

LITTLETON WATER DEPARTMENT  
TOWN OF LITTLETON, MASSACHUSETTS  
**LITTLETON WATER RESOURCE  
RECOVERY FACILITY**

IFB-2022-LITTLETON WRRF

**GENERAL MANAGER**

NICK LAWLER

**BOARD OF WATER COMMISSIONERS**

JAMES KARR, CHAIRMAN  
SCOTT LARSEN  
IVAN PAGACIK  
DICK TAYLOR  
BRUCE TRUMBULL

**WATER & WASTEWATER SUPERINTENDENT**

COREY GODFREY



LOCATION PLAN  
NTS

APRIL 2022

SITE PLAN REVIEW  
NOT FOR CONSTRUCTION

**CDM  
Smith**

**BOSTON, MASSACHUSETTS**

*Water*

*Environment*

*Transportation*

*Energy*

*Facilities*



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CIVIL/SITE ABBREVIATIONS

SYMBOL	DESCRIPTION
TC	TOP OF CURB
BC	BOTTOM OF CURB
BW	BOTTOM OF WALL
TW	TOP OF WALL
CB	CATCH BASIN
CLF	CHAIN LINK FENCE
CS	CRUSHED STONE
D-PVC	POLYVINYL CHLORIDE DRAIN
DMH	DRAIN MANHOLE
FES	FLARED END SECTION
MH	MANHOLE
TS	TOP OF STEP/SLAB
BS	BOTTOM OF STEP
ROP	REINFORCED CONCRETE PIPE
MJ	MECHANICAL JOINT
DI	DUCTILE IRON
FFE	FINISHED FLOOR ELEVATION
DN	DOWN
VGC	VERTICAL GRANITE CURB
UP	UTILITY POLE
PVC	POLYVINYL CHLORIDE
INV. EL.	INVERT ELEVATION
S	SLOPE
GV	GATE VALVE
EFF	EFFLUENT

LAYOUT NOTES:

- FOR LAYOUT PURPOSES AND TO ESTABLISH THE COORDINATE SYSTEM SEE SURVEY NOTES G-1.
- CONTRACTOR SHALL VERIFY ALL PROPERTY AND SURVEY INFORMATION.
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND PROTECT ALL ON-SITE STRUCTURES AND VEGETATION TO BE RETAINED ON THE SITE THROUGHOUT THE CONSTRUCTION PROJECT.
- CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS AND ALL UTILITY SERVICES THROUGHOUT THE DURATION OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED.
- LOCATIONS OF BURIED UTILITIES, VAULTS AND CONCRETE PADS ARE APPROXIMATE ONLY. FINAL LOCATIONS SHALL BE DETERMINED IN THE FIELD AFTER STAKING BY THE CONTRACTOR BASED ON ACTUAL SITE CONDITIONS AS APPROVED BY THE OWNER AND/OR ENGINEER.
- ALL DISTURBED AREAS NOT COVERED WITH PAVEMENT, PADS, CRUSHED STONE, SOD, OR STRUCTURES SHALL RECEIVE 6" LAYER OF LOAM AND SEED AS SPECIFIED, UNLESS NOTED OTHERWISE.
- DIMENSIONS FOR STRUCTURES ARE TO OUTSIDE FACE OF WALL. DIMENSIONS TO CONCRETE PADS ARE TO EDGE OF PAD. DIMENSIONS TO FENCES AND GATES ARE ON-CENTER.
- ALL ITEMS TO BE REMOVED, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, SHALL BE DISPOSED OFF SITE IN A LEGAL MANNER.

YARD PIPING NOTES

- THE LOCATION OF EXISTING UTILITIES AND OTHER UNDERGROUND STRUCTURES SHOWN ON THE DRAWINGS IS APPROXIMATE, AND THEIR ACTUAL LOCATIONS MAY VARY FROM THAT SHOWN. FURTHER, IT IS NOT WARRANTED THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND FEATURES THAT MAY BE AFFECTED BY THE WORK.
- NEW WATER MAINS SHALL HAVE A MINIMUM COVER OF 5 FEET UNLESS OTHERWISE INDICATED AND SHALL PASS UNDER EXISTING UTILITIES AS NECESSARY TO MEET THIS REQUIREMENT.
- ALL NEW WATER PIPES, INCLUDING FIRE PROTECTION LINES, AND OTHER PRESSURE PIPES INCLUDING FORCE MAINS, SHALL HAVE RESTRAINED JOINTS AS SPECIFIED.
- TEST PITS SHALL BE DUG TO LOCATE EXISTING PIPES TO WHICH NEW PIPES ARE TO BE CONNECTED, AND WHERE NECESSARY TO DETERMINE EXACT LOCATIONS OF EXISTING UTILITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL FINAL CONNECTIONS TO PIPES.
- ABANDONED PIPES, VALVES AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION MAY BE REMOVED AS REQUIRED. PIPES LEFT IN PLACE SHALL BE PLUGGED AND ABANDONED AS SPECIFIED AND AS APPROVED BY THE ENGINEER.
- WALKWAYS AND PAVEMENTS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED WITHOUT ADDITIONAL EXPENSE BY OWNER.

GRADING NOTES:

- CONTRACTOR IS RESPONSIBLE FOR CONFIRMING GRADES AND LOCATION OF UTILITIES. MAJOR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- TO ESTABLISH PROPER GRADES, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF GRADE STAKES. THE NUMBER AND LOCATION SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.
- ALL AREAS DISTURBED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE IN A MANNER APPROVED BY THE ENGINEER.

GENERAL NOTES

- BEFORE CONSTRUCTION, ALL UTILITIES, PUBLIC AND PRIVATE MUST BE NOTIFIED (SEE MASSACHUSETTS GENERAL LAWS, CHAPTER 82 SECTION 40.) CALL "DIG SAFE" 1 (888) 344-7233 HTTP://WWW.DIGSAFE.COM.
- FOR BORING INFORMATION AND LOCATIONS SEE EXISTING CONDITIONS DRAWINGS AND APPENDIX TO SPECIFICATIONS.
- THE CONTRACTOR SHALL PREPARE AN EROSION AND SEDIMENT CONTROL PLAN AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS SPECIFIED TO PROTECT THE SITES FROM EROSION AND PREVENT THE MOVEMENT OF SEDIMENT AND DEBRIS.
- ALL AREAS OUTSIDE THE LIMIT OF DISTURBANCE SHALL BE PROTECTED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE OWNER AND/OR ENGINEER.
- ALL MATERIALS TO BE REMOVED WITHIN THE LIMIT OF DISTURBANCE SHALL BE REMOVED TO A LOCATION ARRANGED BY THE CONTRACTOR AND APPROVED BY THE OWNER AND/OR ENGINEER. THE LOCATION OF STOCKPILED TOPSOIL SHALL BE IN AREAS APPROVED BY THE OWNER AND/OR ENGINEER.
- CONTRACTOR SHALL PROVIDE SITE SECURITY THROUGHOUT CONSTRUCTION PERIOD.
- STRIP EXISTING VEGETATION AND 6" LAYER TOPSOIL UNLESS OTHERWISE SHOWN TO BE PROTECTED WITHIN LIMIT OF DISTURBANCE.
- WHEN EXCAVATING AROUND EXISTING STRUCTURES, EXCAVATE SOILS UNIFORMLY AROUND THE STRUCTURE UNLESS INDICATED OTHERWISE. CONTROL EXCAVATION LEVELS AROUND THE ENTIRE PERIMETER OF THE STRUCTURE SUCH THAT THE GRADE DIFFERENTIAL DOES NOT EXCEED 2 FT.
- WHEN BACKFILLING AROUND STRUCTURES, BRING UP BACKFILL UNIFORMLY AROUND STRUCTURE UNLESS INDICATED OTHERWISE. CONTROL BACKFILL LEVELS AROUND THE ENTIRE PERIMETER OF THE STRUCTURE SUCH THAT THE GRADE DIFFERENTIAL DOES NOT EXCEED 2 FT.
- GAS MAINS ARE ASSUMED TO HAVE THREE FEET OF COVER UNLESS SHOWN OTHERWISE. LOCAL WATER MAINS ARE ASSUMED TO HAVE 5 FEET OF COVER. IT IS NOT WARRANTED THAT ALL UTILITIES ARE SHOWN OR ARE SHOWN AT THE CORRECT ELEVATION.
- ALL UNDERGROUND SERVICES TO HOUSES ARE NOT SHOWN.
- BORING LOGS HAVE BEEN APPENDED TO THE SPECIFICATION DOCUMENTS. BORINGS ARE INCLUDED FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT BE SHOWN AT EXACT LOCATIONS.
- LIMITS OF CLEARING AND GRUBBING ARE SHOWN ON SHEET C-3 SITE PREPARATION AND EROSION AND SEDIMENTATION CONTROL PLAN. CONTRACTOR SHALL MINIMIZE CLEARING AND GRUBBING AS MUCH AS POSSIBLE. ALL CROSS-COUNTRY AREAS SHALL BE LOAMED AND SEEDED OR SODDED TO THE LIMITS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL NOT DISTURB ANY LAND OUTSIDE THE LIMITS OF WORK.
- WHEN THE HORIZONTAL SEPARATION BETWEEN THE NEW SEWER AND EXISTING OR RELOCATED WATER MAIN IS LESS THAN 10-FT AND THE VERTICAL SEPARATION IS LESS THAN 18-IN THE NEW SEWER SHALL BE CONSTRUCTED OF RESTRAINED MJ DI OR CONCRETE ENCASED PIPE FOR A MINIMUM OF 10-FT BEYOND WHERE THE SPACING IS LESS THAN 10-FT HORIZONTAL AND 18-IN VERTICAL.
- IF A WATER MAIN CROSSES UNDER THE NEW SEWER, BOTH PIPES SHALL BE RESTRAINED MJ DI OR CONCRETE ENCASED FOR A MINIMUM OF 10-FT TO EITHER SIDE OF THE RESPECTIVE CENTER LINES. DUCTILE IRON PIPE SHALL BE PAID UNDER THE RESPECTIVE PIPE ITEMS. CONCRETE ENCASEMENT SHALL BE PAID UNDER MISCELLANEOUS CONCRETE ITEM.
- IF NECESSARY TO WORK IN LIVE SEWER MANHOLES CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL REQUIREMENTS FOR SAFETY WHEN IN CONFINED SPACES. THE CONTRACTOR IS ALSO REFERRED TO RECOMMENDATIONS IN THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH PUBLICATION NO. 80-106, "WORKING IN CONFINED SPACES".
- CONTRACTOR TO MAINTAIN FLOW IN EXISTING DRAINS AT ALL TIMES.

REV. NO.	DATE	DRWN	CHKD	REMARKS	

DESIGNED BY: M.DODSON  
DRAWN BY: J. BRONENKANT  
SHEET CHK'D BY: M.DODSON  
CROSS CHK'D BY: \_\_\_\_\_  
APPROVED BY: X  
DATE: APRIL 2022

**CDM Smith**  
75 State Street, Suite 701  
Boston, MA 02109  
Tel: (617) 452-6000

LITTLETON WATER DEPARTMENT

LITTLETON WATER RESOURCE  
RECOVERY FACILITY

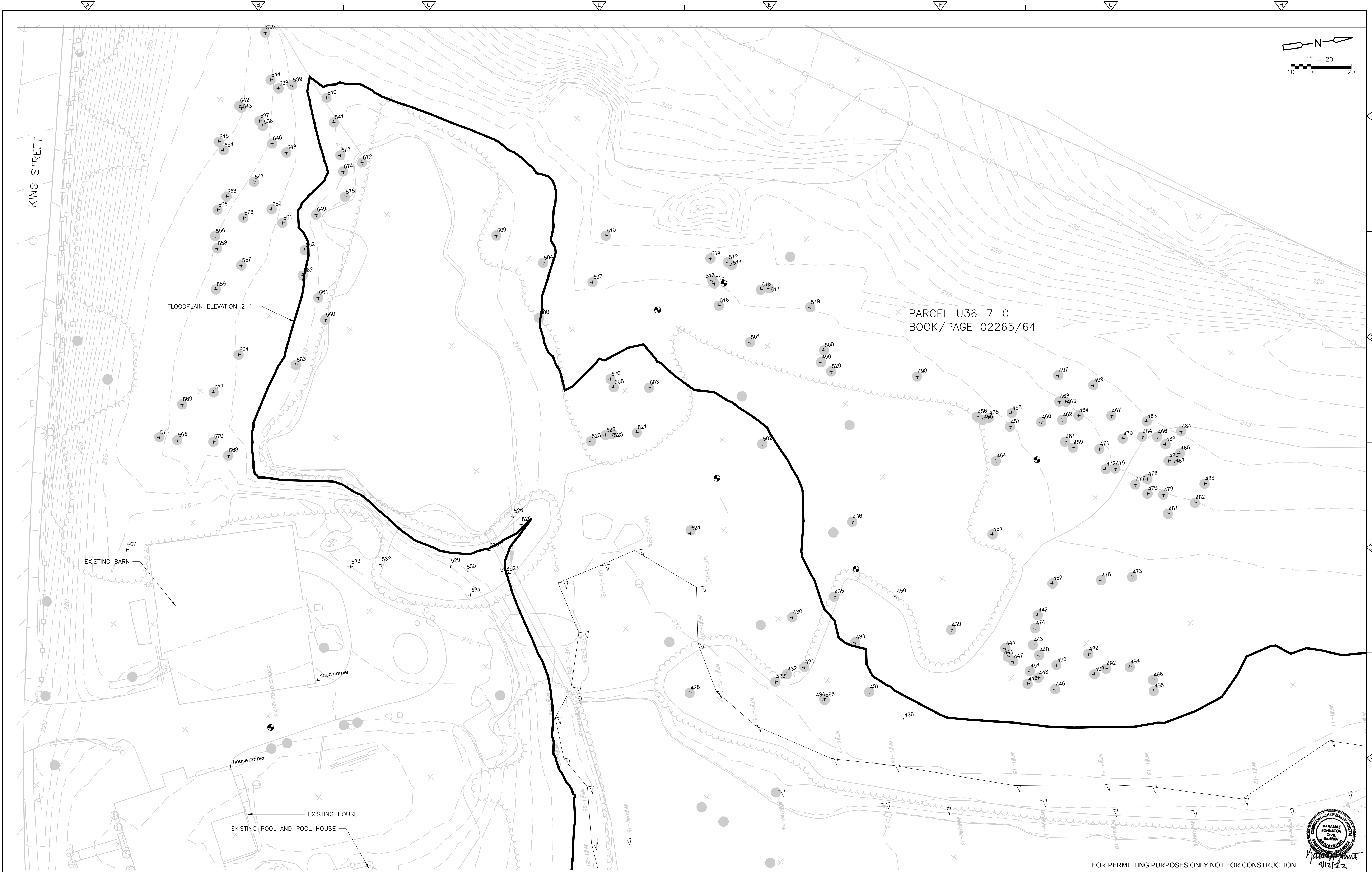
CIVIL GENERAL NOTES  
AND ABBREVIATIONS

PROJECT NO. 263387-261886  
FILE NAME: C025STPL.dwg

SHEET NO.

C-1

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M.DODSON  
DRAWN BY: J. BRONENKANT  
SHEET CHK'D BY: M.DODSON  
CROSS CHK'D BY:   
APPROVED BY: X  
DATE: APRIL 2022

**CDM Smith**

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LITTLETON WATER DEPARTMENT  
  
LITTLETON WATER RESOURCE  
RECOVERY FACILITY

CIVIL EXISTING CONDITIONS PLAN  
  
C-2

PROJECT NO. 263387-261886  
FILE NAME: C025STPL.dwg  
SHEET NO.  
C-2

FOR PERMITTING PURPOSES ONLY NOT FOR CONSTRUCTION

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						DESIGNED BY: M.DODSON	 75 State Street, Suite 701 Boston, MA 02109 Tel: (617) 452-6000	LITTLETON WATER DEPARTMENT	SITE PREPARATION AND EROSION AND SEDIMENT CONTROL	PROJECT NO. 263387-261886
						DRAWN BY: J. BRONENKANT				FILE NAME: C027STPL.dwg
						SHEET CHK'D BY: M.DODSON				SHEET NO.
						CROSS CHK'D BY:				C-3
						APPROVED BY: X				
						DATE: APRIL 2022				
REV. NO.	DATE	DRWN	CHKD	REMARKS						



**KING STREET**

**NOTES**

- PARCEL U36-7-0 IS LOCATED WITHIN WATER AND AQUIFER RESOURCE DISTRICTS
- PARCEL U36-7-0 IS ZONED AS RESIDENCE DISTRICT (R)2. PARCEL
- EXISTING IMPERVIOUS AREA OF 0.44 ACRE CONSISTS OF HOUSE, BARN, POOL, POOL HOUSE, AND DRIVEWAY.

**LEGEND**

- BITUMINOUS CONCRETE
- CHAIN LINK FENCE
- GRAVEL SURFACING
- BOLLARD
- CONCRETE

**Parcel U36-7-0  
BOOK/PAGE 02265/64**

**FLOODPLAIN ELV. 211**

**EMERGENCY SPILLWAY**

**24" OPENING DOUBLE BARRIER VEHICULAR ACCESS GATE**

**PRECAST EMBEDDED CONCRETE HEADWALL WITH WING WALLS**

**BOX CULVERT**

**EMERGENCY SPILLWAY**

**24' WIDE ASPHALT ACCESS DRIVE**

**EXISTING HOUSE TO REMAIN**

**EXISTING POOL AND POOL HOUSE TO REMAIN**

**CHAIN LINK FENCE**

**INFLOW EQUALIZATION TANK**

**BIOLOGICAL TANKS**

**SPILL CONTAINMENT AREA CENTERED ON TRUCK FILL CONNECTION PIPE**

**VERTICAL GRANITE CURB WITH 6" REVEAL BOTH SIDES**

**CONCRETE WALKWAY**

**MEMBRANE PROCESS BUILDING FFE 214.0**

**ACCESSIBLE RAMP**

**LIMIT OF CURB**

**GENERATOR ON 12' X 6' CONCRETE PAD, SEE STRUCTURAL DRAWINGS**

**TRANSFORMER ON 8' X 8' CONCRETE PAD, SEE STRUCTURAL DRAWINGS**

**BOLLARD TYP. OF 3**

**CONCRETE WALKWAY**

**EFFLUENT PUMPING STATION TWO (2) 8' DIAMETER CHAMBERS**

**LIMIT OF CURB**

**EMERGENCY SPILLWAY**

**WF#1-19**, **WF#1-20**, **WF#1-21**, **WF#1-22**, **WF#1-23**, **WF#1-24**, **WF#1-25**, **WF#1-26**, **WF#1-27**, **WF#1-28**, **WF#1-29**, **WF#1-30**, **WF#1-31**, **WF#1-32**, **WF#1-33**, **WF#1-34**, **WF#1-35**, **WF#1-36**, **WF#1-37**, **WF#1-38**, **WF#1-39**, **WF#1-40**, **WF#1-41**, **WF#1-42**, **WF#1-43**, **WF#1-44**, **WF#1-45**, **WF#1-46**, **WF#1-47**, **WF#1-48**, **WF#1-49**, **WF#1-50**, **WF#1-51**, **WF#1-52**, **WF#1-53**, **WF#1-54**, **WF#1-55**, **WF#1-56**, **WF#1-57**, **WF#1-58**, **WF#1-59**, **WF#1-60**, **WF#1-61**, **WF#1-62**, **WF#1-63**, **WF#1-64**, **WF#1-65**, **WF#1-66**, **WF#1-67**, **WF#1-68**, **WF#1-69**, **WF#1-70**, **WF#1-71**, **WF#1-72**, **WF#1-73**, **WF#1-74**, **WF#1-75**, **WF#1-76**, **WF#1-77**, **WF#1-78**, **WF#1-79**, **WF#1-80**, **WF#1-81**, **WF#1-82**, **WF#1-83**, **WF#1-84**, **WF#1-85**, **WF#1-86**, **WF#1-87**, **WF#1-88**, **WF#1-89**, **WF#1-90**, **WF#1-91**, **WF#1-92**, **WF#1-93**, **WF#1-94**, **WF#1-95**, **WF#1-96**, **WF#1-97**, **WF#1-98**, **WF#1-99**, **WF#1-100**

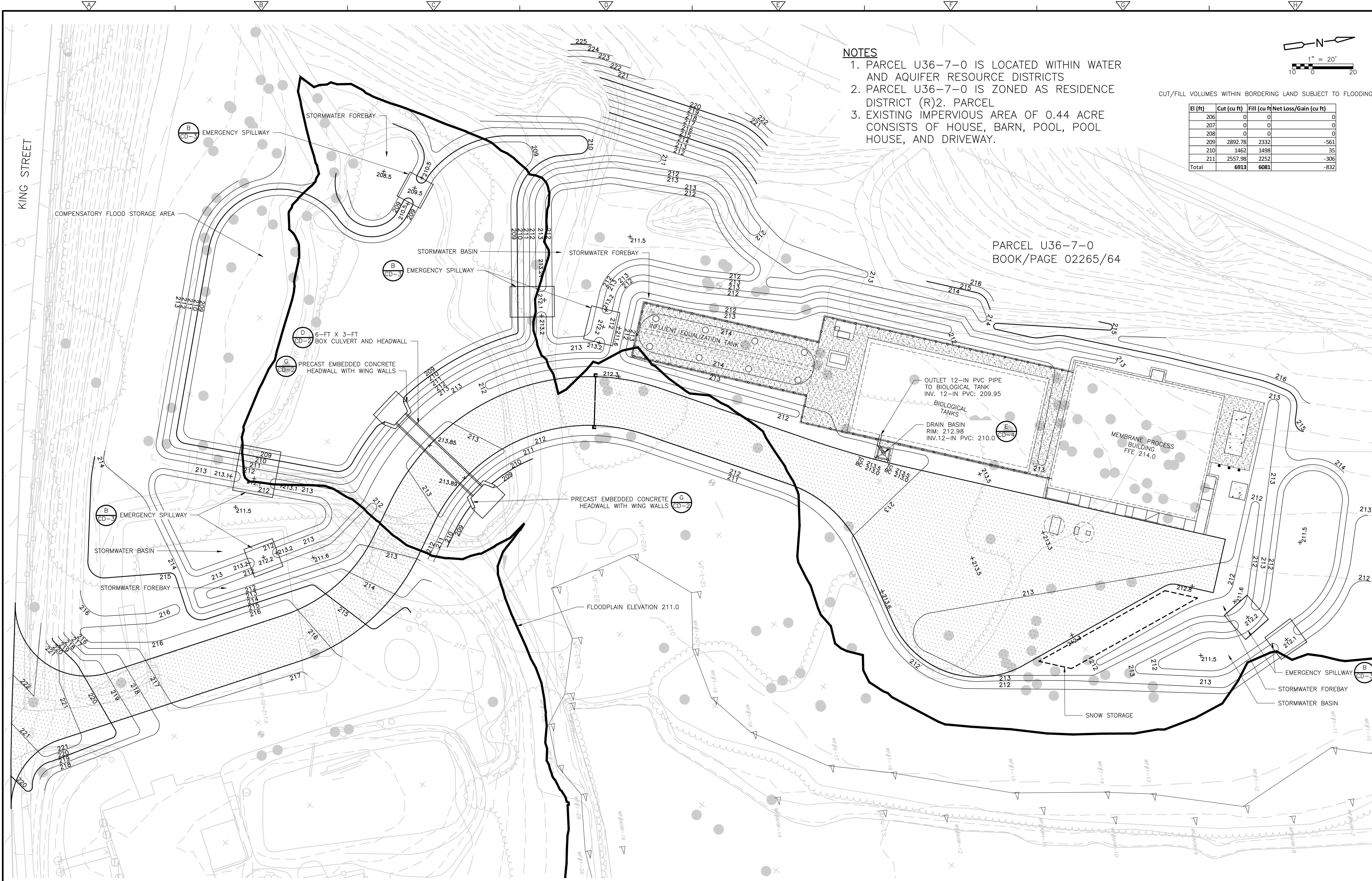
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**KARAMAH JOHNSTON CIVIL ENGINEERS**

**4/12/23**



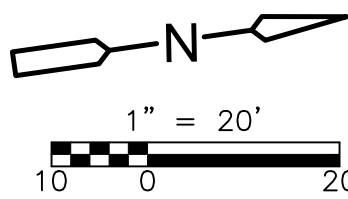
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- NOTES**
1. PARCEL U36-7-0 IS LOCATED WITHIN WATER AND AQUIFER RESOURCE DISTRICTS
  2. PARCEL U36-7-0 IS ZONED AS RESIDENCE DISTRICT (R)2. PARCEL
  3. EXISTING IMPERVIOUS AREA OF 0.44 ACRE CONSISTS OF HOUSE, BARN, POOL, POOL HOUSE, AND DRIVEWAY.

CUT/FILL VOLUMES WITHIN BORDERING LAND SUBJECT TO FLOODING

El (ft)	Cut (cu ft)	Fill (cu ft)	Net Loss/Gain (cu ft)
206	0	0	0
207	0	0	0
208	0	0	0
209	2892.78	2332	-561
210	1462	1498	35
211	2557.98	2252	-306
Total	6913	6081	-832



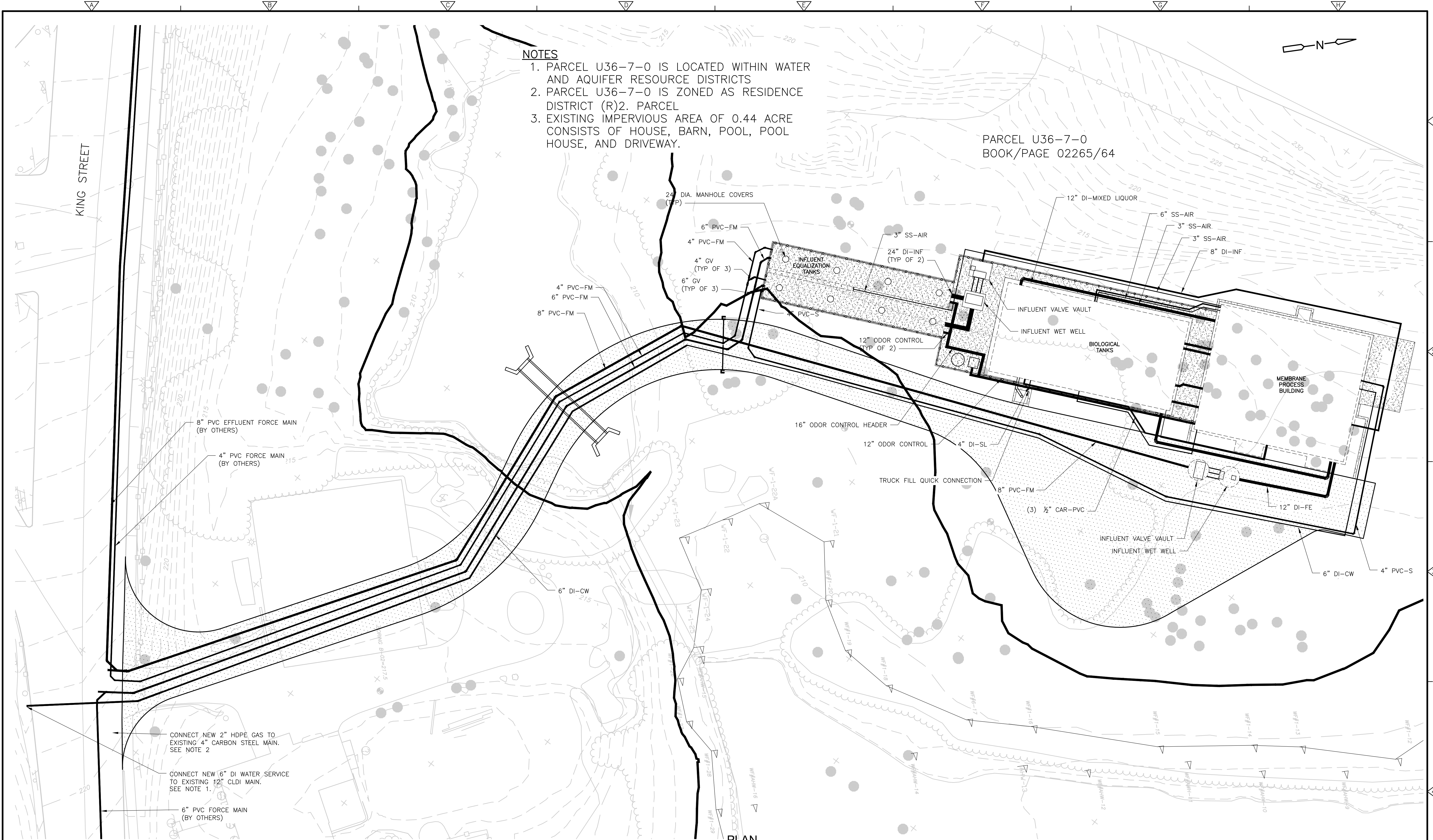
PARCEL U36-7-0  
BOOK/PAGE 02265/64

				DESIGNED BY: M.DODSON	<b>CDM Smith</b> 75 State Street, Suite 701 Boston, MA 02109 Tel: (617) 452-6000	LITTLETON WATER DEPARTMENT  LITTLETON WATER RESOURCE RECOVERY FACILITY	CIVIL GRADING AND DRAINAGE PLAN	PROJECT NO. 263387-261886 FILE NAME: C005STPL  SHEET NO. <b>C-5</b>
				DRAWN BY: J. BRONENKANT				
				SHEET CHK'D BY: M.DODSON				
				CROSS CHK'D BY:				
				APPROVED BY: X				
REV. NO.	DATE	DRWN	CHKD	REMARKS	DATE: APRIL 2022			

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PARCEL U36-7-0  
BOOK/PAGE 02265/64

**PLAN**  
1" = 20'  
10 0 20

- NOTES:**
1. COORDINATE THE TIE-IN OF THE PROPOSED WATER LINE WITH LITTLETON WATER DEPARTMENT.
  2. COORDINATE THE TIE-IN OF THE PROPOSED GAS LINE WITH NATIONAL GRID.

FOR PERMITTING PURPOSES ONLY NOT FOR CONSTRUCTION

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	W. LENGUEL
DRAWN BY:	S. ENGEL
SHEET CHK'D BY:	
CROSS CHK'D BY:	
APPROVED BY:	
DATE:	APRIL 2022

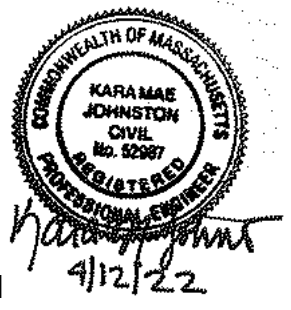
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LITTLETON WATER DEPARTMENT  
  
LITTLETON WATER RESOURCE  
RECOVERY FACILITY

**YARD PIPING  
PLAN**

SHEET NO.  
**C-6**

PROJECT NO. 263387-261886  
FILE NAME: C006YPPL  
SHEET NO.  
**C-6**

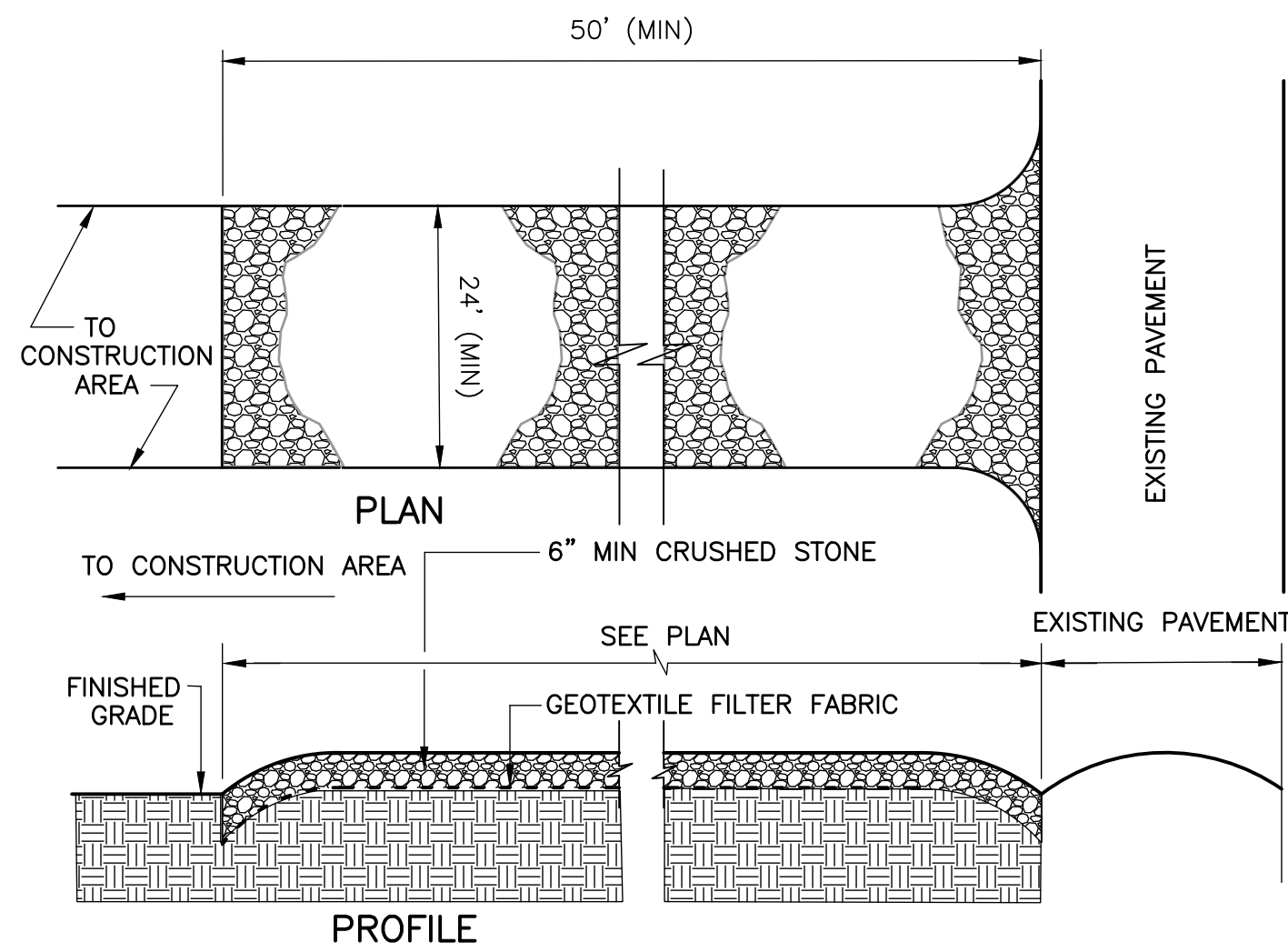






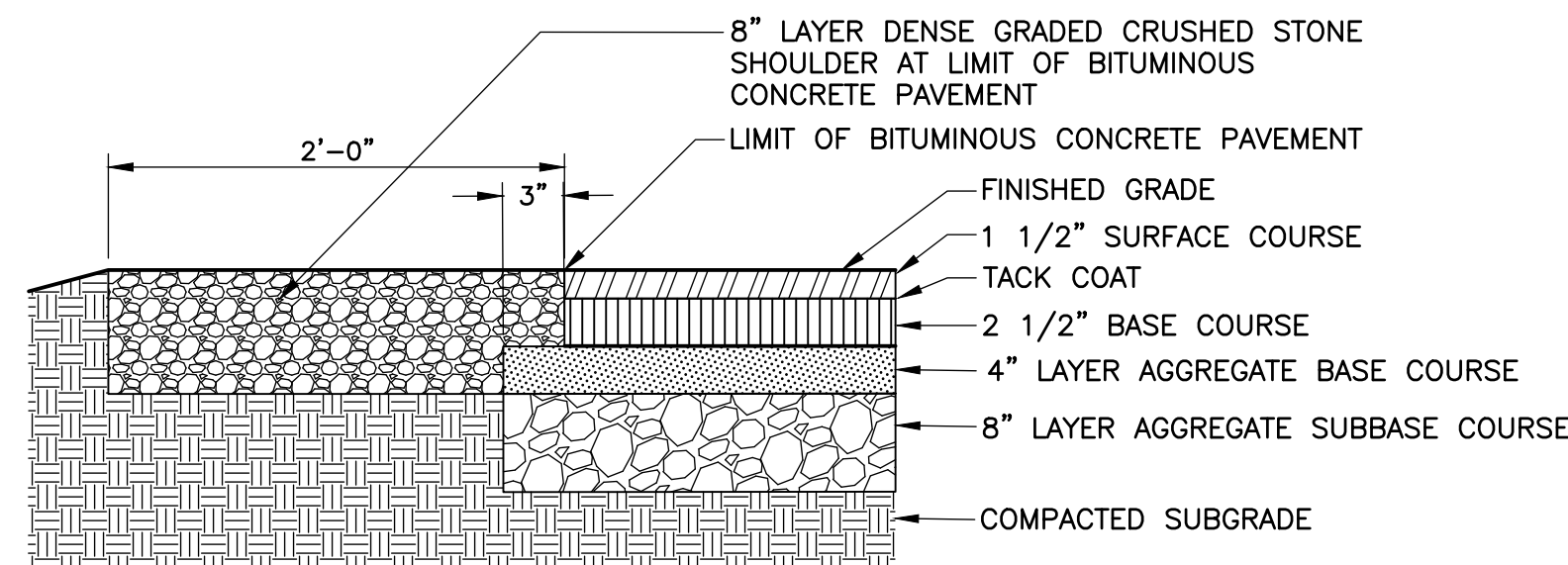


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STABILIZED CONSTRUCTION ENTRANCE

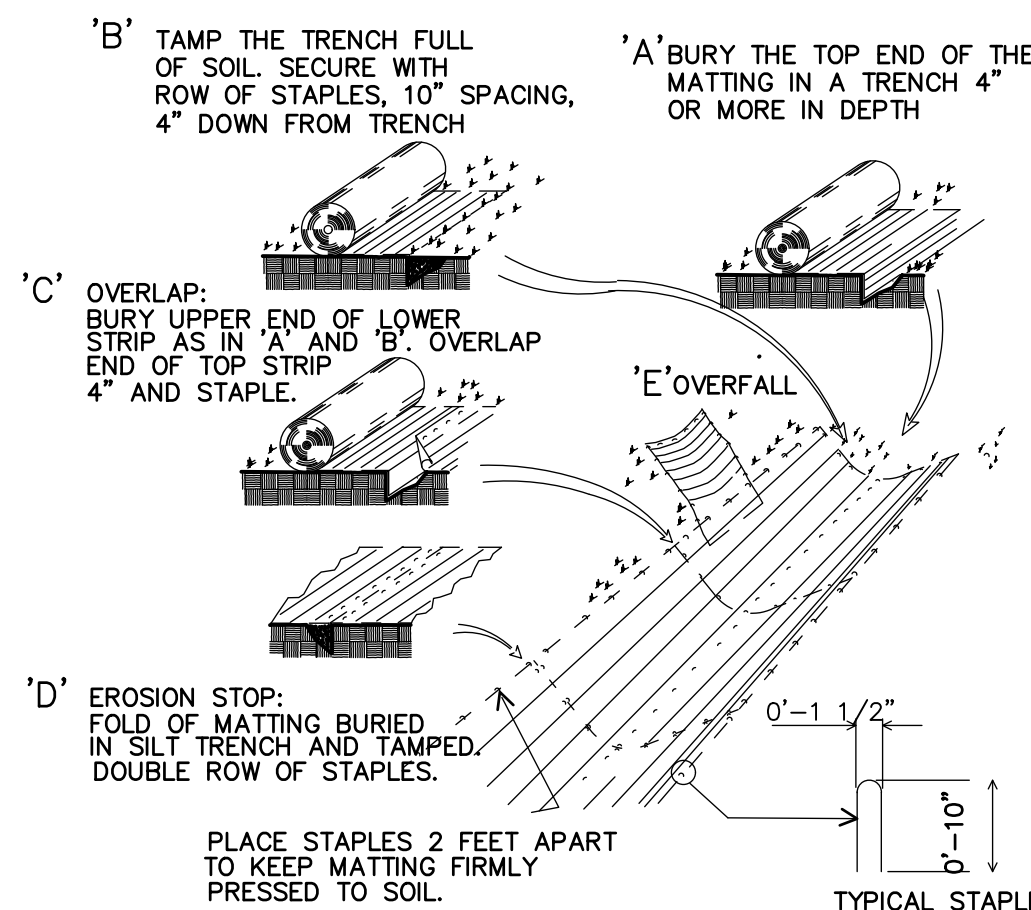
DETAIL A  
NOT TO SCALE  
CD-1



- NOTES:
1. AGGREGATE BASE AND SUBBASE COURSE SHALL EXTEND 3" MIN. BEYOND EDGE OF PAVEMENT.
  2. CONTRACTOR MAY UTILIZE EXISTING GRANULAR BASE WHERE NEW PAVEMENT IS SHOWN OVER EXISTING.

BITUMINOUS CONCRETE PAVEMENT

DETAIL B  
NOT TO SCALE  
CD-1



EROSION CONTROL BLANKET

DETAIL C  
NOT TO SCALE  
CD-1

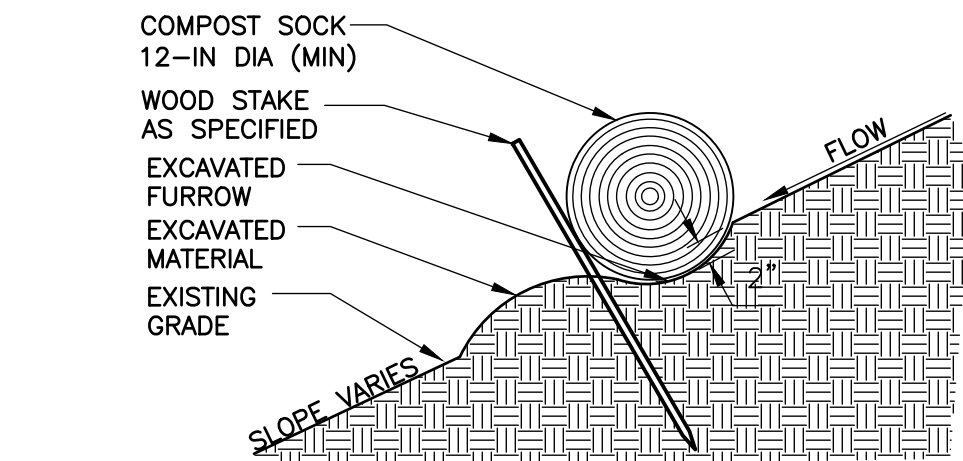
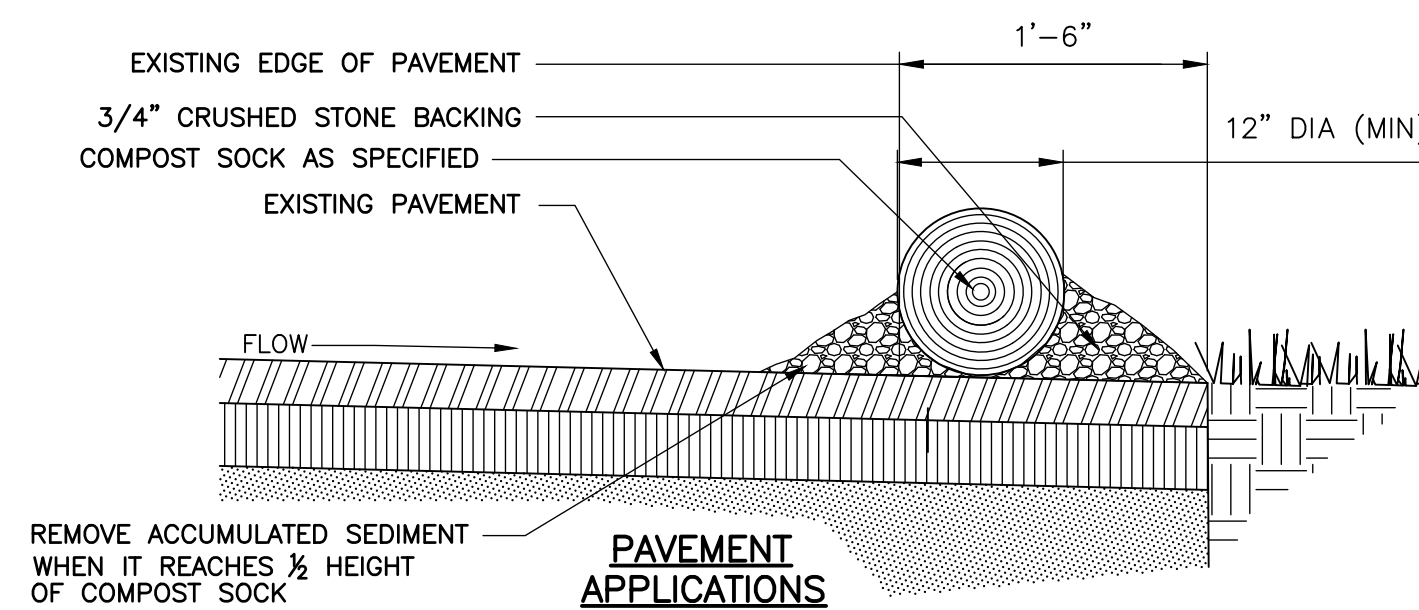
NOTES:

- 1.) PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND EXISTING PAVEMENT.

- 2.) LIMITS OF STABILIZED CONSTRUCTION ENTRANCE SHALL BE AS SHOWN ON PLANS AND APPROVED BY THE ENGINEER.

- 3.) THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.

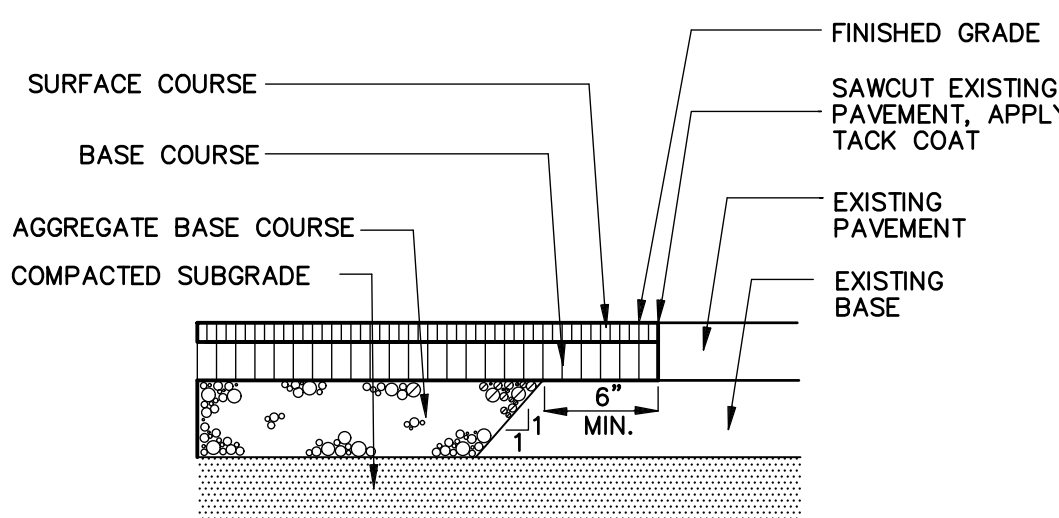
- 4.) REPAIR AND CLEANOUT MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO EXISTING PAVEMENT SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.



LANDSCAPE APPLICATIONS

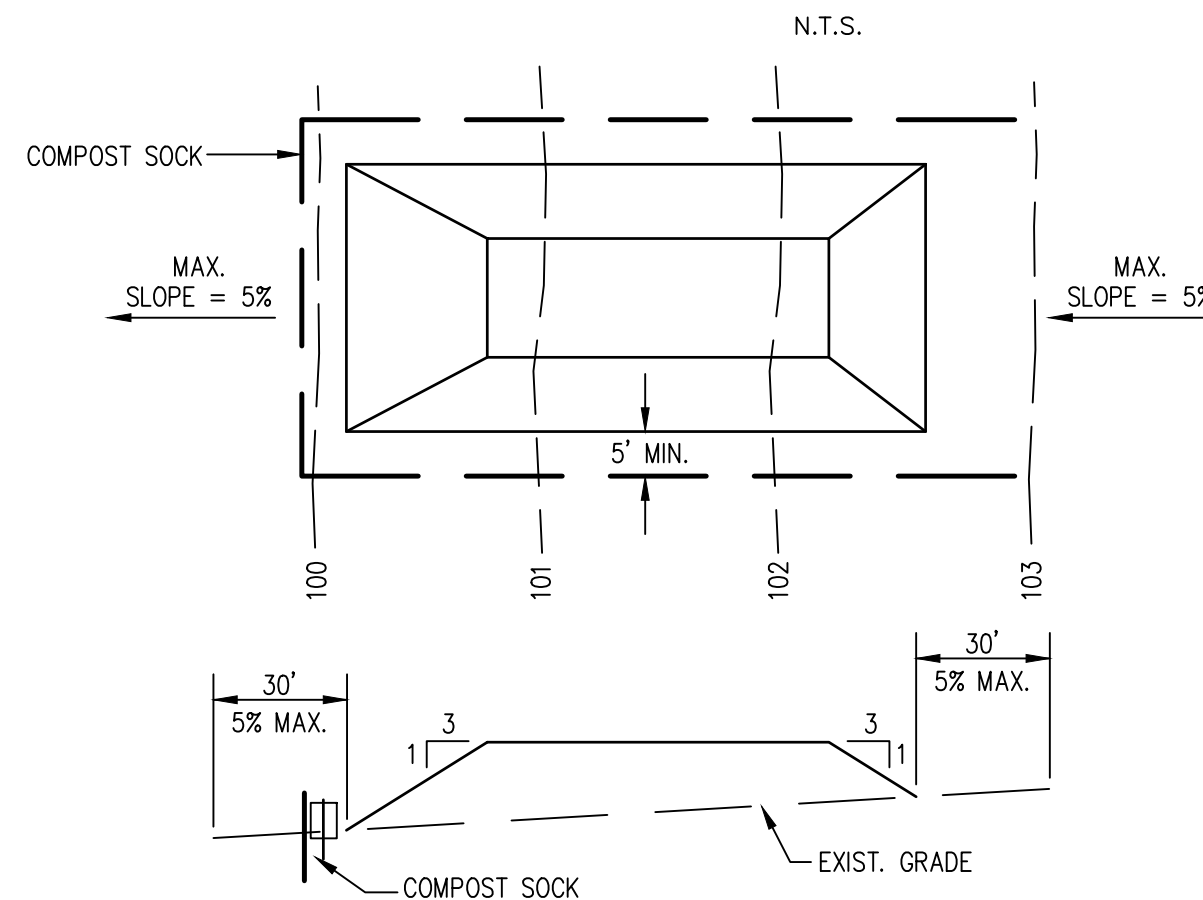
TYPICAL COMPOST SOCK DETAIL

DETAIL D  
SCALE: NTS  
CD-1



PAVEMENT MATCH

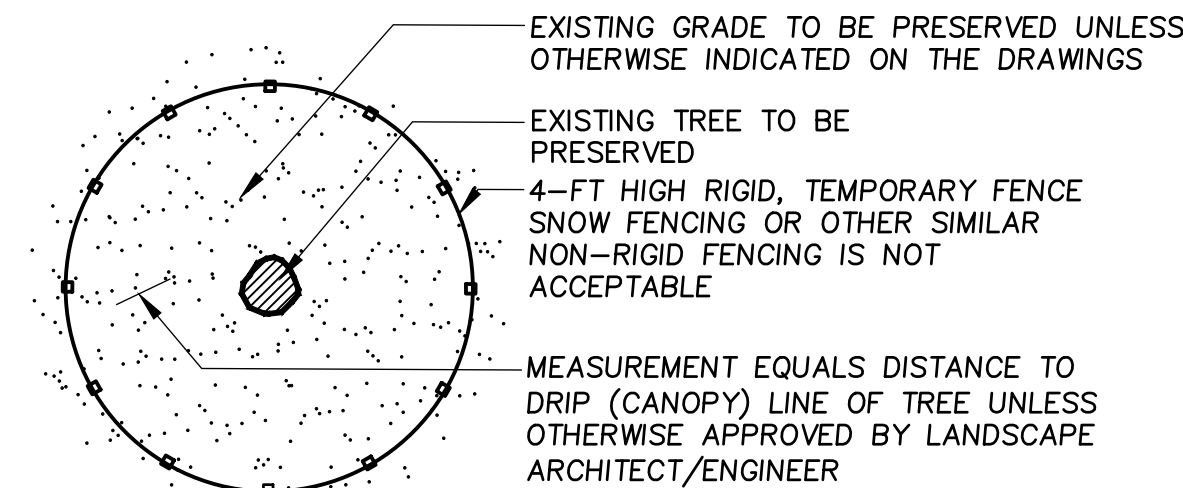
DETAIL E  
NOT TO SCALE  
CD-1



- NOTES:
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
  2. ALL SIDE SLOPES SHALL BE 3 TO 1 OR FLATTER.
  3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQ.
  4. COMPOST SOCK SHALL BE INSTALLED AS DETAILED HEREON.

SOIL STOCKPILE

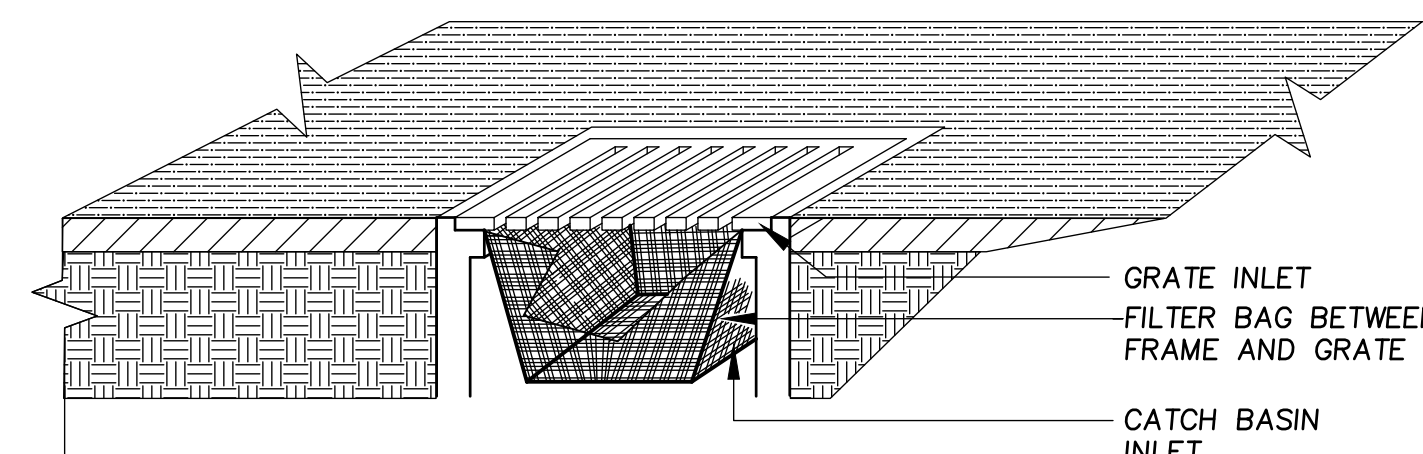
DETAIL F  
NOT TO SCALE  
CD-1



- NOTES:
1. FENCING SHALL BE INSTALLED AROUND PERIMETER OF ALL EXISTING TREES TO BE PRESERVED WITHIN THE LIMIT OF WORK.
  2. FENCING MAY BE REMOVED TEMPORARILY, ONLY AS REQUIRED TO PERFORM THE WORK SHOWN ON THE DRAWINGS.
  3. FENCING SHALL REMAIN IN PLACE & BE MAINTAINED THROUGHOUT CONSTRUCTION AND THEN REMOVED COMPLETELY.

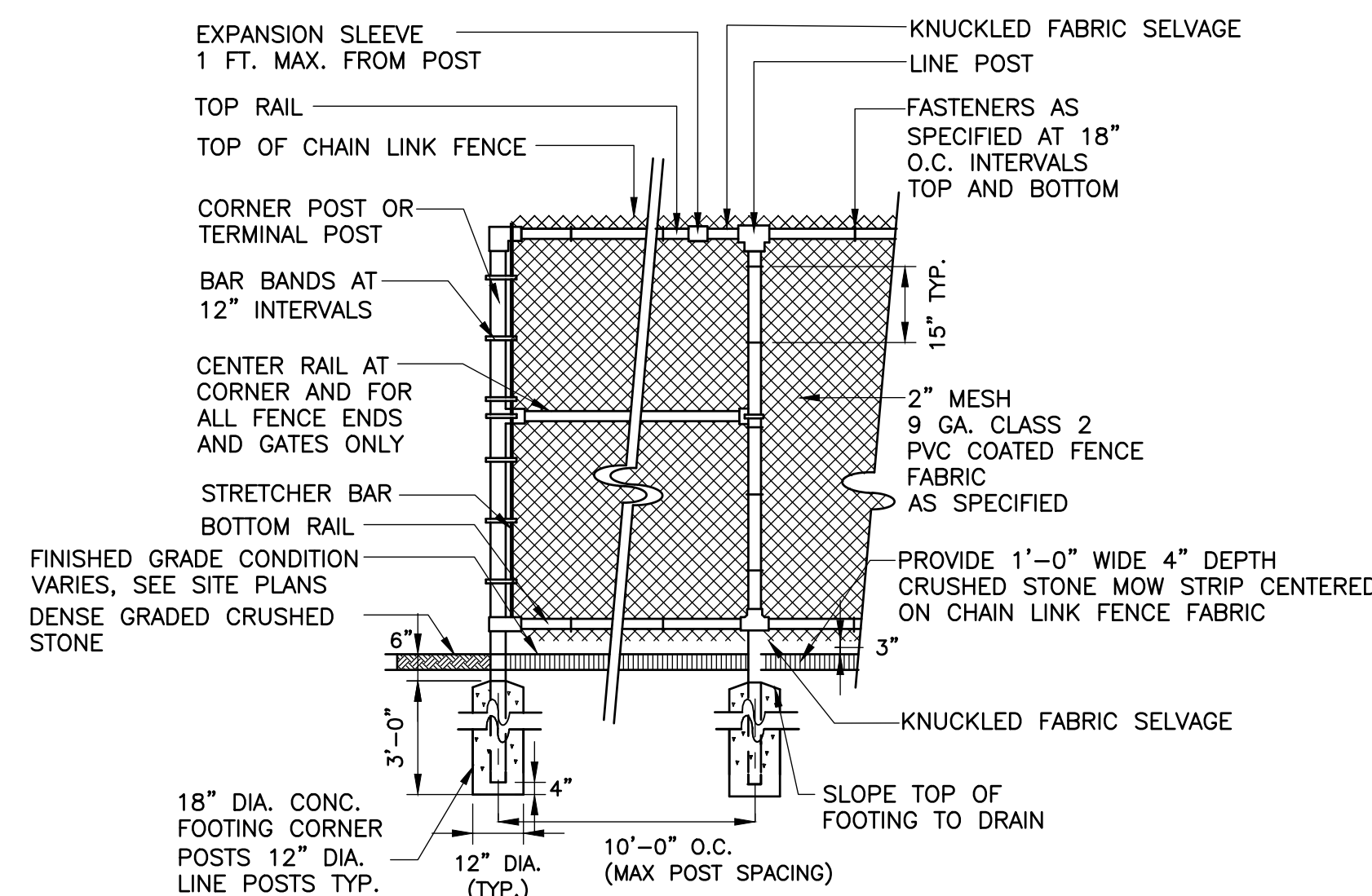
TREE PROTECTION

DETAIL G  
NOT TO SCALE  
CD-1



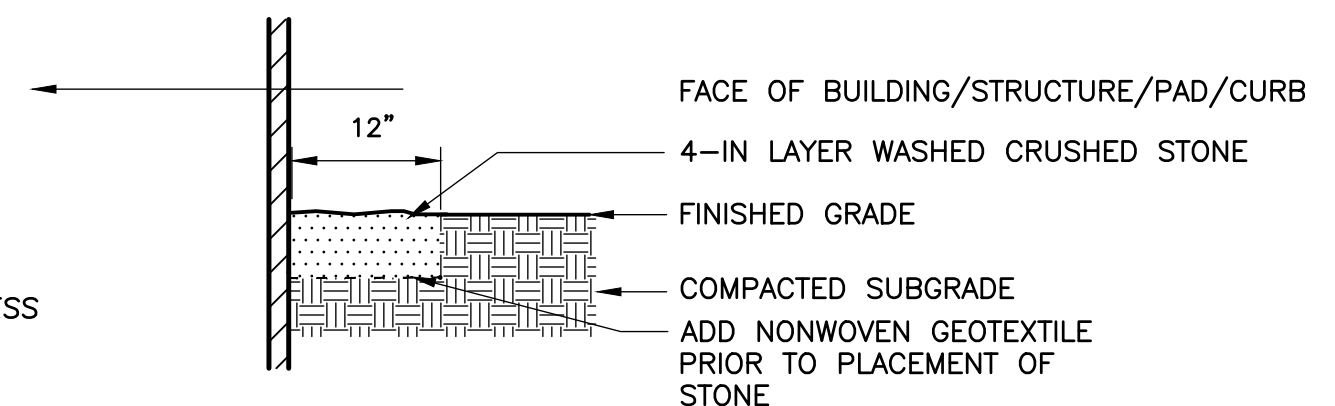
CATCH BASIN FILTER

DETAIL H  
NOT TO SCALE  
CD-1



6-FT HIGH CHAIN LINK FENCE

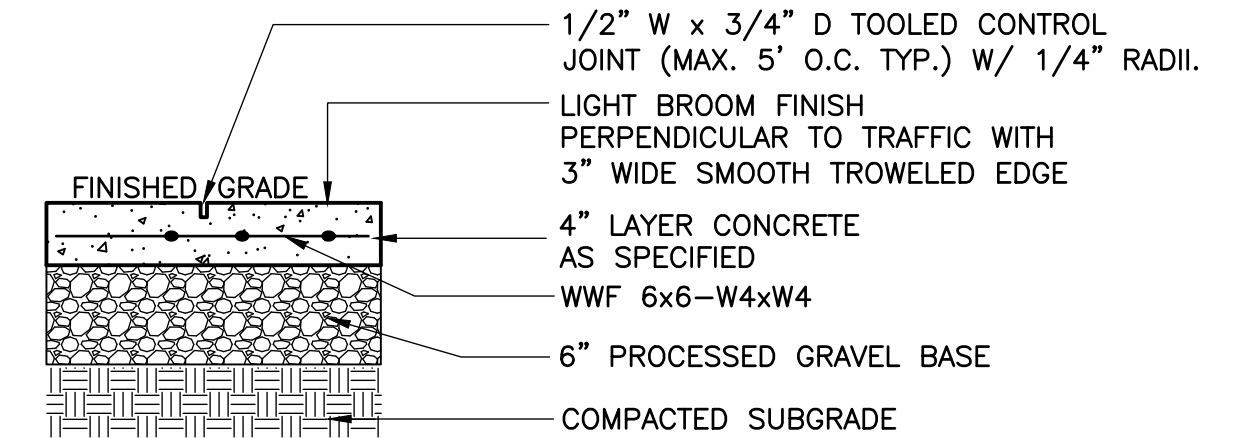
DETAIL I  
NOT TO SCALE  
CD-1



NOTE: CRUSHED STONE MOW STRIP SHALL BE CENTERED ON FENCE LINE WHEN LOCATED IN LAWN AREAS

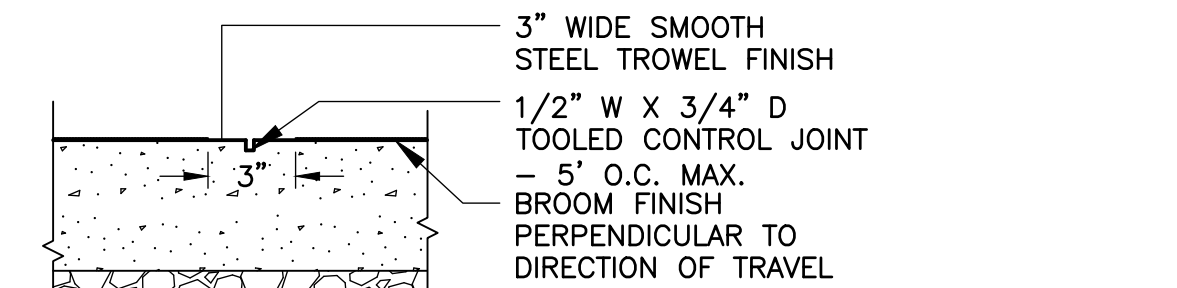
CRUSHED STONE MOW STRIP

DETAIL J  
NTS  
CD-1



CONCRETE WALKWAY

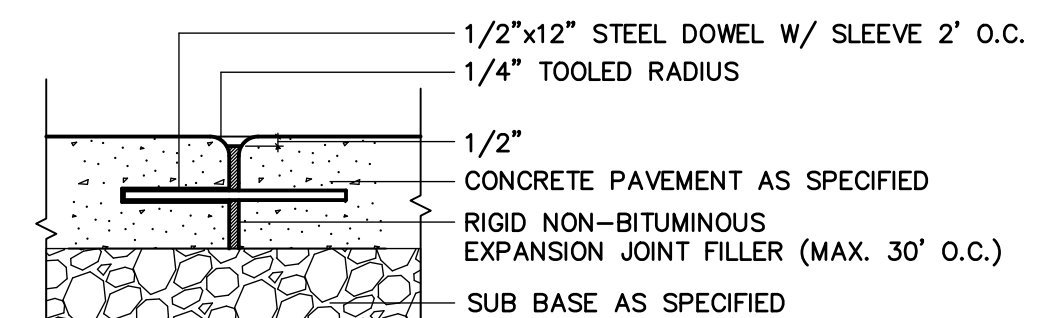
DETAIL K  
NOT TO SCALE  
CD-1



- NOTE:
1. CONCRETE WALK SHALL HAVE 3 STEEL DOWEL RODS MIN. AT EACH EXPANSION JOINT
  2. EXPANSION JOINTS SHALL BE LOCATED 30 FT. O.C. OR LESS AND AT THE END OF EACH DAYS POUR.

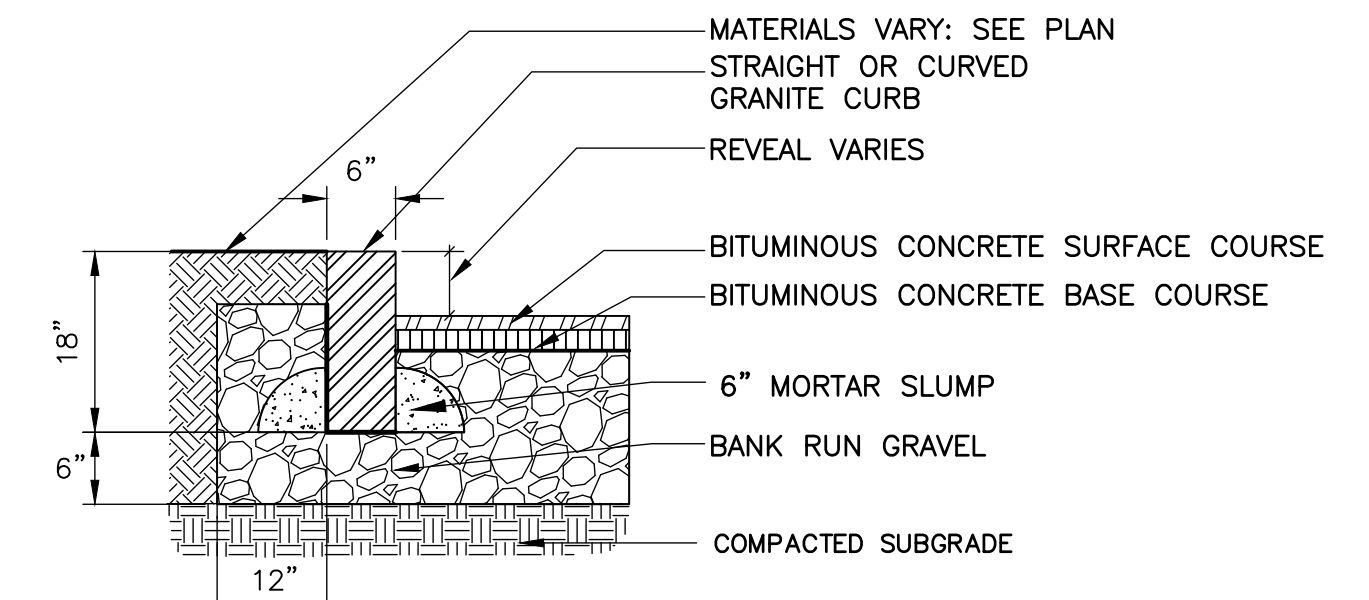
CONTROL JOINT

DETAIL L  
NOT TO SCALE  
CD-1



EXPANSION JOINT

DETAIL M  
NOT TO SCALE  
CD-1



VERTICAL GRANITE CURB

DETAIL N  
NOT TO SCALE  
CD-1

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M.DODSON	
DRAWN BY: J. BRONENKANT	
SHEET CHK'D BY: M.DODSON	
CROSS CHK'D BY:	
APPROVED BY: X	
DATE: APRIL 2022	

**CDM Smith**  
75 State Street, Suite 701  
Boston, MA 02109  
Tel: (617) 452-6000

LITTLETON WATER DEPARTMENT

LITTLETON WATER RESOURCE  
RECOVERY FACILITY

CIVIL DETAILS I

PROJECT NO. 263387-261886  
FILE NAME: CD001STD1

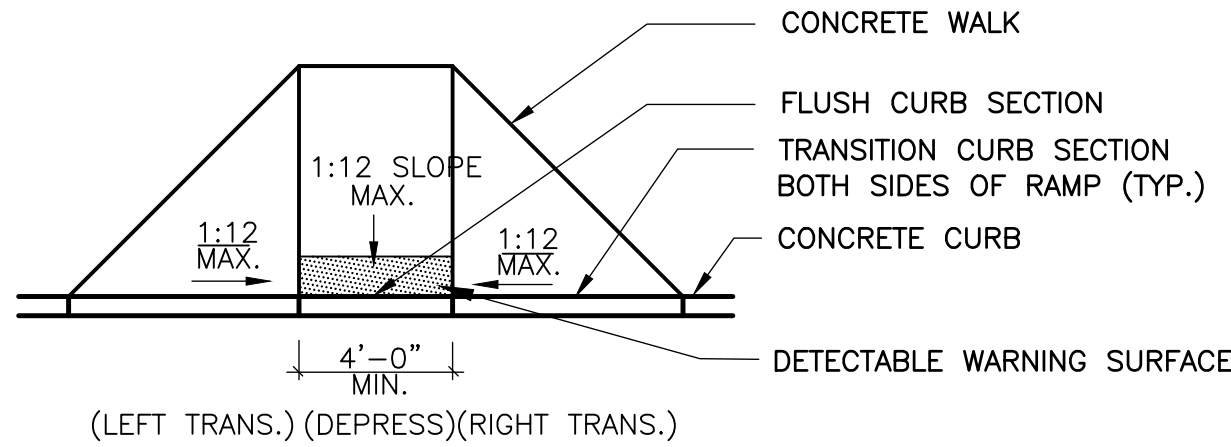
SHEET NO.

CD-1

90% SUBMITTAL - NOT FOR CONSTRUCTION



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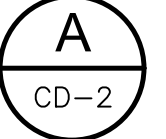


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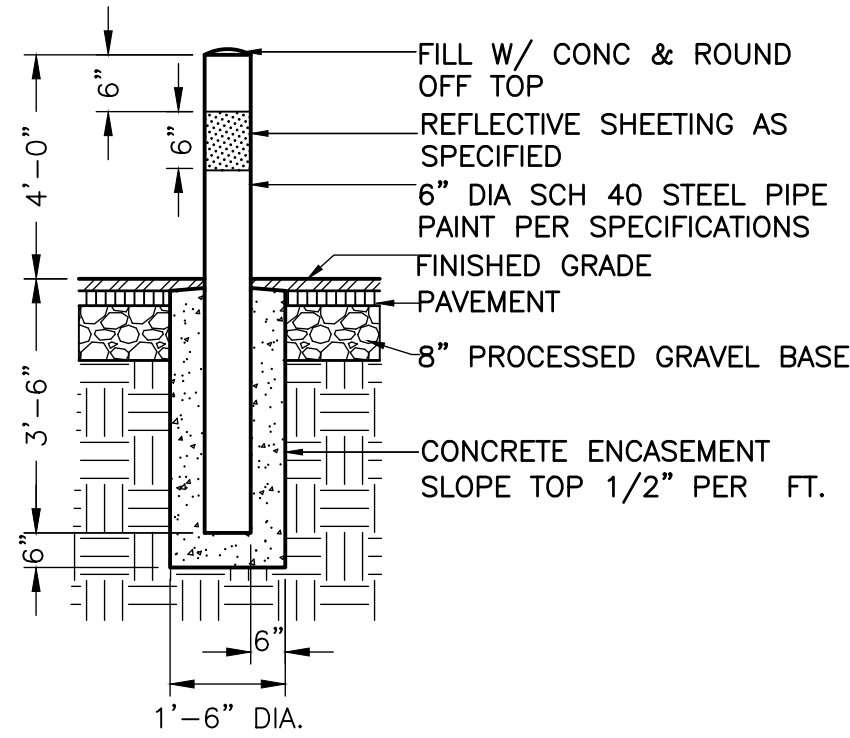
- ALL RELEVANT DETAILS TO COMPLY WITH MADOT STANDARD CONSTRUCTION DETAILS MANUAL
- DIMENSIONS ARE SUBJECT TO CHANGE IN FIELD. ALL SLOPES AND DIMENSIONS TO COMPLY WITH A.D.A. REQUIREMENTS.
- PROVIDE EXPANSION JOINT AT TOPS OF RAMP AND AT BACK OF WALK AT INTERFACE OF CURB.
- PROVIDE HEAVY BROOM FINISH ON RAMP AND SIDE SLOPES PERPENDICULAR TO FLOW OF TRAFFIC.
- MINIMUM WALK DIMENSIONS ARE FROM BACK OF CURB.
- TRANSITION CURB LENGTH AS REQUIRED TO MEET CODE.
- FIXED OBJECTS (i.e. UTILITY POLES, HYDRANTS ETC.) MUST NOT ENCR OACH ON ANY PART OF A WHEELCHAIR RAMP, INCLUDING TRANSITION SLOPES.

ACCESSIBLE CURB RAMP

DETAIL

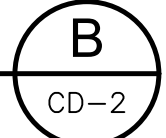


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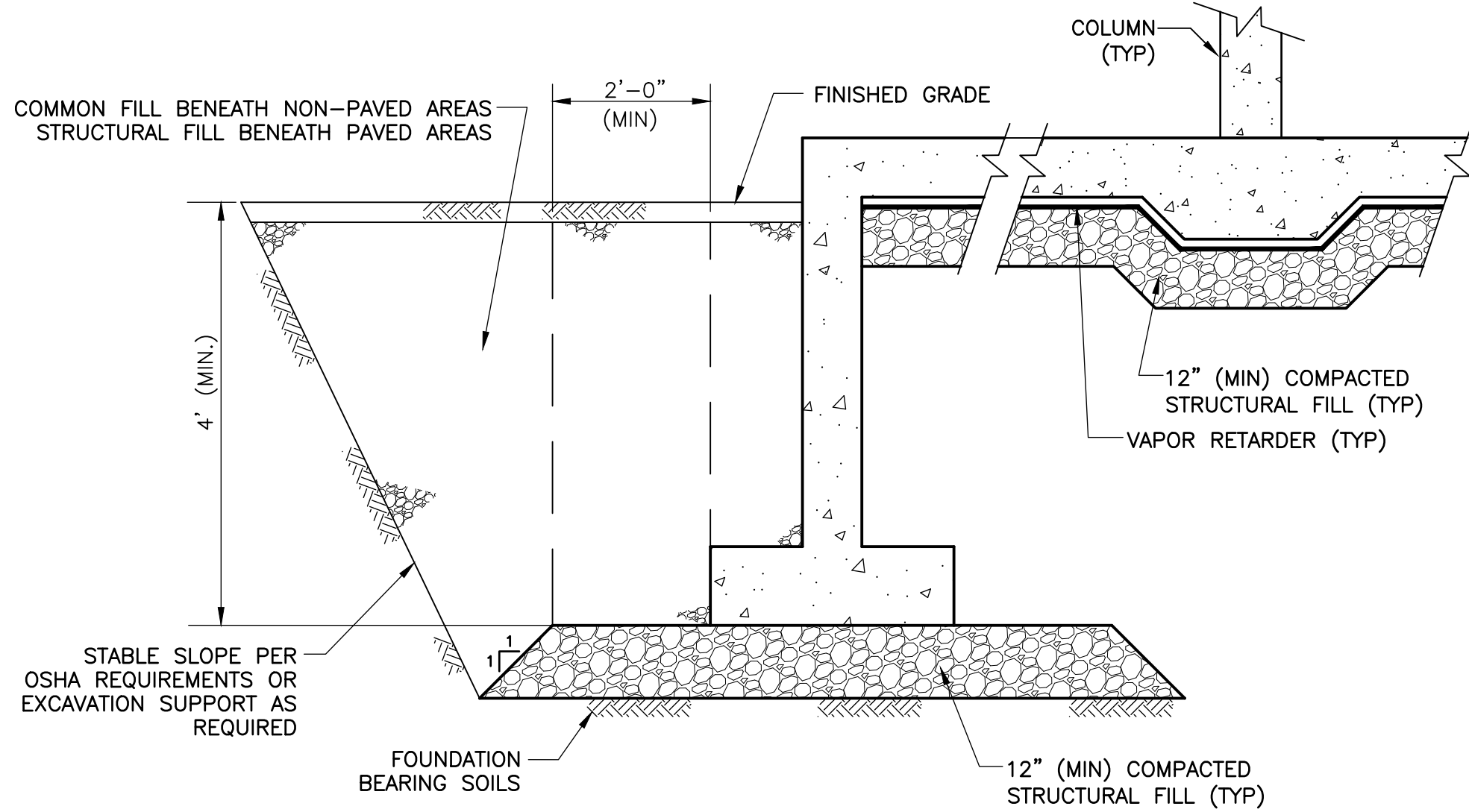


STEEL BOLLARD

DETAIL

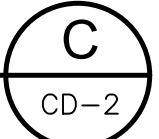


NOT TO SCALE



BACKFILL

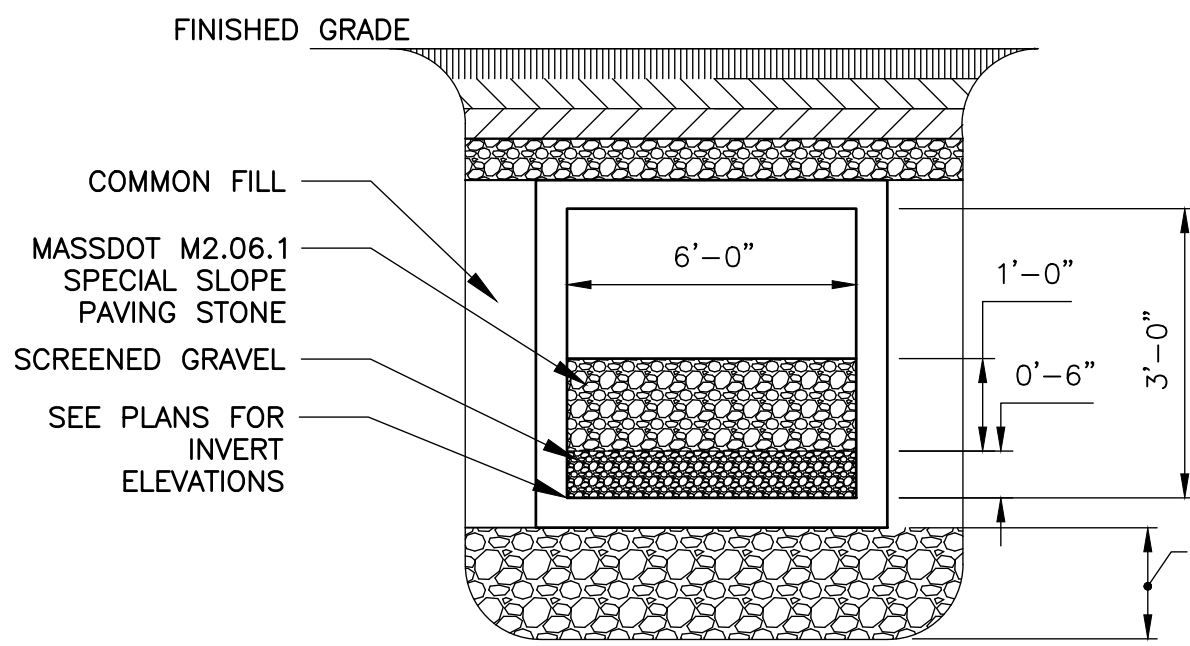
DETAIL



NTS

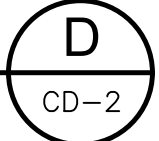
NOTES:

- THE SUITABILITY OF THE FOUNDATION SUB-GRADE TO BE VERIFIED BY CONTRACTOR'S GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF CONCRETE.
- SEE SPECIFICATION SECTION 312000 FOR COMPACTION REQUIREMENTS.
- STRUCTURES INCLUDE TANK, BUILDING, OR SHALLOW FOOTINGS. SEE SITE PLANS.

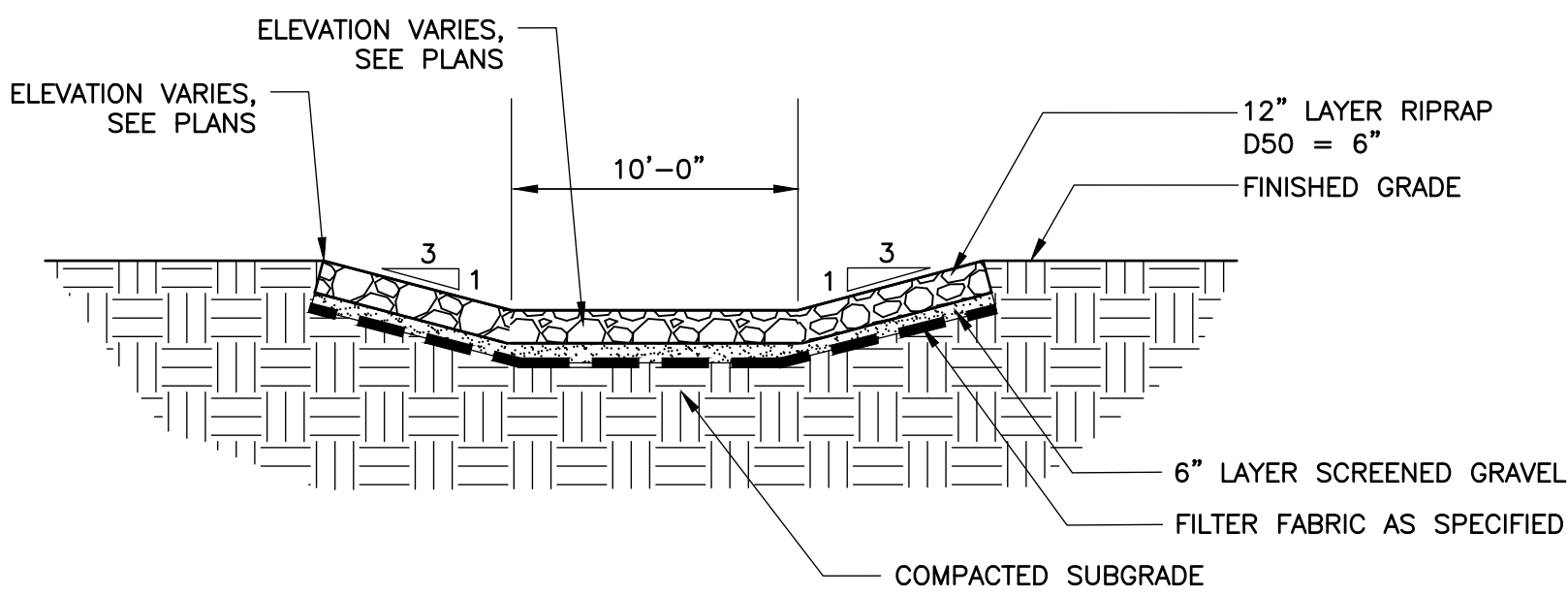


EMBEDDED BOX CULVERT WITH RIPRAP PAD

DETAIL

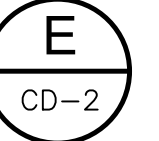


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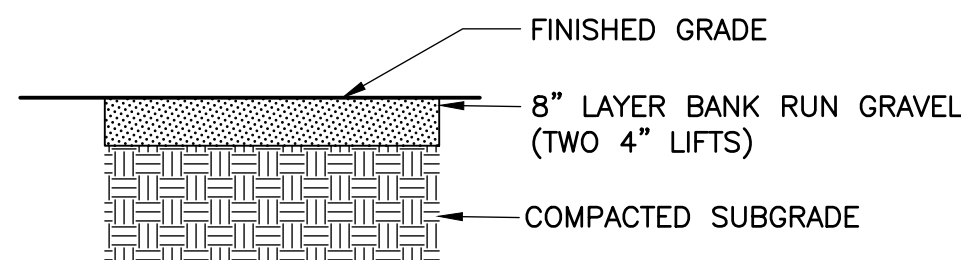


EMERGENCY SPILLWAY

DETAIL



NTS

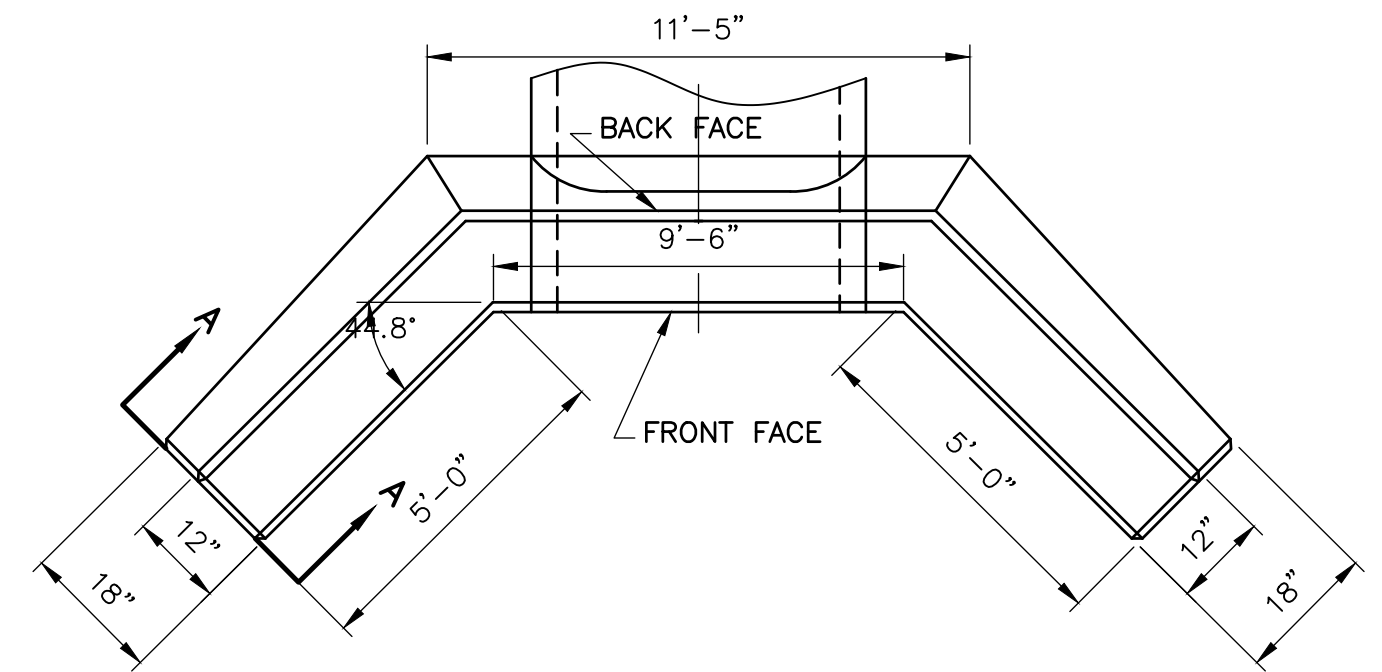


GRAVEL SURFACING

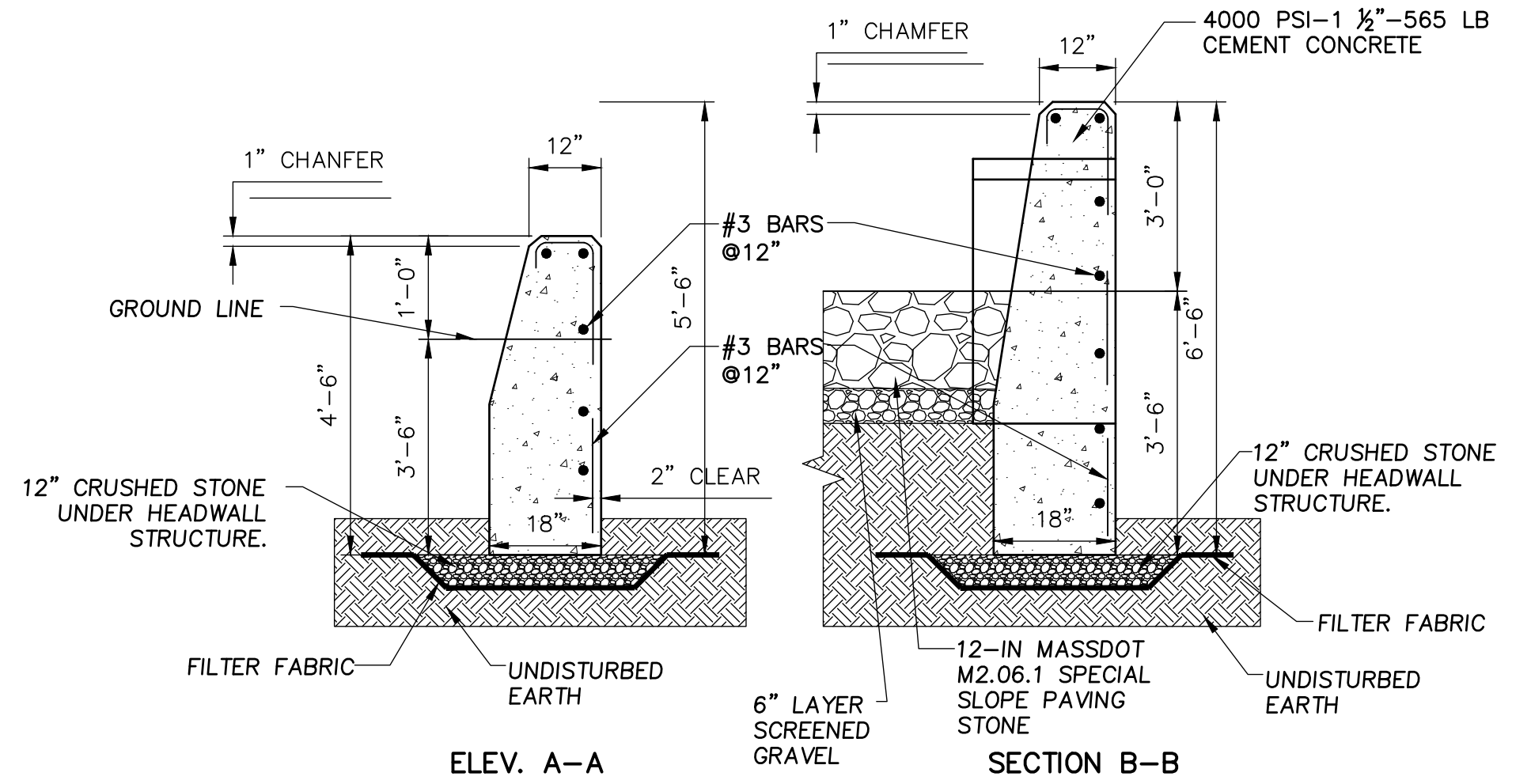
DETAIL



NOT TO SCALE

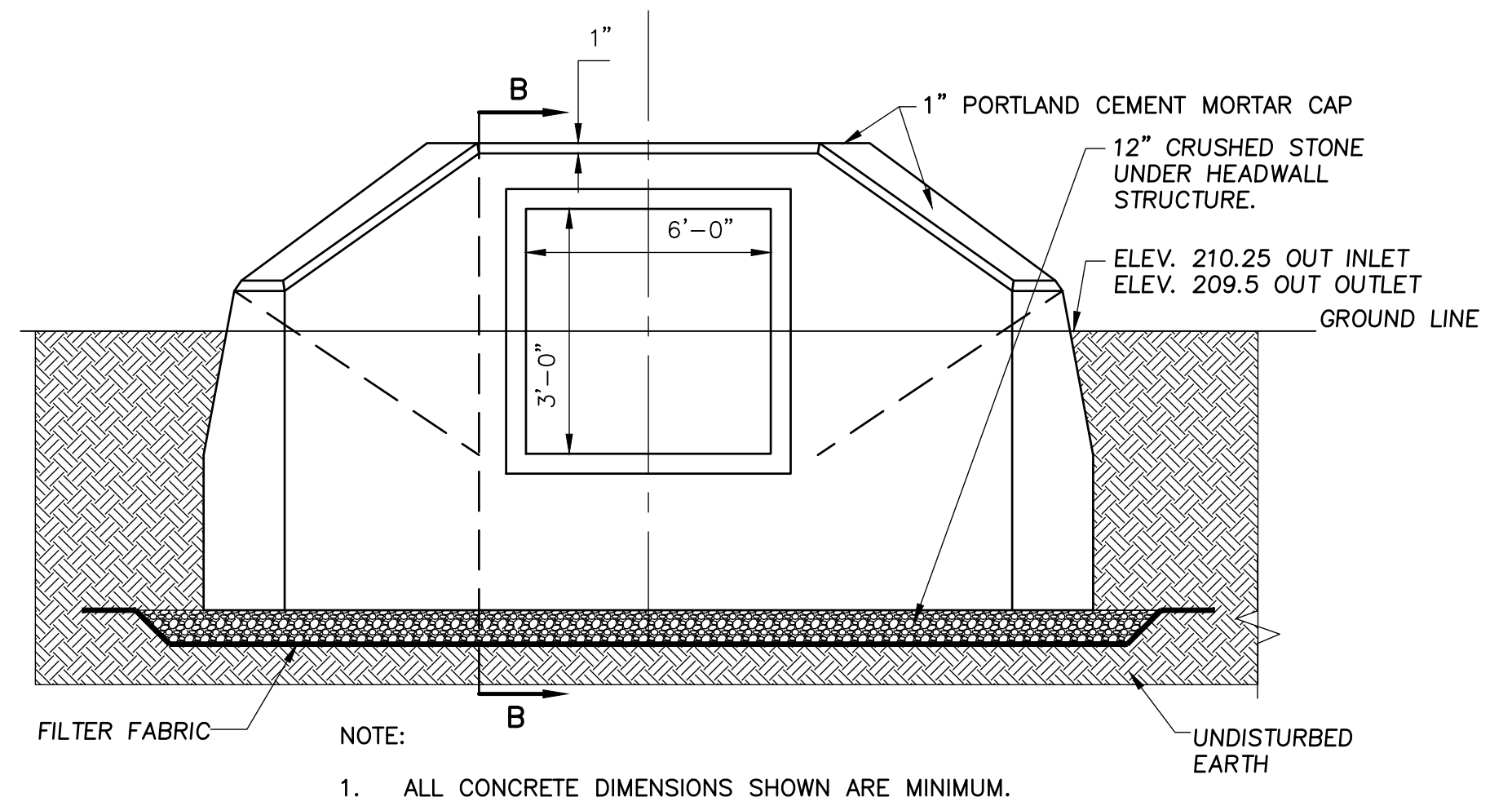


PLAN



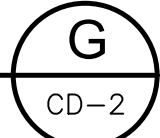
ELEV. A-A

SECTION B-B



PRECAST EMBEDDED CONCRETE HEADWALL WITH WING WALLS

DETAIL



NOT TO SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M.DODSON	
DRAWN BY: J. BRONENKANT	
SHEET CHK'D BY: M.DODSON	
CROSS CHK'D BY: X	
APPROVED BY: X	
DATE: APRIL 2022	

**CDM Smith**  
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Boston, MA 02109  
Tel: (617) 452-6000

LITTLETON WATER DEPARTMENT

LITTLETON WATER RESOURCE  
RECOVERY FACILITY

CIVIL DETAILS II

PROJECT NO. 263387-261886  
FILE NAME: CD002STD1

SHEET NO.

CD-2

90% SUBMITTAL - NOT FOR CONSTRUCTION



DECIDUOUS TREE PLANTING  
DETAIL  
NOT TO SCALE

A  
CD-3

SHRUB PLANTING  
DETAIL

---

NOT TO SCALE

C  
CD-3

DETAIL B  
NOT TO SCALE CD-3

DETAIL D  
NOT TO SCALE CD-3

24'-0" OPENING DOUBLE VEHICLE BARRIER GATE

DETAIL

NOT TO SCALE

E

CD-3

GROUND COVER PLANTING  
 DETAIL  
 NOT TO SCALE

F  
CD-3

DESIGNED BY: M.DODSON  
DRAWN BY: J. BRONENKANT  
SHEET CHK'D BY: M.DODSON  
CROSS CHK'D BY: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_ X  
DATE: APRIL 2022



LITTLETON WATER DEPARTMENT

# LITTLETON WATER RESOURCE RECOVERY FACILITY

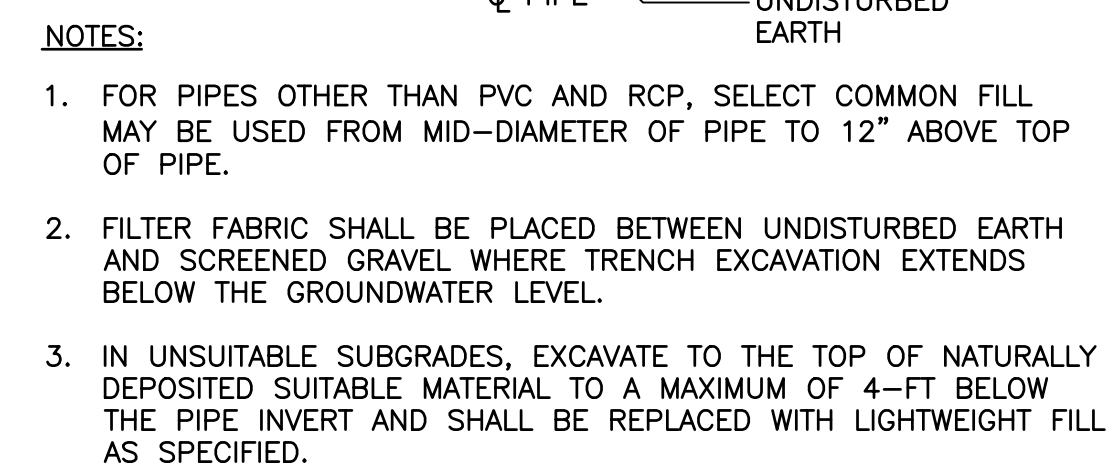
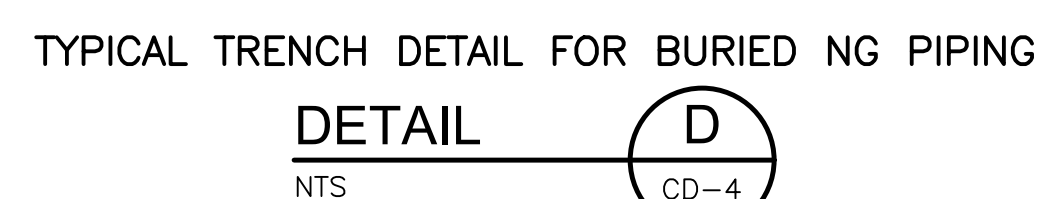
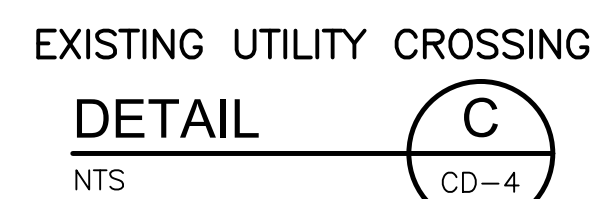
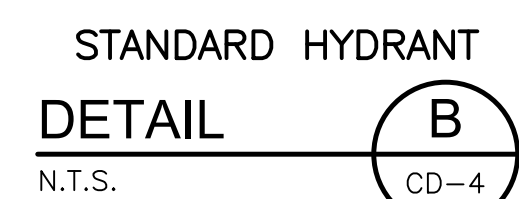
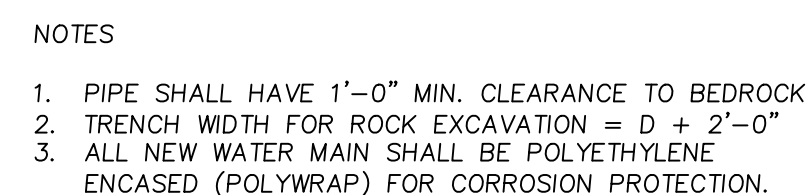
CIVIL DETAILS III

PROJECT NO.	263387-261886
FILE NAME:	CD003STDT

SHEET NO.

CD-3





DESIGNED BY: M.DODSON  
DRAWN BY: J. BRONENKANT  
SHEET CHK'D BY: M.DODSON  
CROSS CHK'D BY: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_ X  
DATE: APRIL 2022

**CDM  
Smith**  
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# LITTLETON WATER RESOURCE RECOVERY FACILITY

CD-4



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ABBREVIATIONS

&	AND	GB	GLASS BLOCK	REF	ROOF EXHAUST FAN
<	ANGLE	GRT	GRATING	REINF	REINFORCE (D, ING)
@	AT	GYP	GYPSUM	REQD	REQUIRED
AB	ANCHOR BOLT	GWB	GYPSUM WALL BOARD	REV	REVISED
ABV	ABOVE	HARD	HARDENER	RF	ROOF FAN
ACMU	ACOUSTICAL CONCRETE MASONRY UNIT	HD	HEAVY DUTY	RFG	ROOFING
AF	ABOVE FINISHED FLOOR	HDWD	HARDWOOD	RGH	ROUGH
AFG	ABOVE FINISHED GRADE	HDWR	HARDWARE	RJ	REVEAL/RUSTICATION JOINT
AL	ALUMINUM	HGR	HANGER	RL	RAIN LEADER
AMP	ACOUSTICAL METAL PANELS	HGT	HEIGHT	RLG	RAILING
ANOD	ANODIZE(D)	HM	HOLLOW METAL	RM	ROOM
ASSY	ASSEMBLY	HOR	HORIZONTAL	RO	ROUGH OPENING
BBT	BIBOBASED TILE	HP	HIGH POINT	RT	RUBBER TILE
BD	BOARD	HR	HANDRAIL	RWL	RAIN WATER LEADER
BEV	BEVEL(ED)	IN	INCH	S	STEEL S-SHAPED DESIGNATION
BLDG	BUILDING	INST	INSTRUMENTATION	SAT	SUSPENDED ACOUSTICAL TILE
BLK	BLOCK	INSUL	INSULATION	SB	SEAMLESS BASE
BLKG	BLOCKING	JC	JANITOR'S CLOSET	SCHD	SCHEDULE
BRG	BEARING	JT	JOINT	SCRN	SCREENED, (ING)
BRK	BRICK	JT FLR	JOINT FILLER	SECT	SECTION
BRS	BRASS	L	LINE OF STRUCTURAL ANGLE DESIGNATION	SF	SEAMLESS FLOORING
BRZ	BRONZE	LAB	LABORATORY	SGFT	STRUCTURAL GLAZED FACING TILE
BTM	BOTTOM	LAD	LADDER	SHT	SHEET
C TO C	CENTER TO CENTER	LAM	LAMINATED	SIM	SIMILAR
CAB	CABINET	LAV	LAVATORY	SK	SINK
CEM	CEMENT	LG	LAMINATED GLASS	SL	SLOPE
CF	COMPRESSIBLE FILLER	LINO	LINOLEUM	SLNT	SLANT
CFMF	COLD FORMED METAL FRAMING	LKR	LOCKER	SPEC	SPECIFICATION, SPECIFIED
CGFB	CEMENTITIOUS GLASS FIBER BOARD	LTNL	LOW POINT	SST	STAINLESS STEEL
CH	CONCRETE HARDENER	LP	LOW POINT	STD	STANDARD
CHAM	CHAMFER	LT	LIGHT(S)	STL	STEEL
CHAN	CHANNEL	MAS	MASONRY	STOR	STORAGE
CIP	CAST IN PLACE	MATL	MATERIAL	STRU	STRUCTURE(S, URAL)
CJ	CONTROL JOINT	MAX	MAXIMUM	STWY	STAIRWAY
CL OR ☒	CENTERLINE	MEMB	MEMBRANE	SUPT	SUPERINTENDENT
CLG	CEILING	MFR	MANUFACTURER	SUSP	SUSPENDED
CLKG	CAULKING	MIN	MINIMUM	T	TREAD(S)
CMU	CONCRETE MASONRY UNIT	MISC	MISCELLANEOUS	TBM	TRAFFIC BEARING MEMBRANE
COL	COLUMN	MO	MASONRY OPENING	T&G	TONGUE AND GROOVE
COMP	COMPRESSIBLE	MR	MOISTURE RESISTANT	TEMP	TEMPERATURE
CONC	CONCRETE	MRAT	MOISTURE RESISTANT ACOUSTICAL TILE	TEMP	TEMPERED
CONT	CONTINUOUS	MTD	MOUNTED	TEMP	TEMPORARY
CRPT	CARPET, CARPET TILE	MTG	MOUNTING	TER	TERRAZZO
CRS	COURSE(S)	MTL	METAL	TERB	TERRAZZO BASE
CT	CERAMIC TILE	NIC	NOT IN CONTRACT	THK	THICKNESS
CET	DETAIL	NOM	NOMINAL	THR	THRESHOLD
DF	DRINKING FOUNTAIN	NTS	NOT TO SCALE	TKBD	TACKBOARD
DIA	DIAMETER	OC	ON CENTER	TOB	TOP OF BRICK
DIAG	DIAGONAL	OH	OVERHANG	TOC	TOP OF CONCRETE
DIM	DIMENSION	OPNG	OPENING	TOIL	TOILET
DISP	DISPENSER	OPP HD	OPPOSITE HAND	TOM	TOP OF MASONRY
DN	DOWN	ORD	OVERFLOW ROOF DRAIN	TOPG	TOPPING
DP	DAMPPOOFING	OSB	ORIENTED STRAND BOARD	TOS	TOP OF STEEL
DR	DRAIN	OV	OVER	TS	STRUCTURAL TUBING (STEEL UNLESS NOTED)
ELEC	ELECTRICAL	OVHD	OVERHEAD	TSL	TOP OF SLAB
ELEV	ELEVATION	PERM	PERIMETER	TWF	THROUGH WALL FLASHING
EQ	EQUALLY	PL	PLATE	TYP	TYPICAL
EQPT	EQUIPMENT	PL	PROPERTY LINE	UC	UNDERCUT
EWC	ELECTRICAL WATER COOLER	PLAS	PLASTER	UON	UNLESS OTHERWISE NOTED
EXP	EXPOSED	PLK	PLANK	URINAL	URINAL
EJ	EXPANSION JOINT	PLYWD	PLYWOOD	VB	VAPOR BARRIER
EXIST, (E)	EXISTING	PM	PRESSED METAL	VCT	VINYL COMPOSITE TILE
FD	FLOOR DRAIN	PR	PAIR	VERT	VERTICAL
FE	FIRE EXTINGUISHER	PRD	PROMENADE ROOF DRAIN	VEST	VESTIBULE
FF	FACTORY FINISH	PRCST	PRECAST	VTR	VENT THRU ROOF
FGL	FIBERGLASS	PREFAB	PRE-FABRICATED	W	WITH
FIN	FINISHED	PT	PRESSURE TREATED	WI	WITH
FLG	FLASHING	PRMLD	PREMULDED	W/A	WHERE APPLICABLE
FL	FLOOR(ING)	PSF	POUNDS PER SQUARE FOOT	WIO	WITHOUT
FLR	FILLER	PTD	PAINTED	WC	WATER CLOSET
FR	FRAME	QT	QUARRY TILE	WD	WOOD
FRP	FIBERGLASS REINFORCED PLASTIC	QTB	QUARRY TILE BASE	WDW	WINDOW
FO	FRAME OPENING	R	RISE(R)S	WF	WIDE FLANGE
FV	FIELD VERIFY	R-S	BACKER ROD & SEALANT	WPG	WATERPROOFING
FXD	FIXED	RB	RUBBER BASE	WT	STEEL TEE-SHAPE DESIGNATION
GA	GAGE, GAUGE	RD	ROOF DRAIN	WWF	WELDED WIRE FABRIC
GALV	GALVANIZED	RECT	RECEPTACLE		
GL	GLASS				

GENERAL NOTES

- HEIGHT OF INTERIOR STUD AND CMU PARTITIONS ARE FROM FLOOR TO THE UNDERSIDE OF ROOF DECK UNLESS OTHERWISE NOTED. PROVIDE DEFLECTION HEADS AT TOP OF WALL, TYPICAL.
- NOT ALL EQUIPMENT IS SHOWN FOR CLARITY. REFER TO THE APPROPRIATE DISCIPLINE SHEETS FOR SPECIFIC EQUIPMENT LAYOUT AND OTHER REQUIREMENTS.
- SEE CIVIL SHEETS FOR SIDEWALK, ROAD PAVING AND FINISH GRADE ELEVATIONS.
- SEE STRUCTURAL SHEETS FOR SIZE AND LOCATION OF CONCRETE PADS, TRENCHES, VAULTS, SUMPS, ETC.
- SEE STRUCTURAL SHEETS FOR CONCRETE AND MASONRY REINFORCEMENT.
- PATCH AND REPAIR ANY MATERIALS OR SURFACES DAMAGED DURING THE CONSTRUCTION PROCESS TO MATCH THE EXISTING ADJACENT SURFACES.
- ALL ITEMS TO BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE.
- ALL JOINTS, VOIDS AND PENETRATIONS THROUGH FIRE-RATED WALL SYSTEMS ARE TO BE FILLED/SEALED WITH UL APPROVED FIRESTOPPING/FIRESTOPPING MATERIALS TO ACHIEVE THE REQUIRED FIRE-RATING. REFER TO LIFE SAFETY PLANS FOR LOCATIONS.
- DO NOT SCALE FROM THE DRAWINGS.
- NOTIFY ARCHITECT IF CONSTRUCTION DOCUMENTS DIFFER FROM ACTUAL FIELD CONDITIONS PRIOR TO FABRICATION OR NEW CONSTRUCTION.
- THIS DRAWING CONTAINS A GENERAL LIST OF SYMBOLS AND ABBREVIATIONS. NOT ALL ITEMS SHOWN HERE APPEAR ON THE CONTRACT DRAWINGS.

LINE TYPES

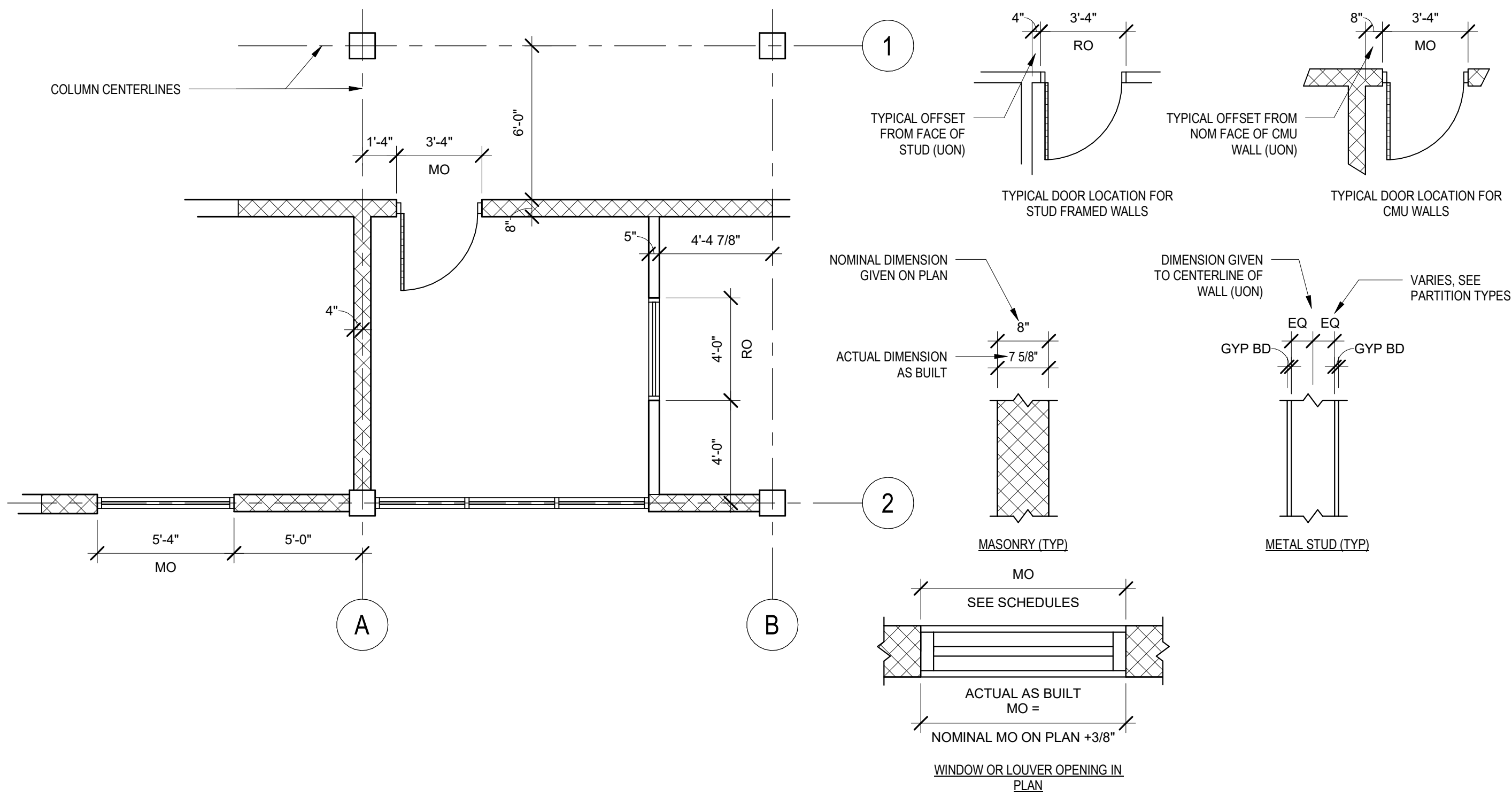
(UNLESS OTHERWISE NOTED)

- CONTINUOUS - NEW CONSTRUCTION
- DASHED ON CONSTRUCTION PLAN/SHEETS - HIDDEN ELEMENTS BEYOND, ABOVE OR BELOW

MATERIAL SYMBOLS

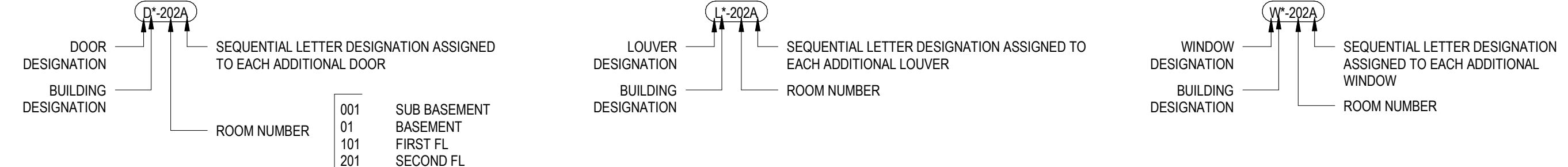
- EARTH
- GRAVEL
- BRICK
- CONCRETE MASONRY UNIT (CMU)
- PRECAST CONCRETE
- CAST-IN-PLACE CONCRETE
- WOOD BLOCKING
- WOOD FINISH
- PLYWOOD
- RIGID INSULATION
- BLANKET INSULATION
- STEEL
- ALUMINUM
- STUCCO / GROUT
- CAULK

DIMENSIONING SYSTEM

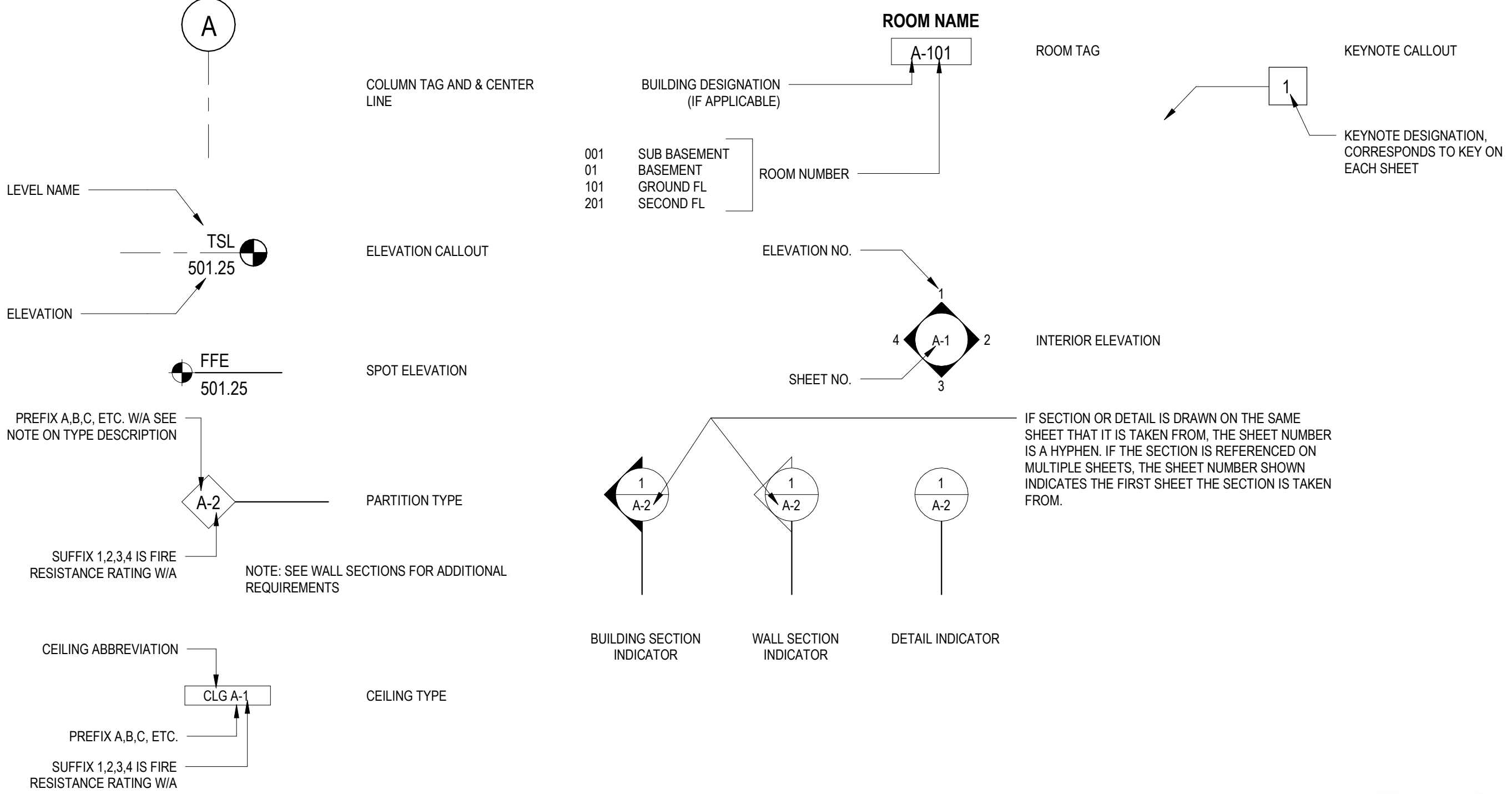


OPENINGS

USUALLY LABELED IN PLAN VIEW; HOWEVER, OPENINGS NOT SHOWN IN PLAN ARE LABELED ON ELEVATIONS



SYMBOLS



FOR PERMITTING PURPOSES ONLY NOT FOR CONSTRUCTION

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL  
DRAWN BY: R. MARSHALL  
SHEET CHKD BY: S. BRADFORD  
CROSS CHKD BY: B. GIORGI  
APPROVED BY: K. JOHNSTON  
DATE: MARCH 2022



LITTLETON  
WATER DEPARTMENT  
KING STREET WATER RESOURCE  
RECOVERY FACILITY

ARCHITECTURAL ABBREVIATIONS AND SYMBOLS

PROJECT NO. 263387-261886  
FILE NAME: AWZ000PB.RVT  
SHEET NO. A-1







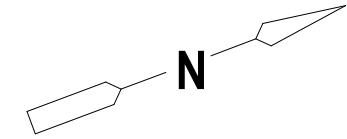
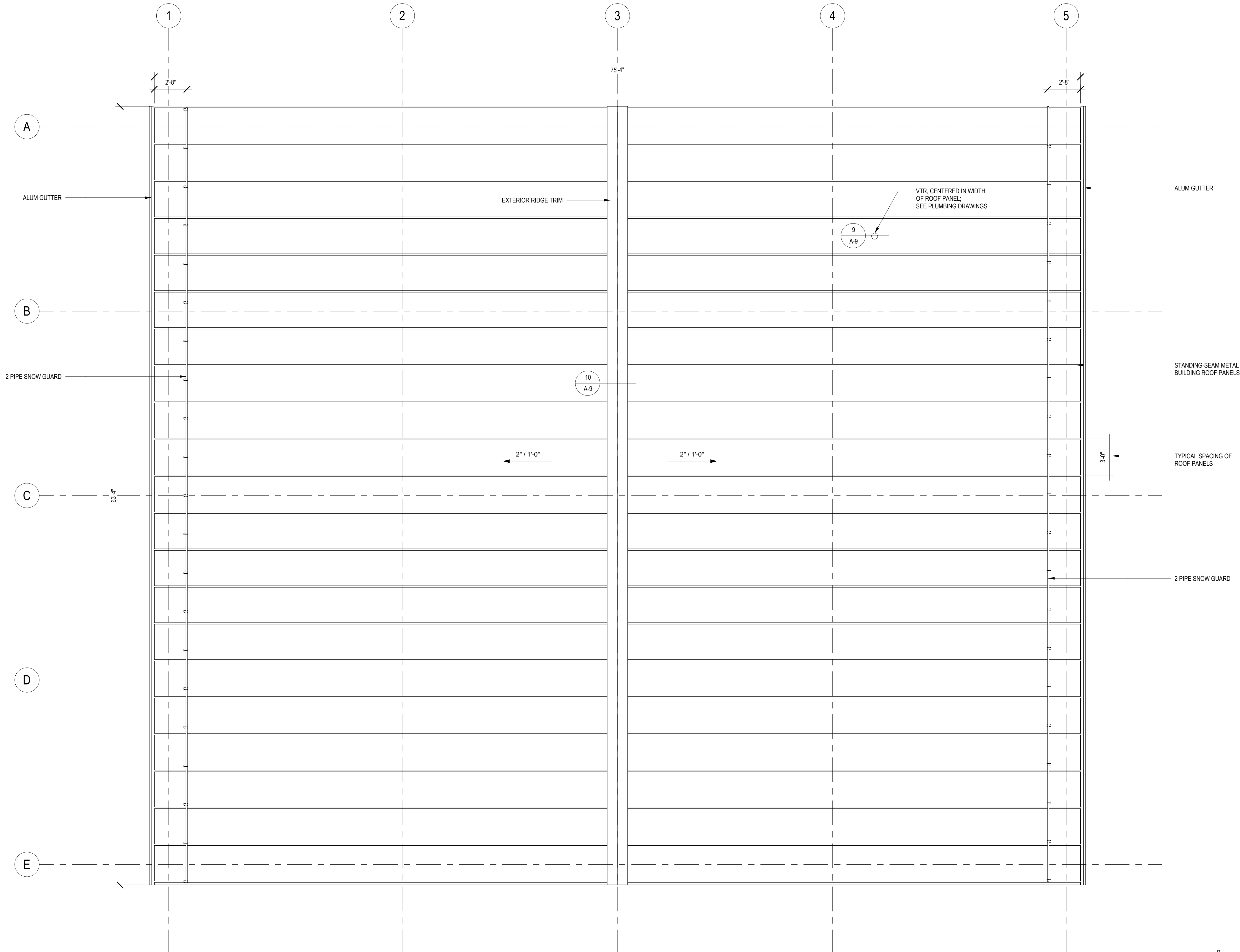
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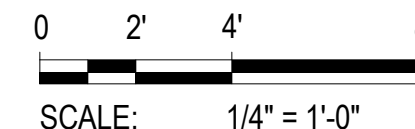
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ROOF PLAN  
1/4" = 1'-0"



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APPROVED BY: K. JOHNSTON  
DATE: MARCH 2022

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LITTLETON  
WATER DEPARTMENT  
**KING STREET WATER RESOURCE  
RECOVERY FACILITY**

ROOF PLAN

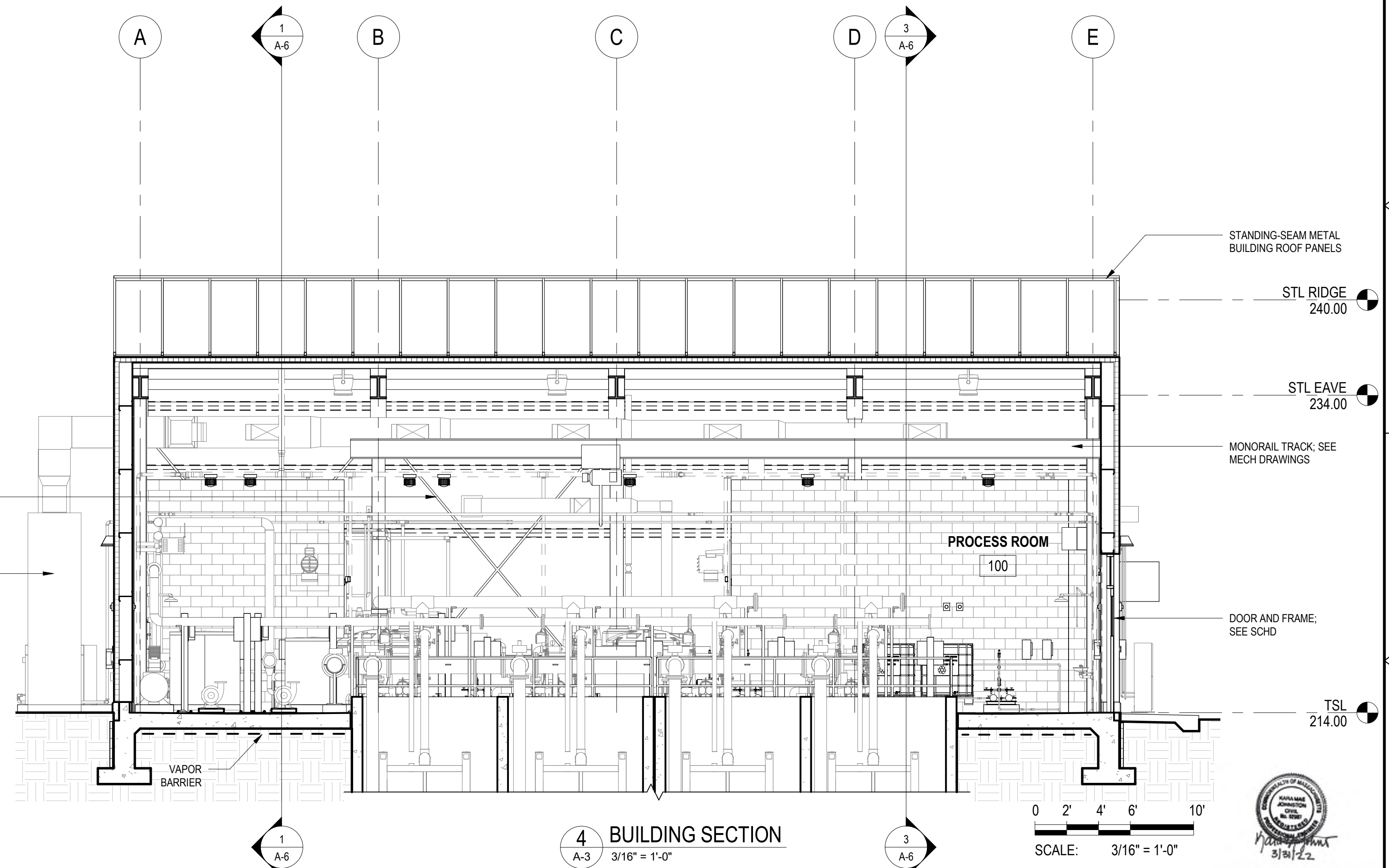
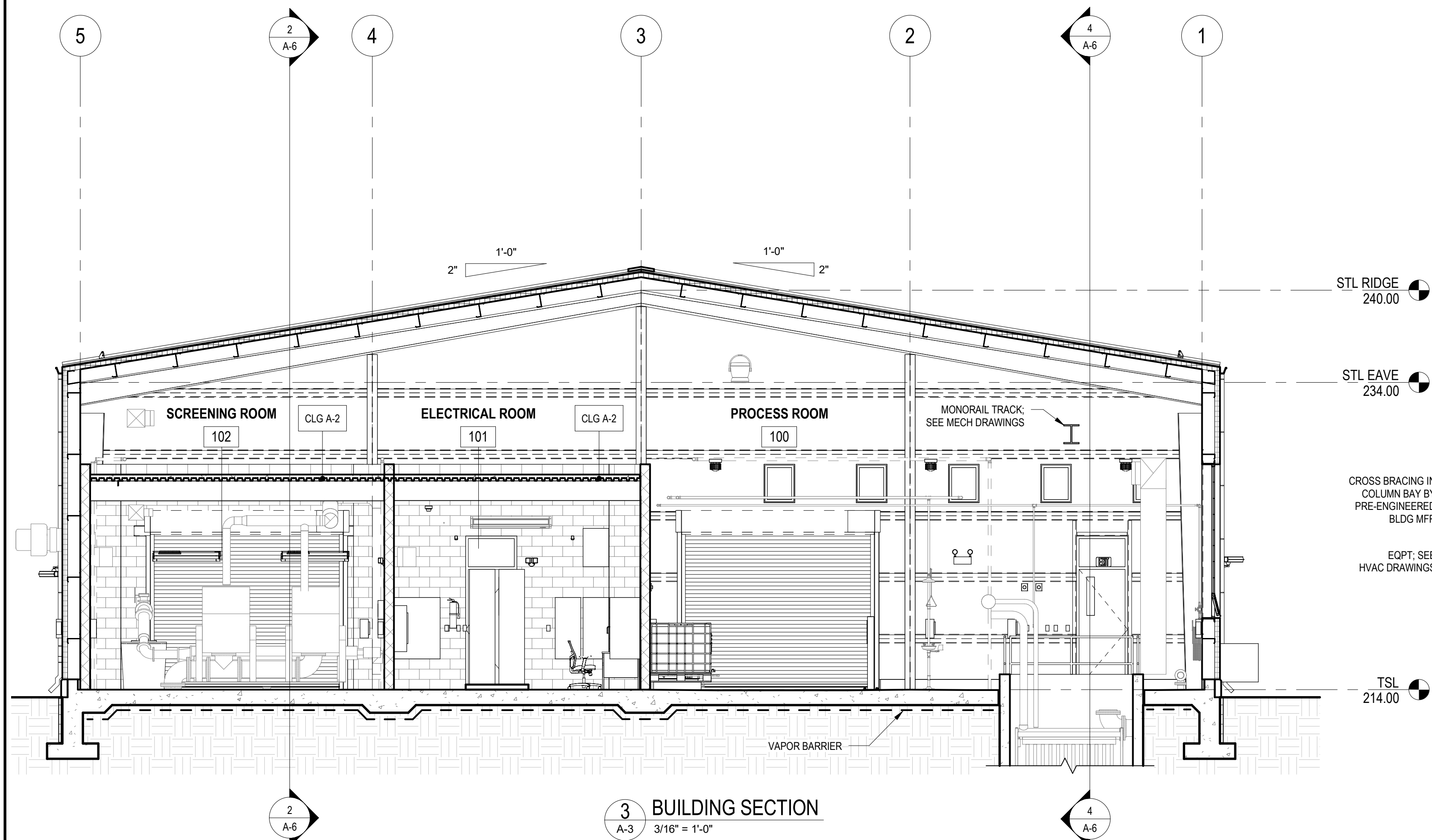
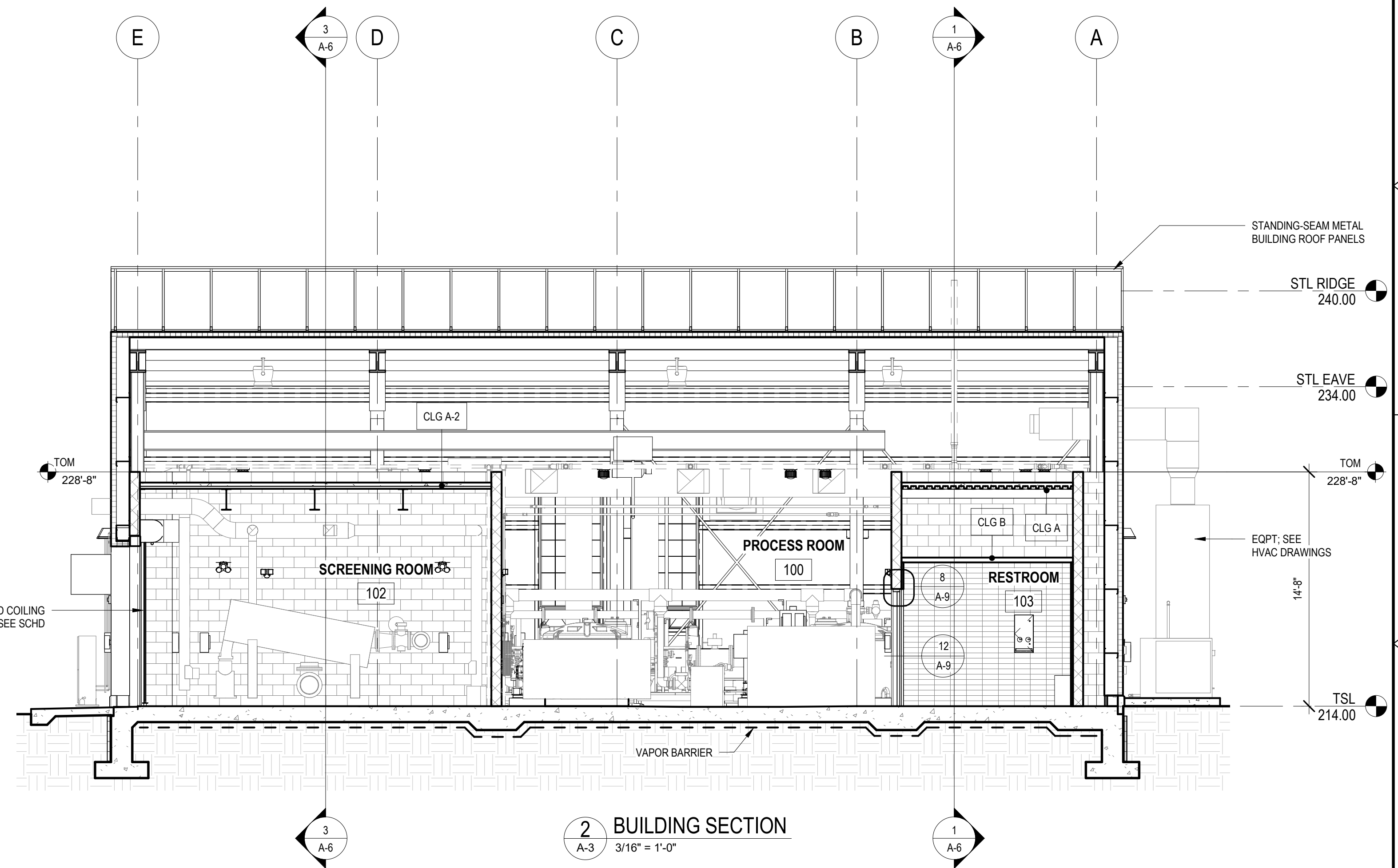
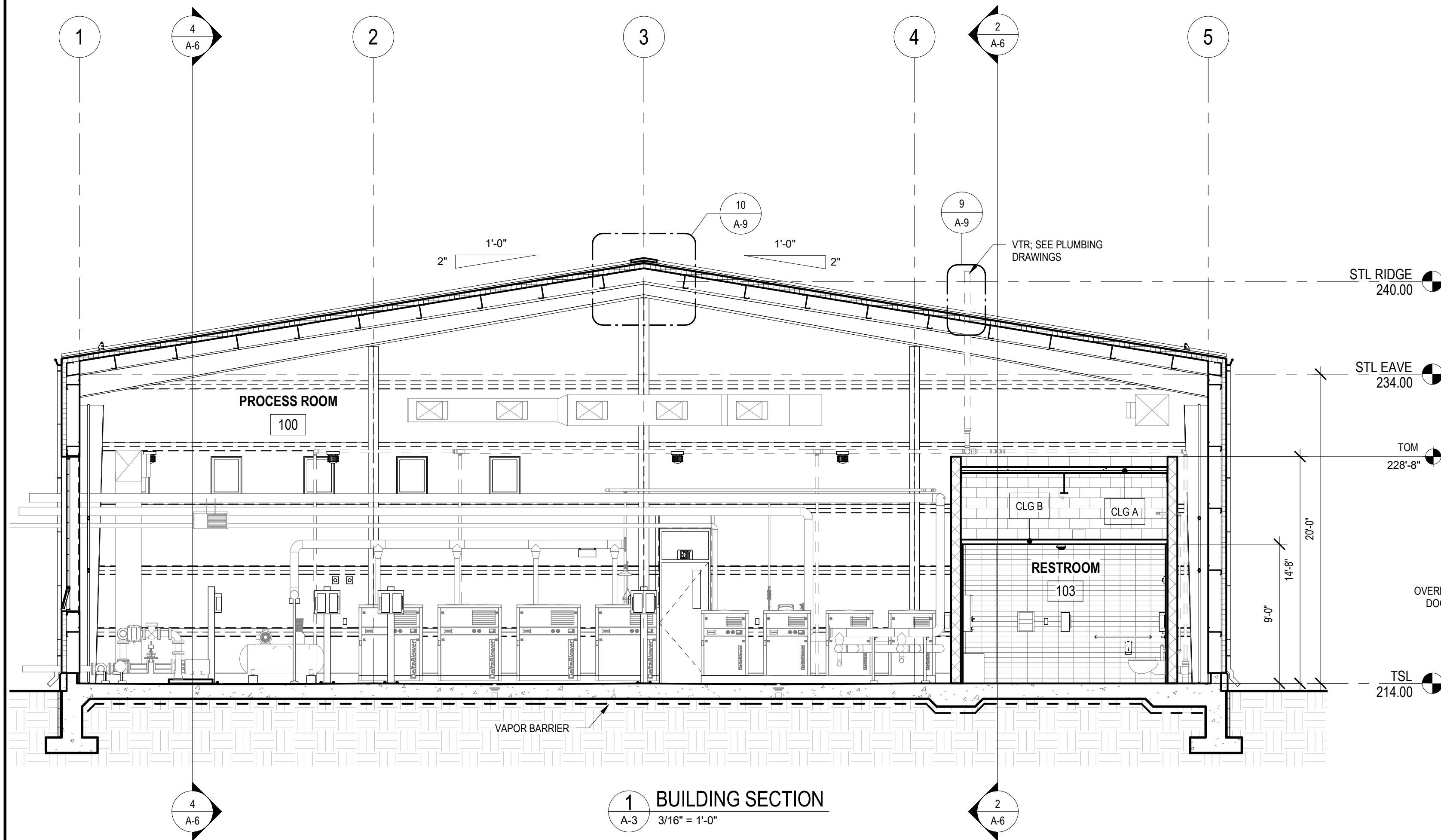
PROJECT NO. 263387-261886  
FILE NAME: AWZ000PB.RVT  
SHEET NO.  
**A-4**







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0 2' 4' 6' 10'  
SCALE: 3/16" = 1'-0"

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL  
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LITTLETON  
WATER DEPARTMENT  
**KING STREET WATER RESOURCE  
RECOVERY FACILITY**

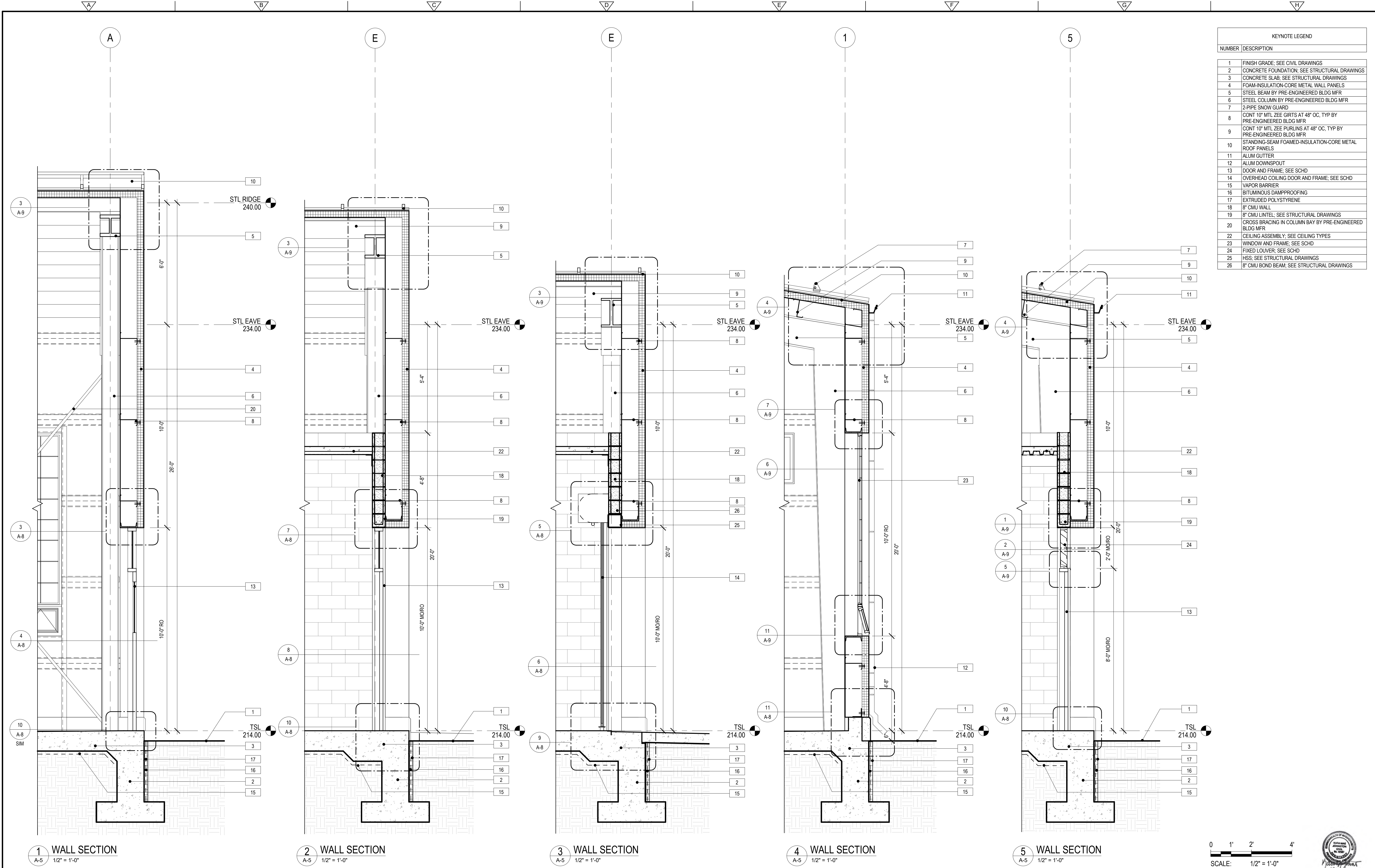
**BUILDING SECTIONS**

PROJECT NO. 263387-261886  
FILE NAME: AWZ000PB.RVT  
SHEET NO.  
**A-6**

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KEYNOTE LEGEND	
NUMBER	DESCRIPTION
1	FINISH GRADE; SEE CIVIL DRAWINGS
2	CONCRETE FOUNDATION; SEE STRUCTURAL DRAWINGS
3	CONCRETE SLAB; SEE STRUCTURAL DRAWINGS
4	FOAM-INSULATION-CORE METAL WALL PANELS
5	STEEL BEAM BY PRE-ENGINEERED BLDG MFR
6	STEEL COLUMN BY PRE-ENGINEERED BLDG MFR
7	2-PIPE SNOW GUARD
8	CONT 10" MTL ZEE GIRTS AT 48" OC, TYP BY PRE-ENGINEERED BLDG MFR
9	CONT 10" MTL ZEE PURLINS AT 48" OC, TYP BY PRE-ENGINEERED BLDG MFR
10	STANDING SEAM FOAMED-INSULATION-CORE METAL ROOF PANELS
11	ALUM GUTTER
12	ALUM DOWNSPOUT
13	DOOR AND FRAME; SEE SCHD
14	OVERHEAD COILING DOOR AND FRAME; SEE SCHD
15	VAPOR BARRIER
16	BITUMINOUS DAMPPROOFING
17	EXTRUDED POLYSTYRENE
18	8" CMU WALL
19	8" CMU LINTEL; SEE STRUCTURAL DRAWINGS
20	CROSS BRACING IN COLUMN BAY BY PRE-ENGINEERED BLDG MFR
22	CEILING ASSEMBLY; SEE CEILING TYPES
23	WINDOW AND FRAME; SEE SCHD
24	FIXED LOUVER; SEE SCHD
25	HSS; SEE STRUCTURAL DRAWINGS
26	8" CMU BOND BEAM; SEE STRUCTURAL DRAWINGS

0 1' 2' 4'  
SCALE: 1/2" = 1'-0"



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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL  
DRAWN BY: R. MARSHALL  
SHEET CHKD BY: S. BRADFORD  
CROSS CHKD BY: B. GIORGI  
APPROVED BY: K. JOHNSTON  
DATE: MARCH 2022

**CDM Smith**  
75 State Street, Suite 701  
Boston, MA 02109  
Tel: (617) 452-6000

LITTLETON  
WATER DEPARTMENT  
KING STREET WATER RESOURCE  
RECOVERY FACILITY

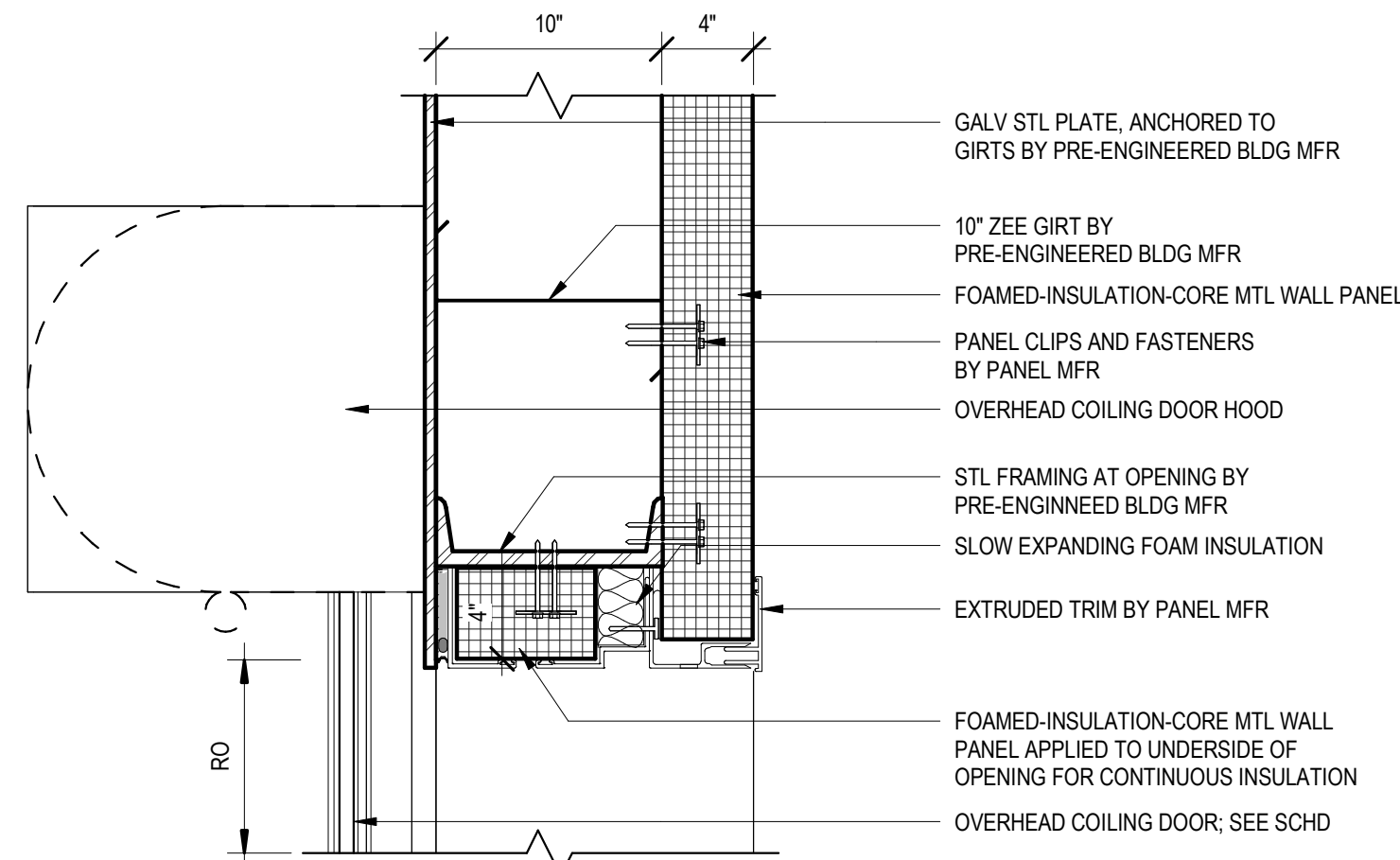
WALL SECTIONS

PROJECT NO. 263387-261886  
FILE NAME: AWZ000PB.RVT  
SHEET NO. A-7

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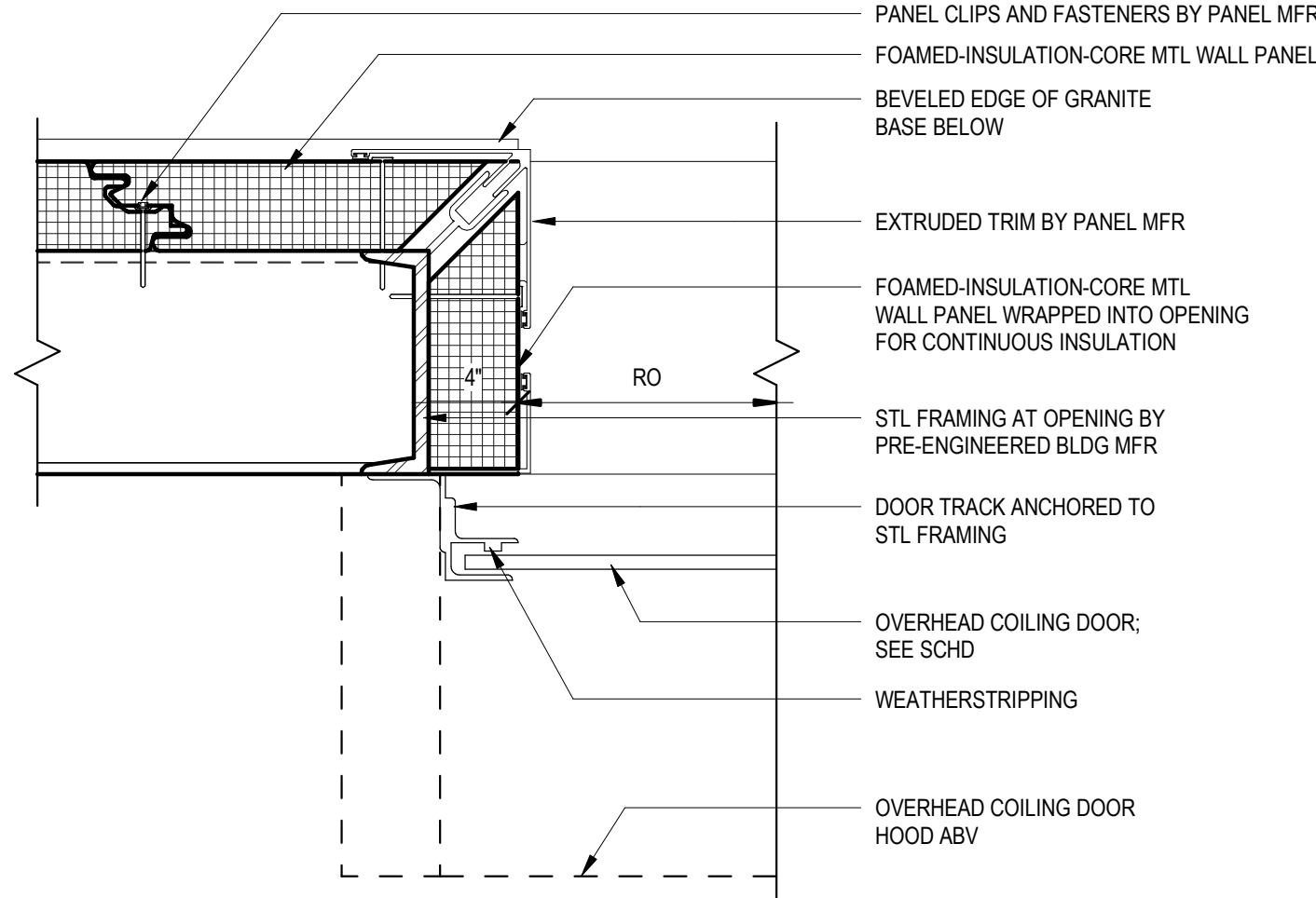


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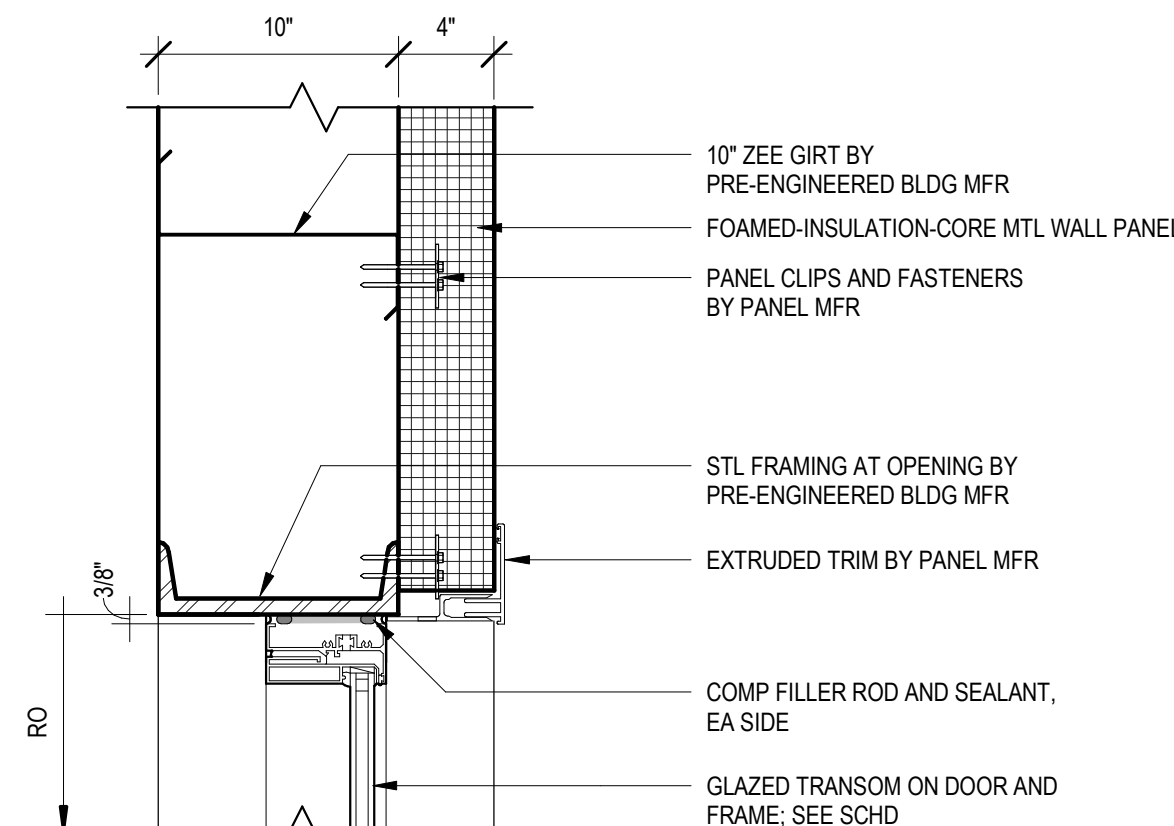
OH DOOR HEAD AT STL

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



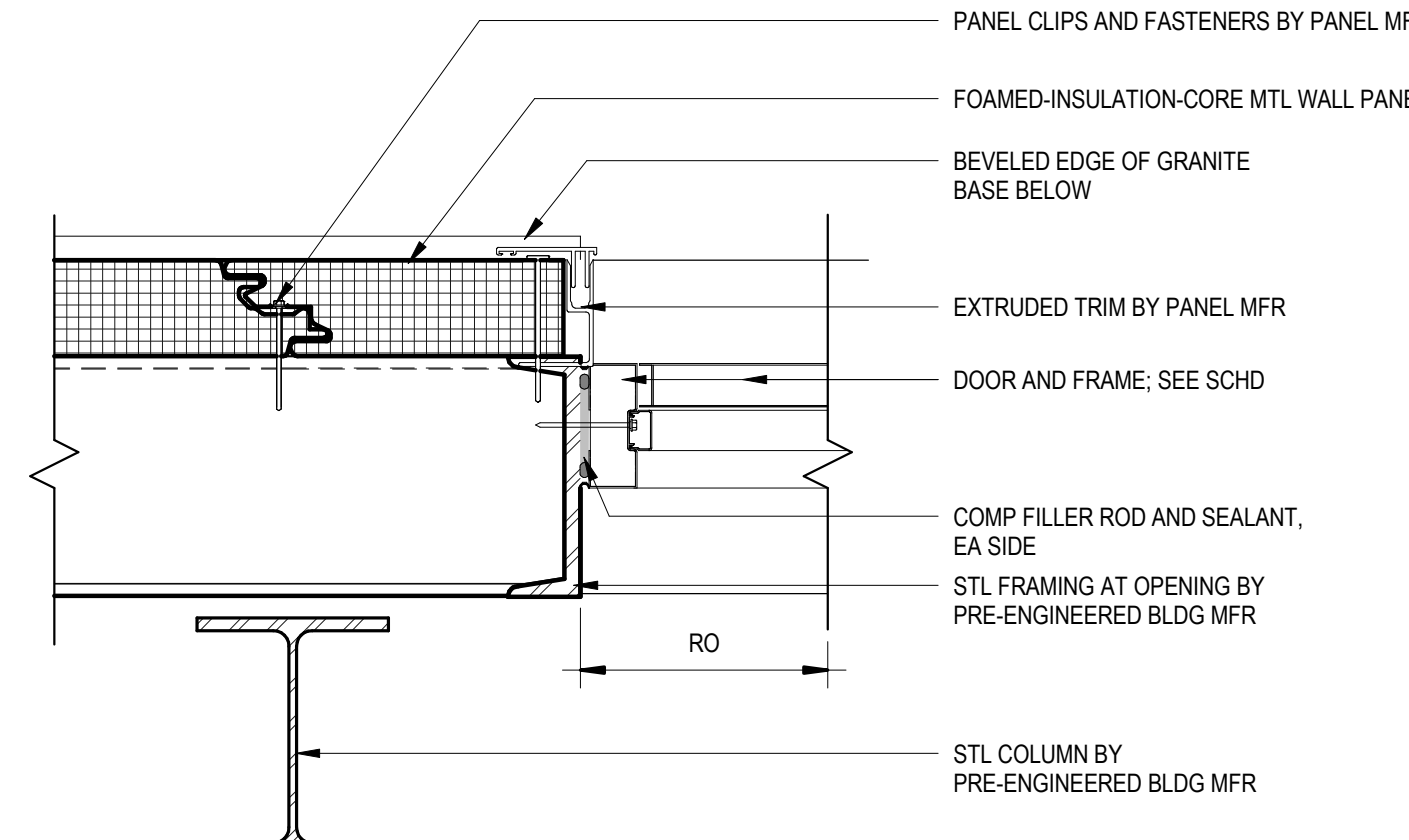
OH DOOR JAMB AT STL

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



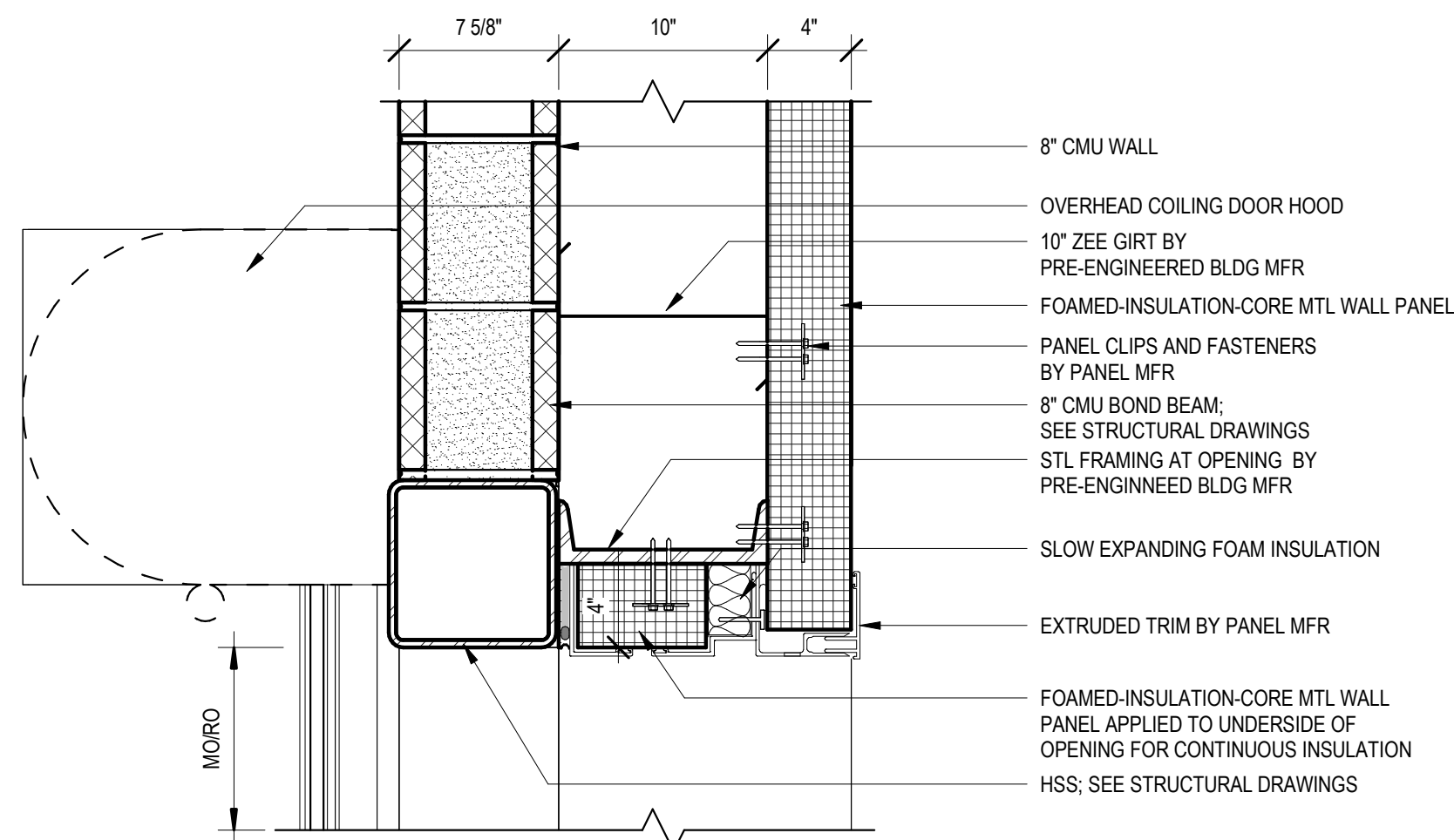
EXTERIOR DOOR HEAD AT STL

**3 DETAIL**  
1 1/2" = 1'-0"



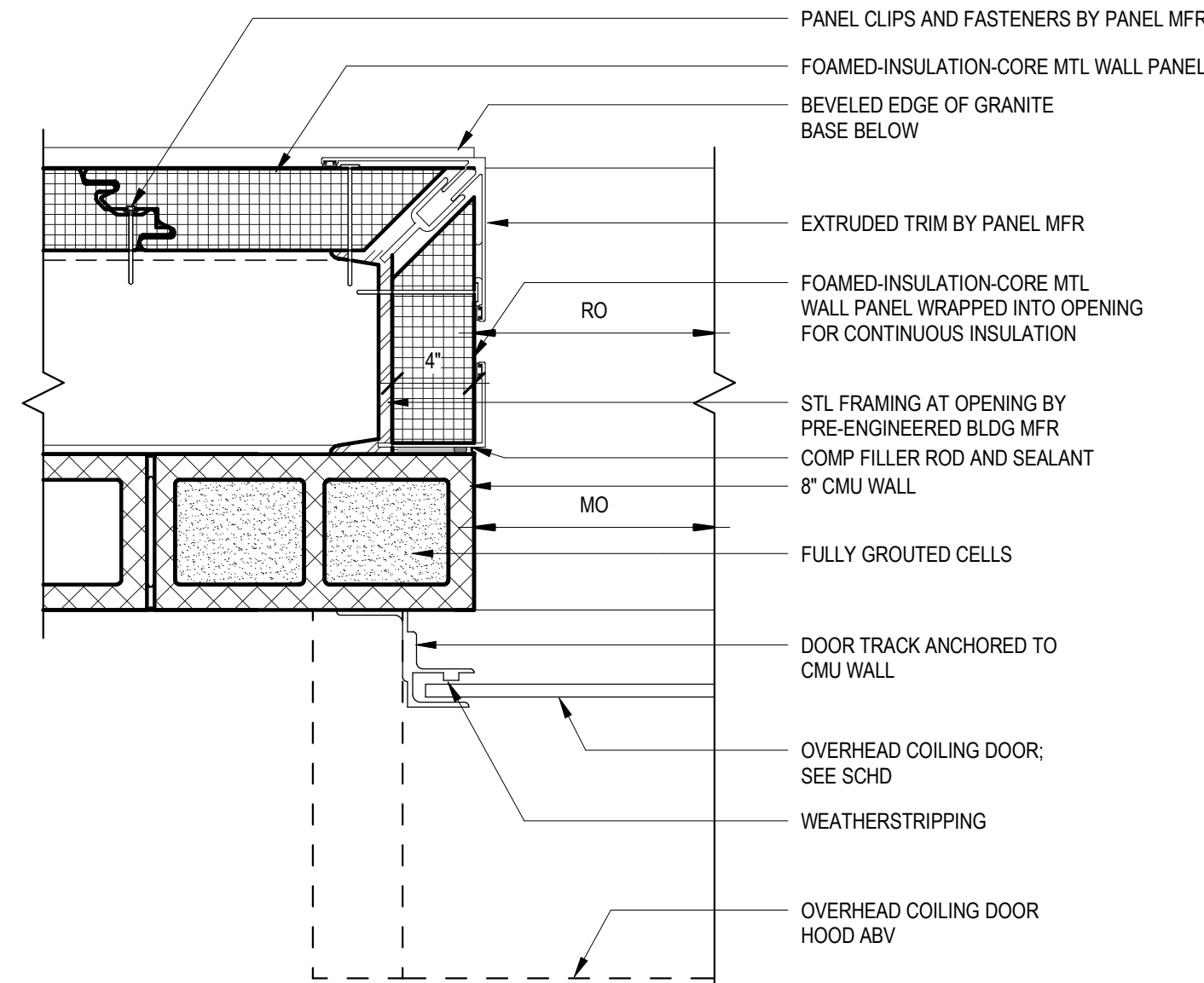
EXTERIOR DOOR AT STL

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



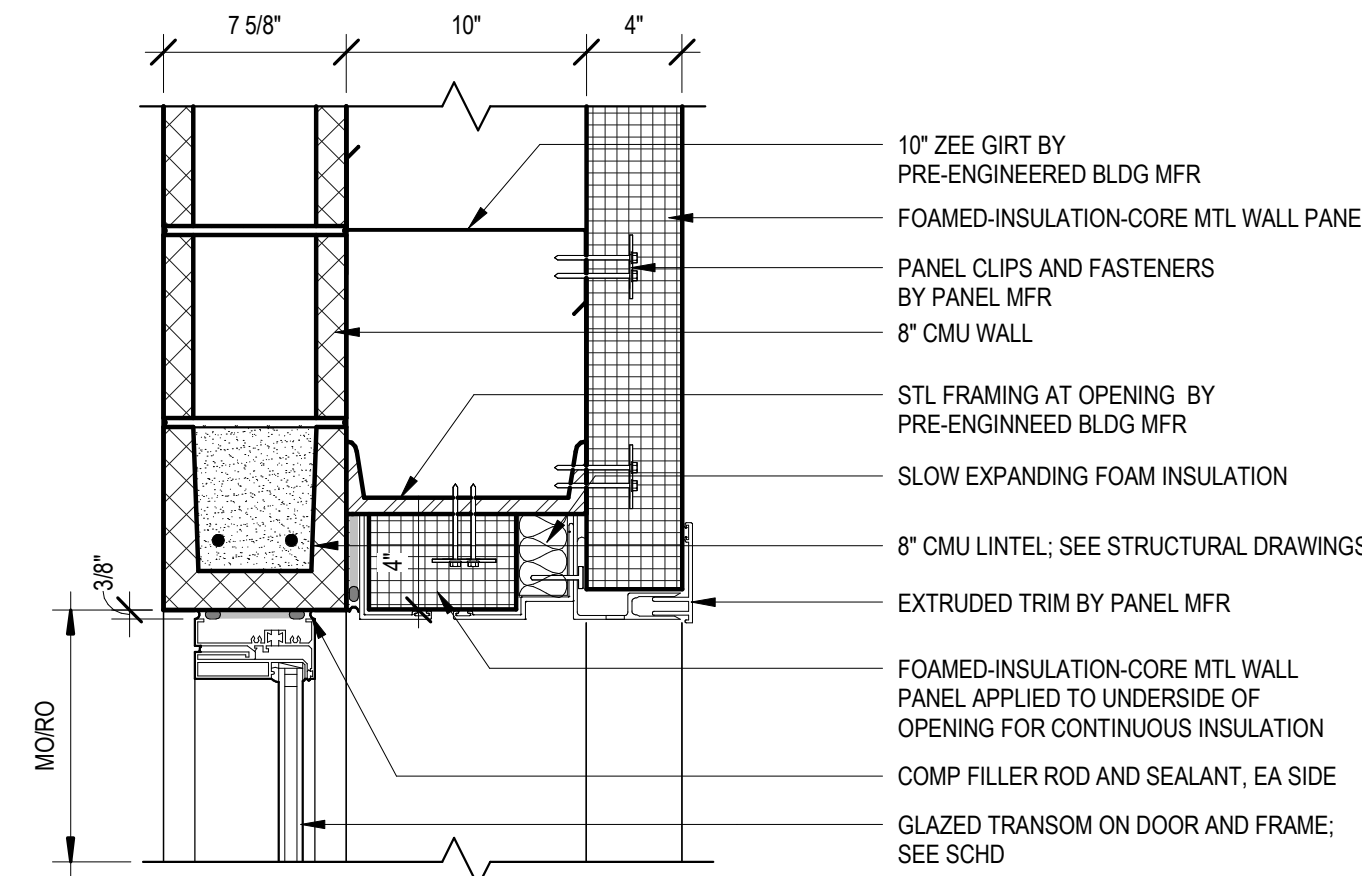
OH DOOR HEAD AT CMU

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



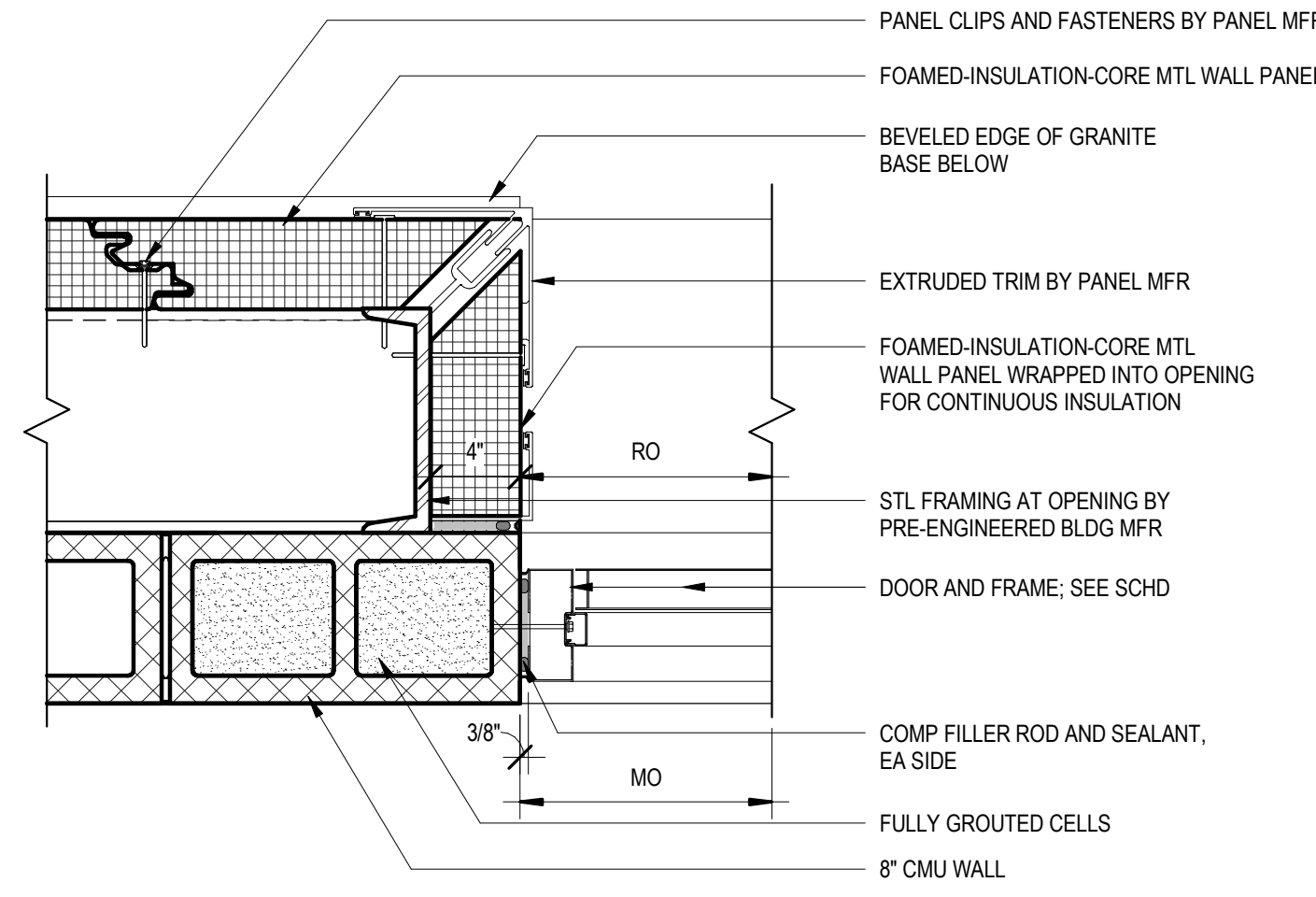
OH DOOR JAMB AT CMU

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



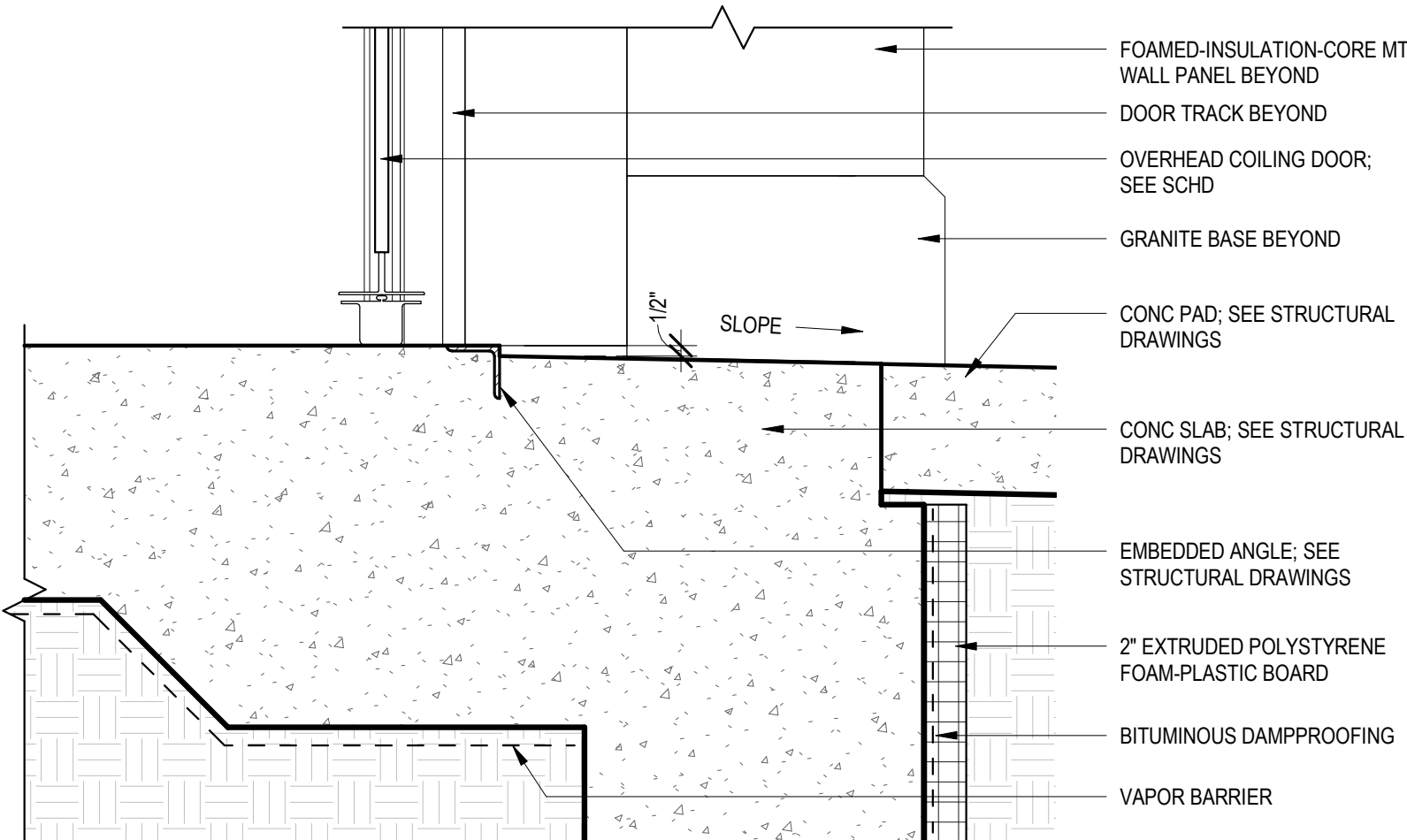
EXTERIOR DOOR HEAD AT CMU

**7 DETAIL**  
1 1/2" = 1'-0"



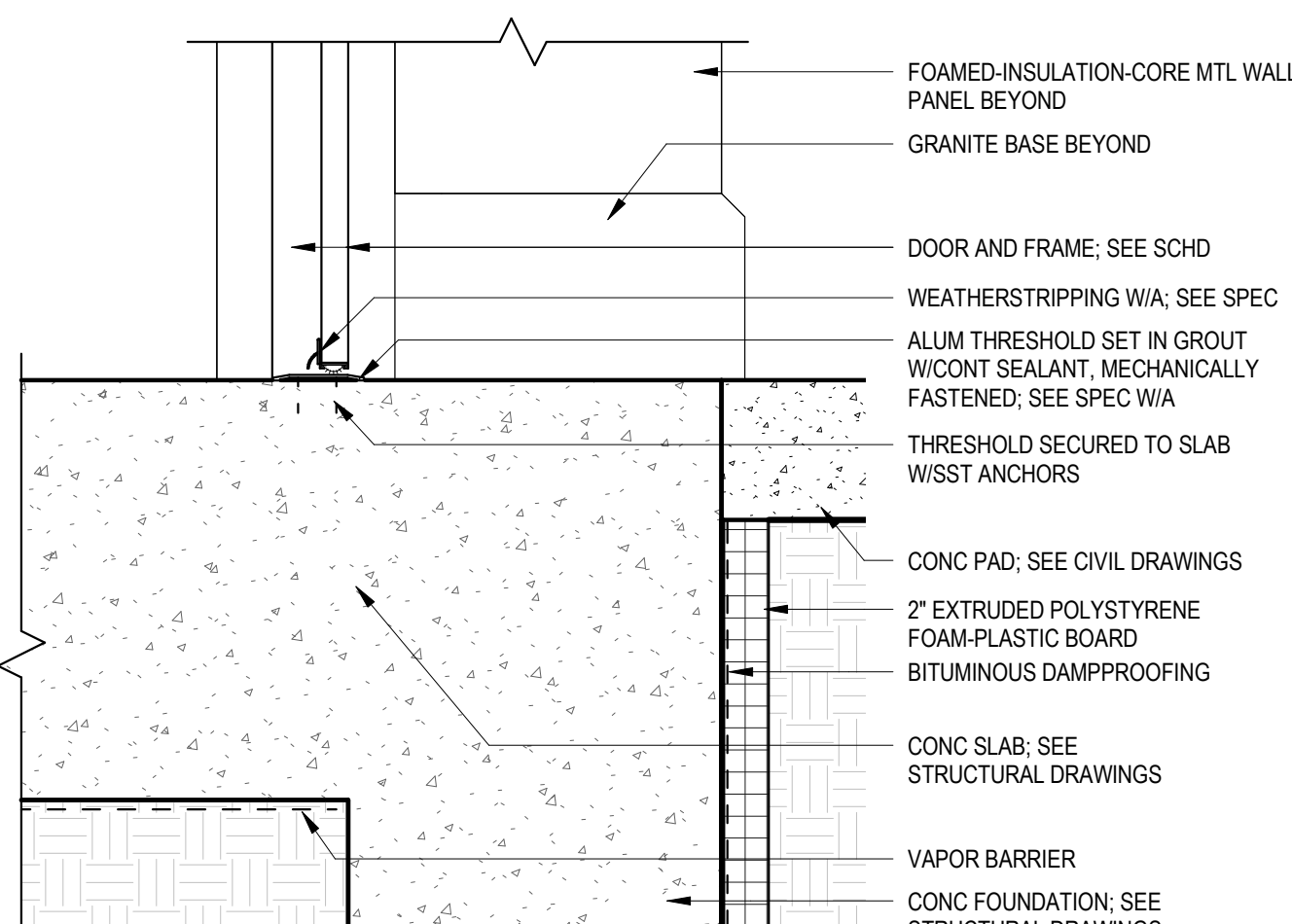
EXTERIOR DOOR JAMB AT CMU

**8 DETAIL**  
1 1/2" = 1'-0"



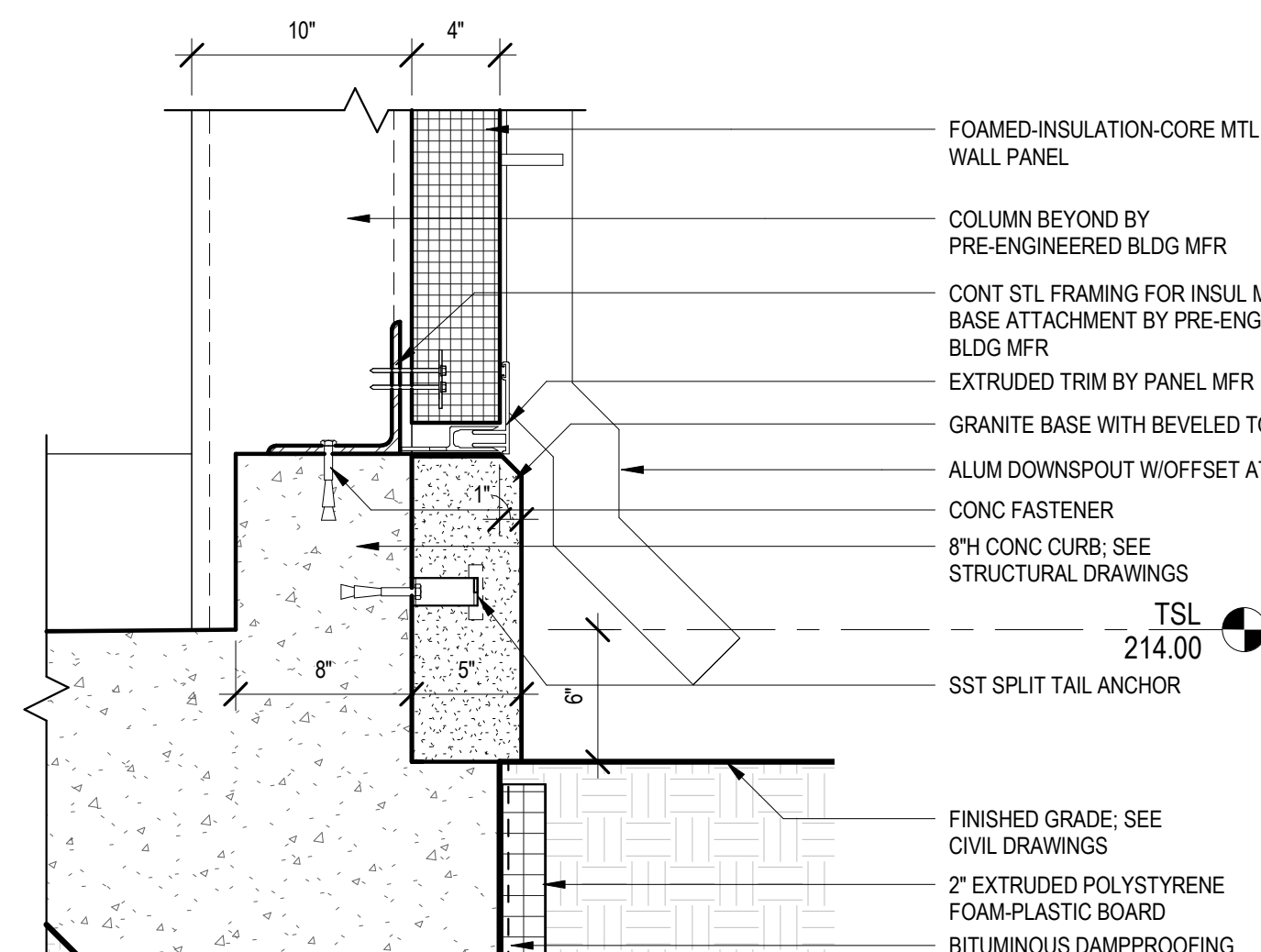
OH DOOR THRESHOLD

**9 DETAIL**  
1 1/2" = 1'-0"



EXTERIOR DOOR THRESHOLD

**10 DETAIL**  
1 1/2" = 1'-0"



SLAB EDGE

**11 DETAIL**  
1 1/2" = 1'-0"

0 3" 6" 1' 2'  
SCALE: 1 1/2" = 1'-0"

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL  
DRAWN BY: R. MARSHALL  
SHEET CHKD BY: S. BRADFORD  
CROSS CHKD BY: B. GIORGI  
APPROVED BY: K. JOHNSTON  
DATE: MARCH 2022

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Boston, MA 02109  
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LITTLETON  
WATER DEPARTMENT  
KING STREET WATER RESOURCE  
RECOVERY FACILITY

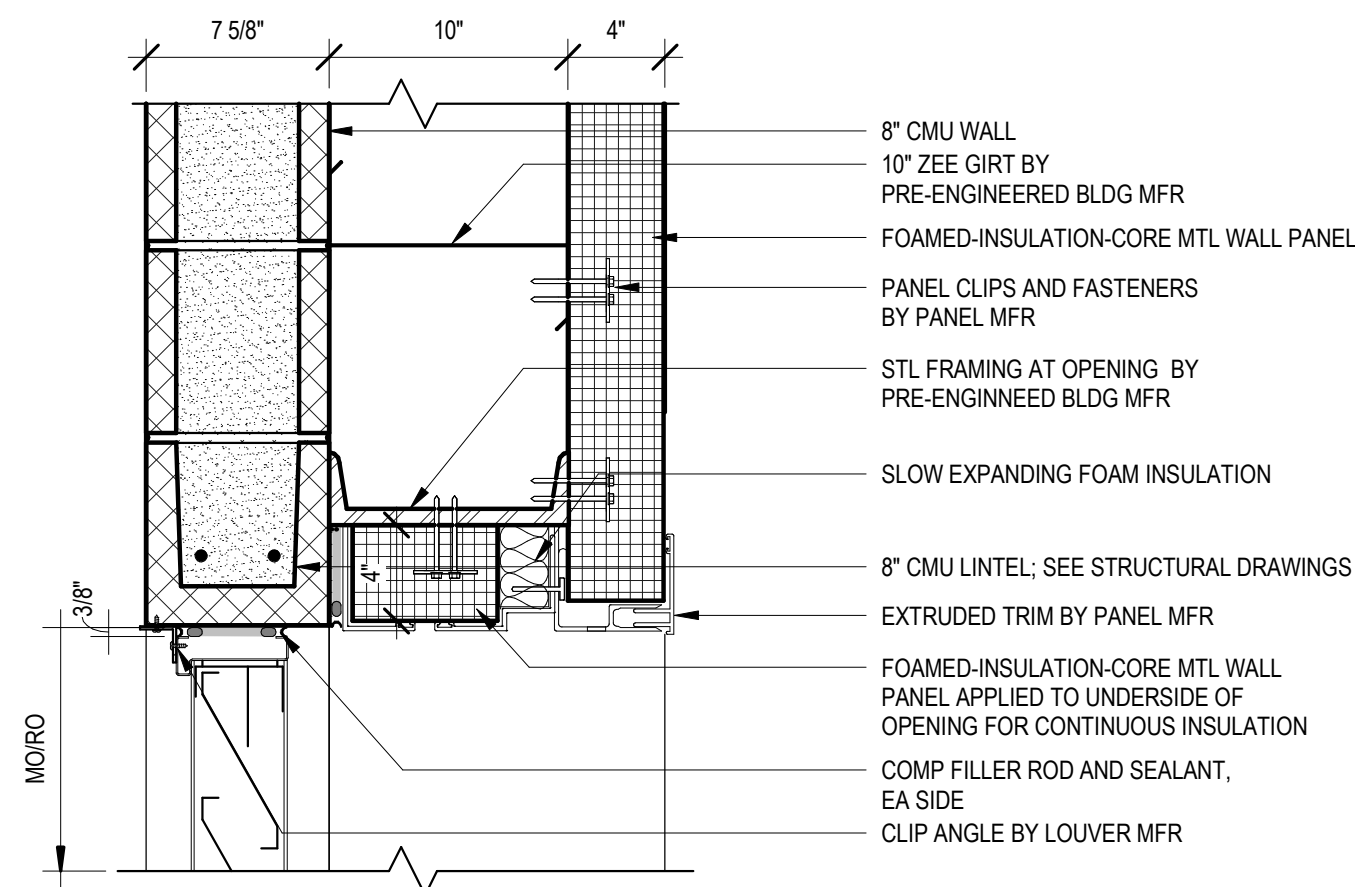
DETAILS I

PROJECT NO: 263387-261886  
FILE NAME: AWZ000PB.RVT  
SHEET NO:  
**A-8**

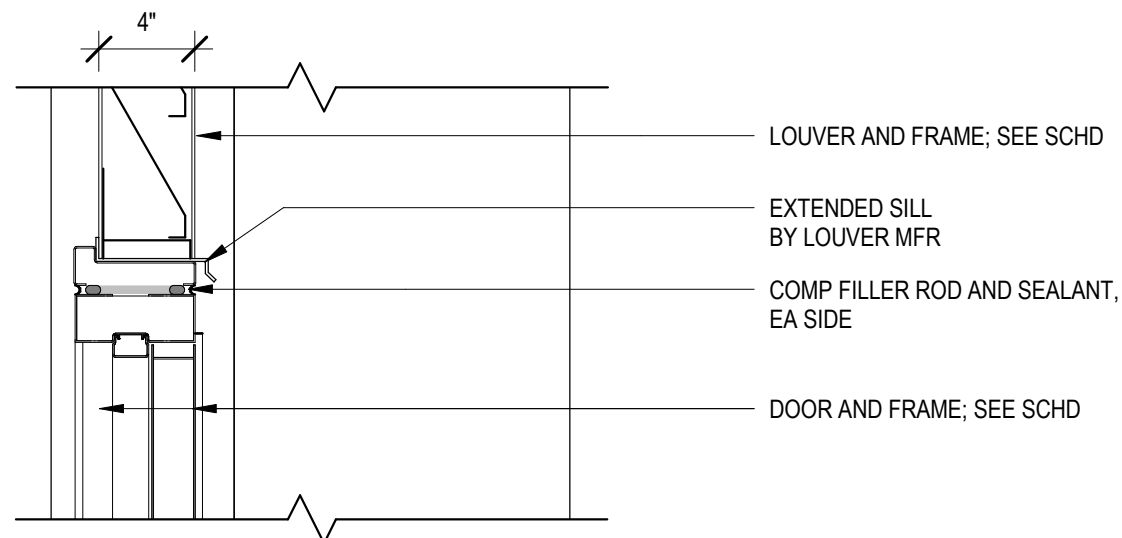
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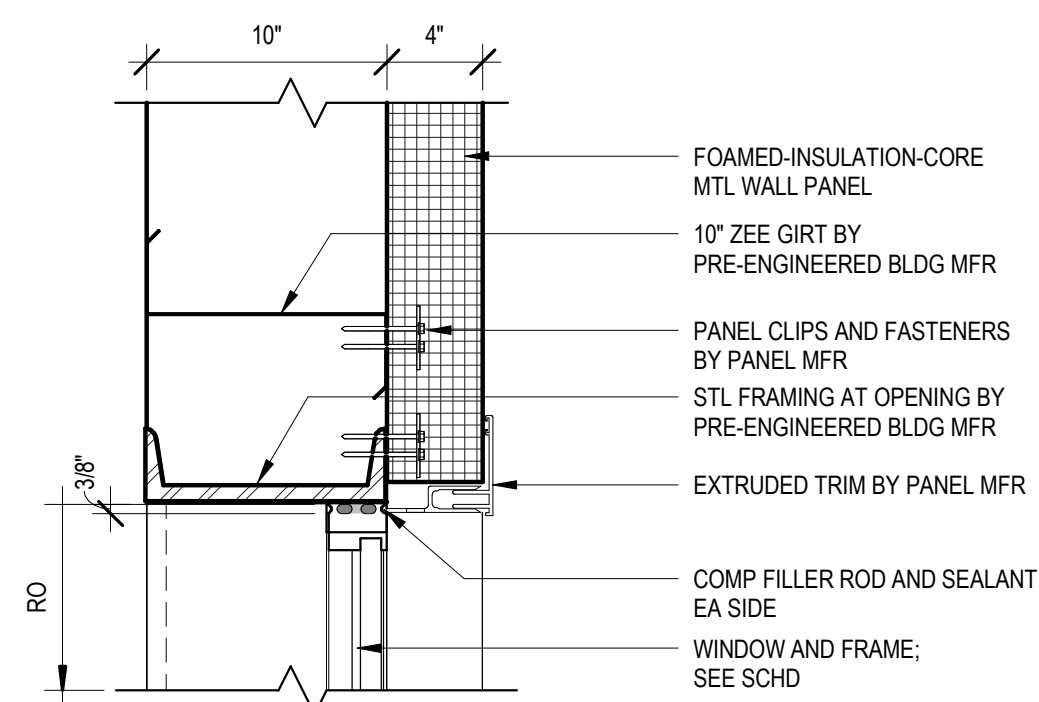
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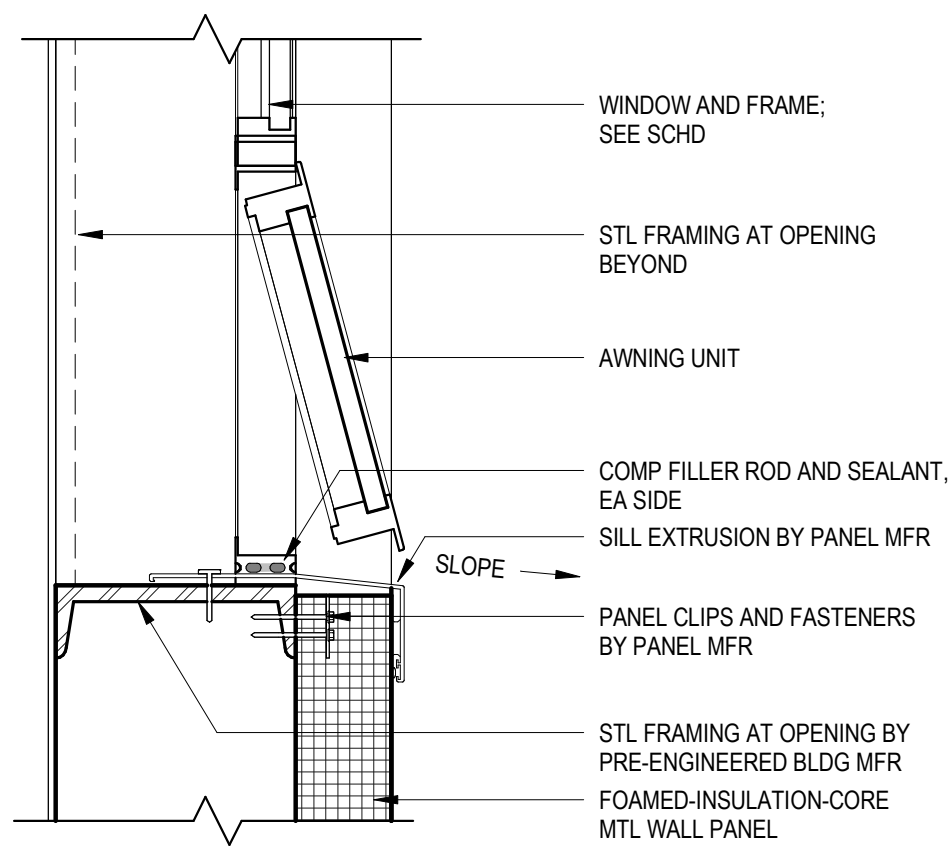
1  
DETAIL  
A-7 1 1/2" = 1'-0"



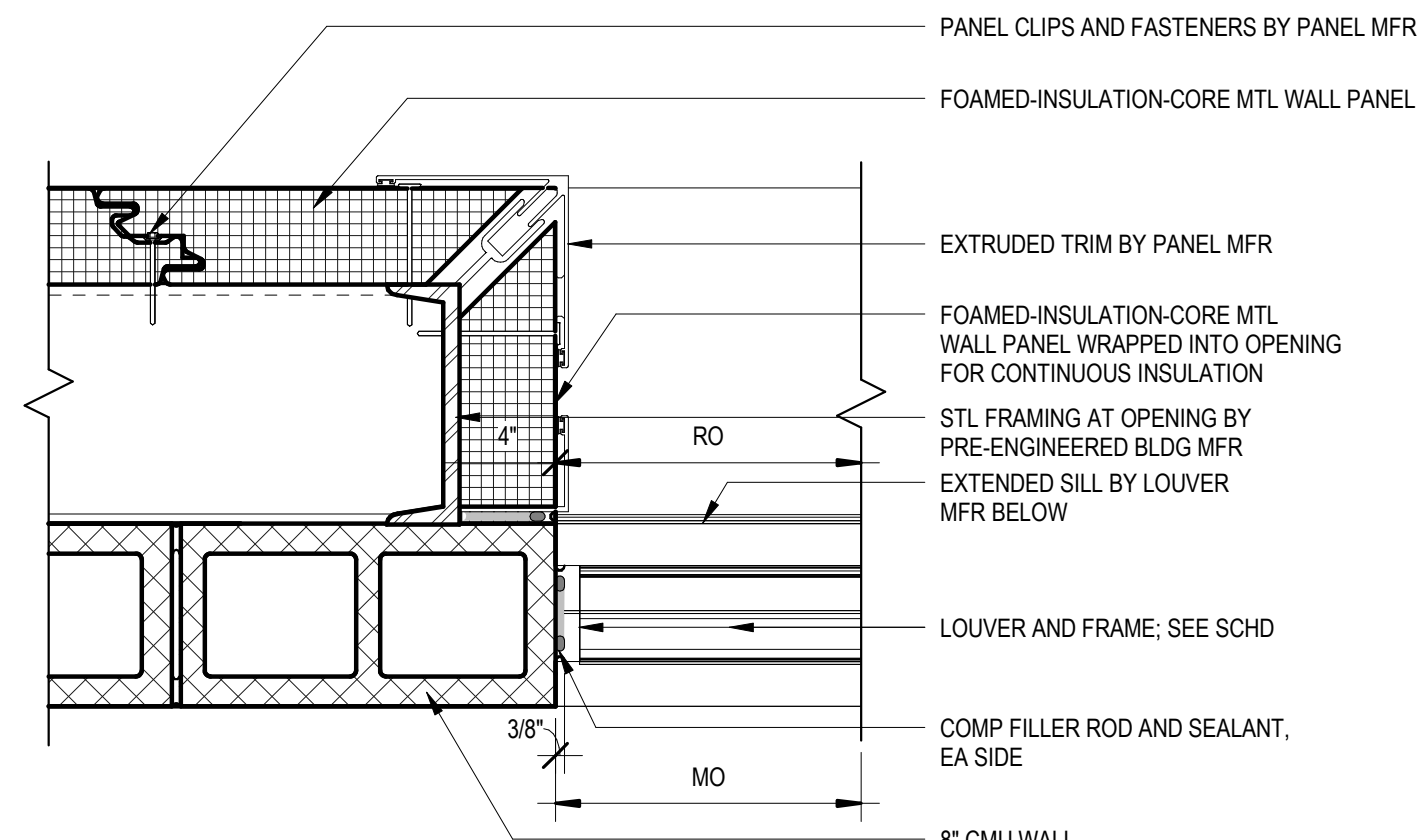
5  
DETAIL  
A-7 1 1/2" = 1'-0"



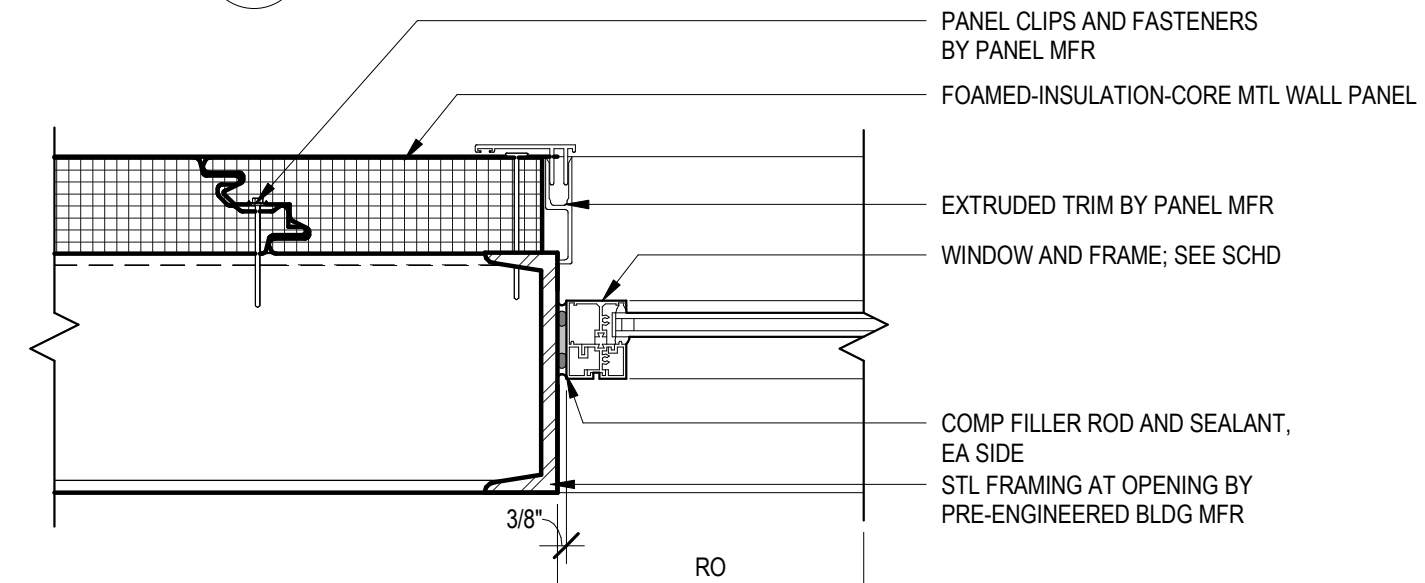
7  
DETAIL  
A-7 1 1/2" = 1'-0"



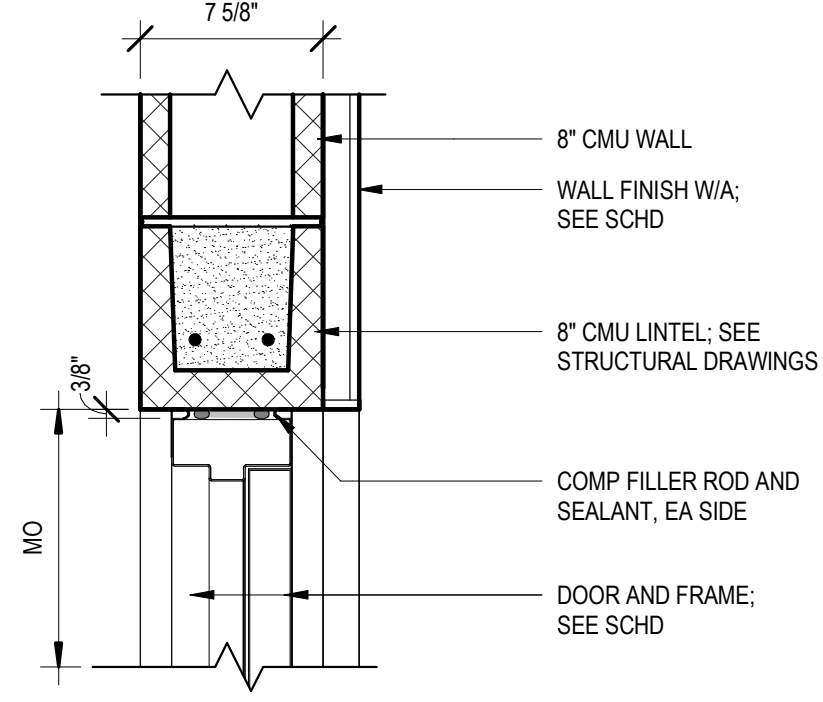
11  
DETAIL  
A-7 1 1/2" = 1'-0"



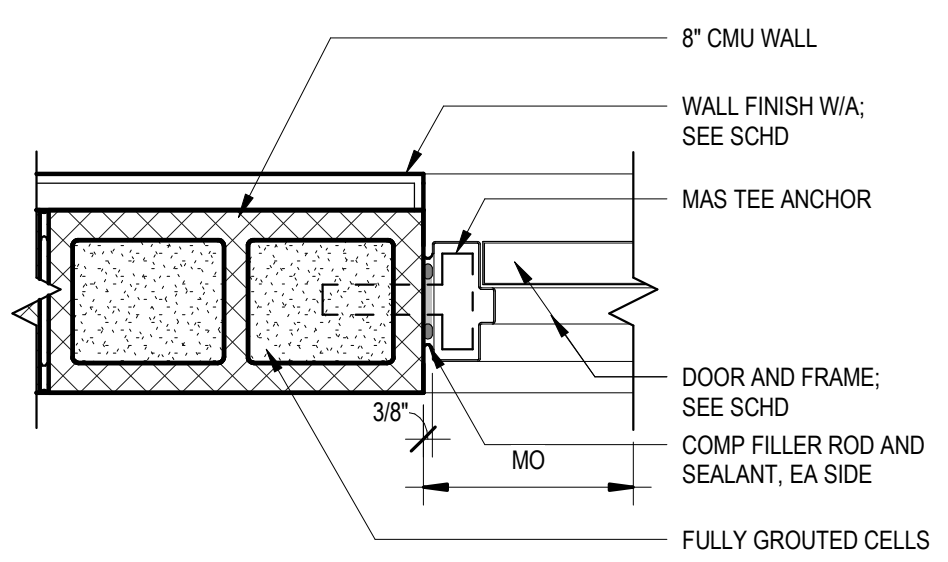
2  
DETAIL  
A-7 1 1/2" = 1'-0"



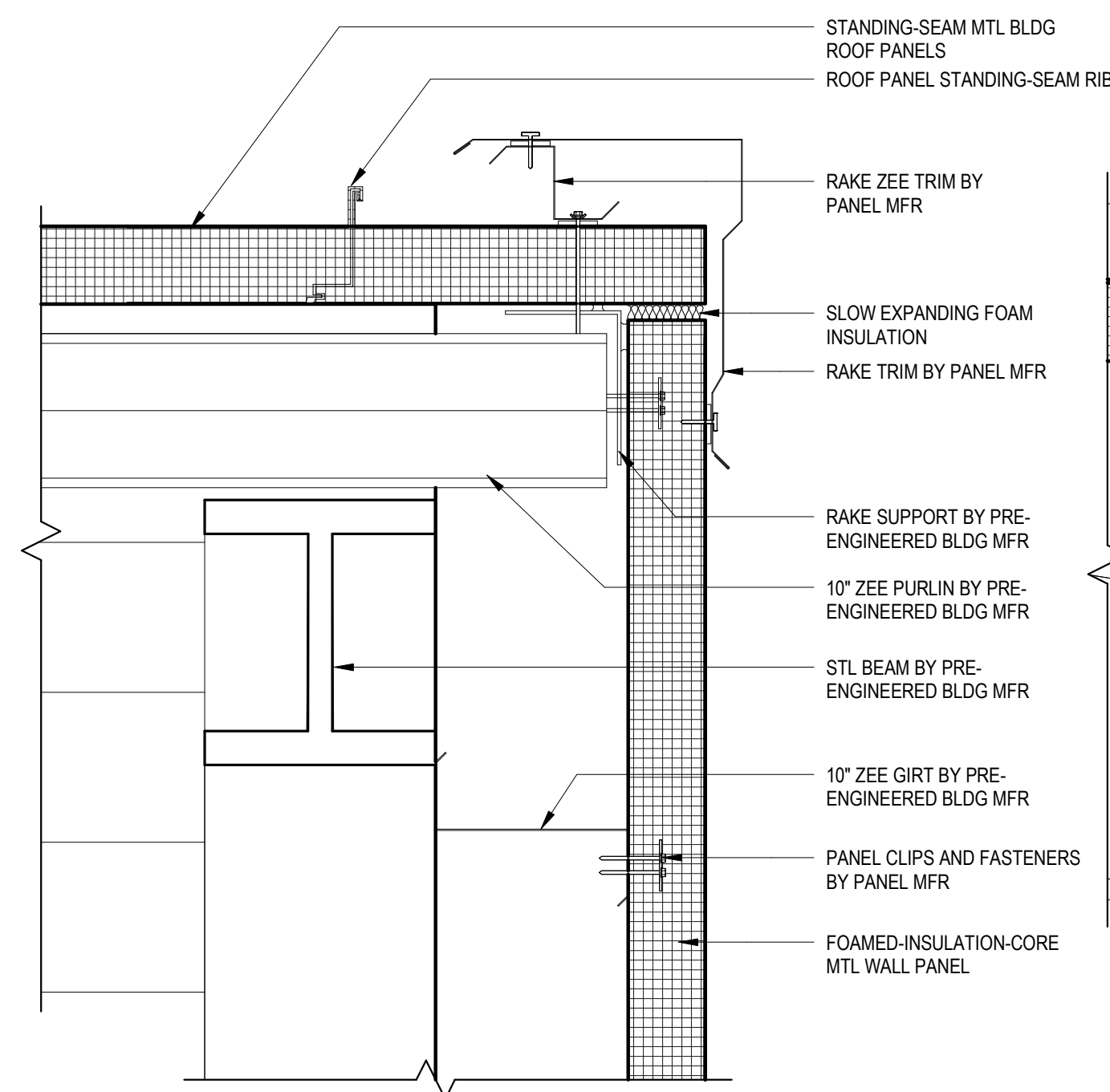
6  
DETAIL  
A-7 1 1/2" = 1'-0"



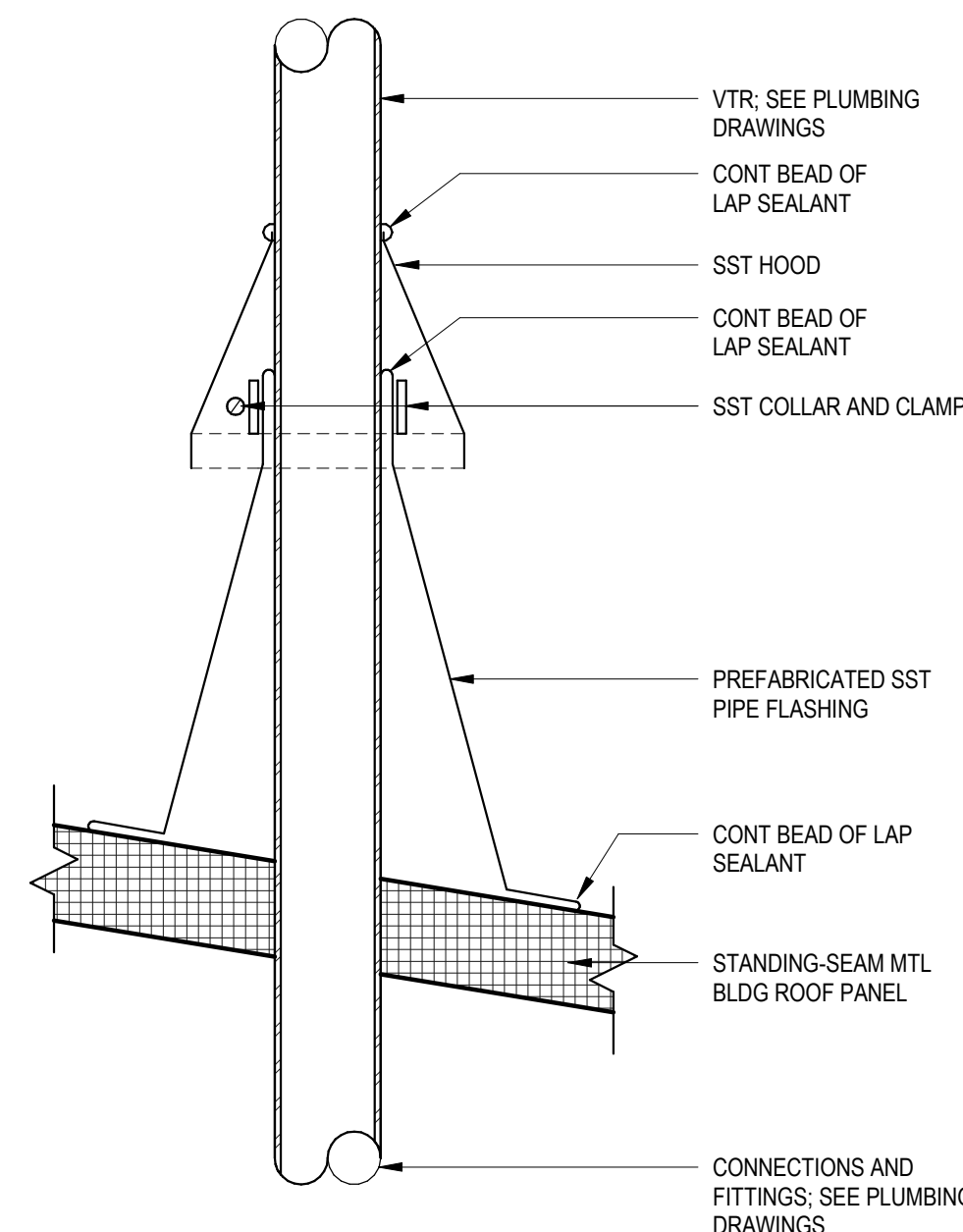
8  
DETAIL  
A-6 1 1/2" = 1'-0"



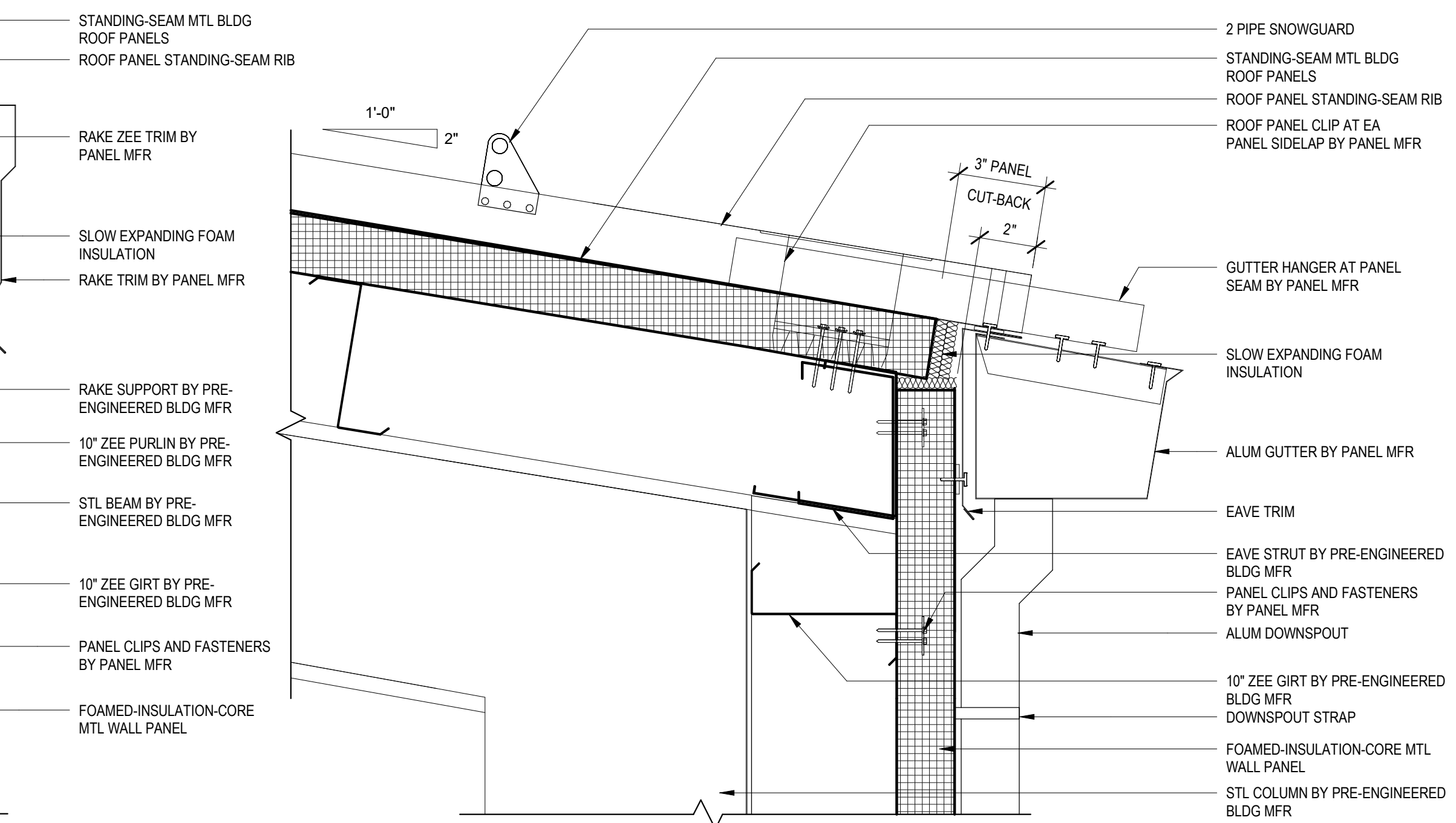
12  
DETAIL  
A-6 1 1/2" = 1'-0"



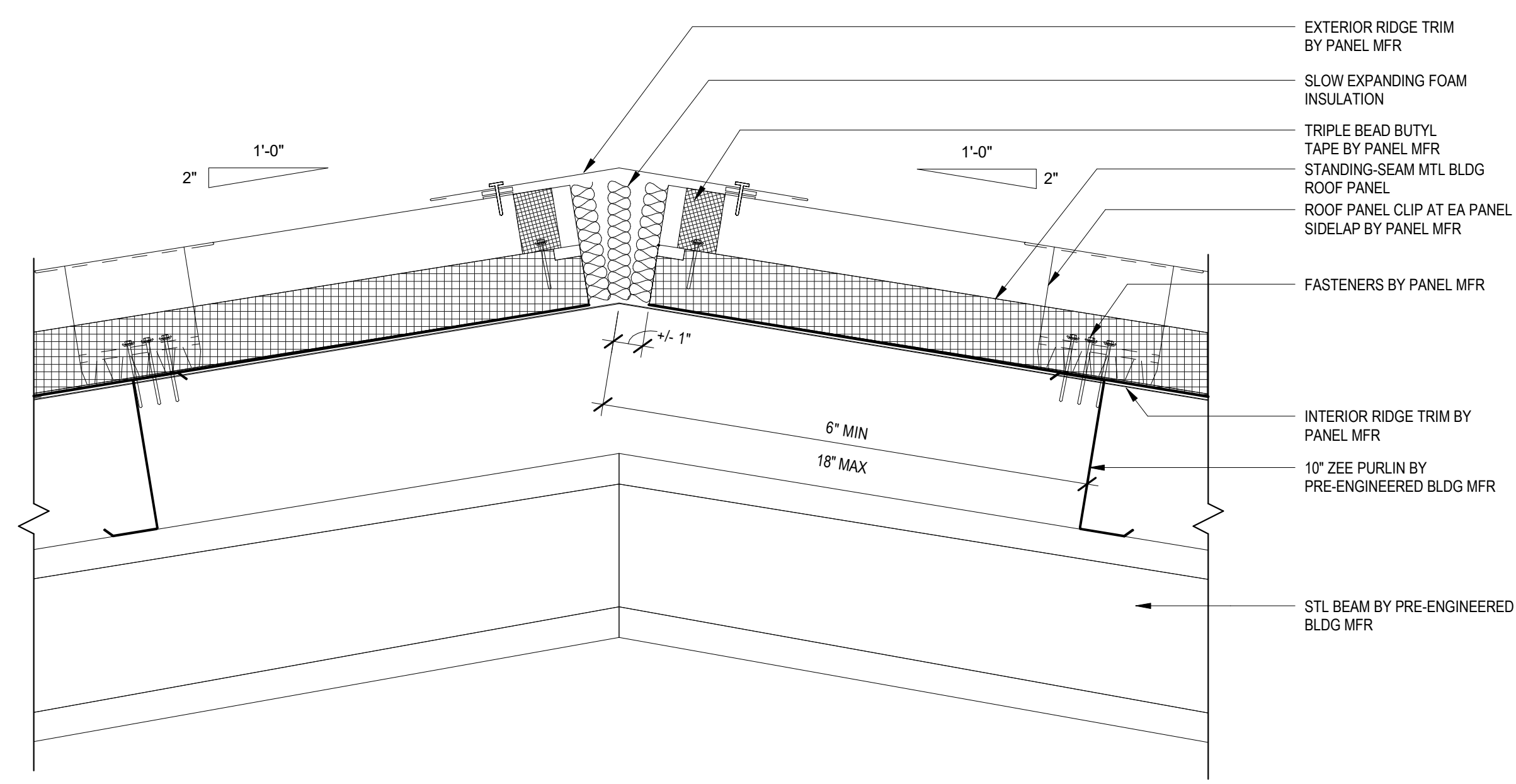
3  
DETAIL  
A-7 1 1/2" = 1'-0"



9  
DETAIL  
A-4 1 1/2" = 1'-0"



4  
DETAIL  
A-7 1 1/2" = 1'-0"



10  
DETAIL  
A-4 1 1/2" = 1'-0"

0 3" 6" 1' 2'  
SCALE: 1 1/2" = 1'-0"

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. MARSHALL  
DRAWN BY: R. MARSHALL  
SHEET CHKD BY: S. BRADFORD  
CROSS CHKD BY: B. GIORGI  
APPROVED BY: K. JOHNSTON  
DATE: MARCH 2022

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LITTLETON  
WATER DEPARTMENT  
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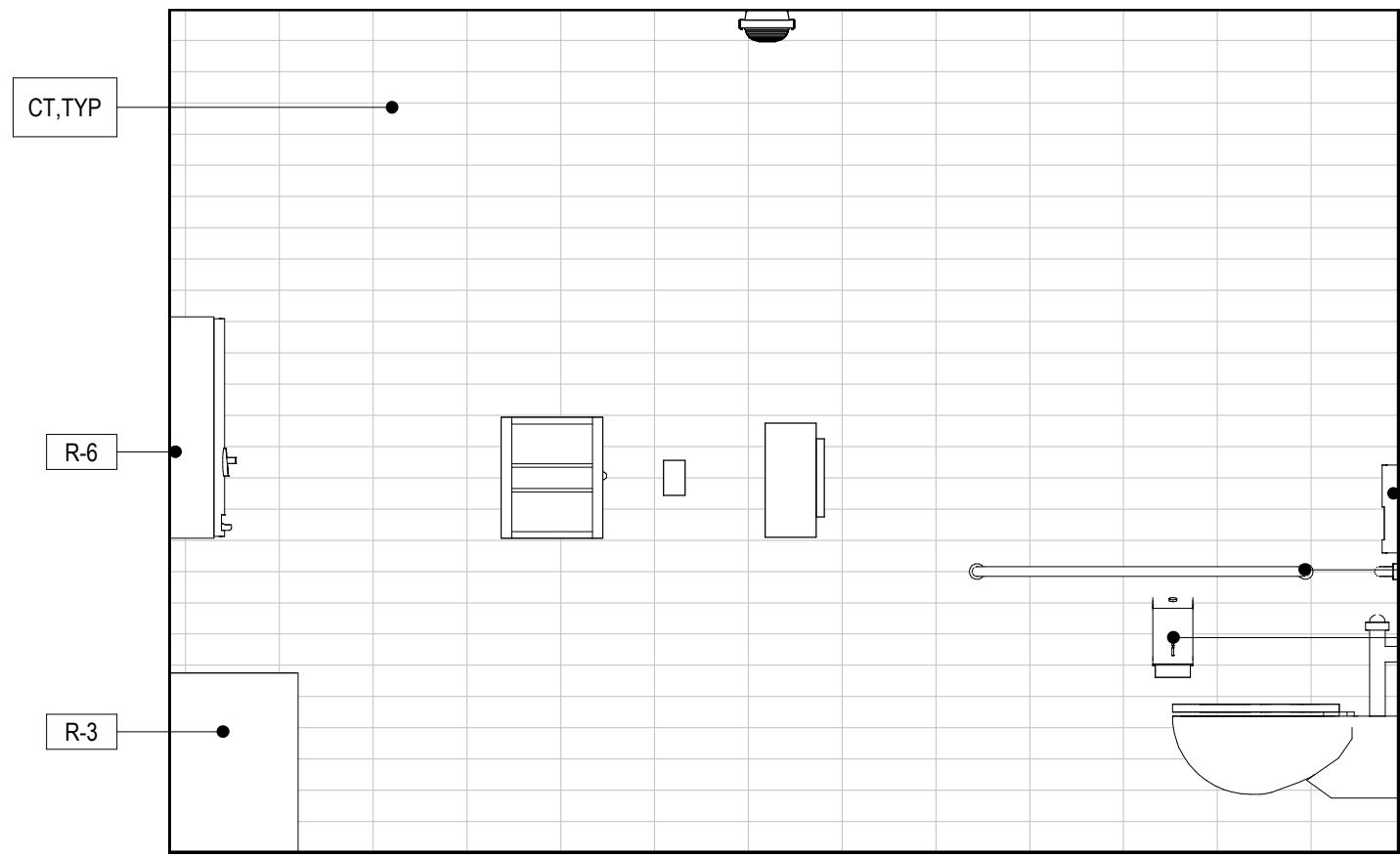
DETAILS II

PROJECT NO: 263387-261886  
FILE NAME: AWZ000PB.RVT  
SHEET NO:  
A-9

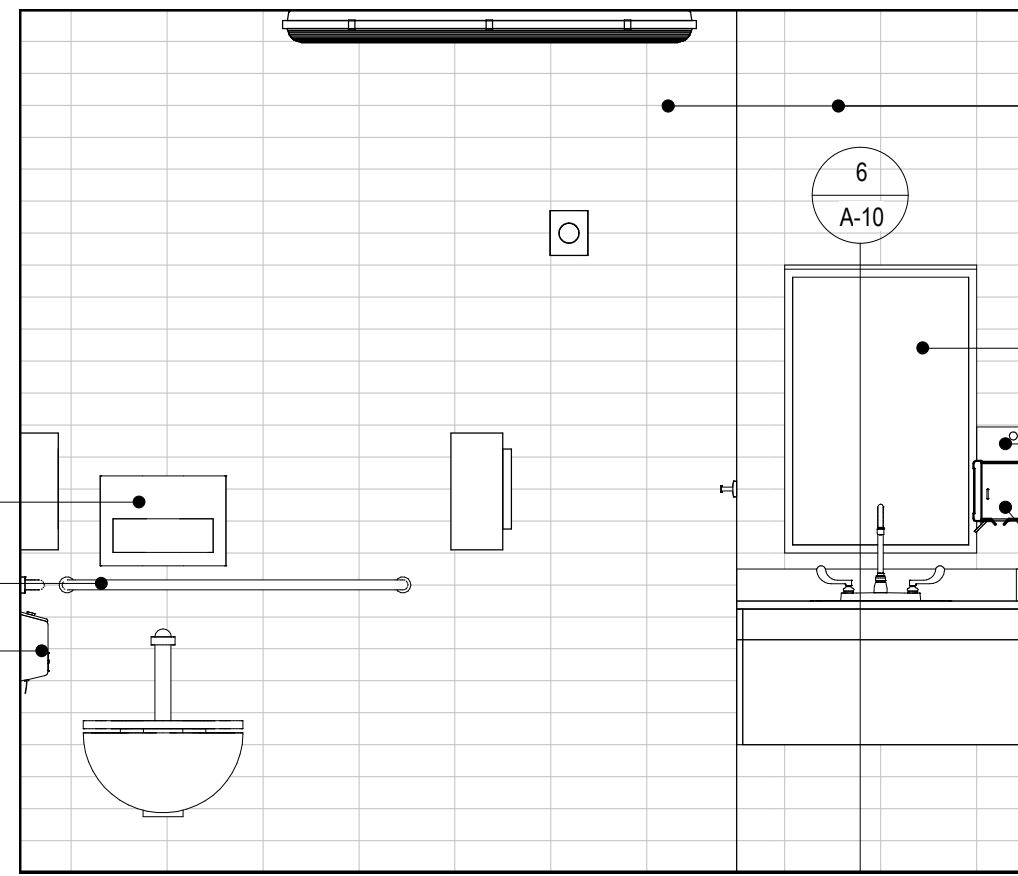
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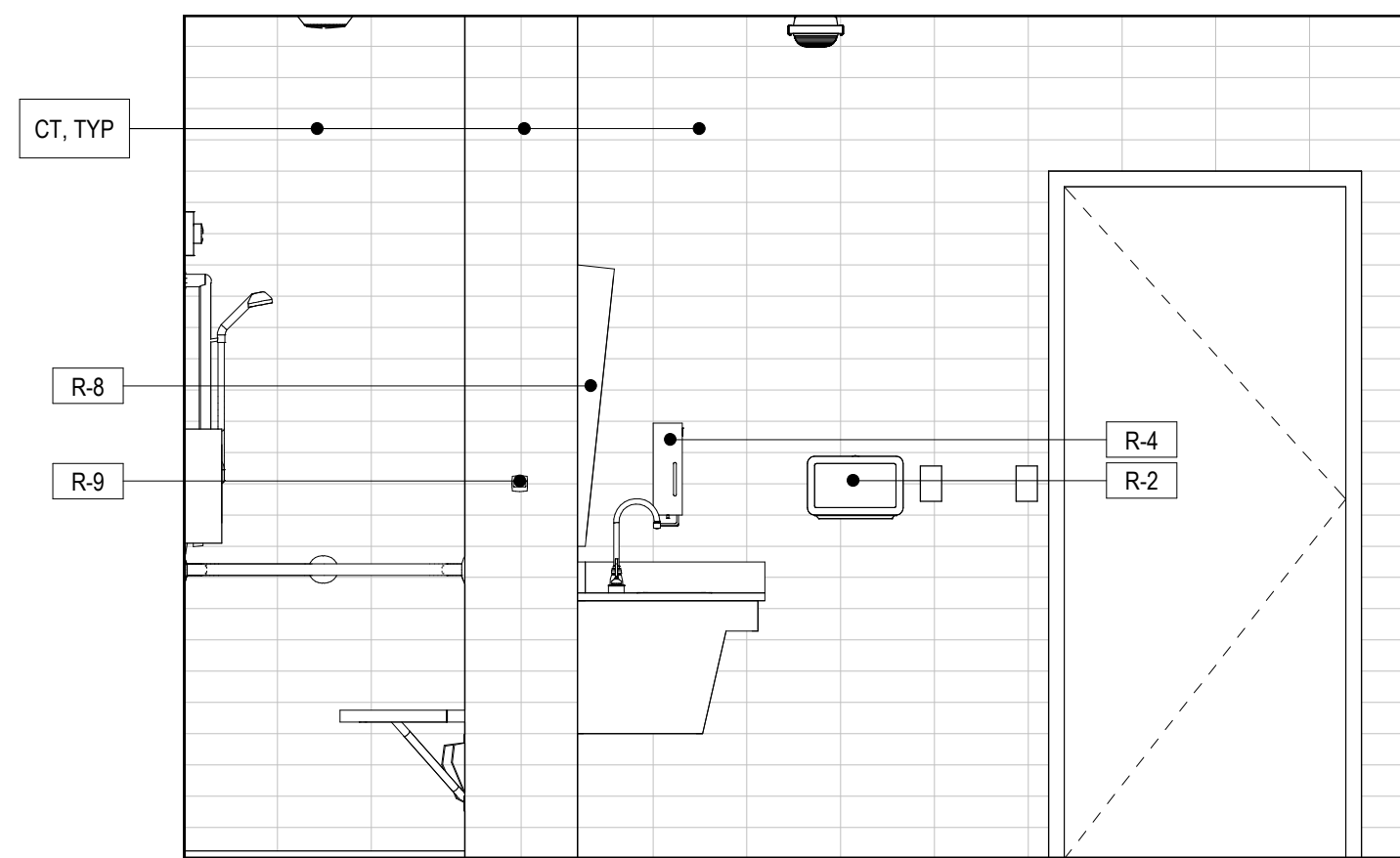
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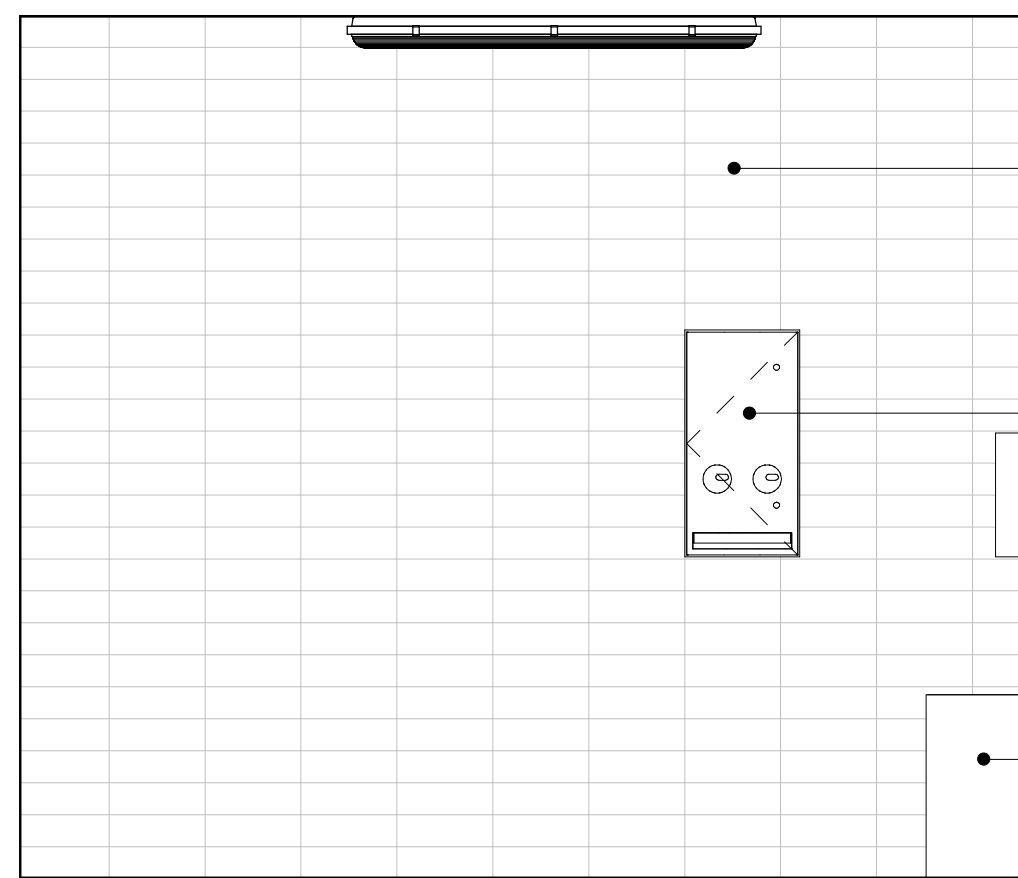
RESTROOM WEST  
**2 ELEVATION**  
A-3 1/2" = 1'-0"



RESTROOM NORTH  
**3 ELEVATION**  
A-3 1/2" = 1'-0"

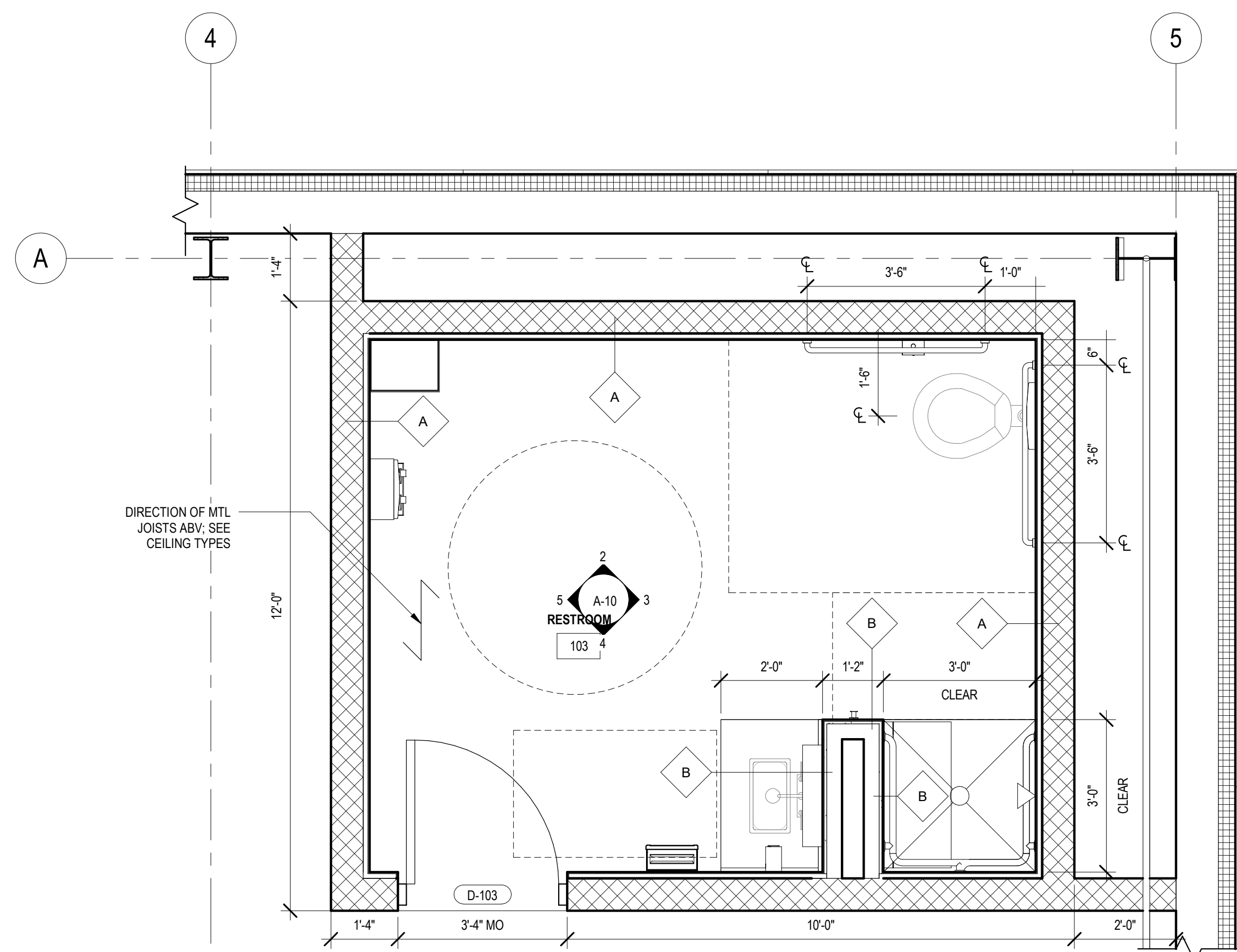


RESTROOM EAST  
**4 ELEVATION**  
A-3 1/2" = 1'-0"



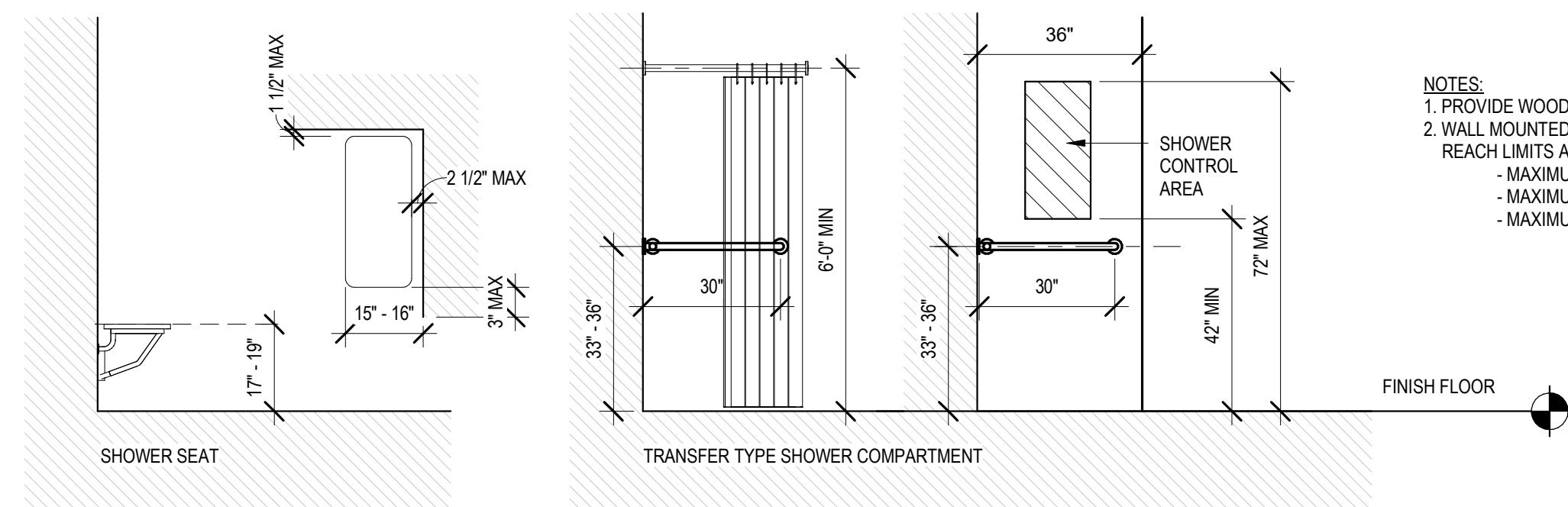
RESTROOM SOUTH  
**5 ELEVATION**  
A-3 1/2" = 1'-0"

ACCESSORIES LEGEND	
NUMBER	DESCRIPTION
R-1	TOILET TISSUE (ROLL) DISPENSER
R-2	PAPER TOWEL (FOLDED) DISPENSER
R-3	WASTE RECEPTACLE
R-4	SOAP DISPENSER
R-5	GRAB BAR (42")
R-6	SANITARY-NAPKIN VENDOR
R-7	SEAT-COVER DISPENSER
R-8	MIRROR
R-9	TOWEL HOOK

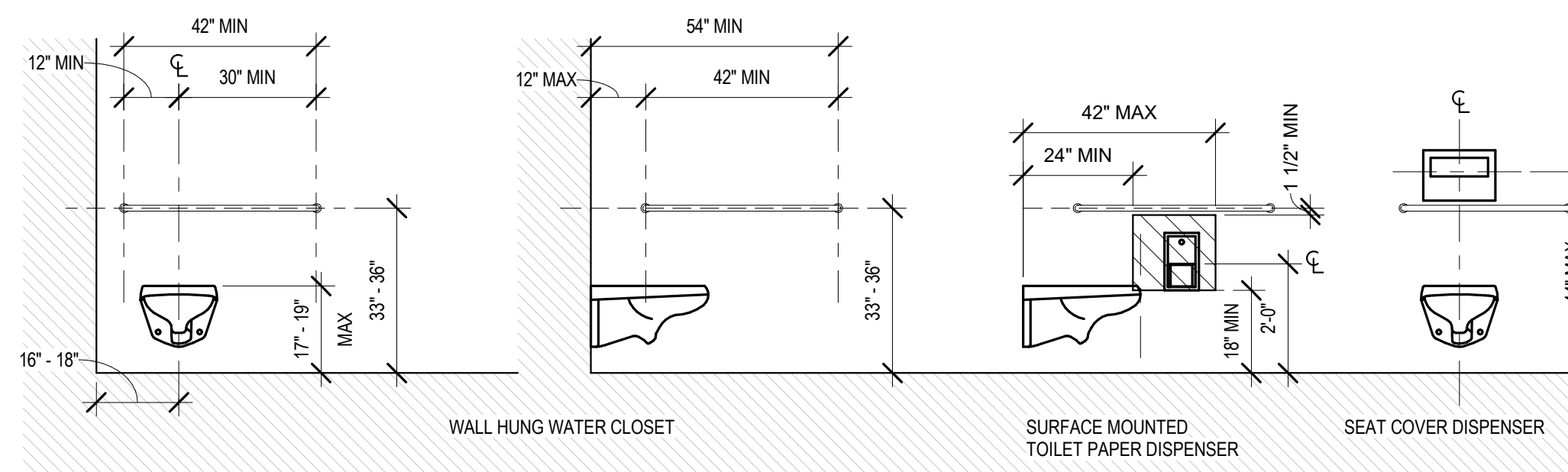


**1 ENLARGED RESTROOM PLAN**  
A-3 1/2" = 1'-0"

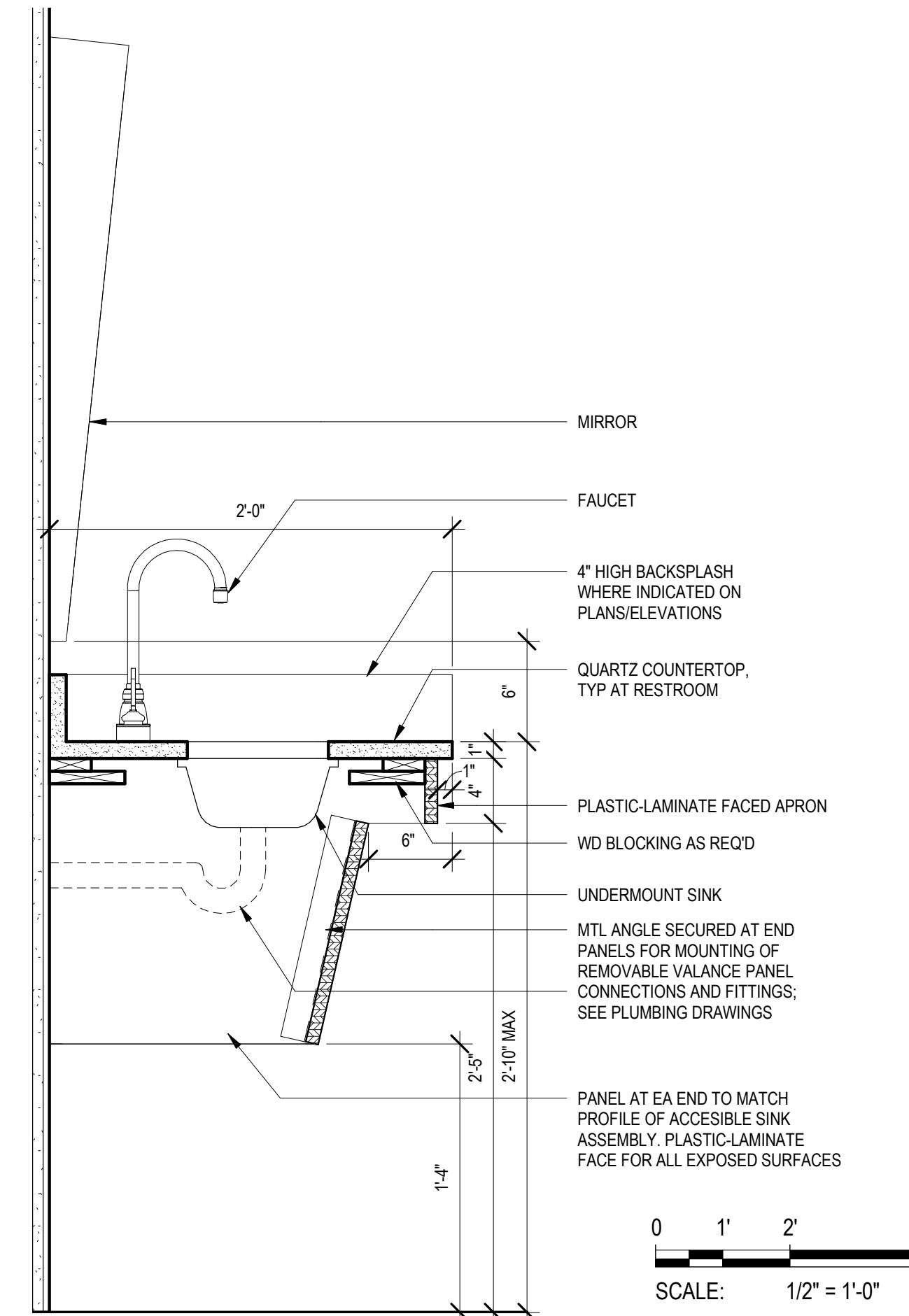
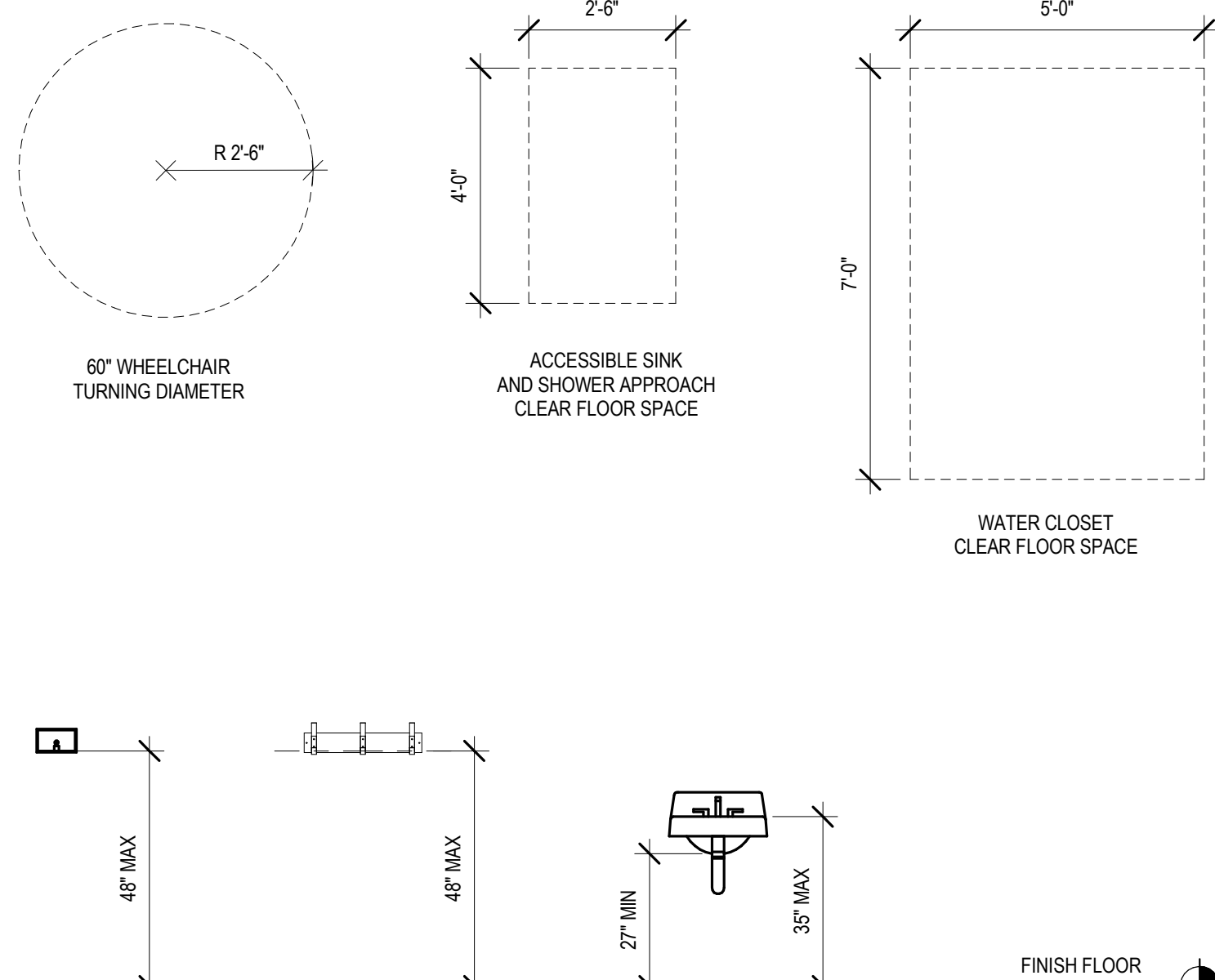
#### ACCESSIBLE MOUNTING HEIGHTS



- NOTES:
1. PROVIDE WOOD BLOCKING AS REQUIRED FOR ALL TOILET ACCESSORIES.
  2. WALL MOUNTED ACCESSORIES SHALL BE MOUNTED IN ACCORDANCE WITH REACH LIMITS APPLICABLE TO INSTALLATION LOCATION:
    - MAXIMUM UNOBSTRUCTED FORWARD OR SIDE REACH IS 48".
    - MAXIMUM OBSTRUCTED FORWARD REACH IS 44".
    - MAXIMUM OBSTRUCTED SIDE REACH IS 46".



#### ACCESSIBLE FLOOR CLEARANCES



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

0 1' 2' 4'  
SCALE: 1/2" = 1'-0"  
0 3' 6' 1' 2'  
SCALE: 1 1/2" = 1'-0"

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	R. MARSHALL
DRAWN BY:	R. MARSHALL
SHEET CHKD BY:	S. BRADFORD
CROSS CHKD BY:	B. GIORGI
APPROVED BY:	K. JOHNSTON
DATE:	MARCH 2022

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LITTLETON  
WATER DEPARTMENT  
**KING STREET WATER RESOURCE  
RECOVERY FACILITY**

**RESTROOM PLAN, ELEVATIONS, AND DETAILS**

PROJECT NO.	263387-261886
FILE NAME:	AWZ000PB.RVT
SHEET NO.	A-10

90% SUBMITTAL - NOT FOR CONSTRUCTION



## FINISH SCHEDULE NOTES

## DOOR TYPES

\* BOTTOM OF VISION LITE SHALL BE NO MORE THAN 43" AFF FOR ALL DOORS REQUIRED TO MEET ACCESSIBILITY REQUIREMENTS.

The diagrams illustrate three door types with their respective dimensions and labels:

- Flush (F):** A simple rectangular door. Dimensions include 'SEE' (height) and 'SCHD' (width). The label 'F' is in a circle below the door, and 'FLUSH' is written below the circle.
- Narrow Vision (NV):** A door with a narrow vertical vision lite. Dimensions include 'SEE' (height), 'SCHD' (width), '6\"

## FRAME TYPES

## WINDOW TYPES

## PARTITION TYPES

## BASE AND FLOOR FINISH DETAILS

**A** RUBBER BASE

**B** CERAMIC TILE BASE

**C** RESINOUS FLOORING W/CONC CURB

**D** RESINOUS FLOORING W/CMU WALL

## LOUVER TYPES

DESIGNED BY: R. MARSHALL  
DRAWN BY: R. MARSHALL  
SHEET CHK'D BY: S. BRADFORD  
CROSS CHK'D BY: B. GIORGI  
APPROVED BY: K. JOHNSTON  
DATE: MARCH 2022

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Tel: (617) 452-6000

LITTLETON  
WATER DEPARTMENT  
KING STREET WATER RESOURCE  
RECOVERY FACILITY

## SCHEDULES AND TYPES

PROJECT NO. 263387-261886  
FILE NAME: AWZ000PB.RVT

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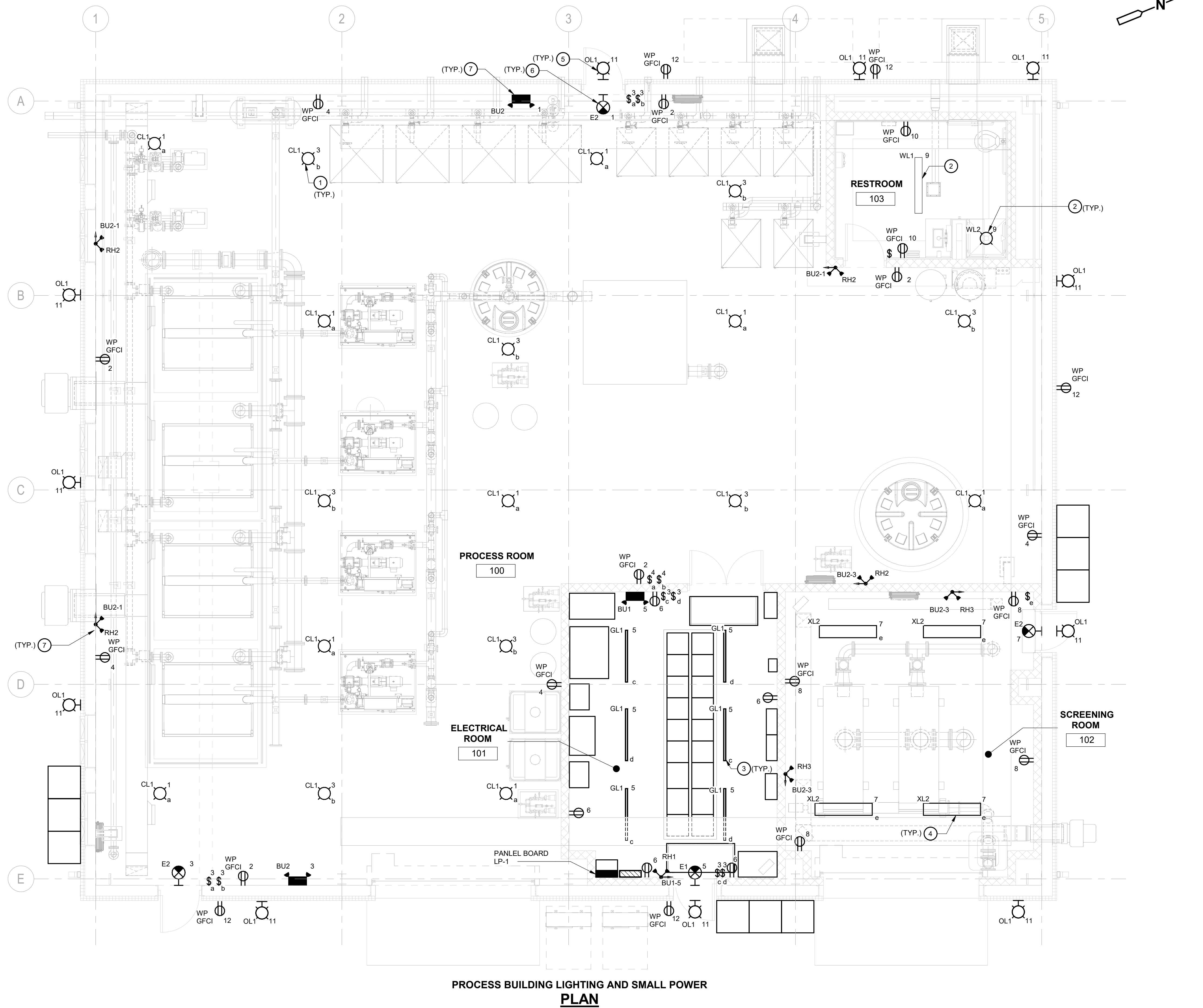
SHEET NO.  
**A-11**







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**GENERAL NOTES:**

1. ALL LIGHTING FIXTURES AND RECEPTACLE SHALL BE CONNECTED TO PANLEBOARD LP-1.
2. REFER TO SHEET E-9 FOR LIGHTING FIXTURE SCHEDULE.
3. REFER TO DRAWING G-6 FOR AREA CLASSIFICATION.

**KEYED NOTES:**

- ① ALL XL1 FIXTURES SHALL BE PENDANT MOUNTED 15'-0" A.F.F.
- ② SURFACE MOUNT WL1 & WL2 FIXTURE IN RESTROOM.
- ③ GL1 FIXTURES SHALL BE PENDANT MOUNTED AT 10'-0" A.F.F.
- ④ XL2 FIXTURES SHALL BE PENDANT MOUNTED AT 9'-0" A.F.F.
- ⑤ ALL EXTERIOR LIGHTING FIXTURES SHALL BE WALL-MOUNTED AT 10'-6" A.F.F. OR ABOVE THE DOOR.
- ⑦ WALL MOUNT THE EXIT SIGN SHALL BE AT 8'-0" OR ABOVE THE DOOR.
- ⑧ BATTERY UNIT AND REMOTE HEADS SHALL BE WALL-MOUNTED AT 8'-0" A.F.F.

**PROCESS BUILDING LIGHTING AND SMALL POWER  
PLAN**

0 2' 4' 8'  
SCALE: 1/4" = 1'-0"



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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: N. PARI  
DRAWN BY: K. NANDESWARA RAO  
SHEET CHKD BY: X  
CROSS CHKD BY: X  
APPROVED BY: X  
DATE: FEBRUARY 2022

**CDM  
Smith**  
75 State Street, Suite 701  
Boston, MA 02109  
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LITTLETON  
WATER DEPARTMENT  
**KING STREET WATER RESOURCE  
RECOVERY FACILITY**

**ELECTRICAL  
PROCESS BUILDING  
LIGHTING AND SMALL POWER PLAN**

PROJECT NO. 263387-261886  
FILE NAME: EVZ2000PB.rvt  
SHEET NO.  
**E-19**

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