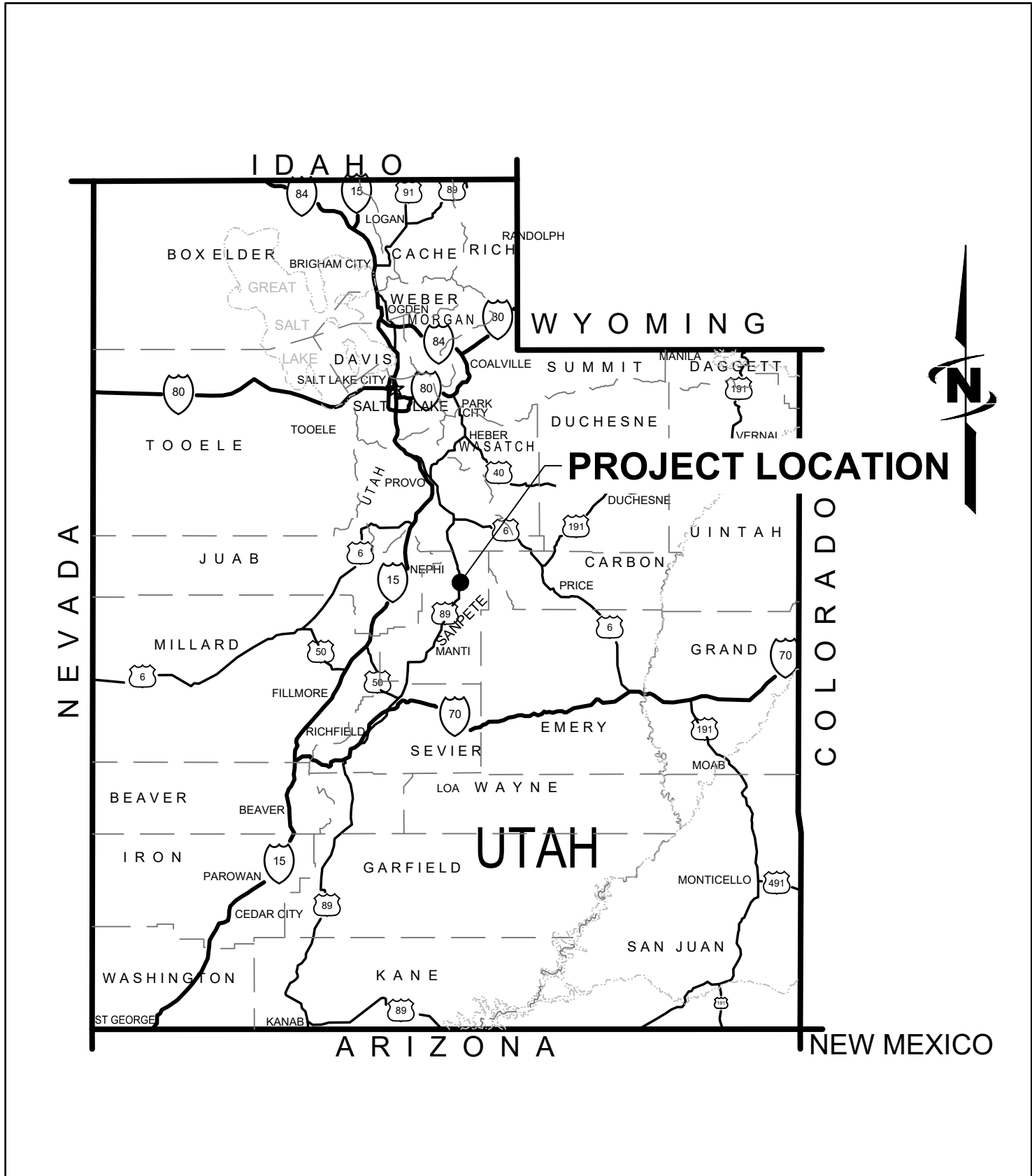


LAGOON IMPROVEMENTS PROJECT

MT PLEASANT CITY

SEPTEMBER 2025

BIDSET



AREA MAP



VICINITY MAP



PROJECT NO. 93-24-009



J-U-B ENGINEERS, INC.

392 E. Winchester St., Suite 300, Salt Lake City, UT 84107
p 801 886 9052 w www.jub.com



THE
LANGDON
GROUP



GATEWAY
MAPPING
INC.

J-U-B FAMILY OF COMPANIES

SHEET INDEX	
DRAWING	TITLE
GENERAL	
G-001	COVER
G-002	GENERAL NOTES
G-003	LEGEND
G-004	ABBREVIATIONS
G-005	FACILITY LOCATION MAP
G-006	PROCESS SCHEMATIC AND HYDRAULIC PROFILE
G-007	DESIGN CRITERIA
CIVIL	
C-001	SHEET KEY
C-101	HEADWORKS SITE LAYOUT
C-102	LAGOON 3 LINER PLAN
CU-101	HEADWORKS SITE UTILITY PLAN
CG-101	HEADWORKS GRADING
C-501	LAGOON LINER DETAILS
C-502	LAGOON LINER DETAILS
C-503	CIVIL DETAILS
CZ-901	STANDARD DETAILS
CZ-902	STANDARD DETAILS
STRUCTURAL	
S-001	GENERAL STRUCTURAL NOTES
S-002	GENERAL STRUCTURAL NOTES
S-101	FOUNDATION PLAN
S-102	ROOF FRAMING PLAN
S-201	SEPTAGE RECEIVING STATION
S-301	BUILDING SECTION
S-302	BUILDING SECTION
S-401	BUILDING ELEVATIONS
S-402	BUILDING ELEVATIONS
S-501	STRUCTURAL DETAILS
S-502	STRUCTURAL DETAILS
S-901	TYPICAL STRUCTURAL DETAILS
S-902	TYPICAL STRUCTURAL DETAILS
S-903	TYPICAL STRUCTURAL DETAILS
S-904	TYPICAL STRUCTURAL DETAILS

SHEET INDEX	
DRAWING	TITLE
PROCESS MECHANICAL	
XD-101	EXISTING HEADWORKS DEMOLITION PLAN
D-102	NEW HEADWORKS BUILDING - PLAN
D-301	NEW HEADWORKS BUILDING - SECTION VIEW
D-302	SEPTAGE RECEIVING STATION
DZ-901	STANDARD DETAILS
DZ-902	STANDARD DETAILS
ELECTRICAL	
E-001	ELECTRICAL SYMBOL LEGEND
E-002	ELECTRICAL SYMBOL LEGEND
E-100	SITE PLAN
E-110	POWER PLAN
E-111	CONTROLS PLAN
E-112	CONTROL PLAN
E-113	LIGHTING PLAN
E-114	LIGHTING PROTECTION PLAN
E-115	CLASSIFICATION PLAN
E-501	ELECTRICAL DETAILS
E-502	ELECTRICAL DETAILS
E-503	ELECTRICAL DETAILS
E-504	ELECTRICAL DETAILS
E-601	ELECTRICAL ONE-LINE DIAGRAM
HVAC	
H-001	HVAC SYMBOL LEGEND
H-110	HVAC PLAN
H-501	HVAC DETAILS
H-502	HVAC DETAILS
H-601	HVAC CONTROL DIAGRAMS

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LAST UPDATED: 9/9/2025

SHEET NUMBER:

G-001

GENERAL NOTES

- A. THE GENERAL NOTES AND SPECIFICATIONS SUPPLEMENT THE PROJECT WRITTEN TECHNICAL SPECIFICATIONS AND THE PROJECT DRAWINGS.
- B. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION BRACING, TEMPORARY SHORING, AND OTHER SITE SAFETY CONTROLS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS, TO ENSURE THE STABILITY AND SAFETY OF ALL CONSTRUCTION UNTIL IT IS COMPLETED.
- C. DETAILS ON THESE PLANS ARE INTENDED TO DEPICT THE GENERAL CONSTRUCTION DETAILS AND METHODS FOR THIS PROJECT. DETAILS AND CONDITIONS NOT SPECIFICALLY SHOWN THAT ARE SIMILAR IN NATURE TO THOSE THAT ARE SPECIFIED SHALL BE ASSUMED ONE AND THE SAME. IF QUESTIONS REGARDING THE APPLICATION OF DETAILS ARE ENCOUNTERED, NOTIFY THE ENGINEER FOR CLARIFICATION OR INSTRUCTION.
- D. PRIOR TO IMPLEMENTING ANY CHANGES TO THESE PLANS, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR THEIR WRITTEN APPROVAL. CHANGES IMPLEMENTED WITHOUT THE ENGINEER'S WRITTEN APPROVAL SHALL RELIEVE THE ENGINEER OF ANY CLAIM OR LIABILITY RESULTING FROM THAT PORTION OF THE PROJECT CHANGED OR AFFECTED BY THE CHANGE.
- E. CONTRACTOR SHALL HAVE ONE (1) COPY OF APPROVED PLANS, AND ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS AND A COPY OF ANY PERMITS NEEDED FOR THE JOB, ON SITE AT ALL TIMES.
- F. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED AND RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.
- G. CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT DRAWINGS ON A SET OF RECORD DRAWINGS KEPT AT THE CONSTRUCTION SITE, AND AVAILABLE TO THE CITY INSPECTOR AT ALL TIMES.
- H. THE CONTRACTOR IS REQUIRED TO PROPERLY DISPOSE OF ALL DEBRIS REMOVED FOR CONSTRUCTION OF THE WORK.
- I. THE OWNER RESERVES THE RIGHT TO SALVAGE ITEMS NOTED FOR DEMOLITION. CONTRACTOR SHALL DISPOSE OF ALL ITEMS NOT SALVAGED BY THE OWNER.
- J. CONTRACTOR SHALL COORDINATE WITH STATE AND LOCAL INSPECTION AGENCIES AS REQUIRED FOR INSPECTION AND APPROVAL OF THE WORK (E.G., PLUMBING, MECHANICAL, ELECTRICAL, BUILDING, ETC.).
- K. FINISH GRADE SLOPE AWAY FROM BUILDINGS/STRUCTURES AT A MINIMUM OF 2% OR A MAXIMUM OF 25% FOR A MINIMUM DISTANCE OF 10' OR TO THE CATCH POINT WITH EXISTING GRADE (WHICH EVER IS GREATER) UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

CONTRACTOR RESPONSIBILITY FOR COORDINATION

- A. IT IS THE CONTRACTORS PRIME RESPONSIBILITY TO COORDINATE THE WORK SHOWN ON ALL OF THE PROJECT DRAWINGS, GENERAL, SPECIAL, AND TECHNICAL SPECIFICATIONS.
- B. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONSTRUCTION MATERIAL TYPES, DIMENSIONS, ELEVATIONS, AND CONDITIONS.
- C. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CAREFULLY STUDY AND COORDINATE THE CONSTRUCTION REQUIREMENTS SHOWN ON THESE DRAWINGS. WHEN CONFLICTS OR DISCREPANCIES ARE FOUND IN THESE DRAWINGS, THE CONTRACTOR SHALL REPORT THEM IMMEDIATELY TO THE PROJECT ENGINEER FOR DIRECTION AND/OR CLARIFICATION.
- D. ANY CONSTRUCTION WORK DONE BY THE CONTRACTOR BEFORE OBTAINING SUCH CLARIFICATION FROM THE PROJECT ENGINEER SHALL BE AT THE CONTRACTOR'S OWN RISK AND COST. FURTHERMORE; ANY WORK REQUIRED TO CORRECT, REPLACE AND/OR RESTORE THE WORK AS DIRECTED BY THE ENGINEER SHALL BE AT THE CONTRACTOR'S OWN RISK AND COST.
- E. THE EXISTING LAGOON TREATMENT FACILITY WILL REMAIN IN OPERATION DURING CONSTRUCTION. CONTRACTOR SHALL PLAN, SCHEDULE, AND PERFORM THE WORK TO MINIMIZE DISRUPTIONS. ALL NECESSARY SHUT DOWNS OR BYPASSES SHALL FIRST BE APPROVED BY THE OWNER AND ENGINEER.

PROJECT NOTES

- A. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO IMMEDIATE PROJECT AREA TO FULLEST EXTENT POSSIBLE, ALL WORK SHALL OCCUR WITHIN THE LIMITS OF MT PLEASANT CITY PROPERTY, RIGHT-OF-WAY, AND APPROVED EASEMENTS.
- B. ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
- C. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES AND BE RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES AND EXISTING IMPROVEMENTS AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION ACTIVITIES.

EXISTING UTILITIES

- A. THE LOCATION OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY.
- B. DEPTHS AND ELEVATIONS OF UTILITIES ARE UNKNOWN UNLESS OTHERWISE SHOWN.
- C. CONTRACTOR IS RESPONSIBLE TO:
 - 1. VERIFY EXACT LOCATIONS OF ALL UTILITIES PRIOR TO BEGINNING WORK IN THAT AREA
 - 2. BRING ANY DISCREPANCIES AND/OR CONFLICTS TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
 - 3. NOTIFY APPROPRIATE UTILITY COMPANIES WHEN CONSTRUCTION MIGHT INTERFERE WITH NORMAL OPERATION OF ANY UTILITIES.
 - 4. MAINTAIN SERVICE OF EXISTING UTILITIES.
 - 5. RESTORE ANY UTILITIES DAMAGED DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

MISCELLANEOUS

- A. CONTRACTOR IS RESPONSIBLE FOR DUST ABATEMENT AND ANY LIABILITY ISSUES RELATED TO DUST AT ANY LOCATION WHICH MAY BE CAUSED BY THIS PROJECT.
- B. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION OF PEDESTRIANS IN AND AROUND THIS WORK. REFERENCE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD LATEST EDITION FOR WORK ZONE TRAFFIC CONTROL).
- C. SHOULD CONSTRUCTION BE HALTED BECAUSE OF INCLEMENT WEATHER CONDITIONS, THE CONTRACTOR WILL COMPLETELY CLEAN UP ALL AREAS AND MAINTAIN THE SURFACE IN GOOD CONDITION DURING THE SHUT-DOWN PERIOD.
- D. CONTRACTOR SHALL NOT PERFORM CONSTRUCTION OUTSIDE MOUNT PLEASANT CITY BUSINESS HOURS, MON-FRI 9:00A.M. TO 5:00 P.M., WITHOUT PRIOR WRITTEN PERMISSION FROM THE CITY.

INSPECTION AND TESTING

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATERIALS TESTING INCLUDING BUT NOT LIMITED TO CONCRETE, ASPHALT, AND COMPACTION. ALL TESTS SHALL MEET MINIMUM ENGINEER REQUIREMENTS. REFER TO PROJECT STANDARDS FOR FREQUENCY OF TESTING.
- B. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ENGINEER AND SPECIAL INSPECTOR FOR INSPECTIONS OF WORK AT APPROPRIATE INTERVALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PAY FOR ADDITIONAL INSPECTIONS THAT ARE THE RESULT OF HIS WORKMANSHIP.

PERMITTING AND COORDINATION

- A. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND BUSINESS LICENSES PRIOR TO CONSTRUCTION.
- B. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR STORM WATER POLLUTION PREVENTION AS A RESULT OF CONSTRUCTION ACTIVITIES. WHEN CALLED FOR IN THE CONTRACT DOCUMENTS, CONTRACTOR SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN FOR APPROVAL BY THE ENGINEER AND FOR SUBMITTAL TO LOCAL AUTHORITIES FOR REVIEW AND APPROVAL. IF THE CONSTRUCTION WILL DISTURB MORE THAN ONE ACRE, CONTRACTOR SHALL FILE A "NOTICE OF INTENT" FOR PERMIT COVERAGE UNDER THE STATE'S UPDES STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES (UTR300000) AND PAY ALL ASSOCIATED FEES. THE NOI MAY BE FILED ELECTRONICALLY AT THE FOLLOWING WEBSITE: [HTTP://WWW.WATERQUALITY.UTAH.GOV/UPDES/STORMWATERCON.HTM](http://www.waterquality.utah.gov/updes/stormwatercon.htm) AND FOLLOWING THE DIRECTIONS GIVEN UNDER THE HEADING "ONLINE APPLICATION PROCESS AND SEARCH FOR EXISTING PERMITS". THE CGP DOES NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH OTHER REGULATIONS OR CONTRACT REQUIREMENTS REGARDING STORM WATER POLLUTION PREVENTION INCLUDING BUT NOT LIMITED TO: PROTECTION OF SURFACE WATERS, PREVENTION OF SOIL RUNOFF INTO DRAINS, DUST CONTROL, PREVENTION OF TRACKING SOILS TO ADJACENT STREETS, FUEL CONTAINMENT, SPILL CONTROL, ETC.

MECHANICAL NOTES:

- A. MECHANICAL MATERIAL/EQUIPMENT SHOWN IS FOR SCHEMATIC PURPOSES. CONTRACTOR IS RESPONSIBLE FOR CORRECT QUANTITIES AND DIMENSIONS. CONSULT MANUFACTURER'S DETAIL DRAWINGS FOR DIMENSIONS AND INSTALLATION DETAILS. MECHANICAL DRAWINGS ARE INTENDED TO DETAIL CERTAIN MECHANICAL FEATURES, DIMENSIONS AND EQUIPMENT. FOR CLARITY, OTHER MECHANICAL, STRUCTURAL, CIVIL, HVAC/PLUMBING, ARCHITECTURAL OR ELECTRICAL INFORMATION MAY BE SHOWN IN BACKGROUND, LIGHTENED, HIDDEN OR REMOVED FROM THE MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE TO CROSS-REFERENCE AMONG DRAWINGS/BID VOLUMES AND COORDINATE WITH OTHER TRADES OR DISCIPLINES TO CONFORM TO THE OVERALL DESIGN INTENT FOR THESE FACILITIES.
- B. CONTRACTOR SHALL VERIFY ALL EQUIPMENT DIMENSIONS AND ELEVATIONS AND CROSS REFERENCE THESE WITH ALL OTHER EQUIPMENT AND TRADES ASSOCIATED WITH THE WORK TO ENSURE PROPER INSTALLATION, OPERATION, ALIGNMENT, MOUNTING REQUIREMENTS, CONNECTION DETAILS, ETC. SUBMIT MANUFACTURERS CONNECTION DETAILS AND SHOP DRAWINGS PER THE SPECIFICATIONS.
- C. CLEAN, PRIME, AND PAINT ALL EXPOSED METAL, PUMPS, PIPING, VALVES, FITTINGS, AND OTHER EQUIPMENT PER THE SPECIFICATIONS.
- D. PIPE SUPPORTS AND HANGARS SHOWN ARE A GENERALIZATION. PIPE SUPPORTS AND HANGARS SHALL BE DESIGNED BY THE CONTRACTOR AND SUBMITTED WITH THE PIPING SHOP DRAWINGS. PROVIDE PIPE SUPPORTS AND HANGARS IN ACCORDANCE WITH THE STANDARD DETAILS AND AS REQUIRED TO ADEQUATELY SUPPORT AND STABILIZE THE PIPING.

PROJECT CONTACT LIST

MT PLEASANT PUBLIC WORKS
COLTER ALLEN 435-201-9184

ENGINEER
GARY VANCE 801-750-4771



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Subconsultant

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[illegible]LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

GENERAL NOTES



Know what's below.
Call before you dig.

**CALL 2 BUSINESS DAYS IN ADVANCE BEFORE
YOU DIG, GRADE, OR EXCAVATE FOR THE
MARKING OF UNDERGROUND MEMBER
UTILITIES**

FILE : 93-24-009 G-002 G NOTES

JUB PROJ. # :93-24-009

DRAWN BY: CIH

DESIGN BY: BP

CHECKED BY: BP

ONE INCH

AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

LAST UPDATED: 6/19/2025

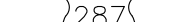
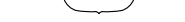
DRAWING:

G-002

SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
SURVEY		
CAP (ALUMINUM)		
CAP (BRASS)		
CHISELED X		
CTRL PT GENERIC		
CTRL PT 1/2" REBAR		
CTRL PT 5/8" REBAR		
CTRL PT 60D NAIL		
CTRL PT HUB & TACK		
CTRL PT PK NAIL		
CTRL PT TEMP BENCH MARK		
NAIL		
NAIL AND TAG		
NAIL (PK)		
BOLT		
DRILL STEEL		
REBAR (1/2")		
REBAR (5/8")		
STAINLESS STEEL ROD		
IRON PIPE		
RAILROAD SPIKE		
R/W MONUMENT		
STONE		
SECTION CORNER. MON.		
SECTION QUARTER MON.		
SITE		
BOLLARD		
BOULDER		
DRINKING FOUNTAIN		
FLAGPOLE		
GATE		
MAIL BOX		
PARKING METER		
POST		
SIGN		
SPOT ELEVATION		
TREE (SHRUB)		
TREE (STUMP)		
TREE (CONIFEROUS)		
TREE (DECIDUOUS)		
TEST HOLE		
WELL		
WELL (MONITORING)		

SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
UTILITIES		
MANHOLE (GENERIC)		
PRESSURE CLEAN OUT AT GRADE		
THRUST BLOCK		
VAULT		
COMMUNICATION		
TELE. MANHOLE		
TELE. PEDESTAL		
TELE. POLE		
TV PEDESTAL		
GUY WIRE		
DOMESTIC WATER		
FIRE HYDRANT		
SPIGOT		
YARD HYDRANT		
WATER MANHOLE		
WATER METER		
WATER VALVE		
ELECTRIC		
ELEC. MANHOLE		
ELEC. METER		
ELEC. TRANS.		
JUNCTION BOX		
POWER POLE		
POWER STUB		
STREET LIGHT		
TRAFFIC SIGNAL POLE		
IRRIGATION		
IRRIGATION VALVE		
IRRIGATION VALVE BOX		
SPRINKLER		
NATURAL GAS		
GAS METER		
GAS VALVE		
SANITARY SEWER		
CLEANOUT		
SEWER STUB		
SS MANHOLE		
STORM DRAIN		
CATCH BASIN		
DRY WELL		
FLARE END		
GREASE TRAP		
SD MANHOLE		

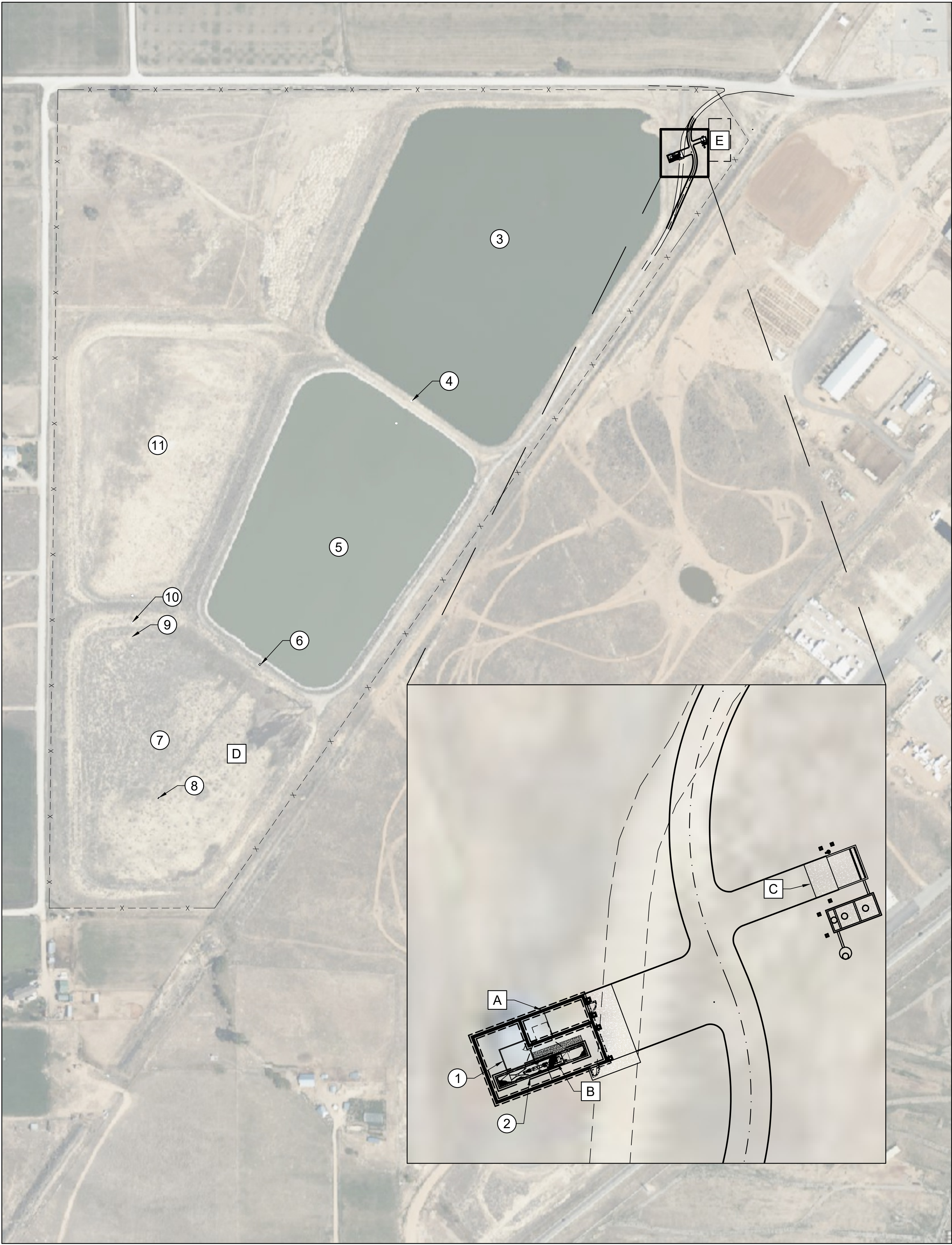
SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
FITTINGS		
BEND (11.25°)		
BEND (22.5°)		
BEND (45°)		
BEND (90°)		
CAP		
COUPLING		
CROSS		
REDUCER (CONCENTRIC)		
REDUCER (ECCENTRIC)		
TEE		
TRUE UNION		
WYE		
VALVES		
AIR VALVE		
BLOW OFF		
COMBO VALVE		
BALL VALVE (N.C.)		
BALL VALVE (N.O.)		
BUTTERFLY VALVE		
CHECK VALVE		
CHECK VALVE (FLANGE)		
CHECK VALVE (MJ)		
GATE VALVE		
PLUG VALVE (N.C.)		
PLUG VALVE (N.O.)		
ROAD MARKINGS		
TURN ARROW		
ARROW STRAIGHT		
ARROW STRAIGHT/TURN		
BICYCLE ROUTE		
CAR		
HANDICAP SYMBOL		
ROADWAY		
INTERSTATE ROUTE		
MAST ARM		
PEDESTRIAN SIGNAL		
STATE ROUTE		
TRAFFIC LIGHT		

SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
ROADWAY (CONT.)		
TYPE 2 BARRICADE		
US ROUTE		
TRAFFIC ATTENUATOR		
JERSEY BARRIER		

ABBREVIATIONS	
ASSY	ASSEMBLY
>	ANGLE
@	AT (MEASUREMENTS)
BLDG	BUILDING
BM	BENCH MARK
BSC	BITUMINOUS SURFACE COURSE
BSW	BACK OF SIDEWALK
BW	BOTH WAYS
C	CHANNEL (STRUCTURAL)
C/L	CENTER LINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONT	CONTINUOUS
CPLG	COUPLING
CU FT	CUBIC FEET
CU YD	CUBIC YARD
DEG OR °	DEGREE
DET	DETAIL
DIA OR Ø	DIAMETER
DIP	DUCTILE IRON PIPE
DIST	DISTRIBUTION
DWG	DRAWING
EA	EACH
ELB	ELBOW
ELEV	ELEVATION
EW	EACH WAY
EXIST	EXISTING
FG	FINISH GRADE
FH	FIRE HYDRANT
FLG	FLANGE
FT OR '	FEET
GV	GATE VALVE
HORIZ	HORIZONTAL
ID	INSIDE DIAMETER
IN OR "	INCH
LB OR #	POUND
LF	LINEAL FEET
LN	LINEAL
MAX	MAXIMUM
MIN	MINIMUM
NO OR #	NUMBER
PE	POLYETHYLENE
PL	PLATE
PL	PROPERTY LINE
PVC	POLYVINYL-CHLORIDE
R	RADIUS
RP	RADIUS POINT
R&R	REMOVE & REPLACE
REM	REMOVE
REQ'D	REQUIRED
REV	REVISION
R/W	RIGHT-OF-WAY

ABBREVIATIONS	
ASSY	ASSEMBLY
S	SLOPE
SPEC	SPECIFICATION
STA	STATION
STD	STANDARD
STL	STEEL
ST STL	STAINLESS STEEL
TBC	TOP BACK OF CURB
TYP	TYPICAL
TFC	TOP FACE OF CONCRETE
W/	WITH
W/O	WITHOUT
W/REQ'D	WHERE REQUIRED

[illegible]



EXISTING FEATURES (#)	
1	HEADWORKS MONITORING SHED
2	HEADWORKS INFLUENT CHANNEL WITH PARSHALL FLUME
3	LAGOON 1
4	LAGOON 2 TRANSFER STRUCTURE
5	LAGOON 2
6	LAGOON 3 TRANSFER STURCTURE
7	LAGOON 3
8	LAGOON 3 INLET STRUCTURE
9	LAGOON 3 OUTLET
10	LAGOON 4 TRANSFER STRUCTURE
11	LAGOON 4

NEW OR MODIFIED FACILITIES (#)	
A	HEADWORKS CMU BUILDING
B	HEADWORKS SCREEN
C	SEPTAGE RECEIVING STATION
D	LAGOON 3 IMPROVEMENTS (INSTALL GEOMEMBRANE LINER, AND REPLACE INLET/OUTLET PADS)
E	CONTRACTOR LAYDOWN AREA

Subconsultant:

BID



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REVISION		NO.	DESCRIPTION	BY	DATE
DATE	DESCRIPTION				

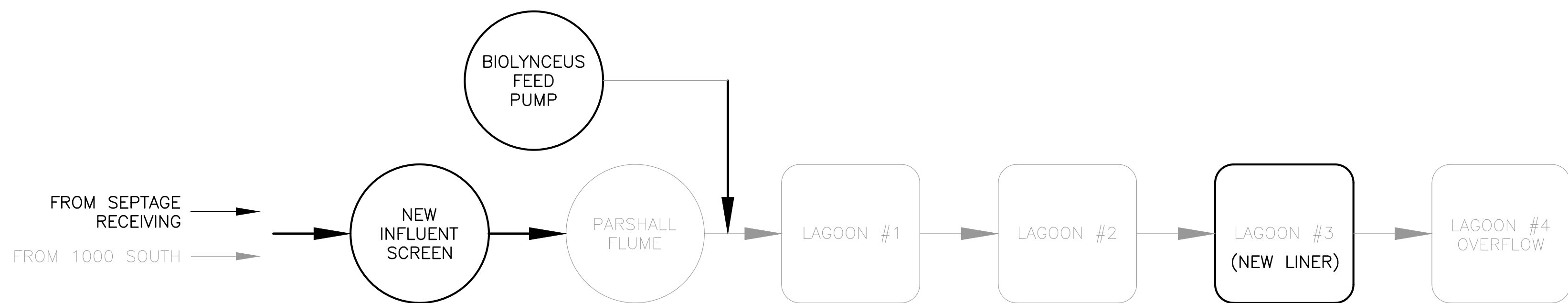
LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

FACILITY LOCATION MAP

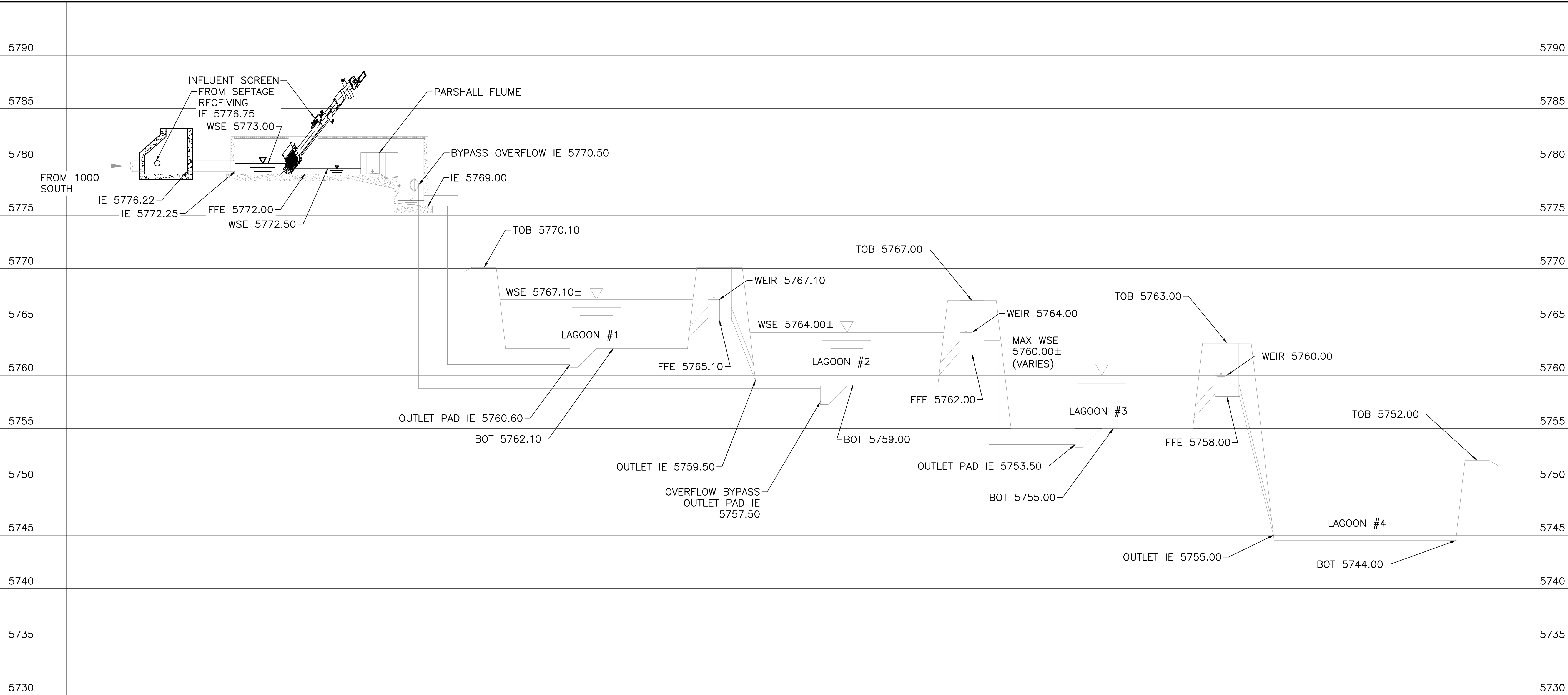
FILE: 93-24-009 G-005 FAC MAP
JUB PROJ. #: 93-24-009
DRAWN BY: CH
DESIGN BY: BWP
CHECKED BY: BWP
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/9/2025

DRAWING:

G-005



A1 **PROCESS SCHEMATIC**
SCALE: N.T.S.



B1 HYDRAULIC PROFILE
SCALE: N.T.S.



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Subconsultant:

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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

PROCESS SCHEMATIC AND HYDRAULIC PROFILE

FILE : 93-24-009 G-006 PROC&PROC

JUB PROJ. # :93-24-009

DRAWN BY: CIH

CHECKED BY:

ONE

AT FULL SIZE

INCH, SCALE
LAST UPDATED:

DRAWING:

DRAWING.

66

G-0

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GENERAL NOTES:

1. HORIZONTAL SCALING IS SCHEMATIC AND EXAGGERATED.
2. ELEVATIONS TAKEN FROM RECORD DRAWINGS DATED SEPTEMBER 1978. ELEVATIONS MAY VARY FROM ACTUAL CONDITIONS.
3. HYDRAULIC PROFILE IS BASED ON DESIGN MAXIMUM MONTH FLOWS.

Plot Date: 9/9/2025 11:57 AM Plotted By: Caleb Herring
Date Created: 6/9/2025 \\UJB.COM\CENTRAL\CLIENTS\UTPI\EASANT\PROJECTS\93-24-009 LAGOON IMPROVEMENTS\PROJECT\DESIGN\CAD\SHEET\GENERAL G\193-24-009 G-006 PROC & PROF DWG

DESIGN CRITERIA		UNITS	DESIGN VALUES
FLOW			
EXISTING			
	MIN DAY	MGD	0.12
	AVERAGE DAY	MGD	0.23
	MAX MONTH	MGD	0.25
	PEAK HOUR	MGD	0.61
DESIGN (2042)			
	MIN DAY	MGD	0.18
	AVERAGE DAY	MGD	0.35
	MAX MONTH	MGD	0.38
	PEAK HOUR	MGD	0.93
FUTURE BUILDOUT (2070)			
	MIN DAY	MGD	0.30
	AVERAGE DAY	MGD	0.60
	MAX MONTH	MGD	0.75
	PEAK HOUR	MGD	1.57
BOD			
EXISTING			
	CONCENTRATION	MG/L	250
	AVERAGE DAY LOADING	LB/DAY	480
	MAX MONTH LOADING	LB/DAY	521
DESIGN (2042)			
	CONCENTRATION	MG/L	250
	AVERAGE DAY LOADING	LB/DAY	730
	MAX MONTH LOADING	LB/DAY	792
SEPTAGE RECEIVING			
	TRUCK TANK SIZE	GAL	2,000
	DUMP FREQUENCY	PER WEEK	2
	HOLDING TANK SIZE	GAL	2,500
INFLUENT SCREEN			
	CHANNEL WIDTH	IN	36
	TYPE	-	AUTOMATIC FINE SCREEN WITH INTEGRAL WASHPRESS
	QUANTITY	-	1
	BASKET DIAMETER	IN	24
	CAPACITY, EACH	MGD	1.57
	HEADLOSS AT CAPACITY	IN	6
	OPENING SIZE	IN	1/4
	MOTOR SIZE	HP	2
	DRIVE TYPE	-	VFD
	WASHSYSTEM	-	3-ZONE WASH SYSTEM
	WASHWATER DEMAND	GPM / PSI	20 / 60
LAGOON 3			
	WATER STORAGE VOLUME	MGAL	31.3
	SURFACE AREA AT MAX. WATER DEPTH	AC	12.1
	MAX WATER DEPTH	FT	5
	FREEBOARD	FT	3
	INTERIOR EMBANKMENT SLOPE	H:V	3:1
	EXTERIOR EMBANKMENT SLOPE	H:V	3:1
	LINER SURFACE AREA	SQ. FT.	587,500
	LINER MATERIAL	TYPE	60 MIL HDPE

Plot Date: 9/9/2025 1:45 AM Plotted By: Caleb Herring
Date Created: 6/9/2025 JUB-001-CENTRAL-CITY-MT-PLEASANT-PROJECT-SUB-24-009 LAGOON IMPROVEMENTS PROJECT DESIGN CAD SHEET CIVIL C/MS-24-009 C-001 DWG





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NO.	REVISION	DESCRIPTION	BY	DATE

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

SHEET KEY

FILE: 93-24-009 C-001

JUB PROJ. #: 93-24-009

DRAWN BY: CH

DESIGN BY: BWP

CHECKED BY: BWP

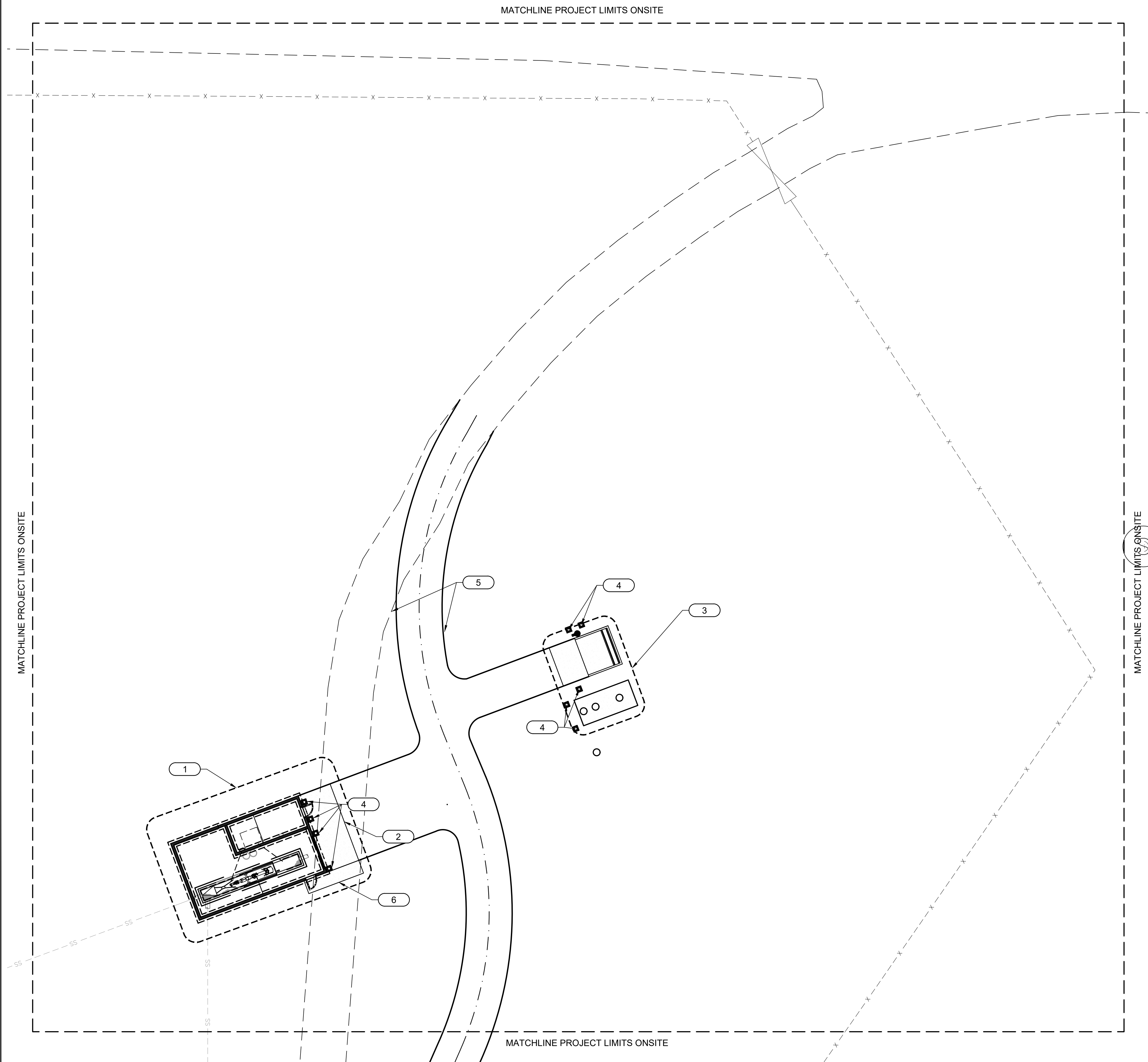
ONE INCH

AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 8/19/2025

DRAWING:

C-001



- | # | CIVIL UTILITY KEYED NOTES |
|----|---|
| 1. | HEADWORKS BUILDING, SEE SHEET D-102. |
| 2. | 10-FT CONCRETE APRON. |
| 3. | SEPTAGE RECEIVING STATION, SEE SHEET D-302. |
| 4. | BOLLARD PER (C-02160), SHEET CZ-901. |
| 5. | ACCESS ROAD BY OTHERS. |
| 6. | 4-FT WIDE CONCRETE SIDEWALK. |



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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

HEADWORKS SITE LAYOUT

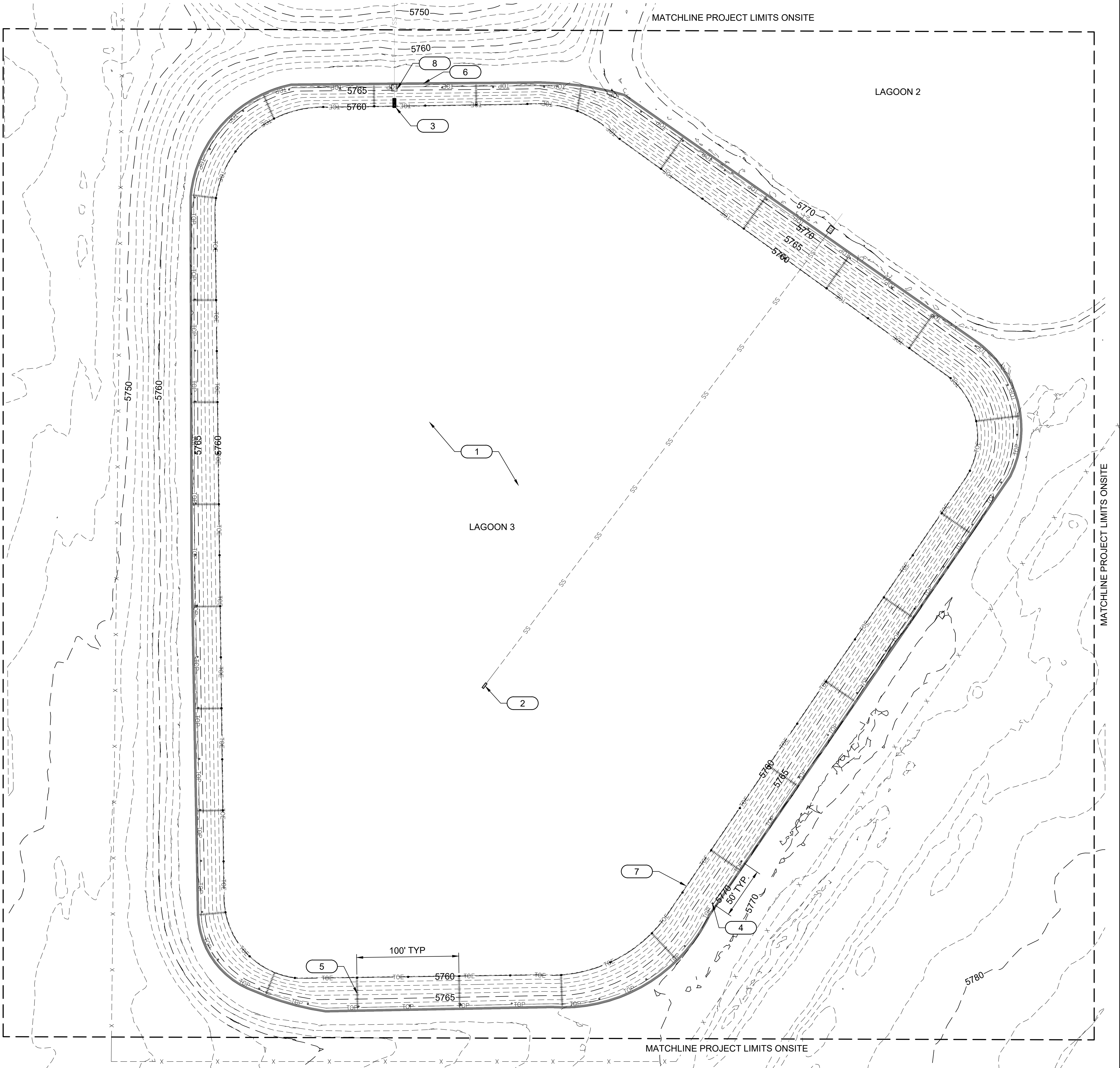
FILE : 93-24-009 C-101X
JUB PROJ. # :93-24-009
DRAWN BY: CIH
DESIGN BY: BWP
CHECKED BY: BWP
 ONE INCH AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/8/2025

DRAWING

C-101

Plot Date: 9/9/2025 11:45 AM Plotted By: Caleb Herring
Date Created: 9/9/2025 JUB: C:\CENTRAL\CLIENTS\MT PLEASANT\PROJECTS\93-24-009 LAGOON IMPROVEMENTS\PROJECT\DESIGN\CAD\SHEET\CVIL C\93-24-009 C-101X.DWG

MATCHLINE PROJECT LIMITS ONSITE

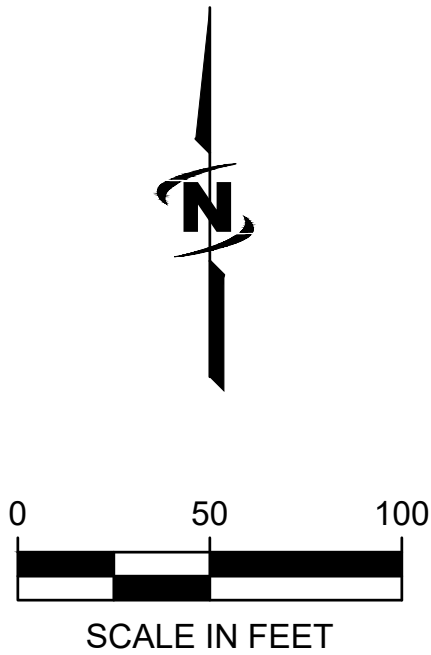


MATCHLINE PROJECT LIMITS ONSITE

LAGOON 2

LAGOON 3

MATCHLINE PROJECT LIMITS ONSITE



#

LINER PLAN KEYED NOTES

1. GEOMEMBRANE LINER, APPROXIMATELY 590,000 SQ. FT. BEFORE LINER INSTALLATION, THE SUBGRADE SHALL BE CLEARED AND GRUBBED (BY OTHERS), COMPACTED TO A MINIMUM OF 90% (BY OTHERS), AND A CUSHION LAYER INSTALLED. THE SUBGRADE MUST MEET THE REQUIREMENTS SPECIFIED BY THE LINER INSTALLER.
2. REMOVE AND REPLACE EXISTING INLET STRUCTURE. ATTACH LINER TO EMBEDMENT STRIP PER DETAIL D1 SHEET C-501.
3. NEW OUTLET STRUCTURE. ATTACH LINER TO EMBEDMENT STRIP PER DETAIL D3 SHEET C-501.
4. LINER VENT. SEE DETAIL D1 SHEET C-502.
5. SAFETY LADDER. SEE DETAIL D3 SHEET C-502.
6. ANCHOR TRENCH. SEE DETAIL D4 SHEET C-502.
7. BALLAST TUBE. SEE DETAIL D2 SHEET C-502.
8. EMBED BATTEN BAR AND ATTACH LINER TO CONCRETE TRANSFER STRUCTURE, SEE DETAIL B1 SHEET C-502.



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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

LAGOON 3 LINER PLAN

FILE: 93-24-009 C-101X
JUB PROJ. #: 93-24-009
DRAWN BY: CH
DESIGN BY: BWP
CHECKED BY: BWP
AT FULL SIZE, IF NOT ONE
INCH SCALE ACCORDINGLY
LAST UPDATED: 9/9/2025

DRAWING:

C-102

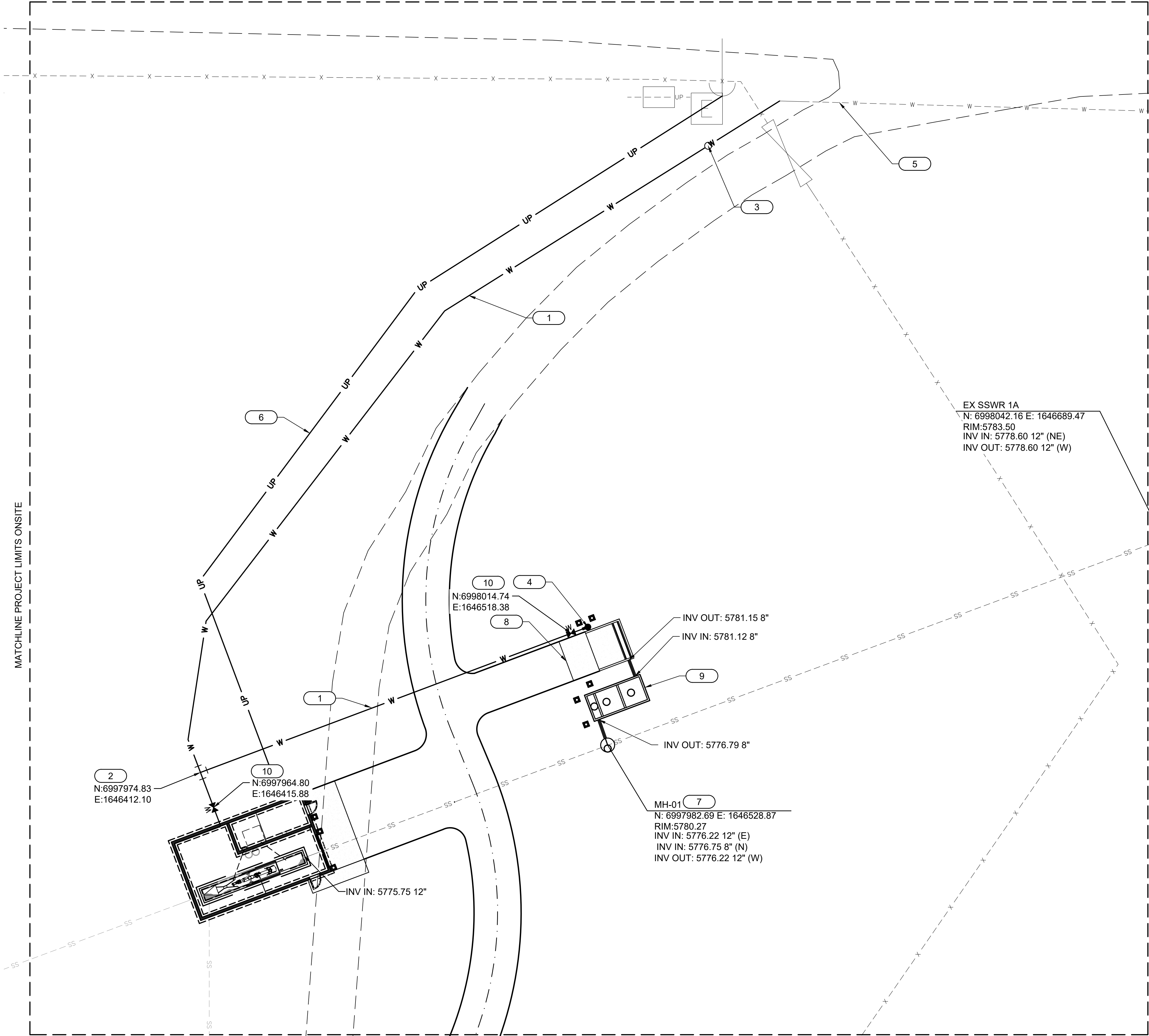
Plot Date: 9/9/2025 1:45 AM Plotted By: Caleb Herring
Date Created: 9/3/2025 JUB-001-CENTRAL-CITY-UT-MT-PLEASANT-PROJECT-SIS-24-009 LAGOON IMPROVEMENTS PROJECT DESIGN CAD SHEET CIVIL (C) 9/3-24-009 CU-102X.DWG

MATCHLINE PROJECT LIMITS ONSITE

MATCHLINE PROJECT LIMITS ONSITE

MATCHLINE PROJECT LIMITS ONSITE

MATCHLINE PROJECT LIMITS ONSITE



EX SSWR 1A
N: 6998042.16 E: 1646689.47
RIM: 5783.50
INV IN: 5778.60 12" (NE)
INV OUT: 5778.60 12" (W)

N: 6998014.74
E: 1646518.38

INV OUT: 5781.15 8"
INV IN: 5781.12 8"

INV OUT: 5776.79 8"

MH-01
N: 6997982.69 E: 1646528.87
RIM: 5780.27
INV IN: 5776.22 12" (E)
INV IN: 5776.75 8" (N)
INV OUT: 5776.22 12" (W)

N: 6997964.80
E: 1646415.88

N: 6997974.83
E: 1646412.10

INV IN: 5775.75 12"



SCALE IN FEET

CIVIL UTILITY KEYED NOTES

- 1-IN POLYETHYLENE CULINARY WATER SERVICE (CWS) PIPE (BLUE).
- 1-IN X 1-IN PVC TEE FITTING.
- CULINARY WATER SERVICE METER PER APWA 521.
- YARD HYDRANT ASSEMBLY (TYPE PH-1, SEE DETAIL B2 ON SHEET C-503).
INSTALL HOSE RACK PER (C-15205), SHEET DZ-901. HYDRANT SHALL
HAVE BUILT IN BACKFLOW PROTECTION.
- 1-IN WATER LINE BY OTHERS.
- UNDERGROUND POWER, SEE SHEET E-100.
- 48" DIA. DOGHOUSE MANHOLE, SEE DETAIL B1 SHEET C-503.
- SEPTAGE RECIEVING STATION PAD, SEE SHEET D-302.
- SEPTAGE HOLDING TANK, SEE SHEET D-302.
- 1-IN WATER ISOLATION VALVE AND COVER PER (C-02100), SHEET
CZ-902.

GENERAL CIVIL UTILITY NOTES

- UNLESS OTHERWISE NOTED, PRESERVE AND PROTECT ALL EXISTING
UTILITIES.
- CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES AND BE
RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES AND EXISTING
IMPROVEMENTS AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION
ACTIVITIES.
- DURING CONSTRUCTION, ALL OPEN ENDS OF ALL PIPELINES SHALL BE
COVERED AND SEALED AT THE END OF THE WORK DAY.
- ALL MANHOLE, CLEANOUT, VALVE BOX, ETC. FINISHED GRADE
ELEVATIONS TO MATCH FINISHED GRADE OR AS SHOWN ON PLANS.
THE CONTRACTOR SHALL SECURE APPROVAL FROM OWNER'S
REPRESENTATIVE PRIOR TO BACKFILL OVER ANY UTILITIES.
CONTRACTOR SHALL VERIFY LOCATION OF EXISTING AND ACCURATELY
RECORD LOCATION OF NEW UNDERGROUND UTILITIES PRIOR TO
BACKFILL.
- ALL WATER AND WASTEWATER SERVICES, PIPING, VALVES, HYDRANTS
& APPURTENANCES SHALL BE INSTALLED, TESTED & APPROVED PRIOR
TO FINAL SURFACE REPAIR.
- CONTRACTOR SHALL VERIFY NO CROSS-CONNECTIONS EXIST BETWEEN
POTABLE WATER LINES & NON-POTABLE WATER LINES PRIOR TO
PLACING NON-POTABLE WATER SYSTEM INTO SERVICE.
THE LIMITS FOR YARD PIPING VARY DEPENDING ON CONNECTION
REQUIREMENTS AT STRUCTURE; ATTENTION IS DIRECTED TO
INDIVIDUAL COMPONENT DRAWINGS FOR CONNECTION REQUIREMENTS
& RELATED DETAILS.
- ALL WATER LINES HAVE MINIMUM COVER 4' FROM FINISHED GRADE &
DISINFECTION TEST PER CONTRACT DOCUMENTS.
- ALL CROSSINGS OF WATER LINES SHALL FOLLOW SEPARATION
REQUIREMENTS PER STATE OF UTAH DEPARTMENT OF
ENVIRONMENTAL QUALITY (DEQ) RULES.
- ALL WATER LINES SHALL BE PRESSURE TESTED AND DISINFECTED IN
ACCORDANCE WITH AWWA STANDARDS AND CONTRACT DOCUMENTS.
- ALL WASTEWATER LINES SHALL BE TESTED IN ACCORDANCE WITH
CONTRACT DOCUMENTS AND LOCAL JURISDICTION REQUIREMENTS.
CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS OF ALL YARD
PIPING INCLUDING PIPE SIZES, MATERIALS, INVERTS, LENGTHS, AND
LOCATIONS OF ALL STRUCTURES AND APPURTENANCES.



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NO.	DESCRIPTION				

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

HEADWORKS SITE UTILITY PLAN

FILE: 93-24-009 CU-102X

JUB PROJ. #: 93-24-009

DRAWN BY: CH

DESIGN BY: BWP

CHECKED BY: BWP

AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY

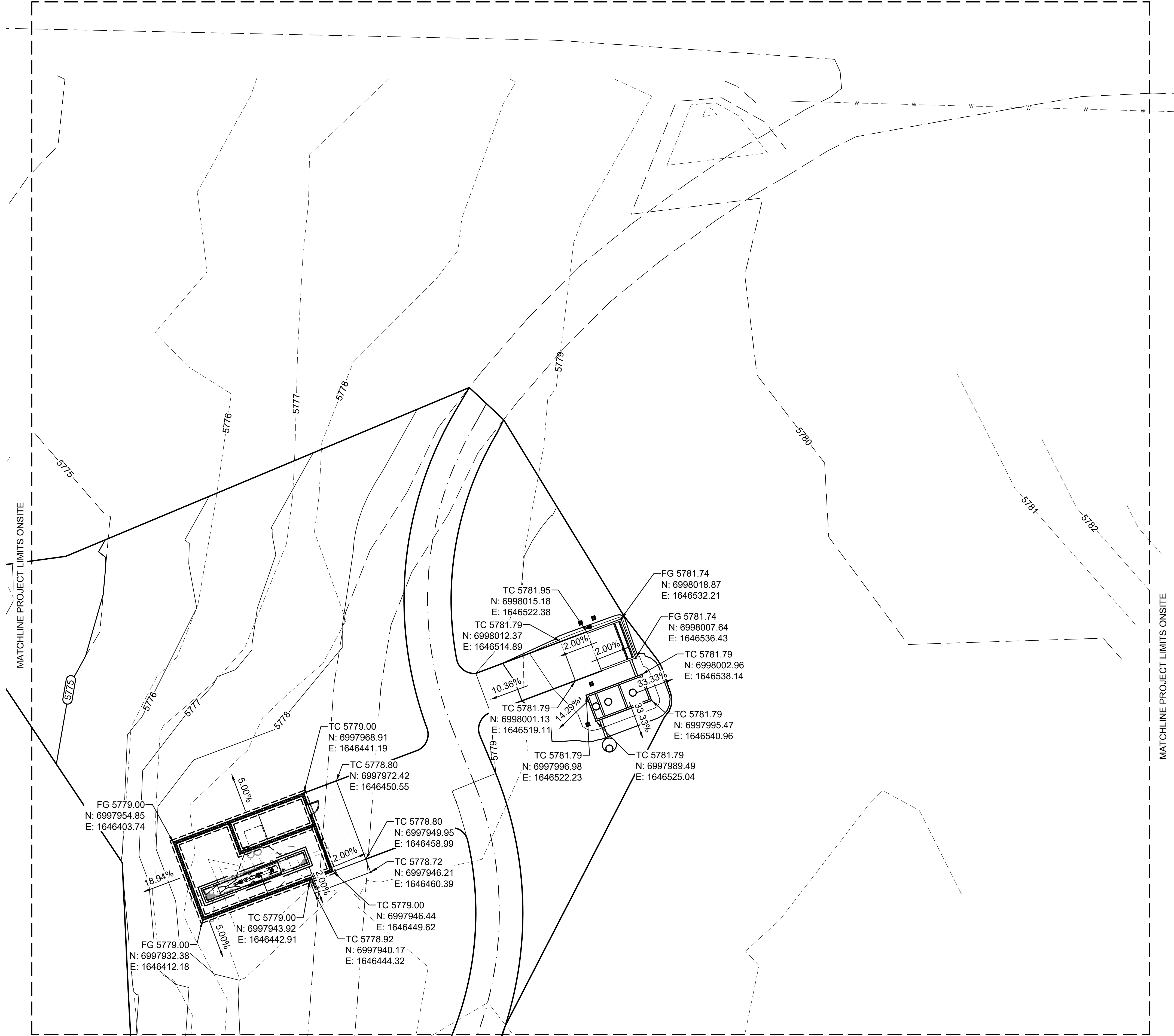
LAST UPDATED: 9/9/2025

DRAWING:

CU-101

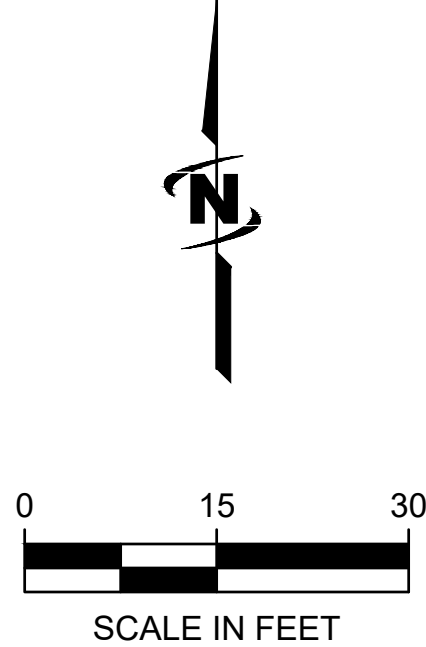
Plot Date: 9/9/2025 1:45 AM Plotted By: Caleb Herring
Date Created: 9/3/2025 JUB-CENTRAL CLIENT\TUMT\PLEASANT PROJECT\93-24-009 LAGOON IMPROVEMENTS PROJECT\DESIGN\CAD\SHOOT\CG-101X.DWG

MATCHLINE PROJECT LIMITS ONSITE



MATCHLINE SEE SHEET CG-102

1. RETURN FINISHED SURFACE TO PRE-CONSTRUCTION CONDITIONS AND ADD NATIVE GRASS MIXTURE. WATER SURFACE FOR FOLLOWING WEEKS TO ENSURE GRASS IS ESTABLISHED.



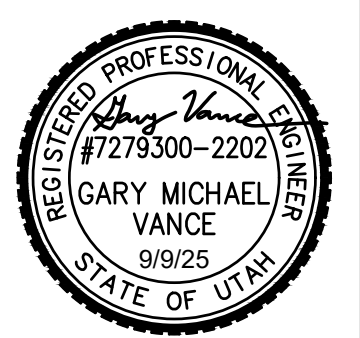


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					DATE

LAGOON IMPROVEMENTS PROJECT

MT PLEASANT CITY

HEADWORKS GRADING

FILE: 93-24-009 CG-101X
JUB PROJ. #: 93-24-009
DRAWN BY: BWP
DESIGN BY: BWP
CHECKED BY: GV

ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 9/3/2025

DRAWING:

CG-101

CELL 3 INLET DEMO

Technical drawing of a rectangular object, likely a window or door, showing dimensions and a section line.

Dimensions:

- Width: 7'-6"
- Height: 3'-0"

The drawing shows a rectangular frame with a central rectangular opening. The frame is composed of multiple layers, suggesting a double-paneled or insulated structure. A section line is drawn on the right side, indicating a cross-section view.

EMBEDMENT STRIP PER
DETAIL B3 SHEET C-502.

GEOMEMBRANE

GEOTEXTILE FABRIC.
SEE NOTE 2.

7'-6"

1'-0"

3'-0"

2'-6"

1'-0"

2

1

6"

2'-0"

NOTES

- ## CELL 3 INLET STRUCTURE

Technical drawing of a rectangular concrete foundation. The overall width is 9'-0" and the overall height is 3'-0". The top of the foundation is tapered, with a thickness of 3" indicated. A dashed line indicates the location of a wall or partition. The drawing includes a cross-section view on the left showing the foundation's profile and a plan view on the right showing the foundation's footprint.

3
1

GEOMEMBRANE

GEOTEXTILE FABRIC. SEE
NOTE 2.

EMBEDMENT STRIP PER
DETAIL B1 SHEET C-502.

6"

MIN. 12"

SAWCUT END OF EXISTING
12" CONCRETE PIPE.
ENCASE IN CONCRETE

4'-0"

9'-0"

6"

NOTES

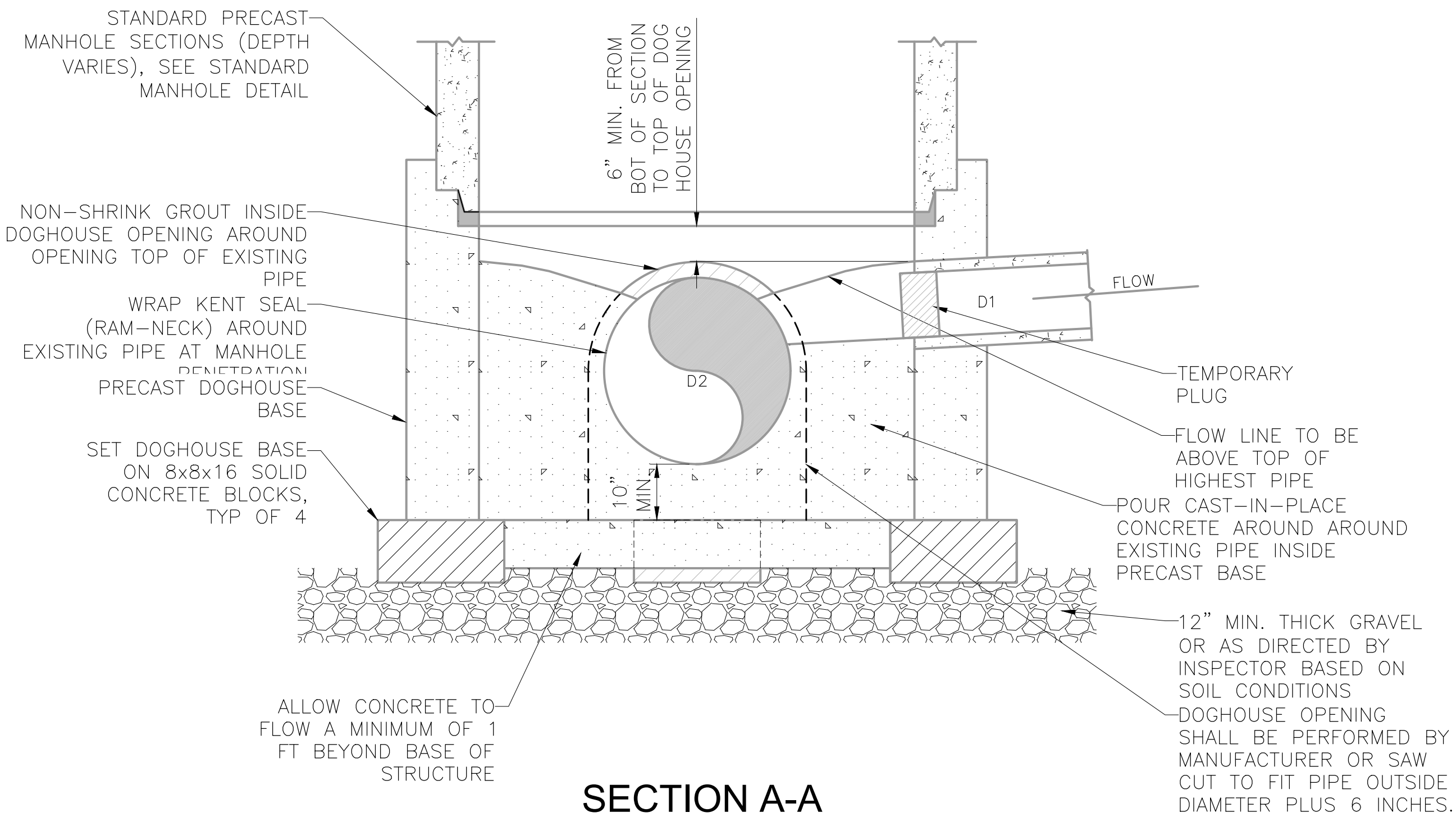
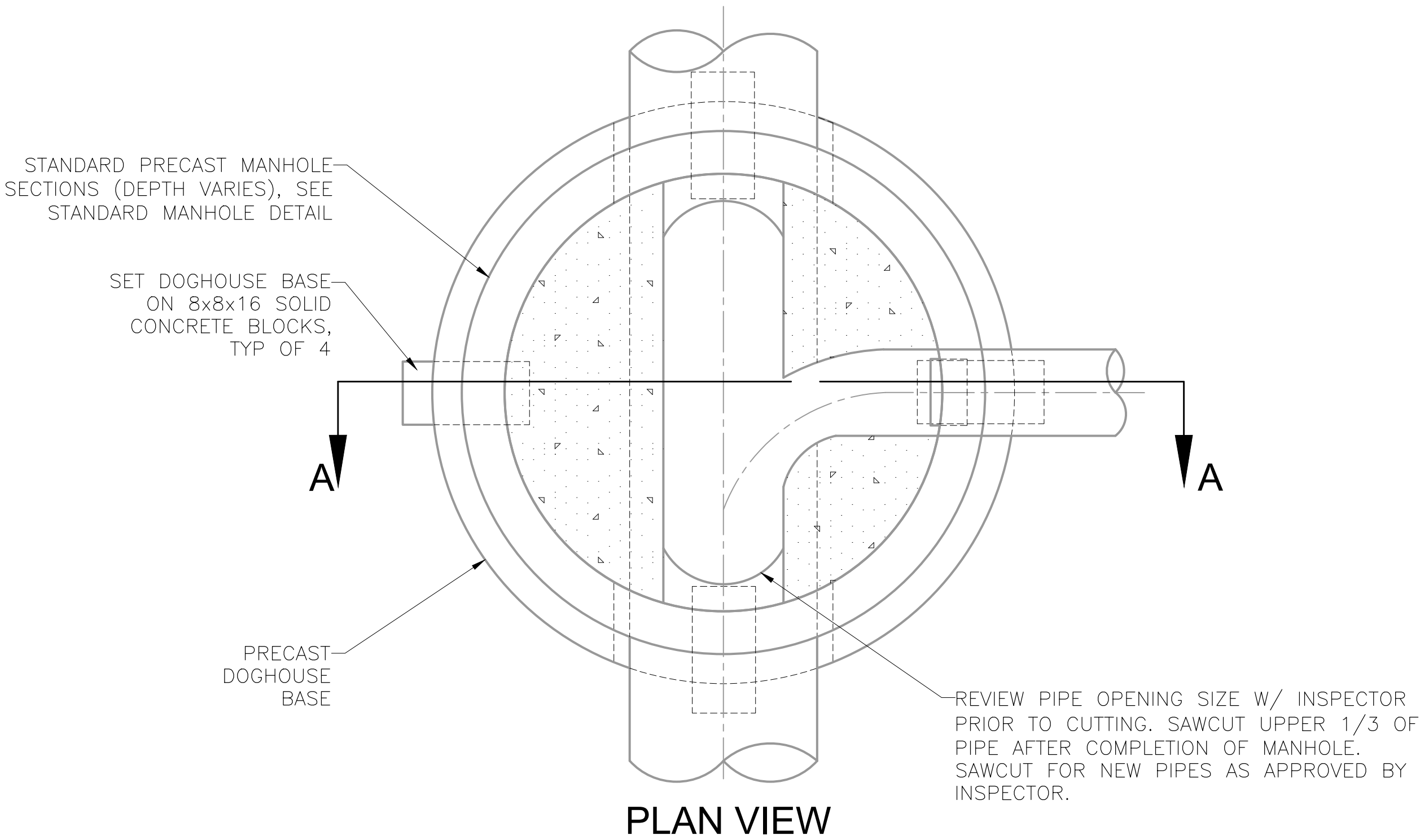
- ## CELL 3 OUTLET STRUCTURE

C-501

Plot Date: 9/9/2025 11:50 AM Plotted By: Caleb Herring
Date Created: 12/12/2024 JUB-CON-CENTRAL-CITY-MT PLEASANT PROJECTS/93-24-009 LAGOON IMPROVEMENTS PROJECT/DESIGN/CAD SHEET/CIVIL 0/93-24-009 C-503X.DWG

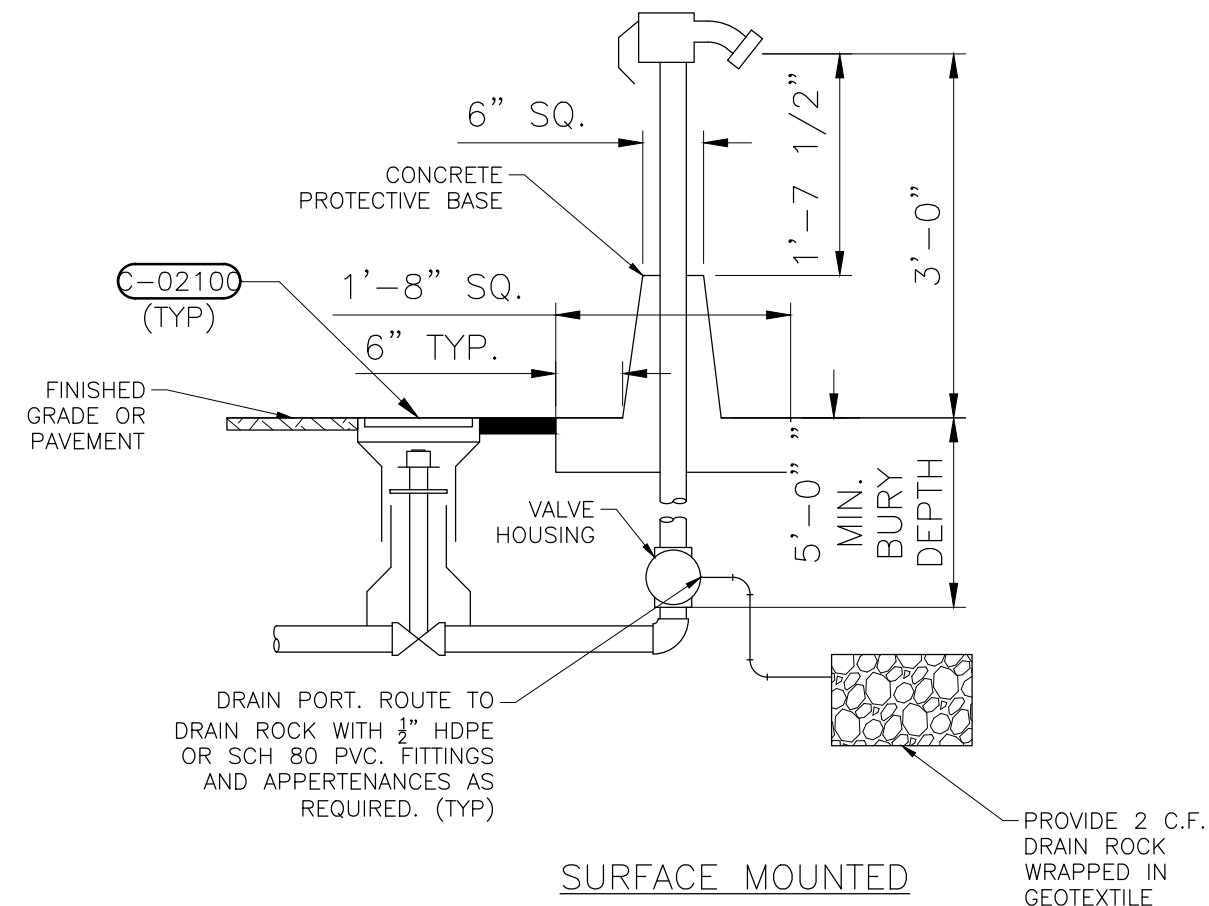
B1 DOGHOUSE MANHOLE
SCALE: N.T.S.

- NOTES:
- IF GRADE ALLOWS, INVERT D1 SHALL MATCH THE 0.75 DEPTH POINT OF D2. OTHERWISE, MATCH TOP OF PIPE FOR D1 TO TOP OF PIPE OF D2 AS APPROVED BY INSPECTOR.
 - AFTER ALL GRADING AROUND MANHOLE HAS BEEN COMPLETED AND FINAL SURFACING IS IN PLACE, REMOVE DEBRIS AND TEMPORARY PLUGS OR PLYWOOD FROM INSIDE OF MANHOLES.
 - IF MANHOLE IS TO BE POURED IN PLACE, FOLLOW SAME PATTERN AS SHOWN EXCEPT USE 10" MIN. WALL THICKNESS.
 - CONTACT INSPECTOR 48 HOURS (2 BUSINESS DAYS) PRIOR TO CONSTRUCTION.
 - STUBS FOR FUTURE CONNECTIONS SHALL BE PLUGGED UNTIL ACTIVATION IS APPROVED BY INSPECTOR.

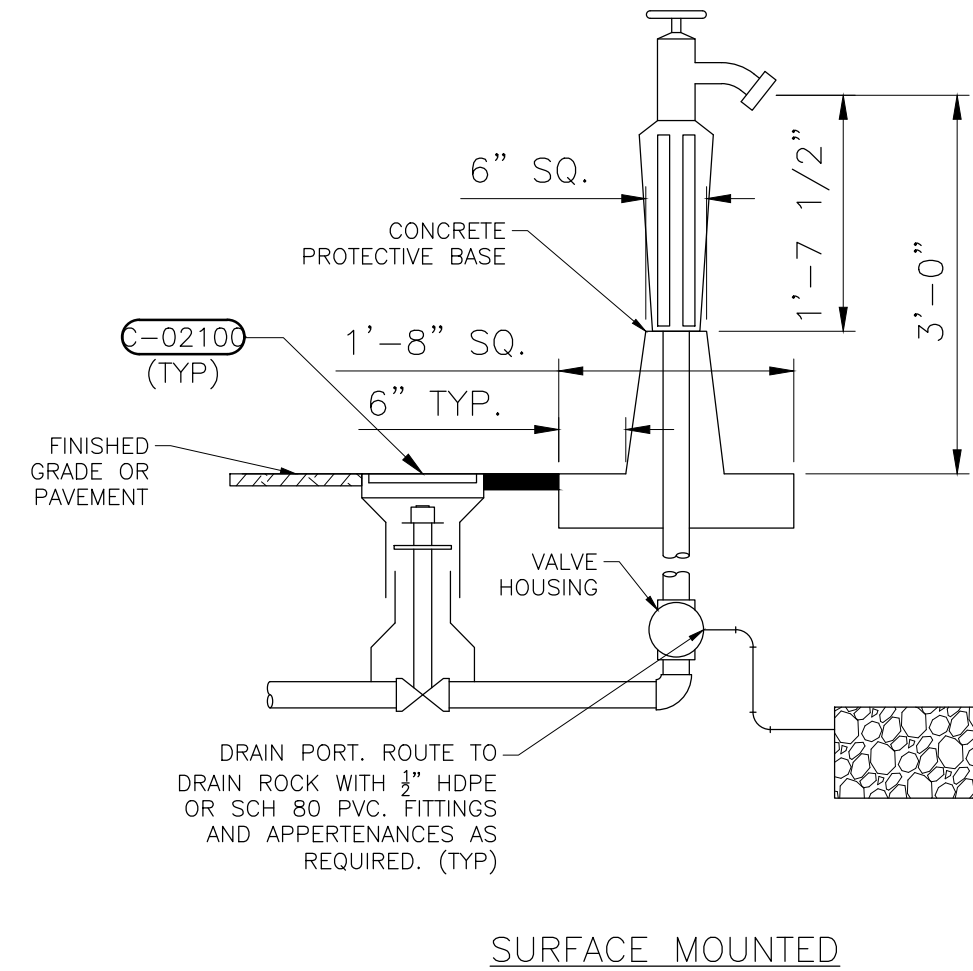
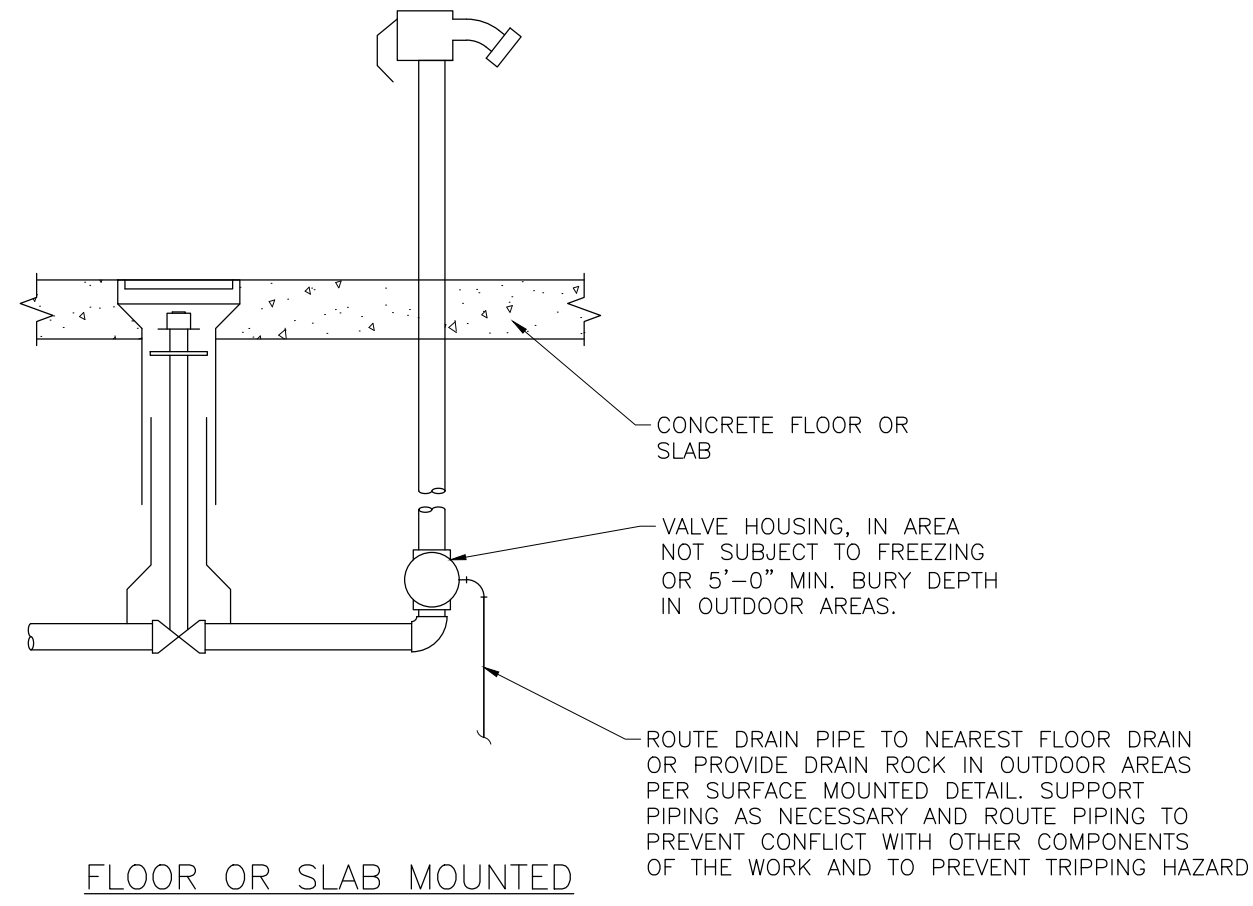


NOTES

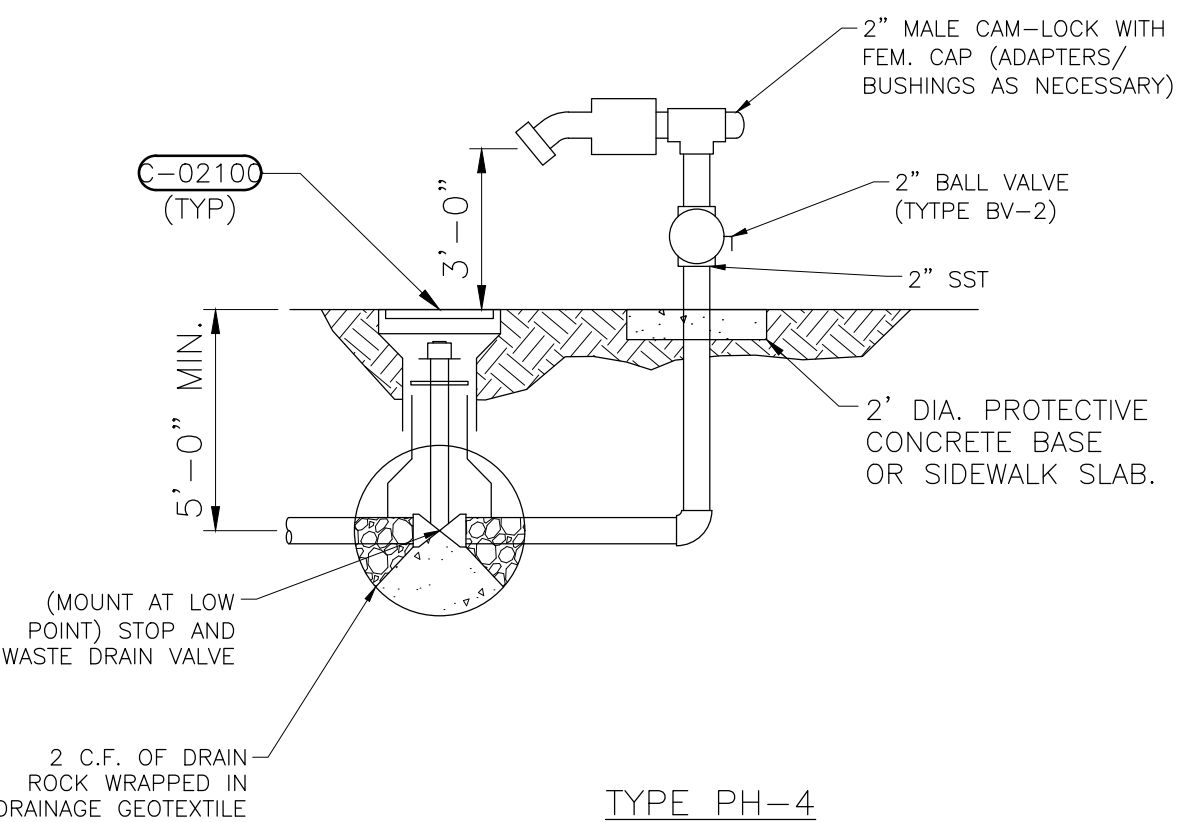
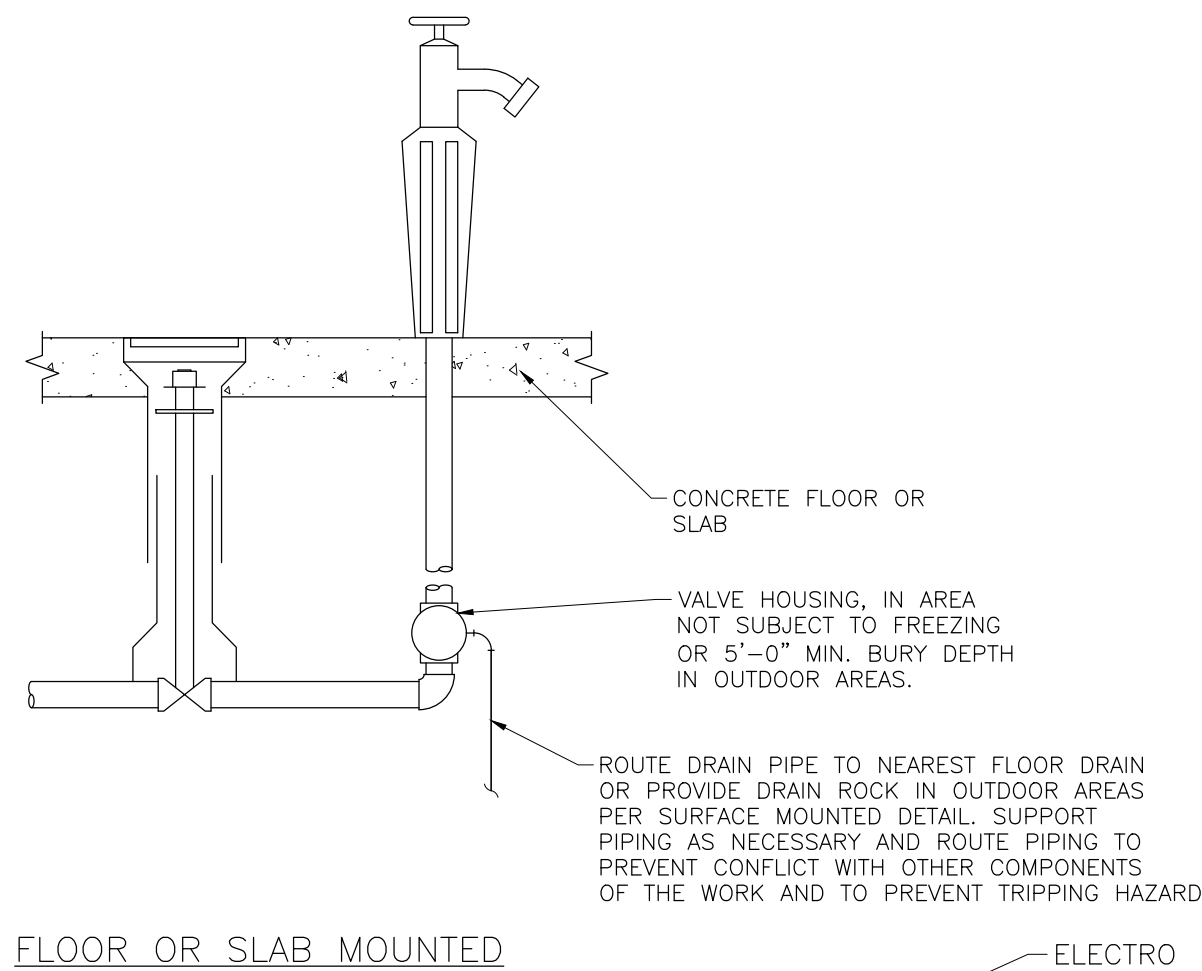
- PROVIDE WARNING SIGN PER STANDARD DETAIL D-15215 WHEN USED FOR NON-POTABLE WATER.
- ALL POST HYDRANTS TO BE CONTROLLED BY INDIVIDUAL SHUT OFF VALVE. PROVIDE CURB STOP FOR 1 1/2" - 2" PIPES. GATE VALVE FOR LARGER PIPES
- SUPPLY PIPING MATERIAL AND SIZE PER THE PLANS; PROVIDE ADAPTERS AND FITTINGS ARE REQUIRED FOR CONNECTION TO HYDRANT STEM
- HOSE BIBBS SHALL BE INSTALLED SO THAT ALL COMPONENTS ARE EASILY ACCESSIBLE AND HOSE CAN BE EASILY ATTACHED WITHOUT OBSTRUCTION.
- PROVIDE FITTINGS AND ADAPTERS AS NECESSARY.
- PROVIDE A HOSE RACK AND HOSE PER STANDARD DETAIL D-15205, SHEET DZ-901.
- HOSE BIBBS PER TECHNICAL SPECIFICATION



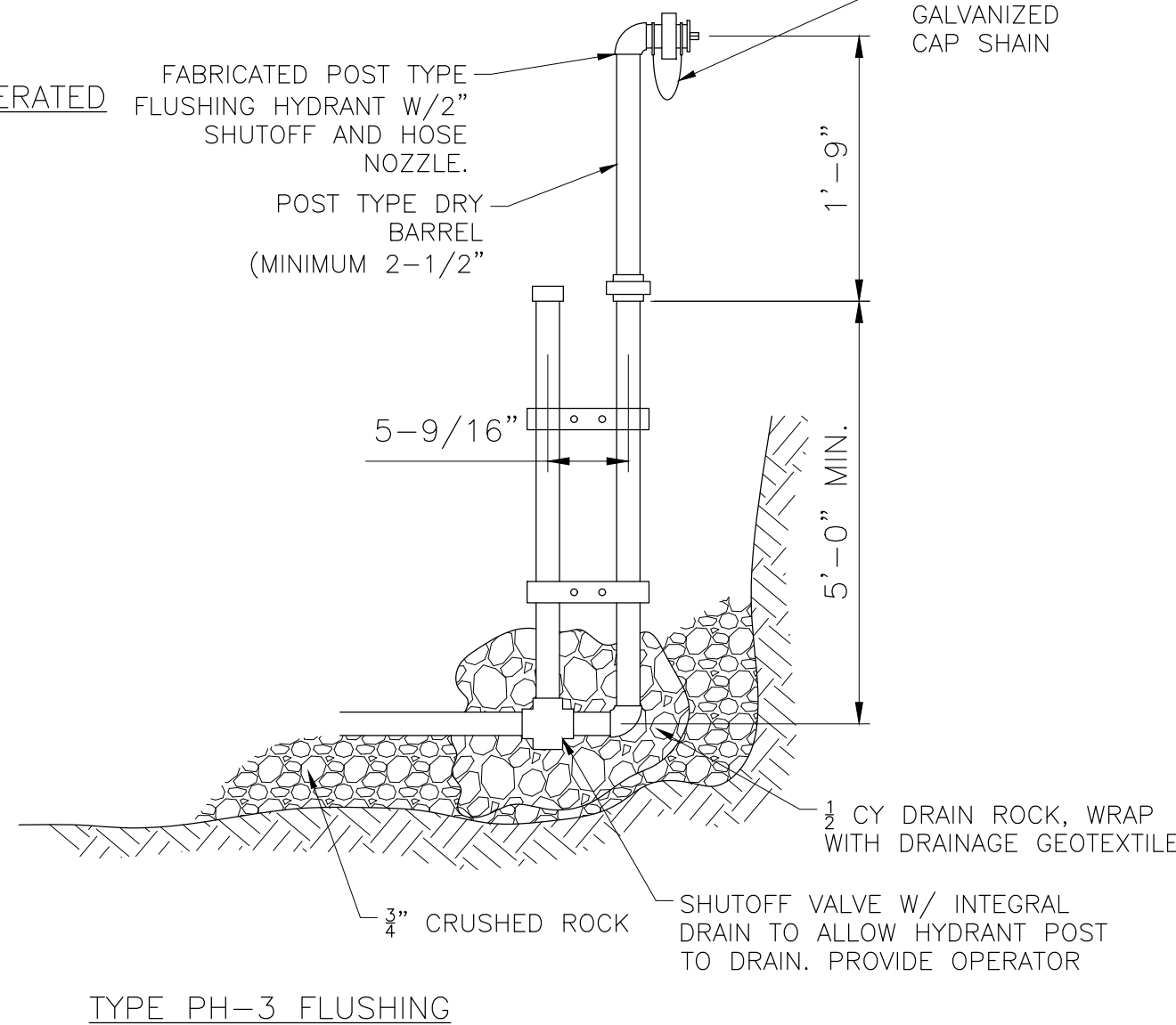
TYPE PH-1 - LEVER OPERATED



TYPE PH-2 - T OPERATED



TYPE PH-4



TYPE PH-3 FLUSHING

B2 NON-FREEZE HYDRANTS
SCALE: N.T.S.

Subconsultant:

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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

CIVIL DETAILS

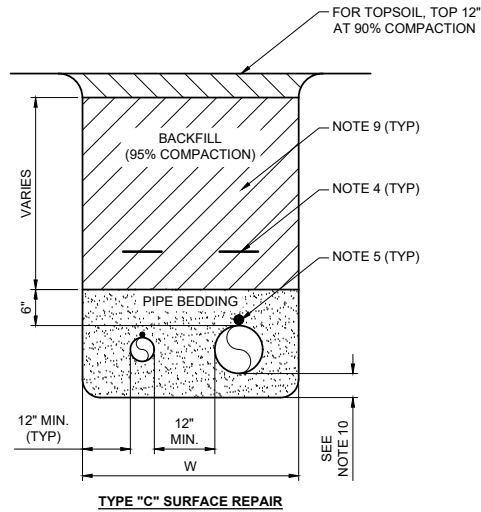
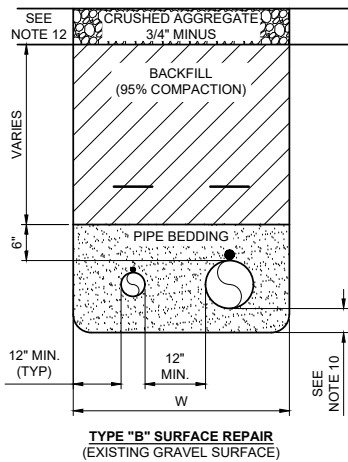
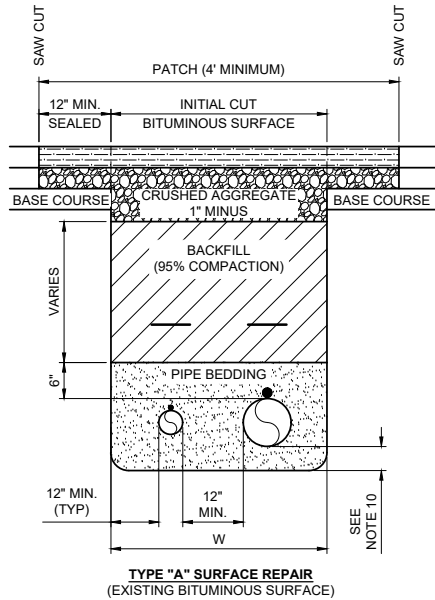
FILE: 93-24-009 C-503X
JUB PROJ. #: 93-24-009
DRAWN BY: BWP
DESIGN BY: BWP
CHECKED BY: GV
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/9/2025
DRAWING:

C-503

Plot Date: 9/9/2025 1:50 AM Plotted By: Caleb Herring
Date Created: 8/4/2025 JUB.COM\CENTRAL\CLIENTS\UT\MT PLEASANT PROJECTS\92-24-009 LAGOON IMPROVEMENTS\PROJECT DESIGN\CAD SHEET\CIVIL\02\02-901X.DWG

NOTES:

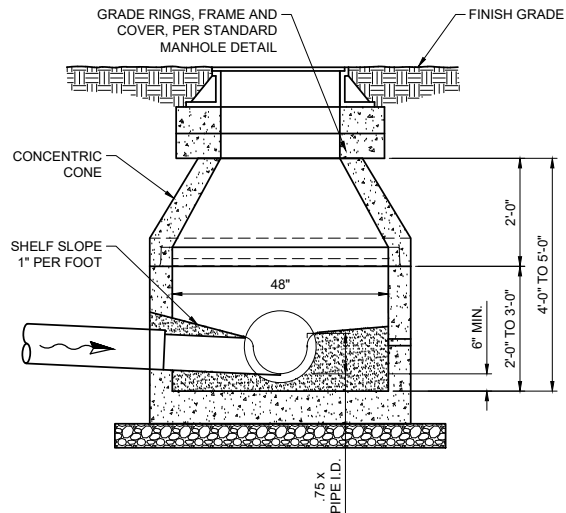
- ALL LOOSE AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE FACE OF THE EXISTING BITUMINOUS SURFACE-CUT.
- ANY FRACTURED BITUMINOUS SURFACE BEYOND THE FACE OF THE SURFACE-CUT SHALL BE REMOVED.
- THE FACE OF THE BITUMINOUS SURFACE-CUT MUST BE PRIMED BEFORE APPLYING PATCH.
- CONTINUOUS PLASTIC TAPE MARKED APPROPRIATELY FOR THE PIPE SERVICE; 12" MAX. ABOVE PIPE.
- LOCATING WIRE LOOPED UP AT VALVE BOXES. PROVIDE A VALVE BOX AT PIPE TERMINATION POINT FOR LOCATING WIRE AND EXTEND BOX TO THE SURFACE FOR ACCESS. IF PIPE CONTINUES INTO OR BELOW A STRUCTURE, PROVIDE VALVE BOX AT EXTERIOR WALL FOR LOCATING WIRE TERMINATION.
- PATCH SHALL NOT OVERLAP THE EXISTING BITUMINOUS SURFACE.
- THE PATCH THICKNESS SHALL BE AT LEAST EQUAL TO EXISTING CONDITION, 3" MINIMUM.
- 48" MINIMUM BURY (ALL PIPES), UNLESS OTHERWISE NOTED.
- TRENCH SIDE WALL EXCAVATION SHALL BE SLOPED AND/OR SUPPORTED AS REQUIRED PER FEDERAL, STATE AND LOCAL LAWS.
- PIPE BEDDING - 6" MINIMUM DEPTH OR AS REQUIRED IN THE SPECIFICATIONS.
- SURFACE REPAIR SECTIONS ARE MINIMUM REQUIRED. SEE OTHER NOTES/DETAILS IN THE PLANS FOR ADDITIONAL REQUIREMENTS.
- 8" DEPTH, OR THICKNESS OF EXISTING GRAVEL, WHICHEVER IS GREATER



C-02000 COMMON TRENCH BACKFILL & SURFACE REPAIR
NOT TO SCALE

NOTES:

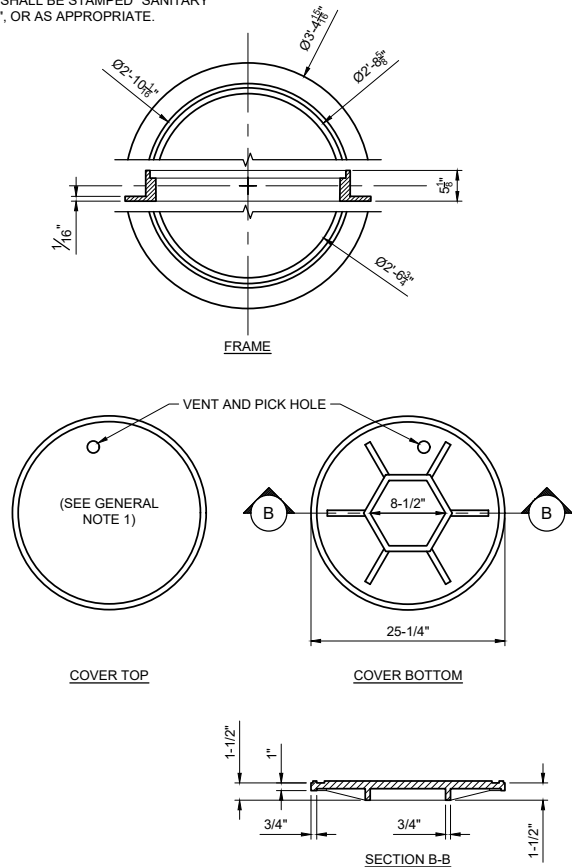
- FOR ADDITIONAL REQUIREMENTS SEE DETAIL C-02050



C-02060 SHALLOW MANHOLE
NOT TO SCALE

NOTES:

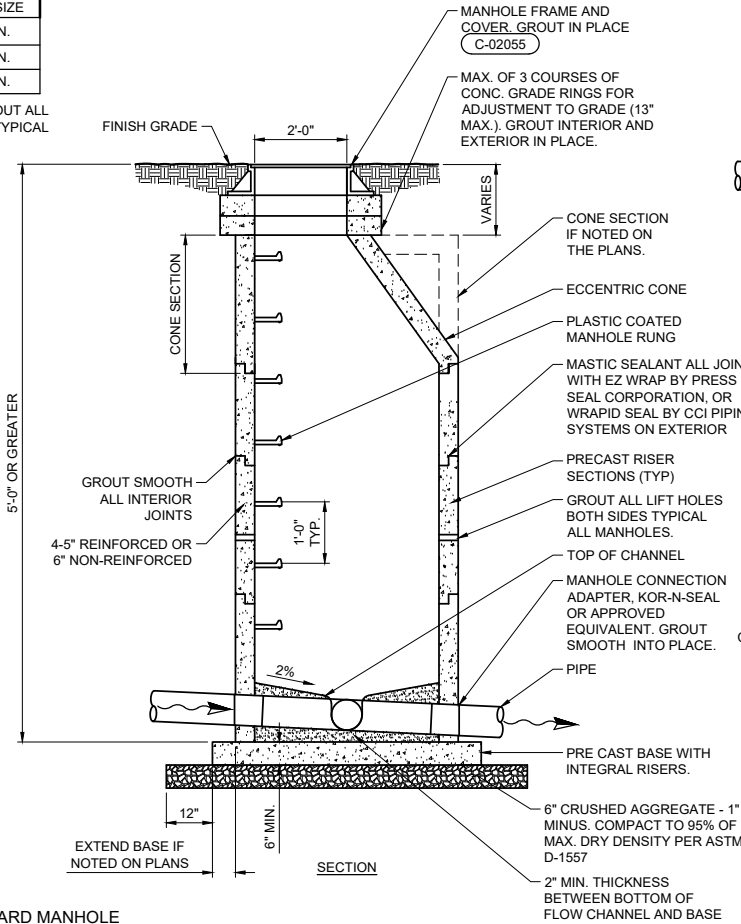
- USE OWNER'S LOGO FOR BADGING DETAILS OR IF NOT APPLICABLE, THE COVER SHALL BE STAMPED "SANITARY SEWER", OR AS APPROPRIATE.



C-02055 MANHOLE FRAME AND COVER
NOT TO SCALE

NOTES:

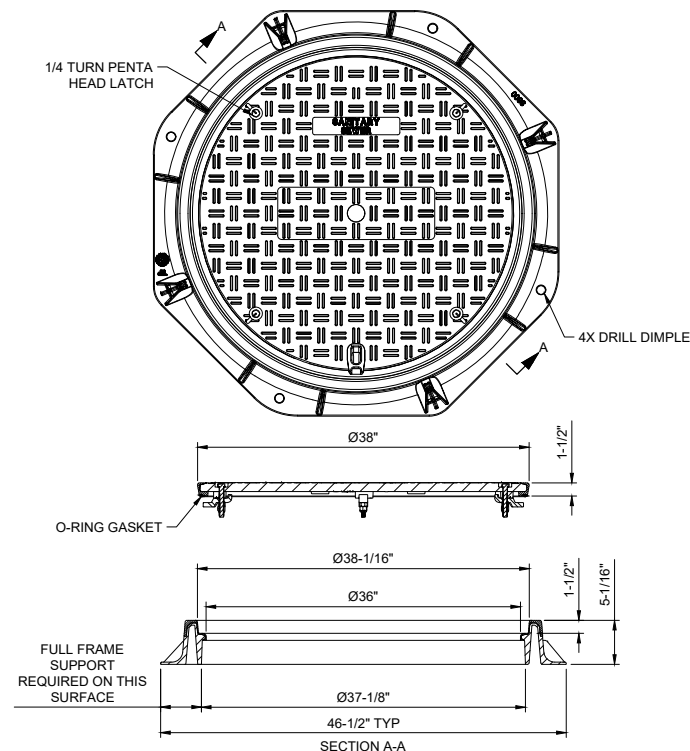
- MANHOLE DIAMETER
MAXIMUM PIPE SIZE
48 IN. 24 IN.
60 IN. 30 IN.
72 IN. 36 IN.
- MASTIC SEAL AND GROUT ALL JOINTS, BOTH SIDES, TYPICAL ALL MANHOLES.



C-02050 STANDARD MANHOLE
NOT TO SCALE

NOTES:

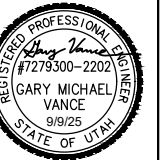
- USE OWNER'S LOGO FOR BADGING DETAILS OR IF NOT APPLICABLE, THE COVER SHALL BE STAMPED "SANITARY SEWER", OR AS APPROPRIATE.
- COMPOSITE FRAME AND COVER SHALL BE MANUFACTURED BY E.J.
- PROVIDE TWO (2) TITUS OPENING TOOLS WITH KEY.
- H-25 LOAD RATING
- OVERALL WEIGHT OF COVER SHALL BE 85 LBS. MAX.



C-02070 COMPOSITE FRAME AND COVER
NOT TO SCALE

Subconsultant:

BID



SET

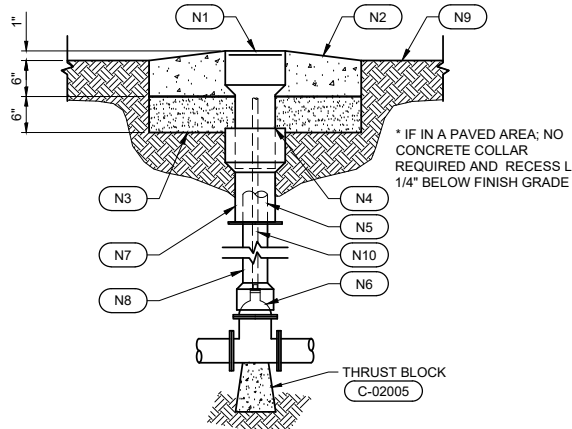
REVISION	NO.	DESCRIPTION	BY	DATE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY
STANDARD DETAILS

FILE: C2-901X
JUB PROJ. # 93-24-009
DRAWN BY: BWP
DESIGN BY: BWP
CHECKED BY: GV
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 6/19/2025
DRAWING:

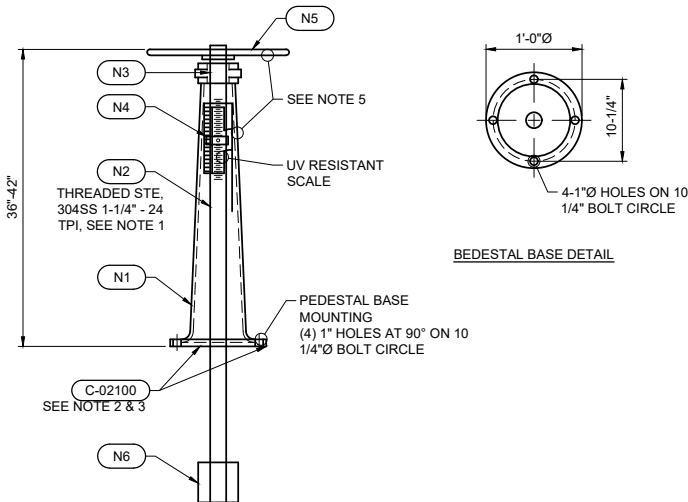
CZ-901

N1	5 1/4" LID MARKED "SEWER" FOR SEWER APPLICATIONS, OR MARKED "WATER" FOR POTABLE WATER APPLICATIONS. PERMANENTLY ATTACH SST VALVE DESIGNATOR TO VALVE BOX INTERIOR WITH SHEET METAL SCREW, AND 1/8" SST CABLE AND CRIMP FERRULES. CABLE LENGTH SHALL ALLOW TAG TO BE PULLED COMPLETELY OUT OF VALVE BOX FOR READING.
N2	24"Ø X 6" CONCRETE COLLAR.
N3	3/4" CRUSHED AGGREGATE
N4	PACK VOID WITH RUBBER SILICONE.
N5	TRACER WIRE TO EXTEND 3'-0" ABOVE FINISHED GRADE WHEN FULLY EXTENDED. COIL TRACER WIRE INSIDE VALVE BOX SO THAT IT IS ACCESSIBLE AND DOES NOT FALL DOWN INTO RISER.
N6	VALVE.
N7	CAST IRON VALVE BOX RISER, MIN. INTERIOR DIMENSION OF 5", MIN. WALL THICKNESS OF 3/16"
N8	CAST IRON VALVE BOX RISER BASE, MIN. INTERIOR DIMENSION OF 5", MIN. WALL THICKNESS OF 3/16".
N9	FINISHED GRADE.
N10	EXTENSION ROD WITH 2" AWWA OPERATING NUT TO WITHIN 6" OF FINISHED GRADE WITH CENTERING GUIDE PLATE (12" BELOW FINISHED GRADE) FOR VALVES 4' OR DEEPER (MEASURED TO TOP OF VALVE NUT)



C-02100 VALVE BOX AND LID DETAIL
NOT TO SCALE

1. NUMBER OF TURNS FOR FULL SPAN INDICATION SHALL BE COORDINATED WITH THE SIZE OF VALVE AND SUBMITTED FOR REVIEW.
2. CONNECT FLOOR STAND TO VALVE BOX CONCRETE COLLAR WITH $\frac{1}{2}$ " Ø EPOXY SET BOLTS, MINIMUM 4" EMBEDMENT OR CAST IN PLACE J-BOLTS.
3. COORDINATE STEM LENGTH WITH VALVE BOX STEM EXTENSIONS.
4. FLOOR STAND SHALL BE KENNEDY, MILLIKEN OR EQUAL.
5. FACTORY EPOXY COAT ENTIRE OPERATOR BODY AND HANDWHEEL.

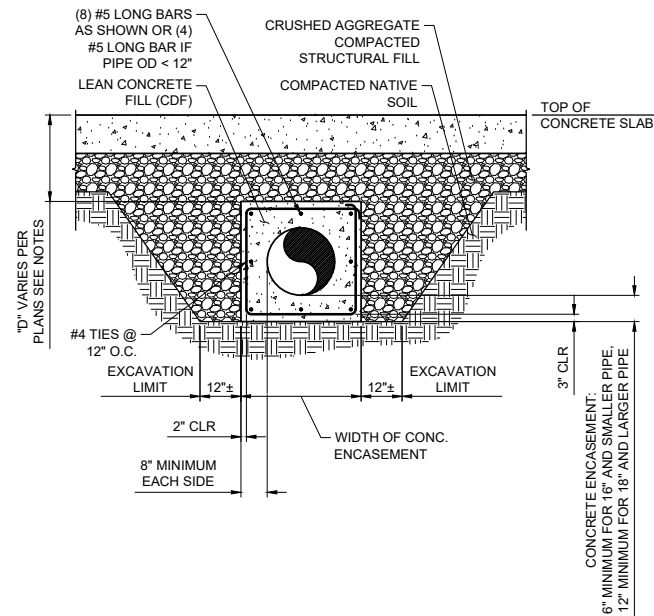


C-02101 INDICATING FLOOR STAND
NOT TO SCALE

N1	FLOOR STAND (DI)
N2	STEM (SS)
N3	BUSHING (BRONZE)
N4	INDICATOR NUT (BRONZE)
N5	HAND WHEEL (SS OR DI)
N6	STEM COUPLING (DI)

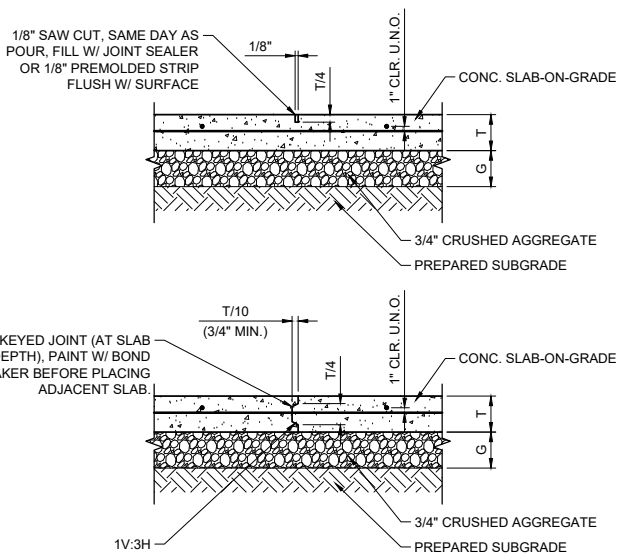
1. UNLESS NOTED OTHERWISE:

- IF "D" IS LESS THAN 1'-6" PROVIDE CONCRETE ENCASEMENT CONTINUOUS TO SLAB.
 - IF "D" IS GREATER THAN 1'-6" PROVIDE CONCRETE ENCASEMENT TO BOTTOM OF CRUSHED AGGREGATE OR 2'-0" MAX.
- EXTEND CONCRETE PIPE ENCASEMENT 12" BEYOND EDGE OF SLAB, TYPICAL.

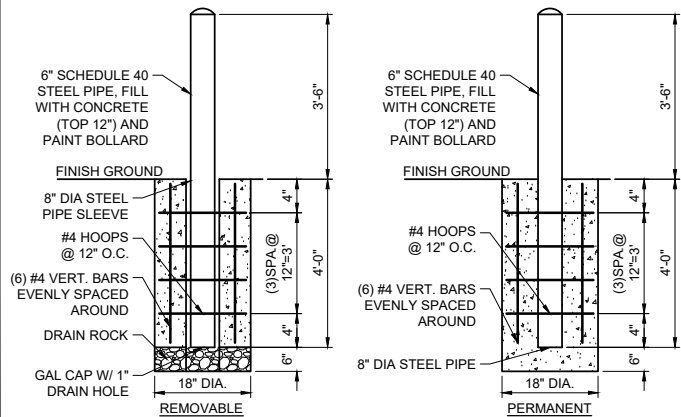


C-02135 CONCRETE ENCASEMENT FOR PIPE UNDER SLABS
NOT TO SCALE

1. UNLESS NOTED OTHERWISE, MINIMUM SLAB THICKNESS (T) SHALL BE 4" FOR FOOT-TRAFFIC AREAS AND MINIMUM OF 6" FOR VEHICULAR TRAFFIC AREAS; GRANULAR BASE MATERIAL (G) SHALL BE 6" THICK. MINIMUM REINFORCING WITH #4 AT 15" O.C.E.W. UNLESS NOTED OTHERWISE.
2. CONTROL JOINTS SHALL BE 15'-0" O.C.
3. JOINT TYPE USED IS OPTIONAL, UNLESS NOTED OTHERWISE.
4. CUT EVERY OTHER BAR CROSSING CONTROL JOINTS.
5. USE ONLY FOR EXTERIOR SLABS AS SPECIFICALLY NOTED ON CIVIL SHEETS. SEE STRUCTURAL SHEETS FOR FOUNDATION AND REINFORCED INTERIOR SLABS.
6. ALL AGGREGATE AND SUBGRADE SHALL BE COMPACTED TO 95% OF MAX DRY DENSITY PER ASTM D-1557
7. PROVIDE 1/2" JOINT WITH EXPANSION FILLER AND JOINT SEALANT WHEN ADJACENT TO STRUCTURES.

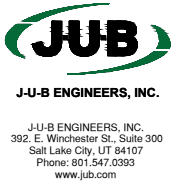


C-02150 TYPICAL CONCRETE SLAB-ON-GRADE DETAIL
NOT TO SCALE



1. PROVIDE BOLLARD AROUND ALL ROLL-UP DOORS AND WHERE NOTED ON THE PLANS.
2. BOLLARD SPACING SHALL EQUAL DOOR WIDTH WHEN PLACED AT DOOR OPENINGS UNLESS NOTED OTHERWISE.
3. PAINT COLOR PER OWNER.
4. BOLLARDS NEAR ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO GENERATOR AND TRANSFORMERS, SHALL MEET THE REQUIREMENTS OF THE UTILITY PROVIDER.

C-02160 BOLLARD DETAILS
NOT TO SCALE



Subconsultant:

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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

STANDARD DETAILS

	REVISION		
NO.	DESCRIPTION	BY	APR DATE

FILE : CZ-901X
JUB PROJ. # : 93-24-009
DRAWN BY: BWP
DESIGN BY: BWP
CHECKED BY: GV

ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY

LAST UPDATED: 6/19/2025

DRAWING:

CZ-902

Plot Date: 9/9/2025 1:01 PM Plotted By: Kayla Hoover
Date Created: 8/7/2025 J:\BID\CENTRAL CLIENTS\MT PLEASANT PROJECTS\93-24-009 LAGOON IMPROVEMENTS\PROJECT DESIGN\CAD SHEET\STRUCTURAL\93-24-009 S-101X.DWG

1 FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



MASONRY WALL SCHEDULE				
MARK	THICKNESS	REINFORCING		COMMENTS
		VERTICAL	HORIZONTAL	
MW8-1	8"	#5 @ 24" O.C.	(2) #4 @ 24" O.C.	SEE DETAIL C1/S-903
MW8-2	8"	SEE DETAIL C3/S-501	SEE DETAIL C3/S-501	SEE DETAIL C1/S-903

FOUNDATION PLAN NOTES

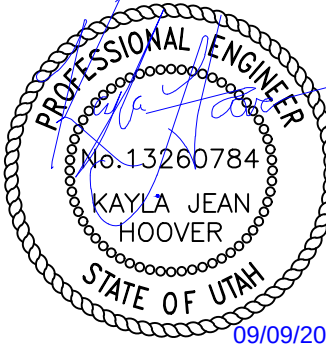
- CONTRACTOR TO COORDINATE & VERIFY ALL DIMENSIONS & ELEVATIONS WITH CIVIL AND MECHANICAL SHEETS.
- SEE SHEETS S-001 - S-002 FOR THE GENERAL STRUCTURAL NOTES REQUIREMENTS.
- C.J. = CONTROL JOINT. SEE DETAIL C1/S-901.
- 6" THICK SLAB WITH #4 @ 18" O.C. E.W. CENTERED IN SLAB. SEE DETAIL C1/S-901, TYP.
 - SLOPE SCREEN ROOM FLOOR TO DRAIN INTO TRENCH. SLOPE TO BE 1%-2%
 - ENSURE MINIMUM SLAB THICKNESS IS MAINTAINED.
- FOR DOOR KEY NOTES, SEE S-401 & S-402.
- M.C.J. = MASONRY CONTROL JOINT. SEE DETAIL A2/S-903



J-U-B ENGINEERS, INC.
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Salt Lake City, UT 84107
Phone: 801.547.0393
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Subconsultant:

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DATE	DESCRIPTION				

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

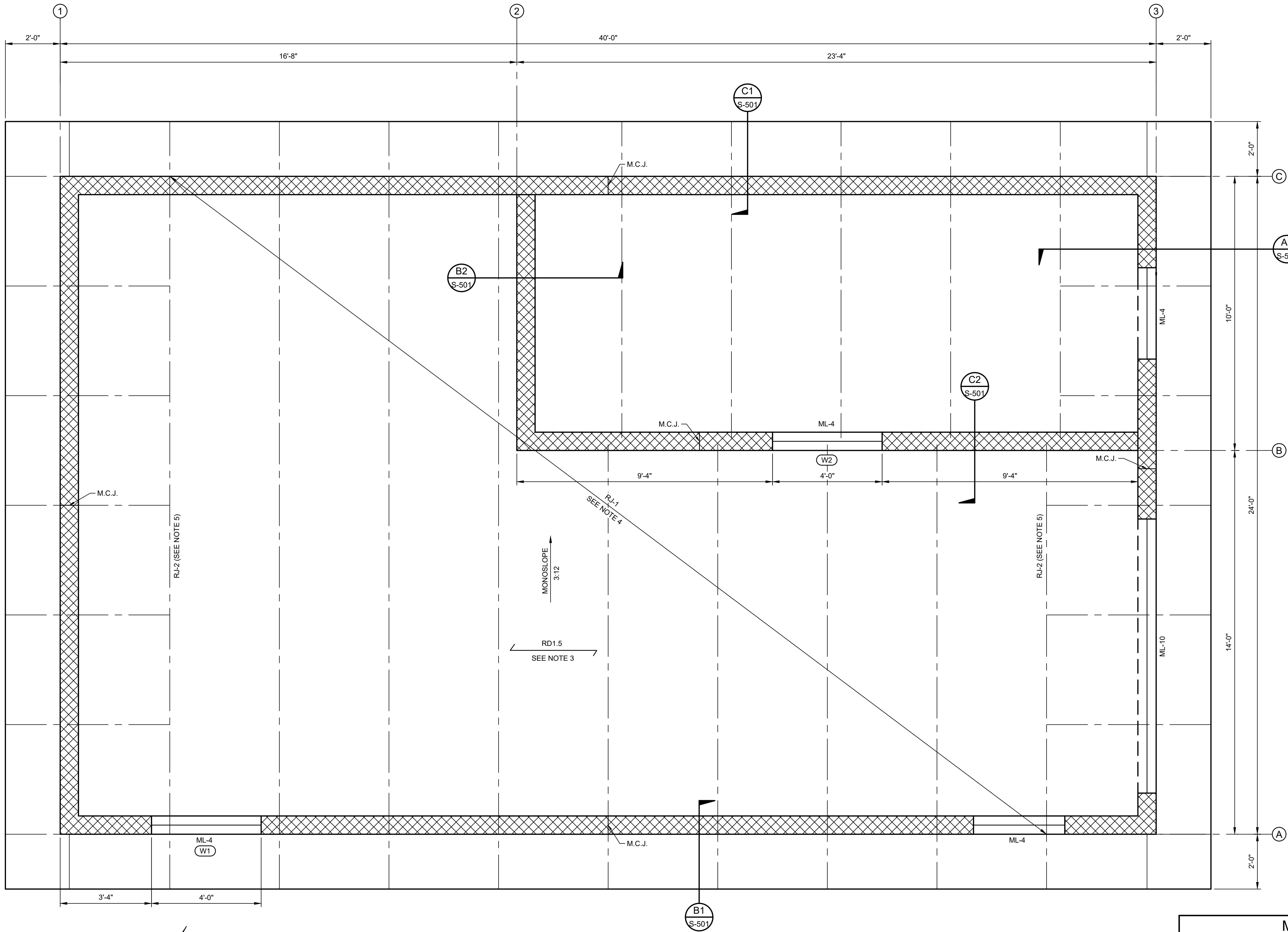
STRUCTURAL
FOUNDATION PLAN

FILE: 93-24-009 S-101X
JUB PROJ. #: 93-24-009
DRAWN BY: EM
DESIGN BY: KJH
CHECKED BY: RC
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/9/2025
DRAWING:

S-101

Plot Date: 9/9/2025 1:01 PM Plotted By: Kayla Hoover
Date Created: 7/22/25 JUB-CON-CENTRAL-CALCULATED-SUMMIT-PLEASANT-PROJECTS-92-24-009 LAGOON IMPROVEMENTS PROJECT DESIGN CAD SHEET STRUCTURAL (S) 92-24-009 S-101X.DWG

1 ROOF PLAN
SCALE: 1/2" = 1'-0"



#	KEY NOTES
W1	SEE SHEET S-401
W2	4'-0" x 4'-0" CLEAR DOUBLE PANE WINDOW, 1/4" TEMPERED GLASS W/ FRP FRAME. BOTTOM SEAL IS TO BE SET IN WALLS 3'-4" ABOVE FINISHED FLOOR. INSTALL PER MFR SPECIFICATIONS.

- ROOF PLAN NOTES**
- CONTRACTOR TO COORDINATE & VERIFY ALL DIMENSIONS & ELEVATIONS WITH CIVIL AND MECHANICAL SHEETS.
 - SEE SHEETS S-001 - S-002 FOR THE GENERAL STRUCTURAL NOTES REQUIREMENTS.
 - RD1.5 = ROOF DECK SHALL BE 20 GA. 1.5B-36 GR. 50 OR APPROVED EQUAL. DECK SHALL SPAN CONTINUOUS OVER 3 OR MORE SPANS (4 SUPPORTS) UNO.
A. CONNECTIONS TO SUPPORTS: SIMPSON X #12 SCREW
a. PERPENDICULAR BEARINGS: (4) FASTENERS PER 36" WIDE SHEET PER SUPPORT
b. PARALLEL EDGES: SPACE FASTENERS @ 12" O.C.
B. SIDE LAP: #10 SCREWS @ 36" O.C.
C. END BEARING: 2" MIN.
 - RJ-1 = PRE-MANUFACTURED ROOF JOIST SHALL BE 16K 188/124 OPEN WEB STEEL JOIST
A. AXIAL LOADING: 1,902 LBS
 - RJ-2 = PRE-MANUFACTURED ROOF JOIST GIRDER SHALL BE 16K 376/248 OPEN WEB STEEL JOIST
A. AXIAL LOADING: 2,907 LBS
 - M.C.J. = MASONRY CONTROL JOINT. SEE DETAIL A2/S-903

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Subconsultant:

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PROFESSIONAL ENGINEER
No. 13260784
KAYLA JEAN HOOVER
STATE OF UTAH
09/09/2025
SET

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NO.	REVISION	DESCRIPTION	DATE

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY
STRUCTURAL
ROOF FRAMING PLAN

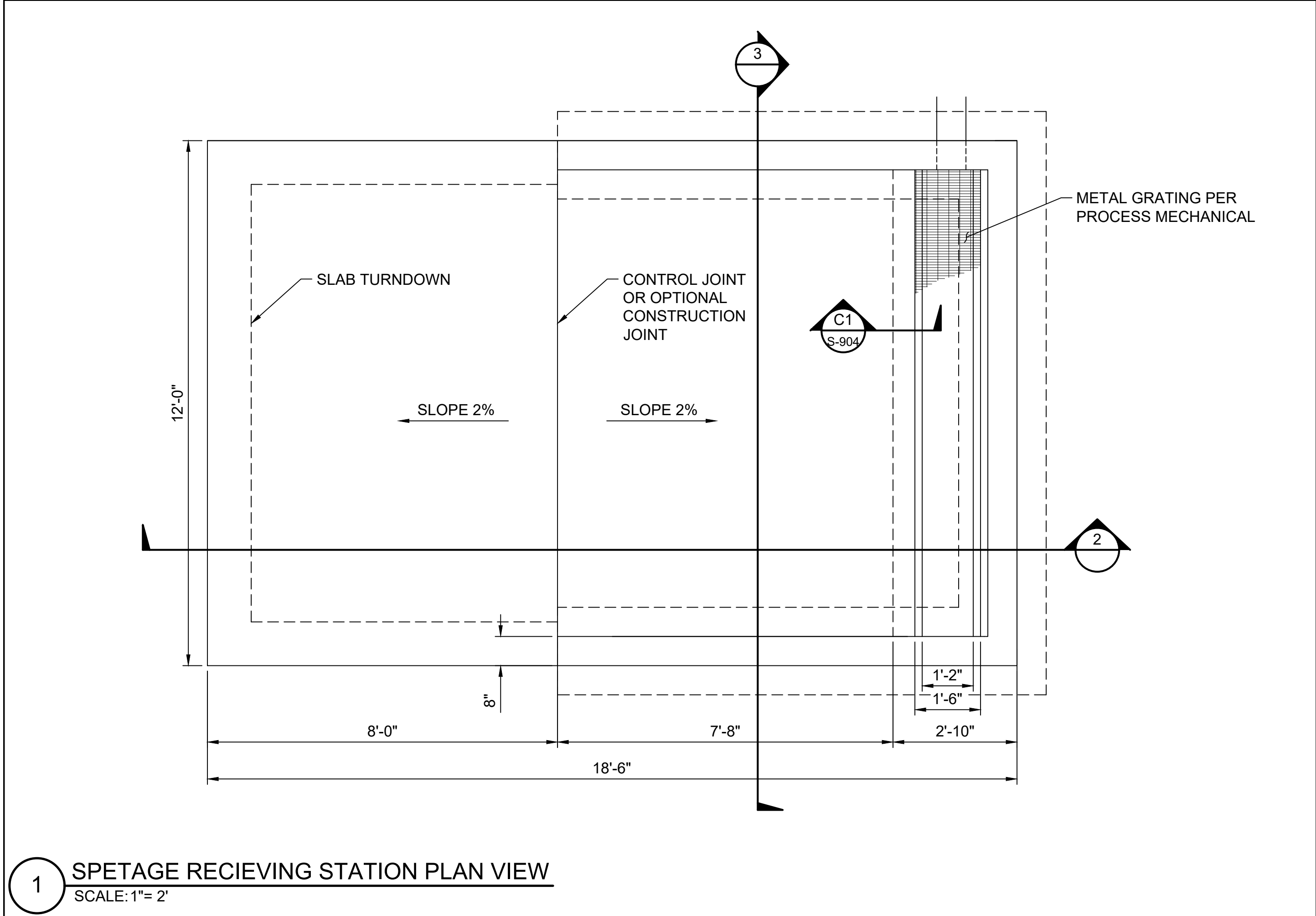
FILE: 92-24-009 S-101X
JUB PROJ. #: 92-24-009
DRAWN BY: EM
DESIGN BY: KJH
CHECKED BY: RC
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/9/2025

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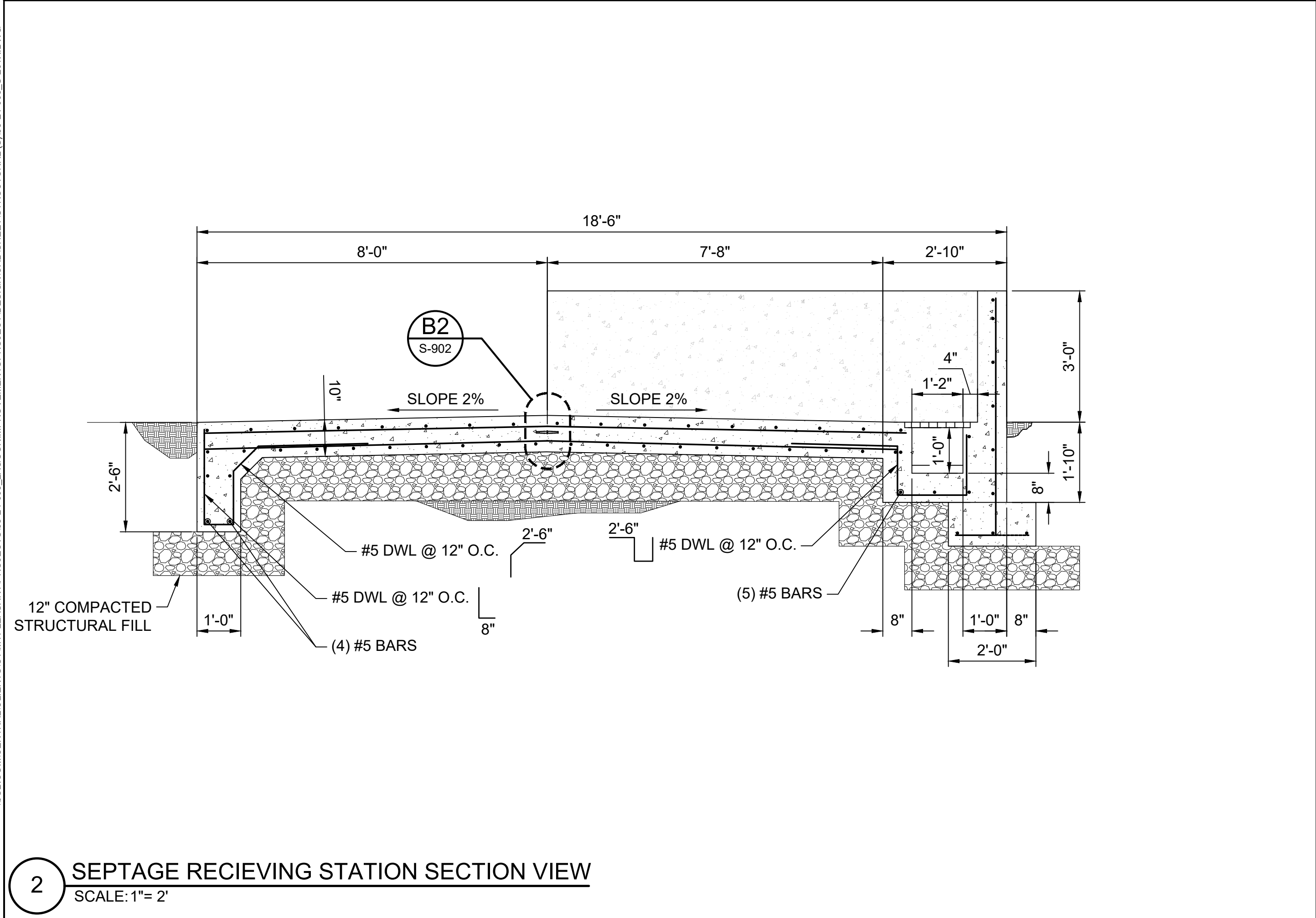
S-102

MASONRY LINTEL SCHEDULE					
MARK	OPENING WIDTH	LINTEL DEPTH	REINFORCING		
			TOP	BOTTOM	STIRRUPS
ML-4	≤ 4'-0"	16"	N/A	(1) #5	N/A
ML-10	≤ 10'-0"	24"	N/A	(1) #5	N/A

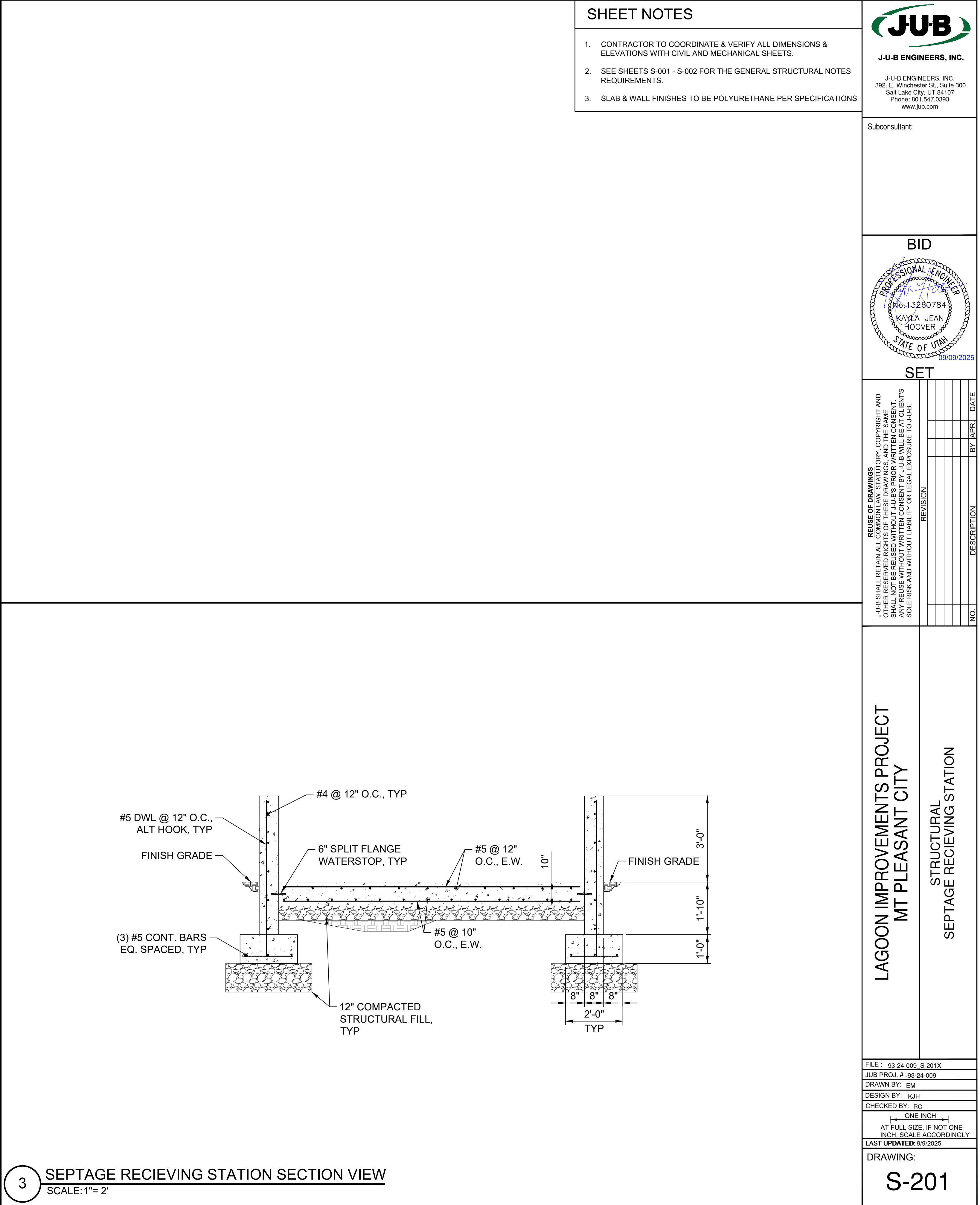
Plot Date: 9/9/2025 1:01 PM, Plotted By: Kayla Hoover, Date Created: 8/7/2025, J:\JUB\COM\CENTRAL\CLIENT\SI\MT PLEASANT\PROJECTS\93-24-009 LAGOON IMPROVEMENTS\PROJECT DESIGN\CAD\SHEET\STRUCTURAL\SI93-24-009 S-201X.DWG



1 SPETAGE RECIEVING STATION PLAN VIEW
SCALE: 1"= 2'



2 SEPTAGE RECIEVING STATION SECTION VIEW
SCALE: 1"= 2'



3 SEPTAGE RECIEVING STATION SECTION VIEW
SCALE: 1"= 2'

SHEET NOTES

1. CONTRACTOR TO COORDINATE & VERIFY ALL DIMENSIONS & ELEVATIONS WITH CIVIL AND MECHANICAL SHEETS.

2. SEE SHEETS S-001 - S-002 FOR THE GENERAL STRUCTURAL NOTES REQUIREMENTS.

3. SLAB & WALL FINISHES TO BE POLYURETHANE PER SPECIFICATIONS

JUB

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Subconsultant:

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PROFESSIONAL ENGINEER

No. 13260784

KAYLA JEAN HOOVER

STATE OF UTAH

09/09/2025

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LAGOON IMPROVEMENTS PROJECT

MT PLEASANT CITY

STRUCTURAL

SEPTAGE RECIEVING STATION

FILE: 93-24-009 S-201X

JUB PROJ. # 93-24-009

DRAWN BY: EM

DESIGN BY: KJH

CHECKED BY: RC

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

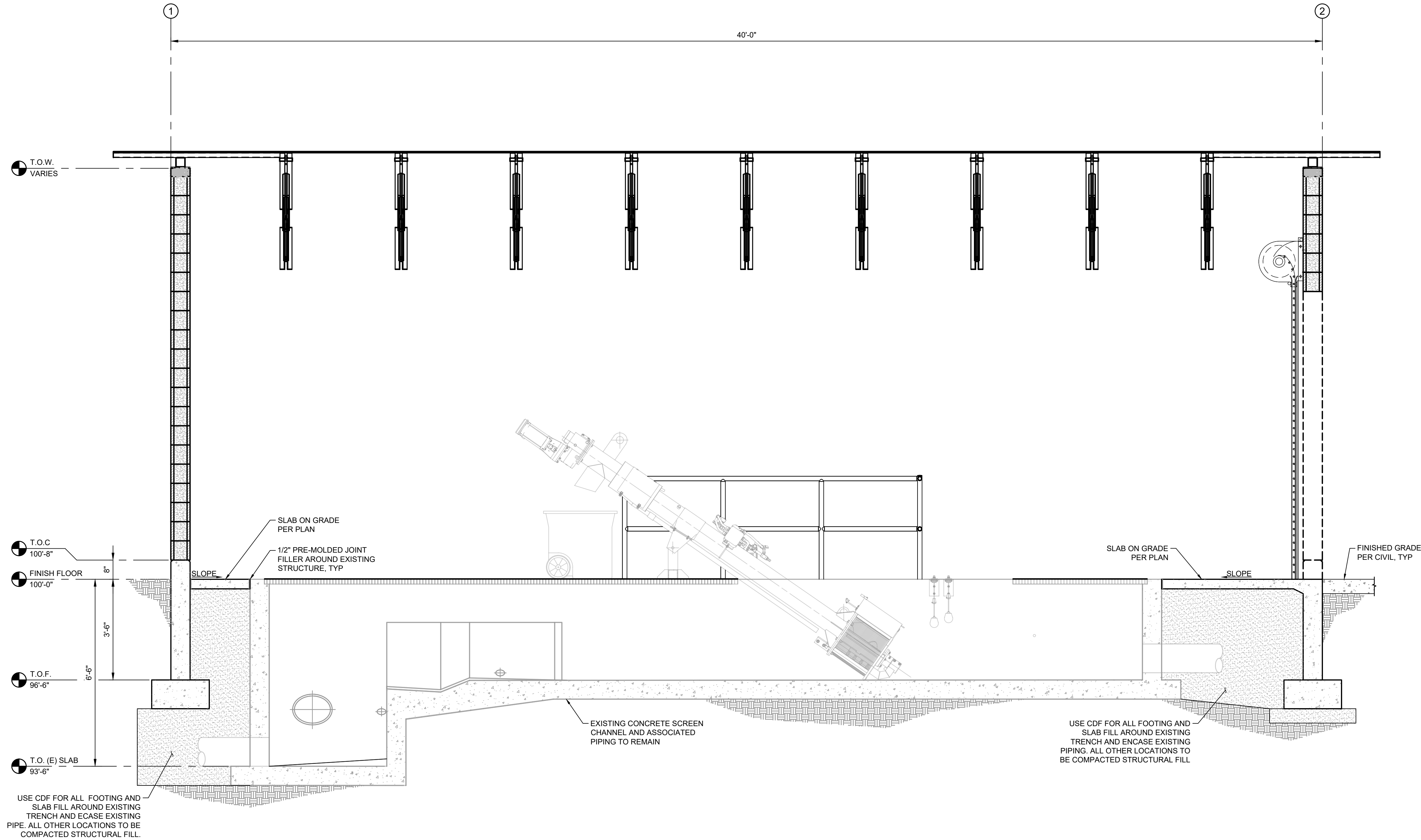
LAST UPDATED: 9/9/2025

DRAWING:

S-201

Plot Date: 9/9/2025 1:01 PM Plotted By: Kayla Hoover
Date Created: 8/7/2025 JUB-001-CENTRAL-CITY-S-101X-DWG LAGOON IMPROVEMENTS PROJECT DESIGN CAD SHEET (STRUCTURAL) S-101X-DWG

1 **BUILDING SECTION**
SCALE: 1/2" = 1'-0"



GENERAL SHEET NOTES

1. CONTRACTOR TO COORDINATE & VERIFY ALL DIMENSIONS & ELEVATIONS WITH CIVIL AND MECHANICAL SHEETS. ELEVATIONS ARE RELATIVE COORDINATE ACTUAL ELEVATIONS.
2. SEE SHEETS S-001 - S-002 FOR THE GENERAL STRUCTURAL NOTES REQUIREMENTS.

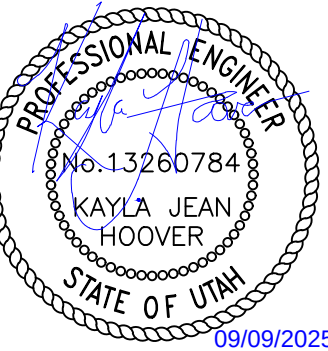


J-U-B ENGINEERS, INC.

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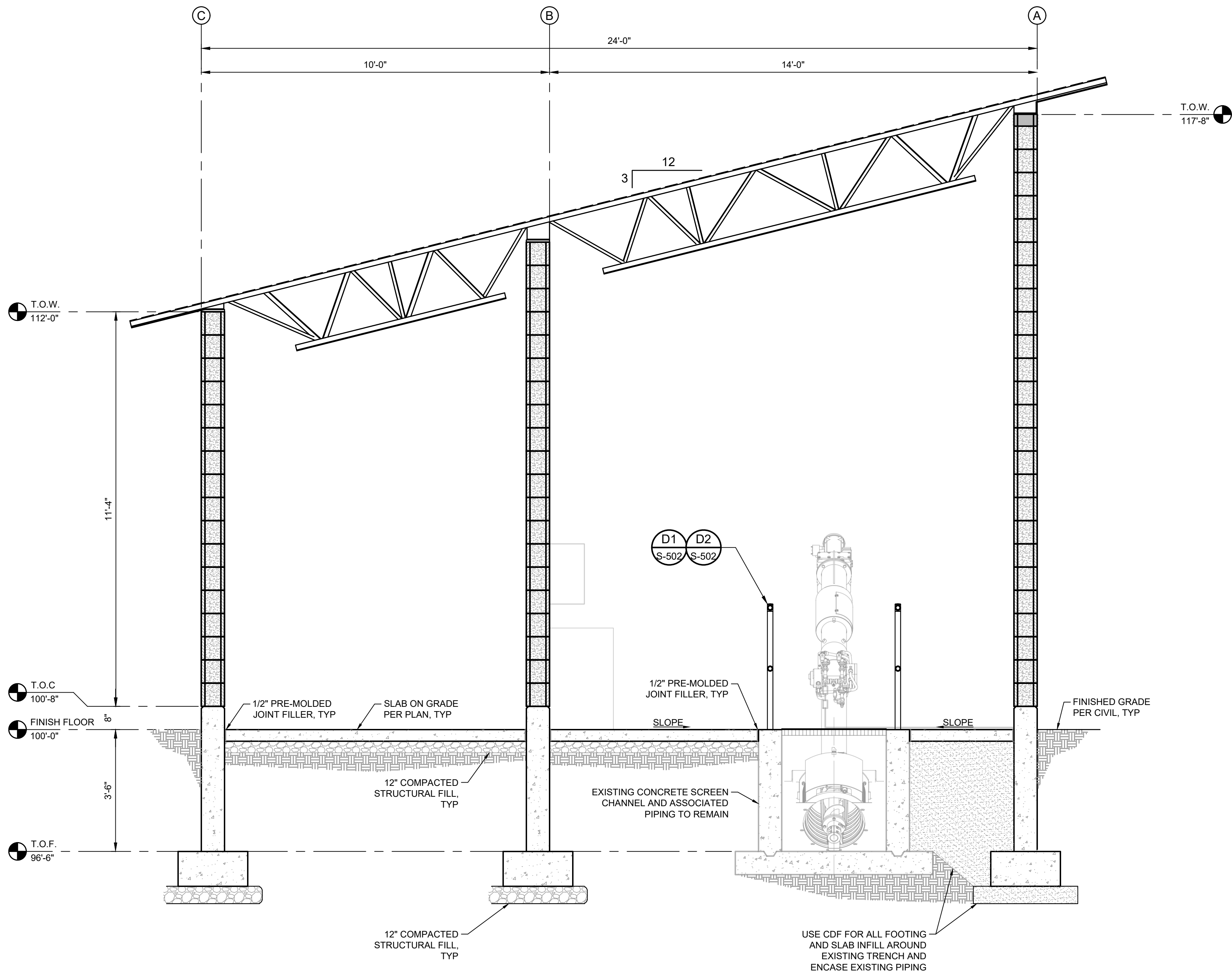
**LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY**

**STRUCTURAL
BUILDING SECTION**

FILE: 93-24-009 S-101X
JUB PROJ. #: 93-24-009
DRAWN BY: EM
DESIGN BY: KJH
CHECKED BY: RC
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/9/2025

DRAWING:

S-301



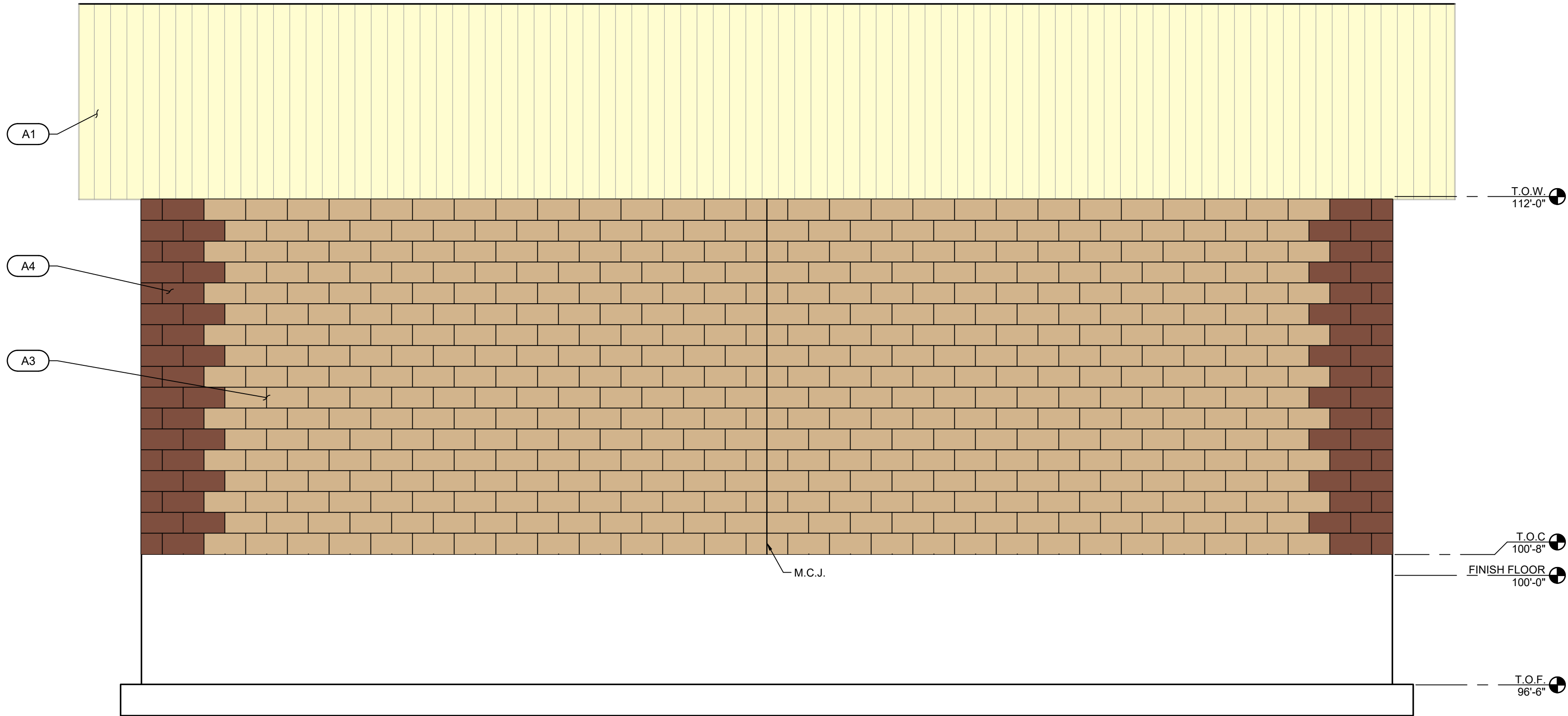
BUILDING SECTION

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

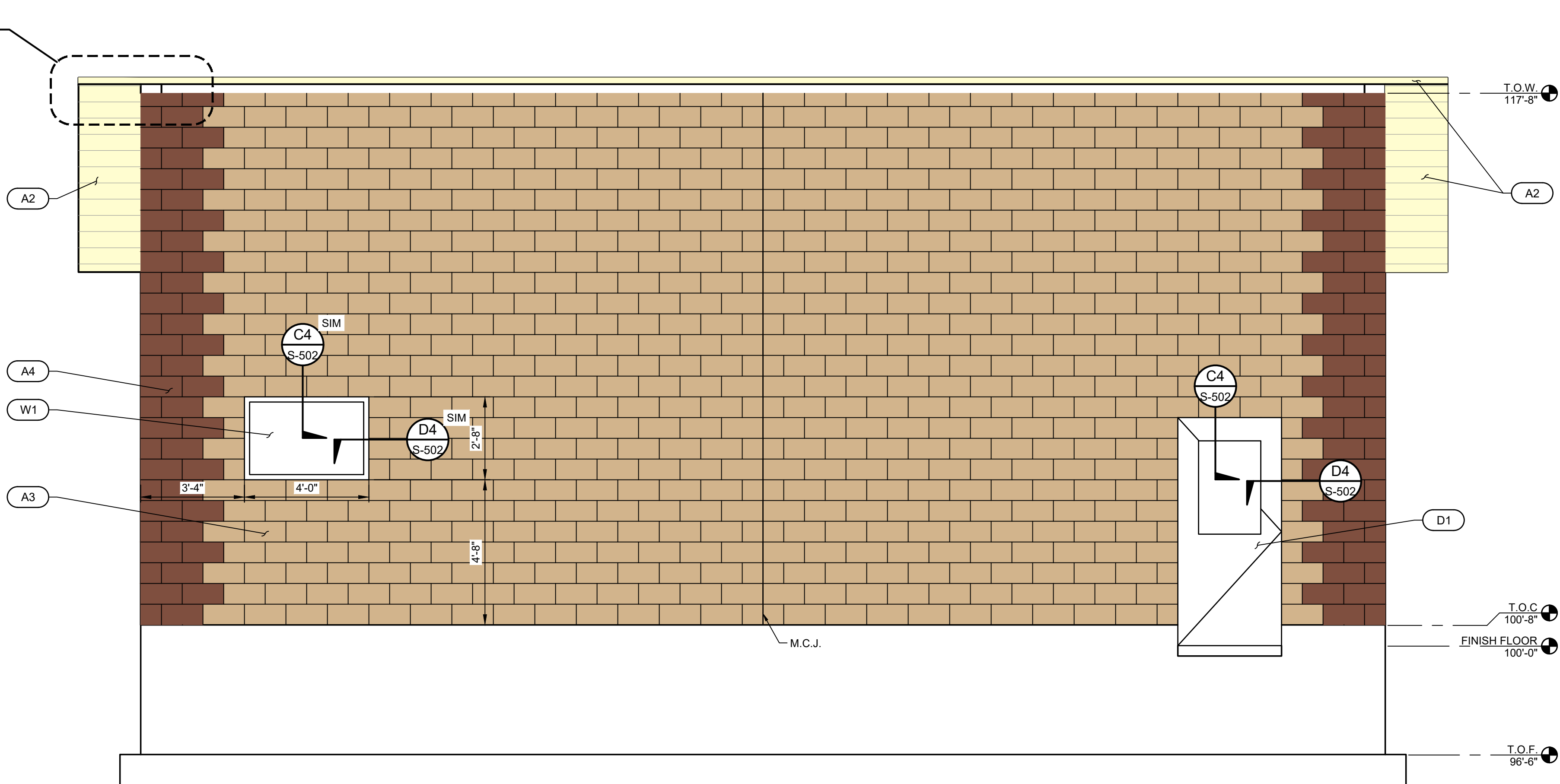
SCALE: 1/2" = 1'-0"

Plot Date: 9/9/2025 1:02 PM Plotted By: Kayla Hoover
Date Created: 8/12/25 JUB.COM/CENTRAL/Clients/UT/MT PLEASANT/PROJECTS/S-24-009 LAGOON IMPROVEMENTS/PROJECT DESIGN/CAD SHEET/STRUCTURAL/S-101X.DWG

1 NORTH ELEVATION
SCALE: 3/8" = 1'-0"



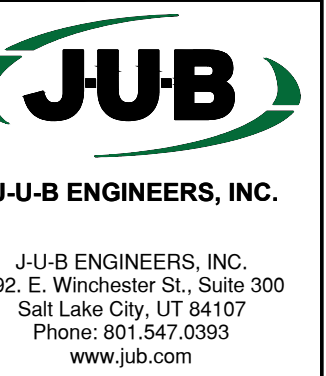
2 SOUTH ELEVATION
SCALE: 3/8" = 1'-0"



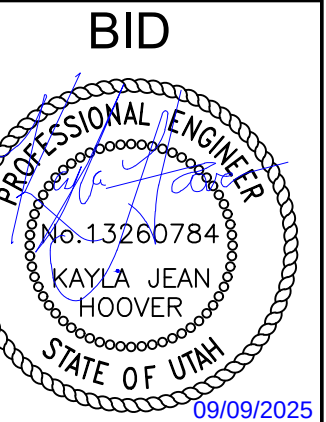
#	KEY NOTES
D1	3'-0" x 7'-0" FRP DOOR WITH WINDOW, SWING OUT, PANIC BAR ON INTERIOR SIDE w/ KNOB OR LEVER HANDLE ON EXTERIOR. COLOR PER OWNER REQUEST. INSTALL PER MFR SPECIFICATIONS.
A1	STANDING SEAM METAL PANEL ROOF, COLOR PER OWNER REQUEST.
A2	METAL VENTED SOFFIT & FASCIA FLUSH SEAM PANEL SYSTEM, SEE S-502 FOR DETAILS. COLOR PER OWNER REQUEST.
A3	8" CMU BLOCK WALL, SMOOTH FACE, LIGHT COLOR PER OWNER REQUEST.
A4	8" CMU BLOCK WALL, SMOOTH FACE, DARK COLOR PER OWNER REQUEST.
W1	4'-0" x 2'-8" FROSTED DOUBLE PAIN WINDOW, 1/4" TEMPERED GLASS w/ FRP FRAME. INSTALL PER MFR SPECIFICATIONS.

SHEET NOTES

- ALL INTERIOR CONCRETE SLAB & WALLS SHALL RECEIVE EPOXY FINISH, PER SPECIFICATIONS.
- ALL INTERIOR CMU WALLS SHALL BE PAINTED WHITE & SEALED, PER SPECIFICATIONS.
- ALL ITEMS NOT SPECIFICALLY INDICATED SHALL BE FINISHED AND SEALED PER SPECIFICATIONS.
- M.C.J. = MASONRY CONTROL JOINT, SEE DETAIL A2/S-903



Subconsultant:



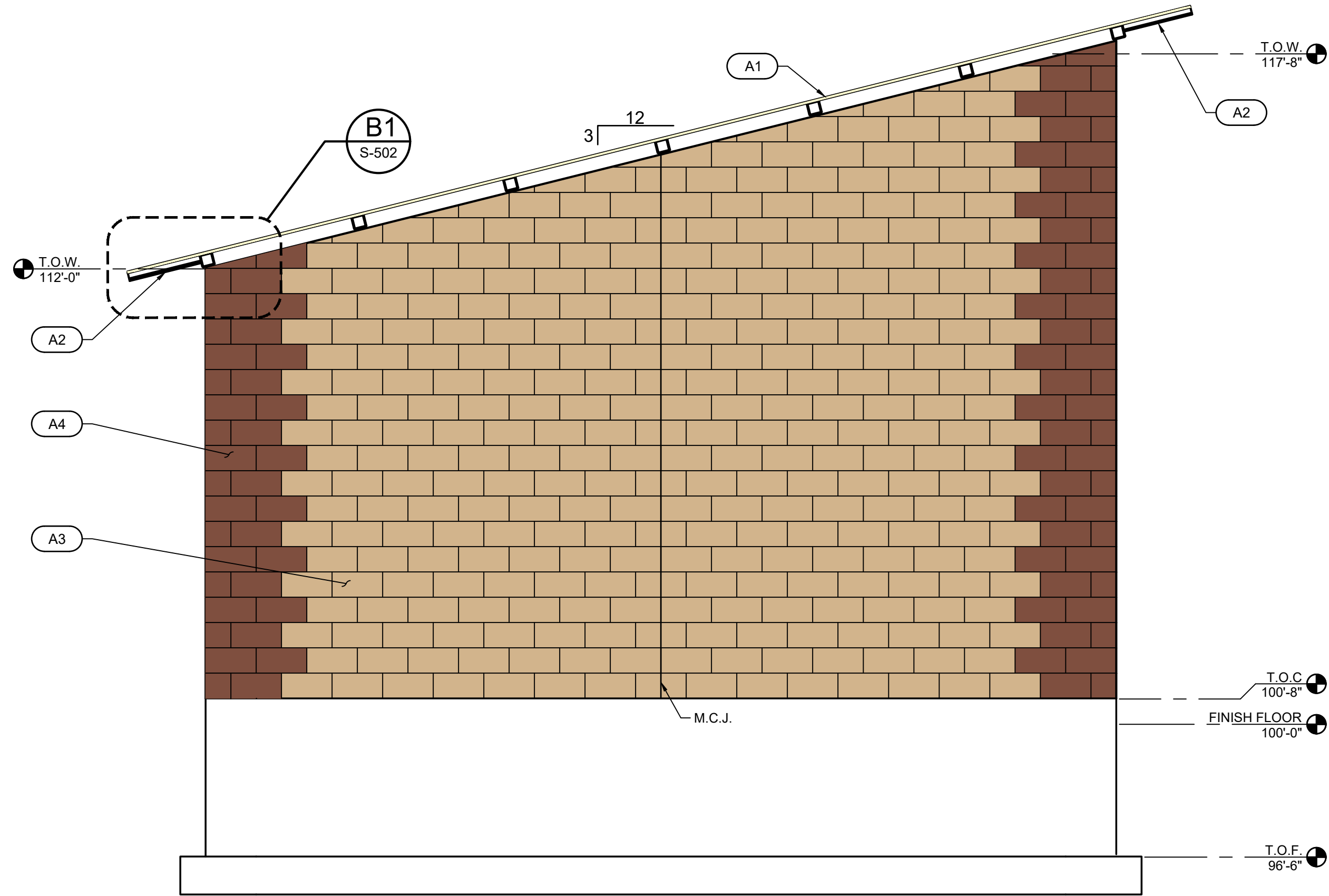
REVISION	NO.	DESCRIPTION	BY	DATE
REUSE OF DRAWINGS		JUB SHALL RETAIN ALL COMMON LAW, STATUTORY, COPYRIGHT AND OTHER RIGHTS IN THIS DESIGN. ANY REUSE OF THIS DESIGN WITHOUT WRITTEN CONSENT BY JUB WILL BE AT CLIENT'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO JUB.		

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY
STRUCTURAL
BUILDING ELEVATIONS

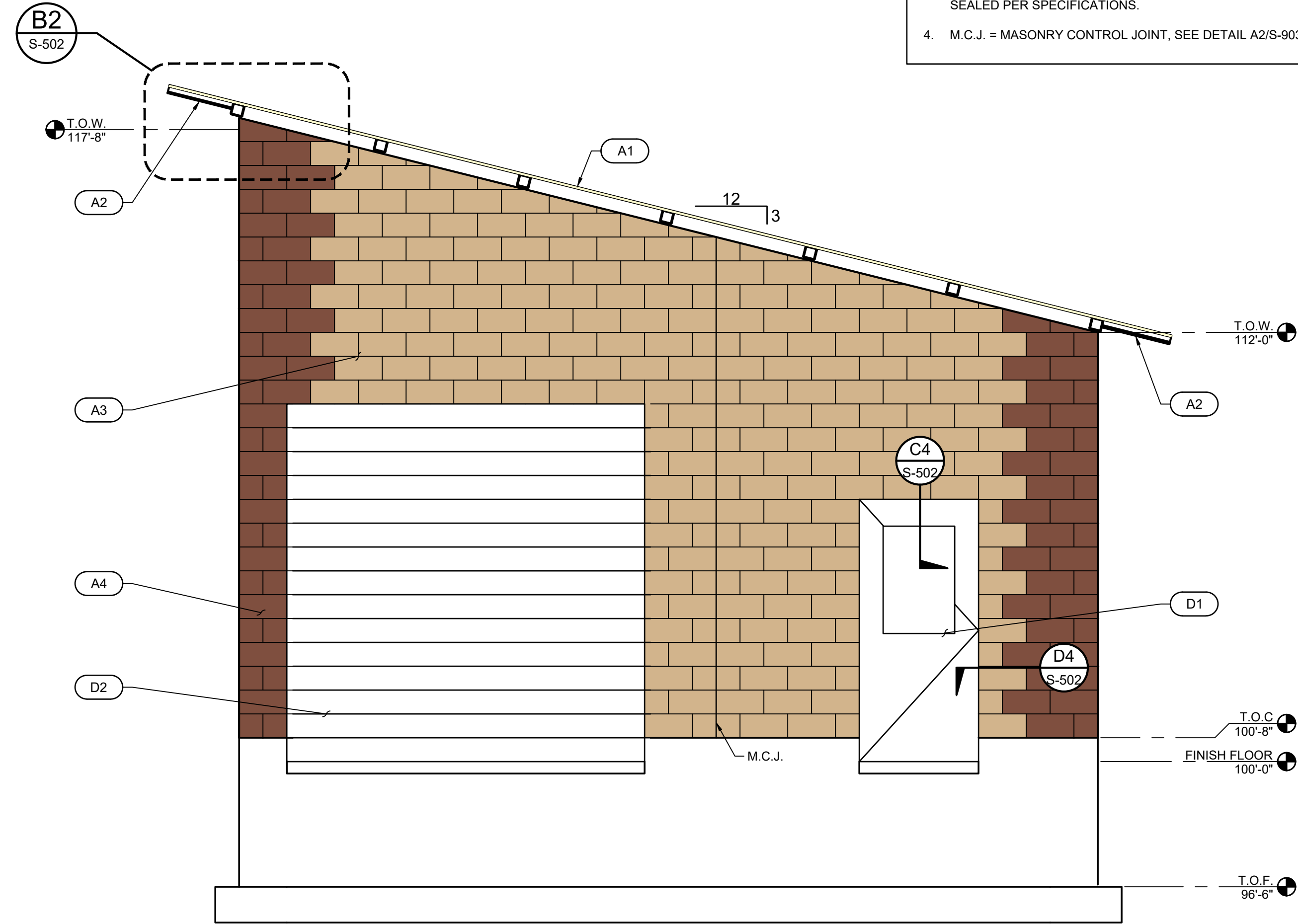
FILE: 93-24-009 S-101X
JUB PROJ. #: 93-24-009
DRAWN BY: EM
DESIGN BY: KJH
CHECKED BY: RC
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/9/2025

DRAWING:
S-401

Plot Date: 9/9/2025 1:02 PM Plotted By: Kayla Hoover
Date Created: 8/7/2025 J:\BID\CENTRAL CLIENTS\UT\MT PLEASANT\PROJECTS\24-009 LAGOON IMPROVEMENTS\PROJECT DESIGN\CAD SHEET\STRUCTURAL\S101X.DWG



1 WEST ELEVATION
SCALE: 3/8" = 1'-0"



2 EAST ELEVATION
SCALE: 3/8" = 1'-0"

#	KEY NOTES
D2	10'-0" X 10'-4" METAL ROLLUP DOOR. COLOR PER OWNER REQUEST. DOOR JAMB, OVERHEAD CASE, DOOR GUIDE, ETC. SHALL BE PER MFR RECOMMENDATIONS.
A1	STANDING SEAM METAL PANEL ROOF, COLOR PER OWNER REQUEST.
A2	METAL VENTED SOFFIT & FASCIA FLUSH SEAM PANEL SYSTEM. SEE S-502 FOR DETAILS. COLOR PER OWNER REQUEST.
A3	8" CMU BLOCK WALL, SMOOTH FACE, LIGHT COLOR PER OWNER REQUEST.
A4	8" CMU BLOCK WALL, SMOOTH FACE, DARK COLOR PER OWNER REQUEST.
D1	3'-0" x 7'-0" FRP DOOR WITH WINDOW. SWING OUT. PANIC BAR ON INTERIOR SIDE w/ KNOB OR LEVER HANDLE ON EXTERIOR. COLOR PER OWNER REQUEST. INSTALL PER MFR SPECIFICATIONS.
SHEET NOTES	
1. ALL INTERIOR CONCRETE SLAB & WALLS SHALL RECEIVE EPOXY FINISH, PER SPECIFICATIONS.	
2. ALL INTERIOR CMU WALLS SHALL BE PAINTED WHITE & SEALED, PER SPECIFICATIONS.	
3. ALL ITEMS NOT SPECIFICALLY INDICATED SHALL BE FINISHED AND SEALED PER SPECIFICATIONS.	
4. M.C.J. = MASONRY CONTROL JOINT, SEE DETAIL A2/S-903	

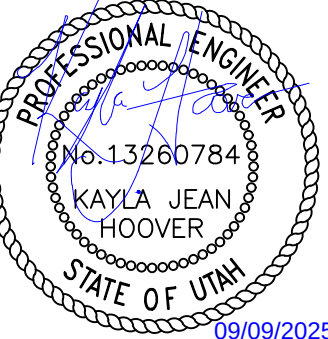


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09/09/2025

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NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

**LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY**

**STRUCTURAL
BUILDING ELEVATIONS**

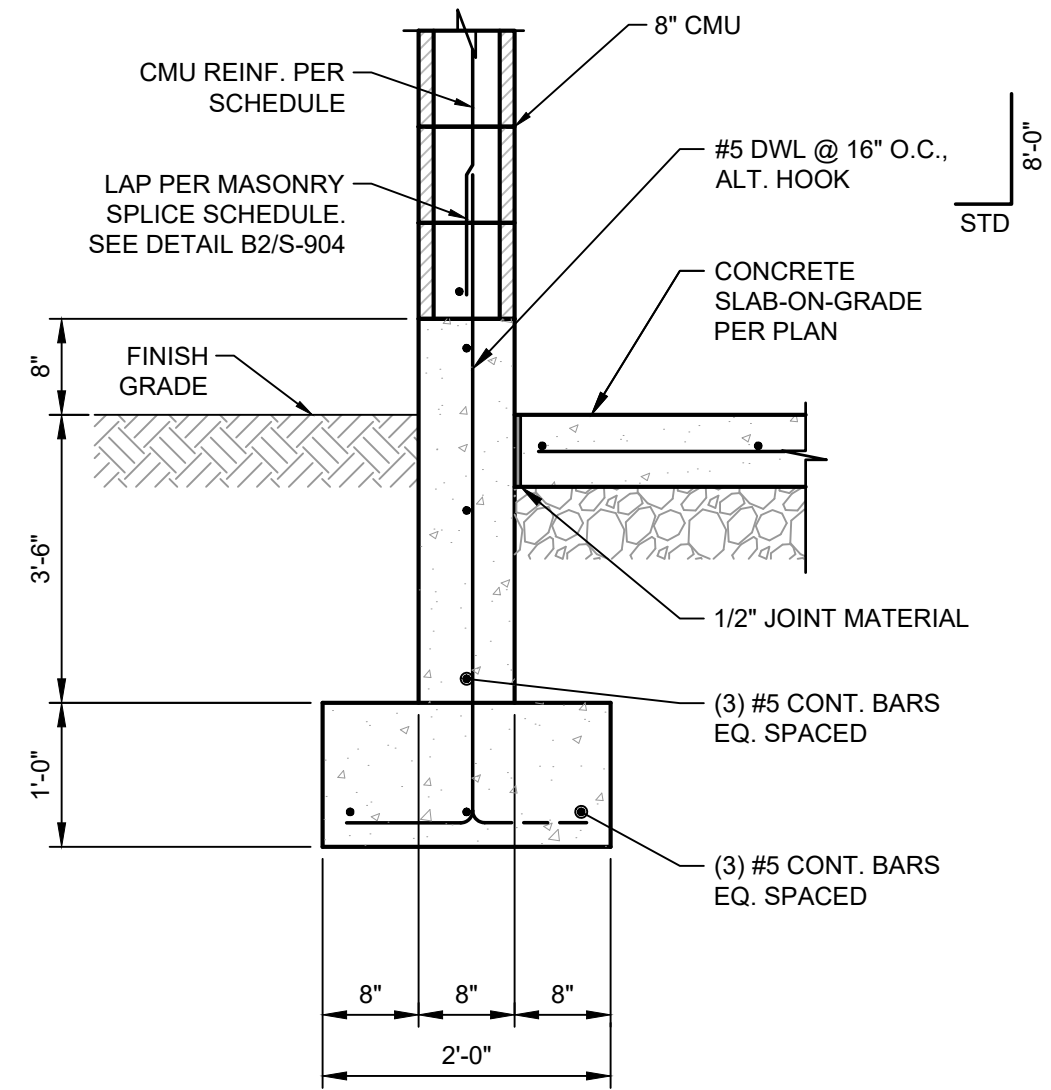
FILE: 93-24-009 S-101X
JUB PROJ. #: 93-24-009
DRAWN BY: EM
DESIGN BY: KJH
CHECKED BY: RC

AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/9/2025

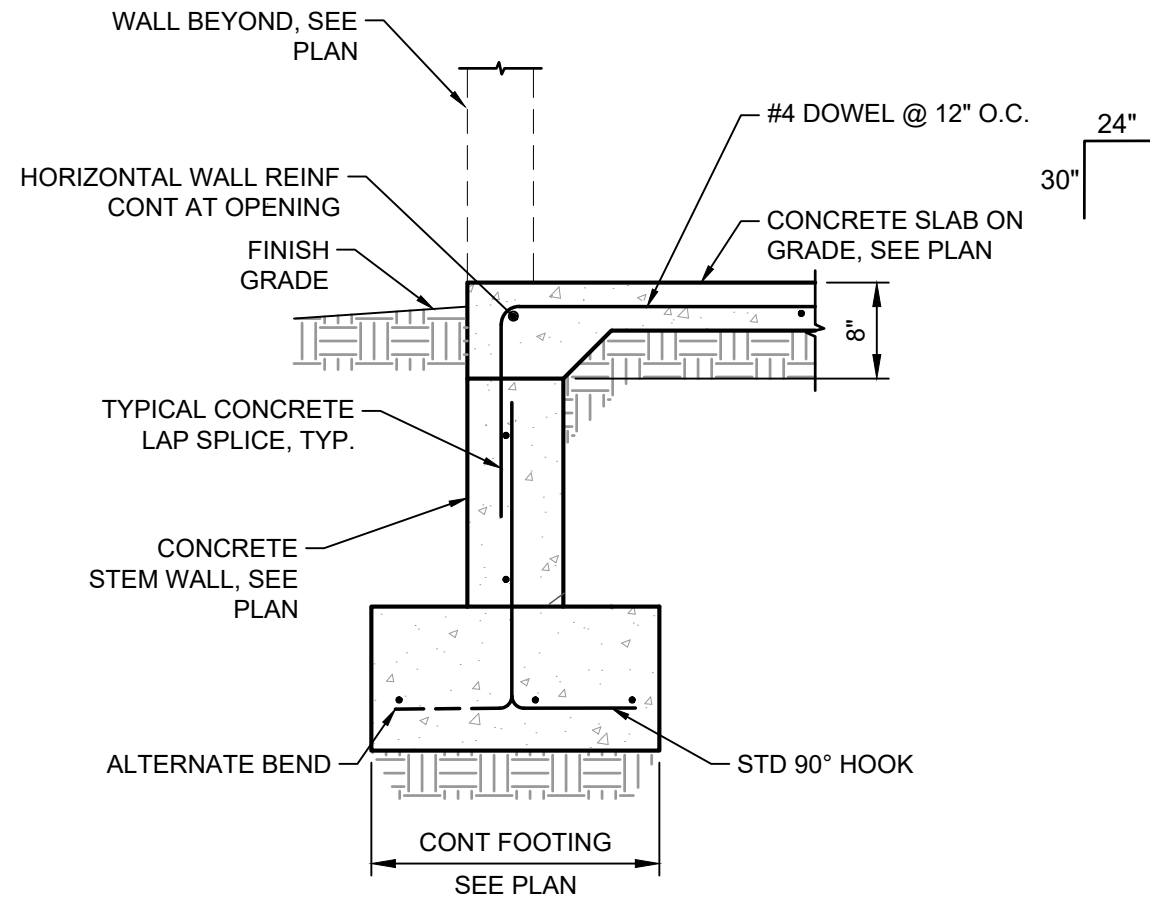
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S-402

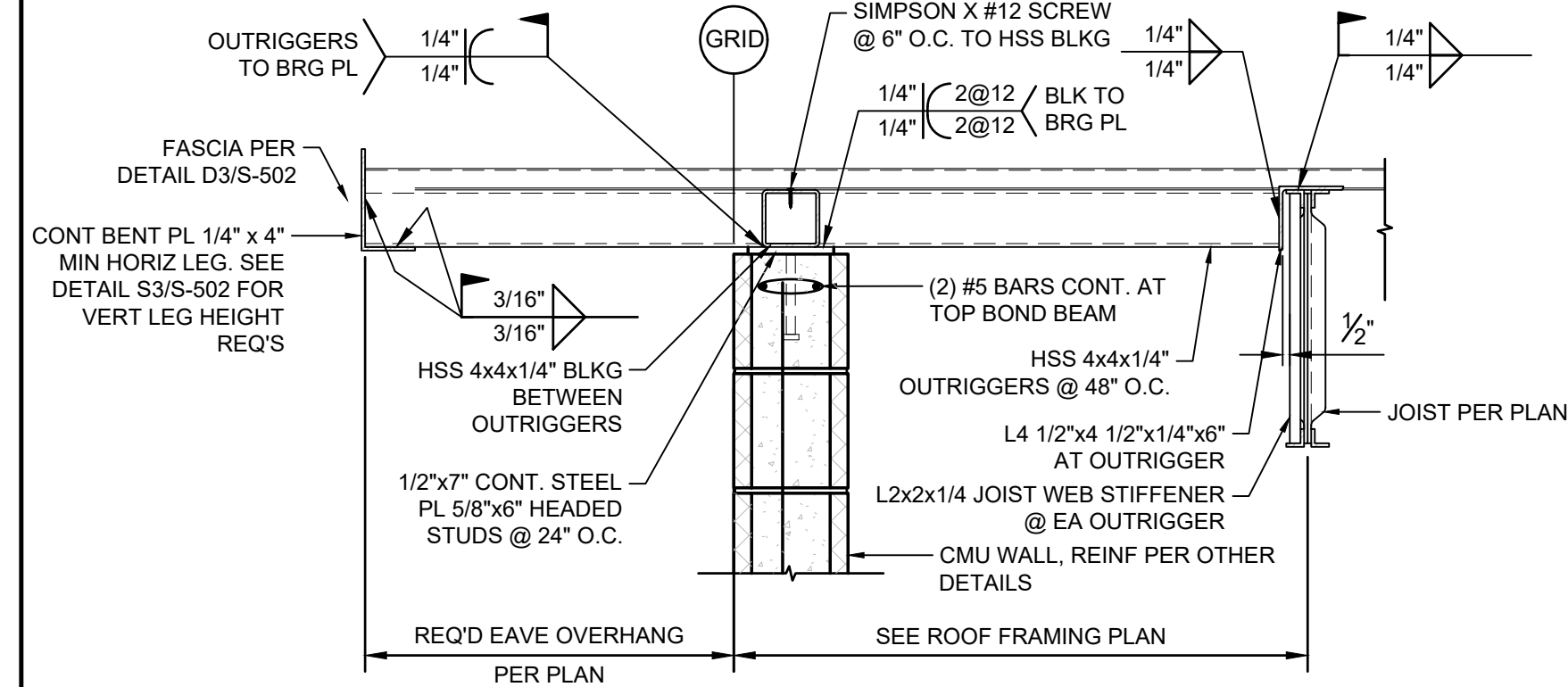
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Date Created: 7/12/25 JUB.COM\CENTRAL\CALCULATIONS\MT PLEASANT PROJECTS\24-009 LAGOON IMPROVEMENTS\PROJECT DESIGN\CAD SHEET\STRUCTURAL\S-501.X.DWG



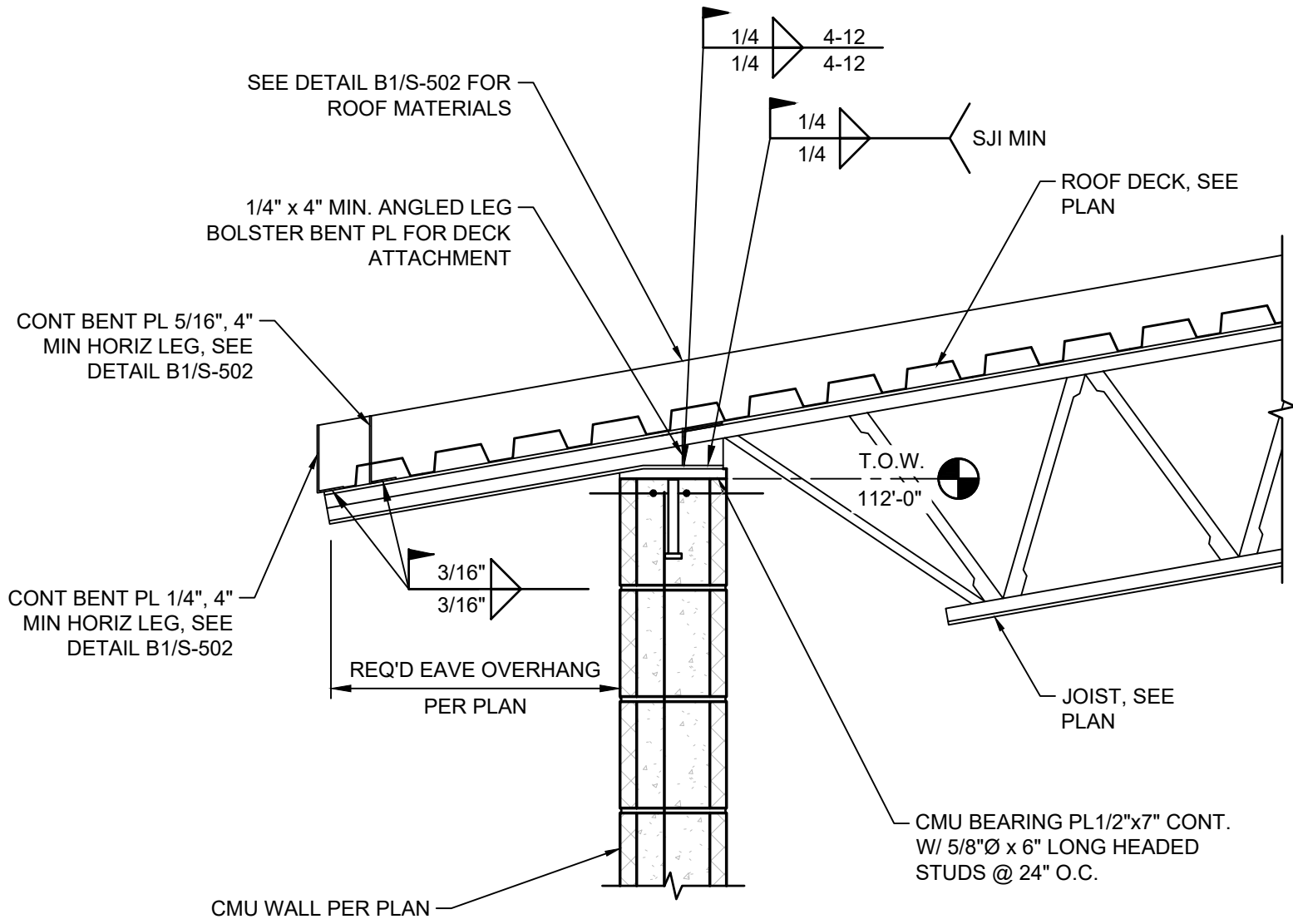
A1 FOUNDATION WALL
SCALE: 3/4"=1'-0"



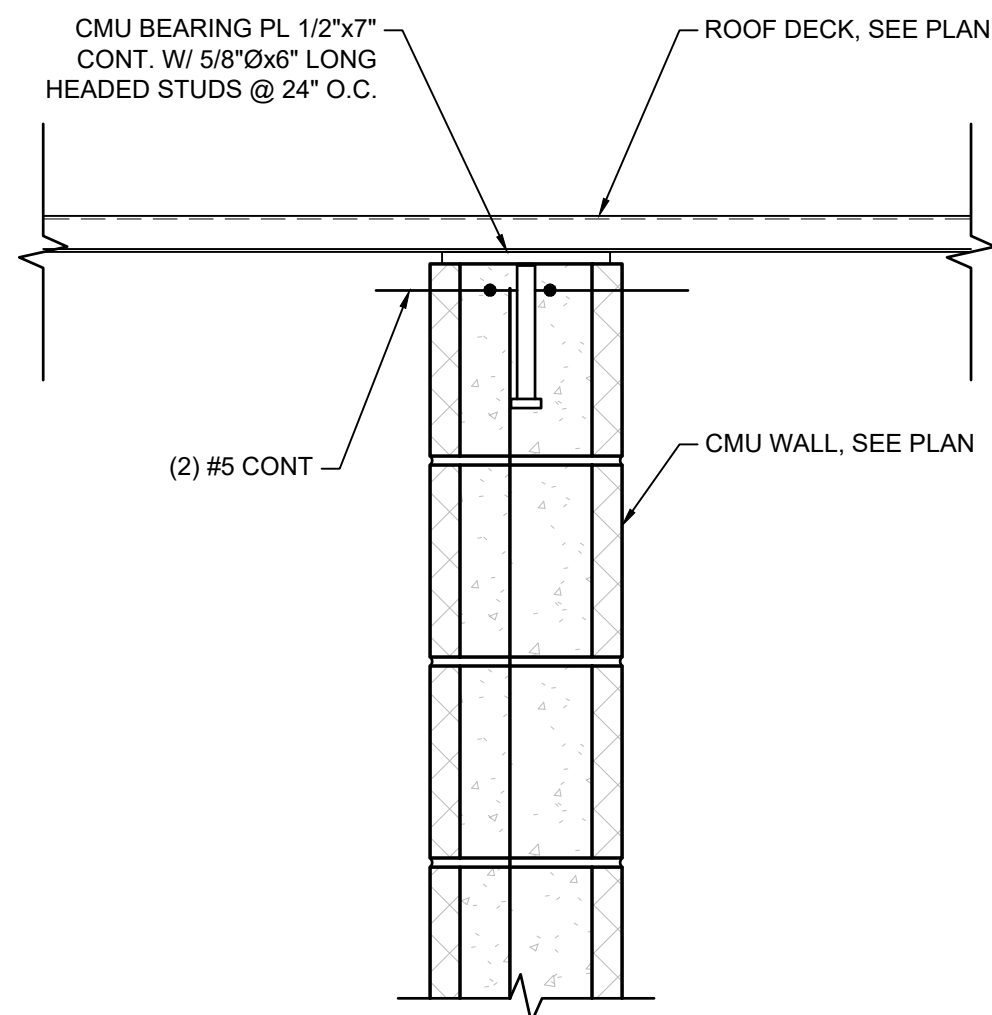
A2 FOUNDATION WALL AT OPENING
SCALE: 3/4"=1'-0"



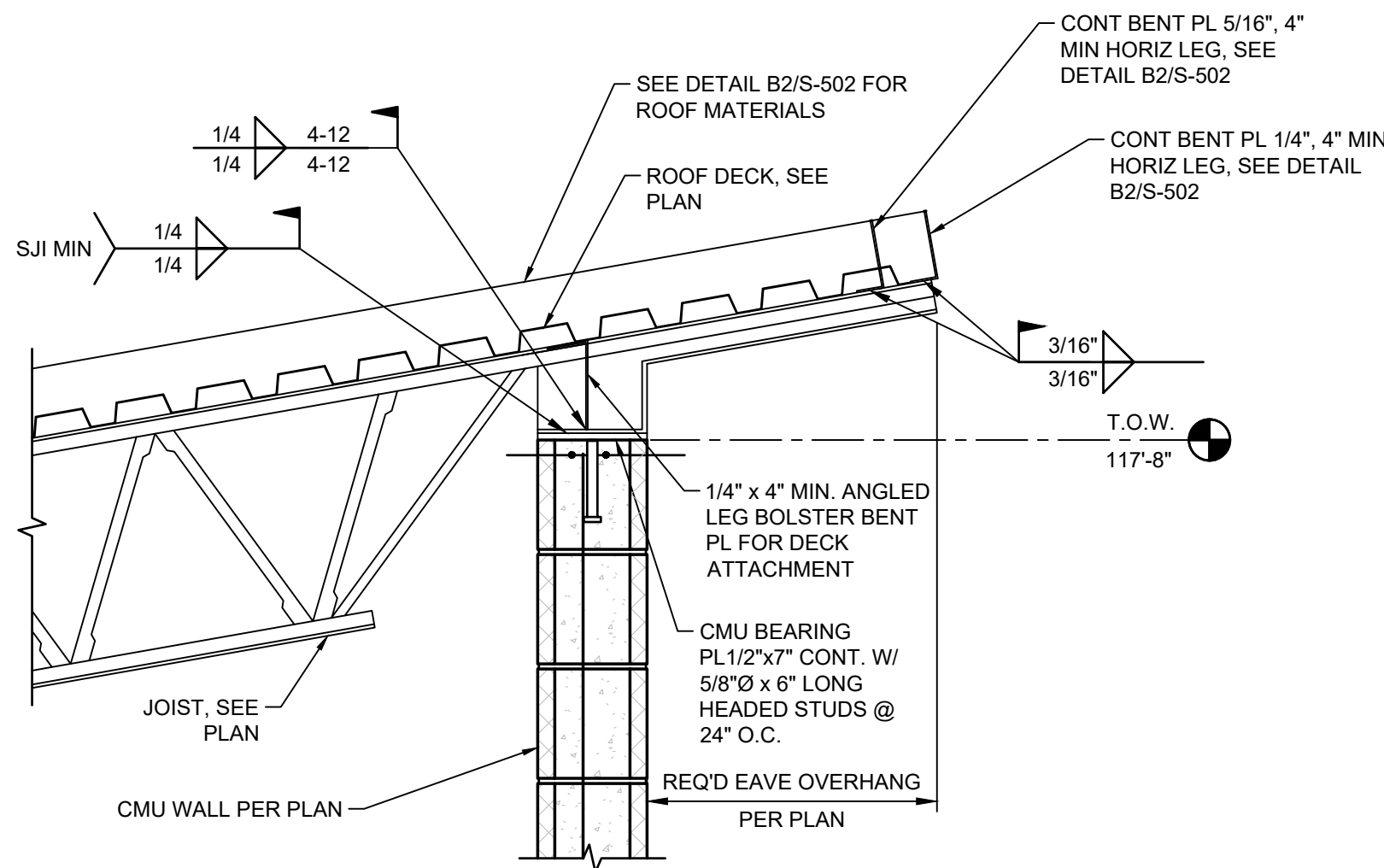
A3 ROOF FRAMING AT GABLE END
SCALE: 1"=1'-0"



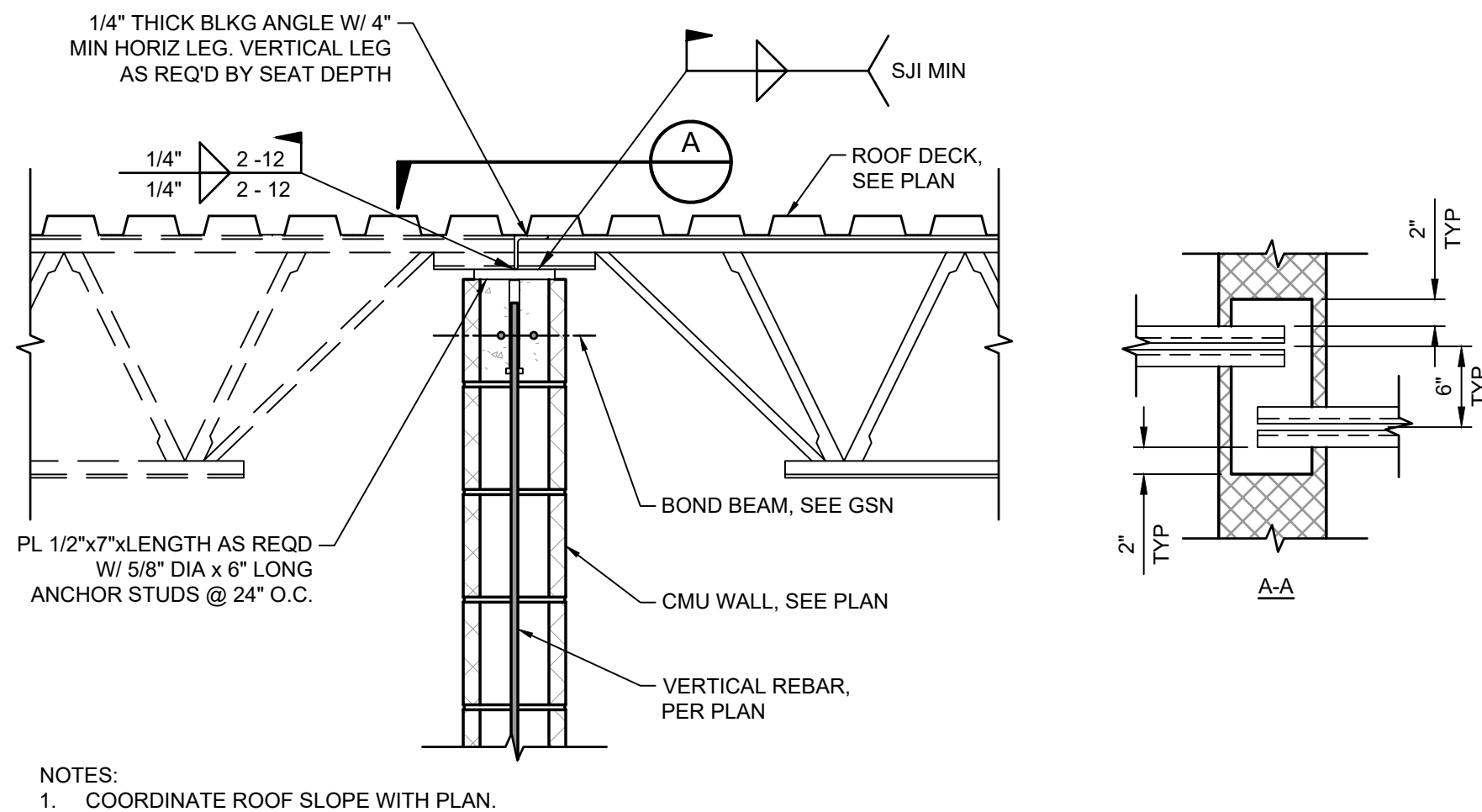
B1 ROOF FRAMING AT EAVE - LOW
SCALE: 1"=1'-0"



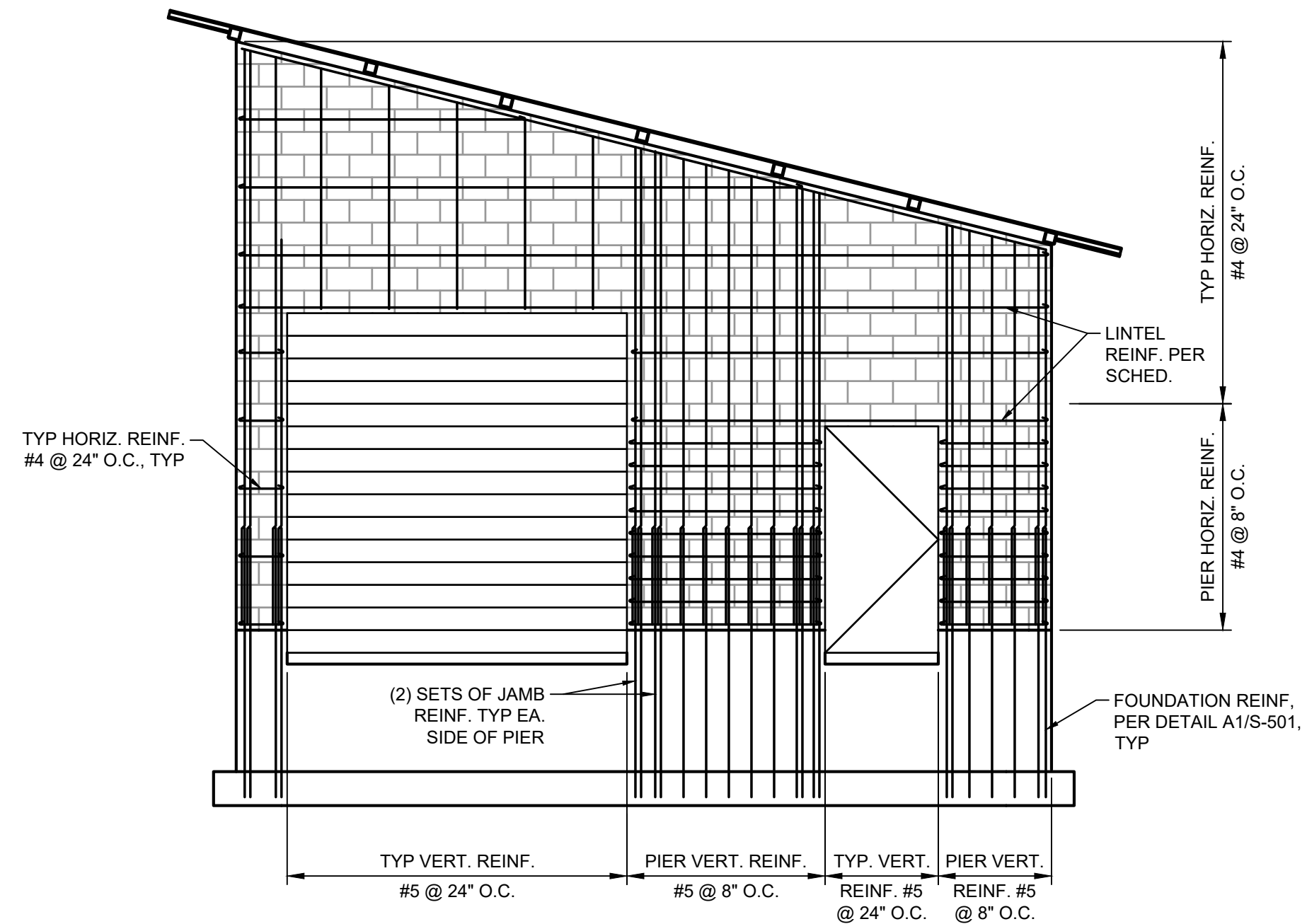
B2 ROOF FRAMING AT INTERIOR WALL
SCALE: 1 1/2"=1'-0"



C1 ROOF FRAMING AT EAVE - HIGH
SCALE: 1"=1'-0"



C2 OFFSET JOIST BEARING ON CMU WALL
SCALE: 1"=1'-0"

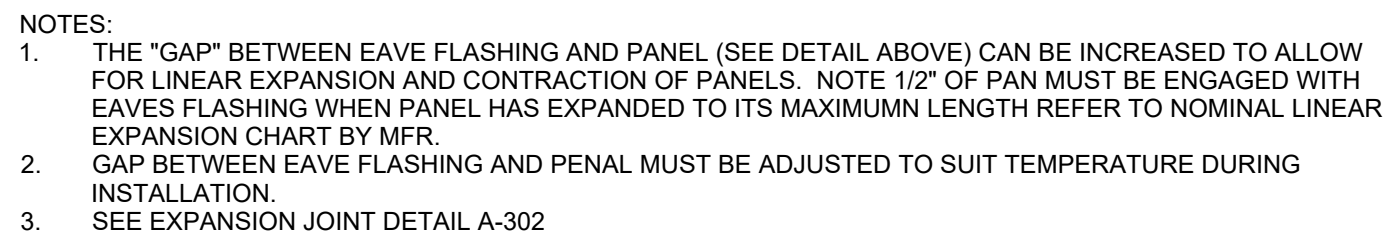


C3 MW8-2 SPECIAL REINF. DETAILING
SCALE: 1/4"=1'-0"

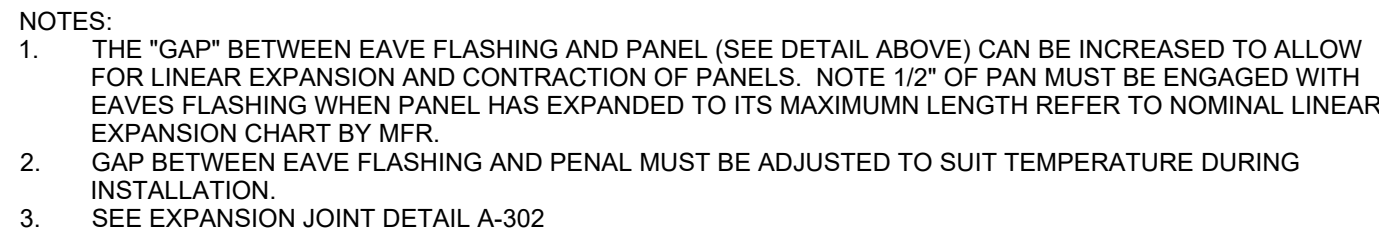
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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY
STRUCTURAL
STRUCTURAL DETAILS



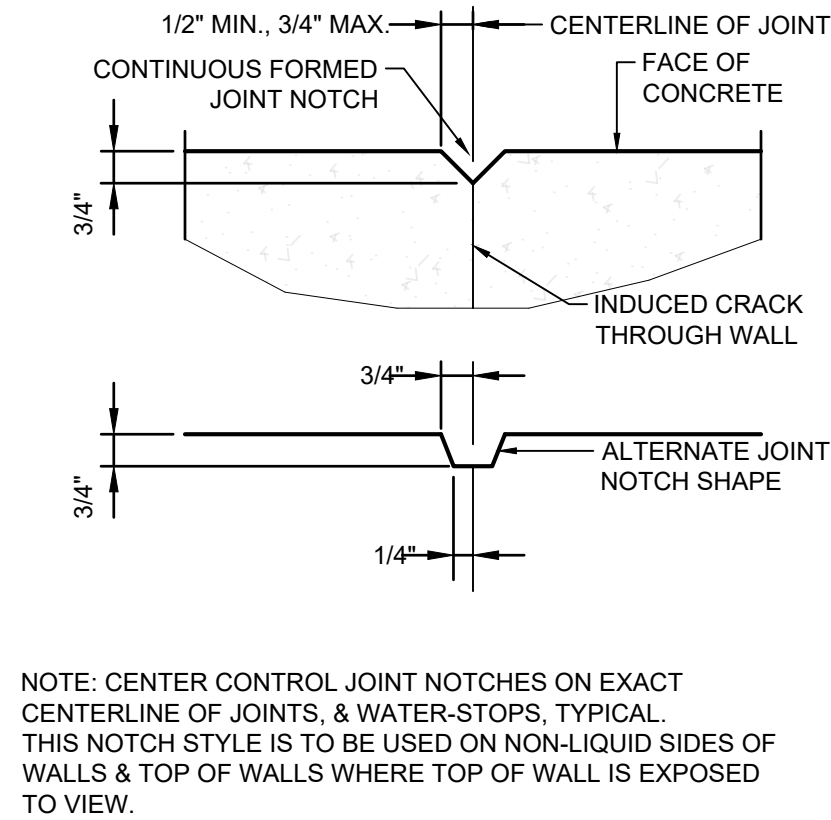
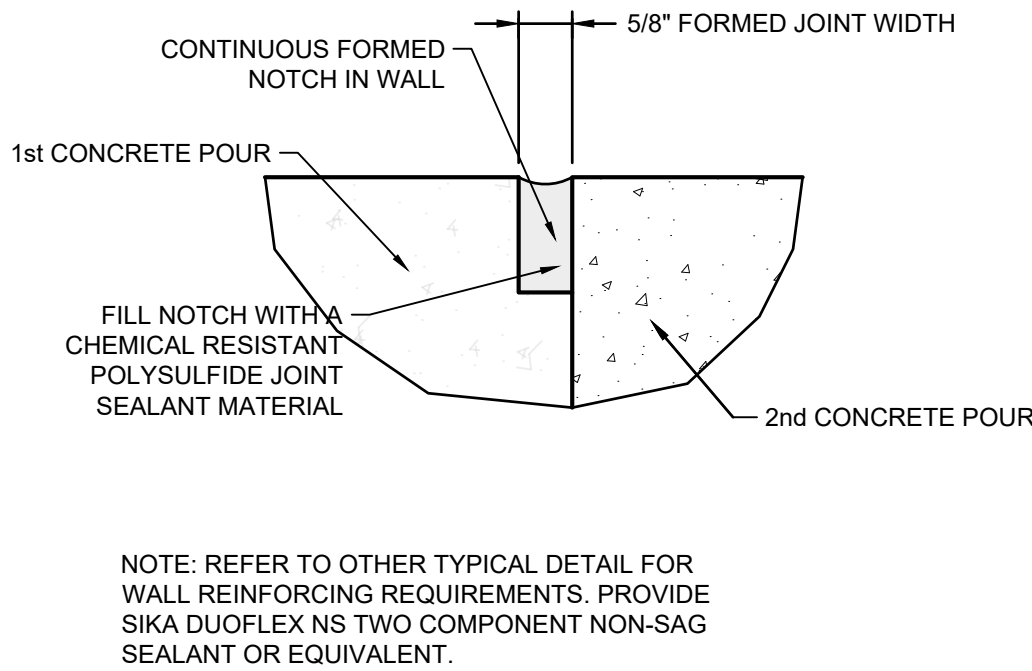
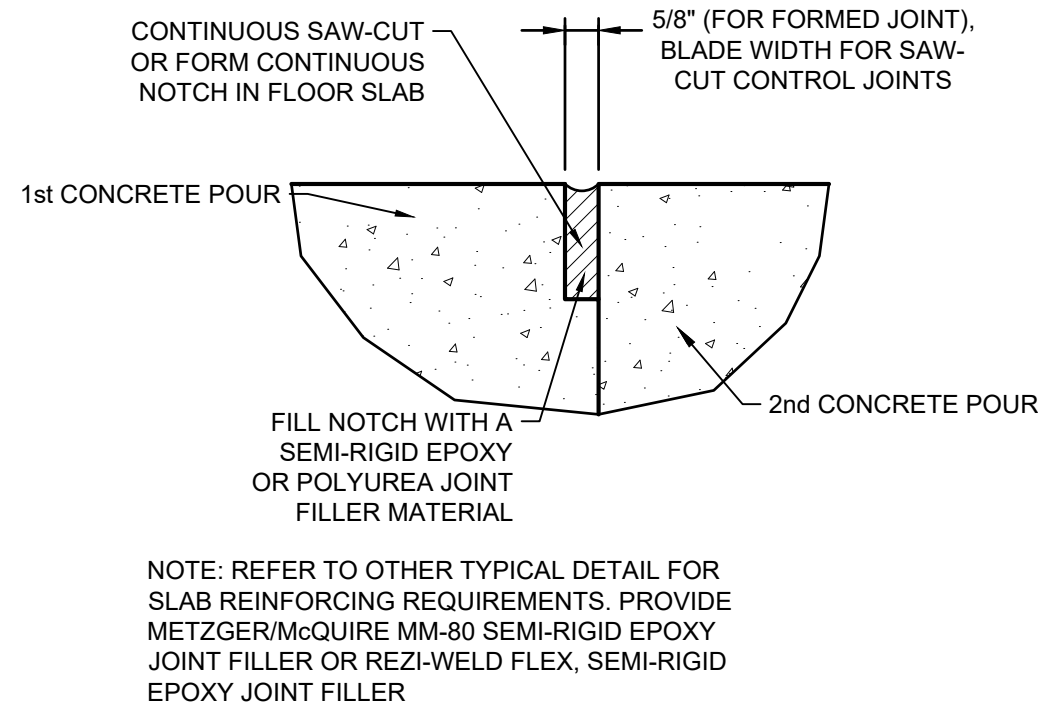
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(B2)



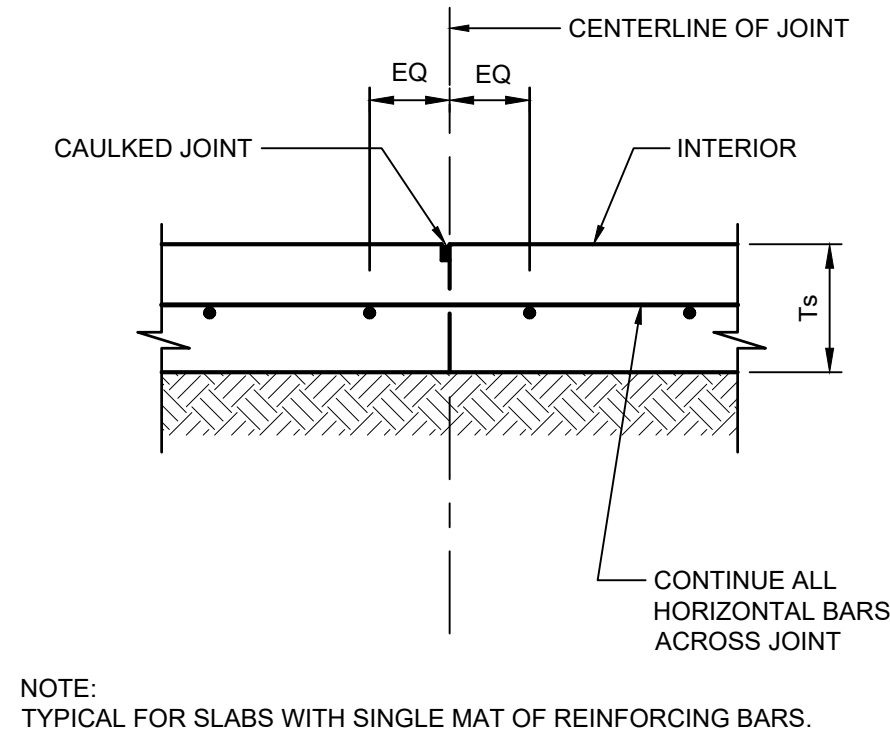
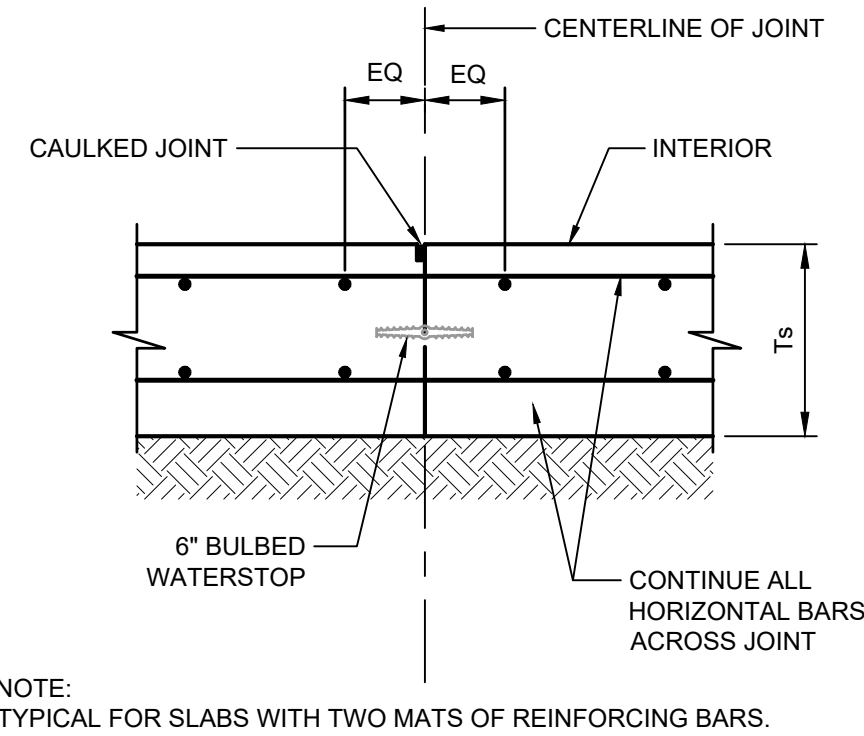
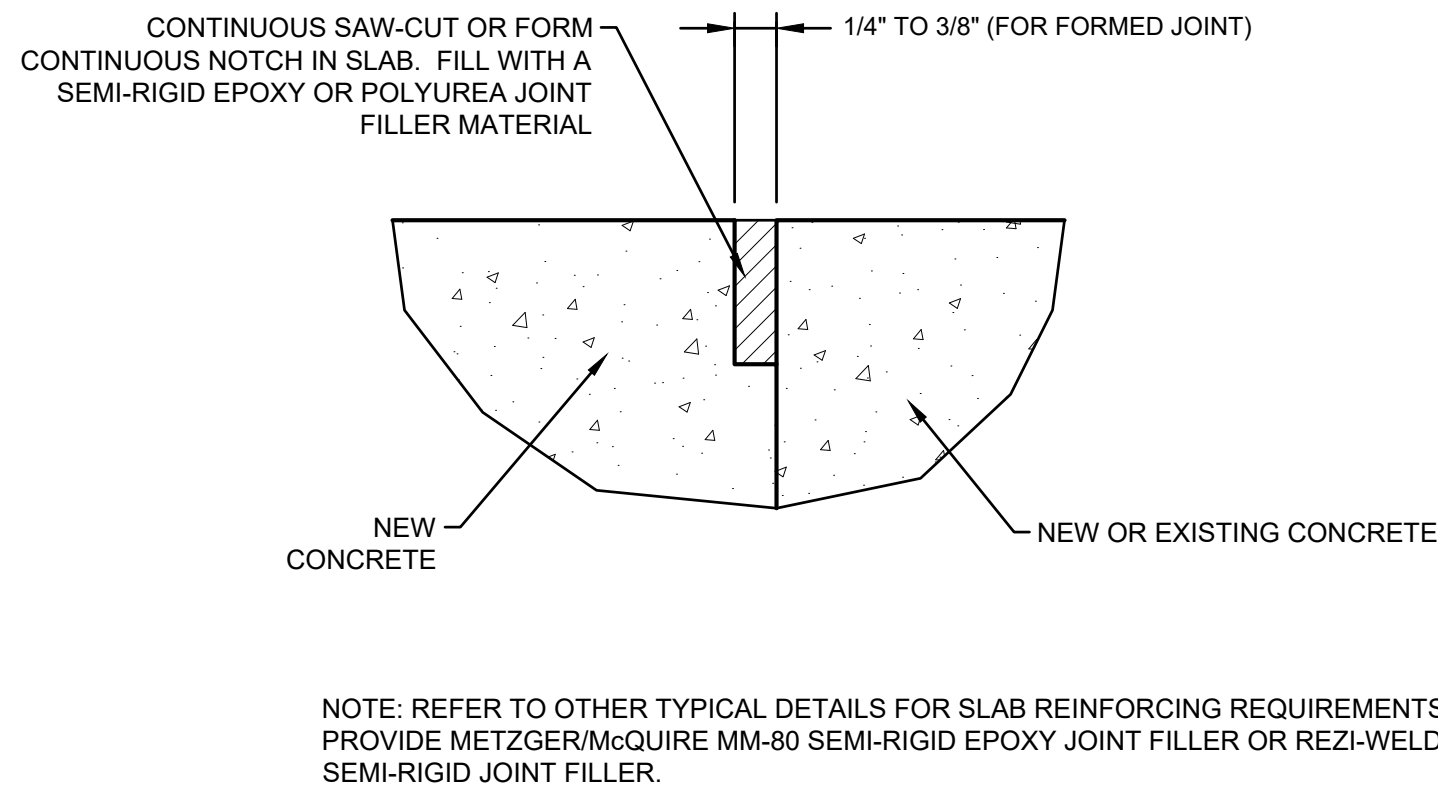
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Date Created: 8/7/2025 J:\JUB\COMMON\CLIENTS\UT\MT PLEASANT\PROJECTS\24-009 LAGOON IMPROVEMENTS\PROJECT DESIGN\CAD\SHEET\STRUCTURAL\S-902.X.DWG



A1 TYP SEALED FLOOR NOTCH
SCALE: NTS

A2 TYP SEALED WALL NOTCH
SCALE: NTS

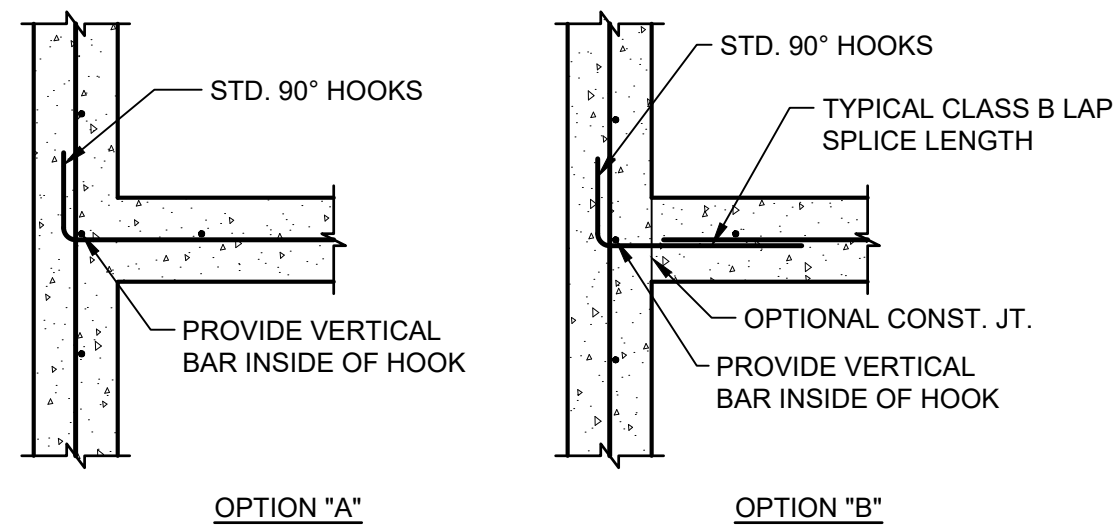
A3 TYP CONTROL JOINT NOTCH
SCALE: NTS



B1 TYP SLAB ON GRADE CONTROL JOINT
SCALE: NTS

B2 TYP SLAB CONTROL JOINT
SCALE: NTS

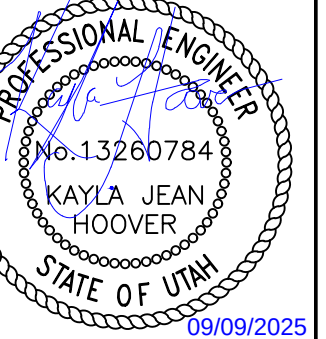
B2 TYP SLAB CONTROL JOINT
SCALE: NTS



C1 TYP CORNER WALL INTERSECTION DETAIL
SCALE: NTS

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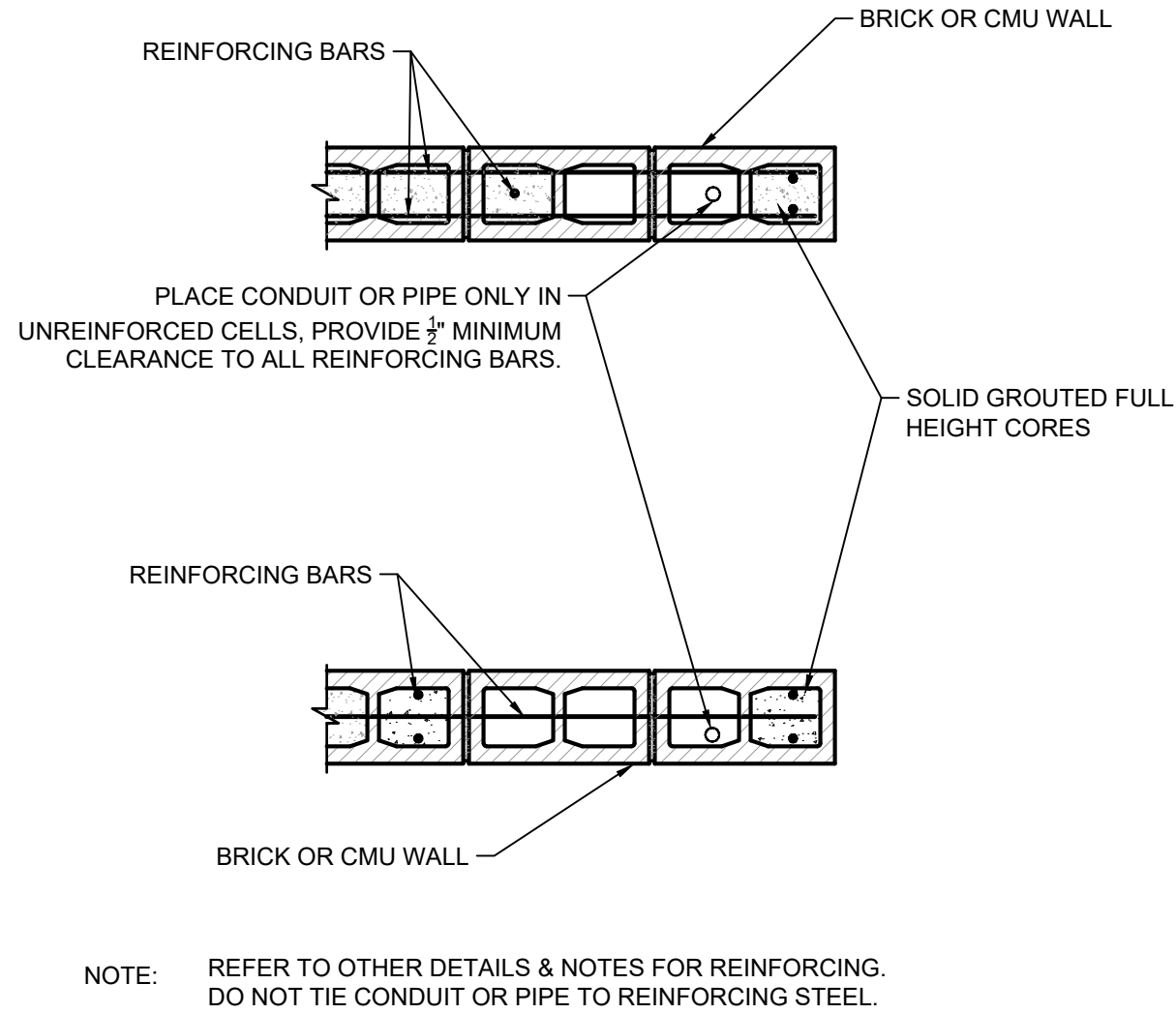
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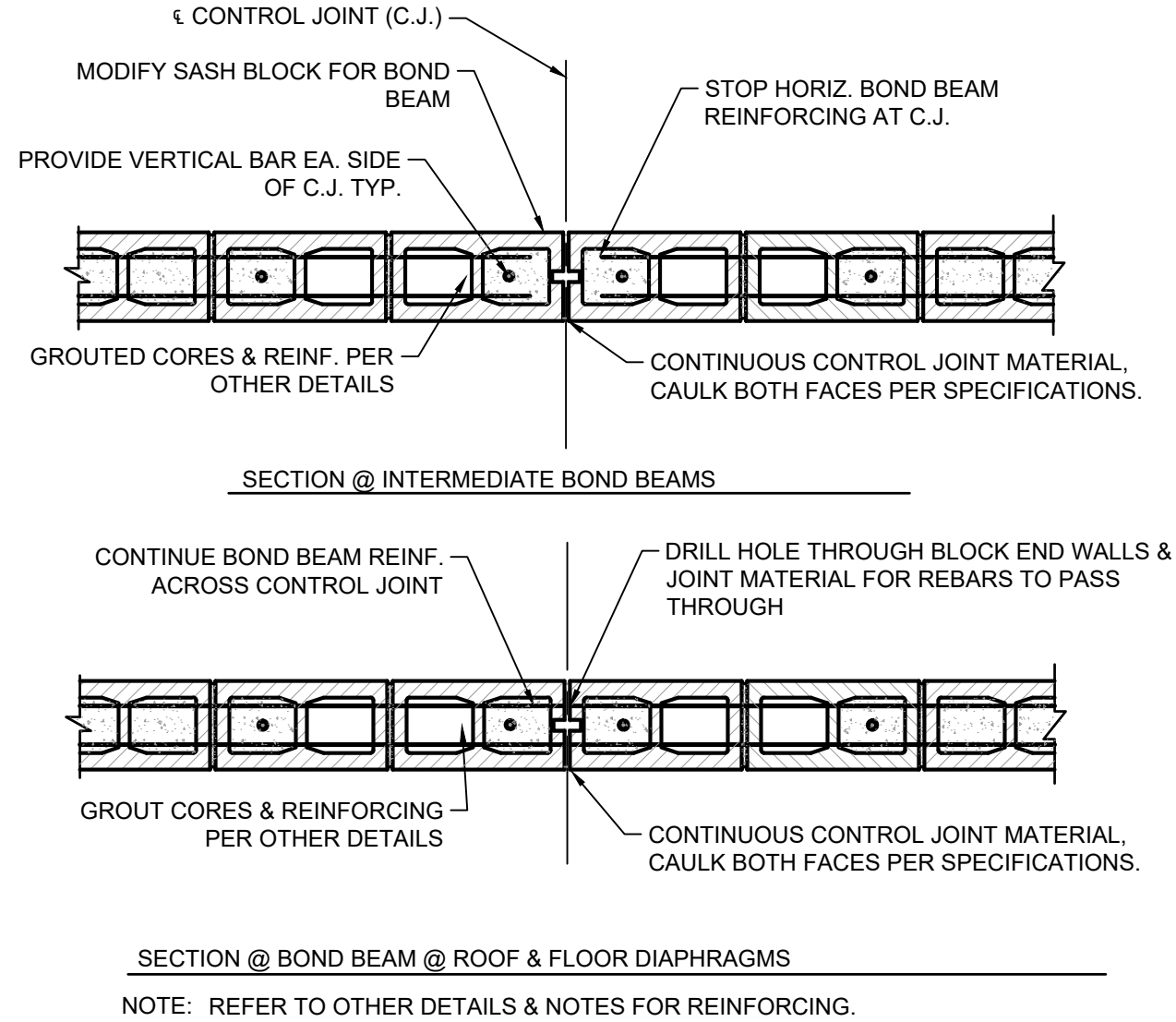
LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

TYPICAL STRUCTURAL DETAILS
STRUCTURAL

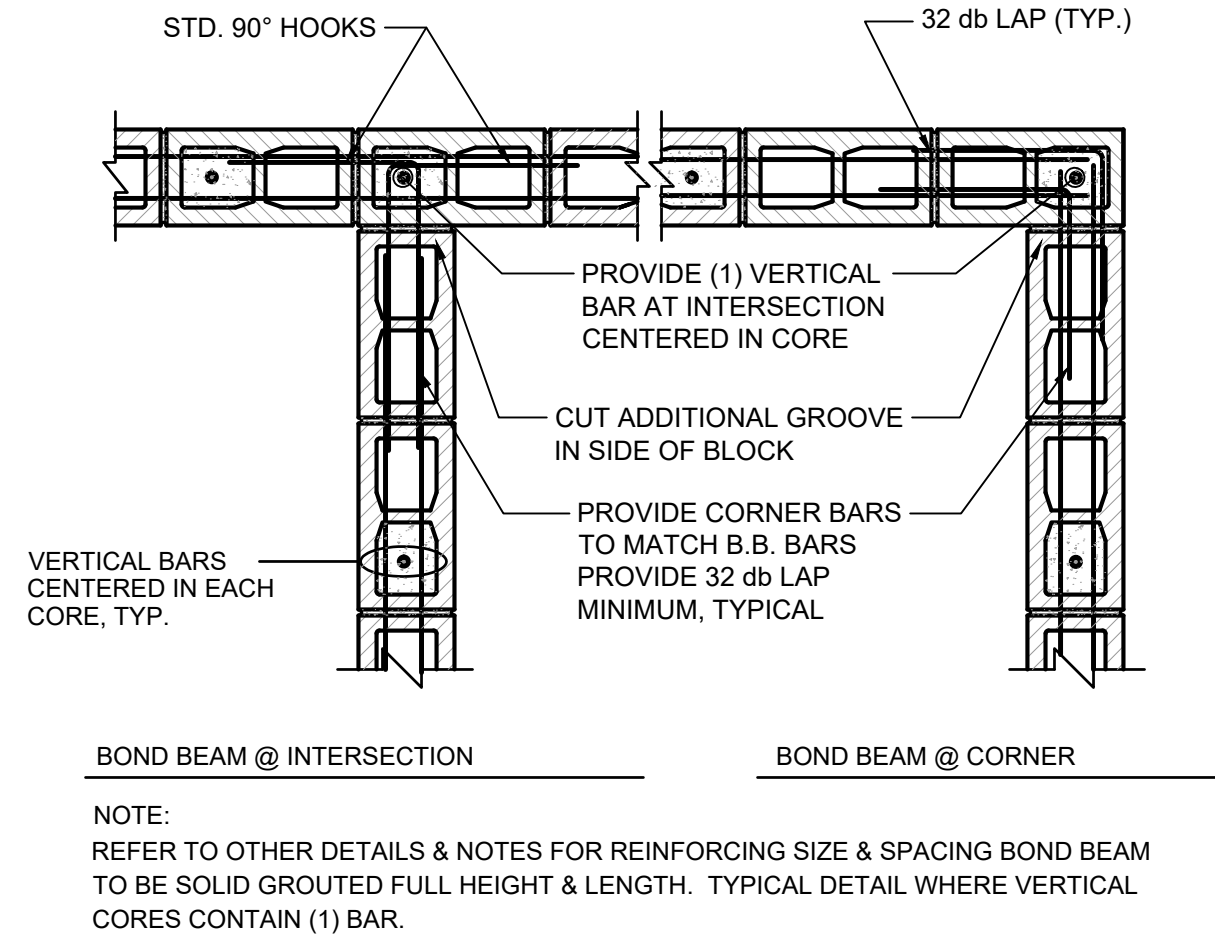
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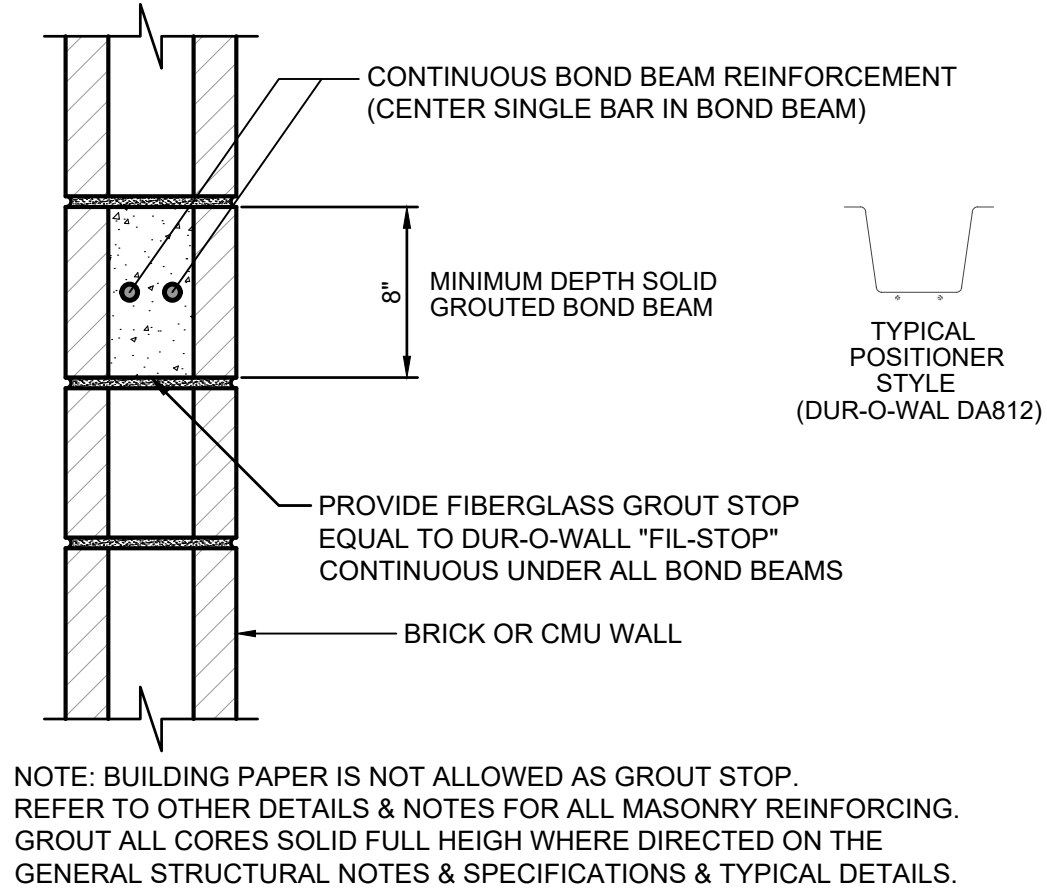
A1 TYP MASONRY WALL CONSTRUCTION
SCALE: NTS



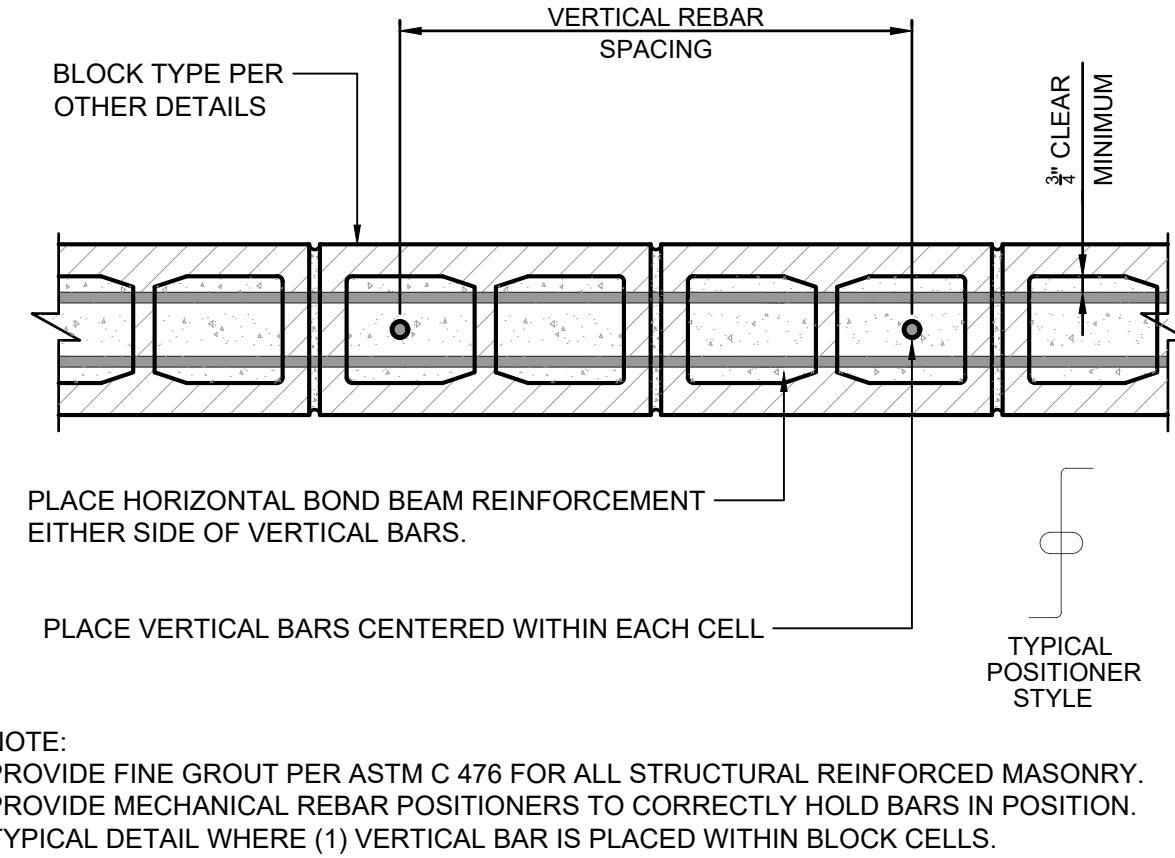
A2 TYP MASONRY WALL CONTROL JOINT DETAIL
SCALE: NTS



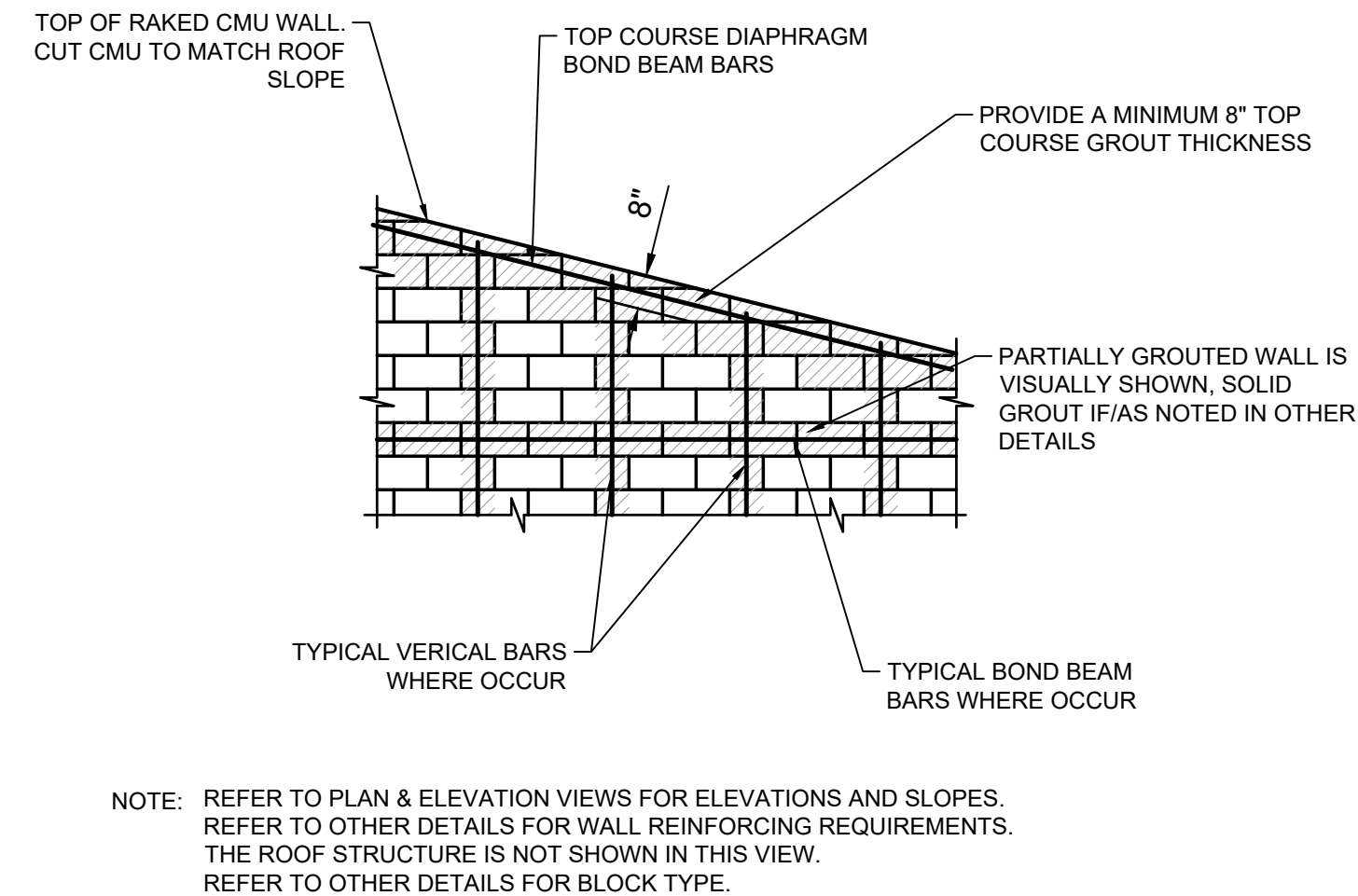
A3 TYP MASONRY WALL INTERSECTION DETAIL
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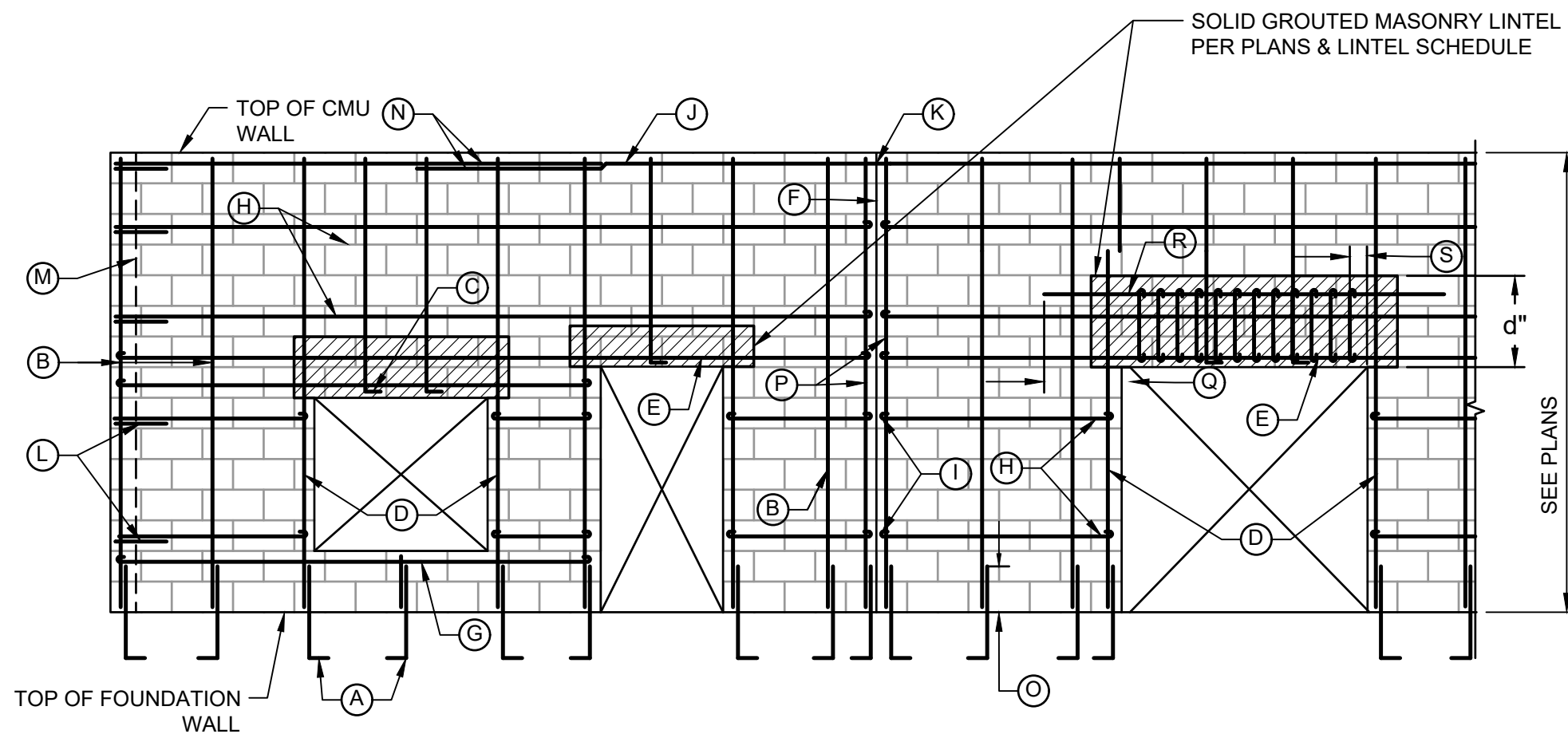
B1 TYP MASONRY WALL BOND BEAM DETAIL
SCALE: NTS



B2 TYP MASONRY REBAR PLACEMENT DETAIL
SCALE: NTS



B3 TYP RAKED WALL DETAIL
SCALE: NTS



C1 TYP REINFORCED MASONRY WALL ELEVATION
SCALE: NTS

- (A) FOUND. DOWELS TO MATCH JAMB & VERT. BAR LOCATIONS.
(B) VERTICAL WALL BARS, 8" CMU: #5 VERT. @ 32" O.C. U.N.O
(C) STANDARD 90° HOOK.
(D) 8" CMU: (2) #5 VERTICAL BARS, EA. SIDE OF OPENINGS TYP., U.N.O.
(E) REFER TO LINTEL REINFORCING SCHEDULE FOR BAR SIZE. EXTEND BAR TO WALL'S EDGE AND/OR OBSTRUCTION, PROVIDE 180° HOOK ON EA. END.
(F) VERTICAL WALL CONTROL (C.J.) JOINTS. SEE PLANS
(G) (2) #4 BAR UNDER EACH OPENING. EXTEND BAR TO WALL'S EDGE AND/OR OBSTRUCTION, PROVIDE 180° HOOK ON EA. END.
(H) HORIZ. B.B. REIN, 8" CMU: (2) #4 CONTINUOUS. USE (2) #5 BARS @ 12" CMU. PROVIDE 180° HOOK AT END WHERE STARTING AND/OR STOPPING BETWEEN OPENINGS.

- (I) STOP BOND BEAM BARS @ WALL CONTROL JOINT. END w/ 180° HOOK
(J) DIAPHRAGM CHORD B. B. W/ (2) #5 CONT.
(K) CONTINUE BARS ACROSS WALL CONTROL JOINT.
(L) CORNER BARS AT EACH BOND BEAM.
(M) WALL BEYOND, WHERE OCCURS
(N) LAP DIAPHRAGM B.B. BARS 72db MINIMUM.
(O) LAP 48 db MINIMUM.
(P) (2) #5 VERT. BAR/BARS EA. SIDE OF C.J.
(Q) 48 BAR DIAMETERS MINIMUM
(R) ADD'L #4 HORIZ. BAR WHEN SHEAR REINF. IS REQUIRED. SEE LINTEL DETAIL
(S) d"/4, TYP

NOTES:
WALL SHOWN IS A REPRESENTATIVE SECTION OF TYPICAL SPECIAL REINFORCED MASONRY OR BRICK SHEAR WALL. FOR ACTUAL WALL AND OPENING DIMENSIONS REFER TO THE PLANS AND ELEVATION VIEWS. REFER TO OTHER DETAILS AND STRUCTURAL NOTES FOR REINFORCING REQUIREMENTS

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SET		REVISION		BY		DATE	
		NO.		DESCRIPTION			

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY
STRUCTURAL
TYPICAL STRUCTURAL DETAILS



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B2 TYP MASONRY WALL REBAR LAP LENGTH SCHED
SCALE: NTS



- ## SECTION A

LAAGUON IMPROVEMENTS PROJECT
MT PLEASANT CITY

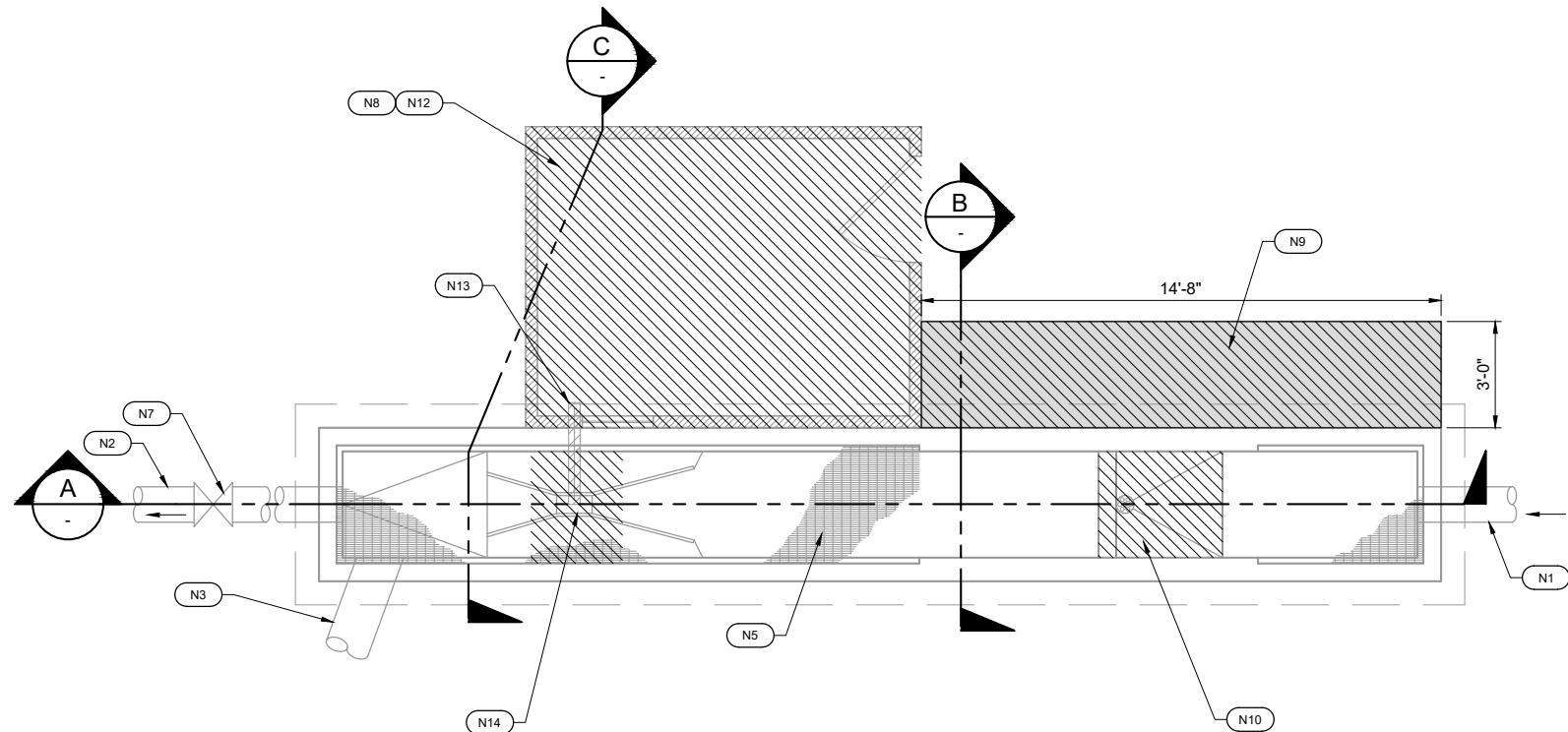
TYPICAL STRUCTURAL DETAILS

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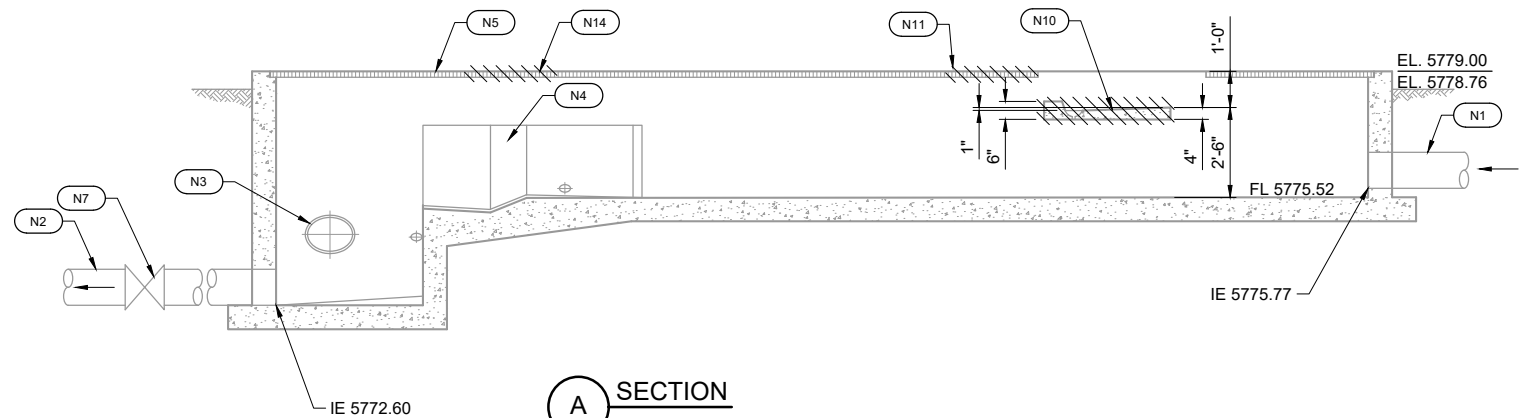
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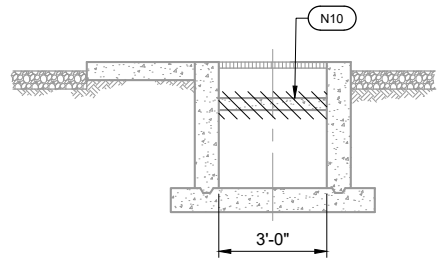
D1 EXISTING HEADWORKS STRUCTURES
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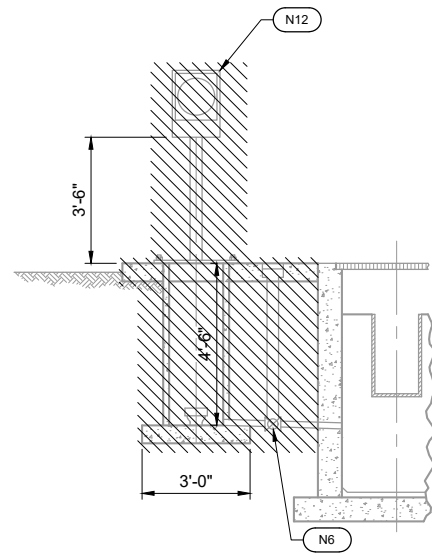
PLAN - HEADWORKS



A SECTION



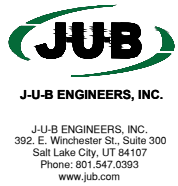
B SECTION



C SECTION

KEYED NOTES

N1	EXISTING 12-IN INLET PIPE.
N2	EXISTING 12-IN OUTLET PIPE.
N3	EXISTING 15-IN BYPASS PIPE TO CELL#2.
N4	EXISTING 6-IN PREFABRICATED PARSHALL FLUME. PROTECT IN PLACE.
N5	EXISTING REMOVABLE 1.75-IN ALUMINUM GRATING.
N6	EXISTING 2-IN BALL VALVE WITH BOX.
N7	EXISTING VALVE. VALVE OPERATOR IS LOCATED INSIDE THE SHED. PROTECT AND MAINTAIN VALVE OPERATOR.
N8	DEMO EXISTING SHED. COORDINATE SALVAGE REQUIREMENT WITH THE CITY STAFF.
N9	DEMO EXISTING CONCRETE PAD.
N10	CONTRACTOR TO DEMO EXISTING SLAB.
N11	REMOVE EXISTING GRATING TO ACCOMMODATE NEW SCREEN AND MOVE IT TO FILL THE GAP IN GRATING ON TOP OF THE FLUME.
N12	DEMO EXISTING FLOW TOTALIZER AND DOSING PUMP. PROTECT AND MAINTAIN ALL OTHER EXISTING EQUIPMENT AND PANELS. SEE E- 100.
N13	PROTECT AND REROUTE CONDUIT AS SHOWN IN E-SHEET.
N14	USE EXCESS EXISTING GRATING FROM THE TOP OF THE AREA SHOWN BY KEYNOTE N10 TO THE GAP IN GRATING HERE. FIELD CUT IF NEEDED.



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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

EXISTING HEADWORKS DEMOLITION PLAN

FILE: 94-24-009 D-10X
JUB PROJ. #: 93-24-009
DRAWN BY: CH
DESIGN BY: BP
CHECKED BY: BP
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LAST UPDATED: 9/9/2025

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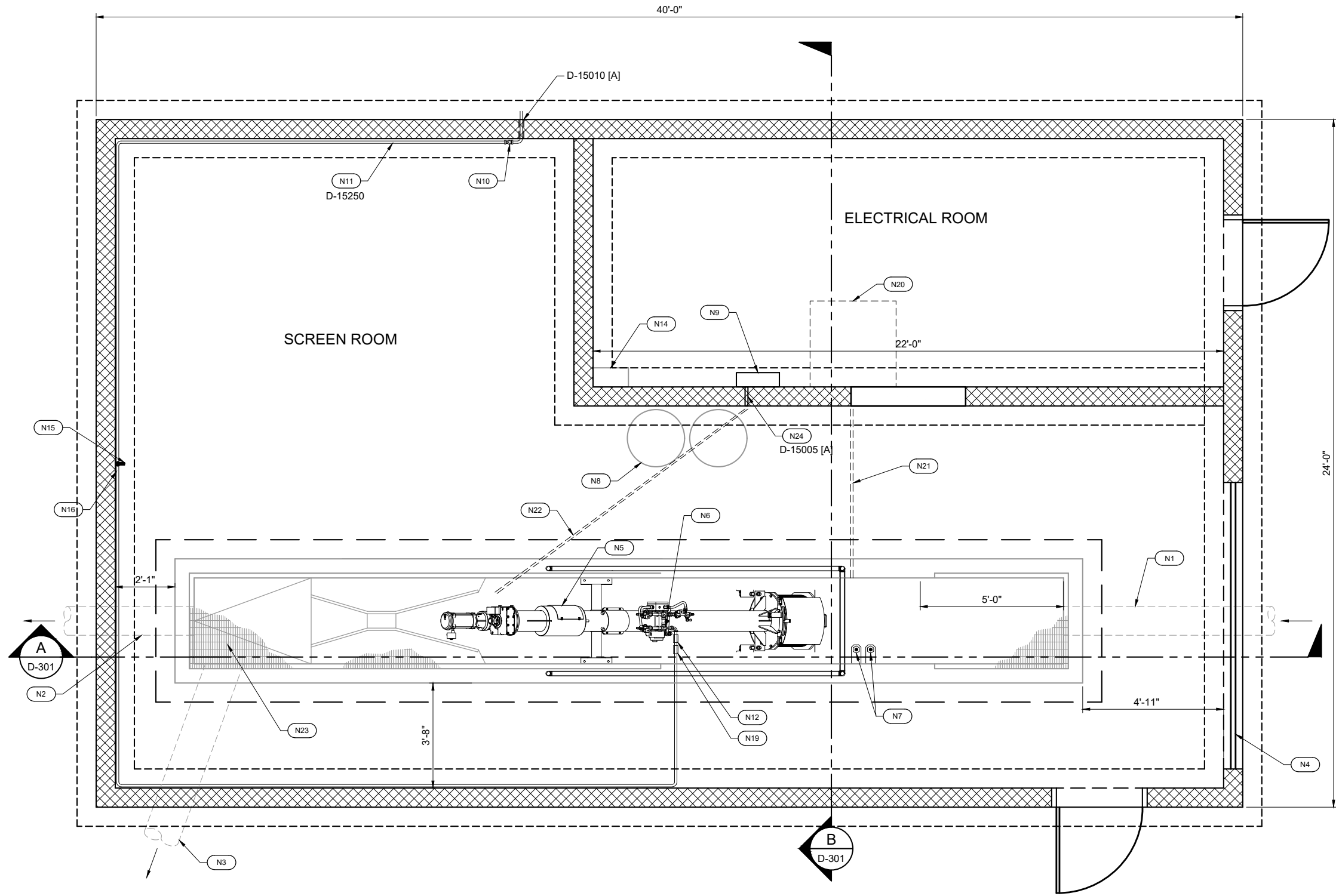
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D1

HEADWORKS PLAN

SCALE: 1/2" = 1'



KEYED NOTES

- N1
- EXISTING 12-IN INLET PIPE.
- N2
- EXISTING 12-IN OUTLET PIPE.
- N3
- EXISTING 15-IN BYPASS PIPE TO CELL#2.
- N4
- NEW 10 FT X 10 FT MANUAL ROLL UP DOOR.
- N5
- CONTRACTOR SHALL FURNISH AND INSTALL A NEW FINE SCREEN. REFERENCE SPECIFICATION SECTION 46 21 00.
- N6
- CONTRACTOR SHALL PROVIDE FLEXIBLE PIGTAIL/QUICK DISCONNECT TYPE CONNECTION FOR WATER SUPPLY AND ELECTRICAL LINES TO ALLOW UNIT TO PIVOT OUT OF CHANNEL. COORDINATE LINE CONNECTIONS WITH THE MANUFACTURER.
- N7
- NEW DUAL FLOAT SWITCHES FURNISHED BY THE SCREEN MANUFACTURER. TIE CONTROL INTO NEW SCREEN SYSTEM. REFERENCE SPECIFICATION SECTION 46 21 00.
- N8
- RELOCATE EXISTING BIOLYNCEUS DRUMS.
- N9
- RELOCATE EXISTING BIOLYNCEUS DOSING PUMP.
- N10
- NEW 1-IN POTABLE WATER BACKFLOW PREVENTOR.
- N11
- 1-IN HDPE WATER SUPPLY LINE. ROUTE ALONG THE WALL.
- N12
- 1-IN TO 3/4-IN PIPE REDUCER.
- N13
- PROVIDE PIPE SUPPORTS AS REQUIRED ALONG THE ENTIRE LENGTH OF THE LINE.
- N14
- RELOCATE EXISTING FLOW METER DISPLAY INTO THE NEW ELECTRICAL ROOM.
- N15
- NEW HOSE RACK.
- N16
- NEW 1-IN HOSE BIBB.
- N17
- CONTRACTOR TO SECURE SCREEN TO CONCRETE CHANNEL TO ACCOMMODATE MINOR VARIATIONS IN THE EXISTING CONCRETE SURFACE AND SEAL BOTTOM AND SIDES OF SCREEN PER MANUFACTURER'S REQUIREMENTS AND AS REQUIRED TO PREVENT BYPASSING OF THE SCREEN. COORDINATE WITH SCREEN MANUFACTURER.
- N18
- CONTRACTOR TO PROVIDE AND INSTALL REMOVABLE HANDRAILS. SEE DETAIL D1 AND D2 IN SHEET S-502.
- N19
- 1-IN BALL VALVE
- N20
- SPACE ALLOCATED FOR FUTURE AUTOMATED REFRIGERATED COMPOSITE SAMPLER.
- N21
- EMBED AND ROUTE 1-IN HDPE CARRIER PIPE FOR FUTURE COMPOSITE SAMPLER LINE. NO FITTINGS ALLOWED. SEAL BOTH ENDS WATERTIGHT. MIN 1% SLOPE TO CHANNEL, INVERT AT CHANNEL 2-FT BELOW FFE.
- N22
- EMBED AND ROUTE 1-IN HDPE CARRIER PIPE FOR DOSING BIOLYNCEUS. NO FITTINGS ALLOWED. SEAL BOTH ENDS WATER TIGHT. MIN 1% SLOPE TO CHANNEL, INVERT AT CHANNEL 2-FT BELOW FEE.
- N23
- THE EXISTING GRATING SHALL BE COVERED WITH SOLID FRP MAT. SEE DETAIL C3 IN STRUCTURAL SHEET S-904.
- N24
- ROUTE SUCTION AND DISCHARGE PIPE THROUGH THE SAME PIPE SLEEVE. THE PIPE SLEEVE IS 2-IN BORE HOLE 4 FT FROM THE FINISHED FLOOR.



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Subconsultant:

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GARY MICHAEL VANCE
9/9/25
STATE OF UTAH

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REVISION	NO.	DESCRIPTION	BY	DATE

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

NEW HEADWORKS BUILDING - PLAN

FILE: 94-24-009_D-10X

JUB PROJ. #: 93-24-009

DRAWN BY: CH

DESIGN BY: BP

CHECKED BY: BP

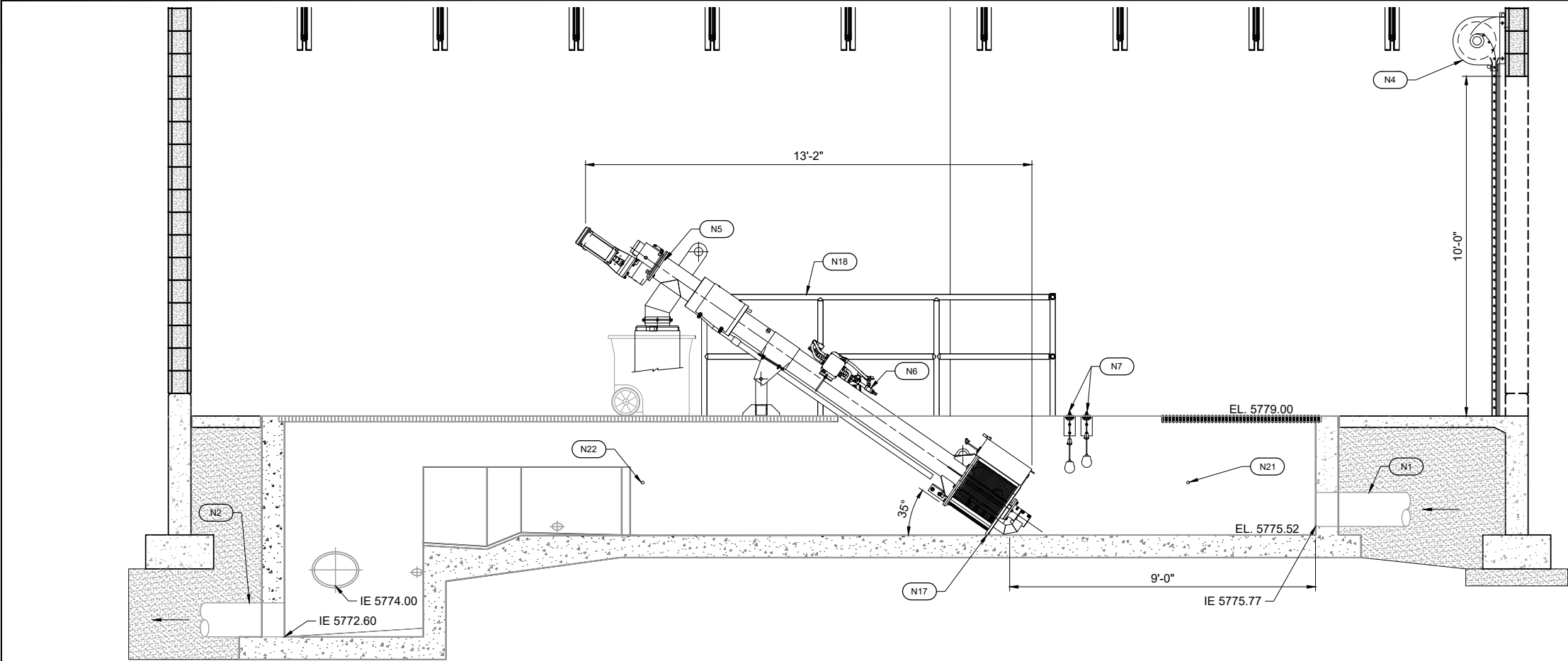
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

LAST UPDATED: 9/9/2025

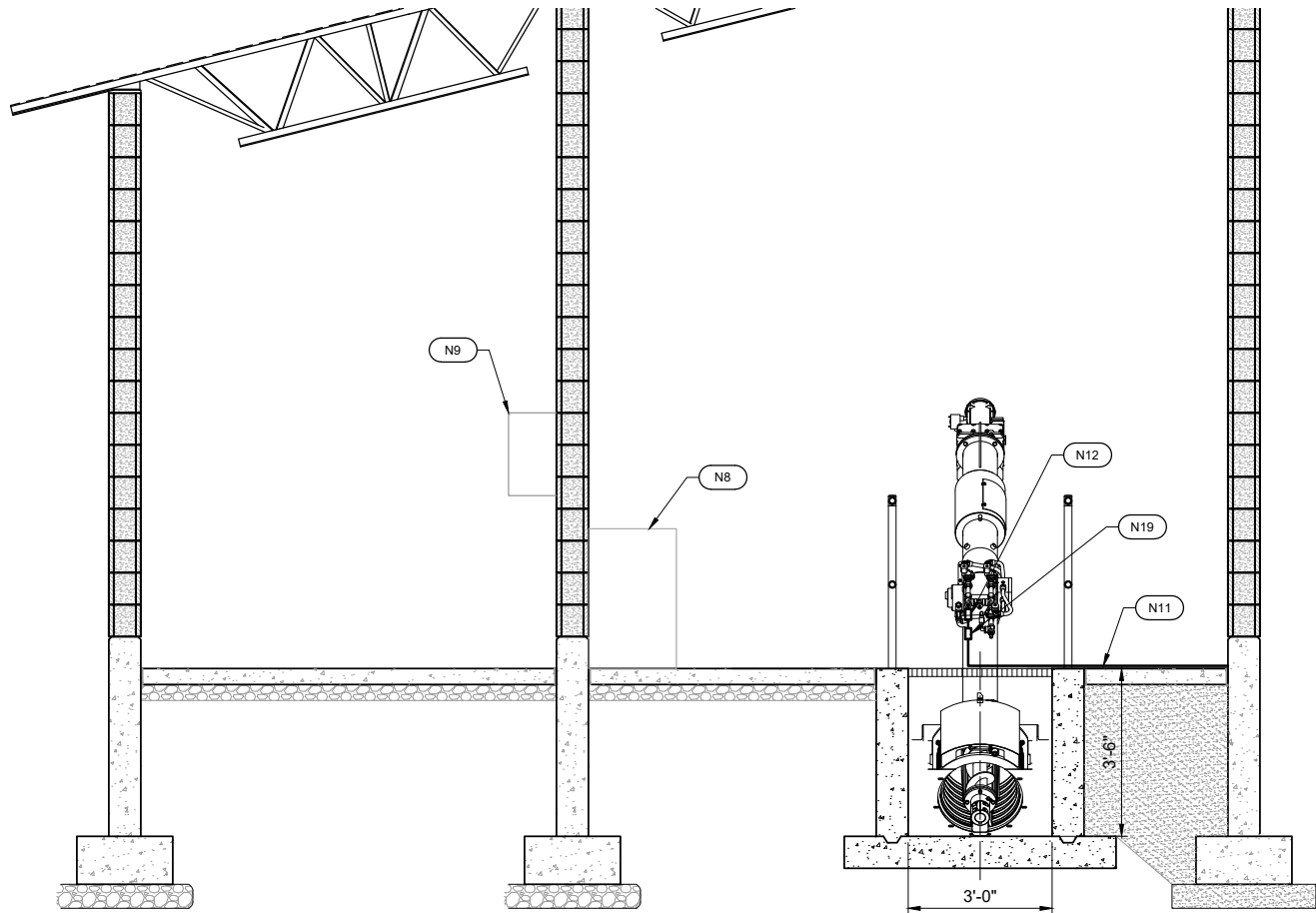
DRAWING:

D-102

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A HEADWORKS SECTION
SCALE: 1/4" = 1'-0"



B HEADWORKS SECTION
SCALE: 1/4" = 1'-0"

KEYED NOTES

- N1 EXISTING 12-IN INLET PIPE.
N2 EXISTING 12-IN OUTLET PIPE.
N3 EXISTING 15-IN BYPASS PIPE TO CELL#2.
N4 NEW 10 FT X 10 FT MANUAL ROLL UP DOOR.
N5 CONTRACTOR SHALL FURNISH AND INSTALL A NEW FINE SCREEN. REFERENCE SPECIFICATION SECTION 46 21 00.
N6 CONTRACTOR SHALL PROVIDE FLEXIBLE PIGTAIL/QUICK DISCONNECT TYPE CONNECTION FOR WATER SUPPLY AND ELECTRICAL LINES TO ALLOW UNIT TO PIVOT OUT OF CHANNEL. COORDINATE LINE CONNECTIONS WITH THE MANUFACTURER.
N7 NEW DUAL FLOAT SWITCHES FURNISHED BY THE SCREEN MANUFACTURER. TIE CONTROL INTO NEW SCREEN SYSTEM. REFERENCE SPECIFICATION SECTION 46 21 00.
N8 RELOCATE EXISTING BIOLYNCEUS DRUMS.
N9 RELOCATE EXISTING BIOLYNCEUS DOSING PUMP.
N10 NEW 1-IN POTABLE WATER BACKFLOW PREVENTOR.
N11 1-IN HDPE WATER SUPPLY LINE. ROUTE ALONG THE WALL.
N12 1-IN TO 3/4-IN PIPE REDUCER.
N13 PROVIDE PIPE SUPPORTS AS REQUIRED ALONG THE ENTIRE LENGTH OF THE LINE.
N14 RELOCATE EXISTING FLOW METER DISPLAY INTO THE NEW ELECTRICAL ROOM.
N15 NEW HOSE RACK.
N16 NEW 1-IN HOSE BIBB.
N17 CONTRACTOR TO SECURE SCREEN TO CONCRETE CHANNEL TO ACCOMMODATE MINOR VARIATIONS IN THE EXISTING CONCRETE SURFACE AND SEAL BOTTOM AND SIDES OF SCREEN PER MANUFACTURER'S REQUIREMENTS AND AS REQUIRED TO PREVENT BYPASSING OF THE SCREEN. COORDINATE WITH SCREEN MANUFACTURER.
N18 CONTRACTOR TO PROVIDE AND INSTALL REMOVABLE HANDRAILS. SEE DETAIL D1 AND D2 IN SHEET S-502.
N19 1-IN BALL VALVE
N20 SPACE ALLOCATED FOR FUTURE AUTOMATED REFRIGERATED COMPOSITE SAMPLER.
N21 EMBED AND ROUTE 1-IN HDPE CARRIER PIPE FOR FUTURE COMPOSITE SAMPLER LINE. NO FITTINGS ALLOWED. SEAL BOTH ENDS WATERTIGHT. MIN 1% SLOPE TO CHANNEL, INVERT AT CHANNEL 2-FT BELOW FFE.
N22 EMBED AND ROUTE 1-IN HDPE CARRIER PIPE FOR DOSING BIOLYNCEUS. NO FITTINGS ALLOWED. SEAL BOTH ENDS WATER TIGHT. MIN 1% SLOPE TO CHANNEL, INVERT AT CHANNEL 2-FT BELOW FFE.
N23 THE EXISTING GRATING SHALL BE COVERED WITH SOLID FRP MAT. SEE DETAIL C3 IN STRUCTURAL SHEET S-904.
N24 ROUTE SUCTION AND DISCHARGE PIPE THROUGH THE SAME PIPE SLEEVE. THE PIPE SLEEVE IS 2-IN BORE HOLE 4 FT FROM THE FINISHED FLOOR.



J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
392 E. Winchester St., Suite 300
Salt Lake City, UT 84107
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www.jub.com

Subconsultant:

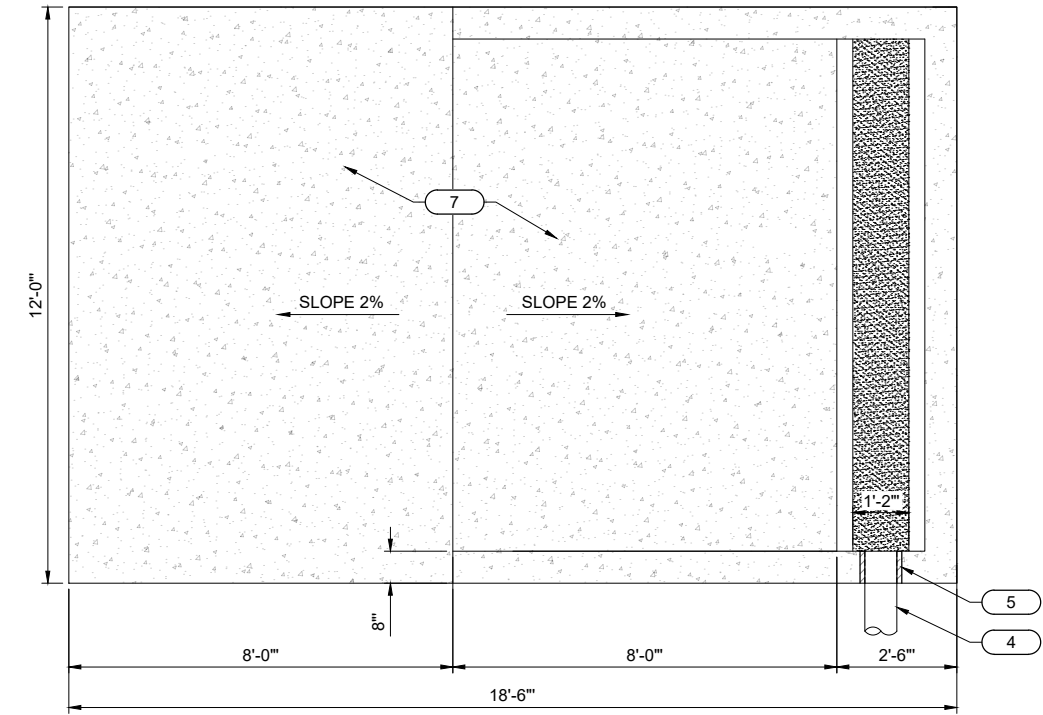
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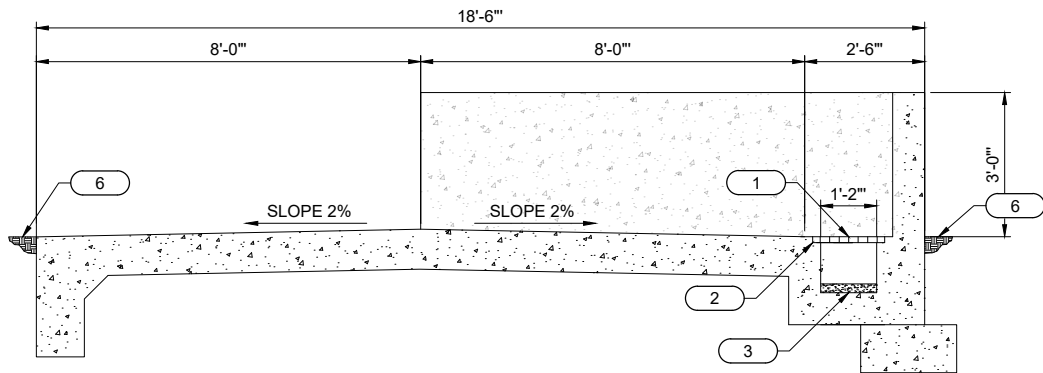
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REUSE OF DRAWINGS		REVISION		BY		DATE	
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Plot Date: 9/9/2025 1:20 PM Plotted By: Caleb Herring
Date Created: 6/17/2025 JUB CONCENTRAL CLIENT\JUB\MT PLEASANT\PROJECT\BID\9-24-009 LAGOON IMPROVEMENTS\PROJECT\DESIGN\CAD\BID\9-24-009 D-301.DWG

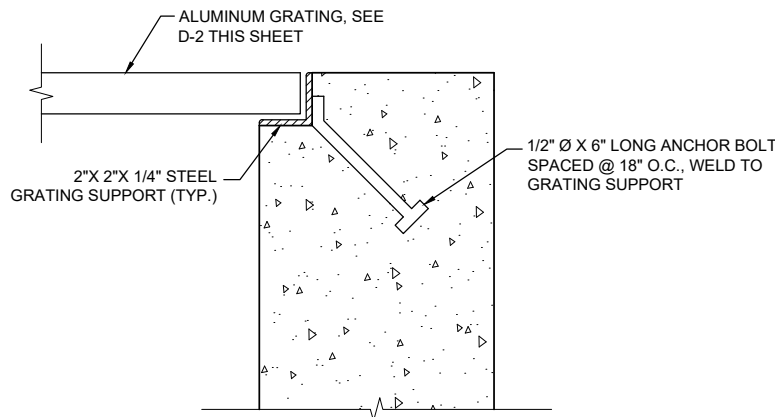


PLAN VIEW

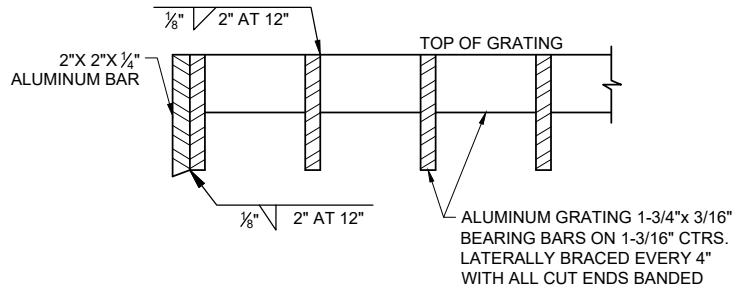


SECTION VIEW

B1 SEPTAGE RECEIVING STATION PLAN VIEW
SCALE: 1"= 2'



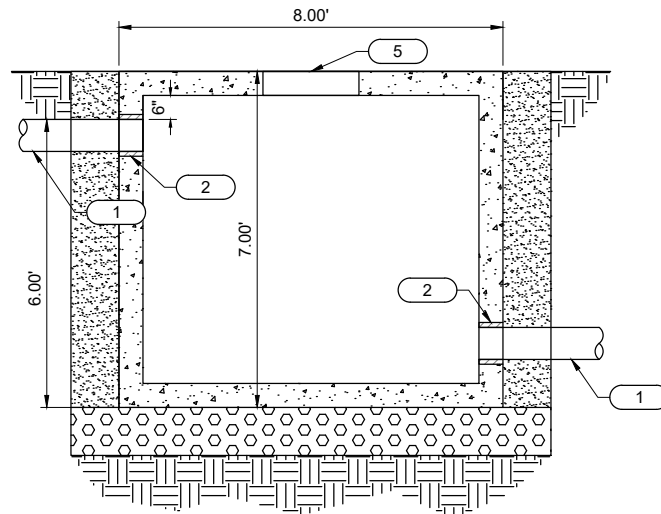
D1 GRATING SUPPORT DETAIL
SCALE: NTS



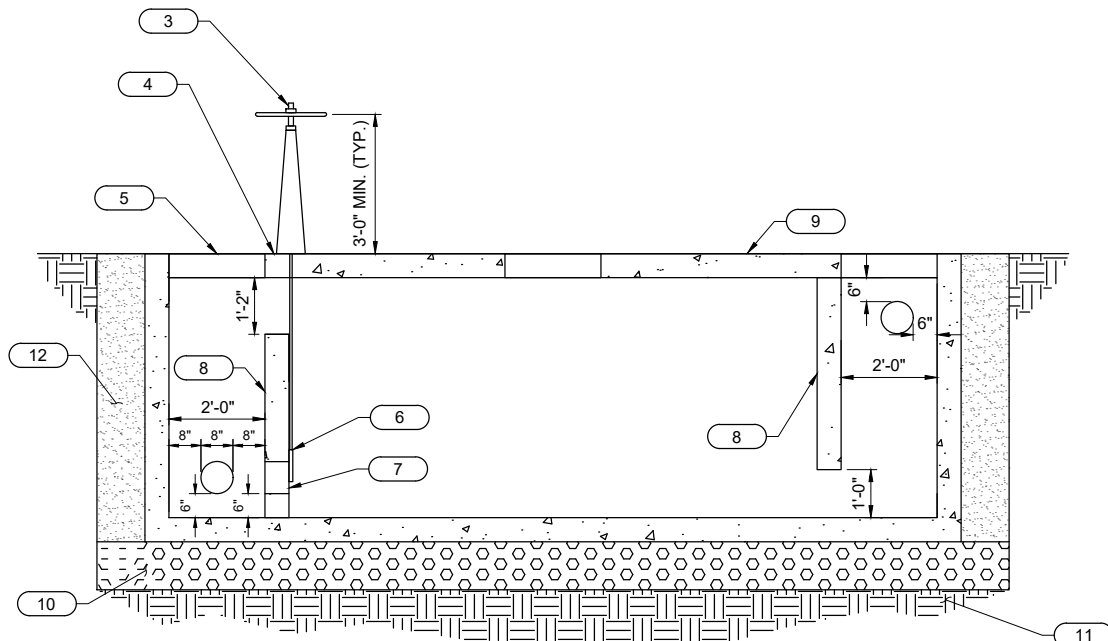
D2 STIFFENED EDGE GRATING DETAIL
SCALE: NTS

KEYED NOTES

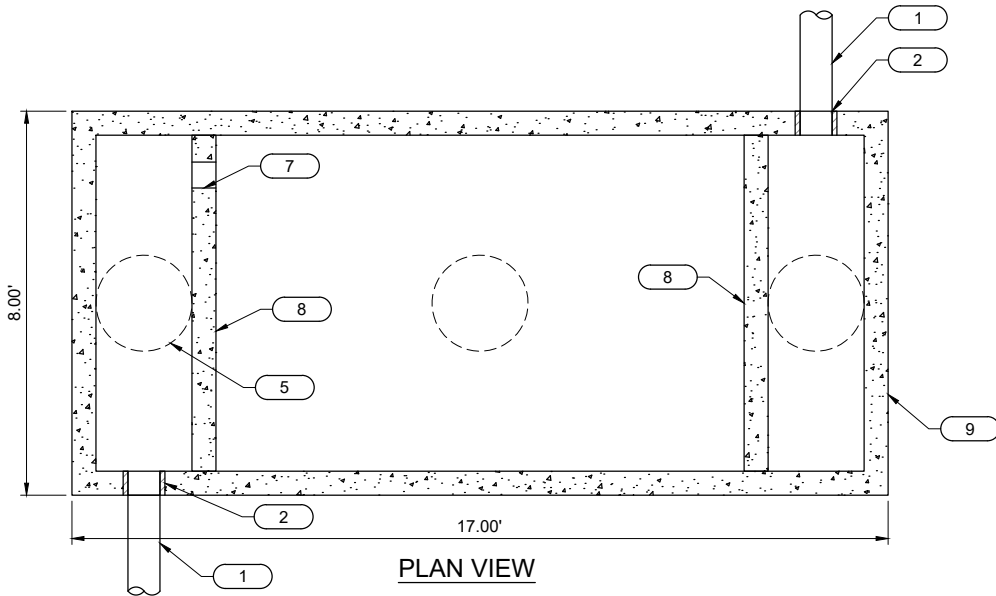
1. METAL GRATING, SEE DETAIL D2 THIS SHEET.
2. METAL GRATE SUPPORT, SEE DETAIL D1, THIS SHEET.
3. GROUT FILL TO CREATE 2% SLOPE ALONG TRENCH DRAIN.
4. 8-IN PVC SDR 35 SEWER PIPE.
5. LINK SEAL MANHOLE CONNECTOR.
6. SEE SHEET CG-101 FOR FINISH GRADE ELEVATIONS.
7. SEE SHEET S-201 FOR CONCRETE AND REINFORCEMENT.



FRONT VIEW



SIDE VIEW



PLAN VIEW

KEYED NOTES

1. 8-IN PVC SDR 35 SEWER PIPE. SEE SHEET CU-101 FOR INVERT ELEVATIONS.
2. LINK SEAL MANHOLE CONNECTOR.
3. INDICATING FLOOR STAND PER C-02101, SHEET CZ-902.
4. PROVIDE MOUNTING BRACKET W/ STAINLESS STEEL ANCHOR BOLTS TO CONCRETE PER MFG. RECOMMENDATIONS.
5. 24-IN DIA. MANHOLE LID PER C-02055, SHEET CZ-901. INSTALL FLUSH TO TOP OF TANK.
6. WATERMAN C-10 HAND GATE OR EQUIVALENT.
7. 8" ORIFICE.
8. 6" WEIR WALL.
9. PRECAST HOLDING TANK. SEE SHEET CG-101 FOR TOP ELEVATION.
10. 12" OF COMPACTED 3/4" MINUS AGGREGATE.
11. UNDISTURBED NATIVE SOIL OR COMPACTED BACKFILL.
12. COMPACTED NATIVE BACKFILL.

D3 SEPTAGE HOLDING TANK DETAIL
SCALE: 1"= 2'

Subconsultant:

BID



SET

NO.	DESCRIPTION	BY	DATE

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

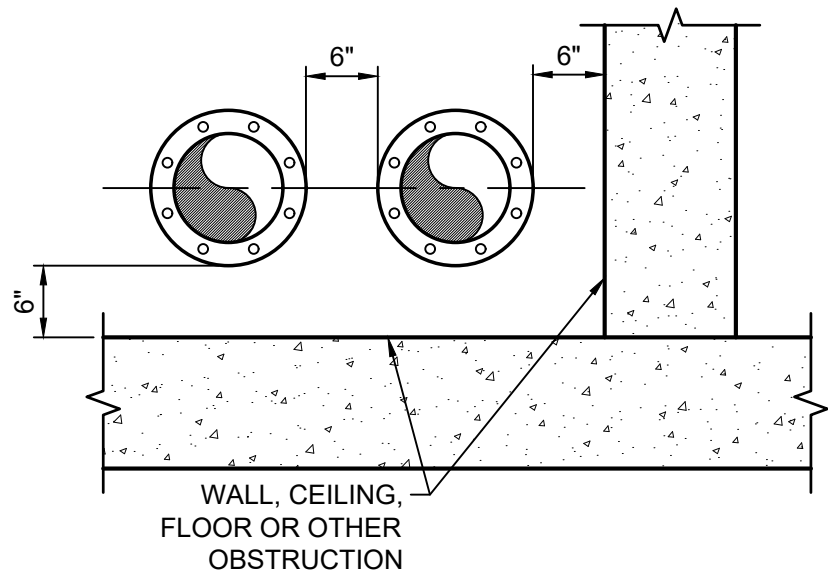
SEPTAGE RECEIVING STATION

Plot Date: 9/9/2025 1:20 PM Plotted By: Caleb Herling
Date Created: 6/12/2025 JUB.COM\CENTRAL\CLIENTS\MT PLEASANT\PROJECTS\24-009 LAGOON IMPROVEMENTS\PROJECT DESIGN\CAD SHEET DESIGN\DWG\24-01X.DWG

D-15010 ABOVE GRADE WALL PIPE PENETRATIONS

NOT TO SCALE

- NOTES:**
1. MINIMUM OBSTRUCTION CLEARANCE AS SHOWN HEREIN, UNLESS SHOWN OTHERWISE ON PLANS.

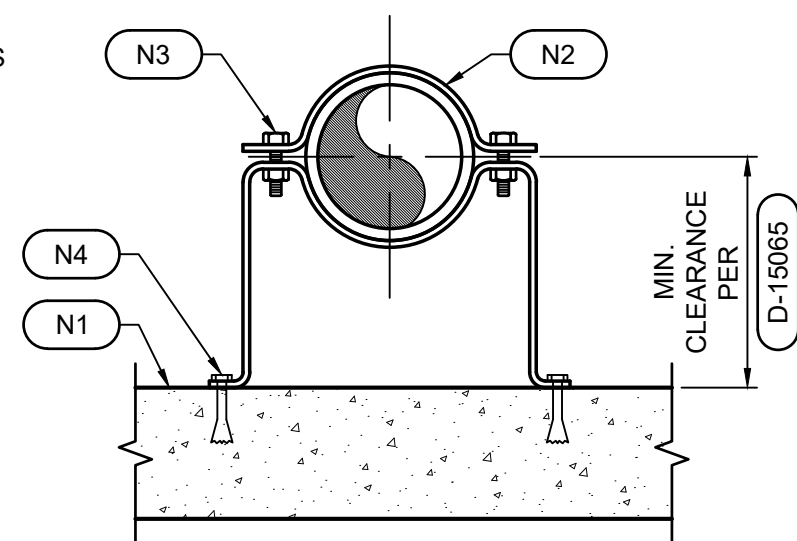


D-15065 TYPICAL PIPE CLEARANCES

NOT TO SCALE

KEYED NOTES:

- N1 CONCRETE FLOOR OR WALL
- N2 STAINLESS STEEL FLAT BAR
- N3 STAINLESS STEEL BOLTS
- N4 STAINLESS STEEL ANCHOR BOLTS WITH 4" MINIMUM EMBEDMENT.

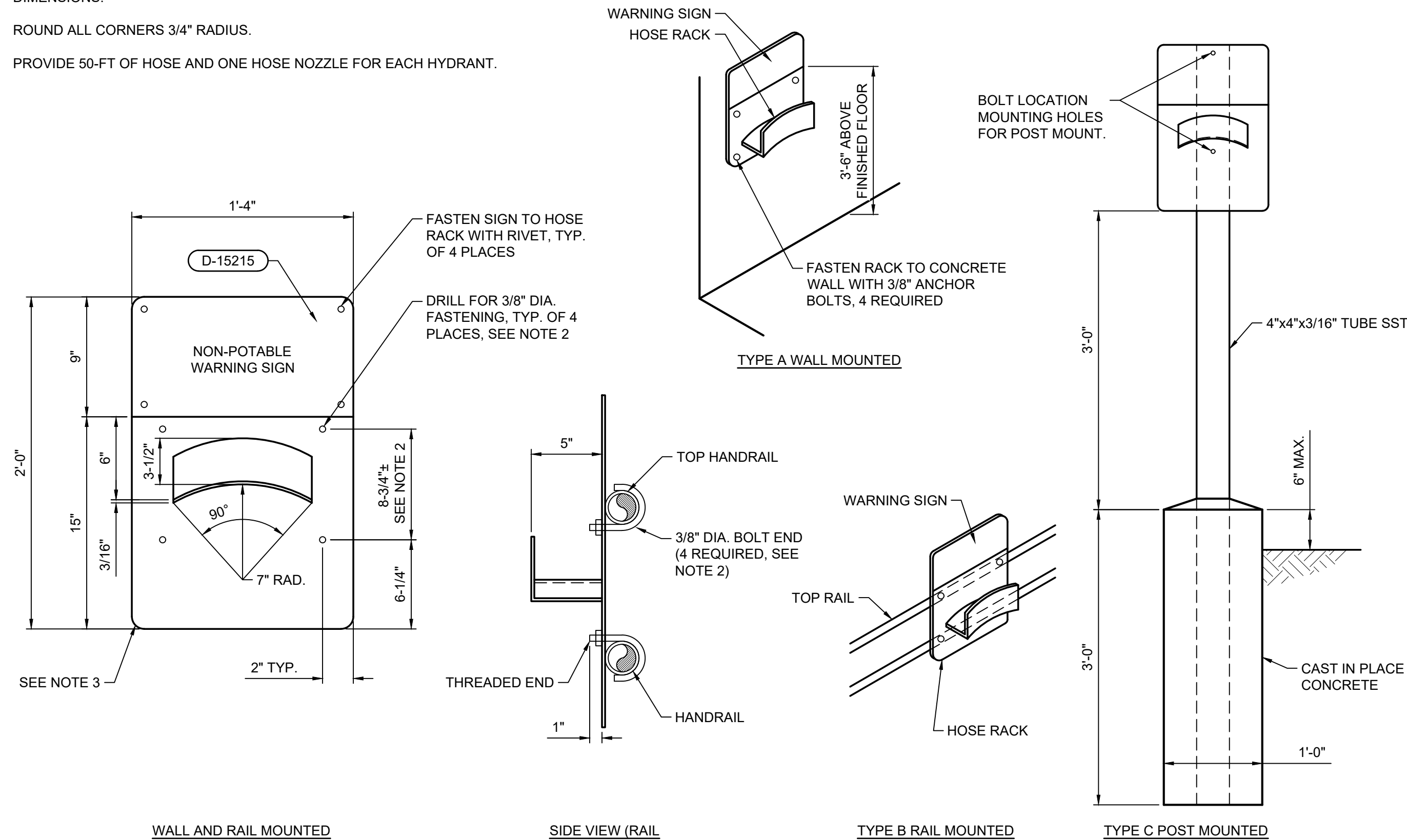


D-15100 TYPICAL PIPE SUPPORT

NOT TO SCALE

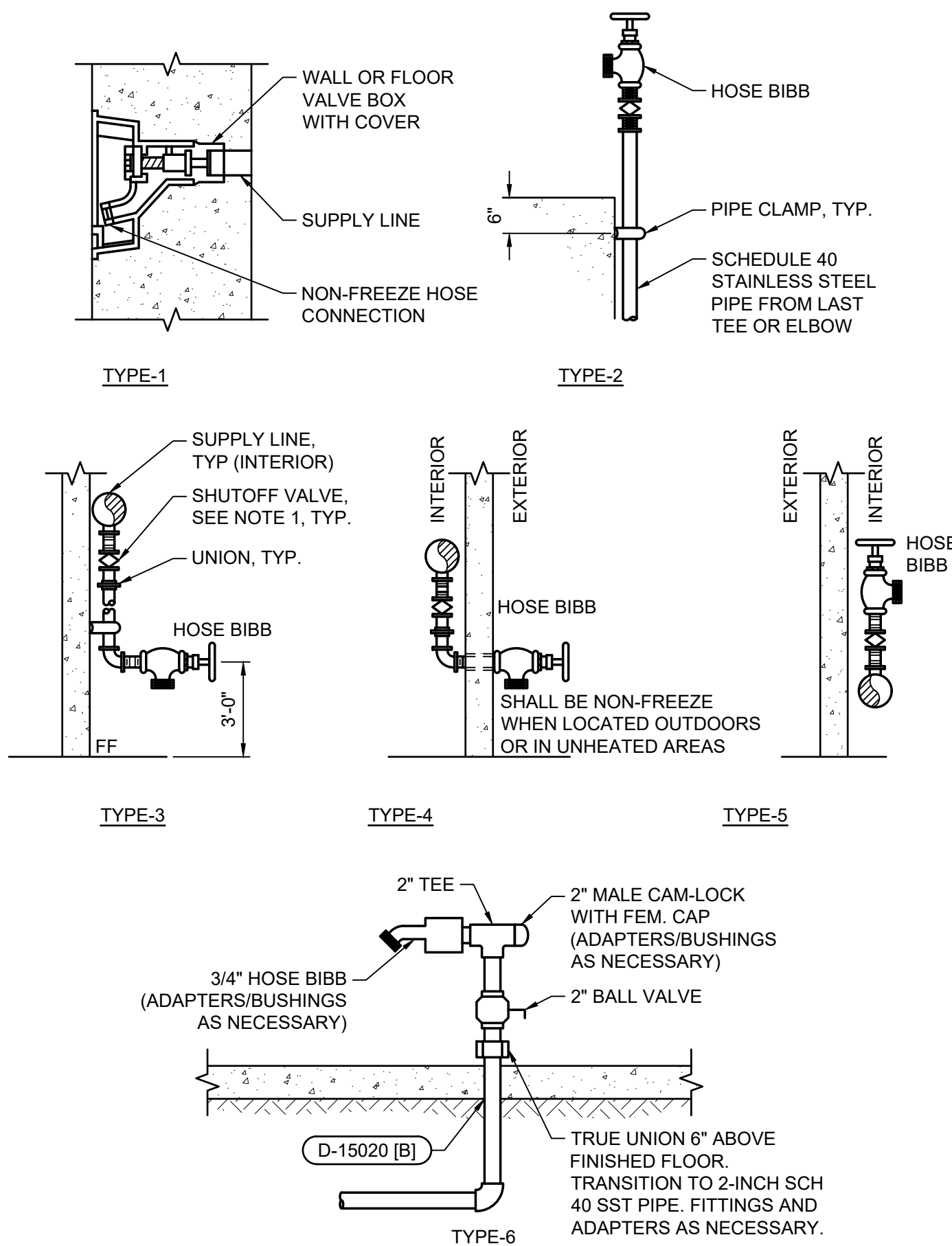
NOTES:

1. ALL HOSE RACKS AND MOUNTINGS SHALL BE WELDED CONSTRUCTION. MATERIAL SHALL BE 3/16" STAINLESS STEEL. ALL BOLTS AND NUTS SHALL BE STAINLESS STEEL.
2. CONTRACTOR TO COORDINATE BOLTS AND BOLT HOLE LOCATION WITH HANDRAIL DIMENSIONS.
3. ROUND ALL CORNERS 3/4" RADIUS.
4. PROVIDE 50-FT OF HOSE AND ONE HOSE NOZZLE FOR EACH HYDRANT.



D-15205 HOSE RACK

NOT TO SCALE



D-15210 INTERIOR HOSE BIBB MOUNTING ARRANGEMENTS

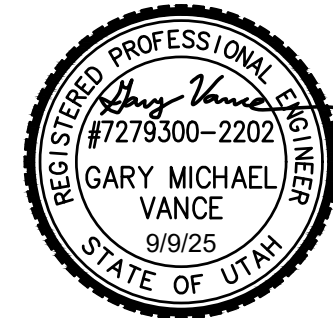
NOT TO SCALE

NOTES:

1. ALL HOSE BIBBS TO BE CONTROLLED BY INDIVIDUAL SHUTOFF VALVES (BALL OR PLUG VALVES).
2. PROVIDE FITTINGS AND ADAPTERS AS NECESSARY.
3. PROVIDE WARNING SIGN PER STANDARD DETAIL D-15215, WHEN USED FOR NON-POTABLE WATER. REFER TO STANDARD DETAIL.
4. PROVIDE A HOSE RACK AND HOSE PER STANDARD DETAIL D-15205.
5. SUBSTITUTE 1/2" GLOBE VALVE WITH HOSE ADAPTER FOR 1/2" HOSE BIBBS.
6. PROVIDE STAINLESS STEEL SUPPORTS AND FASTENERS AS NECESSARY.
7. HOSE BIBBS SHALL BE INSTALLED SO THAT ALL COMPONENTS ARE EASILY ACCESSIBLE AND HOSE CAN BE EASILY ATTACHED WITHOUT OBSTRUCTION.
8. THE CENTERLINE OF ALL HOSE BIBBS SHALL BE LOCATED 3'-0" ABOVE FINISHED FLOOR OR FINISHED GRADE, UNLESS NOTED OTHERWISE.

Subconsultant:

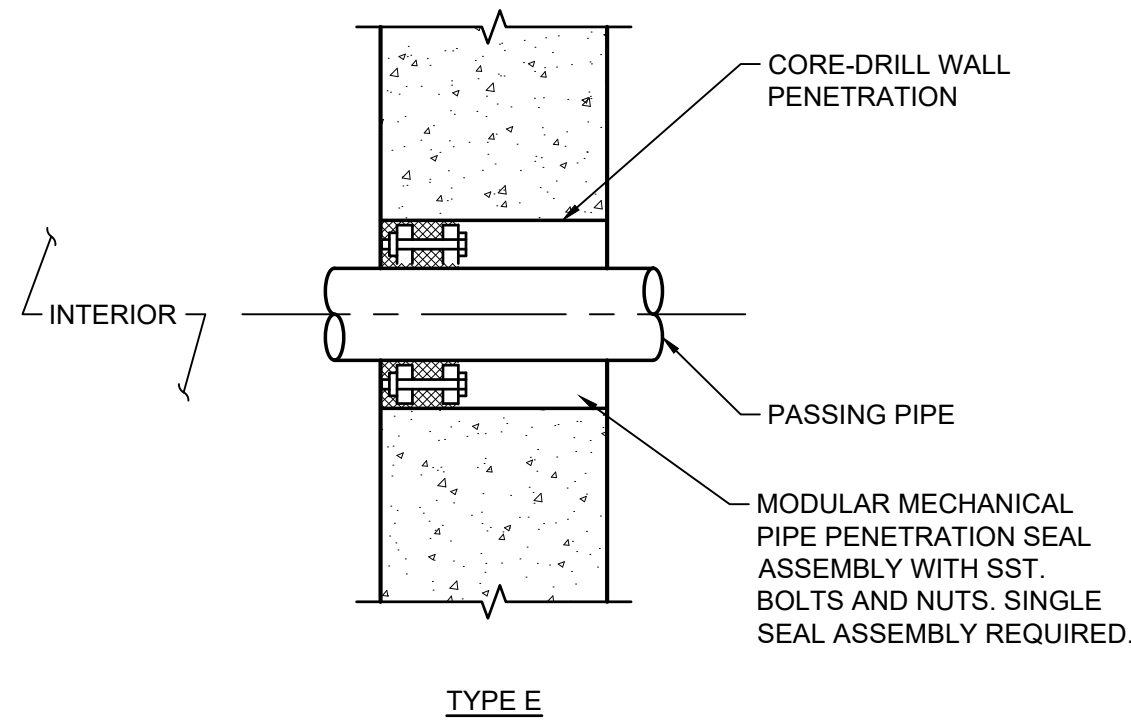
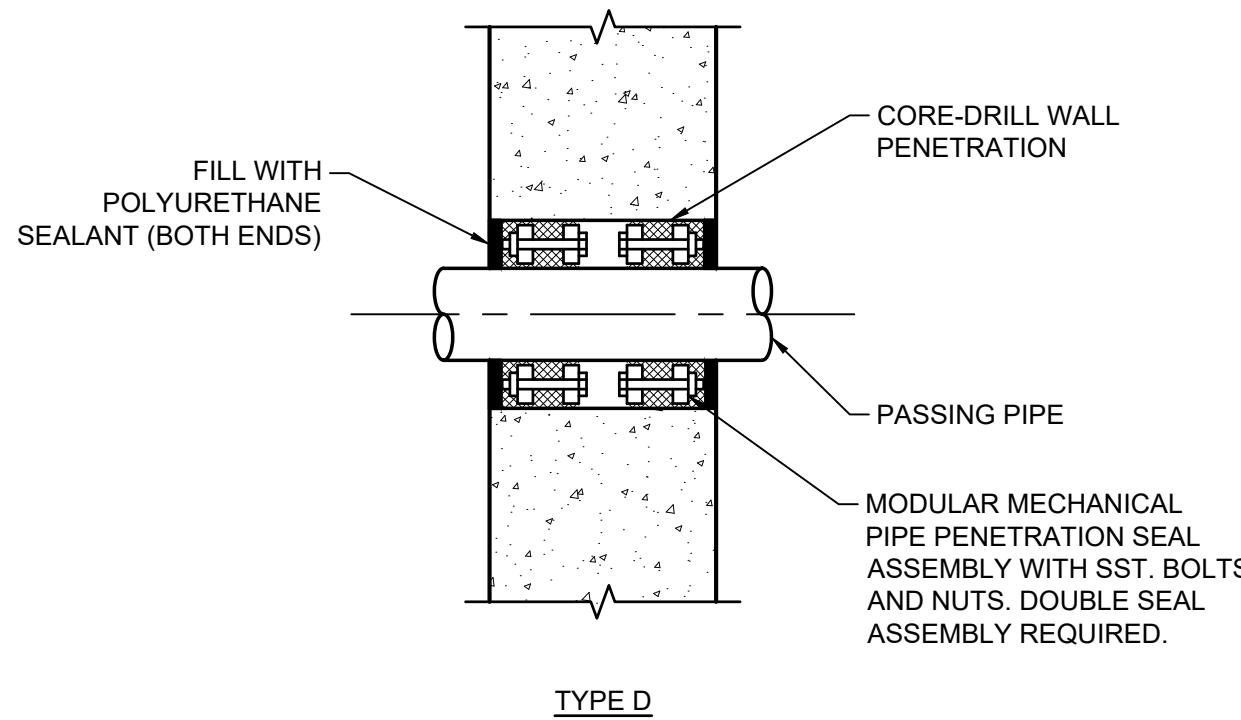
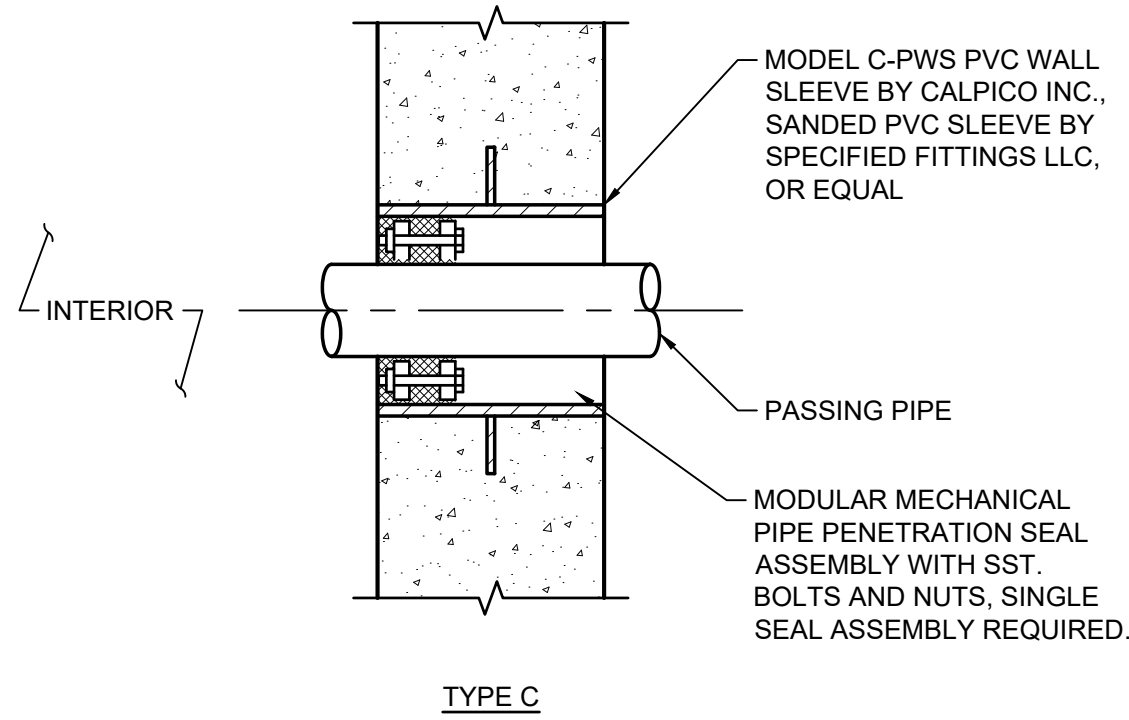
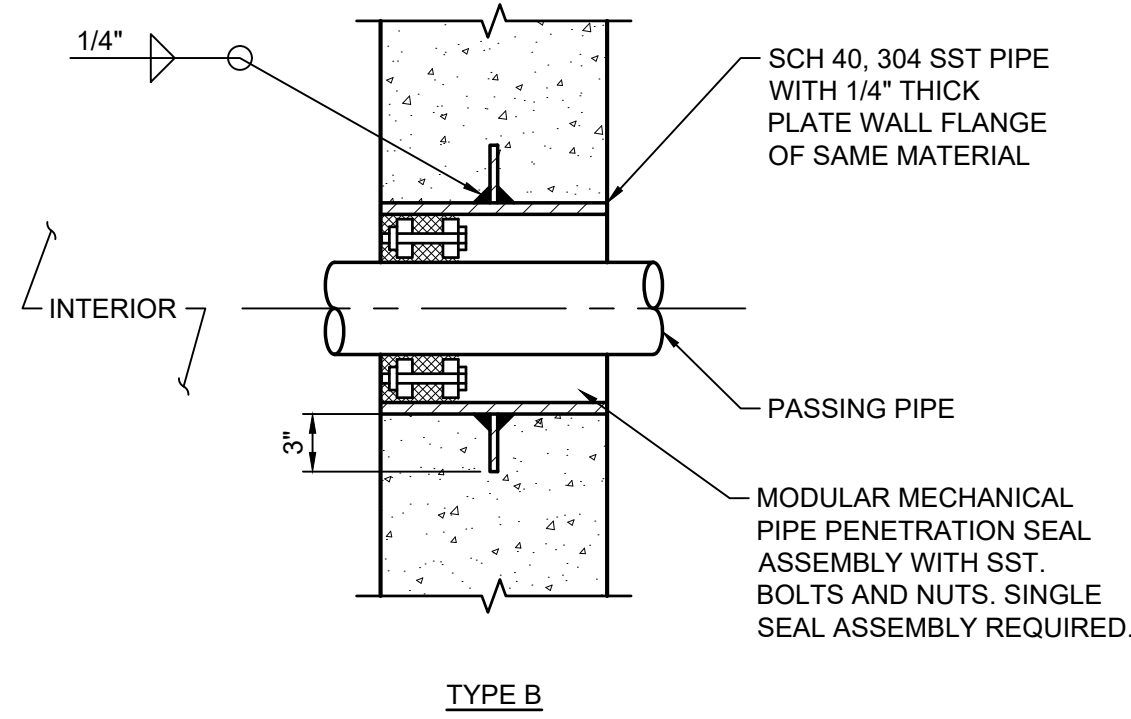
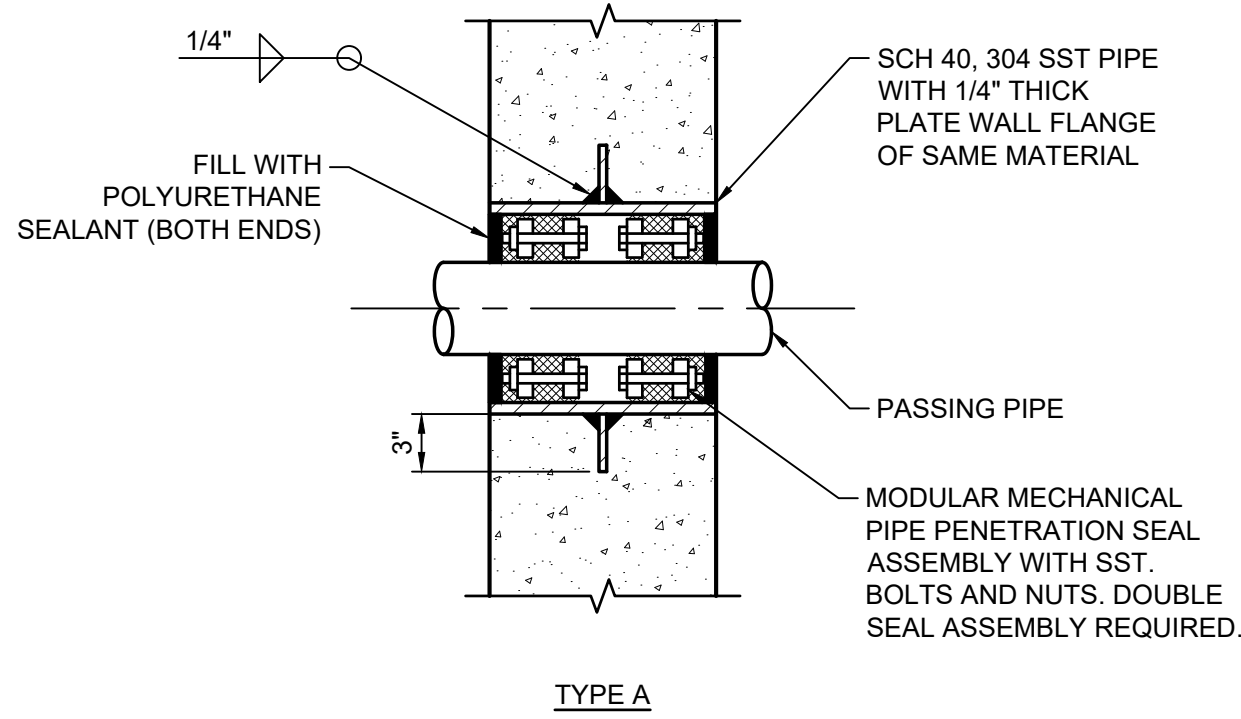
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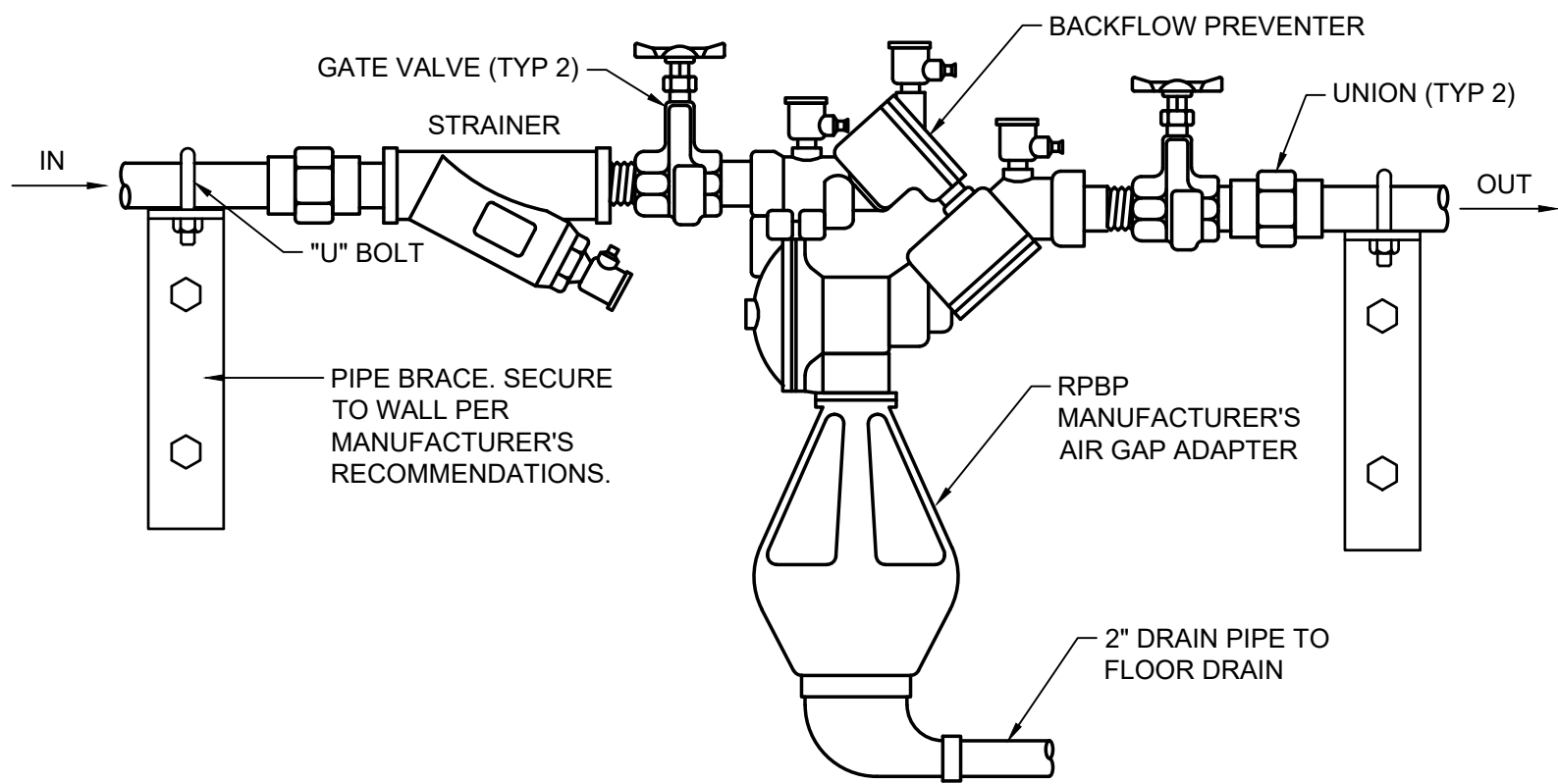
REUSE OF DRAWINGS		REVISION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Plot Date: 9/9/2025 1:20 PM Plotted By: Caleb Herring
Date Created: 12/2024 JUB.COM\CENTRAL\CLIENTS\UT\MT PLEASANT\PROJECTS\24-009 LAGOON IMPROVEMENTS\PROJECT DESIGN\CAD SHEET DESIGN (D)\DZ-901X.DWG



NOTES:

- REDUCED PRESSURE BACKFLOW DEVICE:
 - FEBCO LF825Y OR EQUAL, 2" AND SMALLER
 - ANSI/ASSE 1013, AWWA C506; BRONZE BODY WITH BRONZE INTERNAL PARTS AND STAINLESS STEEL SPRINGS; TWO INDEPENDENTLY OPERATING, SPRING LOADED CHECK VALVES; DIAPHRAGM TYPE DIFFERENTIAL PRESSURE RELIEF VALVE LOCATED BETWEEN CHECK VALVES; THIRD CHECK VALVE THAT OPENS UNDER BACK PRESSURE IN CASE OF DIAPHRAGM FAILURE; NON-THREADED VENT OUTLET; ASSEMBLED WITH TWO GATE VALVES, STRAINER, AND FOUR TEST COCKS.



D-15250

REDUCED PRESSURE BACKFLOW PREVENTER (≤2 INCH INTERIOR)
NOT TO SCALE

D-15005

SLEEVED PIPE PENETRATIONS
NOT TO SCALE



J-U-B ENGINEERS, INC.

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Salt Lake City, UT 84107
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www.jub.com

Subconsultant:

BID



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REVISION	NO.	DESCRIPTION	BY	DATE

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

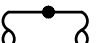
STANDARD DETAILS

FILE: DZ-901X
JUB PROJ. #: 93-24-009
DRAWN BY: BWP
DESIGN BY: BWP
CHECKED BY: GV

AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 6/18/2025

DRAWING:

DZ-902

SCHEMATICS & DIAGRAMS	
SYMBOL	DESCRIPTION
	TERMINAL LUG OR STRIP
	TRANSFORMER
	GROUND CONNECTION
	BOND TO METALLIC WATER PIPE
	BOND TO METALLIC WATER PIPE
	BOND TO BUILDING STEEL
	GENERATOR
LIGHTING	
SYMBOL	DESCRIPTION
	FLUORESCENT LIGHT FIXTURE, SEE FIXTURE SCHEDULE.
	EMERGENCY LIGHTING, SEE FIXTURE SCHEDULE.
F#	LIGHTING FIXTURE TYPE - SEE FIXTURE SCHEDULE.
ⓘ	SINGLE POLE SWITCH
ⓘ ₃	3 WAY SWITCH
ⓘ _m	WALL MOUNTED MOTION SWITCH - DUAL TECHNOLOGY
ⓘ _T	MOTOR RATED TOGGLE SWITCH
ⓘ _D	DIGITAL OVERRIDE SWITCH
ⓘ _P	SINGLE POLE SWITCH WITH PILOT LIGHT
	RECESSED CEILING MOUNTED SPEAKER BY OTHERS
	WALL MOUNTED MOTION SENSOR
	CEILING MOUNTED MOTION SENSOR
	CEILING-MOUNTED EXIT LIGHT, SEE FIXTURE SCHEDULE
	WALL-MOUNTED EXIT LIGHT, SEE FIXTURE SCHEDULE
	RECESSED CAN LIGHT, SEE FIXTURE SCHEDULE
CONTROLS & INSTRUMENTS	
SYMBOL	DESCRIPTION
	ANALYZER ELEMENT
	ANALYZING INDICATING TRANSMITTER
	COMBUSTIBLE GAS DETECTOR
	CONDUCTIVITY INDICATING TRANSMITTER
	FLOW ELEMENT
	FLOW INDICATING TRANSMITTER
	FLOW SWITCH
	LEVEL ELEMENT
	LEVEL INDICATING TRANSMITTER
	LEVEL SWITCH
	LEVEL TRANSMITTER
	MOISTURE ELEMENT
	MOTOR OPERATED VALVE OR GATE
	OVER TORQUE SWITCH
	PRESSURE INDICATING TRANSMITTER
	PRESSURE SWITCH
	SOLENOID OPERATED VALVE
	TEMPERATURE ELEMENT
	TEMPERATURE SWITCH
	TEMPERATURE TRANSMITTER
	LIMIT OR POSITION SWITCH

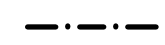
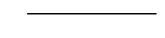
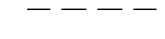
SCHEMATICS & DIAGRAMS	
SYMBOL	DESCRIPTION
	EMERGENCY STOP PUSH BUTTON (MAINTAINED)
	NORMALLY CLOSED PUSH BUTTON
	LOCKOUT STOP PUSH BUTTON
	NORMALLY OPEN PUSH BUTTON
	CONTACT - TIME DELAY T.C. = NORMALLY OPEN W/TIME DELAY CLOSING. I.C. - T.O. = NORMALLY OPEN WITH INSTANT CLOSING AND TIME DELAY OPENING. T.C.-T.O. = NORMALLY OPEN W/TIME DELAY CLOSING AND TIME DELAY OPENING AFTER DEENERGIZATION.
	CONTACT - TIME DELAY T.C. = NORMALLY CLOSED WITH TIME DELAY OPENING. T.O.-T.C. = NORMALLY CLOSED WITH TIME DELAY OPENING AND TIME DELAY CLOSING AFTER DEENERGIZATION. I.O.-T.C. = NORMALLY CLOSED WITH INSTANT OPENING AND TIME DELAY CLOSING.
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	LIMIT SWITCH
	PRESSURE SWITCH LOW
	PRESSURE SWITCH HIGH
	FLOW SWITCH
	LEVEL FLOAT SWITCH
	TEMPERATURE SWITCH
	DISCONNECT SWITCH SHOWN WITH RATING AND NUMBER OF POLES.
	FUSEHOLDER OR FUSEBLOCK
	CIRCUIT BREAKER OR MOTOR CIRCUIT PROTECTOR, SHOWN WITH TRIP RATING AND NUMBER OF POLES.
	3 POSITION SELECTOR SWITCH HAND - OFF - AUTO, POSITION LEGEND: X=CLOSED O=OPEN
	2 POSITION SELECTOR SWITCH, POSITION LEGEND: X=CLOSED O=OPEN
	TIMER RELAY CONTACT INSTANTANEOUS CLOSE TIME DELAY OPEN.
	TIMER RELAY CONTACT NORMALLY OPEN TIME DELAY CLOSE.
	FULL VOLTAGE NONREVERSING (FVNR) MOTOR STARTER OR CONTACTOR NUMBER DESIGNATES NEMA SIZE.
	RTU, PLC, OR RIO CONTACT
	UTILITY METER
	BEACON ALARM LIGHT. LETTER INDICATES COLOR: R=RED, A=AMBER, B=BLUE, G=GREEN
	PILOT LIGHT. LETTER INDICATES COLOR: R=RED, A=AMBER, B=BLUE, G=GREEN
	RELAY
	TIME DELAY RELAY
	ALARM RELAY
	ELAPSED TIME METER
	MOTOR STARTER OR CONTACTOR COIL
	ELECTRONIC OVERLOAD RELAY
	SOLID STATE REDUCED VOLTAGE STARTER
	VARIABLE FREQUENCY DRIVE
	HARMONIC FILTER
	CURRENT TRANSFORMER
	THERMAL OVERLOAD RELAY
	LTC CONNECTION
	MC CONNECTION
	MOTOR, X = HORSEPOWER
	DEVICE LOCATED AT REMOTE LOCATION.
	FUSE
	NODE OR CONNECTION

POWER																	
SYMBOL	DESCRIPTION																
	DUPLEX RECEPTACLE																
	DUPLEX RECEPTACLE, RECESSED FLOOR MOUNTED																
	DUPLEX RECEPTACLE, RECESSED CEILING MOUNTED																
	QUADRAPLEX RECEPTACLE																
	QUADRAPLEX RECEPTACLE, RECESSED FLOOR MOUNTED																
	QUADRAPLEX RECEPTACLE, RECESSED CEILING MOUNTED																
	ISOLATED GROUND TYPE DUPLEX RECEPTACLE																
	SPECIAL PURPOSE OR WELDING OUTLET.																
	GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE.																
	WEATHERPROOF CONVENIENCE OUTLET																
	FLUSH FLOOR DEVICE BOX																
	HOME RUN TO PANEL - INDICATING 2 #12, #12 GND, 3/4" CONDUIT OR AS SHOWN.																
	HOME RUN TO PANEL - INDICATING NUMBER OF CONDUCTORS - #12 OR AS SHOWN.																
	HOME RUN TO PANEL SHOWING BRANCH CIRCUIT NUMBERS.																
	HATCH MARKS IN CONDUIT RUN DENOTES NUMBER OF CONDUCTORS IN CONDUIT. LONG HATCH MARK DENOTES GROUND CONDUCTOR. SIZE OF CONDUCTORS TO BE #12 AWG CONDUCTORS IN CONDUIT UNLESS NOTED OTHERWISE. UNMARKED CONDUITS SHALL BE 3/4" WITH 3 #12.																
(E)	DENOTES EXISTING EQUIPMENT OR DEVICES																
	THERMOSTAT																
x	MOTOR, X = HORSE POWER																
	CEILING EXHAUST FAN																
	JUNCTION BOX																
	ELECTRICAL PANEL, POWER OR LIGHTING																
	METER BASE																
	COMBINATION MOTOR STARTER, SEE SPECS																
	DISCONNECT SWITCH. 																
+0'-0"	THIS NOTATION ADJACENT TO WALL OUTLET SYMBOL DENOTES MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER OF OUTLET DEVICE. IF NOT NOTED, THE MOUNTING HEIGHT TO CENTER SHALL BE AS DETAILED OR SPECIFIED.																
	MANUAL MOTOR STARTER																
	MANUAL MOTOR STARTER WITH OVERLOADS																
	DAMPENER MOTOR																
F#	LIGHTING FIXTURE TYPE - SEE FIXTURE SCHEDULE.																
	SINGLE POLE SWITCH																
	3 WAY SWITCH																
	4 WAY SWITCH																
	COMMUNICATION/DATA JACK. CONDUIT TO ABOVE CEILING, OWNER TO RUN WIRING.																
	DATA OR CATHODE RAY TUBE (CRT) TERMINAL OUTLET. 1'-6". (SINGLE, DOUBLE)																
	TELEPHONE JACK OUTLET. 1'-6". (SINGLE, DOUBLE, QUAD)																
FEEDER DESIGNATION LOGIC																	
<table><tr><td>G</td><td>I</td><td><table><tr><td>P: 2</td><td rowspan="3">5</td></tr><tr><td>N: 3</td></tr><tr><td>G: 4</td></tr></table></td></tr></table>	G	I	<table><tr><td>P: 2</td><td rowspan="3">5</td></tr><tr><td>N: 3</td></tr><tr><td>G: 4</td></tr></table>	P: 2	5	N: 3	G: 4	1. NUMBER OF CONDUITS 2. P: NUMBER - SIZE OF PHASE CONDUCTORS PER CONDUIT 3. N: NUMBER - SIZE OF NEUTRAL CONDUCTOR(S) PER CONDUIT 4. G: NUMBER- SIZE OF GROUND CONDUCTOR(S) PER CONDUIT 5. SIZE OF EACH CONDUIT IN INCHES 6. CONDUIT NUMBER									
G	I	<table><tr><td>P: 2</td><td rowspan="3">5</td></tr><tr><td>N: 3</td></tr><tr><td>G: 4</td></tr></table>	P: 2	5		N: 3	G: 4										
P: 2	5																
N: 3																	
G: 4																	
KEY TO CONDUCTOR SIZE & TYPE																	
<table><tr><td>14 = #14 AWG COPPER</td><td>6 = #6 AWG COPPER</td><td>1/0 = 1/0 AWG COPPER</td><td>250 = 250 KCMIL COPPER</td></tr><tr><td>12 = #12 AWG COPPER</td><td>4 = #4 AWG COPPER</td><td>2/0 = 2/0 AWG COPPER</td><td>350 = 350 KCMIL COPPER</td></tr><tr><td>10 = #10 AWG COPPER</td><td>2 = #2 AWG COPPER</td><td>3/0 = 3/0 AWG COPPER</td><td>500 = 500 KCMIL COPPER</td></tr><tr><td>8 = #8 AWG COPPER</td><td></td><td>4/0 = 4/0 AWG COPPER</td><td>750 = 750 KCMIL COPPER</td></tr></table>		14 = #14 AWG COPPER	6 = #6 AWG COPPER	1/0 = 1/0 AWG COPPER	250 = 250 KCMIL COPPER	12 = #12 AWG COPPER	4 = #4 AWG COPPER	2/0 = 2/0 AWG COPPER	350 = 350 KCMIL COPPER	10 = #10 AWG COPPER	2 = #2 AWG COPPER	3/0 = 3/0 AWG COPPER	500 = 500 KCMIL COPPER	8 = #8 AWG COPPER		4/0 = 4/0 AWG COPPER	750 = 750 KCMIL COPPER
14 = #14 AWG COPPER	6 = #6 AWG COPPER	1/0 = 1/0 AWG COPPER	250 = 250 KCMIL COPPER														
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ABBREVIATIONS

A	AMPERE	N	NEUTRAL
AFF	ABOVE FINISHED FLOOR	NEC	NATIONAL ELECTRICAL CODE
AI	ANALOG INPUT	NECA	NATIONAL ELECTRICAL CONTRACTOR ASSOCIATION
AIC	AMPS INTERRUPTING CAPACITY	NOTC	NORMALLY OPEN TIMED CLOSED
AFD	ADJUSTABLE FREQUENCY DRIVES	NPW	NON-POTABLE WATER
AO	ANALOG OUTPUT	NS	NITROGEN SUPPLY
AS	AIR SUPPLY	NTS	NOT TO SCALE
ATS	AUTOMATIC TRANSFER SWITCH	NTU	TURBIDITY
BC	BYPASS CONTACTOR	O.C.	ON CENTER
C	CONDUIT	OF	OVERFLOW
CB	CIRCUIT BREAKER	OIT	OPERATOR INTERFACE TERMINAL
CL2	CHLORINE	OL	OVERLOAD
CON	CONTACTOR	OO	ON/OFF (MAINTAINED)
CPM	CUSTOMER POWER MONITORING	OR	OFF-REMOTE
CPT	CONTROL POWER TRANSFORMER	P	PHASE OR POLE
CU	COPPER, BARE	PB	PULL BOX
CV	CONTROL VALVE	PCP	PROCESS CONTROL PANEL
DCS	DISTRIBUTED CONTROL SYSTEM	PFR	PHASIS/POWER FAILURE RELAY
DI	DISCRETE INPUT	PI	PULSE INPUT
DO	DISCRETE OUTPUT	PLC	PROGRAMMABLE LOGIC CONTROLLER
DV/DIT	DIFFERENTIAL VOLTAGE/TIME	PLI	PLANT INFLUENT
DWG	DRAWING	PKG	PACKAGE
ELR	END OF LINE RESISTOR	PMP	PUMP
ETM	ELAPSED TIME METER	PNL	PANEL
EOL	ELECTRONIC OVERLOAD	PO	PULSE OUTPUT
ES	EMERGENCY STOP	PPG	POUNDS PER GALLON
EXIST	EXISTING	PPH	POUNDS PER HOUR
FA	FOUL AIR	PPM	PARTS PER MILLION
FC	FAIL CLOSED	PR	PAIR
FE	FLOW ELEMENT	PRE5	PRESSURE
FLA	FULL LOAD AMPS	PS	PRESSURE SWITCH
FS	FLOW SWITCH	PSH	PRESSURE SWITCH, HIGH
FVNR	FULL VOLTAGE NON-REVERSING	PSI	POUNDS PER SQUARE INCH
FW	FINISHED WATER	PV	PROCESS VARIABLE
G	GROUND	RAS	RETURN ACTIVATED SLUDGE
GES	GROUNDING ELECTRODE SYSTEM	RW	RAW WATER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	RCL	REMOTE I/O
GFP	GROUND FAULT PROTECTION	RF	RADIO FREQUENCY
GND	GROUND	RIO	REMOTE INPUT/OUTPUT
GPD	GALLONS PER DAY	RS	RAW SEWAGE
GPH	GALLONS PER HOUR	RSP	RAW SEWAGE PUMP
GPM	GALLONS PER MINUTE	RST	RESET
GR5	GALVANIZED RIGID STEEL	RTD	RESISTANCE TEMPERATURE DETECTOR
H, HI	HIGH	RTU	REMOTE TELEMETRY UNIT
H2S	HYDROGEN SULFIDE	RWT	REFLECTED WAVE TRAP
HMI	HUMAN MACHINE INTERFACE	SEQ	SERVICE ENTRANCE EQUIPMENT
HOA	HAND-OFF-AUTO	SES	SERVICE ENTRANCE SECTION
HOR	HAND-OFF-REMOTE	SLC	SINGLE LOOP CONTROLLER
I	CURRENT	SLOS	START-LOCK-OFF-STOP
IC	INSTRUMENTATION CABLE	SMC	SUBMERSIBLE MANUFACTURER CABLE
ICR	INTERMITTENT CYCLE REACTOR	SO2	SULFUR DIOXIDE
IO	INPUT/OUTPUT	SP	SET POINT
ISC	SHORT CIRCUIT CURRENT	SPC	SPARE CONDUIT
ISR	INTRINSICALLY SAFE RELAY	SPR	SPARE
JB	JUNCTION BOX	SS	START/STOP
J, LO	LOW	SSS	SOLID STATE STARTER (SOFT START)
LAN	LOCAL AREA NETWORK	ST	SHUNT TRIP
LC	LOOP CONTROLLER	TC	TELEPHONE CABLE
LCL	LEVEL CONTROL, LOW	TDOE	TIME DELAY ON ENERGIZE
LCP	LOCAL CONTROL PANEL	TS	TEMPERATURE SWITCH
LOS	LOCK-OUT-STOP	TSP	TWISTED SHIELDED PAIR
LR	LOCAL/REMOTE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
LS	LEVEL SWITCH	TYP	TYPICAL
LTC	LIQUID TIGHT FLEXIBLE CONDUIT	UG	UNDERGROUND
M	MOTOR	V	VOLT
MA	MANUAL/AUTO, MILLIAMP	VFD	VARIABLE FREQUENCY DRIVE
MAX	MAXIMUM	W	WATT, WIRE
MC	MANUFACTURER'S CABLE	WAS	WASTE ACTIVATED SLUDGE
MCB	MAIN CIRCUIT BREAKER	WP	WEATHERPROOF
MCC	MOTOR CONTROL CENTER	XFMR	TRANSFORMER
MCP	MOTOR CIRCUIT PROTECTOR	XMTR	TRANSMITTER
MFR(S)	MANUFACTURER(S)	ZS	POSITION SWITCH
MGD	MILLION GALLONS PER DAY		
MGL	MILLIGRAMS PER LITER		
MH	MANHOLE		
MIN	MINIMUM		
ML	MIXED LIQUOR		
MOV	MOTOR OPERATED VALVE		
MTU	MASTER TELEMETRY UNIT		

ELECTRICAL LINETYPES

SYMBOL	DESCRIPTION
	EXPOSED CONDUIT
	UNDERGROUND CONDUIT
	BARE COPPER GROUND CONDUCTOR
	EXISTING EXPOSED CONDUIT
	EXISTING UNDERGROUND CONDUIT
	CAPPED UNDERGROUND CONDUIT OR STUBUP
	NEW ELECTRICAL EQUIPMENT
	DETAIL VIEW OR MATCHING
	FUTURE
	CONDUIT DROP
	CONDUIT RISE

[illegible]

POWER CONDUIT SCHEDULE

P001		WIRE AND CONDUIT BY UTILITY		
P002	1	WIRE BY UTILITY		3"
P100	1	P:	3 - #1	1-1/2"
		N:	1 - #1	
		G:	NONE	
P101	1	P:	3 - #1	1-1/2"
		N:	1 - #1	
		G:	1 - #8	
P102	1	P:	3 - #12	3/4"
		N:	NONE	
		G:	1 - #12	
P103	1	P:	3 - #10	3/4"
		N:	NONE	
		G:	1 - #10	
P104	1	P:	3 - #6	1"
		N:	1 - #6	
		G:	1 - #10	
P105	1	P:	2 - #12	3/4"
		N:	NONE	
		G:	1 - #12	

CONTROL CONDUIT SCHEDULE

C002	I	2 - #16 TSP	3/4"
		G: 1 - #14	
C102	I	4 - #14	3/4"
		G: 1 - #14	
C103	I	6 - #14	3/4"
		G: 1 - #14	
C108	I	16 - #14	1"
		G: 1 - #14	
C201	I	MANUFACTURERS CABLE	1"
C202	I	ANTENNA CABLE	1"

LIGHTING FIXTURE SCHEDULE

LIGHTING FIXTURE SCHEDULE										
TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	SOURCE			ELECTRICAL		NOTES	
				LUMENS	CCT	CRI	WATTS	VOLTS		
F1	LITHONIA	FEM L48 10000LM IMAFD WD MVOLT G210 50K 80CRI	GASKETED INDUSTRIAL, 48" LINEAR, ACRYLIC, DEEP FROSTED LENS, WIDE DISTRIBUTION, 0-10V DIMMING	10000	5000K	80	62	120-277	1.3	
F2	LITHONIA	WST LED P1 30K VW 120 PE DDBXD	LED WALL PACK, DIE CAST ALUMINUM HOUSING, GLASS LENS, WIDE DISTRIBUTION, PHOTOELECTRIC CELL BUTTON TYPE, DARK BRONZE FINISH.	1500	3000K	70	12	120	2.4	
F3	APPLETON RED SKY LITELUME HIGHSLED BEGHELLI VERSALED	CJLCL32CBU RND2-35-120-277-5K-120-H2-CG-GRY-PND LL-JJEP-40-50-UNV-GY HMAR-4-A-C-P-ND-SY-FG-OPCM HZCAS150 HT HO DIM WT50 120-277V HLVP3-F-CSM 40L QT 50K 120D CGWG	EXPLOSION PROOF, HAZARDOUS LOCATION. CEILING MOUNT, 3/4" NPT HUB.	5150-5600	5000K	70	20-35	120-277	1	
KEYED NOTES:										
1- MOUNT AT 12'-2" A.F.F. UNLESS OTHERWISE NOTED; FIELD COORDINATE EXACT LOCATION.										
2- WALL MOUNT AT 8'-4" A.F.F. UNLESS OTHERWISE NOTED; SEE ARCHITECTURAL DRAWINGS.										
3- FIXTURE BY LITHONIA, METALUX, DAY-BRITE, ORACLE, COLUMBIA, HIGHSLED, HE WILLIAMS OR BEGHELLI. EQUAL DISTRIBUTION, LUMENS, AND SPECIFICATIONS.										
4- FIXTURE BY LITHONIA, MCGRAW-EDISON, GARDCO, LSI, BEACON, LUMINOS GLOBAL, LUMARK OR RAYON. EQUAL DISTRIBUTION, LUMENS, AND SPECIFICATIONS.										

PANEL H

PANEL H																		
								BUS AMPS:		125								
VOLTAGE:								480/277 V 3Ø 4W		MLO								
ENCLOSURE:								NEMA 1										
CIRCUIT BREAKER TYPE:								BOLT-ON		MOUNTING:		SURFACE						
INTERRUPTING CAPACITY:								10 KAIC		COVER TYPE:		HINGED COVER						
								LOCATION:		AS INDICATED								
BRANCH CIRCUIT BREAKER				CONNECTION		DESCRIPTION		PHASE			DESCRIPTION		CONNECTION		BRANCH CIRCUIT BREAKER			
NOTES	#	AMP	P.	LOAD (VA)	A								B	C	LOAD (VA)	P.	AMP	#
	1	20	3	2161	INFLUENT SCREEN	4422.6			TRANSFORMER TL	2262	3	25	2					
	3	--	--	2161	-----		3254.6		-----	1094	--	--	4					
	5	--	--	2161	-----			4086.6	-----	1926	--	--	6					
	7	25	3	5000	HEATER UH-1	10000			HEATER UH-2	5000	3	25	8					
	9	--	--	5000	-----		10000		-----	5000	--	--	10					
	11	--	--	5000	-----			10000	-----	5000	--	--	12					
	13	20	3		SPARE	0			SPARE		1	20	14					
	15	--	--		-----		0		SPARE		1	20	16					
	17	--	--		-----			0	SPARE		1	20	18					
	19	20	3		SPARE	0			SPARE		1	20	20					
	21	--	--		-----		0		SPARE		1	20	22					
	23	--	--		-----			0	SPARE		1	20	24					
					PHASE SUBTOTALS (VA)		14423	13255	14087									
					PHASE TOTALS (KVA)		14.4	13.3	14.1									
					PHASE TOTALS @ 277V (AMPS)		52.1	47.9	50.9									
NOTES:																		
GEN	PROVIDE WITH INTEGRAL SURGE PROTECTION																	
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2																		
3																		

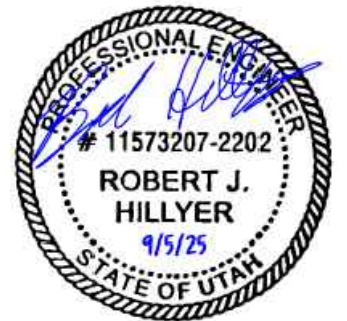
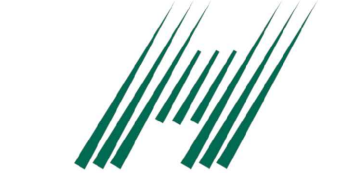
PANEL L

PANEL L																					
								BUS AMPS:		125											
VOLTAGE:								208/120 V 3Ø 4W		MAIN BREAKER AMPS		50									
ENCLOSURE:								NEMA 1													
CIRCUIT BREAKER TYPE:								BOLT-ON		MOUNTING:		SURFACE									
INTERRUPTING CAPACITY:								10 KAIC		COVER TYPE:		HINGED COVER									
									LOCATION:		AS INDICATED										
BRANCH CIRCUIT BREAKER					CONNECTION		DESCRIPTION			PHASE			DESCRIPTION			CONNECTION		BRANCH CIRCUIT BREAKER			
NOTES		#	AMP	P.	LOAD (VA)	A										B	C	LOAD (VA)	P.	AMP	#
		1	20	1	150	RTU			1070			SPLIT HEAT PUMP			920	2	25	2			
		3	20	1	150	FLUME FLOW LEVEL TRANSMITTER				1070		-----			920	--	--	4			
		5	20	1	210	INFLUENT SCREEN RM LIGHTING					1386	ROOFTOP EXHAUST FAN REF-1			1176	1	20	6			
		7	20	1	124	ELEC RM LIGHTING			652			DOSING PUMP			528	1	20	8			
		9	20	1	24	EXTERIOR LIGHTING				24		SPARE				1	20	10			
		11	20	1	540	RECEPTACLES					540	SPARE				1	20	12			
		13	20	1	540	RECEPTACLES			540			SPARE				1	20	14			
		15	20	1		SPARE				0		SPARE				1	20	16			
		17	20	1		SPARE					0	SPARE				1	20	18			
		19	20	1		SPARE			0			SPARE				1	20	20			
		21	20	1		SPARE				0		SPARE				1	20	22			
		23	20	1		SPARE					0	SPARE				1	20	24			
					PHASE SUBTOTALS (VA)			2262	1094	1926											
					PHASE TOTALS (KVA)			2.3	1.1	1.9											
					PHASE TOTALS @ 120V (AMPS)			18.9	9.1	16.1											
NOTES:																					
GEN	PROVIDE WITH INTEGRAL SURGE PROTECTION																				
1																					
2																					
3																					



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Subconsultant:



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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

ELECTRICAL (E)
NEW HEADWORKS BUILDING
ELECTRICAL SYMBOL LEGEND

FILE :

SUB PROJ. # : #####

DRAWN BY: KJB

DESIGN BY: RJK

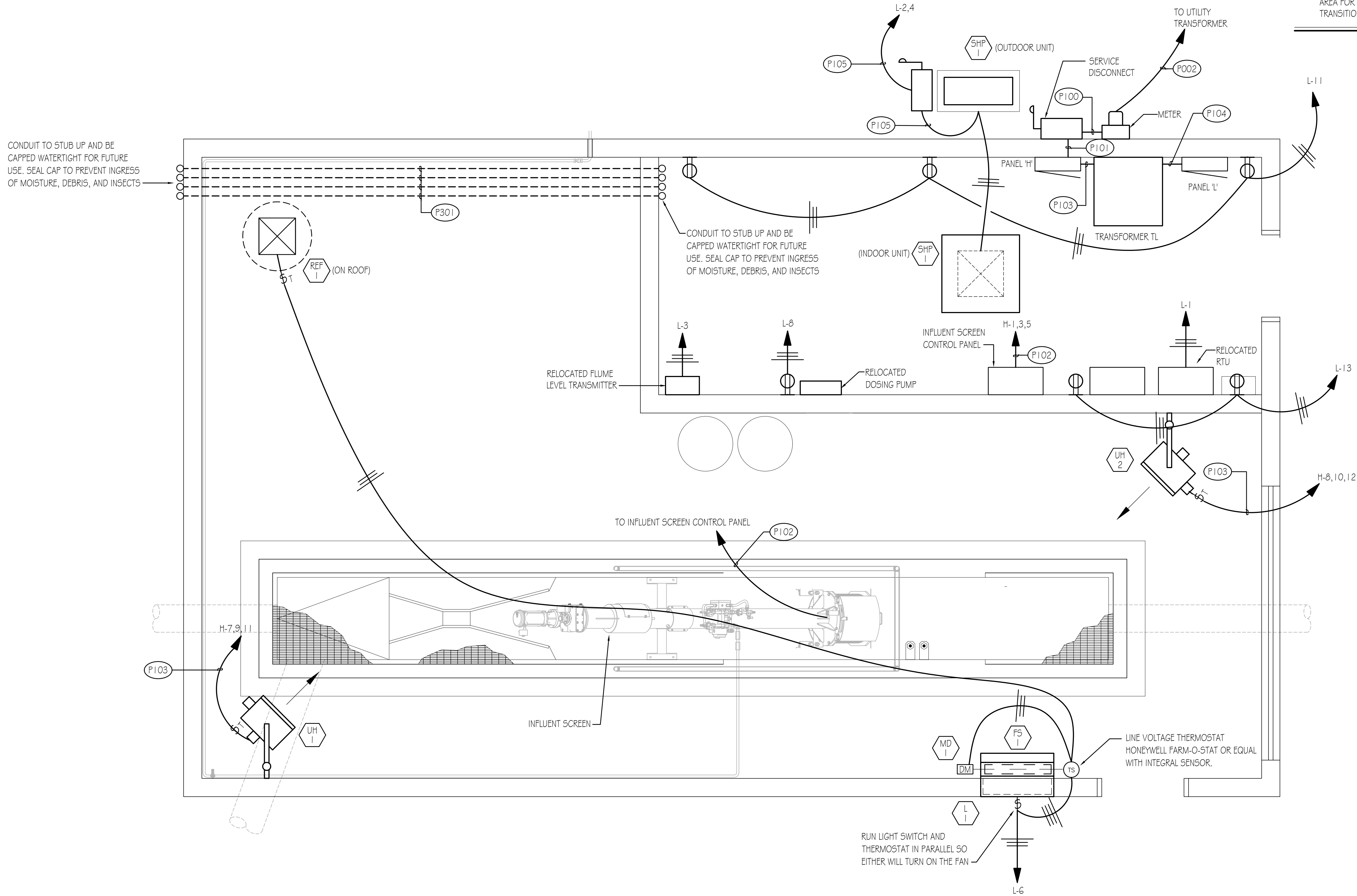
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ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/20/2025

LAST UPDATED: 8/20/2025

DRAWING

E-002



GENERAL NOTE:

- A. PROVIDE EXPLOSION PROOF SEAL OFF WITHIN CLASSIFIED AREA FOR EACH EQUIPMENT CONDUIT BEFORE TRANSITIONING TO UNCLASSIFIED AREA.

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	NO.	DESCRIPTION	NO.	BY	DATE	

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY
ELECTRICAL (E)
NEW HEADWORKS BUILDING
POWER PLAN

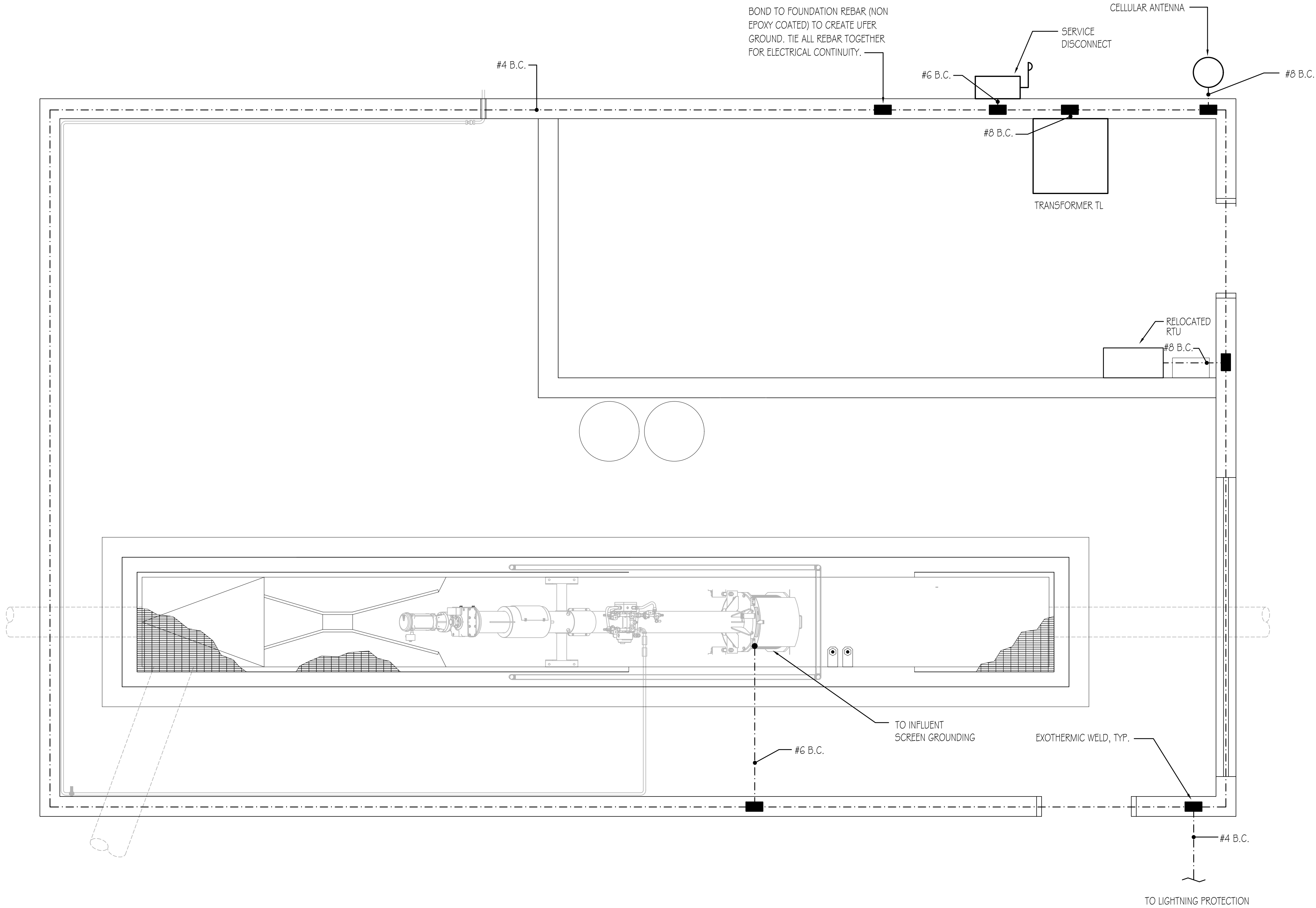
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DESIGN BY: RJK
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INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025

DRAWING:

E-110



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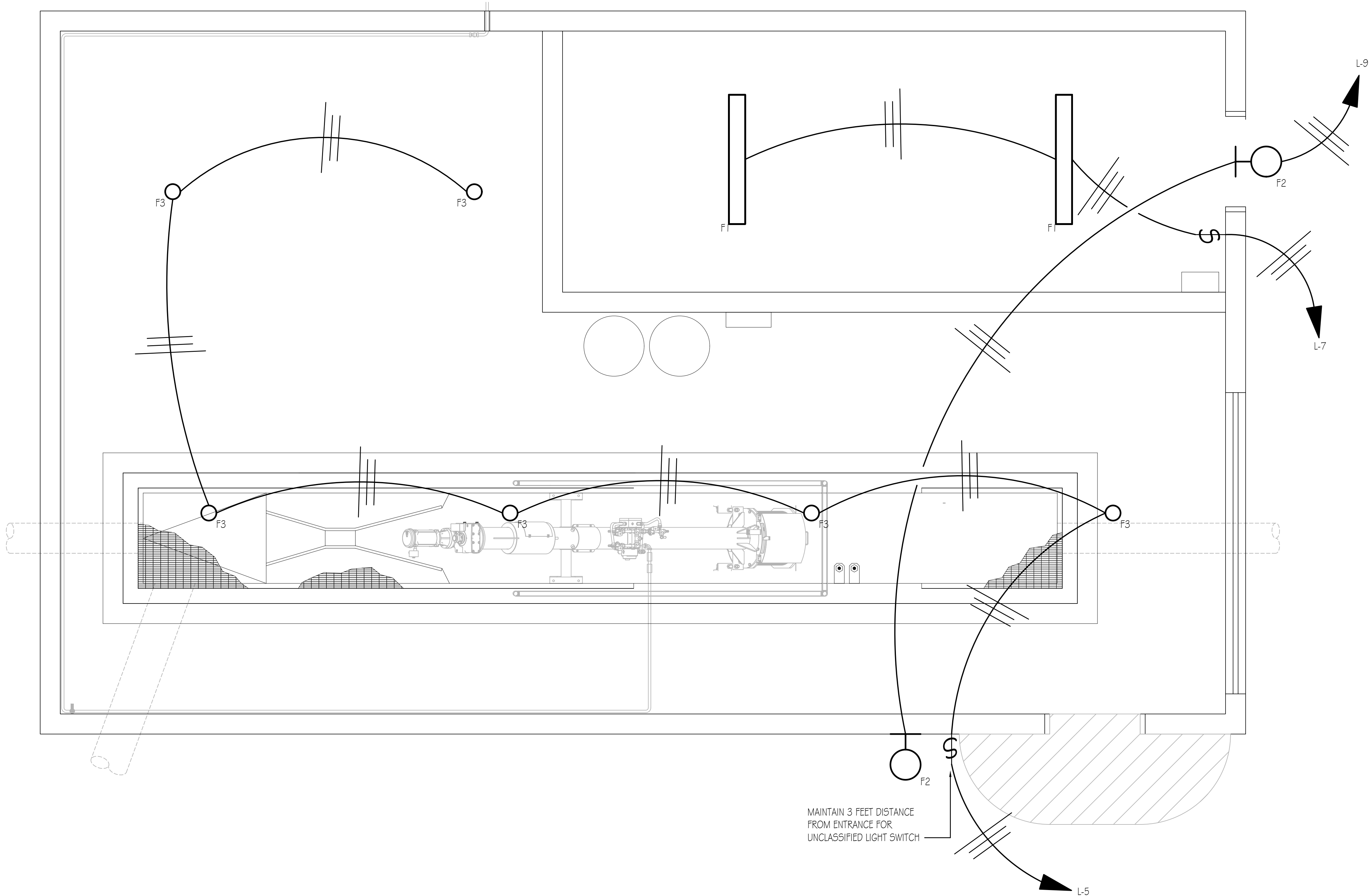


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		NO.	DESCRIPTION		
		-	-	-	-
		-	-	-	-

LAGOON IMPROVEMENTS PROJECT MT PLEASANT CITY	
ELECTRICAL (E) NEW HEADWORKS BUILDING GROUNDING PLAN	

FILE: .
JUB PROJ.# : #####
DRAWN BY: KJB
DESIGN BY: RJK
CHECKED BY: RJK
ONE INCH AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025
DRAWING: E-112

I:\25035\01-DWG\ELEC\SHEET\25035-E-113.dwg, 9/5/2025 8:57:28 AM, kbrown



BUILDING LIGHTING PLAN
E-113 SCALE: 1/2"=1'-0"
2 0 5

GENERAL NOTE:

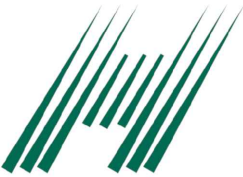
- A. PROVIDE EXPLOSION PROOF SEAL OFF WITHIN CLASSIFIED AREA FOR EACH EQUIPMENT CONDUIT BEFORE TRANSITIONING TO UNCLASSIFIED AREA.



J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
392 E. Winchester St., Suite 300
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Subconsultant:



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NO.	REVISION	DESCRIPTION	BY	DATE
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-	-	-	-	-

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

ELECTRICAL (E)
NEW HEADWORKS BUILDING
LIGHTING PLAN

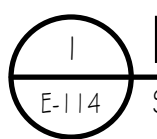
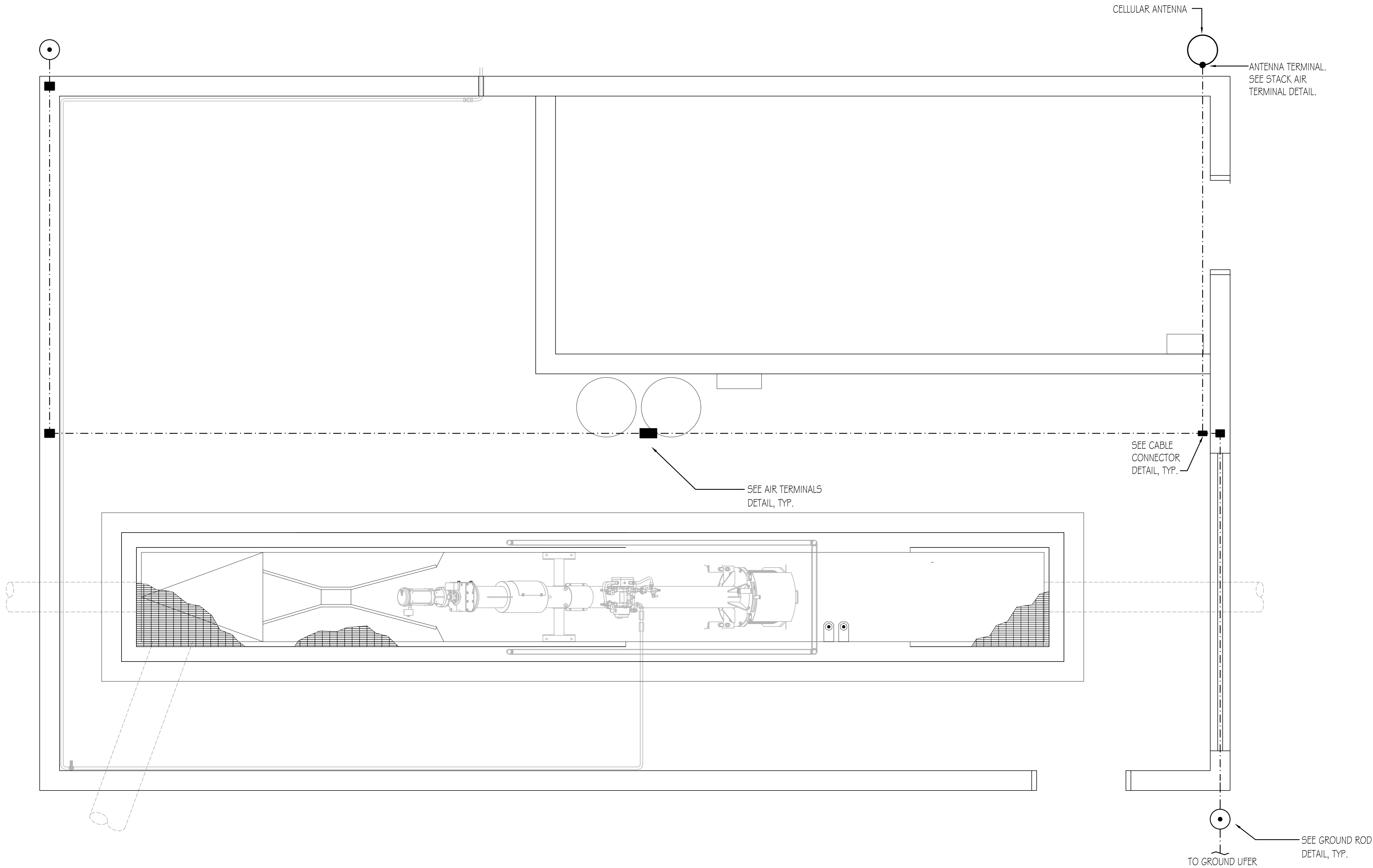
FILE :
JUB PROJ.# : #####
DRAWN BY: KJB
DESIGN BY: RJK
CHECKED BY: RJK

ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025

DRAWING:

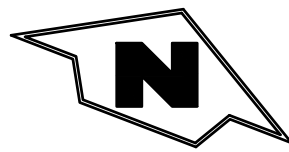
E-113

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BUILDING LIGHTNING PROTECTION PLAN

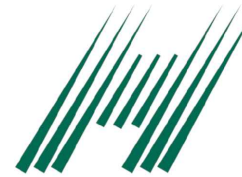
SCALE: 1/2"=1'-0"



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NO.	REVISION		DESCRIPTION		BY	DATE
1						
2						
3						
4						
5						

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

ELECTRICAL (E)
NEW HEADWORKS BUILDING
LIGHTNING PROTECTION PLAN

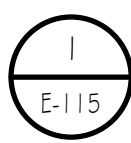
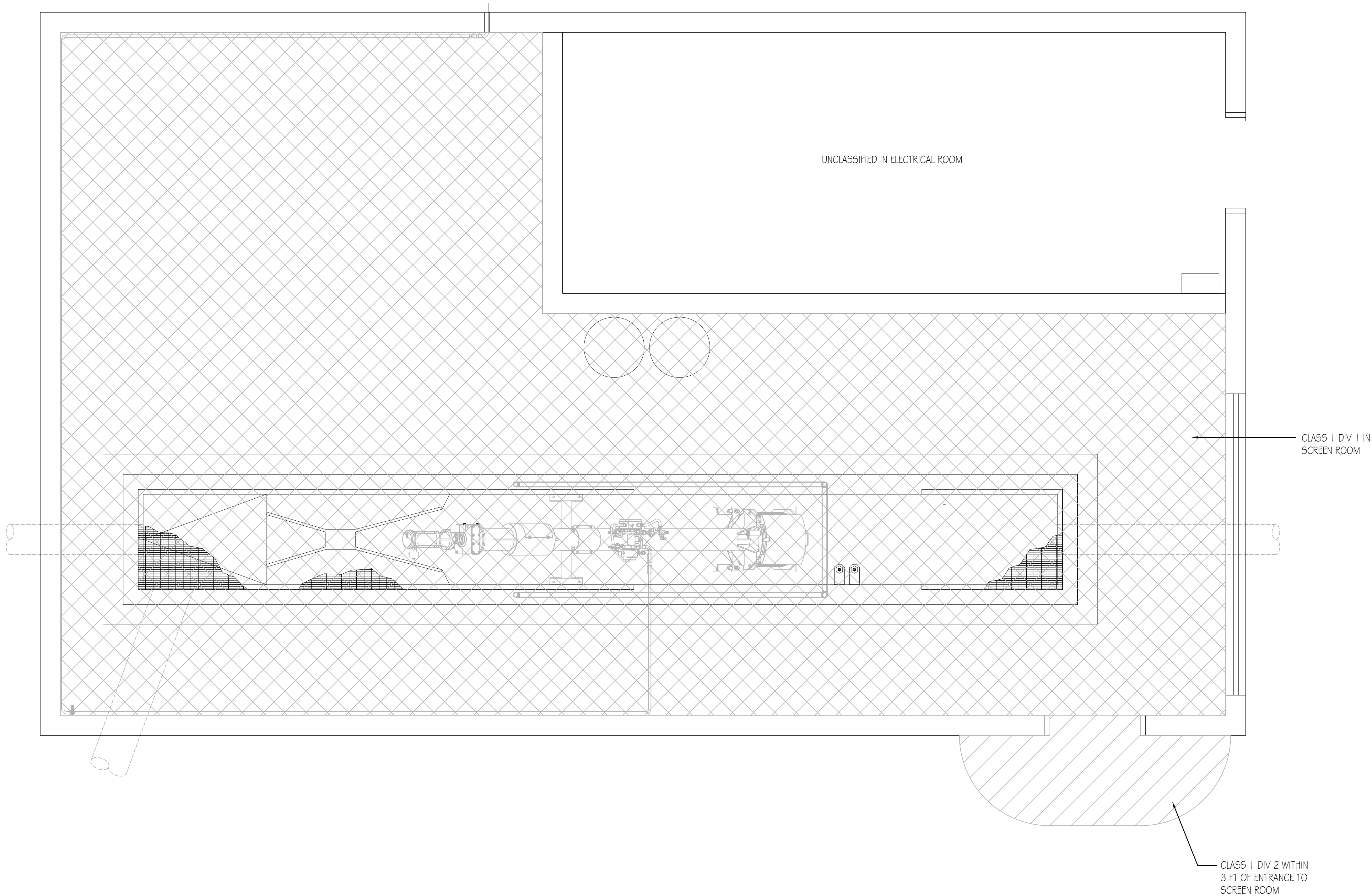
FILE :
JUB PROJ.# : #####
DRAWN BY: KJB
DESIGN BY: RJK
CHECKED BY: RJK

ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025

DRAWING:

E-114

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BUILDING CLASSIFICATION PLAN

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



GENERAL NOTE:

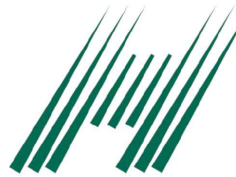
- A. PROVIDE EXPLOSION PROOF SEAL OFF WITHIN CLASSIFIED AREA FOR EACH EQUIPMENT CONDUIT BEFORE TRANSITIONING TO UNCLASSIFIED AREA.



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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

ELECTRICAL (E)
NEW HEADWORKS BUILDING
CLASSIFICATION PLAN

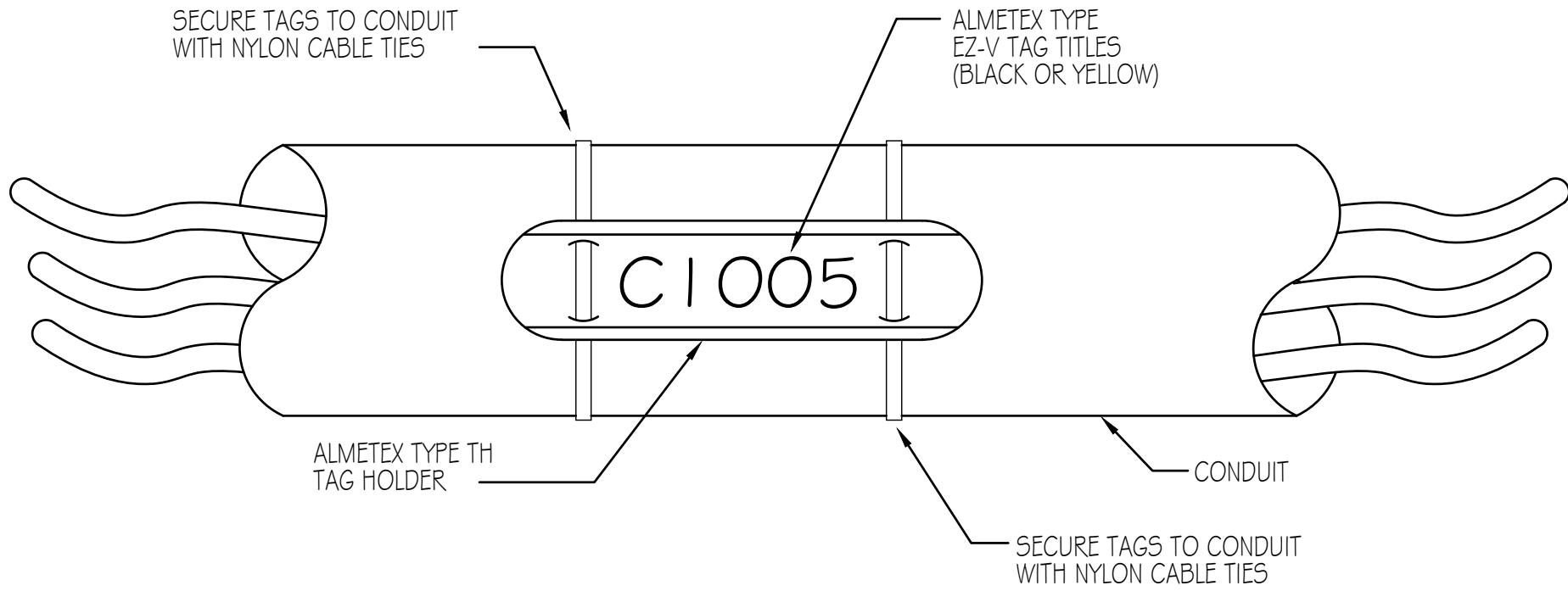
FILE: .
JUB PROJ. # : #####
DRAWN BY: KJB
DESIGN BY: RJK
CHECKED BY: RJK

ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025

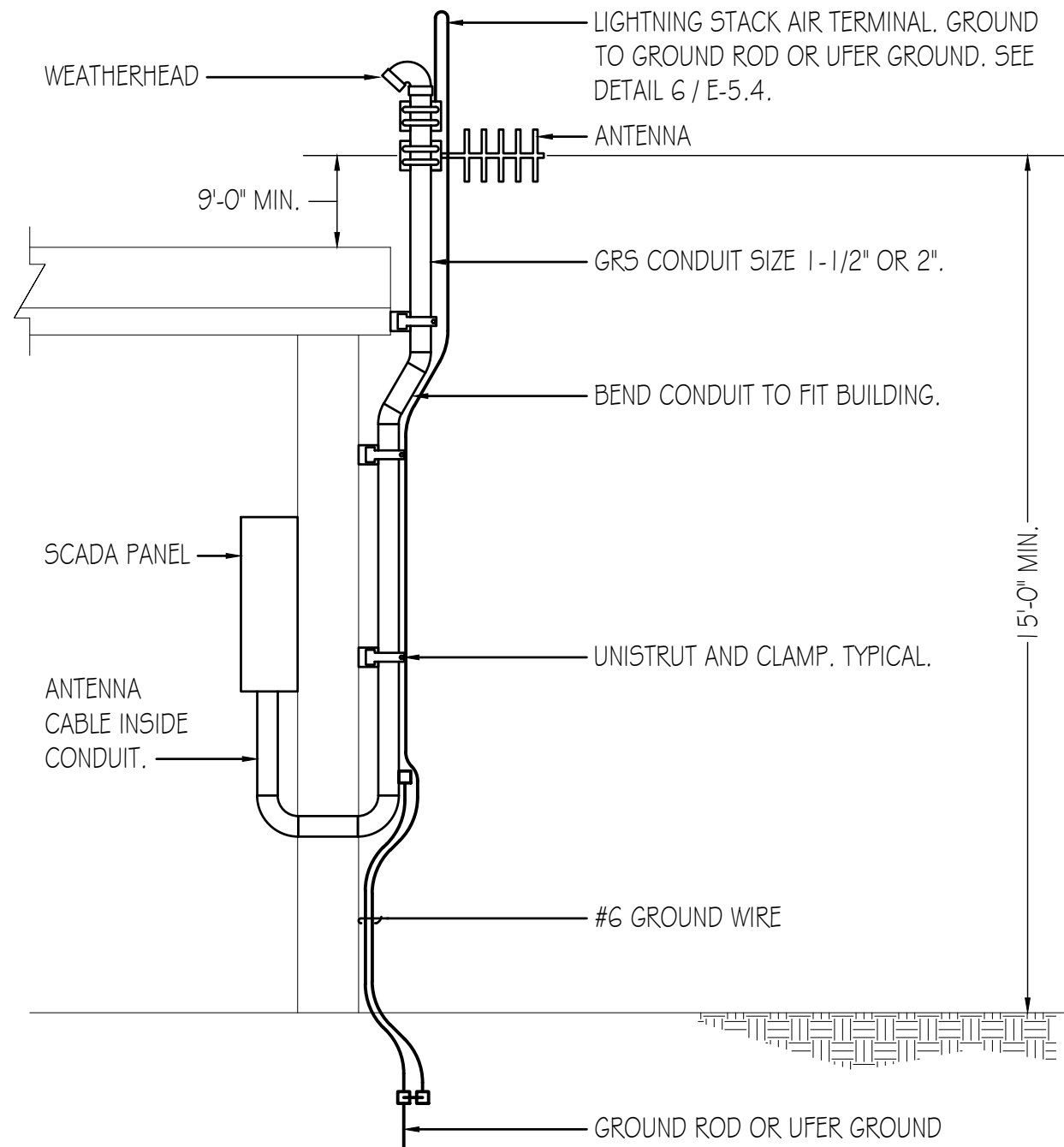
DRAWING:

E-115

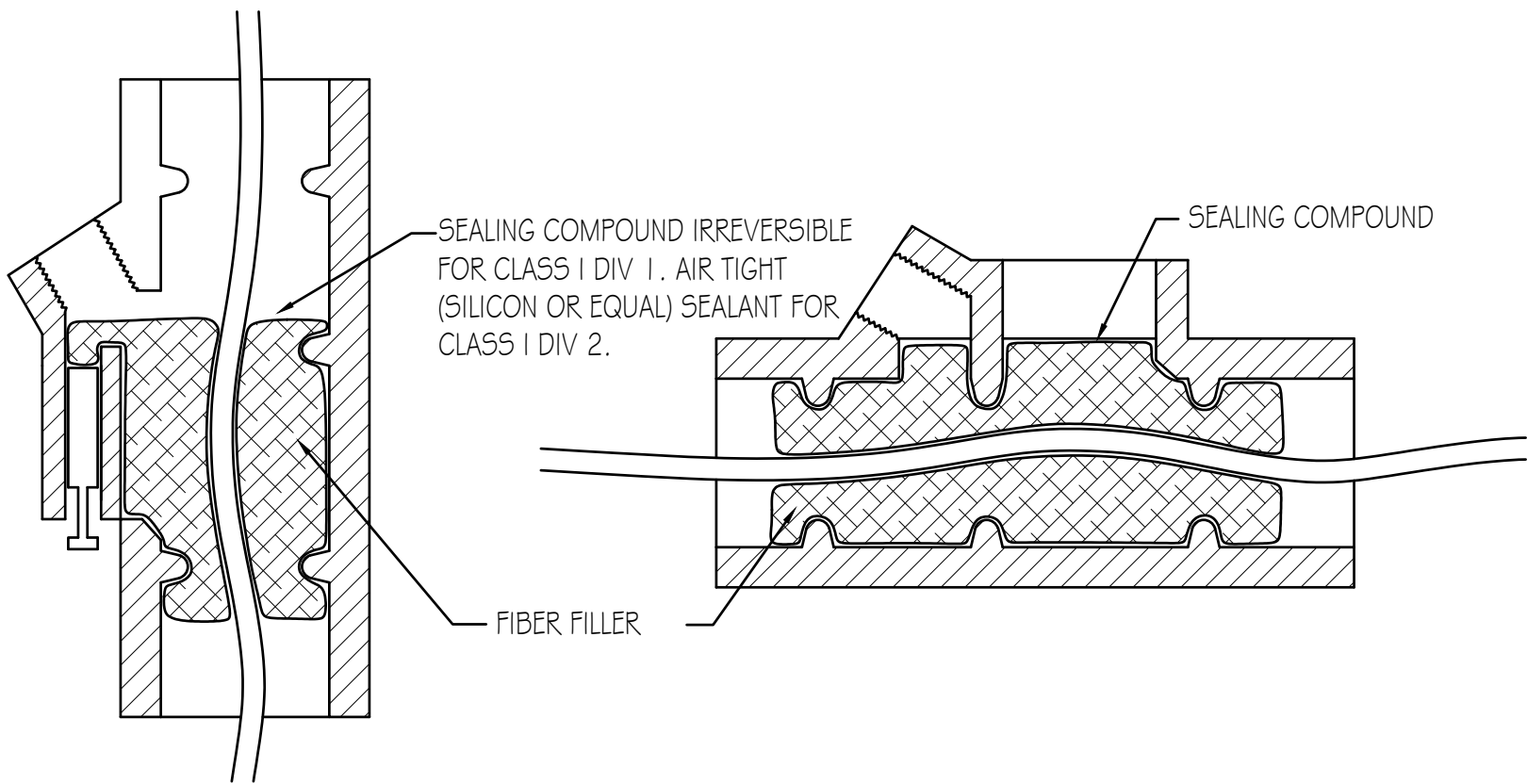
I:\25035\01-DWG\ELEC\SHEET\25035-E-501.dwg, 9/5/2025 8:57:36 AM, kbrown



6 CONDUIT MARKING SYSTEM
E-501 SCALE: NONE TYPICAL OF ALL CONDUITS

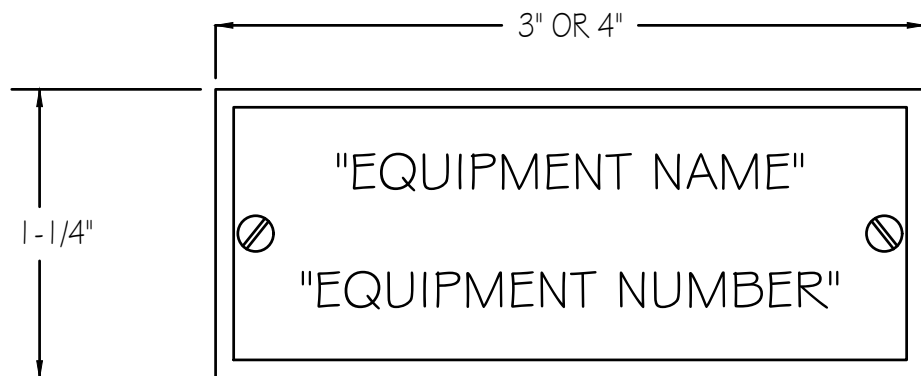


7 ANTENNA SUPPORT DETAIL
E-501 SCALE: NONE



VERTICAL CONDUIT HORIZONTAL CONDUIT

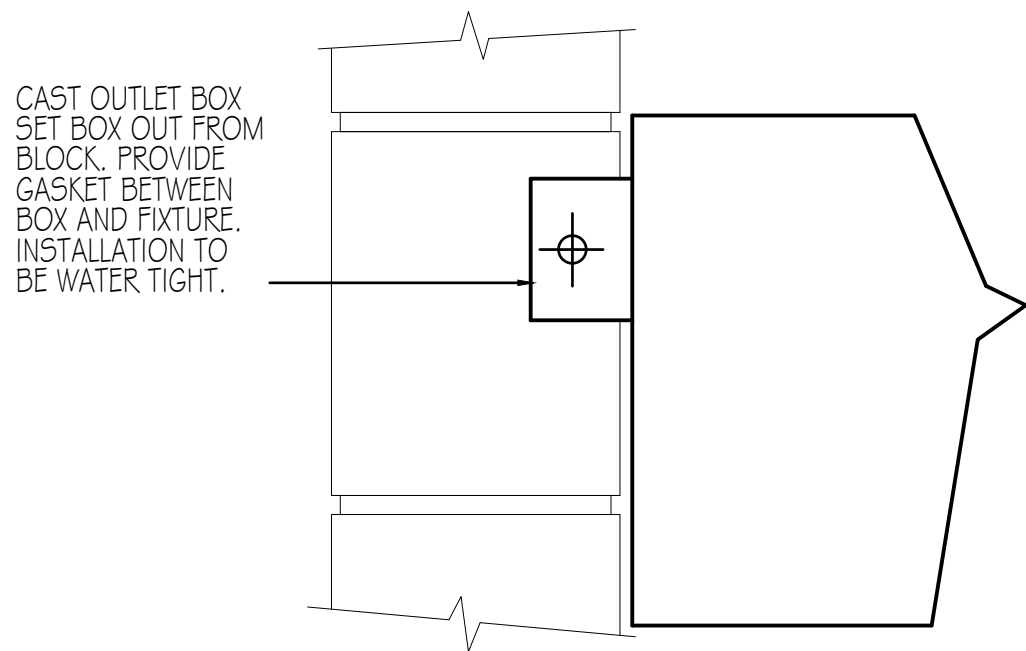
3 TYPICAL CONDUIT SEAL DAMMING AND POURING
E-501 SCALE: NONE



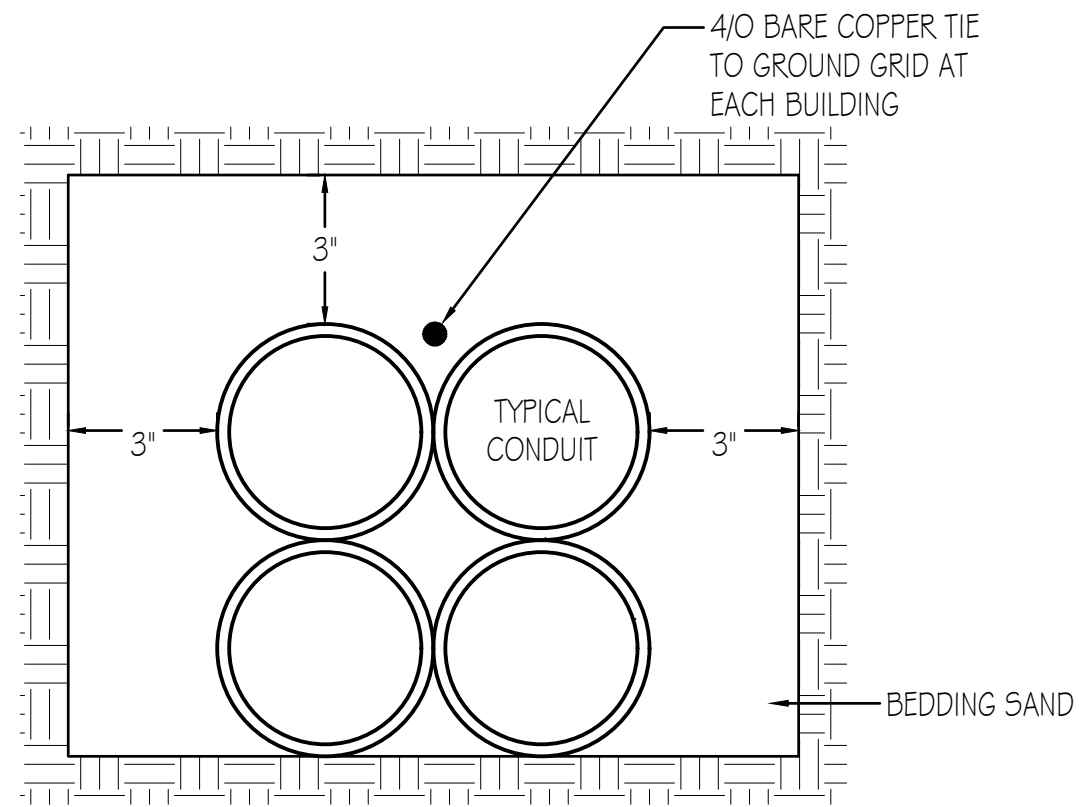
NOTES:

1. ALL LETTERS TO BE 1/4" UNLESS NOTED OTHERWISE.
2. ALL NAMEPLATES TO BE MOUNTED ON THE VERTICAL CENTERLINE OF THE CUBICAL OR DEVICE.
3. ATTACH ALL NAMEPLATES WITH STAINLESS STEEL SCREWS.
4. PROVIDE BLANK NAMEPLATES FOR ALL SPARE AND FUTURE DEVICES.

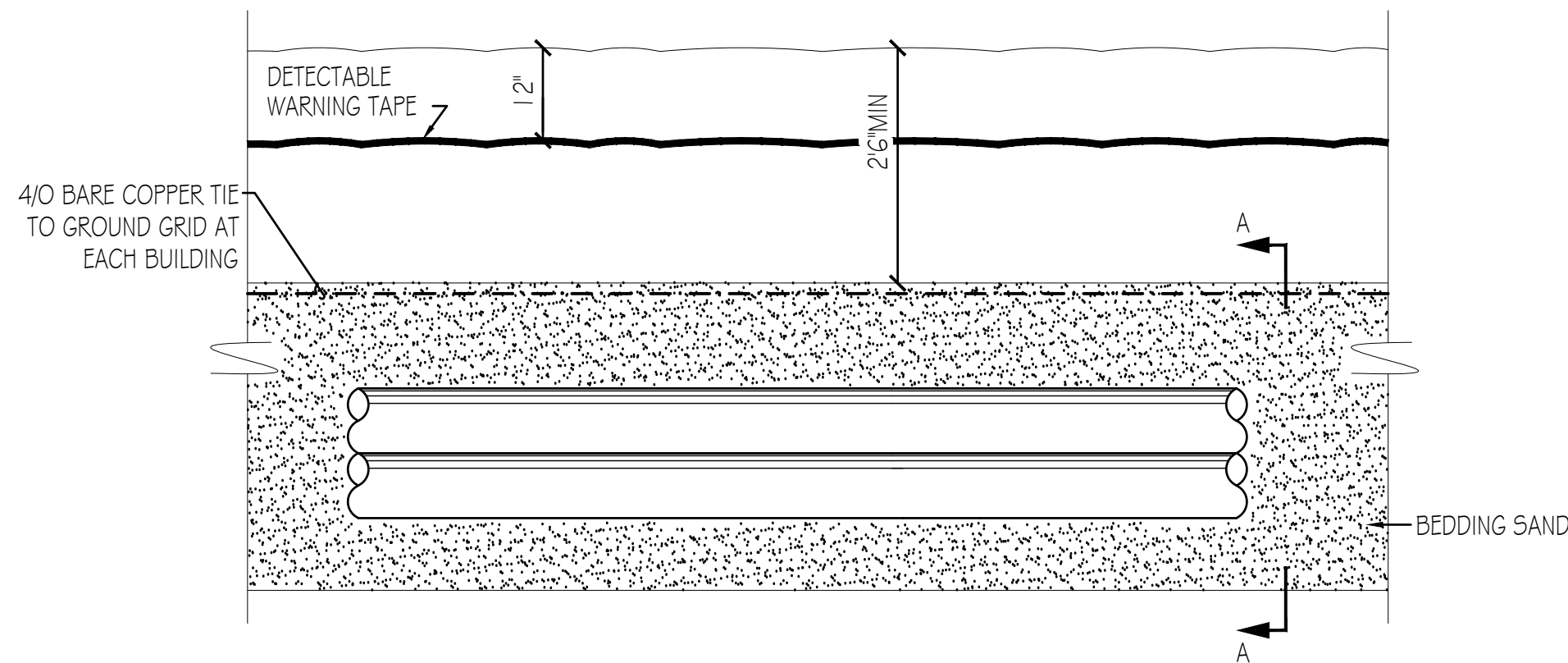
4 NAMEPLATE DETAIL
E-501 SCALE: NONE TYPICAL OF ALL EQUIPMENT



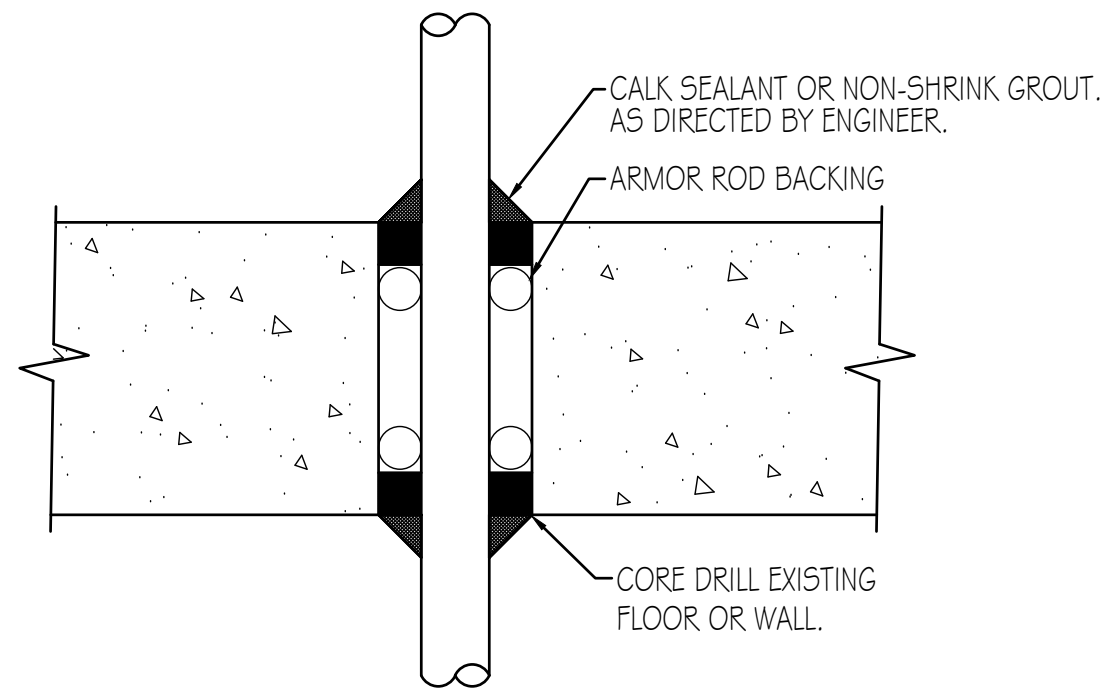
5 WALL HUNG FIXTURE MOUNTING DETAIL
E-501 SCALE: NONE TYPICAL OF ALL WALL HUNG FIXTURES



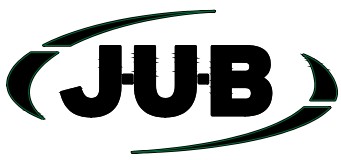
SECTION A-A



1 DUCT BANK DETAIL
E-501 SCALE: NONE



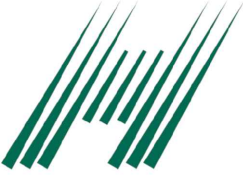
2 EXISTING WALL/DRY FLOOR PENETRATIONS
E-501 SCALE: NONE



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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

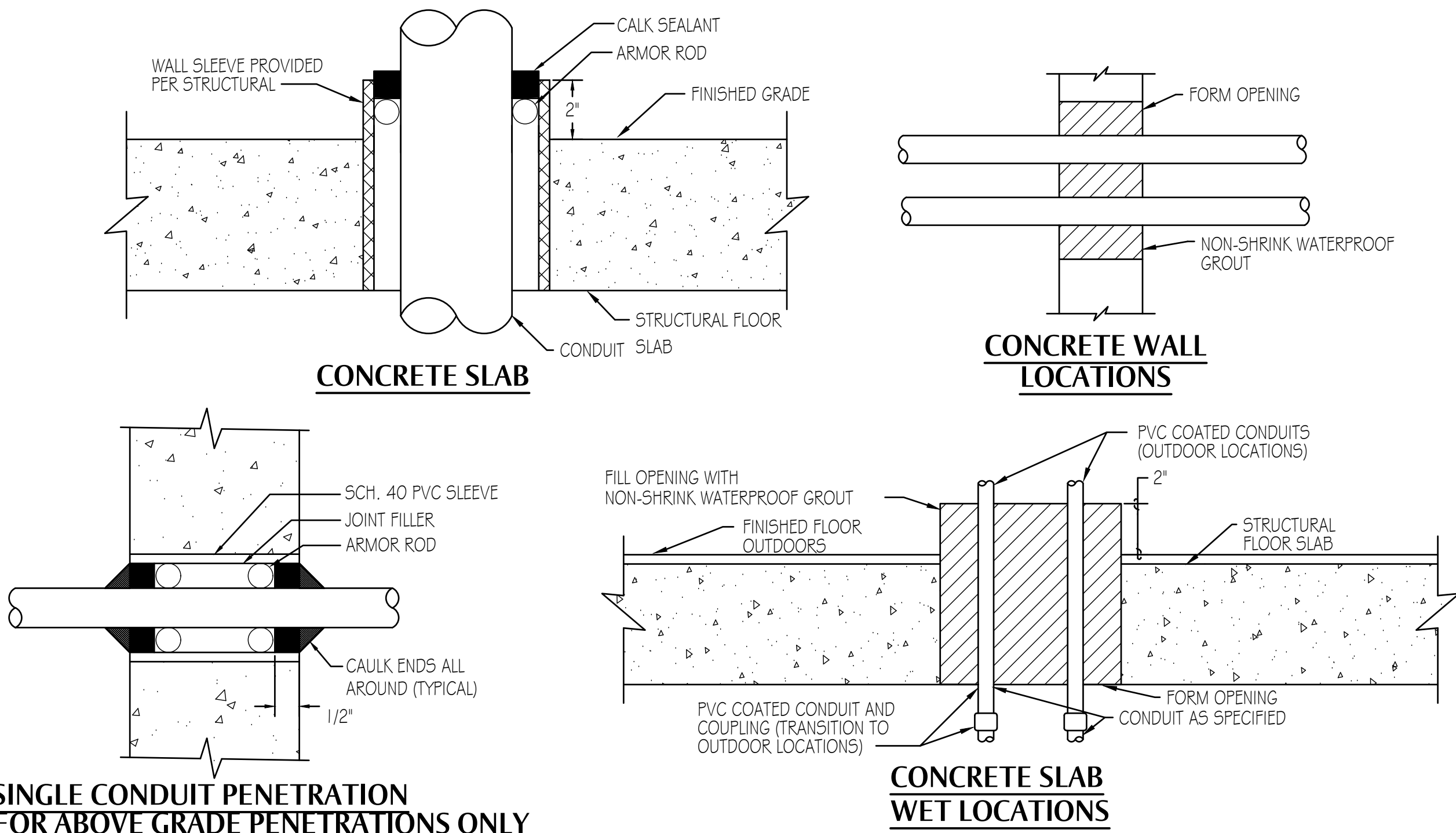
ELECTRICAL (E)
NEW HEADWORKS BUILDING
ELECTRICAL DETAILS

FILE :
JUB PROJ.# : #####
DRAWN BY: KJB
DESIGN BY: RJK
CHECKED BY: RJK

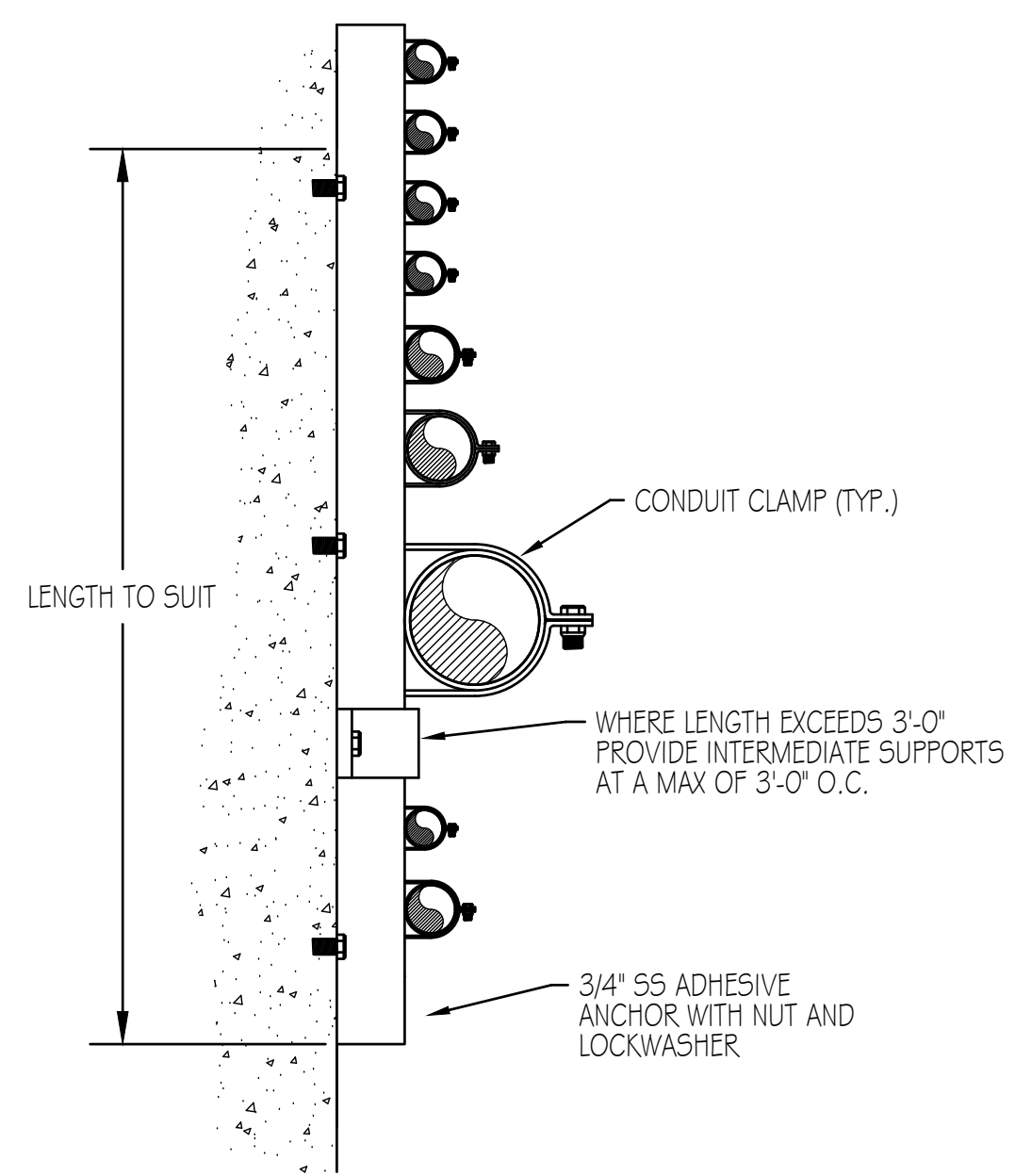
ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025

DRAWING:

E-501

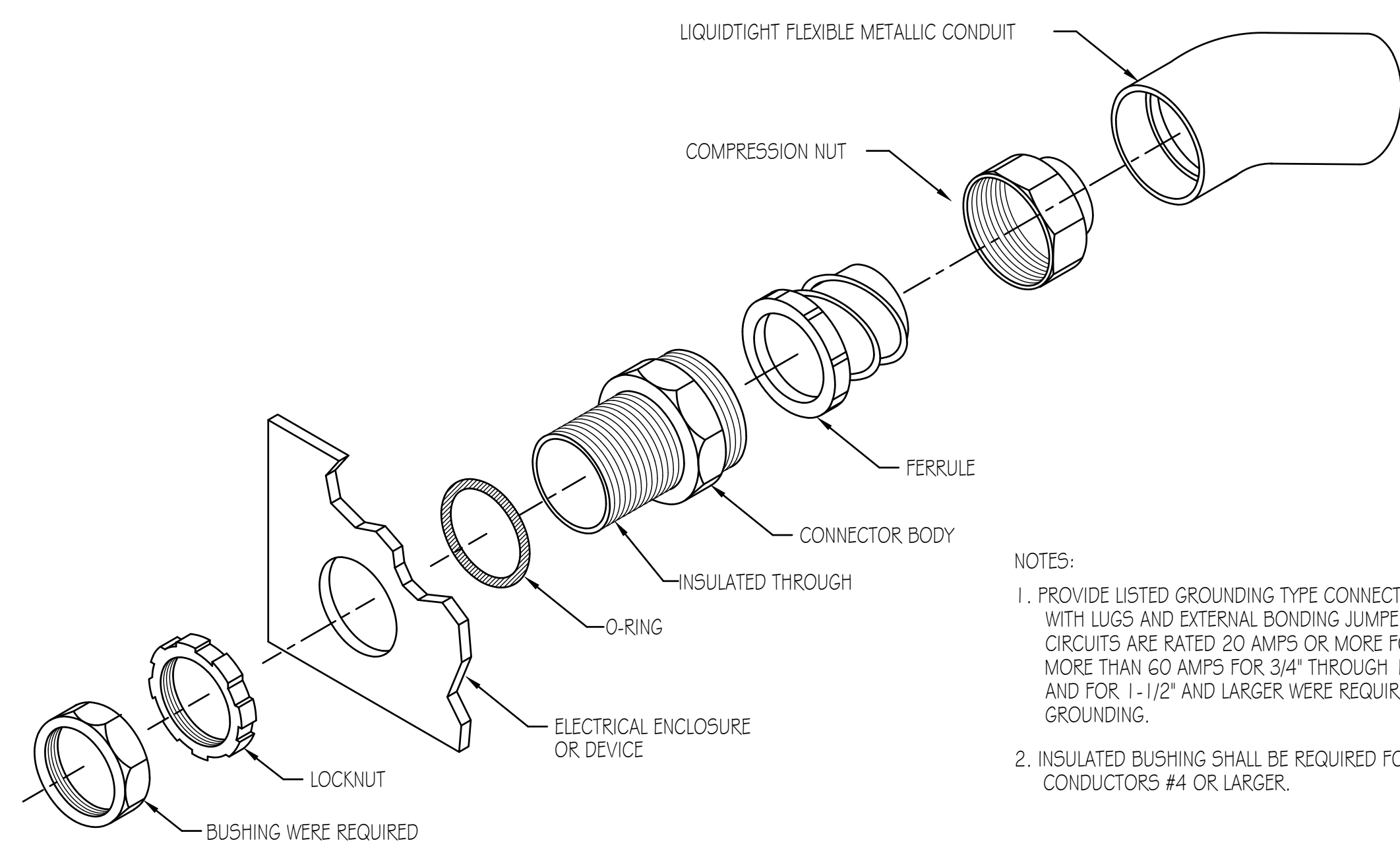


1 CONDUIT SUPPORT
E-502 SCALE: NONE TYPICAL



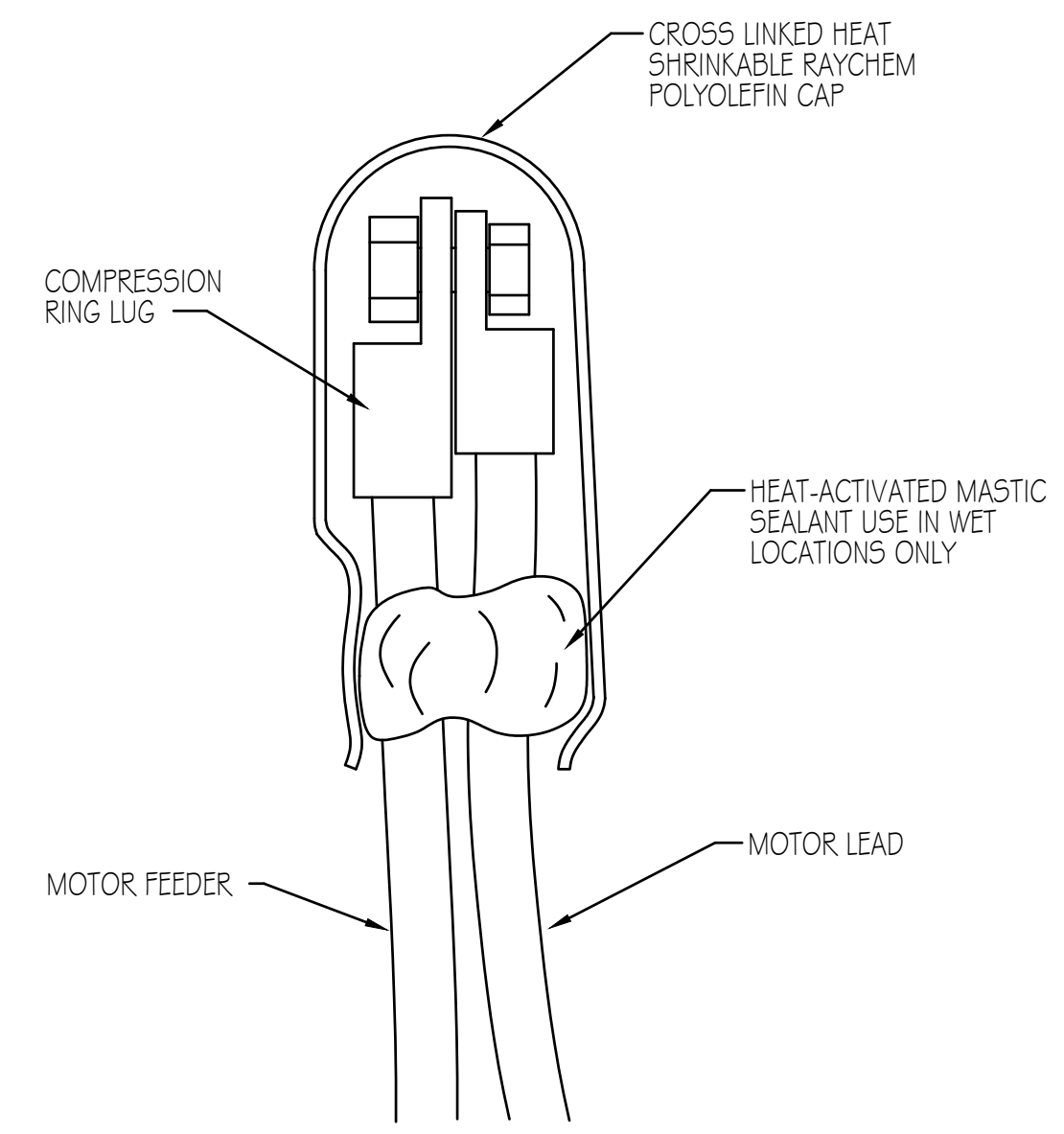
1 CONDUIT SUPPORT
E-502 SCALE: NONE TYPICAL

3 TYPICAL ABOVE GROUND CONDUIT PENETRATIONS FOR NEW WALLS/FLOORS
E-502 SCALE: NONE

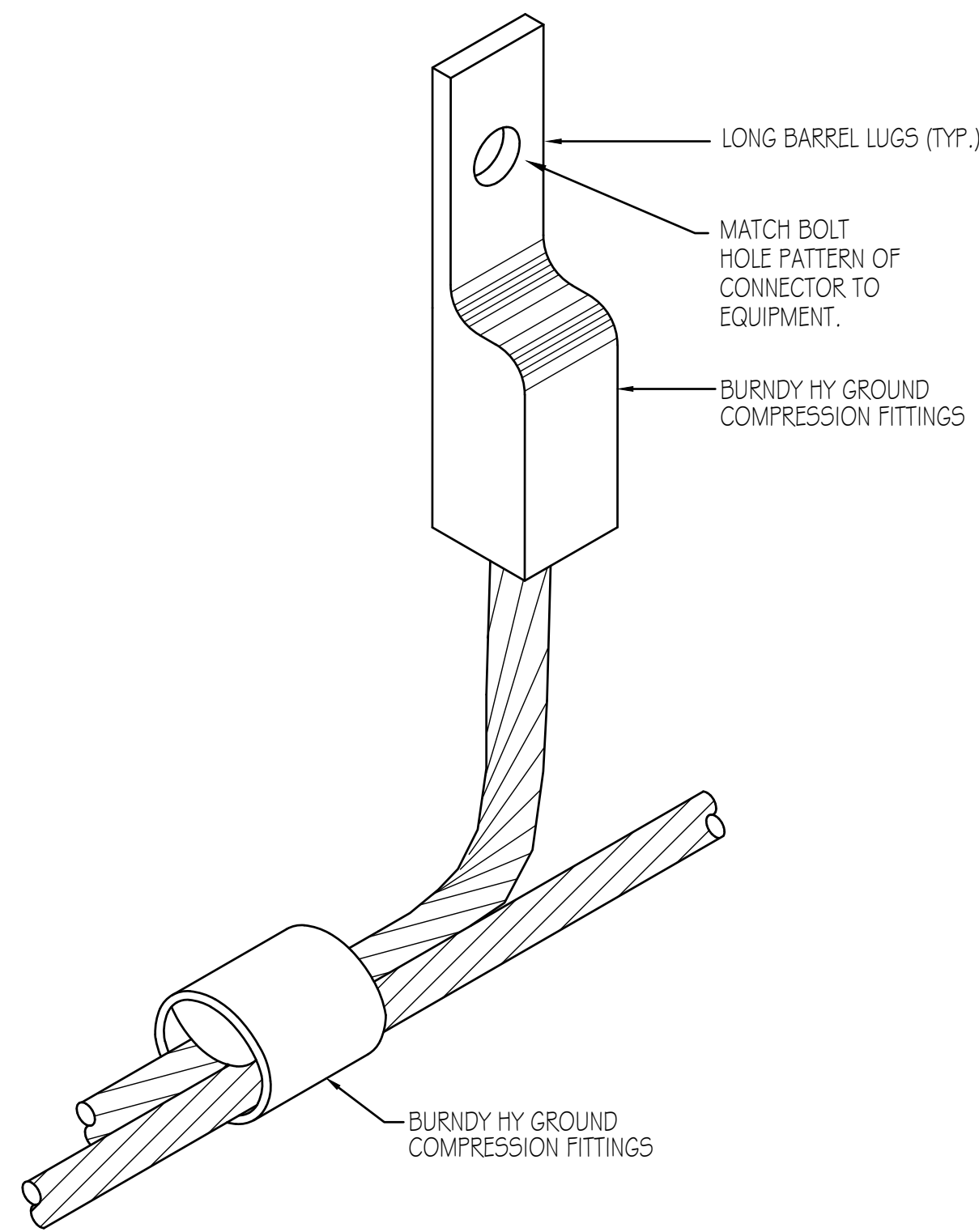


- NOTES:
1. PROVIDE LISTED GROUNDING TYPE CONNECTORS WITH LUGS AND EXTERNAL BONDING JUMPER WHEN CIRCUITS ARE RATED 20 AMPS OR MORE FOR 1/2", MORE THAN 60 AMPS FOR 3/4" THROUGH 1-1/4", AND FOR 1-1/2" AND LARGER WERE REQUIRED FOR GROUNDING.
 2. INSULATED BUSHING SHALL BE REQUIRED FOR CONDUCTORS #4 OR LARGER.

5 TYPICAL FLEXIBLE CONDUIT CONNECTION DETAIL
E-502 SCALE: NONE

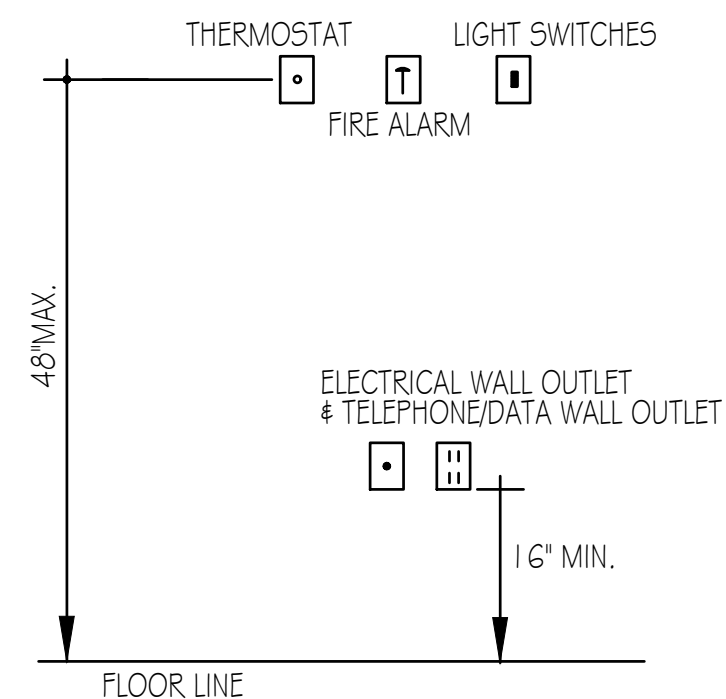


4 TYPICAL MOTOR LEAD TERMINATION
E-502 SCALE: NONE TYPICAL

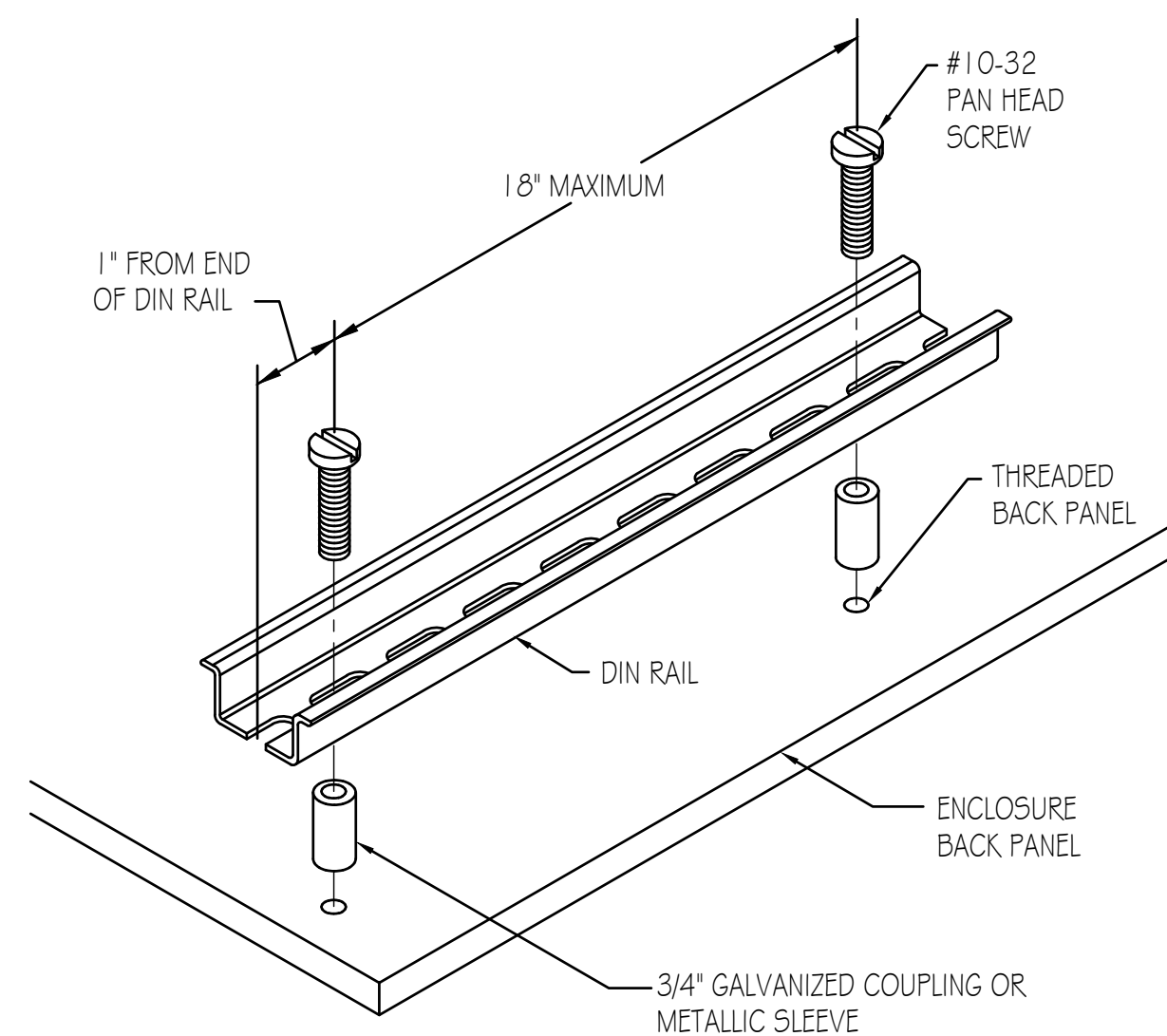


2 EQUIPMENT GROUNDING CONNECTION
E-502 SCALE: NONE TYPICAL

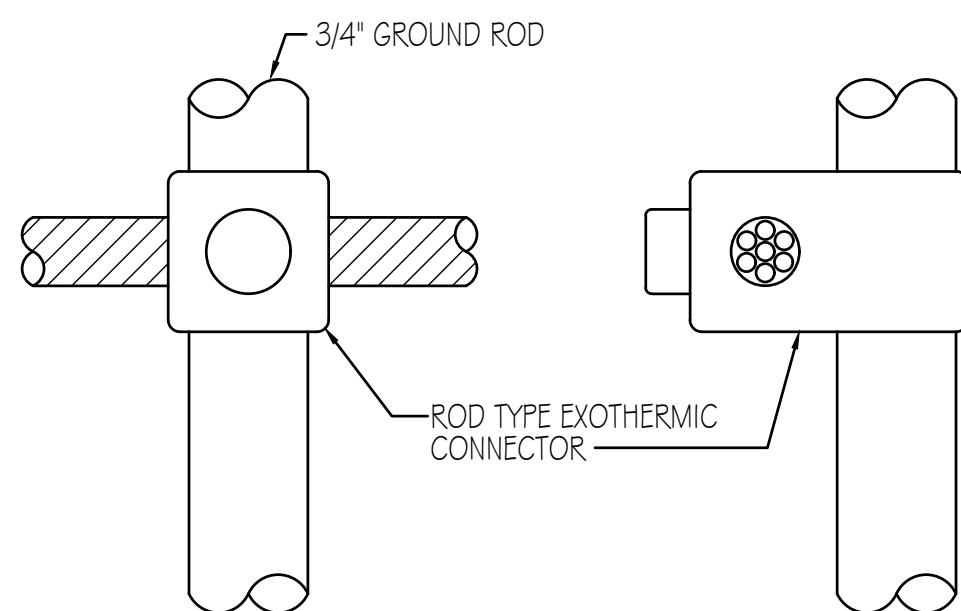
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	NO.	DESCRIPTION	NO.	BY	DATE	



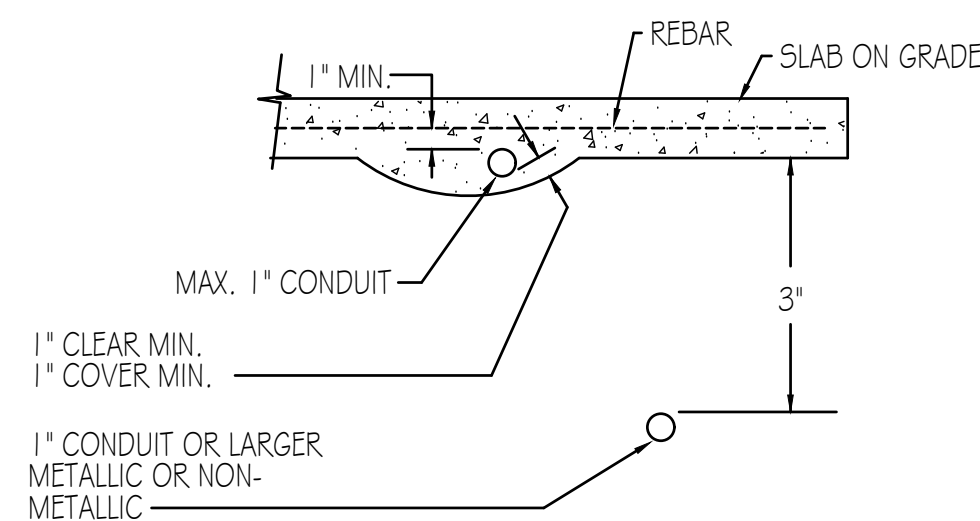
7 MOUNTING HEIGHTS FOR ELECTRICAL DEVICES



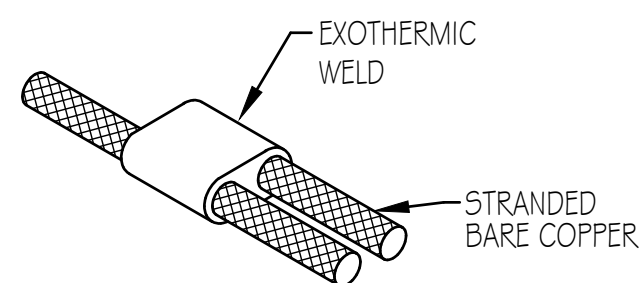
8 DIN RAIL MOUNTING DETAIL



4 **CABLE TO ROD CONNECTION DETAIL**
E-503 SCALE: NONE TYPICAL



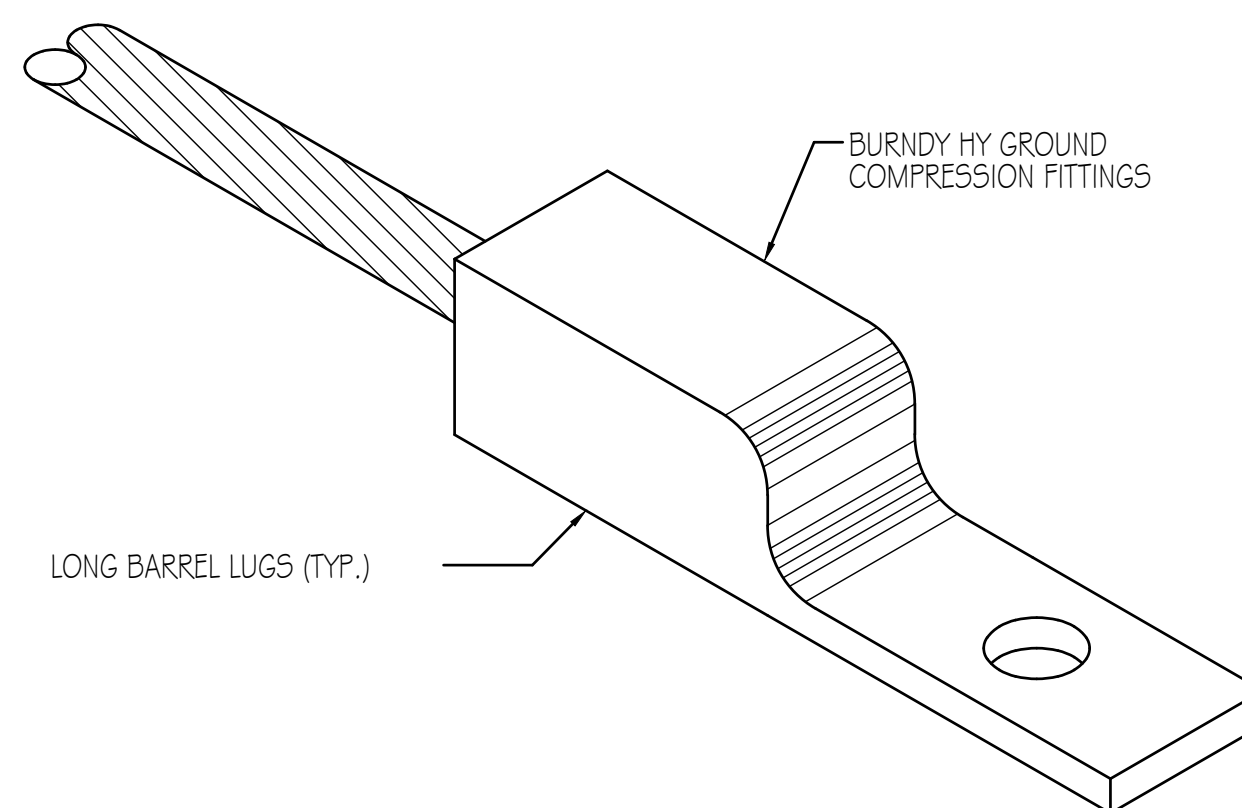
CONDUIT PLACEMENT
E-503 SCALE: NONE ————— TYPICAL



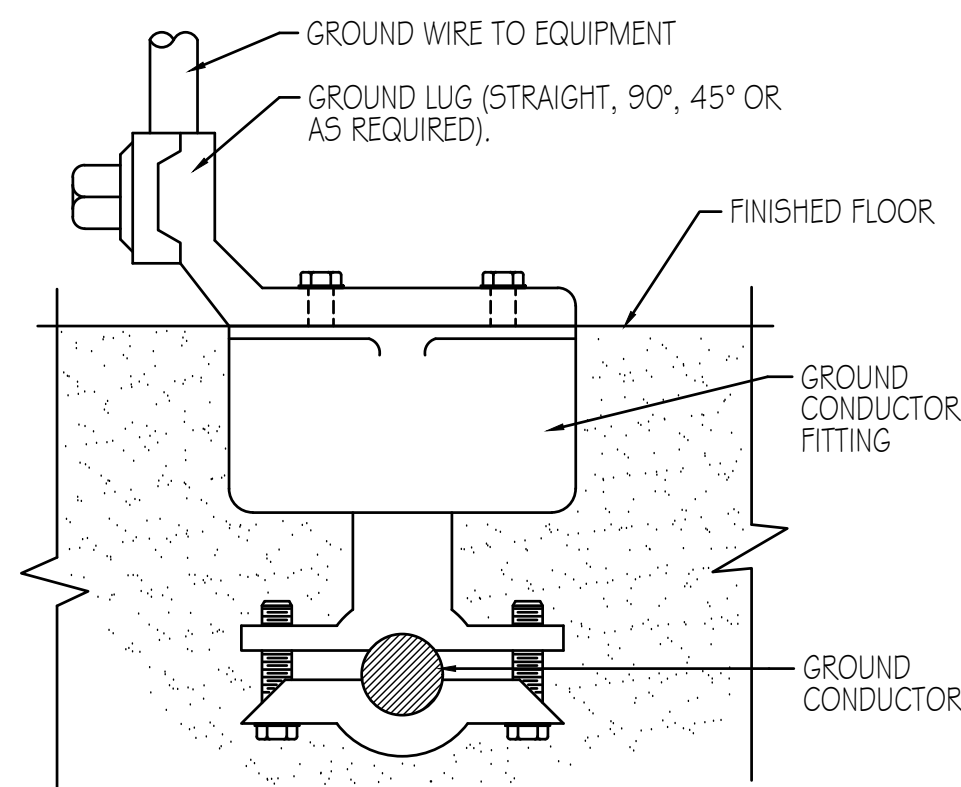
5
E-503

GROUNDING GRID TIE-IN

SCALE: NONE ————— TYPICAL

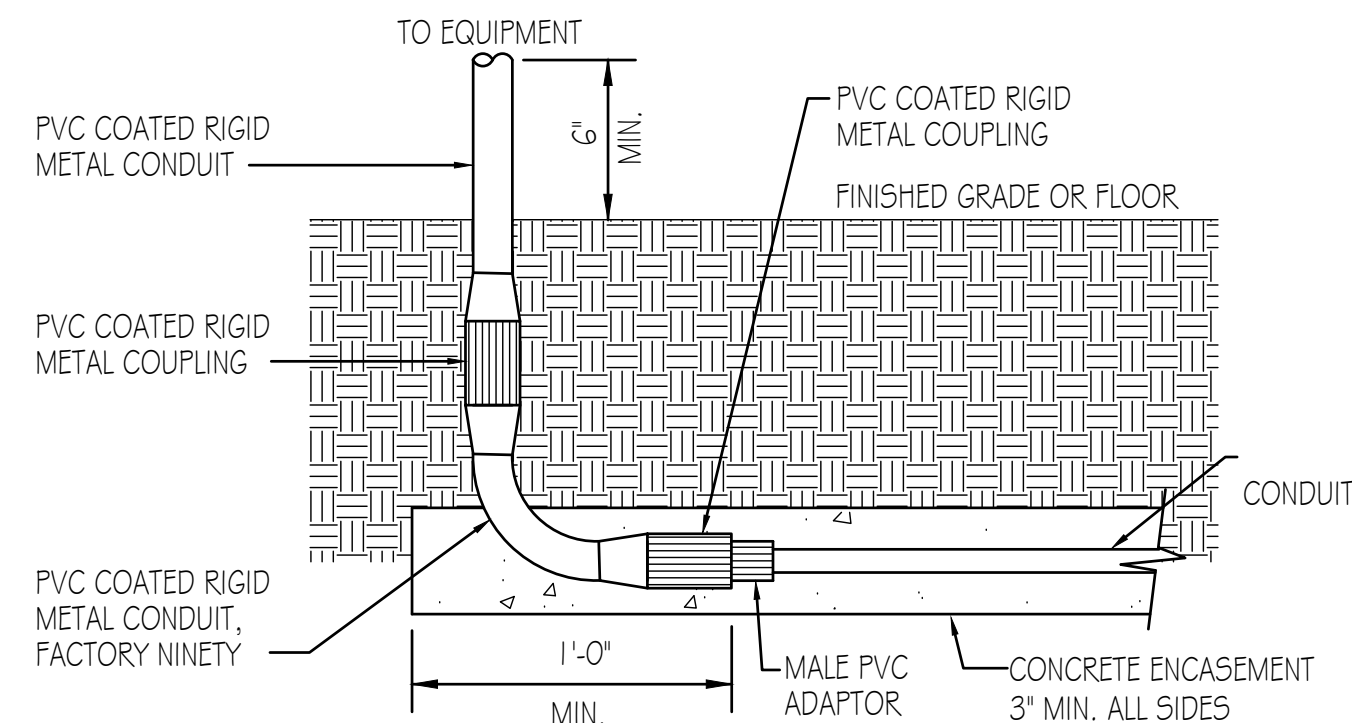


BONDING LUG
E-503 SCALE: NONE



NOTE:
BOLTS SHALL BE INSERTED IN BOLT HOLES BEFORE
CONNECTOR IS EMBEDDED.

GROUND INSERT DETAIL
 SCALE: NONE
 TYPICAL OF ALL INTERIOR EQUIPMENT GROUNDING



3 CONDUIT RISER
E-503 SCALE: NONE ——— TYPICAL



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LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

ELECTRICAL (E)
NEW HEADWORKS BUILDING
ELECTRICAL DETAILS

FILE :

JUB PROJ. # : #####

DRAWN BY: KJB

DESIGN BY: RJK

CHECKED BY: RJK

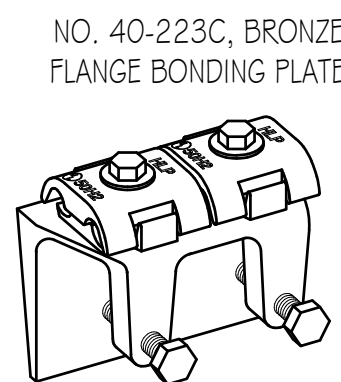
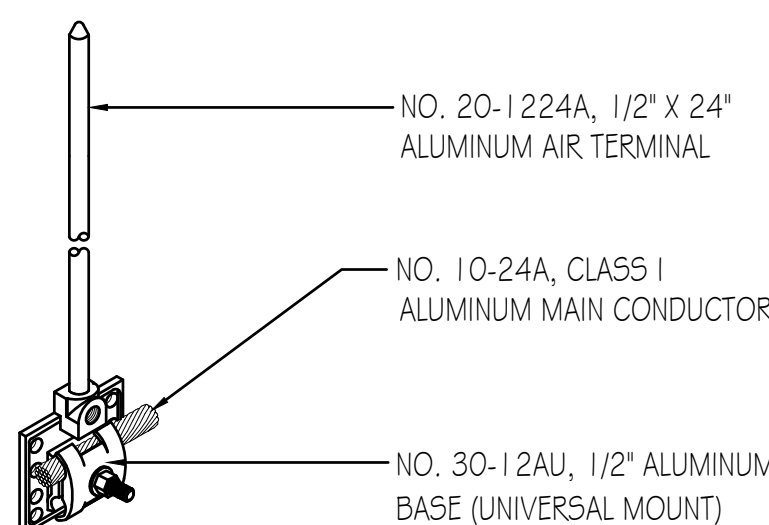
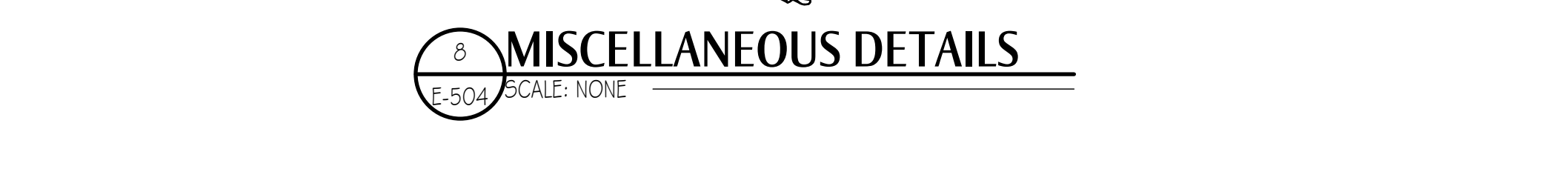
A horizontal scale bar with arrows at both ends, labeled "ONE INCH" in the center.

AT FULL SIZE, IF NOT ONE
INCH SCALE ACCORDINGLY

LAST UPDATED: 8/20/2025

DRAWING:

E-503



11 INSTALLATION SHALL BE MADE UNDER THE SUPERVISION OF AN L.P.I. CERTIFIED MASTER INSTALLER.

RIDGE AIR TERMINAL

THRU-ROOF/WALL CONNECTOR

CABLE CONNECTOR

GROUND ROD DETAIL

STACK AIR TERMINAL

MISCELLANEOUS DETAILS

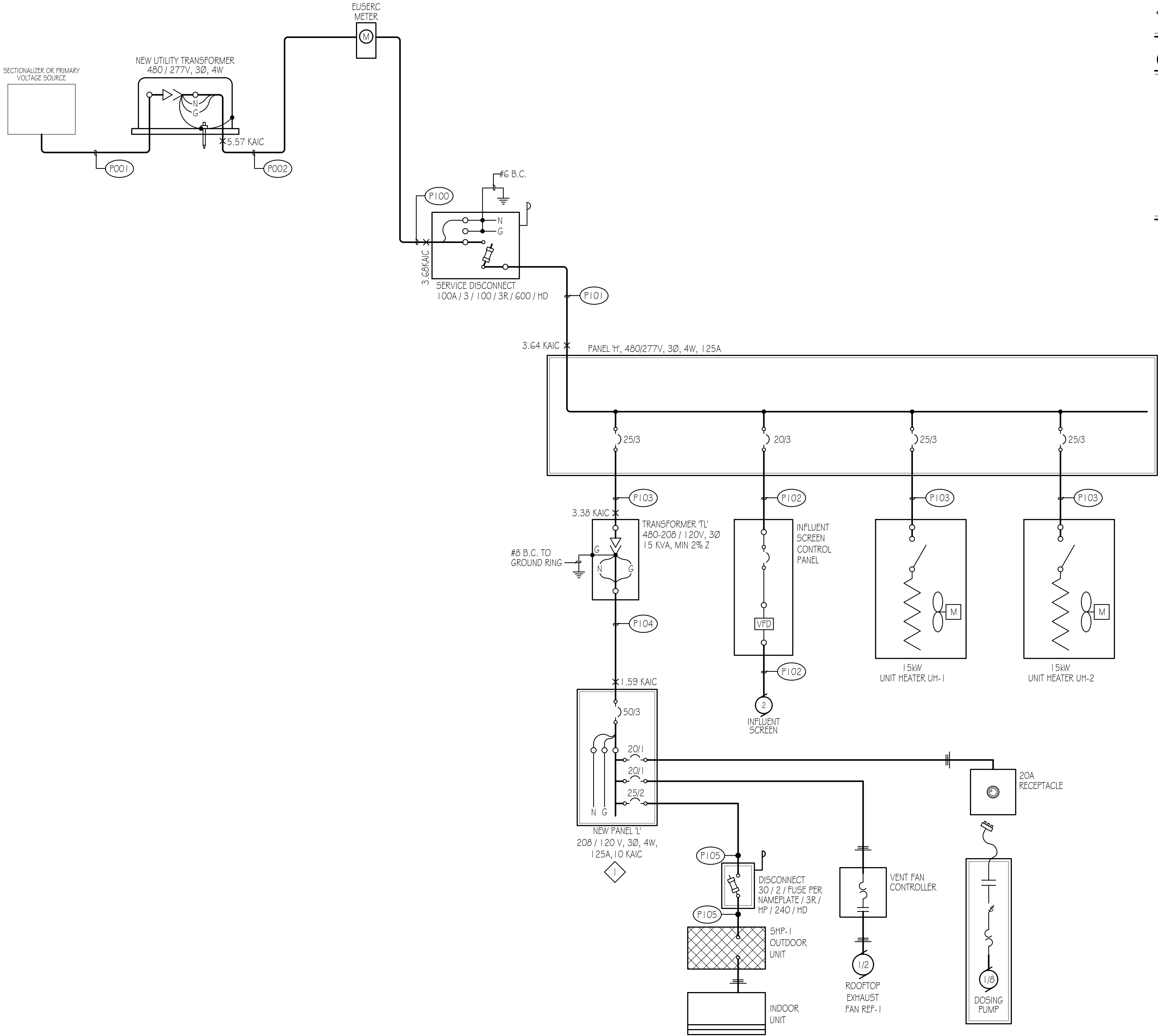
RIDGE AIR TERMINAL

STEEL CONNECTION



FILE : ..
JUB PROJ. # : #####
DRAWN BY: KJB
DESIGN BY: RJK
CHECKED BY: RJK
 ONE INCH AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/20/2025
DRAWING:

E-504



DRAWING NOTES

SEE PANEL SCHEDULE FOR ADDITIONAL LOADS

GENERAL NOTES

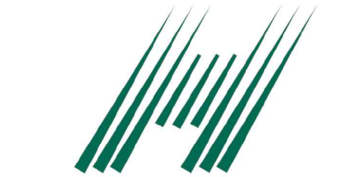
- A. THERE ARE NO HAZARDOUS (CLASSIFIED) LOCATIONS WITHIN THIS PROJECT.
- B. COMPLETED WIRING INSTALLATION SHALL BE FREE FROM SHORT CIRCUITS AND GROUND FAULTS.
- C. SERVICE EQUIPMENT SHALL BE MARKED IN THE FIELD WITH THE AVAILABLE FAULT CURRENT IN ACCORDANCE WITH NEC 110.24. ALSO REFER TO SPECIFICATION 26 05 07- ELECTRICAL POWER SYSTEM STUDIES FOR FAULT CURRENT EQUIPMENT MARKING REQUIREMENTS.



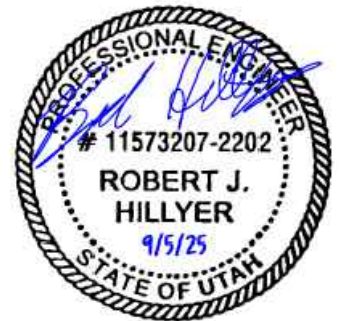
J-U-B ENGINEERS, INC.

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	NO.	DESCRIPTION		

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

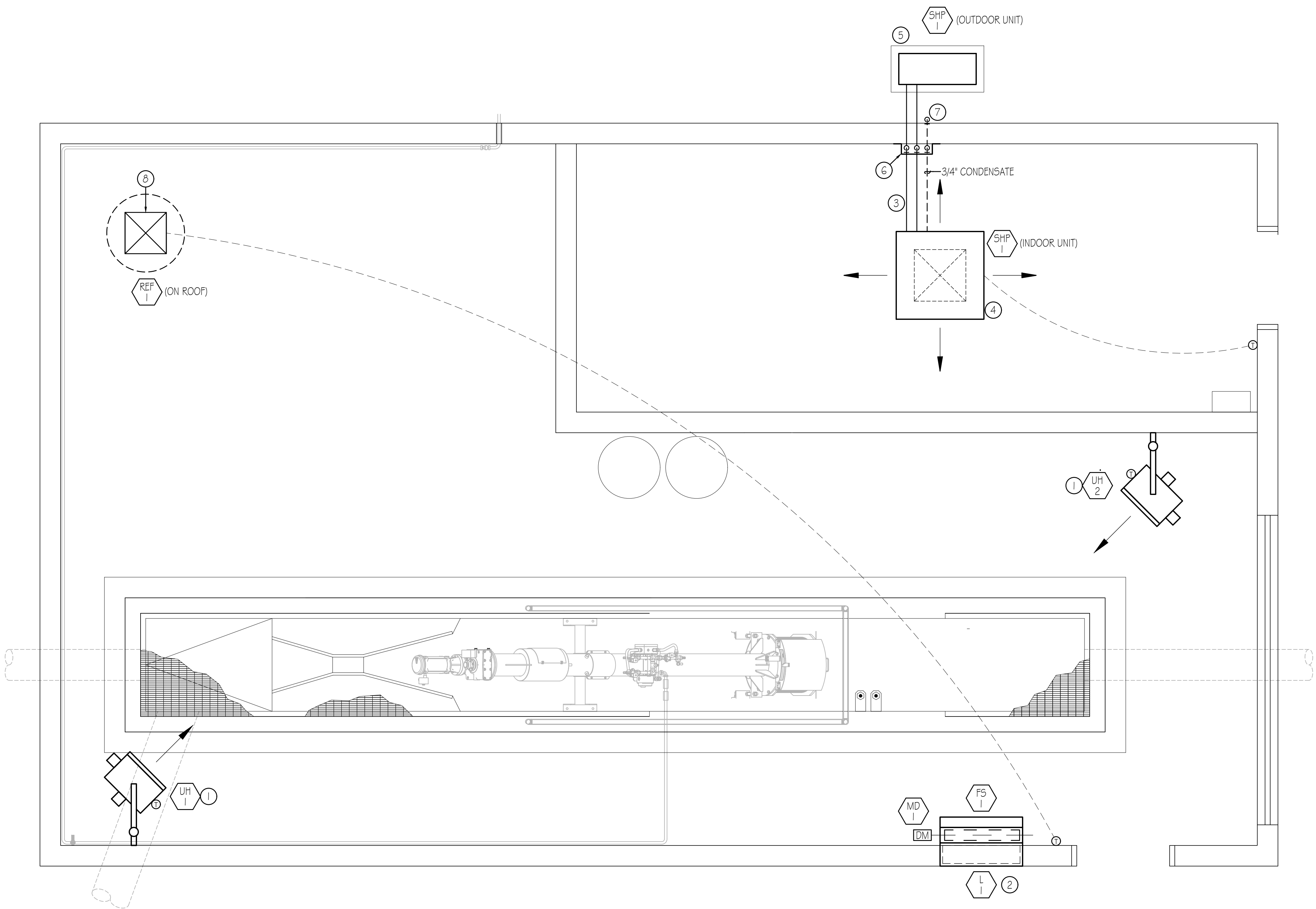
ELECTRICAL (E)
NEW HEADWORKS BUILDING
ELECTRICAL ONE-LINE DIAGRAM

FILE :
JUB PROJ. # : #####
DRAWN BY: KJB
DESIGN BY: RJK
CHECKED BY: RJK
ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025

DRAWING:

E-601

POWER ONE-LINE DIAGRAM
SCALE: NONE



DRAWING NOTES

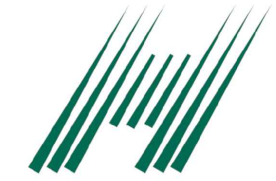
- 1 MOUNT UNIT HEATER AT HEIGHT AS RECOMMENDED BY VENDOR.
- 2 MOUNT BOTTOM OF LOUVER 36' A.F.F. FIELD COORDINATE EXACT LOCATION.
- 3 EXTEND REFRIGERANT PIPING FROM OUTDOOR UNIT, PENETRATE OUTSIDE WALL, RISE UP AGAINST INTERIOR WALL, AND EXTEND INTO INDOOR UNIT. COORDINATE EXACT LOCATION OF REFRIGERANT PIPE RISERS TO AVOID CONFLICT WITH ELECTRICAL EQUIPMENT. SEE DETAIL 1/H-502. SIZE AND ROUTE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS.
- 4 COORDINATE EXACT LOCATION OF INDOOR UNIT TO AVOID CONFLICT WITH LIGHTING. SUPPORT INDOOR UNIT FROM ROOF STRUCTURE.
- 5 MOUNT OUTDOOR UNIT ON 4" THICK CONCRETE PAD, FIELD COORDINATE EXACT LOCATION. MINIMUM OF 12" CLEARANCE FROM OUTSIDE WALL.
- 6 FIELD FABRICATE A 20 GAUGE SHEET METAL COVER TO PROTECT THE REFRIGERANT LINE AND CONDENSATE DROPS. SECURE COVER TO WALL.
- 7 ROUTE 3/4" CONDENSATE LINE TO EXTERIOR OF BUILDING AS SHOWN. COORDINATE EXACT LOCATION TO AVOID CONFLICT WITH ELECTRICAL. PUMP CONDENSATE AS REQUIRED. TURN DOWN CONDENSATE AND TERMINATE 12" ABOVE GRADE. SEAL WATER TIGHT AROUND CONDENSATE DRAIN PENETRATION.
- 8 16"x16" OPENING IN ROOF UP TO REF-1. FIELD COORDINATE EXACT ROOF OPENING SIZE AND LOCATION.



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7								
8								

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

HVAC (H)
NEW HEADWORKS BUILDING
HVAC PLAN

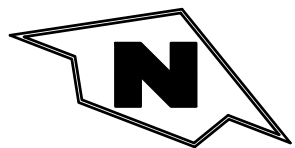
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JUB PROJ. # : #####
DRAWN BY: KJB
DESIGN BY: KDH
CHECKED BY: KDH

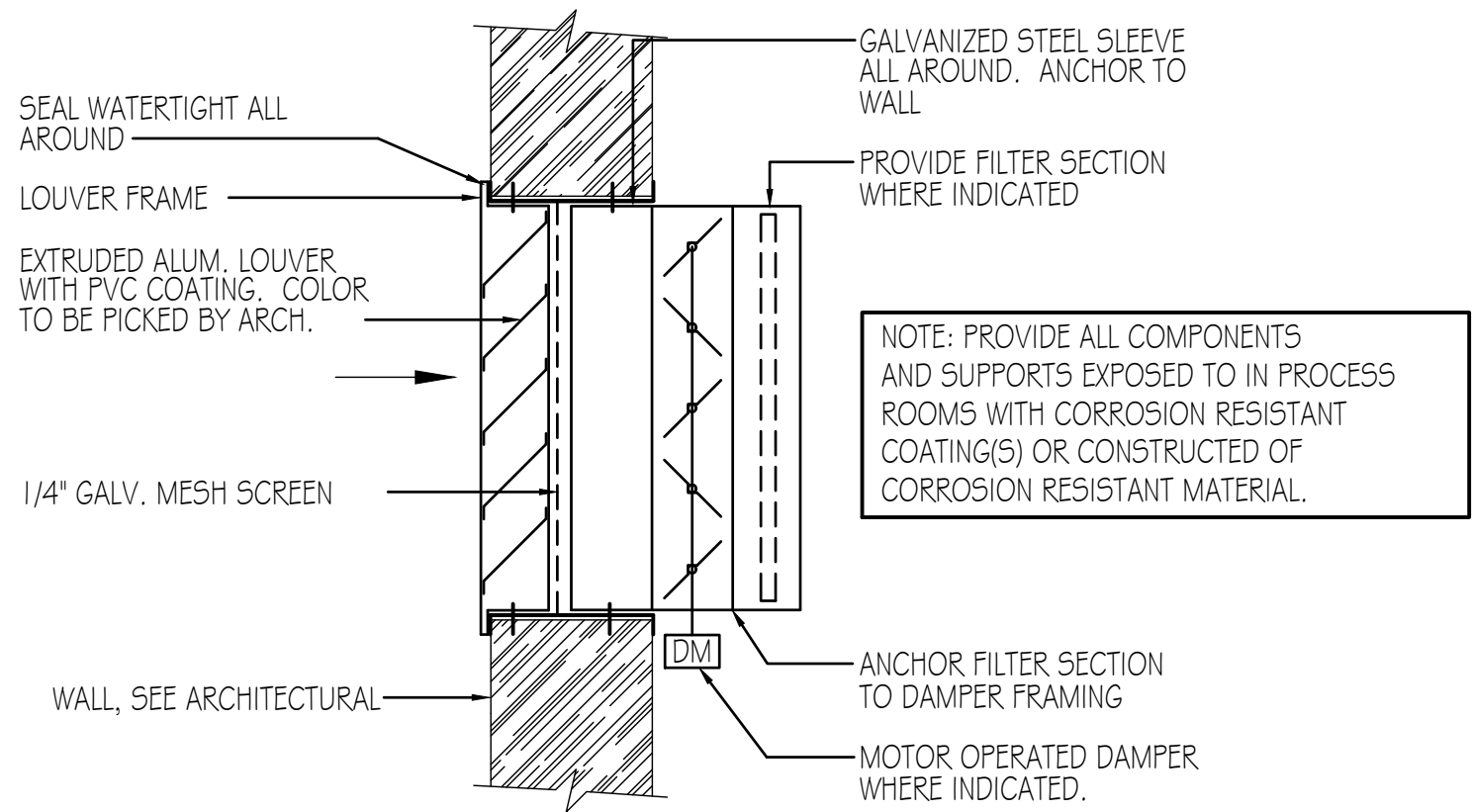
ONE INCH
AT FULL SIZE. IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025

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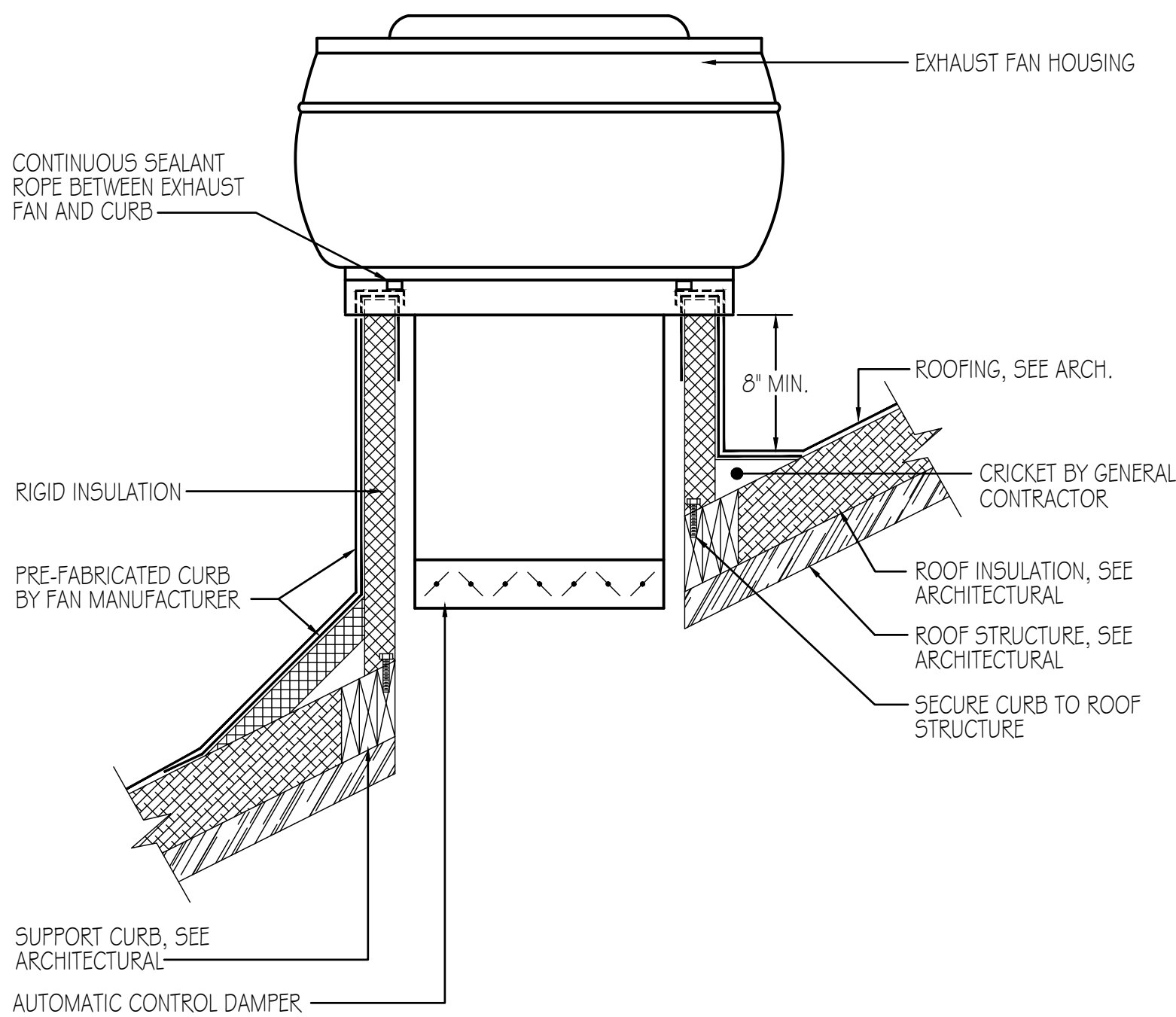
H-110

1 BUILDING HVAC PLAN
SCALE: 1/2"=1'-0"
2 0 5

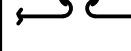
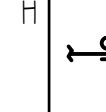
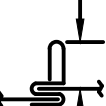
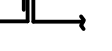
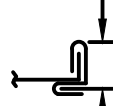




4 INLET LOUVER WITH DAMPER AND FILTER DETAIL
H-501 SCALE: NONE

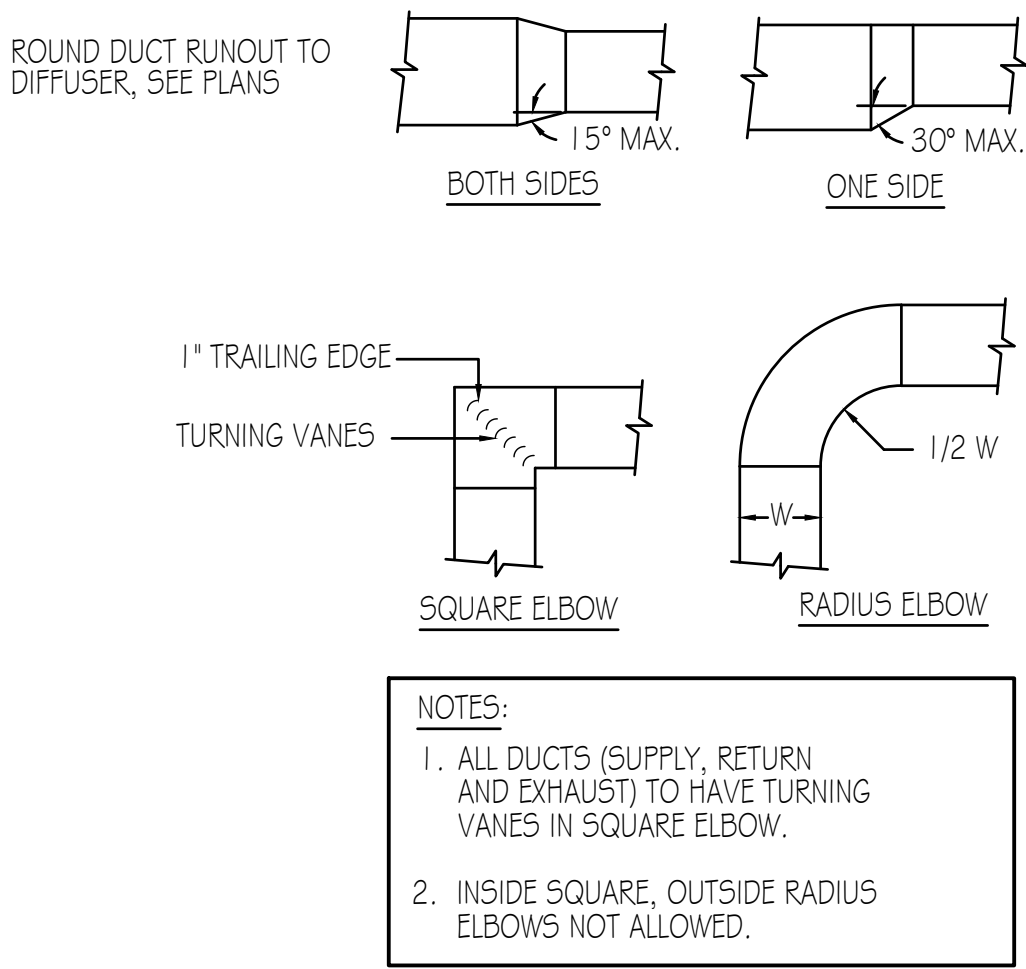


5 EXHAUST FAN DETAIL
H-501 SCALE: NONE

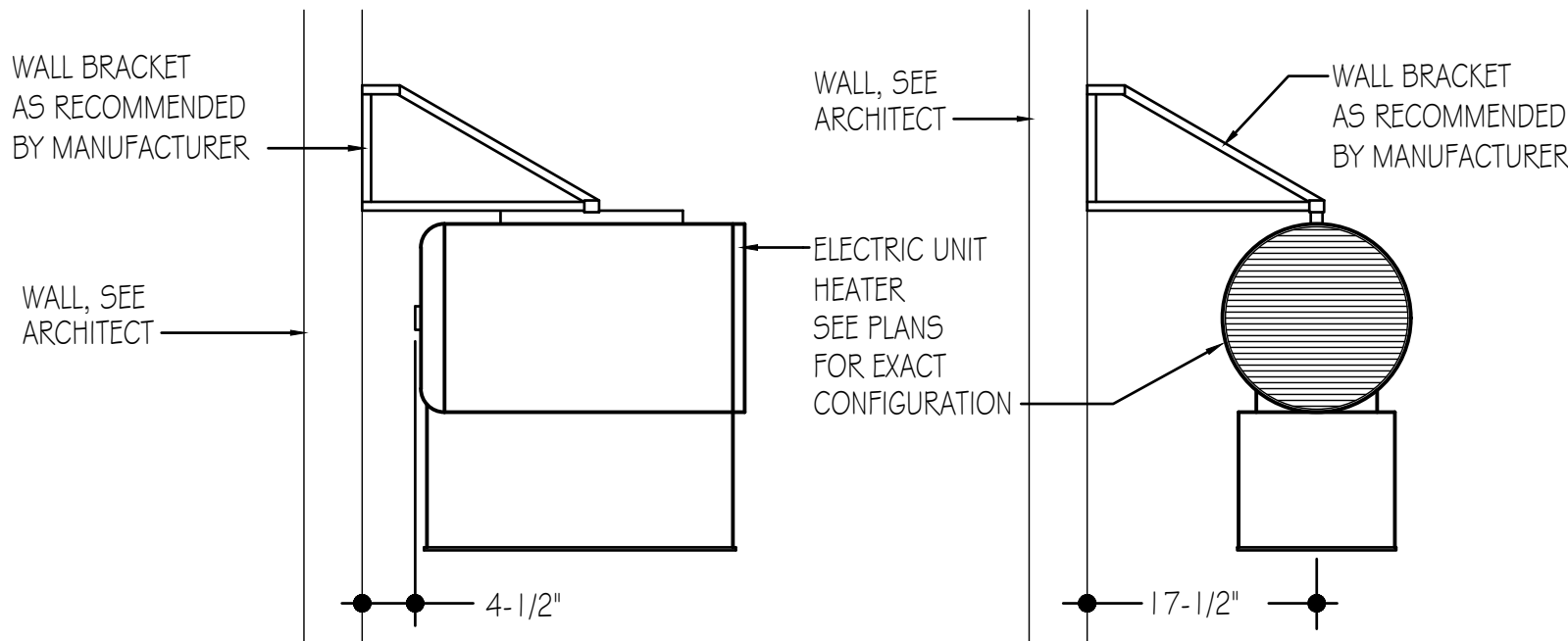
DIMENSION OF LONGEST SIDE, (INCHES)	SHEET METAL GAGE (ALL FOUR SIDES)	TRANSVERSE REINFORCING										
		MINIMUM REINFORCING ANGLE SIZE & MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS &/OR INTERMEDIATE REINFORCING	AT JOINTS									
			MIN H, IN.									
												
			RECOM-MENDED GAGE	RECOM-MENDED GAGE	RECOM-MENDED GAGE	RECOM-MENDED GAGE	RECOM-MENDED GAGE	REINFORCED ANGLE SIZE	REINFORCED ANGLE SIZE	RECOM-MENDED GAGE	REINFORCED ANGLE SIZE	
UP THRU 12	24	NONE REQ.	1	26	26	24	24	24	NOT REQ.	NOT REQ.	24	NOT REQ.
13-18	24	NONE REQ.	1	24	24	24	24	24	NOT REQ.	NOT REQ.	24	NOT REQ.
19-30	24	1x1x1/8 @60in.	1	-	24	24	24	24	NOT REQ.	NOT REQ.	24	NOT REQ.
31-42	22	1x1x1/8 @60in.	1	-	-	22	22	22	NOT REQ.	NOT REQ.	22	NOT REQ.
43-54	22	1-1/2x1-1/2x1/8 @60in.	1-1/2	-	-	22	22	22	1-1/2x1-1/2x1/8	NOT REQ.	22	NOT REQ.
55-60	20	1-1/2x1-1/2x1/8 @60in.	1-1/2	-	-	-	22	22	1-1/2x1-1/2x1/8	NOT REQ.	22	NOT REQ.
61-84	20	1-1/2x1-1/2x1/8 @60in.	1-1/2	-	-	-	22	22	1-1/2x1-1/2x1/8	1-1/2x1-1/2x1/8	22	1-1/2x1-1/2x1/8

* TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

1 SHEETMETAL DUCT CONSTRUCTION DETAIL
H-501 SCALE: NONE

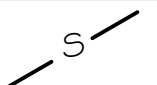
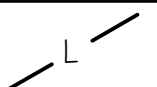


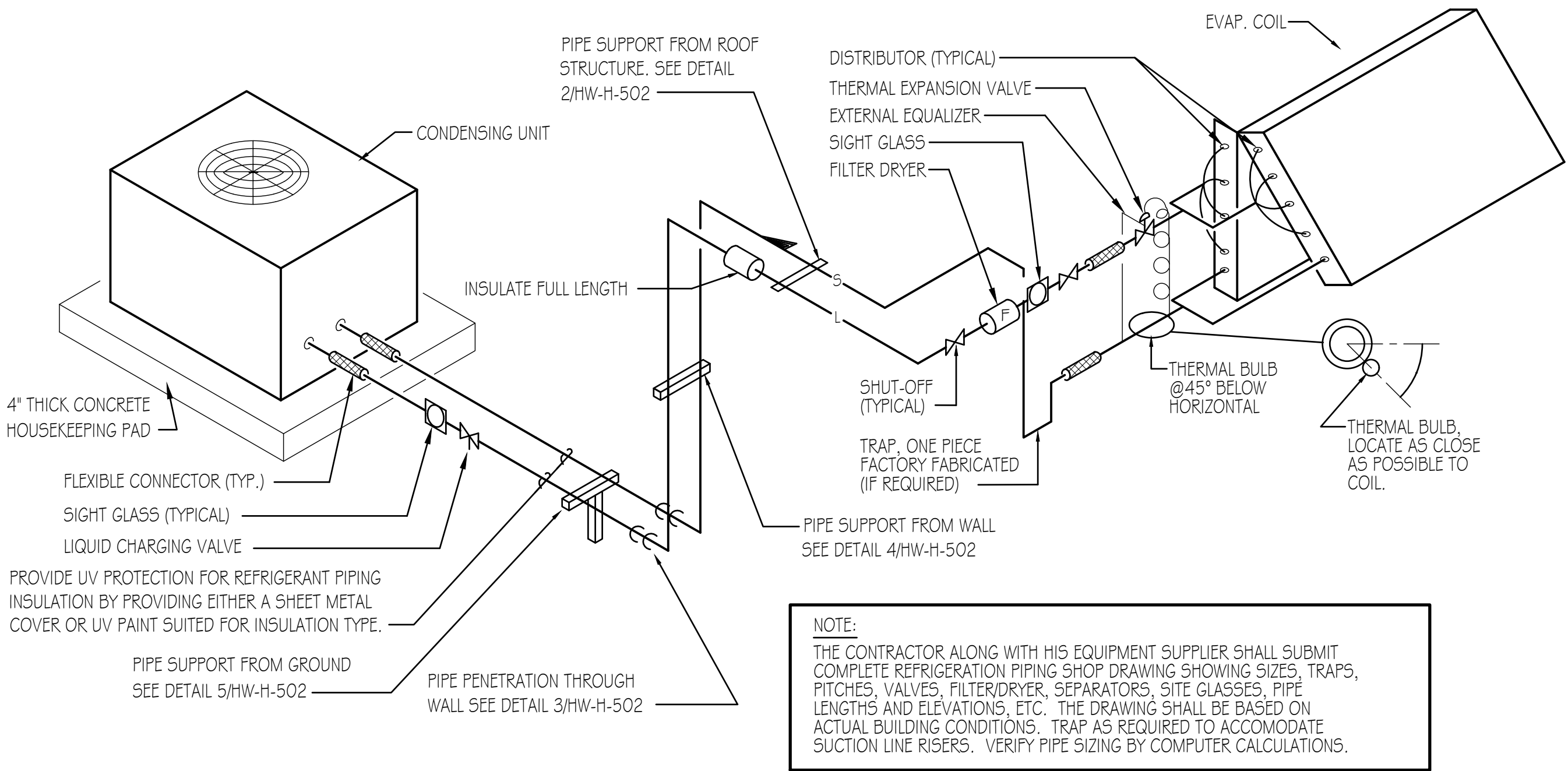
2 RECTANGULAR DUCT FITTING DETAIL
H-501 SCALE: NONE



3 UNIT HEATER MOUNTING DETAIL
H-501 SCALE: NONE

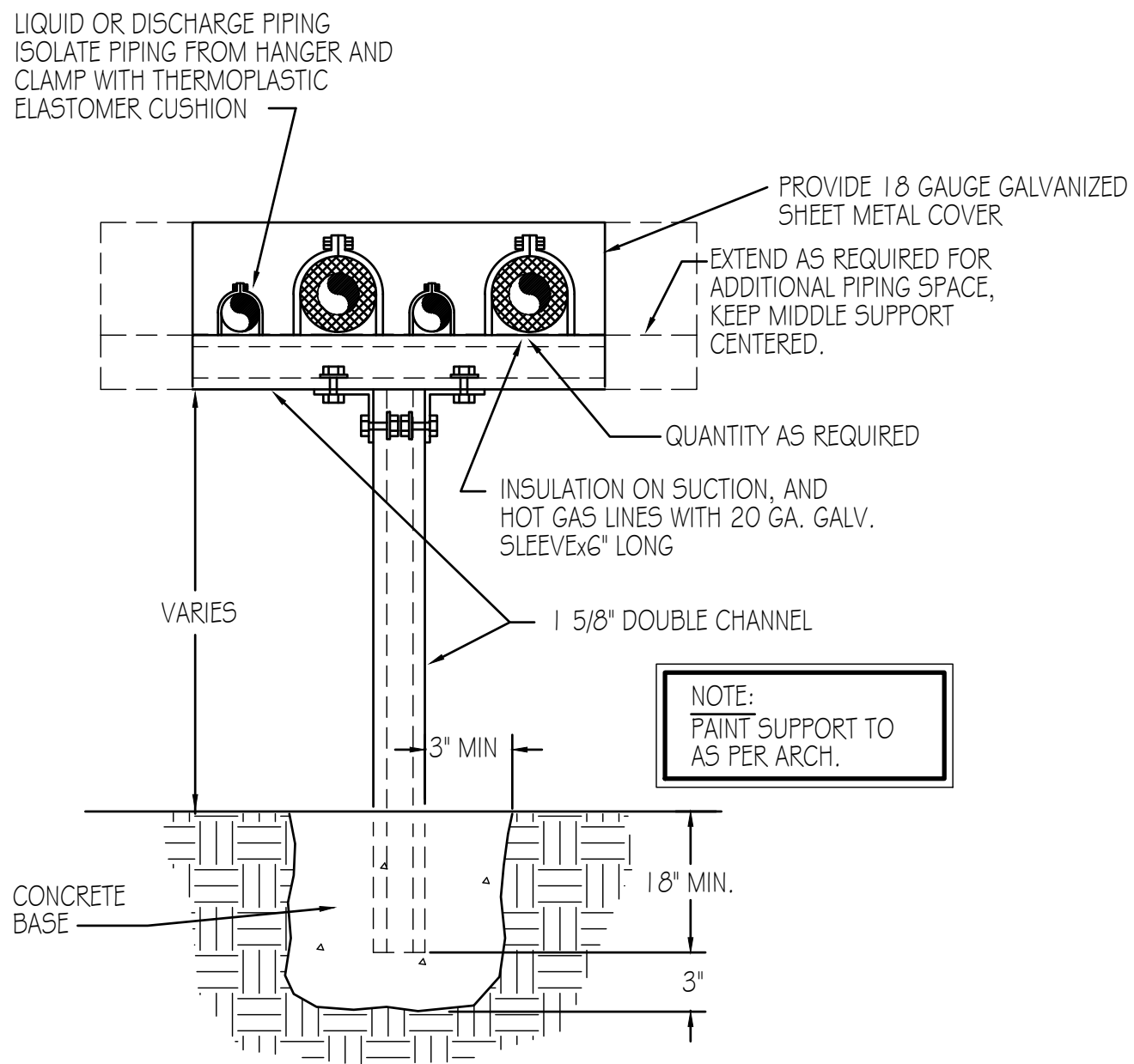
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	NO.	DESCRIPTION	NO.	BY	DATE	

REFRIGERANT PIPING LEGEND	
SYMBOL	DESCRIPTION
	REFRIGERANT SHUT-OFF VALVE
	EXPANSION VALVE.
	MOISTURE INDICATING SIGHT GLASS
	FLEXIBLE CONNECTION
	DIRECTION OF SLOPE DOWN
	SUCTION LINE
	LIQUID LINE



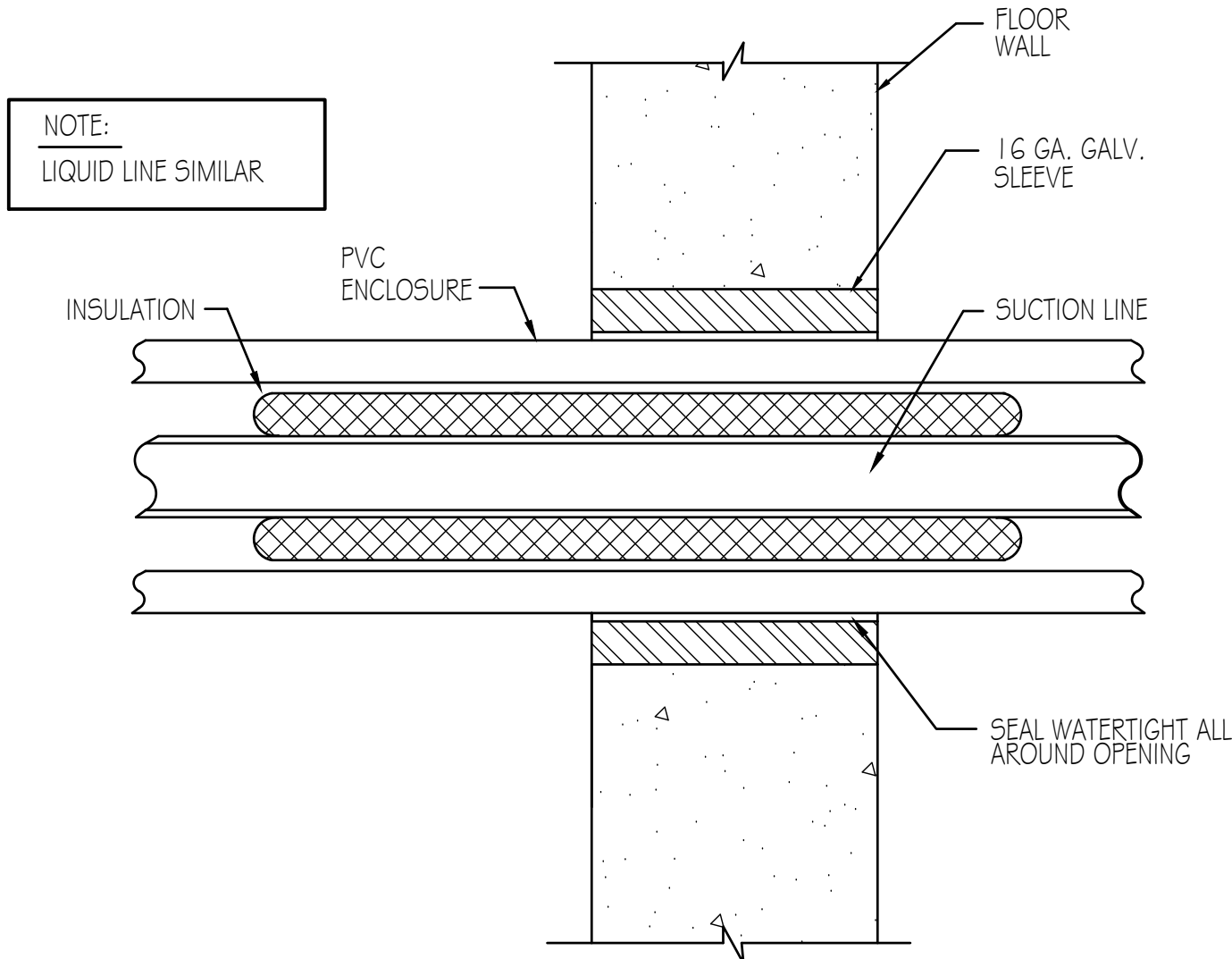
1
H-502 SCALE: NONE

REFRIGERANT PIPING SCHEMATIC



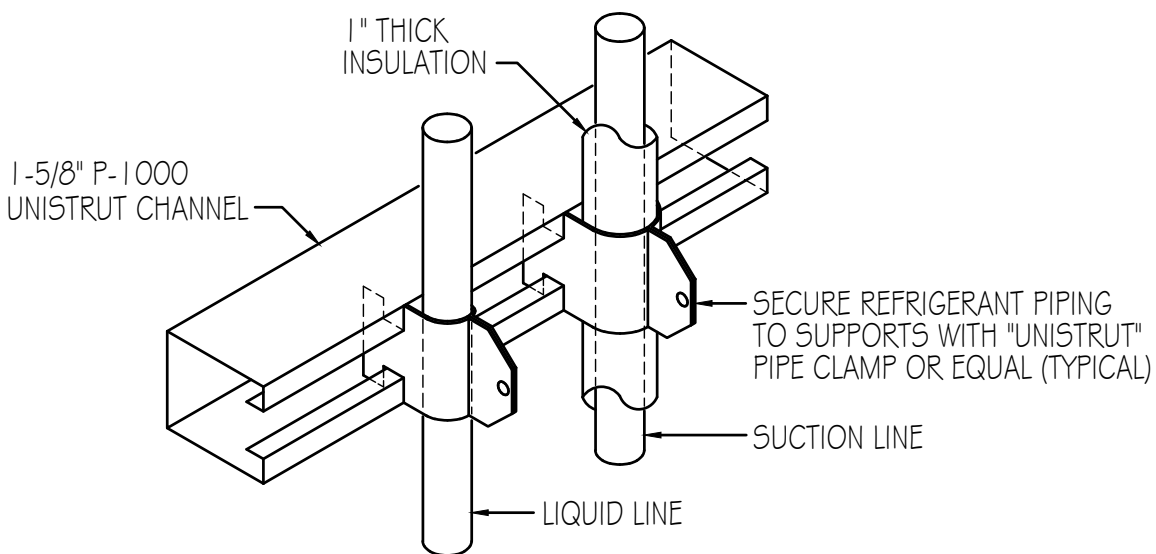
5
H-502 SCALE: NONE

REFRIGERANT SUPPORT DETAIL



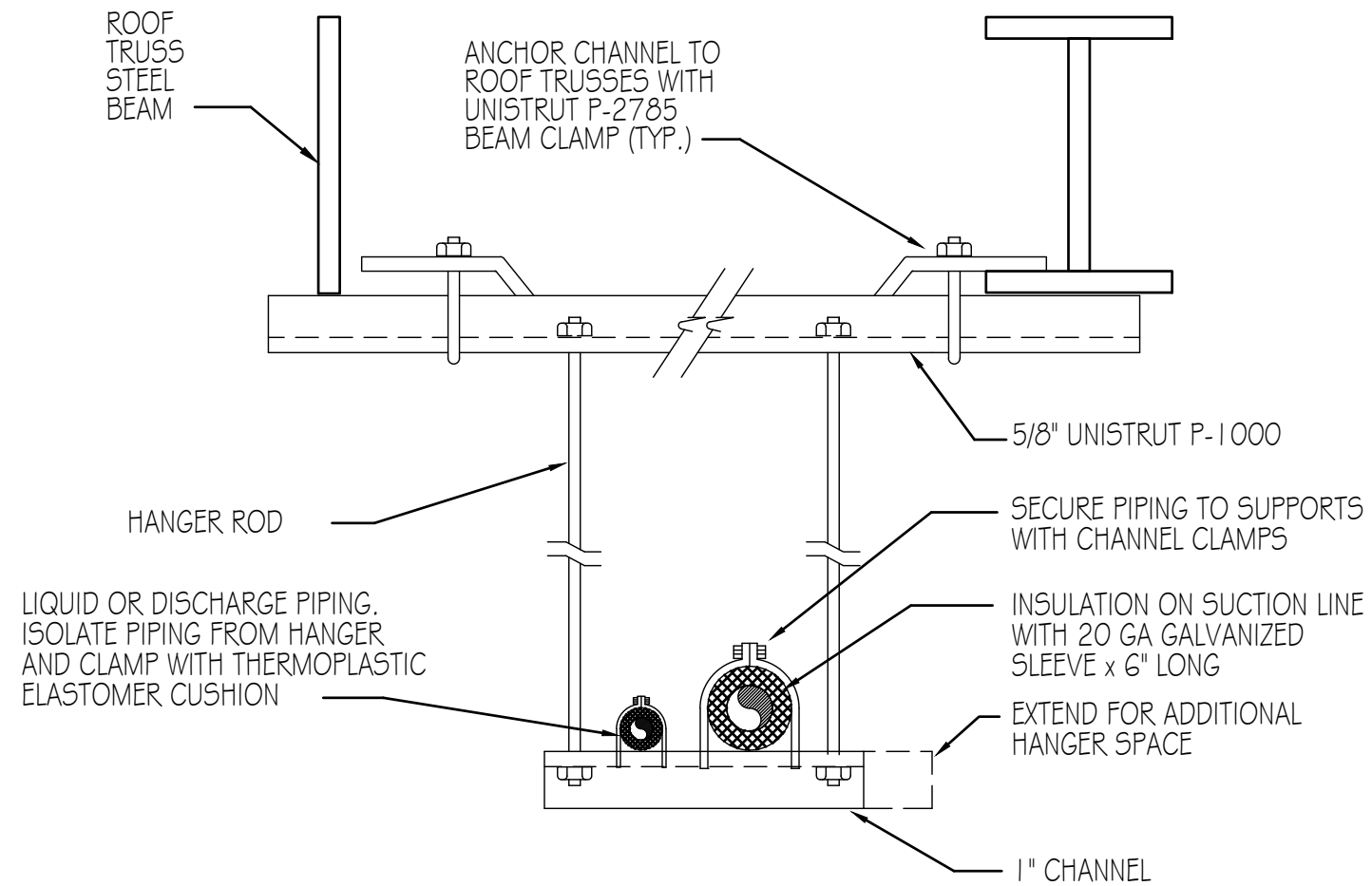
3
H-502 SCALE: NONE

REFRIGERANT PIPE PENETRATION AT WALL



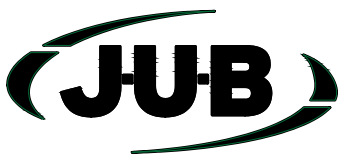
4
H-502 SCALE: NONE

REFRIGERANT PIPE VERTICAL SUPPORT DETAIL



2
H-502 SCALE: NONE

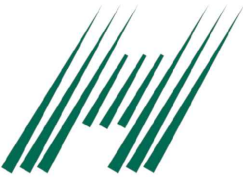
SUSPENDED REFRIGERANT PIPE SUPPORT DETAIL



J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
392 E. Winchester St., Suite 300
Salt Lake City, UT 84107
Phone: 801 547 0393
www.jub.com

Subconsultant:



HEATH
Engineering Company



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REVISION	NO.	DESCRIPTION	BY	DATE

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

HVAC (H)
NEW HEADWORKS BUILDING
HVAC DETAILS

FILE: .

JUB PROJ. # : #####

DRAWN BY: KJB

DESIGN BY: KDH

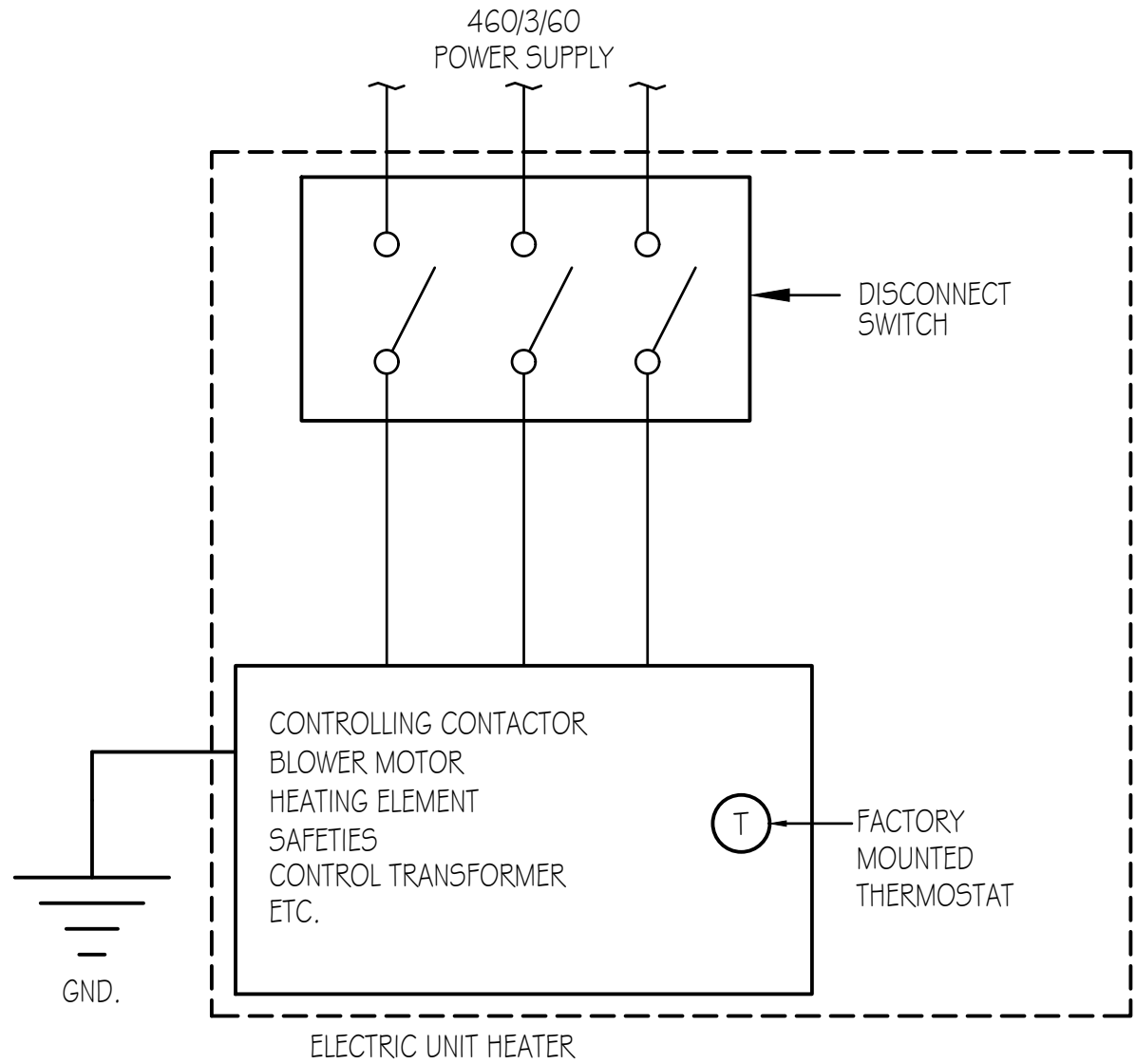
CHECKED BY: KDH

ONE INCH
AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025

DRAWING:

H-502

I:\25035\01-DWG\HVAC\SHEET\25035-H-601.dwg, 9/5/2025 8:10:49 AM, kbrown

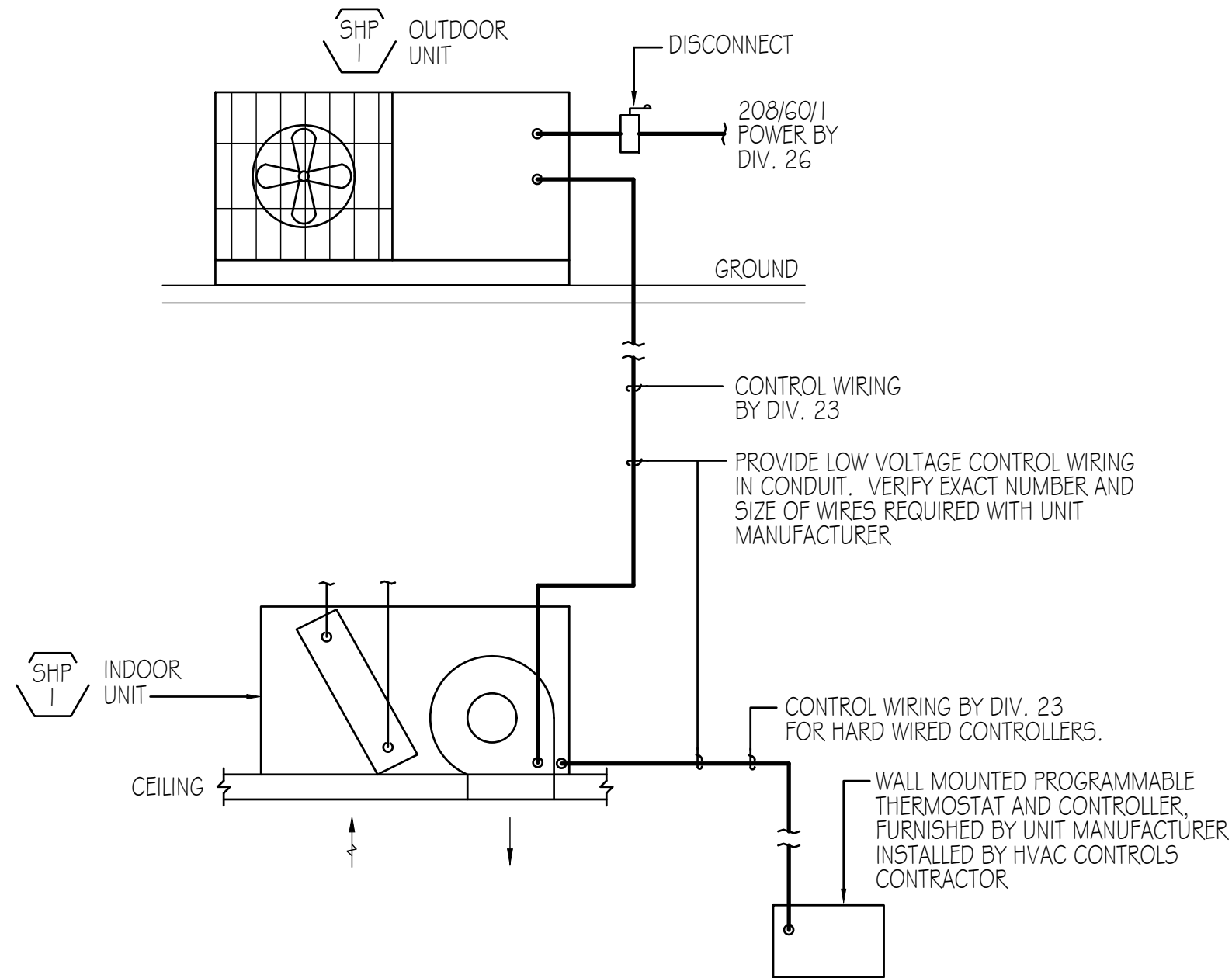


ELECTRIC UNIT HEATER CONTROL DIAGRAM

TYPICAL FOR UH-1 AND UH-2

NOTE:

ALL COMPONENTS SHALL BE RATED FOR A CLASS 1, DIV. 1 ENVIRONMENT



SPLIT SYSTEM HEAT PUMP UNIT CONTROL DIAGRAM

SCALE: NONE TYPICAL FOR SHP-1. SEE PLANS FOR EXACT CONFIGURATION

CONTROL GENERAL NOTES:

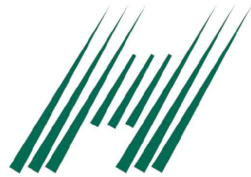
- A. ALL CONTROL COMPONENTS, RELAYS, INTERLOCKS, MISCELLANEOUS ITEMS, CONDUIT, WIRING, INSTALLATION AND TERMINATION FOR THE CONTROL OF THE EQUIPMENT SHOWN ON THIS DRAWING SHALL BE BY DIVISION 23. COMPLETE POWER WIRING SHALL BE BY DIVISION 26.



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REVISION	NO.	DESCRIPTION	BY	DATE

LAGOON IMPROVEMENTS PROJECT
MT PLEASANT CITY

HVAC (H)
NEW HEADWORKS BUILDING
HVAC CONTROL DIAGRAMS

FILE :
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DRAWN BY: KJB
DESIGN BY: KDH
CHECKED BY: KDH

ONE INCH
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INCH, SCALE ACCORDINGLY
LAST UPDATED: 9/20/2025

DRAWING:

H-601