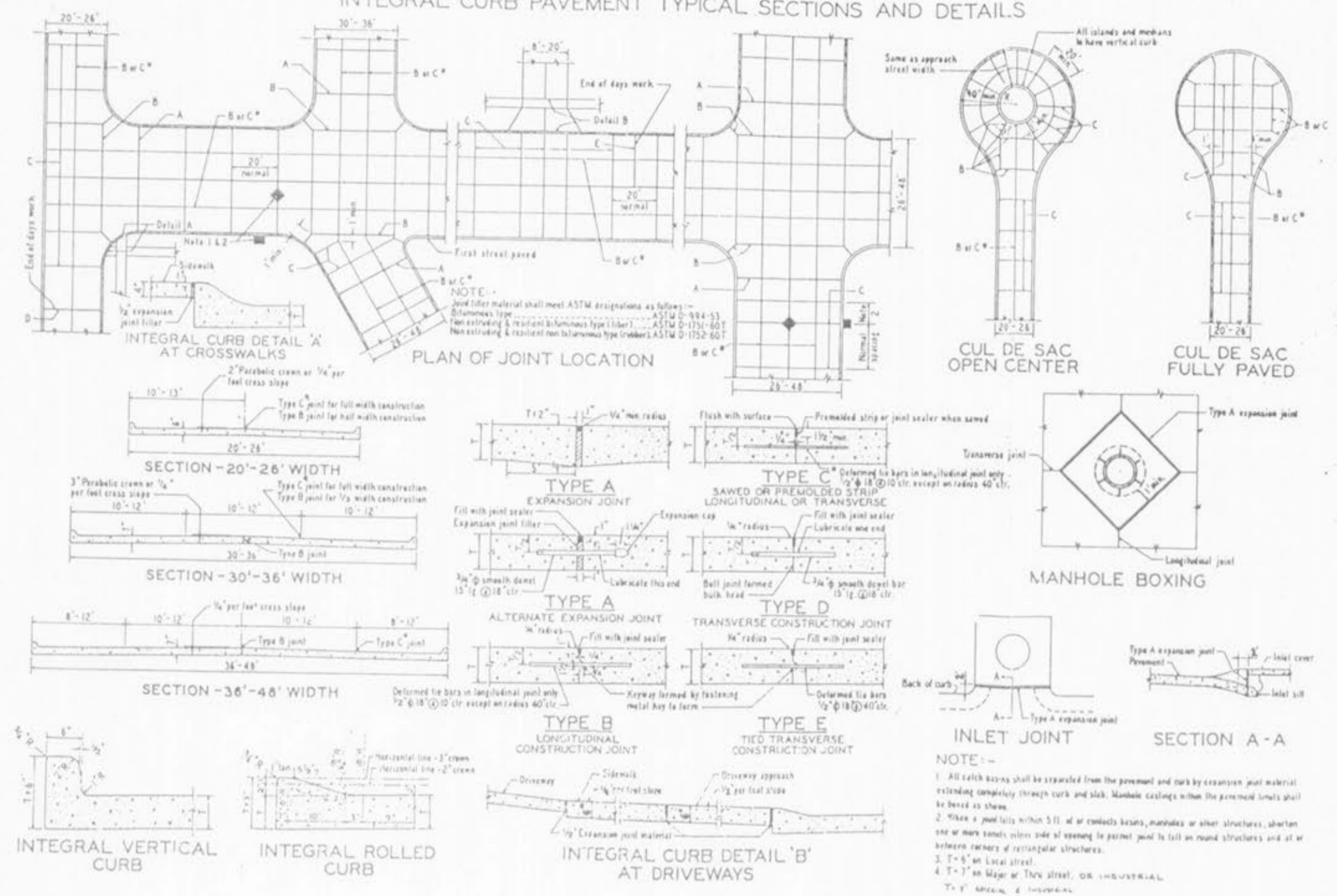
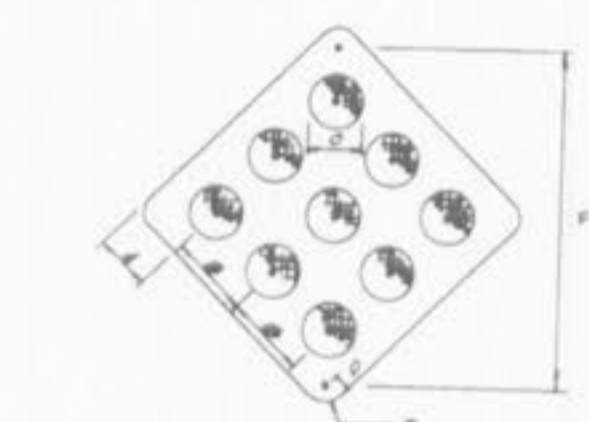
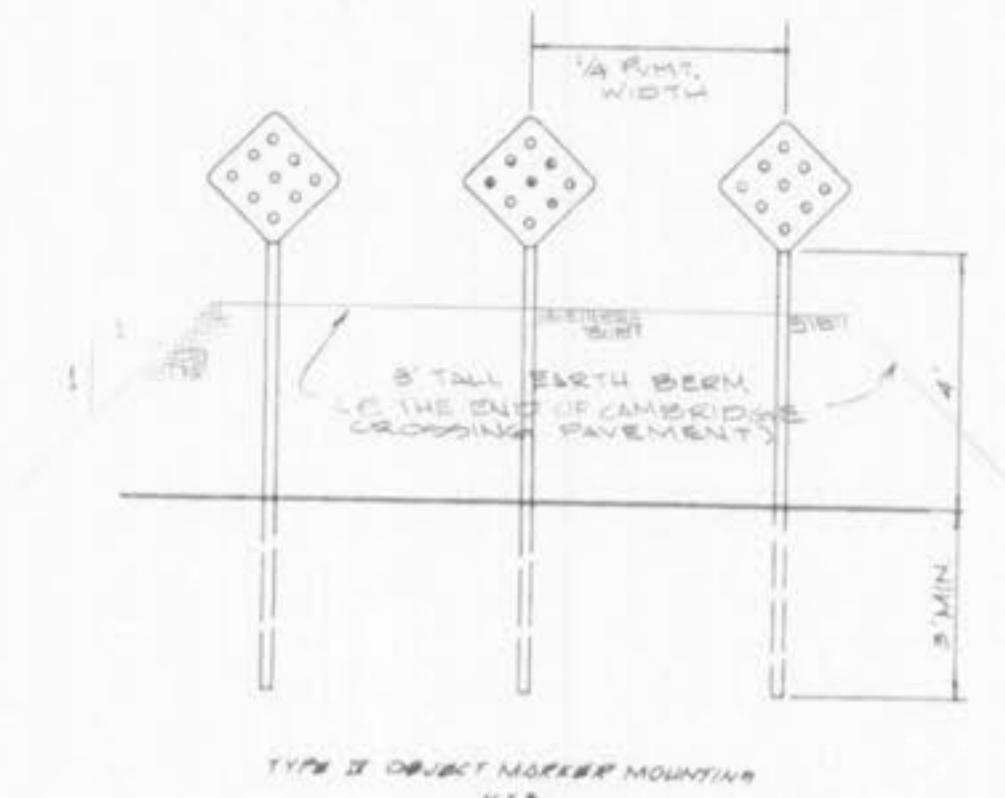


PORTLAND CEMENT CONCRETE
INTEGRAL CURB PAVEMENT TYPICAL SECTIONS AND DETAILS



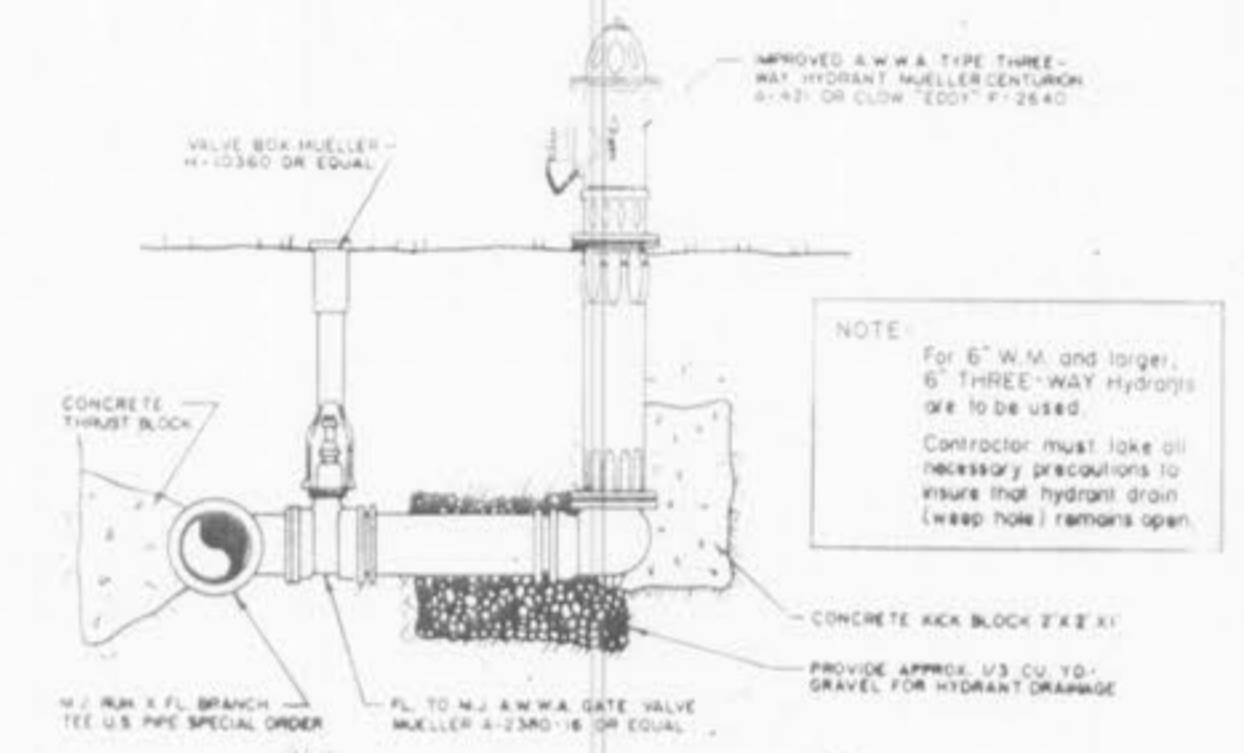
NOTE: All other material shall meet ASTM designations as follows:
 1. Concrete - ASTM C 1191-93
 2. Reinforcing Steel - ASTM A 618-90
 3. Expansion Joint Material - ASTM D 1132-90T

NOTE: -
 1. All catch basins shall be separated from the pavement and curb by expansion joint material extending completely through curb and slab. Manhole castings within the pavement limits shall be bored as shown.
 2. When a joint falls within 5 ft. of a curb, manhole, or other structure, shorten curb or manhole, unless side of opening is parallel to joint to fall on round structures and at or between corners of rectangular structures.
 3. T-7 on local street.
 4. T-7 on Major or Thru street, OR INDUSTRIAL.
 T-7 SPECIAL 2 INDUSTRIAL.

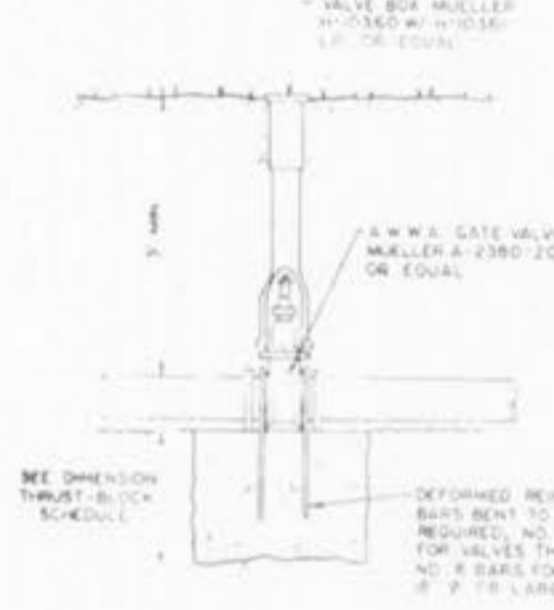


REFLECTORS ON END OF OBJECT MARKER

TYPE II OBJECT MARKER BARRICADE DETAIL



NOTE: For 6" N.M. and larger, 6" THREE-WAY HYDRANTS are to be used.
 Contractor must take all necessary precautions to insure that hydrant drain (keep hole) remains open.



THRUST-BLOCK SCHEDULE

Minimum Thrust-block bearing dimensions to bear against undisturbed earth

WATER MAIN SIZE	BEND 45°	BEND 22 1/2°	TEE	VALVE	CROSS
2"	0.5' x 1'	0.5' x 1'	0.5' x 1'	0.5' x 1'	0.5' x 1'
4"	1' x 1'	1' x 1'	2' x 1'	2' x 1'	1' x 1'
6"	1.5' x 1'	1' x 1'	2' x 1'	2' x 1'	1' x 1'
8"	2' x 1'	1' x 1'	2' x 2.5'	2' x 2'	1' x 1'
10"	2' x 2.5'	1.5' x 2'	2' x 3.5'	2' x 3'	2' x 2'
12"	2' x 3.5'	1.5' x 2.5'	3' x 3.5'	3' x 3'	3' x 3'
16"	3' x 4'	2' x 3'	4' x 4.5'	3' x 4.5'	3' x 3'
18"	3' x 4.5'	2' x 3.5'	5' x 4'	4' x 5'	4' x 4'

**BUCKET CREEK SEWER DISTRICT
TYPICAL CREEK CROSSING**

Grouted Rip-Rap is required at all creek crossings where the embankments crossed are steeper than 1 vertical to 2 horizontal ratio slope; and also where there is 3.0 feet or less cover over top of pipe.

Place Rip-Rap on lower 3/4 of slope. Grade upper 1/4 of slope 1/4 vertical to 2 horizontal slope for sod or 1 vertical to 2.5 horizontal slope for seed and straw.

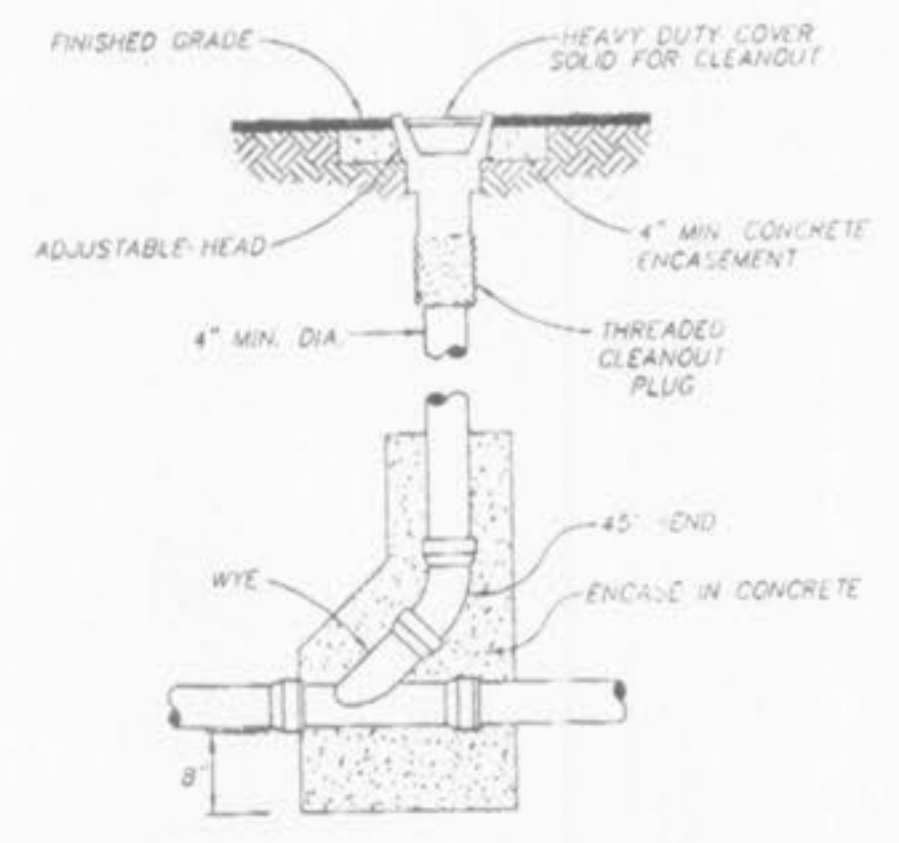
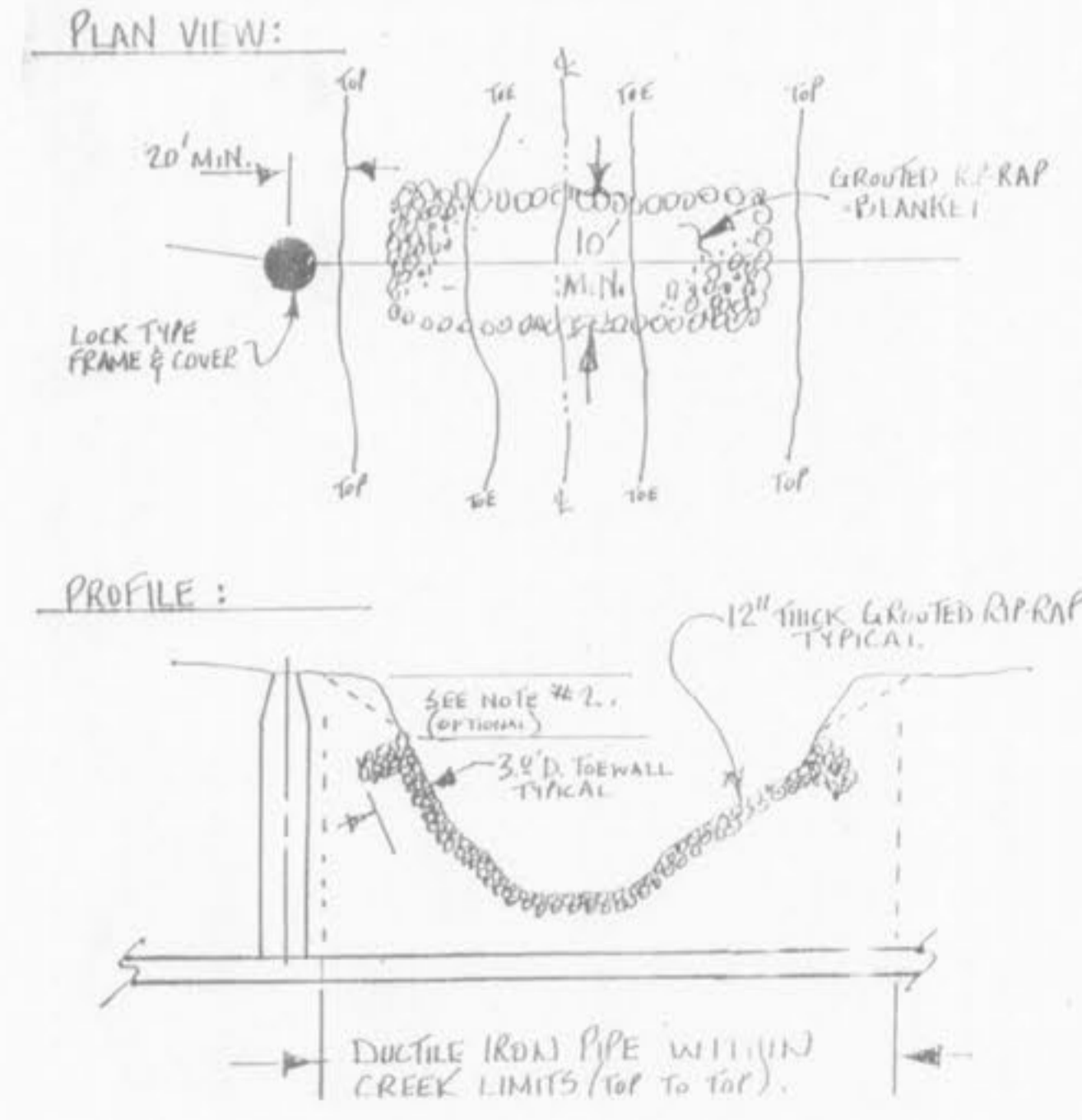
Rip-Rap to be "MSD-5" Gradation, minimum 12" thick, grouted with 8 sack mix, sand cement slurry, broom finish.

Incorporate a 3 feet deep toe wall on embankment's upper edge of Rip-Rap.

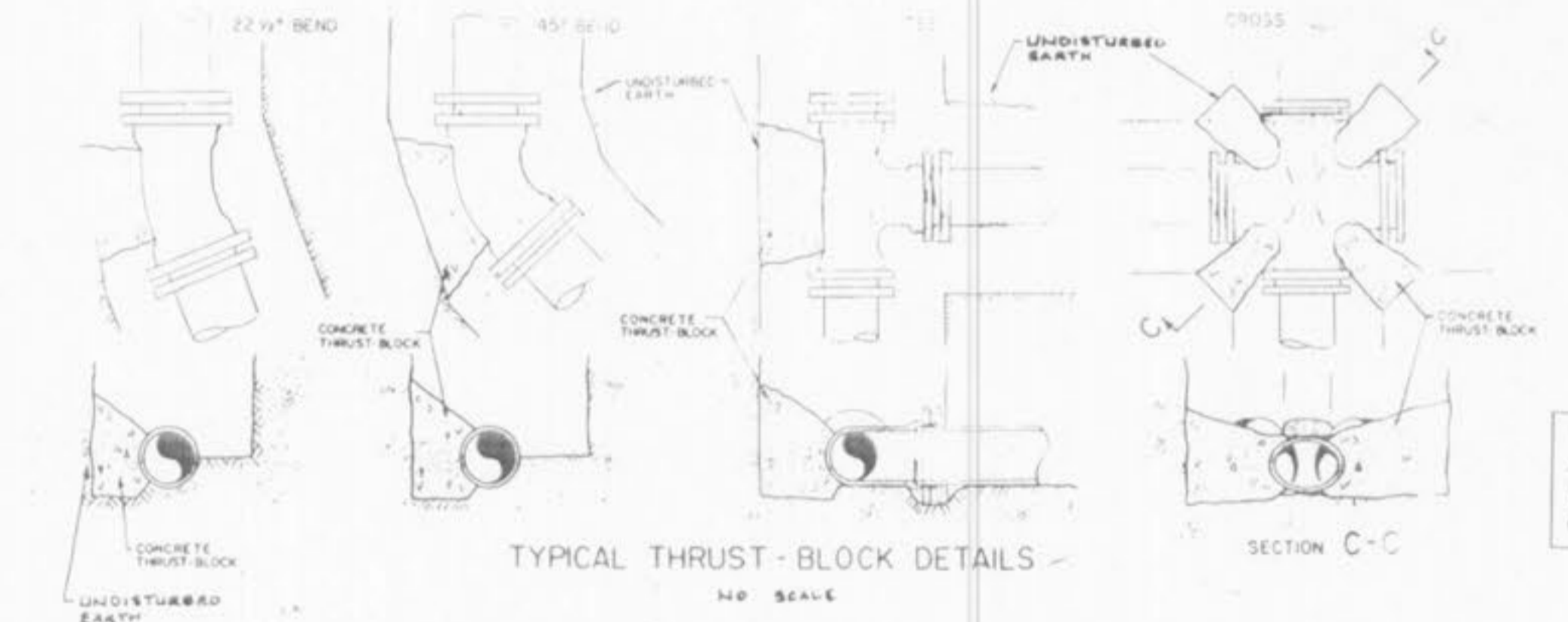
Top surface of Rip-Rap should not be higher than adjacent ground surface.

If pipe has less than 12" cover, a paved channel may be required.

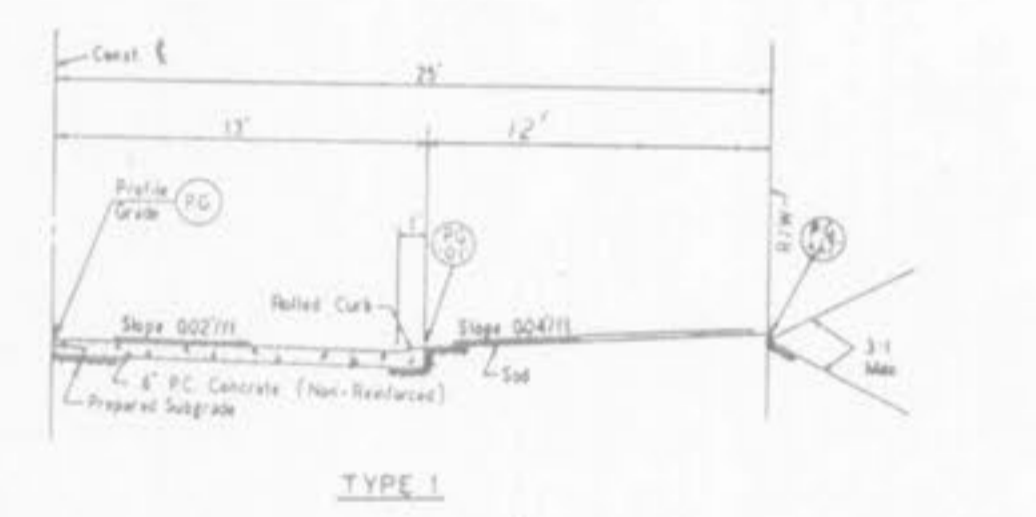
Ductile iron pipe required within creek limits.



N.T.S.

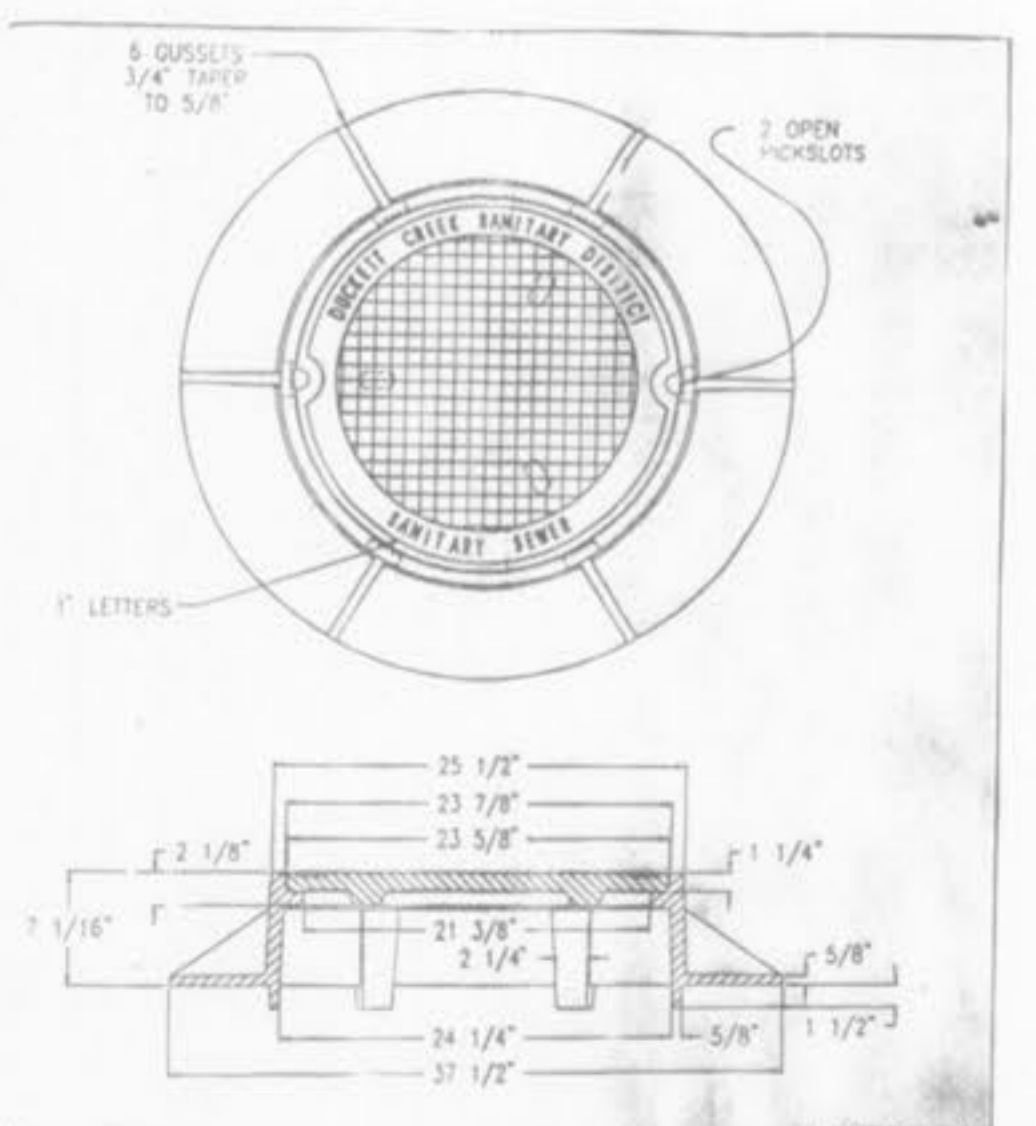


NOTE: All connecting bolts, grouts, flanges, etc., must be protected from concrete with 10 mil polyethylene film.



GENERAL NOTES

- Do not scale drawings. Follow dimensions.
- Sections are symmetrical about construction centerline.
- For longitudinal and transverse joints, show and list requirements and curb dimensions refer to the Pavement Construction Details for Joints and Curb Standard Drawing (S2223).
- All necessary pavement markings by St. Charles County.
- Surface shown may not apply at intersections.
- For details on an steel structure in a ditch refer to the Sewer Construction Details for Curb and Manhole Standard Drawing (S2223).
- Equipment when required shall be indicated as a "Non-Resident" requirement. Maintenance, Utility, Sewer and Side-Excavation and indicated to St. Charles County.



Deeter Foundry, Inc.
 1275 STANDARD MANHOLE 18" x 4' COVER
 18" DIA. 30" HIGH
 395 LBS.

