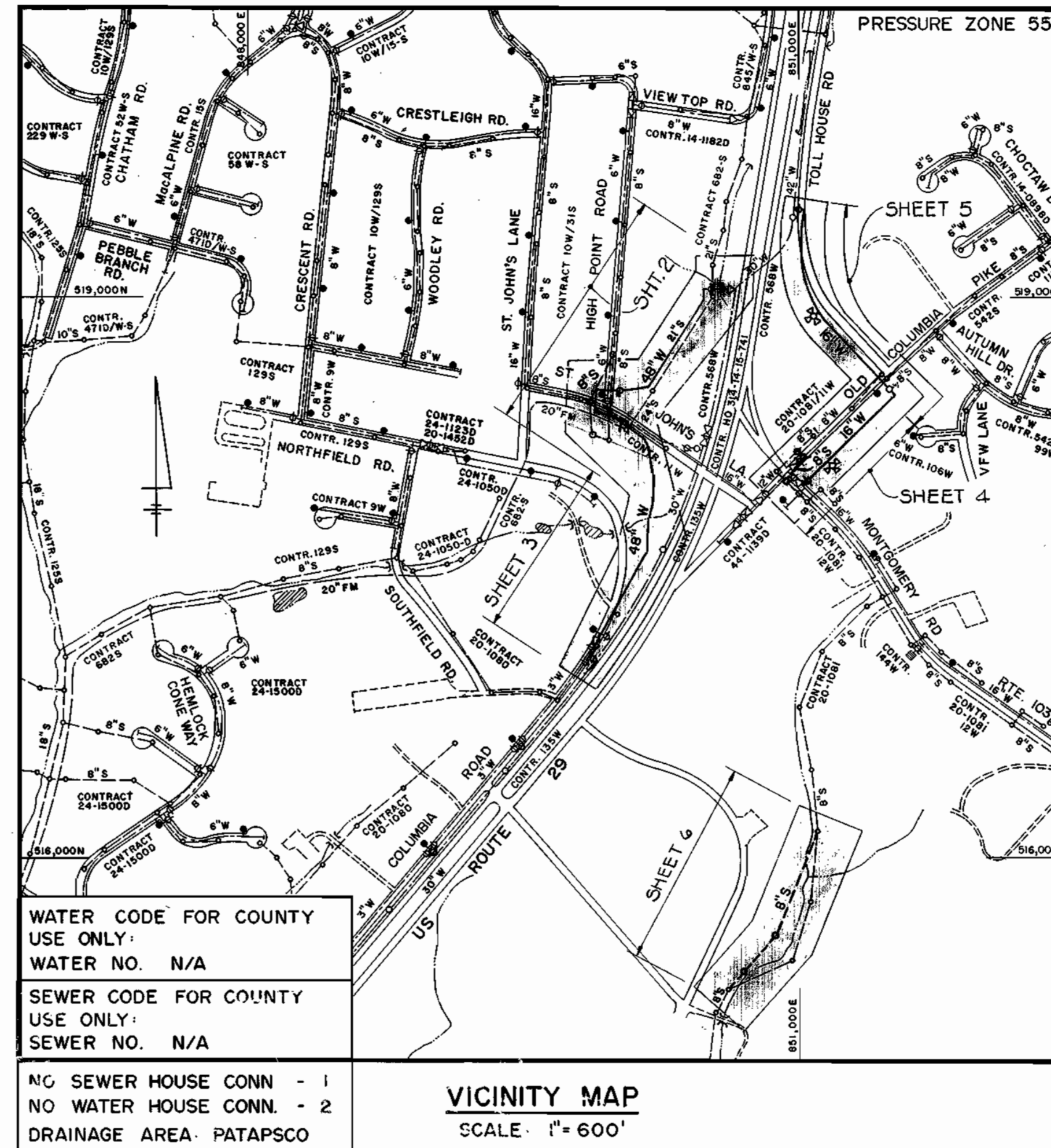


HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

1. APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES 850-4620
 - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 859-9004
 - BALTIMORE GAS & ELECTRIC CO. - TROUBLE SHOOTING - 298-9001
 - MISS UTILITY - 1-800-257-7777
 - COLONIAL PIPELINE CO. - 795-1390
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366
9. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
11. ALL 6", 16", & 30" WATER MAINS TO BE DIP CLASS 52, 48" WATER MAINS TO BE DIP CLASS 52 UNLESS OTHERWISE NOTED.
12. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
13. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
14. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
15. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1003 OF THE STANDARD SPECIFICATIONS.
16. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
17. ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., OR P.V.C. UNLESS OTHERWISE NOTED.
18. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'0" OF EXTERIOR MANHOLE WALL.
19. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
20. FORCE MAINS SHALL BE D.I.P. ONLY.
21. MANHOLES SHOWN WITH 12" AND 16" WALLS FOR BRICK MANHOLES ONLY.
22. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL 65.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
23. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.



SHEET NO.	TITLE
1.	TITLE SHEET, VICINITY MAP, GENERAL NOTES AND INDEX OF SHEETS
2.	PLAN OF WATER MAIN AND SEWER MAIN PROFILE OF WATER MAIN
3.	PLAN AND PROFILE OF WATER MAIN
4.	PLAN OF WATER MAIN AND SEWER MAIN PROFILE OF WATER MAIN AND SEWER MAINS
5.	PLAN AND PROFILE OF WATER MAIN
6.	PLAN AND PROFILE OF SEWER MAIN
7.	MISCELLANEOUS DETAILS
8.	MISCELLANEOUS DETAILS

ENGINEER'S CERTIFICATION

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Thomas W. Dell Date: 12/21/88

BEAVIN COMPANY
2300 N. CHARLES STREET
BALTIMORE, MARYLAND 21218

U.S. ROUTE 29 / MD. ROUTE 103 WATER AND SEWER RELOCATIONS

B-1 DENOTES LOCATION OF SOIL BORING

CAPITAL PROJECT - W - 8155

CONTRACT NO. 14 - 1821

STATE HIGHWAY ADMINISTRATION CONTRACT HO-629-501-770

ELECTION DISTRICT NO. 2

ITEM	WATER QUANTITIES		TYPE MATERIAL	SUPPLIERS
	ESTIMATE	AS BUILT		
6" WATER	19 L.F.	10 L.F.	DIP	US PIPE CO.
16" WATER	1,738 L.F.	1765 L.F.	DIP	US PIPE CO.
30" WATER	35 L.F.	63 L.F.	DIP	US PIPE CO.
48" WATER	2,163 L.F.	2,141 L.F.	DIP	US PIPE CO.
48" WATER (CL 54)	514 L.F.	560	DIP	US PIPE CO.
48" BUTTERFLY VALVE	2 EA.	2 EA.	CAST IRON	MUELLER CO.
16" RSGV	2 EA.	2 EA.	CAST IRON	MUELLER CO.
12" RSGV	2 EA.	2 EA.	CAST IRON	MUELLER CO.

ITEM	SEWER QUANTITIES		TYPE MATERIAL	SUPPLIERS
	ESTIMATE	AS BUILT		
8" SEWER	1,566 L.F.	1,262 L.F.	505 L.F. DIP 660 L.F. PVC	US PIPE CO. J.M. MANUFACTURING
MANHOLES	9 EA.	6 EA.	PRE-CAST CONC.	ATLANTIC CONCRETE
MANHOLES OVER 9.0'	31 V.F.	34.05 L.F.	PRE-CAST CONC.	ATLANTIC CONCRETE

S.H.A. DRAWING NO. 270 OF 345
S.H.A. CONTRACT HO-629-501-770

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE: 12-27-88
Michael A. ...

CHIEF, BUREAU OF ENGINEERING DATE: 12-27-88
...

CHIEF, BUREAU OF UTILITIES DATE: 12-27-88
...

BEAVIN COMPANY
CONSULTING ENGINEERS
BALTIMORE, MARYLAND



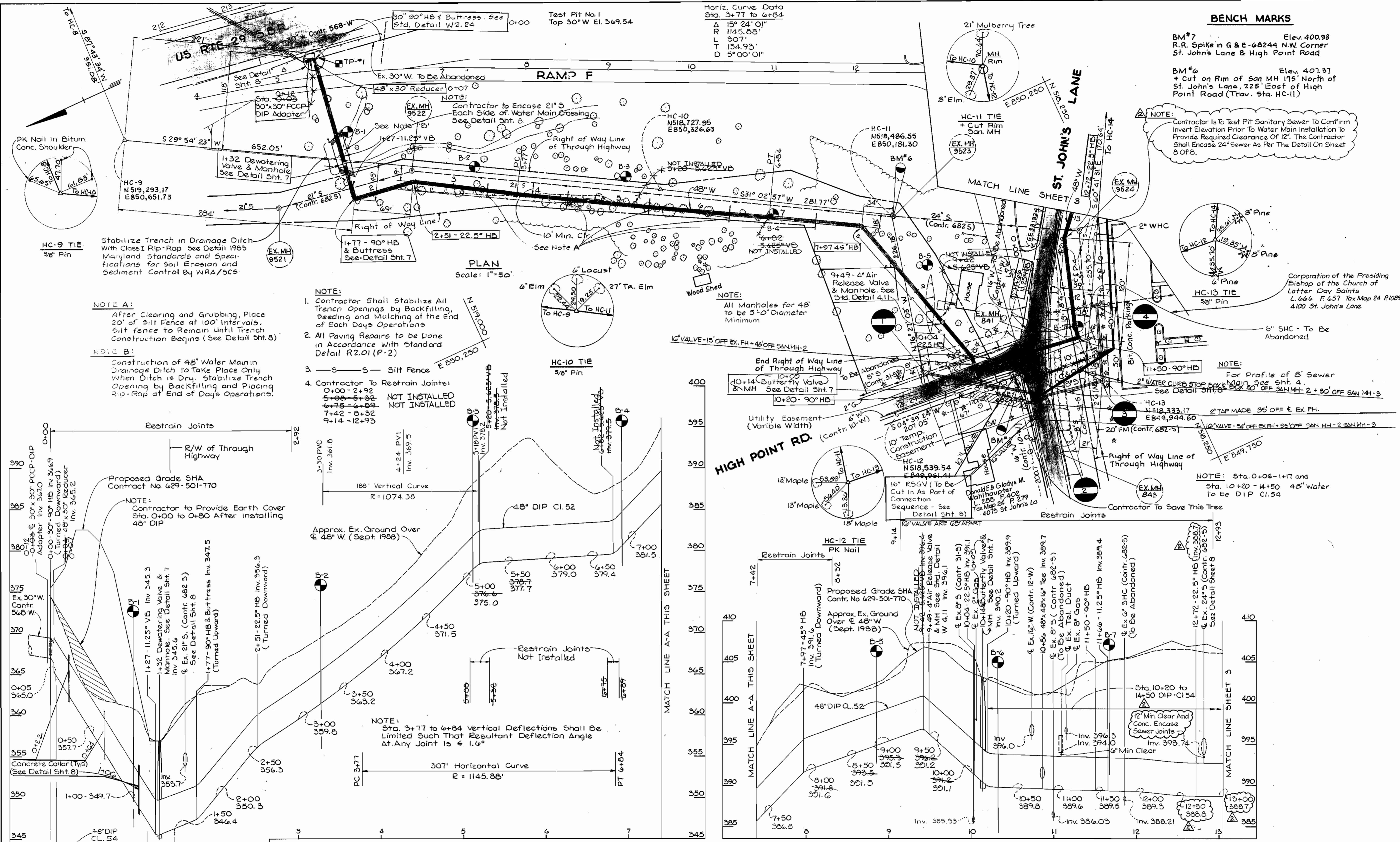
DES: JDO				
DRN: CDT				
CHK: TND				
DATE: 12-20-88	BY	NO.	REVISION	DATE

TITLE SHEET, VICINITY MAP,
GENERAL NOTES
AND INDEX OF SHEETS

ROUTE 29/ROUTE 103 WATER & SEWER RELOCATIONS
CAPITAL PROJECT W-8155
CONTRACT NO. 14-1821
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 2

AS-BUILT - 8-25-92



BENCH MARKS

BM#7 Elev. 400.93
R.R. Spike in G & E-62244 N.W. Corner
St. John's Lane & High Point Road

BM#6 Elev. 401.37
Cut on Rim of San MH 175' North of
St. John's Lane, 225' East of High
Point Road (Trav. Sta. HC-11)

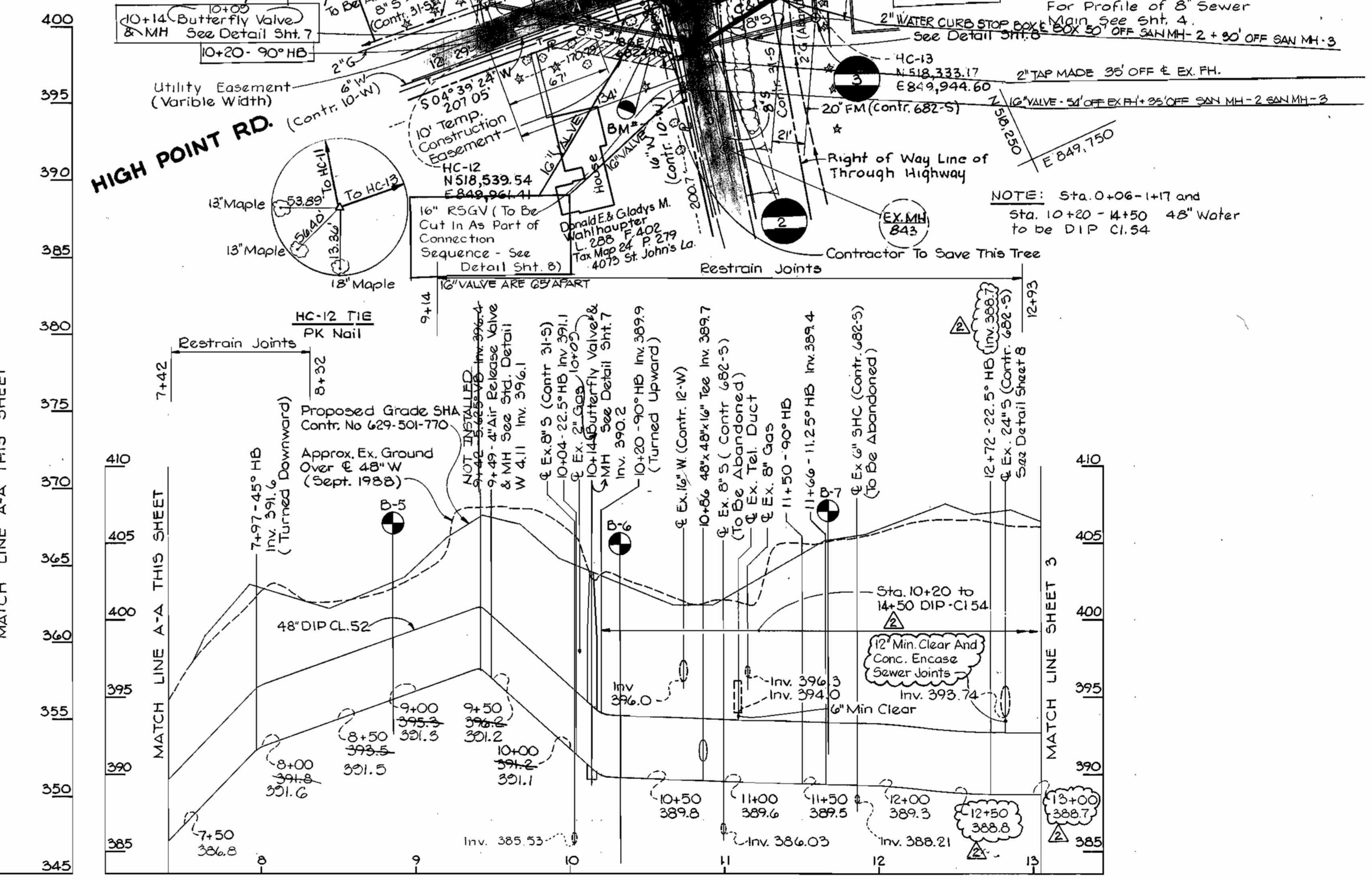
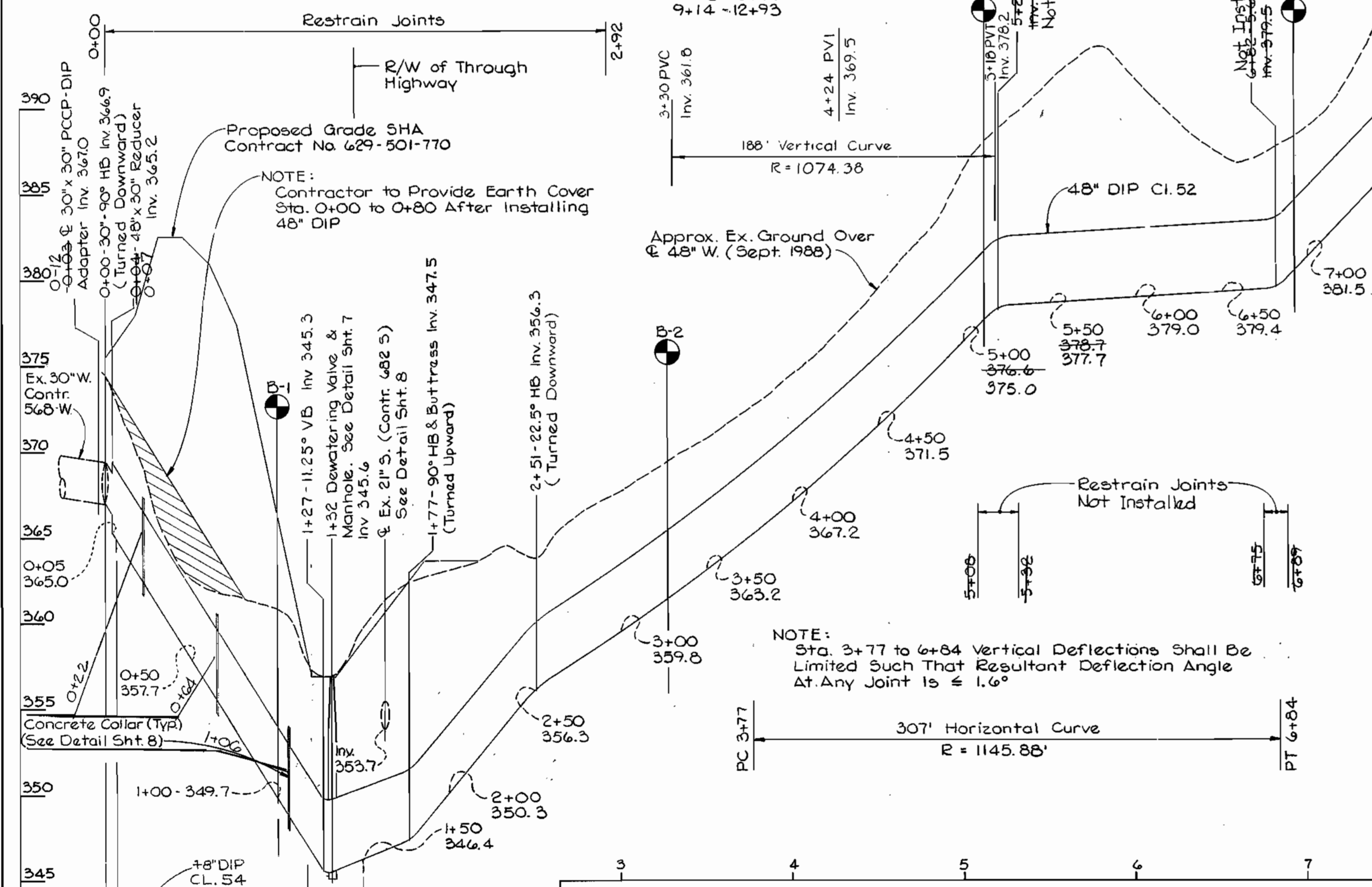
NOTE: Contractor is to Test Pit Sanitary Sewer To Confirm Invert Elevation Prior to Water Main Installation to Provide Required Clearance of 12". The Contractor Shall Encase 24" Sewer As Per The Detail On Sheet 6 OF 8.

NOTE: For Profile of 8" Sewer Main See Sht. 4.
NOTE: 2" TAP MADE 36' OFF & EX. FH.
NOTE: Sta. 10+06 - 11+17 and Sta. 10+20 - 14+50 48" Water to be DIP CL. 54

NOTE A:
After Clearing and Grubbing, Place 20' of Silt Fence at 100' Intervals. Silt Fence to Remain Until Trench Construction Begins (See Detail Sht. 8)

NOTE B:
Construction of 48" Water Main in Drainage Ditch to Take Place Only When Ditch is Dry. Stabilize Trench Opening by Backfilling and Placing Rip-Rap at End of Days Operations.

- NOTE:
- Contractor Shall Stabilize All Trench Openings by Backfilling, Seeding and Mulching at the End of Each Days Operations
 - All Paving Repairs to be Done in Accordance With Standard Detail R2.01 (P-2)
 - 5-5-5 Silt Fence
 - Contractor To Restrain Joints:
0+00 - 2+92
5+00 - 5+32
6+75 - 6+89
7+42 - 8+32
9+14 - 12+93



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *Michael A. Minnelli* 12-27-88
Chief, Bureau of Utilities

Chief, Bureau of Engineering: *John J. ...* 12-27-88
Chief, Utility Division

BEAVIN COMPANY
CONSULTING ENGINEERS
BALTIMORE, MARYLAND

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER

DES: JDO	TJM	(ADDENDUM) Test Pit Note	7/1/91
DRN: CDT	TJM	(ADDENDUM) Increase Minimum Clearance To 12"	7/1/91
CHK: TND			
DATE: 12-20-88	BY: NO.	REVISION	DATE

PLAN OF WATER MAIN AND SEWER MAIN
PROFILE OF WATER MAIN

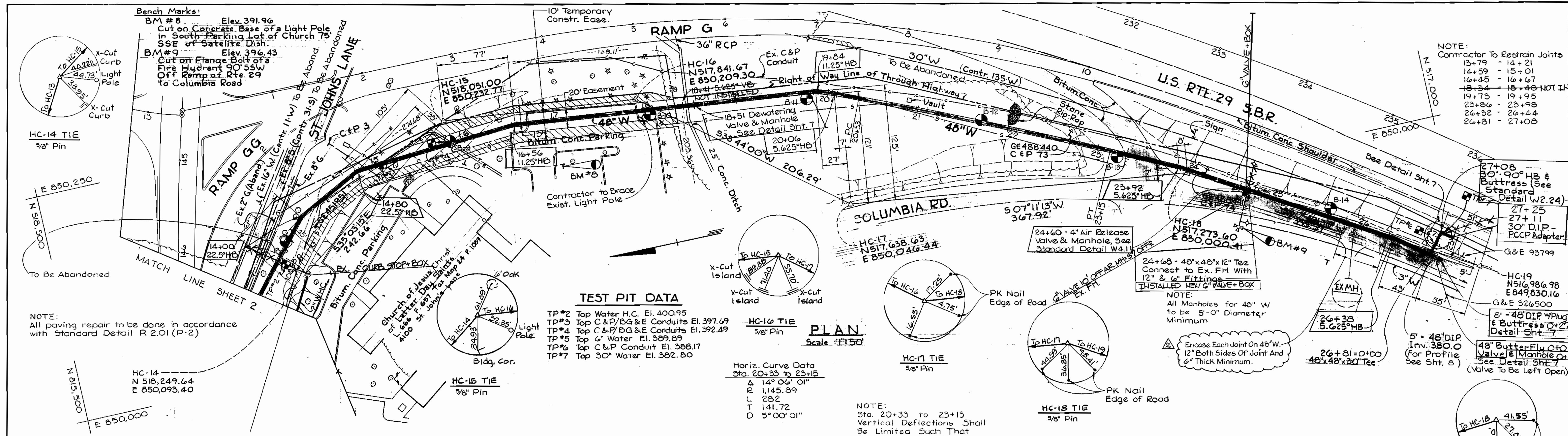
600' SCALE MAP NO. 24 BLOCK NO. 17 & 23

S.H.A. DRAWING NO. 271 OF 345
S.H.A. CONTRACT HO-629-501-770

ROUTE 29/ROUTE 103 WATER & SEWER RELOCATIONS
CAPITAL PROJECT W-8155
CONTRACT NO. 14-1821
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 8

8-25-92



TEST PIT DATA

- TP#2 Top Water H.C. El. 400.95
- TP#3 Top C & P/DG & E Conduits El. 397.69
- TP#4 Top C & P/DG & E Conduits El. 392.49
- TP#5 Top 4\"/>

Horiz. Curve Data
Sta. 20+33 to 23+15

A	14° 06' 01"
B	1,145.39
L	282
T	141.72
O	5° 00' 01"

PLAN
Scale: 1"=50'

NOTE:
Sta. 20+33 to 23+15
Vertical Deflections Shall
Be Limited Such That
Resultant Deflection Angle
At Any Joint is $\leq 1.6^\circ$

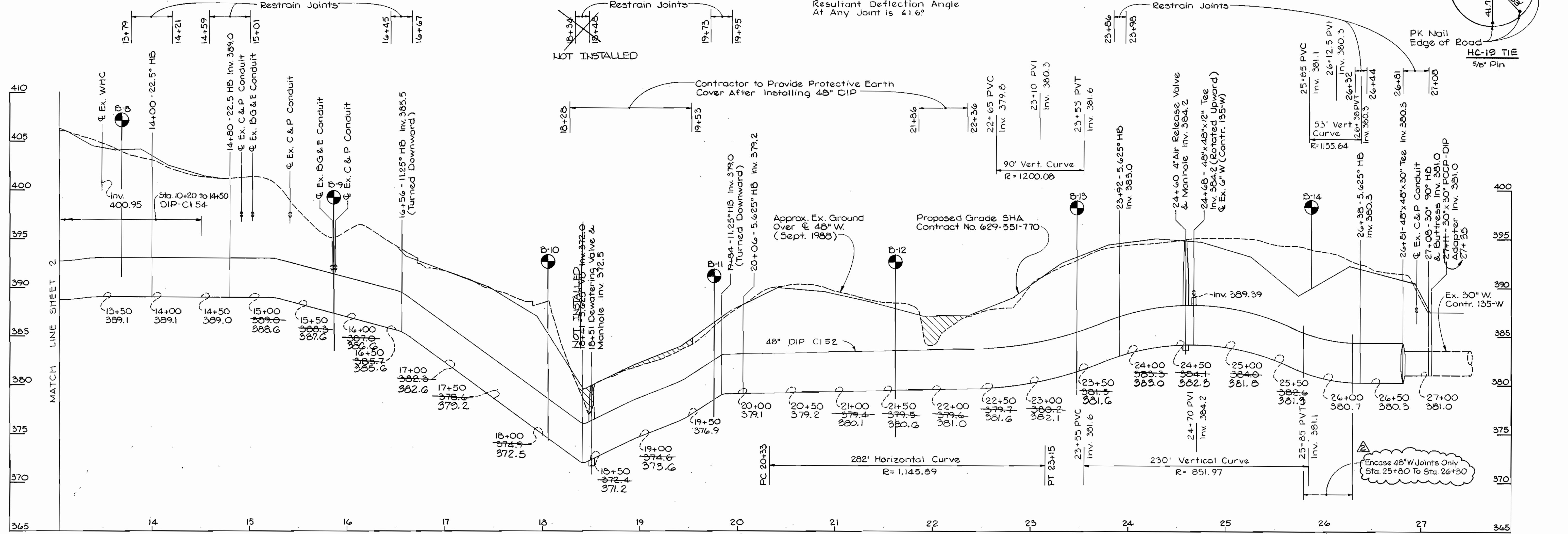
NOTE:
Contractor To Restrain Joints

13+79	- 14+21
14+59	- 15+01
16+45	- 16+67
18+34	- 18+48
19+73	- 19+95
23+86	- 23+98
26+32	- 26+44
26+81	- 27+08

NOTE:
All Manholes for 48\"/>

NOTE:
Encase Each Joint On 48\"/>

NOTE:
Encase 48\"/>



PROFILE

Scale: Hor. 1" = 50'
Vert. 1" = 5'

S.H.A. DRAWING NO. 272 OF 345

S.H.A. CONTRACT HO-629-501-770

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

W. W. Hubbard
DIRECTOR OF PUBLIC WORKS
DATE: 12-27-88

W. W. Hubbard
CHIEF, BUREAU OF ENGINEERING
DATE: 12-27-88

W. W. Hubbard
CHIEF, BUREAU OF UTILITIES
DATE: 12-27-88

W. W. Hubbard
CHIEF, UTILITY DIVISION
DATE: 12-27-88

BEAVIN COMPANY
CONSULTING ENGINEERS
BALTIMORE, MARYLAND



DES: JDO	TJM	(ADDENDUM) Encase 48\"/>
DRN: CDT		
CHK: TND		
DATE: 12-20-88	BY: NO.	REVISION

PLAN AND PROFILE
OF WATER MAIN

600' SCALE MAP NO. 24 BLOCK NO. 23

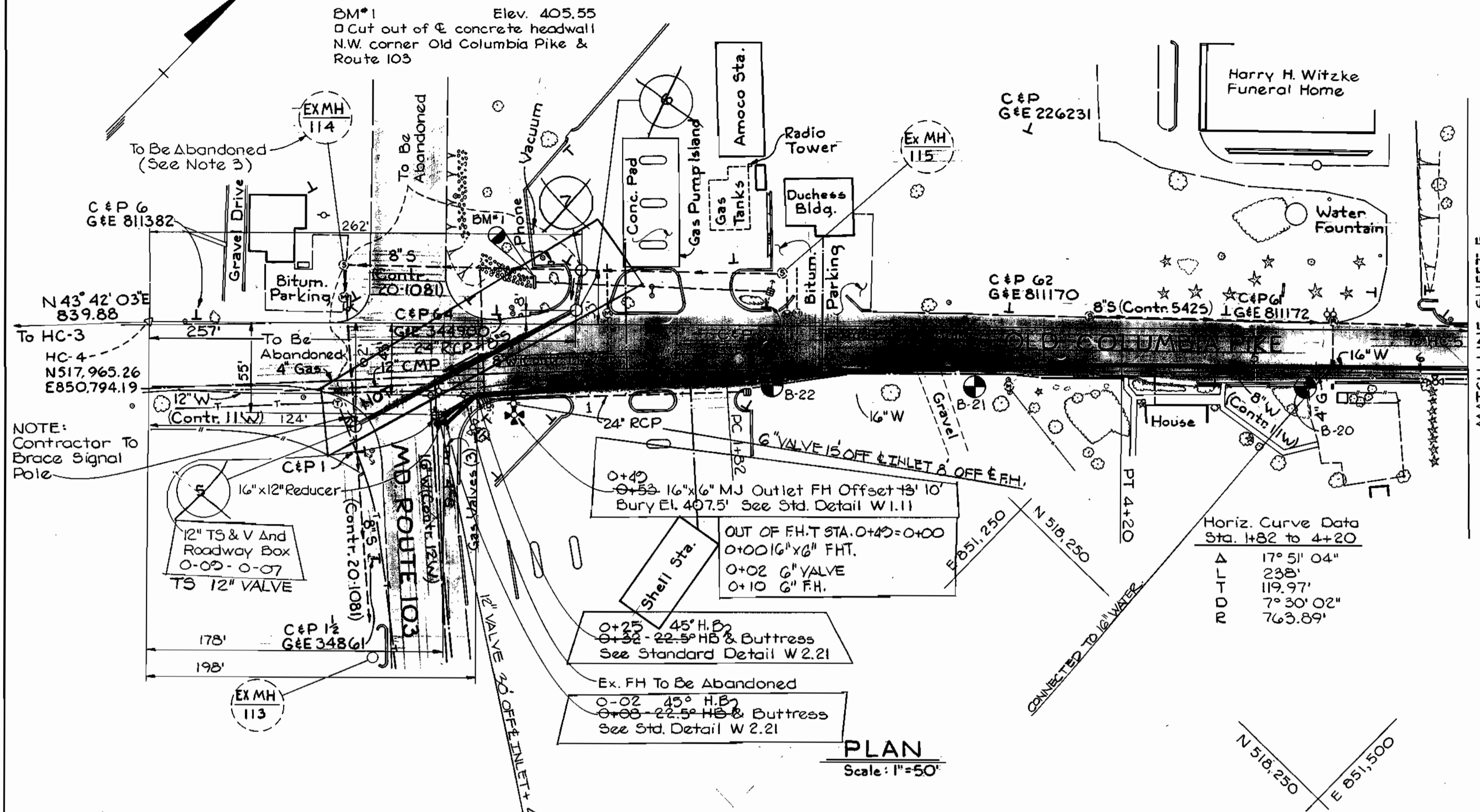
ROUTE 29/ROUTE 103 WATER & SEWER RELOCATIONS
CAPITAL PROJECT W-8155
CONTRACT NO. 14-1821
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 8

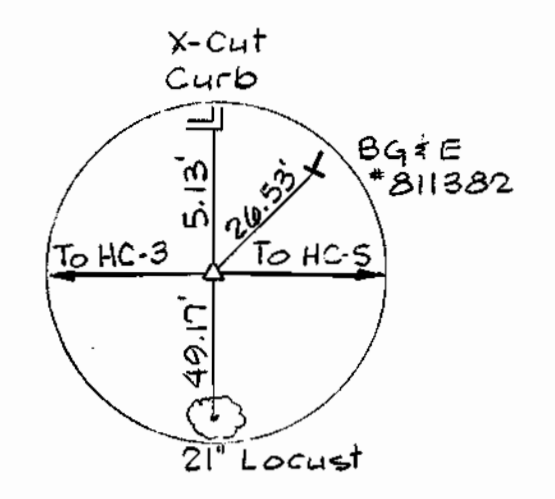
AS-BUILT 8-25-92

BENCH MARKS

BM*1 Elev. 405.55
 O Cut out of concrete headwall
 N.W. corner Old Columbia Pike &
 Route 103

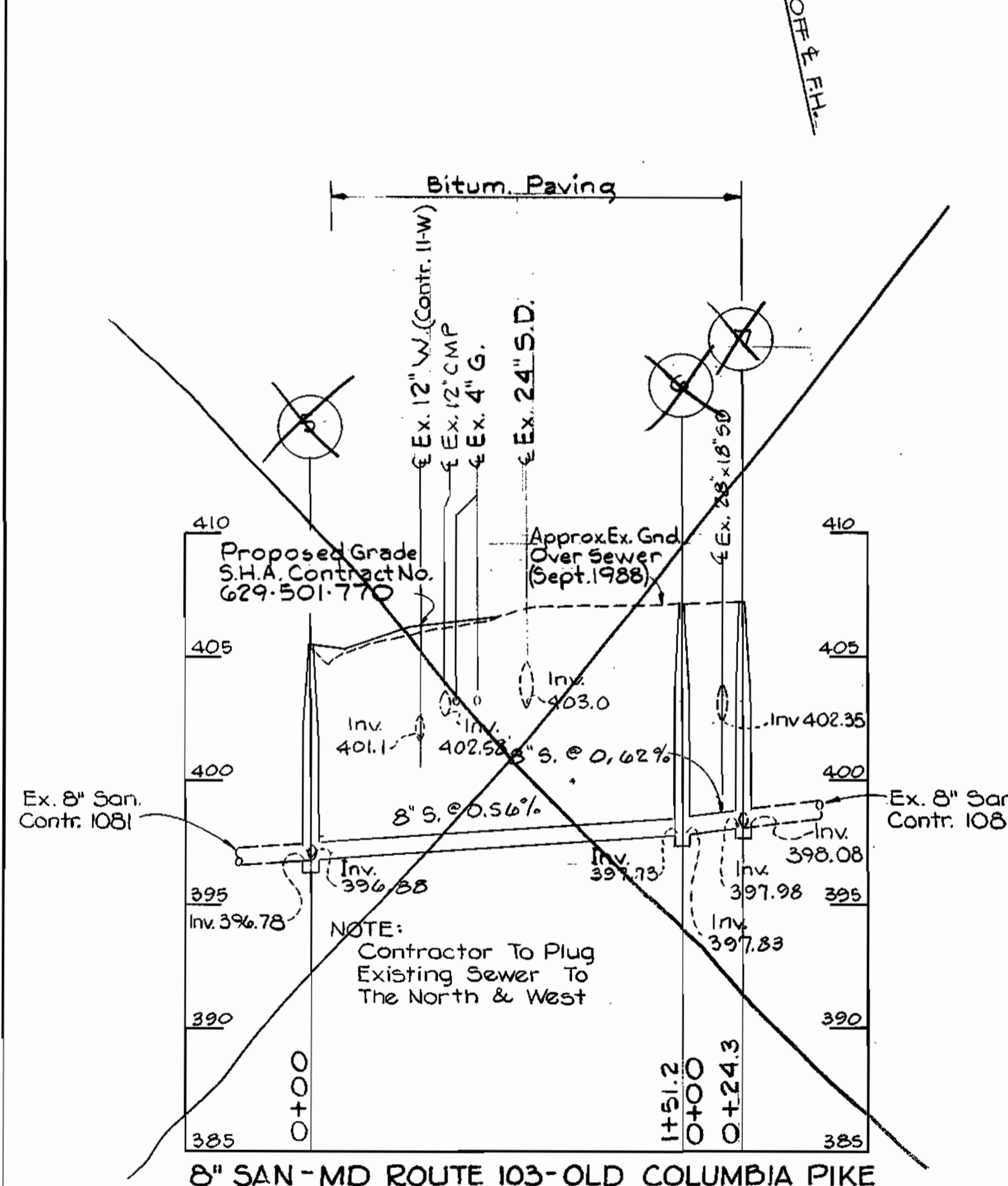


PLAN
 Scale: 1"=50'

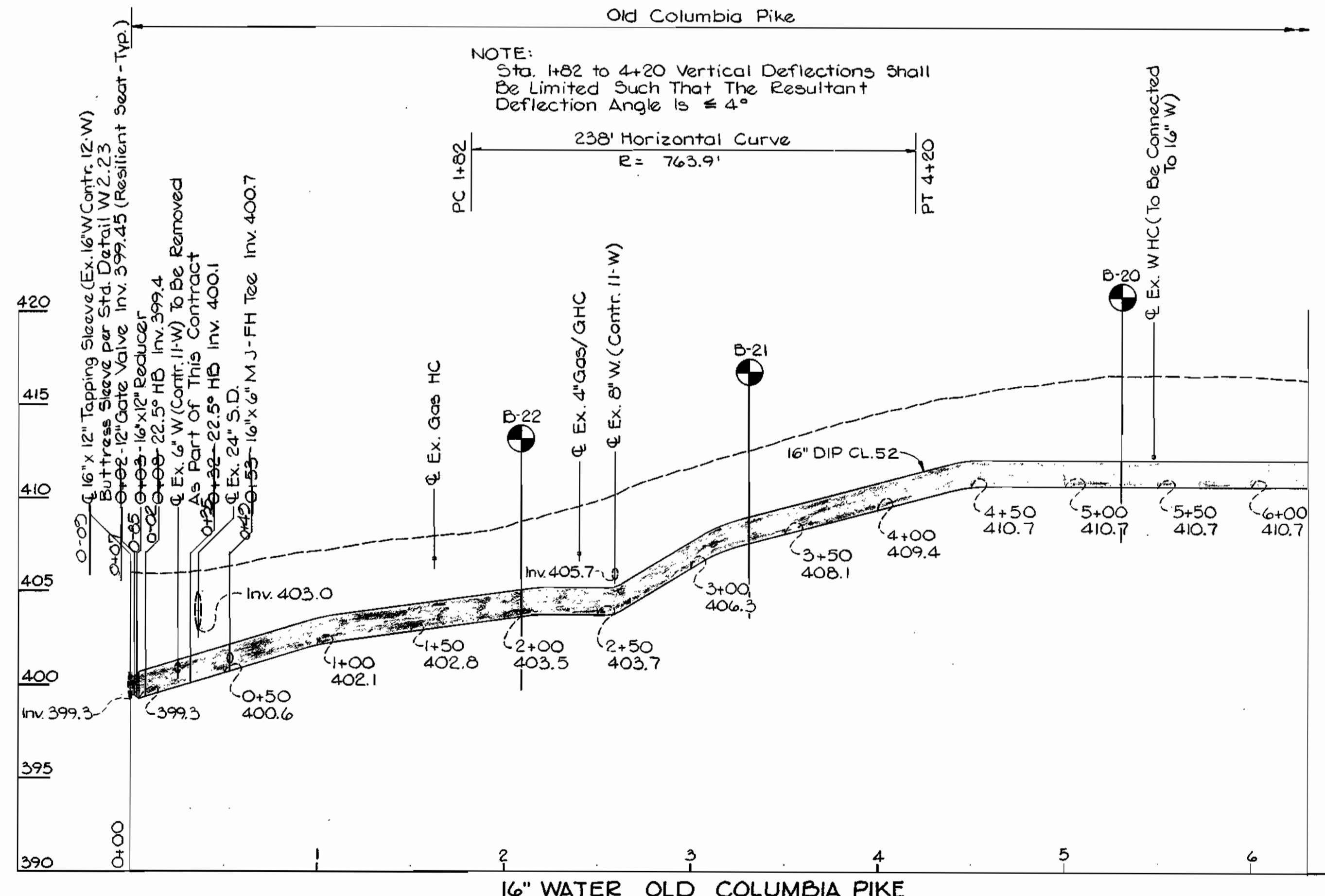


HC-4 TIE
 RR Spike

- NOTES:**
- All Paving Repair Work To Be Done In Accordance With Standard Detail R 2.01 (P-2)
 - All Existing and Proposed Water and Sewer Frames and Covers Shall Be Adjusted To SHA Final Grade and Shall Be Incidental To The Final Paving.
 - After Acceptance of New 8" San. Remove Frame & Cover and Backfill Manhole With Crusher Run. Manhole Frame & Cover To Be Delivered To Howard County Bureau of Utilities 88250 Old Montgomery Road, Columbia, MD. 21045



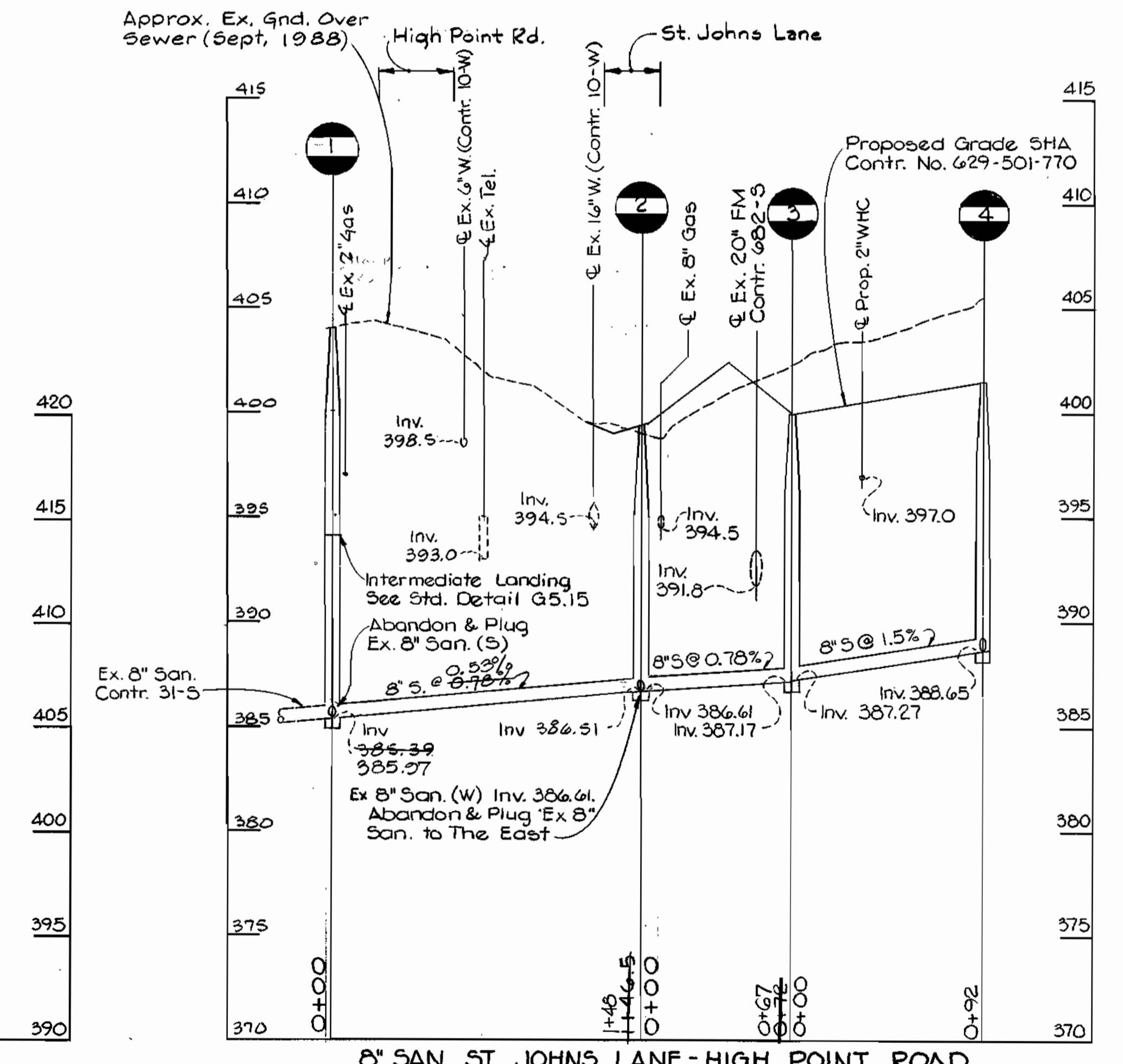
8" SAN - MD ROUTE 103-OLD COLUMBIA PIKE



16" WATER OLD COLUMBIA PIKE

PROFILES

Scale: Hor. 1"=50'
 Vert. 1"=5'



8" SAN ST JOHNS LANE-HIGH POINT ROAD

S.H.A. DRAWING NO. 273 OF 345
 S.H.A. CONTRACT HO-629-501-770

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

William W. Hestland 12-27-88
 DIRECTOR OF PUBLIC WORKS DATE

Richard A. Hestland 12-27-88
 CHIEF, BUREAU OF UTILITIES DATE

BEAVIN COMPANY
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND

John J. Beavin 12-27-88
 CHIEF, BUREAU OF ENGINEERING DATE

John J. Beavin 12-27-88
 CHIEF, UTILITY DIVISION DATE



DES: JDO					
DRN: CDT					
CHK: TND					
DATE: 12-20-88	BY:	NO.:	REVISION:	DATE:	

PLAN OF WATER MAIN
 AND SEWER MAIN
 PROFILE OF WATER MAIN
 AND SEWER MAINS

600' SCALE MAP NO. 24 BLOCK NO. 23, 24

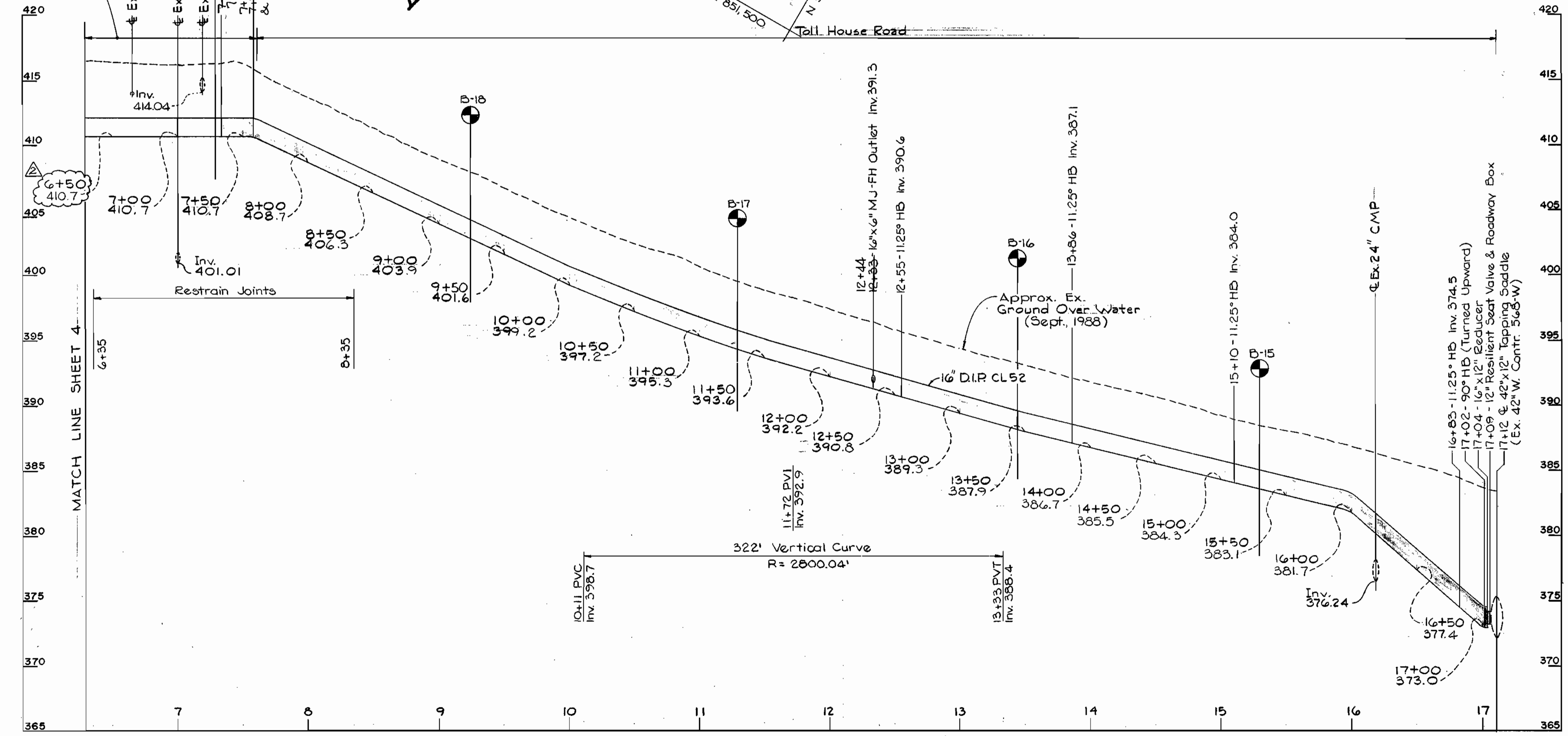
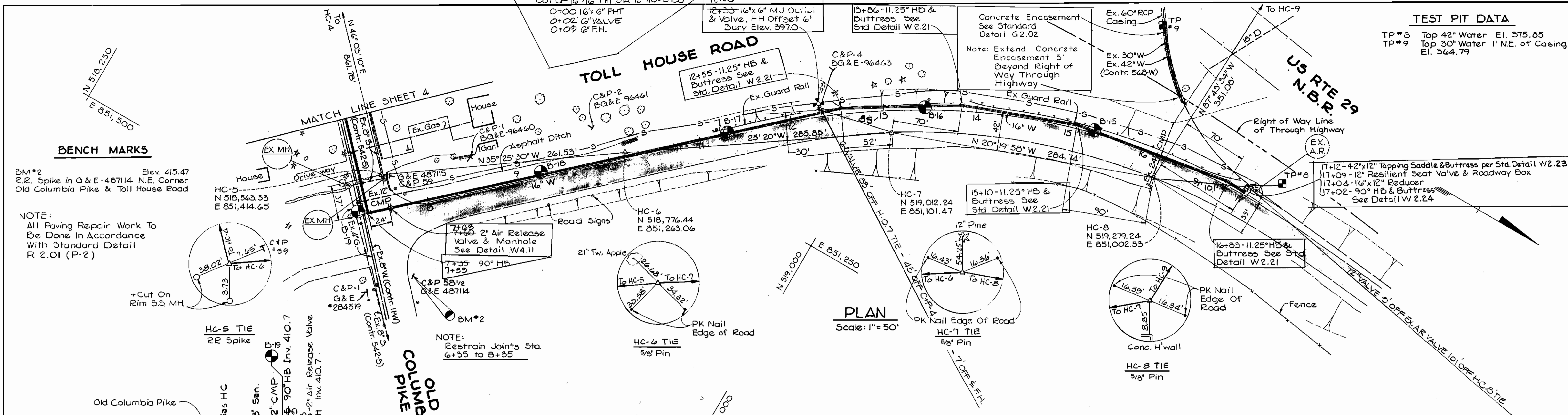
ROUTE 29/ROUTE 103 WATER & SEWER RELOCATIONS
 CAPITAL PROJECT W-8155
 CONTRACT NO. 14-1821
 ELECTION DISTRICT NO. 2
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 4 OF 8

AS-BUILT 8-25-92

TEST PIT DATA

TP #3 Top 42" Water El. 375.85
 TP #9 Top 30" Water 1' NE. of Casing El. 364.79



BENCH MARKS

BM #2 Elev. 415.47
 R.R. Spike in G & E - 487114 N.E. Corner
 Old Columbia Pike & Toll House Road

NOTE:
 All Paving Repair Work To
 Be Done In Accordance
 With Standard Detail
 R 2.01 (P-2)

S.H.A. DRAWING NO. 274 OF 345
 S.H.A. CONTRACT HO-629-501-770

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works
 Chief, Bureau of Engineering
 Chief, Bureau of Utilities

BEAVIN COMPANY
 CONSULTING ENGINEERS
 BALTIMORE, MARYLAND



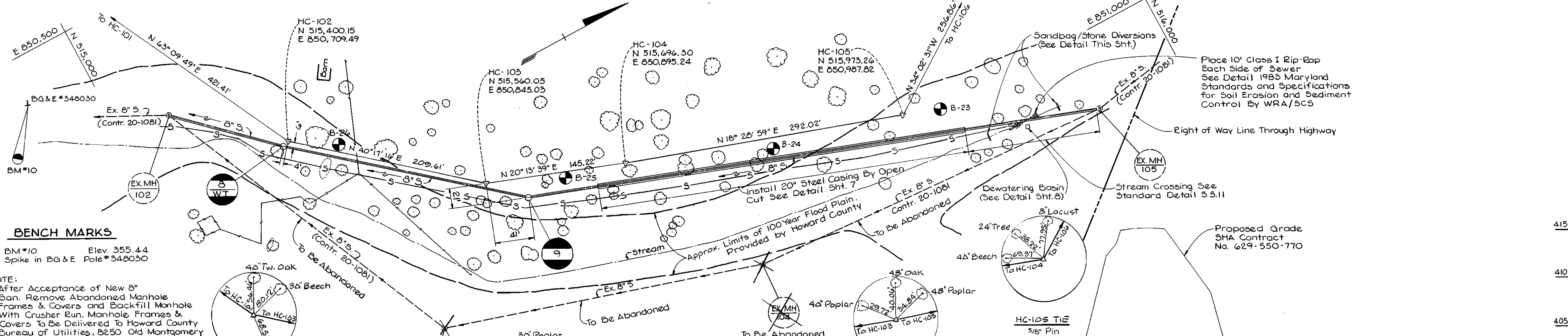
DES: JDO	TJM	(APPENDUM) Change Invert Elevation	7/1/91
DRN: CDT			
CHK: TND			
DATE: 12-20-88	BY NO.	REVISION	DATE

PLAN AND PROFILE
 OF WATER MAIN
 600' SCALE MAP NO. 24 BLOCK NO. 17, 18, 24

ROUTE 29/ROUTE 103 WATER & SEWER RELOCATIONS
 CAPITAL PROJECT W-8155
 CONTRACT NO. 14-1821
 ELECTION DISTRICT NO. 2
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 5 OF 8

AS-BUILT 8-25-92

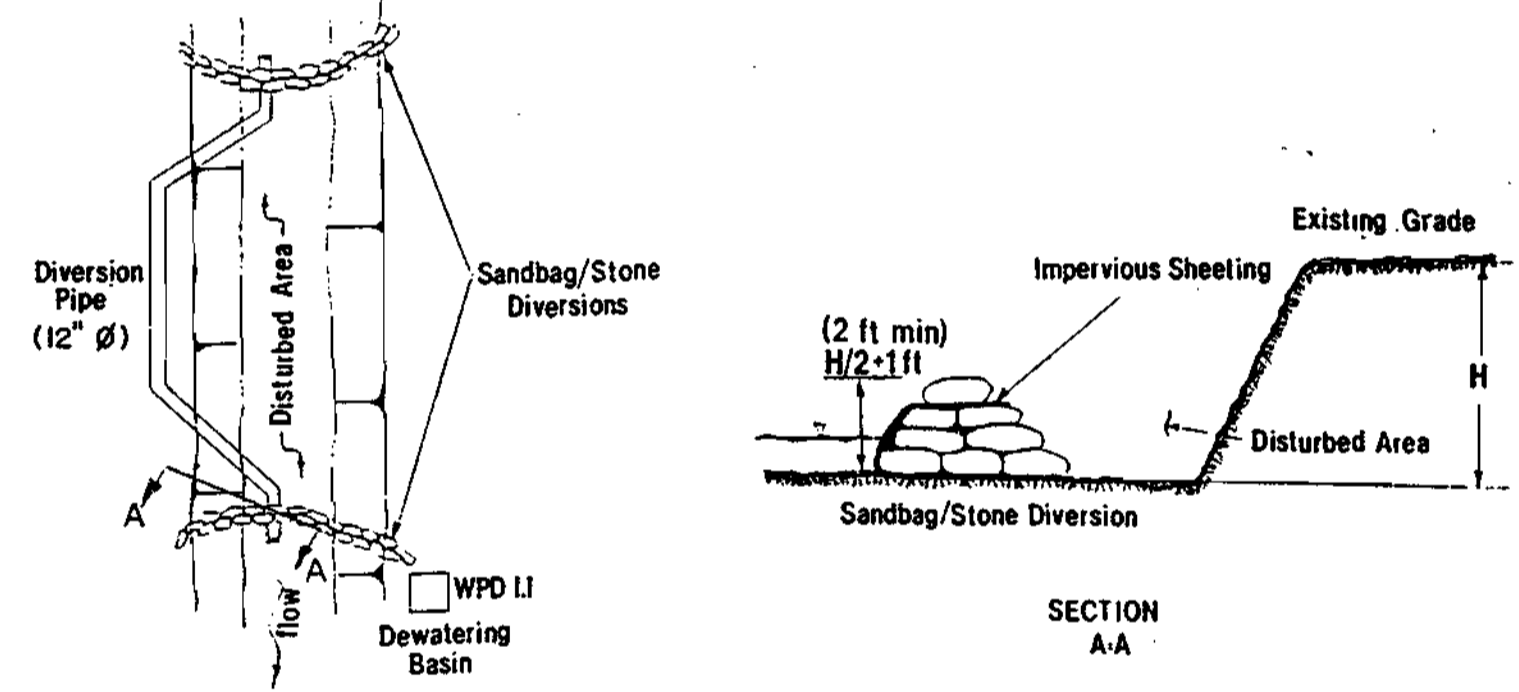


BENCH MARKS

BM*10 Elev. 355.44
Spike in B&E Pole #348030

NOTE:
After Acceptance of New 8" San. Remove Abandoned Manhole Frames & Covers and Backfill Manhole With Crusher Run. Manhole Frames & Covers To Be Delivered to Howard County Bureau of Utilities, 8250 Old Montgomery Road, Columbia, MD 21045

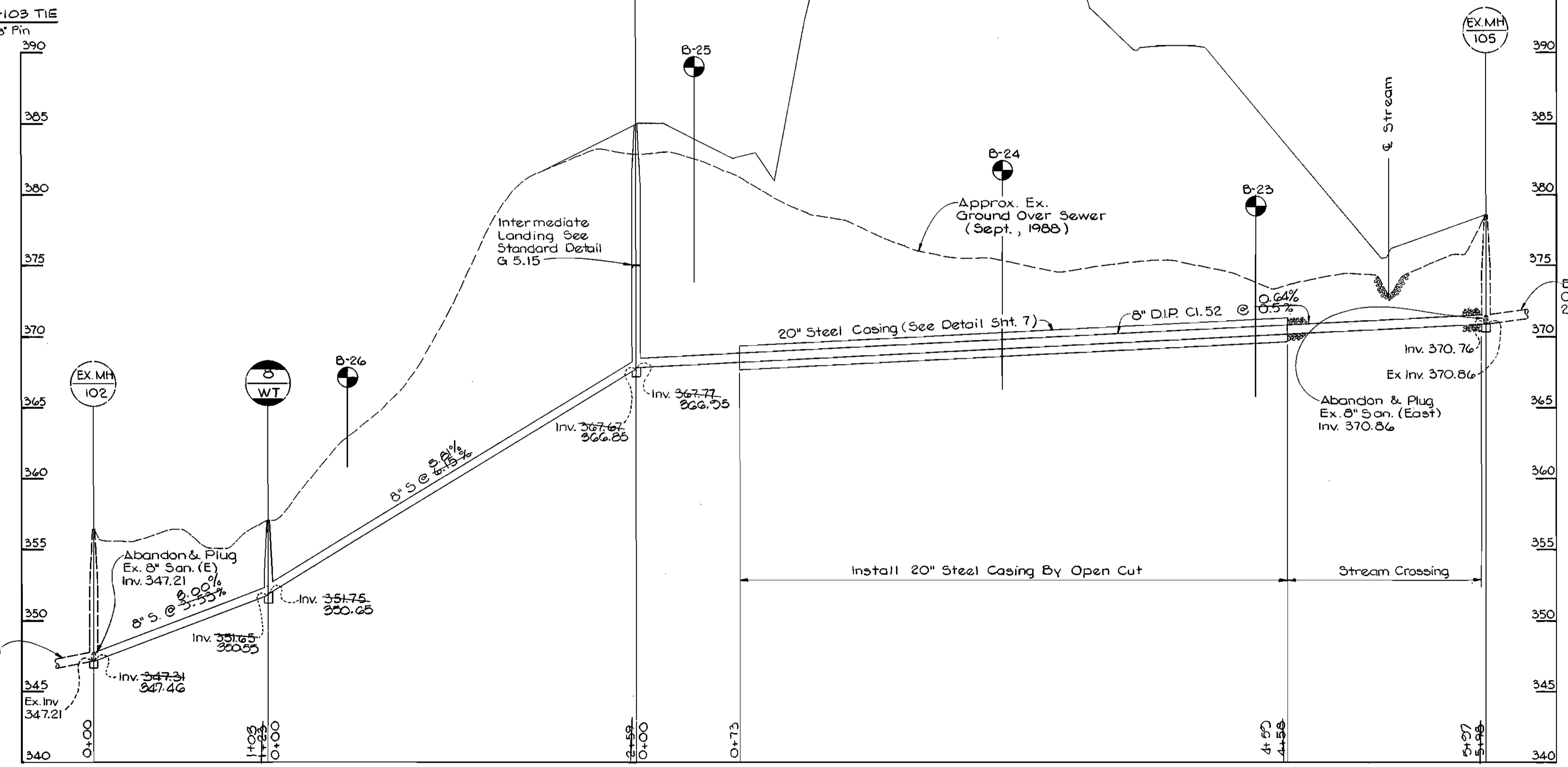
PLAN
Scale: 1" = 50'



PLAN VIEW

- I. Description
The work shall consist of installing a flow diversion structure when construction activities take place within the stream channel such as culvert construction or culvert replacement.
- II. Material Specifications
 1. Sandbags: Sandbags shall consist of materials which are resistant to ultra-violet radiation, tearing and puncture and woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).
 2. Stone: Stone shall be washed and have a minimum diameter of 6 inches.
 3. Sheeting: Sheeting shall consist of polyethylene or other material which is impervious and resistant to puncture and tearing.
- III. Construction Requirements
 1. All erosion and sediment control devices shall be installed as the first order of work.
 2. The height of the sandbag/stone diversion structure shall be one half the distance from the stream bed to the bank plus one foot, as indicated in section a-a. The sandbags shall be placed on a smooth, prepared surface.
 3. All excavated materials shall be disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the WRA.
 4. All dewatering of the construction area shall be pumped to a dewatering basin (Plate WPD1.1) or otherwise approved on the plans by the WRA.
 5. Sheeting shall be overlapped a minimum of 18 inches.
 6. The diversion pipe shall have a minimum diameter of sufficient size to convey the normal stream flow.
 7. If necessary, silt fence or strawbales shall be installed around the perimeter of the work area.
 8. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal.

DIVERSION PIPE



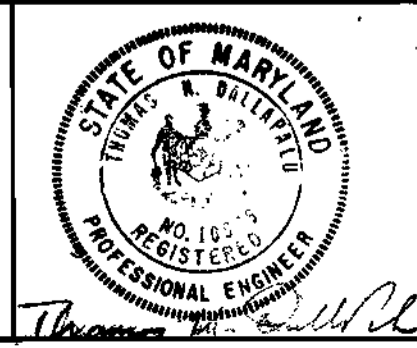
PROFILE

Scale: Hor. 1" = 50'
Vert. 1" = 5'

S.H.A. DRAWING NO. 275 OF 345
S.H.A. CONTRACT HO-629-501-770

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
12-27-88
12-27-88

BEAVIN COMPANY
CONSULTING ENGINEERS
BALTIMORE, MARYLAND



DES: JDO			
DRN: CDT			
CHK: TND			
DATE: 12-20-88	BY: NO.	REVISION	DATE

PLAN AND PROFILE
OF SEWER MAIN
600' SCALE MAP NO. 24 & 30 BLOCK NO. 5,24

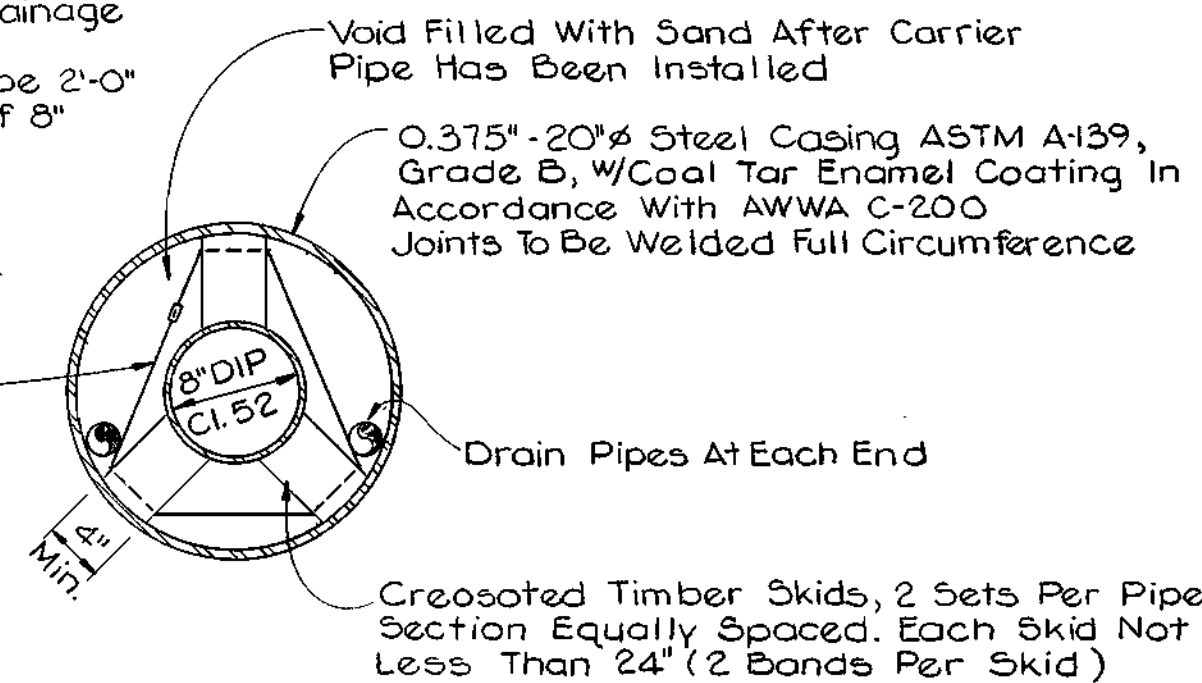
ROUTE 29/ROUTE 103 WATER & SEWER RELOCATIONS
CAPITAL PROJECT W-8155
CONTRACT NO. 14-1821
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 6 OF 8

AS-BUILT 8-25-02

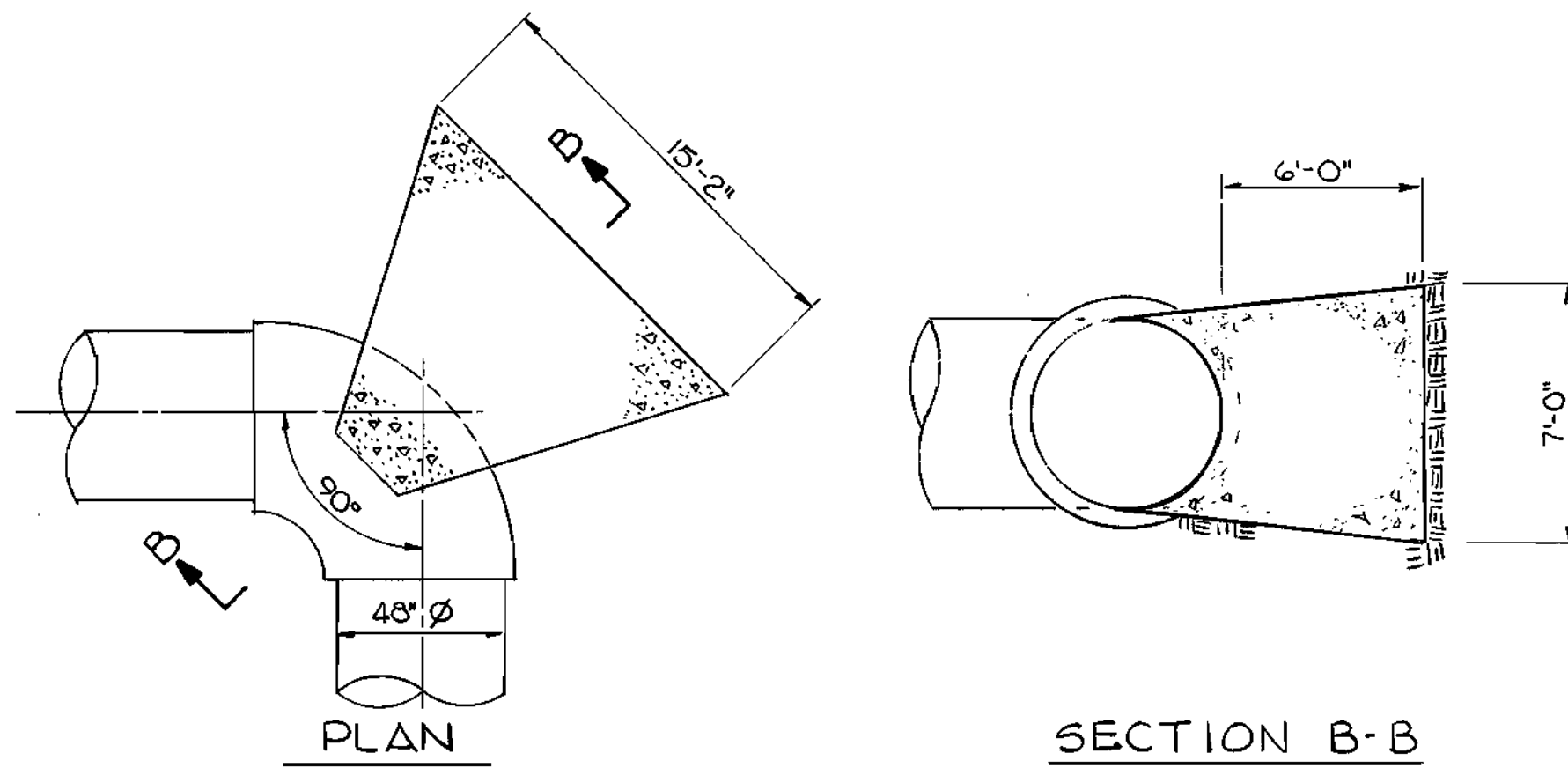
- NOTES:
1. Provide 8" brick bulkhead at each end of casing with two 2" dia. pipes through each bulkhead for drainage.
 2. End pipe joints to be 2'-0" max. from outside of 8" brick bulkhead.

Type 316 0.030" Thick SS 3/4" Wide Bands 2400 lb Bracing Strength



STEEL CASING DETAIL

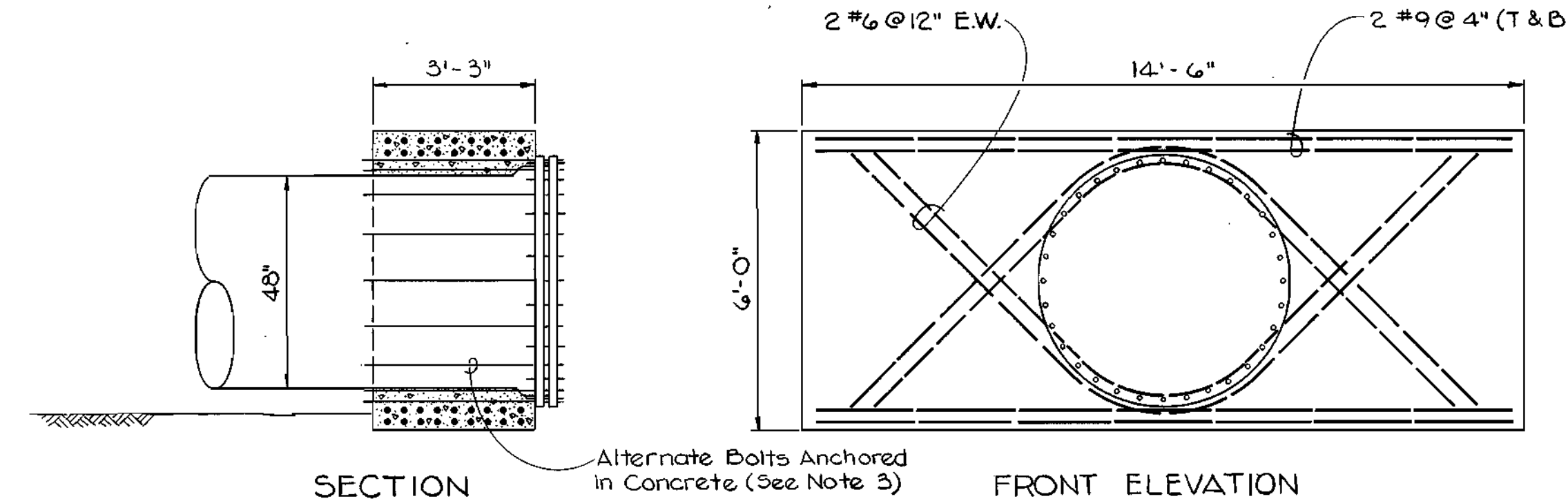
No Scale



BUTTRESS DETAIL

No Scale

NOTE: Concrete to be Mix No.1

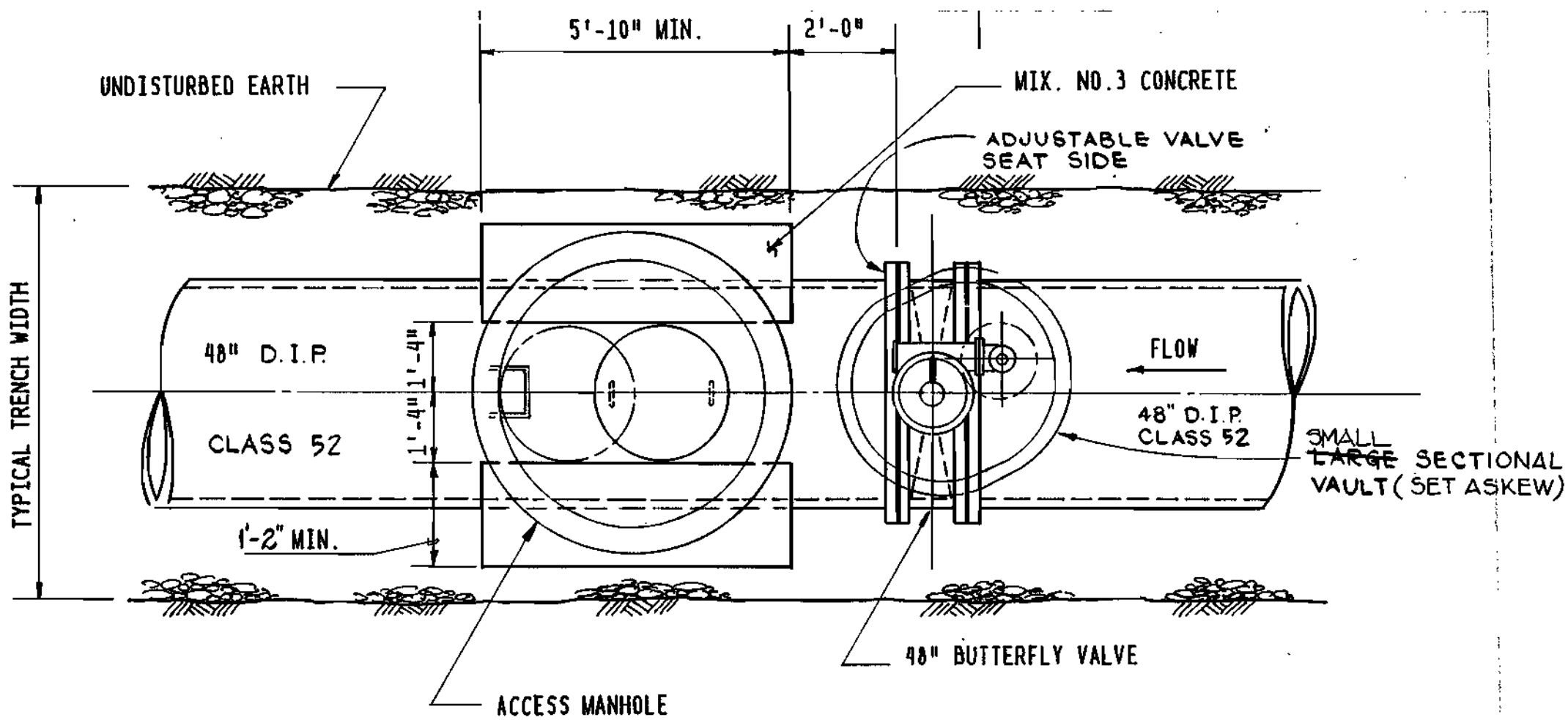


HARNESSED BULKHEAD

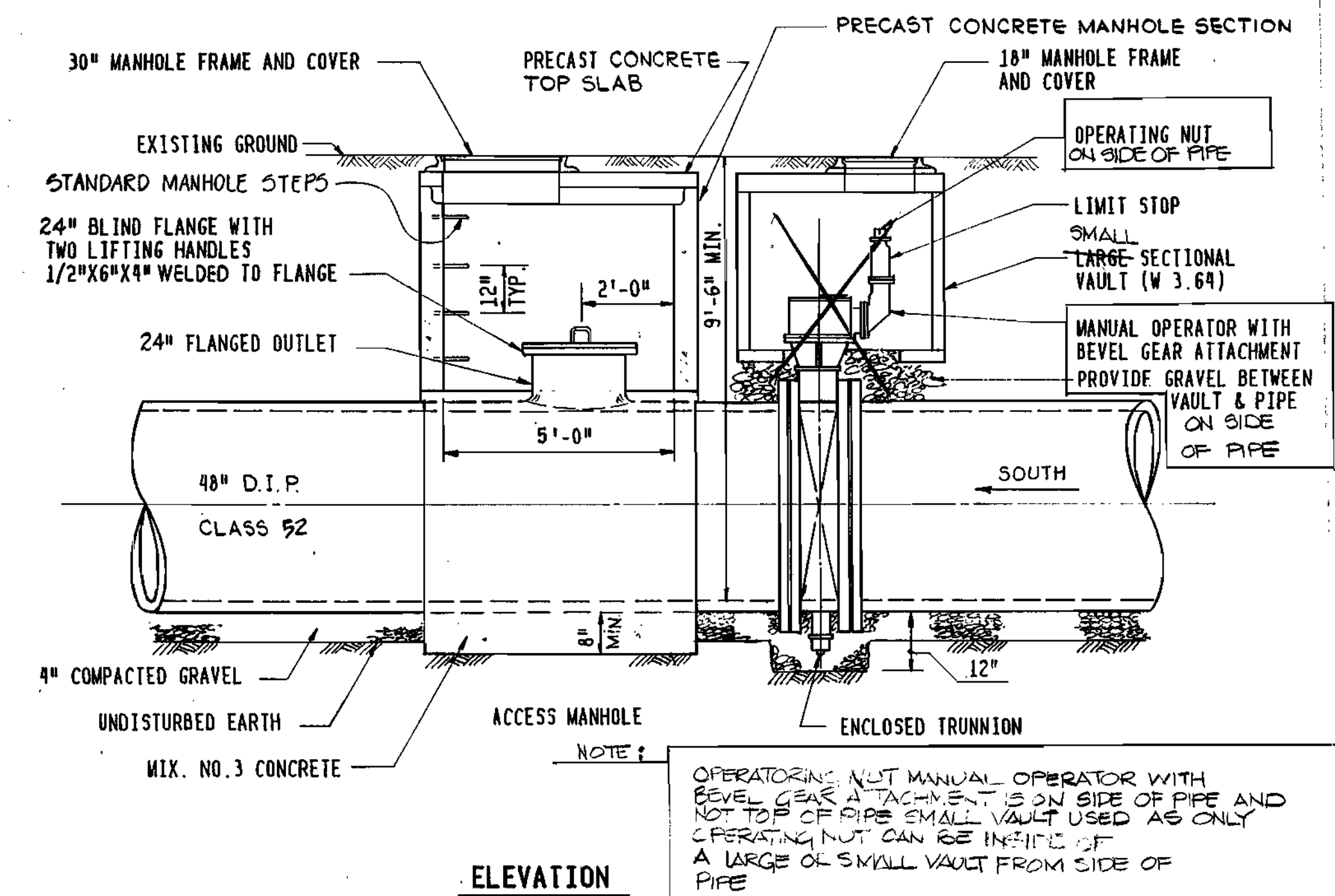
No Scale

NOTES:

1. Concrete to be Mix No.3
2. All bearing surfaces to be carried to undisturbed earth
3. Sixteen (16) special bolts are required. Bolts to be 1/4" dia held by mechanical anchors.
4. All exposed surfaces to be coal tar coated per AWWA C-200
5. For depth of 48" dia pipe, see detail sht. 8



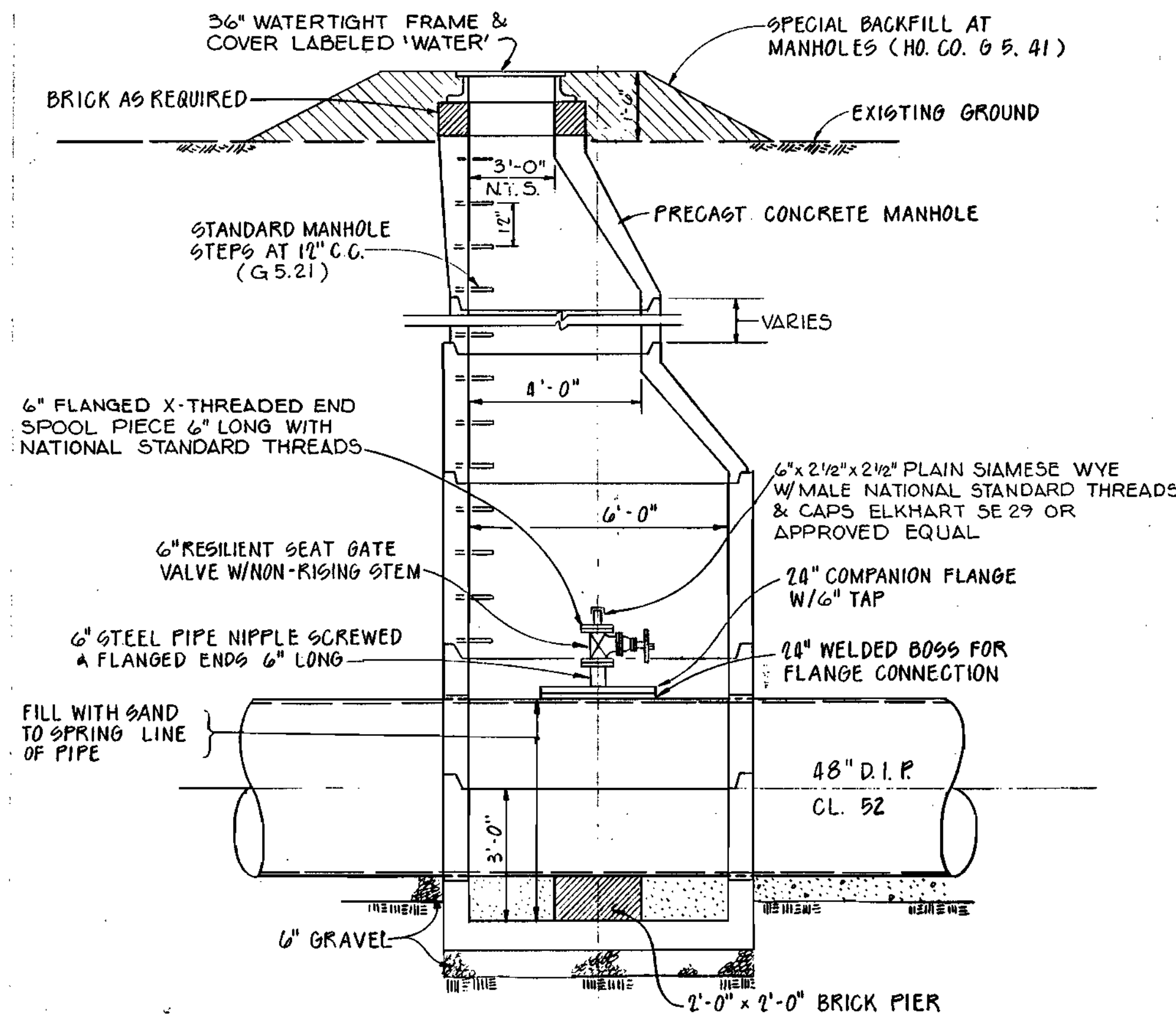
PLAN



ELEVATION

48" BUTTERFLY VALVE & ACCESS MANHOLE

Scale: 3/8" = 1'-0"



6" DEWATERING VALVE & ACCESS MANHOLE

Scale: 3/8" = 1'-0"

S.H.A. DRAWING NO. 276 OF 345

S.H.A. CONTRACT HO-629-501-770

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

BEAVIN COMPANY

CONSULTING ENGINEERS
BALTIMORE, MARYLAND



DES: JDO	TJM	(ADDENDUM)	Description Change	7/1/91
DRN: CDT				
CHK: TND				
DATE: 12-20-88	BY	NO.	REVISION	DATE

MISCELLANEOUS DETAILS

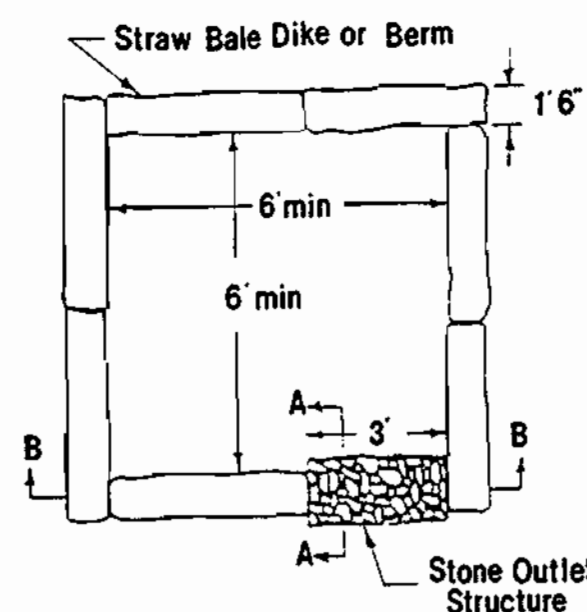
ROUTE 29/ROUTE 103 WATER & SEWER RELOCATIONS
CAPITAL PROJECT W-8155
CONTRACT NO. 14-1821
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

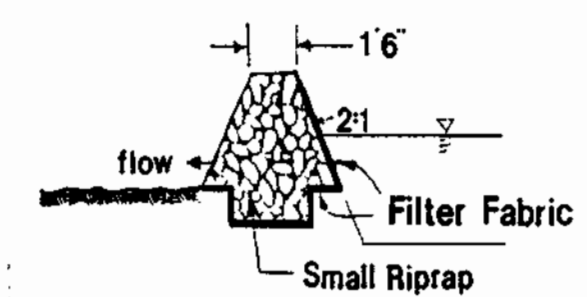
SHEET 7 OF 8

BRUNING-44-132-69150

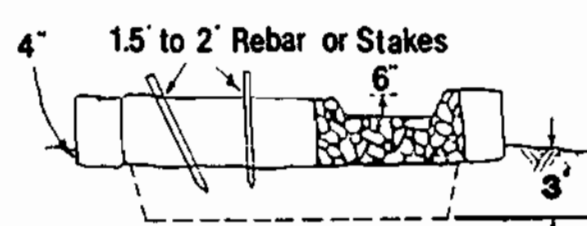
AS-BUILT 8-25-92



PLAN VIEW



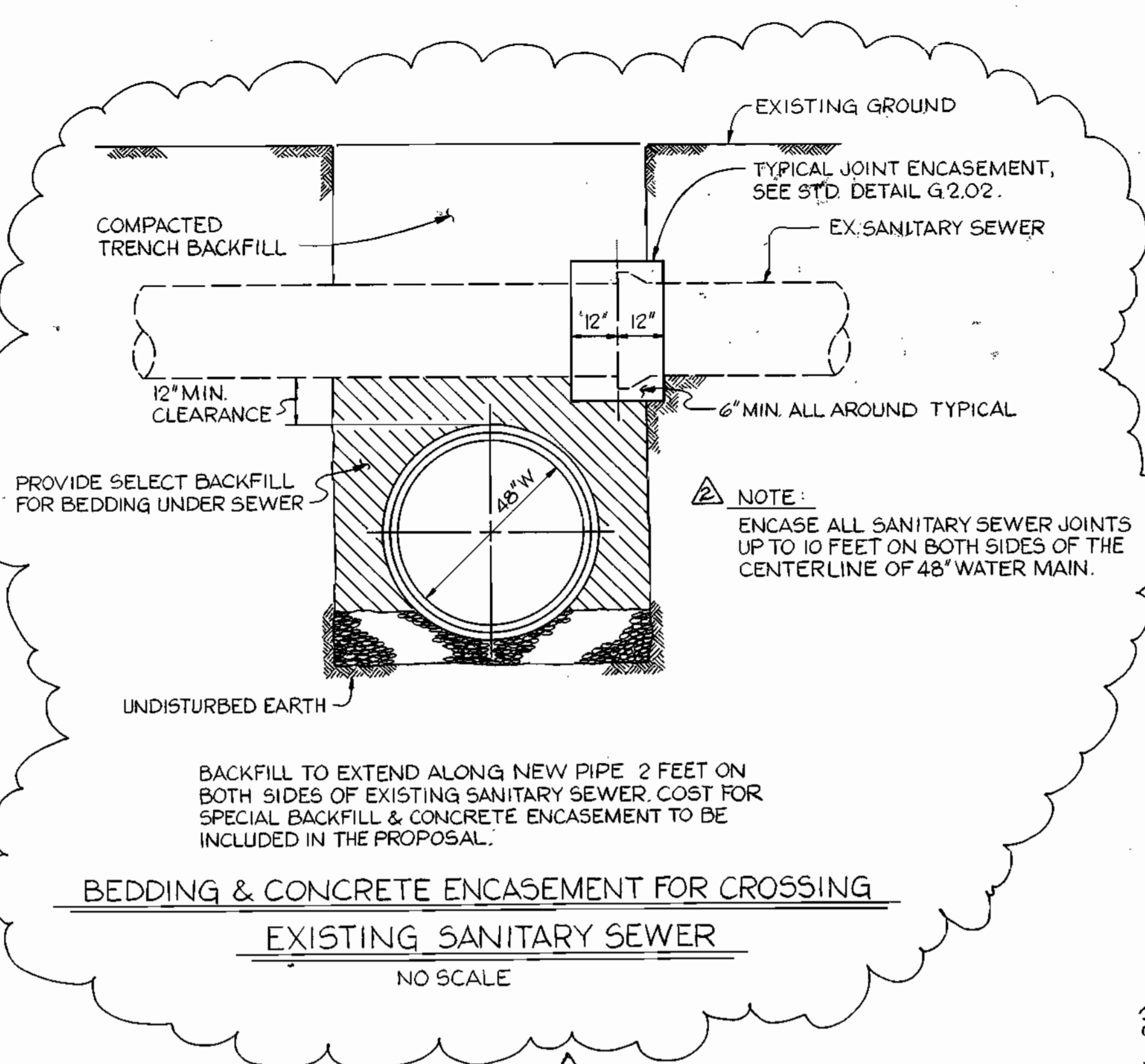
SECTION AA



SECTION BB

DEWATERING BASIN

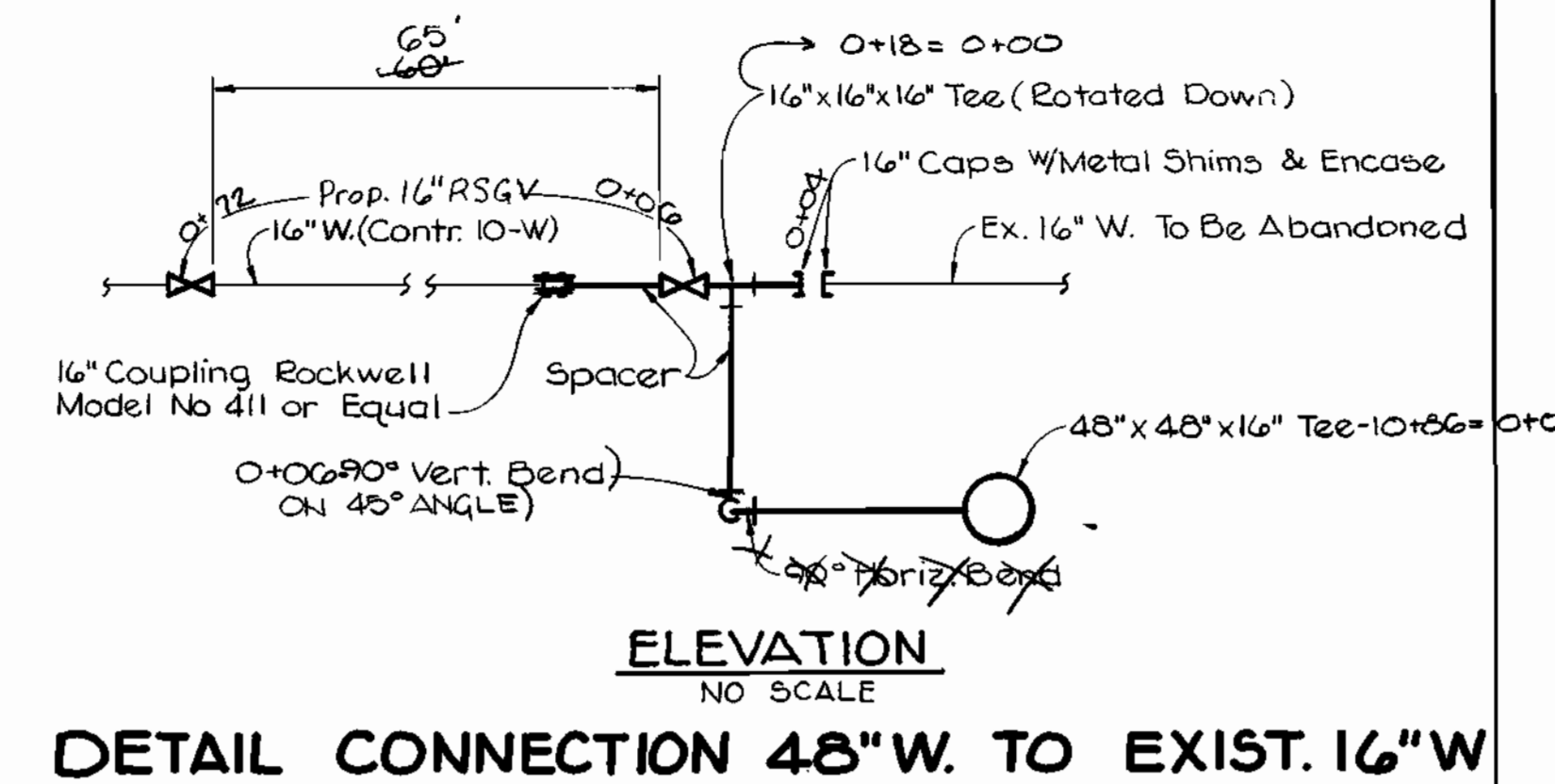
- I. Description**
The work shall consist of the construction of a dewatering basin for the purpose of receiving sediment-laden water pumped from a construction site to allow filtration before the water re-enters the waterway.
- II. Material Specifications**
- Riprap: Riprap shall consist of 4-8 inch washed stone or gravel.
 - Filter Fabric: The filter cloth shall be a woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, and rot resistant. No. 6 stone (AASHTO 57) may be used on the inner-face for filtering instead of fabric.
 - Strawbales: Strawbales shall meet the criteria as specified in the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- III. Construction Requirements**
- The contractor shall install all sediment and erosion control devices as the first order of business.
 - Excavated materials shall be stored such that sediments are prevented from entering the waterway; i.e., sediment perimeter controls may be necessary.
 - Excavated subsoil and topsoil shall be kept separate and replaced in their natural order.
 - Any dewatering of the construction area shall be filtered through a dewatering basin prior to entering the waterway.
 - The dewatering basin shall be excavated to a minimum depth of 3 feet.
 - Once the dewatering basin becomes filled to 1/2 of the excavated depth, accumulated sediment shall be removed and disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the MRA.
 - Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal. All ground contours shall be returned to their original condition unless specifically approved otherwise by the Administration.



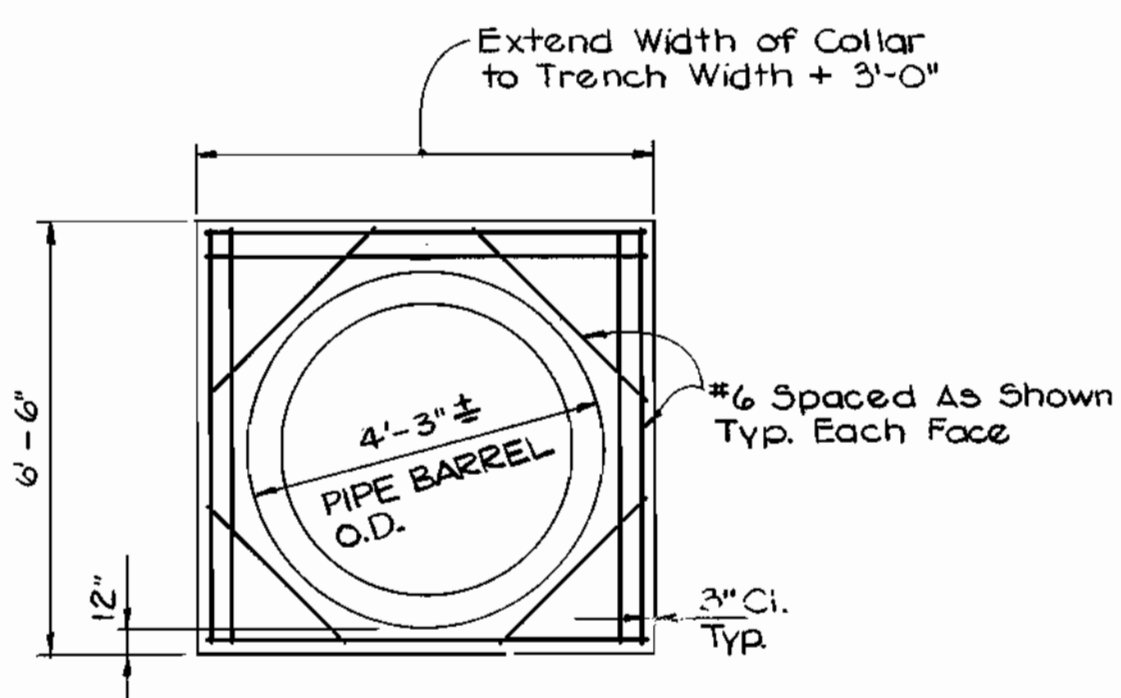
BEDDING & CONCRETE ENCASEMENT FOR CROSSING EXISTING SANITARY SEWER
NO SCALE

NOTE:
USE 6" STONE BEDDING. WHEN ROCK IS ENCOUNTERED PROVIDE 8" STONE CRADLE IN ALL CASES.

TYPICAL TRENCH DETAIL
NO SCALE

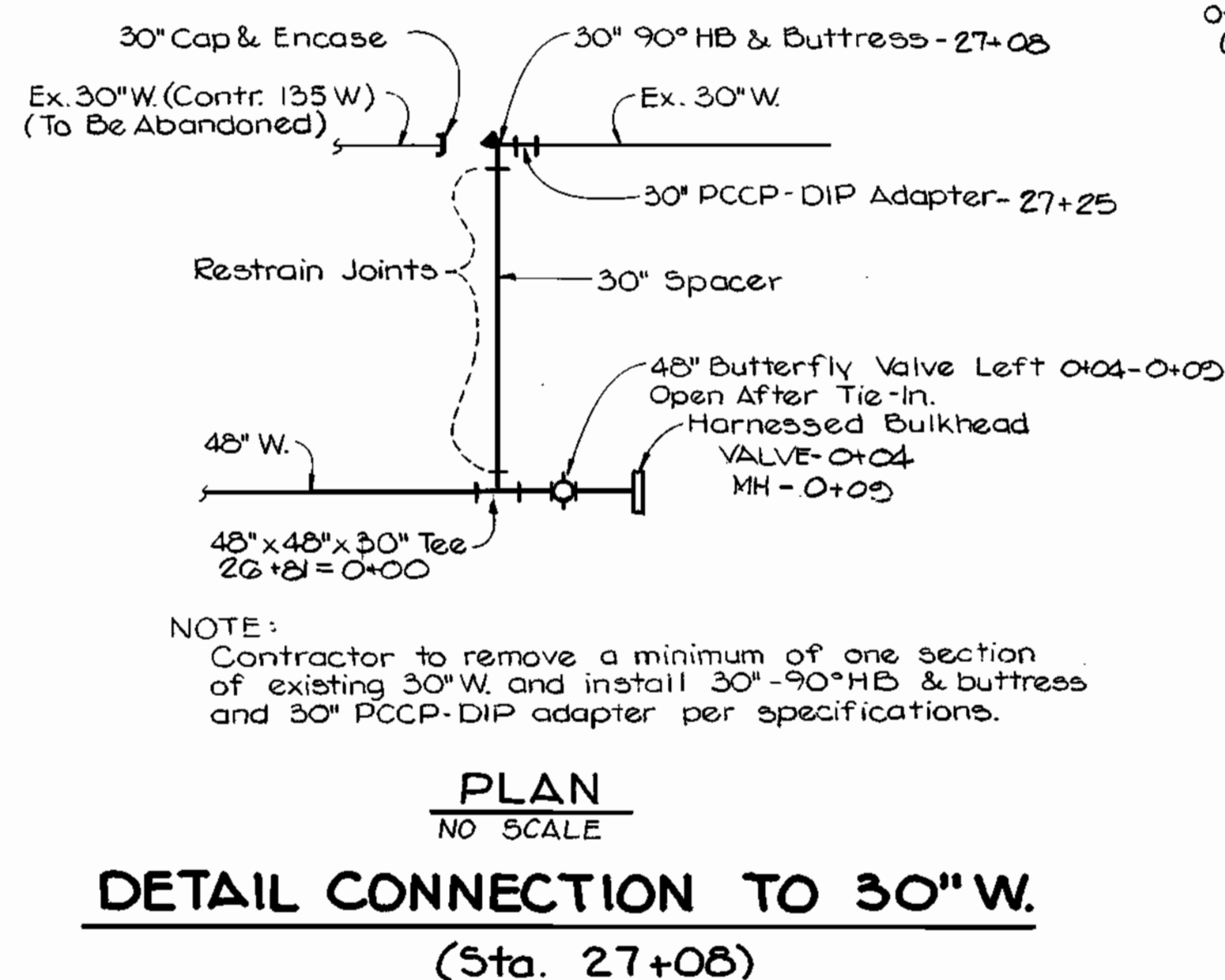


DETAIL CONNECTION 48" W. TO EXIST. 16" W

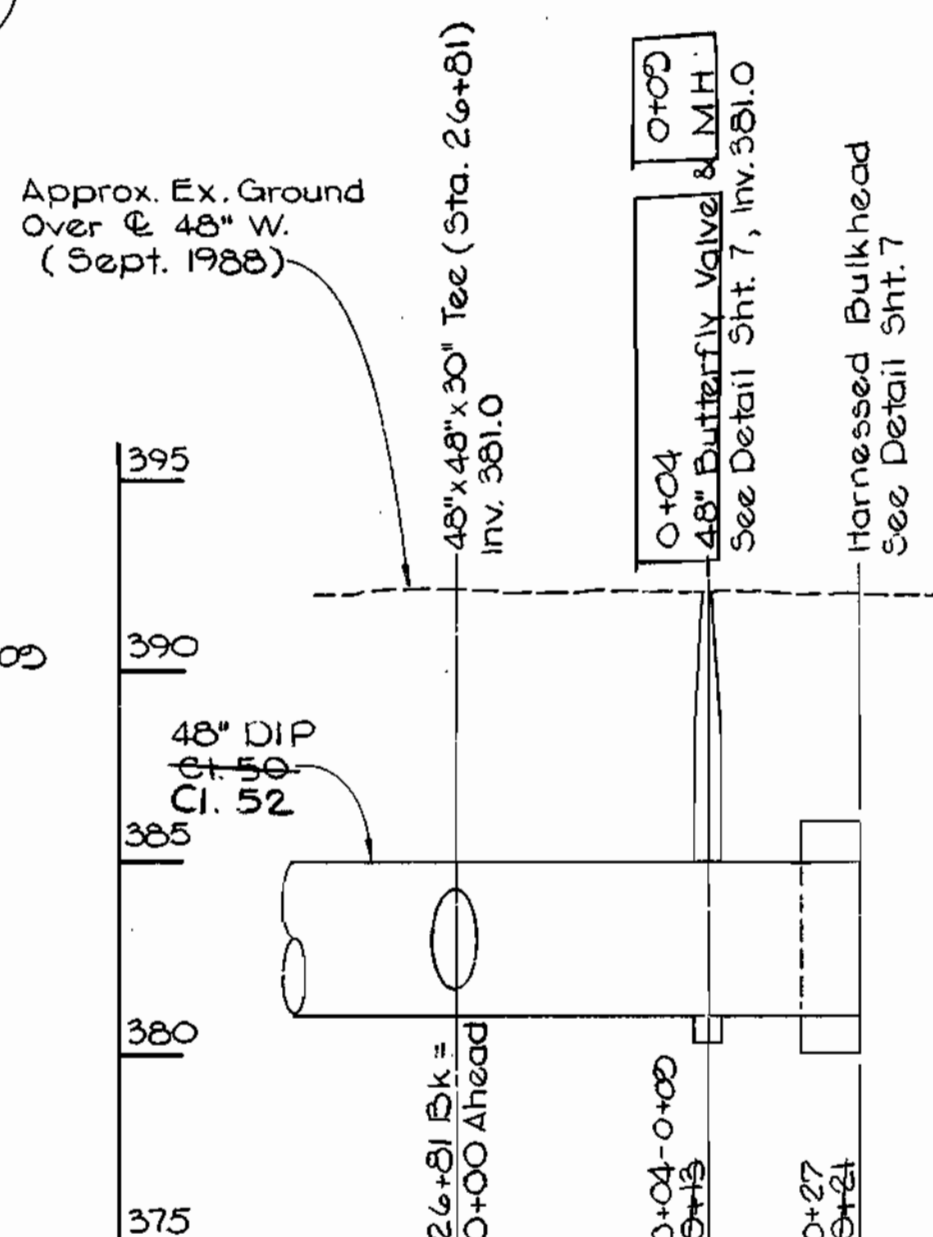


- NOTES:
1. Collar is 1'-0" thick
2. See Sht. 2, install at Sta. 0+21, 0+64, and 1+06

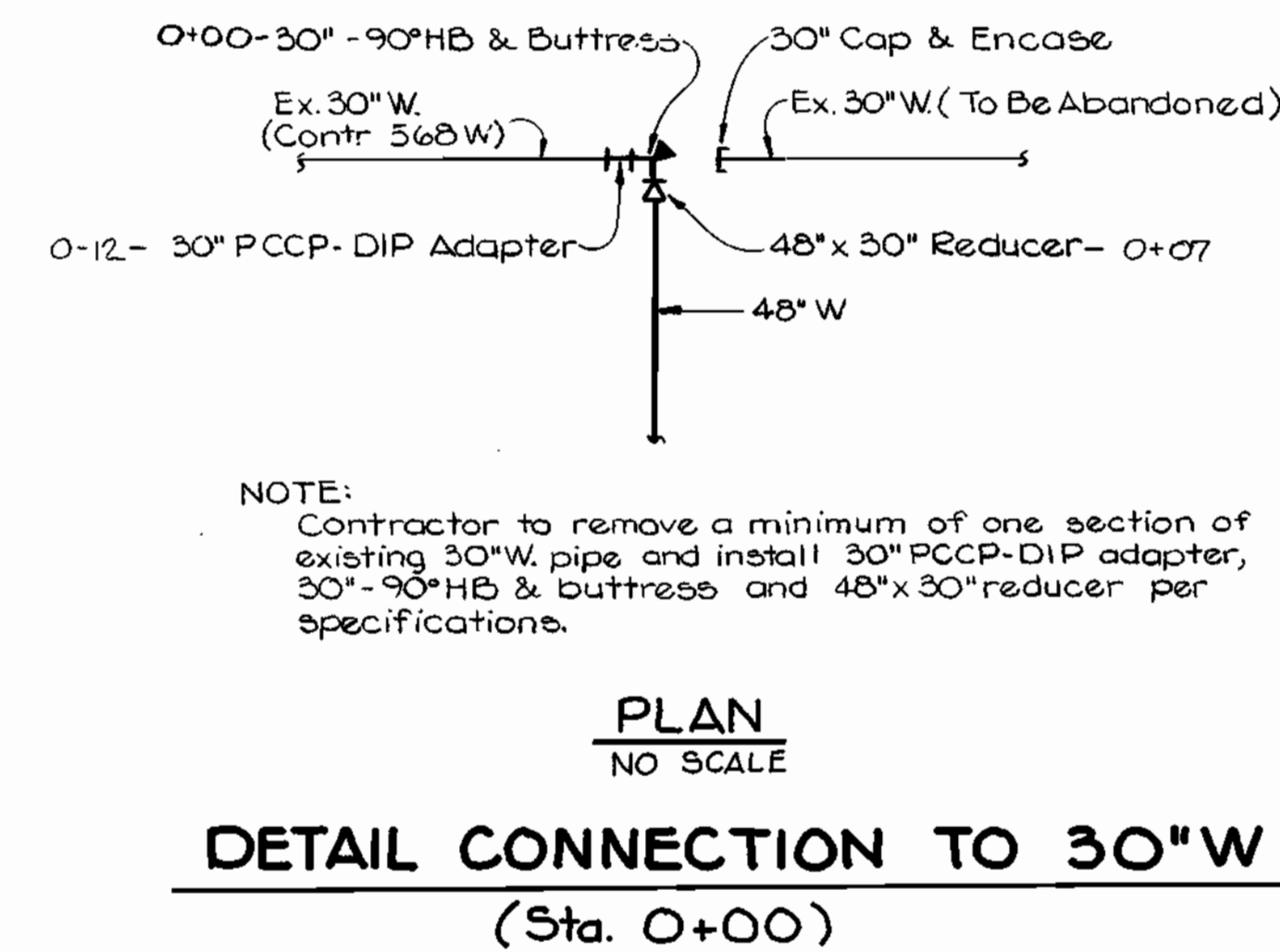
CONCRETE COLLAR
NO SCALE



DETAIL CONNECTION TO 30" W.
(Sta. 27+08)



PROFILE 48" W
SCALE: Horiz. 1"=10'
Vert. 1"=5'
(Sta. 0+00 to 0+21)
(See Sheet 3)



DETAIL CONNECTION TO 30" W
(Sta. 0+00)

S.H.A. DRAWING NO. 2770F 345
S.H.A. CONTRACT HO-629-501-770

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS DATE: 12-27-88 CHIEF, BUREAU OF UTILITIES DATE: 12-27-88	BEAVIN COMPANY CONSULTING ENGINEERS BALTIMORE, MARYLAND		DES: JDO	TJM	(APPENDUM) Revised Detail for Encasement of Sewer Joints	7/1/81	MISCELLANEOUS DETAILS ROUTE 29/ROUTE 103 WATER & SEWER RELOCATIONS CAPITAL PROJECT W-8155 CONTRACT NO. 14-1821 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 8 OF 8
			DRN: CDT	CHK: TND	DATE: 12-20-88	BY: NO.		

AS BUILT 8-25-92