

PUBLIC WATER AND SEWER CONSTRUCTION PLANS GROVEMONT

PHASE 2

1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT No. 14-3700-D

BENCH MARKS NAD'83	
HO. CO. #31E6	
3/4" REBAR 0.5' BELOW SURFACE	
5' SOUTHWEST OF ILCHESTER ROAD PAVING	
500± WEST OF WHARF LANE.	
N 570852.3717'	E 1376700.6467'
HO. CO. #31E7	
3/4" REBAR 0.5' BELOW SURFACE	
9' SOUTHWEST OF ILCHESTER ROAD PAVING	
250± WEST OF BEECHWOOD ROAD	
N 572335.3503'	E 1377504.0332'
HO. CO. BM#2745004	ELEV. 364.78'
USED FOR VERTICAL CONTROL.	

GENERAL NOTES

PART 1 - GENERAL

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6' CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAIL FOR CONSTRUCTION (LATEST EDITION), THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION.....	531-5533
BALTIMORE GAS & ELECTRIC CO.....	850-4620
BALTIMORE GAS & ELECTRIC CO.....	850-4620
BALTIMORE GAS & ELECTRIC CO.....	850-4620
UNDERGROUND DAMAGE CONTROL.....	787-9068
MISS UTILITY.....	1-800-257-7777
HOWARD CO. DEPT. OF PUBLIC WORKS.....	795-1390
COLONIAL PIPELINE CO.....	795-1390
BUREAU OF UTILITIES.....	313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
- 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(g) OF THE HOWARD COUNTY CODE.

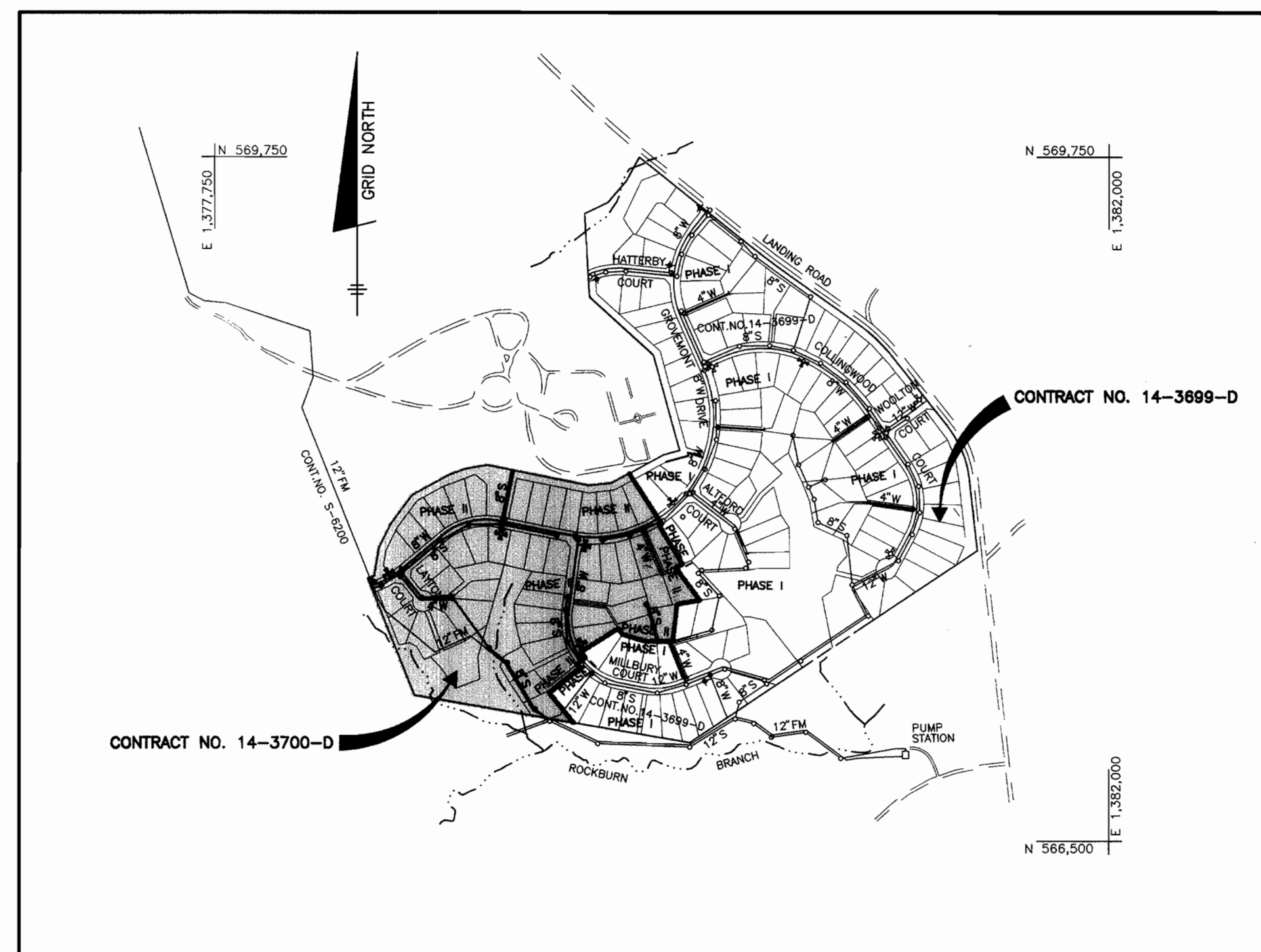
PART 2 - WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS. ALL WATER HOUSE CONNECTIONS SHALL BE 1" OR 1-1/2" x 1" FOR TWIN CONNECTIONS.

PART 3 - SEWER

- ALL SEWER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2' - 0" OF EXTERIOR MANHOLE WALL.
- 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 WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL G5-52, WHERE WATER-TIGHT 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.

CERTIFICATES OF USE AND OCCUPANCY WILL NOT BE ISSUED FOR THE RESIDENCES CONSTRUCTED WITHIN THE GROVEMONT DEVELOPMENT UNTIL THE SEWAGE PUMPING STATION AND FORCE MAIN TO BE CONSTRUCTED UNDER CAPITAL PROJECT 9-6200, ROCKBURN PUMP STATION FORCE MAIN AND SEWER, HAS BEEN RELEASED FOR SERVICE BY THE HOWARD COUNTY BUREAU OF UTILITIES.



WATER AND SEWER COUNTY CODE		TYPE OF BUILDING: SINGLE FAMILY DETACHED	
WATER CODE: D-03	SEWER CODE: 1254550	NUMBER OF LOTS: 53	BUILDABLE: 53
TEST GRADIENT: 700		NUMBER OF WH'S: 51	
		DRAINAGE AREA: PATAPSCO	WASTEWATER TREATMENT PLANT

VICINITY MAP
SCALE: 1" = 600'

LEGEND

EXIST. WATER MAIN	
EXIST. SEWER MAIN	
EXIST. SEWER MANHOLE	
PROP. WATER MAIN	
PROP. SEWER MAIN	
PROP. STORM DRAIN	
PROP. SEWER MANHOLE	
PROP. SEWER HOUSE CONNECTION	
PROP. WATER HOUSE CONNECTION (DOUBLE - 1-1/2" x 1")	
PROP. WATER HOUSE CONNECTION (SINGLE - 1")	
PROP. FIRE HYDRANT	
PROP. VALVE	
PROP. PLUG & BUTTRISS	

QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
8" WATER	2348 L.F.	2,385	CL-52	GRIFFIN/MICSALES
4" WATER	567 L.F.	567	"	"
8" VALVES	5 EA.	5	GATE VALVE	KELLINEOY/
6" VALVES	4 EA.	4	"	"
4" VALVES	2 EA.	2	"	"
1 1/2" DRAIN	2 EA.	2	"	"
FIRE HYDRANTS	4 EA.	4	2 5/8" 6"	"
1" WHC	506 L.F.	601	COPPER	READING/
1-1/2" WHC	376 L.F.	482	"	"
8" SEWER	3171 L.F.	2,985	SOR-35	DIAMOND/
MANHOLES	18 EA.	18	PRECAST	ATLANTIC CONB.
4" SHC	986 L.F.	1,343	SOR-35	DIAMOND/MICSALES
4" DHC	552 L.F.			

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

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT
AND MEETS TECHNICAL REQUIREMENTS

Cleah Simmons 3/8/99
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

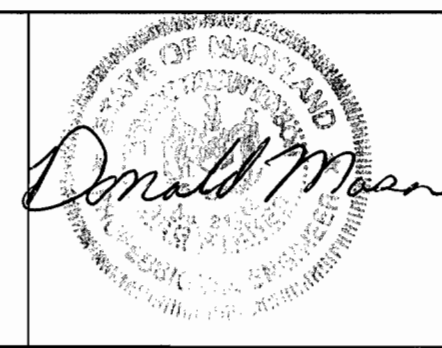
John R. Robertson 3/8/99
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS F-99-22

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.



DES: GWF/DBT					
DRN: DBT/YSL					
CHK: DAM					
DATE: 7/98	K.E.I.	1	AS-BUILT CONDITIONS ADDED TO PLAN	4/12/01	
2/99	BY	NO.	REVISIONS	DATE	

TITLE PAGE

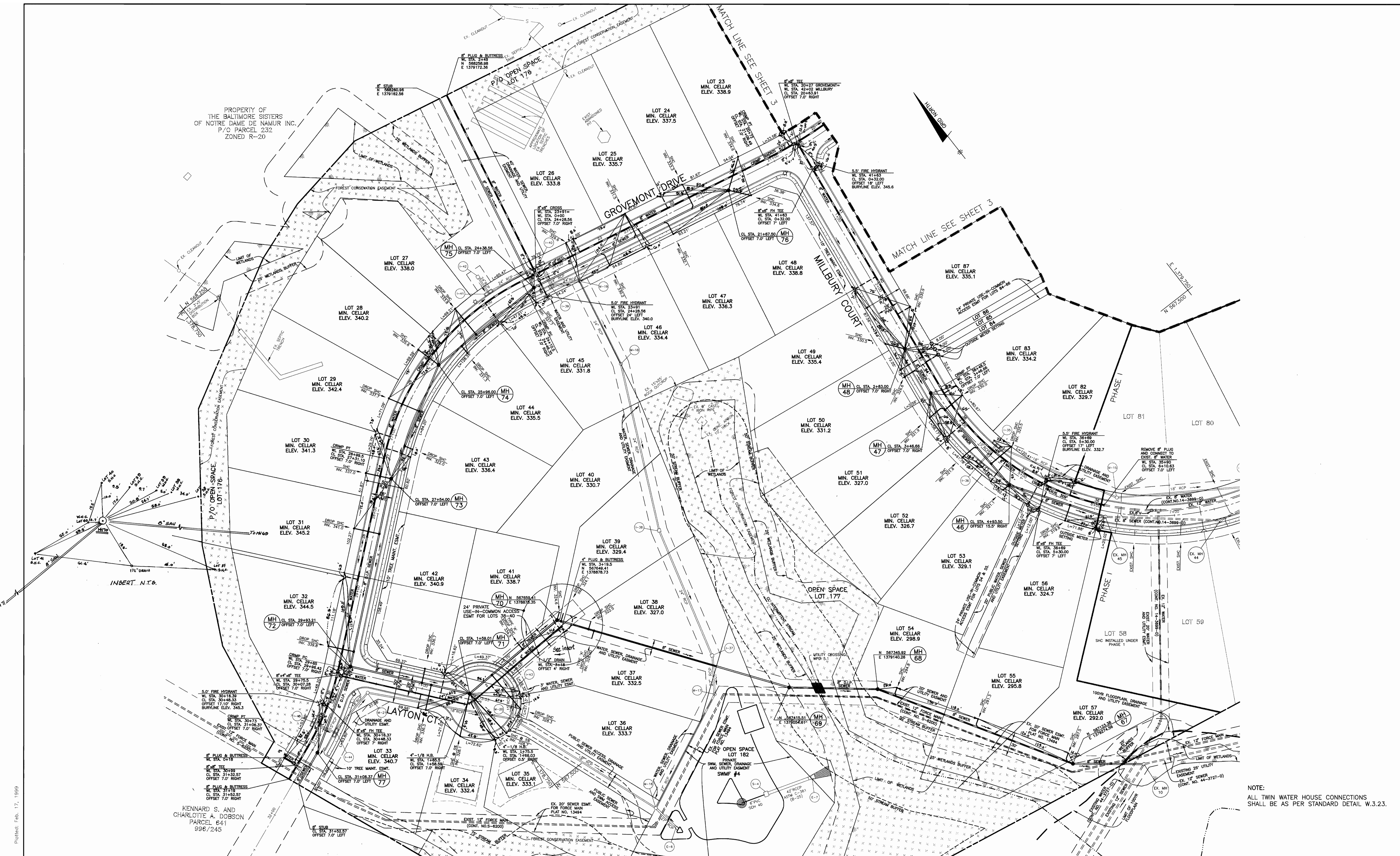
SHEET INDEX

NO.	DESCRIPTION
1	TITLE SHEET
2-3	PLAN OF WATER AND SEWER MAINS
4-5	PROFILES OF WATER AND SEWER MAINS

GROVEMONT
PHASE 2
LOTS 19-57, 76, 82-93 AND 95
ELECTION DISTRICT NO. 1

CONTRACT NO. 14-3700-D

SCALE:
AS SHOWN
SHEET NO.
1 OF 5



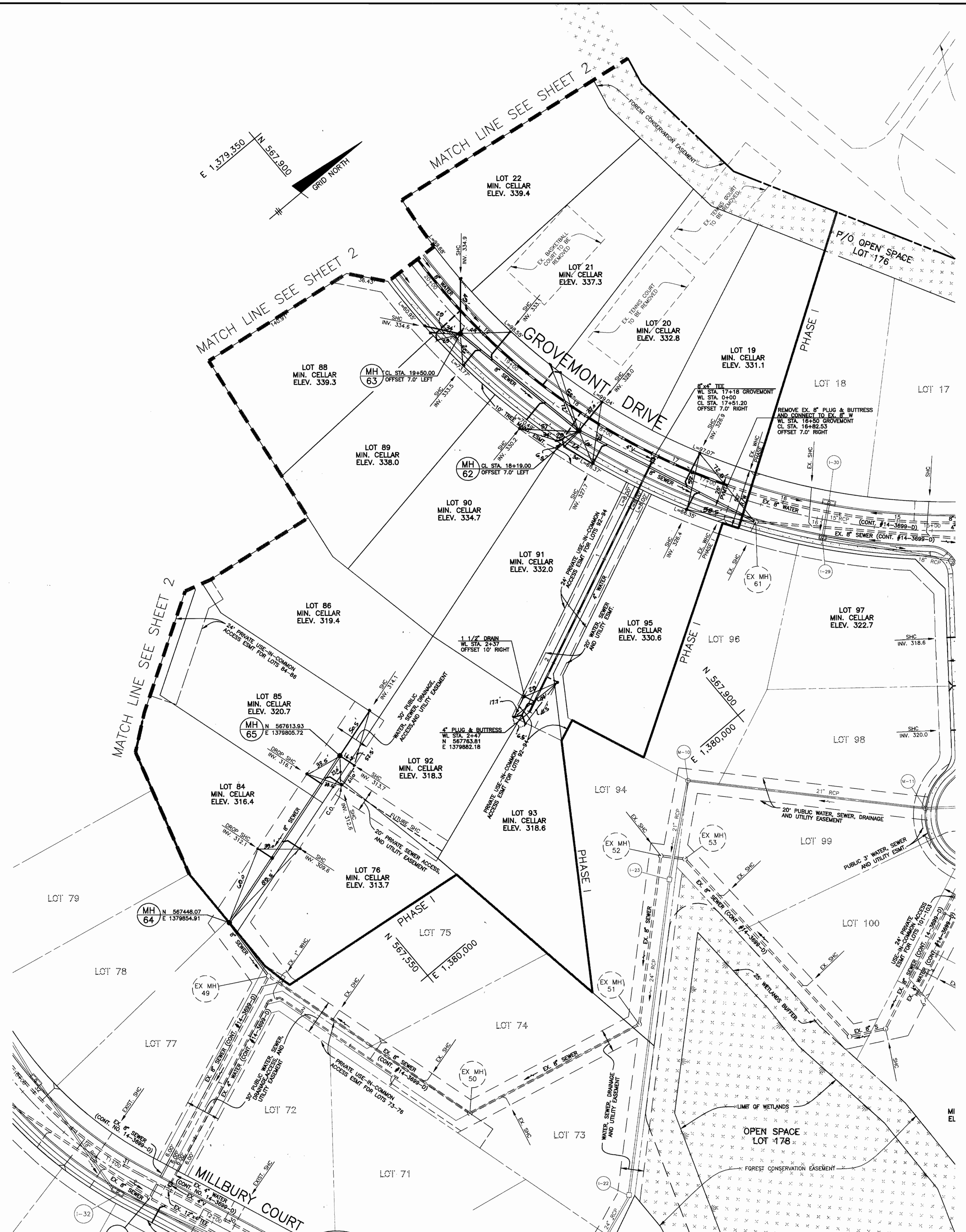
PROPERTY OF
THE BALTIMORE SISTERS
OF NOTRE DAME DE NAMUR INC.
P.O. PARCEL 232
ZONED R-20

KENNARD S. AND
CHARLOTTE A. DOBSON
PARCEL 641
996/245

NOTE:
ALL TWIN WATER HOUSE CONNECTIONS
SHALL BE AS PER STANDARD DETAIL W.3.23.

As of: Dwg. 6002502
Plotted: Feb. 17, 1999

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Robert M. Benjamin</i> CHIEF, BUREAU OF UTILITIES 2-24-99 DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>John J. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION 2/15/99 DATE	BENCHMARK ENGINEERS & LAND SURVEYORS - PLANNERS ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLEWOOD CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644		DES: GWF/DBT	PLAN OF WATER AND SEWER MAINS GROVEMONT PHASE 2 LOTS 19-57, 76, 82-93 AND 95 ELECTION DISTRICT NO. 1 CONTRACT NO. 14-3700-D	SCALE: 1" = 50'
				DRN: DBT/YSL CHK: DAM DATE: 7/98 2/99		K.C.I. 1 BY NO. ABSOLUTE CAUTIONS ADDED TO PLAN REVISIONS DATE: 4/1/01 600 SCALE MAP NO. 31 BLOCKS 17 AND 23



NOTE:
ALL TWIN WATER HOUSE CONNECTIONS
SHALL BE AS PER STANDARD DETAIL W.3.23.

Printed: Feb. 17, 1999

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

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ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644



DES:	GWF/DBT				
DRN:	DBT/YSL				
CHK:	DAM				
DATE:	7/98	K&I	1	ASBUILT CONDITIONS ADDED TO PLAN	4/1/01
	2/99	BY	NO.	REVISIONS	DATE

PLAN OF
WATER AND SEWER MAINS

600 SCALE MAP NO. 31 BLOCKS 17 AND 23

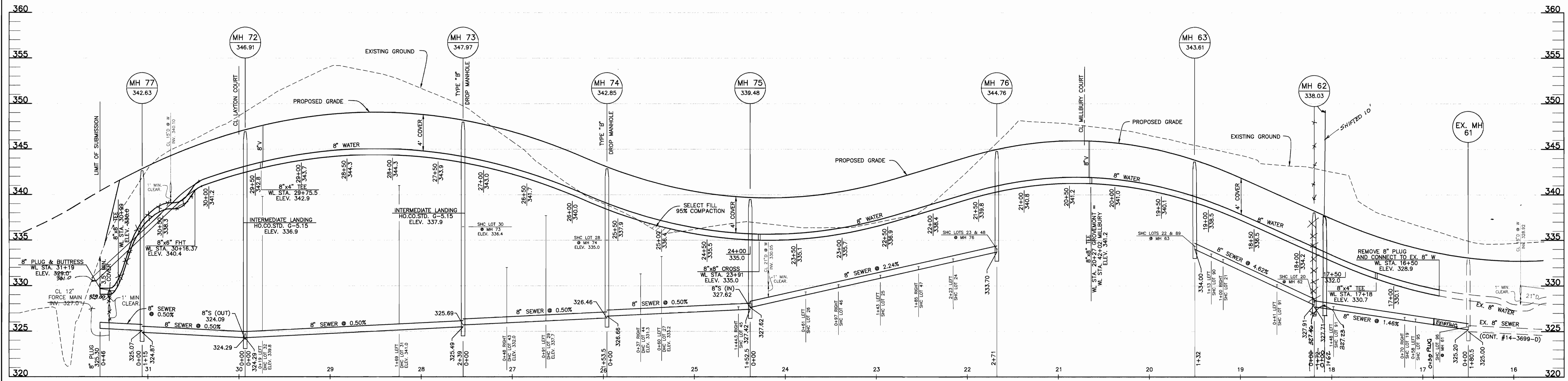
GROVEMONT
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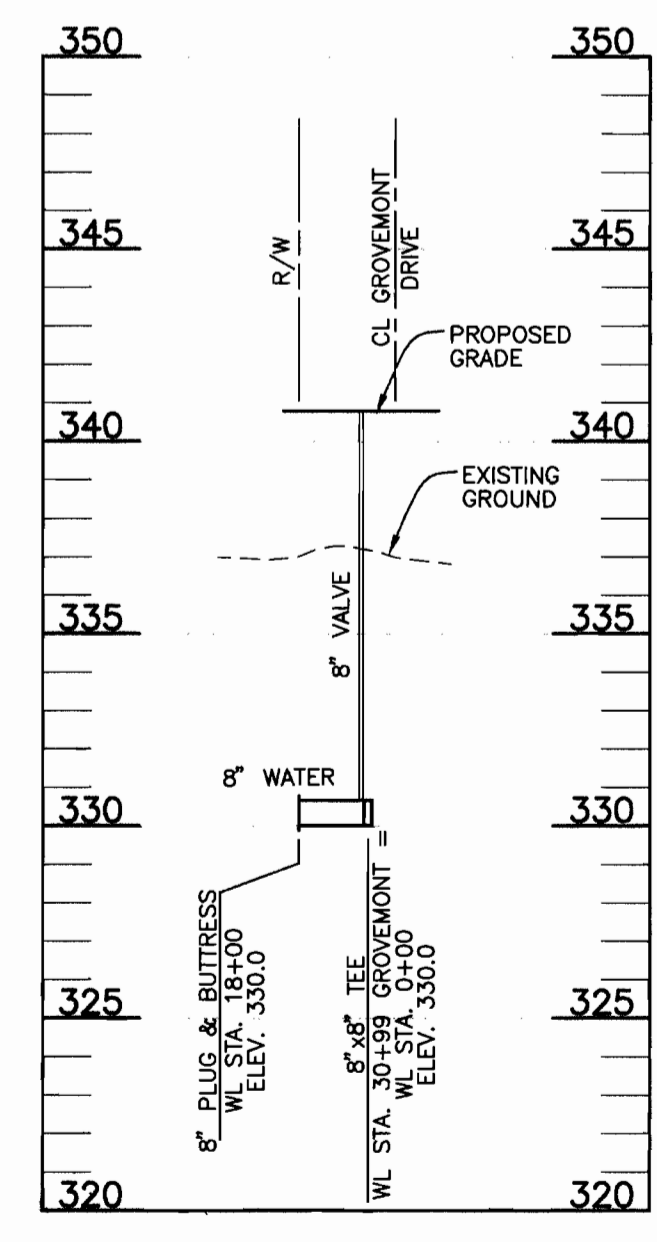
SHEET NO.
3 OF 5

Robert M. Berger 2-24-99
CHIEF, BUREAU OF UTILITIES DATE

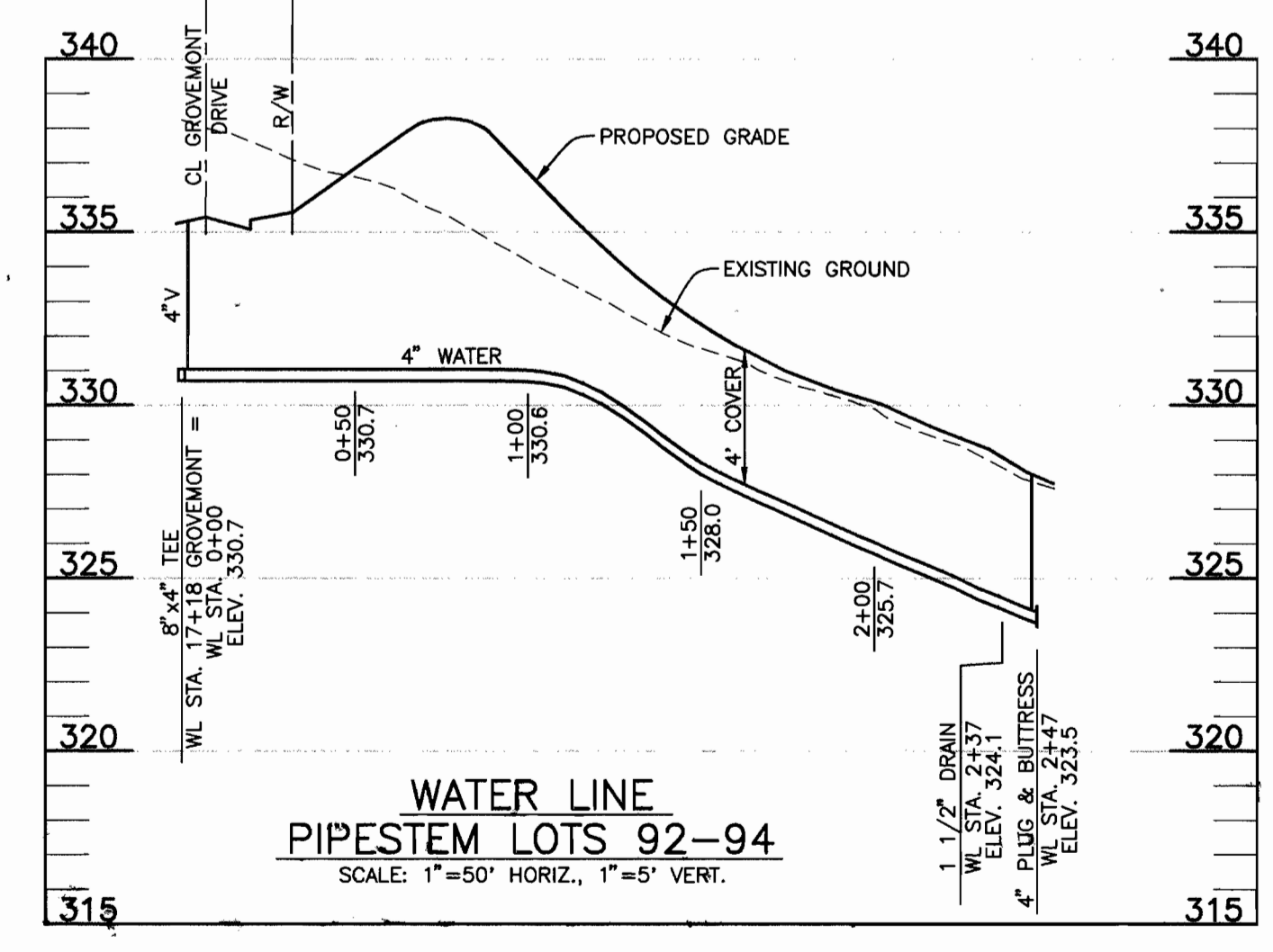
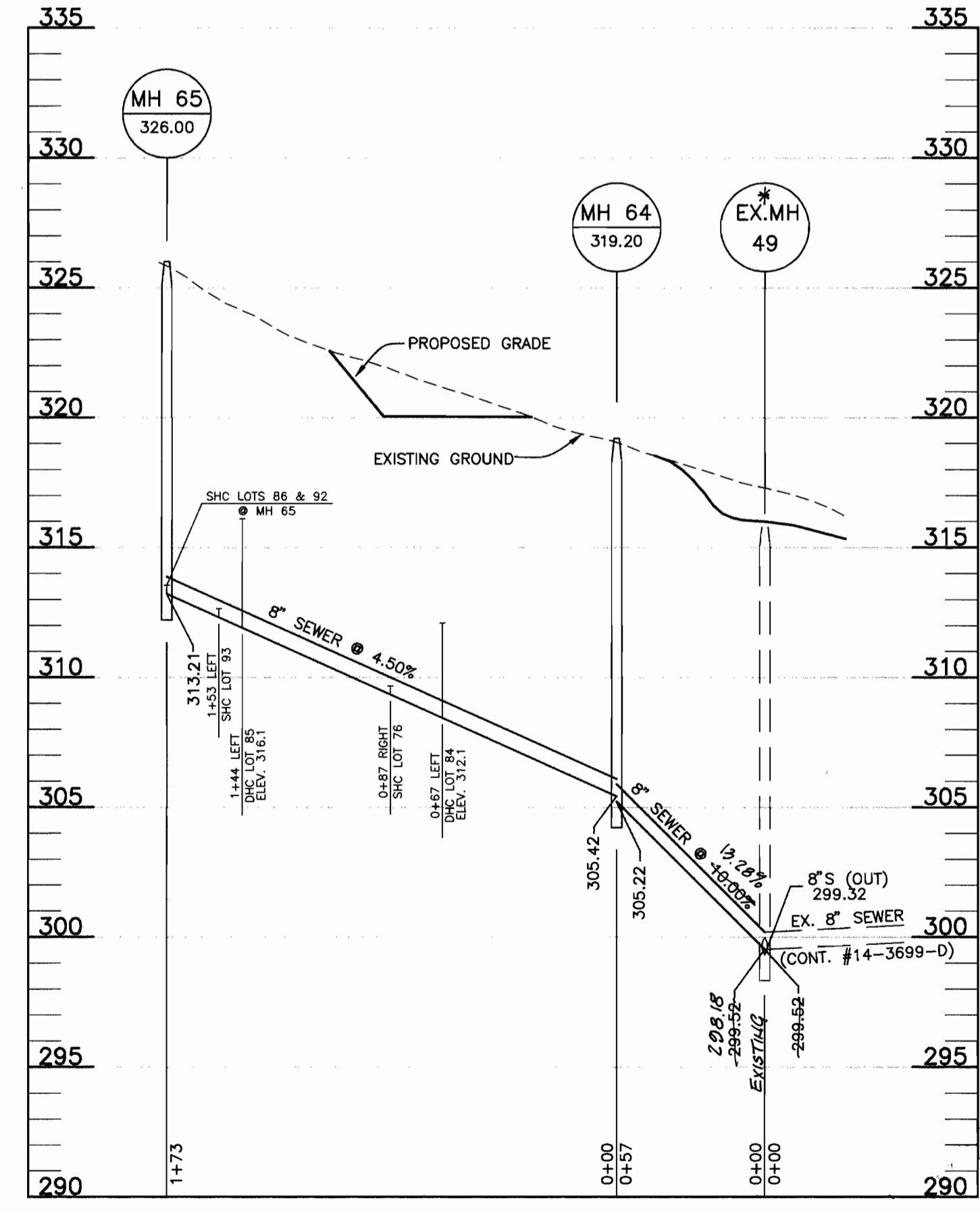
Robert M. Mason 3/15/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



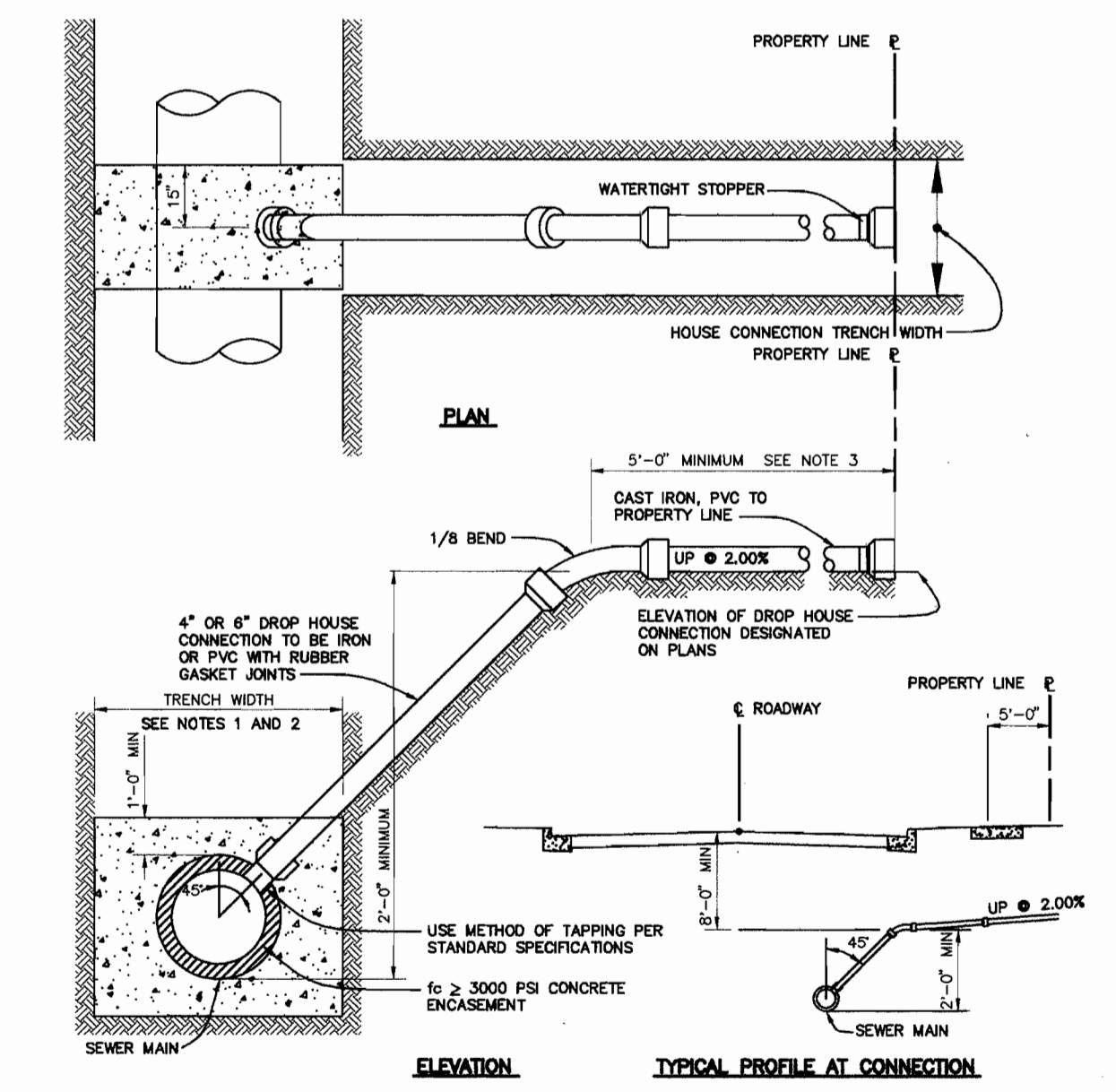
GROVEMONT DRIVE
SCALE: 1"=50' HORIZ., 1"=5' VERT.



WATER LINE STUB-OUT
SCALE: 1"=50' HORIZ., 1"=5' VERT.



WATER LINE PIPESTEM LOTS 92-94
SCALE: 1"=50' HORIZ., 1"=5' VERT.



- NOTES:
1. S.I.C. TO 8" THRU 12" SEWER MAIN USE SADDLE.
2. S.I.C. TO PROPOSED SEWER MAINS, USE TEES, SEE VOLUME IV, STANDARD DETAIL S2.12.
3. S.I.C. AT PROPERTY LINE SHALL TERMINATE WITH MINIMUM PIPE LENGTH OF 5'-0". DETAIL IS NOT APPLICABLE FOR A SHORTER LENGTH THAN 5'-0" AT THE PROPERTY LINE.

4" & 6" DROP HOUSE CONNECTION TO SEWER MAIN
NOT TO SCALE
HOWARD COUNTY DESIGN MANUAL - VOL II
WATER AND SEWER - APPENDIX 13

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

BENCHMARK
ENGINEERS - LAND SURVEYORS - PLANNERS
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				DATE

PROFILES OF
WATER AND SEWER MAINS

GROVEMONT
PHASE 2
LOTS 19 - 57, 76, 82-93, AND 95
ELECTION DISTRICT NO. 1
CONTRACT NO. 14-3700-D

SCALE:
1" = 50' HORIZ.
1" = 5' VERT.
SHEET NO.
4 OF 5

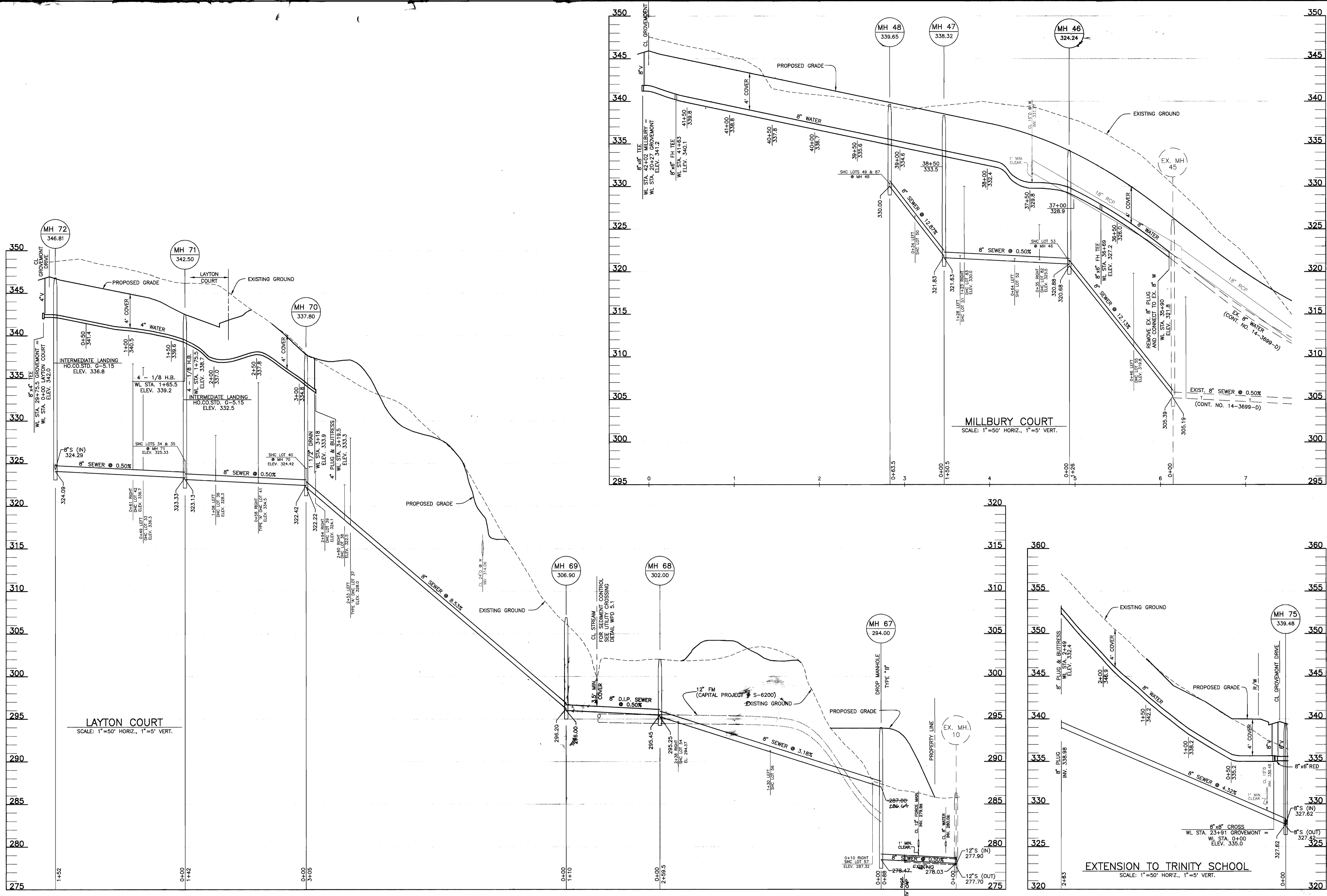
Acad Draw: 8/02/2004 Date: Feb. 17, 1999

Robert M. Benjamin 2-24-99
CHIEF, BUREAU OF UTILITIES DATE

How [Signature] 3/15/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELICOTT CITY, MARYLAND 21043
PHONE: 410-465-6100 FAX: 410-465-5944

600 SCALE MAP NO. 31 BLOCKS 17 AND 23



Plotted: Feb. 17, 1999

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Deinger
CHIEF, BUREAU OF UTILITIES

2-24-99
DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

William D. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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PROFILES OF
WATER AND SEWER MAINS

600 SCALE MAP NO. 31

BLOCKS 17 AND 23

GROVEMONT
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LOTS 19 - 57, 76, 82 - 93, AND 95
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1" = 50' HORIZ.
1" = 5' VERT.

SHEET NO.
5 OF 5