HAS A SCREW TYPE THREADED DESIGN.

POST INSTALLED ANCHORS SHALL BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. MANUFACTURER'S WRITTEN INSTRUCTIONS. SUBSTITUTION REQUESTS, FOR PRODUCTS TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) AS REQUIRED BY THE BUILDING CODE.

1. INSTALLATION OF ANCHORS SHALL FOLLOW THE LATEST INFORMATION REGARDING TORQUE AND INSTALLATION SPECIFICATIONS FROM THE MANUFACTURE OF THE PRODUCTS.
2. POST INSTALLED ANCHORS SHALL BE INSTALLED ONLY WHERE SPECIFIED ON THE STRUCTURAL DOCUMENTS.
3. INSTALLATION OF POST INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS SHALL BE APPROVED BY THE ENGINEER OF RECORD.
4. REINFORCING BARS IN THE CONCRETE STRUCTURE SHALL NOT BE CUT IN ORDER TO INSTALL POST-INSTALLED ANCHORS, UNLESS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
5. SUBMITTAL OF ALL PROPOSED PRODUCTS, WITH THE TECHNICAL DATA AND CURRENT ICC-ESR REPORTS IS REQUIRED FOR REVIEW AND APPROVAL BY ENGINEER OF RECORD.
6. ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALIATION INSTRUCTIONS IN CONJUNCTION WITH EDGE DISTANCE, SPACING AND EMBEDMENT DEPTH AS INDICATED ON THE DRAWINGS.
7. CONTRACTOR SHALL ARRANGE FOR A MANUFACTURER'S FIELD REPRESENTATIVE TO PROVIDE INSTALLATION TRAINING FOR ALL PRODUCTS TO BE USED, PRIOR TO COMMENCEMENT OF WORK. ONLY TRAINED INSTALLERS SHALL PERFORM POST-INSTALLED ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE KEPT ON SITE AND BE MADE AVAILABLE TO THE ARCHITECT/ENGINEER OF RECORD AS REQUESTED.
8. ADHESIVE ANCHORS INSTALLED HORIZONTAL TO VERTICALLY OVERHEAD ORIENTATION TO SUPPORT SUSTAINED TENSION LOADS SHALL BE DONE BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI/CRSI (ACI 318-14 17.8.2.2) PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER OF RECORD FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
9. ADHESIVE ANCHORS MUST BE INSTALLED IN CONCRETE AGED A MINIMUM OF 21 DAYS (ACI 318-14 17.8)
10. ANCHORAGE APPLICATIONS:
    10.1 CONCRETE:
    10.2 GROUTED SOLID CONCRETE MASONRY:
    10.3 HOLLOW CONCRETE MASONRY:
    10.4 MULTI-WYTHE BRICK MASONRY:
11. PROVIDE SPECIAL INSPECTION FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE BUILDING CODE AND PER THE CURRENT ICC-ES REPORT (IBC 2015/2018 TABLE 1705.3 NOTE 4)
12. ACNHOR TESTING:
    12.1 MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193 FOR CRACKED, UNCRACKED AND SEISMIC CONCRETE RECOGNITION.
    12.2 ADHESIVE ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ASTM E 488/ACI 355.4 AND ICC-ES AC308 FOR CRACKED, UNCRACKED AND SEISMIC CONCRETE RECOGNITION.
13. APPROVED ANCHORS:
    13.1 DEWALT
    - 13.1.1 WEDGE ANCHOR: POWER-STUD + SD2 (ICC-ES-ESR 2502)
    - 13.1.2 UNDERCUT ANCHOR: CCU+UNDERCUT (ICC-ES-ESR 4810)
    - 13.1.3 ADHESIVE ANCHOR:
      - 13.1.3.1 CONCRETE: AC200+ (ICC-ES-ESR 4027)
      - 13.1.3.2 MASONRY: AC100+GOLD (ICC-ES-ESR 3200)
    - 13.1.4 SCREW ANCHOR: SCREW-BOLT+(ICC-ES-ESR 3889/4042)

    13.2 HILTI
    - 13.2.1 WEDGE ANCHOR: KWIK BOLT-TZ (ICC-ES-ESR 1917)
    - 13.2.2 UNDERCUT ANCHOR: HDA UNDERCUT (ICC-ES-ESR 1546)
    - 13.2.3 ADHESIVE ANCHOR:
      - 13.2.3.1 CONCRETE: HIT-HY 200 (ICC-ES-ESR 3187)
      - 13.2.3.2 MASONRY: HIT-HY 270 (ICC-ES-ESR 4143/4144)
    - 13.1.4 SCREW ANCHOR: KWIK HUS-EZ (ICC-ES-ESR 3027/3056)

    13.3 SIMPSON
    - 13.3.1 WEDGE ANCHOR: STRONG-BOLT 2 (ICC-ES-ESR 3037)
    - 13.3.2 UNDERCUT ANCHOR: NOT APPLICABLE
    - 13.3.3 ADHESIVE ANCHOR:
      - 13.3.3.1 CONCRETE: SET-3G (ICC-ES-ESR 4057)
      - 13.3.3.2 MASONRY: SET-XP (ICC-ES-ESR 3265
    - 13.3.4 SCREW ANCHOR: TITEN HD (ICC-ES-ESR 2713/1056)

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Revisions:

GENERAL NOTES

S0.0.2

Issue Date: 08/06/2024

Job Number: 21-002.07

SPECIAL STRUCTURAL INSPECTIONS

1. SPECIAL INSPECTIONS SHALL BE PERFORMED BY A CERTIFIED INSPECTOR APPROVED BY THE ARCHITECT/ENGINEER OF RECORD AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR OR AGENCY SHOULD BE UNDER THE RESPONSIBILITY OF A REGISTERED PROFESSIONAL ENGINEER SPECIALIZING IN STRUCTURAL ENGINEERING.

2. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND TIMELY NOTIFICATION OF THE NEED FOR SPECIAL INSPECTION.

3. DUTIES OF THE SPECIAL INSPECTOR:
   a. THE SPECIAL INSPECTOR WILL OBSERVE THE ASSIGNED ITEMS FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
   b. THE SPECIAL INSPECTOR WILL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE ENGINEER/ARCHITECT OF RECORD WITHIN 48 HOURS AFTER COMPLETING INSPECTIONS.
   c. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE ENGINEER/ARCHITECT.
   d. UPON COMPLETION OF THE WORK, THE SPECIAL INSPECTOR SHALL COMPLETE AND SIGN A FINAL REPORT CERTIFYING THAT TO THE BEST OF THE INSPECTORS KNOWLEDGE THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND PROVISION OF THE IBC CODE.

4. INSPECTIONS: REFER TO THE IBC BUILDING CODE FOR THE DEFINITION OF PERIODIC AND CONTINUOUS INSPECTIONS INCLUDING SPECIFIC REQUIREMENTS.

5. ALL SPECIAL INSPECTIONS PERFORMED ON THIS PROJECT SHALL COMPLY WITH 2015 IBC SECTIONS 1704 AND 1705
   a. SPECIAL INSPECTION DAILY LOGS/REPORTS SHALL BE MAINTAINED ON-SITE BY THE PROJECT SUPERINTENDENT FOR USE AND REFERENCE BY THE LEE'S SUMMIT, MO., INSPECTION STAFF.
   b. SUPERINTENDENT SHALL FORWARD ALL INSPECTION REPORTS TO ARCHITECT AND ENGINEER OF RECORD PRIOR TO COMPLETING "CERTIFICATE OF SPECIAL INSPECTION" FOR SUBMISSION TO THE LEE'S SUMMIT, MO. INSPECTION STAFF FOR THE FINAL BUILDING INSPECTION.

STRUCTURAL SCHEDULE OF SPECIAL INSPECTIONS - WIND RESISTANCE - STRUCTURAL

VERIFICATION AND INSPECTION IBC SECTION 1705.11.1 THROUGH 1705.11.3, UNLESS EXEMPTED BY THE EXCEPTIONS OF SECTION 1704.2.	EXTENT: CONTINUOUS PERIODIC SUBMITTAL	REFERENCE STANDARD	IBC REFERENCE	AGENT QUALIFICATION
1. WIND-RESISTING COMPONENTS: PERIODIC SPECIAL INSPECTION IS REQUIRED FOR FAASTENING OF THE FOLLOWING SYSTEMS AND COMPONENTS:				
a. ROOF COVERING, ROOF DECK AND ROOF FRAMING CONNECTIONS.	P		IBC 1705.11.3	PE/SE OR EIT
b. EXTERIOR WALL COVERING AND WALL CONNECTIONS TO ROOF AND FLOOR DIAPHRAGMS AND FRAMING.	P		IBC 1705.11.3	PE/SE OR EIT

STRUCTURAL SCHEDULE OF SPECIAL INSPECTIONS - CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION IBC SECTION 1705.3	EXTENT: CONTINUOUS PERIODIC SUBMITTAL	REFERENCE STANDARD	IBC REFERENCE	AGENT QUALIFICATION
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	P	ACI 318: Ch20, 25.2, 25.3, 26.5.1-26.5.3	IBC 1908.4	PE/SE OR EIT
2. REINFORCING BAR WELDING				
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A 706	P	ACI 318: 26.5.4 AWS D1.4		AWS-CW1
b. INSPECT SINGLE-PASS FILLET WELD, MAXIMUM 5/16"	P			
c. INSPECT ALL OTHER WELDS.	C			
3. INSPECT ANCHORS CAST IN CONCRETE.	P	ACI 318: 17.8.2		PE/SE OR EIT
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	C	ACI 318: 17.8.2.4		ACI-STT
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN SECTION 4.1.	P	ACI 318: 17.8.2		
5. VERIFY USE OF REQUIRED DESIGN MIX.	P	ACI 318: Ch19 .26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3	ACI-CFTT OR ACI-CCI
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS,AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	C	ASTM C 172 ASTM C 31 ACI 318: 26.4.5, 26.12	IBC 1908.10	ACI-CFTT OR ACI-SST
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATIONS TECHNIQUES.	C	ACI 318: 26.4.5	IBC 1908.6, 1908.7, 1908.8	ACI-CFTT OR ACI-CCI
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURES AND TECHNIQUES.	P	ACI 318: 26.4.7-26.4.9	IBC 1908.9	ACI-CFTT OR ACI-LTT
9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	P	ACI 318: 26.10.1(b)		

STRUCTURAL SCHEDULE OF SPECIAL INSPECTIONS - SOILS AND FOUNDATION CONSTRUCTION

VERIFICATION AND INSPECTION IBC SECTION 1705.6; 1705.7; 1705.8; 1705.9 IBC TABLE 1705.6; 1705.7; 1705.8	EXTENT: CONTINUOUS PERIODIC SUBMITTAL	REFERENCE STANDARD	IBC REFERENCE	AGENT QUALIFICATION
1. VERIFY EXISTING SOIL CONDITIONS, FILL PLACEMENT AND LOAD BEARING REQUIREMENTS.				
a. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	P		IBC 1705.6	PE/GE; EI OR ET
b. VERIFY EXCAVATION ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	P		IBC 1705.6	PE/GE; EI OR ET
c. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	P		IBC 1705.6	PE/GE; EI OR ET
d. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	C		IBC 1705.6	PE/GE; EI OR ET
e. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.	P		IBC 1705.6	PE/GE; EI OR ET

STRUCTURAL SCHEDULE OF SPECIAL INSPECTIONS
MASONRY CONSTRUCTION - LEVEL A QUALITY ASSURANCE

VERIFICATION AND INSPECTION IBC SECTION 1705.4 TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 TABLE 3 - LEVEL A QUALITY ASSURANCE	FREQUENCY	REFERENCE FOR CRITERIA	
	REQUIRED	TMS 402/ ACI 530/ ASCE 5	TMS 602/ ACI 530.1/ ASCE 6
PRIOR TO CONSTRUCTION, VERIFY CERTIFICATES OF COMPLIANCE USED IN MASONRY CONSTRUCTION	X		ART. 1.5

STRUCTURAL SCHEDULE OF SPECIAL INSPECTIONS
MASONRY CONSTRUCTION - LEVEL B QUALITY ASSURANCE

VERIFICATION AND INSPECTION IBC SECTION 1705.4 TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 TABLE B - LEVEL B QUALITY ASSURANCE	FREQUENCY		REFERENCE FOR CRITERIA	
	CONTINUOUS	PERIODIC	TMS 402/ ACI 530/ ASCE 5	TMS 602/ ACI 530.1/ ASCE 6
1. VERYIFY COMPLIANCE WITH THE APPROVED SUBMITTALS		X		ART. 1.5
2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:				
A. PROPORTIONS OF SITE-PREPARED MORTAR		X		ART. 2.1, 2.6 A
B. CONSTRUCTION OF MORTAR		X		ART. 3.3 B
C. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES		X		ART. 2.4 B, 2.4 H
D. LOCATION OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES		X		ART. 3.4, 3.6 A
E. PRESTRESSING TECHNIQUE		X		ART. 3.6 B
F. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	X	X		ART. 2.1 C
3. PRIOR TO GROUTING VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:				
A. GROUT SPACE		X		ART. 3.2 D, 3.2 F
B. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES		X	SEC. 6.1	ART. 2.4, 3.4
C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONDS AND ANCHORAGES		X	SEC. 6.1, 6.2.1, 6.2.6, 6.2.7	ART. 3.2 E, 3.4, 3.6 A
D. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSSING GROUT FOR BONDED TENDONS		X		ART. 2.6 B, 2.4 G.1.b
E. CONSTRUCTION OF MORTAR JOINTS		X		ART. 3.3 B
4. VERIFY DURING CONSTRUCTION				
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X		ART. 3.3 F
B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION		X	SEC. 1.2.1(e), 6.1.4.3, 6.2.1	
C. WELDING OF REINFORCEMENT	X		SEC. 8.1.6.7.2, 9.3.3.4(c), 11.3.3.4(b)	
D. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F (4.4C)) OR HOT WEATHER (TEMPERATURE ABOVE 90F (32.2C))		X		ART. 1.8 C, 1.8 D
E. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	X			ART. 3.6 B
F. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	X			ART. 3.5, 3.6 C
G. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	X	X		ART. 3.3 B.9, 3.3 F.1.b
5. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS		X		ART. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4

STRUCTURAL SCHEDULE OF SPECIAL INSPECTIONS - STRUCTURAL STEEL CONSTRUCTION (WELDING)

VERIFICATION AND INSPECTION IBC 1705.2.1 ANSI / AISC 360-10 TABLES: N5.4-1, N5.4-2, N5.4-3	QC	QA
INSPECTION TASK PRIOR TO WELDING N5.4-1		
WELDINGPROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	P
MANUFACTGURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O
WELDER IDENTIFICATION SYSTEM	O	O
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)	O	O
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O
FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACE) • TACKING (TACK WELD QUALITY AND LOCATION)	O	O
CHECK WELDING EQUIPMENT	O	-
INSPECTION TASK DURING WELDING N5.4-2	-	-
USE OF QUALIFIED WELDERS	O	O
CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	O	O
NO WELDING OVER CRACKED TACK WELDS	O	O
ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPATION AND TEMPERATURE	O	O
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH)	O	O
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	O	O
INSPECTION TASK AFTER WELDING N5.4-3	-	-
WELDS CLEANED	O	O
SIZE, LENGTH AND LOCATION OF WELDS	P	P
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	P	P
ARC STRIKES	P	P
K-AREA	P	P
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P
REPAIR ACTIVITIES	P	P
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P

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STATE OF MISSOURI
JAMES C. KREHER
NUMBER E-25562
8-6-24
REGISTERED PROFESSIONAL ENGINEER

Exp 12-31-25

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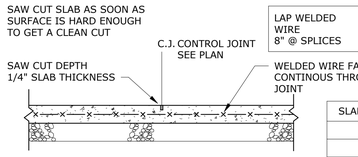
Revisions:

SPECIAL INSPECTIONS

S0.0.3

Issue Date: 08/06/2024

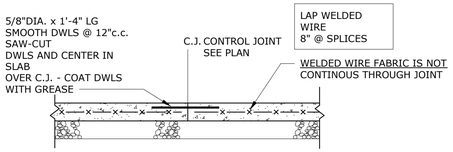
Job Number: 21-002.07



SLAB THICKNESS	JOINT SPACING
4"	8'-12'
5"	10'-15'
6"	12'-18'
7"	14'-21'
8"	16'-24'

TYPICAL SLAB CONTROL JOINT

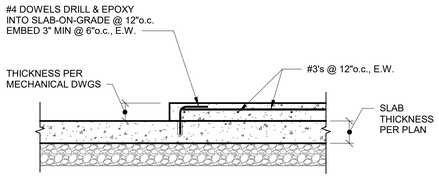
PROVIDE MAXIMUM JOINT SPACING @ 15'-0"



TYPICAL SLAB CONSTRUCTION JOINT

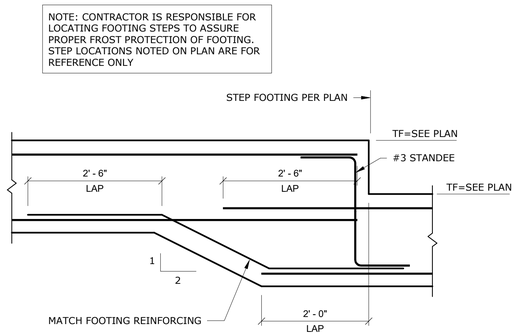
CONSTRUCTION JOINTS SPACED AT CONTRACTOR'S OPTION

1 / S0.2 DETAIL 3/4" = 1'-0"



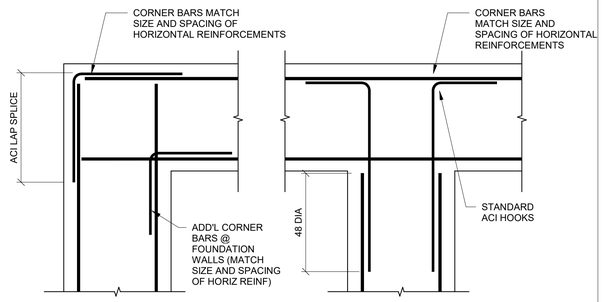
TYPICAL HOUSEKEEPING PAD

2 / S0.2 DETAIL 3/4" = 1'-0"



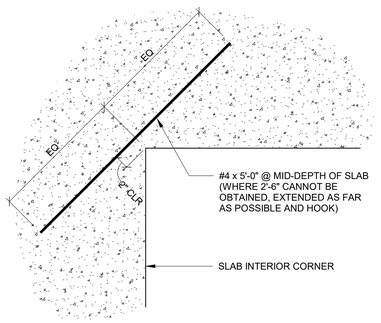
TYPICAL STEP FOOTING

3 / S0.2 DETAIL 3/4" = 1'-0"



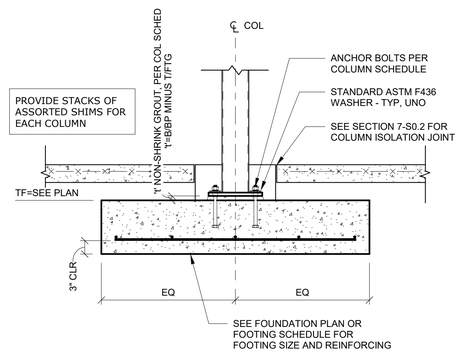
TYPICAL FOOTING & FOUNDATION WALL CORNERS

4 / S0.2 DETAIL 3/4" = 1'-0"



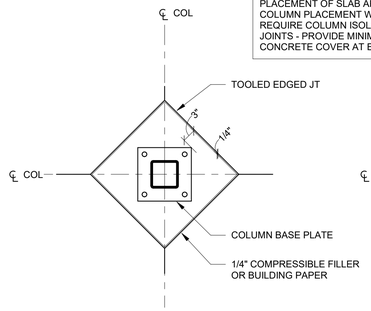
SLAB-ON-GRADE REINFORCING @ INTERIOR CORNERS

5 / S0.2 DETAIL 3/4" = 1'-0"



TYPICAL INTERIOR HSS COLUMN SECTION

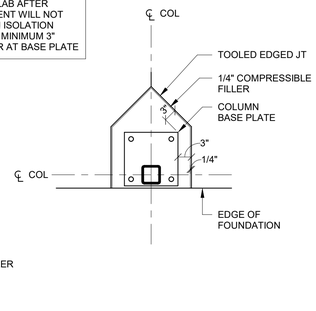
6 / S0.2 DETAIL 3/4" = 1'-0"



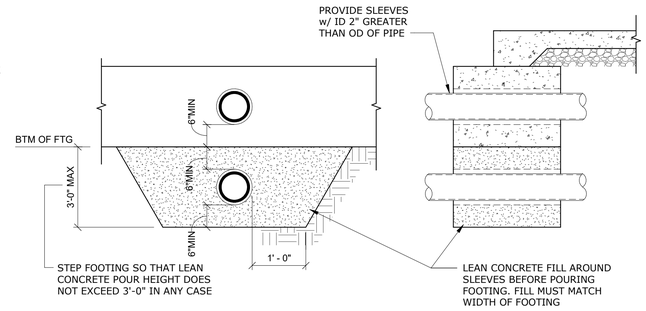
NOTE: CONTRACTOR OPTION: PLACEMENT OF SLAB AFTER COLUMN PLACEMENT WILL NOT REQUIRE COLUMN ISOLATION JOINTS - PROVIDE MINIMUM 3" CONCRETE COVER AT BASE PLATE

TYPICAL INTERIOR COLUMN ISOLATION JOINT

7 / S0.2 DETAIL 3/4" = 1'-0"

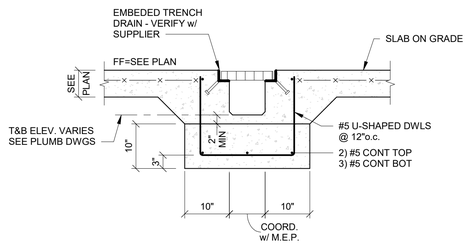


TYPICAL EXTERIOR COLUMN ISOLATION JOINT



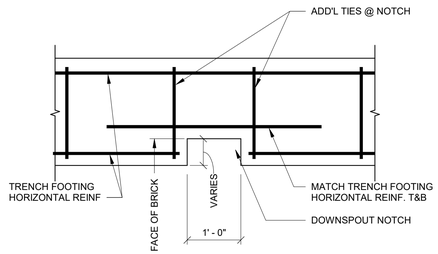
TYPICAL PIPE TRENCH DETAIL AT FOOTING

8 / S0.2 DETAIL 3/4" = 1'-0"



TYPICAL TRENCH DRAIN DETAIL

9 / S0.2 DETAIL 3/4" = 1'-0"



TYPICAL TRENCH FOOTING DOWNSPOUT NOTCH

10 / S0.2 DETAIL 3/4" = 1'-0"

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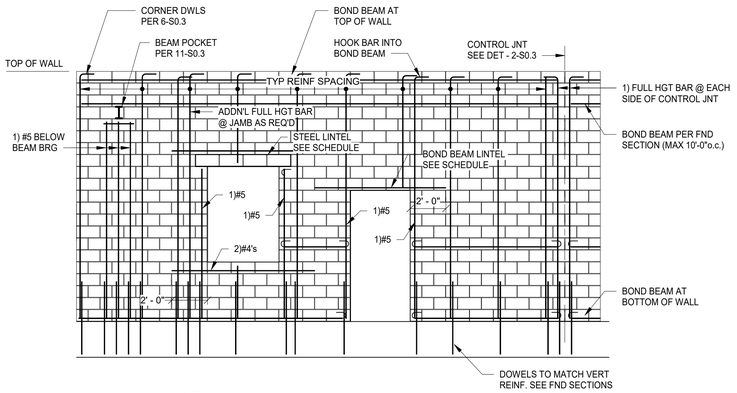
Revisions:

CONCRETE TYPICAL DETAILS

S0.2

Issue Date: 08/06/2024

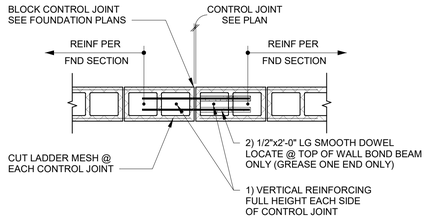
Job Number: 21-002.07



NOTES:
1) PLACE VERTICAL STEEL ONE CELL OUTSIDE OF OPENING JAMB
2) SPLICE LENGTHS FOR VERTICAL REINFORCING PER LAP SPLICE SCHEDULE.
3) STEEL LINTEL BEARING 8" MIN U.N.O.
BOND BEAM BEARING 24" MIN U.N.O.

MASONRY WALL REINFORCING ELEVATION

1 / S0.3 ELEVATION 1/4" = 1'-0"



TYPICAL MASONRY WALL CONTROL JOINT

2 / S0.3 DETAIL 3/4" = 1'-0"

LAP SPLICE SCHEDULE

BAR	1 BAR PER CELL	2 BARS PER CELL
#3	18"	18"
#4	24"	24"
#5	30"	30"
#6	36"	48"
#7	42"	67"

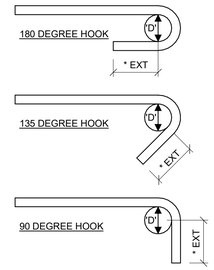
3 / S0.3 DETAIL 12" = 1'-0"

TYPICAL BENDS FOR REINFORCED MASONRY BARS

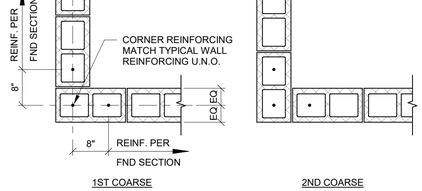
BAR	'D' DIAMETER BEND		* EXT		
	STIRRUPS & TIES	OTHERS	180 DEG	135 DEG	**90 DEG
#3	1 7/8"	2 1/4"	2 1/2"	2 1/2"	4 1/2"
#4	2 1/2"	3"	2 1/2"	3"	6"
#5	3 1/8"	3 3/4"	2 1/2"	3 3/4"	7 1/2"
#6	3 3/4"	4 1/2"	3"	4 1/2"	9"
#7	4 3/8"	5 1/4"	3 1/2"	5 1/4"	10 1/2"

* EXT - LENGTH MEASURED FROM POINT OF TANGENCY OF THE BEND TO THE END OF THE HOOK

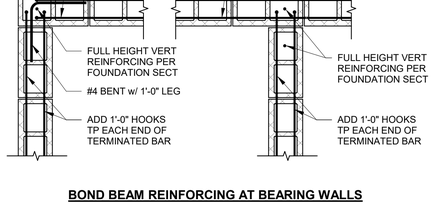
** 90 DEG HOOK NOT ALLOWED FOR SRIRRUPS AND TIES



4 / S0.3 DETAIL 12" = 1'-0"

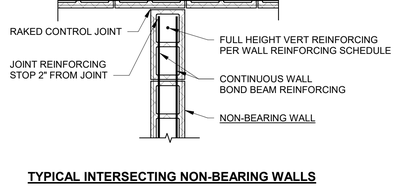


5 / S0.3 DETAIL 3/4" = 1'-0"



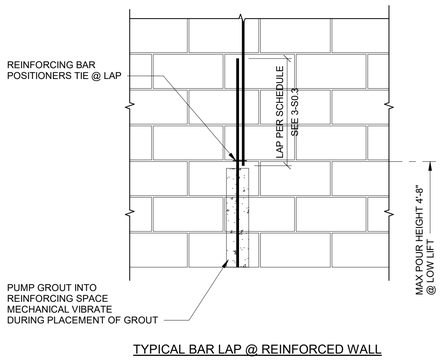
BOND BEAM REINFORCING AT BEARING WALLS

6 / S0.3 DETAIL 3/4" = 1'-0"



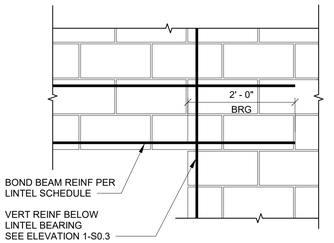
TYPICAL INTERSECTING NON-BEARING WALLS

7 / S0.3 DETAIL 3/4" = 1'-0"



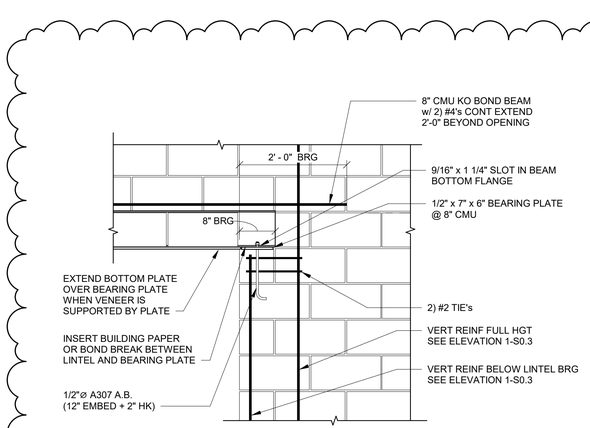
TYPICAL BAR LAP @ REINFORCED WALL

8 / S0.3 DETAIL 3/4" = 1'-0"



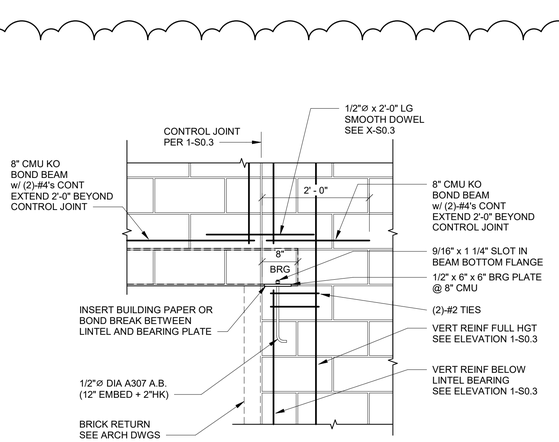
BOND BEAM BEARING DETAIL

9 / S0.3 DETAIL 3/4" = 1'-0"



WIDE FLANGE LINTEL BEARING DETAIL

10 / S0.3 DETAIL 3/4" = 1'-0"



WIDE FLANGE LINTEL BEARING DETAIL @ CONTROL JOINT

11 / S0.3 DETAIL 3/4" = 1'-0"

LINTEL SCHEDULE

MARK	DESCRIPTION	BEARING DETAIL
L1a	8" x 16" HIGH CMU BOND BEAM w/ 2) #5's CONT AT TOP/BOTTOM w/ #3 SINGLE LEG STIRRUPS @ 6"o.c.	9-S0.3 / 1
L1b	8" x 16" HIGH CMU BOND BEAM w/ 2) #5's CONT AT TOP/BOTTOM	9-S0.3 / 1
L2a	10" x 24" HIGH CMU BOND BEAM w/ 2) #5's CONT AT TOP/BOTTOM	9-S0.3 / 1
L2a	10" x 24" HIGH CMU BOND BEAM w/ 2) #5's CONT AT TOP/BOTTOM	9-S0.3 / 1
L3a	W8x21 w/ 5/16" BTM PL	10-S0.3 / 1
L3b	W8x28 w/ 5/16" BTM PL	10-S0.3 / 1

NON-BEARING LINTELS

SPAN	12" CMU / 8" CMU / 6" CMU	4" CMU
1'-4" TO 4'-0" @ SCUPPERS	8" HIGH CMU BOND BEAM w/ 2) #5's CONT @ BOTTOM	L3 1/2 x 3 1/2 x 1/4
4'-1" TO 6'-6"	16" HIGH CMU BOND BEAM w/ 2) #5's CONT @ BOTTOM	L5 x 3 1/2 x 1/4 (LLV)
6'-7" TO 10'-0"	W8 x 28 w/ 5/16"xBOTTOM PLATE	L7 x 4 x 3/8 (LLV)

NOTE:
1) SEE ARCH DRAWINGS FOR ANGLE LEG DIMENSIONS ANGLES NOTED IN SCHEDULE ARE MINIMUM REQUIRED
2) SEE ARCH DRAWINGS FOR MECHANICAL DRAWINGS FOR ADDITIONAL OPENINGS. NON-BEARING LINTELS SHALL APPLY

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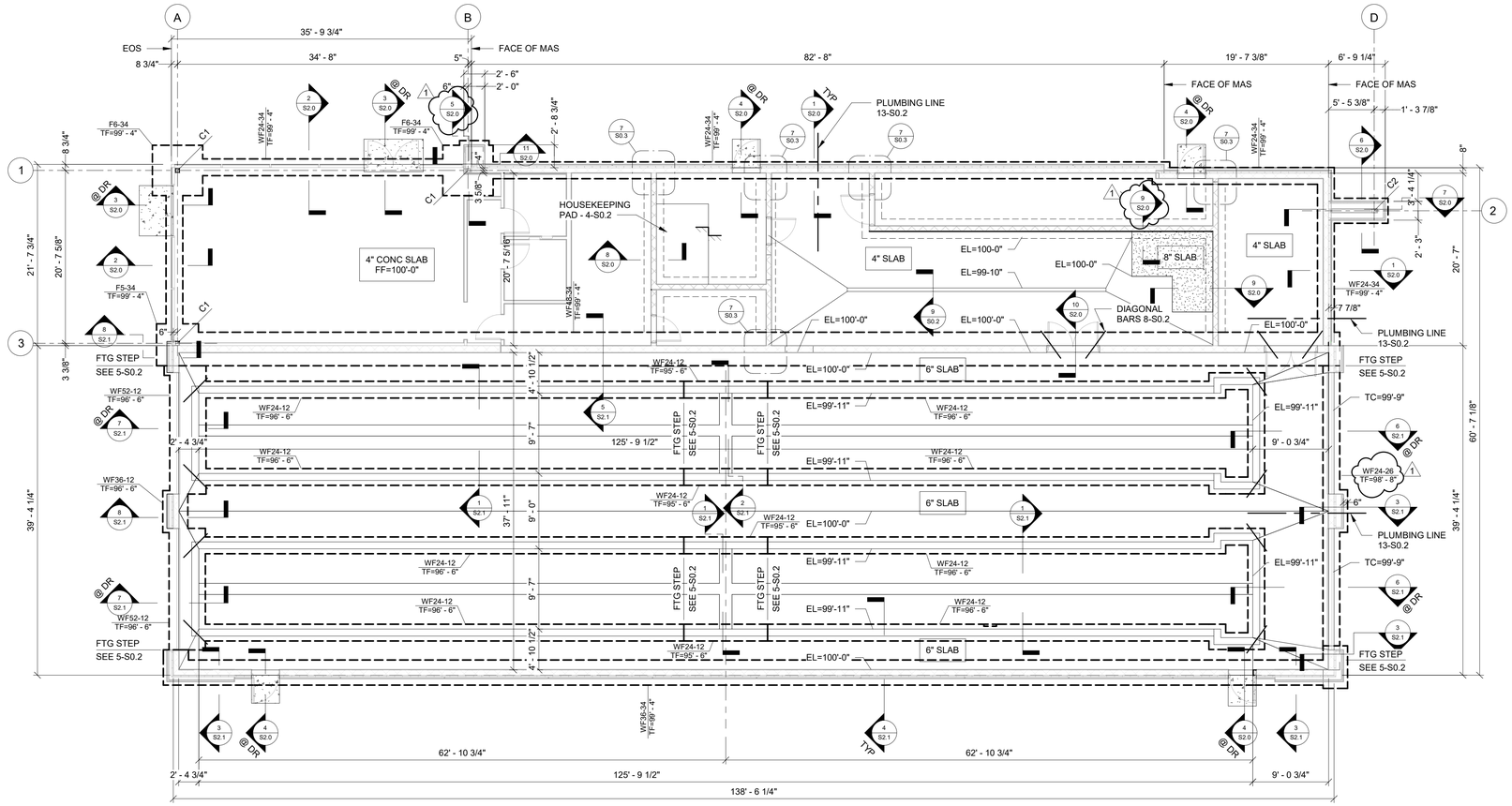
Revisions:
1 PERMIT COMMENTS 8/6/24

MASONRY TYPICAL DETAILS

S0.3

Issue Date: 08/06/2024

Job Number: 21-002.07



FOUNDATION PLAN

1/8" = 1'-0"

1. SLAB CONSTRUCTION:

   STORE - 4" CONCRETE SLAB ON GRADE REINFORCED w/ 6x6-W1.4xW1.4 WWF FABRIC OVER MINIMUM 10 MIL VAPOR BARRIER (ASTM E 1745 CLASS A) AND 4" COMPACTED GRANULAR FILL (< 5% FINES). VAPOR BARRIER SHALL BE PLACED BETWEEN THE CONCRETE SLAB AND GRAVEL UNLESS OTHERWISE NOTED. CONTRACTOR SHALL TAKE NECESSARY ACTIONS TO AVOID SLAB CURLING. REFER TO THE PROJECT SPECIFICATION MANUAL FOR REQUIRED PERFORMANCE FOR VAPOR BARRIER.

   WASH TUNNEL - 6" CONCRETE SLAB ON GRADE. REINFORCE w/ 6x6-W2.1xW2.1 WWF OVER 4" COMPACTED GRANULAR FILL (< 12% FINES)

   WATER STORAGE - 8" CONCRETE SLAB ON GRADE REINFORCE w/ #4's @ 12"o.c. EACH WAY, TOP/BOTT OVER 4" COMPACTED GRANULAR FILL (< 12% FINES)

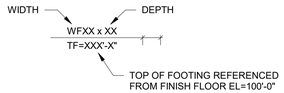
2. ELEVATIONS ARE REFERENCED FROM FINISH FLOOR SLAB ELEVTION OF 100'-0". SEE ARCHITECTURAL OR SITE DRAWINGS FOR ACTUAL SITE ELEVATIONS.

3. ALL FOOTINGS ARE TO BE CENTERED UNDER WALLS AND/OR COLUMNS.

4. SLAB CONTROL AND CONSTRUCTION JOINTS MAY BE INTERCHANGED AT CONTRACTOR'S OPTION, UNLESS OTHERWISE NOTED. SEE SECTION 1-S0.2.

5. CONTINUOUS FOOTINGS HAVE BEEN PROPORTIONED FOR A NET ALLOWABLE BEARING PRESSURE OF 1500 PSF. ISOLATED FOOTING HAVE BEEN PROPORTIONED FOR A NET ALLOWABLE BEARING PRESSURE OF 1500 PSF. BEARING PRESSURE SHALL BE VERIFIED BY A GEOTECHNICAL ENGINEER BEFORE FOOTINGS ARE PLACED. CONTRACTOR SHALL REMOVE AND REPLACE UNACCEPTABLE SOILS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. ALL SOILS WHICH "PUMP" SHALL BE REMOVED.

6. FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATION AND CONDITIONS. NOTIFY ARCHTECT/ENGINEER IF ACTUAL EXISTING CONDITIONS CONFLICT WITH THE INFORMATION SHOWN OR IMPLIED ON THE DRAWINGS.



TRENCH/STEM
WALL FTG

COLUMN SCHEDULE

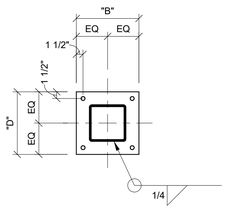
MARK	SIZE	BASE PLATE SIZE (t x B x D)	BASE PLATE TYPE	GROUT BED	ANCHOR BOLTS
C1	HSS 6 x 6 x 3/8	PL. 3/4" x 12" x 1'-0"	TYPE 'A'	1"	4) 3/4"ø x 9" EMBED - TYPE 'AB1'
C2	HSS 6 x 6 x 5/16	PL. 3/4" x 12" x 1'-0"	TYPE 'A'	2"	4) 3/4"ø x 9" EMBED - TYPE 'AB1'
C3	HSS 6 x 6 x 5/16	SEE DETAIL 11-S4.0	TYPE 'A'		

FOOTING SCHEDULE

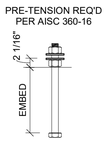
MARK	SIZE	LONG REINFORCING	TRANS REINFORCING
F5-34	5'-0" x 5'-0" x 2'-10"	5) #5 x 4'-6"LG @ TOP 5) #5 x 4'-6"LG @ BTM	5) #5 x 4'-6"LG @ TOP 5) #5 x 4'-6"LG @ BTM
F6-34	6'-0" x 6'-0" x 2'-10"	6) #5 x 5'-6"LG @ TOP 6) #5 x 5'-6"LG @ BTM	6) #5 x 5'-6"LG @ TOP 6) #5 x 5'-6"LG @ BTM

WALL FOOTING SCHEDULE

MARK	WIDTH	THICK	LONGITUDINAL REINFORCING	TRANSVERSE REINFORCING
WF24-12	2' - 0"	1' - 0"	2) #5 CONT @ BTM	#5's @ 24"o.c.
WF24-26	2' - 0"	2' - 2"		#3 TIES @ 48"o.c.
WF24-34	2' - 0"	2' - 10"	2) #5 CONT TOP/BTM 2) #5 CONT @ MID	#3 TIES @ 48"o.c.
WF36-12	3' - 0"	1' - 0"	4) #5 CONT @ BTM	#5's @ 24"o.c.
WF36-34	3' - 0"	2' - 10"	3) #5 CONT TOP/BTM 2) #5 CONT @ MID	#3 TIES @ 48"o.c.
WF48-34	4' - 0"	2' - 10"	4) #5 CONT TOP/BTM 2) #5 CONT @ MID	#3 TIES @ 48"o.c. (2 SETS)
WF52-12	4' - 4"	1' - 0"	4) #5 CONT @ BTM	#5's @ 24"o.c.



BASE PLATE TYPE "A"



TYPE "AB-2"
ASTM F1554 GRADE 36

ANCHOR BOLT TYPES

8/6/2024 12:19:45 PM
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STATE OF MISSOURI
JAMES C. KREHER
NUMBER E-25562
8-6-24
REGISTERED PROFESSIONAL ENGINEER
Exp 12-31-25

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Revisions:

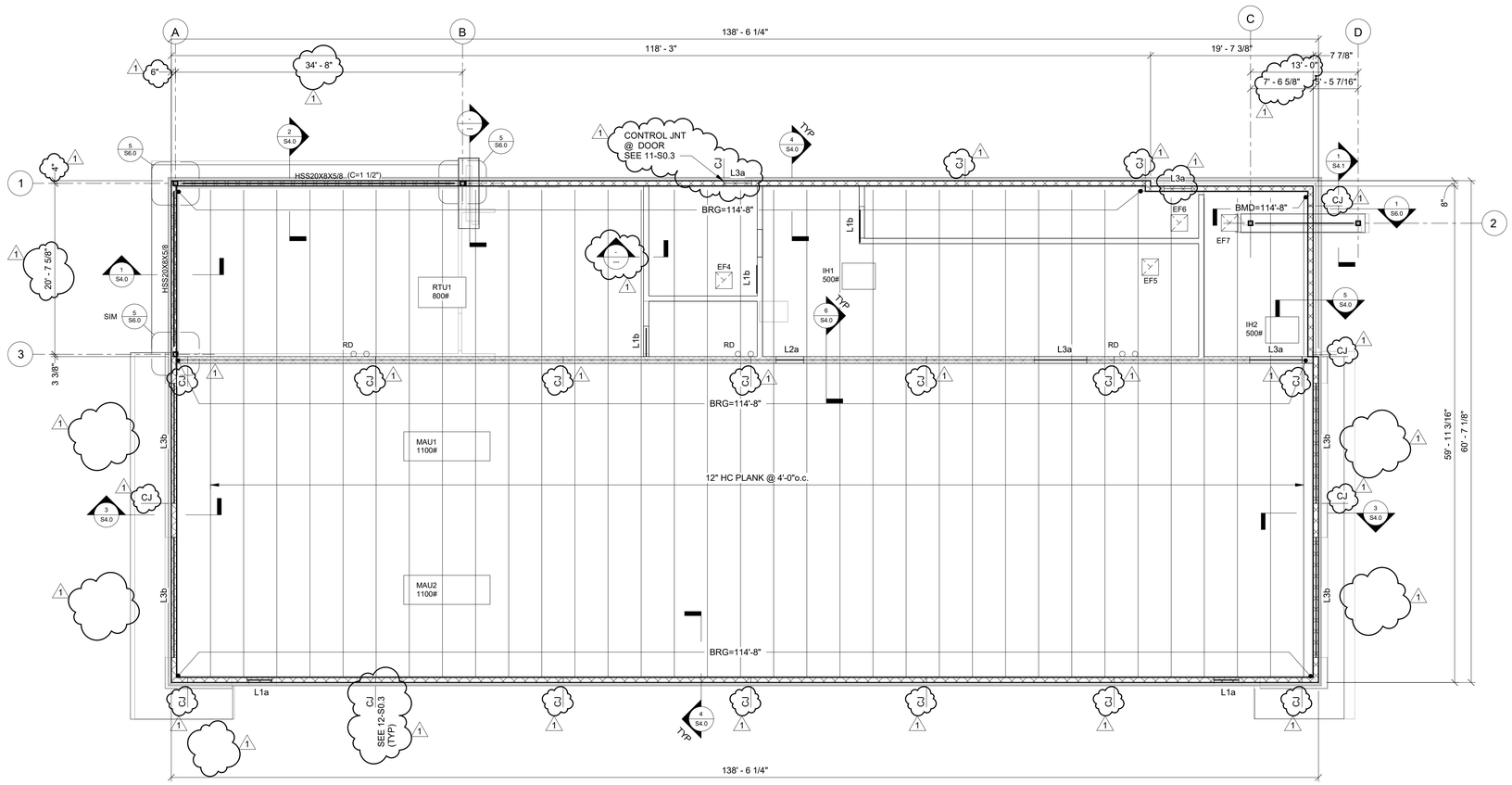
1	PERMIT COMMENTS	8/6/24

FOUNDATION PLAN

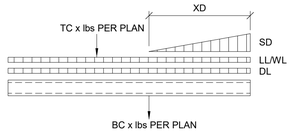
S1.0

Issue Date: 08/06/2024

Job Number: 21-002.07



PRECAST PLAN LOAD DIAGRAM



PLANK MK#	LOADING
PL-1	DL = 55 PSF + PLANK WT LL = 100 PSF SL = 20 PSF + DRIFT PER SHEET S0.0

DL = DEAD LOAD LL = LIVE LOAD SL = SNOW LOAD SD = SNOW DRIFT WL = WIND LOAD	NOTES: 1) LOAD COMBINATIONS PER ASCE 7-10 (LRFD) 2) ALL LOADS SHOWN ARE GROSS LOADS 3) WL NOTED IS AN UPLIFT LOAD

LINTEL SCHEDULE

MARK	DESCRIPTION	BEARING DETAIL
L1a	8" x 16" HIGH CMU BOND BEAM w/ 2) #5's CONT AT TOP/BOTTOM w/ #3 SINGLE LEG STIRRUPS @ 6"o.c.	9-S0.3 / 1
L1b	8" x 16" HIGH CMU BOND BEAM w/ 2) #5's CONT AT TOP/BOTTOM	9-S0.3 / 1
L2a	10" x 24" HIGH CMU BOND BEAM w/ 2) #5's CONT AT TOP/BOTTOM / 1	9-S0.3 / 1
L2a	10" x 24" HIGH CMU BOND BEAM w/ 2) #5's CONT AT TOP/BOTTOM / 1	9-S0.3 / 1
L3a	W8x21 w/ 5/16" BTM PL	10-S0.3 / 1
L3b	W8x28 w/ 5/16" BTM PL	10-S0.3 / 1

NON-BEARING LINTELS

SPAN	12" CMU / 8" CMU / 6" CMU	4" CMU
1'-4" TO 4'-0" @ SCUPPERS	8" HIGH CMU BOND BEAM w/ 2) #5's CONT @ BOTTOM	L3 1/2 x 3 1/2 x 1/4
4'-1" TO 6'-6"	16" HIGH CMU BOND BEAM w/ 2) #5's CONT @ BOTTOM	L5 x 3 1/2 x 1/4 (LLV)
6'-7" TO 10'-0"	W8 x 28 w/ 5/16"xBOTTOM PLATE	L7 x 4 x 3/8 (LLV)

NOTE:
1) SEE ARCH DRAWINGS FOR ANGLE LEG DIMENSIONS ANGLES NOTED IN SCHEDULE ARE MINIMUM REQUIRED
2) SEE ARCH DRAWINGS FOR MECHANICAL DRAWINGS FOR ADDITIONAL OPENINGS. NON-BEARING LINTELS SHALL APPLY

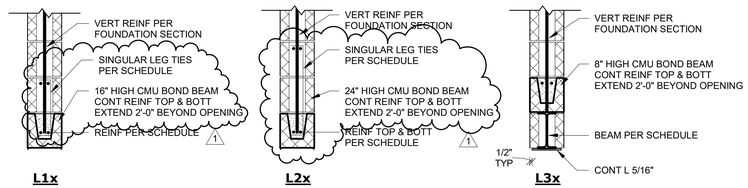
MASONRY WALL LEGEND

- FULL HGT BEARING WALL
- FULL HGT NON-BEARING WALL
- PARTIAL HGT NON-BEARING

ROOF FRAMING PLAN

1/8" = 1'-0"

1. ROOF CONSTRUCTION: (UNLESS NOTED OTHERWISE) 3" NW CONCRETE TOPPING SLAB REINFORCED w/ 6x6 W1.4xW1.4 WWF OVER PRECAST HOLLOW PLANKS (TOTAL SLAB = 13") INSTALLED AND FABRICATED HOLLOW CORE PLANKS IN ACCORDANCE WITH PCI SPECIFICATIONS. ADDITIONAL TOPPING SLAB REINFORCING SHALL BE DESIGNED BY PRECAST SUPPLIER FOR THE LOADS NOTED ON PRECAST PLANK LOAD DIAGRAM.
2. BOTTOM OF METAL DECK ELEVATIONS IS REFERENCED FROM FINISH FLOOR ELEVATION EL = 100'-0" AND NOTED THUS (BMD = XXX'-XX").
3. COORDINATE FLOOR ALL OPENING LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. PRECAST SUPPLIER TO DESIGN AND PROVIDE FRAMING FOR ALL OPENINGS.
4. ROOF EQUIPMENT CURB SUPPORT AND THEIR ATTACHMENTS SHALL BE DELEGATED DESIGN BY SUPPLIER FOR CURB ROOF STRUCTURE.
5. FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND CONDITIONS. NOTIFY ARCHTECT/ENGINEER IF ACTUAL EXISTING CONDITIONS CONFLICT WITH THE INFORMATION SHOWN OF IMPLIED ON THE DRAWINGS.
6. DESIGN ROOF LOAD: 155 PSF (DEAD LOAD = 55 PSF + PLANK WT = 80 PSF + LIVE/SNOW LOAD = 20 PSF).



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Revisions:

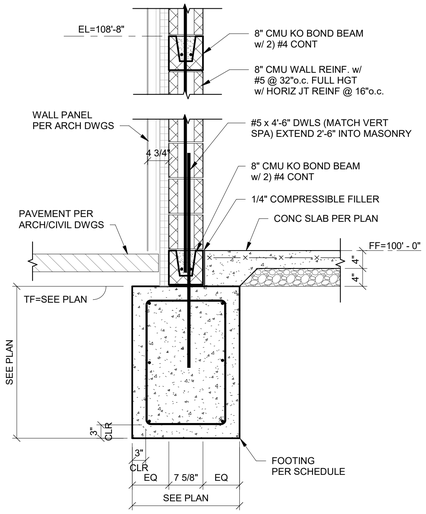
1	PERMIT COMMENTS	8/6/24

ROOF FRAMING PLAN

S1.1

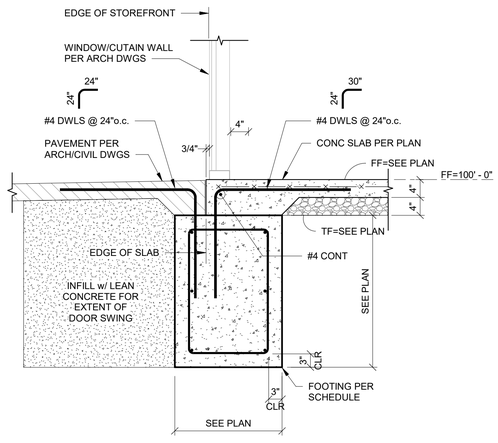
Issue Date: 08/06/2024

Job Number: 21-002.07



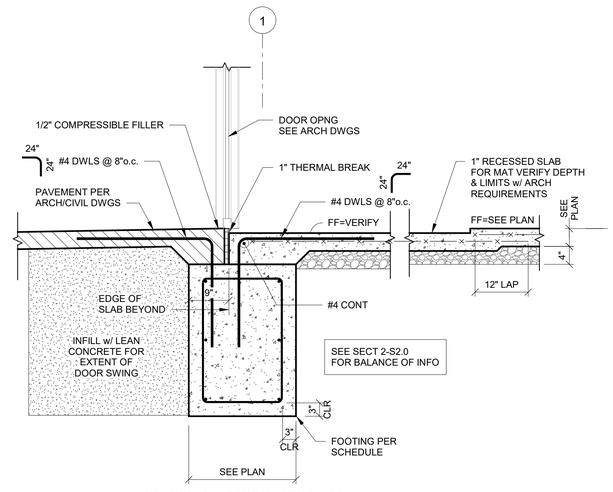
TYPICAL EXTERIOR WALL

1 S2.0 SECTION 3/4" = 1'-0"



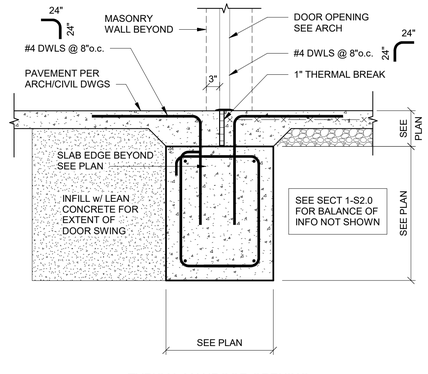
TYPICAL SECTION @ WINDOW

2 S2.0 SECTION 3/4" = 1'-0"



SECTION @ STORE ENTRY DOOR

3 S2.0 SECTION 3/4" = 1'-0"



TYPICAL MANDOOR OPENING

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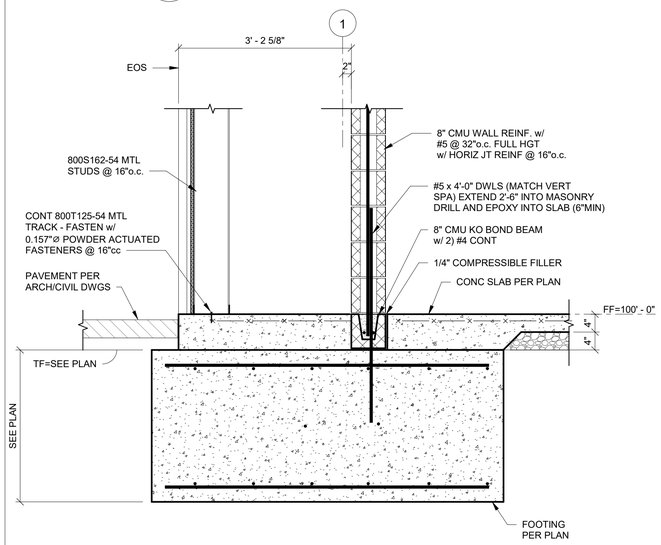

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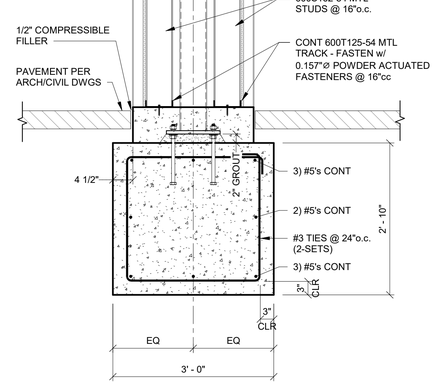

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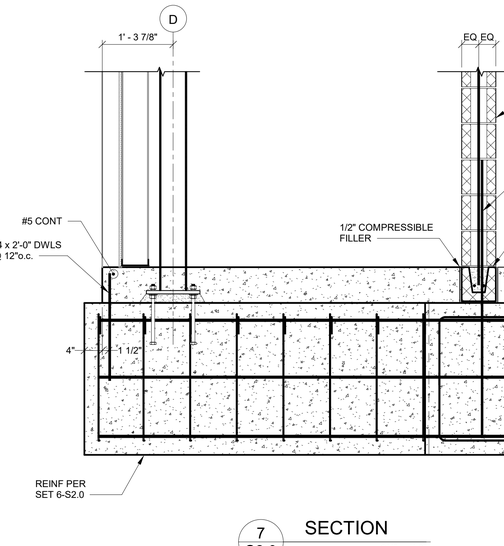

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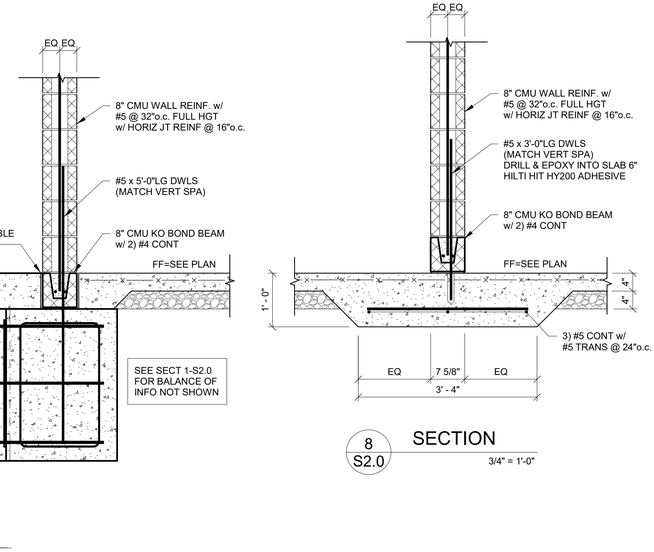
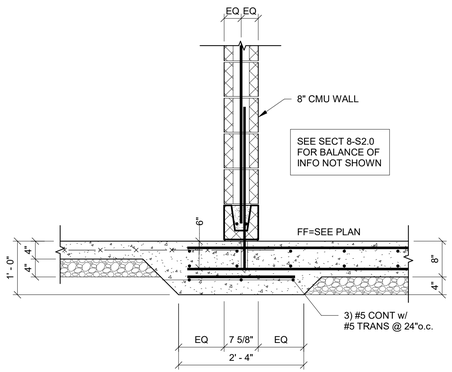


8 S2.0 SECTION 3/4" = 1'-0"



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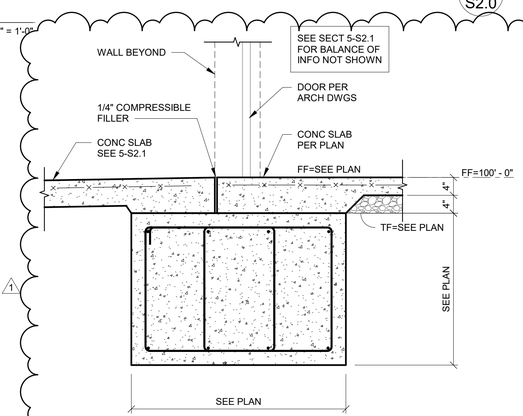

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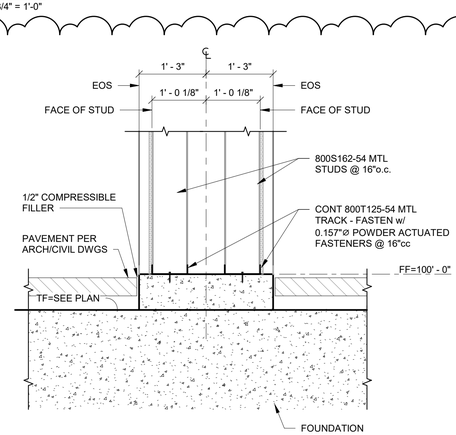

11 S2.0 SECTION 3/4" = 1'-0"

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Revisions:

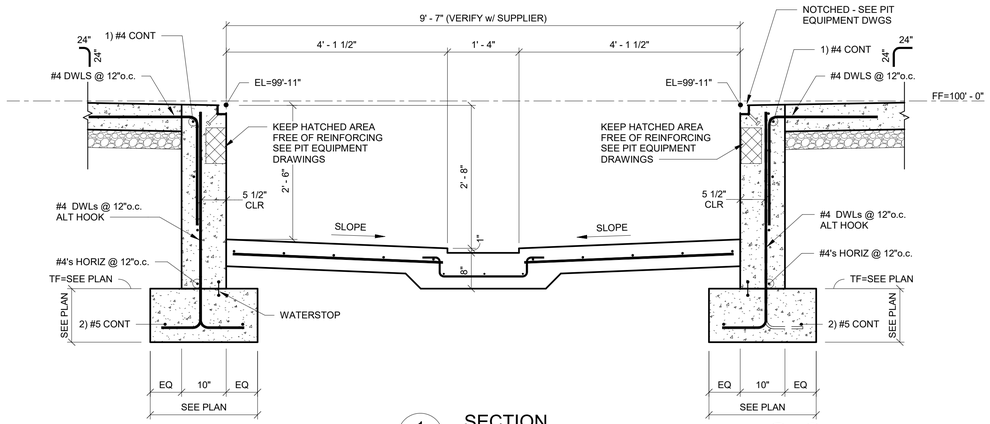
1	PERMIT COMMENTS	8/6/24

FOUNDATION DETAILS AND SECTIONS

S2.0

Issue Date: 08/06/2024

Job Number: 21-002.07



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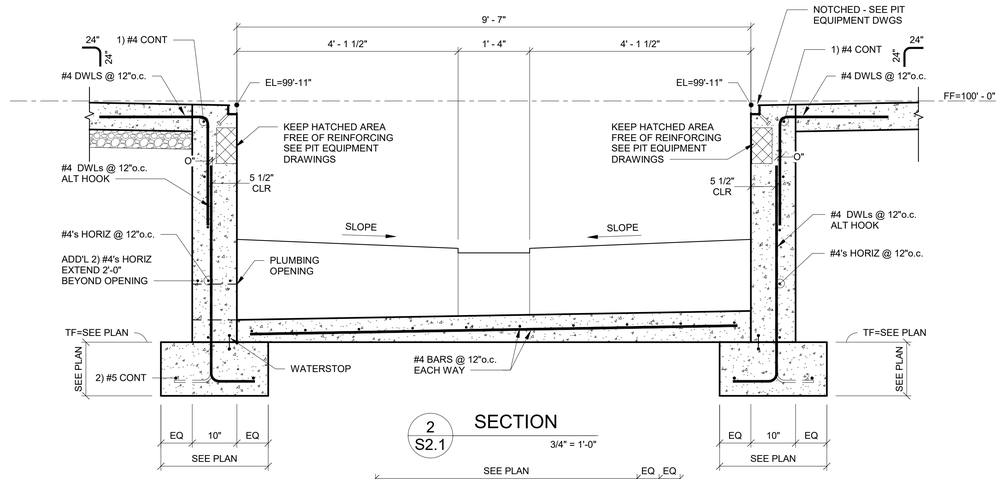

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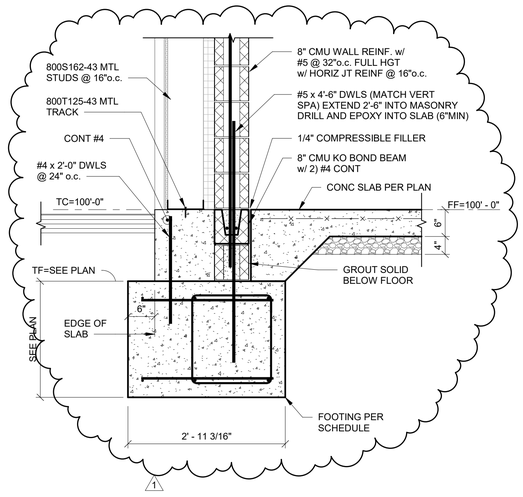

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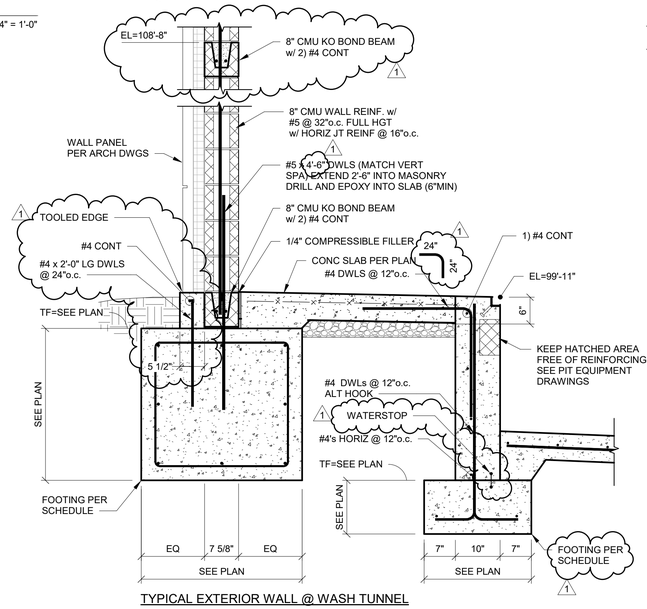
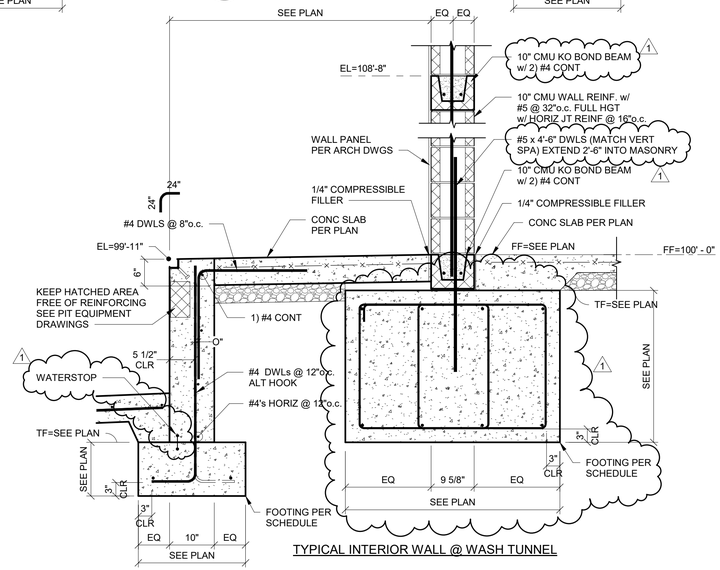


TYPICAL EXTERIOR WALL @ WASH TUNNEL

4 S2.1 SECTION 3/4" = 1'-0"



TYPICAL INTERIOR WALL @ WASH TUNNEL

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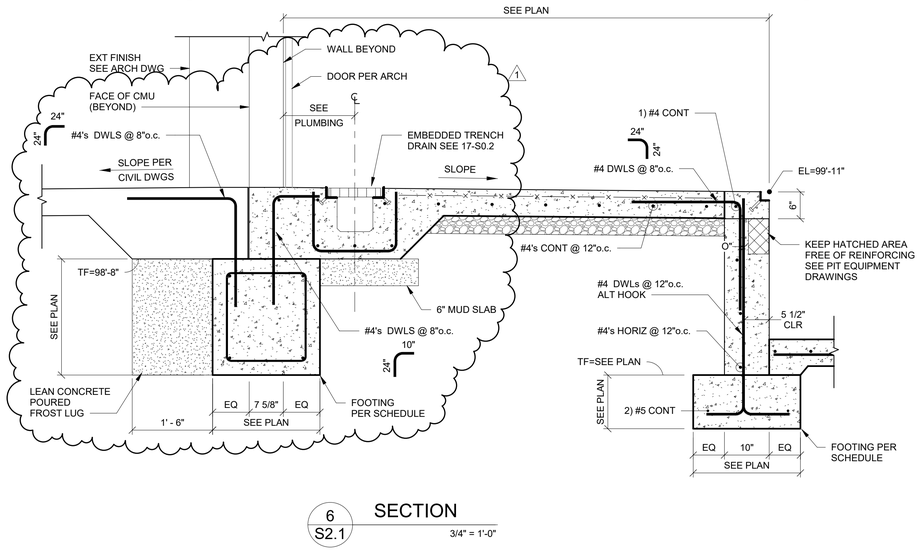

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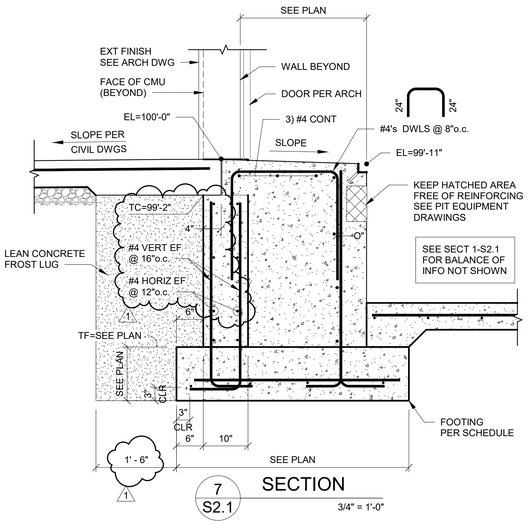
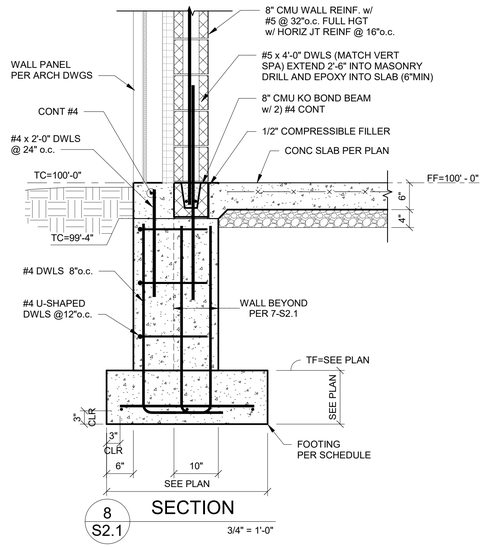


7 S2.1 SECTION 3/4" = 1'-0"



8 S2.1 SECTION 3/4" = 1'-0"

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FOUNDATION DETAILS AND SECTIONS

S2.1

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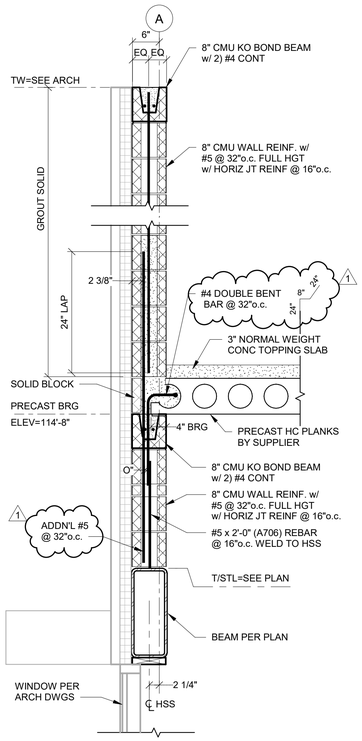
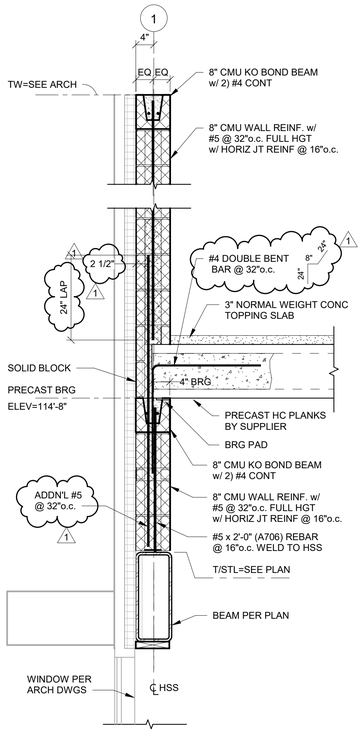


1 S4.0 SECTION 3/4" = 1'-0"



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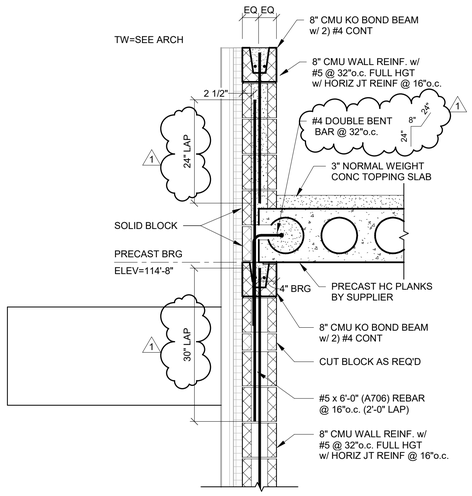
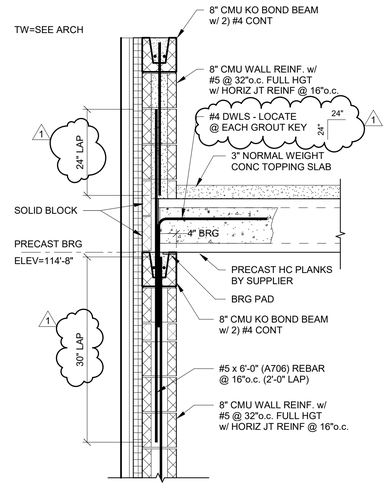
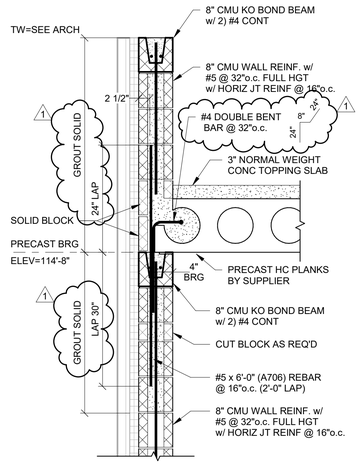


3 S4.0 SECTION 3/4" = 1'-0"



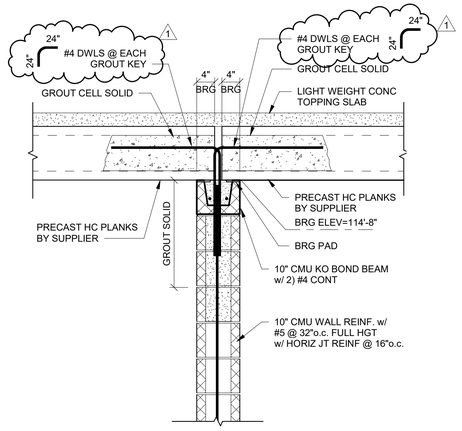
TYPICAL EXTERIOR WALL BEARING (PERP)

4 S4.0 SECTION 3/4" = 1'-0"

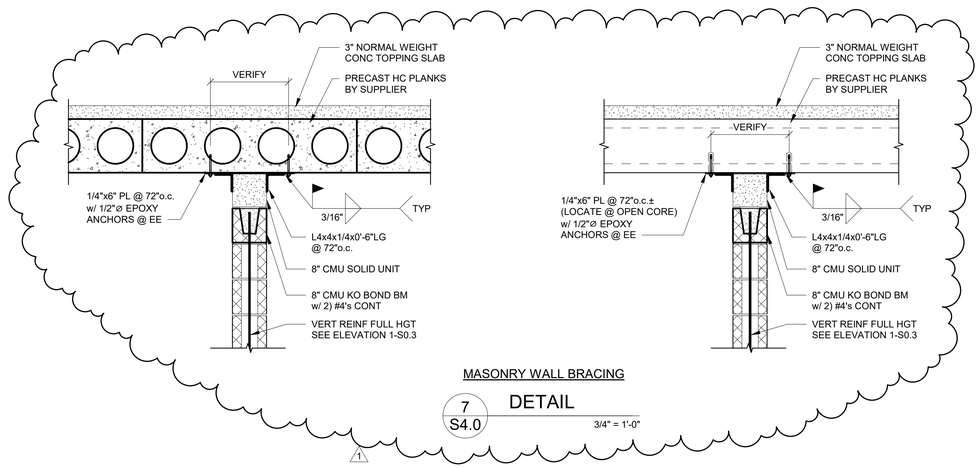


TYPICAL EXTERIOR WALL BEARING (PARA)

5 S4.0 SECTION 3/4" = 1'-0"

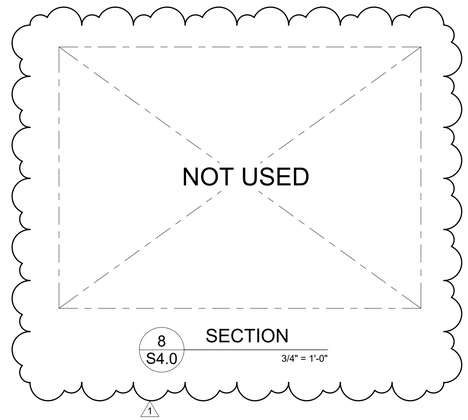


6 S4.0 SECTION 3/4" = 1'-0"



MASONRY WALL BRACING

7 S4.0 DETAIL 3/4" = 1'-0"



8 S4.0 SECTION 3/4" = 1'-0"

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Revisions:

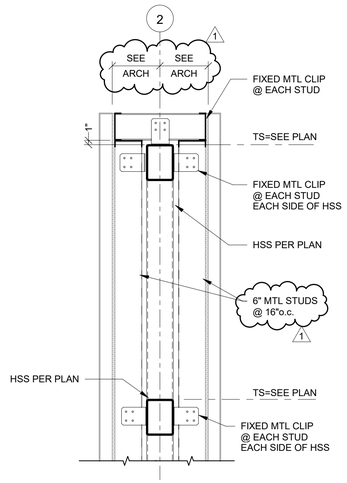
1	PERMIT COMMENTS	8/6/24

ROOF FRAMING DETAILS AND SECTIONS

S4.0

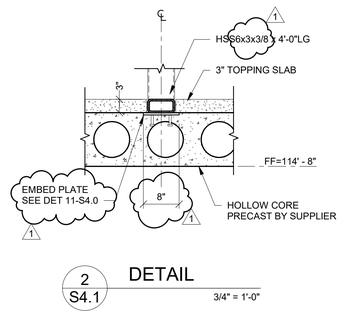
Issue Date: 08/06/2024

Job Number: 21-002.07



1 S4.1 SECTION

3/4" = 1'-0"



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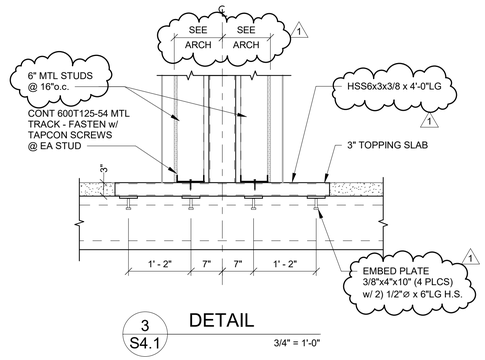
3/4" = 1'-0"



3 S4.1 DETAIL

3/4" = 1'-0"

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Waterway® Carwash

LOTS 11 & 13 OF WEST PRYOR
LEES SUMMIT, MO 64063

STATE OF MISSOURI
JAMES C. KREHER
NUMBER E-25562
8-6-24
REGISTERED PROFESSIONAL ENGINEER

Exp 12-31-25

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Revisions:

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ROOF FRAMING DETAILS AND SECTIONS

1 S4.1

Issue Date: 08/06/2024

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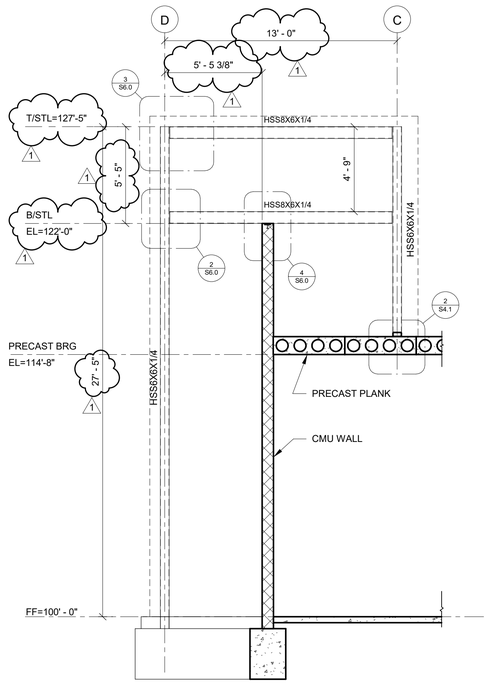
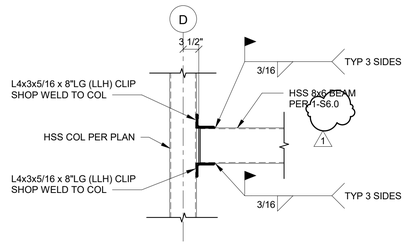
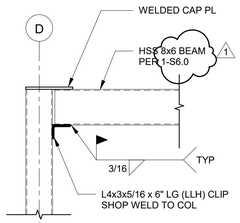


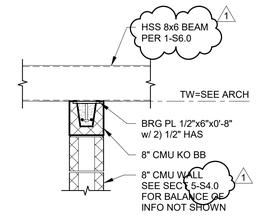
1 S6.0 ELEVATION 1/4" = 1'-0"



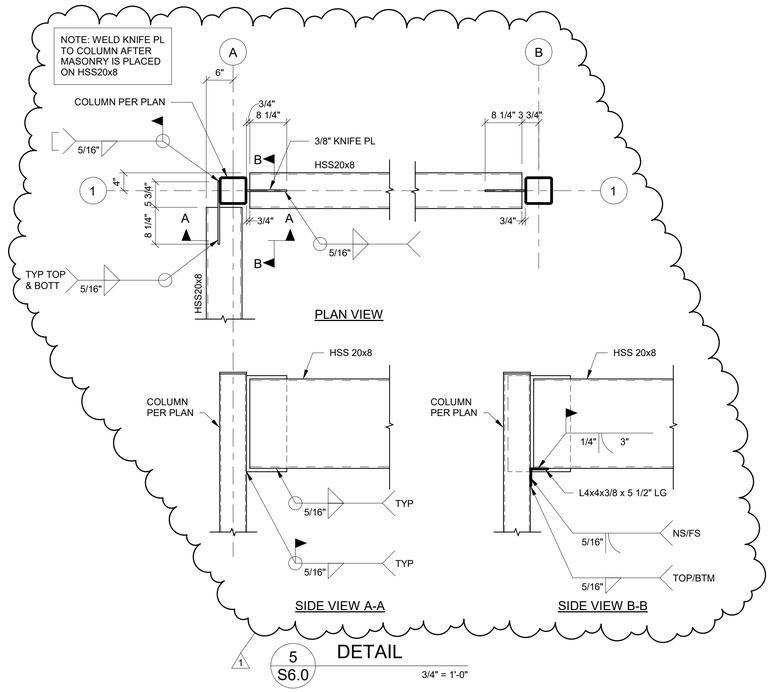
2 S6.0 DETAIL 3/4" = 1'-0"



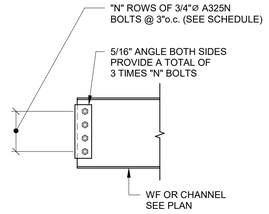
3 S6.0 DETAIL 3/4" = 1'-0"



4 S6.0 DETAIL 3/4" = 1'-0"



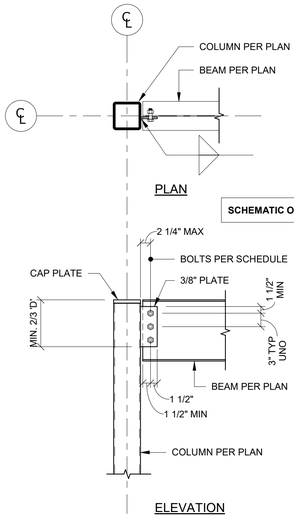
5 S6.0 DETAIL 3/4" = 1'-0"



NOMINAL BEAM DEPTH	"N"
8" & 10"	2
12" & 14"	3
16"	4
18"	5
21"	6
24" & 27"	7

TYPICAL SHEAR CONNECTION DETAIL

6 S6.0 DETAIL 3/4" = 1'-0"



7 S6.0 DETAIL 3/4" = 1'-0"

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Revisions:

1	PERMIT COMMENTS	8/6/24

BUILDING SIGNAGE DETAILS

S6.0

Issue Date: 08/06/2024

Job Number: 21-002.07