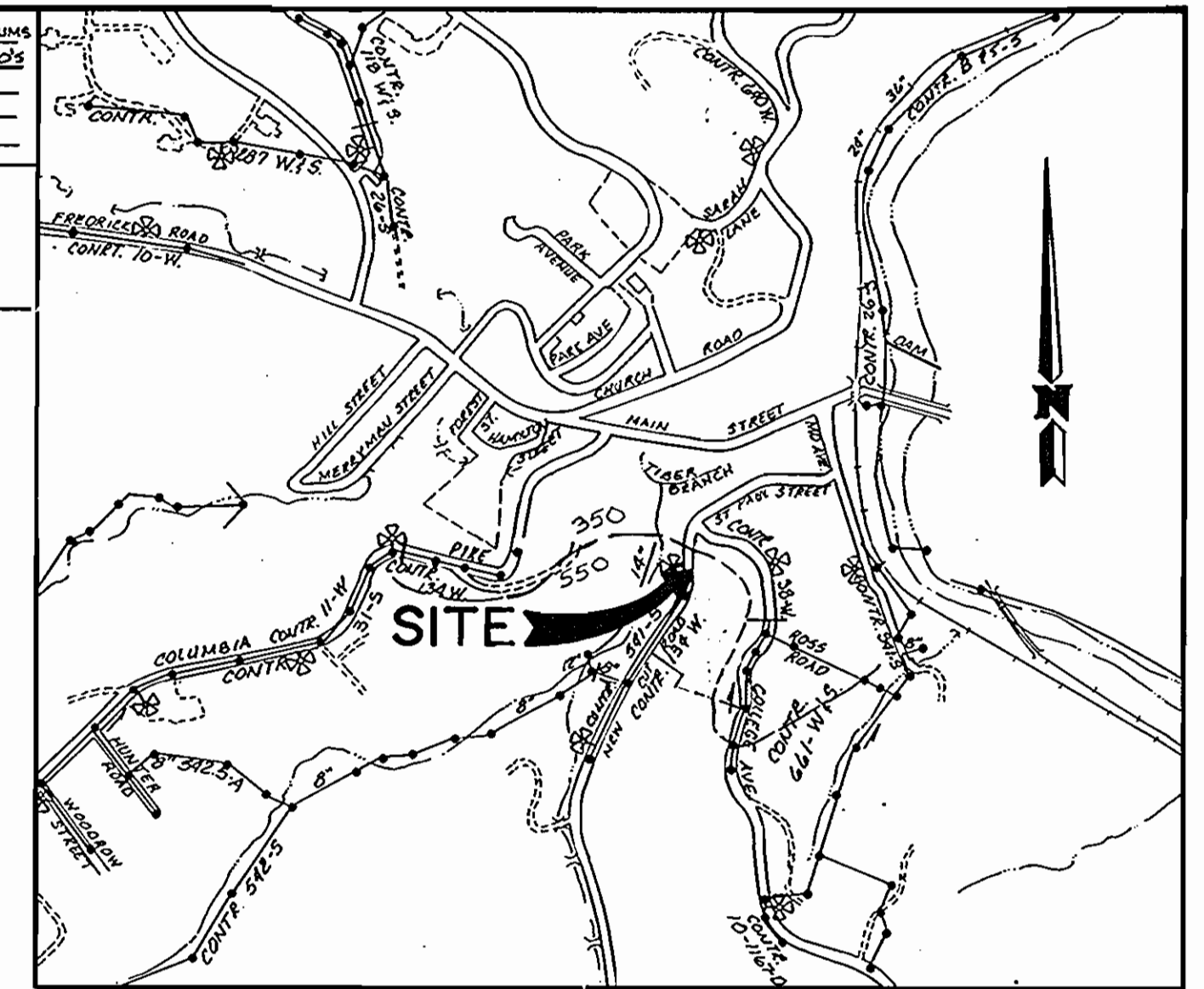


NUMBER OF LOTS 20 APARTMENTS  
 BUILDING TYPE APARTMENTS, TOWNHOMES  
 NUMBER OF WH'S 3  
 NUMBER OF SH'S 1  
 DRAINAGE AREA PATAPSCO

WATER AND SEWER CODE  
 WATER NO. F 04  
 SEWER NO. 1400500



VICINITY MAP  
SCALE 1" = 600'

# CONTRACT NO. 14-1957-D


# GREYSTONE

## HOWARD COUNTY, MARYLAND

## WATER AND SEWER MAIN EXTENSIONS

## DEPARTMENT OF PUBLIC WORKS

**GENERAL NOTES**

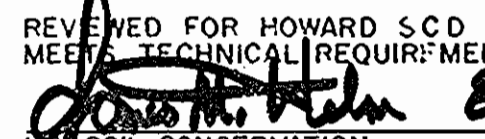

1. Approximate location of existing mains are shown. The contractor shall take all the necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the engineer at the contractor's expense.
2. 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 damage 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 drawing, 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; "1989 Amendments" 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(s) 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 utilities or agencies at least five working days before starting work shown on these plans.
  - State Highway Administration
  - Baltimore Gas & Electric Co./Contractor Services 561-2585
  - Baltimore Gas & Electric Co./Underground Damage Control 234-5611
  - Baltimore Gas & Electric Co./Trouble Shooting 298-9013
  - Miss Utility - I - 559-0100
  - Colonial Pipeline Company 795-1390
  - Bureau of Utilities, Howard County Department of Public Works 392-2366
9. Trees and shrubs are to be protected. All 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.
  1. All water mains to be D.I.P. unless otherwise noted.
  2. Tops of all water mains to have a minimum of 3 1/2' cover unless otherwise noted.
  3. Valves adjacent to tees shall be trapped to tees.
  4. All fittings shall be buttressed or anchored with concrete in accordance with the standard details unless otherwise provided for on the drawings.
  5. 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 hydrant shall be compacted in accordance with sections 1003 and 1008 of the Standard Specifications.
  6. The contractor shall not operate any water main vales on the existing water system.
  7. All sewer mains shall be C.S.P.S., R.C.S.P., V.C.P.X., A.C.P. class 2400 or P.V.C. unless otherwise noted.
  8. The contractor shall provide a joint in all sewer mains within 2'0" of exterior manhole wall.
  9. All manholes shall be 4'0" inside diameter unless otherwise noted.
  10. Manholes shown with 12" and 16" walls are brick manholes only.
  11. ALL WATER CONNECTIONS SHALL BE SET FOR INSIDE METER SETTING EXCEPT AS NOTED ON PLAN.

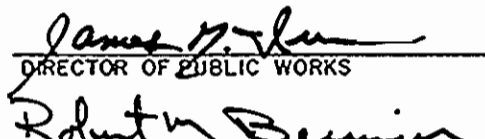
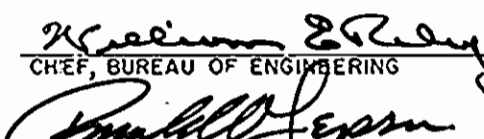

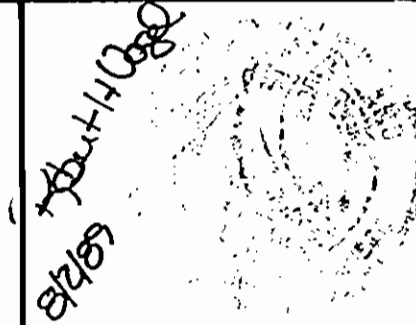
**NOTE**  
 SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN SHEETS 7 AND 8, SDP 89-159.

Note: As Built for Public (14-1957) only  
 for Private (SDP-89-159) see Sheet 3 of 11

QUANTITIES			
ITEM	QUANTITY	AS-BUILT	SUPPLIER
12" TS. B.V.	1	1	GRIFFIN PROD. CO.
8" WATER	315 LF	220	"
8" 1/16 BEND	2	2	"
8" 1/8 BEND	3	3	"
8" VALVES	2	2	"
8" x 8" TEE	1	1	"
FIRE HYDRANTS	2	2	"
MANHOLES	2	2	ATLANTIC CON.
8" SEWER	152 LF	143	MUNICIPAL
ANCHORS (CONC)	3	3	POURED IN PLACE
8" x 6" TEES	1	1	GRIFIN
6" W.H.C.	10 LF	88	"
8" CAP AND BUTTRISS	2	2	"
8" METER VALVE VAULT	1	1	POURED IN PLACE
6" METER VALVE VAULT DETECTOR	1	0	Eliminated

\* INSIDE APT. BLDG. 

REVIEWED FOR HOWARD SCD AND METEOROLOGICAL REQUIREMENTS  
 8-10-89  
 U.S. SOIL CONSERVATION SERVICE DATE  
 SDP 89-159  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 8/9/89  
 HOWARD CO. SCD DATE  
 SDP 89-159

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND  8/11/89 DIRECTOR OF PUBLIC WORKS DATE  8/10/89 CHIEF, BUREAU OF ENGINEERING DATE  8/10/89 CHIEF, LAND DEVELOPMENT DIVISION DATE	JOHN E. HARMS JR. AND ASSOCIATES INC. CIVIL ENGINEERS - PLANNERS - SURVEYORS 9020 BEL BRANCH ROAD SUITE 100 COLUMBIA, MARYLAND 21045 TELEPHONE (301) 740-5100 	DES: J.G.H. DRN: J.R.M. CHK: R.H.V. DATE: 3/789	B.L.K. 1 L.E.W. 2 Revised Location of MH-2, Revised Sewer Easement, Revised Profile for MH-2, Revised Ex. Ground On Profiles, ELIMINATE 2" x 6" CONNECTION TO APT. BLDG., REVISED PLAN, PROFILE AND QUANTITIES 9/25/89 9/17/89	<b>EXTENSION OF          WATER AND SEWER MAINS</b> 600' SCALE MAP NO. 25-A BLOCK NO.	<b>VICINITY MAP AND GENERAL NOTES          GREYSTONE          CONTRACT NO: 14-1957-D</b> SECOND ELECTION DISTRICT HOWARD COUNTY, MD.	SCALE AS SHOWN SHEET 1 OF 3
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**ABANDONMENT PROCEDURE FOR EXISTING WATER HOUSE CONNECTION**

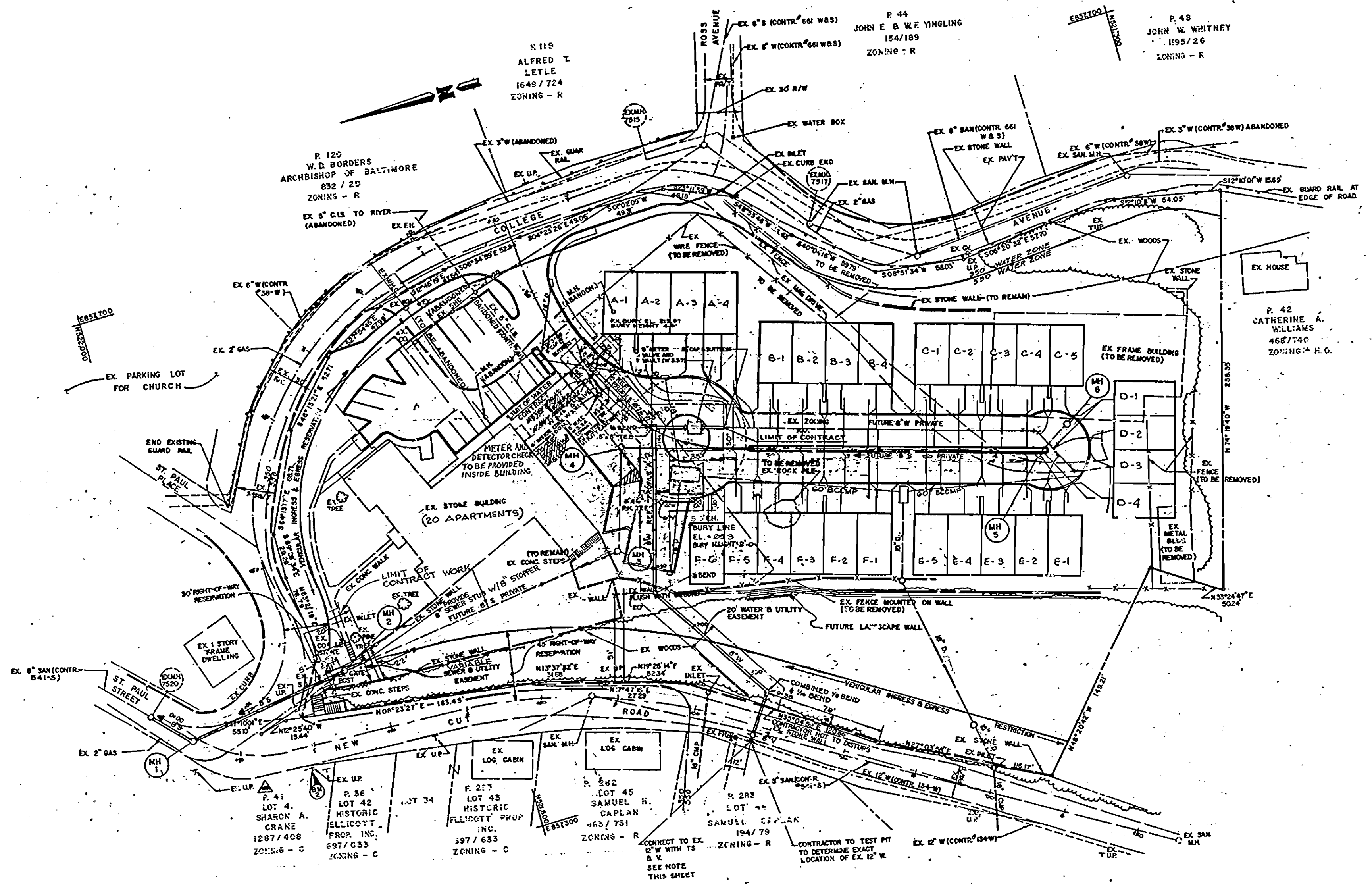
1. LOCATE EXISTING W.H.C. FROM TEST PITS.
2. DISCONNECT EXISTING W.H.C. FROM EXISTING 6" WATER MAIN (CONT. N<sup>o</sup> 39-W). REMOVE THE CORPORATION COCK & PLUG. REF. HO. CO. STD. G 4.0 FOR OPEN TRENCH.
3. REPAIR OPEN TRENCH. SEE HO. CO. STD. G 4.0.

**ABANDONMENT PROCEDURE FOR EXISTING SEWER HOUSE CONNECTION**

1. REFERENCE HO. CO. STD. G 4.0. FOR USING AN OPEN TRENCH.
2. TEMPORARILY PLUG PIPE FROM EXISTING MH 7517
3. REMOVE EXISTING S.H.C. FROM MH 7515 TO EXISTING 30" R/W LINE.
4. BRICK HOLE IN MH. INSPECT M.H. FOR COMPLIANCE WITH STANDARD CONSTRUCTION SPECIFICATIONS.
5. REMOVE TEMPORARY PLUG.
6. REPAIR OPEN TRENCH. SEE HO. CO. STD. G 4.0.

**BENCH MARKS**

BM: 2" R/R SPIKE IN P/P BG & E  
270490 15' RIGHT OF @ STA.  
0+00 NEW CUT ROAD ELEV. 183.41

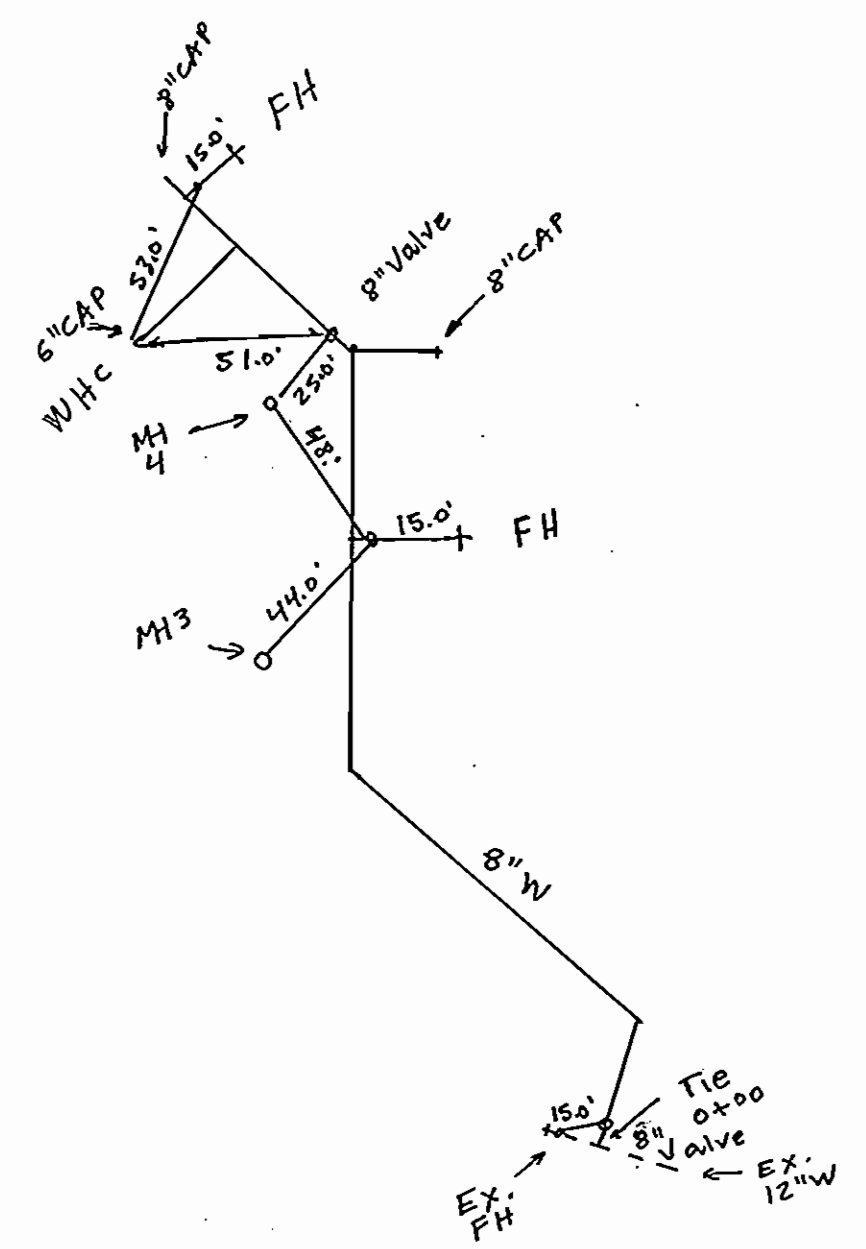
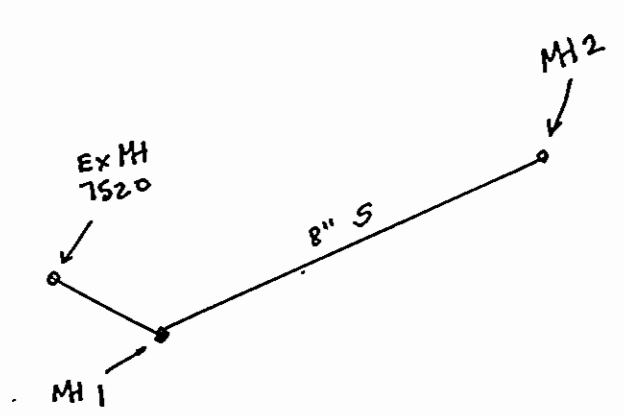


- NOTE:
1. OPEN TRENCH CAN BE UTILIZED FOR CONNECTION TO EXISTING 12" W IN NEW CUT ROAD IF PERFORMED PRIOR TO OCTOBER 1989 (REF DETAIL G. 4. 0) IF CONNECTION TO EXISTING 12" W MADE AFTER OCTOBER 1989 UTILIZE JACKING OR BOILING (REF. DETAIL, SHEET 3 OF 3).
  2. REFERENCE SDP 89-159 FOR ON SITE PRIVATE WATER & SEWER.
  3. REFERENCE HOWARD COUNTY DETAIL G. 4.0 FOR PAVEMENT REPLACEMENT IN ST. PAUL STREET FOR CONNECTION TO EXISTING SEWER.

REVIEWED FOR HOWARD S.C.D. AND MEET TECHNICAL REQUIREMENTS  
*[Signature]* 8-10-89  
U.S. SOIL CONSERVATION DATE

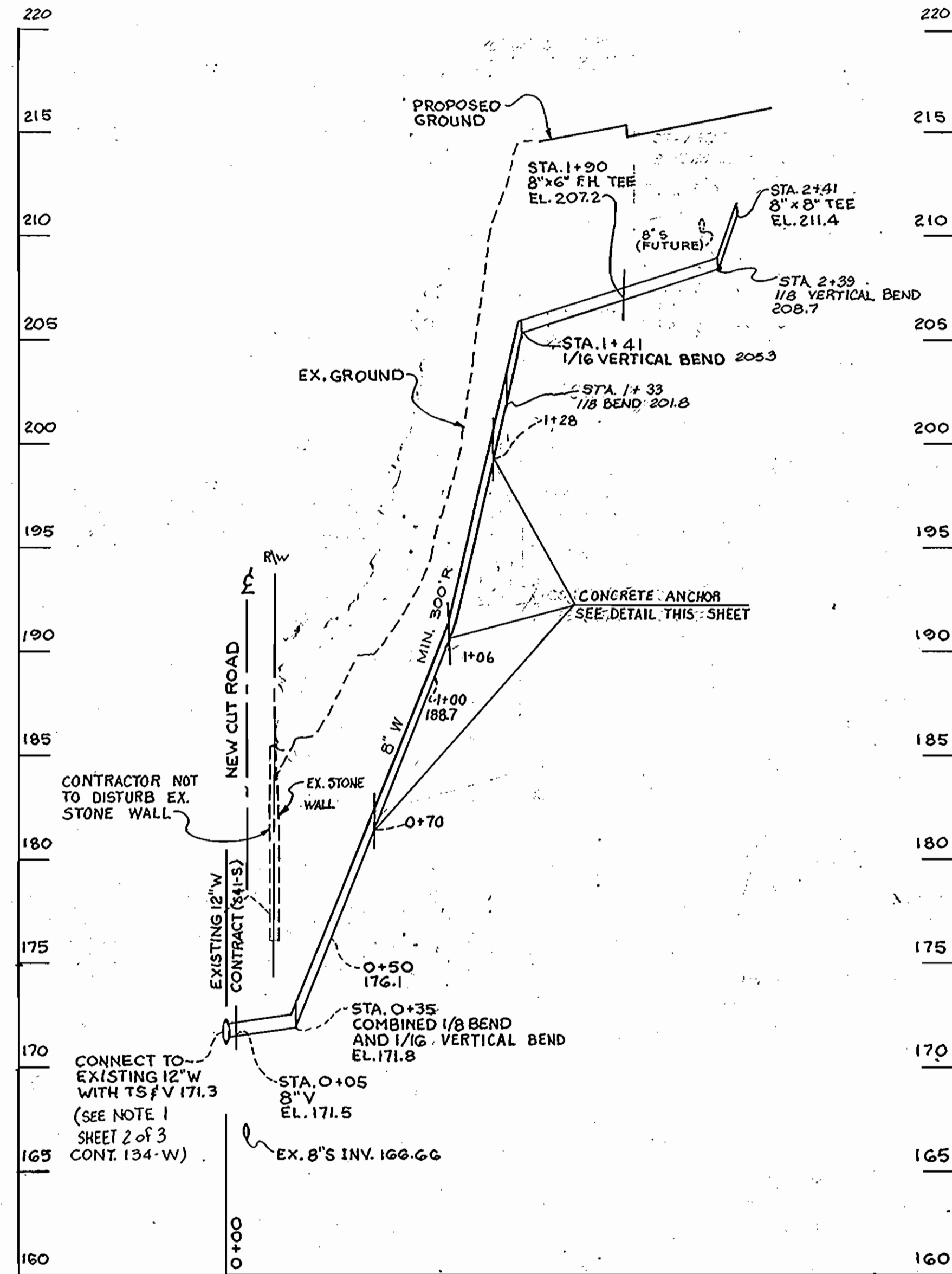
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*[Signature]* 8/9/89  
HOWARD CO. S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND		JOHN E. HARMS JR. AND ASSOCIATES INC. CONSULTING ENGINEERS - PLANNERS - SURVEYORS 8818 CENTRE PARK DRIVE SUITE 208 COLUMBIA, MARYLAND 21045 TELEPHONE (301) 740-5200		DES: BJK 1 LEW 2 DRN: CHK: DATE:		Revised Location of MH 2; Revised Sewer Easement; Revised Profile for MH 2; Revised Ex. Graded On Profiles; ELIMINATE 2 <sup>nd</sup> 6" W CONNECTOR TO AP1 BLDG; REVISED PLAN, PROFILE AND QUANTITIES 3/25/89 3/17/89		PLAN-WATER & SEWER GREYSTONE CONTRACT NO: 14-1957-D SECOND ELECTION DISTRICT HOWARD COUNTY, MD		SCALE 1" = 50' SHEET 2 OF 3
Director of Public Works <i>[Signature]</i> 8-11-89 DATE	Chief, Bureau of Engineering <i>[Signature]</i> 8-11-89 DATE	Chief, Land Development Division <i>[Signature]</i> 8/10/89 DATE	State of Maryland Seal of John E. Harms Jr. Professional Engineer No. 10189	BY: BJK NO: 1 REVISION:	DATE: 3/25/89	DATE: 3/17/89	600' SCALE MAP NO. 25A	SECOND ELECTION DISTRICT	HOWARD COUNTY, MD	2 OF 3

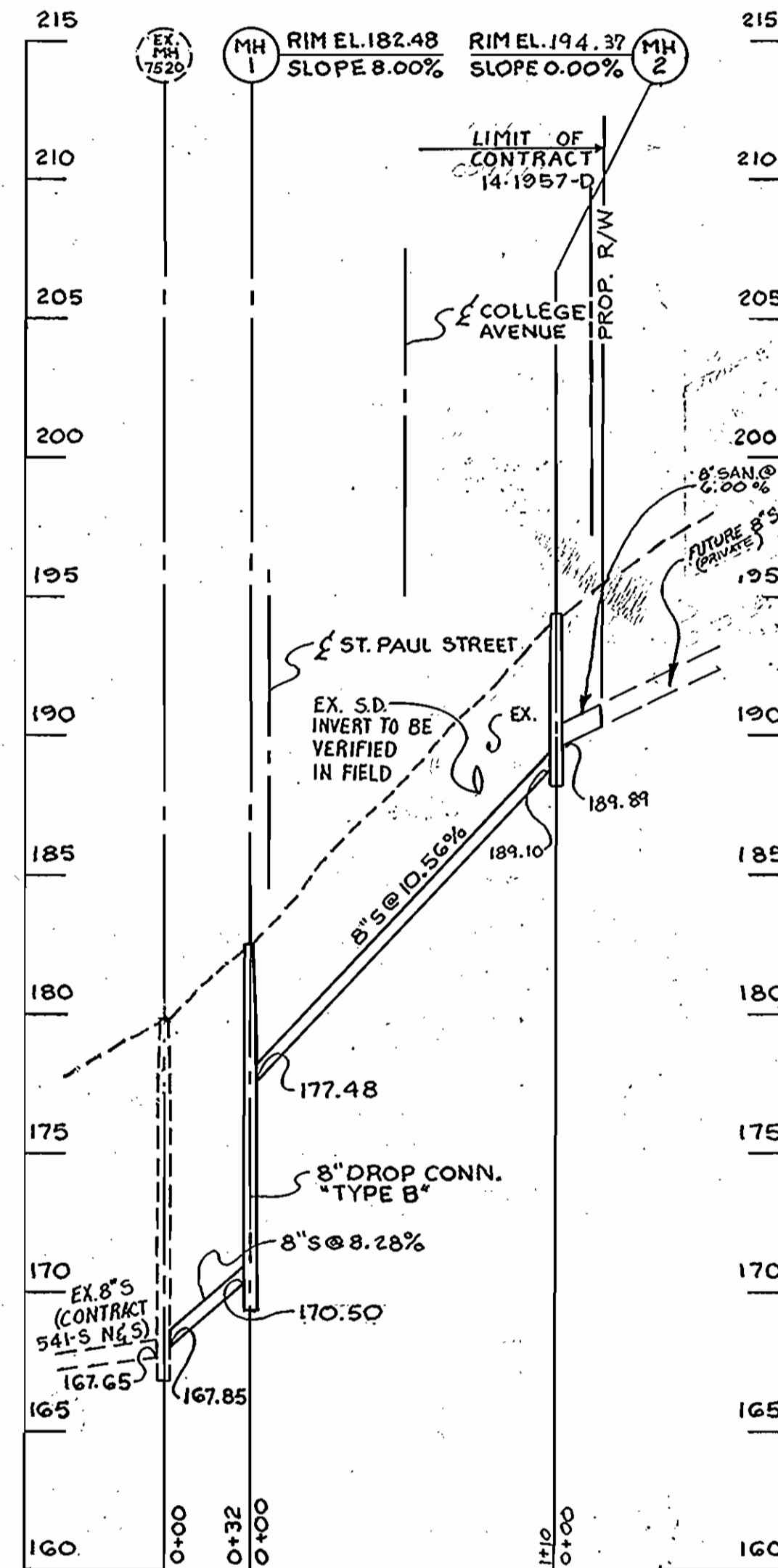


AS BUILT FOR PUBLIC 14-1957 ONLY  
 FOR PRIVATE SDP-89-159 SEE SHEET 3 OF 11

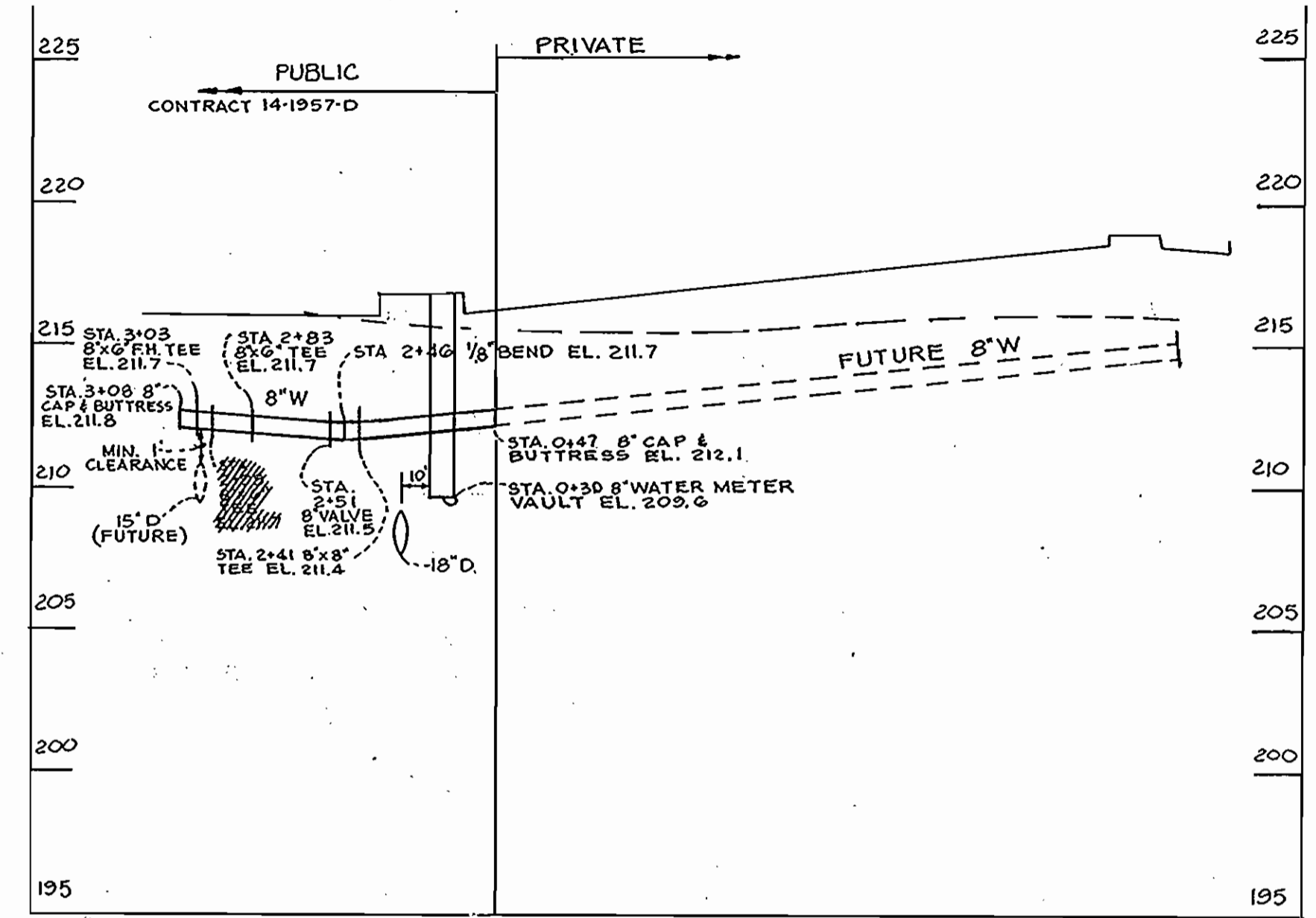
<b>DEPARTMENT OF PUBLIC WORKS</b> HOWARD COUNTY, MARYLAND								<b>GREYSTONE</b> CONTRACT NO. 14-1957-D		SCALE AS SHOWN
DIRECTOR OF PUBLIC WORKS _____ DATE _____		CHIEF, BUREAU OF ENGINEERING _____ DATE _____		DES:						SHEET <b>2A</b> OF 3
				DRN:						
				CHK:						
				DATE:	BY	NO.	REVISION	DATE	600' SCALE MAP NO. _____ BLOCK NO. _____	



**WATER PROFILE 'A'**  
SCALE: VERT. 1"=5'  
HORZ. 1"=50'

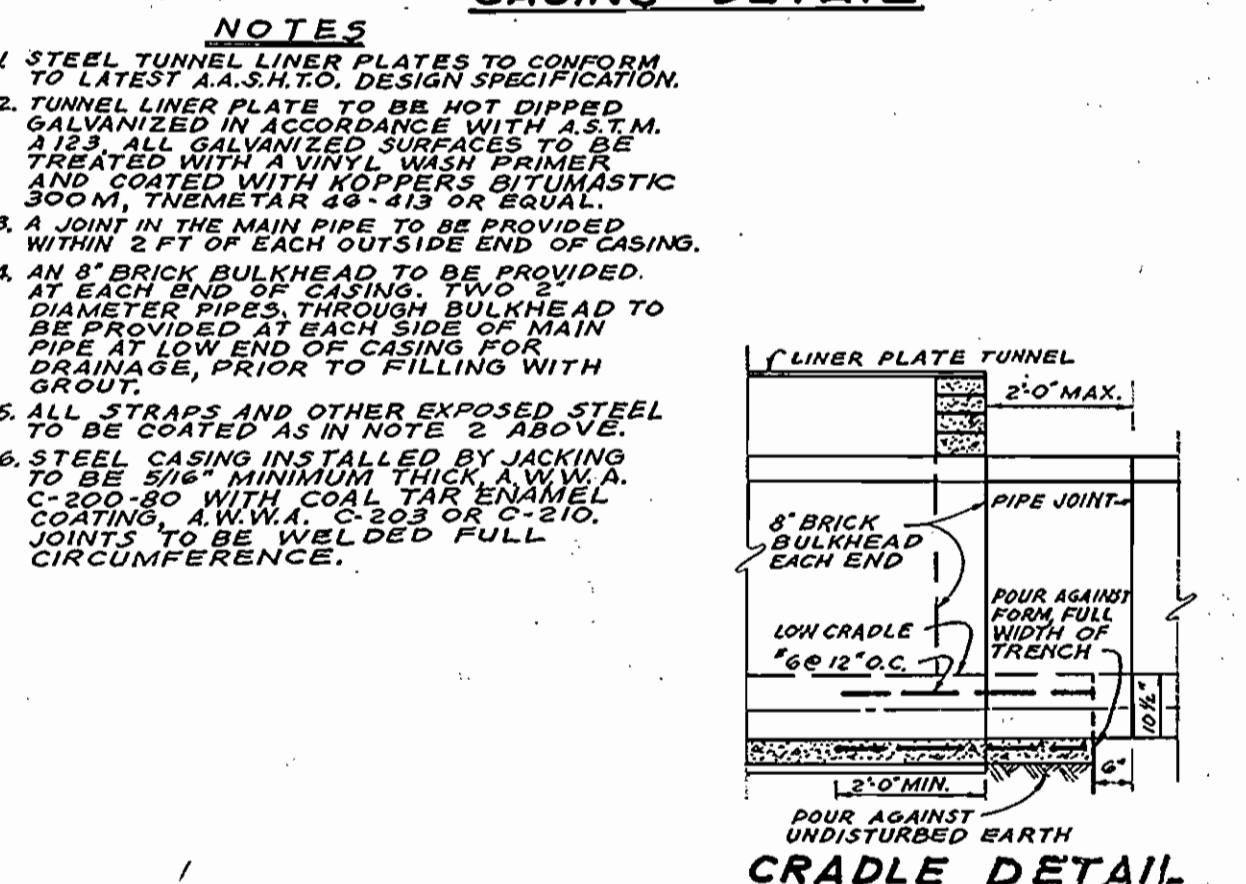
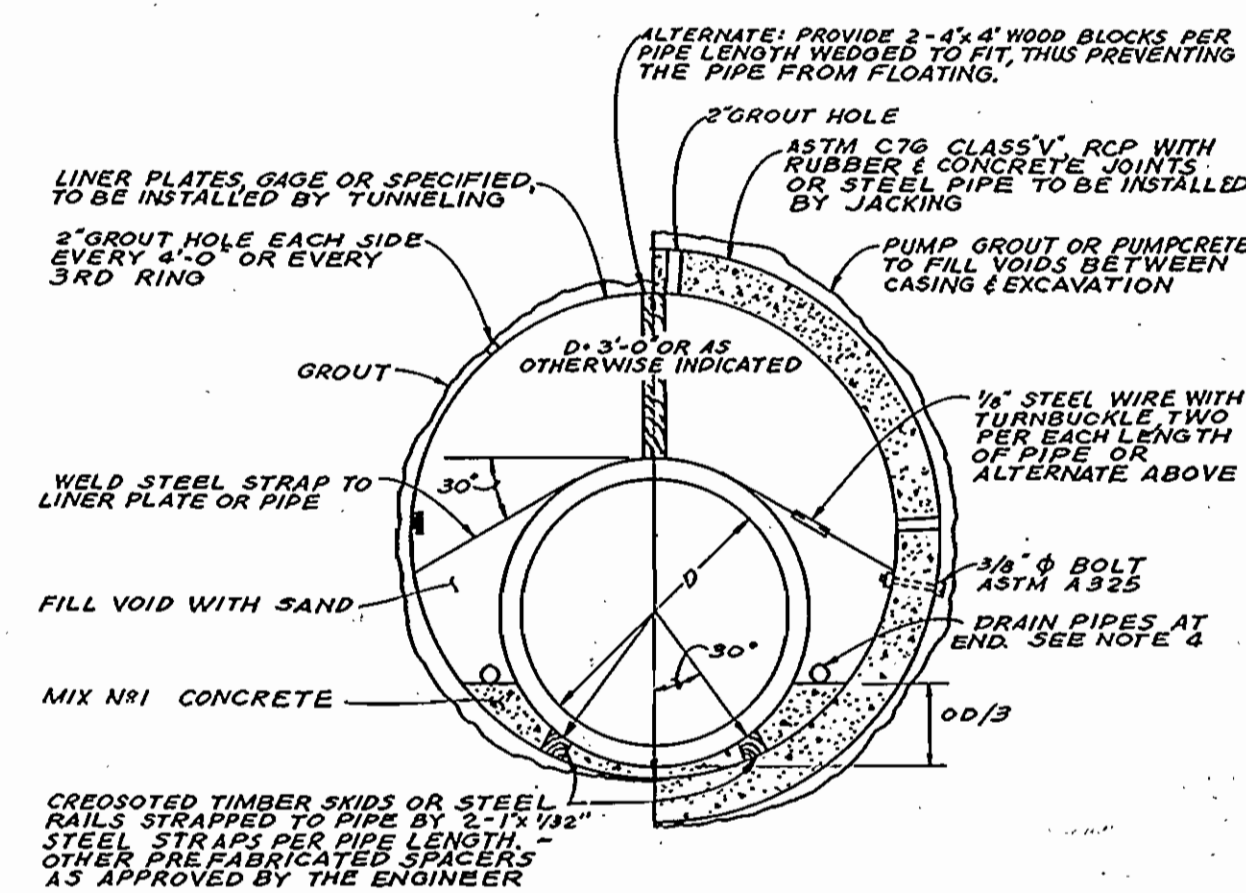
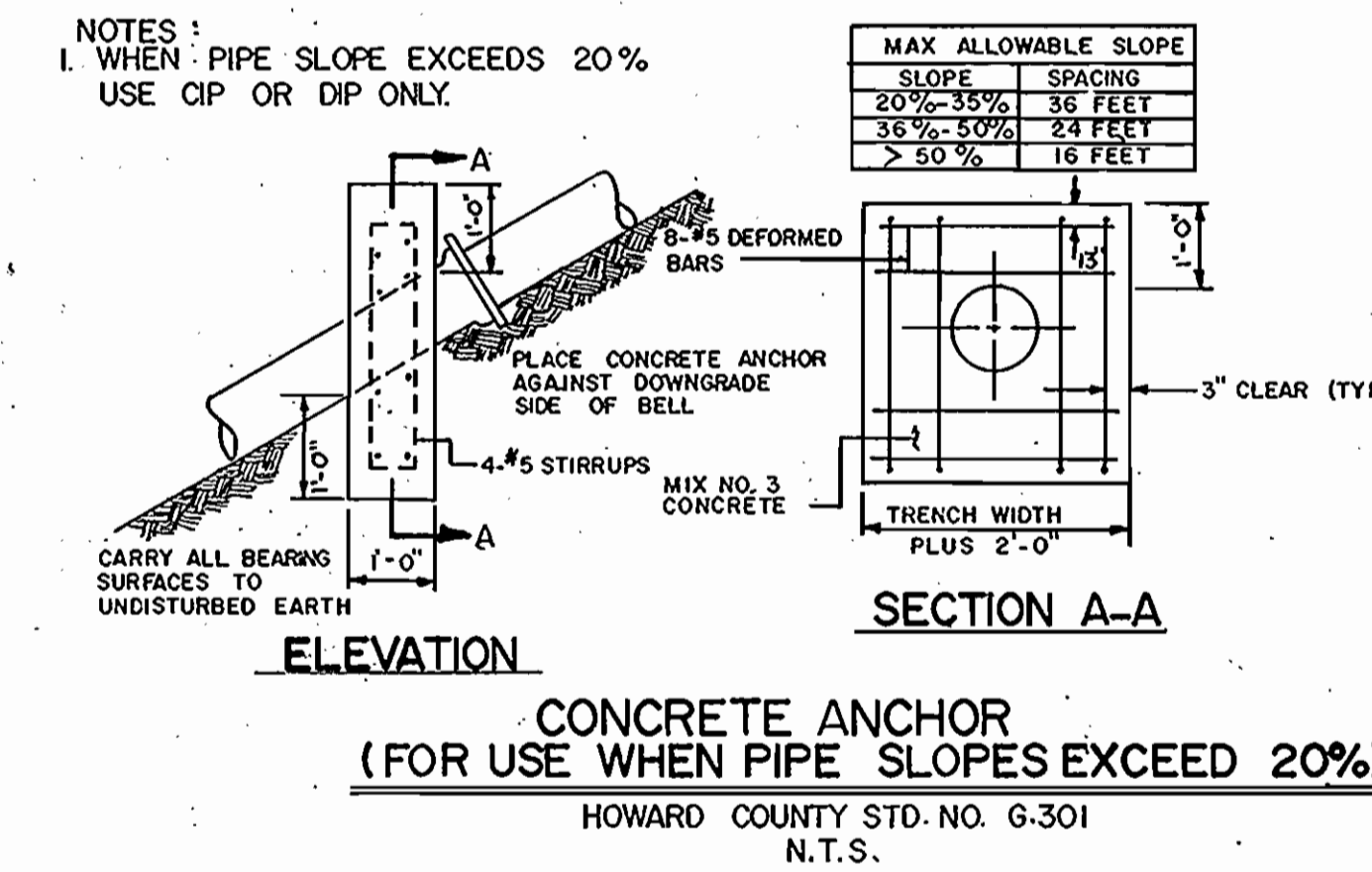


**SEWER PROFILE**  
SCALE: VERT. 1"=5'  
HORZ. 1"=50'



**WATER PROFILE 'B'**  
1" = 5' V  
1" = 50 H

STRUCTURE SCHEDULE				
STRUCTURE	TYPE	TOP ELEV.	LOCATION	REMARKS
MH - 1	DROP MANHOLE TYPE "B"	182.48	0+20 NEW CUT ROAD 3' RT.	HOWARD COUNTY DETAIL G5.01 & S1.32
MH - 2	MANHOLE	194.37	SEE PLAN	HOWARD COUNTY DETAIL G5.01



REVIEWED FOR HOWARD S.C.D. AND METS. TECHNICAL REQUIREMENTS  
*John E. Harms* 8-10-89  
DATE  
SOIL CONSERVATION

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John E. Harms* 8/2/89  
DATE  
HOWARD CO. S.C.D.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>James P. Harms</i> 8/12/89 DIRECTOR OF PUBLIC WORKS <i>Robert W. Beatty</i> 8-4-89 CHIEF, BUREAU OF UTILITIES	JOHN E. HARMS JR. AND ASSOCIATES INC. CONSULTING ENGINEERS - PLANNERS - SURVEYORS 8818 CENTRE PARK DRIVE SUITE 208 COLUMBIA, MARYLAND 21045 TELEPHONE (301) 740-5200 <i>John E. Harms</i> 8-11-89 CHIEF, BUREAU OF ENGINEERING <i>Paul H. Harms</i> 8/10/89 CHIEF, LAND DEVELOPMENT DIVISION	DES. J.G.H. DRN. J.R.M. CHK. R.H.V. DATE: 3/89 BY NO. REVISION DATE	Revised Location of MH 2; Revised Sewer Easement; Revised Profile for MH 2; Revised Ex. Ground on Profiles; ELIMINATE 2" 6" W CONNECTION TO APP. 8' BLDG; REVISED PLAN PROFILE AND QUANTITIES 9/25/89 9/17/80	600' SCALE MAP NO. 25-A BLOCK NO.	SECOND ELECTION DISTRICT HOWARD COUNTY, MD.	SCALE AS SHOWN SHEET 3 OF 3 PUBLIC
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