

QUANTITIES			
ITEM	UNIT	ESTIMATE	SUPPLIER
<b>WOODBURN AVE</b>			
8" SEWER	L.F.	46	
STD 4'-0" MH	EA.	1	
4" S.H.C.	L.F.	8	
<b>HARTHORN</b>			
8" SEWER	L.F.	136	
STD 4'-0" MH	EA.	1	
4" S.H.C.	L.F.	12	
8" W. F.H. @ 6" V.	L.F.	60	68'-8" GRIFFIN DUCTILE IRON PIPE
3/4" W.H.C.	EA.	30	1 3/4" F.I. HYDRANT TEE
			2 1/4" F.I. COPPER
			1 1/2" M.J. SLEEVES
			2 MUELLER 5 FT FIRE HYDRANT

MANHOLE STAKEOUT TABLE		
MANHOLE	DISTANCE	OFFSET
S-1	PI. #161 TO PI. #106 STA. 0+47	4'L.T.
S-2	PI. #104 TO PI. #105 STA. 0+16	15'RT.

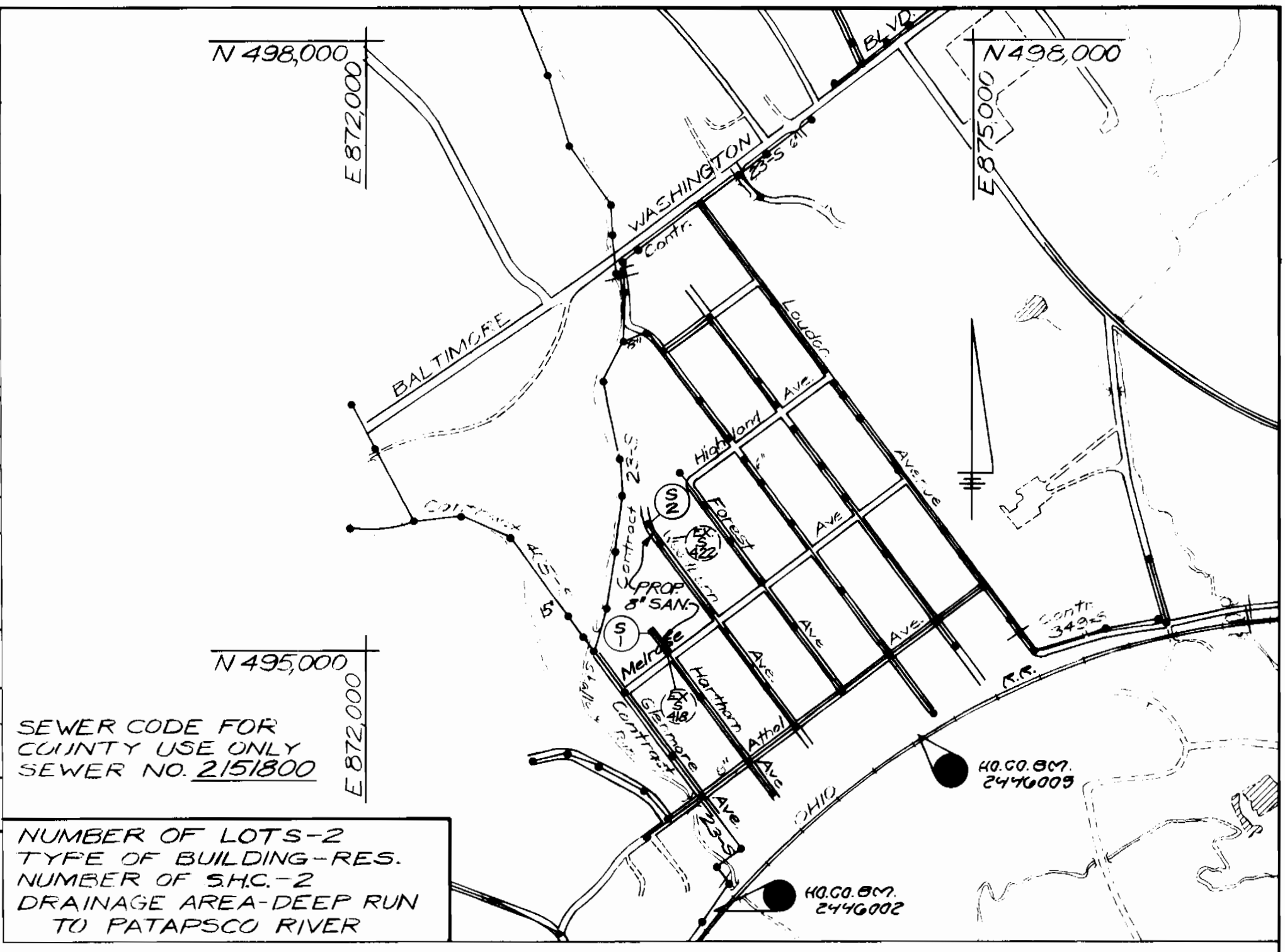
SEWER HOUSE CONNECTIONS INVERT ELEVATIONS AT PROPERTY LINE		
STATION	LOT	ELEVATION
WOODBURN AVE. AT MH LT.	HOUSE NO. 6370	114.31
HARTHORN AVE. AT MH LT.	HOUSE NO. 6390	93.14

TRAVERSE DATA		
H.E.C. TRAV. PI. #103	N 495344.300	E 573552.603
	N 35°53'13"W	EL. 125.32
H.E.C. TRAV. PI. #104	N 495523.131	E 673433.484
	S 67°20'54"W	EL. 124.25
H.E.C. TRAV. PI. #105	N 495445.527	E 573223.562
	S 23°38'23"E	EL. 101.89
H.E.C. TRAV. PI. #106	N 495152.828	E 673351.650
	S 37°14'12"E	EL. 103.45
H.E.C. TRAV. PI. #161	N 495054.155	E 573426.229
	(POL. #1161)	EL. 105.70

REFERENCE BENCH MARKS		
1. HOWARD COUNTY NO. 2446002	COORDINATES: N 493665.030	E 673726.708
	ELEV: 107.585	
2. HOWARD COUNTY NO. 2446005	COORDINATES: N 494900.43	E 674721.33
	ELEV: N/A	(SEE VICINITY MAP)

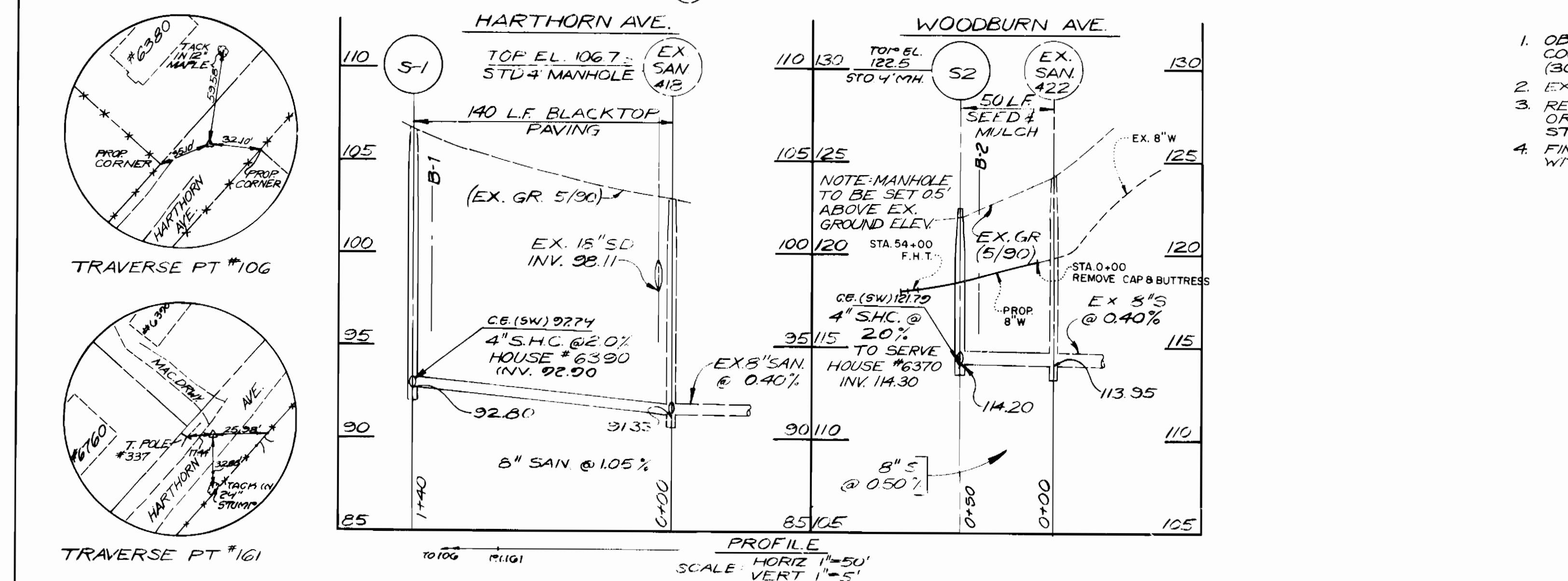
- SEQUENCE OF CONSTRUCTION**
- OBTAIN CONSTRUCTION PERMIT CONTACT HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS (301) 992-2437
  - EXCAVATE AND INSTALL PROPOSED SEWER MAIN.
  - RESTORE PAVING AND EARTH TRENCHES TO THEIR ORIGINAL CONDITION AS PER HOWARD COUNTY STANDARDS.
  - FINE GRADE ALL DISTURBED AREAS AND STABILIZE WITH PERMANENT SEEDING.

RESTORATION SCHEDULE		
LOCATION	DISTANCE	TYPE
<b>HARTHORN AVE.</b>		
EX. MH. S-418 TO MH. S-1	150 L.F.	PAVING RESTORATION
S.H.C. TO HOUSE NO. 6390	2 L.F.	PAVING RESTORATION
S.H.C. TO HOUSE NO. 6390	10 L.F.	SEED # MULCH
<b>WOODBURN AVE.</b>		
EX. MH. S-422 TO MH. S-2	60 L.F.	SEED # MULCH
S.H.C. TO HOUSE NO. 6370	8 L.F.	SEED # MULCH



**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 shown 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.
- For details not shown on the Drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specification 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  $\boxtimes$  at location of 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 the Contractor's expense.
- The Contractor shall notify the following utility companies or agencies at least five working days prior to starting work shown on this plan:
  - City Telephone Company 597-6565
  - State Highway Administration 531-5535
  - Baltimore Gas & Electric Co. Contractor Service 650-4620
  - Baltimore Gas & Electric Co. Underground Damage Control 850-9004
  - Baltimore Gas & Electric Co. Trouble Shooting 298-9001
  - MISS UTILITY 1-800-257-7777
  - Colonial Pipeline 795-1390
  - Bureau of Utilities, Howard County Dept. of Public Works 992-2366
- Trees and shrubs are to be protected from damage to the 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 for construction of the main and service connections.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- All sewer mains shall be C.S.P.X., R.C.S.P., V.C.P.X., or P.V.C. unless otherwise noted.
- Trench repair to be in accordance with Howard County Std. Details.
- All work will be in accordance with Howard County Standards and Specifications for Soil Erosion and Sediment Control Section 219.
- The Contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall with the exception of P.V.C.



REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. APPROVED: *[Signature]* DATE: 7/16/90

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District. APPROVED: *[Signature]* DATE: 7/16/90

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 7/24/90  
Chief, Bureau of Engineering: *[Signature]* DATE: 7/20/90  
Chief, Bureau of Utility Design: *[Signature]* DATE: 7-17-90

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

DATE: 7/6/90

CONTRACT NO. 10-3056

DATE: 7/6/90

REVISION: 1 REVISED PER HOWARD CO. COMMENTS 7/2/90

600 SCALE MAP NO. 338 BLOCK NO. 13 & 19

HARTHORN AVENUE & WOODBURN AVENUE  
SEWER EXTENSIONS  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT S-6690  
1 ST ELECTION DISTRICT

SCALE AS SHOWN  
SHEET 1 OF 1