

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0597-01	2016	86	191

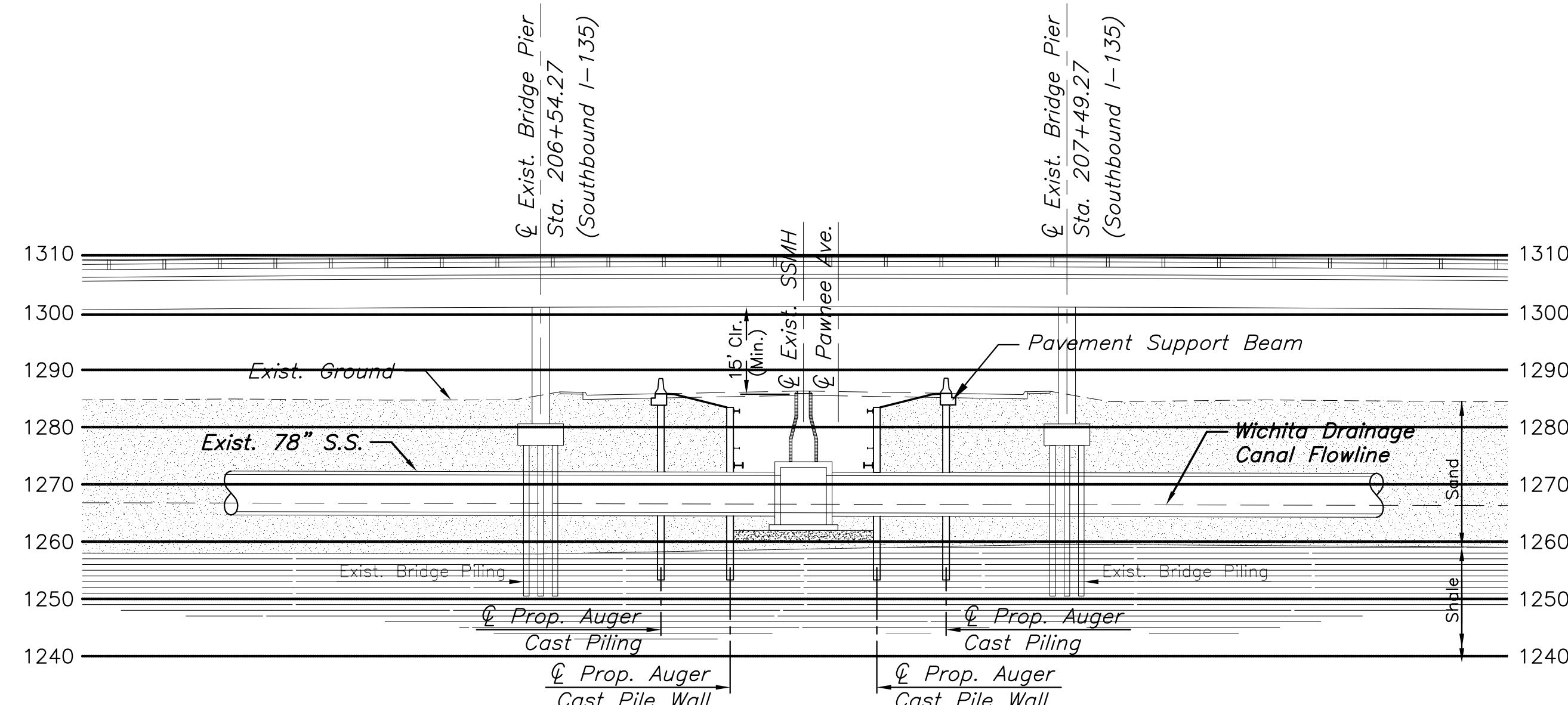


**GENERAL NOTES**

1. The Contractor is responsible for providing a Geotechnical Exploration Report, sealed and signed by a Professional Engineer in the state of Kansas. The report shall include a minimum of two soil boring logs in the vicinity of the proposed manhole drilled to a bottom elevation of 1255 (min.). The Contractor shall submit the Geotechnical Exploration Report to the Engineer for review. The Report shall be completed prior to any construction operations and shall be considered subsidiary to the bid item "Auger Cast Piling".
2. The Contractor shall submit a piling layout plan and schedule of depths for the engineer's review prior to construction. This plan shall bear the seal and signature of a licensed Professional Engineer in the state of Kansas. It is the responsibility of the Contractor's to ensure that his construction activities do not damage existing water lines or the existing 78" sanitary sewer line.
3. Auger Cast Piling immediately above the existing 78" sanitary sewer line are expected to come near to resting upon the line, without damaging it. In order for sufficient soil retention during excavation and demolition activities on the existing manhole, it will be necessary to cast piling in close proximity to the existing line. Auger cast piling immediately outside of the existing 78" sanitary sewer line shall be drilled and cast to the design pile tip elevation.
4. Auger Cast Piling, in all locations, shall be 14"Ø cast with one (1) full-depth #11 All-Thread Rebar (ASTM A615, Grade 75) in the center of the pile. Concrete for Auger Cast Piling shall have a minimum compressive strength of 5,000 psi. Piling for Auger Cast Pile Walls shall be installed at 14" ctrs. (Tangent Wall) (Typ.). See "Detailed Plan" for pile spacing beneath Pavement Support Beams.

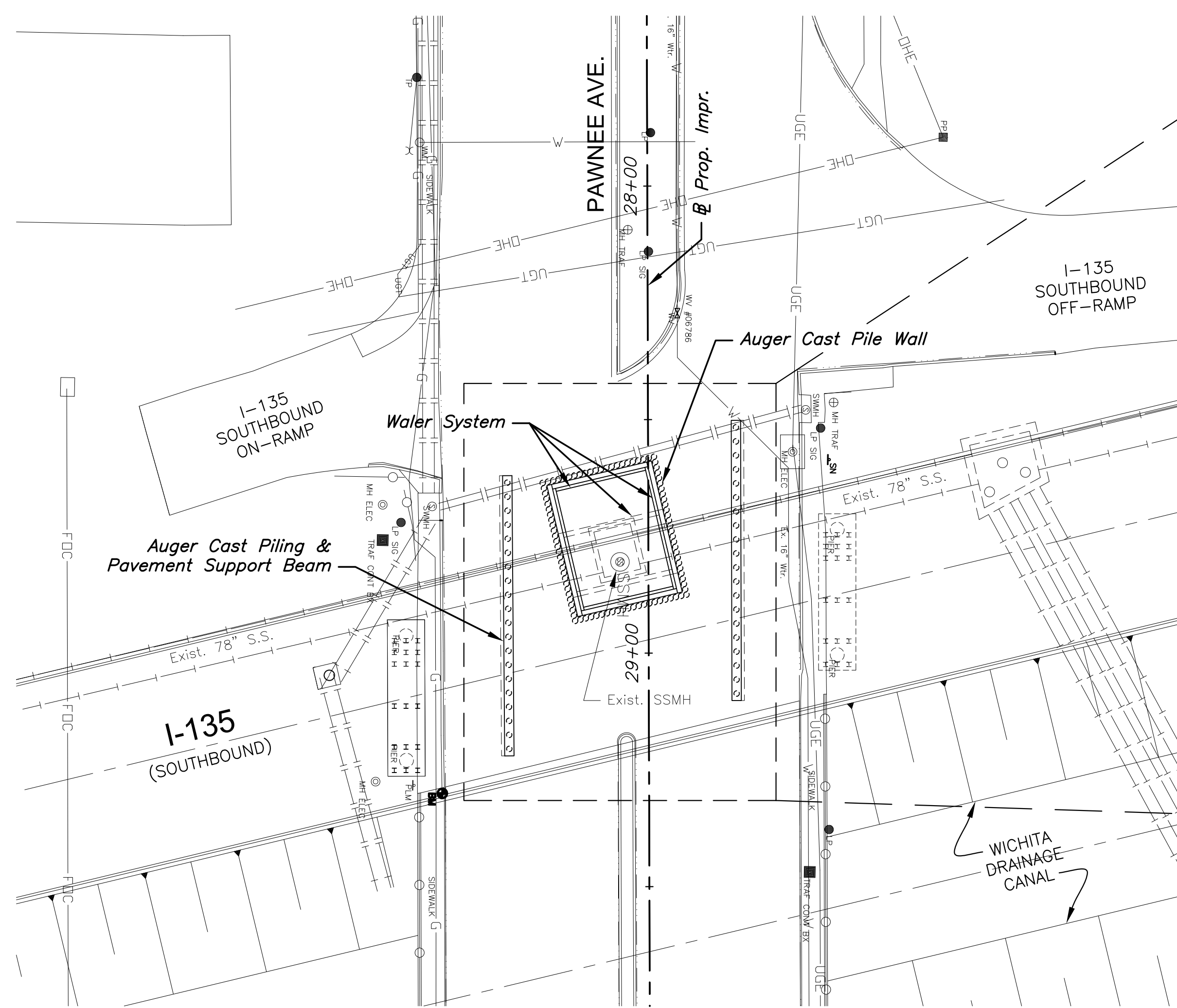
**SEQUENCE OF CONSTRUCTION**  
Sanitary Sewer Manhole Removal and Replacement

1. After confirming manhole dimensions, submit design for proposed precast manhole and begin its construction upon City approval.
2. Remove median island between Stations 24+50 and 28+50 and Stations 30+50 and 33+10 and place temporary asphalt pavement.
3. Assemble all equipment and materials necessary to perform bypass pumping of the sanitary sewer flow. Have bypass pumping operations ready to begin, if necessary. Maintain this level of preparedness until pumping begins.
4. Provide one lane of traffic in each direction in the south lanes of Pawnee. Erect traffic control plan number 1A as shown.
5. Construct the north auger-cast piling and pavement support beam. Install asphalt pavement patch to fill in removed pavement adjacent to the support beam.
6. Switch traffic control. Provide one lane of traffic in each direction in the north lanes of Pawnee. Erect traffic control plan number 1B as shown.
7. Construct the south auger-cast piling and pavement support beam. Patching pavement adjacent to the wall will not be required.
8. Switch traffic control. Provide one lane of traffic in each direction using the two outermost through lanes of Pawnee. Erect traffic control plan number 1C as shown. Install temporary concrete safety barrier.
9. Remove and/or relocate existing obstacles in conflict with manhole replacement operations. Remove existing 18" storm sewer. Remove conflicting portions of the existing traffic signal and install temporary signal. Remove conflicting traffic lighting.
10. Construct auger-cast pile wall including water systems and excavate around manhole. The Temporary Water System may be removed after completion of the Lower Water System. Remove manhole brick stack as excavation advances. Remove excavated material from project.
11. Install dry-pack grout to protect annular spaces between the existing 78" sanitary sewer and the auger-cast piling wall.
12. Begin bypass pumping operations if not yet started.
13. Saw cut existing sanitary sewer pipe on each side of the existing manhole as shown and remove all remaining portions of the manhole and cut pipe.
14. Prepare subgrade below manhole and install Unreinforced Concrete Base to appropriate elevations.
15. Install precast reinforced concrete manhole to plan locations.
16. Construct concrete collar around existing pipe and connect to new manhole. Install manhole stack on top of precast concrete manhole. Apply interior liner to all interior surfaces of new pipe and manhole. Remove forms and equipment from inside of manhole prior to applying liner.
17. End bypass pumping operations but maintain equipment and materials on site to resume bypass pumping in case of emergency.
18. Remove all materials and equipment from the excavation, and backfill around new manhole in accordance with the plans and specifications. Remove water system, if desired, as backfill operations approach water elevation. Remove auger-cast piling to a depth four-foot below the ground surface.
19. Construct temporary asphalt pavement and pavement markings. Remove temporary concrete safety barrier and restore full traffic. The Pavement Support Beams may remain and be removed during pavement construction operations later in construction.
20. Restore site and remove all equipment and materials from the site, including bypass pumping equipment and materials.

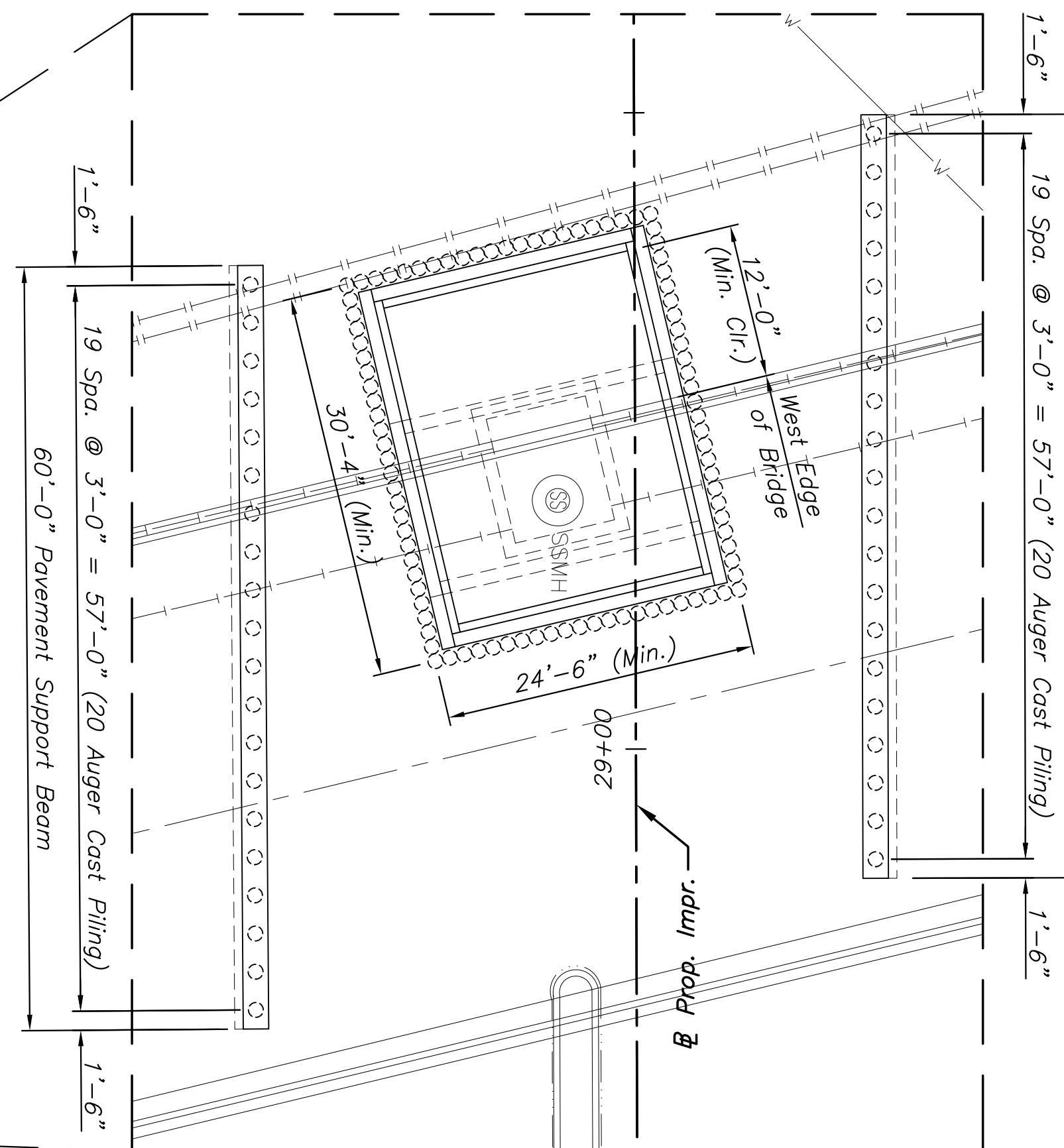


**AUGER CAST PILING NOTE:**  
The proposed Pile Tip Elevation for Auger Cast Piling shall be 1253.30', in all locations.

**ELEVATION**



**PLAN**



**DETAILED PLAN**

**NOTE:**  
See Sh. No. 87 & 88 for details on Auger Cast Piling, Pavement Support Beams, Water System, and the proposed Sanitary Sewer Manhole.

**STREET IMPROVEMENTS FOR:**  
**PAWNEE AVENUE**  
**FROM HYDRAULIC TO POPLAR**  
**WICHITA, KANSAS**

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**SANITARY SEWER MH REPLACEMENT STA. 28+80.45**

PROJECT NO.	87 N-0597-01	
DATE	5/10/2016	
SCALE	1"=20'	
DESIGNED	DRAWN	CHECKED
JRA	DMU	JRA

1	REVISED SHEET	06/16/16
NO.	REVISION	DATE

SHEET NO.