

HUNT CLUB ROAD SEWER AND WATER MAINS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

CAPITAL PROJECT No. S-6216

CONTRACT No. 14-3958

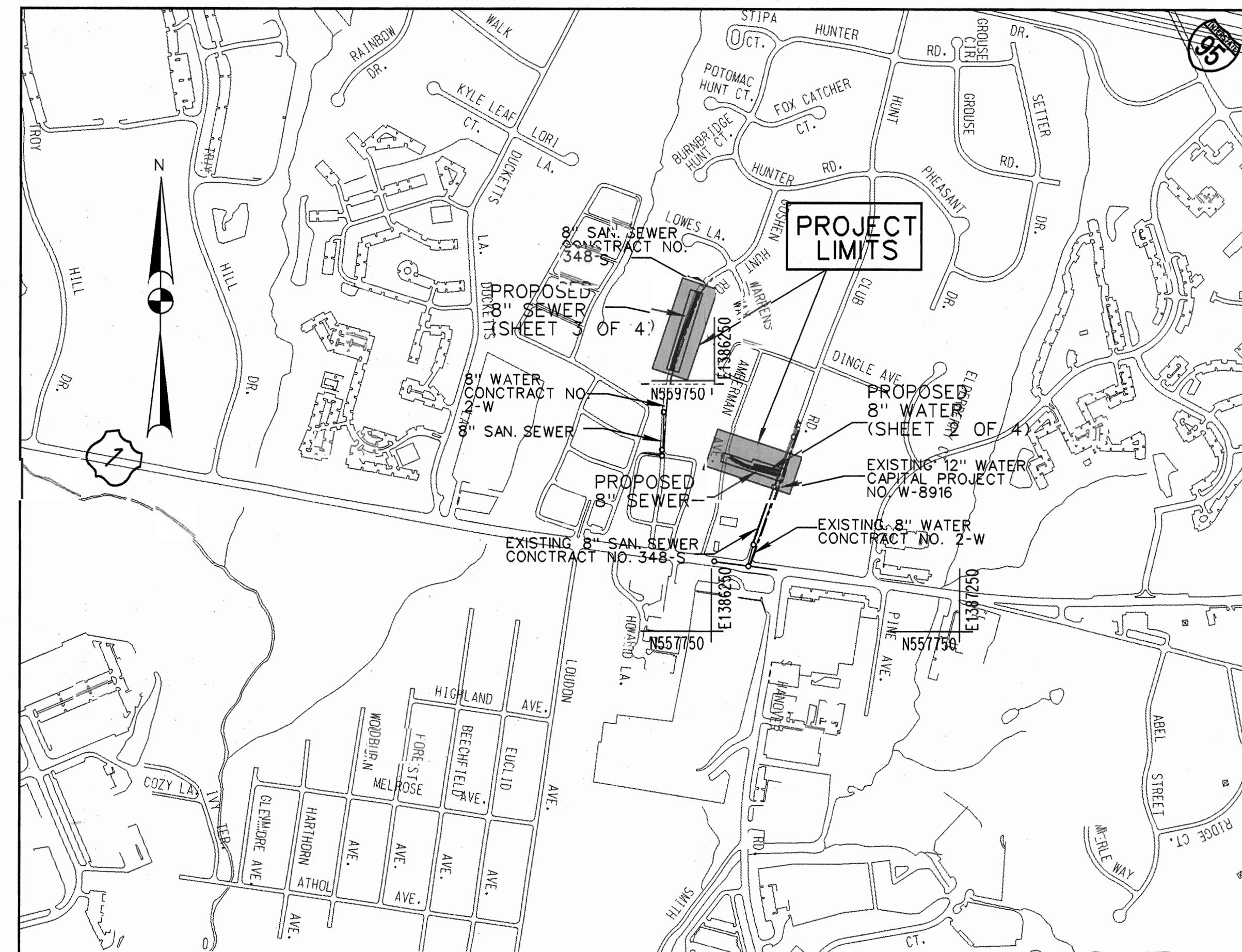
GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES, NAD 29.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA NGVD88
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". 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 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 DETAILS 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:

AT&T	1-800-526-2000
BG&E (CONTRACTOR SERVICES)	410-850-4620
BG&E - UNDERGROUND DAMAGE CONTROL	410-787-9068
BUREAU OF UTILITIES (DPW)	410-313-4900
VERIZON	410-393-4499
COLONIAL PIPELINE CO.	410-795-1390
MISS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-5533
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE 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) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER AND SEWER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF 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 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 INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH STANDARD 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEMS.
- ALL SEWER MAINS SHALL BE D.I.P. UNLESS OTHERWISE NOTED.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

LEGEND

	STREAM		PROPERTY LINE
	CHAIN LINK FENCE		RIGHT OF WAY LINE
	UTILITY POLE		EXISTING BURIED ELECTRIC
	PROPOSED FIRE HYDRANT		RIVER
	PROPOSED WATER VALVE		COUNTY LINE
	PROPOSED WATER LINE		LIMIT OF DISTURBANCE
	PROPOSED SEWER LINE		EXISTING WATER
			EXISTING SEWER



TYPE OF BUILDINGS: RESIDENTIAL
NUMBER OF PARCELS: 4
WATER HOUSE CONNECTIONS: 2
SEWER HOUSE CONNECTIONS: 4
DRAINAGE AREA: PATAPSCO

WATER CODES FOR COUNTY
USE ONLY: D08
SEWER CODES FOR COUNTY
USE ONLY: 2150533
SEWER NO. 42152215

BENCH MARK
HOWARD COUNTY BENCH MARK NO. 910
N558479.064 E1386641.990 ELEVATION 190.26
COORDINATES IN MARYLAND NAD83(91) HORIZONTAL DATUM
AND NGVD29 VERTICAL DATUM

LOCATION MAP

SCALE: 1"=600'

INDEX OF SHEETS

SHEET No.	DESCRIPTION
1	TITLE SHEET
2	HUNT CLUB ROAD - PLAN AND PROFILE
3	GRABOWSKI ROAD - PLAN AND PROFILE
4	SEDIMENT AND EROSION CONTROL - DETAILS AND NOTES

FIRE HYDRANT	EA	I	I	5 1/2" MUELLER / NAT'L WATER WORKS
TAPPING SLEEVE	EA	1	1	H30455 T.S. / "
6" VALVE	EA	1	1	MUELLER / "

QUANTITIES

ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
8" PVC SEWER	L.F.	619		SDR35/NAT'L WATER WORKS
8" D.I.P. WATER	L.F.	200	208	TJ D1PCL52 / "
4' DIA. STD. MH	EA	3	3	ATLANTIC CONCRETE, INC.
SHC	L.F.	35	17	SDR35/NAT'L WATER WORKS
WHC	L.F.	25	44	1" CAMBRIDGE LEE TYPE K COPPER

NAME OF UTILITY CONTRACTOR: UTILITIES UNLIMITED	
CHECKBOX	
AS-BUILT DATE:	
SURVEY AND DRAFTING DIVISION	

RESTORATION SCHEDULE

LOCATION	DISTANCE	TYPE
UTILITY EASEMENT (PRIVATE DRIVE)		
EX. WATER TO 0+26	26'	BIT. CONC.
0+26 TO 1+20	94'	CR6/IN KIND
1+20 TO 2+08	88'	SEED & MULCH
EX. MH 6130 TO MHA	15'	BIT. CONC.
SMHA TO EDGE OF ROAD	235'	CR6/IN KIND
EDGE OF ROAD TO SMHB	75'	SEED & MULCH
GRABOWSKI ROAD		
EX. MH214 TO EDGE OF PAVING	18'	SEED & MULCH
EDGE OF PAVING TO MHD	270'	BIT. CONC.

STAKEOUT SCHEDULE

STATION	COORDINATES	
	NORTHING	EASTING
SMH A	559100.58	1386619.28
SMH B	558954.84	1386332.14
SMH D	559266.08	1385612.10

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jan 19, 2010
DIRECTOR OF PUBLIC WORKS
DATE: 10-22-02

Elizabeth DeCala
CHIEF, BUREAU OF ENGINEERING, DESIGN
DATE: 10-22-02



ENGINEERS AND PLANNERS
10 NORTH PARK DRIVE
HUNT VALLEY, MD. 21030-1888
(410) 316-7800



DES: PS			
DRN: CK			
CHK: TWW			
DATE: 09/02	KCI	ADDITION OF AS-BUILT INFORMATION	4-JUNE-2002
	RY	NO	REVISION

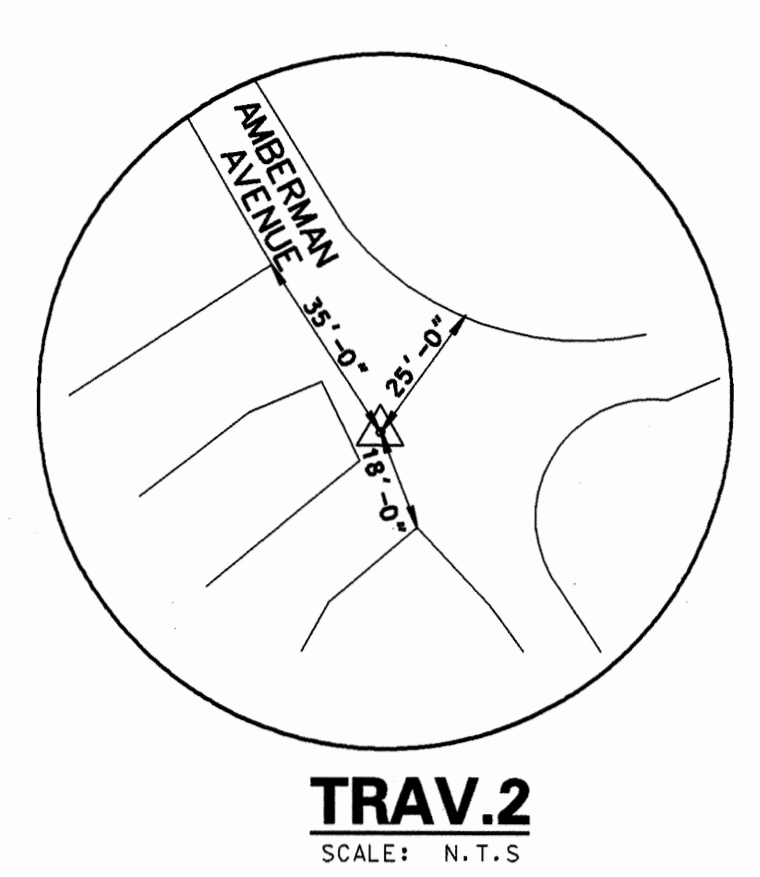
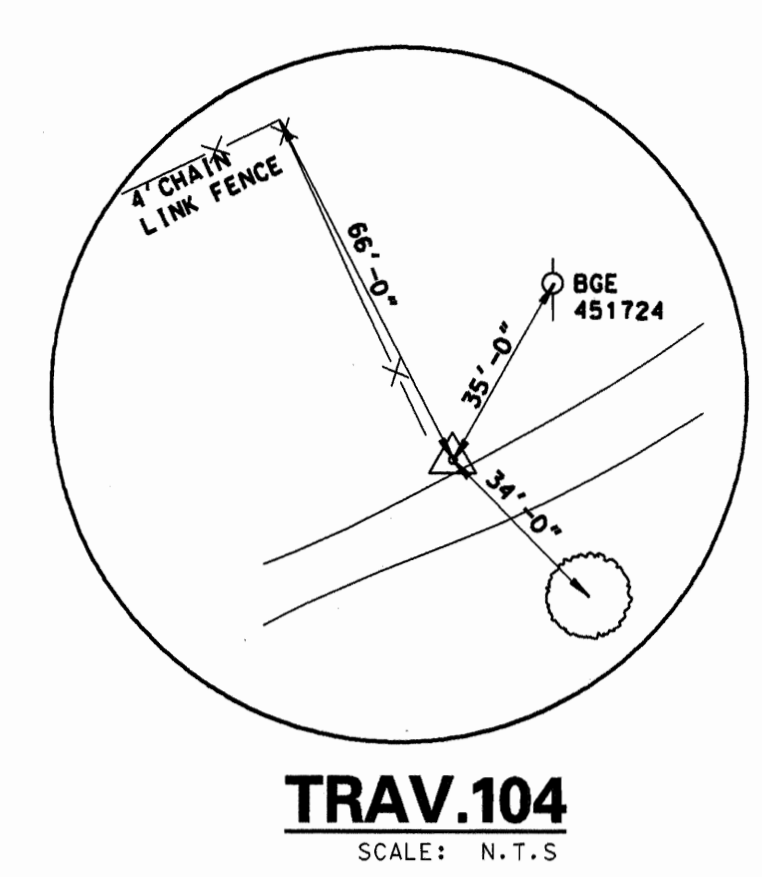
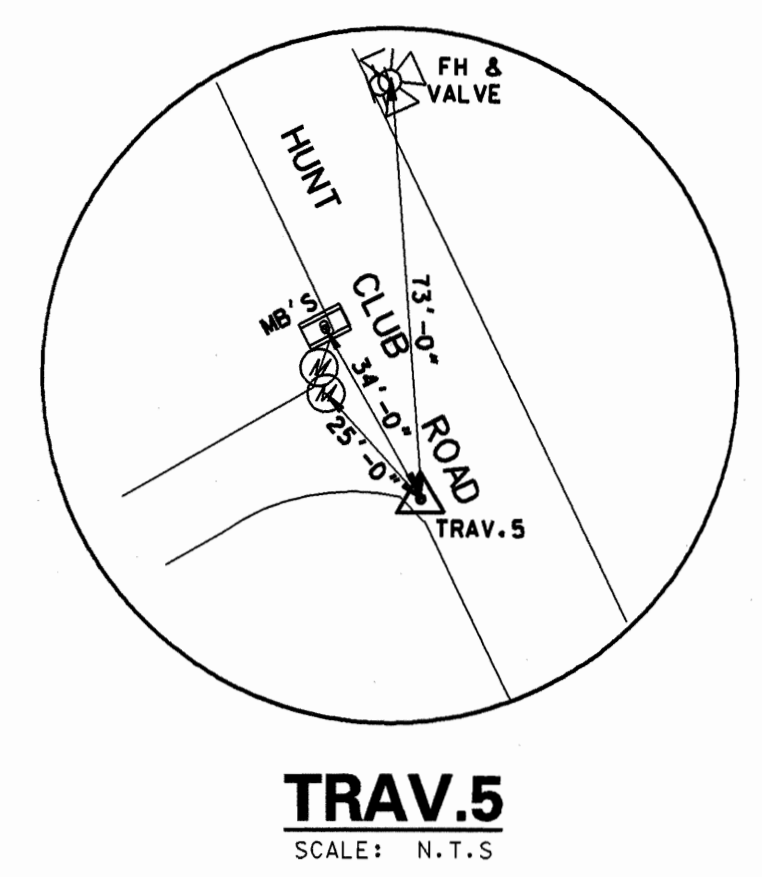
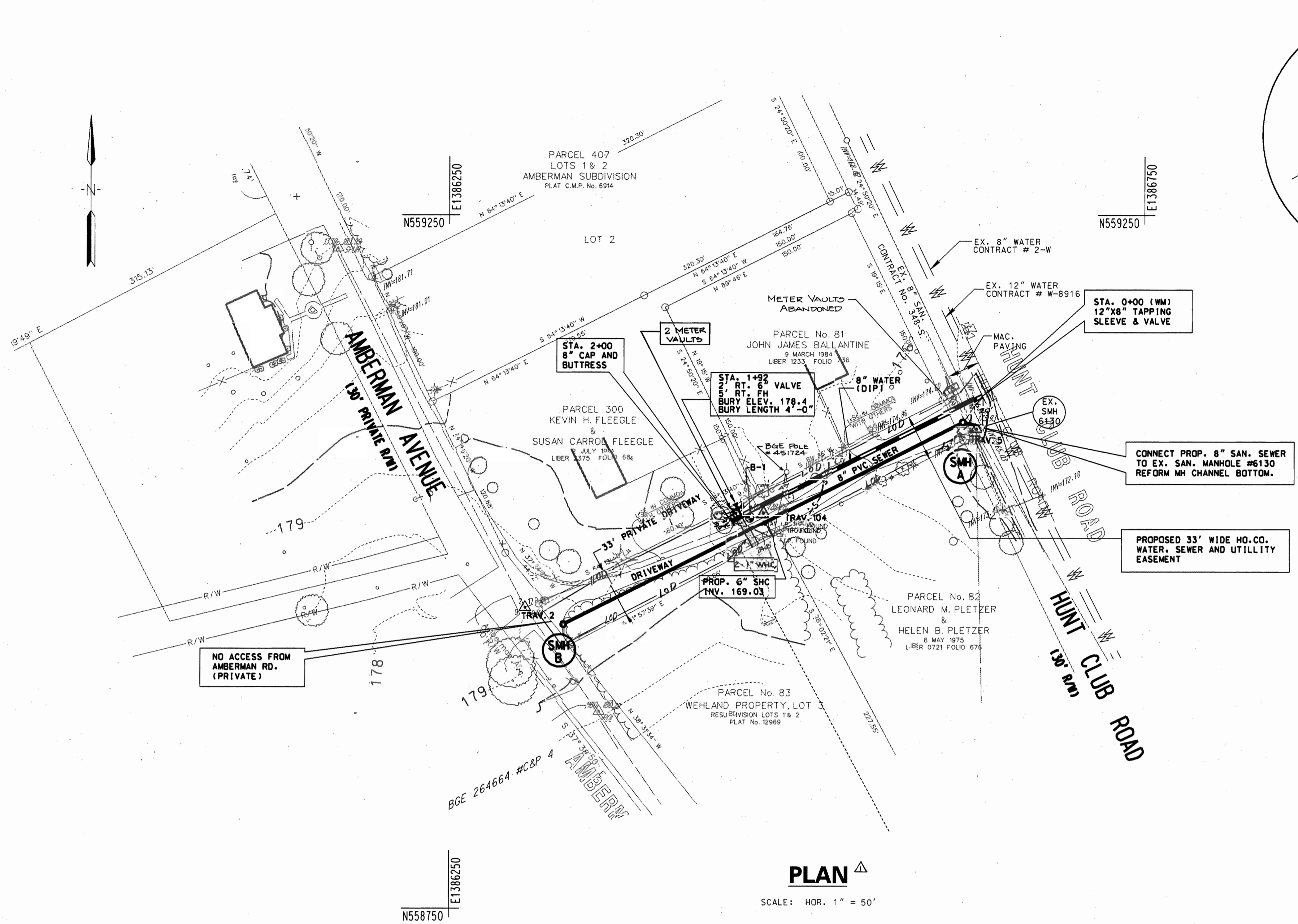
TITLE SHEET

TAX MAP NO. 32

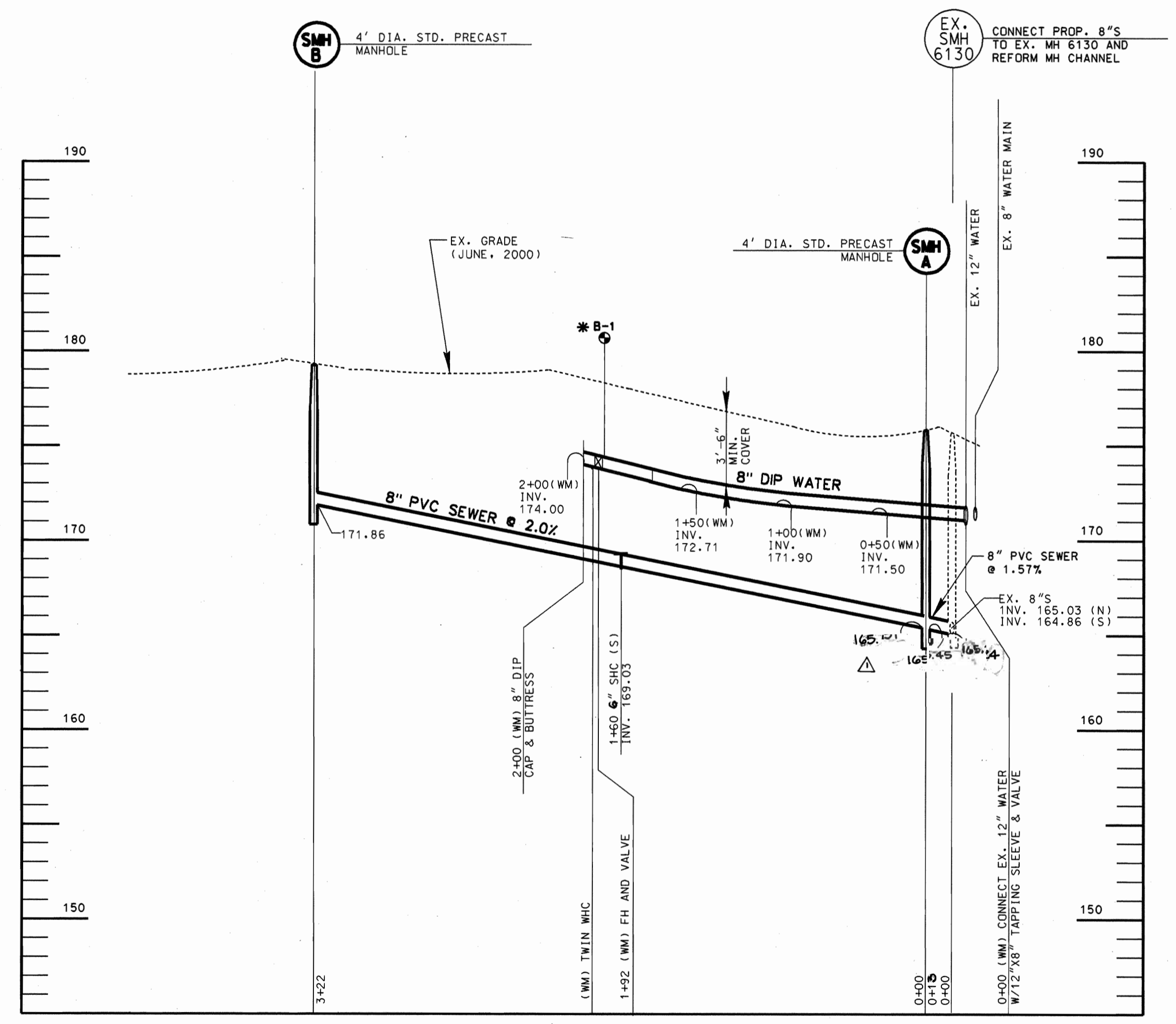
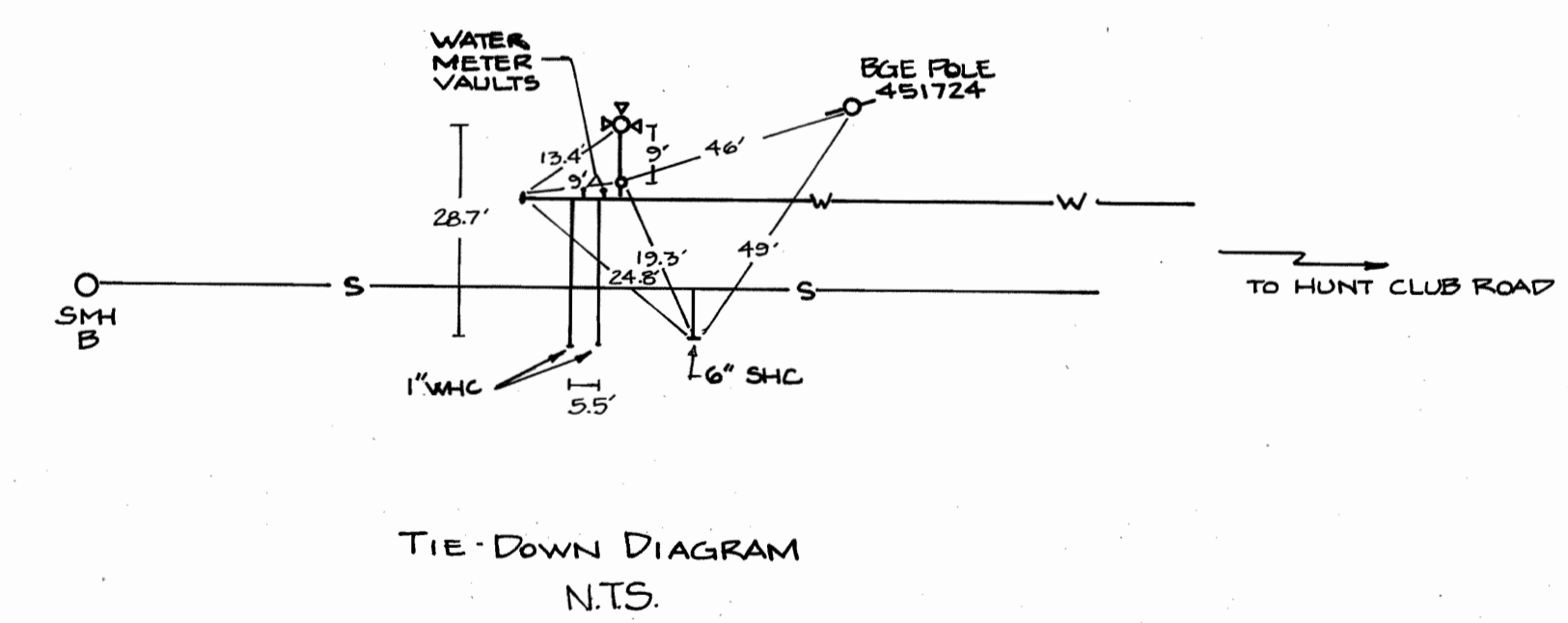
As-Built
**HUNT CLUB ROAD
SEWER & WATER MAINS
CAPITAL PROJECT No. S-6216
CONTRACT No. 14-3958
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND**

SCALE
AS SHOWN
SHEET
1 OF 4

FILE NAME: W-7/1999/01919BUL1 C-01.DGN



TRAVERSE STAKEOUT COORDINATES SCHEDULE			
NUMBER	NORTHING	EASTING	ELEVATION
TRAV. 2	558967.09	1386304.53	179.01
TRAV. 5	559094.51	1386628.40	175.93
TRAV. 104	559034.32	1386475.40	178.28



* SUBSURFACE INVESTIGATION REPORT (APPENDED TO PROJECT MANUAL) INDICATED UNSUITABLE MATERIAL FOR BACKFILL.

NOTE: REFER TO TRENCH BEDDING DETAIL FOR INSTALLATION OF WATER AND SEWER MAINS (SEE SHEET 5 OF 4)

AS-BUILT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James J. Lee 10/22/02
DIRECTOR OF PUBLIC WORKS DATE

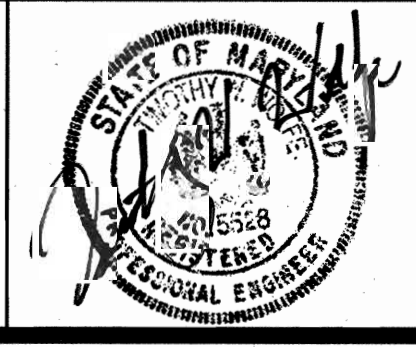
Elizabeth J. Kalla 10/22/02
CHIEF, BUREAU OF ENGINEERING, PLANNING & DESIGN DATE

Robert B. ... 10-22-02
CHIEF, BUREAU OF UTILITIES DATE

... 10-22-02
CHIEF, UTILITY DESIGN DIVISION DATE

KCI TECHNOLOGIES

ENGINEERS AND PLANNERS
10 NORTH PARK DRIVE
HUNT VALLEY, MD, 21030-1888
(410) 316-7800



DES: PS					
DRN: CK					
CHK: TWW					
DATE: 09/02					
KCI BY NO.	ADDN OF AS-BUILT INFORMATION				
	REVISION				
		JUNE 2002			
		DATE			

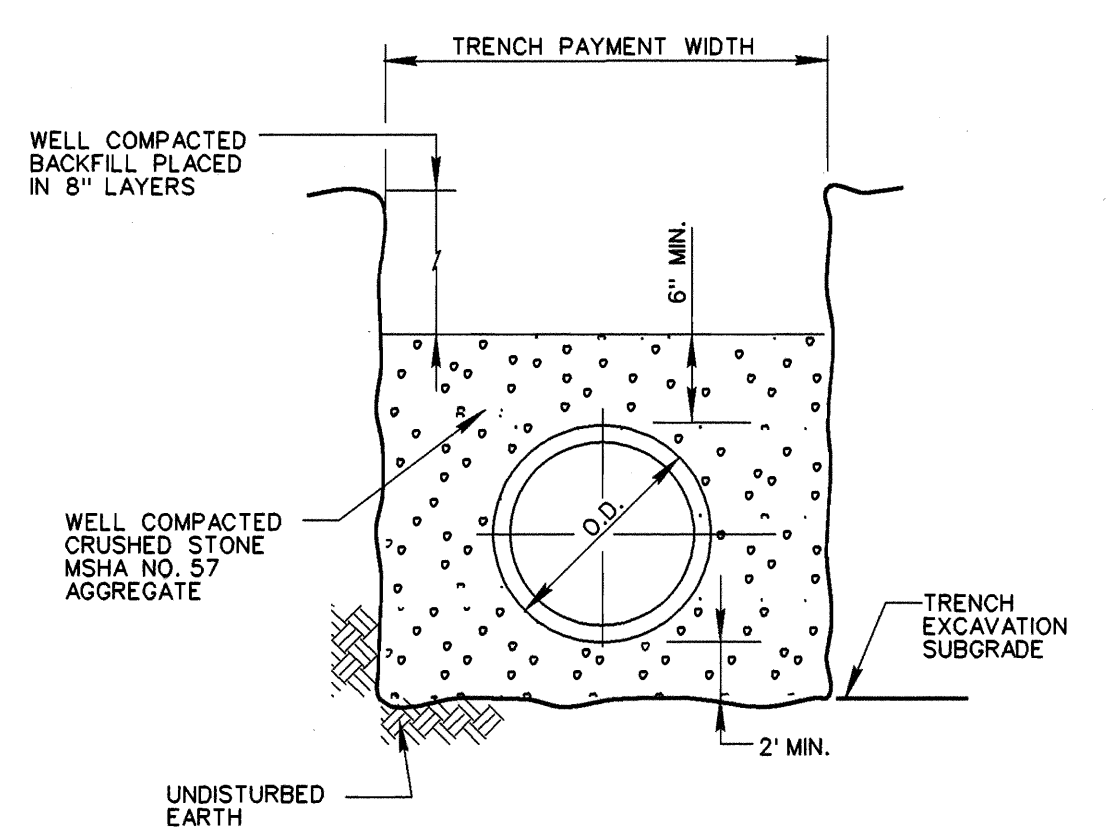
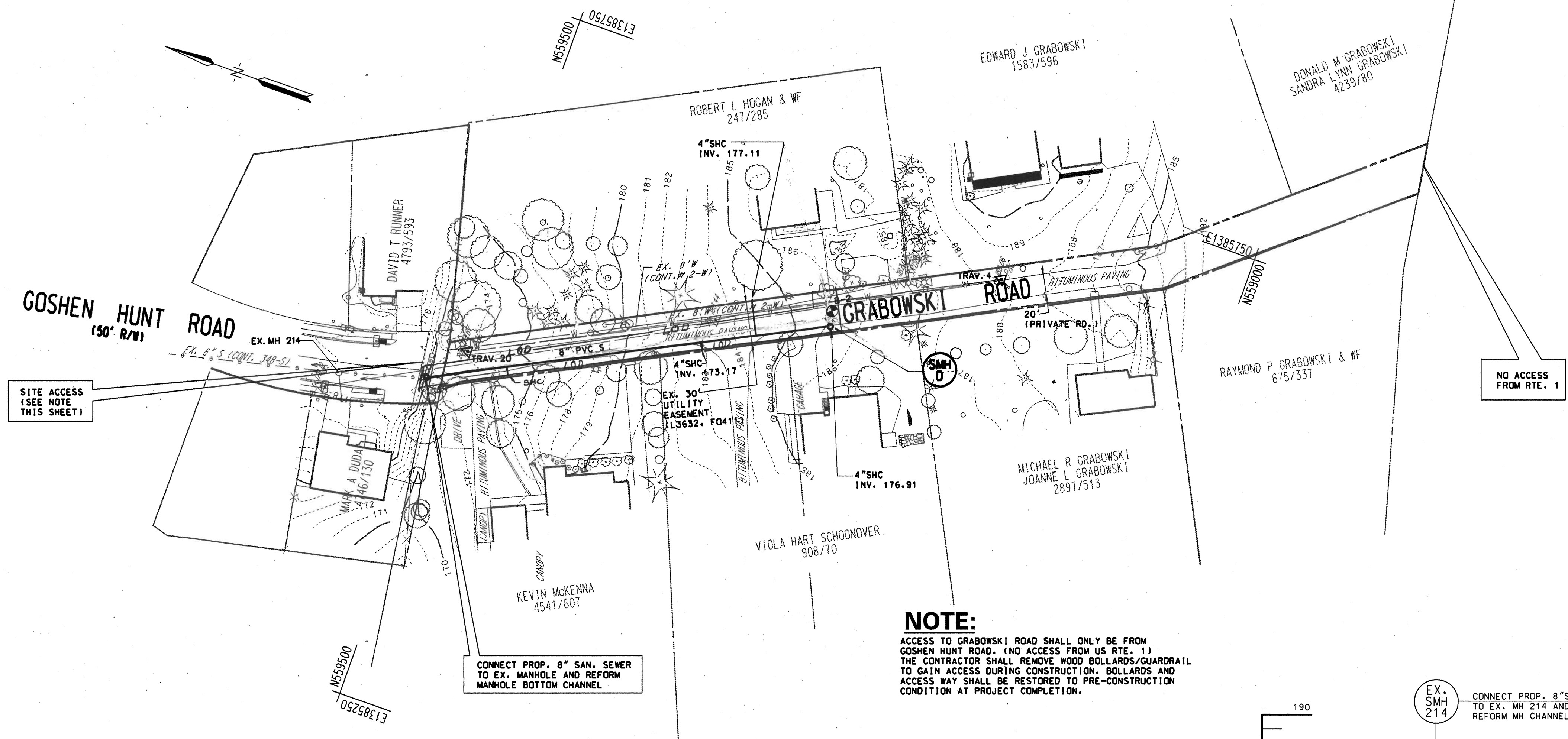
HUNT CLUB ROAD
PLAN & PROFILE

TAX MAP NO. 38 BLOCK 7

HUNT CLUB ROAD
SEWER & WATER MAINS
CAPITAL PROJECT No. S-6218
CONTRACT No. 14-3958
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 4

FILE NAME -- MF719997/019180.L7



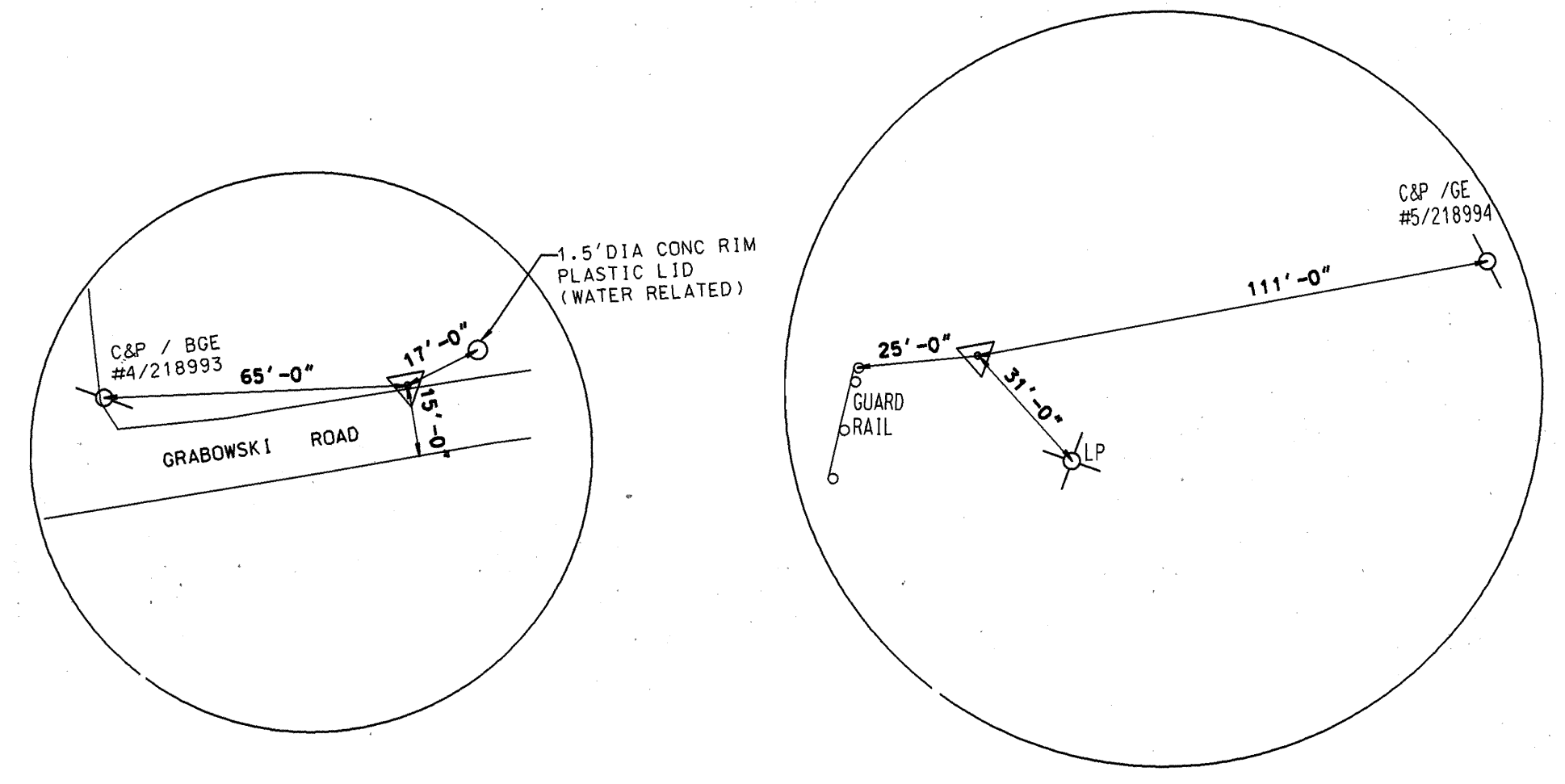
MODIFIED¹ DETAIL
 NO SCALE
 TRENCH FOR PVC PIPE
 AND HIGH DENSITY POLYETHYLENE PIPE
 AND DUCTILE IRON WATER MAIN
 1 - REFER TO SUBSURFACE INVESTIGATION REPORT
 (APPENDED TO PROJECT MANUAL)

NOTE:
 ACCESS TO GRABOWSKI ROAD SHALL ONLY BE FROM
 GOSHEN HUNT ROAD. (NO ACCESS FROM US RTE. 1)
 THE CONTRACTOR SHALL REMOVE WOOD BOLLARDS/GUARDRAIL
 TO GAIN ACCESS DURING CONSTRUCTION. BOLLARDS AND
 ACCESS WAY SHALL BE RESTORED TO PRE-CONSTRUCTION
 CONDITION AT PROJECT COMPLETION.

CONNECT PROP. 8" SAN. SEWER
 TO EX. MANHOLE AND REFORM
 MANHOLE BOTTOM CHANNEL.

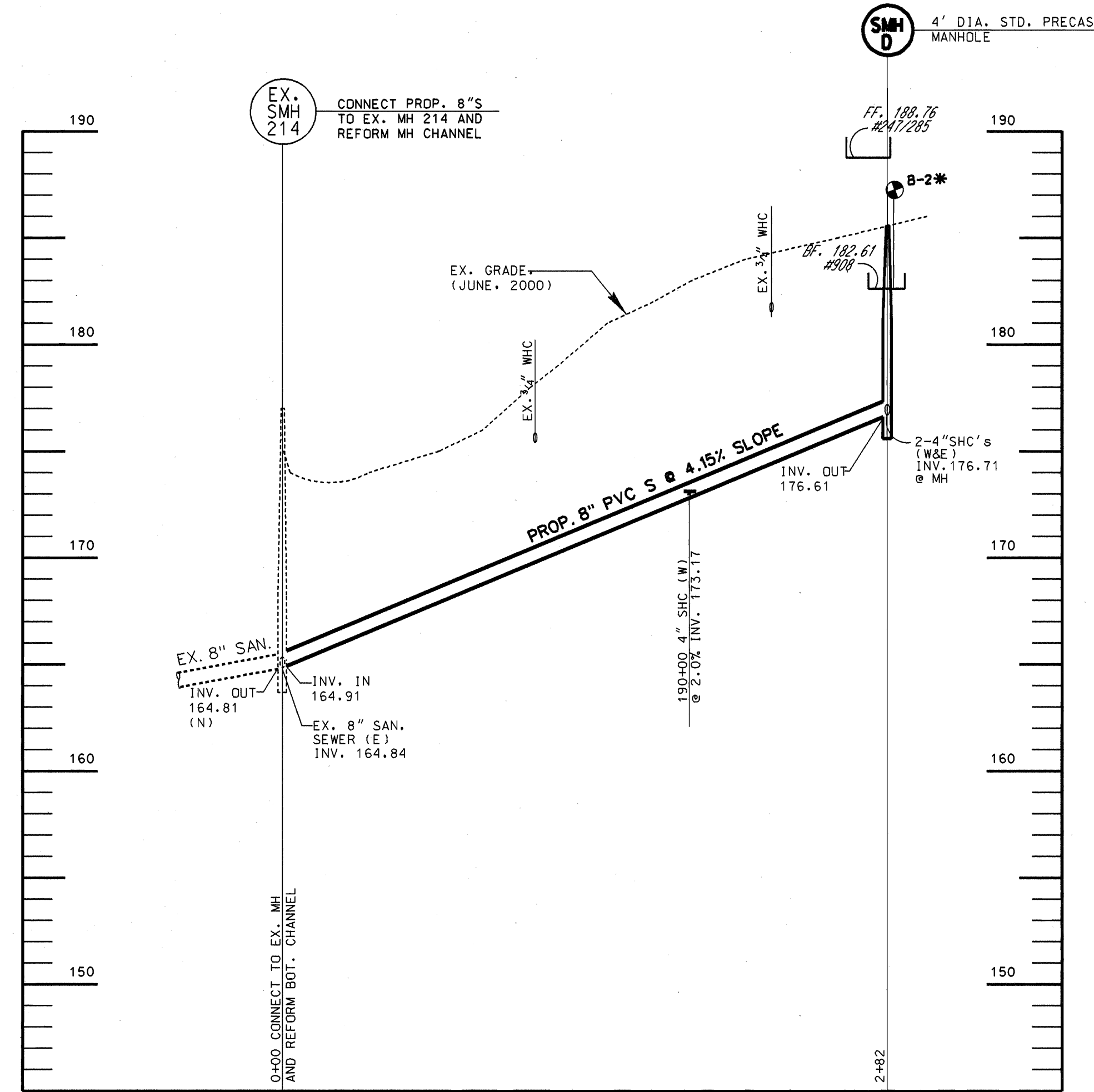
PLAN
 SCALE: 1" = 50'

TRAVERSE STAKEOUT COORDINATES SCHEDULE			
NUMBER	NORTHING	EASTING	ELEVATION
TRAV. 4	559161.96	1385677.89	168.06
TRAV. 20	559496.39	1385505.48	173.87



TRAV.4
 SCALE: N.T.S.

TRAV.20
 SCALE: N.T.S.



PROFILE
 SCALE: HOR. 1" = 50'
 VER. 1" = 5'

* SUBSURFACE INVESTIGATION REPORT
 (APPENDED TO PROJECT MANUAL)
 INDICATED UNSUITABLE MATERIAL
 FOR BACKFILL.

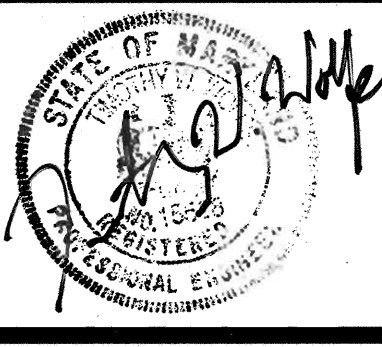
NOTE:
 REFER TO TRENCH BEDDING
 DETAIL FOR INSTALLATION OF
 WATER AND SEWER MAINS
 (SEE SHEET 3 OF 4)

"As-Built"



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *Jan P. Jan* 10/23/02
 Chief, Bureau of Engineering: *Edgar A. Calver* 10/22/02
 Chief, Utility Design Division: *Clayton P.* 10-22-02

ENGINEERS AND PLANNERS
 10 NORTH PARK DRIVE
 HUNT VALLEY, MD. 21030-1888
 (410) 316-7800
 KCI TECHNOLOGIES



DES: PS			
DRN: CK			
CHK: TWW			
DATE: 09/02			
KCI BY NO.	ADDITION OF AS-BUILT INFORMATION	4-JUNE-2003	
	REVISION	DATE	

**GRABOWSKI ROAD
 PLAN AND PROFILE**

TAX MAP NO. 38 BLOCK 7

HUNT CLUB ROAD
 SEWER & WATER MAINS
 CAPITAL PROJECT No. S-6216
 CONTRACT No. 14-3958
 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 4

FILE NAME: M7/1999/0199180.L

DETAIL 22 - SILT FENCE

Construction Specifications

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum cut), or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft ² /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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DETAIL 30 - EROSION CONTROL MATTING

Construction Specifications

- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
- Staple the 4" overlap in the channel center using an 18" spacing between staples.
- Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
- Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
- Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
- The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

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EROSION CONTROL MATTING

Construction Specifications

- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
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Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

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DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

Construction Specifications

- Length - minimum of 50' (#30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. *The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the site is located on a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT.).

2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) USE SOD; OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

DEVELOPER'S CERTIFICATION

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

Elizabeth C. Collea 10/23/02
 BUREAU OF ENGINEERING & DESIGN
 DEPARTMENT OF PUBLIC WORKS

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 10/23/02
 NATURAL RESOURCE DATA
 CONSERVATION SERVICE

ENGINEER'S CERTIFICATION

I/WE CERTIFY THAT THIS PLAN FOR EROSION & SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Timothy W. Wolfe 10/23/02
 KCI TECHNOLOGIES
 10 NORTH PARK DRIVE
 HUNT VALLEY, MARYLAND 21030

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

John K. Roberts 10/25/02
 HOWARD S.C.D.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: - APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.).

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- LAYOUT ALIGNMENT AT SITE.
- INSTALL SEDIMENT CONTROL DEVICES DIRECTED BY INSPECTOR.
- EXCAVATE DITCH TO THE GRADE SPECIFIED ON THE PROFILE, INSTALL WATER MAIN AND BACKFILL TRENCH AND RESTORE SURFACE CONDITIONS IN KIND. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 25' OF PIPE LENGTH OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER. REPEAT PROCESS FOR SEWER MAINS.
- CLEAN UP CONSTRUCTION SITE.
- REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR.

STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION, (313-1855).
- ALL VEGETIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 7 CALENDER DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1;
 - 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. I, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (SEC. 620.0) FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDING AND MULCHING. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	N/A	ACRES
AREA DISTURBED	0.06	ACRES
AREA TO BE ROOFED OR PAVED		0.04 ACRES
AREA TO BE VEGETATIVELY STABILIZED		0.02 ACRES
TOTAL CUT	N/A	CU. YDS.
TOTAL FILL	N/A	CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A	
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF THE DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- CONTRACTOR SHALL PLACE EXCAVATED MATERIALS ON UPHILL SIDE OF TRENCH AND PLACE SILT FENCE ON DOWNHILL SIDE OF TRENCH.

"As Built"

As-Built

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

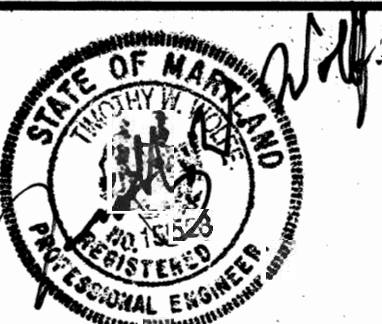
Robert P. ... 10/23/02
 DIRECTOR OF PUBLIC WORKS
 CHIEF, BUREAU OF UTILITIES

Elizabeth C. Collea 10/23/02
 CHIEF, BUREAU OF ENGINEERING & DESIGN

Timothy W. Wolfe 10/22/02
 CHIEF, UTILITY DESIGN DIVISION

ENGINEERS AND PLANNERS
 10 NORTH PARK DRIVE
 HUNT VALLEY, MD. 21030-1888
 (410) 316-7800

KCI TECHNOLOGIES



DES:	PS		
DRN:	CK		
CHK:	TWW		
DATE:	09/02		
BY:	NO.		
REVISION:			

EROSION AND
 SEDIMENT CONTROL
 AND NOTES

T&E MAP NO. 38

HUNT CLUB ROAD
 SEWER & WATER MAINS
 CAPITAL PROJECT No. S-6216
 CONTRACT No. 14-3958
 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 4 OF 4

FILE NAME - WF/1999/019980.L7/SED.DGN