

GENERAL NOTES

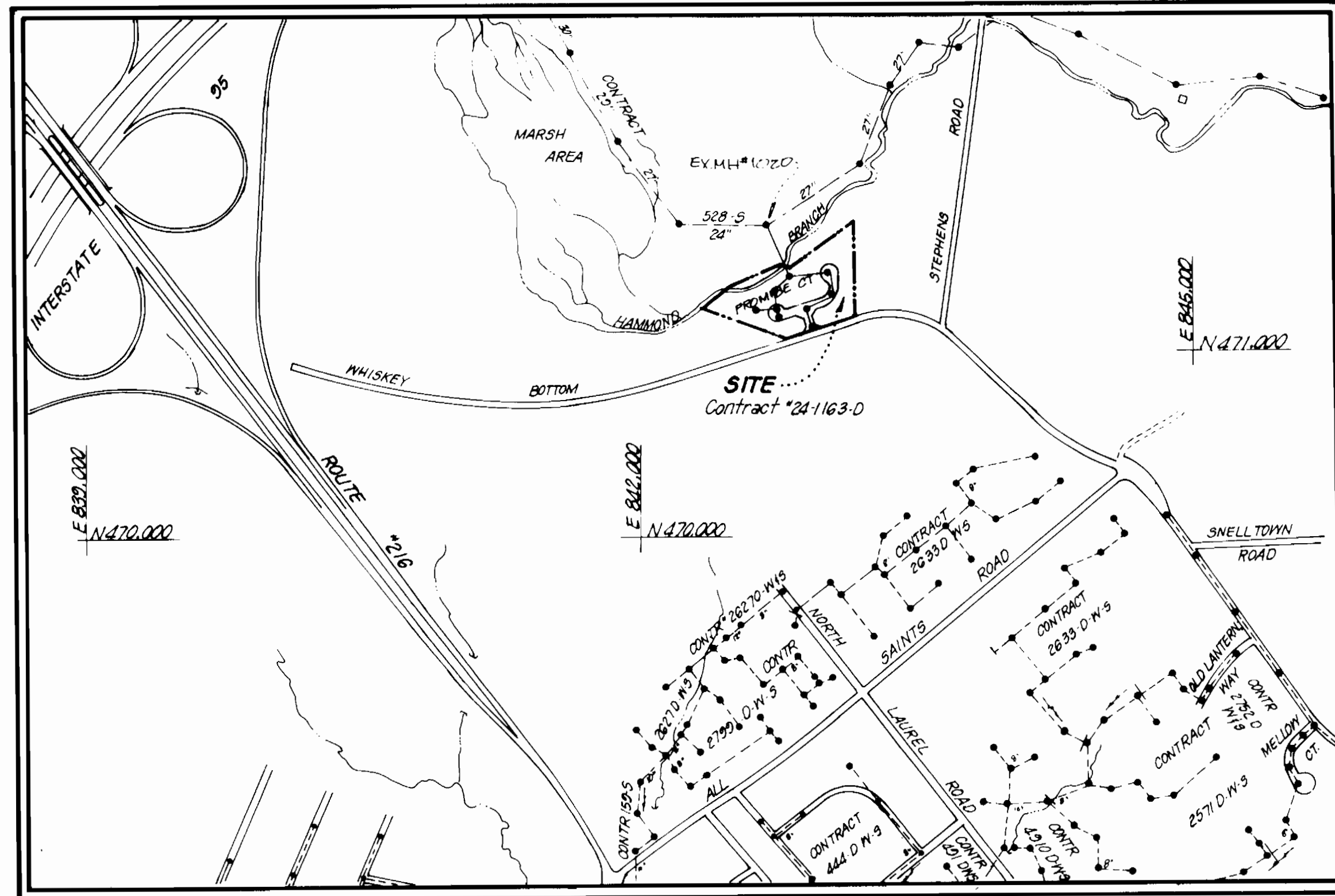
- Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- All horizontal controls are based on Maryland State Coordinates.
- All vertical controls are based on U.S.U.S. data.
- 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 utilities 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, 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.
- 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.
- Contractor shall notify the following utilities 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 561-2585  
 Baltimore Gas & Electric Co. Under Ground Damage Control - 234-5621  
 Baltimore Gas & Electric Co. Trouble Shooting - 298-9013  
 Miss Utility - 1-559-0100  
 Colonial Pipeline Co. - 795-1390  
 Bureau of Utilities, Howard County Department of Public Works - 992-2366
- 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 line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
- No work shall commence prior to approval of Plan F-84-34 and installation of the sediment controls specified therein.
- Water resources permit required for this project.

WATER NOTES

- All water mains to be D.I.P. unless otherwise noted.
- Tops of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.
- 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 the Standard Specifications.
- The contractor shall not operate any water main valves on the existing water system.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING
- FOR ALL COPPER WATER HOUSE CONNECTIONS UTILIZE FLARED TYPE FITTING ONLY

SEWER NOTES

- All sewer mains shall be C.S.P.X., R.C.S.P., V.C.P.X., A.C.P. Class 2400 or P.V.C. unless otherwise noted.
- The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- Manholes shown with 12" and 16" walls are brick manholes only.
- Manholes designated W.I. in plan and profile shall have watertight frame and covers, Standard Detail G.5.2. Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise noted on the drawings.
- House(s) with the symbol "C.N.S." indicates that cellar cannot be served.



WATER & SEWER CODE FOR COUNTY USE  
 WATER NO: C02  
 SEWER NO: 739 0000

VICINITY MAP  
 SCALE = 1" = 600'

TYPE OF BUILDINGS: 2/F. Det.  
 NUMBER OF LOTS: 21  
 NUMBER OF WHC: 21  
 NUMBER OF SHC: 21  
 DRAINAGE AREA:  
 LITTLE PATUXENT

# "HAMMONDS PROMISE" cont. no. 24-1163-D (Water & Sewer) Howard County, Md. Dept. of Public Works.

QUANTITIES			
ITEM	EST.	AS BUILT	MATERIAL SUPPLIER
8" WATER	168	168	CL52 DIP Griffin Pipe
6" WATER	483	501	"
FIRE HYDRANT	1 Ea	1 ea.	5' Bury Hydrant US P&F
1 1/2" BLOW OFF	1 Ea	1 ea.	Std. blowoff
8" SEWER	1022	996	PVC/S DR-35 John Man.
ST'D MANHOLE	9 Ea	9 ea.	4' dia. ULL Terra Hill
SHC 36"	450	460	"
8" SEWER (DIP)	318	314	PVC/SDR-35 John Man.
12" x 8" T.S.V. VALVES	1 Ea	1 ea.	T.S.V. U.S. Pipe & Foundry
8" VALVE	1 Ea	1 ea.	Gate Valve "
6" VALVE	2 Ea	2 ea	"
1" WHC	250	108 LF	Type 'K' \ Howell Metal
3/4" WHC	105	221 LF	"
Curb Stops	21 ea.	19 ea	Ball Valve D.Y. Mcdonald

- BENCH MARKS
- RAILROAD SPIKE IN 24" MAPLE TREE  
ELEVATION = 274.42
  - CUT NAIL IN POLE  
ELEVATION = 280.15
  - BONNET BOLT ON FIRE HYDRANT  
ELEVATION = 288.29

Sediment Control measures for this contract will be implemented in accordance with the provisions of these specifications and also as shown on the grading and Sediment Control Plan F-84-34 reviewed for Howard County Soil Conservation District and meets technical requirements.

U.S. SOIL CONSERVATION SERVICE DATE

This development is approved for Erosion and Sediment Control by the Howard Soil Conservation District.

Approved:

HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Robert M. Beisinger 7-29-84  
 DIRECTOR OF PUBLIC WORKS DATE

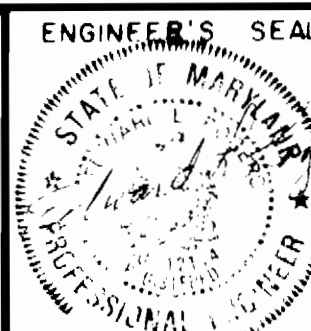
Green & Reding 7/23/84  
 CHIEF, BUREAU OF ENGINEERING DATE

Robert M. Beisinger 7-20-84  
 CHIEF, BUREAU OF UTILITIES DATE

W. H. H. 7-27-84  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

DEVELOPMENT CONSULTANTS  
 GROUP, INC.

12408 ROUTE 108  
 CLARKSVILLE, MD 21029  
 301-596-9080



DES: MLS/BILL  
 DRN: BILL  
 CHK: MLS/BILL  
 DATE: FEB. 1984  
 BY: NO  
 M.W. 1  
 MOVED SH. 4

WATER & SEWER EXTENSION  
 CONTRACT NO: 24-1163-D

REVISION

DATE: 600 SCALE MAP NO. 47 BLOCK NO.

WATER AND SEWER  
 HAMMONDS PROMISE

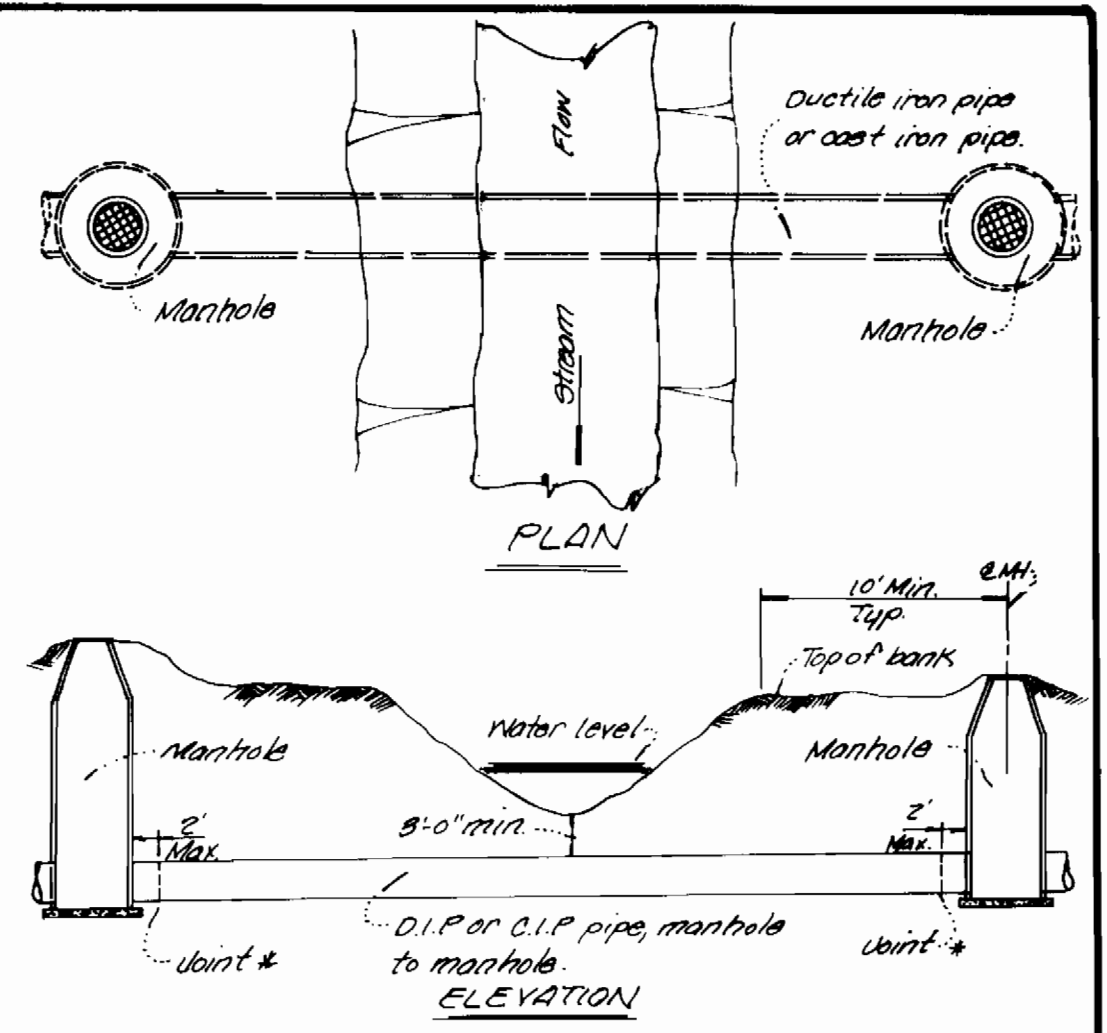
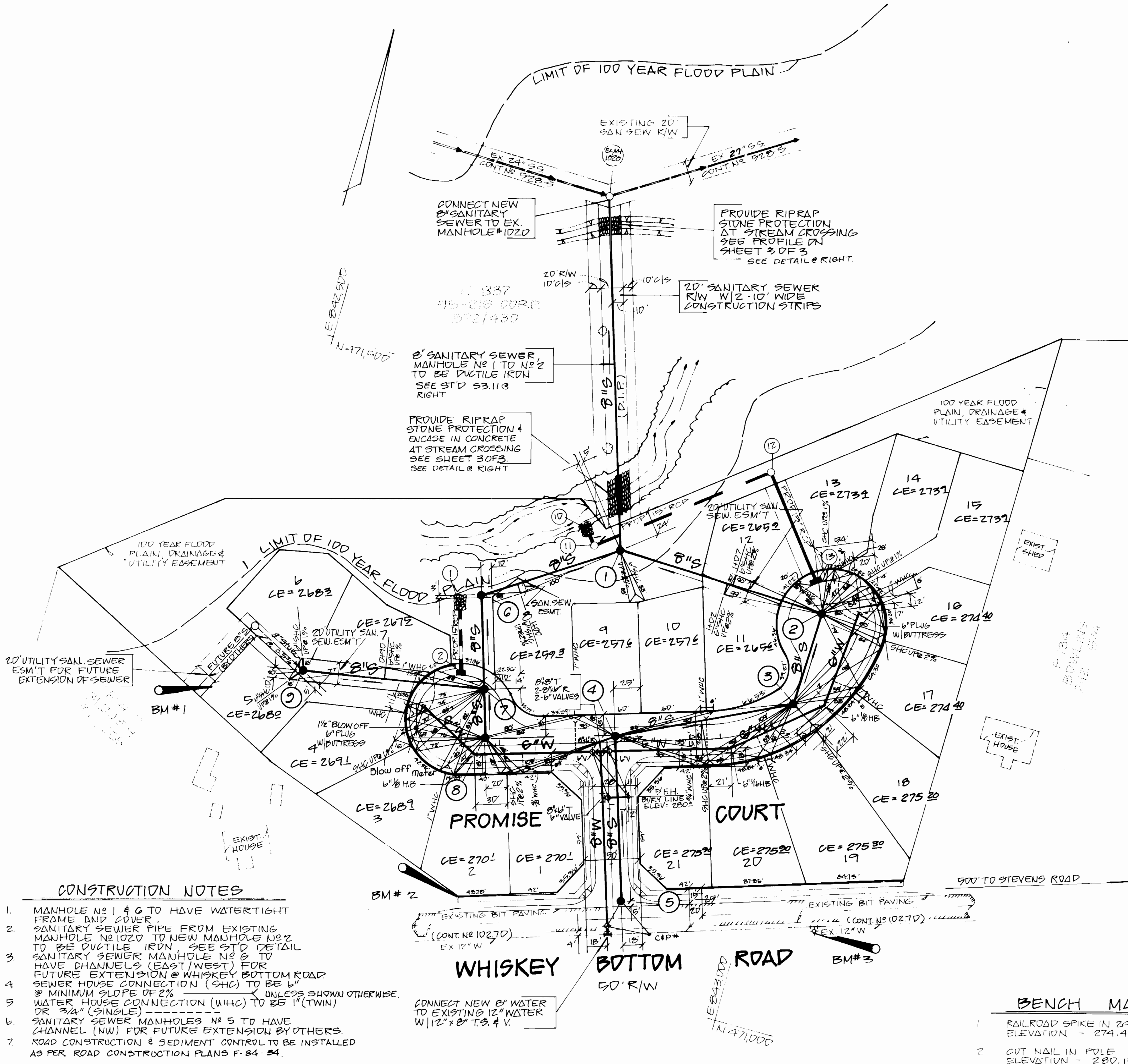
TAX MAP, 47 PARCEL, 47B  
 GUILFORD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE PLAN AS SHOWN  
 SHEET 1 OF 4

**SEWER HOUSE CONNECTION**

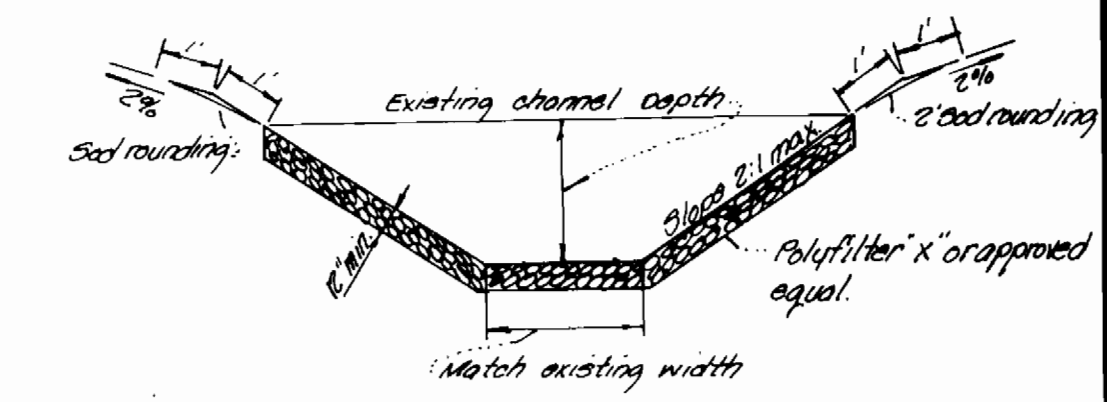
INVERT ELEVATIONS AT PROPERTY LINE

STATION	LOT	INV. ELEV.
M#9	1	266.30
M#9	2	266.30
M#9	3	266.10
M#9	4	266.10
M#10	5	269.30
M#10	6	269.30
M#8 0490	7	269.20
M#2 1400	8	259.20
M#2	9	254.00
M#2	10	254.60
M#2 1402	11	262.40
M#2 1407	12	262.80
M#3	13	270.40
M#3	14	270.10
M#3	15	270.20
M#3	16	271.40
M#3	17	271.40
M#4	18	271.30
M#4	19	271.30
M#4 0485	20	271.20
M#4 0485	21	271.20



**STREAM CROSSING DETAIL**  
(No Scale) 50-3.11

Notes:  
1. See detail for rip-rap protection of stream bank.  
2. Pipe should be located as close to 90° to stream plan as feasible.  
3. Provide pipe joint within 2'-0\"/>



**RIP-RAP TRAPEZOIDAL OPEN CHANNEL**  
(No Scale) 50-2.12

Note: All toad to be staked with 1/2\"/>

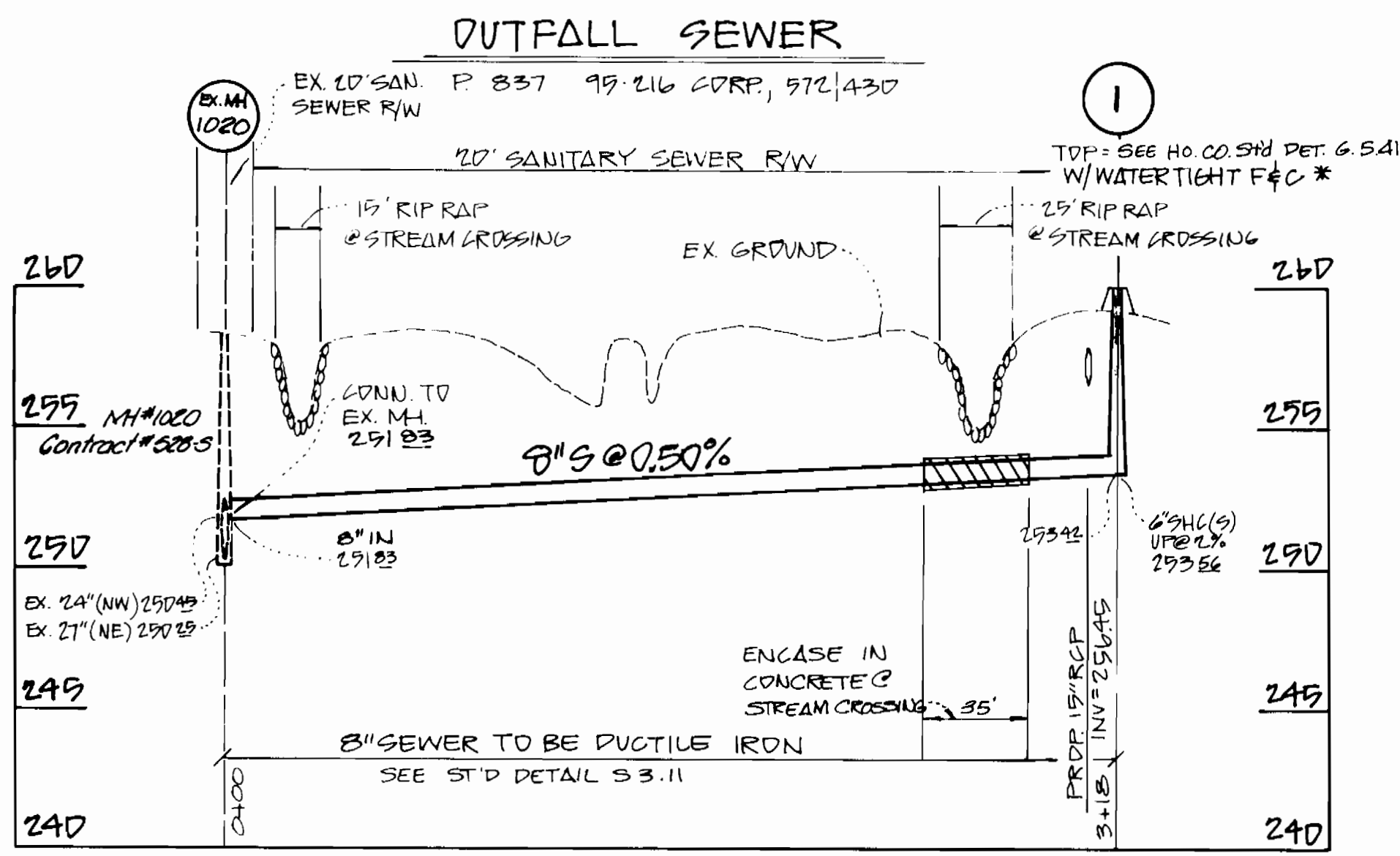
- CONSTRUCTION NOTES**
1. MANHOLE NO 1 & 6 TO HAVE WATERTIGHT FRAME AND COVER.
  2. SANITARY SEWER PIPE FROM EXISTING MANHOLE NO 1020 TO NEW MANHOLE NO 2 TO BE DUCTILE IRON. SEE STD DETAIL.
  3. SANITARY SEWER MANHOLE NO 6 TO HAVE CHANNELS (EAST/WEST) FOR FUTURE EXTENSION @ WHISKEY BOTTOM ROAD.
  4. SEWER HOUSE CONNECTION (SHC) TO BE 1\"/>

PLAN  
SCALE: 1\"/>

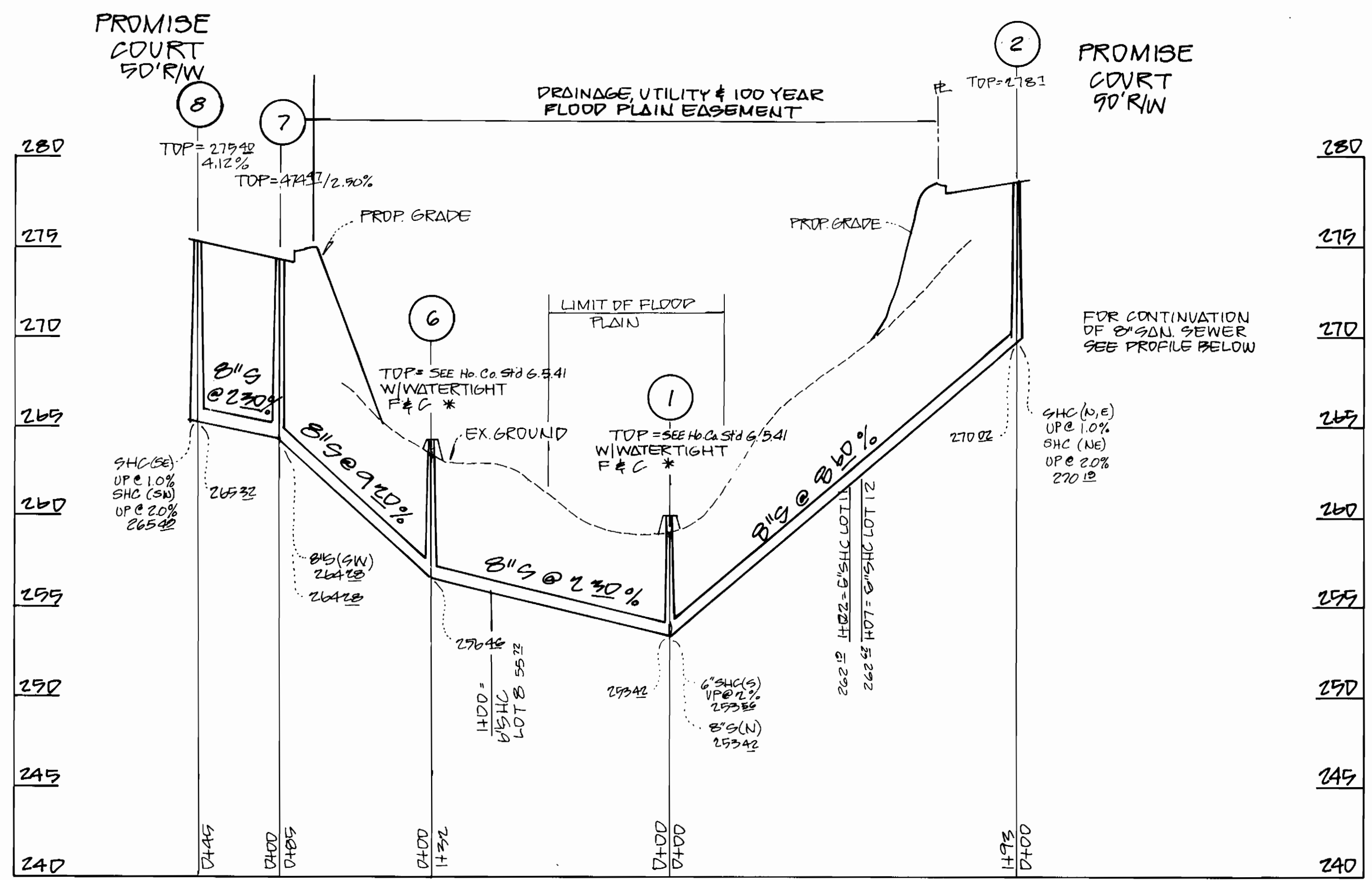
THIS PLAN TO BE USED FOR WATER AND SEWER CONSTRUCTION ONLY.

- BENCH MARKS**
1. RAILROAD SPIKE IN 24\"/>

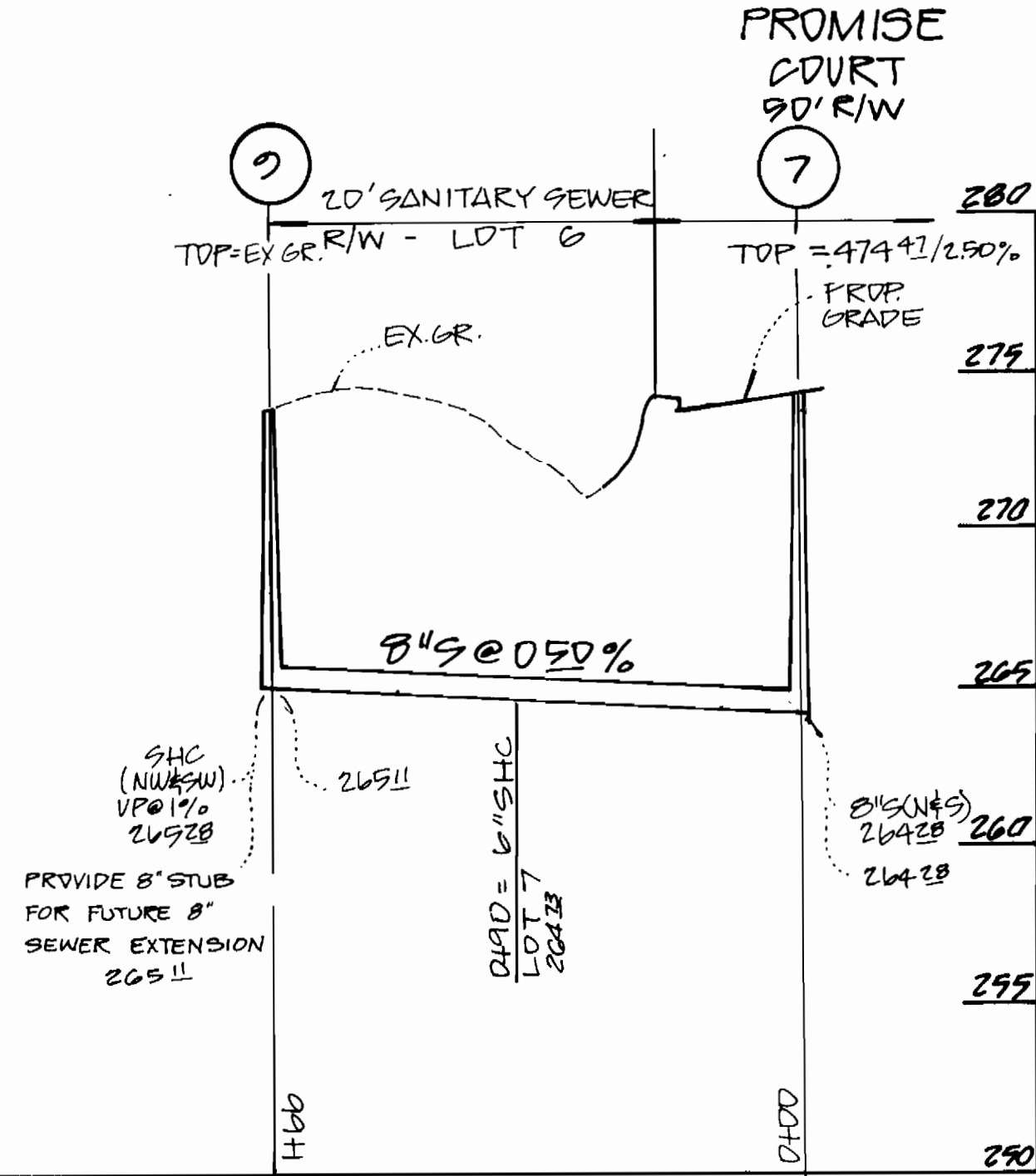
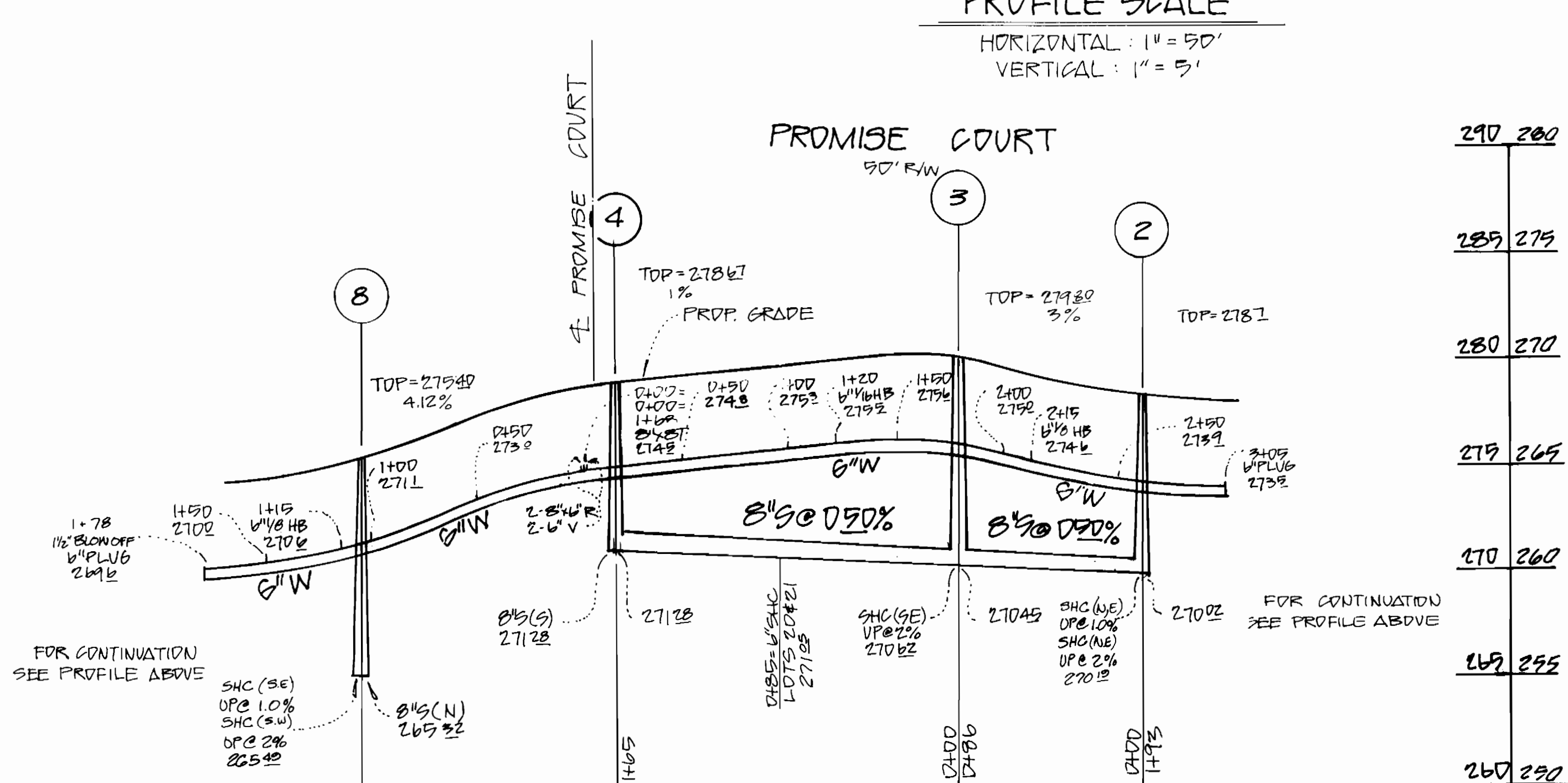
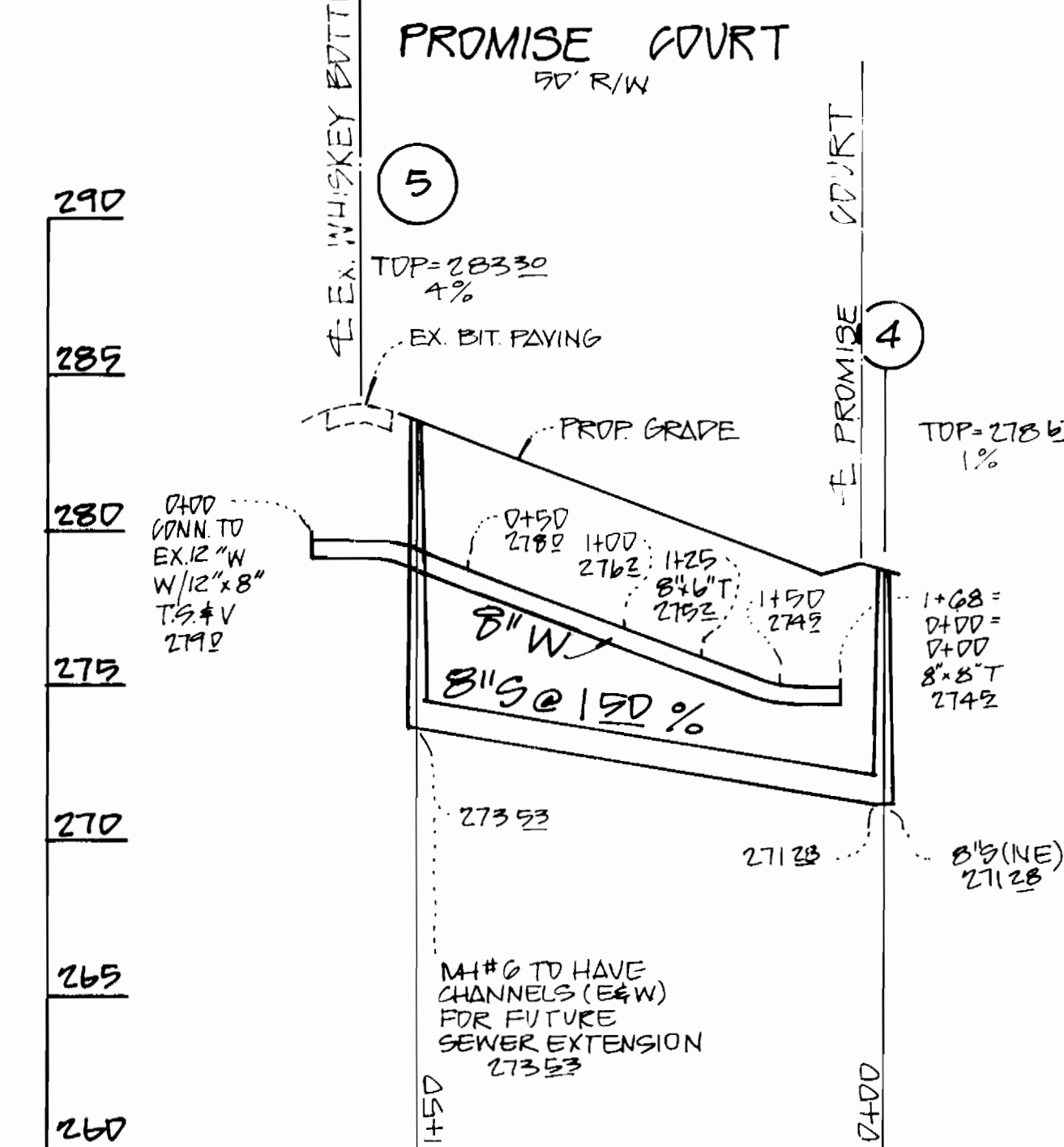
<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Robert M. Bringer</i> 7-29-84 DIRECTOR OF PUBLIC WORKS</p> <p><i>Robert M. Bringer</i> 7-29-84 CHIEF, BUREAU OF UTILITIES</p>	<p><b>DEVELOPMENT CONSULTANTS GROUP, INC</b></p> <p>12408 ROUTE 108 CLARKSVILLE, MD. 21029 301-596-9080</p> <p><i>Richard J. V...</i> 5-4-84 ENGINEER'S SEAL</p>	<p><b>WATER &amp; SEWER EXTENSION</b> CONTRACT NO 24-1103-D</p>	<p><b>WATER AND SEWER PLAN</b> <b>"HAMMONDS PROMISE"</b> TAX MAP 47 PARCEL 47B GUILFORD ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p>	<p>SCALE PLAN 1\"/&gt; </p>
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\* MANHOLE NO 1 # 6 TO HAVE WATER TIGHT FRAME AND COVER.



PROFILE SCALE  
 HORIZONTAL: 1" = 50'  
 VERTICAL: 1" = 5'



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Robert M. Beinger, General Manager, 7-27-84  
 Robert M. Beinger, Chief, Bureau of Utilities, 7-27-84

Development Consultants Group, Inc.  
 12408 ROUTE 108 CLARKSVILLE, MD. 21029 301-596-9080

ENGINEER'S SEAL  
 Edward H. Rogers, No. 24-271, State of Maryland, dated 5-27-84

DES: MLS/BILL  
 DRN: BILL  
 CHK: ILS  
 DATE: 07-2-83

WATER & SEWER EXTENSION  
 CONTRACT NO. 24-1163-D

SCALE AS SHOWN  
 SHEET 3 OF 4

WATER & SEWER PROFILES  
 HAMMONDS PROMISE  
 TAX MAP 47 PARCEL 47B  
 GUILFORD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

600 SCALE MAP NO. 47 BLOCK NO. \_\_\_\_\_  
 REVISION DATE

**CONSTRUCTION SEQUENCE**

**SANITARY SEWER**

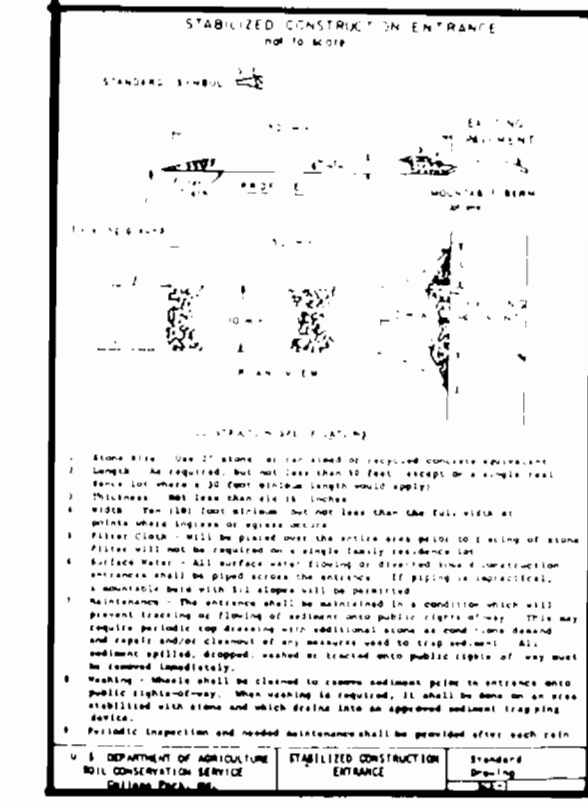
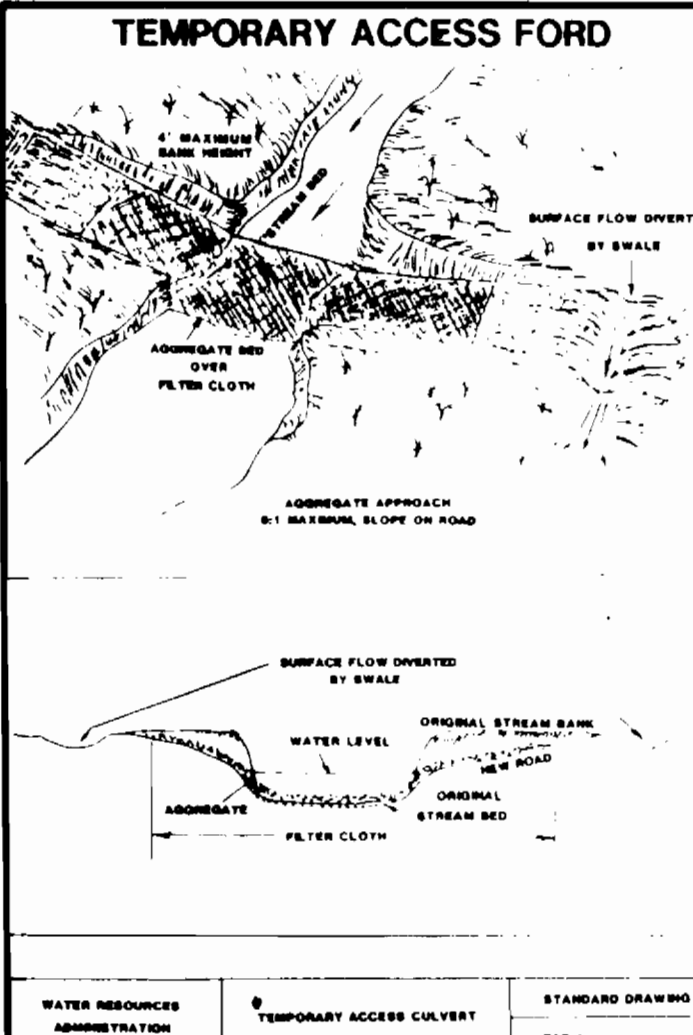
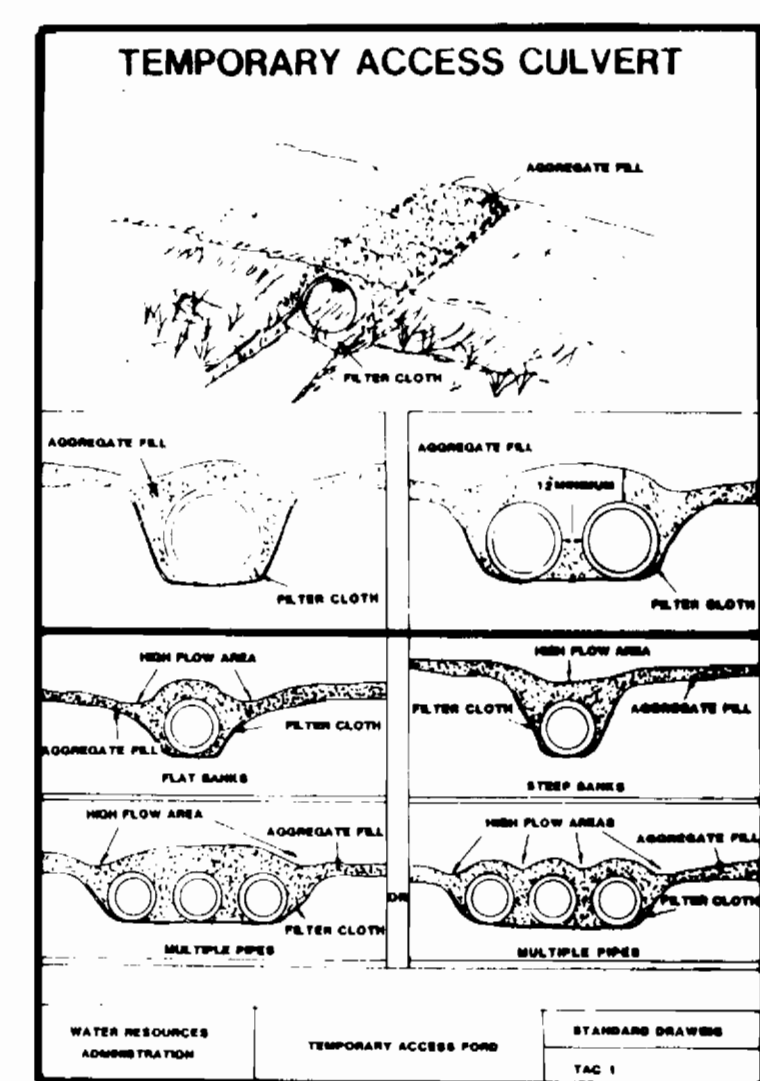
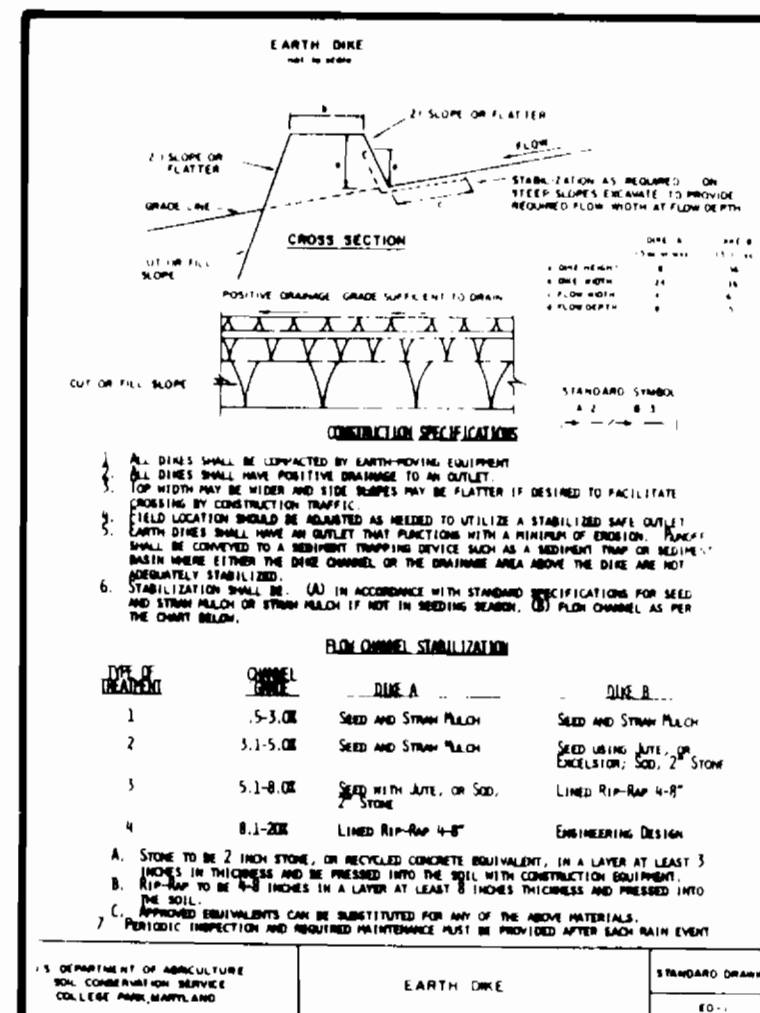
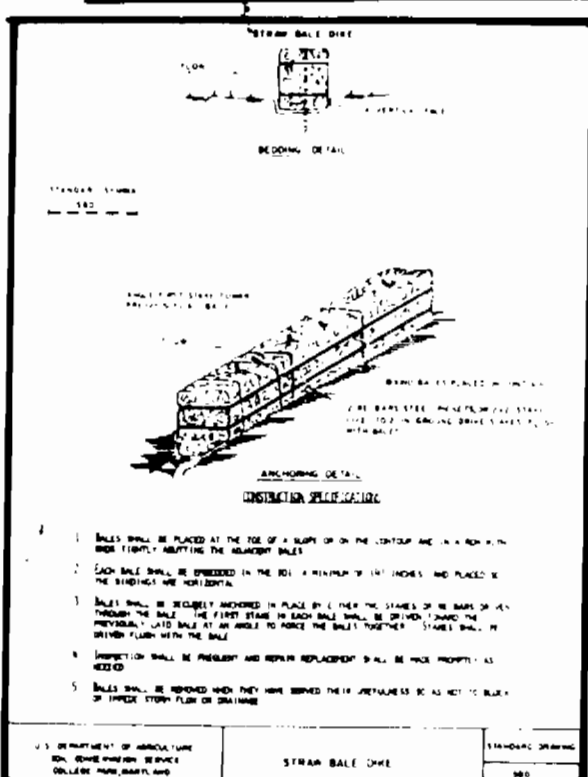
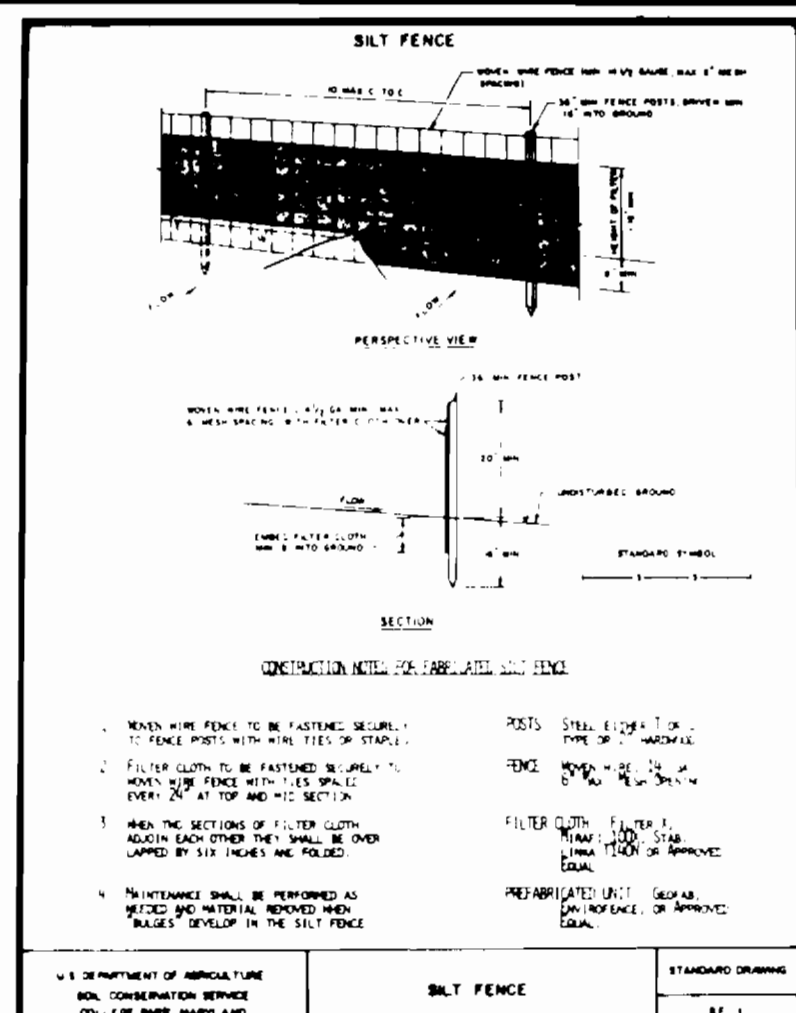
1. Clear construction area to Hammonds Branch and build construction road for this work.
2. Construct TA-1 structure at stream crossing as shown on this plan (A).
3. Clear remaining 20' R/W and construction strips.
4. Construct silt fence around perimeter of proposed work area.
5. Construct diversion for drainage ditch and stabilize 40'± south of existing sewer manhole #1020.
6. Construct 8" sewer beyond drainage ditch, backfill and construct rip rap stream protection over sewer pipe as per approved Howard County detail this drawing.
7. Construct 8" sewer, backfill and stabilize ground conditions to Hammonds Branch.
8. Relocate TA-1 structure @ stream crossing, construct stream diversion & stabilize this area. (B)
9. Construct 8" sewer beyond Hammonds Branch Stream, backfill and construct rip rap protection over sewer pipe as per approved Howard County detail this drawing.
10. Construct remaining 8" sewer to manholes No. 1 & 2, backfill and stabilize disturbed areas.
11. Replace topsoil, seed and mulch all disturbed areas as per specifications.
12. Upon approval of sediment control inspector, remove sediment control facilities, seed and mulch these areas.
13. Remaining sanitary sewer facilities to be constructed as per Contract No. 24-1163 D.

**STORM DRAIN**

1. Storm drain construction is phased with the construction of streets and utilities. For Hammonds Promise Subdivision. (F-44-34)
2. When storm drain construction is implemented, inlets throat openings to be blocked until completion of street construction and disturbed ground below outfall is stabilized.
3. Replace top soil, seed and mulch all disturbed areas as required by the Standards and Specifications for Vegetative Practices.
4. Upon approval of sediment control inspector, remove sediment control facilities, seed and mulch these areas.

**GENERAL NOTES**

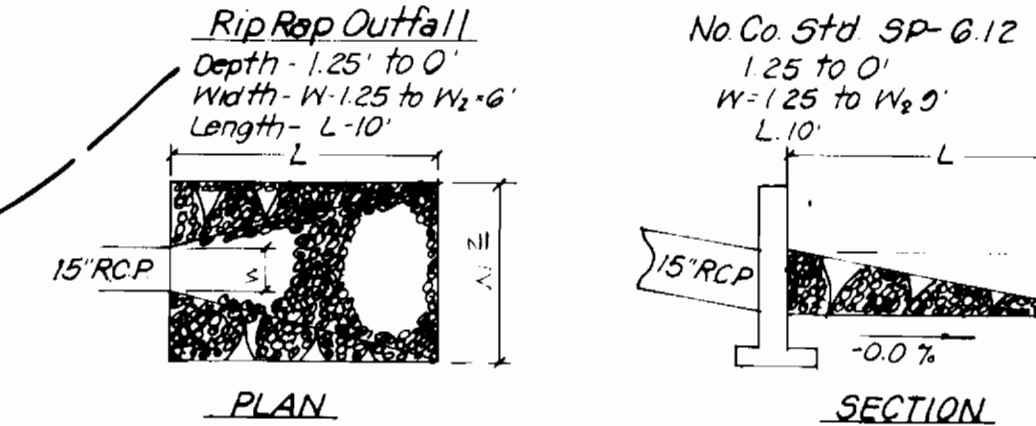
1. Topsoil and subsoil shall be kept separate and replaced in natural order.
2. Existing material shall be placed on the uphill side of this construction.
3. A continuous sediment barrier shall surround all disturbed area until said area is stabilized. Silt Fence (SF-1) or Straw Bale Dike (SB-1) is acceptable for this work.
4. Upon approval of sediment control inspector remove sediment control facilities, seed and mulch these areas.
5. See Notes 8 and 9 of Construction Sequence for the stream crossing.
6. When storm drain construction is implemented, inlets throat openings to be blocked until disturbed area below this work is stabilized.



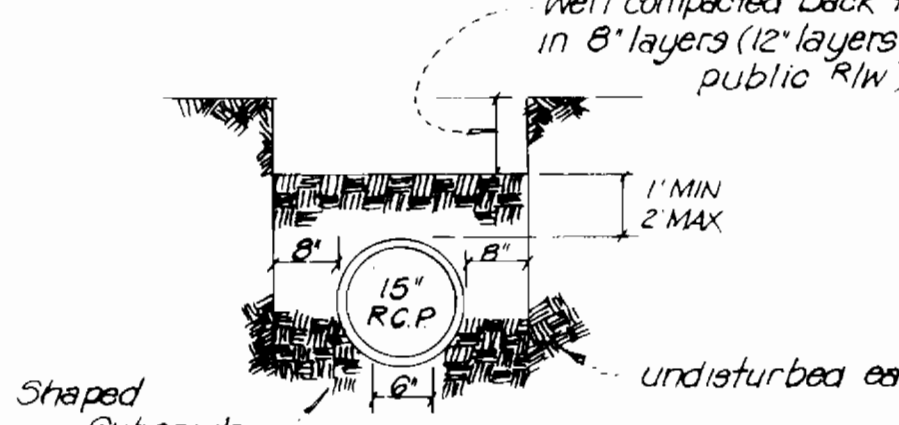
1. This project to be done in accordance with Article 15 of the HOWARD COUNTY DESIGN MANUAL.

2. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: 1) seven calendar days for all perimeter sediment control structures, dikes, swales, ditches, perimeter slopes and all slopes greater than 3:1; 2) fourteen days as to all other disturbed or graded areas on the project site.

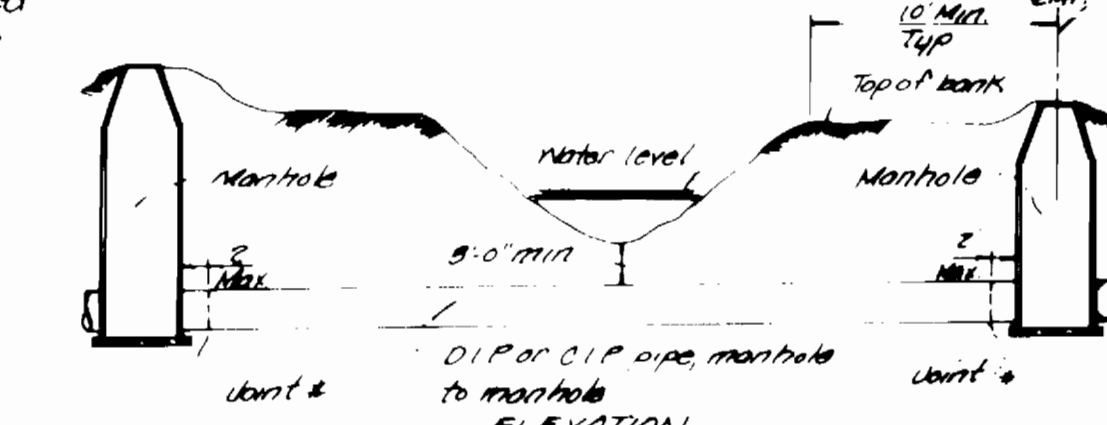
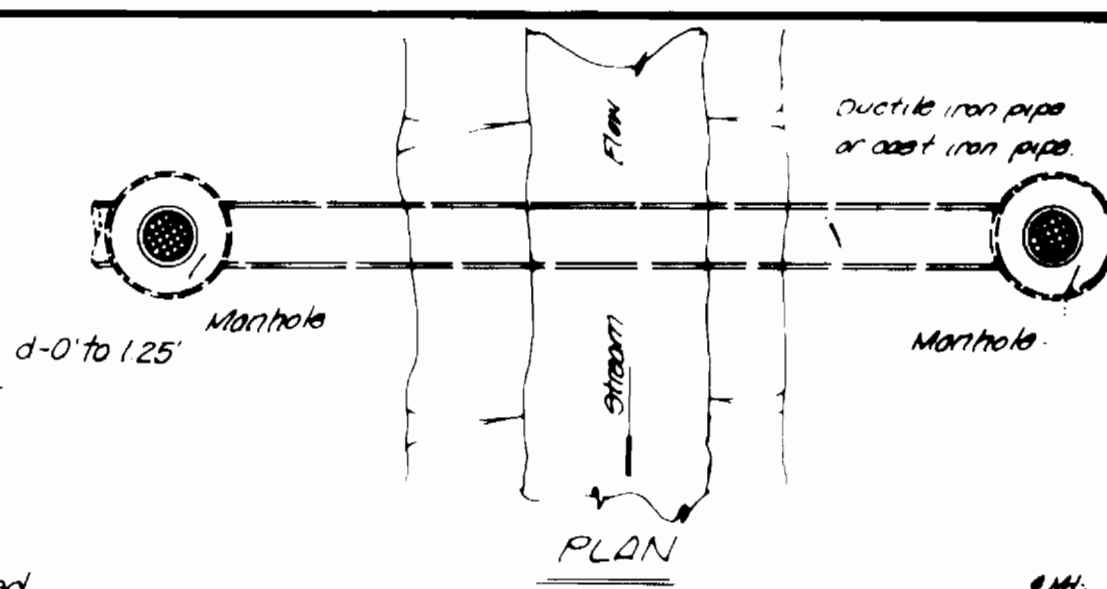
**RIP-RAP APRON DETAIL**



NO SCALE



NO SCALE

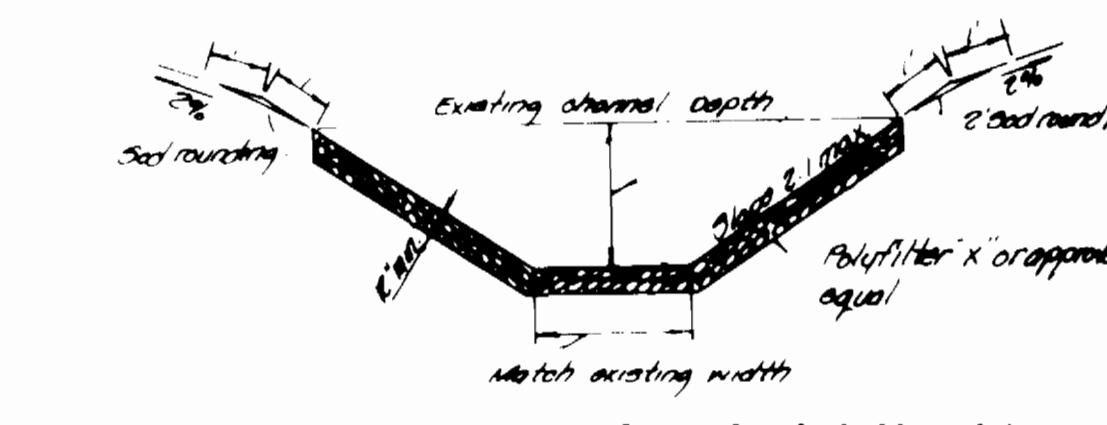


NO SCALE

**STREAM CROSSING DETAIL**

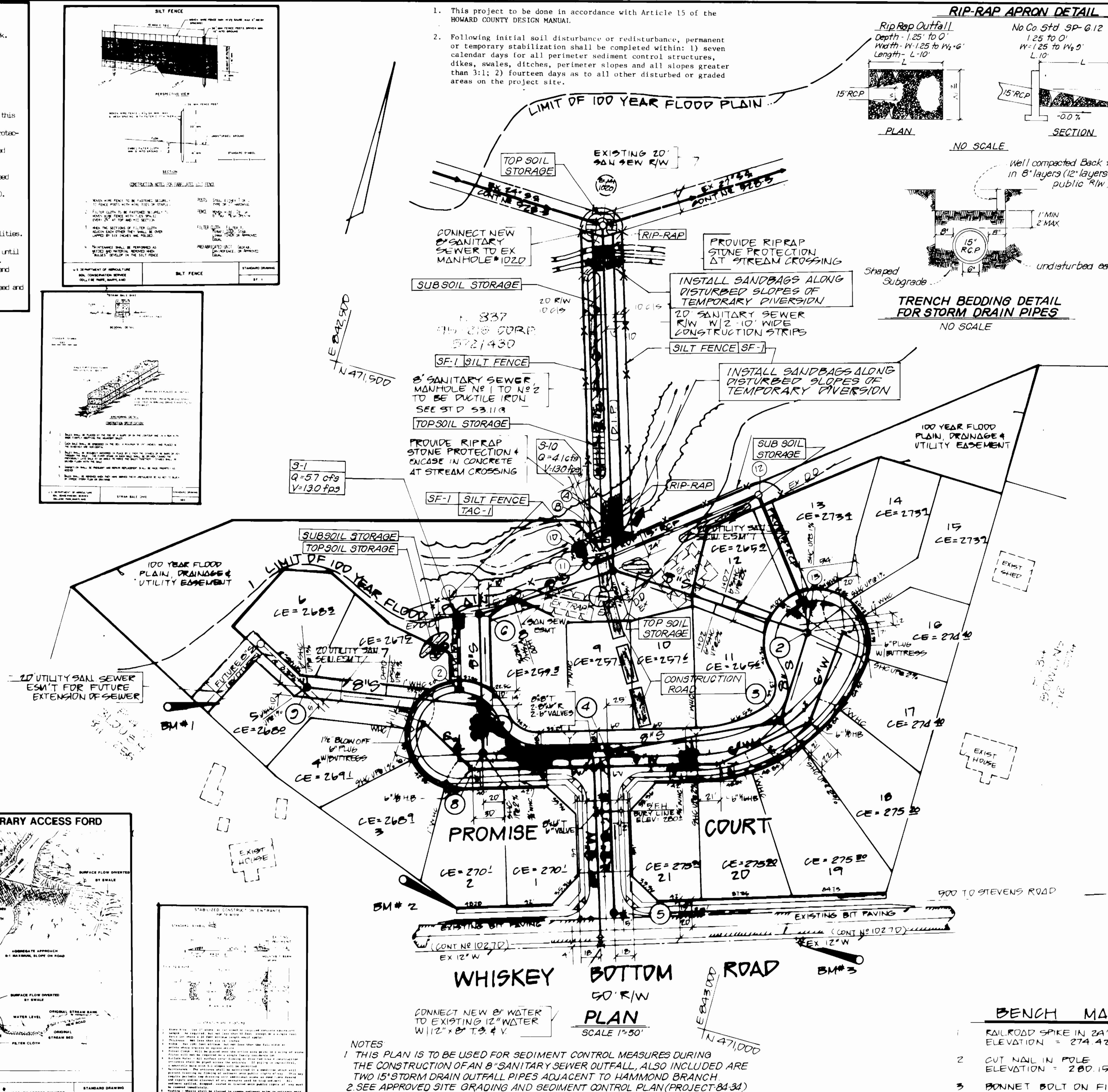
Notes:

1. See detail for rip rap protection of stream bank.
2. Pipe should be located as close to 50' to stream flow as feasible.
3. Provide pipe joint within 2'-0" max from outside of manhole wall.
4. Joint not necessary with DIP.
5. Construct sediment control device as per contract drawings or as directed.



NO SCALE

Note: All wood to be started with 1/2" x 1/2" wood stakes on edge centers both ways.



"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project."

Signature of Developer \_\_\_\_\_ Date \_\_\_\_\_  
 Print name below signature \_\_\_\_\_

By the Engineer:

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."

Signature of Engineer \_\_\_\_\_ Date \_\_\_\_\_  
 Print name below signature \_\_\_\_\_

Reviewed for \_\_\_\_\_ Name \_\_\_\_\_ S.C.D. and meets Technical Requirements.

Signature of Engineer \_\_\_\_\_ Date \_\_\_\_\_  
 Print name below signature \_\_\_\_\_

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Howard S.C.D. \_\_\_\_\_ Date \_\_\_\_\_

**BENCH MARKS**

1. RAILROAD SPIKE IN 24" MAPLE TREE ELEVATION = 274.42
2. CUT NAIL IN POLE ELEVATION = 280.15
3. BONNET BOLT ON FIRE HYDRANT ELEVATION = 288.25

**NOTES**

1. THIS PLAN IS TO BE USED FOR SEDIMENT CONTROL MEASURES DURING THE CONSTRUCTION OF AN 8" SANITARY SEWER OUTFALL. ALSO INCLUDED ARE TWO 15" STORM DRAIN OUTFALL PIPES ADJACENT TO HAMMOND BRANCH
2. SEE APPROVED SITE GRADING AND SEDIMENT CONTROL PLAN (PROJECT 84-34) FOR HAMMOND'S PROMISE FOR WORK NOT SHOWN ON THIS PLAN.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DATE: 10/17/84  
 DATE: 10/16/84

CHIEF, BUREAU OF ENGINEERING  
 CHIEF, BUREAU OF UTILITIES

DEVELOPMENT CONSULTANTS  
 GROUP, INC.

12478 ROUTE 108  
 CLARKSVILLE, MD 21029  
 301-596-9080

ENGINEER'S SEAL

DATE: FEB 1984

DESIGN BILL

DATE: FEB 1984

WATER & SEWER EXTENSION  
 CONTRACT NO 24-1163-D

SEDIMENT CONTROLS FOR SANITARY SEWER AND STORM DRAIN CONSTRUCTION IN HAMMOND BRANCH  
**HAMMOND'S PROMISE**

TAX MAP 47 PARCEL 17B  
 GUILFORD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE: PLAN 1"=50'

SHEET 4 OF 4