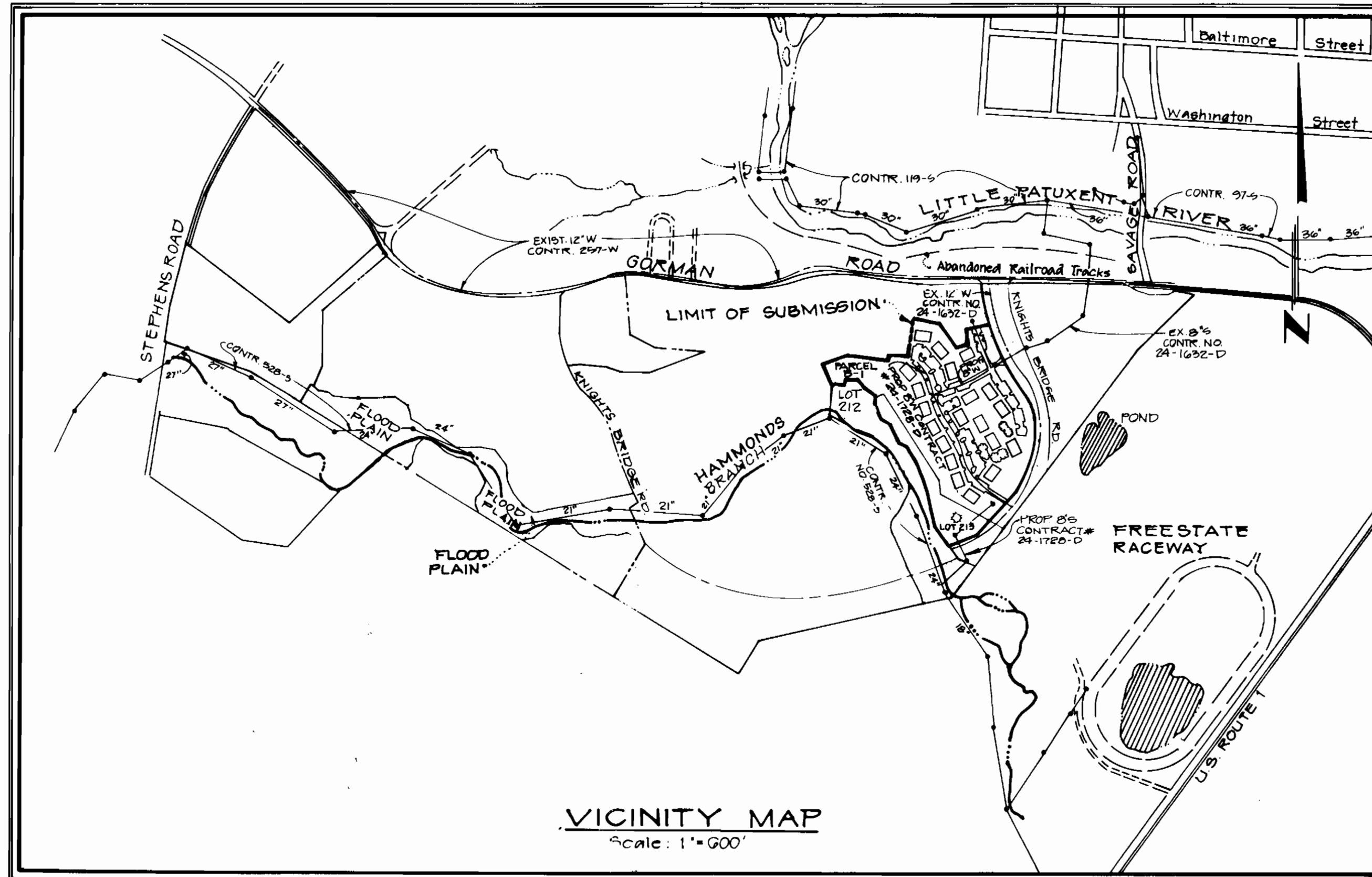


APARTMENT COMPLEX BOWLING BROOK FARMS PARCEL B-1

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 - 298-9013 (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 SYSTEM PROVIDED BY HOWARD COUNTY.
9. TOPOGRAPHY TAKEN FROM MAPS PREPARED BY PHOTOGRAMMETRY BY "AERIAL SURVEYS" IN 1984. TOPOGRAPHY FIELD CHECKED 1986.
10. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
11. ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
12. TOP OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" 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: 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 C.S.P.X., R.C.S.P., V.C.P.X., A.C.P. CLASS 24 OR PVC UNLESS OTHERWISE NOTED.
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 DIP FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
25. SERVICE CLAMPS ARE TO HAVE STAINLESS STEEL STRAPS.

QUANTITIES			
ITEM	ESTIMATED	AS BUILT	MATERIAL/SUPPLIER
8" SEWER	854 L.F. (81')	157	BEAIR R.S. SUPPLIES GRIFFIN PIPE CO.
MANHOLE	4 EACH	4	ATLANTIC PRECAST
8" WATER	1400 L.F.	1375	GRIFFIN PIPE CO.
6" WATER	30 L.F.	30 L.F.	GRIFFIN PIPE CO.
8" VALVE	2 EACH	2	BEAIR R.S. SUPPLIES
6" VALVE	3 EACH	3 EACH	BEAIR R.S. SUPPLIES
FIRE HYDRANT	3	3	MUELLER
AIR RELEASE MANHOLE	N/A	N/A	
8" D.I.P.	212 L.F. (39')	391'	GRIFFIN PIPE CO.
CLEAN-OUT	1 EACH	1 EACH	MUELLER



Watercode - C03
Sewercode - 5090000

TYPE OF BUILDINGS	APARTMENTS
NUMBER OF BUILDINGS	2
NUMBER OF LOTS	2
NUMBER OF WATER HOUSE CONNECTIONS	10
NUMBER OF SEWER HOUSE CONNECTIONS	10
DRAINAGE AREA	LITTLE PATUXENT

CONTRACT NO. 24-1728-D WATER AND SEWER CONSTRUCTION PLANS

LEGEND

	PROPOSED	EXISTING
SANITARY SEWER	8" SHC	12" W
SEWER HOUSE CONNECTION	8" W	
WATER	8" W	
WATER HOUSE CONNECTION	WHC	
STORM DRAIN	3	
PROPOSED EASEMENT		
PROPOSED R/W		
LIMITS OF SUBMISSION		
MANHOLE NUMBER		
FIRE HYDRANT - VALVE		
EASEMENT		
HANDICAP RAMP		
HANDICAP SPACES		

Drawing Index

1. Title Sheet
2. Plans - Water & Sewer Mains
3. Profiles - Water & Sewer Mains

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT
Helena P.
 U.S. SOIL CONSERVATION SERVICE
 DATE: 4-29-88

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN SDP-88-51 & B-88-40

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.
 APPROVED: *Stephen L. Hulse*
 HOWARD SOIL CONSERVATION
 DATE: 4/29/88

OWNER/DEVELOPER
 GORMAN ROAD LIMITED PARTNERSHIP
 C/O JAMES F. KNOTT DEVELOPMENT CORPORATION
 118 WEST ROAD, SUITE 203
 TOWSON, MARYLAND 21284
 (861) 321-6436

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
James F. Knott 5/5/88
 DIRECTOR OF PUBLIC WORKS
Robert Brunner 4-21-88
 CHIEF, BUREAU OF UTILITIES



DES: M.J.K.			
DRN: J.D.W.			
CHK:			
DATE: 1/20/88	MJK	1	ADDED GENERAL NOTE 24-1728-D, CHANGED QUANTITIES 2/20/88
BY NO.			
REVISION			
DATE			

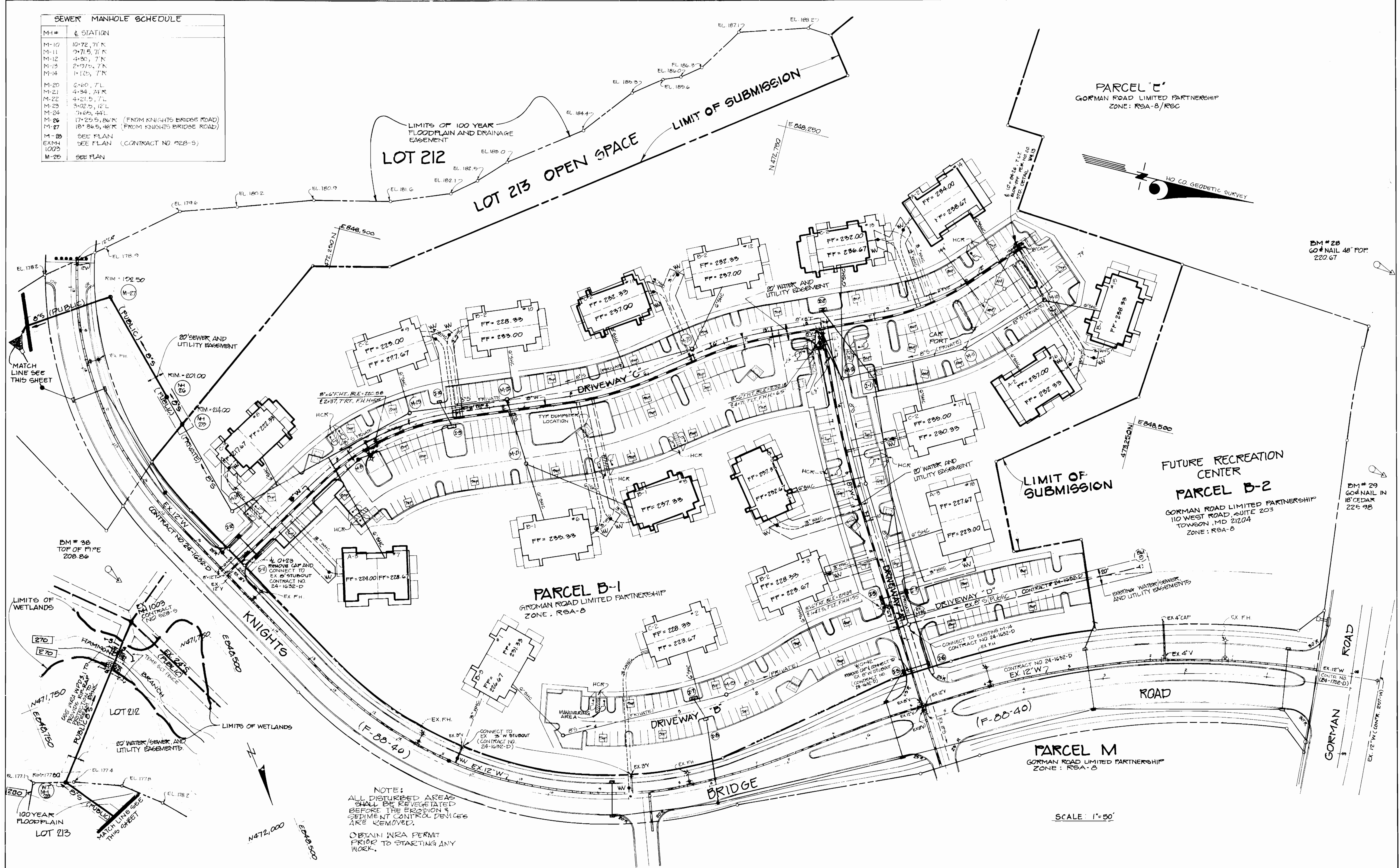
TITLE SHEET

BOWLING BROOK FARMS
 PARCEL B-1
 CONTRACT NO. 24-1728-D
 A RESUBDIVISION OF BOWLING BROOK, LOT 2
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 3

AS BUILT-11-21-88 MEH AS-BUILT

MH#	STATION
M-10	10+72.71 N
M-11	9+71.5, 71 N
M-12	4+30, 7 N
M-13	2+71.0, 7 N
M-14	1+12.5, 7 N
M-20	6+60, 7 L
M-21	4+34, 71 N
M-22	4+21.5, 71 L
M-23	3+02.5, 12 L
M-24	3+65, 44 L
M-26	17+29.5, 86 N (FROM KNIGHTS BRIDGE ROAD)
M-27	18+86.5, 48 N (FROM KNIGHTS BRIDGE ROAD)
M-28	SEE PLAN
EXM4	SEE PLAN (CONTRACT NO. 24-8)
M-25	SEE PLAN



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Reinger
CHIEF, BUREAU OF UTILITIES

DATE: 4-21-88

PHR&A

Paul Harris and Associates, P.C.
7600 Scenic Place
Rockville, Maryland 20855
Metro 301 762-2270 Fax: 301 792-7244

DATE: 1/20/88



DES:	BY:	NO.	REVISION	DATE
MJK	BP	6	AS BUILT REVISIONS	5/20/91
	CN2	5	WT - MH #27 ELEV CHANGE	7/12/88
	PA	4	H/S TAKEN OUT OF WATERLINE @ DRIVEWAY 'C'	3/28/88
	PA	3	WHC SIZE CHANGED FROM 2 1/2" TO 3"	3/2/88
	PA	2	FH RELOCATION PER SDP	1/15/88
	PA	1	CHANGE WHC FROM 2" TO 2 1/2"	1/5/88

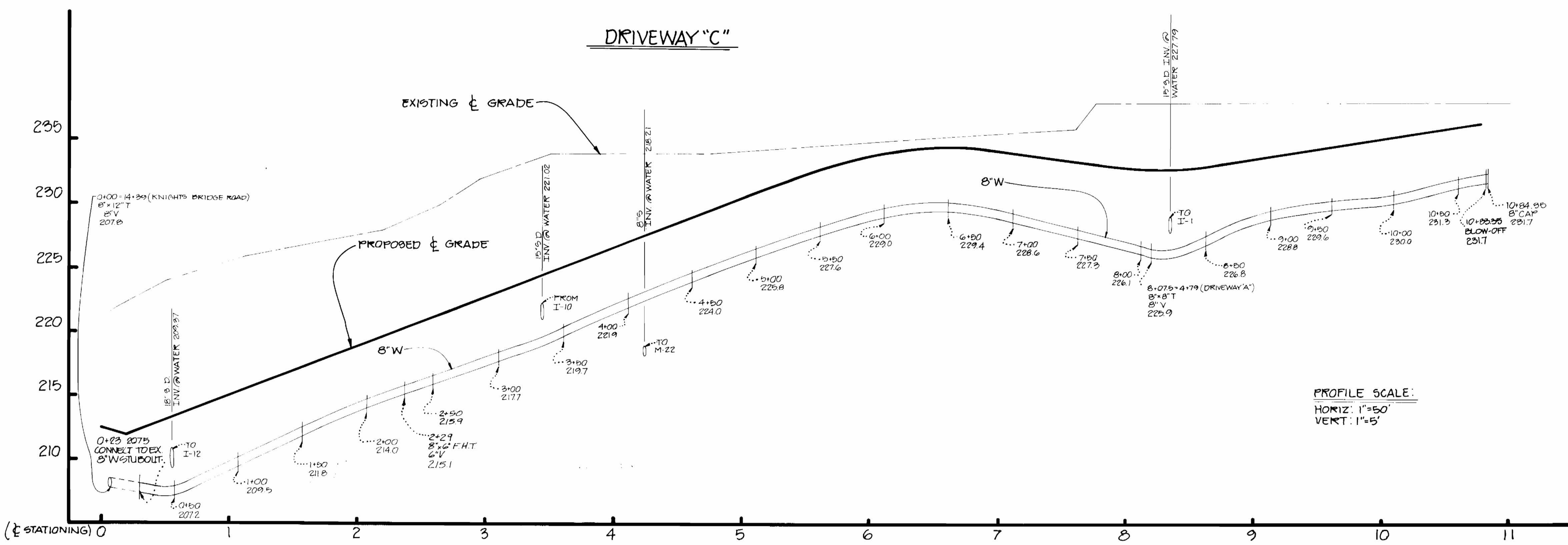
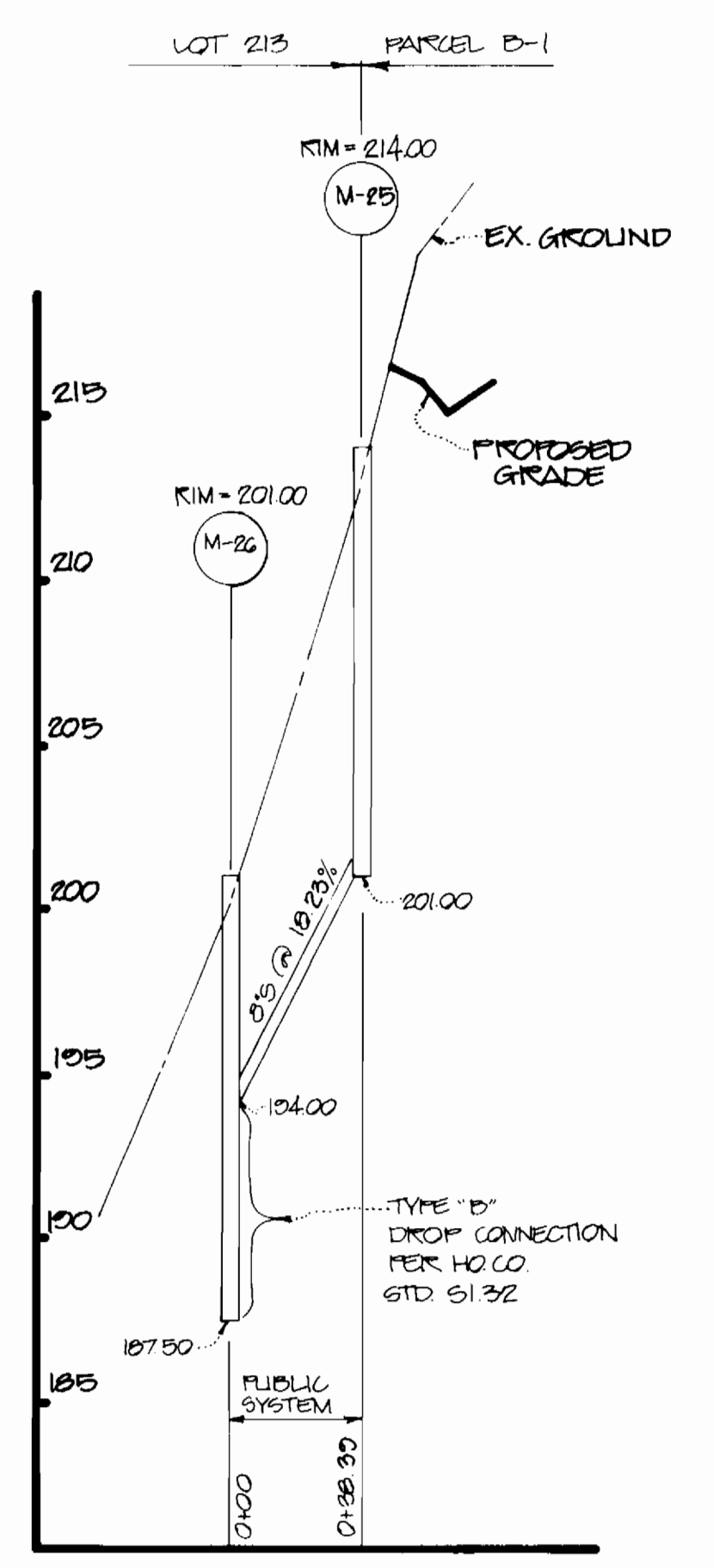
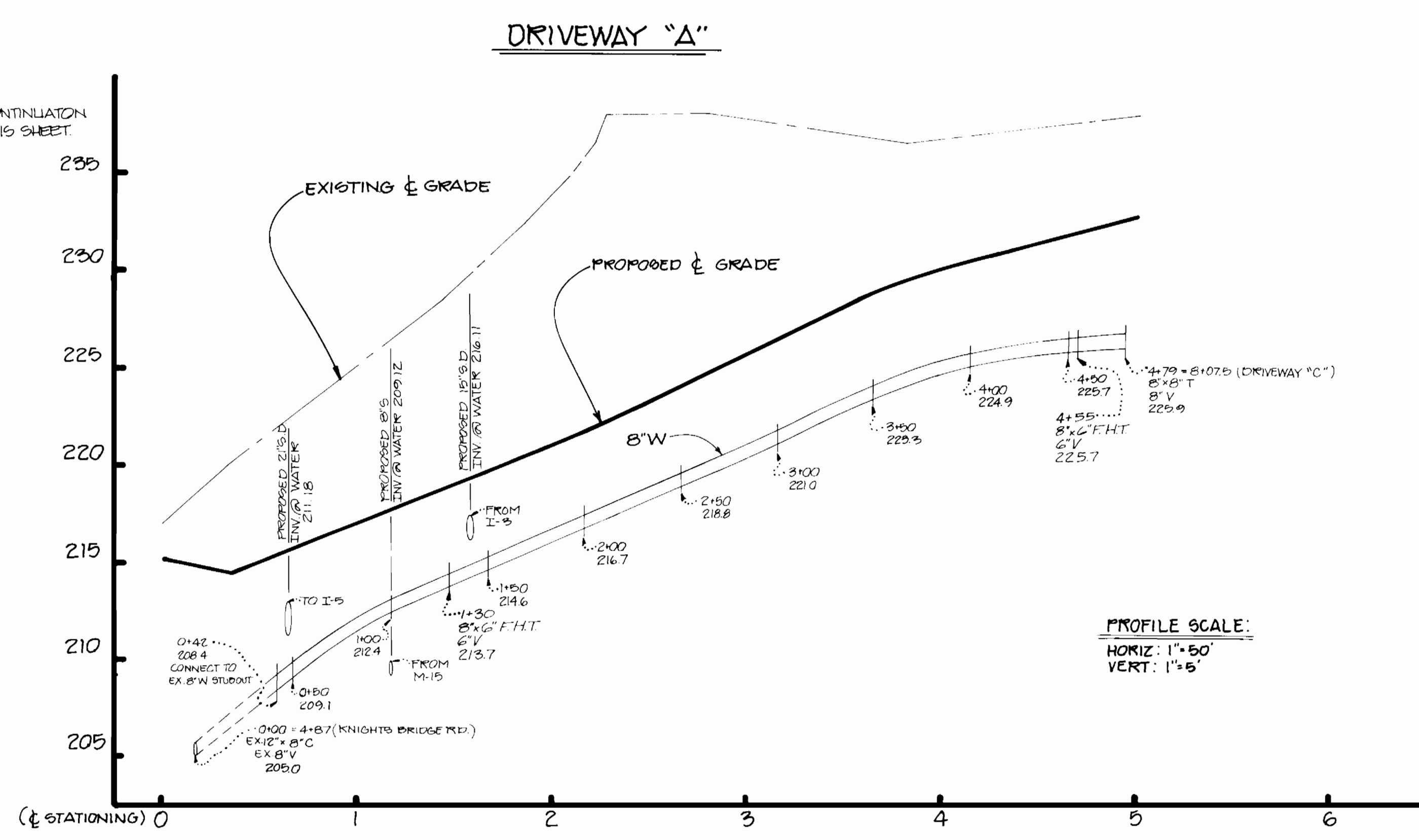
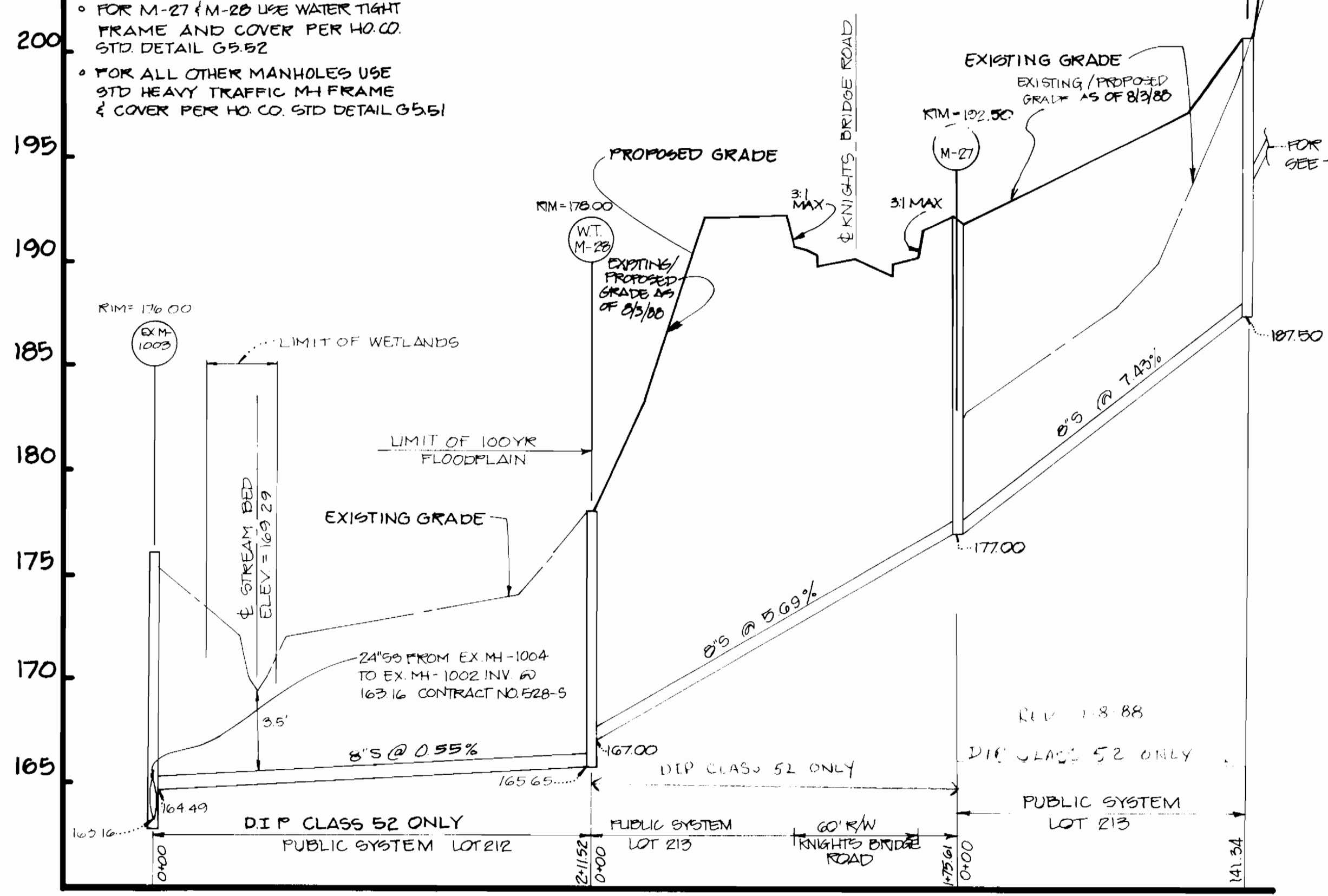
PLAN
WATER & SEWER MAINS

DATE: 600' SCALE MAP NO. 47 BLOCK NO.

BOWLING BROOK FARMS
PARCEL B-1
CONTRACT NO. 24-1728-D
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 3

- NOTE:
- FOR ALL SEWER MANHOLES USE "STANDARD PRECAST MANHOLE" PER HO CO. STD DETAIL G5.12 & G5.11
 - FOR M-27 (M-28) USE WATER TIGHT FRAME AND COVER PER HO CO. STD DETAIL G5.52
 - FOR ALL OTHER MANHOLES USE STD HEAVY TRAFFIC MH FRAME & COVER PER HO CO. STD DETAIL G5.51



NOTE:
TOPOGRAPHY FROM MAPS
PREPARED BY PHOTOGRAMMETRY
BY AERIAL SURVEY IN 1984
TOPOGRAPHY FIELD CHECKED 1986.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DATE: 5-18-88
DATE: 4-21-88

CHIEF, BUREAU OF ENGINEERING
CHIEF, BUREAU OF UTILITIES

CHIEF, LAND DEVELOPMENT DIVISION



DES: M.J.K.					
DRN: J.D.W.					
CHK: M.J.K.	2	EXISTING GRADE CHANGES AS OF 8/19/88			9/12/88
PA: J.A.	1	CHANGED MANHOLE NUMBERS ADDED M-25 WATER LINE CONNECTION CHANGED TO 0423			2/26/88
DATE: 1/20/88	BY: NO.	REVISION			11/15/88

PROFILE
WATER & SEWER MAINS

600' SCALE MAP NO. 47 BLOCK NO.

BOWLING BROOK FARMS
PARCEL B-1
CONTRACT NO. 24-1728-D
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 3