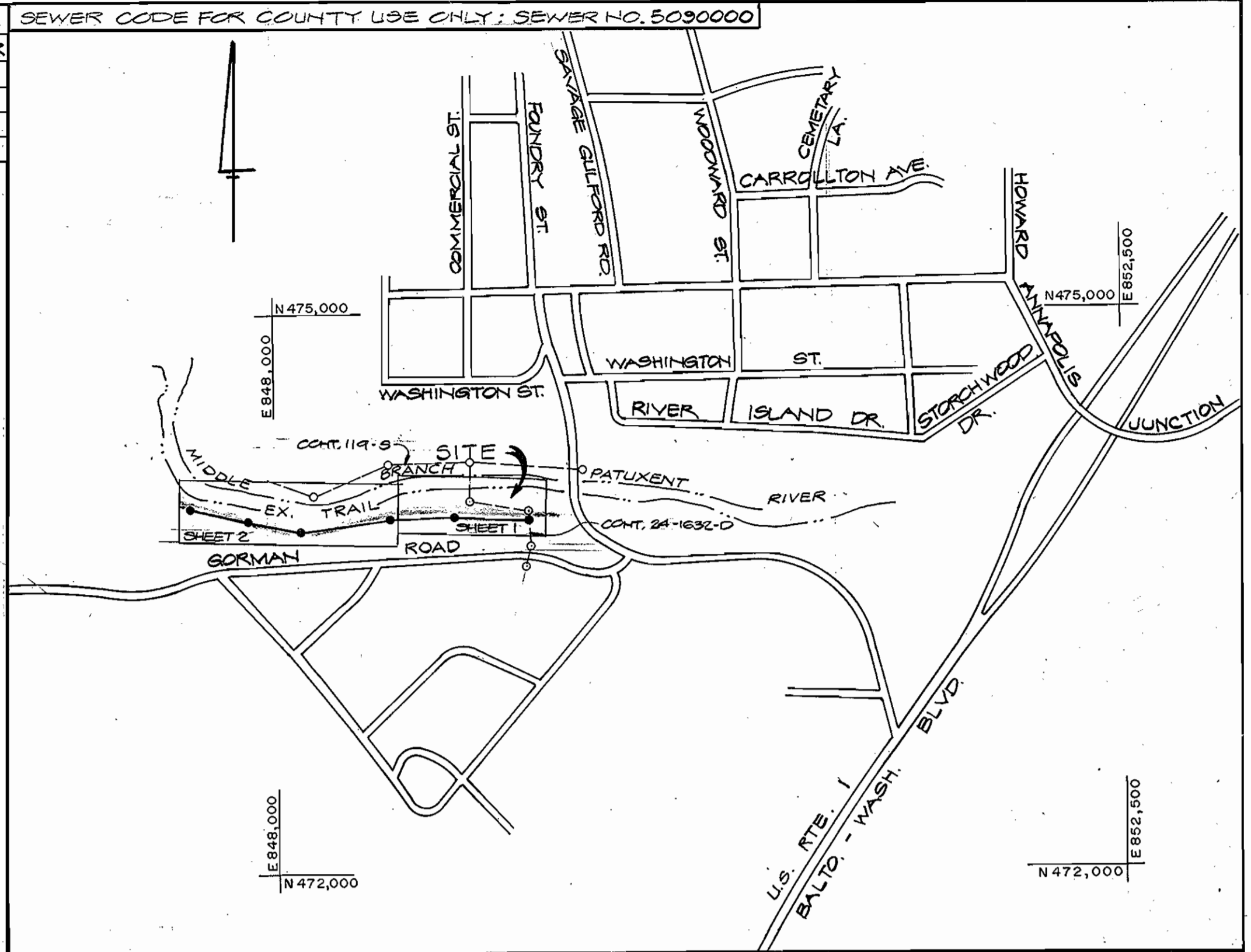
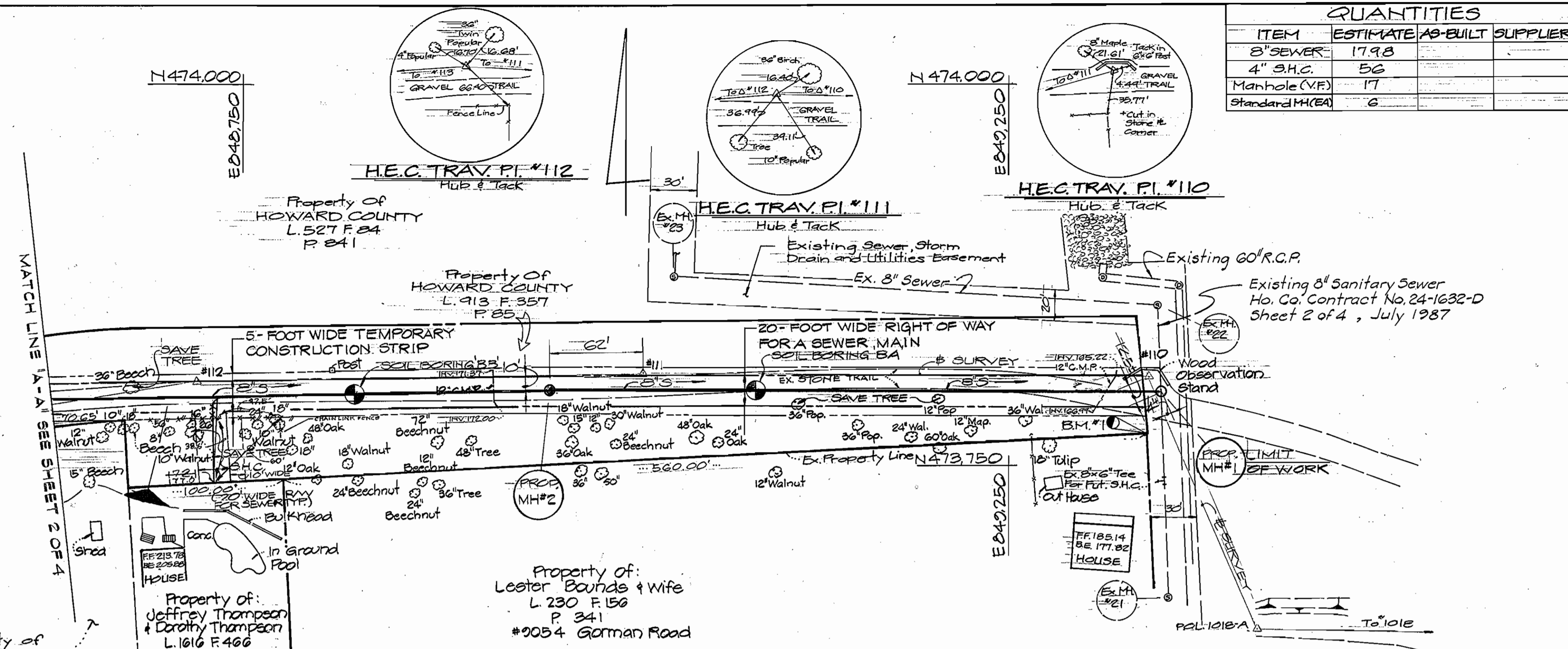


ITEM	ESTIMATE	AS-BUILT	SUPPLIER
8" SEWER	179.8		
4" S.H.C.	56		
Manhole (V.P.)	17		
Standard MH (EA)	6		



NUMBER OF PARCELS = 6
 TYPE OF BUILDING = RESIDENTIAL
 NUMBER OF S.H.C.'S = 4
 DRAINAGE AREA = MIDDLE BRANCH PATUXENT RIVER

VICINITY MAP
 SCALE: 1"=600'



PLAN
 SCALE: 1"=50'

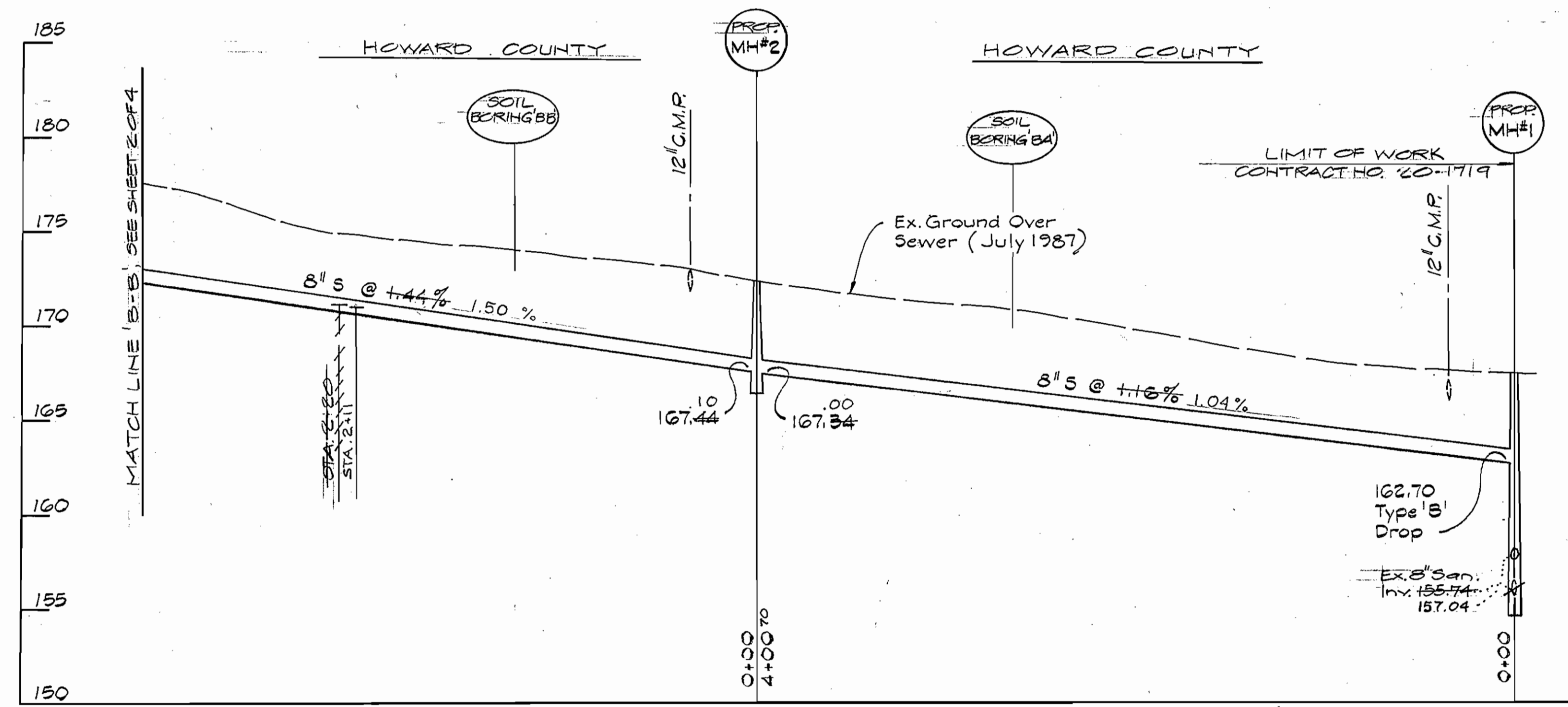
TRAVERSE INFO

H.E.C. TRAV. P.I. #110	N 47° 38' 07" E	84.9340.98
H 89° 33' 21" W		330.29'
H.E.C. TRAV. P.I. #111	N 47° 38' 09" E	84.9010.69
S 89° 07' 25" W		292.33'
H.E.C. TRAV. P.I. #112	N 47° 38' 05" E	84.8718.39

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 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, and for materials and construction methods, use Howard County Design Manual, Volume IX, Standard Specifications and Details for Construction. The Contractor shall have a copy of Volume IX on the job.
- Where test pits have been made on existing utilities, they are noted by the symbol \boxtimes 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 the Owners Expense.
- Contractor shall notify the following Utilities Companies or Agencies at least five (5) 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., Underground Damage Control	859 - 9004
Baltimore Gas & Electric Co., Trouble Shooting	298 - 9001
Miss Utility and C&P Telephone Co.	1-800-251-7777
Colonial Pipeline Co.	745 - 1390
Bureau of Utilities, Howard County Dept. of Public Works	992 - 2366
- Trees and shrubs are to be protected from damage to minimum 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 for construction of the main.
- All sewer mains shall be C.S.P.X., R.C.S.P., V.C.F.X., A.C.P. class 2400 or F.V.C., unless otherwise noted.
- The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
- All manhole shall be 4'-0" inside diameter, unless otherwise noted.
- The Contractor shall make every effort to save all trees within easements and construction strips.



PROFILE
 SCALE: HORIZ.: 1"=50'
 VERT.: 1"=5'

MANHOLE STAKEOUT TABLE

MANHOLE	DISTANCE	OFFSET
#1	125' WESTERLY OF P.I. #110	4' EAST
#2	62' WESTERLY OF P.I. #111	10' SOUTH

RESTORATION SCHEDULE

LOCATION	DISTANCE	TYPE
M.H. #1 TO M.A.-A	725 L.F.	No. 10 AGGREGATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.
 Signature: James M. Helms
 DATE: 8/11/89
 U.S. SOIL CONSERVATION SERVICE

BENCH MARK
 H.E.C. B.M. #1 Elev. 170.26
 Conc. Monument South of Wooden Observation Stand at corner of fence row, Southwest of new Sanitary M.H. #1, cut

DAILY BACKFILL SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION.

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 APPROVED: [Signature]
 HOWARD S.C.D. DATE: 8/11/89

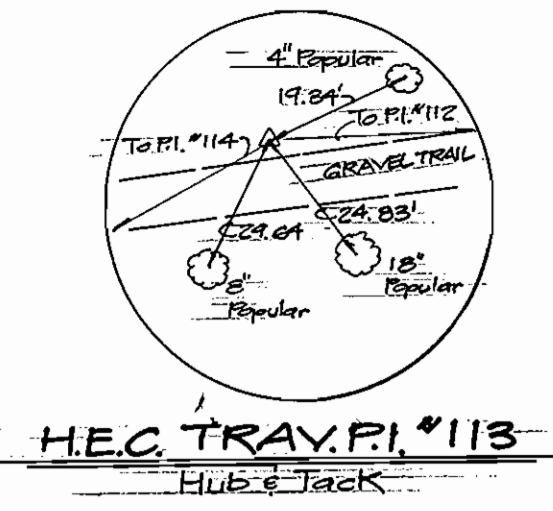
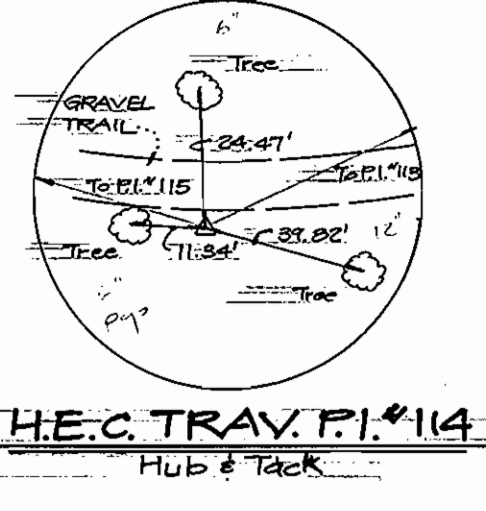
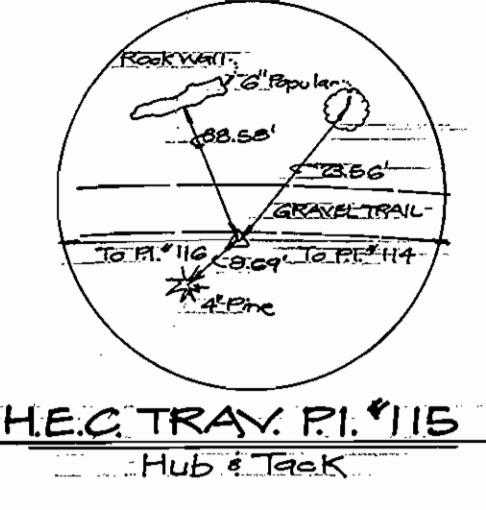
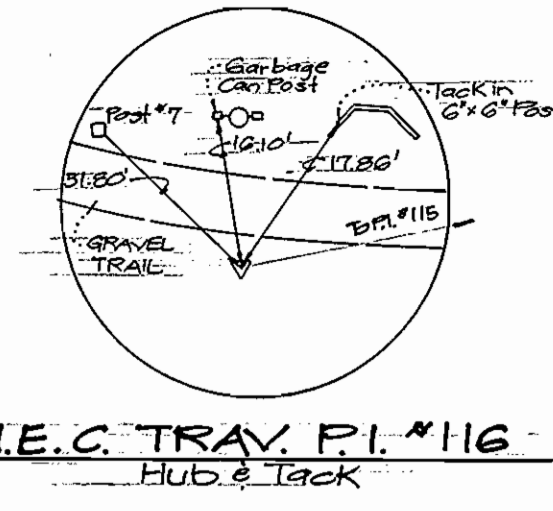
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 James M. Helms, Director of Public Works, 8/14/89
 [Signature], Chief, Bureau of Engineering, 8-14-89
 [Signature], Chief, Utility Design Division, 8-11-89

HICKS ENGINEERING CO., INC.
 ENGINEERS - SURVEYORS - PLANNERS
 200 E. JOPPA ROAD - SUITE 402
 TOWSON MARYLAND 21204
 Donald E. Hicks, P.E., No. 8676

DESIGNER	DATE
DRN: L.A.W.	
CHK: D.E.H.	
DATE:	

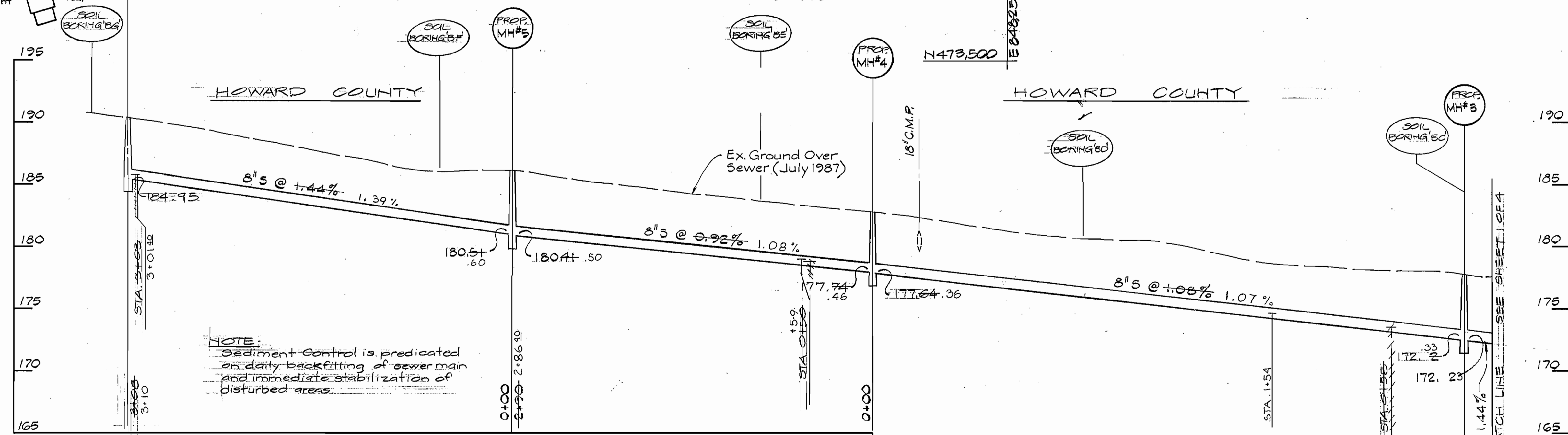
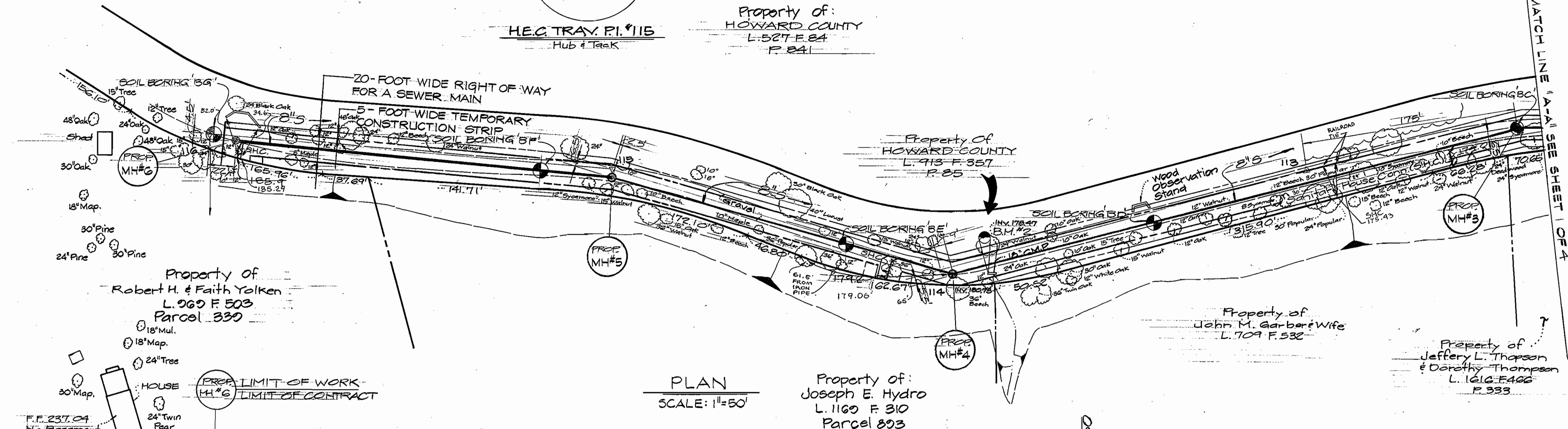
8" SANITARY SEWER
 CONTRACT NO. 20-1719
 600' SCALE MAP NO. 47 BLOCK NO.

GORMAN ROAD COLLECTOR SEWER
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT S-6151
 SCALE AS SHOWN
 SHEET 1 OF 4



TRAVERSE INFO

HE.C TRAV. P.I. #112	N 473805.36
	E 848712.39
	S 80° 56' 13" W 289.33'
HE.C TRAV. P.I. #113	N 473759.78
	E 848432.68
	S 74° 52' 26" W 309.51'
HE.C TRAV. P.I. #114	N 473679.02
	E 848133.89
	N 72° 30' 07" W 278.43'
HE.C TRAV. P.I. #115	N 473762.78
	E 847868.29
	N 84° 56' 29" W 328.76'
HE.C TRAV. P.I. #116	N 473791.74
	E 847540.82



NOTE:
Sediment control is predicated on daily backfilling of sewer main and immediate stabilization of disturbed areas.

MANHOLE STAKEOUT TABLE

MANHOLE	DISTANCE	OFFSET
#3	175' EASTERY OF P.I. #113	0.5' SOUTH
#4	9' EASTERY OF P.I. #114	0.5' SOUTH
#5	25' EASTERY OF P.I. #115	0.5' SOUTH
#6	22' EASTERY OF P.I. #116	4.8' SOUTH

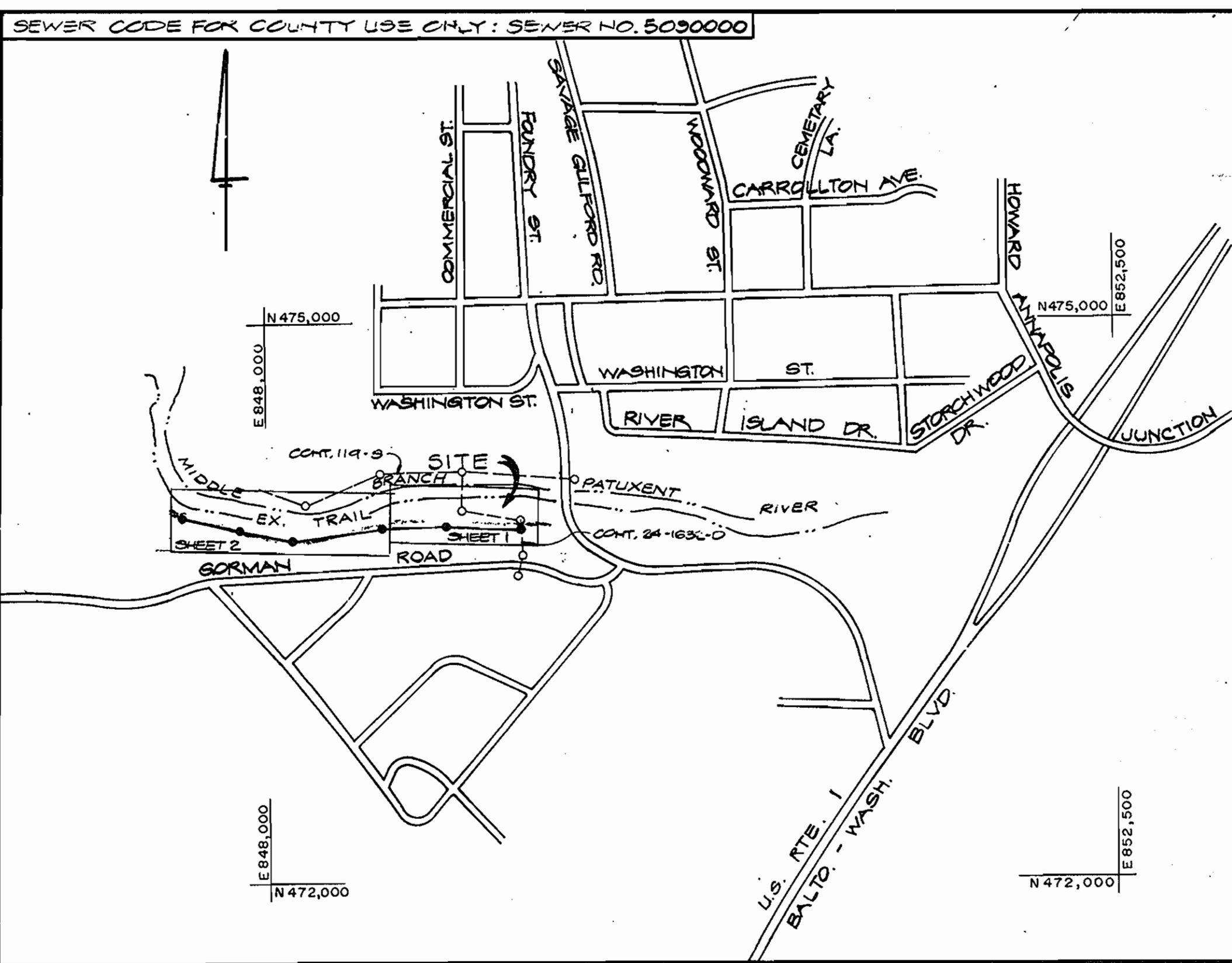
RESTORATION SCHEDULE

LOCATION	DISTANCE	TYPE
183'-A' TO MH#6	1,473 L.F.	No. 10 Aggregate

BENCH MARK
H.C. B.M. #2 Elev. 188.16
* Out in Top Face of Concrete Headwall
Located Between New Sanitary MH's #3 & 4

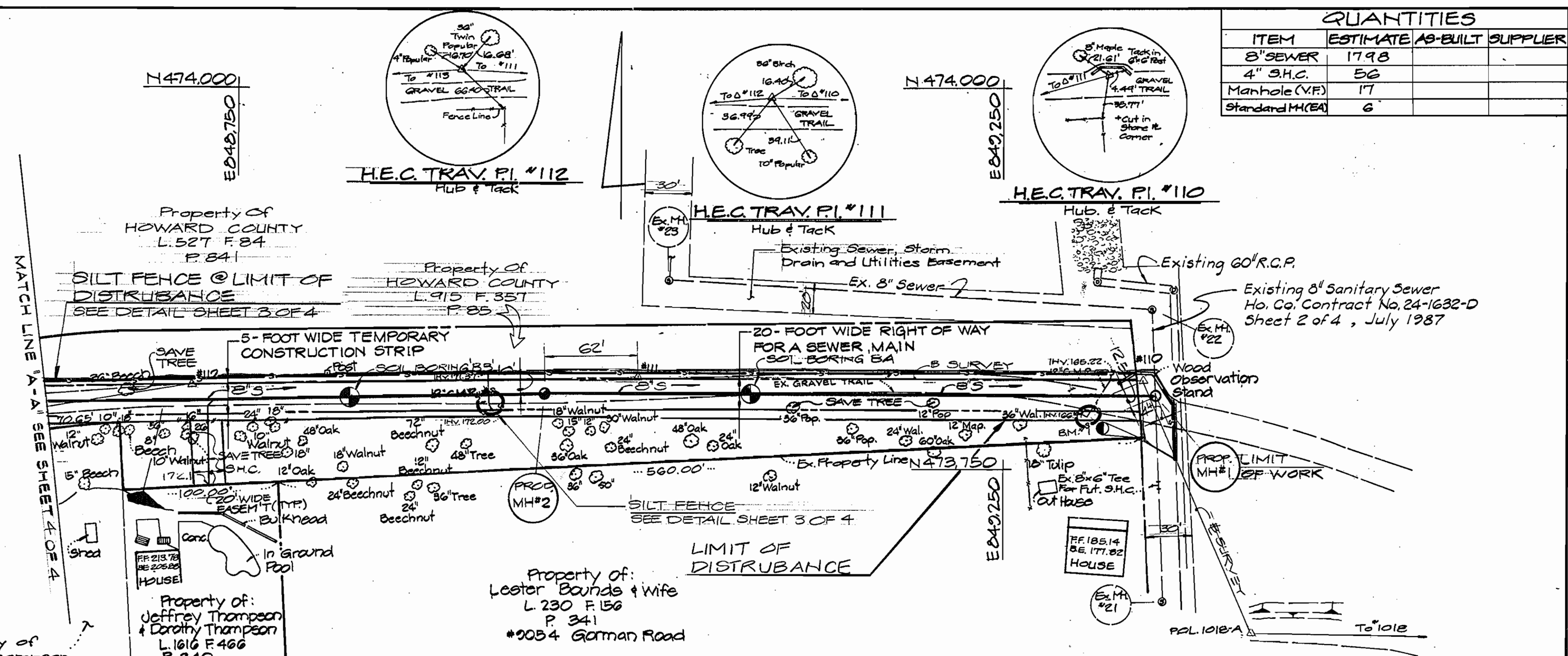
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: James M. [Signature] 8-14-89 Chief, Bureau of Engineering: [Signature] 8-14-89 Chief, Bureau of Utilities: Robert [Signature] 8-17-89 Chief, Utility Design Division: [Signature] 8-11-89	HICKS ENGINEERING CO., INC. ENGINEERS - SURVEYORS - PLANNERS 200 E. JOPPA ROAD - SUITE 402 TOWSON MARYLAND 21204 Donald E. Hicks, RE., No. 8676	DES: _____ DRN: L.A.W. CHK: D.E.H. DATE: _____	8" SANITARY SEWER CONTRACT NO. 20-1719	GORMAN ROAD COLLECTOR SEWER SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND CAPITAL PROJECT S-6151	SCALE AS SHOWN SHEET 2 OF 4
		BY: _____ NO. _____ REVISION _____ DATE: _____	600' SCALE MAP NO. 47 BLOCK NO. _____	AS-BUILT G. WALLACE 4-6-90	

ITEM	ESTIMATE	AS-BUILT	SUPPLIER
8" SEWER	1798		
4" S.H.C.	56		
Manhole (V.F.)	17		
Standard H.H.(E.A.)	6		



NUMBER OF PARCELS = 6
 TYPE OF BUILDINGS = RESIDENTIAL
 NUMBER OF S.H.C.'S = 4
 DRAINAGE AREA = MIDDLE BRANCH PATUXENT RIVER

VICINITY MAP
 SCALE: 1" = 600'



PLAN
 SCALE: 1" = 50'

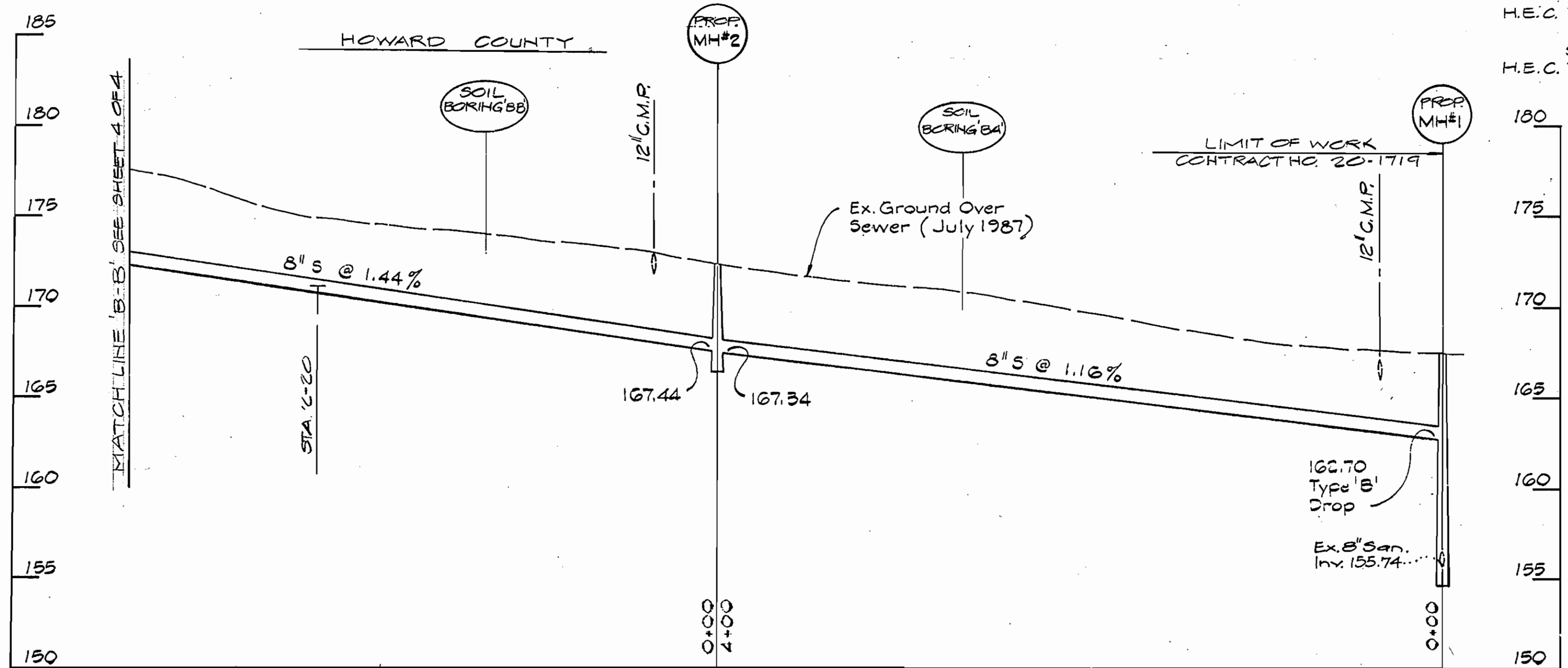
TRAVERSE INFO

H.E.C. TRAV. P.I. #110	N 473807.84	E 849340.98
H 89°29'21"W	330.29'	
H.E.C. TRAV. P.I. #111	N 473809.83	E 849310.69
S 89°07'25"W	292.33'	
H.E.C. TRAV. P.I. #112	N 473805.36	E 848718.39

SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to Howard County Office of Inspection and Permits prior to the start of any construction (992-2437).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the Howard County Design Manual, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51) and (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total Area of Site	1.8± Acres
Area Disturbed	1.3± Acres
Area to be reseed or paved (No. 10 AGGREGATE)	0.6± Acres
Area to be vegetatively stabilized	0.7± Acres
Total Cut (Trenching)	900 Cu. yds.
Total Fill	900 Cu. yds.
Offsite waste/borrow area location	Undetermined
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance. Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
- Small sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.



PROFILE
 SCALE: HORIZ.: 1" = 50'
 VERT.: 1" = 5'

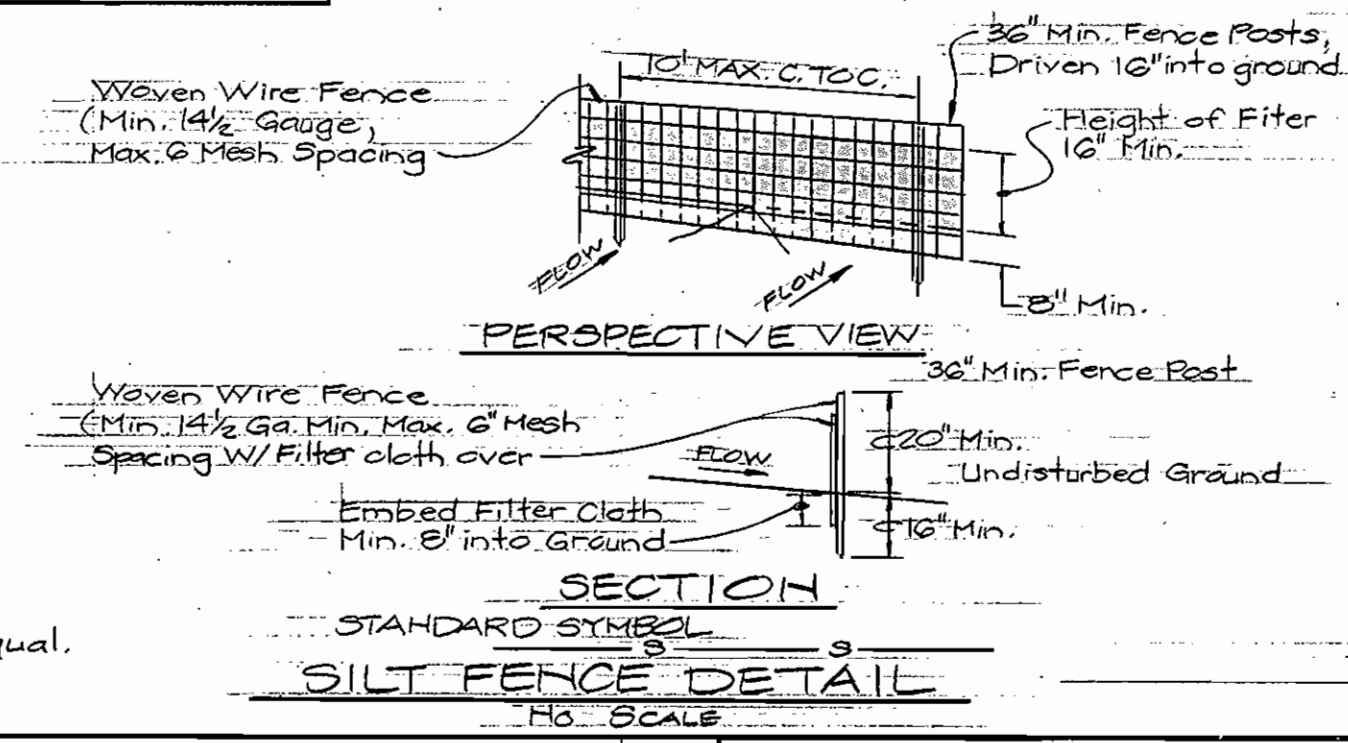
MANHOLE STAKEOUT TABLE

MANHOLE	DISTANCE	OFFSET
#1	125' WESTERLY OF P.I. #110	4' EAST
#2	62' WESTERLY OF P.I. #111	10' SOUTH

CONSTRUCTION NOTES

- Woven Wire Fence to be fastened securely to fence posts with wire ties or staples.
- Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top of mid section.
- When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
- Maintenance shall be performed as needed and material removed when bulges develop in the silt fence.

POSTS: Steel either T or U type or 2" hardwood.
 FENCE: Woven wire, 12' or 14' high, 6" max. mesh openings.
 FILTER CLOTH: Filter X, Minafi 100X, stabilizing T-142 or approved equal.
 PREFABRICATED UNIT: Geofab, Envirofence or approved equal.
 U.S.D.A. - S.C.2 STANDARD DRAWING S.F.-1



SEQUENCE OF CONSTRUCTION

- Obtain Construction Permit. Contact Howard County Department of Inspections and Permits (301) 992-2437.
- Install Silt Control Measures as shown on this plan or as may be directed.
- Excavate for and install proposed sewer main and related facilities.
- Complete grading, Restore Park Stone Trail and Stabilize all areas disturbed by the contractor's operations.
- Remove Silt Control Devices, After Proper Authorization from Sediment Control Inspector and restore all areas that may require additional stabilization.

SEDIMENT CONTROL PLAN

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

James M. Holm 8/11/89
 SIGNATURE DATE
 U.S. SOIL CONSERVATION SERVICE

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

APPROVED
John P. Roberts 8/11/89
 HOWARD S.C.D. DATE

BENCH MARK
 H.E.C. B.M. #1 Elev. 170.86
 Conc. Monument South of Wooden Observation Stand at corner of fence row. Southwest of new Sanitary M.H. #1, + cut

DAILY BACKFILL SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James P. Lewis 8/14/89
 DIRECTOR OF PUBLIC WORKS DATE

Richard A. Bennett 8/14/89
 CHIEF, BUREAU OF UTILITIES DATE

William E. Ray 8-14-89
 CHIEF, BUREAU OF ENGINEERING DATE

O. J. O'Brien 8-11-89
 CHIEF, UTILITY DESIGN DIVISION DATE

HICKS ENGINEERING CO., INC.
 ENGINEERS - SURVEYORS - PLANNERS
 200 E. JOPPA ROAD - SUITE 402
 TOWSON MARYLAND 21204

DONALD E. HICKS, P.E., NO. 8676

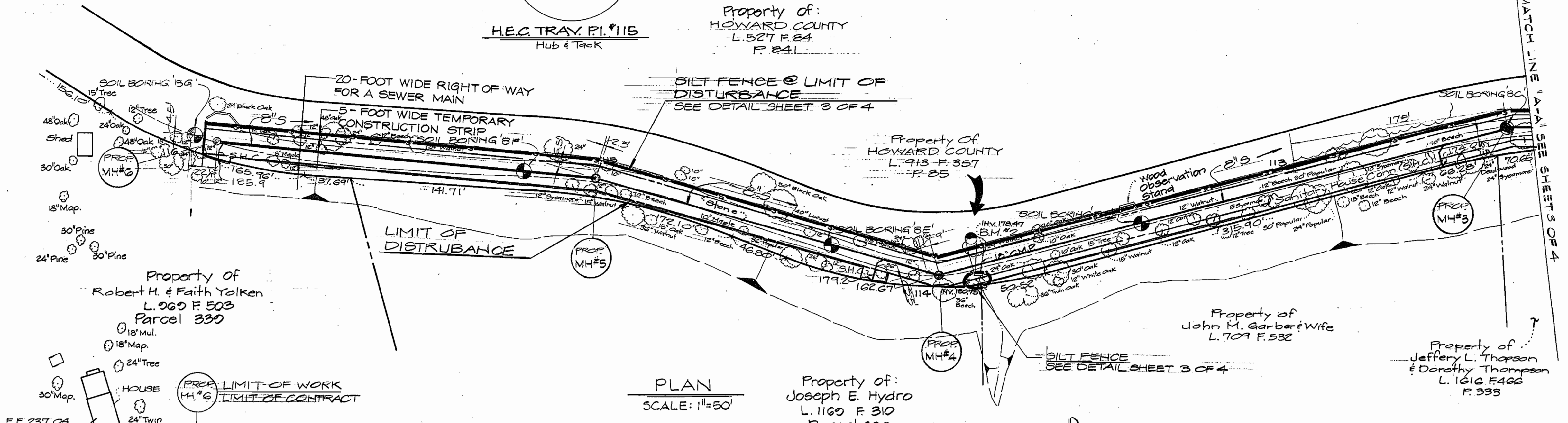
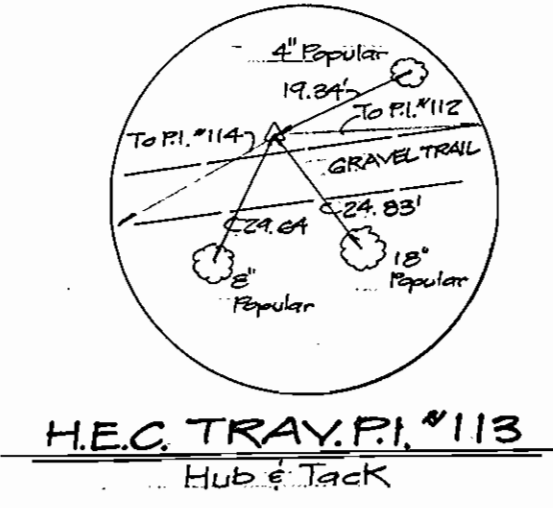
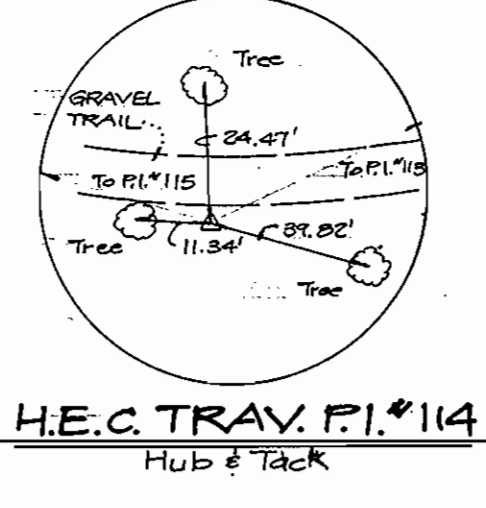
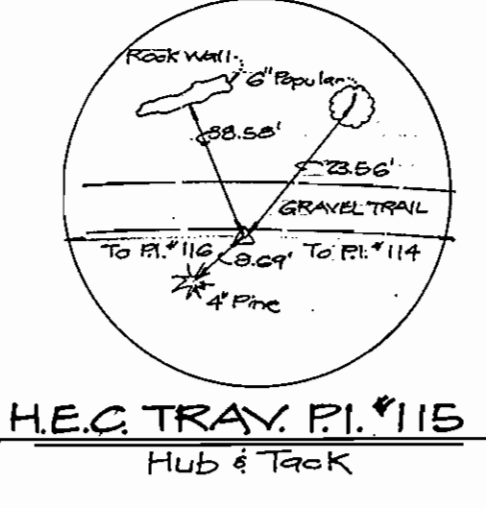
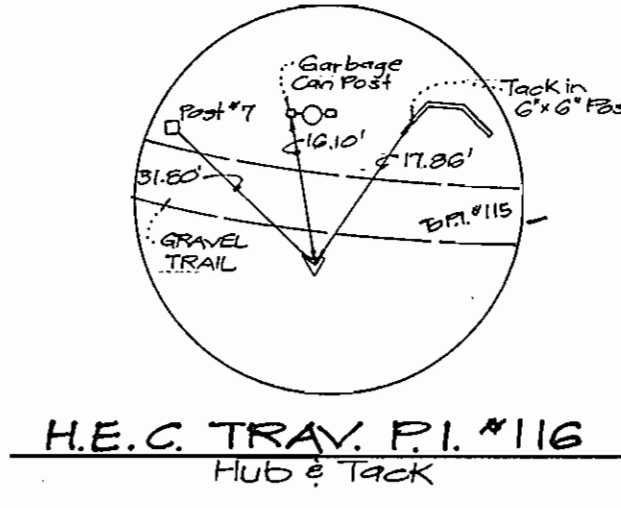
DES.	DRN.	CHK.	DATE:	BY	NO.	REVISION	DATE
	L.A.W.	D.E.H.					

8" SANITARY SEWER
 CONTRACT NO. 20-1719

600' SCALE MAP NO. 47 BLOCK NO.

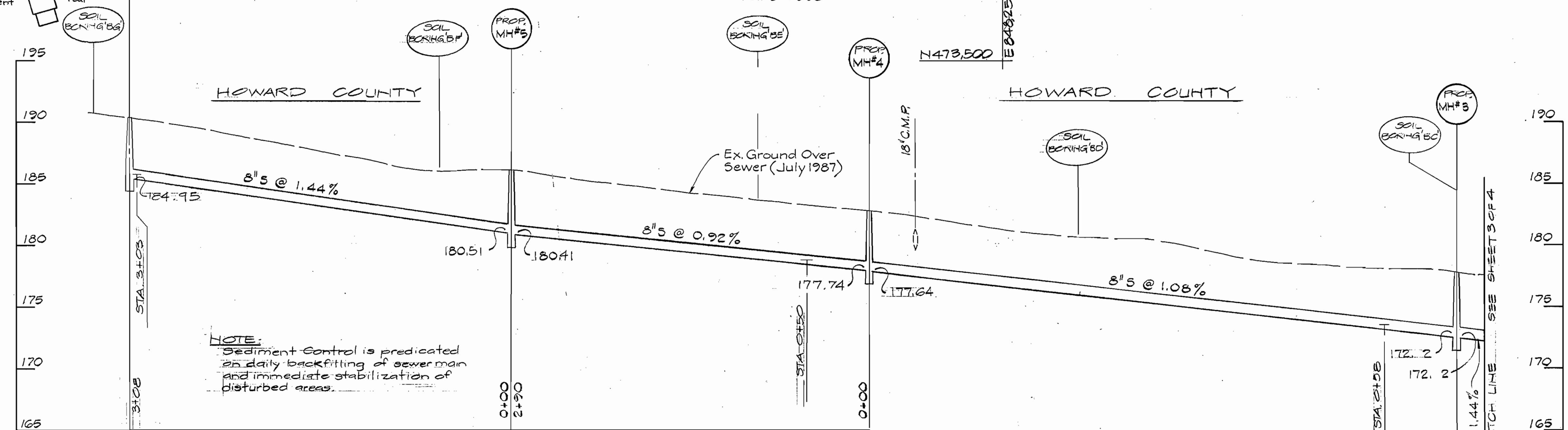
GORMAN ROAD COLLECTOR SEWER
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 CAPITAL PROJECT S-6151

SCALE AS SHOWN
 SHEET 3 OF 4



TRAVERSE INFO

H.E.C. TRAV. P.I. #112	N 473805.30
	E 848718.39
	S 80° 56' 15" W 287.53'
H.E.C. TRAV. P.I. #113	N 473759.78
	E 848432.68
	S 74° 52' 26" W 309.51'
H.E.C. TRAV. P.I. #114	N 473679.06
	E 848133.87
	N 72° 30' 07" W 278.48'
H.E.C. TRAV. P.I. #115	N 473762.75
	E 847862.29
	H 24° 56' 29" W 328.76'
H.E.C. TRAV. P.I. #116	N 473791.74
	E 847540.82



MANHOLE STAKEOUT TABLE

MANHOLE	DISTANCE	OFFSET
#3	175' EASTERLY OF P.I. #113	6.5' SOUTH
#4	9' EASTERLY OF P.I. #114	5.5' SOUTH
#5	2.5' EASTERLY OF P.I. #115	6.5' SOUTH
#6	22' EASTERLY OF P.I. #116	4.5' SOUTH

RESTORATION SCHEDULE

LOCATION	DISTANCE	TYPE

BENCH MARK
 H.E.C. B.M. #2 Elev. 188.16
 * Cut in Top Face of Concrete Headwall
 Located Between New Sanitary MH's #3 & 4

SEDIMENT CONTROL PLAN

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works Chief, Bureau of Utilities	HICKS ENGINEERING CO., INC. ENGINEERS - SURVEYORS - PLANNERS 200 E. JOPPA ROAD - SUITE 402 TOWSON MARYLAND 21204	DES: _____ DRN: L.A.W. CHK: D.E.H. DATE: _____ BY: _____ NO. _____ REVISION _____ DATE _____	8" SANITARY SEWER CONTRACT NO. 20-1719	GORMAN ROAD COLLECTOR SEWER SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND CAPITAL PROJECT S-6151	SCALE AS SHOWN
					SHEET 4 OF 4

AS-BUILT G. WALLACE 4-6-90