

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE WATER MAIN
2	PLAN AND PROFILE SANITARY SEWER

WATER & SEWER EXTENSION

TROY HILL CORPORATE CENTER


PHASE IIIA

1st ELECTION DISTRICT

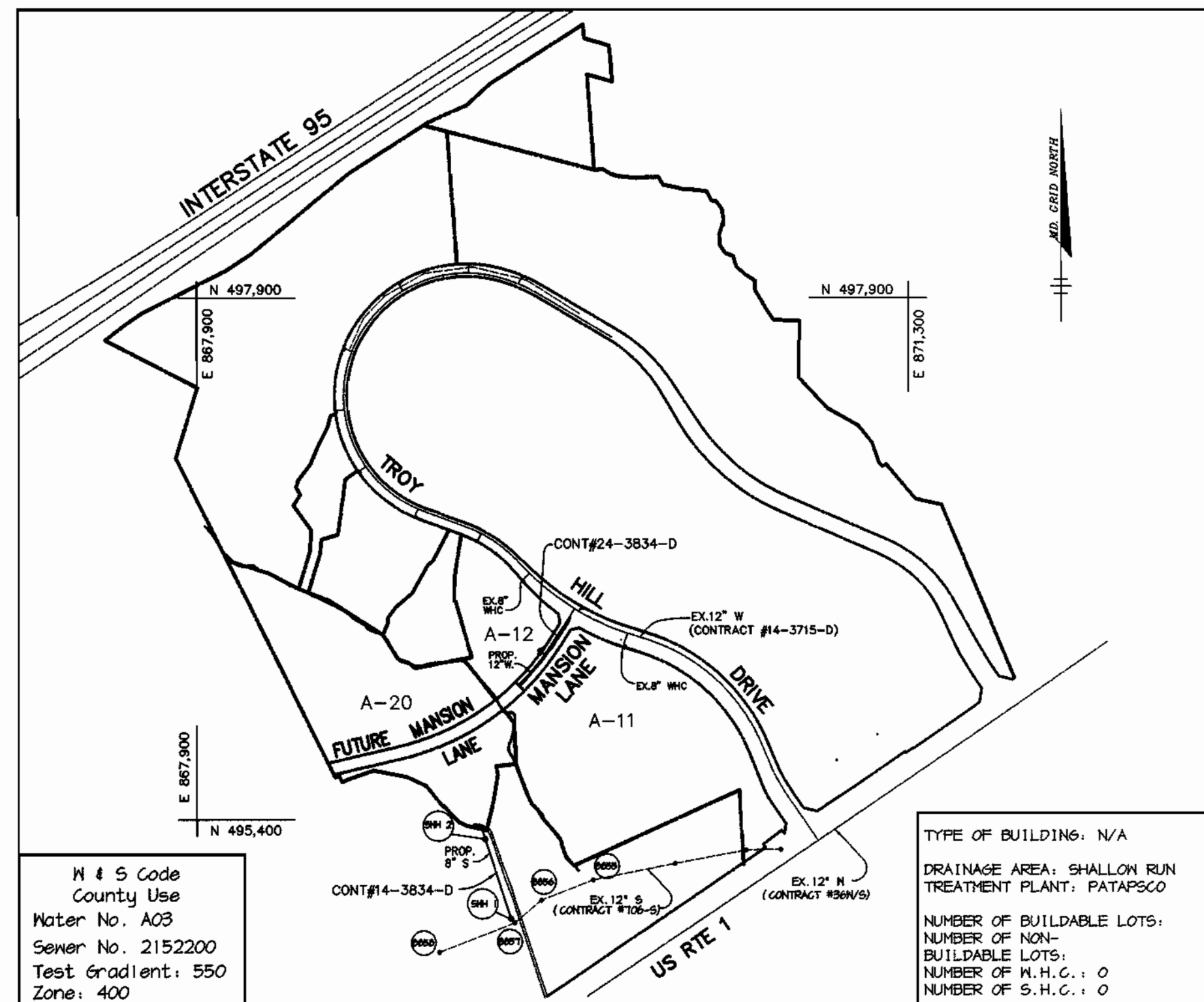
HOWARD COUNTY, MARYLAND

CONTRACT NO. 14-3834-D

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.
- 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 five working days before starting work shown on these plans:

State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Services	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-9066
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	785-1390
Bureau of Utilities, Howard County Department of Public Works	313-4420
- 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.
- 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 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.
- All sewer mains shall be D.I.P. 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 M.T. in plan and profile shall have watertight frame and covers, Standard Detail 65.52. 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.
- Manholes can be either brick or precast concrete structures.
- Contractor is solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions and programs.
- The fire hydrant shall be installed as per standard detail M.1.11.
- Fire hydrants will be located 5' FROM BACK OF CURB unless otherwise noted.
- For sprinkler systems, all townhomes or multi-family dwelling units should have a minimum of 1" connection with a 3/4" meter.
- The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-7450 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 DPM requirements per Section 18.114(a) of the Howard County Code.
- Howard County DPM is hereby granted permission to access private lots shown on these plans in order to maintain public water and sewer house connections at the curb stops and/or cleanouts.



VICINITY MAP
SCALE: 1"=600'

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
12" WATER	340 LF			
6" WATER	16 LF			
FIRE HYDRANTS	1 EA.			
6" VALVES	1 EA.			
8" SEWER	480 LF			
SEWER MANHOLES	2 EA.			

NAME OF UTILITY CONTRACTOR: _____

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-00-108

CHECKBOX	
AS-BUILT DATE	
SURVEY AND DRAFTING DIVISION	

Review for Howard Soil Conservation District and meets technical requirements.

Carl Simon/CS 5/10/00
NATURAL RESOURCES CONSERVATION SERVICE DATE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

John A. [Signature] 5/10/00
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. [Signature] 5-16-00
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

John [Signature] 5/16/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

RIEMER MUEGGE & ASSOCIATES, INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, Maryland 21045
tel 410.997.8900 fax 410.997.9282
98357.VS1.DWG



DES: KCB					
DRN: KCB					
CHK: CJR					
DATE: 5/15/00	BY	NO.	REVISION	DATE	

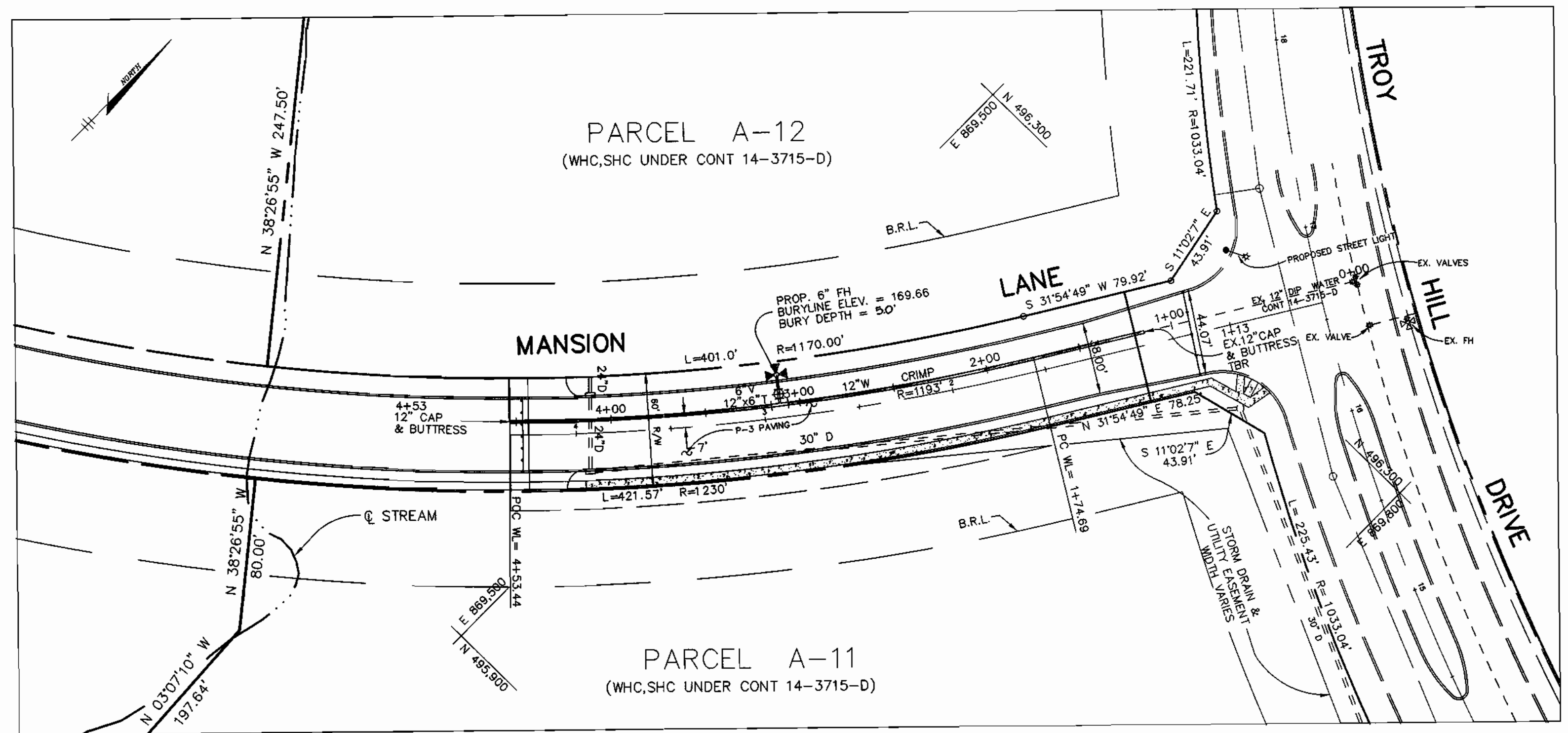
TITLE SHEET

600' SCALE MAP NO. 37 BLOCK NO. 18

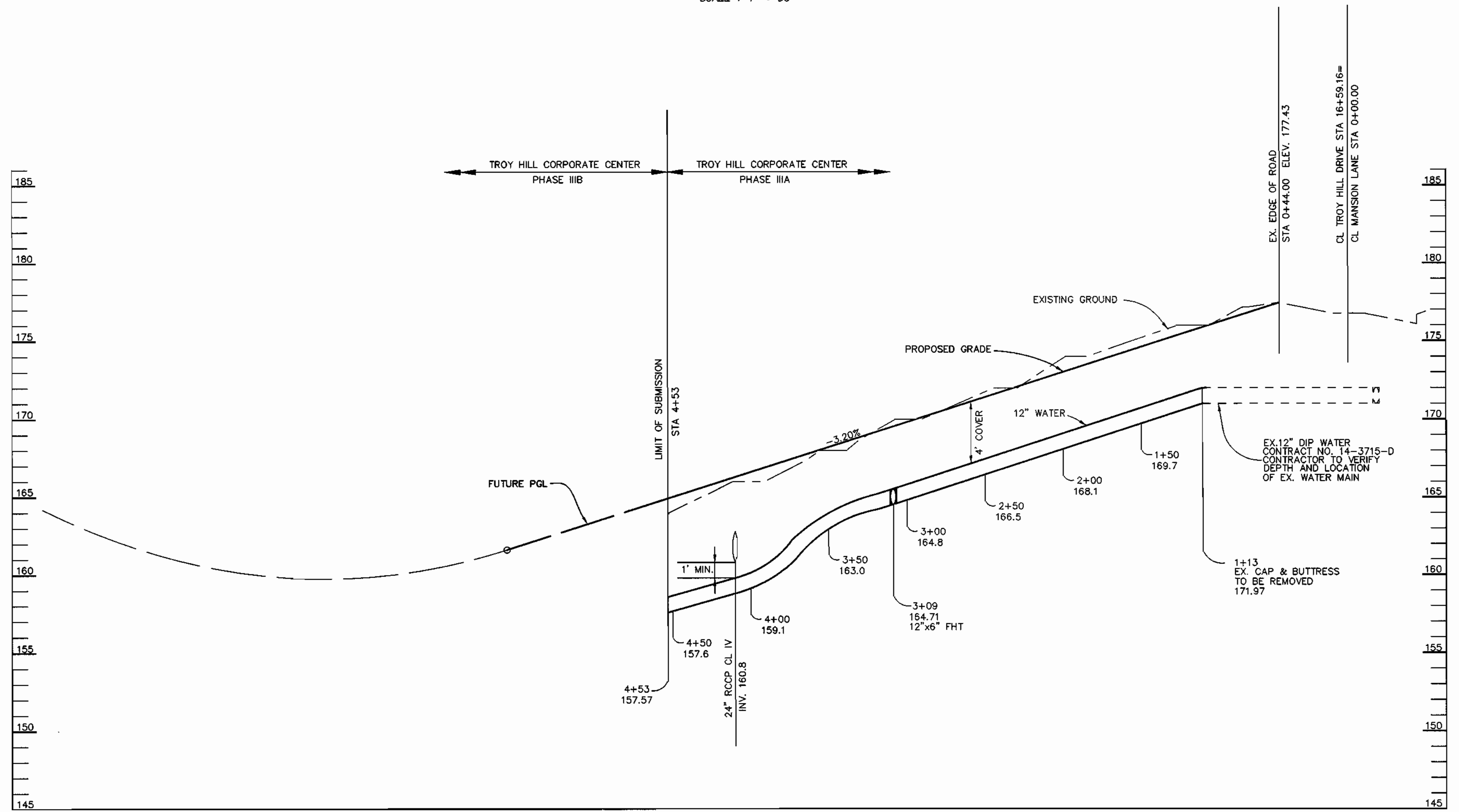
TROY HILL CORPORATE CENTER
PHASE IIIA
PARCELS A-11, A-12 & A-20
MANSION LANE
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 14-3834-D

SCALE
SHOWN


SHEET
1 OF 3



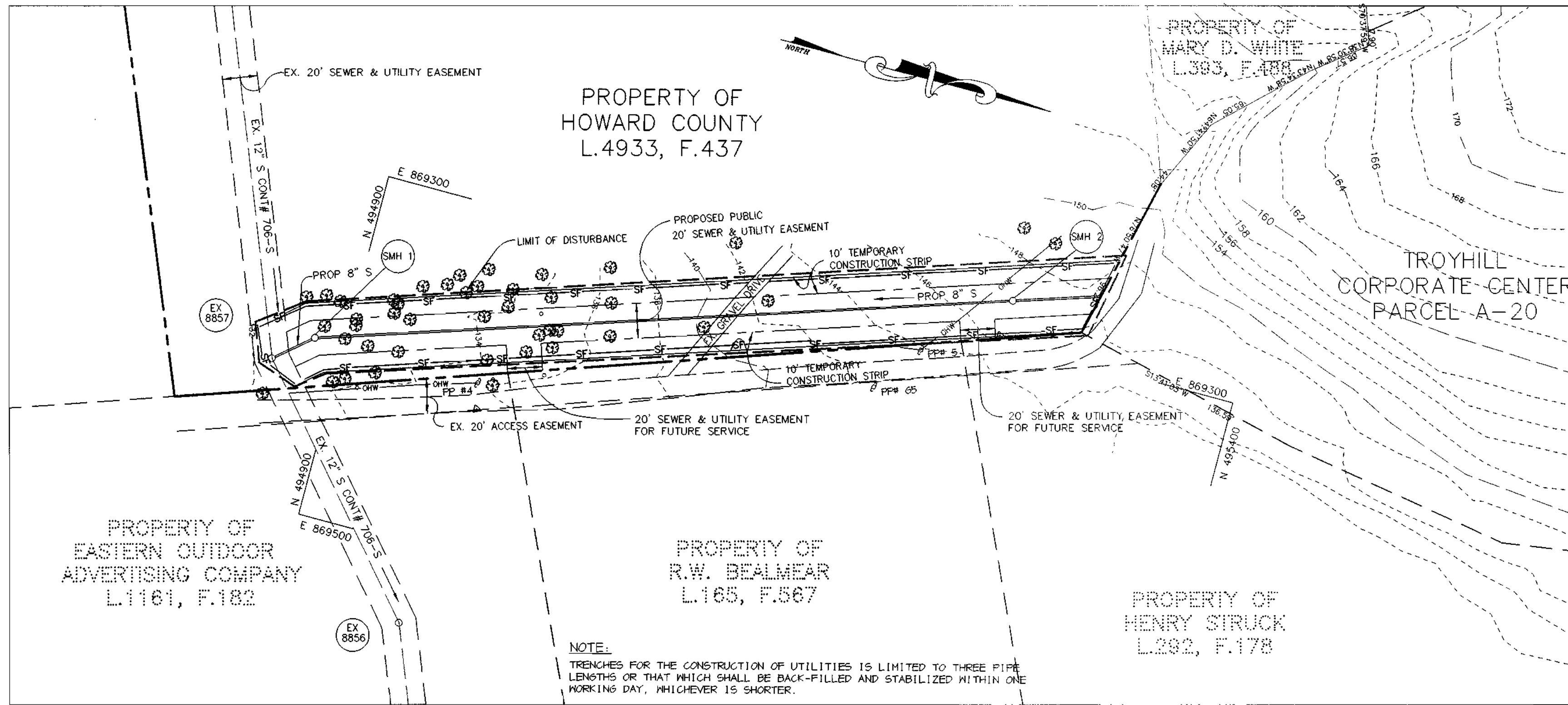
PLAN
SCALE: 1" = 50'



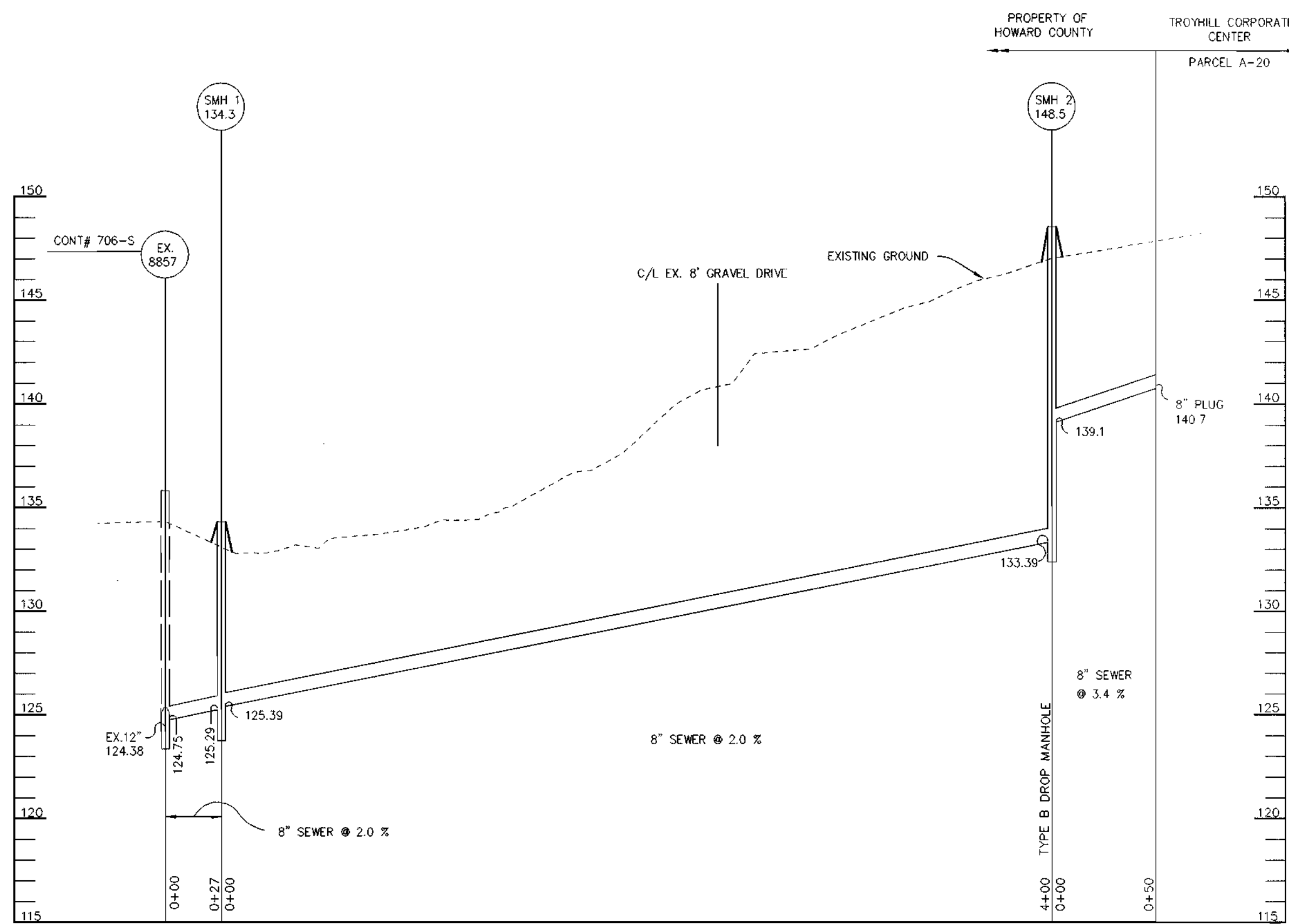
PROFILE
SCALE:
HOR. - 1" = 50'
VERT. - 1" = 5'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Robert W. Beinner</i> CHIEF, BUREAU OF UTILITIES 5-16-00 DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>Arthur E. Muegge</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/15/00 DATE	RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.8282 98357/WS2.DWG	 ARTHUR E. MUEGGE #8707	DES: KCB DRN: KCB CHK: CJR DATE: 5/15/00 BY NO. REVISION DATE	<p align="center">PLAN AND PROFILE WATER MAIN</p> 600' SCALE MAP NO. <u>37</u> BLOCK NO. <u>18</u>	<p align="center">TROY HILL CORPORATE CENTER PHASE IIIA PARCELS A-11, A-12 & A-20 MANSION LANE</p> 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 14-3834-D	SCALE AS SHOWN SHEET 2 OF 3
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PLAN
SCALE: 1" = 50'



PROFILE
SCALE: HOR. - 1" = 50'
VERT. - 1" = 5'

STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
SMH-1	STD. MH	* N 494,003 E 869,402	125.60 (8")	125.50 (8")	134.3	HOCO STD. DETAIL 6 5.12
SMH-2	TYPE B DROP MH	* N 495,263 E 869,270	139.10 (8")	139.39 (8")	148.5	HOCO STD. DETAIL 5 1.32

NOTES: * LOCATION OF MANHOLES IS AT CENTER OF TOP COVER.

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DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Robert B. Smith</i> CHIEF, BUREAU OF UTILITIES 5-16-07 DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>Arthur E. Muegge</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/23/07 DATE	RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.9282 98357/WS3.DWG		DES: KCB DRN: KCB CHK: CJR DATE: 5/15/00 BY: LAD NO. 37 REVISION: REVISED STRUCTURE LOCATION DATE: 7-13-00	PLAN AND PROFILE SANITARY SEWER MAIN 600' SCALE MAP NO. 37 BLOCK NO. 18	TROY HILL CORPORATE CENTER PHASE IIIA PARCELS A-11, A-12 & A-20 MANSION LANE 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 14-3834-D	SCALE AS SHOWN SHEET 3 OF 3
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2	PLAN AND PROFILE SANITARY SEWER

WATER & SEWER EXTENSION

TROY HILL CORPORATE CENTER


PHASE IIIA

1st ELECTION DISTRICT

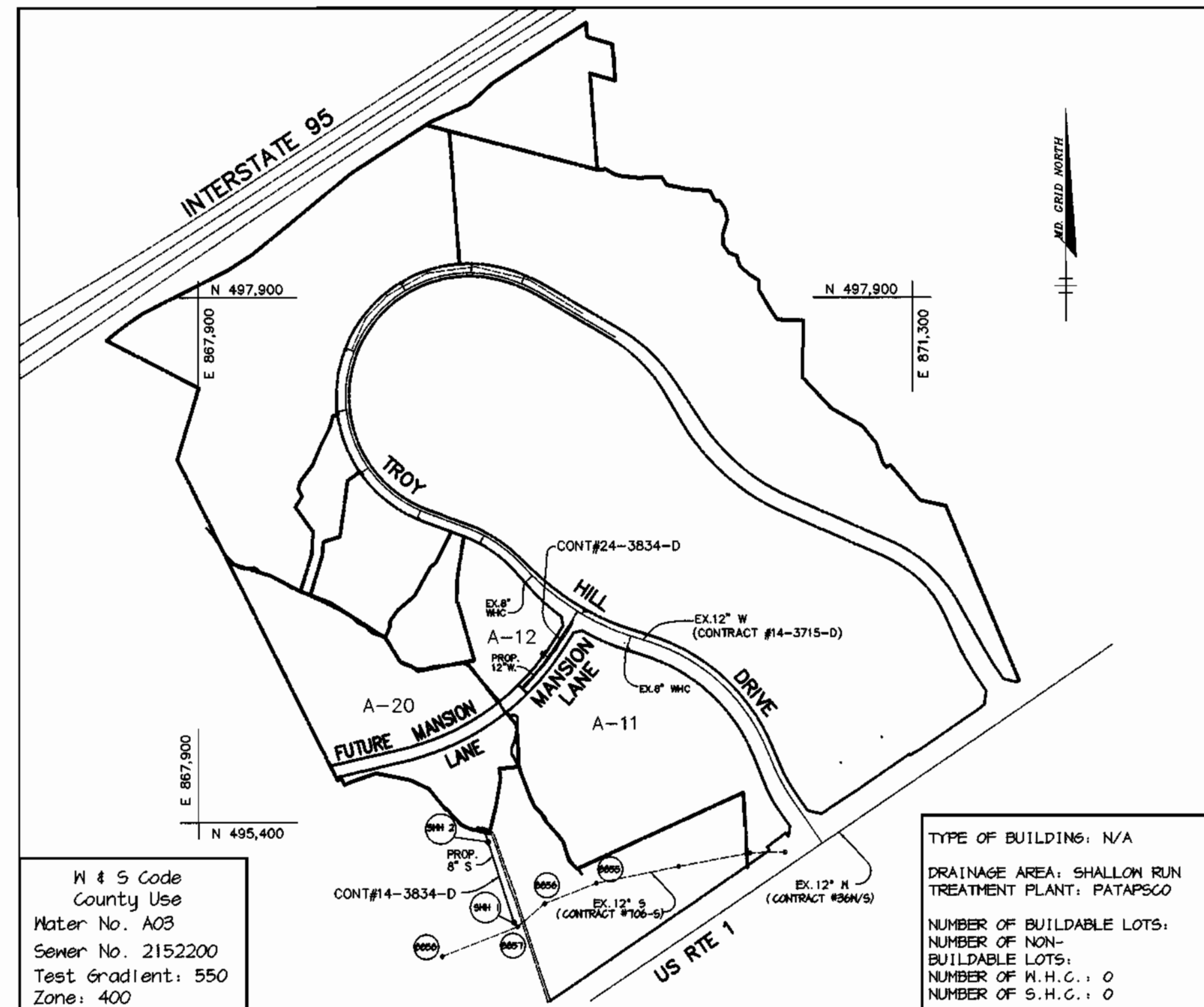
HOWARD COUNTY, MARYLAND

CONTRACT NO. 14-3834-D

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.
- 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 five working days before starting work shown on these plans:

State Highway Administration	591-5553
Baltimore Gas & Electric Co. Contractor Services	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	785-1390
Bureau of Utilities, Howard County Department of Public Works	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.
- 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.
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- All sewer mains shall be D.I.P. 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" halls are for brick manholes only.
- Manholes designated M.T. in plan and profile shall have watertight frame and covers, Standard Detail 69.52. 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.
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- Fire hydrants will be located 3' FROM BACK OF CURB unless otherwise noted.
- For sprinkler systems, all townhomes or multi-family dwelling units should have a minimum of 1" connection with a 3/4" meter.
- The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-7450 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 the Howard County Code.
- Howard County DPW is hereby granted permission to access private lots shown on these plans in order to maintain public water and sewer house connections at the curb stops and/or cleanouts.



QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
12" WATER	340 LF	360 L.F.	TYTON JOINT 52	U.S. PIPE FOUNDRY
6" WATER	16 LF	18 L.F.	"	"
FIRE HYDRANTS	1 EA.	1 EA.	CENTURION HYDRANT	MUELLER CO.
6" VALVES	1 EA.	1 EA.	RESILIENT SEAT O.R. CAST IRON	MUELLER CO.
8" SEWER	480 LF	468 L.F.	D-3084/SOR 35	J.M. MANUFACT.
SEWER MANHOLES	2 EA.	2 EA.	PRECAST CONCRETE	AMERICAST/Colts.

NAME OF UTILITY CONTRACTOR: C.J. MILLER Inc.

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-00-103	CHECKBOX
	AS-BUILT DATE
	SURVEY AND DRAFTING DIVISION

Review for Howard Soil Conservation District and meets technical requirements.

Carl Simon/GS 5/16/00
NATURAL RESOURCES CONSERVATION SERVICE DATE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

Arthur E. Muegge 5/16/00
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND
<i>Robert M. Berman</i> 5-16-00 CHIEF, BUREAU OF UTILITIES DATE	<i>H. M. ...</i> 5/16/00 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

RIEMER MUEGGE & ASSOCIATES, INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, Maryland 21045
Tel 410.997.8900 Fax 410.997.9282
98357, NS1.DWG

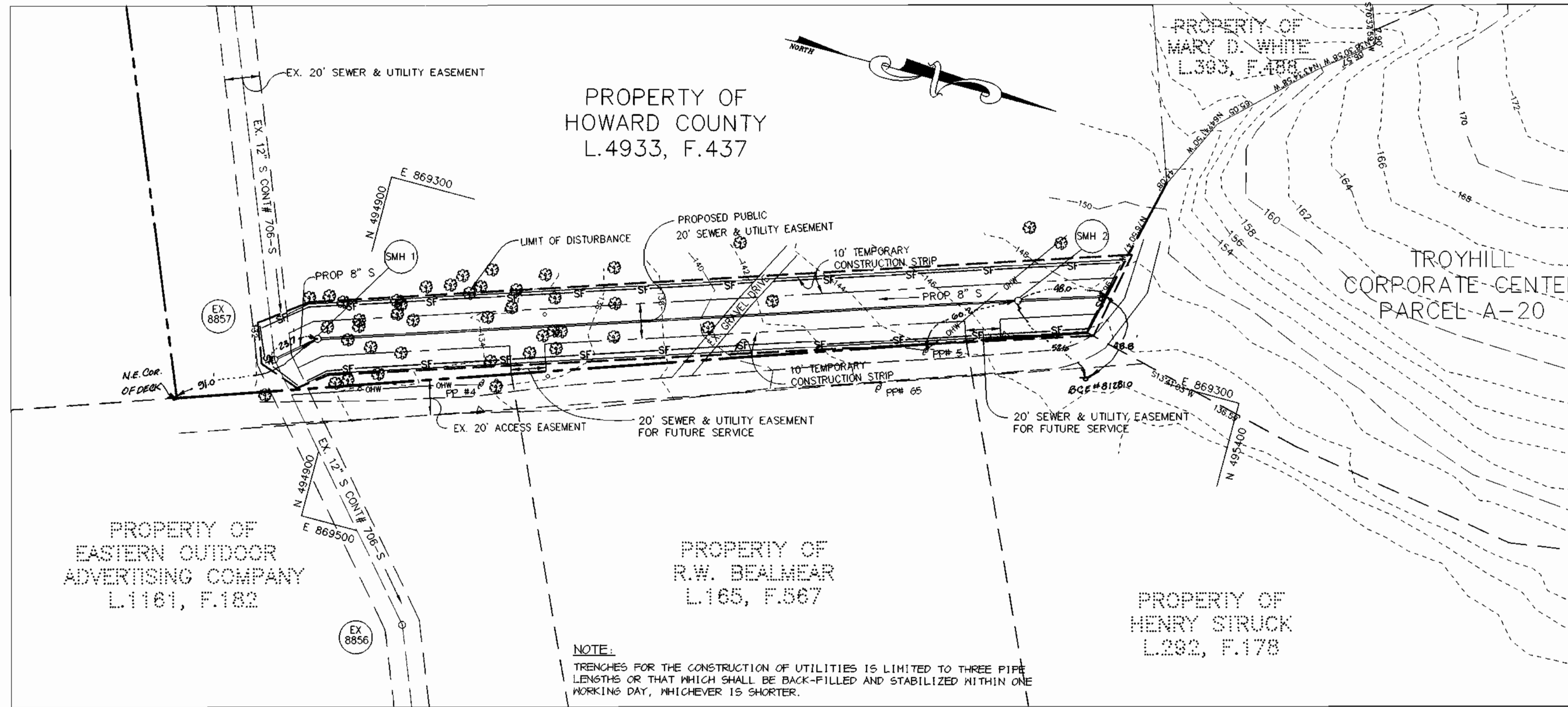
Arthur E. Muegge #8707
ARTHUR E. MUEGGE #8707

DES: KCB				
DRN: KCB				
CHK: CJR				
DATE: 5/15/00	K.C.I. 1	AS-BUILT CONDITIONS ADDED TO PLAN	4/15/01	
BY NO.		REVISION	DATE	

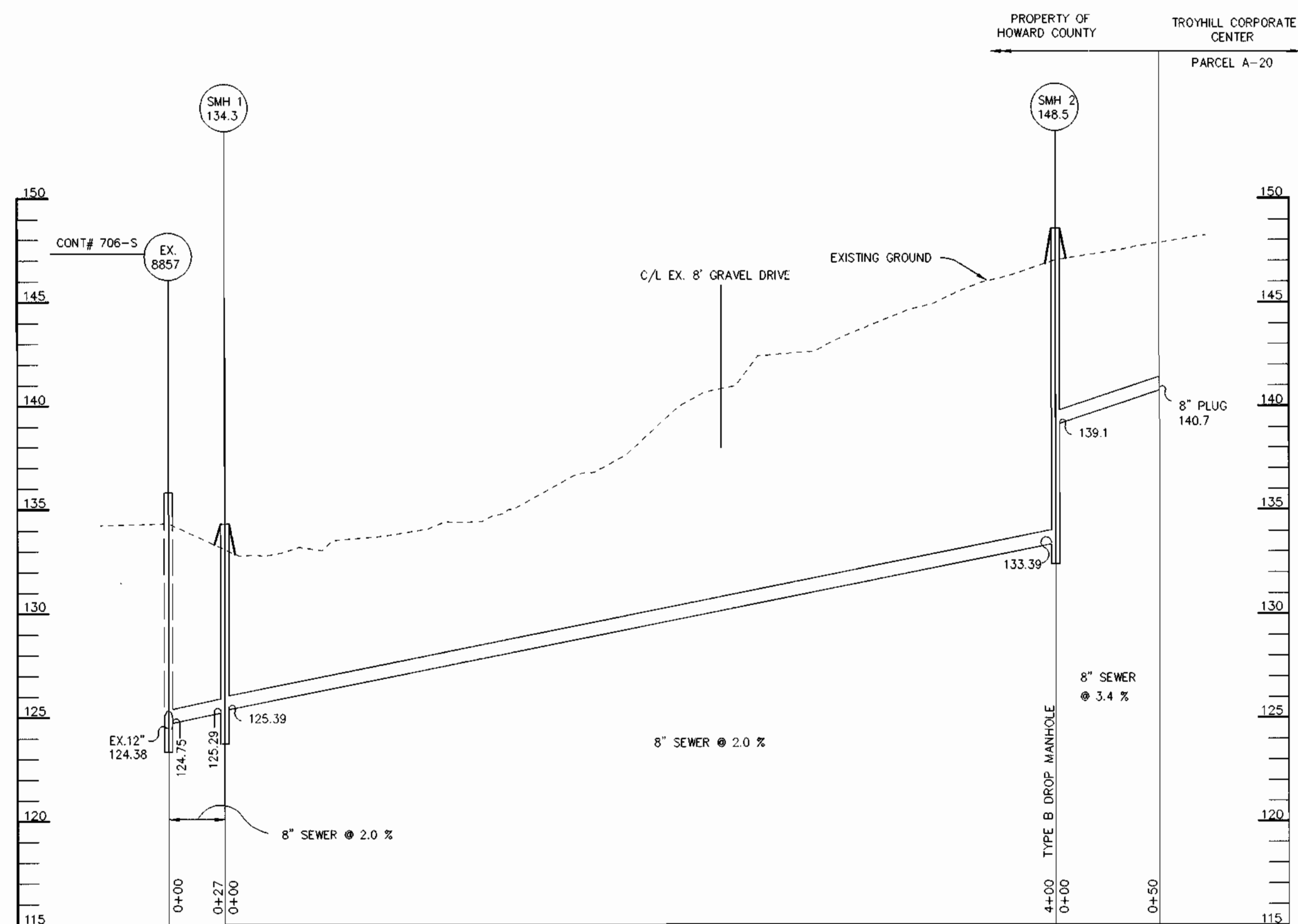
600' SCALE MAP NO. 37 BLOCK NO. 18

TROY HILL CORPORATE CENTER
PHASE IIIA
PARCELS A-11, A-12 & A-20
MANSION LANE
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 14-3834-D

SCALE AS SHOWN
SHEET 1 OF 3



PLAN
SCALE: 1" = 50'



PROFILE
SCALE: HOR. -1" = 50'
VERT. -1" = 5'

STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
SMH-1	STD. MH	* N 494,883 E 869,402	125.60 (8")	125.50 (8")	134.3	HOCO STD. DETAIL 6 5.12
SMH-2	TYPE B DROP MH	* N 495,263 E 869,270	139.10 (8")	138.39 (8")	148.5	HOCO STD. DETAIL 5 1.32

NOTES: * LOCATION OF MANHOLES IS AT CENTER OF TOP COVER.

C:\PROJECTS\198357\MS3.DWG Mod: MAY 15 14:12:32 2000 BMA

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>R. J. ...</i> CHIEF, BUREAU OF UTILITIES 5-16-00 DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>Arthur E. Muegge</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/15/00 DATE	RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.9282 98357/WSS.DWG ARTHUR E. MUEGGE #8707	DES: KCB DRN: KCB CHK: CJR DATE: 5/15/00 BY: NO. NO.: 2 REVISION: ASBUILT CONDITIONS ADDED TO PLAN REVISION LOCATION: REVISED STRUCTURE LOCATION DATE: 4/15/01 DATE: 7-15-00	PLAN AND PROFILE SANITARY SEWER MAIN	TROY HILL CORPORATE CENTER PHASE IIIA PARCELS A-11, A-12 & A-20 MANSION LANE 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 14-3834-D	SCALE AS SHOWN SHEET 3 OF 3
600' SCALE MAP NO. 37 BLOCK NO. 18						

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WATER & SEWER EXTENSION

TROY HILL CORPORATE CENTER

PHASE IIIA

1st ELECTION DISTRICT

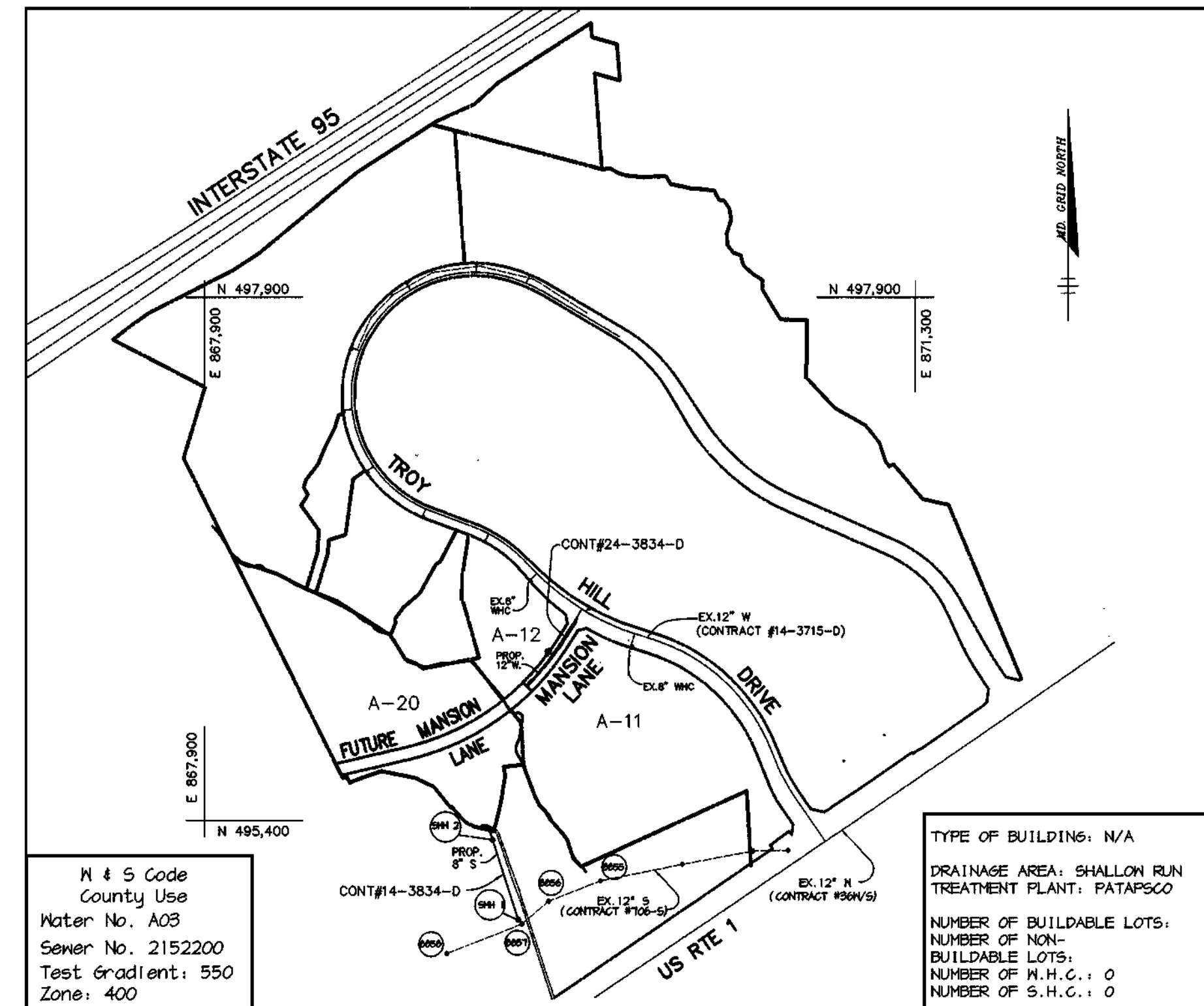
HOWARD COUNTY, MARYLAND

CONTRACT NO. 14-3834-D

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Baltimore Gas & Electric Co. Underground Damage Control	787-9066
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	745-1940
Bureau of Utilities, Howard County Department of Public Works	313-4400
- 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.
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- Howard County DPN is hereby granted permission to access private lots shown on these plans in order to maintain public water and sewer house connections at the curb stops and/or cleanouts.



QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
12" WATER	340 LF	340 L.F.	TITEN JOINT ^{CLIP}	GRIFFIN PIPE CO.
6" WATER	16 LF	16 L.F.	TITEN JOINT ^{CLIP}	"
FIRE HYDRANTS	1 EA.	1EA.	AMERICAN B-84B	AMERICAN FLOW CONTROL INC.
6" VALVES	1 EA.	1EA.	SERIES 500 GATE	AMERICAN FLOW CONTROL INC.
8" SEWER	480 LF	480 L.F.	D-3034/S DR 35	"
SEWER MANHOLES	2 EA.	2EA.	PRECAST CONCRETE	ATLANTIC PRECAST

NAME OF UTILITY CONTRACTOR : CHERRY HILL CONTR. INC.

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-00-103	CHECKBOX
	AS-BUILT DATE
	SURVEY AND DRAFTING DIVISION

Review for Howard Soil Conservation District and meets technical requirements.

Carl Simon/GS 5/10/00
NATURAL RESOURCES CONSERVATION SERVICE DATE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

John A. [Signature] 5/10/00
HOWARD SOIL CONSERVATION DISTRICT DATE

FOR REVISION #2 ONLY

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND
<u>Robert M. [Signature]</u> 5-16-00 CHIEF, BUREAU OF UTILITIES DATE	<u>Arthur E. Muegge</u> <u>Stefko</u> CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

RIEMER MUEGGE & ASSOCIATES, INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8010 Centre Park Drive, Columbia, Maryland 21045
tel 410.997.8900 fax 410.997.9282
98357, W51.DWG

Arthur E. Muegge #8707

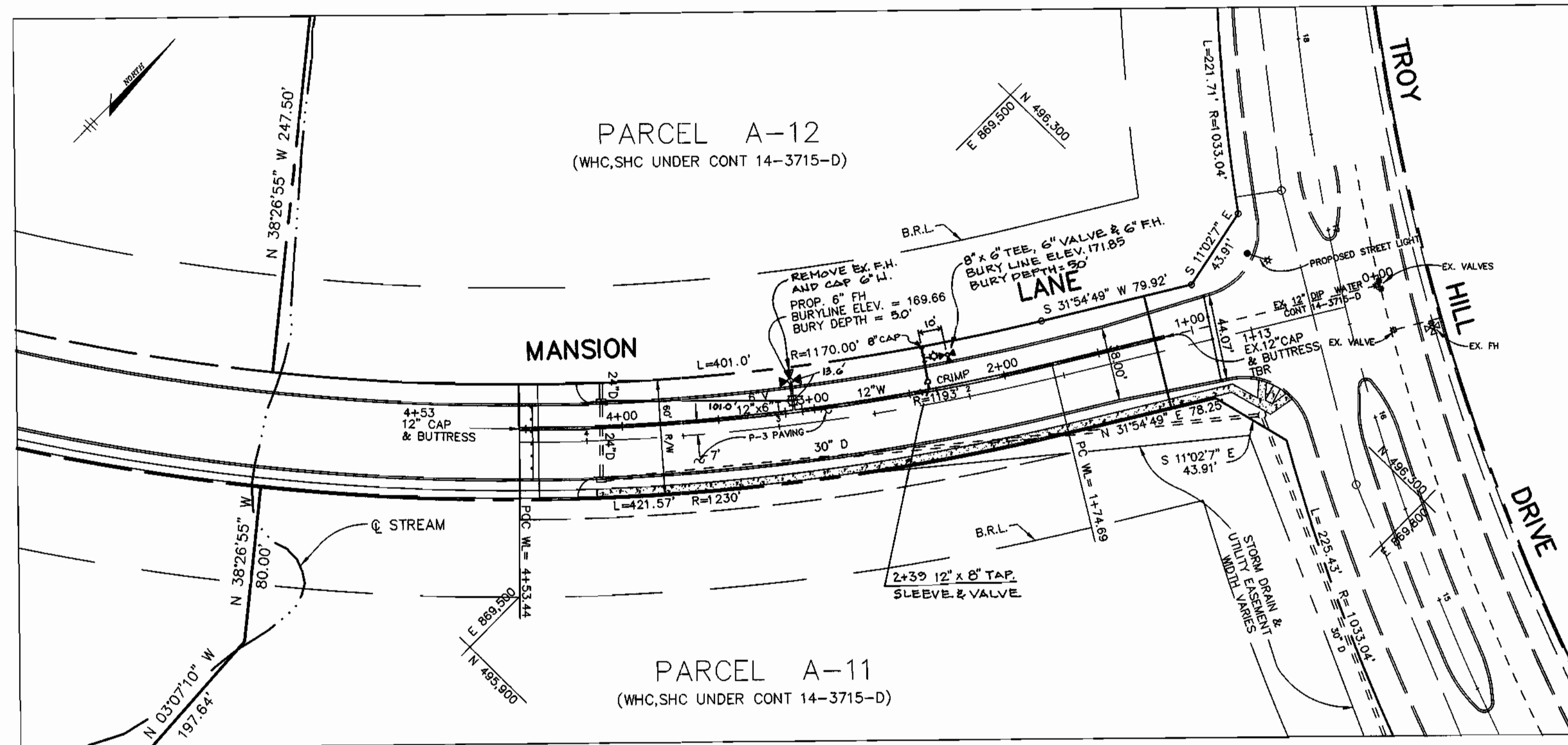
DES: KCB	DMH	Z	ADD 8'4" & 6" FH / REMOVE EX. FH. SHT. 2 OF 3	4/10/00
DRN: KCB				
CHK: CJR	K&I	Z	AS-BUILT CONDITIONS ADDED TO PLAN	12/01/01
	K&I	Z	AS-BUILT CONDITIONS ADDED TO PLAN	4/15/01
DATE: 5/15/00	BY NO.	REVISION	DATE	

TITLE SHEET

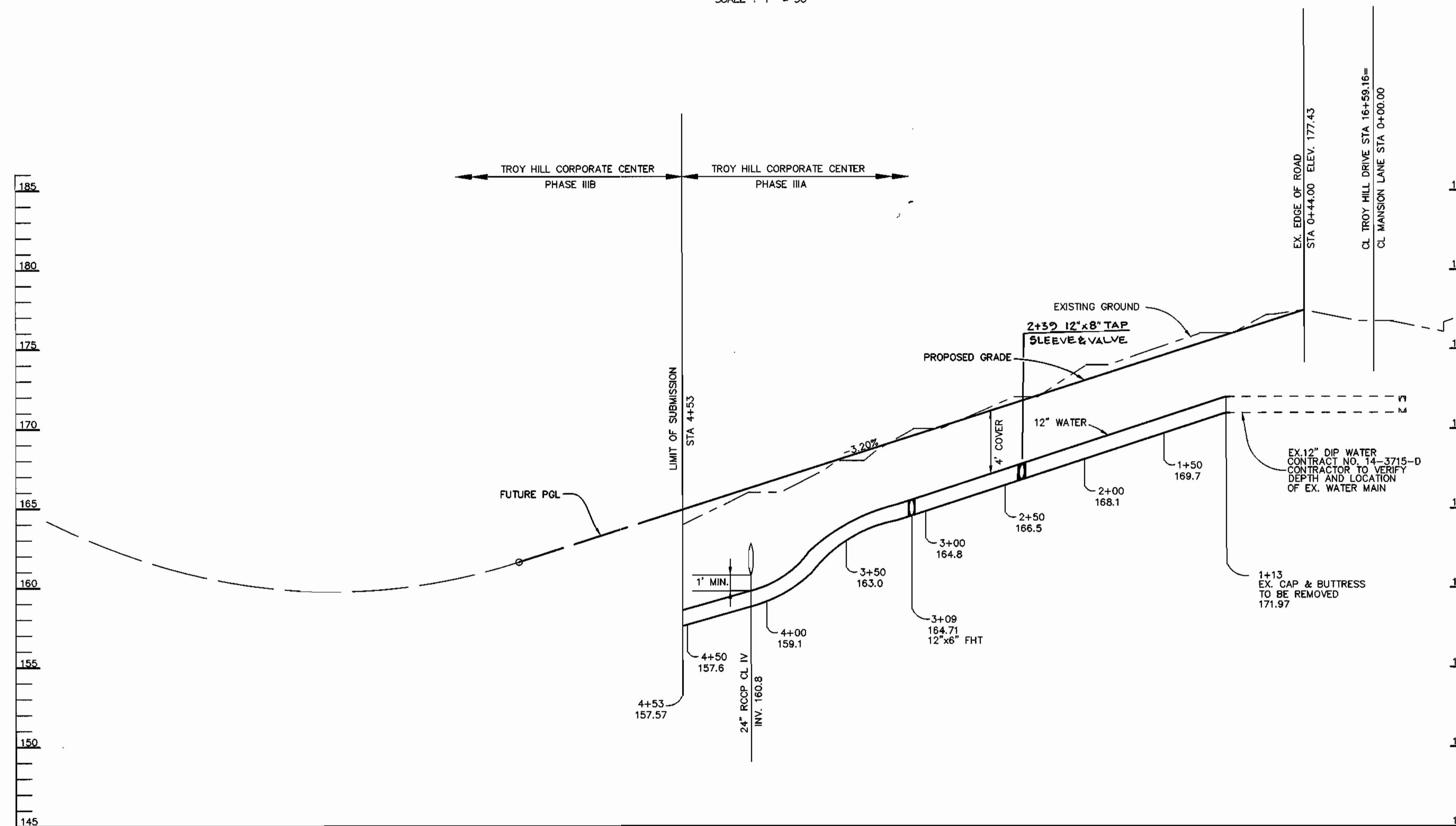
600' SCALE MAP NO. 37 BLOCK NO. 18

TROY HILL CORPORATE CENTER
PHASE IIIA
PARCELS A-11, A-12 & A-20
MANSION LANE
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 14-3834-D

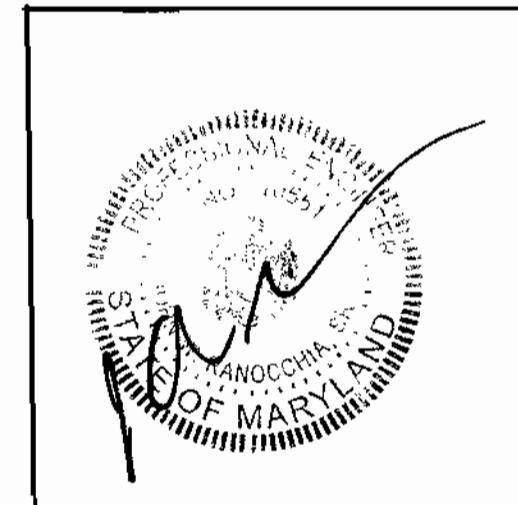
SCALE AS SHOWN
SHEET 1 OF 3



PLAN
SCALE: 1" = 50'



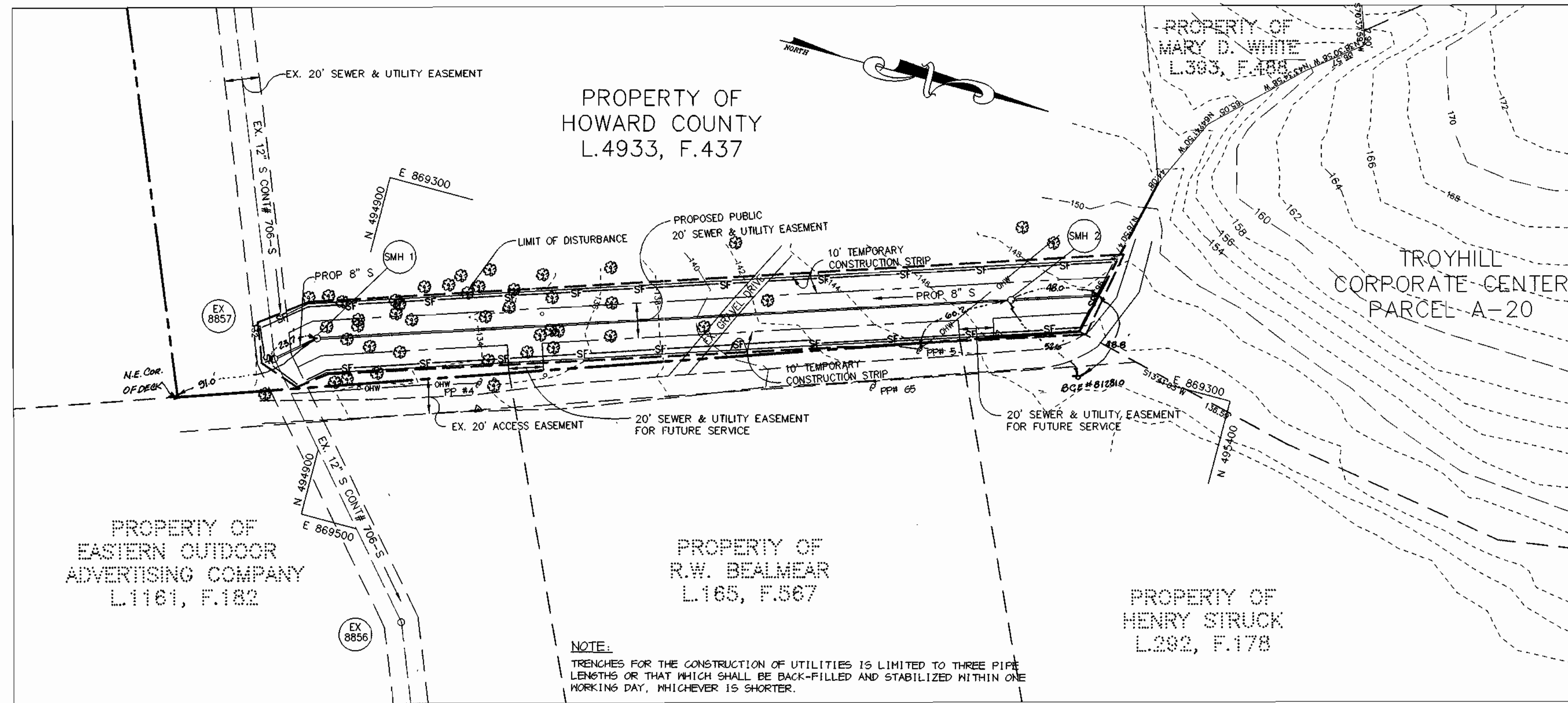
PROFILE
SCALE:
HOR. - 1" = 50'
VERT. - 1" = 5'



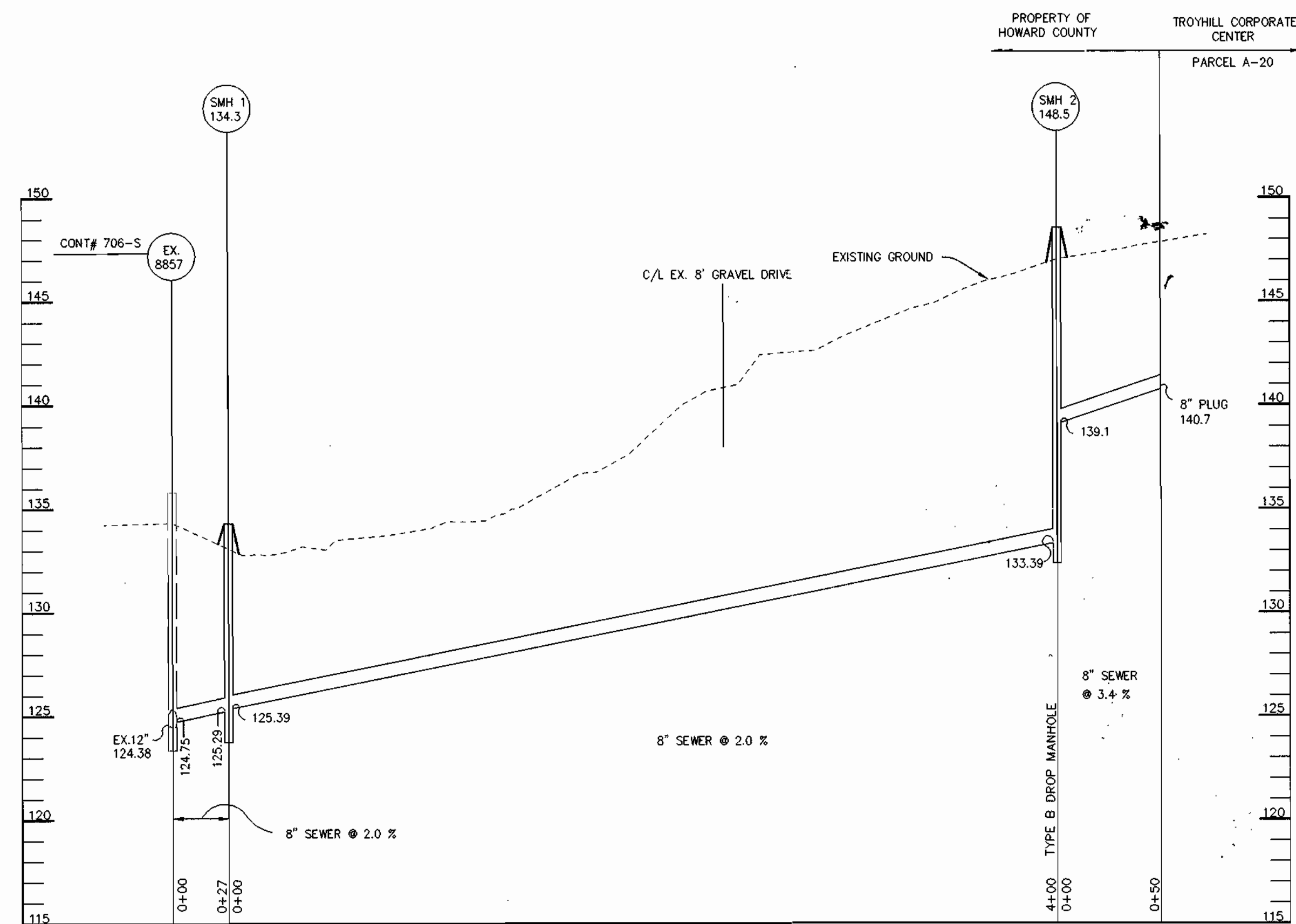
FOR REVISION #2 ONLY

F:\PROJECT\08357\W52.dwg Mon May 15 08:12:16 2000 RMA

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Robert B. ...</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>Arthur E. Muegge</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.9282 98357/W52.DWG	 ARTHUR E. MUEGGE #98357	DES: KCB DRN: KCB CHK: CJR DATE: 5/15/00 DML 2 ADD 8" W. & 6" P.H. / REMOVE EX. P.H. KRI 1 ABOUT CONDITIONS ADDED TO PLAN BY NO. REVISION DATE	PLAN AND PROFILE WATER MAIN 600' SCALE MAP NO. 37 BLOCK NO. 18	TROY HILL CORPORATE CENTER PHASE IIIA PARCELS A-11, A-12 & A-20 MANSION LANE 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 14-3834-D	SCALE AS SHOWN SHEET 2 OF 3
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PLAN
SCALE: 1" = 50'



PROFILE
SCALE: HOR. - 1" = 50'
VERT. - 1" = 5'

STRUCTURE SCHEDULE

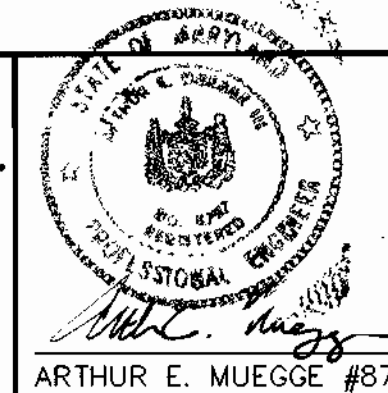
STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
SMH-1	STD. MH	* N 494,883 E 869,402 Δ	125.60 (8")	125.50 (8")	134.3	HOCO STD. DETAIL @ 5.12
SMH-2	TYPE B DROP MH	* N 495,263 E 869,270 Δ	139.10 (8")	133.39 (8")	148.5	HOCO STD. DETAIL @ 5.32

NOTES: * LOCATION OF MANHOLES IS AT CENTER OF TOP COVER.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

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ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, Maryland 21045
tel 410.997.8900 fax 410.997.9282
98357/WSS.DWG



DES: KCB					
DRN: KCB					
CHK: CJR	KCI 3	ASBUILT CONDITIONS ADDED TO PLAN	12/21/01		
	KCI 2	ASBUILT CONDITIONS ADDED TO PLAN	11/5/01		
	WAD Δ	REVISED STRUCTURE LOCATION	7-13-00		
DATE: 5/15/00	BY: NO.	REVISION	DATE		

PLAN AND PROFILE
SANITARY SEWER MAIN

600' SCALE MAP NO. 37 BLOCK NO. 18

TROY HILL CORPORATE CENTER
PHASE IIIA
PARCELS A-11, A-12 & A-20
MANSION LANE
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT 14-3834-D

SCALE
AS
SHOWN

SHEET
3 OF 3

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE WATER MAIN
2	PLAN AND PROFILE SANITARY SEWER


WATER & SEWER EXTENSION

TROY HILL CORPORATE CENTER

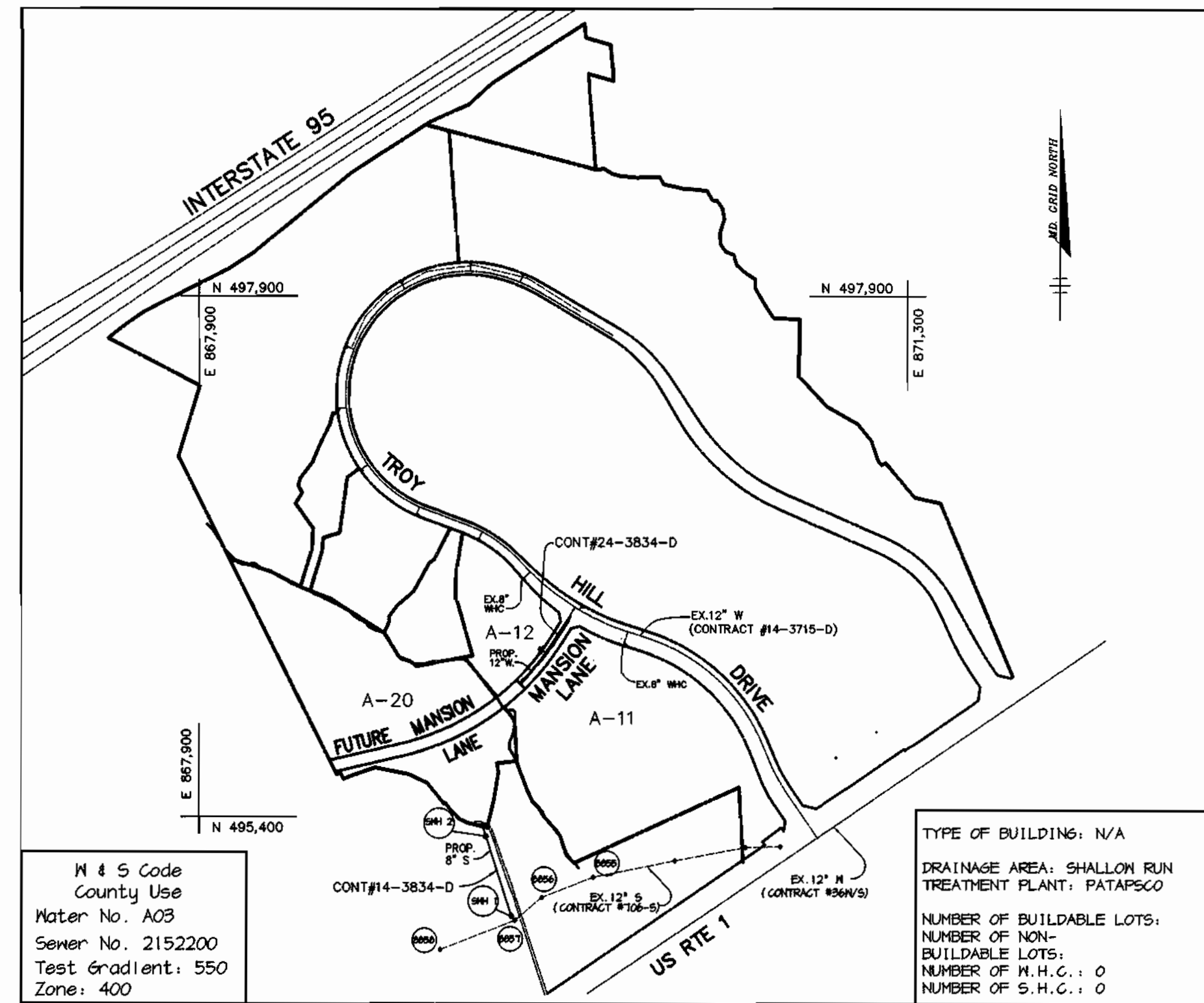
PHASE IIIA

1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 14-3834-D

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.
- 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 five working days before starting work shown on these plans:

State Highway Administration	591-5533
Baltimore Gas & Electric Co. Contractor Services	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-4066
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1940
Bureau of Utilities, Howard County Department of Public Works	313-4400
- 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.
- 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 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.
- All sewer mains shall be D.I.P. and P.V.C. unless otherwise noted.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- Manholes shown with 12" and 16" walls are for brick manholes only.
- Manholes designated M.T. in plan and profile shall have watertight frame and covers. Standard Detail 65.52. 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.
- Manholes can be either brick or precast concrete structures.
- Contractor is solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions and programs.
- The fire hydrant shall be installed as per standard detail N.1.11.
- Fire hydrants will be located 3' FROM BACK OF CURB unless otherwise noted.
- For sprinkler systems, all townhomes or multi-family dwelling units should have a minimum of 1" connection with a 3/4" meter.
- The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-7450 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 DPM requirements per Section 18.114(a) of the Howard County Code.
- Howard County DPM is hereby granted permission to access private lots shown on these plans in order to maintain public water and sewer house connections at the curb stops and/or cleanouts.



VICINITY MAP
SCALE: 1"=600'

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
12" WATER	340 LF	260 L.F.	TYPEN JOINT BS	U.S. PIPE FOUNDRY
6" WATER	16 LF	18 L.F.	" "	" "
FIRE HYDRANTS	1 EA.	1 EA.	CENTURION HYDRANT	MUELLER CO.
6" VALVES	1 EA.	1 EA.	RESIDENT GBT O.R. CATEVORNE	MUELLER CO.
8" SEWER	480 LF	468 L.F.	D.3084/S.DR 25	J.M. MANUPART.
SEWER MANHOLES	2 EA.	2 EA.	PRECAST CONCRETE	AMERICAST CONG.

NAME OF UTILITY CONTRACTOR: C. J. MUELLER INC.

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-00-103

Review for Howard Soil Conservation District and meets technical requirements.

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District

Signature: Carl Simon / 6/5 DATE: 5/10/00

Signature: [Signature] / 6/5 DATE: 5/10/00

FOR REVISION #2 ONLY

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND
<u>[Signature]</u> 5-16-00 CHIEF, BUREAU OF UTILITIES	<u>[Signature]</u> 5/16/00 CHIEF, DEVELOPMENT ENGINEERING DIVISION

RIEMER MUEGGE & ASSOCIATES, INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, Maryland 21045
tel 410.997.8900 fax 410.997.9282
95557, WSI, DWG

[Signature]
ARTHUR E. MUEGGE #8707

DES: KCB	DMW	Z	ADD 8" H & 6" PH. / REMOVE EX. P.H. SHT. 2 OF 3	<u>[Signature]</u>
DRN: KCB				
CHK: CJR				
DATE: 5/15/00	K.C.I.	1	AS-BUILT CONDITIONS ADDED TO PLAN	4/15/01
BY NO.			REVISION	DATE

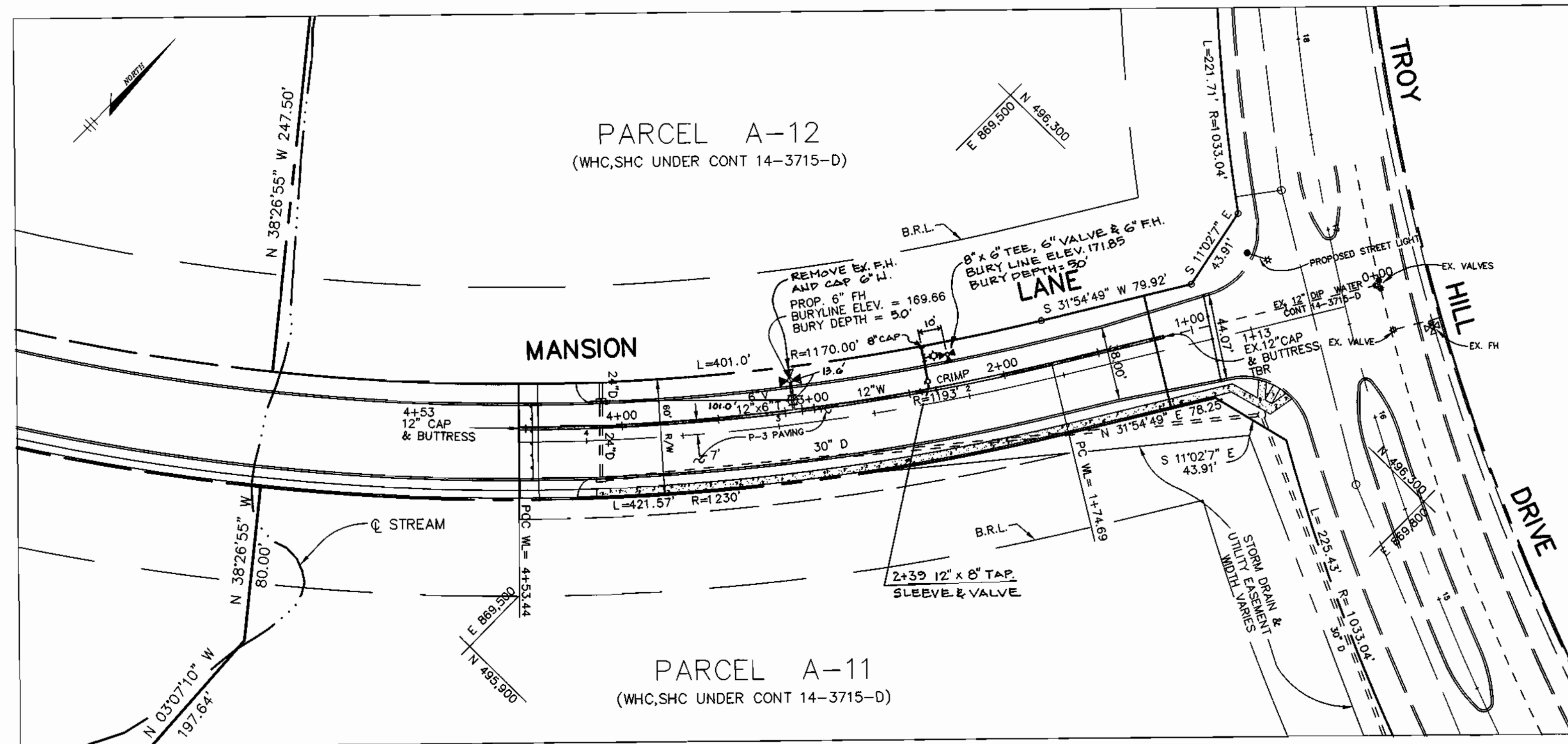
TITLE SHEET

600' SCALE MAP NO. 37 BLOCK NO. 18

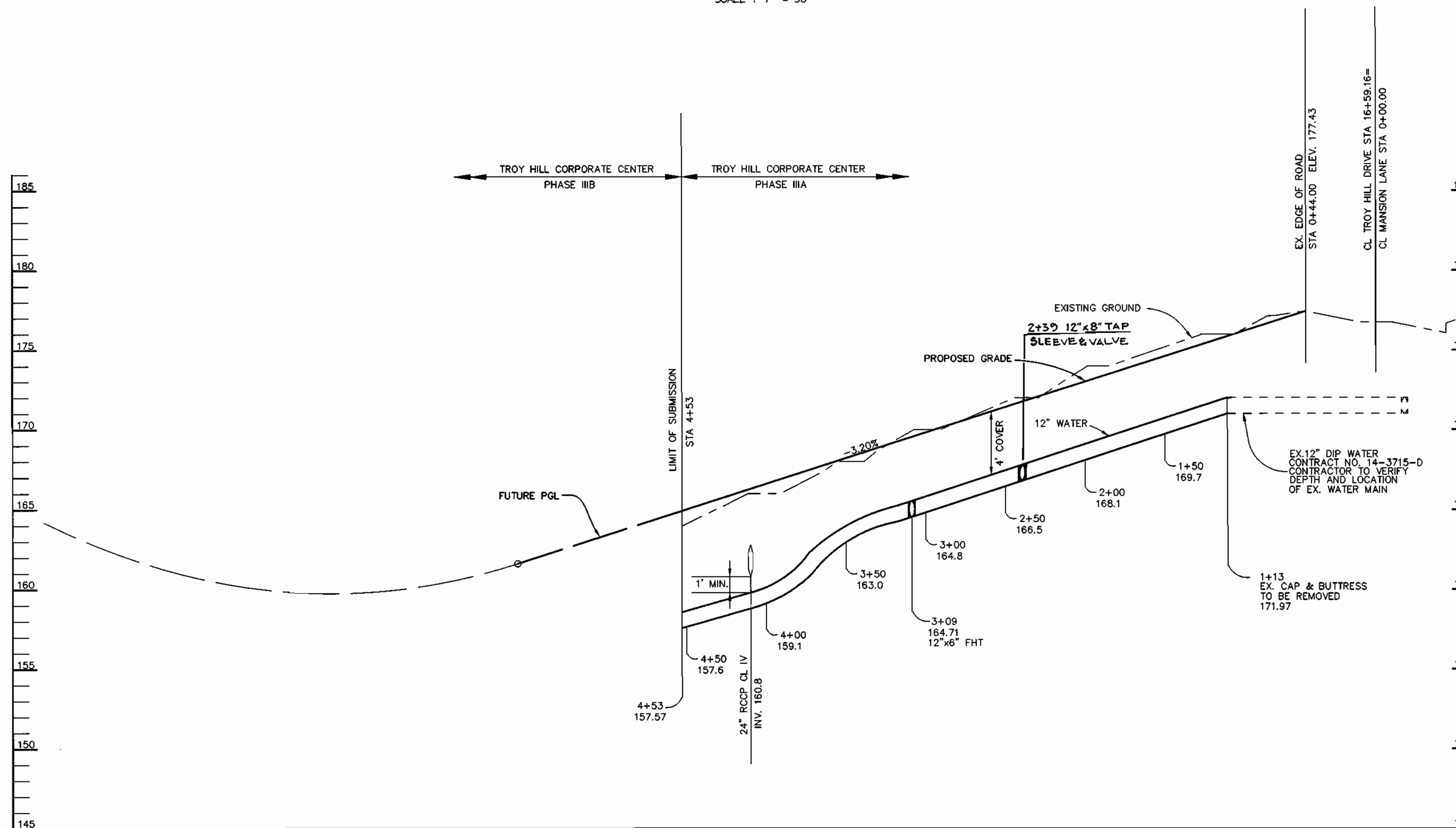
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SCALE AS SHOWN
SHEET 1 OF 3

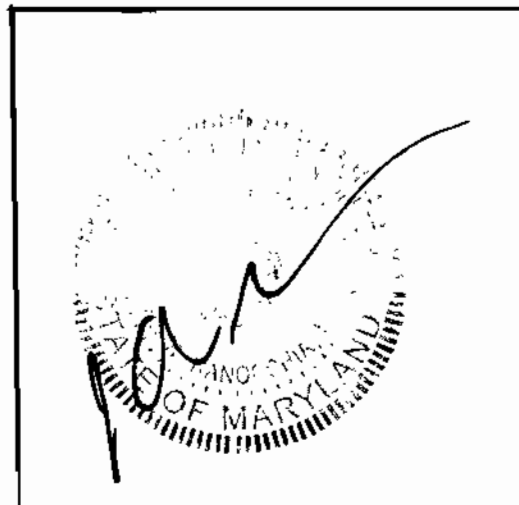
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PLAN
SCALE: 1" = 50'



PROFILE
SCALE:
HOR. - 1" = 50'
VERT. - 1" = 5'



FOR REVISION #2 ONLY

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Robert Brimmer</i> CHIEF, BUREAU OF UTILITIES 5-16-00 DATE	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>Howard...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE	RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING & ENVIRONMENTAL SERVICES & PLANNING & SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.9282 98357/WSB.DWG	 ARTHUR E. MUEGGE #8707	DES: KCB DRN: KCB CHK: CJR DATE: 5/15/00 BY: NO. REVISION: 1 DATE: 4/15/01 ADD 8" W. & 6" P.H. / REMOVE EX. P.H. ASBESTIC CONDITIONS ADDED TO PLAN	PLAN AND PROFILE WATER MAIN 600' SCALE MAP NO. 37 BLOCK NO. 18	TROY HILL CORPORATE CENTER PHASE IIIA PARCELS A-11, A-12 & A-20 MANSION LANE 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT 14-3834-D	SCALE AS SHOWN SHEET 2 OF 3
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