

PRE-CONSTRUCTION NOTES
1. PRIOR TO START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING IS TO BE HELD INCLUDING A RESPONSIBLE REPRESENTATIVE OF THE ARCHITECT, THE OWNER AND THE GENERAL CONTRACTOR.

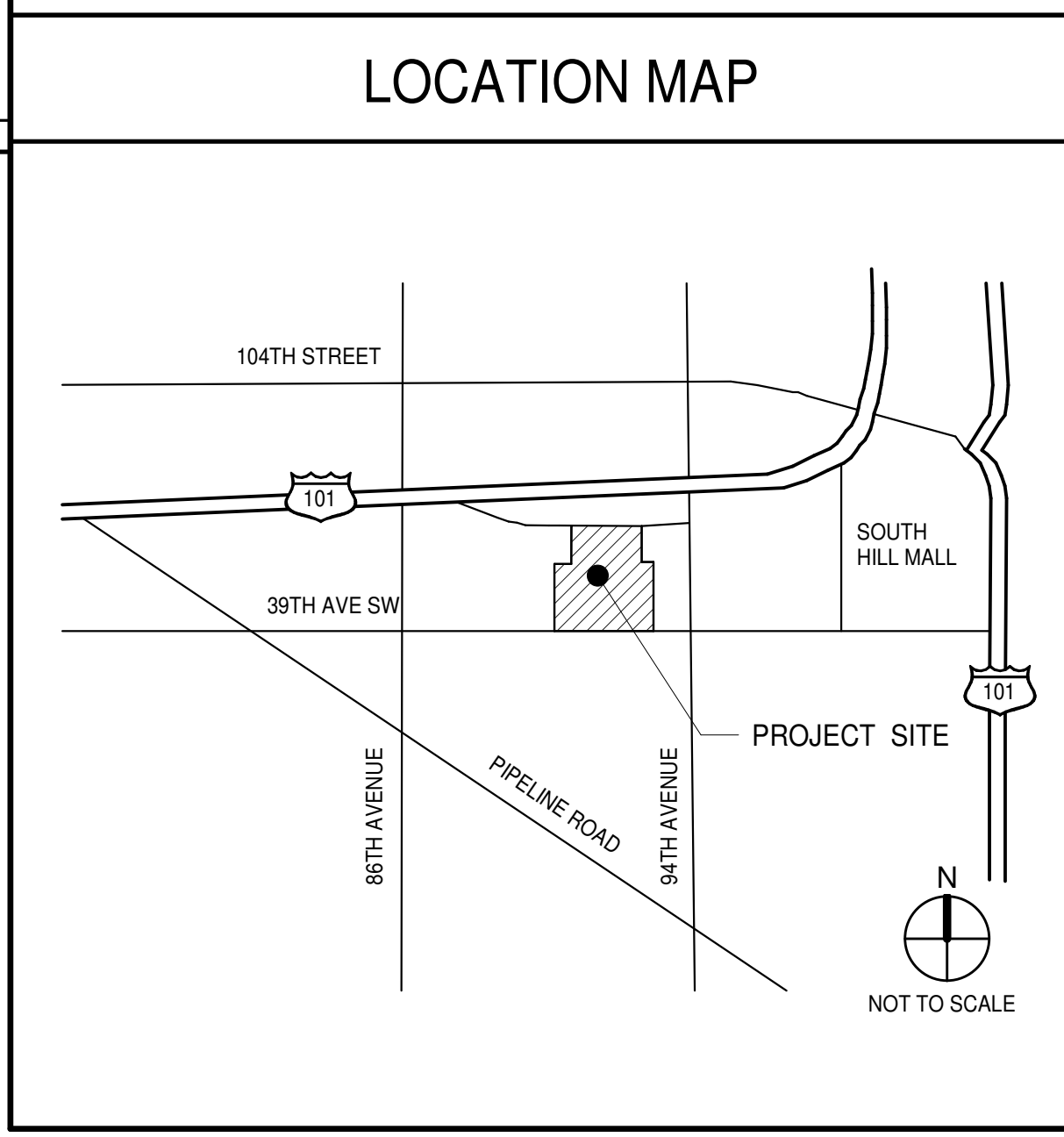
ABBREVIATIONS
ANGLE CENTERLINE, POUND OR NUMBER AND EXISTING
EAST EXPANSION JOINT, ELECTRIC PANELBOARD, ELECTRIC WATER COOLER, EACH

G.C. INSTRUCTIONS
SUBMITTALS
1. AT THE START OF JOB PROVIDE A SCHEDULE OF ALL ANTICIPATED SUBMITTALS AND DATES.

ABBREVIATIONS (continued)
M.C. MEDICINE CABINET, M.D. MAXIMUM OPENING, M.E. MECHANICAL MEMBRANE, M.F. MANUFACTURER

REQUESTS FOR INFORMATION (RFIs)
1. THE GENERAL CONTRACTOR IS TO REVIEW ALL PROSPECTIVE RFIs AND MAKE EVERY EFFORT TO ANSWER THEM BEFORE SUBMITTING TO THE DESIGN TEAM.

PROJECT DIRECTORY
ARCHITECT: WARE MALCOMB
BUILDING OWNER: COSTCO WHOLESALE
ARCHITECT'S CONSULTANTS: MECHANICAL & PLUMBING ENGINEER, ELECTRICAL ENGINEER



GENERAL CONTRACTOR
GC COMPANY NAME: PACIFIC NORTHERN ENVIRONMENTAL
PRIMARY CONTACT: JAKE JABUSCH

COSTCO FLEET RESTROOM
PUYALLUP WH0660
RESTROOM REFRESH
1201 39TH AVE SW, PUYALLUP, WA. 98373-3803
(For Tenant Improvement Permit Only)

PROJECT DESCRIPTION & SCOPE
PROJECT DESCRIPTION: EXISTING SCOPE
SCOPE OF WORK: SCOPE OF WORK UNDER THIS PERMIT: THE SCOPE OF WORK INCLUDES THE INSTALLATION OF NEW INTERIOR PARTITIONS, PLUMBING FIXTURES, RESTROOM ACCESSORIES.

SHEET INDEX
SHEET ISSUED ON DATE INDICATED, WITH MODIFICATIONS
ARCHITECTURAL: G010 TITLE SHEET, G000 PROJECT DATA, G010 GENERAL NOTES

BUILDING & CODE INFORMATION
BUILDING DEPARTMENT: CITY OF PUYALLUP, WASHINGTON
APPLICABLE BUILDING CODES: 2021 INTERNATIONAL BUILDING CODE, 2021 INTERNATIONAL MECHANICAL CODE

MECHANICAL
M-0 MECHANICAL SPECIFICATIONS, GENERAL NOTES, SYMBOLS, AND LEGENDS
M-1 MECHANICAL PLANS, SCHEDULES, & DETAILS

DEFERRED SUBMITTALS
DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEERS OF RECORD WHO SHALL REVIEW AND PROVIDE NOTATION INDICATING DOCUMENTS HAVE BEEN REVIEWED AND FOUND TO BE IN GENERAL CONFORMANCE WITH THE BUILDING DESIGN.

TITLE SHEET
REMARKS
DATE: 09/20/2024
PERMIT ISSUANCE
City of Puyallup Building Reviewed for Compliance
G010

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1201 39TH AVE SW, PUYALLUP, WA. 98373-3803
PRCTI20241512

City of Puyallup Building Reviewed for Compliance
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06/05/2026
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PAFM: L LUCERO
DRAWN BY: A. M.
JOB NO.: SE424-0053-00
SHEET
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DEMOLITION NOTES

- 1. DRAWINGS OF EXISTING CONDITIONS HAVE BEEN COMPILED FROM EXISTING DATA SUPPLIED BY THE OWNER TO THE ARCHITECT. THE ARCHITECT MAKES NO WARRANTY EITHER EXPRESSED NOR IMPLIED FOR THE ACCURACY OR THE COMPLETENESS OF THE EXISTING INFORMATION RECORDED. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS THAT MIGHT ARISE IN THE COURSE OF THE DEMOLITION WORK.

FINISH NOTES

- 1. NO FINISH SUBSTITUTIONS MAY BE MADE UNLESS APPROVED BY ARCHITECT.
2. CONTRACTOR MUST NOTIFY THE ARCHITECT OF ANY DISCREPANCY IN PLANS. FINISH ITEMS CLEARLY SHOWN IN PLANS, BUT OMITTED FROM SCHEDULES OR LEGENDS MUST STILL BE PROVIDED AND INSTALLED BY CONTRACTOR. CONTRACTOR TO VERIFY COMPLETED FINISHED WITH ARCHITECT PRIOR TO ORDERING PRODUCTS.
3. INSTALL MATERIALS ACCORDING TO MANUFACTURER'S SUGGESTED INSTALLATION AND PREPARATION/MAINTENANCE SPECIFICATIONS OR BETTER, UNLESS OTHERWISE APPROVED OR NOTED.

CEILING NOTES

- 1. SEE ELECTRICAL ENGINEERING DRAWINGS FOR SPECIFICATIONS OF LIGHT FIXTURES, SWITCHES, EXIT SIGNS, ETC.
2. CONTRACTOR TO VERIFY COMPATIBILITY OF LIGHT FIXTURES WITH THE CEILING SYSTEM.
3. ALL REPLACEMENT FLOURESCENT LAMPS TO MATCH BUILDING STANDARD OR ADJACENT EXISTING CONSTRUCTION - SAME COLOR AND MANUFACTURER.

GENERAL PROJECT NOTES

GENERAL NOTES

- 1. ALL WORK SHALL BE PERFORMED SO AS TO COMPLY WITH ALL LEGAL, INDUSTRY AND PROJECT SPECIFIC REQUIREMENTS AND STANDARDS INCLUDING WITHOUT LIMITATION OF THE FOLLOWING:
A. ALL APPLICABLE BUILDING CODES
B. ALL APPLICABLE SPECIALTY CODES INCLUDING THE MOST CURRENT ISSUES AND SUPPLEMENTS
C. THE PROJECT MANUAL AND ASSOCIATED SPECIFICATIONS WHEN PROVIDED
D. THE MANUFACTURER'S REQUIREMENTS OR RECOMMENDATIONS
E. ALL APPLICABLE LANDLORD BUILDING STANDARDS

JOB SITE NOTES

- 1. WHERE EXISTING TENANTS/BUSINESSES ARE ADJACENT TO THE JOB SITE/TENANT, THE CONTRACTOR SHALL MINIMIZE CONSTRUCTION NOISE. EXTREMELY NOISY CONSTRUCTION SHALL OCCUR AT NON-TYPICAL BUSINESS HOURS. CONTRACTOR SHOULD NOTIFY BUILDING REPRESENTATIVE OF SPECIAL CIRCUMSTANCES IN ADVANCE PRIOR TO WORK.
2. THE CONTRACTOR AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREA FREE FROM DUST AND DEBRIS. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH.

DRAWING INTERPRETATION - GENERAL RULES

- 1. UNLESS OTHERWISE NOTED OR INDICATED, ALL DIMENSIONS ON THESE DOCUMENTS SHALL BE TO FACE OF CURB, FACE OF CONCRETE OR MASONRY, FACE OF FINISH OR CENTERLINE OF GRIDS.
2. ALL VERTICAL DIMENSIONS SHOWN ARE FROM FLOOR SLAB, U.O.N.
3. THE TERM "ALIGN," AS USED IN THESE DOCUMENTS, SHALL MEAN TO ACCURATELY LOCATE FINISHES IN THE SAME PLANE.

INTERIOR/EXTERIOR NOTES

- 1. WHERE ELECTRICAL, MECHANICAL AND/OR PLUMBING ITEMS, SUCH AS LIGHTS, DUCTS, PIPING, DOWNSPOUTS, ETC. ARE TO PENETRATE ANY BUILDING FOOTINGS, SLABS, FLOORS, STRUCTURAL FRAMING, PARTITIONS, CEILING, ETC., IT IS REQUIRED THAT AN APPROPRIATELY SIZED OPENING OR CLEARANCE BE FURNISHED. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL ITEMS WITH THE CONSTRUCTION DOCUMENTS PRIOR TO THE INSTALLATION OF STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WORK. ANY CONFLICT OR DISCREPANCY WITH CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR CLARIFICATION.

FLOOR PLAN NOTES

- 1. CONTRACTOR AND ARCHITECT TO REVIEW & APPROVE CHALK LINES OF PARTITION LAYOUT PRIOR TO COMMENCEMENT OF PARTITION CONSTRUCTION.
2. CONTRACTOR TO VERIFY DIMENSIONS FOR ALL PLUMBING PARTITIONS.
3. EXTEND ALL STUDS AND PARTITION MATERIALS TO CONSTRUCTION ABOVE, U.O.N.
4. ALL CONDUIT PIPING TO BE CONCEALED WITHIN THE PARTITION CONSTRUCTION.

DOOR NOTES

- 1. CONTRACTOR SHALL SUBMIT A COMPLETE HARDWARE SCHEDULE WITH HARDWARE CUT SHEETS PREPARED BY A QUALIFIED HARDWARE CONSULTANT FOR ARCHITECT'S REVIEW AND APPROVAL.
2. GENERAL CONTRACTOR TO PRODUCE AND COORDINATE USE OF A MASTER KEYING SYSTEM DEVELOPED WITH AND APPROVED BY THE BUILDING OWNER AND TENANT.
3. CONTRACTOR TO VERIFY THAT ALL NEW AND EXISTING TO REMAIN DOORS AND DOOR HARDWARE COMPLY WITH REQUIREMENTS OF GOVERNING CODES & STANDARDS. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY NON-COMPLIANCE.

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COSTCO WHOLESALE

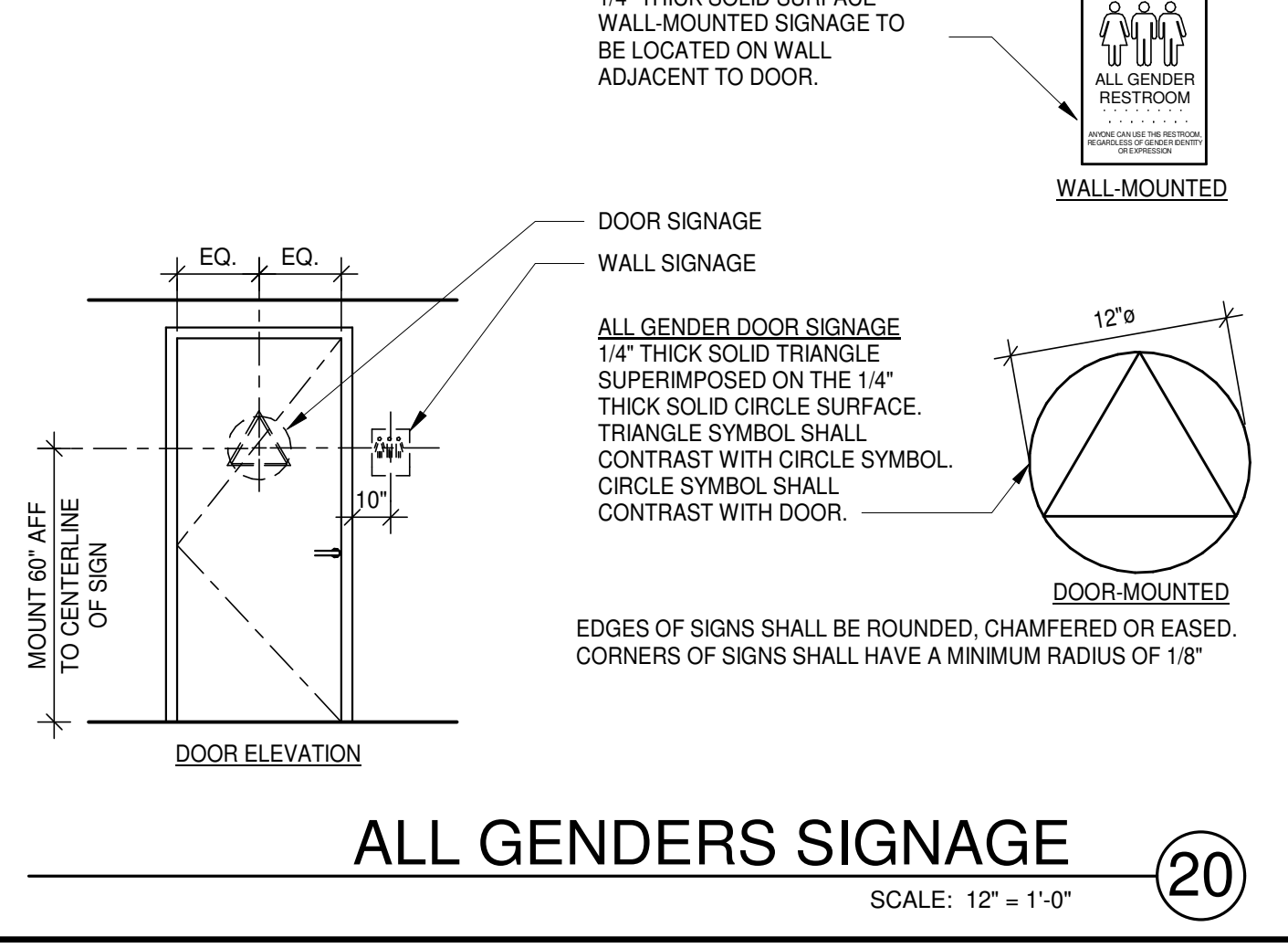
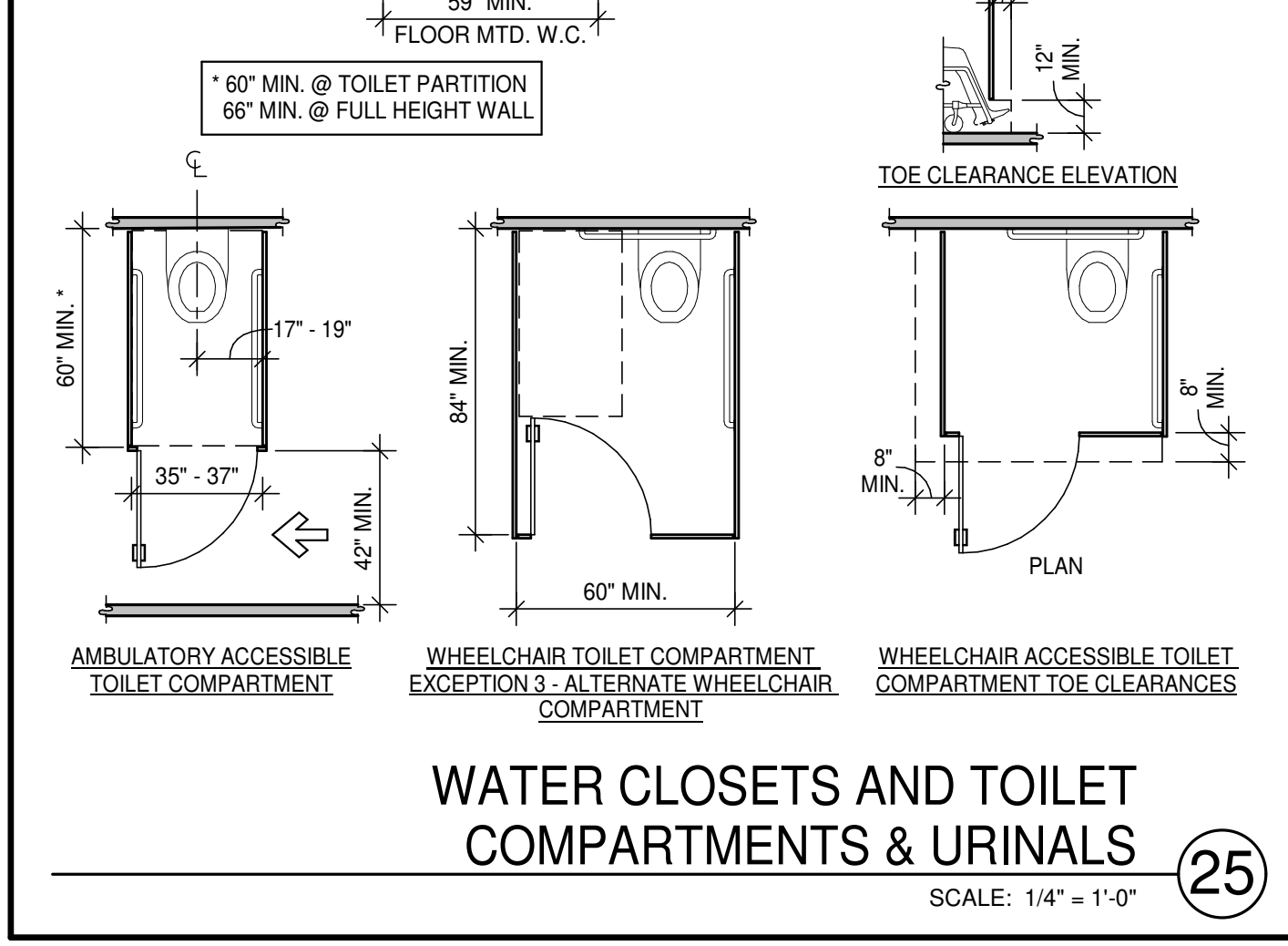
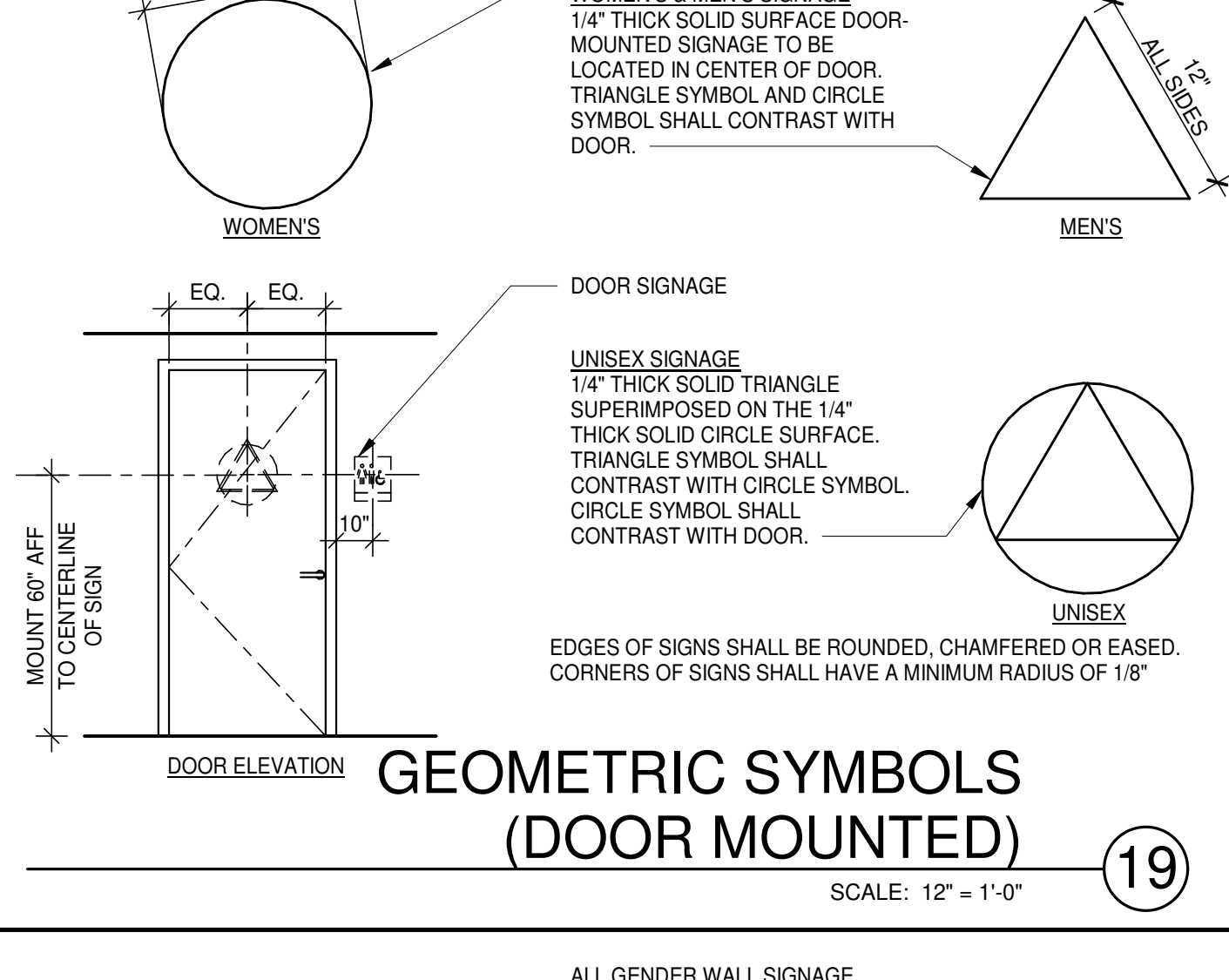
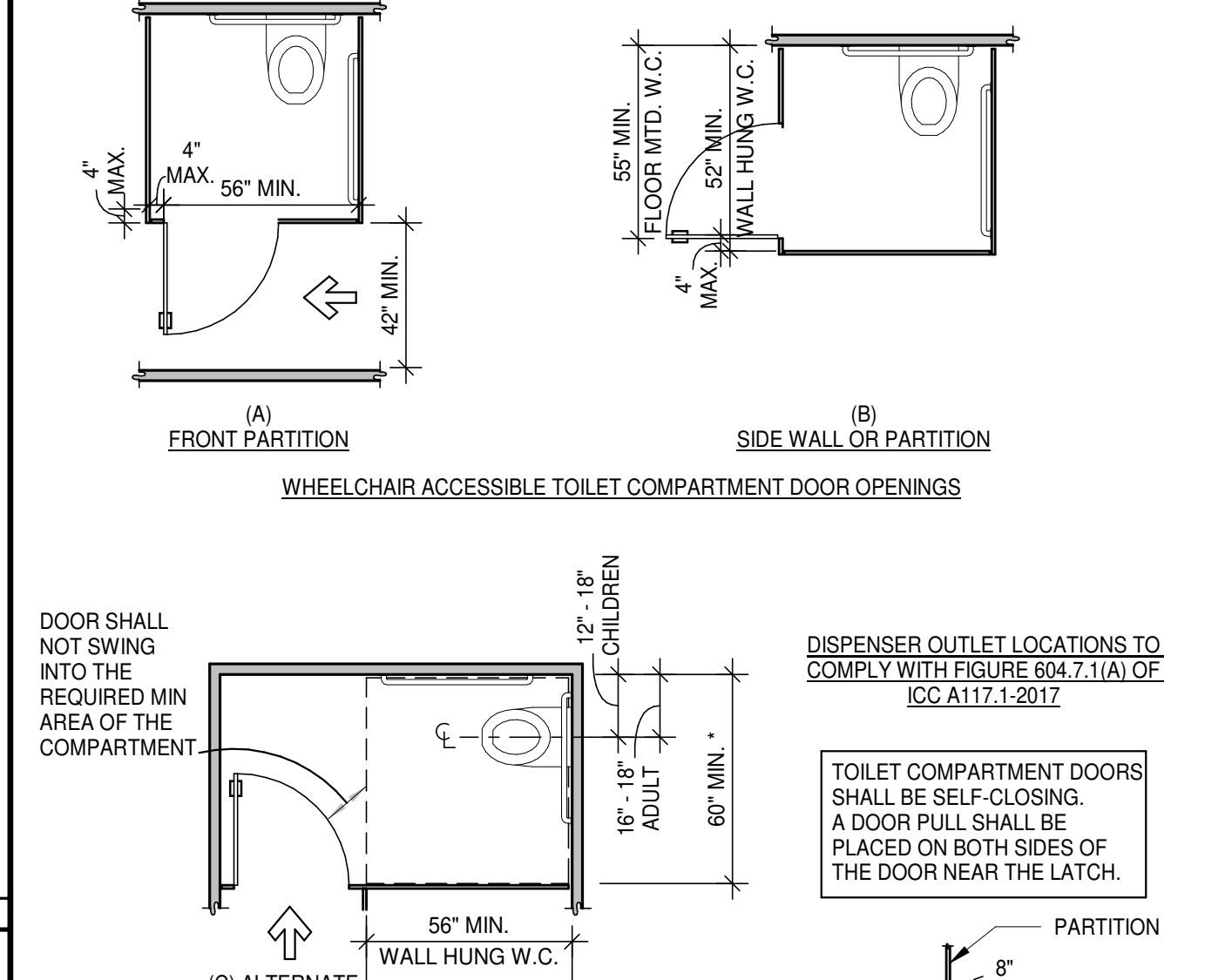
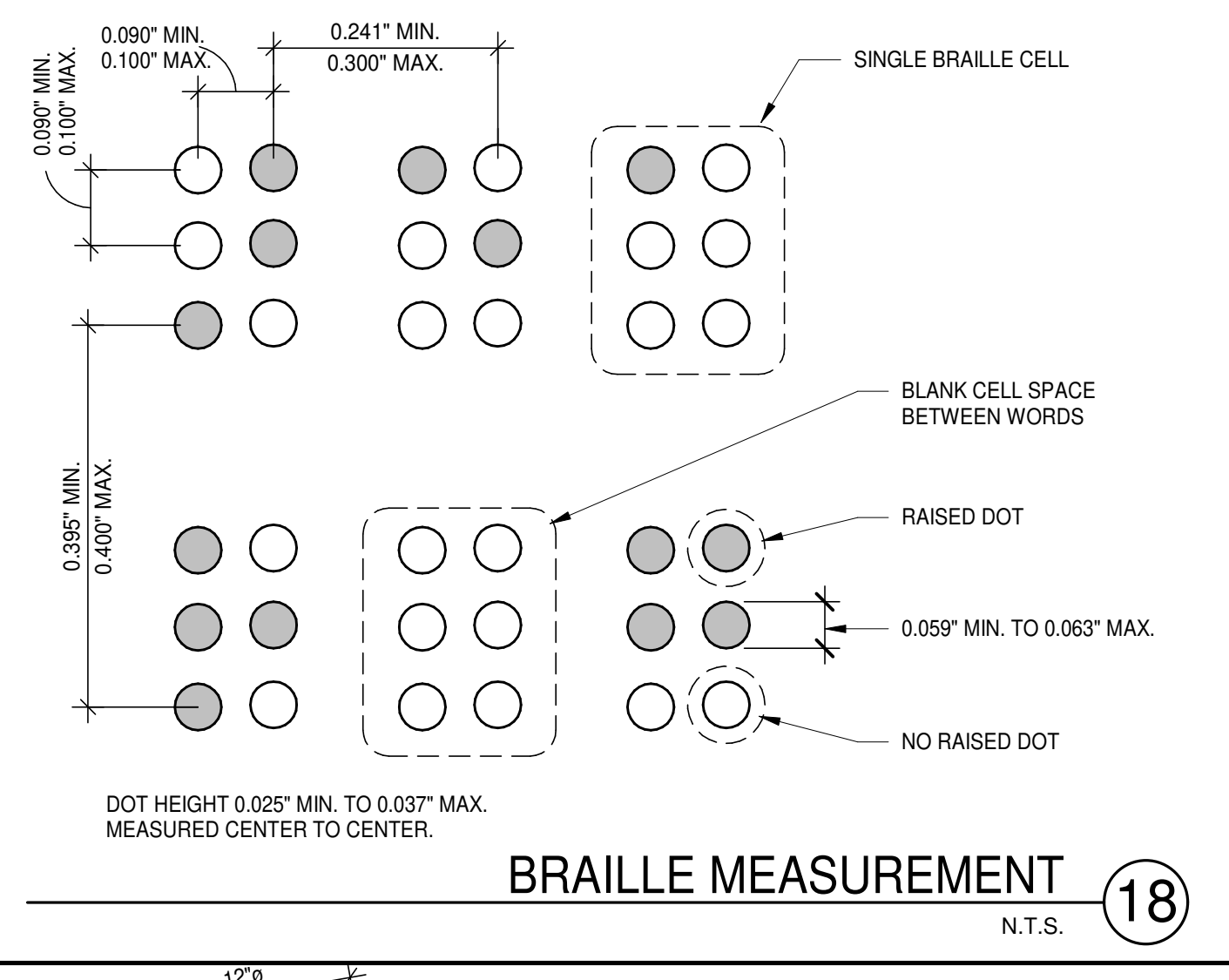
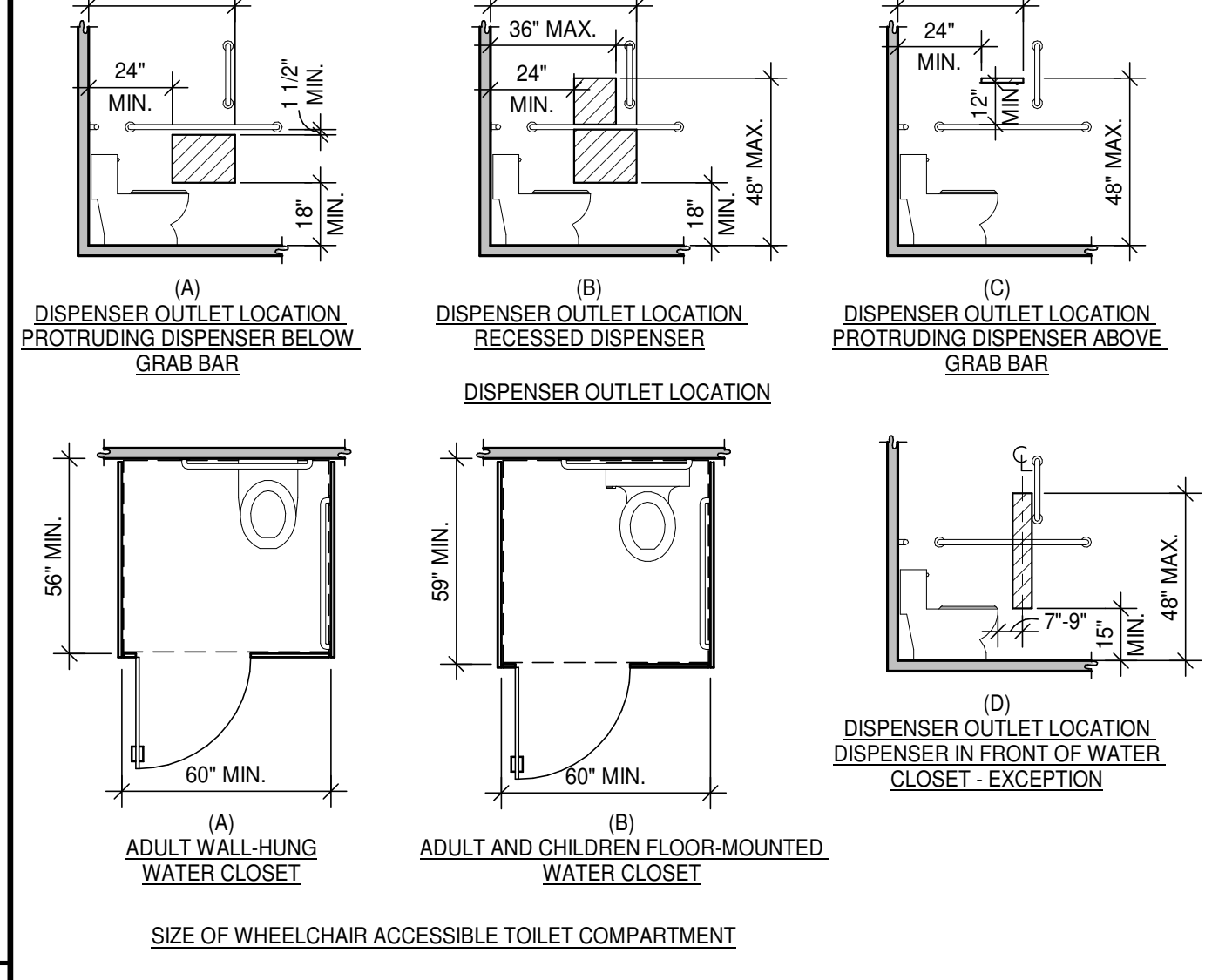
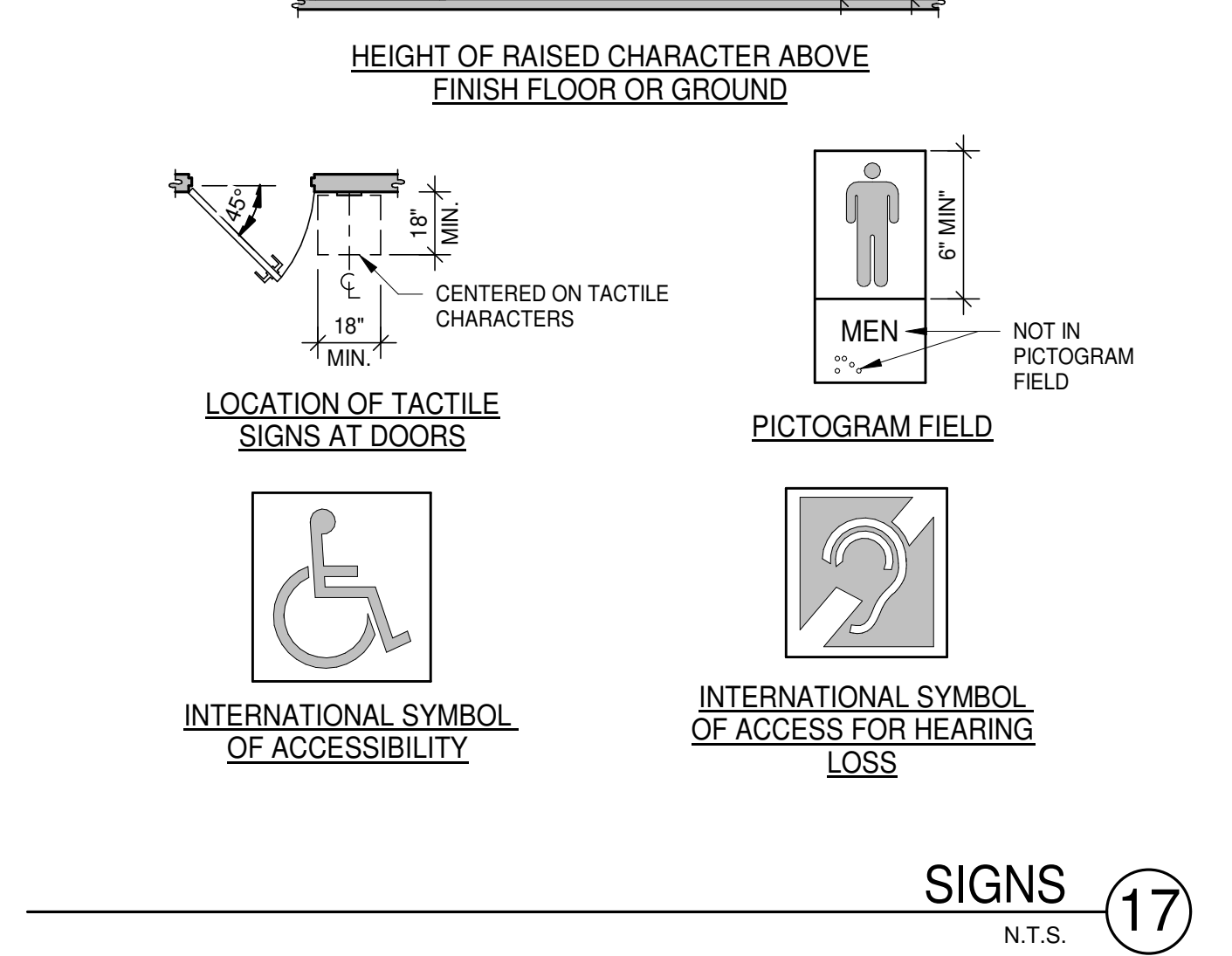
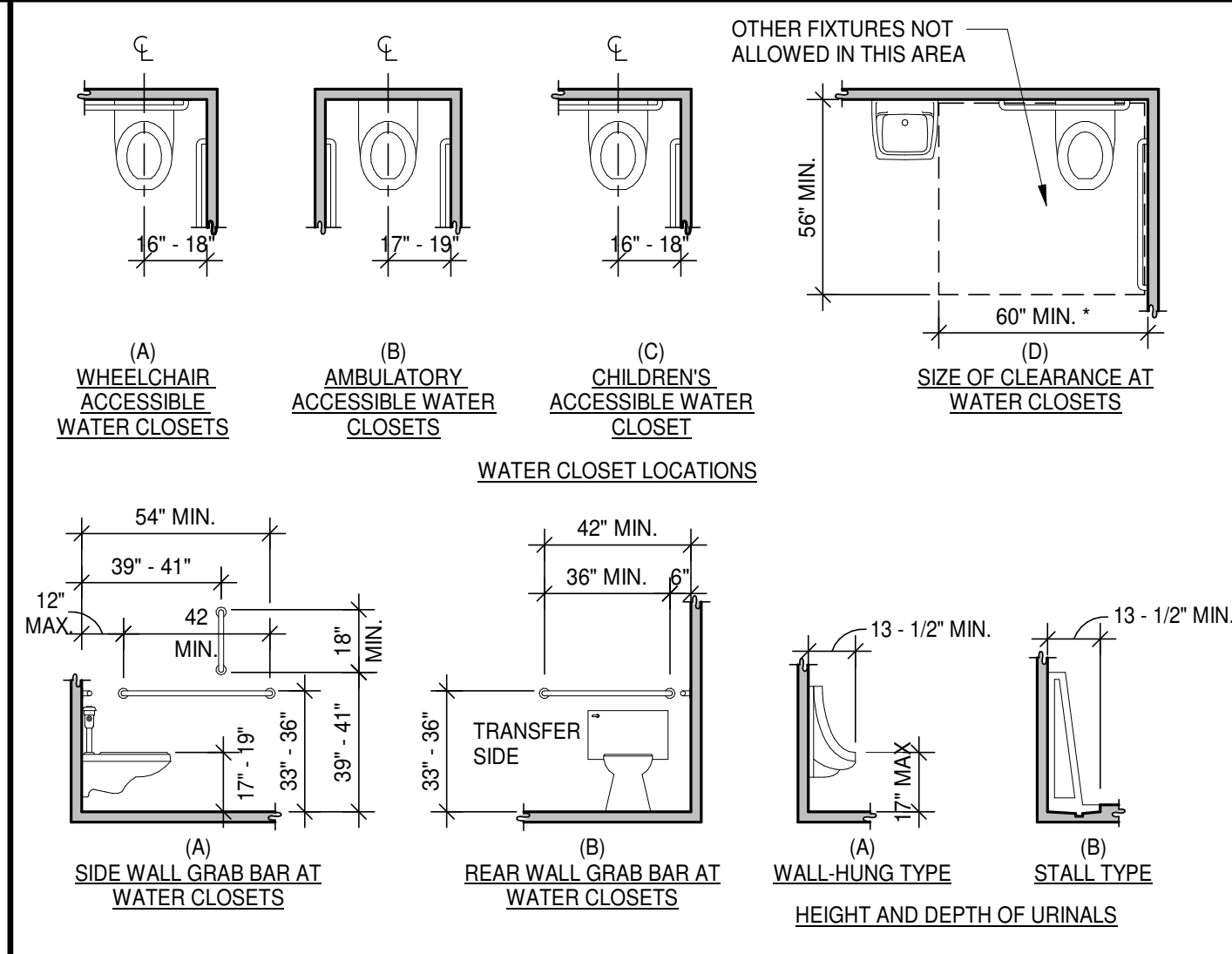
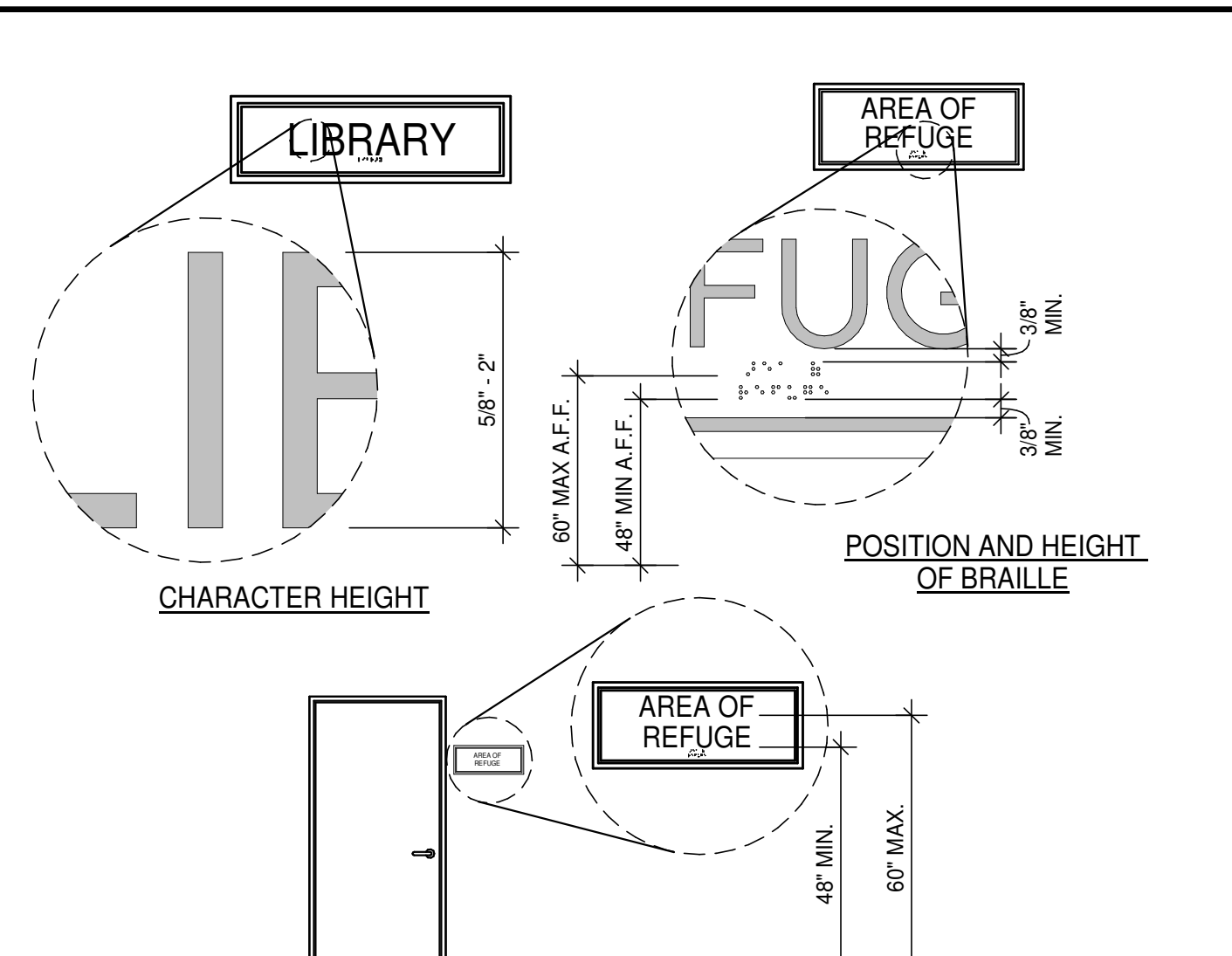
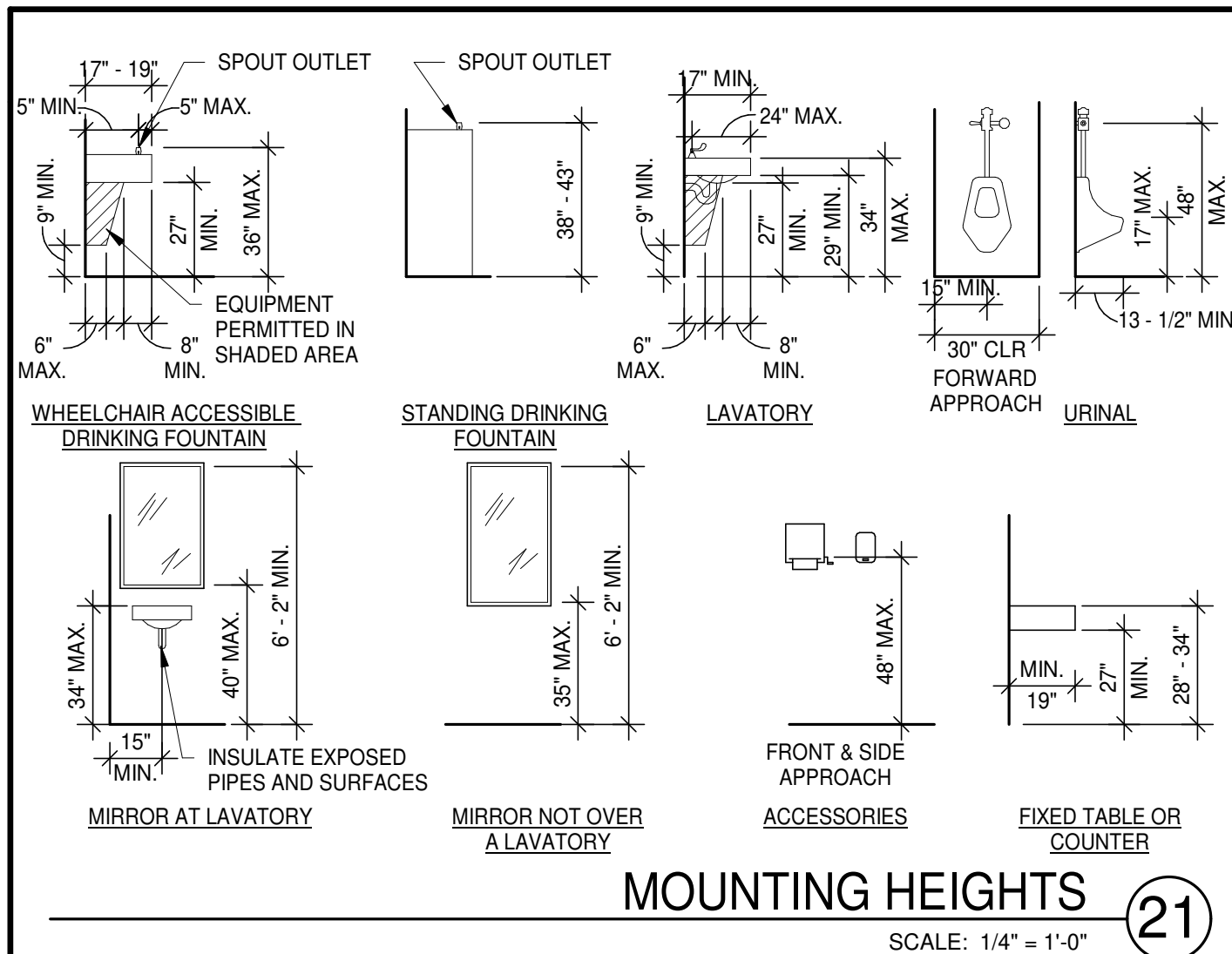
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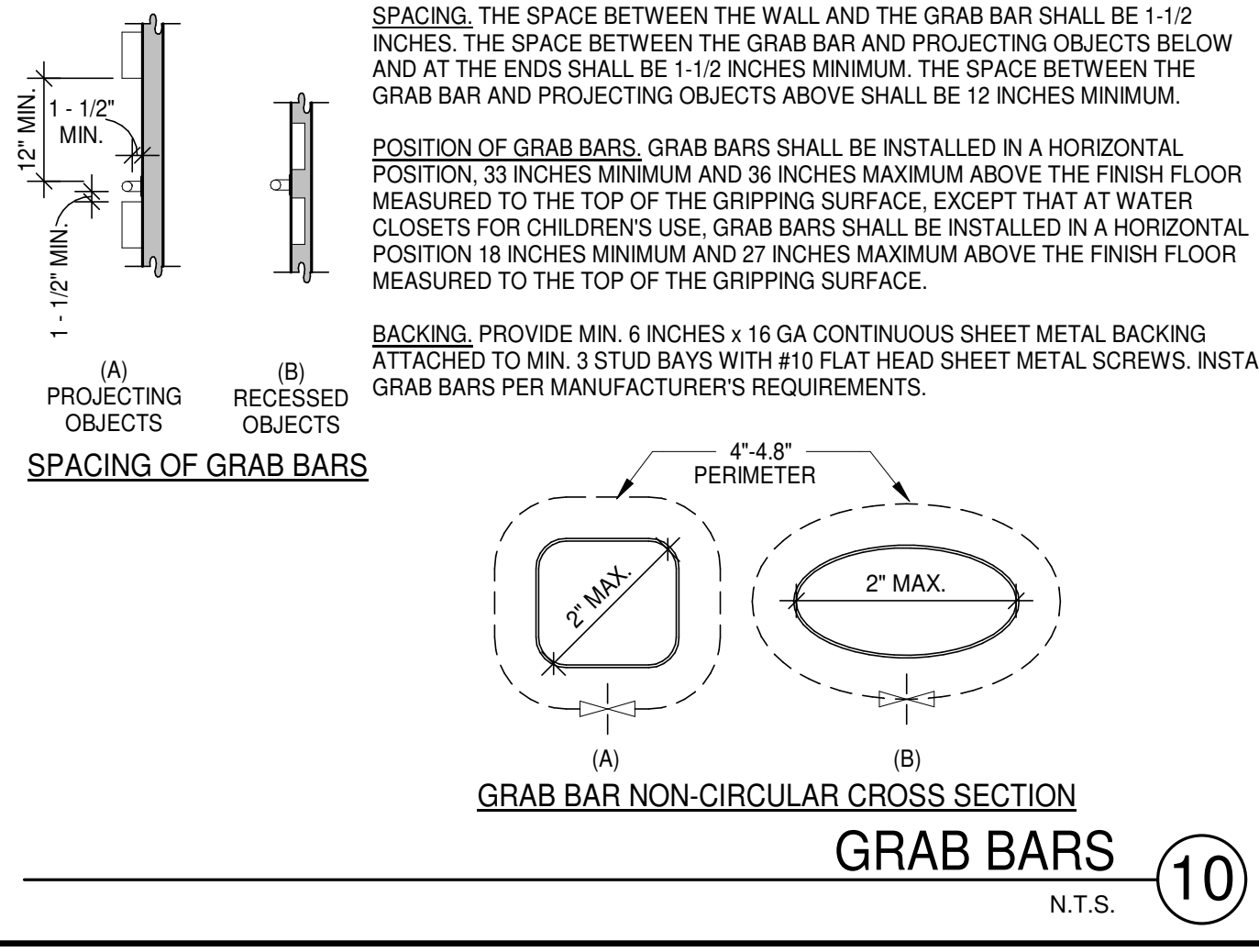
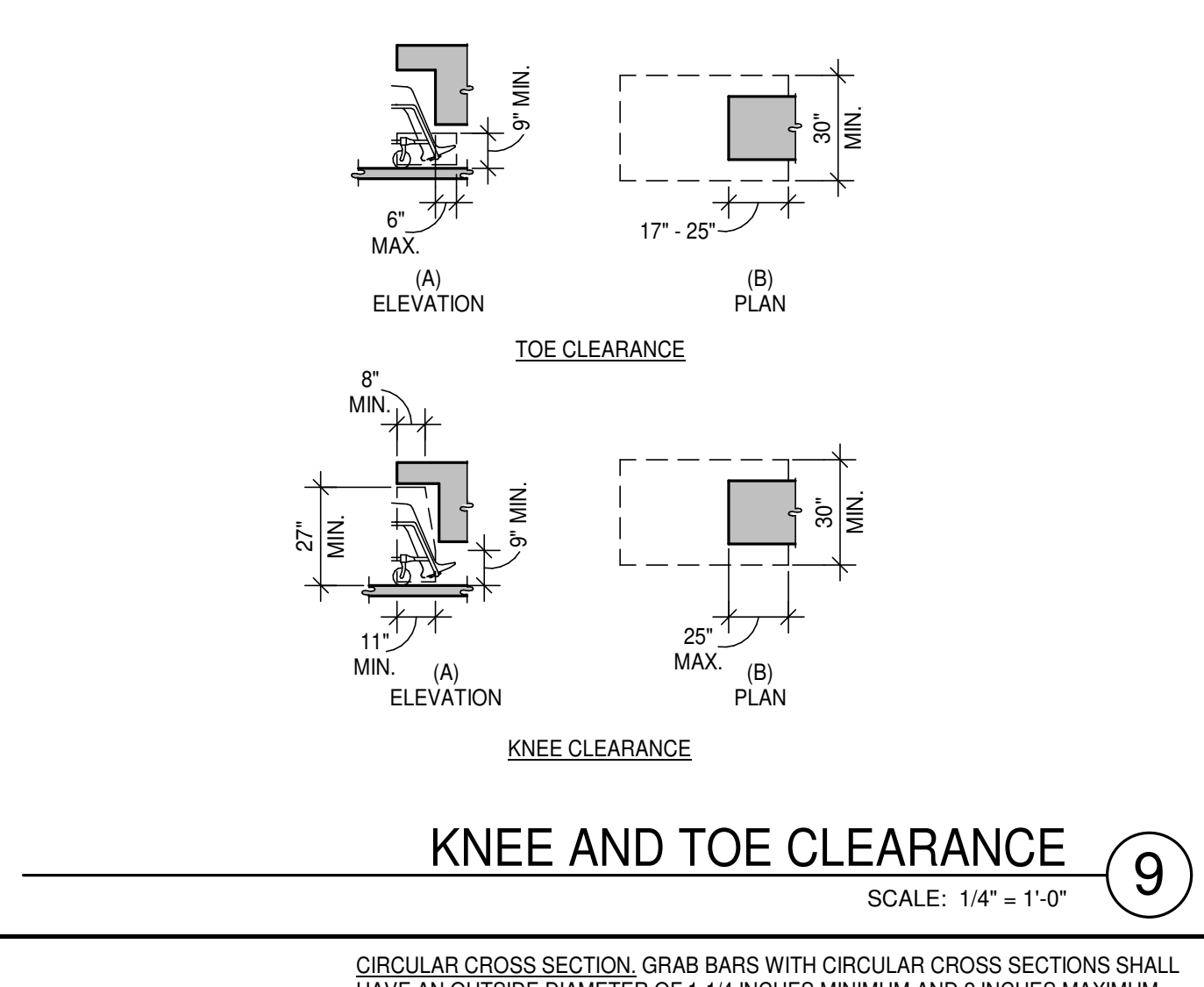
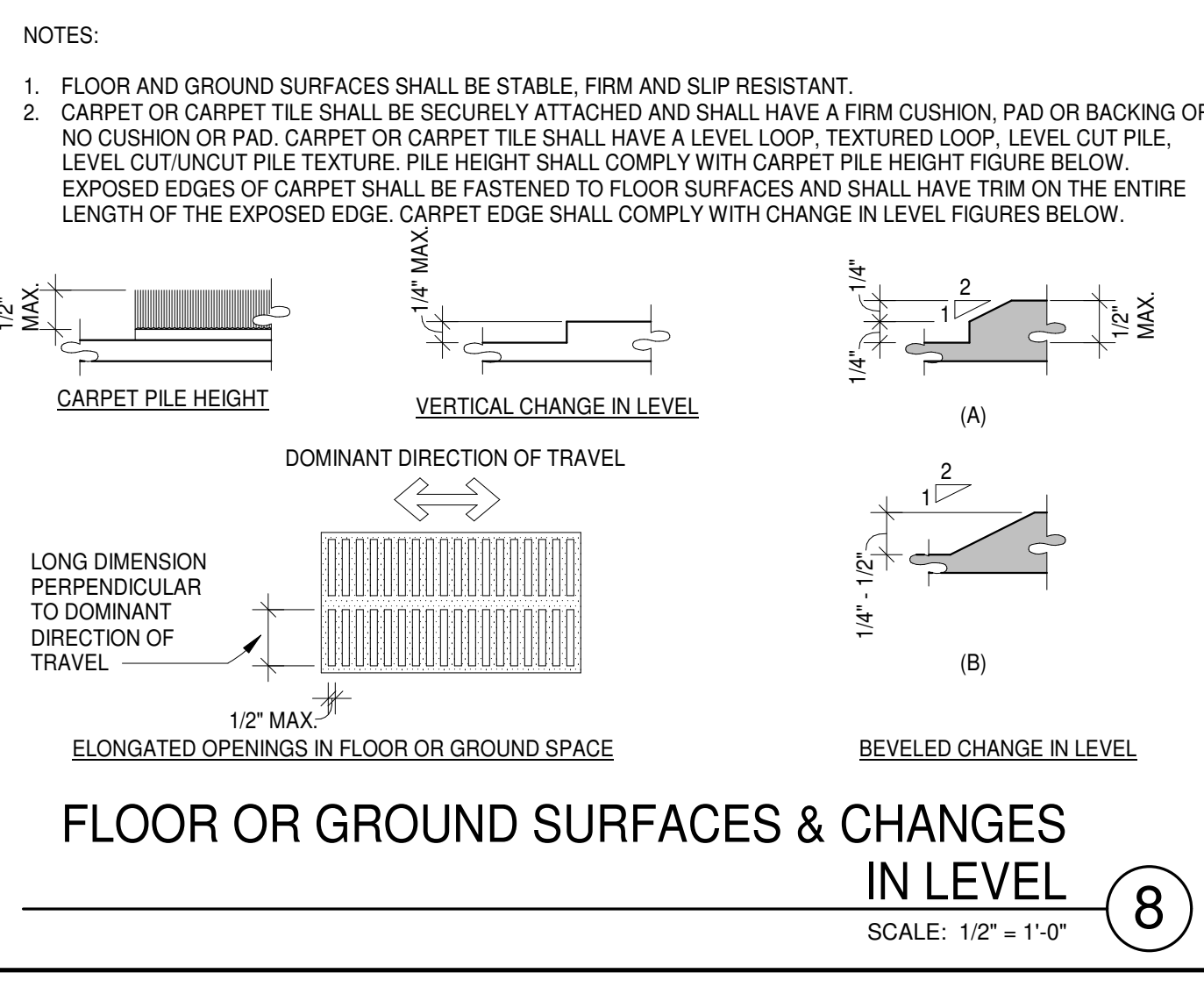
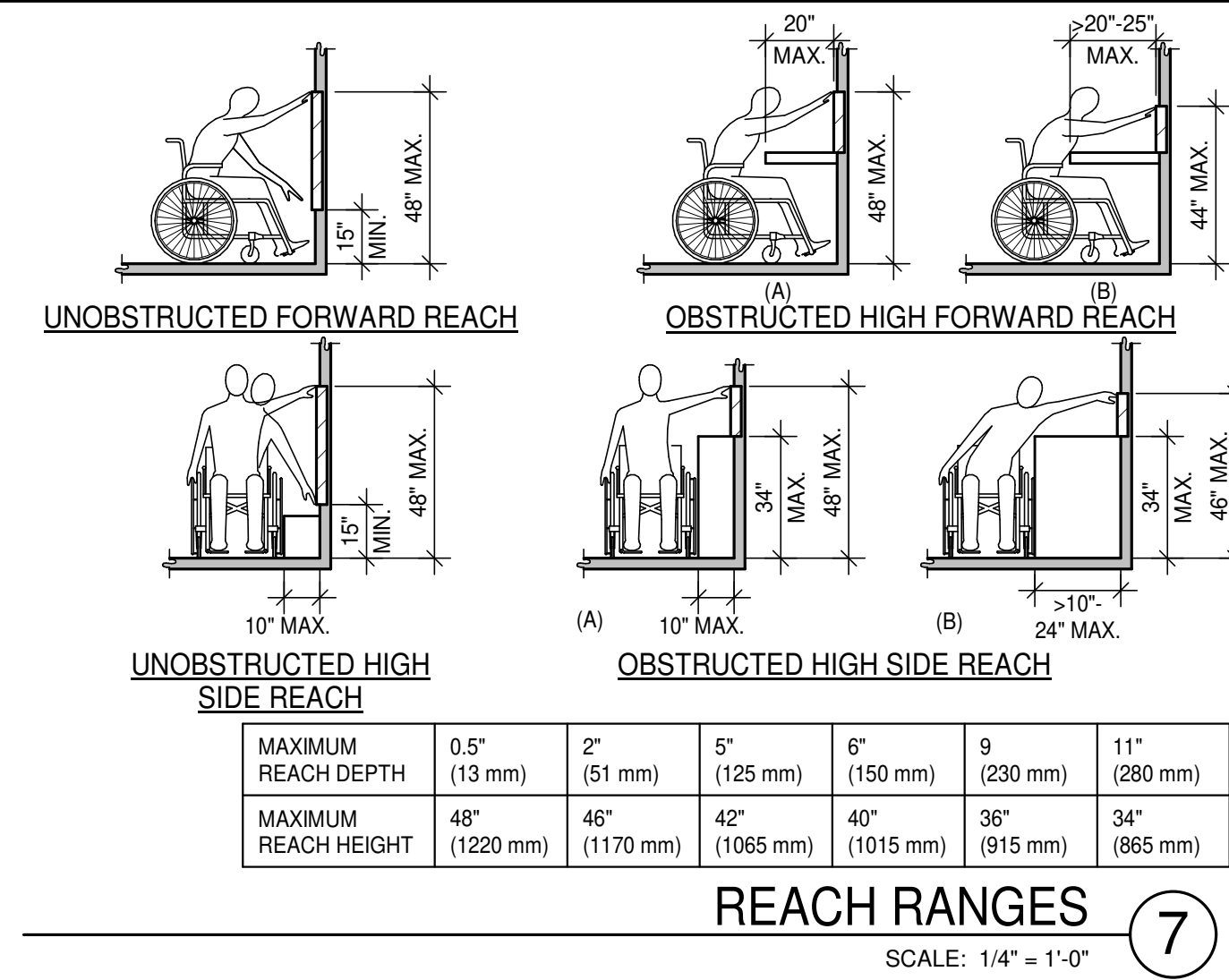
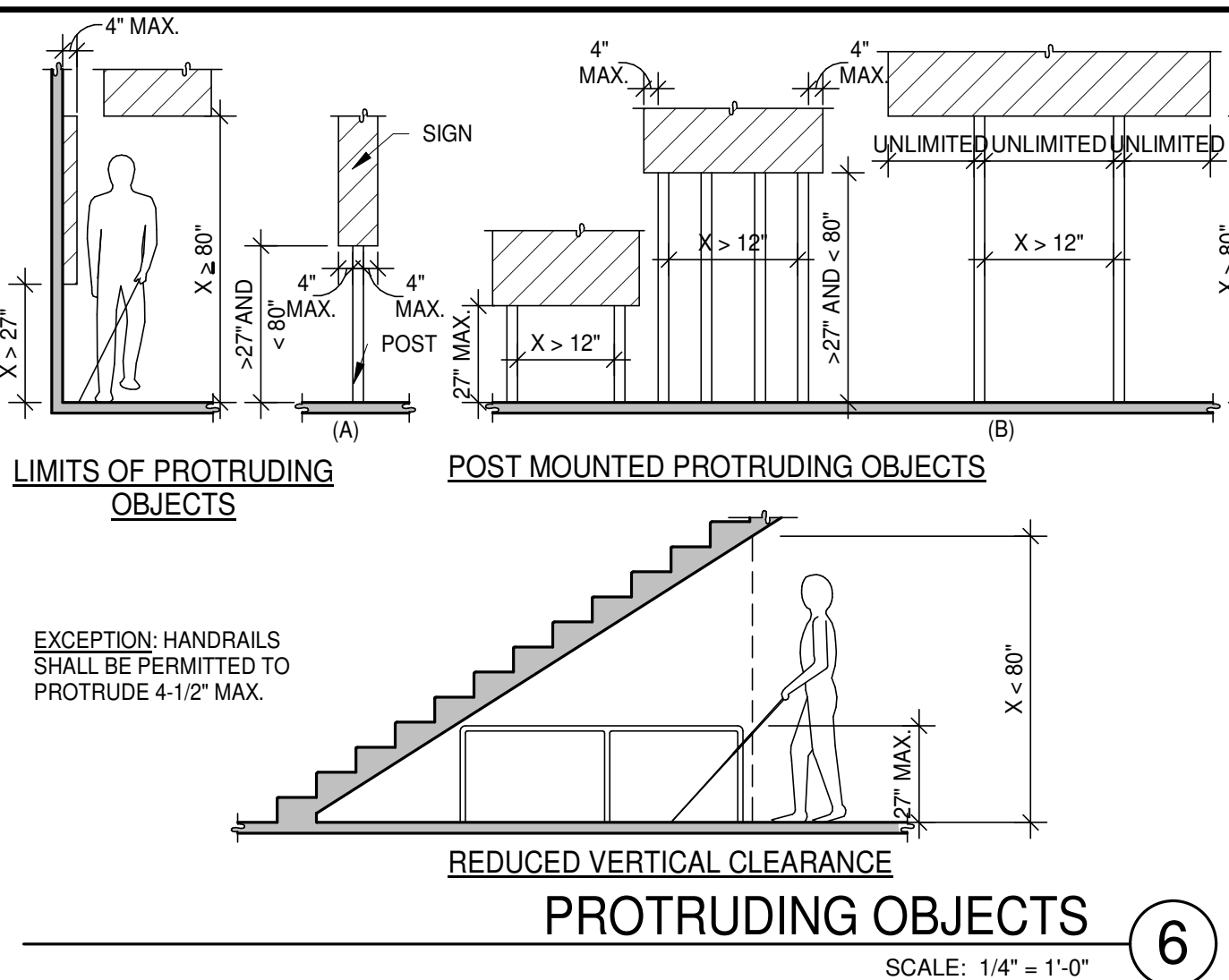
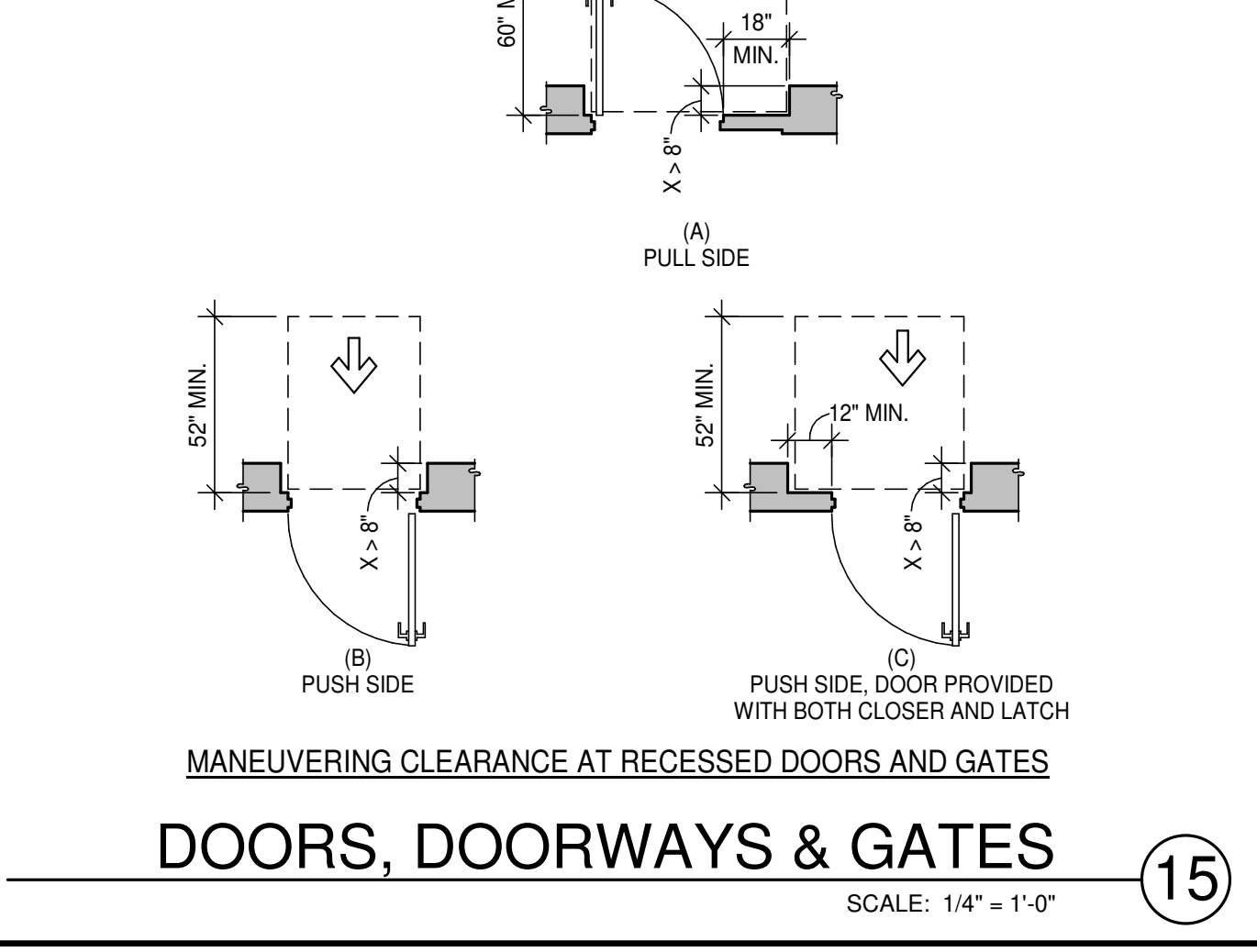
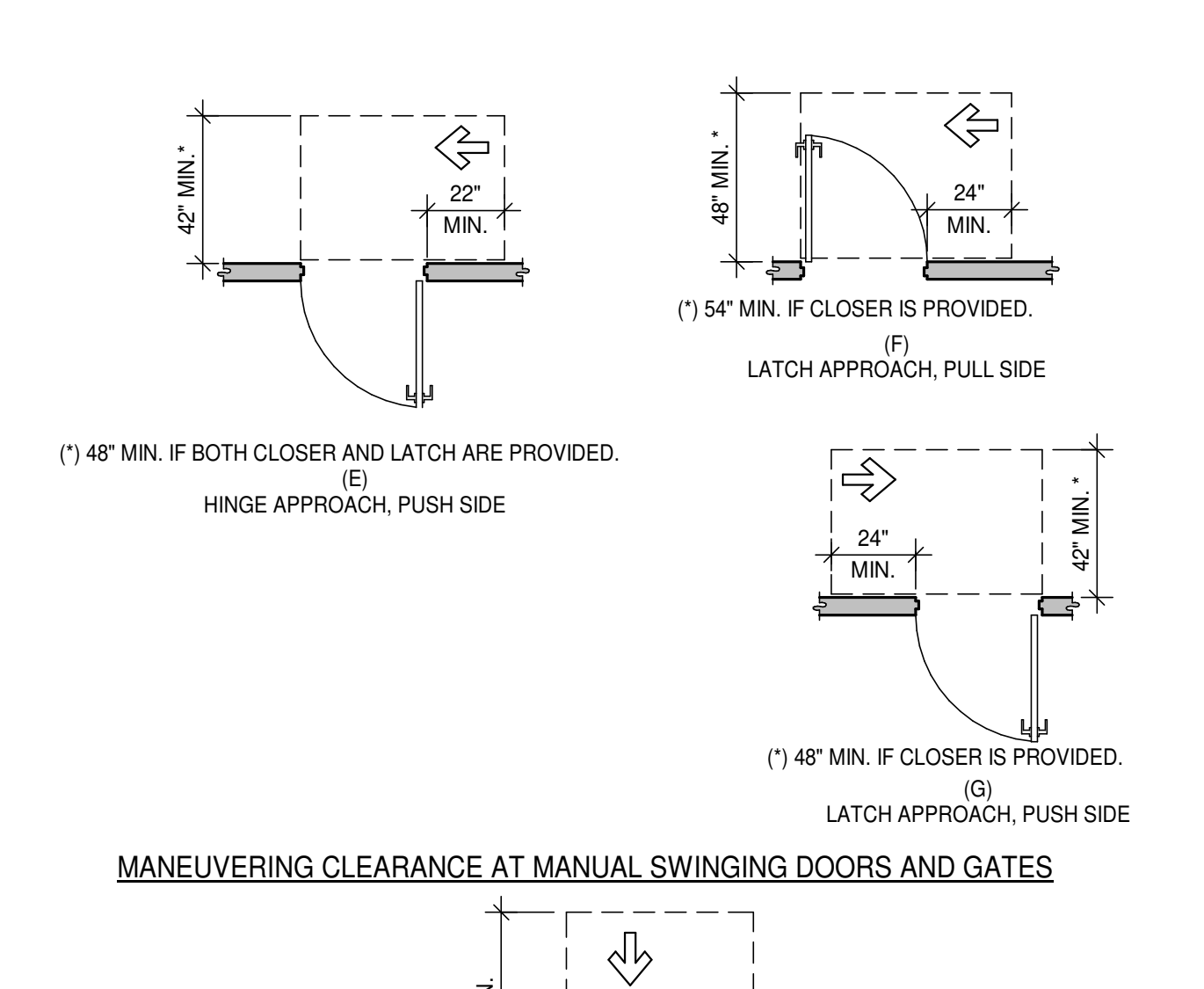
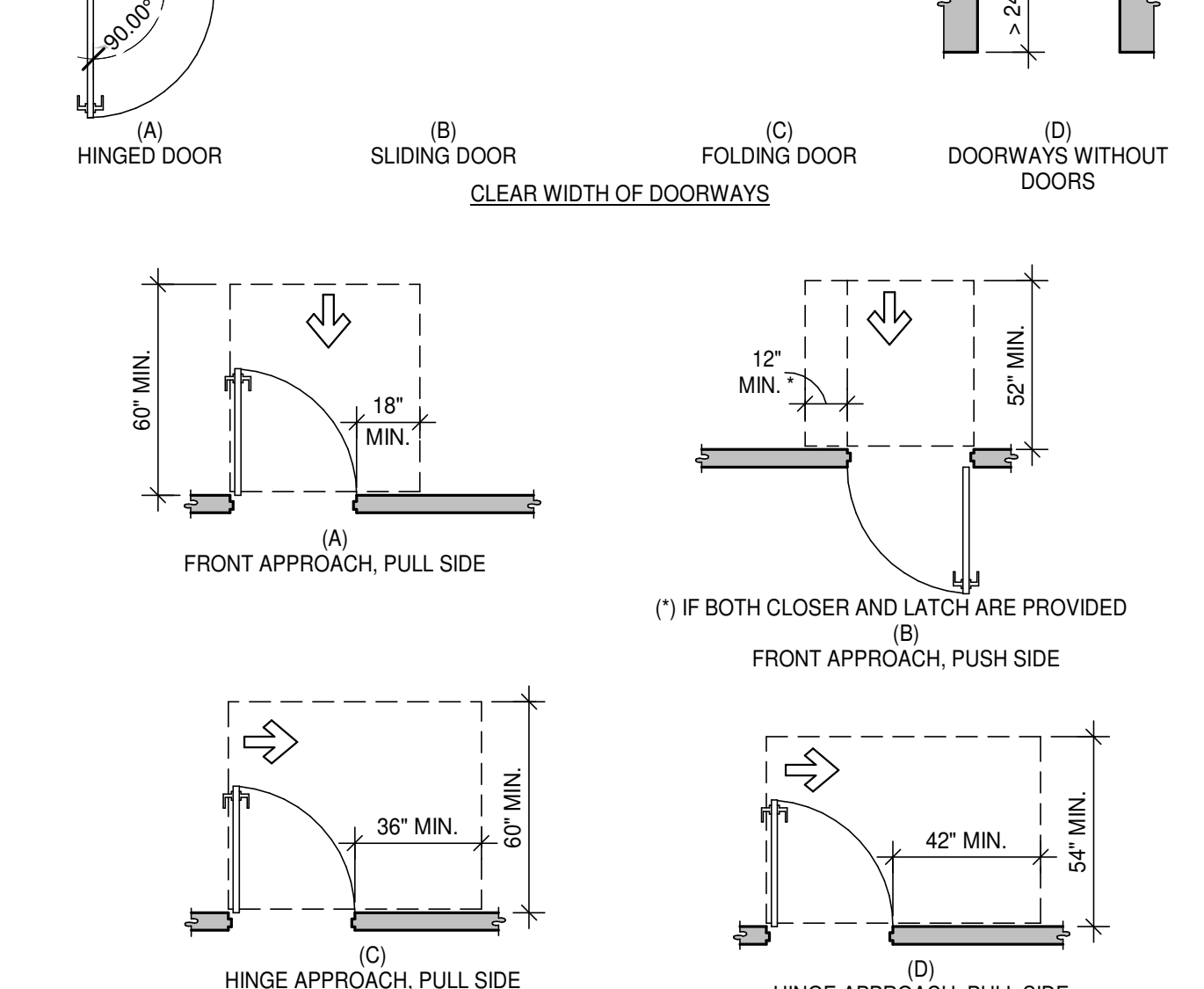
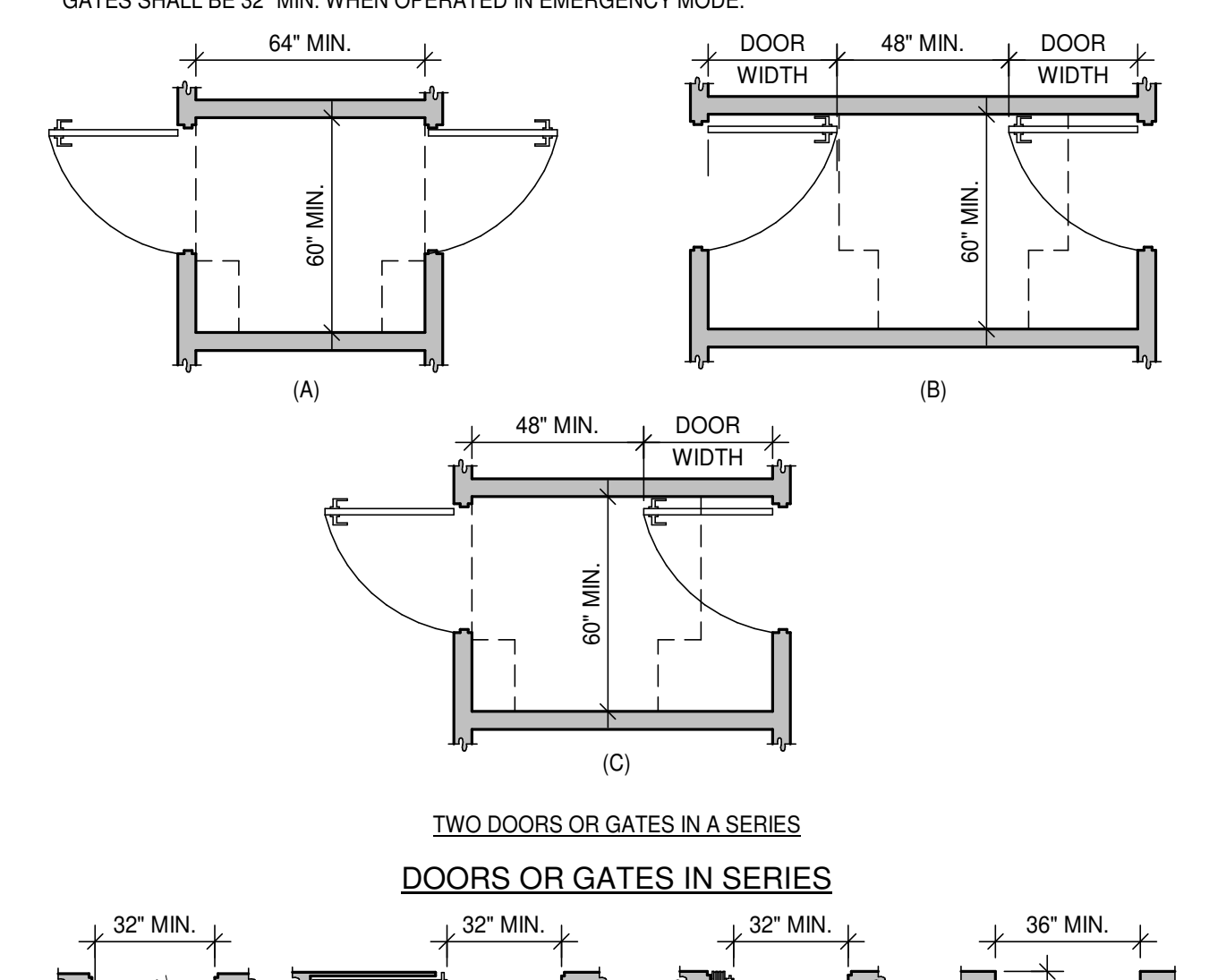
GENERAL NOTES
REMARKS
PERMIT ISSUANCE
DATE: 09/20/2024

PAPM: L LUCERO
DRAWN BY: A. M.
JOB NO.: SE424-0053-00

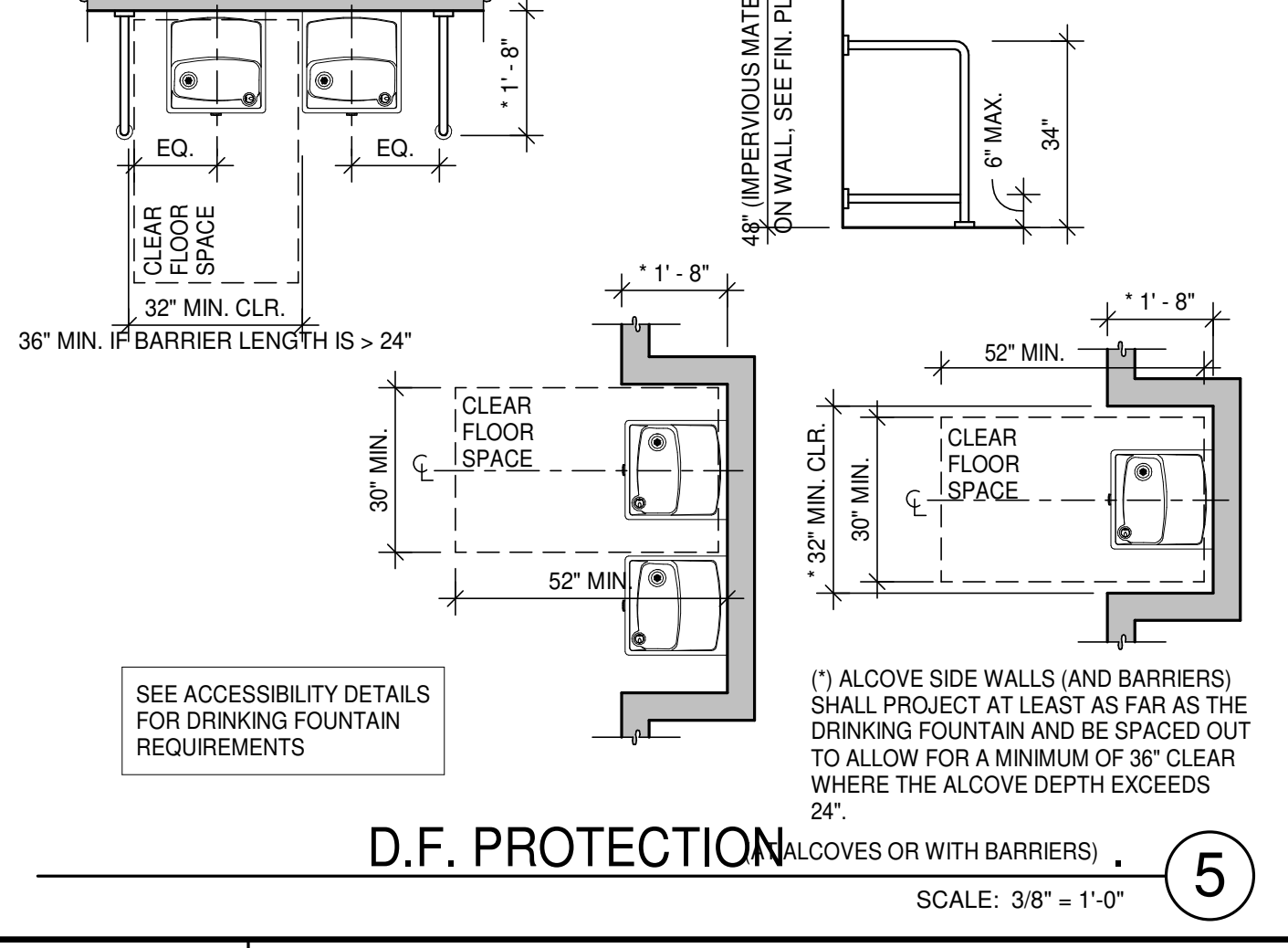
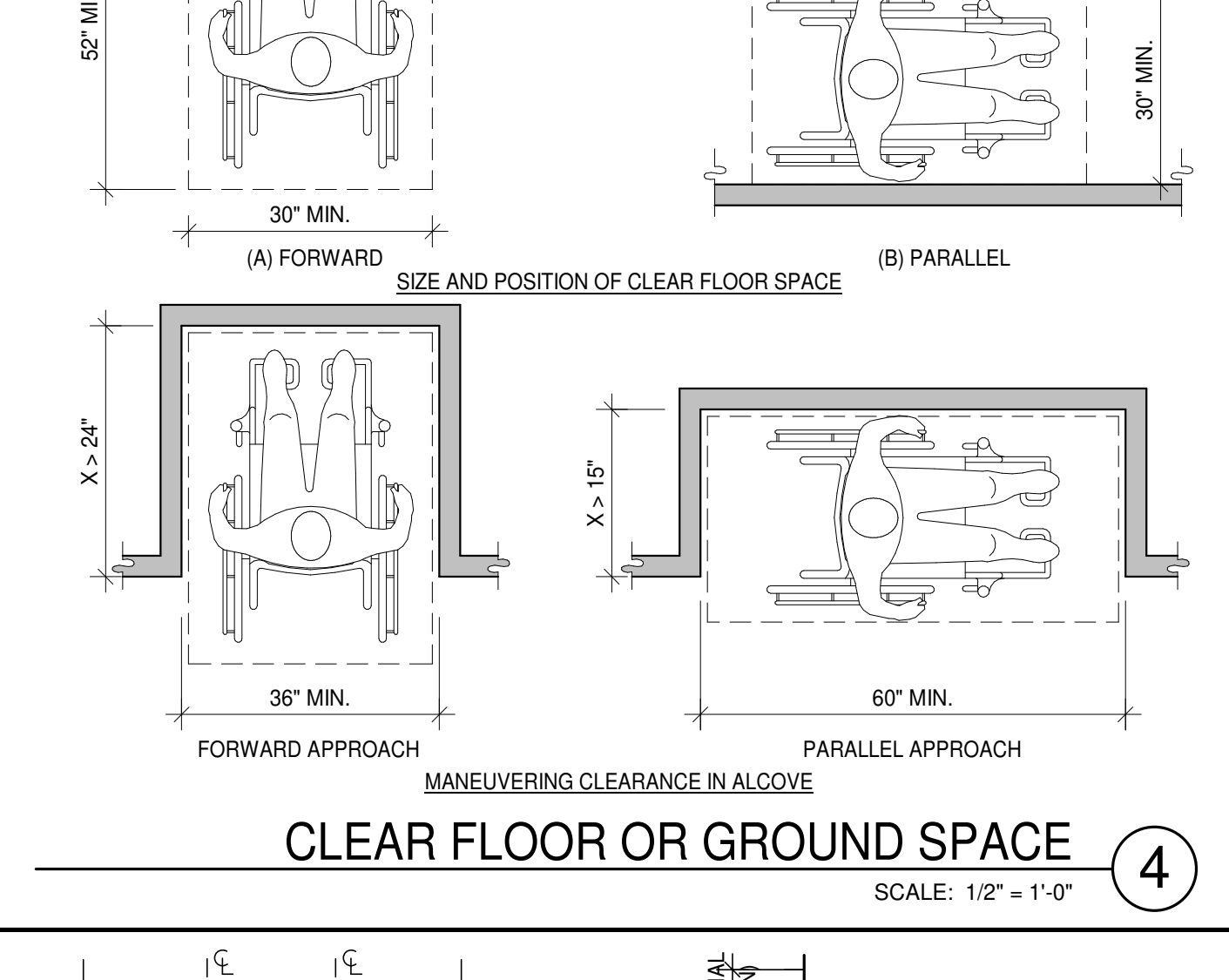
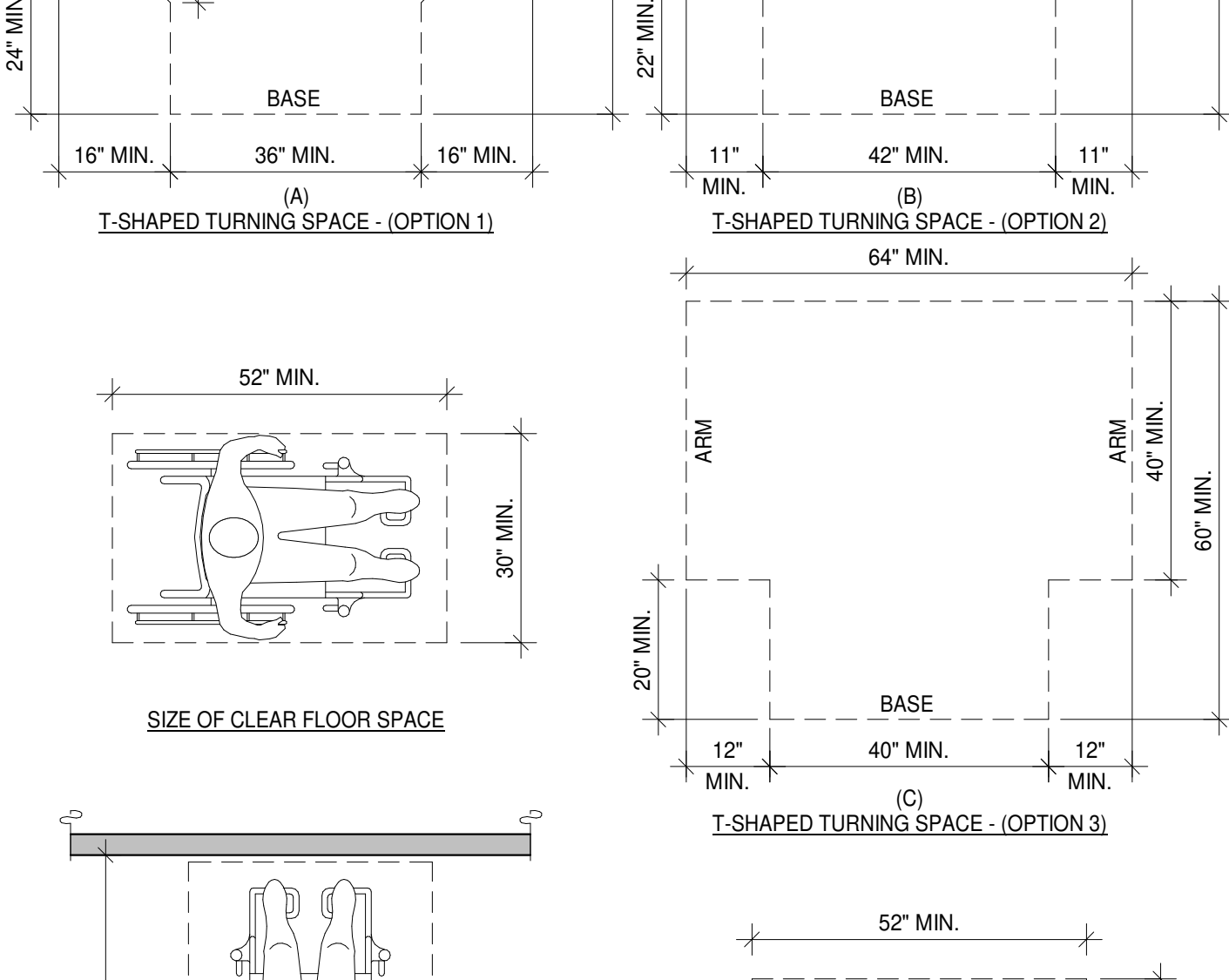
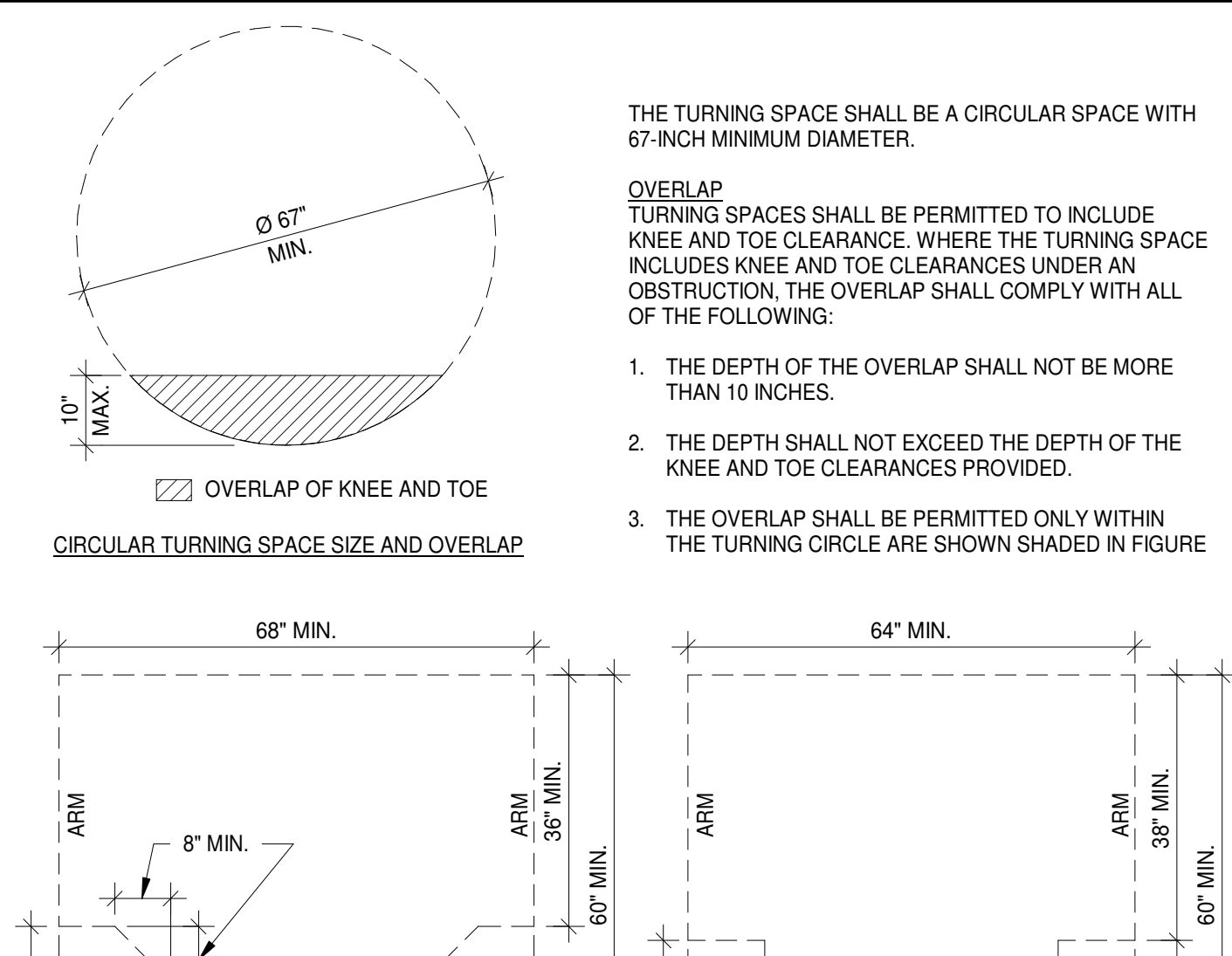
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**NOTES:**  
1. FLOOR OR GROUND SURFACE WITHIN REQUIRED MANEUVERING CLEARANCES AND LANDINGS ON BOTH SIDES OF DOORS SHALL COMPLY WITH FLOOR OR GROUND SURFACES & CHANGES IN LEVEL DETAIL AND SHALL HAVE A SLOPE NOT STEEPER THAN 1:48 IN ANY DIRECTION. VERTICAL CHANGES IN LEVEL ARE NOT PERMITTED.  
2. THRESHOLDS, WHERE PROVIDED AT DOORWAYS, SHALL BE 1/2" MAX HIGH WITH A BEVELED PROFILE THAT COMPLES WITH FLOOR OR GROUND SURFACES & CHANGES IN LEVEL DETAIL.  
3. HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE.  
4. HARDWARE OPERATION BY A FORWARD, PUSHING OR PULLING MOTION: 15 POUNDS (6.8 N) MAXIMUM.  
5. HARDWARE OPERATION BY A ROTATIONAL MOTION: 20 INCH-POUNDS (3.18 NCM) MAXIMUM.  
6. OPERABLE PARTS OF DOOR HARDWARE SHALL BE 34" MIN. AND 48" MAX. ABOVE THE FINISH FLOOR OR GROUND.  
7. WHERE SLIDING DOORS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.  
8. DOOR AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MIN.  
9. DOOR AND GATE SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70 DEGREES THE DOOR OR GATE SHALL MOVE TO THE CLOSED POSITION IN 1.5 SECONDS MIN.  
10. THE FORCE REQUIRED TO PUSH OR PULL A DOOR OR GATE OPEN SHALL BE AS FOLLOWS:  
10.1 INTERIOR HINGED DOORS AND GATES: 5 LBS (22.5 N) MAX.  
10.2 SLIDING OR FOLDING DOORS: 5 LBS (22.5 N) MAX.  
EXCEPTION: THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAAGE OTHER DEVICES THAT HOLD THE DOOR OR GATE IN A CLOSED POSITION SHALL NOT APPLY TO PANIC HARDWARE, DELAYED EGRESS DEVICES OR FIRE-RATED HARDWARE.  
10.3 REQUIRED FIRE DOORS: THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 LBS (66.7 N).  
10.4 EXTERIOR HINGED DOORS: 5 LBS (22.5 N) MAX.  
11. SWINGING DOOR AND GATE SURFACES WITHIN 18" OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN THESE SURFACE SHALL BE WITHIN 1/16" OF THE SAME PLANE AS THE OTHER AND BE FREE OF SHARP OR ABRASIVE EDGES. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED.  
12. WHERE AUTOMATIC AND POWER-ASSISTED DOORS AND GATES WITHOUT STANDBY POWER ARE PART OF A MEANS OF EGRESS THE CLEAR WIDTH OF BREAK OUT OPENINGS AT SWINGING OR SLIDING DOORS AND GATES SHALL BE 32" MIN. WHEN OPERATED IN EMERGENCY MODE.



**ACCESSIBILITY NOTES**  
1. THE ACCESSIBILITY GUIDELINES AND CODES MENTIONED BELOW REFER TO ALL APPLICABLE LOCAL/STATE BUILDING CODES REFERENCED ON THE PROJECT DATA SHEET OF THIS SET IN ADDITION TO THE FEDERAL REQUIREMENTS OF THE ADA (THE AMERICANS WITH DISABILITIES ACT).  
2. DETAILS ON THIS SHEET ARE FOR REFERENCE ONLY. REFER TO THE ACCESSIBILITY GUIDELINES AND CODES FOR ALL ACCESSIBILITY REQUIREMENTS.  
3. THE GENERAL CONTRACTOR SHALL BECOME FAMILIAR WITH THE ACCESSIBILITY GUIDELINES AND CODES.  
4. ANY DISCREPANCY CONTAINED HEREIN DOES NOT RELIEVE THE GENERAL CONTRACTOR OR OWNER FROM COMPLYING WITH THE ACCESSIBILITY GUIDELINES AND CODES.

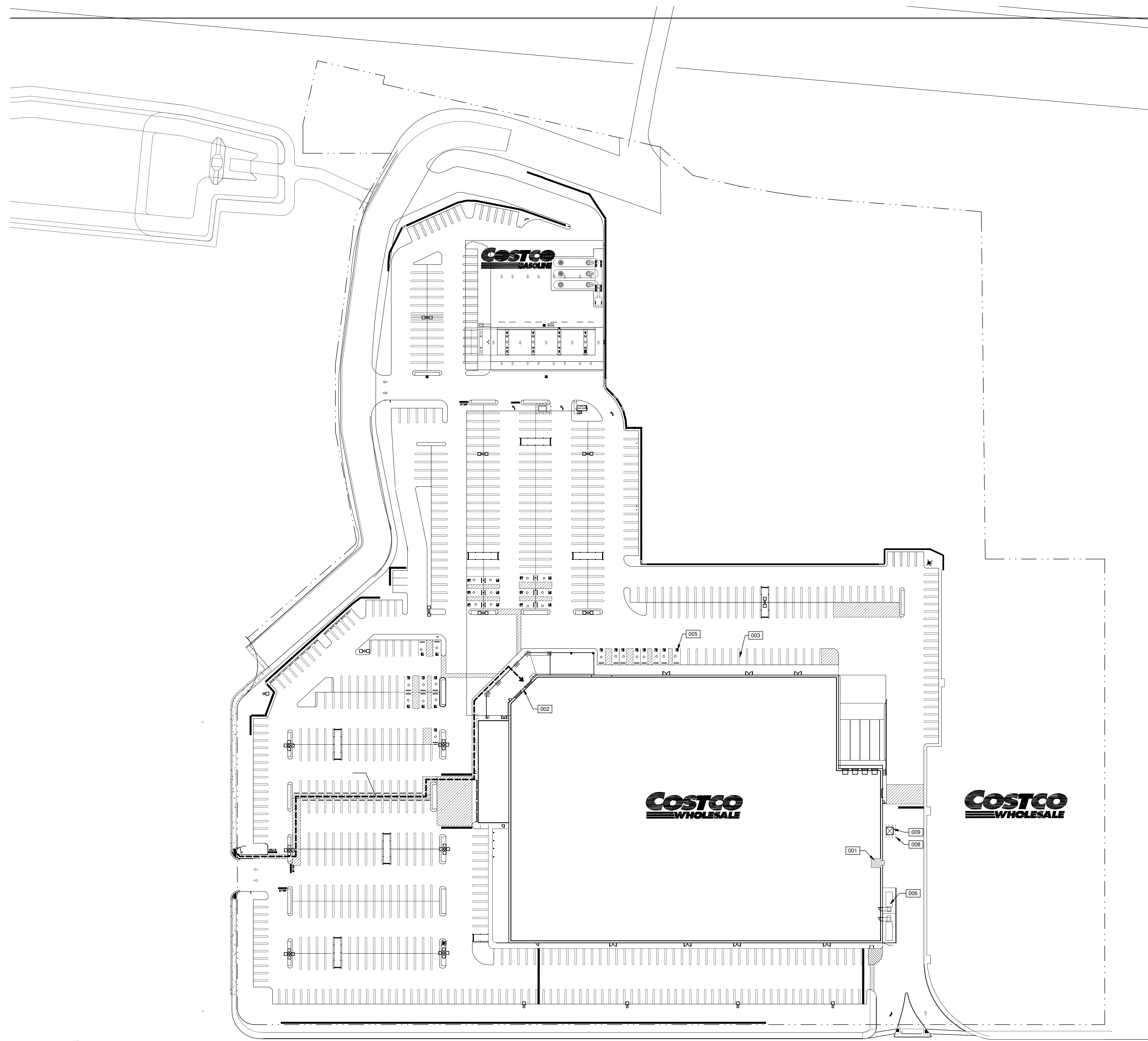


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**ACCESSIBILITY DETAILS**  
REMARKS  
DATE: 09/20/2024  
PERMIT ISSUANCE  
DATE: 09/20/2024  
P.A.P.M.: L LUCERO  
DRAWN BY: A. M.  
JOB NO.: SE24-0053-00  
SHEET  
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09/20/2024 8:38:49 AM  
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**KEYNOTES:**

SEE SHEETS 010 - 110 FOR GENERAL NOTES

- 001 AREA OF WORK.
- 002 EXISTING PRIMARY ENTRANCE TO REMAIN.
- 003 EXISTING PARKING TO REMAIN.
- 005 EXISTING ACCESSIBLE PARKING TO REMAIN.
- 006 EXISTING TRASH COMPACTOR TO REMAIN.
- 008 EXISTING EXTERIOR BOLLARD TO REMAIN.
- 009 EXISTING ELECTRICAL EQUIPMENT.

**LEGEND**

- ACCESSIBLE PATH OF TRAVEL, 1:20 MAX. SLOPE, 2% MAX. CROSS SLOPE.
- - - PROPERTY LINE.

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PRCT120241512

DATE	PERMIT ISSUANCE	REMARKS
09/20/2024		

P/APP: L. LUCERO  
 DRAWN BY: A. M.  
 JOB NO.: SE24-0053-00

SHEET  
**I100**

ANY SITE IMPROVEMENT CONSTRUCTION SHOWN ON THE ARCHITECTURAL DRAWINGS IS INTENDED AS INFORMATION TO BE ADDRESSED AND CLARIFIED BETWEEN THE GENERAL CONTRACTOR AND THE BUILDING LANDLORD AND/OR AFFECTED TENANT.  
 UNLESS OTHERWISE DEVELOPED AND DETAILED SEPARATELY BY A REGISTERED ENGINEER, LANDSCAPE DESIGNER OR OTHER RECOGNIZED SITE DEVELOPMENT PROFESSIONAL, THE ARCHITECT MAKES NO GUARANTEES AS TO THE ACCURACY OF (A) ANY SITE IMPROVEMENTS SHOWN ON ANY ARCHITECTURAL DRAWINGS INCLUDED HERE OR, (B) THE EXISTING SITE CONDITIONS IN THE IMPROVEMENT AREA.

1" = 50'  
 0 25' 50' 100' 250'

**SITE PLAN (FOR REFERENCE ONLY)**

SCALE: 1" = 50'-0"

1 N

### GENERAL NOTES

SEE SHEETS G010 - 0110 FOR GENERAL NOTES  
SEE SHEET I200 FOR FINISH, PLUMBING FIXTURES, RESTROOM ACCESSORIES, LIGHT FIXTURE, AND DOOR SCHEDULES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS THAT MIGHT ARISE.

### WALL / PARTITION

- CONTRACTOR SHALL NOTIFY ARCHITECT TO PERFORM AN ON-SITE REVIEW ONCE ALL PARTITIONS HAVE BEEN LAID OUT PRIOR TO ERECTING THE PARTITIONS, AND ADDRESS ANY DISCREPANCIES WITH DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS.
- ALL PARTITION METAL STUDS TO BE 3-8" DEPTH - GAUGE AND SPACING PER U240 SPAN TABLE, ON THE FRAMING DETAILS SHEET, U.O.N.
- ALL RESTROOM PARTITION METAL STUDS AT SINGLE-STUD RESTROOM TO BE MINIMUM 6" DEEP, AND FULLY INSULATED WITH R-13 UNFACED FIBERGLASS INSULATION (OR EQUIVALENT), U.O.N.
- USE MOISTURE RESISTANT BOARD AT ALL RESTROOM PARTITIONS AND WHERE FRP IS USED.
- ALL NEW INTERIOR PARTITIONS TO BE FULLY INSULATED WITH A MINIMUM OF R-11 UNFACED FIBERGLASS INSULATION (OR EQUIVALENT), U.O.N.
- DRYWALL GYPSUM BOARD SHALL BE FINISHED AS FOLLOWS, U.O.N. REFER TO GYPSUM ASSOCIATION PUBLICATION, GA-214: <https://www.gypsum.org/press/whats-recommended-levels-finish/>
  - FOR PLENUM AND NON-VISIBLE AREAS - LEVEL-1 AREAS WITH OPEN-CEILING OR CLOUDS TO BE FINISHED AS FOR VISIBLE PARTITIONS.
  - ALL VISIBLE PARTITION SURFACES - LEVEL-4, UNLESS NOTED AS LEVEL-5 BY OTHER NOTES OR KEYED NOTE.
- PROVIDE DRYWALL EXPANSION & CONTROL JOINTS PER "WALL AND CEILING BUREAU" (WCB) STANDARDS. PROVIDE SHOP DRAWINGS FOR REVIEW PRIOR TO INSTALLATION.
- ALL DRYWALL CORNERS AND COLUMN EDGES TO BE FINISHED WITH CORNER "L" BEAD. DIMENSIONS OF COLUMN FURRING IN A COMMON AREA ARE TO BE EQUAL & CONSISTENT.
- PATCH AND REPAIR ANY DAMAGE TO EXISTING WINDOW SILLS CAUSED BY DEMOLITION: MATCH EXISTING SILL CONDITION FINISH TO MATCH EXISTING WINDOW FRAMES.
- ELECTRICAL ACCESS SHALL BE FLUSH FRAMELESS GYPSUM BOARD PANELS.
- ALL BLOCKING IN PARTITION TO BE FIRE RETARDANT TREATED SOLID WOOD BLOCKING, OR CONTINUOUS METAL STRAPPING. COORDINATE EXACT LOCATIONS AND EXTENT IN FIELD. GC TO PROVIDE BLOCKING FOR ALL OWNER-SUPPLIED MILLWORK, IN ADDITION TO MILLWORK SUPPLIED BY THE GC, AND WALL-FIXING EQUIPMENT.

### REFLECTED CEILING

- NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS BEFORE PROCEEDING WITH INSTALLING THE WORK.
- SEE FIXTURE SCHEDULE FOR FIXTURE TYPE DESIGNATIONS, AND TYPICAL MOUNTING HEIGHTS (U.O.N).
- ALL MATERIALS USED WITHIN CEILING PLENUM SHALL BE NON-COMBUSTIBLE.
- IN GYPSUM BOARD CEILING THE LIGHTS, HVAC ELEMENTS, FIRE DEVICES, ETC. ARE TO ALIGN IN A NEAT AND REGULAR PATTERN. REVIEW LAYOUT WITH ARCHITECT PRIOR TO ROUGH-IN.
- GENERAL CONTRACTOR TO IDENTIFY QUANTITY AND LOCATIONS OF ALL ACCESS PANELS TO CEILING PLENUM SPACES IN GYPSUM BOARD CEILING: ACCESS PANELS TO BE AVOIDED WHERE POSSIBLE. IF AN ACCESS PANEL IS REQUIRED, COORDINATE LOCATION WITH ARCHITECT. CEILING ACCESS PANELS TO BE FLUSH-FRAMELESS GYPSUM BOARD INFILL PANELS.
- SEE KEYNOTE INFORMATION FOR ANY REQUIRED CEILING INSULATION.
- GANG MULTIPLE ADJACENT OUTLETS AND SWITCHES TOGETHER WITH MULTI-OUTLET COVER PLATE, U.O.N.
- ALL SWITCHES/MOTION SENSORS SHALL NOT BE PLACED BEHIND DOORS WHEN IN OPEN POSITION.

### FINISHES

- CONTRACTOR TO INCLUDE ALL FLOOR PREPARATIONS IN BASE BID.
- SEE ENLARGED PLANS, ELEVATIONS AND DETAILS FOR ADDITIONAL FINISH INFORMATION.
- ALL FINISHES TO BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.
- ALL FINISH TRANSITIONS AT DOORS TO BE LOCATED CENTERED UNDER THE DOOR, U.O.N.
- PROVIDE FLOORING TRANSITIONS AS FOLLOWS, U.O.N.:
  - STAINLESS STEEL TRIM BY SCHLUTER OR EQUAL, AT ALL TRANSITIONS BETWEEN TILE/STONE AND OTHER FINISHES.

### RESTROOM NOTES

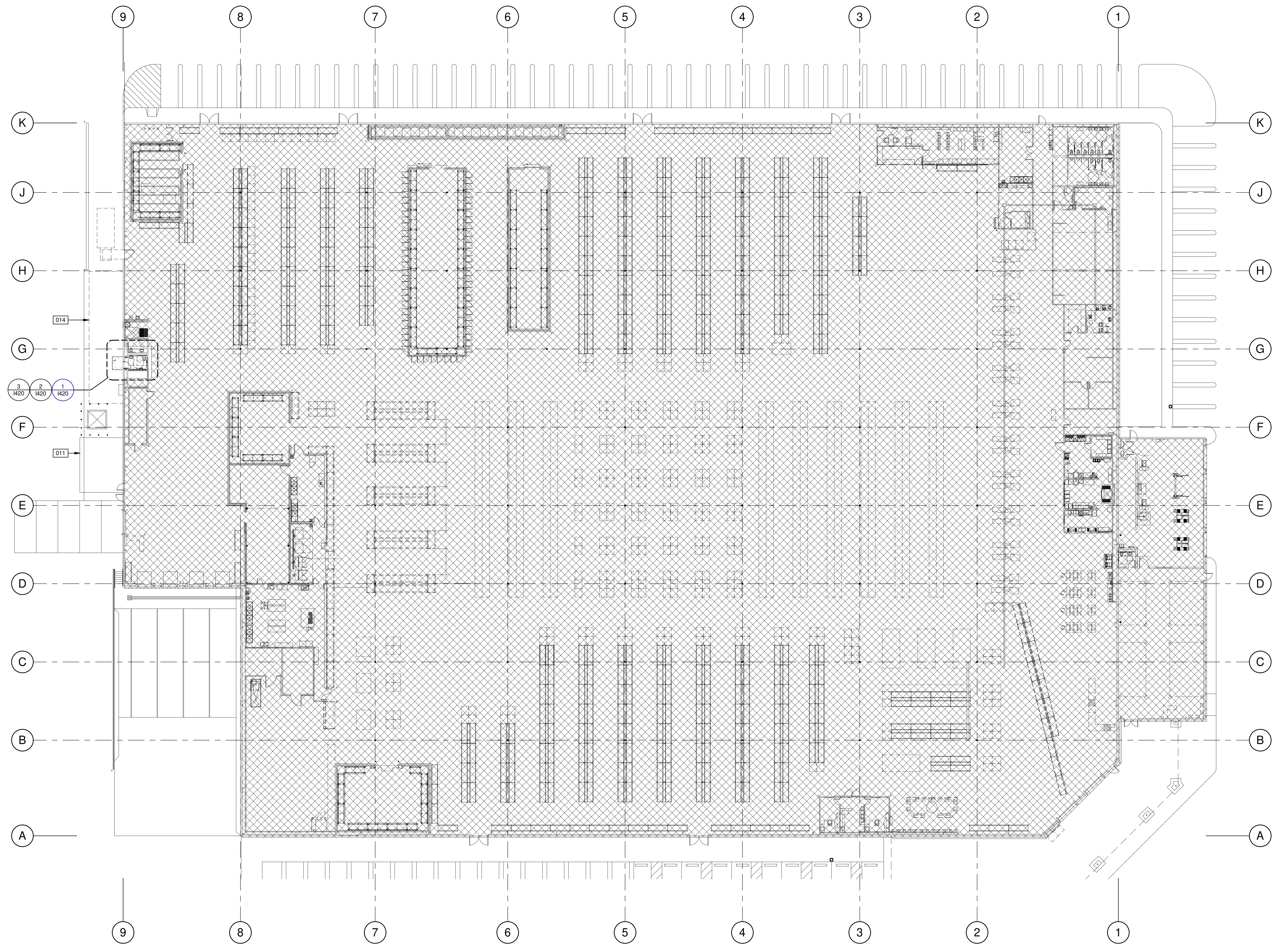
- PROVIDE DRAIN WITH TRAP PRIMER FOR EACH RESTROOM IF THERE ARE TWO OR MORE FIXTURES. SLOPE FLOOR TO DRAIN A MIN. 1/8" PER FOOT.
- VERIFY BUILDING STANDARD FOR WALL-HUNG/DROP-IN COUNTER SINK WHERE APPLICABLE.
- TOILET PAPER DISPENSERS SHALL NOT BE OF TYPE THAT CONTROLS DELIVERY, OR THAT DO NOT ALLOW CONTINUOUS PAPER FLOW. OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAX.
- OPERABLE PARTS OF ALL ACCESSORIES SHALL COMPLY WITH ALL APPLICABLE ACCESSIBILITY CODES AND STANDARDS.

### KEYNOTES:

- SEE SHEETS G010 - 0110 FOR GENERAL NOTES
- 011 EXISTING CHAINLINK FENCE TO REMAIN.
  - 014 EXISTING CHAINLINK FENCE TO REMOVE.

### LEGENDS

-  INDICATES AREA NOT IN SCOPE

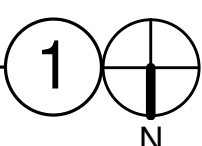


1" = 20'

0 10' 20' 40' 100'

SITE PLAN

SCALE: 1" = 20'-0"



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 BRIDGES  
 BUILDING MEASUREMENT

3015 117th Ave NE Suite 400  
 Bellevue, WA 98008  
 P: 425.670.6706

10/19/24 REGISTERED ARCHITECT  
 ADAM SEGALLA  
 STATE OF WASHINGTON



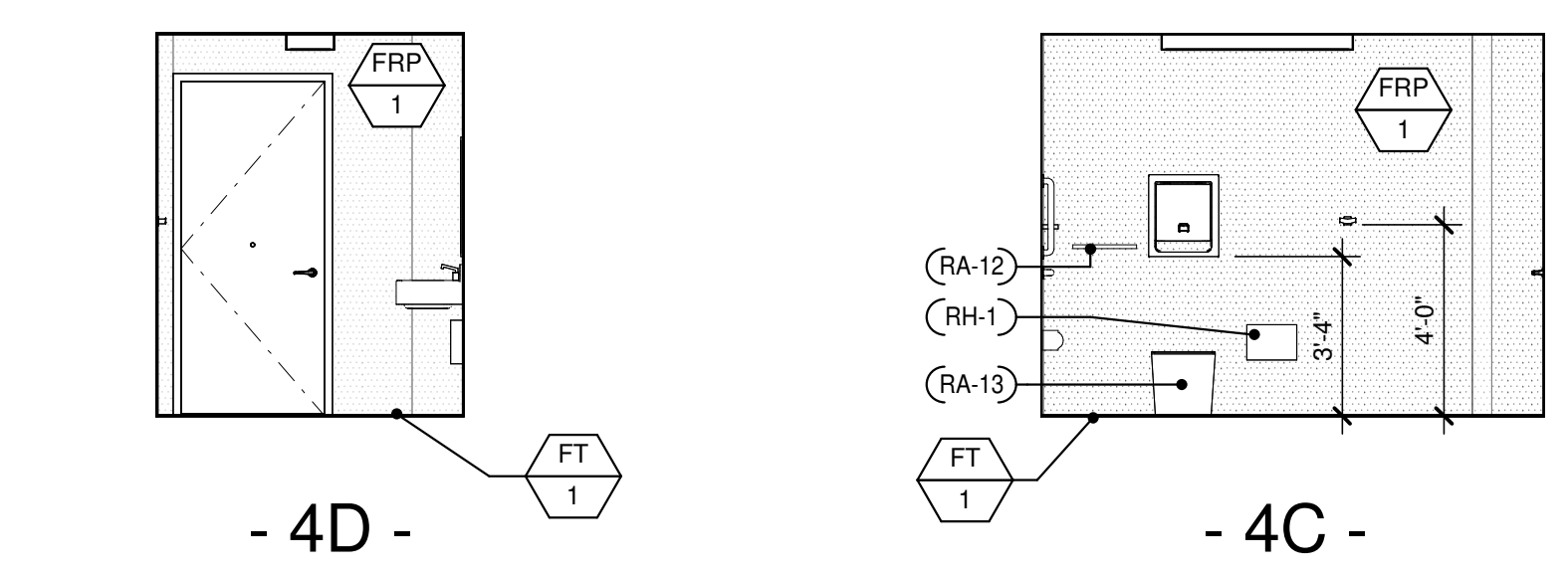
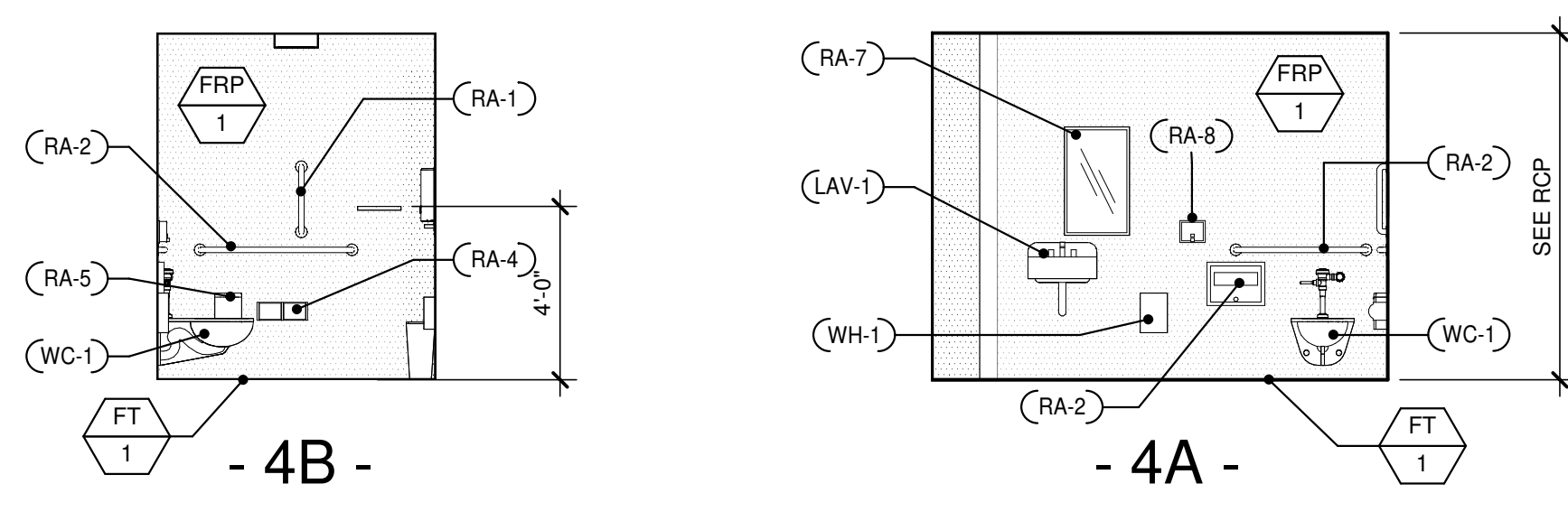
**COSTCO FLEET RESTROOM**  
**PUYALLUP WH0660**  
 1201 39TH AVE SW,  
 PUYALLUP, WA. 98373-3803

PRCT120241512

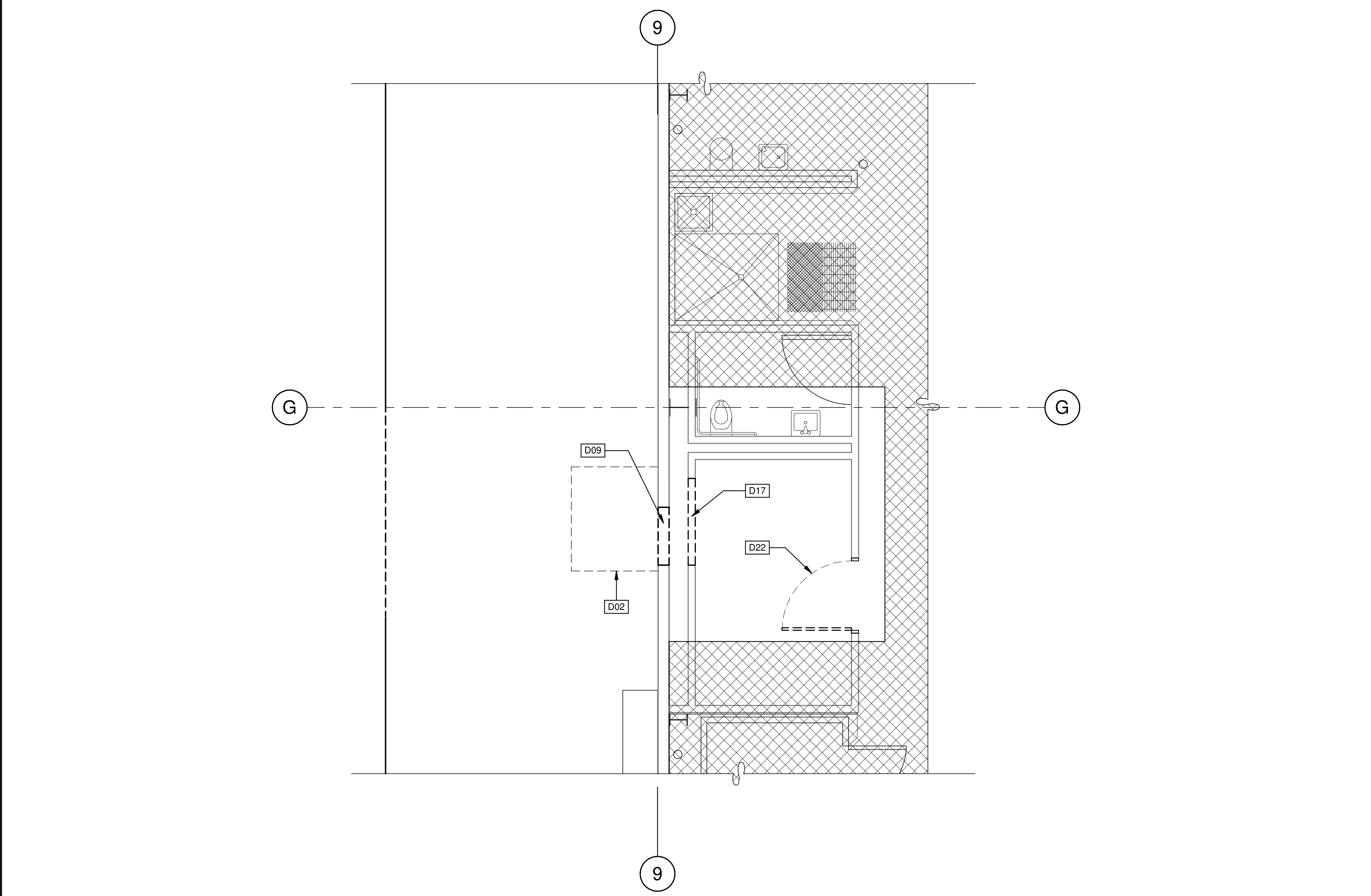
OVERALL FLOOR PLAN	
DATE	REMARKS
09/20/2024	
DATE	PERMIT ISSUANCE

P.A.P.M.: L. LUCERO  
 DRAWN BY: A. M.  
 JOB NO.: SE424-0053-00

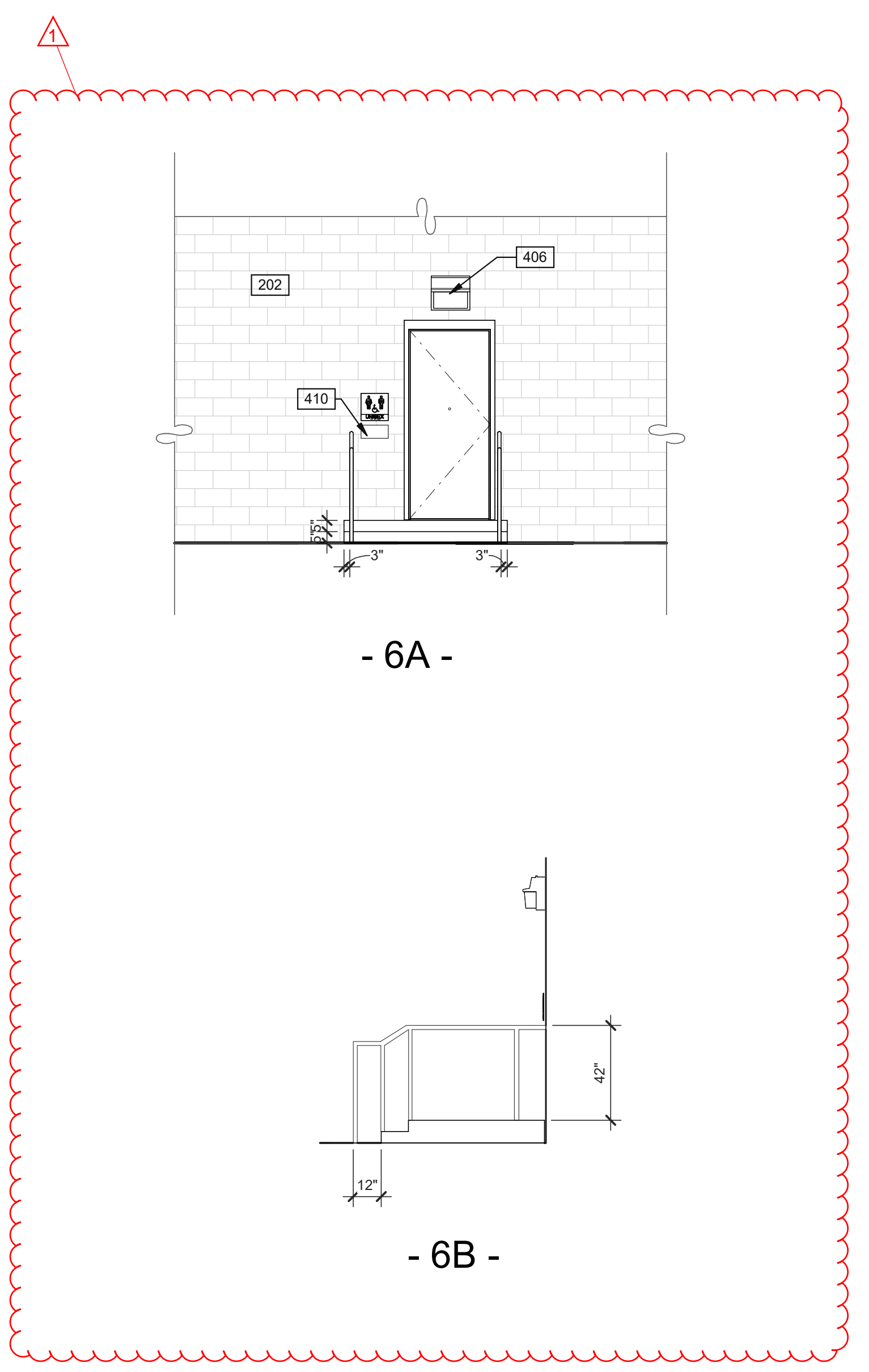
SHEET  
**I200**



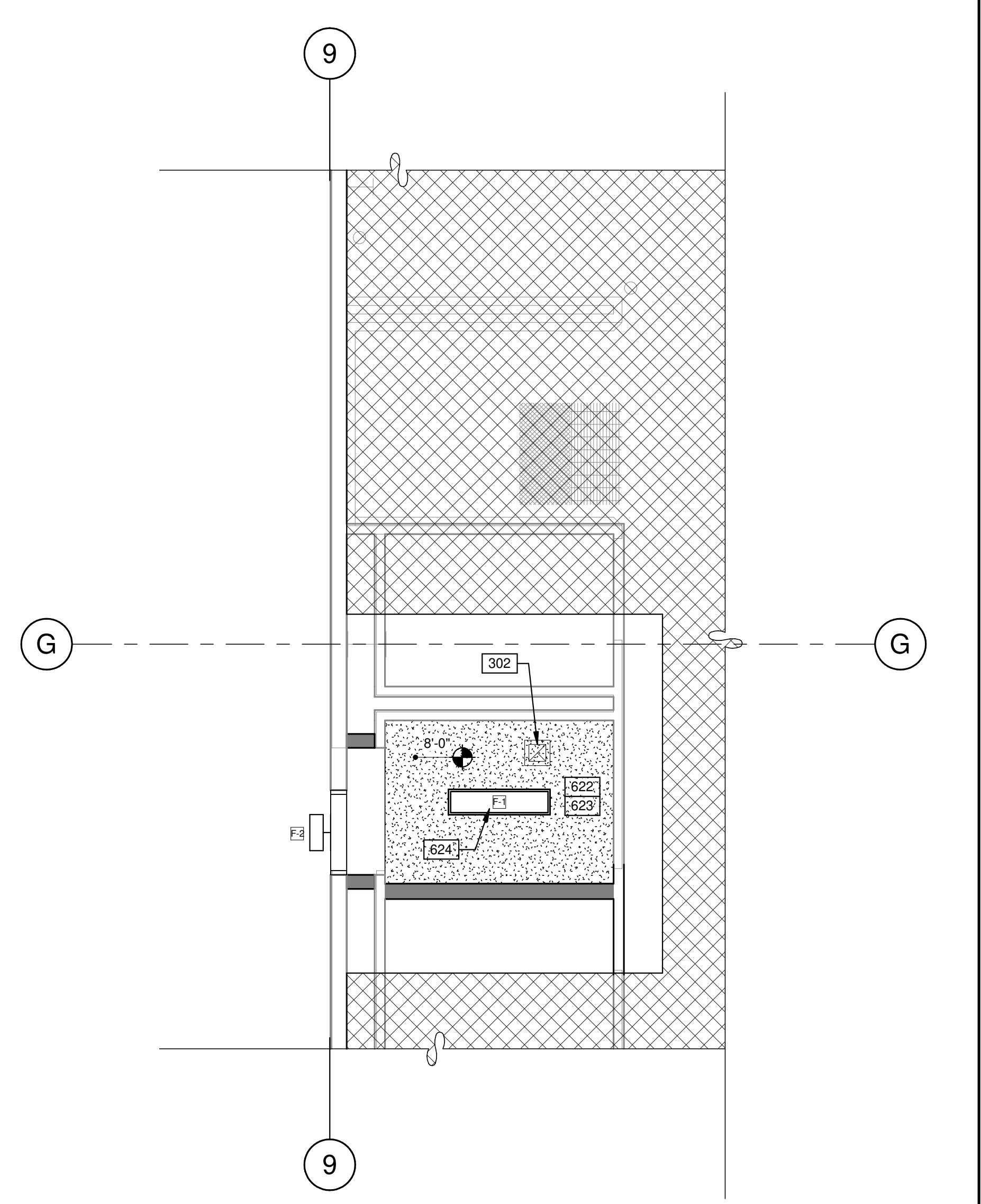
INTERIOR RESTROOM ELEVATIONS  
SCALE: 1/4" = 1'-0" 4



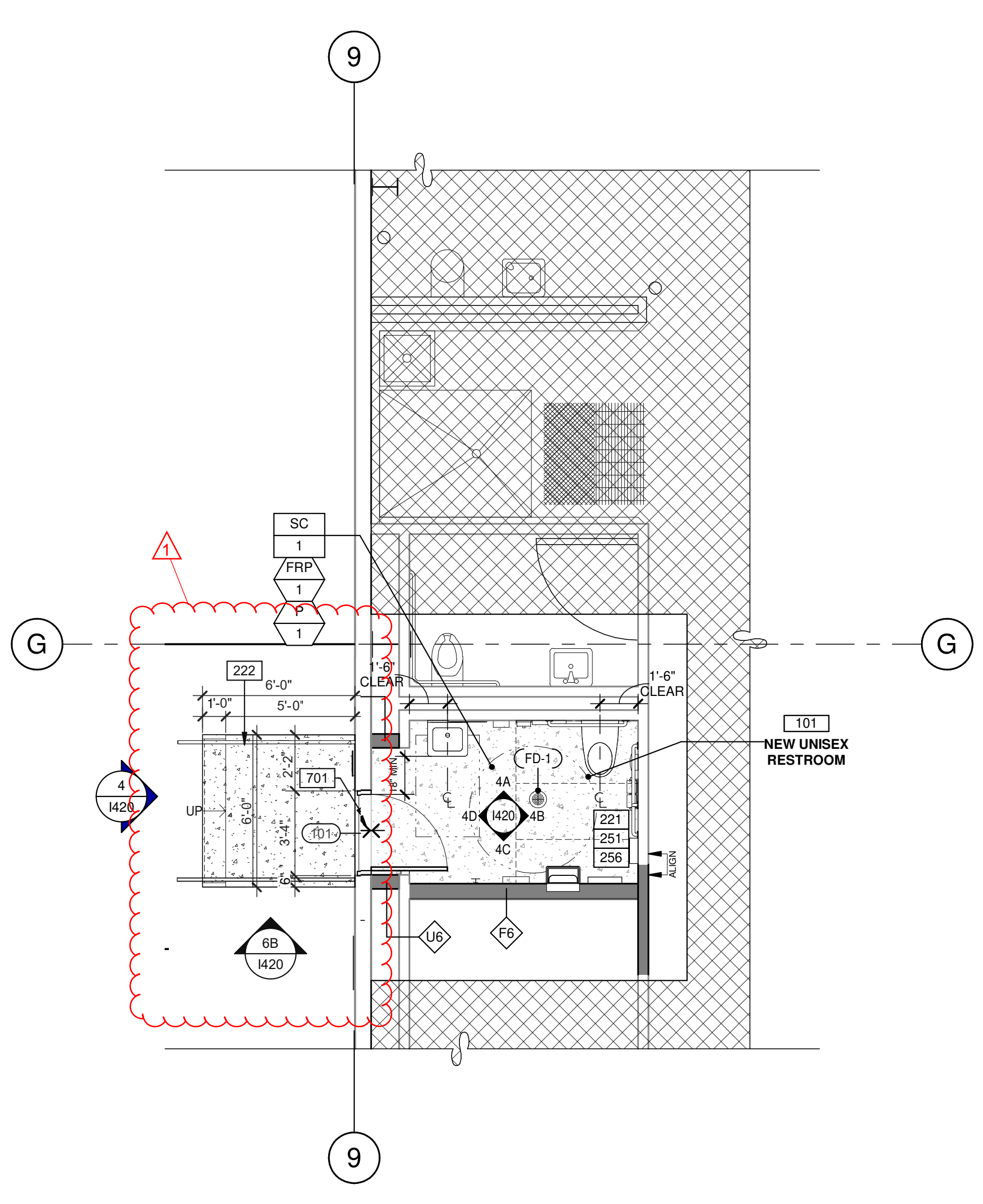
DEMOLITION FLOOR PLAN  
SCALE: 1/4" = 1'-0" 1



EXTERIOR ELEVATIONS  
SCALE: 1/4" = 1'-0" 6



REFLECTED CEILING PLAN  
SCALE: 1/4" = 1'-0" 3



FLOOR AND FINISH PLAN  
SCALE: 1/4" = 1'-0" 2

**KEYNOTES:**

**DEMOLITION FLOOR PLAN**

D02 REMOVE EXISTING ASPHALT AS REQUIRED TO ACCOMMODATE NEW DOOR LANDING.

D09 CUT-IN OPENING AT EXTERIOR WALL TO ACCOMMODATE NEW 3070 HOLLOW METAL DOOR. SEE DOOR SCHEDULE.

D17 CUT-IN OPENING AT INTERIOR WALL.

D22 REMOVE DOOR ASSEMBLY. SAVE FOR POSSIBLE RELOCATION OR RETURN TO BUILDING STOCK.

**FLOOR / FINISH PLAN**

221 PROVIDE NEW CONCRETE SLAB WITH VAPOR RETARDER OVER SAND BASE AT PROPOSED LOCATION PER SOILS REPORT. SEE CIVIL FOR GRADING INFORMATION.

222 PROVIDE NEW CONCRETE PAD. SEE STRUCTURAL FOR INFORMATION.

251 NEW WALLS OF THIS ROOM TO BE INSULATED WITH R-19 THERMAL BATT INSULATION.

256 SAW-CUT EXISTING CONCRETE FLOOR IN THIS AREA AS REQUIRED FOR NEW PLUMBING.

701 EXISTING FINISHES TO REMAIN IN THIS ROOM.

**ELEVATIONS**

202 EXISTING EXTERIOR WALL TO REMAIN.

406 WALL PACK LIGHT MOUNTED AT CENTERLINE WITH DOOR AT CONSISTENT ELEVATION. COORDINATE MOUNTING HEIGHT WITH ELECTRICAL DRAWINGS.

410 WALL MOUNTED TACTILE SIGN, STATING "ADA RESTROOMS AVAILABLE DURING STORE OPERATING HOURS."

**REFLECTED CEILING PLAN**

302 EXHAUST FAN.

622 NEW CEILING WITH PAINTED 5/8" GYPSUM BOARD OVER METAL JOISTS WITH METAL DECK SECURITY BARRIER. RE: DETAIL UI-510.

623 NEW CEILING OF THIS ROOM IS TO BE PROVIDED WITH (1) LAYER OF FIBERGLASS INSULATION, MECHANICAL DRAWINGS TO DETERMINE R-VALUE OF INSULATION.

624 NEW LIGHT FIXTURE TO BE CENTERED IN THIS ROOM.

**LEGENDS**

INDICATES AREA NOT IN SCOPE

**WALL/PARTITION TYPES**

1. INTERIOR GYPSUM BOARD PARTITION SHALL CONFORM TO ICC REPORT ESR-1338. MIN. FASTENER: #6 1-1/4" SCREW. SPACING: 12" FIELD, 9" EDGES.

2. SEE DETAIL SHEET B510 FOR PARTITION TYPE DETAILS.

PARTITION TAG

STUD SIZE, PER DETAIL

PARTITION TYPE

**WALL/PARTITION**

EXISTING WALL PARTITION

EXISTING EXTERIOR WALL WITH NEW FURRING PARTITION

FULL HEIGHT PARTITION TO STRUCTURE ABOVE

**REFLECTED CEILING**

NEW 5/8" GYPSUM BOARD CEILING OR SOFFIT.

NEW 1'x4' FLUORESCENT FIXTURE.

F-1

NOTE: REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE SPECIFICATIONS.

**FINISHES**

SEE SHEET B20 FOR FINISHES

INDICATES LINE OF FLOOR TRANSITION

NUMBER REFERENCES TRANSITION ACCESSORY (TR-#) LOCATED ON FINISH SCHEDULE

INDICATES LOCATION OF NON-TYPICAL WALL FINISH

INDICATES WALL FINISHES

INDICATES FLOOR FINISHES

INDICATES MISCELLANEOUS FINISHES

**RESTROOM MOUNTING HEIGHTS**

NOTE: PROVIDE BACKING AS REQUIRED FOR ALL WALL HUNG, ATTACHED FIXTURES AND EQUIPMENT AS REQUIRED PER STANDARD GOOD PRACTICES.

42" MIN

36" MIN

6" MAX

54" MIN

39" - 41"

12" MAX

42" MIN

18" MIN

39" - 41"

33" - 36" T.O. GRAB BARR

8" MIN

8"

60" CLR

16" - 18"

34" MAX

29" CLR

19" MIN

48" MAX TO HIGHEST OPERABLE PART

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18194 REGISTERED ARCHITECT  
ADAM SEGALLA  
STATE OF WASHINGTON

**COSTCO WHOLESALE**

**COSTCO FLEET RESTROOM PUYALLUP WH0660**

1201 39TH AVE SW, PUYALLUP, WA. 98373-3803

PRCT120241512

INTERIOR RESTROOM PLANS AND ELEVATIONS	
DATE	REMARKS
09/20/2024	PERMIT ISSUANCE
06/04/2026	ISSUED FOR CITY COMMENTS
1	

PA:PM: L LUCERO  
DRAWN BY: A. M.  
JOB NO.: SE24-0053-00

SHEET  
**I420**

**MEMBER DEPTH:**  
(EXAMPLE: 6" = 600 X 1/100 INCHES)  
ALL MEMBER DEPTHS ARE TAKEN IN 1/100 INCHES. FOR ALL "T" SECTIONS MEMBER DEPTH IS THE INSIDE DIMENSION.

**FLANGE WIDTH:**  
(EXAMPLE: 1.58" = 1.625" - 162 X 1/100 INCHES) ALL FLANGE WIDTHS ARE TAKEN IN 1/100 INCHES.

**STYLE:**  
(EXAMPLE: STUD OR JOIST SECTION = S)  
THE FOUR ALPHA CHARACTERS UTILIZED BY THE DESIGNATOR SYSTEM ARE:  
S = STUD OR JOIST, T = TRACK, U = CHANNEL, F = FURRING

**CEILING SPAN TABLE NOTES:**  
1. VALUES ARE FOR SINGLE SPANS.  
2. ALLOWABLE CEILING SPAN CALCULATIONS BASED ON 30KSI YIELD STRENGTH STEEL.  
3. FOR FULLY BRACED CEILINGS, USE MID-SPAN BRACE VALUES.  
4. END BEARING LENGTH = 1" MINIMUM.

SECTION:	(ML)	LATERAL SUPPORT OF UNSUPPORTED JOIST SPACING (IN.) O.C.		4 PSF COMPRESSION FLANGE MID-SPAN JOIST SPACING (IN.) O.C.	
		12"	16"	12"	16"
3625125	18	9'-3"	8'-7"	7'-7"	12'-8"
3625125	27	10'-8"	9'-10"	8'-10"	15'-0"
3625125	30	11'-0"	10'-2"	9'-1"	15'-6"
3625125	33	11'-5"	10'-7"	9'-5"	16'-2"
3625125	43	12'-6"	11'-8"	10'-5"	17'-8"
3625137	27	12'-0"	11'-2"	10'-0"	17'-2"
3625137	33	12'-11"	11'-11"	10'-8"	18'-4"
3625137	43	14'-3"	13'-2"	11'-8"	20'-0"
3625162	33	14'-8"	13'-7"	12'-2"	20'-10"
3625162	43	16'-2"	14'-11"	13'-4"	22'-8"
4005125	27	10'-11"	10'-11"	9'-1"	15'-5"
4005125	30	11'-4"	10'-5"	9'-4"	16'-0"
4005125	33	11'-9"	10'-10"	9'-8"	16'-7"
4005125	43	13'-0"	12'-0"	10'-8"	18'-3"
4005137	27	12'-5"	11'-6"	10'-4"	17'-11"
4005137	33	13'-3"	12'-3"	10'-11"	18'-9"
4005137	43	14'-7"	13'-6"	12'-0"	20'-7"
4005162	33	15'-0"	13'-11"	12'-6"	21'-5"
4005162	43	16'-7"	15'-3"	13'-8"	23'-4"
6005125	27	12'-5"	11'-6"	10'-4"	17'-11"
6005125	30	12'-9"	11'-10"	10'-8"	18'-5"
6005125	33	13'-2"	12'-3"	11'-0"	18'-11"
6005125	43	14'-6"	13'-4"	11'-11"	20'-6"
6005137	33	14'-11"	13'-9"	12'-5"	21'-5"
6005137	43	16'-3"	15'-0"	13'-5"	23'-1"
6005162	33	16'-11"	15'-8"	14'-1"	24'-5"
6005162	43	18'-5"	17'-0"	15'-3"	26'-4"

NOTE: ALL JOIST INFORMATION IS BASED ON STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) ICC ESR-3064P

**MEMBER DEPTH:**  
(EXAMPLE: 6" = 600 X 1/100 INCHES)  
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(EXAMPLE: 1.58" = 1.625" - 162 X 1/100 INCHES)  
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**CEILING SPAN TABLE NOTES:**  
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3. FOR FULLY BRACED CEILINGS, USE MID-SPAN BRACE VALUES.  
4. END BEARING LENGTH = 1" MINIMUM.

**PARTITION TYPE NOTES:**

- INTERIOR GYP. BD. PARTITION SHALL CONFORM TO ICC-ESR-1338
- SEE LIVING PARTITION HEIGHT TABLE FOR METAL STUD GAUGE AND SPACING BASED ON PARTITION HEIGHTS AND STUD SIZES AS NOTED ON EACH PARTITION TYPE.
- MAX. STUD SPACING SHALL BE 24"
- MINIMUM FASTENER SIZE SHALL BE #6 - 1-1/4" SCREWS.
- MAXIMUM FASTENER SPACING FOR DRYWALL TO STUDS SHALL BE 12" FIELD AND 8" AT EDGES.
- ALL PARTITION METAL STUDS TO BE 3-5/8" U.O.N.
- REFLACE GYP. BD WITH GREENBOARD IN ALL WET AREAS.

**DESIGN BUILD METAL STUD:**

- STEEL STUDS AND RUNNERS: MINIMUM BASE-METAL THICKNESS: a. 25 GAUGE UNLESS INDICATED OTHERWISE ON DRAWINGS OR BELOW:
  - INTERIOR METAL STUD/GYPSUM BOARD ASSEMBLIES, TYPICAL LOCATIONS: WITHSTAND LATERAL LOADING (AIR PRESSURE) OF 5 PSF WITH DEFLECTION LIMIT NOT MORE THAN L/240 OF PARTITION HEIGHT.
  - INTERIOR METAL STUD/GYPSUM BOARD ASSEMBLIES AT LOCATIONS WITH CERAMIC TILE OR OTHER HARD SURFACE FINISHES: WITHSTAND TYPICAL LATERAL LOADING (AIR PRESSURE) WITH DEFLECTION LIMIT NOT MORE THAN L/360 OF PARTITION HEIGHT, MINIMUM 20 GAUGE STUDS AT 16" ON CENTER
  - WHERE WALL-MOUNTED EQUIPMENT, WOODWORK, AND CASEWORK ITEMS ARE INDICATED OR ELSEWHERE AS SHOWN ON DRAWINGS, PROVIDE MINIMUM 16 GAUGE STUDS.
- AT PARTITIONS SCHEDULED TO RECEIVE TILE BACKING PANELS OR CERAMIC TILE FINISH, PROVIDE MINIMUM 22 GAUGE STUDS.
- AT JAMBS OF OPENINGS PROVIDE TWO MINIMUM 20 GAUGE STUDS.
- CEILINGS: AT CEILINGS USING MOLD-MILDEW RESISTANT GYPSUM, FRAMING TO BE 16 INCHES O.C. FOR 5/8" GYPSUM.
- REFER TO DIVISION 5 FOR COLD FORMED STUD FRAMING WHICH IS EXPOSED TO WIND LOADS AND FOR STUDS CARRYING HEAVY VERTICAL LOADS (STONE TILE THICKER THAN 3/4 INCH, ETC)

b. WHERE PARTITION HEIGHTS EXCEED STUD MANUFACTURER'S RECOMMENDED SPANS, PROVIDE STRUCTURAL CALCULATIONS.

**MEMBER DEPTH:**  
(EXAMPLE: 6" = 600 X 1/100 INCHES)  
ALL MEMBER DEPTHS ARE TAKEN IN 1/100 INCHES. FOR ALL "T" SECTIONS MEMBER DEPTH IS THE INSIDE DIMENSION.

**FLANGE WIDTH:**  
(EXAMPLE: 1.58" = 1.625" - 162 X 1/100 INCHES)  
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(EXAMPLE: STUD OR JOIST SECTION = S)  
THE FOUR ALPHA CHARACTERS UTILIZED BY THE DESIGNATOR SYSTEM ARE:  
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**CEILING SPAN TABLE NOTES:**  
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4. END BEARING LENGTH = 1" MINIMUM.

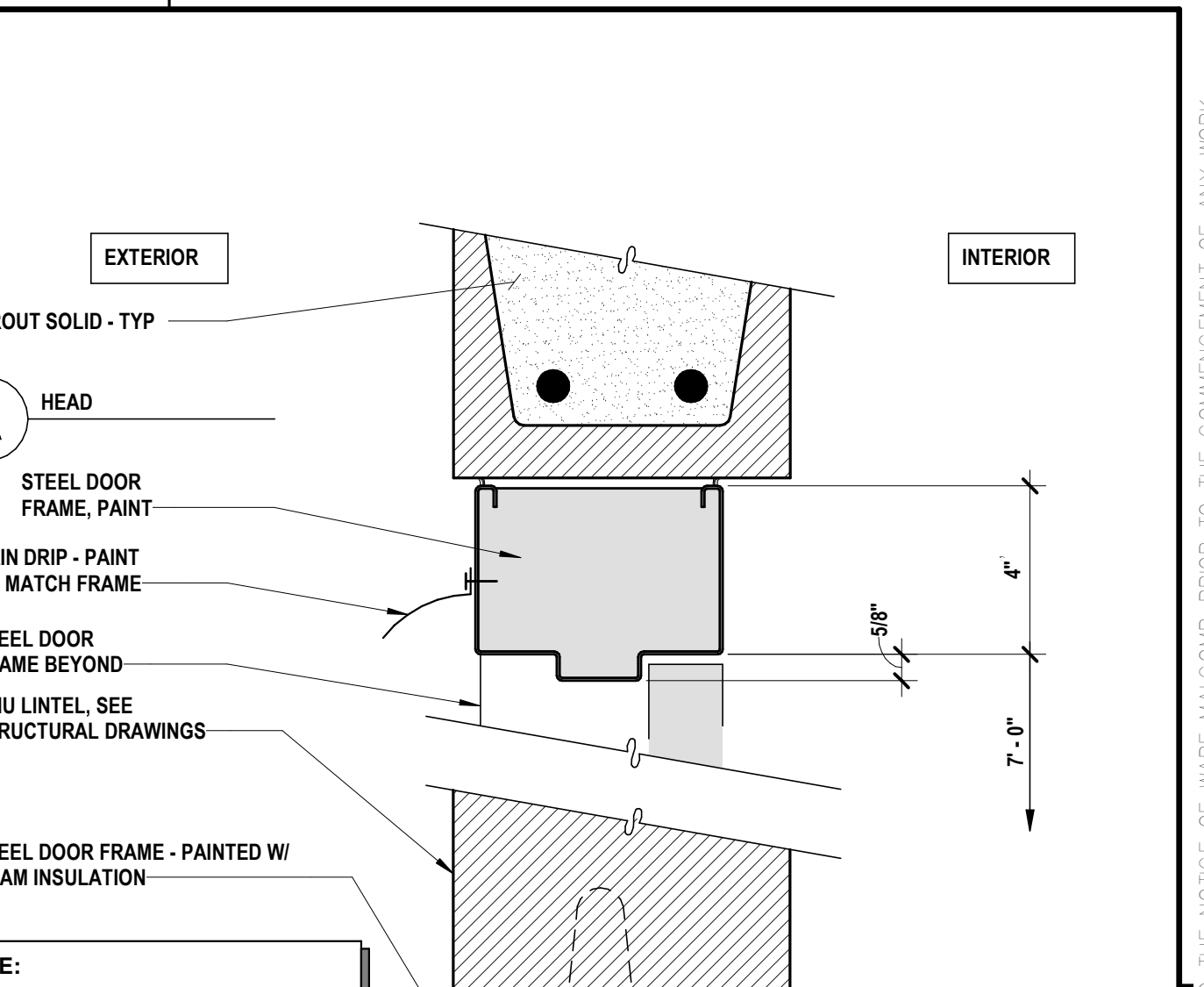
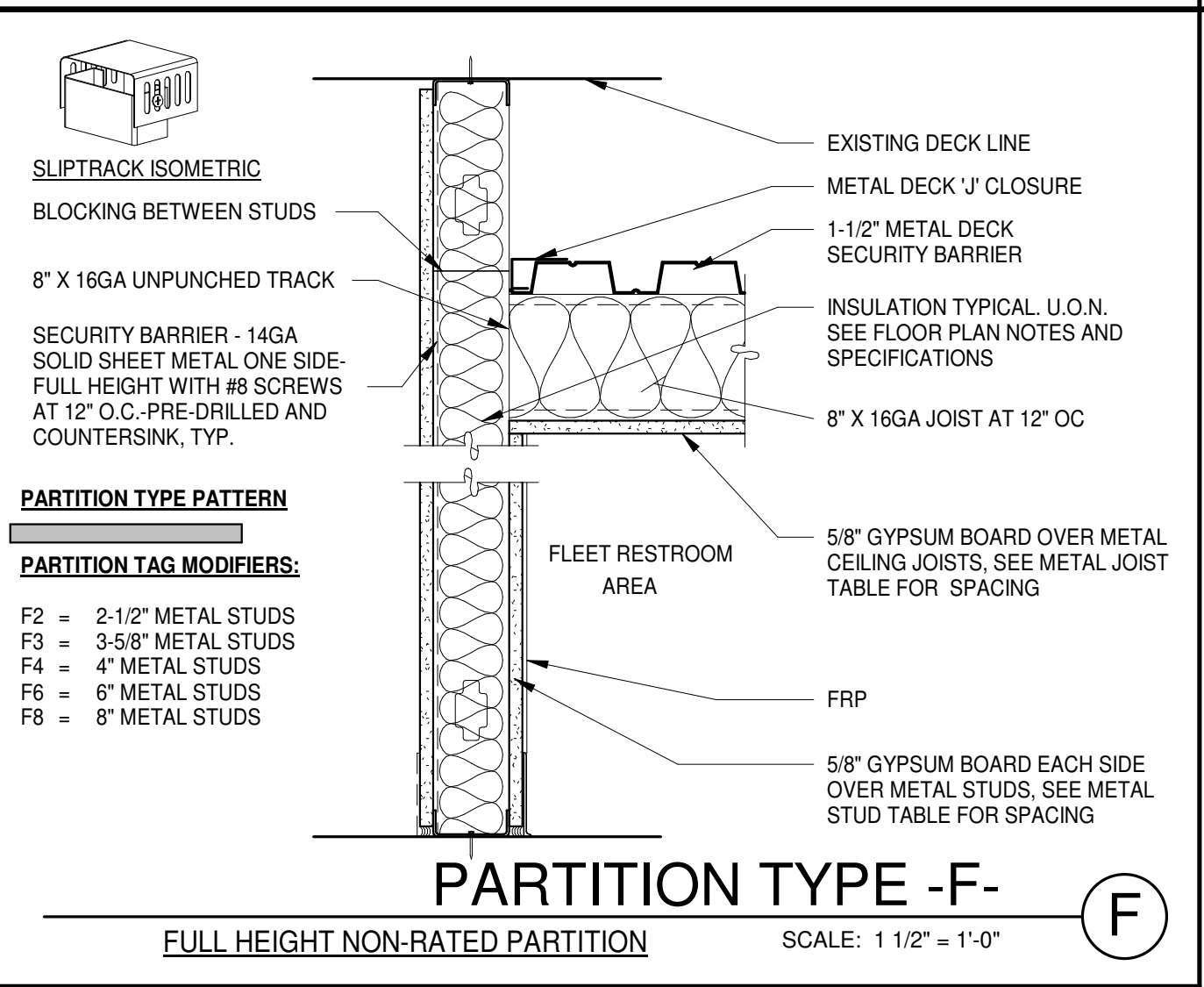
**INTERIOR NON-STRUCTURAL NON-COMPOSITE:**

(S) STUD MEMBER	SPACING (IN.) O.C.	5 PSF L/240
200S125-18	12"	10'-6"
200S125-18	16"	9'-7"
200S125-18	24"	8'-3"
200S125-33	12"	13'-2"
200S125-33	24"	10'-6"
200S125-43	12"	14'-4"
200S125-43	16"	13'-0"
200S125-43	24"	11'-5"

**USE FOR FURRING PURPOSES ONLY, U.O.N.**

(S) STUD MEMBER	SPACING (IN.) O.C.	5 PSF L/240
362S125-18	12"	14'-0"
362S125-18	16"	12'-2"
362S125-18	24"	9'-11"
362S125-33	12"	17'-7"
362S125-33	16"	16'-0"
362S125-33	24"	14'-0"
362S125-43	12"	19'-2"
362S125-43	16"	17'-5"
362S125-43	24"	15'-3"
362S125-54 (50 KSI)	12"	20'-6"
362S125-54 (50 KSI)	16"	18'-7"
362S125-54 (50 KSI)	24"	16'-3"
362S125-68 (50 KSI)	12"	20'-8"
362S125-68 (50 KSI)	16"	19'-11"
362S125-68 (50 KSI)	24"	17'-5"
400S125-18	12"	14'-9"
400S125-18	16"	12'-10"
400S125-18	24"	10'-5"
400S125-33	12"	19'-0"
400S125-33	16"	17'-3"
400S125-33	24"	15'-1"
600S125-18	12"	14'-9"
600S125-18	16"	12'-10"
600S125-18	24"	10'-5"
600S125-33	12"	19'-0"
600S125-33	16"	17'-3"
600S125-33	24"	15'-1"

**NOTE: ALL STUD INFORMATION IS BASED ON: STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) ICC ESR-3064P**



**ALLOWABLE CEILING SPANS-L/240**  
SCALE: 12" = 1'-0"

**PARTITION TYPE NOTES**  
SCALE: 1" = 1'-0"

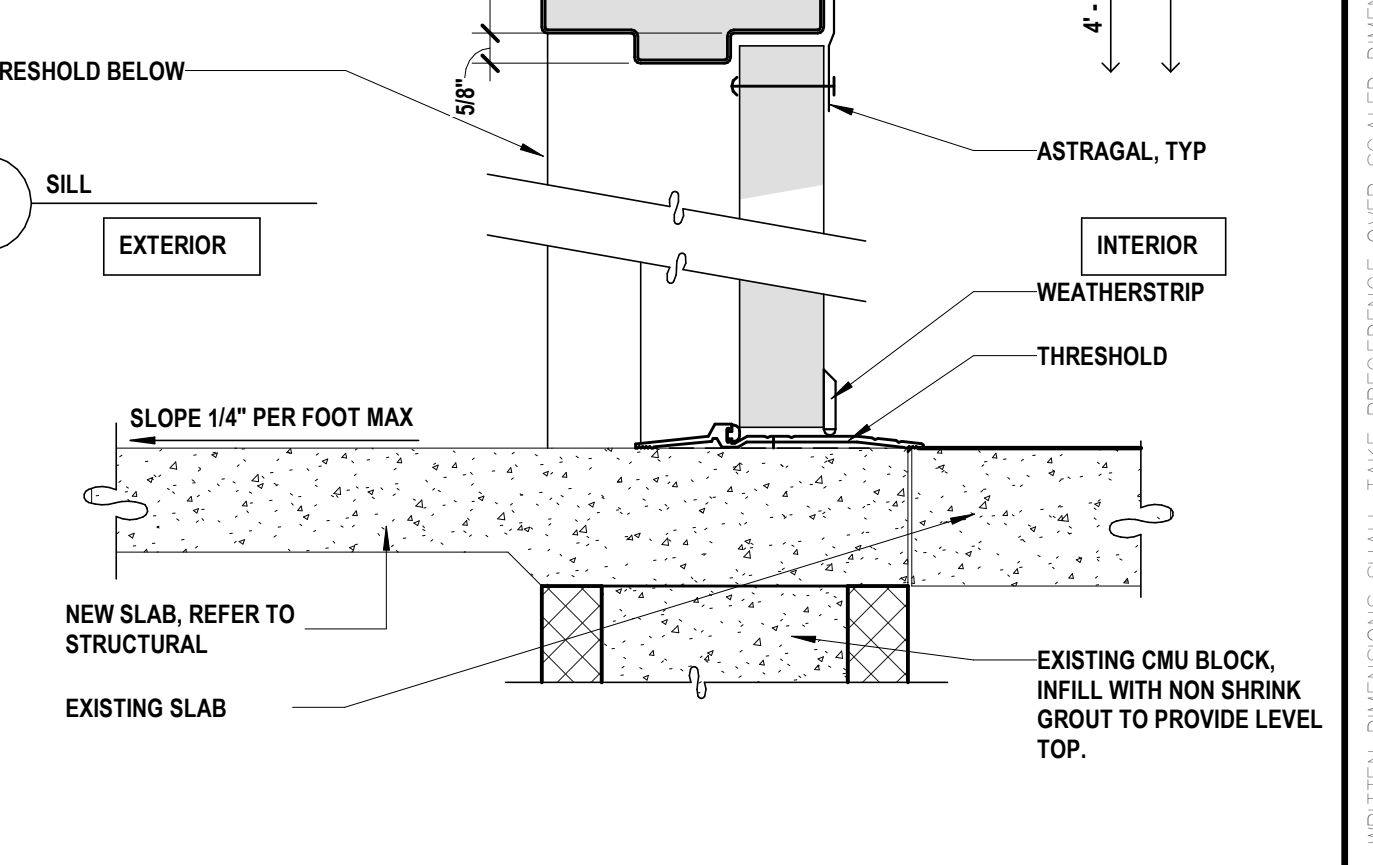
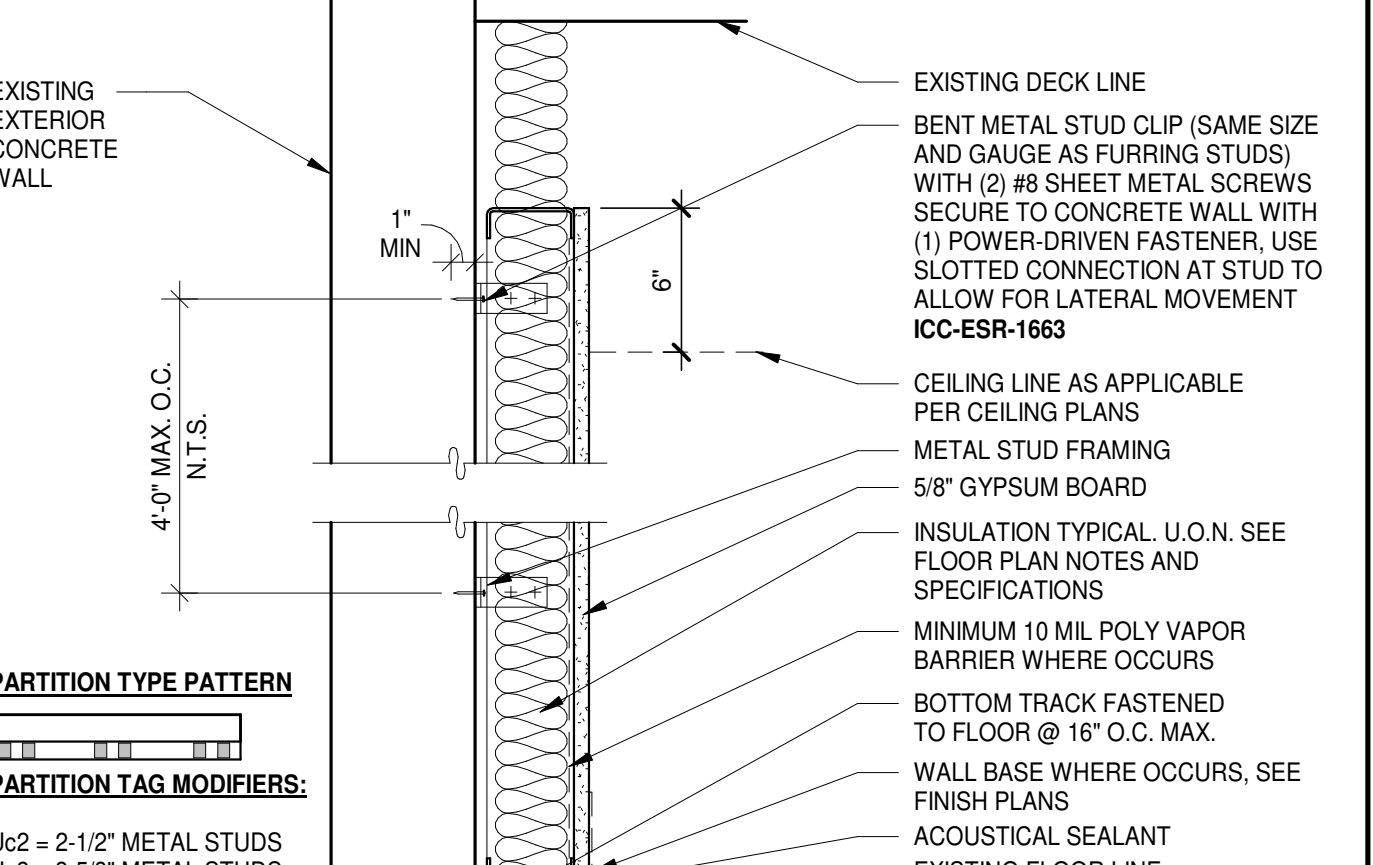
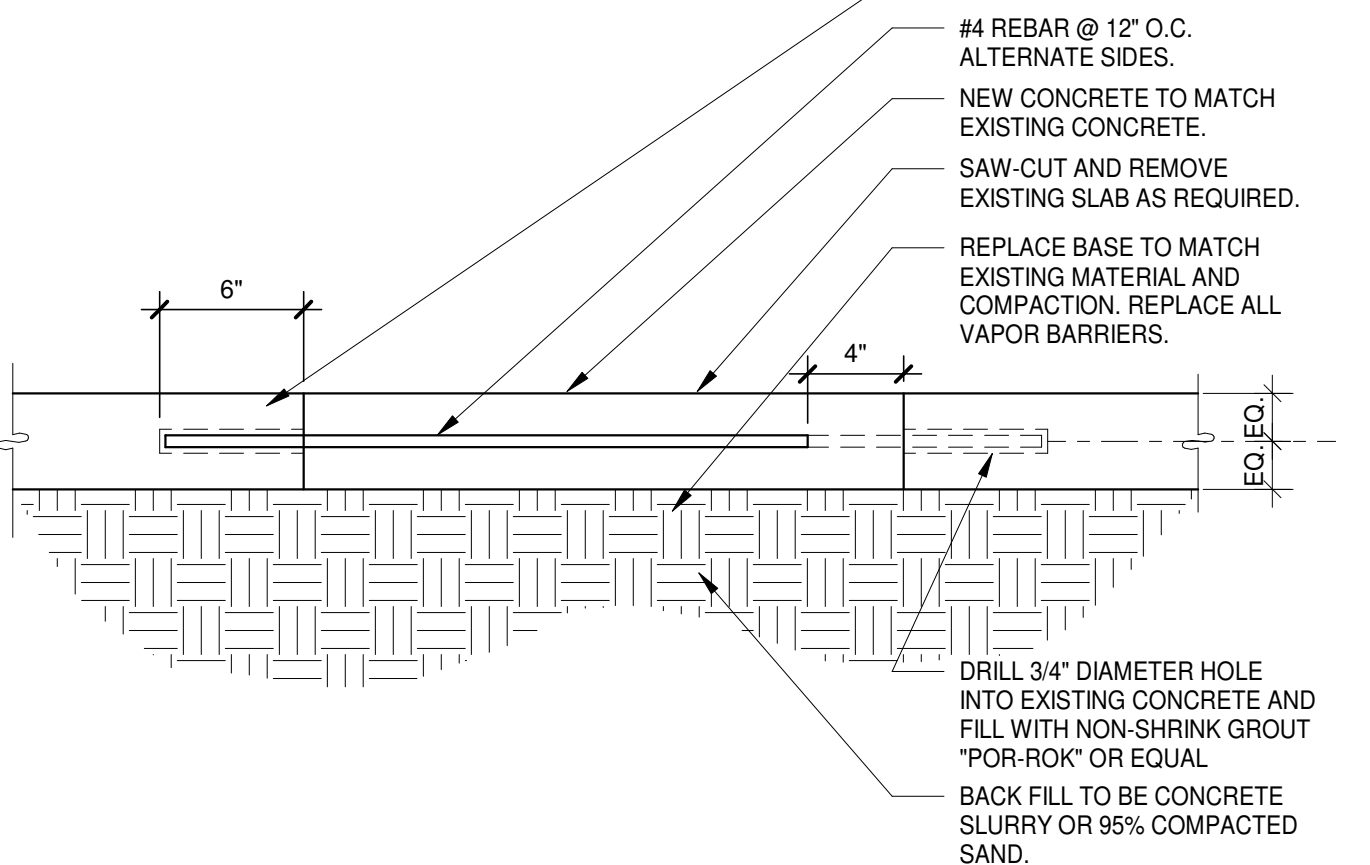
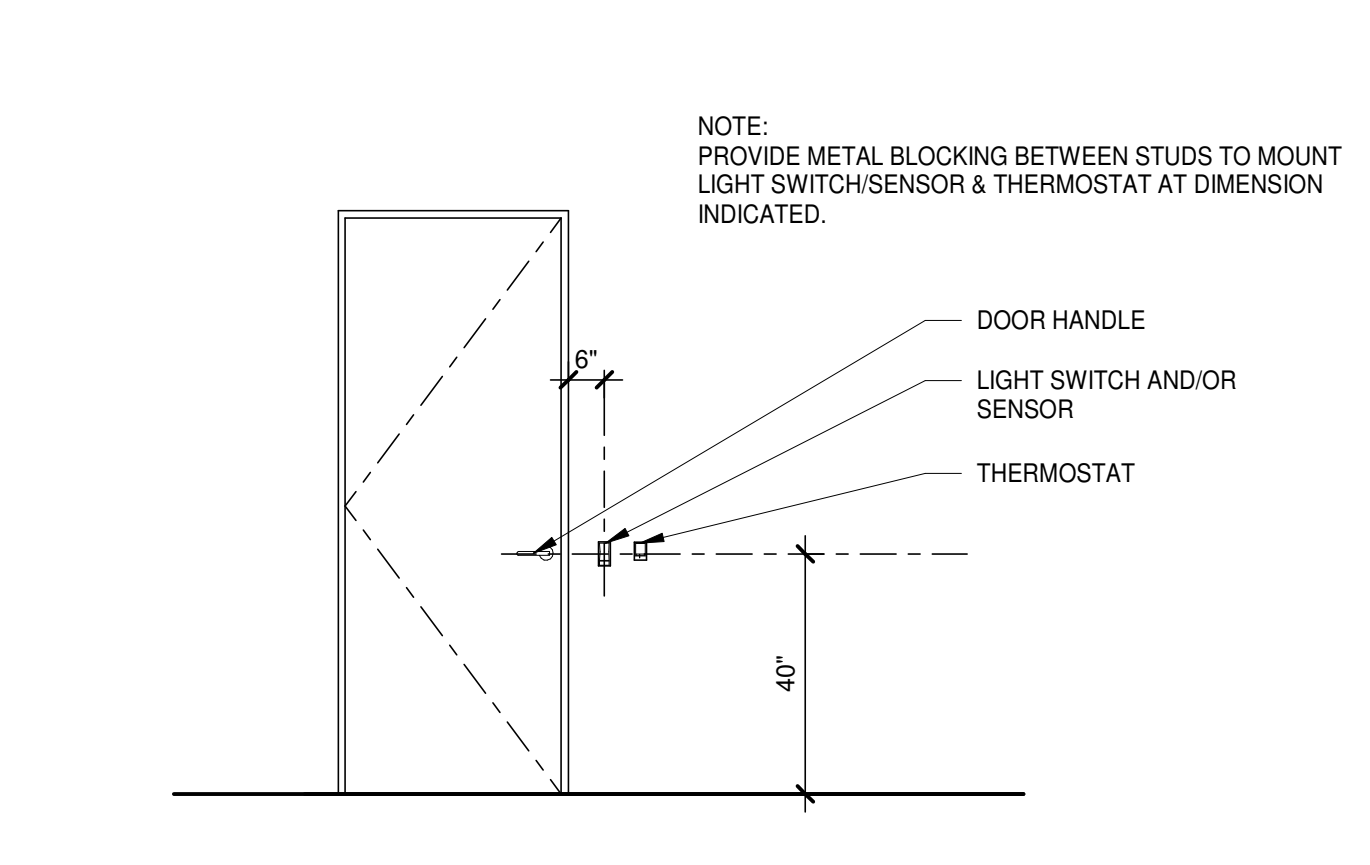
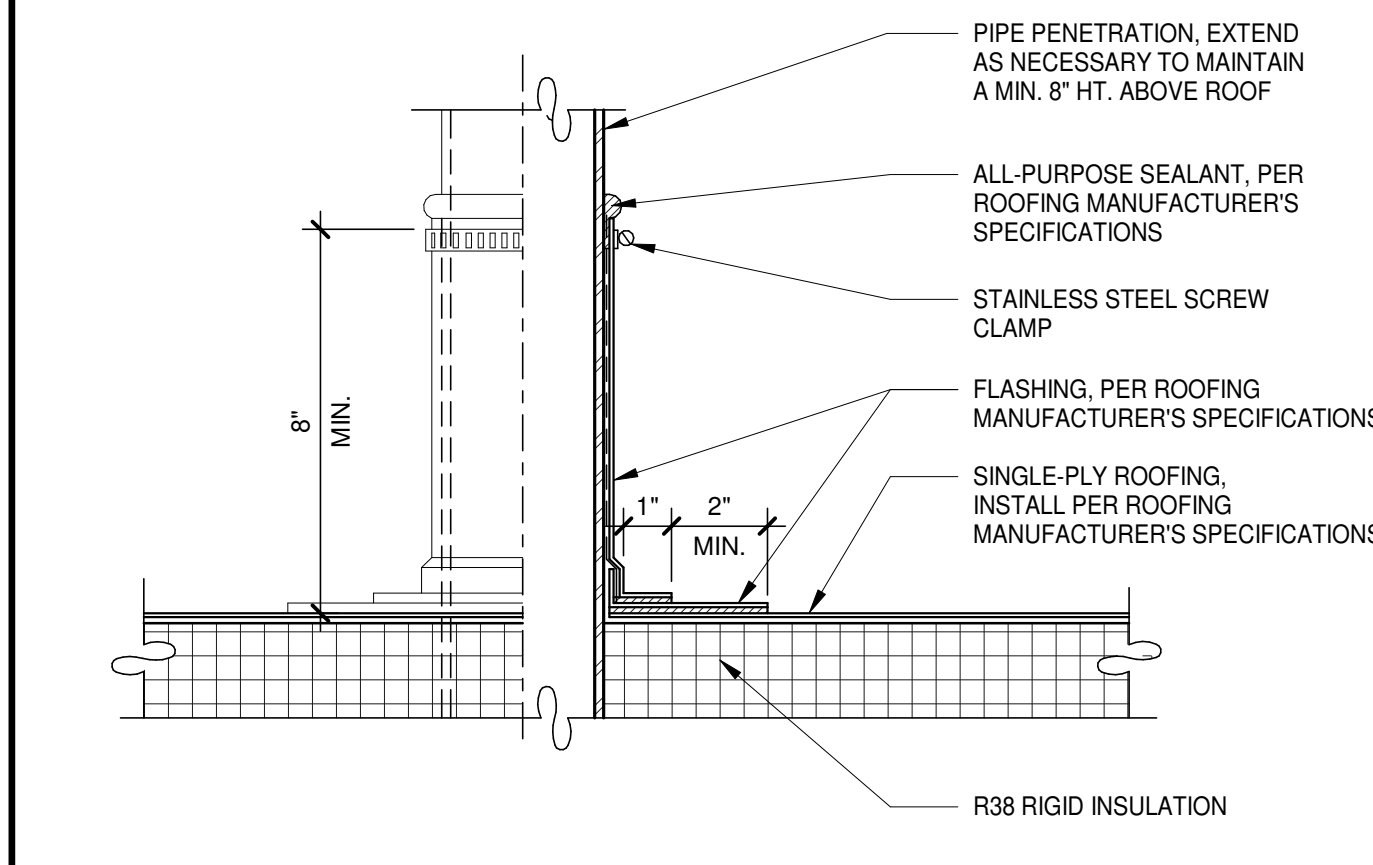
**DESIGN BUILD METAL STUD**  
SCALE: 12" = 1'-0"

**LIMITING PARTITION HEIGHT TABLE-L/240**  
SCALE: 12" = 1'-0"

**PARTITION TYPE -F FULL HEIGHT NON-RATED PARTITION**  
SCALE: 1 1/2" = 1'-0"

**PARTITION TYPE -B PLUMBING PARTITION**  
SCALE: 1 1/2" = 1'-0"

**EXTERIOR DOOR AT CMU**  
SCALE: 3" = 1'-0"



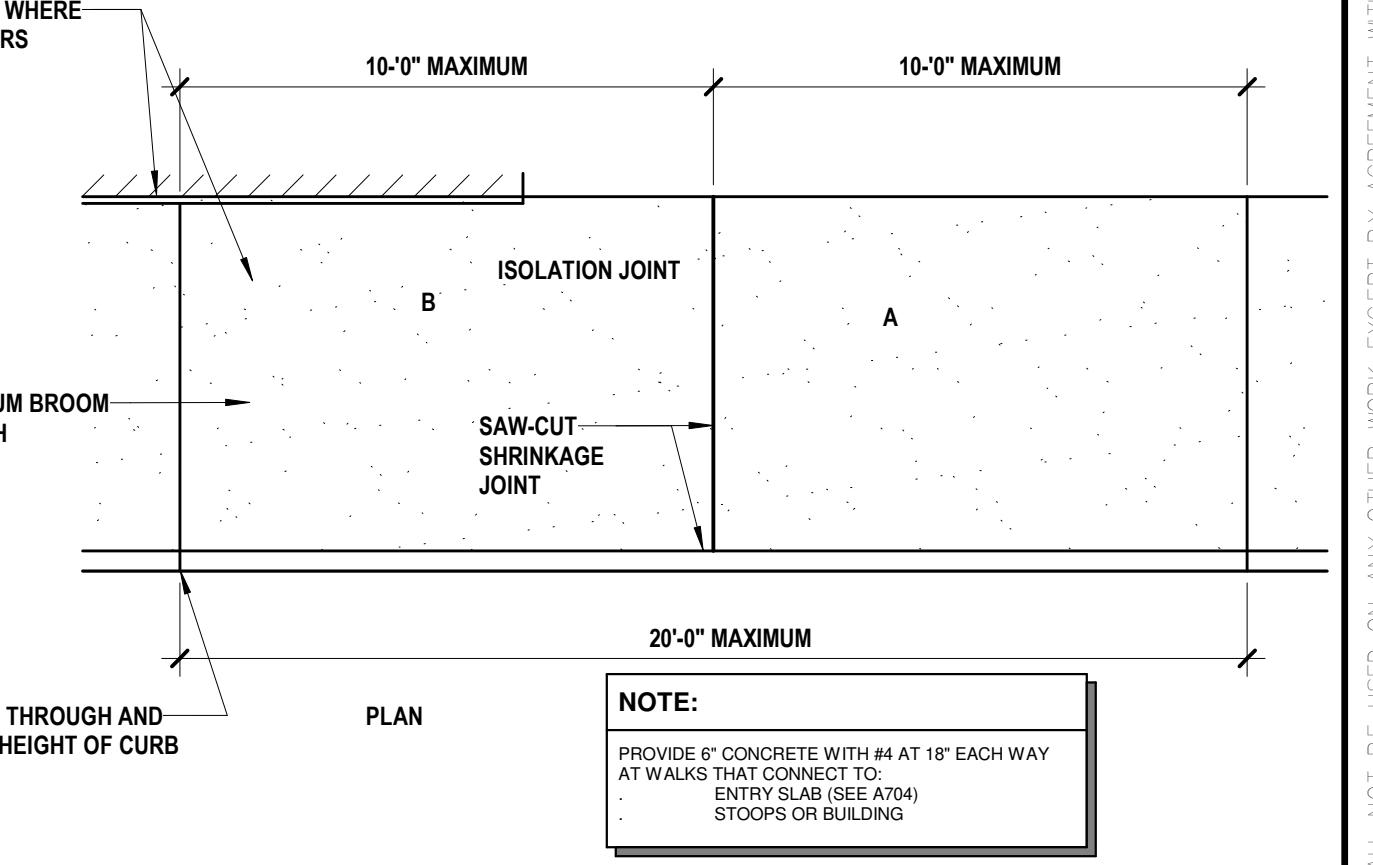
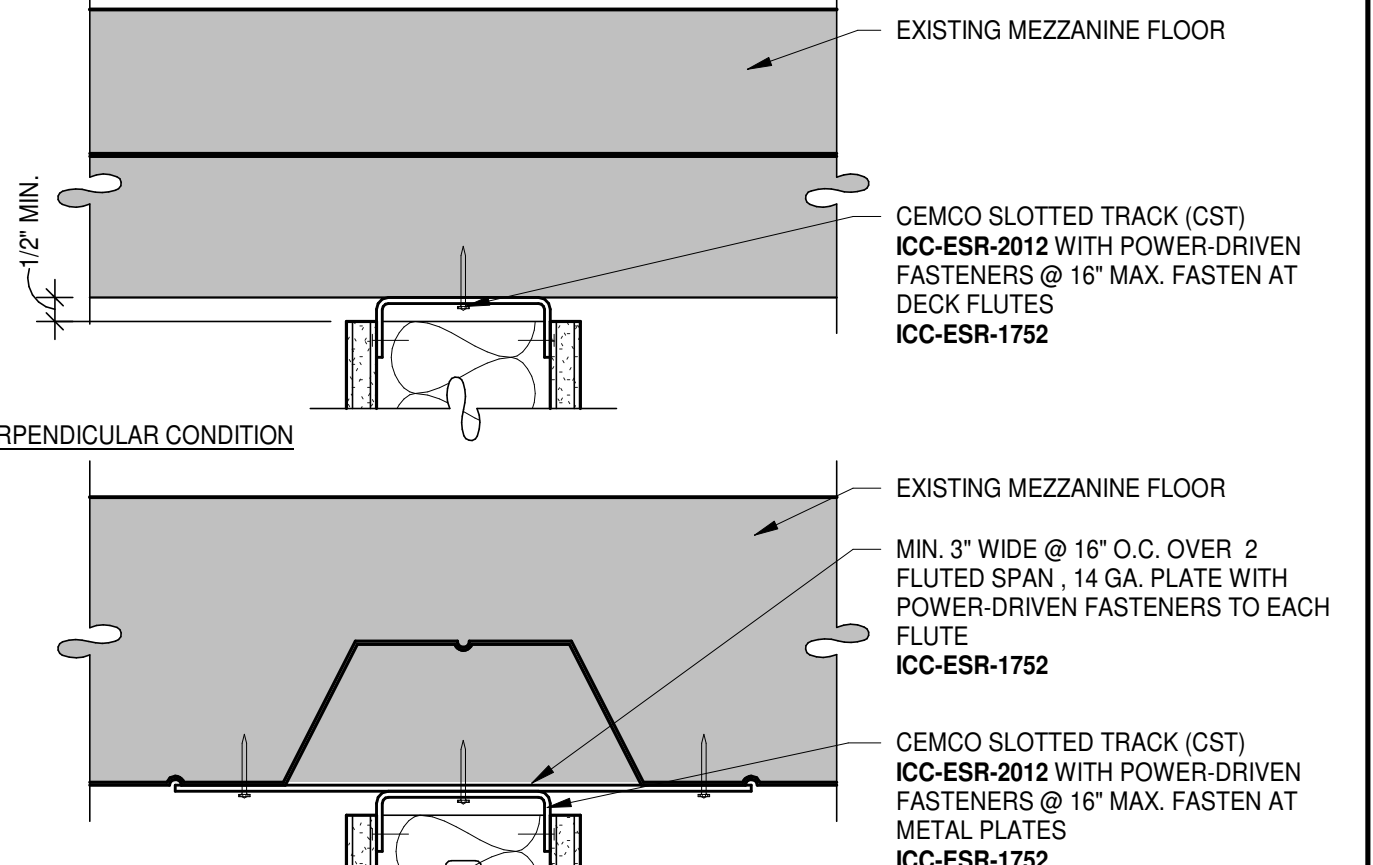
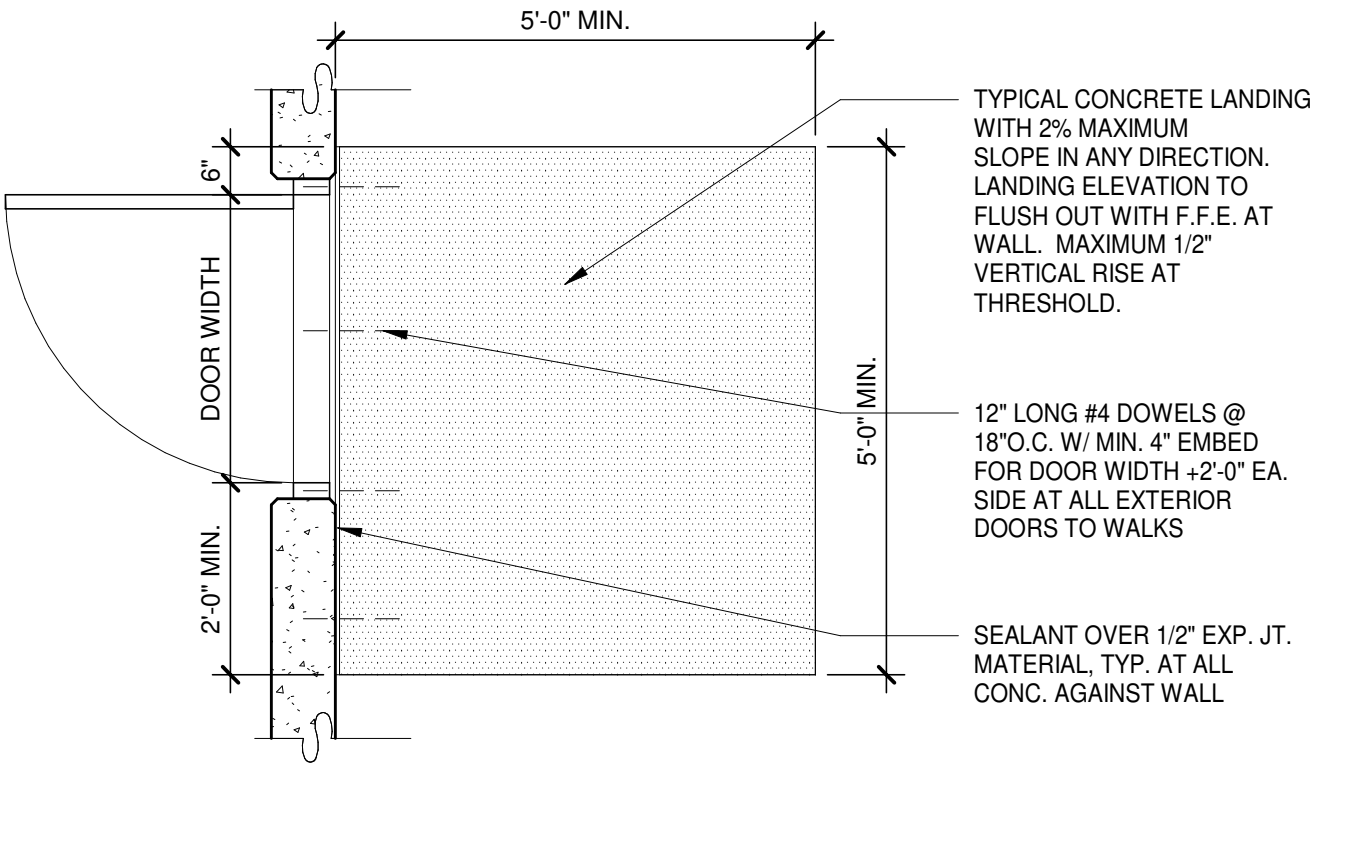
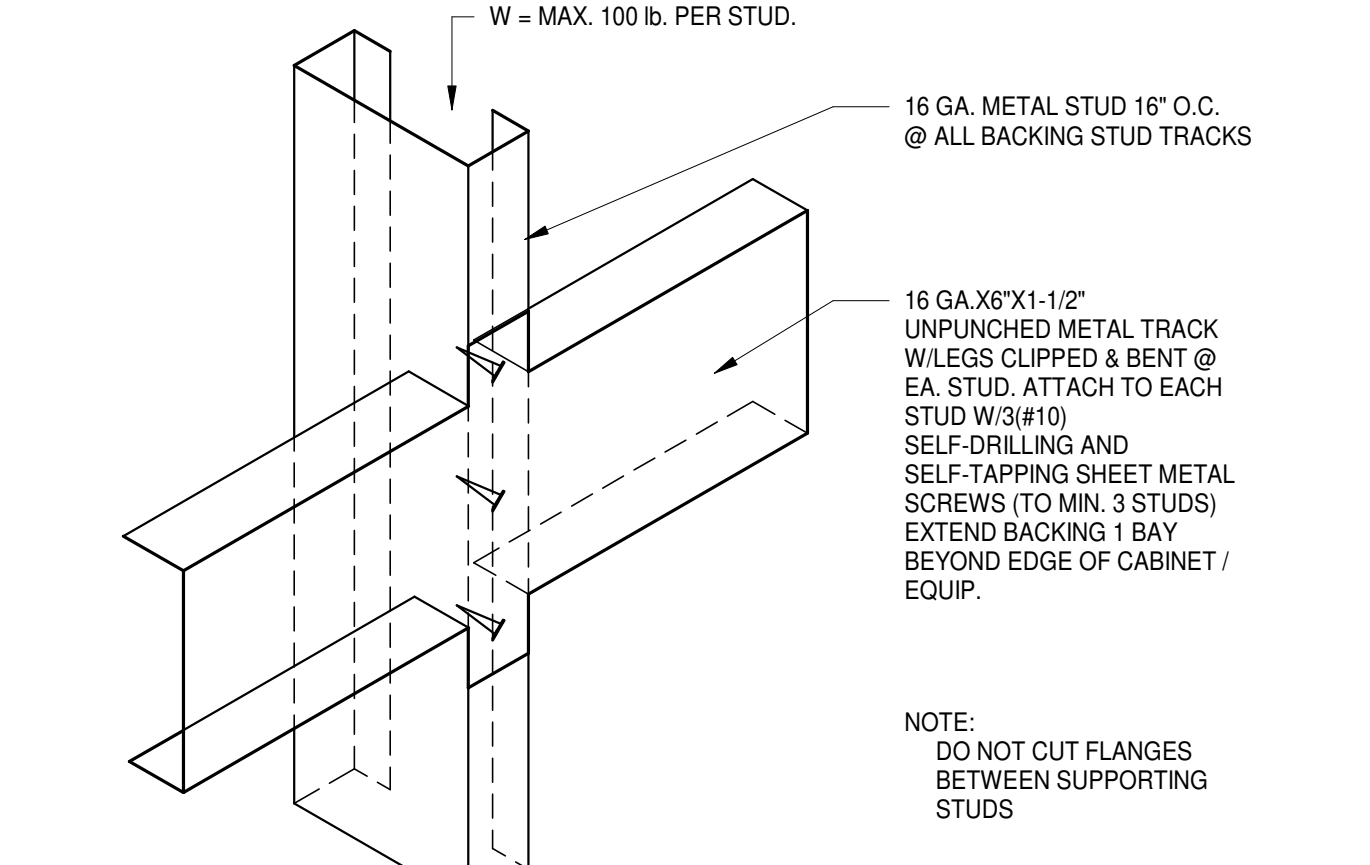
**ROOF PENETRATION FLASHING**  
SCALE: 3" = 1'-0"

**L.T. SWITCH/T-STAT INSTALLATION**  
SCALE: 3/8" = 1'-0"

**SAW-CUT CONCRETE SLAB REPAIR**  
SCALE: 1 1/2" = 1'-0"

**PARTITION TYPE -Uc FURRING @ EXTERIOR CONCRETE WALL**  
SCALE: 1 1/2" = 1'-0"

**EXTERIOR DOOR AT CMU**  
SCALE: 3" = 1'-0"



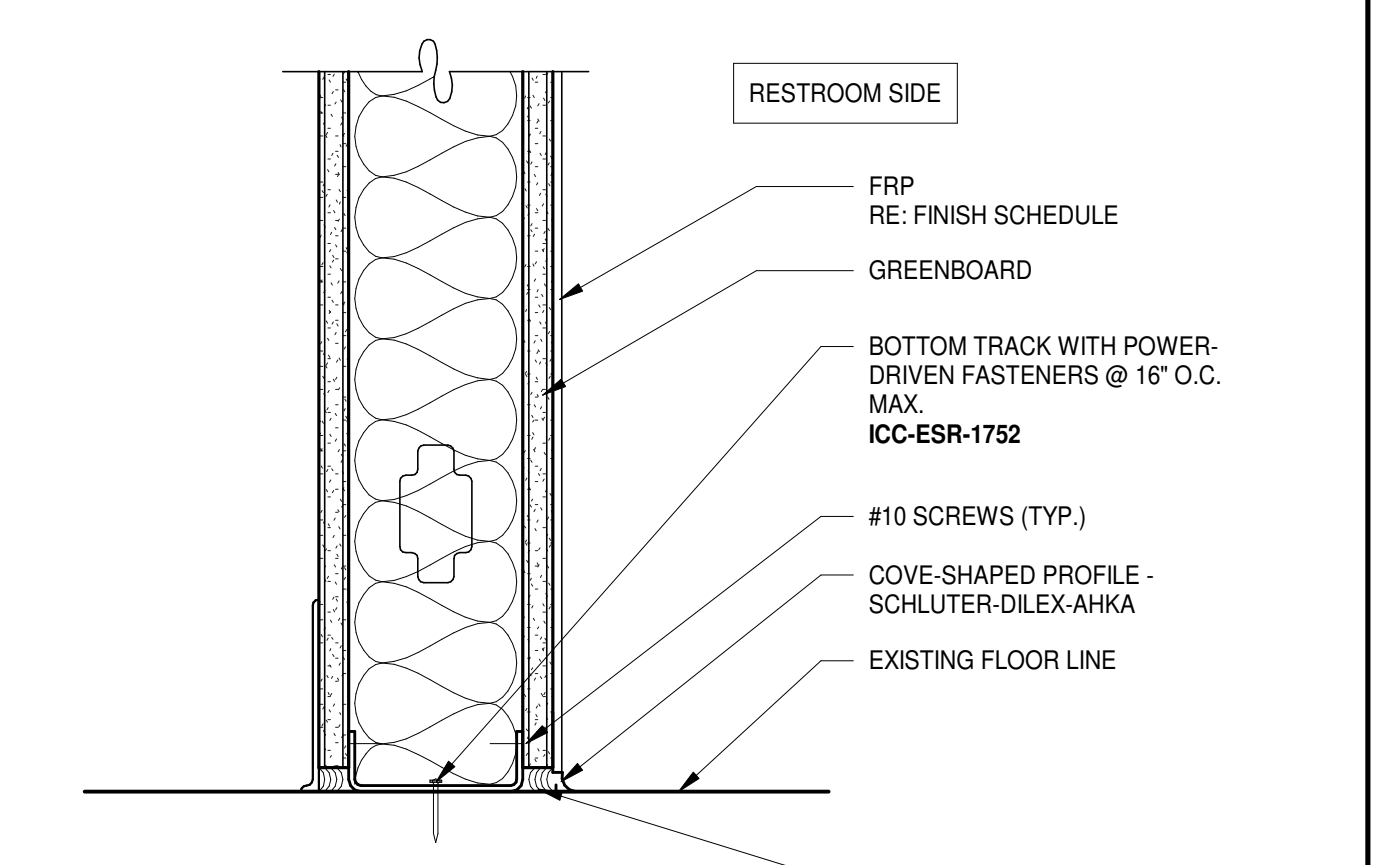
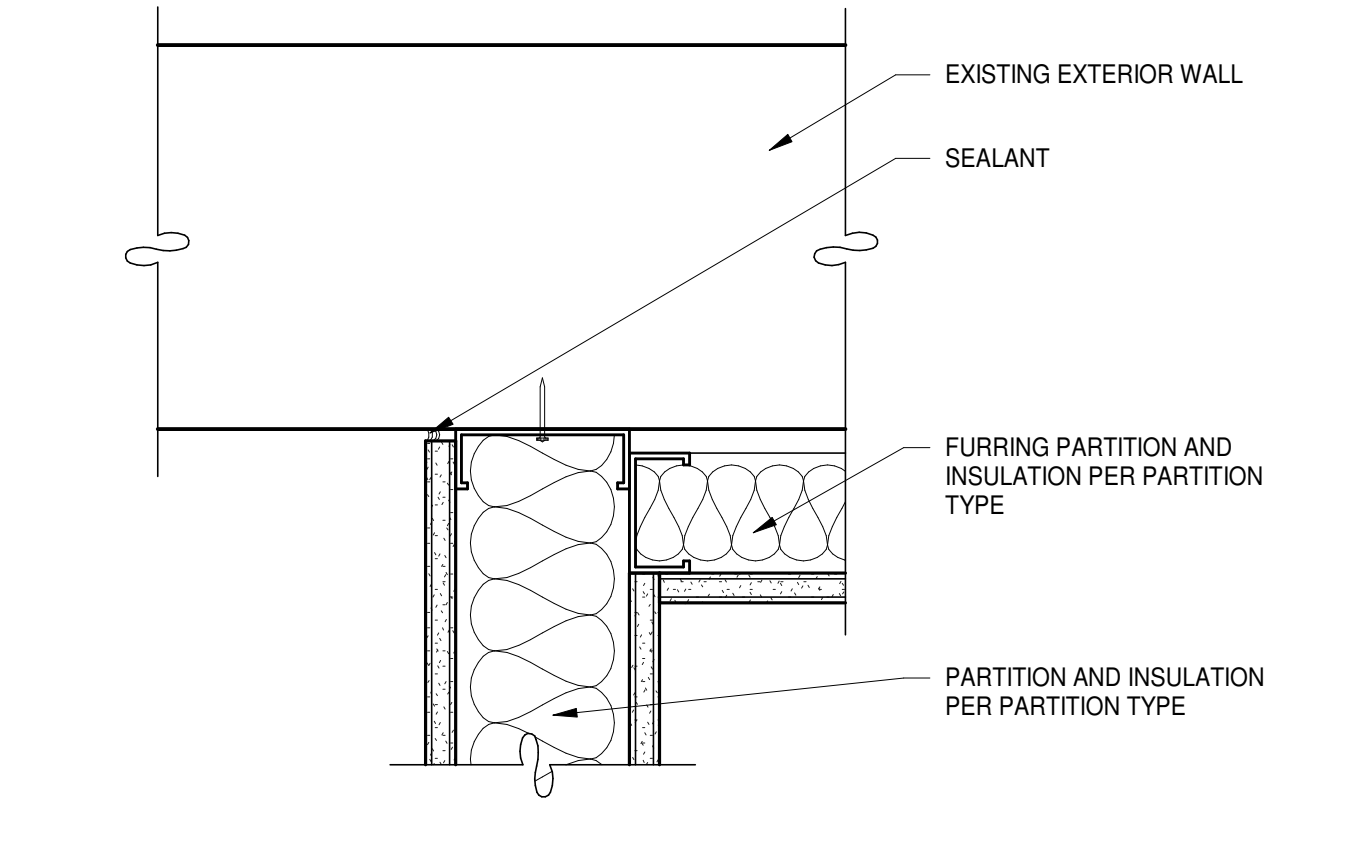
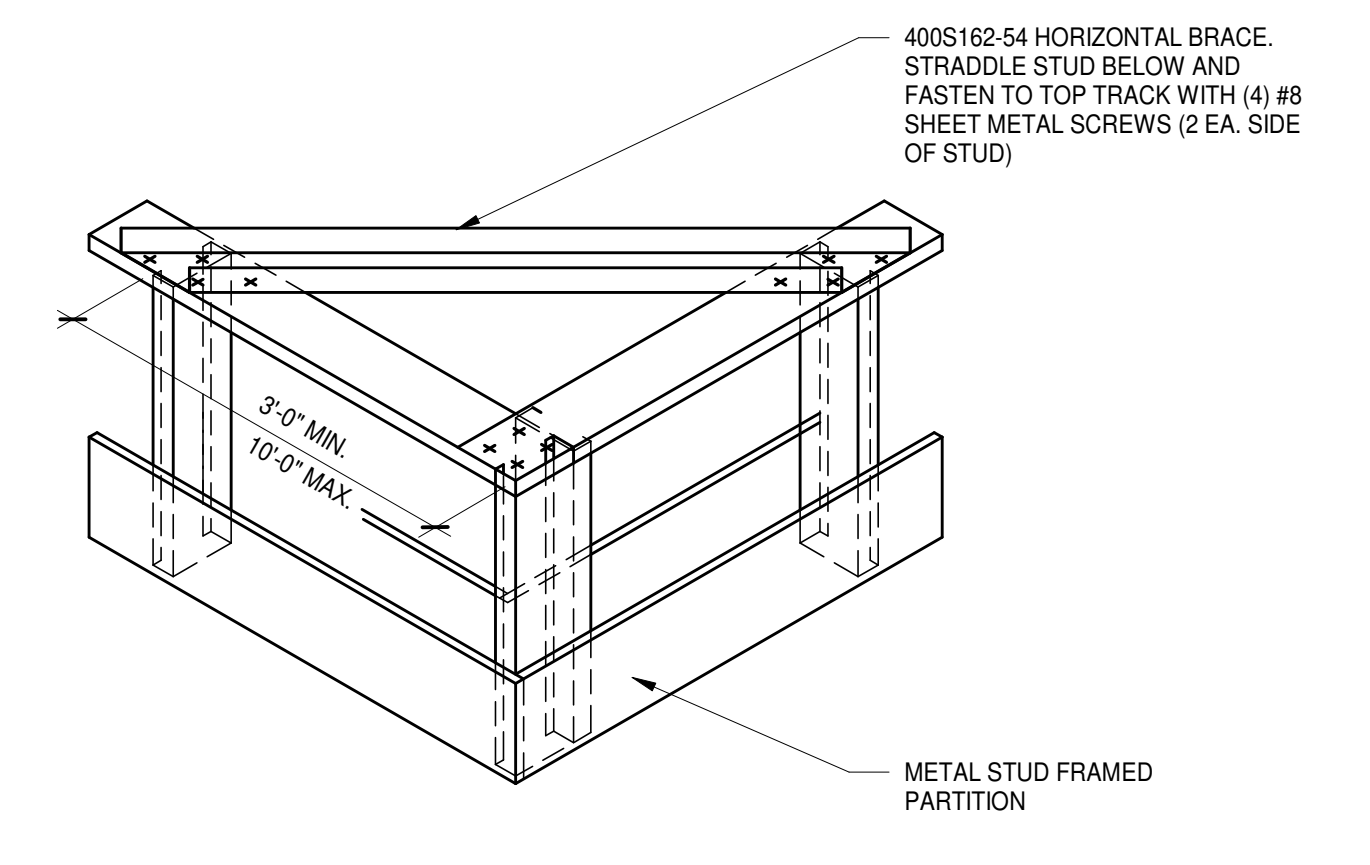
**BACKING DETAIL FOR MISC. EQUIP.**  
SCALE: 12" = 1'-0"

**CONCRETE LANDING**  
SCALE: 12" = 1'-0"

**NON-RATED PARTITION HEAD**  
SCALE: 3" = 1'-0"

**NON-RATED PARTITION**  
SCALE: 3" = 1'-0"

**CONCRETE WALKS - JOINTS**  
SCALE: 1 1/2" = 1'-0"



**HORIZONTAL PARTITION BRACE**  
SCALE: 12" = 1'-0"

**PARTITION JT. FURRING AT EXISTING PERIMETER**  
SCALE: 3" = 1'-0"

**PARTITION BASE**  
SCALE: 3" = 1'-0"

**CONCRETE WALKS - JOINTS**  
SCALE: 1 1/2" = 1'-0"

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REGISTERED ARCHITECT  
ADAM SEGALLA  
STATE OF WASHINGTON

**COSTCO WHOLESALE**

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**PUYALLUP WH0660**  
1201 39TH AVE SW,  
PUYALLUP, WA. 98373-3803  
PRCT120241512

**DETAILS**

DATE	REVISIONS
09/20/2024 <td>PERMIT ISSUANCE</td>	PERMIT ISSUANCE
	REMARKS

P.A.P.M.: L LUCERO  
DRAWN BY: A. M.  
JOB NO.: SE424-0053-00

SHEET  
**I510**

FINISH SCHEDULE

Table with sections: FLOORING FINISHES, SEALED CONCRETE, FLOOR TRANSITION, WALL FINISHES, PAINT, WALL APPLICATION, WALL BASE. Columns include MARK, PRODUCT TYPE, GENERAL LOCATION, U.O.N., MANUFACTURER, COLLECTION/STYLE#, COLOR/COLOR#, SIZE, INSTALLATION LAYOUT, BACKING/FINISHING, ADHESIVE, NOTES, MARK.

LIGHT FIXTURE SCHEDULE

Table with columns: F.#, GENERAL TYPE, MOUNTING TYPE, NAME, MANUFACTURER, HOUSING FINISHES/LENS DESCRIPTION, COLOR TEMP, CRI, NOTES. Includes fixtures F-1 and F-2.

RESTROOM ACCESSORIES

Table with columns: RA.#, TYPE, MANUFACTURER, MODEL NUMBER, FINISH, DESCRIPTION / NOTES. Lists various accessories like grab bars, dispensers, mirrors, etc.

PLUMBING FIXTURES

Table with columns: #, FIXTURE TYPE, MANUFACTURER, MODEL NUMBER, FINISH, DESCRIPTION / NOTES. Lists plumbing fixtures like floor drain, lavatory, room heater, etc.

DOOR SCHEDULE

Table with columns: DOOR NO., ROOM NAME, DOOR TYPE/ELEVATION, DOOR SIZE (WIDTH, HEIGHT), DOOR SPECIFICATION, FRAME SPECIFICATION, FIRE RATING, HARDWARE GROUP, KEYPAD, KICKPLATES, DOOR KEYNOTES, COMMENTS. Includes door F1 and a diagram of a solid flush door.

HARDWARE SPECIFICATIONS

HW-45 SINGLE, INTERIOR AND EXTERIOR FLEET RESTROOM. EACH DOOR SHALL HAVE: MANUFACTURER, 2 HINGES, 1 MECHANICAL PUSH/BOTTOM LOCKSET, 1 SURFACE CLOSER, 1 WEATHERSTRIP SET, 1 KICKPLATE, 1 DOOR SWEEP, 1 RAIN DRIP CAP, 1 THRESHOLD, 1 DOOR VIEWER.

DOOR AND FRAME SPECIFICATIONS

D1 DOOR: STEEL DOOR. MANUFACTURER: T.B.D., STYLE/SERIES: T.B.D., CONSTRUCTION: STEEL, FINISH: PAINT T.B.D., THICKNESS: 1 3/4". F1 FRAME: STEEL, MANUFACTURER: TIMELY, MATERIAL: STEEL, FINISH: ALUMITONE # SC108.

DOOR KEYNOTES

- 1. PREPARE DOOR TO RECEIVE KEYPAD.
2. DOOR CLOSER PER DOOR MANUFACTURER.
3. WIDE ANGLE PEEPHOLE TO BE MOUNTED CENTERED ON THE DOOR AT 48" HEIGHT.
4. KICKPLATE TO BE INSTALLED ON PUSH SIDE OF DOOR.

GENERAL NOTES

- 1. SEE SHEET 0110 FOR GENERAL DOOR NOTES.
2. ALL HARDWARE SHALL MEET ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES.
3. ALL DOOR FRAMES TO BE FACTORY FINISHED, U.O.N.

WARE MALCOMB ARCHITECTURE CIVIL ENGINEERING PLANNING BRANDING BUILDING MEASUREMENT 3015 112th Ave NE Suite #205 Everett, WA 98203 P:425.670.6706

18194 REGISTERED ARCHITECT ADAM SEGALLA STATE OF WASHINGTON



COSTCO FLEET RESTROOM PUYALLUP WH0660 1201 39TH AVE SW, PUYALLUP, WA. 98373-3803 PRCT120241512

SCHEDULES table with columns: DATE, PERMIT ISSUANCE, REMARKS. Includes permit information for 09/20/2024.

P.A.P.M.: L. LUCERO DRAWN BY: A. M. JOB NO.: SE424-0053-00

SHEET 1620 9/20/2024 8:27:07 AM

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**GENERAL NOTE**  
REMODEL

THE FOLLOWING NOTES APPLY UNLESS NOTED OTHERWISE - ASTM'S NOTED ARE TO BE LATEST EDITION.

- DESCRIPTION  
Building Name & Site Location - Costco Wholesale - Puyallup, WA
- DESIGN CODE AND STANDARDS  
Applicable Code (Edition/Name) - 2021 International Building Code (IBC)  
Other documents referenced by these notes shall be the specific edition referenced by the building code specified above, or if not specified, shall be the latest edition.  
Code supplement & Date - ASCE 7-16
- DESIGN LOADS  
a. Ceiling Live Load 20 psf  
b. Seismic Risk Category II  
 $S_{DS} = 1.208$ ,  $S_{D1} = 0.438$ ,  $I_e = 1.0$ , Site Class "D" and  
 $S_{M1} = 0.845$ ,  $S_{M2} = 0.544$   
Seismic Design Category = "D"  
Risk Category II  
c. Wind Load Basic wind speed (3 sec. gust)  $V_{ULT} = 110$  mph,  $V_{ASD} = 85$  mph  
Exposure C  
 $Kz1 = 1.0$   
 $Kd = 1.0$   
IBC Load Cases per sec. 1605.2.1 or 1605.3.1 only  $K_p = 0.85$   
Importance factor 1.0.  
All Code required load combinations are to be used in the building design.
- Load Combinations

**OSHA STANDARDS**

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROVISIONS OF THE CURRENT OSHA STANDARDS. THE GENERAL CONTRACTOR SHALL REVIEW THESE STRUCTURAL DRAWINGS FOR ANY NONCOMPLIANCE WITH OSHA STANDARDS, TAKING INTO ACCOUNT THE GENERAL CONTRACTOR'S MEANS AND METHODS. THE GENERAL CONTRACTOR SHALL INFORM ENV OF ANY NONCOMPLIANCE SO THE DRAWINGS MAY BE MODIFIED FOR COMPLIANCE PRIOR TO CONSTRUCTION. THE GENERAL CONTRACTOR IS TOTALLY RESPONSIBLE FOR MEANS AND METHODS AS WELL AS JOBSITE SAFETY ON THIS PROJECT.

**CONCRETE**

FC=4000 PSI, @ 28 DAYS 5-1/2 SACKS MINIMUM CEMENT PER CUBIC YARD FOR ALL CONCRETE SLABS.  
FC=3000 PSI, @ 28 DAYS 5-1/2 SACKS MINIMUM CEMENT PER CUBIC YARD FOR ALL OTHER.  
USE TYPE III/II CEMENT. USE TYPE III (HIGH EARLY STRENGTH) CEMENT IS ACCEPTABLE FOR SCHEDULE. FOR SPECIAL CONDITIONS ANOTHER TYPE CEMENT MAY BE REQUIRED. SUBMIT FOR APPROVAL. ULTIMATE STRENGTH DESIGN METHOD USED. MIXING AND PLACING OF ALL CONCRETE AND SELECTION OF MATERIALS SHALL BE IN ACCORDANCE WITH THE ACI CODE 318. PROPORTIONING OF AGGREGATE TO CEMENT SHALL BE SUCH AS TO PRODUCE A DENSE WORKABLE MIX WITH 4" MAXIMUM SLUMP (UNLESS SUPERPLASTICIZERS ARE USED) WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER. FOR ADMIXTURES, SEE SPECIFICATIONS. MAXIMUM WATER/CEMENT RATIO = 0.49. 3/4" CHAMFER ALL EXPOSED EDGES, UNLESS INDICATED OTHERWISE ON ARCHITECTURAL DRAWINGS. WATER CURING SHALL BE USED. AIR ENTRAIN ALL HORIZONTAL CONCRETE EXPOSED TO WEATHER WITH 3% TO 6% AIR BY VOLUME. DO NOT USE AIR ENTRAINMENT FOR INTERIOR SLABS ON GRADE. LIMIT WATER CEMENT RATIO TO 0.45 AND USE TYPE V CEMENT WHERE SOILS WATER SOLUBLE SULFATE EXCEEDS 0.20 PERCENT BY WT. ADD NO WATER TO CONCRETE AT SITE. IF INCREASED WORKABILITY IS REQUIRED, CONTRACTOR IS TO SUBMIT A MIX DESIGN THAT WILL ALLOW THE ADDITION OF A FIXED AMOUNT WATER REDUCING AGENT OR A FIXED AMOUNT OF SUPER-PLASTICIZER AT THE CONCRETE PLANT.  
A. DO NOT USE FLY ASH, SLAG OR OTHER SUPPLEMENTARY CEMENTITIOUS MATERIALS IN CONCRETE EXCLUDING TO VIEW INCLUDING, BUT NOT LIMITED TO, INTERIOR FLOOR SLABS, ENTRY CANOPY SLABS, LOADING DOCK SLABS AND STAIRS, STEM WALLS, FOUNDATION WALLS, GRADE BEAMS, AND SIMILAR CONCEALED LOCATIONS.  
1. FLY ASH, SLAG AND OTHER SUPPLEMENTARY CEMENTITIOUS MATERIALS MAY BE USED ONLY IN BELOW GRADE CONCRETE SUCH AS FOOTINGS, FOUNDATION WALLS, GRADE BEAMS, AND SIMILAR CONCEALED LOCATIONS.  
2. FLY ASH, SLAG AND OTHER SUPPLEMENTARY CEMENTITIOUS MATERIALS MAY BE USED IF DETERMINED THAT THE USE OF SUPPLEMENTARY CEMENTITIOUS MATERIALS WOULD IMPROVE RESISTANCE TO ALKALI-AGGREGATE REACTIVITY IN CONCRETE. OBTAIN WRITTEN APPROVAL FROM OWNER PRIOR TO USE.  
ACI 308R IS TO BE FOLLOWED FOR COLD WEATHER CONCRETING. ACI 305R IS TO BE FOLLOWED FOR HOT WEATHER CONCRETING. THE TESTING LAB MUST APPROVE THE CONTRACTORS METHOD OF COMPLIANCE AND CERTIFY THEIR APPROVAL WITH EACH CONCRETE TEST CYLINDER THEY CAST. TESTING LAB TO NOTIFY THE ARCHITECT IMMEDIATELY BY FAX AND PHONE OF ANY NONCOMPLIANCE.

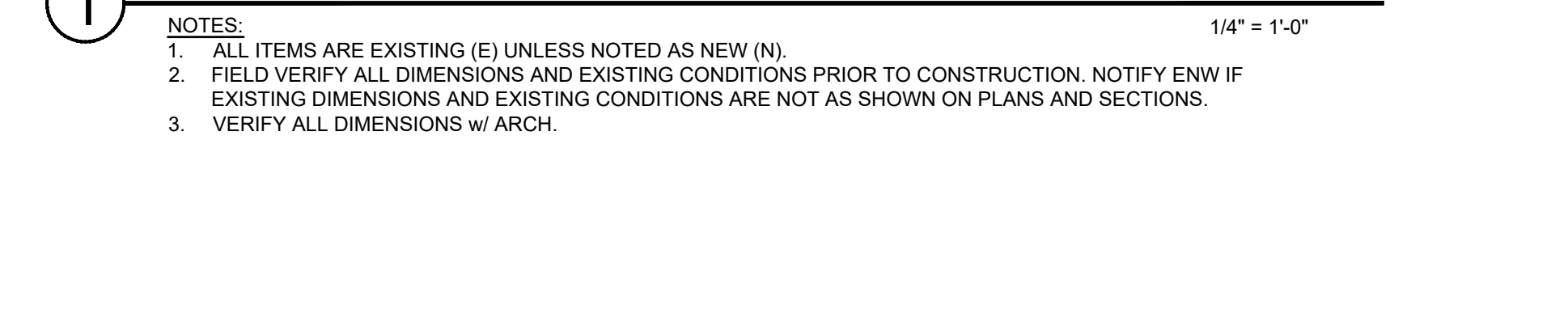
**REINFORCING STEEL**

ALL CONCRETE REINFORCING STEEL SHALL BE DEFORMED PER ASTM A615, GRADE 60 ( $f_y=60,000$  psi) LAP CONTINUOUS REINFORCING BARS 44 BAR DIAMETERS, 1" MINIMUM UNLESS NOTED OTHERWISE. CORNER BARS (1'-10" BEND) TO BE PROVIDED FOR ALL HORIZONTAL REINFORCEMENT. DETAIL STEEL IN ACCORDANCE WITH "ACI MANUAL OF STANDARD PRACTICE OF DETAILING REINFORCED CONCRETE STRUCTURES". WELDED WIRE FABRIC (WWF) TO CONFORM WITH ASTM A185. REINFORCING HOOKS TO COMPLY WITH STANDARD ACI HOOKS.  
COVER TO MAIN REINFORCEMENT TO BE:  
BOTTOM OF FOOTINGS 3 INCHES  
FORMED SURFACES WEATHER & EARTH FACE 1-1/2 INCHES  
FORMED SURFACES INTERIOR FACE 3/4 INCHES  
SHOULD THE REINFORCING SUPPLIER AND/OR DETAILER CHOOSE TO USE SOFT METRIC, EACH AND EVERY REBAR CALLOUT MUST BE INDICATED WITH BOTH SIZES WITH THE IMPERIAL SIZE FIRST THUS: "4#13" NO EXCEPTIONS. A CONVERSION TABLE ALONE IS UNACCEPTABLE. WE WILL CHECK THE SHOP DRAWINGS TO THE IMPERIAL SIZES ONLY. IT WILL BE THE RESPONSIBILITY OF THE REINFORCING SUPPLIER AND THE GENERAL CONTRACTOR TO VERIFY THAT ALL CONVERSIONS TO METRIC SUPPLY AT LEAST THE SAME AREA OF STEEL AS THE IMPERIAL.  
**LIGHT GAGE STEEL FRAMING AND DECKING (SEE DRAWINGS)**  
**SPECIAL INSPECTIONS**  
INSPECTIONS ARE TO BE PER THE CODE INDICATED ABOVE AND ARE TO BE BY AN INDEPENDENT TESTING LAB APPROVED PRIOR TO STARTING CONSTRUCTION BY THE BUILDING DEPT. AND THE ARCHITECT. INSPECT ALL SHOP WELDING UNLESS THE SHOP IS CERTIFIED BY THE LOCAL BUILDING DEPARTMENT.  
CONCRETE: TAKE CONCRETE CYLINDERS AS REQUIRED. VERIFY SLUMP AND STRENGTH. SPECIAL INSPECTION IS REQUIRED DURING THE TAKING OF TEST SPECIMENS AND PLACING OF ALL REINFORCED CONCRETE.  
REINFORCING: VERIFY ALL REINFORCING IS PLACED IN ACCORDANCE WITH THESE DRAWINGS. CHECK FOR REQUIRED COVER, SIZE, SPACING, LAP AND GRADE. SPECIAL INSPECTION IS REQUIRED DURING THE PLACING OF REINFORCING STEEL.  
**SPECIAL CONDITIONS**  
CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL FIELD CHANGES PRIOR TO INSTALLATION.  
**NOTE TO MECHANICAL AND ELECTRICAL TRADES**  
CONTRACTOR SHALL SUBMIT PLANS SHOWING LOCATION, LOAD AND ANCHORAGE OF ALL HANGERS SUPPORTING ANY MECHANICAL, ELECTRICAL, PLUMBING OR SPRINKLER LOADS IN EXCESS OF 50 POUNDS. ANY ROOF MOUNTED EQUIPMENT SHALL BE INCLUDED IN THESE PLANS AND SHALL SHOW LOADS AND LOCATIONS. THESE SHALL BE SUBMITTED TO ENGINEERS NORTHWEST FOR REVIEW PRIOR TO INSTALLATION OF ANY OF THIS EQUIPMENT. SEE DETAILS ON DRAWING SS-1 FOR SUPPORTING LOADS FROM ROOF JOISTS. ALL DETAILS OF CONNECTIONS TO THE STRUCTURE FOR EQUIPMENT SHALL BE BY THE SUPPLIER OF THAT EQUIPMENT. THE BUILDING DEPARTMENT REQUIRES A SUBMITTAL FOR PLAN CHECK REGARDING THE DESIGN OF THESE DETAILS. IT IS THE RESPONSIBILITY OF THE EQUIPMENT SUPPLIER TO PROVIDE THIS SUBMITTAL.

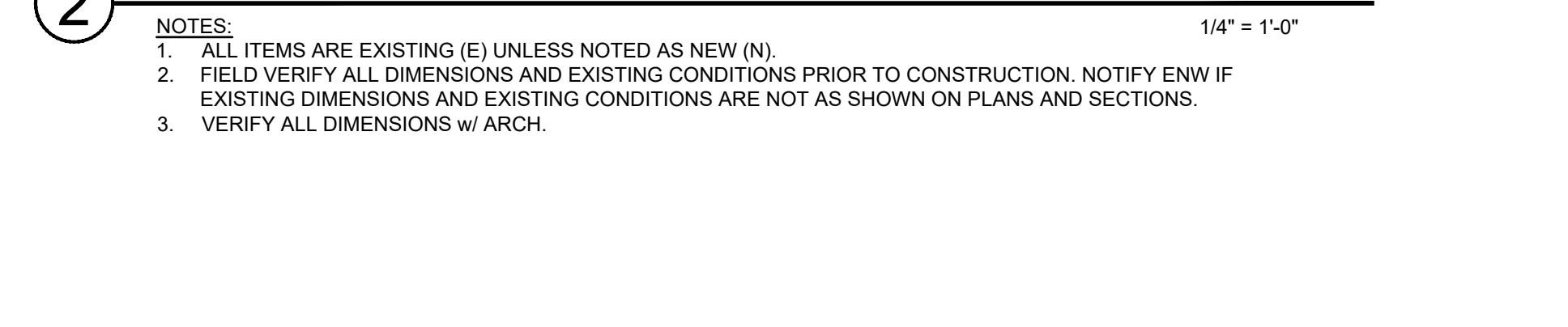
**ABBREVIATIONS**

ARCH	ARCHITECT	M.B.S.	METAL BLDG SUPPLIER
BAL.	BALANCE	N.F.	NEAR FACE
B	OR BOT. BOTTOM	N.T.S.	NOT TO SCALE
BTWN.	BETWEEN	ON	ON CENTER
BLDG.	BUILDING	O.S.	OUTSIDE
BRG.	BEARING	O.T.O.	OUT TO OUT
C.I.P.	CAST IN PLACE	PL	PLATE
C.J.	CONSTRUCTION JOINT	REINF.	REINFORCING
CLR.	CENTERLINE	REMA.	REMAINDER
CMU	CONCRETE MASONRY UNIT	R.O.	ROUGH OPENING
COL.	COLUMN	SECT.	SECTIONS
COND.	CONCRETE	S.J.	SHRINKAGE JOINT
C.S.J.	CLOSURE STRIP JOINT	S.O.G.	SLAB ON GRADE
E.A.	EACH	STL.	STEEL
E.E.	EACH END	SW	SHEARWALL
E.F.	EACH FACE	SYMM.	SYMMETRICAL
E.J.	EXPANSION JOINT	T.O.B.	TOP OF BEAM
EL.	OR ELEV. ELEVATION	T.O.F.	TOP OF FOOTING
E.N.W.	OR ENW. ENGINEERS NORTHWEST	T.O.S.	TOP OF STEEL
EQ.	EQUAL	T.O.S.	TOP OF SLAB
E.S.	EACH SIDE	T.O.W.	TOP OF WALL
E.W.	EACH WAY	TYP.	TYPICAL AT ALL SIMILAR PLACES
F.O.C.	FACE OF CONCRETE	U.N.G.	UNLESS NOTED OTHERWISE
F.O.S.	FACE OF STUD	V.E.F.	VERTICAL EACH FACE
F.O.W.	FACE OF WALL	V.F.	VERTICAL
FTG.	FOOTING	V.F.F.	VERTICAL FAR FACE
GA.	GAGE	VFY	VERIFY
GALV.	HOT DIP GALVANIZED	V.I.F.	VERTICAL INSIDE FACE
G.W.B.	GYPSPUM WALL BOARD	V.N.F.	VERTICAL NEAR FACE
H.	OR HORIZ. HORIZONTAL	V.N.F.	VERTICAL NEAR FACE
I.B.A.	INTERNATIONAL BUILDING CODE	V.N.F.	VERTICAL NEAR FACE
I.C.C.	INTERNATIONAL CODE COUNCIL	W/	WITH
I.F.	INSIDE FACE	W/O	WITHOUT
INC.	INCLUDING	W.H.S.	WELD HEAD STUD
K	KIP (1000 POUNDS)	@	AT
L.W.	LONG WAY		

**1 FLEET RESTROOM SITE PLAN**



**2 FLEET RESTROOM FRAMING PLAN**



**LIGHT GAGE & MISC. PARTS SCHEDULE**

ITEM	CALLOUT	MINIMUM PROPERTIES					*APPROVED SUPPLIERS & THEIR CALLOUT FOR THESE ITEMS
		Fy (K.S.I.)	I(in <sup>4</sup> )	S(in <sup>3</sup> )	A(in <sup>2</sup> )	ry	
C12 HEADERS **	(2) 12" x 2" x 16GA.	50	32.67	4.14	0.78	1.74	(2)1200S200 - 54 (50ksi)
C8 HEADERS ** (TYP. U.N.O.) (12'-0" MAX. SPAN)	(2) 8" x 1 5/8" x 16GA.	50	11.20	2.46	1.34	1.39	(2)800S162 - 54 (50ksi)
RIM JOISTS & BLKG. **	8" x 1 1/4" x 16GA.	50	4.75	1.16	0.59	0.31	800T125 - 54 (50ksi)
C12 (SPCL.) HEADER CAPS T & B.	4" x 1 1/4" x 16GA.	50	0.90	0.43	0.37	0.37	400T125 54 (50ksi)
CEILING JOIST**	8" x 1 5/8" x 16GA.	50	5.74	1.43	0.67	0.54	800S162 - 54 (50ksi)
CEILING TRACK**	8" x 1 1/4" x 16GA.	50	4.75	1.16	0.59	0.31	800T125 - 54 (50ksi)
WALL TOP TRACK ** (U.N.O.)	3 5/8" x 1 1/4" x 16GA.	50	0.72	0.38	0.35	0.37	362T125 - 54 (50ksi)
WALL TOP TRACK ** (SPCL.)	3 5/8" x 1 1/4" x 12GA.	50	1.34	0.67	0.62	0.36	362T125 - 97 (50ksi)
WALL BOT. TRACK ** (U.N.O.)	3 5/8" x 1 1/4" x 16GA.	50	0.72	0.38	0.35	0.37	362T125 - 54 (50ksi)
WALL STUDS TYP. (U.N.O.)	3 5/8" x 1 5/8" x 20GA.	33	0.55	0.30	0.26	0.61	362S162 - 33
WALL TOP TRACK **	6" x 1 1/4" x 16GA.	50	2.34	0.76	0.48	0.34	600T125 - 54 (50ksi)
WALL BOT. TRACK **	6" x 1 1/4" x 16GA.	50	2.34	0.76	0.48	0.34	600T125 - 54 (50ksi)
WALL STUDS	6" x 1 5/8" x 20GA.	33	1.79	0.60	0.34	0.58	600S162 - 33
WALL STUDS (SECT. 1/52.2)	6" x 1 5/8" x 18GA.	33	2.32	0.77	0.45	0.58	600S162 - 43
WALL STUDS	8" x 1 5/8" x 18GA.	33	4.63	1.16	0.54	0.55	800S162 - 43 (33 ksi)
WALL TRACKS	8" x 1 1/4" x 16GA.	50	4.75	1.16	0.59	0.31	800T125 - 54 (50 ksi)
16GA STRAPS (IN CEILING)	WIDE x 16GA. FLAT STRAP ALT. 1 1/2" x 16GA. C.R.C.	50	---	---	---	---	SEE CEILING BRACING SCHEDULE
1 1/2" x 20GA BRACING STRAPS (HORIZ. IN WALLS)	1 1/2" WIDE x 20GA. FLAT STRAP ALT. 1 1/2" x 16GA. C.R.C.	33	---	---	---	---	---
16GA STRAPS (DIAGONAL IN WALLS)	WIDE x 16GA. FLAT STRAP	50	---	---	---	---	SEE WALL BRACING SCHEDULE
2" x 2" ANGLE	GAGE TO MATCH SUPPORTED MEMBER	33	---	---	---	---	---
ROOF DECK	1 1/2" DEEP x 22GA. TYPE "B"	50	0.175	0.184	---	---	VERCO TYPE HSB-S5
SCREWS (MTL. TO MTL.)	#10-16 x 1" HW# #3 OR PPH #3						HILTI
SCREWS (G.W.B. TO MTL.)	#10-24 x 1 1/2" PWH #3						HILTI
SCREWS (PLYWOOD TO MTL.)	#10-18 x 1 1/2" PWH #3						HILTI
WALL & BOTTOM TRACK ANCHORS	#D537P10 (0.177"Ø X 1 1/2" LOW VELOCITY DRIVE PINS						HILTI I.C.C. ESR-1663
UNISTRUT	P1000 OR P1001 (PER PLAN)						

- NOTES:  
1) \*\* SUBSTITUTION OF OTHER SUPPLIERS FOR THESE ITEMS NOT ALLOWED.  
\*\* THESE JOIST & TRACK MEMBERS TO BE UNPUNCHED.  
2) SINGLE FRAMING MEMBER SHOWN THUS: [ ]  
3) DOUBLE FRAMING MEMBER SHOWN THUS: [ ]

**THICKNESS OF STEEL COMPONENTS 1**

GAGE	DESIGN THICKNESS	MINIMUM THICKNESS 2
22	.0283	.0269
20	.0346	.0329
18	.0451	.0428
16	.0566	.0538
14	.0713	.0677
12	.1017	.0966
10	.1240	.1265

- NOTES:  
1) UNCOATED STEEL THICKNESS. THICKNESS IS FOR CARBON SHEET STEEL.  
2) MINIMUM THICKNESS REPRESENTS 95% OF DESIGN THICKNESS AND IS THE MINIMUM ACCEPTABLE THICKNESS DELIVERED TO THE JOB SITE BASED ON SECTION A2.4 OF THE 2007 A.I.S.I. CODE.

**LIGHT GAGE BEAM SCHEDULE**

MARK	BUILT UP BEAM	TRACKS & SCREWS
B1	(2) C12 x 2 x 14GA. HEADER	6" x 1 1/4" x 16GA. TRACK T. & B. w/2 SCREWS @ 16"OC T. & B.
B2	(2) C8 x 2 x 16GA. HEADER	
B3	(2) C12 x 2 x 12GA. HEADER	6" x 1 1/4" x 12GA TRACK T. & B. w/2 SCREWS @ 4"OC T. & B.
B4	(2) C12 x 2 x 12GA. HEADER	8" x 1 1/4" x 12GA TRACK T. & B. w/2 SCREWS @ 4"OC T. & B.

- NOTES:  
1) WHERE BEAM IS USED IN WALL BOTTOM TRACK MAY TURNED FLANGE DOWN FOR WALL STUDS.  
2) SEE LIGHT GAGE PARTS SCHEDULE FOR MINIMUM PROPERTIES AND REMAINDER OF DETAILS.  
3) SEE APPLICABLE SECTIONS FOR CONNECTIONS EA END.

**JOIST BRACING SCHEDULE**

JOIST SPAN	TOP AND BOTTOM FLANGE BRACING
UP TO AND INCLUDING 10'	NONE
10' UP TO AND INCLUDING 14'	ONE ROW AT MID-SPAN
14' UP TO AND INCLUDING 18'	TWO ROWS AT THIRD SPANS
18' UP TO AND INCLUDING 21'	THREE ROWS AT QUARTERS SPANS

- NOTES:  
1) USE 1 1/2" x 16GA. FLAT STRAP ON TOP & BOT. OF JOIST. OMIT TOP STRAP IF DECK OCCURS. OR 1 1/2" CRG ON TOP OF JOIST. FASTEN TO EA. JOIST w/2 SCREWS.  
2) SPACE BRACING AS NOTED ABOVE EXCEPT WHEN NOTED OTHERWISE ON PLANS.  
3) SEE SECT. 1/52.2 FOR DETAILS AND EXCEPTIONS.

**CEILING BRACING SCHEDULE**

MARK	STRAP/CRC (50 k.s.i.)	NUMBER OF SCREWS		
		GUSSET TO TRACK	GUSSET TO STRAP	STRAP SPLICE
A	1 1/2" x 16GA.	2	2	2
B	2" x 16GA.	3	3	3
C	3" x 16GA.	4	4	4

- NOTES:  
1) SCREWS MUST BE PLACED AT LEAST 3/4" APART AND MUST BE 3/4" FROM EDGE OR END OF ALL METAL PIECES.  
2) SEE SECTION 1/52.2 FOR BALANCE OF INFO.

**WALL STUD WIDTH SCHEDULE**

MARK	STUD WIDTH
6	6"
8	8"

- NOTES:  
1) ALL WALLS ARE 3 5/8" UNLESS NOTED THUS: [ ]  
2) SEE LIGHT GAGE PARTS SCHEDULE FOR GAGE AND MINIMUM PROPERTIES.

**WALL BRACING SCHEDULE**

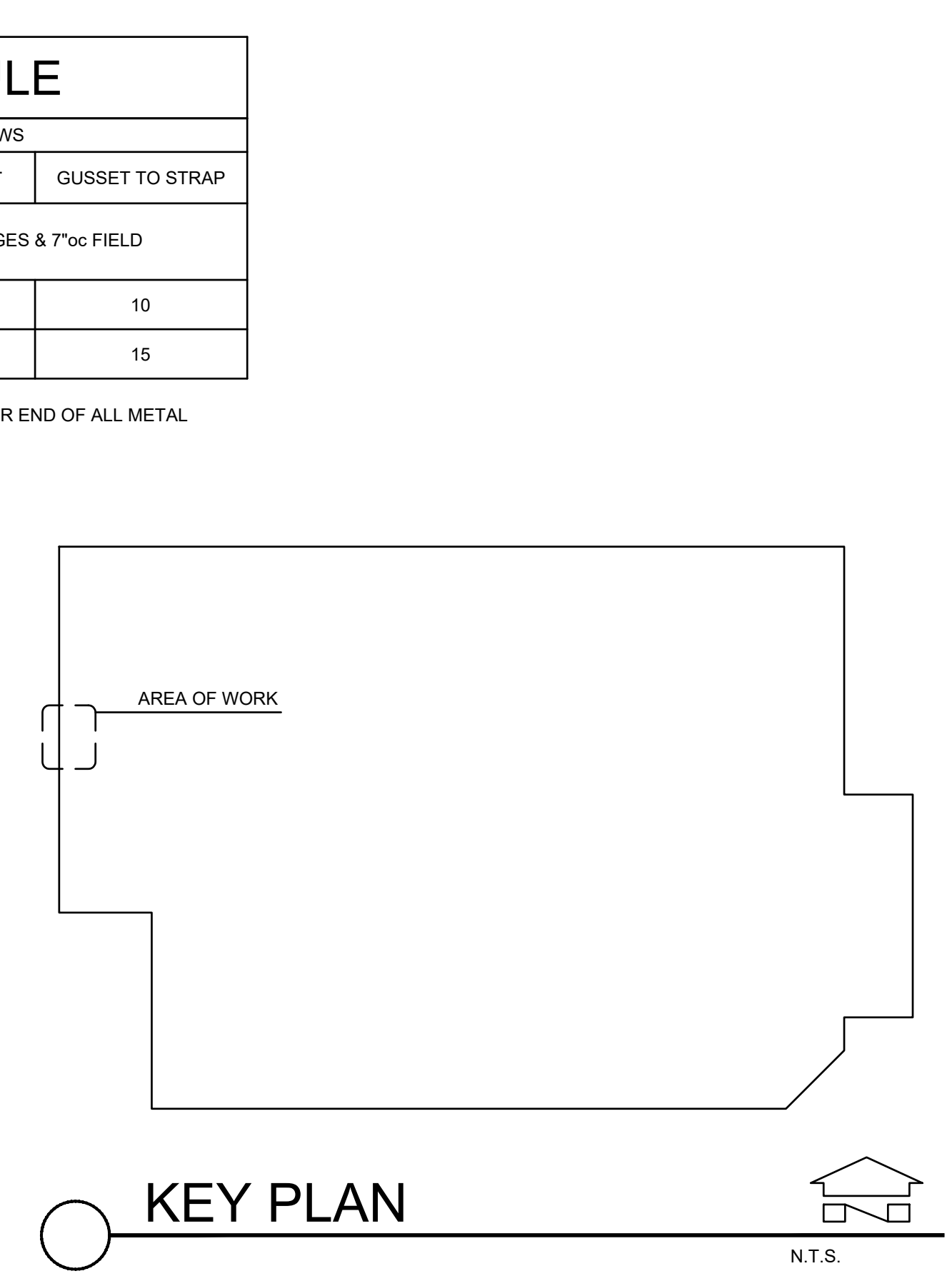
MARK	STRAP (50 k.s.i.)	HOLDOWN	NUMBER OF SCREWS		
			GUSSET TO T. & B. TRACK	GUSSET TO DBL STUDS	GUSSET TO STRAP
1	1 1/2" G.W.B. (NO STRAP REQUIRED)	S/LTT20	UNBLOCKED SCREW @ 7"OC EDGES & 7"OC FIELD		
2	2" x 16GA.	---	8	18	10
3	3" x 16GA.	S/LTT20	12	25	15

- NOTE:  
1) SCREWS MUST BE PLACED AT LEAST 3/4" APART AND MUST BE 3/4" FROM EDGE OR END OF ALL METAL PIECES.

**HOLDOWN SCHEDULE**

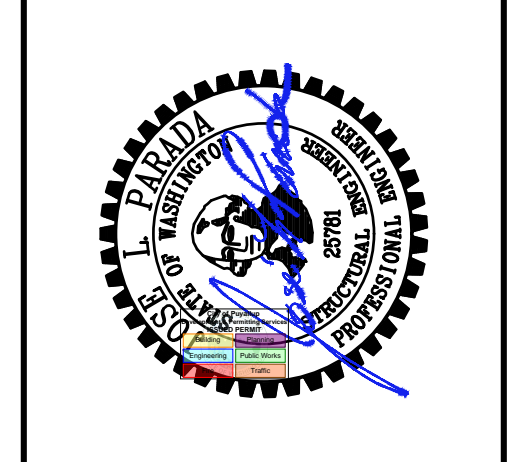
HOLDOWN	ANCHORS	SCREWS
SIMPSON SILTT20	1/2"Ø SIMPSON TITEN HD (EMBED 3 1/4") INSPECTED INSTALLATION I.C.C. ESR 2713	8 #10
SIMPSON S/HHT4	5/8"Ø SIMPSON TITEN HD (EMBED 3 1/4") INSPECTED INSTALLATION I.C.C. ESR 2713	18 #10

**KEY PLAN**



NO	DRAWING REVISIONS	DATE
	SUBMIT FOR PERMIT	09-20-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	

NO	DRAWING REVISIONS	DATE



**ENW STRUCTURAL ENGINEERS**  
Engineers Northwest Inc., P.S.  
10030 3rd Ave. W., Suite 530, Lynnwood, WA 98036  
www.enwengineers.com  
PRCTI20241512

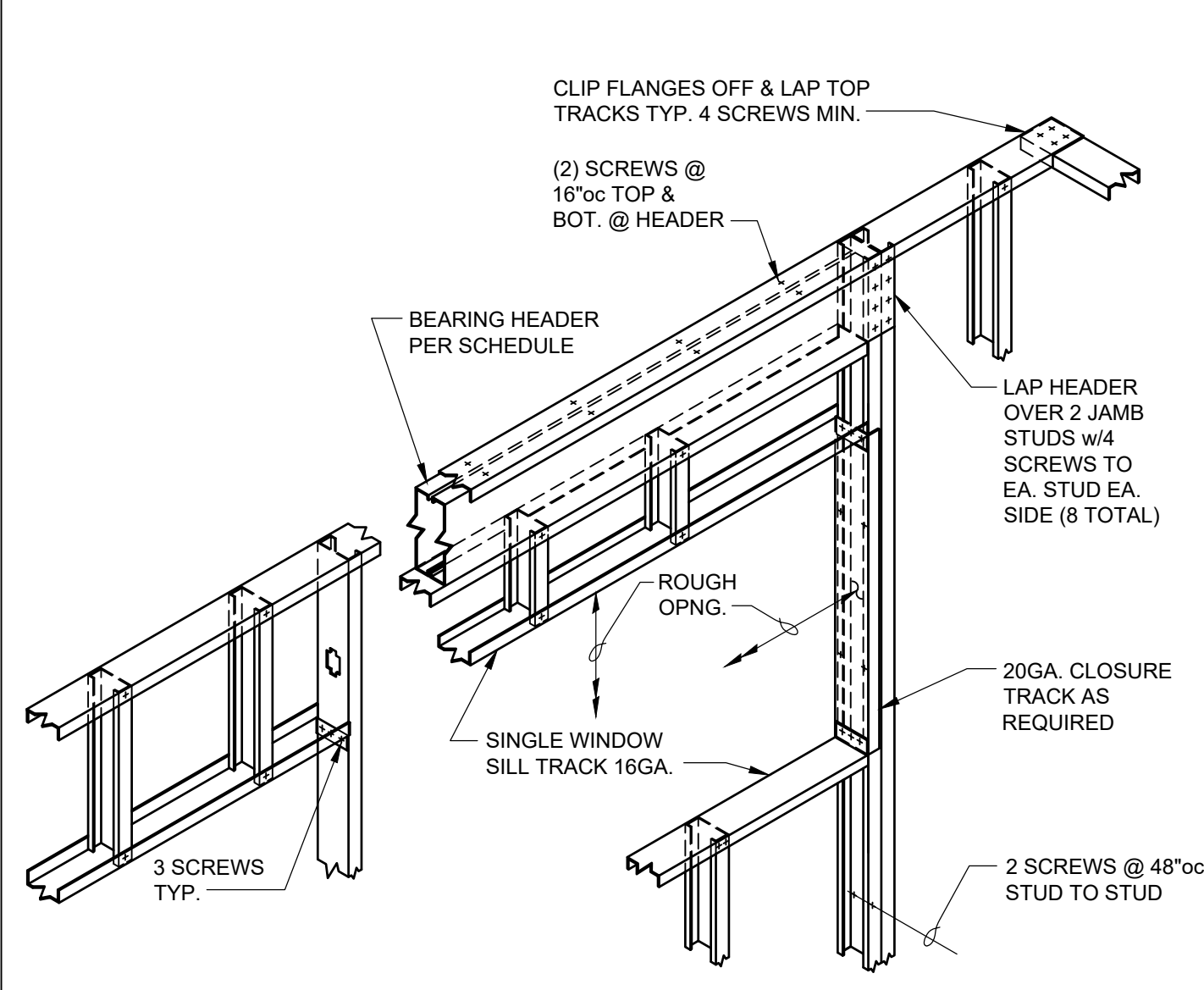
**GENERAL NOTES, PARTIAL PLANS, AND SCHEDULES**

**Costco WHOLESALE**

**FLEET RESTROOM REMODEL**  
1201 39TH STREET  
PUYALLUP, WA. 98373

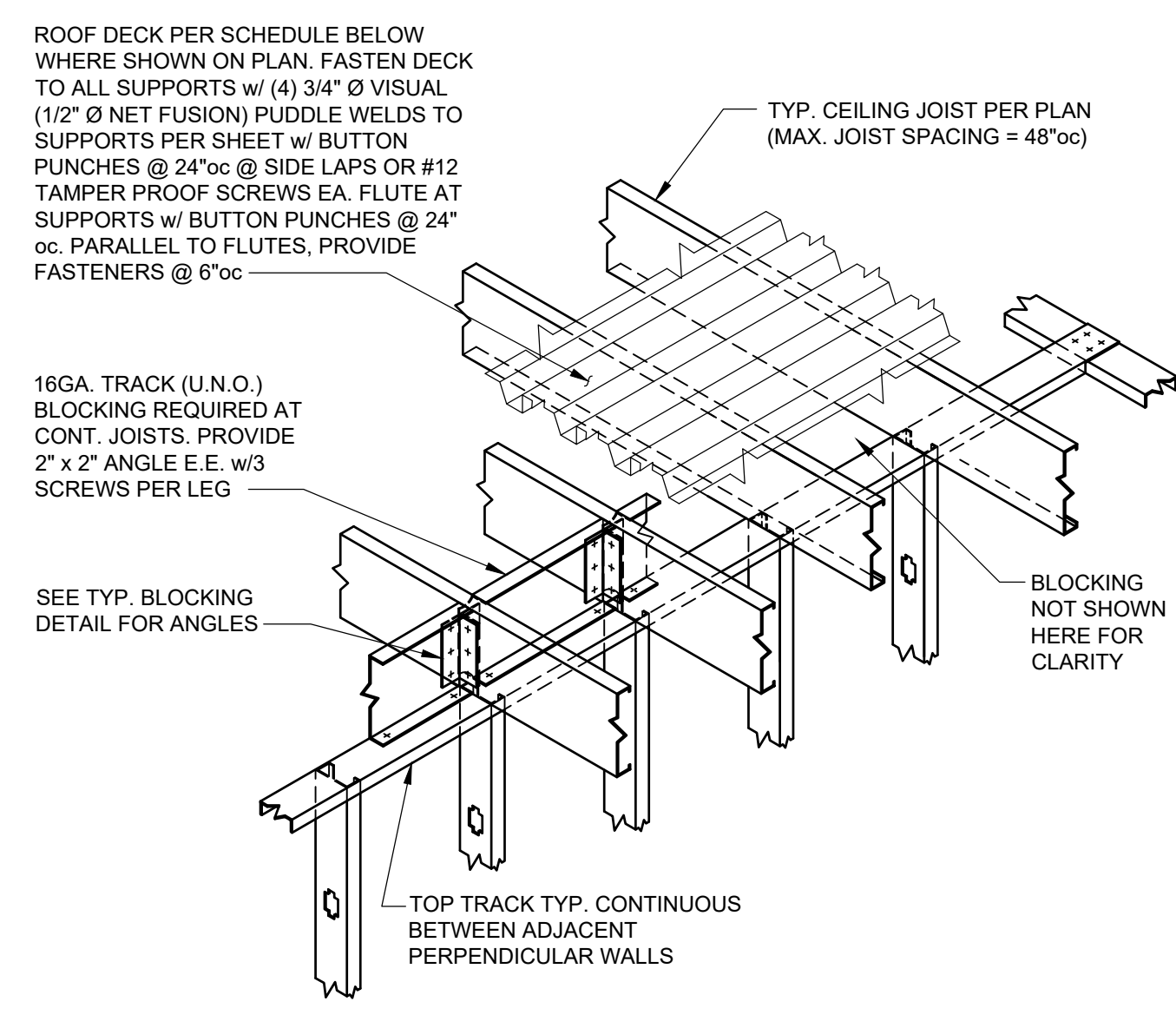
SHEET CONTENTS:

JOB NO:	99990017
ENGINEER:	J. SAGDAHL
DRAWN:	P. PATEL
DATE:	09-18-2024
SHEET NO:	<b>S1.1</b>

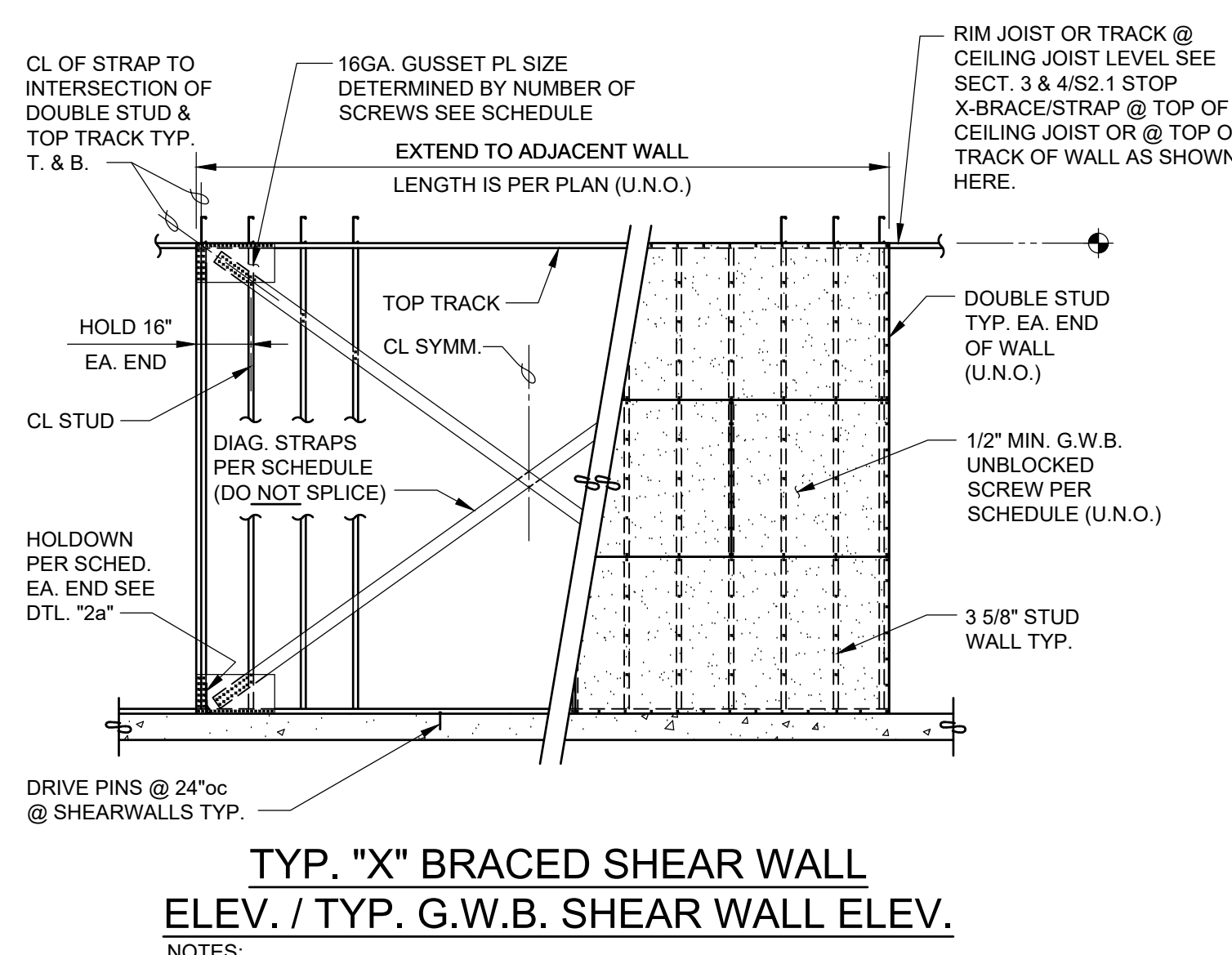


1A TYPICAL WALL HEADER DETAIL

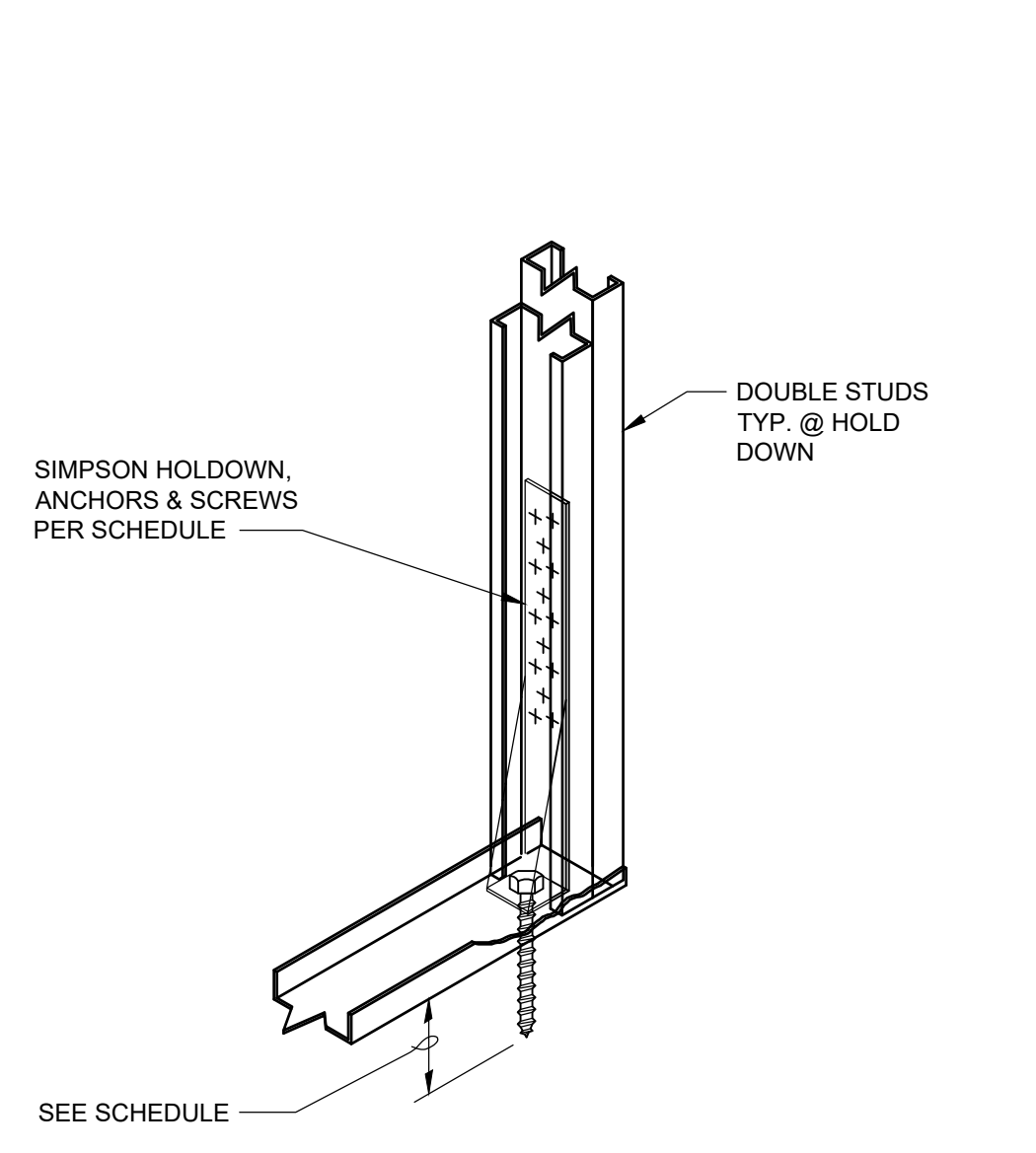
HEADERS NOTED ON THE PLAN AS "HDR." ARE BEARING HEADERS & ARE NOTED IN THE PARTS SCHEDULE BELOW. HEADERS RUNNING PARALLEL TO THE JOISTS ARE NON-BEARING (U.N.O.)



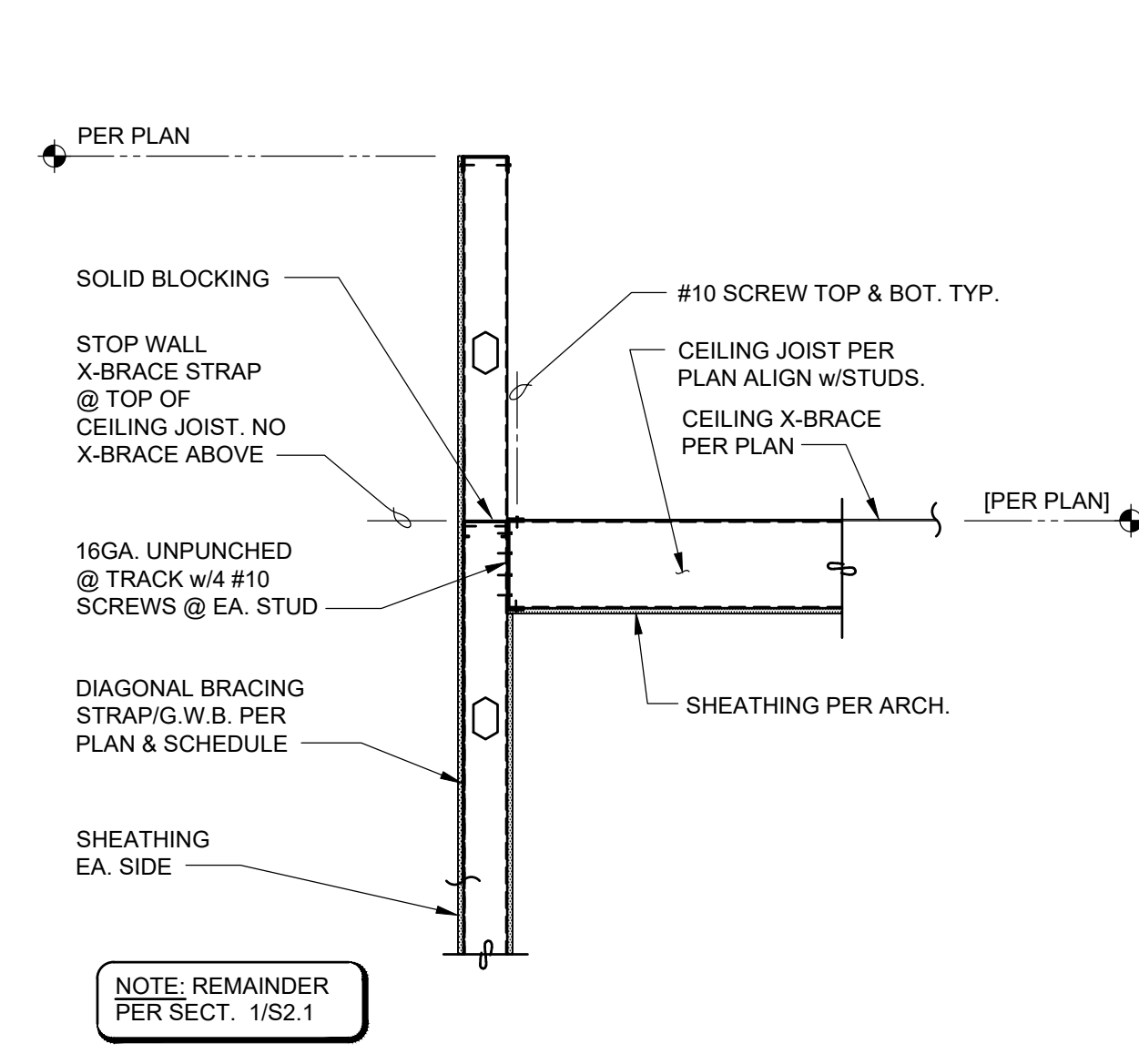
1B TYPICAL JOIST OVER INTERIOR WALL



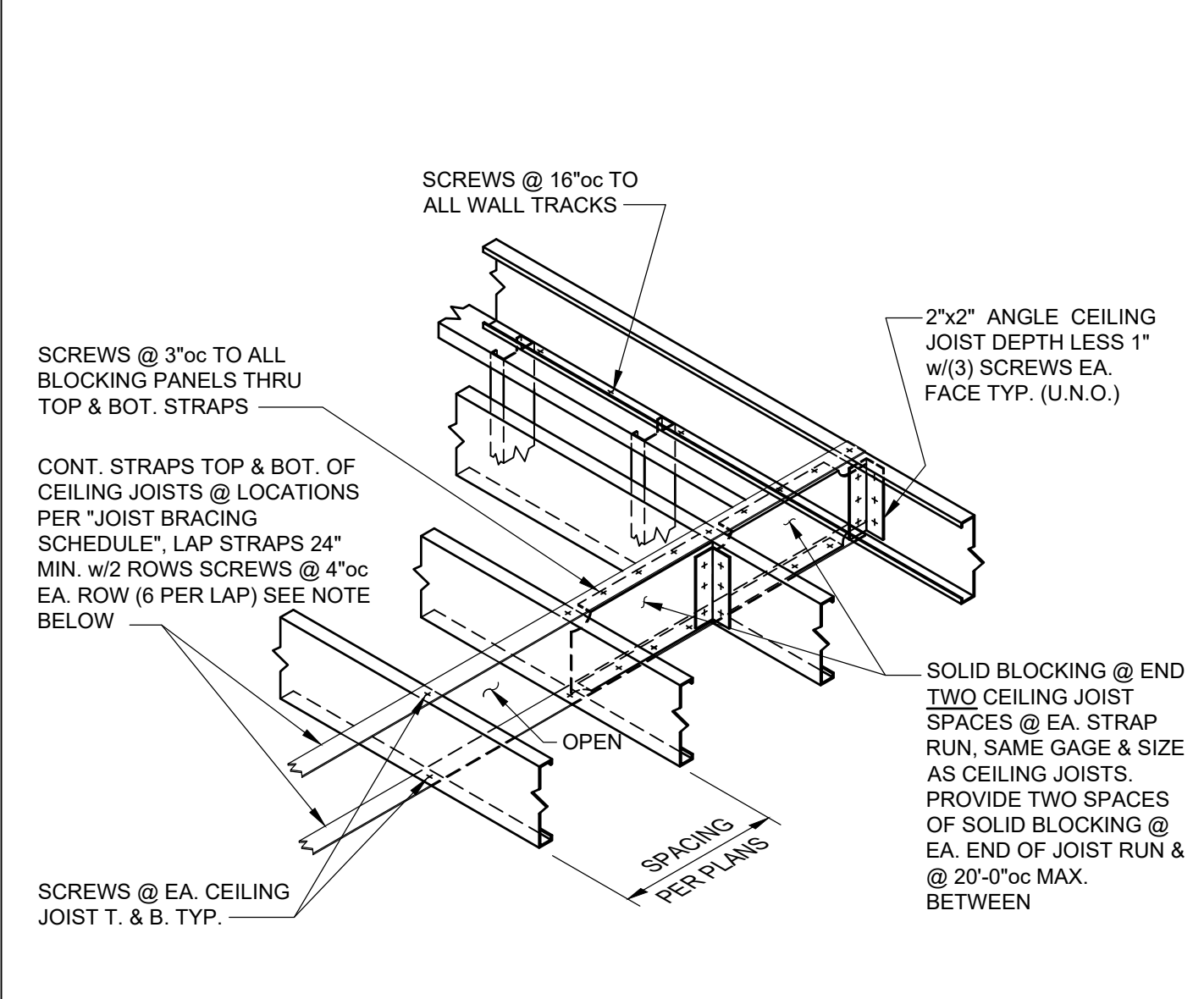
2 ELEVATION



2a DETAIL

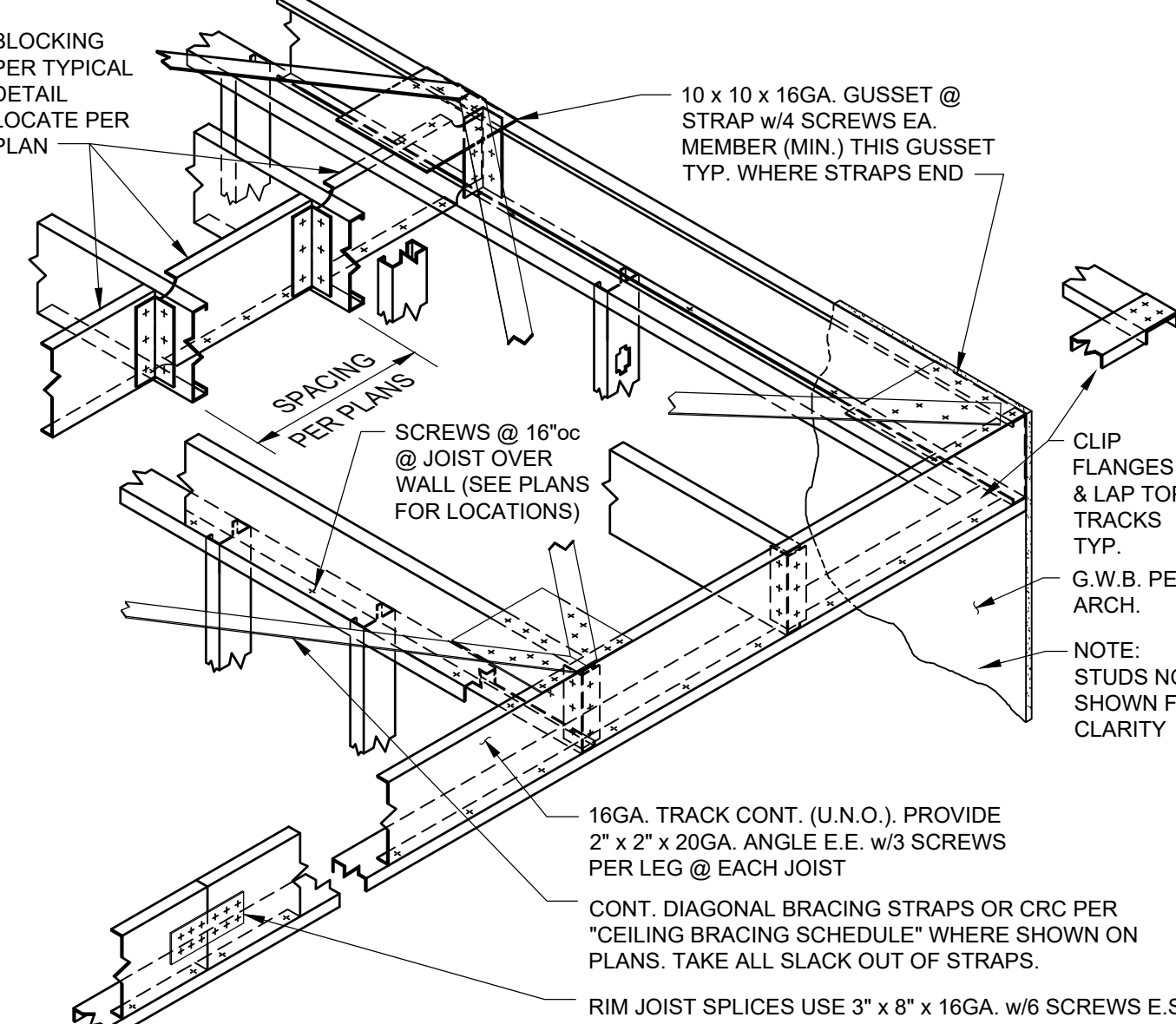


3 SECTION



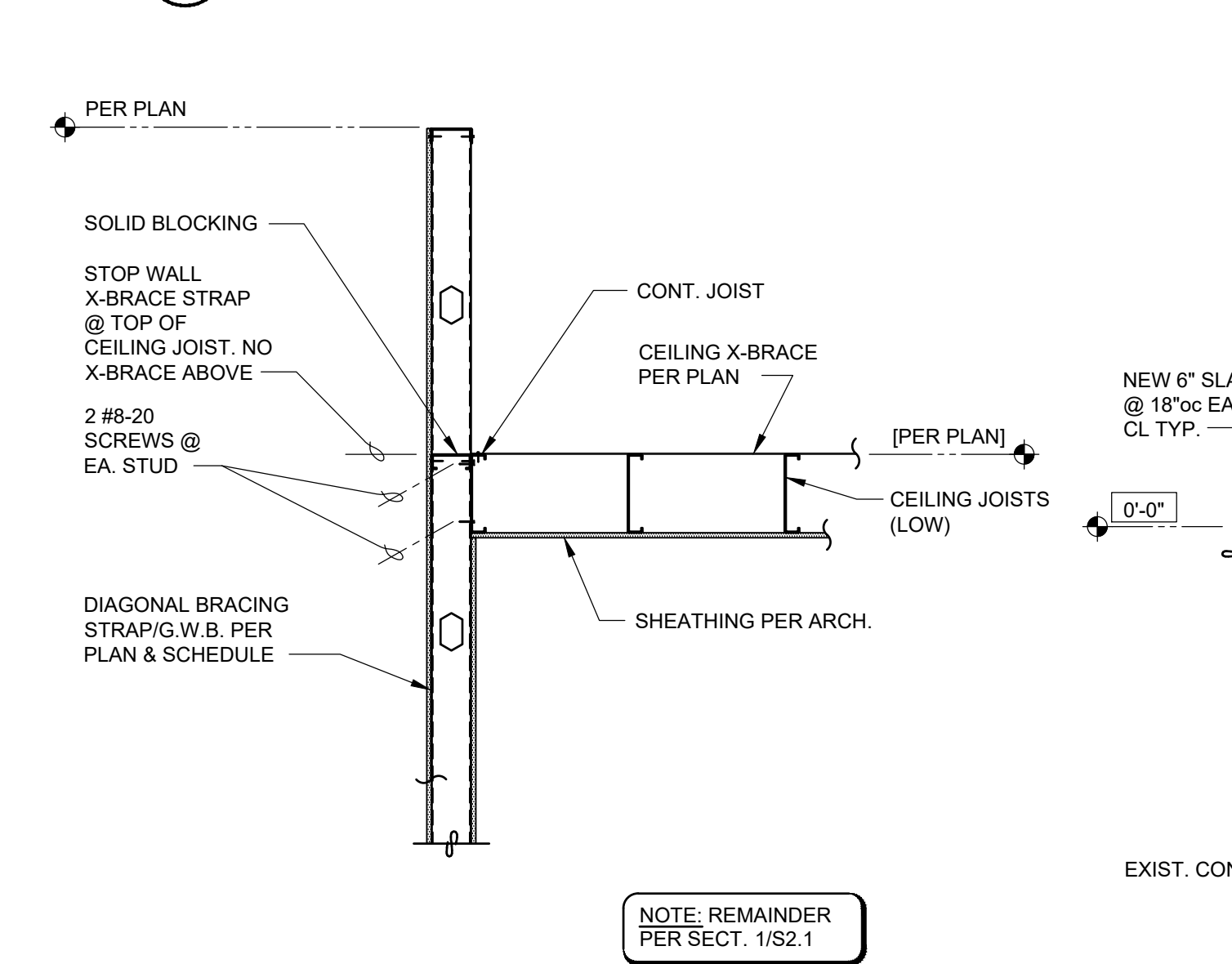
1C TYPICAL JOIST BLOCKING & STRAP DETAIL

CEILING JOIST BLOCKING WHERE NOTED ON PLANS. THE TOP STRAP NOT REQUIRED IF DECKING IS APPLIED TO TOP OF JOIST. THE BOTTOM STRAP IS NOT REQUIRED IF G.W.B. IS APPLIED TO BOTTOM OF JOIST.

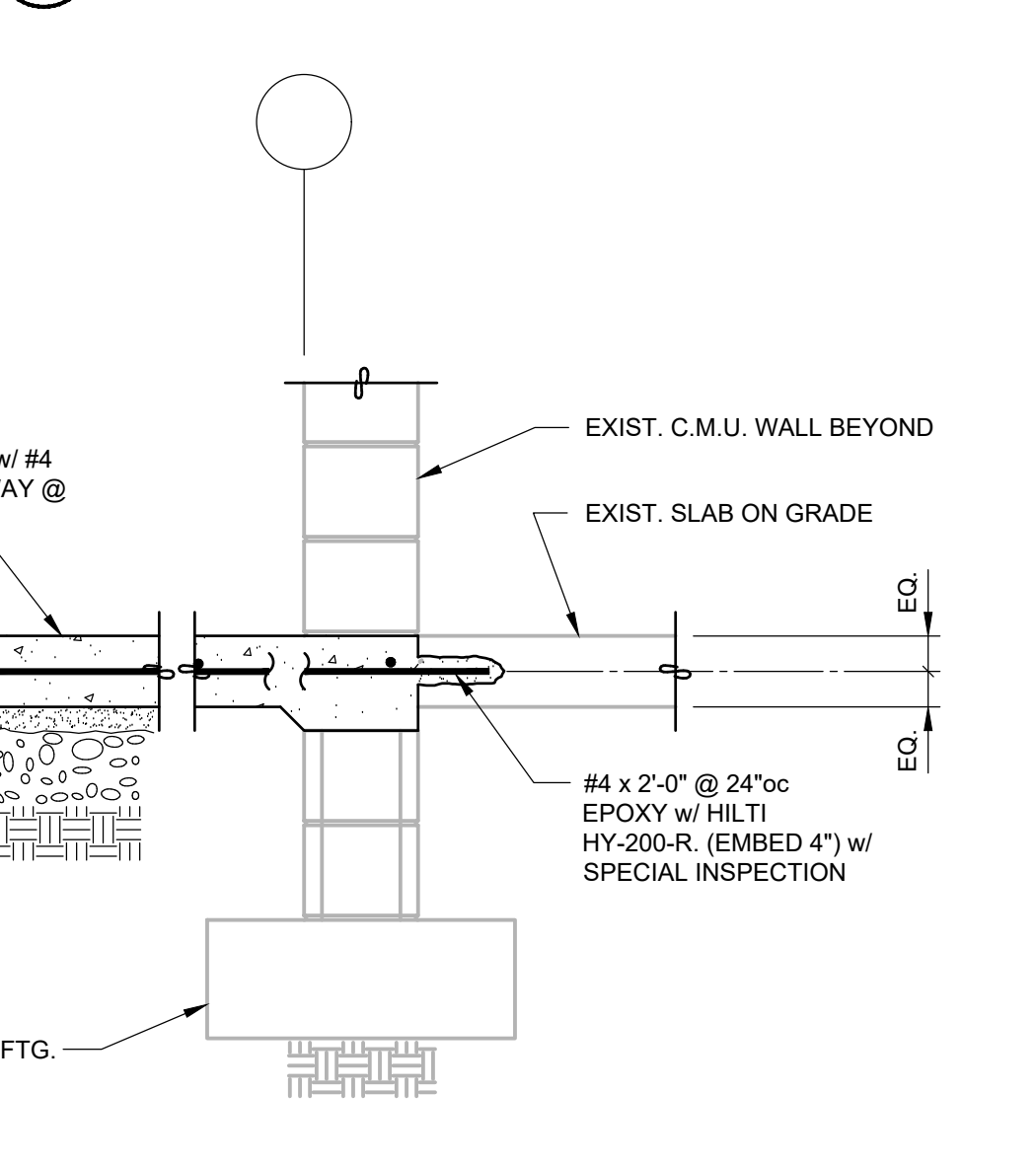


1D TYPICAL JOIST TO RIM JOIST w/DIAGONAL STRAPS

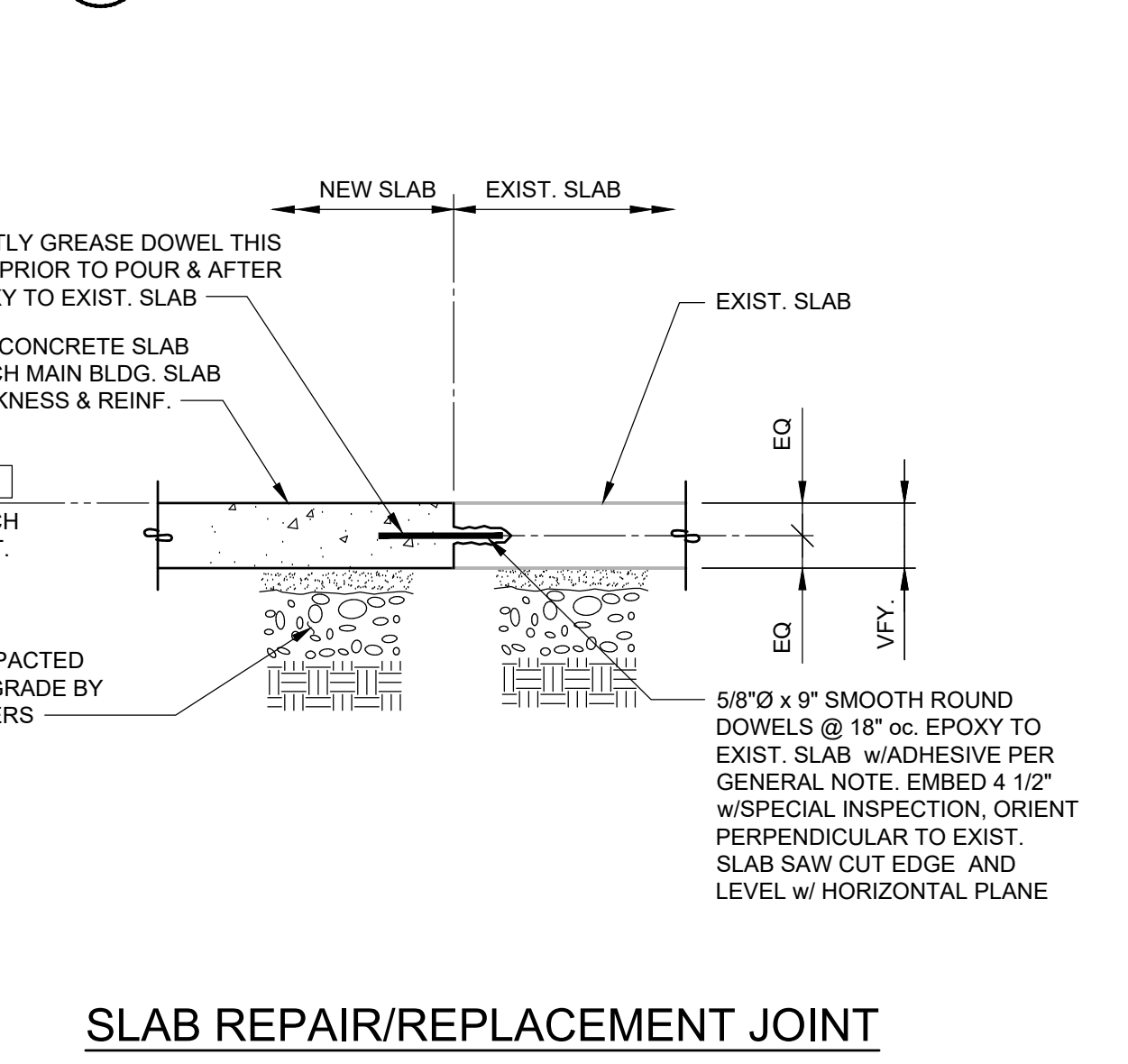
CEILING DIAGONAL STRAP BRACING NOT REQUIRED WHERE DECKING OCCURS.



4 SECTION

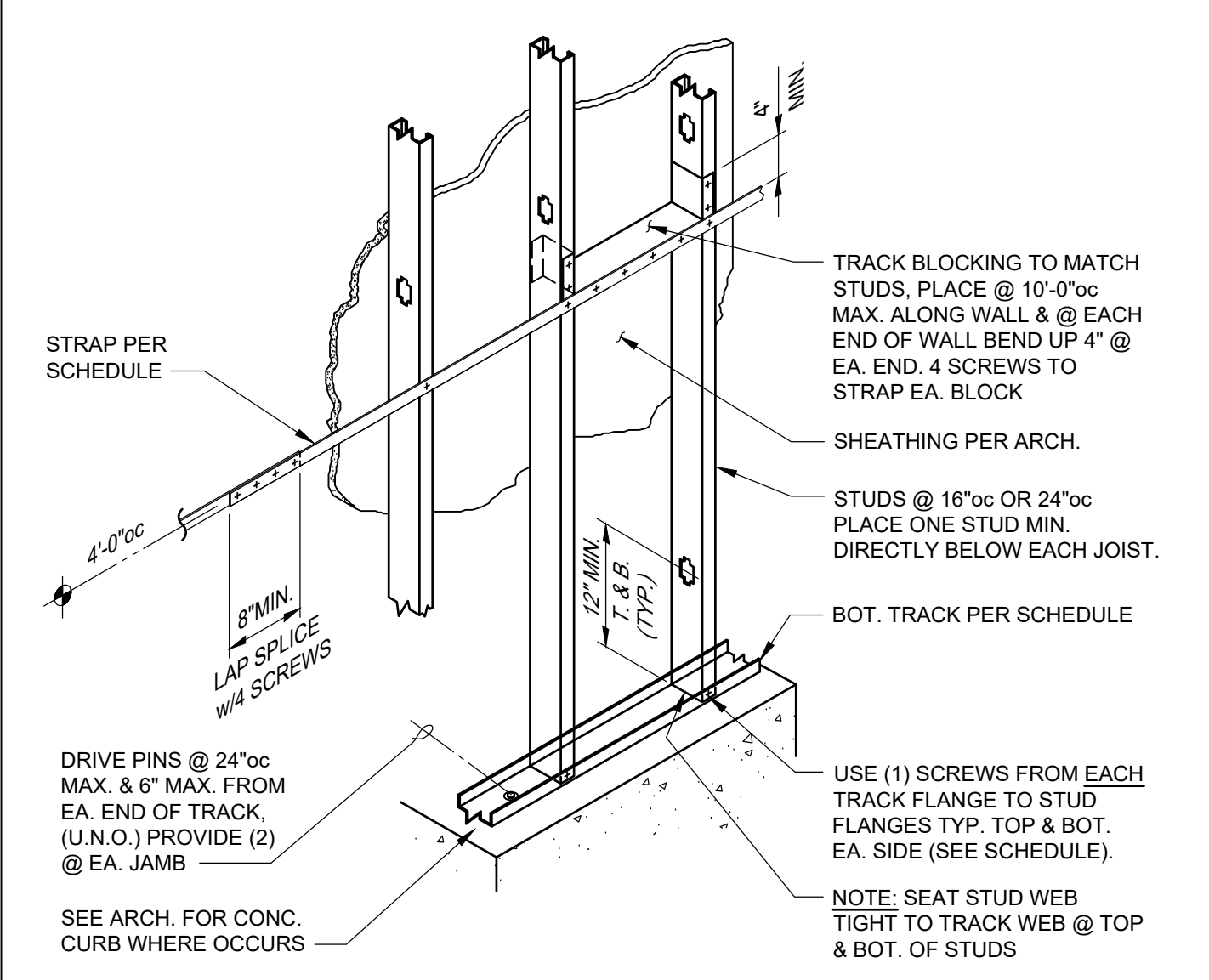


5 SECTION



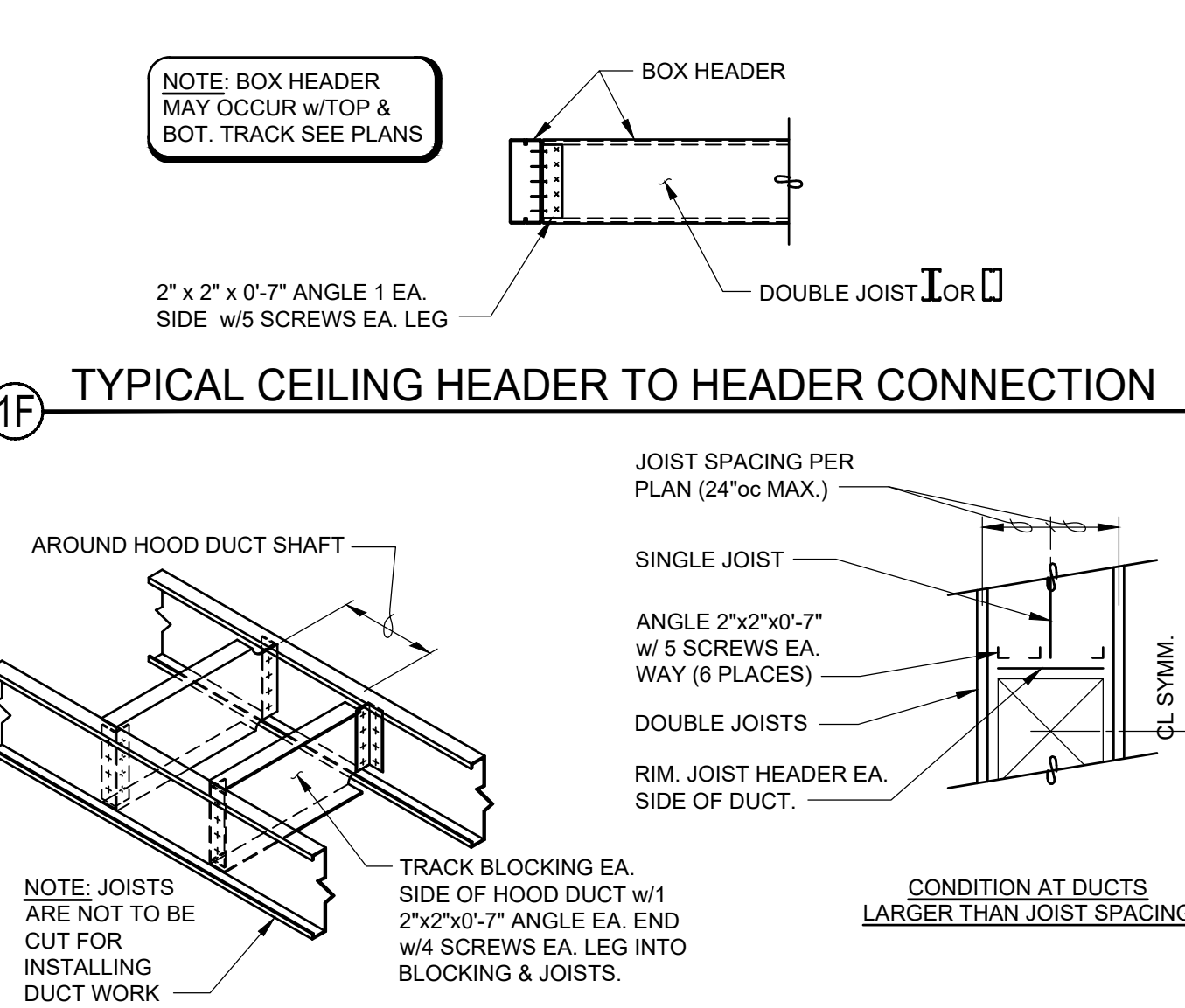
6 SECTION

(N/A FOR DUCTILCRETE SLABS)



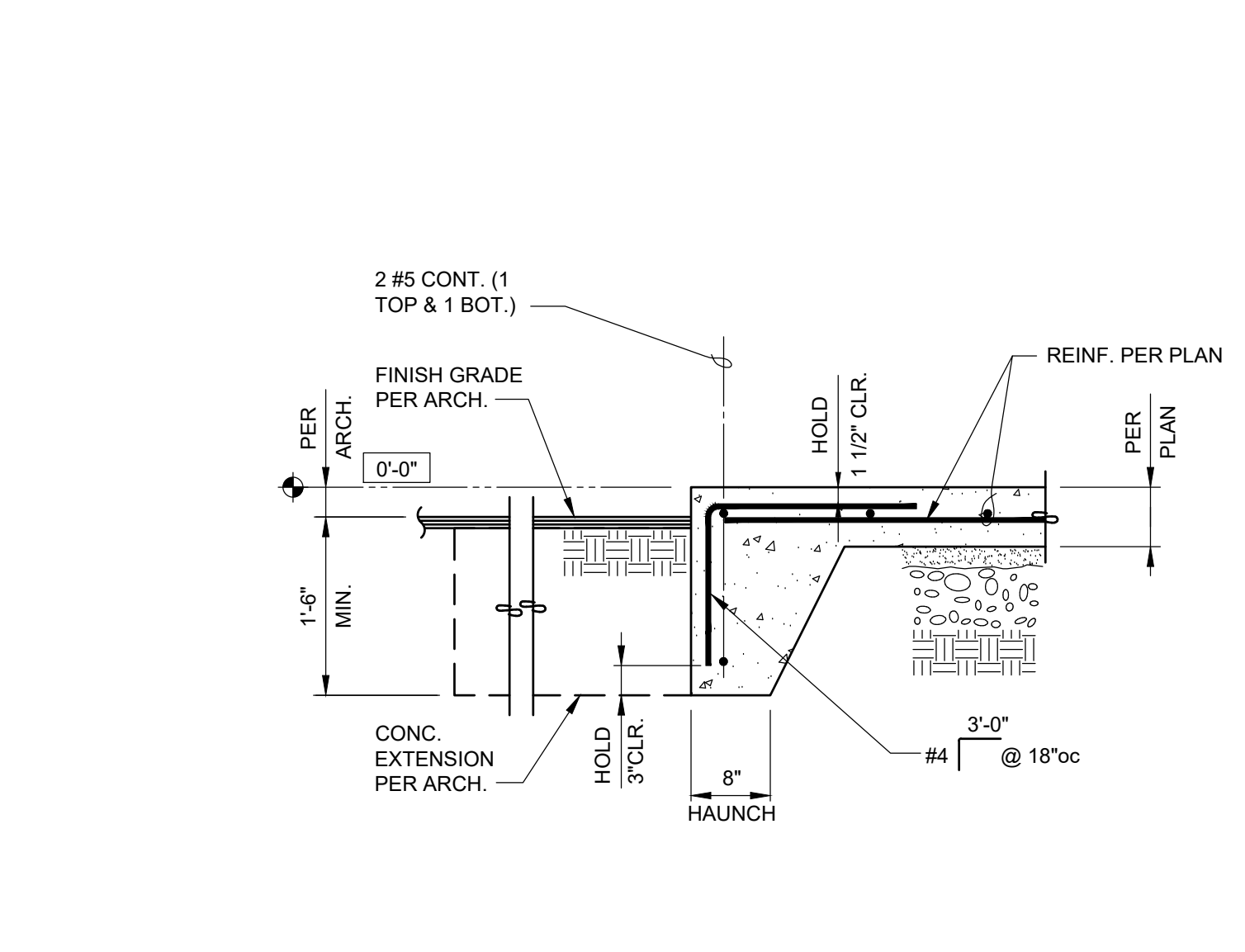
1E TYPICAL WALL, BLOCKING & STRAP DETAIL

STRAP BLOCKING IS REQUIRED ONLY IF STUDS ARE SHEATHED ONE SIDE ONLY.

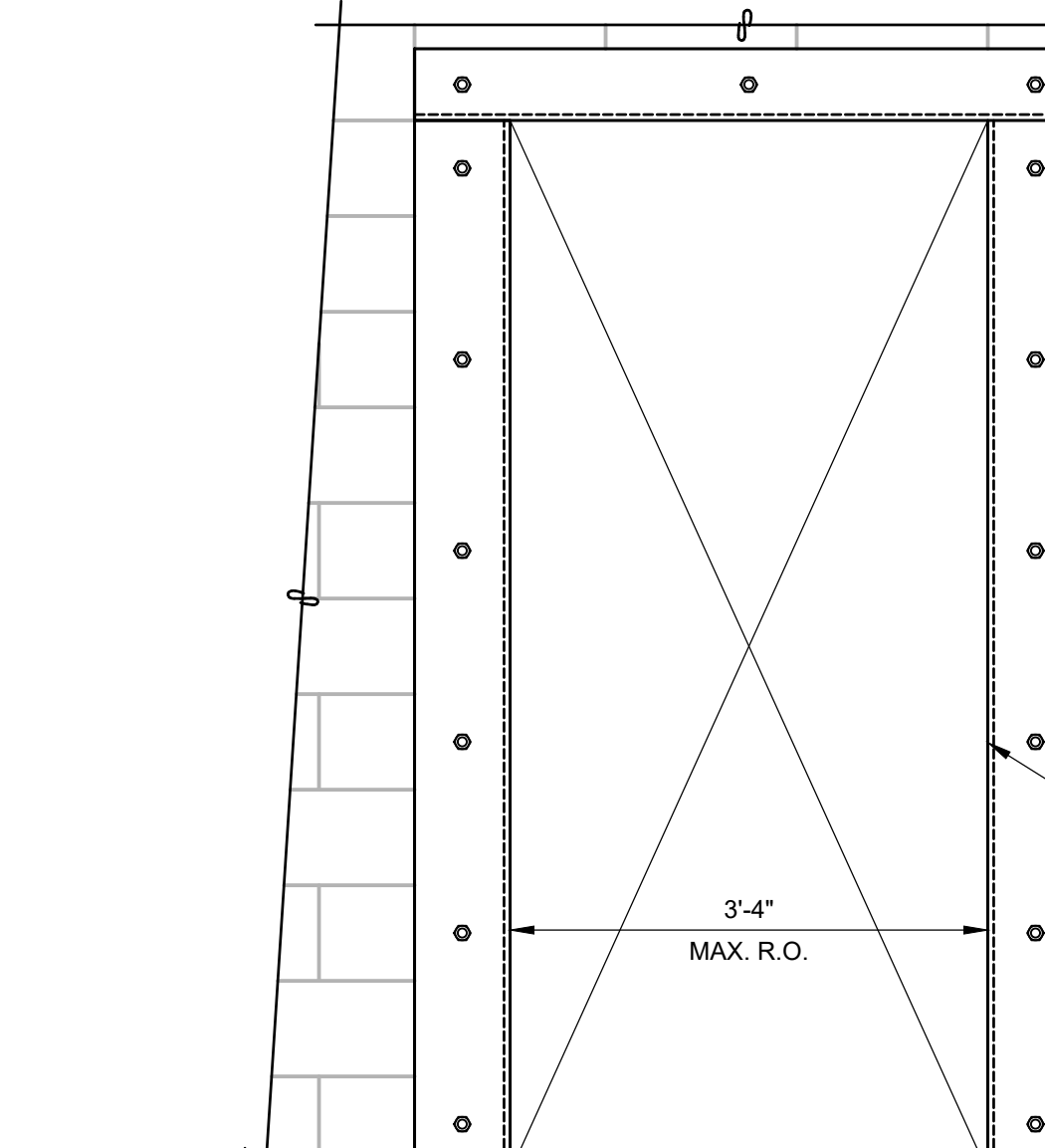


1F TYPICAL CEILING HEADER TO HEADER CONNECTION

NOTE: JOISTS ARE NOT TO BE CUT FOR INSTALLING DUCT WORK

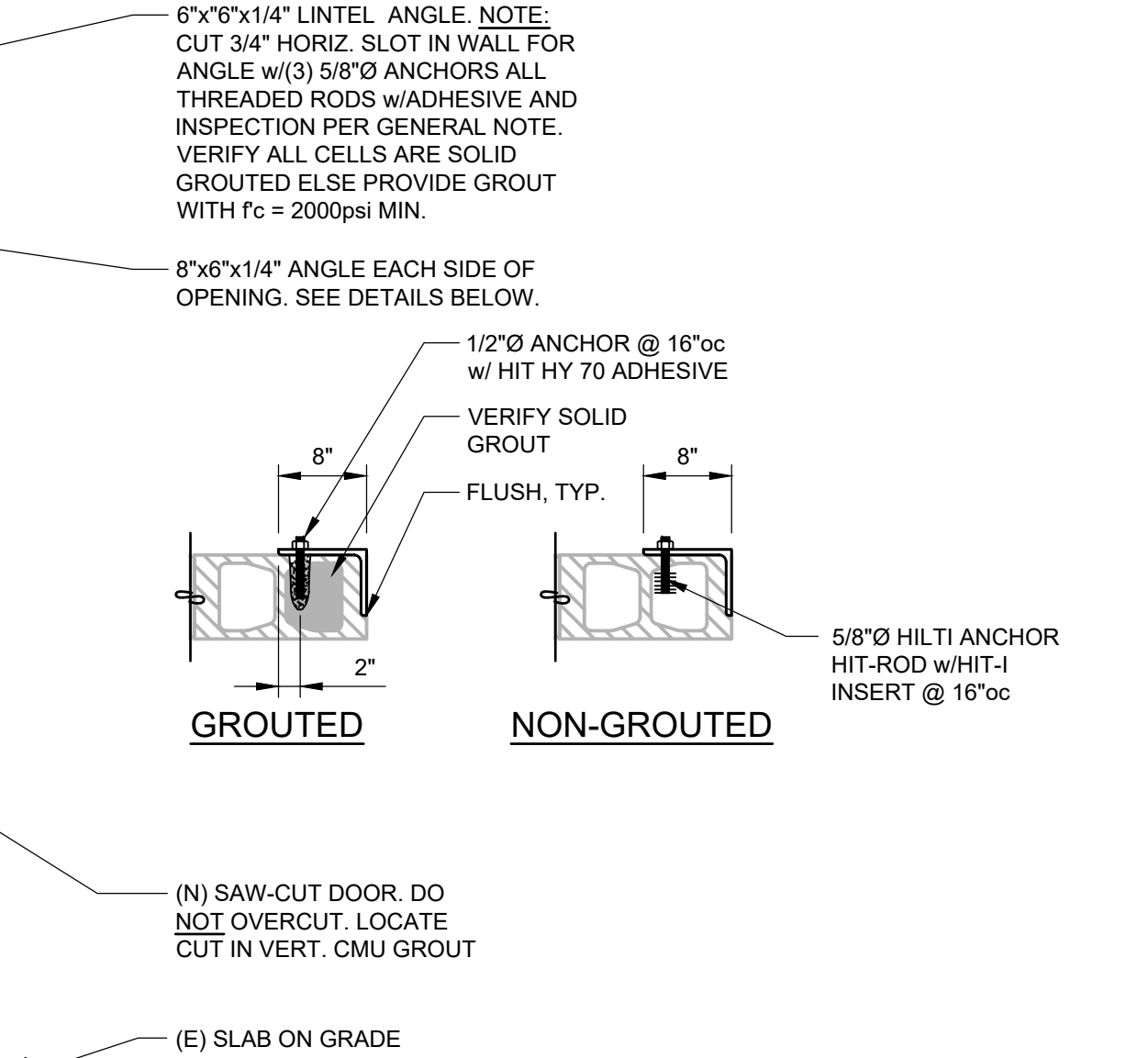


7 SECTION



8 SECTION

NOTE: 1. PRIOR TO ANY DEMOLITION REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF DOOR CUT OUT. CUT MUST BE LOCATED ON VERT. CMU GROUT. 2. VIEW IS FROM INSIDE



8 SECTION (continued)

NO.	DATE	REVISIONS
	09-20-2024	

NO.	DATE	REVISIONS



**ENW** STRUCTURAL ENGINEERS  
 Engineers Northwest Inc., P.S.  
 1201 39th Street, Puyallup, WA 98908  
 PRCT120241512

**COSTCO** WHOLESALE  
 FLEET RESTROOM REMODEL  
 1201 39TH STREET  
 PUYALLUP, WA. 98973

JOB NO:	99090017
ENGINEER:	J. SAGDAHL
DRAWN:	P. PATEL
DATE:	09-18-2024
SHEET NO:	S2.1

L:\99090017\Cosco P\ymtlr-S2.1-Sections-15-99090017.dwg, 09-20-24, 2:55pm, ppatel, 10

MECHANICAL SPECIFICATIONS

1.0 GENERAL REQUIREMENTS

1.01 SCOPE OF WORK
A. THE GENERAL REQUIREMENTS OF THE ARCHITECTURAL SPECIFICATIONS ARE PART OF THESE SPECIFICATIONS. WHERE AN INCONSISTENCY EXISTS BETWEEN THE WORDING OR INTENT, THIS DIVISION SHALL TAKE PRECEDENCE.
B. THE STANDARD FORM OF GENERAL CONDITIONS ISSUED BY THE AMERICAN INSTITUTE OF ARCHITECTS DOCUMENT A201, LATEST EDITION, SHALL FORM A PART OF THIS CONTRACT.
C. ALL CONTRACTORS FOR THIS WORK SHALL VERIFY EQUIPMENT LOCATIONS, WEIGHTS, AND CLEARANCES IN THE FIELD, PRIOR TO SUBMITTING BIDS, TO VERIFY CONDITIONS, INTERFERENCES WITH OTHER TRADES, AND DIMENSIONS. NO ALLOWANCES WILL BE MADE AFTER ACCEPTANCE OF BIDS FOR FAILURE TO COMPLY.
D. PROVIDE ALL LABOR AND MATERIALS, EQUIPMENT, FACILITIES, TRANSPORTATION, AND SERVICES NECESSARY TO FURNISH, INSTALL, AND COMPLETE THE HEATING, VENTILATING, AND AIR CONDITIONING WORK AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. THE WORKMANSHIP SHALL BE COMPLETE IN EVERY RESPECT, BE TESTED AND APPROVED, AND BE SATISFACTORY TO THE ARCHITECT/ENGINEER AND IN ACCORDANCE WITH THE LOCAL, COUNTY, AND STATE LAWS GOVERNING THIS INSTALLATION, INCLUDING THE FIRE MARSHAL.
E. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE EXTENT AND LOCATION OF THE WORK INCLUDING, WORK INDICATED, BUT HAVING MINOR DETAILS OBVIOUSLY OMITTED, SHALL BE PROVIDED, INCLUDING THESE DETAILS, WITHOUT EXTRA COST.
F. IT IS THE DECLARED AND ACKNOWLEDGED INTENT OF THESE SPECIFICATIONS TO PROVIDE THE HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS, INCLUSIVE OF ALL REQUIRED PARTS, ACCESSORIES, AND CONTROLS COMPLETE AND READY FOR USE AS INDICATED ON THE ACCOMPANYING DRAWINGS. WORK INDICATED ON THE DRAWINGS, BUT NOT NECESSARILY INDICATED IN THESE SPECIFICATIONS, SHALL BE PROVIDED AS REQUIRED.

1.02 RELATED WORK
POWER WIRING (IE FEEDERS) TO MOTORS, INCLUDING FINAL CONNECTIONS TO EQUIPMENT, SHALL BE PROVIDED BY THE DIVISION 16 - ELECTRICAL CONTRACTOR.
1.03 VISITING THE SITE
THE CONTRACTOR SHALL, PRIOR TO SUBMITTING HIS BID FOR DOING WORK AS DESCRIBED IN THIS SPECIFICATION AND ON THE ACCOMPANYING DRAWINGS, VISIT THE SITE AND COMPLETELY FAMILIARIZE HIMSELF WITH THE DIFFICULTIES AND FACILITIES THAT WILL BE INVOLVED FOR THE PROPER EXECUTION OF THE CONTRACT. NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE CONTRACTOR FAILING TO DO SO OR NOT FULLY APPRECIATING THE DIFFICULTIES AT HAND.

1.04 FEES AND INSPECTIONS
ALL OF THE CONTRACTORS SHALL APPLY, PROCURE, AND PAY FEES FOR ALL PERMITS AND INSPECTIONS OR OTHER OBLIGATIONS THAT THE CITY, COUNTY, STATE, OR UTILITIES MAY REQUIRE IN ORDER FOR HIM TO DO HIS WORK ACCORDING TO THE PLANS AND SPECIFICATIONS, UNLESS OTHERWISE NOTED.
1.05 LAWS AND ORDINANCES
THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, AND REGULATIONS BEARING ON THE CONDUCT OF WORK AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, HE SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING WHEN SUBMITTING HIS BID AND ANY NECESSARY CHANGES SHALL BE ADJUSTED AS PROVIDED IN THE CONTRACT FOR SUCH CHANGES IN WORK. IF THE CONTRACTOR PERFORMS ANY WORK CONTRARY TO SUCH LAWS, ORDINANCES, RULES, AND REGULATIONS, HE SHALL BEAR ALL COSTS FOR CORRECTING THE WORK.

1.06 TRADE JURISDICTION
WHEN IT BECOMES NECESSARY FOR THE COMPLETE FULFILLMENT OF THIS WORK FOR THE CONTRACTOR TO FURNISH LABOR OR MATERIALS OTHER THAN WHICH IS GENERALLY ACCEPTED BY HIS TRADE OR BRANCH OF WORK, THE CONTRACTOR SHALL SUBMIT LET TO A CONTRACTOR NORMALLY ENGAGED IN THE TRADE OR BRANCH OF WORK, INVOLVED TO THE END, SO THAT THERE IS NO DELAY TO OR STOPPAGE OF WORK DUE TO THE INFRINGEMENT OR ALLEGED INFRINGEMENT TO TRADE AGREEMENTS AS TO THE JURISDICTION.
1.07 SUBMITTALS
THIS CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, COMPLETE LISTS INCLUDING CATALOG CUTS, ETC., AND WHERE APPLICABLE DIMENSIONED SHOP DRAWINGS OF ALL MATERIALS, FIXTURES, AND EQUIPMENT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. INCLUDE SHEETMETAL DUCT LAYOUTS AND PIPING PLAN LAYOUTS. REFER TO THE ARCHITECT'S GENERAL CONDITIONS FOR NUMBER OF COPIES TO BE SUBMITTED. DO NOT ORDER EQUIPMENT, FABRICATE DUCTWORK, OR INSTALL EQUIPMENT, DUCTWORK, OR PIPING BEFORE RECEIVING SHOP DRAWINGS WHICH HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER.

REQUIRED ITEMS TO BE SUBMITTED SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
DIFFUSERS, GRILLES, AND REGISTERS
ACCESS PANELS
ROOF CURBS
MOTORIZED DAMPERS
FIRE DAMPERS
EQUIPMENT
INSULATION
CONTROLS
SPECIALTIES
PIPING AND VALVE MATERIALS
INSTALLATION SECTIONS
1.08 RECORD DRAWING SUBMITTAL
AT PROJECT CLOSEOUT, THE CONTRACTOR SHALL SUBMIT RECORD "AS-BUILT" DRAWINGS OF INSTALLED DUCTWORK, PIPING, AND EQUIPMENT AS IT WAS ACTUALLY INSTALLED SO AS TO MAKE A PERMANENT RECORD. REFER TO THE ARCHITECT'S GENERAL CONDITIONS FOR NUMBER OF COPIES TO BE SUBMITTED.

1.09 WORKMANSHIP AND MATERIALS
ALL MATERIALS SHALL BE NEW AND OF FIRST QUALITY. ALL LABOR SHALL BE EXECUTED IN A NEAT WORKMANLIKE MANNER AND SHALL BE PERFORMED BY MECHANICS SKILLED IN THEIR RESPECTIVE TRADES. THE ENGINEER SHALL DECIDE ALL MATTERS PERTAINING TO THE QUALITY OF WORKMANSHIP AND MATERIALS.
ALL DUCTWORK BEING STORED ON SITE AWAITING INSTALLATION AND ALL INSTALLED DUCTWORK WITH OPEN ENDS SHALL BE COVERED TO REDUCE THE CLEANING EFFORT ONCE THE SYSTEM IS PUT INTO OPERATION.

1.10 SPECIFICATIONS AND DRAWINGS
SPECIFICATIONS AND DRAWINGS ARE INTENDED TO BE COOPERATIVE. WHAT IS CALLED FOR BY EITHER SHALL BE AS BINDING AS IF CALLED FOR BY BOTH. ANY WORK OR MATERIALS NOT SPECIFICALLY MENTIONED, THOUGH REQUIRED TO MAKE THE JOB COMPLETE, SHALL BE FURNISHED BY THE CONTRACTOR AT HIS EXPENSE.
1.11 OPERATING INSTRUCTIONS
THIS CONTRACTOR SHALL PREPARE A TYPED LIST OF OPERATING INSTRUCTIONS FOR ALL THE EQUIPMENT INSTALLED UNDER THIS CONTRACT, AND SHALL INSTRUCT THE OWNER IN ITS OPERATION. INDIVIDUAL MANUALS PROVIDED BY THE EQUIPMENT MANUFACTURERS SHALL BE INCLUDED.

1.12 EQUIPMENT SCHEDULE
THIS CONTRACTOR SHALL PREPARE AND FURNISH TO THE OWNER TWO (2) BOUND BOOKLETS, EACH CONTAINING A COMPLETE LIST OF ALL EQUIPMENT AND VALVES INSTALLED UNDER THIS CONTRACT. EACH PIECE OF EQUIPMENT AND VALVE LISTED SHALL INCLUDE ITS TAG NUMBER, MANUFACTURER'S MODEL NUMBER, AND COMPONENTS THEREIN WHICH MAKE UP THE SPARE PARTS LIST.
1.13 GUARANTEE
THIS CONTRACTOR SHALL GUARANTEE HIS WORK TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL CERTIFICATE. ANY REPAIRS OR REPLACEMENT DURING THE PERIOD SHALL BE MADE WITHOUT COST TO THE OWNER, UPON HIS OR HER REQUEST.

1.14 COORDINATION OF WORK
THE CONTRACTOR SHALL CONFER WITH OTHER TRADES WHOSE WORK MAY AFFECT HIS INSTALLATION TO AVOID INTERFERENCE BEFORE STARTING THE INSTALLATION. ALL CHANGES IN THE WORK OF THIS CONTRACTOR CAUSED BY HIS NEGLIGENCE TO COMPARE AND CONFER WITH OTHER TRADES SHALL BE MADE BY HIM AT HIS OWN EXPENSE.
1.15 CUTTING AND PATCHING
EACH CONTRACTOR SHALL DO HIS OWN CUTTING AND PATCHING. IF STRUCTURALLY REQUIRED, HE SHALL PROVIDE AND INSTALL THE NECESSARY STEEL WHEN GOING THROUGH A LOAD BEARING WALL. THIS CONTRACTOR SHALL NOT ENDANGER ANY WORK BY CUTTING, DIGGING, OR OTHERWISE AND SHALL NOT CUT OR ALTER THE WORK OF OTHER TRADES WITHOUT CONSENT OF THE ARCHITECT/ENGINEER.

1.16 DEMOLITION
A. PIPING, VALVES, DUCTWORK, EQUIPMENT, ETC., WHICH IS REQUIRED TO BE REMOVED TO PERFORM WORK UNDER THIS SPECIFICATION WILL BE PERFORMED BY THIS CONTRACTOR AND TURNED OVER AND DELIVERED TO THE BUILDING MAINTENANCE DEPARTMENT OR DISPOSED OF AS DIRECTED.
B. ANY HOLES OR OPENINGS LEFT IN WALLS, ROOFS, FLOORS, CEILINGS, ETC., AFTER REQUIRED DEMOLITION WORK, SHALL BE FILLED IN AND PATCHED BY THIS CONTRACTOR IN A MANNER APPROVED BY THE ARCHITECT AND ENGINEER. FAILURE ON THIS CONTRACTOR'S PART TO COMPLY WITH ABOVE SHALL MAKE HIM RESPONSIBLE FOR ANY EXTRA EXPENSE INVOLVED.
C. ANY EQUIPMENT OR ARCHITECTURAL ELEMENTS DAMAGED OR DESTROYED IN THE DEMOLITION WORK SHALL BE REPAIRED, REPLACED, AND/OR BROUGHT BACK TO GOOD WORKING ORDER TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.

1.17 MECHANICAL IDENTIFICATION
A. GENERAL: PROVIDE MECHANICAL IDENTIFICATION FOR ALL MECHANICAL EQUIPMENT, PIPING, AND DUCT SYSTEMS, COMPLY WITH ANSI A13.1 FOR LETTERING SIZE, LENGTH OF COLOR FIELD, COLORS, AND VIEWING ANGLES OF IDENTIFICATION DEVICES.
B. EQUIPMENT: PROVIDE EQUIPMENT SYSTEM NUMBER, CAPACITY, FLOW RATE, STATIC PRESSURE, PUMP HEAD, HORSEPOWER, AND VOLTAGE. PROVIDE SETON MODEL "VENTMARK" MARKERS.
C. PIPING: PROVIDE SYSTEM DESIGNATION NAME AND DIRECTION OF FLOW. PROVIDE SETON MODEL "SETMARK" PIPE MARKERS.
D. DUCTS: PROVIDE SYSTEM DESIGNATION NAME AND DIRECTION OF FLOW. PROVIDE SETON MODEL "VENTMARK" MARKERS.
E. VALVES: PROVIDE BRASS VALVE TAGS AND BRASS "S" HOOK FASTENERS WITH VALVE NUMBER AND TYPE OF SERVICE NOTED ON THE TAG. PROVIDE DUPLICATE VALVE CHARTS. THE CHART SHALL BE FOR ALL VALVES AND SHALL INDICATE VALVE IDENTIFICATION NUMBER, LOCATION, AND PURPOSE. PROVIDE SETON BRASS VALVE TAGS AND VALVE CHARTS.

1.18 NOISE AND VIBRATION CONTROL
THIS CONTRACTOR SHALL PROVIDE ACOUSTICAL AND VIBRATION TREATMENT FOR ALL EQUIPMENT WITH MOVING PARTS TO MEET CODE AND MAINTAIN THE FOLLOWING NOISE CRITERIA:
LOBBIES, TOILETS, AND CORRIDORS NC 40
SPACE ADJACENT TO FAN ROOMS NC 45
OFFICES, CONFERENCE ROOM, ETC. NC 35
VIBRATION ISOLATORS AND FLEXIBLE CONNECTIONS SHALL BE USED AT EACH PIECE OF EQUIPMENT WITH MOVING PARTS.

1.19 BUILDING STANDARDS
IF BUILDING HAS STANDARDS FOR PIPING, DUCTWORK, DIFFUSERS, GRILLES, REGISTERS, TEMPERATURE CONTROLS, OTHER EQUIPMENT, ETC., PROVIDE SAME UNLESS OTHERWISE NOTED.

2.0 PRODUCTS, MATERIALS, AND CONTROLS
2.01 HANGERS AND SUPPORTS
A. PIPING HANGERS AND SUPPORTS SHALL COMPLY WITH MSS SP-58. PROVIDE ONLY ONE TYPE OF HANGER/SUPPORT, BY ONE MANUFACTURER, FOR EACH PIPING SERVICE.
B. DUCT HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS.
C. EQUIPMENT HANGERS AND SUPPORTS SHALL BE PROVIDED AND INSTALLED PER THE EQUIPMENT MANUFACTURER'S REQUIREMENTS.

2.02 ACCESS DOORS
ACCESS DOORS SHALL BE INSTALLED FOR ALL NON-ACCESSIBLE EQUIPMENT, VALVES, OPERATIONS, CONTROLS, OR OTHER WORKING PARTS REQUIRING MAINTENANCE OR ADJUSTMENT. THIS CONTRACTOR SHALL FURNISH ALL SUCH ACCESS DOORS AND ADVISE GENERAL CONTRACTOR OF THE LOCATION OF ALL ACCESS DOORS REQUIRED THROUGHOUT THE PROJECT. ACCESS DOOR MANUFACTURER'S DATA SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ARCHITECT AND ENGINEER. COLOR OF ACCESS DOORS SHALL BE APPROVED BY THE ARCHITECT.
2.03 EQUIPMENT
A. PROVIDE AND INSTALL ALL EQUIPMENT AS SHOWN IN THE EQUIPMENT SCHEDULES.
B. ALL EQUIPMENT DATA SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ARCHITECT AND ENGINEER.
C. COLOR OF ALL DIFFUSERS, GRILLES, AND REGISTERS SHALL BE APPROVED BY THE ARCHITECT.
D. COORDINATE FINAL LOCATION OF ALL THERMOSTATS, DIFFUSERS, GRILLES, AND REGISTERS WITH THE ARCHITECT'S REFLECTED CEILING PLAN.

2.04 DUCTWORK AND ACCESSORIES
A. ALL DUCTWORK SHALL BE PRIME GALVANIZED SHEET STEEL, LOCK FORMING, FIRST QUALITY, FABRICATED IN ACCORDANCE WITH THE LATEST EDITION OF THE ASHRAE GUIDE, EXCEPT AS NOTED OTHERWISE.
B. ROUND SPIRAL DUCTWORK SHALL BE LINDAB GASKETED SPIRAL DUCTWORK TYPE DUCT FITTINGS, OR APPROVED EQUAL, INSTALLED AND SUSPENDED AS PER MANUFACTURER'S RECOMMENDATIONS.
C. ALL DUCTS ARE TO HAVE GALVANIZED STIFFENERS IN THE FORM OF SEAMS INVOLVING AT LEAST THREE FOLDS OF SHEET METAL (POCKET LOCKS, STANDING SEAMS, STANDING S-SLIPS, ETC.).
D. VENTILATION CONSTRUCTION NOT COVERED BY THE ASHRAE GUIDE AND/OR GOVERNING AUTHORITIES SHALL BE IN ACCORDANCE WITH THE MAXIMUM STANDARDS AND TRADE PRACTICES AS SET FORTH BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) INCLUDING THEIR MOST CURRENT DUCT MANUAL.

E. DUCT DIMENSIONS SHOWN ON THE DRAWINGS INDICATE INSIDE DIMENSIONS. INCREASE DUCT SIZE WHEN LINING IS UTILIZED.
F. LOW PRESSURE DUCTWORK SHALL BE CONSIDERED AS ALL DUCTWORK NOT DEFINED AS MEDIUM PRESSURE DUCTWORK, UNLESS NOTED OTHERWISE. PROVIDE 2" SP DUCT CONSTRUCTION FOR SUPPLY AIR DUCTS AND 1" SP CONSTRUCTION FOR RETURN AND EXHAUST AIR DUCTS, UNLESS OTHERWISE NOTED.
G. MEDIUM PRESSURE DUCTWORK SHALL BE CONSIDERED AS ALL DUCTWORK UPSTREAM OF VAV BOXES AND FAN-POWERED BOXES. PROVIDE 3" SP DUCT CONSTRUCTION UNLESS NOTED OTHERWISE. ROUND SINGLE WALL, MEDIUM PRESSURE DUCTWORK IN SOUND-LINED SYSTEMS WILL NOT BE PERMITTED IN LENGTHS GREATER THAN FIVE FEET.
H. ALL LOW AND MEDIUM PRESSURE DUCTWORK SHALL BE SEALED WITH AN APPROVED MASTIC.

I. ALL DUCT SYSTEMS ARE TO BE TESTED FOR LEAKAGE. MAXIMUM ALLOWABLE LEAKAGE FOR ANY SYSTEM WILL BE 5% OF TOTAL AIR QUANTITY. SUBMIT TEST DATA SHEET(S) TO ARCHITECT/ENGINEER FOR APPROVAL.
J. A 5' - 0" MAXIMUM LENGTH OF INSULATED FLEXIBLE DUCT WILL BE PROVIDED TO EACH SUPPLY OUTLET AND RETURN INLET AS REQUIRED.
K. DIFFUSER TAKE-OFF WHERE DIFFUSER IS LOCATED BELOW THE MAIN TRUNK, AND WHERE INDICATED, DEVICE SHALL BE COMPLETE WITH WORM GEAR MECHANISM FOR OPERATION OR ADJUSTMENTS THRU THE FACE OF THE DIFFUSER. IF TURNING DEVICE IS LOCATED REMOTELY FROM GRILLE, REGISTER, OR DIFFUSER, PROVIDE EXTENSION ROD ON ADJUSTING DEVICE. TITILE AND BAILEY, "VENTROL NLC" OR APPROVED EQUAL.
L. PROVIDE FACTORY-FABRICATED TURNING VANES IN ALL SQUARE ELBOWS. VANES SHALL BE BARBER-COLEMAN "AIRTURNS" OR APPROVED EQUAL.
M. TAPERED SPIN-IN FITTING, WITH LOCK-IN QUADRANT AND VOLUME DAMPER, SHALL BE PROVIDED FROM BRANCHES TO DIFFUSERS FOR LOW PRESSURE DUCTWORK.
N. ALL BRANCH DUCT TAKE-OFFS SHALL BE EQUIPPED WITH TAPERED FITTINGS.

O. ALL FULL RADIUS ELBOWS SHALL HAVE A CENTERLINE RADIUS OF 1.5 TIMES THE DUCT WIDTH. ELBOWS WITH A CENTERLINE RADIUS LESS THAN 1.5 TIMES THE DUCT WIDTH SHALL HAVE TURNING VANES.
P. VOLUME DAMPERS SHALL BE PROVIDED FOR AIR BALANCE PURPOSES. PROVIDE MANUAL VOLUME DAMPERS ON ALL LOW PRESSURE SUPPLY, RETURN, AND EXHAUST DUCT BRANCHES AND TO AIR DIFFUSERS, REGISTERS, AND GRILLES, UNLESS NOTED OTHERWISE. DAMPERS SHALL BE OPPOSED BLADE TYPE UNLESS NOTED OTHERWISE.
Q. FOR VOLUME DAMPERS ABOVE DRYWALL CEILINGS AND OTHER INACCESSIBLE LOCATIONS, PROVIDE LEVER, POSITION INDICATOR, AND LOCK NUT, ENCLOSED IN A DEEP DIE-CAST BOX WITH ADJUSTABLE 2.58" DIAMETER COVER. YOUNG REGULATOR SERIES 315 OR VENTLOCK SERIES 677 AND/OR PROVIDE ACCESS PANEL, SIZED AS REQUIRED (12" X 12" MINIMUM).
R. FOR VOLUME DAMPERS ABOVE ACCESSIBLE CEILINGS, PROVIDE LOCKING TYPE WITH LEVER HANDLE, POSITION INDICATOR AND LOCK NUT. YOUNG REGULATOR SERIES 400 OR VENTLOCK SERIES 600.

S. DYNAMIC RATED FIRE DAMPERS SHALL BE PROVIDED PER CODE REQUIREMENTS. PROVIDE TYPE "B" FIRE DAMPERS FOR LOW PRESSURE DUCTWORK AND TYPE "C" FIRE DAMPERS FOR MEDIUM PRESSURE DUCTWORK. PROVIDE A DUCT ACCESS DOOR FOR EACH FIRE DAMPER.

2.06 INSULATION
A. FURNISH AND INSTALL INSULATION AS SPECIFIED.
B. DUCT INSULATION
1. ALL SUPPLY, RETURN, AND EXHAUST AIR DUCTWORK IN UNCONDITIONED SPACES: 2" FLEXIBLE GLASS FIBER WITH FACTORY APPLIED ALUMINUM FOIL VAPOR BARRIER. 3/4 LBS. PER CUBIC FOOT DENSITY. FLAME SPREAD RATING OF NOT GREATER THAN 25 AND A SMOKE DEVELOPED RATING OF NOT GREATER THAN 50.
C. INSULATED FLEXIBLE DUCT
ALL SUPPLY AND RETURN/EXHAUST AIR CONNECTIONS TO EACH DIFFUSER, POLYETHYLENE CORE LAMINATED TO A GALVANIZED STEEL WIRE HELIX, 1" THICK, 1 LB. PER CUBIC FOOT DENSITY GLASS FIBER INSULATION, FIBERGLASS REINFORCED, METALIZED, VAPOR BARRIER.

2.07 CONTROLS
A. THE NEW TEMPERATURE CONTROL SYSTEM SHALL BE INSTALLED AND CONTROLLED AS NOTED ON THE EQUIPMENT SCHEDULE.
B. TYPICAL EXHAUST FAN CONTROL: THE FANS SHALL BE CONTROLLED AS NOTED ON THE EQUIPMENT SCHEDULE.

3.0 EXECUTION
3.01 INSPECTION
PRIOR TO BEGINNING ANY WORK, CAREFULLY COORDINATE WITH THE WORK OF OTHER TRADES AND AT TIMES CONFIRM THAT THE WORK OF OTHERS IS COMPLETE TO THE POINT WHERE THIS INSTALLATION CAN PROPERLY COMMENCE.
3.02 GENERAL INSTALLATION REQUIREMENTS
VERIFY QUANTITIES, CAPACITIES, PERFORMANCE CHARACTERISTICS, OPERATING REQUIREMENTS, AND CURRENT CHARACTERISTICS OF ALL EQUIPMENT PRIOR TO ITS INSTALLATION. VERIFY THAT SPACE ALLOTTED FOR EQUIPMENT IS SUFFICIENT FOR ENTRANCE AND INSTALLATION, MAINTENANCE AND SERVICE, AND REMOVAL AND REPLACEMENT.
3.03 COORDINATION OF INSTALLATION
C. INSTALL WORK IN SUCH A MANNER THAT IT WILL CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, MAINTAIN HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. GENERALLY, KEEP HORIZONTAL LINES AS HIGH AS POSSIBLE. MAKE LOCAL PROVISIONS FOR THE SERVICING AND REMOVAL OF EQUIPMENT.
D. ANY INTERFERENCE WITH WORK OF OTHER TRADES ARISING FROM FAILURE TO COORDINATE THE WORK AND LACK OF COOPERATION HEREBUNDER, SHALL REQUIRE THE REMOVAL AND REINSTALLATION OF ALL INTERFERING WORK WITHOUT ADDITIONAL COST TO THE OWNER.

3.04 IDENTIFICATION OF EQUIPMENT
EACH PIECE OF EQUIPMENT SHALL DISPLAY A PERMANENT METAL, OR PLASTIC NAMEPLATE WHICH SHALL BE LOCATED SO AS TO BE FULLY VISIBLE AFTER THE EQUIPMENT HAS BEEN INSTALLED. THE NAMEPLATE SHALL SHOW THE EQUIPMENT NUMBER AND OTHER PERTINENT INFORMATION.
3.05 CLEAN UP
A. UPON COMPLETION OF THE INSTALLATION OF DUCTWORK, CLEAN THE ENTIRE SYSTEM OF RUBBISH, PLASTER, DIRT, ETC., BEFORE INSTALLING THE DIFFUSERS, REGISTERS, AND GRILLES.
B. REMOVE TEMPORARY FILTERS FROM RETURN INLETS.
C. OPERATE AND MAKE ANY REQUIRED ADJUSTMENT TO EQUIPMENT, DUCTWORK, PIPING, ETC., AS MAY BE NECESSARY TO PUT THE SYSTEMS IN PROPER OPERATING CONDITION.
D. REMOVE ALL LABELS, TAGS, ETC., FROM ANY SPECIALTIES, EQUIPMENT, ETC., AND REMOVE ALL GREASE OR OTHER PROTECTIVE COATING FROM ALL EQUIPMENT, PIPING, ETC., AND LEAVE WORK IN A MANNER THAT IS ACCEPTABLE TO THE ARCHITECT/ENGINEER.

3.06 OPERATING AND MAINTENANCE INSTRUCTIONS
AFTER HAVING COMPLETELY INSTALLED ALL SYSTEMS AND ALL NECESSARY TESTS ARE COMPLETED, THIS CONTRACTOR SHALL MAKE ARRANGEMENTS TO OPERATE ALL THE SYSTEMS FOR A PERIOD OF NOT LESS THAN FIVE (5) DAYS AT NO EXPENSE TO THE OWNER. A WRITTEN NOTIFICATION OF THIS TRIAL OPERATING PERIOD SHALL BE PRESENTED TO THE ARCHITECT/ENGINEER, TEN (10) DAYS IN ADVANCE, FOR APPROVAL. DURING THIS TRIAL OPERATING PERIOD, THE CONTRACTOR MAY MAKE NECESSARY MINOR, BUT NON-INTERRUPTIVE ADJUSTMENTS, AND ALSO SHALL GIVE INSTRUCTIONS TO THE OWNER'S OPERATING PERSONNEL OR REPRESENTATIVES, ON THE OPERATION AND MAINTENANCE OF THE VARIOUS ITEMS OF EQUIPMENT AND SYSTEMS.

3.07 INSPECTION
A. VISUALLY INSPECT ALL EQUIPMENT FOR COMPLETENESS AND FUNCTIONAL READINESS.
B. LUBRICATE ALL FAN AND MOTOR BEARINGS.
C. CHECK ALL FANS FOR ALIGNMENT AND CLEARANCE.
D. INSPECT ALL DAMPERS FOR PROPER LINKAGE AND SETTING FOR OPERATION.
E. CONFIRM THAT THE CONTROL SYSTEM HAS BEEN COMPLETED, CALIBRATED, AND IS IN OPERATION.

3.08 ELECTRICAL
A. INSPECT THE MOTOR CONTROL CENTERS, DISCONNECT SWITCHES, OVERLOAD PROTECTION, AND WIRING FOR THE HVAC EQUIPMENT PRIOR TO STARTUP OF THE EQUIPMENT.
B. COORDINATE THE STARTUP OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.

3.09 CLOSING IN WORK
WORK SHALL BE INSPECTED AND THEN APPROVED BY THE ARCHITECT/ENGINEER AND/OR AUTHORITIES HAVING JURISDICTION. ANY WORK COVERED PRIOR TO SUCH INSPECTION, TEST, AND APPROVAL SHALL BE UNCOVERED, IF SO REQUESTED, AND AFTER APPROVAL, COVERED AGAIN WITHOUT COST TO THE OWNER.
3.10 TESTING, ADJUSTING, AND BALANCING
A. THE HVAC CONTRACTOR SHALL HIRE AN INDEPENDENT, QUALIFIED, AND CERTIFIED MEMBER OF NEBB OR AABC TO COMPLETELY BALANCE THE AIR AND HYDRONIC SYSTEMS, AS REQUIRED. THE TEST AND BALANCE CONTRACTOR SHALL SUBMIT A PROJECT CERTIFICATION GUARANTEE AND CERTIFIED BALANCE REPORT TO THE ENGINEER FOR APPROVAL BEFORE FINAL ACCEPTANCE.
B. ADJUST ALL SUPPLY, RETURN, AND EXHAUST DEVICES TO PLUS OR MINUS 10 PERCENT OF THE DESIGN AIRFLOW QUANTITIES.
C. ADJUST HYDRONIC FLOW QUANTITIES TO PLUS OR MINUS 10 PERCENT OF INDICATED DESIGN FLOWS.
D. THE BALANCING CONTRACTOR SHALL REPORT ANY DEFICIENCIES TO THE ENGINEER AND MECHANICAL CONTRACTOR. THE BALANCING CONTRACTOR SHALL ALSO RECOMMEND POSSIBLE ACTIONS TO REMEDY THE DEFICIENCIES.
E. IN GENERAL, THE MECHANICAL CONTRACTOR SHALL CHANGE FAN SHEAVES, PUMP IMPELLERS, DRIVES, ETC., TO REMEDY THE DEFICIENCIES AT NO ADDITIONAL COST TO THE OWNER.

GENERAL NOTES

- 1. ALL EQUIPMENT SHALL BE U.L., ETL, AND/OR AGA LABELED AS REQUIRED.
2. ALL WORK PERFORMED SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES.
3. ALL DUCTWORK SHALL BE PRIME GRADE GALVANIZED SHEET METAL PER SMACNA STANDARDS.
4. DUCTWORK SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING TEN (10) FEET OR BY OTHER APPROVED DUCT SUPPORT SYSTEMS DESIGNED IN ACCORDANCE WITH THE BUILDING CODE. FLEXIBLE AND OTHER FACTORY-MADE DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. MECHANICAL CONTRACTOR SHALL PROVIDE SPIN-IN COLLARS WITH DAMPERS AT ALL ROUND BRANCH TAKEOFFS TO DIFFUSERS.
6. DUCTWORK CONSTRUCTION MATERIALS, INCLUDING COVERINGS, LININGS, AND ADHESIVES, EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E-84.
7. PROVIDE FIRE DAMPERS BY "NAILOR" OR APPROVED EQUAL AT ALL PENETRATIONS THRU RATED ASSEMBLIES. REFER TO ARCHITECTURAL PLANS FOR ALL LOCATIONS AND RATINGS. ALL FIRE DAMPERS MAY NOT BE SHOWN ON THE PLANS. THIS CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND QUANTITIES.
8. MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE CANVAS CONNECTIONS AT ALL EQUIPMENT.
9. MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE AIR CONNECTORS FOR ALL DIFFUSERS. FLEXIBLE CONNECTORS SHALL NOT EXCEED FIVE (5) FEET.
10. FLEXIBLE AIR DUCTS AND FLEXIBLE AIR CONNECTORS, BOTH METALLIC AND NONMETALLIC, SHALL BE TESTED IN ACCORDANCE WITH UL 181. SUCH DUCTS SHALL BE LISTED AND LABELED AS CLASS 0 OR CLASS 1.
11. OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF TEN (10) FEET FROM ANY EXHAUST VENT, FLUE VENT OR ANY OTHER MECHANICAL SOURCE OF CONTAMINATION AND TWELVE (12) FEET FROM ANY PLUMBING VENT.
12. MECHANICAL CONTRACTOR SHALL PROVIDE BALANCING REPORTS BY A CERTIFIED BALANCER UPON COMPLETION OF PROJECT. PROVIDE INSPECTOR REPORTS PRIOR TO FINAL INSPECTION.
13. ALL THERMOSTATS SHALL BE MOUNTED IN ACCORDANCE WITH ACCESSIBLE REQUIREMENTS, WHERE THE THERMOSTAT IS ACCESSIBLE BY FRONTAL APPROACH ONLY. THEN THE MOUNTING HEIGHT OF THE THERMOSTAT SHALL BE 4' 0" A.F.F. WHERE THE THERMOSTAT IS ACCESSIBLE FROM A SIDE APPROACH, THEN THE MOUNTING HEIGHT OF THE THERMOSTAT SHALL BE 4'-6" A.F.F.
14. ELECTRICAL CONTRACTOR SHALL WIRE ALL EQUIPMENT AND SHALL PROVIDE DISCONNECT SWITCHES, STARTERS AND/OR RELAYS AS REQUIRED.
15. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, UTILITY BOXES, AND WIRING FOR ALL THERMOSTATS, MECHANICAL CONTRACTOR SHALL FURNISH, MOUNT, AND TERMINATE THERMOSTATS ONLY.
16. ELECTRICAL CONTRACTOR SHALL PROVIDE RETURN SMOKE DETECTORS IN SYSTEMS WITH A DESIGN CAPACITY OF GREATER THAN 2,000 CFM AND SUPPLY SMOKE DETECTORS IN SYSTEMS GREATER THAN 15,000 CFM. WIRE PER LOCAL CODE.
17. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120 VOLT, 15 OR 20 AMP GFCI CONVENIENCE OUTLET FOR ALL ROOFTOP, ATTIC SPACE, OR CRAWL SPACE HVAC EQUIPMENT. CONVENIENCE OUTLET SHALL BE ON THE SAME LEVEL AND WITHIN 25'-0" OF HVAC EQUIPMENT.
18. EQUIPMENT AND APPLIANCES SHALL BE INSTALLED AS REQUIRED BY THE TERMS OF THEIR APPROVAL, IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING, THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THIS CODE. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT TIME OF INSPECTION, INCLUDING LISTING FOR OUTSIDE INSTALLATION WHEN APPLICABLE.
19. SUBMIT UL LISTED FIRE STOPPING MATERIALS AND SYSTEMS WHERE FIRE RATED ASSEMBLIES ARE BREACHED.
20. ALL MECHANICAL EQUIPMENT AND APPLIANCES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
21. A COPY OF MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL MECHANICAL EQUIPMENT AND APPLIANCES SHALL BE PROVIDED ON SITE.
22. CERTIFIED TEST AND BALANCE CONTRACTOR TO PERFORM TEST AND BALANCE OF ALL COMMON AREAS. COPY OF TEST AND BALANCE REPORT SHALL SUBMITTED TO THE AUTHORITY HAVING JURISDICTION PRIOR TO FINAL INSPECTION.
23. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR AS REQUIRED TO INSTALL A COMPLETE AND OPERABLE HVAC SYSTEM PER THE NEW ARCHITECTURAL LAYOUT AND AS TO COMPLY WITH THE SPECIFICATIONS, DETAILS, THIS SCOPE OF WORK AND ALL APPLICABLE CODES.
24. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND COORDINATE ALL NEW WORK WITH ALL TRADES PRIOR TO ANY WORK BEING DONE TO INSURE CONFLICTS DO NOT OCCUR.
25. ALL DUCT SIZES INDICATED ON PLANS AND RISERS ARE CLEAR INSIDE DIMENSIONS. DUCT SIZES NOT SHOWN SHALL BE SIZED TO VELOCITIES NOT GREATER THAN UPSTREAM SECTION USING SIMILAR ASPECT RATIOS.
26. ALL SUPPLY AIR TAKE-OFFS FROM MAIN TRUNK DUCTS ARE TO BE INSTALLED WITH BELL MOUTH FITTINGS OR 45 DEGREE ENTRY TO PROVIDE THE SMOOTHEST AIR FLOW POSSIBLE.
27. PROVIDE TURNING VANES IN ALL LOW-PRESSURE 90-DEGREE DUCT TURNS.
28. ALL THERMOSTAT LOCATIONS SHALL BE APPROVED BY THE ARCHITECT.
29. ALL DUCTS LOCATED ABOVE INACCESSIBLE CEILINGS ARE TO BE BALANCED PRIOR TO CEILING INSTALLATIONS.
30. CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR SERVICE AND MAINTENANCE OF ALL EQUIPMENT LOCATED ABOVE INACCESSIBLE CEILINGS.
31. PROVIDE GUIDES, HANGERS, EXPANSION LOOPS, AND SUPPLEMENTARY STEEL SUPPORT WHERE REQUIRED FOR ALL PIPING.

MECHANICAL SYMBOLS

Table with 2 columns: SYMBOL and DESCRIPTION. Includes symbols for DUCT, SUPPLY DIFFUSER, RETURN OR EXHAUST GRILLE, 15 MIN. TIMER SWITCH, OCCUPANCY SENSOR SWITCH, CO2 SENSOR, THERMOSTAT W/ LOCKING COVER, EMS SENSOR, HUMIDISTAT, STATIC PRESSURE SENSOR, SMOKE DETECTOR, 45' PRESSURE TAP WITH VOLUME DAMPER, CONICAL TAP WITH VOLUME DAMPER, CONICAL TAP WITHOUT VOLUME DAMPER, MANUAL VOLUME DAMPER, 24V MOTORIZED DAMPER, BAROMETRIC DAMPER, FS FIRE/SMOKE DAMPER, FD FIRE DAMPER, S SMOKE DAMPER, CONDENSATE DRAIN.

MECHANICAL ABBREVIATIONS

Table with 2 columns: ABBREVIATION and DESCRIPTION. Includes AC ABOVE CEILING, AFF ABOVE FINISHED FLOOR, AI ANALOG INPUT, AO ANALOG OUTPUT, BF BELOW FLOOR, BFC BELOW FINISHED CEILING, BG BELOW GRADE, DB CONSTANT VOLUME FAN POWERED BOX DRY BULL, DI DIGITAL INPUT, DO DIGITAL OUTPUT, DS DISCONNECT SWITCH, EAT ENTERING AIR TEMPERATURE, EDH ELECTRIC DUCT HEATER, EF EXHAUST FAN, EMS ENERGY MANAGEMENT SYSTEM, EUH ELECTRIC UNIT HEATER, FPB FAN POWERED BOX, GC GENERAL CONTRACTOR, GUH GAS UNIT HEATER, LAT LEAVING AIR TEMPERATURE, MVD MANUAL VOLUME DAMPER, N NEW, NTS NOT TO SCALE, OBD OPPOSED BLADE DAMPER, RA RETURN AIR, SA SUPPLY AIR, UNO UNLESS NOTED OTHERWISE, VAV VARIABLE AIR VOLUME, WH WATER HEATER.

MECHANICAL LEGEND

Table with 2 columns: EQUIPMENT and AIR DEVICE. Includes RTU (MARK (SEE SCHEDULE) EQUIPMENT NUMBER), 50' CFM (TYPE-DEVICE TAG), 50 CFM.

MECHANICAL SHEET LIST

Table with 2 columns: SHEET NUMBER and DESCRIPTION. Includes M-0 MECHANICAL SPECIFICATIONS, GENERAL NOTES, SYMBOLS & LEGENDS, M-1 MECHANICAL PLANS, SCHEDULES, & DETAILS.

APPLICABLE CODES

- 2021 WASHINGTON STATE MECHANICAL CODE
2021 WASHINGTON STATE ENERGY CODE
2021 WASHINGTON STATE PLUMBING CODE
2021 WASHINGTON STATE BUILDING CODE
SEISMIC DESIGN CATEGORY D

ENERGY NOTES

- 1. MOTORIZED DAMPERS SHALL BE INSTALLED ON ALL INTAKES AND EXHAUST OPENINGS UNLESS NOTED OTHERWISE.
2. MAXIMUM FAN NAMEPLATE HORSEPOWER SHALL NOT EXCEED 1.1 HP/1000CFM.
3. LOAD CALCULATIONS WERE BASED ON ASHRAE 2021 FUNDAMENTALS.
4. ALL PROGRAMMABLE THERMOSTATS SHALL HAVE 5 DEGREE DEADBAND AND SHALL HAVE 7-DAY CLOCK, 2-HOUR MANUAL OVERRIDE, 10 HOUR BACKUP AND SETBACK CAPABLE OF 55 DEGREES HEATING AND 85 DEGREES COOLING. (EXCEPT CONTINUOUS OPERATING ZONES)
5. DUCT INSULATION AS SPECIFIED WITH MINIMUM VALUES AS FOLLOWS:
a. R-8 SUPPLY AND RETURN DUCT INSULATION IN UNCONDITIONED SPACES
b. R-8 SUPPLY AND RETURN DUCT INSULATION FOR EXTERIOR DUCTS
c. R-3 SUPPLY AND RETURN DUCT INSULATION UNDERGROUND.
6. ALL DUCTWORK SHALL BE SEALED PRESSURE SENSITIVE TAPE IS NOT USED AS THE PRIMARY SEALANT. LONGITUDINAL AND TRANSVERSE SEAMS FOR DUCTS IN UNCONDITIONED SPACES AND WALL PENETRATIONS, TRANSVERSE SEAMS ON BURIED DUCTS.
7. EXHAUST SYSTEMS THAT ARE CONTROLLED BY OCCUPANCY SENSOR CONTROL SHALL BE CONFIGURED WITH AUTOMATIC ON AND AUTOMATIC SHUTOFF WITHIN 15 MINUTES OF OCCUPANTS HAVING LEFT THE SPACE. (403.3.2.4)

DESIGN CRITERIA

BASED ON ASHRAE HANDBOOK - 2021 FUNDAMENTALS
PUYALLUP, WA
OUTDOOR DESIGN CONDITION
1% COOLING: 88.4°/66.8°F DB/WB
99.6% HEATING: 19.5°F DB

WARE MALCOMB ARCHITECTURE CIVIL ENGINEERING PLANNING INTERIORS 3015 122nd AVE NE Suite #205 Bellevue, WA 98004 P:425.670.0706



COSTCO FLEET R.R. PUYALLUP WH# 660 PRCT120241512 1201 39TH AVE SW PUYALLUP, WA 98373-3803

MECHANICAL SPECIFICATIONS, GENERAL NOTES, SYMBOLS, AND LEGENDS. ISSUED FOR PLAN CHECK SUBMITTAL. 02/26/24

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rtm engineering consultants 2800 156th Ave Southeast, Suite 115 Bellevue, WA 98007 rtmassociates.com | 847.756.4180

SHEET M-0

**GENERAL NOTES**

- REFER TO GENERAL NOTES ON SHEET M-0.
- REFER TO SPECIFICATIONS ON SHEET M-0.
- TEST & BALANCE SYSTEM PRIOR TO CLOSEOUT OF PROJECT. PROVIDE A DETAILED REPORT TO OWNER, ARCHITECT, & ENGINEER.
- ENVIRONMENTAL EXHAUST TERMINATION SHALL BE 10'-0" AWAY FROM ANY O.A. INTAKE, 3'-0" FROM PROPERTY LINES, AND 3'-0" FROM OPERABLE OPENINGS INTO BUILDINGS.
- DRAWINGS ARE TO BE REVIEWED IN FULL DETAIL, WITH SHEET SPECIFICATIONS. IN THE EVENT THAT THERE IS A CROSS DIRECTION, A REQUEST FOR INFORMATION (RFI) IS TO BE SENT TO THE ENGINEER OF RECORD. AS STATED IN SPECIFICATIONS THE HIGHER COST OF THE TWO OPTIONS IS TO BE TAKEN AS THE OPTION W/HILE AT BID UNLESS CLARIFICATION FROM RFI.
- AIR INTAKE OPENINGS SHALL BE LOCATED NOT LESS THAN 10'-0" HORIZONTALLY FROM LOT LINES, HAZARDOUS OR NOXIOUS CONTAMINANT SOURCES SUCH AS GAS METERS, VENTS, STREETS, ALLEYS, PARKING LOTS, AND LOADING DOCKS. INTAKE OPENINGS SHALL BE NOT LESS THAN 3'-0" BELOW CONTAMINANT SOURCES WHERE SUCH SOURCES ARE LOCATED WITHIN 10'-0" OF THE OPENING.

**KEY NOTES**

- FURNISH AND INSTALL NEW TOILET EXHAUST FAN WITH BACKDRAFT DAMPER. INSTALL FAN PER MANUFACTURER'S RECOMMENDATIONS. 8"Ø EXHAUST DUCT TO DISCHARGE UP THRU ROOF. PROVIDE WITH EXHAUST VENT CAP AND BIRDSCREEN. IF EXHAUSTING OUT THE ROOF IS NOT FEASIBLE IT IS ALSO ACCEPTABLE TO TERMINATE OUT THE SIDEWALL WITH A MANUFACTURER RECOMMENDED LOUVER. EXHAUST PENETRATION TO MAINTAIN 10'-0" FROM ANY OUTDOOR AIR INTAKES AND 3'-0" FROM OPENINGS INTO BUILDINGS.
- FURNISH AND INSTALL SURFACE MOUNTED ELECTRIC WALL HEATER W/ INTEGRAL THERMOSTAT. PROVIDE WITH ELECTRICAL DISCONNECT.
- TRANSFER DUCT WITH 8"x8" TYPE 'A' GRILLE MOUNTED IN UNISEX RR 105 CEILING & TYPE 'B' GRILLE ON STORAGE SIDE (AS APPLICABLE). TRANSFER DUCT TO HAVE A LOW LEAK COUNTER-BALANCING BACKDRAFT DAMPER BALANCED TO 125 CFM. COORDINATE FINISH AND MOUNTING HEIGHT WITH ARCHITECT.
- FIELD VERIFY EXISTING MECHANICAL SYSTEM IN THIS AREA AND DEMO/CAP DUCTWORK AS NECESSARY FOR NEW WORK. REFER TO 2M-1 FOR NEW WORK IN THIS AREA. ROOF PENETRATION CAN BE RE-USED IF APPLICABLE.

**CONTRACTOR PLAN NOTES**

- THIS CONTRACTOR SHALL DO A DETAILED INVESTIGATION TO DETERMINE ALL EXISTING CONDITIONS AND SHALL PRODUCE LAYOUTS WITH ADJUSTMENTS THAT SUIT FIELD CONDITIONS AT NO ADDED COSTS TO OWNER. FAILURE TO DO PROPER FIELD INVESTIGATION AND DUE DILIGENCE WILL NOT JUSTIFY CHANGE ORDERS.
- THIS CONTRACTOR TO VISIT THE SITE PRIOR TO FINALIZING HIS BID AND VERIFY IF INSTALLATION OF DUCTWORK IS REQUIRED FOR ANY PORTION OF THE JOB AND SUBMIT BIDS TO COVER ALL COST.
- CONTRACTOR SHALL DO A DETAILED INVESTIGATION TO DETERMINE ALL OBSTRUCTIONS IN THE FIELD AND SHALL PRODUCE SHOP DRAWINGS FOR DUCT LAYOUTS AND EQUIPMENT LAYOUTS WITH ADJUSTMENTS THAT SUIT FIELD CONDITIONS AND TO AVOID CONFLICTS WITH PROPOSED CEILING HEIGHTS - AT NO ADDED COSTS TO OWNER. FAILURE TO DO PROPER FIELD INVESTIGATION AND DUE DILIGENCE WILL NOT JUSTIFY CHANGE ORDERS.
- CONTRACTOR TO PROVIDE ALL NECESSARY SEISMIC/WIND BRACING AND SUPPORTS (AS NEEDED).

SEQUENCE OF OPERATIONS	
INPUT	OUTPUT
NO MOTION DETECTIONS	EXHAUST: OFF
MOTION DETECTION BELOW 40F	EXHAUST: OFF
MOTION DETECTION ABOVE 40F	EXHAUST: ON (100%)

**ELECTRIC WALL HEATER SCHEDULE**

TAG	MAKE / MODEL	SERVES	MOUNTING	ELECTRICAL			WEIGHT (LBS)	REMARKS
				WATTS	TOTAL AMPS	V/PH/Hz		
EVH-1	BERKO / SED1012	UNISEX RR 105	WALL	1000	8.3	120/1/60	15	ALL

REMARKS:  
 1. PROVIDE WITH MANUFACTURER'S MOUNTING KIT.  
 2. COLOR TO BE SELECTED BY ARCHITECT.  
 3. PROVIDE WITH INTEGRAL THERMOSTAT.  
 4. MECHANICAL CONTRACTOR TO PROVIDE LOCKABLE DISCONNECT SWITCH & ELECTRICAL CONTRACTOR TO WIRE.  
 5. ELECTRIC HEAT ALLOWED PER WSEC C403.1.4 EXCEPTION 15. HEATING DESIGNED FOR FREEZE PROTECTION.

**VENTILATION SCHEDULE**

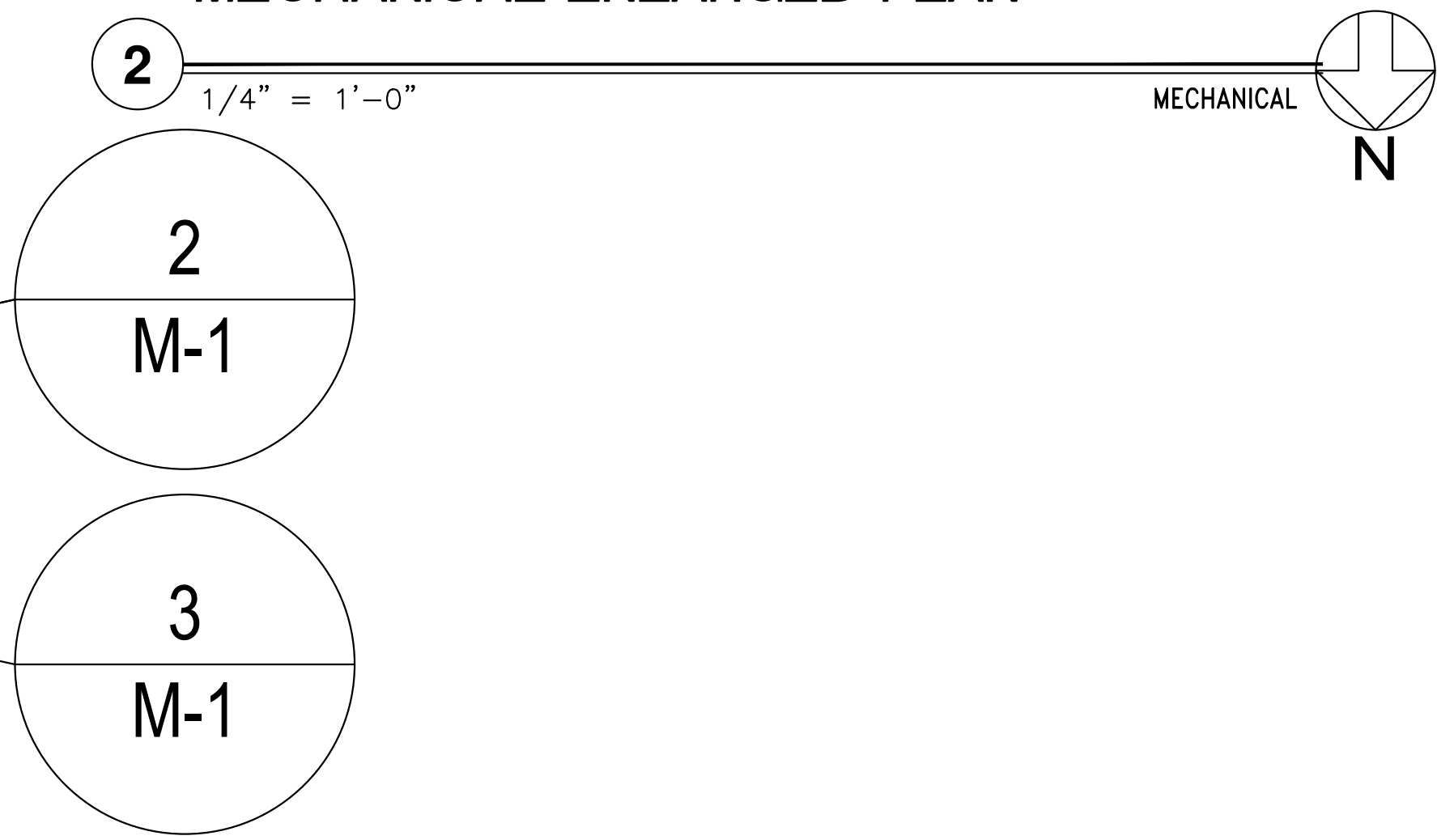
ROOM NUMBER	ROOM NAME	OCCUPANCY CLASSIFICATION	ZONE FLOOR AREA	ZONE POPULATION	2021 WASHINGTON STATE MECHANICAL CODE			ACTUAL			EQUIPMENT		
					PEOPLE OUTDOOR AIR RATE	AREA OUTDOOR AIR RATE	BREATHING ZONE OUTDOOR AIRFLOW	E.A. CFM	SUPPLY CFM	O.A. CFM	EXHAUST CFM	SUPPLY FAN	EXHAUST FAN
105	UNISEX RR	BATHROOMS/TOILETS	60.0	1	0.0	0.00	0.0	70	0	0	100	-	CEF-1
TOTAL			60.0	1.0	-	-	0.0	70.0	0.0	0.0	100.0		

**CEILING EXHAUST FAN SCHEDULE**

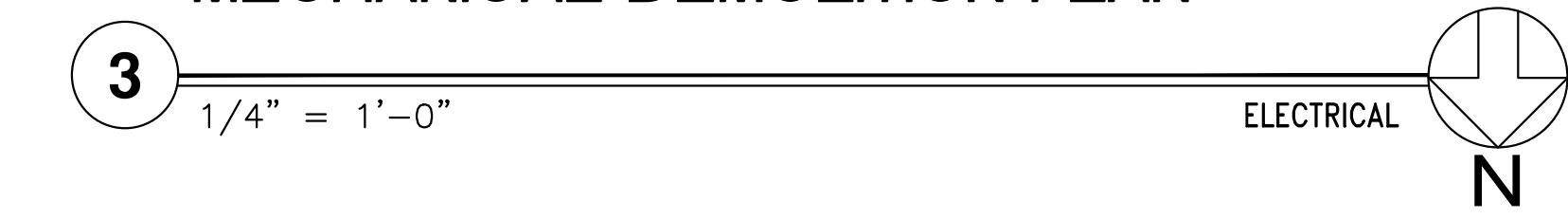
EQUIPMENT TAG	AREA SERVED	MANUFACTURER/MODEL	TYPE	DRIVE	CFM	S.P. (IN. WC)	MOTOR			WEIGHT (LB)	CONTROL	REMARKS		
							RPM	HP	WATTS					
CEF-1	UNISEX RR 105	LOREN COOK / GC-166	CEILING	DIRECT	100	0.25	1100	-	36.8	1	115	15	CONTROLLED BY MOTION SENSOR AND T-STAT. T-STAT TO DISABLE FAN BELOW 40F.	ALL

REMARKS:  
 1. FAN SHALL BE CEILING MOUNTED. PROVIDE WITH CEILING GRILLE, SPEED CONTROL, ISOLATION HANGERS, BACKDRAFT DAMPER, AND DISCONNECT.  
 2. EXHAUST TERMINATION SHALL BE 10'-0" AWAY FROM ANY O.A. INTAKE.  
 3. TERMINATE VENT ON ROOF A MINIMUM OF 12" ABOVE ANTICIPATED SNOW LOAD WITH 8" EXHAUST VENT CAP.  
 4. ALL SWITCHES AND T-STATS MOUNTED AT 42" AFF UNLESS NOTED OTHERWISE.  
 5. PROVIDE FAN SPEED CONTROLLER MOUNTED IN ACCESSIBLE LOCATION. DO NOT ADJUST SPEED CONTROLLER SLOWER THAN 60% OF FAN MOTOR SPEED.

**MECHANICAL ENLARGED PLAN**



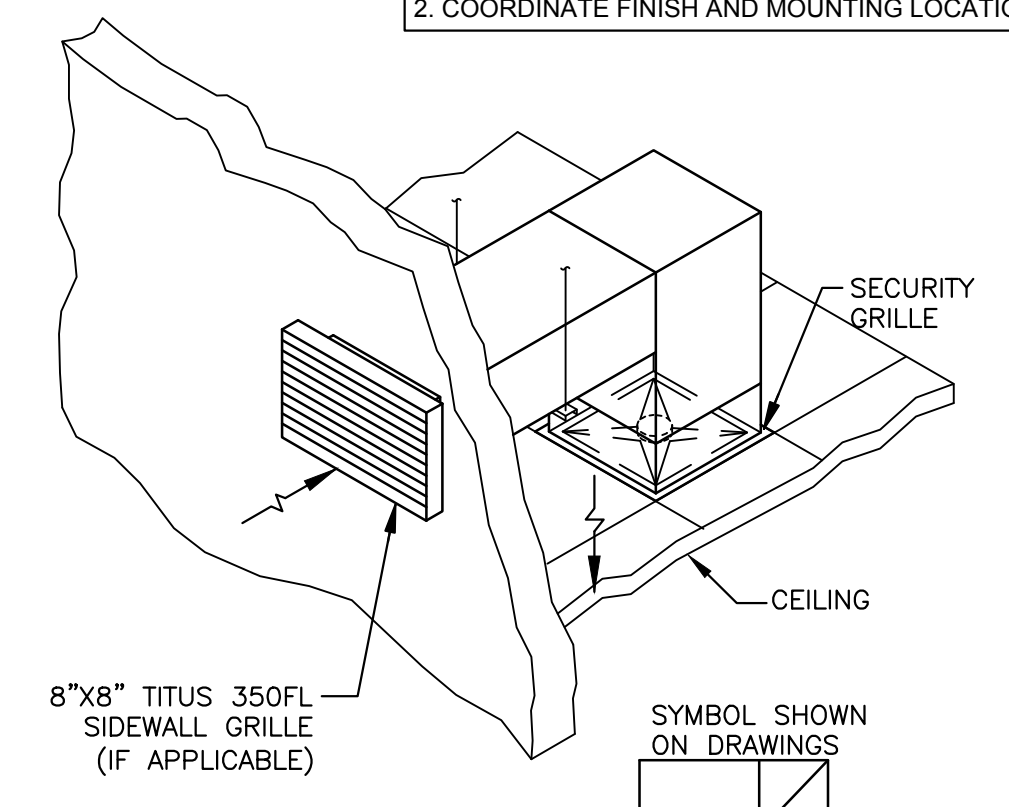
**MECHANICAL DEMOLITION PLAN**



**AIR DEVICE SCHEDULE**

TAG	TYPE	MAKE/MODEL	AIR STREAM	MOUNTING TYPE	NECK SIZE	SIZE	REMARKS
A	SECURITY TRANSFER GRILLE	KEES / SEG-9TG	TRANSFER	SURFACE	SEE PLAN	8"x8"	ALL
B	TRANSFER GRILLE	TITUS / 350FL	TRANSFER	SURFACE	SEE PLAN	8"x8"	ALL

REMARKS:  
 1. PROVIDE WITH SURFACE MOUNTING FRAME WHERE APPLICABLE.  
 2. COORDINATE FINISH AND MOUNTING LOCATION WITH ARCHITECT.



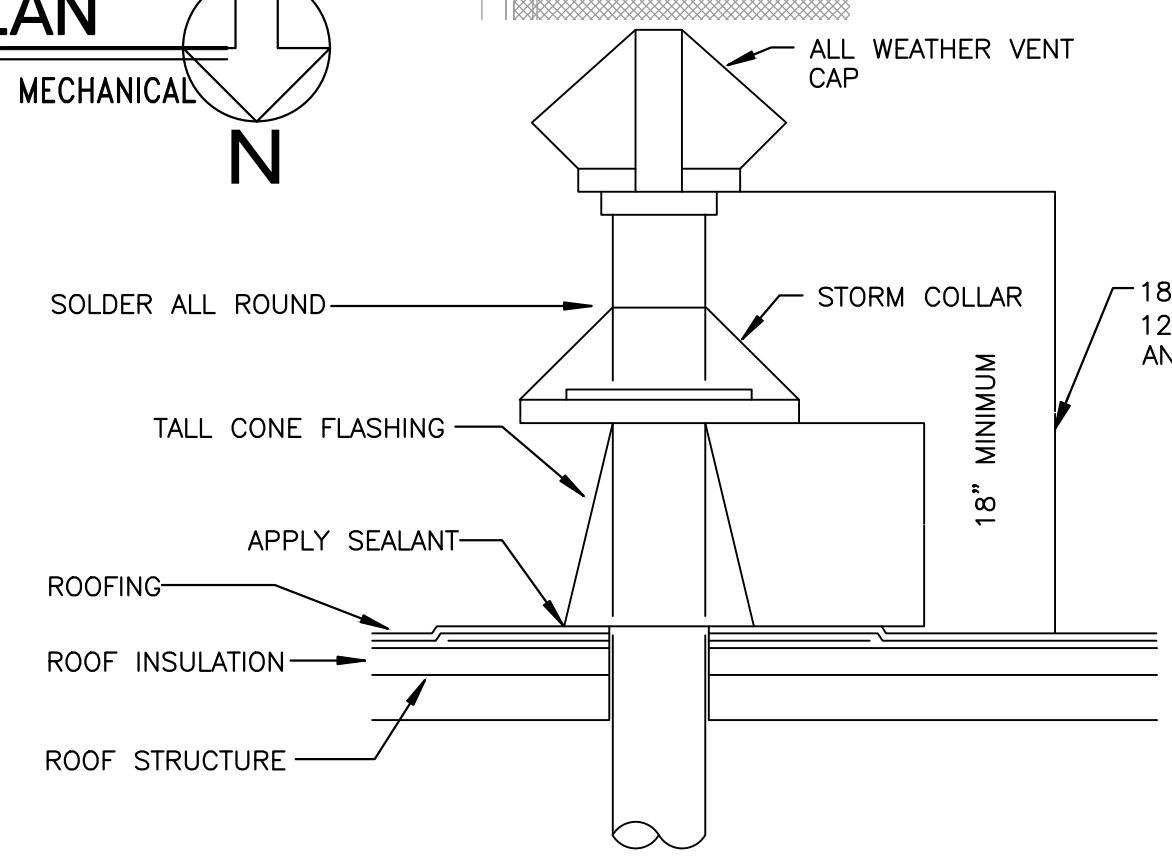
**TRANSFER DUCT DETAIL**

SCALE: NTS

**MECHANICAL OVERALL PLAN**

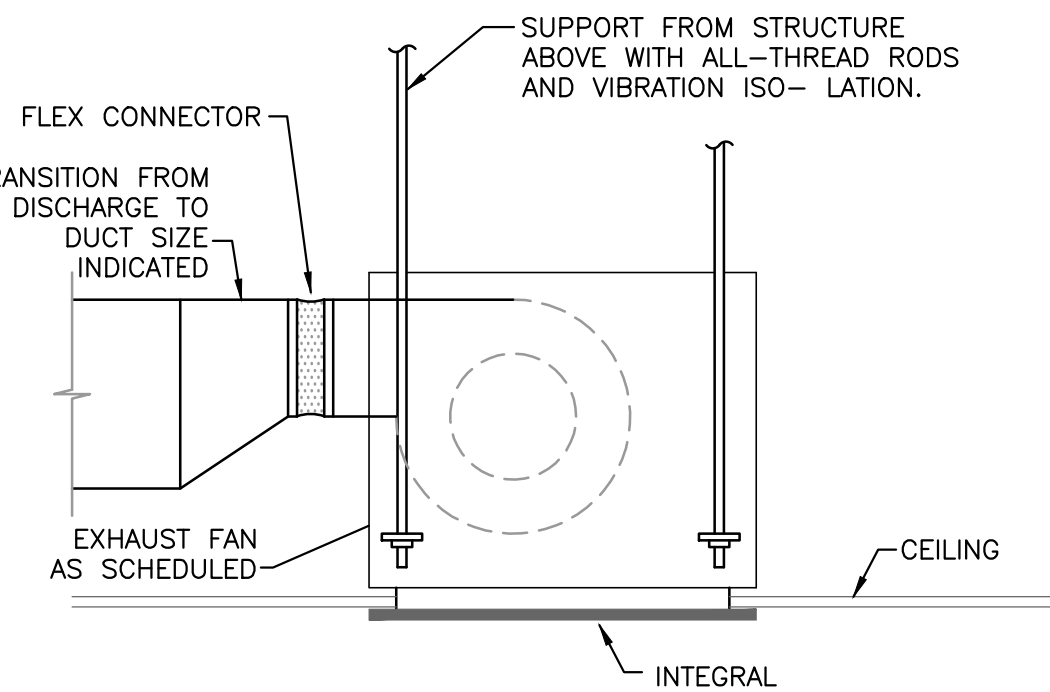


1 N.T.S.



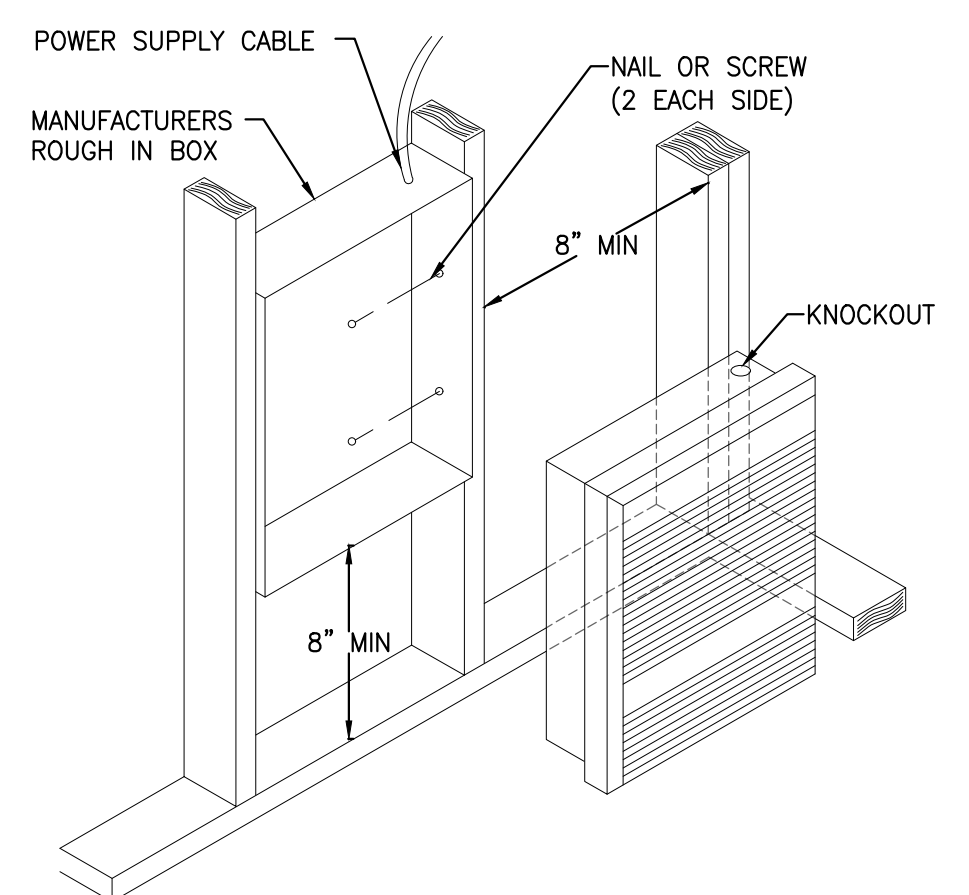
**DUCT THRU ROOF DETAIL**

SCALE: NTS



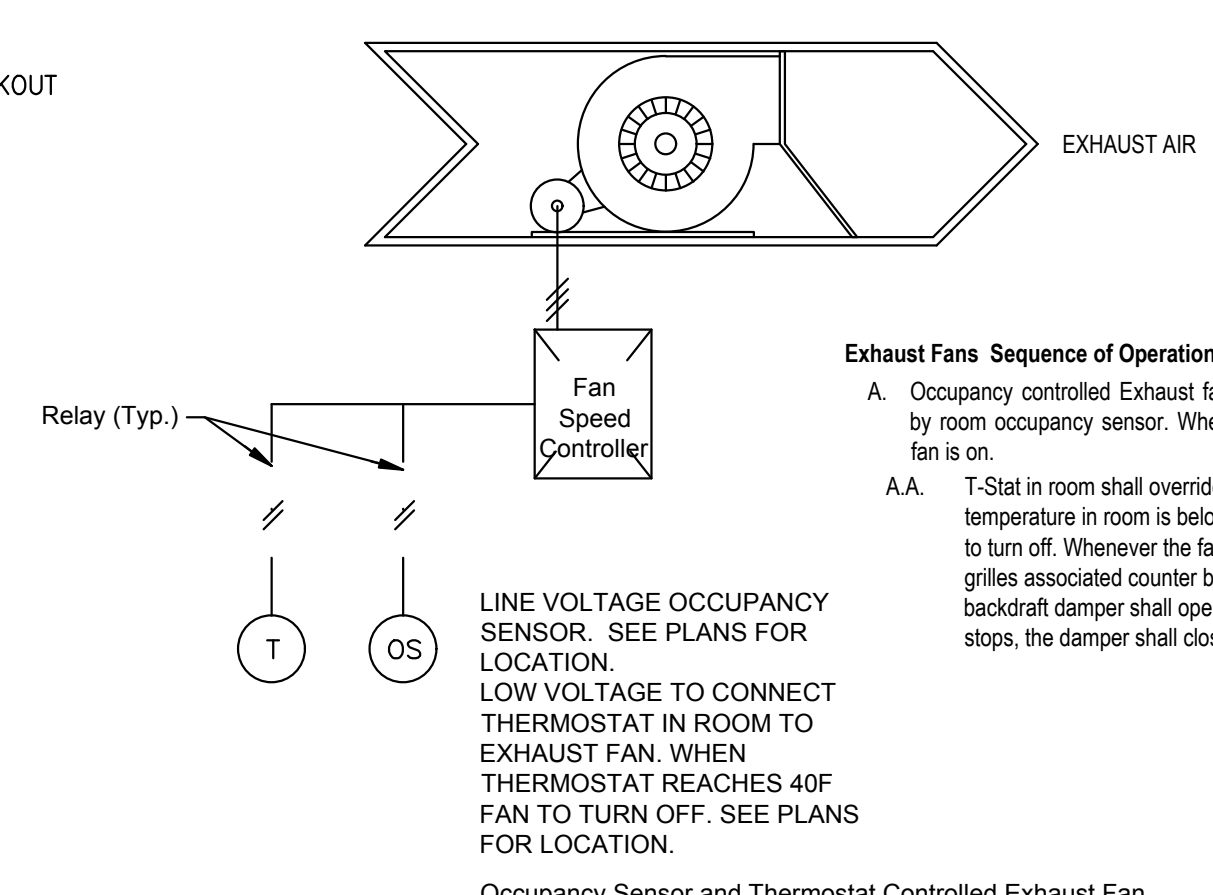
**TYPICAL CABINET EXHAUST FAN DETAIL**

SCALE: NTS



**ELECTRIC WALL HEATER DETAIL**

SCALE: NTS

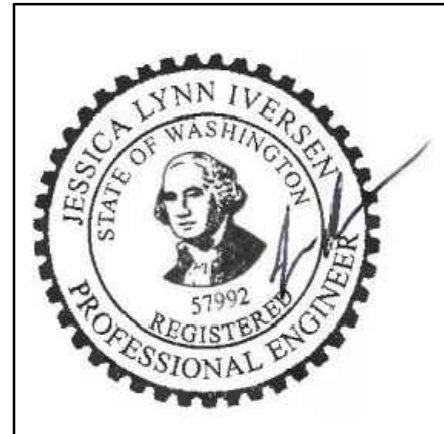


**EXHAUST FAN CONTROL DIAGRAM**

SCALE: NTS

**WARE MALCOMB**  
 ARCHITECTURE  
 PLANNING  
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PRCT120241512

**MECHANICAL PLANS, SCHEDULES, & DETAILS**

REVISIONS  
 ISSUE FOR PLAN CHECK SUBMITTAL

DATE: 02/26/24

PA/PM: JLI  
 DRAWN BY: NW, BD, JC  
 JOB NO.: SEA24-0053-00

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**M-1**

ELECTRICAL SPECIFICATIONS

A. GENERAL REQUIREMENTS

1. SCOPE OF WORK
FURNISH AND INSTALL A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE CONTRACT DRAWINGS...

2. MISCELLANEOUS SUPPORTING MEMBERS
THE INSTALLATION OF ANGLES, CHANNELS, AND OTHER MISCELLANEOUS STEEL, BOLTS, ETC. REQUIRED TO SUPPORT LIGHT FIXTURES, CONDUIT, RACEWAY, LADDER TRAY, OR OTHER ELECTRICAL EQUIPMENT OR DEVICES SHALL BE COORDINATED WITH THE G.C.

3. EQUAL, SIMILAR TO "GFL" TYPE.
NO OTHER CIRCUITS ARE TO BE RUN IN SAME CONDUIT FEEDING ISOLATED GROUND RECEPTACLES.

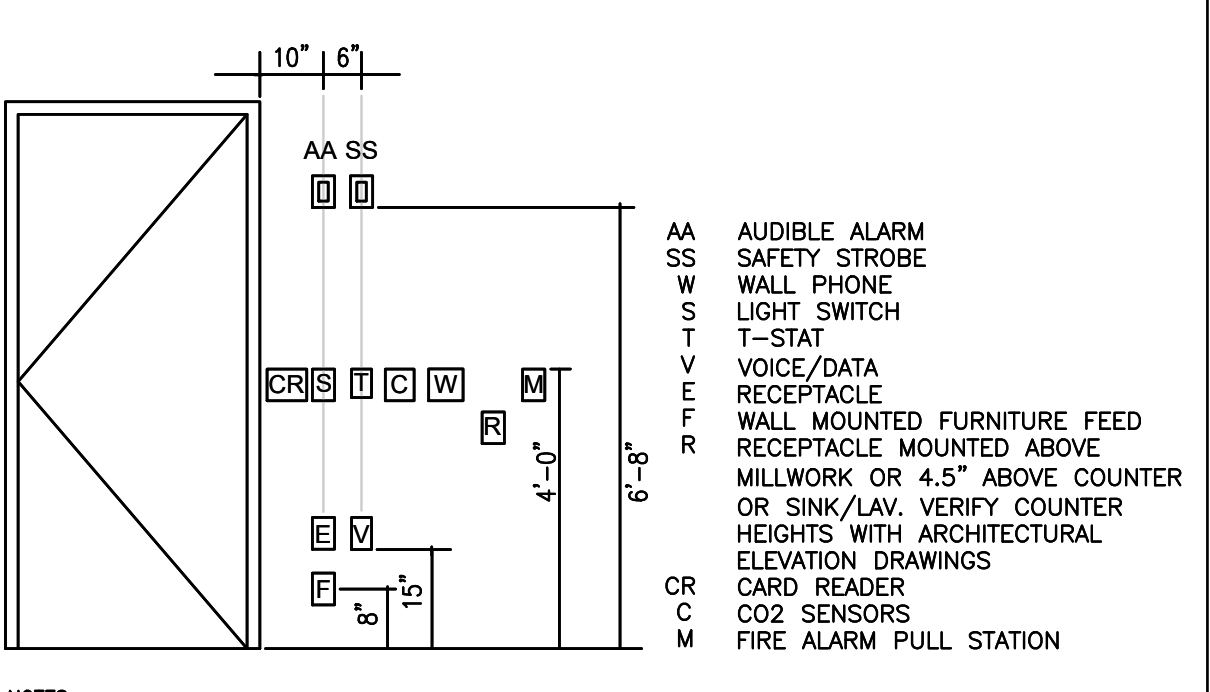
GENERAL DEMOLITION NOTES

1. EACH CONTRACTOR SHALL REVIEW THE EXISTING SYSTEMS IN THE FIELD ALONG WITH BID DOCUMENTS AND DETERMINE SELECTIVE DEMO AND ADDITION OF TEMPORARY SYSTEMS (IF REQUIRED) TO MAKE PHASED DEMO AND PROPOSED RECONSTRUCTION FULLY ASSURE UNINTERRUPTED SAFE OPERATION OF AREAS THAT ARE AFFECTED BY DEMO AND ADDITION OF PROPOSED SYSTEMS AT ALL TIMES...

GENERAL NOTES

1. THIS INSTALLATION SHALL BE IN COMPLIANCE WITH THE ADOPTED NEC AND ALL APPLICABLE LOCAL CODES.
2. BEFORE COMMENCING WORK THE CONTRACTOR SHALL VISIT THE JOB SITE TO FULLY INFORM HIMSELF OF ALL CONDITIONS THAT AFFECT THE WORK, EXAMINE THE DRAWINGS AND SPECIFICATIONS, AND SUBMIT ANY QUESTIONS IN WRITING TO THE ENGINEER.

MOUNTING HEIGHTS



NOTES:
1. ALL HEIGHTS FOR OUTLETS ARE TO TOP OR BOTTOM OF DEVICE (UNLESS OTHERWISE INDICATED) COORDINATE WITH ARCHITECTURAL DRAWINGS. WHERE DIFFERENCES EXIST, USE ARCHITECTURAL MOUNTING HEIGHTS.

ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes WP (Weather Proof), W (Wall Mounted Device), AC (Above the Counter), N (New), X (Existing to Remain), C (Ceiling Mounted Device), NL (Night Light), WH (Tank Gas Water Heater), EWH (Instantaneous Electric Water Heater), EWC (Electrical Water Cooler), HD (Electric Hand Dryer), AFF (Above Finish Floor).

LEGEND

Table with 2 columns: Symbol and Description. Includes X (Existing Fixture to Remain), XO (Existing to be Removed), XRL (Existing to be Relocated), XRC (Existing to be Re-Circuited), XRP (Existing to be Replaced with New), XRPC (Existing to be Replaced with New & Re-Circuited), XRLC (Existing to be Relocated & Re-Circuited), N (New Fixture), XNC (Existing Fixture on New Circuit), XNP (Existing Location with New Fixture), XNFC (Existing Location with New Fixture & Circuit), XNLC (Existing Fixture in New Location & on New Circuit).

ELECTRICAL SYMBOL LIST

Table with 2 columns: Symbol and Description. Includes # (Duplex Receptacle), # (Ground Fault Circuit Interrupter Duplex Receptacle), WP (Ground Fault Circuit Interrupter, Weatherproof in Use Cover), # (Above Counter Duplex Receptacle, Mount at +42" AFF unless noted otherwise), # (Heavy Duty Disconnect Switch), # (Junction Box), # (Card Reader), # (Dual Tech Wall Mounted Occupancy Sensor with Auto-On/Auto-Off Function), # (Toggle Switch), # (Ceiling Mounted Occupancy Sensor (15 Minute Setting)), # (Conduit Concealed in Wall/Above the Ceiling), # (Universal Mounted (Ceiling/Wall) Exit Sign with Chevrons), # (Security Door Contact (Prepare Door, Rough-In Only up to Above Accessible Ceiling)), # (Single Pole Disconnect Switch Toggle Style).

ELECTRICAL DRAWING LIST

Table with 2 columns: Symbol and Description. Includes E-0 (Electrical General Notes, Symbols, Legends, and Specifications), E-1 (Electrical Plans and Schedules).

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COSTCO WHOLESALE logo

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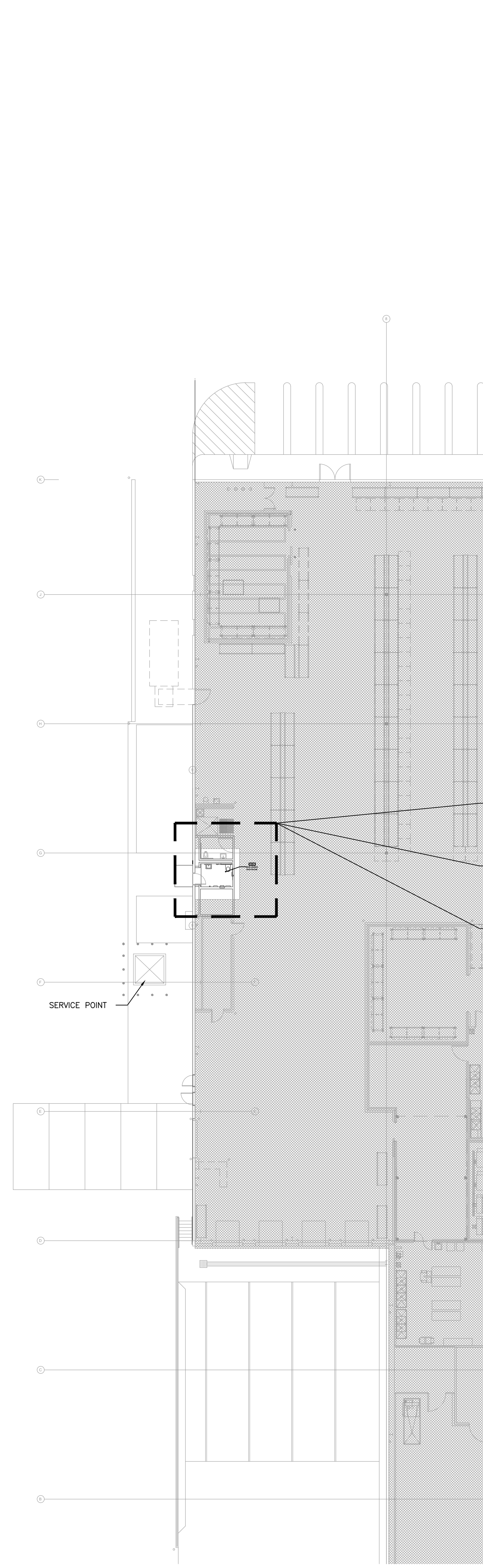
ELECTRICAL GENERAL NOTES, SYMBOLS, AND LEGENDS
ISSUE FOR PLAN CHECK SUBMITTAL
08.26.2024

ISSUE FOR PLAN CHECK SUBMITTAL
08.26.2024

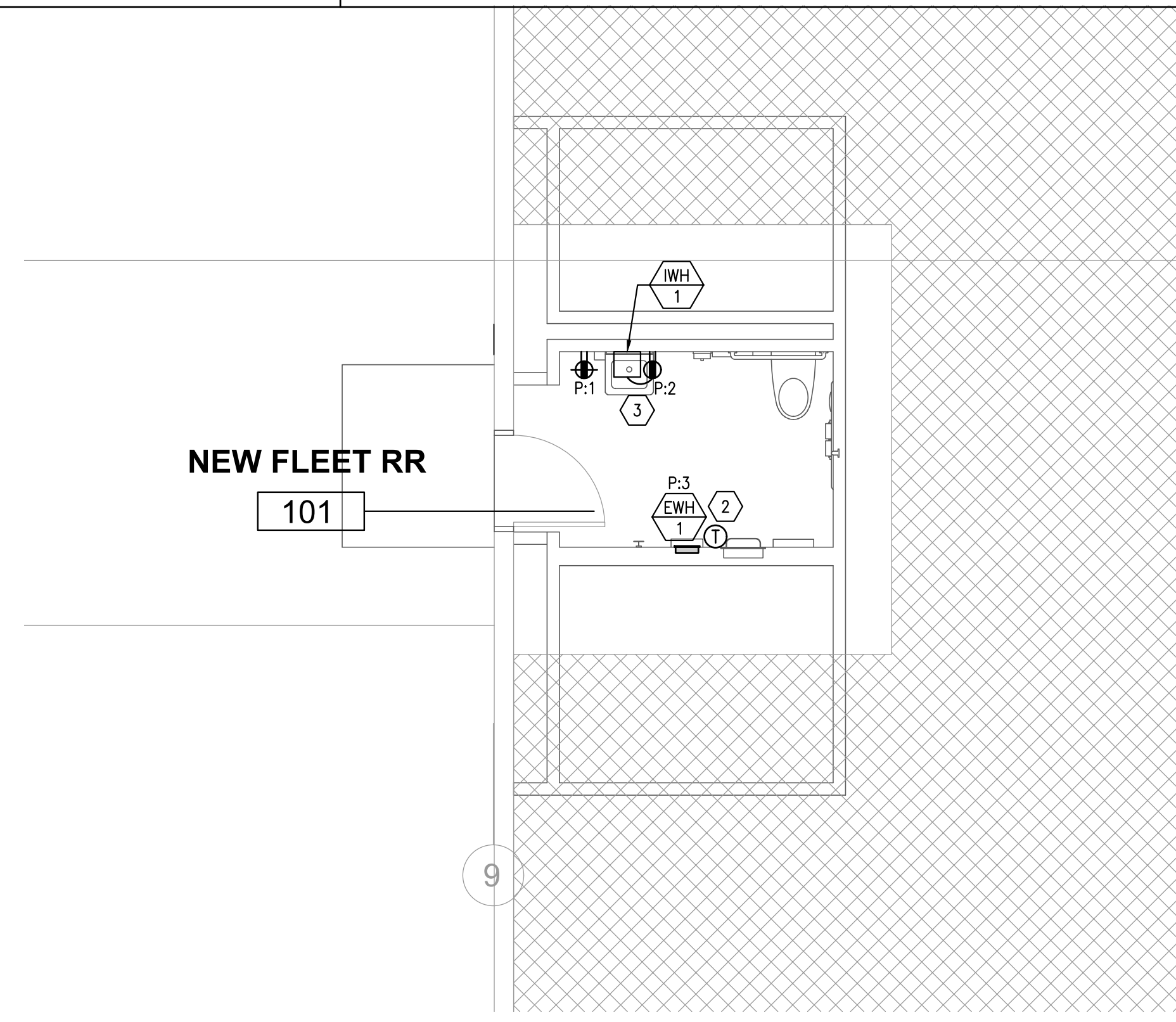
rtm engineering consultants
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Bellevue, WA 98007
rtmasociates.com | 847.756.4180

E-O logo

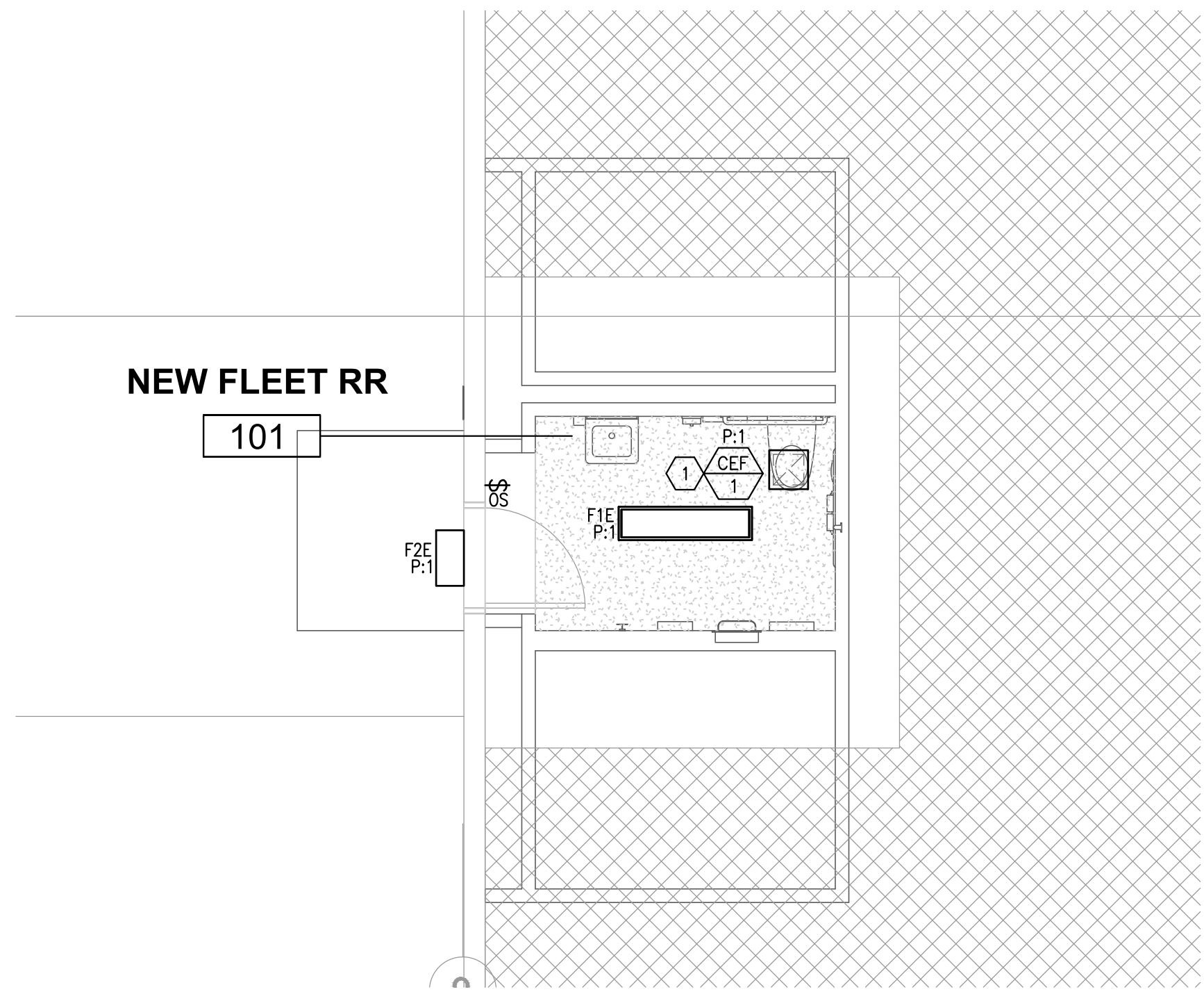
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY AND COPYRIGHT OF WARE MALCOMB AND SHALL NOT BE USED ON ANY OTHER WORK EXCEPT BY AGREEMENT WITH WARE MALCOMB. WRITTEN PERMISSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND SHALL BE REFERRED TO THE JOB SITE. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF ANY WORKER IMMEDIATELY UPON DISCOVERY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO THE COMMENCEMENT OF ANY WORK.



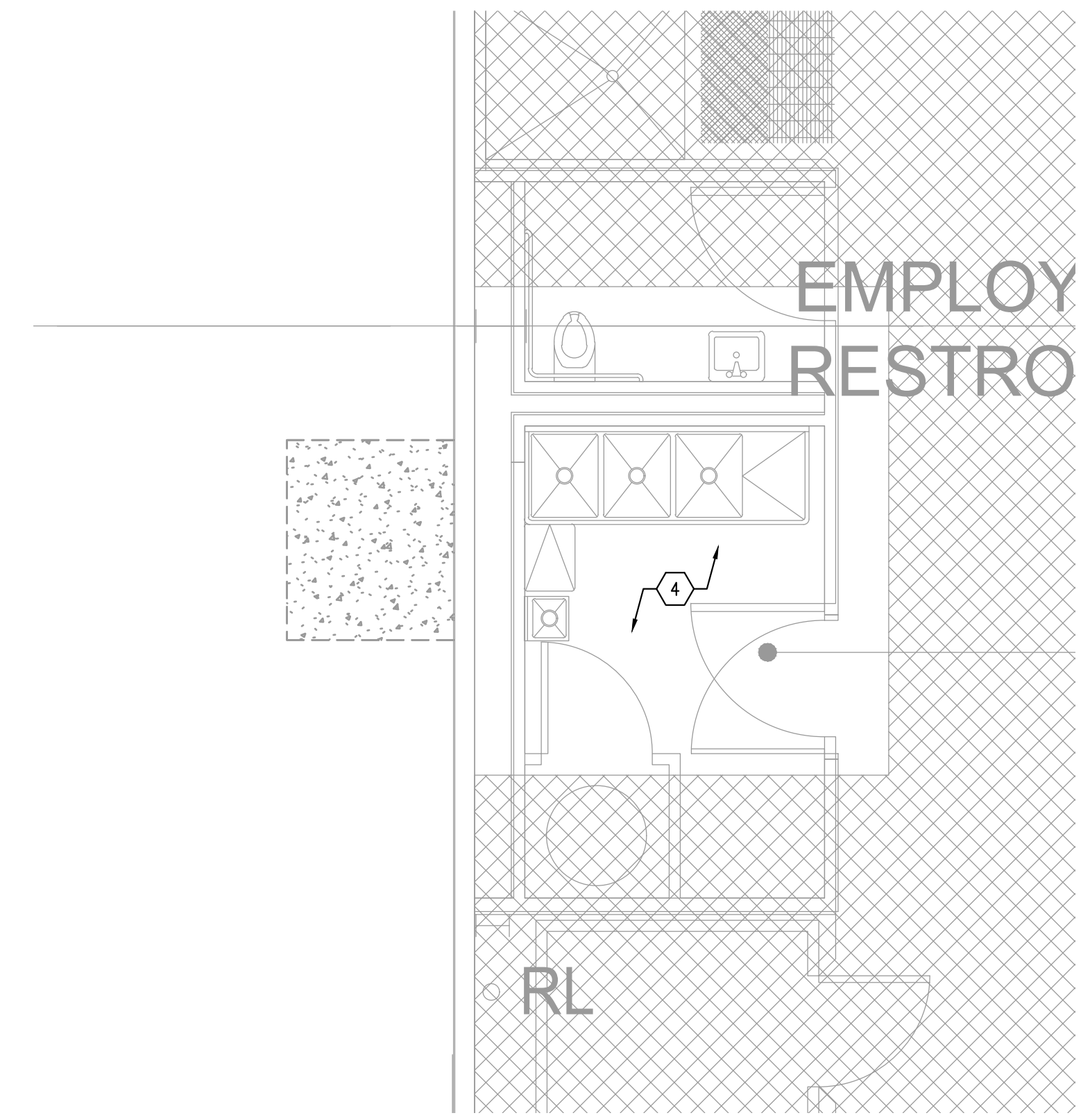
**1 ELECTRICAL OVERALL PLAN**  
N.T.S.



**2 ELECTRICAL ENLARGED - POWER AND DATA PLAN**  
1/4" = 1'-0"



**3 ELECTRICAL ENLARGED - LIGHTING PLAN**  
1/4" = 1'-0"



**4 ELECTRICAL ENLARGED - DEMOLITION PLAN**  
1/4" = 1'-0"

**MECHANICAL EQUIPMENT CONNECTION SCHEDULE**

TAG	DESCRIPTION	LOAD	WIRE/CONDUIT	STARTER/DISCONNECT/OCD	VOLTAGE	FEED	LOCAL DISCONNECT	REMARKS
CEP 1	EXHAUST FAN	45.7 W	2#12 AWG 1#12C AWG EQ. GND 3/4"	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC	120V 1#	REFER TO CIRCUIT LISTING SCHEDULE	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED <input type="checkbox"/> THERMAL SWITCH, 120V,1#	DISCONNECT PROVIDED WITH EXHAUST FAN
EWH 1	ELECTRIC WALL HEATER	1000 W	2#12 AWG 1#12C AWG EQ. GND 3/4"	<input type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC	120V 1#	REFER TO CIRCUIT LISTING SCHEDULE	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED <input type="checkbox"/> THERMAL SWITCH, 120V,1#	DISCONNECT PROVIDED BY MC, INSTALLED BY EC. DISCONNECT TO BE LOCKABLE TYPE.
IWH 1	INSTANTANEOUS WATER HEATER	1400 W	2#12 AWG 1#12C AWG EQ. GND 3/4"	<input type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC	120V 1#	REFER TO CIRCUIT LISTING SCHEDULE	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED <input type="checkbox"/> THERMAL SWITCH, 120V,1#	IWH IS PROVIDED WITH PLUG-IN POWER CORD.

**EQUIPMENT CONNECTION SCHEDULE GENERAL NOTES:**

- PROVIDE POWER CONNECTIONS TO ALL ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND OWNER FURNISHED EQUIPMENT. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR LOCATIONS AND POWER REQUIREMENTS. VERIFY ALL TECHNICAL DATA WITH FINAL SHOP DRAWINGS.
- OVER CURRENT PROTECTION SIZES LISTED ARE FROM MANUFACTURER'S AND STANDARD MOTOR DATA, FURNISH FUSES BASED ON FUSE MANUFACTURER'S STANDARDS, ACTUAL FIELD MEASURED FULL LOAD CURRENT, AND EQUIPMENT MANUFACTURER'S REQUIREMENTS.
- FLEXIBLE CONNECTIONS TO MOTORS SHALL BE IN FLEXIBLE CONDUIT. PROVIDE COPPER EQUIPMENT GROUND FROM DISCONNECT TO MOTOR CONNECTION.

**EQUIPMENT CONNECTION SCHEDULE KEY NOTES:**

- VERIFY FINAL LOCATION OF ALL EQUIPMENT WITH EQUIPMENT INSTALLER BEFORE INSTALLING FEEDERS.
- SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR MORE INFORMATION.
- SIZE STARTER/FEEDER DISCONNECT PER FINAL EQUIPMENT REQUIREMENTS.
- PROVIDE FEEDER AS INDICATED, VERIFY WITH EQUIPMENT REQUIREMENTS.
- PROVIDE OVERLOAD PROTECTION (FUSES OR MOTOR CIRCUIT PROTECTOR) PER SPECIFICATIONS, ACTUAL FIELD MEASURED FULL LOAD CURRENT, AND EQUIPMENT MANUFACTURER'S REQUIREMENTS.
- VERIFY FINAL VOLTAGE AND PHASE REQUIREMENTS OF ALL EQUIPMENT WITH INSTALLER BEFORE INSTALLING FEEDERS.
- COORDINATE SHORT CIRCUIT OCD RATING WITH FINAL EQUIPMENT REQUIREMENTS.
- EC TO PROVIDE LOCAL DISCONNECT WITHIN 5'-0" OF EQUIPMENT.
- NON-STANDARD ITEMS, TIMERS, METERS, INTERLOCKS, ETC.

**LIGHTING FIXTURE SCHEDULE**

TYPE	SYMBOL	FIXTURE	VOLTS	LAMPS		MOUNTING		MANUFACTURER & CATALOG # OR APPROVED EQUAL	DESCRIPTION
				TYPE	WATT	LOCATION	HEIGHT		
F1E		LED	120/277V	32.4W LED	32.4W	RECESSED IN CEILING	SEE ARCH RCP	LITHONIA LIGHTING LBL4 4000LM 80CRI 40K MINI ZT MVOLT ETWOLCP	CEILING-MOUNTED STRIP LIGHTING WITH INTEGRAL 90-MINUTE BATTERY BACK-UP. SET COLOR TEMPERATURE 40K AND WATTAGE TO 32W.
F2E		LED	120/277V	25W LED	25W	SURFACE	SEE ARCH RCP	LITHONIA LIGHTING WST LED P2 40K VW MVOLT PHR1FC3V E20WC DOBXD	EXTERIOR WALL PACK WITH 90-MINUTE BATTERY BACK-UP AND INTEGRAL PHOTOCELL & OCCUPANCY SENSOR.

**LIGHTING FIXTURE SCHEDULE NOTES**

- INSTALLATION OF LIGHTING FIXTURES SHALL BE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODE REQUIREMENTS.
- ALL LIGHT FIXTURES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
- COORDINATE ALL MOUNTING HEIGHTS WITH ARCHITECT.

**120/208V PANELBOARD SCHEDULE CIRCUIT LISTING**

NUMBER*	QCP SIZE	POLES	VOLTAGE	WATTAGE
P-1	20A	1P	120V	271W RECEPTACLES, LIGHTING, EF-1
P-2	20A	1P	120V	1400W IWH-1, AUTO-FAUCET
P-3	20A	1P	120V	1000W EWH-1

\* E.C. SHALL VERIFY EXACT CIRCUIT NUMBERS. THESE CIRCUIT NUMBERS ARE PROVIDED FOR REFERENCE ONLY. VERIFY SPARE CIRCUITS/EMPTY CIRCUIT IN FIELD. BALANCE LOAD BETWEEN PHASES SO AS NOT TO EXCEED +/-5%. VERIFY THAT PANEL IS NEVER LOADED OVER 80%.

**GENERAL NOTES**

- SEE SHEET E-0 FOR DEMOLITION & GENERAL NOTES.
- ELECTRICAL DEVICES ARE NEW, UNLESS NOTED OTHERWISE.
- LIGHTING FIXTURES ARE NEW, UNLESS NOTED OTHERWISE.
- FOR ALL ROOMS WITH OCCUPANCY SENSORS, CONTRACTOR SHALL PROVIDE ALL REQUIRED SENSORS, POWERPACKS, RELAYS, OVERRIDE SWITCHES, ETC. TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
- EMERGENCY BATTERY PACKS SHALL BE CIRCUITED TO LOCAL CIRCUIT AHEAD OF SWITCHING AND CONTROLS.
- REFER TO FIRE ALARM AND FIRE PROTECTION DESIGN SPECIFICATIONS FOR ALL REQUIRED ROUGH-INS, CONDUIT, AND REQUIRED POWER (IF APPLICABLE). FIELD-COORDINATE FIRE ALARM AND FIRE PROTECTION DEVICES AND REQUIREMENTS WITH GENERAL CONTRACTOR.

**KEY NOTES**

- EXHAUST FAN TO BE CONTROLLED WITH LIGHTING VIA OCCUPANCY SENSOR.
- PROVIDE 1/2" CONDUIT AND PULL STRING ALONG WITH BACKBOX FOR MECHANICAL CONTROLS. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE GFCI DUPLEX RECEPTACLE UNDER SINK AT +22" AFF FOR PLUG-IN CORD PROVIDED WITH IWH-1 AND FOR POWERED FAUCET. E.C. SHALL INSTALL AND MAKE ALL FINAL CONNECTIONS FOR POWERED FAUCET VALVE, INCLUDING LOW VOLTAGE WIRING.
- ALL ELECTRICAL DEVICES, LIGHTING FIXTURES, AND EQUIPMENT LOCATED ON WALLS OR CEILINGS WHICH ARE TO BE REMOVED SHALL BE REMOVED UNLESS NOTED OTHERWISE. RECONNECT EXISTING CIRCUITS AND WIRING AS NECESSARY SO THAT FIXTURES AND DEVICES OUTSIDE OF THE SCOPE OF WORK REMAIN OPERATIONAL.

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**ELECTRICAL PLANS**

DATE	REVISIONS	ISSUE FOR PLAN CHECK SUBMITTAL
02/22/2024		

PA/PM:	JLI
DRAWN BY:	NW, BD, JC
JOB NO.:	SEA24-0053-00

**E-1**

**rtm**  
engineering consultants  
2800 156th Ave Southeast, Suite 115  
Bellevue, WA 98007  
rtmassociates.com | 847.756.4180

**PLUMBING SYMBOLS**

ANNOTATION		PIPING	
<p>CONNECTION POINT OF NEW WORK TO EXISTING</p> <p>DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER</p>		<p>EXISTING TO REMAIN DOMESTIC COLD WATER (CW)</p> <p>EXISTING TO REMAIN HOT WATER (HW)</p> <p>EXISTING TO BE DEMO HOT WATER (HW)</p> <p>NEW HOT WATER</p> <p>NEW HOT WATER RETURN</p> <p>EXISTING TO BE DEMO SANITARY (SAN)</p> <p>NEW SANITARY (SAN)</p> <p>EXISTING TO REMAIN VENT (V)</p> <p>EXISTING TO BE DEMO VENT (V)</p> <p>NEW VENT (V)</p>	
<p>STANDARD MOUNTING HEIGHTS</p> <p>PLUMBING (AFF, AFG, UNLESS NOTED OTHERWISE) REFER/COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE MOUNTING HEIGHTS. UNO, INSTALL PLUMBING FIXTURES WITH THE MOUNTING HEIGHTS AS LISTED BELOW WITH FINAL APPROVAL BY THE ARCHITECT.</p>		<p>SQUARE FLOOR DRAIN (FS), SIZE &amp; TYPE</p> <p>ROUND FLOOR DRAIN (FD), SIZE &amp; TYPE</p> <p>BALL VALVE</p> <p>CONTROL VALVE</p> <p>GATE VALVE</p> <p>CHECK VALVE</p> <p>BALANCING VALVE WITH PRESSURE PORTS</p> <p>WATER METER</p> <p>STRAINER</p> <p>STRAINER WITH BLOWOFF</p> <p>PRESSURE REDUCING VALVE</p> <p>GAS PRESSURE REGULATOR</p> <p>THERMOSTATIC MIXING VALVE</p> <p>BACKFLOW PREVENTER</p> <p>PRESSURE GAUGE</p> <p>THERMOMETER</p> <p>UNION</p> <p>FLANGE CONNECTION</p> <p>CLEANOUT</p> <p>WALL CLEANOUT (WCO)</p> <p>FLOOR CLEANOUT (FCO)</p> <p>EXTERIOR CLEANOUT (ECO)</p> <p>ELBOW UP</p> <p>ELBOW DOWN</p> <p>TEE UP</p> <p>TEE DOWN</p> <p>ELBOW UP WITH SHUT-OFF VALVE (SOV)</p> <p>ELBOW DOWN WITH SHUT-OFF VALVE (SOV)</p> <p>TEE UP WITH SHUT-OFF VALVE (SOV)</p> <p>TEE DOWN WITH SHUT-OFF VALVE (SOV)</p> <p>WATER HAMMER ARRESTER (WHA) WITH PDI SIZES, (A, B, C, D, &amp; E)</p> <p>RECIRCULATION PUMP</p> <p>P-TRAP</p> <p>TRAP PRIMER</p> <p>TRAP PRIMER WITH DISTRIBUTION UNIT</p>	
<p>ADA ACCESSIBLE LAVATORIES 34" FLOOR TO RIM</p> <p>ADA ACCESSIBLE WATER CLOSET 17" TO 19" FLOOR TO TOP OF SEAT</p> <p>LAVATORY OR SINK 34" FLOOR TO RIM</p> <p>WATER CLOSET 15" FLOOR TO RIM</p>			
<p><b>ABBREVIATIONS</b></p> <p>AFF ABOVE FINISHED FLOOR</p> <p>AFO ABOVE FINISHED GRADE</p> <p>AHU AIR HANDLING UNIT</p> <p>BFF BELOW FINISHED FLOOR</p> <p>BFG BELOW FINISHED GRADE</p> <p>BFP BACK FLOW PREVENTOR</p> <p>BOP BOTTOM OF PIPE</p> <p>BOS BOTTOM OF STRUCTURE</p> <p>BTU BRITISH THERMAL UNIT</p> <p>BV BALL VALVE</p> <p>CPVC CHLORINATED POLYVINYL CHLORIDE</p> <p>CK CHECK VALVE</p> <p>CO CLEAN OUT</p> <p>DN DOWN</p> <p>DFU DRAINAGE FIXTURE UNIT</p> <p>ETR EXISTING TO REMAIN</p> <p>FCO FLOOR CLEAN OUT</p> <p>FFA FROM FLOOR ABOVE</p> <p>FFB FROM FLOOR BELOW</p> <p>FF FINISHED FLOOR</p> <p>FLR FLOOR</p> <p>GPM GALLONS PER MINUTE</p> <p>HD HEAD, HUB DRAIN</p> <p>JB JUNCTION BOX</p> <p>J-BOX JUNCTION BOX</p> <p>KW KILOWATT</p> <p>MAX MAXIMUM</p> <p>MBH 1000 BTU PER HOUR</p>		<p>MIN MINIMUM</p> <p>PVC POLYVINYL CHLORIDE</p> <p>PRV PRESSURE REDUCING VALVE</p> <p>RTU ROOFTOP UNIT</p> <p>SF SQUARE FEET, SUPPLY FAN</p> <p>SP SUMP PUMP</p> <p>SS STAINLESS STEEL, SANITARY</p> <p>SEWER, SOIL STACK</p> <p>TYP TYPICAL</p> <p>UL UNDERWRITERS LABORATORIES, INC.</p> <p>UNO UNLESS NOTED OTHERWISE</p> <p>V VOLT(S)</p> <p>VB VACUUM BREAKER</p> <p>VS VENT STACK</p> <p>VTR VENT THROUGH ROOF</p> <p>W/O WITHOUT</p> <p>WC WATER COLUMN</p> <p>WCO WALL CLEANOUT</p> <p>WS WASTE STACK</p> <p>WSPU WATER SUPPLY FIXTURE UNIT</p>	

**PLUMBING GENERAL NOTES:**

- DRAWINGS ARE DIAGRAMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- FURNISH A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE OWNER REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS PREPARED BY THE ENGINEER-OF-RECORD AFTER FINAL INSPECTION OF INSTALLED PLUMBING SYSTEMS.
- FURNISH TO THE OWNER A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS.
- PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.
- DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.
- VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.
- PIPING IN FINISHED AREAS SHALL BE ROUTED CONCEALED; EXPOSED PIPING, WHERE NECESSARY, SHALL BE ROUTED AS HIGH AS POSSIBLE AND TIGHT TO WALLS.
- COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS. COORDINATE SLEEVE INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED.
- CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.
- COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT ROUTE PIPING OVER ELECTRICAL PANELS.
- PAINT ALL EXPOSED GAS PIPING USING RUST INHIBITOR PAINT. PAINT AND COLOR SHALL BE COORDINATED WITH THE ARCHITECT AND / OR OWNER.
- COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10" MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.
- INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS WITH MINIMUM 2" BATT INSULATION TO PREVENT FREEZING. ALL COLD WATER LINES SHALL BE INSULATED WITH MINIMUM OF 3/4" FIBERGLASS INSULATION WITH VAPOR BARRIER. ALL HOT WATER AND HOT WATER RECIRCULATING LINES SHALL BE INSULATED WITH MINIMUM OF 1" INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER IN/HVSQFT.
- PROVIDE SHIELDED ADAPTER COUPLINGS FOR CONNECTION OF PVC DMV TO CAST IRON AT SLAB ON GRADE. SEE DIVISION 15 SPECIFICATION SECTION "DRAINAGE AND VENT SYSTEMS" FOR MORE INFORMATION.
- WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE.
- PROVIDE CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK FAUCETS DOWNSTREAM OF SHUTOFF VALVES.
- PROVIDE ACCESS PANEL FOR VALVES IN INACCESSIBLE CEILING. COORDINATE EXACT LOCATION OF ACCESS PANELS WITH ARCHITECT.
- EXPOSED HOT WATER PIPES AND DRAINPIPES UNDER HANDICAPPED ACCESSIBLE LAVATORIES SHALL BE CONFIGURED OR INSULATED TO PROTECT AGAINST CONTACT.
- RPZ SHALL BE INSTALLED IN THE POTABLE WATER SUPPLY TO EACH LOCATION WHERE SANITIZING CHEMICALS OR DETERGENTS WILL BE ASPERATED OR PUSHED BY WATER PRESSURE INTO CLEANSING/SANITIZING OPERATION.
- DRAINAGE AND VENT SYSTEM SHALL BE PRESSURE TESTED WITH WATER OR AIR.
- ALL RPZ ASSEMBLIES SHALL BE TESTED AND APPROVED BY A CROSS CONNECTION CONTROL DEVICE INSPECTOR BEFORE INITIAL OPERATION. RECORDS TO VERIFY THIS TESTING SHALL BE AVAILABLE ON SITE.
- ALL PENETRATIONS OF FLOOR/CEILING ASSEMBLIES SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.
- ALL DRY VENTS SHALL RISE VERTICALLY TO A MINIMUM OF 6 INCHES ABOVE THE FLOOR LEVEL RIM OF THE HIGHEST TRAP OR TRAPPED FIXTURE BEING VENTED.

**PLUMBING SPECIFICATIONS**

- STANDARDS AND CODES:**
- A. GENERAL: THE WORK SHALL COMPLY WITH OR EXCEED THE REFERENCED STANDARDS AND CODES. ANY WORK WHICH CAN NOT MEET THE REFERENCED STANDARD AND CODES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR HIS WRITTEN APPROVAL BEFORE PROCEEDING WITH THE WORK.
- B. CODES: THE WORK SHALL COMPLY WITH THE FOLLOWING CODES:
- 2018 WASHINGTON PLUMBING CODE.
  - LOCAL GOVERNING BODIES HAVING JURISDICTION.
- C. STANDARDS: THE WORK SHALL COMPLY WITH THE FOLLOWING STANDARDS:
- ANSI AMERICAN NATIONAL STANDARDS
  - INSTITUTE OF AMERICAN SOCIETY OF SANITARY ENGINEERS
  - ASTM AMERICAN SOCIETY OF TESTING AND MATERIALS
  - AWWA AMERICAN WATER WORKS ASSOCIATION
  - CISPI CAST IRON SOIL PIPE INSTITUTE
  - NSF NATIONAL SANITATION FOUNDATION UNDERWRITER LABORATORIES
  - UL AMERICAN SOCIETY OF MECHANICAL ENGINEERS
  - NFPA NATIONAL FIRE PROTECTION ASSOCIATION
  - NEMA NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION
  - CS COMMERCIAL STANDARDS
- INSULATING ADAPTERS:**
- PROVIDE SWEAT-TO-SCREW INSULATING ADAPTERS AT JUNCTURE OF COPPER TO STEEL PIPE AND INSULATING BUSHINGS FOR FLANGED CONNECTIONS TO STEEL OR CAST IRON VALVES AND FITTINGS.
- BALL VALVES:**
- A. SIZE, 2-1/2" AND SMALLER: 400LB WOG, TWO-PIECE CAST BRONZE BODY, SREWED OR SOLDERED ENDS, CHROME PLATED BRAS BALL, TEFLON BALL AND FLANGE SEALS, ROD SILICON BRASS STEM, TEFLON AND VICTON "O" RING STEM SEALS, ZINC PLATED CARBON STEEL HANDLE WITH VINYL GRIP AND BRASS HANDLE NUT.
- APOLLO, STOCKHAM OR NIBCO
- SUBMITTALS:**
- A. SHOP DRAWINGS: SUBMIT FOR ENGINEER'S REVIEW, ONE SEPA AND TWO PRINTS OF ALL PIPING LAYOUTS AND DETAILS. DRAWINGS SHALL CONSIST OF THE FOLLOWING:
- PIPING (FLOOR) LAYOUTS IN PLAN DRAWN TO A MINIMUM SCALE OF 1/8" = 1'-0" WITH EQUIPMENT ROOM ARRANGEMENTS AND SITE REINFORCED CONCRETE STRUCTURES DRAWN TO A MINIMUM SCALE OF 1/4" = 1'-0".
  - SLEEVE PLACEMENT LOCATION, MINIMUM SCALE OF 1/8" = 1'-0" IN PLAN AND ELEVATION DIMENSION FROM CENTERLINE OF BUILDING COLUMN OR FACE OF MAJOR STRUCTURAL ELEMENTS.
- B. RECORD DOCUMENTS: SUBMIT THE FOLLOWING FOR ENGINEER'S INFORMATION, FURNISHED DRAWINGS TEST AND INSPECTION REPORTS WITNESSED BY THE OWNER'S REPRESENTATIVE AND OTHER AUTHORITY OF JURISDICTION, AND RECORD DRAWINGS INDICATING THE WORK AS ACTUALLY CONSTRUCTED.

- RECORD DRAWINGS:**
- MAINTAIN A COMPLETE AND ACCURATE RECORD OF ALL CHANGES OR DEVIATIONS TO THE CONTRACT DOCUMENTS AND SHOP DRAWINGS IN THE CONTRACTOR'S FIELD OFFICE. SUCH RECORD COPY SHALL INDICATE THE WORK AS ACTUALLY CONSTRUCTED AND BE AVAILABLE FOR ARCHITECT AND OWNER REVIEW. REPRODUCIBLE DRAWING BACKGROUND SHALL BE FURNISHED TO THE CONTRACTOR BY THE ARCHITECT. TURN OVER AS-BUILT DRAWING TO BUILDING MANAGEMENT/BUILDING ENGINEER UPON COMPLETION OF PROJECT.
- C. OPERATION AND MAINTENANCE MANUALS: SUBMIT FOR OWNER DOCUMENTATION, FURNISH (3) BOUND COPIES OF DATA COVERING MODEL, RATINGS AND CAPACITIES FOR EACH ITEM OF EQUIPMENT OR DEVICE. IF THE LANGUAGE OR INTENT OF ANY ACCEPTANCE DOCUMENT VOIDS, THE WARRANTY PERIOD OR TERMS OF THE FINAL ACCEPTANCE AS STIPULATED IN THE CONTRACT DOCUMENTS, OPERATION AND MAINTENANCE MANUALS FOR THE PIPING BEING ACCEPTED FOR PURPOSES OF BENEFICIAL OCCUPANCY SHALL BE GIVEN TO THE OWNER'S REPRESENTATIVE AT SUCH ACCEPTANCE.
- TESTING - POTABLE WATER:**
- A. AFTER PORTIONS OF THE POTABLE WATER SYSTEM HAS BEEN COMPLETED, THE WORK SHALL BE HYDROSTATICALLY TESTED IN THE PRESENT OF THE ARCHITECT AND OWNER'S REPRESENTATIVES AND OTHER AUTHORITIES OF JURISDICTION. FIVE DAYS NOTICE OF THE TEST SHALL BE GIVEN TO THE ARCHITECT AND OWNER. FURNISH ALL PUMPS, GAGES, INSTRUMENTS, TEST EQUIPMENT AND PERSONNEL REQUIRED FOR THESE TESTS AND MAKE ALL PROVISIONS FOR REMOVAL OF TEST EQUIPMENT.
- B. VENT ALL AIR FROM THE SYSTEM FOR HYDROSTATIC TESTING.
- C. IN THE CASE OF THE HYDROSTATIC TEST WITH WATER, THE TEST PRESSURE SHALL BE 100 PSIG OR 1-1/2" X MAXIMUM WORKING PRESSURE, WHICHEVER IS THE GREATER. TEST PRESSURE SHALL BE HELD WITH NO NOTICEABLE LOSS IN PRESSURE WHICH ALL JOINTS ARE VISUALLY INSPECTED FOR LEAKS. WATER TEMPERATURE SHALL NOT EXCEED 100 DEGREE F.
- FLUSHING:**
- A. BUILDING DOMESTIC COLD WATER AND HOT WATER PIPING SHALL BE CLEANED AND FLUSHED SO AS TO BE FREE OF ALL THREAD CUTTING OIL, THREAD CHIPS, SOLDER RESIDUE, SHAVINGS AND OTHER FOREIGN MATTER. AFTER CLEANING AND FLUSHING, THE PIPING SYSTEM SHALL BE DISINFECTED.
- REMOVE SCREENS FROM ALL IN-LINE STRAINERS EXCEPT THOSE AT PUMP STATION.
  - OPEN ALL CONTROL VALVES TO FULLY OPEN POSITION.
  - FLUSH TO OBTAIN FLOW OF CLEAN WATER.
- DISINFECTION:**
- A. DISINFECT THE DOMESTIC WATER SYSTEM TO THE OWNER'S SATISFACTION, WITH BLEACH OR CHLORINE GAS. AFTER DISINFECTING, FLUSH THE SYSTEM AS HEREIN BEFORE DESCRIBED UNDER FLUSHING.

- TESTING - SOIL, WASTE & VENT:**
- A. GENERAL: AFTER PORTIONS OF DRAINAGE, WASTE AND VENT SYSTEMS ARE COMPLETED, BUT BEFORE FIXTURES ARE SET, TEST THE WORK WITH WATER OR AIR IN THE PRESENCE OF ARCHITECTS AND OWNER'S REPRESENTATIVES AND OTHER AUTHORITIES OF JURISDICTION. GIVE ARCHITECT AND OWNER FIVE DAYS ADVANCE NOTICE OF TESTS. FURNISH PUMPS, COMPRESSOR, GAUGES, INSTRUMENTS, TEST EQUIPMENT AND PERSONNEL REQUIRED FOR TESTS, AND MAKE PROVISIONS FOR REMOVAL OF TEST EQUIPMENT.
- B. WATER TEST: APPLY WATER TEST TO PIPING IN ITS ENTIRETY OR IN SECTIONS. IF APPLIED TO ENTIRE SYSTEM, TIGHTLY CLOSE OPENINGS IN PIPING, EXCEPT THE HIGHEST OPENINGS, AND FILL THE SYSTEM WITH WATER TO THE POINT OF OVERFLOW. IF THE SYSTEM IS TESTED IN SECTIONS, EACH OPENING SHALL BE TIGHTLY PLUGGED, EXCEPT THE HIGHEST OPENING OF THE SECTION UNDER TEST, AND EACH SECTION SHALL BE FILLED WITH WATER, BUT NO SECTION SHALL BE TESTED WITH LESS THAN A 10' HEAD OF WATER. IN TESTING SUCCESSIVE SECTIONS, AT LEAST THE UPPER 10' OF THE NEXT PRECEDING SECTION SHALL BE TESTED, SO THAT NO JOINT OR PIPE IN THE BUILDING (EXCEPT THE UPPERMOST 10' OF THE SYSTEM) SHALL HAVE BEEN SUBMITTED TO A TEST OF LESS THAN 10' HEAD OF WATER. THE WATER SHALL BE KEPT IN THE PIPING OR IN THE PORTION UNDER TEST, FOR AT LEAST 15 MINUTES BEFORE INSPECTION STARTS; THE JOINT SHALL THEN BE TIGHT AT ALL POINTS.
- PLUMBING FIXTURES:**
- FURNISH AND INSTALL PLUMBING FIXTURES INDICATED. FIXTURES TO BE FIRST QUALITY CONNECTED, CLEANED AND READY FOR USE.
  - STOPS TO BE FURNISHED AND INSTALLED ON ALL HOT AND COLD WATER LINES AT FIXTURES.
  - PROVIDE TRAPS AND SUPPLIES WITH STOPS. MAKE ALL FINAL CONNECTIONS TO EACH FIXTURE, FAUCET, TAILPIECE, SINK FRAMES, ETC., FOR ALL FIXTURES.
  - FOR ALL PLUMBING FIXTURES REFER TO THE PLUMBING FIXTURE SCHEDULE ON THE DRAWING.

**PLUMBING SHEET LIST**

P-0	PLUMBING GENERAL NOTES, SYMBOLS, AND LEGENDS
P-1	PLUMBING PLANS

**BASIS OF DESIGN**

PLUMBING SYSTEM WAS DESIGNED BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF DRAWING PREPARATION. PLUMBING CONTRACTOR TO VERIFY THE BELOW ITEMS IN THE FIELD AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING ANY WORK.

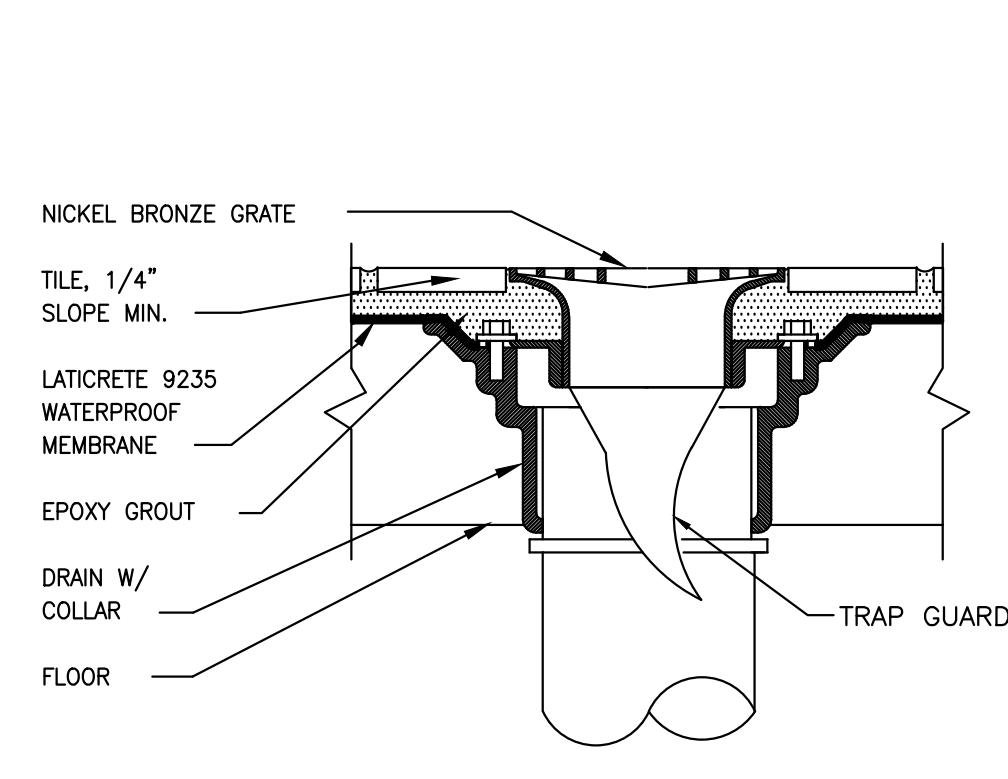
- PRIOR TO START OF WORK PLUMBING CONTRACTOR TO COORDINATE THE NEAREST LOCATION TO CONNECT NEW SANITARY AND VENT LINES INTO EXISTING SANITARY AND COLD WATER LINES.

PROVIDE NECESSARY COMMISSIONING OF THE PLUMBING SYSTEM AND WATER HEATING SYSTEMS PER 2018 WSEC. CONTRACTOR SHALL HAVE A CERTIFIED COMMISSIONING PROFESSIONAL COMPLETE THIS WORK AND SHALL SUBMIT ALL NECESSARY DOCUMENTATION REQUIRED BY THE LOCAL AHA.

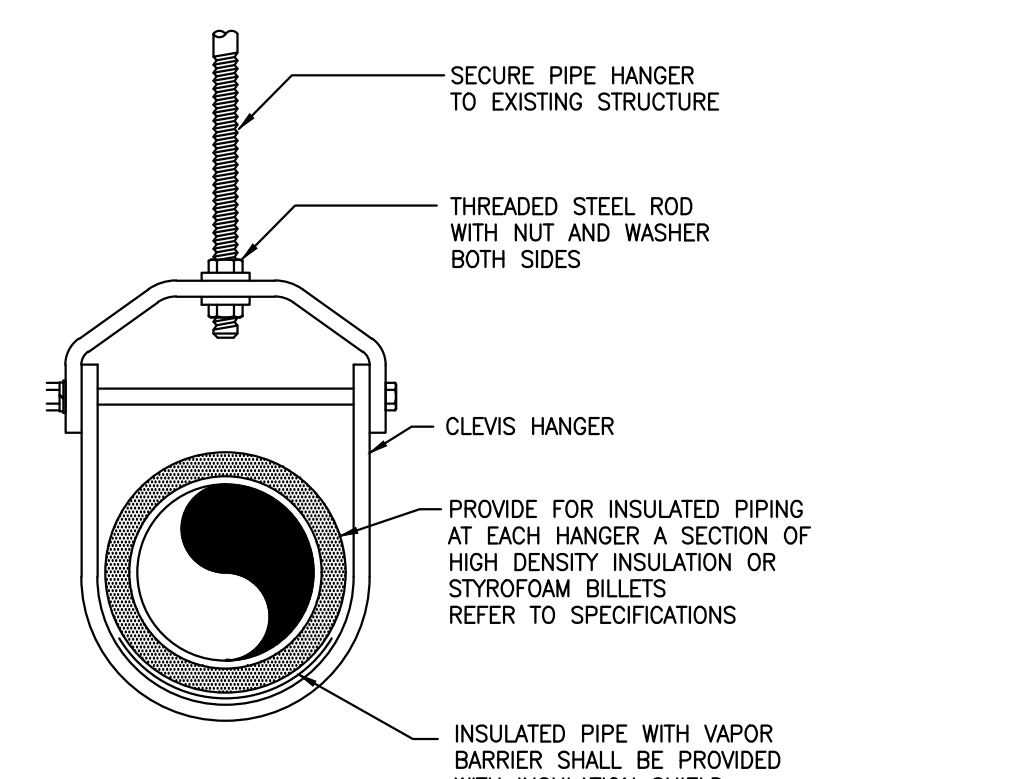
APPLICATION		PIPE MATERIAL SCHEDULE			JOINING METHOD
LOCATION	SIZE	MATERIAL	SCHEDULE		
SANITARY WASTE/ VENT	BELOW GRADE	ALL	SCHEDULE 40 ABS		SOLVENT
	ABOVE GRADE	ALL	SCHEDULE 40 ABS		SOLVENT
T&P RELIEF	ALL	ALL	COPPER (TYPE M)		95/5 SOLDER
	BELOW GRADE	ALL	COPPER (TYPE K) W/ CORROSION-RESISTANT TAPE		LEAD FREE BRAZED
DOMESTIC WATER IN OR WITHIN 5' OF BUILDING	BELOW GRADE	ALL	COPPER (TYPE L OR K)		95/5 SOLDER
	ABOVE GRADE	ALL	COPPER (TYPE M)		95/5 SOLDER
CONDENSATE	PLENUM RETURN	ALL	COPPER (TYPE M)		95/5 SOLDER
	DUCTED RETURN	ALL	SCHEDULE 40 ABS		SOLVENT

NOTES:  
ALL PIPING MATERIAL AND JOINING METHODS CONTINGENT ON AUTHORITY HAVING JURISDICTION APPROVAL  
ALL ABS AND PVC PIPING EXPOSED TO SUNLIGHT SHALL BE PROTECTED BY WATER-BASED LATEX PAINT  
ALL BLACK STEEL PIPING EXPOSED TO MOISTURE SHALL BE PROTECTED BY RUST-PREVENTATIVE PAINT

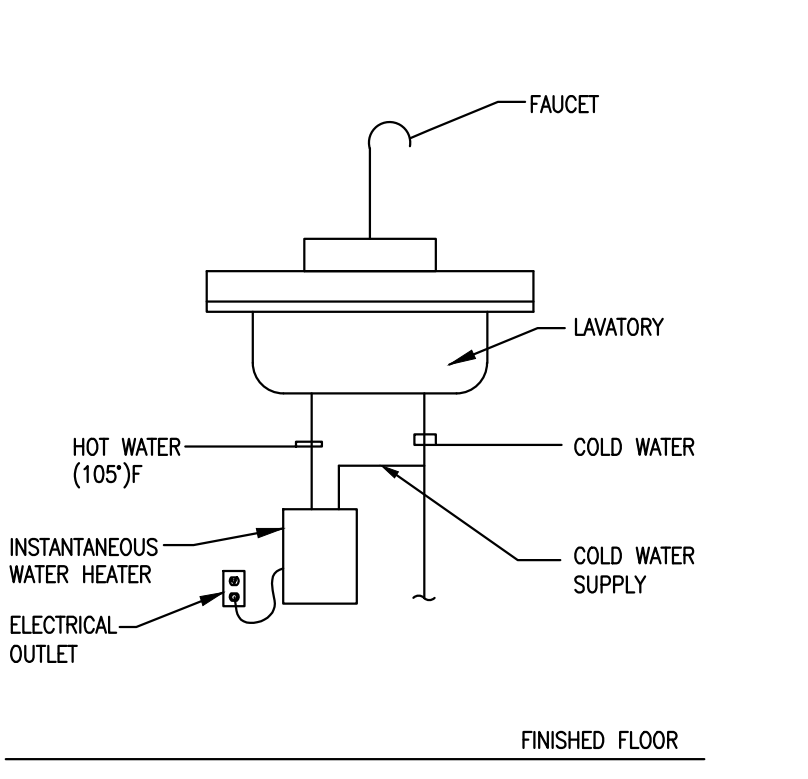
PIPE INSULATION SCHEDULE				
TYPE	SIZE	FLUID TEMP RANGE (F)	INSULATION CONDUCTIVITY	INSULATION THICKNESS
DOMESTIC COLD WATER	ALL	35-60	0.22-0.28	1"
DOMESTIC HOT WATER	≤ 1"	105-140	0.22-0.28	1"
DOMESTIC HOT WATER	1-1/4", 1-1/2"	105-140	0.22-0.28	1-1/2"
DOMESTIC HOT WATER	≥ 2"	105-140	0.22-0.28	2"



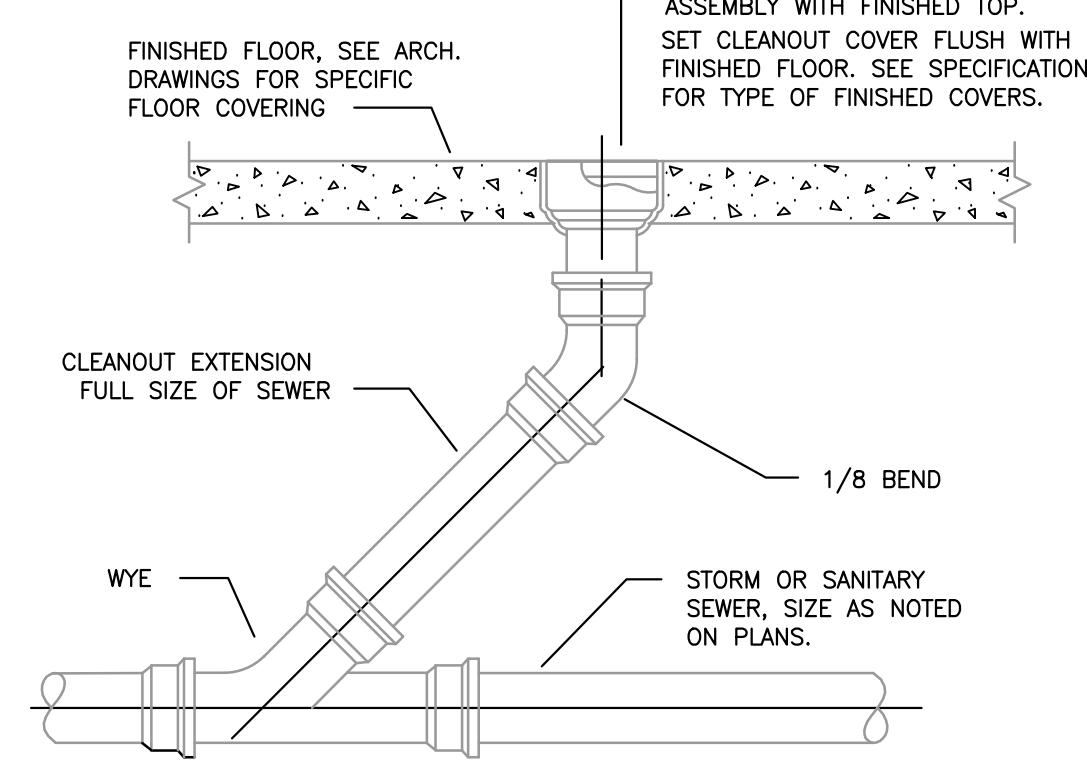
**4 FLOOR DRAIN DETAIL**  
SCALE: NTS  
PLUMBING



**3 PIPE HANGER DETAIL**  
SCALE: NTS  
PLUMBING



**2 LAVATORY WITH IWH-1**  
SCALE: NTS  
PLUMBING



**1 FLOOR CLEANOUT - DETAIL**  
SCALE: NTS  
PLUMBING

**WARE MALCOMB**

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**PUYALLUP WH# 660**  
1201 39TH AVE SW  
PUYALLUP, WA 98373-3803

PRCT120241512

**PLUMBING GENERAL NOTES, SYMBOLS, AND LEGENDS**

REVISIONS

NO.	DATE	DESCRIPTION
01	02/28/24	ISSUE FOR PLAN CHECK SUBMITTAL

PA/PM:	JLI
DRAWN BY:	NW, BD, JC
JOB NO.:	SEA24-0053-00

**SHEET**

**P-0**

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**COSTCO FLEET R.R.**  
**PUYALLUP WH# 660**  
 1201 39TH AVE SW  
 PUYALLUP, WA 98373-3803  
 PRCT120241512

PLUMBING PLANS	
DATE	03/22/2024
REVISIONS	ISSUE FOR PLAN CHECK SUBMITTAL

PA/PM:	JLI
DRAWN BY:	NW, BD, JC
JOB NO.:	SEA24-0053-00

SHEET  
**P-1**

**GENERAL NOTES**

1. REFER TO GENERAL NOTES AND SPECIFICATIONS ON SHEET P-0.

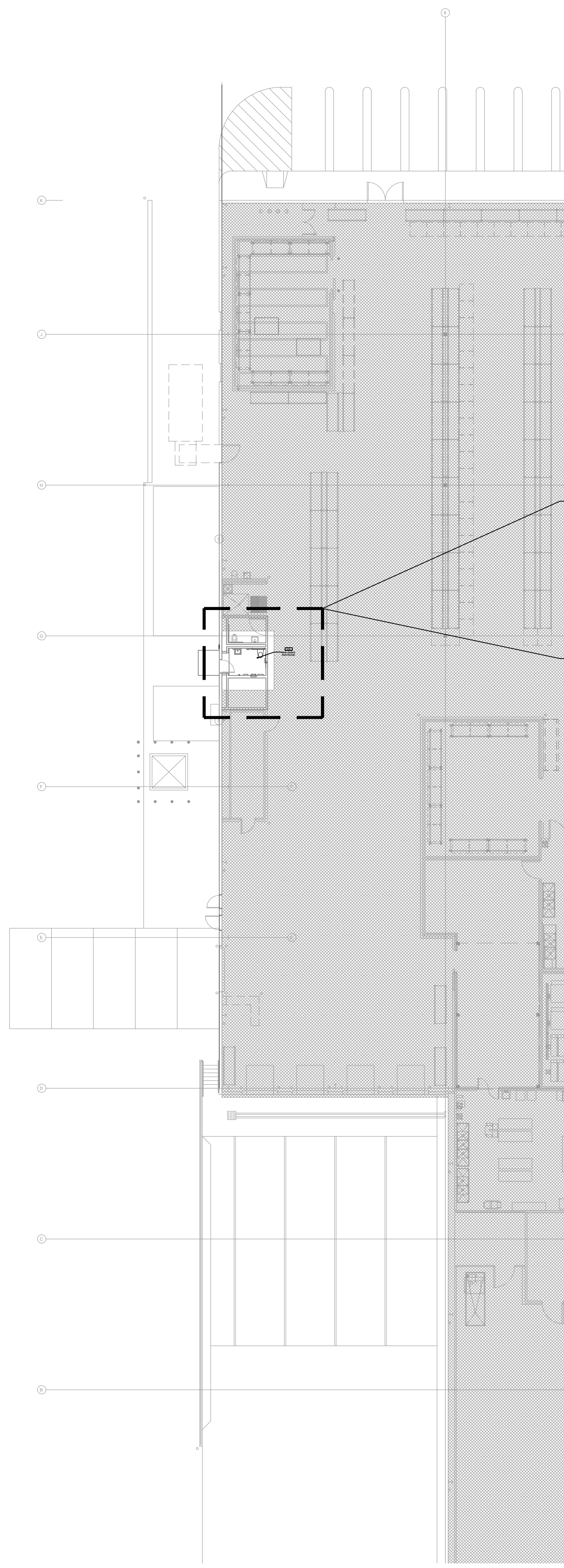
**KEY NOTES**

1. EXTEND NEW 4" SAN TO NEAREST EXISTING 4" SAN LINE OR LARGER LOCATED INSIDE EXISTING BUILDING. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF CONNECTION POINT.
2. 2" VENT TO 3" VTR. VTR TO MAINTAIN 10"-0" CLEARANCE FROM ANY MECHANICAL FRESH AIR INTAKE.
3. EXTEND NEW 1-1/4" CW FROM NEAREST EXISTING 1-1/4" CW LINE OR LARGER LOCATED INSIDE EXISTING BUILDING. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF CONNECTION POINT.
4. IWH-1 TO BE INSTALLED ON WALL BELOW LAV-1. COORDINATE EXACT LOCATION WITH ARCHITECT.

ELECTRICAL WATER HEATER SCHEDULE										
TAG	DESCRIPTION	STORAGE (GAL)	TEMP RISE F	ELECTRIC				WEIGHT (lbs)	MANUFACTURER	MODEL NO.
				AMPS	KW	V	PH			
IWH-1	ELECTRIC WATER HEATER	2.5	50	10	1.4	120	1	60.0	EEMAX	EMT2.5

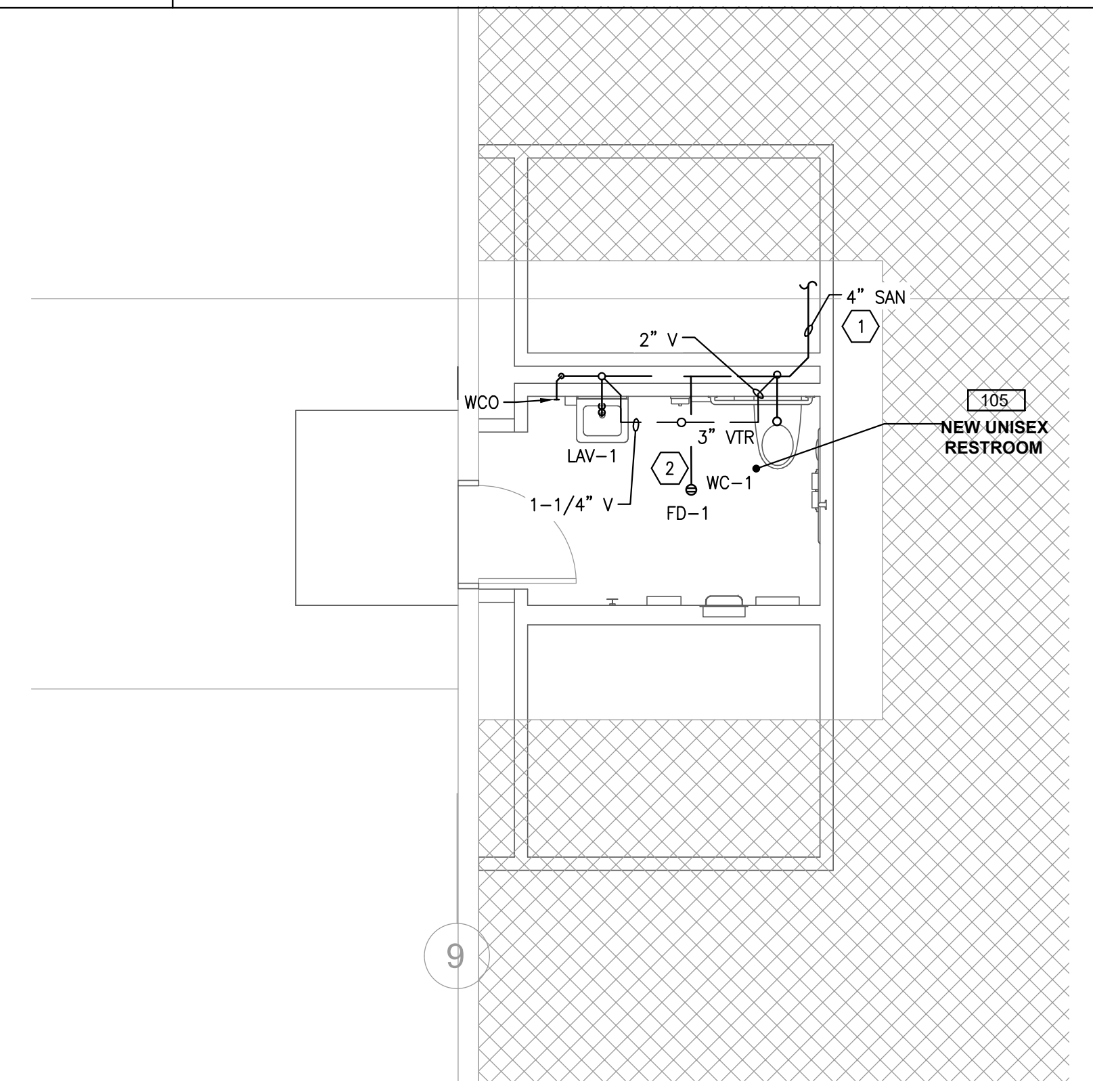
REMARKS:  
 1. PROVIDED WITH POWER CORD.  
 2. SET TEMPERATURE TO 105 DEG F.

PLUMBING FIXTURES SCHEDULE									
TAG	PLUMBING FIXTURE	MANUFACTURER	MODEL	WASTE	VENT	CW	HW	REMARKS	
WC-1	WATER CLOSET	ZURN	Z5615	4"	2"	1-1/4"	-	ECCOVANTAGE MANUAL FLUSH VALVE TOILET SYSTEM. WALL HUNG SIPHON JET, ELONGATED BOWL, WHITE VITREOUS CHINA. PROVIDE WITH Z6000AV-HET MANUAL FLUSH VALVE, 1.28 GPF. PROVIDE WITH Z5955SS-EL, WHITE, ELONGATED, OPEN FRONT SEAT LESS COVER WITH STAINLESS STEEL CHECK HINGE. PROVIDE ZURN ZN1201-N CARRIER.	
LAV-1	LAVATORY	KOHLER	K-2005-0	1-1/2"	1-1/4"	1/2"	1/2"	WALL MOUNTED LAVATORY WITH HANGERS, DRILLED FOR CONCEALED ARM CARRIER, WITH 4" CENTERS. PROVIDE WITH SLOAN ETF-600 OPTIMA SENSOR FAUCET. PLUG ADAPTER, BELOW DECK THERMOSTATIC MIXING VALVE, POLISHED CHROME, 0.5 GPM, MULTI-LAMINAR	
FD-1	FLOOR DRAIN	ZURN	ZN-415	2"	2"	-	-	TYPE N STRAINER, ADJUSTABLE FLOOR DRAIN WITH DUCCO-COATED CAST IRON BODY, FLASHING COLLAR, NICKEL BRONZE FINISH.	

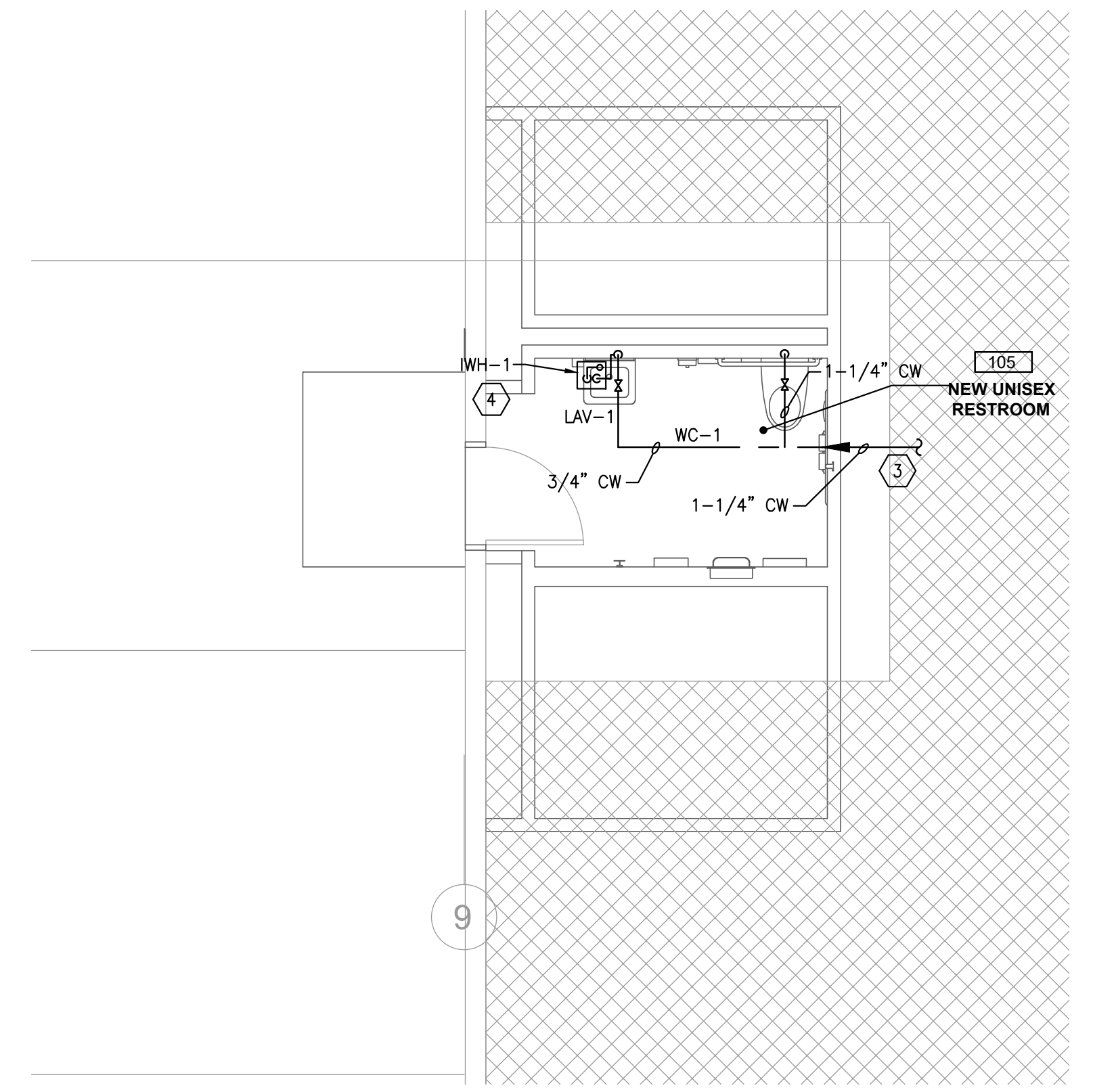


**1** PLUMBING OVERALL PLAN  
 1/16" = 1'-0"  
 PLUMBING N

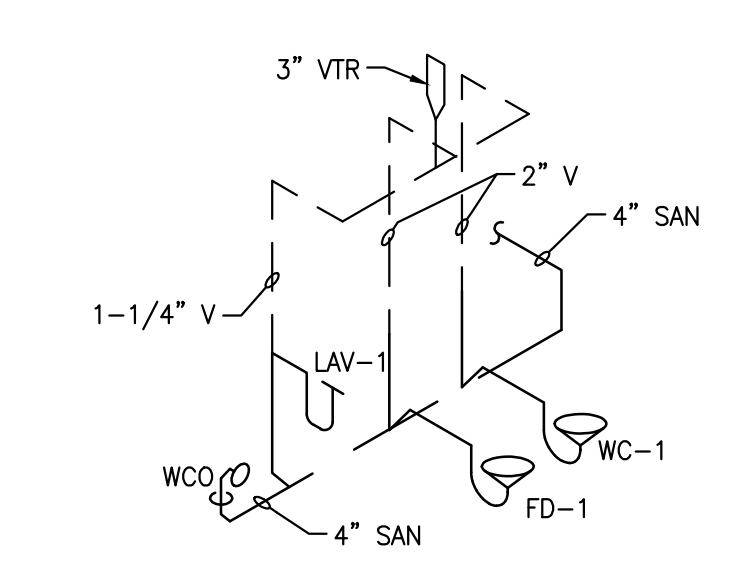
**2** PLUMBING ENLARGED - SANITARY AND VENT PLAN  
 1/4" = 1'-0"  
 PLUMBING N



**3** PLUMBING ENLARGED - DOMESTIC WATER PLAN  
 1/4" = 1'-0"  
 PLUMBING N



**4** PLUMBING - SANITARY + VENT RISER DIAGRAM  
 N.T.S PLUMBING



**5** PLUMBING - DOMESTIC WATER RISER DIAGRAM  
 N.T.S PLUMBING

