

QUANTITIES				
ITEM	ESTIMATED	AS-BUILT	TYPE	SUPPLIER
8" SEWER	380 LF.	377.55'	SDR 35 PIPE	NORTH AMERICAN
4" SEWER	187 LF.	169'	SDR 35 PIPE	NORTH AMERICAN
MANHOLES	4 EACH	4 EA		
8" WATER	37 LF.	37'	DIPCL 54TYDN	US PIPE & FOUNDRY
6" WATER	10 LF.	9'	DIPCL 54TYDN	US PIPE & FOUNDRY
4" WATER	254 LF.	251'	DIPCL 54TYDN	US PIPE & FOUNDRY
1" WATER	48 LF.	55'	COPPER	CAMBRIDGE LEE
8" TAPPING VALVE	1 EACH	1 EA		
6" VALVE	1 EACH	1 EA	GATE VALVE	KENNEDY VALVE
FIRE HYDRANT	1 EACH	1 EA	FH 5'	KENNEDY VALVE
8" X 4" REDUCER	1 EACH	1 EA	M.I. REDUCER	SIGMA
8" X 6" TEE	1 EACH	1 EA	M.I. HYDRANT TEE	SIGMA
4" PLUG & BUTTRESS	1 EACH	1 EA	M.I. CAP	SIGMA
12" X 8" TAPPING SLEEVE	1 EACH	1 EA	SLEEVE VALVE	FORD METERBOX KENNEDY VALVE

NAME OF UTILITY CONTRACTOR:
SURVEY & DRAFTING DIVISION AS-BUILT DATE:

BENCHMARK INFORMATION
 B.M. #1 - HOWARD COUNTY CONTROL STATION 17EA
 N 594,357.62
 E 1,357,519.37
 ELEV. = 479.46
 B.M. #2 - HOWARD COUNTY CONTROL STATION 17EB
 N 593,813.92
 E 1,355,731.86
 ELEV. = 454.22

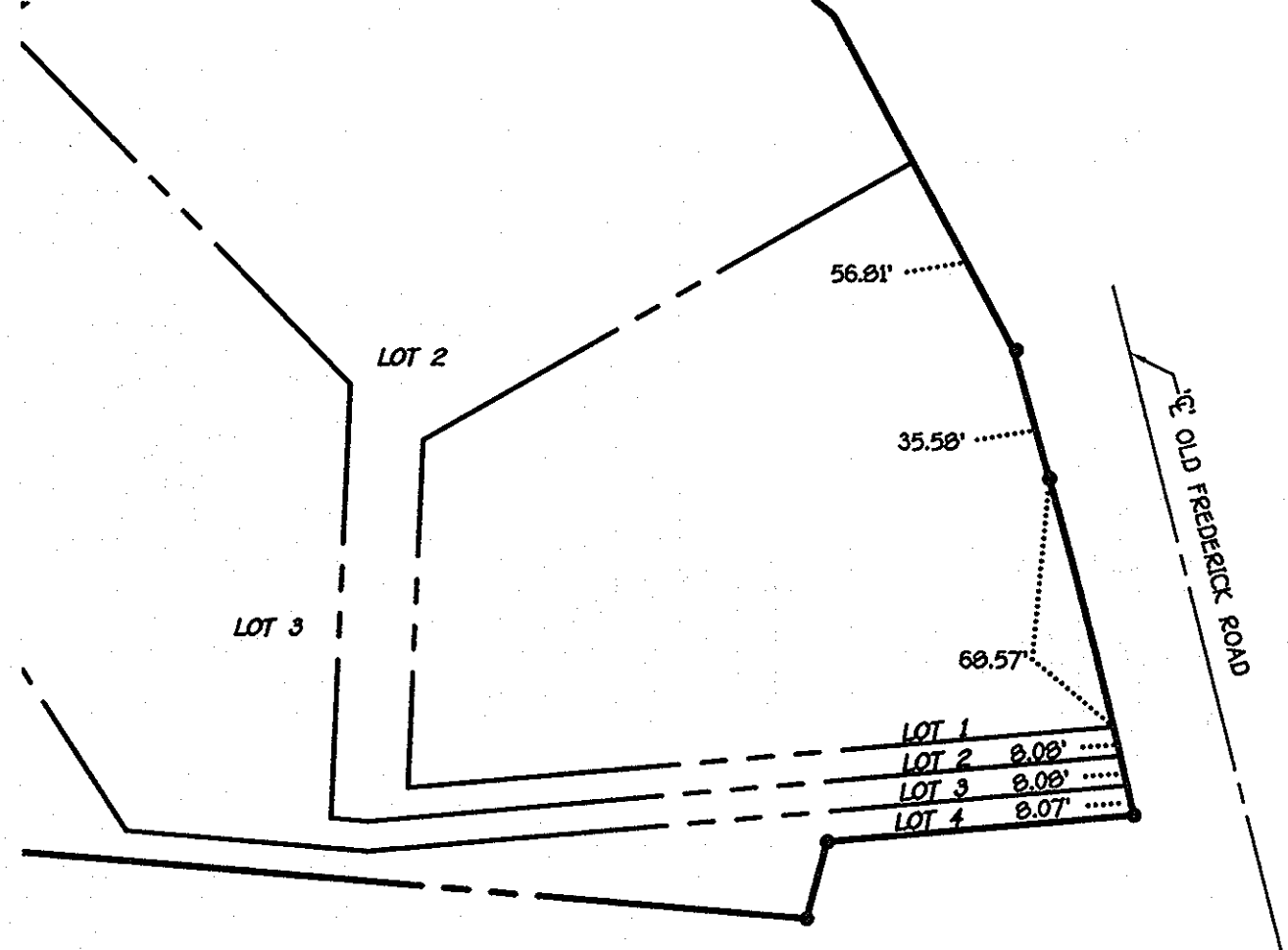
PROJECT:
 OAK GLEN
 LOTS 1 THRU 4
 CONTRACT NO. 14-4288-D

WATER & SEWER CODE
 FOR COUNTY USE ONLY
 WATER NO.: H02
 SEWER NO.: H54850
 WATER ZONE: 630E
 WATER TEST GRADIENT: 780

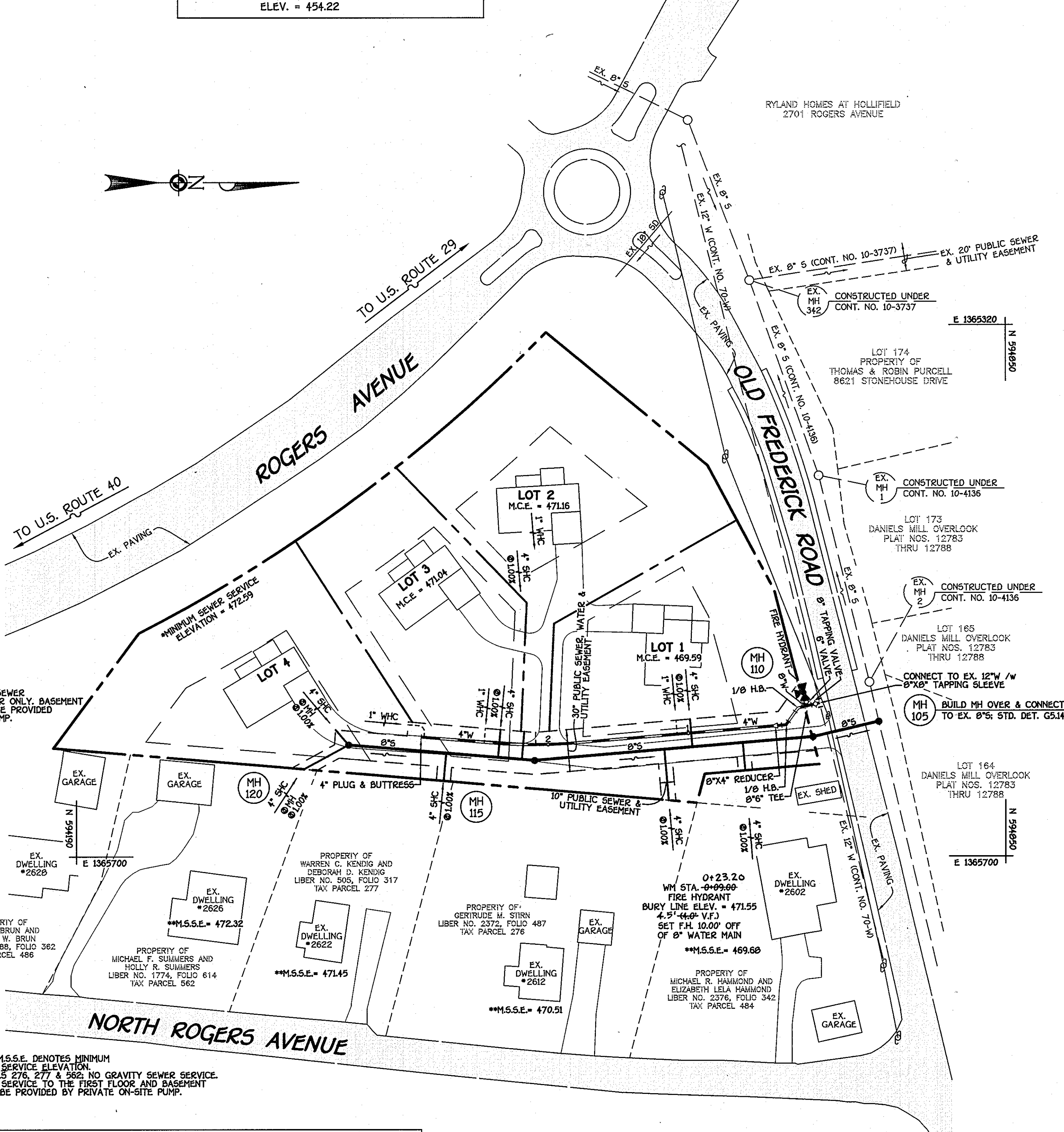
TYPE OF BUILDING: RESIDENTIAL - SINGLE FAMILY DETACHED
NUMBER OF LOTS & PARCELS: 4 LOTS, 3 PARCELS
NO. OF WATER HOUSE CONNECTIONS: 4
NO. OF SEWER HOUSE CONNECTIONS: 4
DRAINAGE AREA: PATAPSCO
TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT PLANT, CITY OF BALTIMORE

PLAN REFERENCE NUMBERS:
 F05-62

VICINITY MAP
 SCALE: 1" = 600'



ENLARGEMENT: FRONT FOOTAGES
 NO SCALE



PLAN
 SCALE: 1" = 50'

NOTE: SEE SHEET 3 FOR EROSION & SEDIMENT CONTROL PLAN

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.
 - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON OR ABOUT FEBRUARY, 2004 BY FISHER, COLLINS & CARTER, INC.
 - HORIZONTAL AND VERTICAL CONTROLS: THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/91' AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 17EA & NO. 17EB. SEE THIS SHEET FOR BENCHMARK INFORMATION. ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS ARE BASED ON TRAVERSE POINT NO. 14; A REBAR & CAP SET ON THE NORTH SIDE OF OLD FREDERICK ROAD, ELEV. 477.30.
 - 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 BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE 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 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 SITE.
 - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL (P) 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:
 AT&T 1-800-252-1133
 BGE (CONSTRUCTION SERVICES) 410-850-4620
 BGE (EMERGENCY) 410-685-1100
 BUREAU OF UTILITIES 410-313-4900
 COLONIAL PIPELINE CO. 410-795-1390
 MISS UTILITY 1-800-257-7777
 STATE HIGHWAY ADMINISTRATION 410-531-5533
 VERIZON 1-800-743-0033/410-224-9210
 - 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 THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE 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 10.14(a) OF THE HOWARD COUNTY CODE.
- PART II: WATER**
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-0" 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.
- 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 18" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL G5.52. 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.

NOTE: THIS ORIGINAL CONSTRUCTION PLAN, SHEET 1 OF 3, REPLACES THE WATER & SEWER MAIN CONSTRUCTION PLAN PREVIOUSLY APPROVED AND SIGNED BY THE CHIEF OF THE BUREAU OF UTILITIES, DEPARTMENT OF PUBLIC WORKS, ON JUNE 21, 2006.

DEVELOPER'S CERTIFICATION
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

NOTE: LOT 4: GRAVITY SEWER SERVICE TO FIRST FLOOR ONLY. BASEMENT SEWER SERVICE SHALL BE PROVIDED BY PRIVATE ON-SITE PUMP.

ENGINEER'S CERTIFICATION
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND 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.

GP-05-076
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON THESE PLANS.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 410-461-2929

DESIGNED BY: B.C.E.
 DRAWN BY: B.C.E.
 CHECKED BY: P.W.K.
 DATE: MARCH 2009

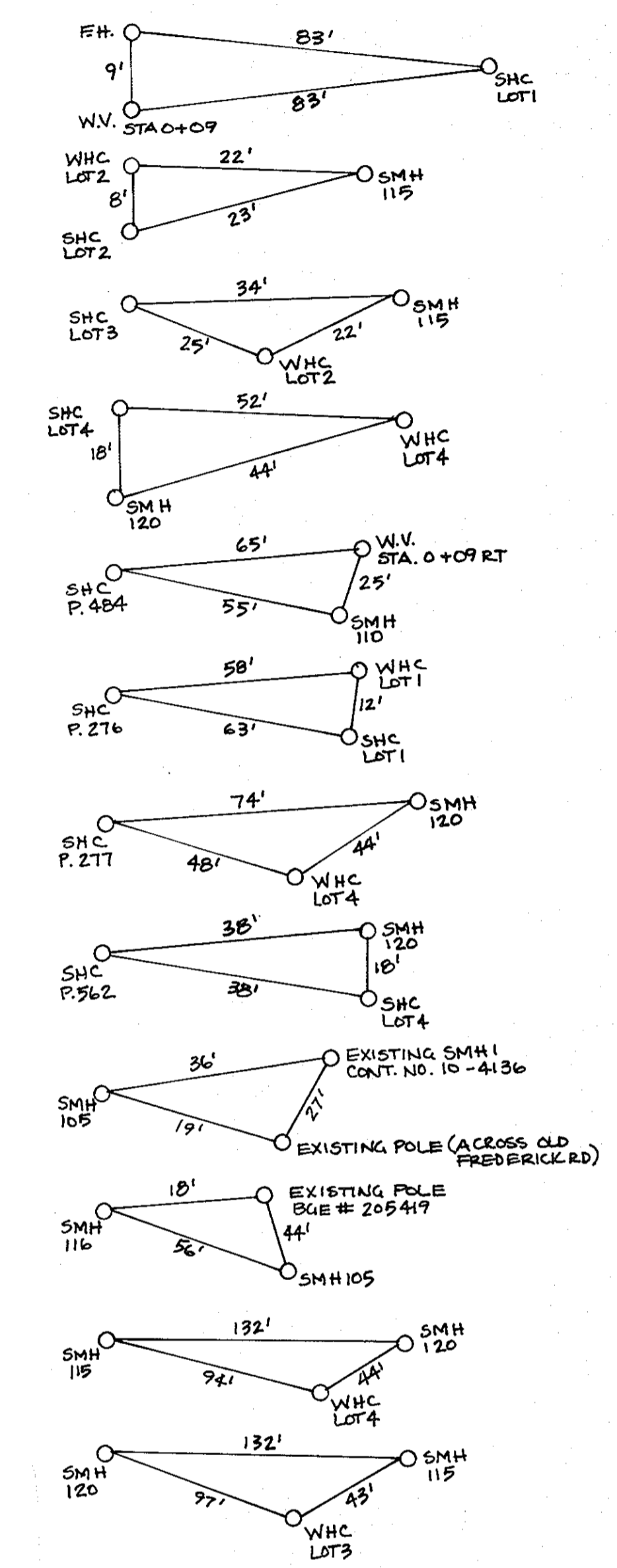
WATER AND SEWER MAINS PLAN
 600' SCALE MAP NO. 17 BLOCK NO. 12
 F.C.C. WORK ORDER NO. 04030-3001
 FILE NAME: FINAL WATER AND SEWER SH1

OAK GLEN
 LOTS 1 THRU 4
 CONTRACT NO. 14-4288-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

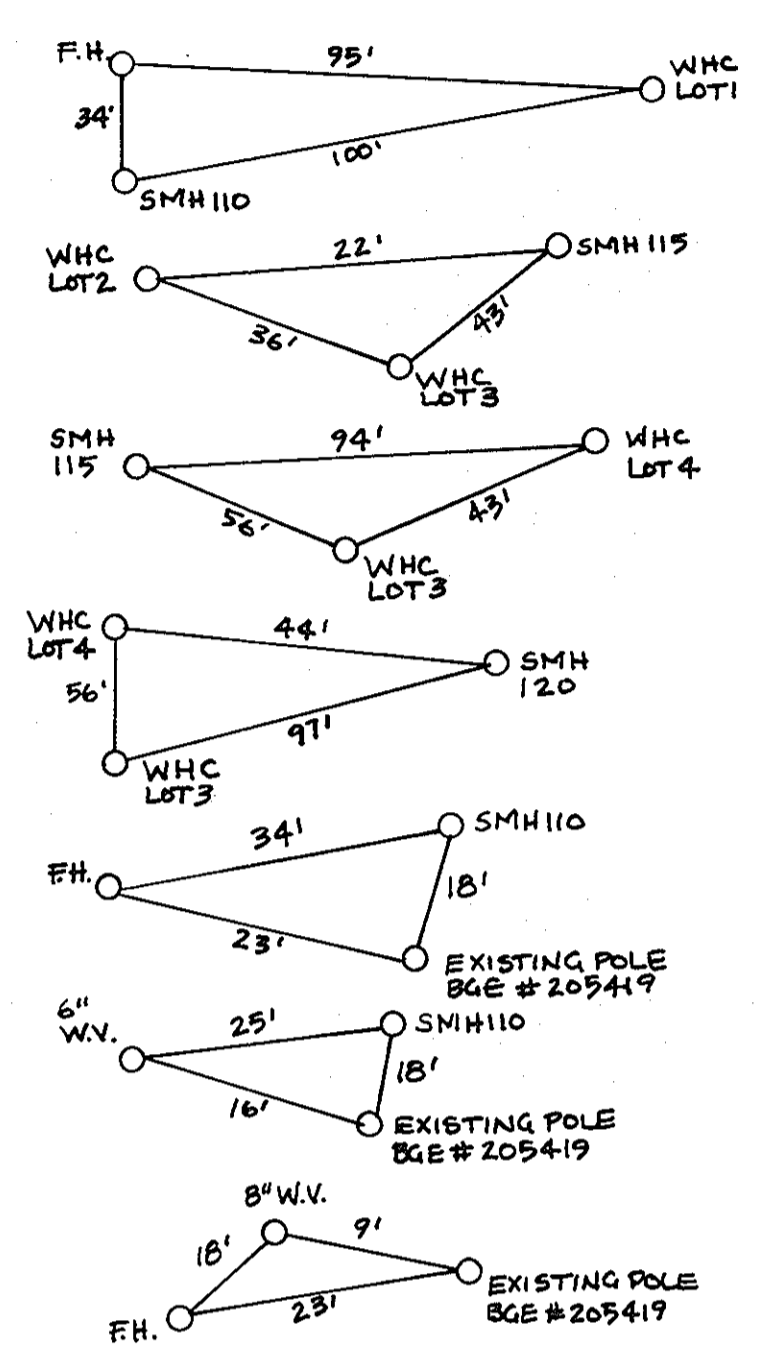
SCALE AS SHOWN
 SHEET 1 OF 3

11/2004/04030/04030-3001 Water Sewer Plan.dwg - 3/26/2009 9:21:05 AM, Brandon

SEWER AS-BUILT DATA



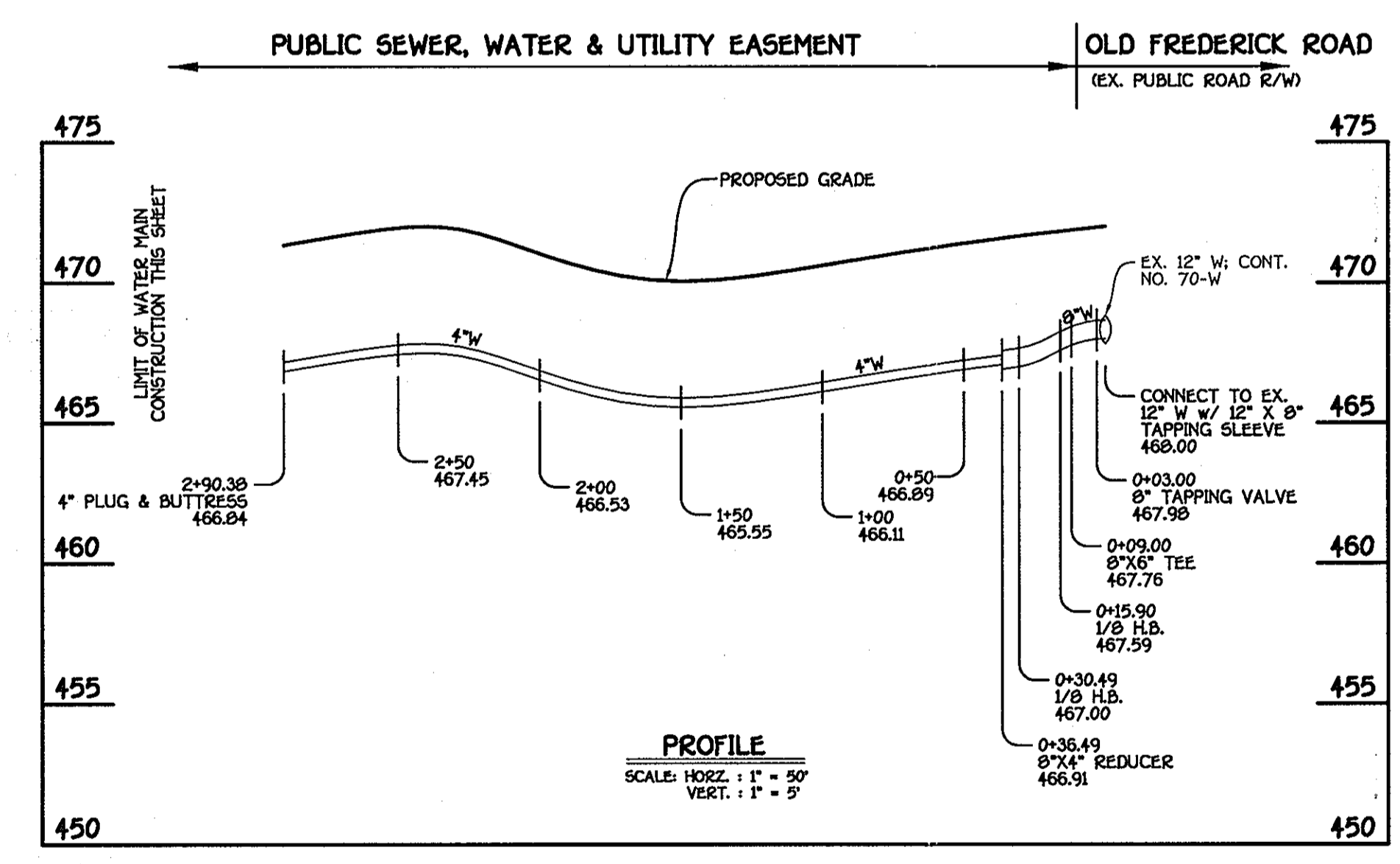
WATER AS-BUILT DATA



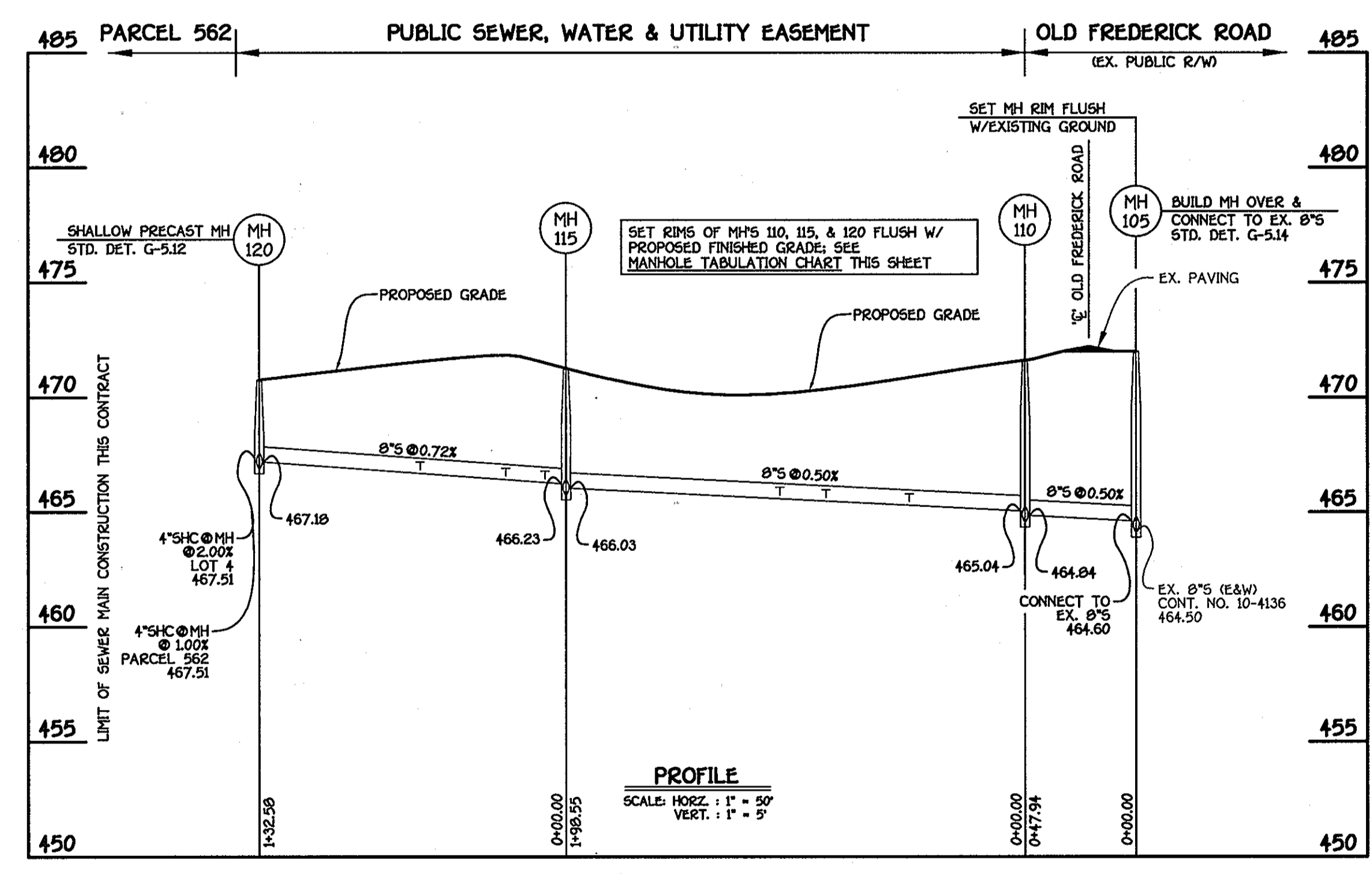
MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
105	594759.09	1365603.70	472.00
110	594713.22	1365614.66	471.60
115	594515.39	1365631.51	471.25
120	594383.28	1365620.28	470.75

WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	NORTHING	EASTING
8" / 4" WATER MAIN			
0+00.00	12" X 8" TAPPING SLEEVE CONNECT TO EX. 12" W	594717.86	1365590.59
0+03.00	8" TAPPING VALVE	594714.95	1365591.31
0+09.00	8" X 6" TEE	594799.67	1365048.98
0+15.90	1/8 H.B.	594702.42	1365594.38
0+30.49	1/8 H.B.	594693.96	1365606.26
0+36.49	8" X 4" REDUCER	594687.98	1365606.77
1+73.79	PC (374' CRIMP RADIUS)	594551.18	1365618.42
2+31.64	PT (374' CRIMP RADIUS)	594493.40	1365619.60
2+90.38	4" PLUG & BUTTRESS	594434.87	1365614.63

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT/ PARCEL	ELEVATION
MH 110 TO MH 115		
0+50 LT.	484 (SHC @ 1.00%)	465.66
0+86 RT.	1 (SHC @ 1.00%)	465.84
1+06 LT.	276 (SHC @ 1.00%)	466.11
MH 115 TO MH 120		
0+09 RT.	2 (SHC @ 1.00%)	466.66
0+26 RT.	3 (SHC @ 1.00%)	466.79
0+63 LT.	277 (SHC @ 1.00%)	467.05
0+MH 120 RT.	4 (SHC @ 1.00%)	467.79
0+MH 120 LT.	562 (SHC @ 1.00%)	467.87



8" / 4" WATER MAIN: LOTS 1 THRU 4



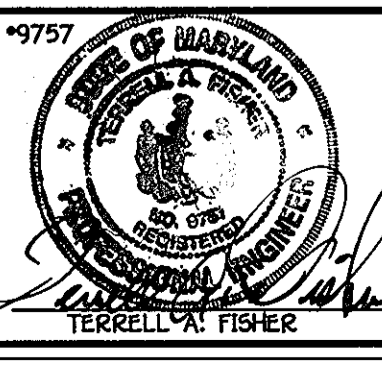
8" SEWER MAIN: LOTS 1 THRU 4 & PARCELS 276, 277, 484 & 562

NOTE: THIS ORIGINAL CONSTRUCTION PLAN, SHEET 2 OF 3, REPLACES THE WATER & SEWER MAIN CONSTRUCTION PLAN PREVIOUSLY APPROVED AND SIGNED BY THE CHIEF OF THE BUREAU OF UTILITIES, DEPARTMENT OF PUBLIC WORKS, ON JUNE 21, 2006.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS



DESIGNED BY: B.C.E.
DRAWN BY: B.C.E.
CHECKED BY: P.W.K.
DATE: MARCH, 2009

WATER AND SEWER MAINS PROFILES
600' SCALE MAP NO. 17 BLOCK NO. 12
F.C.C. WORK ORDER NO. 04030-3001
FILE NAME: FINAL WATER AND SEWER SH2

OAK GLEN
LOTS 1 THRU 4
CONTRACT NO. 14-4288-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 3

CONTRACT NO. 14-4288-D
ONE GLEN
LOTS 1 THRU 4
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

