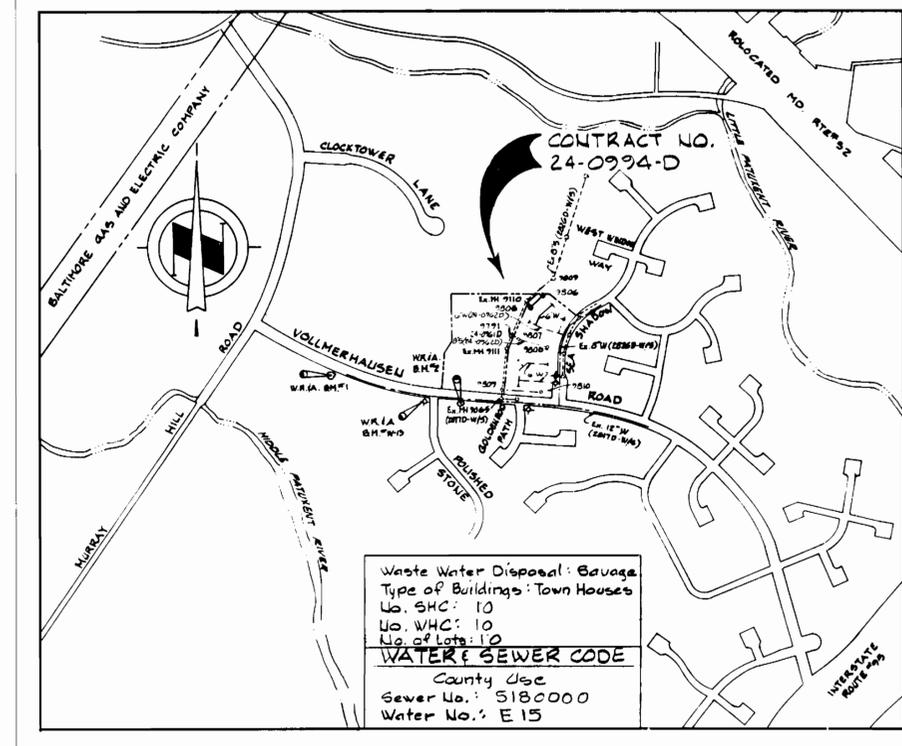
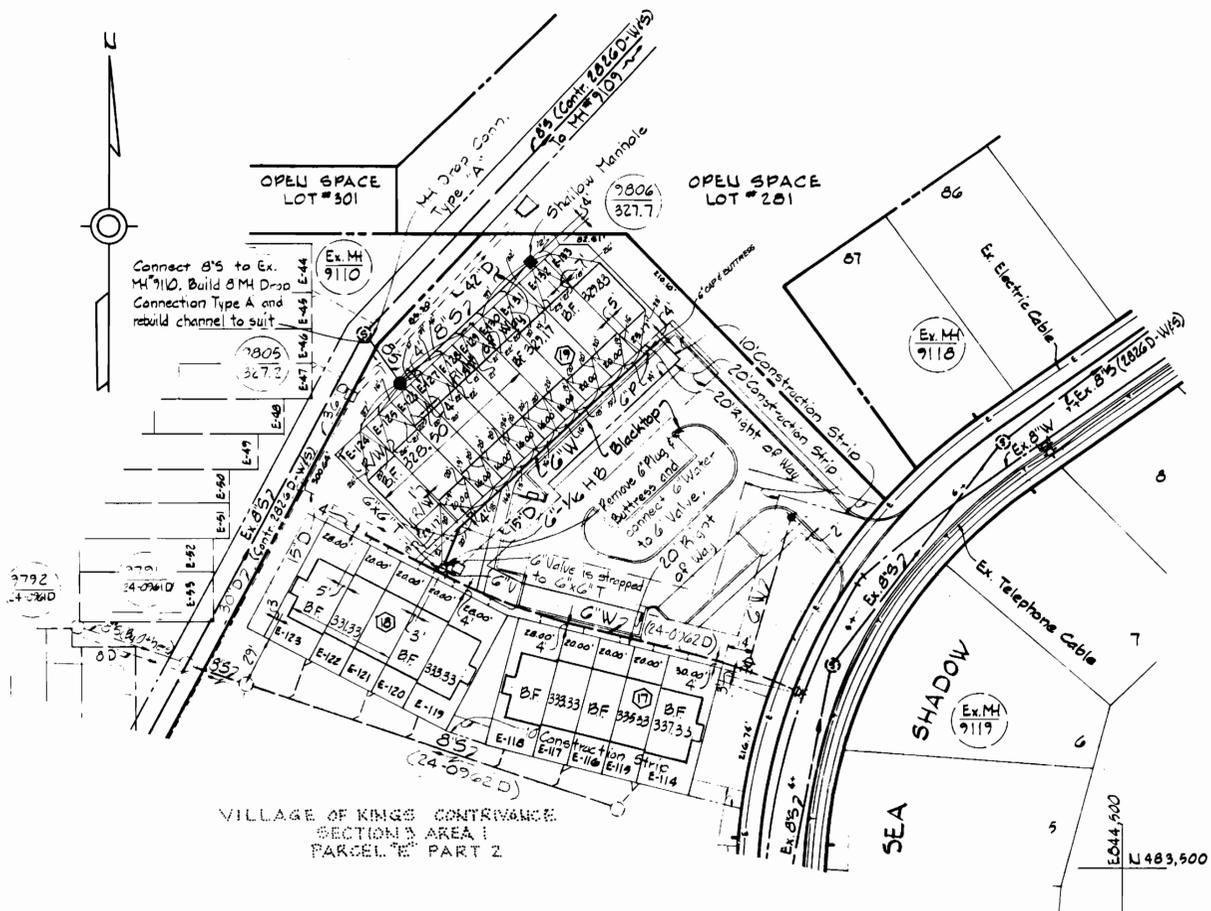


**BENCH MARKS**

- W.R.A. BM #1 Elev. 301.62  
R.R. spike at side 18' Poplar, 30' right of Vollmerhausen Rd. Sta. 6+00.
- W.R.A. BM #2 Elev. 334.64  
R.R. spike at side 18' Twin Poplar, 40' right of Vollmerhausen Rd. Sta. 15+55.
- W.R.A. BM #W-13 Elev. 317.36  
X-Cut in Flange Bolt on Fire Hydrant at Intersection of Vollmerhausen Road and Polished Stone.



Waste Water Disposal: Sewage  
Type of Buildings: Town Houses  
No. SHC: 10  
No. WVC: 10  
No. of Lots: 10  
**WATER & SEWER CODE**  
County Use  
Sewer No.: 5180000  
Water No.: E 15

**VICINITY MAP**  
Scale: 1"=600'

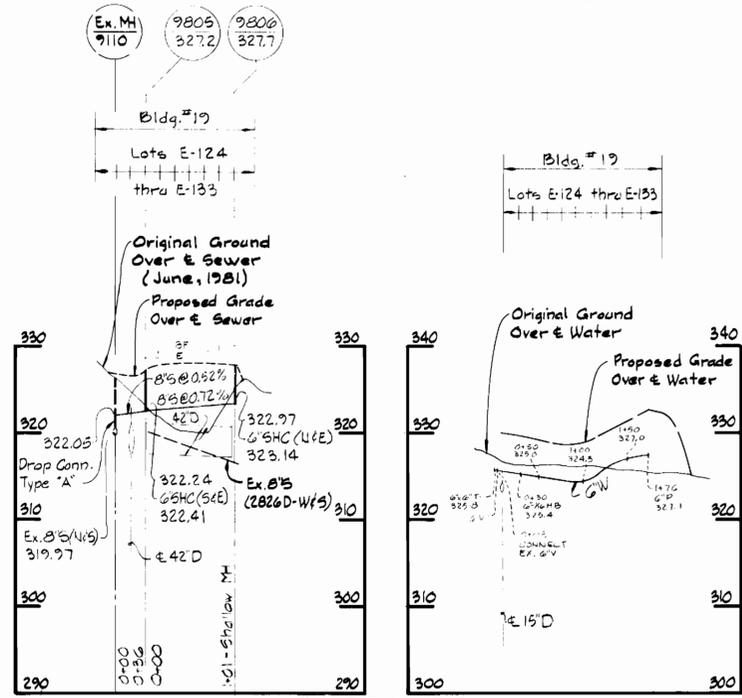
**GENERAL NOTES:**

- 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 PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF UTILITIES AT HIS EXPENSE.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, USE HOWARD COUNTY STANDARD DETAILS.
- FOR MATERIALS AND CONSTRUCTION REQUIREMENTS, USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON USGS DATUM.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE COST FOR TUNNELING OR BRACING POLES SHALL BE INCLUDED IN APPROPRIATE UNIT PRICES BID.
- 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 ELECTRIC AND GAS DISTRIBUTION-CUSTOMER SERVICE - 685-0123  
DAMAGE CONTROL - 234-5621  
"MISS UTILITY" - 1 - 559-0100  
CHESAPEAKE & POTOMAC TELEPHONE COMPANY - 725-9976  
AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION - 393-3553  
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 APPROPRIATE UNIT PRICES BID.
- 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 C.I.P. OR D.I.P. UNLESS OTHERWISE NOTED.
- TOP OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3 1/2 FEET OF COVER UNLESS OTHERWISE NOTED.
- VALVES SHALL BE STRAPPED WHERE APPLICABLE.
- 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 THE STANDARD SPECIFICATIONS.
- WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- ALL SEWER MAINS SHALL BE C.S.P.X., V.C.P.X., A.C.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.

**NOTE:**  
All WVC's shall be 3/4" diameter, unless otherwise noted.

ITEM	QUANTITIES		MATERIAL/SUPPLIER
	BID	AS-BUILT	
8" Sewer - L.F.	130	137 L.F.	LOGAN VCP
Manholes - Ea.	2	2	ATLANTIC PRECAST
MH Drop Connection Ea.	1	1	
6" Water - L.F.	130	132 L.F.	ATLANTIC DIP
6" V (Excluding FHV)			
Fire Hydrants - Ea.			
8x6 T.S.V. Ea.			
8x6 Saddles - Ea.			

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



**PROFILES**  
Scale: H: 1"=100'  
V: 1"=10'

**NOTE:**  
Original Ground Over Water (Sewer) was taken from Aerial Photography prepared by Maps and Inc., and verified by field survey in March, 1981.

Sediment Control Measures for this Contract will be implemented in accordance with Article 15 of the Standard Specifications and S.D.P.-81-194C.

**REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT**  
*James M. Helm* 6/30/81  
SIGNATURE DATE  
**U.S. SOIL CONSERVATION SERVICE**

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard County Conservation District  
**APPROVED:**  
*William J. Rome* 6-27-81  
HOWARD SCD DATE

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

*Granville A. Weiland* 7/17/81  
DIRECTOR OF PUBLIC WORKS - DATE (Acting) *William E. Rely* 7/18/81  
CHIEF - BUREAU OF ENGINEERING - DATE  
*Robert M. Burgess* 7-6-81  
CHIEF - BUREAU OF UTILITIES - DATE *Michael P. ...* 7-7-81  
CHIEF - LAND DEVELOPMENT DIVISION - DATE

**WHITMAN, REQUARDT AND ASSOCIATES**  
ENGINEERS  
2315 ST. PAUL ST.  
BALTIMORE, MARYLAND

**CONTRACT NO. 24-0994-D**

**PLAN & PROFILES OF WATER & SEWER MAINS**

**COLUMBIA VILLAGE OF KINGS CONTRIVANCE ELECTION DISTRICT GUILFORD NO. 6**

**DRAWING NO. 1 OF 1 SCALE AS SHOWN**

Village of Kings Contrivance Section 3 Area 1 Parcel "E" Lots E-124 thru E-133 Part 4 Contract No. 24-0994-D