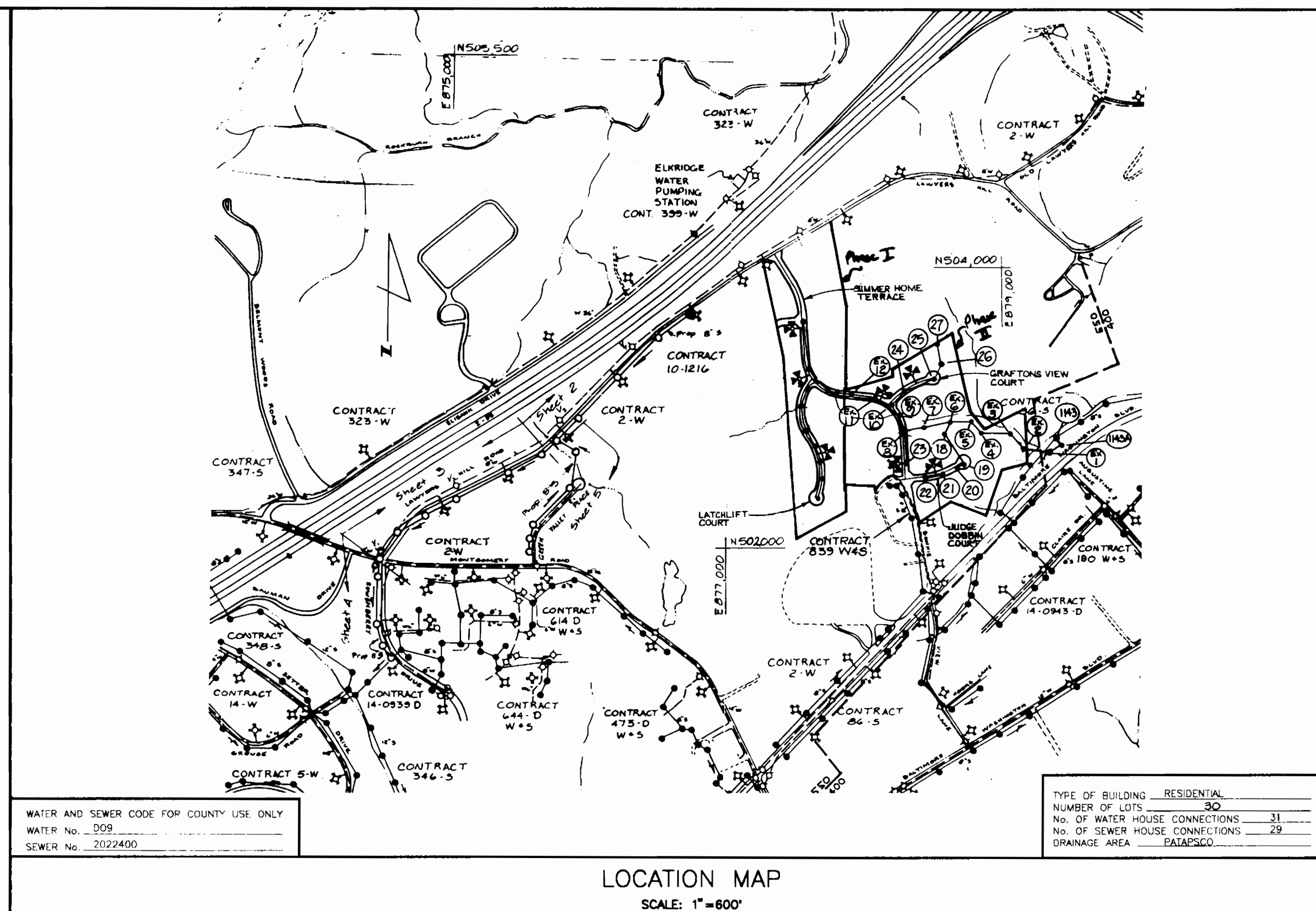


ITEMS	QUANTITIES ESTIMATED	QUANTITIES		
		AS-BUILT	TYPE	MANUFACTURER/SUPPLIER
8" WATER	1468			
6" WATER	323			
8" SEWER	1836			
1" WHC	445			
3/4" WHC	409			
4" SHC	899			
8"x6" TS&V	1			
8"x8" T	1			
8"x6" REDUCER	2			
FIRE HYDRANT	4			
8"x6" FHT	4			
8" VALVES	1			
6" VALVES	4			
3" BLOW OFF	1			
OUTSIDE METER	1			
8"-1/8" HORIZ. BEND	1			
MANHOLES	11			

NAME OF UTILITY CONTRACTOR: \_\_\_\_\_  
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE: \_\_\_\_\_



- ### 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. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS.
  - CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES 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 AND ELECTRIC COMPANY - UNDERGROUND GAS & ELECTRIC DISTRIBUTION CUSTOMER SERVICE 685-0123
    - ENGINEERING -- "DAMAGE CONTROL" 234-5611
    - "MISS UTILITY" 1-800-257-7777
    - CHESAPEAKE & POTOMAC (C & P) TELEPHONE COMPANY 725-9976
    - AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION 393-3533
    - COLONIAL PIPELINE COMPANY 795-9976
    - BUREAU OF UTILITIES HOWARD COUNTY 313-4900
  - TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES 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 AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
  - PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE.
  - ALL WATER MAINS TO BE D.I.P. CLASS 52 ONLY.
  - TOP 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.
  - BLOCK ALL FITTINGS WITH CONCRETE.
  - BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET AS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINING FIRE HYDRANTS AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
  - ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING UNLESS OTHERWISE SHOWN.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
  - FOR ALL COPPER WATER HOUSE CONNECTIONS, UTILIZE FLARED TYPE FITTINGS ONLY.
  - ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X. OR PVC 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.
  - FORCE MAINS SHALL BE D.I.P. ONLY.
  - MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR 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 FINISH GRADE, STANDARD DETAIL G.5.41.
  - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CAN NOT BE SERVED.
  - ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS 3" THROUGH 12" WIDTH.
  - ALL SEWER HOUSE CONNECTIONS SHALL BE AT 2% SLOPE AND ARE 4" DIAMETER UNLESS OTHERWISE SHOWN.
  - ALL 3" BLOW-OFF SHALL BE PER STANDARD DETAIL W.4.13.
  - ALL CONSTRUCTION TO BE DONE AS PER THIS PLAN AND CURRENT HOWARD COUNTY DESIGN MANUAL VOL. IV.
  - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.

# CONTRACT No. 14-3216-D

# THE GABLES AT LAWYERS HILL

## PHASE II OF II

## WATER AND SEWER MAIN EXTENSION

# HOWARD COUNTY, MARYLAND

# DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN, F-91-30.

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*James M. Helm* 8/29/92  
 U.S. SOIL CONSERVATION SERVICE DATE

F-91-30

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

APPROVED:

*John L. Roberts* 8/25/92  
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND

*James M. Helm* 8/31/92  
 DIRECTOR OF PUBLIC WORKS DATE

*William E. Kelly* 8/31/92  
 CHIEF, BUREAU OF ENGINEERING DATE

*John K. Willey* 8/31/92  
 CHIEF, BUREAU OF UTILITIES DATE

*John K. Willey* 8/31/92  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

**gpi** GREENMAN-PEDERSEN INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 14504 GREENMEW DRIVE, SUITE 100, LAUREL, MD. 20708  
 WASH. (301) 470-2772 BALT. (301) 880-3055



DESIGNED:	G.P.I.	REVISIONS	
DRAWN:	N.R.B.	BY NO. DESCRIPTION DATE	
CHECKED:	R.L.C.	R.L.C. 4 PHASE II OF II 2-4-92	
DATE:	8-14-92		

TITLE SHEET

600' SCALE MAP NO. 32 & 38 BLOCK NO. \_\_\_\_\_

PHASE II OF II  
 THE GABLES AT LAWYERS HILL  
 CONTRACT No. 14-3216-D  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE: NONE

SHEET No. 1

OF 5

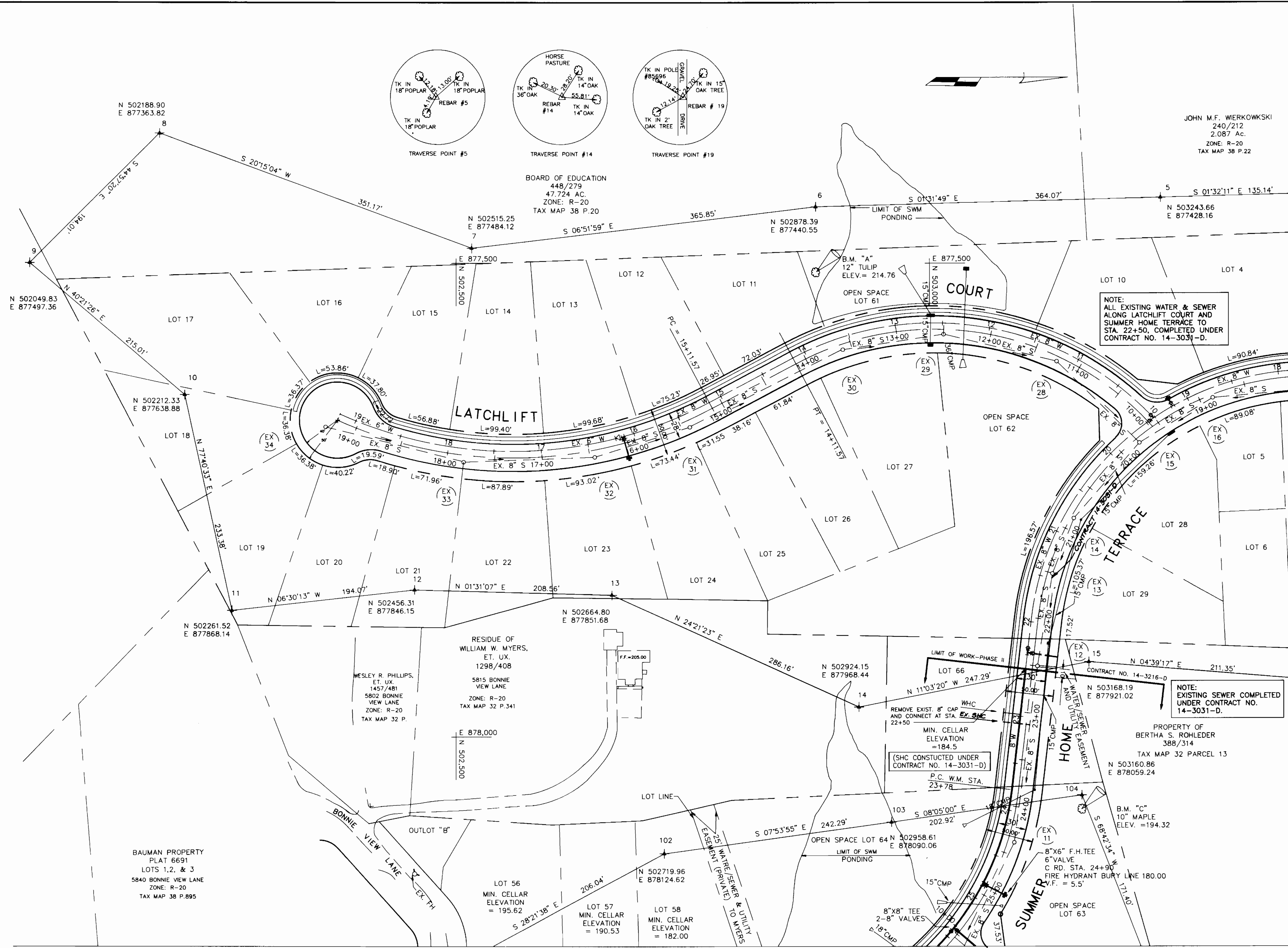
CONTRACT NO. 14-3216-D  
 THE GABLES AT LAWYERS HILL  
 WATER & SEWER MAIN EXTENSION  
 HOWARD COUNTY, MARYLAND

AutoCAD FILENAME: PHASE2-1.DWG



**BENCH MARKS**

B.M. "A" ELEV.=214.76  
 SINKER NAIL IN 12" TULIP 70' EAST  
 OF TRAV. #6  
 B.M. "C" ELEV.=194.32  
 SINKER NAIL IN 10" MAPLE 15' EAST  
 OF TRAV. #104



JOHN M.F. WIERKOWSKI  
 240/212  
 2.087 Ac.  
 ZONE: R-20  
 TAX MAP 38 P.22

NOTE:  
 ALL EXISTING WATER & SEWER  
 ALONG LATCHLIFT COURT AND  
 SUMMER HOME TERRACE TO  
 STA. 22+50, COMPLETED UNDER  
 CONTRACT NO. 14-3031-D.

NOTE:  
 EXISTING SEWER COMPLETED  
 UNDER CONTRACT NO.  
 14-3031-D.

CONTRACT NO. 14-3216-D  
 THE GABLES AT LAWYERS HILL  
 WATER & SEWER MAIN EXTENSION  
 HOWARD COUNTY, MARYLAND

MATCH LINE A SEE SHEET 3 OF 5

AutoCAD FILENAME=W-SPLAN2

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND  
 Director of Public Works  
 Chief, Bureau of Engineering  
 Chief, Bureau of Utilities  
 Chief, Land Development Division

**gpi** GREENMAN-PEDERSEN INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708  
 WASH. (301) 470-2772 BALT. (301) 880-3055



DESIGNED: G.P.I.	REVISIONS	
DRAWN: N.R.B.	BY: R.L.C.	NO. 4
CHECKED: R.L.C.	DESCRIPTION: PHASE II OF II	
DATE: 8-14-92	DATE: 2-4-92	

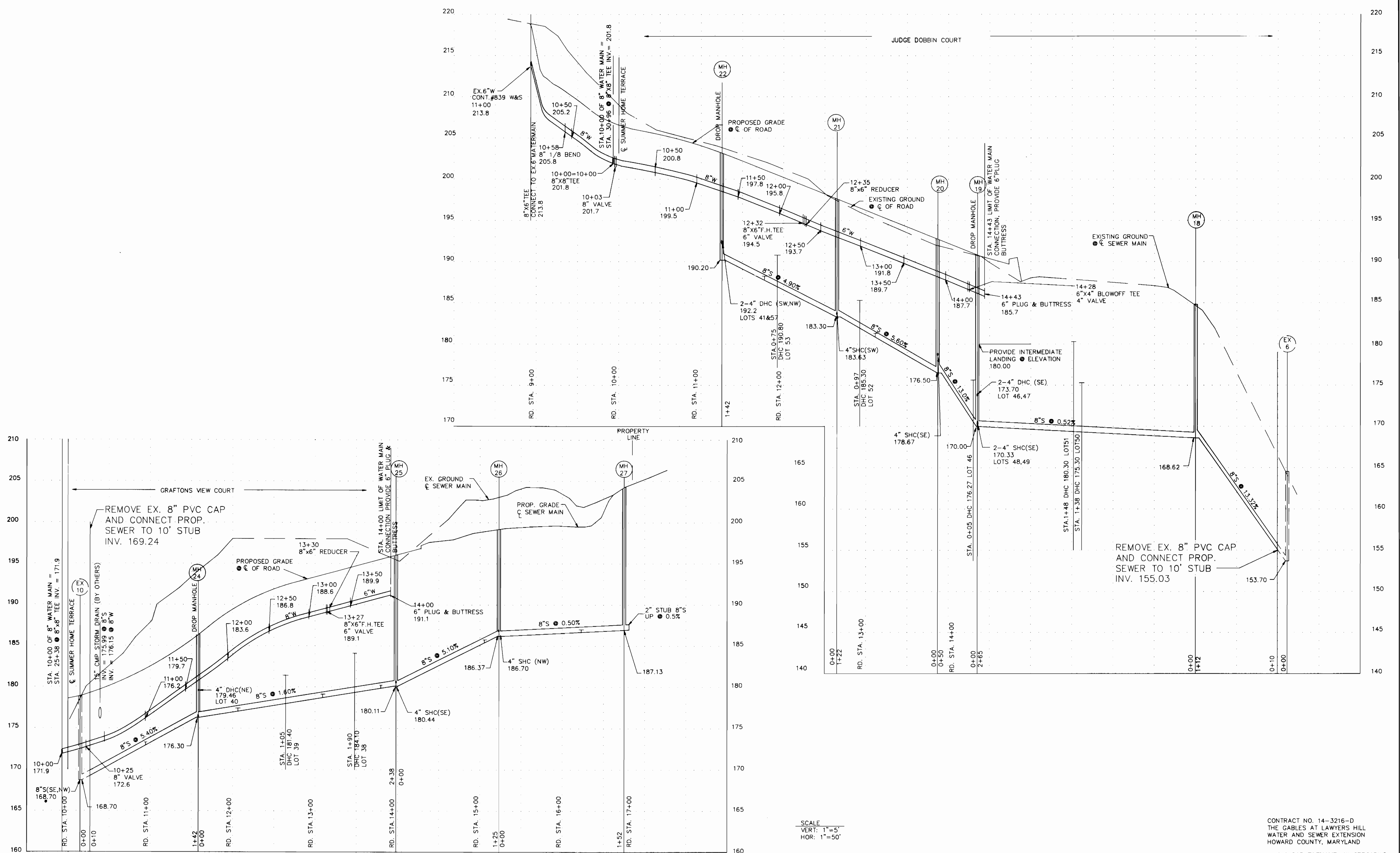
PLAN  
 WATER AND SEWER EXTENSION

PHASE II OF II  
 "THE GABLES" AT LAWYERS HILL  
 CONTRACT NO. 14-3216-D  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE:  
 1"=50'  
 SHEET  
 No. 2  
 OF 5







SCALE  
 VERT: 1"=5'  
 HOR: 1"=50'

CONTRACT NO. 14-3216-D  
 THE GABLES AT LAWYERS HILL  
 WATER AND SEWER EXTENSION  
 HOWARD COUNTY, MARYLAND

AutoCAD FILENAME: W-SPRO1DWG

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND  
 Director of Public Works  
 Chief, Bureau of Engineering  
 Chief, Bureau of Utilities  
 Chief, Land Development Division

**spi**  
 GREENMAN-PEDERSEN INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 14504 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708  
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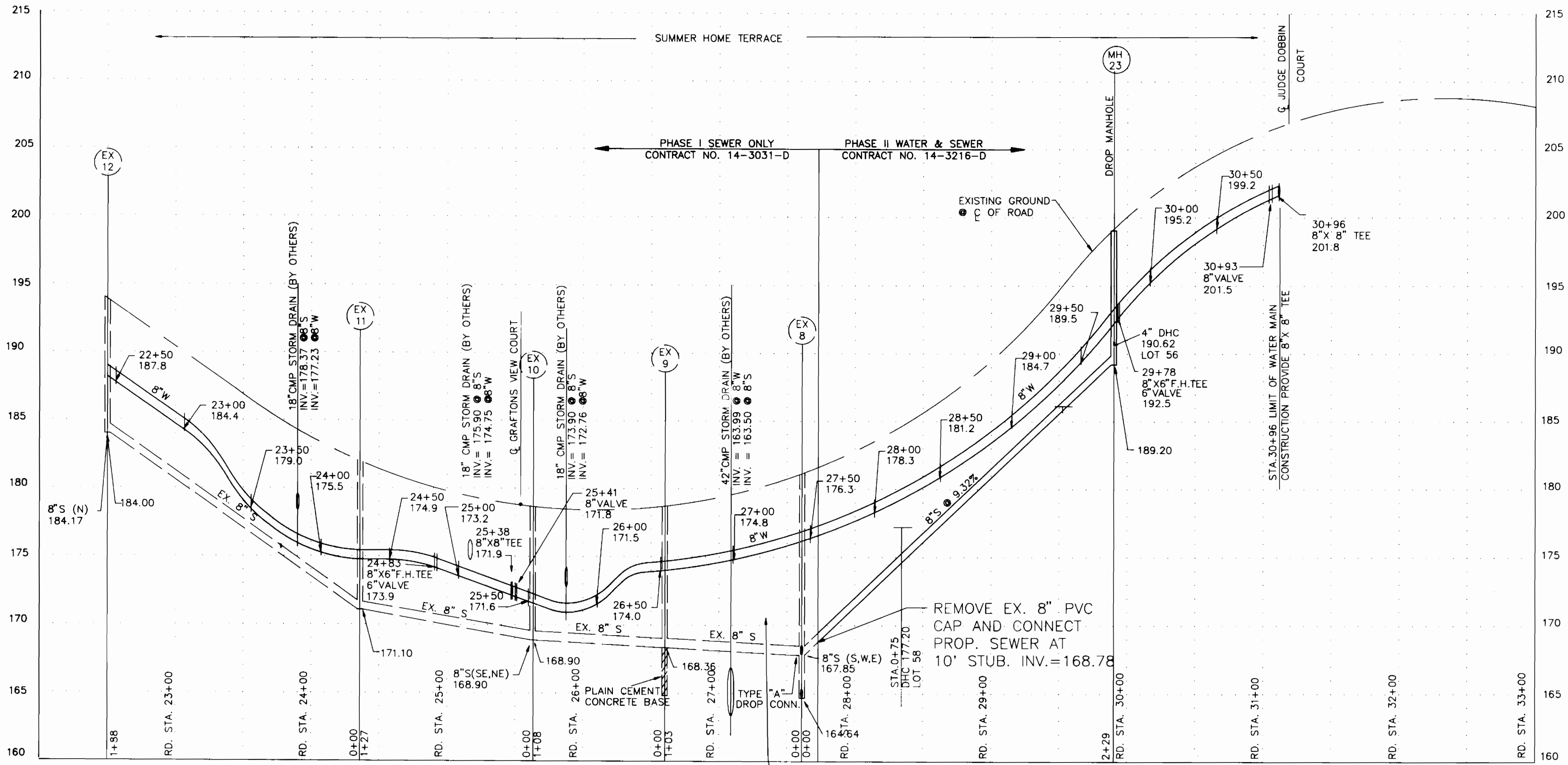
REVISIONS			
NO.	DESCRIPTION	DATE	
1	PHASE II OF II	2-4-92	

PROFILE  
 WATER AND SEWER EXTENSION

PHASE II OF II  
 "THE GABLES" AT LAWYERS HILL  
 CONTRACT NO. 14-3216-D  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE  
 AS SHOWN  
 SHEET NO.  
 No. 4  
 OF 5





PROFILE  
 SCALE HOR: 1"=50'  
 VER: 1"=5'

USE SELECT FILL AND PROVIDE 95% COMPACTION PER STD. DETAIL 1000.03.19 BACKFILL & COMPACTION REQUIREMENTS.

**RIP-RAP NOTES**

1. RIP-RAP SHALL BE PLACED AT ALL DISTURBED AREAS WITHIN THE FULL WIDTH OF THE RIGHT-OF-WAY AT LOCATIONS INDICATED ON THE DRAWING.
2. RIP-RAP FOR PLACEMENT ALONG THE STREAM BANK AT THE SEWER MAIN SHALL CONFORM TO SHA SPECIFICATIONS FOR CLASS II STONE AND THE THICKNESS OF THE RIP-RAP LAYER SHALL BE 2.0'DEEP.
3. EROSION CONTROL FABRIC SHALL BE POLY FILTER-X AS MANUFACTURED BY CARTHAGE MILLS, INC. OR PERMEALINER M-1195 AS MANUFACTURED BY STAFF INDUSTRIES, INC. OR EQUAL.

**STABILIZATION NOTES**

- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
1. 7 CALENDER DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
  2. 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

**PERMANENT STABILIZATION AND SEEDING NOTES**

1. SEEDBED SHALL BE PREPARED TO A MINIMUM DEPTH OF 3 INCHES WHEN THE AREA TO BE SEEDED HAS BEEN RECENTLY LOOSENEED TO THE EXTENT THAT AN ADEQUATE SEEDBED EXISTS, NO ADDITIONAL TREATMENT IS REQUIRED.
2. APPLY DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE.
3. APPLY FERTILIZER AT THE MINIMUM RATE OF 500 POUNDS OF 10-10-10 PER ACRE.
4. SEED ALL DISTURBED AREAS WITH A MIXTURE OF CERTIFIED KENTUCKY 31 FESCUE AT 50 POUNDS PER ACRE AND INOCULATED KOREAN LESPEDEZA AT 15 POUNDS PER ACRE.
5. MULCH SHALL BE UNWEATHERED SMALL GRAIN STRAW AND SHALL BE APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE.
6. ANCHOR MULCH WITH A CUTBACK OR EMULSIFIED ASPHALT AT THE RATE OF 5 GALLONS PER 1,000 SQ. FT.

**OUTFALL SEWER MAIN CONSTRUCTION SEQUENCE**

1. IMPLEMENT CONDITIONS & REQUIREMENTS OF THE TEMPORARY WATERWAY CONSTRUCTION PERMIT.
2. INSTALL SEDIMENT & EROSION CONTROL DEVICES - SEE SHEET 4 OF 8 AND SITE SEDIMENT CONTROL PLAN.
3. CLEAR & GRUB AS REQUIRED - WITHIN THE LIMITS OF THE SEWER MAIN RIGHT-OF-WAY ONLY.
4. EXCAVATE TRENCH - PLACE EXCAVATED MATERIAL ON THE UPGRADE SIDE OF SEWER MAIN TRENCH.
5. INSTALL SEWER MAIN, BACKFILL & COMPACT TRENCH IN ACCORDANCE WITH THE SPECIFICATIONS.
6. STABILIZE AND SEED ALL DISTURBED AREAS IN ACCORDANCE WITH THE NOTES SHOWN ON THIS SHEET.
7. PLACE RIP-RAP AT THE STREAM & SWALE CROSSINGS AS INDICATED ON THE PLAN & IN ACCORDANCE WITH THE DETAIL.
8. FOLLOWING SUCCESSFUL STABILIZATION AND UPON APPROVAL OF THE SOIL CONSERVATION DISTRICT INSPECTOR, REMOVE ALL SEDIMENT & EROSION CONTROL DEVICES.

**EROSION AND SEDIMENT CONTROL NOTES**

1. SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT CONTROL IN DEVELOPING AREAS.
2. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON THE UPGRADE SIDE OF CONSTRUCTION AREA.
3. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER MAIN TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION & SEEDING NOTES SHOWN ON THIS SHEET.
4. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
5. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
6. SEE OUTFALL SEWER MAIN CONSTRUCTION SEQUENCE THIS SHEET.
7. SEE SHEET 4 OF 8 FOR SEDIMENT CONTROL DEVICES AT THE OUTFALL SEWER MAIN.

CONTRACT NO. 14-3216-D  
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 WATER AND SEWER EXTENSION  
 HOWARD COUNTY, MARYLAND

AutoCAD FILENAME: W-SPRO2.DWG

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND

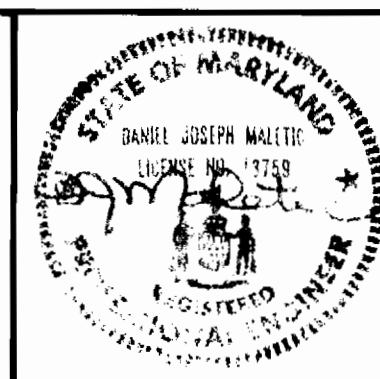
*James R. Brown*  
 DIRECTOR OF PUBLIC WORKS  
 DATE

*Michael J. Reilly*  
 CHIEF, BUREAU OF ENGINEERING  
 DATE

*Jeffrey K. Wilby*  
 BUREAU OF UTILITIES  
 DATE

*William J. Summers*  
 CHIEF, LAND DEVELOPMENT DIVISION  
 DATE

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 ENGINEERS/ARCHITECTS/PLANNERS  
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REVISIONS			
NO.	DESCRIPTION	DATE	
1	PHASE II OF II		

PROFILE  
 WATER AND SEWER EXTENSION

PHASE II OF II  
 "THE GABLES" AT LAWYERS HILL  
 CONTRACT NO. 14-3216-D  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE  
 AS SHOWN  
 SHEET NO.  
 No. 5  
 OF 5