

IRRIGATION GENERAL NOTES:

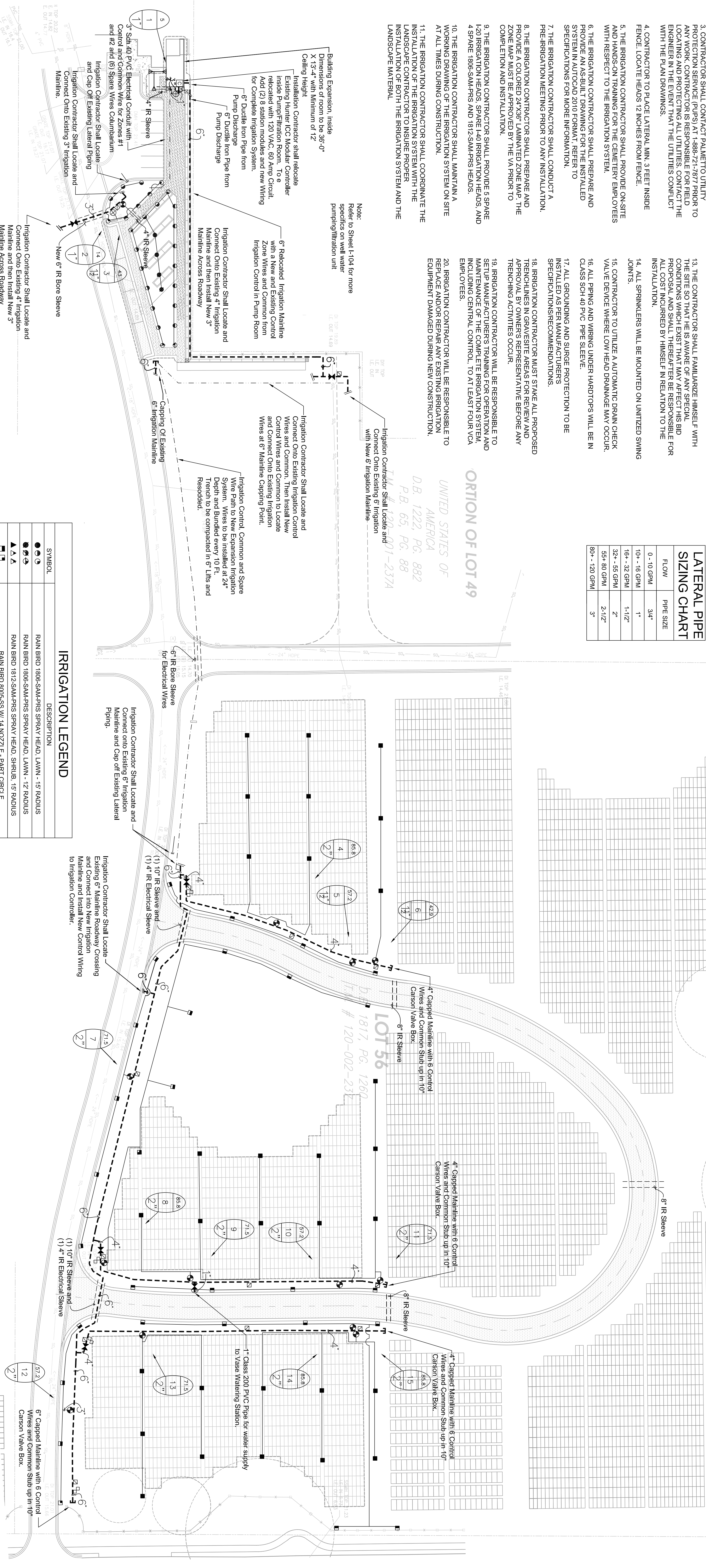
1. CONTRACTOR IS RESPONSIBLE FOR ALL WORK SHOWN UNLESS SPECIFICALLY INDICATED OTHERWISE.
2. CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION TO DETERMINE THE EXTENT OF THE PROJECT.
3. CONTRACTOR SHALL CONTACT PALMETTO UTILITY PROTECTION SERVICE (PUPS) AT 1-888-21-7877 PRIOR TO ANY WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING AND PROTECTING ALL UTILITIES. CONTACT THE ENGINEER IN THE EVENT THAT THE UTILITIES CONFLICT WITH THE PLAN DRAWINGS.
4. CONTRACTOR TO PLACE LATERAL MIN. 3 FEET INSIDE FENCE LOCATE HEADS 12 INCHES FROM FENCE.
5. THE IRRIGATION CONTRACTOR SHALL PROVIDE ON-SITE AND HANDS-ON TRAINING FOR THE CEMETERY EMPLOYEES WITH RESPECT TO THE IRRIGATION SYSTEM.
6. THE IRRIGATION CONTRACTOR SHALL PREPARE AND PROVIDE AN AS-BUILT DRAWING FOR THE INSTALLED SYSTEM IN AUTOCAD 2010 FORMAT. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
7. THE IRRIGATION CONTRACTOR SHALL CONDUCT A PRE-IRRIGATION MEETING PRIOR TO ANY INSTALLATION.
8. THE IRRIGATION CONTRACTOR SHALL PREPARE AND PROVIDE A COLORED 24"X36" LAMINATED ZONE MAP. THE ZONE MAP MUST BE APPROVED BY THE VA PRIOR TO COMPLETION AND INSTALLATION.
9. THE IRRIGATION CONTRACTOR SHALL PROVIDE 5 SPARE 1-20 IRRIGATION HEADS, SPARE 1-40 IRRIGATION HEADS, AND 4 SPARE 1806-SAM-PRS AND 1812-SAM-PRS HEADS.
10. THE IRRIGATION CONTRACTOR SHALL MAINTAIN A WORKING DRAWING OF THE IRRIGATION SYSTEM ON SITE AT ALL TIMES DURING CONSTRUCTION.
11. THE IRRIGATION CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE LANDSCAPE CONTRACTOR TO INSURE PROPER INSTALLATION OF BOTH THE IRRIGATION SYSTEM AND THE LANDSCAPE MATERIAL.

12. THE IRRIGATION SYSTEM PLAN IS ILLUSTRATED IN SCHEMATIC FORM. THE IRRIGATION CONTRACTOR MAY BE REQUIRED TO MAKE MINOR ADJUSTMENTS IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADDITIONAL COST TO THE OWNER BUT SHALL BE MADE ONLY AFTER NOTIFICATION IS MADE TO THE OWNER OR HIS REPRESENTATIVE.
13. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE SO THAT HE IS AWARE OF ANY SPECIAL CONDITIONS WHICH EXIST THAT MAY AFFECT HIS BID PROPOSAL, AND SHALL THEREAFTER BE RESPONSIBLE FOR ANY COSTS INCURRED BY HIMSELF IN RELATION TO THE INSTALLATION.
14. ALL SPRINKLERS WILL BE MOUNTED ON UNITIZED SWING JOINTS.
15. CONTRACTOR TO UTILIZE A AUTOMATIC DRAIN CHECK VALVE DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.
16. ALL PIPING AND WIRING UNDER HARDTOPS WILL BE IN CLASS SCH 40 PVC PIPE SLEEVE.
17. ALL GROUNDING AND SURGE PROTECTION TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS/RECOMMENDATIONS.
18. IRRIGATION CONTRACTOR MUST STAKE ALL PROPOSED HEADS IN SPRINKLER HEADS FOR REMEASUREMENT AND APPROVAL BY THE OWNER REPRESENTATIVE BEFORE ANY TRENCHING ACTIVITIES OCCUR.
19. IRRIGATION CONTRACTOR WILL BE RESPONSIBLE TO SETUP MANUFACTURER'S TRAINING FOR OPERATION AND MAINTENANCE OF THE COMPLETE IRRIGATION SYSTEM, INCLUDING CENTRAL CONTROL, TO AT LEAST FOUR VCA EMPLOYEES.
20. IRRIGATION CONTRACTOR WILL BE RESPONSIBLE TO REPLACE AND/OR REPAIR ANY EXISTING IRRIGATION EQUIPMENT DAMAGED DURING NEW CONSTRUCTION.

LATERAL PIPE SIZING CHART

FLOW	PIPE SIZE
0 - 10 GPM	3/4"
10+ - 16 GPM	1"
16+ - 32 GPM	1-1/2"
32+ - 55 GPM	2"
55+ 80 GPM	2-1/2"
80+ - 120 GPM	3"

ALL PROPERTY LINE INFORMATION
TAKEN FROM AN ALTA SURVEY BY
BASQUE & ASSOCIATES DATED
4/11/06 JOB # 31136

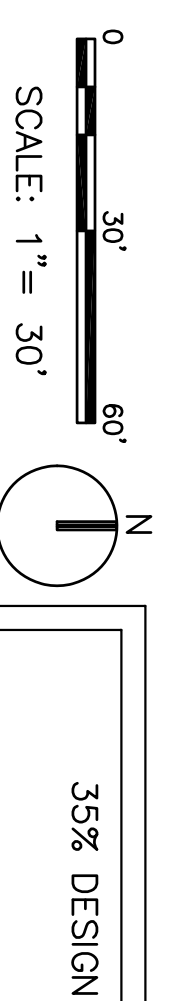



IRRIGATION LEGEND

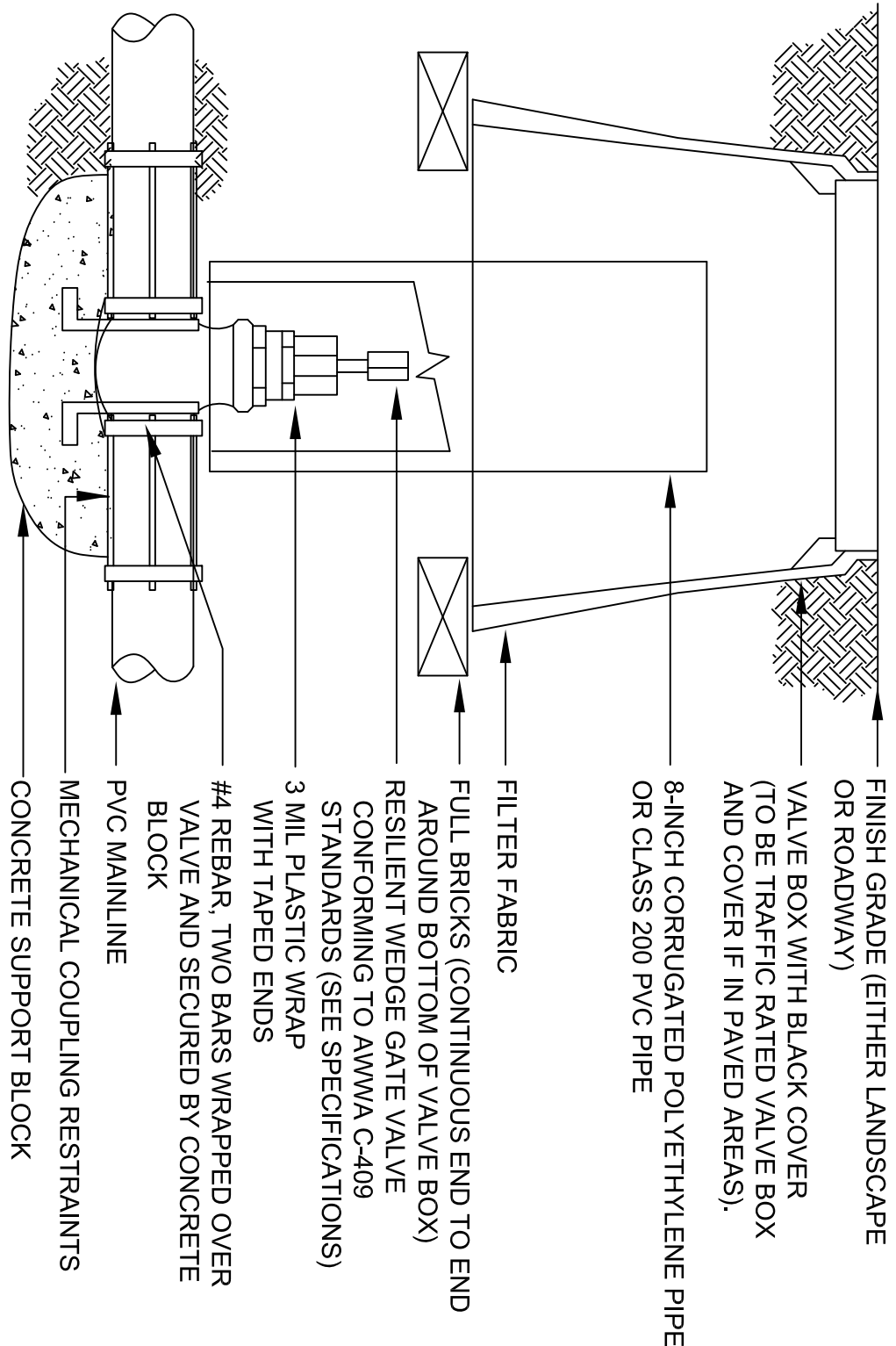
SYMBOL	DESCRIPTION
●●●●	RAIN BIRD 1806-SAM-PRS SPRAY HEAD, LAWN - 15' RADIUS
●●●●●	RAIN BIRD 1806-SAM-PRS SPRAY HEAD, LAWN - 12' RADIUS
▲▲▲▲	RAIN BIRD 1812-SAM-PRS SPRAY HEAD, SHRUB - 15' RADIUS
■	RAIN BIRD 8005-SS W/ 14 NOZZLE - PART CIRCLE
■	RAIN BIRD 8005-SS W/ 14 NOZZLE - FULL CIRCLE
☐	1" QUICK COUPLING VALVE - TIED TO IRRIGATION MAIN
---	MAINLINE PIPE, 4" SIZE IF NOT NOTED, CLASS 200 PVC, ALL PIPE 2-1/2" AND LARGER SHALL BE UNBELLED GASKETED PVC PIPE AND HARCO PVC GASKETED FITTINGS, THRUST BLOCK AS PER MANUFACTURER'S RECOMMENDATIONS, PIPE 4" AND LARGER SHALL UTILIZE APPROVED RESTRAINTS WHERE NECESSARY, THRUST BLOCKS AND RESTRAINTS TO BE UTILIZED AS PER MANUFACTURER'S RECOMMENDATIONS FOR PIPE TYPE, PIPE SIZE, AND LOCAL ENVIRONMENTAL CONDITIONS.
⌘	CLASS 200 PVC IRRIGATION LATERAL - SEE PIPE SIZING CHART
⌘	IRRIGATION MAIN ISOLATION VALVE - DOMESTIC DUCTILE IRON GASKETED MANUAL DRAIN VALVE
⊕	RAIN BIRD 100-PESB-PRS, 1" REMOTE CONTROL VALVE
⊙	RAIN BIRD 150-PESB-PRS OR 200-PESB-PRS, 1-1/2" OR 2" REMOTE CONTROL VALVE, SIZE NOTED ON PLANS
Ⓐ	BERMAD MAINLINE AIR VENT VALVE
---	DENOTES LOCATION OF PVC SLEEVES FOR IRRIGATION PIPING, RELOCATED AND UPGRADED IRRIGATION CONTROLLER, REFER TO NOTES ON PLANS.
C	

TYPICAL VALVE INDICATOR

28.5	GALLONS PER MIN.
10	STATION NUMBER
1 1/2"	VALVE SIZE



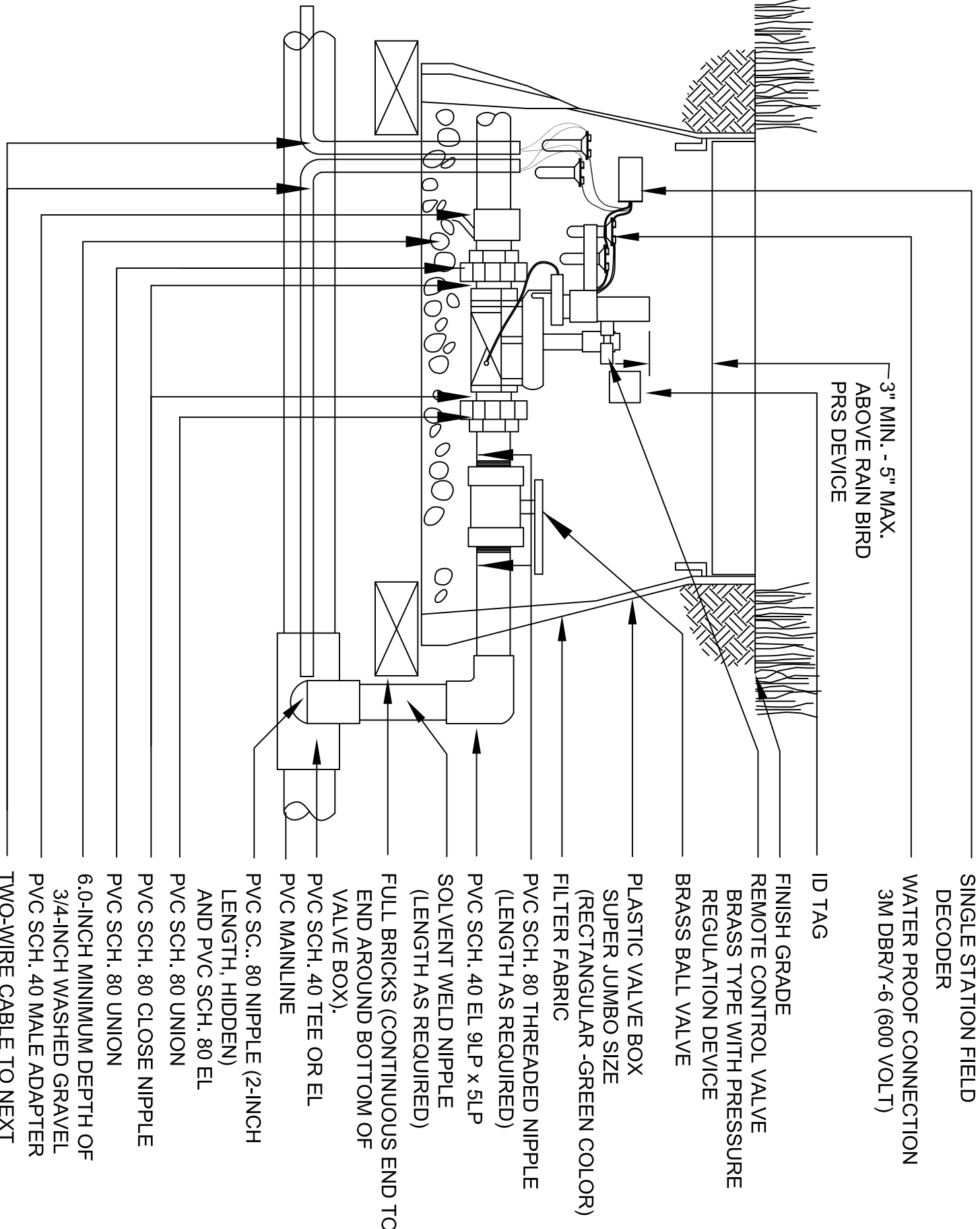
ENGINEER & SURVEYOR: amec AMEC Environment & Infrastructure, INC. 1075 BIG SHAWNY ROAD NW, SUITE 100 DUNWOODY, GA 30017 (770) 421-5400 AMEC PROJECT: 6151-13-0158		SUBCONSULTANT: Irrigation Consulting Services 2231 Westhollow Circle Convers, CA 94094 (770) 924-0884, fax (770) 764-8025		LOCATION: BEAUFORT NATIONAL CEMETERY 1601 BOUNDARY STREET BEAUFORT, SC 29902-3947		 NATIONAL CEMETERY ADMINISTRATION		Drawing Title IRRIGATION PLAN		Project Title BEAUFORT NATIONAL CEMETERY EXPANSION		Date 8-15-2013	
Approved: Director, Technical Support Service				Building Number Checked		Drawn		Approved: Chief, Architectural & Engineering Division		Location BEAUFORT, SC		Project No. 831 CM 2014	
										Drawing No. I-101		Sheet 18 of 23	



- NOTES:
1. NOMINAL SIZE OF GATE VALVE TO MATCH NOMINAL MAINLINE SIZE.
 2. INSTALL A 1/2-INCH THICK CONCRETE PAD BELOW VALVE WITH NO. 4 REBAR WHEN USING PUSH ON TYPE VALVES.
 3. RESILIENT WEDGE GATE VALVE MAY HAVE EITHER MECHANICAL JOINT OR PUSH-ON GASKETED ENDS. THE OPERATOR IS A WRENCH NUT.
 4. ANCHOR ISOLATION VALVE TO CONCRETE BY BENDING REBAR OVER EACH END OF VALVE BOX AND SECURING WITH #4 REBAR. REBAR TO BE SECURED BY CONCRETE.
 5. WRAP VALVE ENDS AND BODY IN 3 MIL PLASTIC PRIOR TO POURING CONCRETE.
 6. CONCRETE SUPPORT BLOCK IS TO BE POURED UNDER ISOLATION GATE VALVE. ONLY THE BOTTOM OF THE ISOLATION GATE VALVE TO BE IN CONTACT WITH CONCRETE.
 7. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO VALVE BOX.
 8. LABEL VALVE BOX COVER PER SPECIFICATIONS.
 9. ISOLATION VALVES TO BE INSTALLED WITH EXPANSION RESTRAINTS.

A ISOLATION GATE VALVE

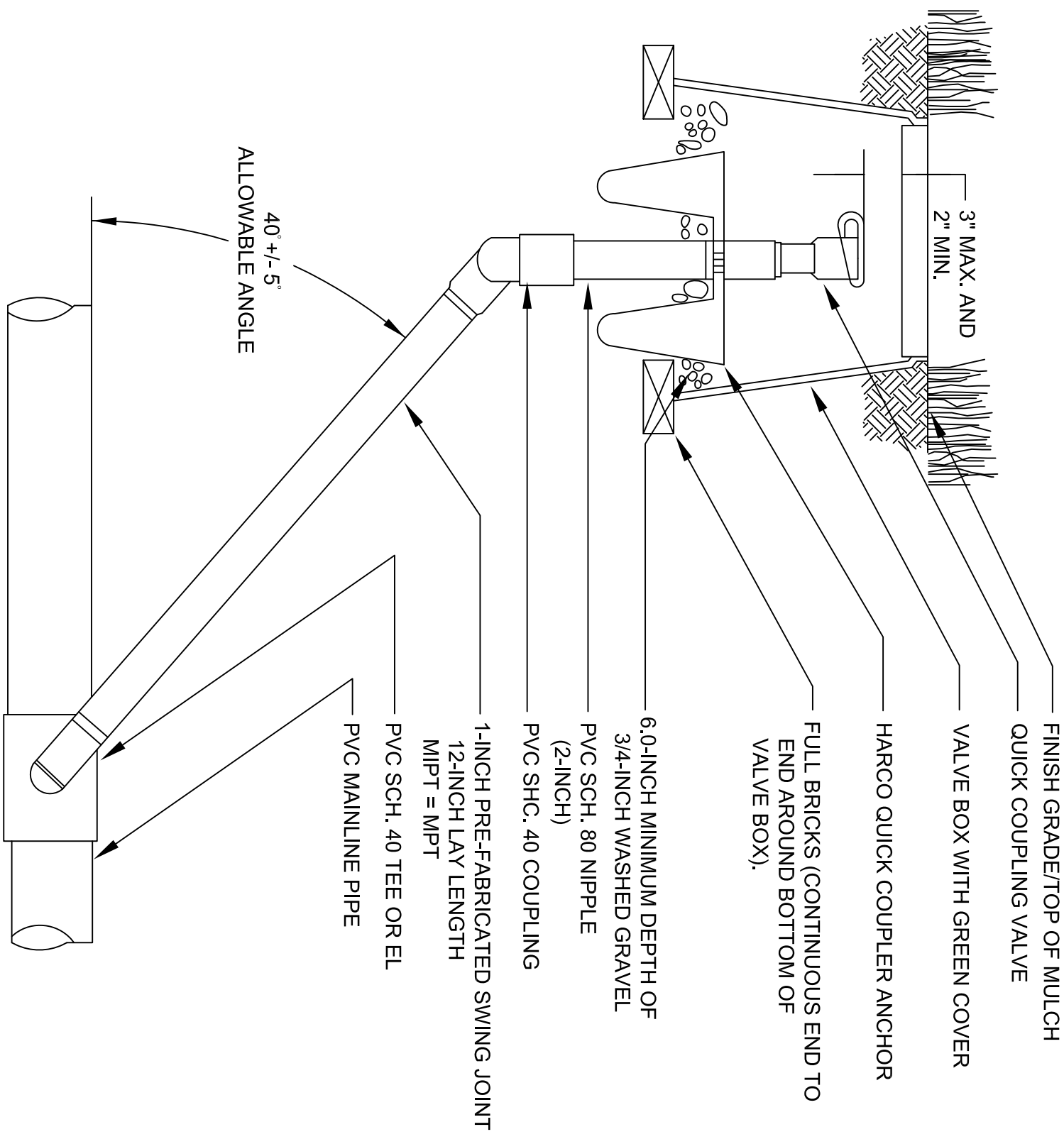
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- NOTES:
1. USE VALVE BOX EXTENSIONS NECESSARY TO ACHIEVE MINIMUM DIMENSIONS ABOVE ASSEMBLY.
 2. NOMINAL SIZE OF ALL COMPONENTS ARE TO BE THE SAME NOMINAL SIZE AS THE SOLENOID VALVE (SIZED AS SHOWN).
 3. TRANSITION TO PROPER LATERAL PIPE BURIAL DEPTH USING PVC SCH. 40 SOLVENT WELD FITTINGS DOWNSTREAM OF REMOTE CONTROL VALVE ASSEMBLY.
 4. IN MODULE TO INDICATED PRESSURE ON LEGEND PER MANUFACTURERS RECOMMENDATIONS.
 5. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO PIPE AND VALVE BOX.
 6. UTILIZE VALVE ID TAGS AS PER SPECIFICATIONS.
 7. DO NOT ALLOW VALVE BOX SIDES TO REST ON PIPE.
 8. POSITION VALVE BOX OVER VALVE TO ALLOW OPERATION OF SOLENOID AND BALL VALVES.

B REMOTE CONTROL VALVE

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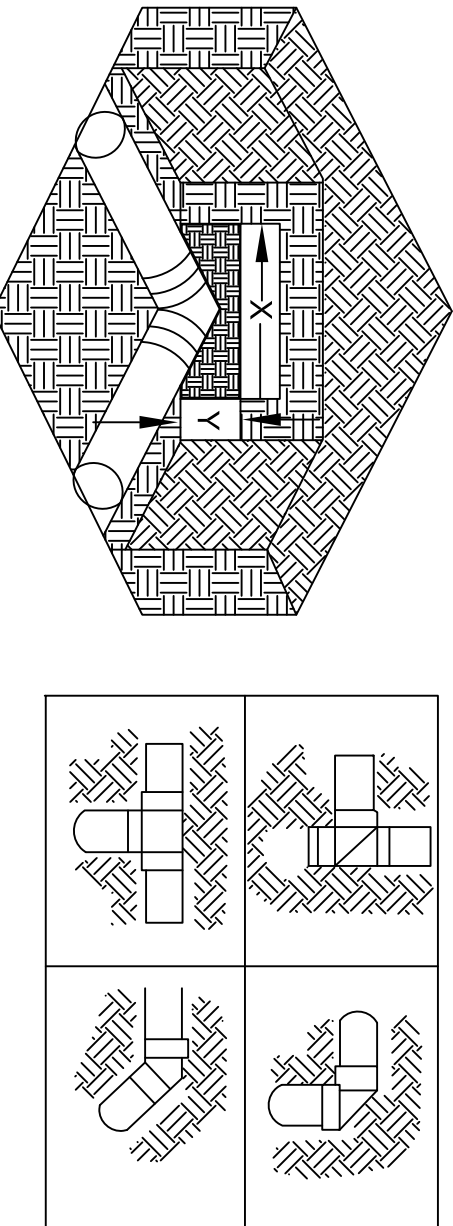


- NOTES:
1. FULSU FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

C QUICK COUPLING VALVE

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THRUST BLOCK SURFACE AREA (SF) AGAINST UNDISTURBED SOIL (X X Y) - (SF)					
FITTING SIZE	BEND (SF)	45 BEND (SF)	90 BEND (SF)	TEE OR DEAD END (SF)	
3"	0.21	0.42	0.82	1.57	1.07
4"	0.35	0.68	1.35	2.48	1.75
6"	0.75	1.49	2.92	5.40	3.82
8"	1.27	2.53	4.97	5.18	6.48
10"	1.98	3.93	7.71	14.25	10.08
12"	2.76	5.53	10.85	20.04	14.17



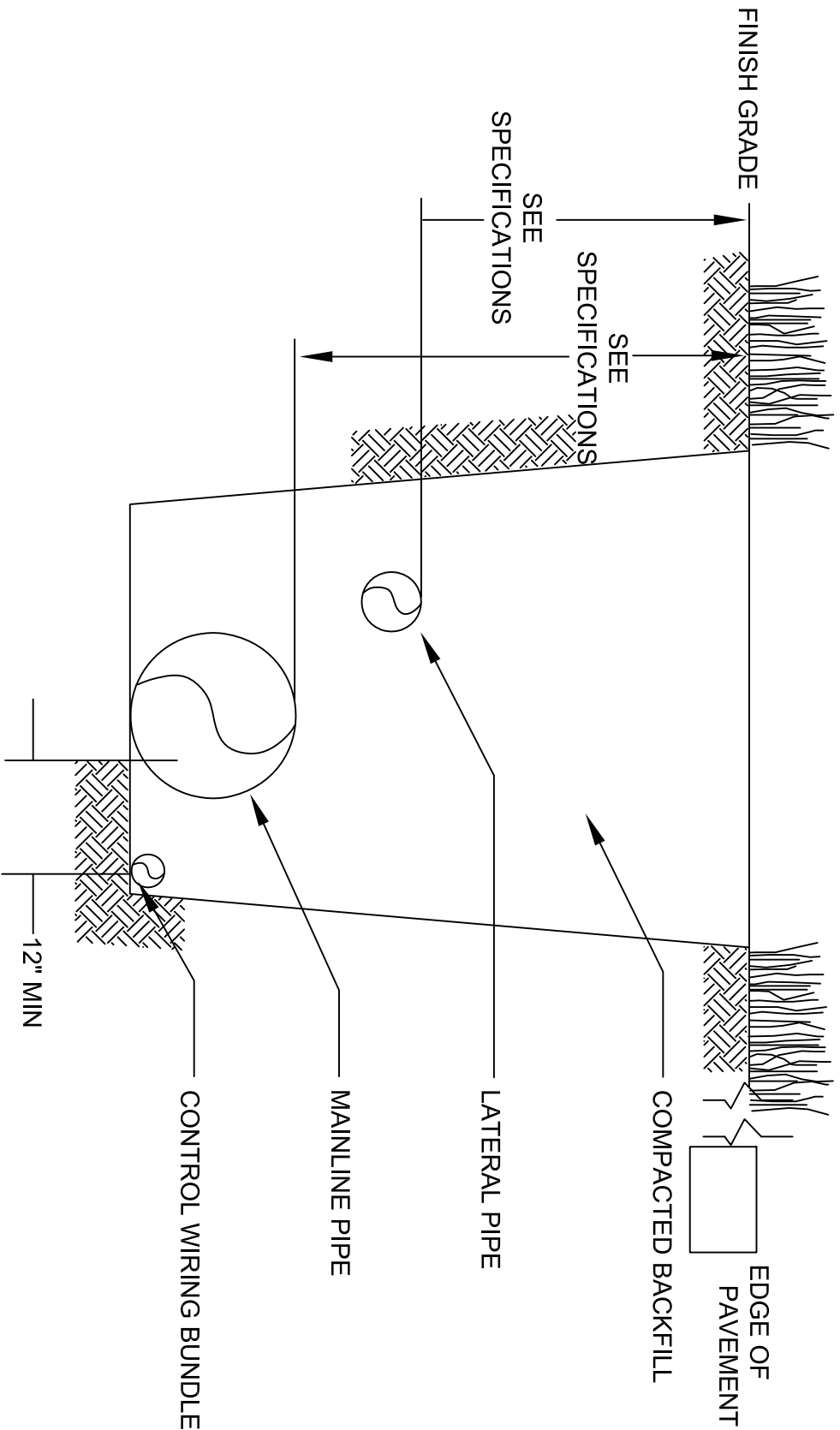
- NOTES:
1. INSTALL AND TEST MAINLINE ACCORDING TO MANUFACTURERS.
 2. REBAR IS TO BE INSTALLED IN ALL TRENCH DEPTHS AND WIDTHS.
 3. USE NO. 4 REBAR WITH MASTIC COATING WHERE PIPE MUST BE ANCHORED TO THRUST BLOCK.
 4. INSTAL THRUST BLOCK SO THE HORIZONTAL (X) AND VERTICAL (Y) DIMENSIONS OF THE THRUST BLOCK ARE APPROXIMATELY EQUAL.
 5. INSTALL THRUST BLOCK WITH A MINIMUM THICKNESS FROM THE PIPE TO THE SURFACE OF THE THRUST BLOCK OF 12 INCHES.
 6. THRUST BLOCK SIZING ASSUMES A MAXIMUM OPERATING PRESSURE OF 100 PSI, A MAXIMUM VELOCITY OF 5 FEET PER SECOND, AND A SOIL BEARING CAPACITY OF 1000 LBS/FT².

D THRUST BLOCKING

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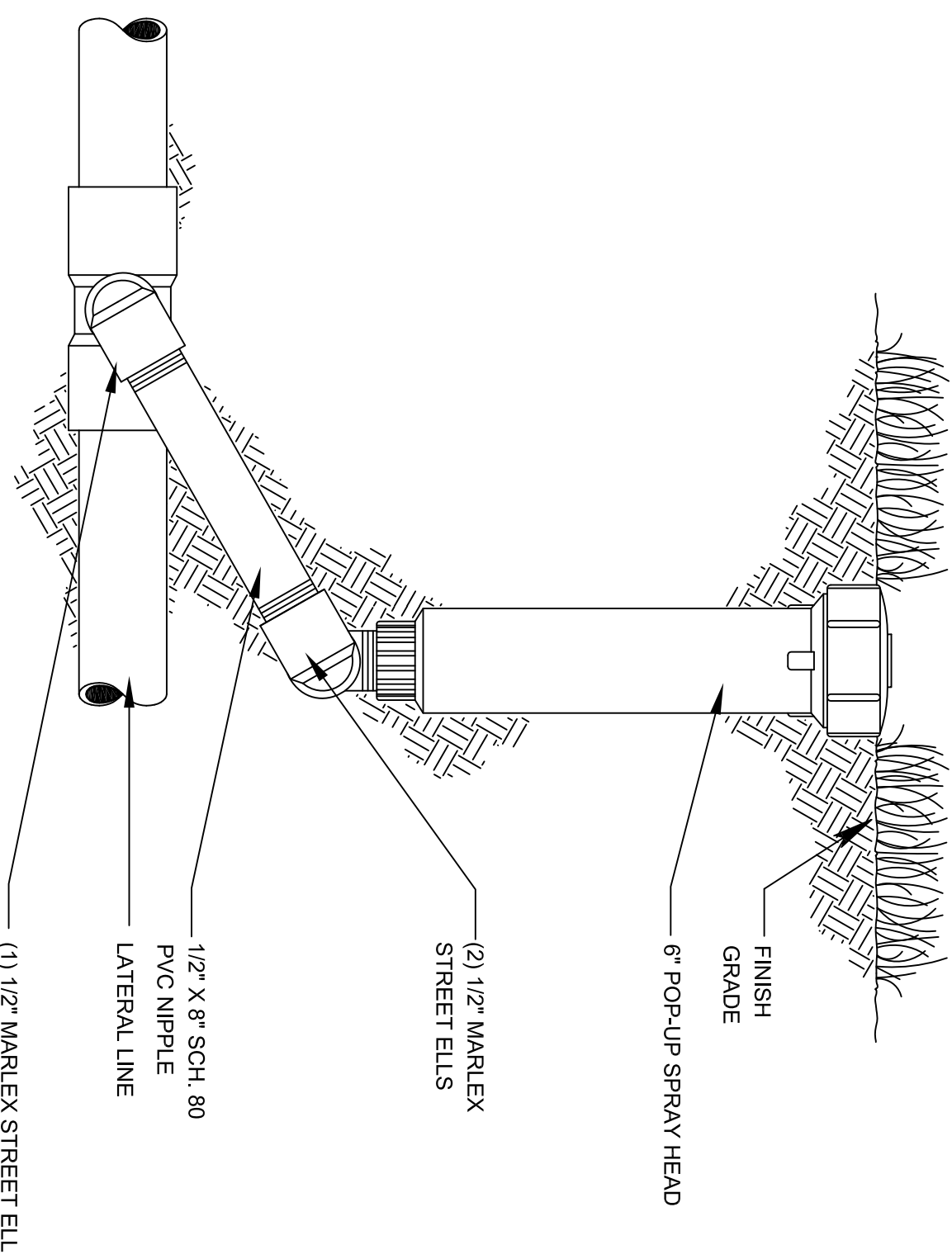
E TRENCHING

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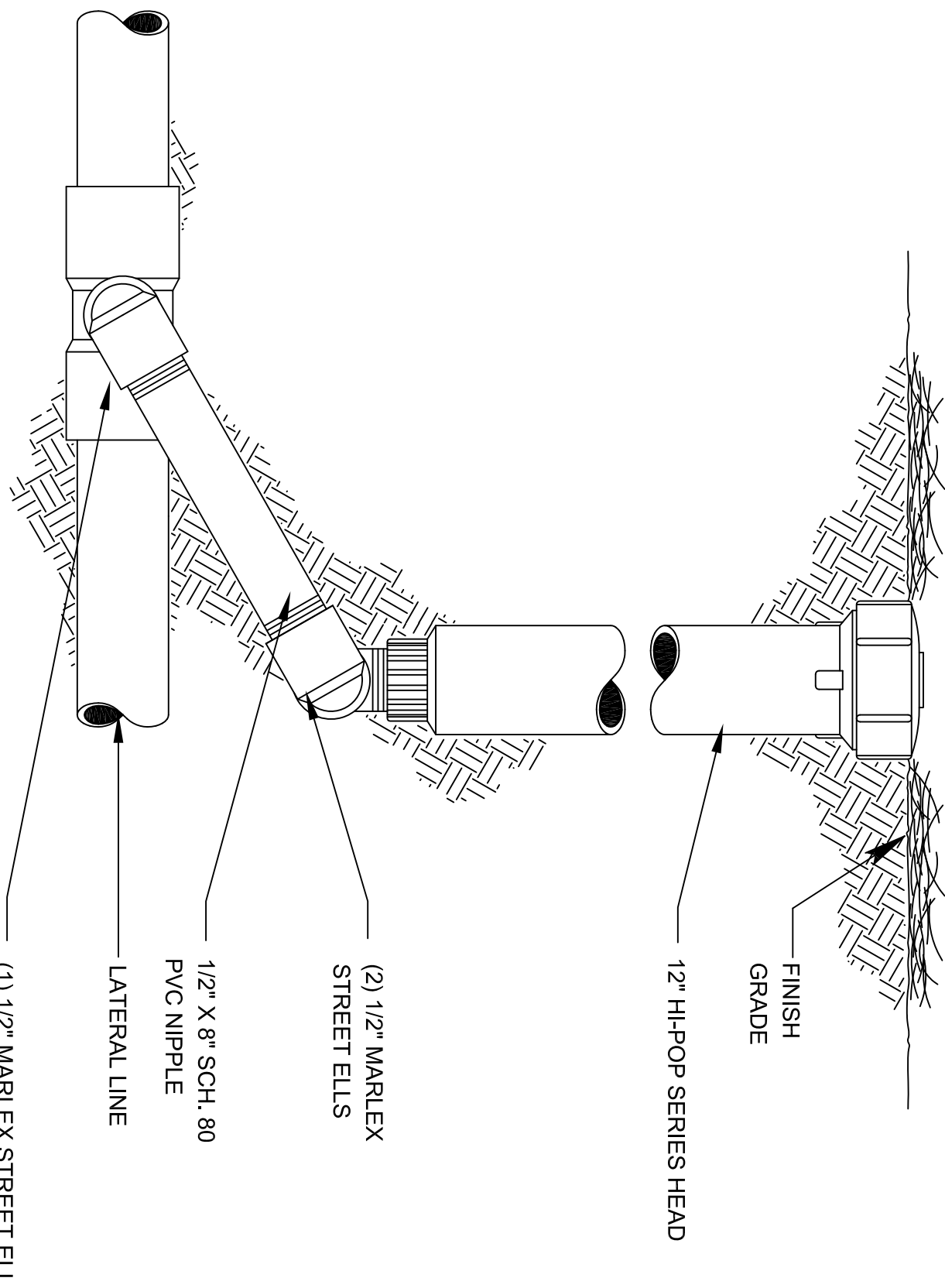
F LAWN SPRAY HEAD

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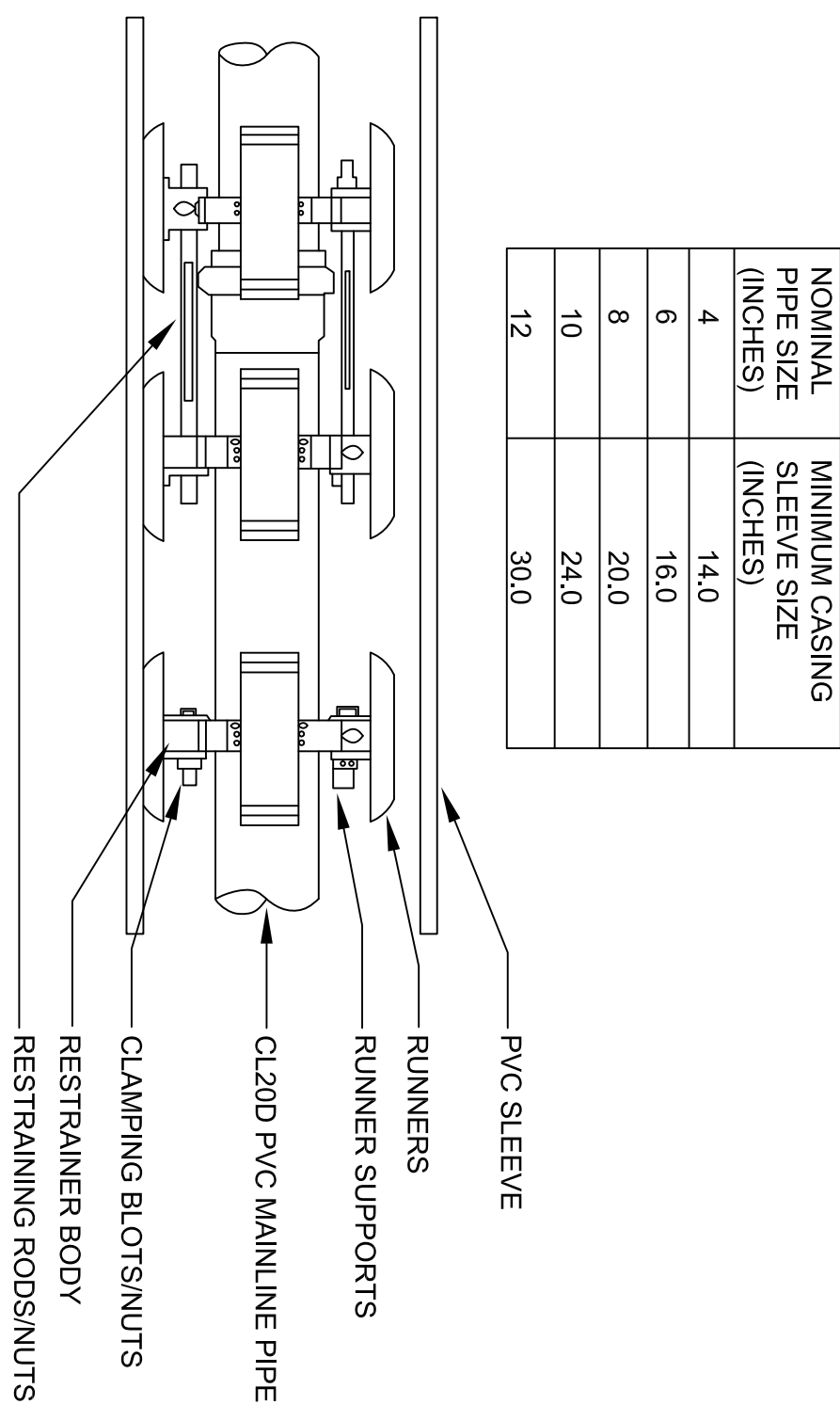


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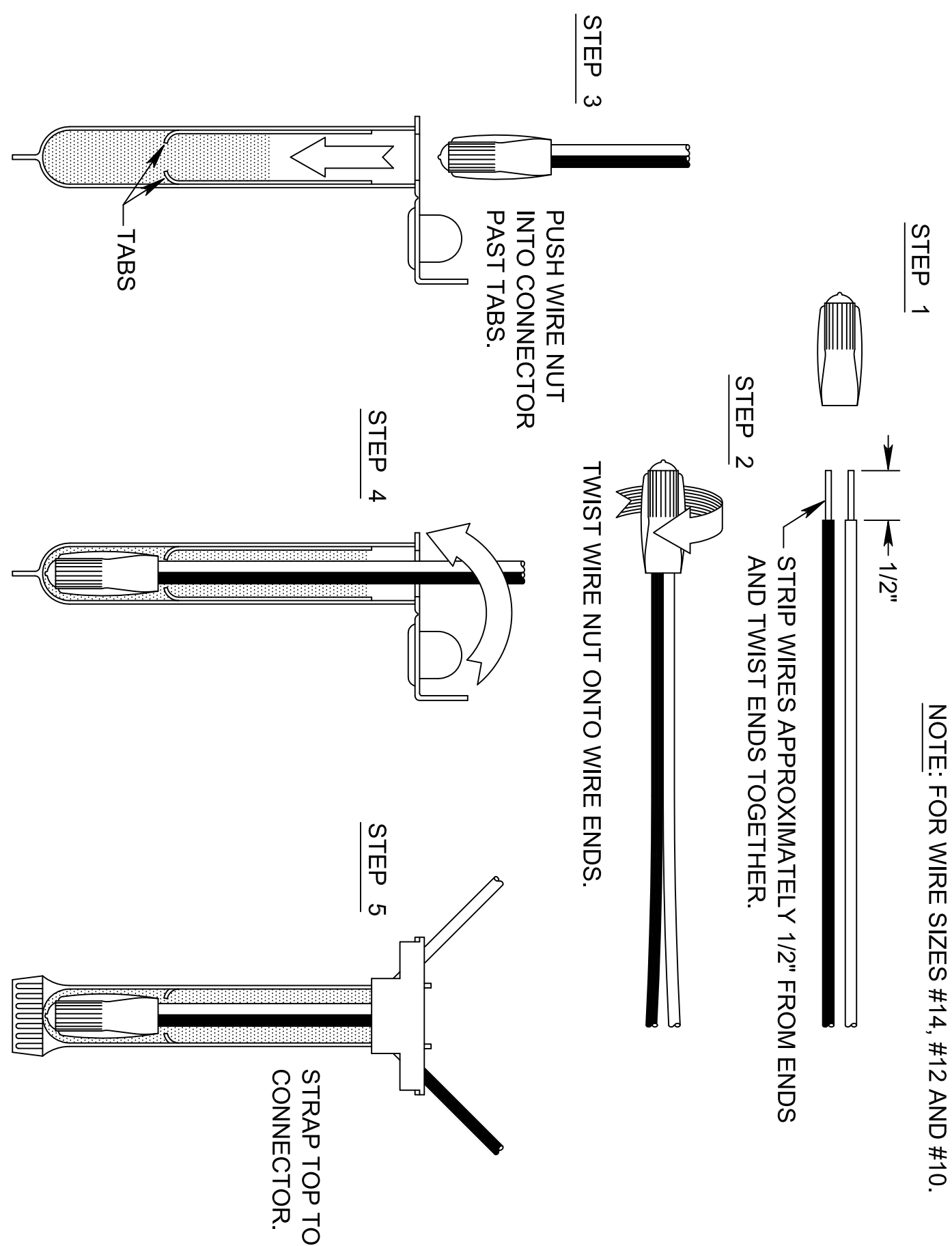
Revisions	Date	ENGINEER & SUPERVISOR ameco AMEC Environment & Infrastructure, INC. 1075 BIG SHAWNY ROAD NW, SUITE 100 CENTENNIAL, CO 80014 (770) 421-5400 AMEC PROJECT: 6151-13-0158	SUBCONSULTANT Irrigation Consulting Services 2231 Westhollows Circle Conyers, GA 30094 (770) 924-0884, fax (770) 764-8025	LOCATION: BEAUFORT NATIONAL CEMETERY 1601 BOUNDARY STREET BEAUFORT, SC 29902-3947	 NATIONAL CEMETERY ADMINISTRATION	Drawing Title IRRIGATION DETAILS	Project Title BEAUFORT NATIONAL CEMETERY EXPANSION	Date 8-15-2013
		Approved: Director, Technical Support Service	Building Number Checked	Drawn			Project No. 831 CM 2014	Drawing No. I-501
		Approved: Chief, Architectural & Engineering Division	Location BEAUFORT, SC				Sheet 19 of 23	



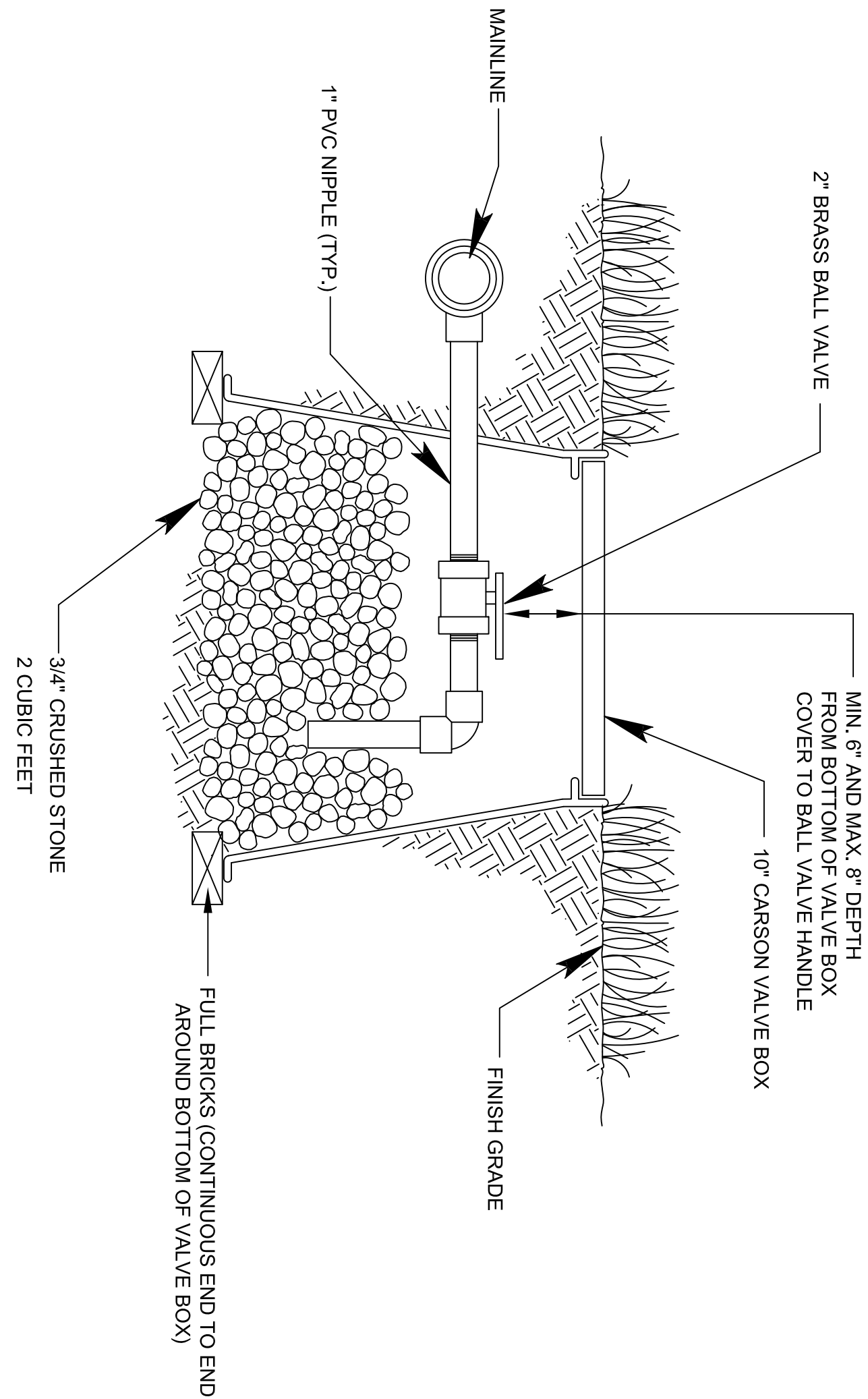
G SHRUB SPRAY HEAD
NTS



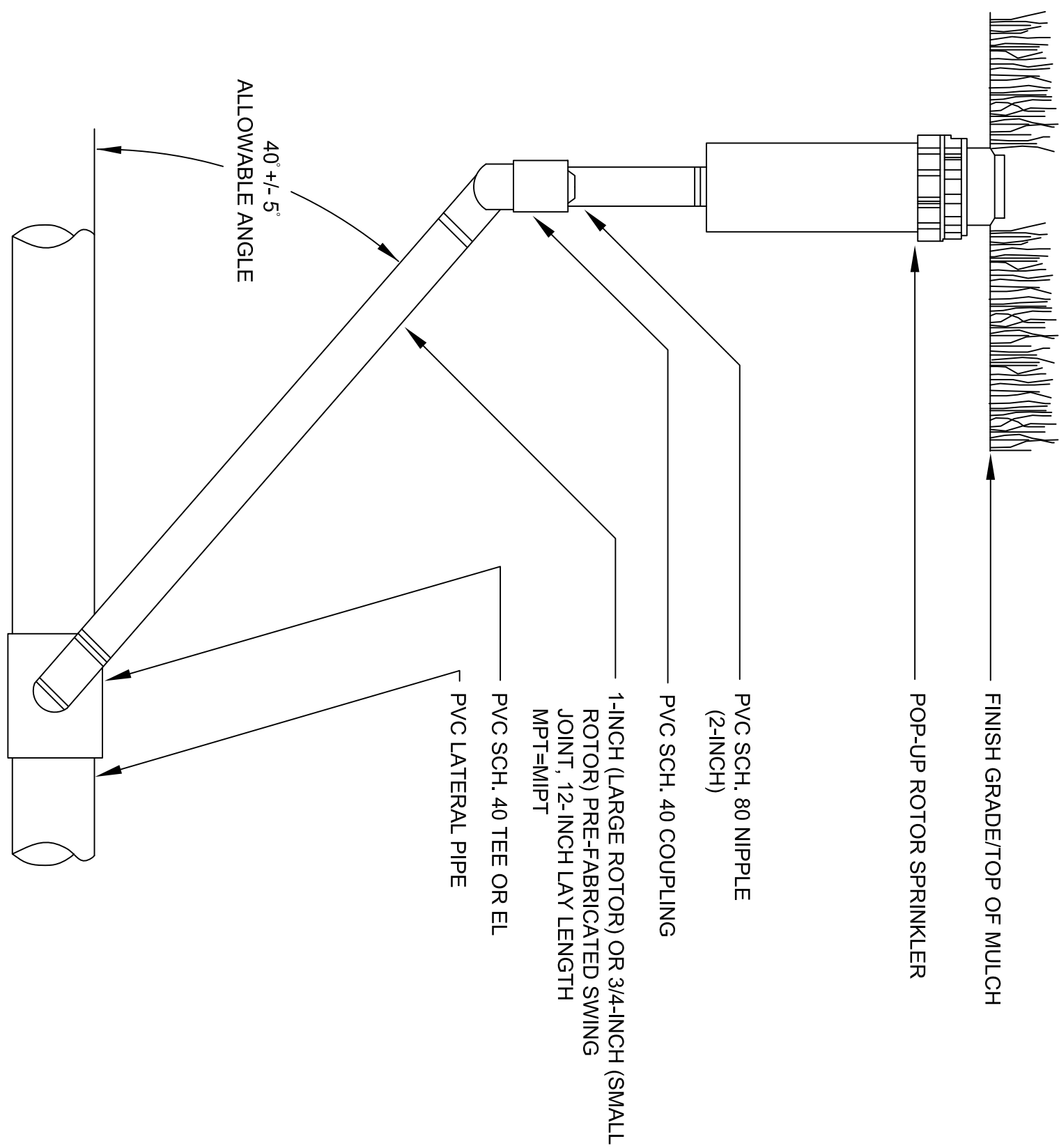
H SLEEVING
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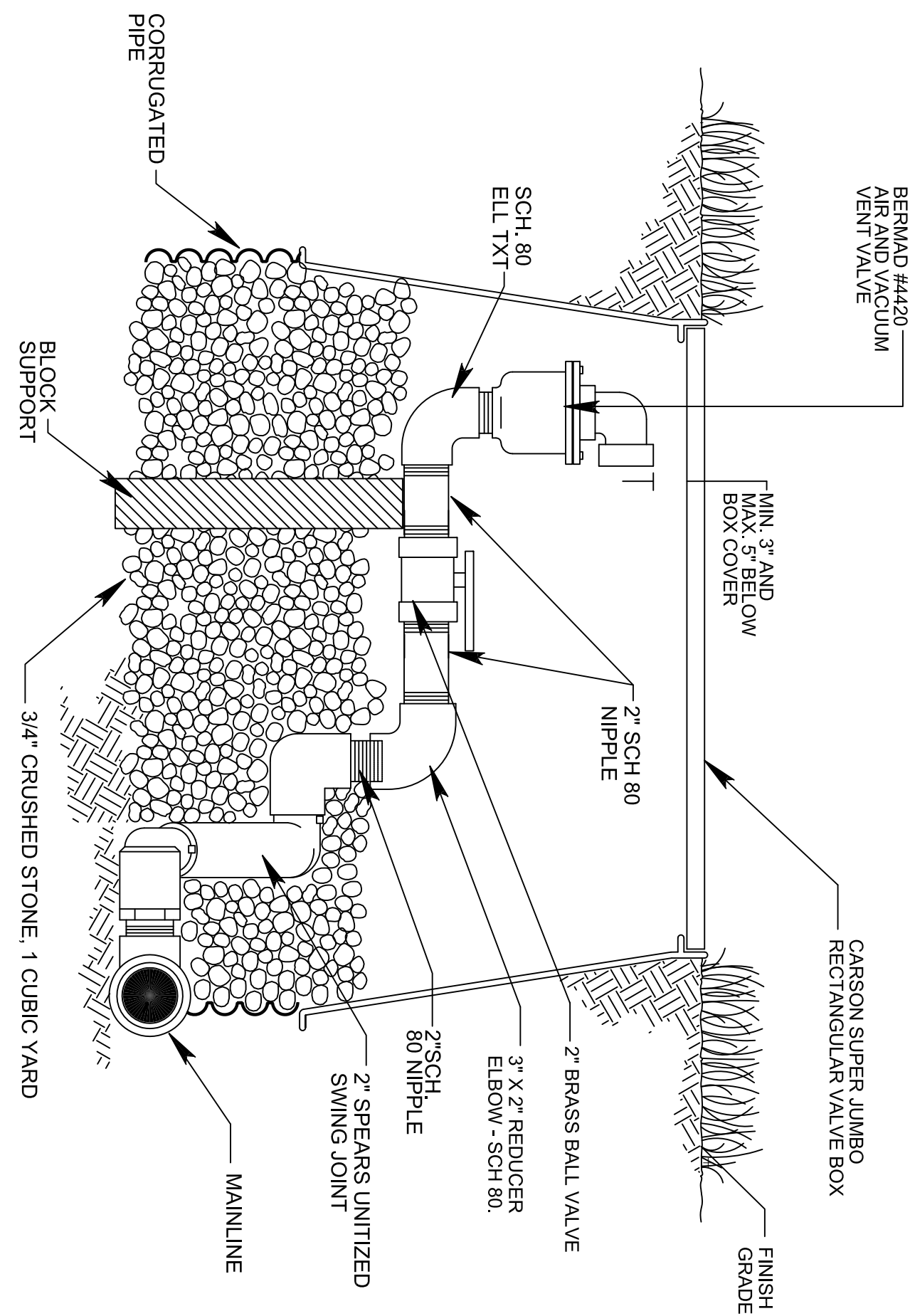
I WIRE SPLICES
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3M DBRY-6



J MANUAL DRAIN VALVE
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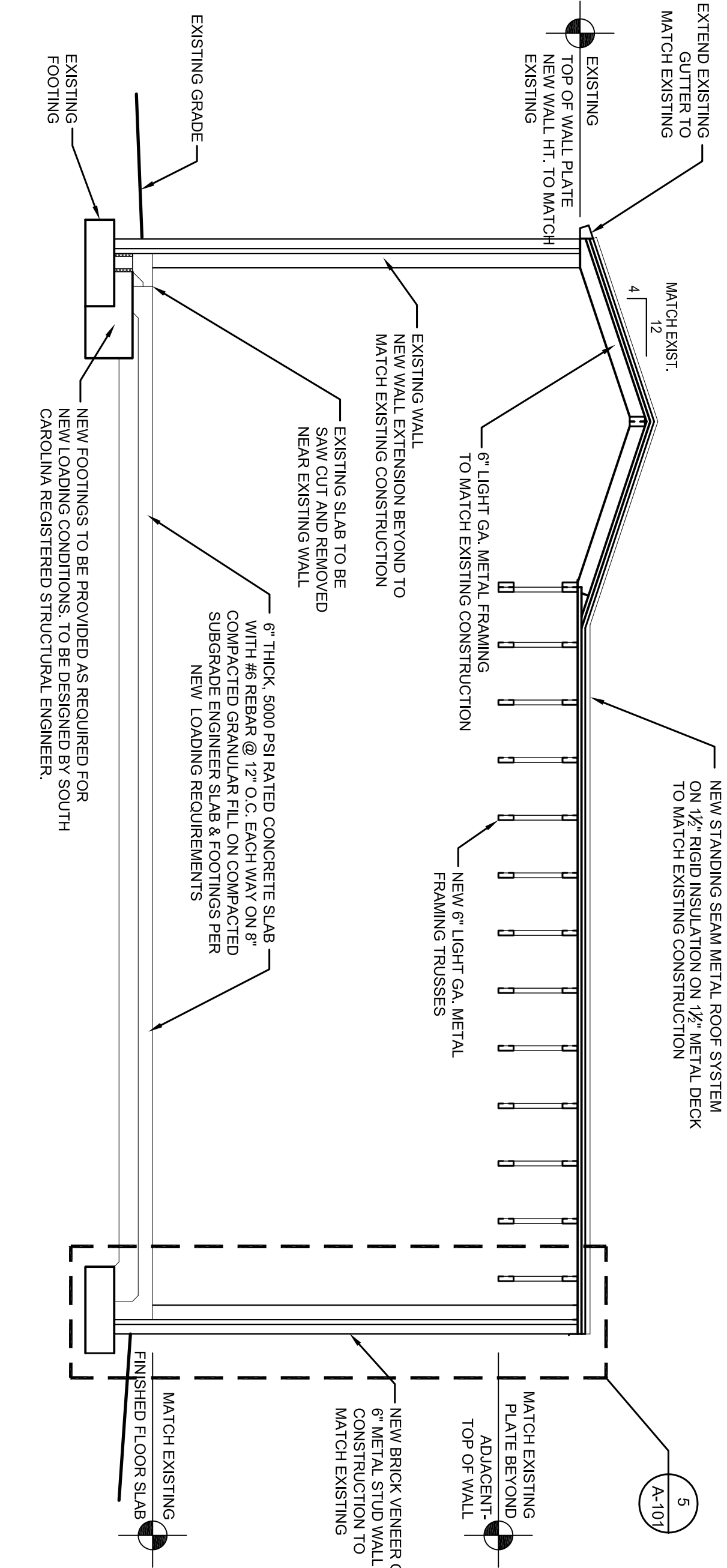


K TURF ROTOR
NTS



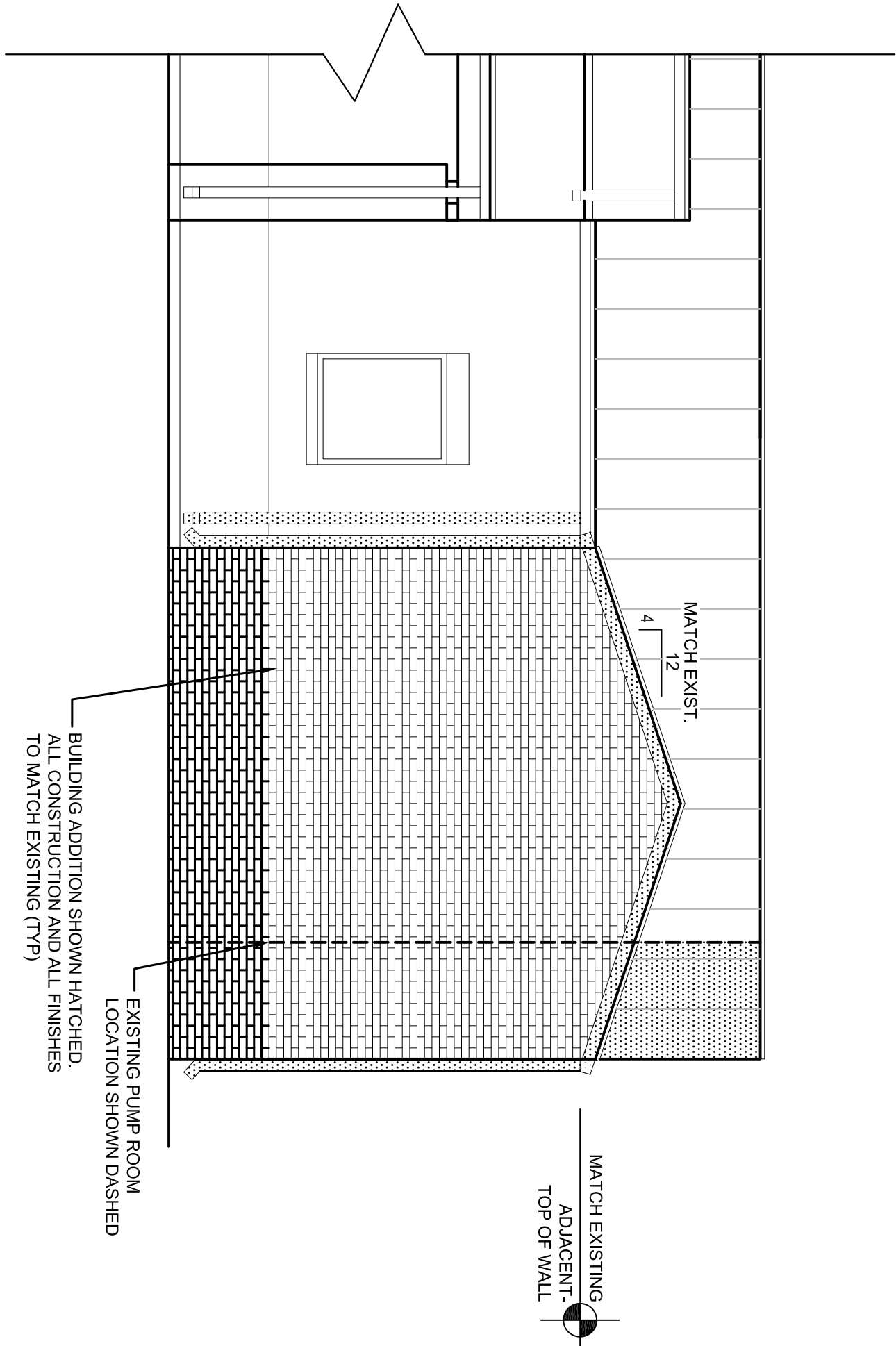
L AIR-VACUUM RELIEF VALVE
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Revisions		Date	
ENGINEER & SUPERVISOR: amec AMEC Environment & Infrastructure, Inc. 1075 BIG SHANTY ROAD NW, SUITE 100 KANSAS CITY, MO 64116 (770) 421-5400 AMEC PROJECT: 6151-13-0158		SUBCONSULTANT: Irrigation Consulting Services 2231 Westhollow Circle Conyers, GA 30094 (770) 929-0884, fax (770) 764-8025	
LOCATION: BEAUFORT NATIONAL CEMETERY 1601 BOUNDARY STREET BEAUFORT, SC 29902-3947		NATIONAL CEMETERY ADMINISTRATION	
Drawing Title IRRIGATION DETAILS		Project Title BEAUFORT NATIONAL CEMETERY EXPANSION	
Approved: Chief, Architectural & Engineering Division		Building Number Checked Drawn	
Approved: Director, Technical Support Service		Drawing No. 831 CM 2014	
Location BEAUFORT, SC		Drawing No. I-502	
Sheet 20 of 23		Date 8-15-2013	
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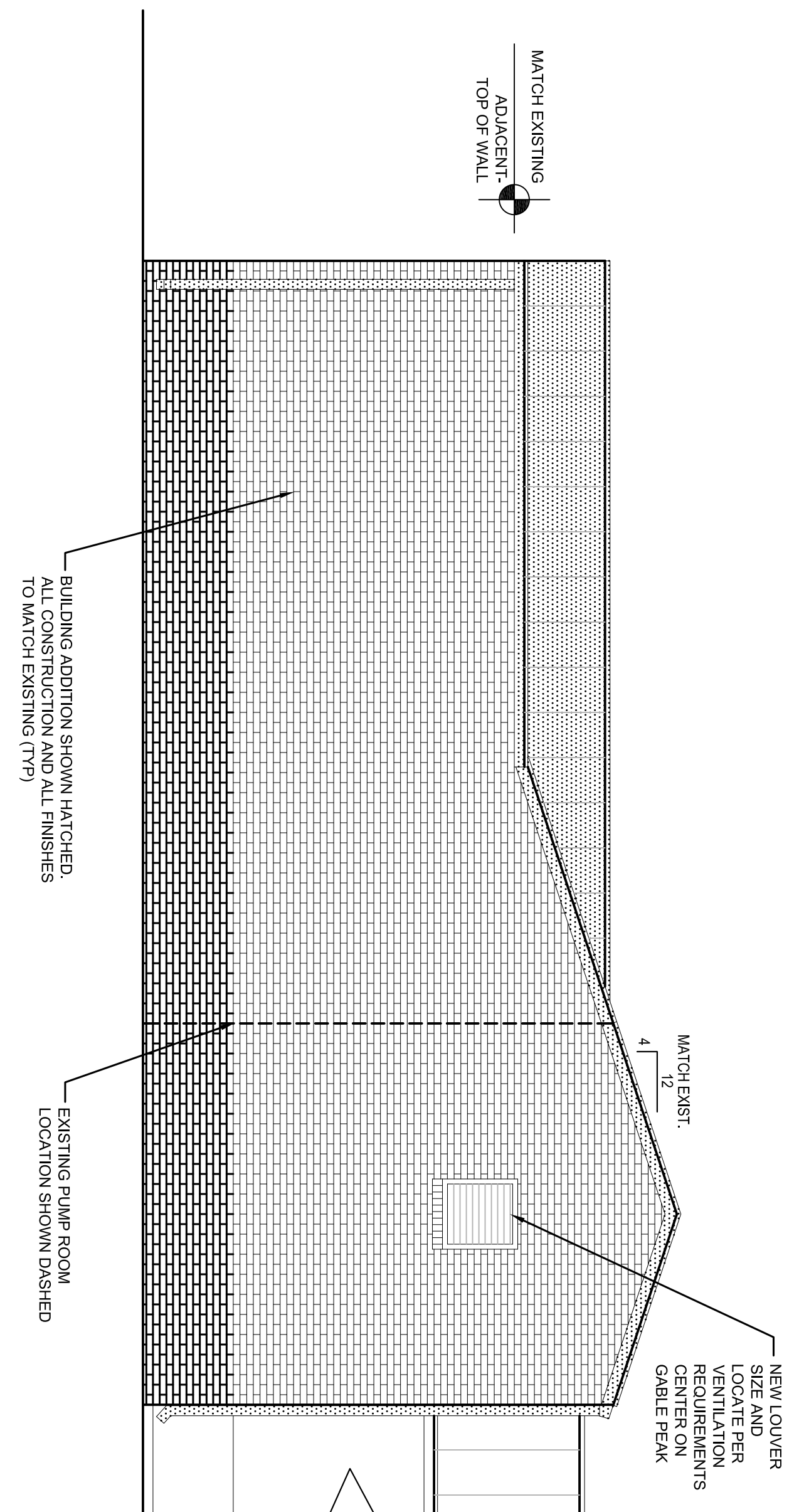
1 BUILDING SECTION

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



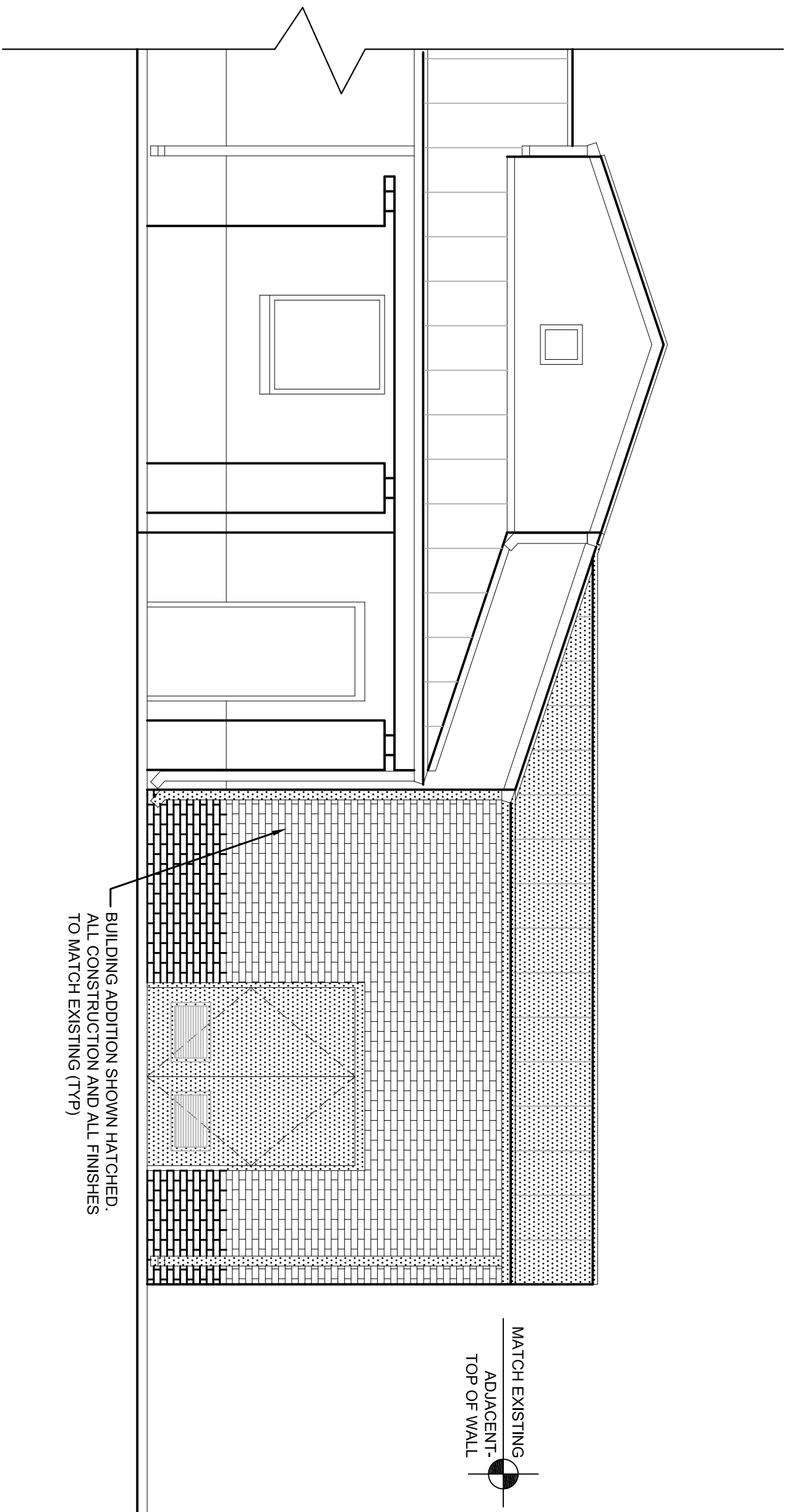
4 BUILDING SECTION - EAST ELEVATION

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



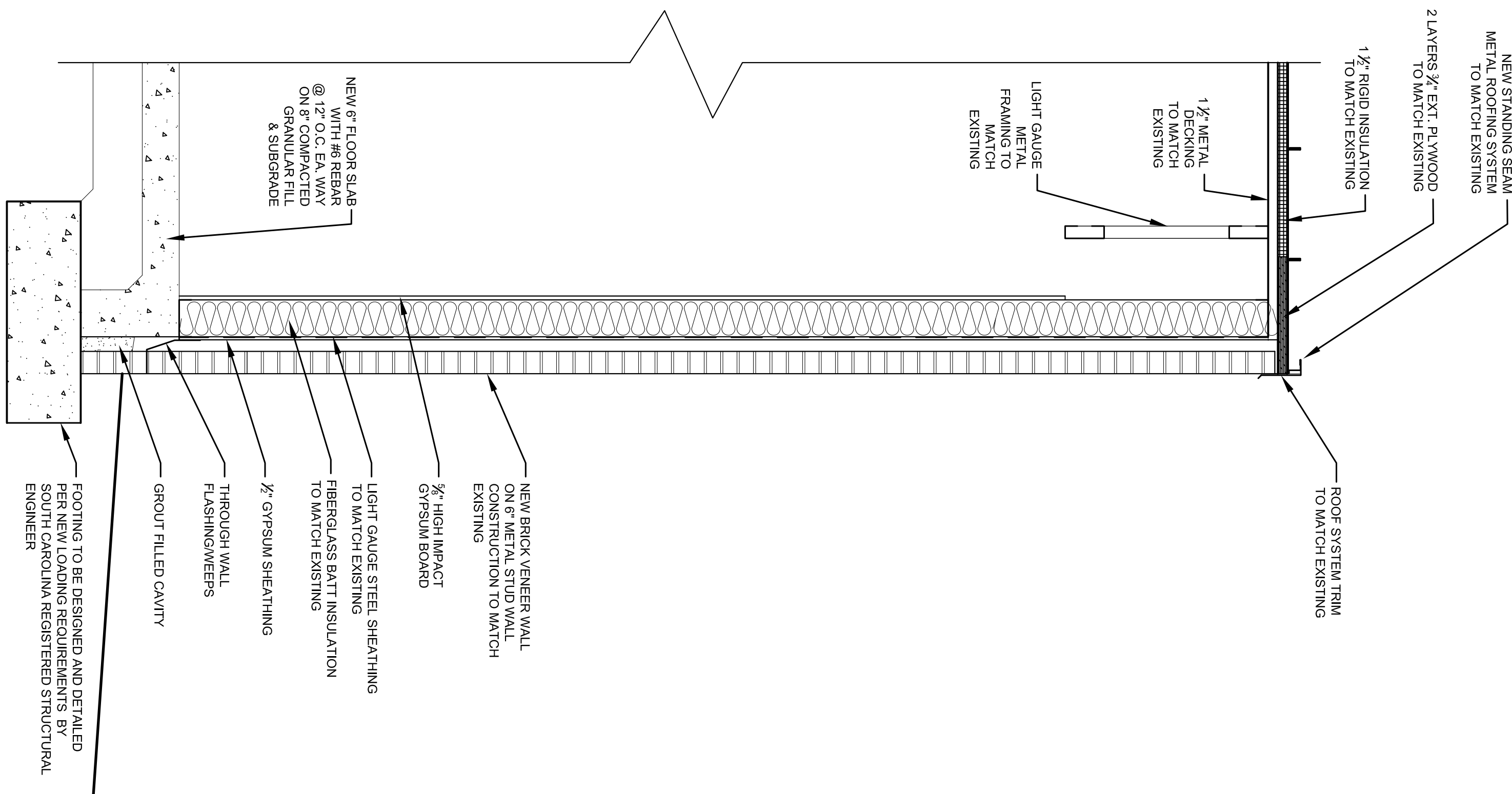
3 BUILDING SECTION - NORTH ELEVATION

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



2 BUILDING SECTION - SOUTH ELEVATION

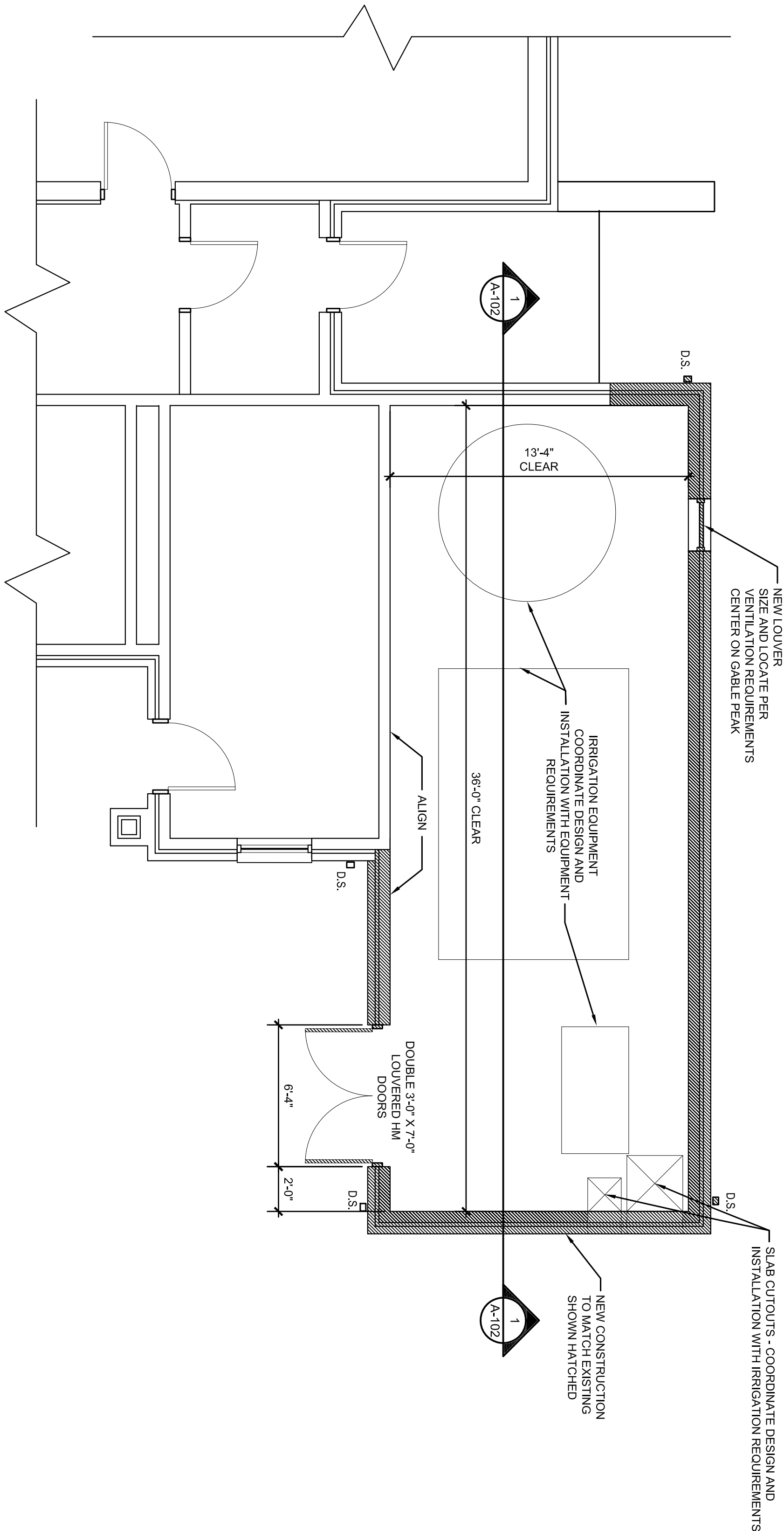
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5 WALL SECTION

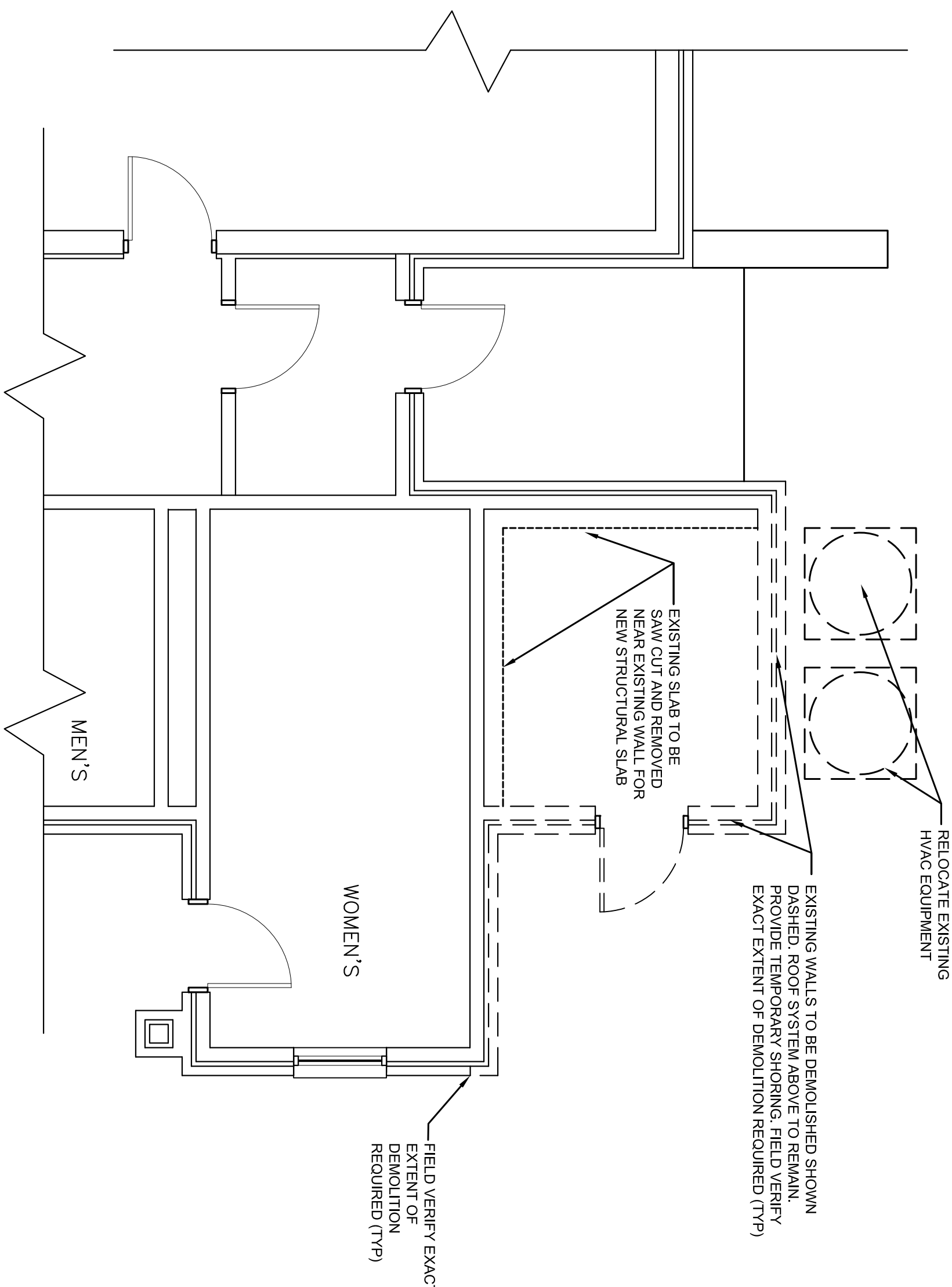
SCALE: 3/4" = 1'-0"

Revisions		Date	



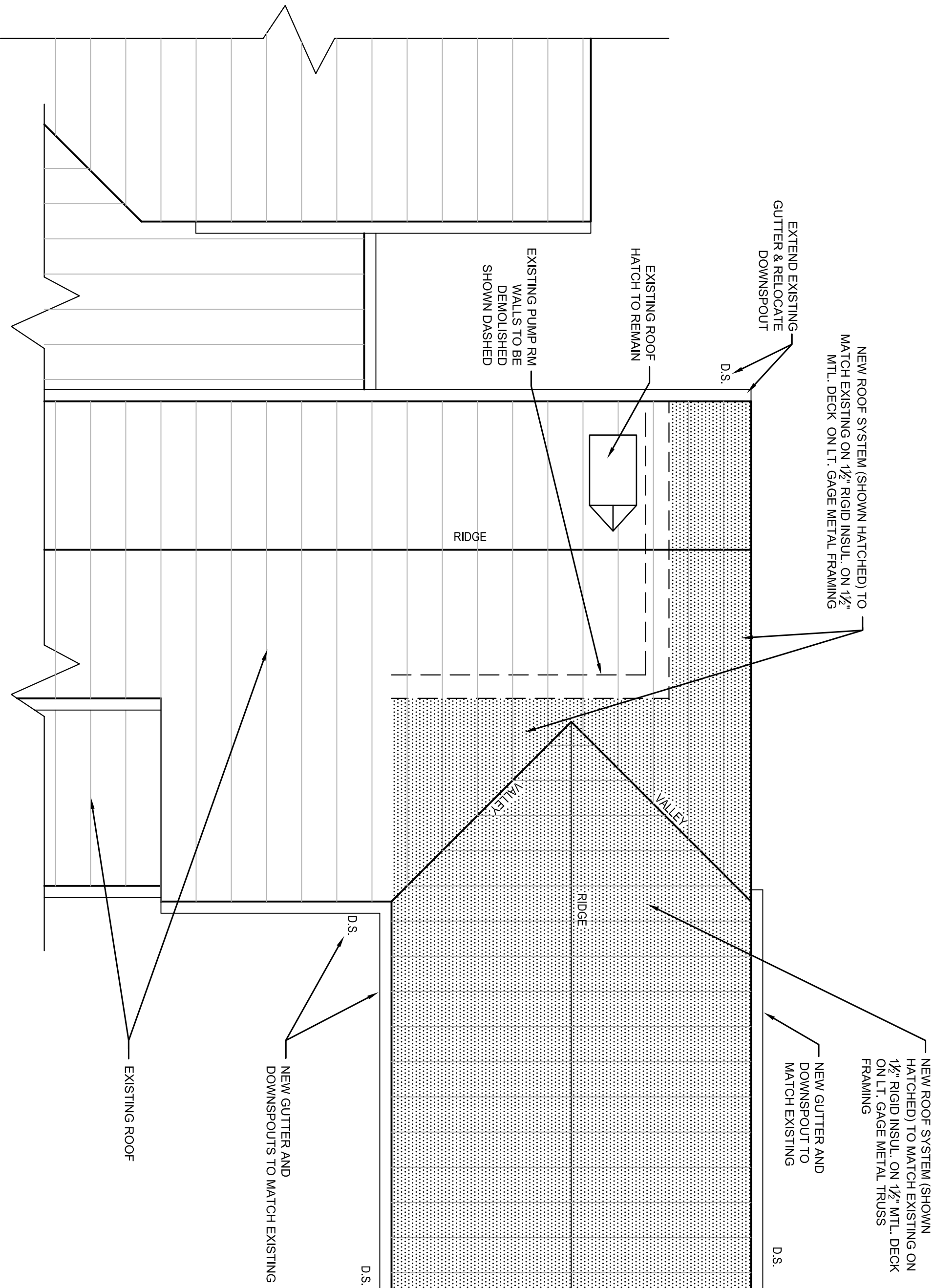
1 SCHEMATIC FLOOR PLAN

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




2 DEMOLITION PLAN

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



3 SCHEMATIC ROOF PLAN

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

ENGINEER & SURVEYOR: ameco AMEC Environment & Infrastructure, INC. 1075 BIG SHANTY ROAD NW, SUITE 100 KENNESAW, GA 30144 (770) 421-3400 AMEC PROJECT: 6151-13-0156		SUBCONSULTANT: Irrigation Consultant 2231 Weatherstone Circle Conyers, GA 30094 (770) 929-0884, fax (770) 760-8025		LOCATION: BEAUFORT NATIONAL CEMETERY 1601 BOUNDARY STREET BEAUFORT, SC 29902-3947		 NATIONAL CEMETERY ADMINISTRATION		Drawing Title ARCHITECTURAL PLANS		Project Title BEAUFORT NATIONAL CEMETERY EXPANSION		Date 8 - 15 - 2013	
Date				Approved: Chief, Architectural & Engineering Division		Approved: Director, Technical Support Service		Building Number		Checked		Drawn	
				Location BEAUFORT, SC								DRAWING NO. A-101	
												Project No. 831 CM 3014	
												Sheet 22 of 23	

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