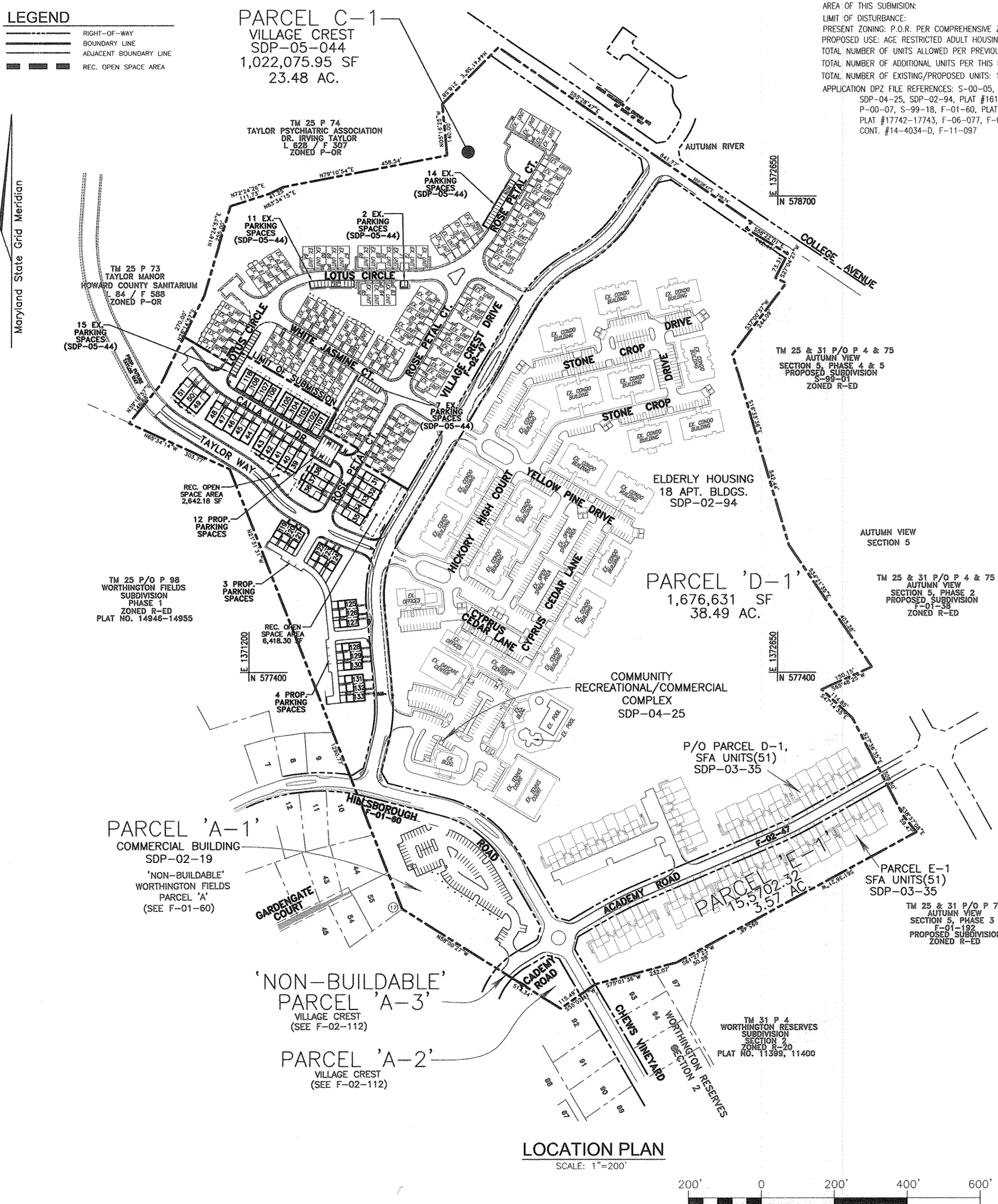


GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, PLUS M.S.H.A. STANDARDS AND SPECIFICATIONS IF APPLICABLE. ALL WORK AND MATERIALS SHALL COMPLY WITH HOWARD COUNTY STANDARDS.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, UNLESS NOTED OTHERWISE.
3. THE CONTRACTOR SHALL NOTIFY 'MISS UTILITY' AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
4. THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
AT&T CABLE LOCATION DIVISION 1-800-393-3553
BCE (CONTRACTOR SERVICE) 410-850-4020
BCE (UNDERGROUND DAMAGE CONTROL) 410-787-4620
HO. CO. BUREAU OF UTILITIES 410-313-2366
COLONIAL PIPELINE CO. 410-785-1390
MISS UTILITY 1-800-257-7777
STATE HIGHWAY ADMINISTRATION 410-531-5533
VERIZON TELEPHONE COMPANY 1-800-954-6281
5. 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.
6. ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
7. PROJECT BACKGROUND:
LOCATION: ELLICOTT CITY, MARYLAND
TAX MAP: 25
PARCEL: PART OF C-1
ZONING: POR
SUBDIVISION: VILLAGE CREST, PARCELS C-1, D-1, AND E-1, A RE-SUBDIVISION OF WORTHINGTON FIELDS
SECTION: N/A
LIMIT OF DISTURBANCE: 7.35 AC.
8. THE SUBJECT PROPERTY IS ZONED POR, PER THE FEBRUARY 2, 2004 COMPREHENSIVE ZONING PLAN, AND THE CONCEPT ZONING REGULATIONS, EFFECTIVE ON 07/28/06.
9. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
10. STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT BY STORMFILTERS (Wq), GRAVEL UNDER STORAGE PIPES (Rw), STORAGE PIPES (Cp), MICRO BIO-RETENTION FACILITIES (M-B) AND PERMEABLE PAVEMENT (A-2). FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED. THIS PLAN WAS DEEMED GRANDFATHERED TO THE 2000 REGULATIONS. APPROVAL OF THE ADMINISTRATIVE WALKER IS CONTINGENT UPON THE FOLLOWING MILESTONES BE MAINTAINED. THE PRELIMINARY PLAN WAS APPROVED ON 9/11/01. THE APPROVAL OF THE GRADING PERMIT WILL BE APPROVED PRIOR TO MAY 4, 2013. CONSTRUCTION ASSOCIATED WITH THIS PLAN WILL BE COMPLETE PRIOR TO MAY 4, 2017.
11. EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES, AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
12. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
13. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION AREAS AND 100 YEAR FLOODPLAIN.
14. ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3,500 P.S.I.
15. SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST PRIOR TO CONSTRUCTION.
16. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C'.
17. THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PERFORMED BY FISHER COLLINS & CARTER, INC. DATED SEPTEMBER 21, 1998.
18. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON AN AERIAL PHOTOGRAPHIC SURVEY PERFORMED BY WINGS AERIAL MAPPING COMPANY, DATED MARCH, 1995.
19. A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
20. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING ALL HANDICAP RAMP, AND HANDICAP ACCESS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
21. ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
22. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
23. PUBLIC WATER FOR THIS PROJECT IS AVAILABLE THROUGH CONTRACT #114-4286-D AND #14-4034-D. SEWER WITHIN THE PROPERTY BOUNDARY IS PRIVATE. PRIVATE SEWER CONNECTS TO PUBLIC SEWER, CONSTRUCTED UNDER CONTRACT #14-4286-D AND #14-4034-D.
24. ALL BUILDINGS TO HAVE INSIDE WATER METER SETTINGS.
25. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
26. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$225,000. FOR THE REQUIRED 85 SHADE TREES, 86 STREET TREES, AND 73 EVERGREEN TREES.
27. ALL EXTERIOR LIGHTING TO COMPLY WITH THE REQUIREMENTS FOUND IN ZONING SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
28. STREET LIGHT PLACEMENT, AND THE TYPE OF FIXTURES AND POLES, SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2008), SECTION 5.5.A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
29. AN APPO TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT. THE PROPOSED SITE IS MORE THAN 1 MILE FROM THE CLOSEST MAJOR COLLECTOR, OR MAJOR COLLECTOR INTERSECTION, PER P-01-20.
30. ALL ROADS WITHIN THE SUBJECT PROPERTY ARE TO BE PRIVATE.
31. ALL STORM DRAIN SYSTEMS ARE TO BE PRIVATE.
32. THERE ARE 4,700 SQUARE FEET OF GRADING DISTURBANCE THAT WILL OCCUR ON WORTHINGTON FIELDS OPEN SPACE LOT 44. THE FILE HAS BEEN PAID TO THE DEPARTMENT OF RECREATION AND PARKS AS FOLLOWS:
DISTURBED AREA 4,700 x \$0.175 PER SQUARE FOOT = \$825.00
HABITAT LOSS FEE @ \$250.00
ADMINISTRATION FEE \$250.00
TOTAL FEE \$1,325.00
THE TOTAL SUM OF ALL DISTURBED AREAS IS \$4,025.00
33. THIS SITE PLAN MAY REMAIN VALID FOR TWO YEARS, FROM DATE OF SIGNATURE APPROVAL, PER SUBDIVISION SECTION 16.156(0).
34. THE ARTICLES OF INCORPORATION FOR ESTABLISHMENT OF THE VILLAGE CREST RESIDENTIAL LAND CONDOMINIUM, AND THE TAYLOR LAND CONCERNING 16, 2005 IN HOWARD COUNTY LAND RECORDS L 9703 / F 193.
35. ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
36. COORDINATES AND ELEVATIONS ARE BASED ON MARYLAND COORDINATE SYSTEM - NAD83 (1991) AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS #3044005R, AND #3044004R.
37. WHERE DRAINAGE FLOWS AWAY FROM CURB, CONTRACTOR TO REVERSE THE GUTTER PAN.
38. THE GEOTECHNICAL REPORT WAS PREPARED BY HILLIS CARNES, DATED 09/20/00.
39. THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION. ALL PAVING TO BE P-2 PAVING. SEE HOWARD COUNTY DETAIL #P-2-01, ON SHEET 6.
40. THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
41. THERE IS NO 100YR FLOODPLAIN, WETLANDS, STREAMS, OR STEEP SLOPES ON THIS SITE.
42. THIS PLAN IS SUBJECT TO ZONING SECTION 100.3.b, WHICH EXEMPTS THIS DEVELOPMENT FROM THE CURRENT 'POR' ARM REQUIREMENTS, WHICH REQUIRE A MINIMUM OF 10% MIXED UNITS, THE UNITS TO COMPLY WITH UNIVERSAL DESIGN REQUIREMENTS, AND THAT AN ON-SITE COMMUNITY CENTER BE PROVIDED.
43. THE DECLARATION OF COVENANTS AND RESTRICTIONS FOR THIS AGE RESTRICTED PROJECT WERE RECORDED 12/16/05 IN HOWARD COUNTY LAND RECORD (L 9713 / F 173). UPON THESE COVENANTS ARE SUBMITTED WITH THE PLAN FOR THE ADDITIONAL UNITS.
44. REFERENCE WP-09-169 APPROVED APRIL 8, 2009, WAVING SECTIONS 16.156(0)(2) AND 16.156(0)(1)(c), TO REACTIVE SDP-05-044, AND PROVIDE A TWO YEAR EXTENSION TO FILE FOR ALL BUILDING PERMITS (PHASE II - 4/8/2011 AND PHASE III - 8/21/2011).
45. WP-09-169 APPROVED APRIL 08, 2009 TO WAVE SECTIONS 16.156(0)(2), 16.156(0)(1)(c) AND 16.156(0)(1)(g) OF THE SUBDIVISION AND DEVELOPMENT REGULATIONS SUBJECT TO THE FOLLOWING:
1. BUILDING PERMITS FOR ALL OF THE PHASE II CONSTRUCTION SHOWN ON PHASE II OF APPROVED SDP-05-044 MUST BE APPLIED FOR BY APRIL 8, 2011.
2. BUILDING PERMITS FOR ALL OF THE PHASE III CONSTRUCTION SHOWN ON PHASE III OF APPROVED SDP-05-044 MUST BE APPLIED FOR BY AUGUST 27, 2011.
46. ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
47. TRASH AND RECYCLABLES COLLECTION TO BE PRIVATE.
48. THIS PROJECT IS SUBJECT TO COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WALKER PETITION APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS.
49. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED (QUICK PUNCH) SQUARE TUBE POST (1 1/2" GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED SQUARE TUBE SLEEVE (1 1/2" GAUGE) - 3" LONG. THE ANCHOR SHALL NOT EXCEED MORE THAN TWO QUICK PUNCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
50. TOWNHOUSE DRIVEWAY ENTRANCE SHALL BE IN ACCORDANCE WITH HOWARD COUNTY VOLUME IV DESIGN MANUAL DETAIL R-6.05.
51. A PRIVATE STREET NAME SIGN ASSEMBLY OR PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY 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.
52. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT FRONT OR REAR YARD SETBACK.
53. EXISTING FOREST CONSERVATION EASEMENT NOTES.
(a) FCE-FA CONTAINING 0.1055 AC. OF RETENTION AND 0.1976 AC. OF REFORESTATION HAS BEEN ABANDONED.
(b) FCE-FC CONTAINING 0.3461 AC. OF REFORESTATION HAS BEEN ABANDONED.
(c) FCE-D CONTAINING 0.1017 AC. OF REFORESTATION HAS BEEN ABANDONED.
(d) FCE'S FA, D, AND E, TOTALING 1.6609 AC. / 72,348.804 SQ. FT., HAVE BEEN ABANDONED FOR THE DEVELOPMENT SHOWN ON THIS PLAN.
54. FIRE LINES SHOULD BE PROVIDED IN THIS SITE TO ALLOW EMERGENCY VEHICLE ACCESS. EITHER FIRE LANE SIGNAGE SHOULD BE INSTALLED, OR THE CURBS SHOULD BE PAINTED IN RED AND SCHEDULED TO IDENTIFY THE ROAD AS A FIRE LANE.
55. FIRE STRUCTURE CLEARANCES - MINIMUM 12 INCHES.
56. MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
57. THE FOREST CONSERVATION OBLIGATION FOR PARCEL C-1 AND THIS PLAN HAS BEEN MET BY F-02-047, F-06-139 AND OFFSITE FOREST BANK ON THE COLLEGE AVENUE PUMPING STATION PROPERTY, AUTUMN RIVER BULK PARCEL 'B', SDP-10-081.
58. THE GARAGES IN THE SFA UNITS WITH DRIVEWAYS LESS THAN 18 FEET IN LENGTH SHALL BE USED FOR THE PARKING OF MOTOR VEHICLES IN ACCORDANCE WITH ZONING REGULATION 133.02.0(1).
59. REFERENCE ADMINISTRATIVE ADJUSTMENT CASE NO. 13-006, APPROVED JULY 22, 2013, TO REDUCE THE REQUIRED 30' STRUCTURE SETBACK TO VILLAGE CREST DRIVE RIGHT-OF-WAY TO 24' TO CONSTRUCT SINGLE FAMILY ATTACHED AGE RESTRICTED ADULT HOUSING UNITS. THE DESIGN AND DRAIN CONDITIONS REQUIRE THE PETITIONER TO INSTALL AN EVERGREEN BUFFER WHICH WILL GROW TO A MINIMUM OF 2 FEET IN HEIGHT ON THE SOUTH AND WEST SIDES OF THE DRIVE AISLE ADJACENT TO THE REAR OF PROPOSED UNIT 133.

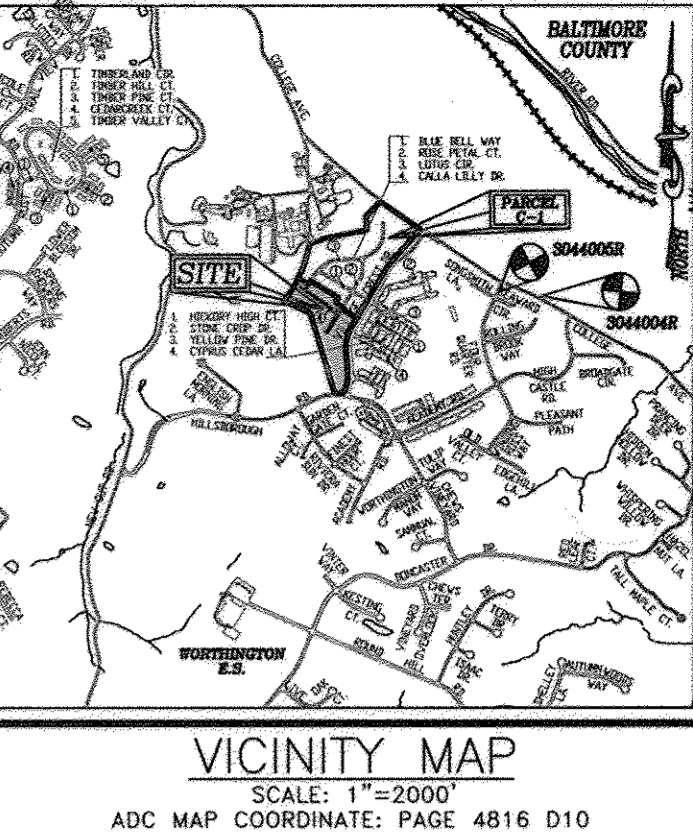
SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
AGE RESTRICTED ADULT HOUSING UNITS
HOWARD COUNTY, MARYLAND



PARKING TABULATION PARCEL C-1
NUMBER PARKING SPACE REQUIRED: 128 TOWNHOUSE DWELLING UNITS = 256 SPACES REQUIRED (2 PARKING SPACES REQUIRED PER SFA)
TOWNHOUSE OVERFLOW = 38 SPACES REQUIRED (0.3 PARKING SPACES REQUIRED PER SFA)
TOTAL SPACES REQUIRED = 294 SPACES REQUIRED
NUMBER PARKING SPACE PROVIDED: 2 CAR GARAGE (TOWNHOUSES) (128x2) = 256 SPACES PROVIDED
DRIVEWAYS (TOWNHOUSES) (102x2) = 204 SPACES PROVIDED
SURFACE PARKING = 66 SPACES PROVIDED
TOTAL SPACES PROVIDED = 526 SPACES PROVIDED
TOTAL HANDICAP PARKING PROVIDED = 0 SPACES

SITE ANALYSIS
TOTAL AREA OF SITE: 1,022,075 SF. (23.48 AC.)
AREA OF THIS SUBMISSION: 331,864 S.F.(7.6185 AC.)
LIMIT OF DISTURBANCE: 715 AC.
PRESENT ZONING: P.O.R. PER COMPREHENSIVE ZONING PLAN
PROPOSED USE: AGE RESTRICTED ADULT HOUSING
TOTAL NUMBER OF UNITS ALLOWED PER PREVIOUS PLAN (SDP-05-044): 116
TOTAL NUMBER OF ADDITIONAL UNITS PER THIS PLAN: 12
TOTAL NUMBER OF EXISTING/PROPOSED UNITS: 128 (83 EXISTING SFA UNITS, 45 PROPOSED SFA UNITS)
APPLICATION DPZ FILE REFERENCES: S-00-05, P-01-20, F-02-112, F-02-47, SDP-02-19, SDP-04-25, SDP-02-94, PLAT #18104-18109, PLAT #15361-15367, WP-05-102, P-00-07, S-99-18, F-01-60, PLAT #18112-18114, PLAT #17958-17960, F-09-09B, PLAT #17742-17743, F-06-077, F-06-139, PLAT #20567-20568, CONT. #14-4286-D, CONT. #14-4034-D, F-11-097

OPEN SPACE REQUIRED PARCEL C1
20% OF PARCEL C1 (23.48 AC) = 4.696 AC
OPEN SPACE PROVIDED PARCEL C1
SDP-05-44 = 6.33 AC.
THIS PLAN = 0.31 AC.
TOTAL = 11.09 AC.
NON-CREDITED OPENSACE:
SDP-05-44 = 0.32 AC.
THIS PLAN = 0.31 AC.
TOTAL = 0.63 AC.
RECREATION OPEN SPACE REQUIRED FOR VILLAGE CREST
SDP-02-94 268 UNITS @ 175 SF/UNIT = 46,900 SF (1.07 AC)
SDP-03-35 51 UNITS @ 400 SF/UNIT = 20,400 SF (0.47 AC)
SDP-05-44 116 UNITS @ 400 SF/UNIT = 46,400 SF (1.07 AC)
THIS PLAN 12 UNITS @ 400 SF/UNIT = 4,800 SF (0.11 AC)
TOTAL = 118,500 SF (2.72 AC)
NOTE: 33 UNITS ON THIS PLAN ARE CREDITED UNDER SDP-05-44. NET UNIT INCREASE IS 12 UNITS.



ADDRESS CHART
UNIT NO. STREET ADDRESS
31 4244 ROSE PETAL COURT
32 4246 ROSE PETAL COURT
33 4248 ROSE PETAL COURT
34 4250 ROSE PETAL COURT
35 4252 ROSE PETAL COURT
36 4254 ROSE PETAL COURT
37 4249 ROSE PETAL COURT
38 4247 ROSE PETAL COURT
39 8103 CALLA LILLY DRIVE
40 8105 CALLA LILLY DRIVE
41 8107 CALLA LILLY DRIVE
42 8109 CALLA LILLY DRIVE
43 8111 CALLA LILLY DRIVE
44 8115 CALLA LILLY DRIVE
45 8117 CALLA LILLY DRIVE
46 8119 CALLA LILLY DRIVE
47 8121 CALLA LILLY DRIVE
48 8123 CALLA LILLY DRIVE
49 8127 CALLA LILLY DRIVE
50 8129 CALLA LILLY DRIVE
51 8131 CALLA LILLY DRIVE
51 8104 CALLA LILLY DRIVE
102 8106 CALLA LILLY DRIVE
103 8108 CALLA LILLY DRIVE
104 8110 CALLA LILLY DRIVE
105 8112 CALLA LILLY DRIVE
106 8116 CALLA LILLY DRIVE
107 8118 CALLA LILLY DRIVE
108 8120 CALLA LILLY DRIVE
118 8122 CALLA LILLY DRIVE
119 8115 TAYLOR WAY
120 8113 TAYLOR WAY
121 8111 TAYLOR WAY
122 8107 TAYLOR WAY
123 8105 TAYLOR WAY
124 8103 TAYLOR WAY
125 8135 VILLAGE CREST DRIVE
126 8133 VILLAGE CREST DRIVE
127 8131 VILLAGE CREST DRIVE
128 8127 VILLAGE CREST DRIVE
129 8125 VILLAGE CREST DRIVE
130 8123 VILLAGE CREST DRIVE
131 8119 VILLAGE CREST DRIVE
132 8117 VILLAGE CREST DRIVE
133 8115 VILLAGE CREST DRIVE

BENCHMARKS
BENCHMARK NO. 1: COUNTY CONTROL #3044005R
3/4" REBAR 0.8' BELOW SURFACE
N. 578233.92, E. 1473142.53
ELEV. = 374.389
BENCHMARK NO. 2: COUNTY CONTROL #3044004R
3/4" REBAR 0.8' BELOW SURFACE
N. 578128.03, E. 1473460.71
ELEV. = 382.575

SHEET INDEX
SHEET NO. COVER SHEET
1 OF 19 COVER SHEET
2 OF 19 SITE DEMOLITION PLAN
3 OF 19 SITE LAYOUT AND UTILITY PLAN
4 OF 19 SITE LAYOUT AND UTILITY PLAN
5 OF 19 ROAD PROFILES AND DETAILS (TAYLOR WAY)
6 OF 19 ROAD PROFILES AND DETAILS (ROSE PETAL CT.)
7 OF 19 ROAD PROFILES AND DETAILS (LOTUS CI. & CALLA LILLY DR.)
8 OF 19 SITE DETAILS
9 OF 19 GRADING, SEDIMENT, AND EROSION CONTROL PLAN
10 OF 19 GRADING, SEDIMENT, AND EROSION CONTROL PLAN
11 OF 19 GRADING, SEDIMENT, AND EROSION CONTROL PLAN
12 OF 19 STORM DRAIN DRAINAGE AREA MAP
13 OF 19 STORM DRAIN PROFILES
14 OF 19 STORM WATER MANAGEMENT DETAILS FACILITY 1-A
15 OF 19 STORM WATER MANAGEMENT DETAILS FACILITY 1-B
16 OF 19 SEWER AND WATER PROFILES
17 OF 19 LANDSCAPE AND FOREST CONSERVATION PLAN
18 OF 19 LANDSCAPE AND FOREST CONSERVATION PLAN
19 OF 19 RETAINING WALL DESIGN

PERMIT INFORMATION CHART
PARCEL NO. STREET ADDRESS
P/O PARCEL C-1 VILLAGE CREST DRIVE
SUBDIVISION NAME SECTION/AREA PARCEL NUMBER
VILLAGE CREST N/A P/O PARCEL C-1
PLAT NO. BLOCK NO. ZONE TAX/ZONE/ELECT. DIST. CENSUS TR.
21676-21678 20 POR 25 2ND 6027.00

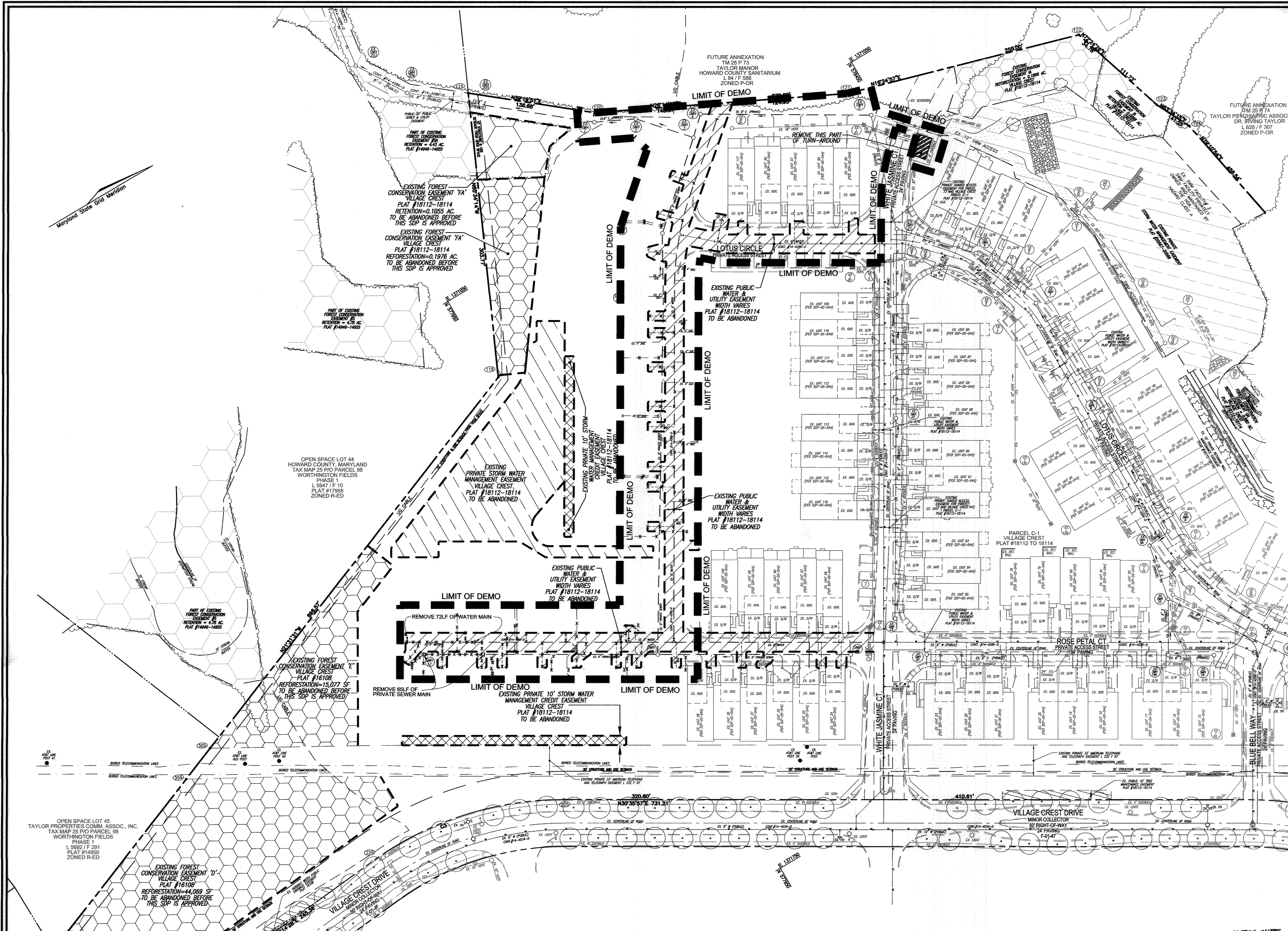
REVISIONS
NO. REVISION DATE
1 CHANGE UNIT SIZES AND LOCATION AND CHANGE DRIVEWAYS 12/2/11
2 REMOVE PROPOSED APARTMENT BUILDINGS 'A' & 'B' AND REPLACE WITH 15 "CARNegie PLACE" SFA UNITS. NEW UNITS #119-133. 04/29/13

REVISED SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
SUPPLEMENTAL STORMWATER MANAGEMENT PLAN
AGE RESTRICTED ADULT HOUSING UNITS
PARCEL P/O C-1, L10281 F561
TAX MAP: 25, BLOCK: 20
ZONED: POR
HOWARD COUNTY, MARYLAND
DPZ REFERENCES: S-00-05, P-01-20, SDP-02-19, SDP-04-25, SDP-02-94, PLAT# 18104 - 18109, PLAT# 15361 - 15367, WP-05-102, P-00-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17958 - 17960, F-09-09B, F-11-097, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20567 - 20568, CONT. #14-4286-D, CONT. #14-4034-D

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961
DESIGN BY: JARRHY
DRAWN BY: KGRG
CHECKED BY: RHY
DATE: DECEMBER, 2013
SCALE: AS SHOWN
W.O. NO.: 2018121.00
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2014

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division DATE 4.9.14
Chief, Division of Land Development DATE 4-10-14
Director DATE 4/14/14

UNIVERSAL DESIGN REQUIREMENTS FOR AGE-RESTRICTED ADULT HOUSING IN HOWARD COUNTY
1. FOR MULTI-FAMILY APARTMENT OR CONDO DEVELOPMENTS, AN ACCESSIBLE PATH BETWEEN PARKING, DWELLING UNITS, AND COMMON AREAS THAT MEETS ADA STANDARDS.
2. FOR SINGLE FAMILY DETACHED AND ATTACHED DEVELOPMENTS, A "NO-STEP" ACCESS TO THE FRONT ENTRANCE TO THE COMMUNITY BUILDING AND ALL DWELLINGS (A "NO-STEP" ENTRANCE IS DESIRABLE, BUT NOT REQUIRED TO OTHER ENTRANCES). THIS PLAN PROVIDES RESIDENTIAL UNITS WITH A "NO-STEP" ACCESS THROUGH THE GARAGE.
3. 35" WIDE FRONT DOOR WITH EXTERIOR LIGHTING OF ENTRANCE (EXTERIOR LIGHTING SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE EXTERIOR DOOR). THE ILLUMINATION OF THE EXTERIOR LIGHT SHALL BE CONTROLLED FROM THE INTERIOR OF THE DWELLING UNIT. EXCEPTION LIGHTS THAT ARE CONTINUOUSLY ILLUMINATED OR AUTOMATICALLY CONTROLLED.
4. ALL INTERIOR DOORWAYS AT LEAST 32" CLEAR WIDTH IN THE OPEN POSITION (27 1/2" DOORS ARE OR A 36" IS PREFERRED).
5. HALLWAYS AT LEAST 36" WIDE (40" IS PREFERRED). THE MAXIMUM VERTICAL FLOOR LEVEL CHANGE IS 1/4" INCH EXCEPT WHEN A TAPERED FLOOR IS USED. THE MAXIMUM HEIGHT SHALL BE 17 1/2" INCH.
6. COMPLETE LIVING AREA INCLUDING MASTER BEDROOM AND BATH ON FIRST FLOOR (OR EXTERIOR ACCESS IF MULTI-STORY RENTAL/CONDO APARTMENTS).
7. LEVER HANDLES ON INTERIOR AND EXTERIOR DOORS.
8. REINFORCED WALKS TO ALLOW FOR THE LATER INSTALLATION OF GRAB BARS AROUND THE TOILET, TUB, AND SHOWER STALL.
9. CLEAR FLOOR SPACE OF 30"x48" CENTERED ON THE APPLIANCE OR FIXTURE SHALL BE PROVIDED AT EACH FIXTURE IN THE KITCHEN, FLOOR SPACES CAN OVERLAP. (FAIR HOUSING ACT)
10. MANEUVERING SPACE WITHIN THE BATHROOM TO PERMIT A PERSON USING A MOBILITY AID TO ENTER THE ROOM, CLOSE AND REOPEN THE DOOR. WITH A CLEAR FLOOR SPACE OF 30"x48" OUTSIDE OF THE DOOR SWING. IN ADDITION, A CLEAR FLOOR SPACE OF 30"x48" SHOULD BE PROVIDED AT EACH FIXTURE AND CENTERED ON EACH FIXTURE. THE 30"x48" FLOOR SPACES CAN OVERLAP EACH OTHER. (NOTE: THIS IS A REQUIREMENT IN THE FAIR HOUSING ACT GUIDELINES).
11. WALL MOUNTED LIGHT SWITCHES, ELECTRICAL OUTLETS, OR ENVIRONMENTAL CONTROLS SHALL BE PROVIDED AT A READING HEIGHT OF MINIMUM 15" OFF THE FLOOR AND MAXIMUM 48" ABOVE THE FLOOR.
NO AS-BUILT INFORMATION THIS SHEET
OWNER/DEVELOPER
VILLAGE CREST DEVELOPMENT CORPORATION
4100 COLLEGE AVENUE
ELLICOTT CITY, MD 21041



- LEGEND**
- RIGHT-OF-WAY
 - BOUNDARY LINE
 - ADJACENT BOUNDARY LINE
 - EXISTING CENTERLINE STREAM
 - EXISTING STREAM BANK BUFFER
 - EXISTING WETLANDS BUFFER
 - EXISTING TREETRUELINE
 - EXISTING UTILITY POLE
 - EXISTING SIGN
 - EXISTING WATER LINE
 - EXISTING SEWER LINE
 - EXISTING GAS LINE
 - EXISTING OVERHEAD LINES
 - EXISTING FENCE LINE
 - EXISTING CURB LINE
 - EXISTING EDGE OF PAWING
 - EXISTING LIGHT POLE
 - EXISTING MAILBOX
 - EXISTING SANITARY CLEANOUT
 - EXISTING FIRE HYDRANT
 - EXISTING STREET TREES (F-02-47)
 - EXISTING WETLANDS
 - EXISTING STORMWATER MANAGEMENT ACCESS
 - EX. 10' PUBLIC TREE MAINTENANCE EASEMENT (PLAT #14946-14955 AND #18112-18114)
 - EXISTING FOREST CONSERVATION EASEMENT (RETENTION) (PLAT #18112-18114)
 - EX. PRIVATE STORMWATER MANAGEMENT EASEMENT (PLAT #18112-18114)
 - EX. 10' PRIVATE RETAINING WALL MAINTENANCE EASEMENT (PLAT #18112-18114)
 - EX. PUBLIC WATER & UTILITY EASEMENT (PLAT #18112-18118)
 - EX. FOREST CONSERVATION EASEMENT (RETENTION) TO BE ABANDONED (PLAT #18112-18118)
 - EX. FOREST CONSERVATION EASEMENT (REFORESTATION) TO BE ABANDONED (PLAT #18112-18118) (PLAT #18108)
 - EX. PRIVATE 10' STORMWATER MANAGEMENT CREDIT EASEMENT TO BE ABANDONED (PLAT #18112-18118)
 - EX. PRIVATE STORMWATER MANAGEMENT EASEMENT TO BE ABANDONED (PLAT #18112-18118)
 - AREA OF T-TURN AROUND TO BE REMOVED
 - LIMIT OF DEMOLITION

NO.	REVISION	DATE
3	CHANGE 28 APARTMENTS TO 15 TOWNHOUSE UNITS	11/26/13

SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
SITE DEMOLITION PLAN
AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: PIO C-1, L10281 F961
 TAX MAP: 25, BLOCK: 20
 2ND ELECTION DISTRICT
 ZONED: POR

HOWARD COUNTY, MARYLAND
 DPZ REFERENCES: S-00-05, P-01-20,
 F-02-112, F-02-47, SDP-02-19, SDP-04-25, SDP-02-94,
 PLAT# 16104 - 16109, PLAT# 15361 - 15367, WIP-05-102
 F-11-0097, P-00-07, S-99-18, F-01-80, PLAT# 18112 - 18114, PLAT# 17958 - 17960,
 F-09-098, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20567 - 20568, CONT. #14-4286-D, CONT. #14-4034-D

ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8161

PROFESSIONAL CERTIFICATE
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 WERE PREPARED OR APPROVED BY ME, AND
 THAT I AM A DULY LICENSED PROFESSIONAL
 ENGINEER UNDER THE LAWS OF THE STATE
 OF MARYLAND, LICENSE NO. 16193
 EXPIRATION DATE: 09-27-2012

DESIGN BY: JAR/RHV
 DRAWN BY: KGLJR
 CHECKED BY: RHV
 DATE: JUNE, 2011
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

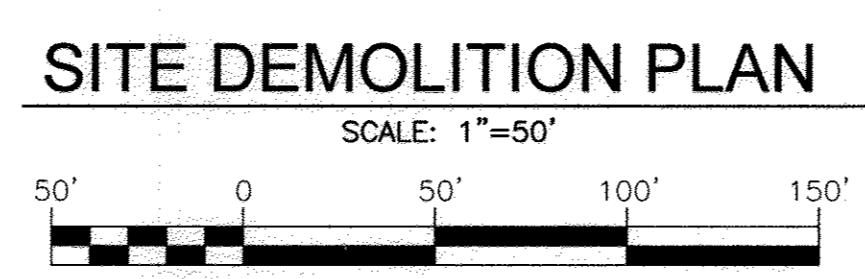
2 SHEET OF 19

APPROVED: DEPARTMENT OF PLANNING AND ZONING

8/8/11
 DATE

10/06/11
 DATE

10/5/11
 DATE



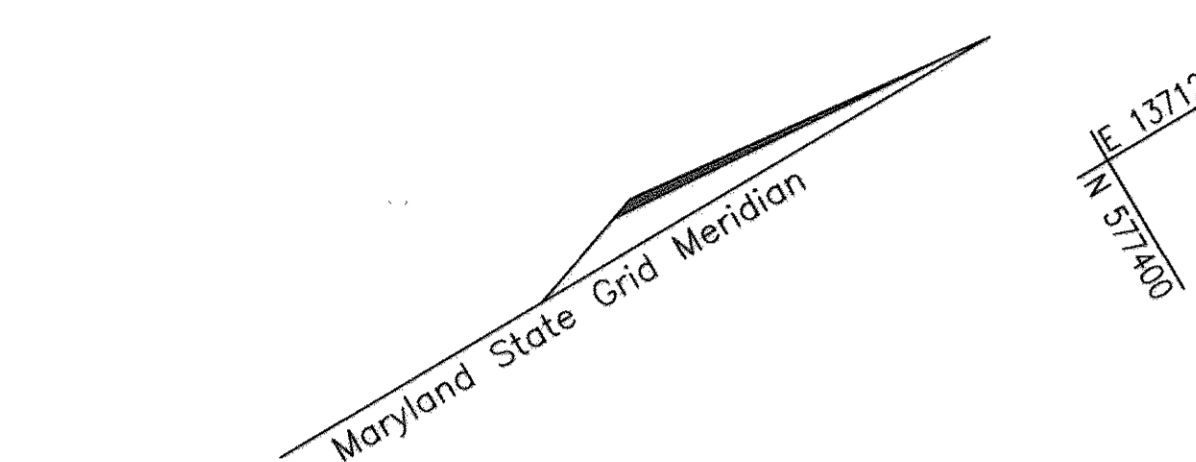
NO AS-BUILT INFORMATION ON THIS SHEET

OWNER/DEVELOPER
 VILLAGE CREST DEVELOPMENT CORPORATION
 400 COLLEGE AVENUE
 ELLICOTT CITY, MD 21041

C.N.S.*
 GRAVITY SEWER SERVICE, FIRST FLOOR ONLY. BASEMENT SEWER SERVICE TO BE PROVIDED BY PRIVATE ON-SITE PUMP. WAIVER APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS ON AUGUST 23, 2013.

MATCHLINE
 SEE SHEET 4

LEGEND	
	RIGHT-OF-WAY BOUNDARY LINE
	ADJACENT BOUNDARY LINE
	EXISTING CENTERLINE STREAM
	EXISTING STREAM BANK BUFFER
	EXISTING WETLANDS BUFFER
	EXISTING TREE LINE
	EXISTING UTILITY POLE
	EXISTING SIGN
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING GAS LINE
	EXISTING OVERHEAD LINES
	EXISTING FENCE LINE
	EXISTING CURB LINE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SANITARY CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING STREET TREES (F-02-47)
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	PROPOSED SIDEWALK
	PROPOSED TREE LINE
	PROPOSED CURB
	EXISTING WETLANDS
	PROPOSED MICRO BIO-RETENTION FACILITY (M-8)
	PROPOSED PERMEOUS CONCRETE (P-2)
	EXISTING 10' PUBLIC TREE MAINTENANCE EASEMENT (PLAT #18112-18114)
	EXISTING FOREST CONSERVATION EASEMENT (RETENTION) (PLATS #14946-14950 AND #18112-18114)
	EXISTING FOREST CONSERVATION EASEMENT (REFORESTATION) (PLATS #18112-18114)
	EXISTING VARIABLE WIDTH PUBLIC WATER & UTILITY EASEMENT (PLAT #16108)
	EXISTING RETAINING WALL CONSTRUCTION BUFFER AND "NO PLANTING" ZONE
	PRIVATE SEWER EASEMENT AND UTILITY EASEMENT
	EXISTING VARIABLE WIDTH PUBLIC WATER & UTILITY EASEMENT
	EXISTING 10' PUBLIC SEWER & UTILITY EASEMENT



LOT 8
 RAYMOND C. CHOW
 ALICE K. WONG T/E
 TAX MAP 25 P/O PARCEL 98
 WORTHINGTON FIELDS
 PHASE 1
 L 6314 / F 56
 PLAT #14950
 ZONED R-ED

LOT 9
 CARL J. COMBS
 TAX MAP 25 P/O PARCEL 98
 WORTHINGTON FIELDS
 PHASE 1
 L 6646 / F 643
 PLAT #14950
 ZONED R-ED

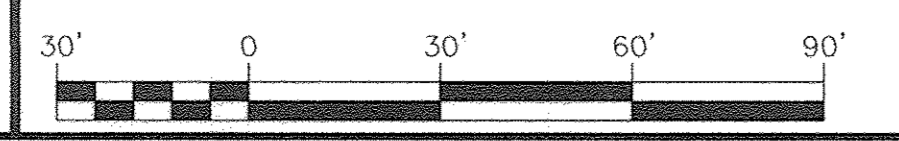
OPEN SPACE LOT 45
 TAYLOR PROPERTIES COMM. ASSOC., INC.
 TAX MAP 25 P/O PARCEL 98
 WORTHINGTON FIELDS
 PHASE 1
 L 5692 / F 291
 PLAT #14950
 ZONED R-ED

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Clark 4-9-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

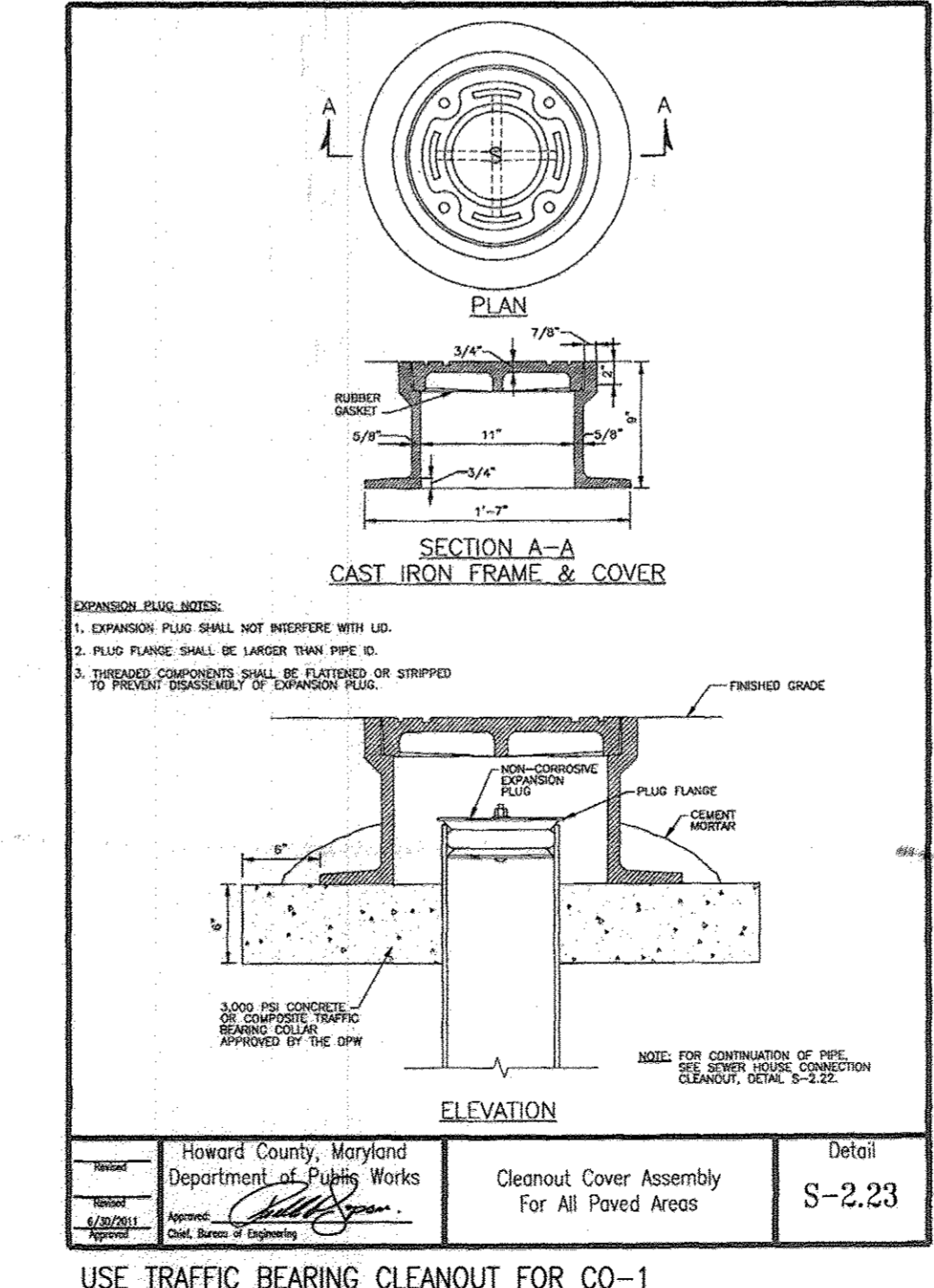
Neil Stankovich 4-10-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Richard A. Lytle 4/14/14
 DIRECTOR DATE



SITE & UTILITY PLAN
 SCALE: 1"=30'

**NOTE
 ADMINISTRATIVE ADJUSTMENT 13-006 APPROVED JULY 22, 2013 TO ALLOW REDUCTION OF 30' STRUCTURE AND USE SETBACK TO 24'



NO AS-BUILT INFORMATION ON THIS SHEET

NO.	REVISION	DATE
1	CHANGE UNIT SIZES AND LOCATION AND CHANGE DRIVEWAYS	12/2/11
2	REMOVE PROPOSED APARTMENT BUILDINGS 'A' & 'B' AND REPLACE WITH 15 "CARNEGIE PLACE" SFA UNITS, NEW UNITS #119-133.	04/29/13

REVISED SITE DEVELOPMENT PLAN
 TAYLOR WAY
 VILLAGE CREST, PART OF PARCEL C-1
 SITE LAYOUT & UTILITY PLAN
 AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: P/O C-1, L10281 F561 HOWARD COUNTY, MARYLAND
 TAX MAP: 25, BLOCK: 20 F-02-112, F-02-47, SDP-02-19, SDP-04-25, SDP-02-94, DPZ REFERENCES: S-00-05, P-01-20, PLAT #1504 - 15102, PLAT #15051 - 15587, W/P-05-102
 2ND ELECTION DISTRICT F-02-112, F-02-47, SDP-02-19, SDP-04-25, SDP-02-94
 ZONED: FOR P-00-07, S-99-18, F-01-60, PLAT #18112 - 18114, PLAT #17958 - 17960, F-09-098, F-11-097, PLAT #17742 - 17743, F-06-077, F-06-139, PLAT #20567 - 20568, CONT. #14-4286-D, CONT. #14-4034-D

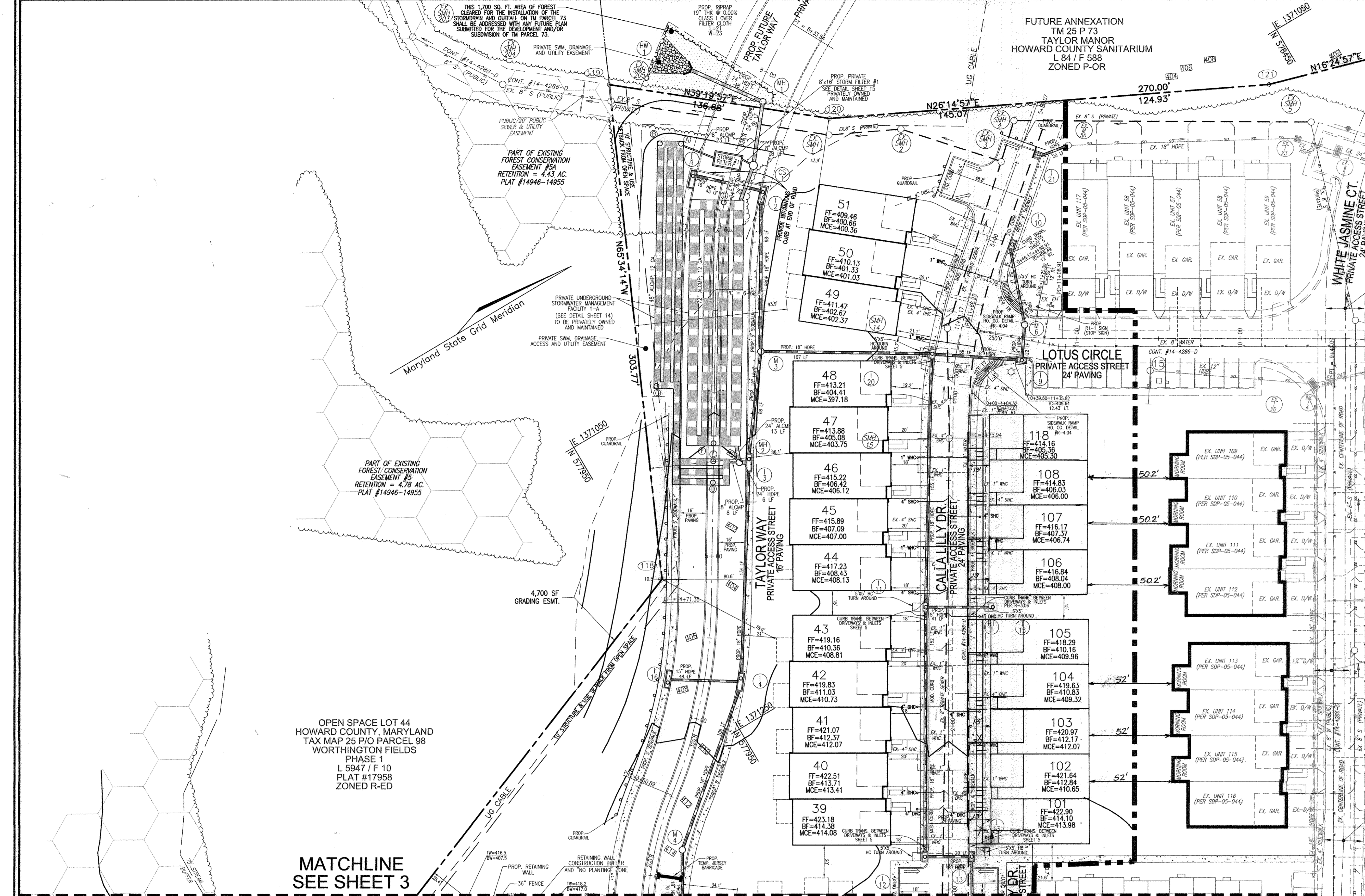
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: JAR/RHV
 DRAWN BY: KJG/R
 CHECKED BY: RHV
 DATE: DECEMBER, 2013
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193, EXPIRATION DATE: 09-27-2014

3 SHEET OF 19

OWNER/DEVELOPER
 VILLAGE CREST DEVELOPMENT CORPORATION
 4100 COLLEGE AVENUE
 ELLICOTT CITY, MD 21041



LEGEND

- RIGHT-OF-WAY
- BOUNDARY LINE
- ADJACENT BOUNDARY LINE
- EXISTING CENTERLINE STREAM
- EXISTING STREAM BANK BUFFER
- EXISTING WETLANDS BUFFER
- EXISTING TREETLINE
- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD LINES
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- EXISTING CURB LINE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SANITARY CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING STREET TREES (F-02-47)
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED SIDEWALK
- PROPOSED TREETLINE
- PROPOSED CURB
- EXISTING WETLANDS
- EX. 10' PUBLIC TREE MAINTENANCE EASEMENT (PLAT #18112-18114)
- EXISTING FOREST CONSERVATION EASEMENT (RETENTION) (PLATS #14946-14955 AND #18112-18114)
- EXISTING FOREST CONSERVATION EASEMENT (RESTORATION) (PLATS #18112-18114)
- EX. VARIABLE WIDTH PUBLIC SIDEWALK EASEMENT (PLAT #18100)
- RETAINING WALL CONSTRUCTION BUFFER AND "NO PLANTING" ZONE
- PRIVATE SWM, DRAINAGE, AND UTILITY EASEMENT

OPEN SPACE LOT 44
HOWARD COUNTY, MARYLAND
TAX MAP 25 P/O PARCEL 98
WORTHINGTON FIELDS
PHASE 1
L 5947 / F 10
PLAT #17958
ZONED R-ED

MATCHLINE
SEE SHEET 3

SITE & UTILITY PLAN

SCALE: 1"=30'



1	ADJUST UNITS 5, 7, 8 AND LOCATIONS FOR UNITS 89-91, 101-108, AND 118.	12/2/11
2	REVISE DRIVEWAY LENGTH ON UNITS 101-108, AND 118 TO 13'	8/21/12
3	CHANGE 28 APARTMENTS TO 19 TOWNHOUSE UNITS	11/25/12

NO.	REVISION	DATE
-----	----------	------

REVISED SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
SITE LAYOUT & UTILITY PLAN
AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: P/O C-1, L 10281 F561
TAX MAP: 25, BLOCK: 20
2ND ELECTION DISTRICT
ZONED: POR

HOWARD COUNTY, MARYLAND
DZ REFERENCE: S-00-05, P-01-20,
F-02-112, F-02-47, SDP-02-19, SDP-04-05, SDP-02-04,
PLAT# 16104 - 16109, PLAT# 15361 - 15367, WP-05-102
P-00-07, S-99-18, F-01-00, PLAT# 18112 - 18114, PLAT# 17958 - 17960,
F-09-098, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20587 - 20588, CONT. #14-4286-D, CONT. #14-4034-D

ROBERT H. VOGEL ENGINEERING, INC.
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8407 MAIN STREET
ELlicott CITY, MD 21043
TEL: 410.461.7666
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EXPIRATION DATE: 09-27-2012

DESIGN BY: JAR/RHV
DRAWN BY: KG/JR
CHECKED BY: RHV
DATE: FEBRUARY, 2012
SCALE: AS SHOWN
W.O. NO.: 2018121.00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

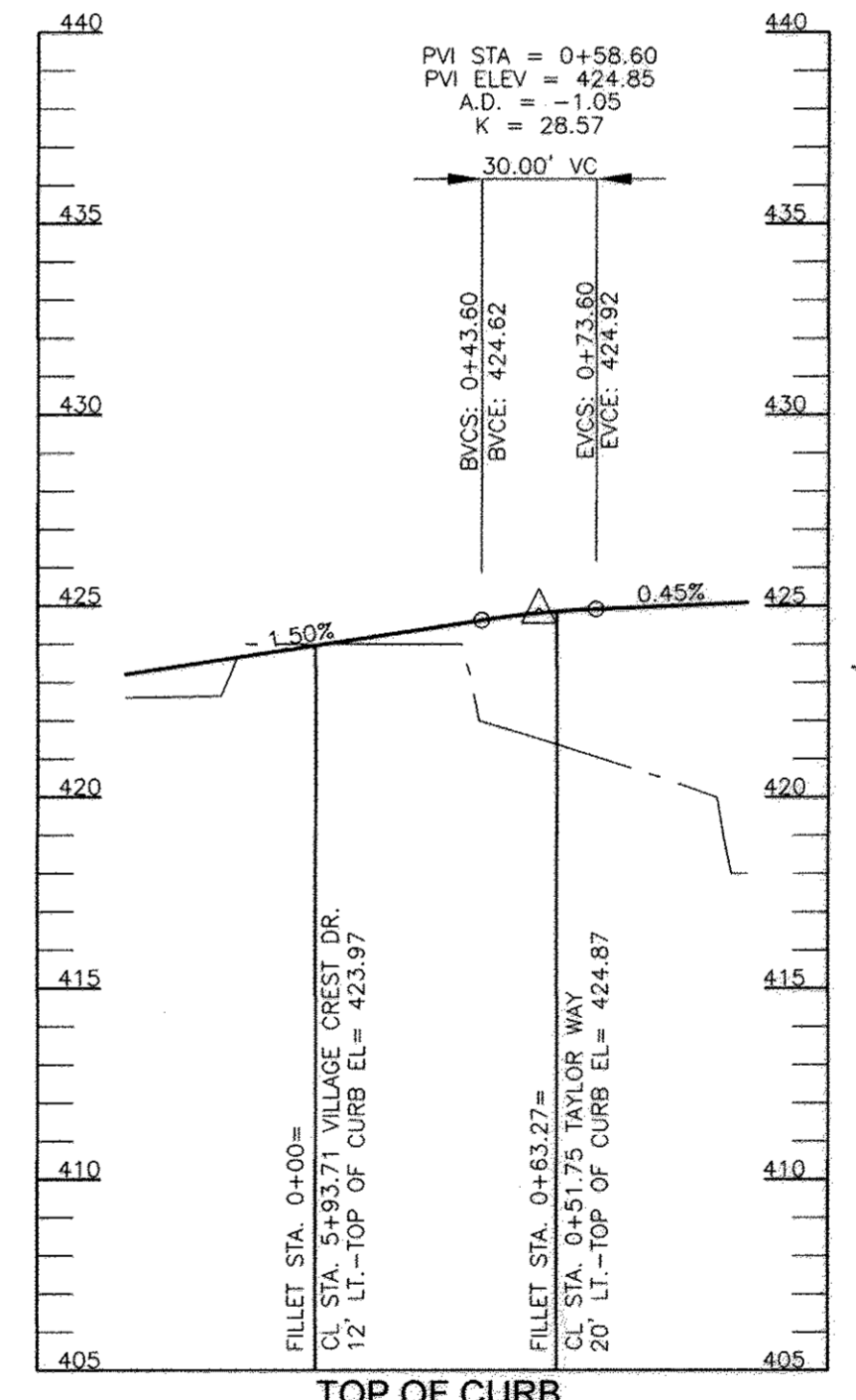
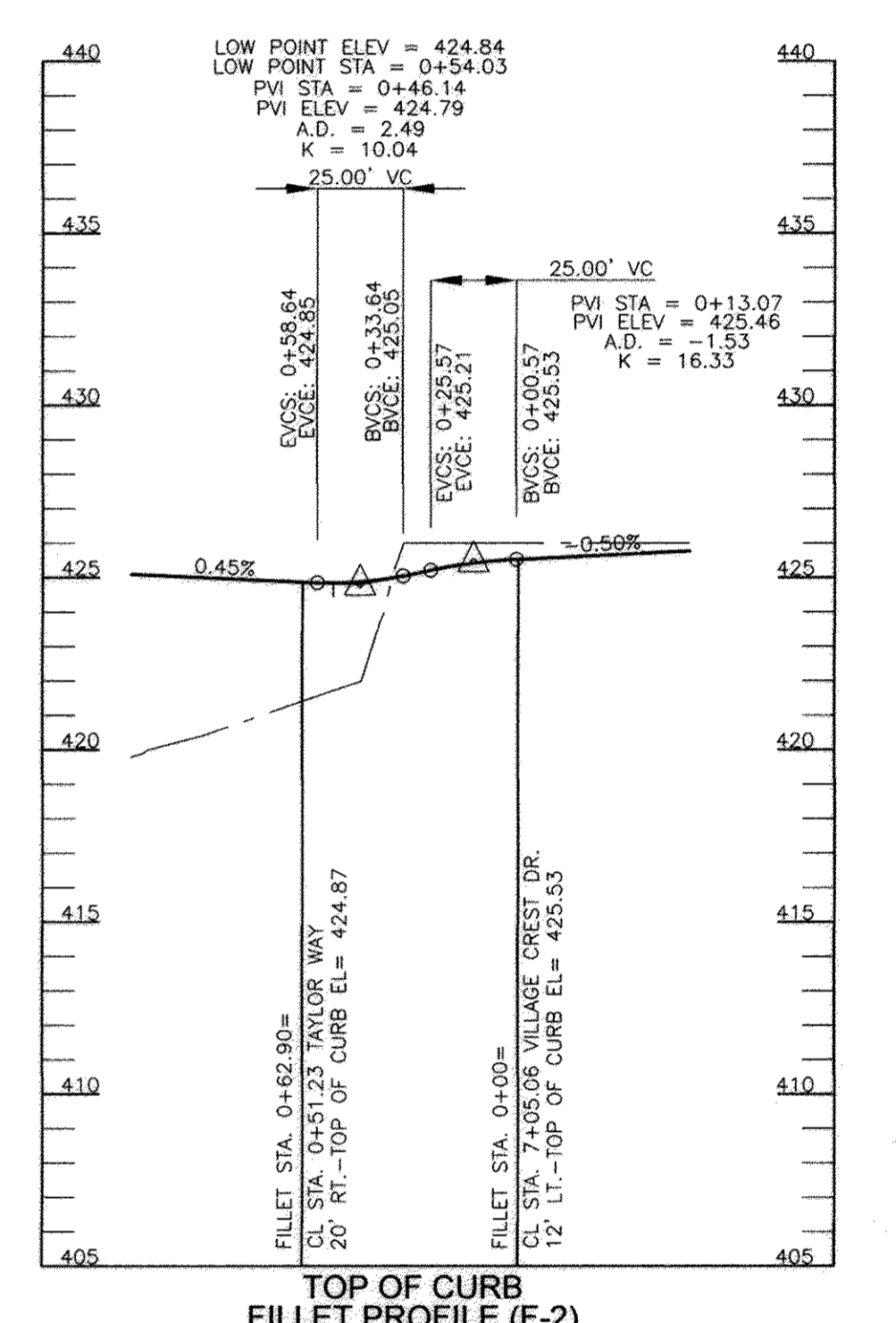
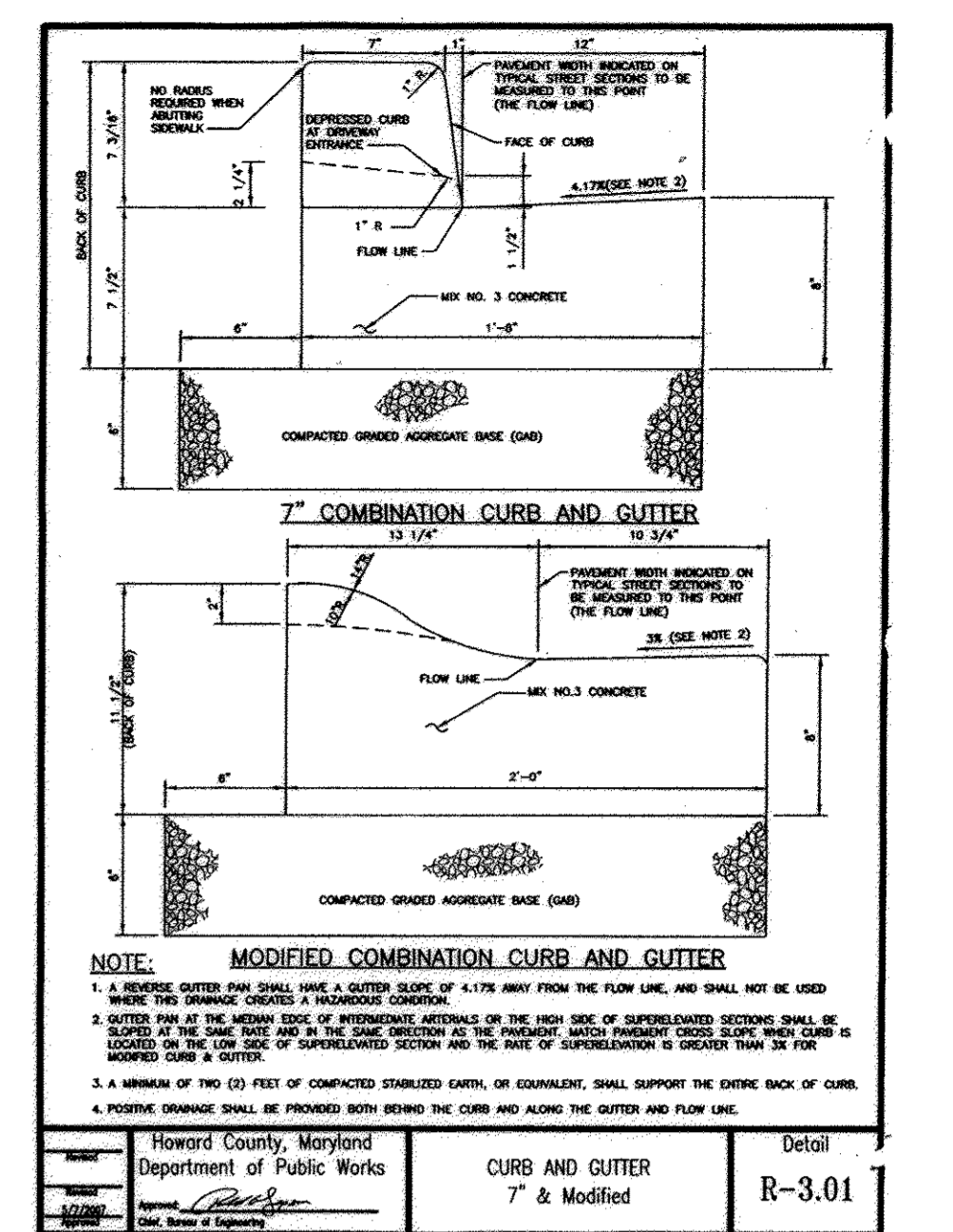
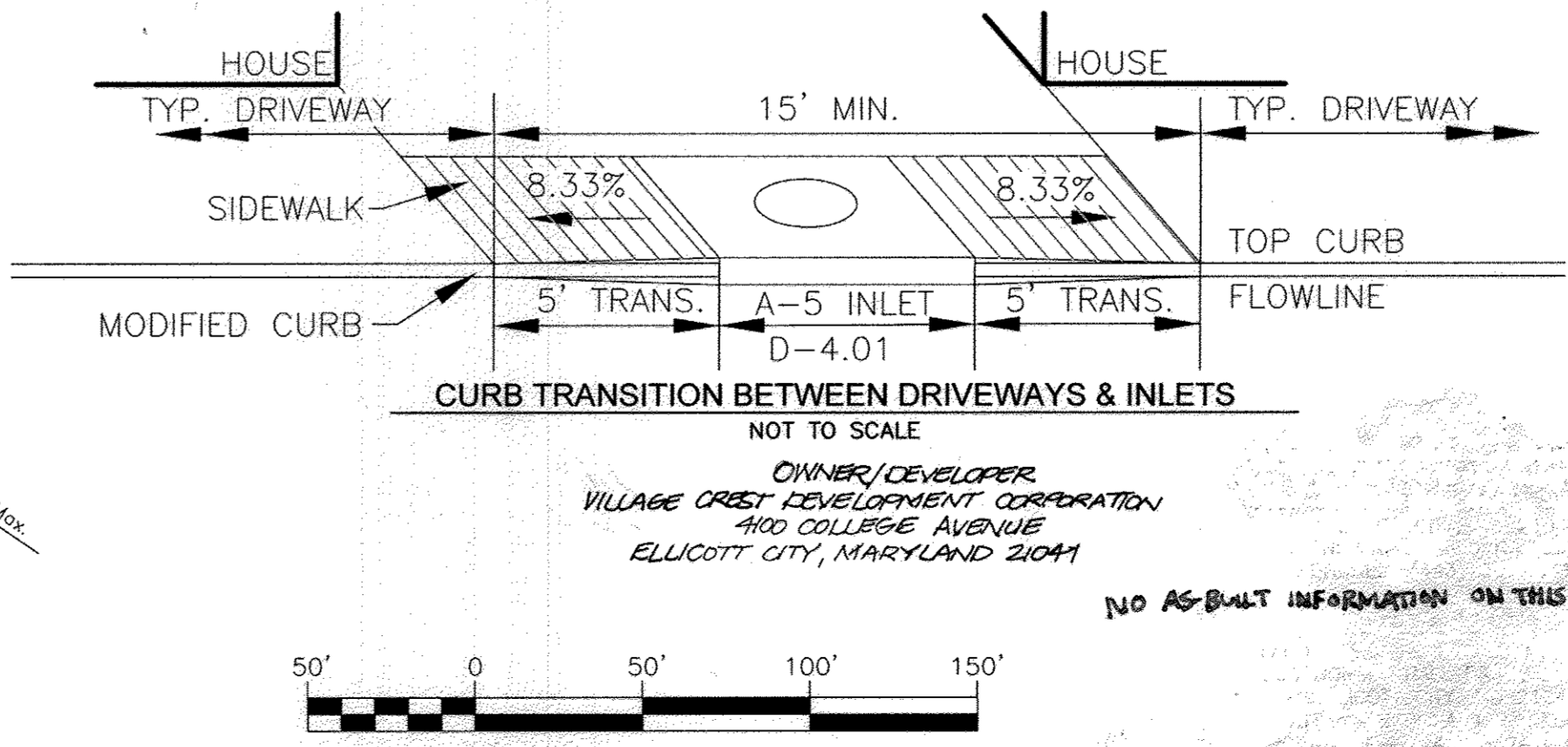
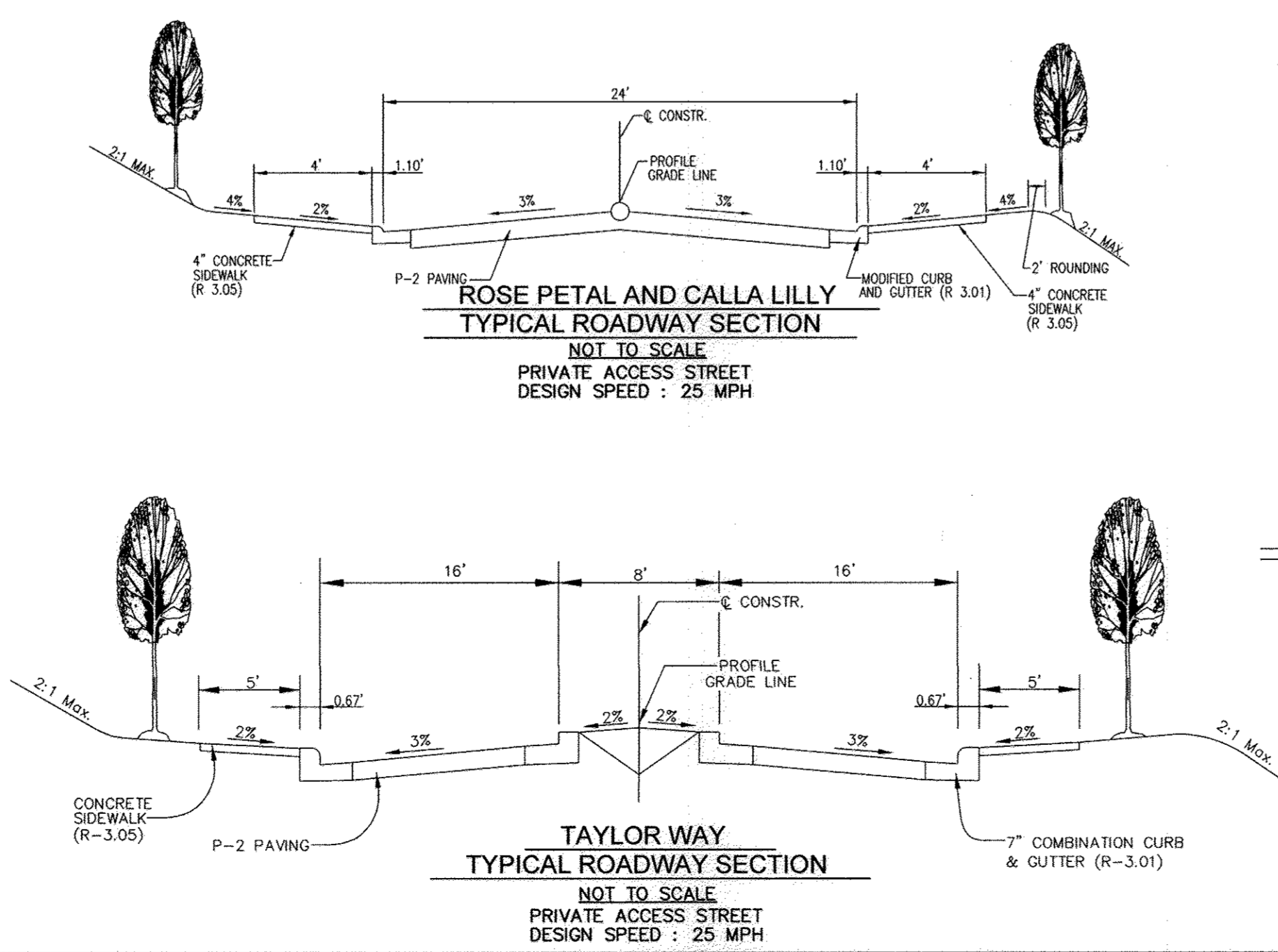
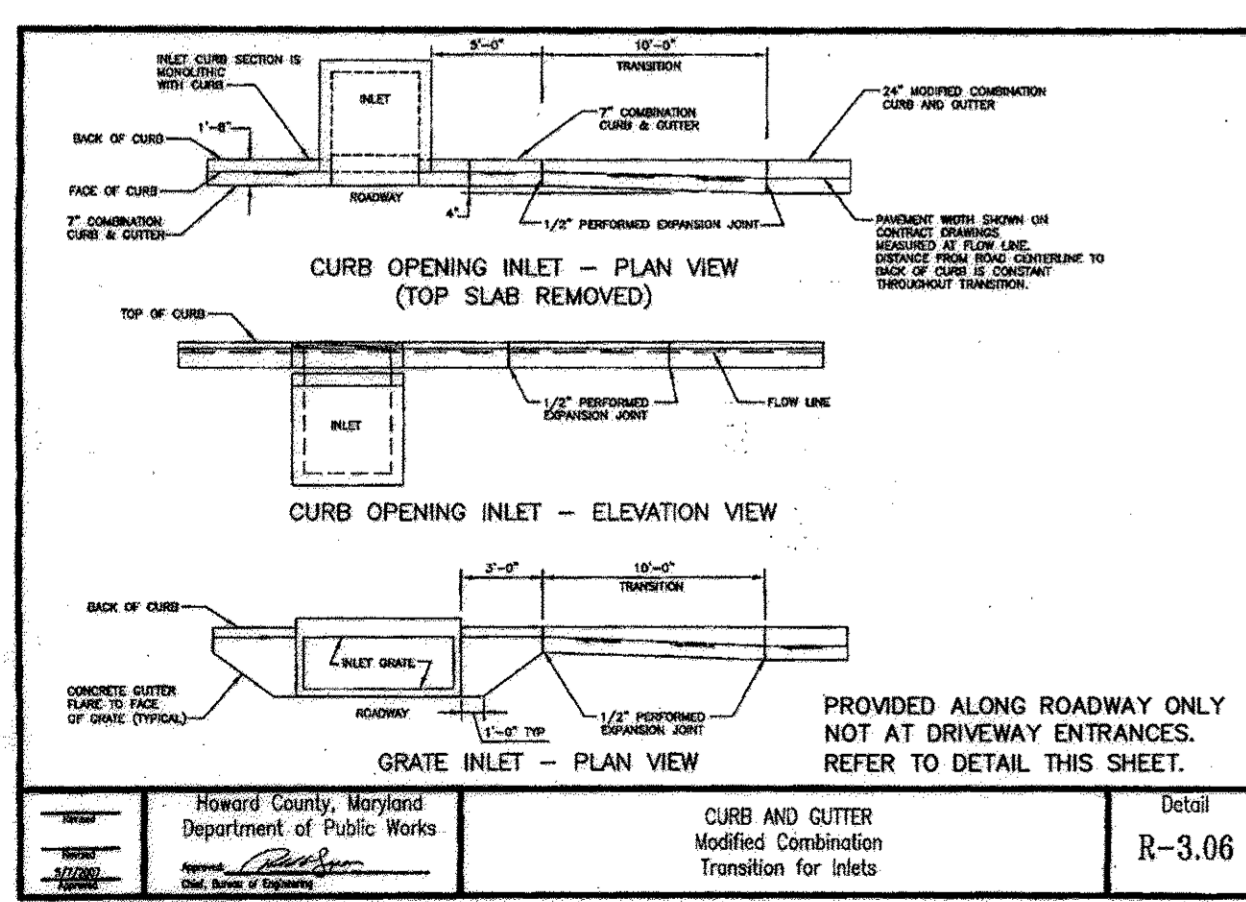
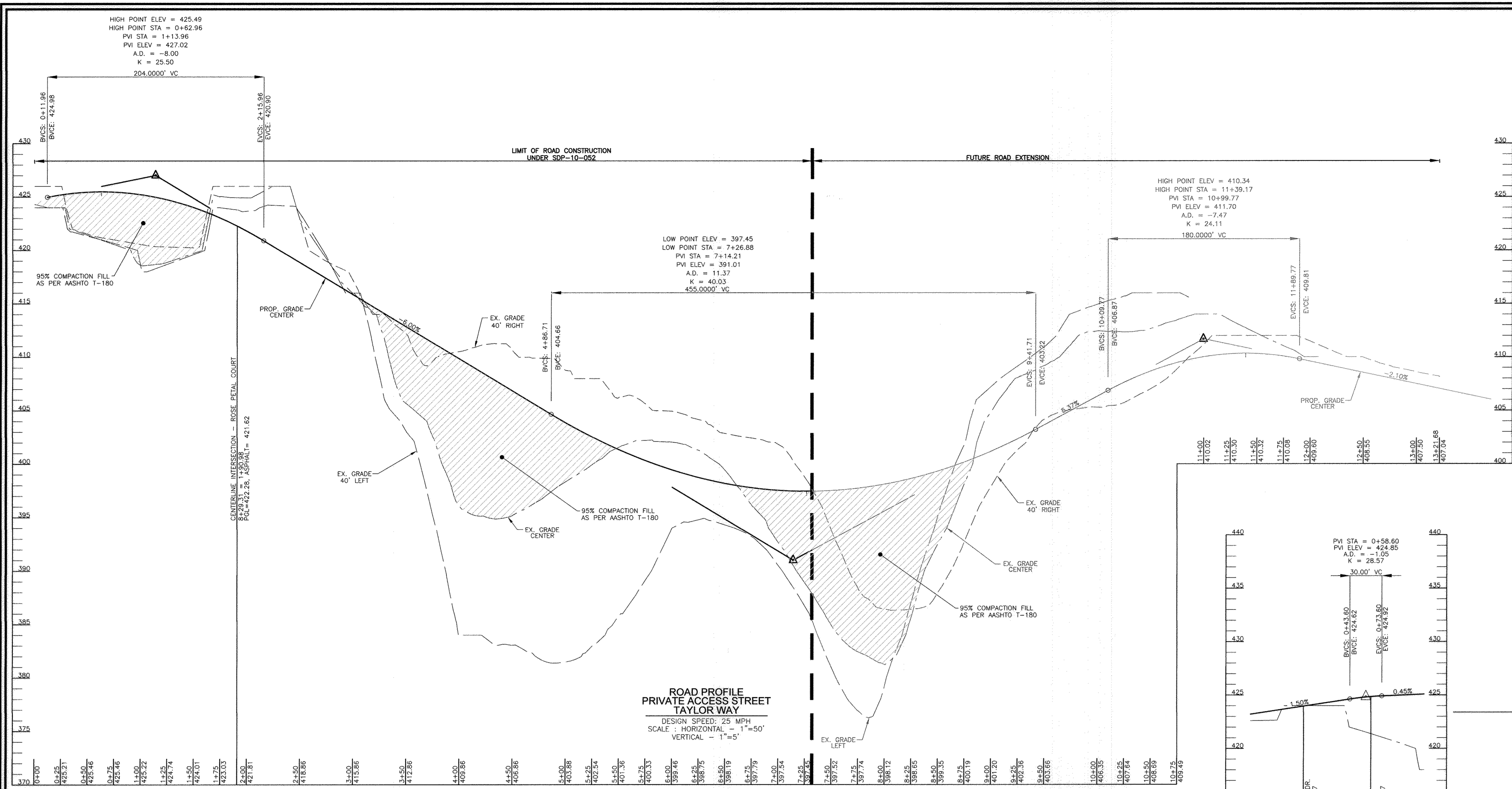
CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 4/18/12

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 5-7-12

DIRECTOR: *[Signature]* DATE: 5/3/12

OWNER/DEVELOPER
VILLAGE CREST DEVELOPMENT CORPORATION
4100 COLLEGE AVENUE
ELlicott CITY, MD 21041

NO AS-BUILT INFORMATION ON THIS SHEET



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE 8/8/11
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE 10/05/11
 DIRECTOR
 DATE 10/6/11

CHANGE 28 APARTMENTS TO 15 TOWNHOUSE UNITS
 REVISION
 11/25/18
 DATE

SITE DEVELOPMENT PLAN
 TAYLOR WAY
 VILLAGE CREST, PART OF PARCEL C-1
 ROAD PROFILES AND DETAILS
 AGE RESTRICTED ADULT HOUSING UNITS

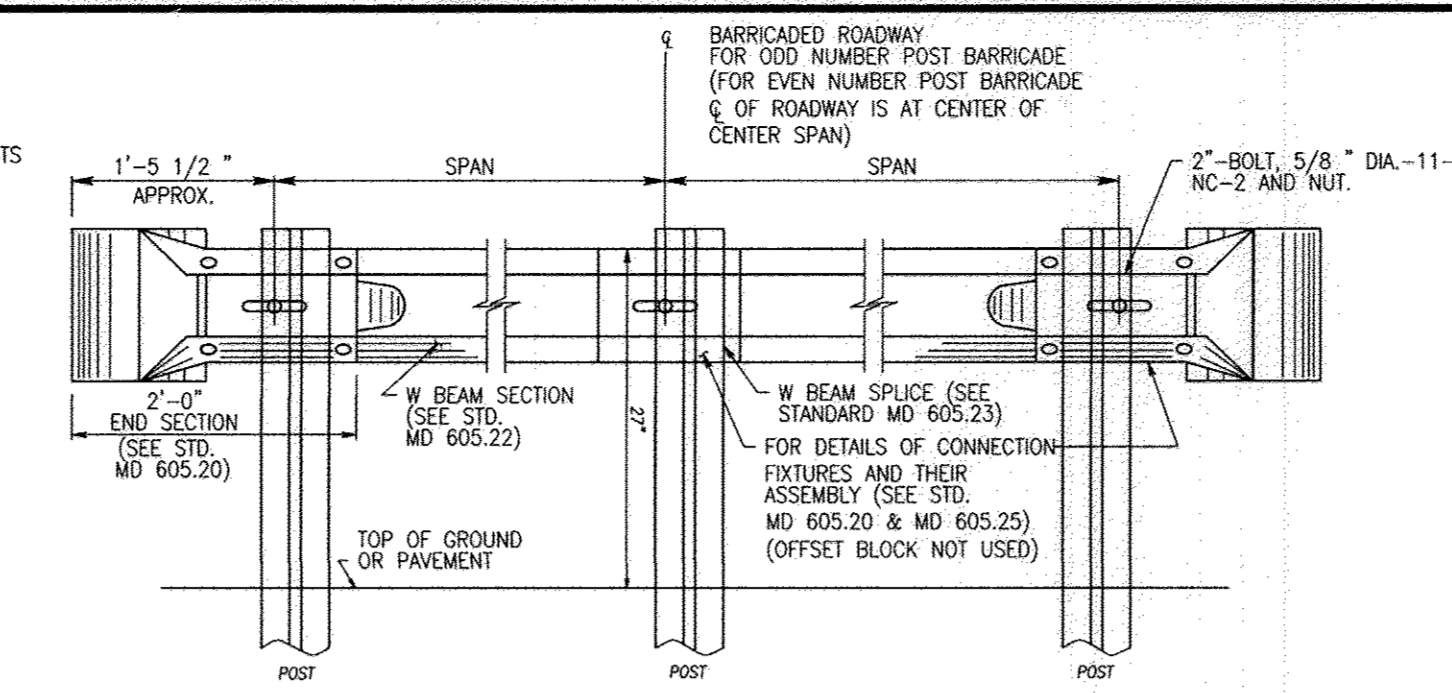
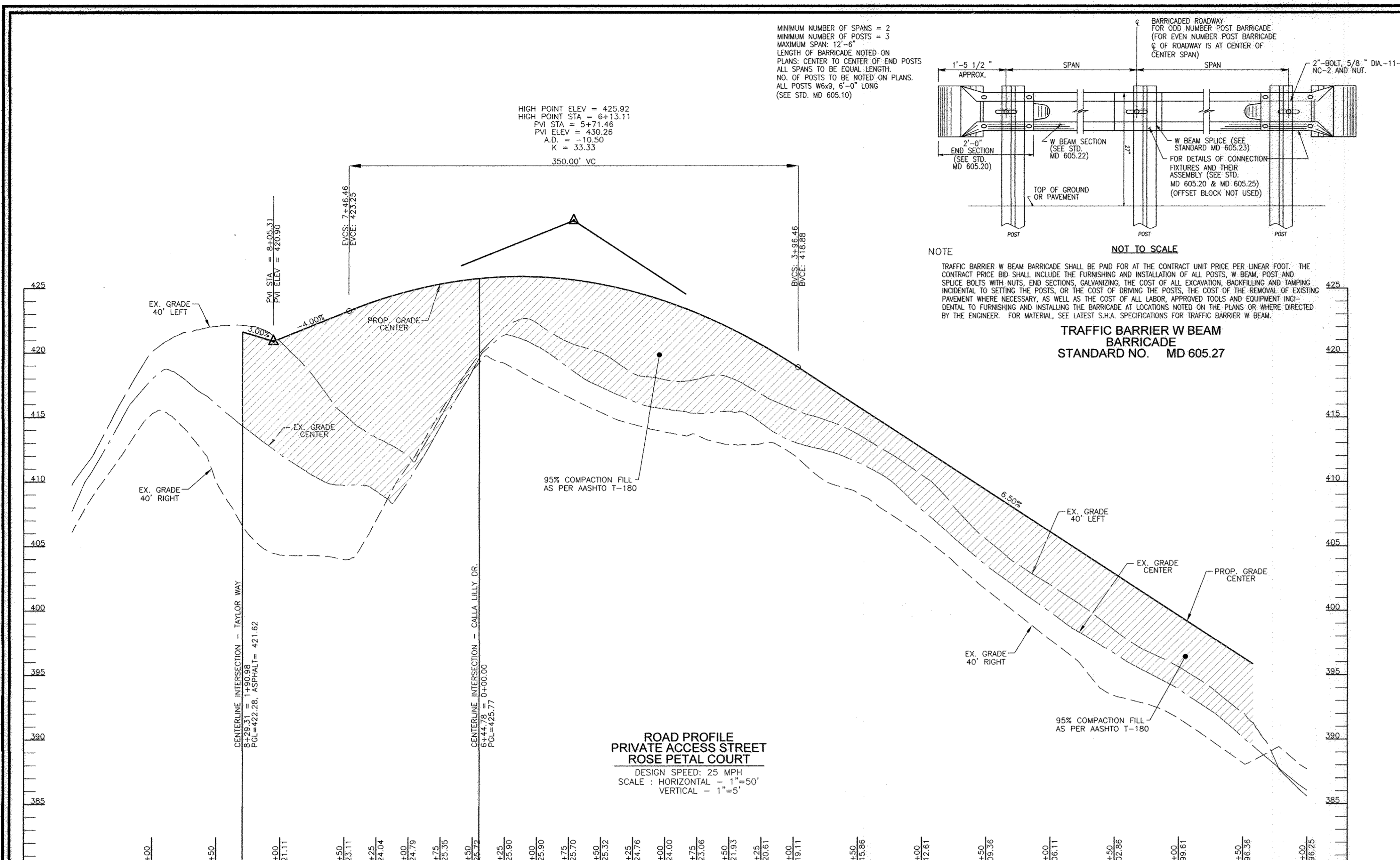
PARCEL: P10 C-1, L10281 F561
 HOWARD COUNTY, MARYLAND
 DPZ REFERENCE: S-06-05, P-01-23
 2ND ELECTION DISTRICT
 ZONED: POR
 F-02-112, F-02-47, SDP-02-19, SDP-04-25, SDP-02-94,
 P-03-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17908 - 17980,
 F-08-098, PLAT# 17742 - 17743, F-08-077, F-08-130, PLAT# 20567 - 20568, CONT. #14-4285-D, CONT. #14-4034-D

ROBERT H. VOGEL
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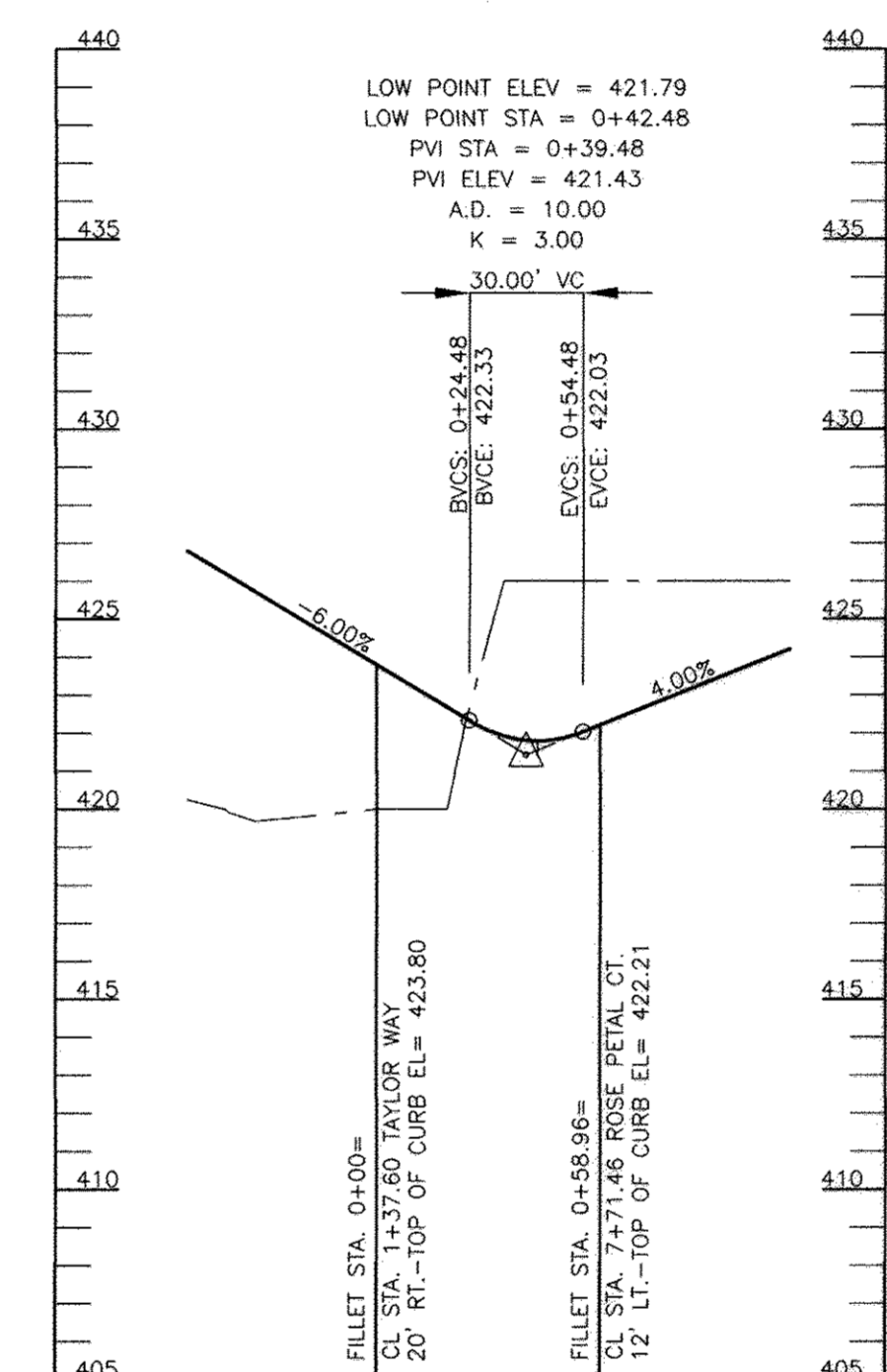
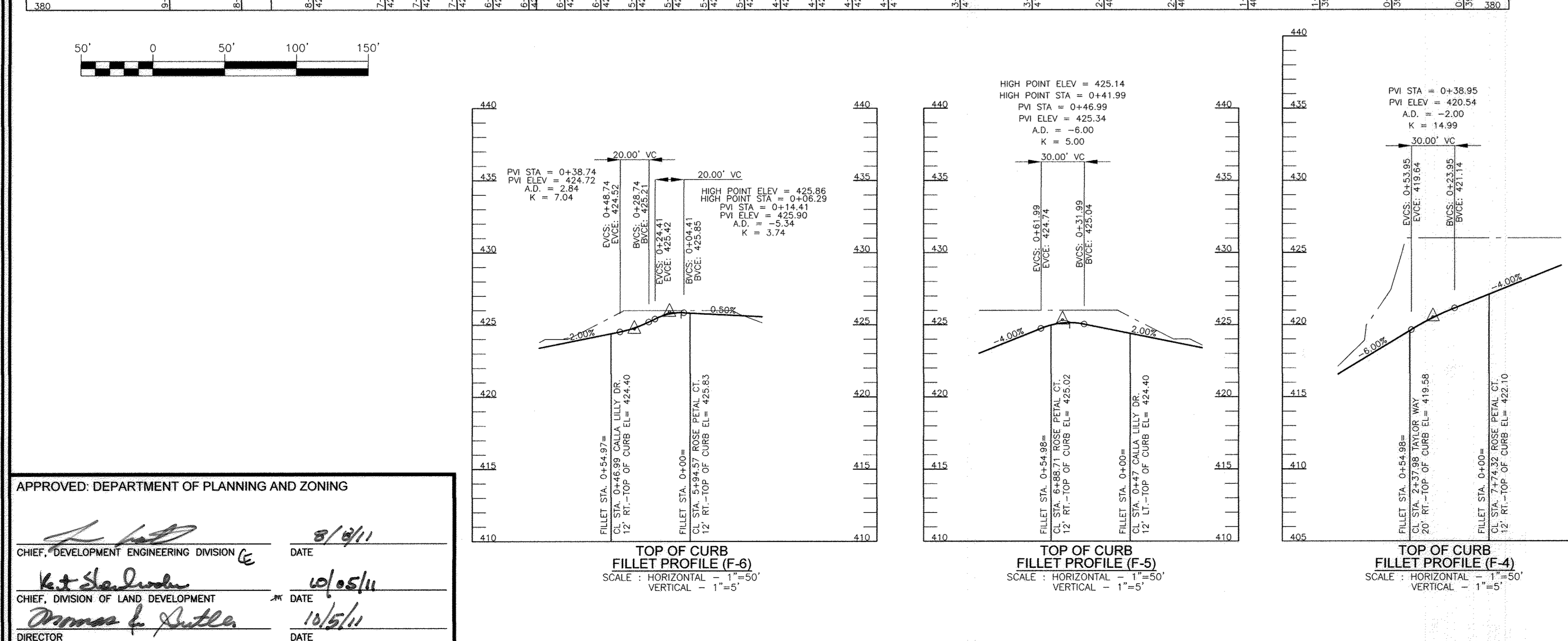
DESIGN BY: JAR/RHV
 DRAWN BY: KGJR
 CHECKED BY: RHV
 DATE: JUNE, 2011
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

5 SHEET OF 19



NOTE
TRAFFIC BARRIER W BEAM BARRICADE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAR FOOT. THE CONTRACT PRICE BID SHALL INCLUDE THE FURNISHING AND INSTALLATION OF ALL POSTS, W BEAM, POST AND SPICE BOLTS WITH NUTS, END SECTIONS, GALVANIZING, THE COST OF ALL EXCAVATION, BACKFILLING AND TAMPING INCIDENTAL TO SETTING THE POSTS, OR THE COST OF DRIVING THE POSTS, THE COST OF REMOVAL OF EXISTING PAYMENT WHERE NECESSARY, AS WELL AS THE COST OF ALL LABOR, APPROVED TOOLS AND EQUIPMENT INCIDENTAL TO FURNISHING AND INSTALLING THE BARRICADE AT LOCATIONS NOTED ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER. FOR MATERIAL, SEE LATEST S.H.A. SPECIFICATIONS FOR TRAFFIC BARRIER W BEAM.

TRAFFIC BARRIER W BEAM BARRICADE STANDARD NO. MD 605.27



TOP OF CURB FILLET PROFILE (F-3)
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

OWNER/DEVELOPER
VILLAGE CREST DEVELOPMENT CORPORATION
4100 COLLEGE AVENUE
ELICOTT CITY, MARYLAND 21041

NO AS-BUILT INFORMATION ON THIS SHEET

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	PAVING SECTIONS							
			3 TO <5	5 TO <7	2.7	3 TO <5	5 TO <7	2.7	3 TO <5	5 TO <7
P-1	PARKING DRIVE, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
P-2	PARKING DRIVE, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
P-3	PARKING DRIVE, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
P-4	MINOR COLLECTORS, NON-RESIDENTIAL MAJOR COLLECTORS	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Notes:
1) HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.
2) HMA SUPERPAVE LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN TO 4.0" MAX), 12.5 MM SURFACE (1.0" MIN TO 2.0" MAX), AND 9.5 MM SURFACE (1.0" MIN TO 2.0" MAX).
3) GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAX COMPACTED THICKNESS LAYERS.
4) THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.
5) IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL/INDUSTRIAL ENTRANCE APRONS WITHIN THE COUNTY RIGHT-OF-WAY WHERE AUXILIARY LANES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
6) THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

Howard County, Maryland
Department of Public Works
PAVING SECTIONS
P-1 to P-4
Detail
R-2.01

3 CHANGE 28 APARTMENTS TO 15 TOWNHOUSE UNITS 12/25/13
NO. REVISION DATE

SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
ROAD PROFILES AND DETAILS
AGE RESTRICTED ADULT HOUSING UNITS

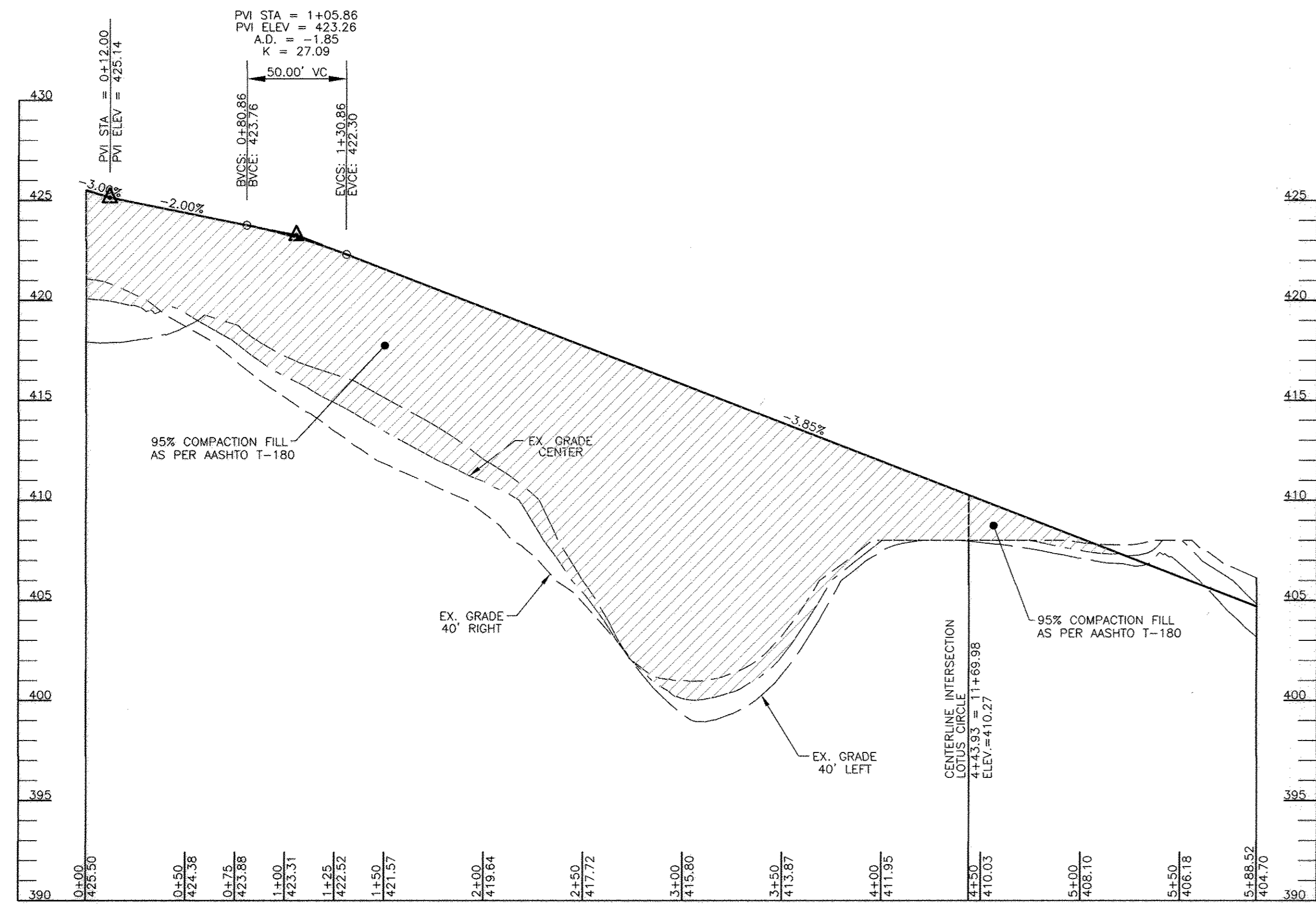
PARCEL: PO C-1, L10281 F561
HOWARD COUNTY, MARYLAND
DPZ REFERENCE: S-00-05, P-01-20,
2ND ELECTION DISTRICT
F-02-112, F-02-47, SDP-02-19, SDP-04-25, SDP-02-94,
PLAT# 16104 - 16109, PLAT# 15381 - 15387, WP-05-102
F-00-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17958 - 17960,
ZONED: POR
F-09-098, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20557 - 20568, CONT. #14-4289-D, CONT. #14-4034-D

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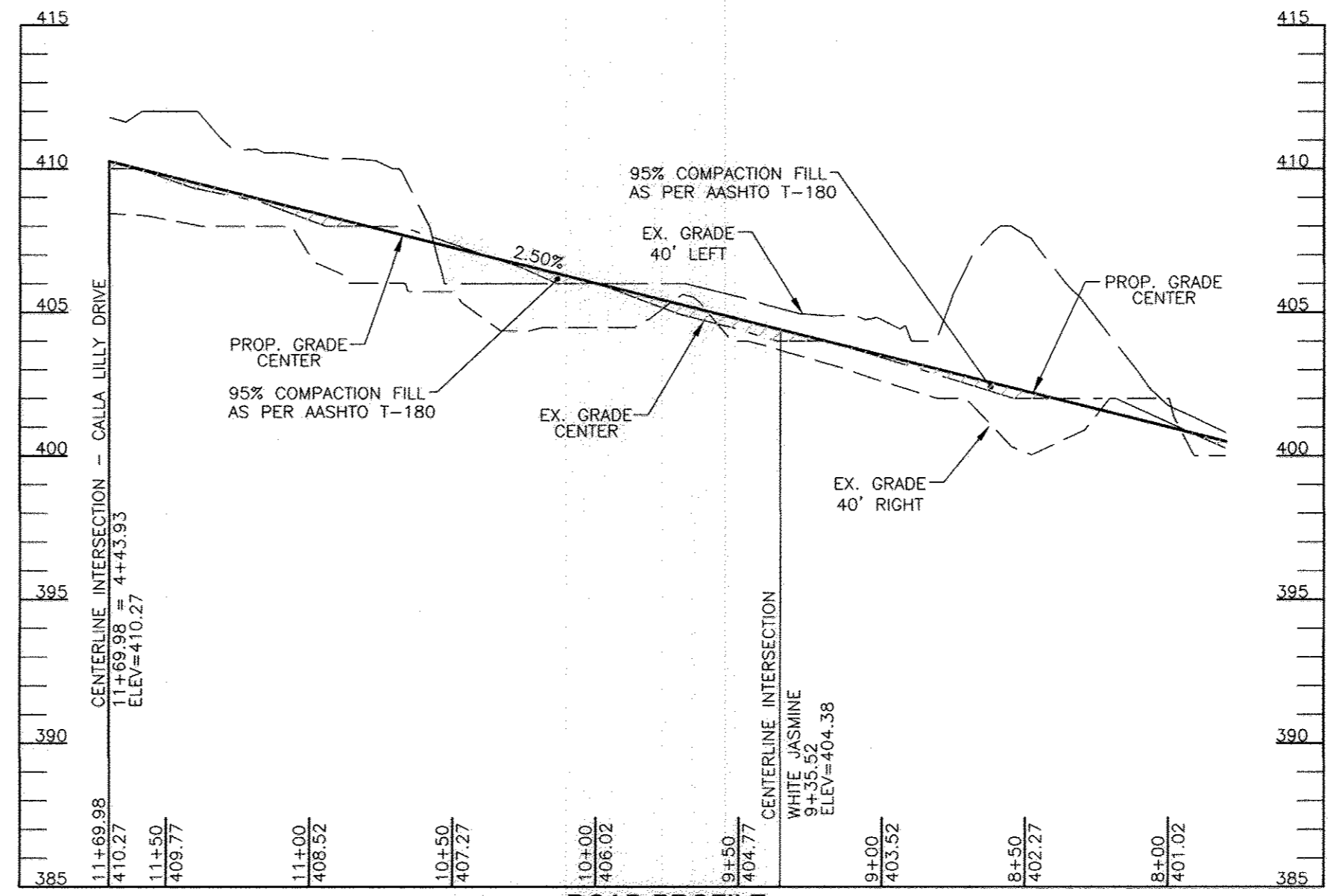
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EXPIRATION DATE: 09-27-2012

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DRAWN BY: KGJR
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DATE: JUNE, 2011
SCALE: AS SHOWN
W.O. NO.: 2018121.00

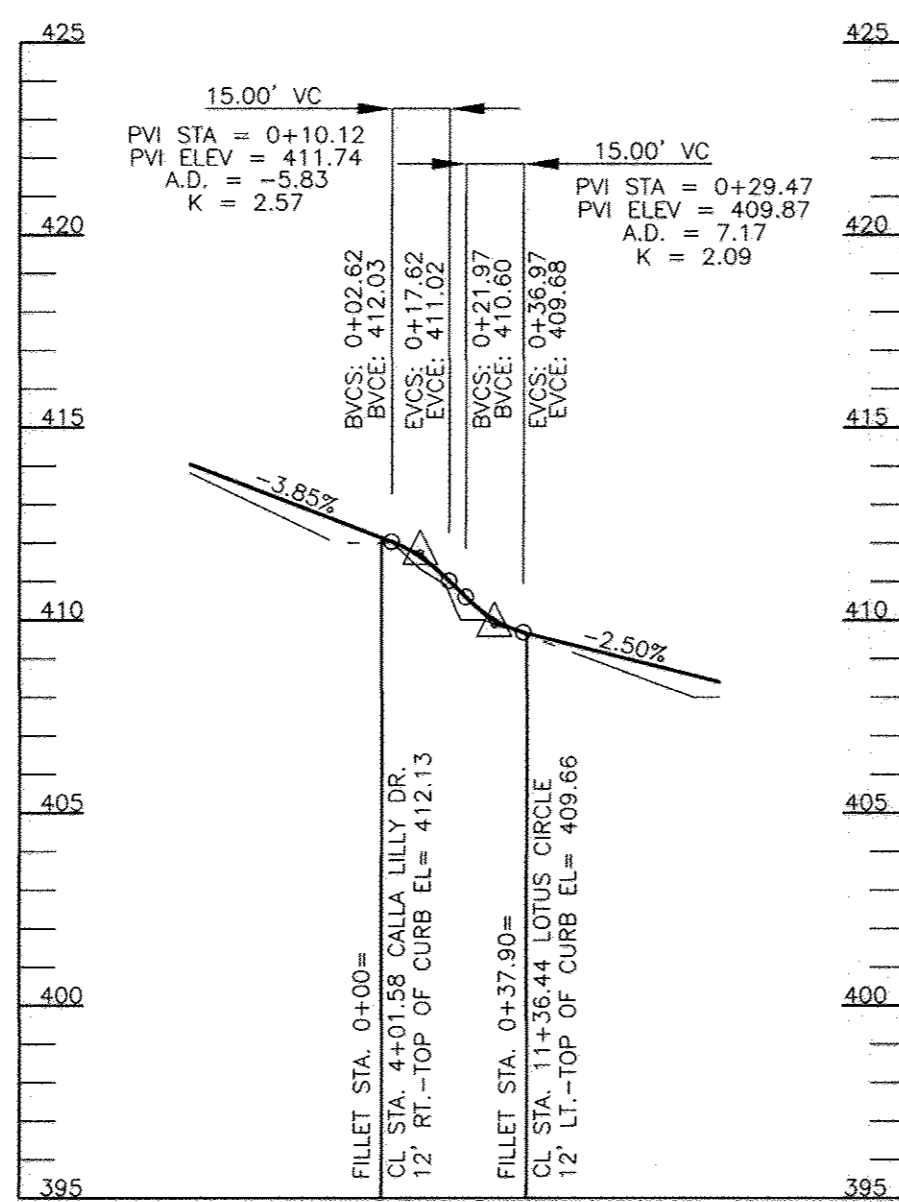
6 SHEET OF 19



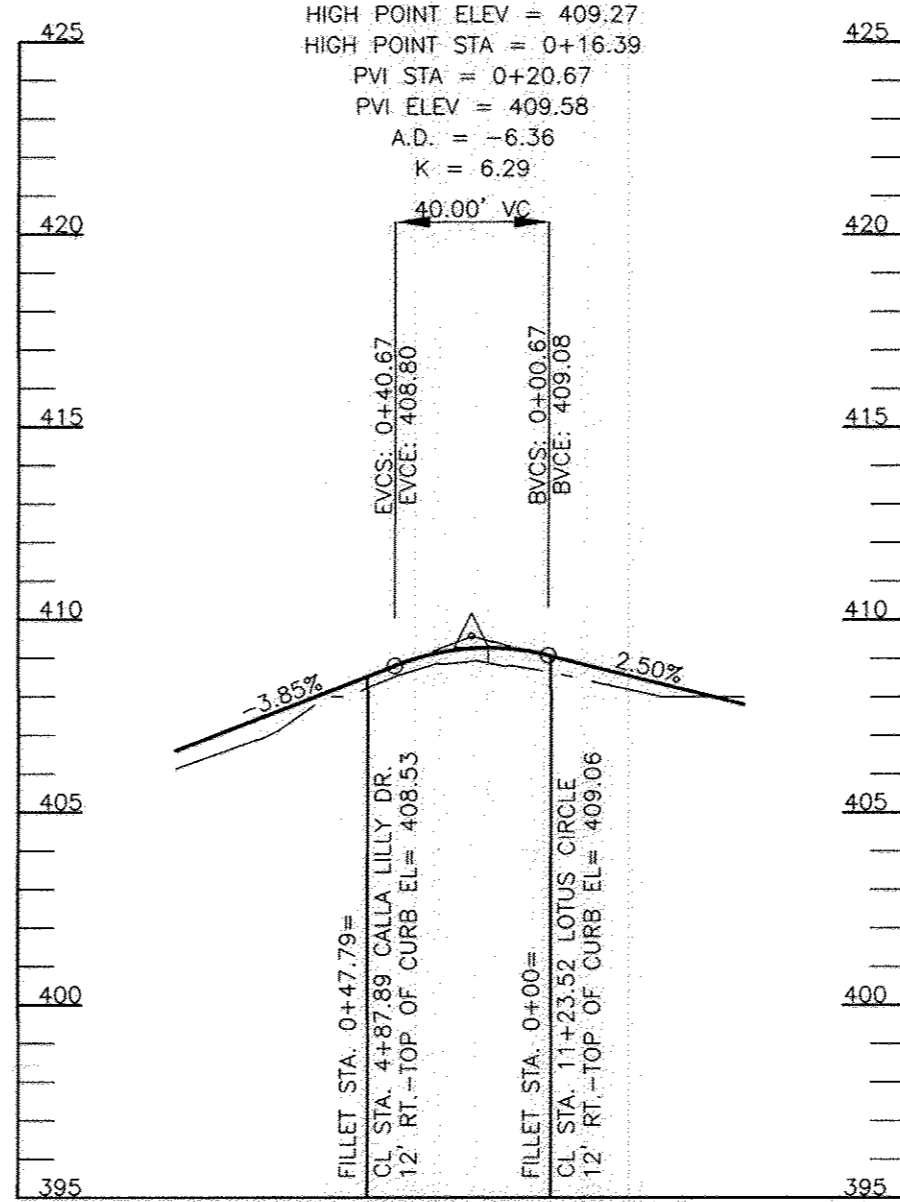
**ROAD PROFILE
PRIVATE ACCESS STREET
CALLA LILLY DRIVE**
DESIGN SPEED: 25 MPH
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



**ROAD PROFILE
PRIVATE ACCESS STREET
LOTUS CIRCLE**
DESIGN SPEED: 25 MPH
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



**TOP OF CURB
FILLET PROFILE (F-7)**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



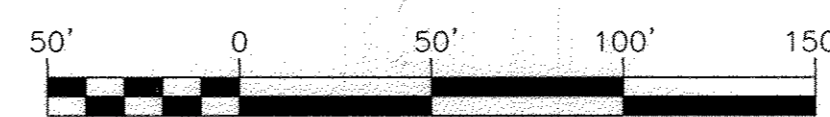
**TOP OF CURB
FILLET PROFILE (F-8)**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

_____ 8/8/14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION/CE DATE
 _____ 10/05/14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 _____ 10/5/14
 DIRECTOR DATE

OWNER/DEVELOPER
VILLAGE CREST DEVELOPMENT CORPORATION
400 COLLEGE AVENUE
ELICOTT CITY, MARYLAND 21041

NO AS-BUILT INFORMATION ON THIS SHEET



NO.	CHANGE 28 APARTMENTS TO 15 TOWNHOUSE UNITS	11/25/13
3	REVISION	DATE

**SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
ROAD PROFILES AND DETAILS
AGE RESTRICTED ADULT HOUSING UNITS**

PARCEL: P10 C-1, L10281 F561
 TAX MAP: 25, BLOCK: 20
 2ND ELECTION DISTRICT
 ZONED: POR
 HOWARD COUNTY, MARYLAND
 DPZ REFERENCES: S-00-05, P-01-20,
 F-02-112, F-02-47, SDP-02-19, SDP-04-25, SDP-05-04,
 PLAT# 16104 - 16109, PLAT# 15361 - 15367, WP-05-102
 P-00-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17958 - 17960,
 F-09-098, PLAT# 17742 - 17743, F-06-077, F-05-139, PLAT# 20567 - 20568, CONT. #14-4282-D, CONT. #14-4034-D

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

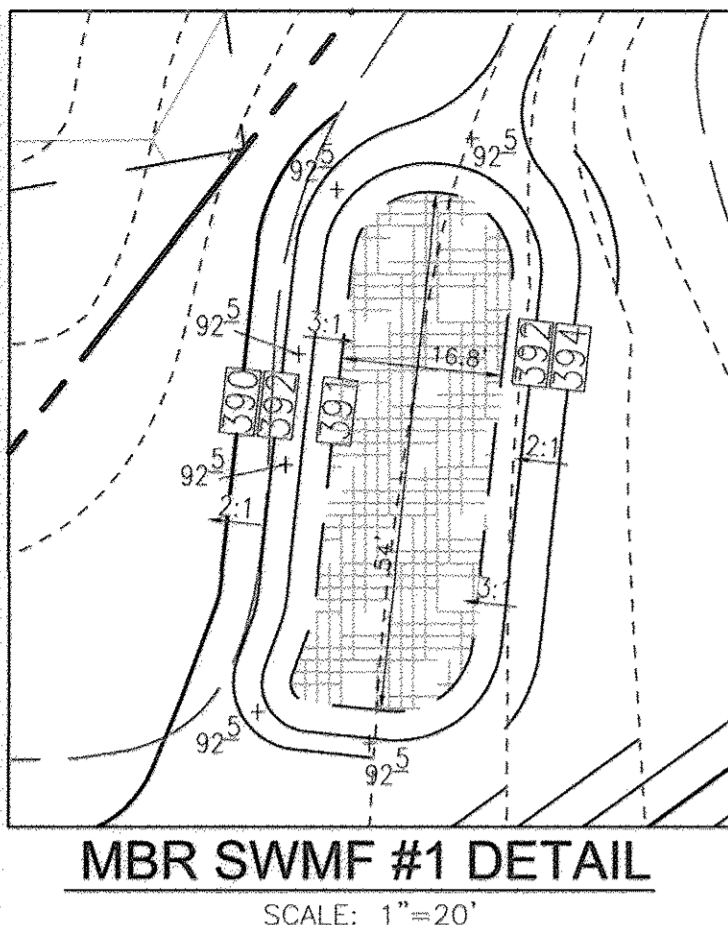
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND
THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2012

DESIGN BY: JAR/RHV
 DRAWN BY: KGJR
 CHECKED BY: RHV
 DATE: JUNE, 2011
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

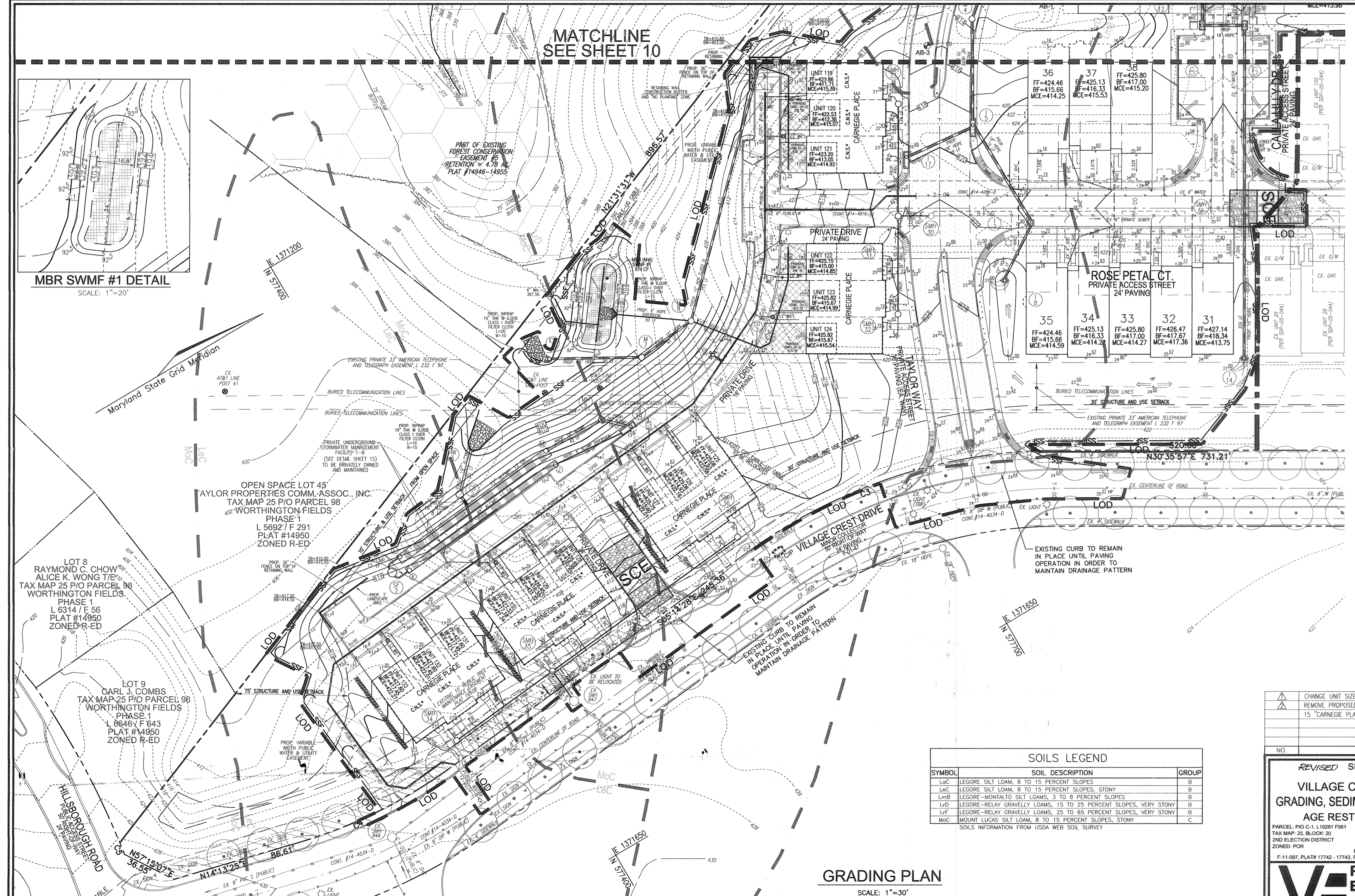
7 SHEET OF 19

MATCHLINE
SEE SHEET 10

- LEGEND**
- RIGHT-OF-WAY
 - BOUNDARY LINE
 - ADJACENT BOUNDARY LINE
 - EXISTING CENTERLINE STREAM
 - EXISTING STREAM BANK BUFFER
 - EXISTING WETLANDS BUFFER
 - EXISTING TREELINE
 - EXISTING UTILITY POLE
 - EXISTING SIGN
 - EXISTING WATER LINE
 - EXISTING SEWER LINE
 - EXISTING GAS LINE
 - EXISTING OVERHEAD LINES
 - EXISTING FENCE LINE
 - EXISTING CURB LINE
 - EXISTING 10' CONTOUR
 - EXISTING 2' CONTOUR
 - EXISTING SOILS
 - EXISTING LIGHT POLE
 - EXISTING MAILBOX
 - EXISTING SANITARY CLEANOUT
 - EXISTING FIRE HYDRANT
 - EXISTING STREET TREES (F-02-47)
 - PROPOSED 10' CONTOUR
 - PROPOSED 2' CONTOUR
 - PROPOSED SPOT ELEVATION
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN INLET
 - PROPOSED SIDEWALK
 - PROPOSED TREELINE
 - PROPOSED CURB
 - EXISTING WETLANDS
 - PROPOSED MICRO PAVEMENT (M-2)
 - PROPOSED PERVIOUS CONCRETE (A-2)
 - EXISTING 10' PUBLIC TREE MAINTENANCE EASEMENT (PLAT #18112-18114)
 - EXISTING FOREST CONSERVATION EASEMENT (RETENTION) (PLATS #14946-14955 AND #18112-18114)
 - EXISTING FOREST CONSERVATION EASEMENT (RESTORATION) (PLATS #18112-18114)
 - EXISTING VARIABLE WIDTH CONSTRUCTION BUFFER AND "NO PLANTING" ZONE
 - EXISTING RETAINING WALL CONSTRUCTION BUFFER AND "NO PLANTING" ZONE
 - PRIVATE SWM, DRAINAGE, AND UTILITY EASEMENT
 - EXISTING VARIABLE WIDTH PUBLIC WATER & UTILITY EASEMENT
 - EXISTING 10' PUBLIC SEWER & UTILITY EASEMENT
 - PROPOSED STABILIZED CONSTRUCTION ENTRANCE
 - PROPOSED SILT FENCE
 - PROPOSED SUPER SILT FENCE
 - PROPOSED LIMIT OF DISTURBANCE
 - PROPOSED EROSION CONTROL MATTING
 - PROPOSED CURB INLET PROTECTION
 - PROPOSED AT-GRADE INLET PROTECTION
 - PROPOSED EARTH DIKE



MBR SWMF #1 DETAIL
SCALE: 1"=20'



SOILS LEGEND

SYMBOL	SOIL DESCRIPTION	GROUP
LoC	LEGORE SILT LOAM, 8 TO 15 PERCENT SLOPES	B
LoC	LEGORE SILT LOAM, 8 TO 15 PERCENT SLOPES, STONY	B
LmB	LEGORE-MONTALTO SILT LOAMS, 3 TO 8 PERCENT SLOPES	B
LrD	LEGORE-RELAY GRAVELLY LOAMS, 15 TO 25 PERCENT SLOPES, VERY STONY	B
LrF	LEGORE-RELAY GRAVELLY LOAMS, 25 TO 65 PERCENT SLOPES, VERY STONY	B
MoC	MOUNT LUCAS SILT LOAM, 8 TO 15 PERCENT SLOPES, STONY	C

SOILS INFORMATION FROM USDA WEB SOIL SURVEY

GRADING PLAN
SCALE: 1"=30'

NO.	REVISION	DATE
1	CHANGE UNIT SIZES AND LOCATION AND CHANGE DRIVEWAYS	12/2/11
2	REMOVE PROPOSED APARTMENT BUILDINGS 'A' & 'B' AND REPLACE WITH 15 "CARNEGIE PLACE" SFA UNITS. NEW UNITS #119-133.	04/29/13

REVISED SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
GRADING, SEDIMENT, AND EROSION CONTROL PLAN
AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: P/O C-1, L10281 F561
TAX MAP: 25, BLOCK: 20
2ND ELECTION DISTRICT
ZONED: P-OR

HOWARD COUNTY, MARYLAND
DPZ REFERENCES: S-00-05, P-01-20, F-02-112, F-02-47, SDP-02-19, SDP-04-25, SDP-02-84, PLAT# 18104 - 18109, PLAT# 15391 - 15397, WP-05-102
P-00-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17958 - 17960, F-09-098, F-11-097, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20567 - 20568, CONT. #14-4286-D, CONT. #14-4034-D

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8956

DESIGN BY: JAR/RHV
DRAWN BY: KSG/R
CHECKED BY: RRV
DATE: DECEMBER 2013
SCALE: AS SHOWN
W.O. NO.: 2018121.00

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2014.

9 SHEET OF 19

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 4-9-14

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 4-10-14

DIRECTOR
DATE: 4/14/14

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

USDA-NATURAL RESOURCES CONSERVATION SERVICE
DATE: 4/11/14

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

HOWARD S.C.D.
DATE: 4/11/14

BY THE DEVELOPER:

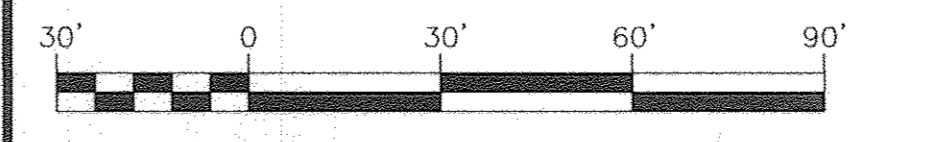
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 12/17/13

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.

DATE: 12/18/13

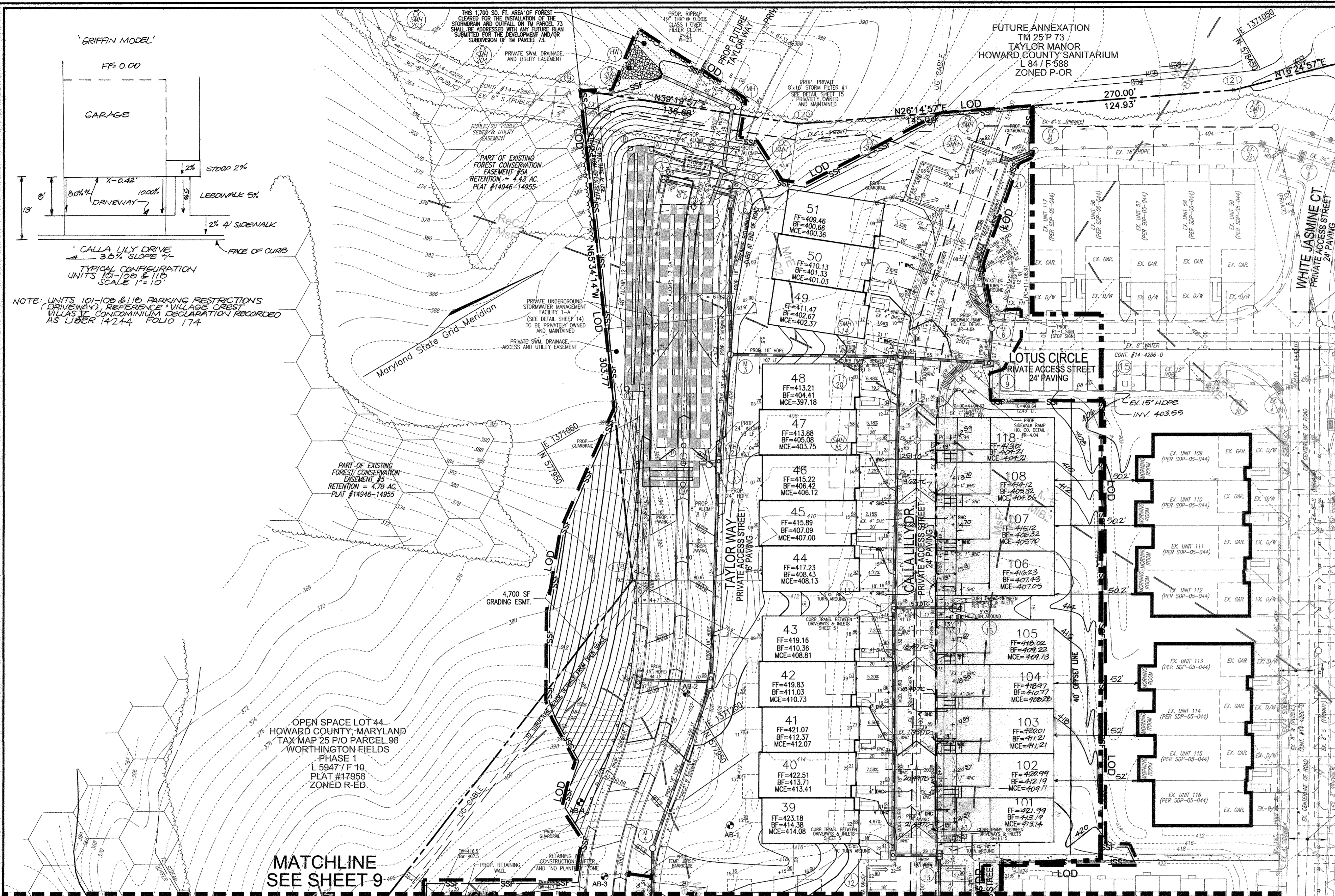


OWNER/DEVELOPER
VILLAGE CREST
DEVELOPMENT CORPORATION
4100 COLLEGE AVENUE
ELLICOTT CITY, MD 21041

NO AS-BUILT INFORMATION ON THIS SHEET

AS-BUILT 3/10/17

SDP-10-052

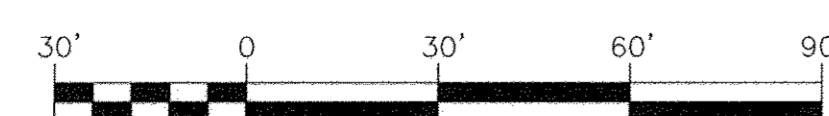


LEGEND

- RIGHT-OF-WAY
- BOUNDARY LINE
- ADJACENT BOUNDARY LINE
- EXISTING CENTERLINE STREAM
- EXISTING STREAM BANK BUFFER
- EXISTING WETLANDS BUFFER
- EXISTING TREE LINE
- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD LINES
- EXISTING FENCE LINE
- EXISTING CURB LINE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SOILS
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SANITARY CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING STREET TREES (P-02-47)
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED SIDEWALK
- PROPOSED TREE LINE
- PROPOSED CURB
- EXISTING WETLANDS
- EX. 10' PUBLIC TREE MAINTENANCE EASEMENT (PLAT #1812-1814)
- EXISTING FOREST CONSERVATION EASEMENT (RETENTION) (PLATS #1496-1495 AND #1812-1814)
- EXISTING FOREST CONSERVATION EASEMENT (RESTORATION) (PLATS #1812-1814)
- EX. VARIANCE WITH SETBACK EASEMENT (PLAT #105)
- RETAINING WALL CONSTRUCTION BUFFER AND "NO PLANTING" ZONE
- PRIVATE SWM, DRAINAGE AND UTILITY EASEMENT
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED SELF FENCE
- PROPOSED SUPER SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED EROSION CONTROL MATTING
- PROPOSED CURB INLET PROTECTION
- PROPOSED AT-GRADE INLET PROTECTION
- PROPOSED EARTH DIKE

1	ADJUST UNIT SIZE AND LOCATIONS FOR UNITS 51-54, 101-108, AND 110	12/2/11
2	REVISE DRIVEWAY LENGTH ON UNITS 101-109, 110, & 118 TO 13'	8/2/12
3	CHANGE 28 APARTMENTS TO 15 TOWNHOUSE UNITS	11/28/13

GRADING & SEDIMENT CONTROL PLAN
SCALE: 1"=30'



APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 4/10/12
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 5-7-12
 DIRECTOR
 DATE: 5/7/12

APPROVED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

USDA-NATURAL RESOURCES CONSERVATION SERVICE
 DATE: 4/10/12
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD S.C.D.
 DATE: 4/10/12

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
 SIGNATURE OF DEVELOPER
 DATE: 3-9-12

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."
 SIGNATURE OF ENGINEER
 DATE: 2/2/12

NO AS-BUILT INFORMATION ON THIS SHEET

OWNER/DEVELOPER
 VILLAGE CREST DEVELOPMENT CORPORATION
 4100 COLLEGE AVENUE
 ELLICOTT CITY, MD 21041

REVISED SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
GRADING, SEDIMENT, AND EROSION CONTROL PLAN
AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: P10 C-1, L10281 F561
 TAX MAP: 25, BLOCK: 20
 ZONED: POR

HOWARD COUNTY, MARYLAND
 DPZ REFERENCES: S-00-05, P-01-20, F-02-12, F-02-47, SDP-02-19, SDP-04-05, SDP-02-04, PLAT# 16104 - 16109, PLAT# 15381 - 15367, WP-05-102, P-00-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17958 - 17960, F-09-098, PLAT# 17742 - 17743, F-05-077, F-06-139, PLAT# 20567 - 20569, CONT. #14-4286-D, CONT. #14-4034-D

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 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

DESIGN BY: JAR/RHV
 DRAWN BY: KGJ/R
 CHECKED BY: R/V
 DATE: FEBRUARY, 2012
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
 EXPIRATION DATE: 09-27-2012

10 SHEET OF 19

HOWARD SOIL CONSERVATION DISTRICT 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. (313-1880)
- 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 MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THEREOF.
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 30 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1. (B) 7 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 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FROM THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 6. SITE ANALYSIS:
TOTAL SITE AREA: 23.48 ACRES
AREA DISTURBED: 4.01 ACRES
AREA TO BE VEGETATIVELY STABILIZED: 3.14 ACRES
TOTAL CUT: 6,670 CU. YDS
TOTAL FILL: 14,442 CU. YDS
OFFSITE WASTE/BORROW LOCATION: _____

- 7. ESTIMATE ONLY CONTRACTOR SHALL VERIFY QUANTITIES TO HIS OWN SATISFACTION. *TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, WITH AN APPROVED AND ACTIVE GRADING PERMIT.
- 8. ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PROTECTION OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF OCCURRENCE.
- 9. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10. 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 APPLIED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- 11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR FIVE AREAS AND/OR BACK FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- 12. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 13. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MINIMUM GRADE OF 20 AC. PER GRADING UNIT) AT A TIME, WORK MAY PROCEED TO A SUCCESSIVE GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY, UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

PURPOSE
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS, FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA

- 1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPLICABLE TIME HARDNESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
- 2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
- 3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

TEMPORARY SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATE	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE (10 LB PER 1000 SF)
1	COOL SEASON ANNUAL PERENNIAL OR EQUAL	40 LB / AC	MAR 1 TO MAY 15 AUG 1 TO OCT 15	1/2 IN.	436 LB/AC (10 LB PER 1000 SF)	2 TONS/AC (90 LB PER 1000 SF)
2	WARM SEASON FOLIATE BROADLEAF OR EQUAL	30 LB / AC	MAY 16 TO JUL 31	1/2 IN.		

R-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE
TO USE LONG-LEAF PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA

- A. SEED MIXTURES
1. GENERAL USE
A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE TIME HARDNESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
B. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR PERMANENT SEEDING.
C. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3-1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE END OF SEEDING SEASON.
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. B. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE TIME HARDNESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
C. KENTUCKY BLUEGRASS: FULL SUN MIXTURE FOR USE IN AREAS THAT RECEIVE INTENSIVE MAINTENANCE REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED KENTUCKY BLUEGRASS CULTIVARS: SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
D. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MAINTENANCE. CERTIFIED PERENNIAL PREGRASS CULTIVARS/ CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
E. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE FOR USE IN DROUGHT PRONE AREAS AND/OR FOR USE IN AREAS WHERE MEDIUM TO INTENSIVE MAINTENANCE IS TO BE PROVIDED. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 5 TO 5 PERCENT. SEEDING RATE: 3 TO 4 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
F. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE FOR USE IN AREAS WITH SHADY TO BUSHY LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MAINTAINED TURF, MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE CULTIVARS 60 TO 70 PERCENT. SEEDING RATE: 1.5 TO 3 POUNDS PER 1000 SQUARE FEET.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

PURPOSE
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS, FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA

- 1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPLICABLE TIME HARDNESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
- 2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
- 3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

PERMANENT SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATE	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE (10 LB PER 1000 SF)
1	COOL SEASON ANNUAL PERENNIAL OR EQUAL	40 LB / AC	MAR 1 TO MAY 15 AUG 1 TO OCT 15	1/2 IN.	436 LB/AC (10 LB PER 1000 SF)	2 TONS/AC (90 LB PER 1000 SF)
2	WARM SEASON FOLIATE BROADLEAF OR EQUAL	30 LB / AC	MAY 16 TO JUL 31	1/2 IN.		

R-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES
WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA

- A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
A. SEEDING PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL FLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR GRADED SMOOTH BUT LEFT IN THE RECOMMENDED SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH WHEELS RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
D. INCULCATE THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER, AND FRESH INOCULANT MUST BE USED FOR EACH SEEDING. INOCULANTS ARE NOT TO BE USED ON NON-LEGUMINOUS CROPS. IT IS VERY IMPORTANT TO KEEP INOCULANTS AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THEM LESS EFFECTIVE.
E. SOIL MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STABILIZERS OR CHEMICALS USED FOR WEED CONTROL, UNLESS SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT DEGRADATION OF PHOTO-TOXIC MATERIALS.
2. APPLICATION
A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL, DRIP OR BROADCAST SEEDING. B. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
C. CONSIDER SUFFICIENT FURROW SPACE TO PERMIT ADEQUATE ROOT PENETRATION. D. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOIL DOES NOT MEET THE ABOVE CONDITIONS.
E. CONTOUR SEEDING MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARPED OR OTHERWISE LOOSENEED TO A DEPTH OF 3 TO 5 INCHES.
F. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
G. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAMN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS, LIME STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO REMOVE THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDING PREPARATION. TRACK SLOPES MUST BE MAINTAINED AT THE RECOMMENDED RATES. LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE LEAVES THE TOP 1 TO 3 INCHES OF SOIL DRY AND FRAGILE. SEEDING LOOSENESS MAY BE UNNECESSARY ON NEARLY DISTURBED AREAS.

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES
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B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
D. INCULCATE THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER, AND FRESH INOCULANT MUST BE USED FOR EACH SEEDING. INOCULANTS ARE NOT TO BE USED ON NON-LEGUMINOUS CROPS. IT IS VERY IMPORTANT TO KEEP INOCULANTS AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THEM LESS EFFECTIVE.
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B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE
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E. SOIL MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STABILIZERS OR CHEMICALS USED FOR WEED CONTROL, UNLESS SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT DEGRADATION OF PHOTO-TOXIC MATERIALS.
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G. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAMN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS, LIME STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO REMOVE THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDING PREPARATION. TRACK SLOPES MUST BE MAINTAINED AT THE RECOMMENDED RATES. LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE LEAVES THE TOP 1 TO 3 INCHES OF SOIL DRY AND FRAGILE. SEEDING LOOSENESS MAY BE UNNECESSARY ON NEARLY DISTURBED AREAS.

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES
WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

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2. APPLICATION
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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.

CONDITIONS WHERE PRACTICE APPLIES
TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA

- A. SEEDING
1. SPECIFICATIONS
A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO BE TESTING BY A RECORDED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SEEDING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE FURROW IS PROTECTED BY APPROPRIATE APPROPRIATE MULCH MUST BE APPLIED BETWEEN THE SPRING SEEDING DATES.
C. INCULCANTS THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER, AND FRESH INOCULANT MUST BE USED FOR EACH SEEDING. INOCULANTS ARE NOT TO BE USED ON NON-LEGUMINOUS CROPS. IT IS VERY IMPORTANT TO KEEP INOCULANTS AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THEM LESS EFFECTIVE.
D. SOIL MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STABILIZERS OR CHEMICALS USED FOR WEED CONTROL, UNLESS SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT DEGRADATION OF PHOTO-TOXIC MATERIALS.
2. APPLICATION
A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL, DRIP OR BROADCAST SEEDING. B. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
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E. CONTOUR SEEDING MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARPED OR OTHERWISE LOOSENEED TO A DEPTH OF 3 TO 5 INCHES.
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B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

DEFINITION
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE
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CONDITIONS WHERE PRACTICE APPLIES
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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.

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CRITERIA

- A. SEEDING
1. SPECIFICATIONS
A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO BE TESTING BY A RECORDED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SEEDING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE FURROW IS PROTECTED BY APPROPRIATE APPROPRIATE MULCH MUST BE APPLIED BETWEEN THE SPRING SEEDING DATES.
C. INCULCANTS THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER, AND FRESH INOCULANT MUST BE USED FOR EACH SEEDING. INOCULANTS ARE NOT TO BE USED ON NON-LEGUMINOUS CROPS. IT IS VERY IMPORTANT TO KEEP INOCULANTS AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THEM LESS EFFECTIVE.
D. SOIL MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STABILIZERS OR CHEMICALS USED FOR WEED CONTROL, UNLESS SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT DEGRADATION OF PHOTO-TOXIC MATERIALS.
2. APPLICATION
A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL, DRIP OR BROADCAST SEEDING. B. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
C. CONSIDER SUFFICIENT FURROW SPACE TO PERMIT ADEQUATE ROOT PENETRATION. D. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOIL DOES NOT MEET THE ABOVE CONDITIONS.
E. CONTOUR SEEDING MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARPED OR OTHERWISE LOOSENEED TO A DEPTH OF 3 TO 5 INCHES.
F. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
G. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAMN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS, LIME STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO REMOVE THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDING PREPARATION. TRACK SLOPES MUST BE MAINTAINED AT THE RECOMMENDED RATES. LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE LEAVES THE TOP 1 TO 3 INCHES OF SOIL DRY AND FRAGILE. SEEDING LOOSENESS MAY BE UNNECESSARY ON NEARLY DISTURBED AREAS.

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.

CONDITIONS WHERE PRACTICE APPLIES
TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

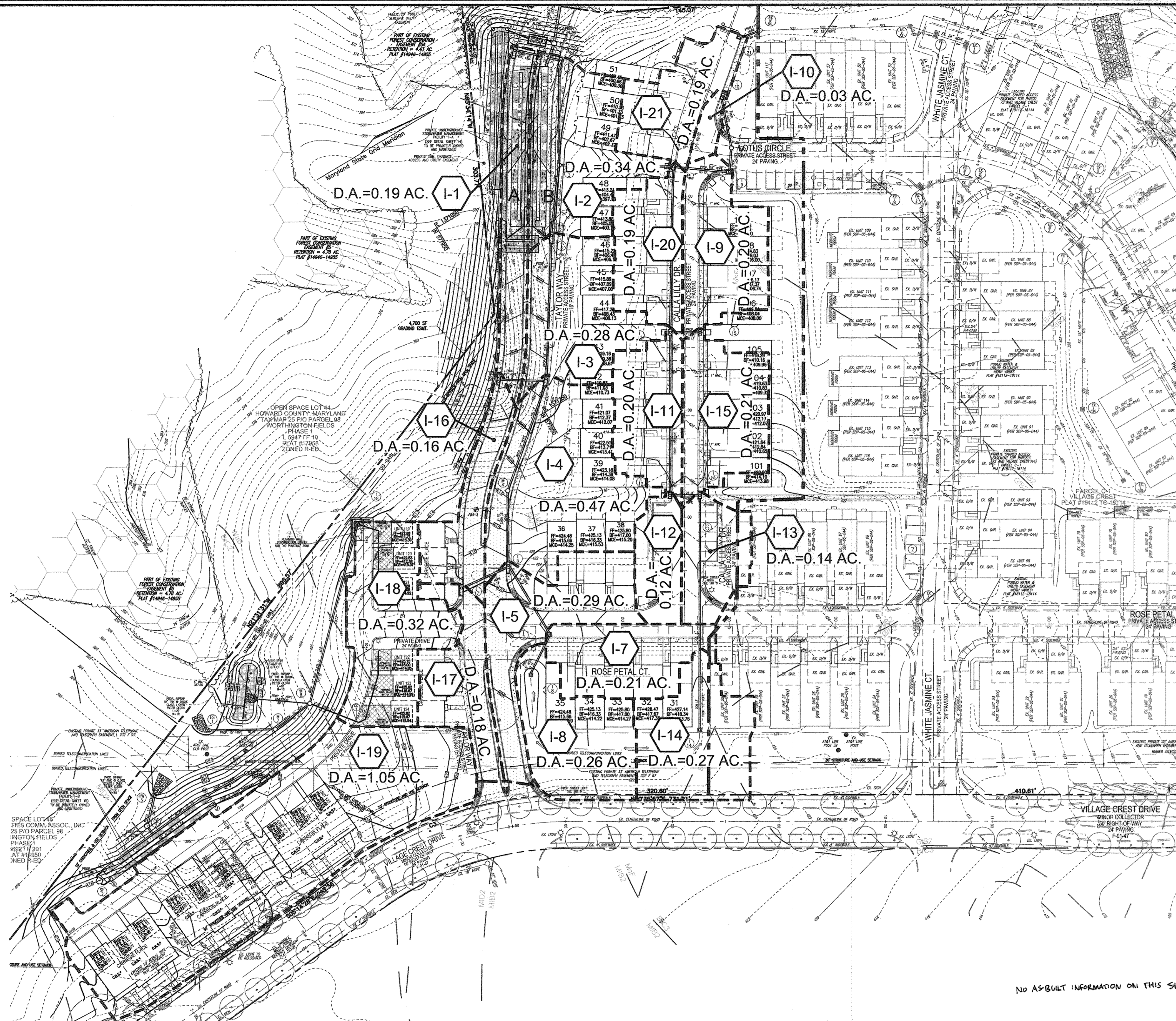
CRITERIA

- A. SEEDING
1. SPECIFICATIONS
A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO BE TESTING BY A RECORDED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SEEDING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE FURROW IS PROTECTED BY APPROPRIATE APPROPRIATE MULCH MUST BE APPLIED BETWEEN THE SPRING SEEDING DATES.
C. INCULCANTS THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE

DRAINAGE AREA TABULATIONS				
NO.	ACREAGE	% C	% IMP.	SOIL TYPE
I-1	0.19 AC.	0.75	83.60%	B & C
I-2	0.34 AC.	0.61	63.10%	B & C
I-3	0.28 AC.	0.63	66.10%	C
I-4	0.47 AC.	0.59	60.40%	B & C
I-5	0.29 AC.	0.78	88.7%	B & C
I-7	0.21 AC.	0.82	94.70%	B & C
I-8	0.26 AC.	0.34	24.30%	B & C
I-9	0.20 AC.	0.79	90.00%	B & C
I-10	0.03 AC.	0.86	100.00%	C
I-11	0.20 AC.	0.83	95.80%	C
I-12	0.12 AC.	0.69	74.20%	C
I-13	0.14 AC.	0.69	75.70%	B & C
I-14	0.27 AC.	0.38	29.30%	B & C
I-15	0.21 AC.	0.83	95.80%	B & C
I-16	0.16 AC.	0.79	84.00%	B & C
I-17	0.18 AC.	0.75	79.00%	B
I-18	0.32 AC.	0.46	67.90%	B & D
I-19	1.05 AC.	0.58	53.90%	B, C, & D
I-20	0.19 AC.	0.83	95.60%	C
I-21	0.19 AC.	0.83	95.00%	C

SOILS LEGEND		
SYMBOL	SOIL NAME	CLASS
AdC2	ALDINO SILT LOAM	C
BrB2	BRANDYWINE LOAM	C
BrC2	BRANDYWINE LOAM	C
BrC3	BRANDYWINE LOAM	C
AdB2	ALDINO SILT LOAM	C
BrD3	BRANDYWINE LOAM	C
BrF	BRANDYWINE LOAM	C
BrW0	BRANDYWINE	C
NeB2	NESHAMINY SILT LOAM	B
GnB2	GLENVILLE SILT LOAM	C
GIB2	GLENELG LOAM	B
GIC2	GLENELG LOAM	B
MgC3	MANOR GRAVELLY LOAM	B
MIB2	MANOR LOAM	B
MID2	MANOR LOAM	B
MpC2	MONTALTO SILT LOAM	C
MpB2	MONTALTO SILT LOAM	C
MqC3	MONTALTO SILTY CLAY LOAM	C
MrC	MONTALTO AND RELAY SOILS	C
MsD	MONTALTO AND RELAY VERY STONY SILT LOAMS	C
MsF	MONTALTO AND RELAY VERY STONY SILT LOAMS	C
ReC2	RELAY SILT LOAM	B
WaB	WATCHUNG SANDY LOAM	D

NOTE: HOWARD SOILS SURVEY MAP NO. 20.



LEGEND	
[Symbol]	RIGHT-OF-WAY
[Symbol]	BOUNDARY LINE
[Symbol]	ADJACENT BOUNDARY LINE
[Symbol]	EXISTING CENTERLINE STREAM
[Symbol]	EXISTING STREAM BANK BUFFER
[Symbol]	EXISTING WETLANDS BUFFER
[Symbol]	EXISTING TREETRINE
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING SEWER LINE
[Symbol]	EXISTING GAS LINE
[Symbol]	EXISTING OVERHEAD LINES
[Symbol]	EXISTING FENCE LINE
[Symbol]	EXISTING CURB LINE
[Symbol]	EXISTING 10' CONTOUR
[Symbol]	EXISTING 2' CONTOUR
[Symbol]	EXISTING SOILS
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING MAILBOX
[Symbol]	EXISTING SANITARY CLEANOUT
[Symbol]	EXISTING FIRE HYDRANT
[Symbol]	EXISTING STREET TREES (T-02-43)
[Symbol]	PROPOSED 10' CONTOUR
[Symbol]	PROPOSED 2' CONTOUR
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	PROPOSED STORM DRAIN
[Symbol]	PROPOSED STORM DRAIN INLET
[Symbol]	PROPOSED SIDEWALK
[Symbol]	PROPOSED TREETRINE
[Symbol]	PROPOSED CURB
[Symbol]	EXISTING WETLANDS
[Symbol]	PROPOSED MICRO BIO-RETENTION FACILITY (M-0)
[Symbol]	PROPOSED PERVIOUS CONCRETE (A-2)
[Symbol]	EXISTING 10' PUBLIC TREE MAINTENANCE EASEMENT (PLAT #1812-1814)
[Symbol]	EXISTING FOREST CONSERVATION EASEMENT (RETENTION) (PLATS #1046-1495 AND #1812-1814)
[Symbol]	EXISTING FOREST CONSERVATION EASEMENT (REFORESTATION) (PLATS #1812-1814)
[Symbol]	EXISTING VARIABLE WIDTH PUBLIC SIDEWALK EASEMENT (PLAT #1810)
[Symbol]	EXISTING RETAINING WALL CONSTRUCTION BUFFER PLANTING ZONE
[Symbol]	PRIVATE SWM, DRAINAGE, AND UTILITY EASEMENT
[Symbol]	EXISTING VARIABLE WIDTH PUBLIC WATER & UTILITY EASEMENT
[Symbol]	EXISTING 10' PUBLIC SEWER & UTILITY EASEMENT
[Symbol]	DRAINAGE DIVIDE LINE

NO.	REVISION	DATE
04/29/13	REMOVE PROPOSED APARTMENT BUILDINGS 'A' & 'B' AND REPLACE WITH 15 "CARNEGIE PLACE" SFA UNITS. NEW UNITS #119-133.	

REVISED SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
STORM DRAIN DRAINAGE AREA MAP
SOILS MAP
AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: PIO C-1, L10281 F561
 TAX MAP: 25, BLOCK 20
 2ND ELECTION DISTRICT
 ZONED: PDR

HOWARD COUNTY, MARYLAND
 DPZ REFERENCES: S-00-05, P-01-20, F-02-112, F-02-47, SDP-02-18, SDP-04-25, SDP-02-84, PLAT# 16104 - 16109, PLAT# 15361 - 15367, WP-05-102
 P-00-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17958 - 17960, F-09-098, F-11-087, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20567 - 20568, CONT. #14-2286-C, CONT. #14-4034-D

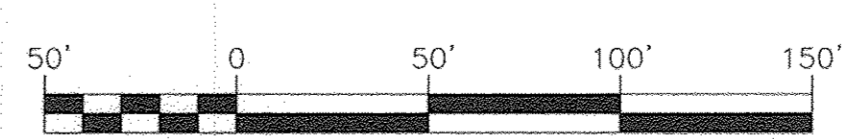
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410-461-7666
 FAX: 410-463-1806

DESIGN BY: JAR/RHV
 DRAWN BY: KG/JJR
 CHECKED BY: RRV
 DATE: DECEMBER, 2013
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
 EXPIRATION DATE: 09-27-2014

12 SHEET OF 19

STORM DRAIN DRAINAGE AREA MAP
 SCALE: 1"=50'



APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 4.9.14

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 4-10-14

DIRECTOR
 DATE: 4/14/14

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

USDA-NATURAL RESOURCES CONSERVATION SERVICE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 4/14/14

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 12/17/13

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.
 DATE: 12/10/13

OWNER/DEVELOPER
 VILLAGE CREST DEVELOPMENT CORPORATION
 4100 COLLEGE AVENUE
 ELLICOTT CITY, MD 21041

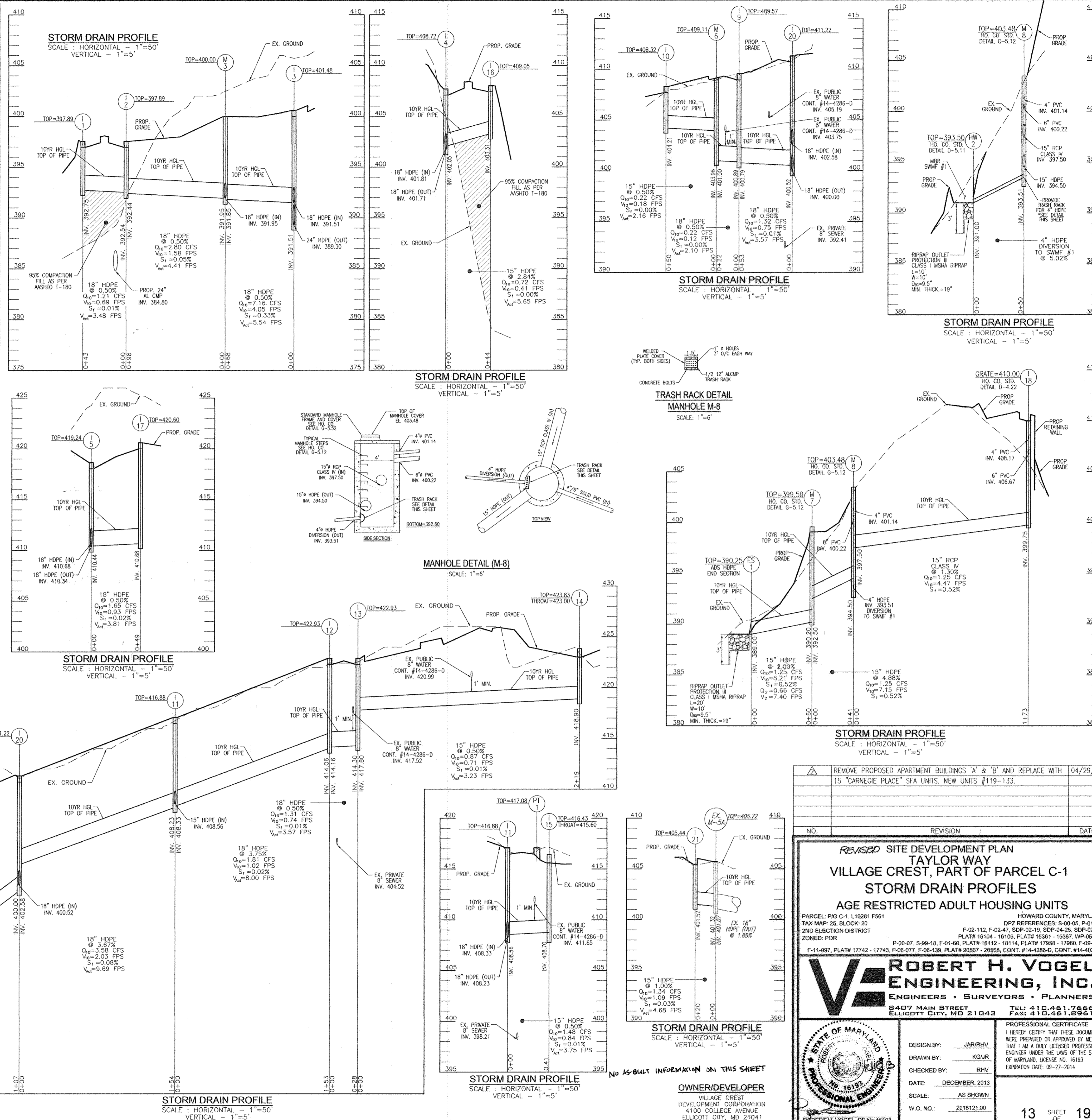
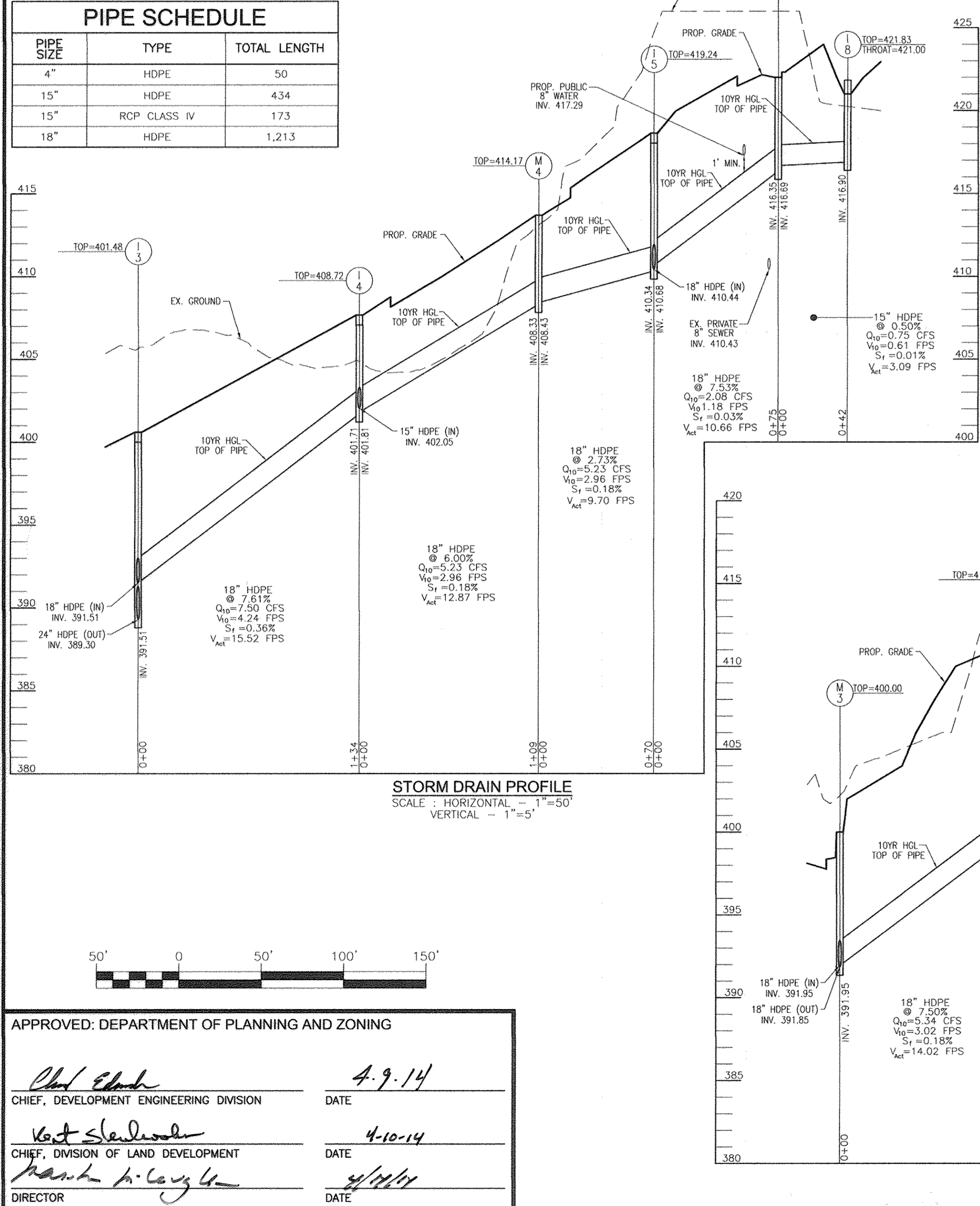
STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TOP ELEV.	THROAT ELEV.	INV. IN	INV. OUT	DETAILS/REMARKS
CO-1	10" CLEANOUT	N 577580.36 E 1371408.74	415.19	-	414.43 (4") 413.52 (6")	411.57 (4") 410.65 (6")	HO. CO. DETAIL S-2.22
ES-1	ADS HDPE END SECTION (15")	N 577529.03 E 1371346.53	390.25	-	389.00 (15")	-	ADS HDPE END SECTION (15")
HW-2	TYPE 'A' HEADWALL	N 577580.91 E 1371343.20	393.50	-	391.00 (4")	-	HO. CO. DETAIL D-5.11
I-1	TYPE 'A-10' INLET - PRECAST	CL TAYLOR WAY, STA: 07+28.43, 20' LT.	397.89	-	392.75 (18")	392.75 (18")	HO. CO. DETAIL D-4.03
I-2	TYPE 'A-10' INLET - PRECAST	CL TAYLOR WAY, STA: 07+28.02, 20' RT.	397.89	-	392.54 (18") 392.44 (18")	392.44 (18")	HO. CO. DETAIL D-4.03
I-3	TYPE 'A-10' INLET - PRECAST	CL TAYLOR WAY, STA: 05+57.39, 20' RT.	401.48	-	391.51 (18") 389.30 (24")	389.30 (24")	HO. CO. DETAIL D-4.03
I-4	TYPE 'A-10' INLET - PRECAST	CL TAYLOR WAY, STA: 04+26.37, 20' RT.	408.72	-	402.05 (15") 401.81 (18")	401.71 (18")	HO. CO. DETAIL D-4.03
I-5	TYPE 'A-10' INLET - PRECAST	CL TAYLOR WAY, STA: 02+43.64, 20' RT.	419.24	-	410.68 (18") 410.44 (18")	410.34 (18")	HO. CO. DETAIL D-4.03
I-7	TYPE 'S' INLET	CL ROSE PETAL CT., STA: 07+69.13, 9.71' LT.	421.98	-	416.69 (15")	416.35 (18")	HO. CO. DETAIL D-4.22
I-8	TYPE 'D' INLET - PRECAST	N 577813.62 E 1371454.79	421.83	421.00	416.90 (15")	-	HO. CO. DETAIL D-4.10 (OPEN ON 3 SIDES)
I-9	TYPE 'A-5' INLET - PRECAST	CL LOTUS CIRCLE, STA: 11+32.69, 13.13' LT.	409.57	-	400.89 (18")	400.79 (18")	HO. CO. DETAIL D-4.01
I-10	TYPE 'A-5' INLET - PRECAST	CL CALLA LILLY DR., STA: 05+00.48, 12' RT.	408.32	-	404.21 (15")	404.21 (15")	HO. CO. DETAIL D-4.01
I-11	TYPE 'A-5' INLET - PRECAST	CL CALLA LILLY DR., STA: 02+77.97, 12' LT.	416.88	-	408.56 (15") 408.33 (18")	408.23 (18")	HO. CO. DETAIL D-4.01
I-12	TYPE 'A-5' INLET - PRECAST	CL CALLA LILLY DR., STA: 01+20.27, 12' LT.	422.93	-	414.18 (18")	414.06 (18")	HO. CO. DETAIL D-4.01
I-13	TYPE 'A-5' INLET - PRECAST	CL CALLA LILLY DR., STA: 01+20.27, 12' RT.	422.93	-	417.80 (15")	417.80 (15")	HO. CO. DETAIL D-4.01
I-14	TYPE 'D' INLET - PRECAST	N 577923.73 E 1371579.57	423.83	423.00	418.90 (15")	-	HO. CO. DETAIL D-4.10 (OPEN ON 3 SIDES)
I-15	TYPE 'D' INLET - PRECAST	CL CALLA LILLY DR., STA: 02+77.97, 27' RT.	416.43	415.60	408.70 (15")	408.70 (15")	HO. CO. DETAIL D-4.10 (OPEN ON 3 SIDES)
I-16	TYPE 'A-10' INLET - PRECAST	CL TAYLOR WAY, STA: 04+20.85, 20' LT.	409.05	-	403.31 (15")	403.31 (15")	HO. CO. DETAIL D-4.03
I-17	TYPE 'A-10' INLET - PRECAST	CL TAYLOR WAY, STA: 02+22.67, 20' LT.	420.60	-	410.68 (18")	410.68 (18")	HO. CO. DETAIL D-4.03
I-18	TYPE 'S' INLET	N 577745.01 E 1371250.59	410.00	-	408.17 (4") 406.67 (6")	399.75 (15")	HO. CO. DETAIL D-4.22
I-19	TYPE 'A-10' INLET - PRECAST	N 577549.67 E 1371411.83	414.40	-	410.45 (4") 410.97 (18")	410.97 (18")	HO. CO. DETAIL D-4.03
I-20	TYPE 'A-5' INLET - PRECAST	CL CALLA LILLY DR., STA: 04+25.32, 12' LT.	411.22	-	402.58 (18") 400.52 (18")	400.00 (18")	HO. CO. DETAIL D-4.01
I-21	TYPE 'S' COMBINATION INLET	CL CALLA LILLY DR., STA: 05+58.00, 10.21' RT.	405.44	-	391.95 (18") 391.95 (18")	401.52 (15")	HO. CO. DETAIL D-4.32
M-3	STANDARD 4" MANHOLE	N 578078.37 E 1371058.04	400.00	-	391.95 (18") 391.95 (18")	391.85 (18")	HO. CO. DETAIL G-5.12 - PRECAST
M-4	STANDARD 4" MANHOLE	CL TAYLOR WAY, STA: 03+19.83, 16.37 RT.	414.17	-	408.43 (18")	408.33 (18")	HO. CO. DETAIL G-5.12 - PRECAST
M-6	STANDARD 4" MANHOLE	CL LOTUS CIRCLE, STA: 11+32.69, 7.43 RT.	409.11	-	403.96 (15")	401.00 (18")	HO. CO. DETAIL G-5.12 - PRECAST
M-7	STANDARD 4" MANHOLE	N 577581.18 E 1371376.20	399.58	-	392.50 (15")	390.20 (15")	HO. CO. DETAIL G-5.12 - PRECAST
M-8	STANDARD 4" MANHOLE DIVERSION MANHOLE	N 577621.53 E 1371372.16	403.48	-	401.65 (4") 400.15 (6") 393.51 (4")	394.50 (15") 393.51 (4")	HO. CO. DETAIL G-5.12 - PRECAST
PT-1	SHA PASS THROUGH INLET	CL CALLA LILLY DR., STA: 02+77.97, 12' RT.	417.08	-	-	-	SHA MD 374.68

TOP ELEVATION IS CENTERLINE OF INLET AT TOP OF CURB FOR TYPE 'A' INLETS AND TOP OF SLAB FOR 'D' INLETS.
TOP ELEVATION FOR TYPE 'S' COMBINATION INLET IS CENTERLINE OF INLET AT TOP OF CURB.
TOP ELEVATION FOR TYPE 'S' AND DOUBLE TYPE 'S' INLET IS TOP OF GRATE AT CENTERLINE OF INLET.

PIPE SCHEDULE

PIPE SIZE	TYPE	TOTAL LENGTH
4"	HDPE	50
15"	HDPE	434
15"	RCP CLASS IV	173
18"	HDPE	1,213



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Elsh 4.9.14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Karl Steinhilber 4-10-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark A. Coyle 4/10/14
DIRECTOR DATE

REMOVE PROPOSED APARTMENT BUILDINGS 'A' & 'B' AND REPLACE WITH 15 "CARNEGIE PLACE" SFA UNITS. NEW UNITS #119-133. 04/29/13

NO. REVISION DATE

REVISED SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
STORM DRAIN PROFILES
AGE RESTRICTED ADULT HOUSING UNITS

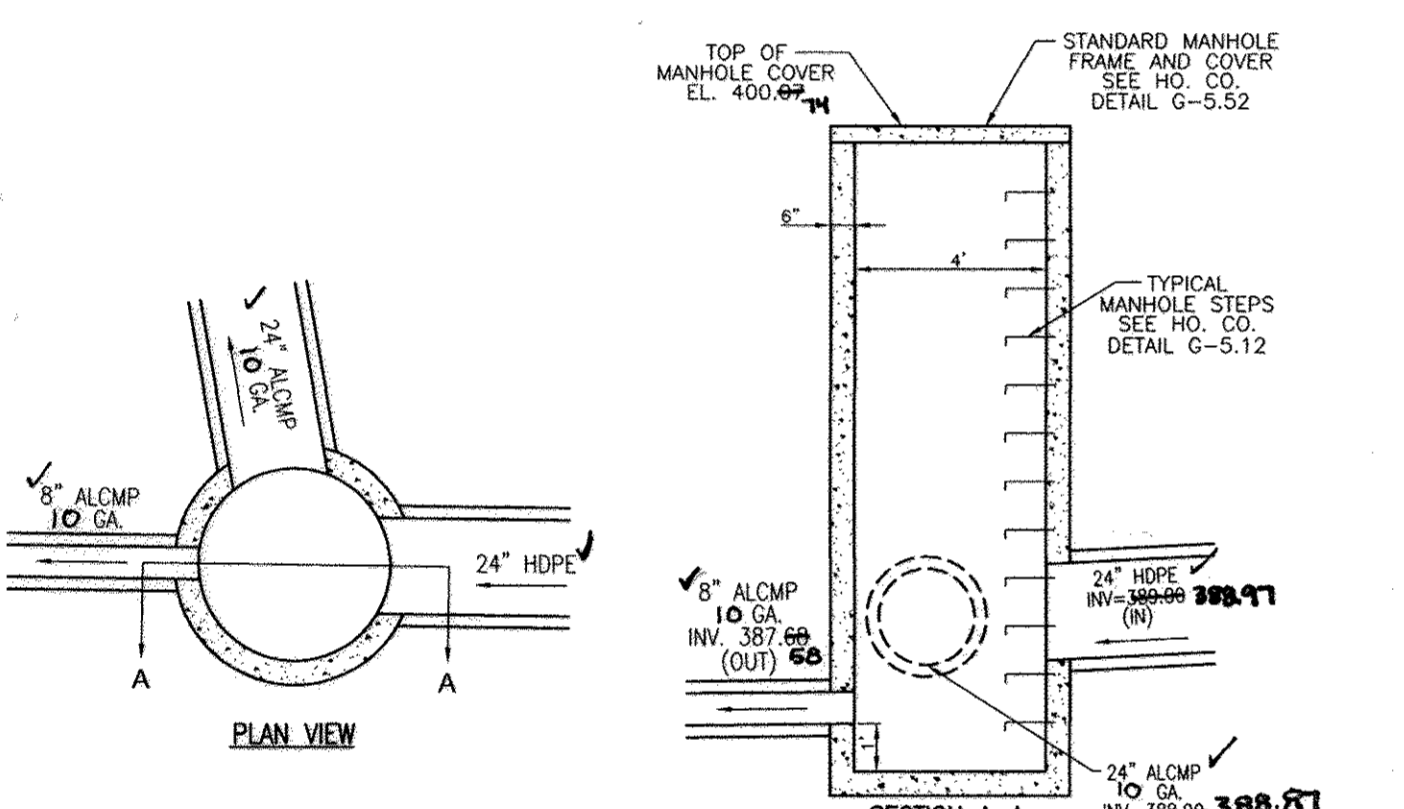
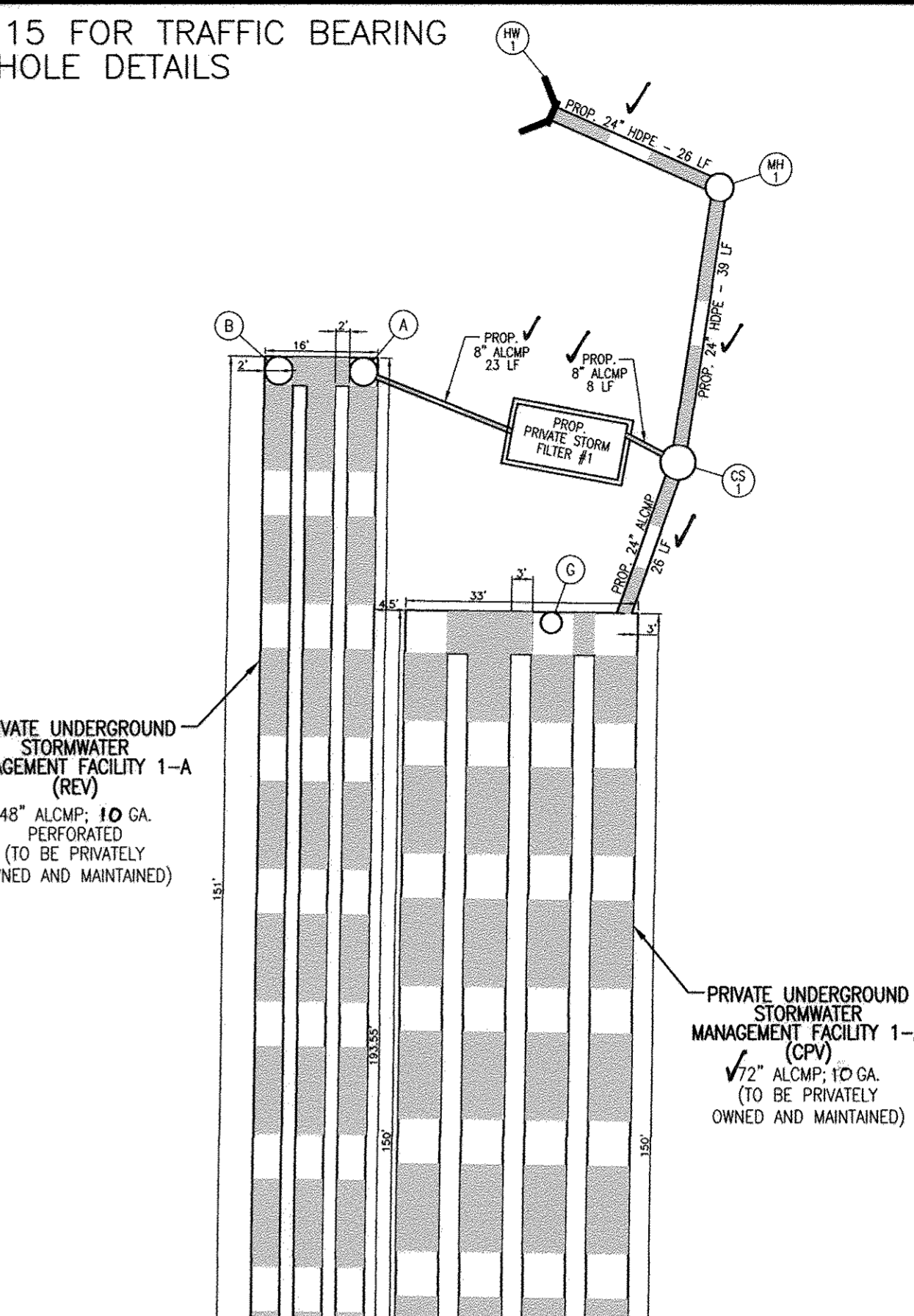
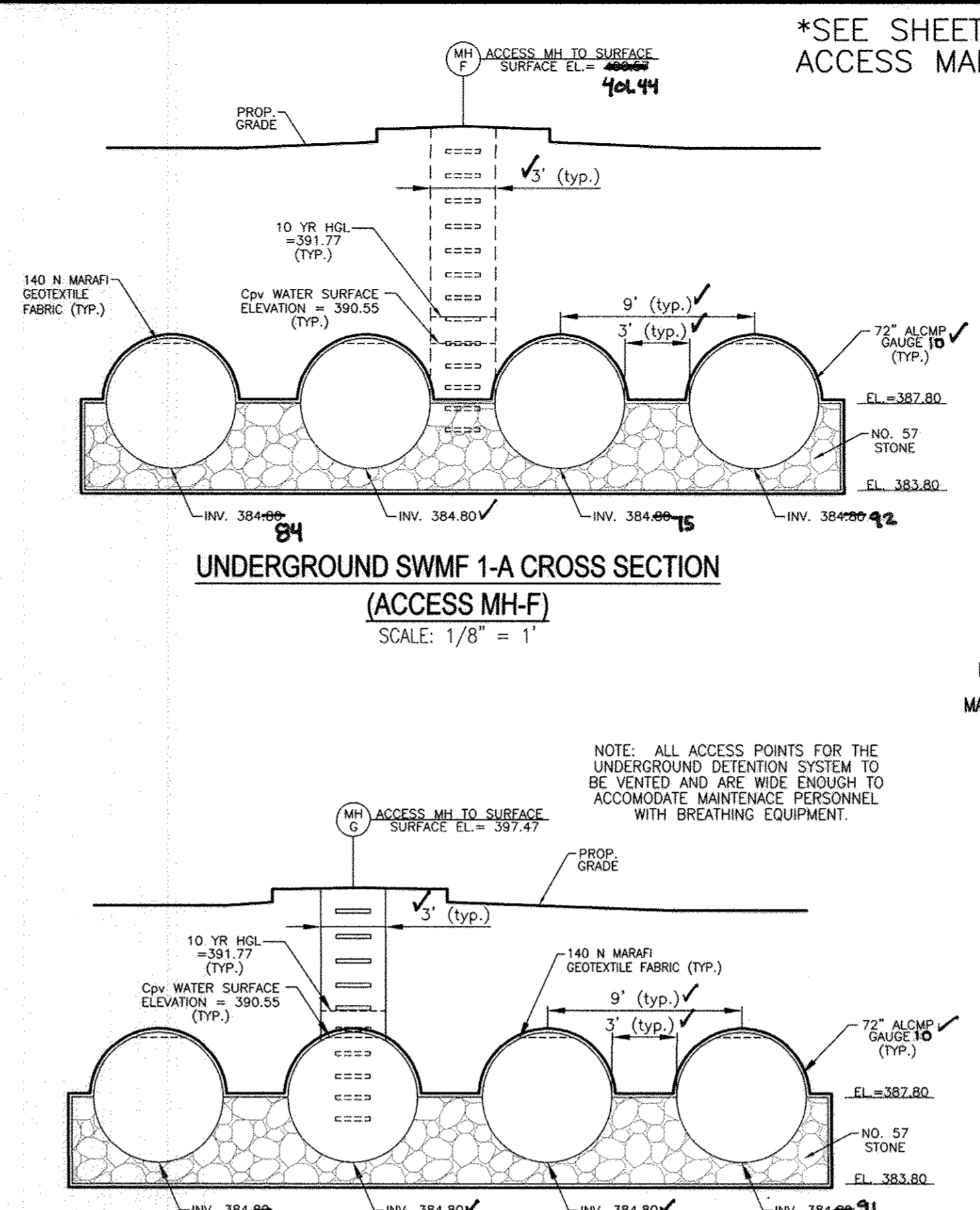
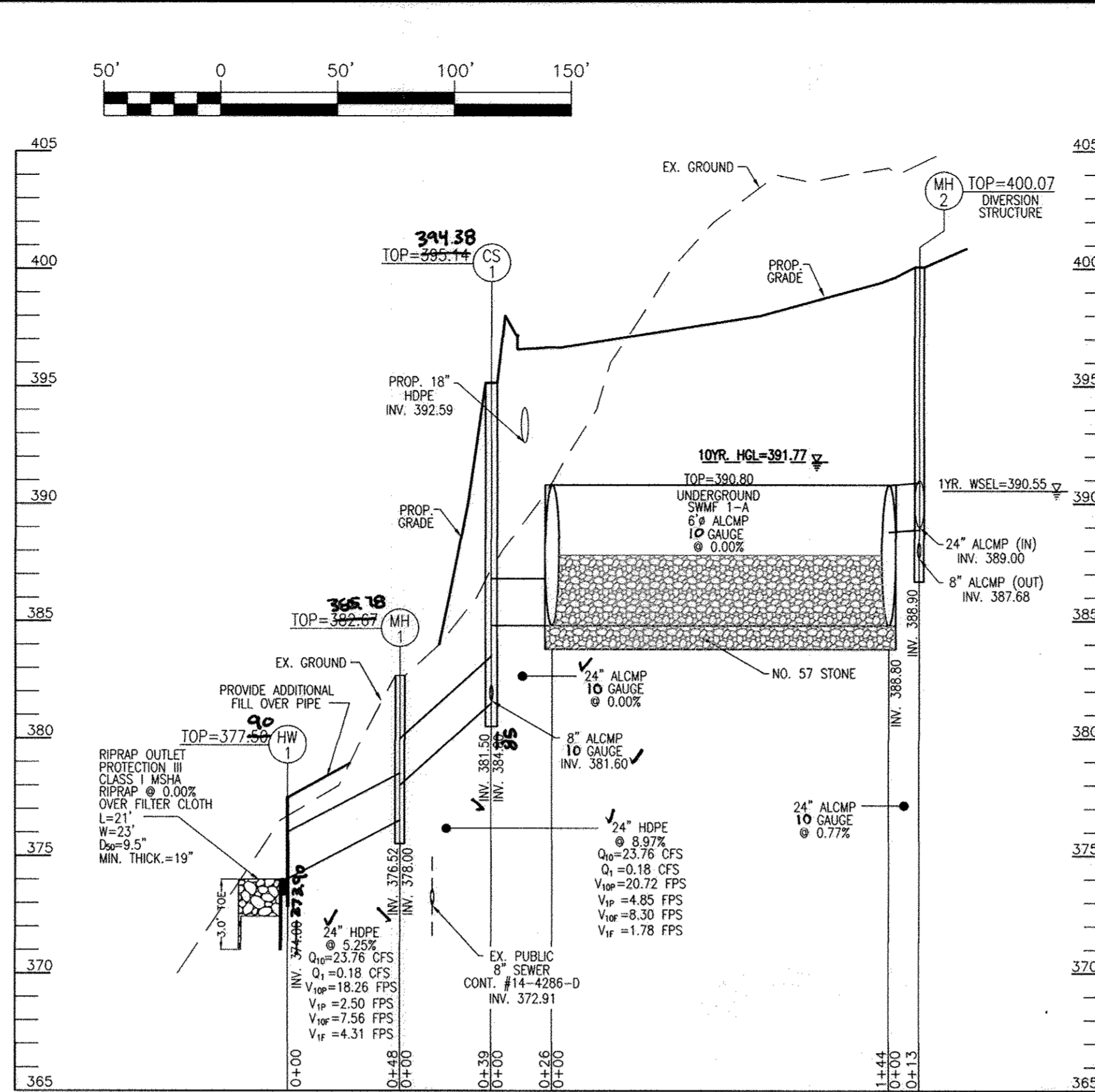
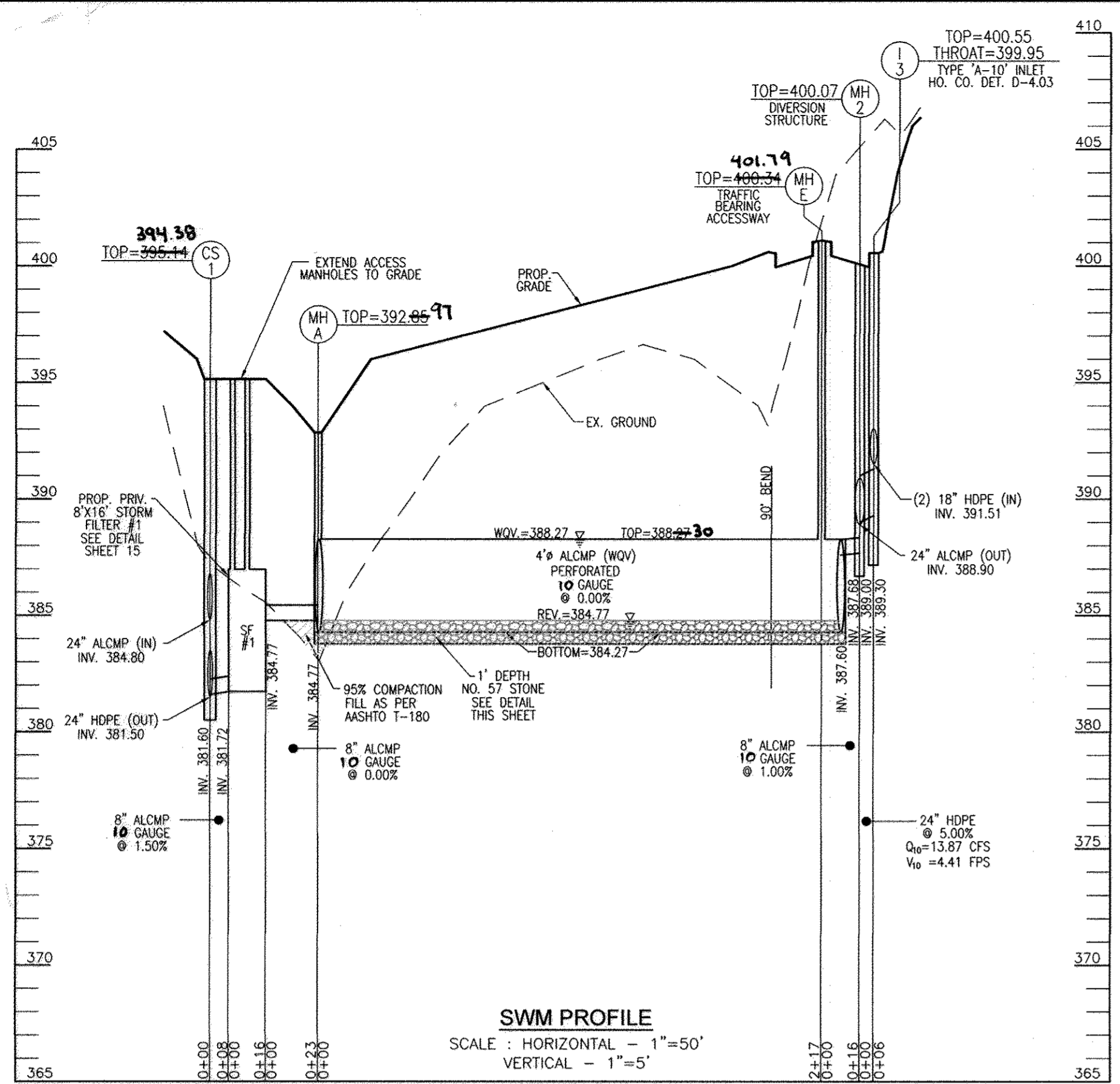
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ZONED: POR
P-00-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17958 - 17960, F-09-098,
F-11-097, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20567 - 20568, CONT. #14-4286-D, CONT. #14-4034-D

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8966

DESIGN BY: JARRHV
DRAWN BY: KGRJ
CHECKED BY: RHV
DATE: DECEMBER, 2013
SCALE: AS SHOWN
W.O. NO.: 2018121.00

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2014

13 SHEET OF 19



STORMWATER MANAGEMENT STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	DETAILS/REMARKS
CS-1	MODIFIED STANDARD 5' MANHOLE PRECAST	N 578132.11 E 1370957.87	395.14	384.80 (24\"/>		

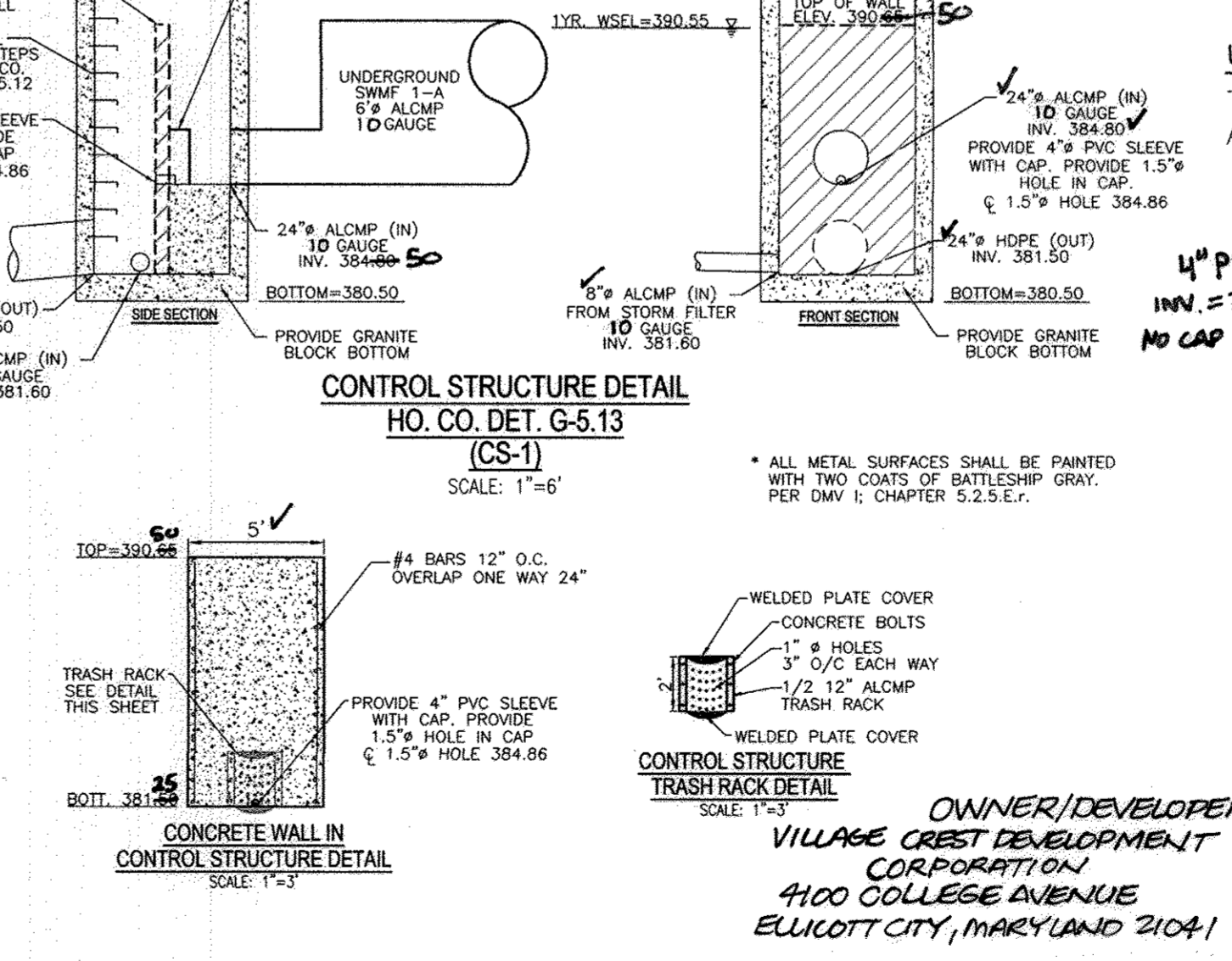
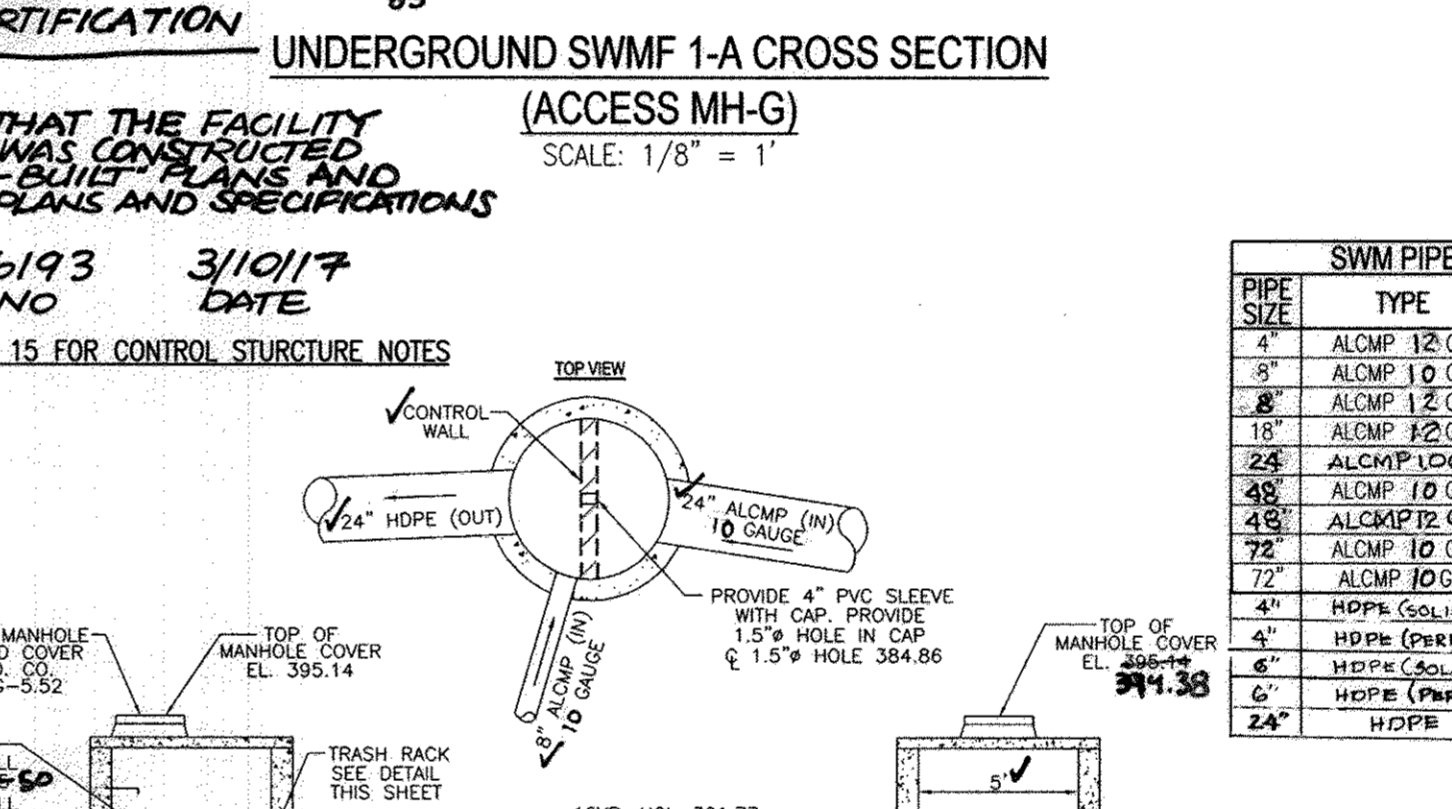
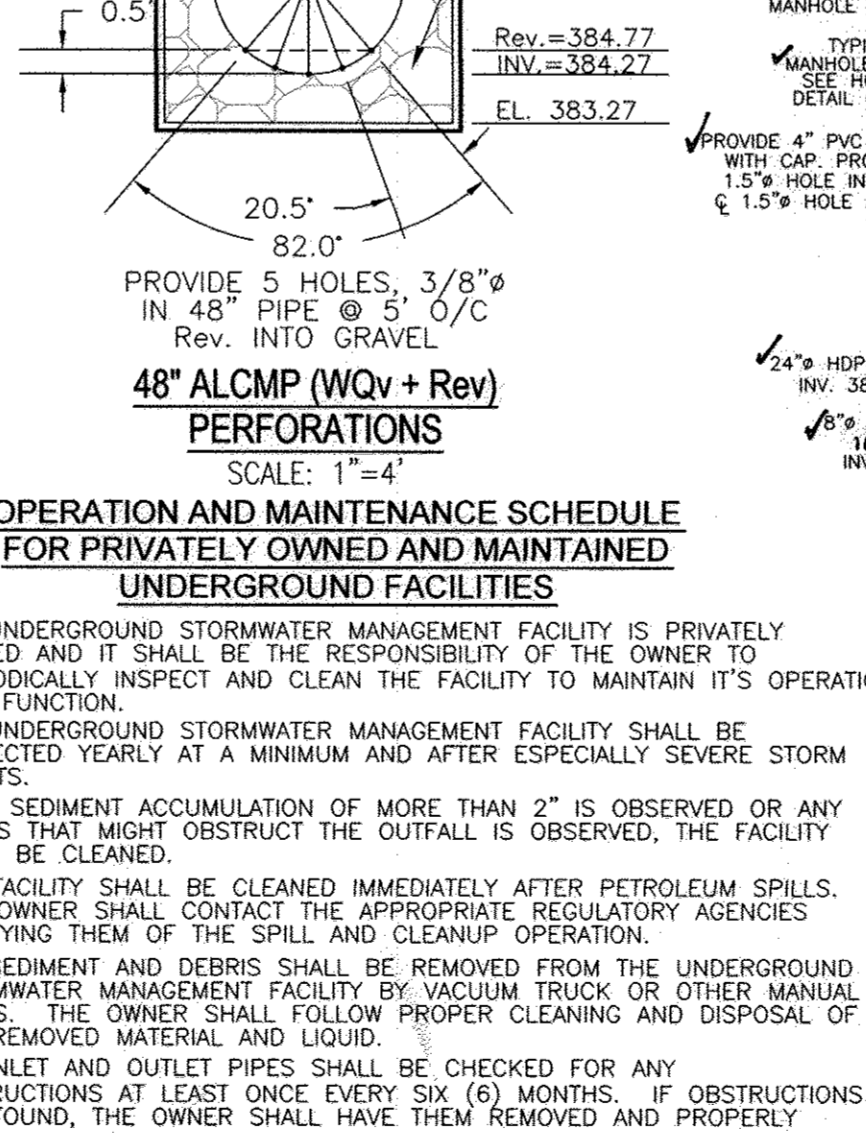
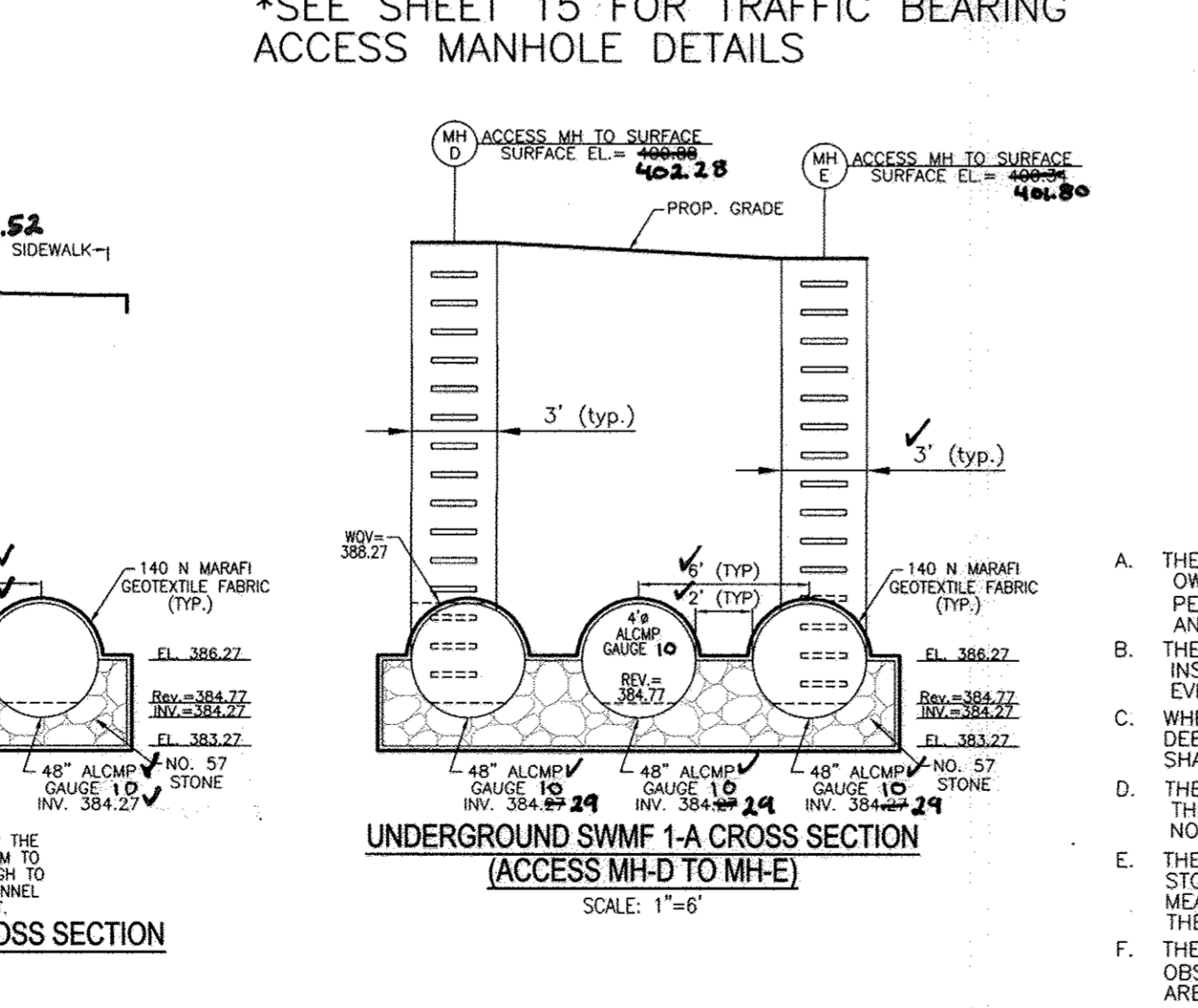
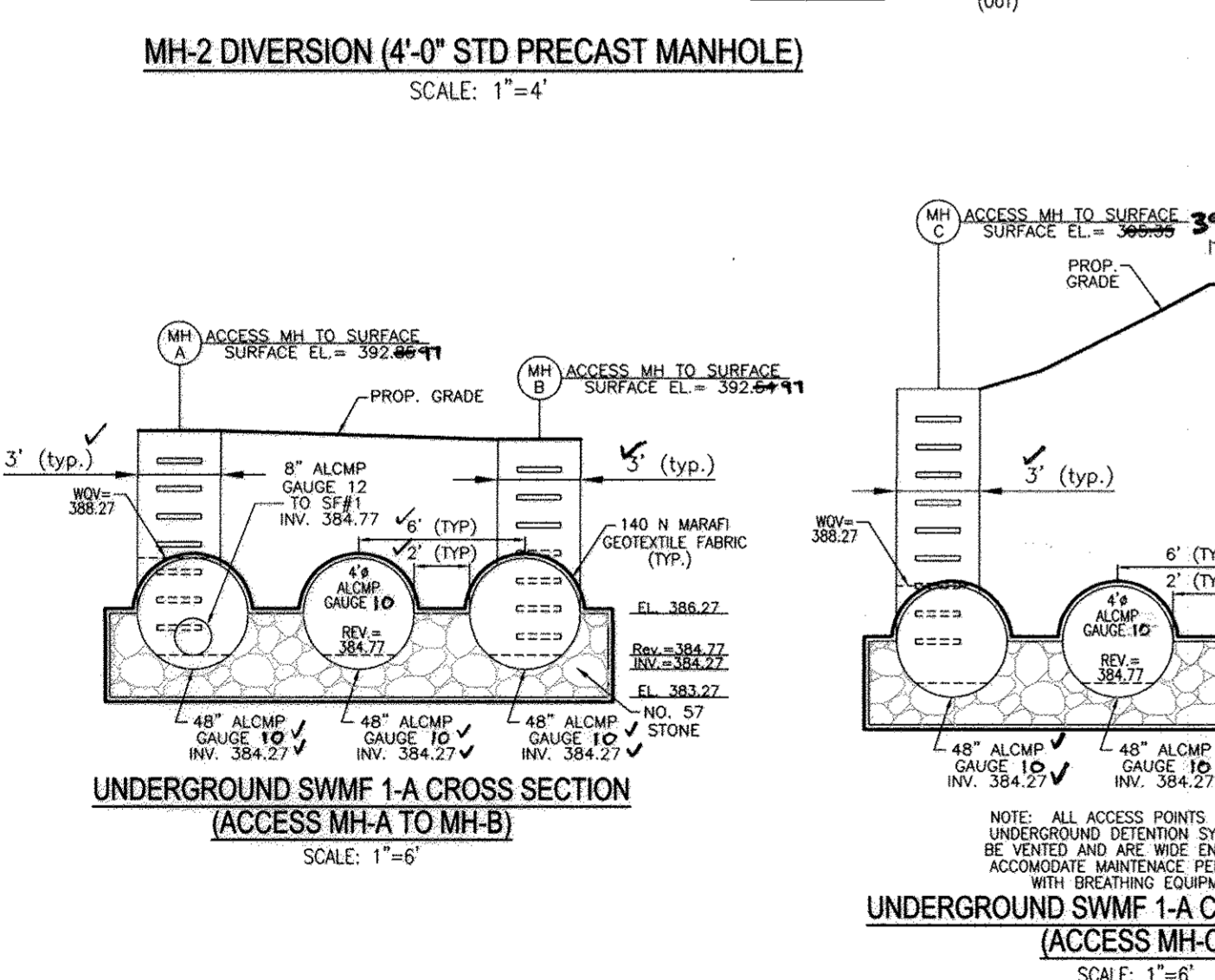
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

16193 3/10/17 DATE

ROBERT VOGEL P.E. NO. 16193



SWM PIPE SCHEDULE		
PIPE SIZE	TYPE	TOTAL LENGTH
48"	ALCMP 12 GA.	59 LF
36"	ALCMP 10 GA.	39 LF
24"	ALCMP 12 GA.	30 LF
18"	ALCMP 12 GA.	99 LF
24"	ALCMP 10 GA.	39 LF
48"	ALCMP 10 GA.	629 LF
48"	ALCMP 12 GA.	122 LF
72"	ALCMP 10 GA.	630 LF
72"	ALCMP 10 GA.	122 LF
48"	HDPE (S&ID)	122 LF
48"	HDPE (P&P)	163 LF
6"	HDPE (S&ID)	85 LF
6"	HDPE (P&P)	119 LF
24"	HDPE	53 LF



UNDERGROUND STORM FILTERS: THE CONTECH STORM FILTER STRUCTURES ARE TO BE DESIGNED AND CERTIFIED BY A STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND FACILITIES

- THE UNDERGROUND STORMWATER MANAGEMENT FACILITY IS PRIVATELY OWNED AND IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PERIODICALLY INSPECT AND CLEAN THE FACILITY TO MAINTAIN ITS OPERATION AND FUNCTION.
- THE UNDERGROUND STORMWATER MANAGEMENT FACILITY SHALL BE INSPECTED YEARLY AT A MINIMUM AND AFTER ESPECIALLY SEVERE STORM EVENTS.
- WHEN SEDIMENT ACCUMULATION OF MORE THAN 2" IS OBSERVED OR ANY DEBRIS THAT MIGHT OBSTRUCT THE OUTFALL IS OBSERVED, THE FACILITY SHALL BE CLEANED.
- THE FACILITY SHALL BE CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES NOTIFYING THEM OF THE SPILL AND CLEANUP OPERATION.
- THE SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE UNDERGROUND STORMWATER MANAGEMENT FACILITY BY VACUUM TRUCK OR OTHER MANUAL MEANS. THE OWNER SHALL FOLLOW PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIAL AND LIQUID.
- THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX (6) MONTHS. IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED AND PROPERLY

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 8/8/11

CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 10/05/11

DIRECTOR: [Signature] DATE: 10/5/11

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

USDA-NATURAL RESOURCES CONSERVATION SERVICE: [Signature] DATE: [Blank]

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

HOWARD S.C.D. DATE: [Blank]

BY THE DEVELOPER:

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

[Signature] DATE: 6/27/11

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.

[Signature] DATE: 7/5/11

NOTE: CONTRACTOR SHALL ENSURE THAT THE S.W.M. FACILITY IS WATER-TIGHT.

- ALL PIPE CONNECTIONS AT STRUCTURES SHALL BE GEMENTED TO ENSURE WATER-TIGHT CONNECTION.
- ALL ALCMP PIPE JOINTS SHALL USE 12" WIDE HUGGER BAND WITH "O" RING GASKETS.
- TEES AND ELBOWS TO BE FACTORY FABRICATED WELDS, ONE PIECE.
- TRENCH BEDDING TO BE IN ACCORDANCE WITH RECOMMENDATIONS FROM THE GEOTECHNICAL ENGINEER IN THE FIELD.
- PROVIDE WATER-TIGHT JOINTS AT ALL PIPE CONNECTIONS. (FOR REINFORCED CONCRETE PIPE, ASTM C-361, RUBBER GASKET PIPE).

SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
STORM WATER MANAGEMENT DETAILS
FACILITY 1-A
AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: P10 C-1, L10281 F561
TAX MAP: 25, BLOCK 20
2ND ELECTION DISTRICT
ZONED: PDR

HOWARD COUNTY, MARYLAND
DPZ REFERENCES: S-00-05, P-01-20, F-02-112, F-02-47, SDP-02-18, SDP-04-25, SDP-02-84, PLAT# 16104 - 16109, PLAT# 15361 - 15367, WP-05-102
P-00-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17958 - 17960, F-09-098, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20567 - 20568, CONT. #14-4286-D, CONT. #14-4034-D

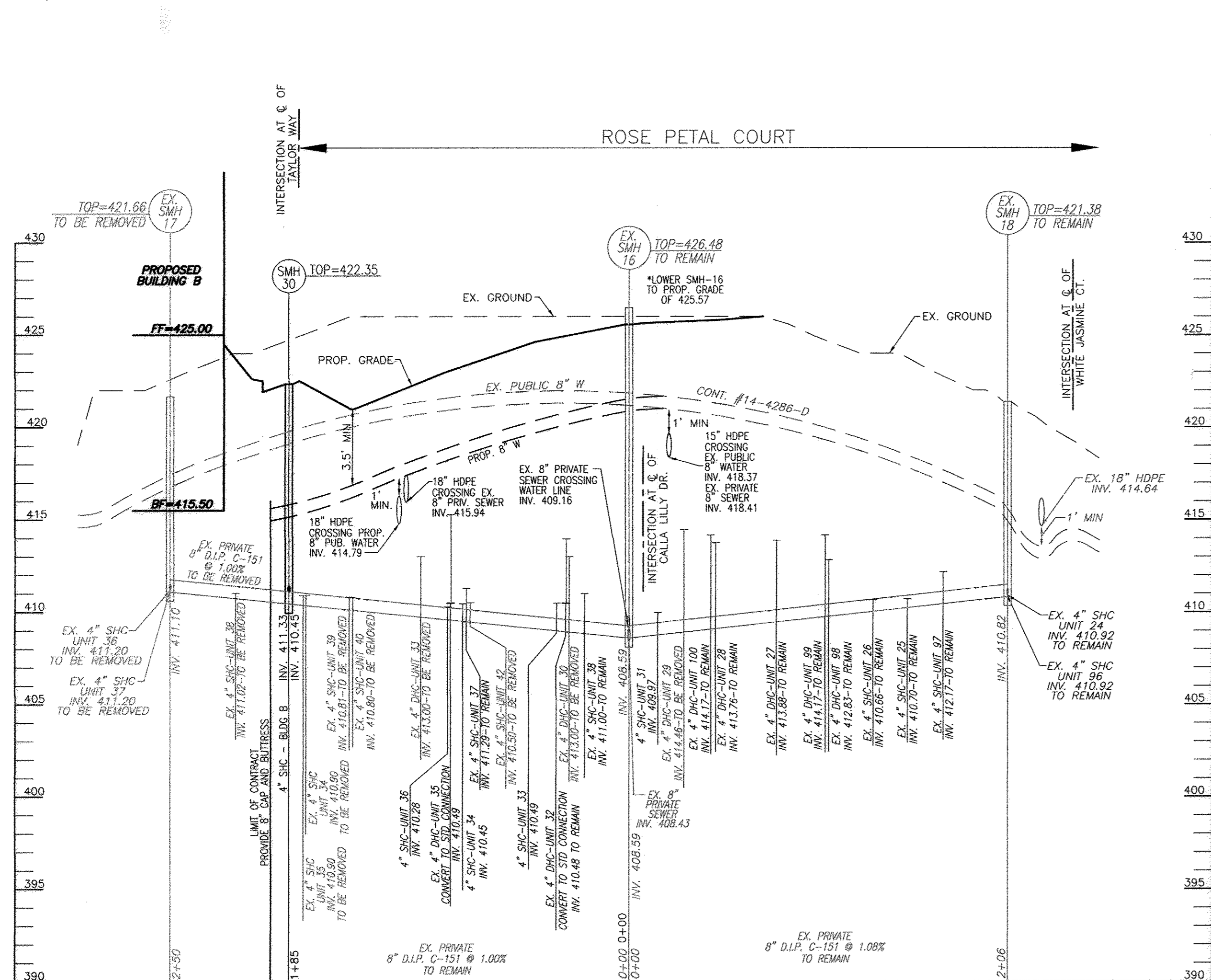
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET
ELICOTT CITY, MD 21043
TEL: 410-461-7666
FAX: 410-461-8951

DESIGN BY: JAR/RHV
DRAWN BY: KGA/R
CHECKED BY: RHV
DATE: JUNE 2011
SCALE: AS SHOWN
W.O. NO.: 2018121.00

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2012

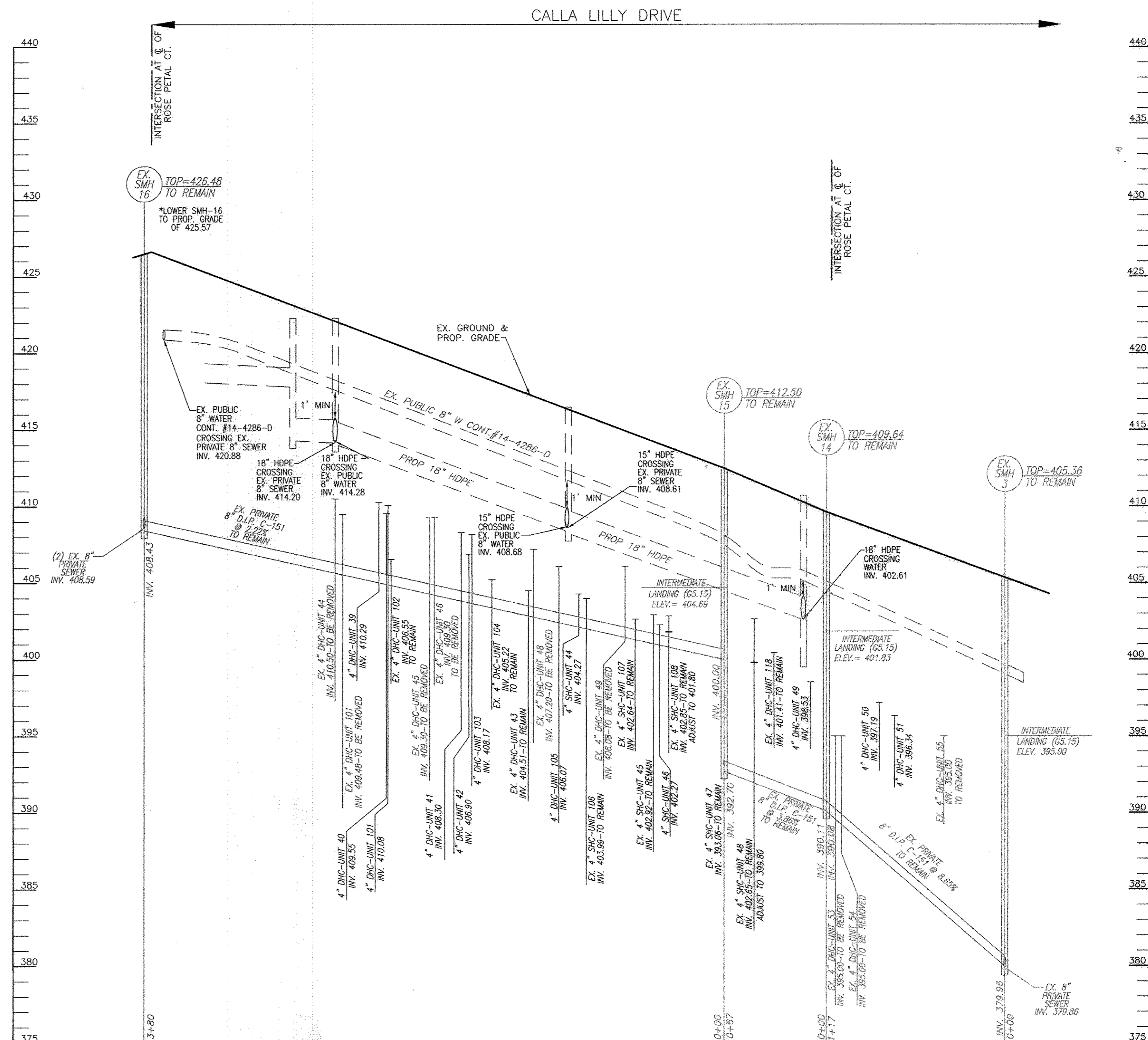
14 SHEET OF 19



WATER AND SEWER PROFILE
ROSE PETAL DR.

SCALE: HORIZONTAL = 1"=50'
VERTICAL = 1"=5'

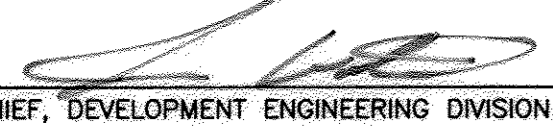


MANHOLE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
SMH-30	STANDARD 4' PRECAST MANHOLE	N 577793.16 E 1371393.35	422.35	411.33	410.45	G-5.12

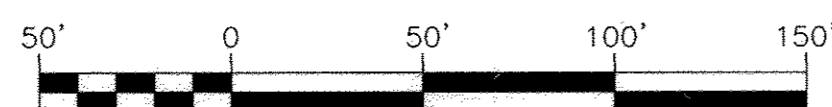


WATER AND SEWER PROFILE
CALLA LILLY DR.

SCALE: HORIZONTAL = 1"=50'
VERTICAL = 1"=5'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

 8/8/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
 10/25/11
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 10/5/11
 DIRECTOR DATE



OWNER/DEVELOPER
VILLAGE CREST DEVELOPMENT CORPORATION
4900 COLLEGE AVENUE
BELLGOTT CITY, MARYLAND 21041

NO AS-BUILT INFORMATION ON THIS SHEET

NO.	REVISION	DATE
3	CHANGE 28 APARTMENTS TO 15 TOWNHOUSE UNITS	11/28/13

SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
SEWER AND WATER PROFILES
AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: P10 C-1, L10281 F581
TAX MAP: 25, BLOCK: 20
2ND ELECTION DISTRICT
ZONED: POR
HOWARD COUNTY, MARYLAND
DPZ REFERENCES: S-00-05, P-01-20, F-02-112, F-02-47, SDP-02-19, SDR-04-25, SDP-02-94, P-00-07, S-99-15, F-01-40, PLAT# 18112 - 18114, PLAT# 17258 - 17263
F-09-098, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20567 - 20568, CONT. #14-4286-D, CONT. #14-4034-D

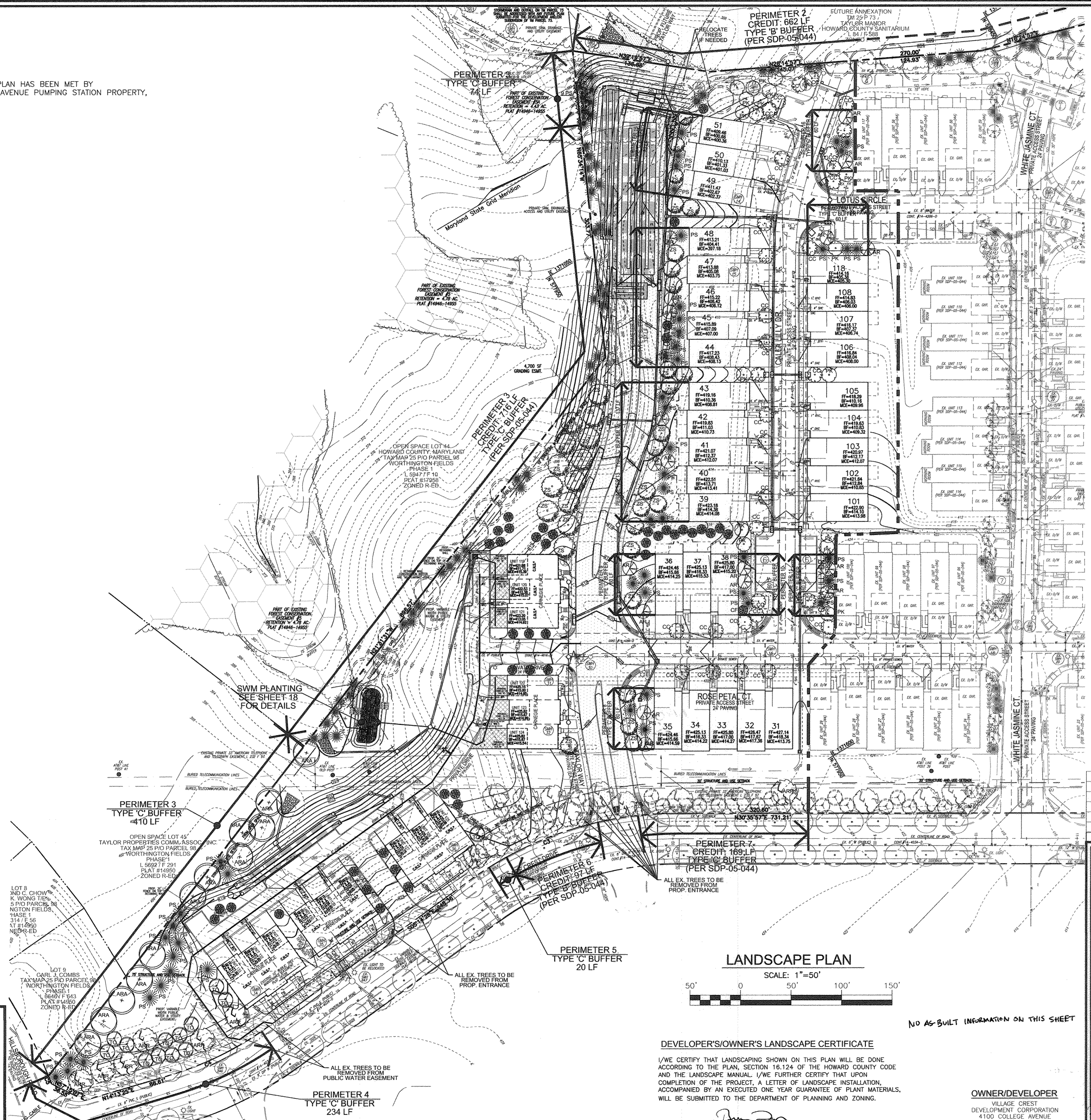
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
BELLGOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

DESIGN BY: JAR/RHV
DRAWN BY: KGIJR
CHECKED BY: RHV
DATE: JUNE, 2011
SCALE: AS SHOWN
W.O. NO.: 2018121.00

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2012

FOREST CONSERVATION NOTES

- THE FOREST CONSERVATION OBLIGATION FOR PARCEL C-1 AND THIS PLAN HAS BEEN MET BY F-02-047, F-06-139 AND OFFSITE FOREST BANK ON THE COLLEGE AVENUE PUMPING STATION PROPERTY, AUTUMN RIVER BULK PARCEL 'B', SDP-10-081



LEGEND

[Symbol]	RIGHT-OF-WAY
[Symbol]	BOUNDARY LINE
[Symbol]	ADJACENT BOUNDARY LINE
[Symbol]	EXISTING CENTERLINE STREAM
[Symbol]	EXISTING STREAM BANK BUFFER
[Symbol]	EXISTING WETLANDS BUFFER
[Symbol]	EXISTING TREELINE
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING SEWER LINE
[Symbol]	EXISTING GAS LINE
[Symbol]	EXISTING OVERHEAD LINES
[Symbol]	EXISTING FENCE LINE
[Symbol]	EXISTING CURB LINE
[Symbol]	EXISTING 10' CONTOUR
[Symbol]	EXISTING 2' CONTOUR
[Symbol]	EXISTING SOILS
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING MAILBOX
[Symbol]	EXISTING SANITARY CLEANOUT
[Symbol]	EXISTING FIRE HYDRANT
[Symbol]	EXISTING STREET TREES (F-02-47)
[Symbol]	PROPOSED 10' CONTOUR
[Symbol]	PROPOSED 2' CONTOUR
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	PROPOSED STORM DRAIN
[Symbol]	PROPOSED STORM DRAIN INLET
[Symbol]	PROPOSED SIDEWALK
[Symbol]	PROPOSED TREELINE
[Symbol]	PROPOSED CURB
[Symbol]	EXISTING WETLANDS
[Symbol]	PROPOSED MICRO FACILITY (M-6)
[Symbol]	PROPOSED PERVIOUS CONCRETE (A-2)
[Symbol]	EXISTING 10' PUBLIC TREE MAINTENANCE EASEMENT (RETENTION) (PLAT #18112-18114) AND #18112-18114
[Symbol]	EXISTING FOREST CONSERVATION EASEMENT (RESTORATION) (PLAT #18112-18114)
[Symbol]	EXISTING VARIABLE WIDTH PUBLIC SIDEWALK EASEMENT (PLAT #16108)
[Symbol]	EXISTING RETAINING WALL CONSTRUCTION BUFFER AND "NO PLANTING" ZONE
[Symbol]	PRIVATE SWM, DRAINAGE, AND UTILITY EASEMENT
[Symbol]	EXISTING TREES
[Symbol]	PROPOSED SHADE TREE
[Symbol]	PROPOSED EVERGREEN TREE
[Symbol]	PROPOSED SHRUBS

NO.	REVISION	DATE
1	ADJUST TREE LOCATIONS TO FIT NEW UNIT LOCATIONS	12/2/11
2	REMOVE PROPOSED APARTMENT BUILDINGS 'A' & 'B' AND REPLACE WITH 15 "CARNegie PLACE" SFA UNITS, NEW UNITS #119-133.	04/29/13

REVISED SITE DEVELOPMENT PLAN
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
LANDSCAPE AND FOREST CONSERVATION PLAN
AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: P10 C-1, L10281 F561 HOWARD COUNTY, MARYLAND
 TAX MAP: 25, BLOCK: 20 F-02-112, F-02-47, SDP-04-25, SDP-02-94, SDP-02-94
 PLAT# 18104 - 18109, PLAT# 18361 - 18367, WFP-05-102
 ZONED: POR P-00-07, S-99-18, F-01-60, PLAT# 18112 - 18114, PLAT# 17958 - 17960, F-09-096, F-11-097, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20567 - 20568, CONT. #14-2286-D, CONT. #14-4034-D

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

DESIGN BY: JARRHV
 DRAWN BY: KG/JR
 CHECKED BY: RHV
 DATE: DECEMBER, 2013
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2014

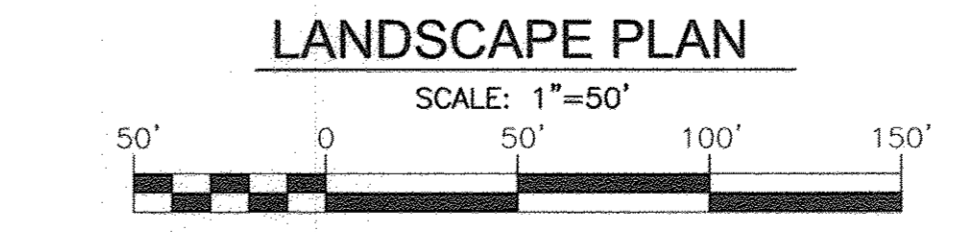
17 SHEET OF 19

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 4.9.14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 4-10-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 4/14/14
 DIRECTOR DATE



DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/WE CERTIFY THAT LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF THE PROJECT, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S/OWNER'S NAME: *[Signature]*

OWNER/DEVELOPER
 VILLAGE CREST DEVELOPMENT CORPORATION
 4100 COLLEGE AVENUE
 ELLICOTT CITY, MD 21041

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION Page 1 of 1

Project Name: Village Crest SWM Location: Howard County, Maryland Boring Number: AB-1 Job #: 0071A

ELEV.	SOIL DESCRIPTION	DEPTH (FEET)	SCALE	SAMPLER	NO.	REMARKS
0.0	Surface	0.0	1:1	1	1	10' Topsoil
1.0	Brown, moist, medium silty, clay, loam (SM)	1.0	1:1	1	1	10' Topsoil
2.0	Brown, moist, medium silty, clay, loam (SM)	2.0	1:1	1	1	10' Topsoil
3.0	Brown, moist, medium silty, clay, loam (SM)	3.0	1:1	1	1	10' Topsoil
4.0	Brown, moist, medium silty, clay, loam (SM)	4.0	1:1	1	1	10' Topsoil
5.0	Brown, moist, medium silty, clay, loam (SM)	5.0	1:1	1	1	10' Topsoil
6.0	Brown, moist, medium silty, clay, loam (SM)	6.0	1:1	1	1	10' Topsoil
7.0	Brown, moist, medium silty, clay, loam (SM)	7.0	1:1	1	1	10' Topsoil
8.0	Brown, moist, medium silty, clay, loam (SM)	8.0	1:1	1	1	10' Topsoil
9.0	Brown, moist, medium silty, clay, loam (SM)	9.0	1:1	1	1	10' Topsoil
10.0	Brown, moist, medium silty, clay, loam (SM)	10.0	1:1	1	1	10' Topsoil
11.0	Brown, moist, medium silty, clay, loam (SM)	11.0	1:1	1	1	10' Topsoil
12.0	Brown, moist, medium silty, clay, loam (SM)	12.0	1:1	1	1	10' Topsoil
13.0	Brown, moist, medium silty, clay, loam (SM)	13.0	1:1	1	1	10' Topsoil
14.0	Brown, moist, medium silty, clay, loam (SM)	14.0	1:1	1	1	10' Topsoil
15.0	Brown, moist, medium silty, clay, loam (SM)	15.0	1:1	1	1	10' Topsoil
16.0	Brown, moist, medium silty, clay, loam (SM)	16.0	1:1	1	1	10' Topsoil
17.0	Brown, moist, medium silty, clay, loam (SM)	17.0	1:1	1	1	10' Topsoil
18.0	Brown, moist, medium silty, clay, loam (SM)	18.0	1:1	1	1	10' Topsoil
19.0	Brown, moist, medium silty, clay, loam (SM)	19.0	1:1	1	1	10' Topsoil
20.0	Brown, moist, medium silty, clay, loam (SM)	20.0	1:1	1	1	10' Topsoil

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION Page 1 of 1

Project Name: Village Crest SWM Location: Howard County, Maryland Boring Number: AB-2 Job #: 0071A

ELEV.	SOIL DESCRIPTION	DEPTH (FEET)	SCALE	SAMPLER	NO.	REMARKS
0.0	Surface	0.0	1:1	1	1	10' Topsoil
1.0	Brown, moist, medium silty, clay, loam (SM)	1.0	1:1	1	1	10' Topsoil
2.0	Brown, moist, medium silty, clay, loam (SM)	2.0	1:1	1	1	10' Topsoil
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5.0	Brown, moist, medium silty, clay, loam (SM)	5.0	1:1	1	1	10' Topsoil
6.0	Brown, moist, medium silty, clay, loam (SM)	6.0	1:1	1	1	10' Topsoil
7.0	Brown, moist, medium silty, clay, loam (SM)	7.0	1:1	1	1	10' Topsoil
8.0	Brown, moist, medium silty, clay, loam (SM)	8.0	1:1	1	1	10' Topsoil
9.0	Brown, moist, medium silty, clay, loam (SM)	9.0	1:1	1	1	10' Topsoil
10.0	Brown, moist, medium silty, clay, loam (SM)	10.0	1:1	1	1	10' Topsoil
11.0	Brown, moist, medium silty, clay, loam (SM)	11.0	1:1	1	1	10' Topsoil
12.0	Brown, moist, medium silty, clay, loam (SM)	12.0	1:1	1	1	10' Topsoil
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14.0	Brown, moist, medium silty, clay, loam (SM)	14.0	1:1	1	1	10' Topsoil
15.0	Brown, moist, medium silty, clay, loam (SM)	15.0	1:1	1	1	10' Topsoil
16.0	Brown, moist, medium silty, clay, loam (SM)	16.0	1:1	1	1	10' Topsoil
17.0	Brown, moist, medium silty, clay, loam (SM)	17.0	1:1	1	1	10' Topsoil
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20.0	Brown, moist, medium silty, clay, loam (SM)	20.0	1:1	1	1	10' Topsoil

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION Page 1 of 1

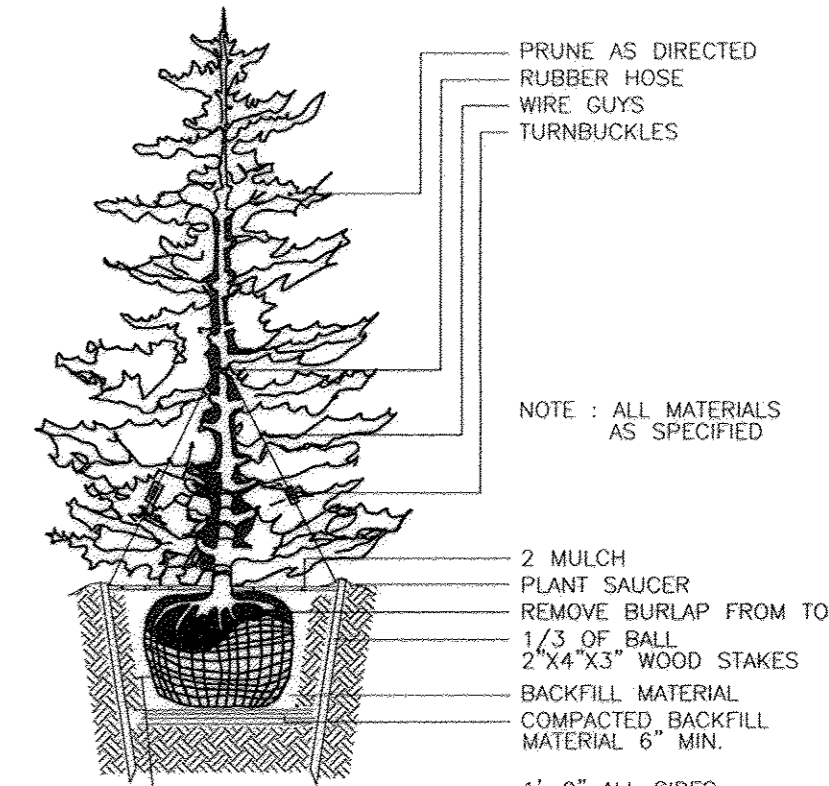
Project Name: Village Crest SWM Location: Howard County, Maryland Boring Number: AB-3 Job #: 0071A

ELEV.	SOIL DESCRIPTION	DEPTH (FEET)	SCALE	SAMPLER	NO.	REMARKS
0.0	Surface	0.0	1:1	1	1	10' Topsoil
1.0	Brown, moist, medium silty, clay, loam (SM)	1.0	1:1	1	1	10' Topsoil
2.0	Brown, moist, medium silty, clay, loam (SM)	2.0	1:1	1	1	10' Topsoil
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6.0	Brown, moist, medium silty, clay, loam (SM)	6.0	1:1	1	1	10' Topsoil
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9.0	Brown, moist, medium silty, clay, loam (SM)	9.0	1:1	1	1	10' Topsoil
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14.0	Brown, moist, medium silty, clay, loam (SM)	14.0	1:1	1	1	10' Topsoil
15.0	Brown, moist, medium silty, clay, loam (SM)	15.0	1:1	1	1	10' Topsoil
16.0	Brown, moist, medium silty, clay, loam (SM)	16.0	1:1	1	1	10' Topsoil
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20.0	Brown, moist, medium silty, clay, loam (SM)	20.0	1:1	1	1	10' Topsoil

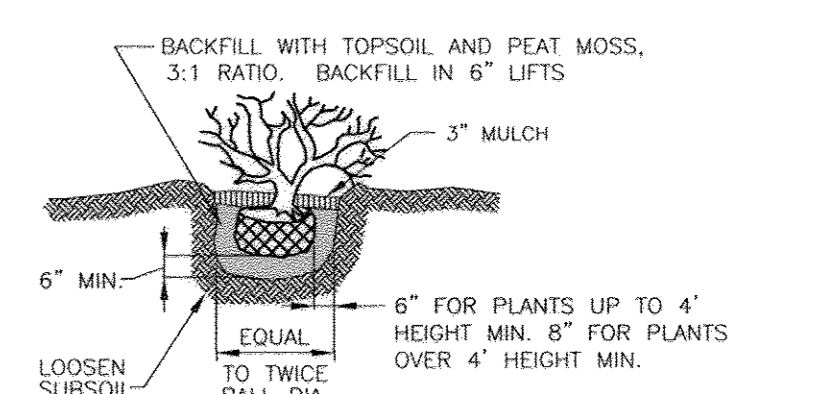
HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION Page 1 of 1

Project Name: Village Crest SWM Location: Howard County, Maryland Boring Number: AB-4 Job #: 0071A

ELEV.	SOIL DESCRIPTION	DEPTH (FEET)	SCALE	SAMPLER	NO.	REMARKS
0.0	Surface	0.0	1:1	1	1	10' Topsoil
1.0	Brown, moist, medium silty, clay, loam (SM)	1.0	1:1	1	1	10' Topsoil
2.0	Brown, moist, medium silty, clay, loam (SM)	2.0	1:1	1	1	10' Topsoil
3.0	Brown, moist, medium silty, clay, loam (SM)	3.0	1:1	1	1	10' Topsoil
4.0	Brown, moist, medium silty, clay, loam (SM)	4.0	1:1	1	1	10' Topsoil
5.0	Brown, moist, medium silty, clay, loam (SM)	5.0	1:1	1	1	10' Topsoil
6.0	Brown, moist, medium silty, clay, loam (SM)	6.0	1:1	1	1	10' Topsoil
7.0	Brown, moist, medium silty, clay, loam (SM)	7.0	1:1	1	1	10' Topsoil
8.0	Brown, moist, medium silty, clay, loam (SM)	8.0	1:1	1	1	10' Topsoil
9.0	Brown, moist, medium silty, clay, loam (SM)	9.0	1:1	1	1	10' Topsoil
10.0	Brown, moist, medium silty, clay, loam (SM)	10.0	1:1	1	1	10' Topsoil
11.0	Brown, moist, medium silty, clay, loam (SM)	11.0	1:1	1	1	10' Topsoil
12.0	Brown, moist, medium silty, clay, loam (SM)	12.0	1:1	1	1	10' Topsoil
13.0	Brown, moist, medium silty, clay, loam (SM)	13.0	1:1	1	1	10' Topsoil
14.0	Brown, moist, medium silty, clay, loam (SM)	14.0	1:1	1	1	10' Topsoil
15.0	Brown, moist, medium silty, clay, loam (SM)	15.0	1:1	1	1	10' Topsoil
16.0	Brown, moist, medium silty, clay, loam (SM)	16.0	1:1	1	1	10' Topsoil
17.0	Brown, moist, medium silty, clay, loam (SM)	17.0	1:1	1	1	10' Topsoil
18.0	Brown, moist, medium silty, clay, loam (SM)	18.0	1:1	1	1	10' Topsoil
19.0	Brown, moist, medium silty, clay, loam (SM)	19.0	1:1	1	1	10' Topsoil
20.0	Brown, moist, medium silty, clay, loam (SM)	20.0	1:1	1	1	10' Topsoil



TYPICAL EVERGREEN TREE PLANTING DETAIL NOT TO SCALE



SHRUB PLANTING DETAIL NOT TO SCALE

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	REMARKS
AR	18	ACER RUBRUM OCTOBER GLORY RED MAPLE (SHADE TREE)	2 1/2"-3" CAL.	B & B
PS	60	PINUS STROBILUS EASTERN WHITE PINE (EVERGREEN TREE)	6"-8" HT.	B & B
TD	20	TAXUS MEDIA 'DENSIFORMIS' (SHRUB)	2 1/2"-3" HT.	B & B
AKA	12	ACER RUBRUM 'ARMSTRONG' COLUMNAR RED MAPLE (SHADE TREE)	2 1/2"-3" Col.	B & B
TO	13	THUJA OCCIDENTALIS 'INGRA' (EVERGREEN TREE)	6"-8" HT.	B & B
ARR	8	ACER RUBRUM 'RED SUNSET' RED SUNSET MAPLE (SHADE TREE)	2 1/2"-3" Col.	B & B
CF	45	CORNUS FLORIDA 'TRUBSAT' RED FLOWERING DOGWOOD (INTERNAL LANDSCAPING)	2 1/2"-3" Col.	B & B
ZS	36	ZELKOVA SERRATA 'VILLAGE GREEN' VILLAGE GREEN JAPANESE ZELKOVA (STREET TREE)	2 1/2"-3" Col.	B & B
PK	18	PRUNUS SERRULATA 'KWANZAN' KWANZAN CHERRY (STREET TREE)	2 1/2"-3" Col.	B & B
CC	32	CRATAEGUS CRUSGALLI 'INERMIS' THORNLESS COCKSPUR HAWTHORNE (STREET TREE)	2 1/2"-3" Col.	B & B

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO ROADWAYS	TOTAL																																																																																																
PERIMETER/FRONTAGE DESIGNATION	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

NOTES:
 * PERIMETER 2 LANDSCAPING PROVIDED UNDER SDP-05-044. (RELOCATE TREES AS REQUIRED)
 ** PERIMETER 7 PREVIOUS BUFFER PER SDP-05-044. TYPE 'B' PROVIDED 3 SHADE TREES AND 8 EVERGREENS. PER THIS PLAN, A TYPE 'C' PERIMETER IS REQUIRED.

SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING	TOWNHOUSE
NUMBER OF DWELLING UNITS	45
NUMBER OF TREES REQUIRED (1:1 SFA)	45
NUMBER OF TREES PROVIDED	45
SHADE TREES	
OTHER SHRUBS (10:1 SUBSTITUTION)	

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATE

I/WE CERTIFY THAT LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF THE PROJECT, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

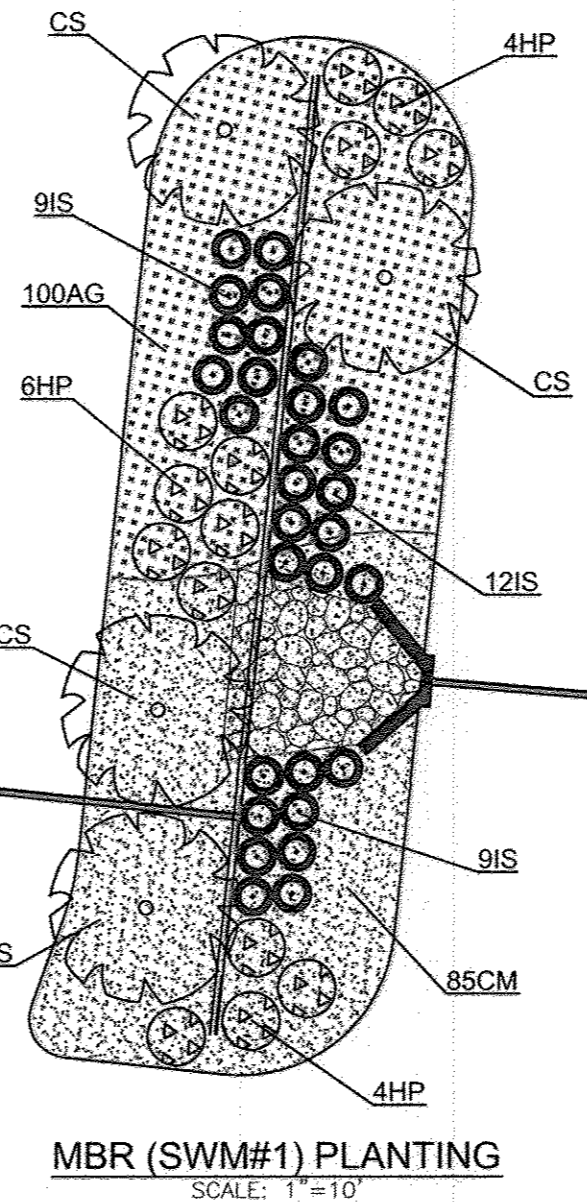
DEVELOPER'S/OWNER'S NAME: _____

GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THE REQUIRED PARKING AND PERIMETER LANDSCAPING WILL BE BONDED PER THIS SUBMISSION.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$62,250.00 FOR THE REQUIRED 85 SHADE TREES, 86 STREET TREES, AND 73 EVERGREEN TREES.
- THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH LAND MATERIALS AND BERMS, FENCES & WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN APPLICABLE REGULATIONS, ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS & OTHER PLANTINGS HEREWITH LISTED & APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW & APPROVAL FROM THE DEPARTMENT OF PLANNING & ZONING. ANY DEVIATION FROM THIS APPROVAL 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.
- SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPACES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD & GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER & INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT ANS SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HPI PLANTING SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

B & E NOTES:

- THE LANDSCAPING ON WIREZONE (40' FROM BGE POLES) IS IN ACCORDANCE WITH BGE LIST OF TREES AND PLANTS.
- BGE RESERVES THE RIGHT TO TRIM, TOP OR CUT DOWN ANY TREE IN PROXIMITY TO THE LINE THAT IN THE OPINION OF BGE SHALL BE DEEMED A HAZARD TO THE SAFE AND RELIABLE DELIVERY OF ELECTRICITY.
- THE DEPARTMENT OF PLANNING AND ZONING MAY AUTHORIZE THE TRIMMING OR REMOVAL OF TREES OR VEGETATION IMMEDIATELY ADJACENT TO THE BGE R/W OR EASEMENT, IF BGE DETERMINES THE TREES ARE COMPROMISING THE SAFETY OR A TRANSMISSION LINE LOCATED WITHIN THEIR UTILITY R/W OR EASEMENT. IF BGE INTENDS TO TRIM OR REMOVE TREES WITHIN A FOREST CONSERVATION EASEMENT, A LETTER SPECIFYING THE LOCATION AND SCOPE OF WORK NEEDS TO BE SENT TO DPZ AT LEAST 30 DAYS IN ADVANCE OF UNDERTAKING THE WORK. DPZ UNDERSTANDS CONSTITUTIONAL ENERGY'S NEED TO PROTECT ITS TRANSMISSION LINES AND WILL NOT UNREASONABLY WITHHOLD PERMISSION.



SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	132 LF
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES, 100%
NUMBER OF TREES REQUIRED (B BUFFER) SHADE TREES EVERGREEN TREES	0 (B BUFFER) 0 SHADE TREES 0 EVERGREEN TREES
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES	SEE BIORETENTION PLANT LIST*

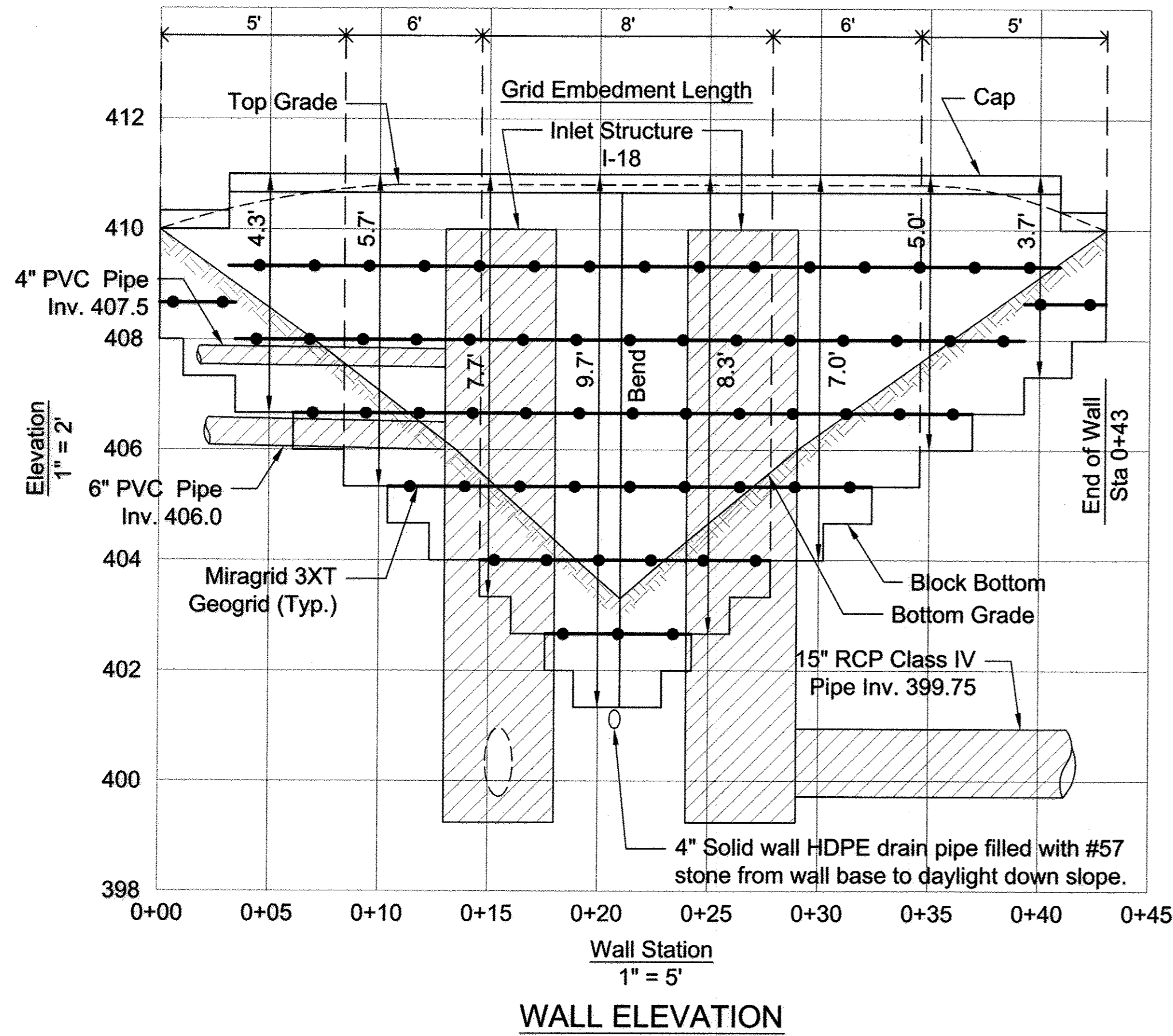
BIORETENTION PLANTING SCHEDULE

NO.	QTY	BIORETENTION PLANTING SCHEDULE	SIZE	REMARKS
30	1	IRIS BERGIA 'VENUS' BLUE	1 GALLON	18" O.C.
14	1	HEBERGALLIA 'FRANKE BLUE DYE'	1 GALLON	30" O.C.
4	1	CORNUS FLORIDA 'TRUBSAT'	4" HT	STREET TREE
85	1	CORNUS FLORIDA 'TRUBSAT'	1 GALLON	12" O.C.
100	1	ACRIS CORNUS 'TRUBSAT'	1 GALLON	12" O.C.

BIORETENTION PLANTING REQUIREMENTS

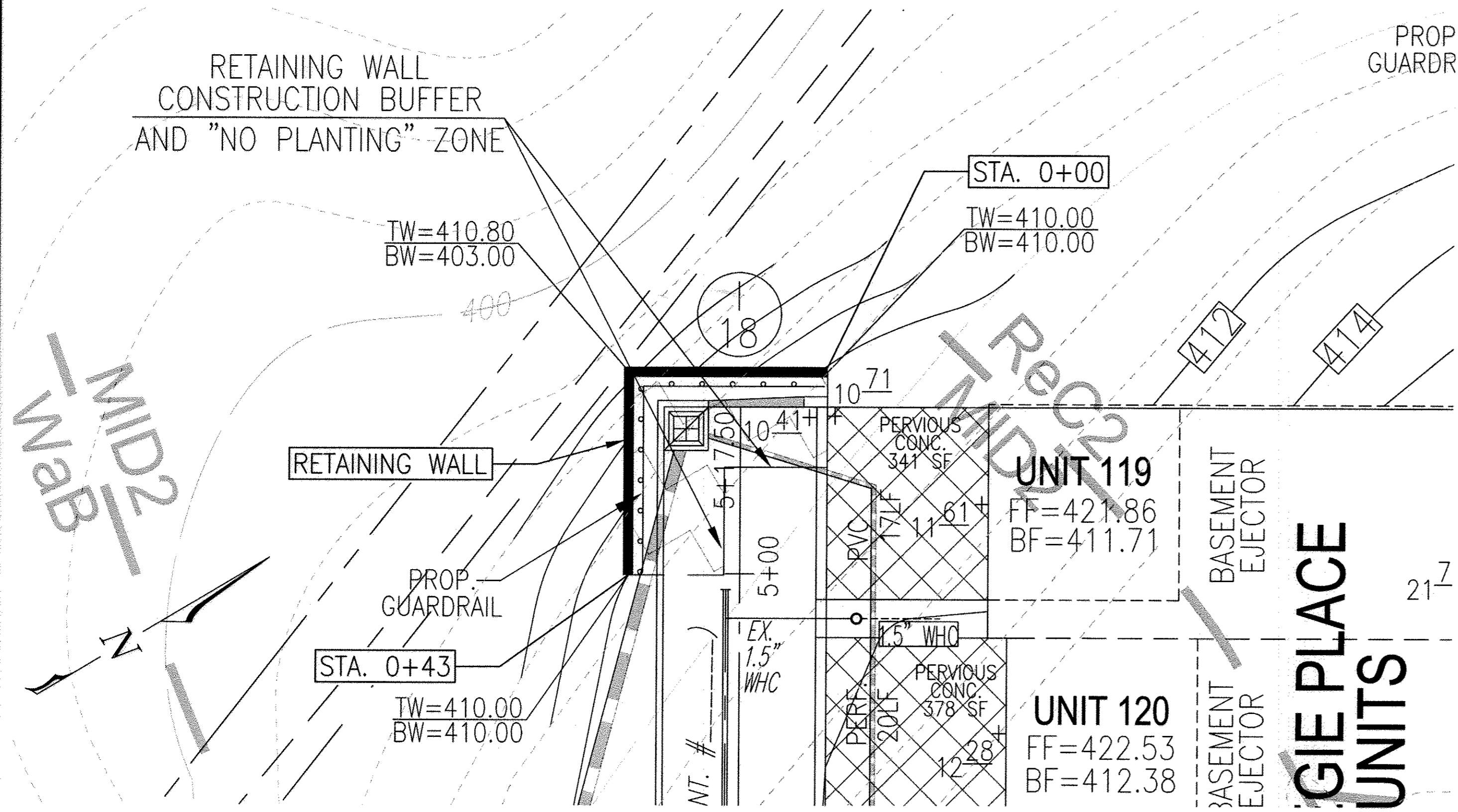
MBR	AREA	STEMS REQUIRED	STEMS PROVIDED
1	874 SF	20	48

Note: Install inlet structure I-18 and associated pipes before and during wall construction. Where there is geogrid conflict, backfill between back of wall block and inlet structure with compacted soil cement consisting of a ratio of 235 lbs. Portland cement thoroughly mixed with 1 cu. yd. of type SM soil at 3% over optimum moisture. Trim geogrids at face of inlet structure and embed in soil cement placed within 1 hour of mixing.



WALL ELEVATION
1" = 5'

RETAINING WALL CONSTRUCTION BUFFER AND "NO PLANTING" ZONE



WALL LOCATION PLAN
1" = 10'

GENERAL NOTES:

- No trees shall be planted within 10 feet of the top of the retaining wall.
- Retaining wall shall only be constructed under the observation of a registered professional engineer and a (NICET, WACEL, or equiv.) certified soils technician.
- The required bearing pressure beneath the wall system shall be verified in the field by a certified soils technician. Testing documentation must be provided to the Howard County Inspector prior to start of construction. The required bearing test shall be the Dynamic Cone Penetrometer test ASTM STP-399.
- The suitability of fill material shall be confirmed by the on-site soils technician. Each 8" lift must be compacted to a minimum 95% standard proctor density and the testing report shall be made available to the Howard County Inspector upon completion of construction.
- Wall shall not be constructed on uncertified fill materials.
- Wall shall not be constructed within a Howard Co. right-of-way or easement.

SPECIFICATIONS
MODULAR CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL

- 1.01 Description
- Work shall consist of furnishing and construction of a Modular Retaining Wall System in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on the plans.
 - Work includes preparing foundation soil, furnishing and installing leveling pad, unit drainage fill and backfill to the lines and grades shown on the construction drawings.
 - Work includes furnishing and installing geogrid soil reinforcement of the type, size, location, and lengths designated on the construction drawings.
- 1.02 Delivery, Storage and Handling
- Contractor shall check all materials upon delivery to assure that the proper type, grade, color, and certification has been received.
 - Contractor shall protect all materials from damage due to job site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

PART 2: PRODUCTS

2.01 Modular Concrete Retaining Wall Units

- Modular concrete units shall conform to the following architectural requirements:
 - face color - concrete gray - standard manufacturer's color may be specified by the Owner.
 - face finish - sculptured rock face in angular tri-planer or flat configuration. Other face finishes will not be allowed without written approval of Owner.
 - bond configuration - running with bonds nominally located at midpoint vertically adjacent units, in both straight and curved alignments.
 - exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.
- Modular concrete materials shall conform to the requirements of ASTM C1372 - Standard Specifications for Segmental Retaining Wall Units.
- Modular concrete units shall conform to the following structural and geometric requirements measured in accordance with appropriate references:
 - compressive strength - 3000 psi minimum; absorption - 8% maximum (6% in northern states) for standard weight aggregates; dimensional tolerances = ±1/8" from nominal unit dimensions not including rough split face, ±1/16"
 - unit height - top and bottom planes; unit size - 8" (H) x 16" (W) x 12" (D) minimum;
 - unit weight - 75 lbs/unit minimum for standard weight aggregates;
 - inter-unit shear strength - 1000 pif minimum at 2 psi normal pressure; at 2 psi normal force.
 - geogrid/unit peak connection strength - 1000 pif minimum
- Modular concrete units shall conform to the following constructability requirements: (if applicable)
 - vertical setback = 1/8"± per course (near vertical) or 1"± per course per the design;
 - alignment and grid positioning mechanism - fiberglass pins, two per unit minimum;
 - maximum horizontal gap between erected units shall be - 1/2 inch.

2.02 Shear Connectors (if applicable)

- Shear connectors shall be 1/2 inch diameter thermoset isophthalic polyester resin-primed fiberglass reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10 degrees F to +100 degrees F. B. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

2.03 Base Leveling Pad Material

- Material shall consist of a compacted #57 crushed stone base as shown on the construction drawings.

2.04 Unit Drainage Fill

- Unit drainage fill shall consist of #57 crushed stone

2.05 Reinforced Backfill

- Reinforced backfill shall type SM, be free of debris and meet the following gradation tested in accordance with ASTM D-422 and meet other properties shown on the plan:

Sieve Size	Percent Passing
2 inch	100-75
3/4 inch	100-75
No. 40	0-60
No. 200	0-40

- Plasticity Index (PI) <10 and Liquid Limit <40 per ASTM D-4318.
- Material can be site excavated soils where the above requirements can be met. Unsuitable soils for backfill (high plastic clays or organic soils) shall not be used in the reinforced soil mass.

2.06 Geogrid Soil Reinforcement

- Geosynthetic reinforcement shall consist of geogrids manufactured specifically for soil reinforcement applications and shall be manufactured from high tenacity polyester yarn.

2.07 Drainage Pipe

- The drainage pipe shall be perforated corrugated HDPE pipe manufactured in accordance with ASTM D-1248.

PART 3 EXECUTION

3.01 Excavation

- Contractor shall excavate to the lines and grades shown on the construction drawings. Owner's representative shall be responsible for inspecting and approving the excavation prior to placement of leveling material or fill soils.

3.02 Base Leveling Pad

- Leveling pad material shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches and extend laterally a minimum of 6" in front and behind the modular wall unit.
- Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.

3.03 Modular Unit Installation

- First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and insure that all units are in full contact with the base and properly seated.
- Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.

- Install shear/connecting devices per manufacturer's recommendations.

- Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill. Follow wall erection and drainage fill closely with structure backfill.

- Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed three courses.

3.04 Structural Geogrid Installation

- Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment.

- Geogrid reinforcement shall be placed at the strengths, lengths, and elevations shown on the construction design drawings or as directed by the Engineer.

- The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to backfill placement on the geogrid.

- Geogrid reinforcements shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.

3.05 Reinforced Backfill Placement

- Reinforced backfill shall be placed, spread, and compacted in such a manner that minimizes the development of slack in the geogrid and installation damage.

- Reinforced backfill shall be placed and compacted in lifts not to exceed 6 inches where hand compaction is used, or 8 - 10 inches where heavy compaction equipment is used. Lift thickness shall be decreased to achieve the required density as required.

- Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during construction shall be uniformly distributed throughout each layer and shall be -3% to -3% of optimum.

- Only lightweight hand-operated equipment shall be allowed within 3 feet from the tail of the modular concrete unit.

- Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.

- Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning shall be avoided.

- At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

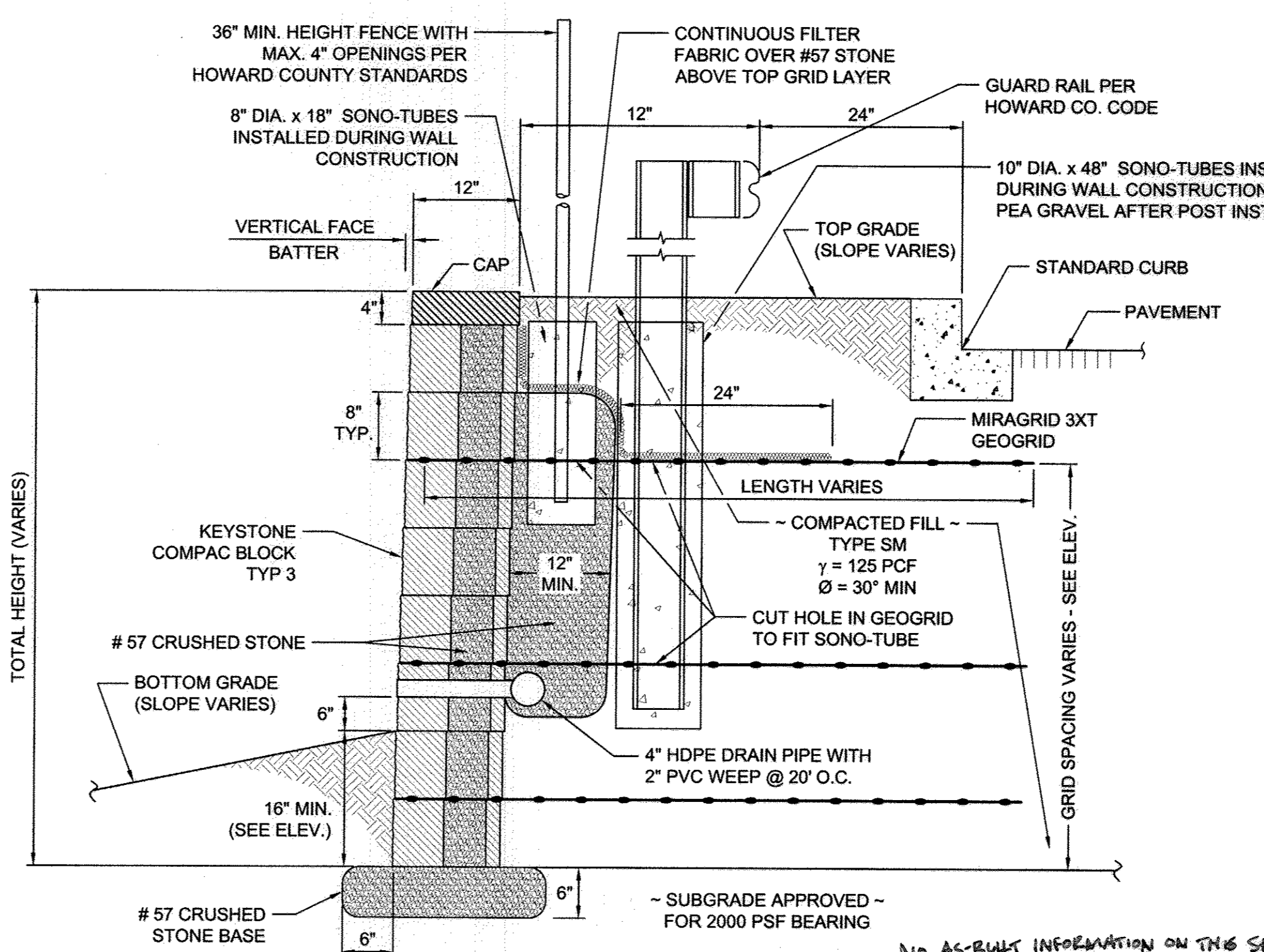
3.06 Cap Installation

- Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer.

3.07 Field Quality Control

- The Owner shall engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction.

- As a minimum, quality assurance testing should include foundation soil inspection, soil and backfill testing, verification of design parameters, and observation of construction for general compliance with design drawings and specifications.



TYPICAL WALL SECTION
N.T.S.

OWNER/DEVELOPER
VILLAGE CREST
DEVELOPMENT CORPORATION
4100 COLLEGE AVENUE
ELLCOTT CITY, MD 21041

NO.	REVISION	DATE

RETAINING WALL CONSTRUCTION DETAILS
TAYLOR WAY
VILLAGE CREST, PART OF PARCEL C-1
AGE RESTRICTED ADULT HOUSING UNITS

PARCEL: P10 C-1, L10281 F561
TAX MAP: 25, BLOCK: 20
2ND ELECTION DISTRICT
ZONED: POR

HOWARD COUNTY, MARYLAND
DPZ REFERENCES: S-00-05, P-01-20, F-02-112, F-02-47, SDP-02-19, SDP-04-25, SDP-02-04, PLAT# 18104 - 18109, PLAT# 16361 - 16367, WP-05-102
P-00-07, S-09-18, F-01-00, PLAT# 18112 - 18114, PLAT# 17858 - 17860, F-09-098, PLAT# 17742 - 17743, F-06-077, F-06-139, PLAT# 20567 - 20568, CONT. #14-4286-D, CONT. #14-4034-D

HILLIS-CARNES
ENGINEERING ASSOCIATES
10875 Guilford Road, Suite A
Phone: (410) 880-4788

Annapolis Junction, MD
Fax: (410) 880-4098

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND
THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND, LICENSE NO. 14434
EXPIRATION DATE: 05-15-2015

DESIGN BY: AM
DRAWN BY: AM
CHECKED BY: RWS
DATE: DECEMBER, 2013
SCALE: AS SHOWN
HCEA NO.: 06198-B

19 SHEET OF 19

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
Date: 4-9-14

Chief, Division of Land Development
Date: 4-10-14

Director
Date: 4/10/14