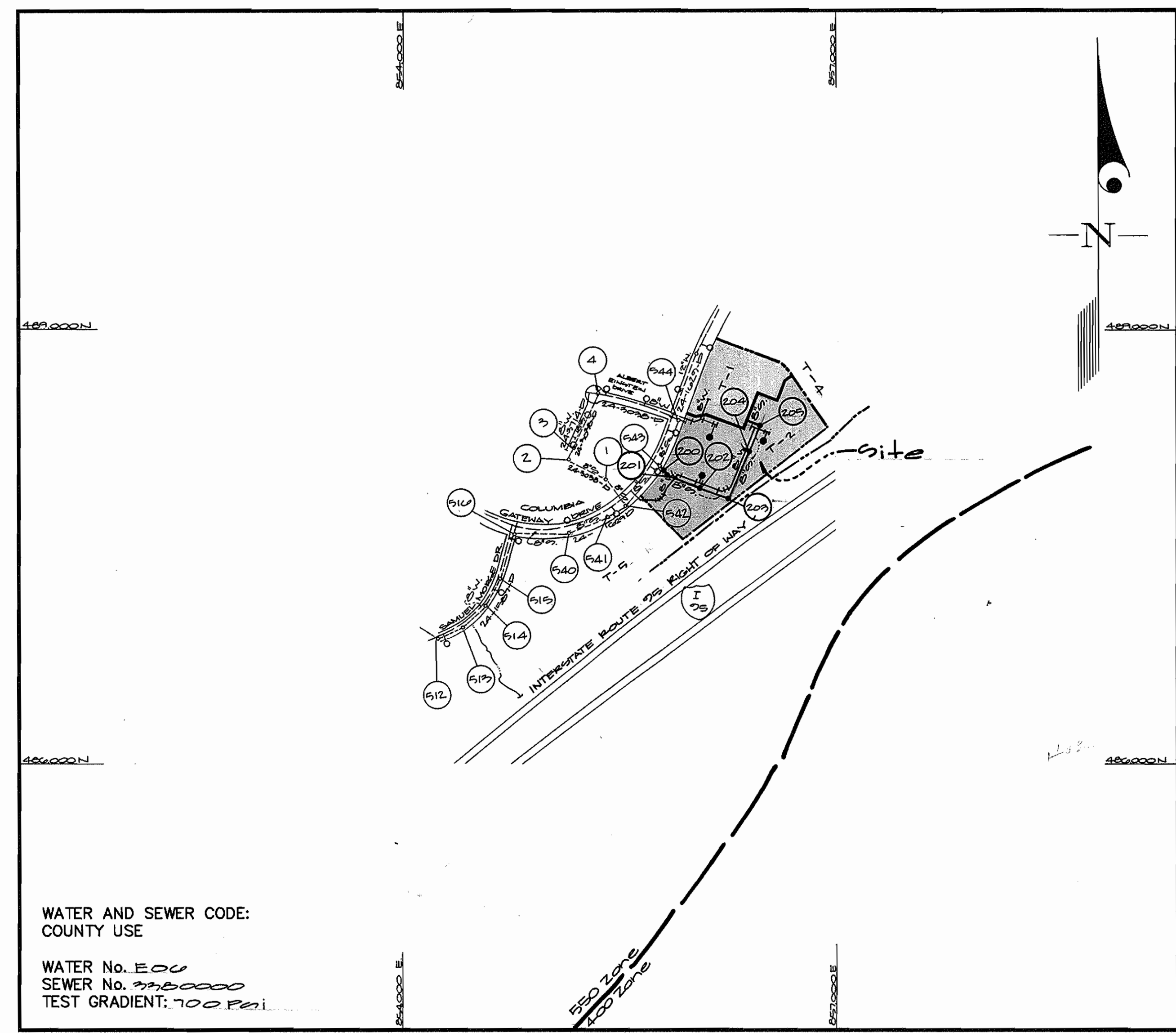


QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" water	1952 LF			
6" water	97 LF			
2 1/2" bend	7 ea.			
2 1/2" bend	2 ea.			
2" x 2" tee	4 ea.			
2" x 6" FHT	2 ea.			
2" valve	2 ea.			
2" cap & buttress	4 ea.			
Fire Hydrant	2 ea.			
2" valve	2 ea.			
2" sewer	261 LF			
4" Dia. Manholes	0 ea.			
6" OHC	42 LF			
4" OHC	25 LF			
Type A Prop Conn.	2 ea.			
Type B Prop Conn.	1 ea.			
Prop OHC Type A	1 ea.			

TYPE OF BUILDING	Office
NUMBER OF UNITS	1 Building
NUMBER OF S.H.C.'s	2
NUMBER OF W.H.C.'s	2
DRAINAGE AREA	Little Patuxent
TREATMENT PLANT	Little Patuxent Water Reclamation Plant, Savage, MD - Howard County



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 1927 (NAD 27)].
 - 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 \odot 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	531-5533
BGE Contractor Services	850-4620
BGE Under Ground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Howard County Department of Public Works Bureau of Utilities	313-4900
 - 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 18" 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.

WATER AND SEWER CODE:
COUNTY USE

WATER No. EOU
SEWER No. 7750000
TEST GRADIENT: 700 P.F.I.

VICINITY MAP
SCALE: 1"=600'

CONTRACT No. 24-3738-D
Columbia Gateway
Parcels T-1 and T-2

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with site development Plans 99P-00-04 and Mass Grading Plans 99P-00-19A.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

Clayton Simmons 1/13/99
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: *Robert Robertson* 1/13/99
HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert Benjamin 1-12-99
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Robert Robertson 1/12/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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: <i>Wes J</i>				
DRN: <i>Wes J</i>				
CHK: <i>rgt</i>				
DATE: 1/12/99	BY	NO	REVISION	DATE

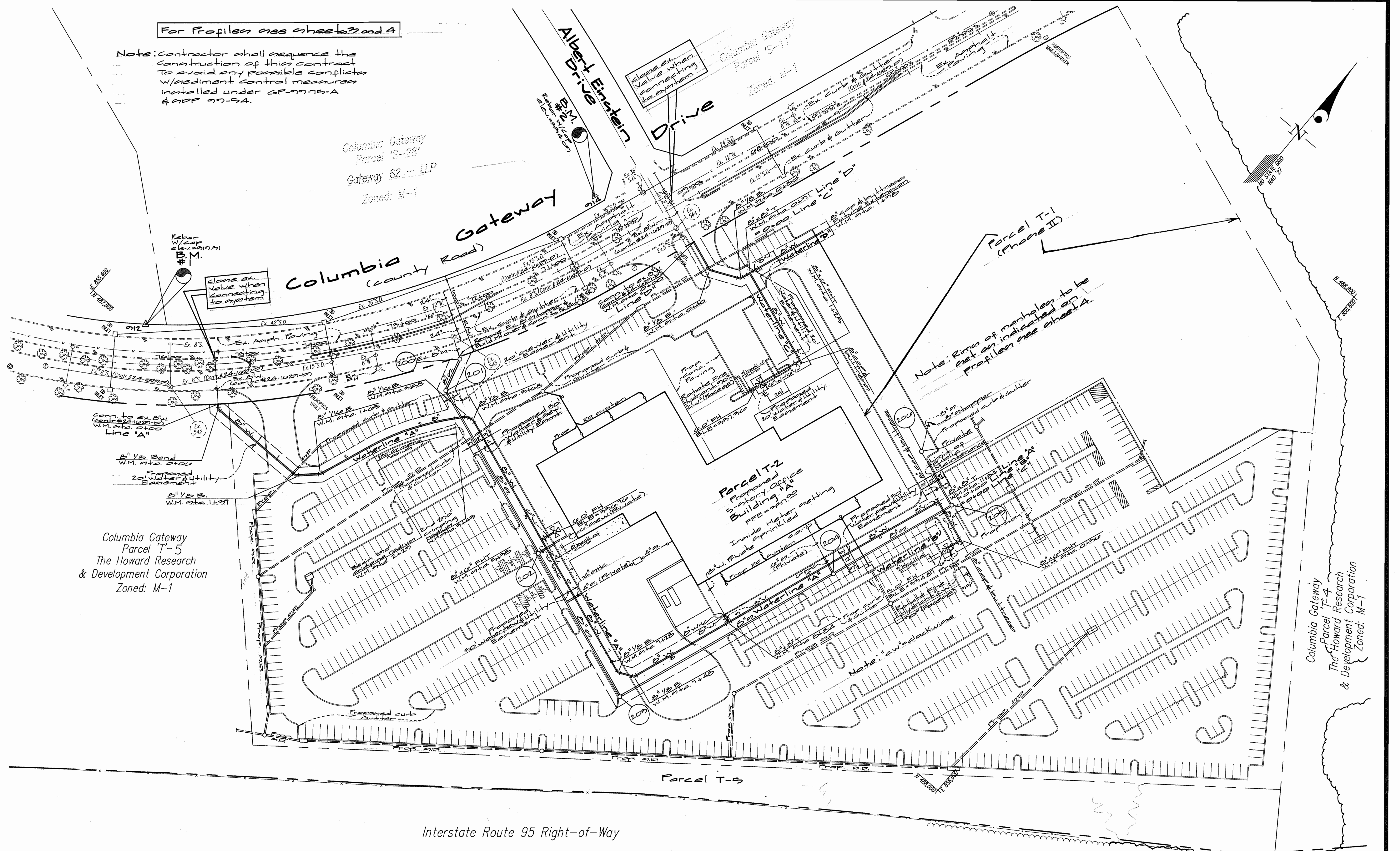
Title sheet
600' SCALE MAP NO. 48 BLOCK NO. 17

Micron
COLUMBIA GATEWAY
Parcels T-1 and T-2
Election District No. 6
Howard County, Maryland
Contract No. 24-3738-D

GLW FILE No.
98-067
SCALE AS SHOWN
SHEET 1 OF 4

For Profiles see sheets 3 and 4

Note: Contractor shall sequence the construction of this contract to avoid any possible conflicts w/ sediment control measures installed under GP-99-15-A & GP 99-54.



Columbia Gateway Parcel S-28 Gateway 62 - LP Zoned: M-1

Columbia Gateway Parcel T-5 The Howard Research & Development Corporation Zoned: M-1

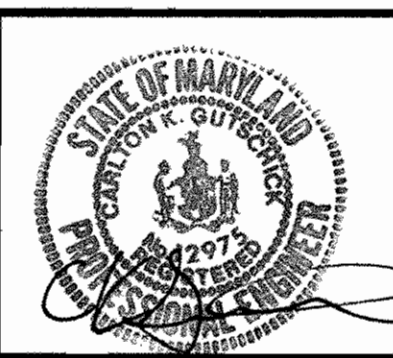
Columbia Gateway Parcel T-4 The Howard Research & Development Corporation Zoned: M-1

Interstate Route 95 Right-of-Way

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND
 Robert M. Bevington 1-12-99
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND
 [Signature] 1/12/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-588-2524 FAX: 301-421-4186

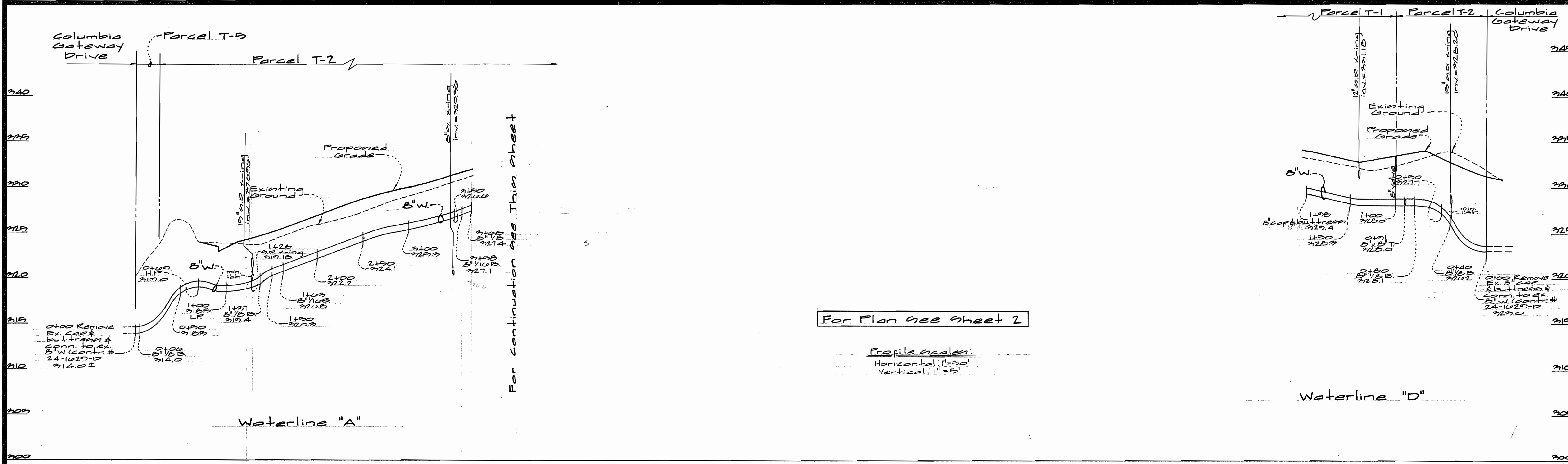


DES: wasj					
DRN: wasj					
CHK: rot					
DATE: 1/12/99	BY	NO	REVISION	DATE	

Public Water & Sewer Plan
 SCALE: 1" = 50'
 600' SCALE MAP NO. 43 BLOCK NO. 7

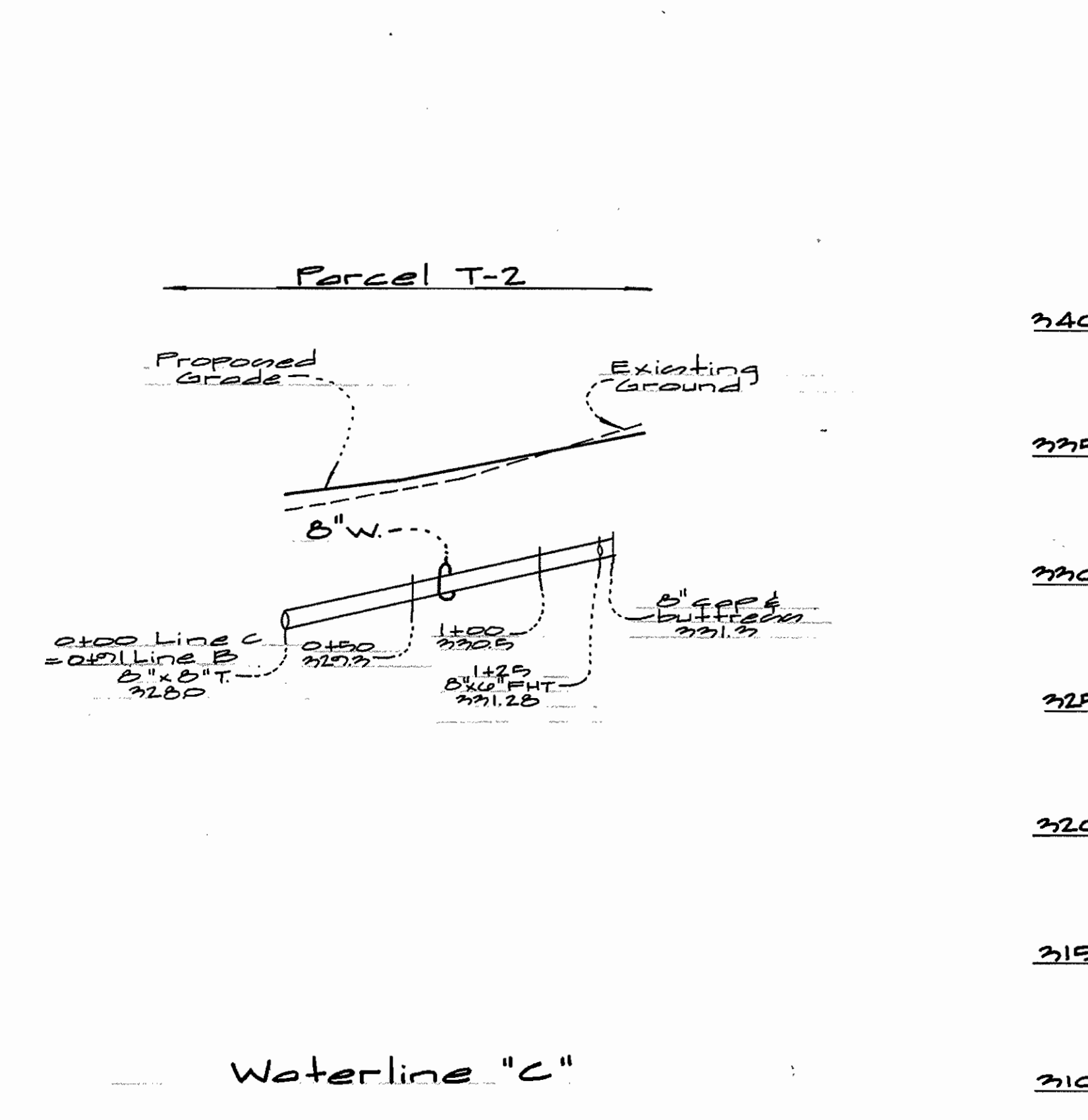
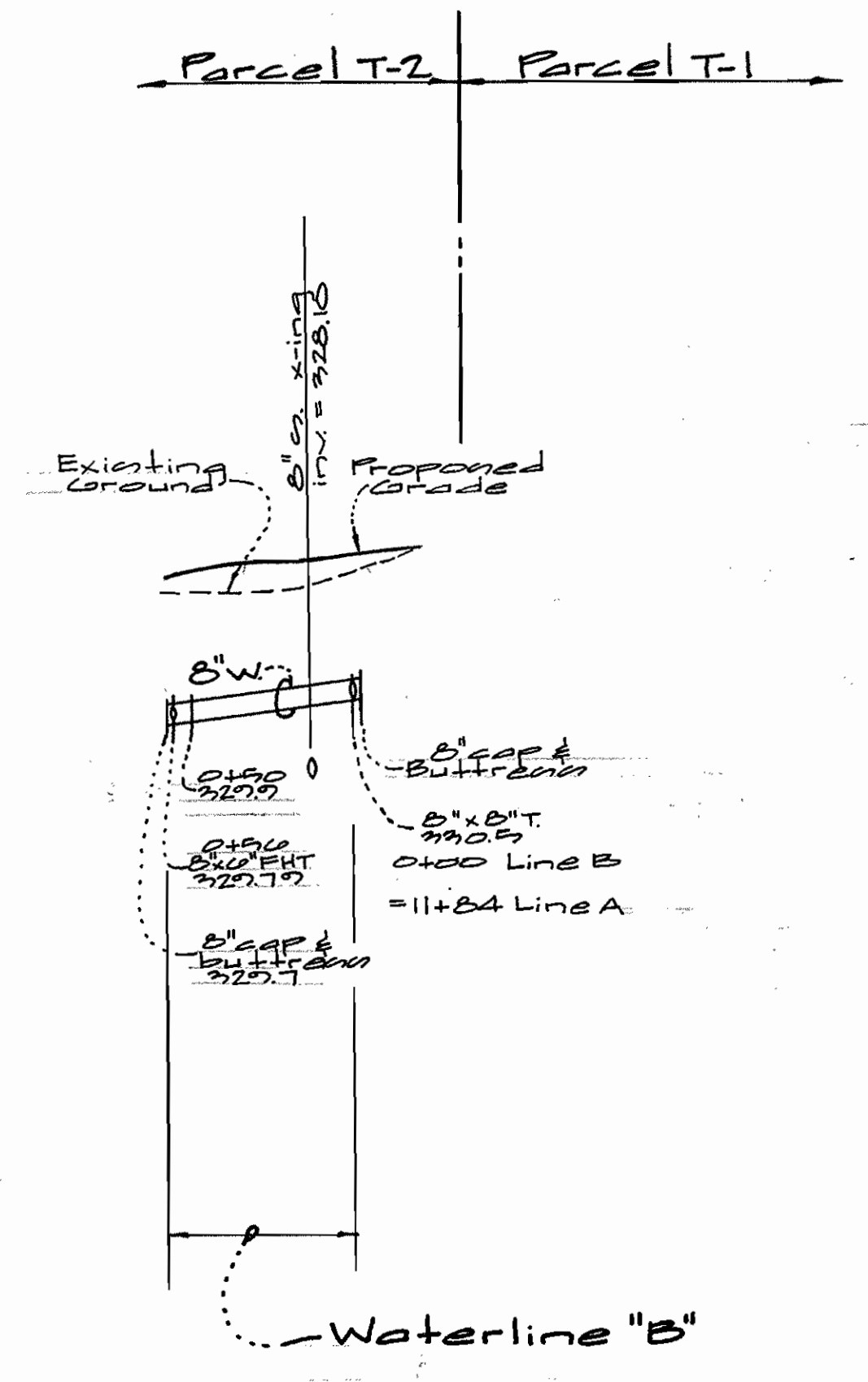
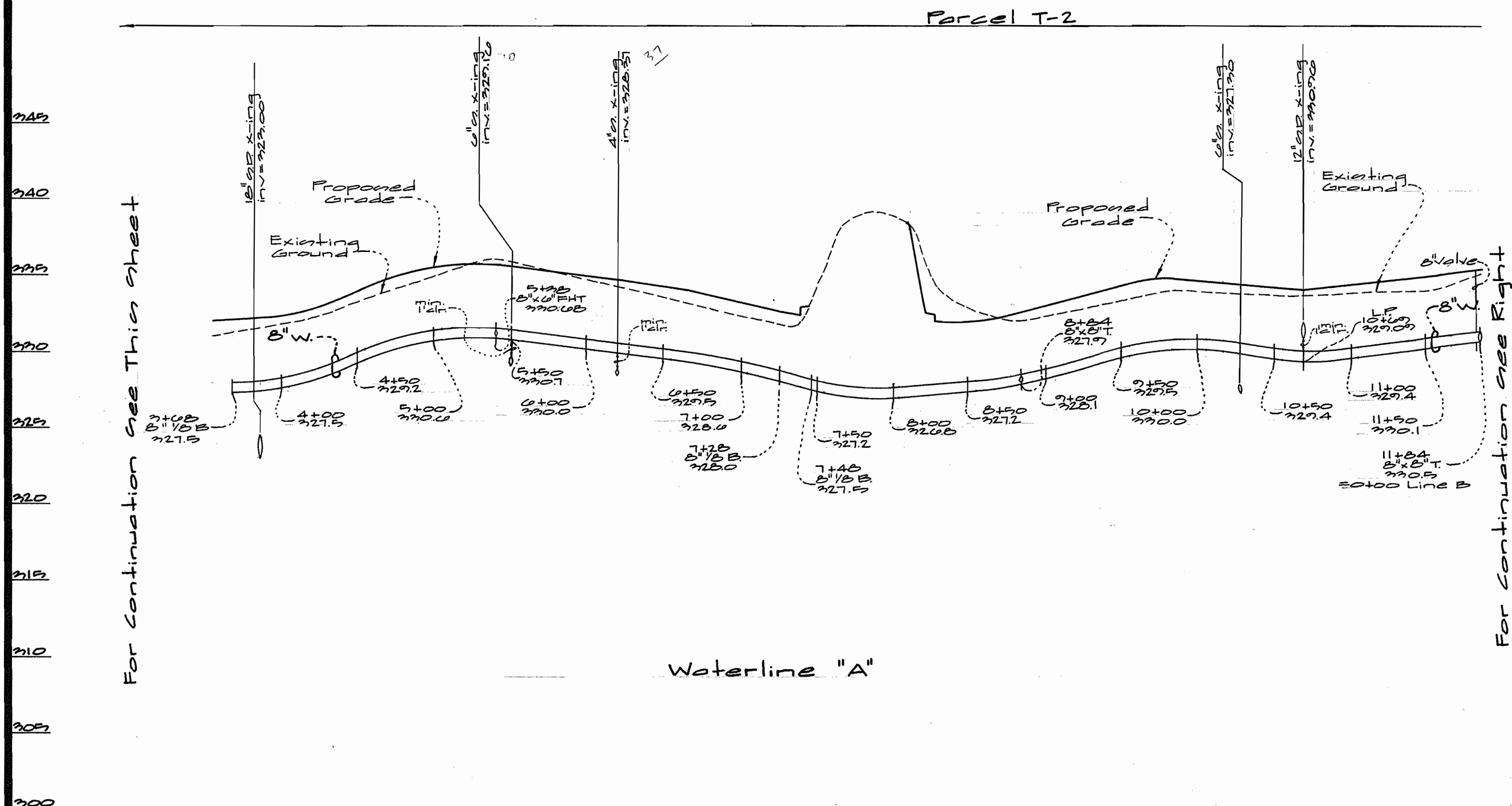
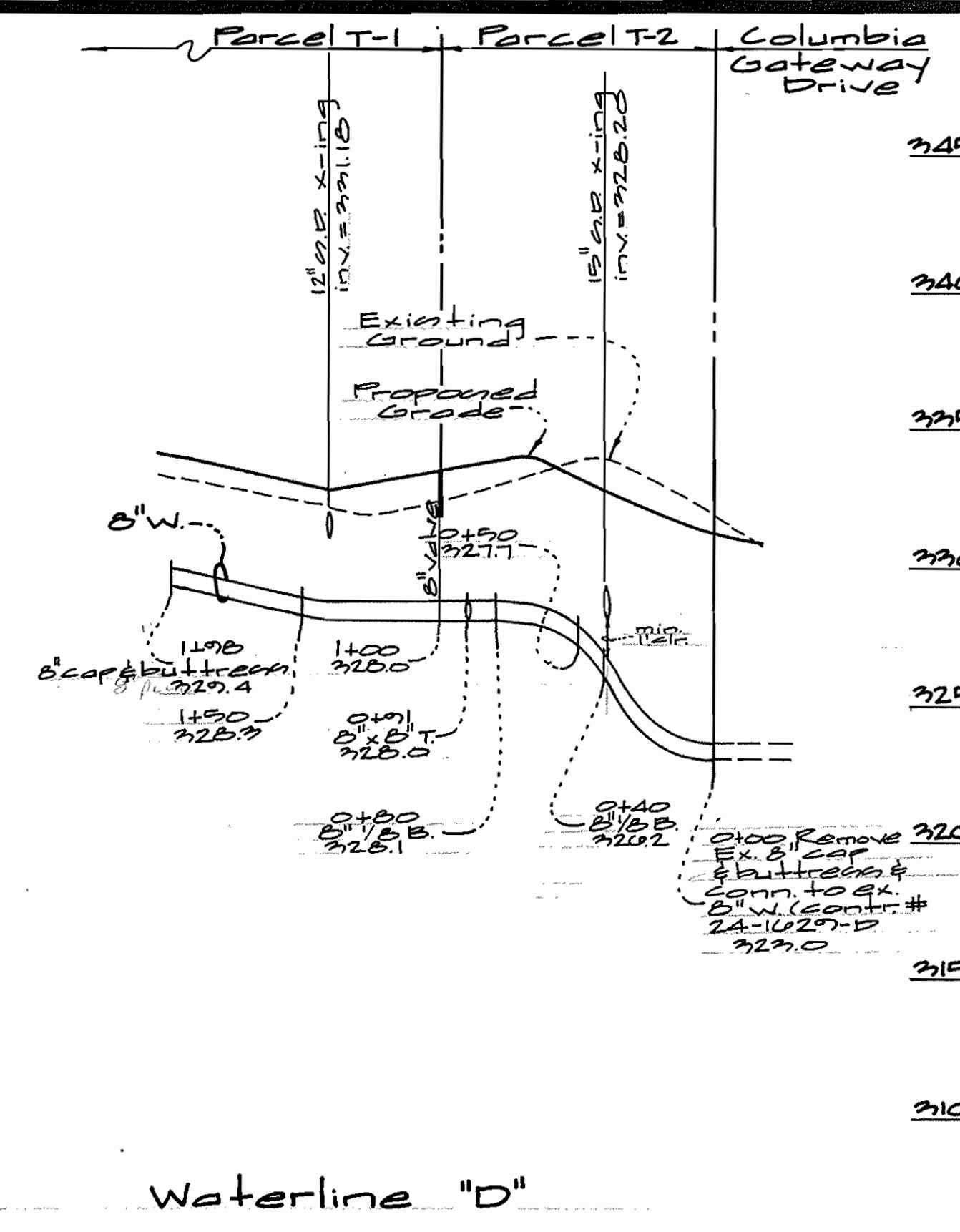
Microcos COLUMBIA GATEWAY
 Parcel T-1 and T-2
 Contract No. 24-3738-D
 ELECTION DISTRICT No. 6 HOWARD COUNTY, MARYLAND

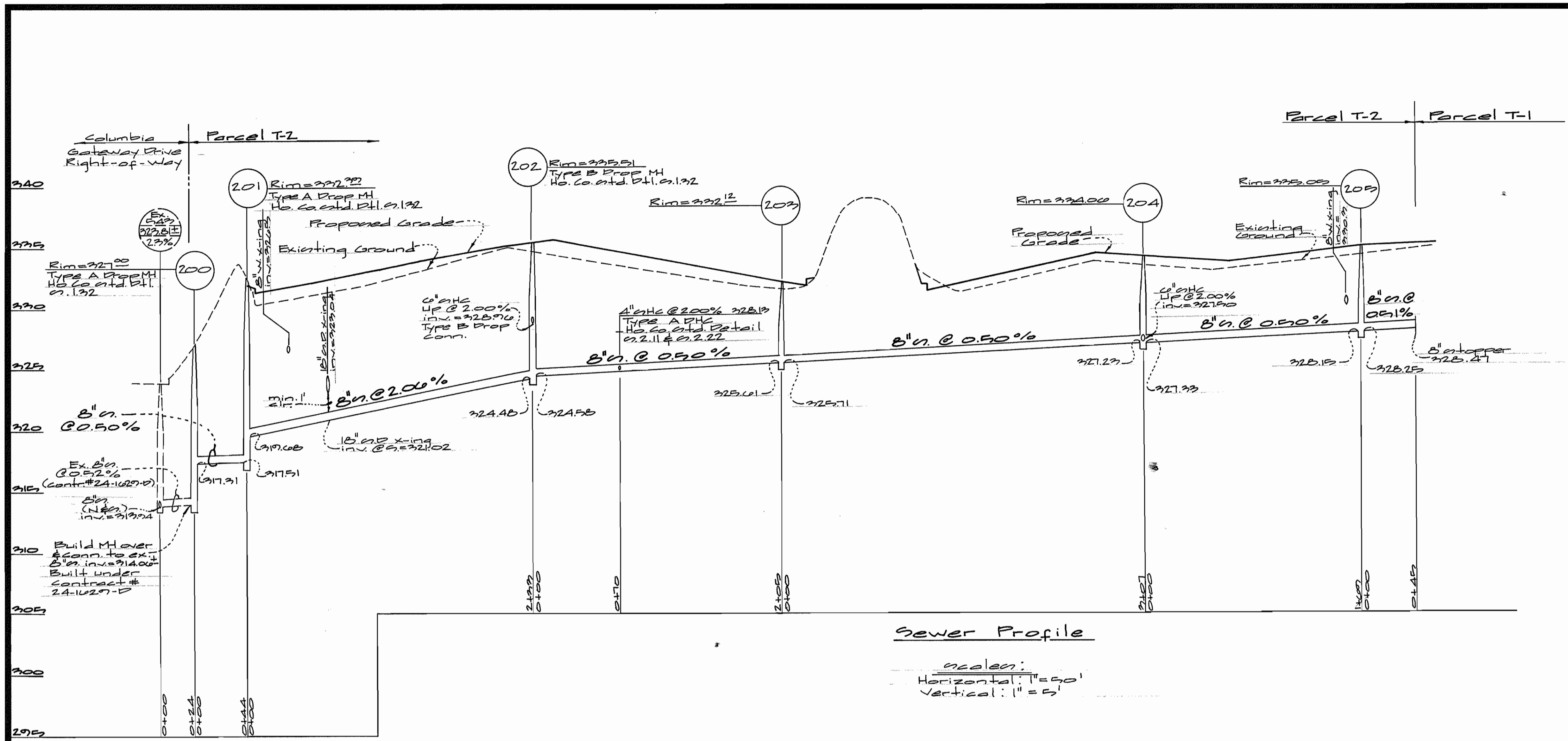
SCALE AS SHOWN
 SHEET 2 OF 4



For Plan see Sheet 2

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





Sewer Profile

Scale:
Horizontal: 1" = 40'
Vertical: 1" = 5'

For Plan see sheet 2

DEPARTMENT OF
PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. Bassinger
CHIEF, BUREAU OF UTILITIES
1-12-99
DATE

DEPARTMENT OF
PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Michael J. Cummings
CHIEF, DEVELOPMENT ENGINEERING DIVISION
1/13/99
DATE

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: wcl					
DRN: wcl					
CHK: dt					
DATE: 1/99	BY	NO	REVISION	DATE	

Sewer Profiles
Scale
As Shown

Microcos
COLUMBIA GATEWAY
Parcels T-1 & T-2
Contract No. 24-3738-D
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE
AS
SHOWN

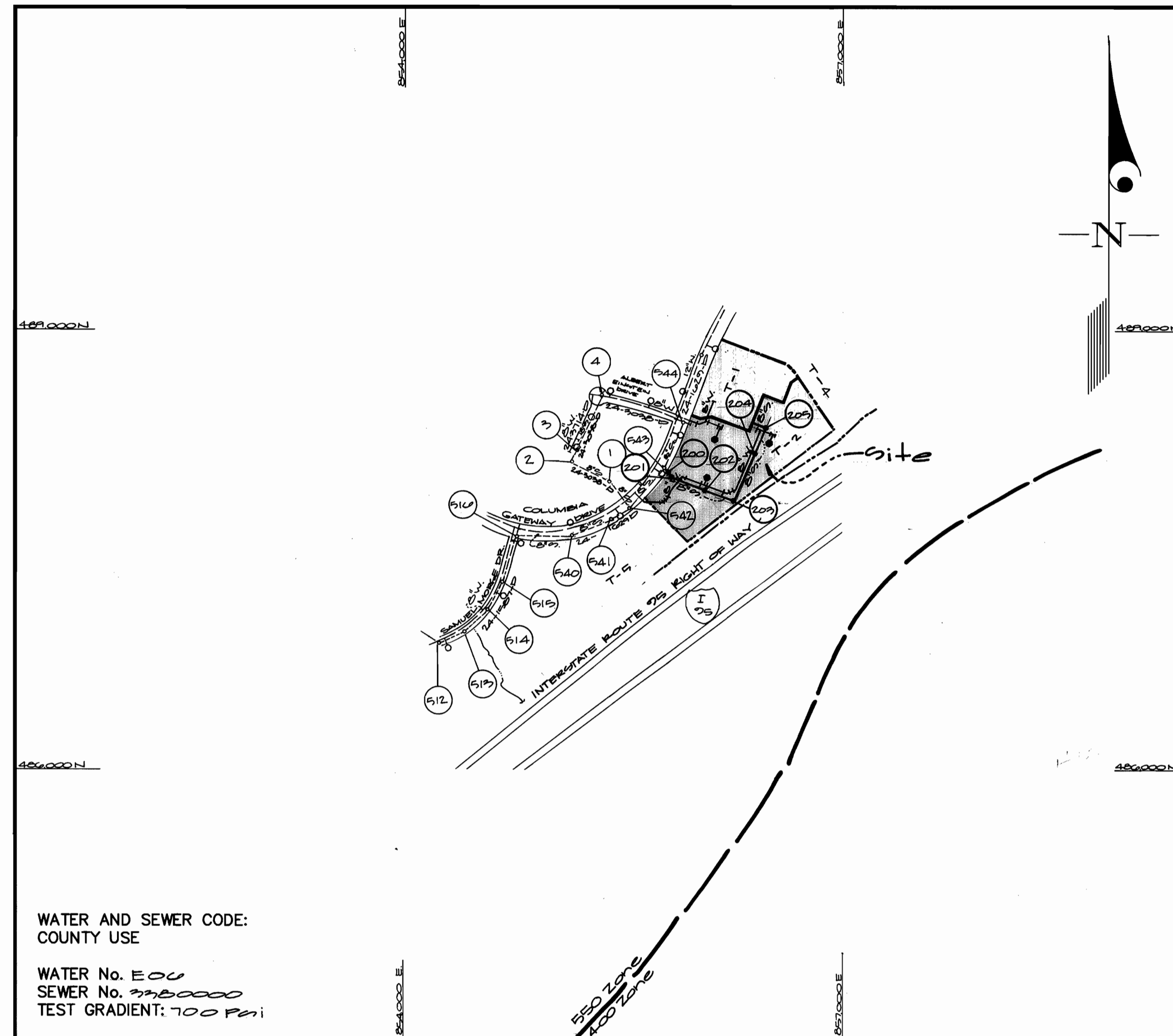
SHEET
4 OF 4

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" Water	1552 LF	1574	D.I.P. C-52	UNION FOUNDRY
6" Water	97 LF	98	D.I.P. C-52	UNION FOUNDRY
8" x 1/2" bend	7 ea.	7	D.I.P.	UNION FOUNDRY
8" x 1/2" tee	2 ea.	2	D.I.P.	UNION FOUNDRY
6" x 1/2" tee	4 ea.	4	D.I.P.	UNION FOUNDRY
8" x 6" FHT	3 ea.	3	DUSTILE	UNION FOUNDRY
8" valve	3 ea.	3	CAST IRON	AMERICAN FLOW CONTROL
8" cap & buttress	4 ea.	4	CAST IRON	UNION FOUNDRY
Fire Hydrants	3 ea.	3	B 84 B	AMERICAN DARLING
6" valve	3 ea.	3	CAST IRON	AMERICAN FLOW CONTROL
8" sewer	921 LF	921	PSM/SDR35	IPEX CANADA
4" Dia. Manholes	0 ea.	0	CONCRETE	
6" shtc	42 LF	42	PSM/SDR35	IPEX CANADA
4" shtc	25 LF	25	PSM/SDR35	IPEX CANADA
TYPE A Drop Conn.	2 ea.	2	PSM/SDR35	IPEX CANADA
TYPE B Drop Conn.	1 ea.	1	PSM/SDR35	IPEX CANADA
Drop shtc Type A	1 ea.	1	PSM/SDR35	IPEX CANADA

NAME OF UTILITY CONTRACTOR:

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

TYPE OF BUILDING	Office
NUMBER OF UNITS	1 Building
NUMBER OF S.H.C.'s	3
NUMBER OF W.H.C.'s	2
DRAINAGE AREA	Little Patuxent
TREATMENT PLANT	Little Patuxent Water Reclamation Plant, Savage, MD - Howard County



VICINITY MAP
SCALE: 1"=600'

WATER AND SEWER CODE:
COUNTY USE

WATER No. EOU
SEWER No. 3380000
TEST GRADIENT: 700 PSI

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 1927 (NAD 27)].
 - 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 531-5533
 - BGE Contractor Services 850-4620
 - BGE Under Ground Damage Control 787-9068
 - Miss Utility 1-800-257-7777
 - Colonial Pipeline Co. 795-1390
 - Howard County Department of Public Works Bureau of Utilities 313-4900
 - 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.

CONTRACT No. 24-3738-D
Columbia Gateway
Parcels T-1 and T-2

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with site development Plans 038-09-54 and Main Grading Plans 038-09-75 A.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

Cheryl Simmons 1/13/99
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 P. Roberts 1/23/99
HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert D. Basinger 1-12-99
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Cheryl Simmons 1/13/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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: WES			
DRN: WES			
CHK: JGT			
DATE: 1/23/99	BY: JGT	NO: 1	ASBUILT CONDITIONS ADDED
			REVISION
			DATE: 8/5/99

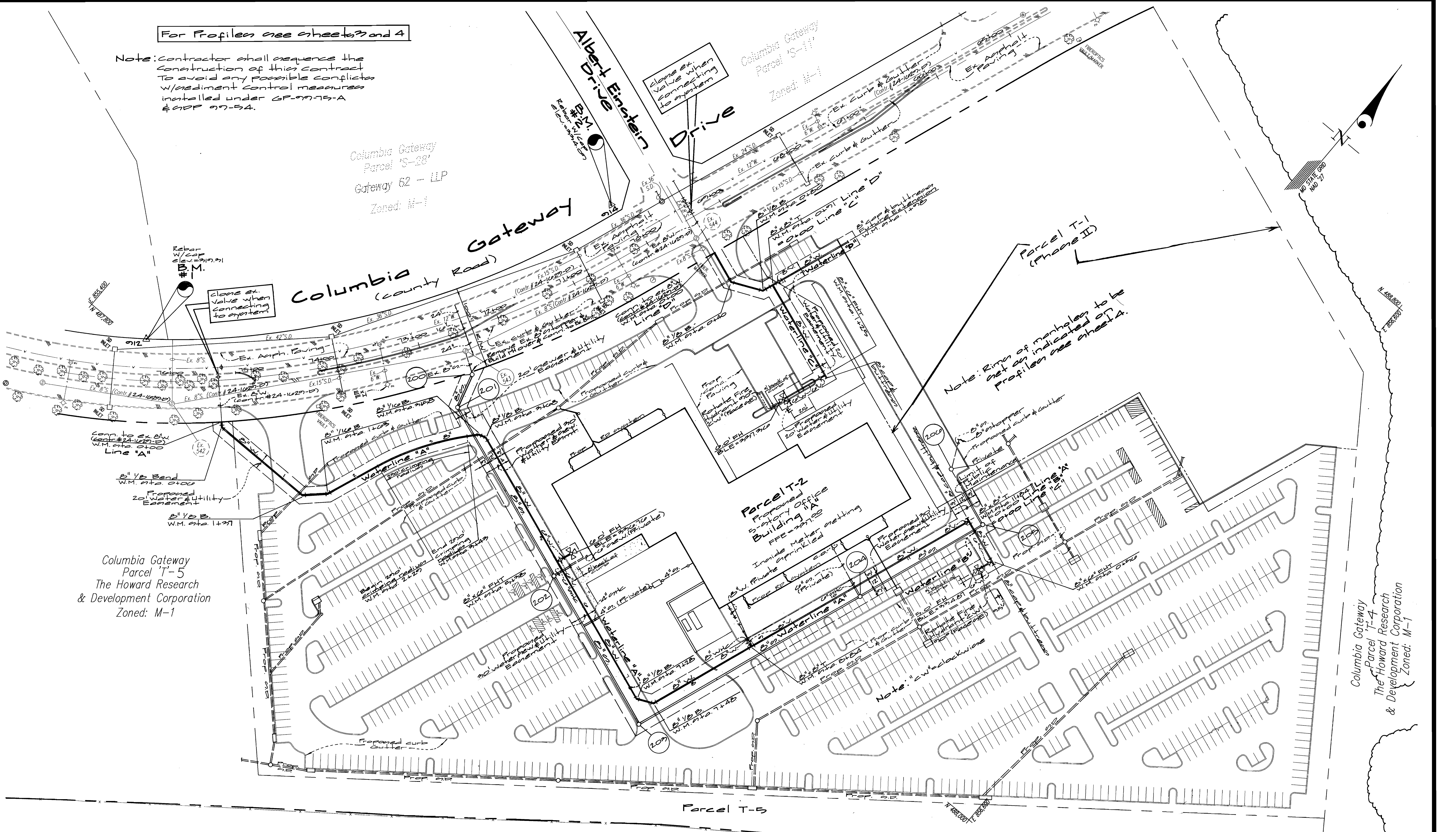
Title sheet
600' SCALE MAP NO. 45 BLOCK NO. 17

Micron
COLUMBIA GATEWAY
Parcels T-1 and T-2
Election District No. 6
Howard County, Maryland
Contract No. 24-3738-D

GLW FILE No.
98-067
SCALE AS SHOWN
SHEET 1 OF 4

For Profiles see sheets 3 and 4

Note: Contractor shall sequence the construction of this contract to avoid any possible conflicts w/mediment control measures installed under GP-99-75-A & GP 97-54.



Columbia Gateway Parcel 'S-28' Gateway 62 - LP Zoned: M-1

Columbia Gateway (County Road)

Albert Einstein Drive

Drive

Columbia Gateway Parcel 'S-17' Zoned: M-1

Parcel T-1 (Phase II)

Parcel T-2 Proposed Factory Office Building #1A

Columbia Gateway Parcel 'T-5' The Howard Research & Development Corporation Zoned: M-1

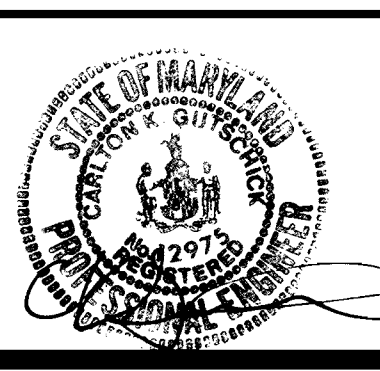
Columbia Gateway Parcel 'T-4' The Howard Research & Development Corporation Zoned: M-1

Interstate Route 95 Right-of-Way

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
1-12-99

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
1/13/99

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/WA: 301-989-2524 FAX: 301-421-4186

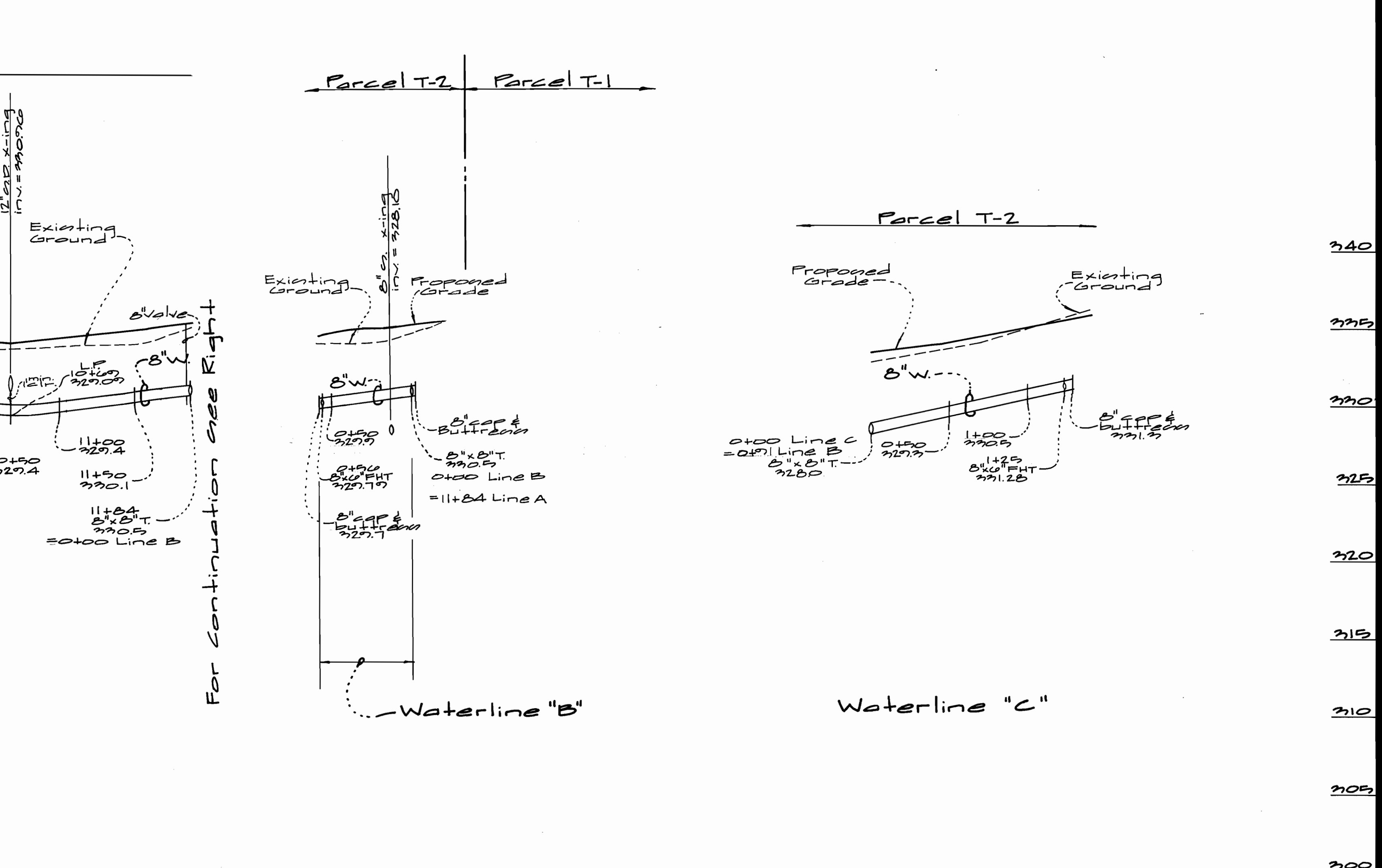
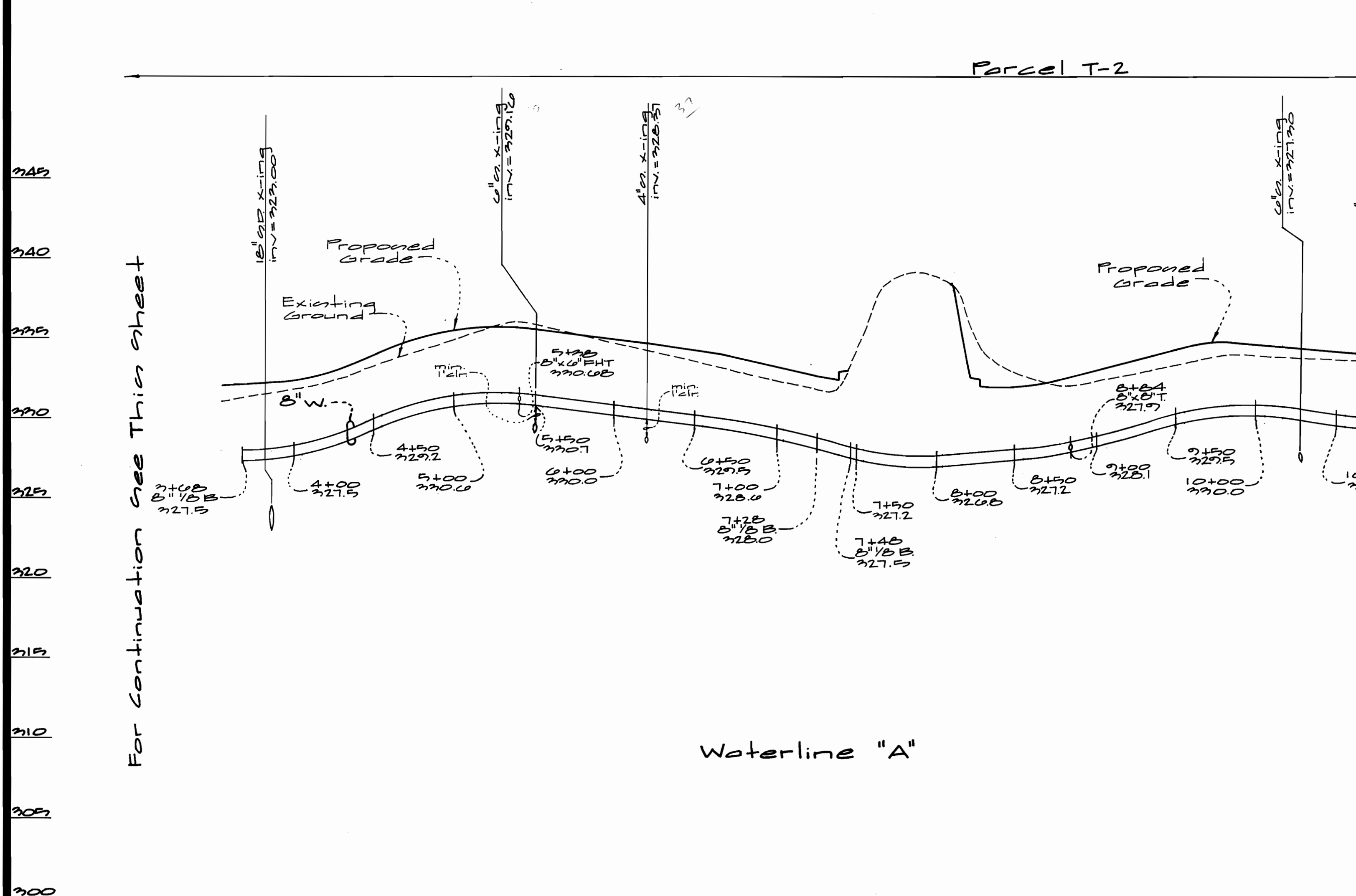
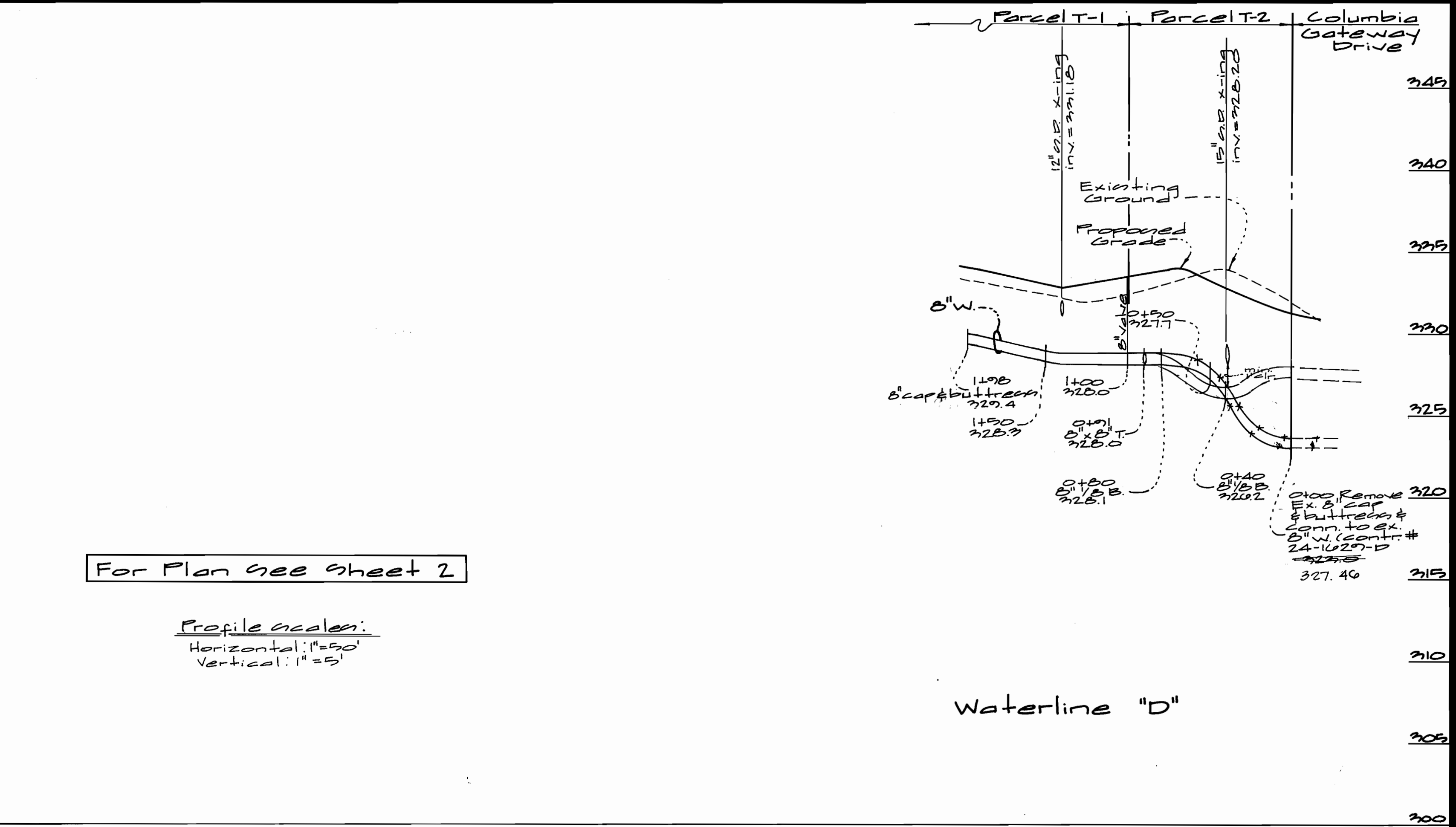
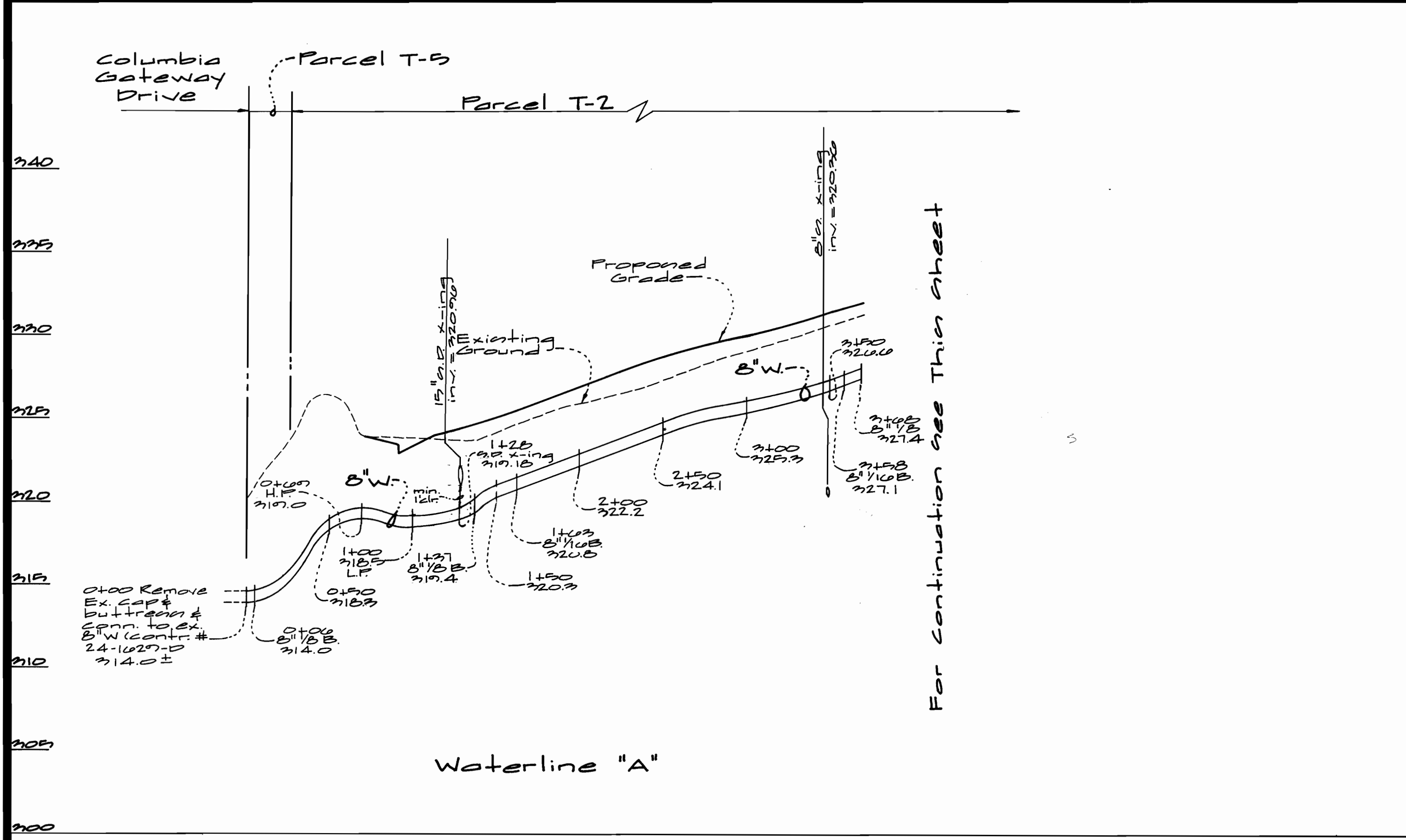


DES: wa					
DRN: wa					
CHK: rot					
DATE: 1/12/99	BY: KC.I	NO: 1	ASBUILT CONDITIONS ADDED	8/5/00	
			REVISION	DATE	

Public Water & Sewer Plan
SCALE: 1" = 50'

Microcos
COLUMBIA GATEWAY
Parcels T-1 and T-2
Contract No. 24-379B-D
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 4



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert Dummer
CHIEF, BUREAU OF UTILITIES

1-12-99
DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Michael Dummer
CHIEF, DEVELOPMENT ENGINEERING DIVISION

1/13/99
DATE

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: WSL			
DRN: WSL			
CHK: <i>rd</i>			
DATE: 1/12/99	K&I: 1	AS BUILT CONDITIONS SHOWN	8/5/00
	BY: NO	REVISION	DATE

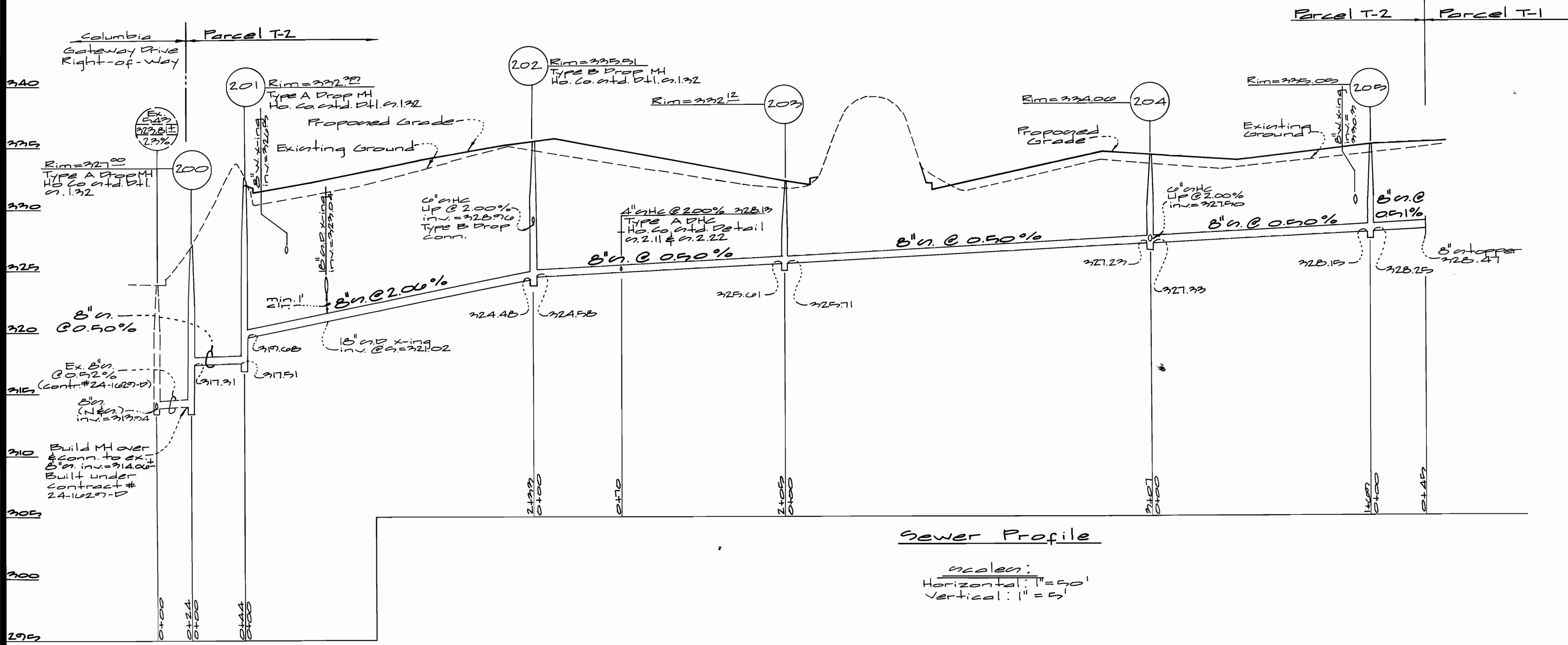
Water Profile
scale: As shown

600' SCALE MAP NO. 43 BLOCK NO. 7

Microas
COLUMBIA GATEWAY
Parcel T1 and T2
Contract No. 24-773B-D

ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 4



Sewer Profile

Scale:
Horizontal: 1" = 50'
Vertical: 1" = 5'

For Plan see sheet 2

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
1-12-99

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
1/13/99

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: Wes					
DRN: Wes					
CHK: rjt					
DATE: 1/99	BY	NO	REVISION	DATE	

Sewer Profiles
Scale:
As shown

Microcos
COLUMBIA GATEWAY
Parcels T-1 & T-2
Contract No. 24-3732-D
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 4 OF 4