GENERAL NOTES

1. Underground facilities, structures and utilities have been plotted from available surveys, records and information, and, therefore, do not necessarily reflect the actual existence, non-existence, size, depth, type, number or location of these facilities, structures and utilities. The Contractor shall be responsible for verifying the actual location of all underground facilities, structures and utilities, either shown or not shown on these plans. The underground facilities, structures and utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo. Contractor to contact MODOT Traffic Division to locate existing signal & lighting & underground wires or cable prior to construction.

2. Contractor to verify location and flowline of existing sewers and water line prior to connection. All connections to be made in accordance with local codes and/or utility companies requirements.

3. All site preparation, grading or fill for construction of footings, slabs and parking areas to be in accordance with the requirements outlined in the Investigation of Subsurface Conditions and Foundation recommendations.

4. Face of all inlets to be set 2 feet behind back of curb unless otherwise shown on the plans. Top of inlets shall be set flush with top of curb where 6" vertical curbs are installed.

5. All fill under storm or sanitary lines constructed above original grade shall be compacted to 95% of maximum dry density as determined by the modified AASHTO Compaction Test T180 (Current A.S.T.M. Specification D-698), and verified by a Soils Engineer prior to installing pipe.

6. Location and elevation of field inlets, manholes and culvert pipes to be verified by Engineer after stakeout and prior to construction.

7. All materials and methods of construction for sewers to meet the current requirements of the City of O'FALLON.

8. All sewer structures to conform to the City of O'FALLON standards unless otherwise shown on plans

9. All sanitary connection pipe and fittings shall be polyvinyl chloride pipe (PVC) with the material meeting and the pipe conforming to current ASTM Specification D-3034, SDR-35, and shall be bedded to meet manufacturer's specifications. Joints for PVC pipe shall conform to current ASTM Specification D-3212.

10. All water lines shall be installed in accordance with ANSI/AWWA C-600, latest edition, and the City of O'FALLON / ALLIANCE WATER AND SEWER CO. whichever is most stringent, with a minimum of 42 inches of cover to proposed finish surface.

11. All water lines to be tested and disinfected in accordance with the current Missouri State Division of Health's requirements and project specifications.

12. All trenches under or adjacent to the proposed corrugated metal detention storage pipe (CMP) shall be backfilled to subgrade elevation with compacted 1" minus crushed limestone.

13. All materials and fabrication shall be in accordance with AASHTO Specification M-36. All installation shall be in accordance with the manufacturer's specifications.

14. The Collector Piping and Detention Basin(s) shall be fabricated from 16 gauge Polymer Coated Steel Coils meeting the requirements of AASHTO Specification M-246. All materials and fabrication shall be in accordance with AASHTO Specification M-36. (All pipe shall be helically corrugated). Each pipe end shall have at least two annular corrugations to accept Strip Gusket and a connecting band. Connecting bands shall have two corrugations that engage the annular corrugations on the ends of the pipe. Bands shall be joined by band angle and strap connectors (or approved equal.) All installation shall be in accordance with the Manufacturer's recommendations. Contractor shall provide shop drawings of C.M.P fabrication to city for approval

15. All trenches under, or adjacent to proposed pavement shall be backfilled to subgrade elevation with compacted 3/4" minus crushed limestone. Crushed limestone shall be compacted to 95% density as determined by the Standards Proctor Test AASHTO T-99 (ASTM D-698). All other trenches within the road right-of-way shall be backfilled with suitable earth embankment material free from rubbish and debris and lumps, clods or rocks larger than 2 inches placed in 6" layers and compacted to the same density as above. Trenches not in road right-of-way or under or adjacent to pavement may be backfilled with earth embankment material defined above, jetted and neatly mounded to allow for subsequent settlement, unless otherwise directed by the Engineer.

16. On site pavement shall consist of 8 inches of 4000 PSI concrete with #4 rebar 48" on center each way but not continuing through construction joints. Pavement over underground tanks shall be 8" thick concrete with #4 rebar 48" on center each way for a distance of 5' past tank hole excavation. Construction joints shall be placed every 20' parallel to store front with smooth greased dowels 48" on center and control joints every 20' perpendicular to store front with smooth greased dowels 48" on center. Rebar shall not continue through any joints. Eliminate all keyways. Expansion joints to be provided along curb and gutter. Construction joints not to exceed 20' on center with saw joints maximum of 20' on center.

17. The contractor moving earth on the site shall be responsible for the erection and maintenance of siltation barriers or basins to protect off-site streets and downstream properties from damage due to soil erosion. Additions or changes to such devices shall be made in accordance with the requirements of the City Engineer.

18. No slope shall be greater than 3:1 and all areas disturbed by grading shall be protected by seeding and mulching or paving as soon as possible. All disturbed off-site areas to be sodded within 30 days of initial disturbance.

19. For refuse area details, refer to architectural drawings.

20. Contractor to notify Engineer as soon as possible if conditions on ground differ from those shown on plans.

21. All materials and methods of construction for the entrance onto WELDON SPRING ROAD & ROUTE K to meet the requirements of the MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT.
Concrete pavement shall be 8" concrete with #4 rebar at 48" each way on a 4" stone base with 6" vertical concrete curb. Concrete shall be six sack mix. Entire subgrade shall be shaped, compacted and rolled prior to placing base course. Local soft spots in subgrade encountered during pavement construction shall be undercut and replaced with a thicker rolled stone base section.

22. PROJECT BENCHMARK: Missouri State Route "K" BM #27-85. 80d spike 5" Elm group of 4, 64 feet left of centerline station 316+25+/-, 30 feet +/- North of Weldon Spring Road. Elevation=549.09.

SITE BENCHMARK: "+" of stamped station 310+00, located at edge of pavement 40 feet Eastwardly of centerline station 310+00 of Relocated Missouri State Route "K", Elevation=560.29

23. CONTROLLED FILL/EXCAVATION

1. QuikTrip will employ the services of a Geotechnical Engineer to observe, test and approve all excavation, fill and backfill work and to determine that subgrade conditions are compatible with those used in the design.

2. All footings are designed to bear on natural undisturbed soil or controlled fill capable of adequately sustaining a maximum bearing pressure of 1500 PSF. If suitable bearing capacity is not encountered at the elevation indicated on the drawing, contractor shall notify the architect immediately.

3. All topsoil, organic material and existing structures shall be removed from the building area and from areas to be paved. Stockpile all topsoil for reuse.

4. Controlled fill material:

A. Granular fill: shall consist of washed, evenly graded mixture of crushed stone, or crushed or uncrushed gravel, with 100% passing a 1-1/2" sieve and not more than 5% passing a No. 4 sieve.

B. Controlled fill: shall consist of material having a relatively low plasticity with a liquid limit of less than 45% and a plasticity index of less than 21% or as recommended by the Geotechnical Engineer.

C. All material proposed for use as controlled fill shall be approved by the Geotechnical Engineer.

5. Foundation Preparation:

A. Scarify and/or proof roll subgrade in which controlled fill is to be placed as recommended by the Geotechnical Engineer.

B. Backfill directly under slabs-on-grade with minimum of 4" of granular fill.

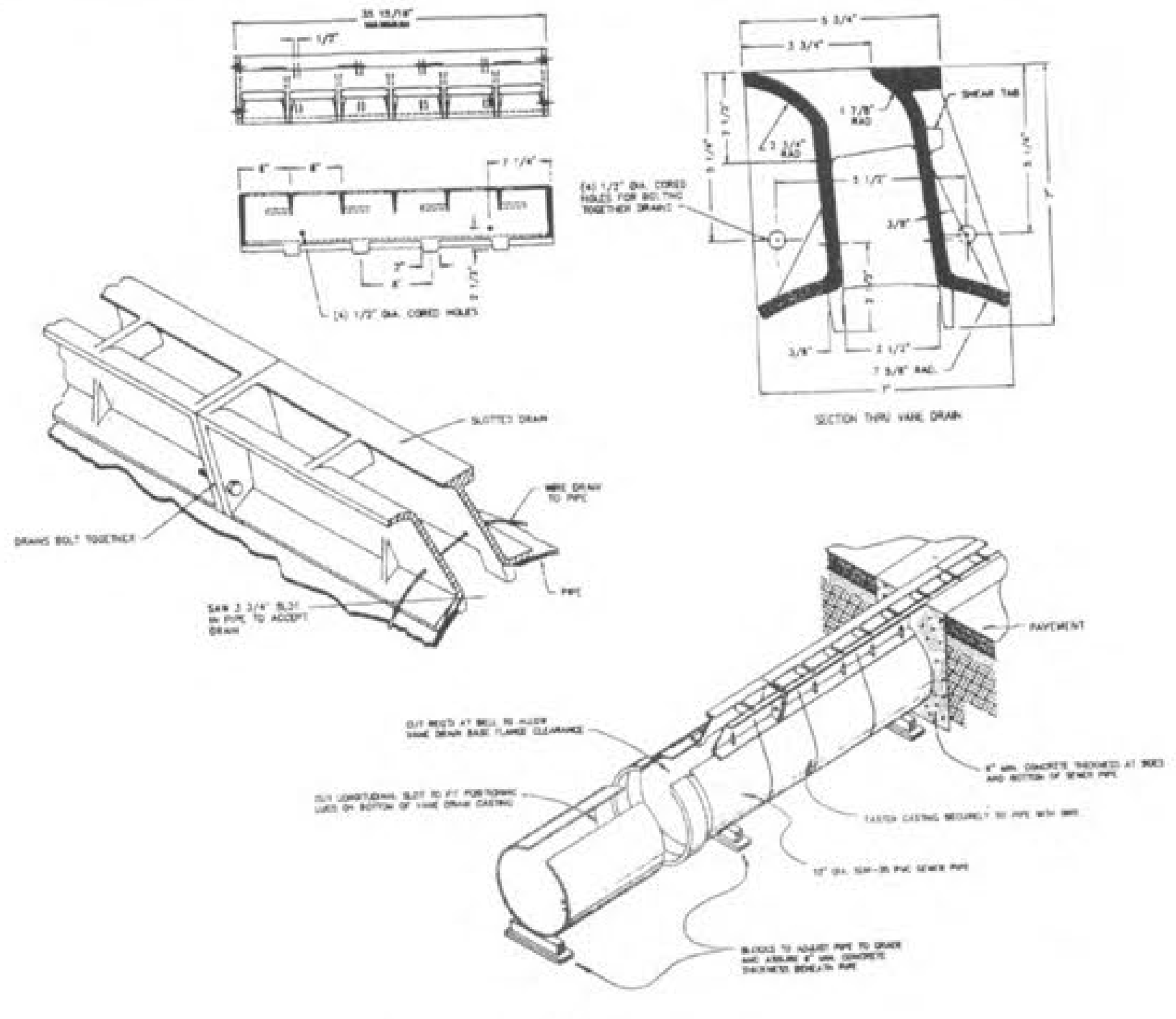
6. Control fill and backfill compaction:

A. All controlled fill and backfill shall be placed in lifts having maximum loose lift thickness of 8".

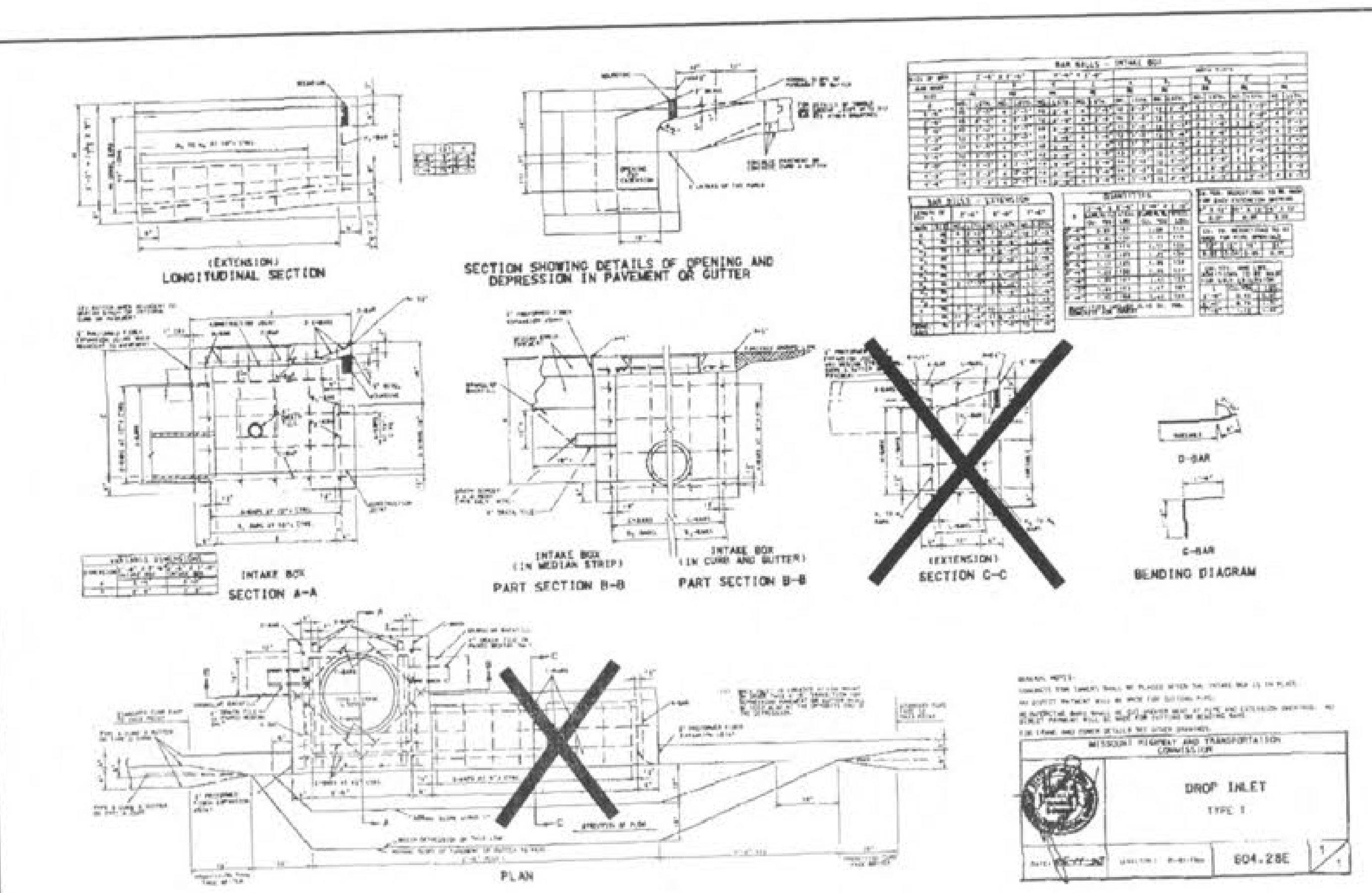
B. All fill material shall be free of roots, organic material and trash and consist only of acceptable material. All embankments shall be placed in accordance with the lines and grades indicated in the plans. All fill material shall be compacted to minimum of 95% of the maximum laboratory dry density in accordance with the standard proctor compaction test (ASTM D-698), unless otherwise noted.

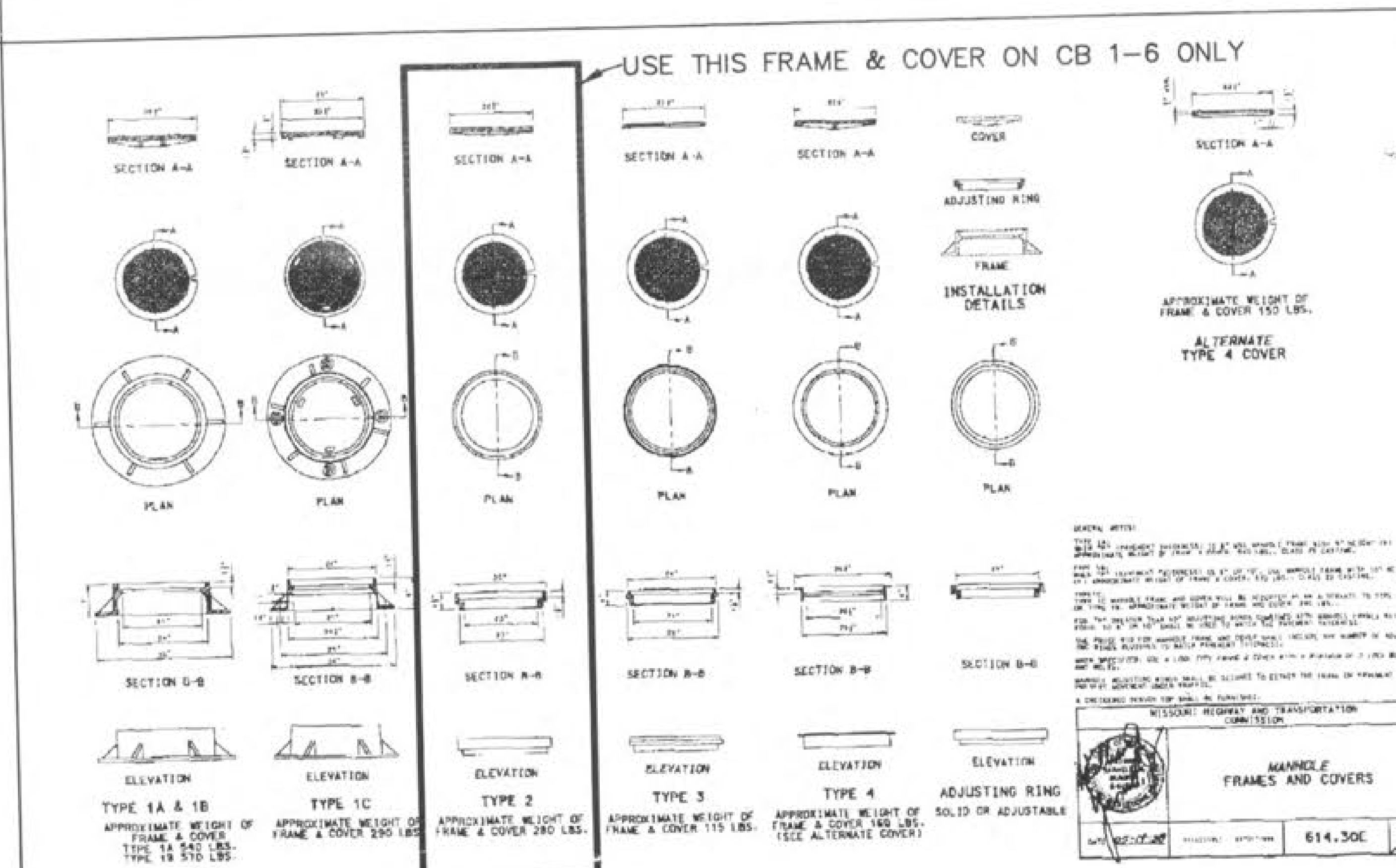
C. Cut slopes shall not exceed 2H:1V. Fill slopes shall not exceed 2H:1V. (Unless prior approval received by Geotechnical Engineer).

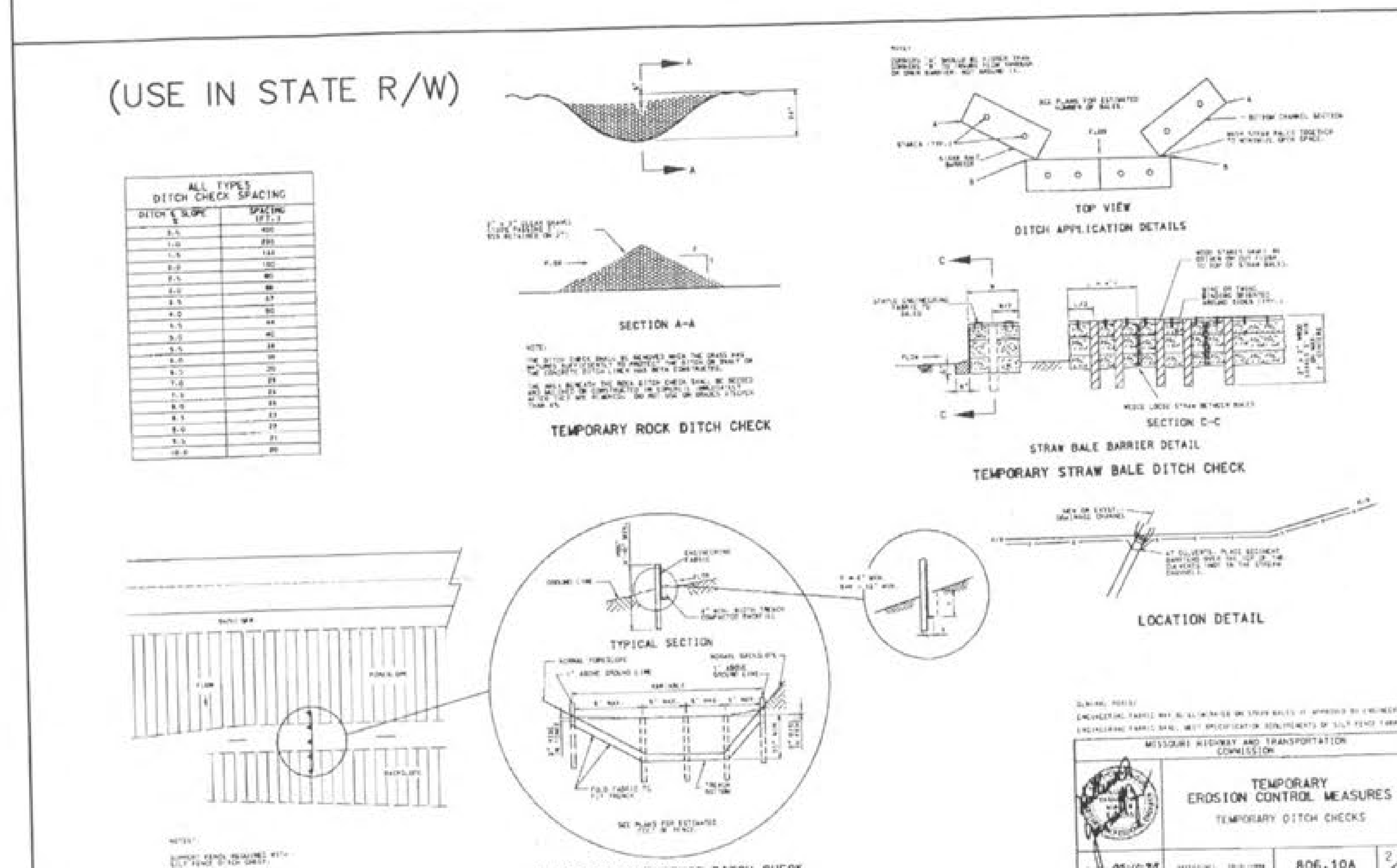
D. The brick pattern for all concrete radius protectors, at entrances, to be laid out perpendicular to Frontage Road.

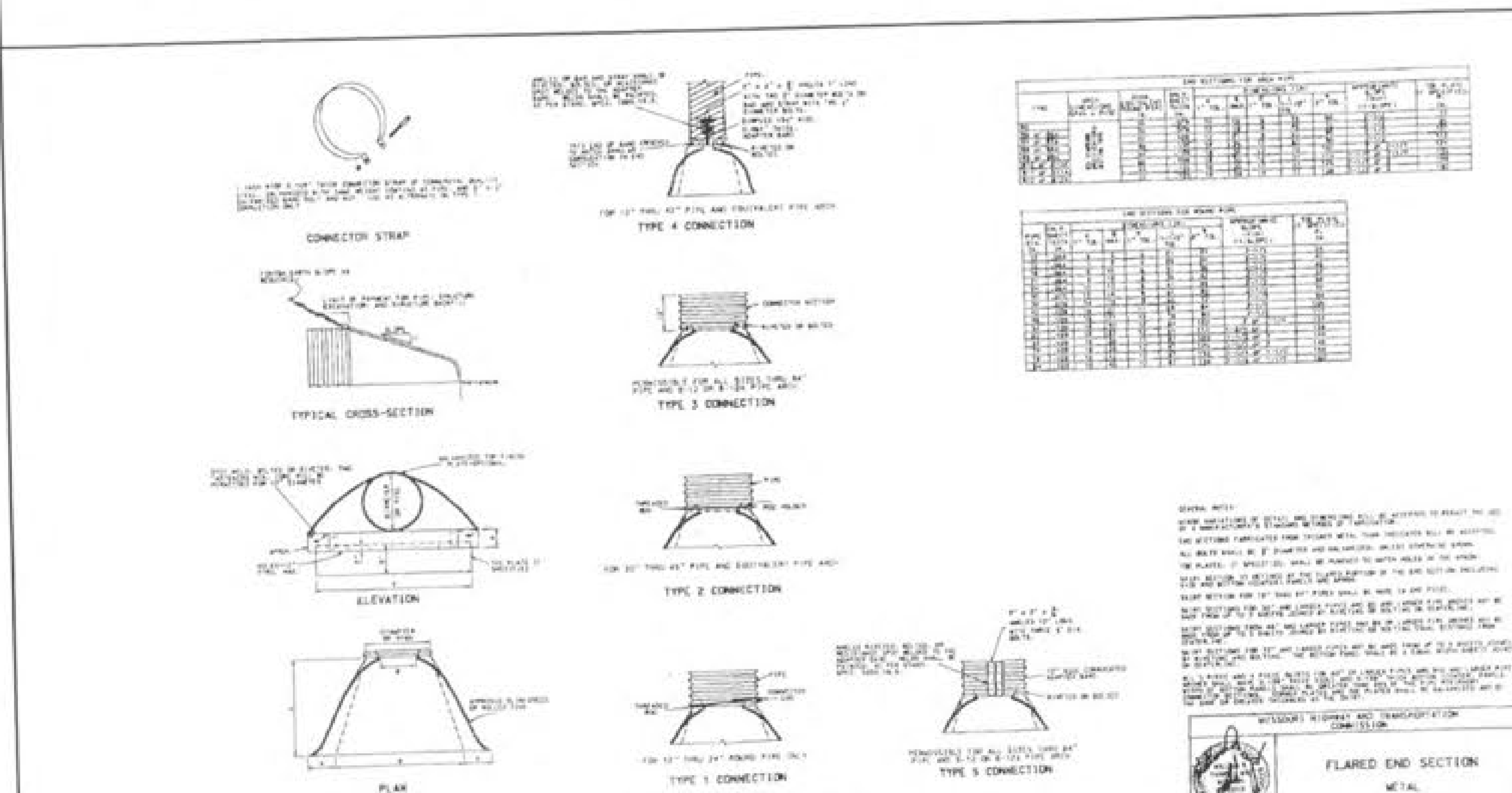


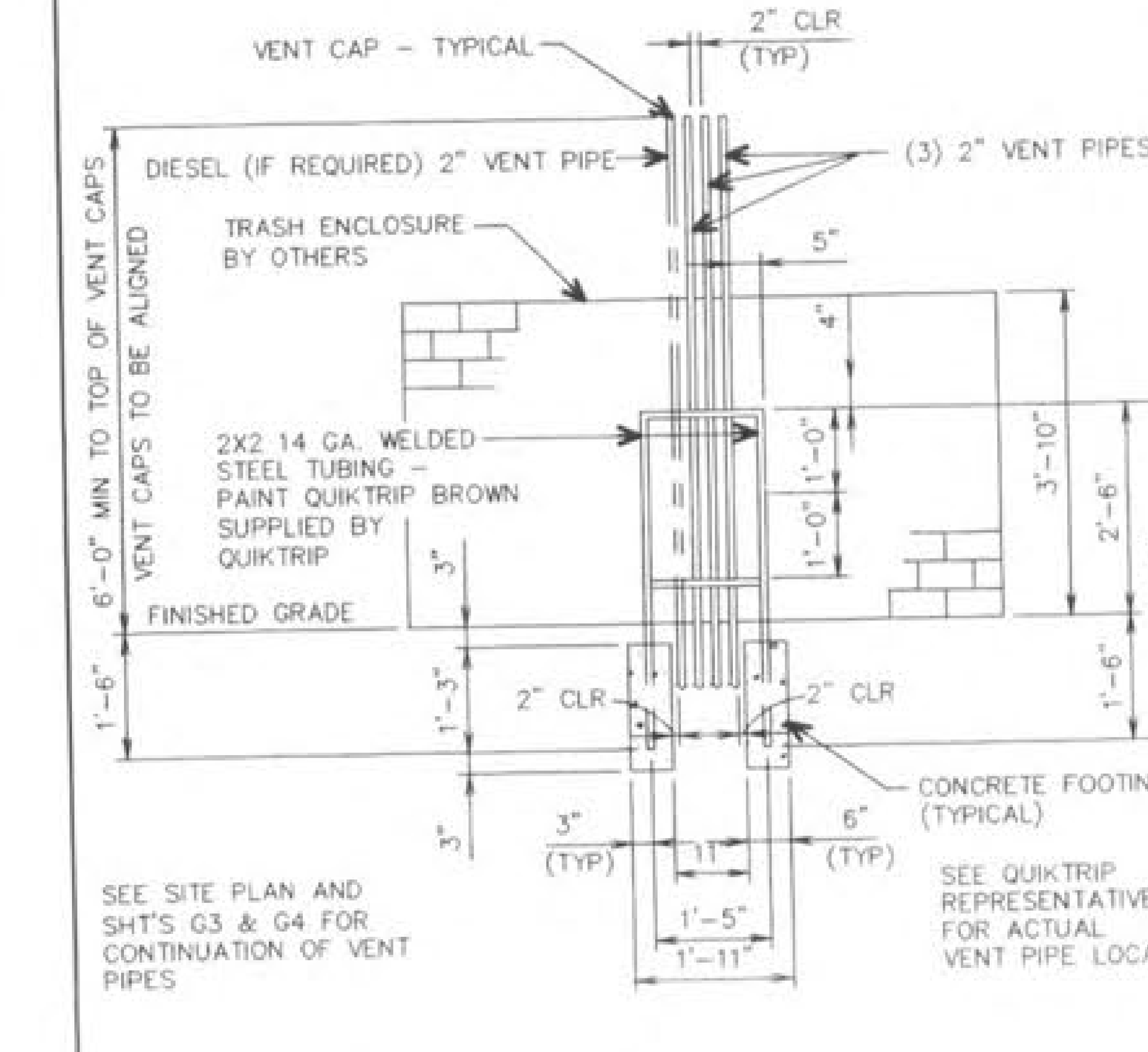
NEENAH R-3599A SLOTTED VANE DRAIN



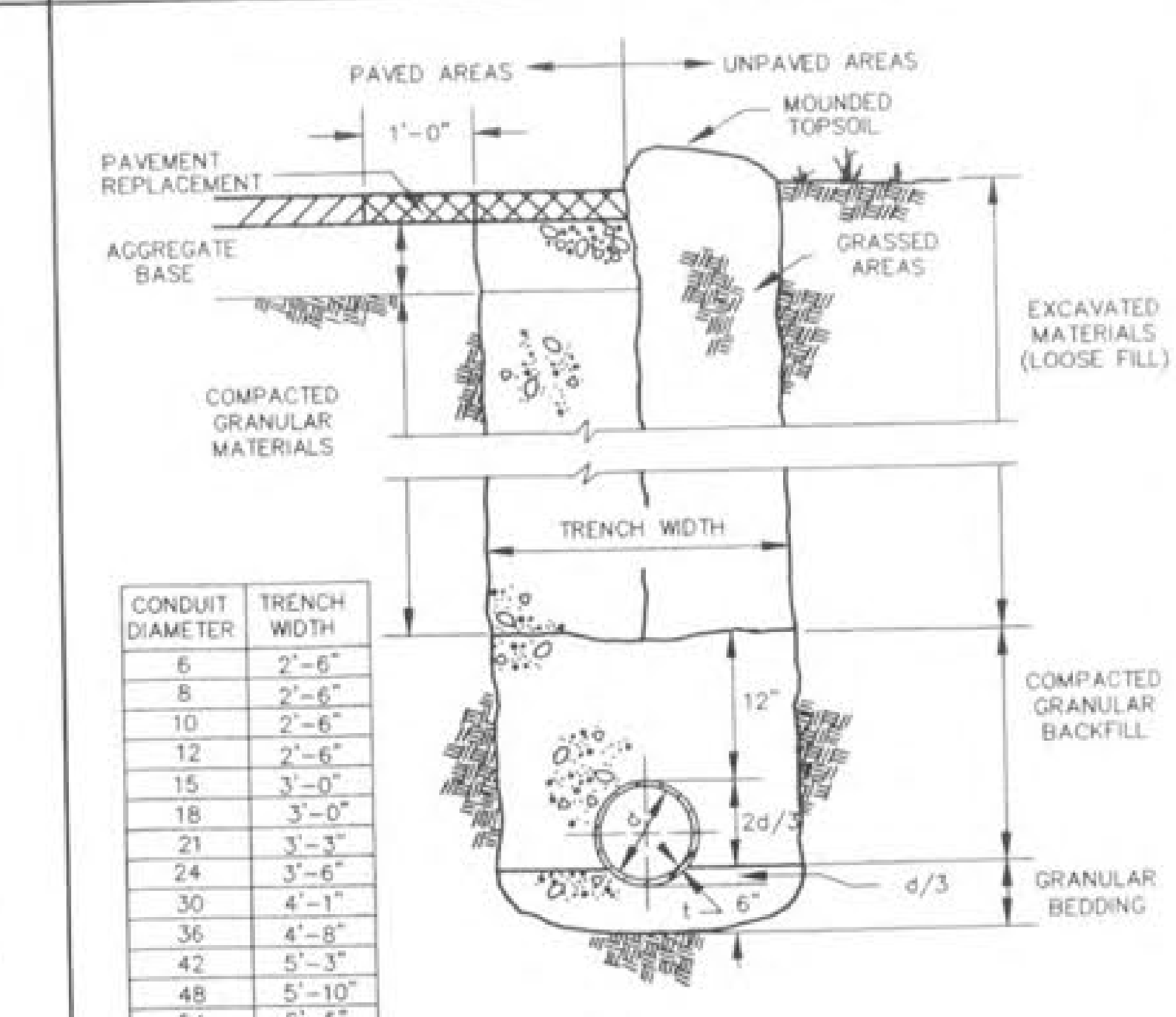






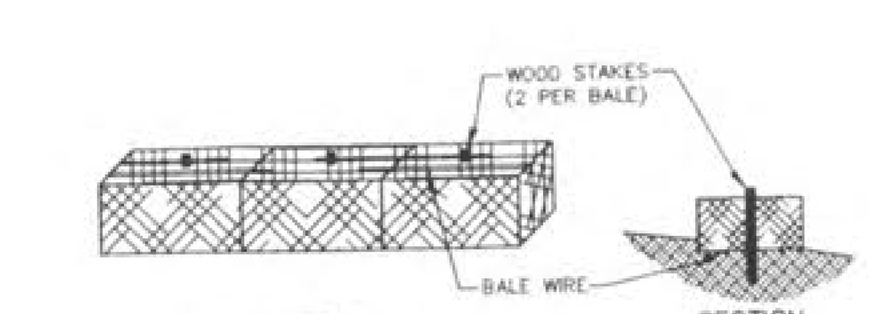


UST VENT PIPE MOUNTING ELEVATION (1/G4)
SCALE: 1/4" = 1'-0"

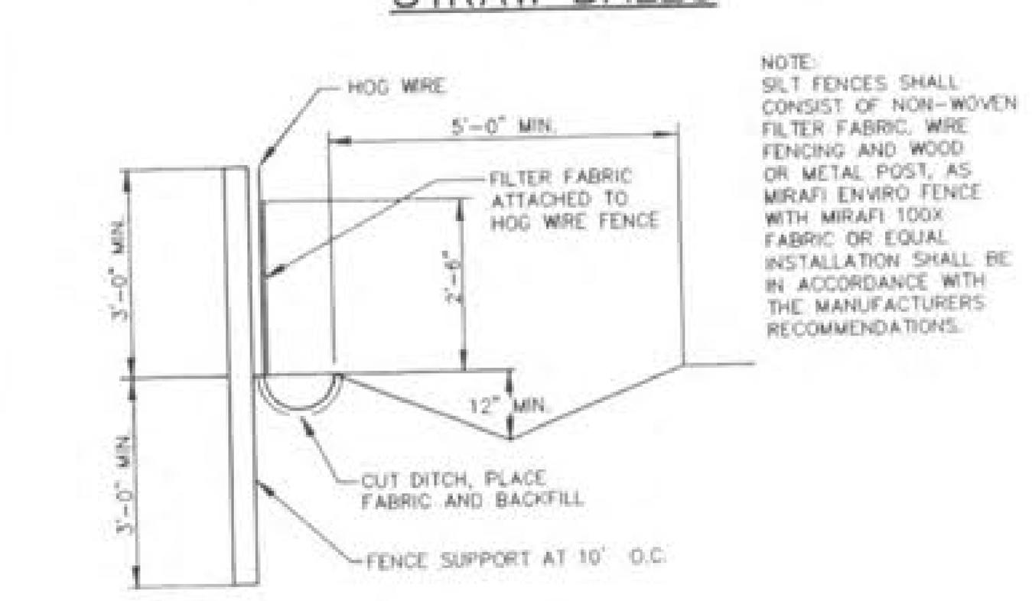


CONDUIT DIAMETER	TRENCH WIDTH
6	2'-6"
8	2'-6"
10	2'-6"
12	2'-6"
15	3'-0"
18	3'-0"
21	3'-3"
24	3'-6"
30	4'-1"
36	4'-8"
42	5'-3"
48	5'-10"
54	6'-5"
60	7'-0"
66	7'-7"
72	8'-2"

UTILITY TRENCH



STRAW BALES



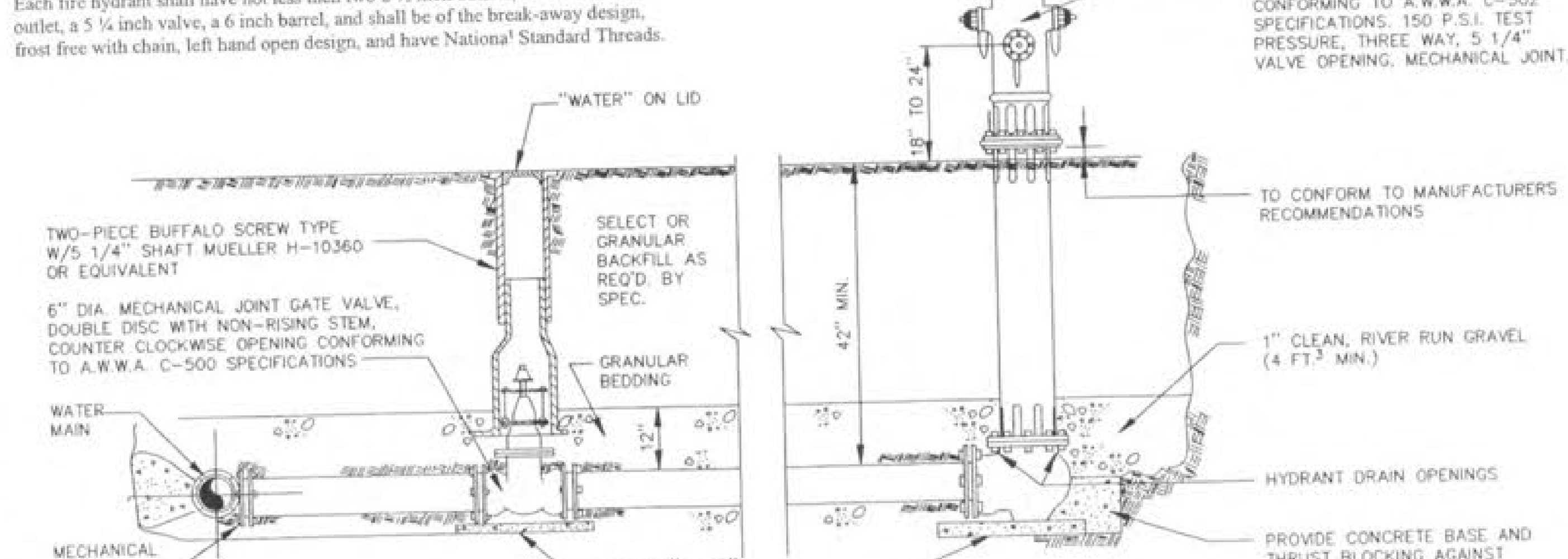
NOTE:
SILT FENCES SHALL CONSIST OF NON-WOVEN FILTER FABRIC, WIRE FENCING AND WOOD OR METAL POST, AS MIRAFI ENVIRO FENCE WITH MIRAFI 100X FABRIC OR EQUAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

SILTATION CONTROL FENCE & SWALE

(USE ON SITE)

The fire hydrant shown on the South side of the building shall be relocated to be within twenty (20) feet of the access drive off of Weldon Spring Road.

Each fire hydrant shall have not less then two 2 ½ inch outlets, and one 4 ½ inch outlet, a 5 ¼ inch valve, a 6 inch barrel, and shall be of the break-away design, frost free with chain, left hand open design, and have National Standard Threads.



FIRE HYDRANT INSTALLATION

REVISIONS

QUIKTRIP CORPORATION
2255 BLUESTONE DRIVE
ST. CHARLES, MO. 63303
PH # (314) 916-5706
FAX # (314) 916-5754

QUIKTRIP #632
CONSTRUCTION NOTES & DETAILS

the clayton engineering company, inc.
ENGINEERS • SURVEYORS • PLANNERS
11920 WESTLINE INDUSTRIAL DRIVE
ST. LOUIS, MISSOURI 63146
(314) 692-8888 FAX: (314) 692-8688
clayton-engineering.com

Designed	
Drawn	HRL
Checked	DJB
Date	9/6/99
Project Number	99051
Sheet Number	6 of 11

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