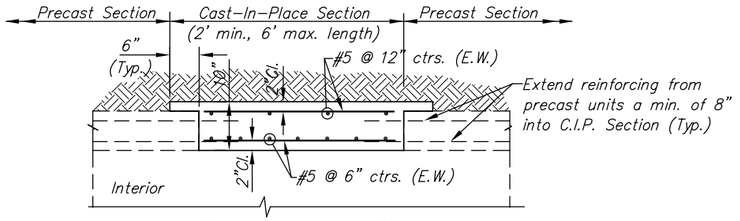
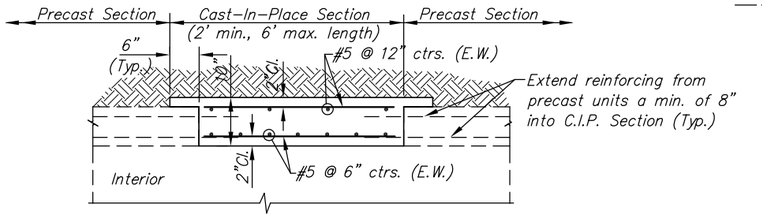


Section At Top Slab

(Bottom Slab Similar)



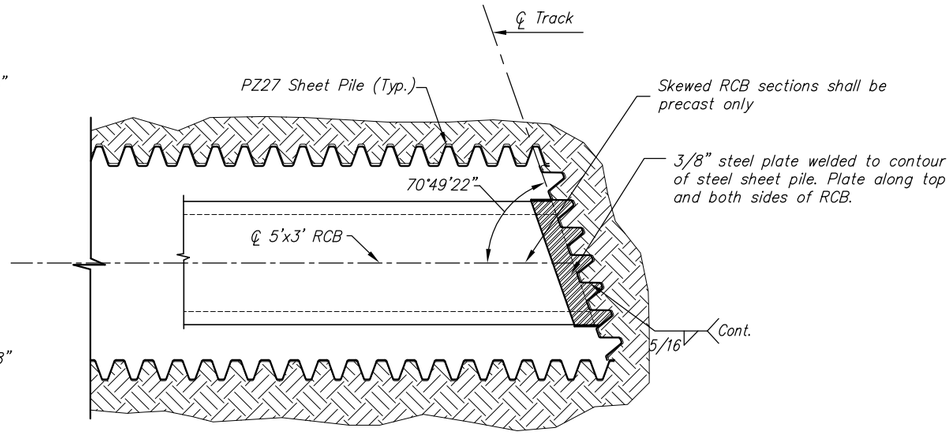
Section At Wall

CAST-IN-PLACE RCB SECTION

NOTE: (Phase 2)

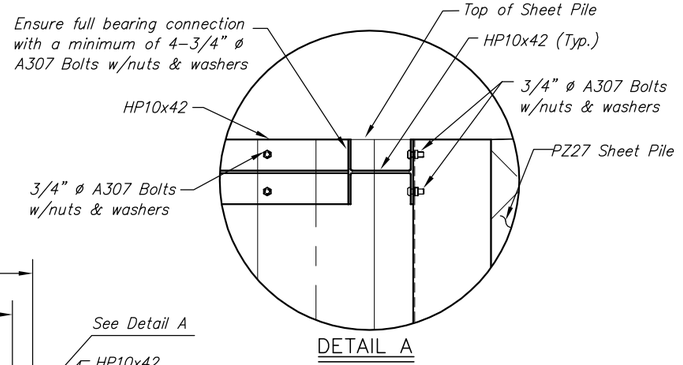
Concrete for the C.I.P. section shall reach a compressive strength of 4,000 psi in 48 hours as determined by ASTM C39. This work shall be subsidiary to "5'x3' Reinforced Concrete Box Culvert (Precast)".

Joints between precast sections and cast-in-place sections shall be waterproofed on both sides and the top of the RCB with a three-ply system consisting of alternating layers of asphalt impregnated cotton fabric and hot asphalt. The system shall be installed in conformance with AREMA guidelines. The waterproof system shall not be installed on the bottom of the RCB.



SHEET PILE PLAN

(Walers not shown)



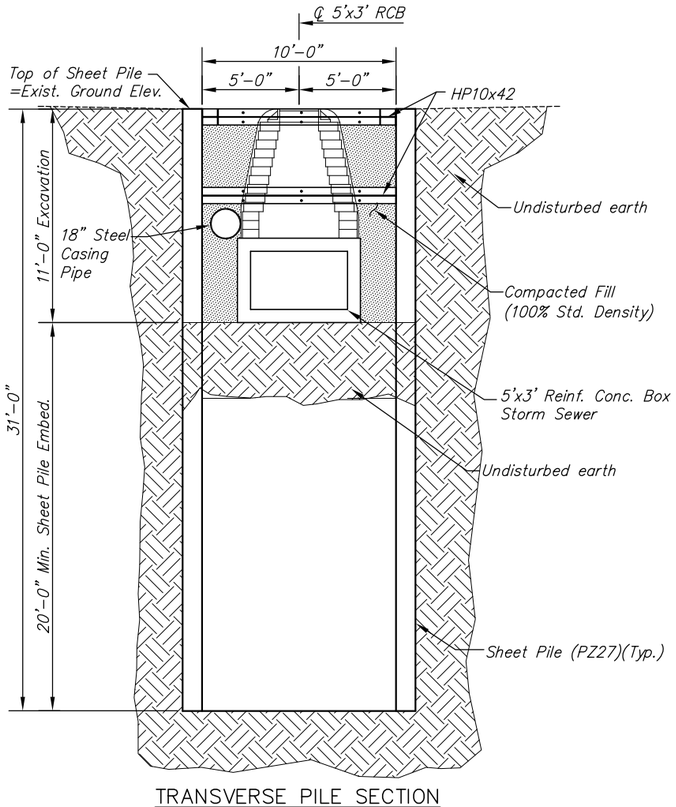
DETAIL A

GENERAL NOTES

DESIGN NOTE: The concrete end cap at the end away from the railway shall be designed by lateral earth load procedure presented in AASHTO, Standard Specifications for Highway Bridges, 17th Edition. The design shall be sealed by a licensed engineer from the state of Kansas.

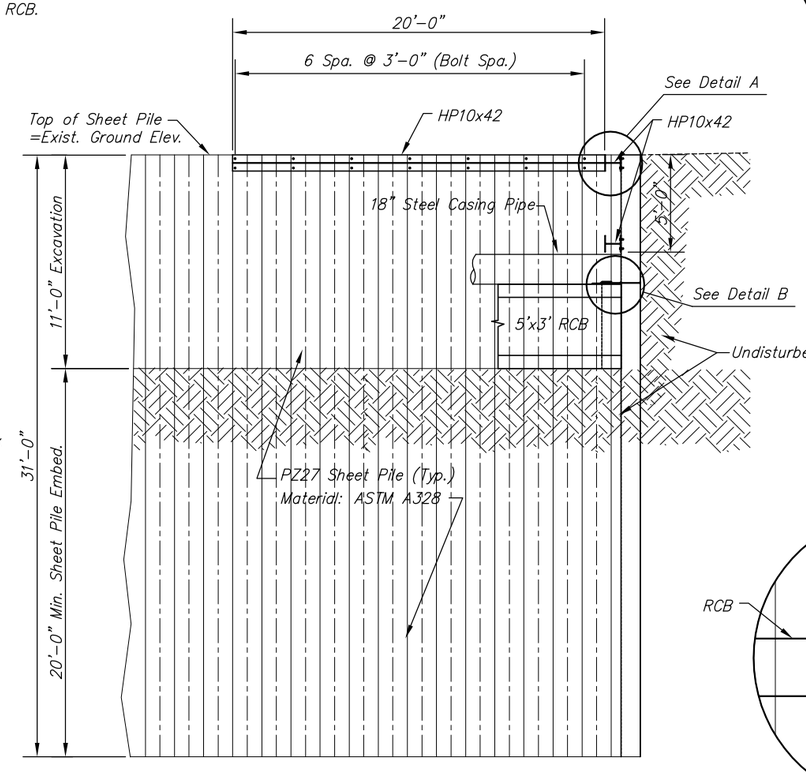
BACKFILLING AND COMPACTION: The existing material in the excavated area shall become the property of the contractor and be removed from the site.

Excavated materials not considered suitable for use as backfill or embankment shall be wasted off site. All embankment quantities are anticipated to be from an approved borrow site provided by the Contractor. Reuse of excavated materials in the embankment will only be permitted if the Contractor provides tests verifying the materials proposed for reuse meet the requirements for compacted granular fill. Embankment materials shall consist of compacted granular fill with minimum effective internal friction angle of 32 degrees when tested by the standard direct shear test AASHTO T-236 utilizing a sample of the material compacted to 100% of maximum laboratory dry density at optimum moisture content. For all embankment materials placed on the project, the moisture content of the fill at the time of placement and compaction shall be within the range of 3% below to 3% above the optimum moisture content value determined by the Standard Proctor test (ASTM D-698). Embankment shall be compacted to at least 100% of the material's maximum Standard Proctor dry density (ASTM D-698). Embankment materials shall be free of organic material, debris and less than 10% by weight shall pass the No. 200 sieve. The fill shall be placed and compacted in lifts of 8 inches or less in loose thickness. The Contractor is responsible for furnishing and placing compacted granular fill that meets the design and performance requirement of the project. Payment for embankment shall be based on plan quantities. No additional payment will be authorized unless the Engineer approves embankment beyond the plan limits.

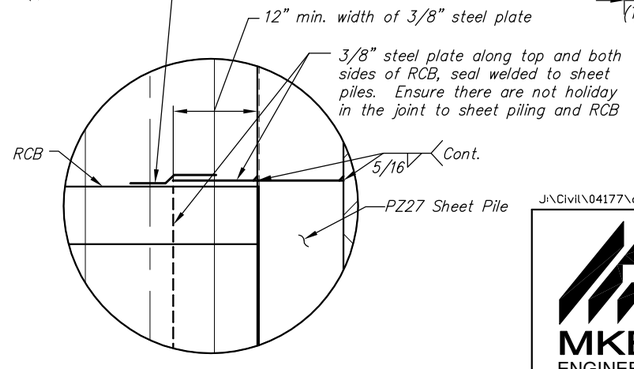


TRANSVERSE PILE SECTION

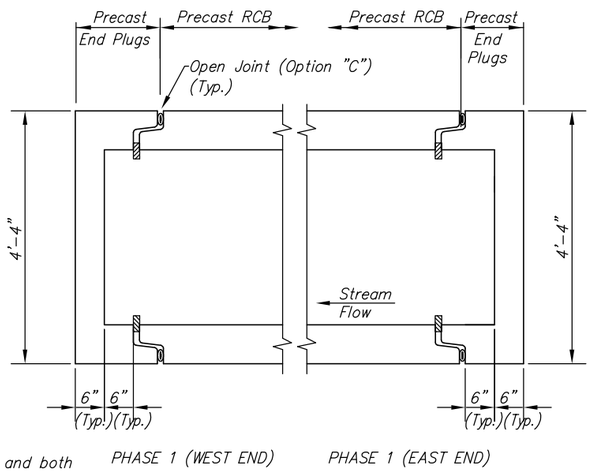
(Looking Forward Station)



LONGITUDINAL PILE ELEVATION



DETAIL B



PHASE 1 (WEST END) PHASE 1 (EAST END)

RCB CONCRETE END PLUG

LONGITUDINAL SECTION

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MKEC ENGINEERING CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 9600

17TH STREET N. DRAINAGE IMPROVEMENTS PHASE 1
PROJECT NAME

RCB AND SHEET PILE DETAILS
SHEET TITLE

JRA	DPG	JRA
DESIGN BY:	DRAWN BY:	CHECKED BY:
FEBRUARY 2006	04177	4 / 7
DATE	JOB NO.	SHEET/OF