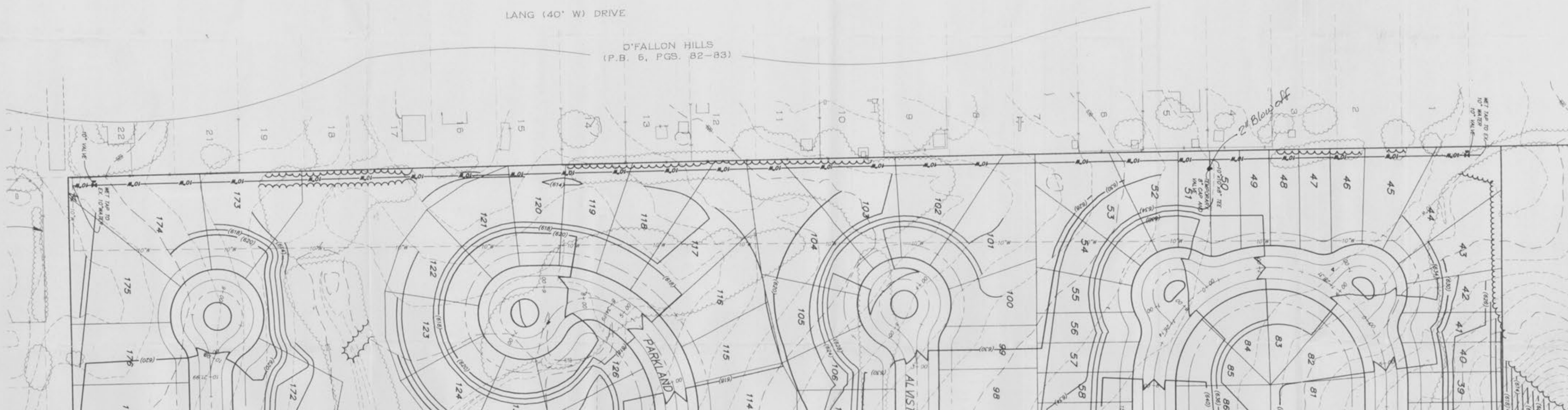
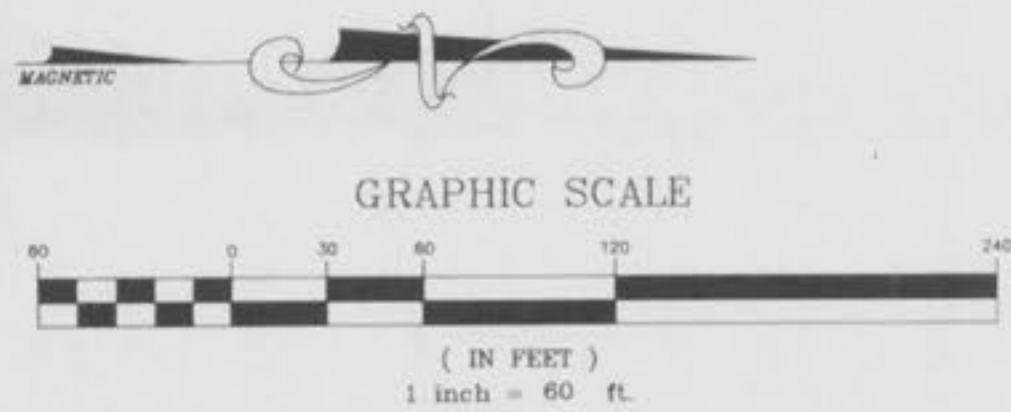


THORNBURY CROSSING

TWO TRACTS OF LAND BEING PART OF U.S. SURVEY
1780, TOWNSHIP 47 NORTH, RANGE 2 AND 3 EAST,
ST. CHARLES COUNTY, MISSOURI

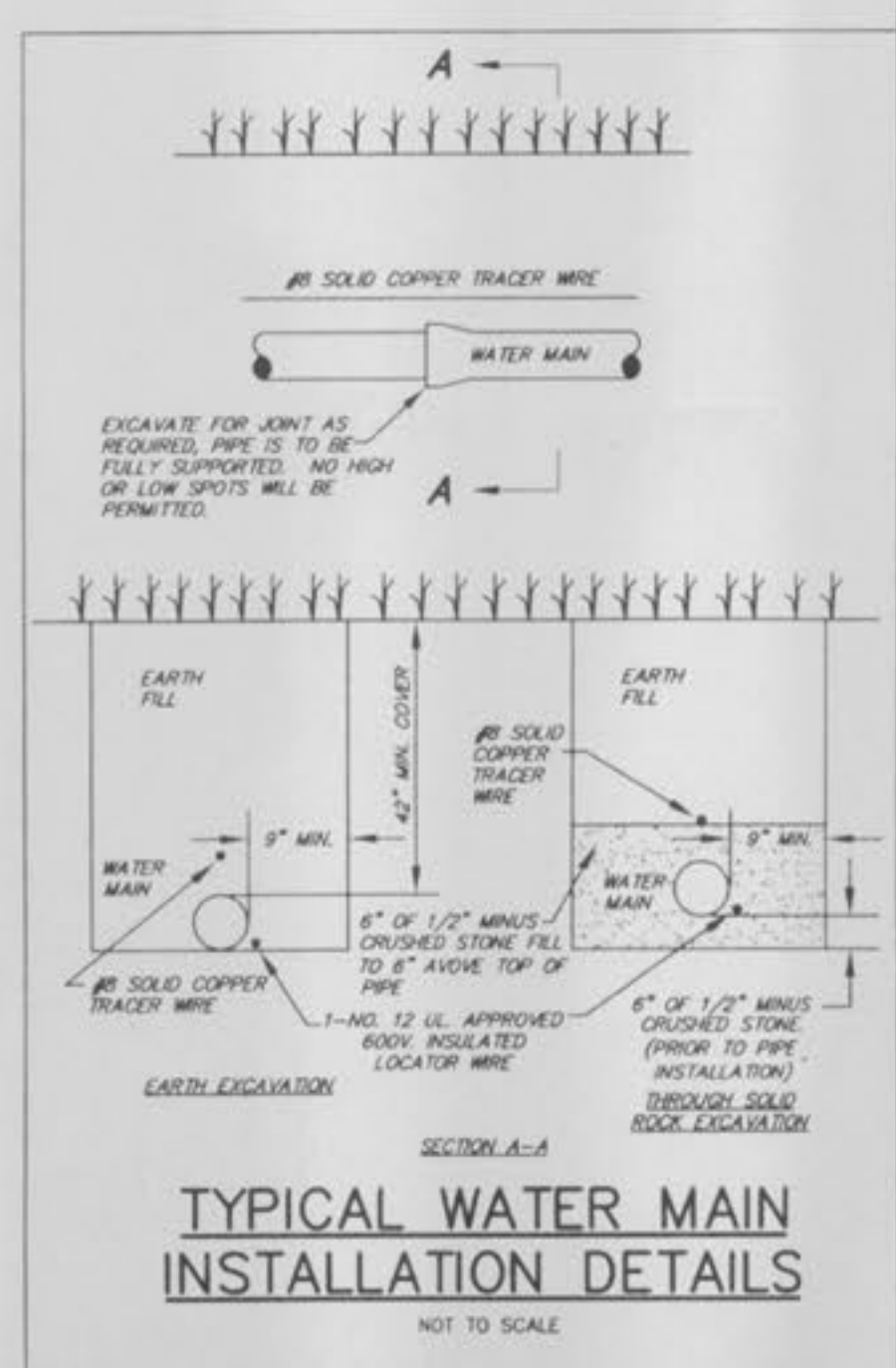
WATER MAIN RELOCATION PLAN



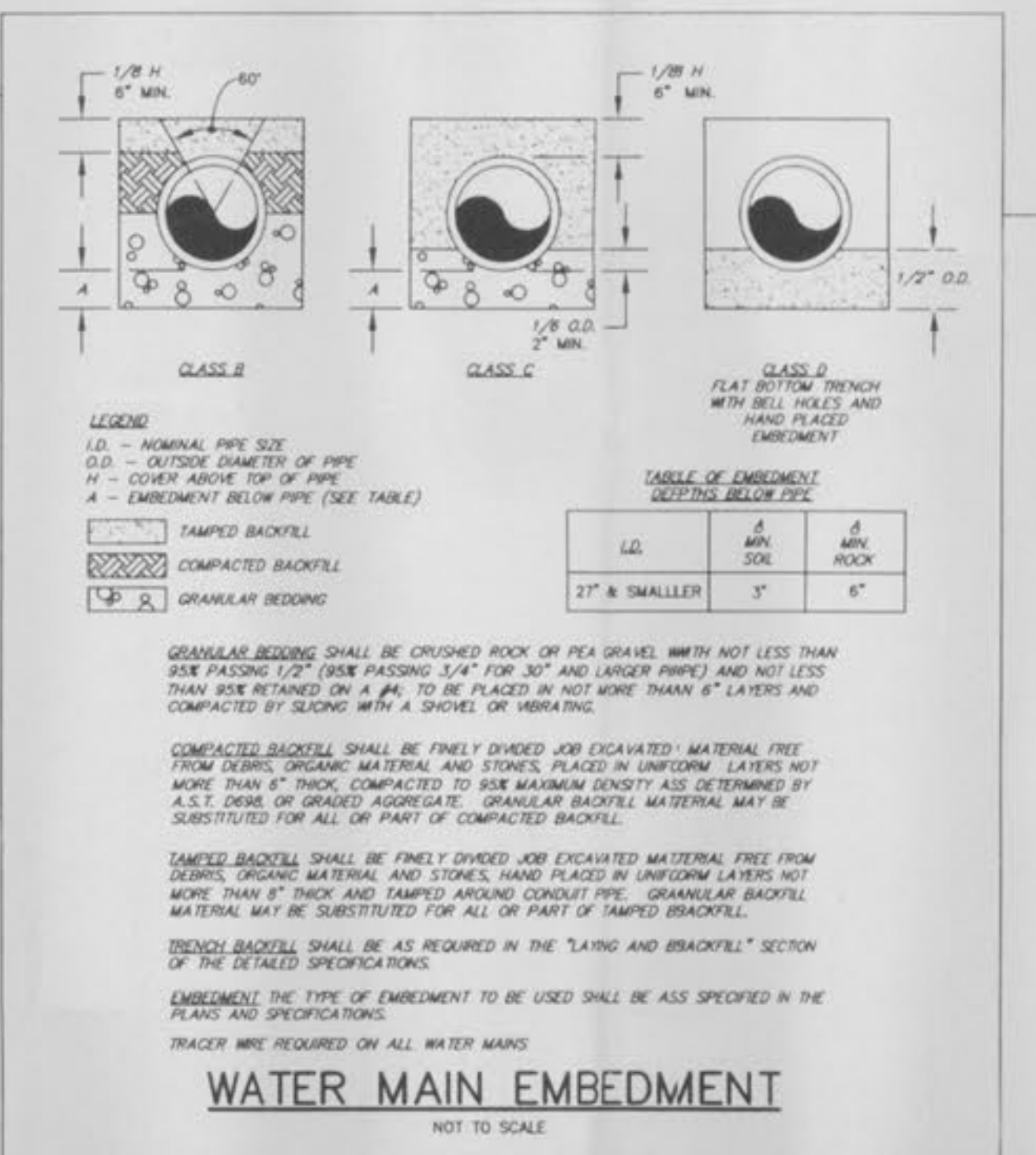
INSTALLATION OF WATER MAINS

- "ALWAYS KEEP THE WATER MAIN ON EASEMENT"**
- All water mains should be 8 inches in diameter, the last 300' can be 6" diameter pipe. The pipe should have a Minimum Pressure Rating (MPR) of 200 or SDR-21. All water mains of PVC materials shall be certified by NSF (National Sanitation Foundation) and listed in NSF Standard 61 (Certified drinking water system components). Material that requires that any product which comes in contact with drinking water be listed in NSF Standard 61. If the pipe is NSF certified, it will have a stamp on the pipe that says "NSF".
 - These water bends (45 degree, 22-1/2 degree, 11-1/4 degree), are to be made with mechanical joint fittings using mags logs. Ninety degree (90°) bends are not allowed. The first slip joint, up and down stream after fittings, should be restrained per pipe manufacturer specs.
 - Tees, 4-way, etc. shall have concrete blocking. Concrete not to be on nuts or bolts.
 - Rocky soils shall require bedding 8" under and 6" over water pipe.
 - Concrete encasement required to DNR Specification, when crossing storm or sanitary sewers. Sanitary: vertical is 18", horizontal is 10" - Storm: vertical is 12", horizontal is 3".
 - Must use appropriate sized casings when crossing streets.
 - Must attach coated solid core, 12 gauge tracer wire, lapped to the top of the pipe. All wire must run up the outside of the valve box and come up inside the valve box under the water lid.
 - Use 3M waterproof splice kits for all splicing of tracer wire.
 - Any project with over 1500' of pipe should use the 2500' role of tracer wire to eliminate splicing.
 - A chlorine test is required. It must initially test at 25 PPM, or greater, and 24 hours later 10 PPM must be present. It must be tested by a City Inspector, and have 24 hours notice prior to that inspection. The main will be tested for Cl_2 every 1,200' of pipe.
 - If chlorine test fails then main must be rechlorinated.
 - The contractor will meter water and pay for it. Hydrant meters are at Public Works and require a \$1,800 deposit.
 - Soil samples should be collected every 1,200'.
 - Final Pressure Test: The water main must be pumped up to 125 PSI and maintain this pressure for one hour without any drop in pressure.
 - Oak, water, and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including house laterals.
 - All waterline construction shall conform to current City of O'Fallon Standards and Specifications.
 - Backfill no debris larger than 6" in diameter.
 - All creek crossings will require ductile iron pipe. If less than 3' of cover, concrete encasement with 10-rap required.
 - Easements shall be provided for water mains, and all utilities on the record plot. See record plot for location size, and width of easements.
 - The Contractor is to notify the O'Fallon Water Department at (636)281-2858 one week prior to the start of construction for direction, coordination, and inspection.
 - All open mains should be properly capped when the main is unattended for more than 4 hours. Duct tape the end closed so it is visually seen.

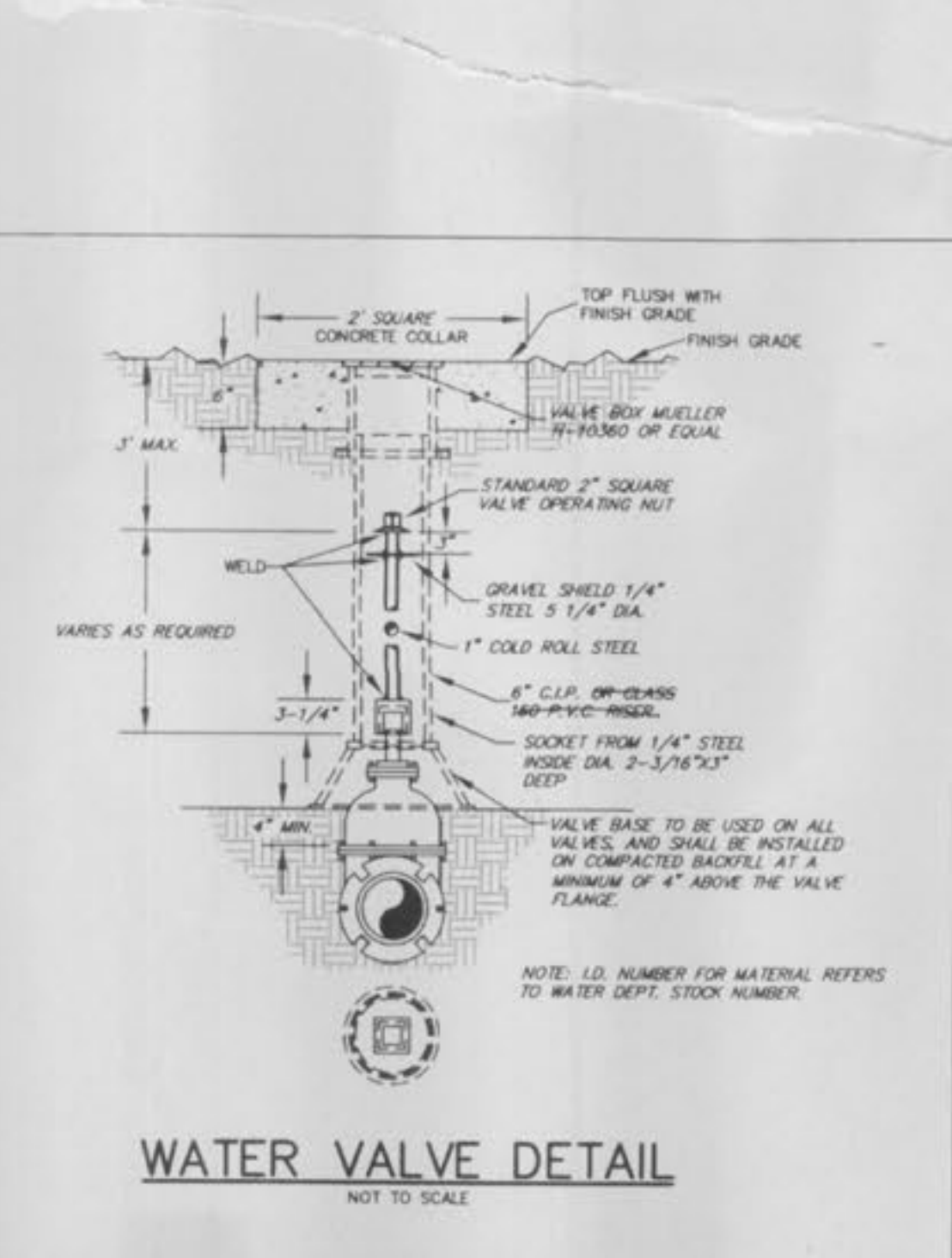
* Coordinate taking ex. 10' line out of service, with Alliance Water.
NOTE: 24 HOUR NOTICE REQUIRED ON ALL INSPECTIONS



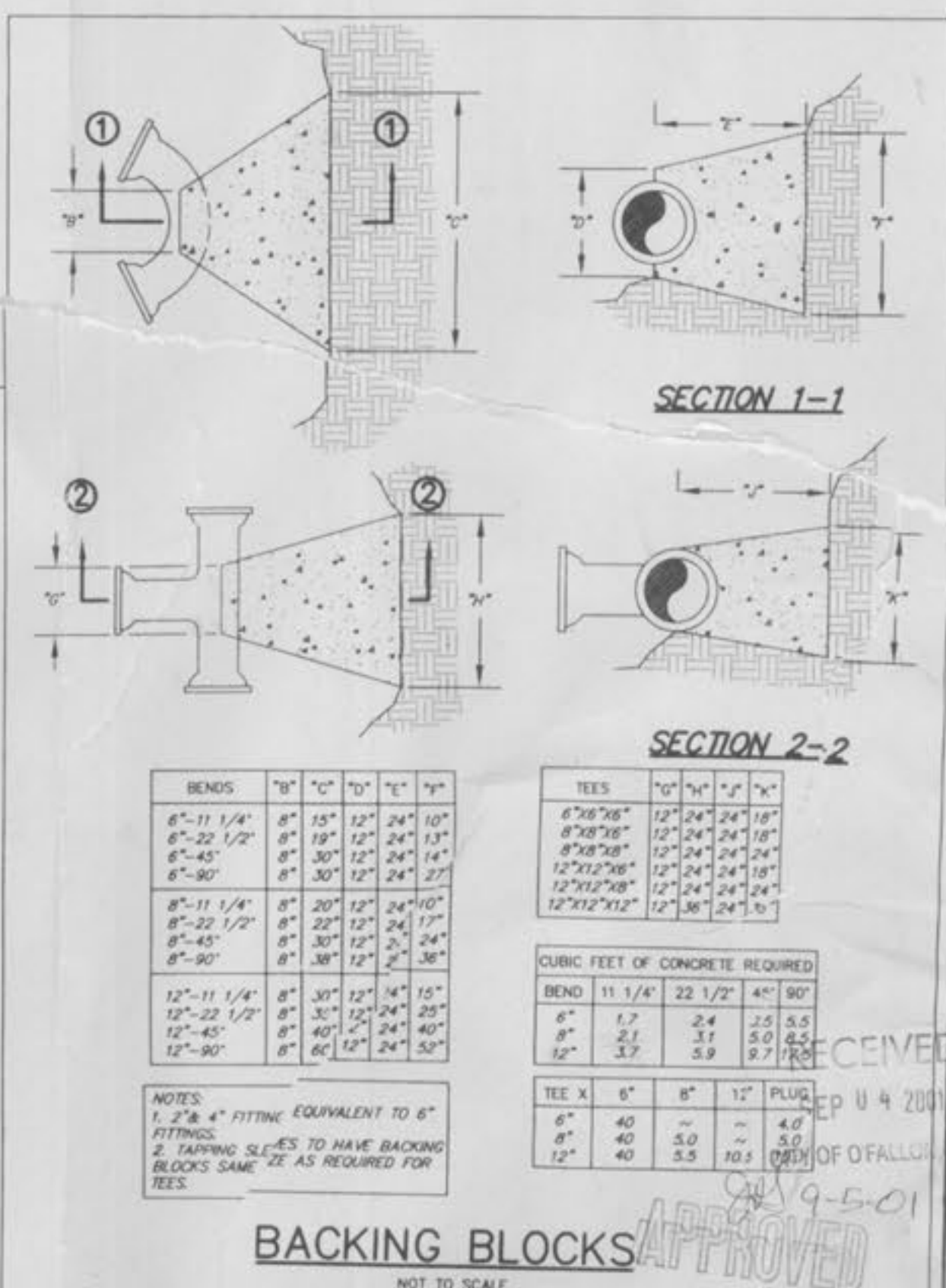
TYPICAL WATER MAIN INSTALLATION DETAILS
NOT TO SCALE



WATER MAIN EMBEDMENT
NOT TO SCALE



WATER VALVE DETAIL
NOT TO SCALE



BACKING BLOCKS
NOT TO SCALE

ISSUE REMARKS/DATE
 1 8/9/01
 2 8/31/01

PREPARED FOR: **McBride & Son Homes, Inc.**
 #1 McBride & Son Center Drive
 Chesterfield, Missouri 63005
 (636) 637-2000

THE **STERLING** CO.
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 ST. LOUIS, MISSOURI 63129
 (314) 467-2440 FAX 487-8844
 E-Mail: Sterling@com-stl.net

PROJECT: **THORNBURY CROSSING**
 SHEET TITLE: **WATER MAIN RELOCATION PLAN**

NO. **00 11 289**
 SHEET **1** OF **1**