

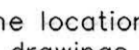
LANDING ROAD WATER AND SEWER EXTENSIONS

CAPITAL PROJECT NO. S-6217/W-8698L

CONTRACT NO. 14-3986

HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

- Approximate location 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.
- Coordinates shown hereon are based on Maryland State Reference System NAD '83/'91 as projected by Howard County Geodetic Control Stations No. 31E7, No. 37CA and No. 37C3.
- All vertical controls are based on NAVD 29, and are iron bars and caps or PK nails.
- 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 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.
- 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 (Contractor Services) | 410-850-4620 |
| BGE (Underground Damage Control) | 410-787-9068 |
| 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.
- 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(a) of the Howard County Code.
- Site survey was performed by PHR&A, September, 2000.

WATER NOTES

- 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 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 installed in accordance with Standard Details. The 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 WHC's shall be for an outside meter vault setting.

SEWER NOTES

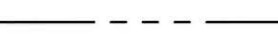

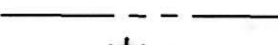



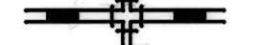
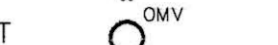
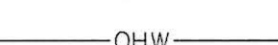





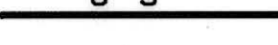
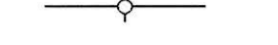


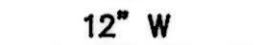





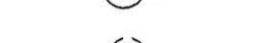
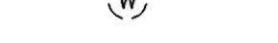


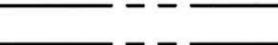





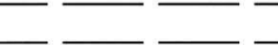

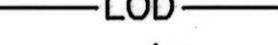
- All sewer mains shall be P.V.C. unless otherwise noted.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- Manholes shown with 12" and 16" walls are for brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight manhole frames and covers 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.

INDEX OF DRAWINGS

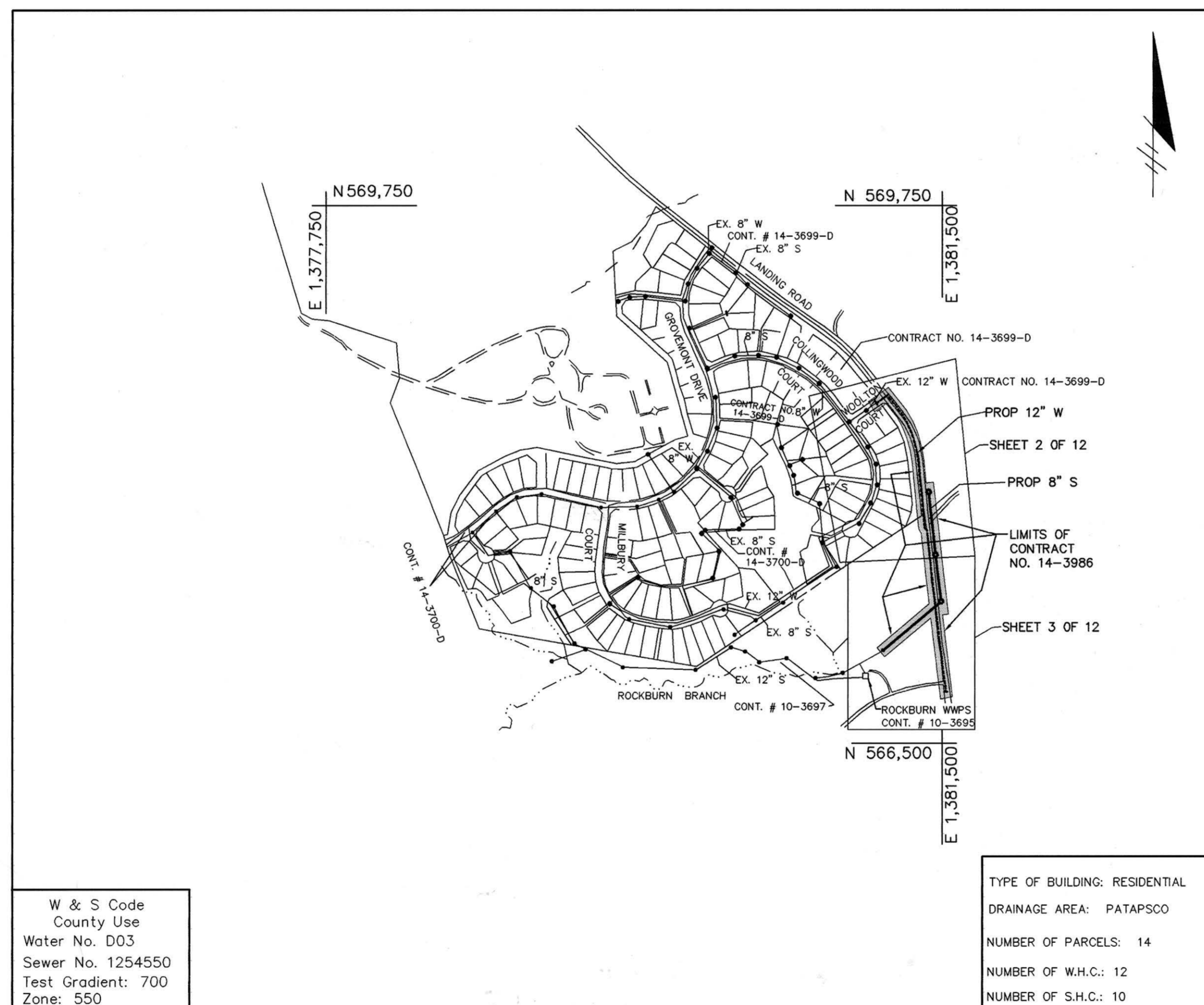
| SHEET NO. | TITLE |
|-----------|---|
| 1 | TITLE SHEET |
| 2 | WATER AND SEWER PLAN |
| 3 | WATER AND SEWER PLAN |
| 4 | WATER PROFILE |
| 5 | WATER PROFILE |
| 6 | SEWER PROFILES |
| 7 | SEDIMENT AND EROSION CONTROL PLAN |
| 8 | SEDIMENT AND EROSION CONTROL PLAN AND NOTES |
| 9 | SEDIMENT AND EROSION CONTROL NOTES |
| 10 | SEDIMENT AND EROSION CONTROL DETAILS |
| 11 | TRAFFIC CONTROL PLAN AND DETAILS |
| 12 | TRAFFIC CONTROL PLAN AND DETAILS |

**AS-BUILT
FEBRUARY, 2007**

LEGEND

| | | | |
|---|---|---------------------|---|
| R.O.W. LINE |  | WETLANDS |  |
| PROPERTY LINE |  | WETLANDS BUFFER |  |
| PROP. WATER VALVE |  | TRAVERSE POINT (TP) |  |
| PROP. WATER CROSS |  | | |
| PROP. OUTSIDE METER VAULT |  | | |
| OVERHEAD WIRE |  | | |
| EX. FENCE LINE |  | | |
| EX. INLET |  | | |
| EX. TREE LINE |  | | |
| EX. POWER POLE |  | | |
| PROPOSED SANITARY SEWER |  | | |
| EX. WATER VALVE |  | | |
| EX. SEWER MANHOLE |  | | |
| PROP. MANHOLE (S) |  | | |
| PROPOSED WATER MAIN |  | | |
| EX. WATER MAIN |  | | |
| EX. SEWER |  | | |
| EX. STORMDRAIN |  | | |
| EX. STREAM |  | | |
| EX. STORMDRAIN MAN HOLE |  | | |
| EX. WATER METER |  | | |
| EX. FIRE HYDRANT |  | | |
| EX. PROP. CORNER |  | | |
| PROP. EASEMENT |  | | |
| BORINGS |  | | |
| PROPOSED WATER CAP |  | | |
| PROPOSED FH |  | | |
| BENCH MARKS |  | | |
| EX. MAILBOX |  | | |
| EX. CULVERT |  | | |
| SILT FENCE |  | | |
| LIMIT OF DISTURBANCE |  | | |
| LIMIT OF DISTURBANCE DEFINED BY SILT FENCE |  | | |
| FLOOD PLAIN |  | | |

| HOWARD COUNTY GEODETIC SURVEY CONTROL | |
|---|---|
| BM #1 | HO. CO. MONUMENT 31E7 ELEV. 478.648 N 572335.322 E 1377503.920 |
| BM #2 | HO. CO. MONUMENT 37CA ELEV. 257.697 N 564321.638 E 1382742.840 |
| BM #3 | HO. CO. MONUMENT 37C3 ELEV. 258.510 N 562916.003 E 1384856.679 |
| ALL MONUMENTS ARE OUTSIDE THE BORDERS OF THE VICINITY MAP. | |



VICINITY MAP

SCALE: 1"=600'

DEVELOPER'S CERTIFICATION

"I/WE CERTIFY THAT ALL THE DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THIS CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT A MARYLAND DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT"

Paul B. Jepson 12/22/04
BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS

ENGINEER'S CERTIFICATION

"I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICABLE 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"

Frank Donaldson
PATTON HARRIS RUST & ASSOCIATES, PC
8818 CENTRE PARK DRIVE, COLUMBIA, MD 21045

| QUANTITIES | | | | |
|---------------------------|----------------------|------------|------|-------------------------|
| ITEMS | QUANTITIES ESTIMATED | AS-BUILT | | |
| | | QUANTITIES | TYPE | MANUFACTURER / SUPPLIER |
| 12" DIP WATER MAIN | 1858 LF | 1,858 LF | | |
| 12" HDPE SDR9 WATER MAIN | 300 LF | 300 L.F. | | |
| 12" VALVE | 6 EACH | 6 EA. | | |
| 12" PLUG | 2 EACH | 2 EA. | | |
| FIRE HYDRANT | 5 EACH | 5 EA. | | |
| 8" PVC SEWER MAIN | 696 LF | 772 L.F. | | |
| 10" HDPE SDR 9 SEWER MAIN | 418 LF | 418 L.F. | | |
| STANDARD MANHOLE | 4 EACH | 4 EA. | | |
| TYPE A DROP MANHOLE CONN. | 1 EACH | 0 | | |
| ADDITIONAL MANHOLE DEPTH | 14 V.F. | 13.4 VF | | |
| 12" x 6" TEE | 5 EACH | 5 EA. | | |
| 6" VALVE | 5 EACH | 5 EA. | | |
| 1" WATER HOUSE CONNECTION | 275 L.F. | 334 L.F. | | |
| 4" SEWER HOUSE CONNECTION | 220 L.F. | 250.3 L.F. | | |
| 12" x 12" TEE | 1 EACH | 1 EA. | | |

NAME OF UTILITY CONTRACTOR :

Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on the drawings.

Review for Howard Soil Conservation District and meets technical requirements.

Jim Myers 12/22/04
NATURAL RESOURCES CONSERVATION SERVICE DATE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

Paul B. Jepson 12/22/04
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James 12/22/04
DIRECTOR OF PUBLIC WORKS DATE

Paul B. Jepson 12/22/04
CHIEF, BUREAU OF ENGINEERING DATE

Frank Donaldson 12-22-04
CHIEF, BUREAU OF UTILITIES DATE

Frank Donaldson 12-22-04
CHIEF, UTILITY DESIGN DIVISION DATE

Patton Harris Rust & Associates, PC
Engineers, Surveyors, Planners, Landscape Architects.

8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282



| | | | |
|----------------|----------|----------|------|
| DES: J.S.C. | RJC | AS-BUILT | 1/07 |
| DRN: J.A.P. | | | |
| CHK: G.C.L. | | | |
| FEBRUARY, 2004 | | | |
| BY NO. | REVISION | DATE | |

TITLE SHEET

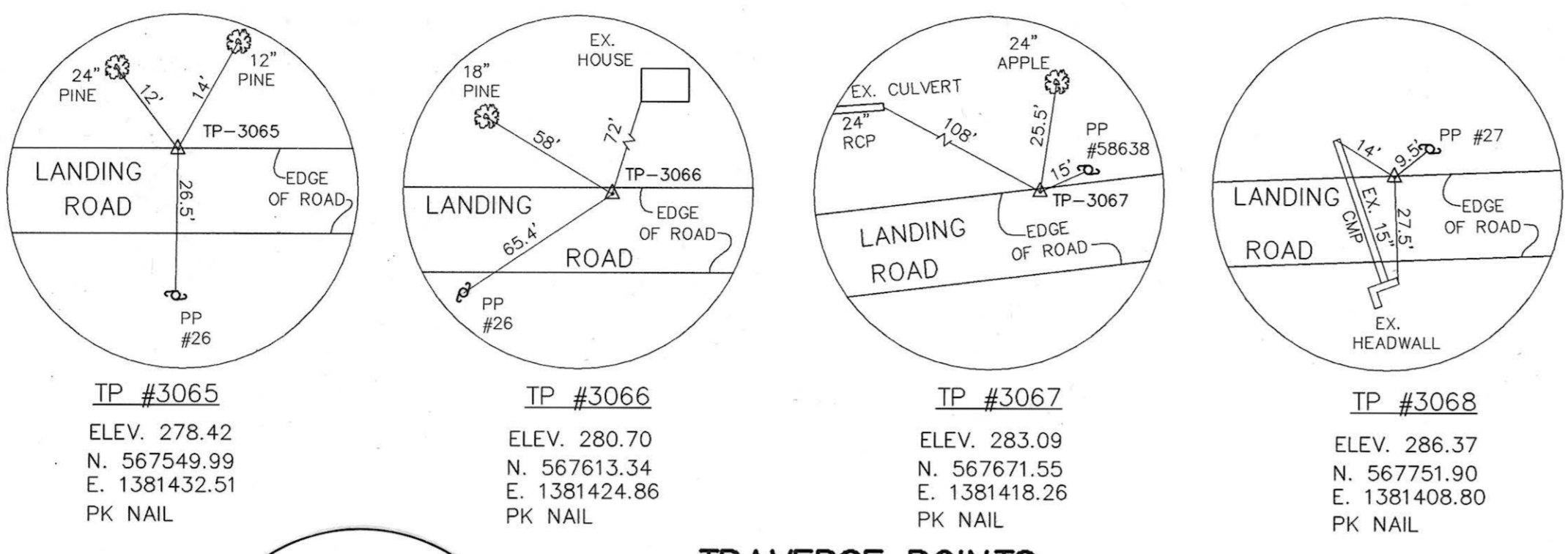
600' SCALE MAP NO. 31 BLOCK NO. 17 & 23

LANDING ROAD
WATER & SEWER EXTENSION
CAPITAL PROJECT S-6217/W-8698L
CONTRACT NO. 14-3986
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

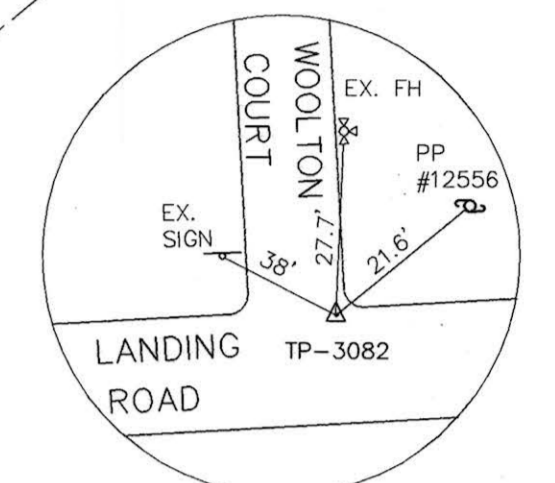
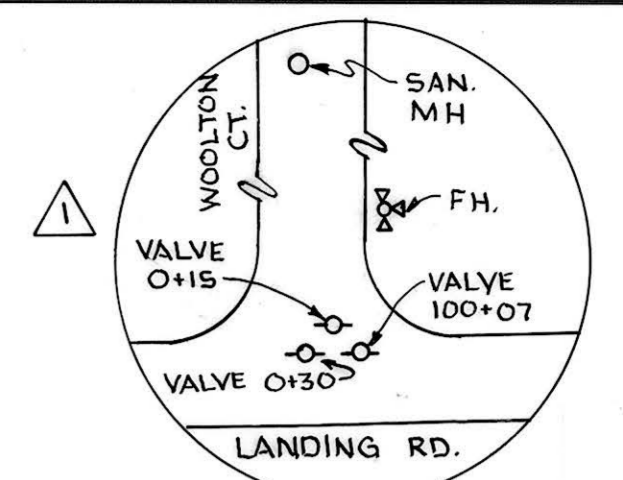
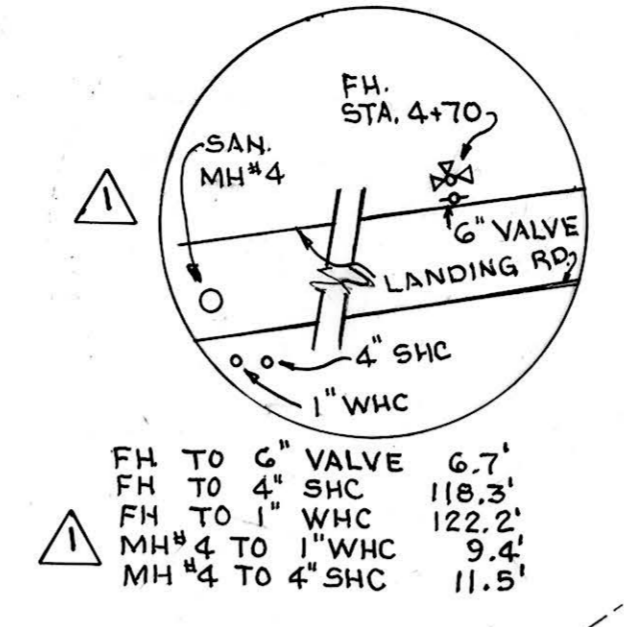
SCALE AS SHOWN

SHEET 1 OF 12

EP.04.07



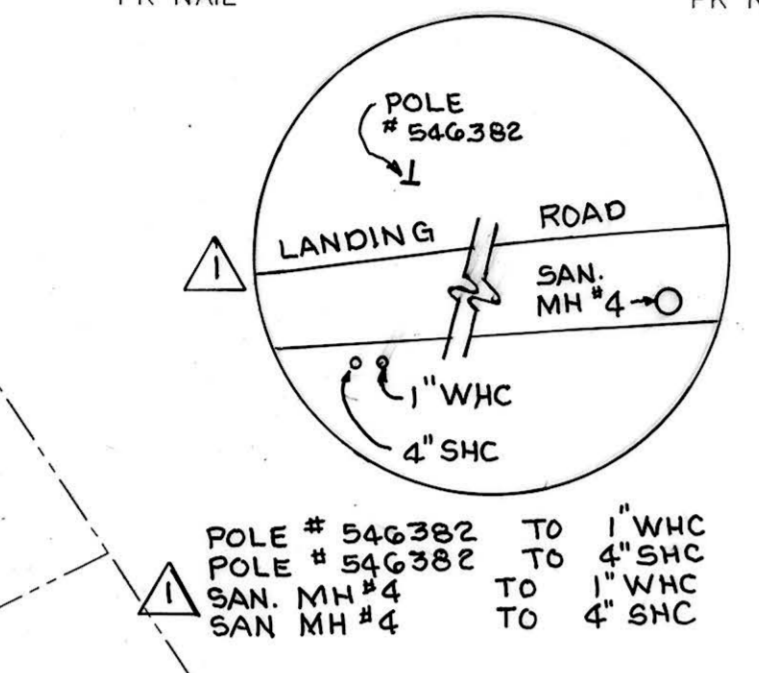
TRAVERSE POINTS
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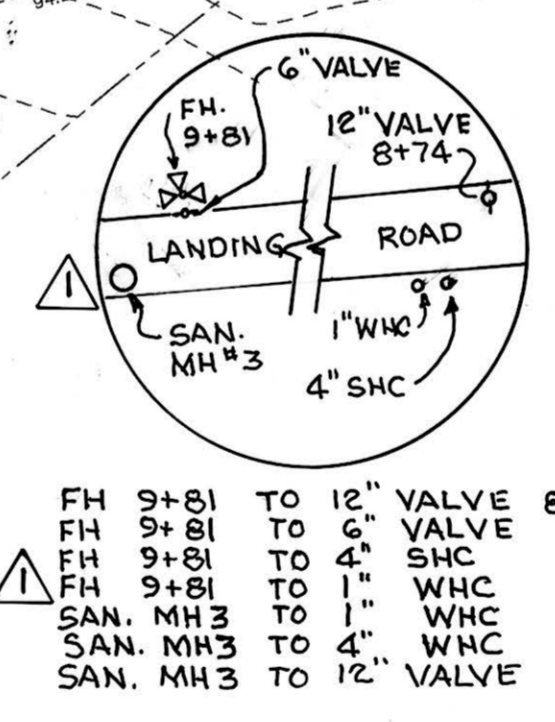
TRAVERSE POINTS
SCALE: NOT TO SCALE

| WATER MAIN STAKEOUT TABLE | | | |
|---------------------------|------------------|-----------|------------|
| WATER MAIN STATION | DESCRIPTION | NORTHING | EASTING |
| 0+00 | CONNECTION POINT | 568594.48 | 1381136.62 |
| 0+15 | 12" VALVE | 568603.75 | 1381148.82 |
| 0+22 | 12" TEE | 568608.14 | 1381154.34 |
| 0+30 | 12" VALVE | 568602.45 | 1381158.76 |
| 1+85 | PC | 568480.01 | 1381253.92 |
| 4+57 | PT | 568231.14 | 1381355.77 |
| 4+70 | 12" x 6" TEE | 568216.95 | 1381356.92 |
| 8+74 | 12" VALVE | 567816.30 | 1381404.17 |
| 9+81 | 12" x 6" TEE | 567710.25 | 1381416.05 |
| 14+25 | 12" x 6" TEE | 567269.76 | 1381467.95 |
| 17+32 | 12" x 6" TEE | 566964.40 | 1381503.59 |
| 17+42 | 12" VALVE | 566954.46 | 1381504.75 |
| 21+07 | 12" VALVE | 566591.31 | 1381547.10 |
| 21+20 | 12" x 6" TEE | 566579.57 | 1381548.49 |
| 21+36 | 12" PLUG | 566563.57 | 1381550.36 |
| 100+07 | 12" VALVE | 568613.89 | 1381149.87 |
| 100+22 | 12" PLUG | 568625.58 | 1381140.78 |

| SEWER MAIN STAKEOUT TABLE | | |
|---------------------------|-----------|------------|
| SEWER MH | NORTHING | EASTING |
| MH-1 | 567054.55 | 1381161.77 |
| MH-2 | 567331.26 | 1381474.64 |
| MH-3 | 567644.89 | 1381437.35 |
| MH-4 | 568022.52 | 1381394.94 |



TRAVERSE POINTS
SCALE: NOT TO SCALE



TRAVERSE POINTS
SCALE: NOT TO SCALE

| RESTORATION SCHEDULE | |
|--|-------------|
| LOCATION | RESTORATION |
| STA. 100+00 TO STA. 100+22 (LANDING RD.) | PAVING P3 |
| STA. 0+00 TO STA. 0+22 (WOOLTON CT.) | PAVING P3 |
| STA. 0+22 TO STA. 17+76 | PAVING P3 |
| STA. 17+76 TO STA. 20+76 | PAVING P3 |
| STA. 17+76 TO STA. 21+36 | PAVING P3 |
| LINE INSTALLED BY DIRECTIONAL DRILLING. RESTORATION NOT REQUIRED. PITS TO BE RESTORED IN KIND. | |
| PAVING P3 | |
| SANITARY MANHOLES | |
| MH4 TO MH3 | PAVING P3 |
| MH3 TO MH2 | PAVING P3 |
| MH2 TO MH1 | PAVING P3 |
| LINE INSTALLED BY DIRECTIONAL DRILLING. RESTORATION NOT REQUIRED. PITS TO BE RESTORED IN KIND. | |

PLAN
SCALE: 1"=50'

AS-BUILT
FEBRUARY, 2007

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 12/23/04
Chief, Bureau of Engineering: *[Signature]* 12/22/04

Chief, Bureau of Utilities: *[Signature]* 12-22-04
Chief, Utility Design Division: *[Signature]* 12-22-04

Patton Harris Rust & Associates, PC
Engineers, Surveyors, Planners, Landscape Architects.

8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

FRANK DONALDSON #8146
12/20/04

DES: J.S.C. RJC
DRN: J.A.P.
CHK: G.C.L.

FEBRUARY, 2004

AS-BUILT: ADDED LOCATING COOKIES 2/07

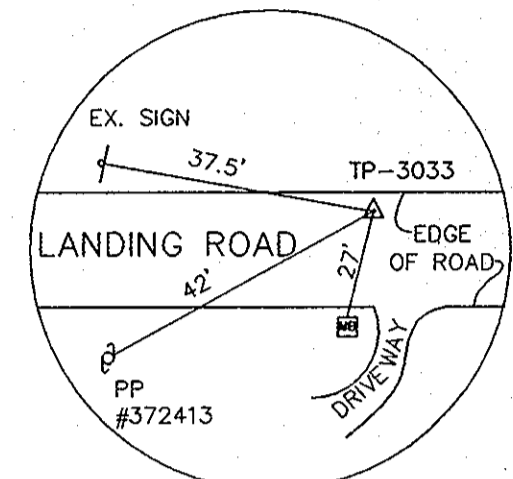
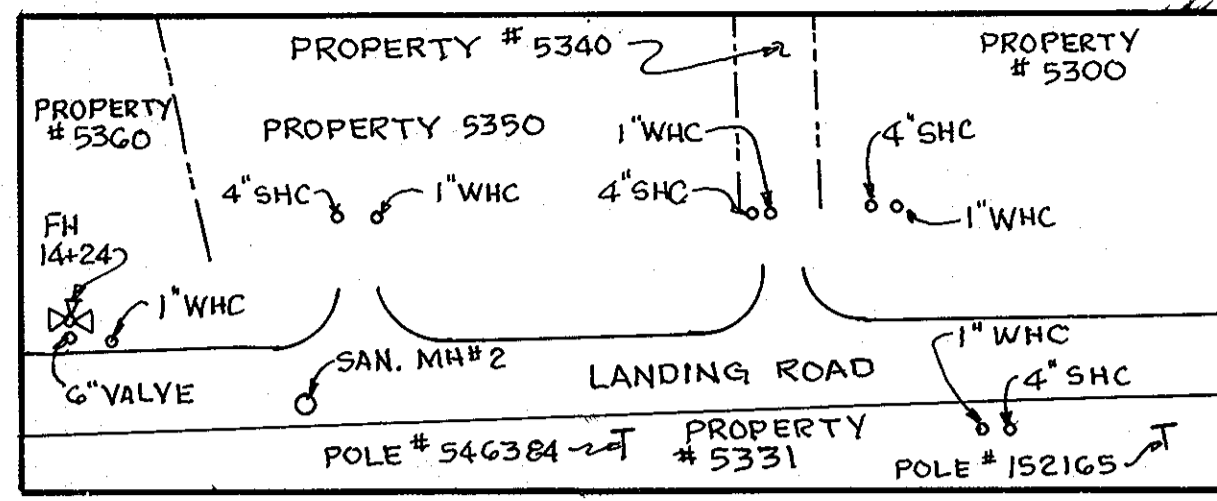
WATER AND SEWER PLAN

600' SCALE MAP NO. 31 BLOCK NO. 17 & 23

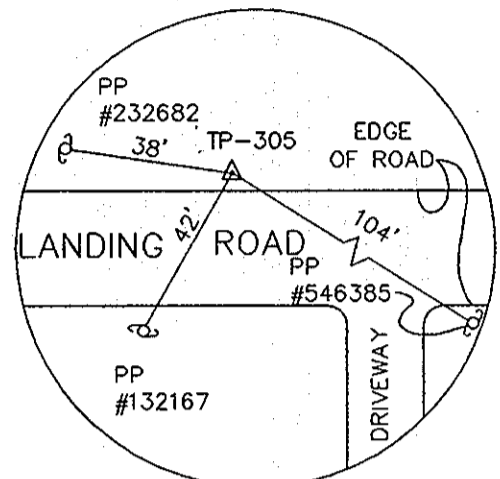
LANDING ROAD
WATER & SEWER EXTENSION
CAPITAL PROJECT S-6217/W-8698L
CONTRACT NO. 14-3986
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 12

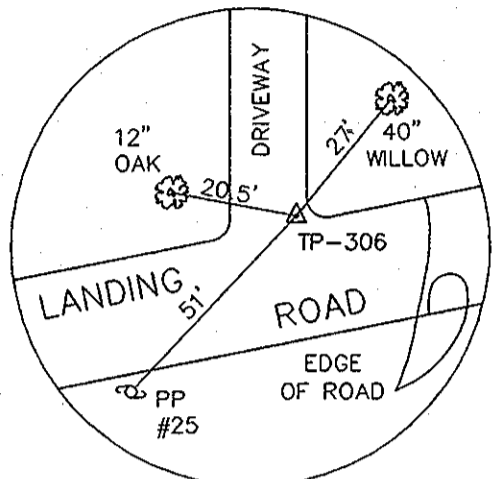
| | | | |
|-------------|----|---------------------|--------|
| FH 14+24 | TO | G VALVE | 4.5' |
| FH 14+24 | TO | 1" WHC (5330) | 6.1' |
| FH 14+24 | TO | 4" SHC (5350) | 73.6' |
| FH 14+24 | TO | 1" WHC (5350) | 82.5' |
| SAN. MH #2 | TO | 1" WHC (5330) | 53.6' |
| SAN. MH #2 | TO | 4" SHC (5350) | 51.7' |
| SAN. MH #2 | TO | 1" WHC (5350) | 42.7' |
| POLE 546384 | TO | 4" SHC (5340) | 64.7' |
| POLE 546384 | TO | 1" WHC (5340) | 67.3' |
| POLE 546384 | TO | 1" WHC (5331-LOT 3) | 82.6' |
| POLE 546384 | TO | 4" SHC (5331-LOT 3) | 87.1' |
| POLE 546384 | TO | 1" WHC (5300) | 81.5' |
| POLE 546384 | TO | 4" SHC (5300) | 78.2' |
| POLE 132165 | TO | 4" SHC (5340) | 125.1' |
| POLE 132165 | TO | 1" WHC (5340) | 112.9' |
| POLE 132165 | TO | 1" WHC (5331-LOT 3) | 49.0' |
| POLE 132165 | TO | 4" SHC (5331-LOT 3) | 45.2' |
| POLE 132165 | TO | 1" WHC (5330) | 93.9' |
| POLE 132165 | TO | 4" SHC (5330) | 99.3' |



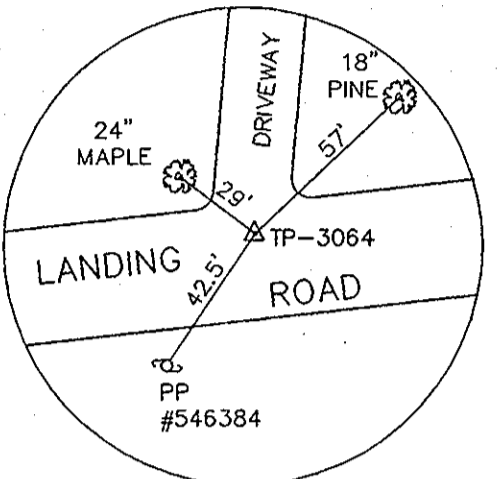
TP #3033
ELEV. 256.44
N. 566936.64
E. 1381504.99
PK NAIL



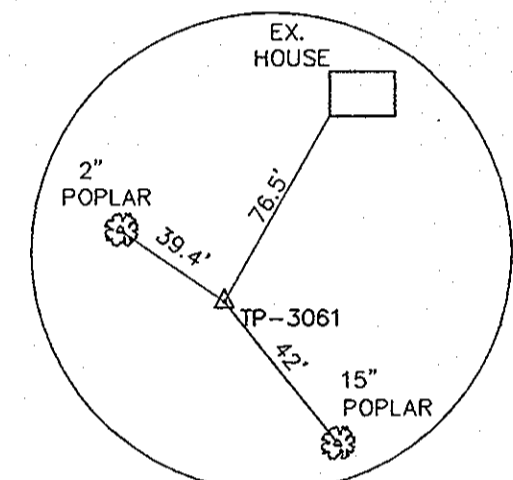
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E. 1381483.13
IRON BAR & CAP



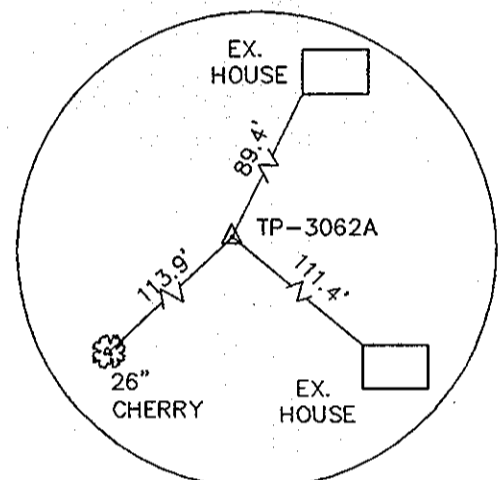
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PK NAIL



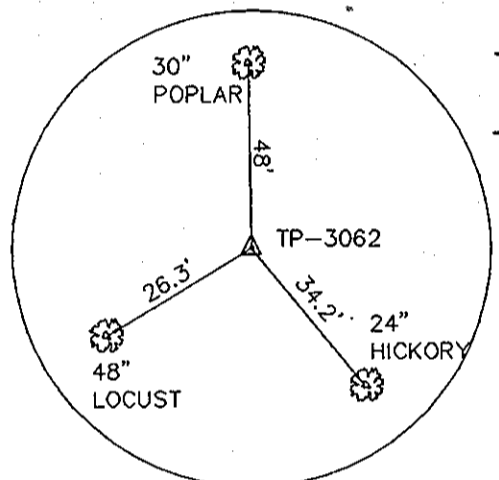
TP #3064
ELEV. 274.38
N. 567455.92
E. 1381442.57
PK NAIL



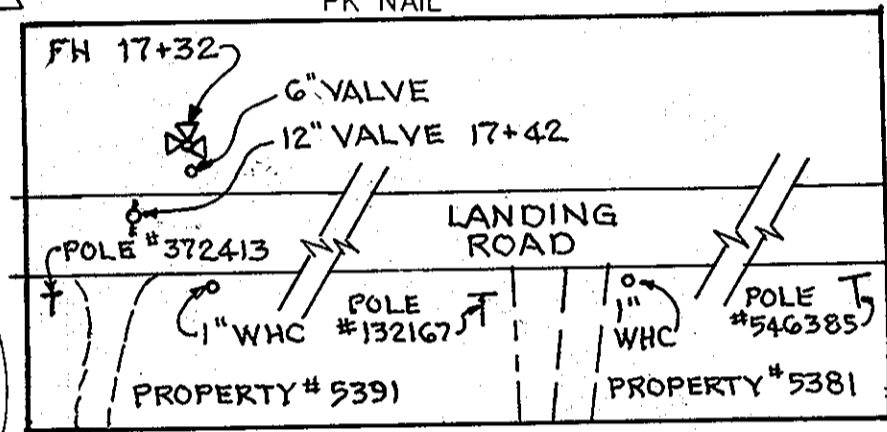
TP #3061
ELEV. 266.84
N. 567252.75
E. 1381332.12
IRON BAR & CAP



TP #3062A
ELEV. 263.49
N. 567201.45
E. 1381203.93
IRON BAR & CAP



TP #3062
ELEV. 263.49
N. 567201.45
E. 1381203.93
IRON BAR & CAP



FH 17+32 TO G VALVE 4.0'
FH 17+32 TO 12" VALVE (17+42) 12.4'
FH 17+32 TO 1" WHC @ (5391) 27.5'
POLE #372413 TO 1" WHC @ (5391) 64.0'
POLE #372413 TO 12" VALVE (17+42) 54.0'
POLE #132167 TO 1" WHC @ (5381) 51.0'
POLE #546385 TO 1" WHC @ (5381) 75.2'

TRAVERSE POINTS
SCALE: NOT TO SCALE

STA. 21+19
12"x 6" TEE, 6" VALVE & FH
BURY LINE ELEV. 253.2
BURY LENGTH = 5'

STA. 20+64
ANTI-CREEP COLLAR

STA. 17+76
ANTI-CREEP COLLAR

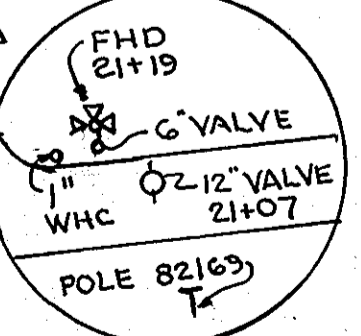
STA. 17+32
12"x 6" TEE, 6" VALVE & FH
BURY LINE ELEV. 256.9
BURY LENGTH = 4'

STA. 14+24
12"x 6" TEE, 6" VALVE & FH
BURY LINE ELEV. 266.3
BURY LENGTH = 4.0'

STA. 21+36
12" PLUG & BUTTRESS
AS PER STD. DET. W2.25

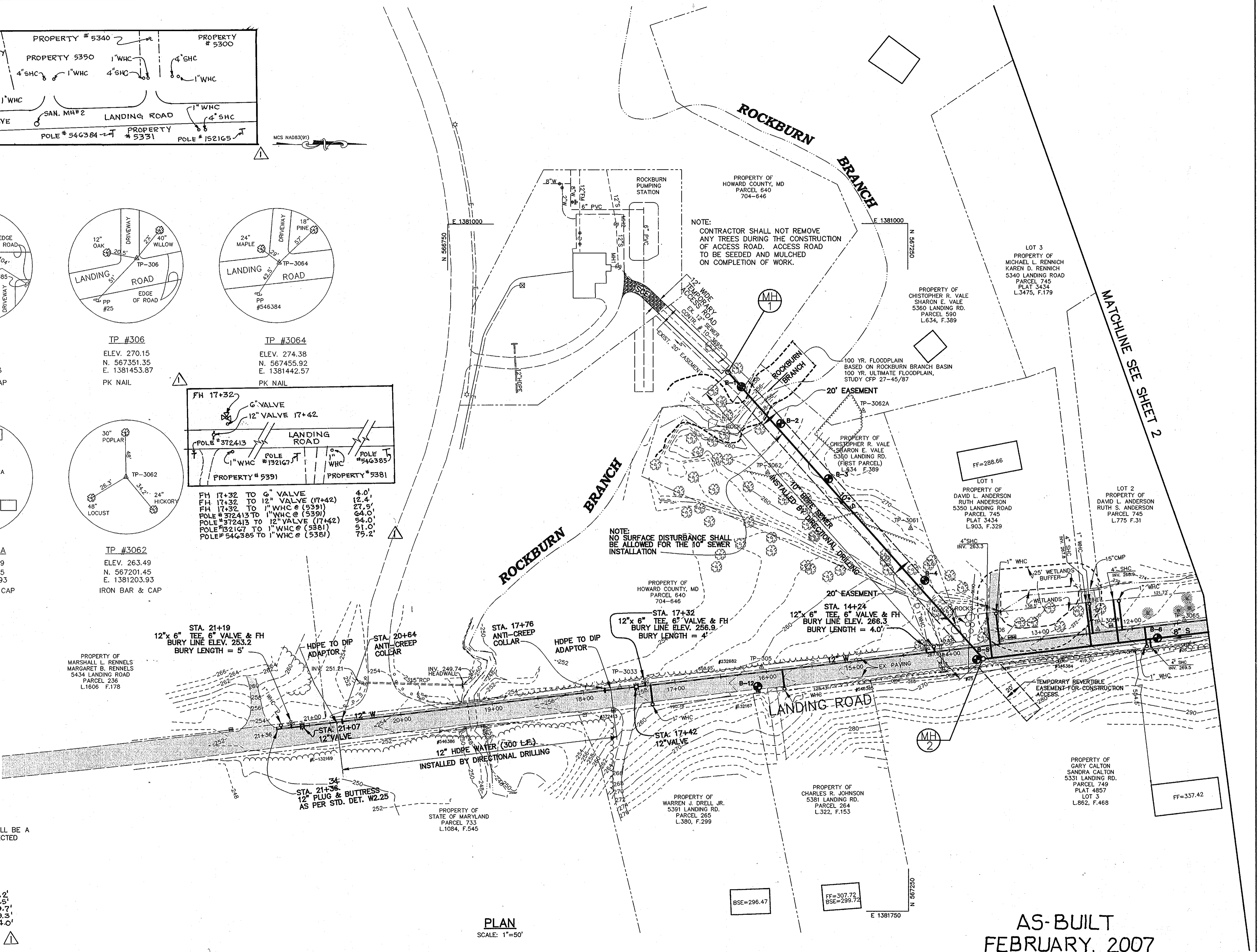
12" HDPE WATER (300 L.F.)
INSTALLED BY DIRECTIONAL DRILLING

NOTE:
THE DETECTION WIRE TO BE INSTALLED WITH THE WATER MAIN SHALL BE A MINIMUM OF AWG NO. 8 BARE COPPER WIRE AND SHALL BE CONNECTED TO THE VALVE BONNETS AT STATION 17+35 AND STATION 21+12



POLE 82169 TO 12" VALVE 21+07 39.2'
FHD 21+19 TO 6" VALVE 3.5'
POLE 82169 TO 1" WHC 59.7'
FHD 21+19 TO 1" WHC 9.3'
POLE 82169 TO 12" VALVE 21+07 14.0'

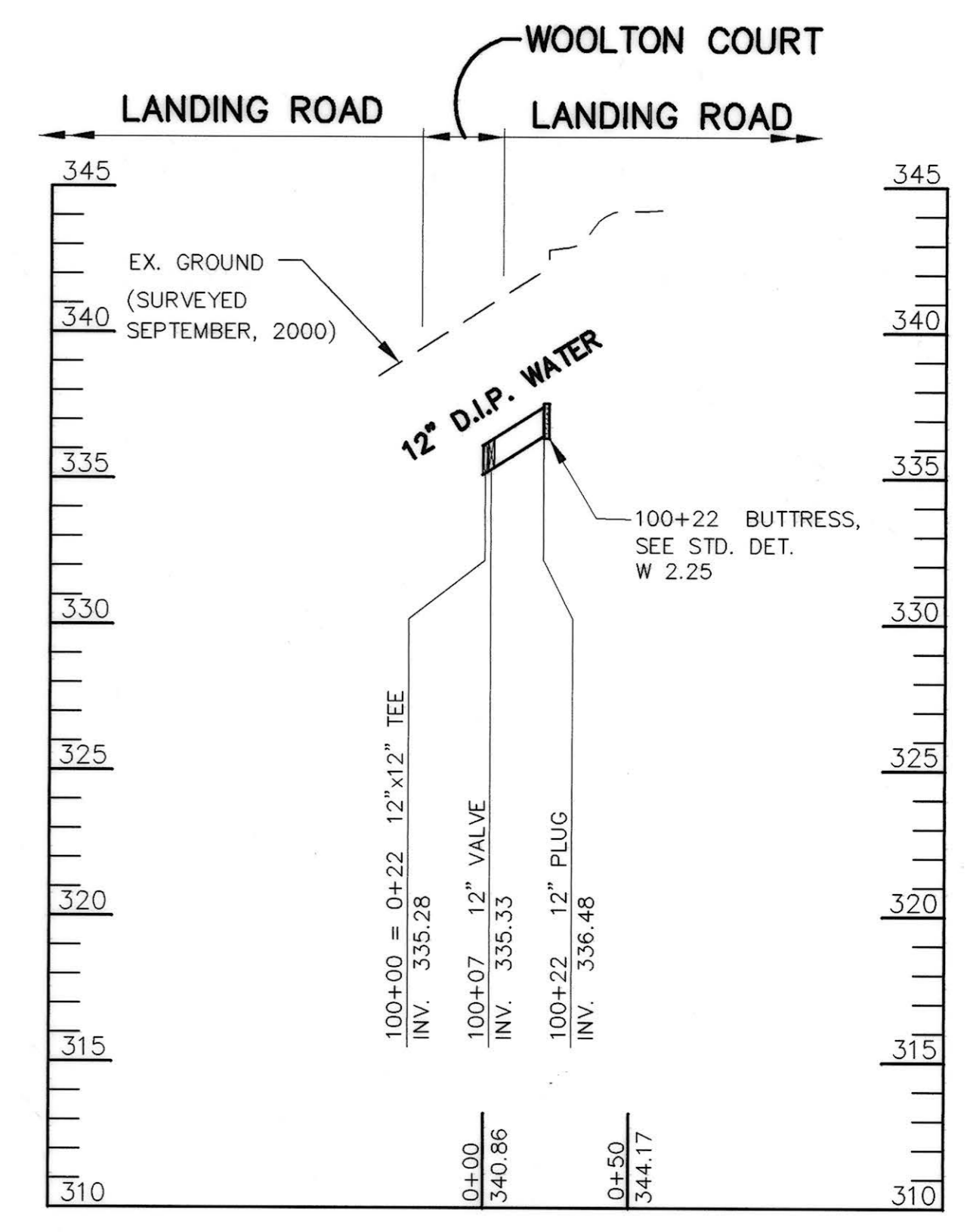
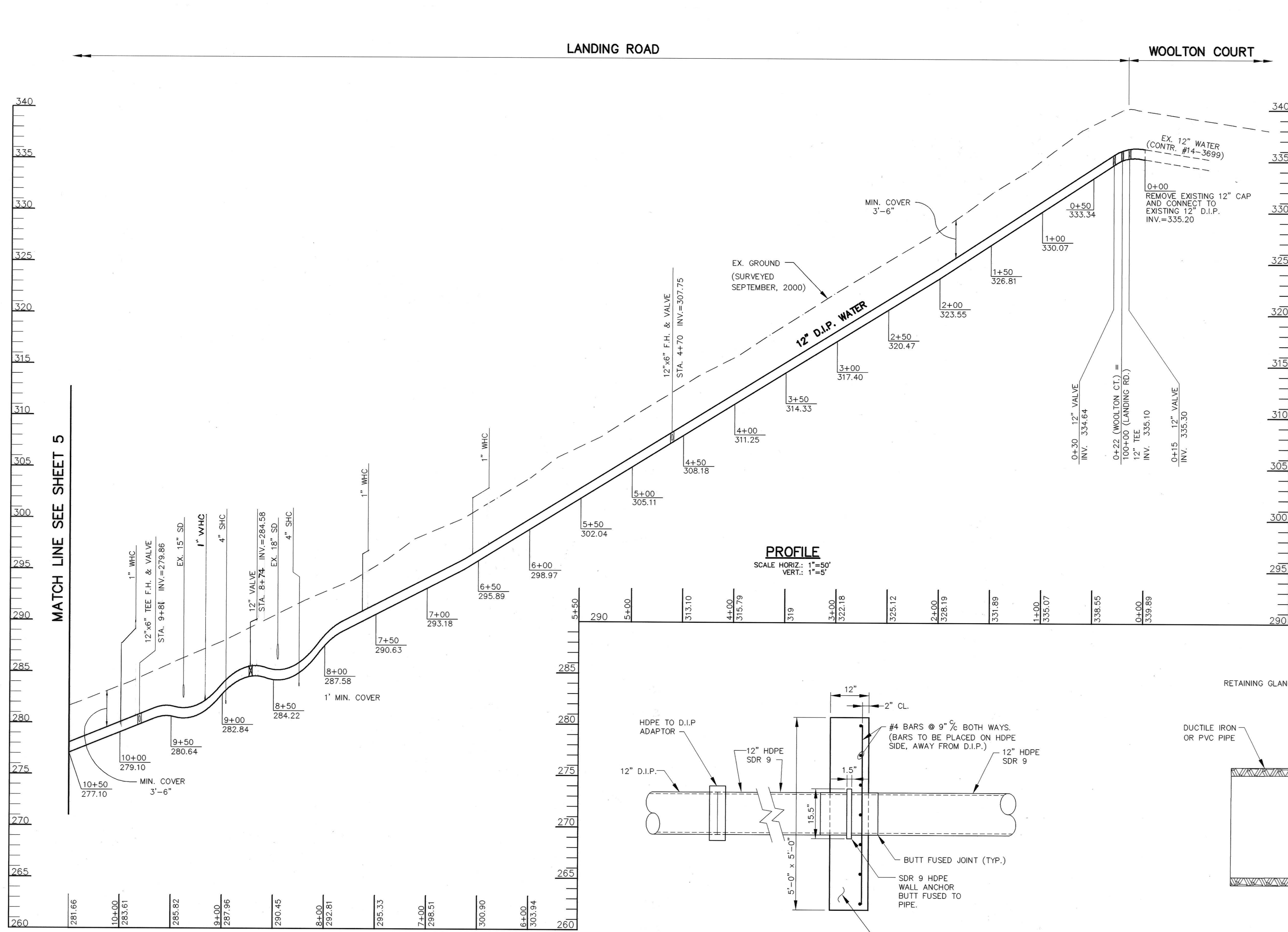
PLAN
SCALE: 1"=50'



AS-BUILT
FEBRUARY, 2007

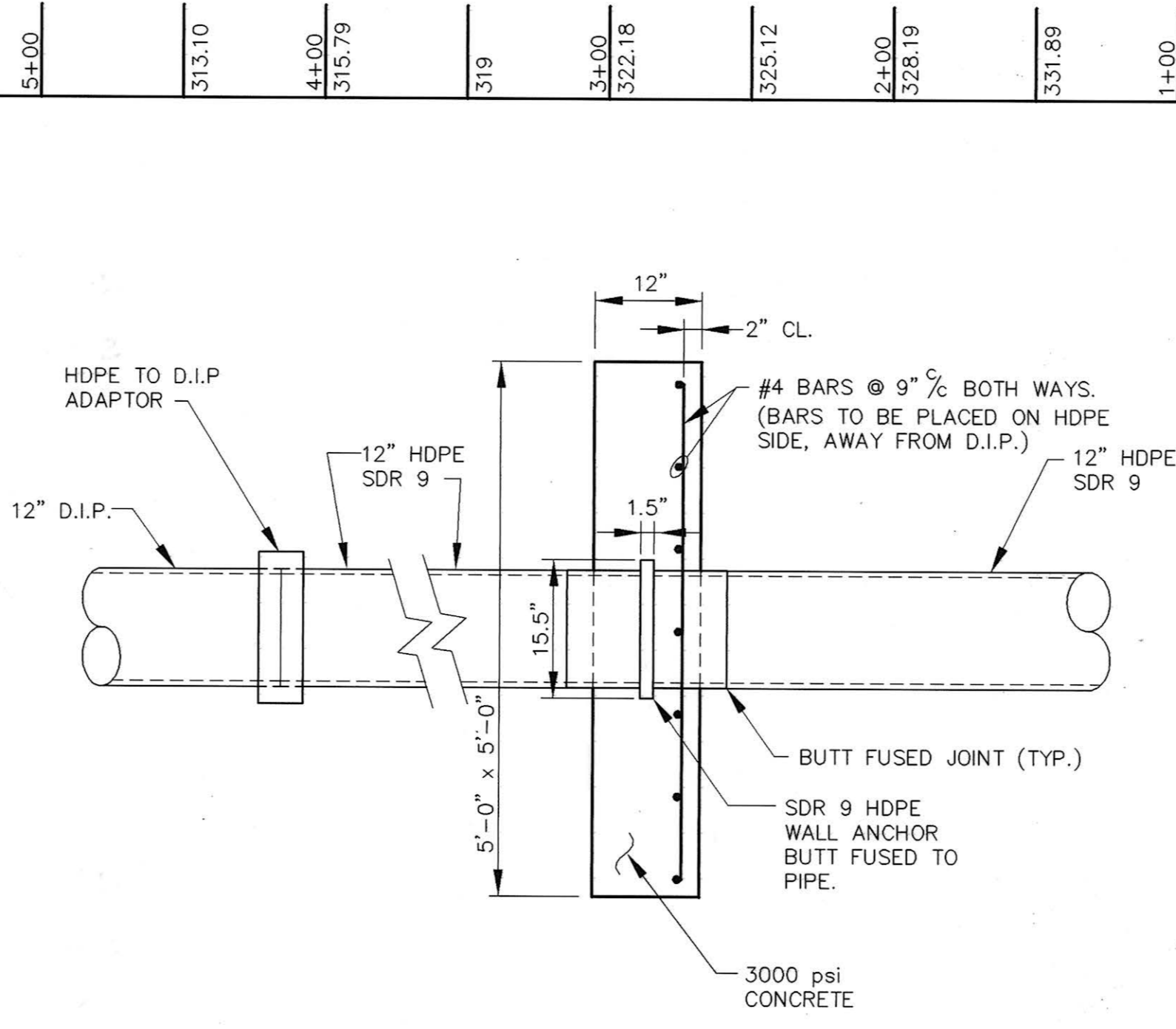
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|---|--|--|--|--|--|---|--|----------------------------------|--|----------------------|--|---------------------------------|--|
| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>John J. ...</i> 12/22/04 Chief, Bureau of Engineering: <i>Richard ...</i> 12/22/04 Chief, Bureau of Utilities: <i>Robert ...</i> 12-22-04 Chief, Utility Design Division: <i>Clay ...</i> 12-22-04 | | Patton Harris Rust & Associates, PC Engineers, Surveyors, Planners, Landscape Architects. PHRA 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8800 F 410.997.9282 | | STATE OF MARYLAND FRANK DONALDSON #8146 FEBRUARY, 2004 | | DES: J.S.C. DRN: J.A.P. CHK: G.C.L. | | AS-BUILT (LOCATING DETAILS) 2/07 | | WATER AND SEWER PLAN | | SCALE AS SHOWN SHEET 3 OF 12 | |
| 600' SCALE MAP NO. 31 | | BLOCK NO. 17 & 23 | | CONTRACT NO. 14-3986 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND | | 12-20-04 | | | | | | | |

Project: 00163\plan2\WS.dwg, Layout: 1, 12/16/2004 02:28:07 P.M., camrachel, HP75DC068.jp3, Arch: D - 24 x 36 in. (landscape), 1:50

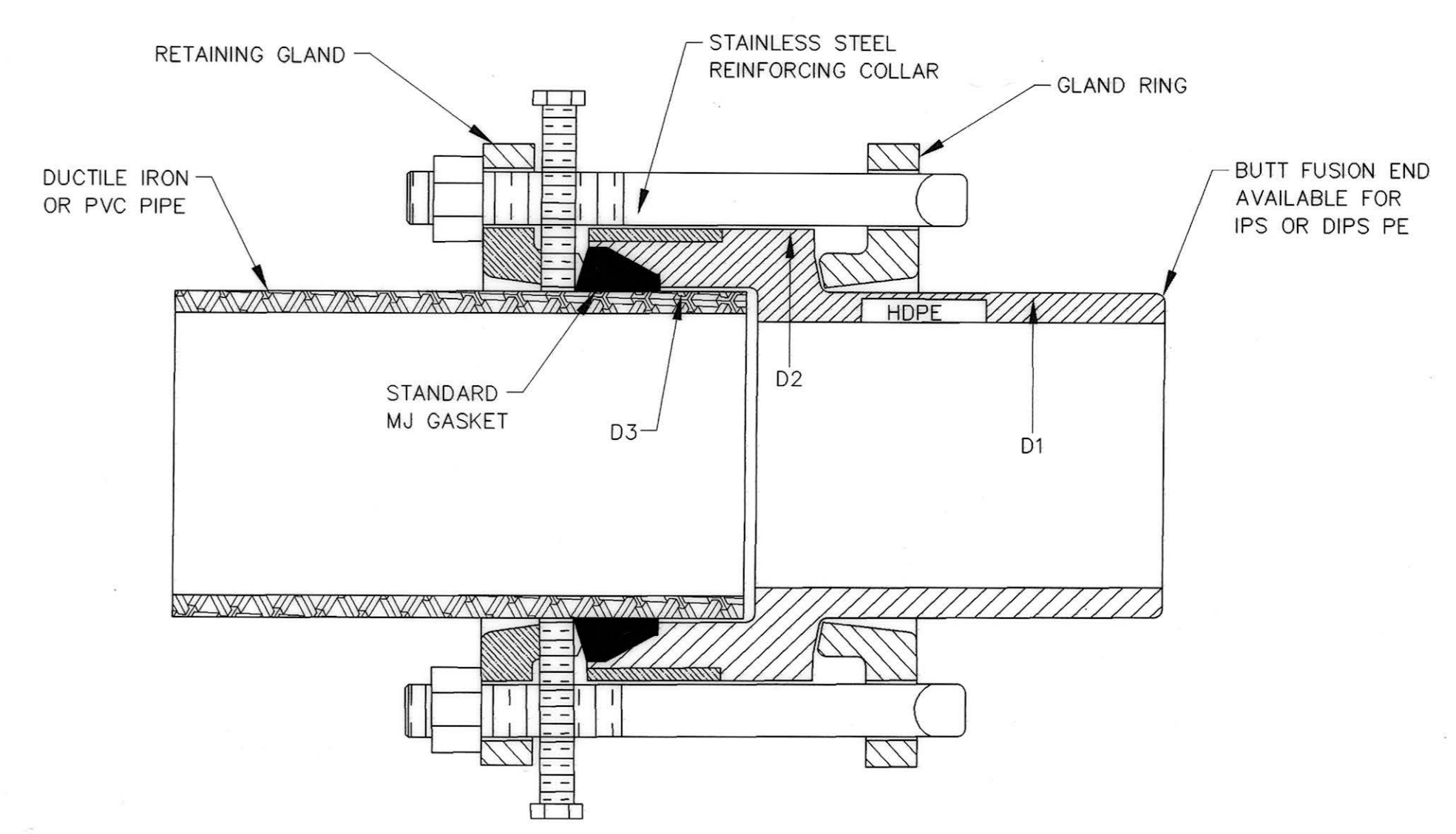


PROFILE
SCALE HORIZ.: 1"=50'
VERT.: 1"=5'

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



PIPE ANTI-CREEP COLLAR
SCALE: 3/4" = 1'-0"



HDPE TO DIP ADAPTOR
NOT TO SCALE

AS-BUILT
FEBRUARY, 2007

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Brannon 12-22-04
DIRECTOR OF PUBLIC WORKS DATE

Robert M. Brannon 12-22-04
CHIEF, BUREAU OF UTILITIES DATE

Robert M. Brannon 12-22-04
CHIEF, BUREAU OF ENGINEERING DATE

Robert M. Brannon 12-22-04
CHIEF, UTILITY DESIGN DIVISION DATE

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.

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Columbia, MD 21045
T 410.997.8900
F 410.997.9282

P-H-R-A

STATE OF MARYLAND
FRANK DONALDSON #8146
FEBRUARY, 2004

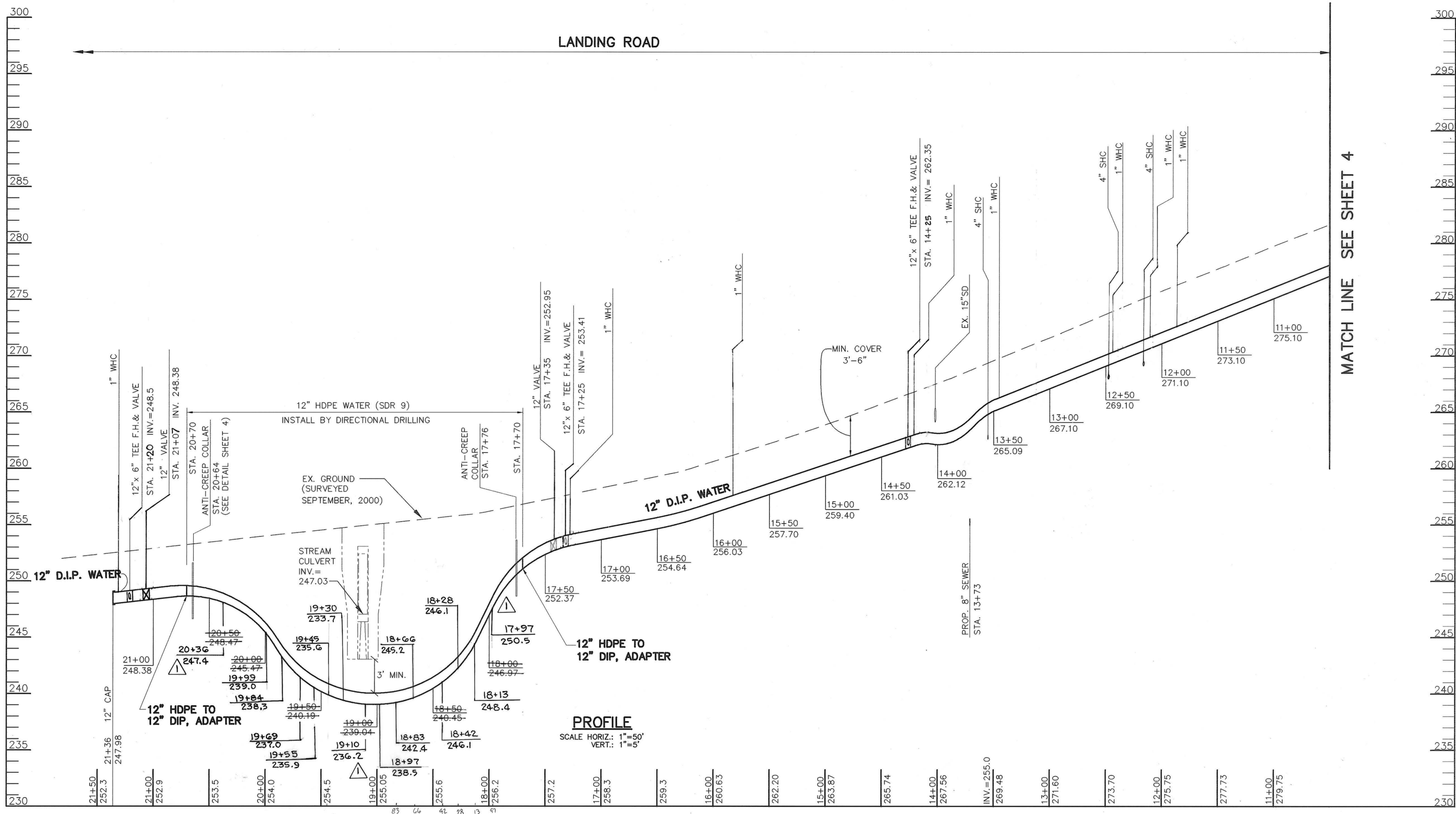
| | | | |
|-------------|----------|-----------------------|------|
| DES: J.S.C. | RJC | AS-BUILT (NO CHANGES) | 2/07 |
| DRN: J.A.P. | | | |
| CHK: G.C.L. | | | |
| BY NO. | REVISION | DATE | |

WATER PROFILE

600' SCALE MAP NO. 31 BLOCK NO. 17 & 23

LANDING ROAD
WATER & SEWER EXTENSION
CAPITAL PROJECT S-6217/W-8698L
CONTRACT NO. 14-3986
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 4 OF 12



MATCH LINE SEE SHEET 4

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

AS-BUILT FEBRUARY, 2007

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert Benjamin 12-22-04
DIRECTOR OF PUBLIC WORKS DATE

Richard S. Johnson 12/22/04
CHIEF, BUREAU OF ENGINEERING DATE

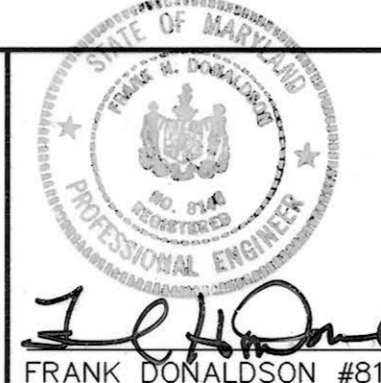
Robert Benjamin 12-22-04
CHIEF, BUREAU OF UTILITIES DATE

Clayton 12-22-04
CHIEF, UTILITY DESIGN DIVISION DATE

Patton Harris Rust & Associates, PC
Engineers, Surveyors, Planners, Landscape Architects.

PHRA

8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282



| | | | | |
|----------------|-----|----------|--|------|
| DES: J.S.C. | RJC | 1 | AS-BUILT (PROFILE INV'S MODIFIED 20+36 TO 17+97) | 2/07 |
| DRN: J.A.P. | | | | |
| CHK: G.C.L. | | | | |
| FEBRUARY, 2004 | | | | |
| BY | NO. | REVISION | DATE | |

WATER PROFILES

600' SCALE MAP NO. 31 BLOCK NO. 17 & 23

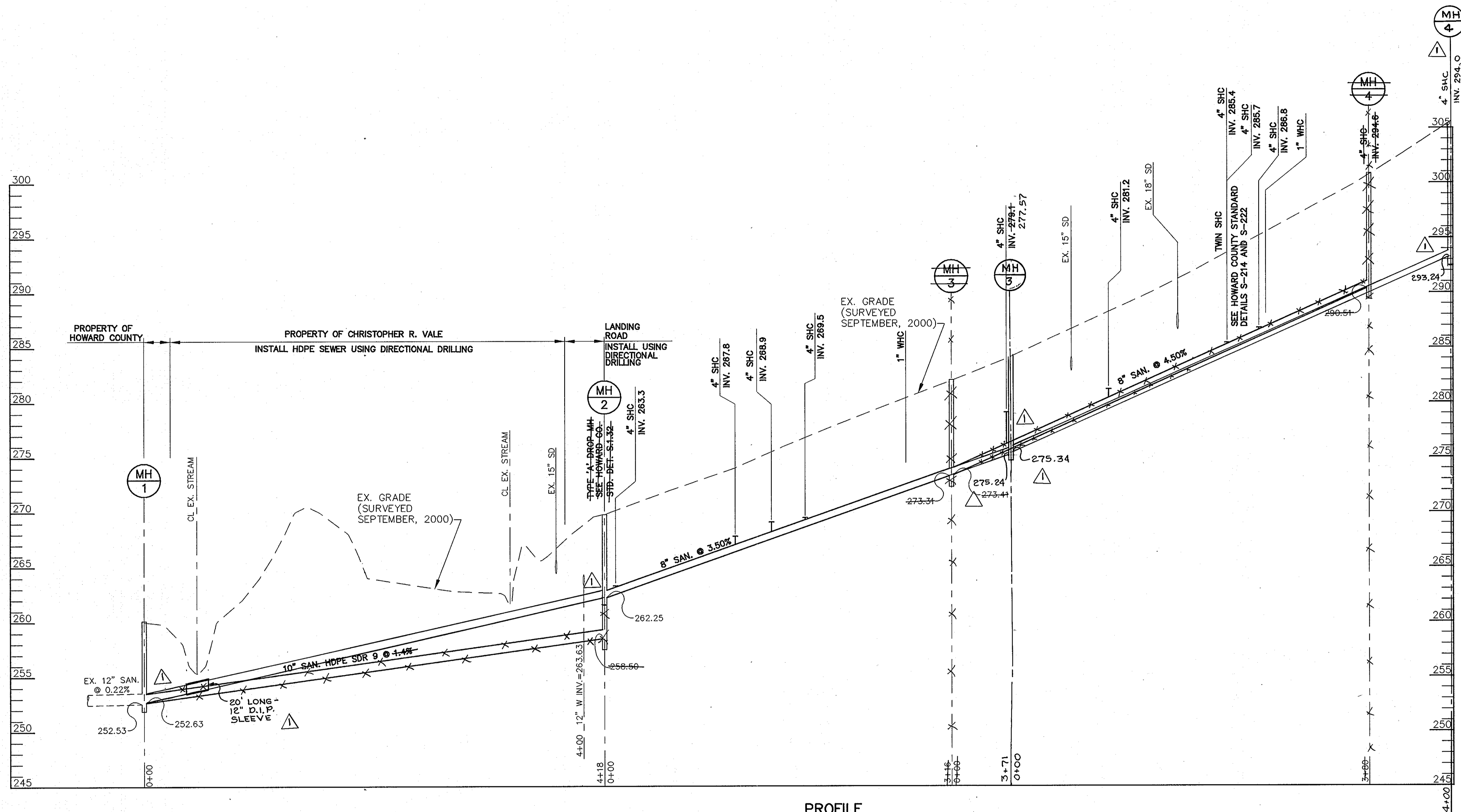
LANDING ROAD
WATER & SEWER EXTENSION
CAPITAL PROJECT S-6217/W-8698L
CONTRACT NO. 14-3986
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 5 OF 12

12-20-04

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PROFILE
 SCALE HORIZ: 1"=50'
 VERT: 1"=5'

AS-BUILT FEBRUARY, 2007

| | |
|---|------------------|
| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND | |
| <i>[Signature]</i> DIRECTOR OF PUBLIC WORKS | 12/23/04 DATE |
| <i>[Signature]</i> CHIEF, BUREAU OF UTILITIES | 12-22-04 DATE |
| <i>[Signature]</i> CHIEF, BUREAU OF ENGINEERING | 12/22/04 DATE |
| <i>[Signature]</i> CHIEF, UTILITY DESIGN DIVISION | 12-22-04 DATE |

Patton Harris Rust & Associates, pc
 Engineers. Surveyors. Planners. Landscape Architects.

PHRA
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

FRANK DONALDSON #8146
 FEBRUARY, 2004

| | | | | |
|-------------|----------|--|-----------------|------|
| DES: J.S.C. | RJC | AS-BUILT - 2 MIN. MOVED, PIPE INV'S. CHANGED | PROF MH CHANGED | 2/07 |
| DRN: J.A.P. | | | | |
| CHK: G.C.L. | | | | |
| BY NO. | REVISION | DATE | | |

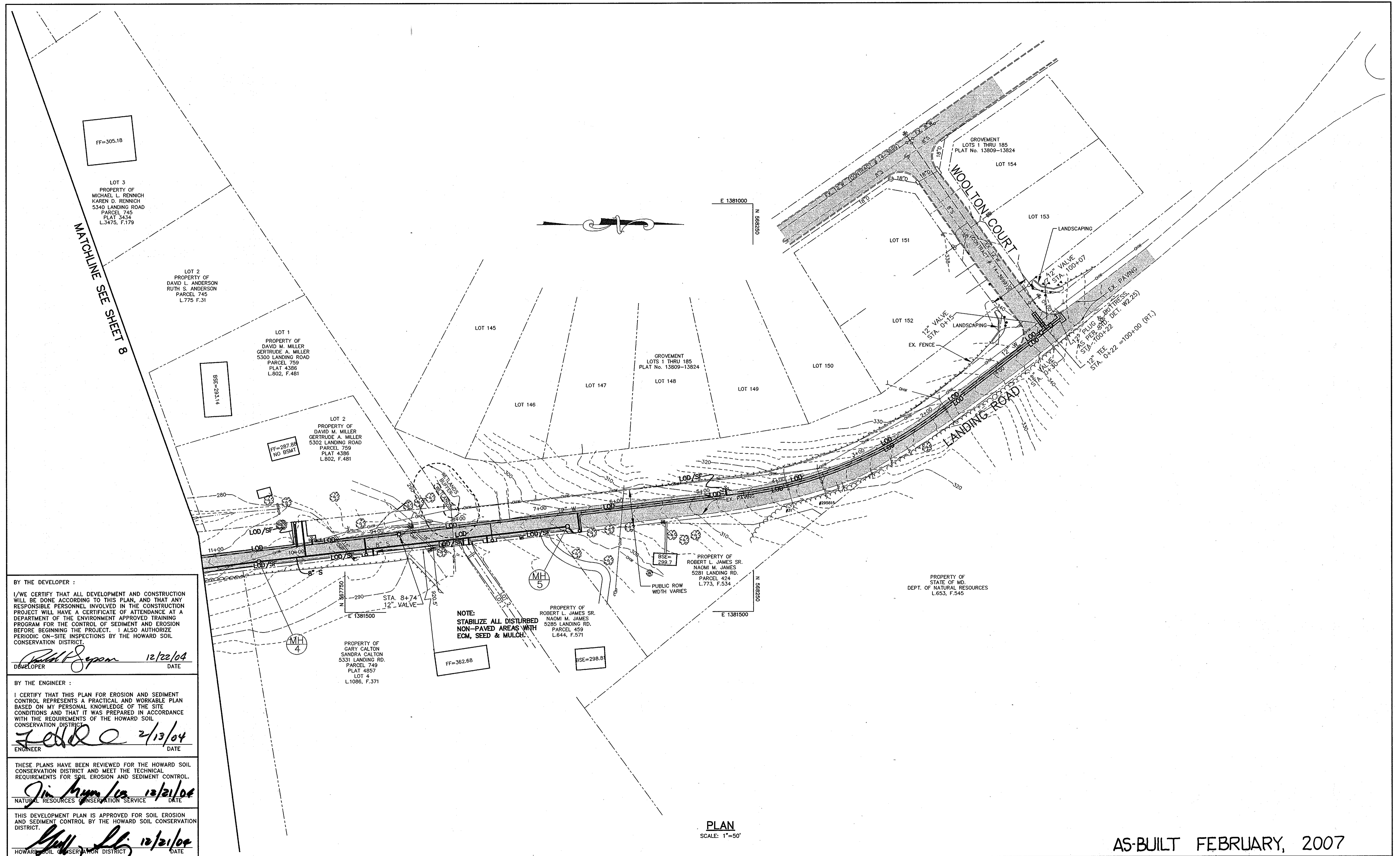
| | | | |
|--------------------|----|-----------|---------|
| 600' SCALE MAP NO. | 31 | BLOCK NO. | 17 & 23 |
|--------------------|----|-----------|---------|

LANDING ROAD
 WATER & SEWER EXTENSION
 CAPITAL PROJECT S-6217/W-8698L
 CONTRACT NO. 14-3986
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 6 OF 12

12-20-04

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BY THE DEVELOPER :

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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Robert Segan 12/22/04
 DEVELOPER DATE

BY THE ENGINEER :

I 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.

John A. P. 2/13/04
 ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim Myers 12/21/04
 NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John A. P. 12/21/04
 HOWARD SOIL CONSERVATION DISTRICT DATE

NOTE: STABILIZE ALL DISTURBED NON-PAVED AREAS WITH ECM, SEED & MULCH.

PLAN
 SCALE: 1"=50'

| | |
|---|---|
| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND | |
| <i>John A. P.</i> 12/23/04 DIRECTOR OF PUBLIC WORKS DATE | <i>Robert Segan</i> 12/22/04 CHIEF, BUREAU OF ENGINEERING DATE |
| <i>Robert Segan</i> 12-22-04 CHIEF, BUREAU OF UTILITIES DATE | <i>John A. P.</i> 12-22-04 CHIEF, UTILITY DESIGN DIVISION DATE |

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.

PHRA

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 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 FRANK DONALDSON #8146
 FEBRUARY, 2004

| | | | |
|-------------|-----|-----------------------|------|
| DES: J.S.C. | RJC | AS-BUILT - NO CHANGES | 2/07 |
| DRN: J.A.P. | | | |
| CHK: G.C.L. | | | |
| BY NO. | | REVISION | DATE |

| | |
|-----------------------------------|-------------------|
| SEDIMENT AND EROSION CONTROL PLAN | |
| 600' SCALE MAP NO. 31 | BLOCK NO. 17 & 23 |

| | |
|---|---------------|
| AS-BUILT FEBRUARY, 2007 | |
| LANDING ROAD WATER & SEWER EXTENSION | |
| CAPITAL PROJECT S-6217/W-8698L | |
| CONTRACT NO. 14-3986 | |
| 1ST ELECTION DISTRICT | |
| HOWARD COUNTY, MARYLAND | |
| SCALE AS SHOWN | SHEET 7 OF 12 |

2/13/04

STANDARD SEDIMENT CONTROL NOTES

1. 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).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. 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 FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED OF GRASSES.
5. 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.
6. SITE ANALYSIS:

| | |
|---|----------------|
| AREA DISTURBED | 0.60 ACRES |
| AREA TO BE ROOFED OR PAVED (RESTORATION OF EXISTING PAVEMENT) | 0.51 ACRES |
| AREA TO BE VEGETATIVELY STABILIZED | 0.09 ACRES |
| TOTAL CUT | 1805 CU. YARDS |
| TOTAL FILL | 1805 CU. YARDS |

 OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT.
7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
9. 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.
10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
11. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
12. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.
13. NO DISTURBANCE OF THE SURFACE WILL BE ALLOWED BETWEEN MANHOLE 1 AND MANHOLE 2. THIS INCLUDES MOVING OF EQUIPMENT AND VEHICLES.

BY THE DEVELOPER :

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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Donald J. Sapon 12/22/04
DEVELOPER DATE

BY THE ENGINEER :

I 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.

Felix Q. O. 2/13/04
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim Myer 12/22/04
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

Paula A. H. 12/21/04
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jan P. W. 12/23/04
DIRECTOR OF PUBLIC WORKS DATE

Donald J. Sapon 12/22/04
CHIEF, BUREAU OF ENGINEERING DATE

Ruth B. B. 12-22-04
CHIEF, BUREAU OF UTILITIES DATE

Deanna L. 12-22-04
CHIEF, UTILITY DESIGN DIVISION DATE

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.

PHRA

8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

STATE OF MARYLAND
FRANK DONALDSON #8146
2/13/04

| | | | | | |
|------|----------------|-----|-----|--------------------|-------|
| DES: | J.S.C. | RJC | 1 | AS-BUILT-NO CHANGE | 2/07 |
| DRN: | J.A.P. | | | | |
| CHK: | G.C.L. | | | | |
| | FEBRUARY, 2004 | BY | NO. | REVISION | DATE: |

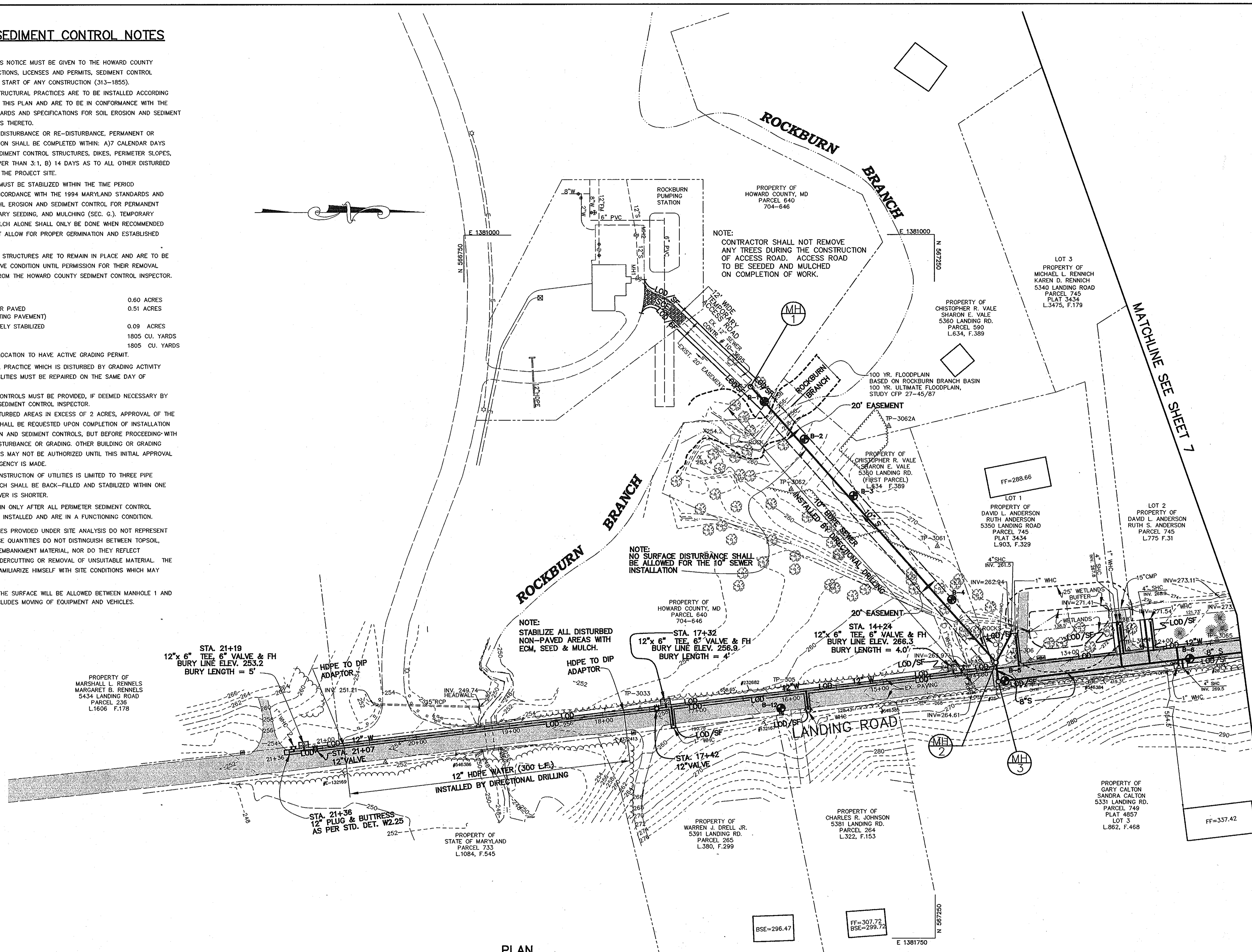
SEDIMENT AND EROSION CONTROL PLAN AND NOTES

600' SCALE MAP NO. 31 BLOCK NO. 17 & 23

AS-BUILT FEBRUARY, 2007

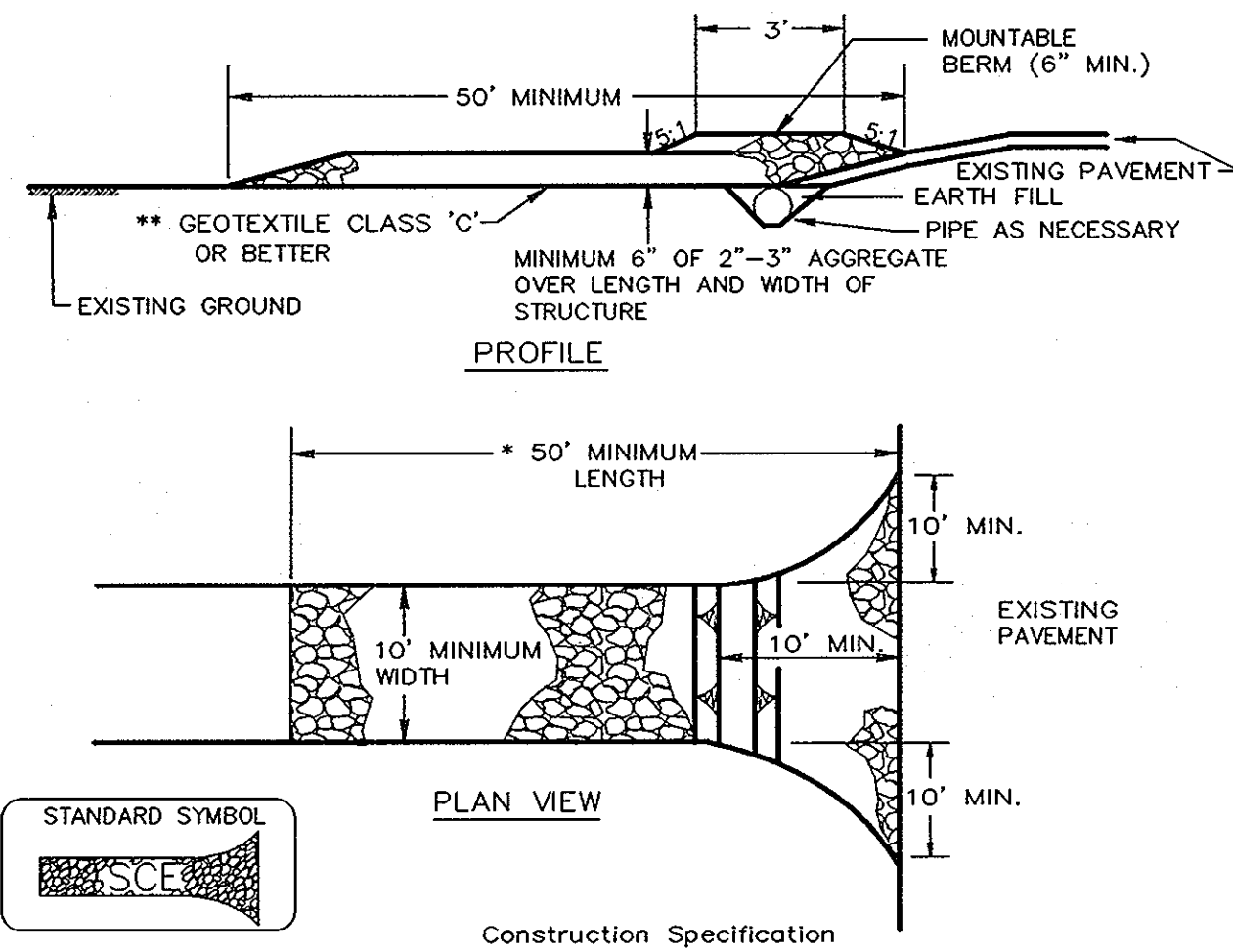
LANDING ROAD
WATER & SEWER EXTENSION
CAPITAL PROJECT S-6217/W-8698L
CONTRACT NO. 14-3986
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 8 OF 12



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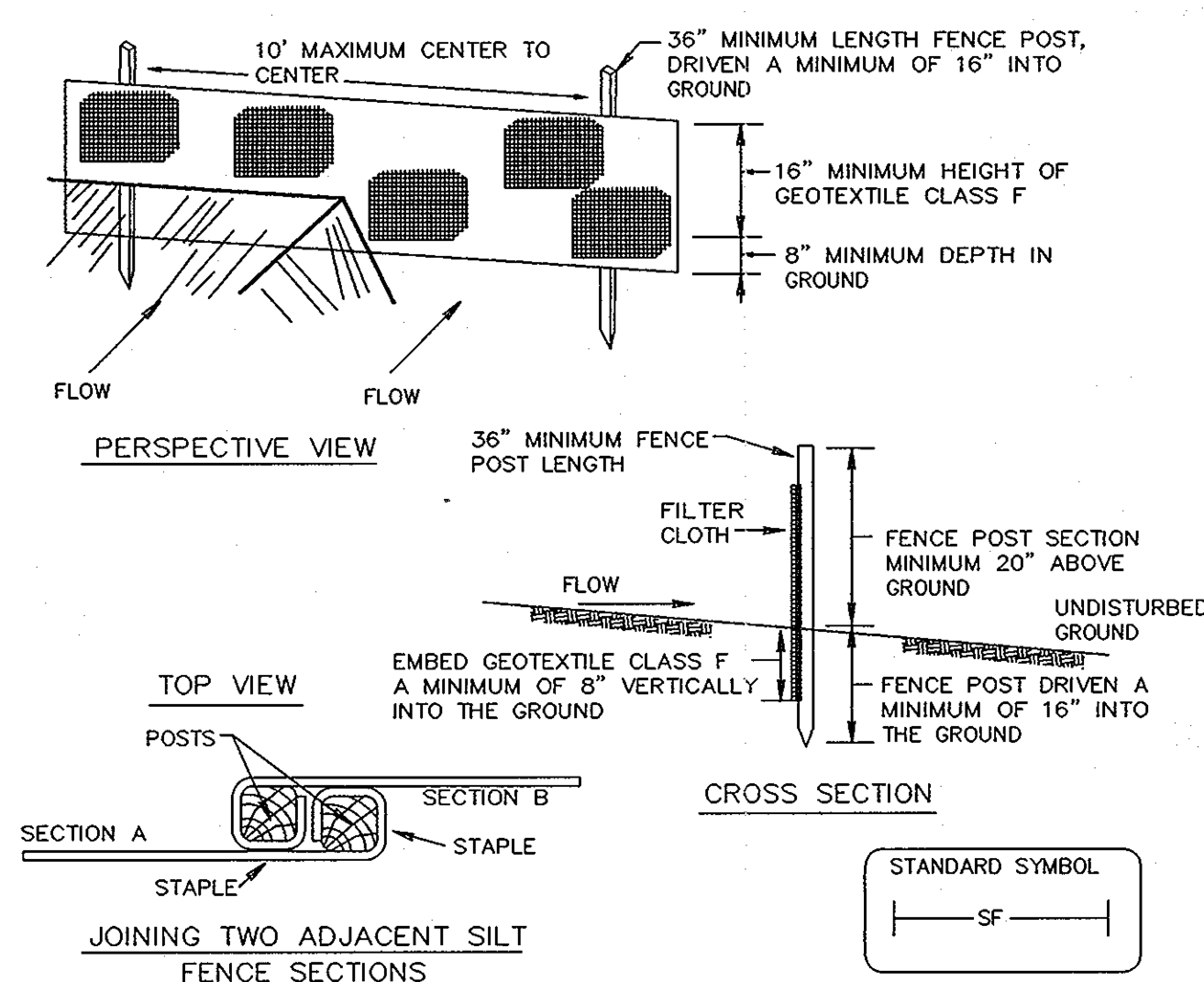
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- 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 mounded 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 SCE is located at 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 22 - SILT FENCE

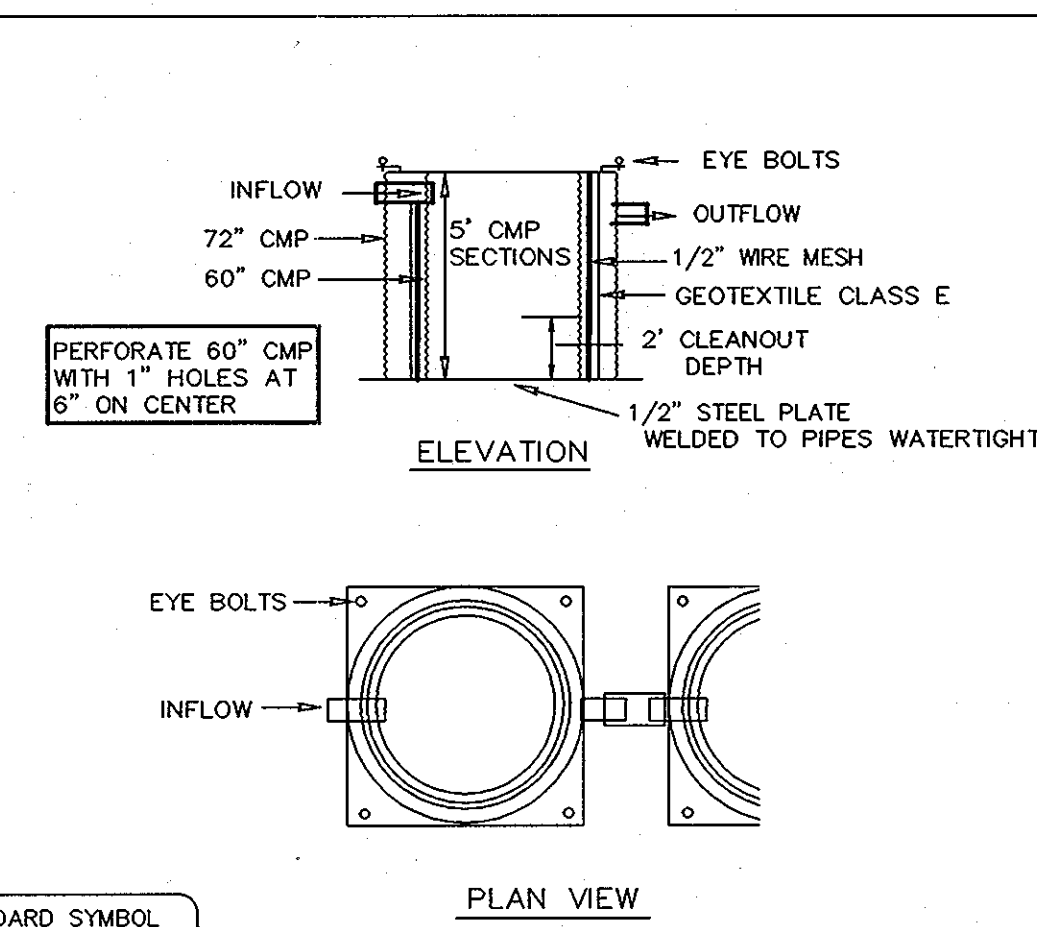


- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-15-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 21 - PORTABLE SEDIMENT TANK



- The following formula should be used in determining the storage volume of the sediment tank: 1 cubic foot of storage for each gallon per minute of pump discharge capacity.
- An example of a typical sediment tank is shown above. Other container designs can be used if the storage volume is adequate and approval is obtained from the local approving agency.
- Tanks may be connected in series.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE D-14-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SILT FENCE

Silt Fence Design Criteria

| Slope Steepness | (Maximum) Slope Length | (Maximum) Silt Fence Length |
|-------------------|------------------------|-----------------------------|
| Flatter than 50:1 | unlimited | unlimited |
| 50:1 to 10:1 | 125 feet | 1,000 feet |
| 10:1 to 5:1 | 100 feet | 750 feet |
| 5:1 to 3:1 | 60 feet | 500 feet |
| 3:1 to 2:1 | 40 feet | 250 feet |
| 2:1 and steeper | 20 feet | 125 feet |

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-15-3A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

BY THE DEVELOPER :
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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: *Rudolf Sepsom* 12/22/04 DATE

BY THE ENGINEER :
I 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.

ENGINEER: *J. J. Deel* 2/13/04 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

REVIEWER: *Jim Myer* 12/21/04 DATE

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

APPROVER: *Shirley A. ...* 12/21/04 DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DIRECTOR OF PUBLIC WORKS: *Jan G. ...* 12/23/04 DATE
CHIEF, BUREAU OF ENGINEERING: *Rudolf Sepsom* 12/22/04 DATE
CHIEF, BUREAU OF UTILITIES: *R. ...* 12-22-04 DATE
CHIEF, UTILITY DESIGN DIVISION: *O. ...* 12-22-04 DATE

Patton Harris Rust & Associates, PC
Engineers, Surveyors, Planners, Landscape Architects.
PHRA
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

FRANK DONALDSON #8146
2/13/04

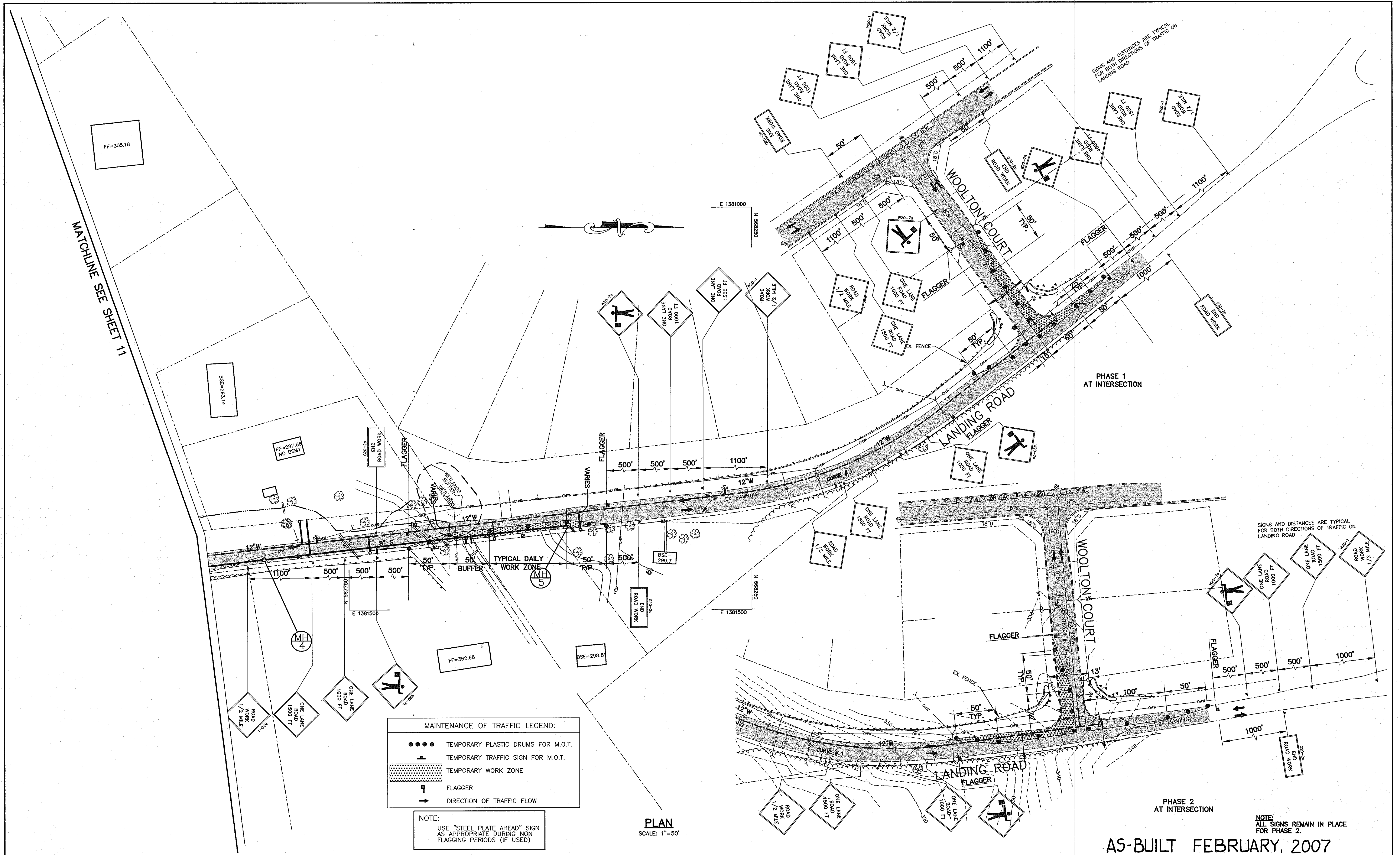
| | | | |
|----------------|--------|-----------------------|------|
| DES: J.S.C. | RJC | AS-BUILT - NO CHANGES | 2/07 |
| DRN: J.A.P. | | | |
| CHK: G.C.L. | | | |
| FEBRUARY, 2004 | BY NO. | REVISION | DATE |

600' SCALE MAP NO. 31 BLOCK NO. 17 & 23

AS-BUILT FEBRUARY, 2007

LANDING ROAD
WATER & SEWER EXTENSION
CAPITAL PROJECT S-6217/W-8698L
CONTRACT NO. 14-3986
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 10 OF 12



MAINTENANCE OF TRAFFIC LEGEND:

- ● ● ● TEMPORARY PLASTIC DRUMS FOR M.O.T.
- ⊠ TEMPORARY TRAFFIC SIGN FOR M.O.T.
- ▨ TEMPORARY WORK ZONE
- ⚑ FLAGGER
- DIRECTION OF TRAFFIC FLOW

NOTE:
USE "STEEL PLATE AHEAD" SIGN AS APPROPRIATE DURING NON-FLAGGING PERIODS (IF USED)

PLAN
SCALE: 1"=50'

AS-BUILT FEBRUARY, 2007

NOTE:
ALL SIGNS REMAIN IN PLACE FOR PHASE 2.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 12/23/04
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 12/22/04
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 12-22-04
CHIEF, BUREAU OF UTILITIES DATE

[Signature] 12-22-04
CHIEF, UTILITY DESIGN DIVISION DATE

Patton Harris-Rust & Associates, PC
Engineers, Surveyors, Planners, Landscape Architects.

PHRA

8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

STATE OF MARYLAND
FRANK DONALDSON #8146
2/13/04

| | | | | |
|------|----------------|--------|----------------------|------|
| DES: | J.S.C. | RJC | AS-BUILT - NO CHANGE | 2/07 |
| DRN: | J.A.P. | | | |
| CHK: | G.C.L. | | | |
| | FEBRUARY, 2004 | BY NO. | REVISION | DATE |

TRAFFIC CONTROL PLAN

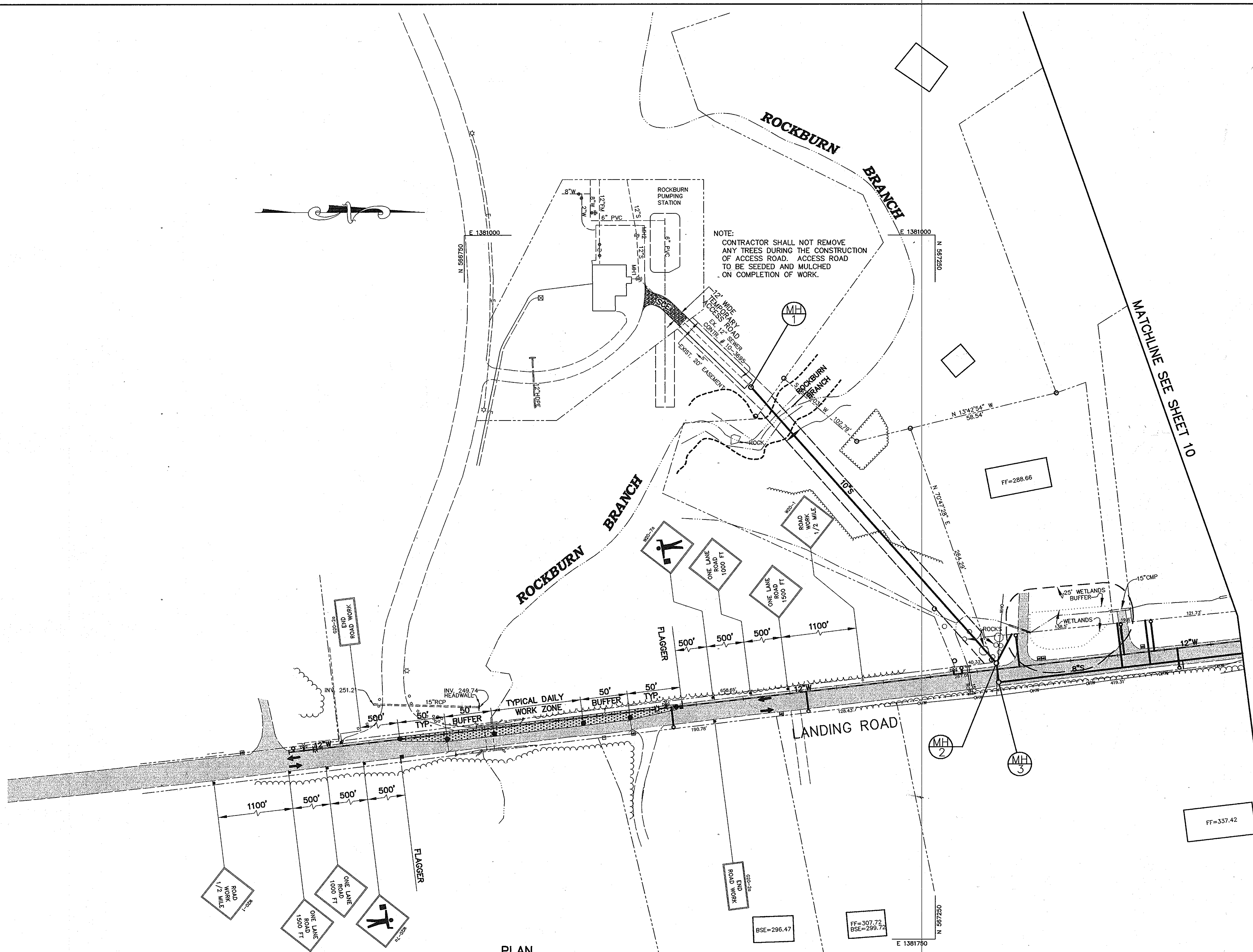
60' SCALE MAP NO. 31 BLOCK NO. 17 & 23

**LANDING ROAD
WATER & SEWER EXTENSION**
CAPITAL PROJECT S-6217/W-8698L
CONTRACT NO. 14-3986
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 11 OF 12

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MAINTENANCE OF TRAFFIC LEGEND:

| | |
|------|------------------------------------|
| ●●●● | TEMPORARY PLASTIC DRUMS FOR M.O.T. |
| + | TEMPORARY TRAFFIC SIGN FOR M.O.T. |
| ▨ | TEMPORARY WORK ZONE |
| ↑ | FLAGGER |
| → | DIRECTION OF TRAFFIC FLOW |

PLAN
SCALE: 1"=50'

AS-BUILT - FEBRUAR, 2007

| | | | | | | | | | | | | |
|---|--|--|--|---|--|--------------------------------------|--|---|--|---|--|----------------------------------|
| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 12/23/04 Chief, Bureau of Engineering: <i>[Signature]</i> 12/22/04 Chief, Bureau of Utilities: <i>[Signature]</i> 12-22-04 Chief, Utility Design Division: <i>[Signature]</i> 12-22-04 | | Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282 FRANK DONALDSON #8146 2/13/04 | | DES: J.S.C. DRN: J.A.P. CHK: G.C.L. FEBRUARY, 2004 | | R/C AS-BUILT - NO CHANGES e/07 | | TRAFFIC CONTROL PLAN 600' SCALE MAP NO. 31 BLOCK NO. 17 & 23 | | LANDING ROAD WATER & SEWER EXTENSION CAPITAL PROJECT S-6217/W-8698L CONTRACT NO. 14-3986 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND | | SCALE AS SHOWN SHEET 12 OF 12 |
|---|--|--|--|---|--|--------------------------------------|--|---|--|---|--|----------------------------------|

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