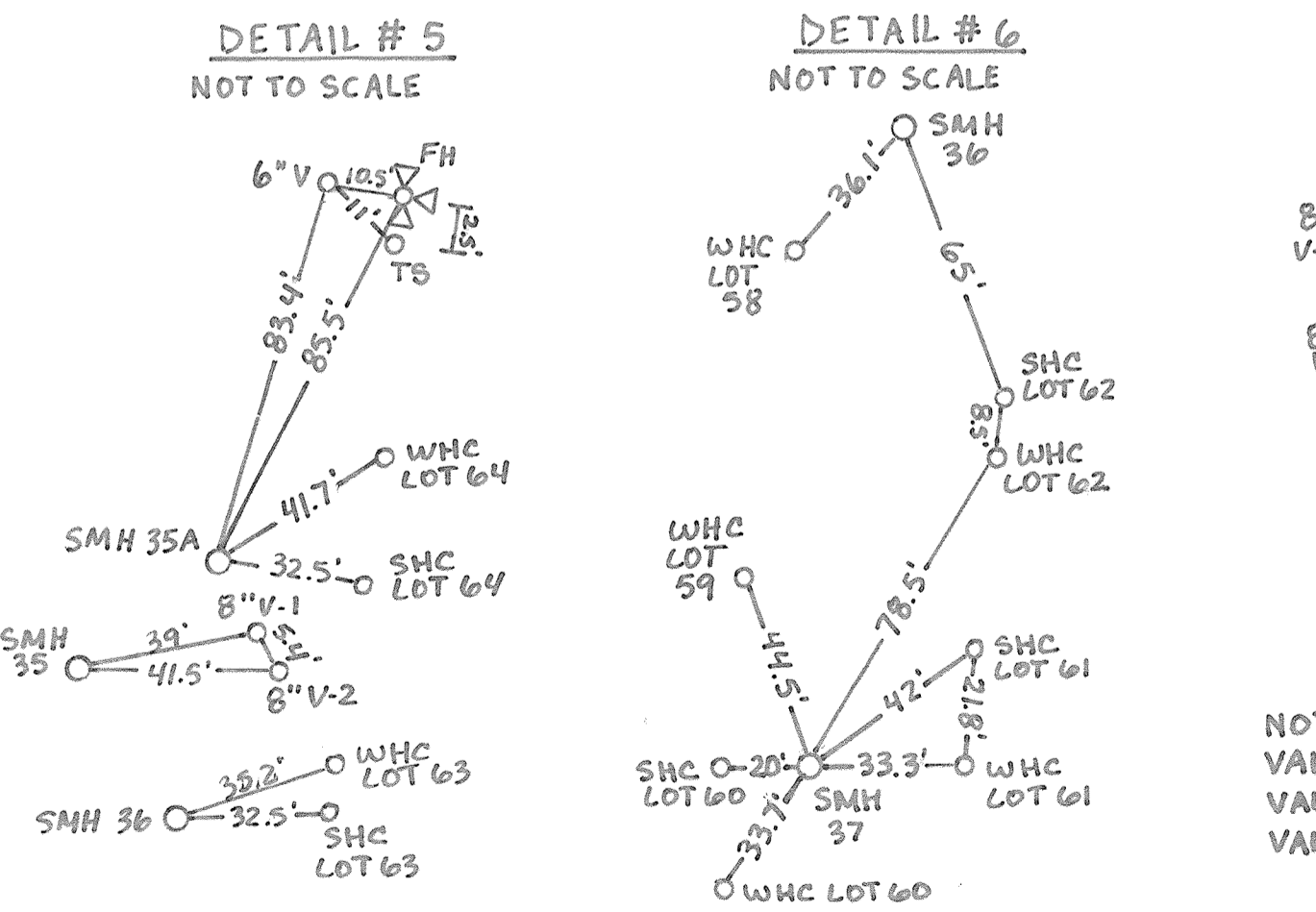


GENERAL NOTES

- PART I**
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - THE TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY POTOMAC AERIAL SURVEYS, DATED FEBRUARY 26, 2014. OFFSITE TOPOGRAPHY FROM HOWARD COUNTY GIS.
 - THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED APRIL 30, 2014.
 - HORIZONTAL AND VERTICAL SURVEY CONTROLS:
THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM NAD '83/91 AS PROJECTED BY HOWARD COUNTY. HOWARD COUNTY MONUMENT NOS. 41GE AND 46AA WERE USED FOR THIS PROJECT.
ALL VERTICAL CONTROLS ARE BASED ON (NAD) '83.
VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE:
HOWARD COUNTY BENCHMARK 41GE.
N 541,559.78 E 1,333,698.38 ELEV.: 465.05 FT.
3/4" REBAR - RT. 216 NEAR FULTON ELEMENTARY
HOWARD COUNTY BENCHMARK 46AA.
N 540,396.42 E 1,335,505.31 ELEV.: 447.01 FT.
CONCRETE MONUMENT - RT. 216 BETWEEN FULTON AND SCAGGSVILLE
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. 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 MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - FOR DETAILS NOT SHOWN ON THE DRAWING, 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 LOCATIONS OF THE TEST PITS. 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.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
ATA&T 1-800-252-1133
BGE (CONSTRUCTION SERVICES) 410-637-8713
BGE (EMERGENCY) 410-685-0123
BUREAU OF UTILITIES 410-313-4900
COLONIAL PIPELINE COMPANY 410-795-1390
MISS UTILITY 1-800-257-7777
STATE HIGHWAY ADMINISTRATION 410-531-5533
VERIZON 1-800-743-0033
 - 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.
 - THE CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS ALONG THE 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 OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD 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 II - WATER**
- ALL WATER MAINS SHALL BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER 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 SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
 - SPRINKLER SYSTEM FOR SINGLE RESIDENTIAL DWELLING UNITS SHALL HAVE WATER HOUSE CONNECTIONS AND WATER METERS THAT ARE SIZED IN ACCORDANCE WITH THE DESIGN OF THE SPRINKLER SYSTEMS. SPRINKLER SYSTEMS FOR SINGLE RESIDENTIAL DWELLINGS SHALL HAVE A MINIMUM OF 1.5" SERVICE CONNECTION WITH A 1" OUTSIDE METER SETTING.

- PART III - SEWER**
- ALL SEWER MAINS SHALL BE D.I.P. OR 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 COVER, STANDARD DETAIL C5.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE 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 THE CELLAR CANNOT BE SERVED.



SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN F-16-021

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

John Robertan 6/14/17
SOIL CONSERVATION DISTRICT

FINAL WATER AND SEWER PLAN

MAPLE LAWN SOUTH

PHASE 1 - SECTION 1

(SFD RESIDENTIAL)

LOTS 1-5, LOTS 29-32, AND LOTS 55-64

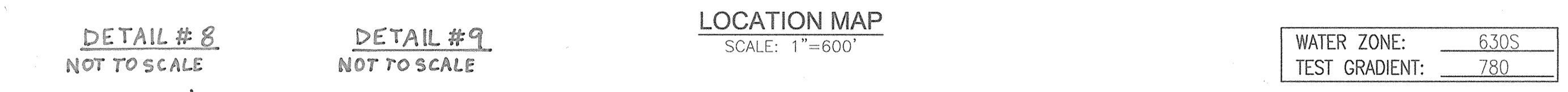
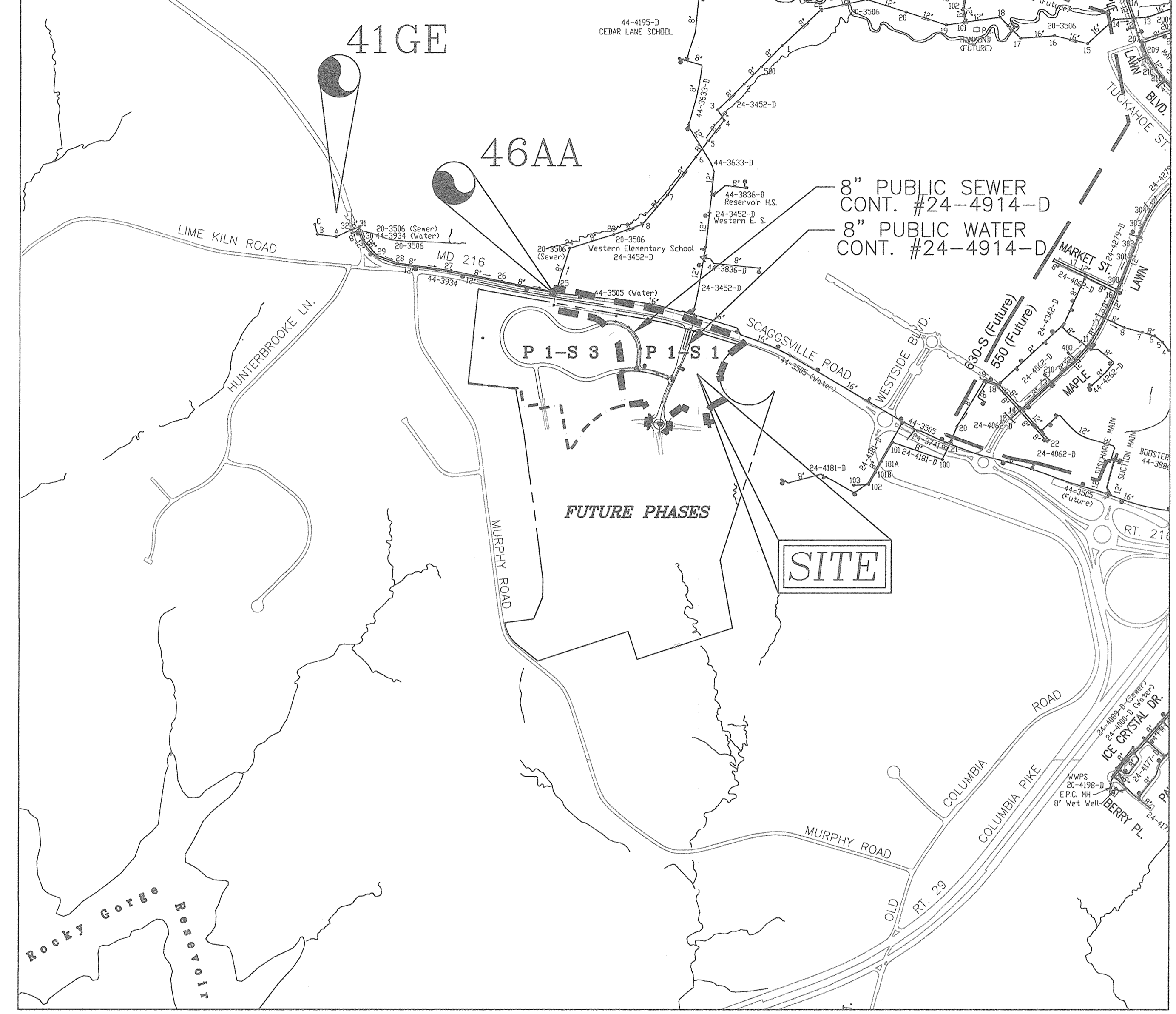
HOWARD COUNTY, MARYLAND

CONTRACT 24-4914-D

PRIVATE WELL AND SEPTIC CHART

PROPERTY	ADDRESS	WATER AND SEWER
EXISTING HOUSE	11621 SCAGGSVILLE ROAD	TO BE ABANDONED

NOTE:
WATER METERS WILL NOT BE RELEASED BY HOWARD COUNTY TO ANY NEW BUILDING UNTIL THE EXISTING WELLS AND SEPTIC SYSTEMS HAVE BEEN ABANDONED IN ACCORDANCE WITH HOWARD COUNTY HEALTH DEPARTMENT REGULATIONS AND THE EXISTING BUILDINGS ARE CONNECTED TO THE PUBLIC WATER AND SEWER MAINS.



TYPE OF BUILDING:	SINGLE FAMILY DETACHED
NO. OF LOTS/PARCELS:	19 1
NO. OF SINGLE WATER HOUSE CONNECTIONS:	19 +2*
NO. OF TWIN WATER HOUSE CONNECTIONS:	-
NO. OF SEWER HOUSE CONNECTIONS:	19
NO. OF TWIN SEWER HOUSE CONNECTIONS:	-
DRAINAGE AREA:	HAMMOND BRANCH
TREATMENT PLANT:	LITTLE PATUXENT WWTP

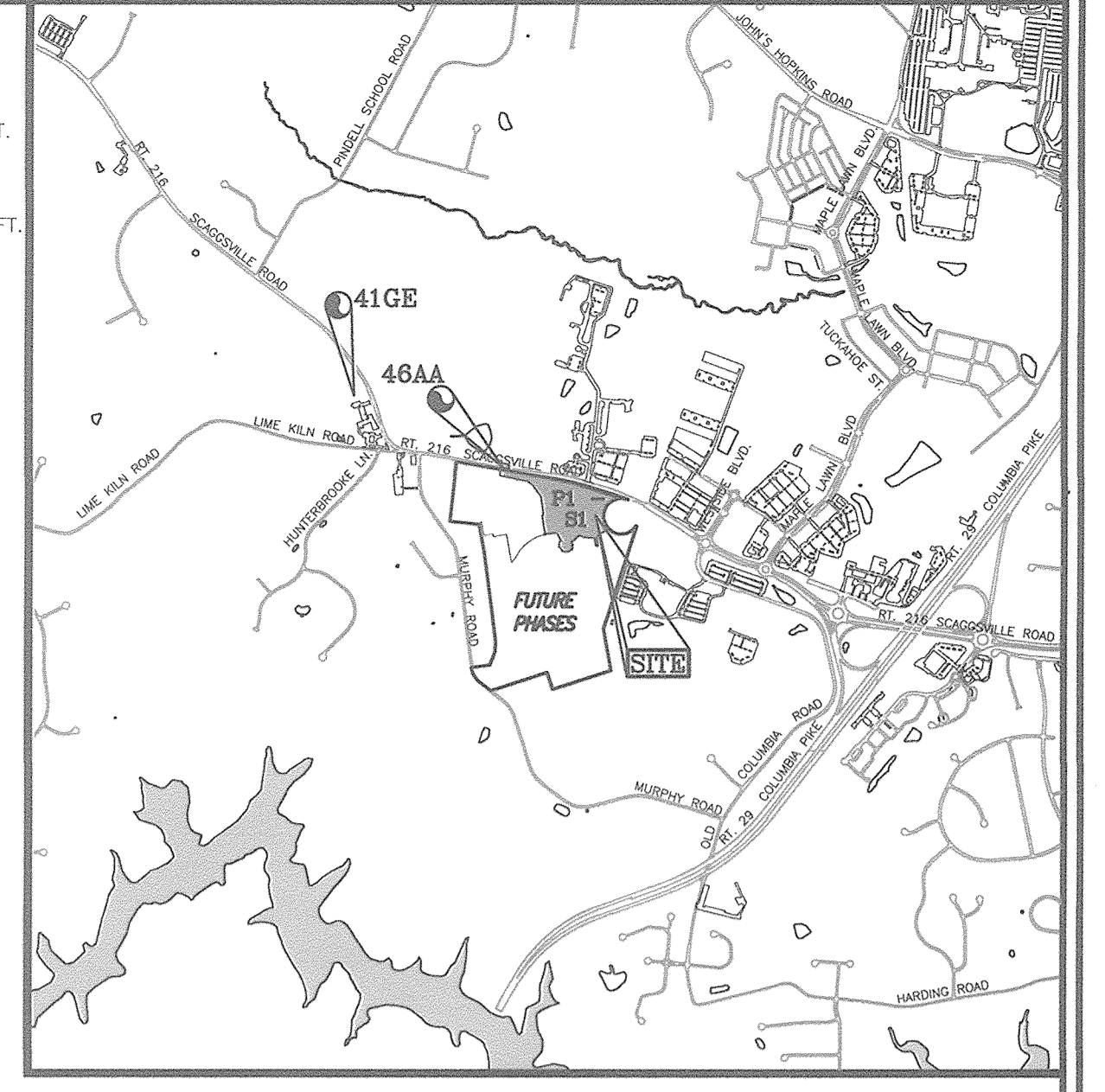
* THERE ARE 2 ADDITIONAL 1" WHC'S FOR 3/4" OUTSIDE METER SETTING FOR IRRIGATION SYSTEM AT ENTRANCE WALL AREA'S ON SOUTH MAPLE LAWN BLVD AT STA. 2417E AND 2432E

WATER ZONE:	630S
TEST GRADIENT:	780

BENCHMARKS

HOWARD COUNTY BENCHMARK 46AA
N 540,396.42 E 1,335,505.31 ELEV.: 447.01 FT.
RT. 216, 33.2' WEST OF BG & E POLE#315163

HOWARD COUNTY BENCHMARK 41GE
N 541,559.78 E 1,333,698.38 ELEV.: 465.05 FT.
RT. 216, 82.4' WEST OF BG & E#557787



VICINITY MAP
SCALE: 1"=2000'
ADC MAP COORDINATES: 18 H 5, 6
J 5, 6

LEGEND:

	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	PROPOSED WATER MAIN
	FIRE HYDRANT
	PROPOSED VALVE
	PROPOSED TEE
	PROPOSED SEWER MANHOLE
	PROPOSED SEWER MAIN
	PROPOSED REDUCER
	CONTINUITY TEST STATION

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET AND LOCATION MAP	1 OF 4
LAYOUT PLAN	2 OF 4
WATER PROFILES	3 OF 4
SEWER PROFILES	4 OF 4

QUANTITIES

NAME OF UTILITY CONTRACTOR: SEH EXCAVATING, INC
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: 8-8-17

ITEMS	QUANTITIES ESTIMATED	AS-BUILT	
		QUANTITIES	MANUFACTURER/SUPPLIER
WATER			
8" WATER (DIP CLASS 54)	1978 LF	2028 LF	DIP #54 TYTON JOINT PIPE I.H.D. SUPPLY
6" WATER (DIP CLASS 54)	82 LF	475 LF	DIP #54 TYTON JOINT PIPE I.H.D. SUPPLY
16"x8" TAPPING SLEEVE	1 EA	1	STAINLESS STEEL FORD METER BOX I.H.D. SUPPLY
8" VALVE	10 EA	10	GATE VALVE KENNEDY VALVE I.H.D. SUPPLY
8"x8" TEE	1 EA	2	GATE VALVE KENNEDY VALVE I.H.D. SUPPLY
8"x6" TEE	3 EA	3	DIP M3 SIGMA I.H.D. SUPPLY
8"x8" CROSS	1 EA	1	DIP M3 SIGMA I.H.D. SUPPLY
FIRE HYDRANT	3 EA	3	KENNEDY KENNEDY VALVE I.H.D. SUPPLY
1 1/2" WHC	452 LF	452 LF	TYPE COPPER CAMBRIDGE LEE I.H.D. SUPPLY
8" CAP AND BUTTRESS	6 EA	6	DIP M3 SIGMA I.H.D. SUPPLY
1" METER	19 EA	21	DIP M3 SIGMA I.H.D. SUPPLY
1/8" VERTICAL BEND	9 EA	5	DIP M3 SIGMA I.H.D. SUPPLY
SEWER			
8" SEWER (PVC)	1618 LF	1617 LF	SDR-35 PVC NORTH AMERICAN I.H.D. SUPPLY
STANDARD MANHOLES	12 EA	12	CONCRETE CONTRACTOR PRECAST CONCRETE
TYPE "A" DROP MANHOLE	1 EA	1	CONCRETE CONTRACTOR PRECAST CONCRETE
TYPE "B" DROP MANHOLE	1 EA	1	CONCRETE CONTRACTOR PRECAST CONCRETE
TERMINAL MANHOLE	1 EA	1	CONCRETE CONTRACTOR PRECAST CONCRETE
4" SHC	507 LF	507 LF	SDR-35 PVC NORTH AMERICAN I.H.D. SUPPLY
4" CLEANOUT	19 EA	19	SDR-35 PVC NORTH AMERICAN I.H.D. SUPPLY

* INCLUDES 2 1" METER SETTINGS FOR IRRIGATION SYSTEM AT ENTRANCE TO SITE ON MAPLE LAWN BLVD.

AS BUILT
BY: DFI DATE: 9-21-17

OWNER: MAPLE LAWN FARMS, INC.
1788 SCAGGSVILLE ROAD
FULTON, MD 20759-0562
301-725-2074

DEVELOPER: MAPLE LAWN PARTNERS, LLC
2661 RIVA ROAD, SUITE 220
ANNAPOLIS, MARYLAND 21401
443-472-2846

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

John Robertan 6/14/17
CHIEF, BUREAU OF UTILITIES

Robert H. Vogel 6.8.17
CHIEF, DEVELOPMENT ENGINEERING DIVISION

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELlicott CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961



PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2018

DRN:	KG	DES:	GAH
CHK:	RHV		
DATE:	MAY 2017		

RVE 3	REMOVE NOTE FOR LOT 60 CONSTRUCTABILITY	12-17-18
RVE 2	ADD 10' PRIVATE SEWER & UTILITY EASEMENT ON LOT 60	3-6-18
RVE 1	CREATE CONTRACT NO. 24-5006-D	4-17-17

FINAL WATER & SEWER PLAN
CONT. 24-4914-D
COVER SHEET

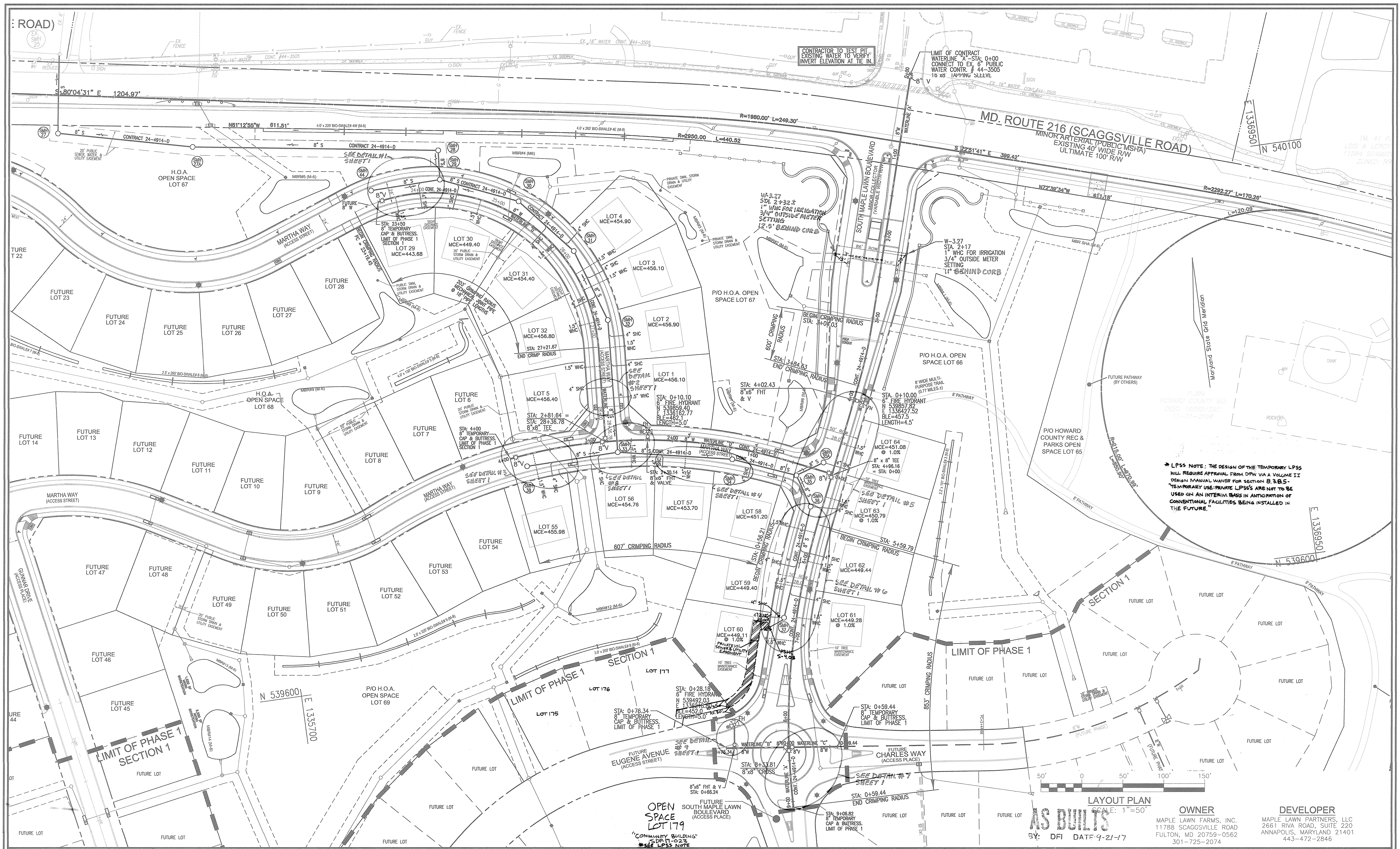
600' SCALE MAP NO. 46 BLOCK NO. 02

MAPLE LAWN SOUTH
PHASE 1 - SECTION 1
LOTS 1-5, LOTS 29-32, AND LOTS 55-64

TAX MAP 46, GRID 2, PARCEL 113
5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND
ZONED: R-ED-MXD-3

SCALE AS SHOWN
SHEET 1 OF 4



* LPSS NOTE: THE DESIGN OF THE TEMPORARY LPSS WILL REQUIRE APPROVAL FROM DPW VIA A VOLUME II DESIGN MANUAL WALKER FOR SECTION B.3.B.5. TEMPORARY USE PRIVATE LPSS'S ARE NOT TO BE USED ON AN INTERIM BASIS IN ANTICIPATION OF CONVENTIONAL FACILITIES BEING INSTALLED IN THE FUTURE.

LAYOUT PLAN
SCALE: 1"=50'

AS BUILT'S
BY: DFI DATE: 9-21-17

OWNER
MAPLE LAWN FARMS, INC.
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FULTON, MD 20759-0562
301-725-2074

DEVELOPER
MAPLE LAWN PARTNERS, LLC
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ANNAPOLIS, MARYLAND 21401
443-472-2846

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

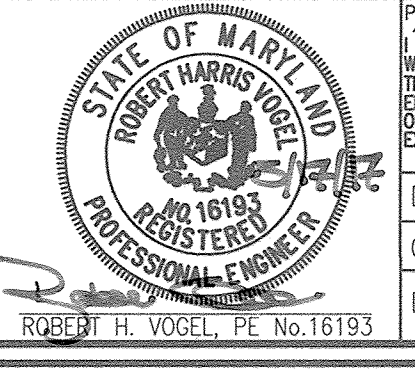
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 6-8-17

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ELICOTT CITY, MD 21043
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DRN:	KG	DES:	GAH
CHK:	RHV		
DATE:	MAY 2017		

REV	NO.	REVISION	DATE
3	REMOVE NOTE FOR LOT 60 CONSTRUCTABILITY		12-17-18
2	ADD 10' PRIVATE SEWER UTILITY EASEMENT ON LOT 60		3-6-18
1	CREATE CONTRACT NO. 24-5006-D		4-17-17

FINAL WATER & SEWER PLAN
CONT. 24-4914-D
LAYOUT PLAN

600' SCALE MAP NO. 46
BLOCK NO. 02

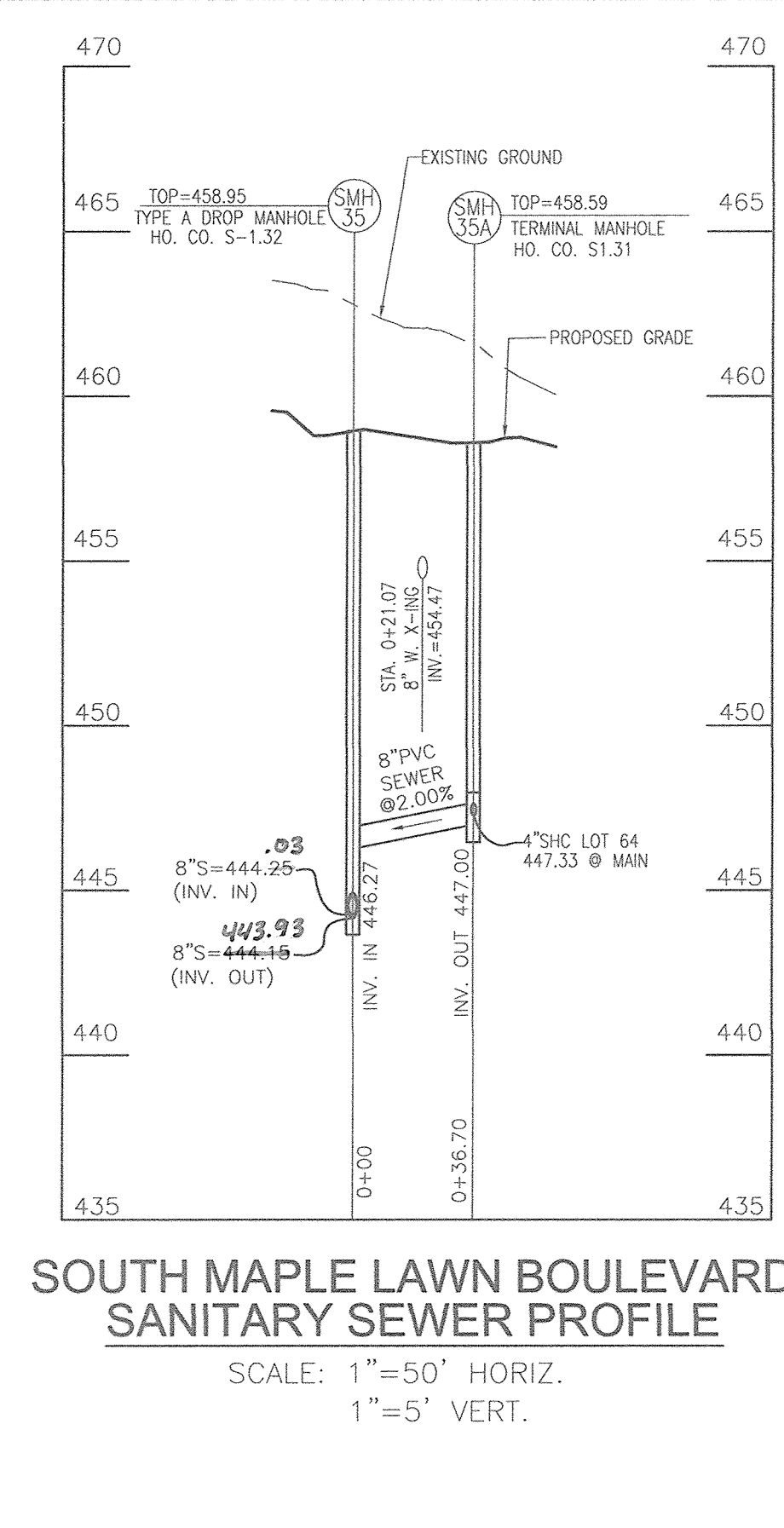
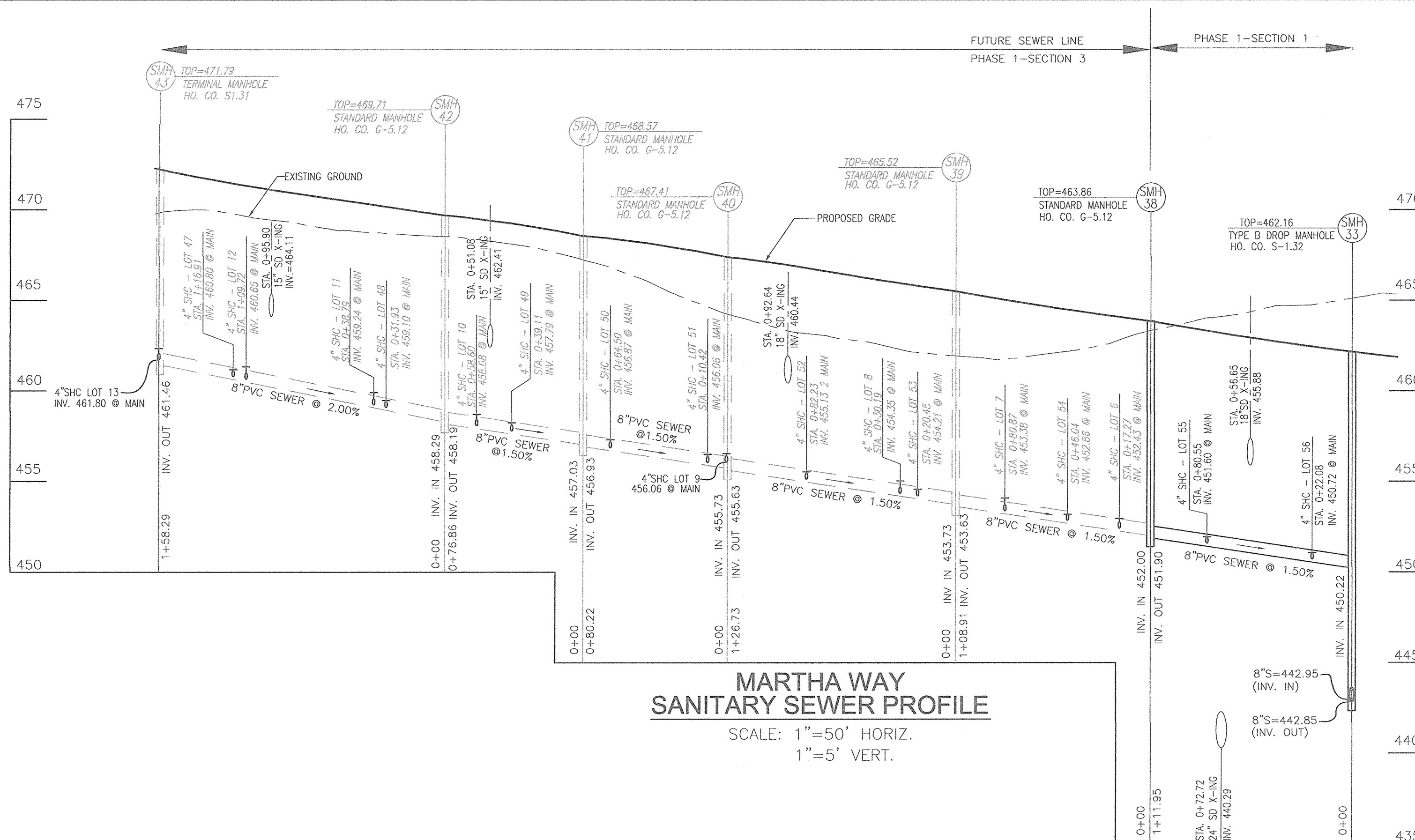
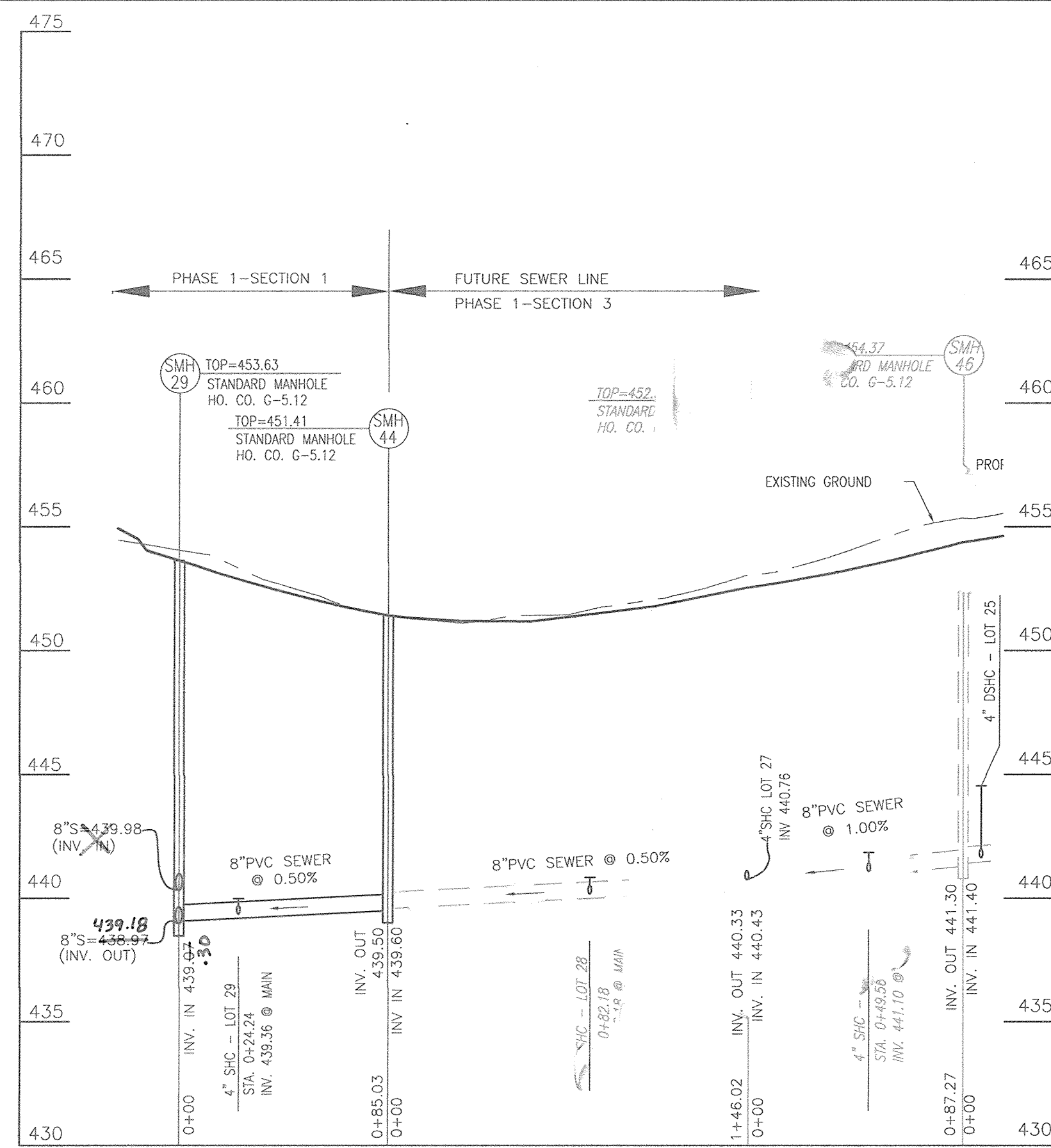
MAPLE LAWN SOUTH PHASE 1 - SECTION 1
LOTS 1-5, LOTS 29-32, AND LOTS 55-64

TAX MAP 46, GRID 2, PARCEL 113
5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND
ZONED: R-ED-MXD-3

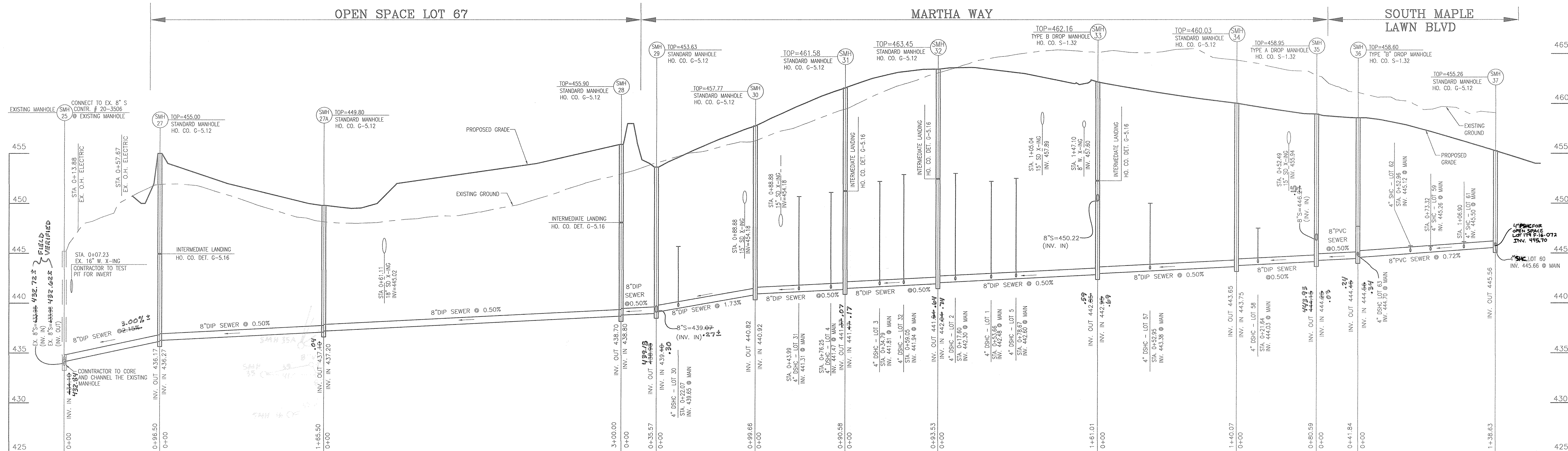
SCALE AS SHOWN

SHEET 2 OF 4

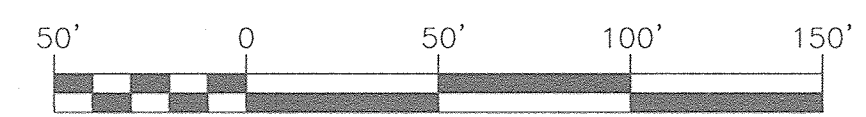


**MARTHA WAY
SANITARY SEWER PROFILE**
SCALE: 1"=50' HORIZ.
1"=5' VERT.

**SOUTH MAPLE LAWN BOULEVARD
SANITARY SEWER PROFILE**
SCALE: 1"=50' HORIZ.
1"=5' VERT.



SANITARY SEWER PROFILE
SCALE: 1"=50' HORIZ.
1"=5' VERT.



AS BUILTS
BY: DFI DATE: 9-21-17

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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Chief, Bureau of Utilities

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Chief, Development Engineering Division

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EXPIRATION DATE: 08-27-2018

DRN: KGH DES: GAH
CHK: RVH
DATE: MAY 2017

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**FINAL WATER & SEWER PLAN
CONT. 24-4914-D
SEWER PROFILES**

**MAPLE LAWN SOUTH
PHASE 1 - SECTION 1**
LOTS 1-5, LOTS 29-32, AND LOTS 55-64

TAX MAP 46, GRID 2, PARCEL 113
5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND
ZONED: R-ED-MXD-3

SCALE
AS
SHOWN

SHEET
4 OF 4