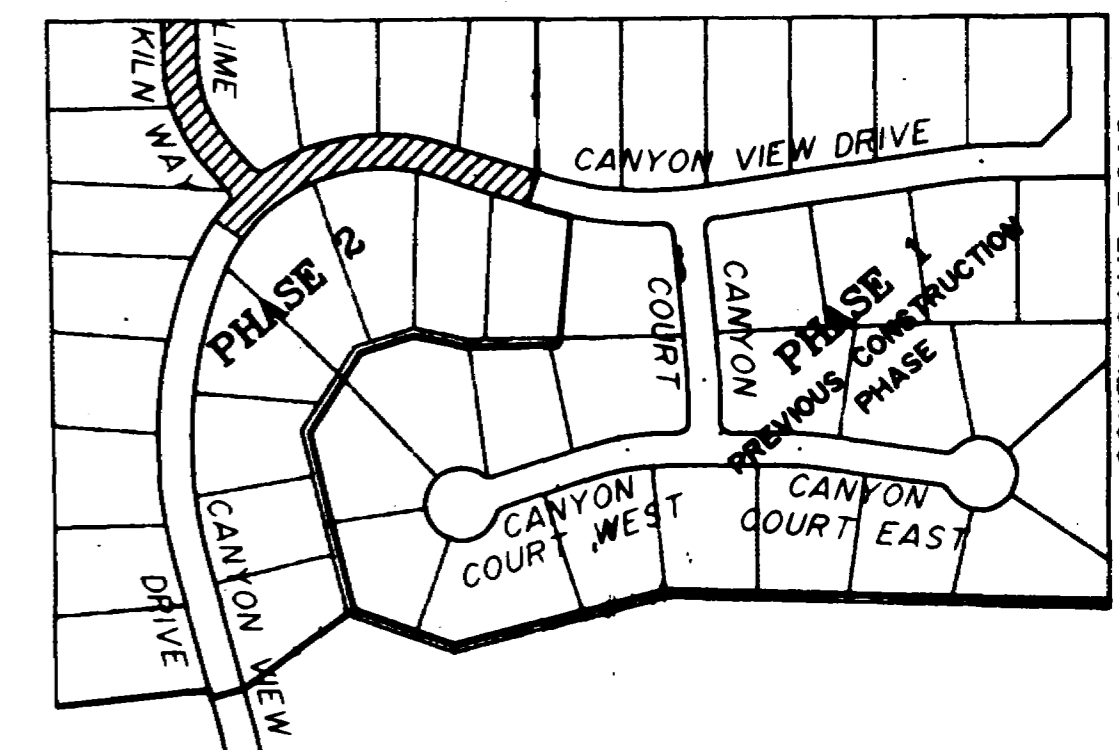


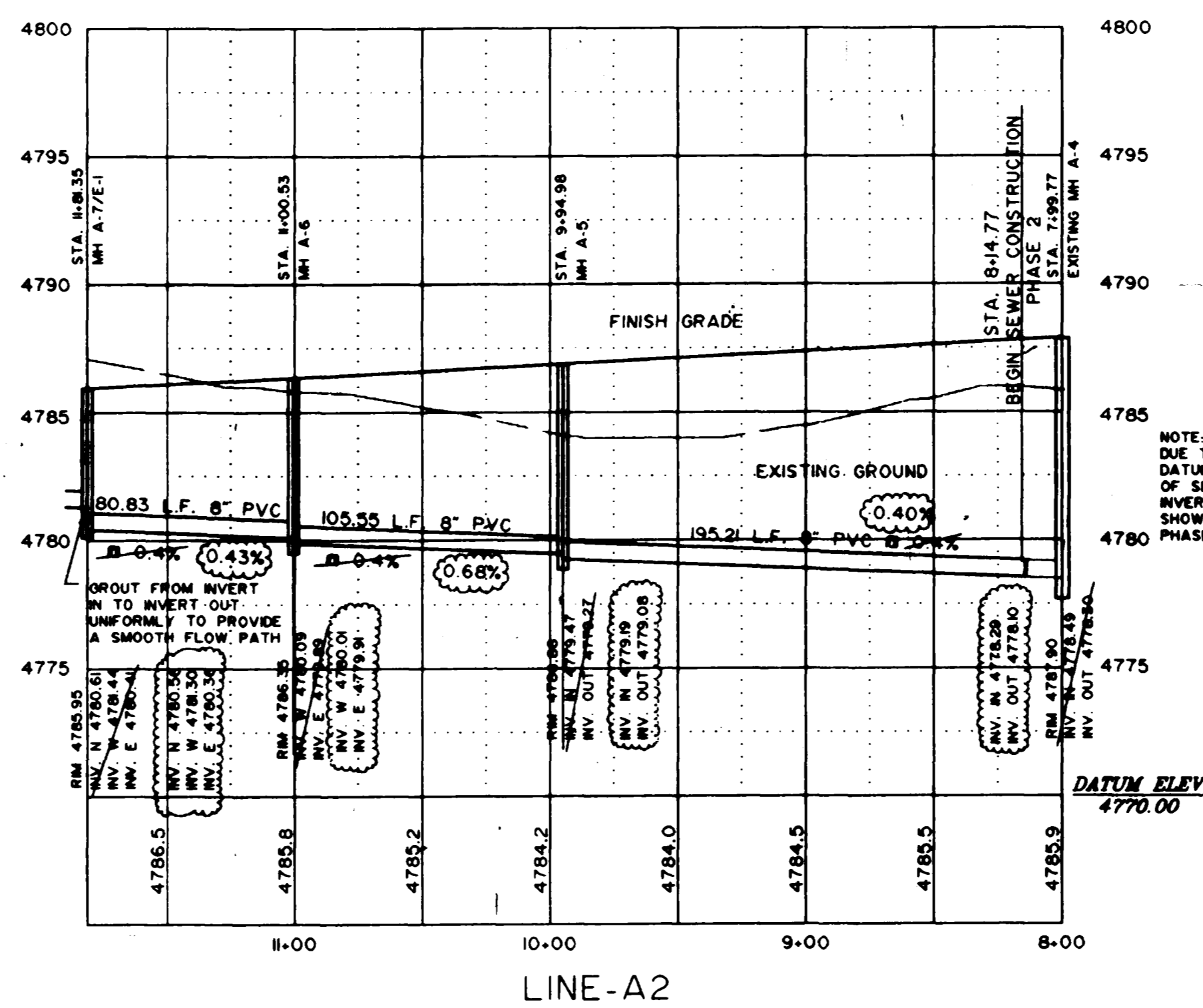
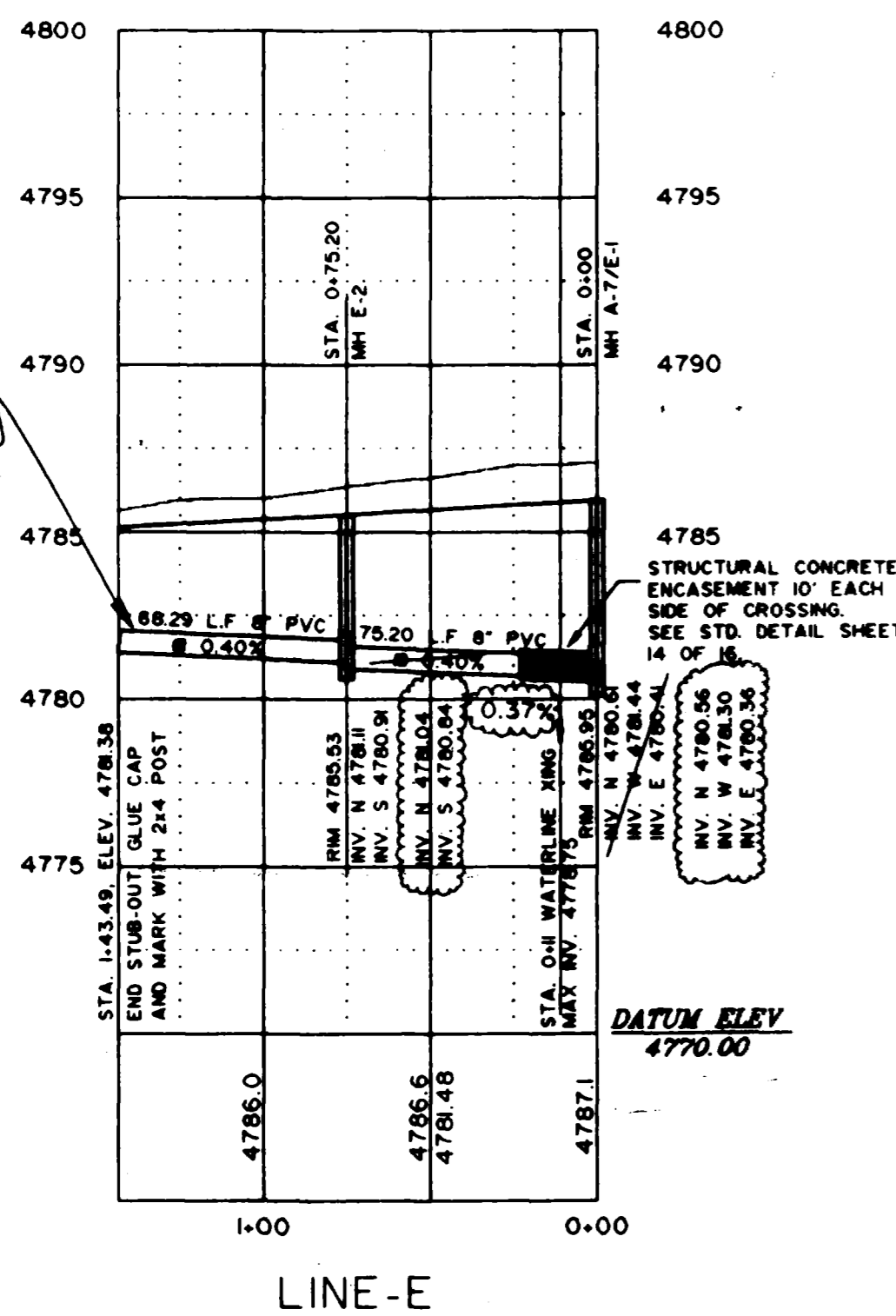
BENCHMARK:
 USGS "BM" 497.53' NORTH OF THE N.E. CORNER
 OF CANYON VIEW, ON WEST SIDE OF SOUTH
 CAMP ROAD, ELEVATION 4777.00

NOTE:
 SERVICE LINE ASBUILT LOCATIONS SHOWN HEREON
 ARE BASED UPON SANITARY SEWERLINE STATIONING,
 NOT ROAD CENTERLINE STATIONING.



ASBUILT
 5/30/95

NOTE:
 DUE TO SHALLOWSNESS OF THIS LINE
 THE STUB-OUT FROM MH E-2
 CAN ONLY BE ACCESSED BY LOT-1 VIA
 PUMPING. IF THE AREA TO THE NORTH
 DEVELOPS, SERVICE SHOULD BE BROUGHT
 IN FROM THAT DIRECTION.



NOTE:
 DUE TO THE USE OF A DIFFERENT
 DATUM DURING THE ASBUILT PHASE
 OF SEWER CONSTRUCTION, THE
 INVERT ELEVATION OF MH A-4 IS
 SHOWN 0.2' LOWER THAN THAT IN
 PHASE I ASBUILTS.

LINE-E

LINE-A2



American Consulting
 Engineers Council
 Member

THOMPSON-LANGFORD CORP.
 529 25 1/2 RD., SUITE B210
 GRAND JUNCTION, COLORADO
 PH. (303) 243-6067

REVISION	DATE	DESCRIPTION	BY	CHKD
1	3/27/95	REVISE STORM & SANITARY SEWER TO AVOID CONFLICT	MWT	JEL
3	5/30/95	REVISE TO ASBUILT CONDITIONS	MWT	JEL

THOMAS & SUN ENERGY EFFICIENT HOMES

CANYON VIEW PHASE II

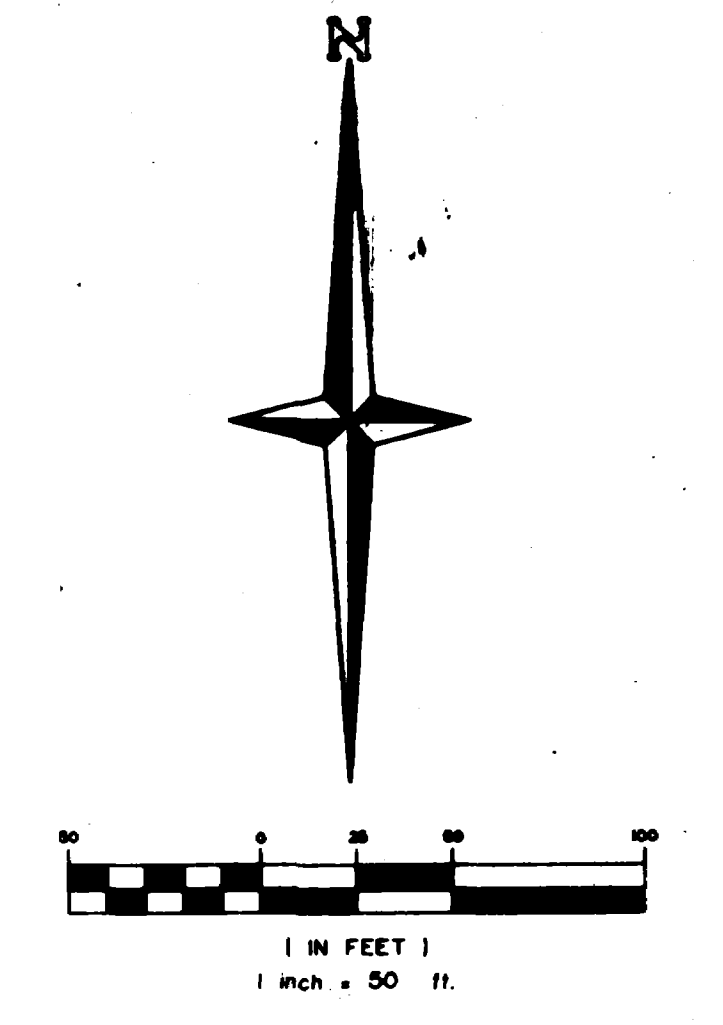
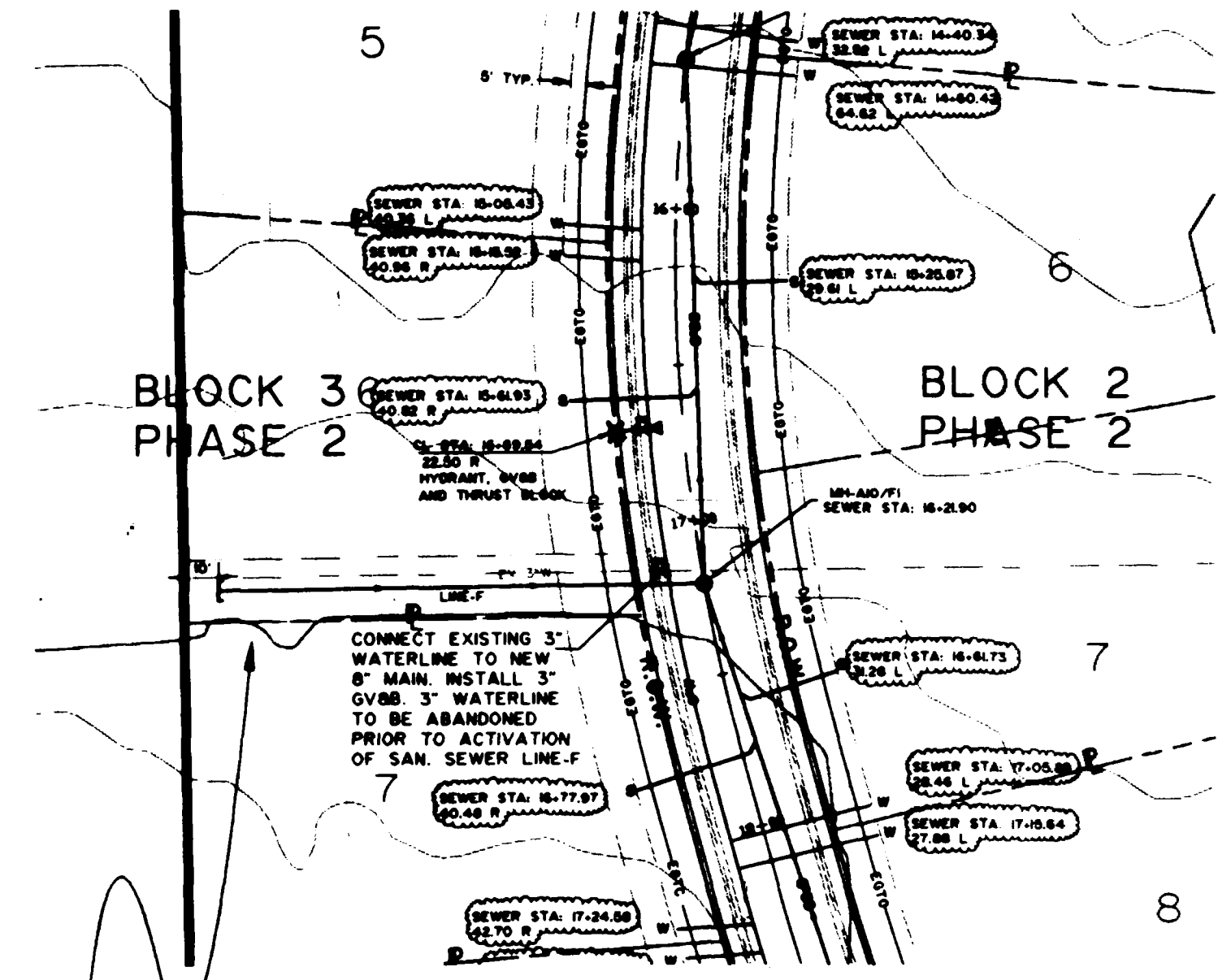
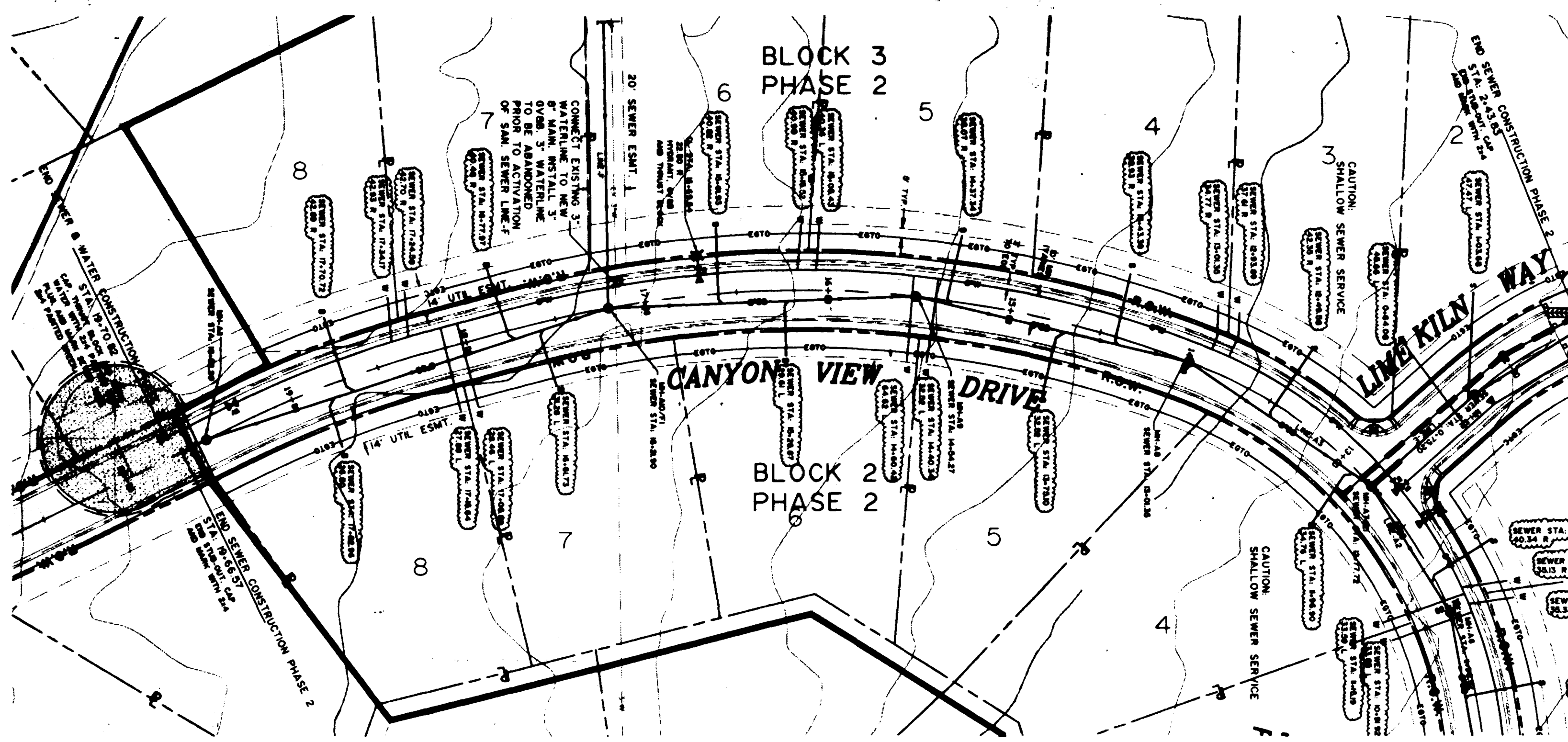
SANITARY SEWER (LINE A2 & LINE E)

SCALE:
 Horiz: 1" = 50'
 Vert: 1" = 5'

Project No:
 0208-002

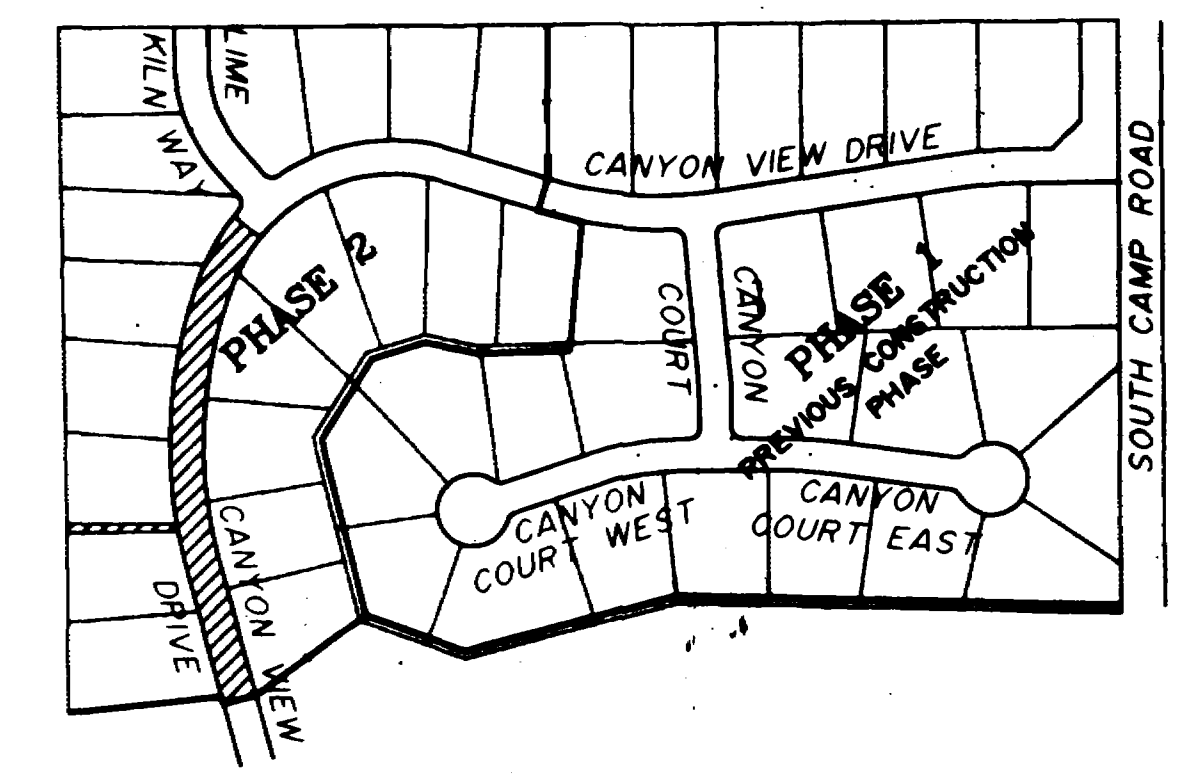
DATE:
 12/1/94

SHEET No:
 9 OF 16



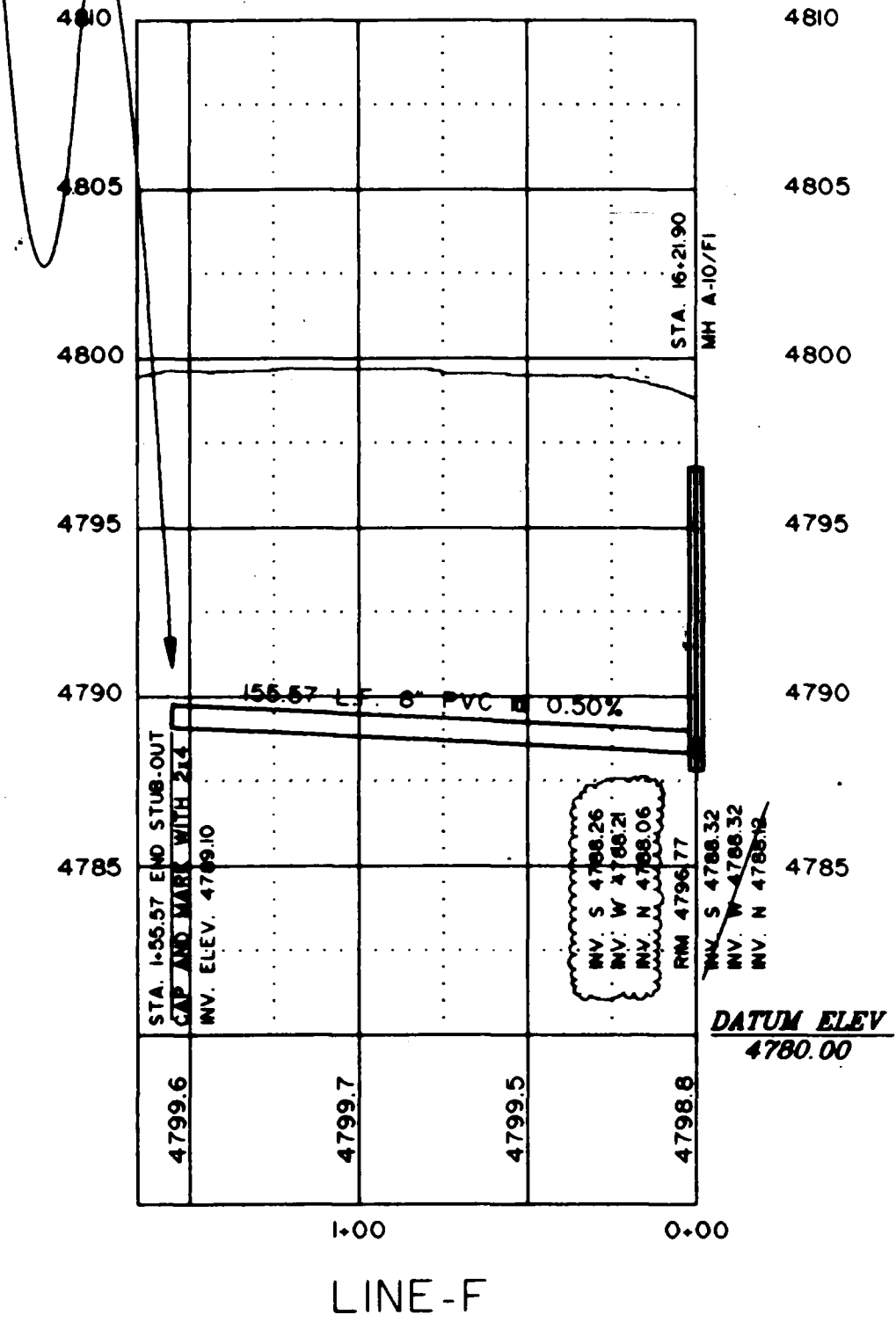
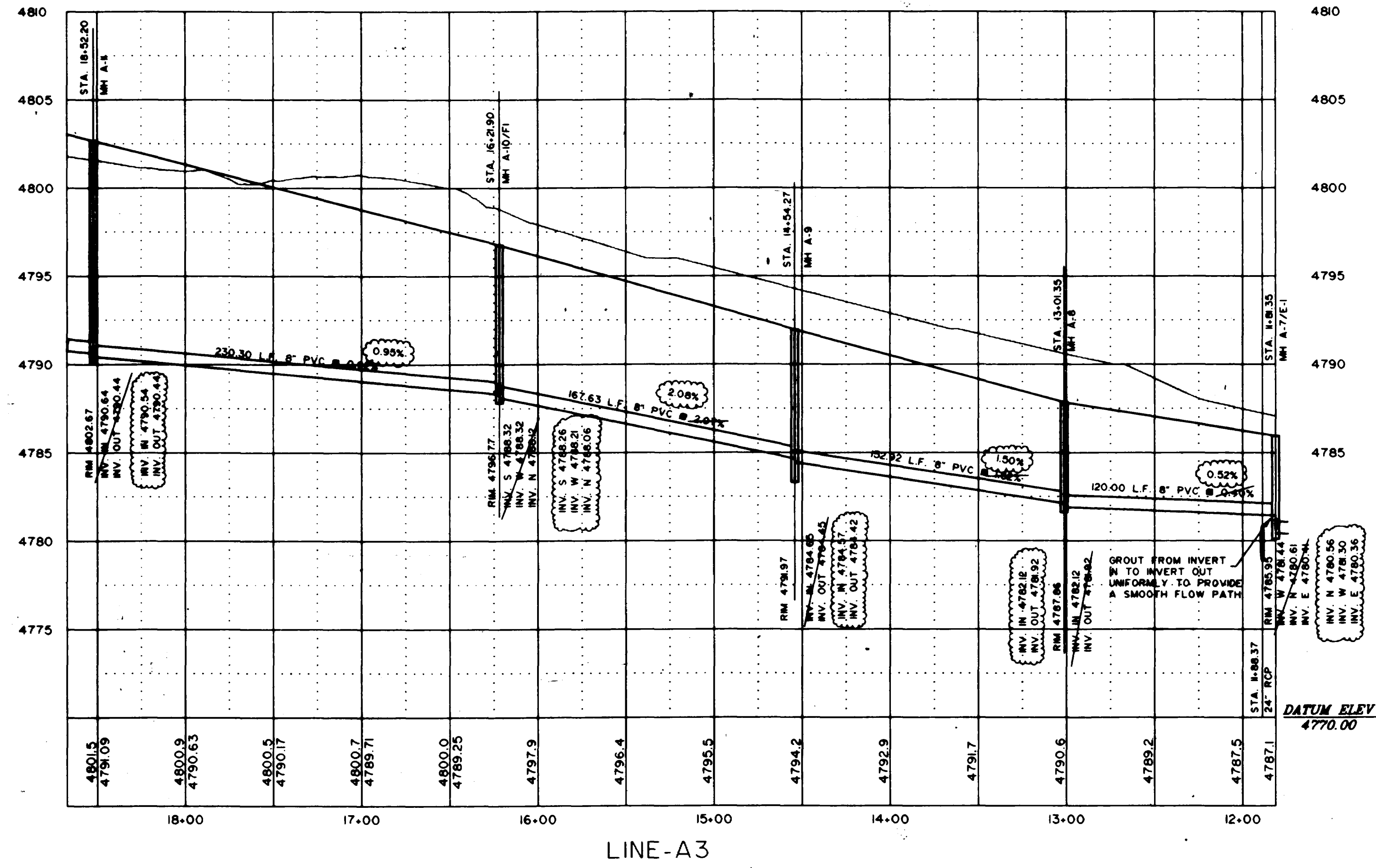
BENCHMARK:
 USGS "BM" 497.53' NORTH OF THE N.E. CORNER
 OF CANYON VIEW, ON WEST SIDE OF SOUTH
 CAMP ROAD. ELEVATION 4777.00

 NOTE:
 SERVICE LINE ASBUILT LOCATIONS SHOWN HEREON
 ARE BASED UPON SANITARY SEWERLINE STATIONING,
 NOT ROAD CENTERLINE STATIONING.



ASBUILT
 5/30/95

NOTE:
 THE END OF THIS LINE IS TO BE LEFT UNCOVERED
 UNTIL FINAL LAMPING AND PRESSURE TESTING HAS
 BEEN COMPLETED AND WITNESSED BY THE ENGINEER
 AND THE CITY OF GRAND JUNCTION. UPON SUCCESSFUL
 COMPLETION OF TESTING LINE IS TO BE MARKED WITH
 A 2X4 POST PAINTED GREEN AND COVERED.



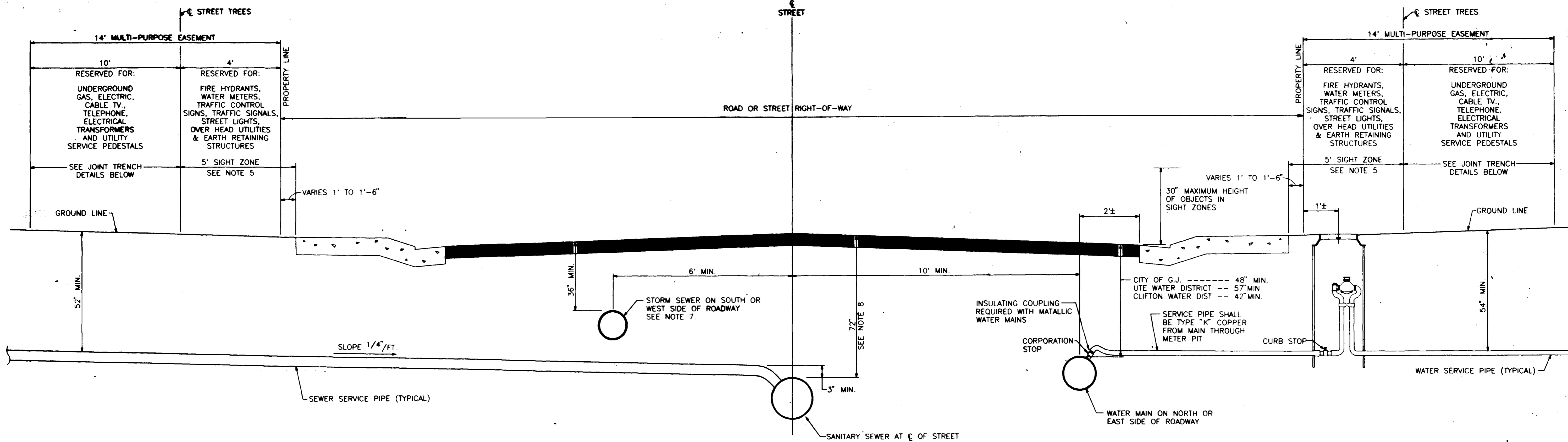
American Consulting
 Engineers Council
 Member

THOMPSON-LANGFORD CORP.
 529 25 1/2 RD., SUITE B210
 GRAND JUNCTION, COLORADO
 PH. (303) 243-6067

REVISION	DATE	DESCRIPTION	BY	CHKD
1	3/27/95	REVISE STORM & SANITARY SEWER TO AVOID CONFLICT	MWT	JEL
3	5/30/95	REVISE TO ASBUILT CONDITIONS	MWT	JEL

THOMAS & SUN ENERGY EFFICIENT HOMES	CANYON VIEW PHASE II	SCALE: Horiz: 1" = 50' Vert: 1" = 5'	Project No: 0208-002
SANITARY SEWER (LINE A3 & LINE F)		DATE: 12/1/94	SHEET NO: 10 OF 16

DRAWN BY: MWT	REVIEWED DATE: _____ FOR _____
CHECKED BY: JEL	REVIEWED DATE: _____



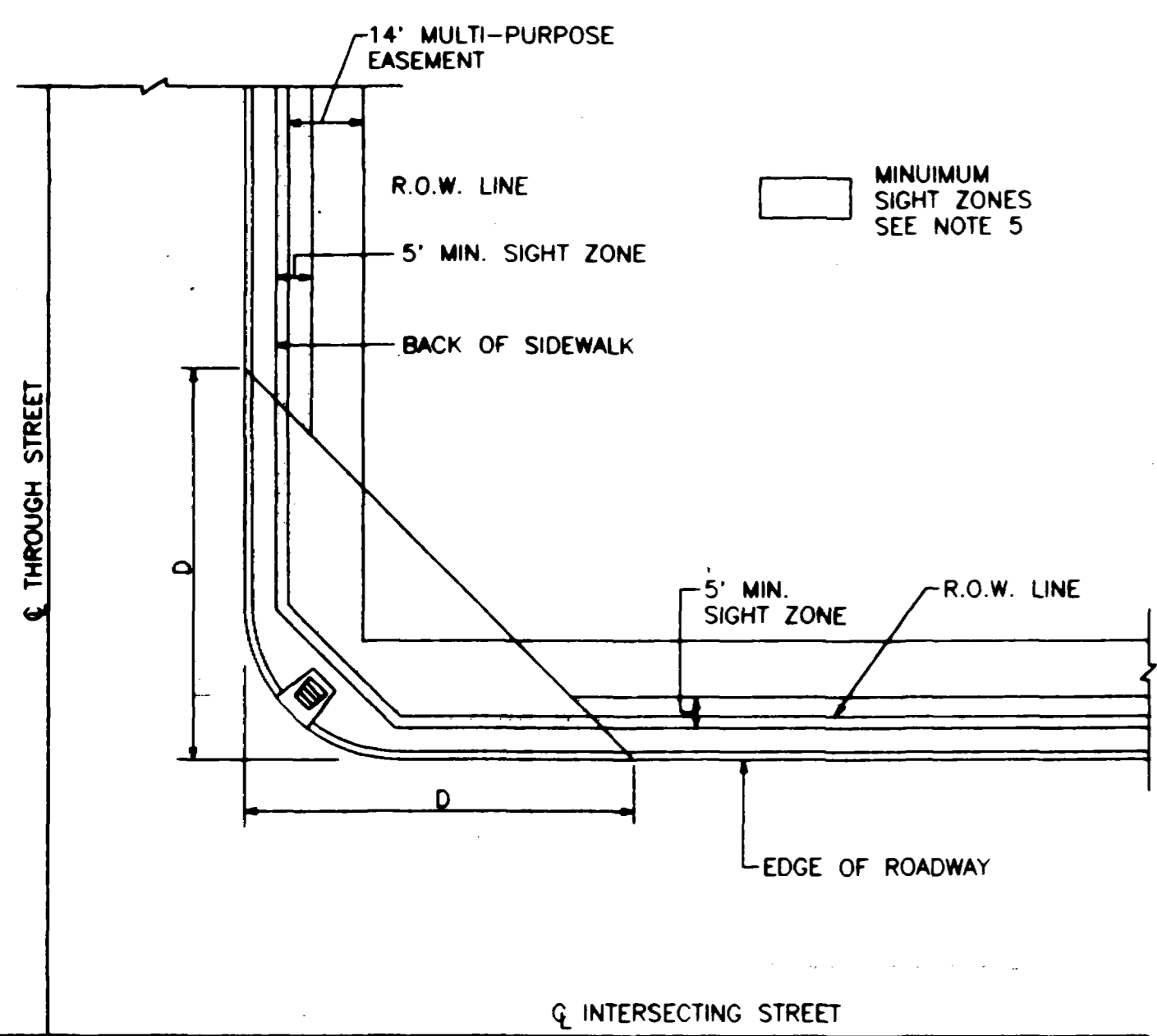
TYPICAL STREET SECTION

NOTES

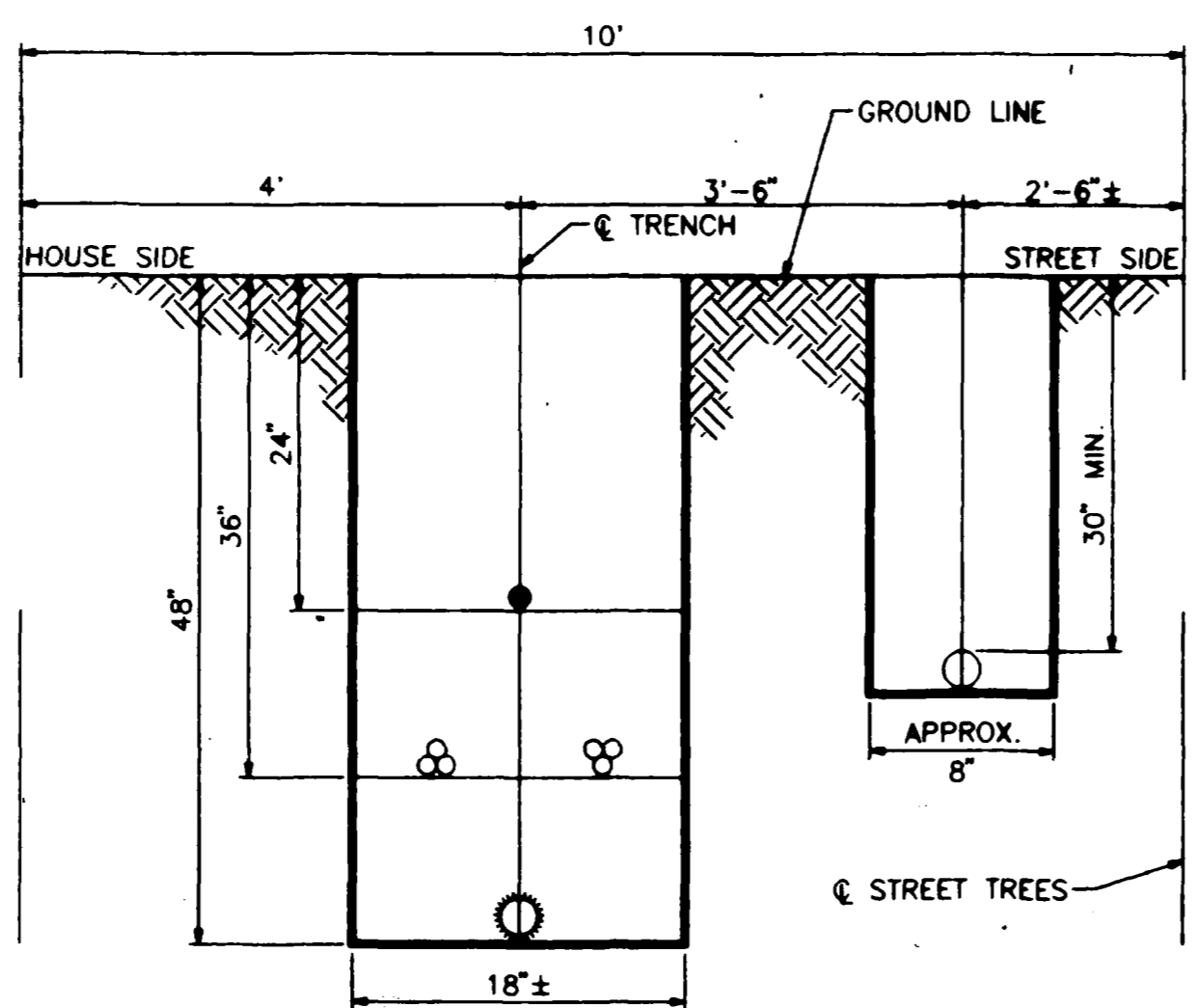
1. A CONTINUOUS MULTI-PURPOSE EASEMENT SHALL BE PROVIDED ON BOTH SIDES OF ALL ROAD RIGHTS-OF-WAY. THIS EASEMENT SHALL BE RESERVED FOR PURPOSES INCLUDING, BUT NOT LIMITED TO INSTALLATION AND MAINTENANCE OF PUBLIC UTILITIES, TRAFFIC CONTROL SIGNS AND SIGNALS, STREETScape, STREET TREES, AND SPRINKLING SYSTEMS, EARTH RETAINING STRUCTURES AND SURFACE SLOPING OR GRADING REQUIRED FOR STREET CONSTRUCTION.
UTILITY COMPANIES AND/OR THE CITY OF GRAND JUNCTION SHALL NOT BE RESPONSIBLE FOR DAMAGE TO PLANTINGS, IRRIGATION SYSTEMS, FENCES OR OTHER APPURTENANCES LOCATED OR CONSTRUCTED WITHIN THE MULTI-PURPOSE EASEMENT WHEN SUCH DAMAGE RESULTS FROM THE INSTALLATION AND/OR REPAIR OF UTILITIES WITHIN SAID MULTI-PURPOSE EASEMENT.
2. IRRIGATION DISTRIBUTION LINES SHALL BE LOCATED IN A SEPARATE EASEMENT LOCATED ON THE HOUSE SIDE OF THE MULTI-PURPOSE EASEMENT, OR AT THE BACK LOT LINE.
3. PROPERTY OWNERS MAY LANDSCAPE THE FULL WIDTH OF THE MULTI-PURPOSE EASEMENTS. SPRINKLING SYSTEMS INSTALLED WITHIN MULTI-PURPOSE EASEMENTS SHALL NOT BE GREATER THAN 18" DEEP.
4. STREET TREES SHALL BE LOCATED 5' FROM THE BACK OF SIDEWALK AND NO LESS THAN 10' FROM ANY DRIVEWAY. NO TREES SHALL BE PLANTED WITHIN THE MULTI-PURPOSE EASEMENT WITHOUT APPROVAL OF THE SPECIES AND LOCATION BY THE CITY PARKS MANAGER.
5. NO TREES, SHRUBS, HEDGES, FENCES, WALLS, OR OTHER OBSTRUCTIONS OVER 30" IN HEIGHT, MEASURED AT THE NEAR EDGE OF ROADWAY, SHALL BE LOCATED WITHIN SIGHT ZONES SHOWN ON THE TYPICAL STREET SECTION AND SIGHT ZONE DETAIL. EXCEPTIONS WILL BE MADE FOR UTILITY POLES, TRAFFIC CONTROL SIGNS AND TRAFFIC SIGNAL POLES. THE LOCATION OF ALL ADVERTISING SIGNS AND SUPPORTING STRUCTURES PLACED WITHIN SIGHT ZONES SHALL BE APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
6. SANITARY SEWER MANHOLES SHALL BE LOCATED AT CENTER LINE OF STREET OR ROADWAY.
7. STORM SEWER MANHOLES SHALL BE LOCATED AT THE CENTER LINE OF TRAFFIC LANE.
8. DUE TO DEPTHS OF EXISTING SEWER LINES, IT MAY NOT BE POSSIBLE TO EXTEND NEW SEWER MAINS AT THE MINIMUM DEPTHS SHOWN ON THE TYPICAL STREET SECTION. WHERE SANITARY SEWER MAIN AND SERVICE LINES ARE INSTALLED AT DEPTHS LESS THAN THE MINIMUM SHOWN, IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER OR PROPERTY OWNER TO ADEQUATELY MARK THE LOCATION AND DEPTH OF THE SERVICE PIPE AND NOTIFY OTHER UTILITY COMPANIES OF THE SHALLOW SEWER SERVICES.
9. ALL FIRE HYDRANTS AND WATER METERS SHALL REMAIN UNOBSTRUCTED AND ACCESSABLE AT ALL TIMES. NO FENCES, PLANTINGS, STRUCTURES OR OTHER OBSTACLE SHALL BE LOCATED WITHIN 3' OF ANY FIRE HYDRANT OR WATER METER. NO FENCES OR OTHER OBSTRUCTION SHALL BE LOCATED ON THE STREET SIDE OF ANY FIRE HYDRANT OR WATERMETER.

LEGEND FOR JOINT TRENCH DETAILS

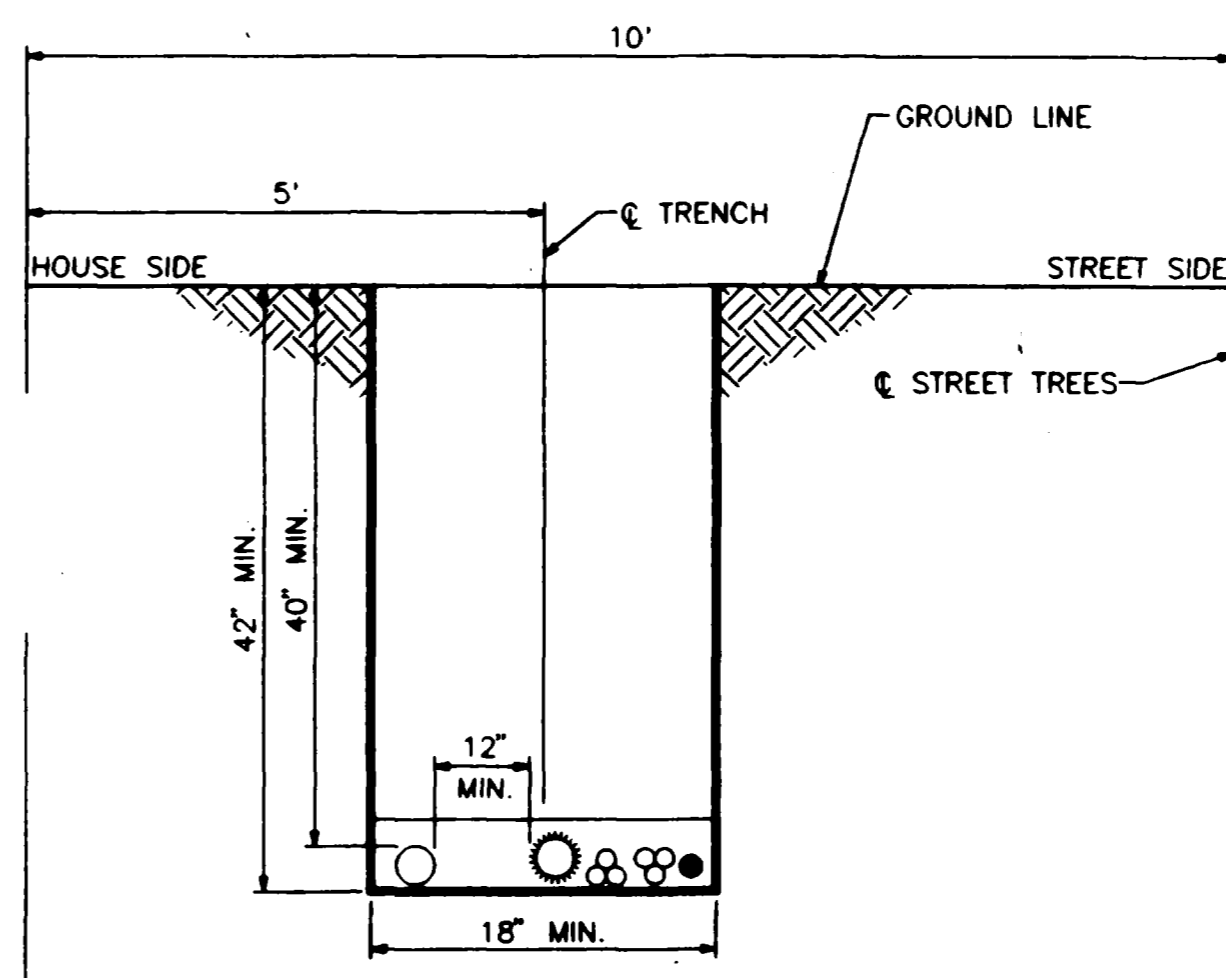
- ELECTRIC PRIMARY
- ELECTRIC SECONDARY
- ELECTRIC SERVICE
- TELEPHONE AND/OR CABLE TV.
- GAS PIPE



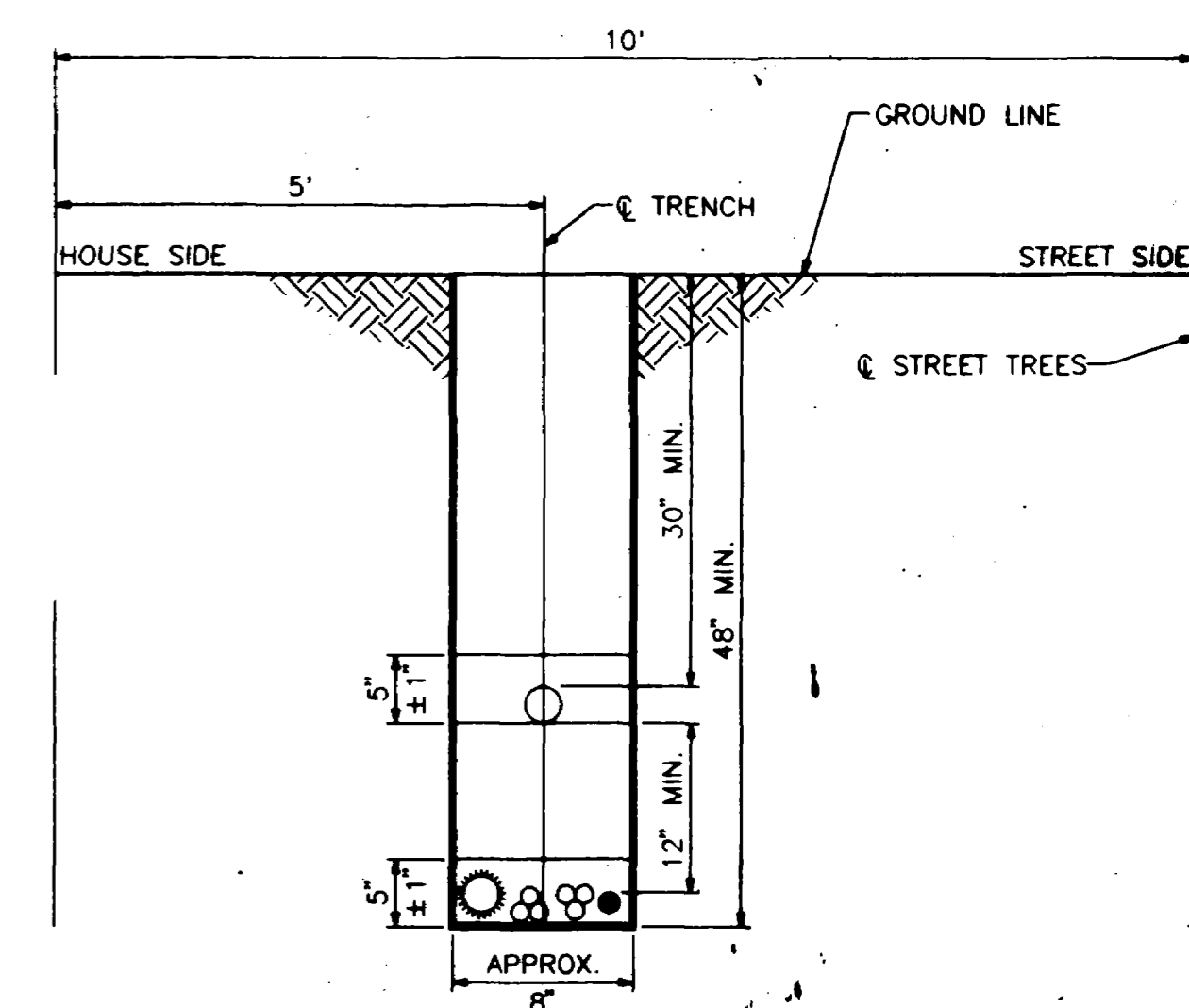
SIGHT ZONE DETAIL



**GRAND VALLEY RURAL POWER LINES
JOINT TRENCH DETAIL**



**PUBLIC SERVICE COMPANY
ALTERNATE JOINT TRENCH DETAIL
HORIZONTAL SEPARATION**



**PUBLIC SERVICE COMPANY
JOINT TRENCH DETAIL
VERTICAL SEPARATION**

DESCRIPTION	DATE
ADOPTED BY CITY COUNCIL RESOLUTION	7/1/92
REVISION BY CITY COUNCIL RESOLUTION	6/15/94
REVISION	
REVISION	

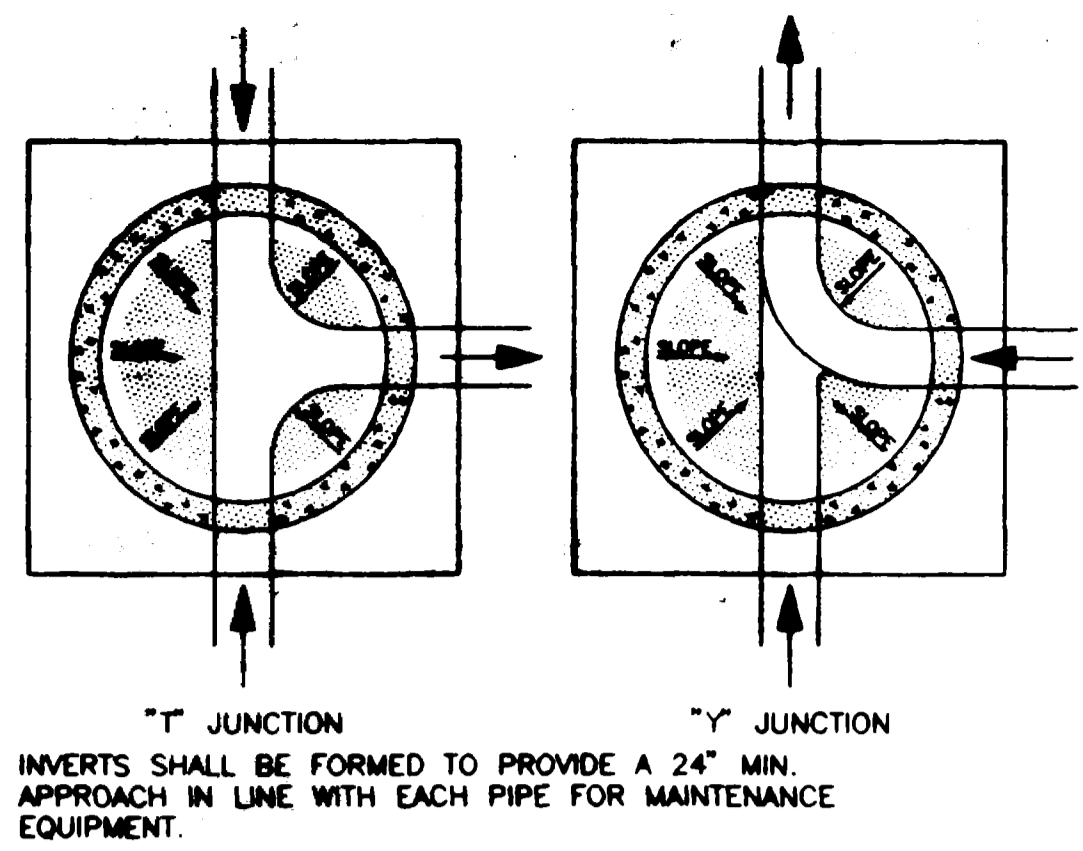
DRAWN BY	N.O.P.	DATE	6/29/92
CHECKED BY	T.A.B.	DATE	6/29/92
APPROVED BY	J.D.N.	DATE	6/29/92
FILED BOOK NO.		PAGE	

SCALE	
PLAN	PROFILE
HORIZ. N.T.S.	HORIZ.
	VERT.

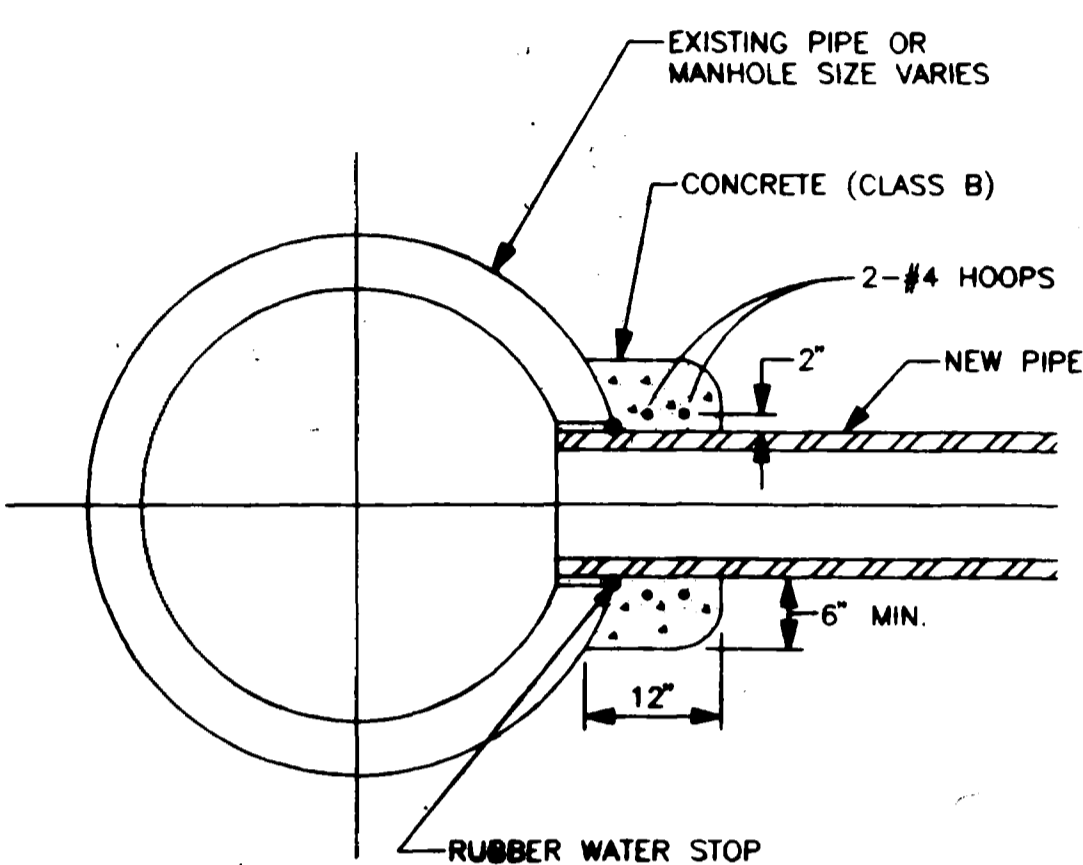
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION 244-1554
CITY OF GRAND JUNCTION, COLORADO

EXHIBIT "C"
STANDARD UTILITIES LOCATIONS AND
MULTI-PURPOSE EASEMENT DETAILS

SHEET NO.	11
OF	16
FILE NO.	EX-C-94.DWG

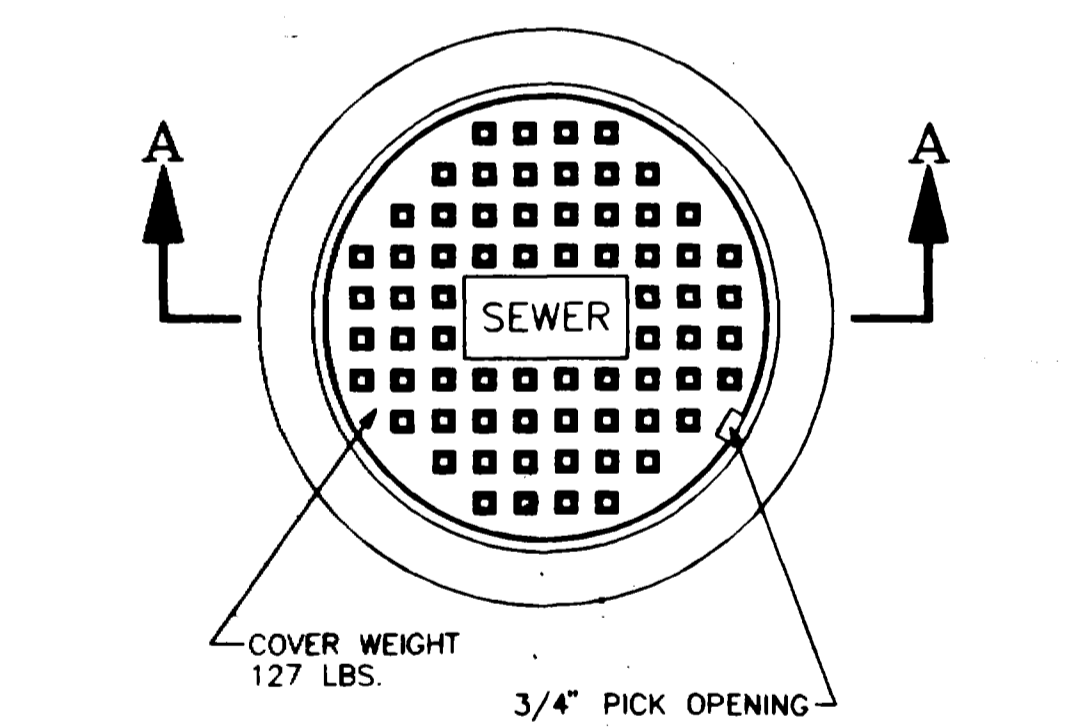


SECTION B-B

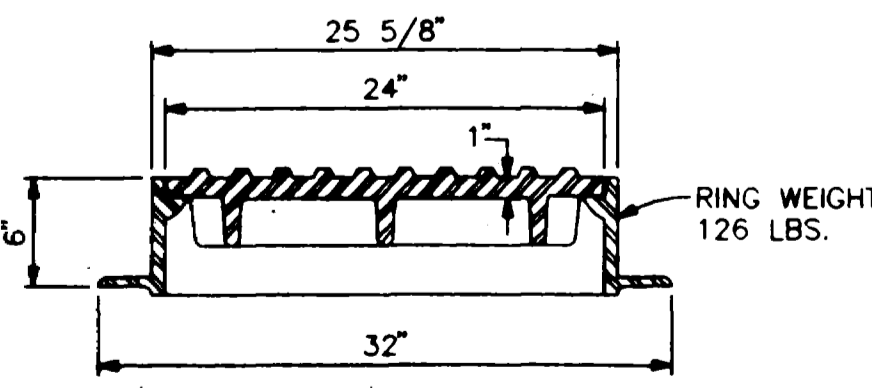


NOTE: IF THE HOLE IN THE EXISTING PIPE OR MANHOLE IS CORED, THE CONNECTION CAN BE MADE BY INSTALLING A FLEXIBLE PIPE TO MANHOLE CONNECTOR ("BOOT") AND THE CONCRETE ENCASEMENT ELIMINATED.

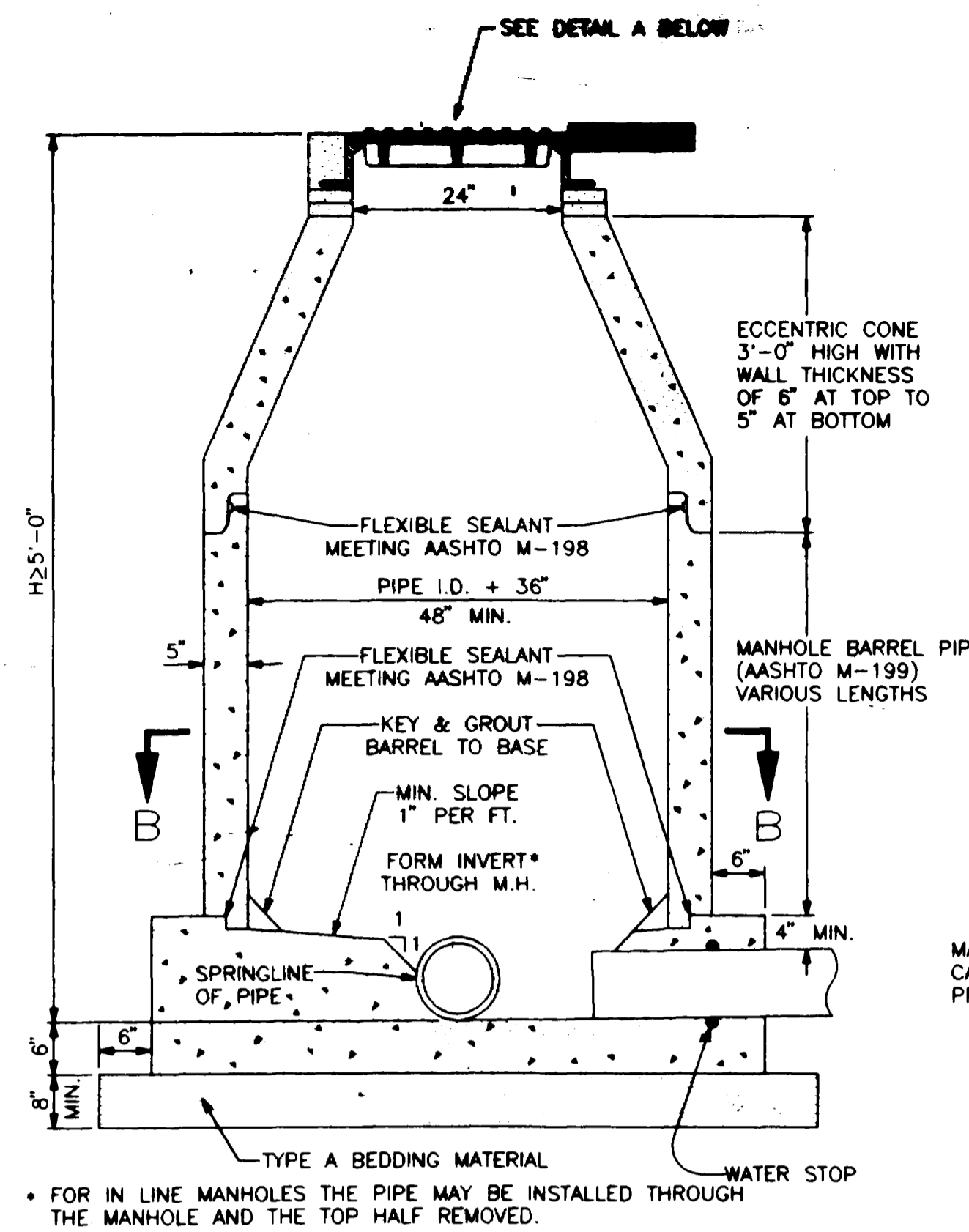
CONNECTION TO EXISTING MANHOLE OR INLET BOX



STANDARD CAST IRON MANHOLE RING & COVER



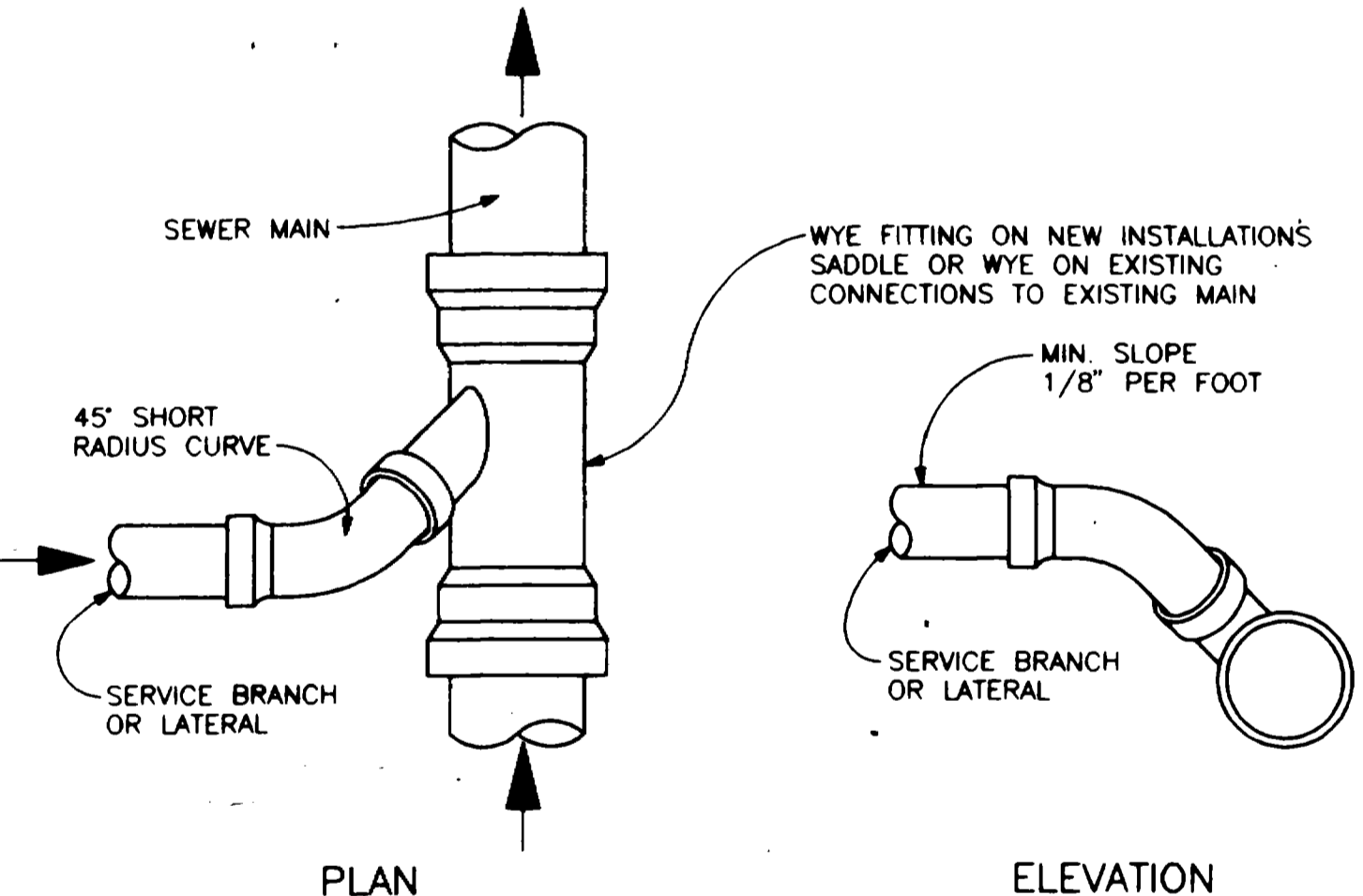
SECTION A-A



STANDARD MANHOLE CAST-IN-PLACE BASE

MANHOLES MAY HAVE CAST-IN-PLACE OR PRECAST BASES

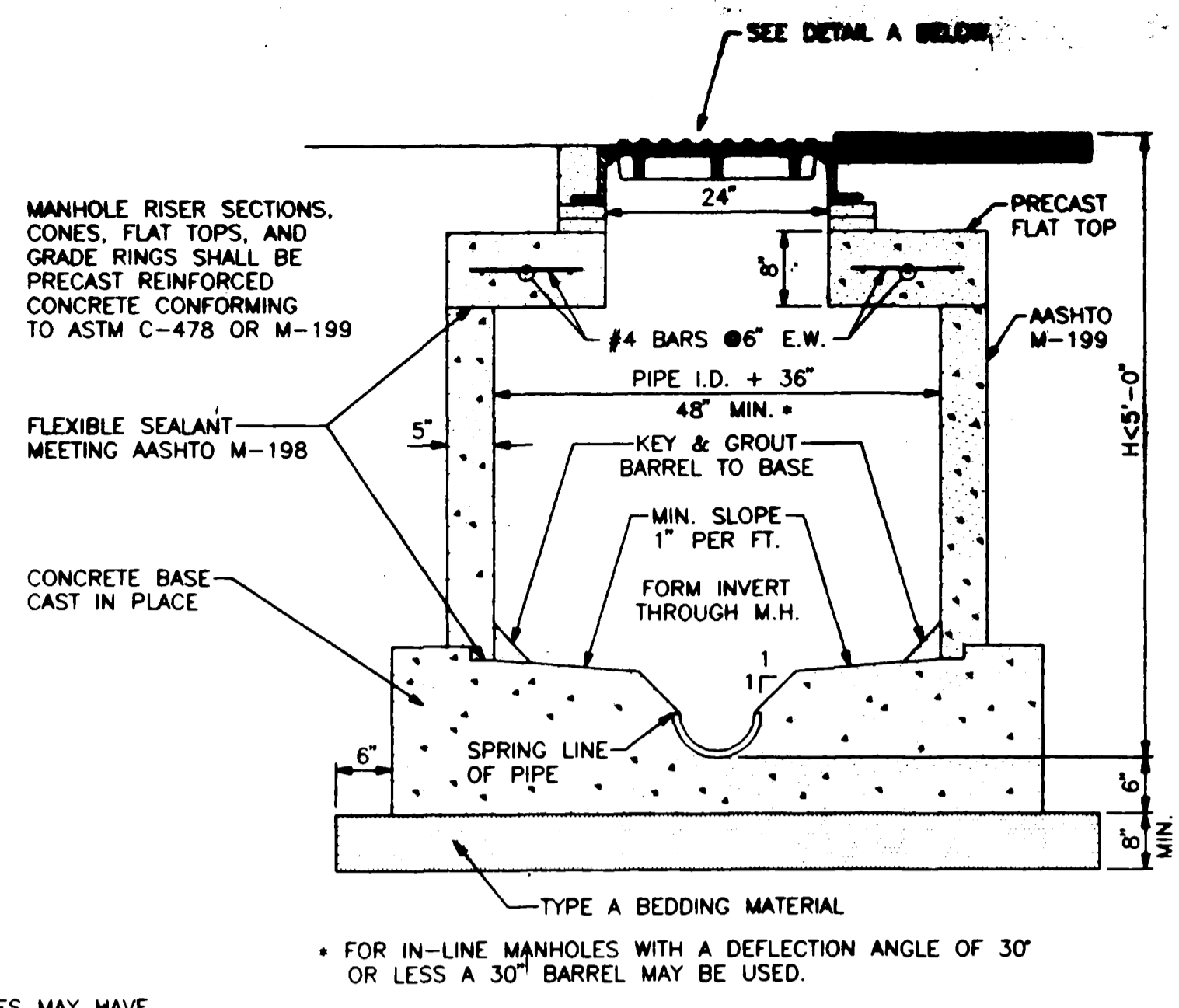
FOR IN-LINE MANHOLES THE PIPE MAY BE INSTALLED THROUGH THE MANHOLE AND THE TOP HALF REMOVED.



TYPICAL SERVICE "Y" CONNECTION

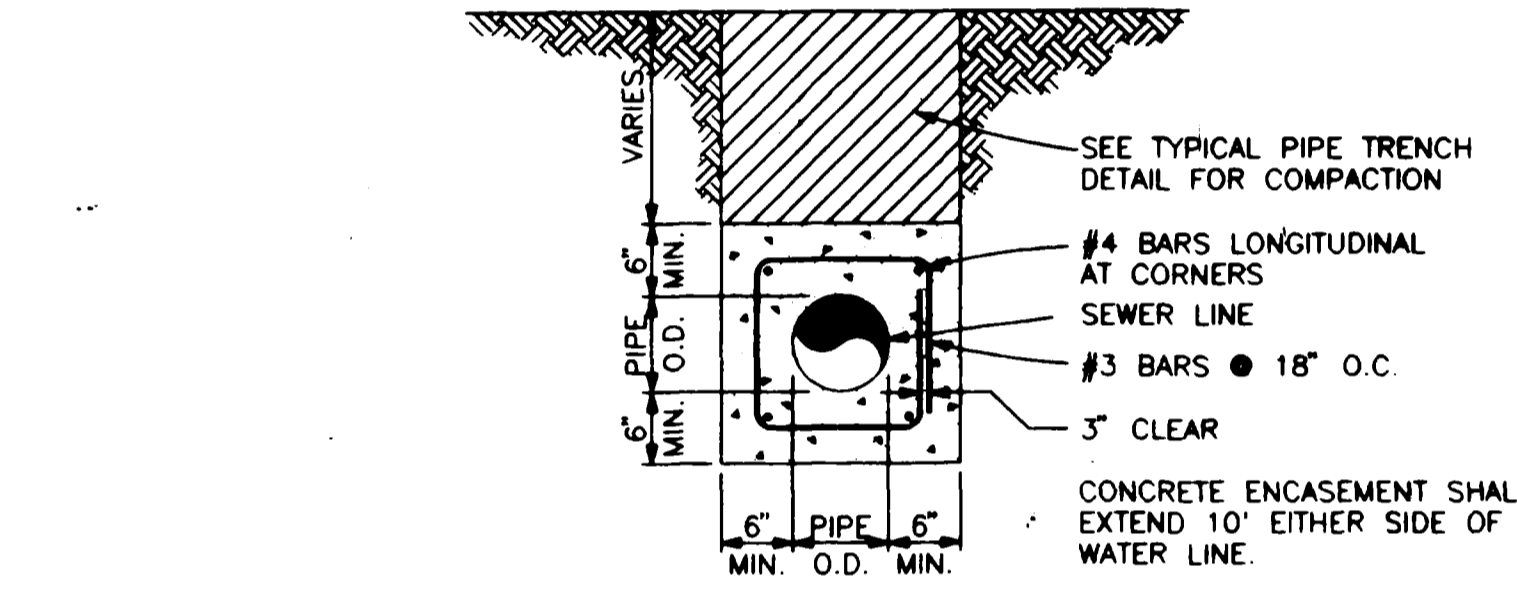
GENERAL NOTES:

1. CONCRETE SHALL BE COLORADO DIVISION OF HIGHWAYS CLASS "B" (SECTION 601.02)
2. ALL CEMENT USED IN MORTAR, CONCRETE BASES, GRADE RINGS, RISER SECTIONS, CONES, AND FLAT TOPS, FOR SANITARY SEWER MANHOLES, SHALL BE TYPE V OR MODIFIED TYPE II PORTLAND CEMENT WITH LESS THAN 5% TRICALCIUM ALUMINATE.
3. MANHOLE RISER SECTIONS, CONES, FLAT TOPS, AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE CONFORMING TO ASTM C-478 OR AASHTO M-199.
4. BACKFILL AROUND MANHOLES AND OTHER STRUCTURES SHALL BE PLACED IN 8" MAX. LIFTS AND COMPACTED TO 95% AASHTO T-99.
5. ALL WORK SHALL BE IN ACCORDANCE WITH APPROVED PLANS AND CITY SPECIFICATION.
6. MANHOLE CONE AND FLAT TOP SECTIONS SHALL BE POSITIONED SUCH THAT THE MANHOLE RING AND COVER IS CENTERED 1' LEFT OR RIGHT OF THE UPSTREAM FLOW LINE.
7. IF THE MANHOLE SECTIONS ARE FURNISHED WITH STEPS THEY SHALL BE INSTALLED IN VERTICAL ALIGNMENT WITH THE RING AND COVER.

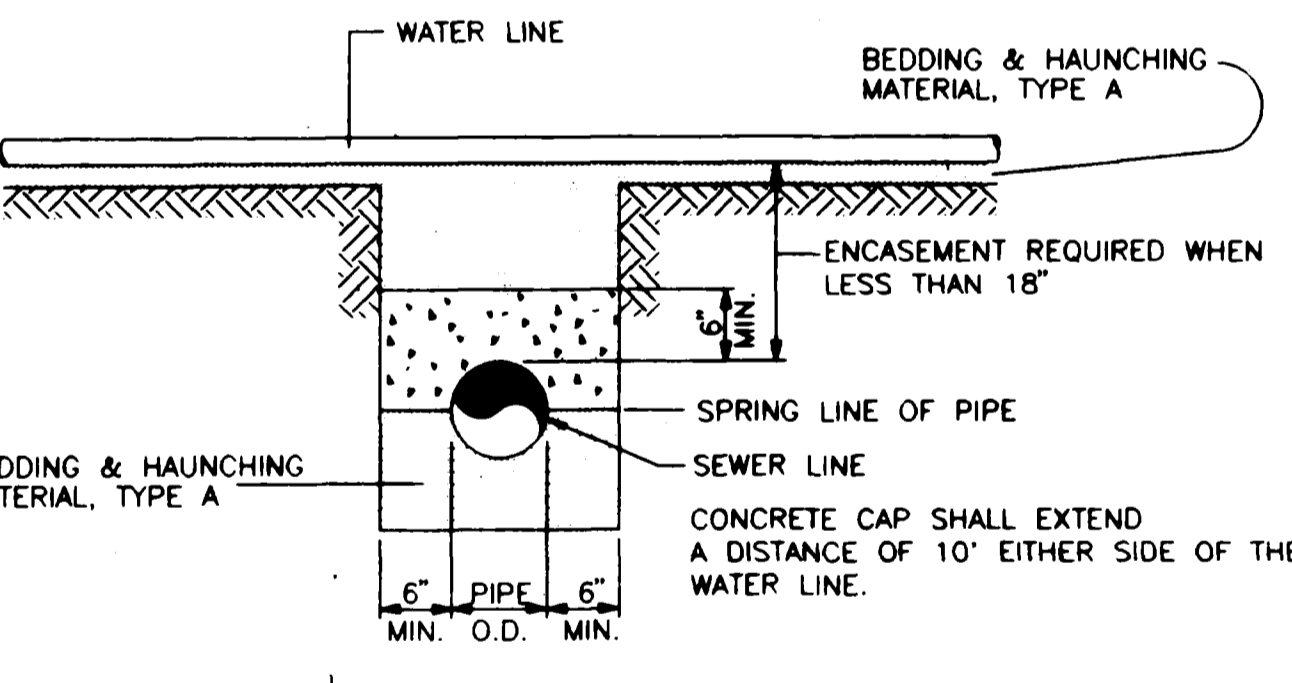


STANDARD SHALLOW MANHOLE CAST-IN-PLACE BASE

FOR IN-LINE MANHOLES WITH A DEFLECTION ANGLE OF 30° OR LESS A 30" BARREL MAY BE USED.

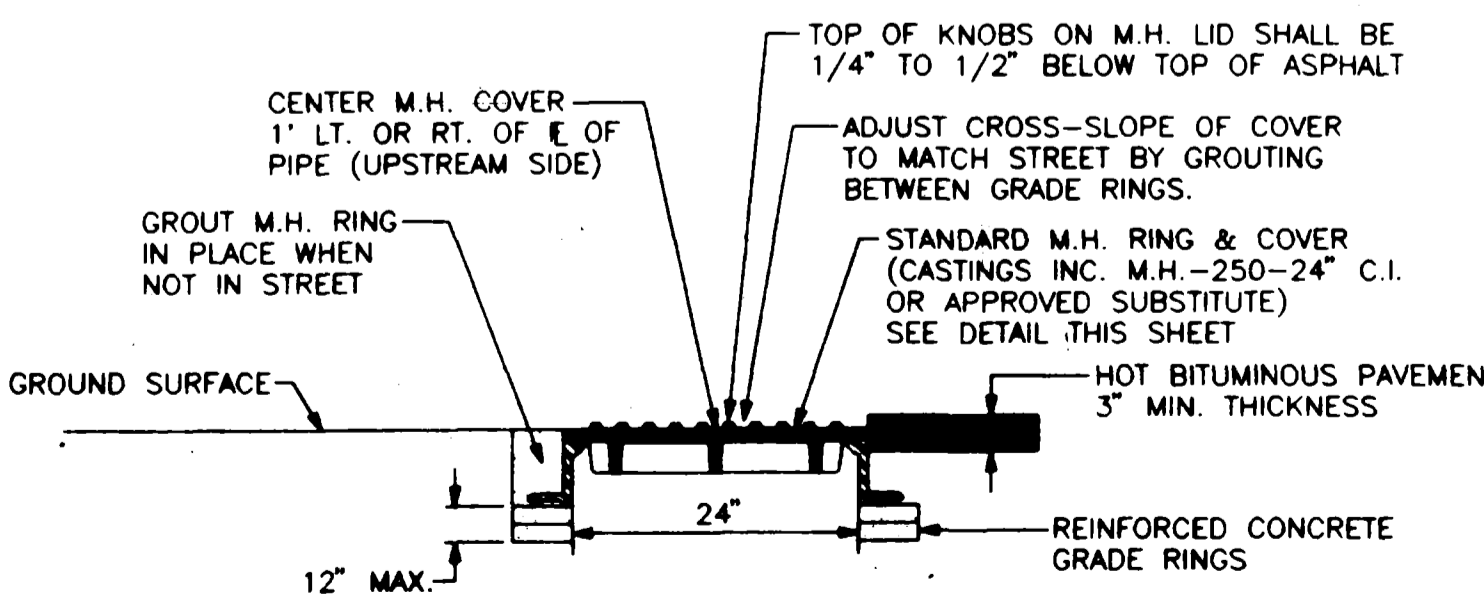


WATER LINE BELOW SEWER LINE

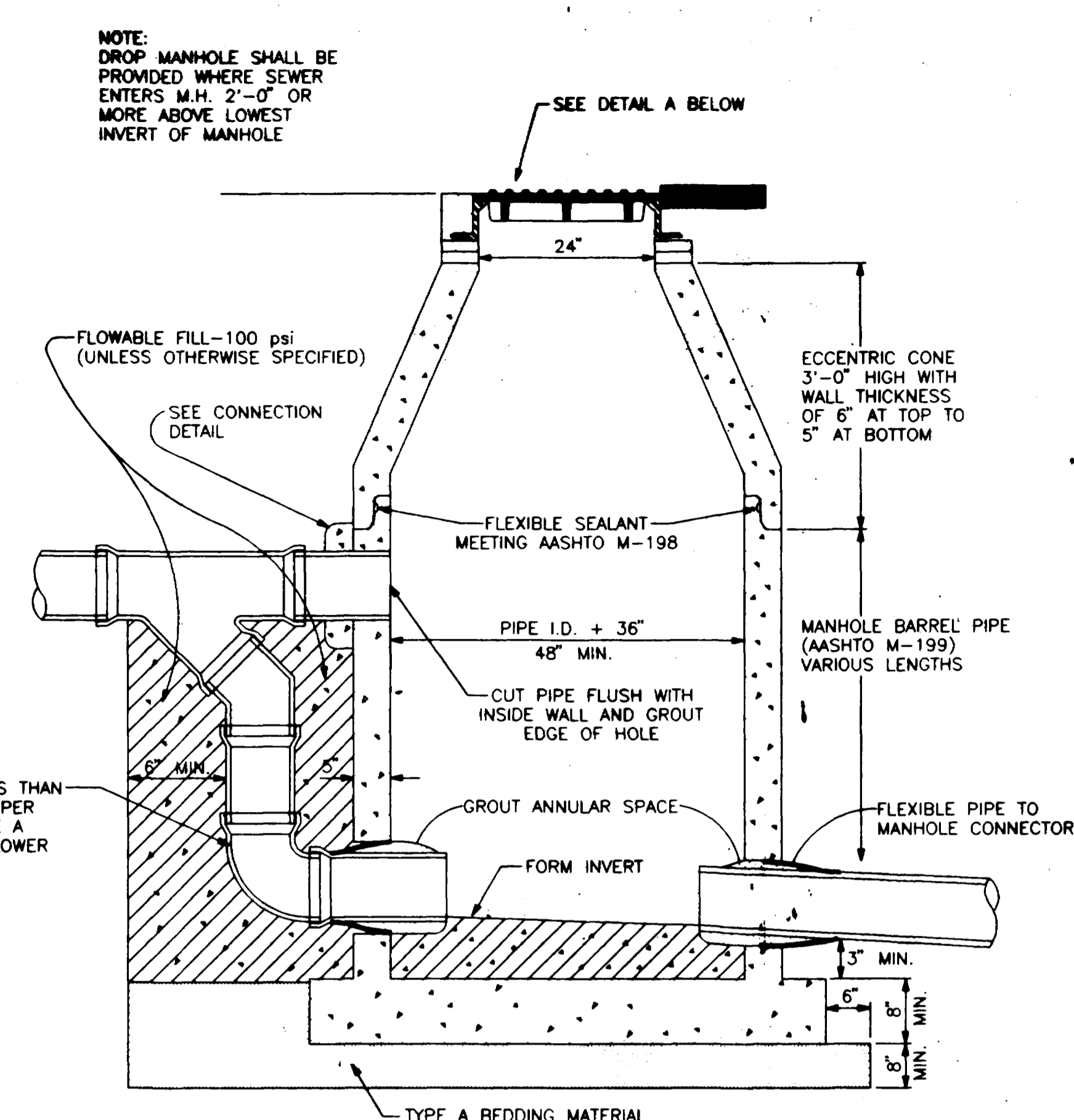


WATER LINE ABOVE SEWER LINE

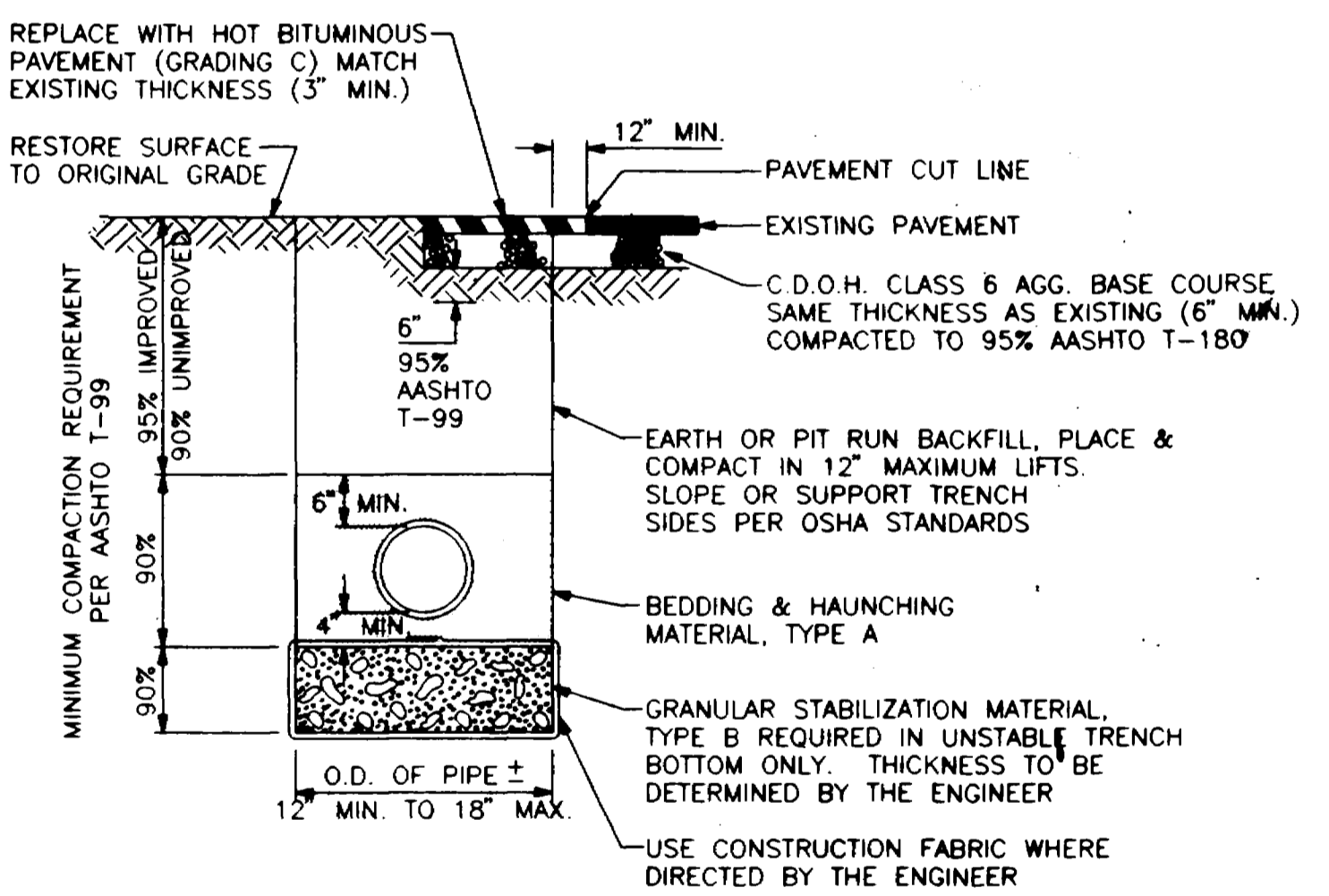
CONCRETE ENCASEMENT DETAILS



DETAIL A



DROP MANHOLE PRECAST BASE



TYPICAL TRENCH DETAIL

SIEVE SIZE	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES		
	PIPE BEDDING & HAUNCHING MATERIAL (TYPE A)	GRANULAR STABILIZATION MATERIAL (SCREENED OR CRUSHED ROCK TYPE B)	PIT RUN AGGREGATE (TO BE USED WHERE SPECIFIED OR DIRECTED BY THE ENGINEER)
8 INCH	---	---	100
2 INCH	---	100	---
1 INCH	100	---	---
NO 4	---	15 MAX	30 MAX
NO 200	20 MAX	---	---

ALL BACKFILL MATERIAL SHALL BE PLACED FULL WIDTH IN 12" MAX. LIFTS AND COMPACTED TO THE MIN. RELATIVE DENSITIES SHOWN

NOTE: NATIVE MATERIAL MAY BE USED IN LIEU OF GRANULAR BEDDING & HAUNCHING MATERIAL IF APPROVED BY THE CITY ENGINEER AND THE NATIVE MATERIAL IS IN COMPLIANCE WITH SIZE REQUIREMENTS FOR "TYPE A".

DESCRIPTION	DATE	DRAWN BY	N.O.P.	DATE	SCALE
APPROVED BY CITY COUNCIL RESOLUTION	7/1/92	---	---	6/27/92	---
REVISION BY CITY COUNCIL RESOLUTION	6/15/94	---	---	6/27/92	---
REVISION	---	---	---	6/27/92	---
REVISION	---	---	---	---	---

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION 244-1554
CITY OF GRAND JUNCTION, COLORADO

EXHIBIT "I"
STANDARD SANITARY SEWER DETAILS

SHEET NO. 14
OF 16
FILE NO. EX-1-94.DWG