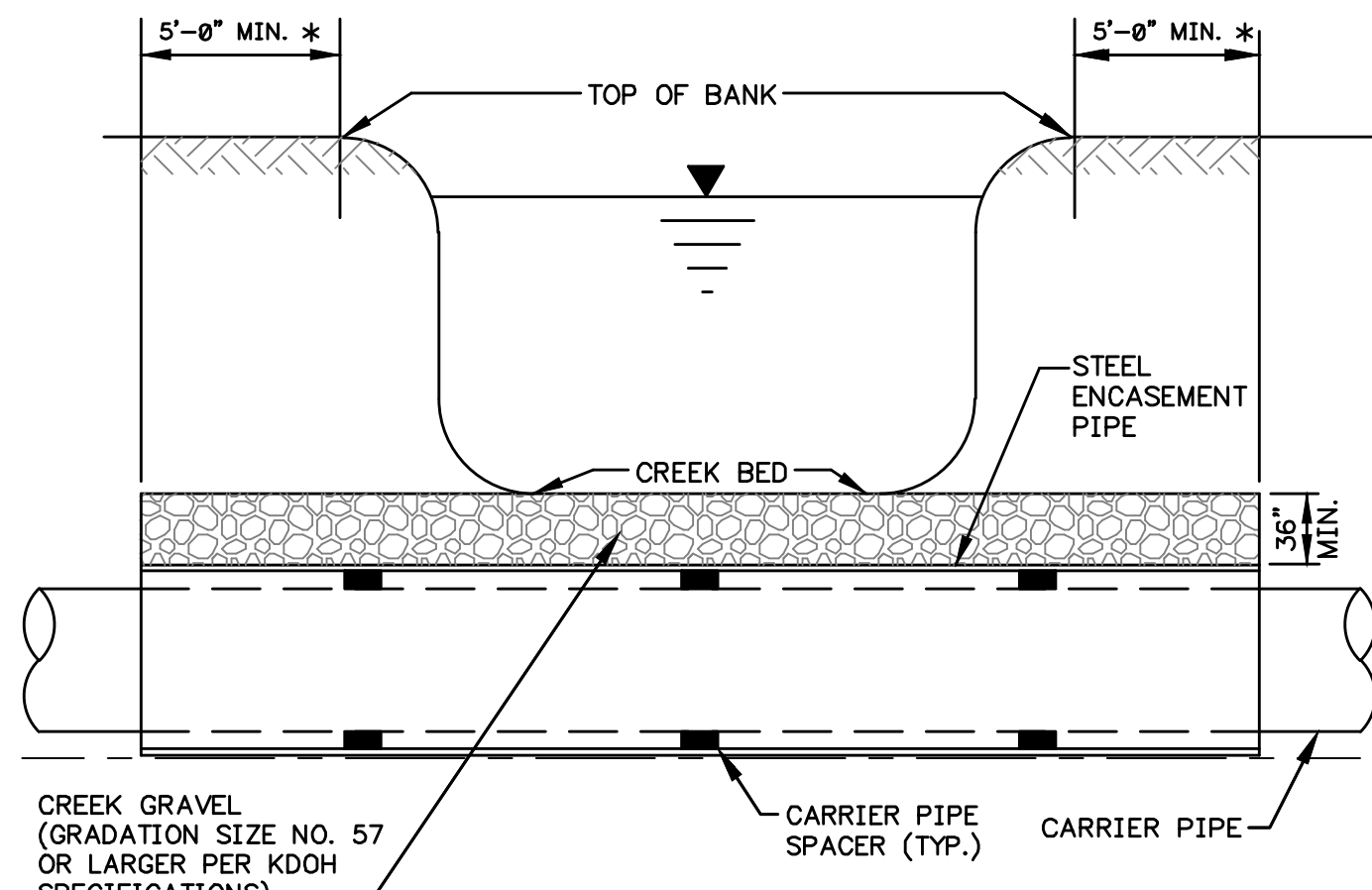
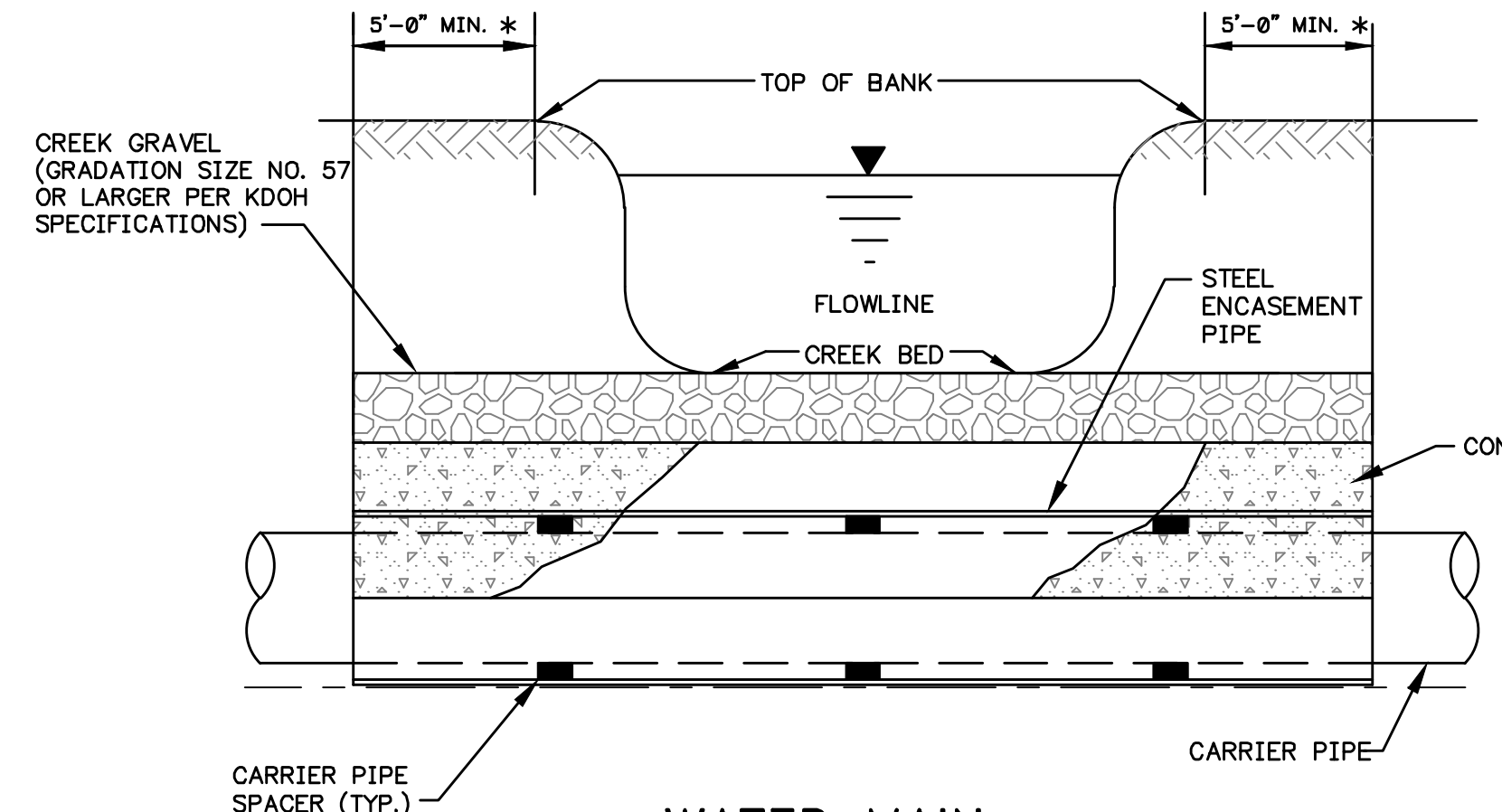
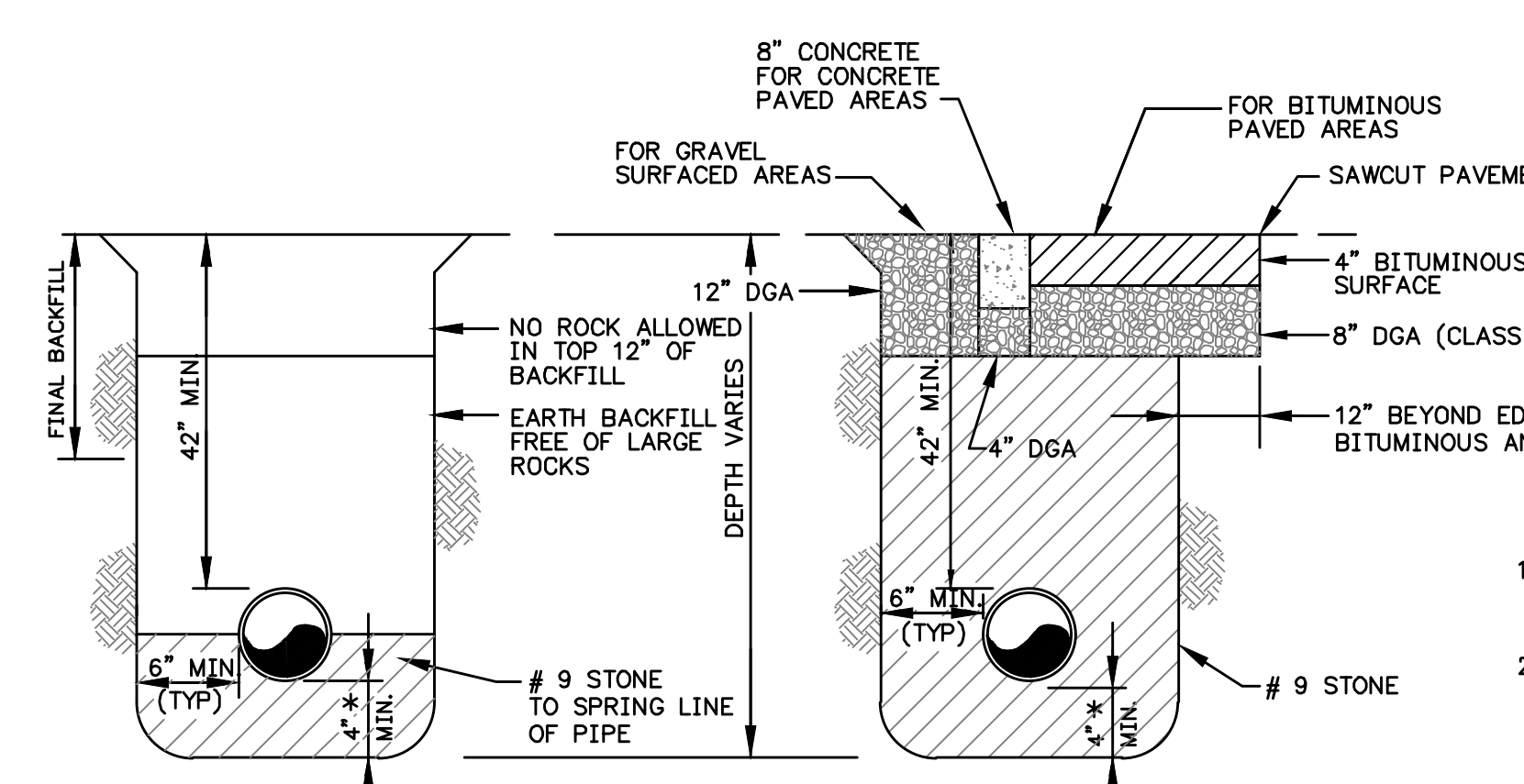


* OR 2 FEET BEYOND POINT WHERE 36 INCH DEPTH OF COVER IS REACHED



WATER MAIN CREEK CROSSING DETAIL (NON-ERODIBLE BOTTOM)
N.T.S.

WATER MAIN CREEK CROSSING DETAIL (ERODIBLE BOTTOM)
N.T.S.



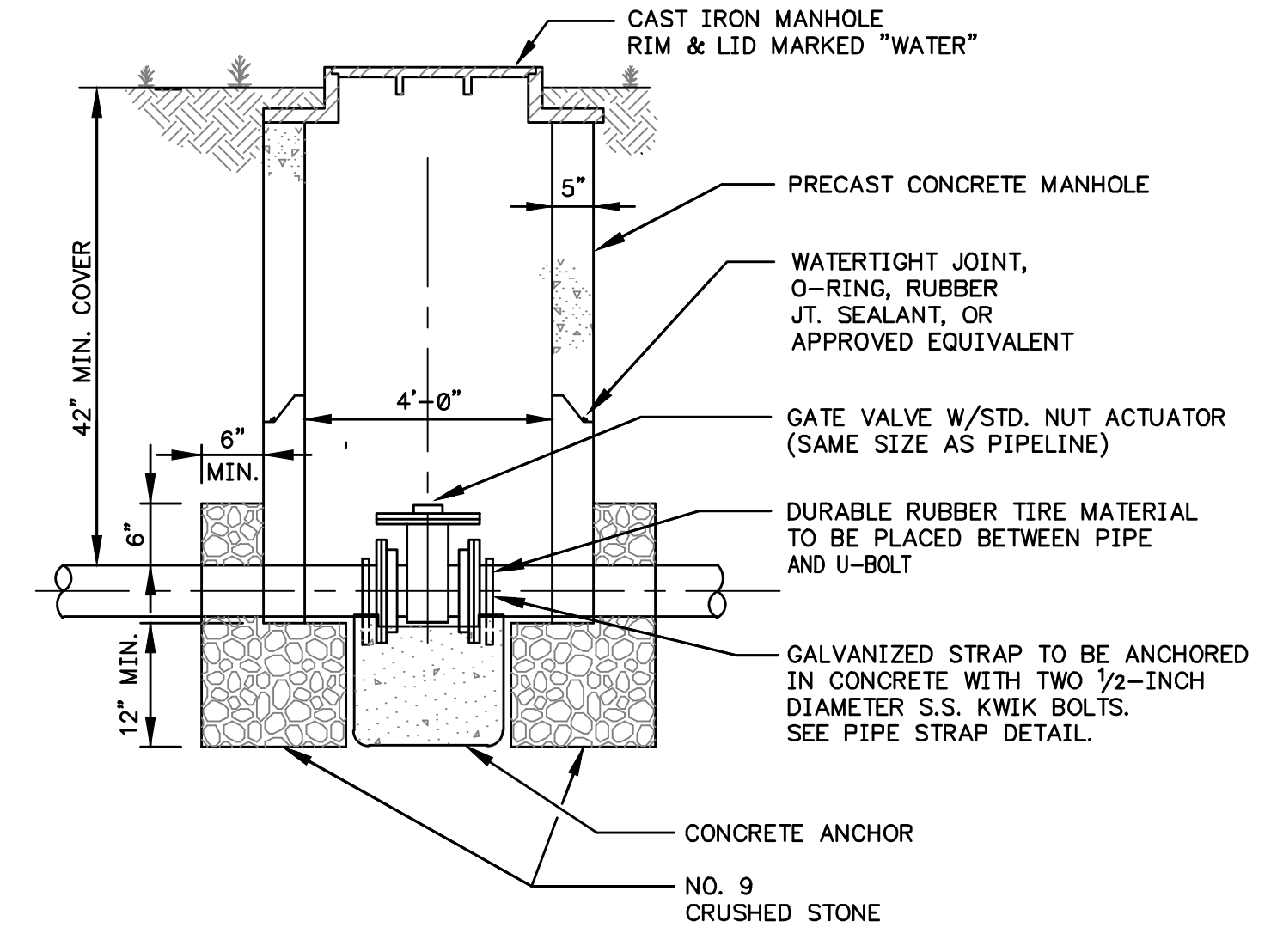
NOTE:

- TRENCHES SHALL BE SHORED, SLOPED, OR SHIELDED AS NECESSARY TO PROTECT WORKERS AND CONFORM TO OSHA REGULATIONS.
- DENSE GRADED AGGREGATE (DGA) SHALL BE CLASS II AS DEFINED BY THE KENTUCKY DEPT. OF HIGHWAYS STANDARD SPECIFICATIONS.

CASE I BACKFILL
WATER MAIN IN AREA NOT SUBJECT TO VEHICULAR TRAFFIC

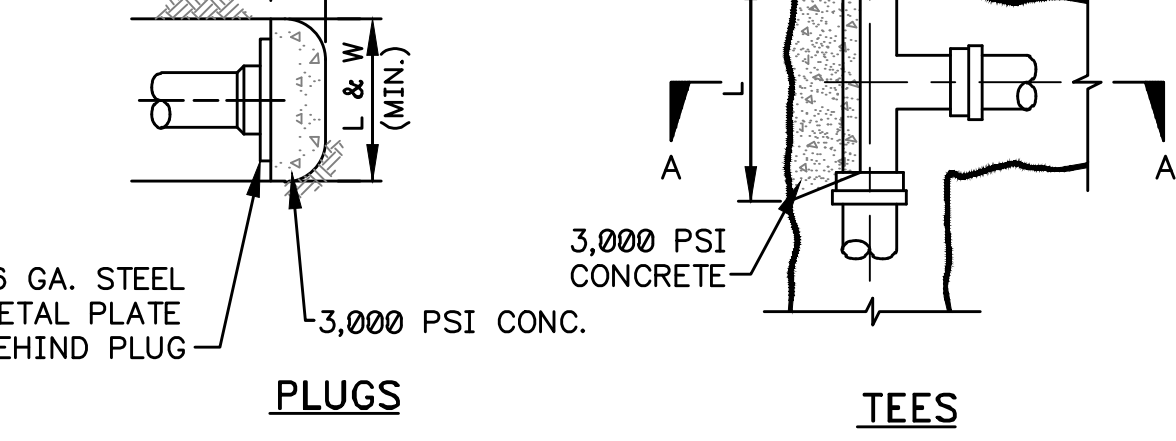
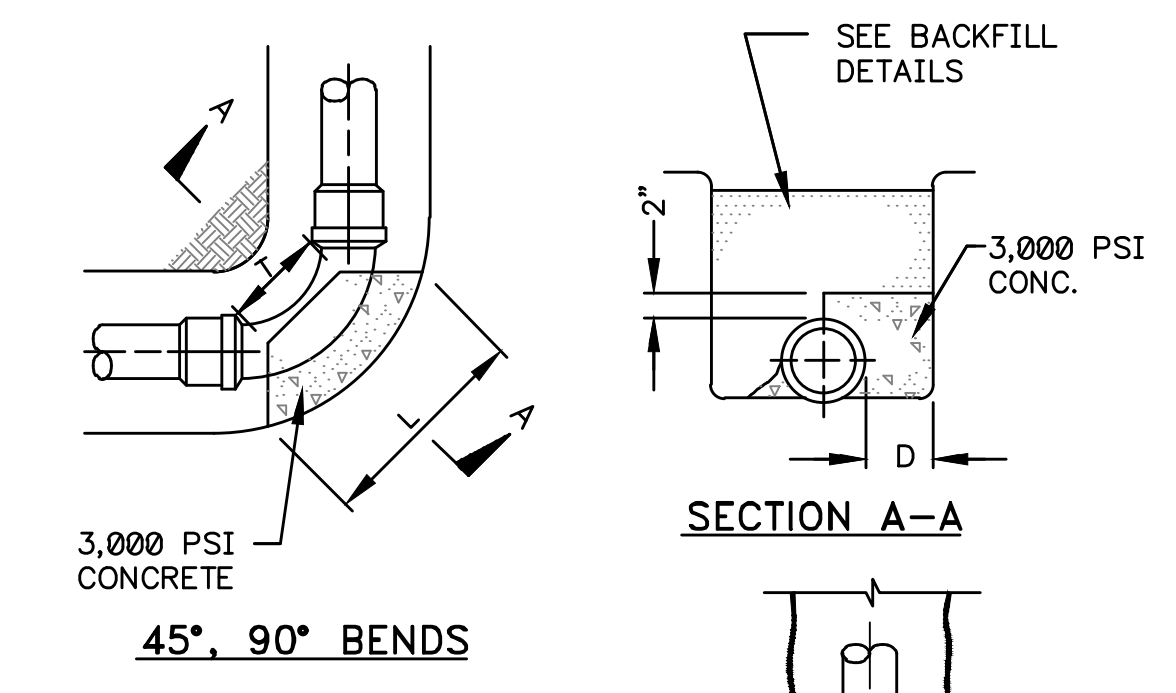
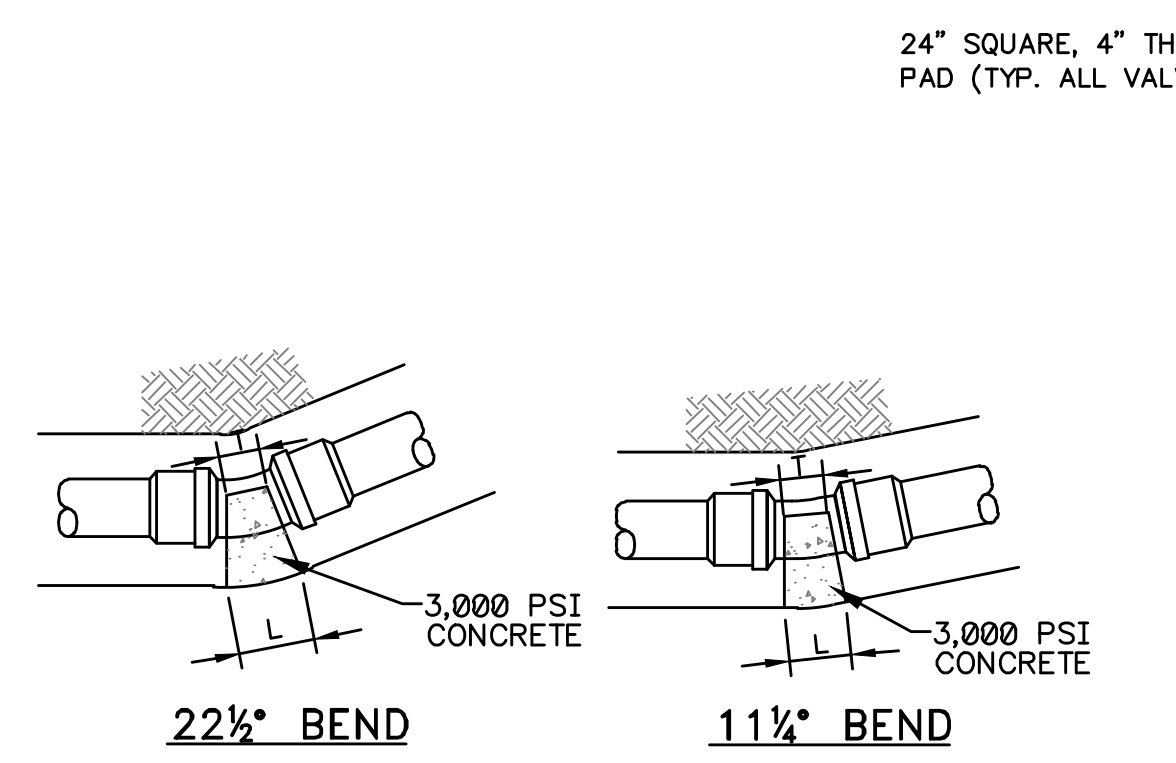
CASE II BACKFILL
WATER MAIN IN AREA SUBJECT TO VEHICULAR TRAFFIC

WATER MAIN TRENCHING AND BACKFILLING DETAILS
N.T.S.

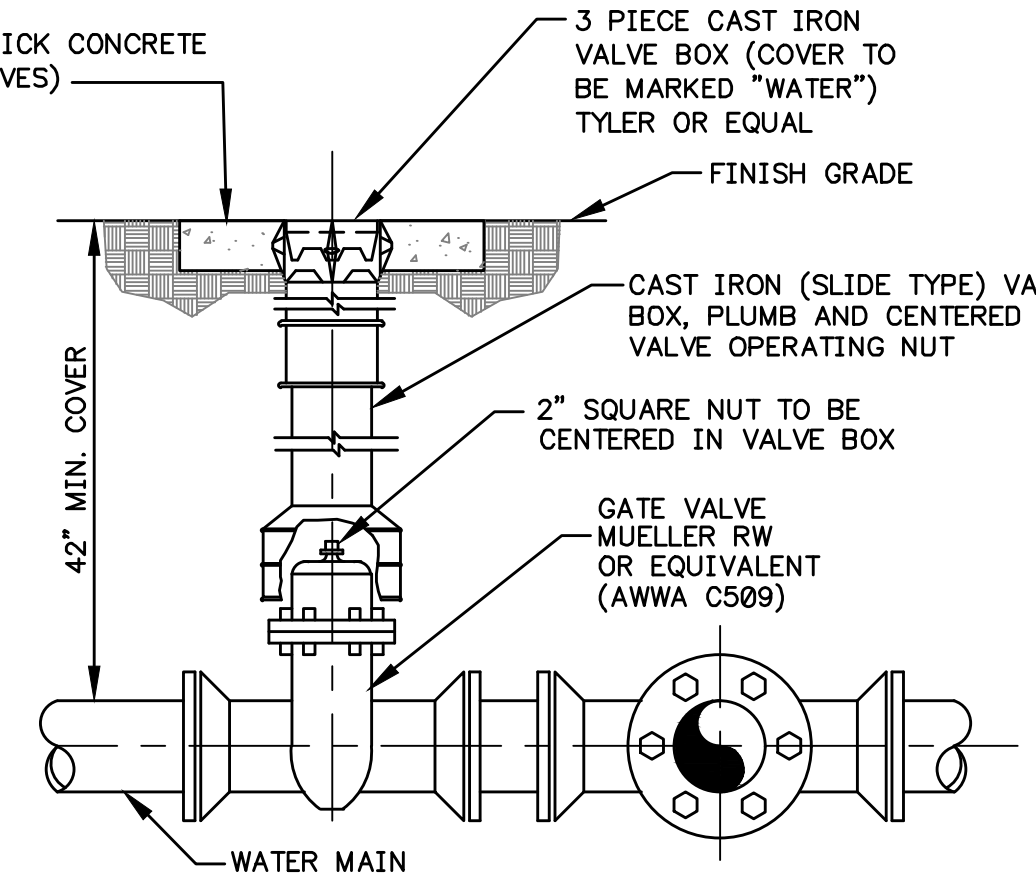


NOTE: CONTRACTOR SHALL PROVIDE TAPS FOR 5/8\"/>

VALVE VAULT @ CREEK CROSSING
N.T.S.



CONCRETE THRUST BLOCKS
N.T.S.



TYPICAL VALVE INSTALLATION
N.T.S.

TEES												
SIZE	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	
D	6"	6"	6"	6"	8"	10"	12"	12"	14"	16"	18"	20"
L	4"	6"	8"	10"	10"	21"	30"	36"	42"	48"	54"	60"

PLUGS												
SIZE	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	
D	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
L&W	14"	16"	18"	20"	22"	24"	24"	24"	24"	24"	30"	36"

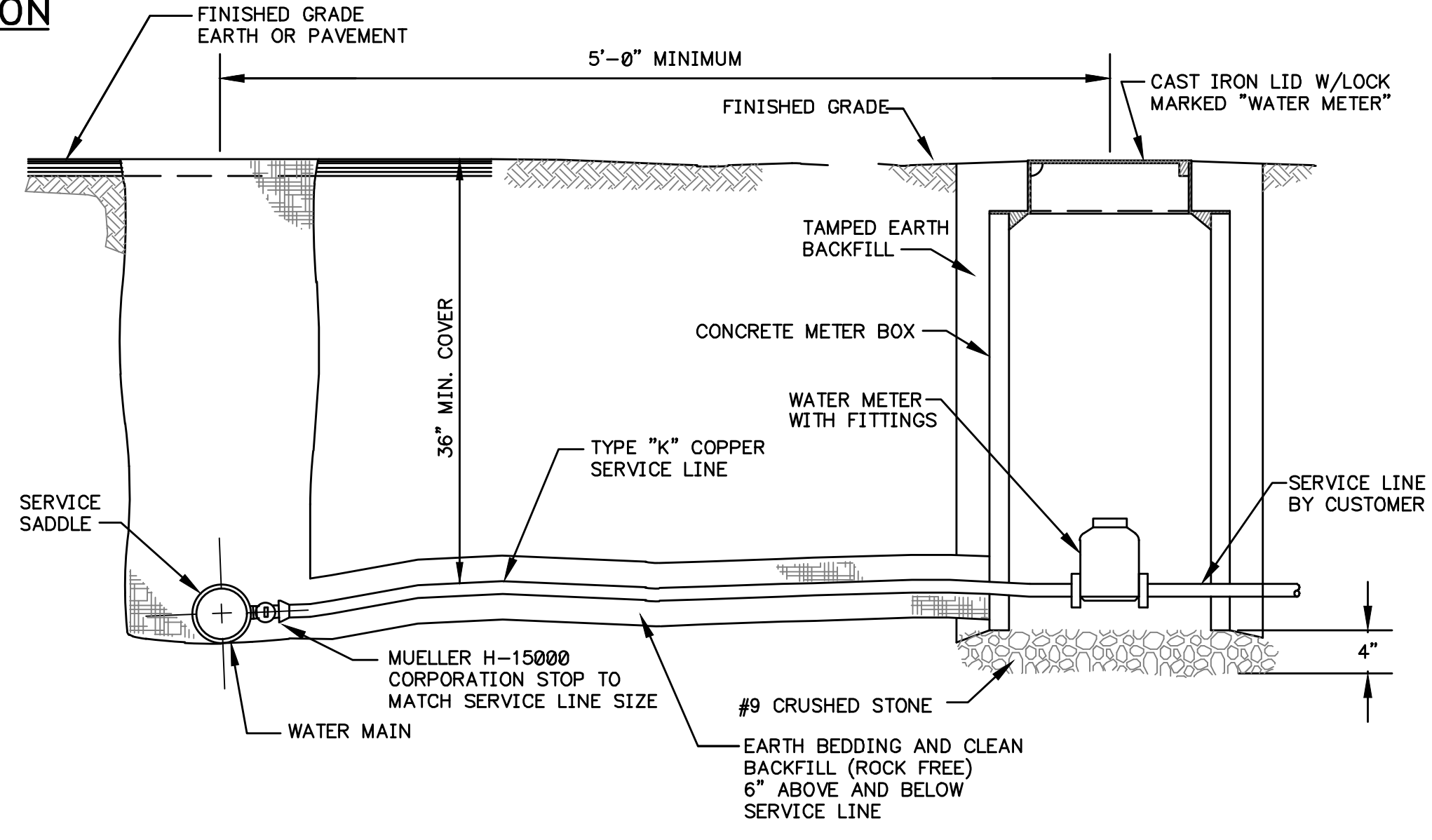
(11 1/4) THIRTY-SECOND BENDS												
SIZE	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	
D	6"	6"	6"	6"	8"	10"	12"	12"	12"	16"	18"	20"
L	15"	18"	21"	24"	27"	30"	34"	34"	34"	36"	39"	42"
T	10"	12"	14"	16"	18"	20"	22"	25"	29"	30"	36"	

(22 1/2) SIXTEENTH BENDS												
SIZE	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	
D	6"	6"	6"	6"	8"	10"	12"	12"	12"	16"	18"	20"
L	15"	18"	21"	24"	27"	30"	34"	34"	34"	36"	39"	42"
T	10"	12"	14"	16"	18"	20"	22"	25"	29"	30"	36"	

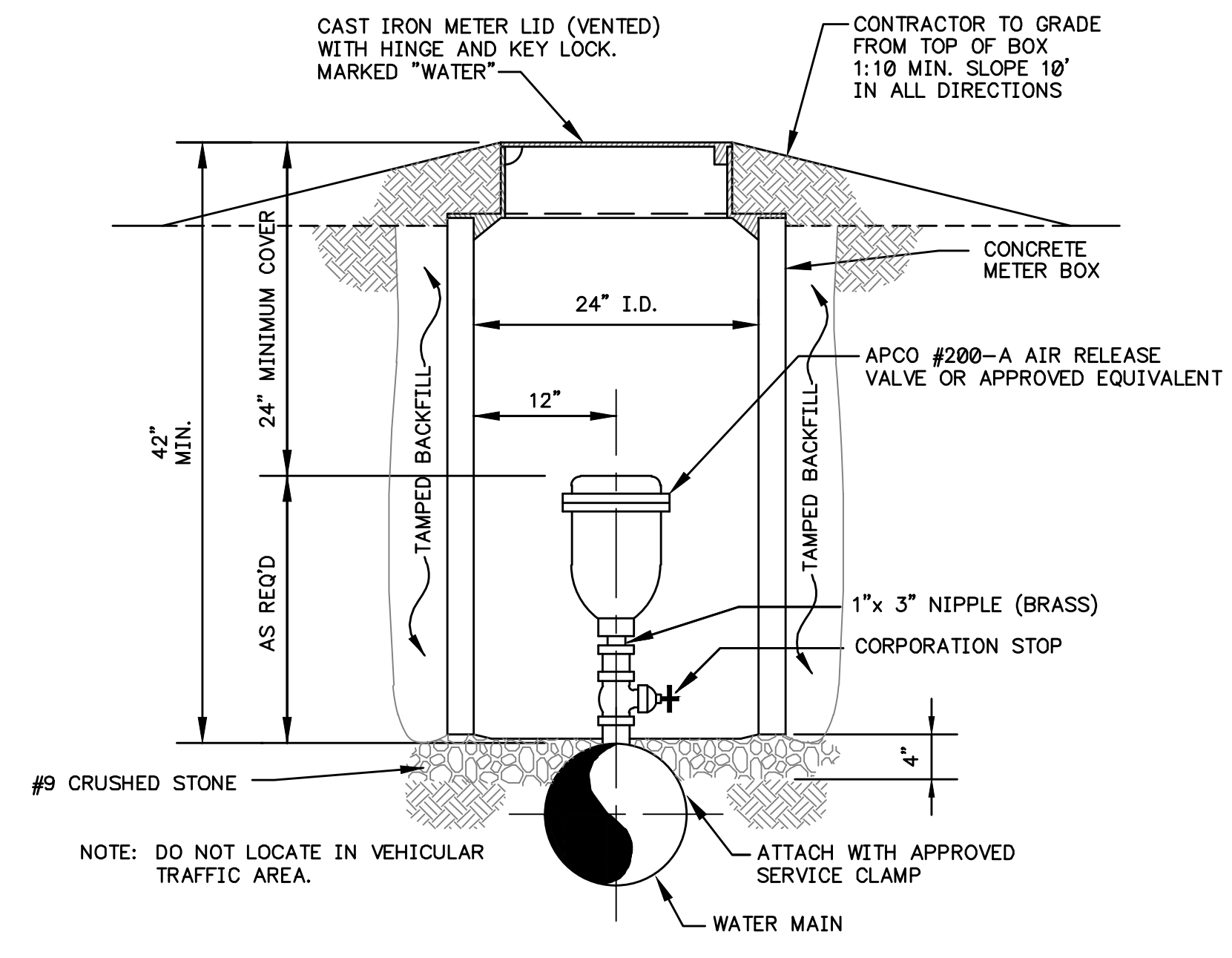
(45) EIGHTH BENDS												
SIZE	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	
D	6"	6"	6"	6"	8"	10"	12"	12"	12"	16"	18"	20"
L	15"	18"	21"	24"	27"	30"	34"	34"	34"	36"	39"	42"
T	10"	12"	14"	16"	18"	20"	22"	25"	29"	30"	36"	

(90) QUARTER BENDS												
SIZE	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	
D	6"	6"	6"	6"	8"	10"	12"	12"	12"	16"	18"	20"
L	15"	18"	21"	24"	27"	30"	34"	34"	34"	36"	39"	42"
T	10"	12"	14"	16"	18"	20"	22"	25"	29"	30"	36"	

THRUST BLOCK SCHEDULE



CUSTOMER SERVICE CONNECTION
N.T.S.



AIR RELEASE VALVE AND BOX
N.T.S.



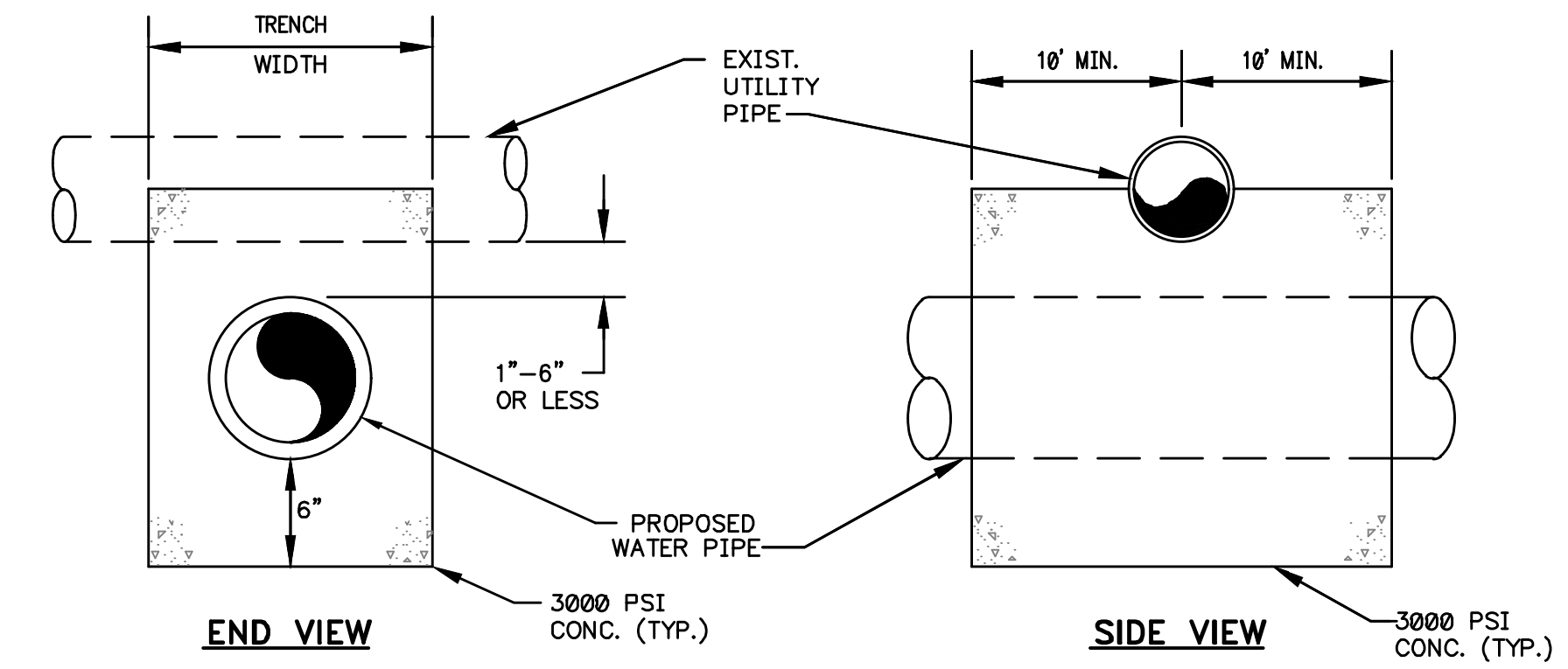
SCALE:	AS NOTED
DATE:	JULY 2002
JOB NO.:	
DESIGNED:	RKS
DRAWN:	PTH
CHECKED:	
Q/C:	

OWNER APPROVAL:
BY:
TITLE:

REVISIONS:	
NO.:	DATE:

STANDARD SPECIFICATIONS

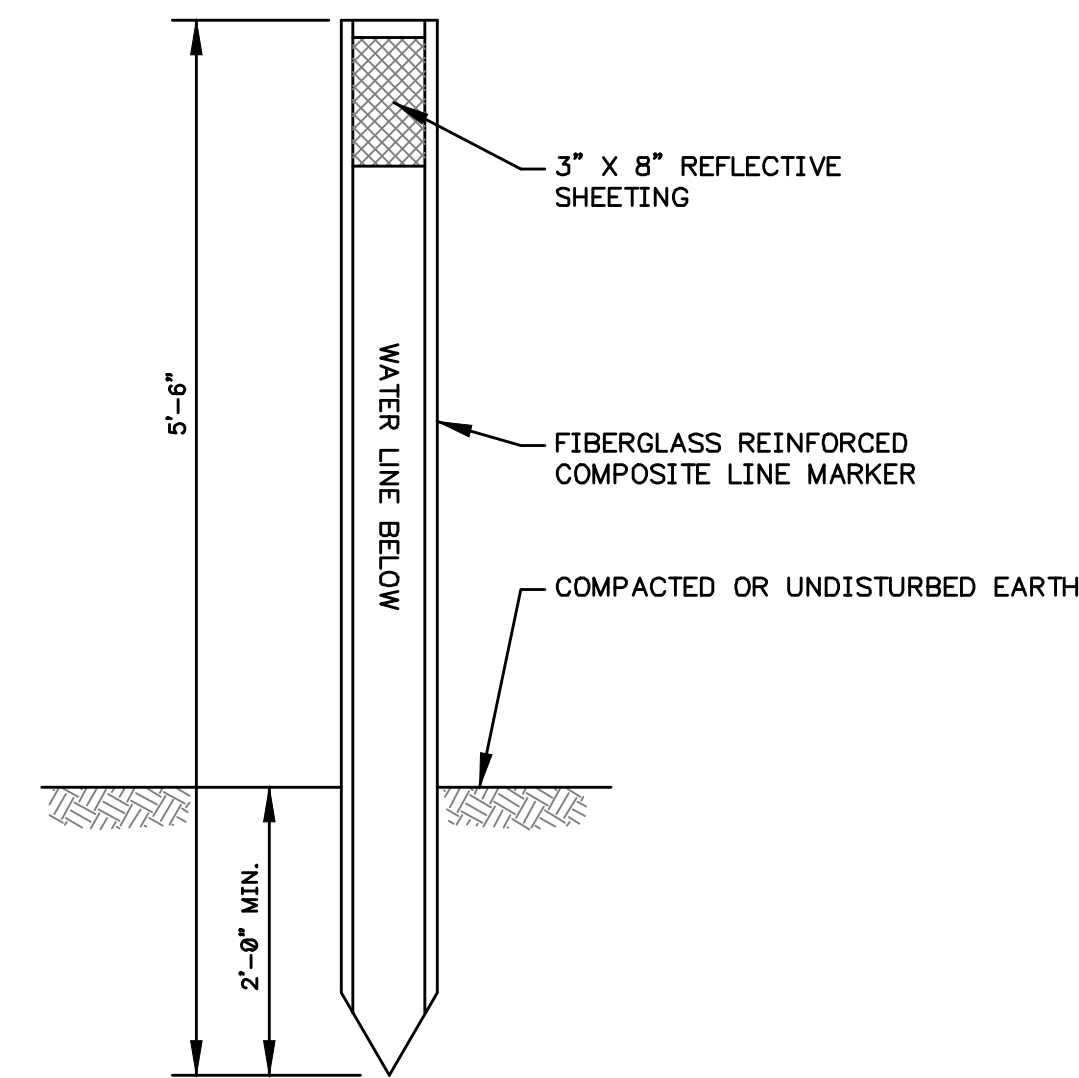
- The minimum allowable inside diameter for a water distribution main is 6-inches. Water mains shall be designed to provide fire protection to the proposed development. The distribution system shall be designed to maintain a minimum working pressure of 30 psi on the discharge side of all water meters under all conditions of flow. The normal working pressure in the distribution system should be between 35 psi and 60 psi.
- Pipe materials, bedding and backfill requirements shall be in accordance with the City of Madisonville Standards Manual and the Standard Details. Allowable water main materials are PVC and ductile iron. Alternative materials must have written approval of the City of Madisonville.
- Sufficient valves shall be provided on water mains to minimize inconvenience and sanitary hazards during repairs. Valves shall be located at no more than 500-foot intervals in commercial or industrial districts, and no more than one block or 800-foot intervals in residential districts. All gate valves shall be installed with stainless steel bolts.
- PVC water mains shall be installed with #10 coated copper tracer wire to facilitate locating. The tracer wire should be brought to the surface at each valve box.
- Generally, water mains should be located 5-feet off the back of the curb on curbed streets and 5-feet inside the right-of-way on streets without curbs. The water main should be on the opposite side of the street from the sanitary sewer line. Water mains shall have a minimum of 10-foot horizontal clearance from existing or proposed sanitary sewers. If an easement is required for the water main, the permanent easement must be a minimum of 15-feet in width.
- The minimum water main depth is 42-inches. Water mains should not be located in flood prone areas.
- Generally, fire hydrants shall be located at street intersections and near the midpoint of the block. In residential and commercial districts, fire hydrants shall be installed at no more than 500-foot intervals with each front lot corner within 250-feet of a fire hydrant.
- The City of Madisonville will own, operate, and maintain service lines and connections from the water meter to the distribution main. Water meters should be located on the right-of-way line at the midpoint of the front property line in residential districts.
- All fittings to be blocked shall be wrapped with heavy plastic before placement of concrete, (minimum thickness 6 mils).
- These drawings and the accompanying Standards Manual represent standards adopted by the City of Madisonville. These drawings are not a substitute for detailed design and engineering. Design of water distribution facilities shall be in accordance with the Recommended Standards for Water Works, latest edition (Ten States Standards). Construction plans and specifications must be approved by the Kentucky Division of Water (DOW).



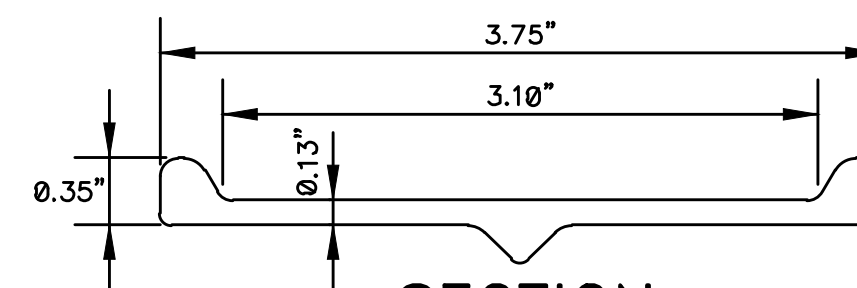
- NOTES:
- CONCRETE ENCASEMENT SHALL BE USED WHEN CLEARANCE BETWEEN WATER LINE AND UTILITY PIPE IS 1'-6" OR LESS.
 - "UTILITY PIPE" INCLUDES UNDERGROUND SANITARY SEWER, NATURAL GAS, TELEPHONE, ELECTRICAL CONDUITS, STORM SEWER, OR OTHER FACILITIES. WHEREVER POSSIBLE, WATER MAINS SHALL CROSS ABOVE SANITARY SEWER LINES.

UTILITY CROSSING FOR WATER LINE INSTALLATION CONCRETE ENCASEMENT

N.T.S.



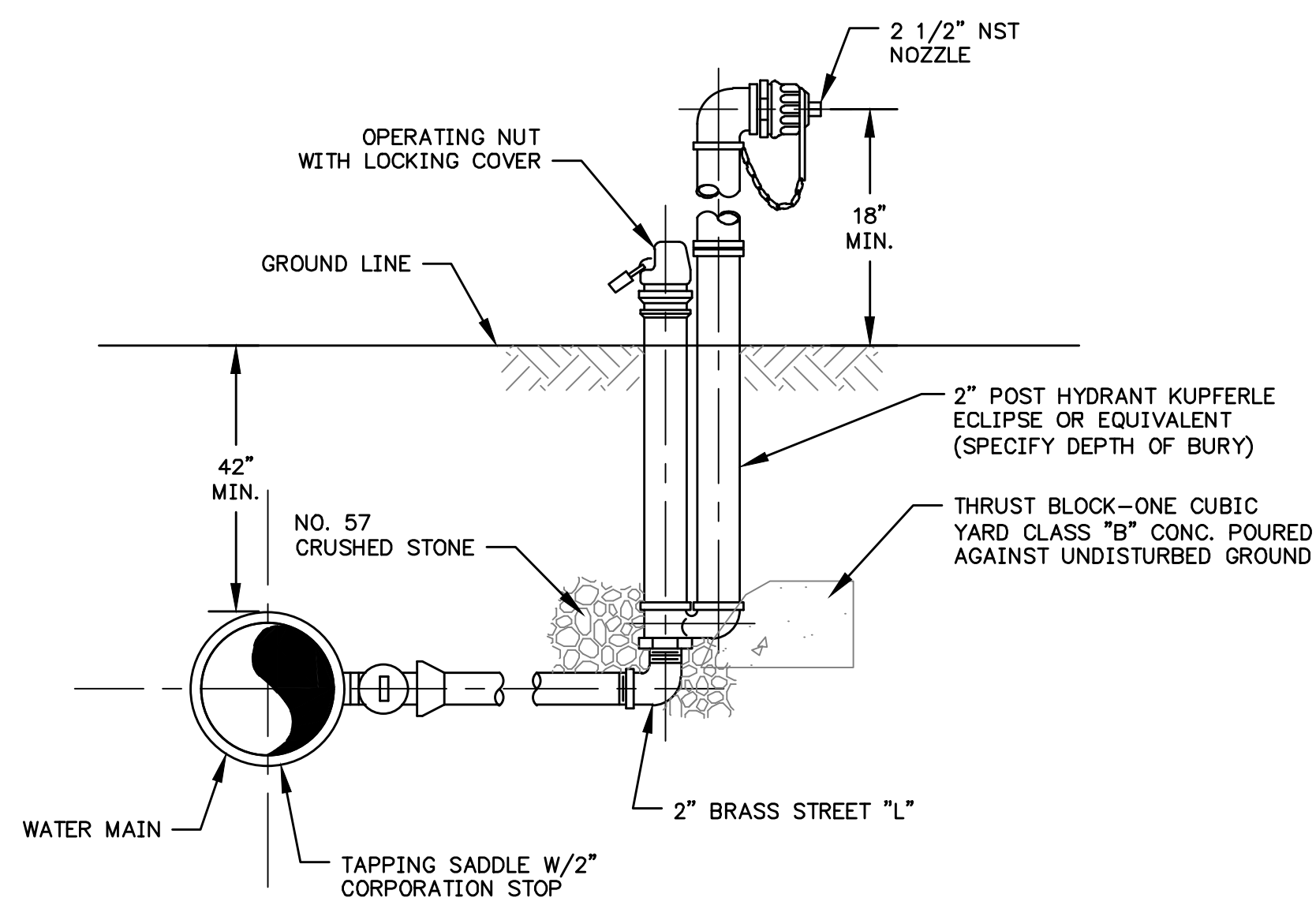
ELEVATION



SECTION

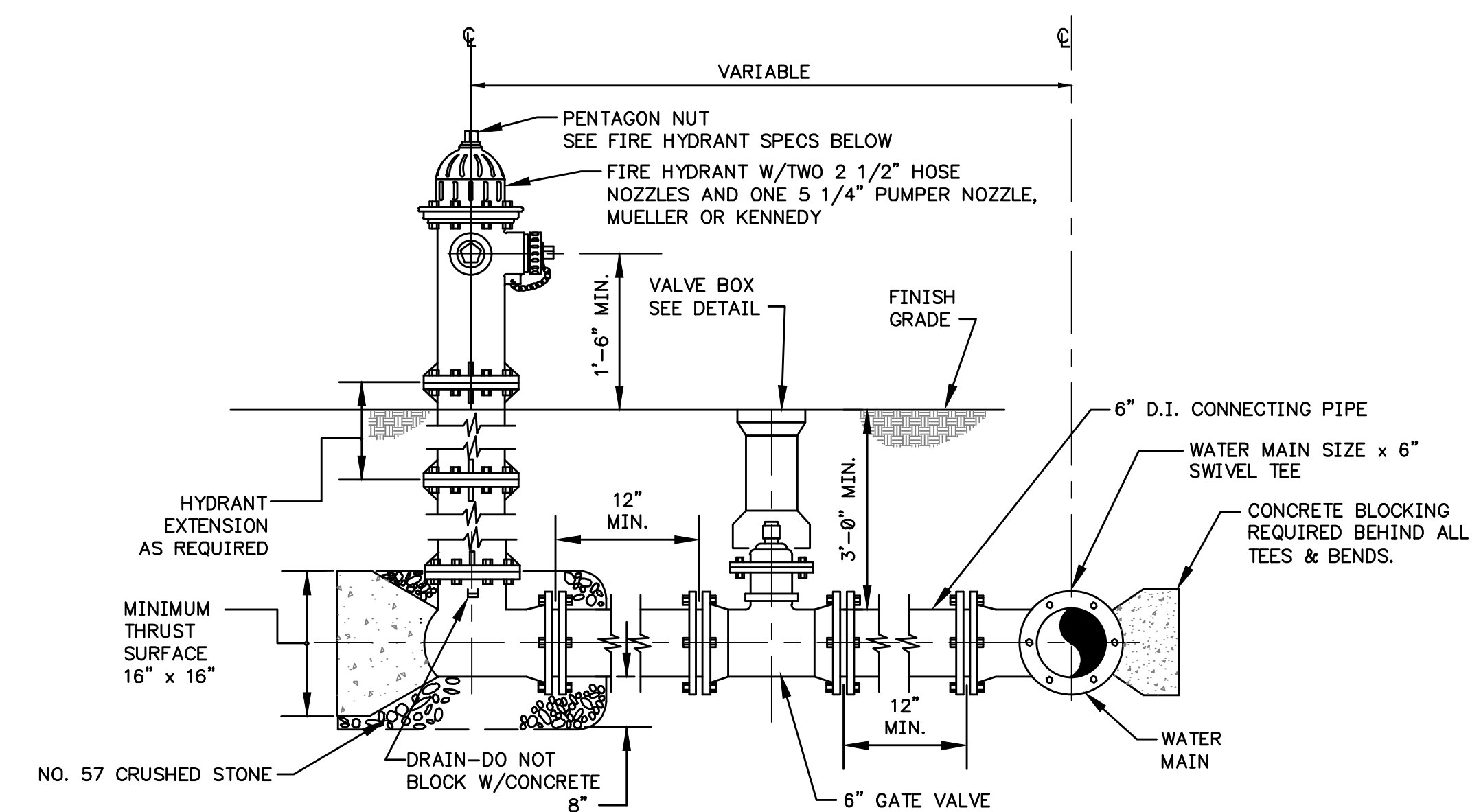
FIBERGLASS LINE MARKER

N.T.S.



FLUSHING HYDRANT

N.T.S.



NOTES:

- HYDRANT LUGS AND TIE RODS MAY BE USED IN LIEU OF CONCRETE REACTION BRACING AT CONTRACTOR'S OPTION.
- PAINT HYDRANT RED IN ACCORDANCE WITH CITY OF MADISONVILLE SPECS.

FIRE HYDRANT SETTING

N.T.S.



SCALE: AS NOTED
DATE: JULY 2002
JOB NO.:
DESIGNED: RKS
DRAWN: PTH
CHECKED:
Q/C:

OWNER APPROVAL:

BY:
TITLE:

REVISIONS:

NO.: DATE:

DRAWING:

2

OF 2