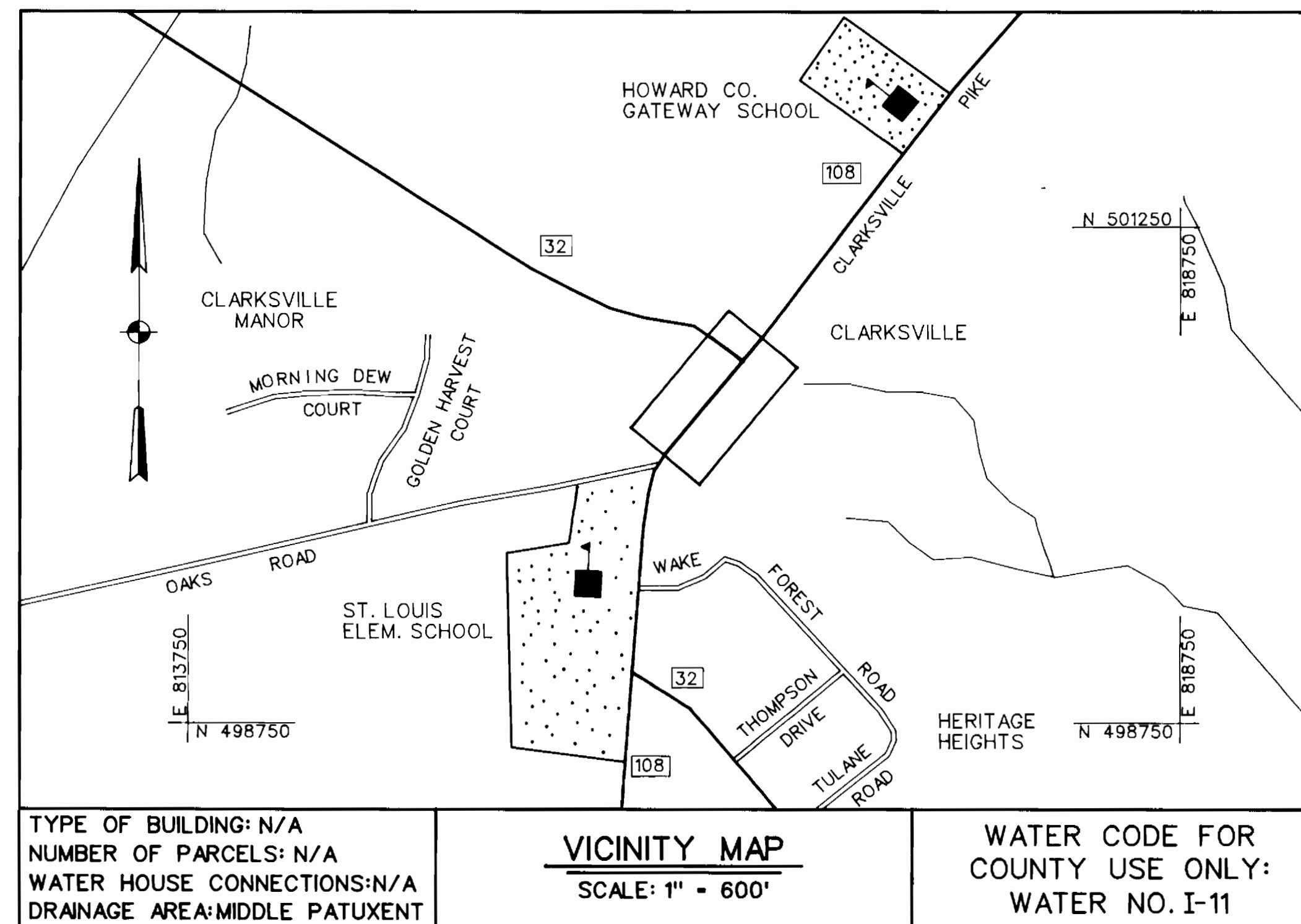


MARYLAND ROUTE 108 WATER MAIN EXTENSION HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIER
	ESTIM.	AS BUILT		
12" D.I.P. CLASS 54	842 L.F.			
12" STEEL INSULATED WATER MAIN	225 L.F.			
12" STEEL UNINSULATED WATER MAIN	57 L.F.			
24" OPEN CUT STEEL CASING	257 L.F.			
12" VALVE (RSGV)	1			
3" BLOWOFF	2			
12" CAP & BUTTRESS	4			
1/8 HORIZONTAL BEND	5			
1/8 VERTICAL BEND	2			
1/32 HORIZONTAL BEND	1			
1/32 VERTICAL BEND	4			



TYPE OF BUILDING: N/A
 NUMBER OF PARCELS: N/A
 WATER HOUSE CONNECTIONS: N/A
 DRAINAGE AREA: MIDDLE PATUXENT

VICINITY MAP
SCALE: 1" = 600'

WATER CODE FOR COUNTY USE ONLY:
WATER NO. I-11

GENERAL NOTES:

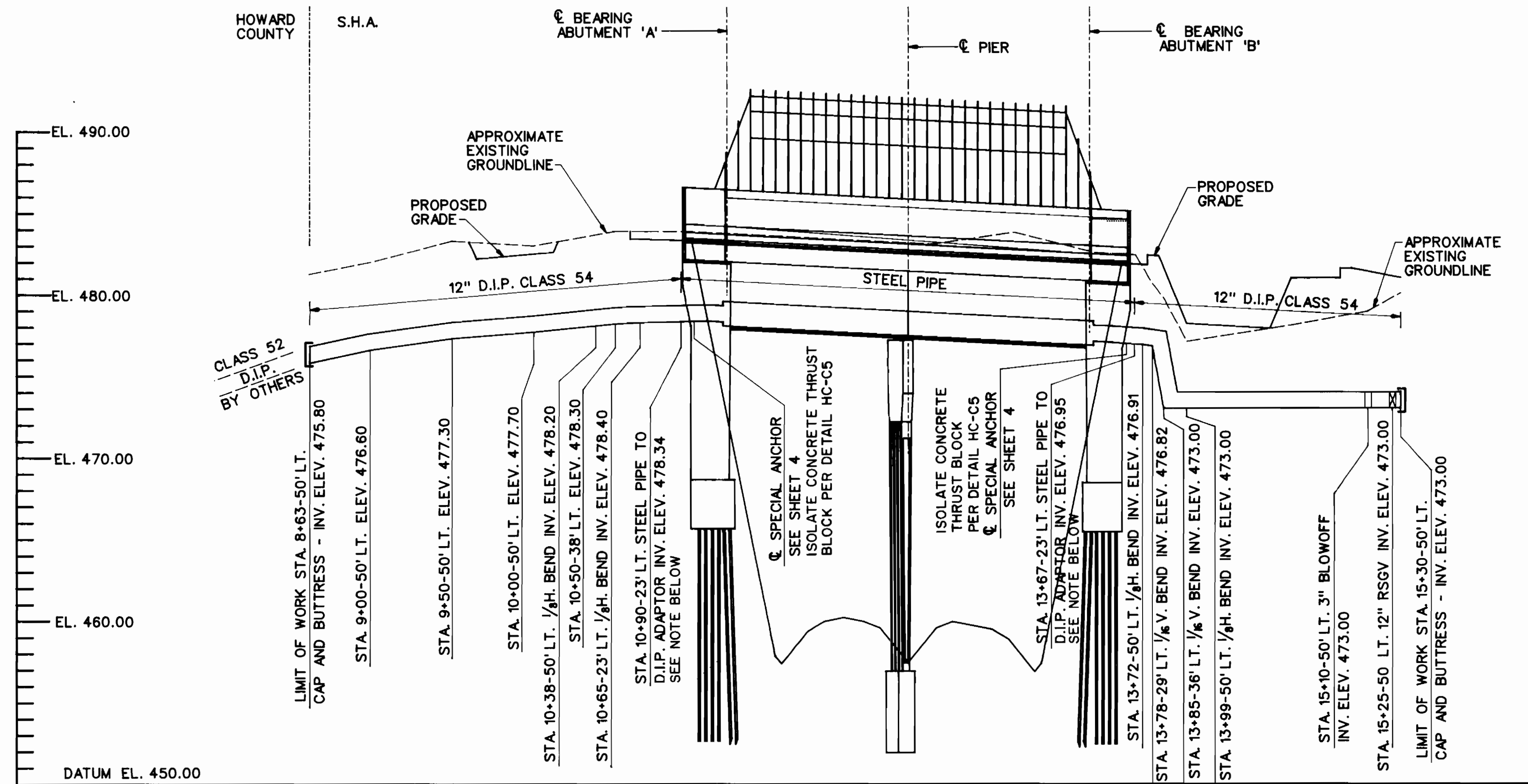
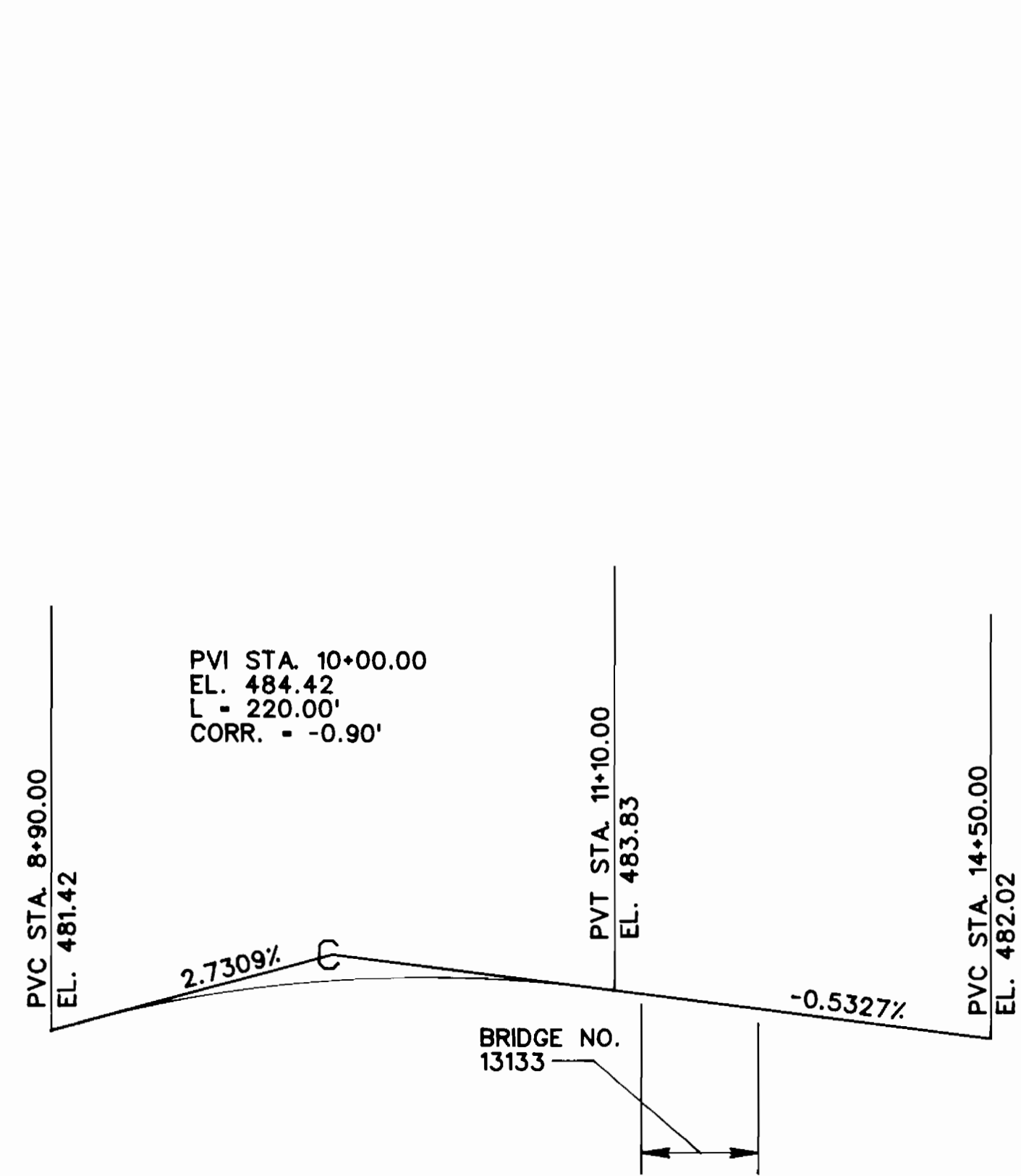
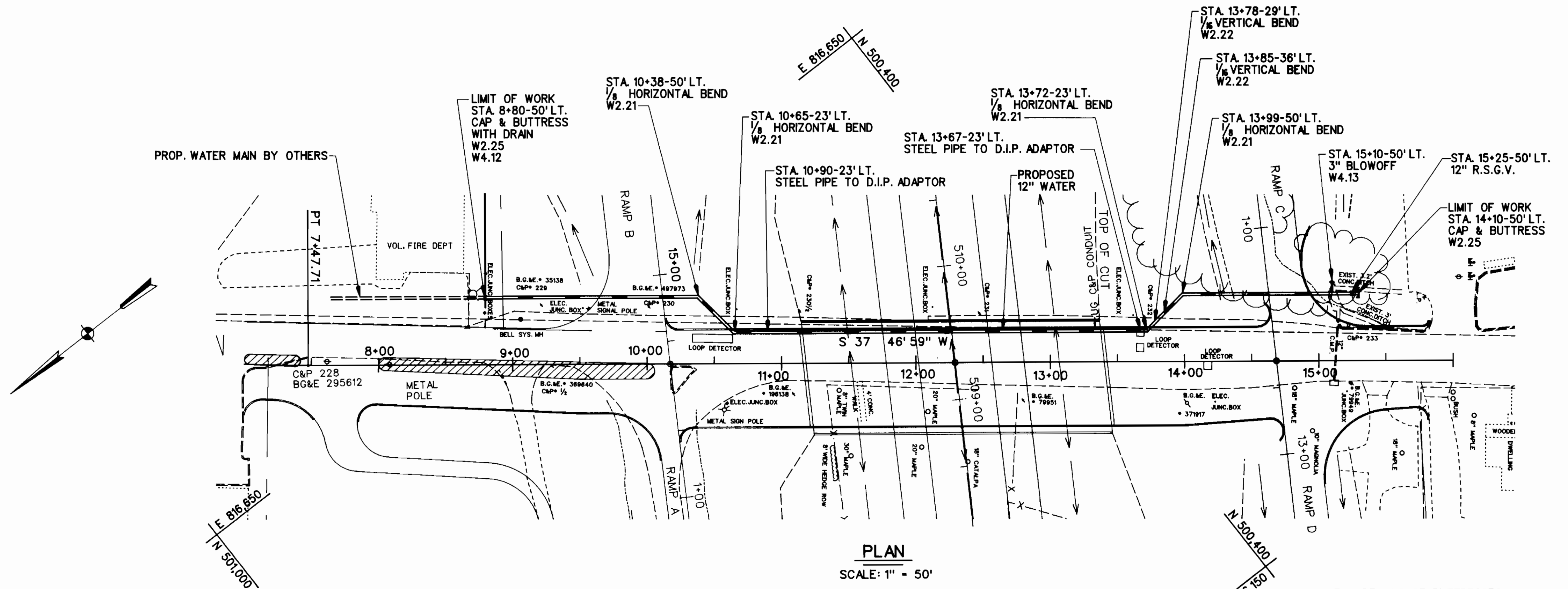
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS, SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS BASED ON U.S.G.S. DATUM.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- 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.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, SEE SPECIAL PROVISIONS.
- 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 TESTS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORK DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 BALTO. GAS & ELECTRIC CO.- CONTRACTOR SERVICE 850-4820
 BALTO. GAS & ELECTRIC CO.- UNDERGROUND DAMAGE CONTROL 859-9004
 BALTO. GAS & ELECTRIC CO.- TROUBLE SHOOTING 298-9001
 MISS UTILITY- 1-800-257-7777
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS- 313-4900
 CHESAPEAKE AND POTOMAC TELEPHONE CO.- 597-8585
- 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.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL WATER MAINS SHALL BE CLASS 54 DUCTILE IRON PIPE OR STEEL PIPE AS SHOWN. TOPS OF ALL WATER MAINS ARE TO HAVE A MINIMUM COVER OF 3.5' UNLESS OTHERWISE NOTED.
- WATER VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- 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 FROM THE STANDARD SPECS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM. CALL HOWARD COUNTY BUREAU OF UTILITIES AT 313-4900. COORDINATE TIE-IN TO THE EXISTING 12" WATER AT LEAST FIVE WORKING DAYS PRIOR TO SCHEDULING. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- EXCAVATED TRENCH LENGTH WILL BE LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACKFILLED AND STABILIZED IN ONE DAY, WHICHEVER IS SHORTER.

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE
3	FRAMING PLAN AND HANGER DETAILS
4	DETAILS
5	WATER MAIN - CEDAR LANE & MILL ROAD STEEL CASING - STA. 644+86 MD. RTE. 32

SHA HO 292-510-770

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 4/16/93 Chief, Bureau of Utilities: <i>[Signature]</i> 4-15-93	WALLACE, MONTGOMERY & ASSOCIATES 1544 YORK ROAD LUTHERVILLE, MARYLAND 21093 (301) 494-9093		DES: JCW DRN: JAD CHK: JCW DATE: 4/13/93	TITLE SHEET INDEX OF DRAWINGS GENERAL NOTES VICINITY MAP	MD. RTE. 108 WATER EXTENSION CAPITAL PROJECT W-8156 CONTRACT 44-3231 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 1 OF 5
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WATER MAIN LOCATION COORDINATES			
DESCRIPTION	STATION & OFFSET	NORTH	EAST
CAP AND BUTRESS	STA. 8+80 - 50' LT.	N 500,733.764	E 816,666.038
1/8 HORIZONTAL BEND	STA. 10+38 - 50' LT.	N 500,608.744	E 816,569.121
1/8 HORIZONTAL BEND	STA. 10+65 - 23' LT.	N 500,603.944	E 816,531.238
1/8 HORIZONTAL BEND	STA. 13+72 - 23' LT.	N 500,361.310	E 816,343.145
1/8 HORIZONTAL BEND	STA. 13+99 - 50' LT.	N 500,323.426	E 816,347.942
CAP AND BUTRESS	STA. 14+10 - 50' LT.	N 500,219.893	E 816,267.682



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: 4/16/93
Chief, Bureau of Engineering: 4-15-93
Chief, Bureau of Utilities: 4-15-93
Chief, Utility Design Division: 4-14-93

WALLACE, MONTGOMERY & ASSOCIATES
1544 YORK ROAD
LUTHERVILLE, MARYLAND 21093
(301) 494-9093



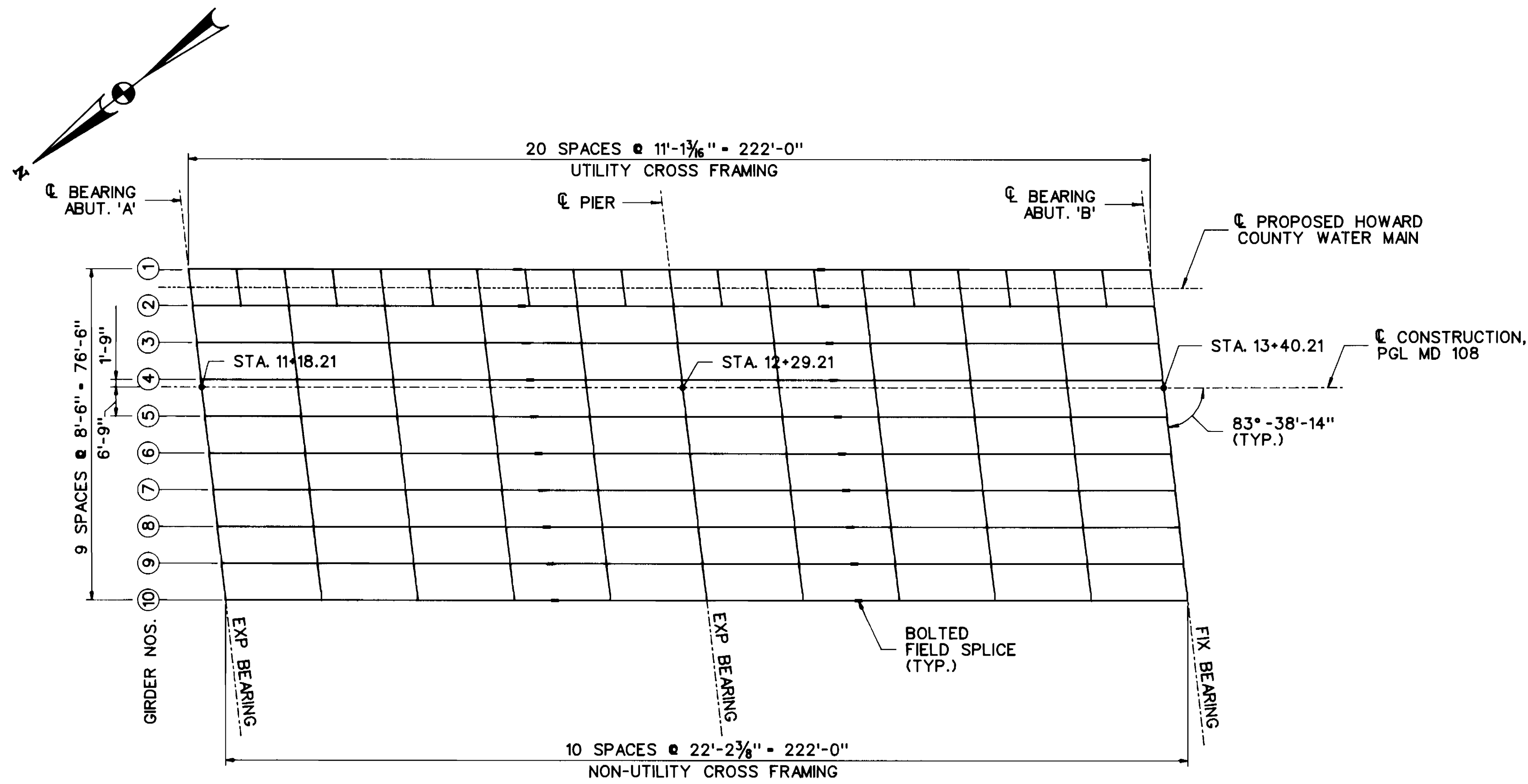
DES: JCW			
DRN: JAD			
CHK: JCW			
DATE: 4/13/93	BY: NO.	REVISION	DATE

PLAN AND ELEVATION
600' SCALE MAP NO. _____ BLOCK NO. _____

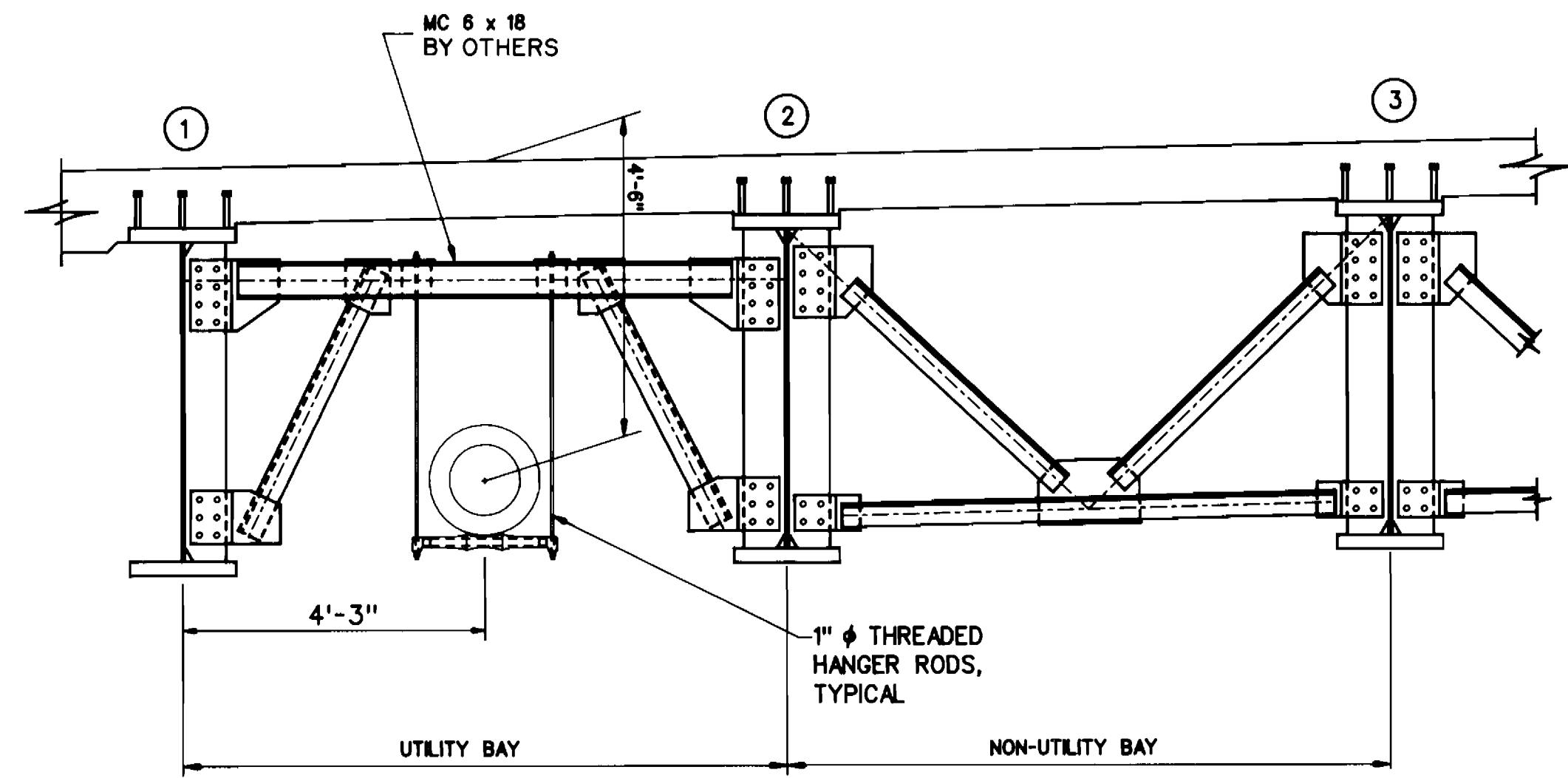
SHA HO 292-510-770

MARYLAND ROUTE 108 WATER EXTENSION
CAPITAL PROJECT W-8156
CONTRACT 44-3231
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

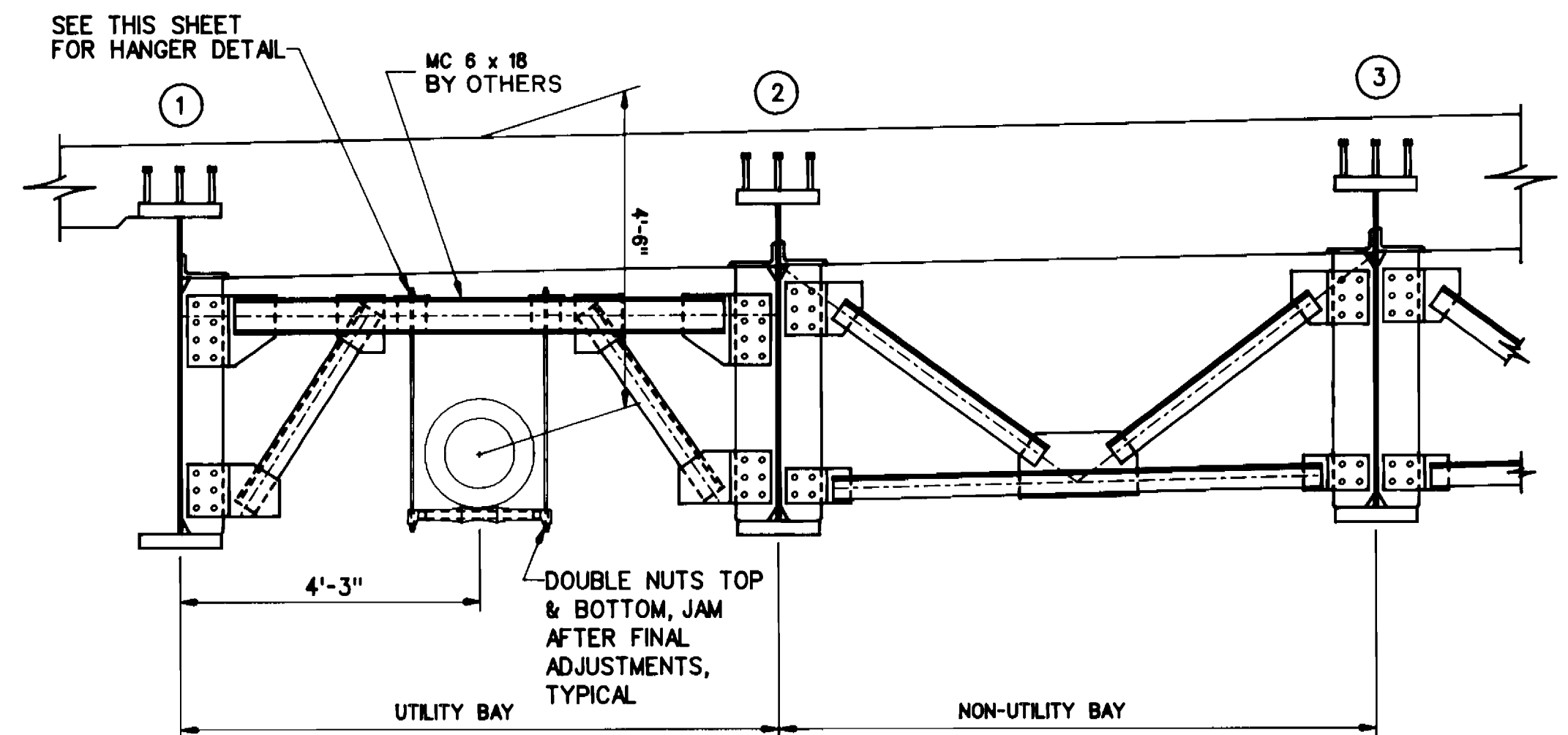
SCALE AS SHOWN
SHEET 2 OF 5



FRAMING PLAN
SCALE: 1" = 20'-0"



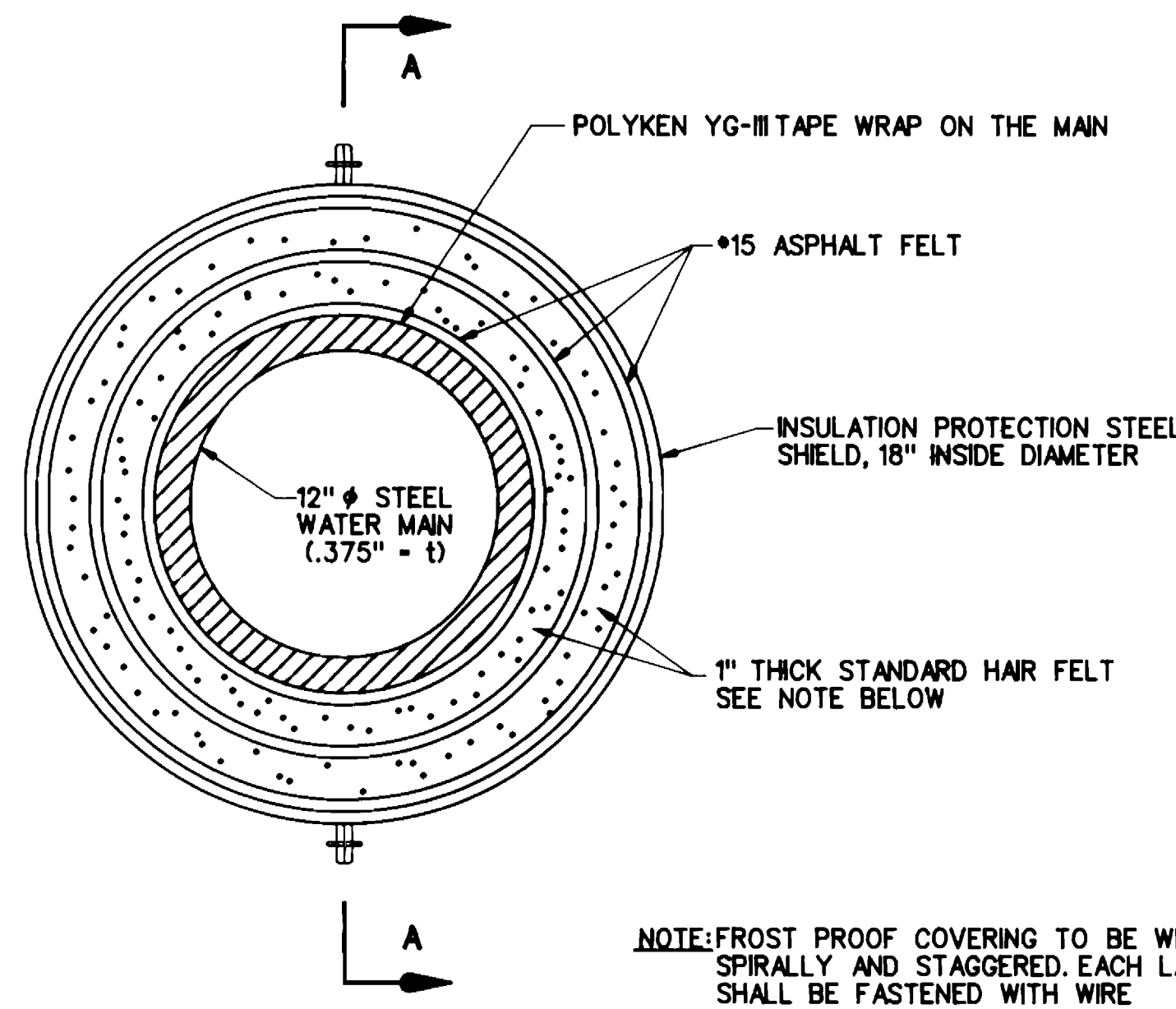
INTERMEDIATE & PIER CROSS FRAMING
SCALE: 1/2" = 1'-0"



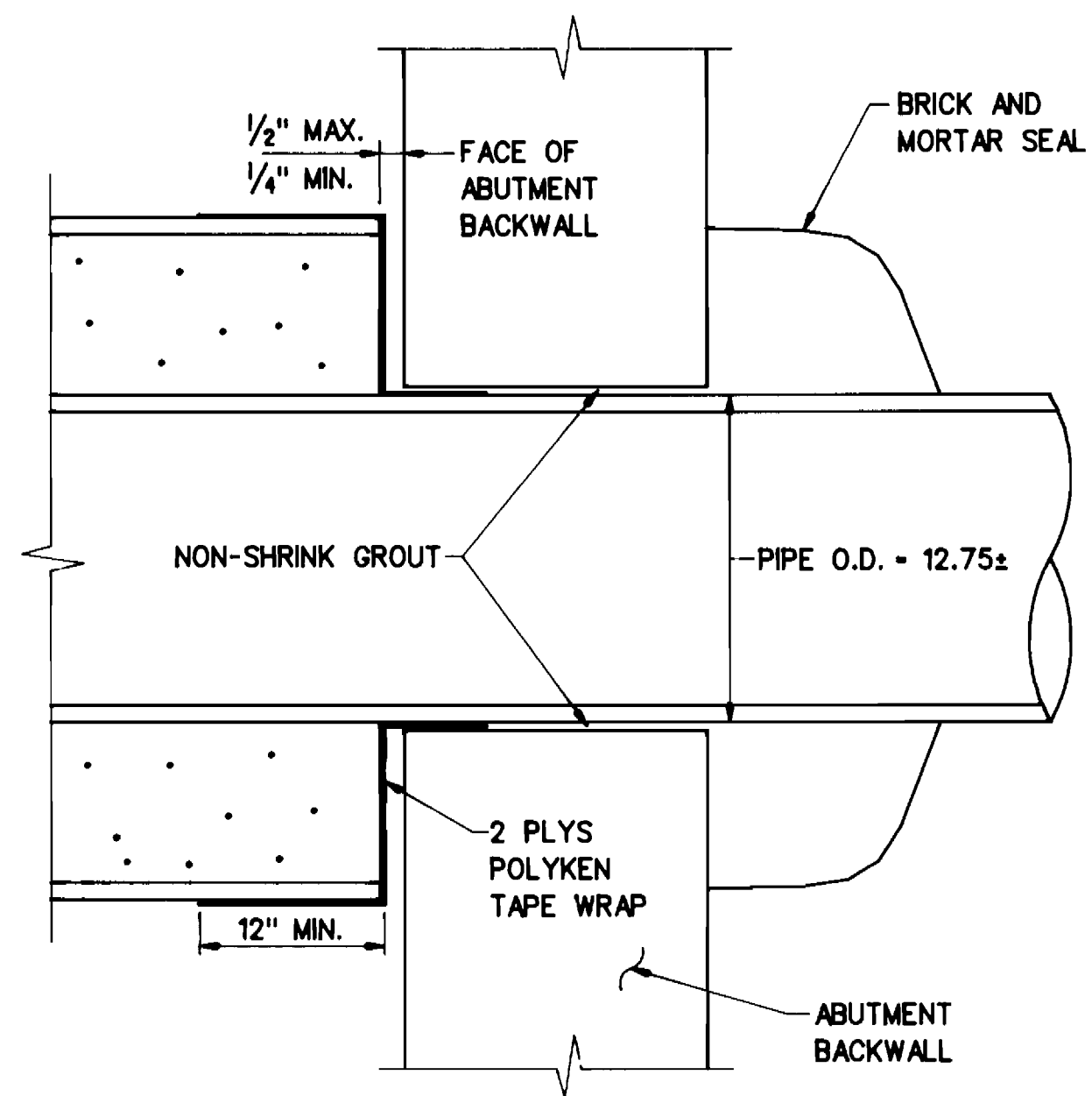
CROSS FRAMING @ ABUTMENTS
SCALE: 1/2" = 1'-0"

NOTE: EACH SUPPORT SHALL HAVE POLYURETHANE STEEL ROLL, INSULATION SADDLE, STEEL SOCKETS AND ROLL ROD, CONTINUOUS THREAD HANGER RODS, AND HEX NUTS AS MANUFACTURED BY LINN BROWN & ASSOCIATES, INC. OR APPROVED EQUAL.

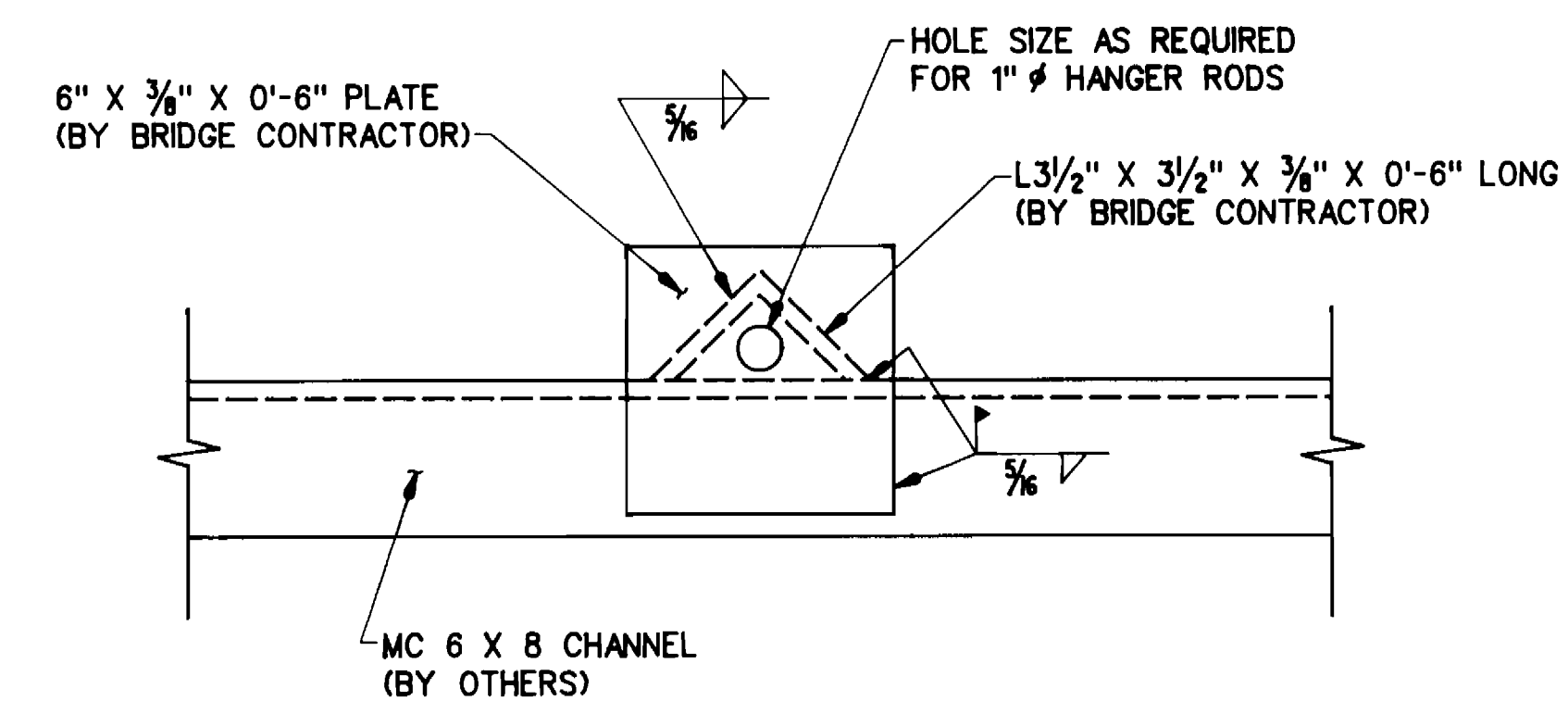
NOTE: FOR ADDITIONAL DIMENSIONS SEE STRUCTURAL PLANS



PIPE INSTALLATION DETAIL
NOT TO SCALE



SECTION A-A
PIPE END TREATMENT DETAIL
NOT TO SCALE



HANGER DETAIL
SCALE: 3" = 1'-0"

SHA HO 292-510-770

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works: *[Signature]* 4/15/93
Chief, Bureau of Engineering: *[Signature]* 4-15-93
Chief, Bureau of Utilities: *[Signature]* 4-15-93
Chief, Utility Design Division: *[Signature]* 4-14-93

WALLACE, MONTGOMERY & ASSOCIATES
1544 YORK ROAD
LUTHERVILLE, MARYLAND 21093
(301) 494-9093

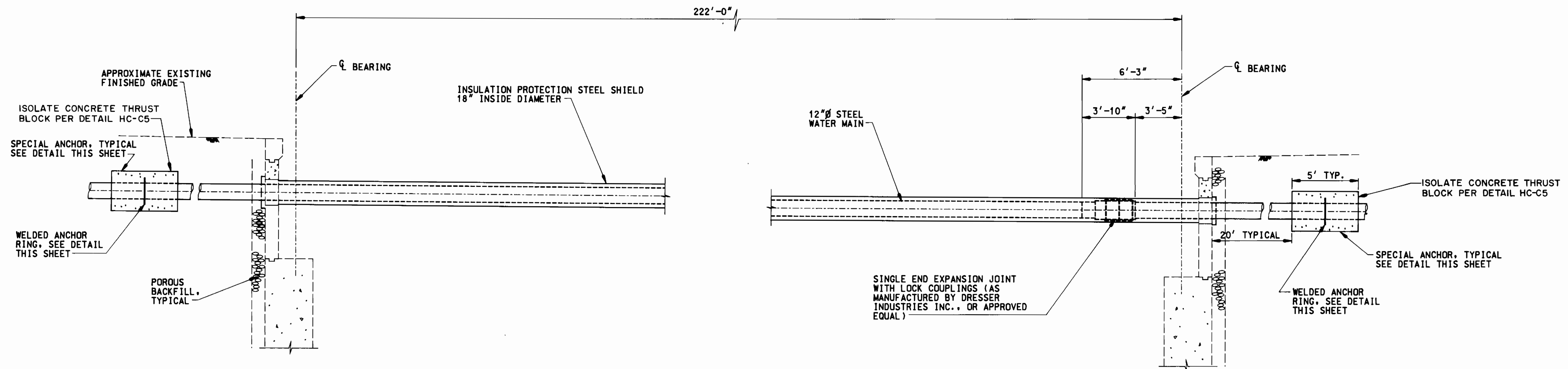


DES: JCW			
DRN: JAD			
CHK: JCW			
DATE: 4/13/93	BY	NO.	REVISION

FRAMING PLAN & HANGER DETAILS
DATE: 600' SCALE MAP NO. _____ BLOCK NO. _____

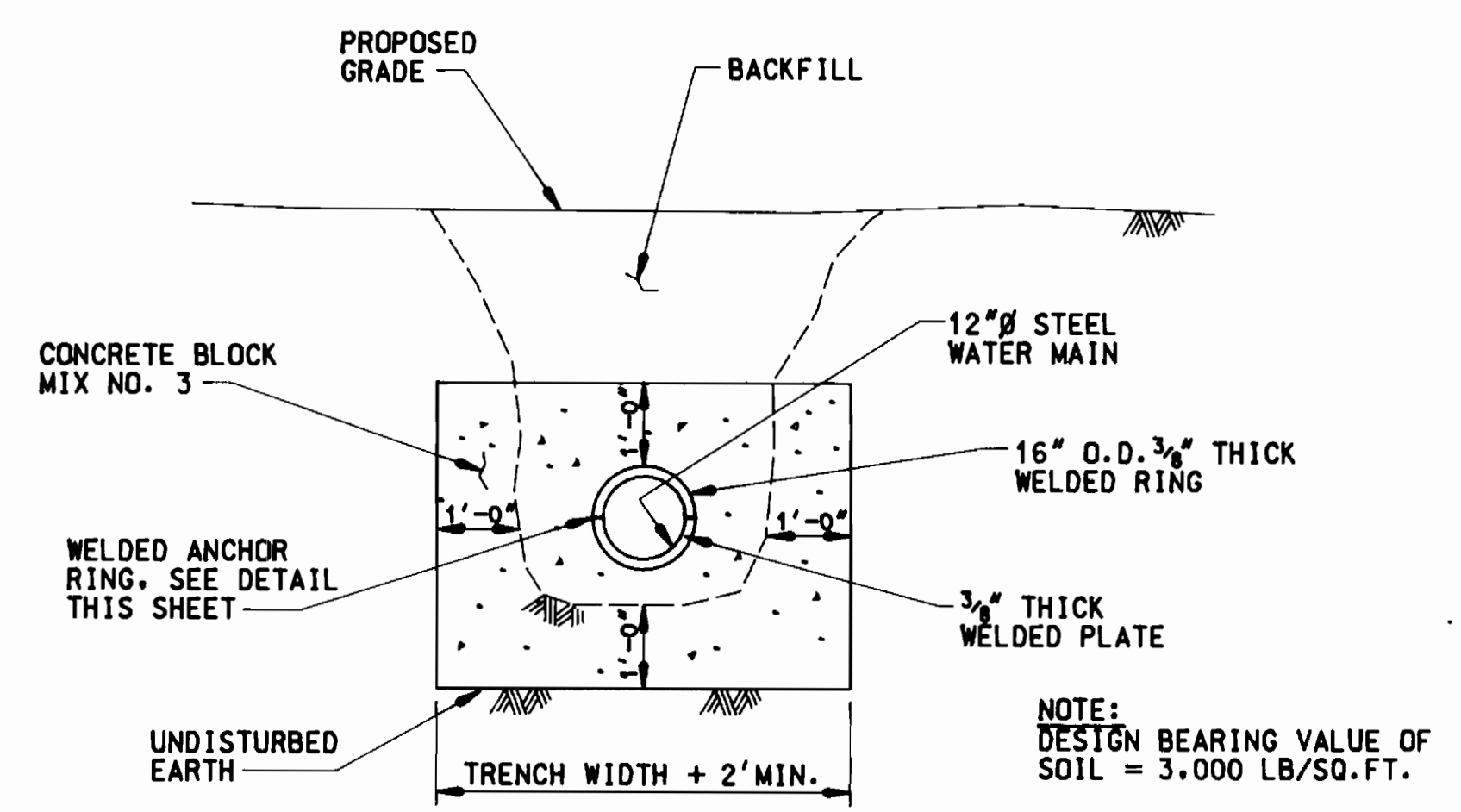
MARYLAND ROUTE 108 WATER EXTENSION
CAPITAL PROJECT W-8156
CONTRACT 44-3231
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 5



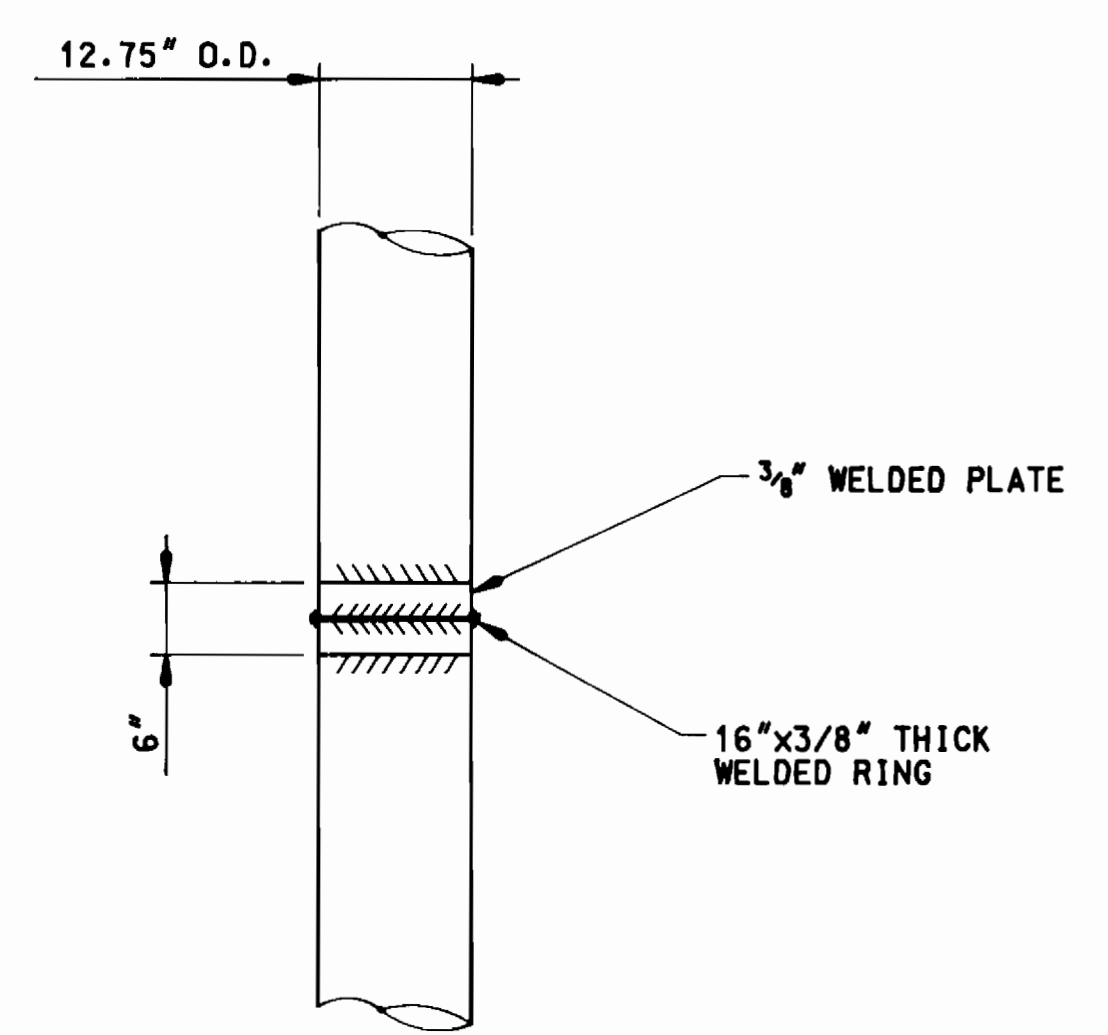
SECTION THRU BRIDGE @ WATER MAIN

SCALE: 1/4" = 1'-0"



SECTION THRU SPECIAL ANCHOR

NOT TO SCALE



DETAIL - WELDED ANCHOR RING

SCALE: 3/4" = 1'-0"

SHA HO 292-510-770

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. ... 4-16-93
DIRECTOR OF PUBLIC WORKS DATE

Robert H. ... 4-15-93
CHIEF, BUREAU OF UTILITIES DATE

... 4-15-98
CHIEF, BUREAU OF ENGINEERING DATE

... 4-14-93
CHIEF, UTILITY DESIGN DIVISION DATE

WALLACE, MONTGOMERY & ASSOCIATES
1544 YORK ROAD
LUTHERVILLE, MARYLAND 21093
(301) 494-9093



DES:JCW			
DRN:JAD			
CHK:JCW			
DATE:4/13/93	BY	NO.	REVISION

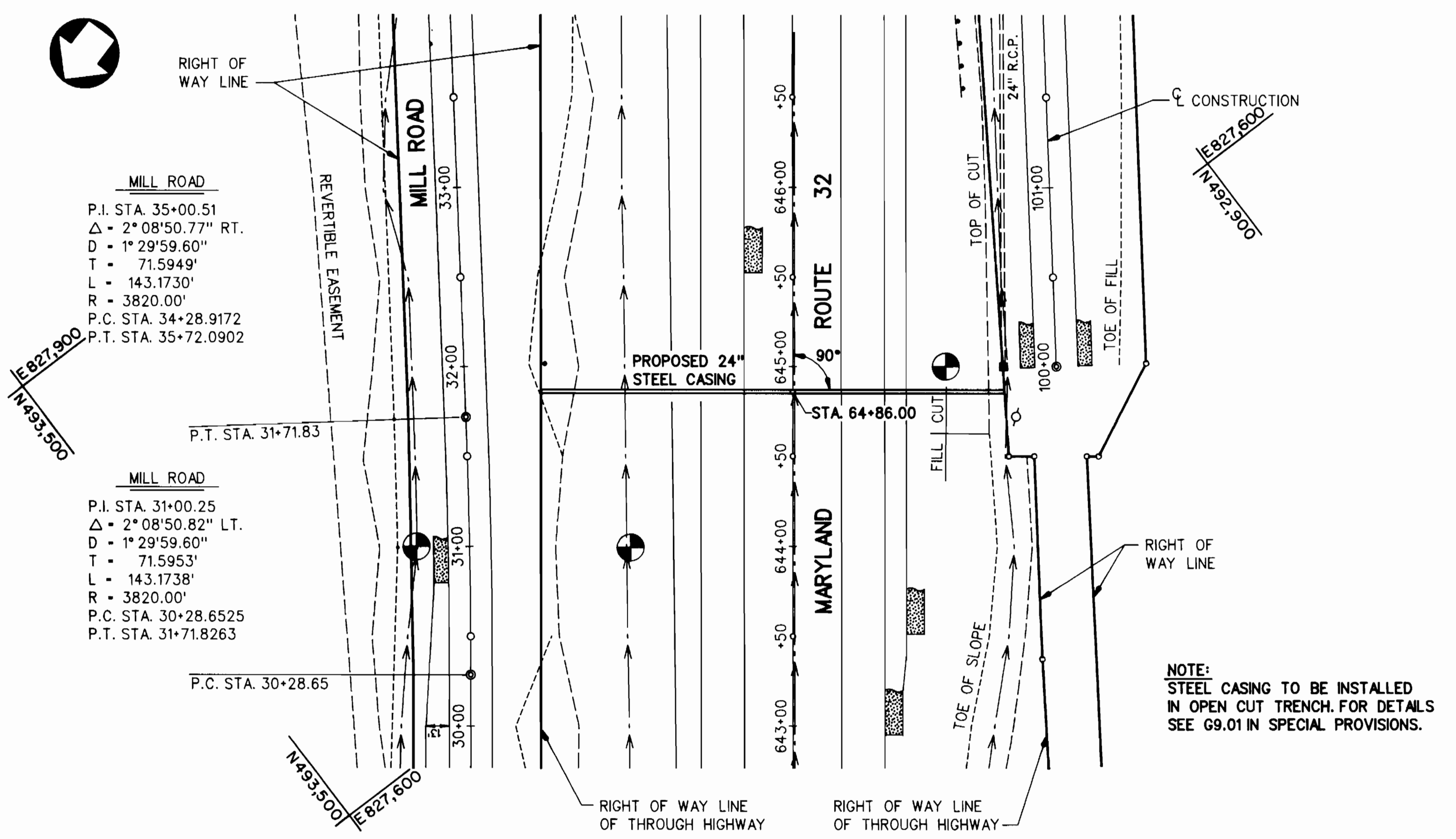
DETAILS

600' SCALE MAP NO. _____ BLOCK NO. _____

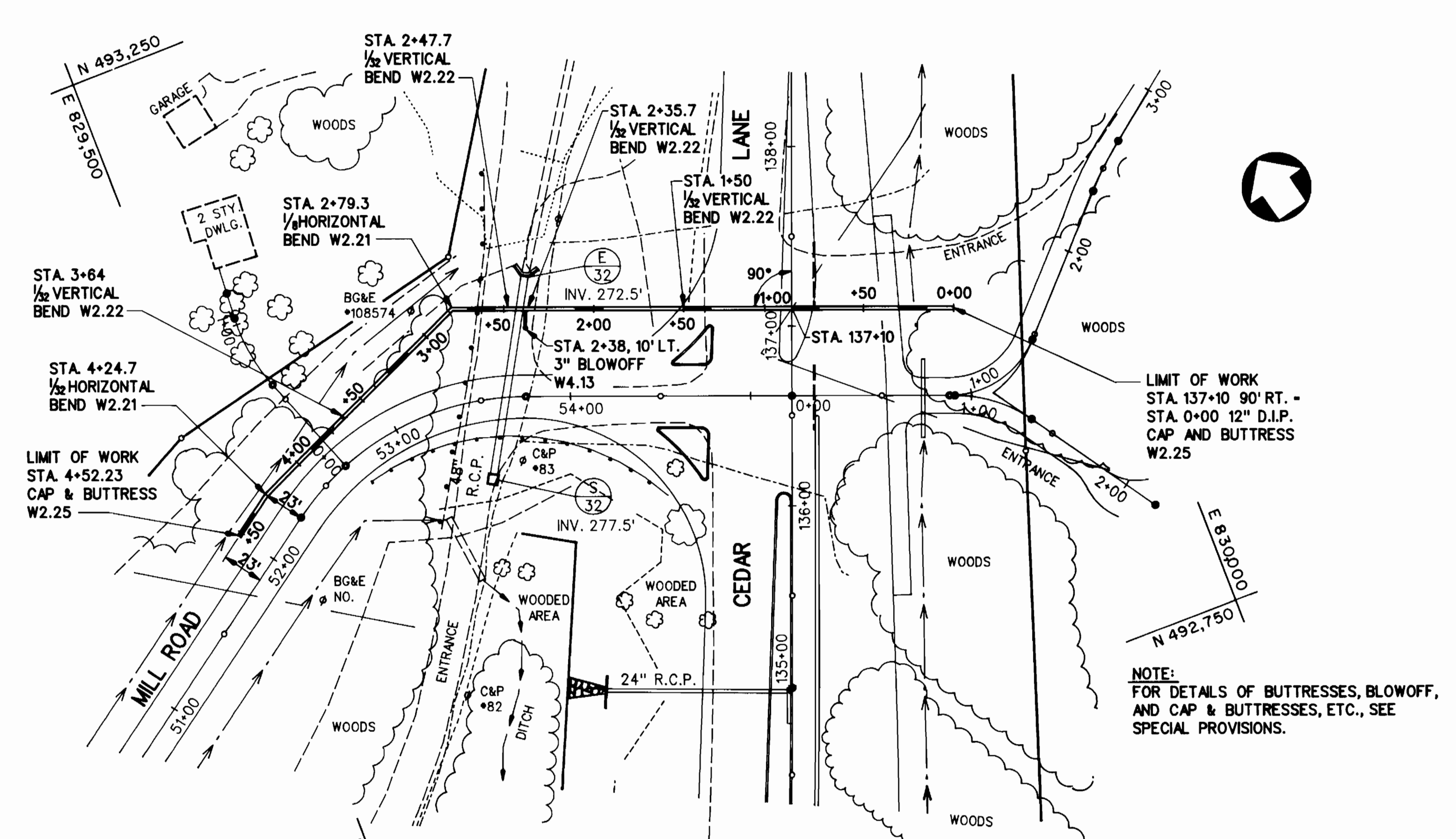
MARYLAND ROUTE 108 WATER EXTENSION
CAPITAL PROJECT W-8156
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HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

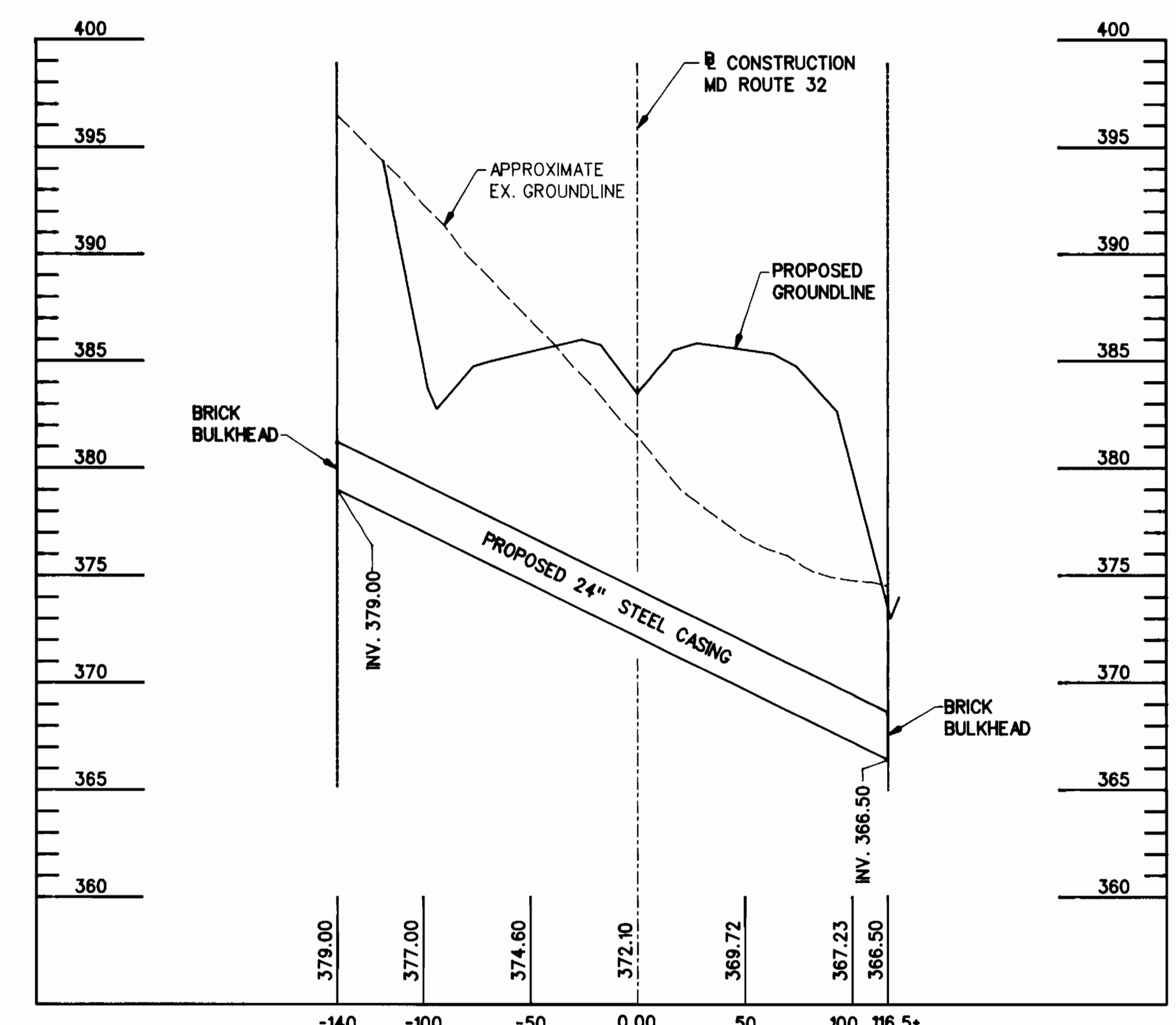
SHEET 4 OF 5



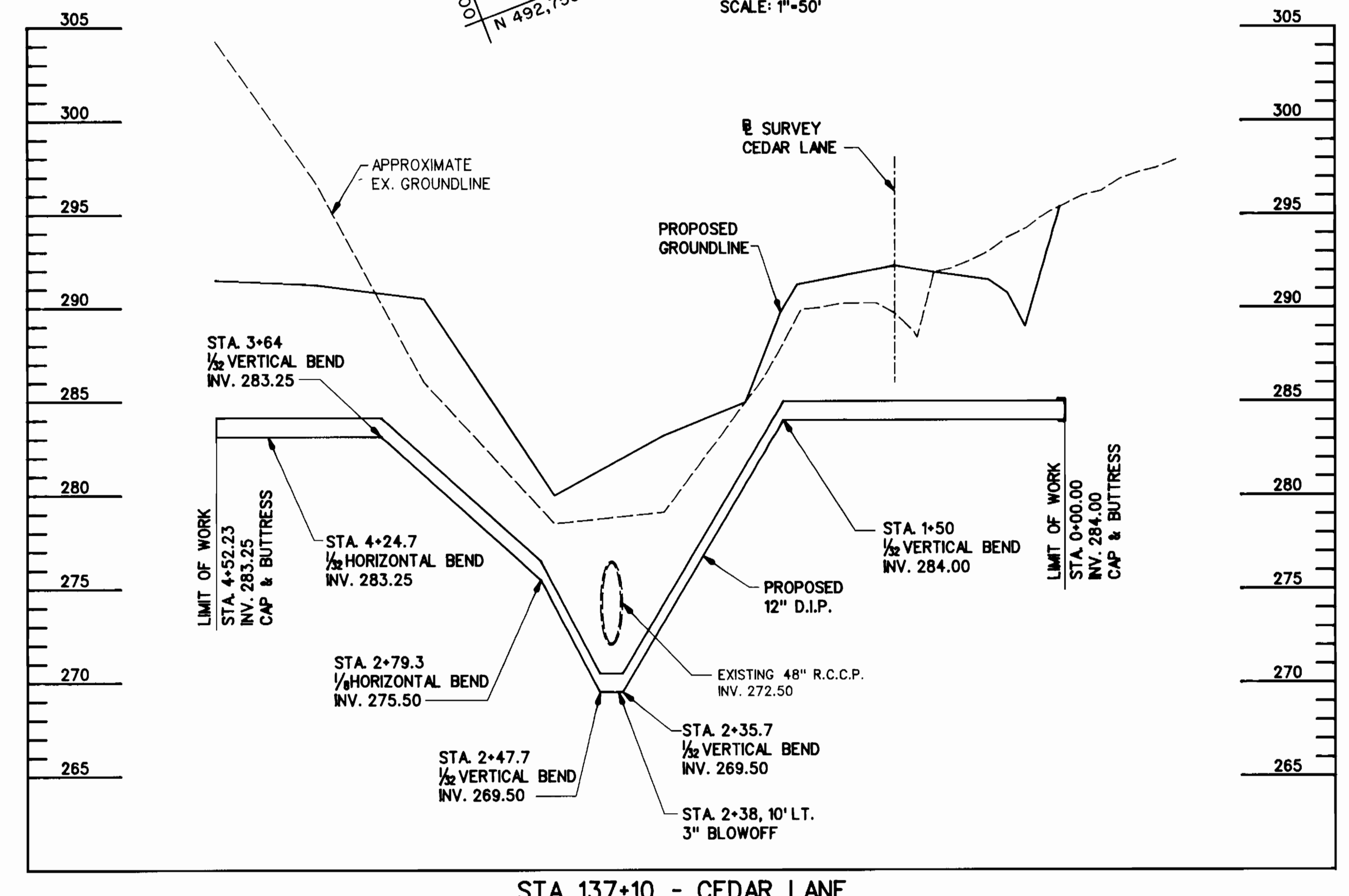
PLAN
 SCALE: 1"=50'



PLAN
 SCALE: 1"=50'



STA. 64+86 PROFILE - 24" SLEEVE
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



STA. 137+10 - CEDAR LANE
12" WATER MAIN
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'

SHA HO 292-510-770

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James J. ... 4-15-93
 DIRECTOR OF PUBLIC WORKS
William J. ... 4-15-93
 CHIEF, BUREAU OF UTILITIES

William J. ... 4-15-93
 CHIEF, BUREAU OF ENGINEERING

William J. ... 4-15-93
 CHIEF, UTILITY DESIGN DIVISION

WALLACE, MONTGOMERY
 & ASSOCIATES
 1544 YORK ROAD
 LUTHERVILLE, MARYLAND 21093
 (301) 494-9093



DES: J.C.W.			
DRN: M.A.C.			
CHK: J.C.W.			
DATE: 4/13/93	BY: NO.	REVISION	DATE

PLAN AND PROFILE

600' SCALE MAP NO. _____ BLOCK NO. _____

MARYLAND ROUTE 108 WATER EXTENSION
 CAPITAL PROJECT W-8156
 CONTRACT 44-3231
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 5 OF 5