

# SOUTH QUAD PARKING LOT STEAM AND CONDENSATE LINE REPLACEMENT

## STATE PROJECT NUMBER H27-Z282 COLUMBIA, SC

### CONSTRUCTION DOCUMENTS

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**GENERAL**

**T1** TITLE SHEET

**MECHANICAL**

**M1** SITE PLAN  
**M2** DETAILS, NOTES, MANHOLE DIAGRAMS  
AND LEGEND

**CAMPUS PLANNING  
AND CONSTRUCTION**  
 COLUMBIA, SC 29208

SEAL:

CHECKED BY: WCL

ORIG. BY: DRAWN BY

DATE

DESCRIPTION

BUILDING: CP50003054

DATE: 08AUG16

DRAWN BY: DEM

DATE

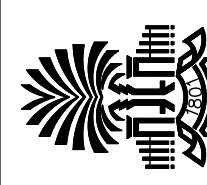
DESCRIPTION

REV.

PROJECT TITLE: SOUTH QUAD PARKING LOT STEAM  
AND CONDENSATE LINE REPLACEMENT

STATE PROJECT NO.: H27-Z282

University of South Carolina



SHEET:

T-1

OF

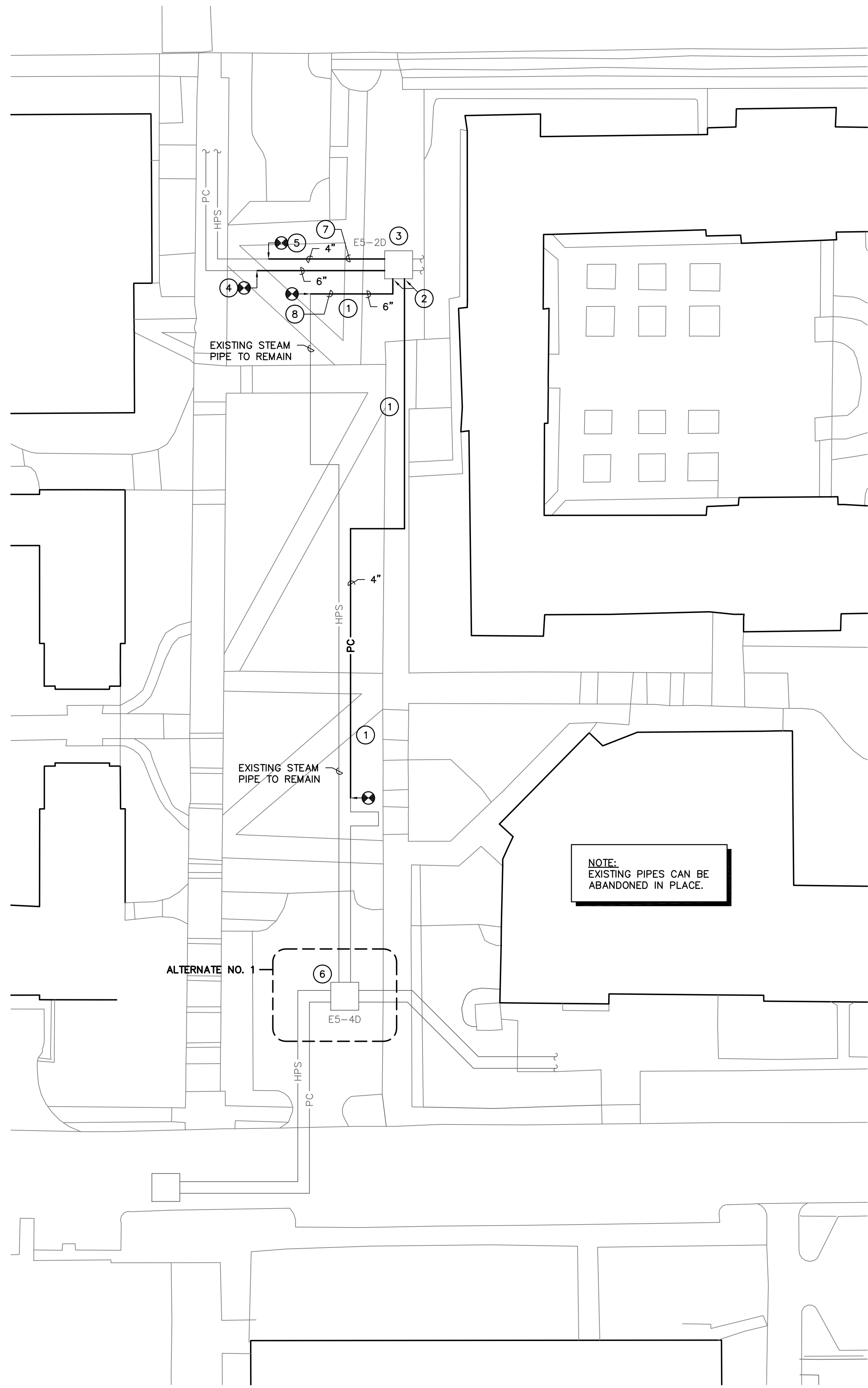
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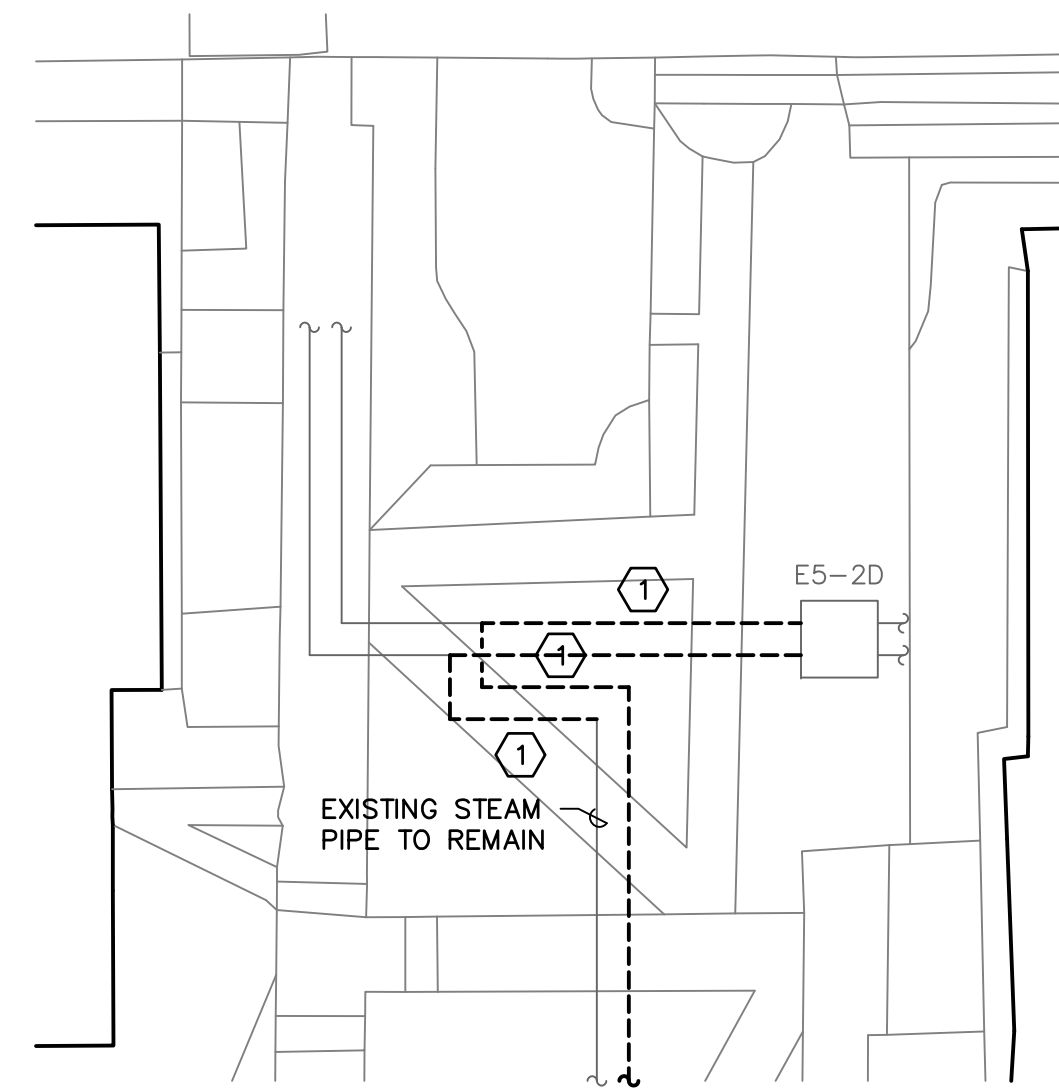
Swygert & Associates  
CONSULTING ENGINEERS

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1 SITE PLAN  
SCALE: 1" = 30'



2 SITE PLAN - DEMOLITION  
SCALE: 1" = 30'

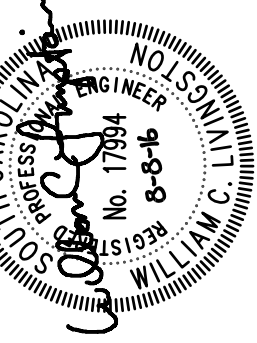
NOTES TO SHEET

- 1 CUT AND PATCH SIDEWALK AS REQUIRED TO INSTALL NEW PIPE.
- 2 PROVIDE ANCHOR AT PIPE ENTRANCE.
- 3 CONNECT TO EXISTING PUMPED CONDENSATE AND STEAM INSIDE VAULT. PROVIDE NEW VALVES IN PIPE TO E5-4D.
- 4 REMOVE TEE AND INSTALL NEW PIPE BACK TO E5-2D.
- 5 REMOVE TEE AND INSTALL NEW PIPE BACK TO E5-2D.
- 6 REWORK EXISTING VAULT E5-4D AS SHOWN, WITH NEW VALVES.
- 7 SLOPE AT STEAM PIPE TO DRIP TRAP IN MANHOLE E5-2D.
- 8 MAINTAIN SLOPE BACK TO MANHOLE E5-4D.

DEMOLITION NOTES

- 1 REMOVE EXISTING PIPE AS SHOWN.

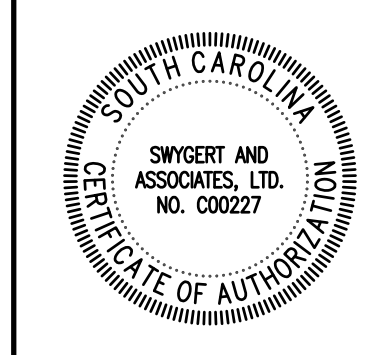
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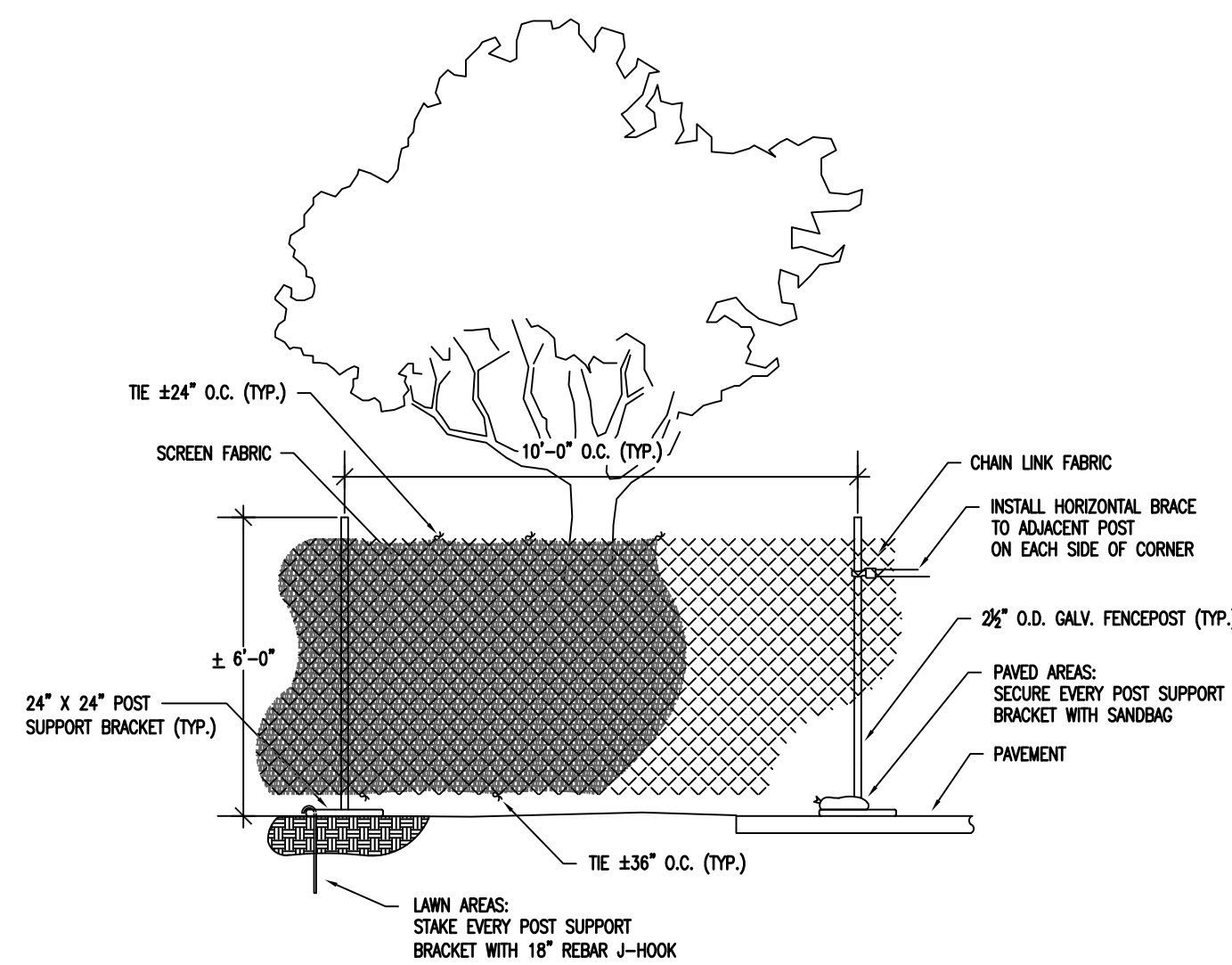
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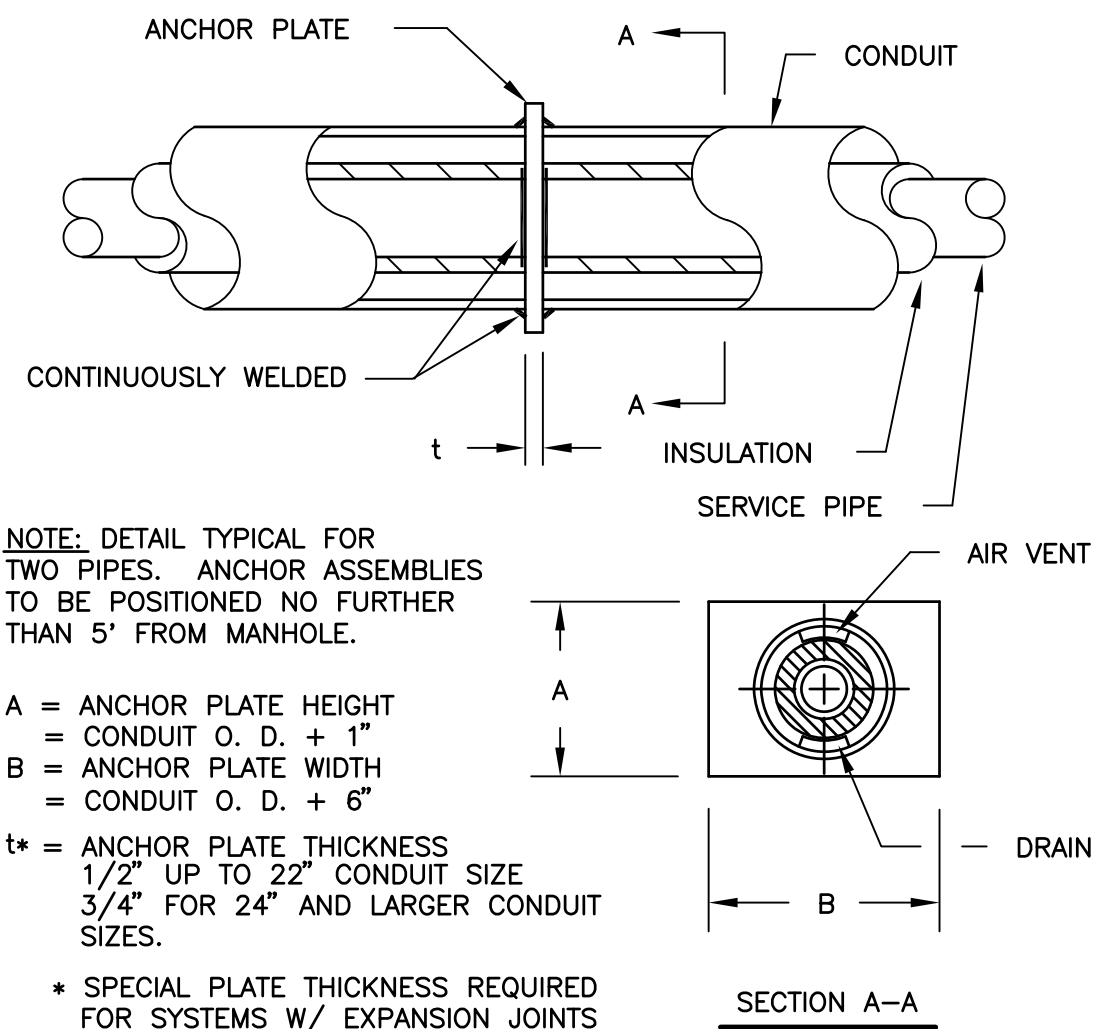
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- NOTES:
1. TREE PROTECTION FENCING SHALL BE PLACED BETWEEN ALL EXISTING TREES AND AROUND PROJECT WORK AREA AS APPROVED BY USC.
  2. SEE "USC SUPPLEMENTAL GENERAL CONDITIONS FOR CONSTRUCTION PROJECTS" FOR ADDITIONAL INFORMATION.
  3. PROVIDE PROTECTION FENCE FOR ALL TREES TO REMAIN.
  4. PROTECTION FENCING TO BE PLACED OUTSIDE OF DRIPLINE OF TREE CANOPY UNLESS OTHERWISE APPROVED BY USC PROJECT MANAGER.
  5. A 4" LAYER OF HARDWOOD MULCH SHALL BE PLACED OVER TREE PROTECTION AREA.
  6. PROTECTION FENCING SHALL BE IN PLACE AND HARDWOOD MULCH PLACED PRIOR TO BEGINNING CONSTRUCTION.
  7. REQUESTS FOR PAYMENT SHALL NOT BE APPROVED UNTIL PROTECTION FENCING AND MULCH IS IN PLACE.
  8. LOCATION OF THE PROTECTION FENCING SHALL BE MARKED BY USC ARBORIST AND APPROVED BY USC PROJECT MANAGER BEFORE INSTALLATION. WHERE CONSTRUCTION IS LIKELY TO OCCUR WITHIN 5' OF PROPOSED LOCATION OF PROTECTION FENCING, CONTRACTOR SHALL HAVE LIMITS OF CONSTRUCTION MARKED BY SURVEY BEFORE PROTECTION FENCING IS INSTALLED.
  9. SCREEN FABRIC SHALL BE DARK GREEN 85% OPAQUE, POLYETHYLENE KNOT MESH, UV STABILIZED WITH BURST STRENGTH OF AT LEAST 210 P.S.I.

**WORK AREA SCREENING AND TREE PROTECTION FENCE PANEL DETAIL**

NO SCALE



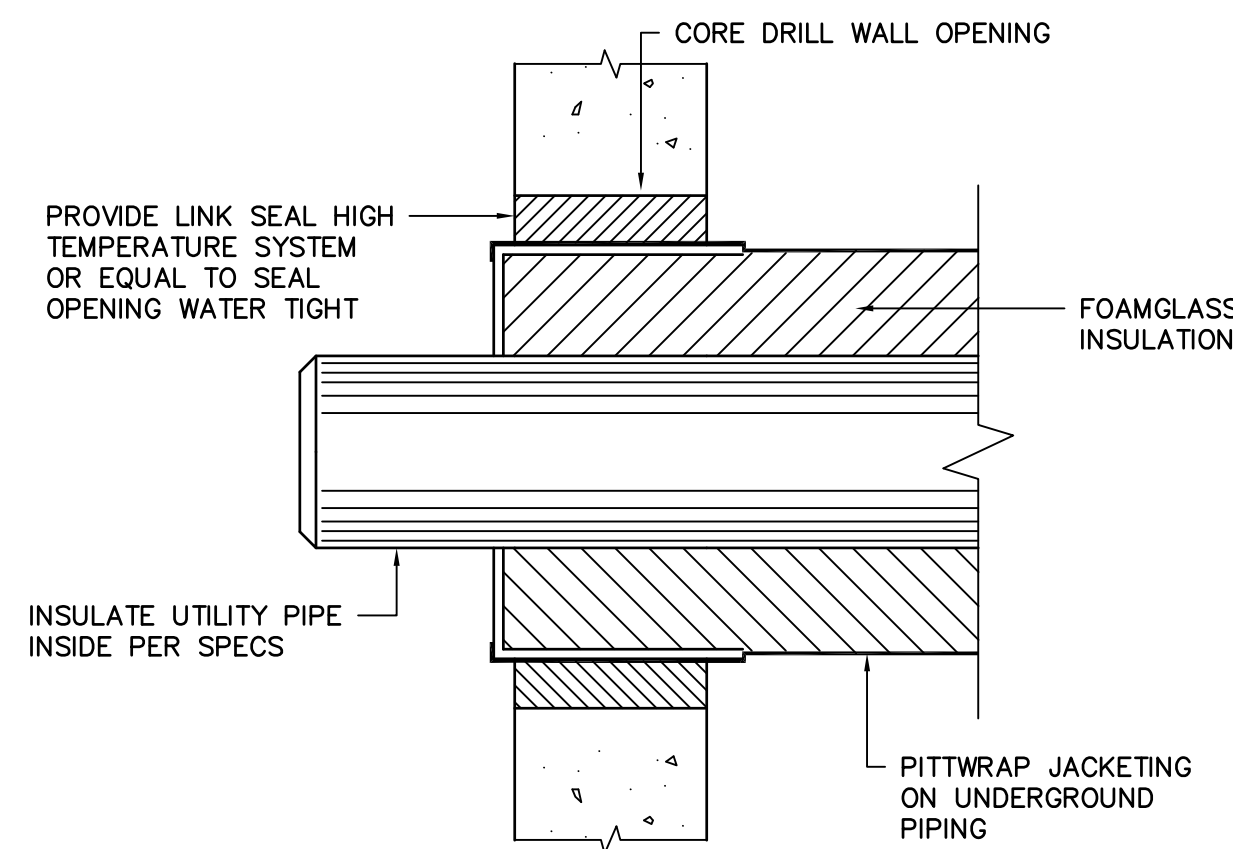
NOTE: DETAIL TYPICAL FOR TWO PIPES. ANCHOR ASSEMBLIES TO BE POSITIONED NO FURTHER THAN 5' FROM MANHOLE.

- A = ANCHOR PLATE HEIGHT = CONDUIT O. D. + 1"  
 B = ANCHOR PLATE WIDTH = CONDUIT O. D. + 6"  
 t = ANCHOR PLATE THICKNESS 1/2" UP TO 22" CONDUIT SIZE 3/4" FOR 24" AND LARGER CONDUIT SIZES.  
 \* SPECIAL PLATE THICKNESS REQUIRED FOR SYSTEMS W/ EXPANSION JOINTS

NOTE: A CONCRETE BLOCK SHALL BE CAST OVER THE PLATE AND CONDUIT AND SHALL BE AT LEAST 30" IN LENGTH AND SHALL EXTEND A MINIMUM OF 9" BEYOND THE TOP AND BOTTOM OF ANCHOR PLATE.

**STANDARD ANCHOR ASSEMBLY**

NO SCALE



**UTILITY PIPE ENTRY DETAIL**

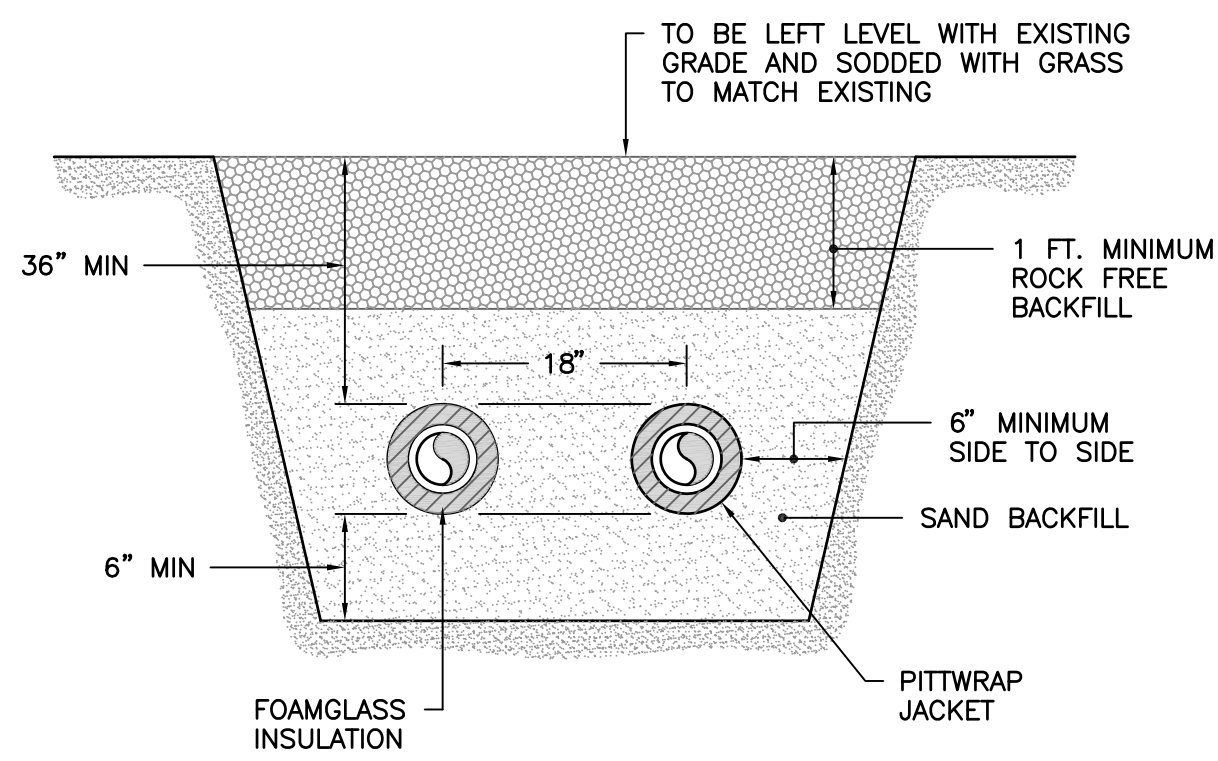
NO SCALE

**GENERAL NOTES**

1. DO NOT SCALE DRAWINGS. VERIFY ALL REQUIRED INFORMATION IN THE FIELD BY VISITING SITE PRIOR TO SUBMITTING BID.
2. EXACT ROUTING OF PIPING SHALL BE SET IN FIELD TO MINIMIZE CONFLICTS WITH ALL ABOVE AND UNDERGROUND STRUCTURES, TREES, FENCES, WALKS, WALLS, AND UTILITIES.
3. ALL PIPING IS SHOWN DIAGRAMMATIC. HOWEVER, CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS, PIPING, AND INSULATION FOR ALL OFFSETS AND/OR CHANGES IN ELEVATIONS. WHERE NECESSARY DUE TO INTERFERENCE, CONTRACTOR SHALL MODIFY EXISTING PIPING, EQUIPMENT, ETC.
4. ALL VALVES AND SPECIALTIES SHALL BE LINE SIZE UNLESS INDICATED OTHERWISE ON DRAWINGS.
5. ALL STEAM AND PUMPED CONDENSATE SHALL PITCH DOWN A MINIMUM OF ONE INCH PER FIFTY FEET.
6. ALL OPENINGS THROUGH EXISTING STRUCTURES SHALL BE CORE DRILLED.
7. COLD SPRING ALL STEAM LINES FIFTY (50) PERCENT.
8. WHERE PIPING ENTERS MANHOLE CONSTRUCT ENTRY AS REQUIRED. ALL PIPES TO BE SLEEVED AND LINK SEALED TO MAKE WATERTIGHT.
9. ALL PIPING AND FITTINGS IN MANHOLES TO BE INSULATED, SEE SPECIFICATIONS.
10. CONTRACTOR SHALL COORDINATE AND OBTAIN APPROVAL FROM OWNER FOR INTERRUPTIONS AND CONNECTIONS TO EXISTING UTILITY SYSTEMS.
11. CONTRACTOR SHALL COORDINATE TREE AND LANDSCAPING REPLACEMENT WITH USC. IN GENERAL USC WILL REPLACE SMALL TREES THAT ARE NOTED TO BE REPLACED. CONTRACTOR IS RESPONSIBLE FOR SOD REPLACEMENT.
12. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ALL BRICK PAVERS TO MATCH THE EXISTING CONDITION.
13. CONTRACTOR SHALL CONTACT PALMETTO UTILITY PROTECTION SERVICES TO LOCATE UTILITIES PRIOR TO DIGGING. INFORMATION OBTAINED FROM PALMETTO UTILITY PROTECTION SERVICES AND DURING DIGGING SHALL BE INDICATED ON THE AS-BUILT DRAWINGS.
14. CONSTRUCT TEMPORARY FENCING AROUND PROJECT AREA TO PROTECT THE SITE AND PEDESTRIANS.

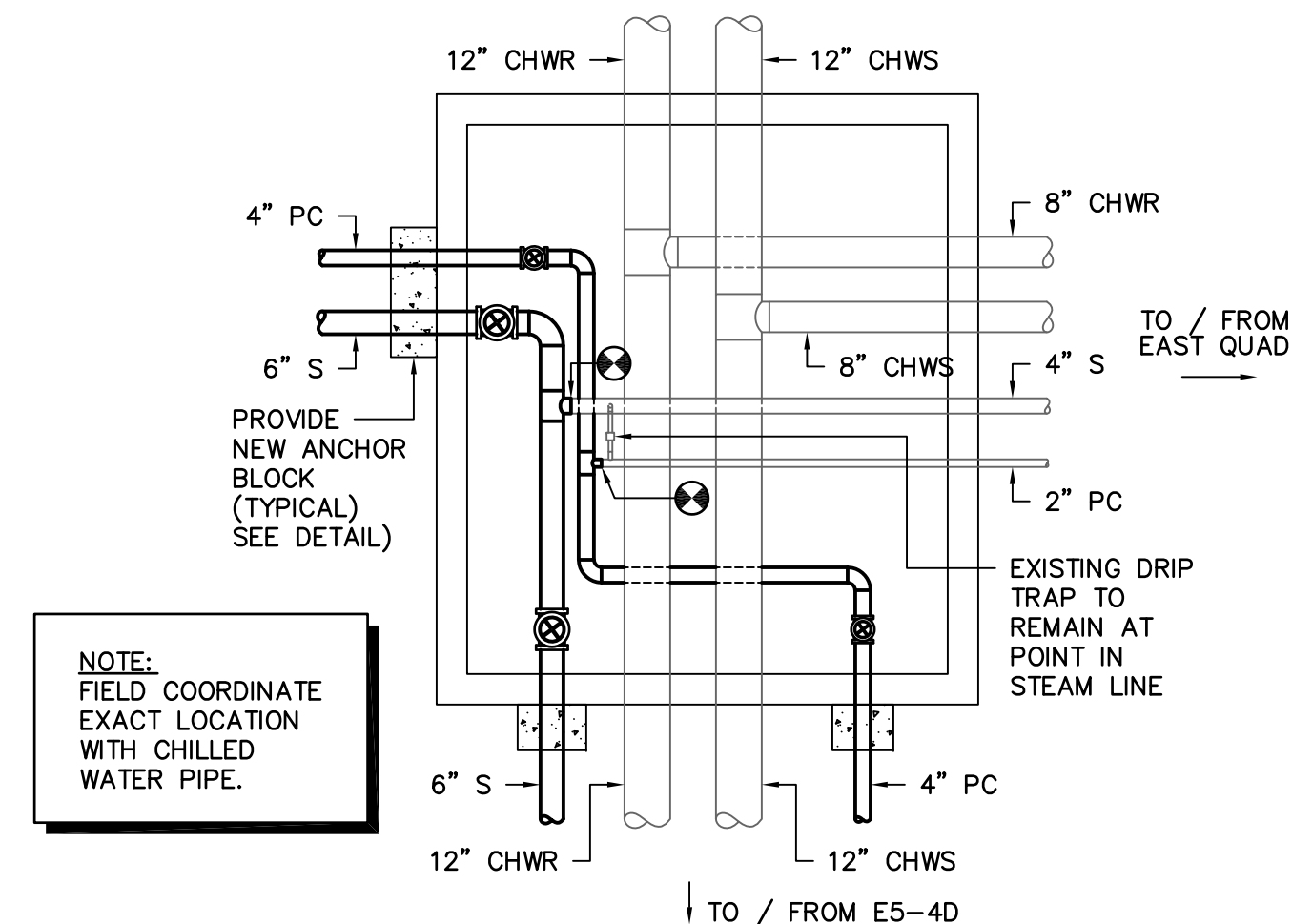
**LEGEND**

SYMBOL	DESCRIPTION
⌒ S ⌒	NEW HIGH PRESSURE STEAM LINE
⌒ PC ⌒	NEW PUMPED CONDENSATE LINE
⌒ --- ⌒	EXISTING PIPE TO BE REMOVED OR ABANDONED
⌒ PC ⌒	EXISTING PUMPED CONDENSATE LINE
⌒ S ⌒	EXISTING HIGH PRESSURE STEAM LINE
⌒ GC ⌒	EXISTING GRAVITY CONDENSATE LINE
⌒ CR ⌒	EXISTING CHILLED WATER RETURN LINE
⌒ CS ⌒	EXISTING CHILLED WATER SUPPLY LINE
⌒ E ⌒	EXISTING HIGH VOLTAGE ELECTRICAL LINE
⌒ C ⌒	EXISTING COMMUNICATIONS LINE
⌒ EC ⌒	EXISTING ELECTRICAL AND COMMUNICATIONS PRIMARY DUCT
⌒ SS ⌒	EXISTING SANITARY SEWER LINE
⌒ HG ⌒	EXISTING HIGH PRESSURE GAS LINE
⌒ LG ⌒	EXISTING LOW PRESSURE GAS LINE
⌒ SD ⌒	EXISTING STORM DRAIN LINE
⌒ V ⌒	VELAN GATE VALVE, SEE SPECS
⊗	CONNECTION POINT OF NEW TO EXISTING



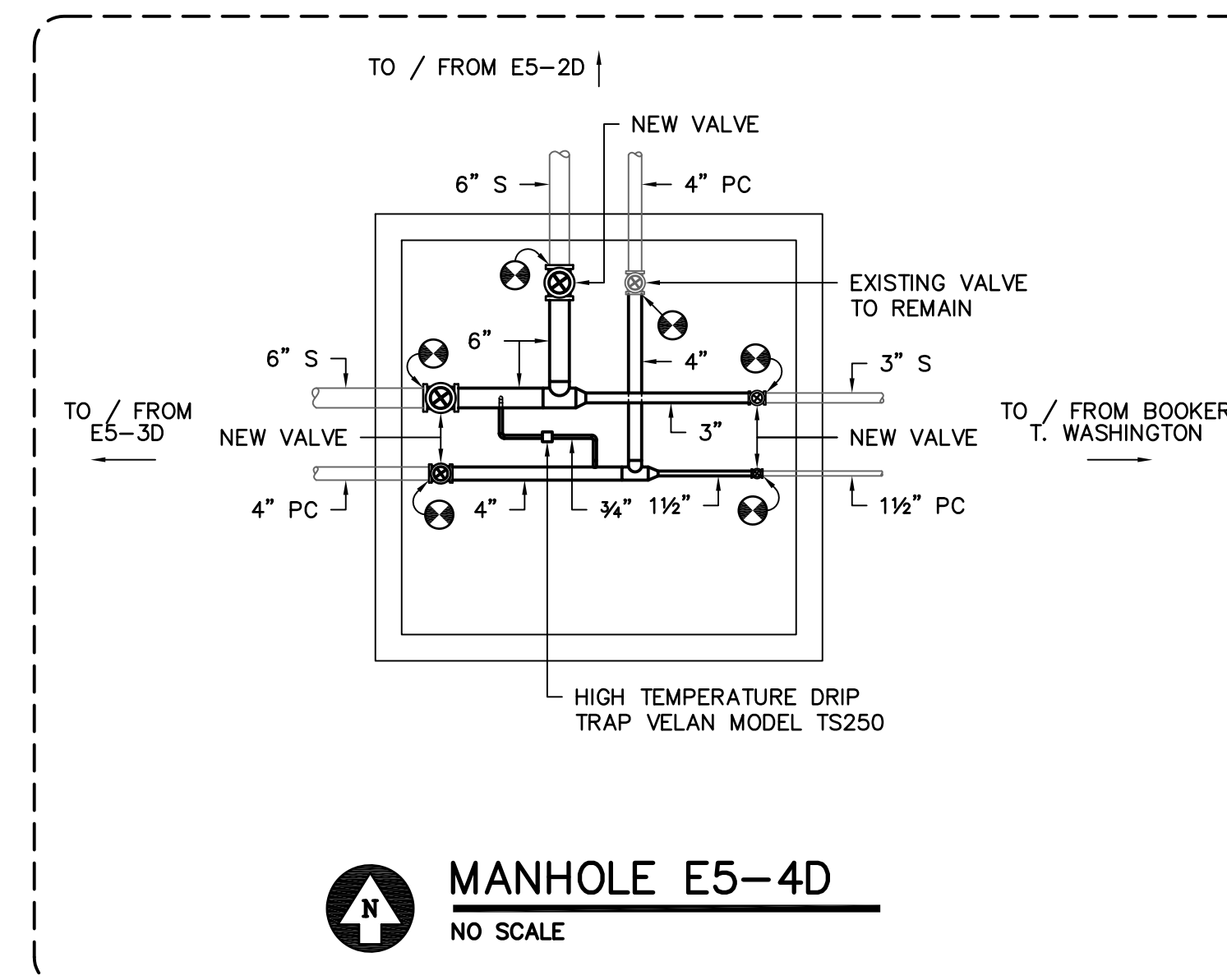
**BACKFILL DETAIL**

NO SCALE



NOTE: FIELD COORDINATE EXACT LOCATION WITH CHILLED WATER PIPE.

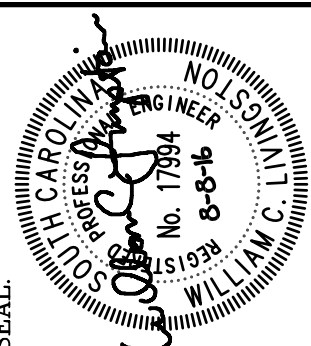
**MANHOLE E5-2D**  
NO SCALE



**MANHOLE E5-4D**  
NO SCALE

ALTERNATE NO. 1

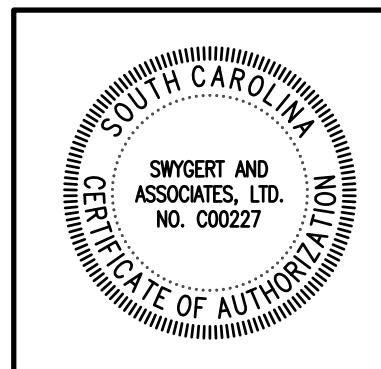
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