

SEWER HOUSE CONNECTION INVERT AT PROPERTY LINE AND MINIMUM CELLAR ELEVATIONS

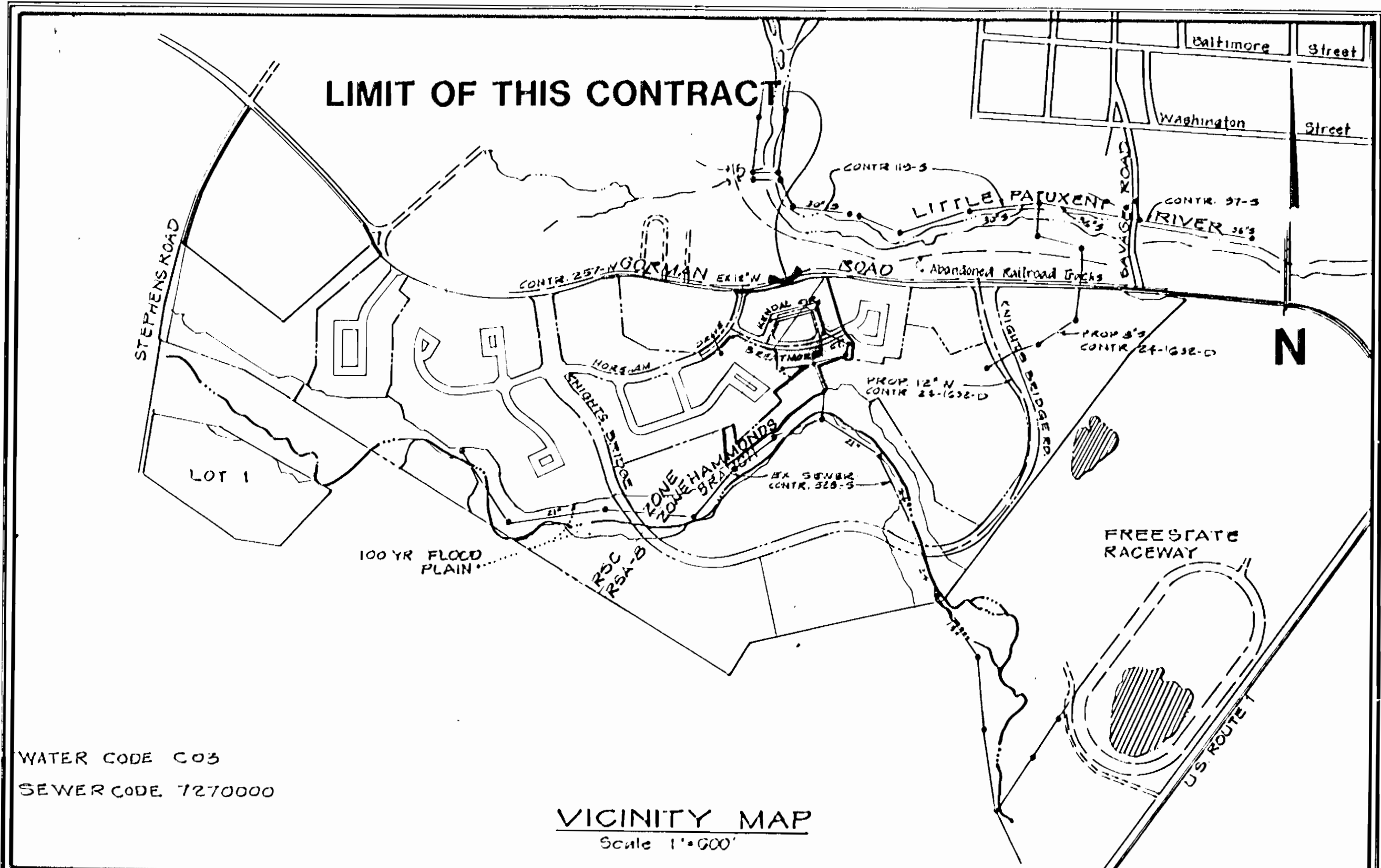
LOT NUMBER	INVERT	CELLAR	LOT NUMBER	INVERT	CELLAR
E-90	232.5	236.37	E-68	221.3	230.00
E-1	232.5	237.04	E-69	221.3	229.33
E-2	232.0	240.71	E-70	217.6	228.67
E-3	232.0	241.37	E-71	217.6	228.00
E-4	233.2	237.33	E-71	213.9	227.33
E-5	233.2	238.00	E-73	213.9	227.33
E-6	232.7	238.00	E-74	210.2	226.66
E-7	232.7	237.33	E-75	210.2	226.00
E-8	232.2	237.33	E-76	211.8	226.00
E-9	232.12	236.67	E-77	211.8	226.66
E-10	231.7	236.67	E-78	213.3	227.33
E-11	231.7	236.00	E-79	213.3	227.33
E-12	230.9	235.67	E-80	214.8	228.00
E-13	230.9	235.67	E-81	214.8	228.67
E-14	230.5	235.00	E-82	216.4	229.33
E-15	230.2	235.00	E-83	216.4	230.00
E-16	229.5	235.00	E-84	232.2	241.00
E-17	229.5	235.00	E-85	232.2	240.33
E-18	230.7	235.67	E-86	231.7	240.33
E-19	230.7	235.67	E-87	231.7	239.67
E-20	232.4	238.33	E-88	231.1	239.67
E-21	229.1	237.67	E-89	231.1	239.00
E-22	229.1	237.00	E-91	230.6	239.00
E-23	228.5	237.00	E-92	230.6	238.33
E-24	228.5	236.33			
E-25	227.9	236.33			
E-26	227.9	235.67			
E-27	227.9	235.00			

PARCEL E, AREA I LOTS E-1 THRU E-27, E-68 THRU E-92, LOTS 214 THRU 217 BOWLING BROOK FARMS HOWARD COUNTY, MARYLAND

GENERAL NOTES

- THE APPROXIMATE LOCATION OF ALL UTILITIES IS SHOWN BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL LOCATE, PROTECT AND SUPPORT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER/INSPECTOR, AT THE CONTRACTOR'S EXPENSE.
- 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 - 561-2585 (CONTRACTOR SERVICES)
 - BALTIMORE GAS & ELECTRIC COMPANY - 234-6311 (UNDERGROUND DAMAGE CONTROL)
 - BALTIMORE GAS & ELECTRIC COMPANY - 298-9913 (TROUBLE SHOOTING)
 - "MISS UTILITY" - 800-257-7777
 - CHESAPEAKE & POTOMAC (C&P) TELEPHONE COMPANY - 725-9976
 - BUREAU OF UTILITIES/HOWARD COUNTY - 992-2366
- ALL DETAILS NOT SHOWN ON THE DRAWINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS AND HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
- ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST EDITION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- TREES SHALL BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT POSSIBLE. TREES SIX INCH (6") DIAMETER OR GREATER (MEASURED FOUR FEET (4') ABOVE EXISTING GRADE) ADJACENT TO THE LIMITS OF CONSTRUCTION SHALL NOT BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- ALL HORIZONTAL AND VERTICAL CONTROLS ARE BASED ON MARYLAND STATE PLANE COORDINATES SYSTEM PROVIDED BY HOWARD COUNTY.
- TOPOGRAPHY TAKEN FROM MAPS PREPARED BY PHOTOGRAMMETRY BY "MAPS INCORPORATED" FOR THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION, ON MARCH 9, 1977. TOPOGRAPHY FIELD CHECKED DECEMBER 1979.
- ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- ALL WATER MAINS SHALL BE OF THE SAME MATERIAL UNLESS HOWARD COUNTY DESIGN MANUAL, VOLUME IV, DICTATES OTHERWISE.
- TOP OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL WATER MAIN FITTINGS REQUIRE CONCRETE THRUST BLOCKS AS DESCRIBED IN HOWARD COUNTY STANDARD SPECIFICATIONS AND DETAILS MANUAL, VOLUME IV.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12" 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 EXCAVATION AND SHALL BE INCLUDED IN UNIT PRICES BID FOR EXCAVATION BACKFILL.
- SEPARATION BETWEEN WATER AND SANITARY SEWER: WATER MAINS SHALL BE LAID AT LEAST TEN FEET (10') HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER. DEVIATION MAY BE ALLOWED FOR INSTALLATION OF THE WATER MAIN CLOSER TO A SEWER, PROVIDED THAT THE WATER MAIN IS LAID IN A SEPARATE TRENCH, SUCH THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST SIX FEET (6') ABOVE THE TOP OF THE SEWER. WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TWELVE INCHES (12") BETWEEN THE BOTTOM OF THE WATER MAIN AND THE TOP OF THE SEWER LINE.
- 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.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
- ALL SEWER MAINS SHALL BE P.V.C., OR HIGH DENSITY POLYETHYLENE AND ALL MAINS SHALL BE OF LIKE MATERIAL UNLESS NOTED OTHERWISE.
- 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.
- ALL FIRE HYDRANTS SHALL BE SITUATED PER "LOCATION A", STD. DETAIL W.11.

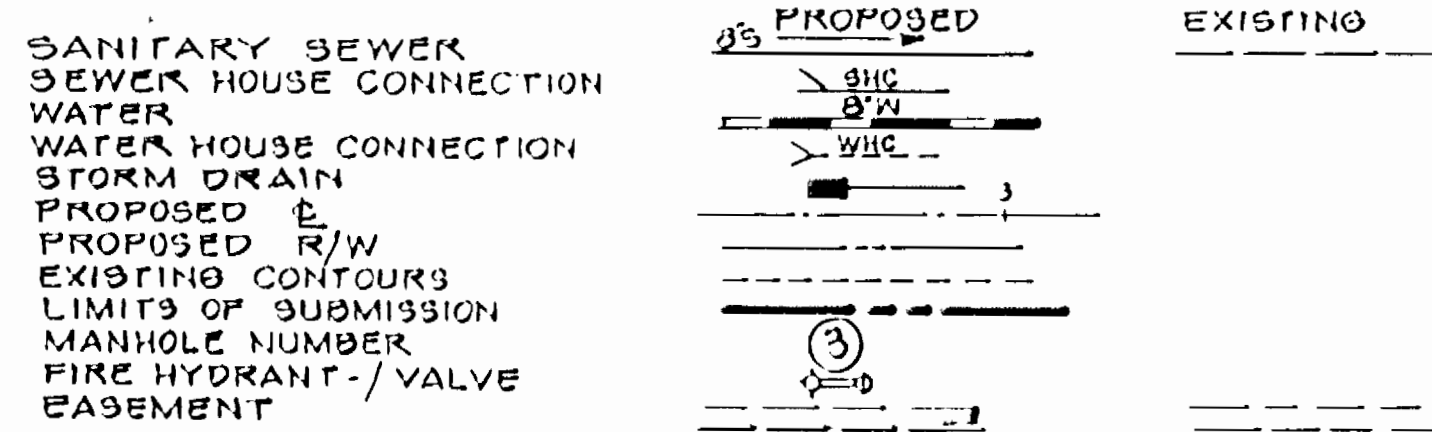
QUANTITIES			
ITEM	ESTIMATED	AS BUILT	MATERIAL/SUPPLIER
8" SEWER	1306LF	1411LF	JM MANUFACTURING CORP PRO GRIFIN PIPE PRO.
MANHOLE	11	11	ATLANTIC PRECAST
8" WATER	1315LF	1314LF	GRIFIN PIPE PRO.
12" WATER	428LF	428LF	GRIFIN PIPE PRO.
8" VALVE	7	5	GRIFIN PIPE PRO.
12" VALVE	—	—	—
FIRE HYDRANT	3	3	MUELLER CO.
AIR RELEASE MANHOLE	—	—	—
BLOW OFF VALVE	—	—	—
6" WATER	24LF	24LF	GRIFIN PIPE PRO.
2" WATER	92LF	92LF	HOWELL METALS
6" VALVE	3	3	MUELLER CO.
6" SEWER	736LF	804LF	JM MANUFACTURING CORP
1" W/M	718LF	628LF	HOWELL METALS
3/4" W/M	387LF	792LF	HOWELL METALS



TYPE OF BUILDINGS	TOWNHOUSE UNITS
NUMBER OF LOTS	52 LOTS + 4 OPEN SPACES=56
NUMBER OF WATER HOUSE CONNECTIONS	52
NUMBER OF SEWER HOUSE CONNECTIONS	52
DRAINAGE AREA	LITTLE PATUXENT

CONTRACT NO. 24-1736-D WATER AND SEWER CONSTRUCTION PLANS

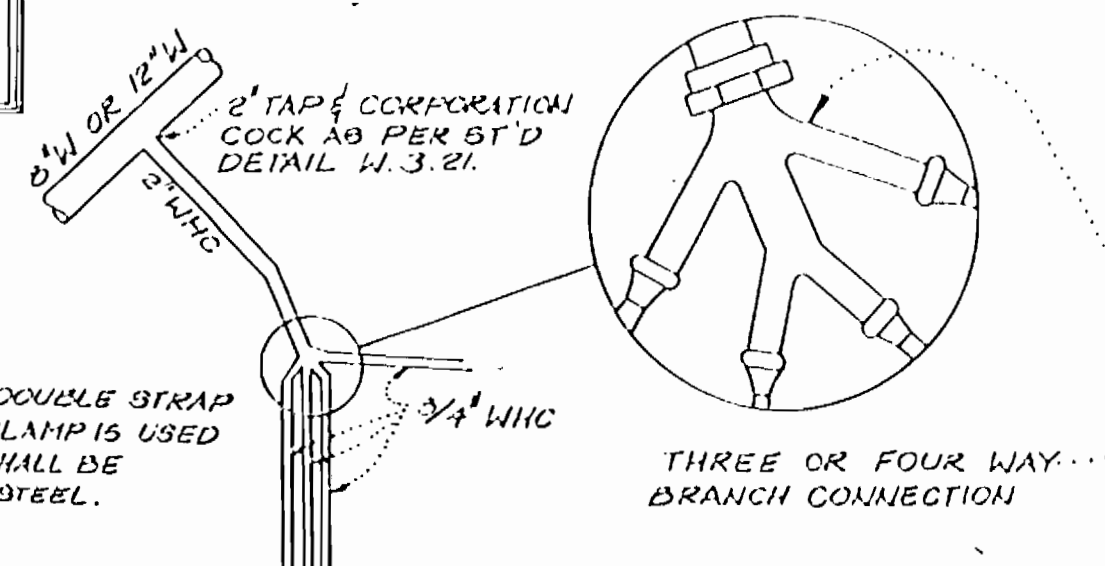
LEGEND



SEDIMENT CONTROL MEASURE FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND ROAD CONSTRUCTION PLAN F-88-113 AND SDP

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENT
 SIGNATURE: *[Signature]* DATE: 1/5/83

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.
 APPROVED: *[Signature]* DATE: 1/5/83
 HOWARD SCD



OWNER/DEVELOPER
 GORMAN ROAD LIMITED PARTNERSHIP
 C/O JAMES P. KNOTT DEVELOPMENT CORPORATION
 118 WEST ROAD, SUITE 203
 TOWSON, MARYLAND 21284
 (891) 321-6136

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN OF WATER AND SEWER MAINS
3	PROFILE OF WATER AND SEWER MAINS

INDEX OF DRAWINGS

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature] 2/3/83
 DIRECTOR OF PUBLIC WORKS

[Signature] 3-24-83
 CHIEF BUREAU OF UTILITIES

[Signature] 4-6-83
 CHIEF BUREAU OF ENGINEERING

[Signature] 4-6-83
 CHIEFLAND DEVELOPMENT DIVISION

PHR&A
 PETER HARRIS RAY & ASSOCIATES, PC
 709 Sandhill Place
 Annapolis, Maryland 21403
 (410) 326-1220 FAX: 301-992-7214

STATE OF MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 ENGINEER

[Signature]
 DATE: 3/22/83

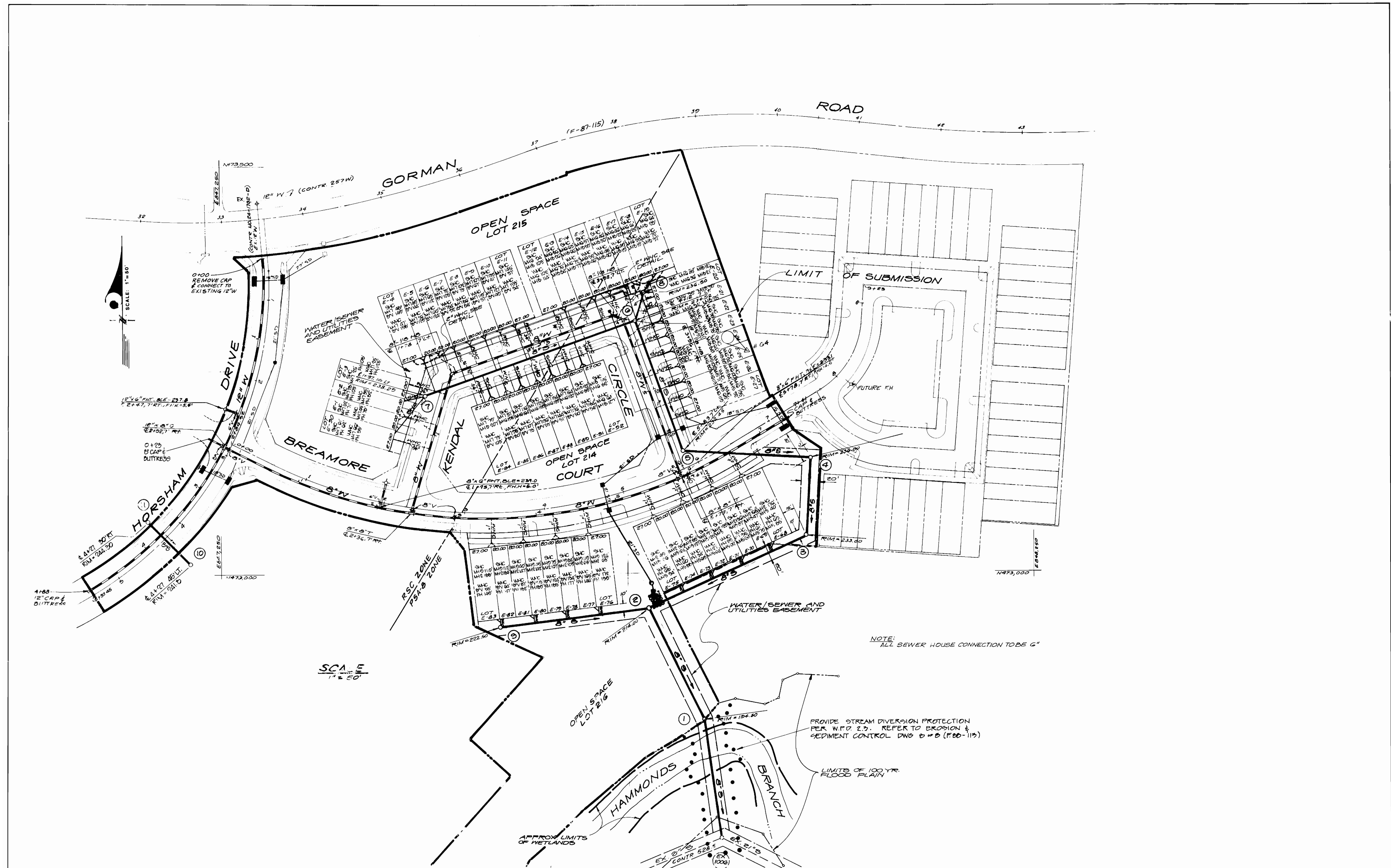
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600' SCALE MAP NO. _____ BLOCK NO. _____

BOWLING BROOK FARMS
 PARCEL E, AREA I
 LOTS E-1 THRU E-27, E-68 THRU E-92 LOTS 214 THRU 217
CONTRACT NO. 24-1736-D
 A RESUBDIVISION OF BOWLING BROOK, LOT 2
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 3

AS-BUILT



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature]
 DIRECTOR OF PUBLIC WORKS
 DATE: 3-28-89

[Signature]
 CHIEF, BUREAU OF UTILITIES
 DATE: 3-28-89

[Signature]
 CHIEF, BUREAU OF ENGINEERING
 DATE: 4-1-88

[Signature]
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE: 4-1-88

PHRA

PLANNING & ENGINEERING ASSOCIATES, INC.
 1000 S. MOUNTAIN ROAD
 WASHINGTON, MARYLAND 20854
 PHONE: 301-703-2220 FAX: 301-703-7244

[Signature]
 DATE: 3/28/89

DES: KOE					
DRN: EIC					
CHK: KOR					
DATE: 3/28/89	BY	NO.	REVISION	DATE	

PLAN

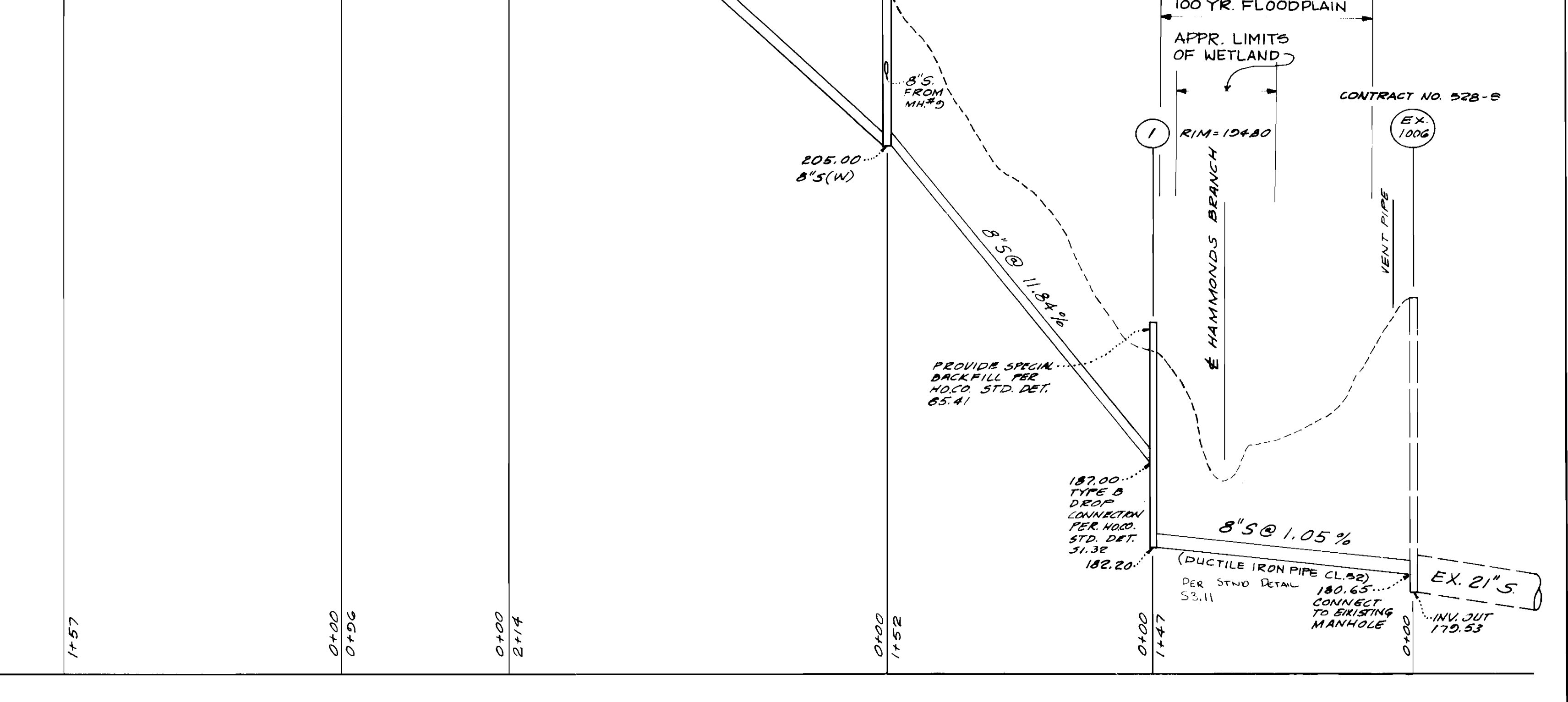
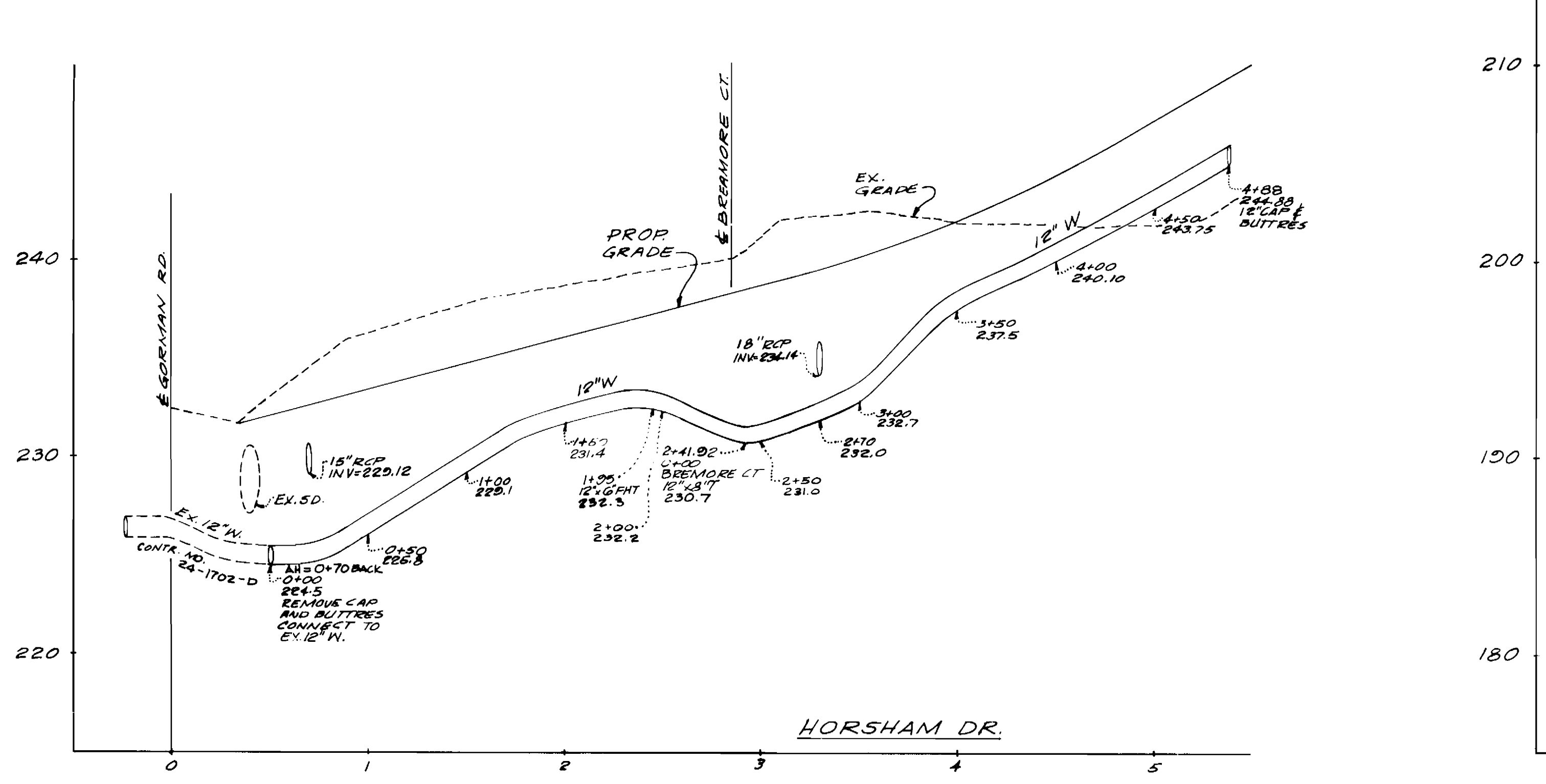
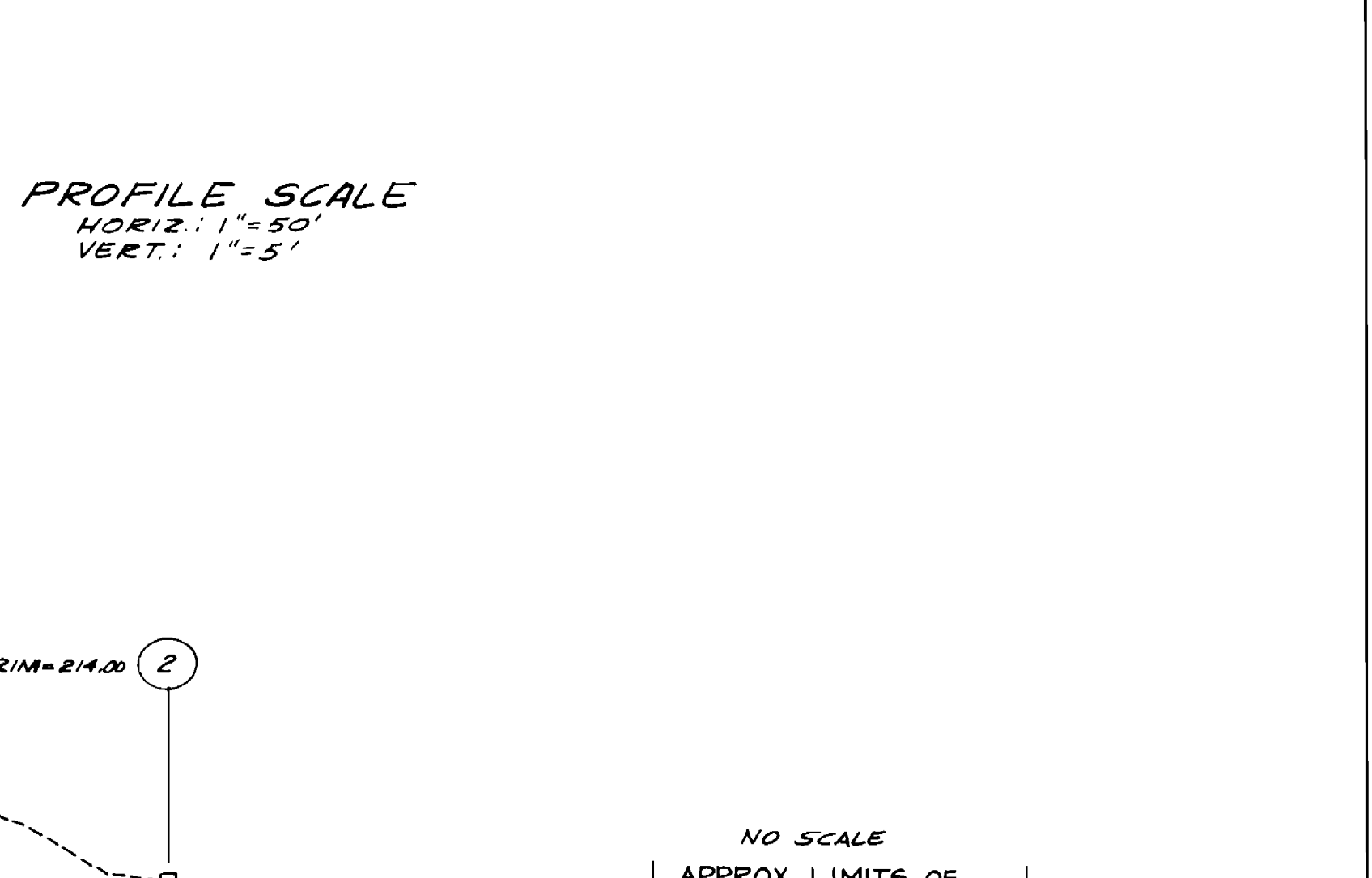
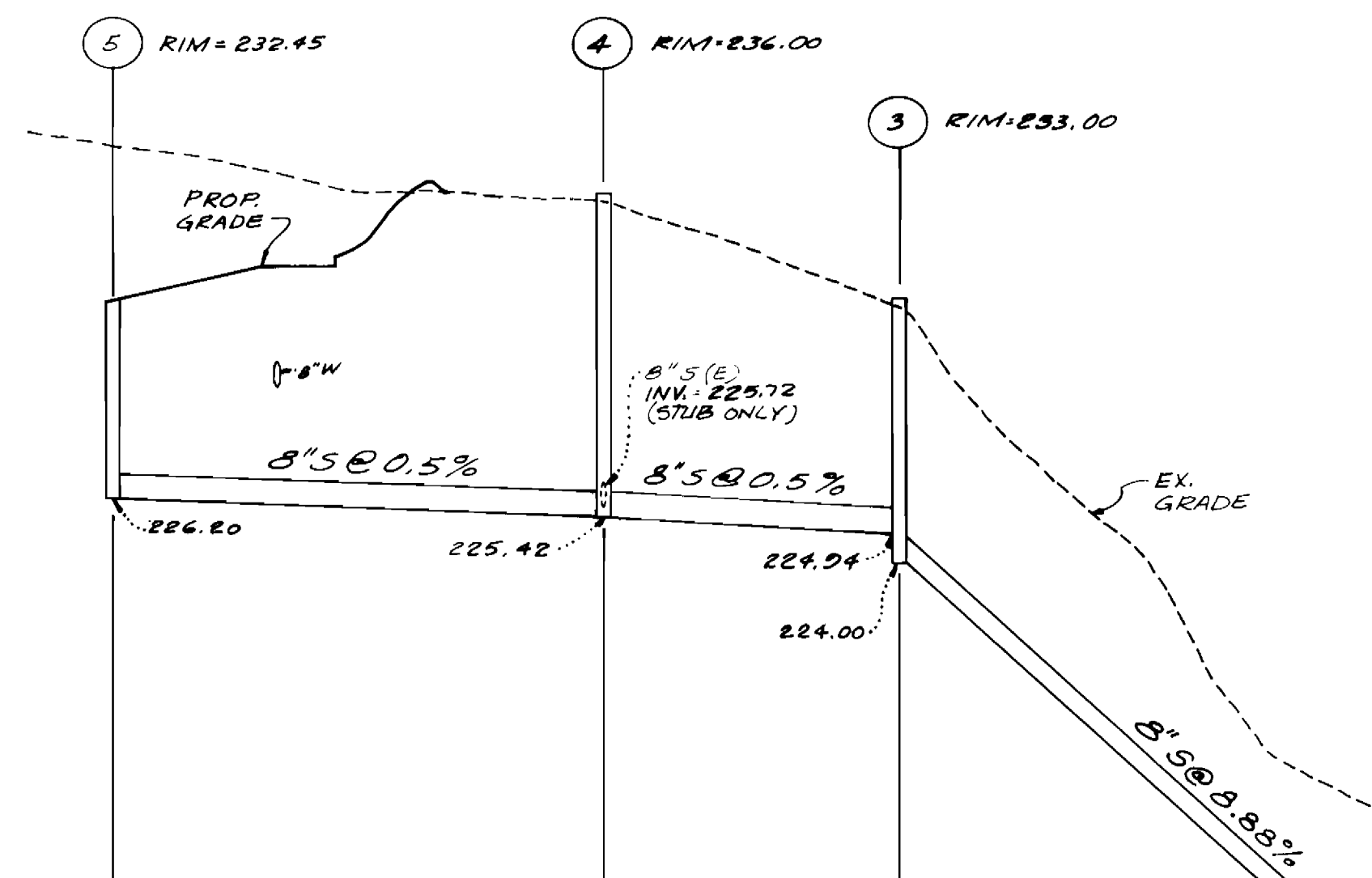
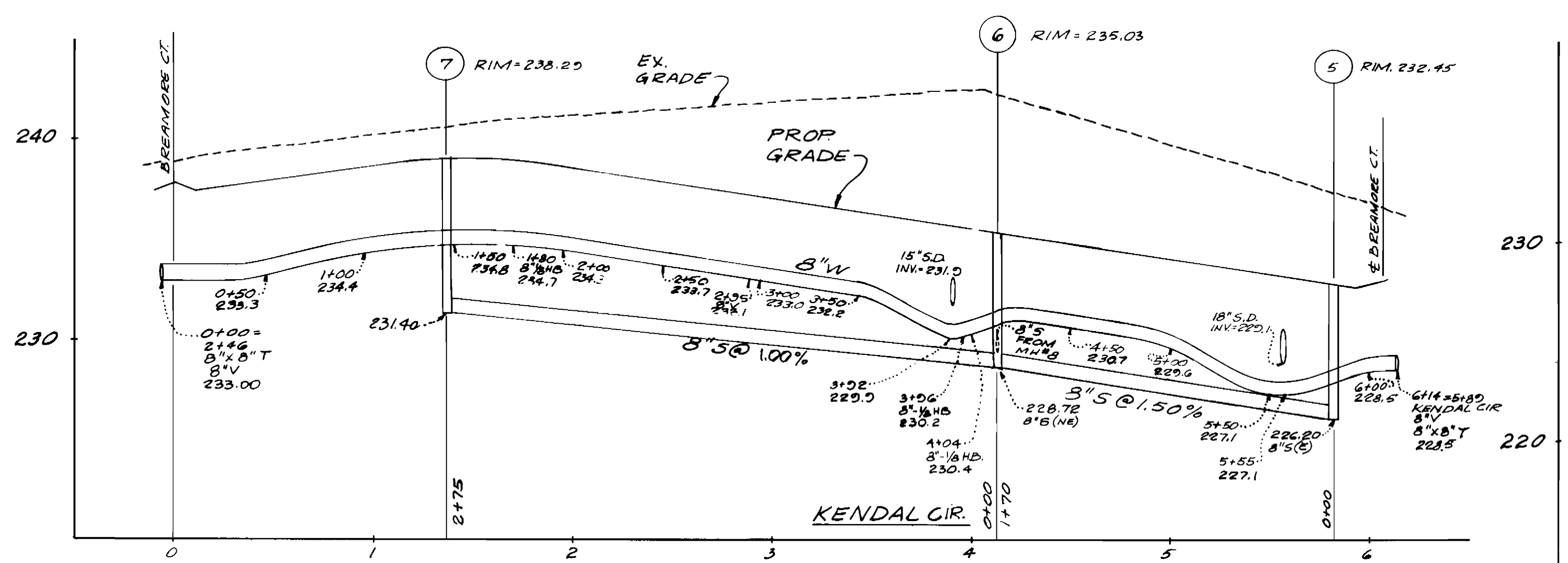
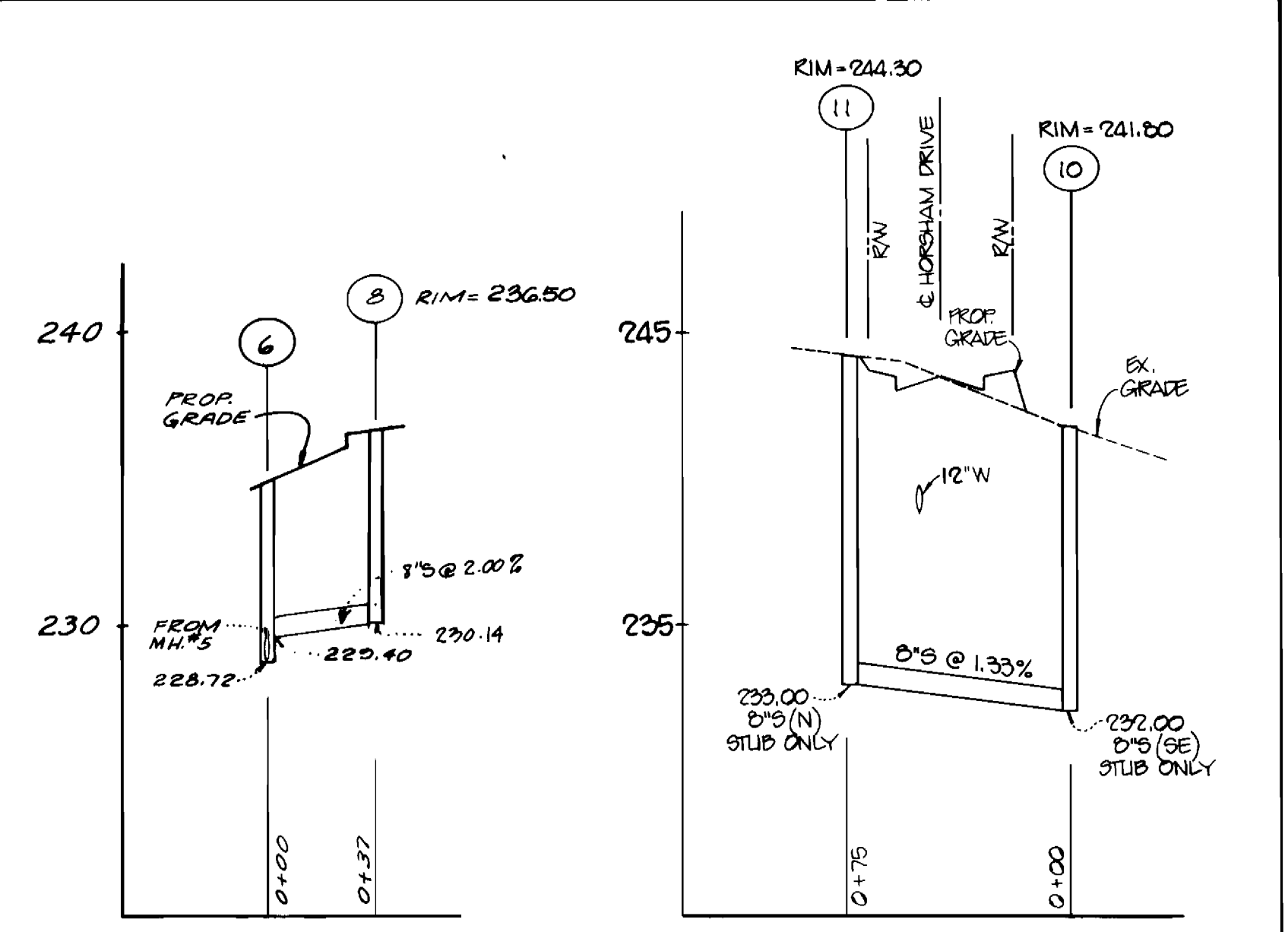
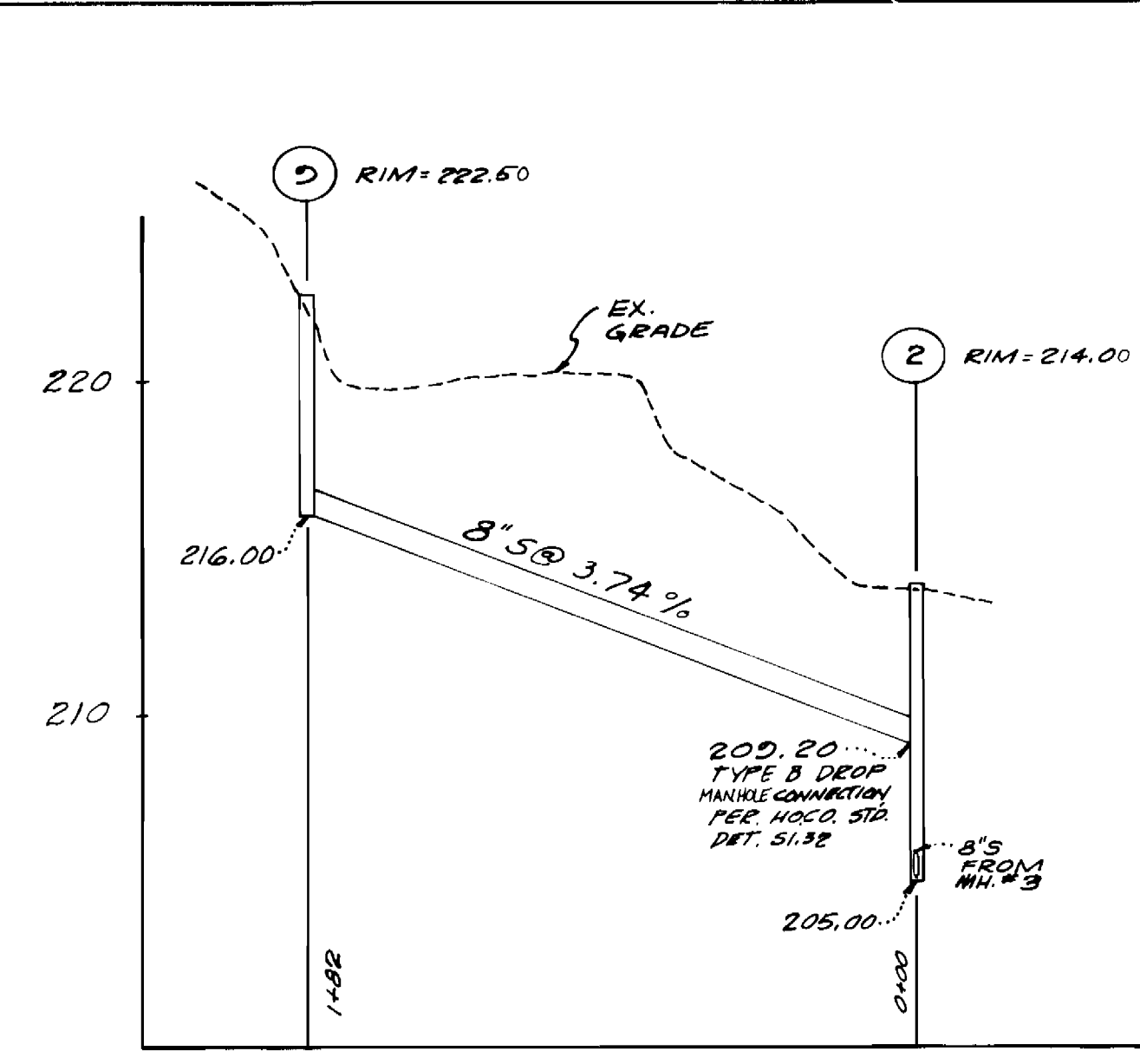
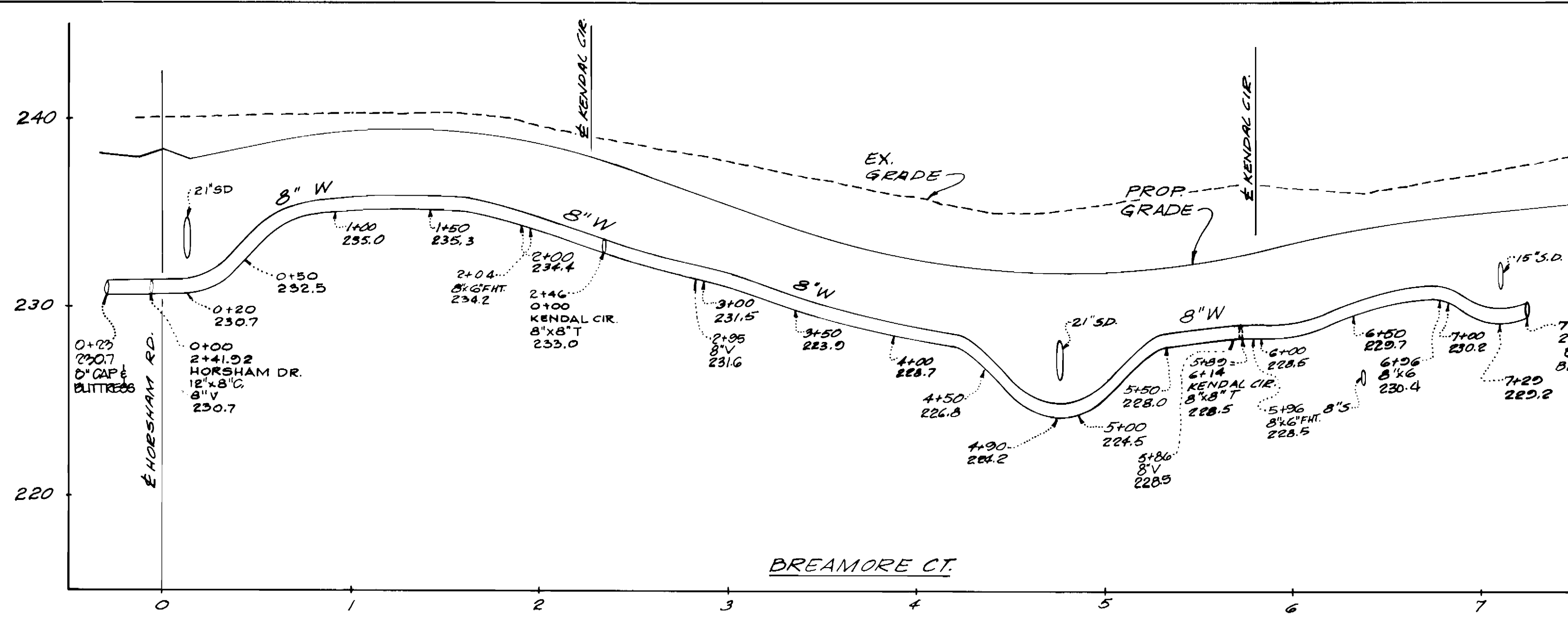
WATER & SEWER MAINS

600' SCALE MAP NO. _____ BLOCK NO. _____

BOWLING BROOK FARMS
 PARCEL E AREA 1
 LOTS E-1 THRU E-27, E-68 THRU E-92 LOTS 214 THRU 217
 CONTRACT NO. 24-1736-D
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 2 OF 3



PROFILE SCALE
HORIZ: 1"=50'
VERT: 1"=5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

PHR&A

PROFILES
WATER & SEWER MAINS

BOWLING BROOK FARMS
PARCEL E AREA I
LOTS E-1 THRU E-27, E-68 THRU E-92 LOTS 214 THRU 217
CONTRACT NO. 24-1736-D
A RESUBDIVISION OF BOLLING BROOKE LOT
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 3

James E. ... 4-6-05
DIRECTOR OF PUBLIC WORKS
DATE
3-28-08
DATE

PHR&A
CHIEF, BUREAU OF ENGINEERING
DATE

DES: KOR
DRN: FC
CHK: KOR
DATE: 1/21/08

600 SCALE MAP NO. _____ BLOCK NO. _____