

# HOWARD COUNTY, MARYLAND

## DEPARTMENT OF PUBLIC WORKS

Reviewed for Howard County S.C.D. and meets technical requirements.

*John M. Helm* Date: 9-14-84  
U.S. SOIL CONSERVATION SERVICE

This development plan is approved for soil erosion and sediment control by The Howard County Soil Conservation District.

Approved: *Stephen K. Pelt* Date: 9-14-84  
HOWARD COUNTY S.C.D.

**ENGINEER'S CERTIFICATION**

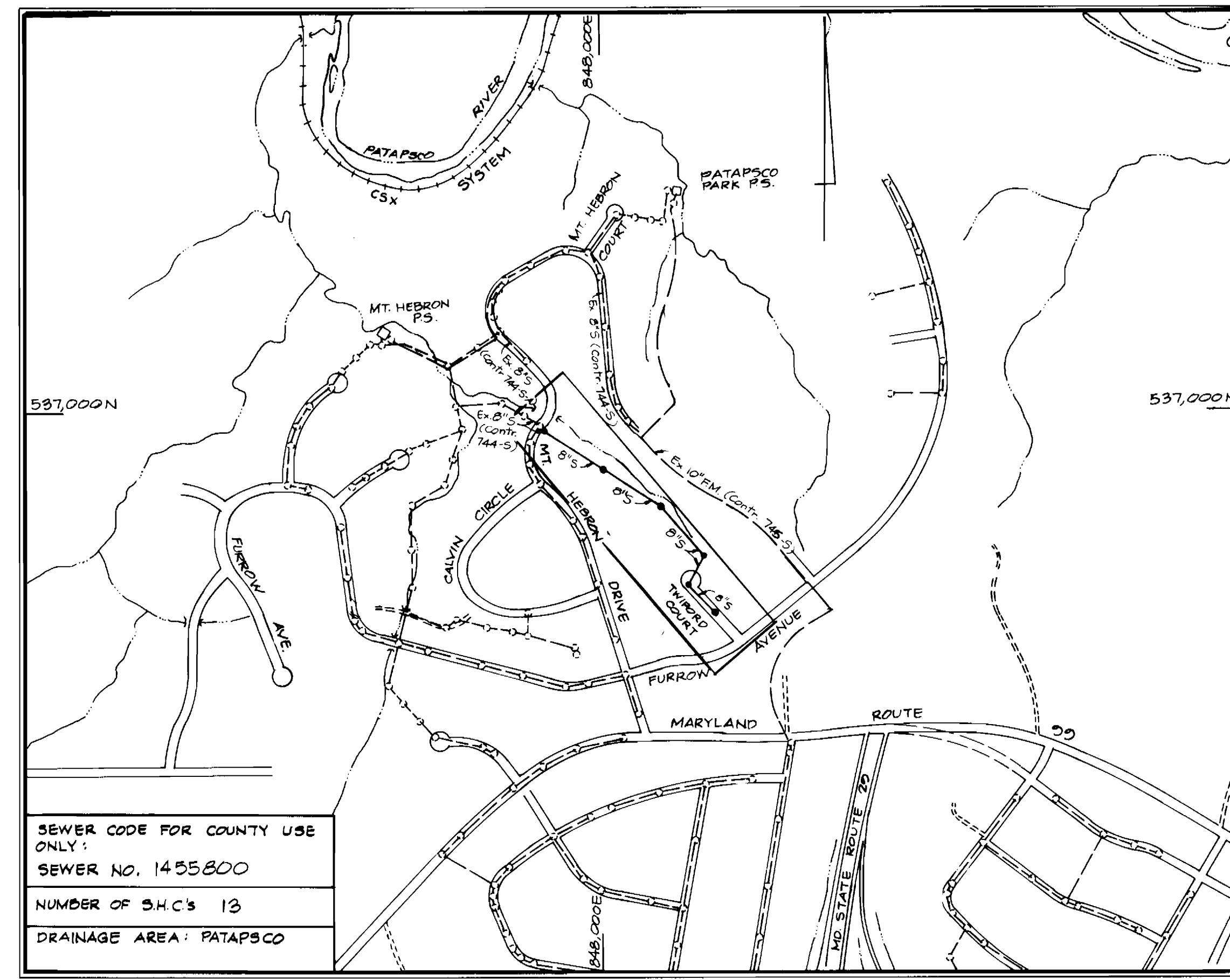
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District.

*William P. Best* Date: 9/9/84  
KIDDE CONSULTANTS, INC.  
1020 CROMWELL BRIDGE ROAD  
TOWSON, MD. 21204

**DEVELOPER'S CERTIFICATION**

"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."

*William S. King*  
BUREAU OF ENGINEERING  
DEPARTMENT OF PUBLIC WORKS



SCALE: 1" = 600'

**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.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 UTILITIES COMPANIES AND HAS MADE ARRANGEMENT 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  $\square$  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 (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - STATE HIGHWAY ADMINISTRATION - 531-5533
  - BALTIMORE GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES - 561-2585
  - BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND DAMAGE CONTROL - 234-5621
  - BALTIMORE GAS & ELECTRIC COMPANY - TROUBLE SHOOTING - 298-9013
  - "MISS UTILITY" - 1-559-0100
  - COLONIAL PIPELINE COMPANY - 795-1920
  - BUREAU OF UTILITIES HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366.
- TREES AND SHRUBS TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS 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 AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.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.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G.5.52 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.

# TWIFORD COURT COLLECTOR SEWER

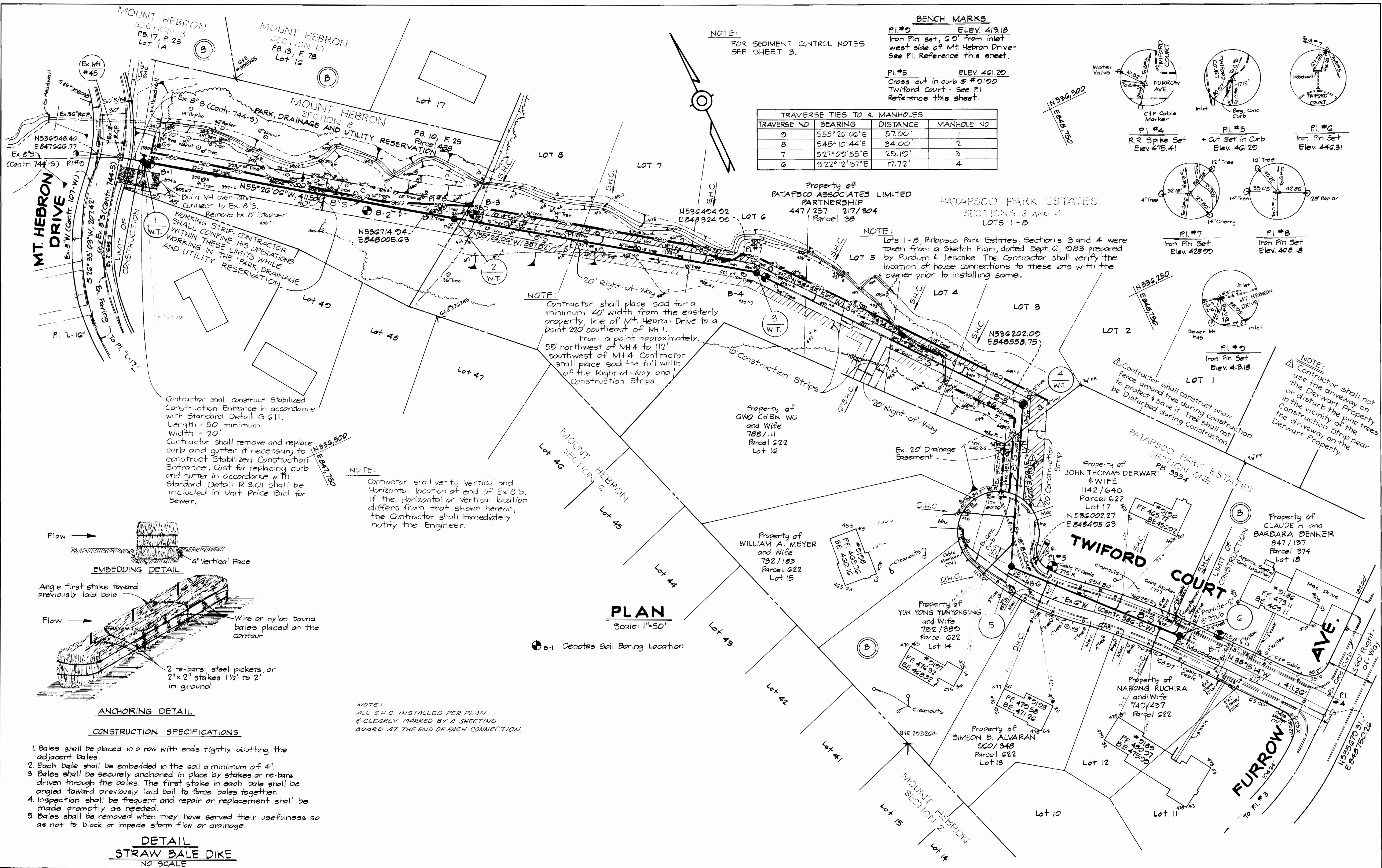
## CAPITAL PROJECT S-6126

## CONTRACT NO. 10-1206

## ELECTION DISTRICT NO. 2

ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIERS
	ESTIMATE	AS BUILT		
8" SEWER	1555'	1539.0	P.V.C.	A.P.E.P.
6" SEWER	640'	340.0	P.V.C.	A.P.E.P.
MANHOLES	6	6	PRE-CONC.	ATLANTIC PRECAST
MANHOLES OVER 65'	30 V.F.	23.5		
MAINLINE Y-BRANCHES/TEES FOR DROP CONNECTIONS	13	13	P.V.C.	FLO-CONTROL
VERTICAL STANDPIPE	17 V.F.	15.85	P.V.C.	A.P.E.P.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>John F. Nemmer</i> 9-5-84 Chief, Bureau of Engineering: <i>William S. King</i> 8-28-84 Chief, Bureau of Utilities: <i>Robert M. Beiner</i> 9-4-84 Chief, Utility Division: <i>Kevin J. News</i> 8-20-84	KIDDE CONSULTANTS, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND <i>William S. King</i>	DES: T.E.S. DRN: T.E.S. CHK: W.B.H. DATE: 7/10/84 K.C.I. $\Delta$ Standard Detail Number Revised 12/13/84 BY NO. REVISION DATE	LOCATION MAP OF SEWER MAIN EXTENSION 600' SCALE MAP NO. 17 BLOCK NO. 11	TWIFORD COURT COLLECTOR SEWER CAPITAL PROJECT NO. S-6126 CONTRACT NO. 10-1206 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 1 OF 3
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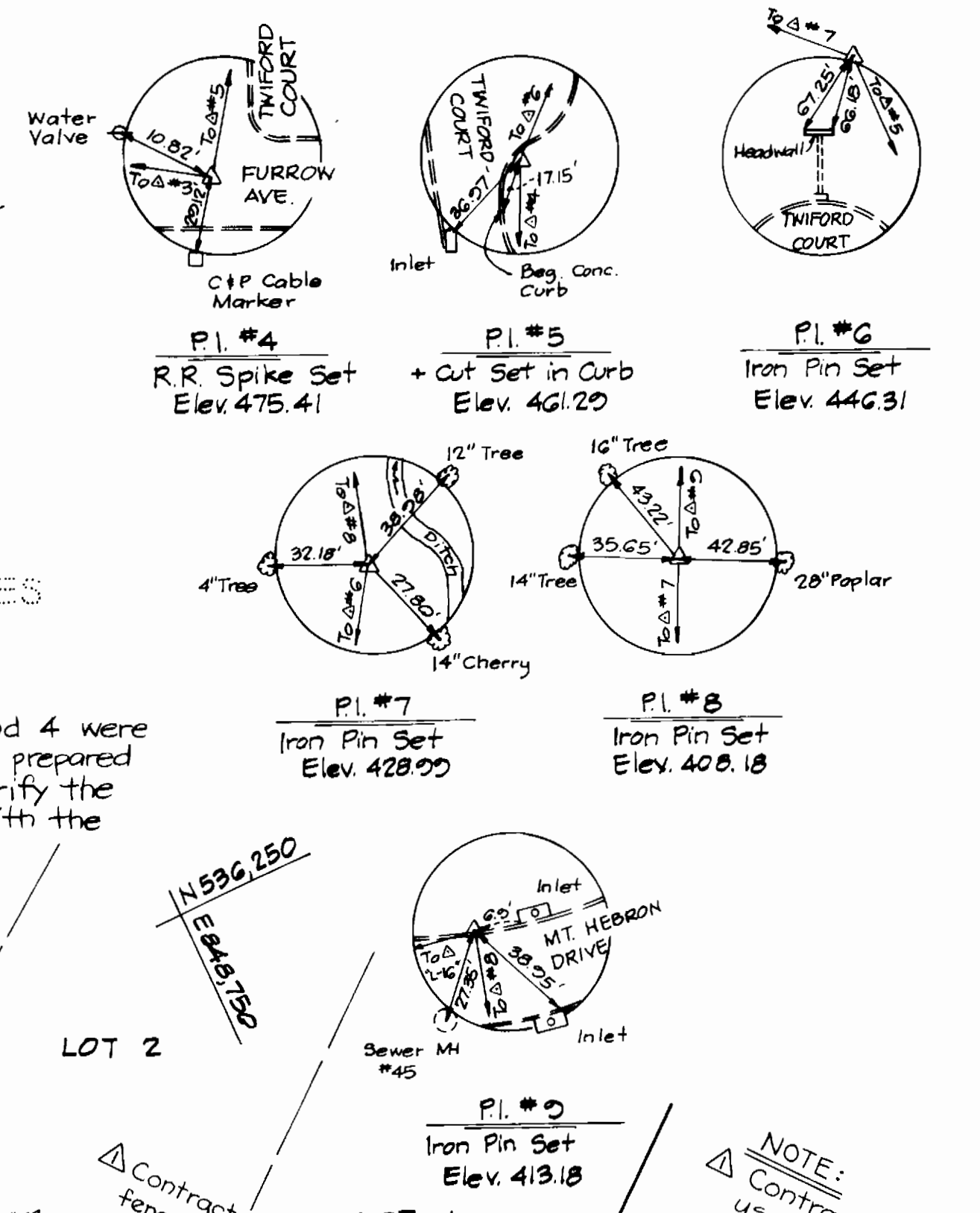
NOTE:  
FOR SEDIMENT CONTROL NOTES  
SEE SHEET 3.

**BENCH MARKS**

PI #0	ELEV. 413.18
Iron Pin Set, G.O. from inlet West side of Mt. Hebron Drive - See P.I. Reference this sheet.	
PI #5	ELEV. 461.20
Cross cut in curb # 0120 Twiford Court - See P.I. Reference this sheet.	

**TRAVERSE TIES TO & MANHOLES**

TRAVERSE NO	BEARING	DISTANCE	MANHOLE NO.
0	S55°26'06"E	57.00'	1
8	S45°10'44"E	34.00'	2
7	S27°00'55"E	25.10'	3
6	S22°12'37"E	17.72'	4

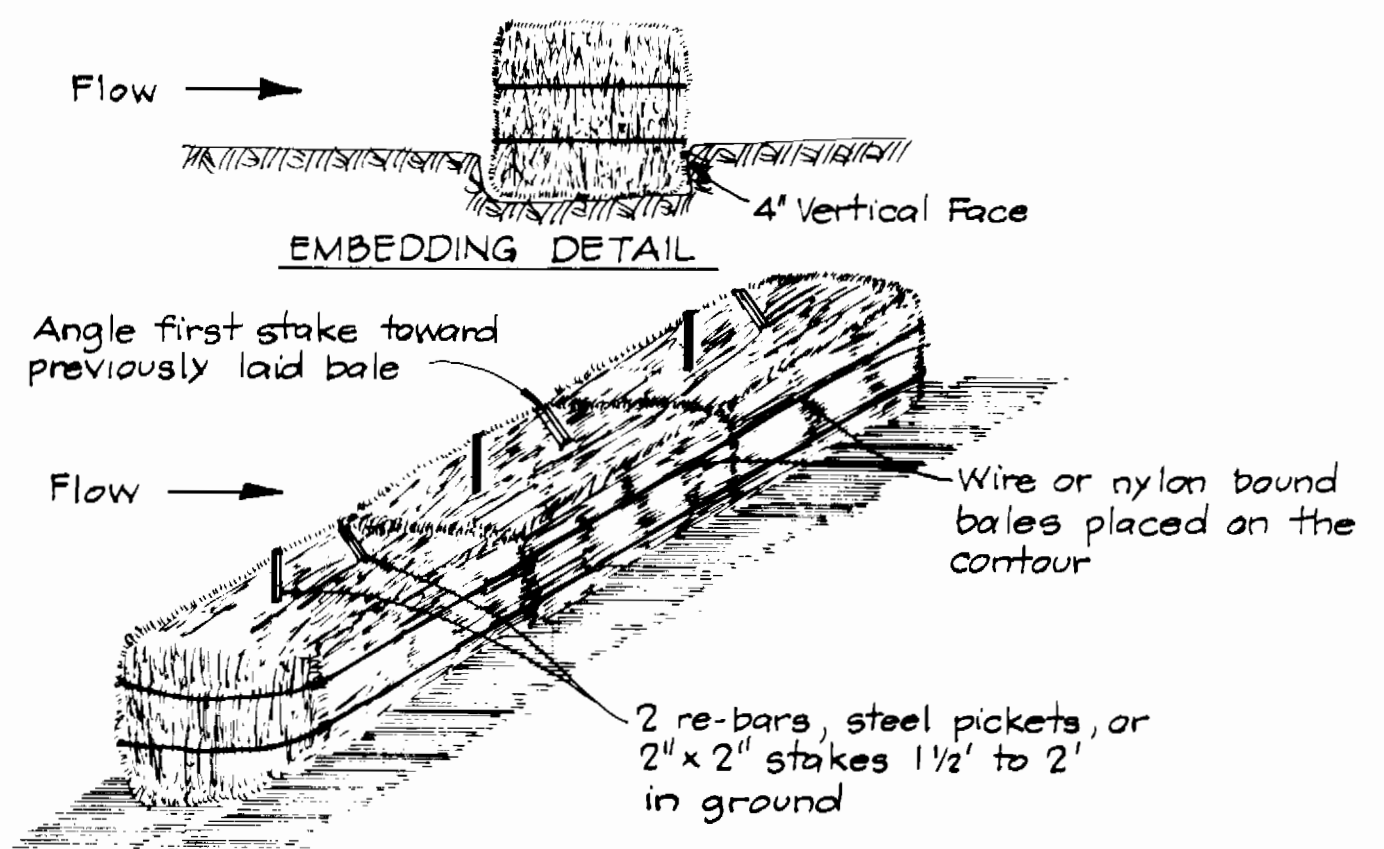


NOTE:  
Contractor shall place sod for a minimum 40' width from the easterly property line of Mt. Hebron Drive to a point 220' southeast of MH 1.  
From a point approximately 55' northwest of M44 to 112' southwest of M44 Contractor shall place sod the full width of the Right-of-Way and Construction Strips.

Contractor shall construct Stabilized Construction Entrance in accordance with Standard Detail G.6.11. Length - 50' minimum Width - 20'. Contractor shall remove and replace curb and gutter if necessary to construct Stabilized Construction Entrance. Cost for replacing curb and gutter in accordance with Standard Detail R.3.01 shall be included in Unit Price Bid for Sewer.

NOTE:  
Contractor shall verify Vertical and Horizontal location at end of Ex. B's. If the Horizontal or Vertical location differs from that shown hereon, the Contractor shall immediately notify the Engineer.

NOTE:  
Contractor shall not use the driveway on or disturb the Property in the vicinity of the Construction Strip near the driveway on the Derwart Property.



**CONSTRUCTION SPECIFICATIONS**

- Bales shall be placed in a row with ends tightly abutting the adjacent bales.
- Each bale shall be embedded in the soil a minimum of 4".
- Bales shall be securely anchored in place by stakes or re-bars driven through the bales. The first stake in each bale shall be angled toward previously laid bale to force bales together.
- Inspection shall be frequent and repair or replacement shall be made promptly as needed.
- Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.

**DETAIL STRAW BALE DIKE**  
NO SCALE

**PLAN**  
Scale: 1"=50'

⊙-1 Denotes Soil Boring Location

NOTE:  
ALL S.H.C. INSTALLED PER PLAN & CLEARLY MARKED BY A SHEETING BOARD AT THE END OF EACH CONNECTION.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: Robert M. Bunjes, 9-4-84  
Chief, Bureau of Utilities

Chief, Bureau of Engineering: Kevin J. Kline, 3-28-84  
Chief, Utility Division

KIDDE CONSULTANTS, INC.  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

DATE: 7/10/84

DES: T.E.S.	
DRN: T.E.S.	
CHK: W.B.H.	
DATE: 7/10/84	12/13/84
BY: NO.	REVISION
	Construction Strip Revised - Notes on Derwart R/W Provisions Added

PLAN OF  
SEWER MAIN EXTENSION

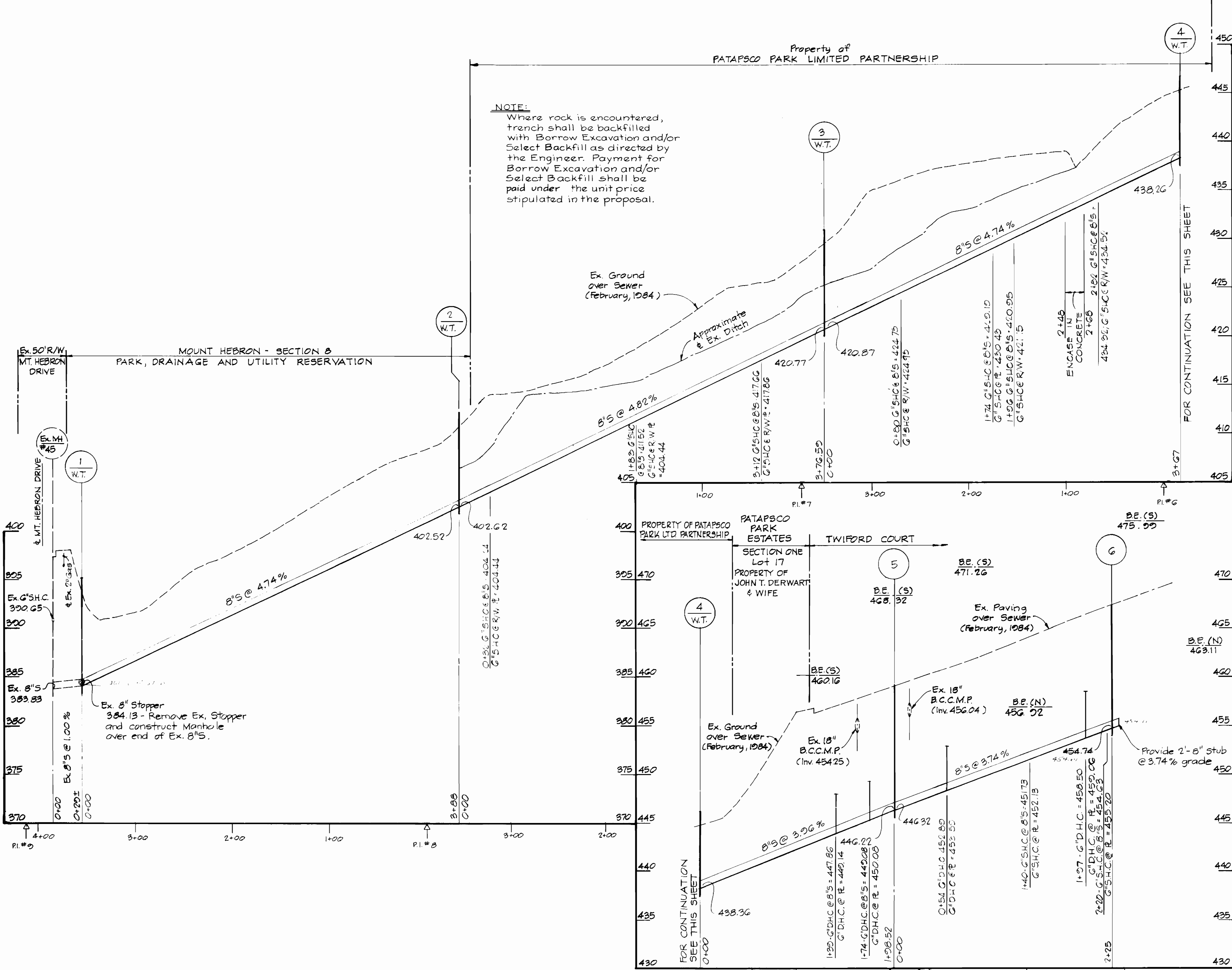
600' SCALE MAP NO. 17 BLOCK NO. 11

TWIFORD COURT COLLECTOR SEWER  
CAPITAL PROJECT NO. S-6126  
CONTRACT NO. 10-1206  
ELECTION DISTRICT NO. 2  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 3

Property of  
PATAPSCO PARK LIMITED PARTNERSHIP

**NOTE:**  
Where rock is encountered, trench shall be backfilled with Borrow Excavation and/or Select Backfill as directed by the Engineer. Payment for Borrow Excavation and/or Select Backfill shall be paid under the unit price stipulated in the proposal.



**SOIL EROSION AND SEDIMENT CONTROL NOTES**

1. THE CONTRACTOR WILL COMPLY WITH ALL REQUIREMENTS OF SEDIMENT AND EROSION CONTROL SET FORTH IN THE CONTRACT DRAWINGS, THE USDA SOIL CONSERVATION SERVICE MANUAL, "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS", AND VOLUME IV - ARTICLE 15 OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
2. THE CONTRACTOR SHALL NOT PUMP FROM EXCAVATED AREAS DIRECTLY INTO THE HOWARD COUNTY STORM DRAINAGE SYSTEM OR ANY NATURAL WATER COURSE. WHERE GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE PORTABLE OR EXCAVATED SEDIMENT TRAPS TO PREVENT SILTED TRENCH WATER FROM ENTERING STORM DRAINAGE SYSTEMS OR NATURAL WATERWAYS.
3. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH WHENEVER POSSIBLE, AND CONFINED TO AN AREA WHERE IT WILL NOT OBSTRUCT THE NORMAL FLOW OF DRAINAGE COURSES.
4. ALL SWALES SHALL BE EQUIPPED WITH A SEDIMENT RETENTION DEVICE TO TRAP SEDIMENT AND FILTER WATER LEAVING THE RIGHT-OF-WAY PRIOR TO ENTERING ANY RUNNING STREAMS.
5. THE CONTRACTOR SHALL PROVIDE STRAW BALE DIKES NORMAL TO SURFACE WATER FLOW AROUND ALL VEHICLE AND EQUIPMENT STAGING AREAS AS SHOWN IN "DETAIL OF A STRAW BALE DIKE" ENCLOSED IN SPECIFICATIONS.
6. ROADSIDE DITCHES AND DRAINAGE PIPES SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE ORIGINAL CONDITION FOLLOWING COMPLETION OF CONSTRUCTION.
7. THE CONTRACTOR SHALL DISPOSE OF SPOILS IN ACCORDANCE WITH GOOD SOIL CONSERVATION PRACTICE AND IN SUCH A MANNER THAT NONE CAN BE CARRIED INTO ANY DRAINAGE FACILITY OR WATER COURSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL SPOIL OR EXCESS EXCAVATED MATERIAL ON A SITE APPROVED BY THE SOIL CONSERVATION DISTRICT. DOCUMENTATION OF APPROVAL AND SITE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO BEGINNING WORK.
8. THE HOWARD COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED IN WRITING BY THE CONTRACTOR AS TO WHERE EXCESS MATERIAL WILL BE DISPOSED OR BORROW MATERIAL WILL BE OBTAINED. PRIOR TO BEGINNING ANY WORK ON THIS PROJECT, COPIES SHALL BE PROVIDED TO THE ENGINEER.
9. CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL DEVICES WILL BE REQUIRED.
10. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL AS REQUIRED BY THE SEDIMENT CONTROL INSPECTOR, AS THE WORK PROGRESSES OR REQUIRES.
11. THE CONTRACTOR SHALL NOTIFY IN WRITING, A HOWARD COUNTY SEDIMENT CONTROL DIVISION REPRESENTATIVE AT LEAST THREE (3) DAYS PRIOR TO STARTING WORK. PLEASE CONTACT: HOWARD COUNTY - 992-2436. COPIES SHALL BE PROVIDED TO THE ENGINEER.
12. THE CONTRACTOR SHALL PLACE A STABILIZED CONSTRUCTION ENTRANCE AS SHOWN IN THE HOWARD COUNTY STANDARD DETAILS, G.G.II, WHERE SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
13. SEDIMENT REMOVAL - ALL TRAPPED SEDIMENT IS TO BE REMOVED AND DISPOSED OF AT THE AUTHORIZED LANDFILLS PRIOR TO REMOVAL OF SEDIMENT CONTROL STRUCTURES.
14. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
  - A) SEVEN CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1).
  - B) FOURTEEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

**PROFILES**

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

**NOTE:**  
A.C.P. Not Allowed Between MH.4 and MH.6

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DATE: 8/28/84  
DATE: 8-3-84

CHIEF, BUREAU OF ENGINEERING  
CHIEF, UTILITY DIVISION

**KIDDE CONSULTANTS, INC.**  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

DES: T.E.S.	
DRN: T.E.S.	
CHK: W.B.H.	
DATE: 7/10/84	
BY: NO.	REVISION

**PROFILES OF  
SEWER MAIN EXTENSION**

600' SCALE MAP NO. 17 BLOCK NO. 11

**TWIFORD COURT COLLECTOR SEWER  
CAPITAL PROJECT NO. S-6126  
CONTRACT NO. 10-1206  
ELECTION DISTRICT NO. 2  
HOWARD COUNTY, MARYLAND**

SCALE AS SHOWN  
SHEET 3 OF 3