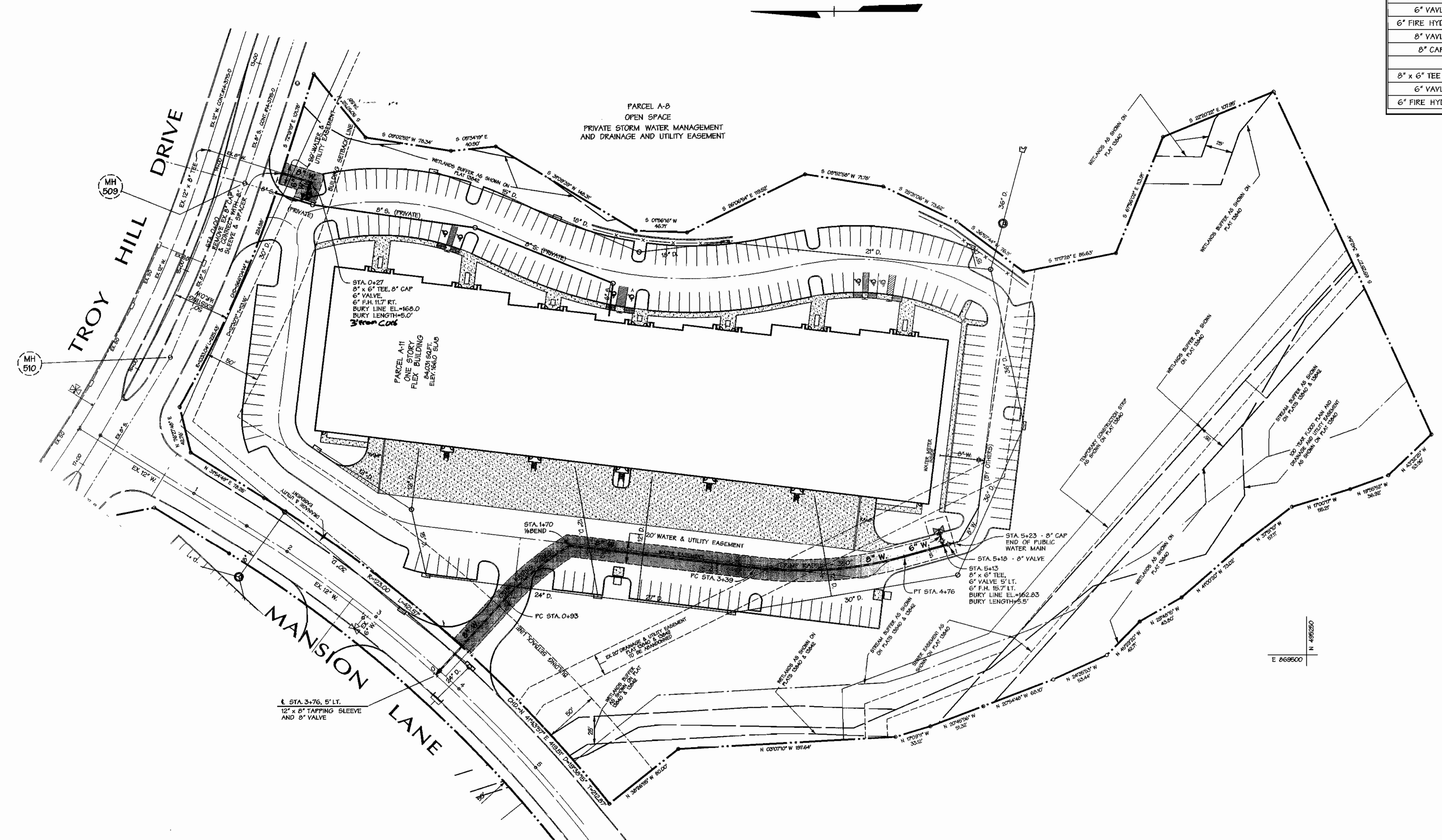


ITEMS	COORDINATES		STATION
	NORTH	EAST	
12" x 8" TAP, SLEEVE	496,040.7	869,482.5	3+76
8" YAVLE	496,037.3	869,486.2	0+05
PC 8" WATER	495,977.9	869,581.1	0+93
8" 1/8 BEND	495,919.1	869,599.9	1+70
PC 8" WATER	495,751.0	869,579.5	3+39
PT 8" WATER	495,615.1	869,589.7	4+76
8" x 6" TEE	495,579.5	869,599.5	5+13
6" YAVLE	495,580.9	869,604.3	
6" FIRE HYDRANT	495,583.7	869,614.6	
8" YAVLE	495,574.7	869,600.9	5+18
8" CAP	495,569.9	869,602.2	5+23
8" x 6" TEE w/CAP	495,153.6	869,930.8	0+27
6" YAVLE	495,165.0	869,926.4	
6" FIRE HYDRANT	495,157.1	869,919.9	

CONTRACTOR TO TEST FIT TO DETERMINE ACTUAL LOCATION AND ELEVATION OF EXISTING 8" CAP PRIOR TO LAYING PIPE



E 870000
N 496500

E 869500
N 496500

E 869500
N 496500

PLAN
1"=50'

T:\12\02\095650_2000\1\99058\99058w3

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert Berman 10-12-02
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Robert Berman 10/13/02
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

DMW
Daft McCune-Walker, Inc.

A Team of Land Planners,
Landscape Architects,
Golf Course Architects,
Engineers, Surveyors &
Environmental Professionals

200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-3333
Fax 286-4706



DESIGN BY:	DFM			
DRAWN BY:	MSS			
CHECKED BY:				
DATE:	8/22/00			
BY	NO.	REVISION	DATE	

WATER PLAN

600 SCALE MAP NO. 37 BLOCK NO. 12

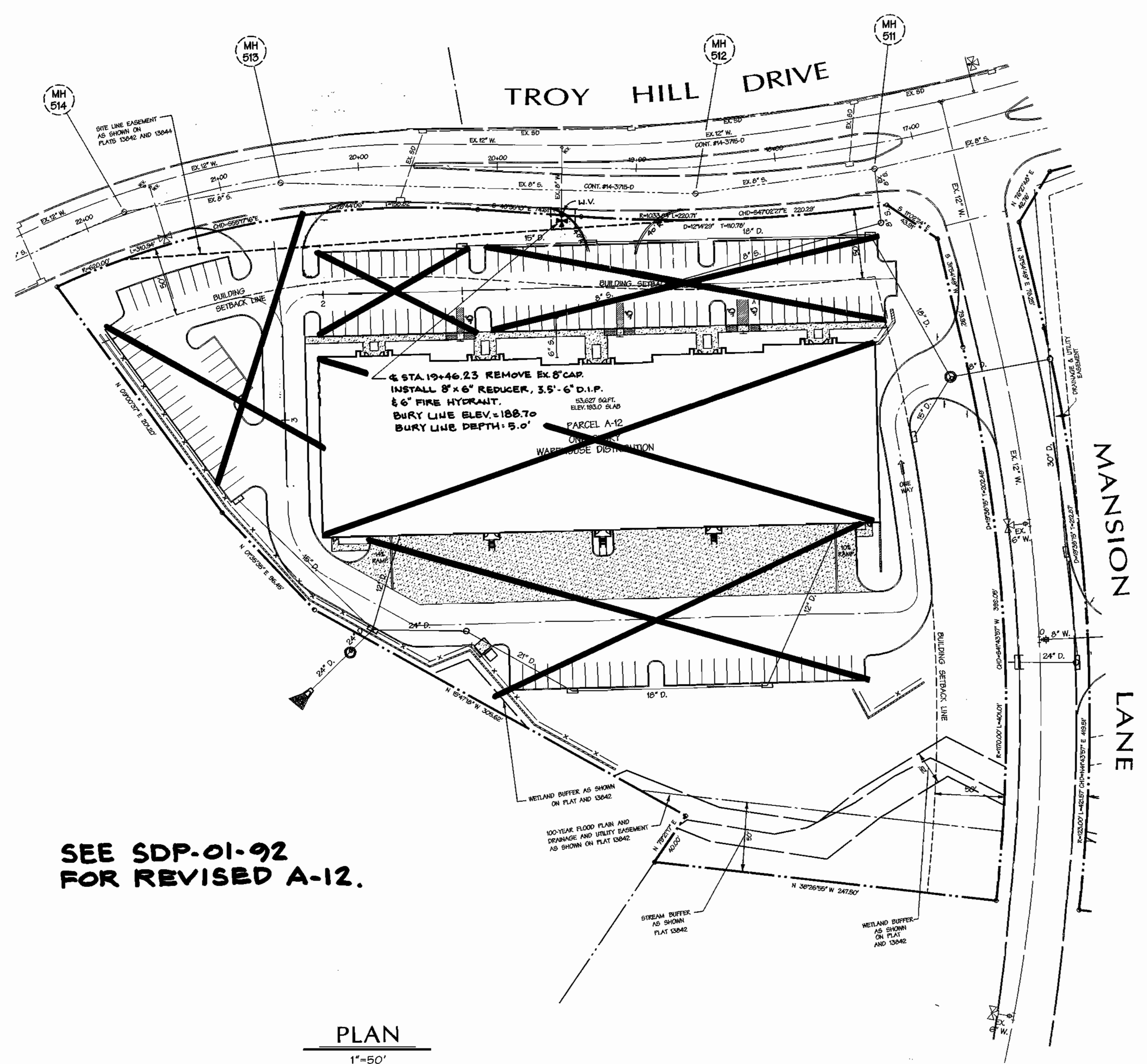
Troy Hill Commerce Center
Lot A-11
Election District No. 1 Howard County, Maryland
CONTRACT NO. 44-3914-D

SCALE:
1"=50'

SHEET
3 of 5

ITEMS	COORDINATES		STATION
	NORTH	EAST	
12" x 6" TAPPING SLEEVE	1066605	0603510	20+10
6" VALVE	1056645	0603480	
6" FIRE HYDRANT	1066600	0603004	
8" x 6" REDUCER			19+46.23 - 33.5' LT.
6" FIRE HYDRANT			19+46.23 - 37' LT.

CONTRACTOR TO TEST PIT TO DETERMINE ACTUAL LOCATION AND ELEVATION OF EXISTING 8" CAP PRIOR TO LAYING PIPE



SEE SDP-01-92 FOR REVISED A-12.

PLAN
1"=50'

7/11/02 11:40:46 2000 1490559905584

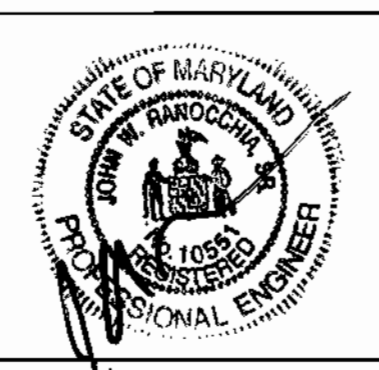
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. Bauman 10-12-01
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

H. M. [Signature] 10/12/01
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

DMW
Daft-McCune-Walker, Inc.
A Team of Land Planners,
Landscape Architects,
Golf Course Architects,
Engineers, Surveyors &
Environmental Professionals
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705



DESIGN BY:	Rwl/ro	8/22/00
DRAWN BY:	MSS	10-8-01
CHECKED BY:		
DATE:	8/22/00	
BY	NO.	REVISION

WATER PLAN
600 SCALE MAP NO. 37
BLOCK NO. 18

Troy Hill Commerce Center
Election District No. 1 Howard County, Maryland
CONTRACT NO. 44-3914-D

SCALE:
1"=50'
SHEET
4 of 5

CONTRACT NO. 44-3914-D

TROY HILL COMMERCE CENTER

Lots A-10 and A-11

WATER CONSTRUCTION PLANS

Howard County, Maryland Department of Public Works

QUANTITIES				
ITEM	QUANTITIES ESTIMATED	LOT A-10	LOT A-11	
8" WATER	1015'	465'	550'	
6" WATER	32'	17'	15'	
6" VALVES	3	1	2	
8" x 6" TEE	3	1	2	
8" CAP	3	1	2	
8" WBEND	4	3	1	
FIRE HYDRANT	3	1	2	
8" SLEEVE & SPACER	2	1	1	
8" VALVE	3	1	2	
12" x 6" TAP. SLEEVE				
12" x 8" TAP. SLEEVE	1		1	

NAME OF UTILITY CONTRACTOR
SURVEY AND DRAFTING DIVISION AS-BUILT DATE

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 of 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 tunnels as required. The owner has contracted 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
BC&E CO. Contractor Services	850-4620
BC&E CO. Under Ground Damage Control	787-9066
Miss Utility 1-800-257-7777	1-800-257-7777
Colonial Pipeline CO. 795-1390	795-1390
Howard County Department of Public Works Bureau of Utilities	

- 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) 315-2450 at least five 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.

PART II - WATER

- All water main to be D.I.P. Class 52 unless otherwise noted.
- Top of all water mains to have a minimum of 3'-11/2" cover unless otherwise noted.
- Valves adjacent to trees shall be strapped to trees.
- 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.
- Sprinkler system for all townhomes or multi-family dwelling units should have a minimum of 1" connection with a 3/4" meter. Twin house connections will be 1/2" from main to "Y" fitting.

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 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.

BENCHMARK No. 1

DESCRIPTION

IRON PIN 1066
ELEV. 175.92
N 496501.3597 E 869134.4576

BENCHMARK No. 2

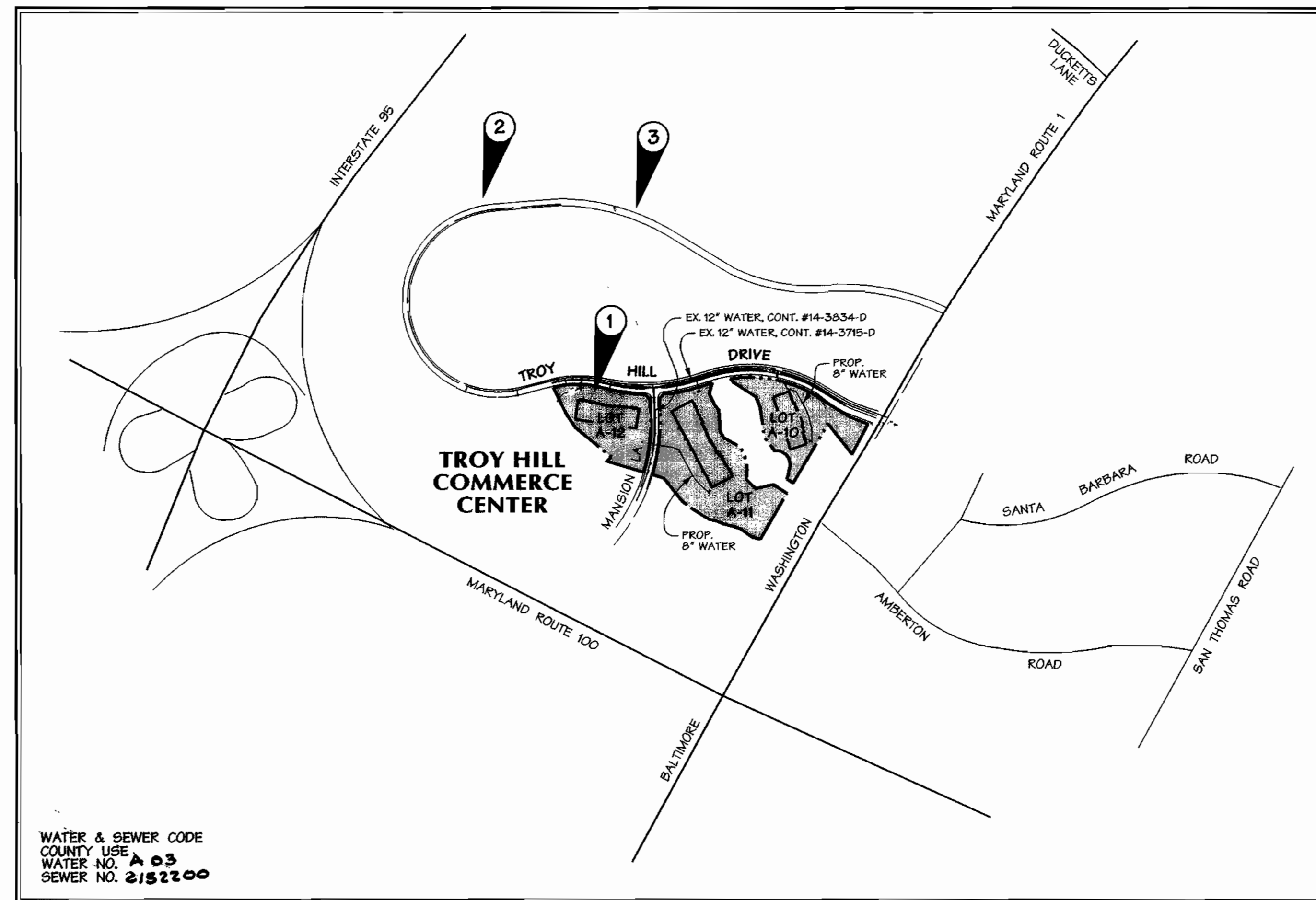
DESCRIPTION

IRON PIN 1061
ELEV. 242.49
N 498036.6945 E 868791.1502

BENCHMARK No. 3

DESCRIPTION

IRON PIN 1034
ELEV. 214.85
N 497636.7437 E 869835.6586



WATER & SEWER CODE
COUNTY USE
WATER NO. **A 03**
SEWER NO. **2152200**

VICINITY MAP

SCALE: 1"=600'

(COORDINATES BASED ON NAD27, AS PROJECTED BY HOWARD COUNTY GEOMETRIC CONTROL STATIONS No. 2445004 AND No. 2445005.)

TYPE OF BUILDINGS:	FLEX-WAREHOUSE
NO. OF LOTS / PARCELS	3
NO. OF WATER CONNECTIONS:	3
NO. OF SEWER CONNECTIONS:	3
DRAINAGE AREA:	SHALLOW RUN
TREATMENT PLANT:	PATAPSCO

SHEET INDEX

SHEET	DESCRIPTION
1	COVER SHEET
2	WATER PLAN - LOT A-10
3	WATER PLAN - LOT A-11
4	WATER PROFILES - LOTS A-10 AND A-11

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

J. G. Wayfield 10/16/00
SIGNATURE DATE

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

John P. Roberts 10/16/00
HOWARD S.C.D. DATE

OWNER/APPLICANT
TROY HILL BUSINESS PARK PARTNERSHIP
C/O MANEKIN CORPORATION
7165 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046
(410) 290-1400

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND SITE DEVELOPMENT PLAN SDP 01-30

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

DMW
Daft-McCune-Walker, Inc.

A Team of Land Planners,
Landscape Architects,
Towson, Maryland 21286
(410) 290-3333
Fax 290-4706



DESIGN BY:	<i>MSG</i>	<i>E. Limonier, A. L. J. From Sat</i>	8/10/00
DRAWN BY:			
CHECKED BY:			
DATE:	8/22/00		
BY NO.		REVISION	DATE

TITLE SHEET

Troy Hill Commerce Center
Lots A-10 and A-11

Election District No. 1 Howard County, Maryland

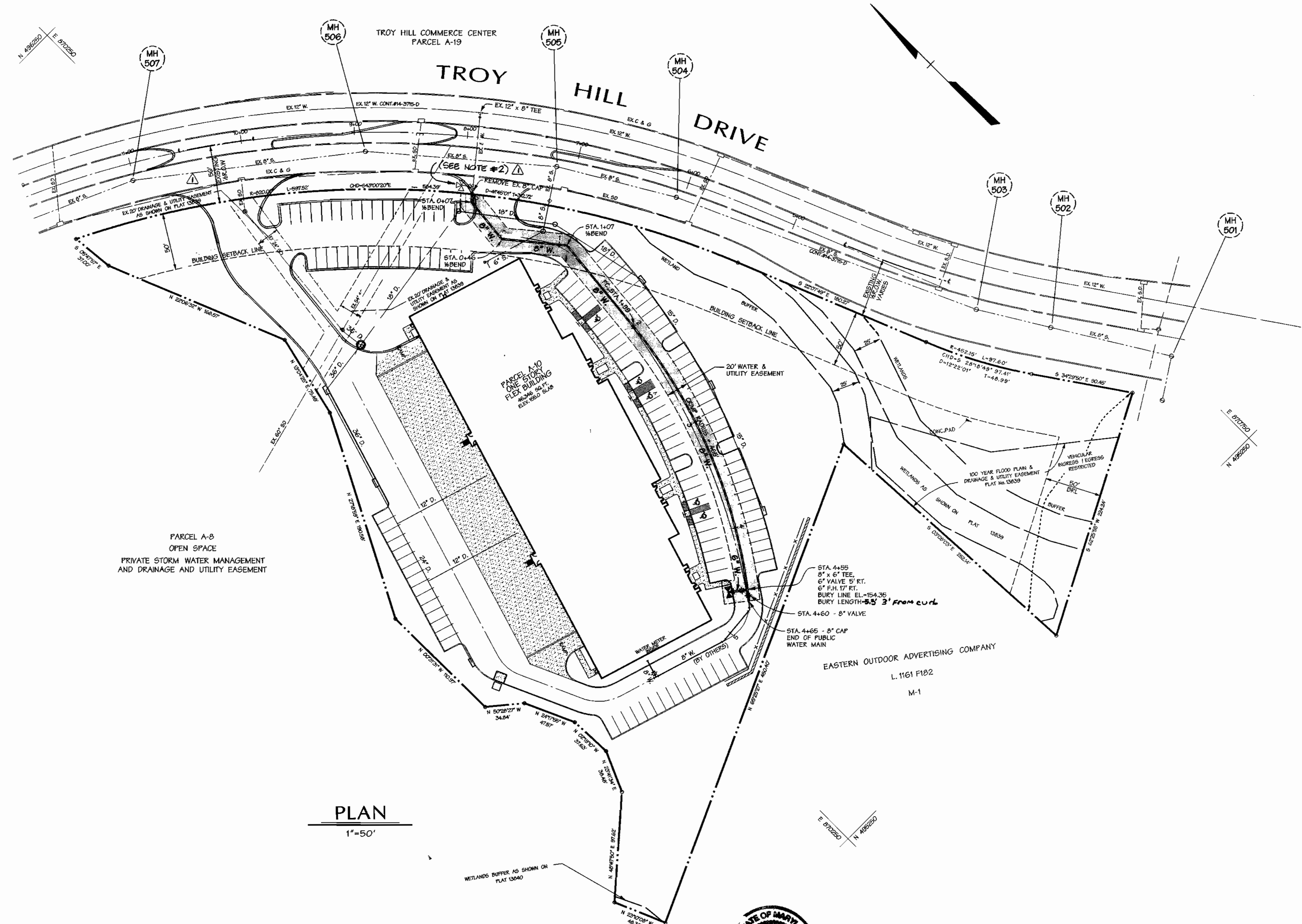
CONTRACT NO. **44-3914-D**

SCALE:
As Shown

SHEET
1 of 5

ITEMS	COORDINATES		STATION
	NORTH	EAST	
8" 1/8 BEND	495,882.1	870,411.5	0+07
8" 1/8 BEND	495,840.2	870,407.4	0+46
8" 1/8 BEND	495,795.5	870,444.1	1+07
PC 8" WATER	495,704.3	870,435.1	1+99
8" x 6" TEE	495,468.1	870,342.3	4+55
8" CAP			4+65
8" VALVE	495,464.2	870,339.2	4+60
6" VALVE	495,471.2	870,338.3	
6" FIRE HYDRANT	495,478.4	870,328.9	

- NOTES:
- CONTRACTOR TO TEST PIT TO DETERMINE ACTUAL LOCATION AND ELEVATION OF EXISTING 8" CAP PRIOR TO LAYING PIPE
 - CONTRACTOR TO ROTATE AND MOVE EXISTING FIRE HYDRANT THREE (3) FEET BEHIND PROPOSED CURB.



PLAN
1"=50'



NICHOLAS J. BRADER, III, PE #18558
 REVISION BY MATIS WARFIELD, INC.
 10540 YORK RD., SUITE M
 HUNT VALLEY, MD 21030

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief - Bureau of Utilities - DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 Chief - Development Engineering Division - DATE

DMW
 Daft-McCune-Walker, Inc.
 A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax: 296-4706



DESIGN BY:	DFM	MATIS WARFIELD	SHOW CURRENT ENTRANCE CONFIGURATION, ADD NOTE #2 - FOR EX. E.H.	afz/ao
DRAWN BY:	MSS			
CHECKED BY:				
DATE:	8/22/00			
BY NO.		REVISION	DATE	600 SCALE MAP NO. 37 BLOCK NO. 18

WATER PLAN

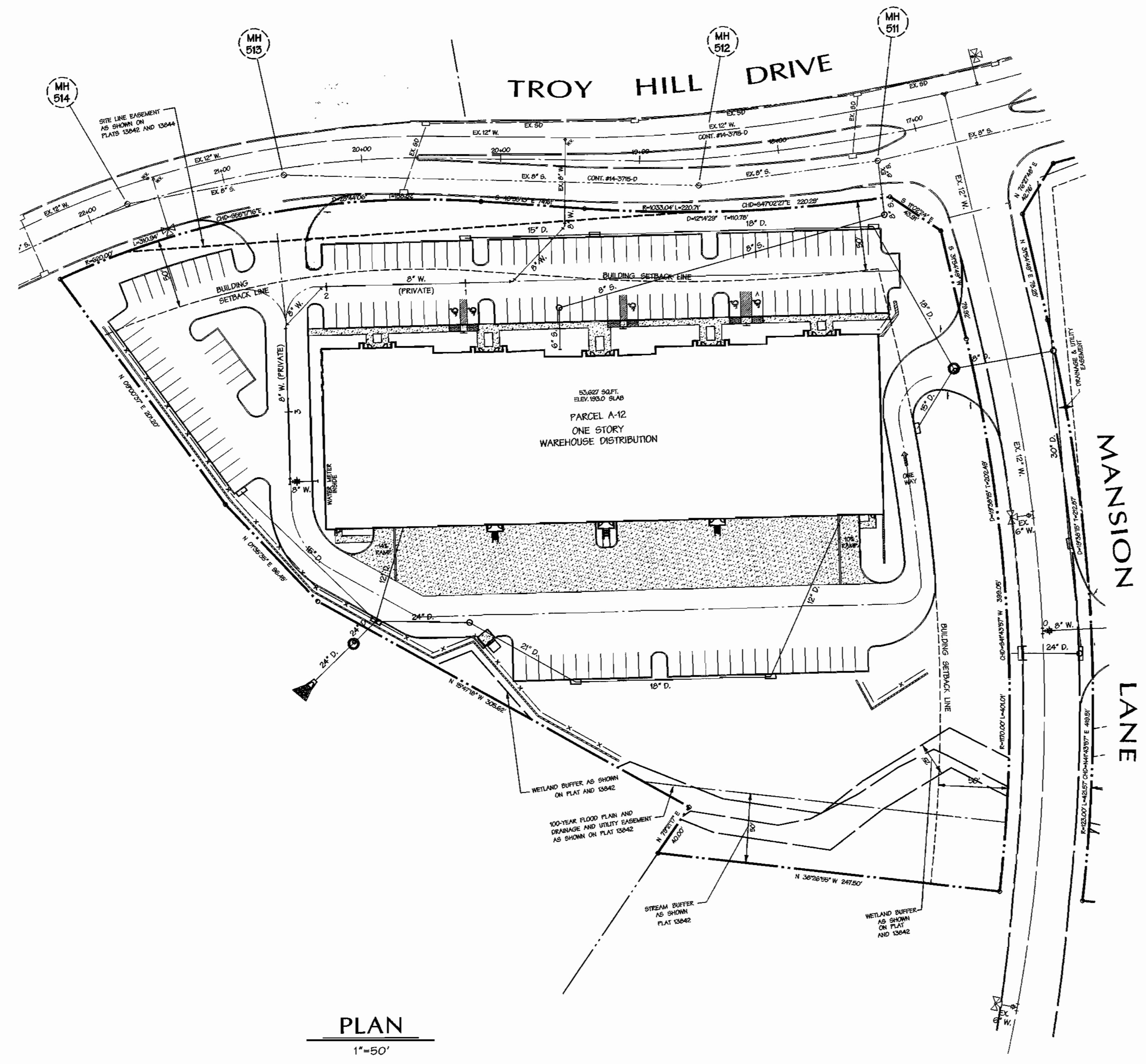
Troy Hill Commerce Center
 Lot A-10
 Election District No. 1 Howard County, Maryland
 CONTRACT NO. 44-3914-D

SCALE:
 1"=50'
 SHEET
 2 of 5

Troy Hill Commerce Center

WATER MAIN STRUCTURE SCHEDULE			
ITEMS	COORDINATES		STATION
	NORTH	EAST	
12" x 6" TAPPING SLEEVE	496,668.5	869,351.8	20+45
6" VALVE	495,664.5	869,348.8	
6" FIRE HYDRANT	496,698.9	869,298.1	

CONTRACTOR TO TEST PIT TO DETERMINE ACTUAL LOCATION AND ELEVATION OF EXISTING 8" CAP PRIOR TO LAYING PIPE



PLAN
1"=50'

T:\10-12-02\10-12-02\10-12-02.dwg

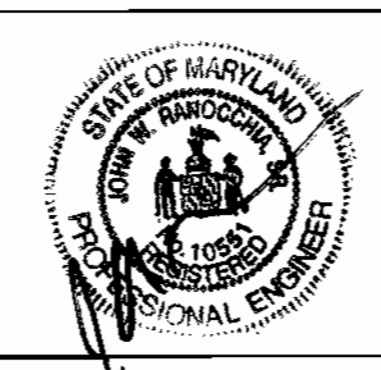
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. Berman 10-12-02
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

H. Williams 10/12/02
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

DMW
Daft-McCune-Walker, Inc.
A Team of Land Planners,
Landscape Architects,
Golf Course Architects,
Engineers, Surveyors &
Environmental Professionals
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3833
Fax 296-4706

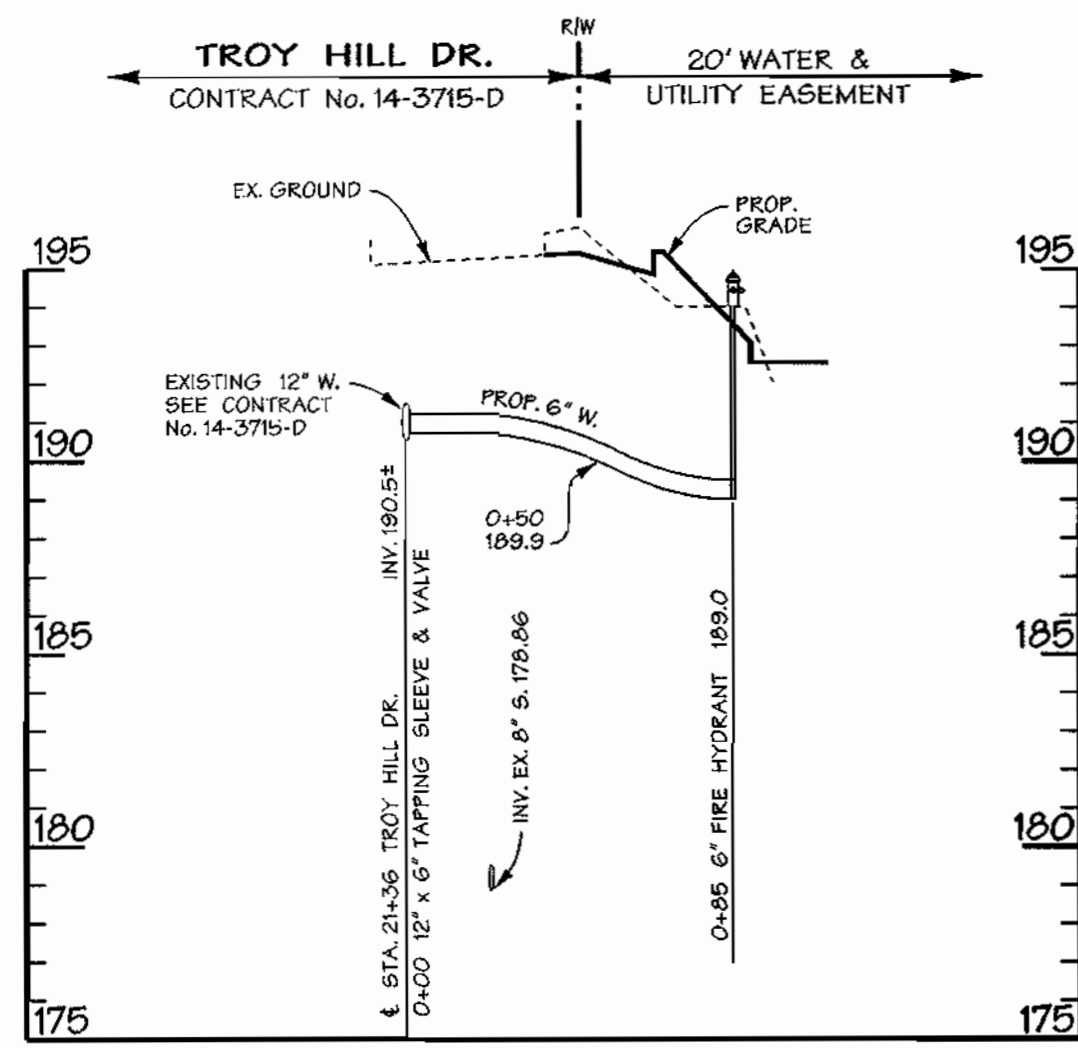


DESIGN BY:	DFM	Rev/To	0/1-01
DRAWN BY:	MSS		
CHECKED BY:			
DATE:	8/22/00		
BY	NO.	REVISION	DATE

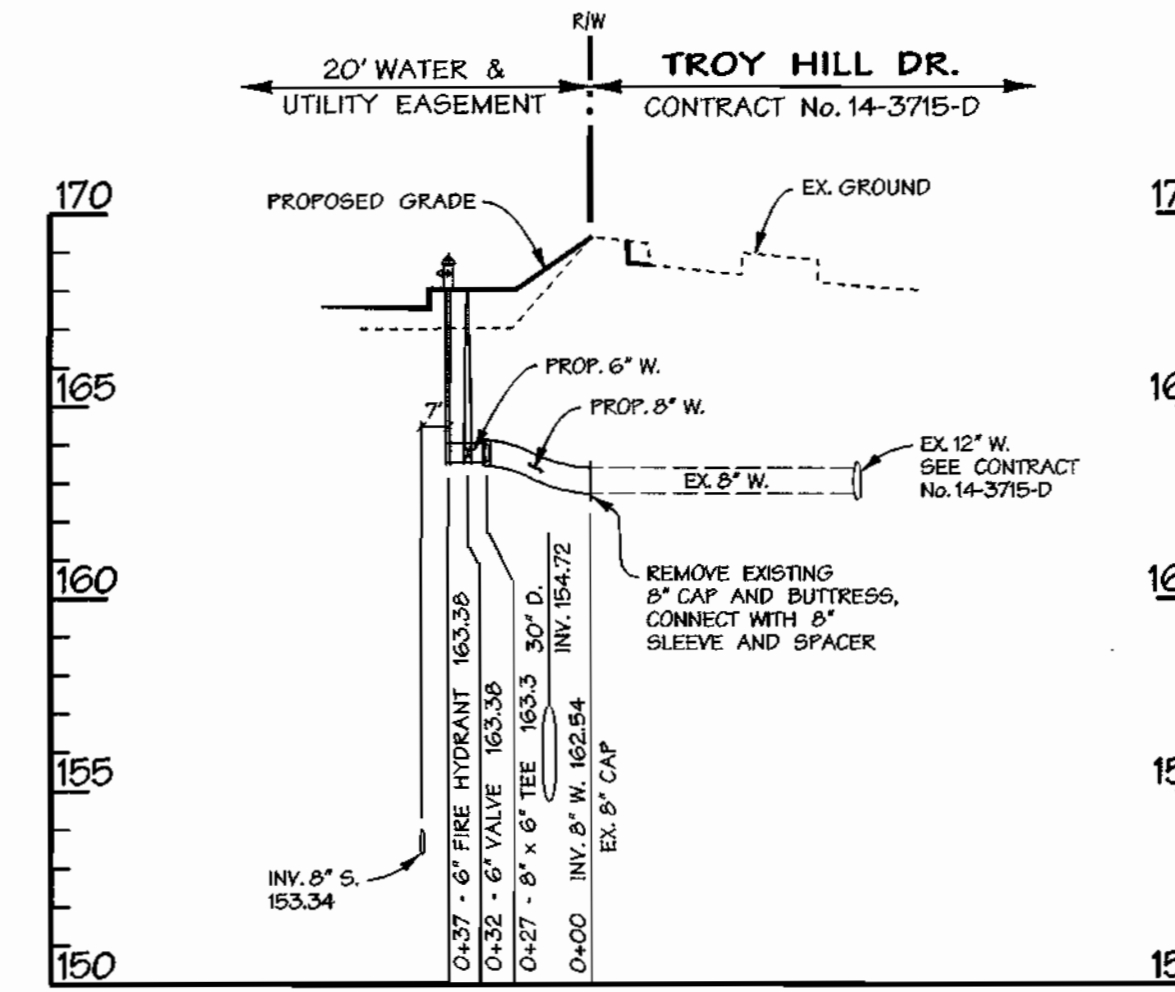
WATER PLAN
600 SCALE MAP NO. 37 BLOCK NO. 18

Troy Hill Commerce Center
Election District No. 1 Howard County, Maryland
CONTRACT NO. 44-3914-D

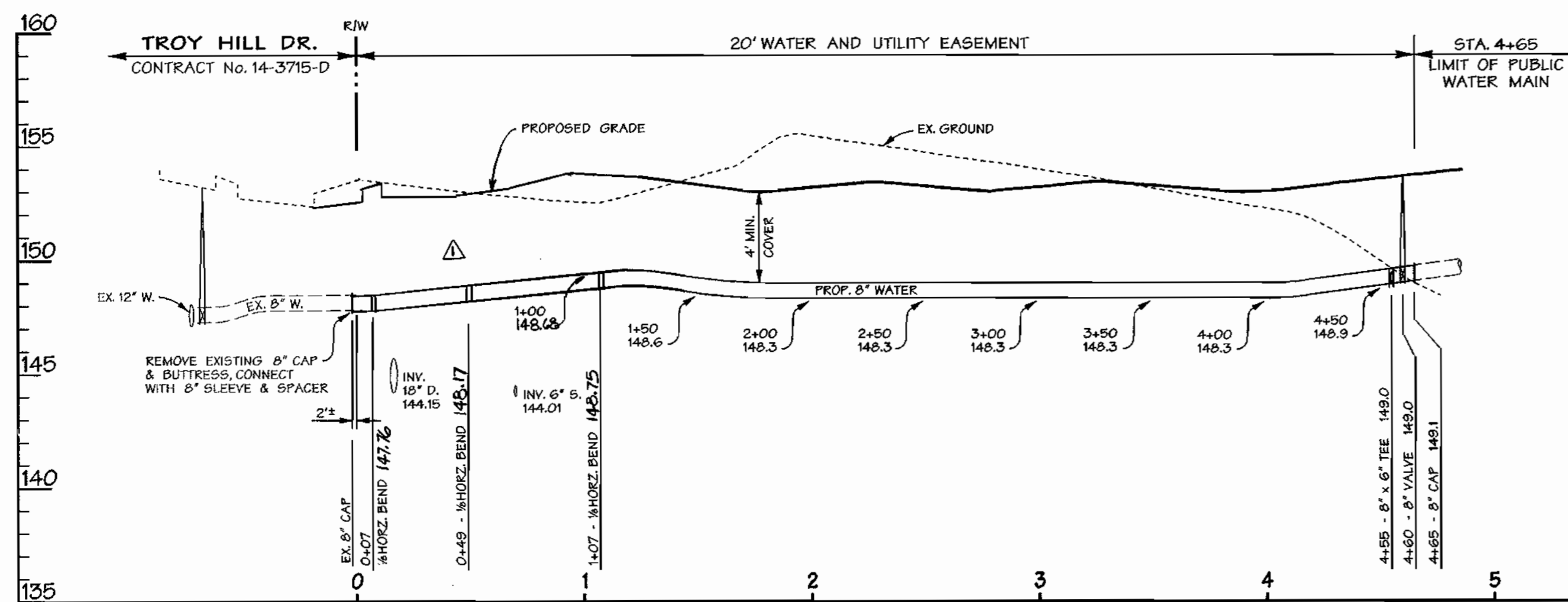
SCALE:
1"=50'
SHEET
4 of 5



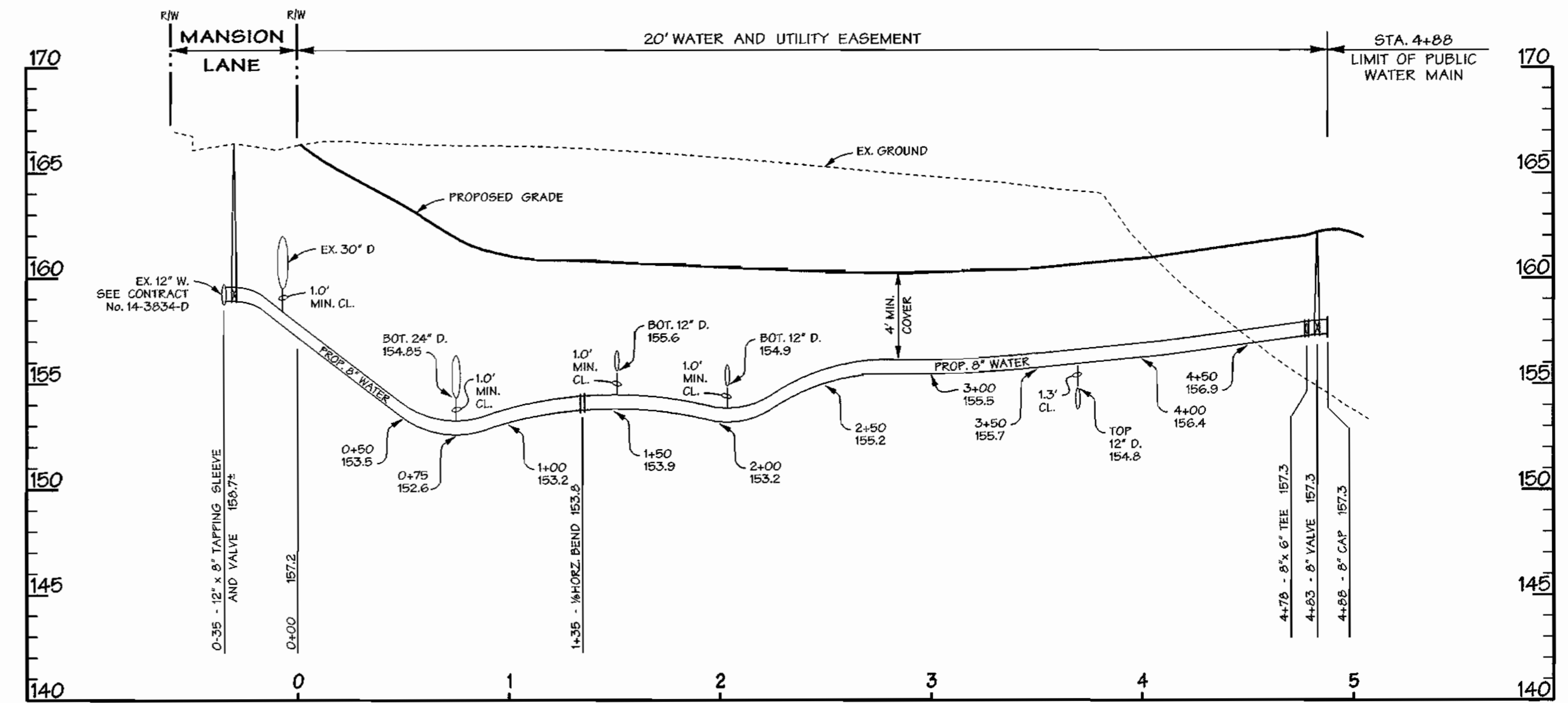
FIRE HYDRANT - LOT A-12
PROFILE
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



FIRE HYDRANT - LOT A-11
PROFILE
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



PUBLIC WATER TO LOT A-10
PROFILE
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



PUBLIC WATER TO LOT A-11
PROFILE
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'



NICHOLAS J. BRADER, III PE 18558
 Δ REVISION BY: MATS WARFIELD, INC.
 10340 YORK RD., SUITE M
 HUNT VALLEY, MD 21030

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND



A Team of Land Planners,
 Landscape Architects,
 Golf Course Architects,
 Engineers, Surveyors &
 Environmental Professionals



DESIGN BY:	DM	DATE:	8/22/00
DRAWN BY:	MSS	BY:	NO.
CHECKED BY:		REVISION:	
DATE:	8/22/00	DATE:	12/21/00

WATER PROFILES

600 SCALE MAP NO. 37 BLOCK NO. 18

Troy Hill Commerce Center

Lots A-10 and A-11
 Election District No. 1 Howard County, Maryland

CONTRACT NO. 44-3914-D

SCALE:
 As Shown

SHEET
 5 of 5

QUANTITIES					
ITEM	QUANTITIES ESTIMATED	LOT A-10	LOT A-11	LOT A-12	
8" WATER	1015'	465'	550'	TYTON DIP	COPPER LINE
6" WATER	35.5'	17'	15'		
6" VALVES	3	1	2	GATE SERIES	AMERICAN FLOW CONTROL
8" x 6" TEE	3	1	2	M.J. DIP	TYLER UNION
8" CAP	3	1	2		
8" WBEND	4	3	1		
FIRE HYDRANT	4	1	2	AMERICAN FLOW CONTROL	AMERICAN FLOW CONTROL
8" SLEEVE & SPACER	2	1	1	M.J. DIP	TYLER UNION
8" VALVE	4	1	2	SERIES GATE	AMERICAN FLOW CONTROL
8" x 6" REDUCER	1	---	---	SERIES 2800 DIP	AMERICAN FLOW CONTROL
12" x 8" TAP SLEEVE	1	---	1	SERIES 2800 DIP	" "

NAME OF UTILITY CONTRACTOR CHERRY HILL CONSTR. INC.
SURVEY AND DRAFTING DIVISION AS-BUILT DATE

CONTRACT NO. 44-3914-D

TROY HILL COMMERCE CENTER

Lots A-10 and A-11

WATER CONSTRUCTION PLANS

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 of 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 contracted 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
CG&E CO. Contractor Services	850-4620
CG&E CO. Under Ground Damage Control	787-9068
Miss Utility 1-800-257-7777	1-800-257-7777
Colonial Pipeline CO.	795-1390
Howard County Department of Public Works Bureau of Utilities	795-1390

- 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 working days before any open cut of any county road or boring/lacking 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.

PART II - WATER

- All water main to be D.I.P. Class 52 unless otherwise noted.
- Tops of all water mains to have a minimum of 3'-11/2" cover unless otherwise noted.
- Valves adjacent to trees shall be strapped to trees.
- 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.
- Sprinkler system for all townhomes or multi-family dwelling units should have a minimum of 1" connection with a 3/4" meter. Twin house connections will be 1 1/2" from main to "Y" fitting.

PART III - SEWER

- All sewer mains shall be DIP AND F.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 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.

BENCHMARK No. 1

DESCRIPTION
IRON PIN 1066
ELEV. 175.92
N 496501.3597 E 869134.4576

BENCHMARK No. 2

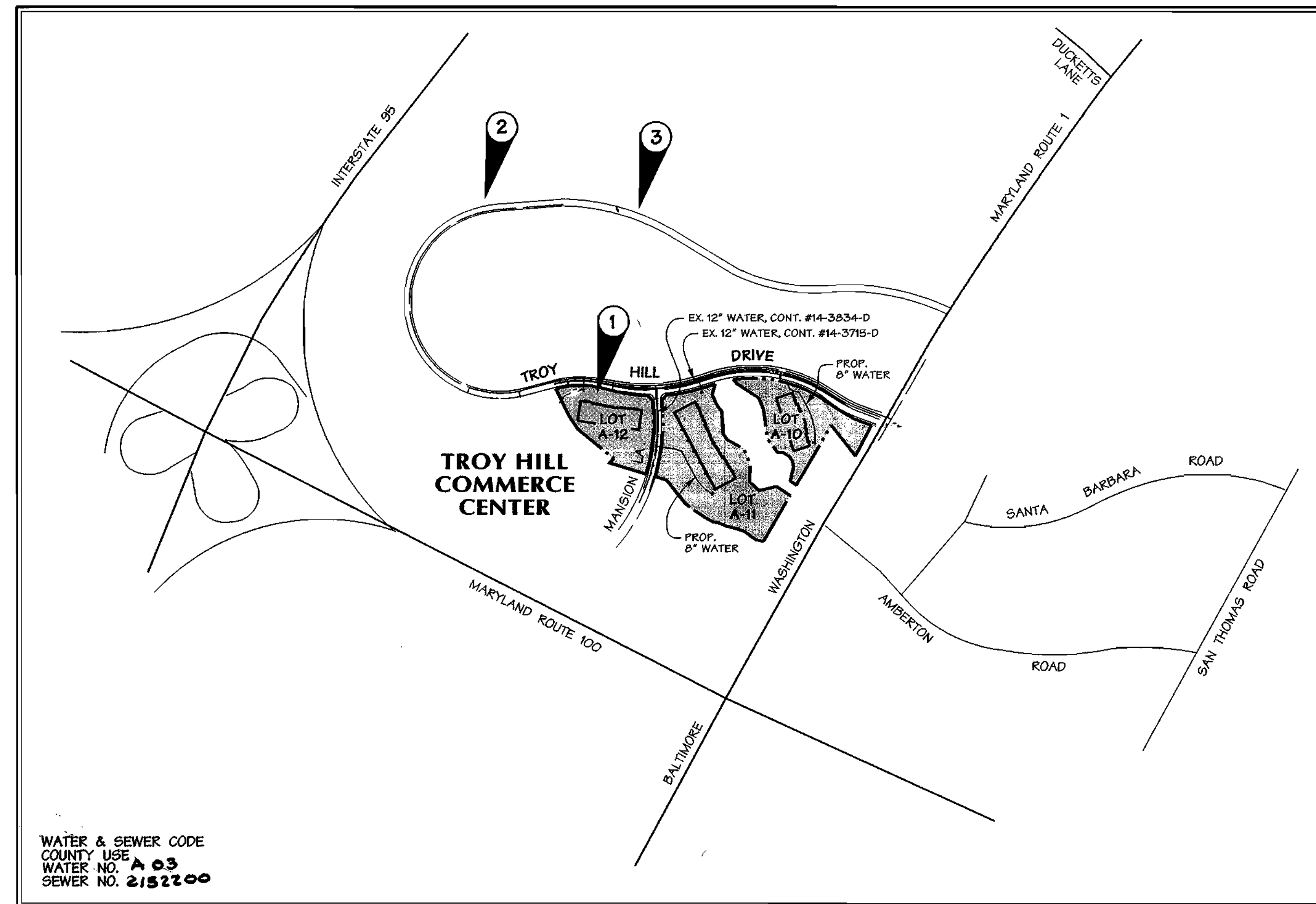
DESCRIPTION
IRON PIN 1061
ELEV. 242.49
N 498036.6945 E 868791.1502

BENCHMARK No. 3

DESCRIPTION
IRON PIN 1034
ELEV. 214.85
N 497636.7437 E 869835.6586

SHEET INDEX

SHEET	DESCRIPTION
1	COVER SHEET
2	WATER PLAN - LOT A-10
3	WATER PLAN - LOT A-11
4	WATER PROFILES - LOTS A-10 AND A-11



VICINITY MAP

SCALE: 1"=600'
(COORDINATES BASED ON NAD27, AS PROJECTED BY HOWARD COUNTY GEOMETRIC CONTROL STATIONS No. 2445004 AND No. 2445005.)

TYPE OF BUILDINGS:	FLEX-WAREHOUSE
NO. OF LOTS / PARCELS	3
NO. OF WATER CONNECTIONS:	3
NO. OF SEWER CONNECTIONS:	3
DRAINAGE AREA:	SHALLOW RUN
TREATMENT PLANT:	PATAPSCO

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

SIGNATURE: *J. G. Wayfield* DATE: 10/16/00

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

APPROVED: *John K. Roberts* DATE: 10/16/00
HOWARD S.C.D.

OWNER/APPLICANT
TROY HILL BUSINESS PARK PARTNERSHIP
C/O MANSION CORPORATION
7165 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046
(410) 290-1400

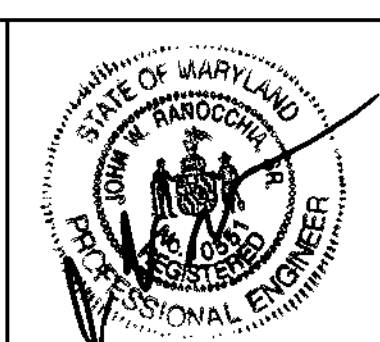
SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND SITE DEVELOPMENT PLAN SDP 01-30

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND



A Team of Land Planners, Landscape Architects, Golf Course Architects, Engineers, Surveyors & Environmental Professionals
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4706



DESIGN BY:	DFM	DATE:	8/22/00
DRAWN BY:	MSS	BY NO.:	1
CHECKED BY:	KCI	REVISION:	AS BUILT CONDITIONS ADDED TO PLAN
DATE:	8/22/00	DATE:	10/16/00

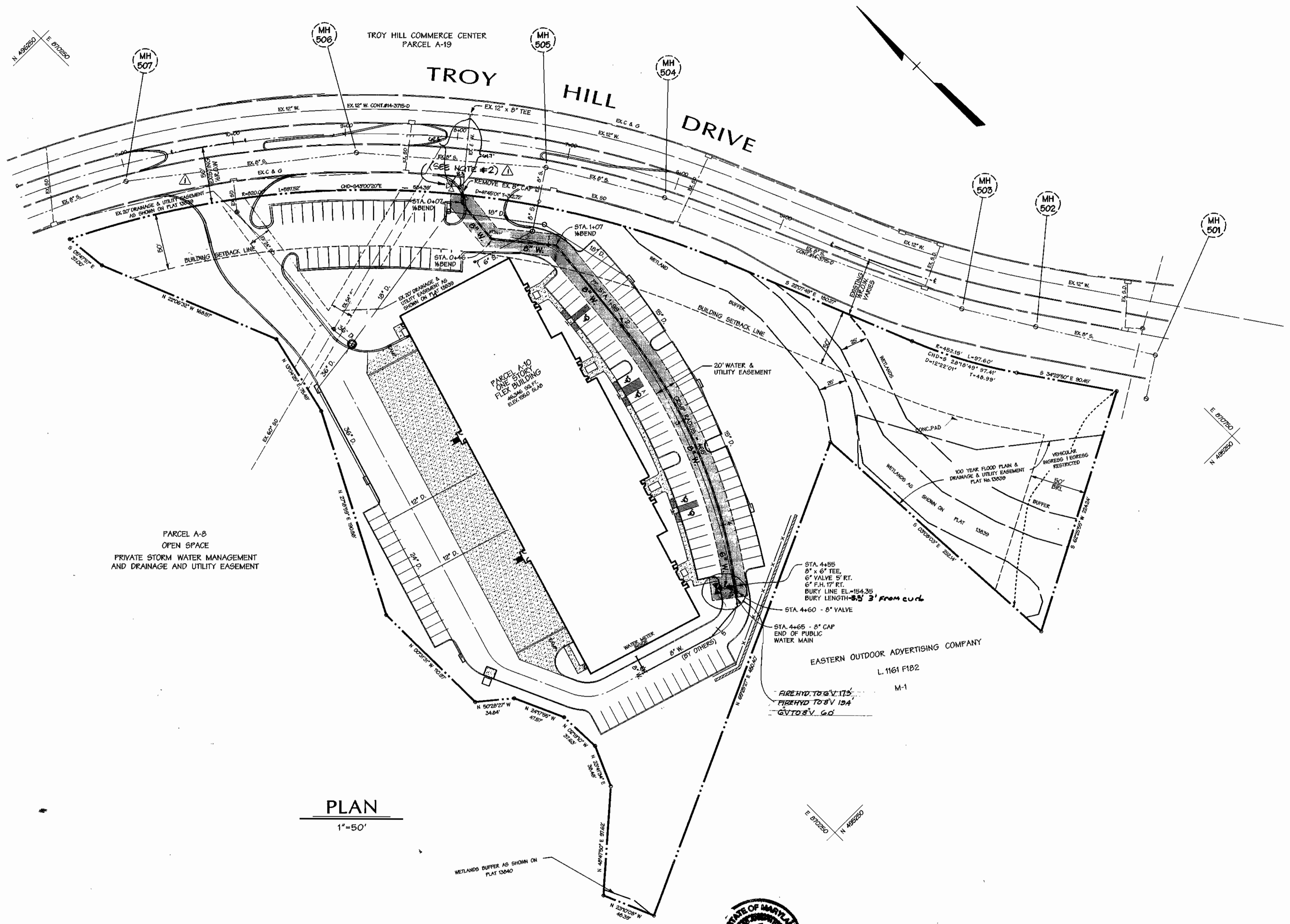
600 SCALE MAP NO. 37	BLOCK NO. 18
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Troy Hill Commerce Center
Lots A-10 and A-11
Election District No. 1 Howard County, Maryland
CONTRACT NO. 44-3914-D

SCALE: As Shown
SHEET 1 of 5

ITEMS	COORDINATES		STATION
	NORTH	EAST	
8" 1/8 BEND	495,882.1	870,411.5	0+07
8" 1/8 BEND	495,840.2	870,407.4	0+46
8" 1/8 BEND	495,795.5	870,444.1	1+07
PC 8" WATER	495,704.3	870,435.1	1+99
8" x 6" TEE	495,468.1	870,342.3	4+55
8" CAP	495,464.2	870,339.2	4+65
8" VALVE	495,471.2	870,336.3	4+60
6" FIRE HYDRANT	495,478.4	870,328.9	

- NOTES:
- CONTRACTOR TO TEST PIT TO DETERMINE ACTUAL LOCATION AND ELEVATION OF EXISTING 8" CAP PRIOR TO LAYING PIPE
 - CONTRACTOR TO ROTATE AND MOVE EXISTING FIRE HYDRANT THREE (3) FEET BEHIND PROPOSED CURB



PLAN
1"=50'

NICHOLAS J. BRADGER, III, PE #18558
 REVISION BY MATIS WARFIELD, INC
 10540 YORK RD., SUITE M
 HUNT VALLEY, MD 21030

7/10/02 09:56:09 2000 n:\99058\99058w2

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 R. H. Bainger 12-12-02
 CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 M. J. [Signature] 10/13/02
 CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

DMW
 Daft-McCune-Walker, Inc.
 A Team of Land Planners,
 Landscape Architects,
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4706
 Golf Course Architects,
 Engineers, Surveyors &
 Environmental Professionals



DESIGN BY:	MATIS WARFIELD	SHOW CURRENT ENTRANCE CONFIGURATION, ADD NOTES #2 - FOR EX. F.H.	12/22/00
DRAWN BY:	MSS		
CHECKED BY:			
DATE:	8/22/00	REBUILT CONDITIONS ADDED TO PLAN	12/22/01
BY NO.		REVISION	DATE

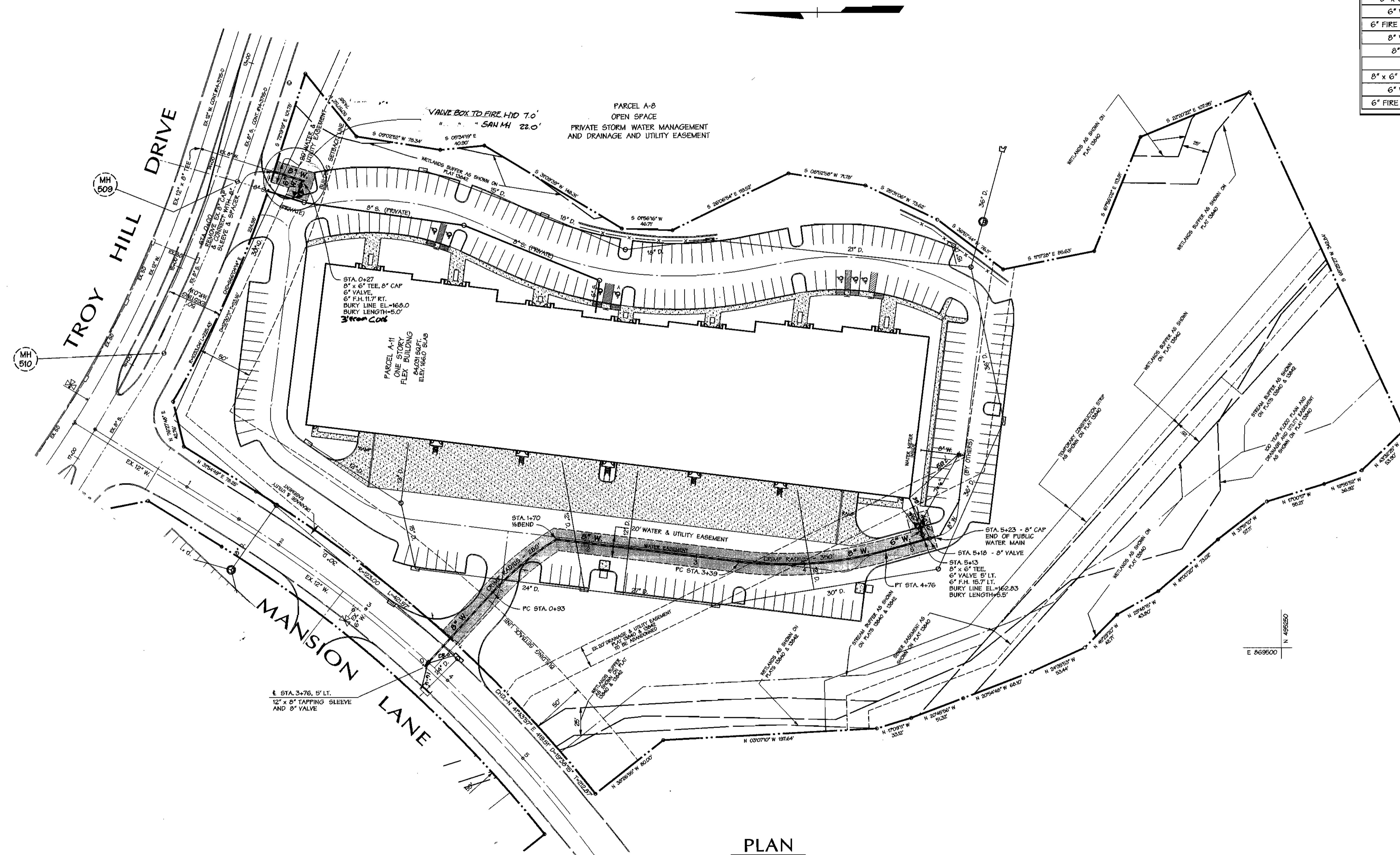
600 SCALE MAP NO. 37 BLOCK NO. 18

Troy Hill Commerce Center
 Lot A-10
 Election District No. 1 Howard County, Maryland
 CONTRACT NO. 44-3914-D

SCALE:
1"=50'
SHEET
2 of 5

WATER MAIN STRUCTURE SCHEDULE			
ITEMS	COORDINATES		STATION
	NORTH	EAST	
12" x 8" TAP SLEEVE	496,040.7	869,482.5	3+76
8" VAYLE	496,037.3	869,486.2	0+05
PC 8" WATER	496,977.9	869,551.1	0+93
8" 1/8 BEND	496,919.1	869,599.9	1+70
PC 8" WATER	496,751.0	869,579.5	3+39
PT 8" WATER	496,615.1	869,589.7	4+76
8" x 6" TEE	496,579.5	869,599.5	5+13
6" VAYLE	496,580.9	869,604.3	
6" FIRE HYDRANT	496,583.7	869,614.6	
8" VAYLE	496,574.7	869,600.9	5+18
8" CAP	496,569.9	869,602.2	5+23
8" x 6" TEE w/CAP	496,153.6	869,930.8	0+27
6" VAYLE	496,155.0	869,926.4	
6" FIRE HYDRANT	496,157.1	869,919.9	

CONTRACTOR TO TEST PIT TO DETERMINE ACTUAL LOCATION AND ELEVATION OF EXISTING 8" CAP PRIOR TO LAYING PIPE



PLAN
1"=50'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

DMW
Datt-McCune-Walker, Inc.
A Team of Land Planners,
Landscape Architects,
Township, Maryland 21286
(410) 296-3333
Fax 296-4705



DESIGN BY:	DFM		
DRAWN BY:	MSS		
CHECKED BY:			
DATE:	8/22/00		
BY NO.	KCI 1	ASBUILT CONDITIONS ADDED TO PLAN	12/21/01
REVISION			

WATER PLAN

Troy Hill Commerce Center

Lot A-11
Election District No. 1 Howard County, Maryland

CONTRACT NO. 44-3914-D

SCALE:
1"=50'
SHEET
3 of 5

Thu Oct 12 09:56:50 2000 n:\99058\99058w3

Thu Oct 12 09:56:50 2000 n:\99058\99058w3

QUANTITIES				
ITEM	QUANTITIES ESTIMATED	LOT A-10	LOT A-11	LOT A-12
8" WATER	1015'	465'	550'	
6" WATER	35.5'	17'	15'	3.5'
6" VALVES	3	1	2	
8" x 6" TEE	3	1	2	
8" CAP	3	1	2	
8" 1/2 BEND	4	3	1	
FIRE HYDRANT	4	1	2	1
8" SLEEVE & SPACER	2	1	1	
8" VALVE	4	1	2	1
8" x 6" REDUCER	1	---	---	1
12" x 8" TAP SLEEVE	1	---	1	
NAME OF UTILITY CONTRACTOR _____				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE _____				

CONTRACT NO. 44-3914-D

TROY HILL COMMERCE CENTER

Lots A-10 and A-11

WATER CONSTRUCTION PLANS

Howard County, Maryland Department of Public Works

GENERAL NOTES

PART I

1. 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.
2. All horizontal controls are based on Maryland state coordinates (North American Datum of 1983 (NAD 83)).
3. All vertical controls are based on U.S.G.S. data.
4. All pipe elevations shown are invert elevations.
5. Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnels as required. The owner has contracted 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.
6. 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.
7. 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.
8. Contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

State Highway Administration	531-5633
B&E CO. Contractor Services	850-4620
B&E CO. 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	795-1390

9. 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.
10. 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.
11. The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-2450 at least five 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.

PART II - WATER

1. All water main to be D.I.P. Class 52 unless otherwise noted.
2. Tops of all water mains to have a minimum of 3-1/2" cover unless otherwise noted.
3. Valves adjacent to tees shall be strapped to tees.
4. All fittings shall be buttressed or anchored with concrete in accordance with the standard details unless otherwise provided for on the drawings.
5. 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.
6. The contractor shall not operate any water main valves on the existing water system.
7. All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
8. Sprinkler system for all townhomes or multi-family dwelling units should have a minimum of 1" connection with a 3/4" meter. Twin house connections will be 1 1/2" from main to "Y" fitting.

PART III - SEWER

1. All sewer mains shall be DIP AND P.V.C. unless otherwise noted.
2. All manholes shall be 4'-0" inside diameter unless otherwise noted.
3. Force mains shall be D.I.P. only.
4. Manholes shown with 12" and 16" walls are for brick manholes only.
5. 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.
6. House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

BENCHMARK No. 1

DESCRIPTION

IRON PIN 1066
ELEV. 175.92
N 496501.3597 E 869134.4576

BENCHMARK No. 2

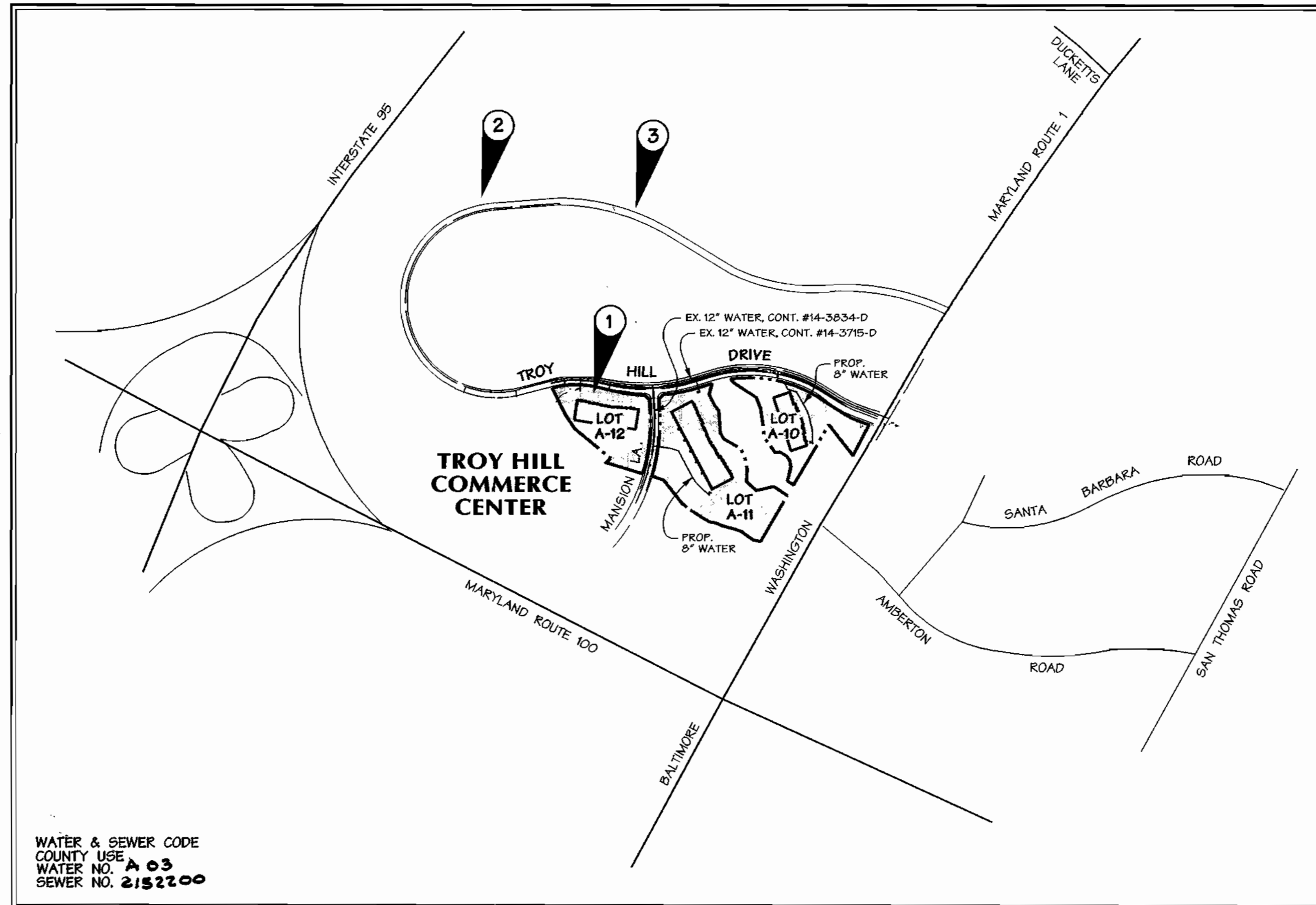
DESCRIPTION

IRON PIN 1061
ELEV. 242.49
N 498036.6945 E 868791.1502

BENCHMARK No. 3

DESCRIPTION

IRON PIN 1034
ELEV. 214.85
N 497636.7437 E 869835.6586



WATER & SEWER CODE
COUNTY USE
WATER NO. **A 03**
SEWER NO. **2152200**

VICINITY MAP

SCALE: 1"=600'

(COORDINATES BASED ON NAD27, AS PROJECTED BY HOWARD COUNTY GEOMETRIC CONTROL STATIONS No. 2445004 AND No. 2445005.)

TYPE OF BUILDINGS:	FLEX-WAREHOUSE
NO. OF LOTS / PARCELS	3
NO. OF WATER CONNECTIONS:	3
NO. OF SEWER CONNECTIONS:	3
DRAINAGE AREA:	SHALLOW RUN
TREATMENT PLANT:	PATAPSCO

SHEET INDEX	
SHEET	DESCRIPTION
1	COVER SHEET
2	WATER PLAN - LOT A-10
3	WATER PLAN - LOT A-11
4	WATER PROFILES - LOTS A-10 AND A-11

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

J. G. Wayfield 10/16/00
SIGNATURE DATE

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

John R. Roberts 10/16/00
APPROVED DATE

OWNER/APPLICANT
TROY HILL BUSINESS PARK PARTNERSHIP
C/O MANEKIN CORPORATION
7165 COLUMBIA GATEWAY DRIVE
COLUMBIA, MARYLAND 21046
(410) 290-1400

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND SITE DEVELOPMENT PLAN SDP 01-30

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

DMW
Daft-McCune-Walker, Inc.

A Team of Land Planners,
Landscape Architects,
Civil Engineers,
Surveyors &
Environmental Professionals



DESIGN BY:	DFM	DATE:	8/22/00
DRAWN BY:	MSS	BY NO.	
CHECKED BY:		REVISION	
DATE:	8/22/00	DATE	600 SCALE MAP NO. 37

TITLE SHEET

Troy Hill Commerce Center
Lots A-10 and A-11

Election District No. 1 Howard County, Maryland

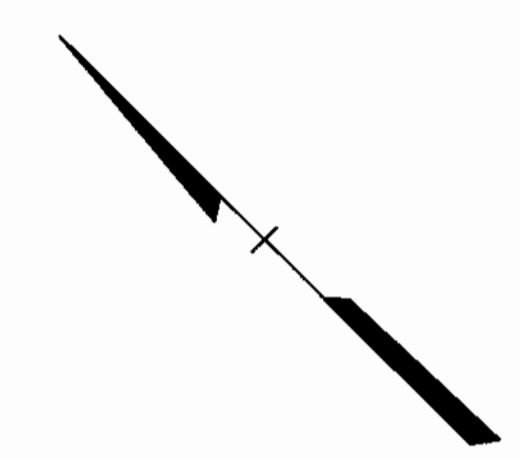
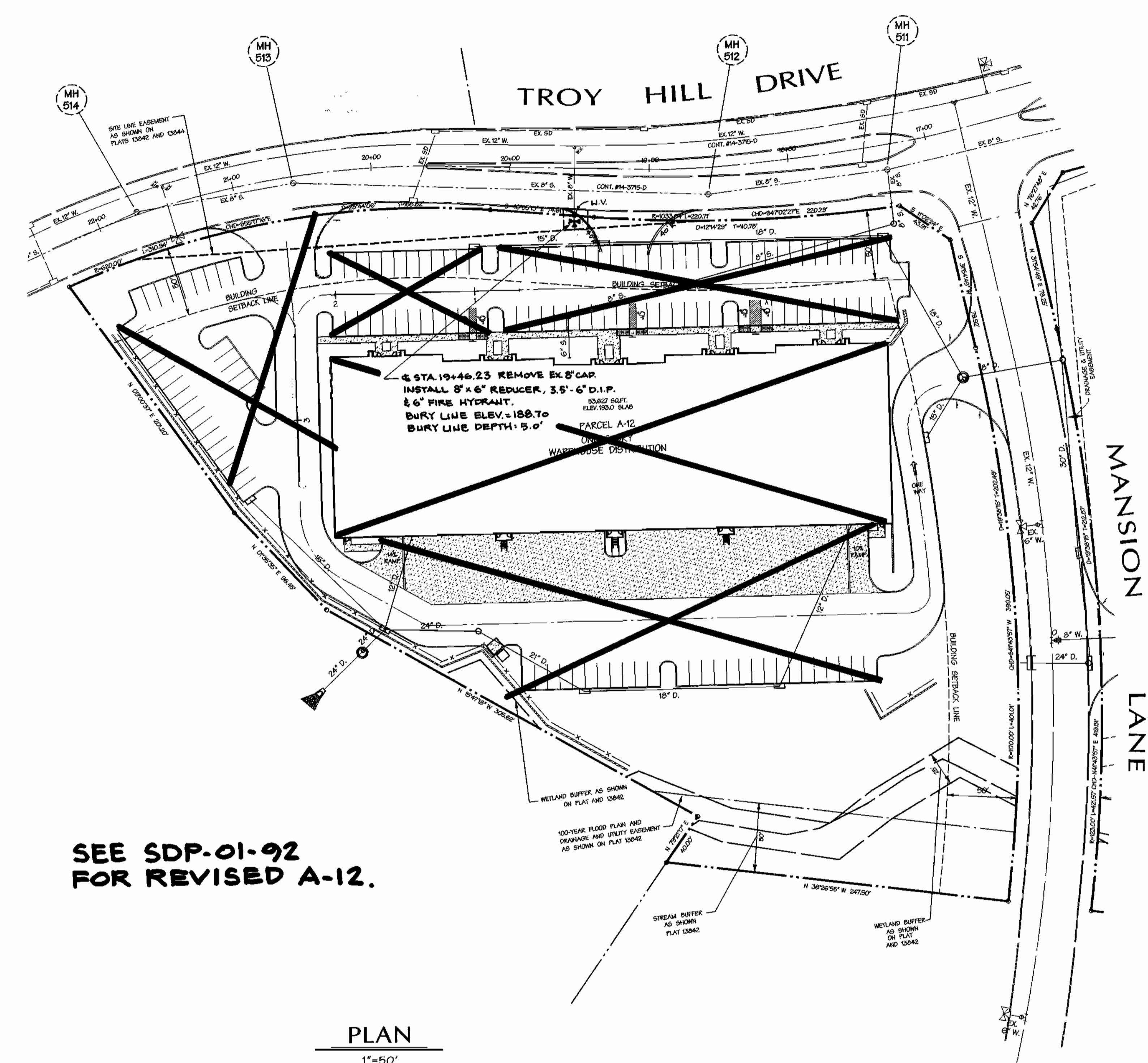
CONTRACT NO. **44-3914-D**

SCALE:
As Shown

SHEET
1 of 5

WATER MAIN STRUCTURE SCHEDULE			
ITEMS	COORDINATES		STATION
	NORTH	EAST	
10" x 6" TAPPING GLEEVE	186,668.5	868,358.0	20+10
6" VALVE	185,664.8	868,348.8	
6" FIRE HYDRANT	186,509.8	868,800.4	
8" x 6" REDUCER			19+46.23 - 33.5' LT.
6" FIRE HYDRANT			19+46.23 - 37' LT.

CONTRACTOR TO TEST PIT TO DETERMINE ACTUAL LOCATION AND ELEVATION OF EXISTING 8" CAP PRIOR TO LAYING PIPE



T:\0112\114046\2000\1199058\99058w4

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. Bauman 10-12-01
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Howard 10/12/01
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

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Daft-McCune-Walker, Inc.

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(410) 296-8333
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Engineers, Surveyors &
Environmental Professionals



DESIGN BY:	DFM	Rev/No	1/1	8/1/01
DRAWN BY:	MSS	Rev/No	2	10/8/01
CHECKED BY:				
DATE:	8/22/00	BY	NO.	REVISION
				DATE

WATER PLAN

600 SCALE MAP NO. 37 BLOCK NO. 18

Troy Hill Commerce Center

Election District No. 1 Howard County, Maryland

CONTRACT NO. 44-3914-D

SCALE:
1"=50'

SHEET
4 of 5

