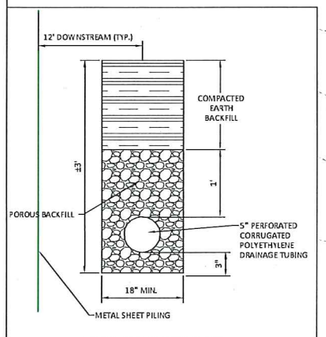
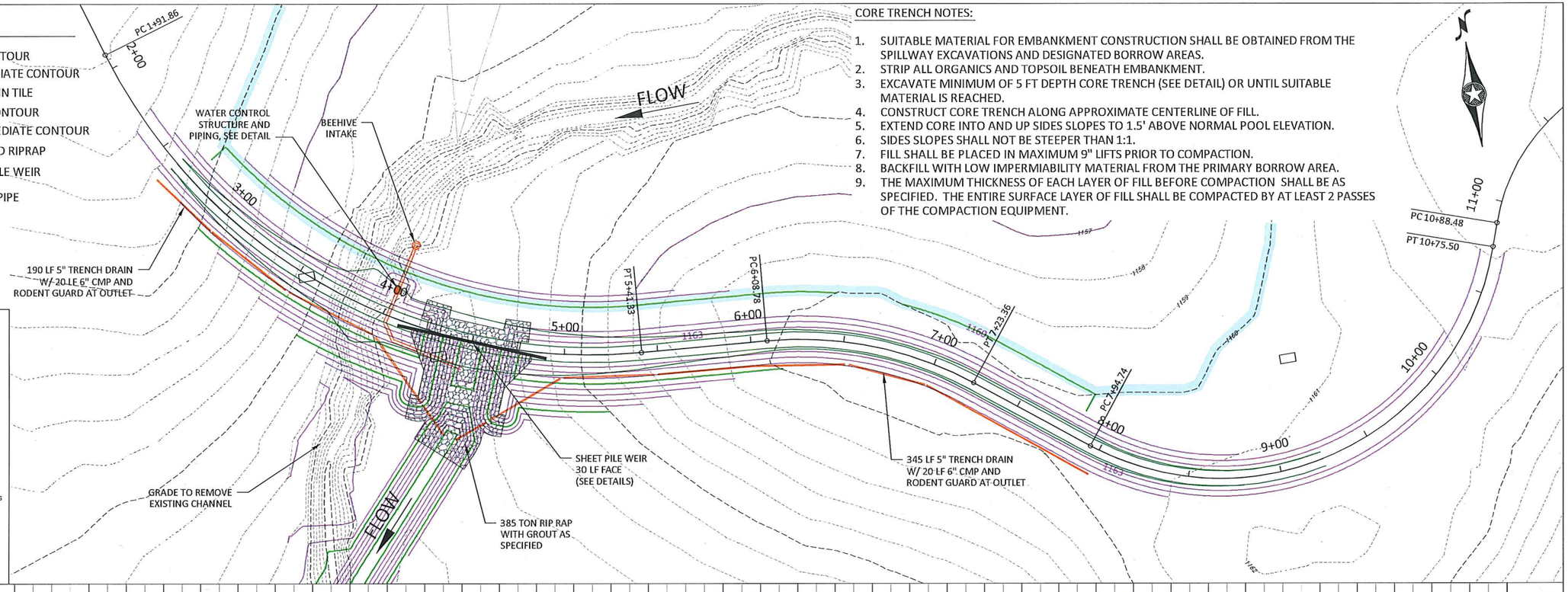
LEGEND

- EXISTING MAIN CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING FIELD DRAIN TILE
- PROPOSED MAIN CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- PROPOSED GROUTED RIPRAP
- PROPOSED SHEET PILE WEIR
- PROPOSED OUTLET PIPE

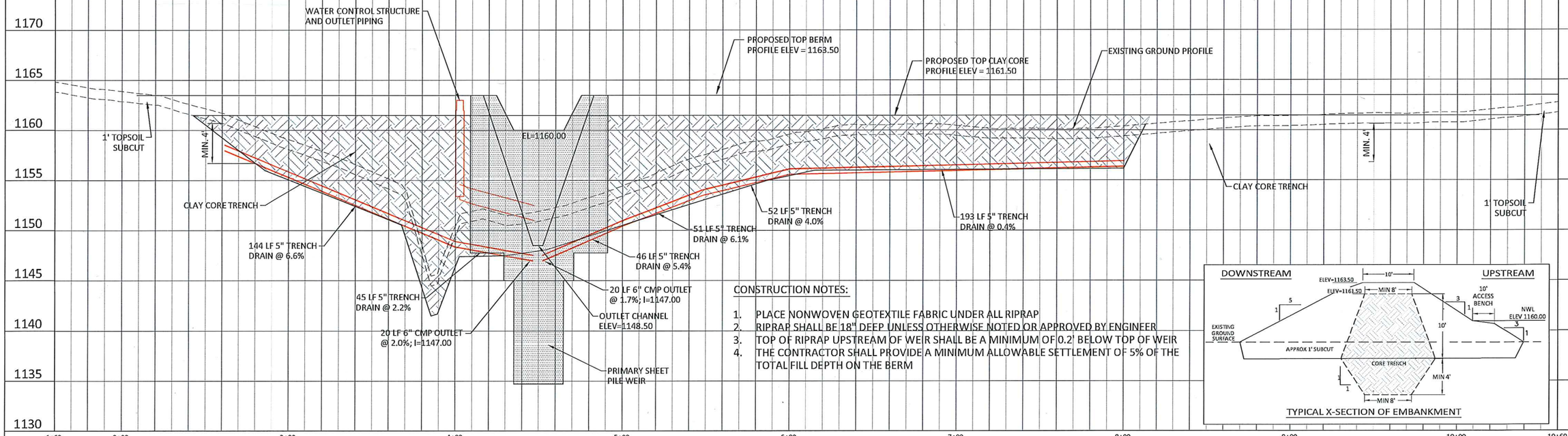


TRENCH DRAIN DETAIL
NOT TO SCALE



CORE TRENCH NOTES:

1. SUITABLE MATERIAL FOR EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE SPILLWAY EXCAVATIONS AND DESIGNATED BORROW AREAS.
2. STRIP ALL ORGANICS AND TOPSOIL BENEATH EMBANKMENT.
3. EXCAVATE MINIMUM OF 5 FT DEPTH CORE TRENCH (SEE DETAIL) OR UNTIL SUITABLE MATERIAL IS REACHED.
4. CONSTRUCT CORE TRENCH ALONG APPROXIMATE CENTERLINE OF FILL.
5. EXTEND CORE INTO AND UP SIDES SLOPES TO 1.5' ABOVE NORMAL POOL ELEVATION.
6. SIDES SLOPES SHALL NOT BE STEEPER THAN 1:1.
7. FILL SHALL BE PLACED IN MAXIMUM 9" LIFTS PRIOR TO COMPACTION.
8. BACKFILL WITH LOW IMPERMIABILITY MATERIAL FROM THE PRIMARY BORROW AREA.
9. THE MAXIMUM THICKNESS OF EACH LAYER OF FILL BEFORE COMPACTION SHALL BE AS SPECIFIED. THE ENTIRE SURFACE LAYER OF FILL SHALL BE COMPACTED BY AT LEAST 2 PASSES OF THE COMPACTION EQUIPMENT.



CONSTRUCTION NOTES:

1. PLACE NONWOVEN GEOTEXTILE FABRIC UNDER ALL RIPRAP
2. RIPRAP SHALL BE 18" DEEP UNLESS OTHERWISE NOTED OR APPROVED BY ENGINEER
3. TOP OF RIPRAP UPSTREAM OF WEIR SHALL BE A MINIMUM OF 0.2' BELOW TOP OF WEIR
4. THE CONTRACTOR SHALL PROVIDE A MINIMUM ALLOWABLE SETTLEMENT OF 5% OF THE TOTAL FILL DEPTH ON THE BERM

TYPICAL X-SECTION OF EMBANKMENT

HORZ. SCALE 0 30 60 FEET
VERT. SCALE 0 5 10 FEET

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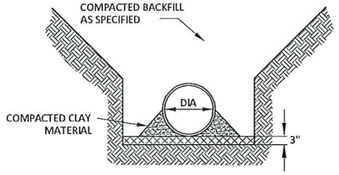
IOWA DEPARTMENT OF AGRICULTURE
WRIGHT CREP PROJECT NO. WRI932534B
BERM PROFILE AND DETAILS

SHEET 4.0



NOTES:
1. BEGIN BACKFILL IMMEDIATELY AFTER PIPE HAS BEEN PLACED

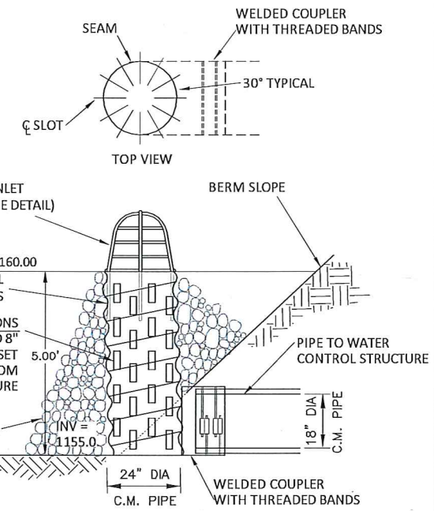
2. EXCAVATE 3" BELOW PIPE GRADE. THEN BACKFILL WITH DAMP FRIABLE SOIL FREE FROM LUMPS AND RAKED OR GRADED TO A TRUE PLANE BEFORE PLACING CMP. NO COMPACTION OF BEDDING IS REQUIRED.

3. USE COMPACTED CLAY MATERIAL FOR PIPE BEDDING UPSTREAM OF PIPE DIAPHRAGM.

4. PIPE BEDDING MATERIAL SHALL BE HAND TAMPED ONLY. POWER TAMPING IS NOT ALLOWED.

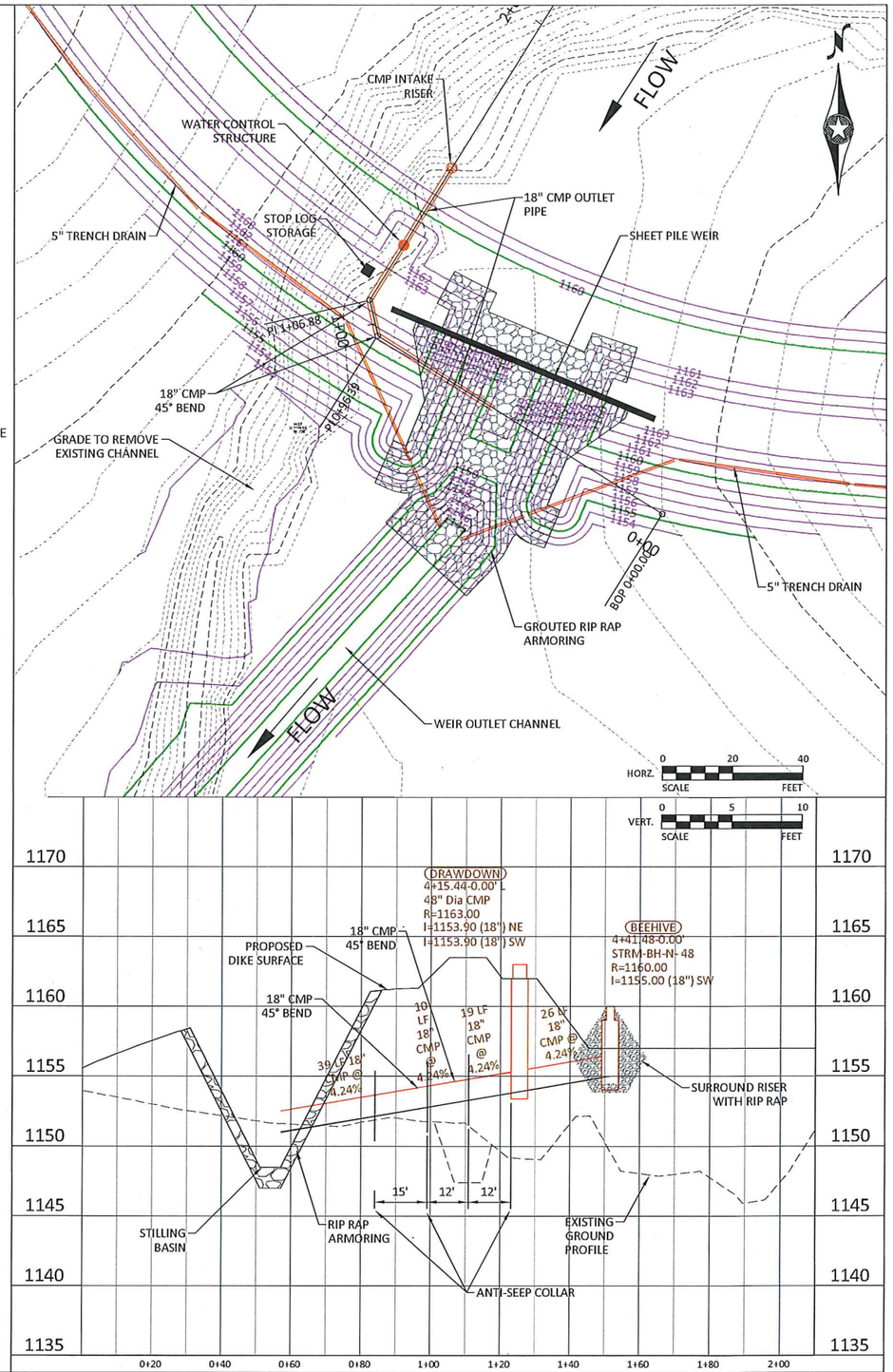
CMP PIPE BEDDING FOR WATER CONTROL STRUCTURE

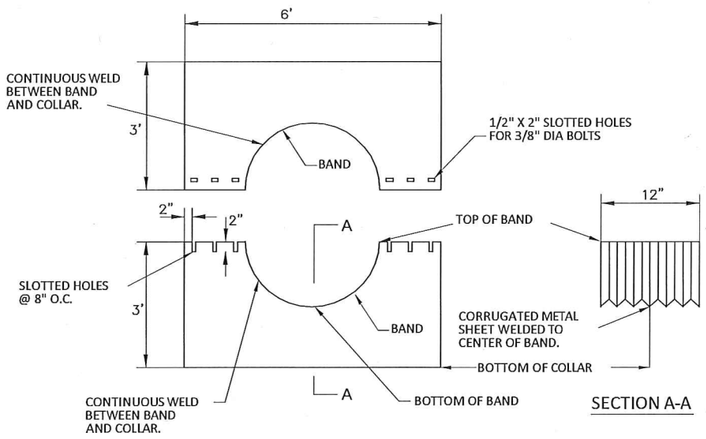
NOT TO SCALE



CMP SLOTTED INTAKE RISER

NOT TO SCALE

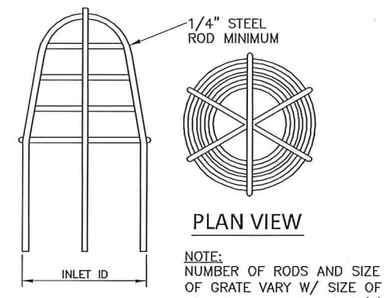




CMP ANTI-SEEP COLLAR

NOT TO SCALE

(SOURCE: SUDAS 9040.17)



NOTE:
NUMBER OF RODS AND SIZE OF GRATE VARY W/ SIZE OF TILE INTAKES PAINT WITH (2) COATS RUST INHIBITING PAINT FOLLOWING FABRICATION

BEEHIVE INLET GRATE (STEEL BARS)

NOT TO SCALE

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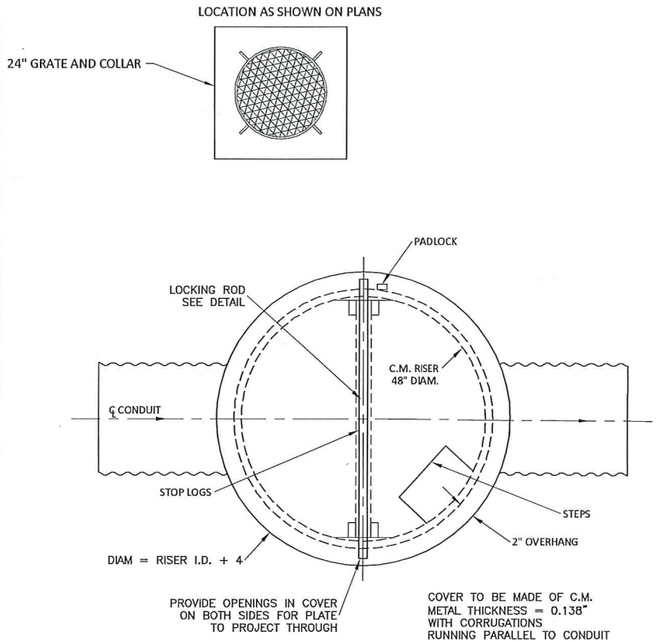
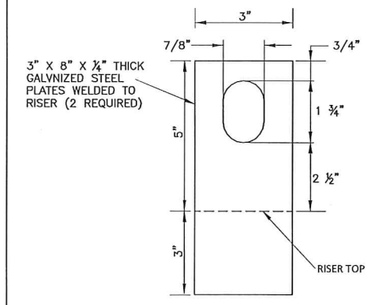
WRIGHT CREP PROJECT NO. WRI932534B
WATER CONTROL STRUCTURE & OUTLET PIPE

SHEET 5.0

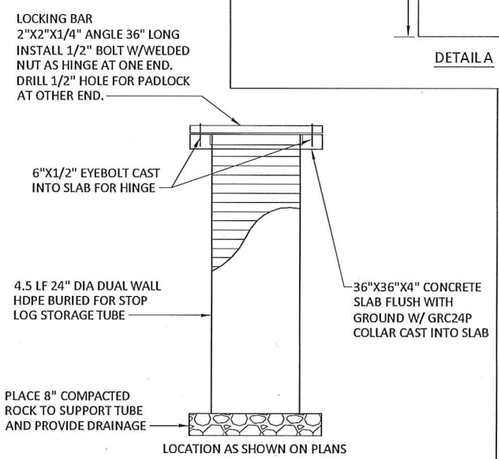


PLAN VIEW FOR COVER

NOT TO SCALE

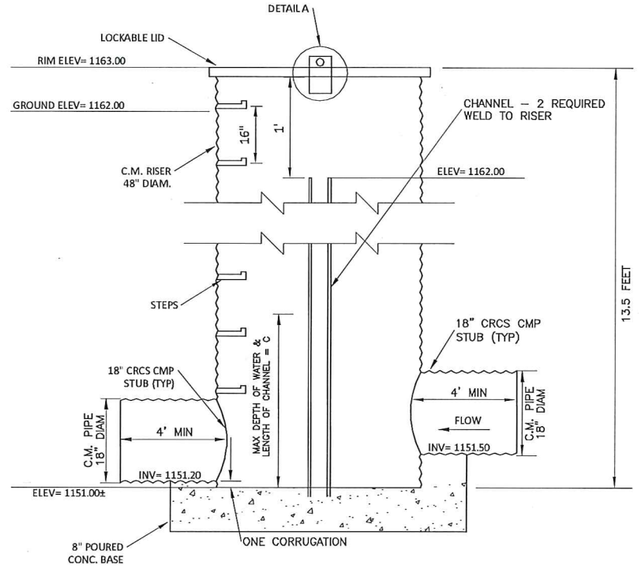


DETAILA



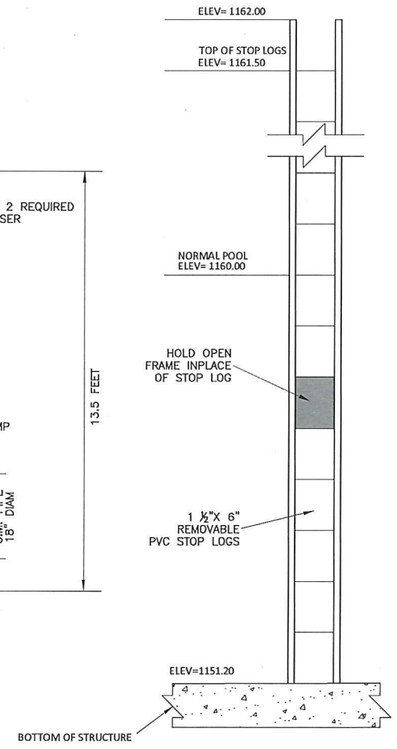
COVER AND STOP LOG STORAGE DETAIL

NOT TO SCALE



SECTION ON CENTERLINE OF RISER

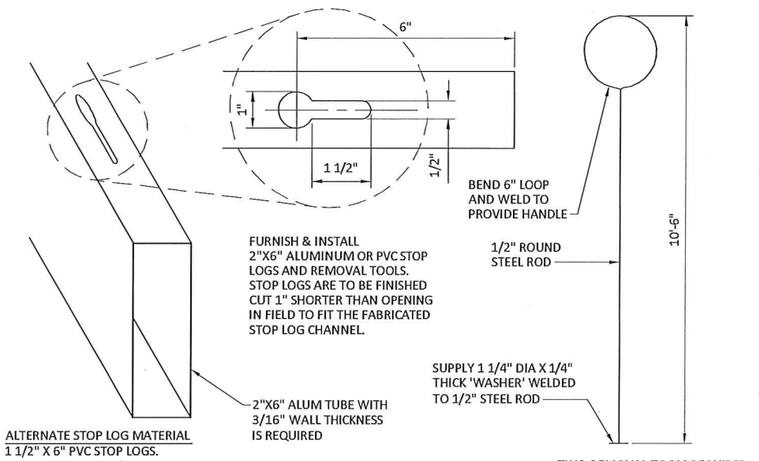
(STOP LOGS AND COVER NOT SHOWN)



PVC STOP LOGS

DRAWDOWN INLET RISER DETAIL

NOT TO SCALE



STOP LOG & REMOVAL TOOL DETAIL

NOT TO SCALE

COVER/STOP LOG STORAGE NOTES:

1. BOTH PADLOCKS FOR ACCESS COVER AND STOP LOG STORAGE TUBE SHALL BE KEYED ALIKE. FOUR KEYS ARE TO BE SUPPLIED UPON PROJECT COMPLETION.
2. PROVIDE 24" GRATE AND COLLAR (AGRI DRAIN GR24 GRATE AND GRC24 COLLAR OR APPROVED EQUAL) FOR STOP LOG STORAGE STRUCTURE.
3. STOP LOGS ARE TO BE PLACED AFTER SEEDING IS COMPLETE TO AN ELEVATION 1.5 FEET BELOW NORMAL POOL ELEVATION (1158.50).
4. STOP LOGS NOT USED ARE TO BE PLACED IN THE STOP LOG STORAGE STRUCTURE.

STOP LOG CHANNEL NOTES:

1. ALL STEEL SHALL BE FY=36 KSI.
2. ANCHORS SHALL BE STAINLESS STEEL FURNISHED W/ STAINLESS STEEL NUTS, WASHERS AND LOCK WASHERS.
3. STOP LOG CHANNEL SHALL BE FURNISHED AS ONE CONTINUOUS PIECE W/CONTINUOUS WELDS.
4. ALL STEEL STOP LOG CHANNEL COMPONENTS ARE TO BE GALVANIZED AFTER WELDING AND DRILLING IS COMPLETE.
5. CONTRACTOR IS TO APPLY SEALANT VERY GENEROUSLY TO BACKSIDE OF STOP LOG CHANNEL TO ENSURE WATERTIGHT SEAL TO CONCRETE STRUCTURE. SEALANT SHALL BE SIKA 30 YEAR INDUSTRIAL CAULK IN LIMESTONE GREY OR APPROVED EQUIVALENT.

WATER CONTROL STRUCTURE NOTES:

1. STRUCTURE SHOP DRAWINGS ARE REQUIRED FOR ENGINEER'S REVIEW AND APPROVAL BEFORE FABRICATION OF WATER CONTROL STRUCTURE.
2. STOP LOG CHANNEL IS TO BE ANCHORED TO THE WALLS AND FLOOR PRIOR TO PLACING CONCRETE INVERT.
3. A CONCRETE INVERT IS TO BE INSTALLED AFTER STOP LOG CHANNEL IS INSTALLED. THE BOTTOM STOP LOG IS TO BE CAST INTO THE INVERT WITH THREE HALF INCH DIA. "J BOLTS" FASTENED TO THE BOTTOM STOP LOG. NO LIFTING HOLES ARE REQUIRED FOR THIS BOTTOM LOG.
4. ALL SECTIONS OF THE STRUCTURE ARE TO HAVE MASTIC APPLIED TO THE JOINTS..
5. PLACE BASE OF STRUCTURE ON FIRM UNDISTURBED EARTH FOUNDATION APPROVED BY ENGINEER.
6. MANHOLE STEPS ARE TO BE INSTALLED FOR MAINTENANCE ACCESS TO THE STOP LOGS.
7. STOP LOG MATERIAL MAY BE ALUMINUM OR PVC.

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IOWA DEPARTMENT OF AGRICULTURE

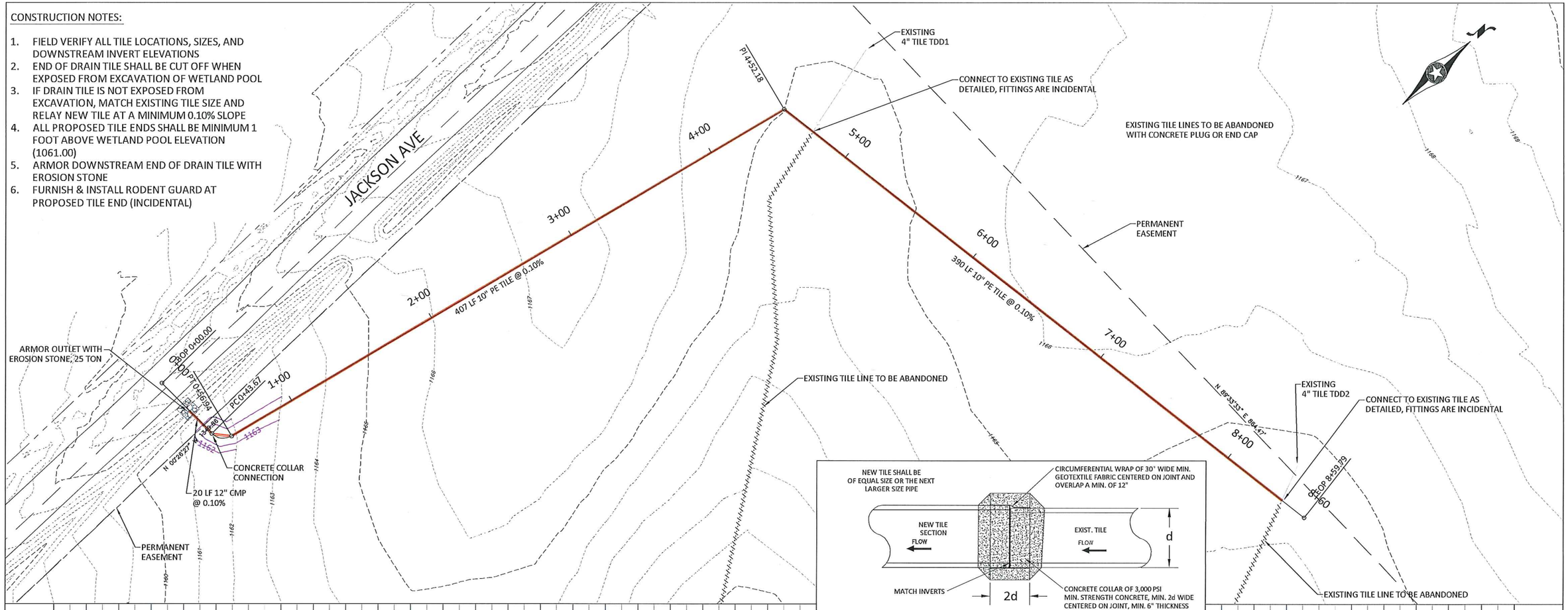
WRIGHT CREP PROJECT NO. WRI932534B

WATER CONTROL STRUCTURE DETAILS

SHEET 5.1

CONSTRUCTION NOTES:

1. FIELD VERIFY ALL TILE LOCATIONS, SIZES, AND DOWNSTREAM INVERT ELEVATIONS
2. END OF DRAIN TILE SHALL BE CUT OFF WHEN EXPOSED FROM EXCAVATION OF WETLAND POOL
3. IF DRAIN TILE IS NOT EXPOSED FROM EXCAVATION, MATCH EXISTING TILE SIZE AND RELAY NEW TILE AT A MINIMUM 0.10% SLOPE
4. ALL PROPOSED TILE ENDS SHALL BE MINIMUM 1 FOOT ABOVE WETLAND POOL ELEVATION (1061.00)
5. ARMOR DOWNSTREAM END OF DRAIN TILE WITH EROSION STONE
6. FURNISH & INSTALL RODENT GUARD AT PROPOSED TILE END (INCIDENTAL)

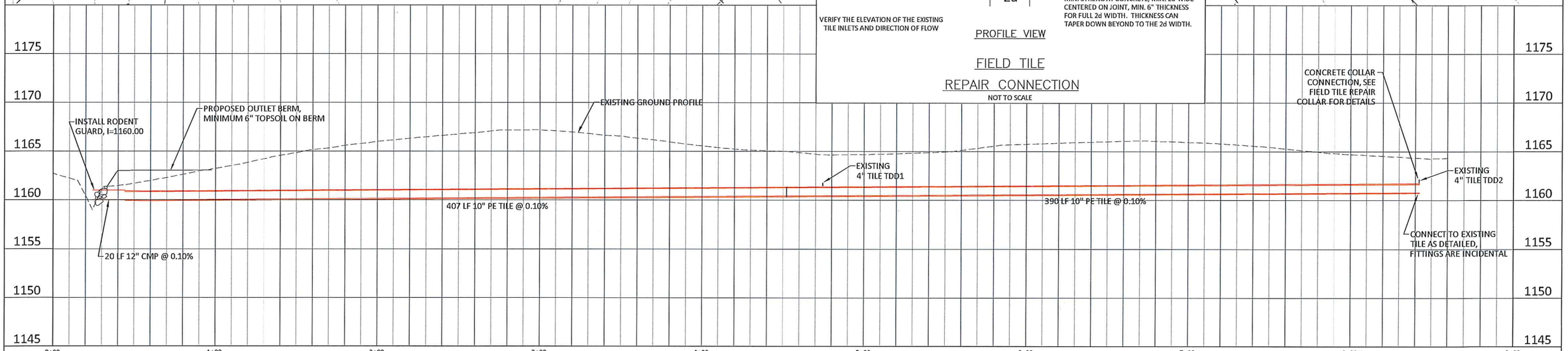


PROFILE VIEW

FIELD TILE

REPAIR CONNECTION

NOT TO SCALE



HORZ. SCALE 0 30 60 FEET

VERT. SCALE 0 5 10 FEET

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DRAIN TILE DETAIL
CONNECTION TDD1 & TDD2

SHEET 6.0