

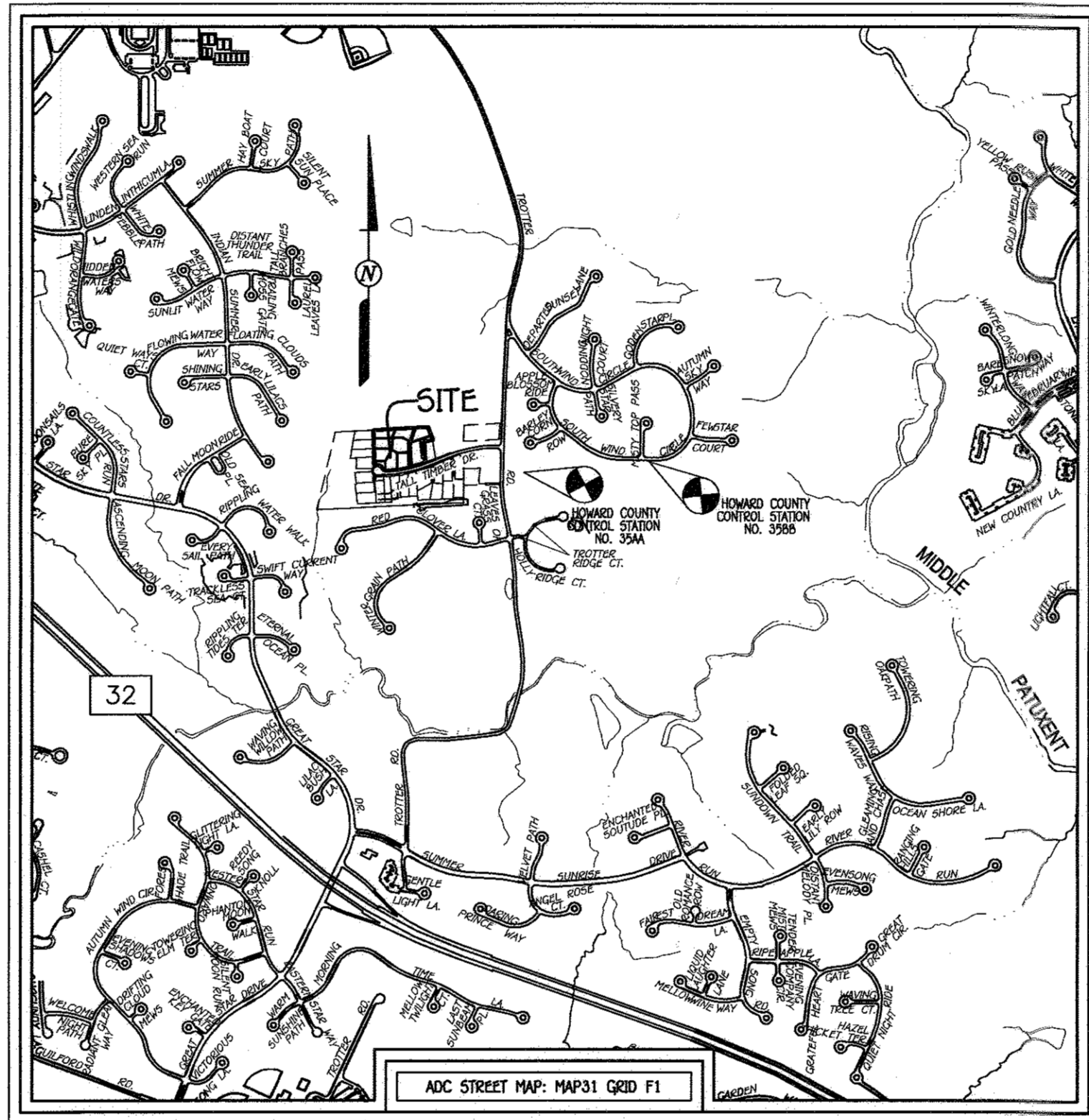
| SHEET INDEX | |
|-------------|---|
| SHEET NO. | DESCRIPTION |
| 1 | TITLE SHEET |
| 2 | SUPPLEMENTAL PLAN - TOPOGRAPHY, LANDSCAPING, & SOILS |
| 3 | SUPPLEMENTAL PLAN - GRADING, SEDIMENT AND EROSION CONTROL |
| 4 | SEDIMENT CONTROL NOTES & DETAILS |
| 5 | SUPPLEMENTAL NOTES & DETAILS |
| 6 | SUPPLEMENTAL PROFILES & DETAILS |

| Lot No. | Gross Area | Pipestem Area | Minimum Lot Size |
|---------|-----------------|----------------|------------------|
| 34 | 15,361 Sq. Ft.± | 4,066 Sq. Ft.± | 14,275 Sq. Ft.± |
| 35 | 15,361 Sq. Ft.± | 9,97 Sq. Ft.± | 14,334 Sq. Ft.± |
| 36 | 17,404 Sq. Ft.± | 122 Sq. Ft.± | 16,253 Sq. Ft.± |
| 37 | 14,404 Sq. Ft.± | 151 Sq. Ft.± | 14,223 Sq. Ft.± |
| 39 | 14,602 Sq. Ft.± | 602 Sq. Ft.± | 14,000 Sq. Ft.± |
| 40 | 14,602 Sq. Ft.± | 602 Sq. Ft.± | 14,000 Sq. Ft.± |
| 41 | 14,945 Sq. Ft.± | 945 Sq. Ft.± | 14,000 Sq. Ft.± |

| SOIL | NAME | CLASS | K FACTOR |
|------|--|-------|----------|
| Qb | Glaciated-Urban land complex, 0 to 6 percent slopes | A | 0.28 |
| QbB | Glaciated-Urban land complex, 3 to 6 percent slopes | A | 0.28 |
| QbC | Glaciated-Urban land complex, 6 to 15 percent slopes | A | 0.28 |

Soil Map: 17 (Clarksville, NE)

| | |
|----|---|
| A. | TOTAL AREA OF THIS SUBMISSION = 171,207 SQ.FT. OR 3.93 AC.± |
| B. | LIMIT OF DISTURBED AREA = 134,646 SQ.FT. OR 3.09 AC.± |
| C. | PRESENT ZONING DESIGNATION = R-20 |
| D. | (PER 10/06/2013 COMPREHENSIVE ZONING PLAN) |
| E. | PROPOSED USE: RESIDENTIAL |
| F. | PREVIOUS HOWARD COUNTY FILES: F-81-119; PLAT 4917, F-83-96; PLAT 5590; 5-97-02; P-98-01; F-98-099; PLAT 13449; S0P-00-032, ECP-15-072, ECP-16-047, S0P-15-062 |
| G. | TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE = 0.00 AC |
| H. | TOTAL AREA OF STEEP SLOPES: MODERATE STEEP SLOPES: 15%-24.9% = 0.00 AC± |
| I. | STEEP SLOPES: 25% OR GREATER = 0.00 AC± |
| J. | TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC. |
| K. | TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0.00 AC. |
| L. | TOTAL AREA OF EXISTING FOREST = 1.40 AC± |
| M. | TOTAL GREEN OPEN AREA = 3.27 AC± |
| N. | TOTAL IMPERVIOUS AREA = 0.66 AC± |
| O. | TOTAL AREA OF ERODIBLE SOILS = 0.00 AC. |
| P. | TOTAL AREA OF ROAD DEDICATION = 0.00 AC. |

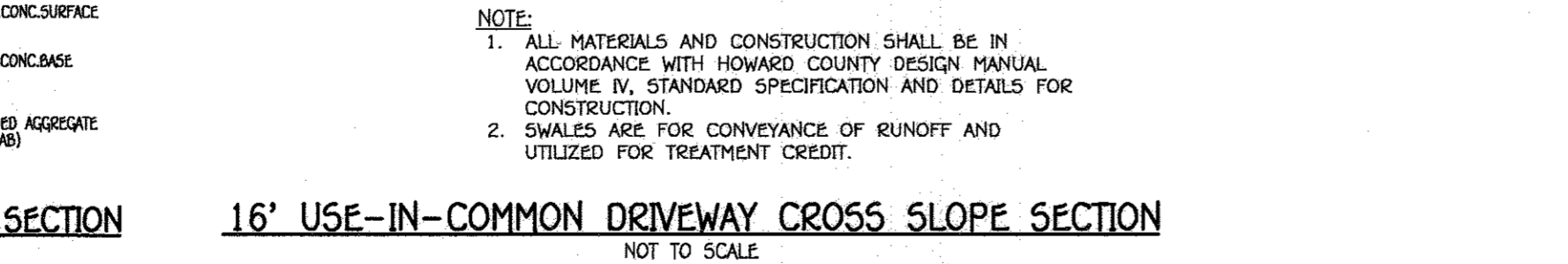
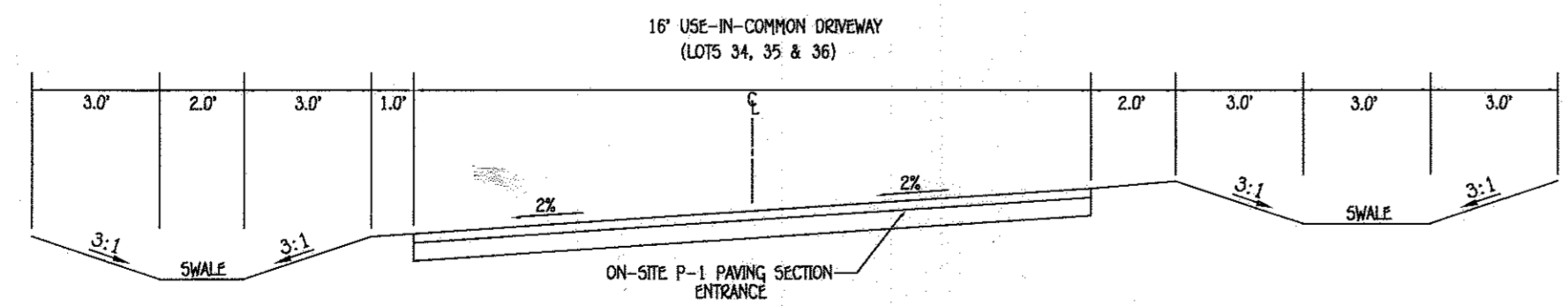


| LOT NO. | MICRO-BIO NO. | TOTAL DRAIN AREA | VOLUME REQUIRED | VOLUME PROVIDED | AREA OF TREATMENT |
|---------|---------------|------------------|-----------------|-----------------|-------------------|
| 35 | '35' | 7,010 SQ. FT. | 349 C.F. | 334 C.F. | 96% |
| 39 | '39' | 6,850 SQ. FT. | 105 C.F. | 162 C.F. | 100% |
| 40 | '40' | 6,850 SQ. FT. | 105 C.F. | 162 C.F. | 100% |

| LOT NO. | DRYWELL NO. | AREA OF ROOF PER DOWN SPOUT | VOLUME REQUIRED | VOLUME PROVIDED | AREA OF TREATMENT |
|---------|-------------|-----------------------------|-----------------|-----------------|-------------------|
| 34 | BLD (FR) | 900 SQ. FT. | 86 C.F. | 126 C.F. | 100% |
| | BLD (RL) | 500 SQ. FT. | 48 C.F. | 126 C.F. | 100% |
| | BLD (FL) | 600 SQ. FT. | 57 C.F. | 126 C.F. | 100% |
| | DRIVEWAY | 570 SQ. FT. | 55 C.F. | 96 C.F. | 100% |
| 35 | BLD (FR) | 600 SQ. FT. | 57 C.F. | 126 C.F. | 100% |
| | BLD (RL) | 500 SQ. FT. | 48 C.F. | 126 C.F. | 100% |
| | BLD (RR) | 900 SQ. FT. | 86 C.F. | 126 C.F. | 100% |
| | BLD (RR) | 900 SQ. FT. | 86 C.F. | 126 C.F. | 100% |
| 37 | BLD (RR) | 900 SQ. FT. | 86 C.F. | 126 C.F. | 100% |
| | BLD (RL) | 500 SQ. FT. | 48 C.F. | 126 C.F. | 100% |
| | BLD (FL) | 600 SQ. FT. | 57 C.F. | 126 C.F. | 100% |
| | DRIVEWAY | 900 SQ. FT. | 86 C.F. | 96 C.F. | 100% |
| 38 | BLD (RR) | 900 SQ. FT. | 86 C.F. | 126 C.F. | 100% |
| | BLD (RL) | 500 SQ. FT. | 48 C.F. | 126 C.F. | 100% |
| | BLD (FL) | 600 SQ. FT. | 57 C.F. | 126 C.F. | 100% |
| | DRIVEWAY | 900 SQ. FT. | 86 C.F. | 96 C.F. | 100% |
| 39 | BLD (FR) | 600 SQ. FT. | 57 C.F. | 126 C.F. | 100% |
| | BLD (RL) | 500 SQ. FT. | 48 C.F. | 126 C.F. | 100% |
| | BLD (RR) | 900 SQ. FT. | 86 C.F. | 126 C.F. | 100% |
| | BLD (RR) | 900 SQ. FT. | 86 C.F. | 126 C.F. | 100% |
| 40 | BLD (RR) | 900 SQ. FT. | 86 C.F. | 126 C.F. | 100% |
| | BLD (RL) | 500 SQ. FT. | 48 C.F. | 126 C.F. | 100% |
| | BLD (FL) | 600 SQ. FT. | 57 C.F. | 126 C.F. | 100% |
| | DRIVEWAY | 1000 SQ. FT. | 95 C.F. | 96 C.F. | 100% |

| | |
|--------|--|
| B.M.#1 | HOWARD COUNTY CONTROL STATION #35AA - HORIZONTAL - NAD '83 (LOCATED BEHIND #6523 BARLEY CORN ROAD, EAST OF TROTTER ROAD) N 560,767.681 E 1,335,483.897 ELEVATION = 430.957 - VERTICAL - (NAVD '80) |
| B.M.#2 | HOWARD COUNTY CONTROL STATION #3588 - HORIZONTAL - (NAD '83) (LOCATED AT SOUTH SIDE OF SOUTH WIND CIR. NEAR THE INTERSECTION OF MISTY TOP PATH) N 560,760.257 E 1,336,537.287 ELEVATION = 394.271 - VERTICAL - (NAVD '80) |

| AREA ID. | ESD REQUIRED CU.FT. | ESD PROVIDED CU.FT. | REMARKS |
|----------|---------------------|---------------------|---|
| SITE | 3,476 | 3,656 | DRY WELLS (M-5), MICRO-BIORETENTION (M-6) & GRASS SWALE (M-8) |
| TOTAL | 3,476 | 3,656 | |



| LOT NO. | ADDRESS | DRYWELLS (NUMBER) | MICRO-BIORETENTION (NUMBER) | GRASS SWALE (NUMBER) |
|---------------------|--------------------------|-------------------|-----------------------------|----------------------|
| 33 | 11832 TALL TIMBER DRIVE | 4 | - | - |
| 34 | 11810 TYSON GARDEN TRAIL | 3 | - | - |
| 35 | 11811 TYSON GARDEN TRAIL | 4 | 1 | - |
| 36 | 11807 TYSON GARDEN TRAIL | - | - | - |
| 37 | 11848 TALL TIMBER DRIVE | 4 | - | - |
| 38 | 11852 TALL TIMBER DRIVE | 4 | - | - |
| 39 | 11856 TALL TIMBER DRIVE | 3 | 1 | - |
| 40 | 11860 TALL TIMBER DRIVE | 3 | 1 | - |
| 41 | 11864 TALL TIMBER DRIVE | 4 | - | - |
| USE-IN-COMMON DRIVE | | - | - | 1 |

GROSS AREA = 3.93 ACRES
LOD = 3.00 ACRES
RCN = 38
TARGET Pe = 1.2"

(Bulk Parcel 'A')
Owner/Developer
Tyson Tall Timber, Inc.
11950 Tall Timber Drive
Clarksville, Maryland 21029
Ph: (410) 370-9406
(Lot 24)
Owner/Developer
Brooke Giegerich-Tyson And Justin Zuber
11832 Tall Timber Drive
Clarksville, Maryland 21029
Ph: (410) 370-9406

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Kat Shaboval
Chief, Division of Land Development
6-12-17
Date

William J. ...
Chief, Development Engineering Division
5-30-17
Date

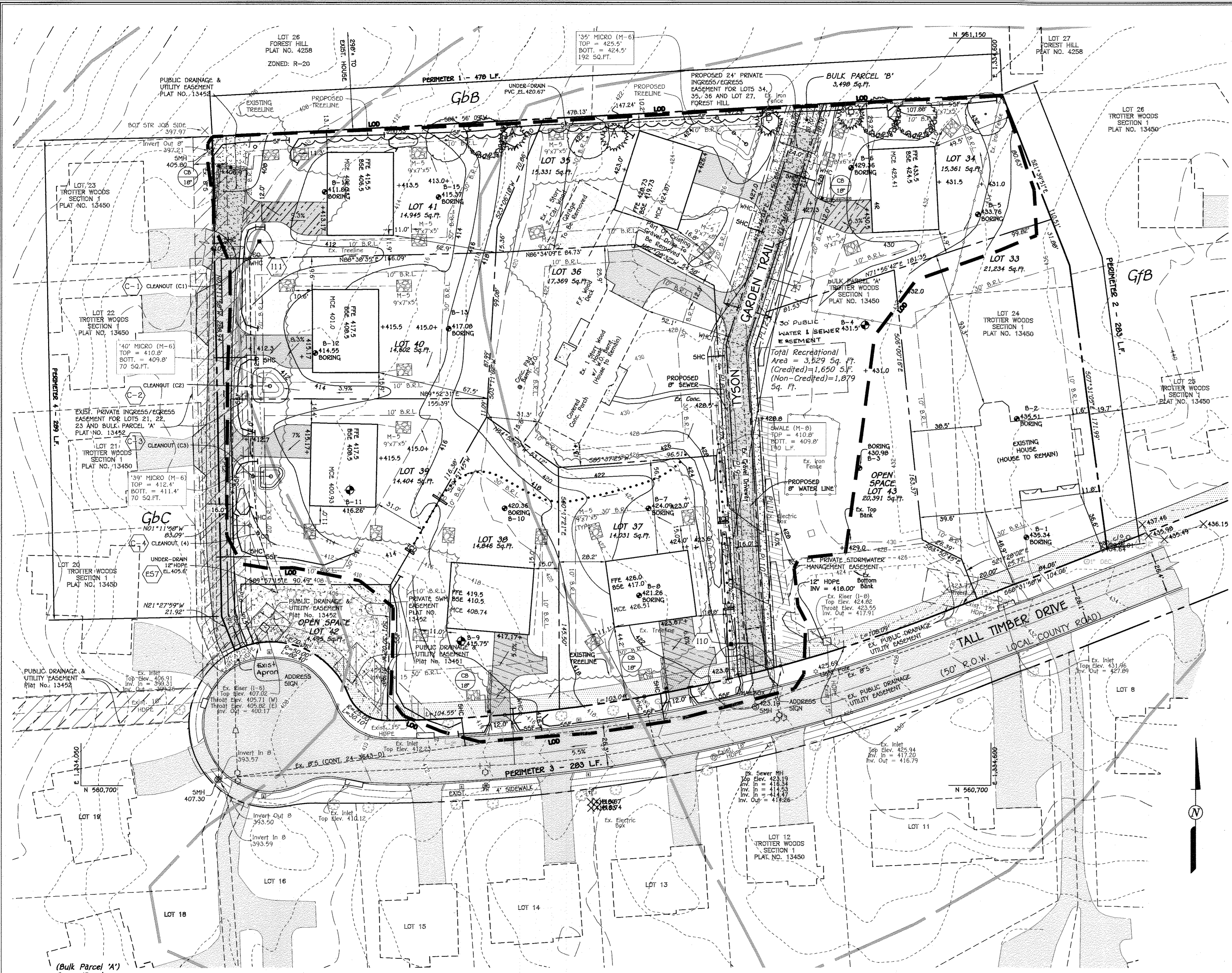
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2018.
William J. ...
Signature of Professional Engineer

GENERAL NOTES

- SUBJECT PROPERTY ZONED R-20 PER 10/06/13 COMPREHENSIVE ZONING PLAN.
- COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 3588 AND NO. 3589.
STA. 3588 N 560,790.404, E 1,336,537.287, ELEV. = 394.271
STA. 3589 N 557,696.148, E 1,333,974.615, ELEV. = 400.941
- THIS PLAN IS BASED ON A BOUNDARY SURVEY PERFORMED ON OR ABOUT JULY 23, 2015 BY FISHER, COLLINS & CARTER, INC. AND ALSO BASED ON PLATS ENTITLED "TROTTER WOODS, SECTION 1, LOTS 1 THRU 32 AND BULK PARCEL 'A' RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND AS PLAT NOS. 13449 THRU 13492.
- B.R.L. DENOTES BUILDING RESTRICTION LINE.
- I DENOTES IRON PIPE SET CAPPED "F.C.C. 106".
- DENOTES IRON PIPE OR IRON BAR FOUND.
- DENOTES ANGULAR CHANGE IN BEARING OF BOUNDARY OR RIGHTS-OF-WAY.
- DENOTES CONCRETE MONUMENT SET WITH ALUMINUM PLATE "F.C.C. 106".
- DENOTES CONCRETE MONUMENT OR STONE FOUND.
- ALL AREAS ARE MORE OR LESS (±).
- DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '83 GRID MEASUREMENT.
- FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF FLAG OR PIPE STEM AND ROAD RIGHT-OF-WAY LINE ONLY AND NOT ON THE FLAG OR PIPE STEM LOT DRIVEWAY.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES FOR THE FOLLOWING (MINIMUM) REQUIREMENTS:
A. WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
B. SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1" - 1/2" MINIMUM);
C. GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
D. STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING);
E. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER SURFACE;
F. STRUCTURE CLEARANCE - MINIMUM 12 FEET;
G. MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- PROPERTY SUBJECT TO PRIOR DEPARTMENT OF PLANNING AND ZONING FILE NOS: 5-97-02, F-81-119, F-83-96, F-98-99, P-98-01, ECP-15-072 AND ECP-16-047, S0P-15-062.
- NO CHEMISTS OR TESTS TO BE PERFORMED ON THIS SITE BASED ON A VISUAL SITE VISIT AND BASED ON THE HOWARD COUNTY CEMETERY INVENTORY MAP.
- SITE IS NOT ADJACENT TO A SCENIC ROAD.
- A PRE-SUBMISSION COMMUNITY MEETING WAS HELD FOR THIS PROJECT ON OCTOBER 14, 2015.
- NO NOISE STUDY FOR THIS PROJECT DOES NOT FALL WITHIN THE GUIDELINES OF DESIGN MANUAL, VOLUME III, ROADS, BRIDGES SECTION 5.2.F.5.
- THE WETLAND AND FOREST STAND DELINEATION LETTER OF FINDINGS DATED MARCH 11, 2016 PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DETERMINED THAT THERE ARE NO WETLANDS AND STREAM AND THEIR RESPECTIVE BUFFERS LOCATED WITHIN THE LIMITS OF THIS PLAN.
- APPROVAL OF SITE DEVELOPMENT PLAN IS REQUIRED FOR THE DEVELOPMENT OF ALL RESIDENTIAL LOTS WITHIN THIS SUBDIVISION PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS FOR NEW HOUSE CONSTRUCTION IN ACCORDANCE WITH SECTION 18.159 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THE LOTS CREATED BY THIS SUBDIVISION PLAN ARE SUBJECT TO A FEE OR ASSESSMENT TO COVER OR DEFRAY ALL OR PART OF THE DEVELOPER'S COST OF THE INSTALLATION OF THE WATER AND SEWER FACILITIES PURSUANT TO THE HOWARD COUNTY CODE SECTION 18.112. THIS FEE OR ASSESSMENT, WHICH RUNS WITH THE LAND, IS NOT A CONTRACTUAL OBLIGATION BETWEEN THE DEVELOPER AND EACH OWNER OF THIS PROPERTY AND IS NOT IN ANY WAY A FEE OR ASSESSMENT OF HOWARD COUNTY.
- THIS PROJECT IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND PUBLIC SEWER WILL BE UTILIZED FOR THIS PROJECT. CONT.# 24-3643-D.
- THIS PLAN IS IN COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COMPTON BILL 45-2003 AND THE 10/08/13 COMPREHENSIVE ZONING PLAN. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION, OR BUILDING/GRADING PERMIT.
- THIS PROJECT IS IN COMPLIANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS ALTERNATIVE COMPLIANCE HAS BEEN APPROVED.
- THE TRAFFIC STUDY DATED OCTOBER 5, 2016 FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP AND APPROVED ON OCTOBER 24, 2016.
- ARTICLES OF INCORPORATION FOR TROTTER WOODS HOMEOWNERS ASSOCIATION, INC. ARE RECORDED AT LIBER 4532, FOLIO 188 OF THE HOWARD COUNTY LAND RECORDS.
- DECLARATION OF COVENANTS AND RESTRICTIONS FOR THE HOMEOWNERS ASSOCIATION ARE RECORDED SIMULTANEOUSLY WITH THIS PLAN.
- WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122B OF THE HOWARD COUNTY CODE.
- PUBLIC WATER AND SEWER ALLOCATIONS WILL BE GRANTED AT TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- THE PRIVATE USE-IN-COMMON DRIVEWAY ACCESS EASEMENT AND MAINTENANCE AGREEMENT FOR SHARED DRIVEWAY ON LOTS 34, 35 AND 36 AND LOT 27, FOREST HILLS SUBDIVISION, PLAT NO. 4258 WILL BE RECORDED SIMULTANEOUSLY WITH THIS PLAN.
- THIS SUBDIVISION IS SUBJECT TO SECTION 10A.D.P. OF THE ZONING REGULATIONS. AT LEAST 10% OF THE DWELLING UNITS SHALL BE MODERATE INCOME HOUSING UNITS (M.I.H.U.) OR AN ALTERNATIVE COMPLIANCE WILL BE PROVIDED. THE DEVELOPER SHALL EXECUTE A M.I.H.U. AGREEMENT WITH THE DEPARTMENT OF HOUSING TO INDICATE HOW THE M.I.H.U. REQUIREMENT WILL BE MET. THE M.I.H.U. AGREEMENT AND COVENANTS WILL BE RECORDED SIMULTANEOUSLY WITH THIS PLAN IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND. THIS DEVELOPMENT WILL MEET M.I.H.U. ALTERNATIVE COMPLIANCE BY A PAYMENT OF A FEE-IN-LIEU TO THE DEPARTMENT OF HOUSING FOR EACH REQUIRED UNIT. MODERATE INCOME HOUSING UNIT (M.I.H.U.) TABULATION:
a. M.I.H.U. REQUIRED (LOTS 34, 35, 37 THRU 41) = (7 LOTS X 10%) = 0.7 M.I.H.U.
b. M.I.H.U. PROPOSED = DEVELOPER WILL PURSUE ALTERNATIVE COMPLIANCE BY PAYING A FEE-IN-LIEU TO THE HOWARD COUNTY HOUSING DEPARTMENT FOR THE UNITS REQUIRED BY THE DEVELOPMENT.
c. AN EXECUTED M.I.H.U. AGREEMENT WITH THE HOWARD COUNTY HOUSING DEPARTMENT HAS BEEN COMPLETED.
- AN M.I.H.U. AGREEMENT AND COVENANTS ARE RECORDED SIMULTANEOUSLY WITH THIS PLAN.
- THE FOREST CONSERVATION OBLIGATION FOR THIS FINAL PLAT FOR TROTTERS WOODS, SECTION 2 WAS INCLUDED WITH THE DEVELOPER'S AGREEMENT FOR TROTTER WOODS, SECTION 1, F-98-99.
- THERE ARE EXISTING DWELLINGS LOCATED ON LOT 33 AND 36 WHICH ARE TO REMAIN. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATION REQUIREMENTS.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. ON OR ABOUT JULY 23, 2015 AND SUPPLEMENTED WITH HOWARD COUNTY GIS DATA.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- SOIL BORINGS WERE EXCAVATED WITHIN 50 FEET OF THE PROPOSED STORMWATER MANAGEMENT DEVICES.
- STORMWATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009, NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5 ARE BEING UTILIZED. ALL DRYWELLS (M-5), MICRO-BIORETENTION FACILITIES (M-6) AND GRASS SWALES (M-8) ARE PRIVATELY OWNED AND MAINTAINED.
- TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ASPHALT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINE FOR STREET LIGHT IN RESIDENTIAL DEVELOPMENT (JUNE 1193)". A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN AND STREETLIGHT AND ANY TREE.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED SQUARE TUBE POST (1/2 GAUGE) INSERTED INTO A 4-1/2" GALVANIZED STEEL PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POST CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- PRIVATE RANGE OF ADDRESS SIGN ASSEMBLIES - FOR THE TWO USE-IN-COMMON DRIVEWAYS - SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS, AT THE DEVELOPER'S / OWNER'S EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.
- ALL FUTURE RESIDENTIAL DRIVEWAYS ENTRANCES ADJACENT TO TALL TIMBER DRIVE SHALL BE CONSTRUCTED WITH A HOWARD COUNTY APRON (DETAIL R-6.05)

TITLE SHEET
TROTTER WOODS, SECTION 2
LOTS 33 THRU 41,
OPEN SPACE LOTS 42, 43 AND BULK PARCEL B
A RESUBDIVISION OF BULK PARCEL A AND LOT 24
OF TROTTER WOODS, SECTION 1
TAX MAP #35 GRID #8 PARCEL #21
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
ZONED: R-20
SCALE: AS SHOWN DATE: APRIL 13, 2017
SHEET 1 OF 6

F-17-031



Property Line Line Table Chart

| LINE | BEARING | LENGTH |
|------|---------------|---------|
| PL1 | N 21°27'59" W | 21.04' |
| PL2 | N 01°11'58" W | 214.41' |
| PL3 | N 21°27'59" W | 20.49' |
| PL4 | N 01°11'58" W | 129.33' |
| PL5 | N 21°27'59" W | 20.26' |
| PL6 | N 01°11'58" W | 16.92' |
| PL7 | N 03°34'21" W | 134.82' |
| PL8 | N 03°34'21" W | 236.16' |
| PL9 | N 03°34'21" W | 199.27' |
| PL10 | N 03°34'21" W | 194.76' |
| PL11 | N 03°34'21" W | 192.83' |
| PL12 | N 17°46'03" E | 22.93' |

LEGEND

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|-----------|---------------------------|--------|-------------------------------------|
| ---100--- | EXISTING 2' CONTOURS | --- | PROPOSED CONTOUR |
| ---100--- | EXISTING 10' CONTOURS | +362.5 | SPOT ELEVATION |
| Gb | SOILS LINES AND TYPE | --- | LIMITS OF DISTURBANCE |
| --- | EXISTING TREE LINE | --- | PROPOSED TREE LINE |
| --- | EXISTING FENCE LINE | --- | SILT FENCE |
| --- | EXISTING PAVING | --- | PERMANENT SOIL STAB. MATING CHANNEL |
| --- | DRAINAGE AREA DIVIDE | --- | SUPER SILT FENCE |
| --- | AREA OF RUNOFF TO DRYWELL | --- | STABILIZES CONSTRUCTION ENTRANCE |
| --- | PROPOSED EARTH DIKE | --- | USE-IN-COMMON ACCESS EASEMENT |
| --- | EXISTING TREE LINE | --- | PROPOSED TREE LINE |

STORMWATER MANAGEMENT PRACTICES

| LOT NO. | DISCONNECTION OF ROOFTOP RUNOFF (N-1) Y/N, NUMBER | DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2) Y/N | DRY WELLS (M-5) Y/N, NUMBER | MICRO-BIORETENTION (M-6) Y/N, NUMBER |
|---------|--|---|-----------------------------|--------------------------------------|
| 33 | ** STORMWATER MANAGEMENT PROVIDED UNDER SDP-15-062 | | | |
| 34 | NO | NO | YES, FOUR(4) | NO |
| 35 | NO | NO | YES, THREE(3) | YES, ONE(1) |
| 36 | EXISTING HOUSE (TO REMAIN) | NO | NO | NO |
| 37 | NO | NO | YES, FOUR(4) | NO |
| 38 | NO | NO | YES, FOUR(4) | NO |
| 39 | NO | NO | YES, THREE(3) | YES, ONE(1) |
| 40 | NO | NO | YES, THREE(3) | YES, ONE(1) |
| 41 | NO | NO | YES, FOUR(4) | NO |
| 42 | N/A | N/A | N/A | N/A |
| 43 | N/A | N/A | N/A | N/A |

SCHEDULE A - PERIMETER LANDSCAPE EDGE

| PERIMETER | P-1 | P-2 | P-3 | P-4 | TOTAL |
|---|----------------------------------|--------------------|---------------------|--------------------|-------|
| CATEGORY | ADJACENT TO PERIMETER PROPERTIES | INTERIOR LOT LINES | ADJACENT TO ROADWAY | INTERIOR LOT LINES | |
| LANDSCAPE TYPE | A | A* | N/A | A* | |
| LINEAR FEET OF PERIMETER | 470 LF. | 283 LF. | 563 LF. | 289 LF. | |
| CREDIT FOR EXISTING TREES TO REMAIN | N/A | N/A | N/A | N/A | |
| NUMBER OF PLANTS REQUIRED | | | | | |
| SHADE TREES | 8 | N/A | N/A | N/A | 8 |
| EVERGREEN TREES | 0 | N/A | N/A | N/A | 0 |
| CREDIT FOR EXISTING VEGETATION | | | | | |
| SMALL/MEDIUM DECIDUOUS TREES (2:1 SUBSTITUTION) | 0 | 0 | 0 | 0 | 0 |
| NUMBER OF PLANTS PROVIDED | | | | | |
| SHADE TREES | 6 | 0 | 0 | 0 | 6 |
| EVERGREEN TREES | 4 | 0 | 0 | 0 | 4 |

LANDSCAPING PLANT LIST

| QTY. | KEY | NAME | SIZE |
|------|-----|--|-------------------------------------|
| 3 | (A) | ACER RUBRUM 'OCTOBER GLORY' (OCTOBER RED MAPLE) | 2 1/2" - 3" CALIPER FULL CROWN, B&B |
| 3 | (B) | PRUNUS SARGENTII (SARGENT CHERRY) | 2 1/2" - 3" CALIPER FULL CROWN, B&B |
| 2 | (A) | ILEX 'NELLIE R. STEVENS' (NELLIE R. STEVENS HOLLY) | 5'-6" HT. B&B |
| 2 | (B) | TRUJA STANDISHII X PLYCATA (GREEN GANT ARBOVITAE) | 5'-6" HT. B&B |

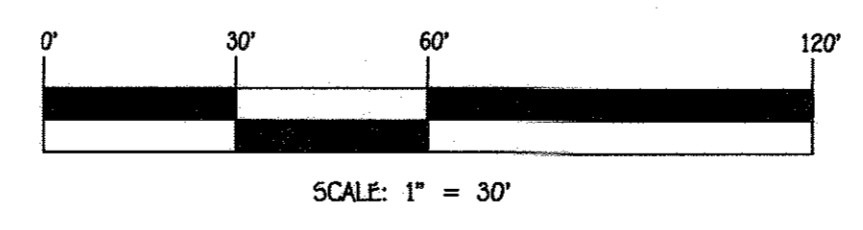
TOTAL: 6 SHADE TREES, 4 EVERGREEN TREES

MICRO-BIORETENTION PLANT LIST

| LOT | QUANTITY | NAME | SPACING |
|-----|----------|------------------|----------------|
| 35 | 24 | MIXED PERENNIALS | 1.5 TO 3.0 FT. |
| 39 | 10 | MIXED PERENNIALS | 1.5 TO 3.0 FT. |
| 40 | 10 | MIXED PERENNIALS | 1.5 TO 3.0 FT. |

SEE PAGE 5 FOR MORE DETAILS

SUPPLEMENTAL PLAN TOPOGRAPHY, LANDSCAPING & SOILS
TROTTER WOODS, SECTION 2
 LOTS 33 THRU 41,
 OPEN SPACE LOTS 42, 43 AND BULK PARCEL B
 A RESUBDIVISION OF BULK PARCEL A AND LOT 24
 OF TROTTER WOODS, SECTION 1



(Bulk Parcel 'A') Owner/Developer
 Tyson Tall Timber, Inc.
 11850 Tall Timber Drive
 Clarksville, Maryland 21029
 Ph: (410) 370-9406

(Lot 24) Owner/Developer
 Brooke Gingerich-Tyson And Justin Zuber
 11832 Tall Timber Drive
 Clarksville, Maryland 21029
 Ph: (410) 370-9406

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kurt Sheelwood
 Chief, Division of Land Development
 Date: 6-12-17

Chloe
 Chief, Development Engineering Division
 Date: 5-30-17

PROFESSIONAL CERTIFICATION
 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. 38386, EXPIRATION DATE: 01/12/2018.

Stephen Lutz Hesch
 Signature Professional Engineer

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
 ELICOTT CITY, MARYLAND 21042

TAX MAP #35 GRID #B PARCEL #21
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 ZONED: R-20
 SCALE: AS SHOWN DATE: APRIL 13, 2017
 SHEET 2 OF 6

F-17-031



Property Line Line Table Chart

| LINE | BEARING | LENGTH |
|------|---------------|---------|
| PL1 | N 21°27'59" W | 21.04' |
| PL2 | N 01°11'58" W | 214.41' |
| PL3 | N 21°27'59" W | 20.49' |
| PL4 | N 01°11'58" W | 129.33' |
| PL5 | N 21°27'59" W | 20.28' |
| PL6 | N 01°11'58" W | 16.92' |
| PL7 | N 03°34'21" W | 134.66' |
| PL8 | N 03°34'21" W | 235.37' |
| PL9 | N 03°34'21" W | 198.90' |
| PL10 | N 03°34'21" W | 195.14' |
| PL11 | N 03°34'21" W | 193.22' |
| PL12 | N 17°46'09" E | 22.93' |

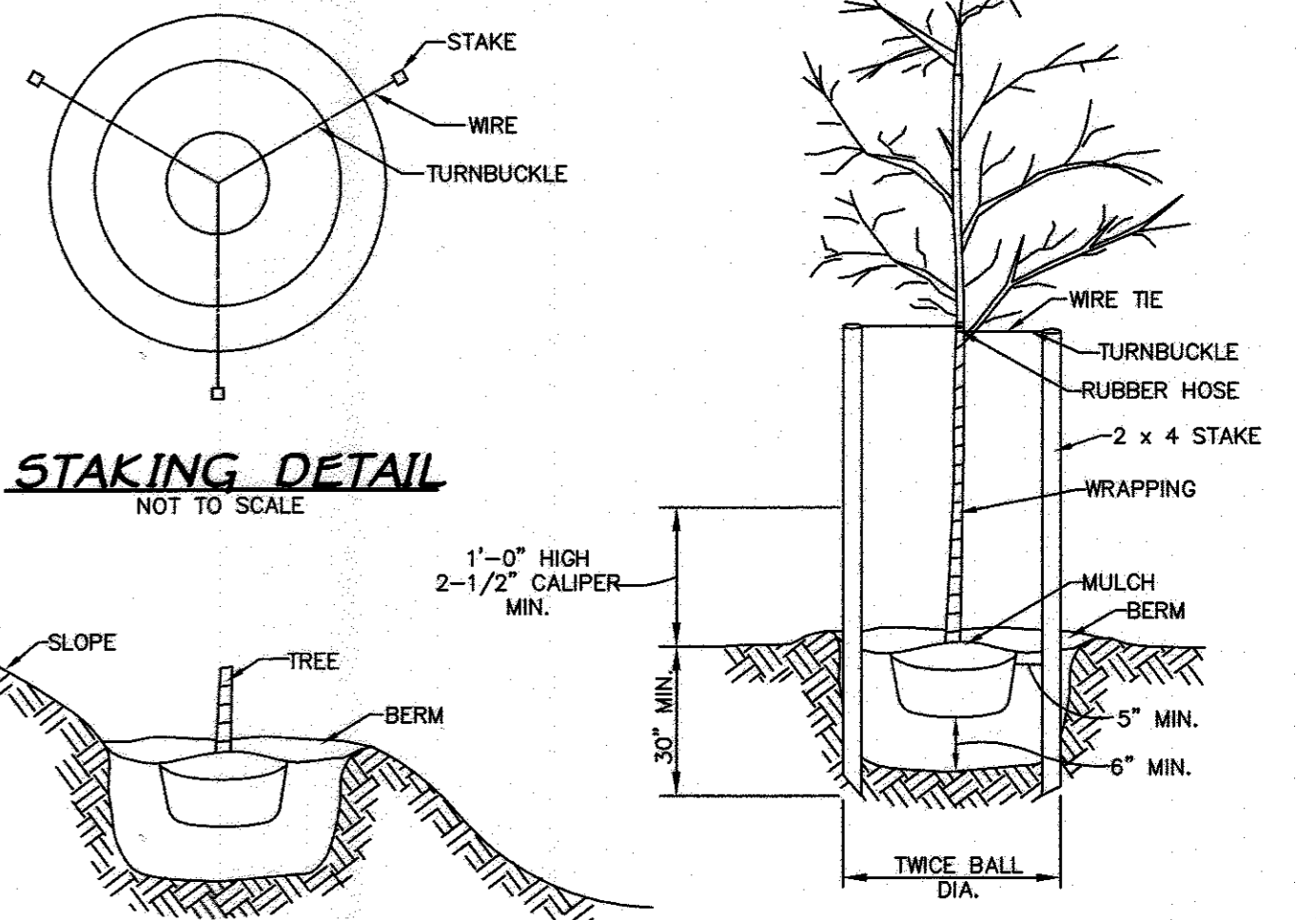
LEGEND

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|---------------|---------------------------|---------------|--------------------------------------|
| (Dashed line) | EXISTING 2' CONTOURS | (Dashed line) | PROPOSED CONTOUR |
| (Dashed line) | EXISTING 10' CONTOURS | (Dashed line) | SPOT ELEVATION |
| (Dashed line) | SOILS LINES AND TYPE | (Dashed line) | LIMITS OF DISTURBANCE |
| (Dashed line) | EXISTING TREELINE | (Dashed line) | PROPOSED TREELINE |
| (Dashed line) | EXISTING FENCE LINE | (Dashed line) | SILT FENCE |
| (Dashed line) | EXISTING PAVING | (Dashed line) | PERMANENT SOIL STAB. MATTING CHANNEL |
| (Dashed line) | DRAINAGE AREA DMBD | (Dashed line) | SUPER SILT FENCE |
| (Dashed line) | AREA OF RUNOFF TO DRYWELL | (Dashed line) | STABILIZES CONSTRUCTION ENTRANCE |
| (Dashed line) | PROPOSED EARTH DIKE | (Dashed line) | USE-IN-COMMON ACCESS EASEMENT |
| (Dashed line) | EXISTING TREELINE | (Dashed line) | PROPOSED TREELINE |

SEDIMENT CONTROL STAGE/STORAGE TABULATION (TS05)

| Water Surface Elev. | Area (sq. ft.) | Avg. Area (sq. ft.) | ΔH (ft.) | Δ Volume (cu. ft.) | Volume (cu. ft.) | Volume (ac.-ft.) |
|---------------------|----------------|---------------------|----------|--------------------|------------------|------------------|
| 413.00 | 396 | | | | 0 | 0.000 |
| 414.00 | 723 | 540 | 1.0 | 540 | 540 | 0.012 |
| 415.00 | 1,198 | 961 | 1.0 | 961 | 1,500 | 0.034 |
| 415.50 | 1,770 | 1,484 | 0.5 | 742 | 2,242 | 0.051 |

3,600 cu.ft. per acre of DA x 0.5 acres = 1,800 cu.ft.



STAKING DETAIL
NOT TO SCALE

GRADING FOR PLANTING ON SLOPES
NOT TO SCALE

TREE PLANTING

NOTE: REMOVE BURLAP FROM TOP 1/3 OF BALL

ENGINEER'S CERTIFICATE

I/WE 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.

Stephan Jutz 4/25/17

SIGNATURE OF ENGINEER DATE

BUILDER/DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, FOR SEDIMENT AND EROSION CONTROL 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 PERSONS ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Jutz 4.24.2017

SIGNATURE OF DEVELOPER DATE

**SUPPLEMENTAL PLAN
GRADING, SEDIMENT AND EROSION CONTROL
TROTTER WOODS, SECTION 2
LOTS 33 THRU 41,
OPEN SPACE LOTS 42, 43 AND BULK PARCEL B
A RESUBDIVISION OF BULK PARCEL A AND LOT 24**

OF TROTTER WOODS, SECTION 1

TAX MAP #35 GRID #8 PARCEL #21
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
ZONED: R-20
SCALE: AS SHOWN DATE: APRIL, 2017
SHEET 3 OF 6

F-17-031

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Vest Shalovich 6.12.17
Chief, Division of Land Development Date

Chieh 5.30.17
Chief, Development Engineering Division Date

PROFESSIONAL CERTIFICATION

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. 38386, EXPIRATION DATE: 01/12/2018.

Stephan Jutz 4/25/17

SIGNATURE OF PROFESSIONAL ENGINEER DATE

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John R. Roberts 5/25/17
Howard SCD Date

(Bulk Parcel 'A')
Owner/Developer
Tyson Tall Timber, Inc.
11050 Tall Timber Drive
Clarkville, Maryland 21029
Ph: (410) 370-9406

(Lot 24)
Owner/Developer
Brooke Gingerich-Tyson And
Justin Zuber
11632 Tall Timber Drive
Clarkville, Maryland 21029
Ph: (410) 370-9406

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 MULTNOMAH NATIONAL PARK
ELLSWORTH CITY, MARYLAND 21042

SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

A. Soil Preparation

- 1. Temporary Stabilization
a. Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment...
b. Apply fertilizer and lime as prescribed on the plans.

B. Topsoiling

- 1. Topsoiling is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth...
2. Topsoiling salvaged from an existing site may be used provided it meets the standards as set forth in these specifications...

C. Soil Amendments

- 1. Soil tests must be performed to determine the exact ratio and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more...
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application...

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

Definition: The application of seed and mulch to establish vegetative cover. Purpose: To protect disturbed soils from erosion during and at the end of construction.

A. Seeding

- 1. Specifications: All seed must meet the requirement of the Maryland State Seed Law...
2. Application: a. Dry Seeding: This includes use of conventional drop or broadcast spreaders...

Table with 4 columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depth, Fertilizer Rate (10-20-20), Lime Rate. Includes rows for TALL FESCUE and RYE.

Signature of Developer: Jeff Z... Date: 4.24.2017. Signature of Engineer: Stephen J... Date: 4/25/17.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. PROFESSIONAL CERTIFICATION. 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...

- 1. WCM is to be dyed green or contain a green eye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry...
2. Application: a. Apply mulch to all seeded areas immediately after seeding...
3. Anchoring: a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water...

TEMPORARY SEEDING NOTES (B-4-4)

Definition: To stabilize disturbed soils with vegetation for up to 6 months. Purpose: To use fast growing vegetation that provides cover on disturbed soils.

Criteria

- 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone...
2. For sites having soil tests performed, use and show the recommended rates by the testing agency...

Table with 4 columns: Hardiness Zone, Seed Mixture (from Table B.1), Seeding Dates, Seeding Depth, Fertilizer Rate (10-20-20), Lime Rate. Includes rows for BARLEY, OATS, and RYE.

A. Seed Mixtures

- 1. General Use: Figure B.3 and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rate and seeding rates in the Permanent Seeding Summary...
2. Turfgrass Mixtures: a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance...

Table with 4 columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depth, Fertilizer Rate (10-20-20), Lime Rate. Includes rows for TALL FESCUE and RYE.

Signature of Developer: Jeff Z... Date: 4.24.2017. Signature of Engineer: Stephen J... Date: 4/25/17.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. PROFESSIONAL CERTIFICATION. 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...

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

- 1. General Specifications: a. Class of turfgrass sod must be Maryland State Certified...
2. Soil Installation: a. In the absence of adequate rainfall, water daily during the first week and as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches...

B-4-B STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

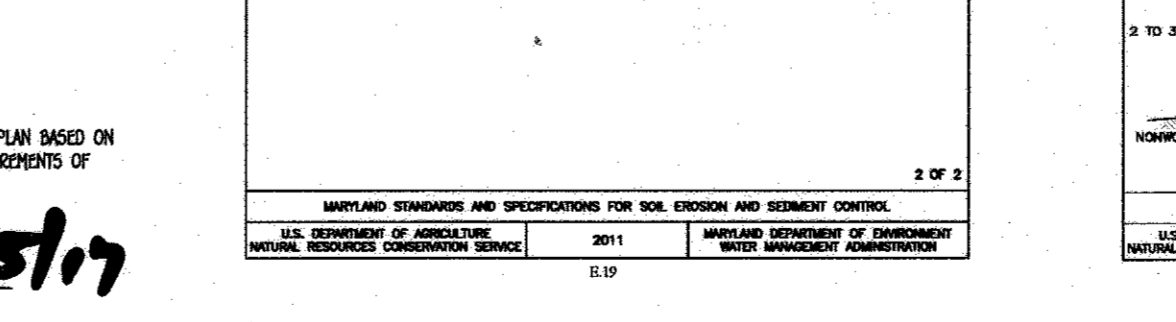
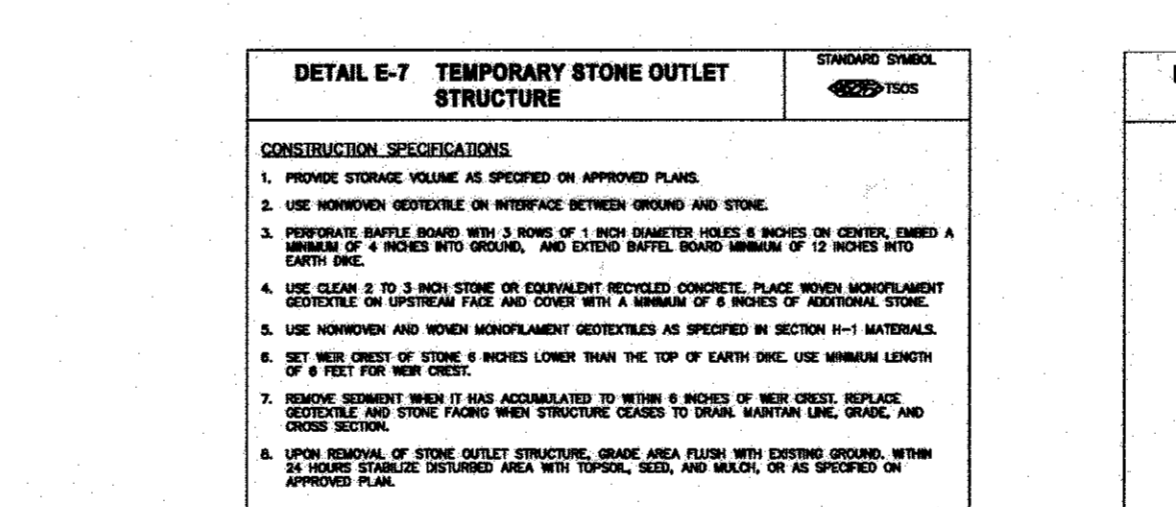
Definition: To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Criteria

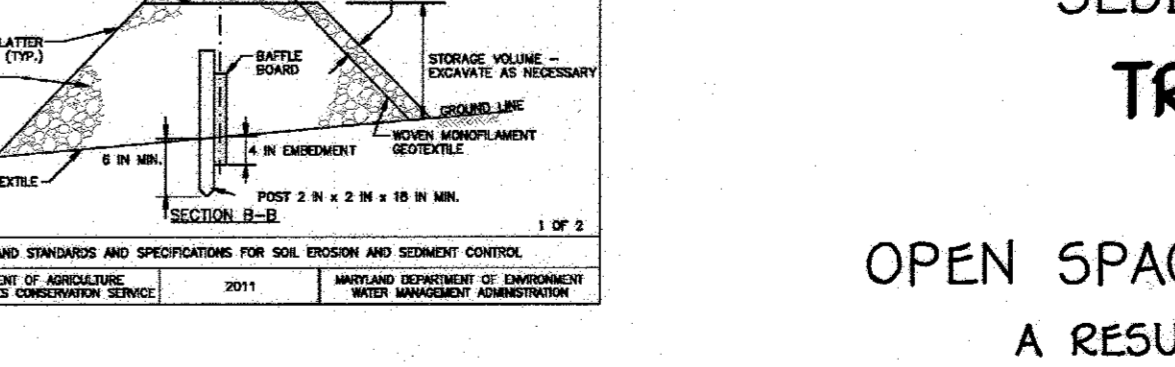
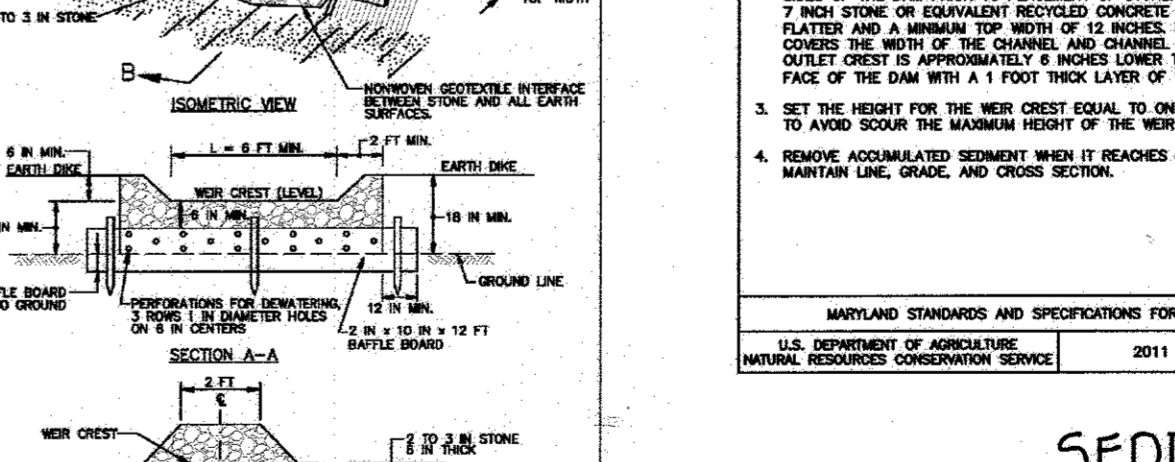
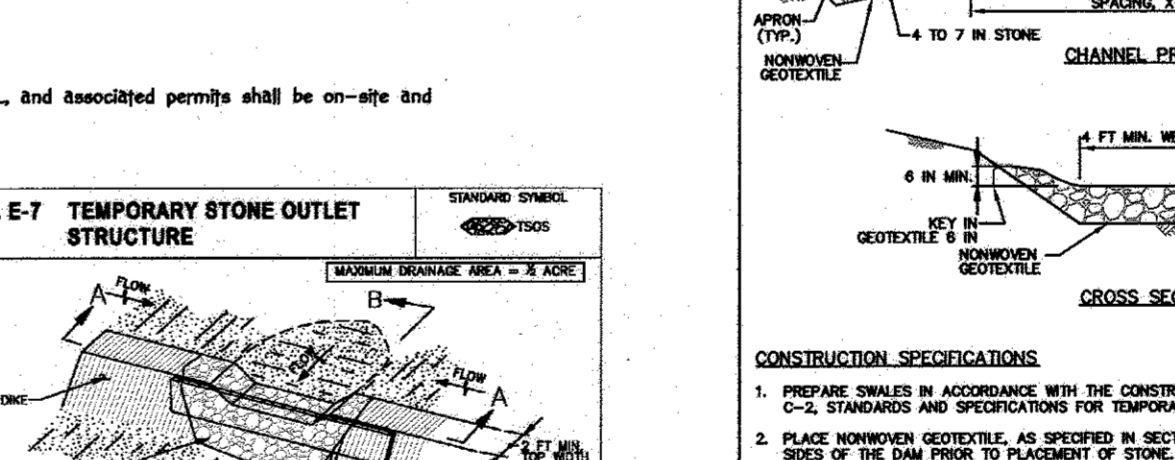
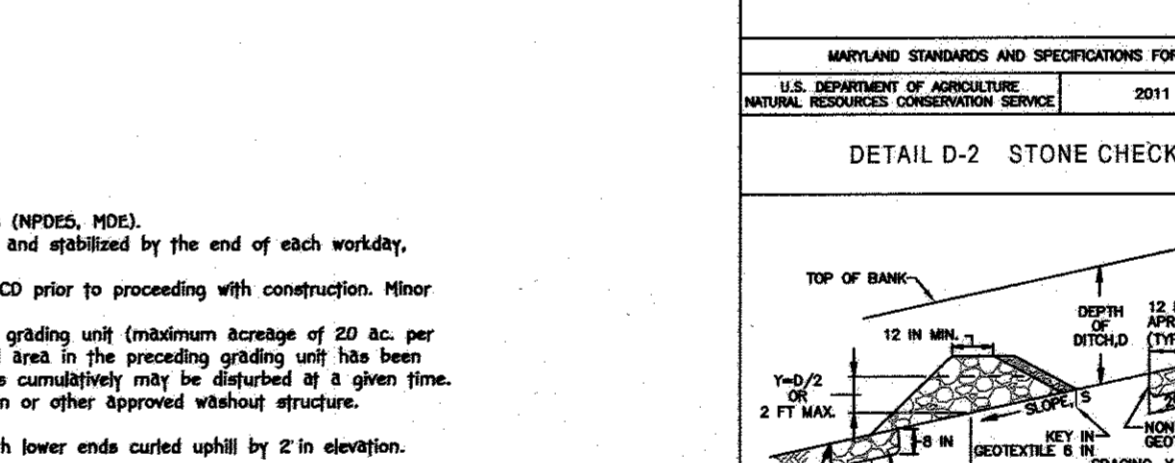
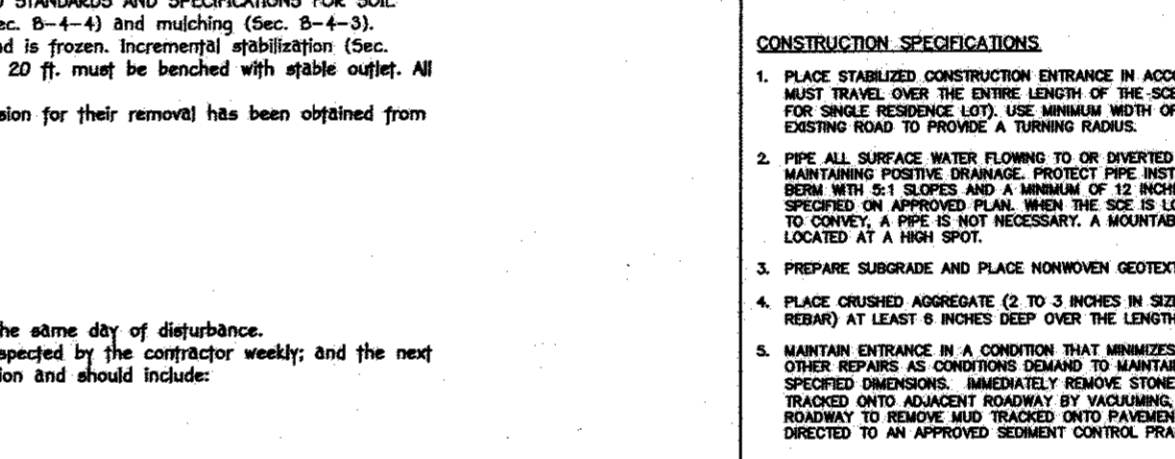
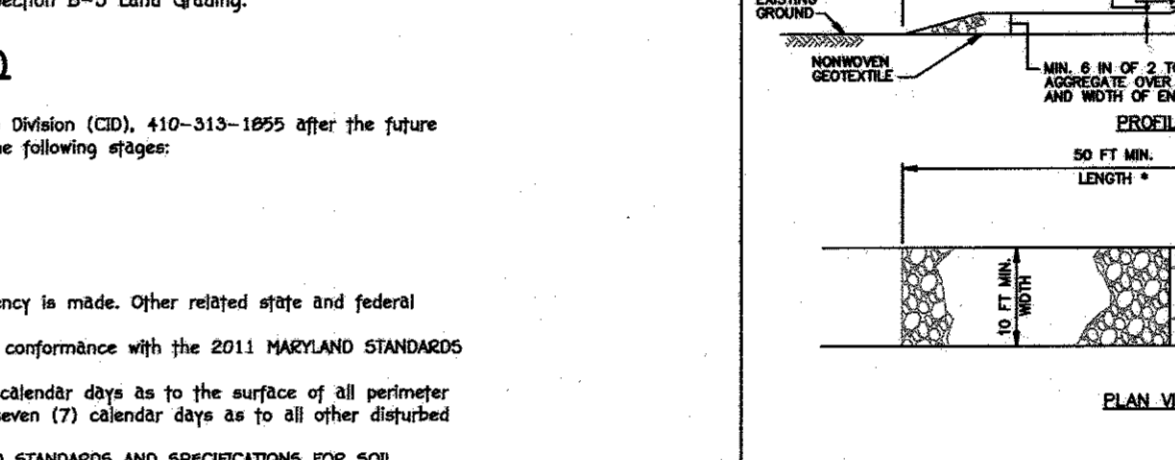
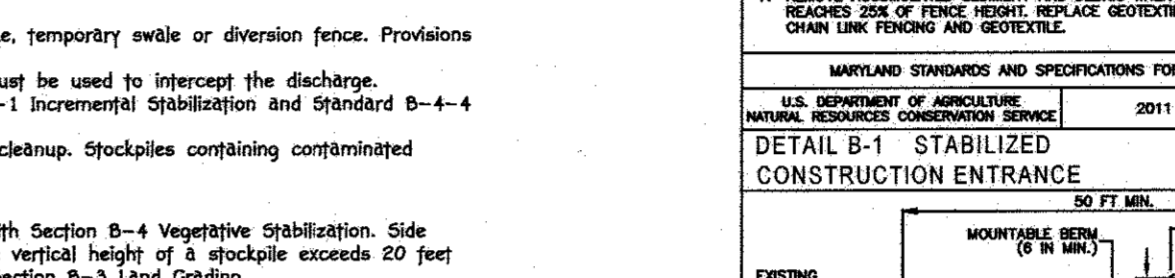
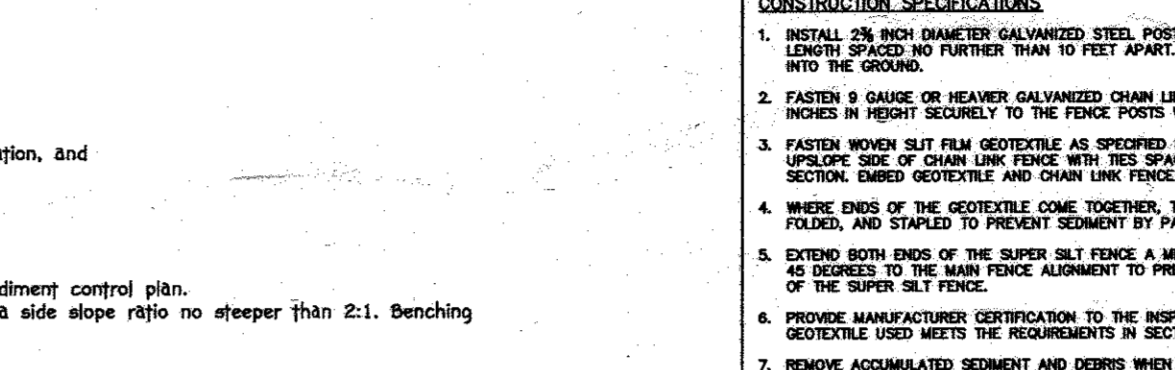
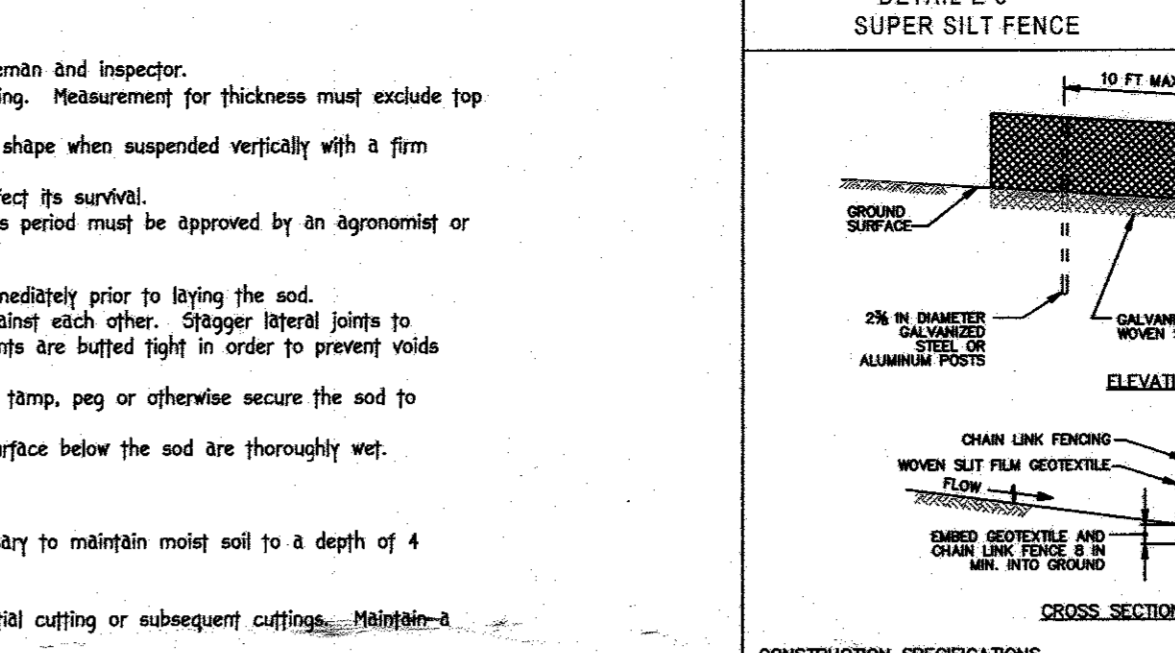
- 1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan...
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1...

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

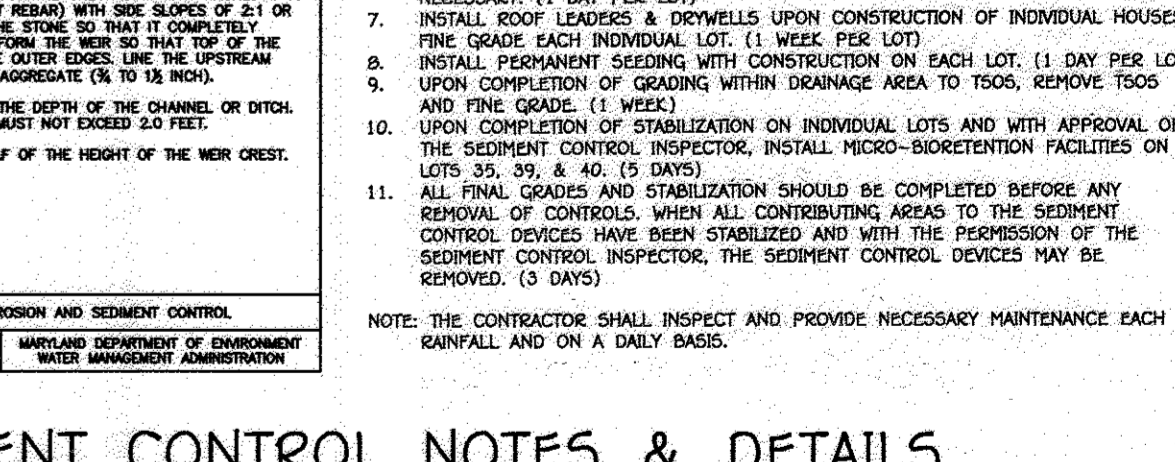
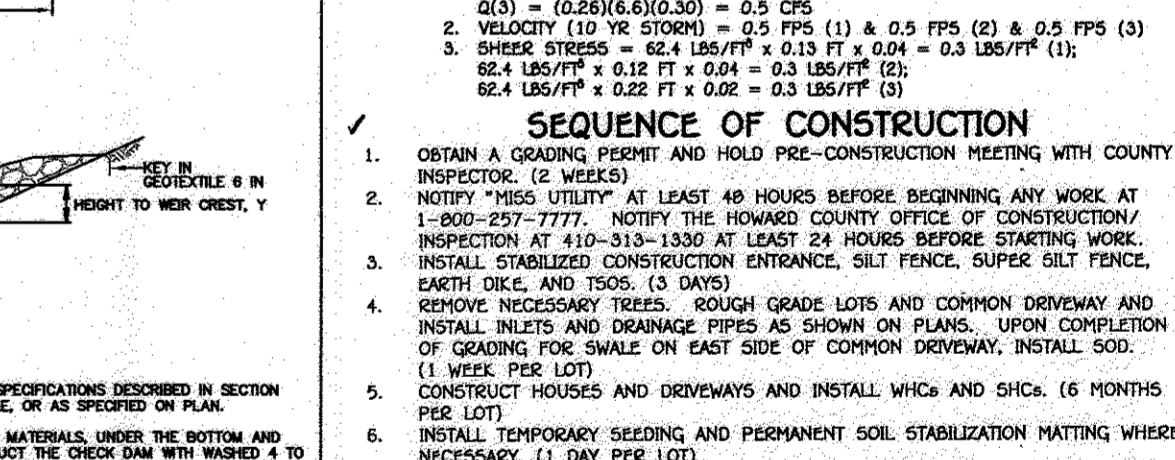
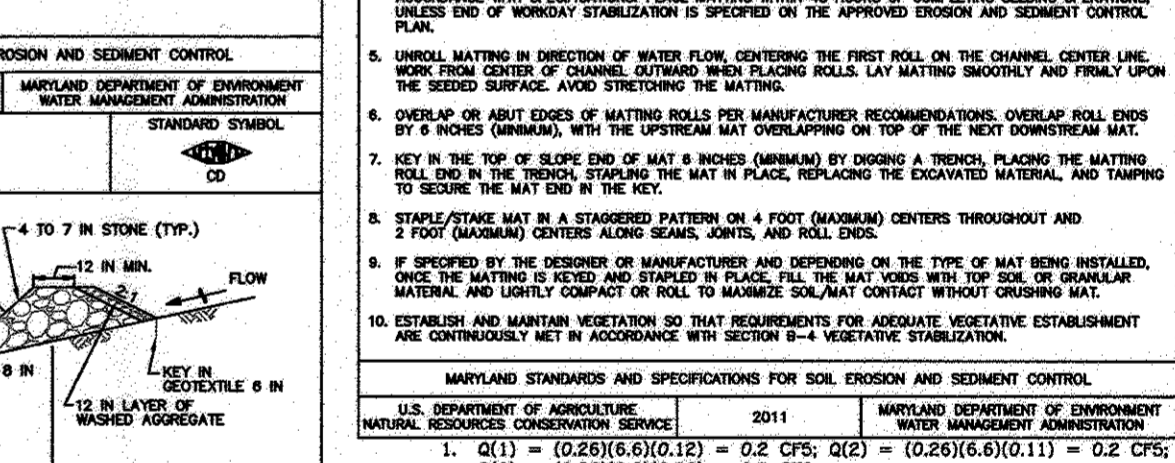
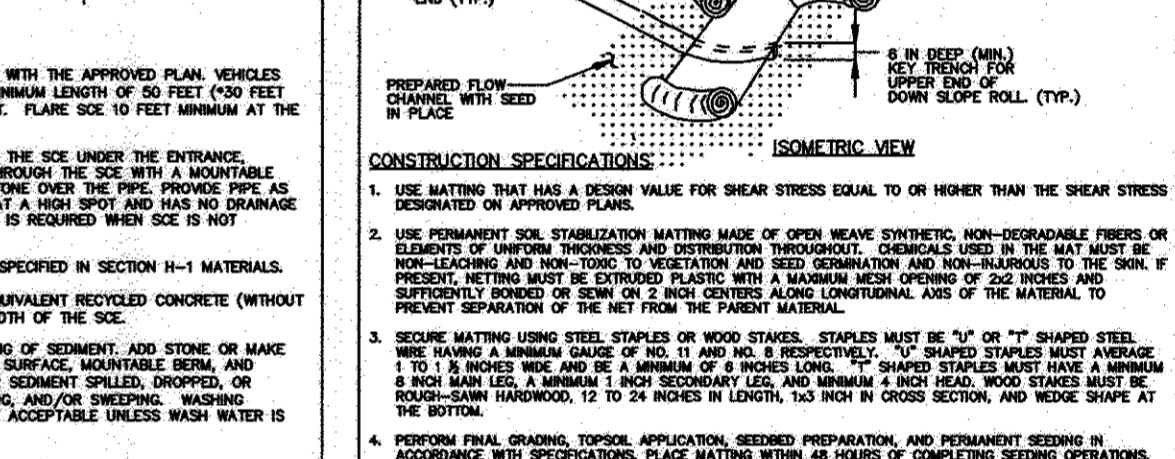
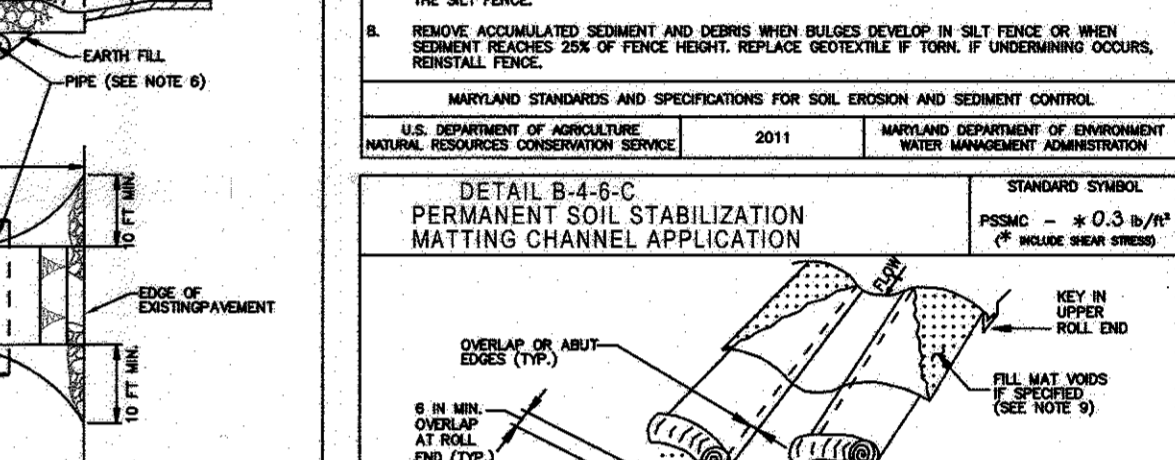
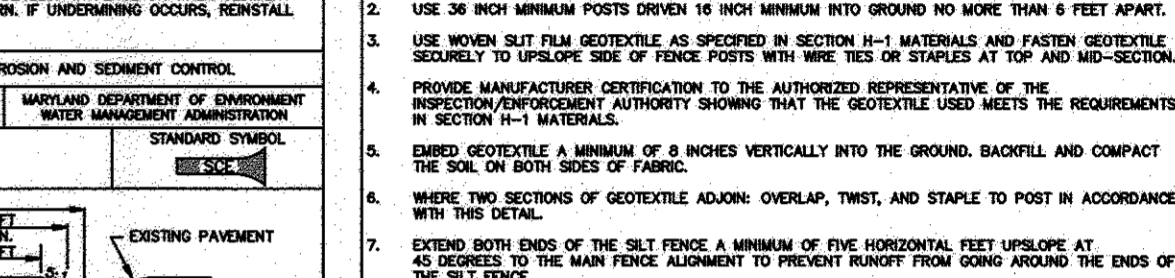
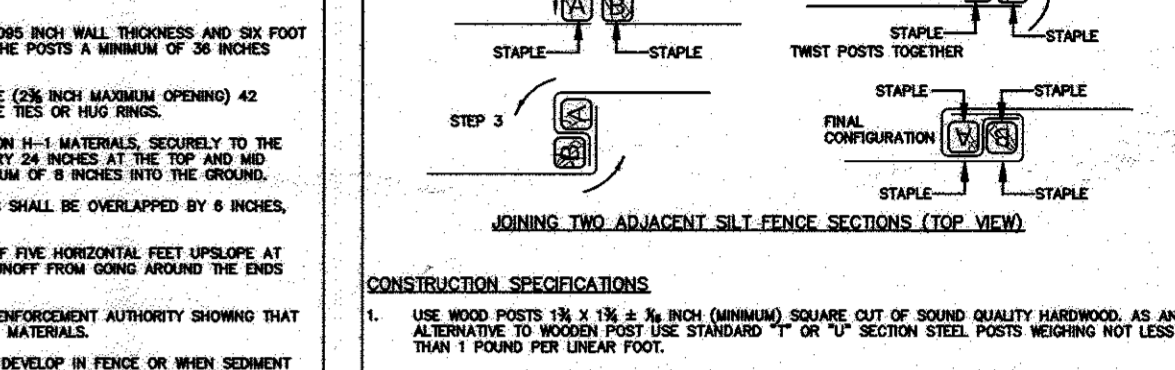
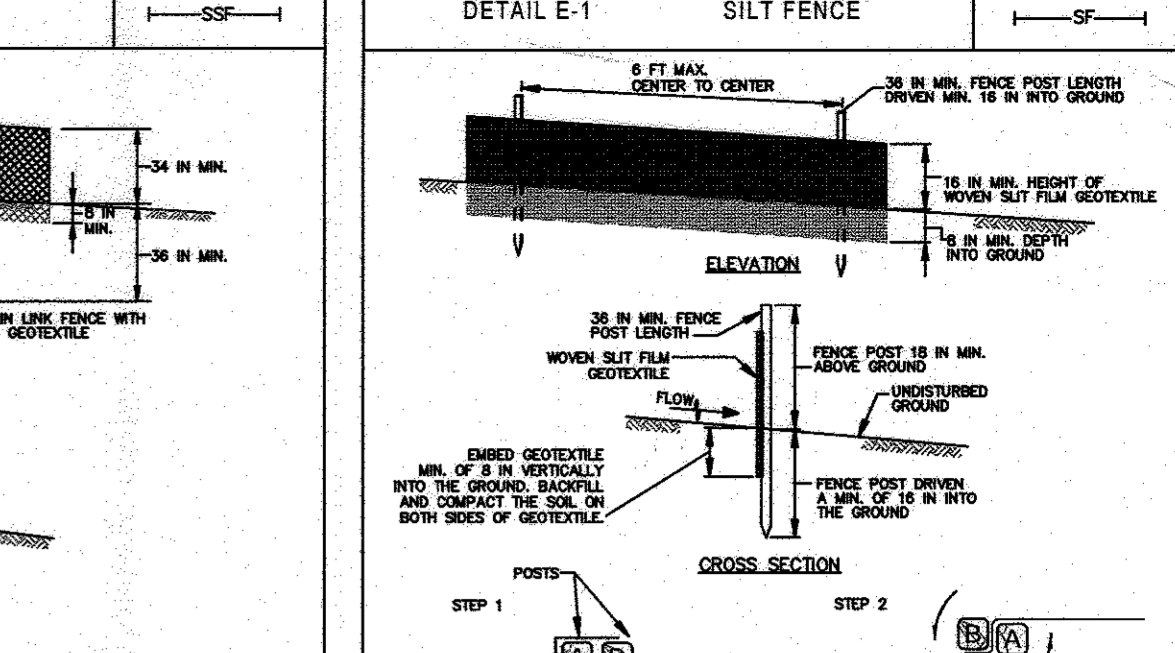
- 1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1655 after the future LOD and protected areas are established in the field...
2. All vegetative and structural practices to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL...



Signature of Developer: Jeff Z... Date: 4.24.2017. Signature of Engineer: Stephen J... Date: 4/25/17.



Signature of Developer: Jeff Z... Date: 4.24.2017. Signature of Engineer: Stephen J... Date: 4/25/17.



Signature of Developer: Jeff Z... Date: 4.24.2017. Signature of Engineer: Stephen J... Date: 4/25/17.

SEDIMENT CONTROL NOTES & DETAILS. TROTTER WOODS, SECTION 2. LOTS 33 THRU 41, OPEN SPACE LOTS 42, 43 AND BULK PARCEL B A RESUBDIVISION OF BULK PARCEL A AND LOT 24 OF TROTTER WOODS, SECTION 1. TAX MAP #35 GRID #8 PARCEL #21 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND. SCALE: AS SHOWN DATE: APRIL 2017 SHEET 4 OF 6. F-17-031

NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL A LANDSCAPE SURETY FOR 8 SHADE TREES IN THE AMOUNT OF (\$2,400.00) WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

PLANTING / SOIL SPECIFICATIONS

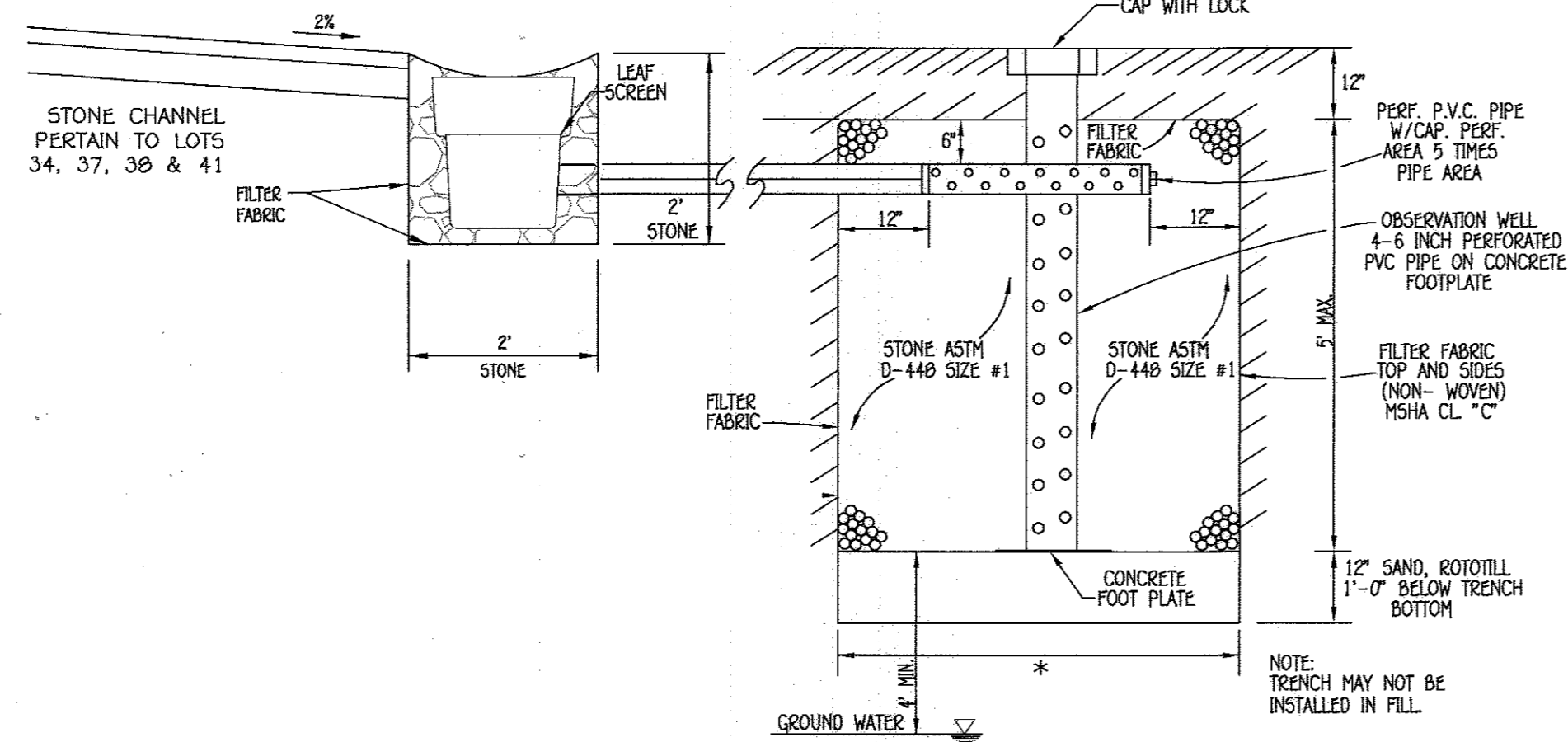
- Planting of Nursery Stock shall Take Place Between March 15th And April 30th Or September 15th And November 15th.
- A Twelve (12) Inch Layer Of Topsoil Shall Be Spread Over All Restoration Areas Impacted By Site Grading To Assure A Suitable Planting Area. If Applicable, Disturbed Areas Shall Be Seeded And Stabilized In Accordance With The Sediment & Erosion Control Plan For This Project. Planting Areas Not Impacted By Site Grading Shall Have No Additional Topsoil Installed.
- All Bare Road Gravel Stock Shall Have Their Root System Dipped Into An Anti-Desiccant Gel Prior To Planting.
- Plants Shall Be Installed So That The Top Of The Root Mass Is Level With The Top Of Existing Grade. Backfill In The Planting Pits Shall Consist Of 3 Parts Existing Soil to 1 Part Fine Fines Or Equivalent.
- Fertilizer Shall Consist Of Agriform 22-8-2, Or Equivalent, Applied As Per Manufacturer's Specifications.
- A Two (2) Inch Layer Of Hardwood Mulch Shall Be Placed Over The Root Area Of All Plantings. See Planting Detail.
- Plant Material Shall Be Transported To The Site In A Tarped Or Covered Truck. Plants Shall Be Kept Moist Prior To Planting.
- All Non-Organic Debris Associated With The Planting Operation Shall Be Removed From The Site By The Contractor.

MAINTENANCE OF PLANTINGS

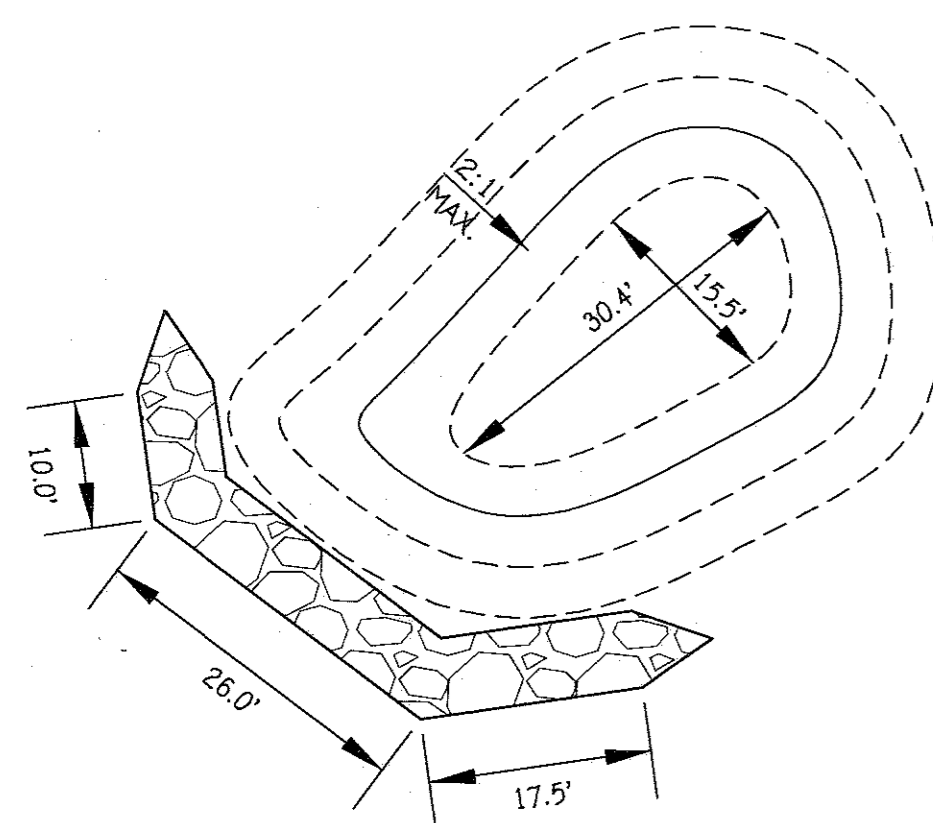
- Maintenance Of Plantings Shall Last For A Period Of 26 Months.
- All Plant Material Shall Be Generally Watered Twice A Month During The 1st Growing Season. Watering May Be More Or Less Frequent Depending On Weather Conditions.
- During The 2nd Growing Season, Plant Material Shall Be Watered Once A Month From May To September, As Needed.
- Invasive Exotics And Noxious Weeds Shall Be Removed From The Restoration Area(s). Old Field Successional Species Shall Be Retained.
- Plants Shall Be Examined A Minimum Of Two (2) Times During The Growing Season For Serious Plant Pests And Diseases With The Appropriate Agent.
- Dead Branched Shall Be Pruned From The Plantings.

Table B.4. Materials Specifications for Micro-Bioretenion, Rain Gardens & Landscape Infiltration

| Material | Specification | Size | Notes |
|---|--|---|---|
| Plantings | see Appendix A Table A.4 | n/a | plantings are site-specific |
| Planting soil (2" to 4" deep) | loamy sand 50-65% compost 35-40% or sandy loam 30% coarse sand 30% compost 40% | | USDA soil types loamy sand or sandy loam; clay content <5% |
| Organic Content | Min. 10% by dry weight (ASTM D 2974) | | |
| Mulch | shredded hardwood | | aged 6 months, minimum |
| Fea gravel diaphragm | pea gravel: ASTM-D-448 | No. 8 or No. 9 (1/8" to 3/8") | |
| Curtain drain | ornamental stone: washed cobbles | stone: 2" to 5" | |
| Geotextile | | n/a | PE Type 1 nonwoven |
| Gravel (underdrains and infiltration berms) | AASHTO M-43 | No. 57 or No. Aggregate (3/8" to 3/4") | |
| Underdrain piping | F 758, Type PS 2B or AASHTO M-278 | 4" to 6" rigid schedule 40 PVC or SDR35 | slotted or perforated pipe; 3/8" perft. @ 8" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth |
| Poured in place concrete (if required) | MSHA Mix No. 3; f = 3500 psi at 28 days, normal weight, air-entrained; reinforcing to meet ASTM-619-10 | n.a | on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved site or local aggregate requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 308.8/89; vertical loading D8-10 or H-20; allowable horizontal loading (based on soil pressures); and analysis of potential cracking. |
| Sand | AASHTO M-6 or ASTM-C-33 | 0.075" to 0.04" | Sand substitutions such as Silica Sand and Quartzite (AASHTO #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand. |



MODIFIED DRY WELL DETAIL (M-5)
NOT TO SCALE



T505 DETAIL
NOT TO SCALE

STORMWATER MANAGEMENT NOTES

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% SLOPE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH
- FINAL GRADING WILL BE SHOWN ON A SITE DEVELOPMENT PLAN.

**(Bulk Parcel 'A')
Owner/Developer**

Tyson Tall Timber, Inc.
11832 Tall Timber Drive
Clarksville, Maryland 21029
Ph: (410) 370-9406

**(Lot 24)
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FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONVENTIONAL SURVEY OFFICE: 10272 BALDWIN NATIONAL PARK
ELIJAH CITY, MARYLAND 21092

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

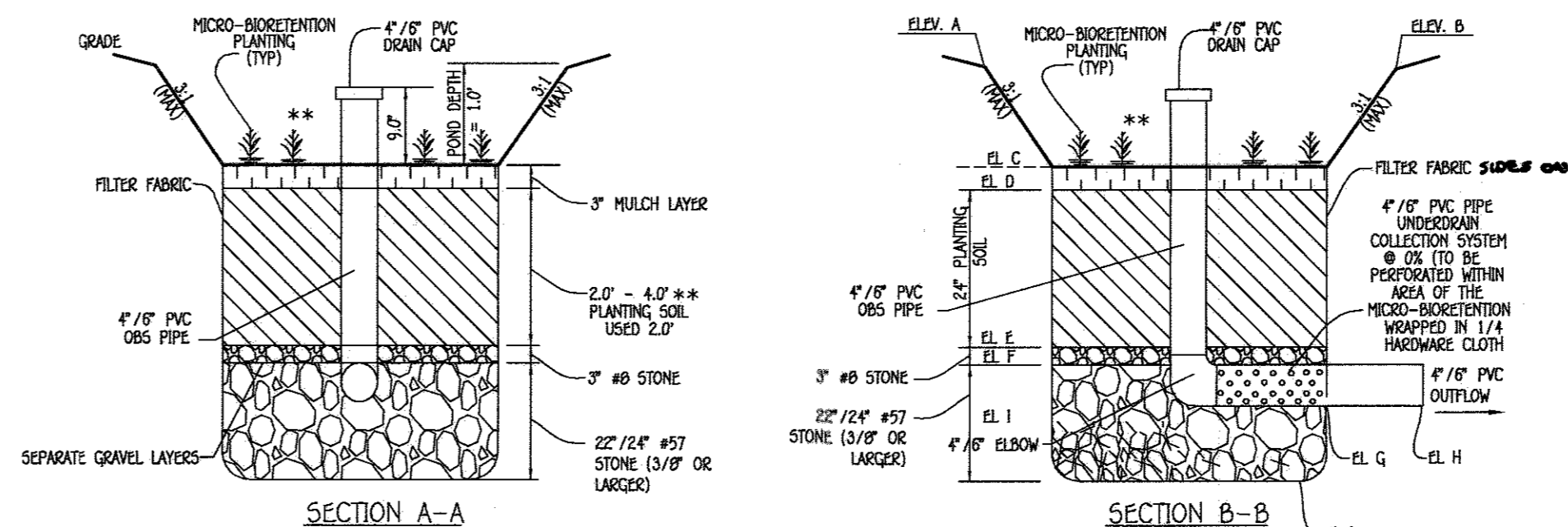
Kest Shelemon
Chief, Division of Land Development
Date: 6-12-17

Al Ch...
Chief, Development Engineering Division
Date: 5-30-17

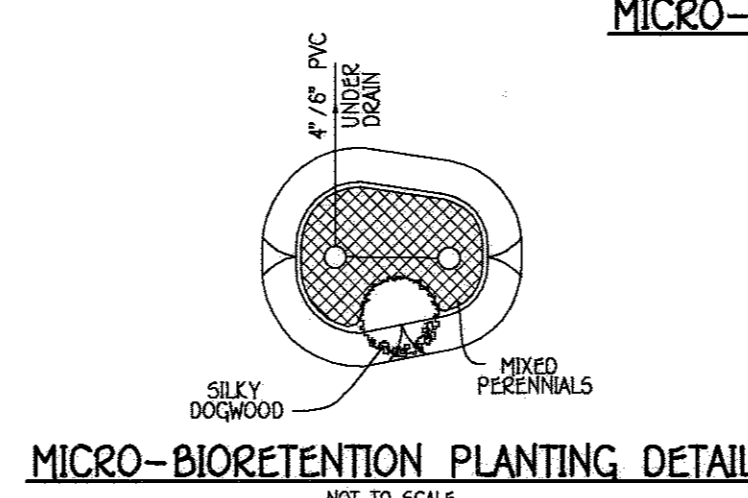
PROFESSIONAL CERTIFICATION

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. 38386, EXPIRATION DATE: 01/12/2018.

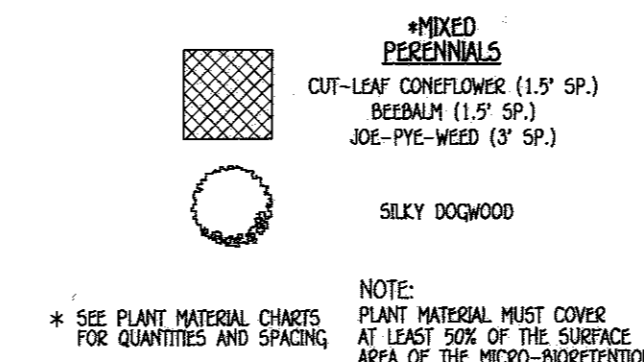
Stephen J. ...
Signature of Professional Engineer



MICRO-BIORETENTION DETAIL (M-6)
NOT TO SCALE



MICRO-BIORETENTION PLANTING DETAIL
NOT TO SCALE



OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED OPEN SPACE LOTS 42, 43 AND BULK PARCEL B AND MAINTAINED GRASS SWALE (M-8)

- THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORM. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
- THE OPEN CHANNEL SHALL BE MOWED A MINIMUM OF AS NEEDED DURING THE GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 6 INCHES.
- DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
- VISIBLE SIGNS OF EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
- REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT EXCEEDS 25% OF THE ORIGINAL MOW.
- INSPECT CHECK DAMS TWICE A YEAR FOR STRUCTURAL INTEGRITY. RESTORE CHECK DAMS TO ORIGINAL CONDITION AS APPLICABLE.

| MICRO-BIORETENTION / BIORETENTION | | | | | | | | | | | |
|-----------------------------------|----------------------|-------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| BIORETENTION FILTER | DIMENSIONS (APPROX.) | MULCH AREA SQ.FT. | A | B | C | D | E | F | G | H | I |
| LOT 35 | 20' x 14' | 192 SQ.FT. | 425.5 | 425.5 | 424.5 | 424.25 | 422.25 | 422.0 | 421.67 | 420.67 | 420.0 |
| LOT 39 | 8' x 8.6' | 70 SQ.FT. | 412.4 | 411.4 | 411.4 | 411.15 | 409.15 | 408.50 | 408.57 | 408.24 | 406.90 |
| LOT 40 | 8' x 8.6' | 70 SQ.FT. | 410.8 | 410.8 | 409.8 | 409.55 | 407.55 | 407.30 | 406.97 | 406.91 | 405.30 |

OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LISTED IN THE FOLLOWING 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A-4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIGS.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

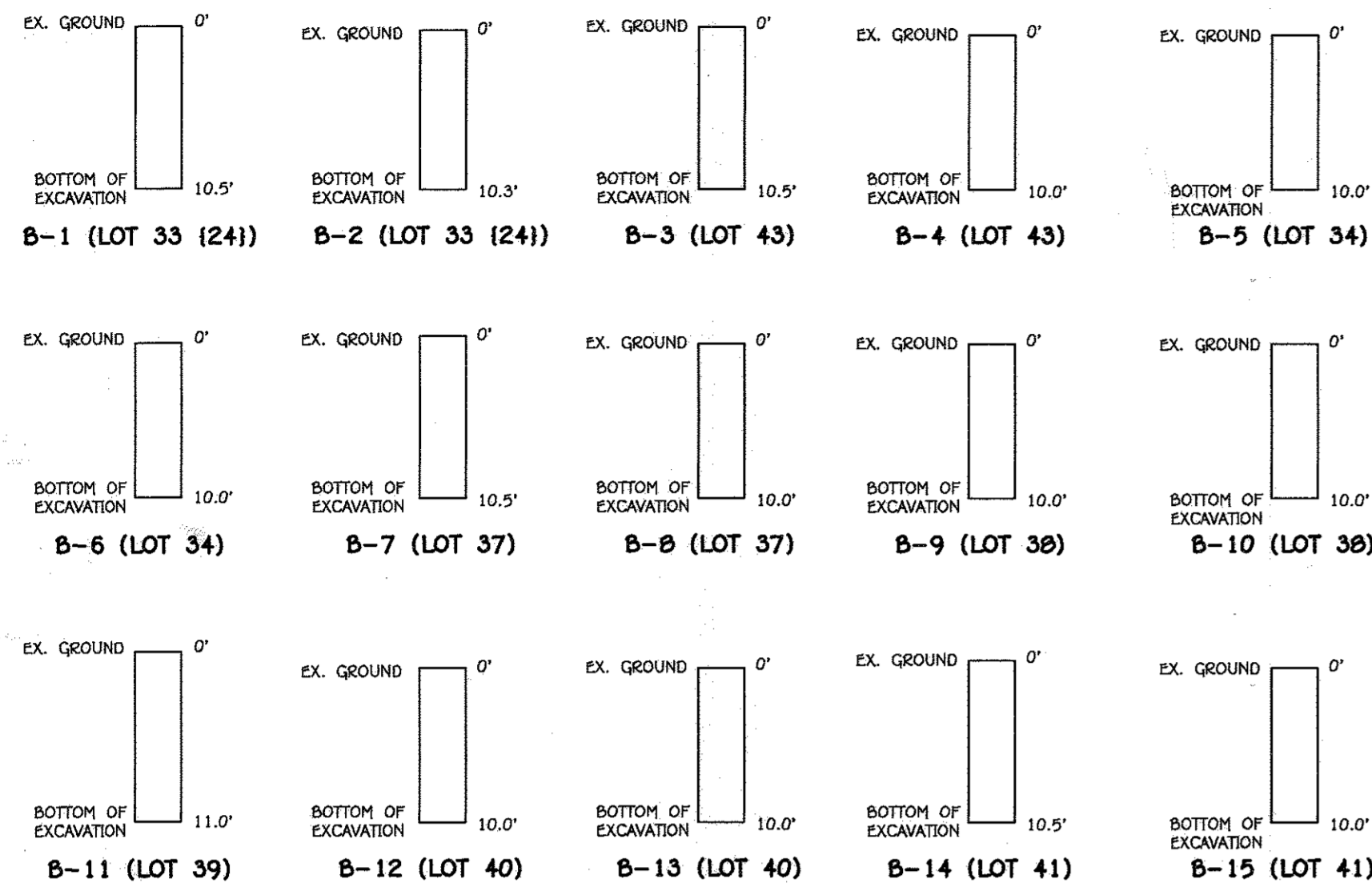
SUPPLEMENTAL NOTES AND DETAILS

TROTTER WOODS, SECTION 2

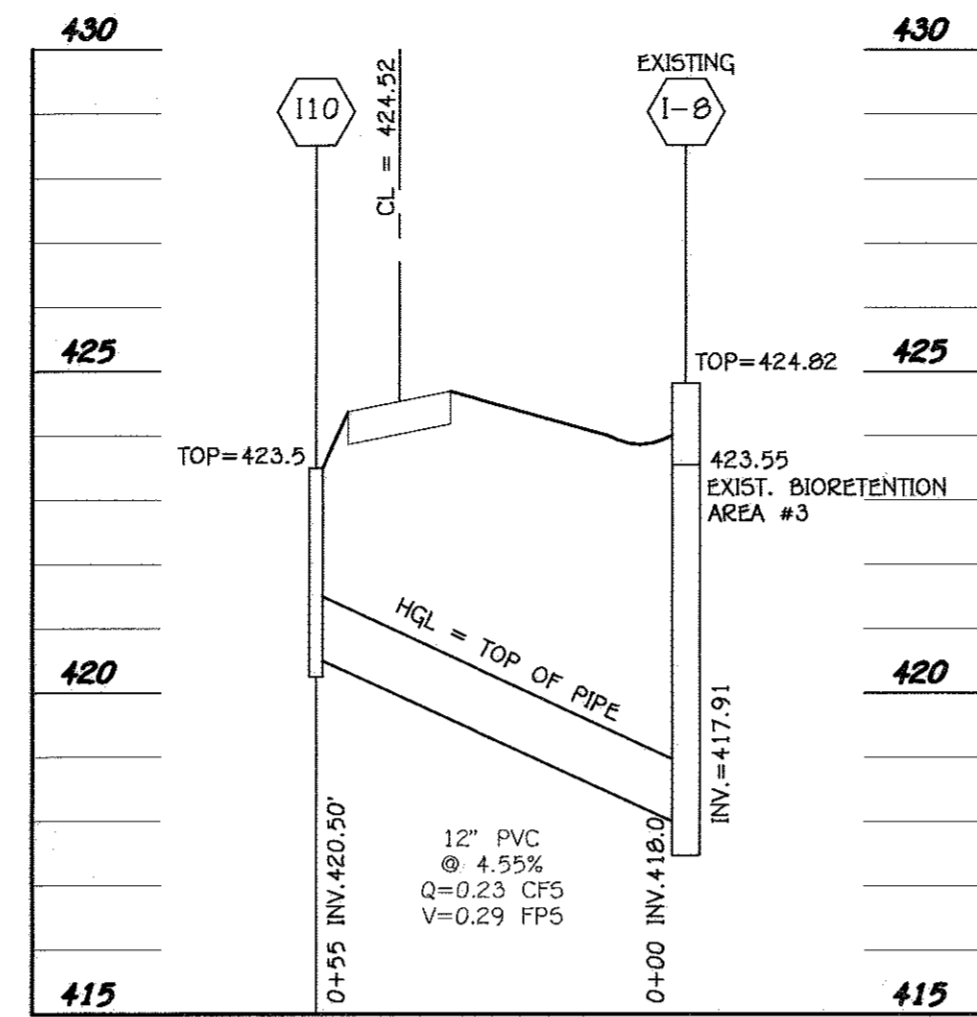
LOTS 33 THRU 41,
A RESUBDIVISION OF BULK PARCEL A AND LOT 24
OF TROTTER WOODS, SECTION 1

TAX MAP #35 GRID #8 PARCEL #21
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
ZONED: R-20
SCALE: AS SHOWN DATE: APRIL 13, 2017
SHEET 5 OF 6

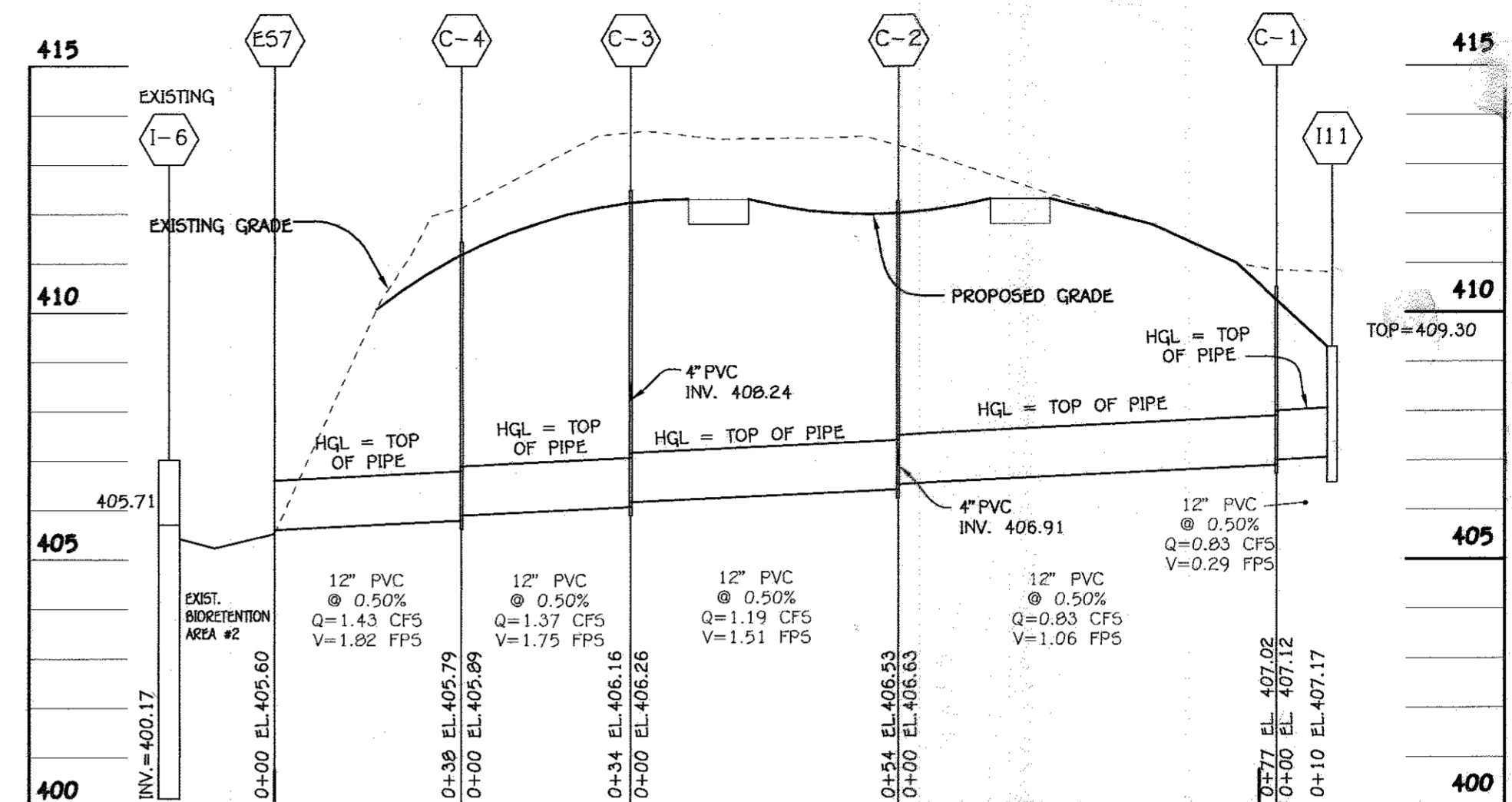
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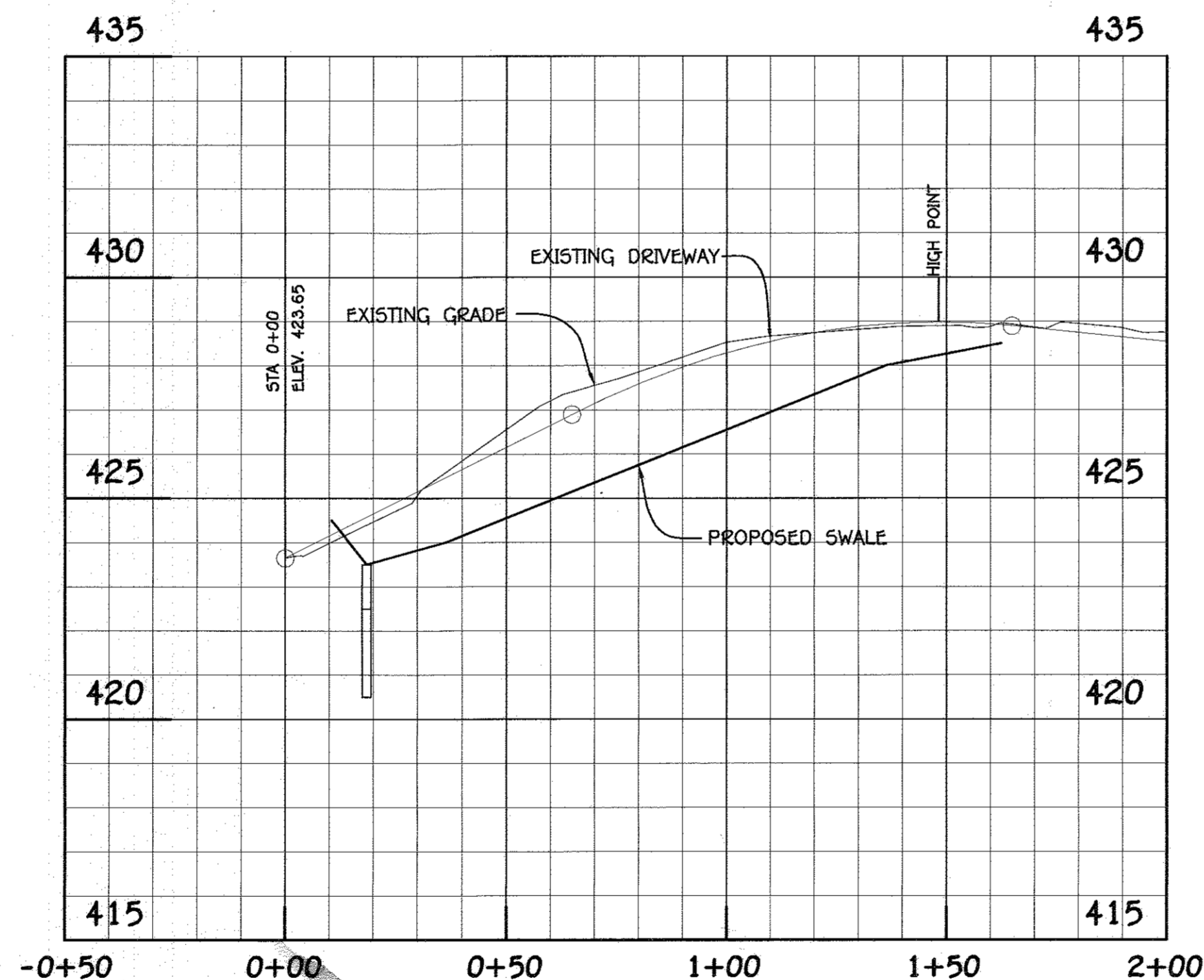
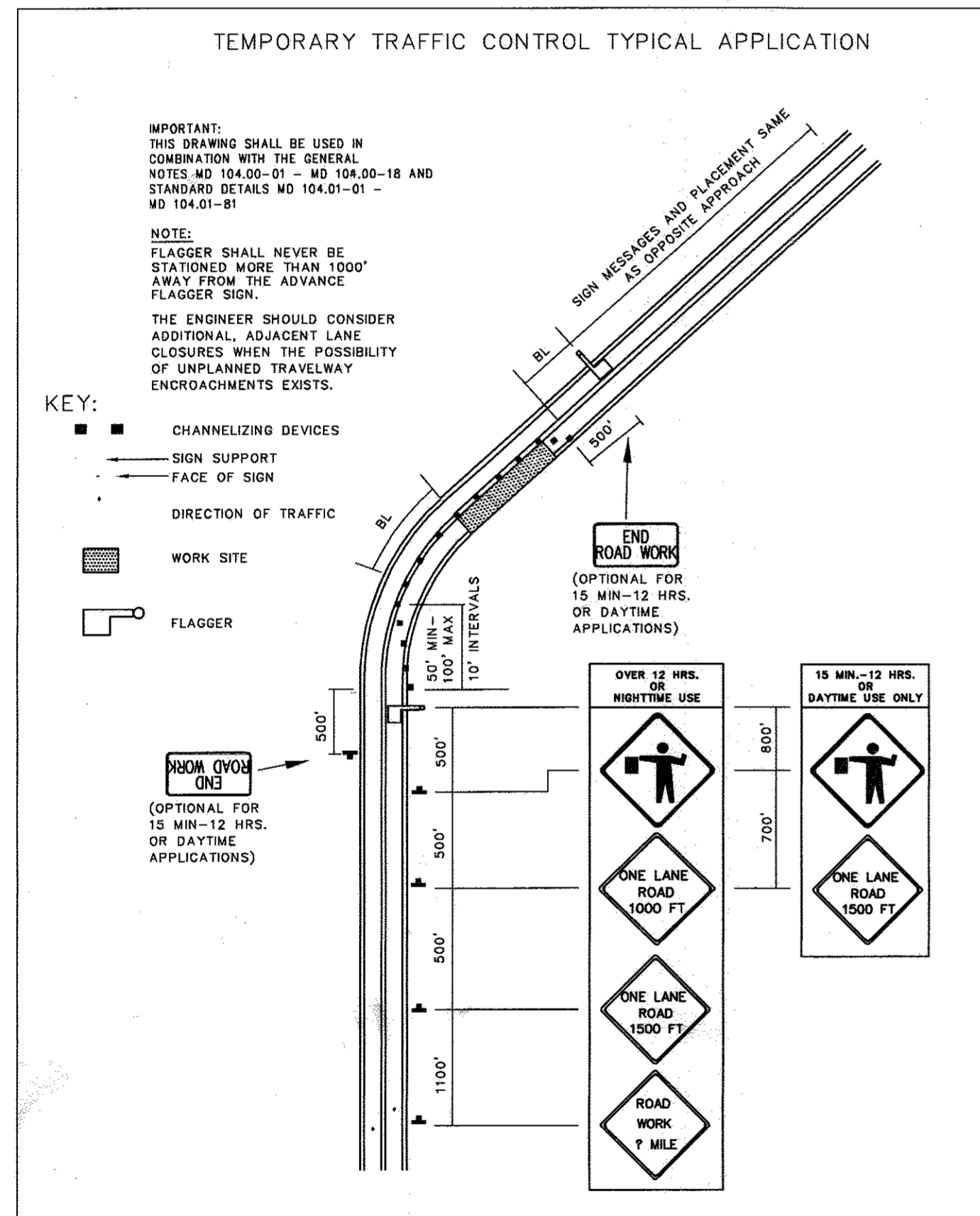
NOTE: NO ROCK OR WATER WAS ENCOUNTERED DURING SOIL EXCAVATIONS IN HOLES 1 THRU 15. PROFILES REFLECT THE DEPTHS OF THE EXCAVATIONS CONDUCTED ON MAY 20, 2015.



PROFILE STORM DRAIN
SCALE HORZ. 1" = 30'
VERT. 1" = 3'



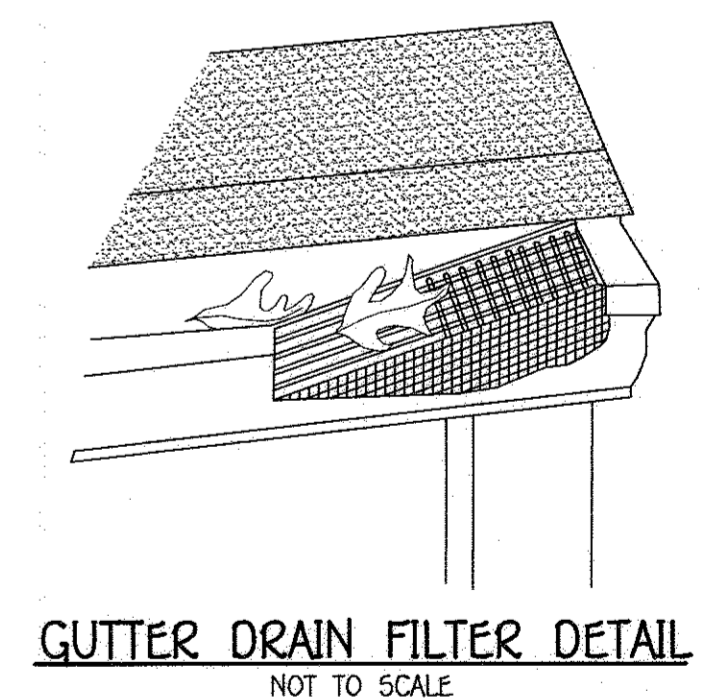
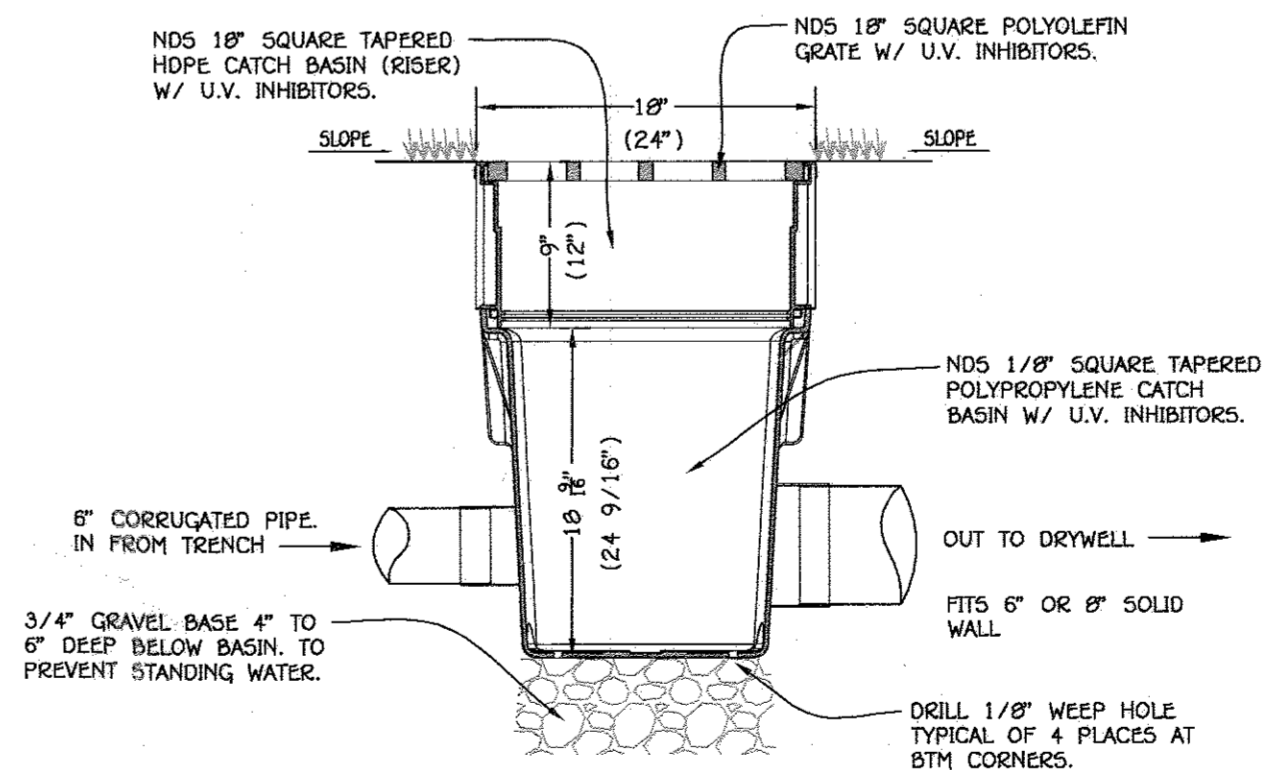
PROFILE STORM DRAIN
SCALE HORZ. 1" = 30'
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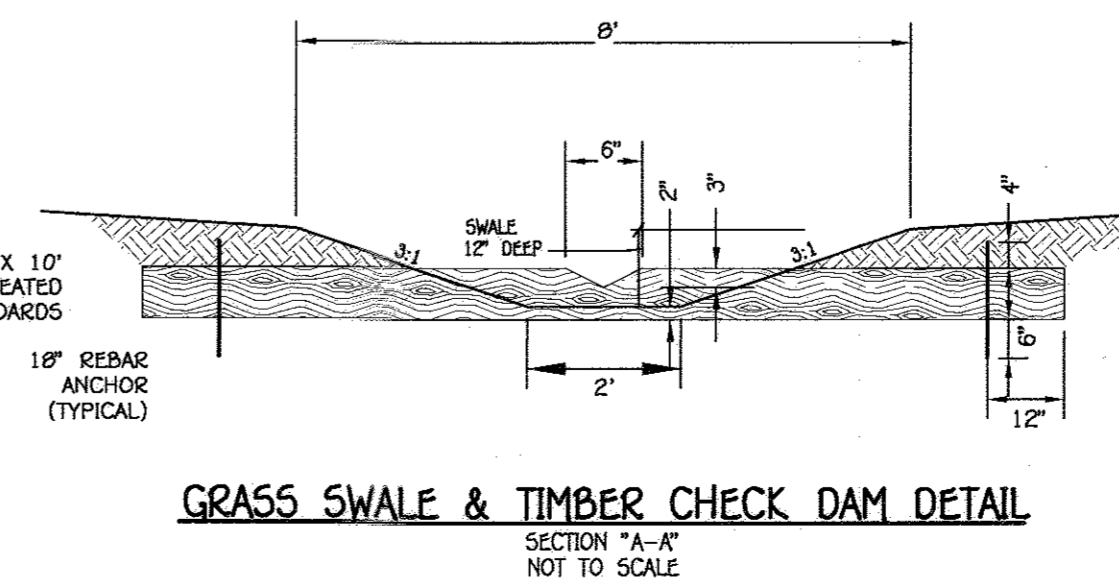
PROFILE SWALE
SCALE HORZ. 1" = 30'
VERT. 1" = 3'

| STRUCTURE SCHEDULE | | | | | | |
|--------------------|---------------|-------------------------|---------|--------------------------------------|----------------------|--------------|
| STRUCTURE NO. | TOP ELEVATION | INV.IN | INV.OUT | LOCATION | TYPE | REMARKS |
| I-10 | 423.50 | ---- | 420.50 | TALL TIMBER DR. STA 8+30.33, 45' RT | 24" NDS CATCH BASIN* | MODEL 2400 |
| I-11 | 409.30 | ---- | 407.17 | N. 561,027.5, E. 1,334,157.5 | 24" NDS CATCH BASIN* | MODEL 2400 |
| C-1 | 410.52 | 407.12 | 407.02 | N. 561,017.4, E. 1,334,151.6 | PVC CLEANOUT | 6" PVC |
| C-2 | 412.25 | 408.91 406.63 | 406.53 | N. 560,940.5, E. 1,334,152.9 | PVC CLEANOUT | MICROBIO. 40 |
| C-3 | 412.25 | 408.24 406.26 | 406.16 | N. 560,886.2, E. 1,334,153.8 | PVC CLEANOUT | MICROBIO. 39 |
| C-4 | 411.40 | 405.89 | 405.79 | N. 560,851.9, E. 1,334,156.9 | PVC CLEANOUT | 6" PVC |
| ES-7 | ---- | ---- | 405.60 | N. 560,815.8, E. 1,334,168.9 | END SECTION | G-5.12 |
| EXIST. I-8 | 424.82 | THROAT 423.55 418.00 | 417.19 | TALL TIMBER DR. STA 7+79.4, 31.6' RT | INLET TYPE 'K' | D-4.13 |

NOTE: LOCATION OF YARD INLETS AND MANHOLES IS TO CENTER OF STRUCTURE. LOCATION OF END SECTION IS TO JUNCTION WITH PIPE.
*MAY SUBSTITUTE EQUIVALENT TYPE STRUCTURE



18" SQUARE CATCH BASIN WITH RISER INSTALLATION FOR LANDSCAPE APPLICATIONS 1



SUPPLEMENTAL PROFILE AND DETAILS
TROTTER WOODS, SECTION 2

LOTS 33 THRU 41,
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A RESUBDIVISION OF BULK PARCEL A AND LOT 24
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TAX MAP #35 GRID #8 PARCEL #21
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
ZONED: R-20
SCALE: AS SHOWN DATE: APRIL 13, 2017
SHEET 6 OF 6

(Bulk Parcel 'A')
Owner/Developer

Tyson Tall Timber, Inc.
11850 Tall Timber Drive
Clarksville, Maryland 21029
Ph: (410) 370-9406

(Lot 24)
Owner/Developer

Brooke Gingerich-Tyson And
Justin Zuber
11832 Tall Timber Drive
Clarksville, Maryland 21029
Ph: (410) 370-9406

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
ELLSWORTH CITY, MARYLAND 21142

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kent Shelton
Chief, Division of Land Development
6-12-17
Date

Ch. Chalmers
Chief, Development Engineering Division
5-30-17
Date

PROFESSIONAL CERTIFICATION

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. 38386, EXPIRATION DATE: 01/12/2018.

Stephen Jantz 4/25/17
Signature of Professional Engineer

