

GENERAL NOTES

VILLAGES AT TURF VALLEY

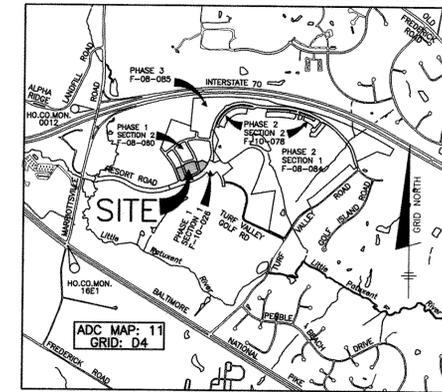
PHASE 4

ROADS, STORMWATER MANAGEMENT AND STORM DRAIN CONSTRUCTION PLANS

BENCHMARKS NAD'83 HORIZONTAL

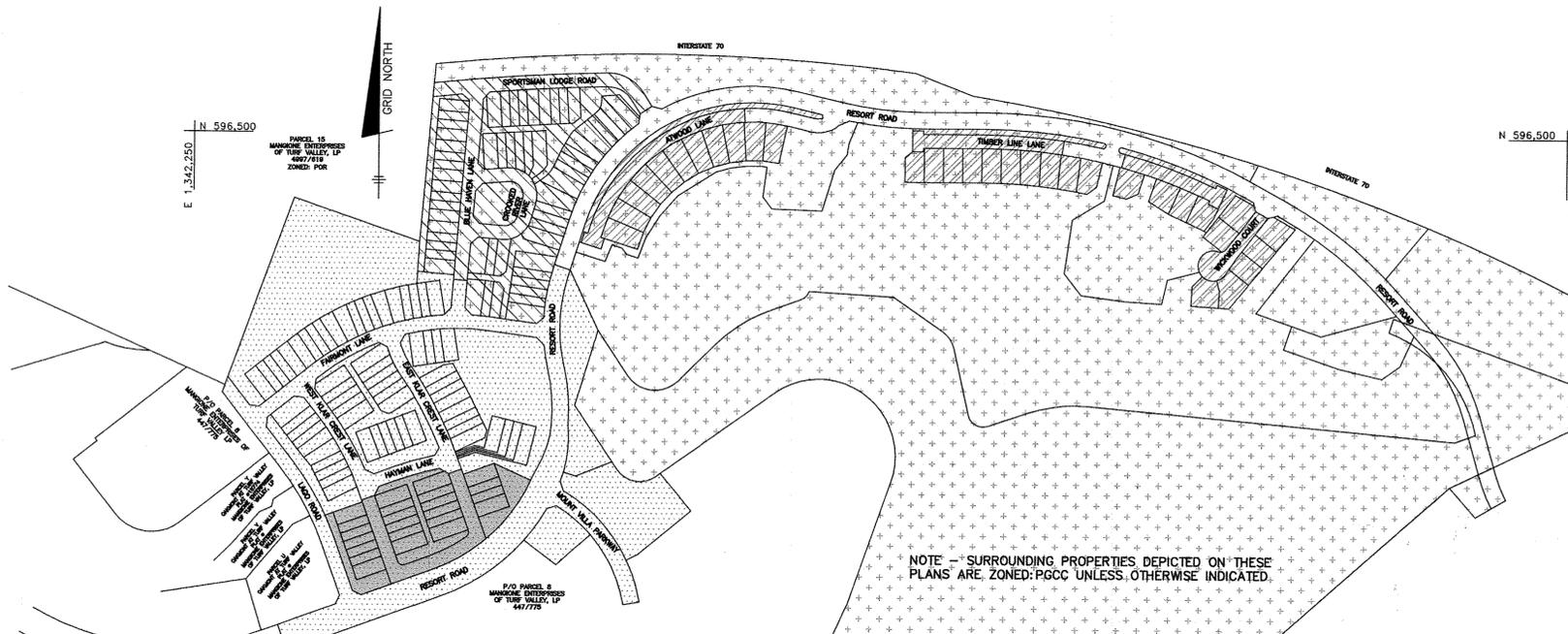
HO. CO. #16E1 (AKA: 3438001)
STAMPED BRASS DISK SET ON TOP OF A 3' DEEP COLUMN OF CONCRETE.
N 593250.960' E 1340192.70'
ELEVATION: 463.981'

HO. CO. #0012 (AKA: 3438001)
STAMPED BRASS DISK SET ON TOP OF A 3' DEEP COLUMN OF CONCRETE.
N 596502.780' E 1340864.37'
ELEVATION: 486.298'



VICINITY MAP
SCALE: 1" = 2000'

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- BOUNDARY IS BASED ON A FIELD RUN MONUMENTED SUBURBAN BOUNDARY SURVEY PERFORMED BY JOHN A. MILDBERG IN MARCH, 2006.
- THE EXISTING TOPOGRAPHY SHOWN ON SITE IS BASED ON AN AERIAL TOPOGRAPHIC SURVEY PERFORMED BY WINGS AERIAL MAPPING CO., INC. FLOWN ON OR ABOUT JANUARY, 2006.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 18E1 AND 0012 WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. THE CONTRACT NUMBER IS 24-4551-D. THE DRAINAGE AREA IS LITTLE PATUXENT.
- SEWER IS PUBLIC. THE CONTRACT NUMBER IS 24-4551-D. THE DRAINAGE AREA IS LITTLE PATUXENT.
- STORMWATER MANAGEMENT QUALITY AND QUANTITY CONTROL IS PROVIDED WITHIN SWMP #1 (EXTENDED DETENTION FACILITY WITH MICROPOOL), AND OFFLINE RECHARGE CHAMBER #1; CONSTRUCTED UNDER VILLAGES AT TURF VALLEY PHASE 1, SECTION 1 (F-10-027) THE ROAD SHALL BE PRIVATELY OWNED AND JOINTLY MAINTAINED. THE RECHARGE CHAMBER SHALL BE PRIVATELY OWNED AND PRIVATELY MAINTAINED.
- EXISTING UTILITIES SHOWN ARE BASED ON CONTRACT DRAWINGS, AERIAL AND FIELD SURVEYED LOCATIONS.
- THERE IS NO 100-YEAR FLOODPLAIN LOCATED WITHIN THE LIMITS OF VILLAGES AT TURF VALLEY, PHASE 4.
- A NOISE STUDY IS NOT REQUIRED FOR VILLAGES AT TURF VALLEY, PHASE 4 SINCE IT IS NOT WITHIN 1000' OF AN ARTERIAL ROADWAY.
- A GEOTECHNICAL REPORT IS NOT REQUIRED FOR VILLAGES AT TURF VALLEY, PHASE 4.
- THE SUBJECT PROPERTY IS ZONED PGCC PER THE 2-2-2004 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7-28-2006.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.
- THERE ARE NO WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS LOCATED WITHIN THE LIMITS OF VILLAGES AT TURF VALLEY, PHASE 4.
- THIS PROJECT IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE).
 - SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH 1/2" MIN. TAR AND CHIP COATING.
 - GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE & MIN. 45' TURNING RADIUS.
 - STRUCTURES/CULVERTS/BRIDGES - CAPABLE OF SUPPORTING 25 GROSS TONS (H2S LOAD)
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
 - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- FOR LOTS SERVED BY ALLEYS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE ALLEYWAY AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE ALLEYWAY DRIVEWAY.
- LANDSCAPING FOR THIS SUBDIVISION IS PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN INCLUDED WITH THIS ROAD CONSTRUCTION PLAN SET IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED PERIMETER LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT FOR PHASE 4 IN THE AMOUNT OF \$20,400.00.
- THIS PROJECT IS EXEMPT FROM HOWARD COUNTY FOREST CONSERVATION REQUIREMENTS UNDER SECTION 16.1202(b)(1)(v) OF THE COUNTY CODE SINCE IT IS A PLANNED UNIT DEVELOPMENT UNDER S-86-13.
- THERE ARE EXISTING STRUCTURES LOCATED ON NON-BUILDABLE BULK PARCEL BB TO BE REMOVED.
- RESERVATION OF PUBLIC UTILITY EASEMENTS
DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS SHOWN ON THIS PLAN FOR WATER, SEWER, STORM DRAINAGE, OTHER PUBLIC UTILITIES, LOCATED IN, ON, OVER AND THROUGH LOTS 177 THRU 199, AND OPEN SPACE LOTS 200 THRU 202, ANY CONVEYANCES OF THE FORESAID LOTS/PARCELS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOT(S)/PARCELS. UPON COMPLETION OF THE PUBLIC UTILITIES AND THEIR ACCEPTANCE BY HOWARD COUNTY, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED(S) OF EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- STREET LIGHT PLACEMENT AND TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20 FEET SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO PLACEMENT OF ANY ASPHALT.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED SQUARE TUBE POST (1 1/2" DIA) INSET INTO A 2-3/4" GALVANIZED STEEL, PERFORATED SQUARE TUBE SLEEVE (1 1/2" DIA) 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004. PER SECTION 126(H)(1), PLANNING BOARD APPROVAL IS REQUIRED FOR THE SITE DEVELOPMENT PLAN FOR THIS PROJECT.
- WP-08-009, A WAIVER PETITION TO SECTION 16.145(c) AND 16.146 (g) WHICH REQUIRES A SUBMISSION OF A SKETCH PLAN AND PRELIMINARY PLAN, RESPECTIVELY TO ALLOW THE ADDITION OF 21 UNITS TO THIS PROJECT WAS APPROVED ON 12-12-2007 WITH THE FOLLOWING CONDITIONS:
 - PETITIONER SHALL COMPLY WITH ALL RELEVANT PARKING REGULATIONS AT THE TIME OF SITE DEVELOPMENT PLAN SUBMISSION FOR ALL DEVELOPMENT PROPOSED ON LOT 103 OF "VILLAGES AT TURF VALLEY, PHASE 2" (F-08-084).
 - PETITIONER SHALL COMPLY WITH ALL RELEVANT STORMWATER MANAGEMENT REGULATIONS AT THE TIME OF SITE DEVELOPMENT PLAN SUBMISSION FOR PROPOSED DEVELOPMENT OF LOT 103 OF "VILLAGES AT TURF VALLEY, PHASE 2" (F-08-084).
- THIS PROJECT IS SUBJECT TO THE TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. UNDER S-86-13, AND UPDATED IN MARCH 2004.
- THE PROJECT SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 16.129 OF THE HOWARD COUNTY CODE.
- PARKING REQUIREMENTS AS PER ZONING SECTION 133.D(3):
 - 2 SPACES PER SFA DWELLING UNIT
 - REQUIRED: 23 UNITS x 2 = 46
- THE VILLAGES AT TURF VALLEY SUBDIVISION (PHASES 1-4) CONSTITUTED 241 TOTAL UNITS (145 SFA, 35 SPD, AND 61 CONDOMINIUMS), WHICH MET THE SKETCH PLAN MILESTONE DATE OF JANUARY 1, 2001 THROUGH JUNE 30, 2002 FOR BOTH PHASE IVA (131 UNITS) & IVE (110 UNITS) AS ESTABLISHED BY THE REVISED PHASING PLAN DATED JUNE 21, 2000. UNDER P-08-013, 42 CONDOMINIUM UNITS THAT WERE APPROVED WERE USED FOR OAKMONT AT TURF VALLEY (F-08-082) PLANS. IN ORDER TO RECEIVE BUILDING ALLOCATIONS, THESE 42 CONDOMINIUM UNITS WERE SHOWN AND APPROVED ON THE PRELIMINARY PLAN FOR THE VILLAGES AT TURF VALLEY (F-08-082) PLANS. IN ORDER TO RECEIVE BUILDING ALLOCATIONS, THESE 42 CONDOMINIUM UNITS WERE SHOWN AND APPROVED ON THE PRELIMINARY MULTI-USE FINAL DEVELOPMENT PLAN WAS RECORDED ON NOVEMBER 30, 2007 (PLAT NO. 19378-19580). INCREASING THE PROJECTED UNITS IN THE OAKMONT AT TURF VALLEY AREA FROM 180 TO 200, AS A RESULT, THOSE 42 UNITS ARE NO LONGER A PART OF THE VILLAGES AT TURF VALLEY WHICH LEAVES UNIT TOTAL AT 199. HOWEVER, WITH THE APPROVAL OF WP-08-009 AN ADDITIONAL 21 UNITS WERE ADDED TO THE VILLAGES AT TURF VALLEY. THE FINAL UNIT TOTAL FOR THIS SUBDIVISION COMES TO 220.
- THE PROPOSED ALLEY SERVING UNITS WITH REAR LOAD GARAGES (LOTS 185 THRU 194) IS PRIVATE, IT WILL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
- PROPERTIES DEPICTED ON THESE PLANS ARE ZONED "PGCC" UNLESS OTHERWISE NOTED.
- OPEN SPACE DEDICATION FOR LOTS 200 THRU 202
- THE OPEN SPACE SHOWN HEREON IS HEREBY DEDICATED TO A PROPERTY OWNER'S ASSOCIATION FOR THE RESIDENTS OF THIS SUBDIVISION AND RECORDING REFERENCES OF THE ARTICLES OF INCORPORATION AND RESTRICTIONS ARE SHOWN HEREON.
- ALL FILL AREAS SHALL BE AT 95% COMPACTION IN ACCORDANCE WITH AASHTO T-180 STANDARDS



PHASING LEGEND

[Pattern]	PHASE 1 F-08-060/F-10-026
[Pattern]	PHASE 2 SECTION 1 F-08-084
[Pattern]	PHASE 2 SECTION 2 F-10-078
[Pattern]	PHASE 3 F-08-085
[Pattern]	PHASE 4 F-08-086

NOTE - SURROUNDING PROPERTIES DEPICTED ON THESE PLANS ARE ZONED PGCC UNLESS OTHERWISE INDICATED.

PLAN VIEW
SCALE: 1" = 300'

AS-BUILT NOTES:

- HORIZONTAL DATUM FOR THIS AS-BUILT (IS BASED ON) THE MARYLAND STATE REFERENCE SYSTEM NAD 83 / ADJ 07 AS PROJECTED FROM HO. CO. GEODETIC CONTROL STATIONS 16E1 AND 0012. VERTICAL DATUM FOR THIS AS-BUILT IS NORTH AMERICAN VERTICAL DATUM NVD 83 AS PROJECTED FROM THE ABOVE MENTIONED HOWARD COUNTY GEODETIC CONTROL STATIONS.
- THE INSTRUMENTS USED IN PERFORMING THE AS-BUILT WERE A 5" TOTAL STATION AND PRISM AND RTK GPS.
- THE AS-BUILT WAS PERFORMED BY BENCHMARK ENGINEERING, INC.

BULK REGULATIONS :

PERMITTED USES : ALL USES AS PER TURF VALLEY PGCC DISTRICT, MULTI-USE SUBDISTRICT FINAL DEVELOPMENT PLAN, THIRD AMENDMENT PLATS 21029-21031 (46 USES OBTAINED FROM RESIDENTIAL USES TO SPECIALTY STORES)

PROPOSED USES : SINGLE FAMILY ATTACHED AND DETACHED HOMES

PERMITTED HEIGHT : SINGLE-FAMILY DETACHED AND ATTACHED - 34 FEET
APARTMENT BUILDINGS - 80 FEET
ACCESSORY STRUCTURES - 15 FEET

MAXIMUM DENSITY FOR TOTAL PGCC DISTRICT IS 2.0 DWELLING UNITS PER ACRE.

MAXIMUM UNITS PER STRUCTURE:
1. SINGLE FAMILY ATTACHED - 8 UNITS PER STRUCTURE
2. APARTMENTS LESS THAN 40 FEET IN HEIGHT - 24 UNITS PER STRUCTURE
3. APARTMENTS 40 FEET OR GREATER IN HEIGHT - 120 UNITS PER STRUCTURE

MINIMUM LOT SIZE REQUIREMENTS : 6,000 SQ.FT.
SINGLE FAMILY DETACHED 4,000 SQ.FT.
SINGLE FAMILY SEMI-DETACHED 4,000 SQ.FT.

MAXIMUM BUILDING LENGTH FOR RESIDENTIAL STRUCTURE = 120 FEET, UNLESS APPROVED BY PLANNING BOARD TO A MAXIMUM OF 300 FEET.

PERMITTED SETBACKS:
FROM ARTERIAL ROADS:
RESIDENTIAL STRUCTURES - 50 FEET
ACCESSORY USES - 30 FEET
PARKING - 25 FEET

FROM COLLECTORS AND LOCAL STREETS:
RESIDENTIAL AND NON-RESIDENTIAL STRUCTURES - 30 FEET FROM A 60 FT. ROW
20 FEET FROM A 50 FT. ROW
ACCESSORY USES - 10 FEET

FROM NON-PGCC ADJACENT PROPERTIES:
FROM RESIDENTIAL DISTRICTS - 75 FEET
FROM ALL OTHER DISTRICTS - 30 FEET

FROM LOT LINES WITHIN PGCC MULTI-USE SUBDISTRICT
ZERO LOT LINE AND ALL OTHER USES - SIDE - 0 FEET
A MINIMUM OF 15 FEET MUST BE PROVIDED BETWEEN STRUCTURES
RESIDENTIAL - REAR - 20 FEET
SINGLE-FAMILY DETACHED - SIDE - 7.5 FEET

BETWEEN ATTACHED DWELLING UNITS AND APARTMENT BUILDINGS :
FACE TO FACE - 30 FEET
FACE TO SIDE/REAR TO SIDE - 30 FEET
SIDE TO SIDE - 15 FEET
REAR TO REAR - 10 FEET
REAR TO FACE - 100 FEET

THERE IS A 80% MAXIMUM LOT COVERAGE REQUIREMENT FOR SFA LOTS AND NO SPECIFIED COVERAGE REQUIREMENT FOR APARTMENTS.

VILLAGES AT TURF VALLEY PHASING CHART

PHASE	S.F.A.	S.F.D.	CONDOMINIUM	TOTAL
1 (F10-026)	0	0	0	0
1 (F-08-060)	41	21	0	62
2 (F-08-084)	0	0	43	43
2 (F-10-078)	0	32	0	32
3 (F-08-085)	59	0	0	59
4 (F-08-086)	15	8	0	23
MAINT SHOP (SDP-08-096)	0	0	1 (Access. Apt.)	1
TOTAL	115	61	44	220

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 21443 Expiration Date: 12-21-18

AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
Donald Mason, P.E. Date: 6-29-17

OPEN SPACE CALCULATIONS

	Phase 1 Section 1	Phase 2 Section 2	Phase 2 Section 1*	Phase 4	Total
Gross Area	6.25	27.75	167.59	NA	191.59
Open Space Required 15% of gross	0.94	4.16	23.64	NA	28.74
Open Space Provided	2.58	5.32	124.96	1.02	133.88
Non-Credited (less than 35' in width)	0.00	0.65	0.35	0.57	1.57
Total Credited	2.58	4.67	124.61	0.45	132.31
Open Spaces Provided Above Requirement	1.64	0.51	100.97	0.45	103.57

* This includes area for Phase 4 (Non-Buildable Bulk Parcel BB)
** This includes area for Phase 2, Section 2 (Non-Buildable Bulk Parcels DD-1, EE-1 & FF-1) and area for Phase 3 (Non-Buildable Bulk Parcel CC-1)

RIGHT OF WAY ELEVATION CHART NAD 83

R/W PT NO	DESCRIPTION	ELEVATION	R/W PT NO	DESCRIPTION	ELEVATION
200	REBAR & CAP	494.55'	541	REBAR & CAP	496.53'
201	REBAR & CAP	494.66'	542	REBAR & CAP	494.49'
209	REBAR & CAP	492.10'	543	REBAR & CAP	491.20'
213	REBAR & CAP	491.26'	544	REBAR & CAP	487.32'
214	REBAR & CAP	491.01'	545	REBAR & CAP	487.08'
216	REBAR & CAP	490.07'			
228	REBAR & CAP END	496.07'			
229	REBAR & CAP END	493.44'			
534	REBAR & CAP	493.76'			
535	REBAR & CAP	493.07'			
539	REBAR & CAP	494.98'			
540	REBAR & CAP	491.24'			

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] 2-27-14
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 3/04/14
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 2-28-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS
9480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
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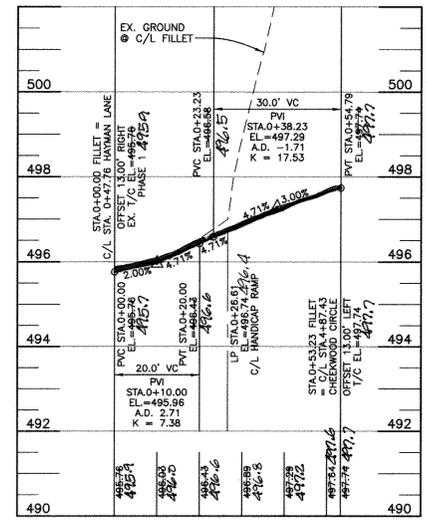
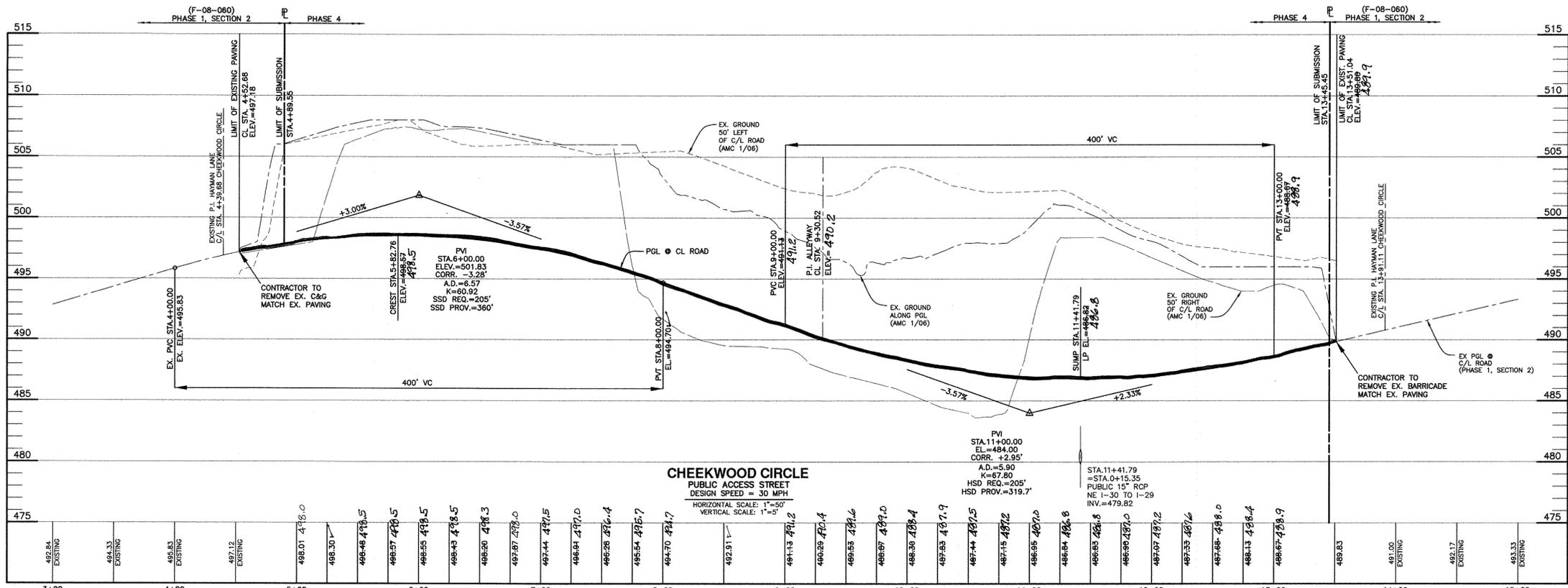
VILLAGES AT TURF VALLEY PHASE 4
LOTS 177 THRU 199, OPEN SPACE LOTS 200 THRU 202
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL BB PREVIOUSLY RECORDED UNDER PHASE 1, SECTION 2 (F-08-060)
TAX MAP: 16 GRID: 11 PARCEL: P/O B
ZONED: PGCC
ELECTION DISTRICT NO. 3
HOWARD COUNTY, MARYLAND

REVISOR TITLE SHEET

DATE: FEBRUARY, 2010 BEI PROJECT NO. 1915
SCALE: AS SHOWN SHEET 1 OF 7

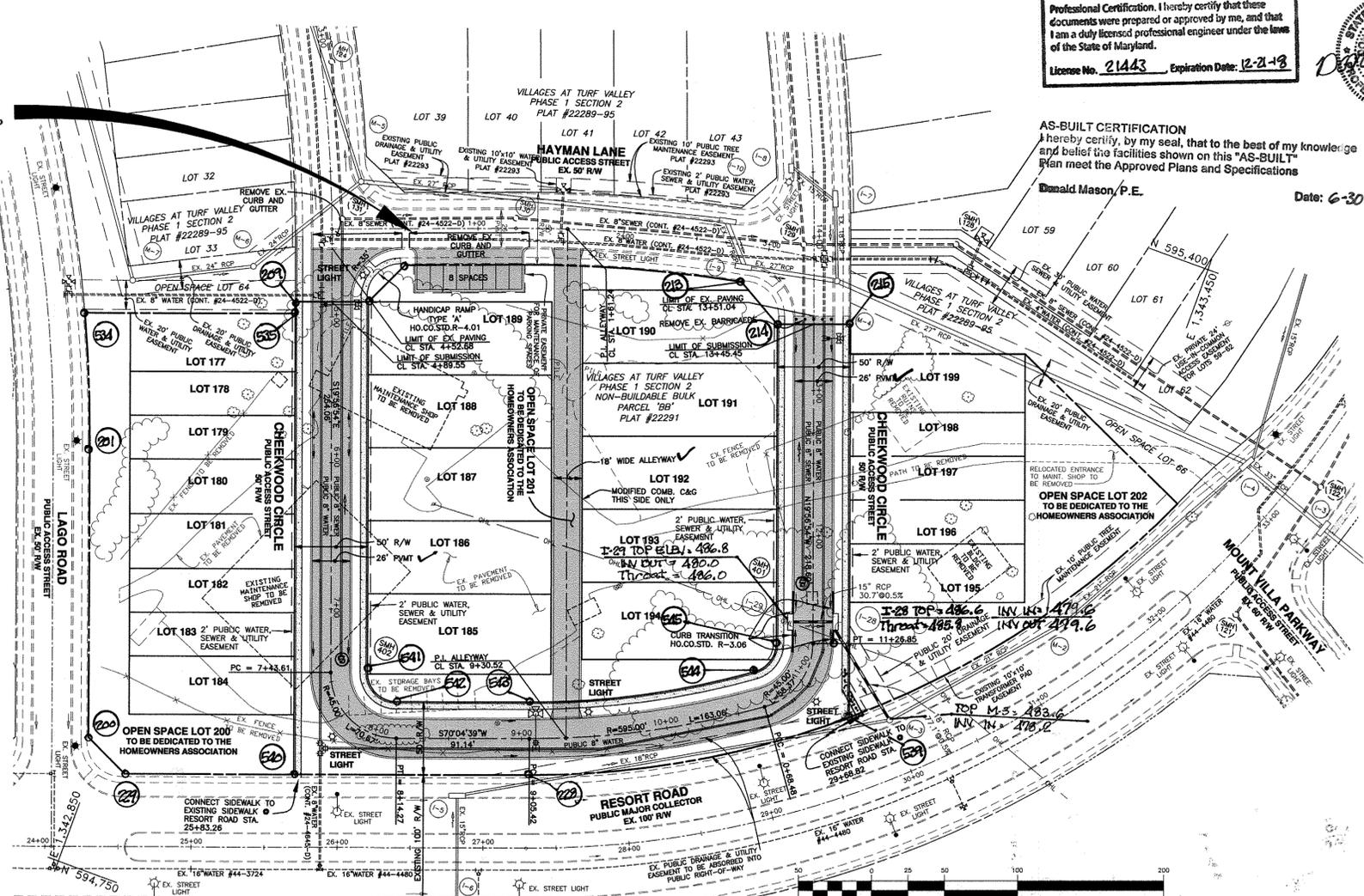
SHEET INDEX

NO.	TITLE
1	TITLE SHEET
2	ROAD PLAN & PROFILES
3	ROAD DETAILS
4	GRADING, SEDIMENT AND EROSION CONTROL PLAN
5	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
6	PERIMETER LANDSCAPE AND STREET TREE PLAN
7	STORM DRAIN DRAINAGE AREA MAP



CURB RETURN/FILLET PROFILE
SOUTH CORNER
CHEEKWOOD CIRCLE / HAYMAN LANE
SCALE: 1"=20' HORIZ., 1"=2' VERT.

SEE NEXT SHEET FOR
PARKING SPACE BLOW-UP
DETAIL



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 21443 Expiration Date: 12-2-18



AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
Date: 6-30-17

SIGN POSTS:

ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE), INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.

STREET LIGHT SCHEDULE		
SYMBOL	LOCATION	DESCRIPTION
☆	CHEEKWOOD CIRCLE C/L STA. 4+71.3 OFFS. 21.2'L	100 WATT HPS VAPOR PREMIER POST-TOP MOUNTED ON 14" BLACK FIBERGLASS POLE
☆	CHEEKWOOD CIRCLE C/L STA. 7+79.0 OFFS. 17.0'R	
☆	CHEEKWOOD CIRCLE C/L STA. 9+47.0 OFFS. 17.0'L	
☆	CHEEKWOOD CIRCLE C/L STA. 10+95.4 OFFS. 17.0'R	

NO.	DATE	REVISION
1	1-27-2014	REVISE LOT CONFIGURATION. REVISE KLAR CREST LANE TO CHEEKWOOD CIRCLE. UPDATE PHASE 1 SECTION 2. INCREASE PARKING BAY TO 8 SPACES.

APPROVED: DEPARTMENT OF PUBLIC WORKS
2-27-14
APPROVED: DEPARTMENT OF PLANNING AND ZONING
3/2/14
2-28-14

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VILLAGES AT TURF VALLEY PHASE 4
LOTS 177 thru 199; OPEN SPACE LOTS 200 thru 202
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL BB PREVIOUSLY RECORDED UNDER PHASE 1, SECTION 2 (F-08-00)
TAX MAP: 16 ZONE: 11 PARCEL: P/O 8
ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND

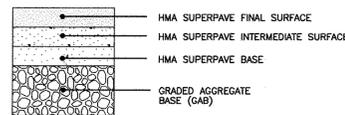
REVISED ROAD PLAN & PROFILE

OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP

DATE: FEBRUARY, 2010
SCALE: AS SHOWN

BEI PROJECT NO. 1915
SHEET 2 OF 7

CENTERLINE CONTROL DATA				
STREET NAME	DESCRIPTION	STATION	NORTH	EAST
CHEEKWOOD CIRCLE	INT. @ HAYMAN LANE	4+39.88	595,221.2431	1,342,876.9153
CHEEKWOOD CIRCLE	PT - 975.00'R	4+44.90	595,216.3434	1,342,878.7085
CHEEKWOOD CIRCLE	EOP PHASE 1 = POB	4+52.69	595,209.0278	1,342,881.3637
CHEEKWOOD CIRCLE	BOUNDARY PHASE 1/4	4+89.55	595,174.3733	1,342,893.9415
CHEEKWOOD CIRCLE	HP	5+82.76	595,086.7568	1,342,925.7420
CHEEKWOOD CIRCLE	PC - 45.00'R	7+43.61	594,935.5595	1,342,980.6191
CHEEKWOOD CIRCLE	PT - 45.00'R	8+14.27	594,908.6054	1,343,038.2528
CHEEKWOOD CIRCLE	PC - 565.00'R	9+05.42	594,939.6623	1,343,123.9414
CHEEKWOOD CIRCLE	C/L ALLEYWAY	9+30.52 (NR)	594,948.7112	1,343,147.3545
CHEEKWOOD CIRCLE	PCC - 565.00'R/45.00'R	10+68.48	595,015.4065	1,343,267.7649
CHEEKWOOD CIRCLE	PT - 45.00'R	11+26.85	595,067.3377	1,343,283.8538
CHEEKWOOD CIRCLE	LP	11+41.79	595,081.3812	1,343,278.7568
CHEEKWOOD CIRCLE	BOUNDARY PHASE 1/4	13+45.45	595,272.8220	1,343,209.2733
CHEEKWOOD CIRCLE	EOP PHASE 1 = END	13+51.04	595,278.0802	1,343,207.3648



SCHEMATIC PAVING DETAIL
NOT TO SCALE

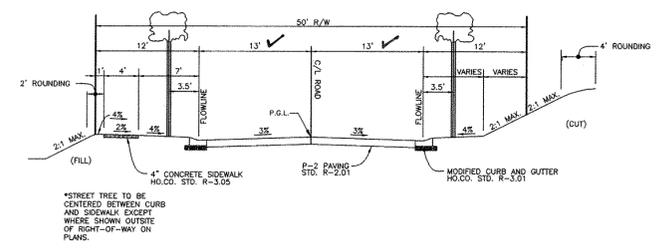
SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)						
		3 to <5	5 to <7	>7	3 to <5	5 to <7	>7	
P-2	PARKING DRIVE AISLES; RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS; ACCESS PLAZA, ACCESS STREET CUL-DE-SAC; RESIDENTIAL	PAVEMENT MATERIAL (INCHES)						
		HMA SUPERPAVE FINAL SURFACE	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE	1.0	1.0	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE	2.0	2.0	2.0	3.5	2.0	2.0
		GRADED AGGREGATE BASE (GAB)						
		8.0	4.0	3.0	4.0	4.0	4.0	

PAVING SPECIFICATIONS (HO.CO. STD R-2.01)

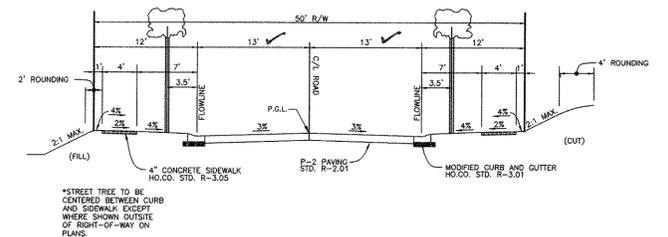
CENTERLINE CURVE DATA						
STREET NAME	STATION	RADIUS	ARC	DELTA	TANGENT	CHORD
CHEEKWOOD CIRCLE	PC=7+43.61 PT=8+14.27	45.00'	70.67'	89°58'27"	44.98'	S64°56'08"E 63.63'
CHEEKWOOD CIRCLE	PC=9+05.42 PCC=10+68.48	595.00'	163.06'	15°42'07"	82.04'	N62°13'36"E 182.55'
CHEEKWOOD CIRCLE	PCC=10+68.48 PT=11+26.85	45.00'	58.37'	74°19'28"	34.11'	N17°12'49"E 54.37'

CENTERLINE BEARING DATA			
STREET NAME	STATION	BEARING	LENGTH
CHEEKWOOD CIRCLE	PT=4+44.90 PC=7+43.61	S19°56'54"E	298.71'
CHEEKWOOD CIRCLE	PT=8+14.27 PC=9+05.42	N70°04'39"E	91.14'
CHEEKWOOD CIRCLE	PT=11+26.85 EOP=13+51.04	N19°56'54"W	224.19'

ROAD INFORMATION CHART				
STREET NAME	CLASSIFICATION	DESIGN SPEED	PAVING TYPE	STATION LIMITS
CHEEKWOOD CIRCLE	PUBLIC ACCESS STREET	30 MPH	P-2	POB 4+52.69 TO 13+51.04 END (PHASE 4)

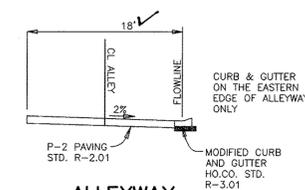


FROM STA.8+14.27 TO STA.10+68.48

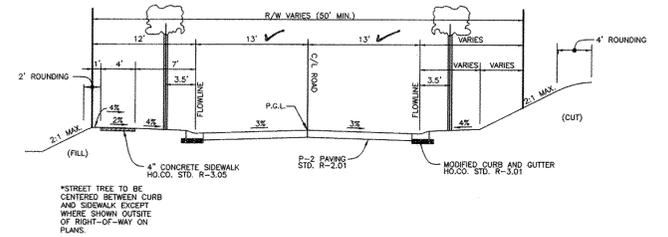


FROM STA.4+52.69 TO STA.7+43.61

FROM STA.11+26.85 TO STA.13+51.04



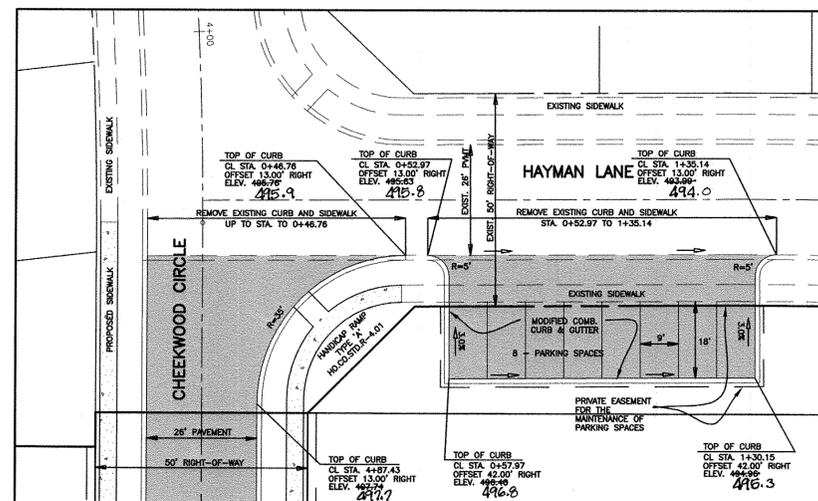
ALLEYWAY TYPICAL SECTION
PRIVATE ALLEYWAY
MAINTAINED BY THE HOMEOWNERS ASSOCIATION
SCALE: 1" = 10'



FROM STA.7+43.61 TO STA.8+14.27

FROM STA.10+68.48 TO STA.11+26.85

CHEEKWOOD CIRCLE
TYPICAL ROADWAY SECTION
(PUBLIC ACCESS STREET - LESS THAN 1000 ADT)
DESIGN SPEED: 30 MPH
SCALE: 1" = 10'



PARKING AREA & PAVING IMPROVEMENTS DETAIL

SCALE: 1" = 10'

AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
Donald Mason, P.E. Date: 6-30-17

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 21443 Expiration Date: 12-31-16



NO.	DATE	REVISION
1	1-27-2014	REVISE KLAR CREST LANE TO BE CHEEKWOOD CIRCLE. UPDATE PARKING AREA DETAIL TO REFLECT 8 SPACES. ADD ALLEYWAY TYPICAL SECTION.

BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS, INC.
8480 BALTIMORE NATIONAL PIKE & SUITE 315 A ELLEGGIT CITY, MARYLAND 21043
(7) 410-465-8105 (F) 410-465-8644
WWW.BE-CIVILENGINEERING.COM

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 20555, State of Maryland, 12/20/15.

OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400

DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400

VILLAGES AT TURF VALLEY
PHASE 4
LOTS 177 thru 199; OPEN SPACE LOTS 200 thru 202
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL BB PREVIOUSLY RECORDED UNDER PHASE 1, SECTION 2 (F-08-060)

TAX MAP: 16 GRID: 11 PARCEL: P/O 8
ZONED: PGCC
ELECTION DISTRICT NO. 3
HOWARD COUNTY, MARYLAND

REVISED ROAD DETAILS

DATE: FEBRUARY, 2010 BEI PROJECT NO. 1915
SCALE: AS SHOWN SHEET 3 OF 7

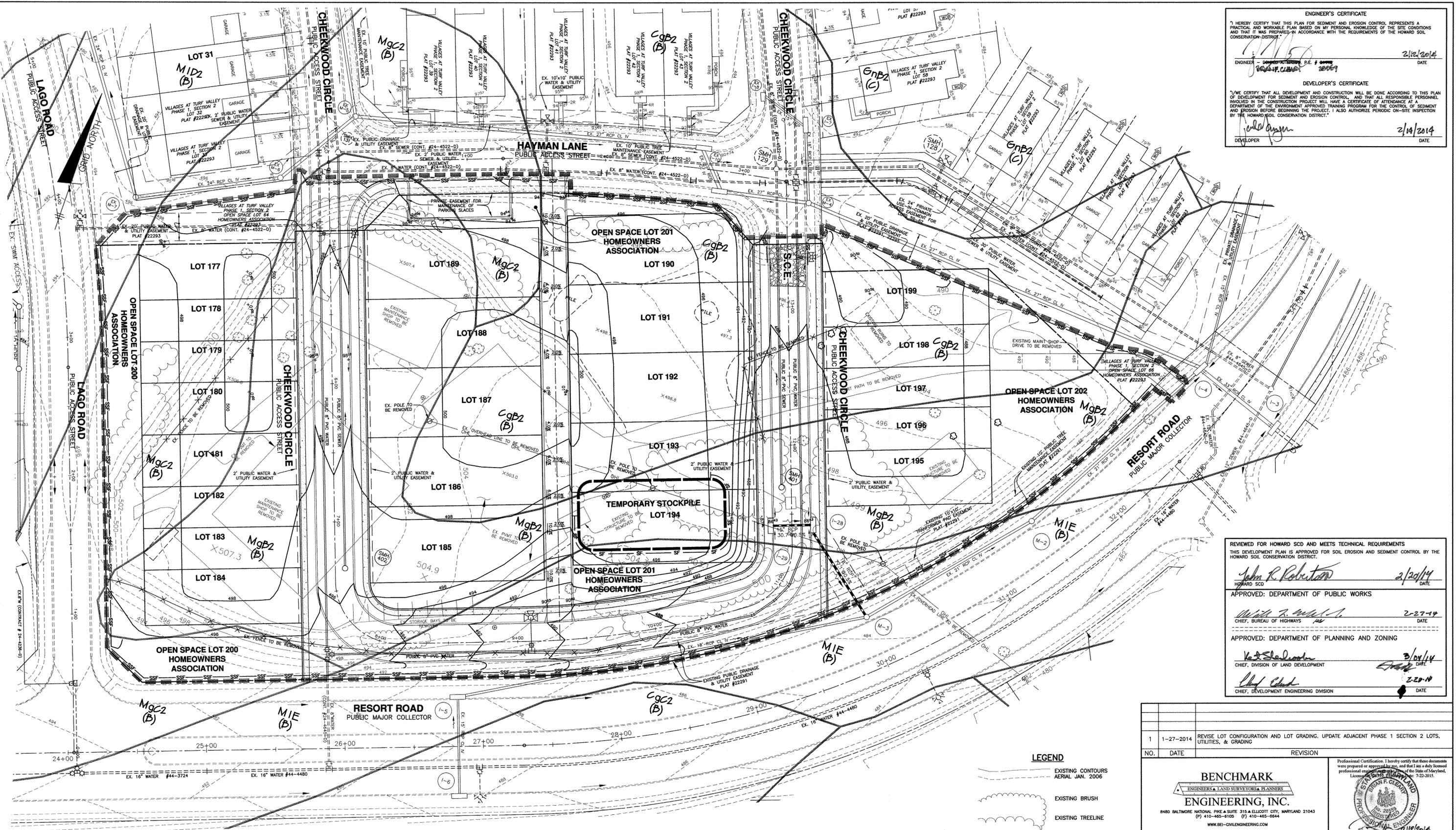
APPROVED: DEPARTMENT OF PUBLIC WORKS
2-27-14
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
3/04/14
CHIEF, DIVISION OF LAND DEVELOPMENT

2-28-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION

ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 ENGINEER: *John R. Robertson*, P.E. # 20009
 DATE: 2/20/14

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT 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.
 DEVELOPER: *John R. Robertson*
 DATE: 2/14/2014



REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John R. Robertson, 2/20/14
 HOWARD SCD DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. ..., 2-27-14
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
W. J. ..., 2/20/14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John R. Robertson, 2-20-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION
1	1-27-2014	REVISE LOT CONFIGURATION AND LOT GRADING. UPDATE ADJACENT PHASE 1 SECTION 2 LOTS, UTILITIES, & GRADING

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
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 (P) 410-465-8108 (F) 410-465-6844
 WWW.BEI-CIVILENGINEERING.COM

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer in the State of Maryland, License No. 21443, 7-20-015.
John R. Robertson, 2/20/2014
 PROFESSIONAL ENGINEER

OWNER:
 MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093
 410-825-8400

DEVELOPER:
 MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093
 410-825-8400

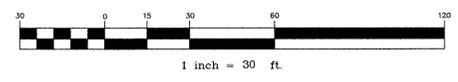
VILLAGES AT TURF VALLEY PHASE 4
 LOTS 177 thru 199; OPEN SPACE LOTS 200 thru 202
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL BB PREVIOUSLY RECORDED UNDER PHASE 1, SECTION 2 (F-08-060)
 TAX MAP: 16 GRID: 11 PARCEL: P/O B
 ZONED: PGCC
 ELECTION DISTRICT NO. 3
 HOWARD COUNTY, MARYLAND

REVISED GRADING, SEDIMENT AND EROSION CONTROL PLAN

DATE: FEBRUARY, 2010 BEI PROJECT NO. 1915
 SCALE: AS SHOWN SHEET 4 OF 7

MAP SYMBOL	SOIL GROUP	SOIL TYPE
CgB2	B	CHESTER GRAVELLY SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
CgC2	B	CHESTER GRAVELLY SILT LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
MgB2	B	MANOR GRAVELLY LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
MID2	B	MANOR LOAM, 15 TO 25 % SLOPES, MODERATELY ERODED
MIE	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES

* INDICATES HYDRIC SOILS
 TAKEN FROM: SOIL SURVEY HOWARD COUNTY, MARYLAND, ISSUED JULY 1966, MAP NO. 9



"NO AS BUILT INFORMATION" REQUIRED ON THIS SHEET

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 21443, Expiration Date: 12-21-18



- LEGEND**
- - - - - EXISTING CONTOURS AERIAL JAN. 2006
 - EXISTING BRUSH
 - EXISTING TREELINE
 - LIMIT OF SUBMISSION
 - LIMIT OF DISTURBANCE
 - SUPER SILT FENCE
 - STABILIZED CONSTRUCTION ENTRANCE
 - SOILS DELINEATION LINE
 - SOILS TYPE

B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

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:

- 1. Temporary Stabilization**
 - a. Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment. Such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must be broken up and dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - b. Apply fertilizer and lime as prescribed on the plans.
 - c. Apply topsoil and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
- 2. Permanent Stabilization**
 - a. A soil test is required for every earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
 - i. Soil pH between 6.0 and 7.0.
 - ii. Soluble salts less than 500 parts per million (ppm).
 - iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lowgrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
 - iv. Soil contains 1.5 percent minimum organic matter by weight.
 - v. Soil contains sufficient pore space to permit adequate root penetration.
 - b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
 - c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
 - d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
 - e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rate lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seeding. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seeded preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seeded loosening may be unnecessary on newly disturbed areas.

B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

Definition: The process of preparing the soils to sustain adequate vegetative stabilization.

Purpose: To provide timely vegetative cover on cut and fill slopes as work progresses.

Conditions Where Practice Applies: Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

Criteria:

- 1. Incremental Stabilization - Cut Slopes**
 - a. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seeded and apply seed and mulch on all cut slopes as the work progresses.
 - b. Perform Phase 2 excavation, prepare seeded, and stabilize.
 - c. Perform Phase 2 excavation, prepare seeded, and stabilize. Overseed Phase 1 areas as necessary.
 - d. Perform final phase excavation, prepare seeded, and stabilize. Overseed previously seeded areas as necessary.
- 2. Incremental Stabilization - Fill Slopes**
 - a. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seeded and apply seed and mulch on all slopes as the work progresses.
 - b. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
 - c. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
 - d. Construction sequence example (Refer to Figure B.1).

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

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

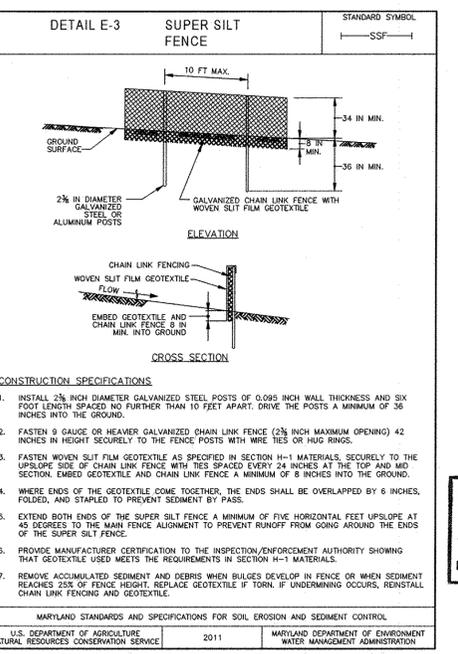
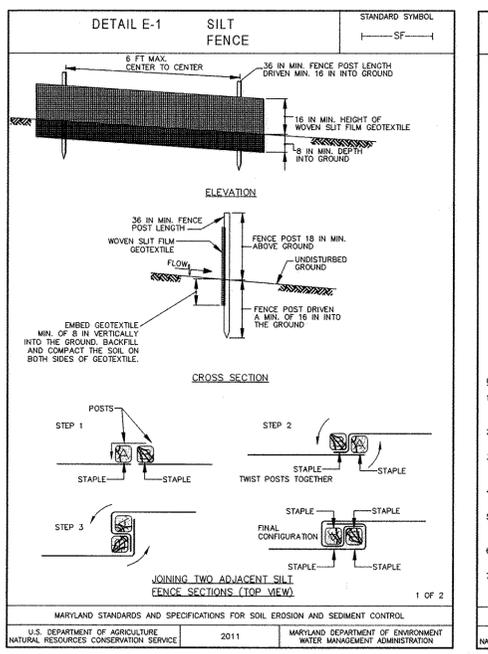
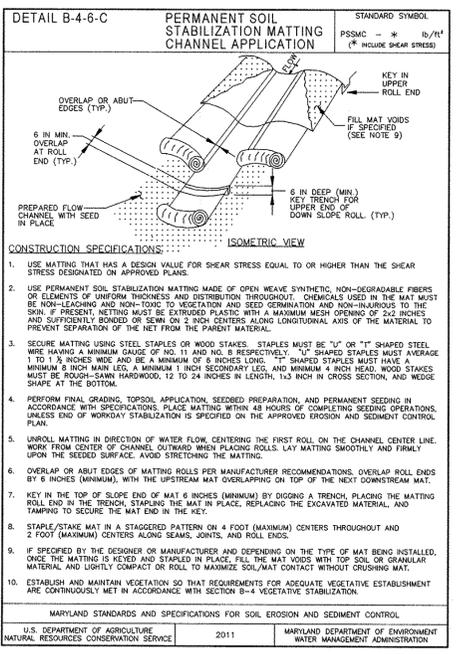
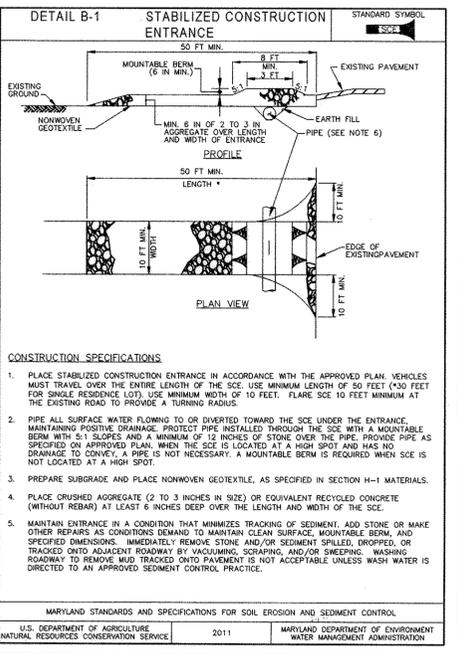
Definition: The process of preparing the soils to sustain adequate vegetative stabilization.

Purpose: To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies: Where vegetative stabilization is to be established.

Criteria:

- 1. Soil Amendments**
 - a. Soil test must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil samples may be performed by a recognized private or commercial laboratory. Soil analysis taken for engineering purposes may also be used for chemical analysis.
 - b. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
 - c. Lime materials must be ground limestone (hydrated or burnt lime) may be substituted except when hydrosulfide lime which contains at least 50 percent calcium oxide (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
 - d. Where the soil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.
- 2. Application**
 - a. Apply mulch to all seeded areas immediately after seeding.
 - b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
 - c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- 3. Anchoring**
 - a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
 - i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should occur in valleys and on crests of banks.
 - ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - iii. Synthetic binders such as Acrylic DR (Agro-Tack), DCA-70, Petrosol, Term Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.
 - iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.



THE LIMIT OF DISTURBANCE FOR THIS PROJECT EXCEEDS 2.0 ACRES; TEMPORARY STORMWATER MANAGEMENT IS PROVIDED WITHIN SEDIMENT BASIN #1 CONSTRUCTED & COMPUTED UNDER VILLAGES AT TURF VALLEY PHASE 1, SECTION 1 (F-10-027)

"NO AS BUILT INFORMATION REQUIRED ON THIS SHEET"

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 21443 Expiration Date: 12-31-18

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 (313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERE TO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 3 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 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 USED 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 PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

6. SITE ANALYSIS:

TOTAL AREA OF SITE:	4.73	ACRES
AREA DISTURBED:	5.10	ACRES
AREA TO BE ROOFED OR PAVED:	1.00	ACRES
AREA TO BE VEGETATIVELY STABILIZED:	4.10	ACRES
TOTAL CUT:	45.069	CY
TOTAL FILL:	742	CY

OFFSITE WASTE/BORROW LOCATION: SITE WITH APPROVED SPD AND ACTIVE GRADING PERMIT

7. ANY SEDIMENT CONTROL PRACTICE THAT IS PROVIDED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE PERFORMED ON THE SAME DAY OF DISTURBANCE.

8. ADDITIONAL SEDIMENT CONTROL MUST BE DISTURBED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

9. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR CONSTRUCTION OF THEIR BUILDING OR GRADING INSPECTION APPROVALS WILL NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

10. TRENCHES FOR THE INSTALLATION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, UNLESS OTHERWISE SPECIFIED.

11. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.

12. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 ACRES PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT 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.

H STANDARDS AND SPECIFICATIONS

DUST CONTROL

Definition: Controlling the suspension of dust particles from construction activities.

To prevent blowing and movement of dust from exposed soil surfaces to reduce on and off-site damage including health and traffic hazards.

Conditions Where Practice Applies: Areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Specifications:

1. **Mulches:** See Section B-4-2 Soil Preparation, Topsoiling, and Soil Amendments, Section B-4-3 Seeding and Mulching, and Section B-4-4 Temporary Stabilization. Mulch must be anchored to prevent blowing.
2. **Vegetative Cover:** See Section B-4-4 Temporary Stabilization.
3. **Tilling:** Till to rough surface and bring clods to the surface. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.
4. **Irrigation:** Sprinkle site with water until the surface is moist. Repeat as needed. The site must not be irrigated to the point that runoff occurs.
5. **Barriers:** Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing.
6. **Chemical Treatment:** Use of chemical treatment requires approval by the appropriate plan review authority.

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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 COUNTY CONSERVATION DISTRICT.

ENGINEER: DANIEL A. MASON, P.E. # 21443 DATE: 2/10/2014

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND APPROVED FOR SEDIMENT AND EROSION CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT. 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 BEGINS THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT.

DEVELOPER: JOHN R. ROBERTSON DATE: 2/10/2014

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

THE DEVELOPED PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.

APPROVED: DEPARTMENT OF PUBLIC WORKS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF CONSTRUCTION

1. OBTAIN GRADING PERMIT. (DAY 1)
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND PERIMETER SEC CONTROL DEVICES (DAY 2-5)
3. UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, BRING ROAD BEDS TO SUBGRADE AND STABILIZE SLOPES IN ACCORDANCE WITH TEMPORARY SEEDING NOTES. UTILIZE DUST CONTROL METHODS. NO MORE THAN 20 AC. MAY BE UNSTABILIZED AT ANY TIME. (DAY 6-20)
4. UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, INSTALL STORM DRAINS, WATER MAINS, SEWER MAINS AND SWALES. (DAY 20-30)
5. PAVE ROADWAYS, INSTALL CURB & GUTTER AND SIDEWALKS (DAY 30-35)
6. COMPLETE MASS GRADING OF SITE AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (DAY 36-40)
7. UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES; FLUSH EXISTING AND INSTALLED STORM DRAIN SYSTEM FROM 1-30 TO E-3 TO REMOVE SEDIMENT AND CONVERT TSSW BASIN #1 INTO EXTENDED DETENTION SWMFA AS PER PHASE 1 F-08-060 (DAY 41-60)

NO.	DATE	REVISION
2	1-27-2014	UPDATE SEDIMENT CONTROL NOTES AND DETAILS TO THE 2011 MARYLAND STDS AND SPECS. REMOVE STORM DRAIN PROFILE, STRUCTURE SCHEDULE AND PIPE SCHEDULE.
1	3-11-2013	REVISE CUT/FILL NUMBERS

BENCHMARK ENGINEERING, INC.

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WWW.BEI-CIVILENGINEERING.COM

VILLAGES AT TURF VALLEY PHASE 4

LOTS 177 thru 199; OPEN SPACE LOTS 200 thru 202
A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL BB PREVIOUSLY RECORDED UNDER PHASE 1, SECTION 2 (F-08-060)

TAX MAP: 12 ZONE: PDC PARCEL: P/O 8
ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND

REVISSED SEDIMENT & EROSION CONTROL NOTES AND DETAILS

OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400

DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400

DATE: FEBRUARY, 2010 BEI PROJECT NO. 1915
SCALE: AS SHOWN SHEET 5 OF 7

RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING
SINGLE FAMILY ATTACHED
 NUMBER OF TOWNHOUSE UNITS 15
 SHADE TREES REQUIRED (1:1 UNIT) 15*

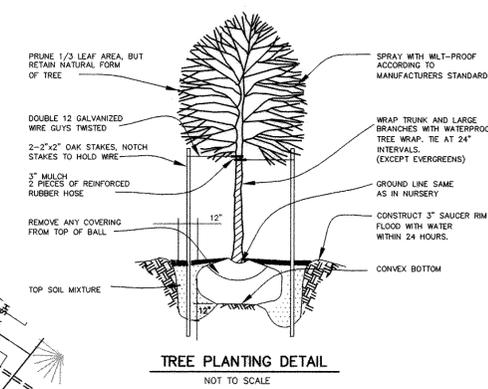
PUBLIC STREET TREE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
	43	CLADRASTIS LUTEA (Yellowwood)	2 1/2" - 3" cal. TO BE PLANTED ALONG CHEEKWOOD CIRCLE BY THE DEVELOPER.

NOTE: STREET TREES TO BE PROVIDED BY THE DEVELOPER

PUBLIC STREET TREE SCHEDULE			
ROAD NAME	PERIMETER	TREES REQ.	SIZE
CHEEKWOOD CIRCLE	1712'	43	MEDIUM

PERIMETER LANDSCAPE PLANTING LIST			
SYMBOL	QTY.	NAME	REMARKS
	29	PLATANUS X ACERIFOLIA (Bloodgood Loblolly Pine)	2 1/2" - 3" cal. SHADE TREES ALONG PERIMETER TO BE PROVIDED BY THE DEVELOPER.
	49	CUPRESSOCYPARIS LEYLANDI (Leyland Cypress)	5' - 6' ht. EVERGREEN TREES ALONG PERIMETER TO BE PROVIDED BY THE DEVELOPER.

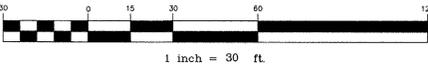
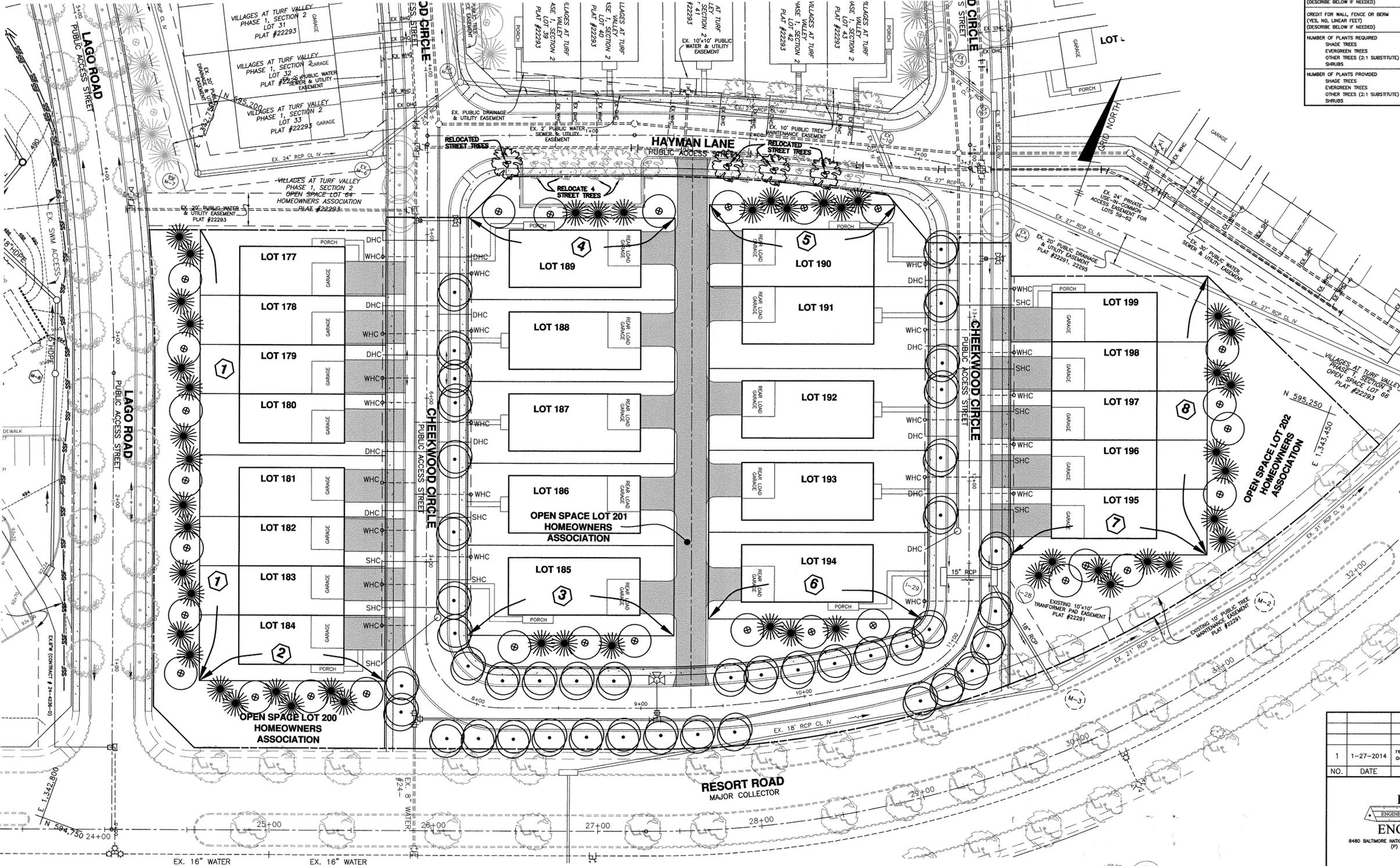
SCHEDULE A PERIMETER LANDSCAPE EDGE								
CATEGORY	SFA REAR TO ROADWAY		SFA SIDE TO ROADWAY		SFA SIDE TO ROADWAY		SFA REAR TO ROADWAY	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
LANDSCAPE TYPE	C	C	B	B	C	B	C	C
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	275'	113'	126'	126'	114'	130'	120'	170'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	NO	NO
CREDIT FOR WALL FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED								
SHADE TREES	7	3	3	3	3	3	3	29
EVERGREEN TREES	14	6	3	3	6	3	6	49
OTHER TREES (2:1 SUBSTITUTE) SHRUBS	-	-	-	-	-	-	-	-
NUMBER OF PLANTS PROVIDED								
SHADE TREES	7	3	3	3	3	3	3	29
EVERGREEN TREES	14	6	3	3	6	3	6	49
OTHER TREES (2:1 SUBSTITUTE) SHRUBS	-	-	-	-	-	-	-	-



- LANDSCAPE NOTES:**
- STREET TREES TO BE CENTERED BETWEEN THE CURB AND SIDEWALK WHERE THE DISTANCE BETWEEN THE CURB AND SIDEWALK IS 6 FEET OR GREATER. WHEN TREES ARE PLANTED BETWEEN THE SIDEWALK AND CURB, THEY SHALL BE PLACED A MINIMUM OF 30 FEET FROM ALL SIGNS AND INTERSECTIONS. TREES MAY NOT BE PLANTED WITHIN 5 FEET OF A DRAIN INLET, 5 FEET OF AN OPEN SPACE ACCESS STRIP, OR 10 FEET OF A DRIVEWAY.
 - SEE TREE PLANTING DETAIL - THIS SHEET.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.
 - AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWIT LISTED AND 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 AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.
 - THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
 - FINANCIAL SURETY FOR THE REQUIRED PERIMETER LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT FOR PHASE 4 IN THE AMOUNT OF \$20,400.00.

"NO AS BUILT INFORMATION" REQUIRED THIS SHEET

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 21443 Expiration Date: 12-21-18



DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF 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.

Louis Mangione DATE: 2/14/2014

APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter R. ... 2-27-14
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kate ... 3/04/14
 CHIEF, DIVISION OF LAND DEVELOPMENT

Phil ... 2-28-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	REVISION
1	1-27-2014	revise lot layout, update adjacent Phase 1 Section 2 layout, adjust proposed landscaping accordingly.

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS / PLANNERS
 8490 BALTIMORE NATIONAL PIKE & SUITE 315 & ELICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 (F) 410-465-6644
 WWW.BE-CIVILENGINEERING.COM

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 21443 Expiration Date: 7-23-2015

OWNER: VILLAGES AT TURF VALLEY PHASE 4
 LOTS 177 thru 199, OPEN SPACE LOTS 200 thru 202
 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL BB PREVIOUSLY RECORDED UNDER PHASE 1 SECTION 2 (F-08-060)

DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093
 410-825-8400

REVISED PERIMETER LANDSCAPE AND STREET TREE PLAN, NOTES & DETAILS

DATE: FEBRUARY, 2010 BEI PROJECT NO. 1915
 SCALE: AS SHOWN SHEET 6 OF 7

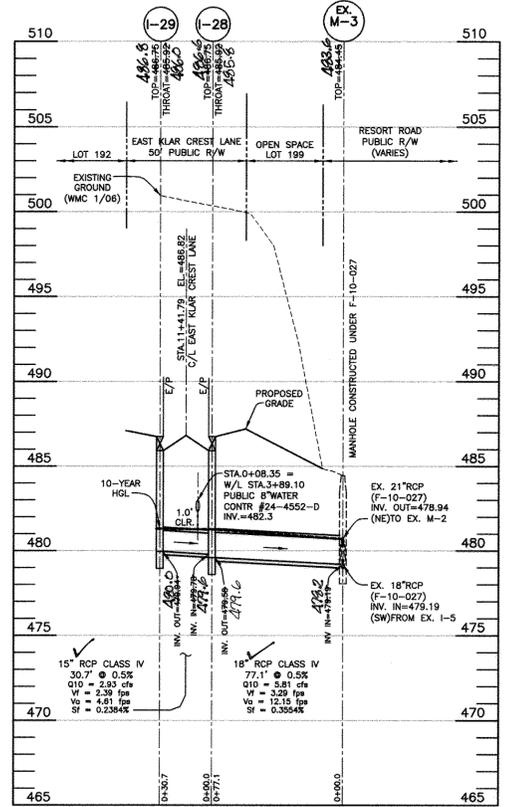
AS BUILT F-08-086

STRUCTURE SCHEDULE									
NO.	TYPE	LOCATION	PIPE INV. IN	PIPE INV. OUT	TOP ELEV.	THROAT ELEV.	INSIDE DIMENSIONS	HO. CO. STD.	
I-28	A-10	C/L STA. 11+41.79 OFFSET 13.43' LEFT EAST KLAR CREST LANE	479.6	479.6	486.6	485.8	2'-6" x 10'-0"	D-4.03	
I-29	A-10	C/L STA. 11+41.79 OFFSET 13.43' RIGHT EAST KLAR CREST LANE	---	---	486.76	485.92	2'-6" x 10'-0"	D-4.03	
			480.0	480.0	486.0	485.0			

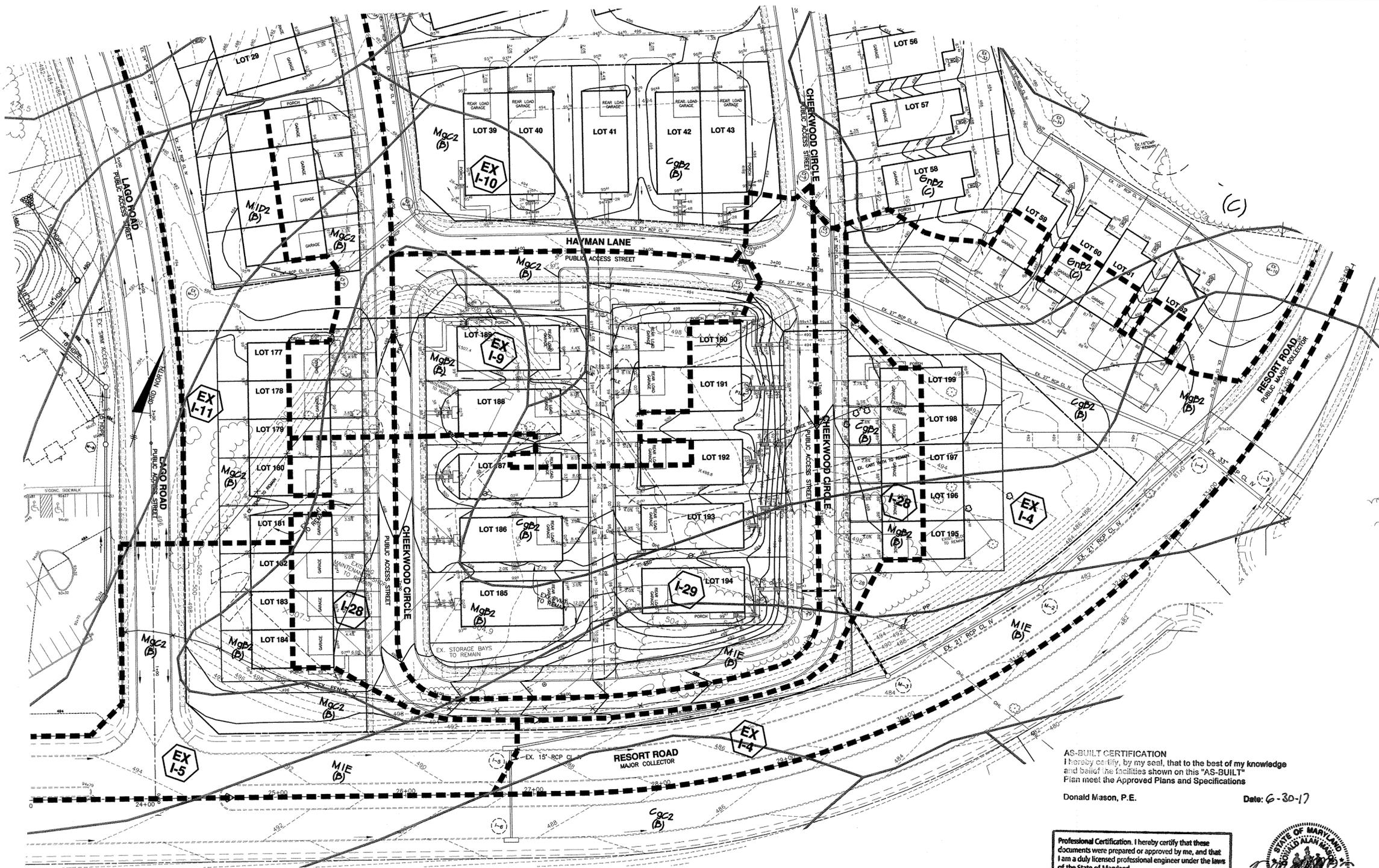
1) STRUCTURE LOCATION FOR INLETS IS AT THE CENTER OF THE INLET.
2) PRECAST STRUCTURES MEETING HS-20 LOADING MAY BE USED.

NOTE: ALL STORM DRAIN STRUCTURES AND PIPES TO BE PUBLICLY OWNED AND MAINTAINED

PIPE SCHEDULE		
PIPE SIZE	LENGTH	TYPE
15"	30.7'	RCP CLASS IV
18"	77.1'	RCP CLASS IV



STORM DRAIN PROFILE
EX. M-3 TO I-30
SCALE: HORIZONTAL 1"=50'; VERTICAL 1"=5'



- LEGEND**
- EXISTING CONTOURS AERIAL JAN. 2006
 - EXISTING BRUSH
 - EXISTING TREELINE
 - PROPOSED TREELINE
 - EXISTING STREAM
 - DRAINAGE DIVIDE
 - SOILS DELINEATION LINE
 - SOILS CLASSIFICATION
 - STORM DRAIN PIPE

STORM DRAIN DATA						
PHASE	INLET NO.	AREA (AC)	% IMPERVIOUS	SOIL CLASS	ZONING	CF FACTOR
4	I-28	0.62	87	B	PGCC	0.66
4	I-29	1.79	76	B	PGCC	0.48

AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications

Donald Mason, P.E. Date: 6-30-17

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 21443, Expiration Date: 12-21-18

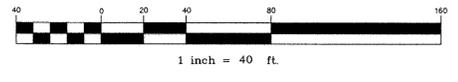


<p>1 1-27-2014 revise lot configuration, grading, drainage areas, add storm drain profile, structure schedule and pipe schedule to this sheet.</p>		
NO.	DATE	REVISION
<p>BENCHMARK ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE SUITE 315 & ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-8644 WWW.BEI-CIVILENGINEERING.COM</p>		
<p>OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400</p>		<p>DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400</p>
<p>VILLAGES AT TURF VALLEY PHASE 4 LOTS 177 thru 199, OPEN SPACE LOTS 200 thru 202 A RESUBDIVISION OF NON-BUILDABLE BULK PARCEL BB PREVIOUSLY RECORDED UNDER PHASE 1, SECTION 2 (F-08-060) TAX MAP: 16 GRID: 11 PARCEL: P/O 8 ZONED: PGCC ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND</p>		
<p>REVISED STORM DRAIN DRAINAGE AREA MAP</p>		
<p>DATE: FEBRUARY, 2010 BEI PROJECT NO. 1915</p>		<p>SCALE: AS SHOWN SHEET 7 OF 7</p>

APPROVED: DEPARTMENT OF PUBLIC WORKS
2-27-14
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
3/04/14
CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION
2-28-14



SOILS LEGEND	
MAP SYMBOL	SOIL TYPE
CgB2	CHESTER GRAVELLY SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
CgC2	CHESTER GRAVELLY SILT LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
MgB2	MANOR GRAVELLY LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
MgC2	MANOR GRAVELLY LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
MID2	MANOR LOAM, 15 TO 25 % SLOPES, MODERATELY ERODED
MIE	MANOR LOAM, 25 TO 45 PERCENT SLOPES

* INDICATES HYDRIC SOILS
TAKEN FROM: SOIL SURVEY HOWARD COUNTY, MARYLAND, ISSUED JULY 1968, MAP NO. 9