

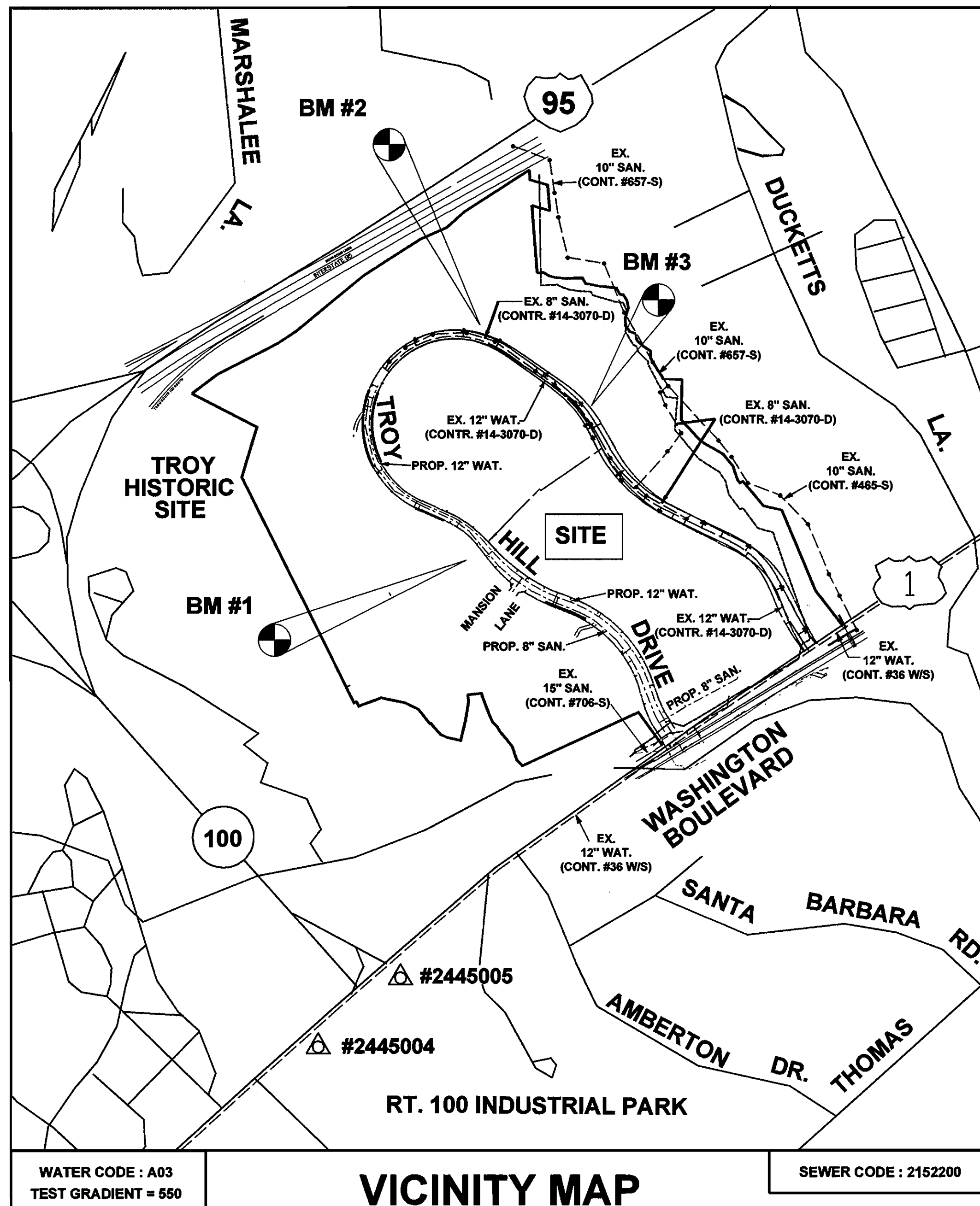
TYPE OF BUILDINGS	COMMERCIAL
NO. OF PARCELS	9
NO. OF WHC's	11
NO. OF SHC's	9
DRAINAGE AREA	SHALLOW RUN
WASTEWATER TREATMENT PLANT	PATAPSCO

# TROY HILL CORPORATE CENTER PHASE 2

QUANTITIES				
ITEMS	QTY. ESTIMATE	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" PVC SAN.	3066 LF			
12" PVC SAN.	43 LF			
8" D.I.P. CL. 52	1046 LF			
20" D.I.P. CL. 52	293 LF			
STD MH	18 EACH			
TERMINAL MH	2 EACH			
TYPE A DROP MH	1 EACH			
TYPE B DROP MH	1 EACH			
12" W WRESTR. JOINTS	60 LF			
12" W	3600 LF			
8" W	564 LF			
6" W	160 LF			
8" x 6" TEE	5 EACH			
12" x 12" TEE	2 EACH			
12" x 8" TEE	12 EACH			
12" x 6" TEE	1 EACH			
FIRE HYDRANT	6 EACH			
12" VALVE	6 EACH			
8" VALVE	12 EACH			
6" VALVE	6 EACH			
12" PLUG & BUTTRESS	1 EACH			
8" PLUG & BUTTRESS	11 EACH			
CONNECT TO EX. WM	2 EACH			
12" 1/8 VERT. BEND	4 EACH			
NAME OF UTILITY CONTRACTOR :				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				

SHEET INDEX	
1	PROPOSED WATER MAIN & SEWER SYSTEM COVER SHEET
2-4	PROPOSED WATER AND SEWER PLAN SHEETS
5	PROPOSED PUBLIC WATER MAIN AND STUB PROFILE
6	PROPOSED PUBLIC WATER MAIN PROFILE
7	PROPOSED PUBLIC WATER MAIN AND STUBS PROFILE
8	PROPOSED PUBLIC SEWER SYSTEM PROFILE
9	PROPOSED PUBLIC SEWER SYSTEM PROFILE
10	PROPOSED PUBLIC SEWER SYSTEM AND STUBS PROFILE

- ### GENERAL NOTES
- PART ONE :
- 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 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 THE BRACING OF ADDITIONAL, POLES, OR DAMAGE SHALL BE DEDUCTED FROM THE MONEY OWED TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF POLES.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOL. IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION) THE CONTRACTOR SHALL HAVE A COPY OF VOL. 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 RESULTS OF THE TEST 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 UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS :  
STATE HIGHWAY ADMINISTRATION : 531-5533  
BALTIMORE GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES : 850-4620  
BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND DAMAGE CONTROL : 787-9068  
MISS UTILITY : 1-800-257-7777  
COLONIAL PIPELINE CO. : 795-1390  
BUREAU OF UTILITIES, HOWARD COUNTY DEPT. 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 DAMAGED OR REMOVED BY THE CONTRACTOR.
  - CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS ALONG THE LINE OF EXCAVATION. PAVEMENT 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/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH D.P.W. REQUIREMENTS PER SECTION 18.114 (a) OF THE HOWARD COUNTY CODE.



- PART TWO : 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 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.
  - FOR SPRINKLER SYSTEM FOR ALL TOWNHOMES OR MULTI-FAMILY DWELLING UNITS SHOULD HAVE A MINIMUM OF 1' CONNECTION WITH A 1/2" METER.
- PART III : SEWER
- 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 W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G6.62. 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.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND GP 96-121

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

APPROVED: *[Signature]* 12/21/98  
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

APPROVED: *[Signature]* 12/21/98  
U.S. SOIL CONSERVATION SERVICE DATE

OWNER / APPLICANT  
TROY HILL BUSINESS PARK PARTNERSHIP  
C/O MANEKIN CORP.  
7165 COLUMBIA GATEWAY DRIVE  
COLUMBIA, MARYLAND 21046  
(410) 290-1400  
ATTN: COLE SCHNORF

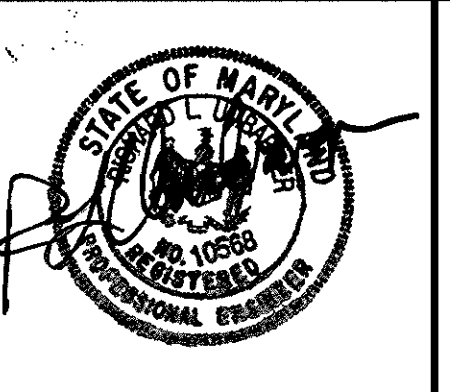
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BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*[Signature]* 12-15-98  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*[Signature]* 1/4/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.**  
Civil Engineers and Land Surveyors  
658 Kenilworth Drive, Suite 100  
Towson Maryland 21204 (410) 825-8120  
203 East Broadway  
Bel Air, Maryland 21014 (410) 838-3800



DESIGNED : RLM  
DRAWN : RLM  
CHECKED : RLU

**PROPOSED  
WATER MAIN & SEWER SYSTEM  
COVER SHEET**

CONTRACT NO. 14-3715-D  
600 SCALE MAP NO. 37 BLOCK NO. 18

**TROY HILL CORPORATE CENTER  
PHASE II**

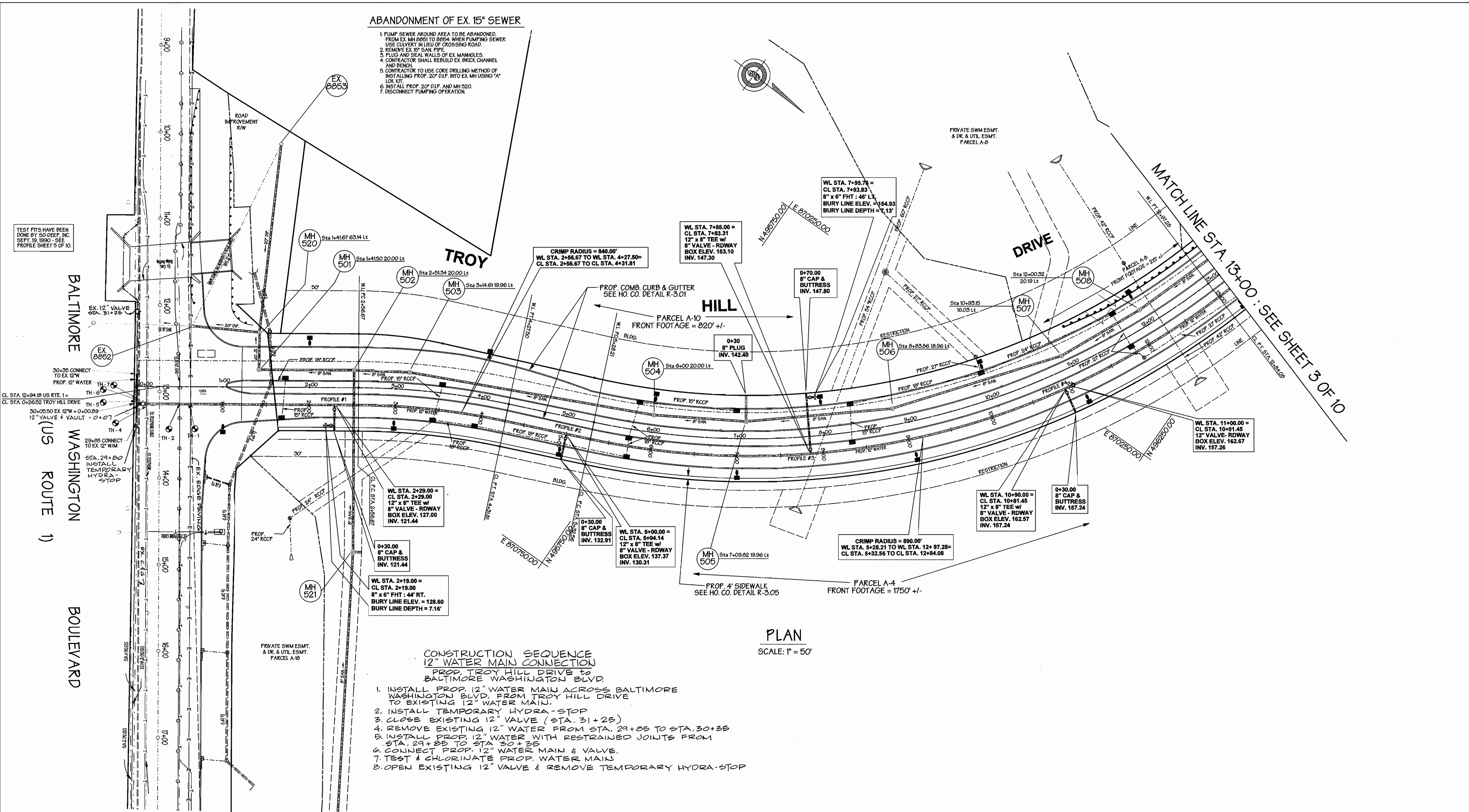
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT #1  
OCT. 30, 1998  
SHEET 1 OF 10  
P/N 8130 - wstfile.s01

ABANDONMENT OF EX. 15" SEWER

1. PUMP SEWER AROUND AREA TO BE ABANDONED. FROM EX. MH 505 TO 2854. WHEN PUMPING SEWER USE CULVERT IN LIEU OF CROSSING ROAD.
2. REMOVE EX. 15" SAN. PIPE.
3. PLUG AND SEAL WALLS OF EX. MANHOLES.
4. CONTRACTOR SHALL REBUILD EX. BRICK CHANNEL AND BENCH.
5. CONTRACTOR TO USE CORE DRILLING METHOD OF INSTALLING PROP. 20" D.I.F. INTO EX. MH USING "A" LOK KIT.
6. INSTALL PROP. 20" D.I.F. AND MH 520.
7. DISCONNECT PUMPING OPERATION.

TEST FITS HAVE BEEN DONE BY SO. DEEP INC. SEPT. 19, 1990 - SEE PROFILE SHEET 5 OF 10.

BALTIMORE WASHINGTON BOULEVARD  
 (US ROUTE 1)



PLAN  
 SCALE: 1" = 50'

- CONSTRUCTION SEQUENCE  
 12" WATER MAIN CONNECTION  
 PROP. TROY HILL DRIVE TO  
 BALTIMORE WASHINGTON BLVD.
1. INSTALL PROP. 12" WATER MAIN ACROSS BALTIMORE WASHINGTON BLVD. FROM TROY HILL DRIVE TO EXISTING 12" WATER MAIN.
  2. INSTALL TEMPORARY HYDRA-STOP
  3. CLOSE EXISTING 12" VALVE (STA. 31+25)
  4. REMOVE EXISTING 12" WATER FROM STA. 29+05 TO STA. 30+35
  5. INSTALL PROP. 12" WATER WITH RESTRAINED JOINTS FROM STA. 29+05 TO STA. 30+35
  6. CONNECT PROP. 12" WATER MAIN & VALVE.
  7. TEST & CHLORINATE PROP. WATER MAIN
  8. OPEN EXISTING 12" VALVE & REMOVE TEMPORARY HYDRA-STOP

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*Robert W. Beaman* 12-15-98  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND

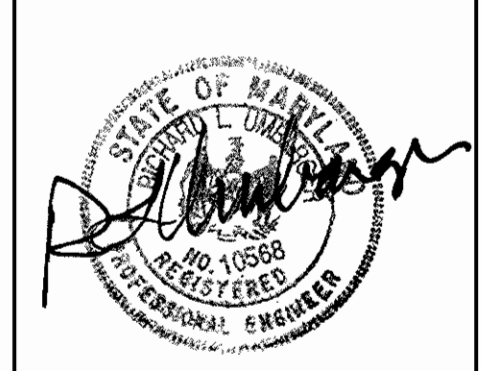
*[Signature]* 12/15/98  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GWS**

**GEORGE W. STEPHENS, JR.  
 AND ASSOCIATES, INC.**

Civil Engineers and Land Surveyors

658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
 203 East Broadway  
 Bel Air, Maryland 21014 (410) 838-3800



DESIGNED : RLM  
 DRAWN : RLM  
 CHECKED : RLU

**PROPOSED  
 WATER AND SEWER PLAN SHEET  
 STA. 0+00 TO STA. 13+00**

CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37

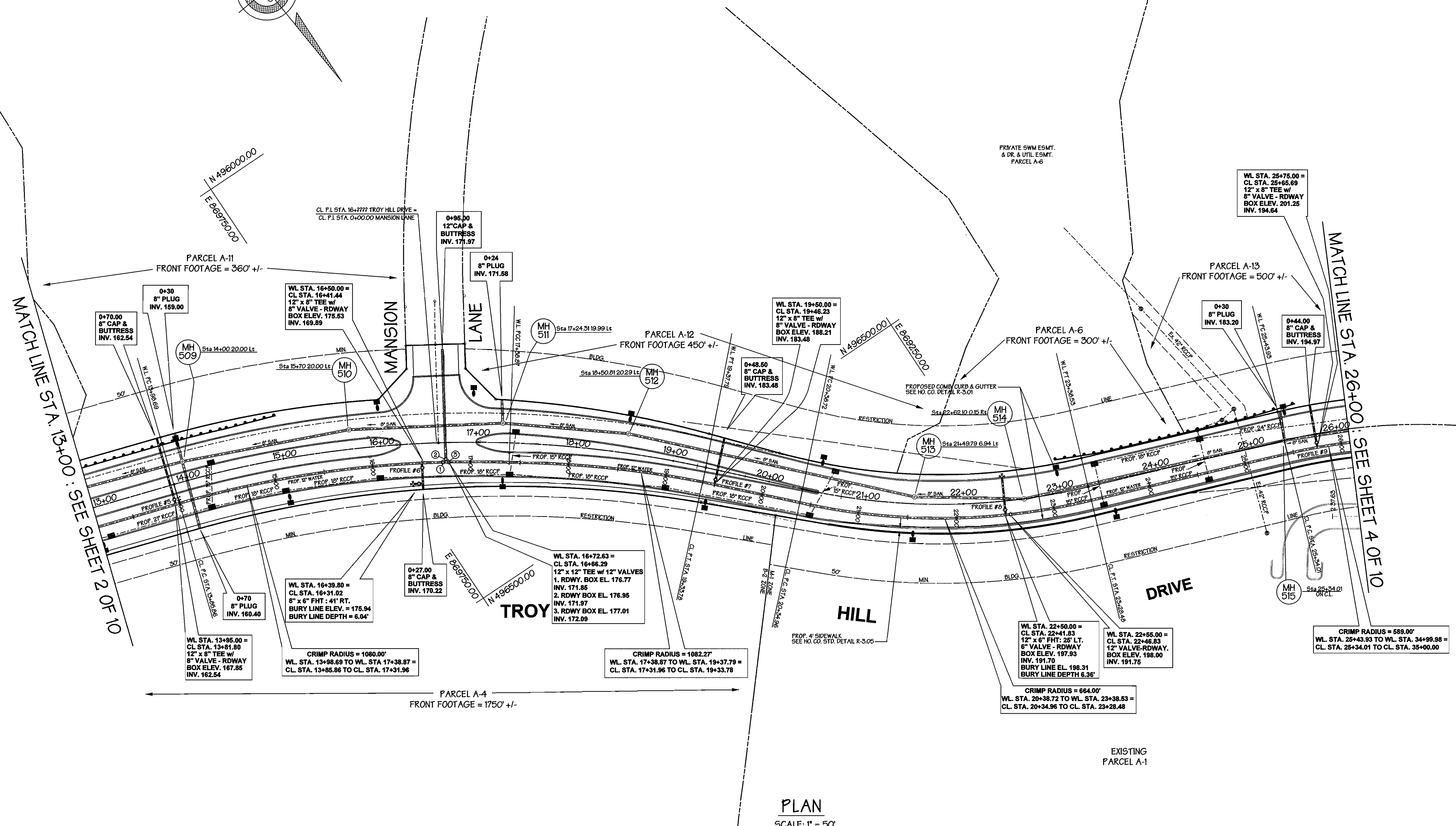
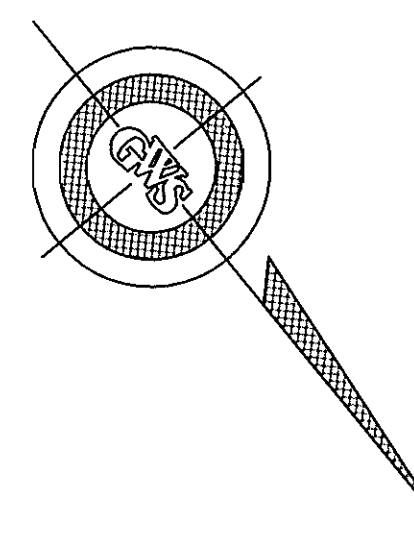
BLOCK NO. 18

**TROY HILL CORPORATE CENTER  
 PHASE II**

HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1

OCT. 30, 1998  
 SHEET 2 OF 10

8130/cad/micro/wssht.s02



PLAN  
SCALE: 1" = 50'

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

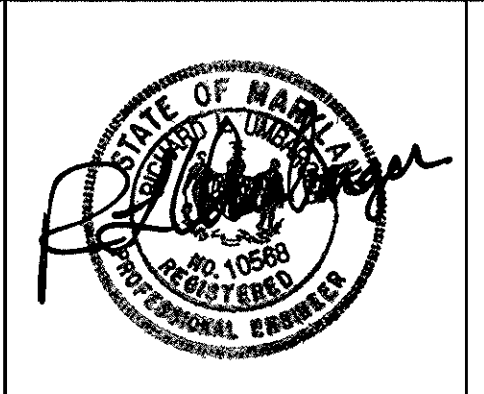
*Robert Berman* 12-15-98  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]* 12/15/98  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GWS**

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Civil Engineers and Land Surveyors  
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Towson Maryland 21204 (410) 825-8120  
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Bel Air, Maryland 21014 (410) 838-3800



DESIGNED : RLM  
DRAWN : RLM  
CHECKED : RLU

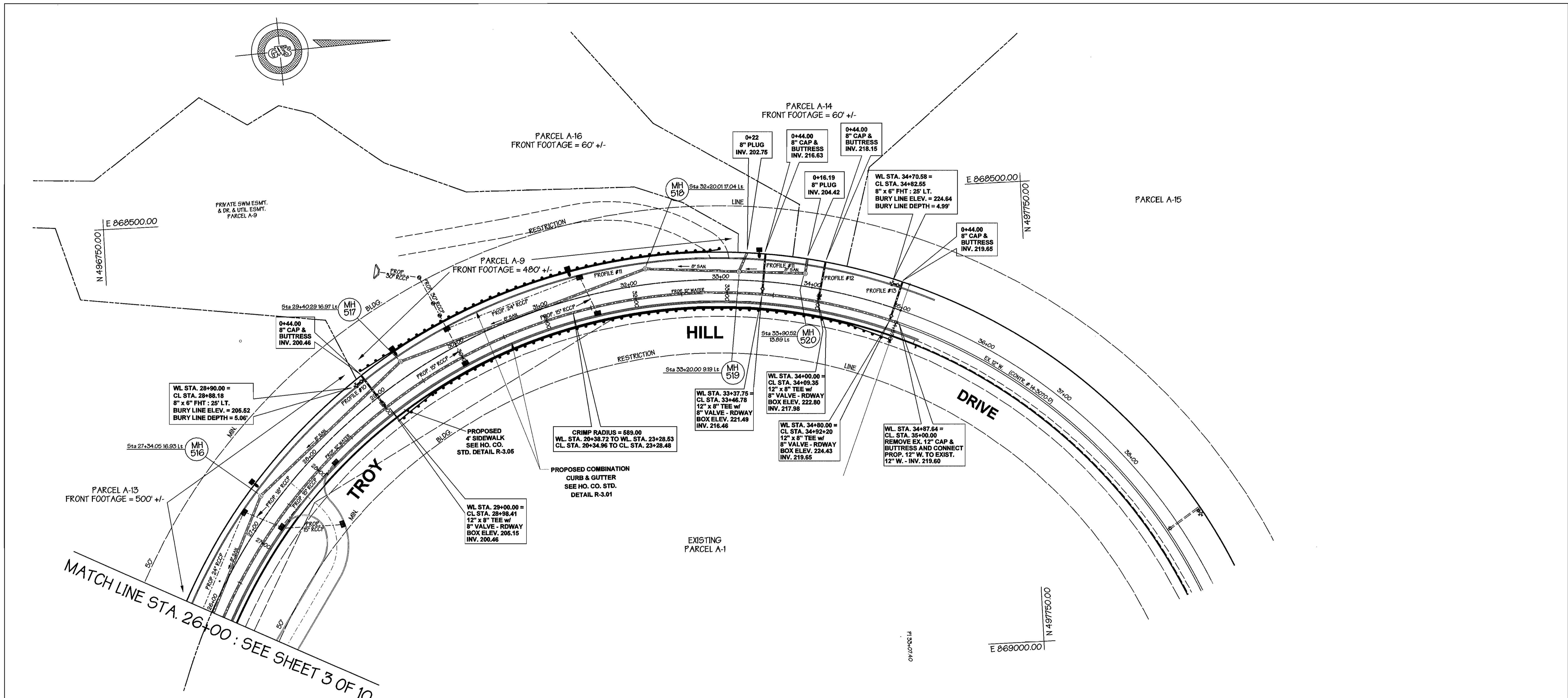
**PROPOSED WATER AND SEWER PLAN SHEET**  
STA. 13+00 TO STA. 26+00

CONTRACT NO. 14-3715-D  
600 SCALE MAP NO. 37 BLOCK NO. 18

**TROY HILL CORPORATE CENTER**  
PHASE II

HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT #1

OCT. 30, 1998  
SHEET 3 OF 10



PLAN  
SCALE: 1" = 50'

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert W. Berman* 12-15-98  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]* 1/1/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GWS**

**GEORGE W. STEPHENS, JR.  
AND ASSOCIATES, INC.**  
Civil Engineers and Land Surveyors  
658 Kenilworth Drive, Suite 100  
Towson Maryland 21204 (410) 825-8120  
203 East Broadway  
Bel Air, Maryland 21014 (410) 838-3800



DESIGNED : RLM  
DRAWN : RLM  
CHECKED : RLU

**PROPOSED  
WATER AND SEWER PLAN SHEET  
STA. 26+00 TO STA. 35+00**

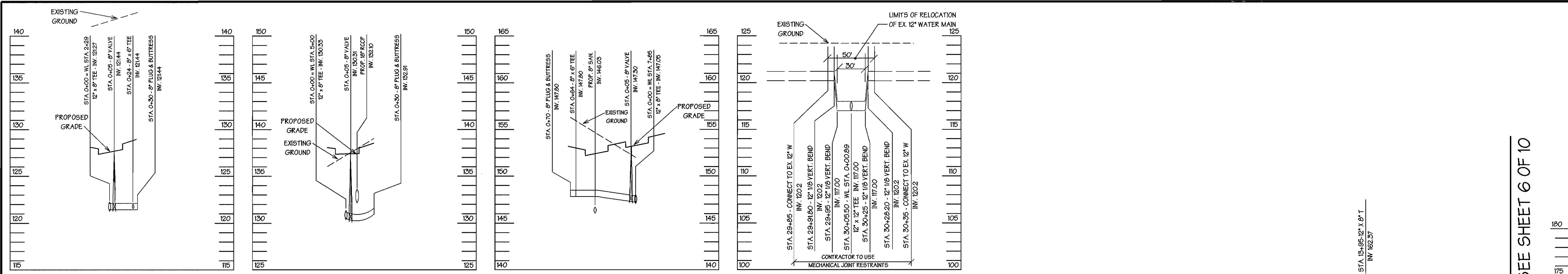
CONTRACT NO. 14-3715-D  
600 SCALE MAP NO. 37

**TROY HILL CORPORATE CENTER  
PHASE II**

HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT #1

OCT. 30, 1998  
SHEET 4 OF 10

8130/cad/micro/wssht.s04



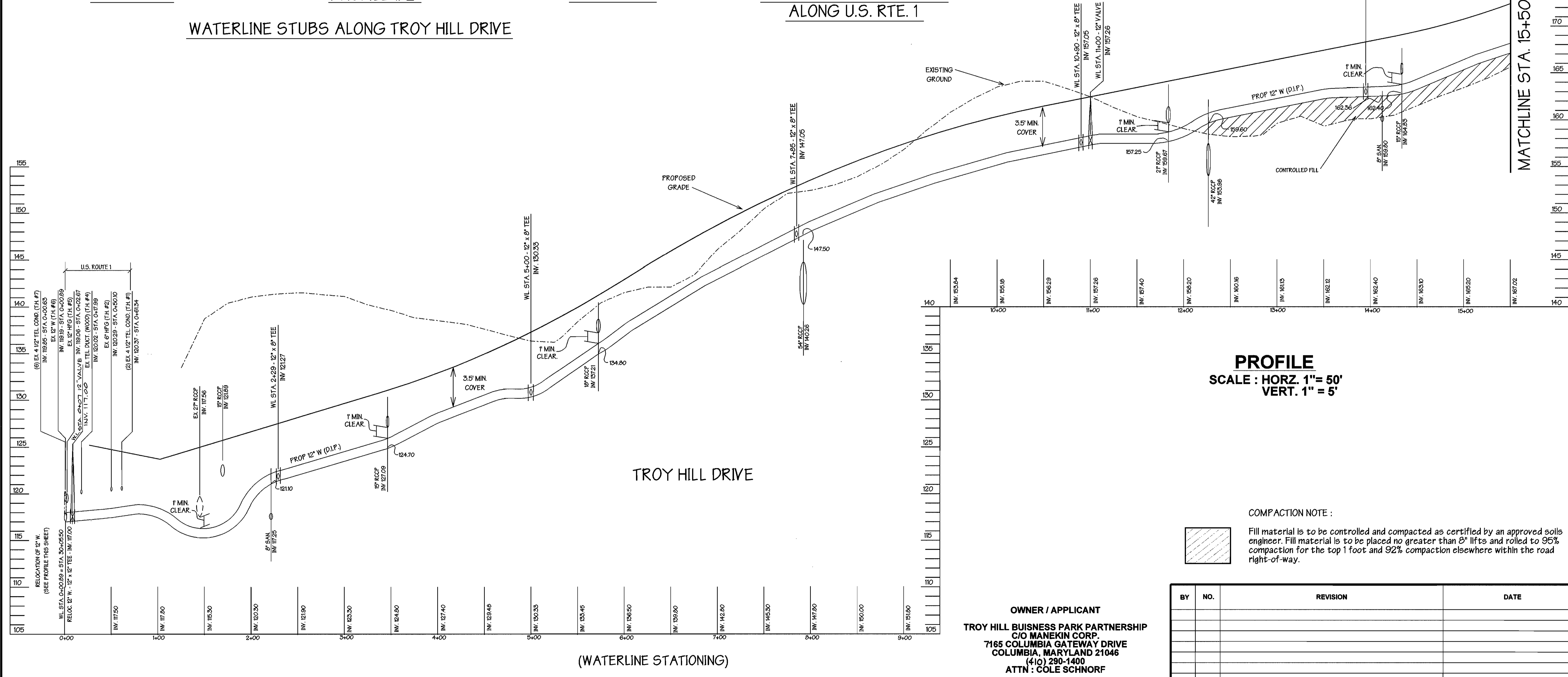
PROFILE #1

PROFILE #2

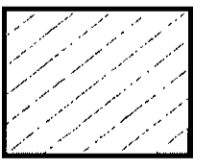
PROFILE #3

RELOCATION OF EX. 12\"/>

WATERLINE STUBS ALONG TROY HILL DRIVE



PROFILE  
SCALE : HORZ. 1" = 50'  
VERT. 1" = 5'

COMPACTION NOTE :  
 Fill material is to be controlled and compacted as certified by an approved soils engineer. Fill material is to be placed no greater than 8" lifts and rolled to 95% compaction for the top 1 foot and 92% compaction elsewhere within the road right-of-way.

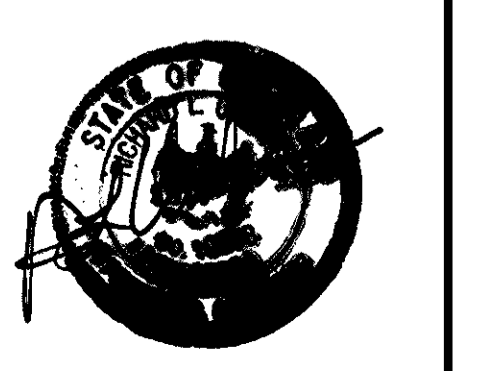
OWNER / APPLICANT  
**TROY HILL BUSINESS PARK PARTNERSHIP**  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN : COLE SCHNORF

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*Robert J. Beaman* 12-15-98  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
*[Signature]*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GEORGE W. STEPHENS, JR.**  
 AND ASSOCIATES, INC.  
 Civil Engineers and Land Surveyors  
 658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
 203 East Broadway  
 Bel Air, Maryland 21014 (410) 838-3800

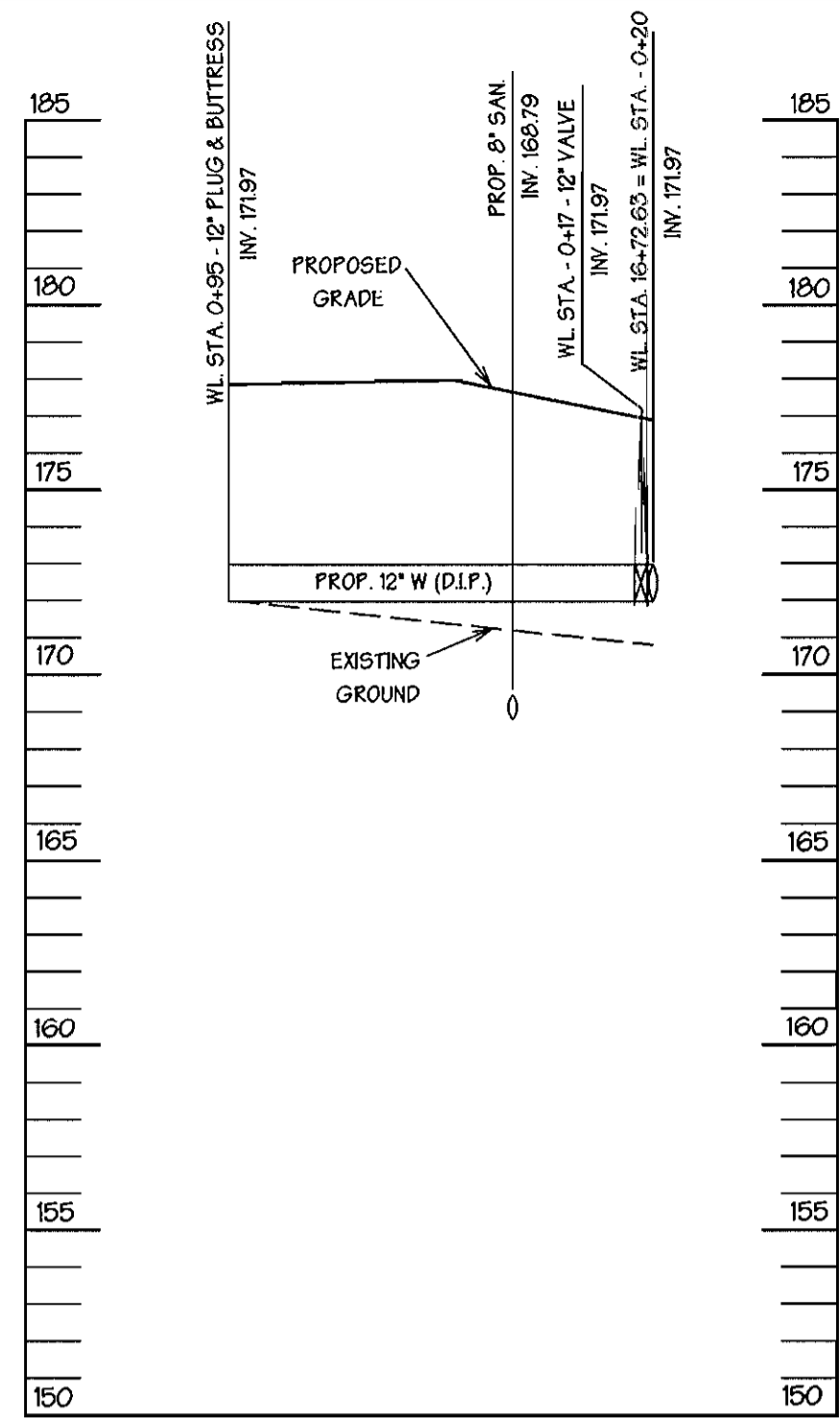


DESIGNED : RLM  
 DRAWN : JTE  
 CHECKED : RLU

**PROPOSED  
 PUBLIC WATER MAIN & SEWER SYSTEM  
 PROFILE**  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37 BLOCK NO. 18

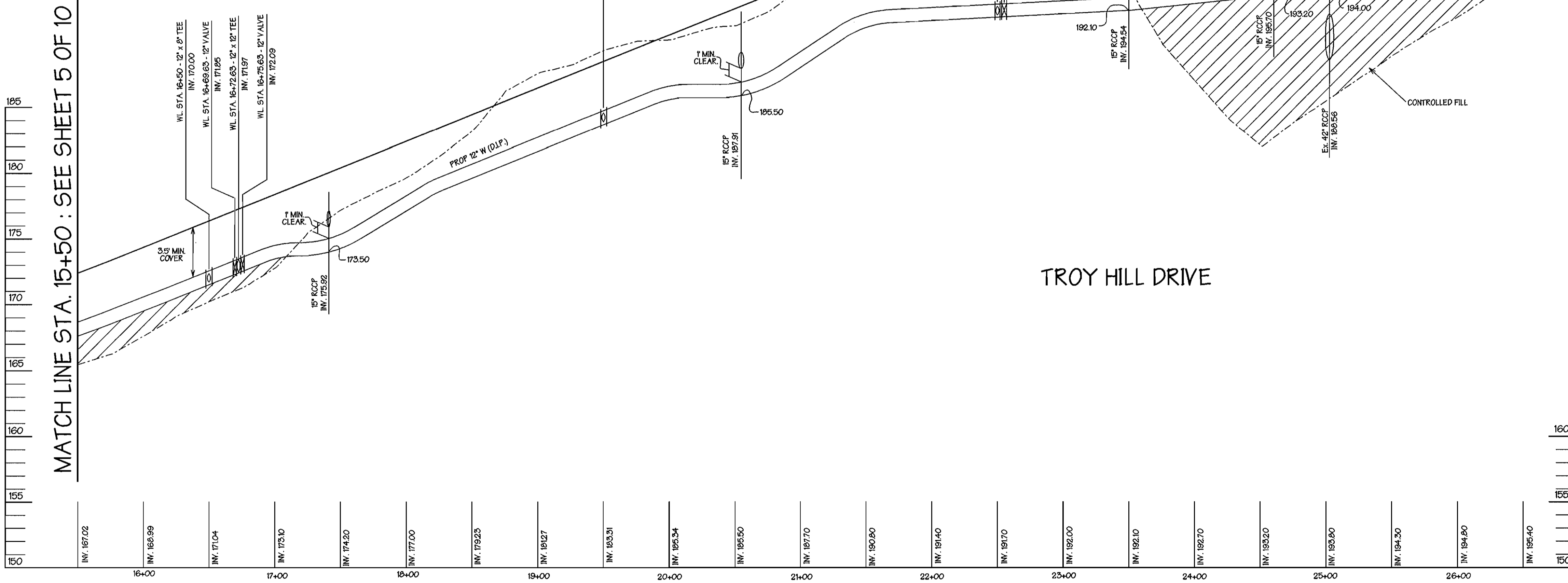
**TROY HILL CORPORATE CENTER  
 PHASE II**  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 12, 1998  
 SHEET 5 OF 10

MATCHLINE STA. 15+50 : SEE SHEET 6 OF 10



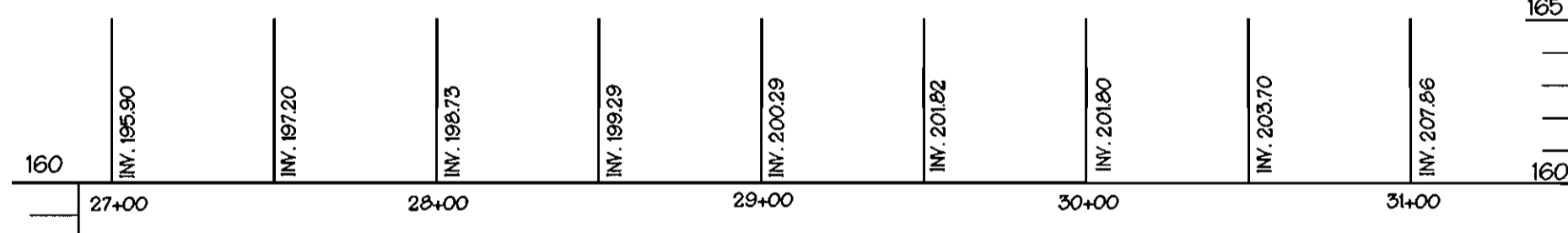
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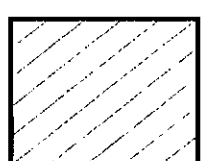
MATCH LINE STA. 15+50 : SEE SHEET 5 OF 10



TROY HILL DRIVE

MATCHLINE STA. 31+00 : SEE SHEET 7 OF 10



COMPACTION NOTE :  
 Fill material is to be controlled and compacted as certified by an approved soils engineer. Fill material is to be placed no greater than 8' lifts and rolled to 95% compaction for the top 1 foot and 92% compaction elsewhere within the road right-of-way.

OWNER / APPLICANT  
 TROY HILL BUSINESS PARK PARTNERSHIP  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
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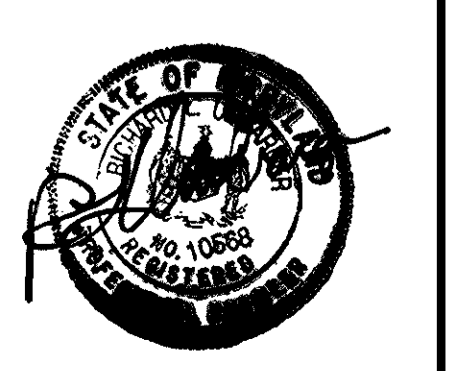
(WATERLINE STATIONING) **PROFILE**  
 SCALE : HORZ. 1" = 50'  
 VERT 1" = 5'

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*R. J. ...* 12-15-98  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
*...*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

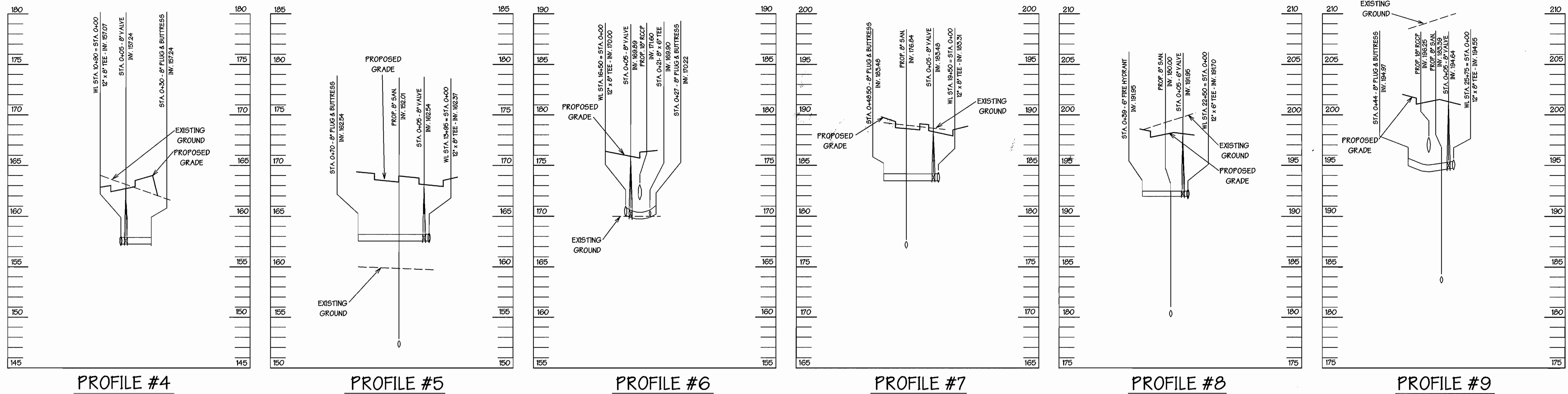
**GWS**  
 GEORGE W. STEPHENS, JR.  
 AND ASSOCIATES, INC.  
 Civil Engineers and Land Surveyors  
 658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
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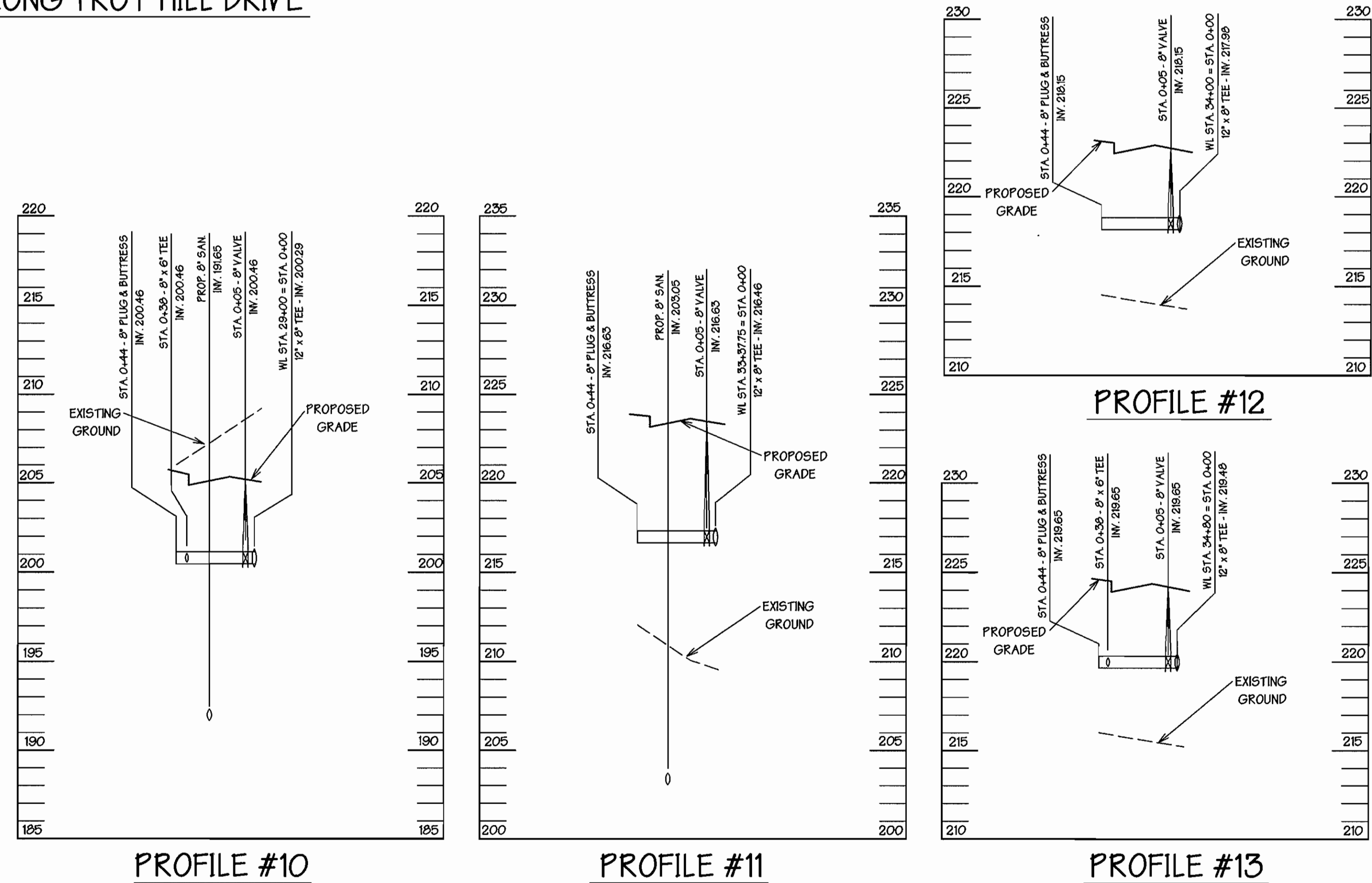
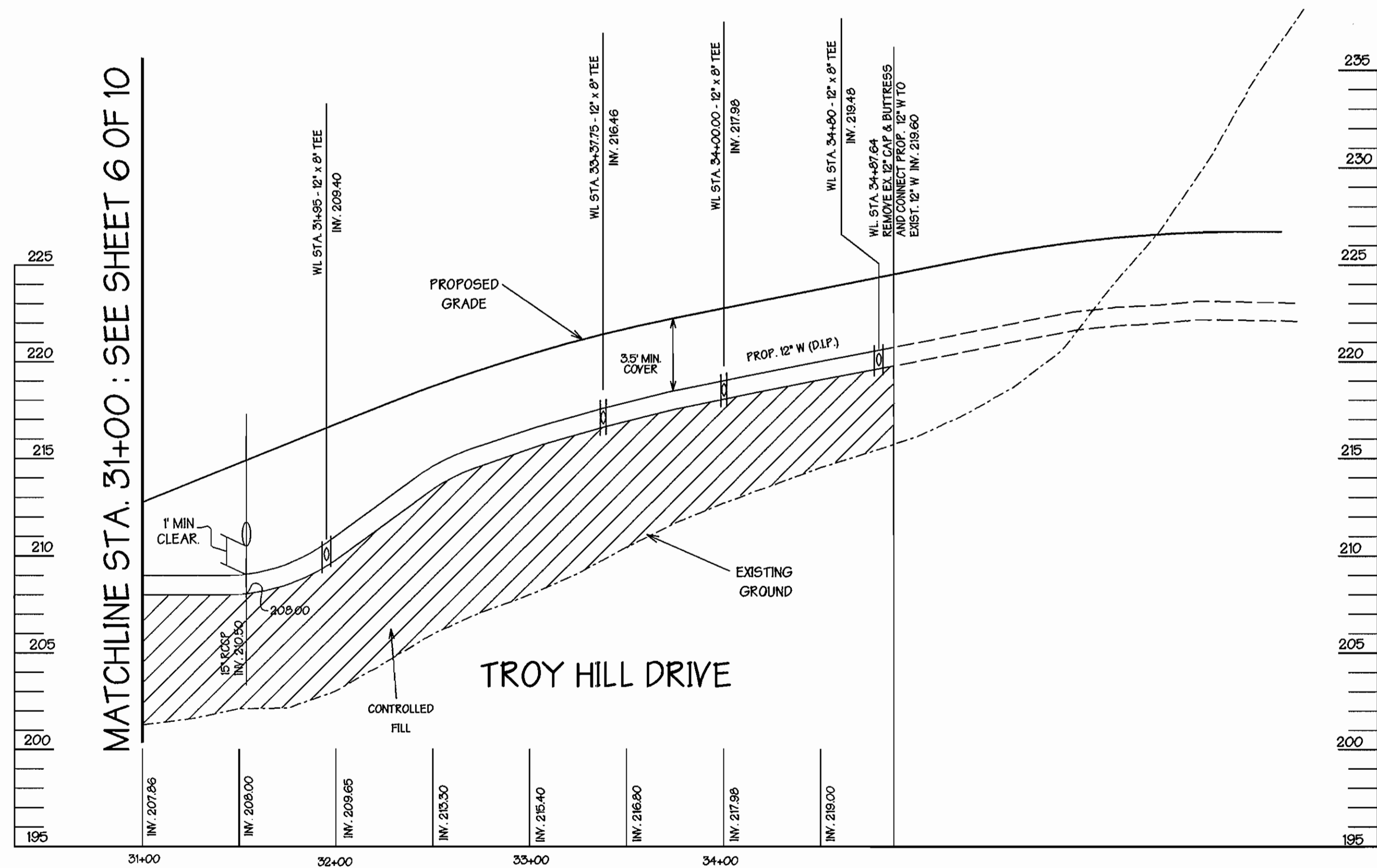
DESIGNED : RLM  
 DRAWN : JTE  
 CHECKED : RLU

**PROPOSED PUBLIC WATER MAIN PROFILE**  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37 BLOCK NO. 18

**TROY HILL CORPORATE CENTER**  
 PHASE II  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 12, 1998  
 SHEET 6 OF 10  
 P/N 8130 - wprof.s06



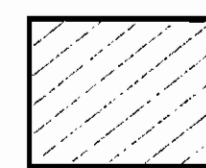
WATERLINE STUBS ALONG TROY HILL DRIVE



OWNER / APPLICANT  
**TROY HILL BUSINESS PARK PARTNERSHIP**  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN : COLE SCHNORF

(WATERLINE STATIONING)

COMPACTION NOTE :



Fill material is to be controlled and compacted as certified by an approved soils engineer. Fill material is to be placed no greater than 8" lifts and rolled to 95% compaction for the top 1 foot and 92% compaction elsewhere within the road right-of-way.

**PROFILE**  
 SCALE : HORZ. 1" = 50'  
 VERT. 1" = 5'

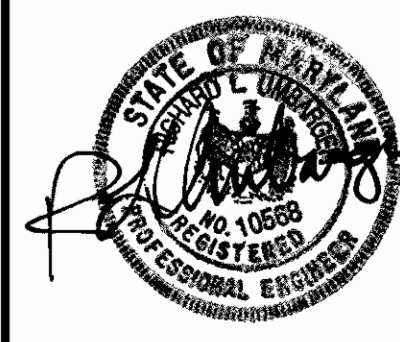
BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND



**GEORGE W. STEPHENS, JR.**  
**AND ASSOCIATES, INC.**  
 Civil Engineers and Land Surveyors  
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DESIGNED : RLM  
 DRAWN : JTE  
 CHECKED : RLU

**PROPOSED**  
**PUBLIC WATER MAIN**  
**PROFILE**

CONTRACT NO. 14-3715-D

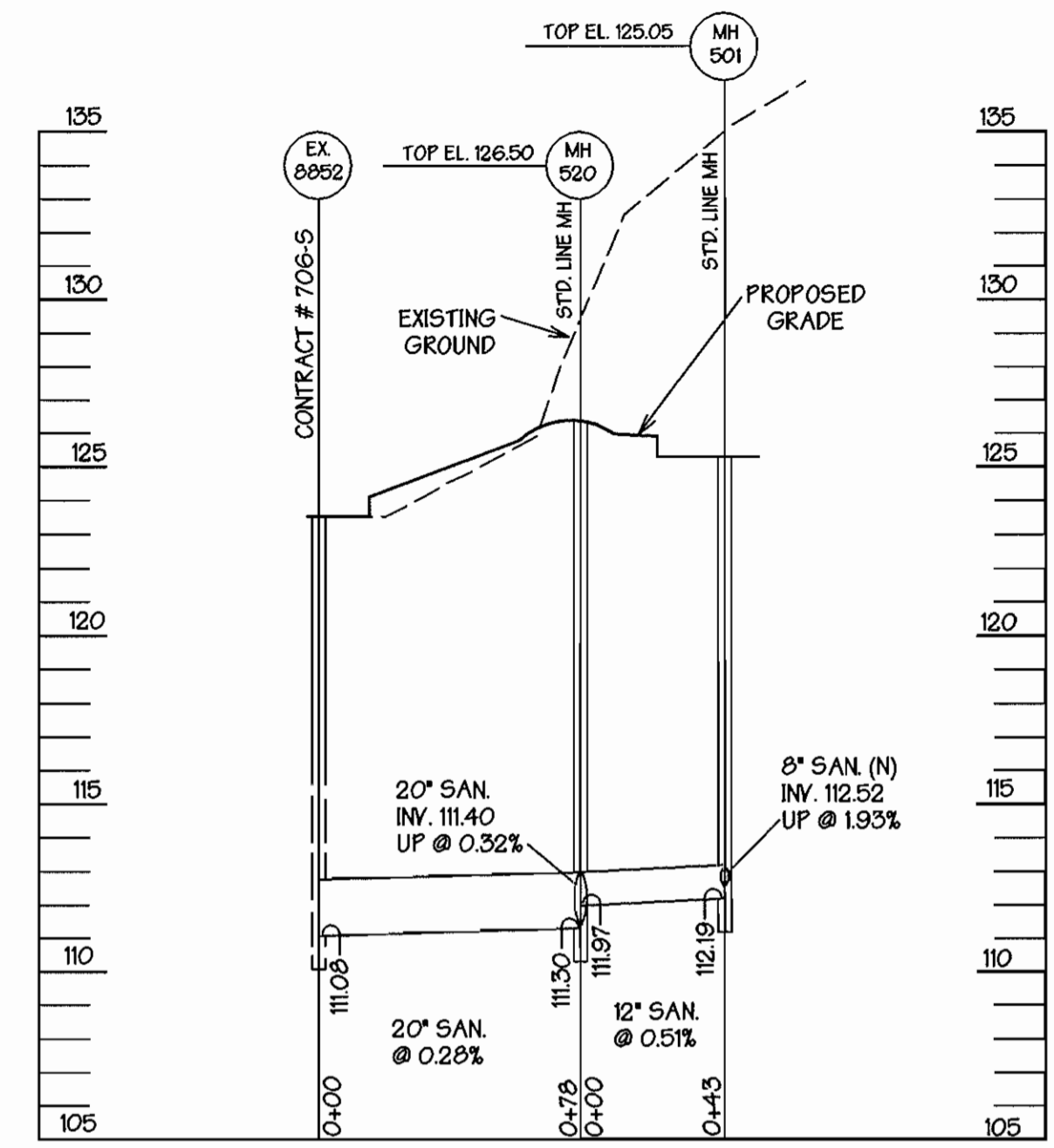
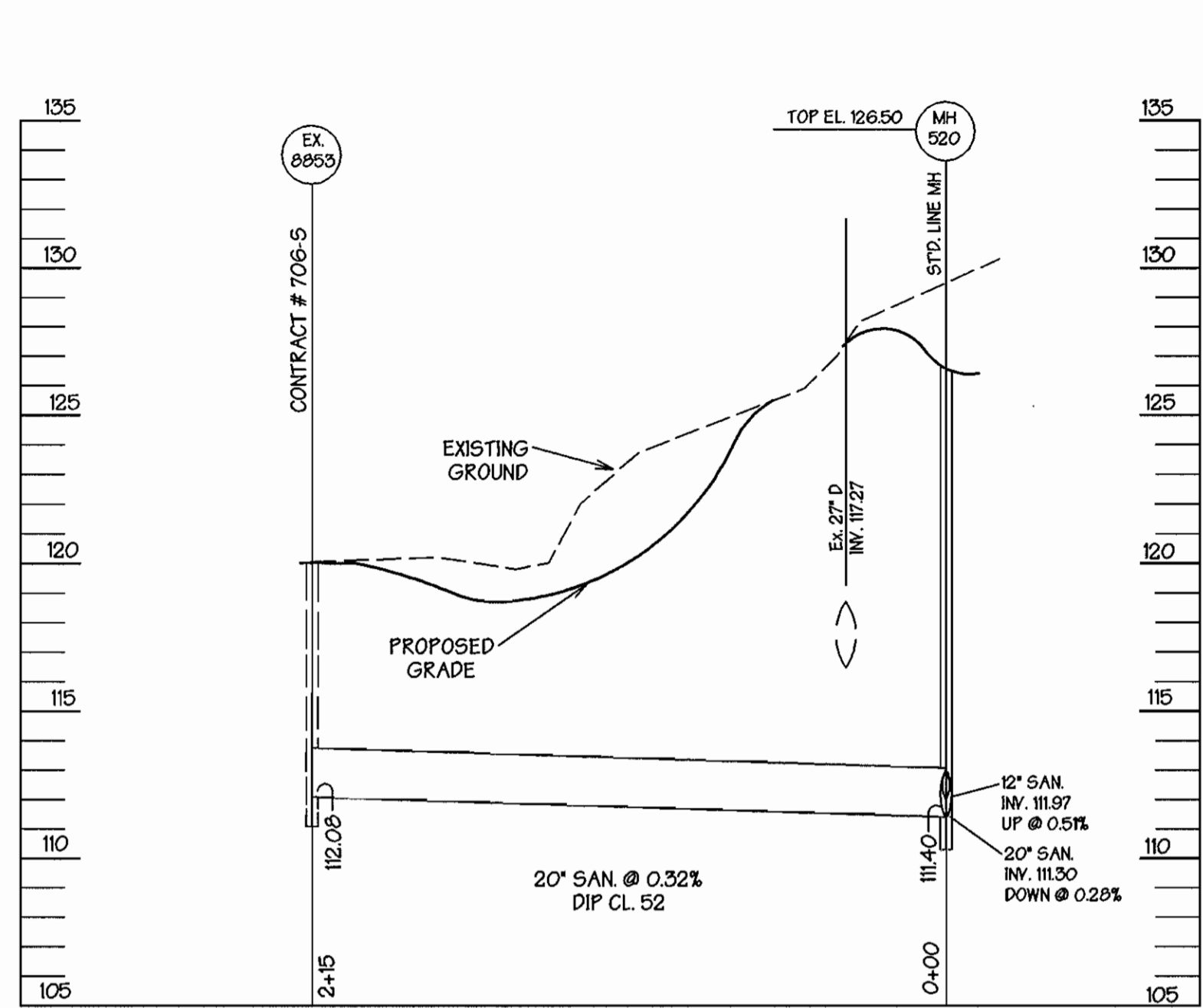
800 SCALE MAP NO. 37

BLOCK NO. 18

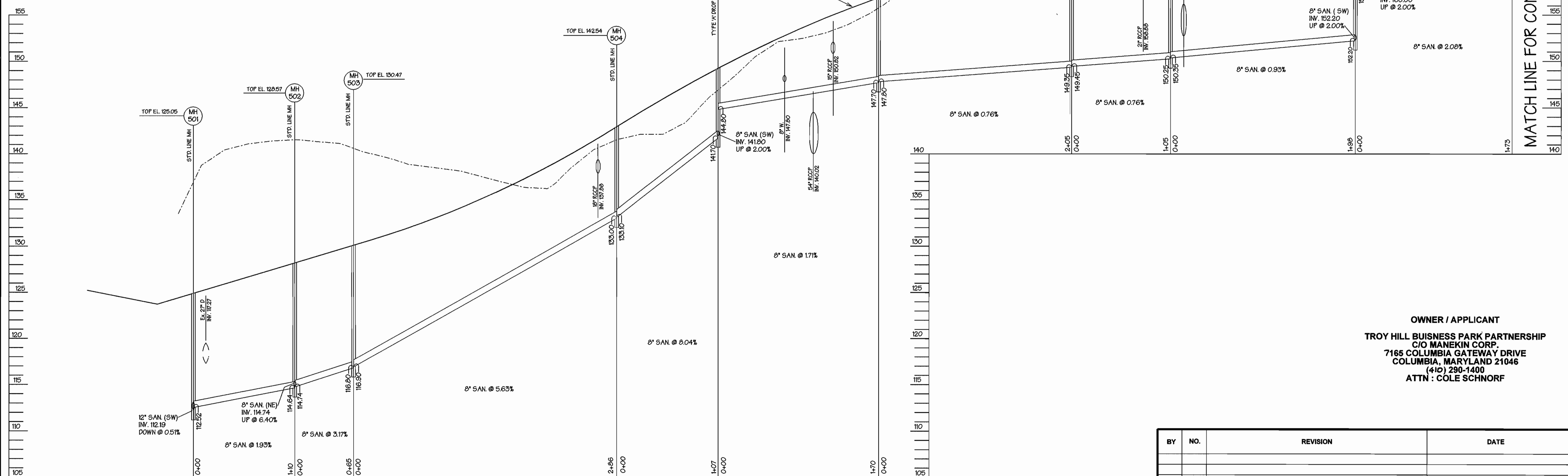
**TROY HILL CORPORATE CENTER**  
 PHASE II

HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1

OCT. 30, 1998  
 SHEET 7 OF 10



**PROFILE**  
SCALE : HORZ. 1" = 50'  
VERT. 1" = 5'



MATCH LINE FOR CONTINUATION SEE SHEET 9 OF 10

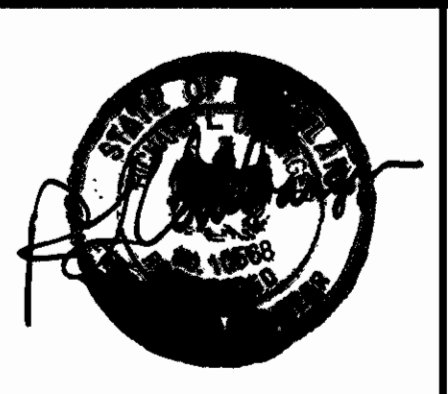
**OWNER / APPLICANT**  
TROY HILL BUSINESS PARK PARTNERSHIP  
C/O MANEKIN CORP.  
7165 COLUMBIA GATEWAY DRIVE  
COLUMBIA, MARYLAND 21046  
(410) 290-1400  
ATTN : COLE SCHNORF

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
  
Robert B. ... 12-15-98  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
  
... 1/24/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.**  
Civil Engineers and Land Surveyors  
658 Kenilworth Drive, Suite 100  
Towson Maryland 21204 (410) 825-8120  
203 East Broadway  
Bel Air, Maryland 21014 (410) 838-3800

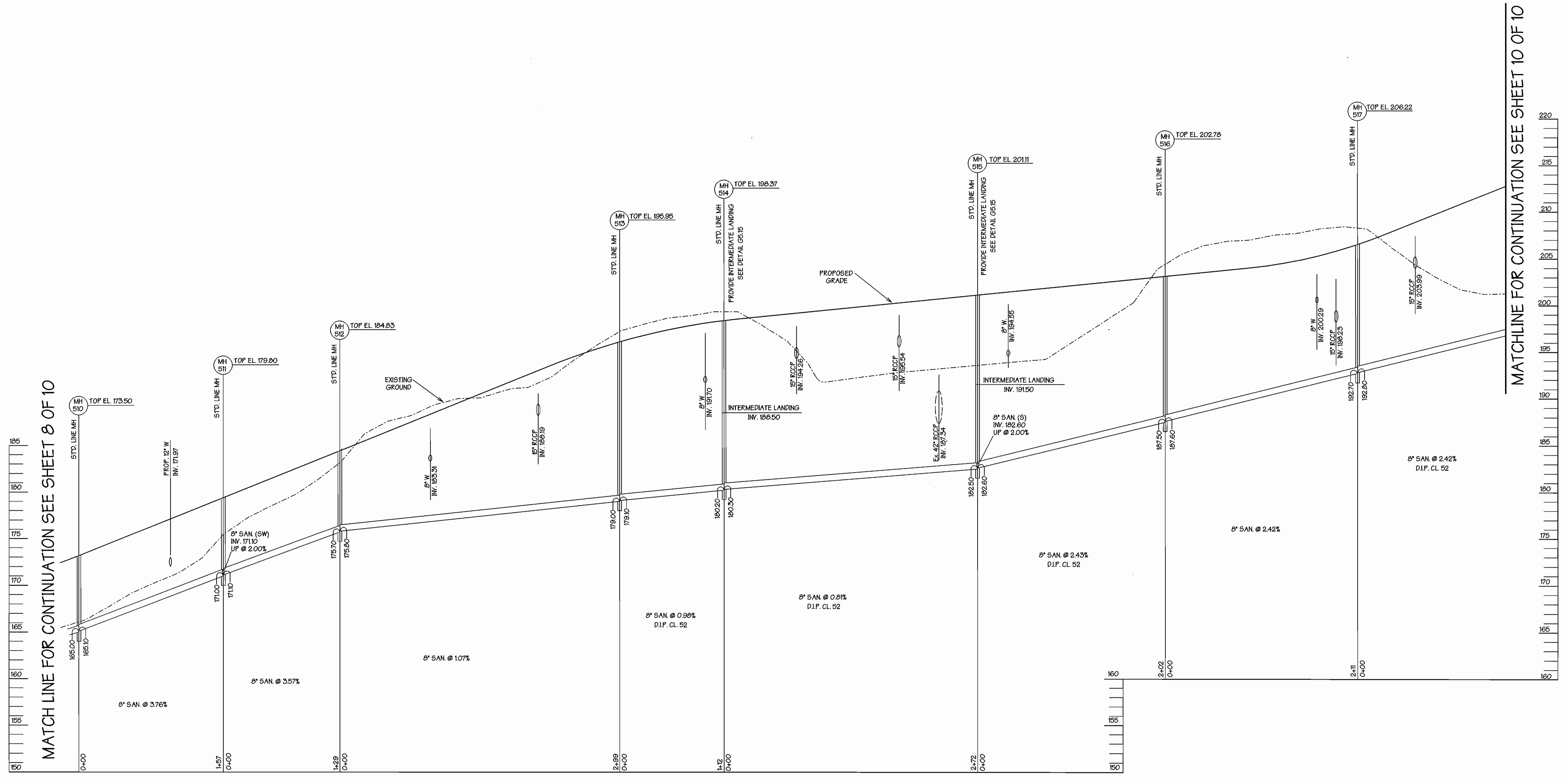


DESIGNED : RLM  
DRAWN : RLM  
CHECKED : RLU

**PROPOSED PUBLIC SEWER SYSTEM PROFILE**  
CONTRACT NO. 14-3715-D  
600 SCALE MAP NO. 37 BLOCK NO. 18

**TROY HILL CORPORATE CENTER**  
PHASE II  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT #1  
OCT. 12, 1998  
SHEET 8 OF 10  
P/N 8130 - wspref.s08





MATCH LINE FOR CONTINUATION SEE SHEET 8 OF 10

MATCHLINE FOR CONTINUATION SEE SHEET 10 OF 10

**OWNER / APPLICANT**  
 TROY HILL BUSINESS PARK PARTNERSHIP  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN : COLE SCHNORF

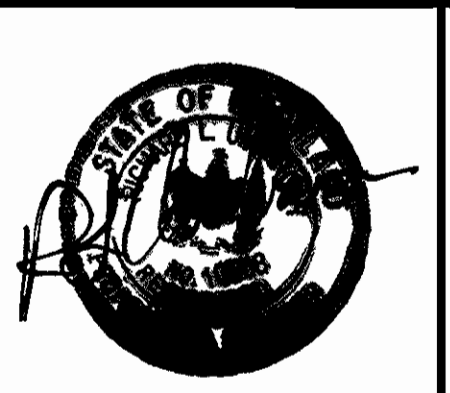
**PROFILE**  
 SCALE : HORZ. 1" = 50'  
 VERT 1" = 5'

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Robert R. Dennis 12-15-98  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 [Signature] 12/16/98  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

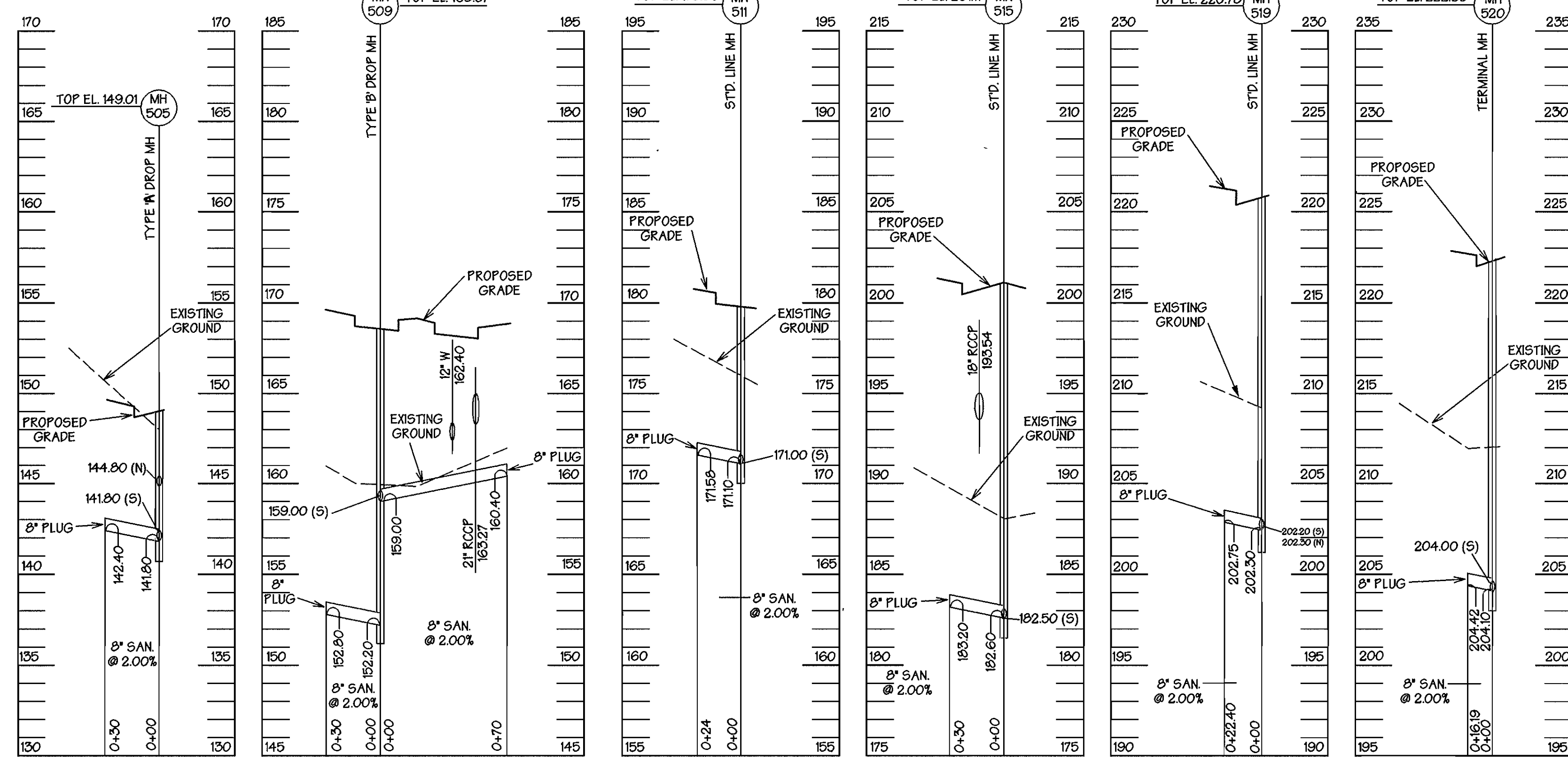
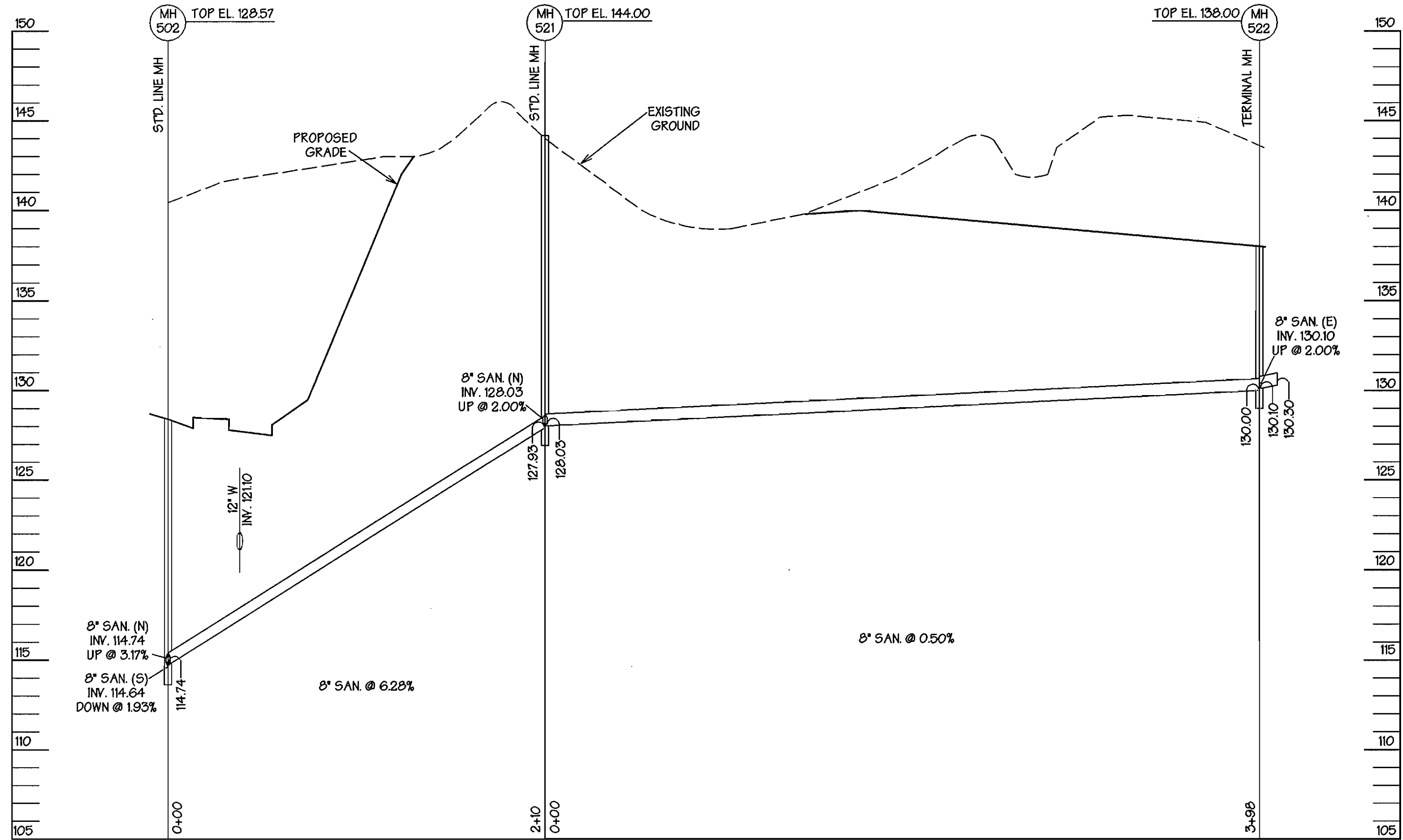
**GWS**  
 GEORGE W. STEPHENS, JR.  
 AND ASSOCIATES, INC.  
 Civil Engineers and Land Surveyors  
 658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
 203 East Broadway  
 Bel Air, Maryland 21014 (410) 838-3800



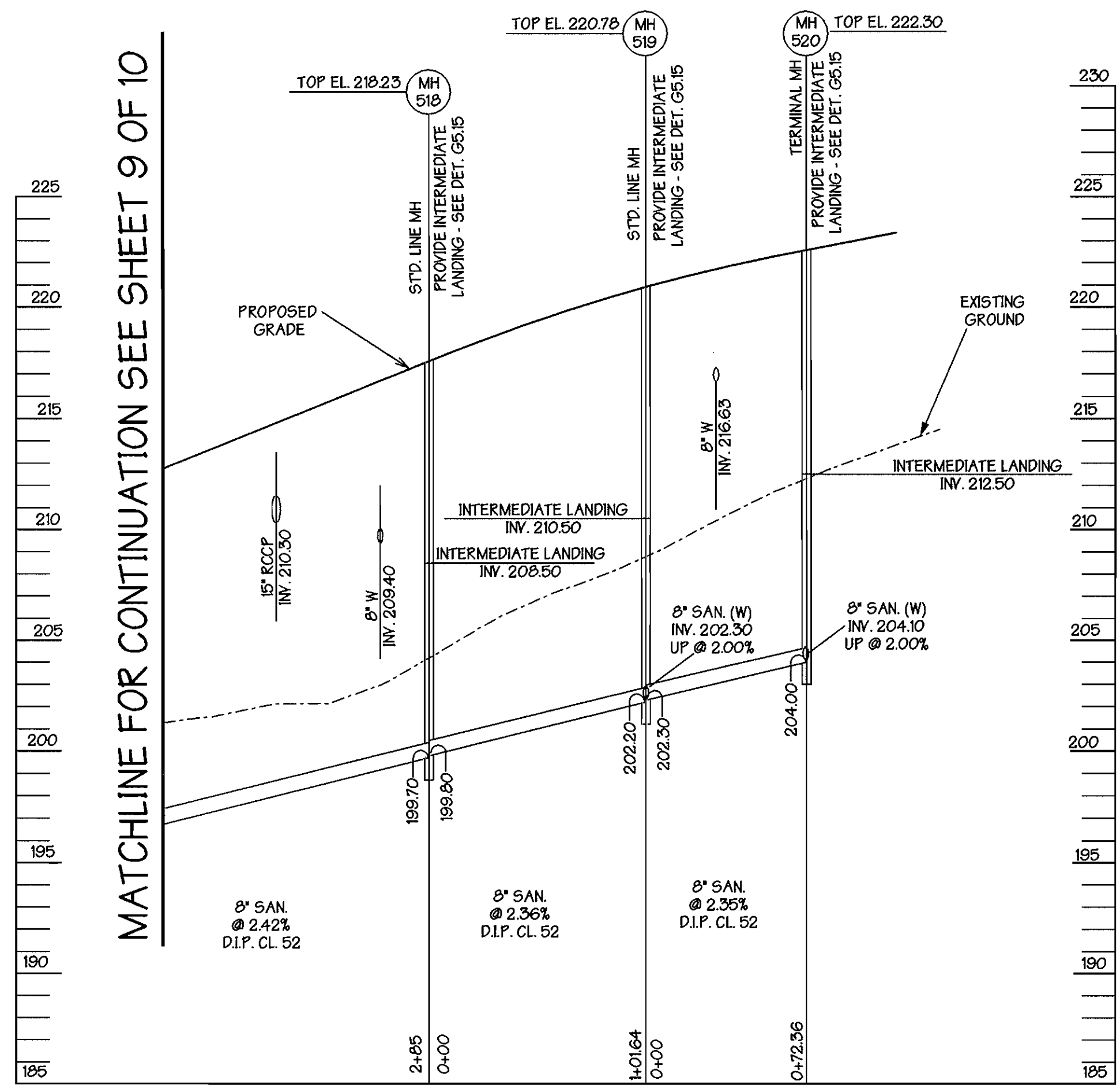
DESIGNED : RLM  
 DRAWN : RLM  
 CHECKED : RLU

**PROPOSED PUBLIC SEWER SYSTEM PROFILE**  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37  
 BLOCK NO. 18

**TROY HILL CORPORATE CENTER**  
 PHASE II  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 12, 1998  
 SHEET 9 OF 10  
 P/N 8130 - wspref.s09



SEWER STUBS ALONG TROY HILL DRIVE



OWNER / APPLICANT  
**TROY HILL BUSINESS PARK PARTNERSHIP**  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN: COLE SCHNORF

**PROFILE**  
 SCALE: HORZ. 1" = 50'  
 VERT. 1" = 5'

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Utilities  
 Date: 12-15-93

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 Chief, Development Engineering Division  
 Date: 12/15/93

**GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.**  
 Civil Engineers and Land Surveyors  
 658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
 203 East Broadway  
 Bel Air, Maryland 21014 (410) 838-3800



DESIGNED: RLM  
 DRAWN: RLM  
 CHECKED: RLU

**PROPOSED PUBLIC SEWER SYSTEM PROFILE**  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37  
 BLOCK NO. 18

**TROY HILL CORPORATE CENTER**  
 PHASE II  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 30, 1998  
 SHEET 10 OF 10  
 P/N 8130 - wseprof.s10

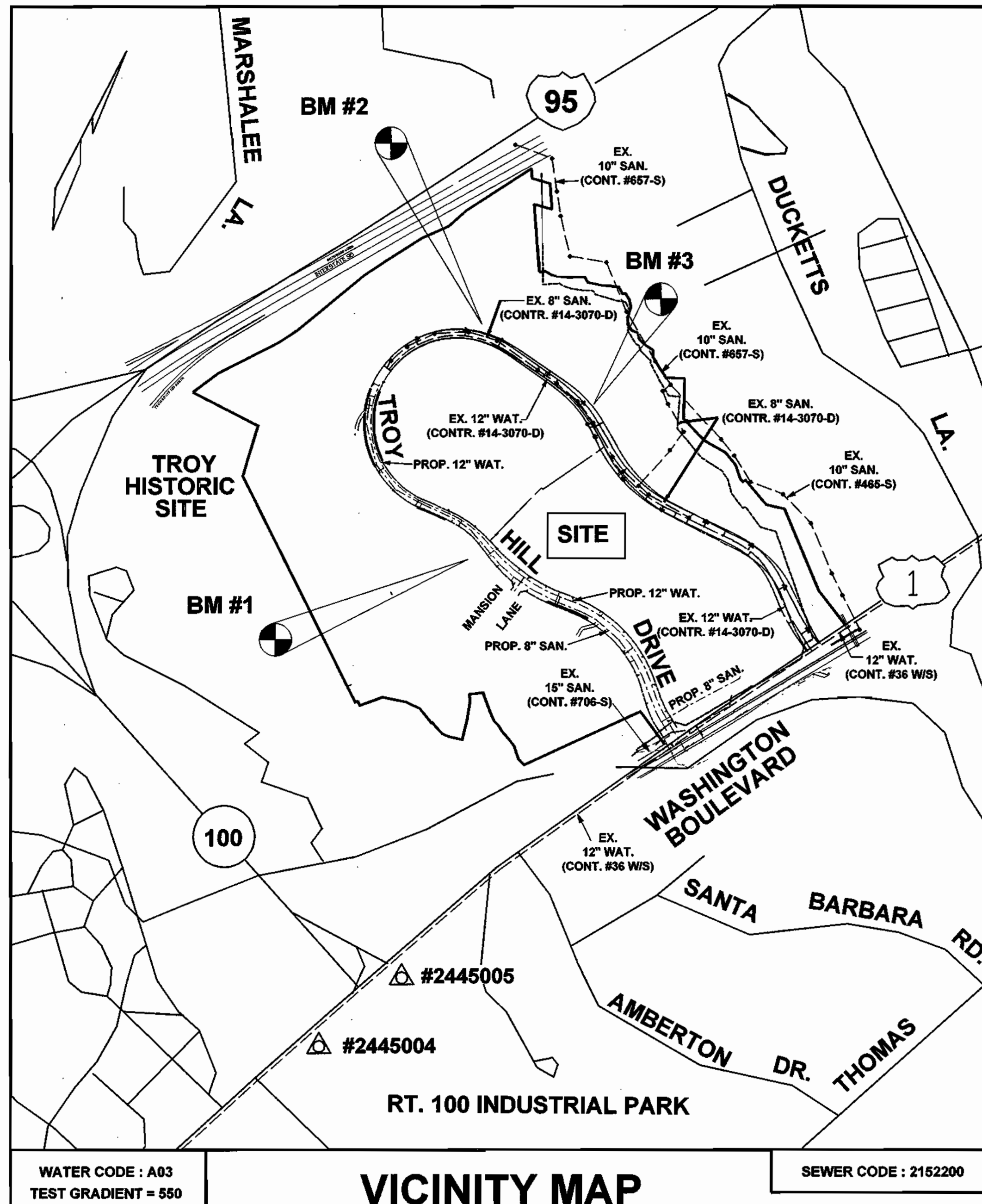
TYPE OF BUILDINGS	COMMERCIAL
NO. OF PARCELS	9
NO. OF WHC's	11
NO. OF SHC's	9
DRAINAGE AREA	SHALLOW RUN
WASTEWATER TREATMENT PLANT	PATAPSCO

# TROY HILL CORPORATE CENTER PHASE 2

QUANTITIES				
ITEMS	QTY. ESTIMATE	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" PVC SAN.	3065 LF	2,981	P.V.C.	J.H. MKG / BELAIR RD SUPPLY
12" D.I.P. SAN. D.I.P.	43 LF	36	D.I.P. CL 52	U.S. PIPE / BELAIR RD SUPPLY
8" D.I.P. CL. 52	1048 LF	1,005	"	"
20" D.I.P. CL. 52	283 LF	285	"	"
8" D. MH	18 EACH	18	PRECAST	ATLANTIC CONC. PRODUCTS
TERMINAL BOX	2 EACH	2	"	"
TYPE A DROP MH	1 EACH	1	"	"
TYPE B DROP MH	1 EACH	1	"	"
12" WIRE STR. JOINTS	201 EACH	201	"	"
12" W	3600 LF	3,521	D.I.P. CL. 52	U.S. PIPE / BELAIR RD SUPPLY
8" W	564 LF	493	"	"
6" W	150 LF	91	"	"
8" x 6" TEE	6 EACH	5	M. J.	"
12" x 12" TEE	2 EACH	1	"	"
12" x 8" TEE	12 EACH	12	"	"
12" x 6" TEE	1 EACH	1	"	"
FIRE HYDRANT	6 EACH	6	MUELLER	MUELLER / BELAIR RD SUPPLY
12" VALVE	6 EACH	6	"	"
8" VALVE	12 EACH	12	"	"
6" VALVE	6 EACH	6	"	"
12" PLUG & BUTTRESS	1 EACH	1	M. J. CONG.	U.S. PIPE / BELAIR RD SUPPLY
8" PLUG & BUTTRESS	11 EACH	12	"	"
CONNECT T.S. & V TO EX. WMI	2 EACH	2	"	MUELLER / BELAIR RD SUPPLY
12" 1/8 VERT. BEND	4 EACH	5	M. J.	U.S. PIPE / BELAIR RD SUPPLY

NAME OF UTILITY CONTRACTOR: C. J. MILLER INC.  
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:

SHEET INDEX	
1	PROPOSED WATER MAIN & SEWER SYSTEM COVER SHEET
2-4	PROPOSED WATER AND SEWER PLAN SHEETS
5	PROPOSED PUBLIC WATER MAIN AND STUB PROFILE
6	PROPOSED PUBLIC WATER MAIN PROFILE
7	PROPOSED PUBLIC WATER MAIN AND STUBS PROFILE
8	PROPOSED PUBLIC SEWER SYSTEM PROFILE
9	PROPOSED PUBLIC SEWER SYSTEM PROFILE
10	PROPOSED PUBLIC SEWER SYSTEM AND STUBS PROFILE



- ### GENERAL NOTES
- PART ONE:
- 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 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 THE BRACING OF ADDITIONAL POLES, OR DAMAGE SHALL BE DEDUCTED FROM THE MONEY OWED TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF POLES.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOL. IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION) THE CONTRACTOR SHALL HAVE A COPY OF VOL. 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 RESULTS OF THE TEST 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 UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
    - STATE HIGHWAY ADMINISTRATION: 531-5633
    - BALTIMORE GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES: 850-4620
    - BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND DAMAGE CONTROL: 787-9068
    - MISS UTILITY: 1-800-257-7777
    - COLONIAL PIPELINE CO.: 795-1390
    - BUREAU OF UTILITIES, HOWARD COUNTY DEPT. 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 DAMAGED OR REMOVED BY THE CONTRACTOR.
  - CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS ALONG THE LINE OF EXCAVATION. PAVEMENT 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/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH D.P.W. REQUIREMENTS PER SECTION 18.114 (a) OF THE HOWARD COUNTY CODE.
- PART TWO: 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' 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 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.
  - FOR SPRINKLER SYSTEM FOR ALL TOWNHOMES OR MULTI-FAMILY DWELLING UNITS SHOULD HAVE A MINIMUM OF 1' CONNECTION WITH A 1/2" METER.
- PART III: SEWER
- 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 W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.82. 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.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS AND GP 95-121

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

APPROVED: *[Signature]* 12/21/98  
HOWARD SOIL CONSERVATION DISTRICT DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

APPROVED: *[Signature]* 12/21/98  
U.S. SOIL CONSERVATION SERVICE DATE

OWNER / APPLICANT  
TROY HILL BUSINESS PARK PARTNERSHIP  
C/O MANEKIN CORP.  
7165 COLUMBIA GATEWAY DRIVE  
COLUMBIA, MARYLAND 21046  
(410) 290-1400  
ATTN: COLE SCHNORF

WATER CODE: A03  
TEST GRADIENT = 550

**VICINITY MAP**  
SCALE: 1" = 600'

(COORDINATES BASED ON N.A.D. 27, AS PROJECTED BY  
HOWARD COUNTY GEOMETRIC CONTROL STATIONS #2445004 AND #2445005.)

SEWER CODE: 2152200

BENCHMARK #1 IRON PIN @ TRAVERSE #1066 N 496501.3597 E 869134.4576 ELEV. = 175.92	BENCHMARK #2 IRON PIN @ TRAVERSE #1061 N 498036.6945 E 868791.1502 ELEV. = 242.49	BENCHMARK #3 IRON PIN @ TRAVERSE #1034 N 497636.7437 E 869835.6586 ELEV. = 214.85
--	--	--

BY	NO.	REVISION	DATE
K&I	1	AS-BUILT CONDITIONS ADDED TO PLAN	10/31/00

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 12-15-98  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]* DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**GEORGE W. STEPHENS, JR.  
AND ASSOCIATES, INC.**  
Civil Engineers and Land Surveyors  
658 Kenilworth Drive, Suite 100  
Towson Maryland 21204 (410) 825-8120  
203 East Broadway  
Bel Air, Maryland 21014 (410) 838-3800



DESIGNED: RLM  
DRAWN: RLM  
CHECKED: RLU

**PROPOSED  
WATER MAIN & SEWER SYSTEM  
COVER SHEET**

CONTRACT NO. 14-3715-D  
600 SCALE MAP NO. 37 BLOCK NO. 18

**TROY HILL CORPORATE CENTER  
PHASE II**

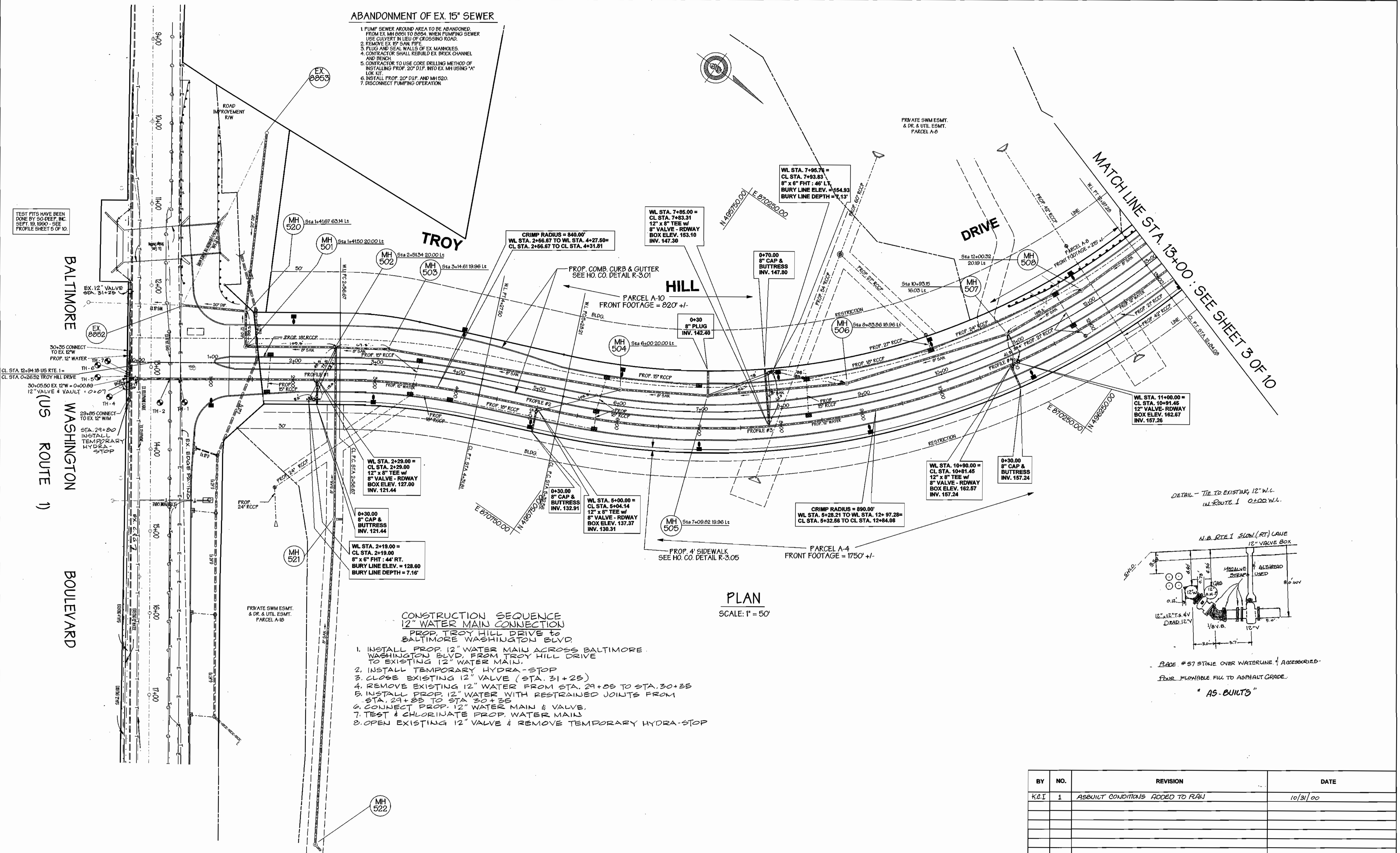
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT #1

OCT. 30, 1998  
SHEET 1 OF 10  
PIN 8130 - ws816.s01

**ABANDONMENT OF EX. 15" SEWER**

1. PUMP SEWER AROUND AREA TO BE ABANDONED FROM EX. MH 0501 TO 0504. WHEN PUMPING SEWER USE CULVERT IN LIEU OF CROSSING ROAD.
2. REMOVE EX. 15" SAN PIPE.
3. PLUG AND SEAL WALLS OF EX. MANHOLES AND BENCH.
4. CONTRACTOR SHALL REBUILD EX. BRICK CHANNEL AND BENCH.
5. CONTRACTOR TO USE CORE DRILLING METHOD OF INSTALLING PROP. 20" D.I.P. INTO EX. MH USING "A" LOK LIT.
6. INSTALL PROP. 20" D.I.P. AND MH 520.
7. DISCONNECT PUMPING OPERATION.

TEST FITS HAVE BEEN DONE BY SO-DEEP, INC. SEPT. 19, 1990 - SEE PROFILE SHEET 6 OF 10.

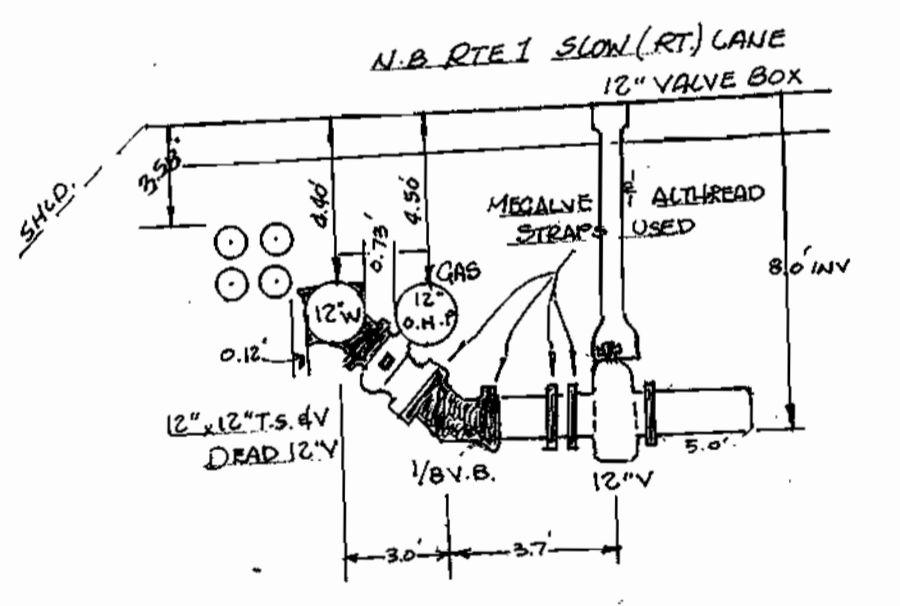


**PLAN**  
SCALE: 1" = 50'

**CONSTRUCTION SEQUENCE  
12" WATER MAIN CONNECTION  
PROP. TROY HILL DRIVE TO  
BALTIMORE WASHINGTON BLVD.**

1. INSTALL PROP. 12" WATER MAIN ACROSS BALTIMORE WASHINGTON BLVD. FROM TROY HILL DRIVE TO EXISTING 12" WATER MAIN.
2. INSTALL TEMPORARY HYDRA-STOP
3. CLOSE EXISTING 12" VALVE (STA. 31+25)
4. REMOVE EXISTING 12" WATER FROM STA. 29+05 TO STA. 30+35
5. INSTALL PROP. 12" WATER WITH RESTRAINED JOINTS FROM STA. 29+05 TO STA. 30+35
6. CONNECT PROP. 12" WATER MAIN & VALVE.
7. TEST & CHLORINATE PROP. WATER MAIN
8. OPEN EXISTING 12" VALVE & REMOVE TEMPORARY HYDRA-STOP

DETAIL - TIE TO EXISTING 12" W.L. IN ROUTE 1 @ 0+00 W.L.



GRADE #57 STONE OVER WATERLINE & ACCESSORIES.  
FOUR PLY FLEXIBLE FILLS TO ASPHALT GRADE.

"AS-BUILTS"

BY	NO.	REVISION	DATE
K&I	1	AS-BUILT CONDITIONS ADDED TO PLAN	10/31/00

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Robert W. Beaman*  
CHIEF, BUREAU OF UTILITIES  
DATE: 12-15-98

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*Harold*  
CHIEF, DEVELOPMENT  
ENGINEERING DIVISION  
DATE: 12/15/98

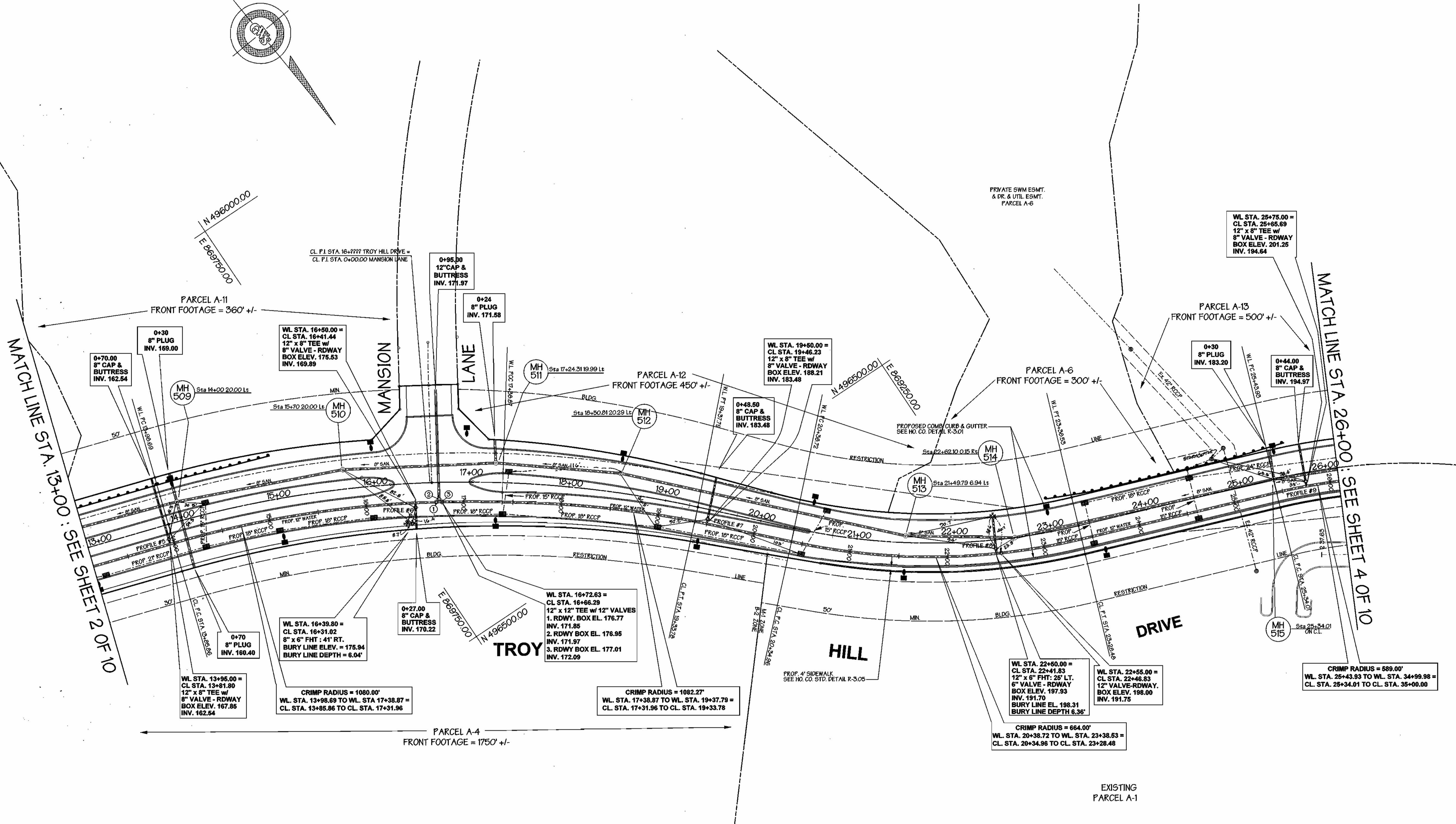
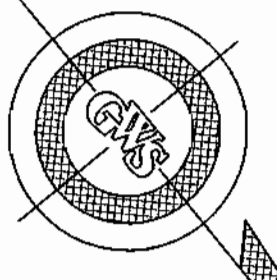
**GWS**  
GEORGE W. STEPHENS, JR.  
AND ASSOCIATES, INC.  
Civil Engineers and Land Surveyors  
658 Kenilworth Drive, Suite 100  
Towson Maryland 21204 (410) 825-8120  
203 East Broadway  
Bel Air, Maryland 21014 (410) 838-3800



DESIGNED : RLM  
DRAWN : RLM  
CHECKED : RLU

**PROPOSED  
WATER AND SEWER PLAN SHEET  
STA. 0+00 TO STA. 13+00**  
CONTRACT NO. 14-3715-D  
600 SCALE MAP NO. 37

**TROY HILL CORPORATE CENTER  
PHASE II**  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT #1  
OCT. 30, 1998  
SHEET 2 OF 10  
8130/cad/micro/wssht.s02



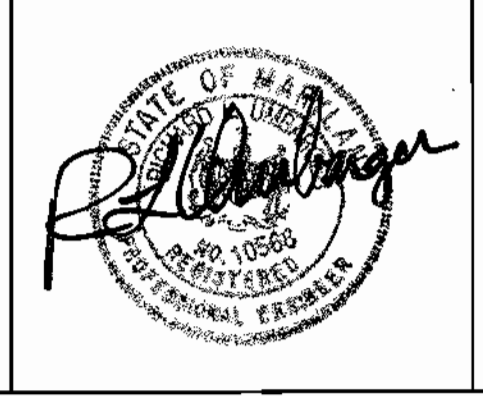
PLAN  
SCALE: 1" = 50'

BY	NO.	REVISION	DATE
K.R.I.	1	AS BUILT CONDITIONS ADDED TO PLAN	10/31/00

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
  
Robert M. Bennett 12-15-98  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
  
H. [Signature] 10/31/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

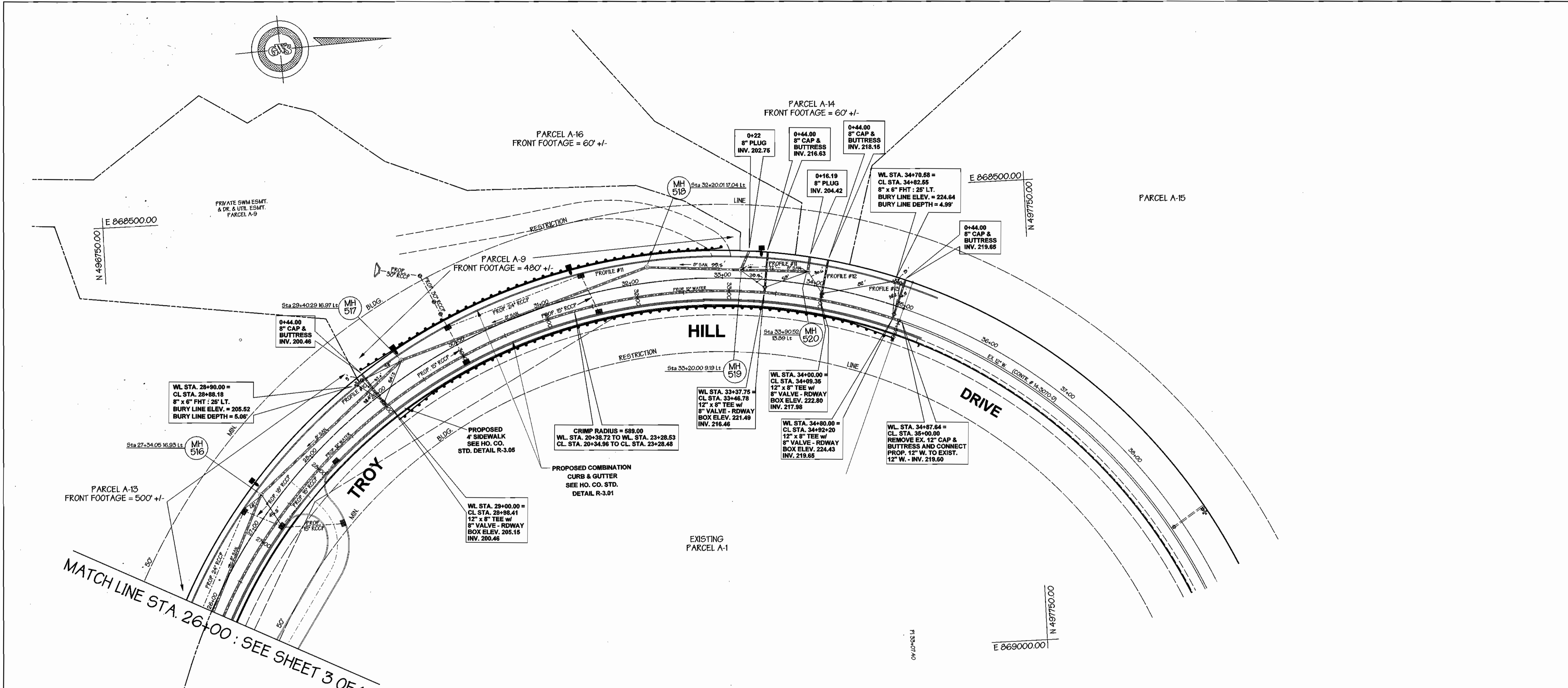
**GWS**  
**GEORGE W. STEPHENS, JR.**  
**AND ASSOCIATES, INC.**  
Civil Engineers and Land Surveyors  
658 Kenilworth Drive, Suite 100  
Towson Maryland 21204 (410) 825-8120  
203 East Broadway  
Bel Air, Maryland 21014 (410) 838-3800



DESIGNED : RLM  
DRAWN : RLM  
CHECKED : RLU

**PROPOSED  
WATER AND SEWER PLAN SHEET  
STA. 13+00 TO STA. 26+00**  
  
CONTRACT NO. 14-3715-D  
600 SCALE MAP NO. 37  
BLOCK NO. 18

**TROY HILL CORPORATE CENTER  
PHASE II**  
  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT #1  
  
OCT. 30, 1998  
SHEET 3 OF 10  
8130/cad/micro/wssht.03



PLAN  
SCALE: 1" = 50'

MATCH LINE STA. 26+00 : SEE SHEET 3 OF 10

BY	NO.	REVISION	DATE
K.C.I.	1	ASBUILT CONDITIONS ADDED TO PLAN	10/31/00

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

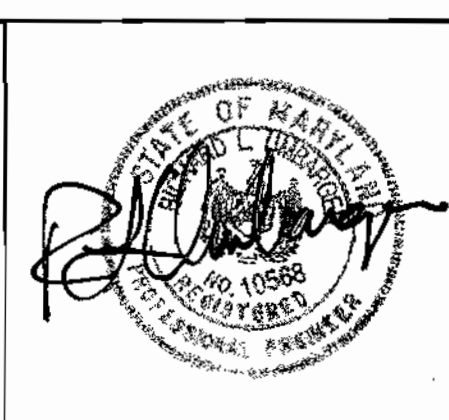
*Robert J. Bauman* 12-15-98  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]* 12/15/98  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**GWS**

**GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.**  
Civil Engineers and Land Surveyors  
658 Kenilworth Drive, Suite 100  
Towson Maryland 21204 (410) 825-8120  
203 East Broadway  
Bel Air, Maryland 21014 (410) 838-3800



DESIGNED : RLM  
DRAWN : RLM  
CHECKED : RLU

**PROPOSED WATER AND SEWER PLAN SHEET**  
**STA. 26+00 TO STA. 35+00**

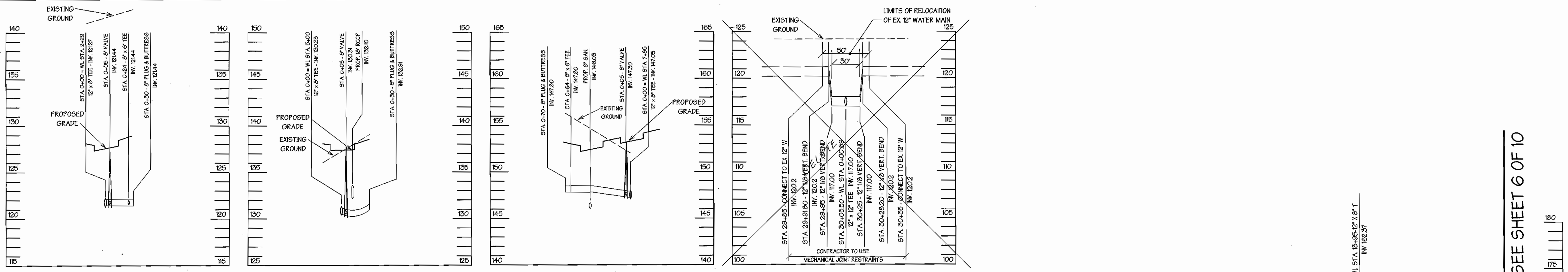
CONTRACT NO. 14-3716-D  
600 SCALE MAP NO. 37

**TROY HILL CORPORATE CENTER**  
PHASE II

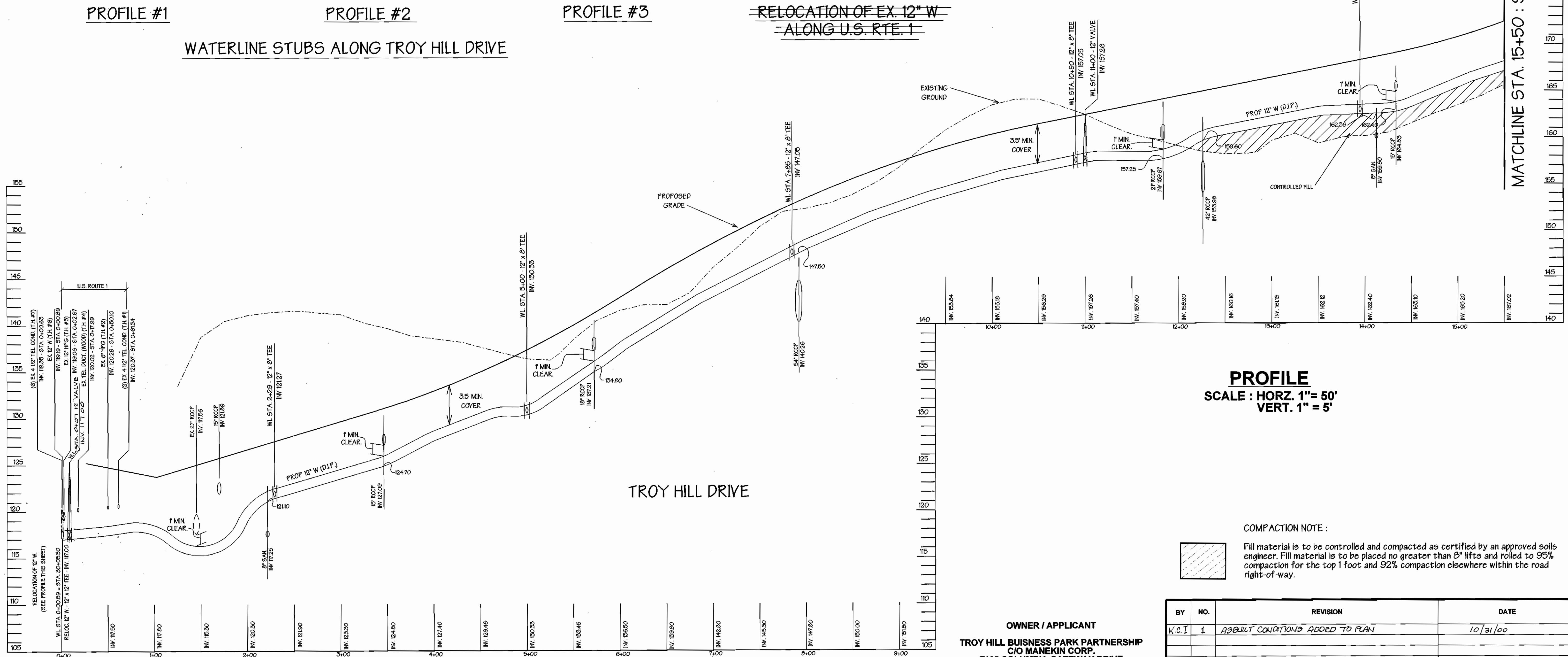
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT #1

OCT. 30, 1998  
SHEET 4 OF 10

8130/cad/micro/wssht.s04



PROFILE #1 PROFILE #2 PROFILE #3  
 WATERLINE STUBS ALONG TROY HILL DRIVE



**PROFILE**  
 SCALE : HORZ. 1" = 50'  
 VERT. 1" = 5'

COMPACTON NOTE :  
 Fill material is to be controlled and compacted as certified by an approved soils engineer. Fill material is to be placed no greater than 8" lifts and rolled to 95% compaction for the top 1 foot and 92% compaction elsewhere within the road right-of-way.

OWNER / APPLICANT  
 TROY HILL BUSINESS PARK PARTNERSHIP  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN : COLE SCHNORF

BY	NO.	REVISION	DATE
KCI	1	ASBUILT CONDITIONS ADDED TO PLAN	10/31/00

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Utilities  
 DATE 12-15-98

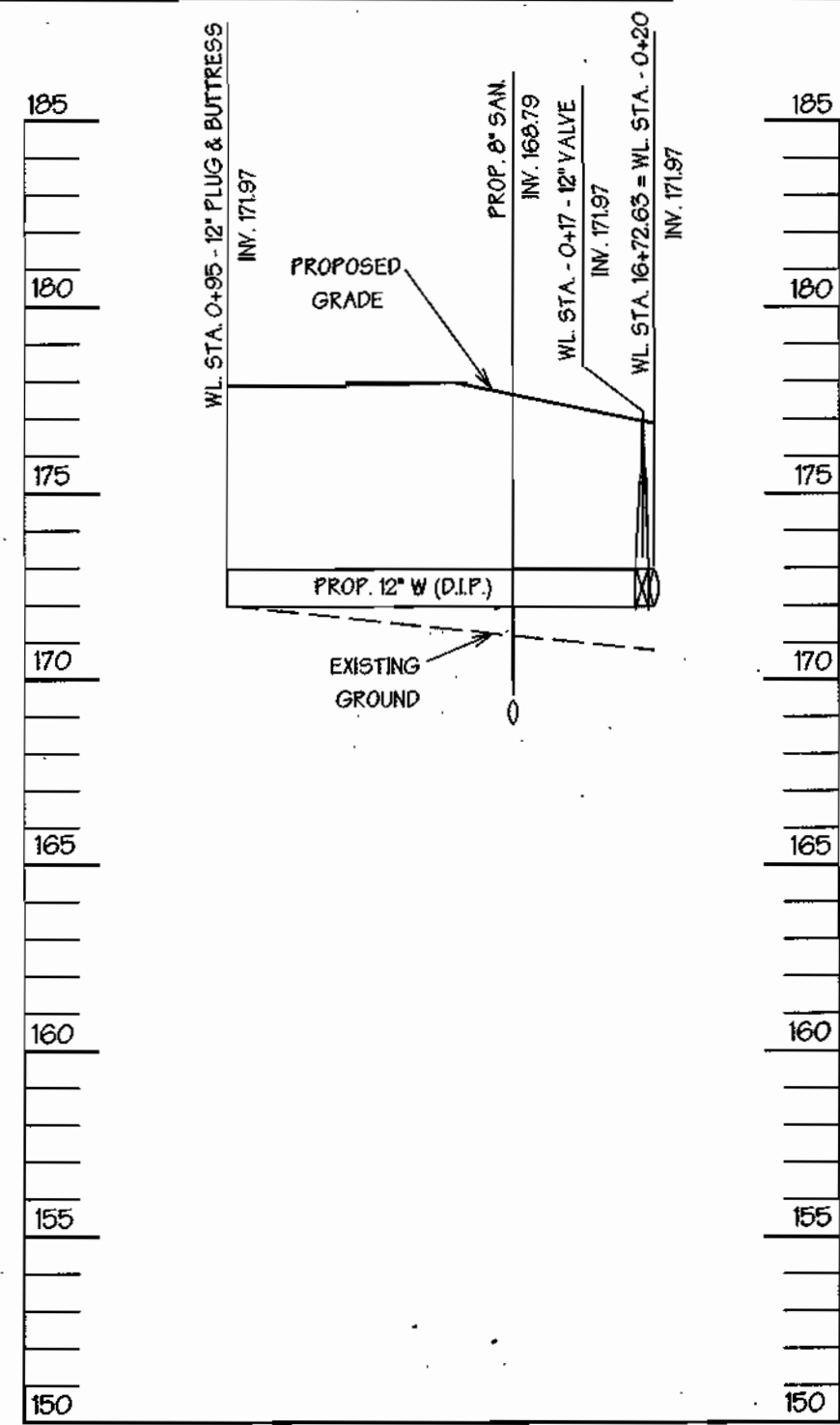
DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 Chief, Development Engineering Division  
 DATE

**GWS**  
 GEORGE W. STEPHENS, JR.  
 AND ASSOCIATES, INC.  
 Civil Engineers and Land Surveyors  
 658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
 203 East Broadway  
 Bel Air, Maryland 21014 (410) 838-3800

DESIGNED : RLM  
 DRAWN : JTE  
 CHECKED : RLU

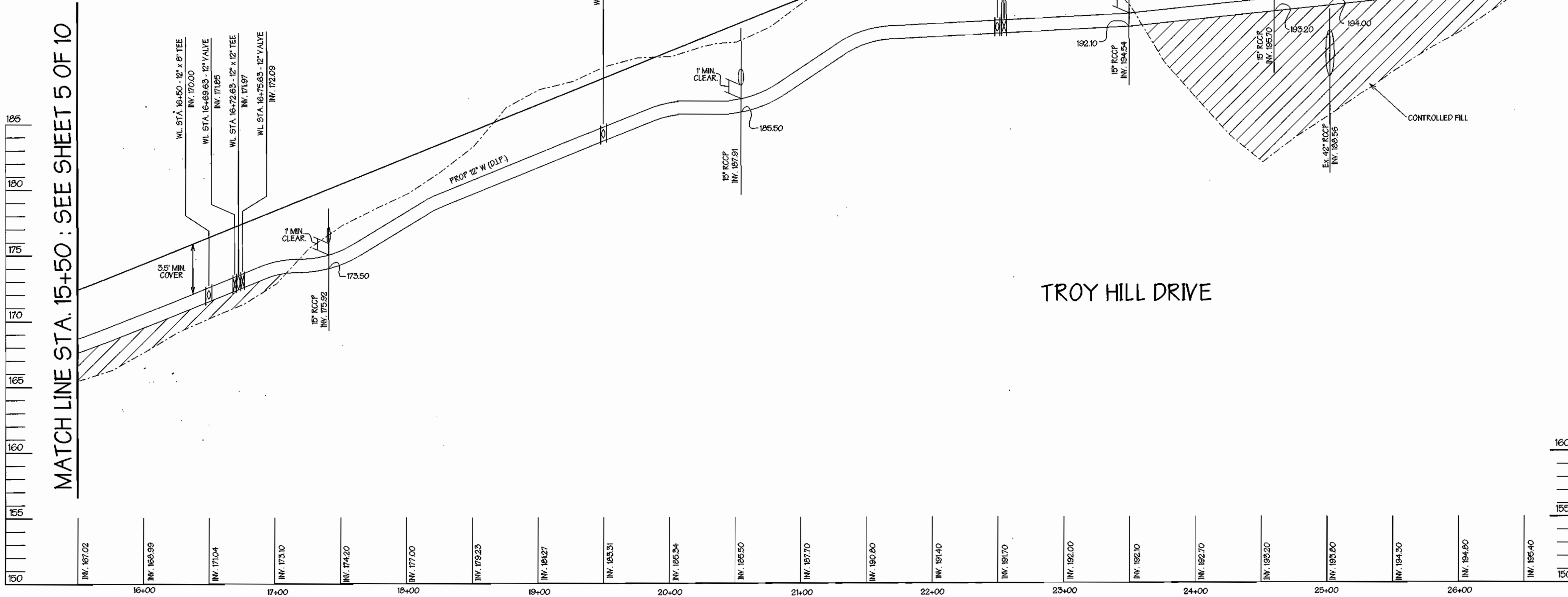
**PROPOSED  
 PUBLIC WATER MAIN & SEWER SYSTEM  
 PROFILE**  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37 BLOCK NO. 18

**TROY HILL CORPORATE CENTER  
 PHASE II**  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 12, 1998  
 SHEET 5 OF 10  
 P/N 8130 - wsp/05



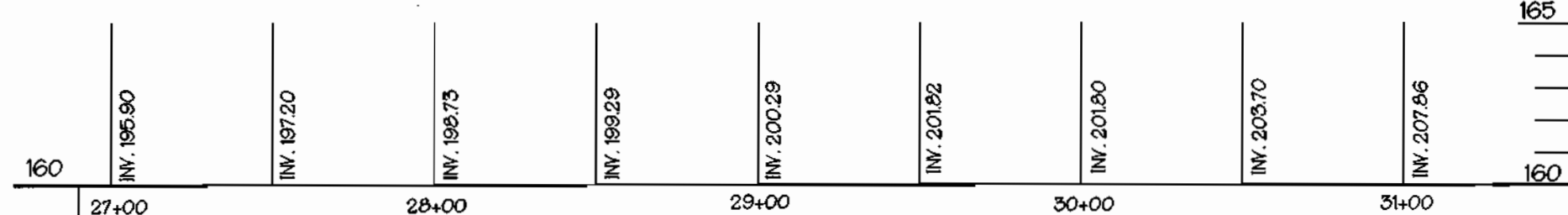
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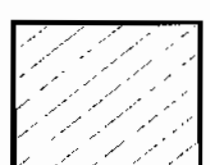
MATCHLINE STA. 15+50 : SEE SHEET 5 OF 10



TROY HILL DRIVE

MATCHLINE STA. 31+00 : SEE SHEET 7 OF 10



COMPACTION NOTE :  
 Fill material is to be controlled and compacted as certified by an approved soils engineer. Fill material is to be placed no greater than 8" lifts and rolled to 95% compaction for the top 1 foot and 92% compaction elsewhere within the road right-of-way.

OWNER / APPLICANT  
 TROY HILL BUSINESS PARK PARTNERSHIP  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN: COLE SCHNORF

(WATERLINE STATIONING)

PROFILE  
 SCALE : HORZ. 1" = 50'  
 VERT 1" = 5'

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Utilities  
 12-15-98  
 DATE

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



GEORGE W. STEPHENS, JR.  
 AND ASSOCIATES, INC.  
 Civil Engineers and Land Surveyors  
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 Bel Air, Maryland 21014 (410) 838-3800

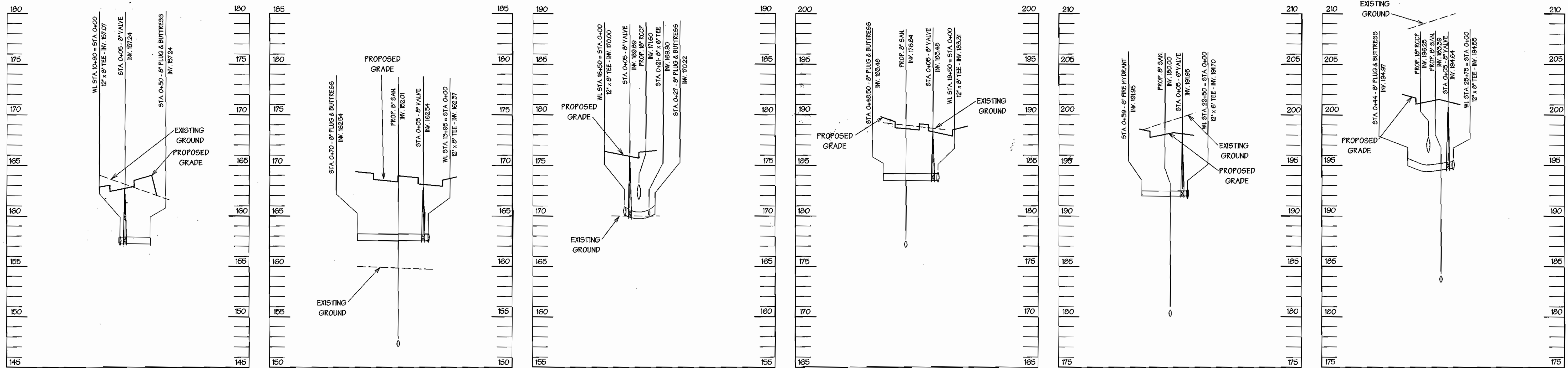


DESIGNED : RLM  
 DRAWN : JTE  
 CHECKED : RLU

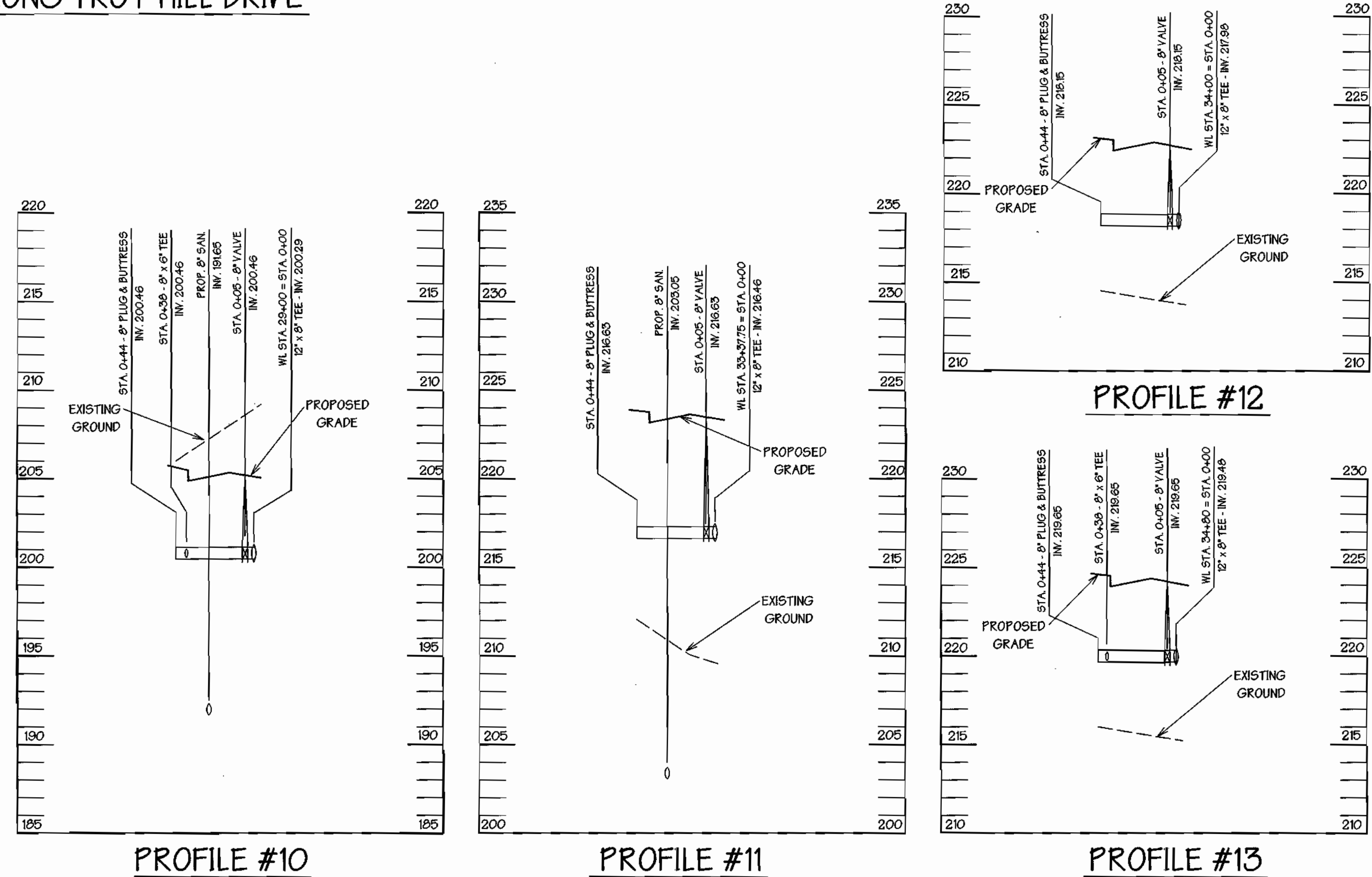
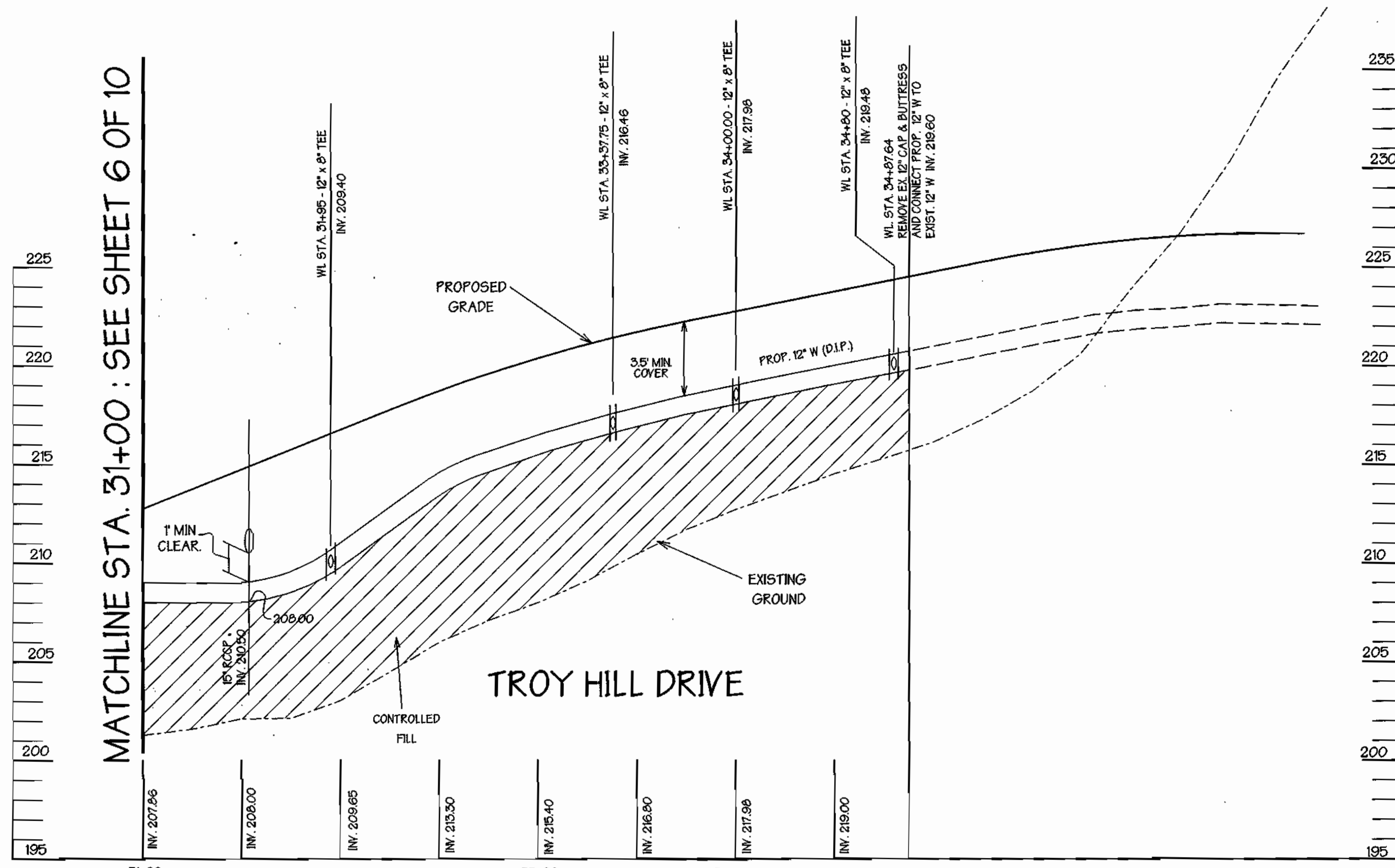
PROPOSED  
 PUBLIC WATER MAIN  
 PROFILE  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37  
 BLOCK NO. 18

TROY HILL CORPORATE CENTER  
 PHASE II  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 12, 1998  
 SHEET 6 OF 10  
 P/N 8130 - waprof.s06





**WATERLINE STUBS ALONG TROY HILL DRIVE**



**OWNER / APPLICANT**  
 TROY HILL BUSINESS PARK PARTNERSHIP  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN: COLE SCHNORF

**COMPACTION NOTE:**  
 Fill material is to be controlled and compacted as certified by an approved soils engineer. Fill material is to be placed no greater than 6" lifts and rolled to 95% compaction for the top 1 foot and 92% compaction elsewhere within the road right-of-way.

**PROFILE**  
 SCALE: HORZ. 1" = 50'  
 VERT. 1" = 5'

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Robert J. Berman 12-15-98  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 H. J. ... 1/14/99  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

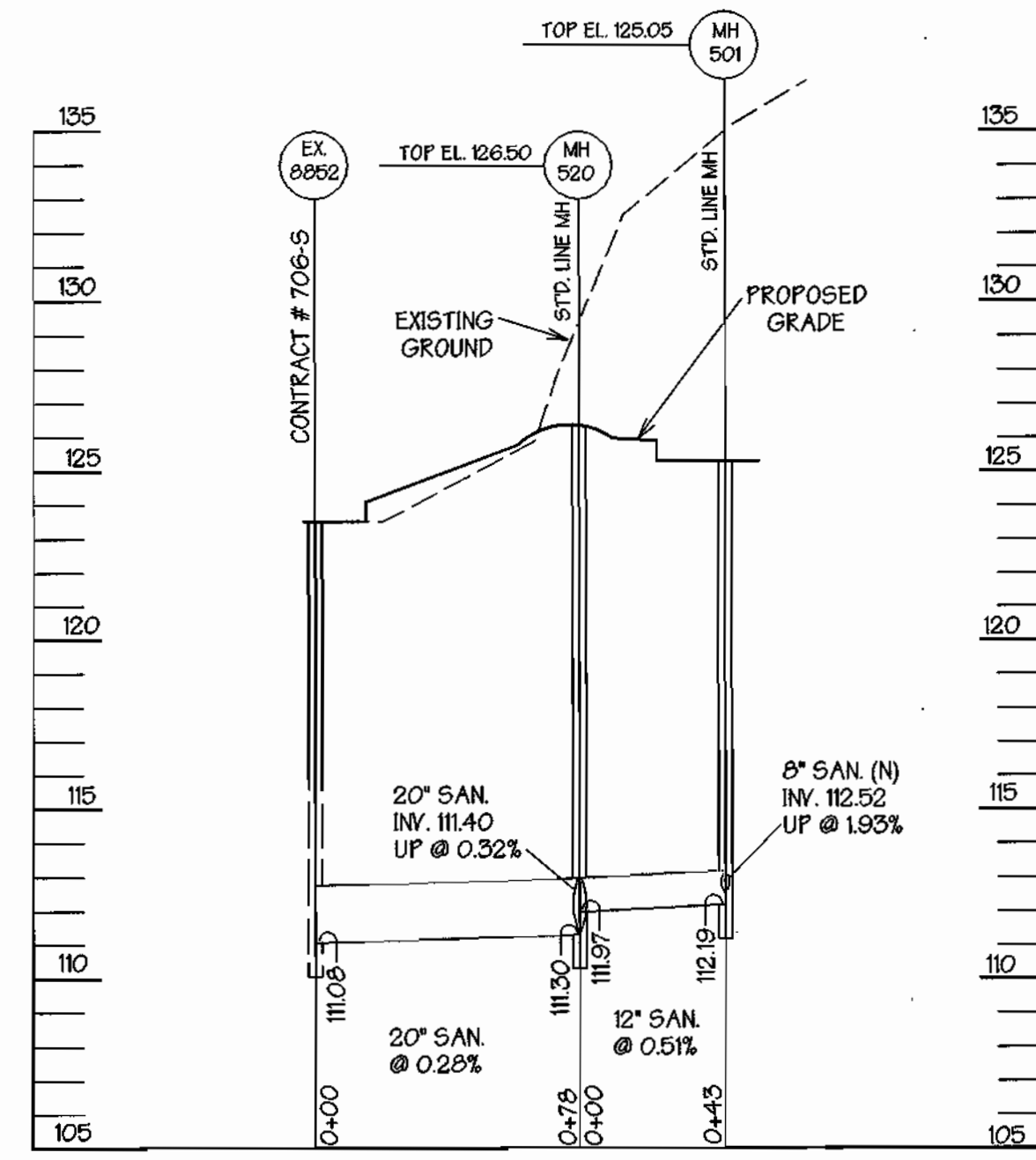
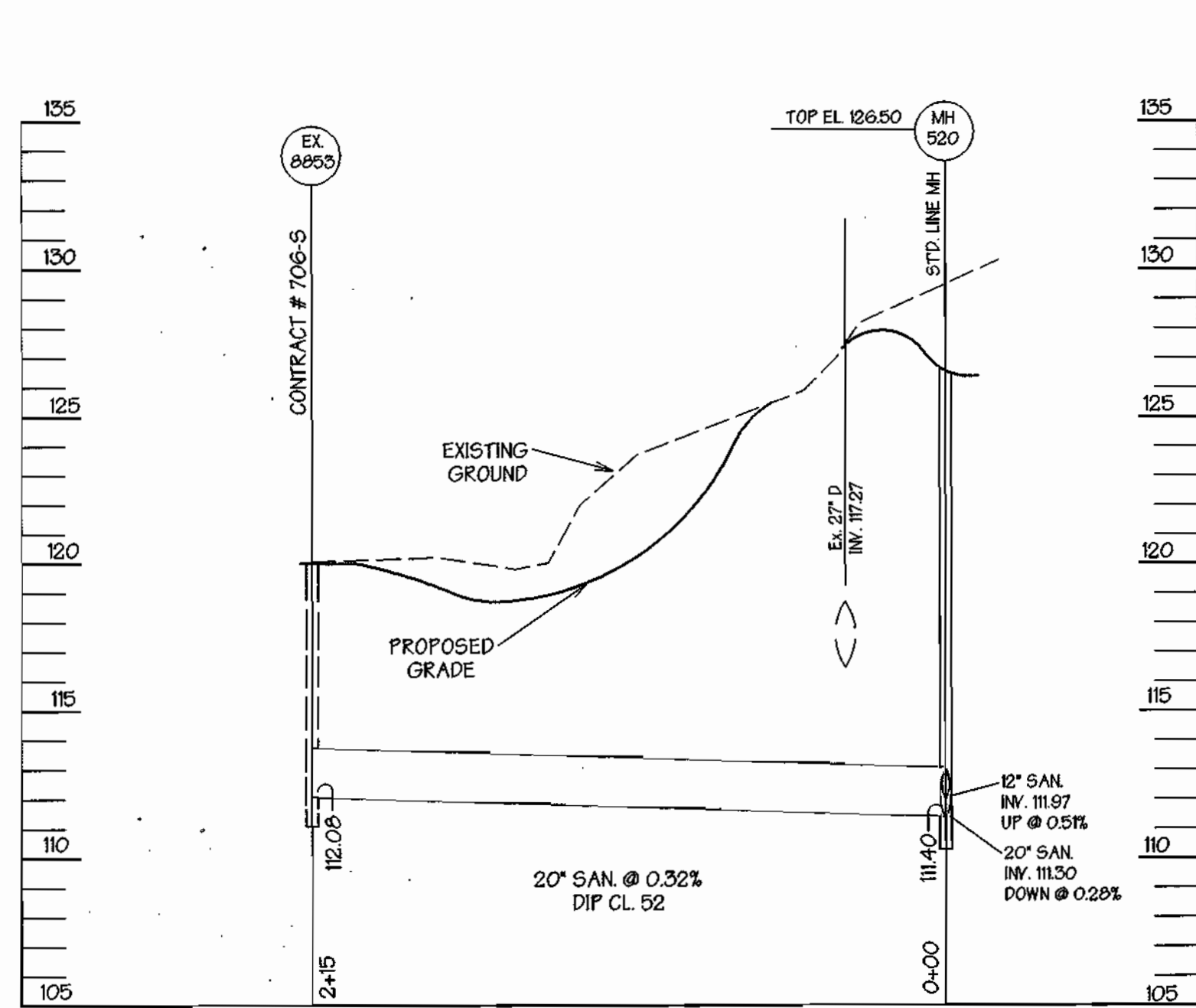
**GWS**  
 GEORGE W. STEPHENS, JR.  
 AND ASSOCIATES, INC.  
 Civil Engineers and Land Surveyors  
 658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
 203 East Broadway  
 Bel Air, Maryland 21014 (410) 838-3800



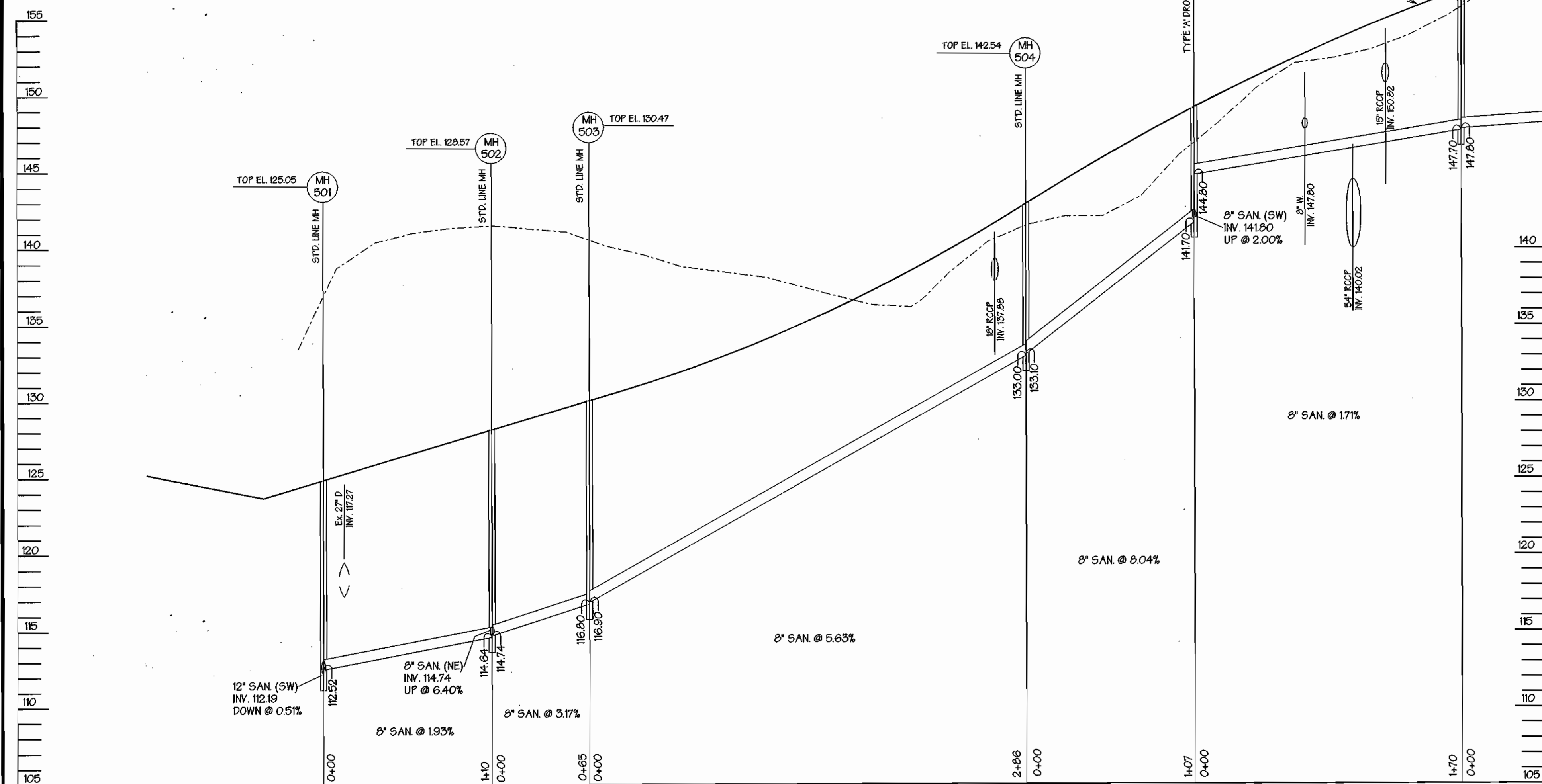
DESIGNED: RLM  
 DRAWN: JTE  
 CHECKED: RLU

**PROPOSED PUBLIC WATER MAIN PROFILE**  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37  
 BLOCK NO. 18

**TROY HILL CORPORATE CENTER**  
 PHASE II  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 30, 1998  
 SHEET 7 OF 10  
 PIN 8130 - wspref.67



**PROFILE**  
SCALE : HORZ. 1" = 50'  
VERT. 1" = 5'



MATCH LINE FOR CONTINUATION SEE SHEET 9 OF 10

OWNER / APPLICANT  
TROY HILL BUSINESS PARK PARTNERSHIP  
C/O MANEKIN CORP.  
7165 COLUMBIA GATEWAY DRIVE  
COLUMBIA, MARYLAND 21046  
(410) 290-1400  
ATTN: COLE SCHNORF

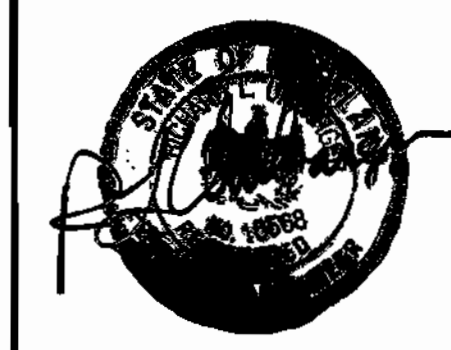
BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
  
Robert M. Beaman 12-5-98  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
  
H. J. ... 12/12/98  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



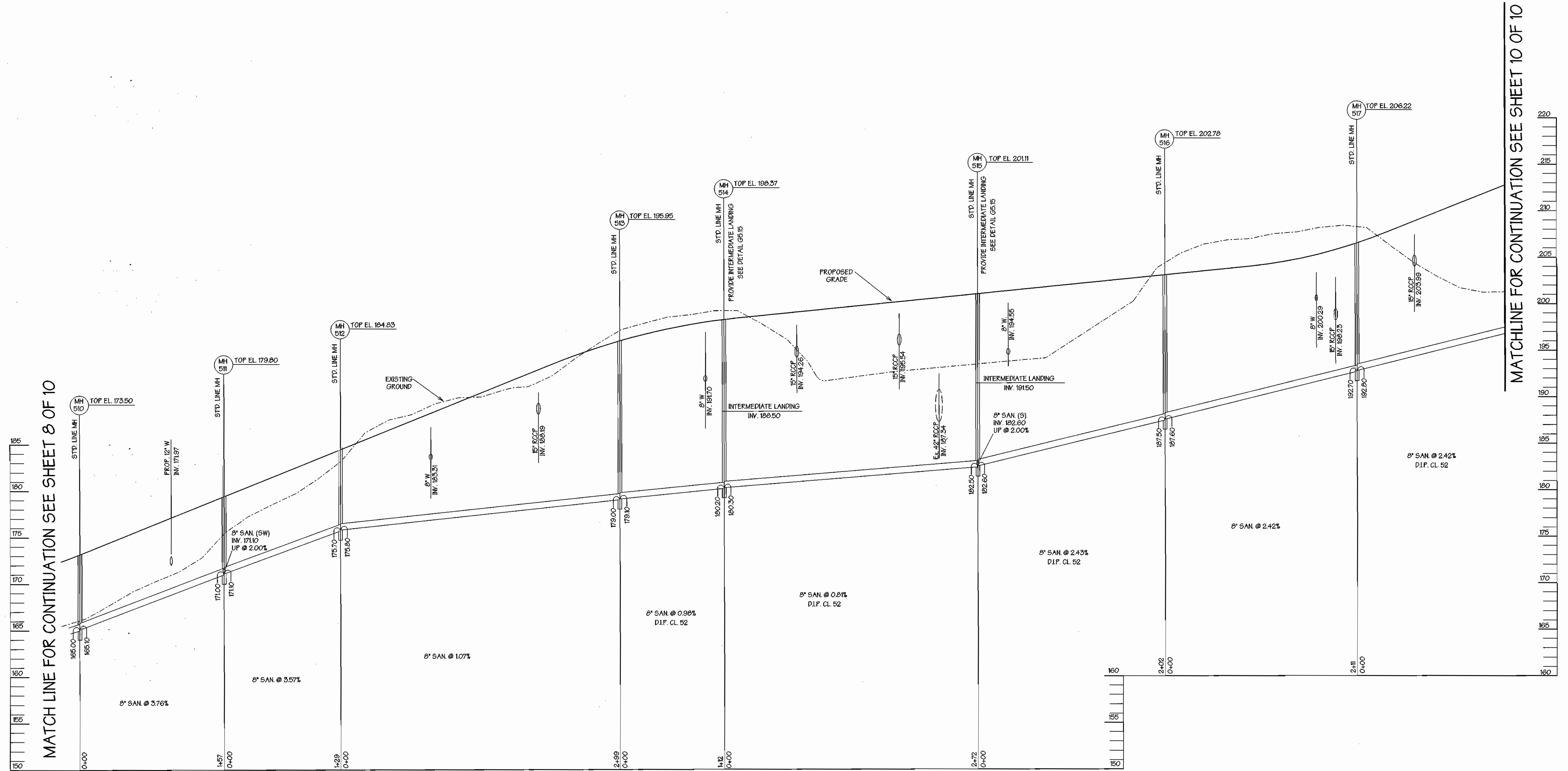
**GEORGE W. STEPHENS, JR.  
AND ASSOCIATES, INC.**  
Civil Engineers and Land Surveyors  
658 Kenilworth Drive, Suite 100  
Towson Maryland 21204 (410) 825-8120  
203 East Broadway  
Bel Air, Maryland 21014 (410) 838-3800



DESIGNED : RLM  
DRAWN : RLM  
CHECKED : RLU

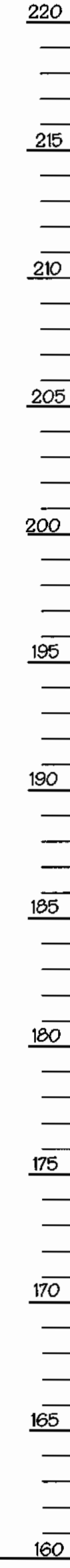
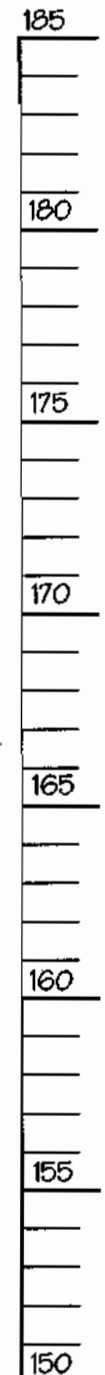
**PROPOSED  
PUBLIC SEWER SYSTEM  
PROFILE**  
CONTRACT NO. 14-3715-D  
600 SCALE MAP NO. 37 BLOCK NO. 18

**TROY HILL CORPORATE CENTER  
PHASE II**  
HOWARD COUNTY, MARYLAND  
ELECTION DISTRICT #1  
OCT. 12, 1998  
SHEET 8 OF 10  
PIN 8130 - wprof.s08



MATCH LINE FOR CONTINUATION SEE SHEET 8 OF 10

MATCHLINE FOR CONTINUATION SEE SHEET 10 OF 10



**OWNER / APPLICANT**  
 TROY HILL BUSINESS PARK PARTNERSHIP  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN: COLE SCHNORF

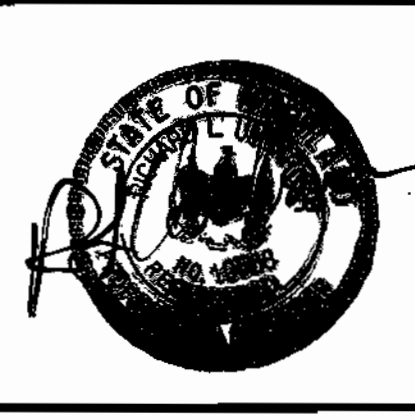
**PROFILE**  
 SCALE : HORZ. 1" = 50'  
 VERT 1" = 5'

BY	NO.	REVISION	DATE

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

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

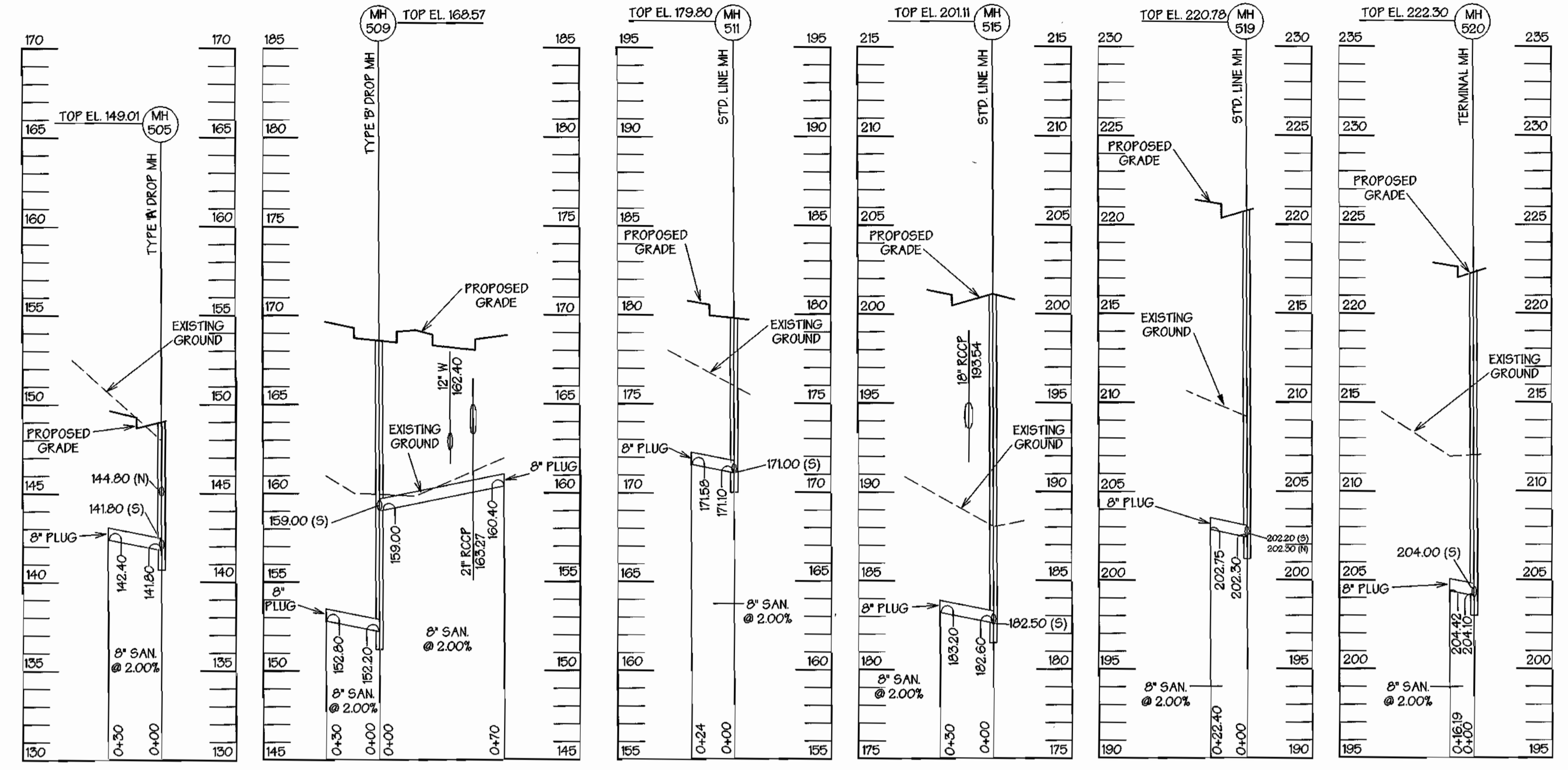
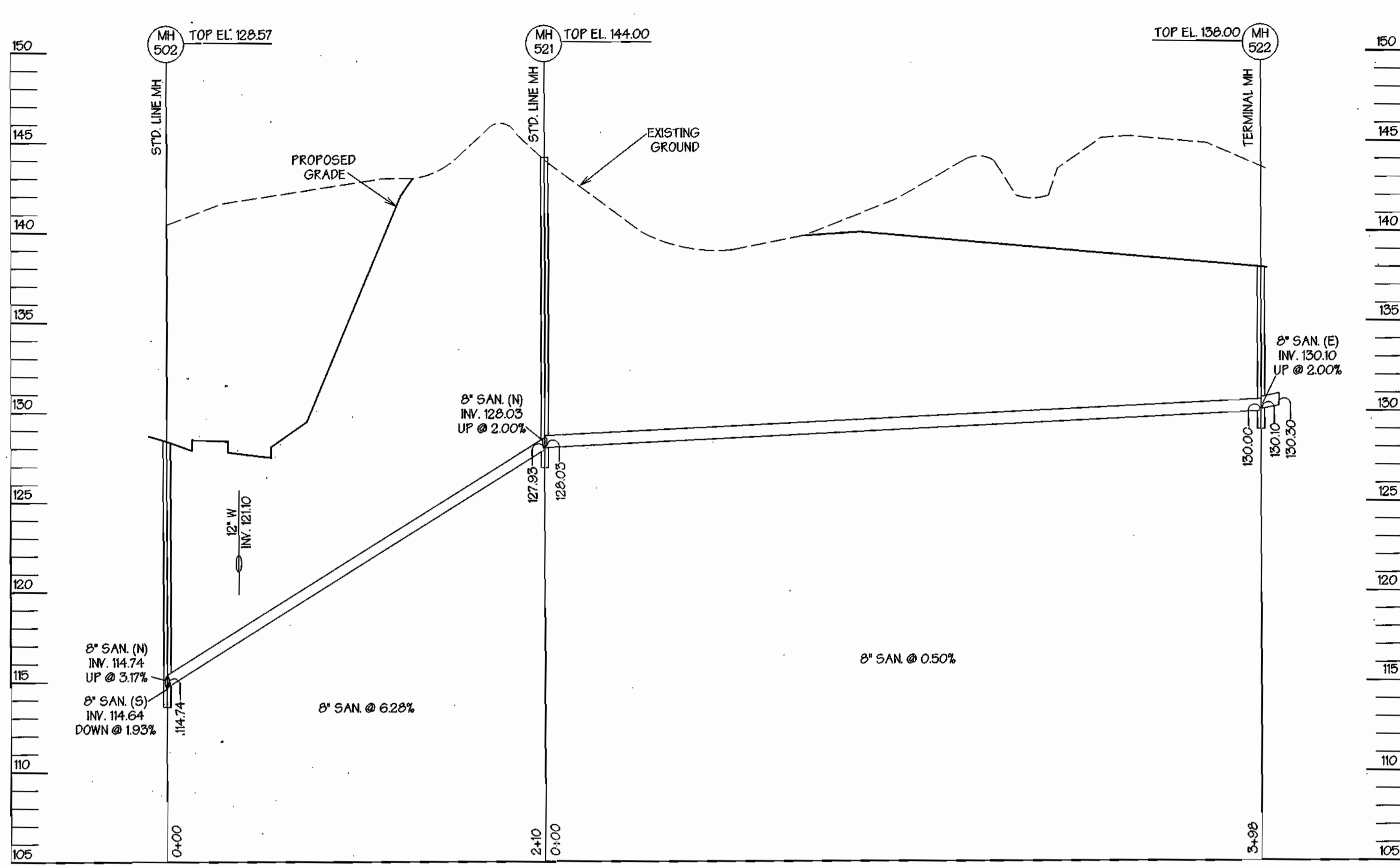
**GWS**  
 GEORGE W. STEPHENS, JR.  
 AND ASSOCIATES, INC.  
 Civil Engineers and Land Surveyors  
 658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
 203 East Broadway  
 Bel Air, Maryland 21014 (410) 838-3800



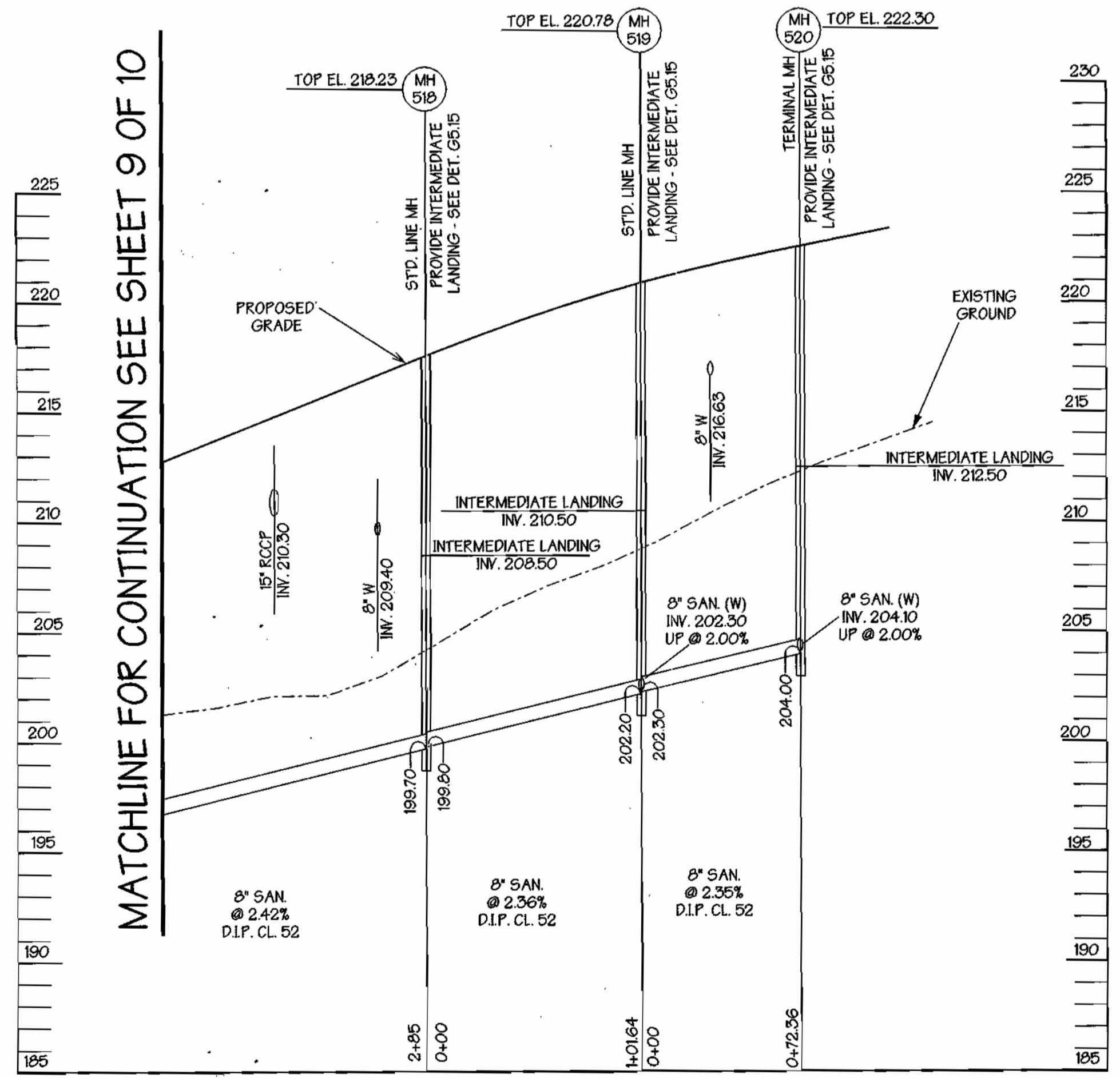
DESIGNED : RLM  
 DRAWN : RLM  
 CHECKED : RLU

**PROPOSED PUBLIC SEWER SYSTEM PROFILE**  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37  
 BLOCK NO. 18

**TROY HILL CORPORATE CENTER**  
 PHASE II  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 12, 1998  
 SHEET 9 OF 10  
 P/N 8130 - wprof.s09



SEWER STUBS ALONG TROY HILL DRIVE



MATCHLINE FOR CONTINUATION SEE SHEET 9 OF 10

OWNER / APPLICANT  
**TROY HILL BUSINESS PARK PARTNERSHIP**  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN: COLE SCHNORF

**PROFILE**  
 SCALE: HORZ. 1" = 50'  
 VERT. 1" = 5'

BY	NO.	REVISION	DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 [Signature]  
 CHIEF, BUREAU OF UTILITIES  
 DATE 12-11-98

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 [Signature]  
 CHIEF, DEVELOPMENT  
 ENGINEERING DIVISION  
 DATE 12/11/98

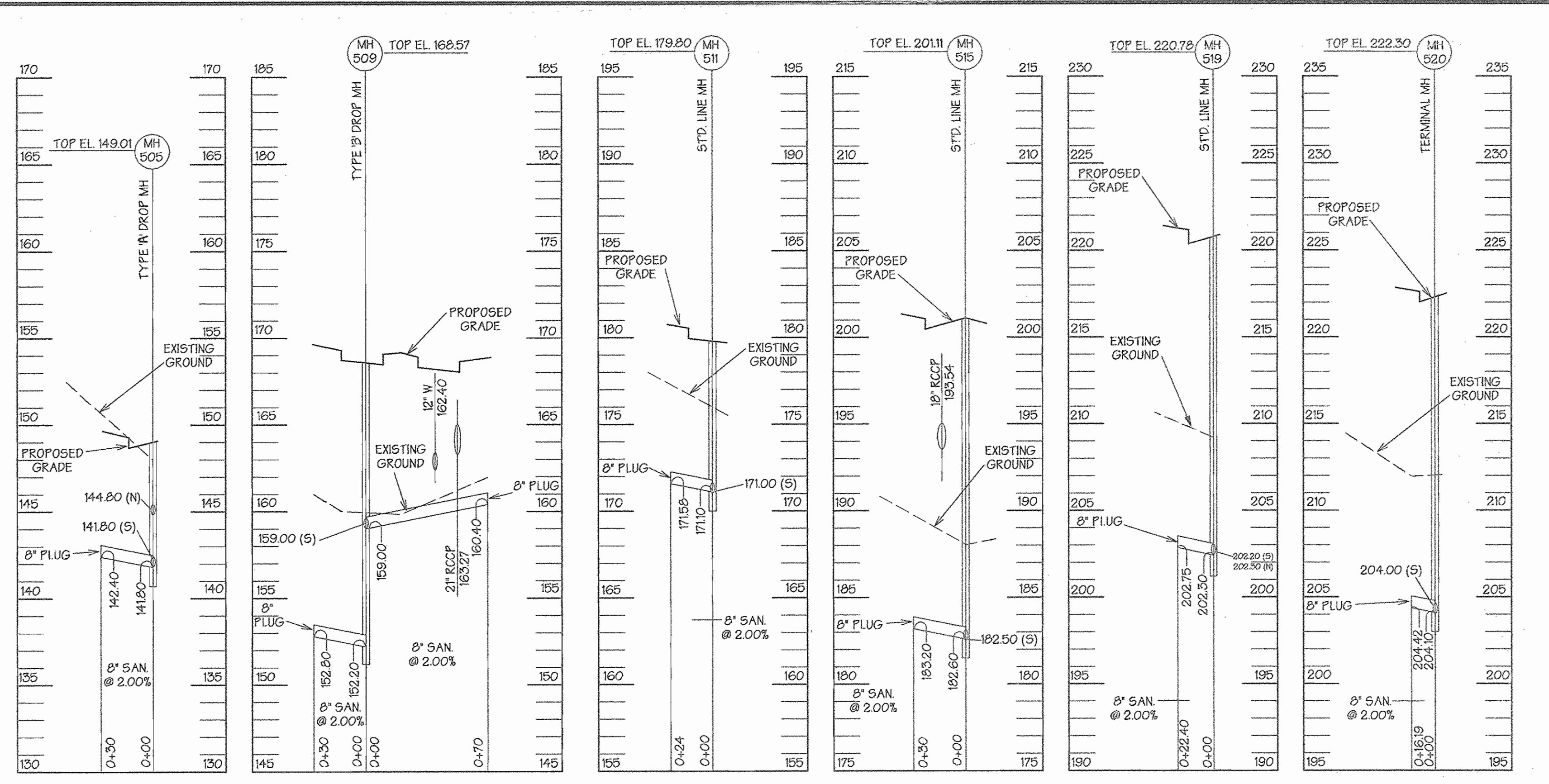
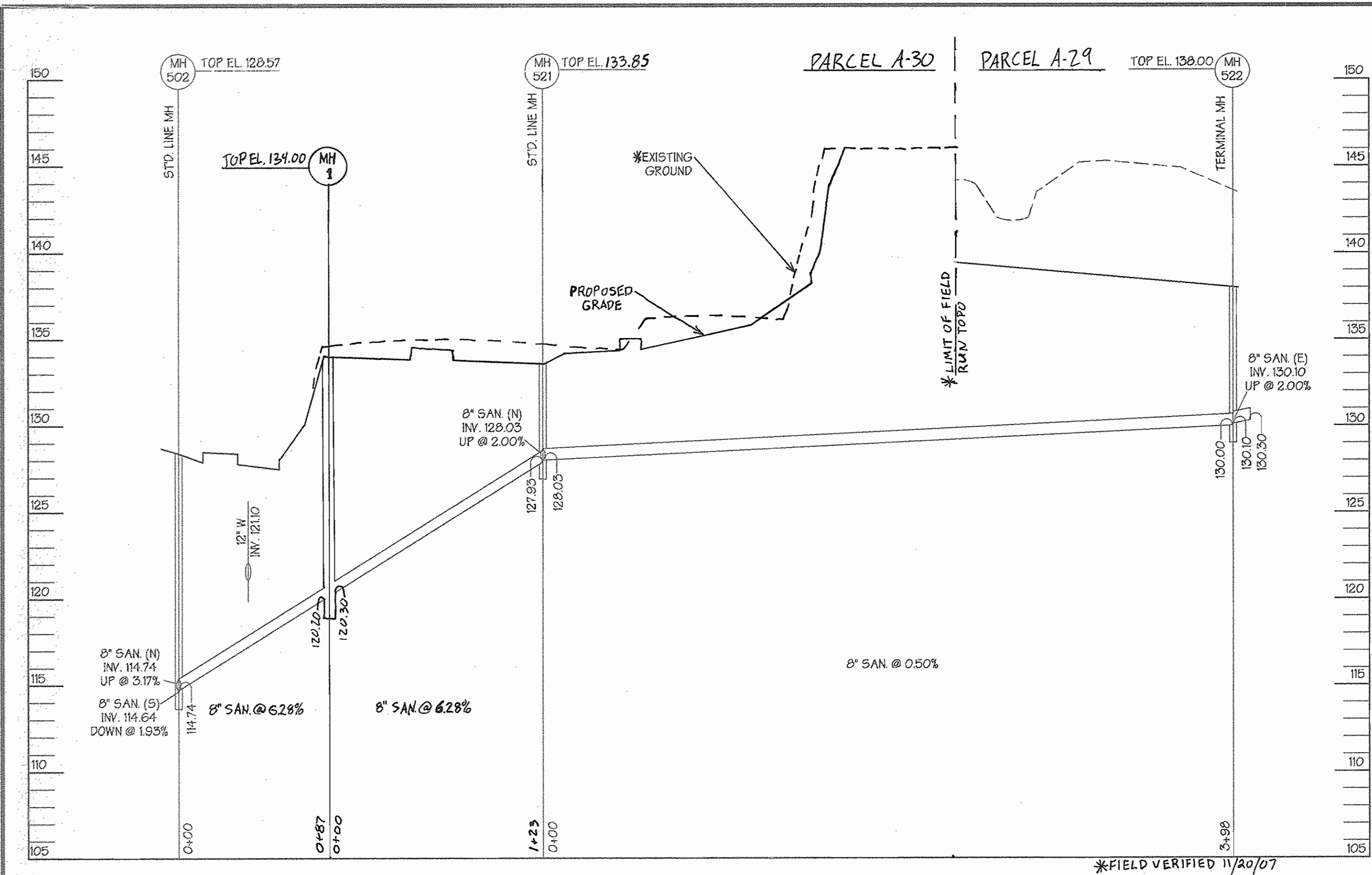
**GEORGE W. STEPHENS, JR.**  
**AND ASSOCIATES, INC.**  
 Civil Engineers and Land Surveyors  
 658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
 203 East Broadway  
 Bel Air, Maryland 21014 (410) 838-3800



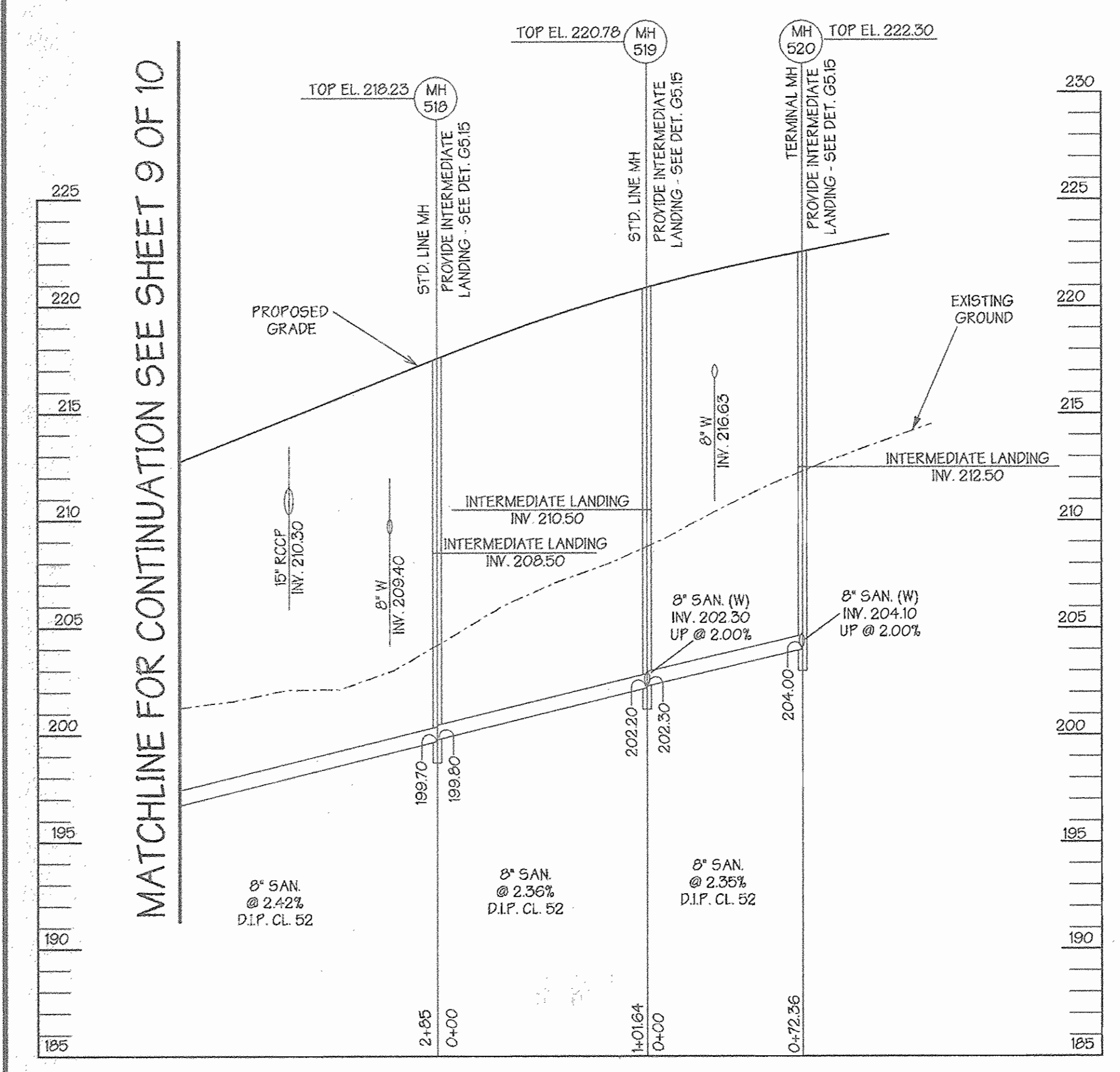
DESIGNED: RLM  
 DRAWN: RLM  
 CHECKED: RLU

**PROPOSED PUBLIC SEWER SYSTEM PROFILE**  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37  
 BLOCK NO. 18

**TROY HILL CORPORATE CENTER**  
 PHASE II  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 30, 1998  
 SHEET 10 OF 10  
 P/N 8130 - wspref.s10



SEWER STUBS ALONG TROY HILL DRIVE



MATCHLINE FOR CONTINUATION SEE SHEET 9 OF 10

OWNER / APPLICANT  
**TROY HILL BUSINESS PARK PARTNERSHIP**  
 C/O MANEKIN CORP.  
 7165 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 (410) 290-1400  
 ATTN: COLE SCHNORF



**PROFILE**  
 SCALE: HORZ. 1" = 50'  
 VERT. 1" = 5'

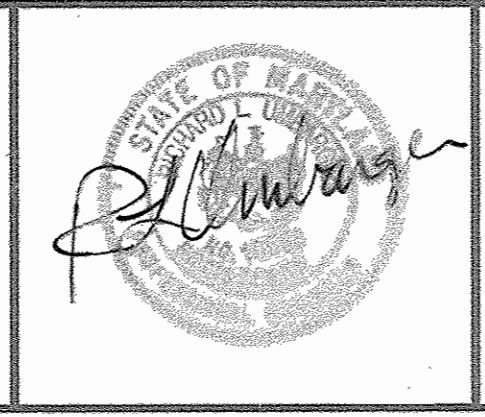
BY	NO.	REVISION	DATE
SA	1	REVISE EX GRADE AND STRUCTURES	3/25/08

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Utilities  
 Date: 12-11-93

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 Chief, Development Engineering Division  
 Date: 12/16/93



**GEORGE W. STEPHENS, JR.**  
**AND ASSOCIATES, INC.**  
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 658 Kenilworth Drive, Suite 100  
 Towson Maryland 21204 (410) 825-8120  
 203 East Broadway  
 Bel Air, Maryland 21014 (410) 838-3800



DESIGNED: RLM  
 DRAWN: RLM  
 CHECKED: RLU

**PROPOSED PUBLIC SEWER SYSTEM PROFILE**  
 CONTRACT NO. 14-3715-D  
 600 SCALE MAP NO. 37  
 BLOCK NO. 18

**TROY HILL CORPORATE CENTER**  
 PHASE II  
 HOWARD COUNTY, MARYLAND  
 ELECTION DISTRICT #1  
 OCT. 30, 1998  
 SHEET 10 OF 10  
 PIN 8130 - wsprof.s10