

SECTION I AREA I

LOTS 3 THRU 7I

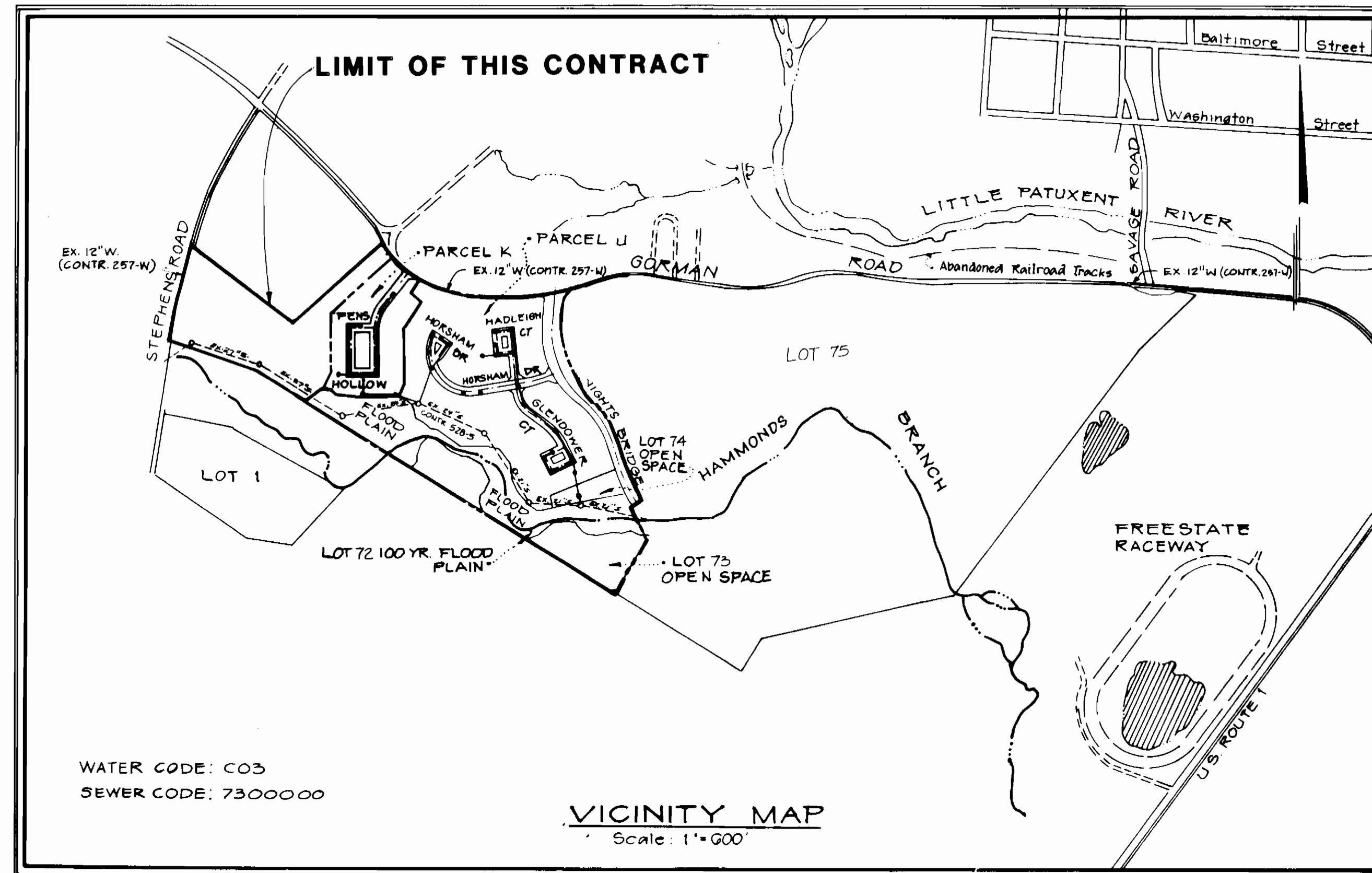
BOWLING BROOK FARMS

HOWARD COUNTY, MARYLAND

GENERAL NOTES

1. 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.
2. 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.
3. 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 - 234-6313 (UNDERGROUND DAMAGE CONTROL)
 BALTIMORE GAS & ELECTRIC COMPANY - 298-9813 (TROUBLE SHOOTING)
 "MISS UTILITY" - 800-257-7777
 CHESAPEAKE & POTOMAC (C&P) TELEPHONE COMPANY - 725-9976
 BUREAU OF UTILITIES/HOWARD COUNTY - 992-2366
4. ALL DETAILS NOT SHOWN ON THE DRAWINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS.
5. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS AND HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
6. 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.
7. 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.
8. ALL HORIZONTAL AND VERTICAL CONTROLS ARE BASED ON MARYLAND STATE PLANE COORDINATES PROVIDED BY HOWARD COUNTY.
9. 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.
10. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
11. ALL WATER MAINS SHALL BE DUCTILE IRON PIPE - CL 62
12. TOP OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
13. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
14. ALL WATER MAIN FITTINGS REQUIRE CONCRETE THRUST BLOCKS AS DESCRIBED IN HOWARD COUNTY STANDARD SPECIFICATIONS AND DETAILS MANUAL, VOLUME IV.
15. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
16. CLEAR ALL UTILITIES BY A MINIMUM OF 12", 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 EXCAVATION AND SHALL BE INCLUDED IN UNIT PRICES BID FOR EXCAVATION BACKFILL.
17. 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.
18. 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.
19. ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
20. ALL SEWER MAINS SHALL BE P.V.C., OR HIGH DENSITY POLYETHYLENE UNLESS NOTED OTHERWISE AND ALL MAINS SHALL BE OF LIKE MATERIAL.
21. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
22. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
23. ALL FIRE HYDRANTS SHALL BE SITUATED PER "LOCATION A", STD. DETAIL W1.11.
24. ALL DUAL WATER HOUSE CONNECTIONS SHALL BE 1-INCH COPPER PIPE FROM THE MAIN LINE AND 3/4"-INCH PIPE NEAR THE LOTS. SEE STANDARD DETAIL W.3.23.

QUANTITIES			
ITEM	ESTIMATED	AS BUILT	MATERIAL/SUPPLIER
8" SEWER	1636 ft.	1642'	J. MANSVILLE PVC SDR 35
MANHOLE	11	11	ATLANTIC CONC
8" WATER	506	506	GRIFFIN CL 52 DIP
12" WATER	938 ft	938'	GRIFFIN CL 52 DIP
8" VALVE	2	2	MILLEN
12" VALVE	2	2	MILLEN
FIRE HYDRANT	4	4	MILLEN
AIR RELEASE MANHOLE	—	—	
12x12" TS & V	1	1	1'S STEEL
BLOW OFF VALVE	1	1	
6" WATER	66	67'	GRIFFIN CL 52 DIP
2" WATER	160	141'	HOWELL
SHC	11174	1258 FT	J. MANSVILLE PVC SDR 35
3/4" WHC	851 ft	1252'	HOWELL TYPE V' SOFT
1" WHC	806 ft	206'	HOWELL TYPE K SOFT



TYPE OF BUILDINGS	TOWNHOUSE	UNITS
NUMBER OF LOTS	66	30
NUMBER OF WATER HOUSE CONNECTIONS	66	
NUMBER OF SEWER HOUSE CONNECTIONS	66	
DRAINAGE AREA LITTLE PATUXENT		

CONTRACT NO. 24-1611-D

WATER AND SEWER CONSTRUCTION PLANS

LEGEND

	PROPOSED	EXISTING
SANITARY SEWER	—S—	—S—
SEWER HOUSE CONNECTION	—SHC—	—SHC—
WATER	—W—	—W—
WATER HOUSE CONNECTION	—WHC—	—WHC—
STORM DRAIN	—SD—	—SD—
PROPOSED R/W	—R/W—	—R/W—
EXISTING CONTOURS	—C—	—C—
LIMITS OF SUBMISSION	—L/S—	—L/S—
MANHOLE NUMBER	(M)	(M)
FIRE HYDRANT/VALVE	(F)	(F)
EASEMENT	—E—	—E—

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT
 Signature: *James M. Helm* DATE: 8-31-87
 U.S. SOIL CONSERVATION SERVICE

SEDIMENT CONTROL MEASURE FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND ROAD CONSTRUCTION PLAN F 87-142 AND SDP 87 189

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.
 APPROVED: *John L. Huber* DATE: 8/31/87
 HOWARD SCD

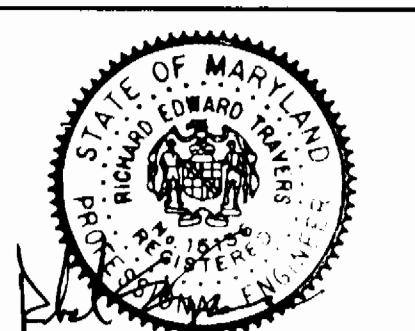
OWNER/DEVELOPER
 GORMAN ROAD LIMITED PARTNERSHIP
 C/O JAMES P. KNOTT DEVELOPMENT CORPORATION
 110 WEST ROAD, SUITE 203
 TOWSON, MARYLAND 21284
 (801) 321-6436

SHEET #	DESCRIPTION
1	TITLE SHEET
2	PLAN OF WATER AND SEWER MAINS
3	PLAN AND PROFILE OF GORMAN ROAD WATER MAIN
4	PROFILE OF WATER AND SEWER MAINS

INDEX TO DRAWINGS

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *John L. Huber* DATE: 8-31-87
 Chief, Bureau of Engineering: *John L. Huber* DATE: 8-31-87
 Chief, Bureau of Utilities: *John L. Huber* DATE: 8-31-87
 Chief, Land Development Division: *John L. Huber* DATE: 8-31-87

PHR&A
 Purdon Harris Ruet & Associates, PC
 7000 Stearns Rd. Plaza
 Rockville, Maryland 20855
 Metro 301 702-2220 Natl. 301 702-7244



DES: MCF/MK			
DRN: DW			
CHK: KDR			
DATE: 6/22/87	A	REVISION TO SPLIT PARCEL J4 K	8/10/87
BY NO		REVISION	DATE

TITLE SHEET
600' SCALE MAP NO. 47 BLOCK NO.

BOWLING BROOK FARMS
 CONTRACT NO 24-1611-D SECTION 1 AREA I
 LOTS 3 THRU 7I
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 4

- WATER HOUSE CONNECTION AS BUILTS
1. MEASUREMENTS TO NEAREST FOOT
 2. FOR CLARITY MEASUREMENTS FOR TWIN WHC TO E. OF TWIN (DL). VALUE BOXES ARE 2.5' FROM TRD POINT
 3. MEASUREMENTS ARE IN PROPERTY LIMITS ENVELOP
- SHC'S AS BUILTS
1. FOR CLARITY, MEASUREMENTS TO R.L. OR E. OF TWIN SHC.

SEWER HOUSE CONNECTION INVERTS AT PROPERTY LINE AND MINIMUM CELLAR ELEVATIONS

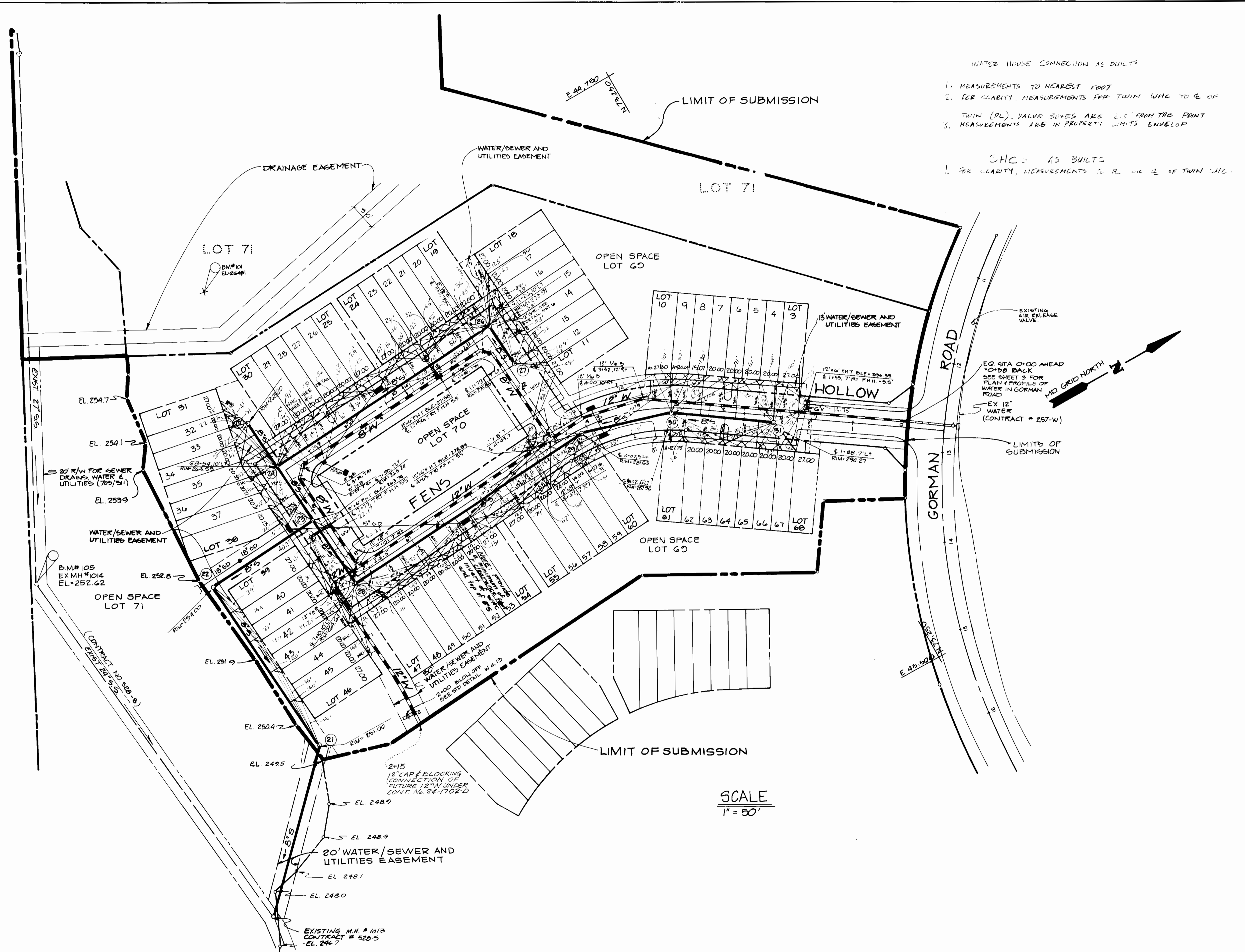
LOT NUMBER	INVERT	CELLAR	LOT NUMBER	INVERT	CELLAR
31	255.00	257.85	45	244.95	257.35
32	254.90	257.35	46	245.01	257.35
33	254.74	258.02			
34	254.72	258.03			
35	254.40	258.02			
36	254.34	258.02			
37	253.96	257.35			
38	253.88	257.35			
39	248.26	257.35			
40	248.32	257.35			
41	247.16	258.02			
42	247.22	258.02			
43	246.06	258.02			
44	246.12	258.02			

SEWER HOUSE CONNECTION INVERTS AT PROPERTY LINE AND MINIMUM CELLAR ELEVATIONS

LOT NUMBER	INVERT	CELLAR	LOT NUMBER	INVERT	CELLAR
3	287.56	297.00	17	264.98	269.68
4	287.60	297.00	18	265.02	269.68
5	285.83	295.00	61	283.18	292.00
6	285.80	295.00	62	283.24	292.00
7	284.20	293.00	63	284.69	294.00
8	284.14	293.00	64	284.69	294.00
9	280.66	291.00	65	286.68	296.00
10	280.68	291.00	66	286.74	296.00
11	266.42	273.02	67	287.44	298.00
12	266.44	273.02	68	287.48	298.00
13	265.48	271.02			
14	265.42	271.02			
15	264.54	270.35			
16	264.56	270.35			

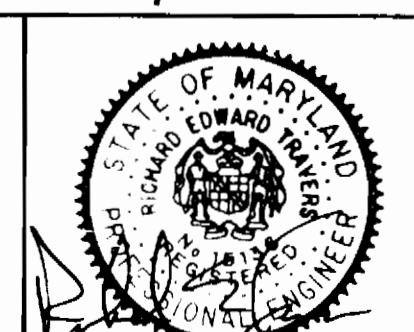
SEWER HOUSE CONNECTION INVERTS AT PROPERTY LINE AND MINIMUM CELLAR ELEVATIONS

LOT NUMBER	INVERT	CELLAR	LOT NUMBER	INVERT	CELLAR
19	263.89	268.35	49	258.41	263.02
20	263.73	268.35	50	258.47	263.02
21	262.43	267.02	51	260.51	265.02
22	262.37	267.02	52	260.58	265.02
23	261.05	265.69	53	262.46	267.02
24	260.99	265.69	54	262.46	267.02
25	258.80	263.02	55	266.10	277.50
26	258.74	263.02	56	266.04	278.84
27	257.35	261.68	57	268.15	280.17
28	257.29	261.68	58	268.21	281.50
29	255.89	260.35	59	270.42	283.50
30	255.83	260.35	60	270.48	283.50
47	255.46	261.02			
48	255.46	261.02			



SCALE
1" = 50'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

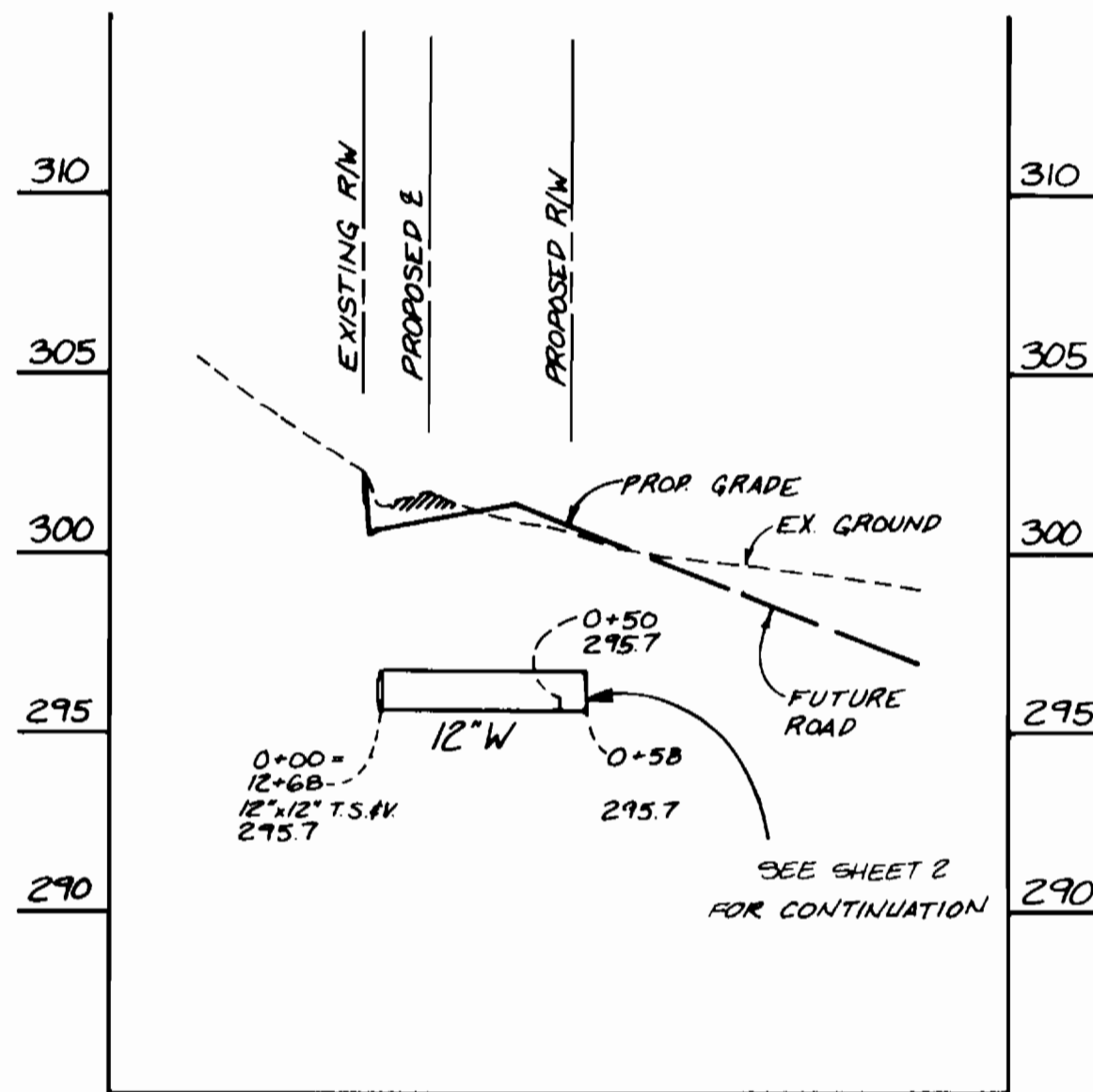
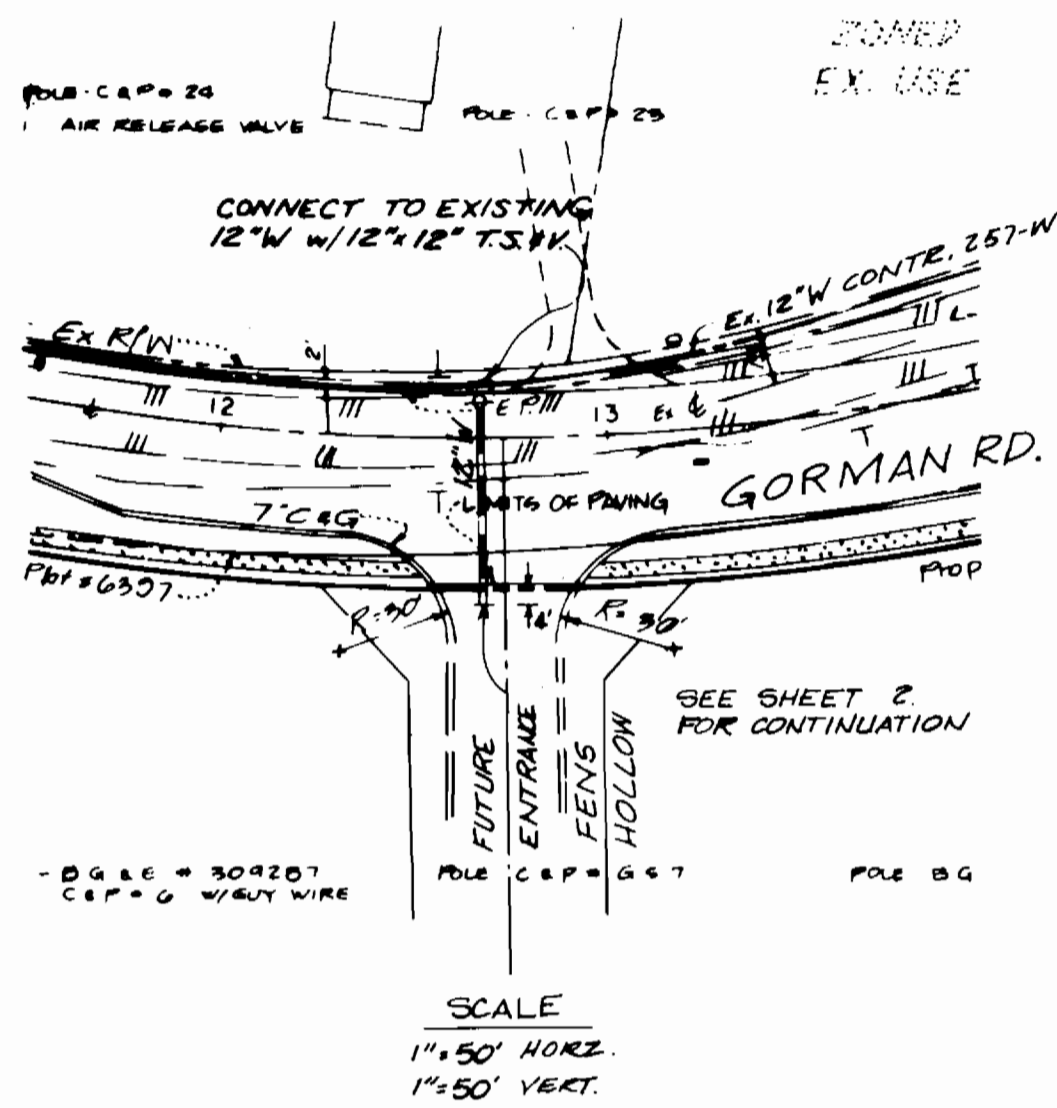


DES: MC/MK			
DRN: JDW			
CHK: KOR	B	ADD NOTES TO LOTS 52 & 53	5/3/87
	A	REVISED TO SPLIT PARCEL J & K	8/19/87
DATE: 6/26/87	BY NO.	REVISION	DATE

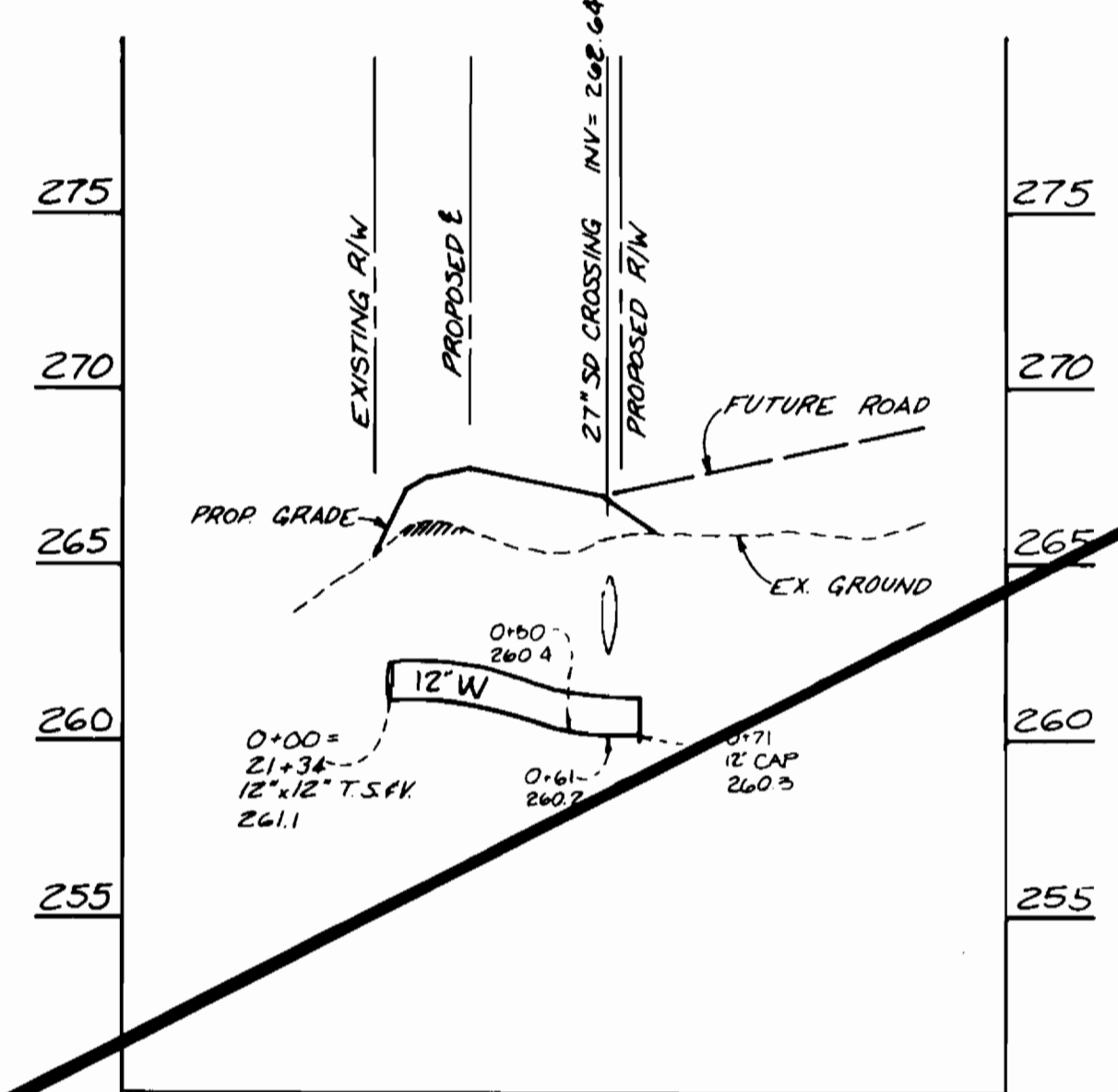
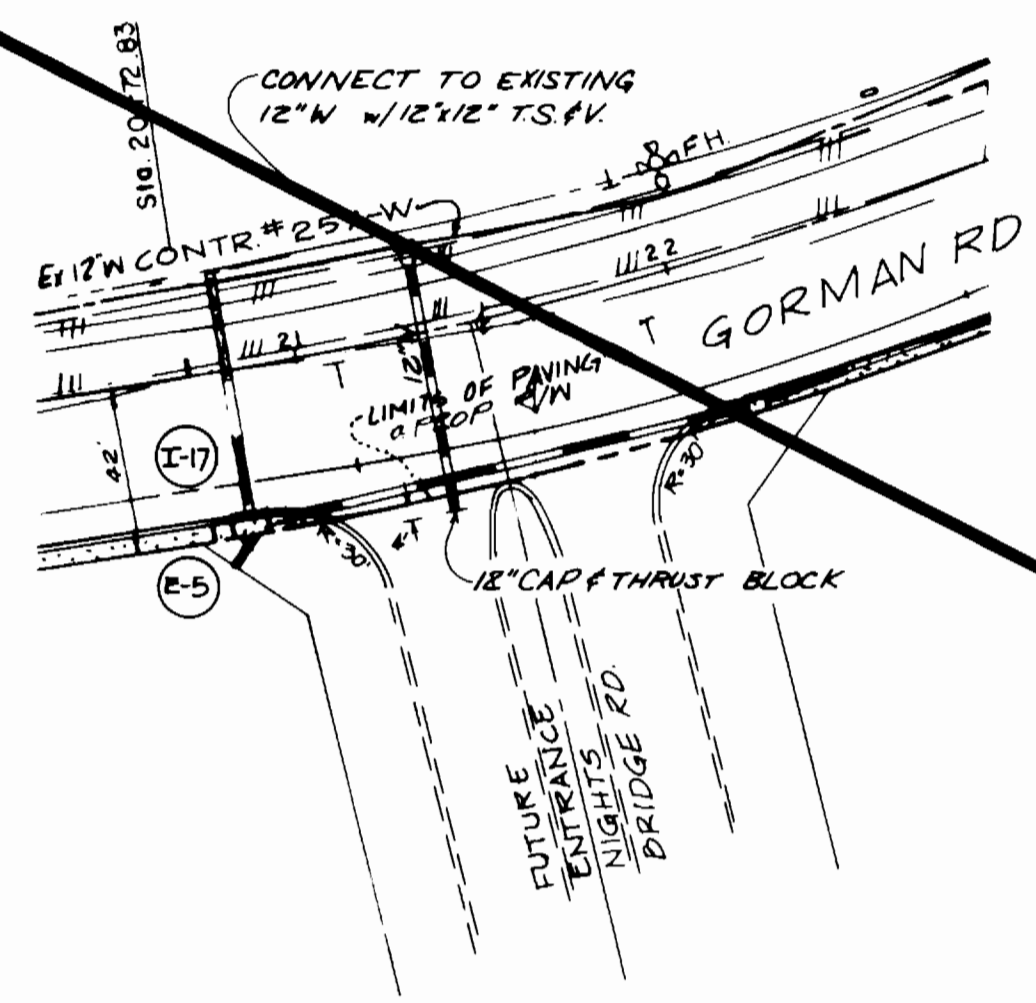
PLAN
WATER & SEWER MAINS

BOWLING BROOK FARMS
CONTRACT NO 24-1611-D SECTION 1 AREA 1
LOTS 3 THRU 71
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

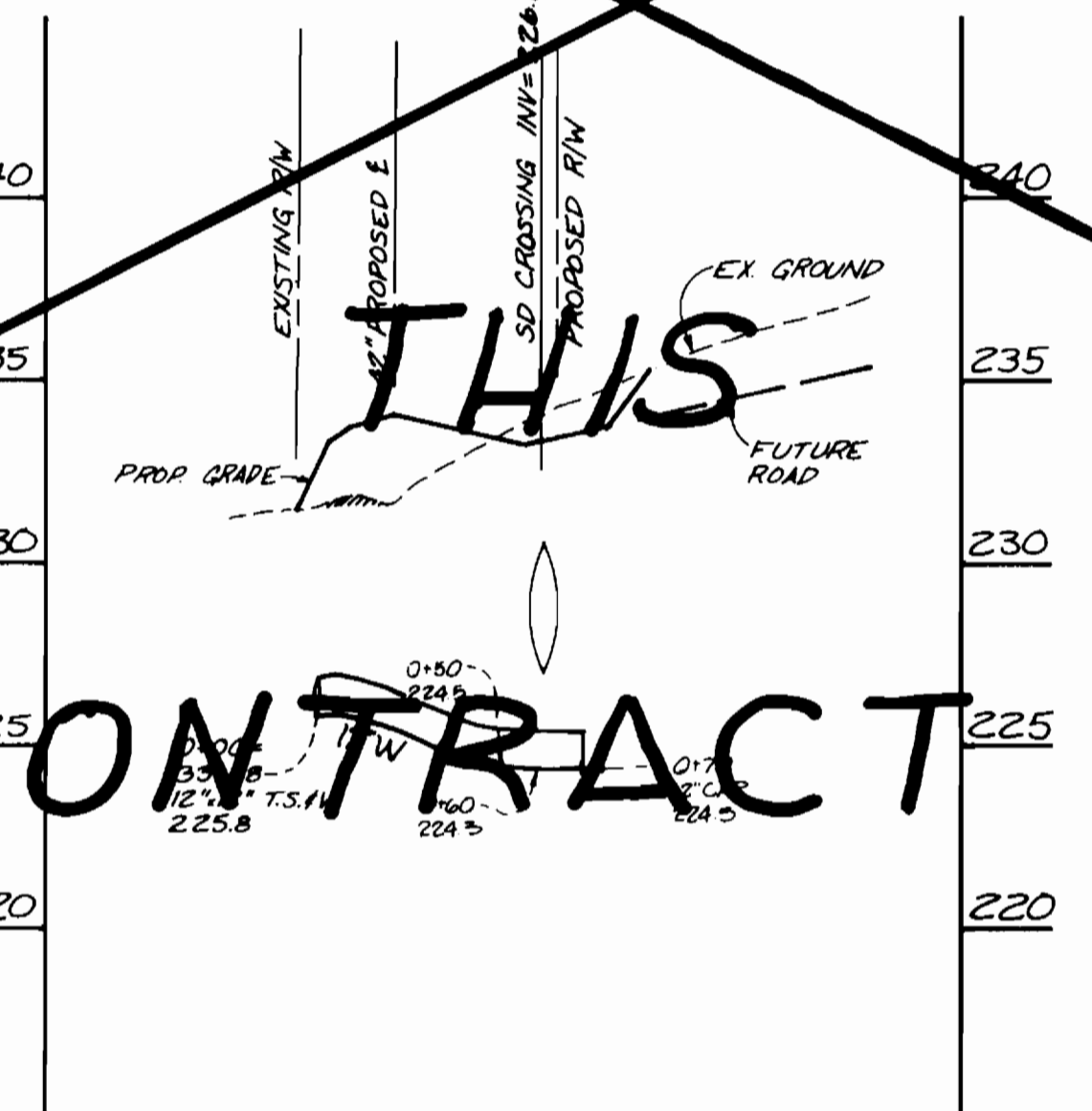
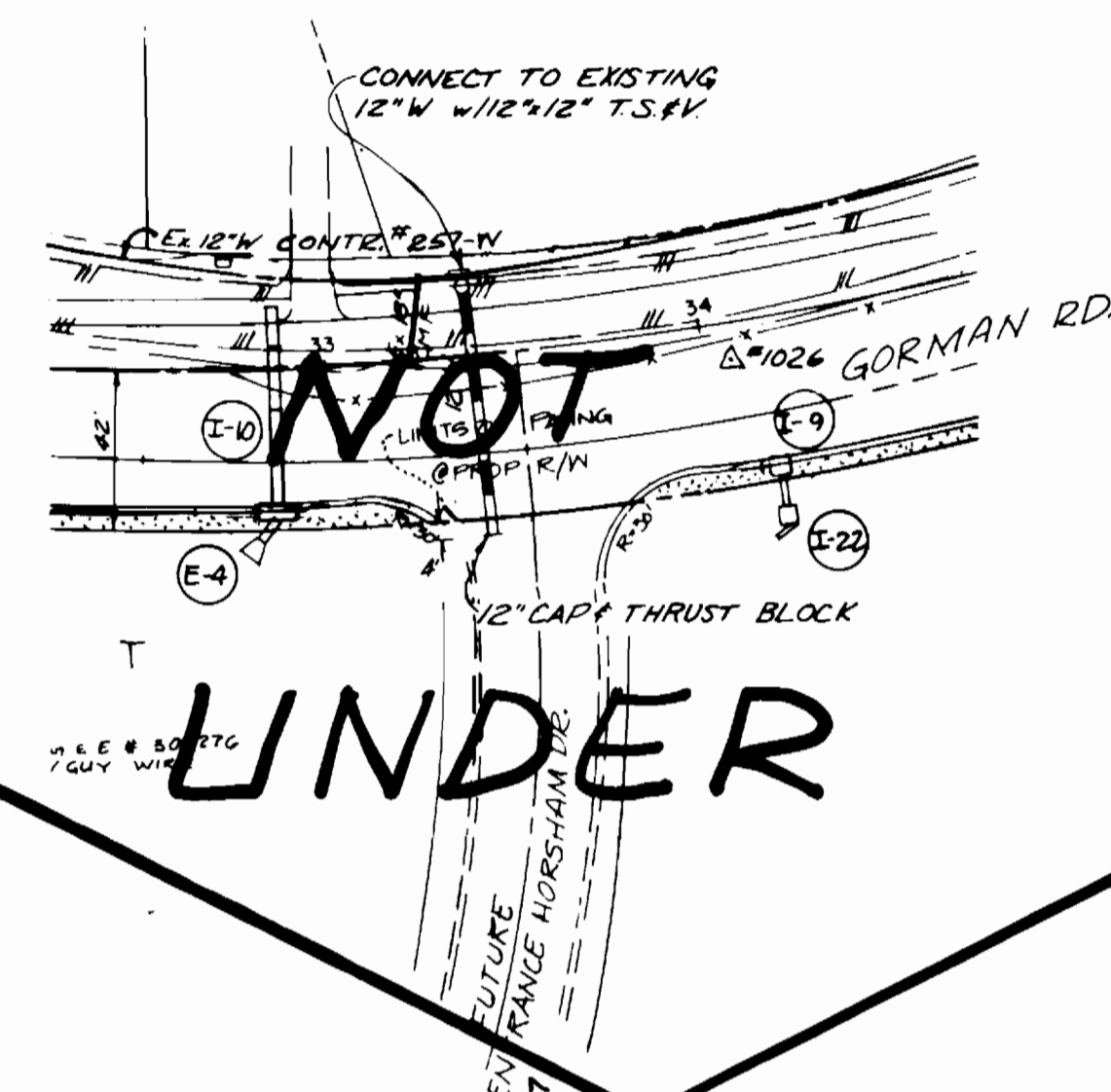
SCALE AS SHOWN
SHEET 2 OF 4



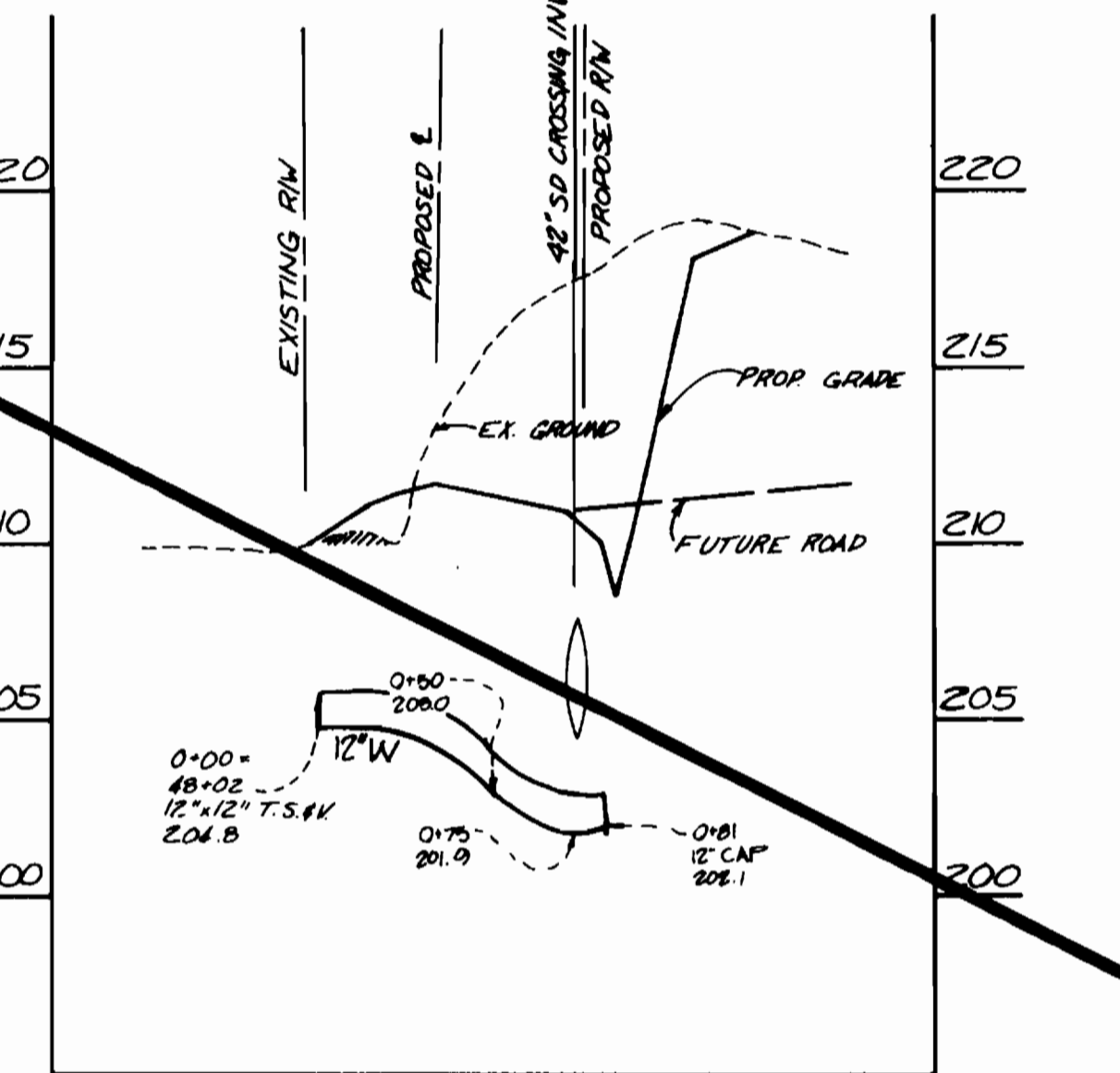
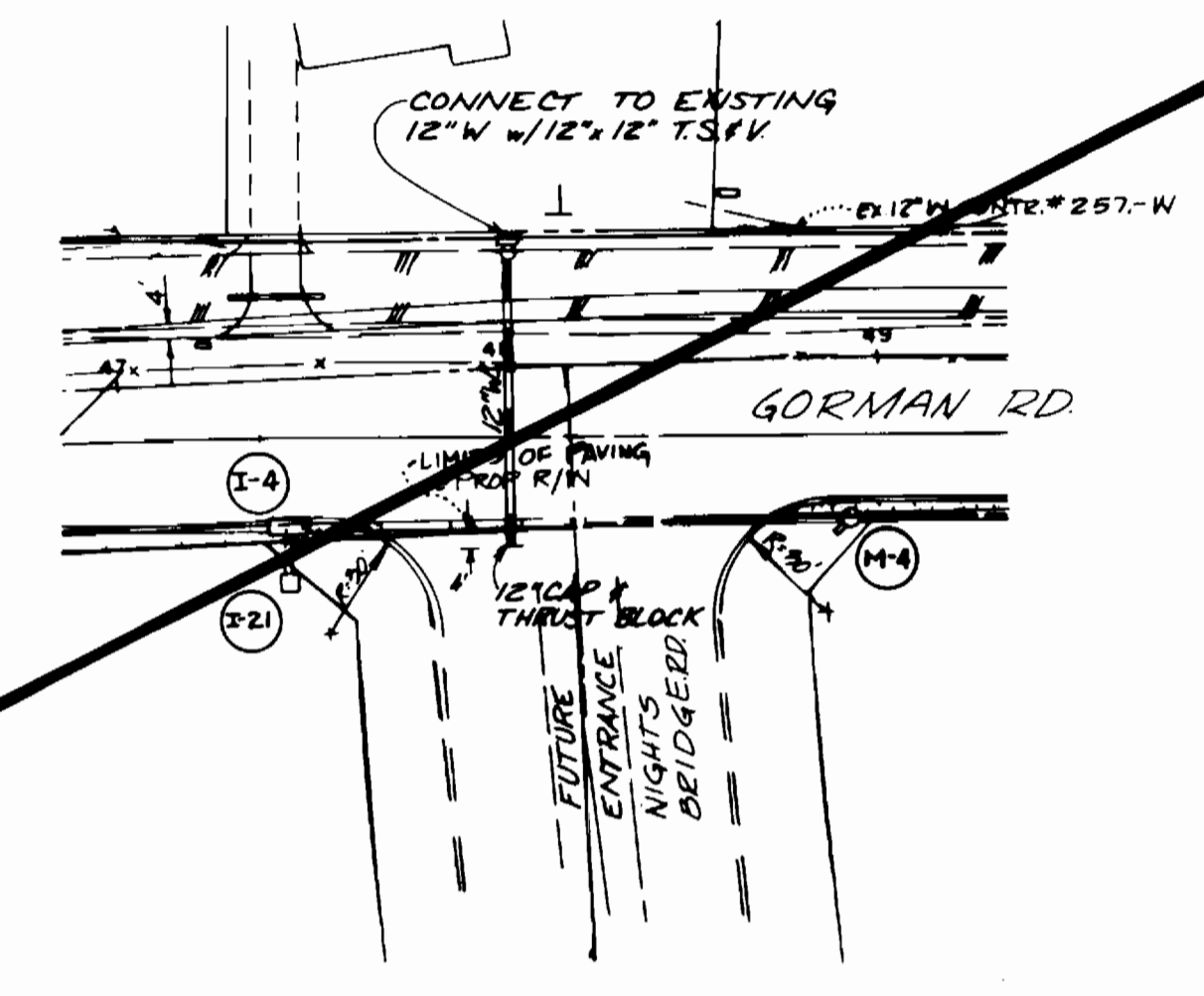
GORMAN ROAD AND FENS HOLLOW



GORMAN ROAD & KNIGHTS BRIDGE RD.



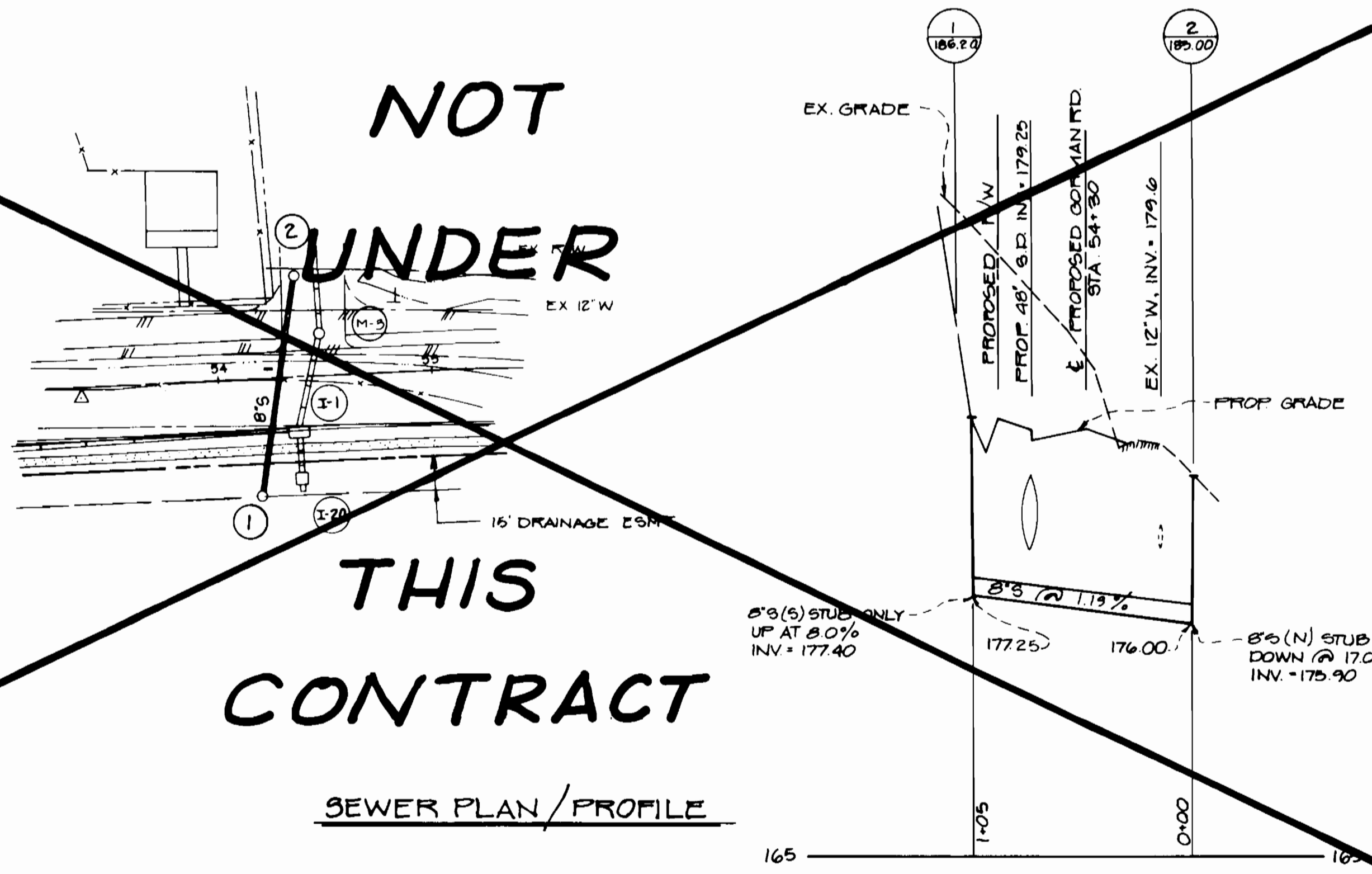
GORMAN ROAD AND HORSHAM DR.



GORMAN ROAD & KNIGHTS BRIDGE RD

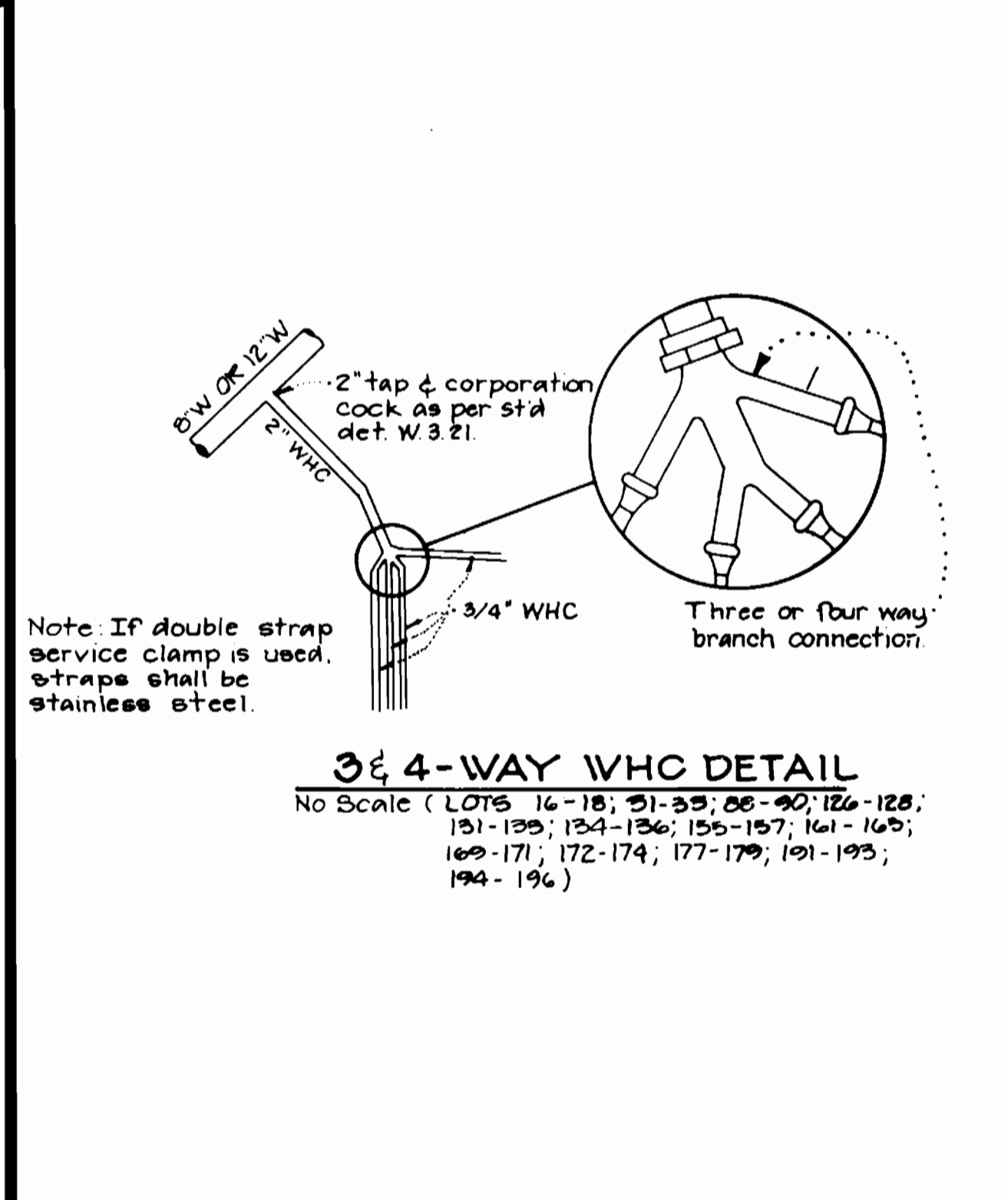
SCALES
 PLAN 1"=50'
 PROFILE HORIZ 1"=50'
 VERT 1"=5'

NOT UNDER THIS CONTRACT



NOT UNDER THIS CONTRACT

SEWER PLAN/PROFILE



Note: If double strap service clamp is used, straps shall be stainless steel.

3 & 4-WAY WHC DETAIL
 No Scale (LOTS 16-18; 21-23; 26-28; 126-128; 131-133; 134-136; 155-157; 161-163; 169-171; 172-174; 177-179; 191-193; 194-196)

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works
 DATE: 9/1/87

Chief, Bureau of Engineering
 DATE: 8-31-87

PHRA

Richard Harris, Inc. & Associates, PC
 7000 Woodloch Place
 Rockville, Maryland 20855
 Metro 301-762-2220

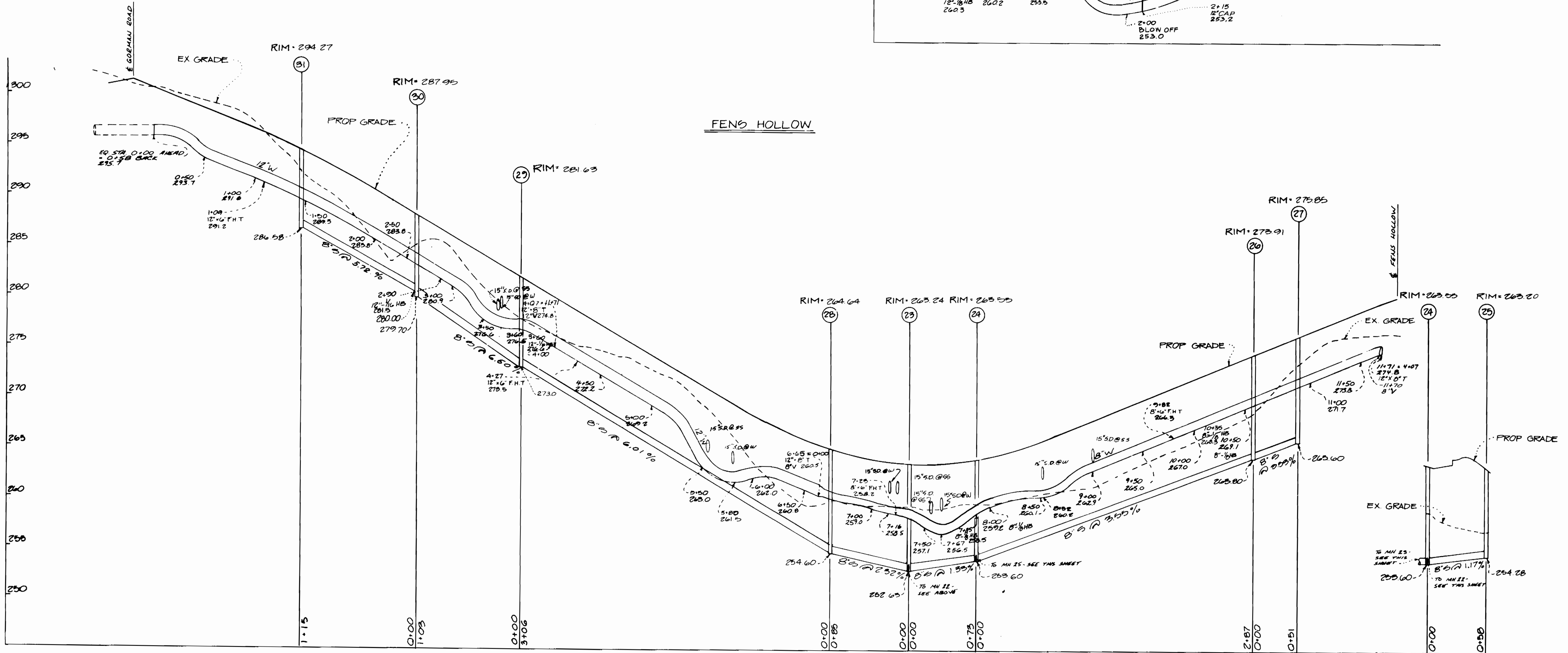
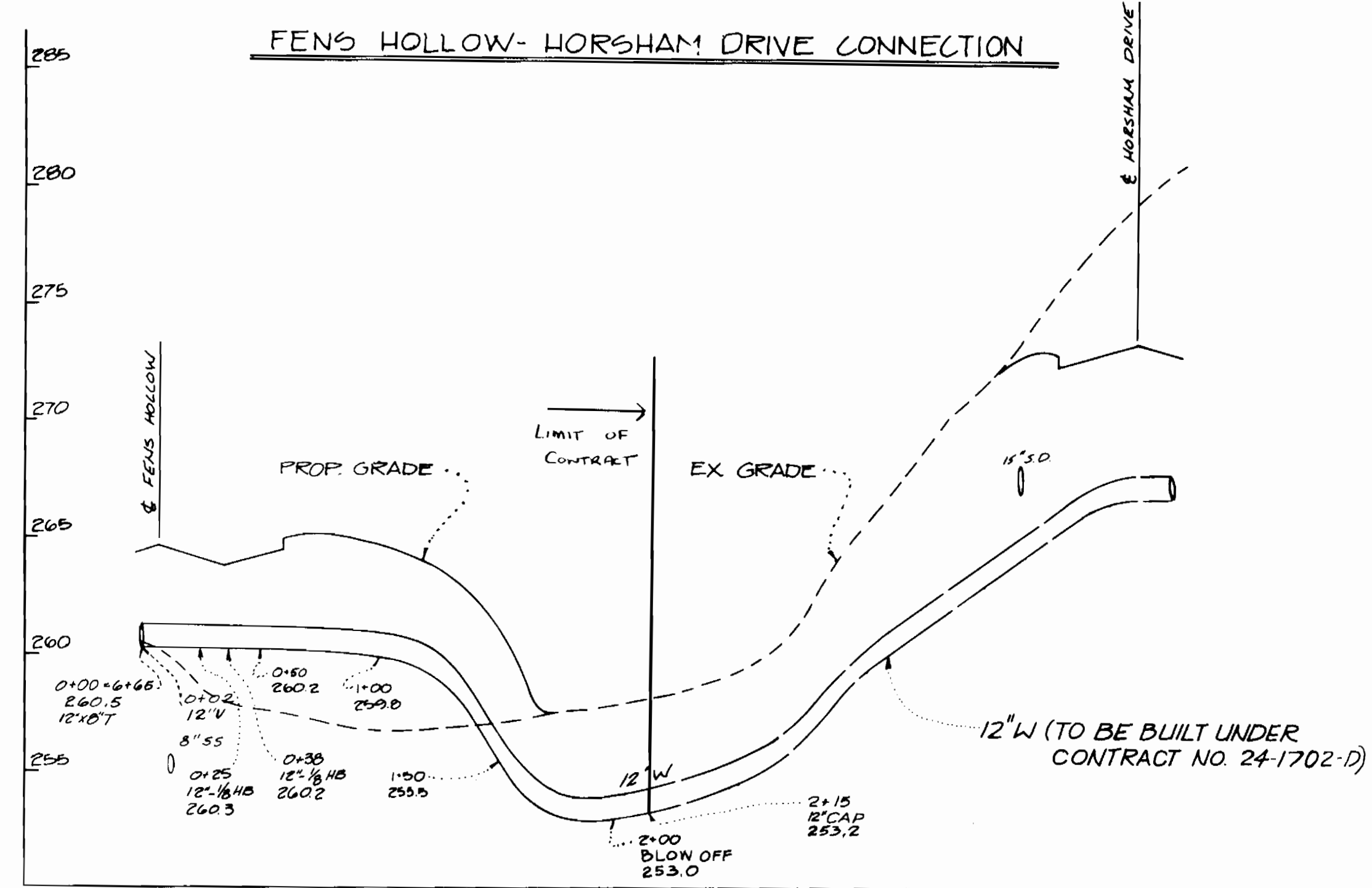
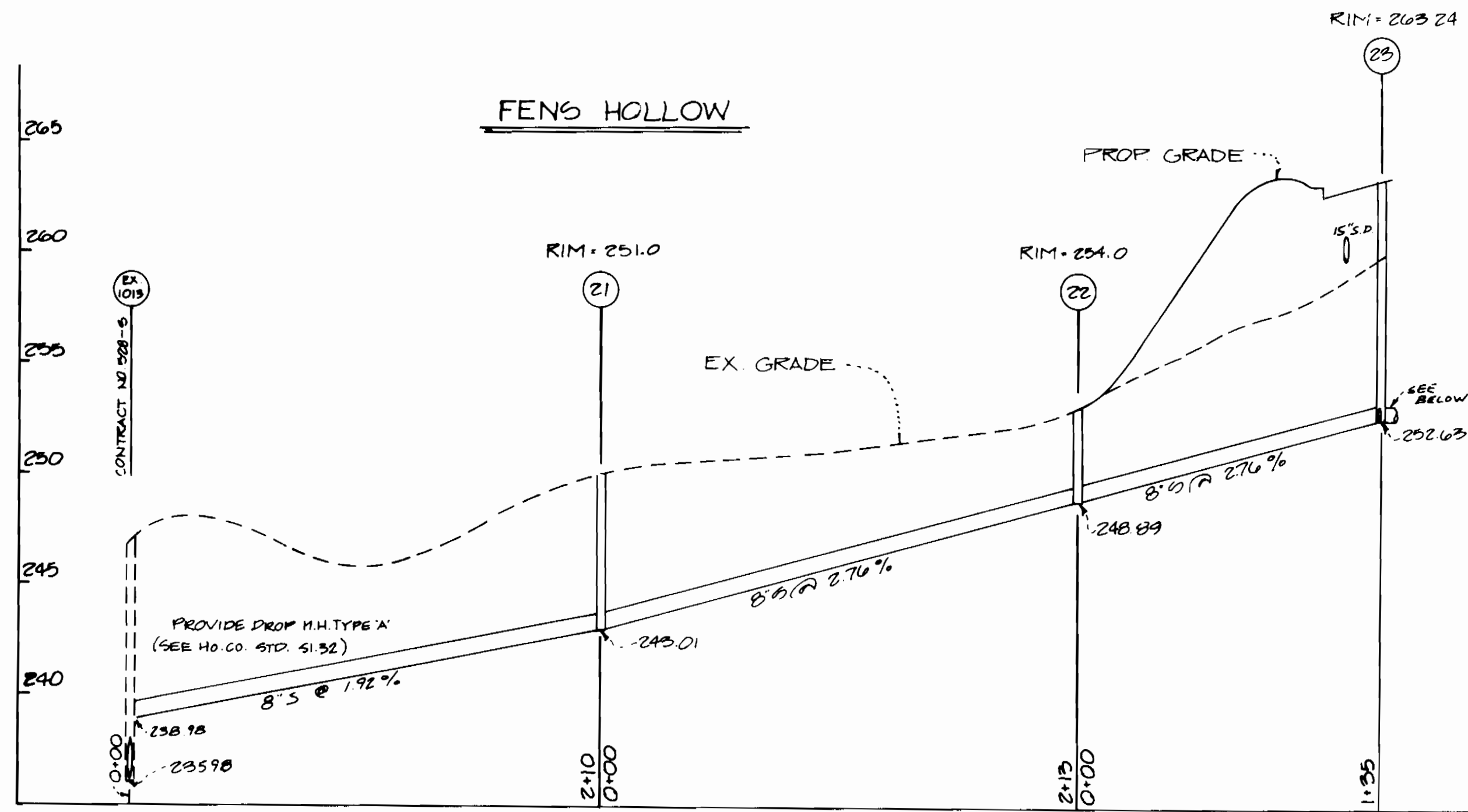


DES: M.C.E.M.K.	
DRN: D.W.	
CHK: K.O.R.	
DATE: 6/26/87	
BY: NO.	
REVISION	
A	REVISED TO SPLIT PARCEL J & K
	8/19/87
DATE	

PROFILES
 WATER & SEWER MAINS

BOWLING BROOK FARMS
 CONTRACT NO 24-1611-D SECTION 1, AREA 1
 LOTS 3 THRU 71
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 4

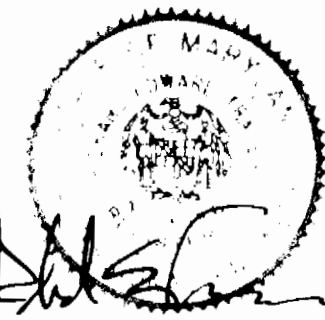


PROFILE SCALES: HORIZ: 1" = 50'
VERT: 1" = 5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND



Pyron Harris Rust & Associates, PC
7600 Standish Place
Rockville, Maryland 20855
Metro 301 762-2220 Natl. 301 792-7244



DES. M.C.F.M.K.			
DRN. D.W.			
CHK: K.O'R.	B	REVISIONS & ADD NOTES TO PROFILE	9/19/81
	A	REVISION TO SPLIT PARCEL J&K	8/19/80
DATE: 6/26/87	BY	NO.	REVISION

PROFILES
WATER & SEWER MAINS

BOWLING BROOK FARMS
CONTRACT NO 24-1611-D SECTION 1, AREA 1
LOTS 3 THRU 71
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE
AS
SHOWN

SHEET
4 OF 4