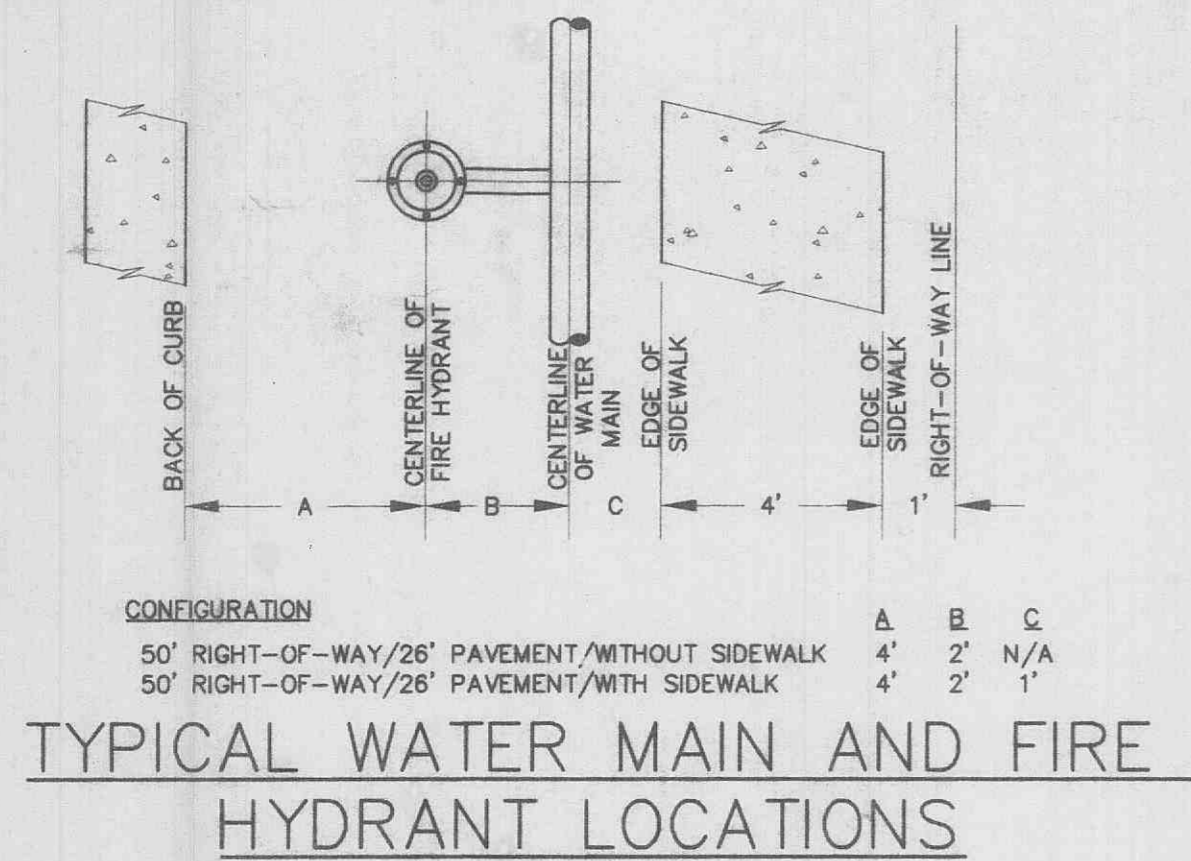


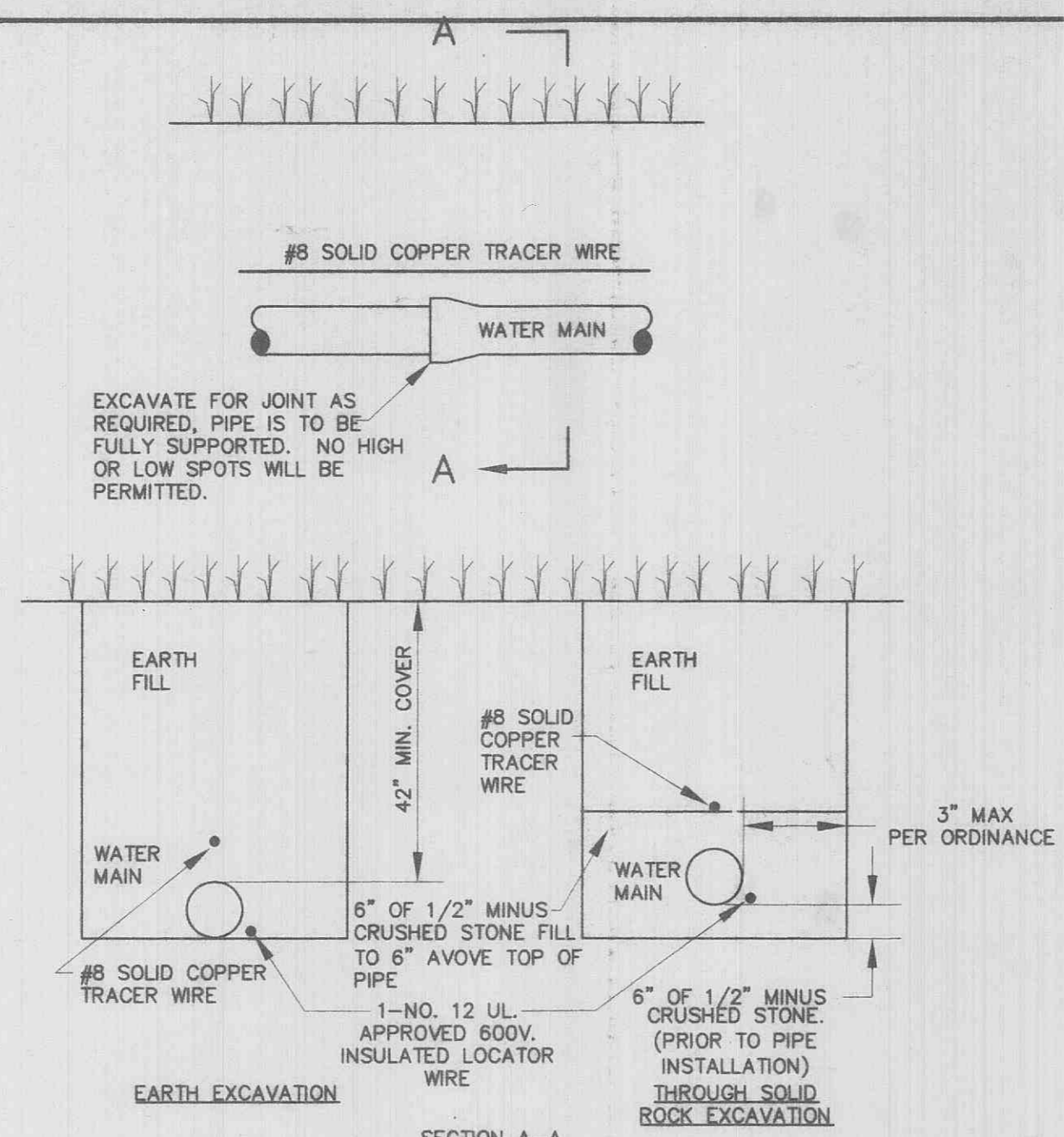
FLUSHING HYDRANT DETAIL

NOT TO SCALE



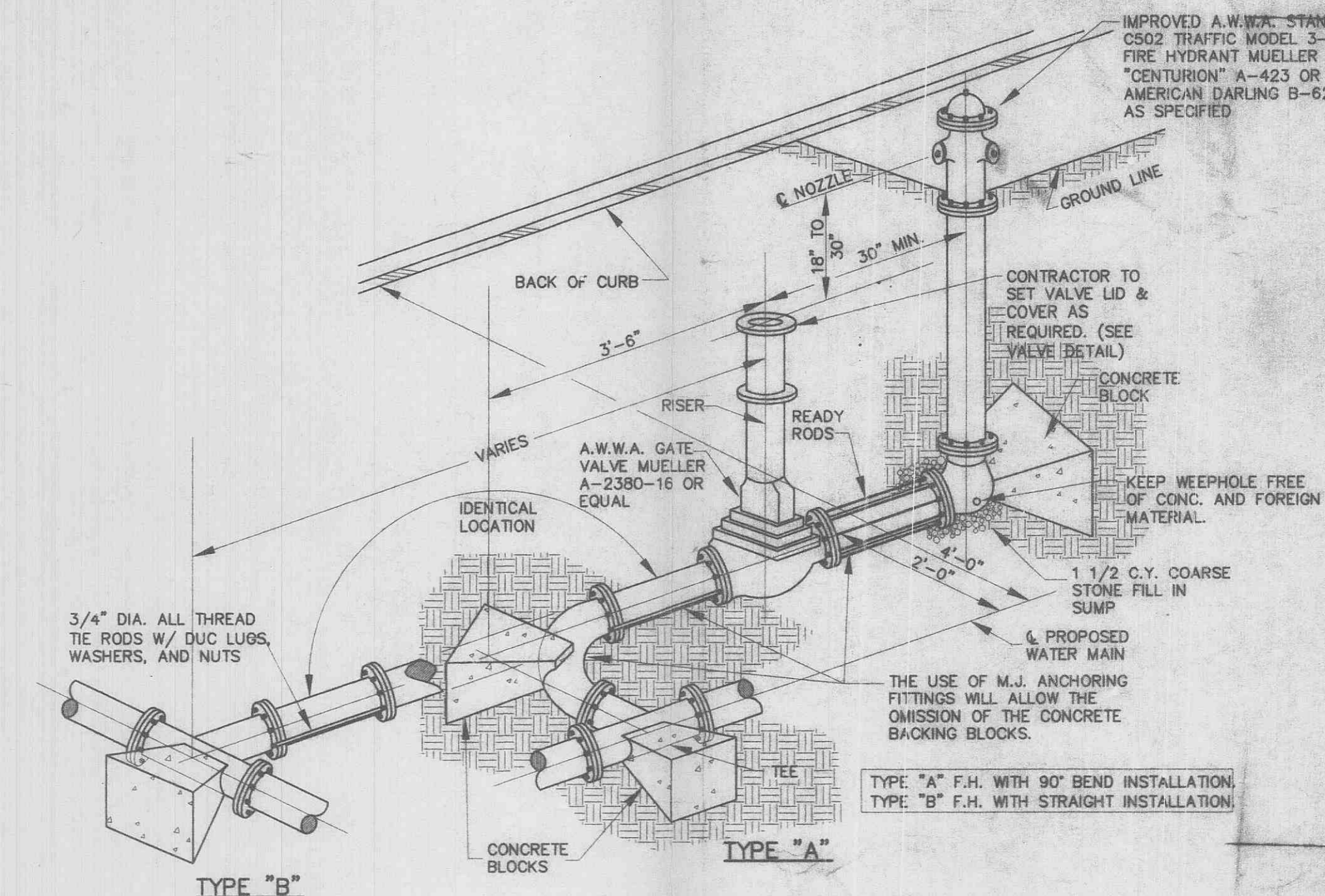
TYPICAL WATER MAIN AND FIRE HYDRANT LOCATIONS

NOT TO SCALE



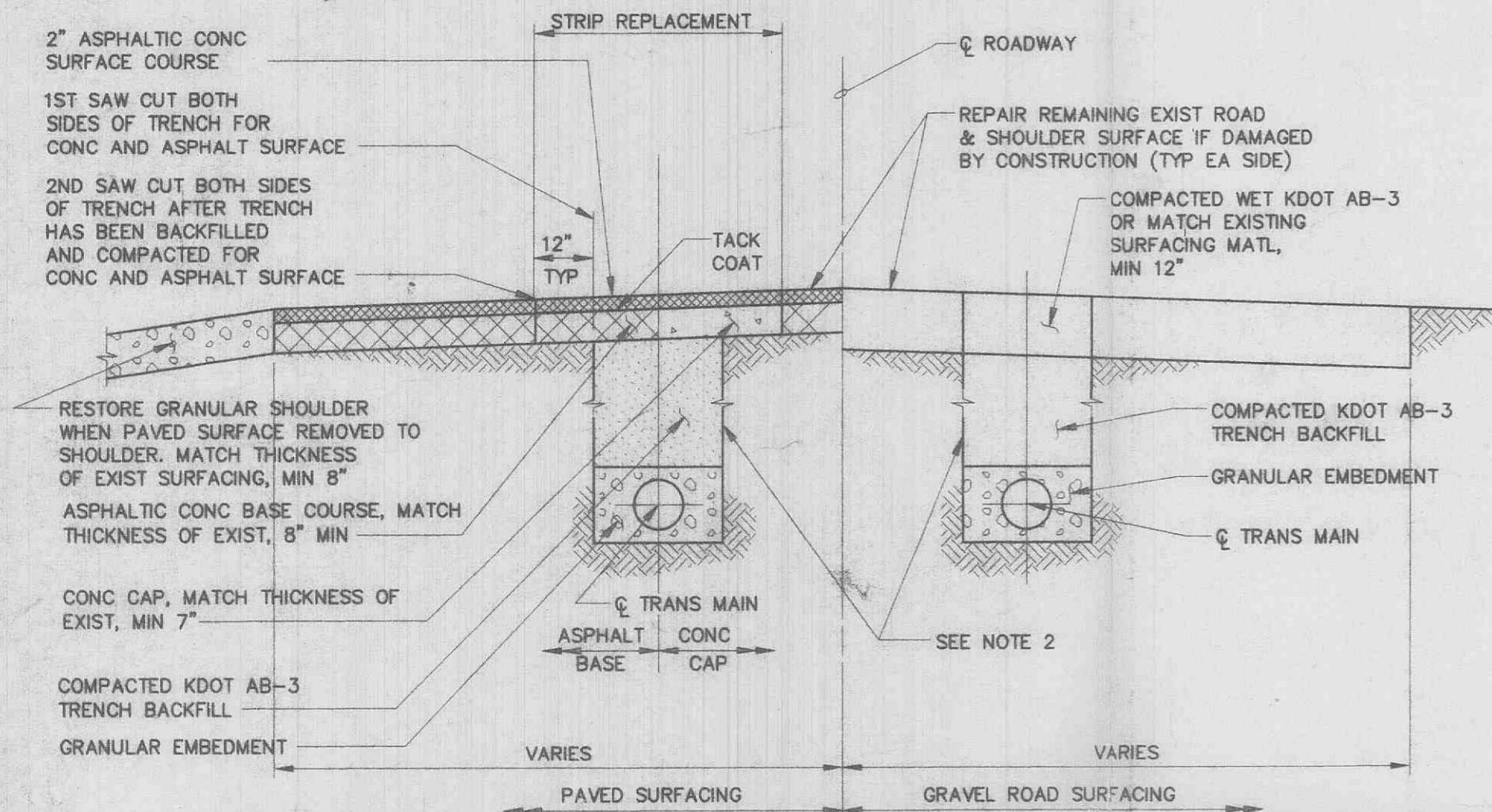
TYPICAL WATER MAIN INSTALLATION DETAILS

NOT TO SCALE



FIRE HYDRANT DETAIL

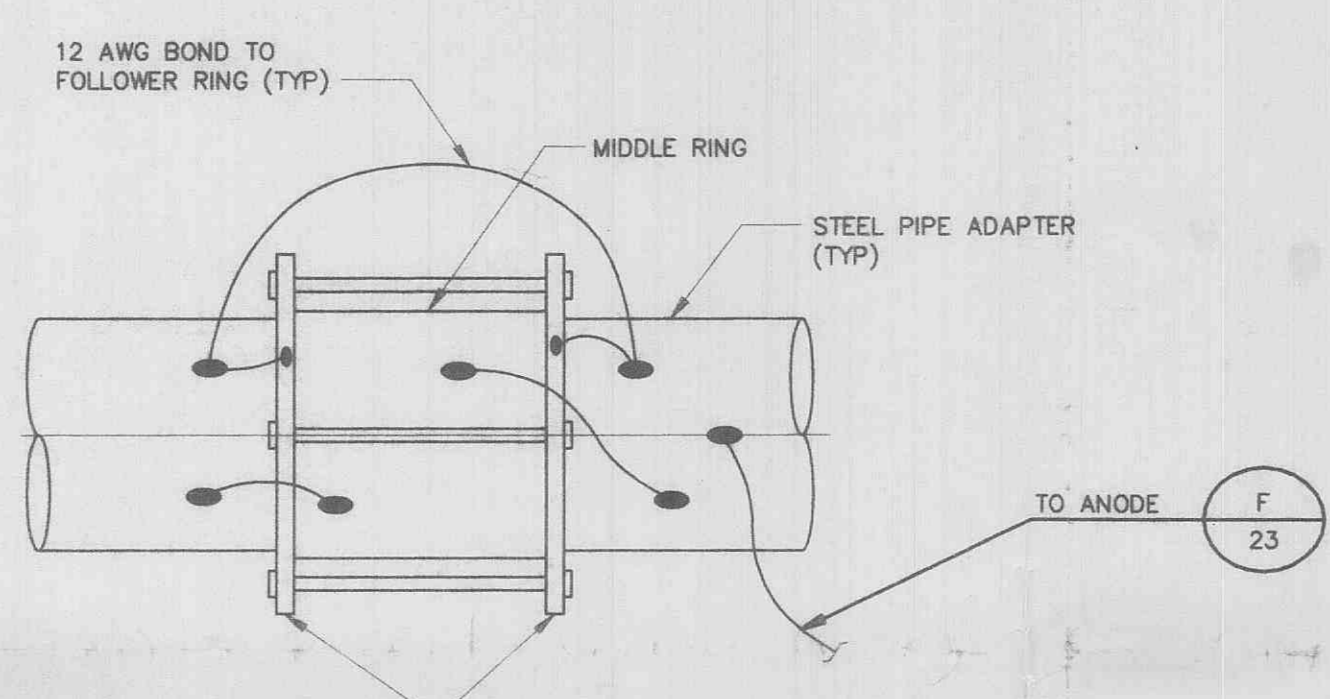
NOT TO SCALE



- NOTES:
- CONTRACTOR TO OBTAIN RIGHT-OF-WAY CONSTRUCTION UTILITY PERMIT FROM THE JOHNSON COUNTY KANSAS PUBLIC WORKS DEPARTMENT AND NOTIFY THEM FOR INSPECTION PRIOR TO ANY REPAIRS. SEE APPENDIX C OF THE SPECIFICATIONS FOR COPY OF UTILITY PERMIT FORM.
 - ACTUAL TRENCH SIDESLOPE TO BE DETERMINED BY CONTRACTOR IN ACCORDANCE WITH OSHA STANDARDS.
 - SEE PLAN SHEETS FOR LOCATION OF TRANSMISSION MAIN WITHIN STREET AND ROADWAYS.
 - THE DIMENSION OF THE GRANULAR EMBEDMENT ABOVE THE TOP OF THE TRANSMISSION MAIN SHALL BE 1/8 TIMES COVER, 6" MIN.
 - ASPHALTIC CONC BASE COURSE OR CONC CAP AS REQUIRED BY APPLICABLE CITY OR COUNTY.

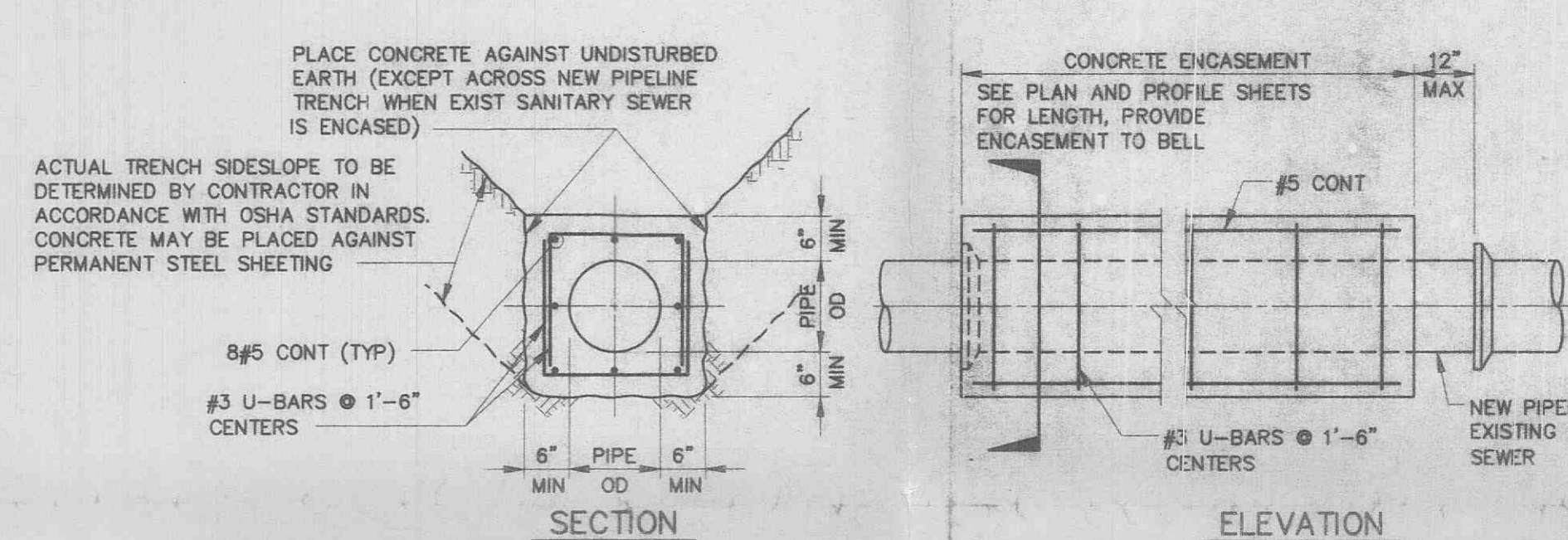
STREET TRENCHING DETAIL AND CROSSING SECTION

NO SCALE



JOINT BONDING OF STEEL PIPE ADAPTERS FOR PCCP ALTERNATIVE

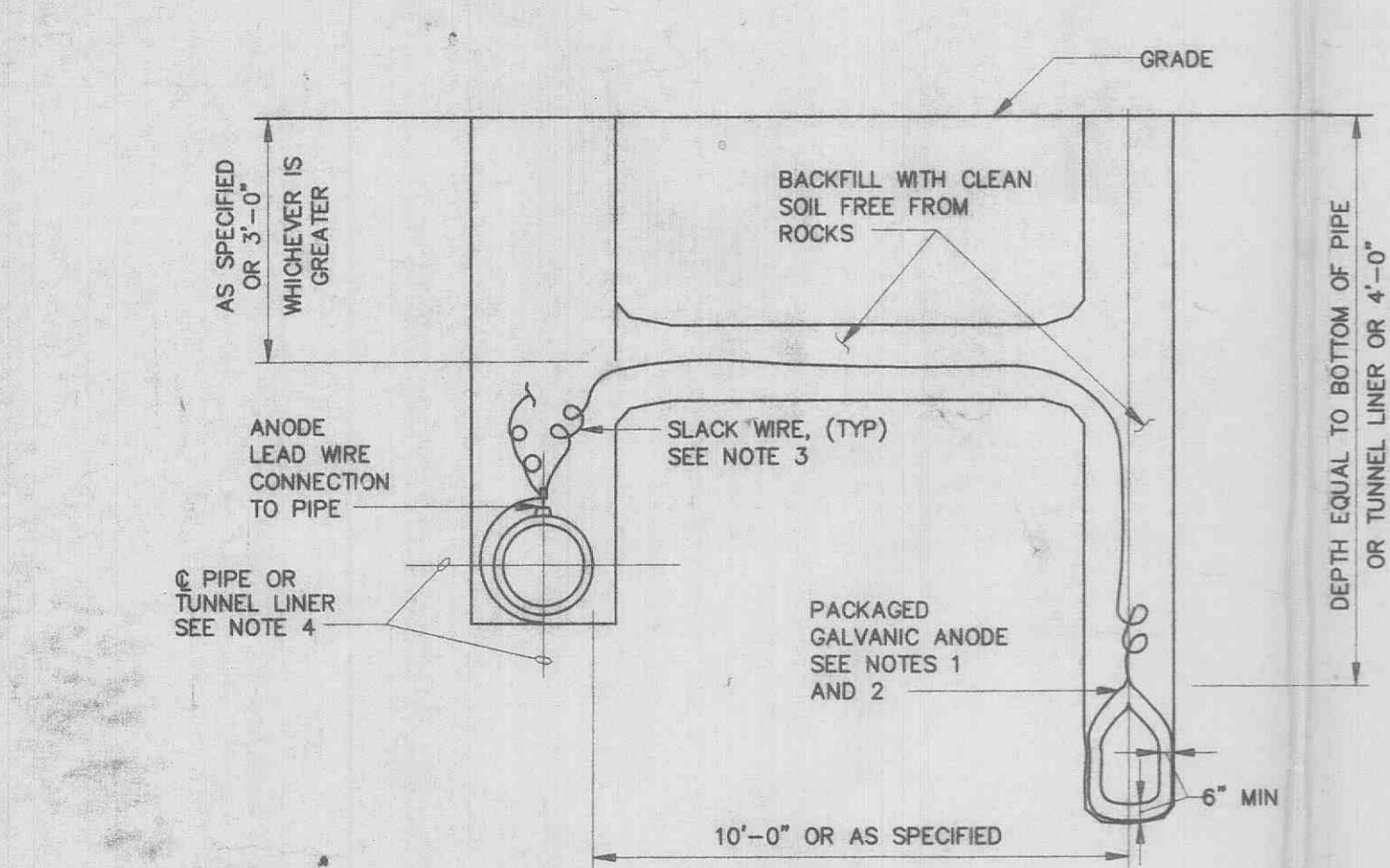
NO SCALE



- NOTES:
- AT LOCATIONS WHERE THE TRANSMISSION MAIN CROSSES AN EXIST SANITARY SEWER, SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 - WHEN THE PIPELINE IS PROTECTED WITH POLYETHYLENE TUBE ENCASUREMENT, THE CONCRETE ENCASUREMENT IS TO COVER THE POLYETHYLENE ENCASUREMENT.

CONCRETE ENCASUREMENT

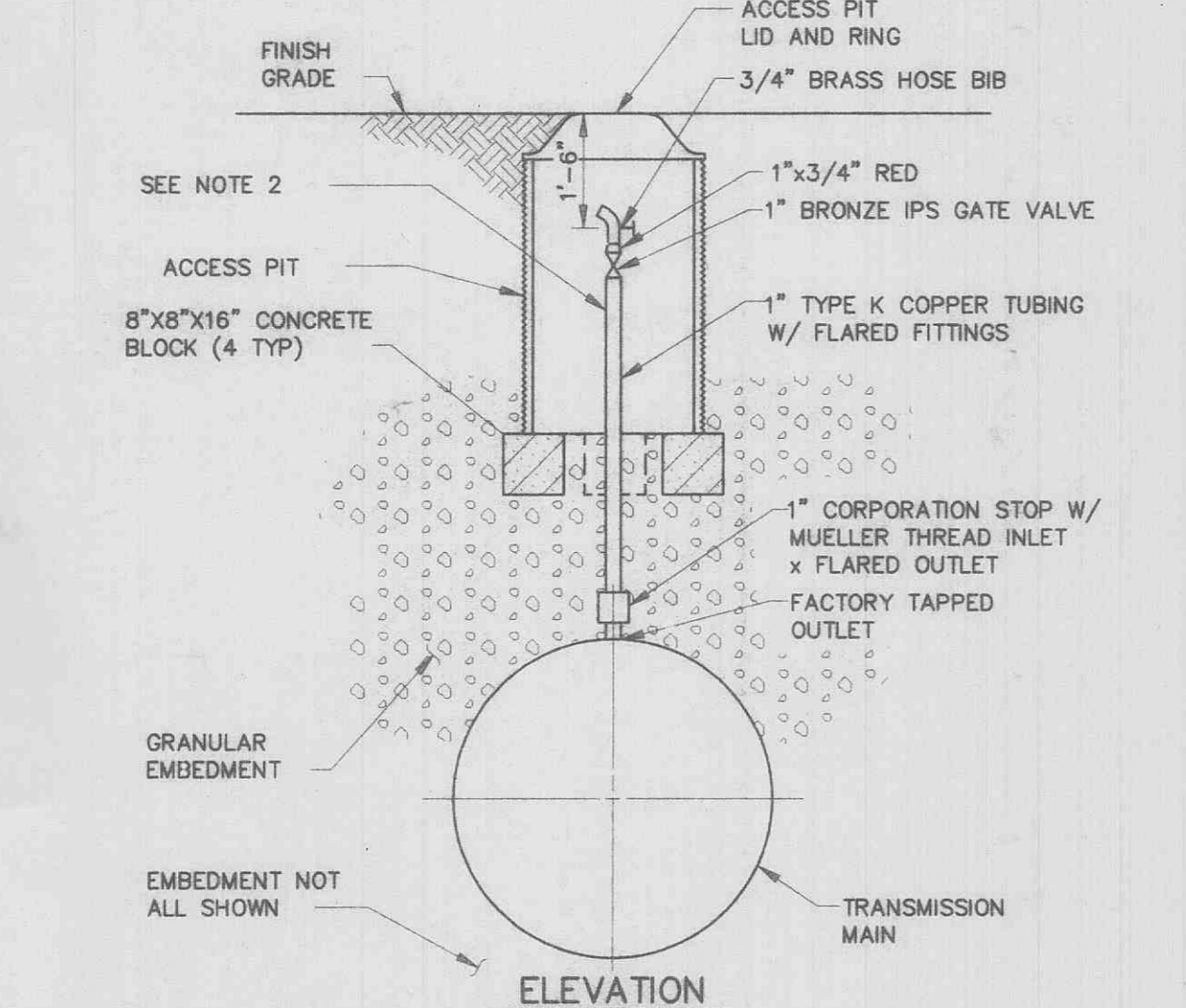
NO SCALE



- NOTES:
- ANODE SHALL BE LOWERED INTO HOLES WITH A ROPE. ANODE SHALL NOT BE SUSPENDED BY THE LEAD WIRE.
 - AT LEAST 5 GALLONS OF WATER SHALL BE POURED OVER THE ANODE BEFORE BACKFILLING.
 - ALL LEAD WIRES SHALL BE INSTALLED WITH A MINIMUM OF 18 INCHES OF SLACK IN EACH PLACE INDICATED TO PREVENT BREAKAGE OF WIRE DUE TO BACKFILL SETTLEMENT.
 - A SACRIFICIAL ANODE IS TO BE INSTALLED AT EACH END OF TUNNEL LINER. WHEN THE TRANS MAIN IS PCCP, AN ANODE IS ALSO TO BE INSTALLED ON THE PCCP AT EACH END OF THE TUNNEL LINER.

ANODE INSTALLATION FOR STEEL PIPE ADAPTERS FOR PCCP ALTERNATIVE AND FOR TUNNEL LINERS

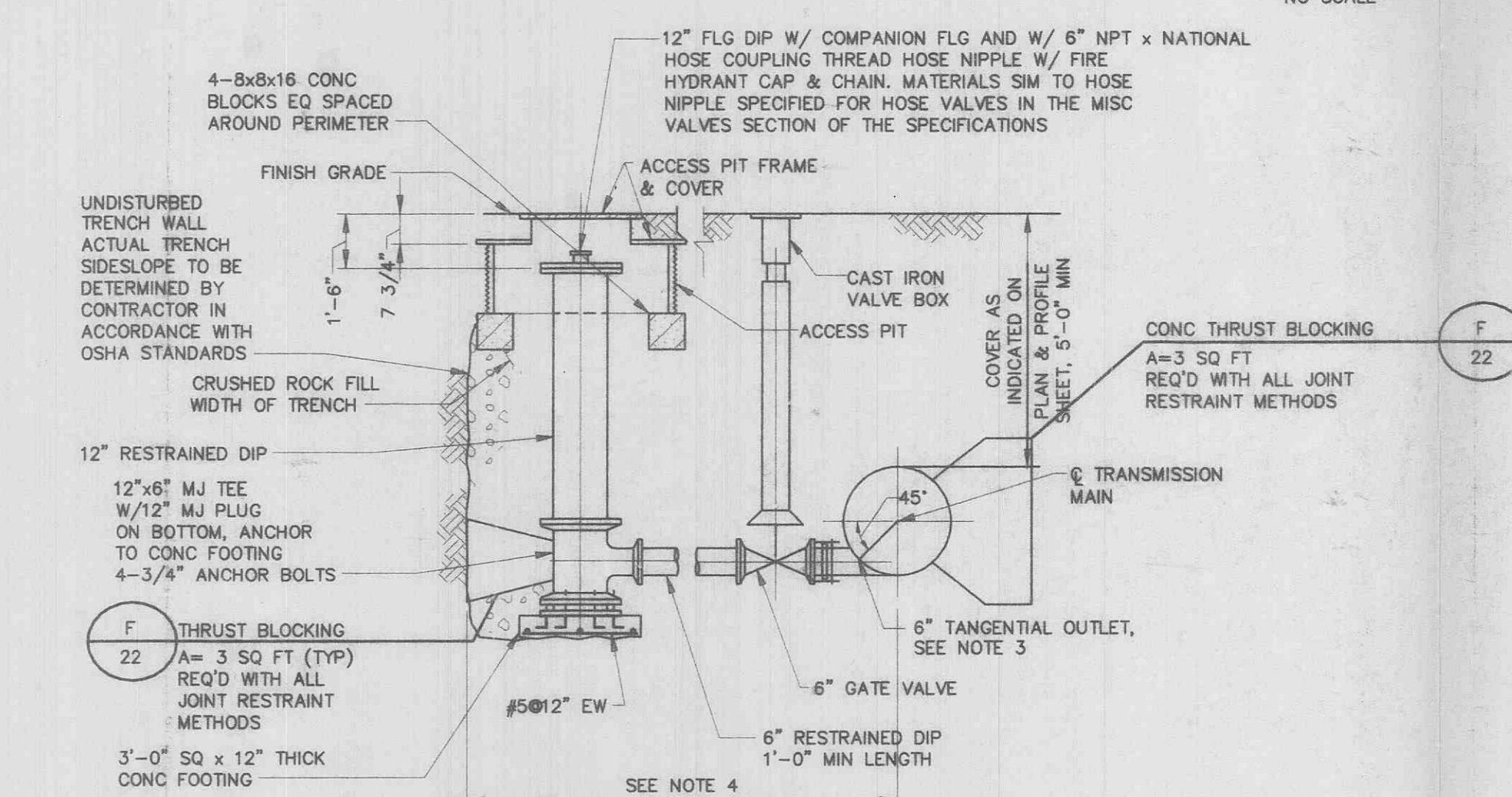
NO SCALE



- NOTES:
- SEE PLAN AND PROFILE SHEETS FOR LOCATIONS OF MANUAL AIR RELEASE VALVE ASSEMBLIES. WHERE THE TRANSMISSION MAIN IS UNDER PAVEMENT, MANUAL AIR RELEASE VALVE ASSEMBLY IS TO BE INSTALLED REMOTE FROM TRANSMISSION MAIN AS DETERMINED IN THE FIELD BY THE ENGINEER BASED UPON THE CONDITIONS ENCOUNTERED.
 - EXPOSED PIPING, FITTINGS, AND VALVES IN ACCESS PIT TO BE WRAPPED WITH 1" THICK INSULATION.

MANUAL AIR RELEASE VALVE ASSEMBLY

NO SCALE



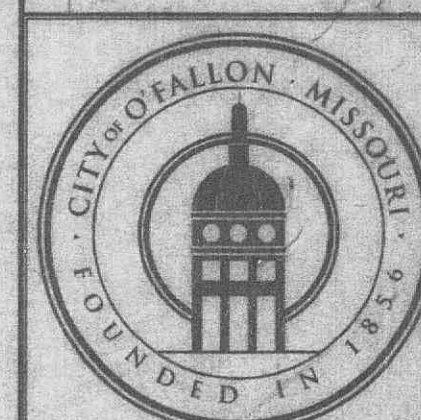
- NOTES:
- SEE PLAN & PROFILE SHEETS FOR APPROXIMATE LOCATION AND ORIENTATION OF BLOWOFF FACILITY. PRECISE LOCATION OF OUTLET, RISER PIPE, AND ACCESS PIT IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER BASED UPON THE CONDITIONS ENCOUNTERED.
 - ALL JOINTS TO BE RESTRAINED.
 - AT THE OPTION OF THE CONTRACTOR, THE VALVE CONNECTION TO THE TANGENTIAL OUTLET MAY BE MADE BY ONE OF THE FOLLOWING METHODS: A) A TYTON JOINT GATE VALVE AND FIELD LOCK RESTRAINED PUSH-ON JOINT, B) A MJ GATE VALVE AND GRIP RING PIPE RESTRAINER BY ROMAC INDUSTRIES, INC., C) A MJ GATE VALVE AND A PLAIN END OUTLET WITH A WELDED GLAND AND ANCHORED COUPLING.
 - SEE PLAN FOR MAXIMUM DISTANCE FROM TRANSMISSION MAIN TO PERMANENT EASEMENT. IF BLOWOFF FACILITY CANNOT BE INSTALLED WITHIN THE MAXIMUM DISTANCE, ADD A 90° BEND AFTER THE VALVE AND INSTALL 6" PIPING PARALLEL TO THE TRANSMISSION MAIN.

BLOWOFF FACILITY

NO SCALE

STANDARD WATERLINE DETAILS

CITY OF O'FALLON
COMMUNITY DEVELOPMENT
DESIGN DIVISION
O'FALLON, MISSOURI



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I HEREBY SPECIFY THAT THE DOCUMENTS INTENDED TO BE AND INTERPRETED BY ME SHALL BE LIMITED TO THE SPECIFIC PROJECT AND I SHALL NOT BE RESPONSIBLE FOR ANY OTHER DRAWINGS, INSTRUMENTS, CONTRACTS, REPORTS OR OTHER DOCUMENTS OR INSTRUMENTS RELATED TO OR REFERRED TO BE USED FOR ANY PART OR PARTS OF THE ARCHITECTURAL OR ENGINEERING PROJECT OR SERVICE.

DESIGNED: _____
CHECKED: _____
DATE: 00/00/00
PROJECT NO.: 00-000
SHEET
2 OF 2