

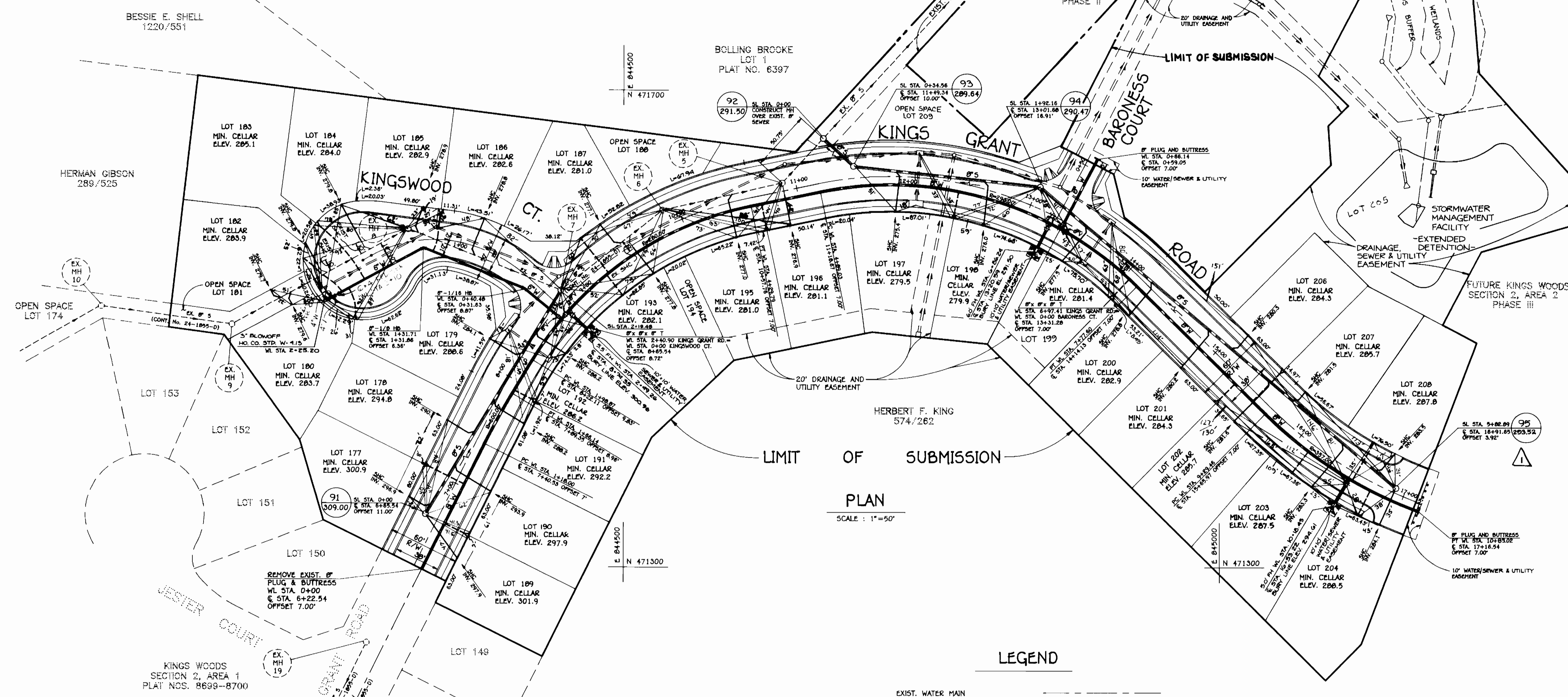
WATER AND SEWER HOUSE CONNECTION CHART			
LOT No.	WATER HOUSE CONNECTION	SEWER HOUSE CONNECTION	COMMENTS
177	WL STA 0+80.0 KINGS GRANT RD.	SL STA 0+05.5 KINGS GRANT RD.	
178	WL STA 0+80.0 KINGS GRANT RD.	SL STA 0+76.7 KINGS GRANT RD.	
179	WL STA 2+03.2 KINGSWOOD CT.	SL STA 1+53.5 KINGS GRANT RD.	
180	WL STA 2+03.2 KINGSWOOD CT.	22.3' FROM EX. MH 9	
182	WL STA 2+08 KINGSWOOD CT.	42.3' FROM EX. MH 9	
183	WL STA 1+87.7 KINGSWOOD CT.	87.7' FROM EX. MH 9	* EXIST. SHC
184	WL STA 1+87.7 KINGSWOOD CT.	128.6' FROM EX. MH 9	* EXIST. SHC
185	WL STA 1+23.0 KINGSWOOD CT.	5.0' FROM EX. MH 8	
186	WL STA 1+23.0 KINGSWOOD CT.	56.1' FROM EX. MH 8	
187	WL STA 2+46.3 KINGS GRANT RD.	59.9' FROM EX. MH 7	
189	WL STA 0+43.0 KINGS GRANT RD.	SL STA 0+00 KINGS GRANT RD.	
190	WL STA 0+43.0 KINGS GRANT RD.	SL STA 0+44.7 KINGS GRANT RD.	
191	WL STA 1+89.1 KINGS GRANT RD.	SL STA 1+07.5 KINGS GRANT RD.	
192	WL STA 1+89.1 KINGS GRANT RD.	SL STA 1+75.9 KINGS GRANT RD.	
193	WL STA 2+94.1 KINGS GRANT RD.	70.7' FROM EX. MH 7	* EXIST. SHC
195	WL STA 4+38.9 KINGS GRANT RD.	55.7' FROM EX. MH 7	
196	WL STA 4+38.9 KINGS GRANT RD.	AT EX. MH 5	* EXIST. SHC
197	WL STA 6+06.6 KINGS GRANT RD.	SL STA 0+74.0 KINGS GRANT RD.	
198	WL STA 6+06.6 KINGS GRANT RD.	SL STA 1+48.7 KINGS GRANT RD.	
199	WL STA 7+80.0 KINGS GRANT RD.	SL STA 2+46.3 KINGS GRANT RD.	
200	WL STA 7+80.0 KINGS GRANT RD.	SL STA 3+14.6 KINGS GRANT RD.	
201	WL STA 8+93.8 KINGS GRANT RD.	SL STA 3+80.3 KINGS GRANT RD.	
202	WL STA 8+93.8 KINGS GRANT RD.	SL STA 4+48.5 KINGS GRANT RD.	
203	WL STA 9+77.3 KINGS GRANT RD.	SL STA 5+28.1 KINGS GRANT RD.	
204	WL STA 10+50.0 KINGS GRANT RD.	SL STA 5+82.09 KINGS GRANT RD.	
206	WL STA 9+14.5 KINGS GRANT RD.	SL STA 4+05.5 KINGS GRANT RD.	
207	WL STA 9+14.5 KINGS GRANT RD.	SL STA 4+72.0 KINGS GRANT RD.	
208	WL STA 10+21.46 KINGS GRANT RD.	SL STA 5+63.7 KINGS GRANT RD.	

\* EXTEND TO PROPERTY LINE

TYPE OF BLDG - SINGLE FAMILY DETACHED  
 NUMBER OF LOTS ..... 28  
 NUMBER OF WHCS ..... 24  
 NUMBER OF SHCS ..... 4  
 DRAINAGE AREA - LITTLE PATUXENT

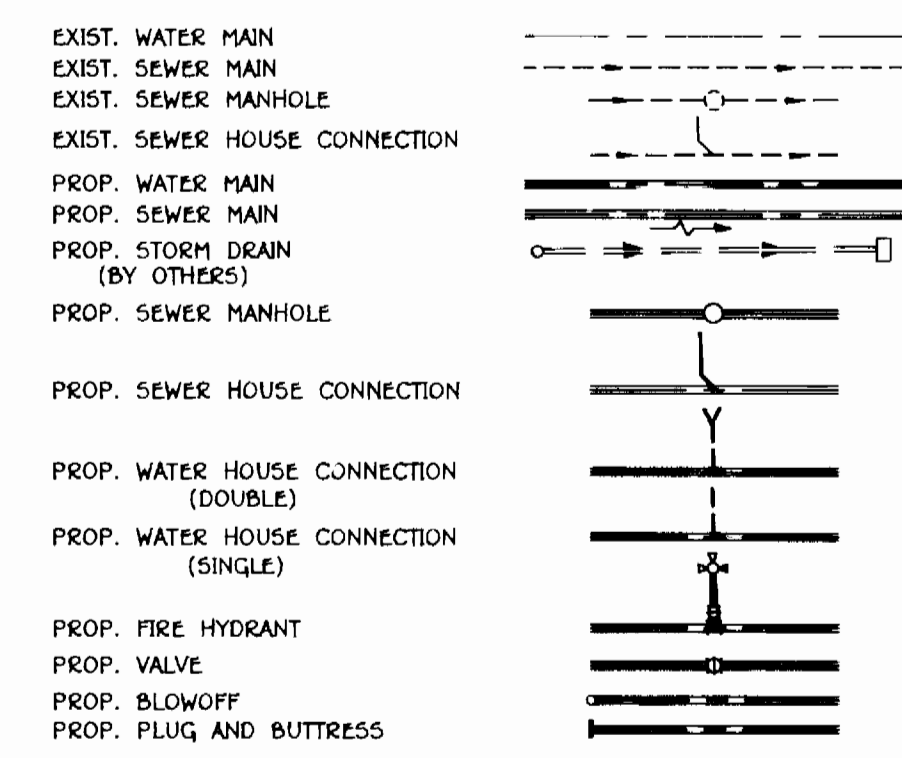
WATER AND SEWER CODE  
 COUNTY CODE  
 WATER CODE 003  
 SEWER CODE 732000

VICINITY MAP  
 SCALE: 1"=600'



PLAN  
 SCALE: 1"=50'

LEGEND



QUANTITIES			
ITEM	QUANTITY	AS-BUILT	SUPPLIER
8" WATER	1150 LF	1133	GRIFFIN PIPE
6" WATER	263 LF	271	GRIFFIN PIPE
8" VALVES	3 EA.	3	MUELLER
6" VALVE	3FH. + 1 EA.	4	MUELLER
3" BLOWOFF	1 EA.	1	MUELLER
FIRE HYDRANTS	3 EA.	3	MUELLER
1" WHC	367 LF	264	MUELLER BRASS
3/4" WHC	143 LF	361	MUELLER BRASS
8" SEWER	803 LF	785	J-M MANUFACTURING
MANHOLES	5 EA.	5	ATLANTIC CONCRETE
4" SHC	863 LF	1175	J-M MANUFACTURING
8" SADDLES	6 EA.	5	J-M MANUFACTURING

- 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.C. DATA.
  - 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 COMPANY AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES ADDITIONAL BRACING OF POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY 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 IV, STANDARD SPECIFICATIONS 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 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 BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT THE CONTRACTOR'S EXPENSE.
  - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
 C&P TELEPHONE.....1-800-257-1777  
 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.....1-559-0100  
 COLONIAL PIPELINE CO.....795-1390  
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.....315-4900
  - 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 EXCAVATION AND BACKFILL.
  - PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
  - ALL WATER MAINS TO BE CLASS 92 D.I.P. UNLESS OTHERWISE NOTED.
  - TOP OF WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
  - BLOCK ALL FITTINGS WITH CONCRETE.
  - BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATIONS ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH SECTIONS 1000 AND 1005 OF THE GENERAL REQUIREMENTS FOR WATER AND SEWER.
  - ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
  - ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH A.W.W.A. SPEC. C-153 DUCTILE IRON COMPACT FITTINGS 3"-12" FOR WATER AND OTHER LIQUIDS.
  - THE SERVICE CLAMPS ARE TO HAVE STAINLESS STEEL STRAPS.
  - ALL SEWER MAINS SHALL BE C.S.P.X., V.C.P.X., OR P.V.C. 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.
  - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
  - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. VOLUME IV WHERE WATERTIGHT MANHOLE IS USED, SET TOP OF FRAME 1'-0" ABOVE FINISHED GRADE.
  - HOUSE (S) WITH SYMBOL "C.N.S." INDICATES CELLAR CANNOT BE SERVED.
  - ALL WATER HOUSE CONNECTIONS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 12" ABOVE ALL SANITARY SEWER CROSSINGS.
  - ALL SANITARY SEWER HOUSE CONNECTIONS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 12" BELOW ALL WATER MAIN CROSSINGS.
  - PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
  - NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.

HOWARD SOIL CONSERVATION DISTRICT  
 REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS  
*James M. Nelson* 6/12/91  
 U.S. SOIL CONSERVATION SERVICE DATE  
 THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John L. Robertson* 6/12/91  
 HOWARD SOIL CONSERVATION DISTRICT DATE  
 SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS (F-91-67)

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*James M. Nelson* 6/24/91  
 DIRECTOR OF PUBLIC WORKS DATE  
*Robert M. Brown* 6-7-91  
 CHIEF, BUREAU OF ENGINEERING DATE  
*John M. Parnham* 6/12/91  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

TRACY, SCHULTE & ASSOCIATES INC.  
 planning • engineering • surveying  
 8480 Baltimore National Pike • Suite 418  
 Ellicott City, Maryland 21043

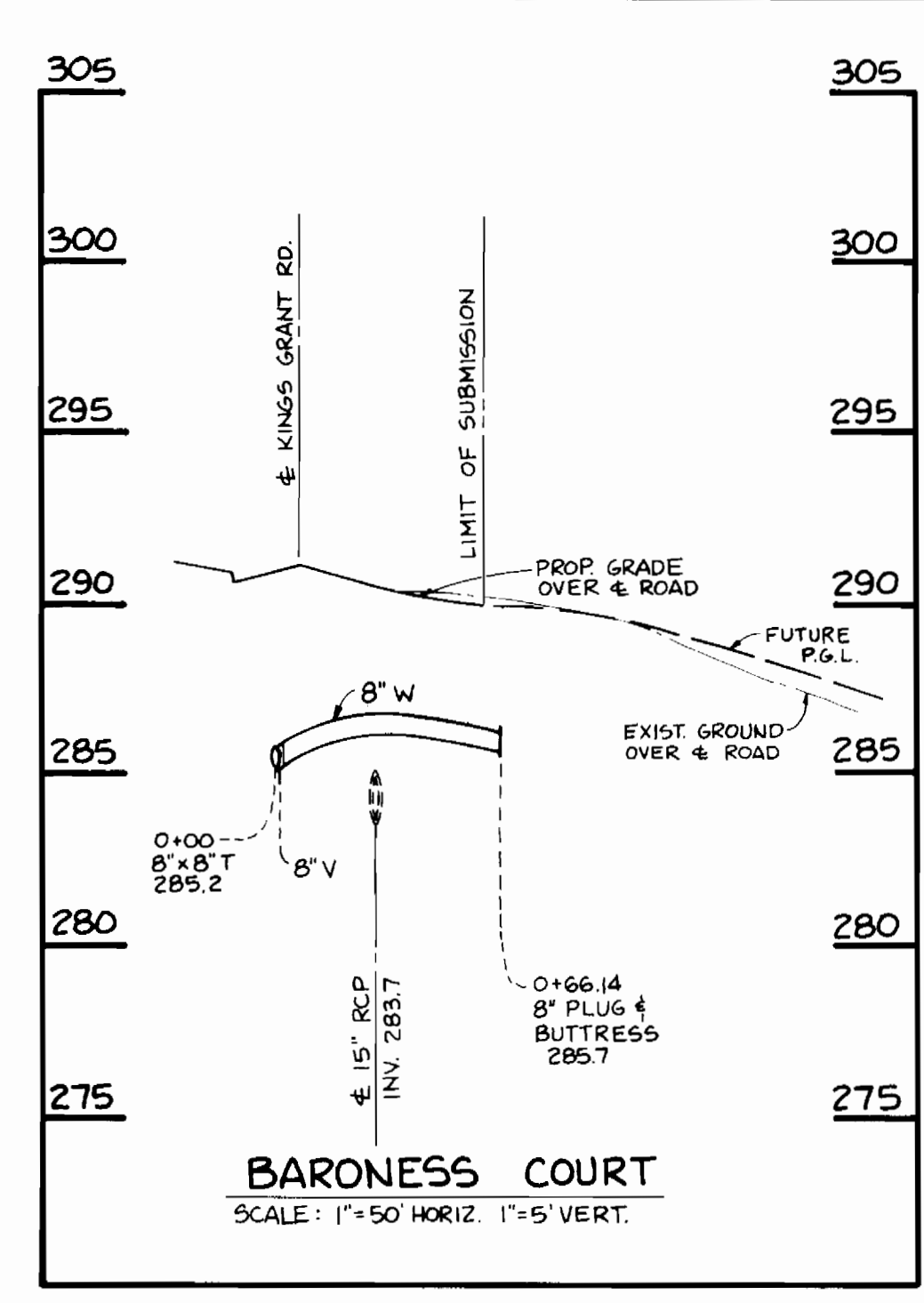
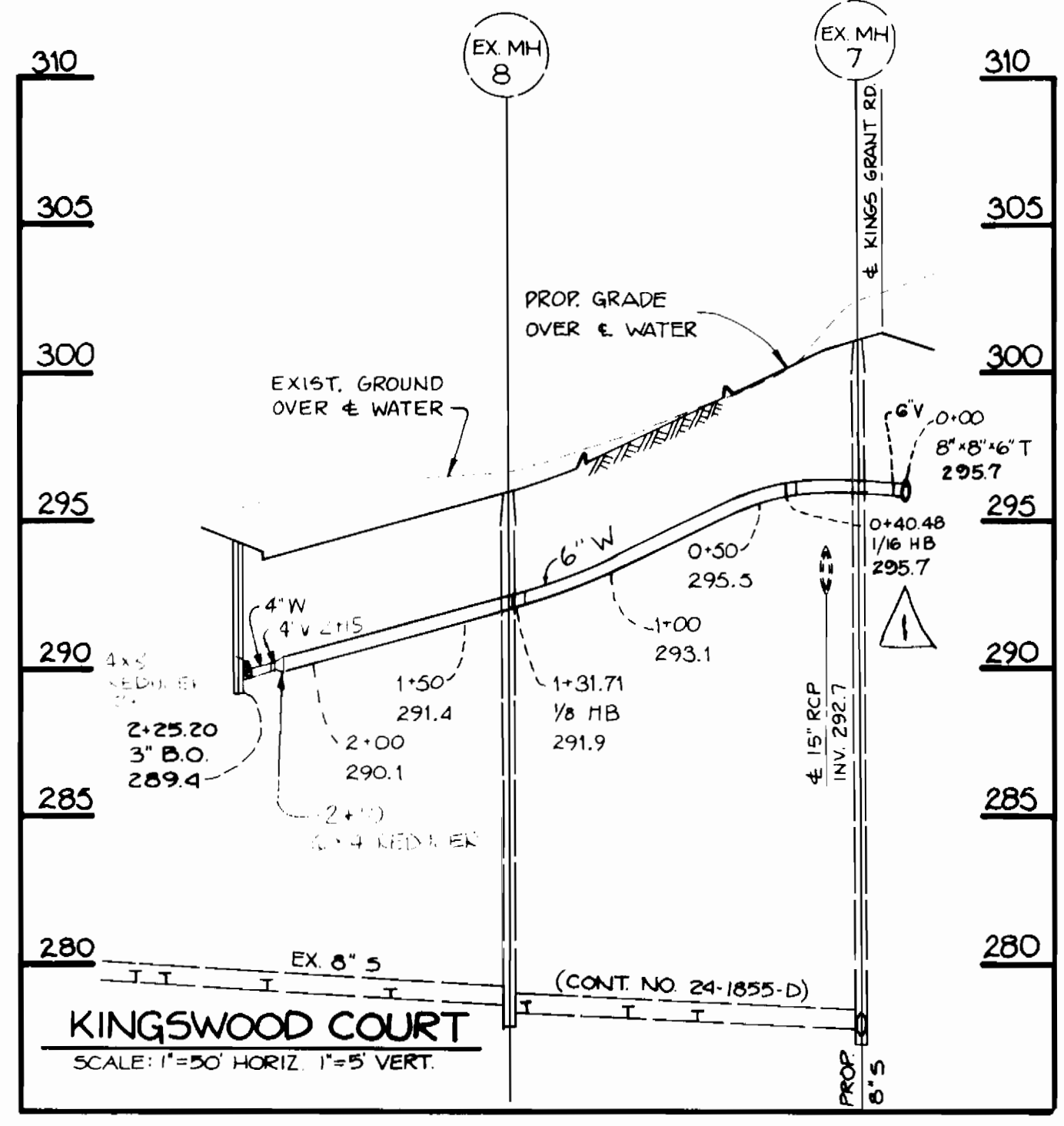
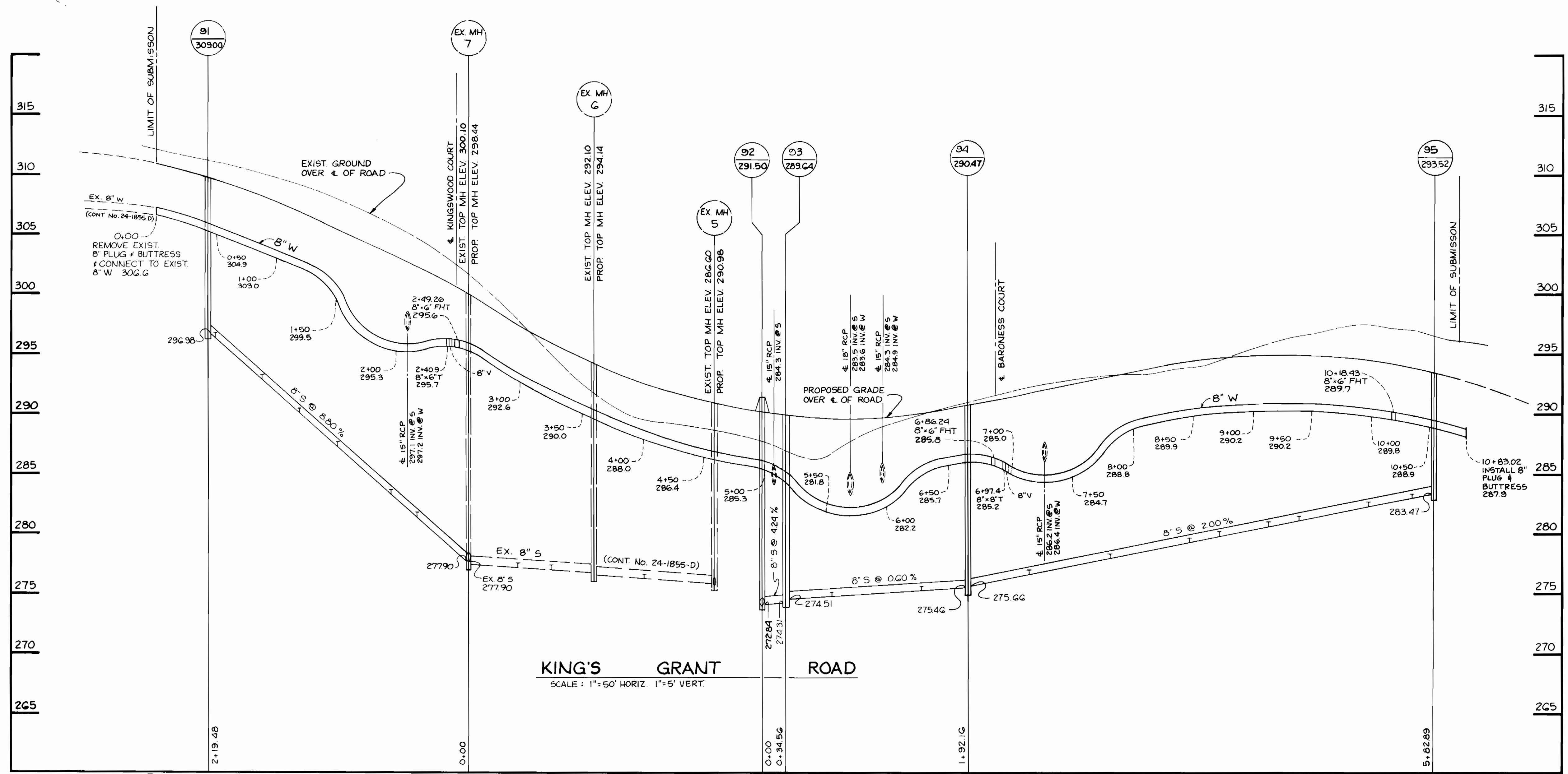


DES: DRK	EJS	△	CORRECT RIM ELEV. MH 95. REVISE C/W KINGS WOODS CT @ KINGS GRANT RD. CORRECT MH LABELS ON PROFILE 8+22.54
DRN: DRK	M.M.	△	AS-BUILT
CHK: JME			
DATE: 10/30/90	BY NO.		REVISIONS

PLAN OF WATER & SEWER MAINS  
 600 SCALE MAP NO. 47  
 BLOCK NO. 22

KING'S WOODS  
 SECTION 2, AREA 2 - PHASE 1  
 LOTS 177-209  
 ELECTION DISTRICT NO. 6  
 CONTRACT NO. 24-3129-D  
 SCALE AS SHOWN  
 SHEET 1 OF 2

AS-BUILT 3-24-92



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 6-27-91  
DIRECTOR OF PUBLIC WORKS DATE

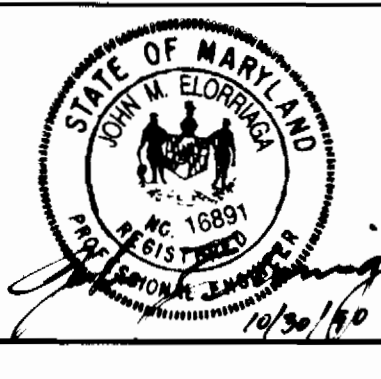
*[Signature]* 6/1/91  
CHIEF, BUREAU OF UTILITIES DATE

*[Signature]* 6-14-91  
CHIEF, BUREAU OF ENGINEERING DATE

*[Signature]* 6/1/91  
CHIEF, LAND DEVELOPMENT DIVISION DATE

TRACY, SCHULTE &  
ASSOCIATES INC.

planning • engineering • surveying  
8480 Baltimore National Pike • Suite 418  
Ellicott City, Maryland 21043



DES: DRK	EJS	Δ	CORRECT RIM ELEV. - MH 95 REVISE G.W. KINGS WOODS CT @ 292.21	
DRN: DRK			KINGS GRANT RD CORRECT MH LABELS ON PROFILE	
CHK: JME				
DATE: 10/30/90	BY	NO.	REVISIONS	DATE

PROFILES OF  
WATER & SEWER MAINS

600'S SCALE MAP NO. 41 BLOCK NO. 22

KING'S WOODS  
SECTION 2, AREA 2 - PHASE 1  
LOTS 177-209  
ELECTION DISTRICT NO. 6  
CONTRACT NO. 24-3129-D

SCALE AS SHOWN  
SHEET 2 OF 2