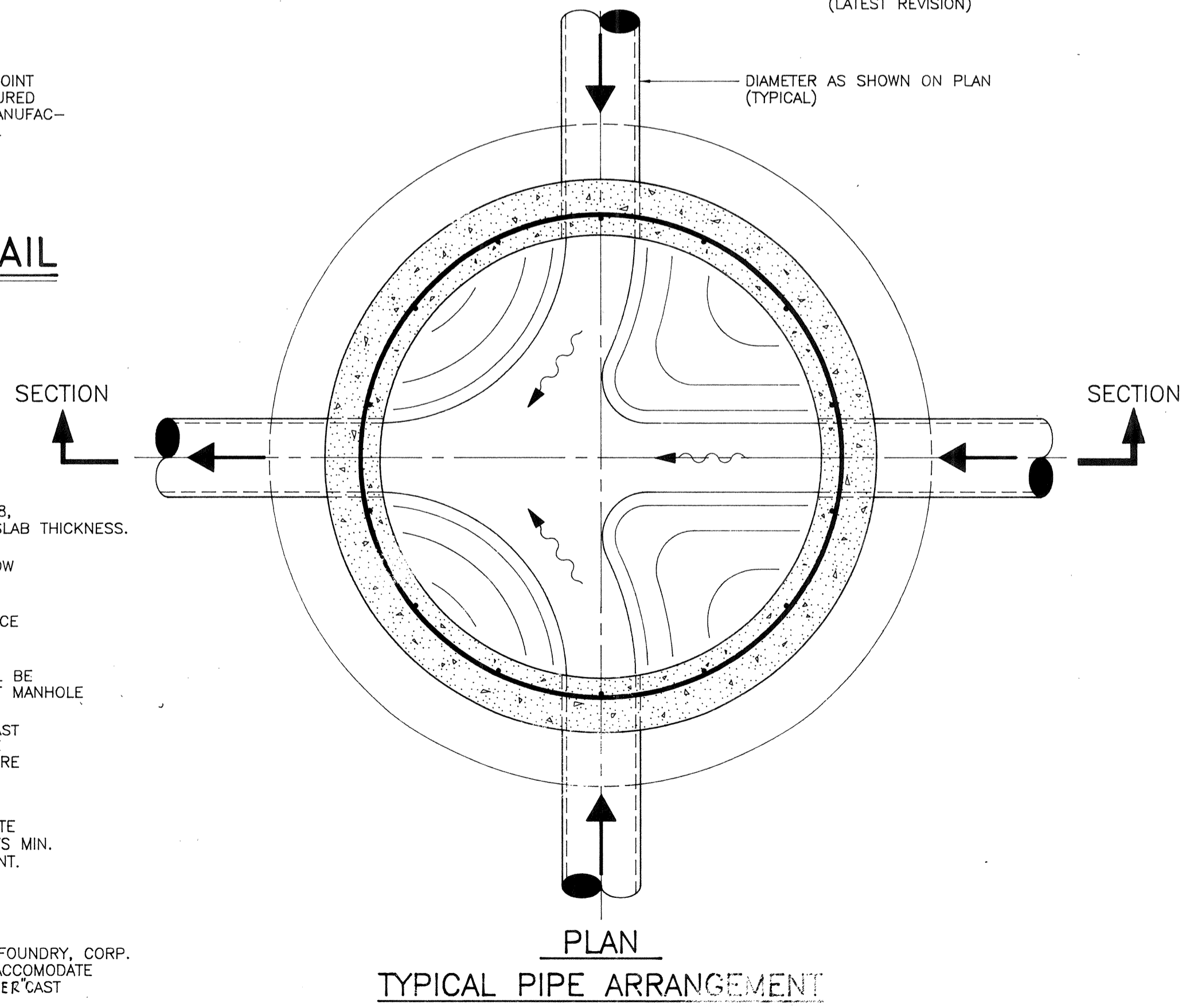
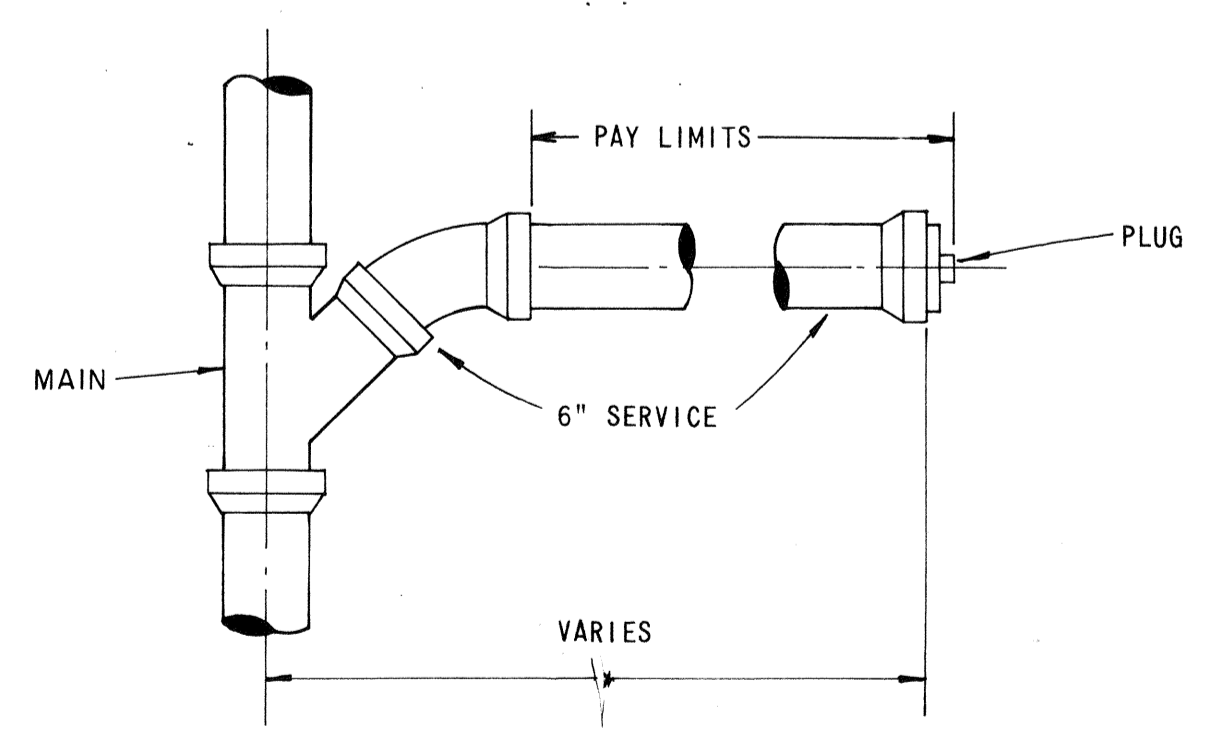


TYPICAL JOINT DETAIL
N.T.S.

- ① MANHOLES SHALL COMPLY WITH ASTM C-478, LATEST REVISION. USE 8" WALL AND BASE SLAB THICKNESS.
- ② SHAPE ALL CHANNELS TO DIRECTION OF FLOW
- ③ MANHOLE COATINGS SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS
- ④ IMPROPER CASTING OF PIPE WINDOWS SHALL BE CAUSE FOR REJECTION OF THAT SECTION OF MANHOLE
- ⑤ PIPE TO MANHOLE RUBBER GASKET SEAL CAST INTEGRALLY INTO THE PIPE OPENING OF THE MANHOLE BASE AT THE TIME OF MANUFACTURE "A-LOK" OR EQUAL
- ⑥ ALL CONCRETE USED FOR PRECAST CONCRETE MANHOLES SHALL BE 4000 P.S.I. @ 28 DAYS MIN. COMPRESSIVE STRENGTH WITH TYPE V CEMENT.
- ⑦ NO STEPS SHALL BE INSTALLED
- ⑧ MANHOLE RING AND COVER SHALL BE U.S. FOUNDRY, CORP. TYPE B WITH DOVETAIL GROVED COVER TO ACCOMMODATE 1/4 DIA., O-RING. THE WORDS "WASTE WATER" CAST INTO THE COVER.



TYPICAL PIPE ARRANGEMENT
STANDARD PRECAST MANHOLE
N.T.S.



PLAN

GENERAL CONSTRUCTION NOTES FOR WASTEWATER COLLECTION SYSTEM
WASTEWATER COLLECTION GENERAL

1. ALL CONSTRUCTION SHALL MEET THE MINIMUM REQUIREMENTS OF THE LONGBOAT KEY BUILDING DEPARTMENT.
2. THE FOLLOWING NOTES ARE INTENDED AS A SUPPLEMENT TO THE PROJECT SPECIFICATIONS AND ARE NOT INTENDED TO SUPERSEDE THESE SPECIFICATIONS.
3. ELEVATIONS SHOWN ON THE PLANS FOR FLOWLINES OF PROPOSED SEWER MAINS SHALL BE ADHERED TO IN MOST CASES THE DESIGN GRADES ARE CRITICAL AND ADJUSTMENTS CAUSED BY MIS-ALIGNMENT OR IMPROPER GRADES ARE IMPRACTICAL. COST TO RELAY MAIN, IF NECESSARY, WILL BE BORNE BY THE CONTRACTOR.
4. FOR PAINTING AND SURFACE FINISHING REQUIREMENTS REFER TO DIVISION OF THE PROJECT SPECIFICATIONS.

SERVICE DETAILS:

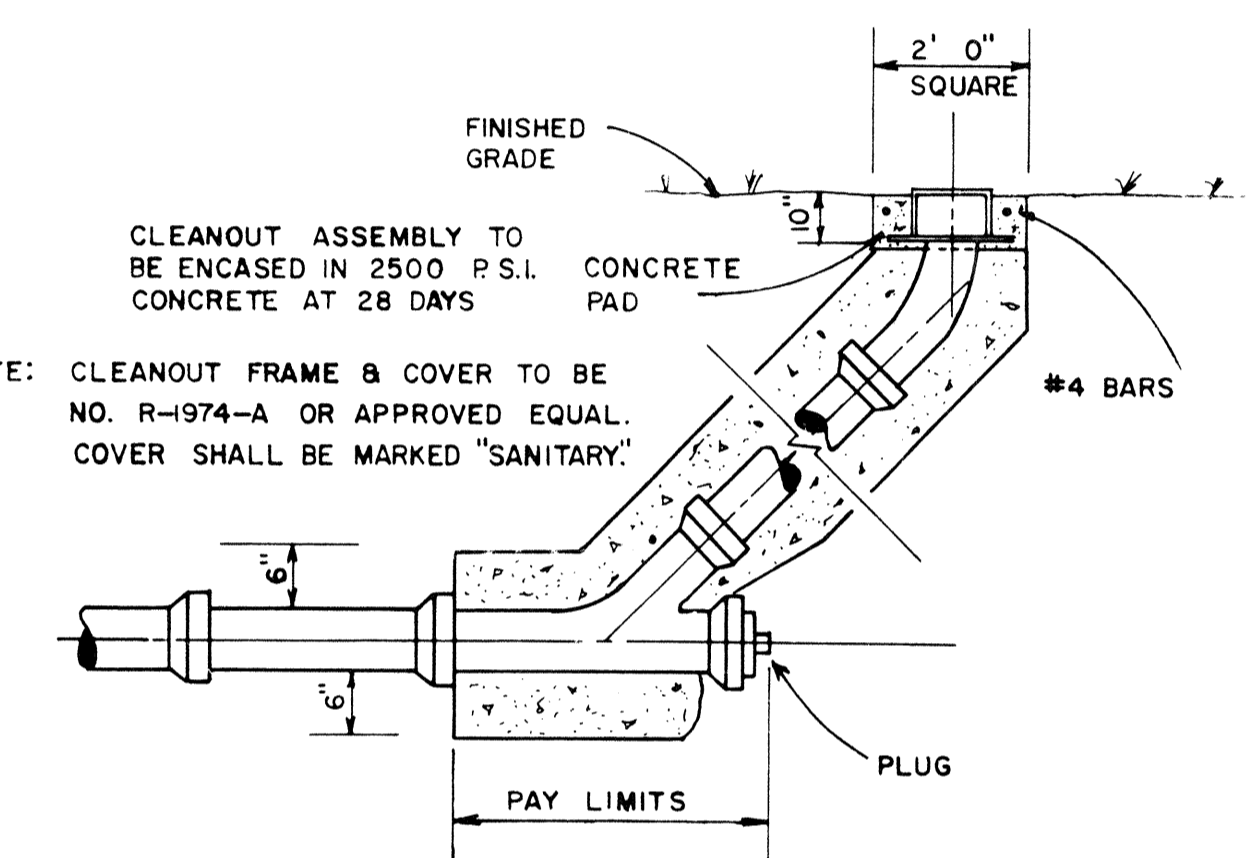
1. AN "E" OR "M" SHALL BE STAMPED IN CURB WHERE SEWER SERVICE OR M. WHOLE IS LOCATED. THE STAMP SHALL BE PRESSED INTO CONCRETE A MINIMUM OF 1/8 INCH A MEASUREMENT FROM THE EDGE OF CURB. TAKEN BY THE CONTRACTOR SHALL BE SHOWN ON THE "AS-BUILT" PLANS FOR REFERENCE IN LOCATING SERVICE OR MANHOLE. BRANDING IRONS OR STAMP WILL BE APPROVED BY THE ENGINEER PRIOR TO THEIR USE.
2. DUCTILE IRON PIPE SHALL BE WRAPPED IN 8 MIL POLYETHYLENE

TRENCH DETAILS:

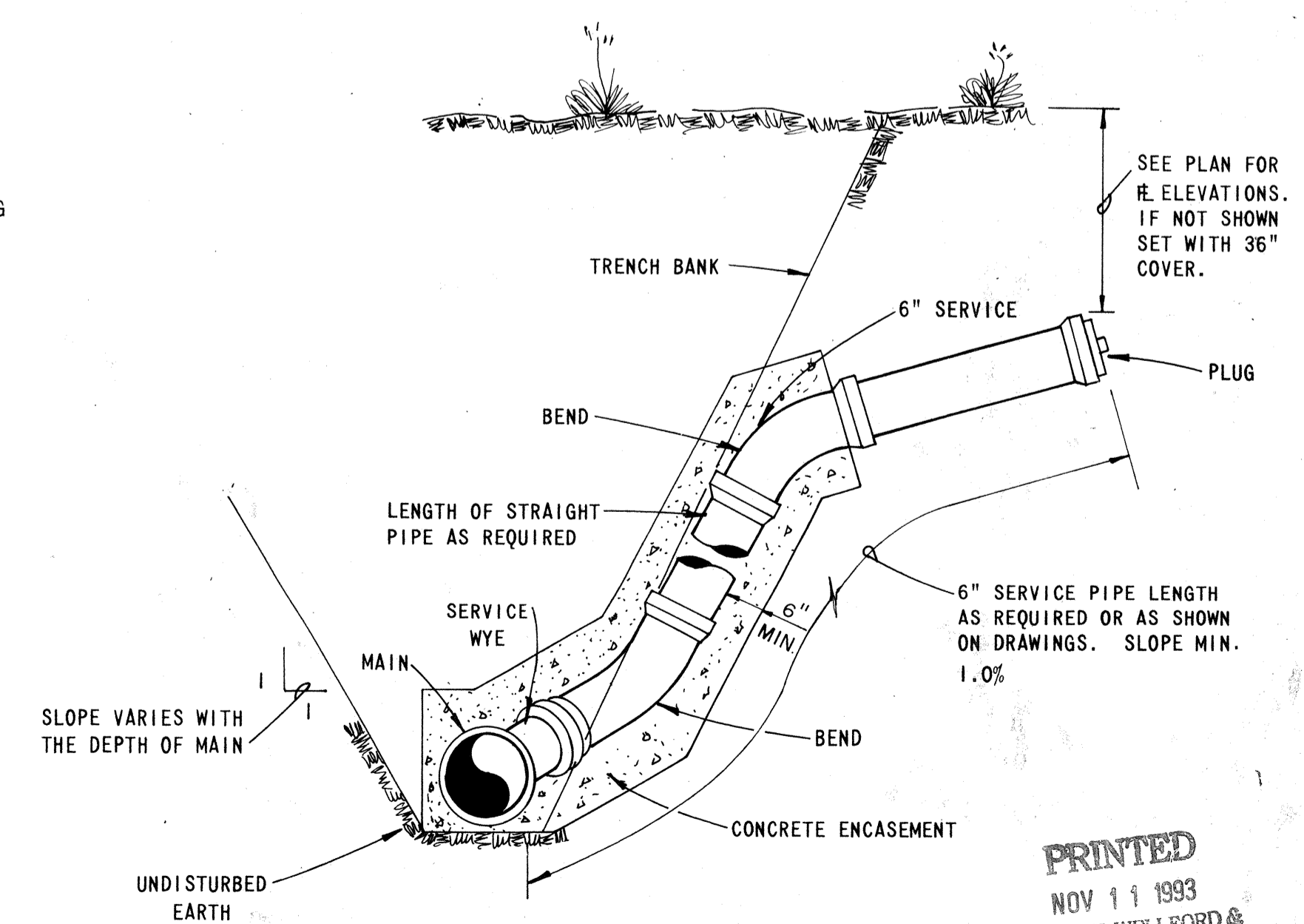
1. WHERE WATER AND SEWER MAINS CROSS WITH LESS THAN EIGHTEEN INCHES (18") VERTICAL CLEARANCE THE SEWER WILL BE TWENTY FEET (20') OF EITHER DUCTILE IRON PIPE, CONCRETE OR ENGLAND VITRIFIED CLAY PIPE (VCP). WHEN A WATER MAIN PARALLELS A SEWER MAIN, A SEPARATION OF AT LEAST TEN FEET (10') SHOULD BE MAINTAINED HORIZONTALLY.
2. TRENCH SHALL BE BRACED OR SHORED AS REQUIRED.
3. WIDTH OF TRENCH SHALL BE OUTSIDE DIAMETER OF PIPE SOCKET PLUS TWELVE INCHES (12") MAXIMUM.
4. CONTRACTOR SHALL PLACE METALLIC BURIAL IDENTIFICATION TAPE WITHIN 18" DIRECTLY ABOVE SEWER LINES.
5. ALL WELL POINT HOLES WILL BE FILLED WITH COARSE SAND OR OTHER SATISFACTORY GRANULAR MATERIAL AT THE WELL POINTS ARE PULLED.

TESTING:

THE CONTRACTOR SHALL INCLUDE IN HIS COST FOR THE VARIOUS ITEMS CONTAINED IN THE BID SCHEDULE. THE ADDITIONAL COSTS INVOLVED WITH LAMPING THE NEWLY LAID SEWER PIPE, EXHAUSTION OR INFILTRATION TESTING AND PIPE DEFLECTION TESTS, ALL AS REQUIRED BY LONGBOAT KEY STANDARDS.



CLEANOUT DETAIL
END OF LINE
N.T.S.



TYPICAL SINGLE SERVICE CONNECTION
N.T.S.

PRINTED
NOV 11 1993
SMALLY, WELLFORD & NALVEN
A DIVISION OF
BARTON & MCDONOUGH

DESIGNED BY	J.M.B.	DATE:	JULY, 1990
SCALE:	AS SHOWN	CHECKED BY	2591
BY		DRAWN BY	E.P.
REVISION		L.T.R.	DATE
FOR: YALE PROPERTIES L'AMBANCE WASTEWATER CONSTRUCTION DETAILS SMALLY, WELLFORD & NALVEN, INC. CONSULTING ENGINEERS & SURVEYORS 133 SOUTH MCINTOSH RD. SARASOTA, FLA. 33582			
DRAWING NUMBER	17	INDEX NO	g - 2591-022