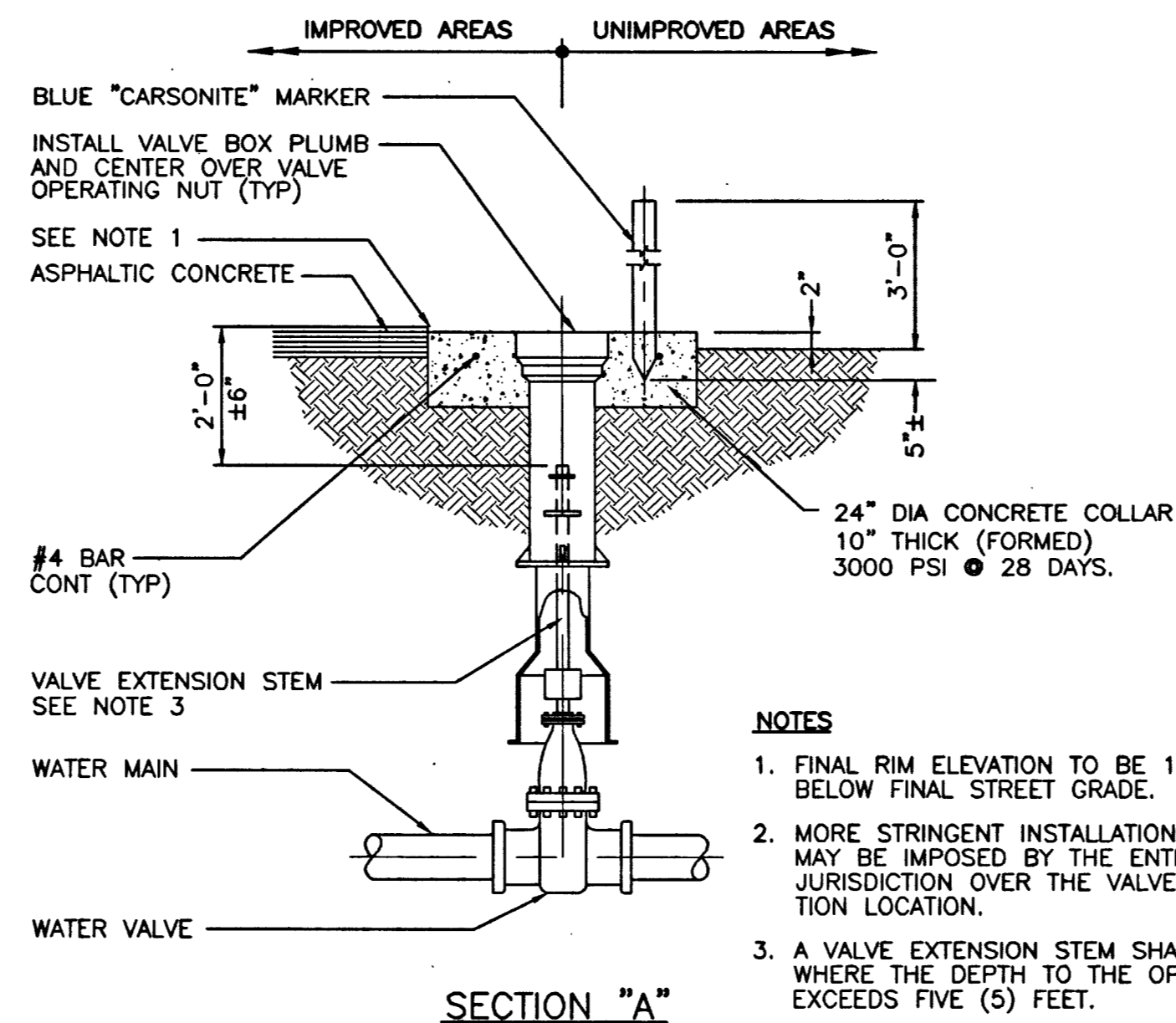
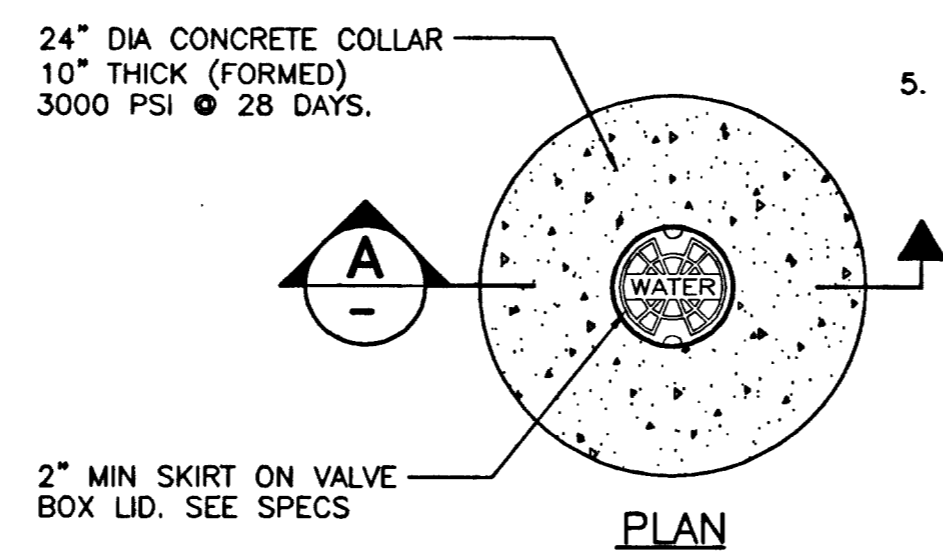


- NOTES**
- ALL CONCRETE SHALL BE 3000 PSI MINIMUM 28 DAYS COMPRESSIVE STRENGTH
  - ALL VALVES AND EXPOSED REBAR TO BE COATED AND WRAPPED IN ACCORDANCE WITH SECTION 09965 OF THE LVWD SPECS, PROTECTIVE COATINGS.

**7 ANCHOR BLOCK DETAILS**  
U-10 SCALE: NONE

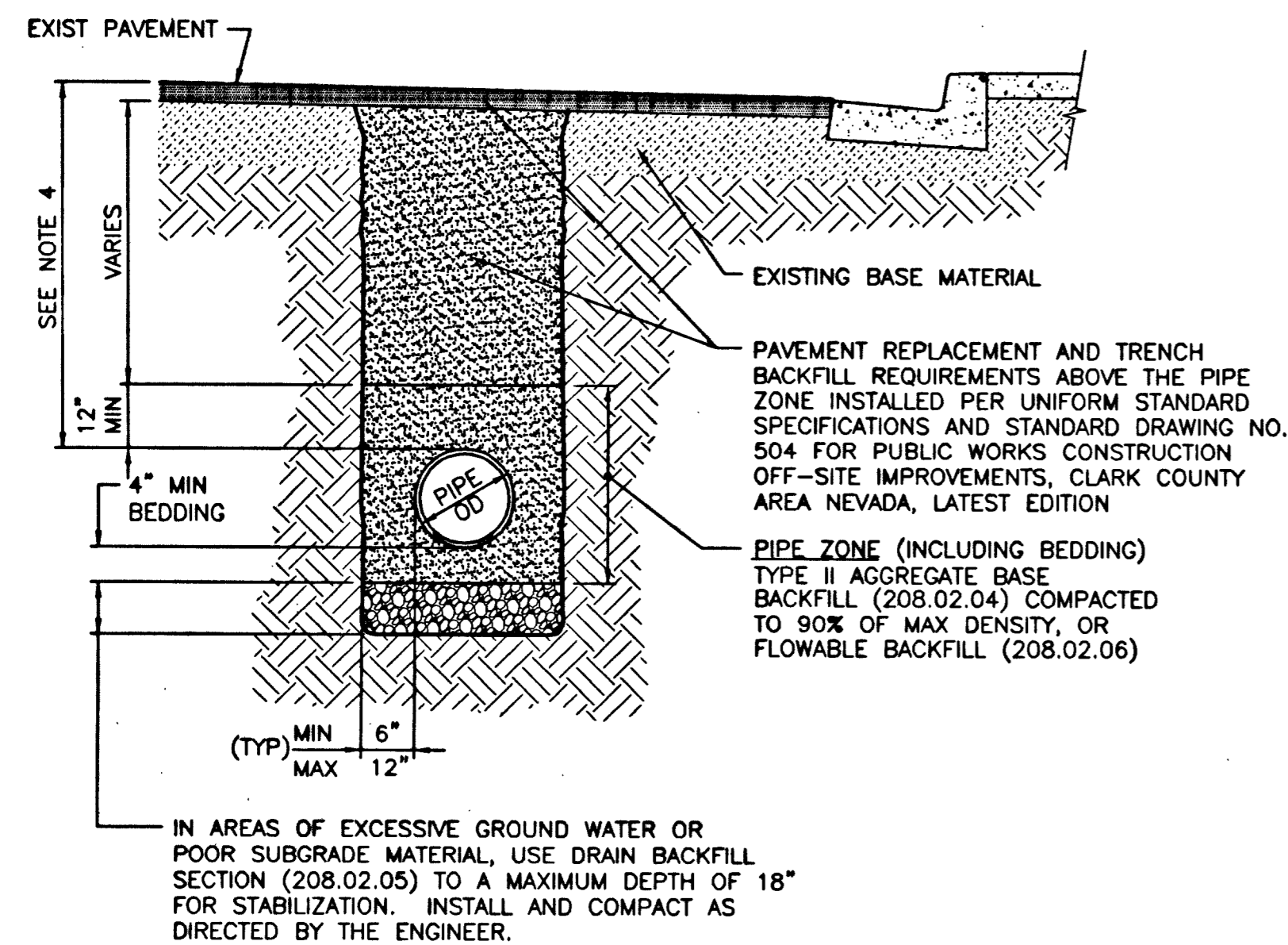


- NOTES**
- FINAL RIM ELEVATION TO BE 1/8" TO 1/4" BELOW FINAL STREET GRADE.
  - MORE STRINGENT INSTALLATION REQUIREMENTS MAY BE IMPOSED BY THE ENTITY HAVING THE JURISDICTION OVER THE VALVE BOX INSTALLATION LOCATION.
  - A VALVE EXTENSION STEM SHALL BE PROVIDED WHERE THE DEPTH TO THE OPERATING NUT EXCEEDS FIVE (5) FEET.
  - CONTRACTOR TO FORM CONCRETE COLLAR IN UNIMPROVED AREAS WITH SONOTUBE AND REMOVE PRIOR TO BACKFILL INSTALLATION (TYP).
  - SEE SPECIFICATIONS FOR ALL APPROVED PRODUCTS.

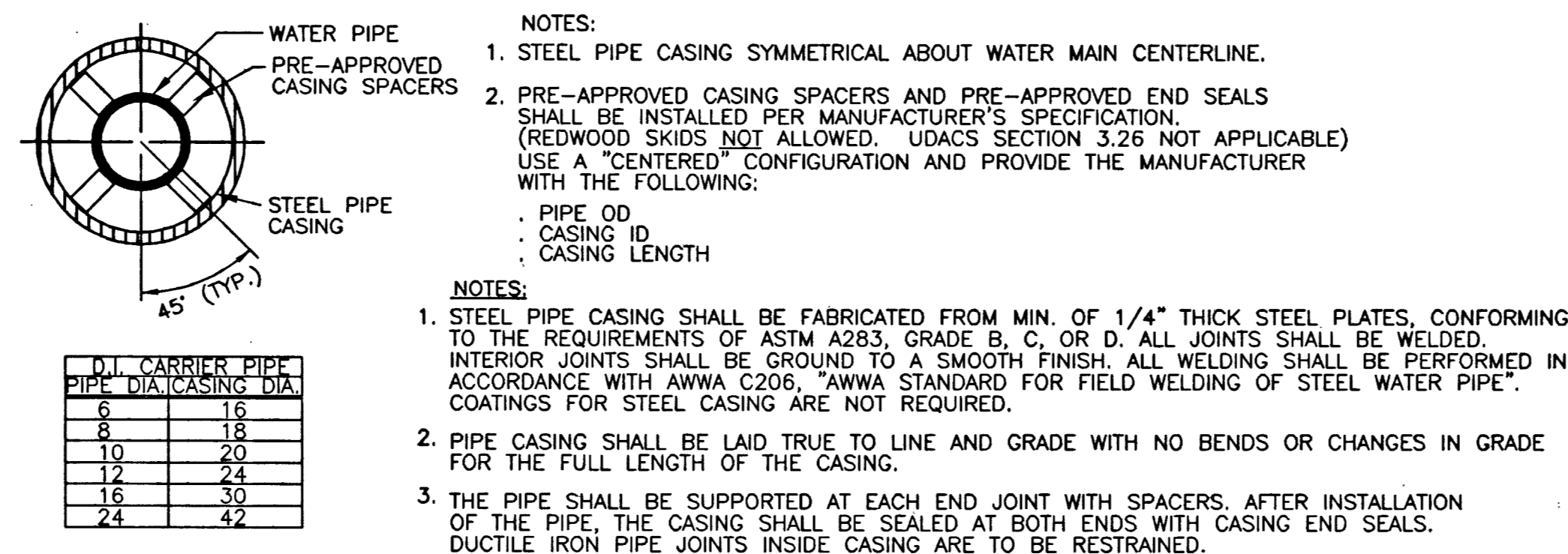


**5 VALVE BOX INSTALLATION**  
U-10 SCALE: NONE

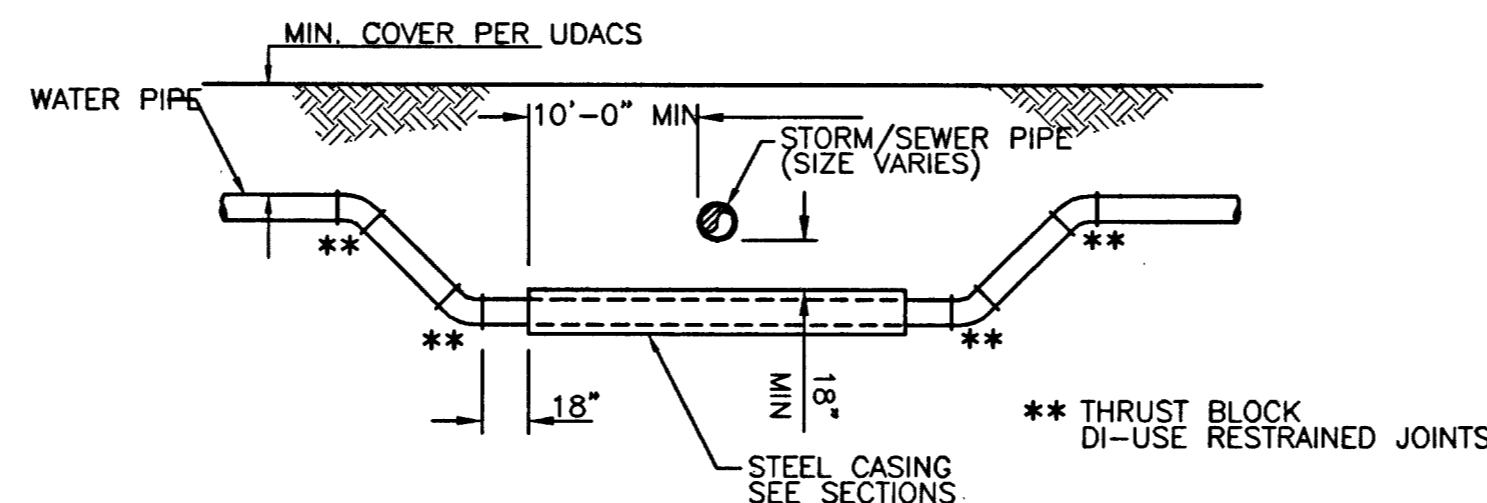
- NOTES**
- ACCEPTABLE METHODS OF COMPACTION**
    - BEDDING AND PIPE ZONE AREAS**  
FLOODING AND JETTING OR MECHANICAL COMPACTION. (NEVADA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MECHANICAL COMPACTION ONLY)
    - ABOVE PIPE ZONE**  
FLOODING AND JETTING OR MECHANICAL COMPACTION. MECHANICAL COMPACTION ONLY FOR A MINIMUM OF TOP 16" IN PAVED AREAS (NEVADA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MECHANICAL COMPACTION ONLY)
  - TRENCH EXCAVATION:** COMPLY WITH THE CURRENT REGULATIONS AS DETERMINED BY NEVADA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.
  - REFERENCE:** UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA NEVADA, LATEST EDITION.
  - MINIMUM COVER IS REFERENCED TO FUTURE FINISHED FINAL GRADES UNLESS OTHERWISE SHOWN ON PROFILE DRAWINGS.
  - SUPPORT PIPE WITH SANDBAGS AND SPOT LOAD PIPE AS REQUIRED DURING INSTALLATION OF FLOWABLE BACKFILL IN PIPE ZONE AND PIPE BEDDING AREAS.



**6 TYPICAL WATER PIPE TRENCH SECTION**  
U-10 SCALE: NONE



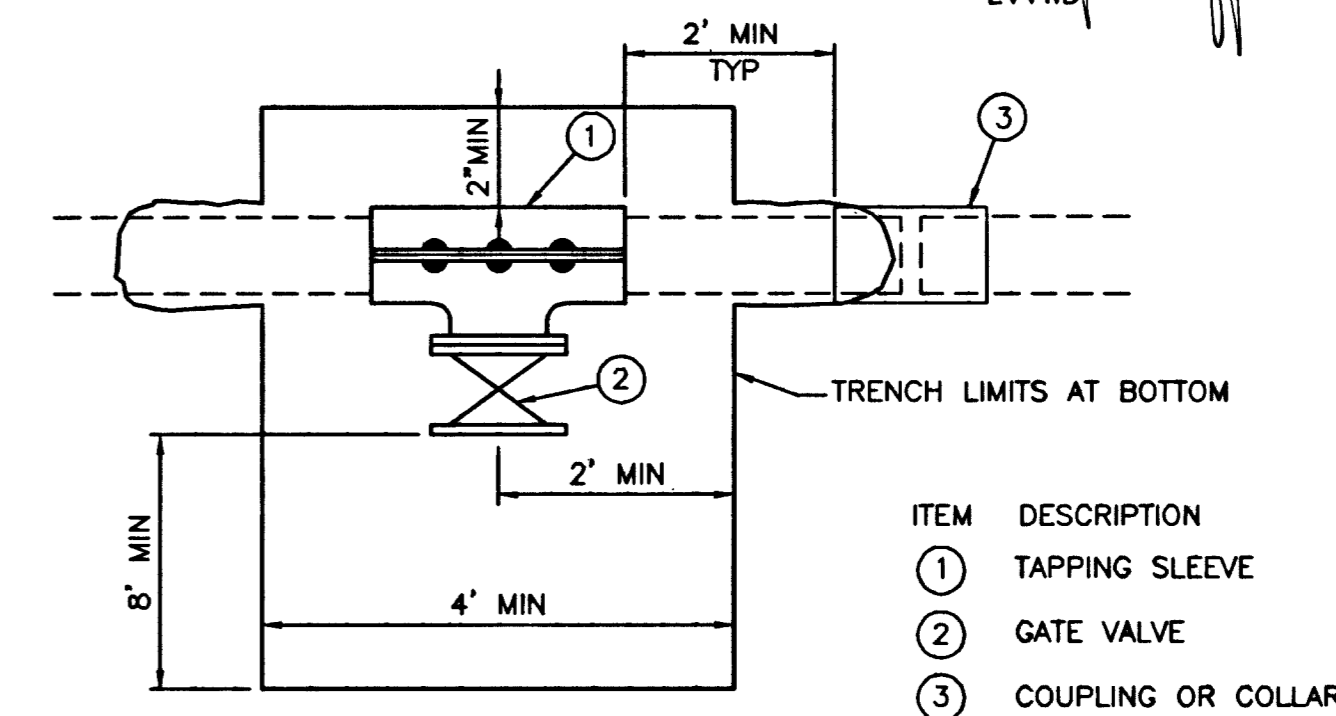
**TYPICAL CASING SECTION**



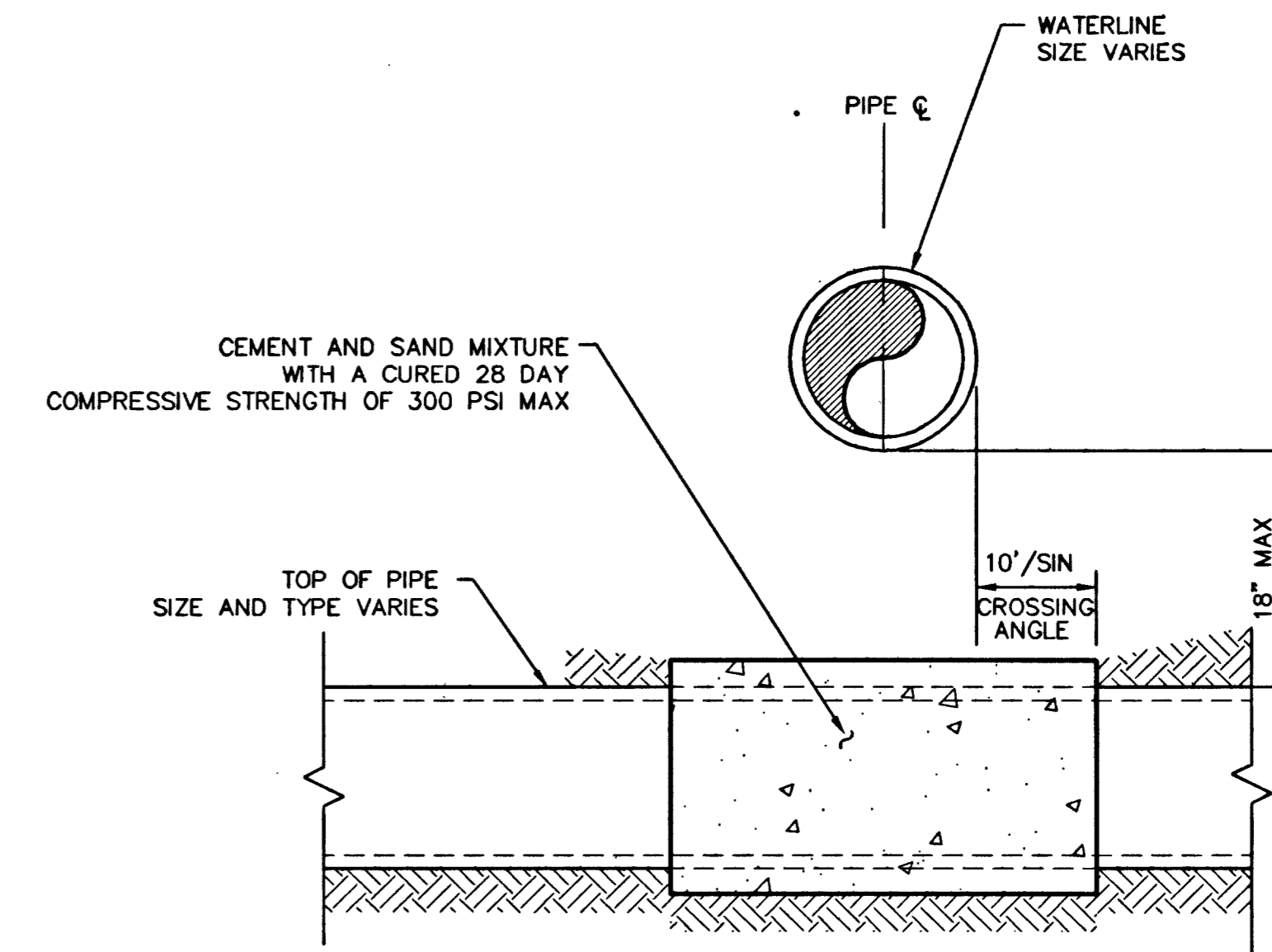
- WHERE THE WATER LINE IS LESS THAN 18 INCHES OVER THE STORM/SEWER LINE, AND WHERE THE HORIZONTAL SEPARATION, AS REQUIRED BY THE WATER SUPPLY REGULATIONS, CANNOT BE MAINTAINED BECAUSE OF PHYSICAL OBSTRUCTIONS, THE WATER LINE SHALL BE PROTECTED BY CONSTRUCTION OF THE STORM/SEWER OR WATER LINE IN THE FOLLOWING PRIORITY:
- THE STORM/SEWER MAIN MUST BE CONSTRUCTED OF WATER SUPPLY QUALITY MATERIALS MEETING AWWA STANDARDS.
  - THE WATER MAIN SHALL BE D.I.P. WITH RESTRAINED JOINTS. INSTALL IN A STEEL CASING WHICH EXTENDS 10' ON EACH SIDE OF THE CROSSING.
  - THE STORM/SEWER MAIN OR WATER MAIN (DEPENDING ON THE FIELD CONDITIONS) SHALL BE TOTALLY ENCASED IN A MINIMUM OF FOUR (4) INCHES OF CEMENT SLURRY (300 PSI±) FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE CROSSING ONLY WITH AGENCY APPROVAL. ENCASEMENT WILL NOT BE PERMITTED FOR ASBESTOS CEMENT PIPE.
- EACH OF THESE PROVISIONS SHALL ALSO BE EXTENDED FOR OTHER THAN 90 DEGREE CROSSINGS TO THE POINT AT WHICH THE TEN FOOT SEPARATION BETWEEN THE WATER AND SEWER LINES IS ACHIEVED (10'/SINE OF CROSSING ANGLE.)

**1 WATERLINE RELOCATION DETAIL**  
U-10 NOT TO SCALE

- NOTES**
- CLEARANCE FROM A COLLAR OR PIPE JOINT SHALL BE A MINIMUM OF 2 FEET FROM THE EDGE OF TAPPING SLEEVE TO COLLAR OR PIPE JOINT. THE EXISTING PIPE SHALL BE EXPOSED SUFFICIENTLY TO ENSURE THAT SUCH MINIMUM CLEARANCE IS PROVIDED.
  - TRENCH DEPTH OF 5 FEET AND OVER MUST HAVE NOSHA APPROVED SHORING AND A LADDER THAT EXTENDS A MINIMUM OF 3 FEET ABOVE THE EXISTING GROUND ELEVATION.
  - GATE VALVE TO BE TEMPORARILY SUPPORTED DURING THE WET TAP PROCESS.



**3 TAPPING SLEEVE**  
U-10 SCALE: NONE



**2 STORM DRAIN ENCASEMENT**  
U-10 NOT TO SCALE



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LVWD  
DATE 4/14/03

DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DESIGN SECTION  
CITY ENGINEER: CHARLES KAJKOWSKI JR., P.E.  
DESIGNED BY: JO DDD  
DRAWN BY: DD  
CHECKED BY: MW

ALEXANDER ROAD  
US 95 TO RANCHO DRIVE  
MISCELLANEOUS WATER DETAILS

TITLE: SHEET:  
PROFESSIONAL ENGINEER - STATE OF NEVADA  
MYRON R. WELSH  
Exp. 06/30/06  
No. 2646

Sheet  
U-10  
28 of 35  
DRAWING NO.  
107-V3634