

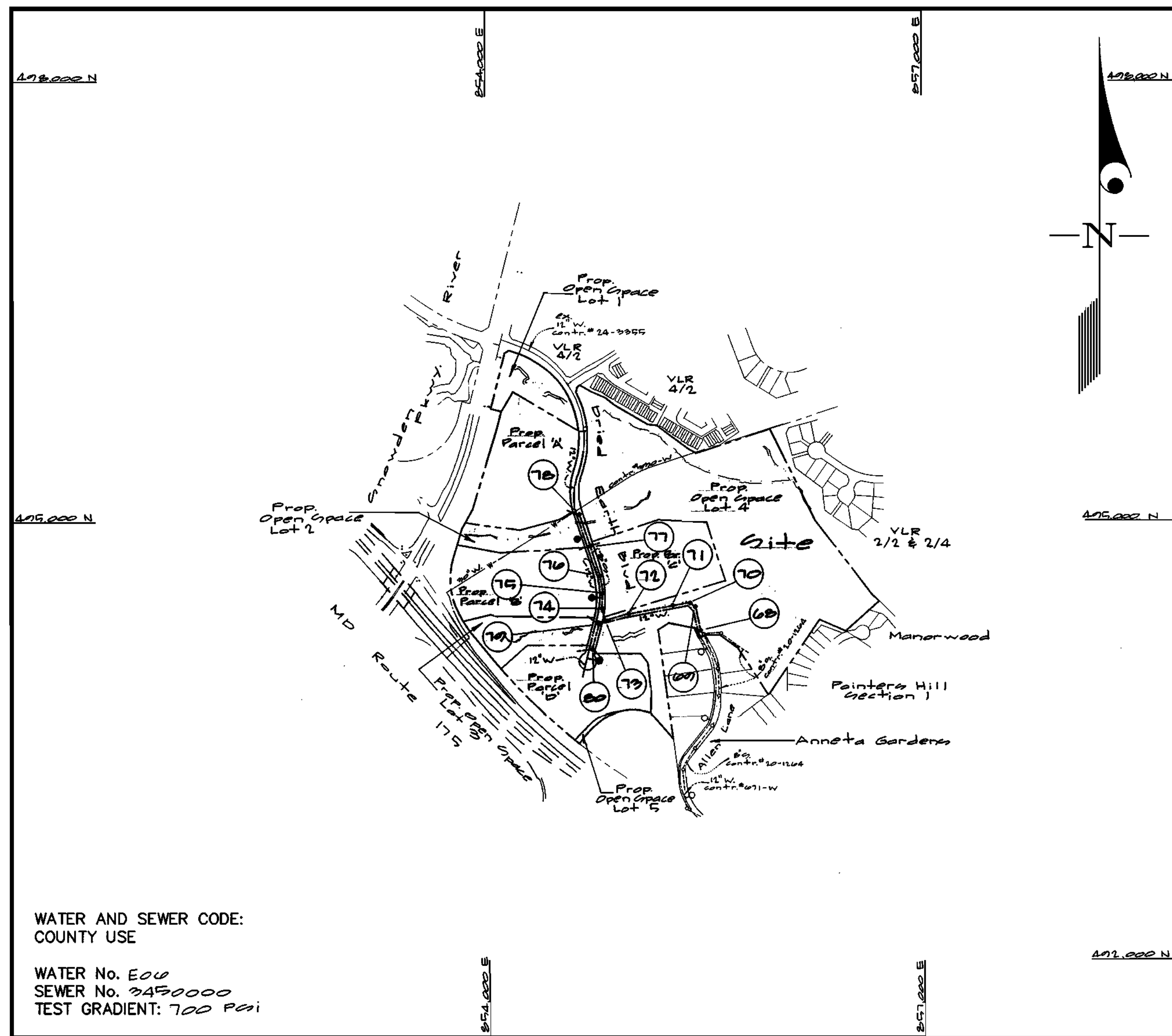
QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		MANUFACTURER/SUPPLIER
		QUANTITIES	TYPE	
12" W.	2240 L.F.			
8" W.	572 L.F.			
8" W.	92 L.F.			
12" x 8" tee	2			
12" x 12" tee	1			
12" x 6" FHT	4			
12" x 8" crosses	2			
8" cap	7			
12" x 8" Reducer	1			
12 1/2" HB	2			
Fire Hydrants	4			
6" valve	4			
8" valve	7			
12" valve	2			
8" ss	920 L.F.			
8" ss (DIP)	1201 L.F.			
Manholes	8			
Type 'B' B.M.	5			
8" stopper	7			

NAME OF UTILITY CONTRACTOR:

SURVEY AND DRAFTING DIV.	CHECKBOX.....
AS-BUILT DATE.....	

TYPE OF BUILDING	Commercial
NUMBER OF UNITS	4 Bulk Parcels 5 Open Space Lots
NUMBER OF S.H.C.'s	0
NUMBER OF W.H.C.'s	7
DRAINAGE AREA	Perey Run
TREATMENT PLANT	Little Patuxent Water Reclamation Plant



WATER AND SEWER CODE:
COUNTY USE
WATER No. E00
SEWER No. 2450000
TEST GRADIENT: 700 PPI

VICINITY MAP
SCALE: 1"=600'

CONTRACT No. 24-3858-D
SNOWDEN RIVER BUSINESS PARK 1/1
PARCELS 'A' THRU 'D' & LOTS 1 THRU 5
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

- PART I**
- 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 [North American Datum 1983 (NAD '83)].
 - All vertical controls are based on U.S.G.S. 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 companies and has made arrangements for bracing of poles as shown on the drawings. In the event the contractor's work requires the bracing of additional poles, any cost incurred by the owner for bracing of additional poles or damages shall be deducted from money owed the contractor. The contractor shall coordinate with the utility companies 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 Detail for Construction (Latest Edition). 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 not been dug shall be located by the contractor two weeks in advance of construction operations at his own expense.
 - Contractor shall notify the following utility companies or agencies at least (5) working days before starting work shown on these plans:

State Highway Administration	410-531-5533
BGE Contract Services	410-850-4620
BGE Under Ground Damage Control	410-271-4407
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	410-540-4120
Howard County Department of Public Works	Bureau of Utilities 410-313-4900
Verizon	1-800-441-5200
 - Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs 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. Payment for such removal shall be included in the unit price bid for construction of the main.
 - The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-2450 at least five (5) working days before any open cut of any County road or boring/jacking operation on County roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirement per Section 18.114(a) of the Howard County Code.
- PART II - WATER**
- All water mains to be D.I.P. Class 52 unless otherwise noted.
 - Tops of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.
 - Valves adjacent to tees shall be strapped to tees.
 - All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
 - Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be restrained and buttressed with concrete in accordance with the Standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
 - The contractor shall not operate any water main valves on the existing water system.
 - All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
 - For sprinkler system for all townhomes or multi-family dwelling units should have a minimum of 1' connection with a 3/4" meter.
- PART III - SEWER**
- All sewer mains shall be DIP and P.V.C. unless otherwise noted.
 - All manholes shall be 4'-0" inside diameter unless otherwise noted.
 - Force mains shall be D.I.P. only.
 - Manholes shown with 12" and 16" walls are for brick manholes only.
 - Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise noted on drawings.
 - House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Drawings Plan F-01-14.2.; Drawings for Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

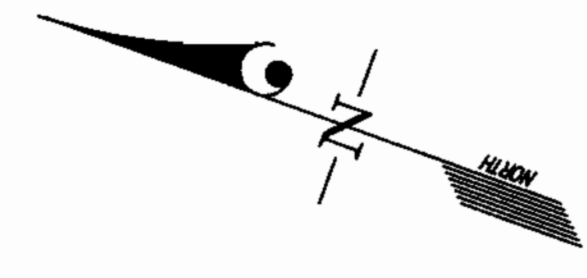
John Meyer 11/8/01
SIGNATURE DATE

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

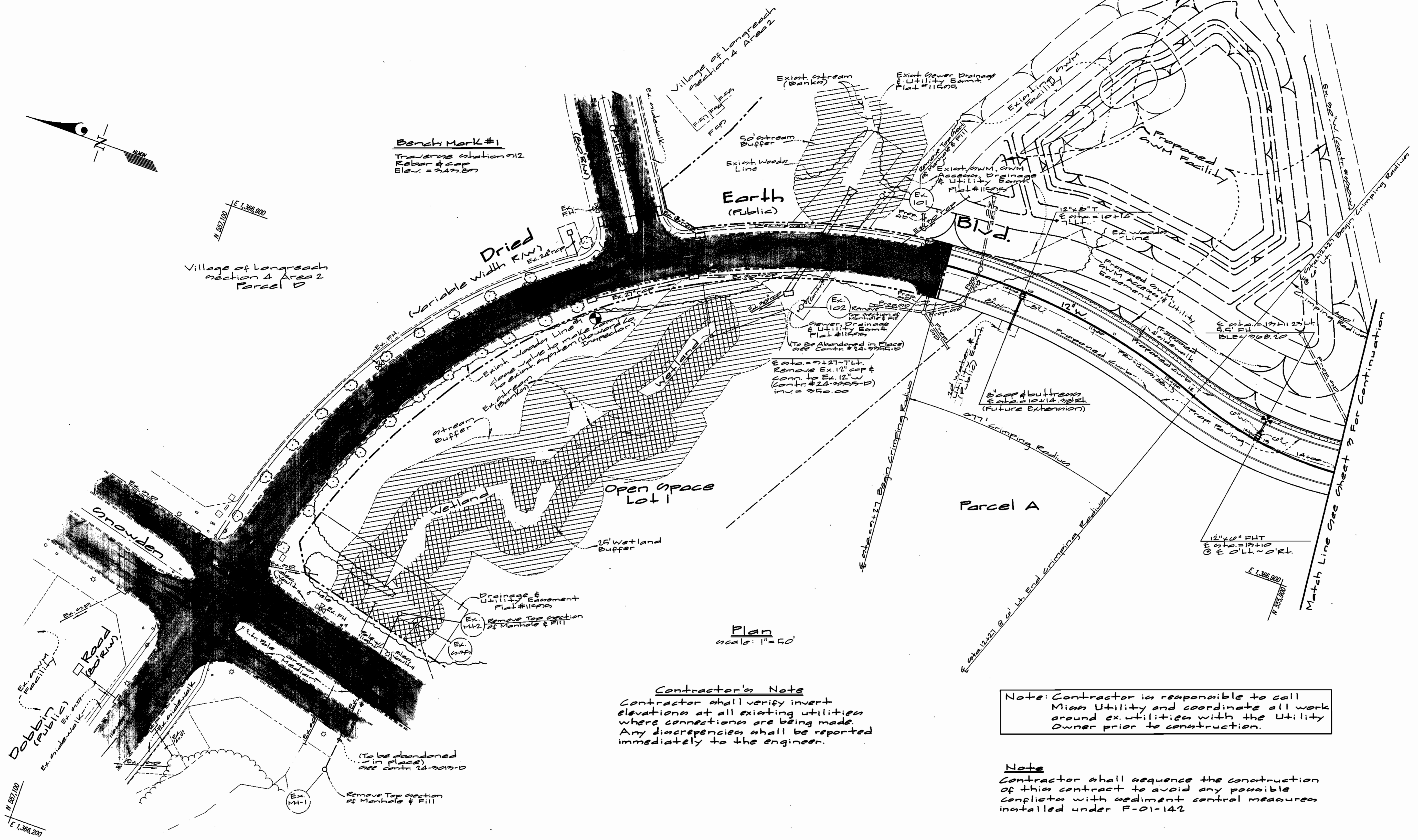
APPROVED: *John K. Roberts* 11/8/01
HOWARD S.C.D. DATE

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Ruth Bump</i> 11-2-01 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND</p> <p><i>John Deussen</i> 11/9/01 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE</p>	<p>GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURLINGAME OFFICE PARK BURLINGTON, MARYLAND 20866 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186</p>	<p>STATE OF MARYLAND REGISTERED PROFESSIONAL ENGINEER</p>	<p>DES: <i>WJL</i> DRN: <i>WJL</i> CHK: DATE: <i>Apr 2001</i></p>	<p>BY NO REVISION DATE</p>	<p>TITLE SHEET AS SHOWN</p>	<p>SNOWDEN RIVER BUSINESS PARK SECTION 1 AREA 1 PARCELS 'A' THRU 'D' & LOTS 1 THRU 5 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 6 CONTRACT No. 24-3858-D</p>	<p>GLW FILE No. 99101</p> <p>SCALE AS SHOWN</p> <p>SHEET 1 OF 10</p>
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Bench Mark #1
Traverse station #12
Elev = 2447.87

Village of Longreach
section 4 Area 2
Parcel D



Plan
scale: 1" = 50'

Contractor's Note
Contractor shall verify invert elevations at all existing utilities where connections are being made. Any discrepancies shall be reported immediately to the engineer.

Note: Contractor is responsible to call Miss Utility and coordinate all work around ex. utilities with the Utility Owner prior to construction.

Note
Contractor shall sequence the construction of this contract to avoid any possible conflicts with sediment control measures installed under F-01-142

For Profiles see sheets 4 & 5

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
R. H. Benjamin 11-2-01
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
John A. ... 11/9/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3009 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20814
TEL: 301-421-4024 BAL: 410-880-1820 DC/W: 301-988-2524 FAX: 301-421-4186



DES: wsl					
DRN: wsl					
CHK:					
DATE: 2/25/01	BY: NO	REVISION	DATE	600' SCALE MAP NO. 27	BLOCK NO. 12, 12

WATER & SEWER PLAN
SCALE: 1" = 50'
600' SCALE MAP NO. 27 BLOCK NO. 12, 12

SNOWDEN RIVER BUSINESS PARK
SECTION 1 AREA 1
PARCELS A'THRU'D & LOTS 1 THRU 5
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 6
CONTRACT No. 24-7858-D

SCALE AS SHOWN
SHEET 2 OF 4

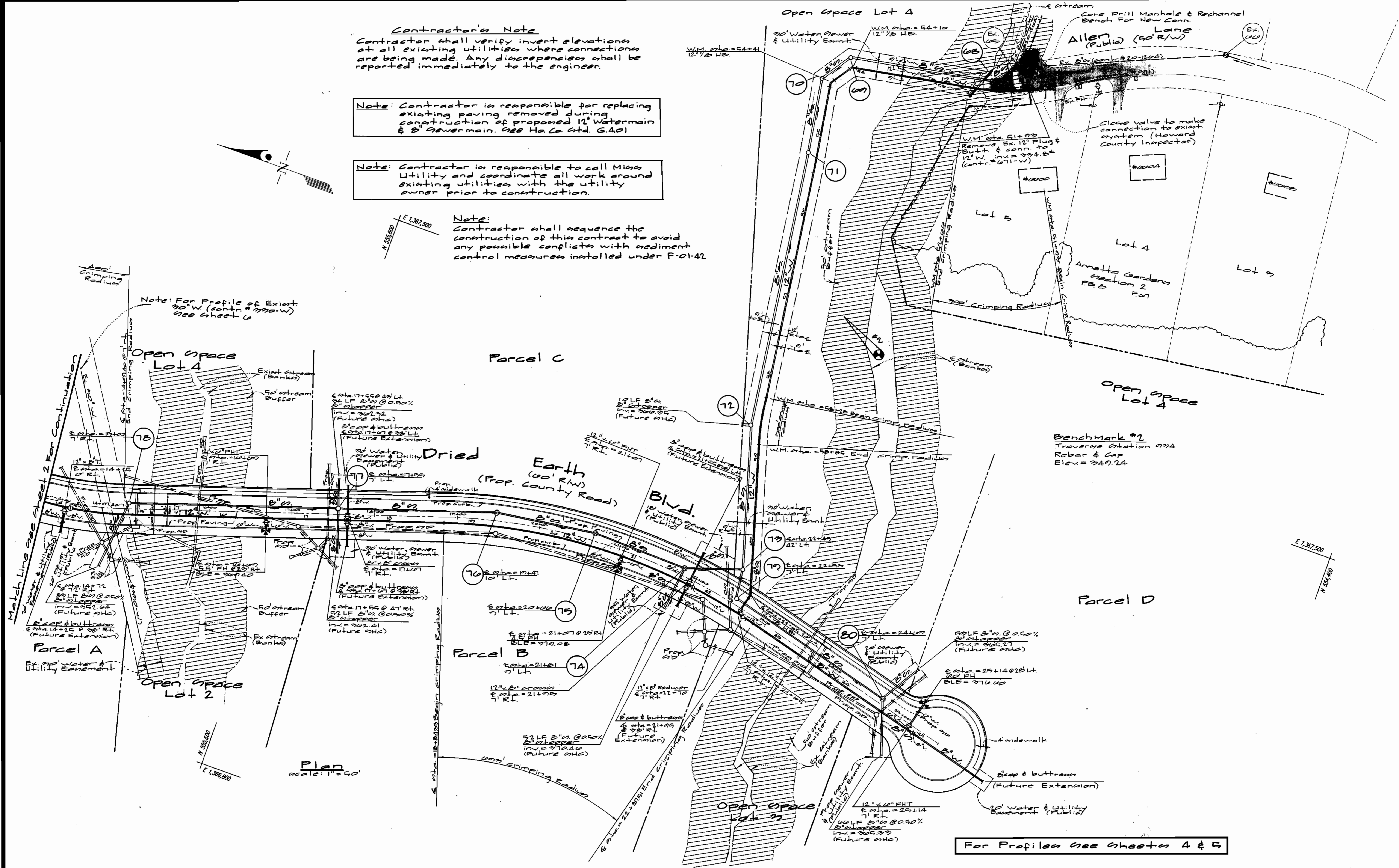
Contractor's Note
 Contractor shall verify invert elevations at all existing utilities where connections are being made. Any discrepancies shall be reported immediately to the engineer.

Note: Contractor is responsible for replacing existing paving removed during construction of proposed 12" Watermain & 8" Sewermain. See H.C. Ord. G.401

Note: Contractor is responsible to call Miss Utility and coordinate all work around existing utilities with the utility owner prior to construction.

Note: Contractor shall sequence the construction of this contract to avoid any possible conflicts with sediment control measures installed under F-01-42

Note: For Profile of Exist 20" W (contr. # 1990-W) see sheet 6



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Robert W. Bauman
 CHIEF, BUREAU OF UTILITIES
 11-2-01
 DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 M. J. ...
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 11/9/01
 DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3800 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186



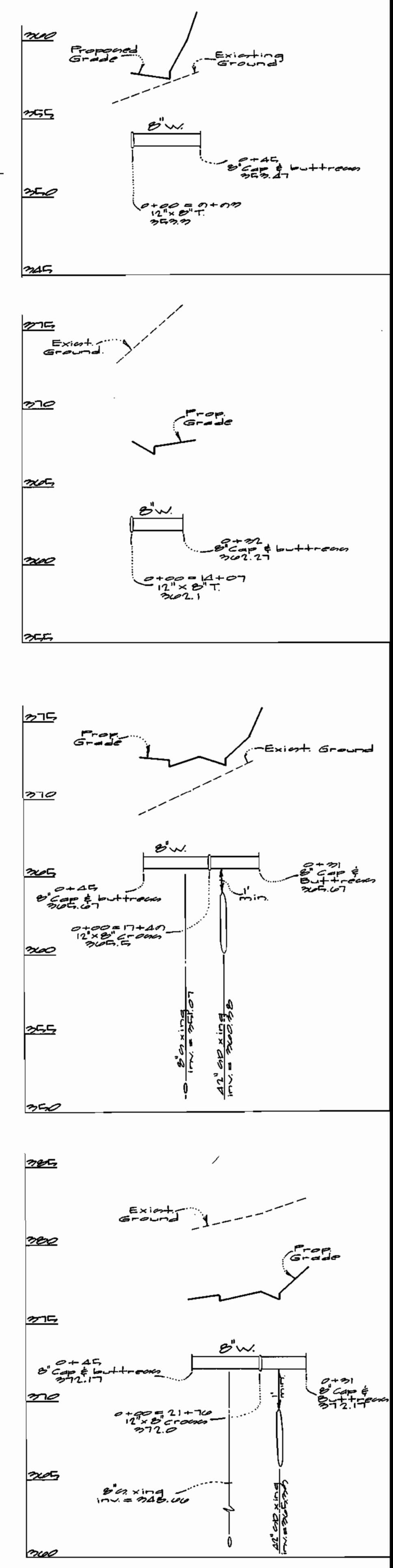
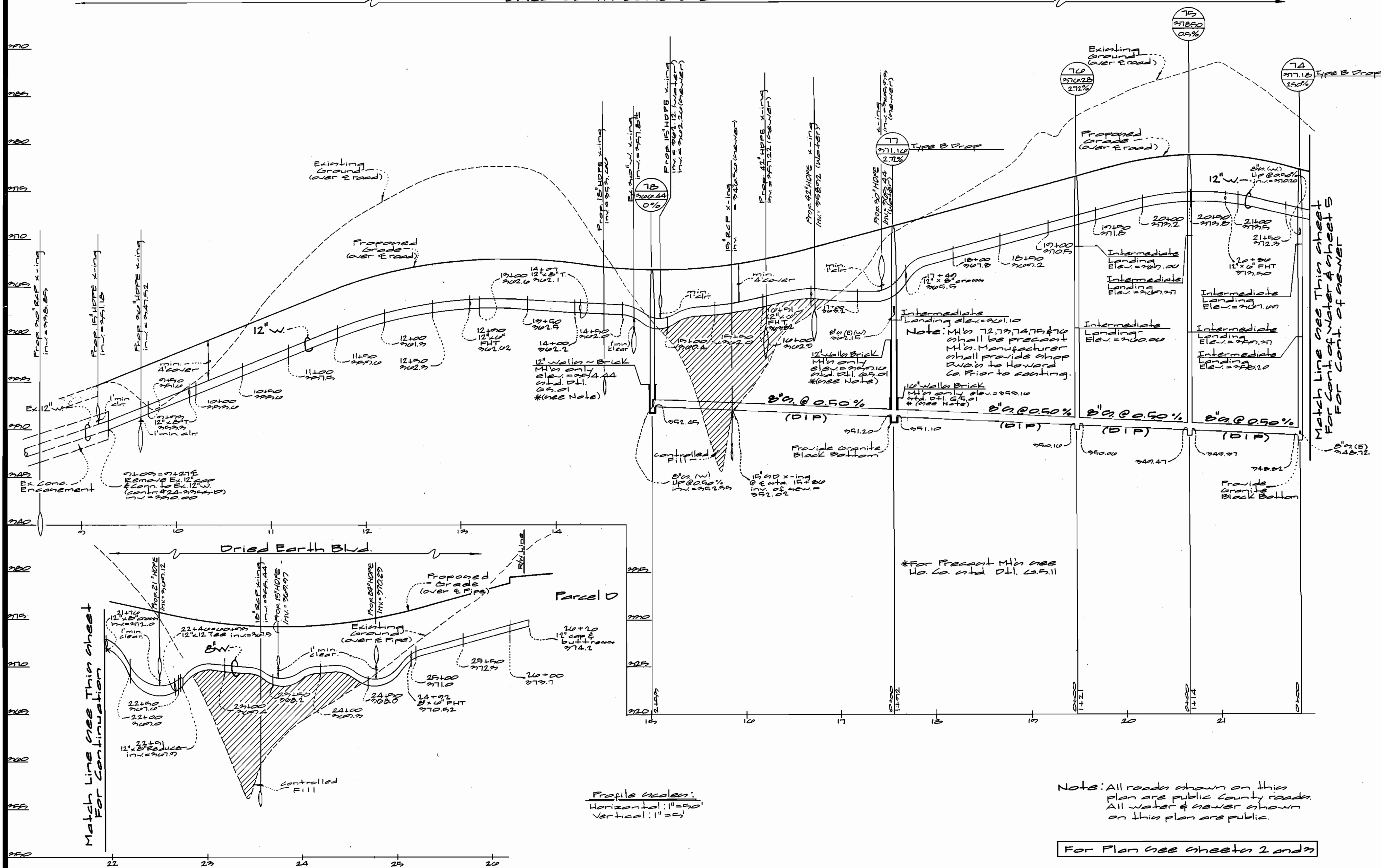
DES: W62-J					
DRN: W62-J					
CHK:					
DATE: Apr. 2001	BY NO	REVISION	DATE	600' SCALE MAP NO. 37	BLOCK NO. 12, 12

WATER & SEWER PLAN
 SCALE: 1" = 50'
 600' SCALE MAP NO. 37 BLOCK NO. 12, 12

Snowden River Business Park
 SECTION 1 AREA 1
 PARCELS A' THRU D' & LOTS 1 THRU 5
 HOWARD COUNTY, MARYLAND
 ELECTION DISTRICT No. 6
 CONTRACT No. 24-3858-D

SCALE AS SHOWN
 SHEET 22 OF 26

Dried Earth Boulevard



Match Line see this sheet
For Cont. of water & sewer
For Cont. of sewer

Note: M.H.s 72, 73, 74, 75 & 76 shall be precast M.H.s. Manufacturer shall provide shop drawings to Howard Co. Prior to casting.

Note: M.H.s 77, 78, 79 & 80 shall be precast M.H.s. Manufacturer shall provide shop drawings to Howard Co. Prior to casting.

Note: All roads shown on this plan are public County roads. All water & sewer shown on this plan are public.

For Plan see sheets 2 and 3

Profile scales:
Horizontal: 1"=50'
Vertical: 1"=5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ruth Binger
11-2-01
DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
[Signature]
11/4/01
DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND 20869
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186



DES: W/L					
DRN: W/L					
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DATE: Apr 2001	BY	NO	REVISION	DATE	

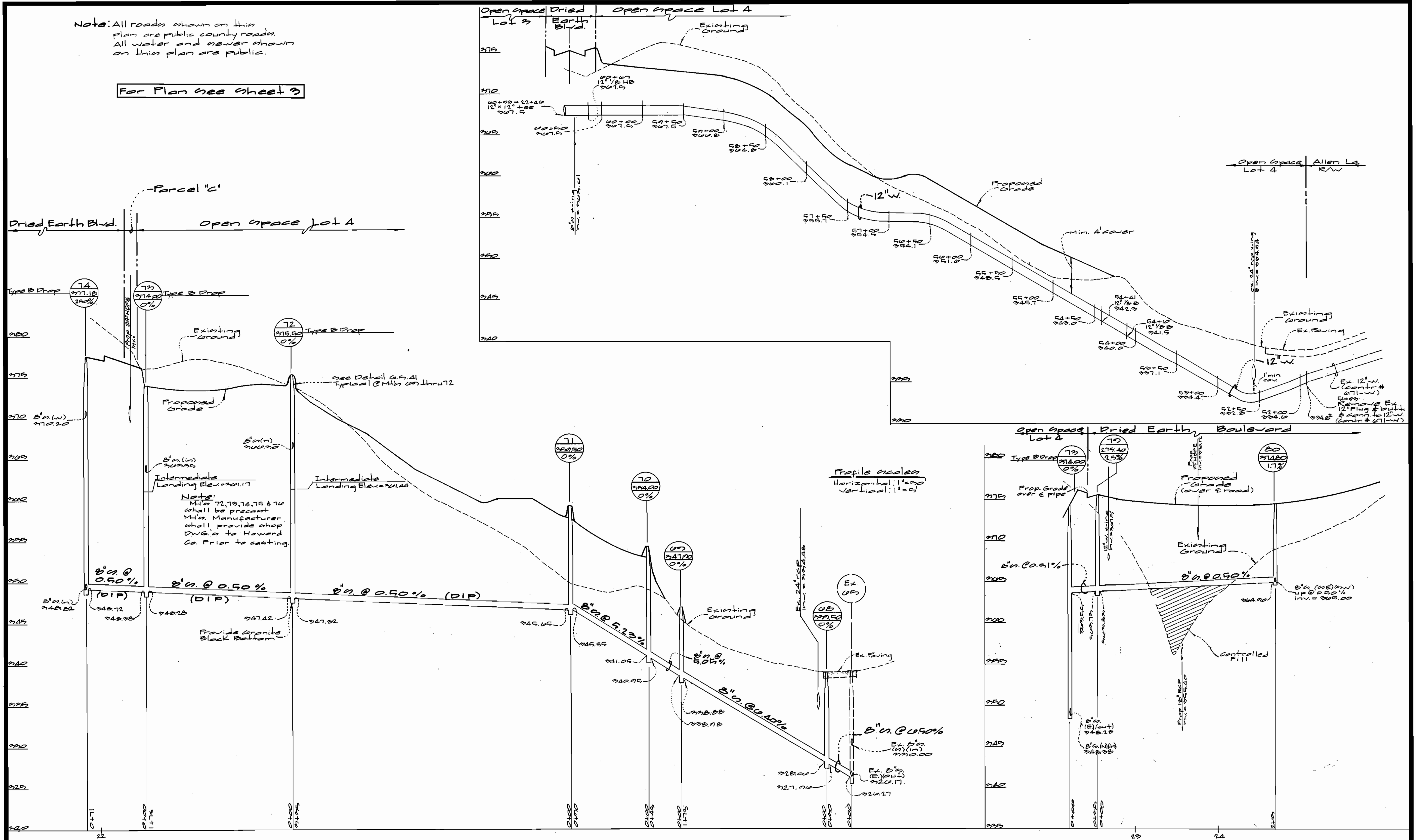
Water & Sewer Profiles
60' SCALE MAP NO. 27 BLOCK NO. 12.12

SNOWDEN RIVER BUSINESS PARK
SECTION 1 AREA 1
PARCELS A' THRU D & LOTS 1 THRU 5
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 6
CONTRACT No. 24-3258-0

SCALE AS SHOWN
SHEET 4 OF 2

Note: All roads shown on this plan are public county roads. All water and sewer shown on this plan are public.

For Plan see sheet 3



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188



DES: wsl				
DRN: wsl				
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DATE: 11-2-01	BY	NO	REVISION	DATE

WATER & SEWER PROFILES
AS SHOWN

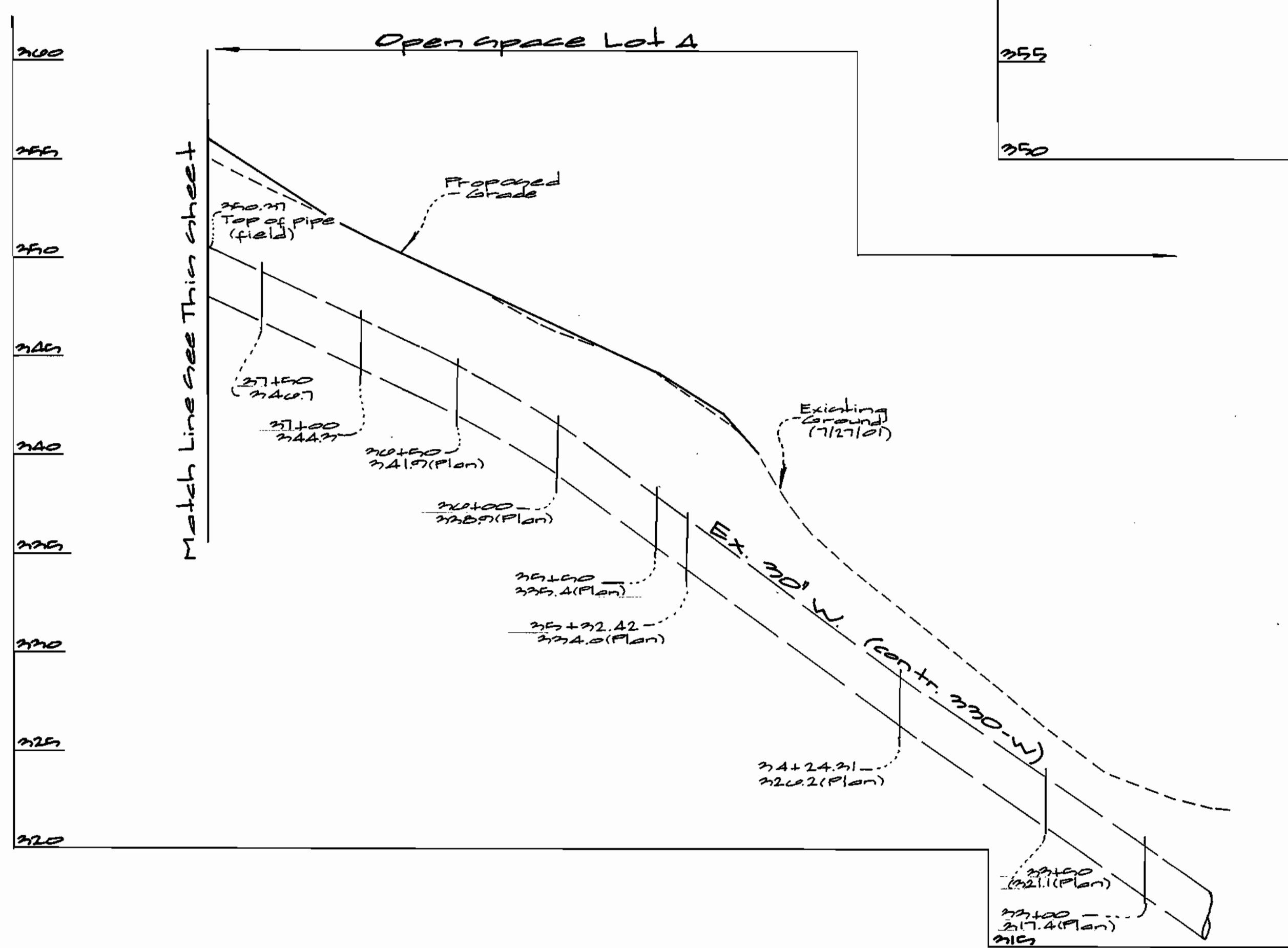
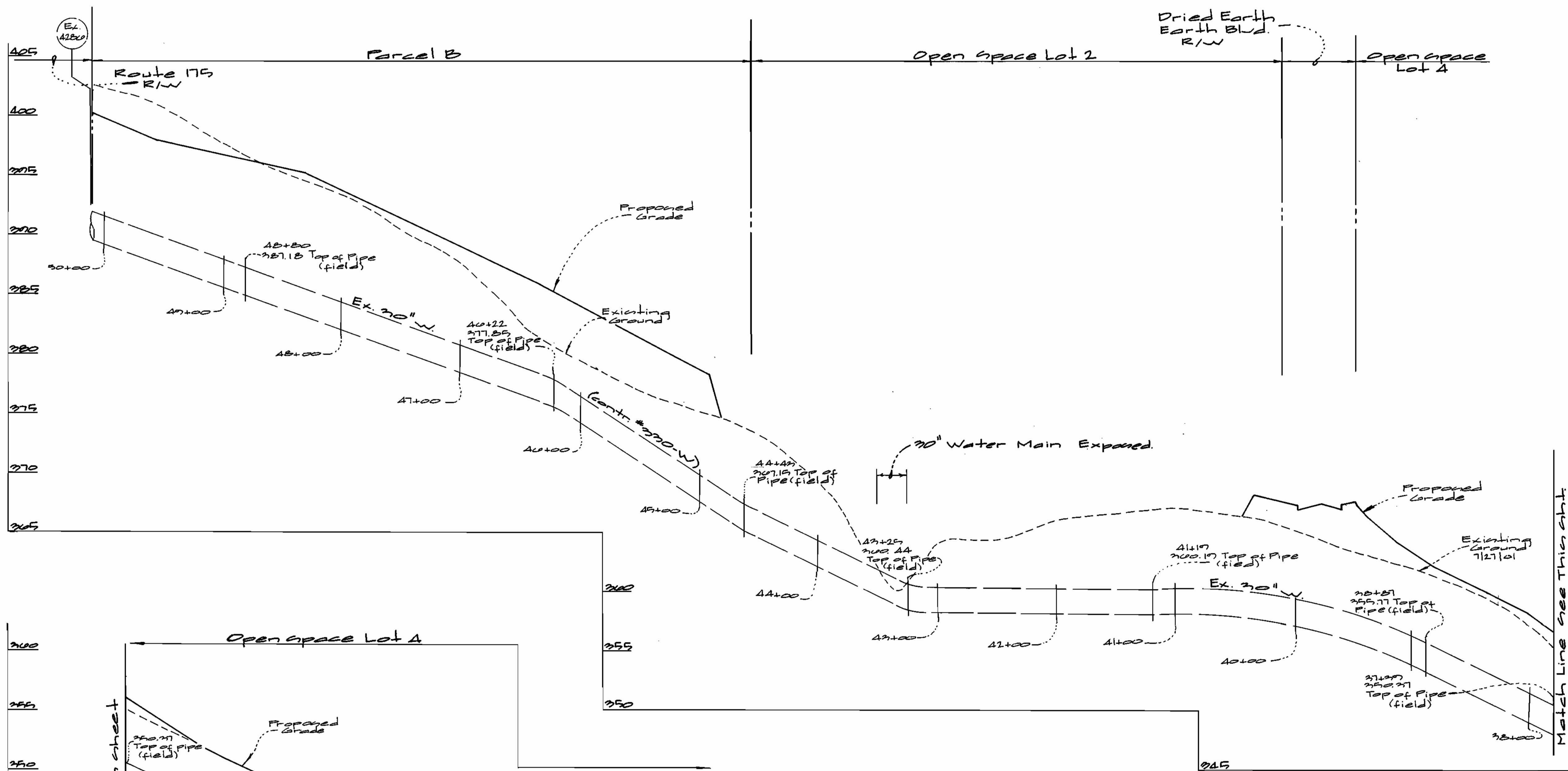
SNOWDEN RIVER BUSINESS PARK
SECTION 1 AREA 1
PARCELS A' THRU D' & LOTS 1 THRU 5
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 6
CONTRACT No. 14-2050-0

SCALE AS SHOWN
SHEET 5 OF 12

Richard B. ... 11-2-01
CHIEF, BUREAU OF UTILITIES DATE

Michael ... 11/9/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

600' SCALE MAP NO. 27 BLOCK NO. 13, 12



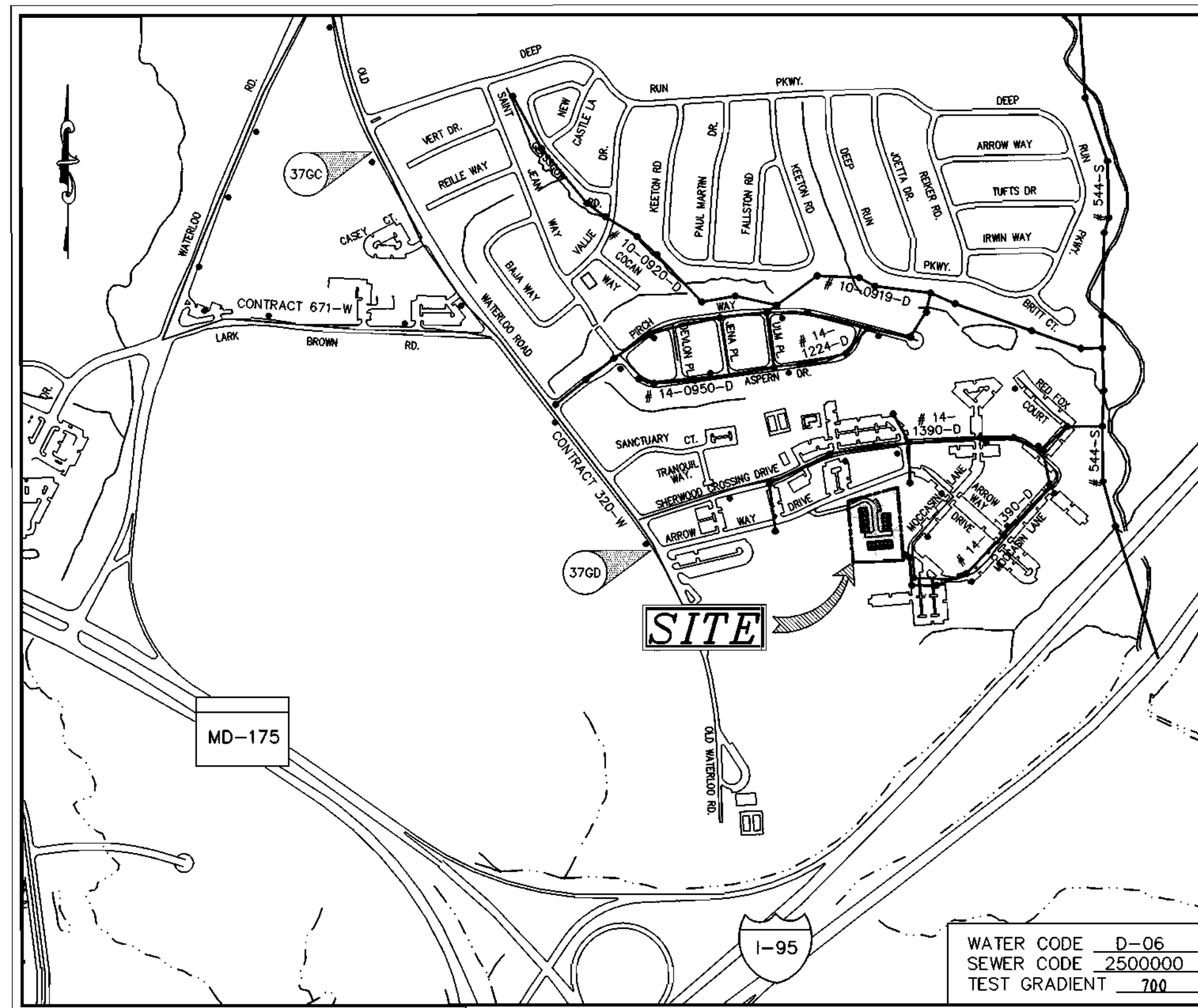
Profile
 scales: 1" = 50' horizontal
 1" = 5' vertical

Match Line see this sheet

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND R. J. ... CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND ... CHIEF, DEVELOPMENT ENGINEERING DIVISION	GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186		DES: _____ DRN: KIF CHK: _____ DATE: Apr 2001	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>BY</th> <th>NO</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	BY	NO	REVISION	DATE					EXISTING WATER PROFILE AS SHOWN	SNOWDEN RIVER BUSINESS PARK SECTION 1 AREA 1 PARCELS 'A' THRU 'D' & LOTS 1 THRU 5 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 6 CONTRACT No. 24-3858-D	SCALE AS SHOWN SHEET 6 OF 6
BY	NO	REVISION	DATE													

QUANTITY TABLE

ITEMS	QUANTITIES		TYPE	MANUFACTURER/SUPPLIER
	ESTIMATED	QUANTITIES		
STANDARD MH (HO. CO. STD. G-5.01)	4	4	D/C	ATLANTIC PRECAST INC.
TERMINAL MH (HO. CO. STD. S-1.31)	2	2	D/C	"
MANHOLE, VERTICAL FEET	45 L.F.			"
# MH CONNECTIONS	12 EACH	12 EA	A/LR	"
8" SEWER	389 L.F.	344 L.F.	SDR 35	J.M./BRS.
4" SEWER HOUSE CONNECTION	275 L.F.	256.5 L.F.	SDR 35	J.M./BRS.
# SEWER HOUSE CONNECTION	16 EACH	16 EA	SDR 35	J.M./BRS.
1" WATER HOUSE CONNECTION	356 L.F.	360 L.F.	SOFT K COPPER	READING TUBE
# WATER HOUSE CONNECTIONS	16 EACH	16	C/S	MUELLER/BRS.
6" WATER	24 L.F.	24 L.F.	CL-52	U.S. PIPE/BRS.
8" WATER	297 L.F.	287.8 L.F.	"	"
4" WATER	55 L.F.	54.23 L.F.	"	"
F.H.	1 EACH	1		MUELLER/BRS.
8" x 8" T	1 EACH	1		U.S. PIPE/BRS.
8" x 6" T	1 EACH	1		"
8" x 4" REDUCER	1 EACH	1		"
8" V	1 EACH	1		MUELLER CO/BRS.
6" V	1 EACH	1		"
4" V	1 EACH	1		"
8" CAP & BUTTRESS	1 EACH	1		U.S. PIPE/BRS.
4" CAP & BUTTRESS	1 EACH	1		"
1/16 H.B. (8")	1 EACH	1		"
1/8 H.B. (8")	1 EACH	1		"
NAME OF UTILITY CONTRACTOR: C.C.S. INC.				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE				



VICINITY MAP
SCALE: 1"=600'

TYPE OF BUILDING	SFA (CONDOMINIUMS)
No. OF UNITS	16
No. OF WATER HOUSE CONNECTION	16
No. OF SEWER HOUSE CONNECTIONS	16
DRAINAGE AREA	PATAPSCO
TREATMENT PLANT	PATAPSCO WASTEWATER TREATMENT PLANT, BALTIMORE

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 (NAD 83).
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. 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 COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES 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 DETAIL FOR CONSTRUCTION (LATEST EDITION). 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 [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 NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION (410) 531-5533
BG & E CO. CONTRACTOR SERVICES (410) 850-4620
BG & E CO. UNDERGROUND DAMAGE CONTROL (410) 787-9068
MISS UTILITY 1-800-257-7777
COLONIAL PIPELINE CO. (410) 795-1390
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES (410) 313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED OUTSIDE THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-2450 AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF HOWARD COUNTY CODE.
- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE 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 SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- FOR SPRINKLER SYSTEM FOR ALL TOWNHOMES OR MULTI-FAMILY DWELLING UNITS SHOULD HAVE A MINIMUM OF 1" CONNECTION WITH A 3/4" METER.
- ALL SEWER MAINS SHALL BE P.V.C. OR D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1' - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.
- STATIONING SHOWN IS WATER MAIN AND CENTER LINE STATIONING.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- SEDIMENT CONTROL TO BE PROVIDED BY SDP-00-90.
- ALL SEWER HOUSE CONNECTIONS TO BE 4" IN SIZE.
- ALL WATER HOUSE CONNECTIONS TO BE 1" IN SIZE UNLESS OTHERWISE NOTED.
- ALL CELLARS WILL HAVE SERVICE TO LOWEST FLOOR UNLESS OTHERWISE NOTED.
- STORM DRAIN SYSTEM INDICATED FOR INFORMATIONAL PURPOSES ONLY, SEE ROAD PLANS FOR CONSTRUCTION DATA.
- COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.

EROSION AND SEDIMENT CONTROL FOR THIS CONTRACT IS PROVIDED UNDER SDP 00-90

CONTRACT NO.: 14-3835-D
HARMON PROPERTY - UNITS 1 THRU 16
ARROW WAY DRIVE AT OLD WATERLOO ROAD

WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER AND SEWER PLAN WITH PROFILES

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE DEPARTMENT OF THE ENVIRONMENT INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER'S SIGNATURE: *Donald R. Kerwer Jr.* DATE: 7-27-00
DEVELOPER'S NAME: DONALD R. KERWER JR.

ENGINEER'S SIGNATURE: *Joe Milberg* DATE: 8/1/00
ENGINEER'S NAME: JOE MILBERG

REVIEWED FOR HOWARD COUNTY AND MEETS TECHNICAL REQUIREMENTS.
Chief Simmons 8/1/00
USDA-NATURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE SOIL CONSERVATION DISTRICT.
John H. Rhoads 8/1/00
HOWARD SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

John H. Rhoads 8-15-00
CHIEF, BUREAU OF UTILITIES

John H. Rhoads 8/1/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION

MILDBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Fax (301) 621-5521 Wash. (410) 997-0298 Fax

engineering	KR				
illustration	KR				
approval					
project	K.C.I. 1	AS BUILT CONDITIONS ADDED TO PLAN			
date	99061				
	JUNE 2000	BY NO.	REVISION	DATE	600' SCALE MAP NO. 37 BLOCK NO. 21

COVER SHEET

HARMON PROPERTY
UNITS 1 THRU 16
ARROW WAY DRIVE AT OLD WATERLOO ROAD
CONTRACT # 14-3835-D
FIRST ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

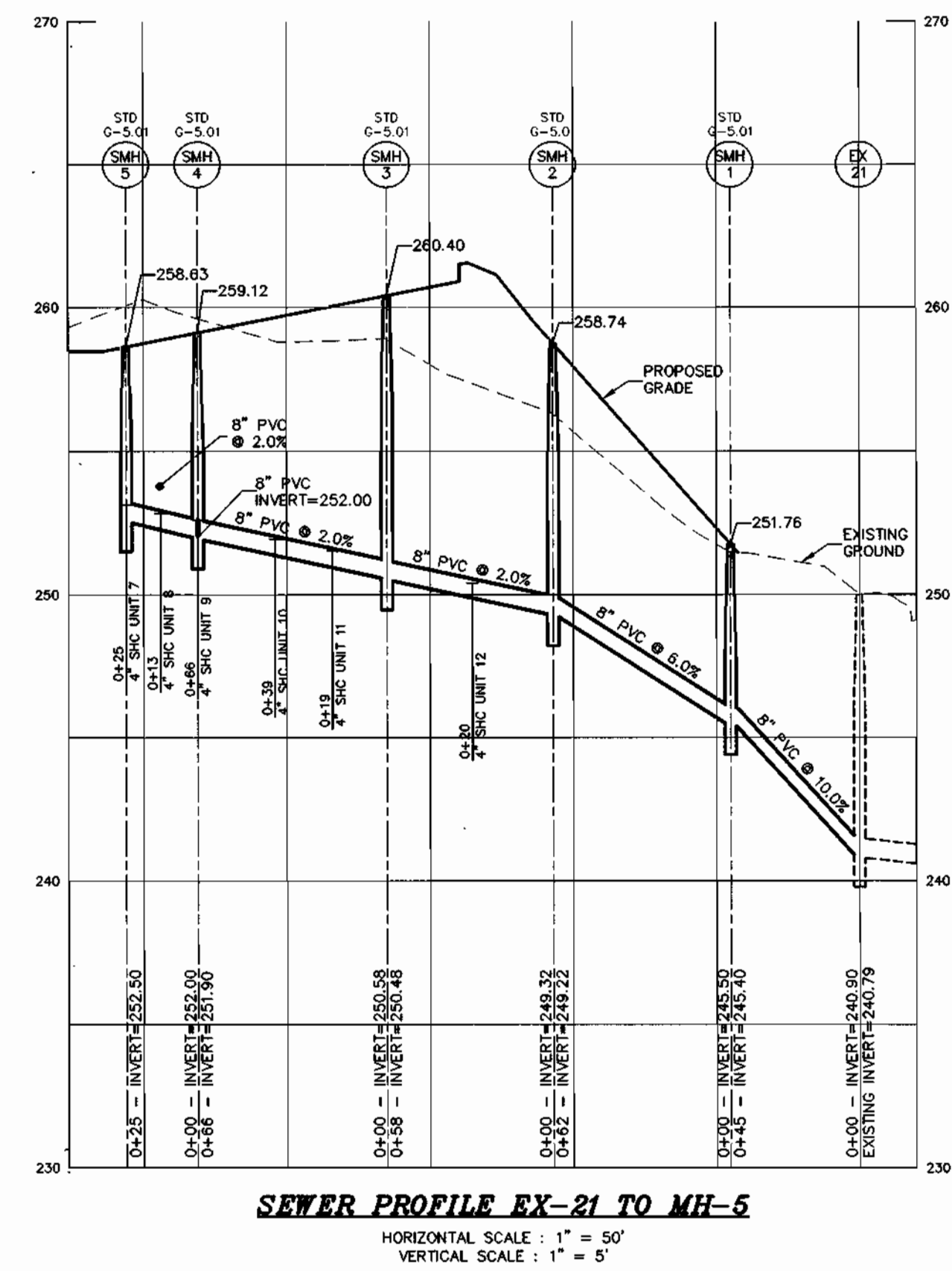
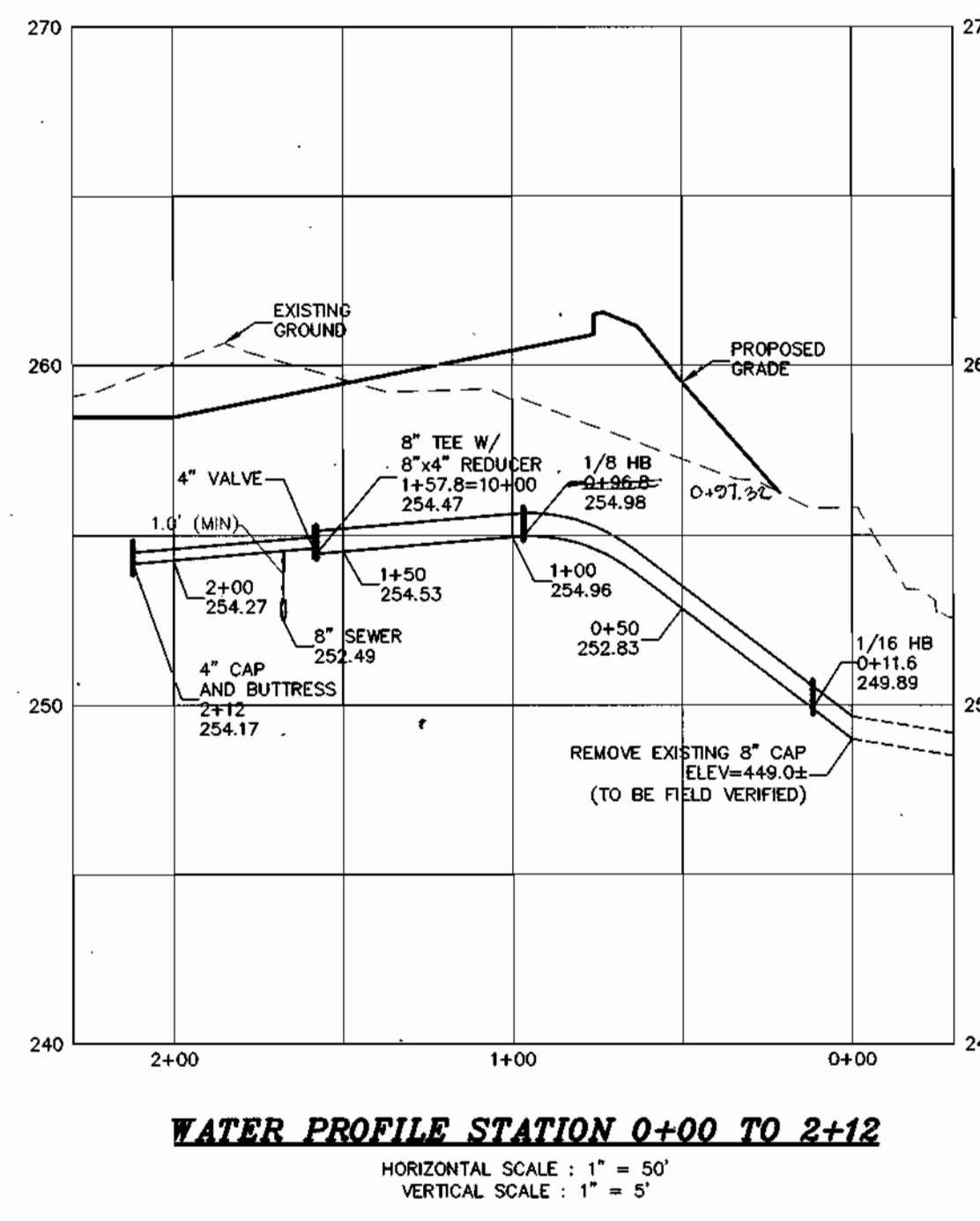
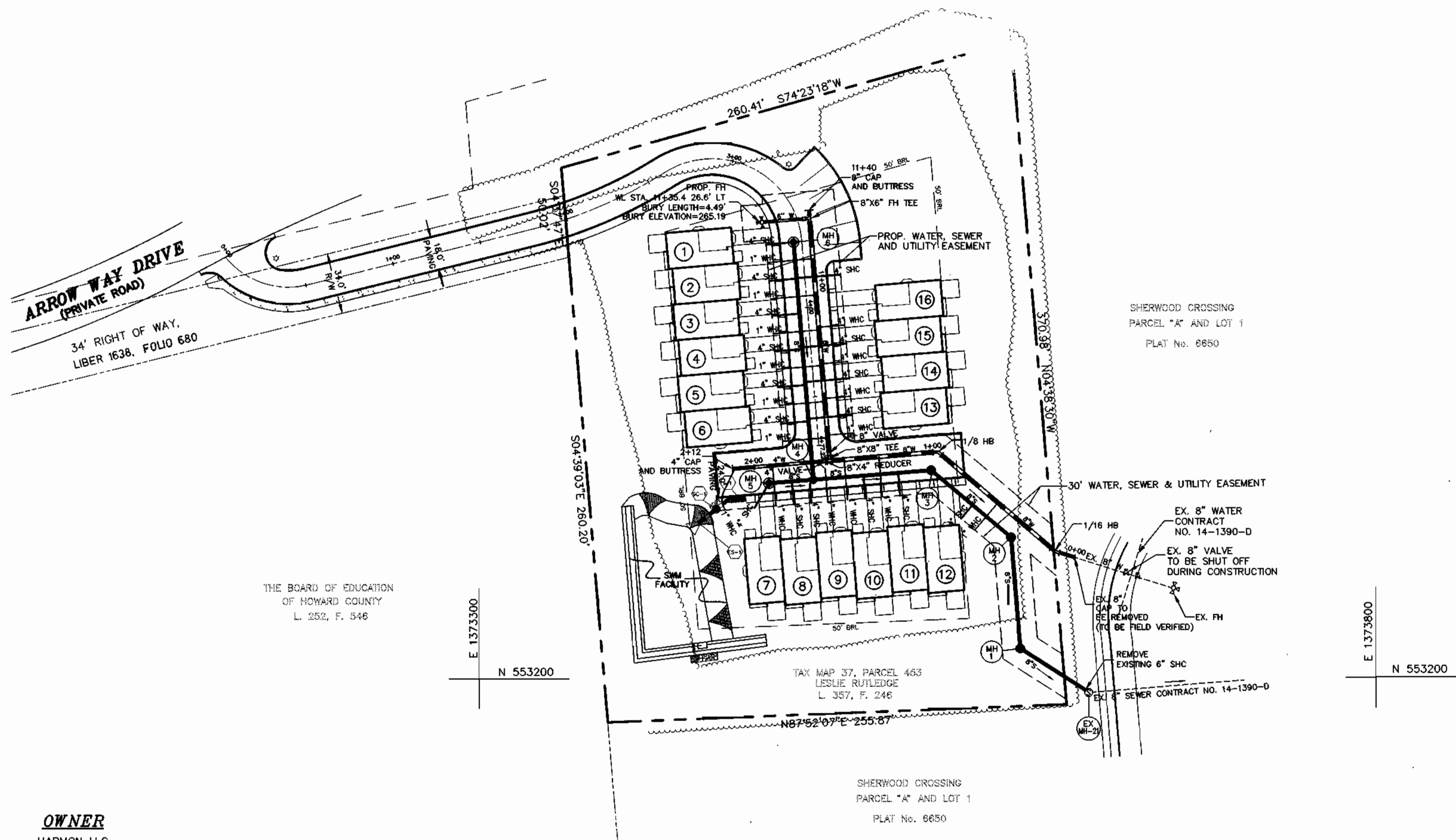
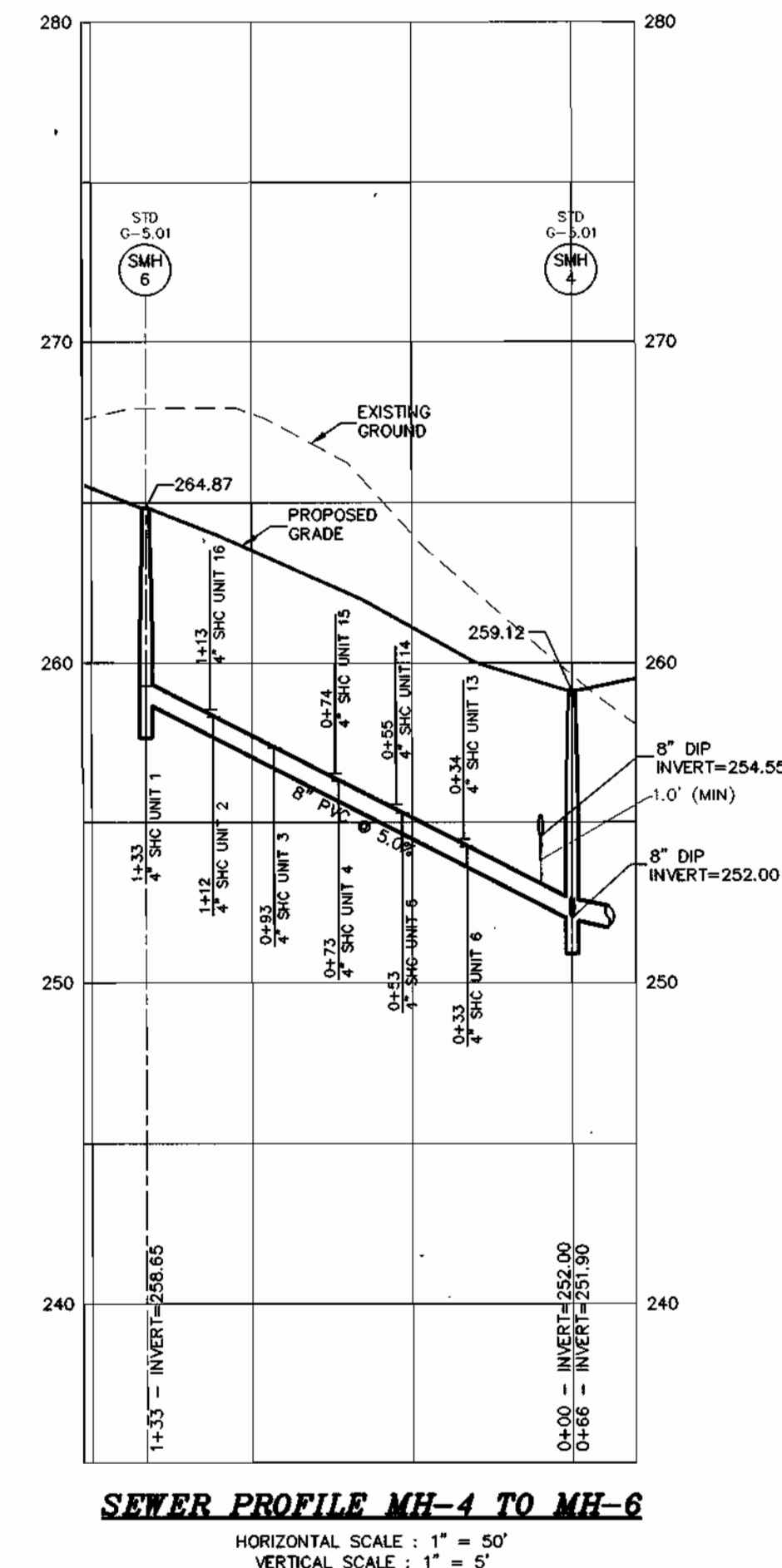
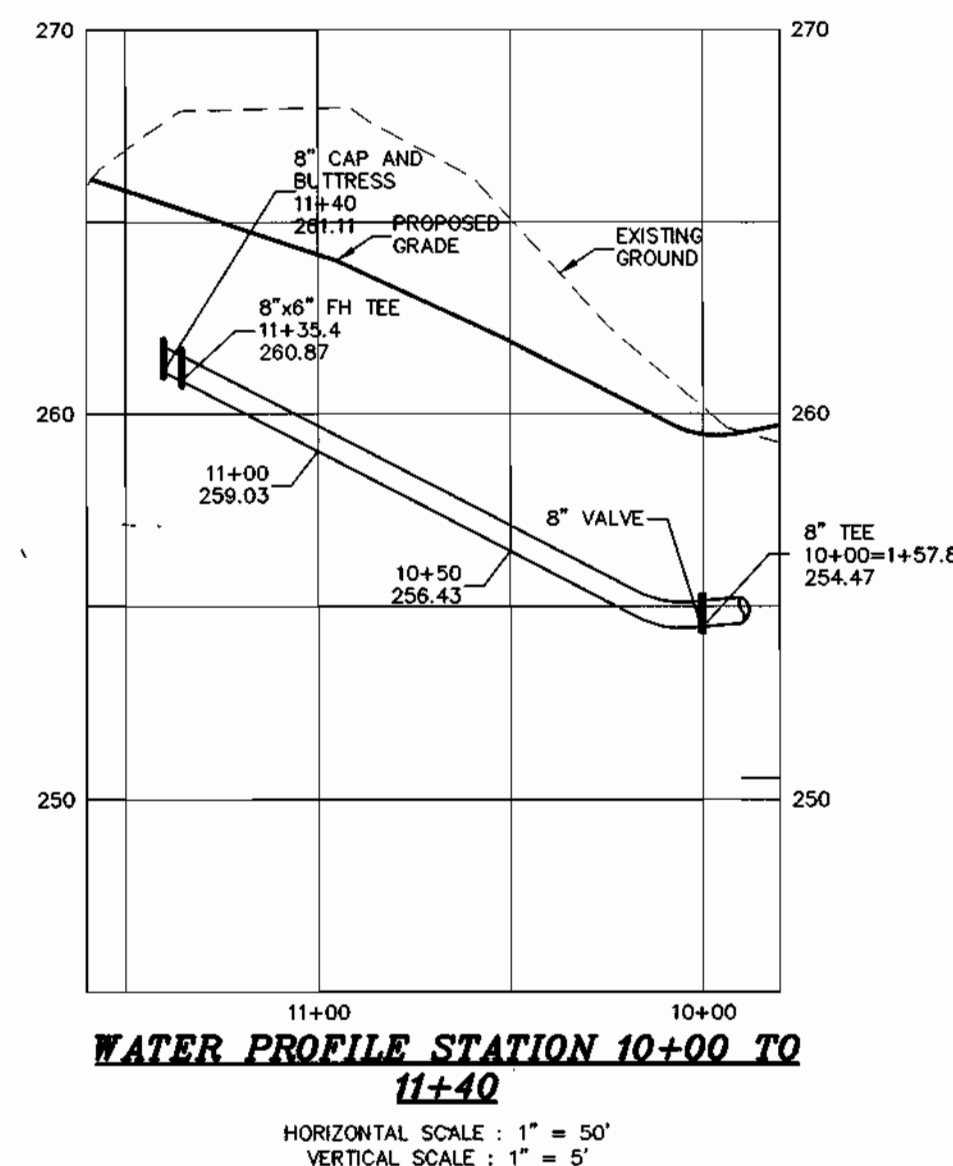
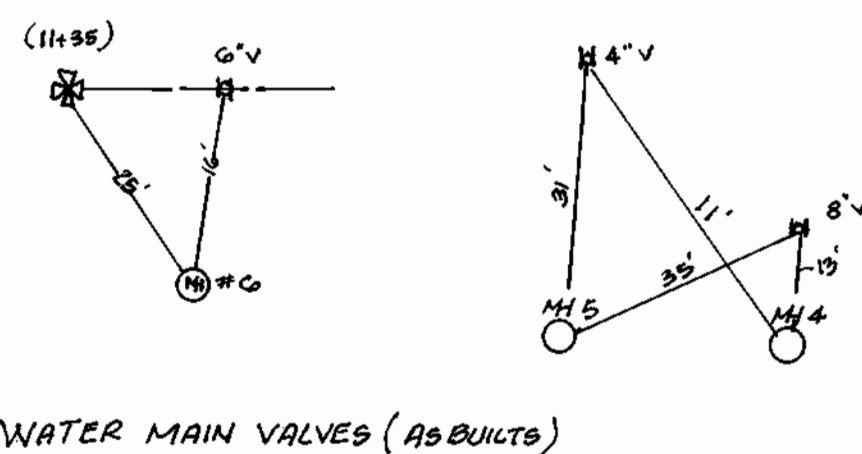
scale
AS SHG. 1 OF 2

SEWER HOUSE CONNECTIONS		
UNIT	MINIMUM CELLAR ELEVATION	SHC ELEVATION AT EASEMENT
1	263.06	258.96
2	262.01	257.91
3	261.06	256.96
4	260.06	255.96
5	259.06	254.96
6	258.06	253.96
7	256.90	252.80
8	256.60	252.50
9	256.24	252.14
10	256.70	251.60
11	255.30	251.20
12	253.82	249.92
13	258.19	254.19
14	259.34	255.24
15	260.29	256.19
16	263.04	258.14

SEWER MANHOLE LOCATIONS		
DESCRIPTION	NORTHING	EASTING
SMH #1	553216.35	1373601.55
SMH #2	553278.14	1373596.58
SMH #3	553315.79	1373552.17
SMH #4	553310.66	1373486.51
SMH #5	553308.77	1373461.77
SMH #6	553443.02	1373475.79

WATER FIXTURE LOCATIONS		
DESCRIPTION	NORTHING	EASTING
1/16 HB (0+11.6)	553270.40	1373621.04
1/8 HB (0+96.8)	553326.12	1373555.90
8" TEE (1+57.8=10+00)	553321.24	1373495.88
4" CAP (2+12)	553316.85	1373441.57
8"x6" FH TEE (11+35.4)	553456.24	1373484.74
FH (26.6' LT)	553454.18	1373458.20
8" CAP (11+40)	553460.80	1373484.36

"ASBUILT" WATER AND SEWER FIELD MEASUREMENTS HOWARD COUNTY CONSTRUCTION INSPECTOR											
SEWER				WATER				WATER			
LOT	FROM	TO	DIST. FT.	LOT	FROM	TO	DIST. FT.	LOT	FROM	TO	DIST. FT.
1	FH#1135	S.H.C.	18.5	2	MH#5	S.H.C.	30.5	1	FH#1135	W.H.C.	21.5
2	MH#6	S.H.C.	17	"	"	S.H.C.	13	1	MH#6	W.H.C.	18
2	FH#	S.H.C.	34	"	"	S.H.C.	20	2	FH#1135	W.H.C.	49.5
2	MH#6	S.H.C.	28	"	"	S.H.C.	41	2	SANMH#	W.H.C.	25
3	MH#	S.H.C.	53	"	"	S.H.C.	24	2	FH#1135	W.H.C.	42
3	MH#6	S.H.C.	52	"	"	S.H.C.	45	3	SANMH#	W.H.C.	52
4	"	S.H.C.	62	"	"	S.H.C.	26.5	4	FH#1135	W.H.C.	82
4	MH#4	S.H.C.	58	"	"	S.H.C.	32	4	SANMH#	W.H.C.	71
4	"	S.H.C.	85	"	"	S.H.C.	55	5	FH#1135	W.H.C.	101
5	"	S.H.C.	55	"	"	S.H.C.	42	5	SANMH#	W.H.C.	20
6	"	S.H.C.	25	"	"	S.H.C.	61	6	SANMH#	W.H.C.	24
6	"	S.H.C.	41.5	"	"	S.H.C.	68	6	SANMH#	W.H.C.	32
7	"	S.H.C.	18	"	"	S.H.C.	19	7	"	W.H.C.	57
7	"	S.H.C.	43	"	"	S.H.C.	20.5	7	SANMH#	W.H.C.	20
8	"	S.H.C.	19	"	"	S.H.C.	33	8	SANMH#	W.H.C.	14
8	"	S.H.C.	21.5	"	"	S.H.C.	51	8	SANMH#	W.H.C.	28



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 8-15-00 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND DATE: 8/15/00 CHIEF, DEVELOPMENT ENGINEERING DIVISION	MILDENBERG, BOENDER & ASSOC., INC. Engineers Planners Surveyors 5072 Dorsey Hall Drive, Suite 202, Elkwood City, Maryland 2042 (410) 397-0286 Ext. (301) 621-5521 Wash. (410) 397-0286 Fax	engineering KR illustration KR approval project 99061 date JUNE 2000	K.C.I. 1 ASBUILT CONDITIONS ADDED TO PLAN BY NO. REVISION DATE 6/20/00	FINAL WATER AND SEWER PLAN 600' SCALE MAP NO. 37 BLOCK NO. 21	HARMON PROPERTY UNITS 1 THRU 16 ARROW WAY DRIVE AT OLD WATERLOO ROAD CONTRACT # 14-3835-D FIRST ELECTION DISTRICT - HOWARD COUNTY, MARYLAND	scale 1"=50' 2 OF 2
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