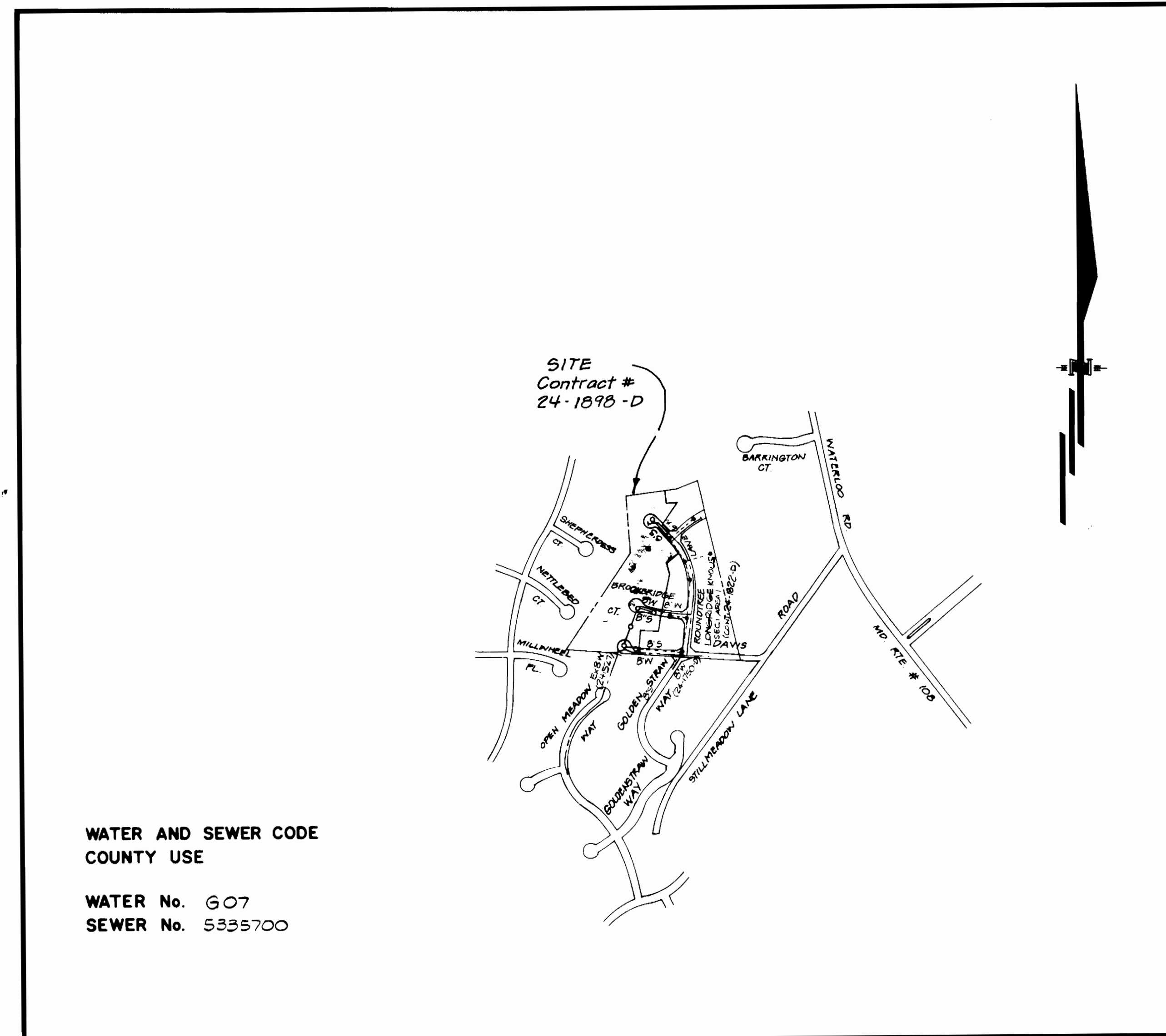


TYPE OF BUILDING	SINGLE FAMILY DETACHED
NUMBER OF UNITS	26
NUMBER OF SHC's	26
NUMBER OF WHC's	26
DRAINAGE AREA	RTE 108 BUMPING STATION

**GENERAL NOTES**

- Approximate locations 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 by 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.
- For materials and construction methods, use Howard County Standard Specifications & Howard County Design Manual, Volume IX. The Contractor shall have a copy of Volume IX on the job.
- 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 & Electric Company	
"Miss Utility"	1-559-0100	Contractor Services	561-2585
Chesapeake & Potomac (C&P)		Underground Damage Control	234-5621
Telephone Company	725-9976	Trouble-shooting	298-9013
Colonial Pipeline Company	795-1390	Bureau of Utilities, Howard County	992-2366
- 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 Operations.
- 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 to the 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 to be compacted in accordance with Sections 10.00 and 10.05 of the Standard Specifications.
- All water house connections shall be for an inside meter setting.
- The contractor shall not operate any water main valves on the existing system.
- ~~For all Copper Water Mains Connections, Use Flared Type Fittings only.~~
- All sewer mains shall be CSPX, VCPX, RCP, PVC, or CP, Class 2400 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.
- 12" and 16" manhole wall thicknesses shown on profiles pertain to brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frames and covers. (See Standard Detail G.5.52) Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade. (See Standard Detail G.5.41)
- House(s) with the symbol "CNS" indicates that cellar cannot be served.
- Water main and water house connection lines must have a minimum of one foot separation from either sanitary sewer or sewer house connections as they cross. Except at crossings, water and sewer lines shall have a minimum horizontal separation of 10'.
- All D.I.P. fittings shall be in accordance with AWWA specification C-153 ductile iron compact fittings, 3-inch through 12-inch for water and other liquids.



VICINITY MAP  
SCALE: 1" = 600'

CONTRACT NO. 24-1898-D

LONGRIDGE KNOLLS  
SECTION 1 AREA 2

HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Construction Plan F 89-124; Drawings G-7 of B Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.  
Signature: [Signature] DATE: 8/27/90  
U.S. SOIL CONSERVATION SERVICE

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

APPROVED: [Signature] DATE: 8/27/90  
HOWARD S.C.D.

QUANTITIES			
ITEM	ESTIMATED	AS-BUILT	MATERIAL / SUPPLIER
B/W	402 LF	407	AMERICAN PIPE
G/W	243 LF	281	AMERICAN PIPE
B/B	695 LF	695	AMERICAN
4" DIA. MH	6 EA	6	ATLANTIC
FH	2 EA	2	KENNEDY
6" SHC	134 LF	134	AMERICAN
4" SHC	633 LF	633	AMERICAN
3/4" WHC	323 LF	31	LONGRIDGE LEE
1" WHC	470 LF	467	LONGRIDGE LEE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works: [Signature] DATE: 8/29/90  
Chief, Bureau of Engineering: [Signature] DATE: 8/29/90  
Chief, Bureau of Utilities: [Signature] DATE: 8/27/90  
Chief, Land Development Div.: [Signature] DATE: 8/27/90

GUTSCHICK LITTLE & WEBER, P.A.  
ENGINEERS, PLANNERS, SURVEYORS  
3908 NATIONAL DRIVE, SUITE 250, BURTOWVILLE OFFICE PARK  
BURTOWVILLE, MD 21084  
(301) 421-4024



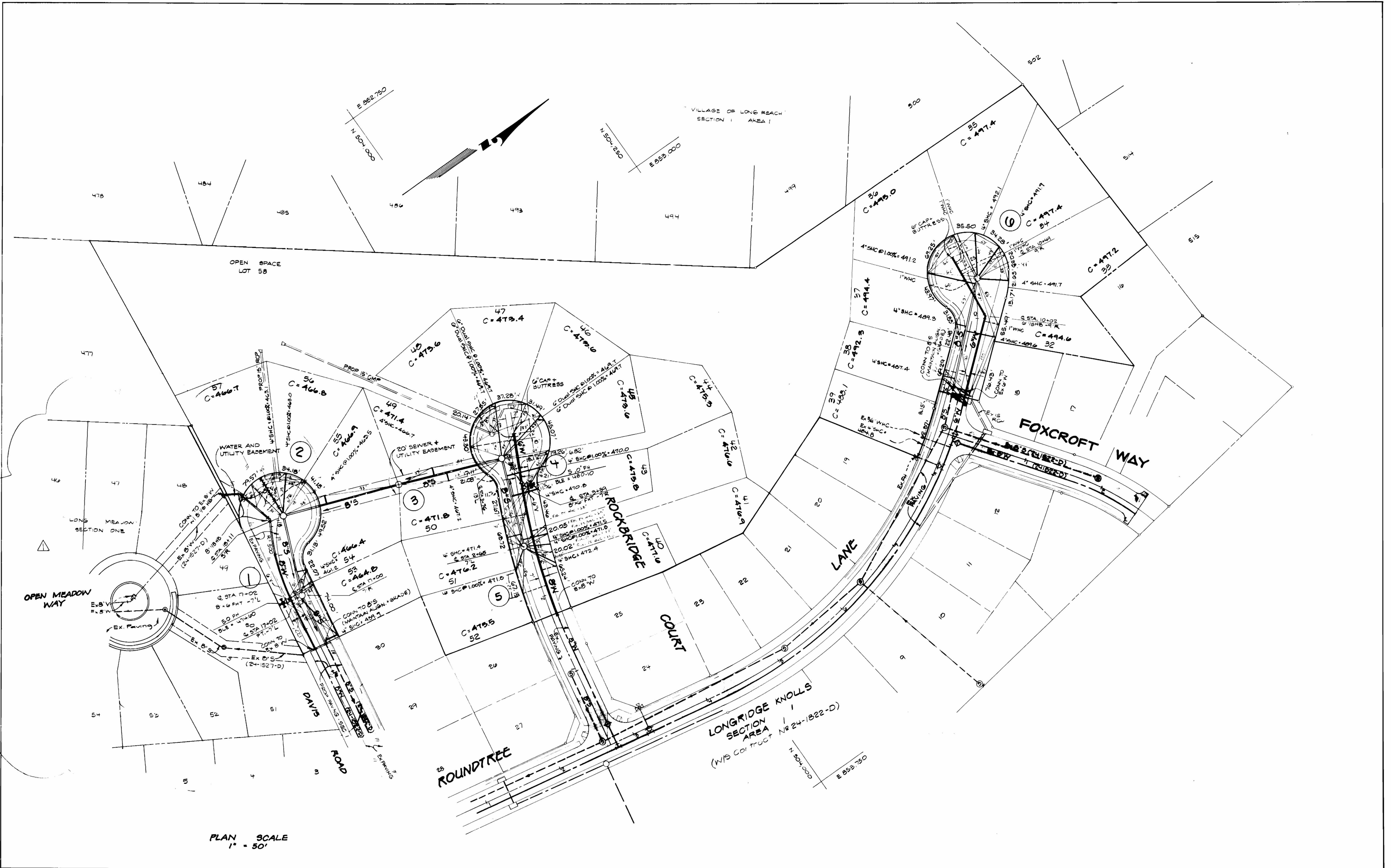
DES: GPM					
DRN: GPM					
CHK: CKG	SAH	Rev. Quantities			8/23/90
DATE: AUG 1990	BY	NO.	REVISION	DATE	

TITLE SHEET  
600 SCALE MAP NO. 24-1898-02 BLOCK NO. 24-1898-02

LONGRIDGE KNOLLS  
SECTION 1 AREA 2  
Lots 32-62  
6TH ELECTION DISTRICT  
CONTRACT NO. 24-1898-D

SCALE AS SHOWN  
SHEET 1 OF 3

AS-BUILT 1 LF-92



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James J. [Signature]* 06/90  
DIRECTOR OF PUBLIC WORKS DATE

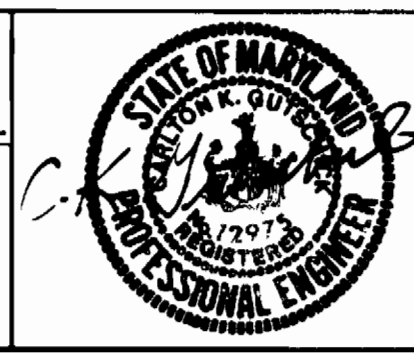
*Robert [Signature]* 8-22-90  
CHIEF, BUREAU OF UTILITIES DATE

*[Signature]* 8-28-90  
CHIEF, BUREAU OF ENGINEERING DATE

*[Signature]* 11/90  
CHIEF, LAND DEVELOPMENT DIV. DATE

**GW** GUTSCHICK LITTLE & WEBER, P.A.  
ENGINEERS, PLANNERS, SURVEYORS

3909 NATIONAL DRIVE SUITE 250 BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MD. 20888  
(301) 421-4024



DES: GPM				
DRN: GPM				
CHK: CKG	GAL	Rev. adjacent property 4' S.W. alignment	10/15/92	
DATE: Aug. 1990	BY	NO.	REVISION	DATE

WATER + SEWER MAINS PLAN

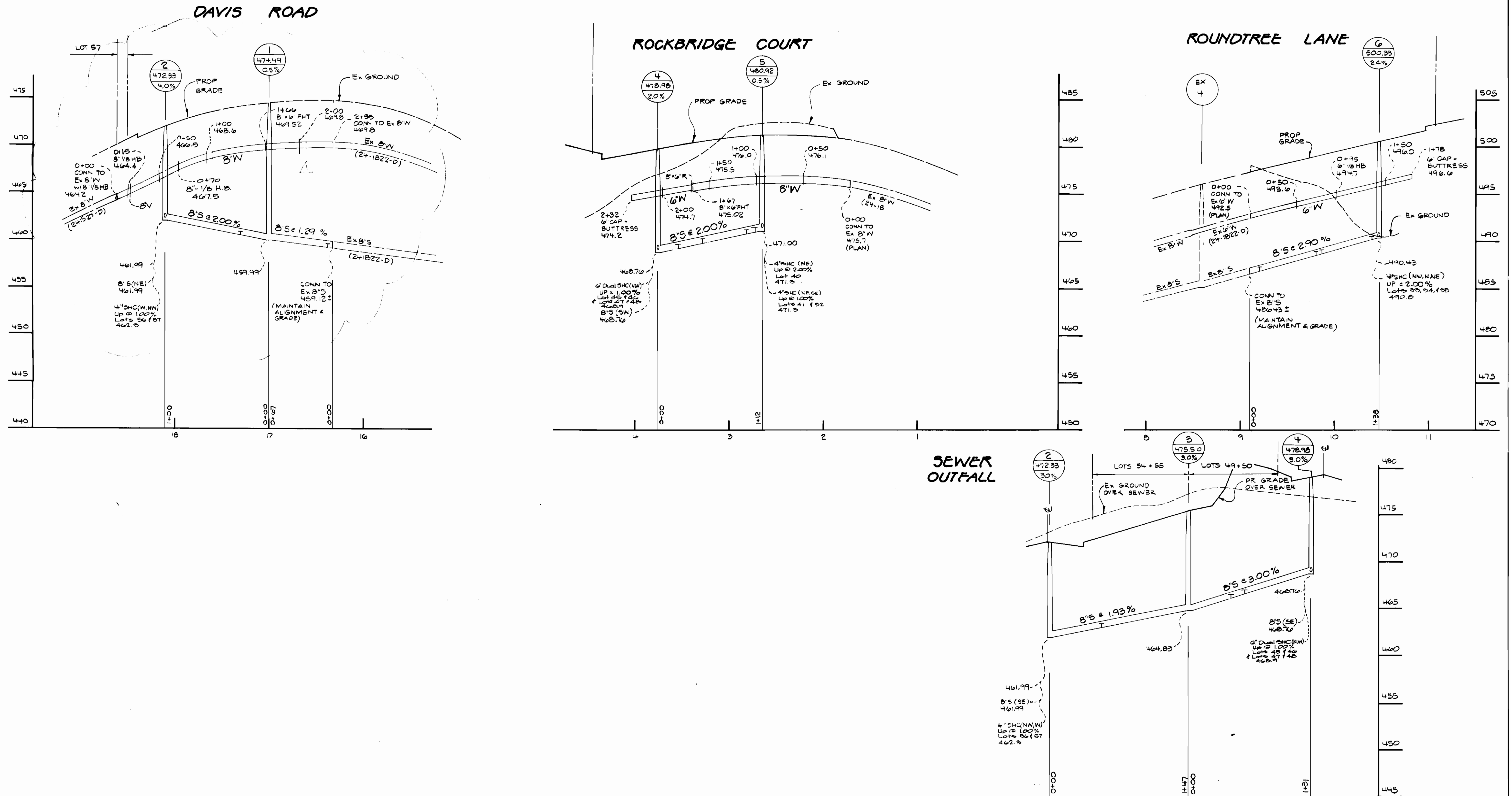
600' SCALE MAP NO. 20856 BLOCK NO. 2466

LONG RIDGE KNOLLS SECTION 1 AREA 2  
Lots 32-62  
6TH ELECTION DISTRICT  
CONTRACT NO. 24-1898-D

SCALE AS SHOWN

SHEET 2 OF 3

AS-BUILT 9-28-92



PROFILE SCALE  
 Hor. 1" = 50'  
 Vert. 1" = 5'

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*James A. ...*  
 DIRECTOR OF PUBLIC WORKS  
 DATE: 8-22-70

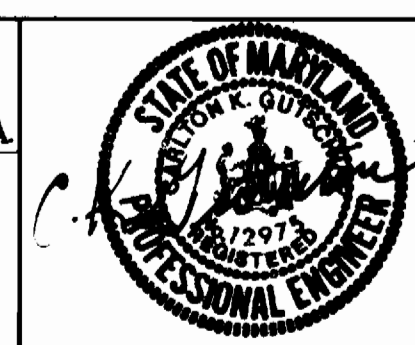
*AS ...*  
 CHIEF BUREAU OF ENGINEERING  
 DATE: 8/21/70

*Robert ...*  
 CHIEF, BUREAU OF UTILITIES  
 DATE: 8-22-70

*...*  
 CHIEF, LAND DEVELOPMENT DIV.  
 DATE: 8/21/70

**GW** GUTSCHICK LITTLE & WEBER, P.A.  
 ENGINEERS, PLANNERS, SURVEYORS

3500 NATIONAL DRIVE SUITE 200 BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MD. 20866  
 (301) 421-4024



DES: G.P.M.	
DRN: G.P.M.	
CHK: C.K.G.	
DATE: Aug. 1970	BY: GAH
	NO. 1
	REVISION: Revise 8" W profile - upper left
	DATE: 9/13/72

WATER & SEWER MAINS  
 PROFILES

600' SCALE MAP NO. 30-36 BLOCK NO. 24-80

LONGRIDGE KNOLLS  
 SECTION 1 AREA 2  
 Lots 32-62  
 6<sup>TH</sup> ELECTION DISTRICT  
 CONTRACT NO 24-1898 -D

SCALE AS SHOWN

SHEET 3 OF 3

AS-BUILT 1-18-92