

**GENERAL NOTES**

- 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 START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM A TOPOGRAPHIC SURVEY BY FREDERICK WARD ASSOCIATES, DATED DECEMBER 2002 AND VERIFIED BY ROBERT H. VOGEL ENGINEERING, INC.
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PERFORMED BY FREDERICK WARD ASSOCIATES, DATED DECEMBER 2002 AND VERIFIED BY ROBERT H. VOGEL ENGINEERING, INC.
- DEED REFERENCE: PARCEL 272 LOT 2: L 10822 / F 361  
PARCEL 272 LOT 3: L 10822 / F 357  
PARCEL 272 LOT 4: L 10822 / F 353
- THE SUBDIVISION PLAN IS SUBJECT TO THE FOLLOWING DPZ FILES: F-03-164.
- THE SUBJECT PROPERTY IS ZONED "R-12" IN ACCORDANCE WITH THE 2/2/04 COMPREHENSIVE ZONING PLAN AND PER THE "COMP LITE" ZONING REGULATIONS AMENDMENTS EFFECTIVE 7/28/05.
- 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. 38R2 AND 38R3 WERE USED FOR THIS PROJECT.
- THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT.
- WATER IS PUBLIC AND WILL BE PROVIDED THROUGH CONTRACT # 2-W.
- ALL WATER HOUSE CONNECTIONS SHALL BE 1-1/2" WITH A 1" METER LOCATED IN AN OUTSIDE METER VAULT UNLESS OTHERWISE NOTED ON THE PLANS OR IN SPECIFICATIONS.
- SEWER IS PUBLIC AND WILL BE PROVIDED THROUGH CONTRACT # 578-S.
- SHC ELEVATIONS ARE LOCATED AT THE PROPERTY LINE.
- WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE.
- PUBLIC WATER AND SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF MICRO-SCALE PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. MICRO-SCALE PRACTICES INCLUDE MICRO-BIORETENTION AND DRYPWELLS. MICRO-SCALE FACILITIES ONLOT WILL BE PRIVATELY OWNED AND MAINTAINED. MAINTENANCE ITEMS INCLUDE MULCHING, WEEDING, PLANTINGS, PERFORATED UNDERDRAINS, FEEDER PIPES, AND ROUTINE SOIL REPLACEMENT.
- THERE IS NO 100-YR FLOODPLAIN WITHIN THE LIMITS OF THIS PROJECT.
- NO WETLANDS, WETLAND BUFFERS, STREAMS AND STREAM BUFFERS EXIST ON SITE PER A FIELD INSPECTION AND CERTIFICATION PROVIDED BY ECO-SCIENCE PROFESSIONALS, INC. DATED MARCH 2003.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- NO STEEP SLOPES ARE LOCATED ON SITE.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO CEMETERIES OR GRAVE SITES LOCATED ON THE SUBJECT PROPERTY.
- TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THERE ARE NO HISTORIC STRUCTURES EXIST ON THIS SITE.
- THIS PLAN IS SUBJECT TO THE ANNEALED 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION, OR BUILDING AND GRADING PERMITS.
- EXISTING UTILITIES ARE BASED ON HOWARD COUNTY RECORDS, FIELD SURVEY, ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS 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 TO THE COUNTY'S RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL DRIVEWAY ENTRANCES SHALL UTILIZE HOWARD COUNTY STANDARD DETAIL NO. R-6.03, MODIFIED FOR SIDEWALK ADJACENT TO CURB.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING:
 

AT&T	1-800-252-1133
BCE (CONSTRUCTION SERVICES)	410-637-8713
BCE (EMERGENCY)	410-685-0123
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO	410-795-1390
MISS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-5533
VERIZON	1-800-743-0033
- THERE ARE EXISTING STRUCTURES TO REMAIN LOCATED ON LOT 1 - WECKER PROPERTY, WHICH ARE NOT PART OF THIS PLAN SUBMISSION.
- 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.
- LOT 2-4 WILL UTILIZE A USE-IN-COMMON DRIVEWAY.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 

A)	WIDTH - 12 FEET (16 FEET IF SERVING MORE THAN ONE RESIDENCE)
B)	SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-1/2" MIN.); PERMEABLE SURFACE - 12" ASTM C-33 3/4" TO 2" STONE WITH 7" PERMEABLE CONCRETE
C)	GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS
D)	STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (125 LOADS)
E)	DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
F)	MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
- FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE TO BE PROVIDED AT THE JUNCTION OF FLAG OR PIPE STEM AND THE ROAD R/W AND NOT ONTO THE FLAG OR PIPE STEM DRIVEWAY.
- OPEN SPACE CALCULATIONS PER F03-164:  
OPEN SPACE REQUIRED: 2.2108 AC X 0.008 = 0.18 AC OR 7,704 SQFT  
OPEN SPACE PROVIDED: 0 AC  
FEE-IN-LIEU OF OPEN SPACE IN THE AMOUNT OF \$4,500.00 WAS APPROVED AND WAS PAID BY THE DEVELOPER UNDER F-03-164.
- LANDSCAPING (F-03-164) FOR LOTS 2 THRU 4 SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING FOR LOTS 2 THRU 4 MUST BE POSTED AS PART OF THE GRADING PERMIT FOR THOSE LOTS IN THE AMOUNT OF \$1,800.00.
- LOT 1 (NOT INCLUDED IN THIS PLAN) IS EXEMPT FROM THE LANDSCAPE REQUIREMENTS PER SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL, BECAUSE THE LOT CONTAINS AN EXISTING DWELLING.
- FOREST CONSERVATION FOR THIS PROJECT COMPLES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE. THE TOTAL FOREST CONSERVATION OBLIGATION WAS FULFILLED UNDER F-03-164 BY PAYMENT OF \$ 7,405.20 FOR 0.34 AC OF REFORESTATION INTO THE HOWARD COUNTY FOREST CONSERVATION FUND.
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THIS PROJECT IS LOCATED WITHIN THE BW AIRPORT HEIGHT RESTRICTION ZONE AND MUST RECEIVE APPROVAL FROM THE MARYLAND AVIATION ADMINISTRATION PRIOR TO THE SIGNATURE OF ANY SITE DEVELOPMENT PLANS. MARYLAND AVIATION ADMINISTRATION (MAA) APPROVED THIS PLAN ON OCTOBER 21, 2013.
- A SHARED DRIVEWAY ACCESS AND MAINTENANCE OBLIGATION AGREEMENT FOR THE USE-IN-COMMON DRIVEWAY WHICH SERVES LOTS 2-4 HAVE BEEN RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, LIBER 10663/FOLIO 475 SIMULTANEOUS WITH THE RECORDED OF THE PLAT, F-03-164.
- THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED PERIMETER LANDSCAPING.
- ALL REQUIRED PLANTINGS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- PARKING FOR THIS PROJECT IS PROVIDED AS FOLLOWS:  
4 SPACES PER LOT (2 CAR GARAGES = 2 SPACES + 2 SPACES PER PRIVATE ON-LOT DRIVEWAYS)  
TWO CAR GARAGES SHALL BE USED FOR PARKING PURPOSES ONLY AND SHALL NOT BE CONVERTED INTO LIVING SPACE OR STORAGE SPACE. VISITOR AND GUEST PARKING IS RESTRICTED ALONG THE USE-IN-COMMON DRIVEWAY.
- TRASH AND RECYCLING COLLECTION WILL BE PROVIDED FROM THE TRASH PAD WITHIN 5' OF THE COUNTY ROADWAY, HANOVER ROAD.
- A PRIVATE RANGE OF ADDRESS SIGN SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY - BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-2430 FOR DETAILS AND COST ESTIMATES.

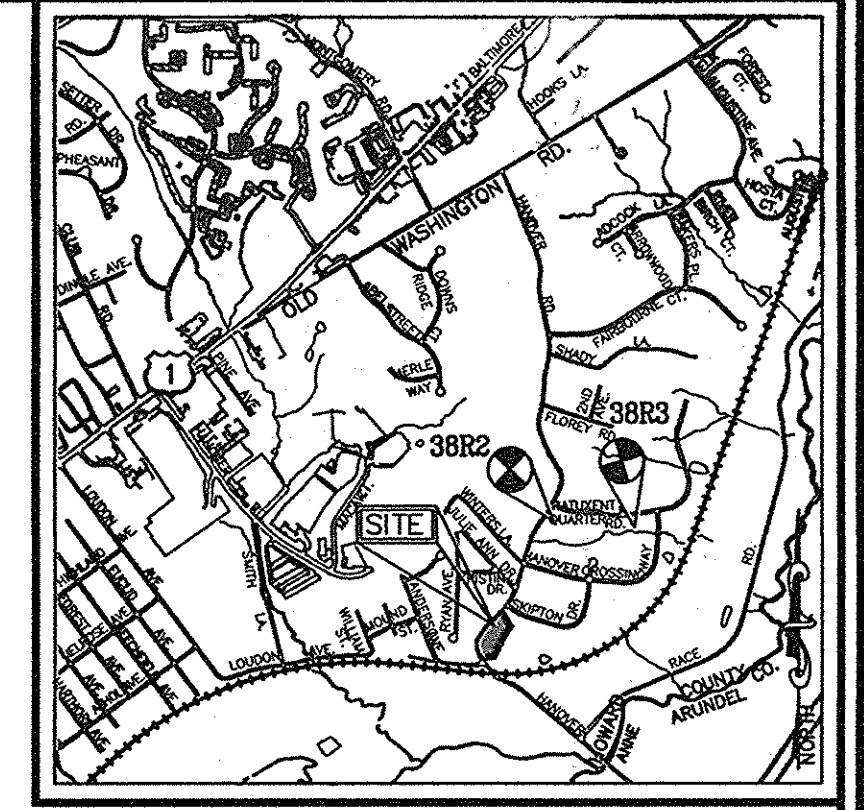
# SITE DEVELOPMENT PLAN

## WECKER PROPERTY

### SFD - LOTS 2-4

#### HOWARD COUNTY, MARYLAND

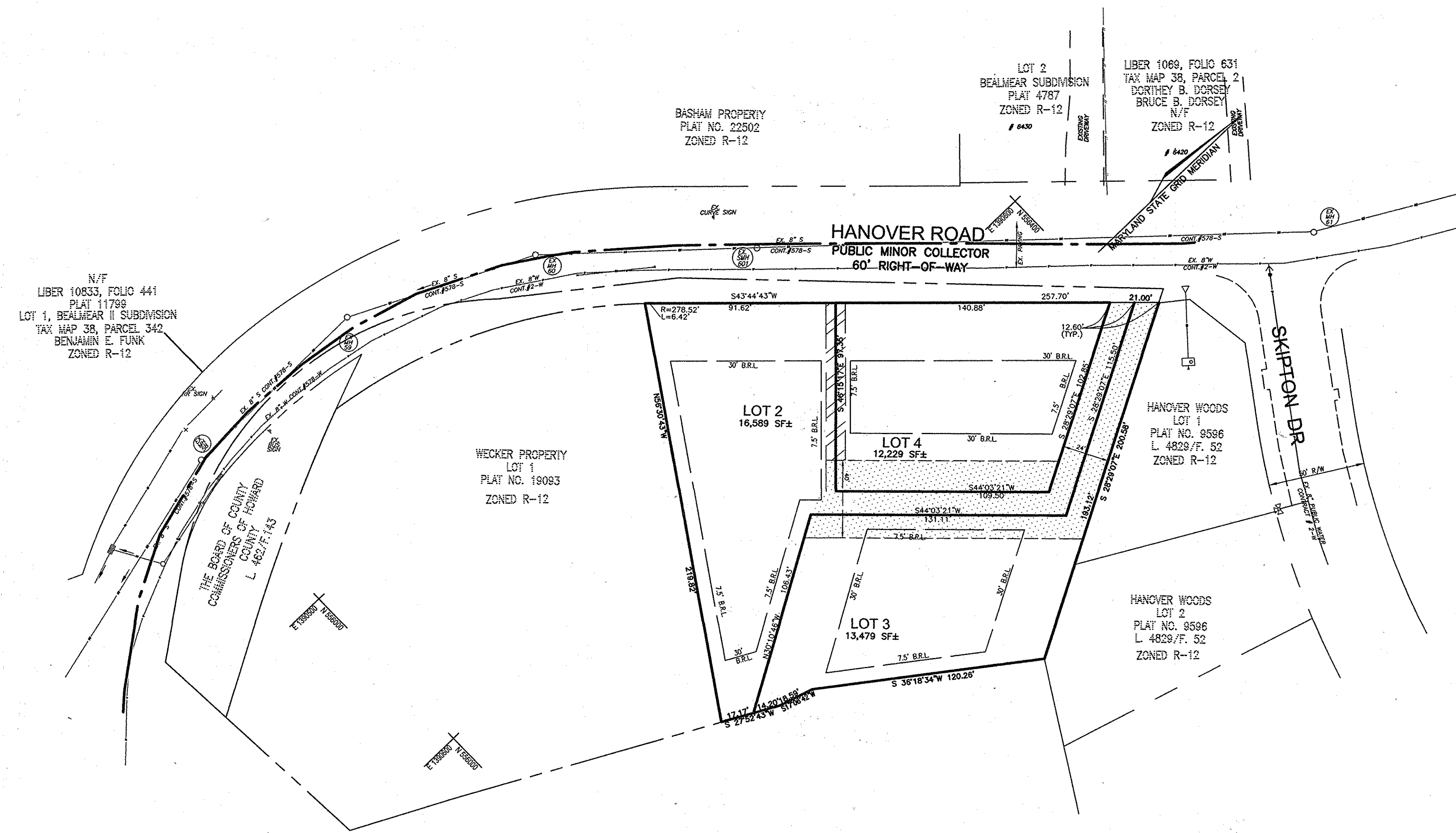
SHEET INDEX	
DESCRIPTION	SHEET NO
COVER SHEET	1
LAYOUT PLAN	2
GRADING, SOIL EROSION AND SEDIMENT CONTROL AND SOILS PLAN	3
GRADING, SOIL EROSION AND SEDIMENT CONTROL PLAN - NOTES AND DETAILS	4
MASCD / MAA & MICROBIORETENTION FACILITY NOTES & DETAILS	5



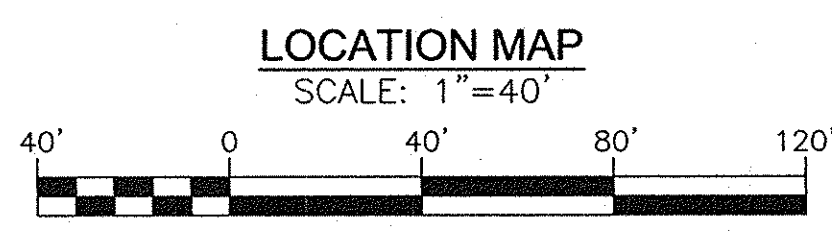
VICINITY MAP  
SCALE: 1"=2000'

ADC MAP COORDINATES  
MAP: 17  
GRID: H10

**BENCH MARK**  
HOWARD COUNTY CONTROL STATION 38R2  
NORTH 557,500.663'  
EAST 1,391,227.052'  
ELEVATION 168.788' (NAVD 1988)  
  
HOWARD COUNTY CONTROL STATION 38R3  
NORTH 557,417.823'  
EAST 1,391,983.177'  
ELEVATION 124.653' (NAVD 1988)



ARTHUR W. THOMPSON & HARY  
D. THOMPSON  
PARCEL 273  
L 300/F.299  
ZONED R-12



PERMIT INFORMATION CHART					
SUBDIVISION NAME		SECTION/AREA	LOTS/PARCEL #		
WECKER PROPERTY			2-4		
LOTS 2 - 4					
PLAT # OR L/F	BLOCK NO.	ZONE	TAX MAP NO./ELECT. DIST.	CENSUS TR.	
19093	15	R-12	38	1ST	6021.00

ADDRESS CHART	
LOT NO	STREET ADDRESS
2	6435 HANOVER ROAD
3	6431 HANOVER ROAD
4	6439 HANOVER ROAD

STORMWATER MANAGEMENT PRACTICES CHART		
LOT #	IMP. AREA	ESD PRACTICE
LOT 2	HOUSE	MICRO-BIORETENTION (M-6) DRY WELL (M-5)
	DRIVEWAY	PERMEABLE SURFACE (A-2)
LOT 3	HOUSE	(2) MICRO-BIORETENTION (M-6)
	DRIVEWAY	PERMEABLE SURFACE (A-2)
LOT 4	HOUSE	MICRO-BIORETENTION (M-6) DRY WELL (M-5)
	DRIVEWAY	PERMEABLE SURFACE (A-2)
	USE-IN-COMMON DRIVEWAY	MICRO-BIORETENTION (M-6)

MINIMUM LOT SIZE CHART			
LOT NO.	GROSS AREA	PIPE STEM AREA	MINIMUM LOT SIZE
1	47,645 #	0 #	47,645 #
2	16,589 #	2,677 #	13,912 #
3	13,479 #	1,409 #	12,070 #
4	12,229 #	0 #	12,229 #

**SITE ANALYSIS DATA**

- |  |   |
|--|---|
| A. TOTAL PROJECT AREA:   | 0.97 AC. (LT 2-4, 42,297 SQ.FT.)  |
| B. AREA OF PLAN SUBMISSION:  | 0.97 AC. (LT 2-4, 42,297 SQ.FT.)  |
| C. LIMIT OF DISTURBANCE:   | 0.97 AC   |
| D. PRESENT ZONING DESIGNATION:   | R-12  |
| E. PROPOSED USES FOR SITE AND STRUCTURES:  | RESIDENTIAL - SINGLE FAMILY DETACHED (SFD)  |
| F. FLOOR SPACE ON EACH LEVEL OF BUILDING PER USE:  | N/A   |
| G. TOTAL NUMBER OF UNITS ALLOWED FOR PROJECT AS SHOWN ON FINAL PLAT:                     | 3 BUILDABLE LOTS  |
| H. TOTAL NUMBER OF UNITS PROPOSED ON SUBMISSION:   | 3   |
| I. MAXIMUM NUMBER OF EMPLOYEES, TENANTS ON SITE PER USE:                                 | N/A   |
| J. NUMBER OF PARKING SPACES REQUIRED BY HO.CO. ZONING REGULATIONS:                       | 3 HOMES X 2 PER SFD HOUSE OVERFLOW = 3 X 0.5 PER UNIT = 1.5 SPACES = 8 SPACES TOTAL REQUIRED          |
| K. NUMBER OF PARKING SPACES PROVIDED ON SITE:  | 4 PER SFD HOUSE (2 DRIVEWAY & 2 GARAGE) = 4 X 3 = 12 SPACES PROVIDED<br>0.00 AC SEE GENERAL NOTE # 34 |
| L. AREA OF RECREATION OPEN SPACE REQUIRED BY SUBDIVISION & LAND DEVELOPMENT REGULATIONS: | N/A   |
| M. BUILDING COVERAGE OF SITE:  | F-03-164  |
| N. APPLICABLE DPZ FILE REFERENCES:   | TAX MAP 38, GRID 14&15, PARCEL 272 1ST ELECTION DISTRICT  |
| O. FLOOR AREA RATIO:   | N/A   |

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Chad Edler* 8/25/14  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Walter Leung* 8/26/14  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*David A. Long* 9/2/14  
DIRECTOR DATE

SITE DEVELOPMENT PLAN  
COVER SHEET

**WECKER PROPERTY**  
LOTS 2-4  
SFD

ZONING: R-12  
PARCEL: 272

1ST ELECTION DISTRICT  
TAX MAP: 38 GRID: 15  
DPZ REF'S: F-03-164

HOWARD COUNTY, MARYLAND

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

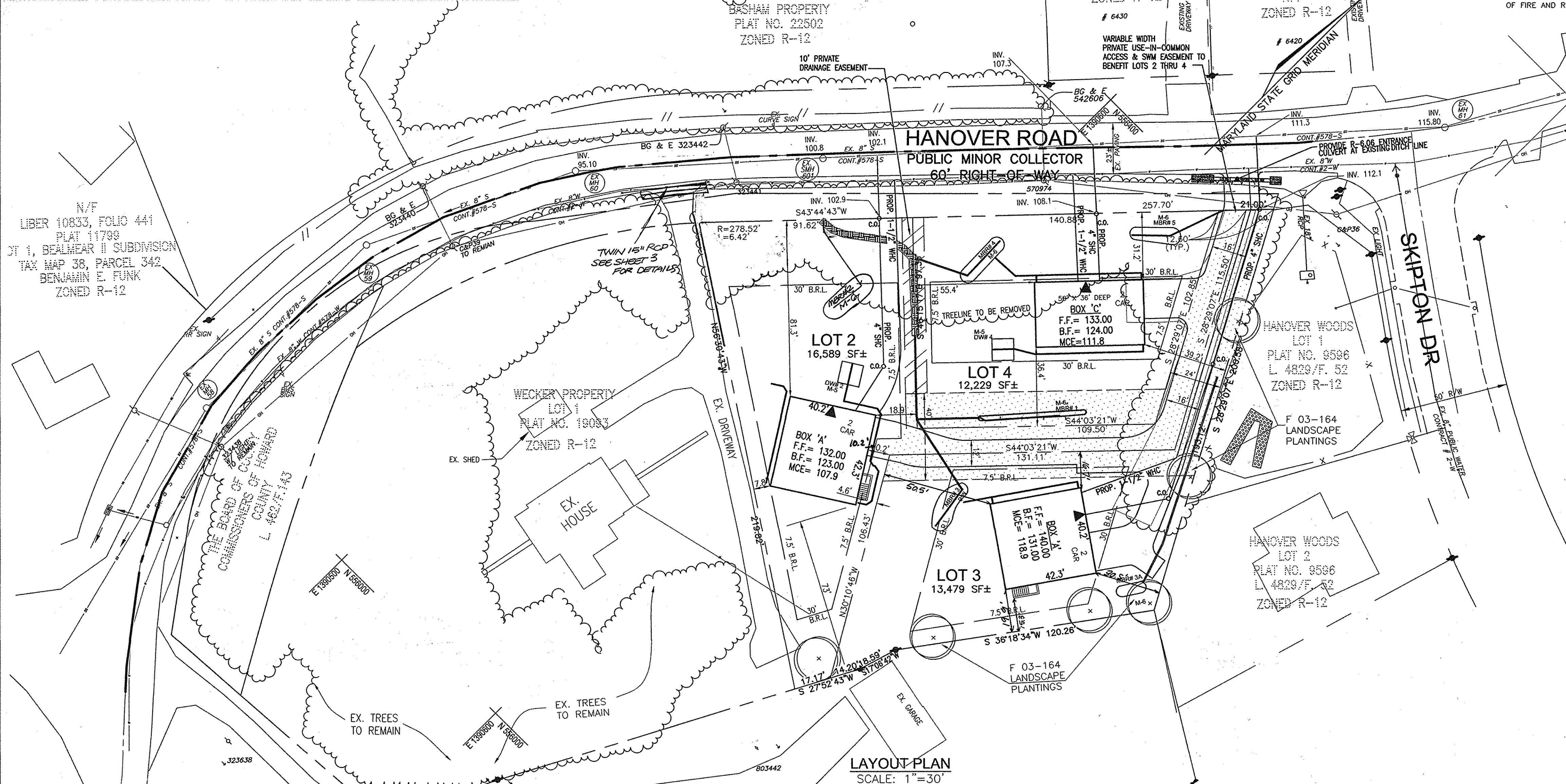
PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16193 EXPIRATION DATE: 09-27-2014

DESIGN BY: EDS  
DRAWN BY: JER  
CHECKED BY: RHV  
DATE: JUNE 2014  
SCALE: AS SHOWN  
W.O. NO.: 04-33

1 SHEET OF 5

MIN CELLAR ELEVATION									
DROP THRU SLAB = 2.5									
LOT #	INV EL @ MAIN	INV 4" SHC	TYPE	DIST TO ESMTR/W	EL @ ESMTR	DIST ESMTR - HSE	SHC SLOPE	EL @ HOUSE	MCE*
2	102.12	102.29	SINGLE	28.5	102.66	130	2.0%	106.46	108.0
3	113.27	113.44	SINGLE	33.5	113.51	60	2.0%	113.31	115.8
4	107.33	107.50	SINGLE	31.5	108.13	220	2.0%	112.53	115.0

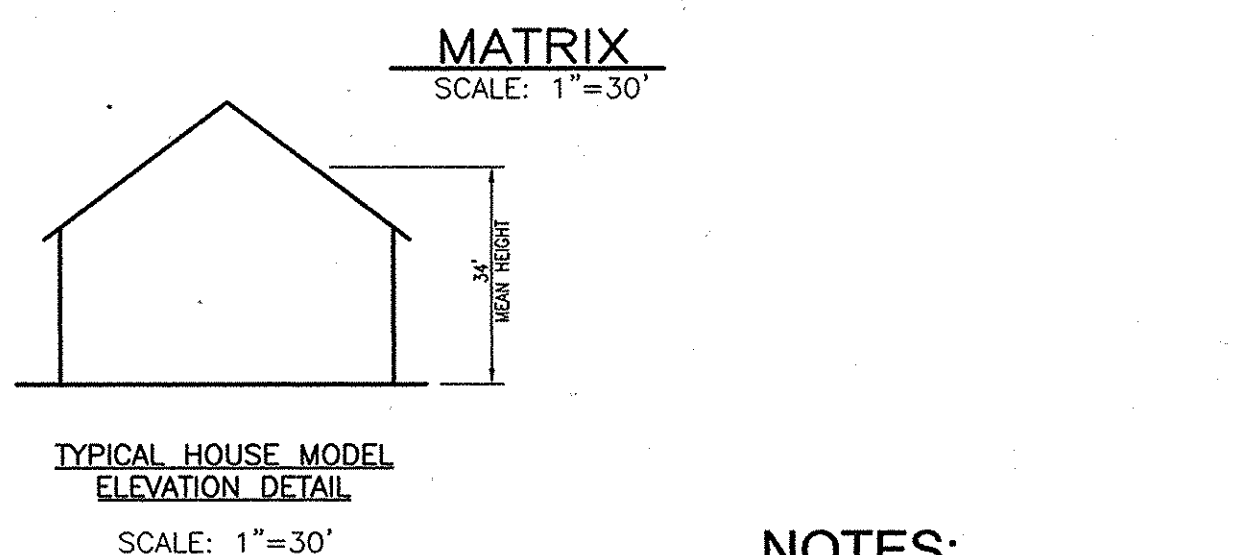
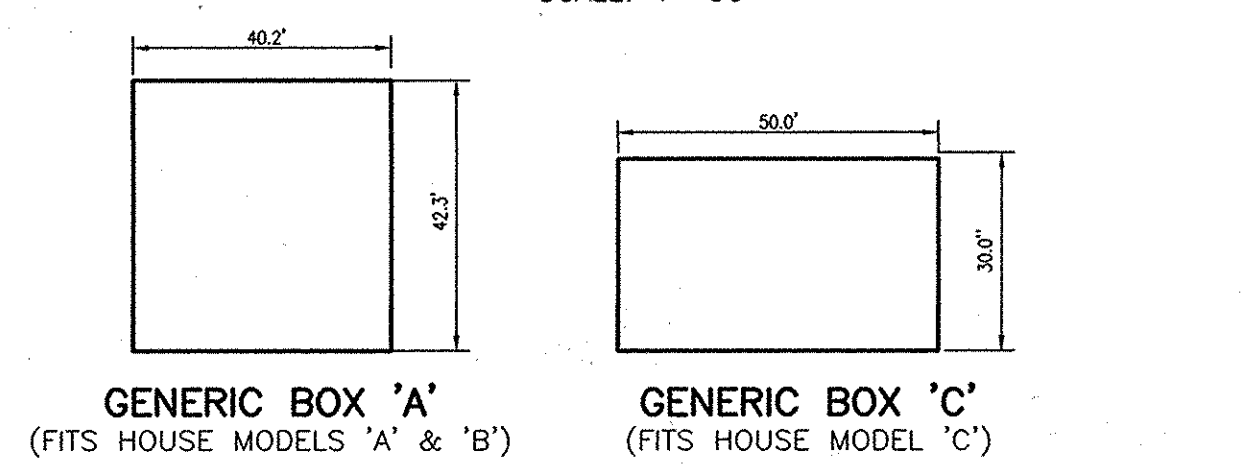
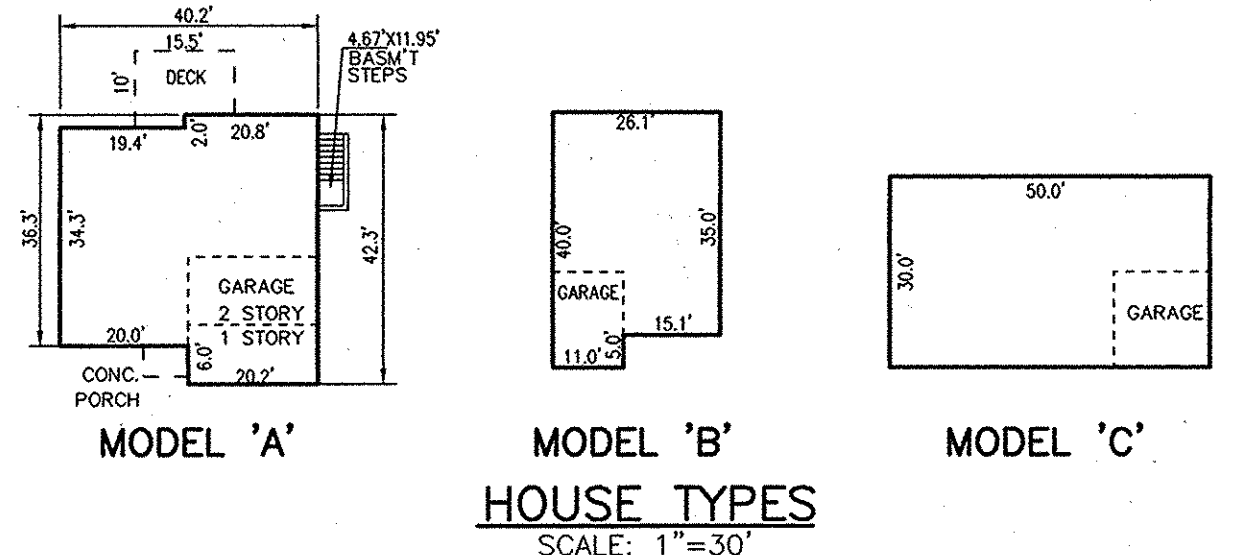
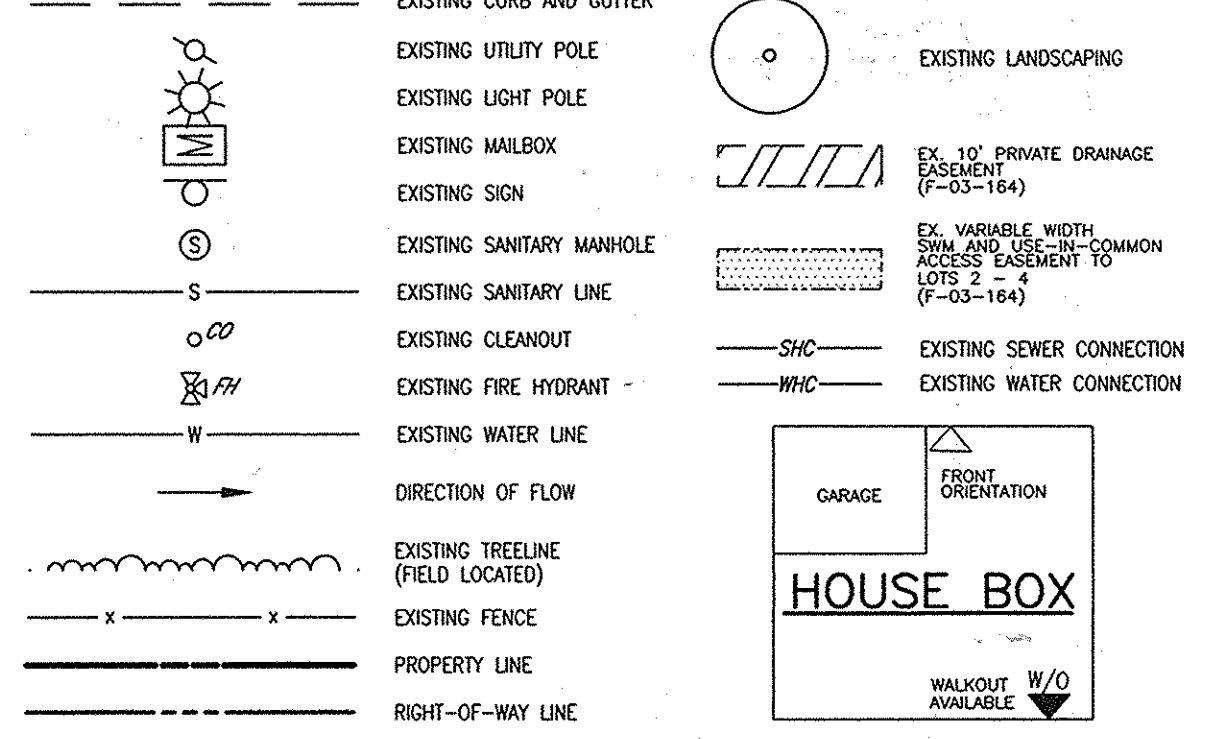
\* SUBJECT TO FIELD VERIFICATION



**DRIVEWAY NOTE:**

INDIVIDUAL HOUSE SITES SHALL PROVIDE PRIVATE DRIVEWAYS A MINIMUM 18 FOOT DEPTH FROM THE FACE OF GARAGE TO THE EDGE OF THE USE-IN-COMMON DRIVEWAY SO THAT A CAR, IF PARKED IN THE DRIVEWAY, WILL NOT OVERHANG INTO THE PAVED AREA OF THE SHARED DRIVEWAY. THE SHARED DRIVEWAY SHALL PROVIDE ADEQUATE UNOBSTRUCTED ACCESS TO ALL DWELLINGS AT ALL TIMES AS REQUIRED BY HOWARD COUNTY DEPARTMENT OF FIRE AND RESCUE.

**LEGEND:**



**NOTES:**

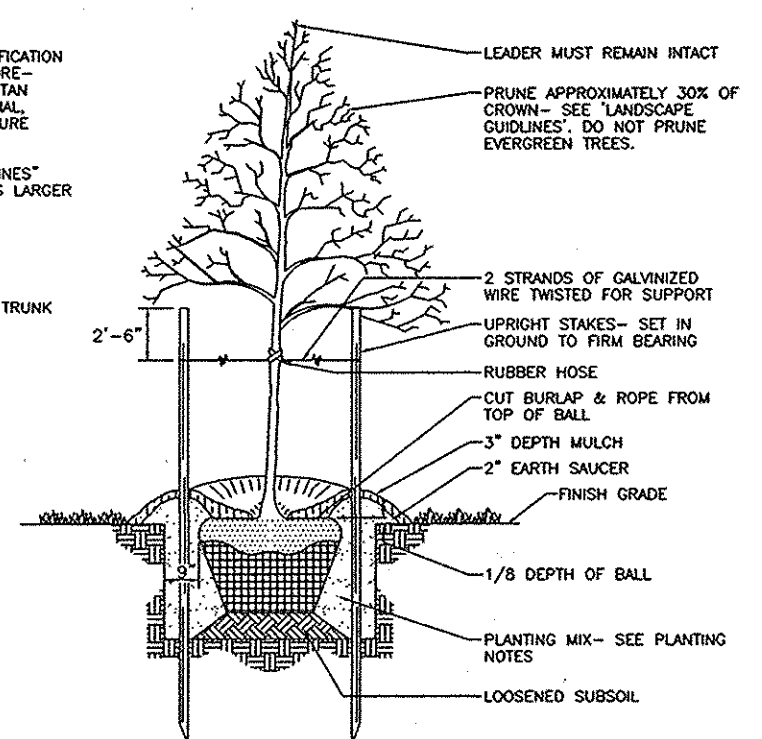
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TRASH AND RECYCLING COLLECTION WILL BE PROVIDED FROM THE TRASH PAD WITHIN 5' OF THE COUNTY ROADWAY, HANOVER ROAD.

**SCHEDULE A F-03-164 PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES
	NONE REQUIRED	TYPE 'A'	TYPE 'A'
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	0	161' (A)	198' (B)
NUMBER OF PLANTS REQUIRED			
SHADE TREES	NA	3	3
EVERGREEN TREES	NA	0	0
SHRUBS	NA	0	0
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NA	NO	NO
NUMBER OF PLANTS PROVIDED			
SHADE TREES	NA	3	3
EVERGREEN TREES	NA	0	0
OTHER TREES (2:1 SUBSTITUTION)	NA	0	0
SHRUBS (10:1 SUBSTITUTION)	NA	0	0
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)			

**NOTES:**

- SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREA" FOR ALL NATIONAL SPECIFICATIONS, AND PROCEDURE SPECIFICATIONS.
- SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
- PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
- KEEP MAULCH 1" FROM TRUNK.



**TREE PLANTING AND STAKING**

DECIDUOUS AND EVERGREEN TREES UP TO 3" CALIPER NOT TO SCALE

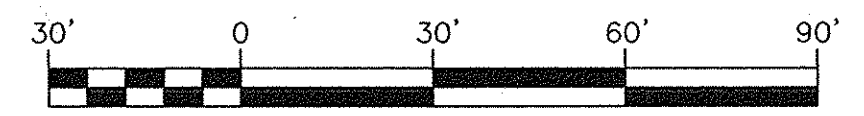
**F-03-164 - PLANT LIST**

QTY	BOTANICAL NAME / COMMON NAME	SIZE	ROOT
6	ACER RUBRUM KARPIK / KARPICK RED MAPLE	3" CAL	B & B

**NOTE:**

ONLY SEEDLESS CULTIVARS SHALL BE PLANTED PER THE 10/21/13 MAA LETTER.

**BUILDER AND DEVELOPER/OWNER**  
MAIN STREET BUILDERS  
5705 LANDING ROAD  
ELKRIDGE, MARYLAND 21075-5742



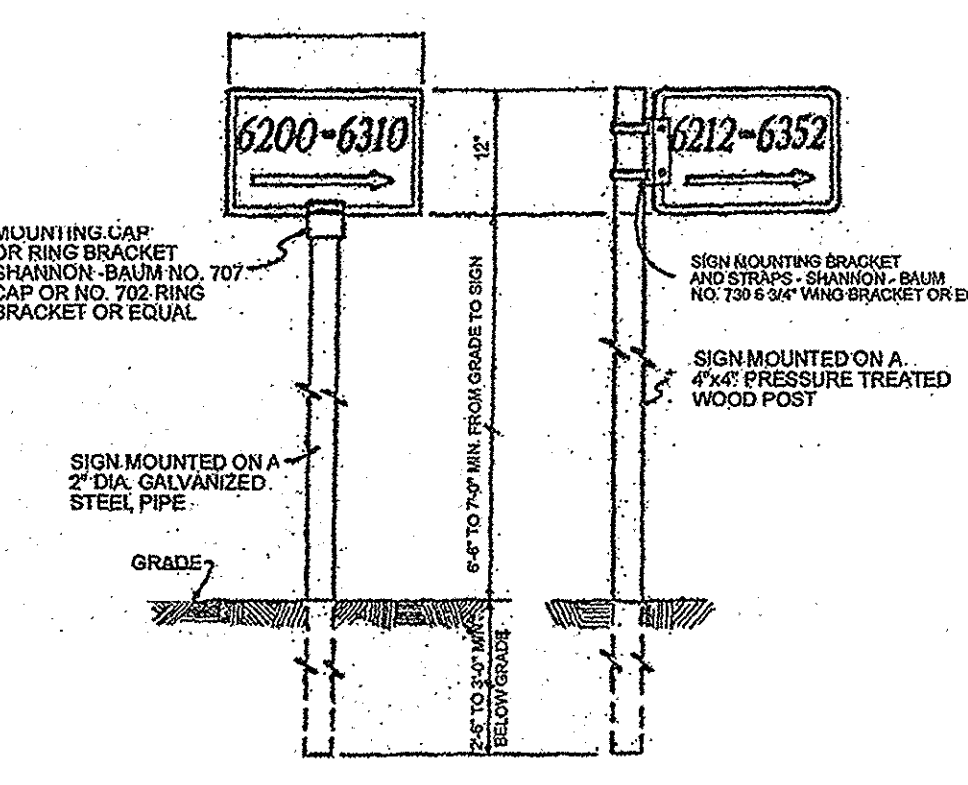
**DEVELOPER'S/BUILDER'S CERTIFICATE**

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, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

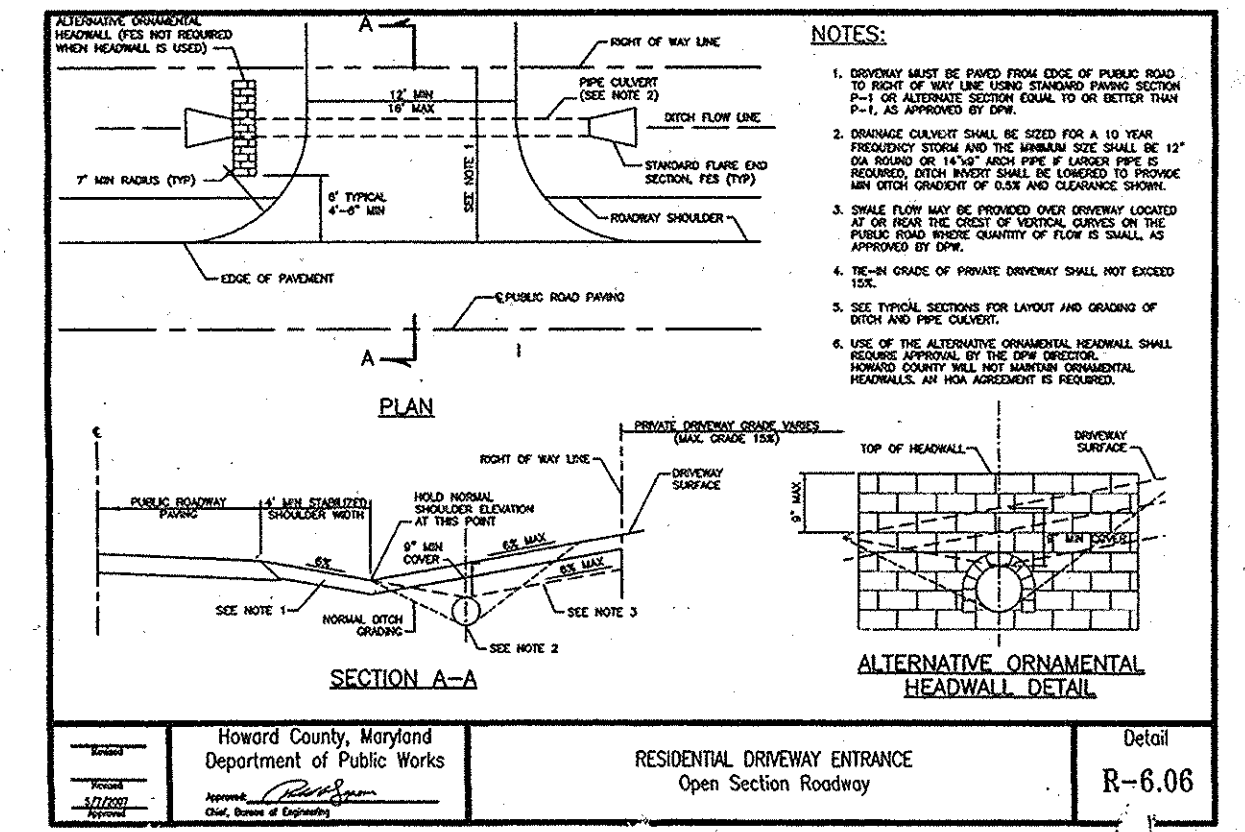
Signature of Developer: *John S. Swen* DATE: 6/9/14

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
Signature: *Chad E. Egan* DATE: 8/25/14  
Signature: *Kathleen L. ...* DATE: 8/26/14  
Signature: *Mark K. ...* DATE: 9/9/14

A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.



**TYPICAL RANGE OF ADDRESS SIGN OR EQUAL**



Howard County, Maryland Department of Public Works  
RESIDENTIAL DRIVEWAY ENTRANCE  
Open Section Roadway  
Detail: R-6.06

**SITE DEVELOPMENT PLAN LAYOUT SHEET**

**WECKER PROPERTY**  
LOTS 2-4  
SFD  
1ST ELECTION DISTRICT  
TAX MAP: 38 GRID: 15  
DPZ REF'S: F-03-164  
ZONING: R-12  
PARCEL: 272  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
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ELLCOTT CITY, MD 21043  
TEL: 410.361.7666  
FAX: 410.461.8966

PROFESSIONAL CERTIFICATE  
DESIGN BY: EDS  
DRAWN BY: JER  
CHECKED BY: RHV  
DATE: JUNE 2014  
SCALE: AS SHOWN  
W.O. NO.: 04-33  
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.  
2 SHEET OF 5





# AASCD/MAA VEGETATIVE ESTABLISHMENT DETAILS AND SPECIFICATIONS FOR THE PROJECT WITHIN 4 MILES OF BWI AIRPORT

## SEEDING

### ITEM 903 SEEDING

**903-1.1 GENERAL.** This item provides specifications for seeding of areas as designated on plans or as directed by the MAA Engineer. The species, mixtures, and methods of application provided in this item may be used to establish vegetation. Seed will be sampled and tested by an inspector from the Turf and Seed Section, Maryland Department of Agriculture (MDA), Annapolis, Maryland. All live and turf seed mixtures shall be free from the following state-listed restricted noxious weeds:

1. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within seven calendar days for the surface of all perimeter controls, dikes, roads, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and fourteen days for all other disturbed or graded areas on the project site.
2. Occurrence of acid sulfate soils (grayish black color) will require covering with a minimum of 12 inches of clean soil with 6 inches minimum capping of top soil. No stockpiling of material is allowed. If needed, soil tests should be done before and after a 4-week incubation period to allow oxidation of sulfides.
3. The minimum soil conditions required for permanent vegetative establishment are:
  - a. Soil pH shall be between 6.0 and 7.0.
  - b. Soluble salts shall be less than 500 parts per million (ppm).
  - c. The soil shall contain less than 40% clay but enough fine grained material (> 20% silt plus clay) to provide the capacity to hold moderate amounts of moisture.
  - d. Soil shall contain 1.5% minimum organic matter by weight.
  - e. Soil must contain sufficient pore space to permit adequate root penetration.
  - f. If these conditions cannot be met by site soils, adding topsoil is required to accordance ITEM 901 or amendments made as recommended by a certified agronomist.

Restricted noxious weed seed may not exceed 0.5 percent by weight of dry seed mixture. In addition, all seeds sold in Maryland shall be free from the following listed prohibited species:

- name and address of laboratory,
- date of test,
- lot number,
- the results of tests as to name, percentages of purity and of germination, and percentage of weed content for the seed furnished,
- and, in the case of a mixture, the proportions of each kind of seed.

This species may be included as a labeled component of a mixture when each is present in excess of five percent of the mixture by weight.

(Paragraphs 903-3.3.1 and 903-3.3.2) approved by MAA. The seeding mixture shall be applied within 48 hours after application of lime and fertilizer. To firm the seeded areas, cultipacking shall occur immediately after seeding.

**903-3.3 METHODS OF APPLICATION.** Lime, fertilizer, and seed mixture shall be applied by either the dry or wet application methods that have been approved by MAA and are detailed below.

**903-3.3.1 DRY APPLICATION METHOD**

- a. Lining. If soil tests indicate that lime is needed, the following procedures will be used: following advance preparation of the seedbed, lime shall be applied prior to the application of any fertilizer or seed and only on seedbeds that have been prepared as described in paragraph 903-3.2. The lime shall be uniformly spread and worked into the top 2 inches of soil, after which the seedbed shall be properly graded again.
- b. Fertilizing. Following advance preparation (and lining if necessary), fertilizer shall be spread uniformly to the specified rate to provide no less than the minimum quantity stated in Paragraph 903-2.3.
- c. Seeding. Seed mixtures shall be sown immediately after fertilization of the seedbed. The fertilizer and seed shall be lightly raked to a depth of 1/2 inch for newly graded and disturbed areas.
- d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted using a cultipacker or an approved lawnmower.

**903-3.3.2 WET APPLICATION METHOD/DROPPED SEEDING**

- a. General. The Contractor may elect to apply seed and fertilizer as per Paragraph c and d of this section in the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified in Paragraphs 903-2.3 and 903-2.2.
- b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of reading increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The spraying equipment used also include a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square inch. The pressure pump assembly shall be configured to allow the mixture to flow through the tank when not being sprayed from the nozzle. All pump pressure and application shall be capable of providing clearance for 38-inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. A pressure gauge shall be connected to and mounted immediately behind the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-closing, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture to be applied to the seedbed. The nozzle pipe shall be mounted on a distance varying from 20 feet to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings. In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

Mixtures. Lime shall be applied separately in the quantity specified, prior to the fertilizing and seeding operations. Lime shall be added to and mixed with water at a concentration not to exceed 220 pounds of lime for every 100 gallons of water. After lime has been applied, the tank should be emptied and rinsed with fresh water. Seed and fertilizer shall be mixed together in the relative proportions specified, but the resulting concentration should not exceed 220 pounds of mixture per 100 gallons of water and should be applied within 30 minutes to prevent fertilizer burn of the seeds.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Backwash water shall be used at any time. The Contractor shall identify all sources of water to the MAA Engineer at least two weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 30 minutes from the time they are mixed or they shall be wasted and disposed of at a location acceptable to the MAA.

Spraying. Lime shall be sprayed upon previously prepared seedbeds on which the lime, if required, shall have been worked in already. The mixtures shall be applied using a high-pressure spray which shall always be directed upward into the air so that the mixture will fall to the ground in a uniform spray. Nozzles or spray shall never be directed toward the ground in such a manner that might produce erosion or runoff. Particular care shall be exercised to ensure that the application is made uniformly, at the prescribed rate, and to guard against missed and overlapped areas. Pre-determined quantities of the mixture shall be used in accordance with specifications to cover specified sections of lawns area. To check the rate and uniformity of application, the applicator will observe the degree of wetting of the ground or distribute test sheets of paper or pass over the area at intervals and observe the quantity of material deposited thereon.

On surfaces that are to be matted as indicated by the plans or designated by the MAA Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which such is to be used, the raking and rolling operations will be required after the soil has dried.

**903-3.4 MAINTENANCE OF SEEDING AREAS.** The contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surface gullies or otherwise damaged following seeding shall be repaired by grading and seeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work performed out of season, the Contractor will be required to establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. If at the time when the contract has been otherwise completed it is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the uncompleted portions of the area seeded out of season will be withheld until such time as these requirements have been met.

**MULCHING**

Mulch shall be applied to all seeded areas immediately after seeding. During the time when seeding or sowing is not permitted, mulch shall be applied immediately after grading.

Mulch shall be applied as per ITEM 905.

**SEEDING MIXTURES AND APPLICATION RATES.** Only seed mixtures and application rates described in this item may be used unless otherwise approved by the MAA Engineer. Seed mixtures shall meet criteria detailed in Paragraph 903-2.1.2. Seed mixtures have been formulated to minimize the attractiveness of seed to wildlife of common landscape occurrence. The appropriate seed mixtures for application will be designated based on environmental conditions and may vary from site to site. All planting rates listed are in pounds of Pure Live Seed (PLS) per acre.

Seed mixtures, application locations, and rates for permanent cool-season grasses are as follows:

- a. Seed Mixture No. 1 - relatively flat areas (grade less than 4:1) subject to normal conditions and regular mowing (Application rate = 234 lbs PLS/acre);
- b. Seed Mixture No. 2 - sloped areas (grade greater than 4:1) not subject to regular mowing (Application rate = 115 lbs PLS/acre); and
- c. Seed Mixture No. 3 - wetlands and their associated buffer zones (Application rate = 131 lbs PLS/acre).

Seed Mixture No. 1: Relatively flat areas regularly mowed and exposed to normal conditions (Application rate = 234 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
85% Certified Turf-Type Tall Fescue	192
10% Certified Kentucky Bluegrass	28
5% Perennial Ryegrass	14

Supplemental Seed Annual Ryegrass 25

Seed Mixture No. 2: Sloped areas not subject to regular mowing (Application rate = 115 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
75% Hard Fescue	85
20% Chewings Fescue	23
5% Kentucky Bluegrass	7

Supplemental Seed Ryegrass 3

Seed Mixture No. 3: Wetland areas and their associated buffer zones (Application rate = 131 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
60% Fowl Meadow Grass	83
30% Chewings Fescue	34
10% Perennial Ryegrass	14

Supplemental Seed Ryegrass 3

**903-2.1.3 PURITY.** All seed shall be free of all state-designated noxious weeds listed in Paragraph 2.1.1 and conform to MAA specifications. To ensure compliance, MAA requires sampling and testing of seed by the Turf and Seed Section, Maryland Department of Agriculture (MDA). The Contractor shall furnish the MAA Engineer with duplicate signed copies of a statement by the Turf and Seed Section certifying that each lot of seed has been laboratory tested within six months of date of delivery. This statement shall include the following information:

- name and address of laboratory,
- date of test,
- lot number,
- the results of tests as to name, percentages of purity and of germination, and percentage of weed content for the seed furnished,
- and, in the case of a mixture, the proportions of each kind of seed.

This species may be included as a labeled component of a mixture when each is present in excess of five percent of the mixture by weight.

(Paragraphs 903-3.3.1 and 903-3.3.2) approved by MAA. The seeding mixture shall be applied within 48 hours after application of lime and fertilizer. To firm the seeded areas, cultipacking shall occur immediately after seeding.

**903-3.3 METHODS OF APPLICATION.** Lime, fertilizer, and seed mixture shall be applied by either the dry or wet application methods that have been approved by MAA and are detailed below.

**903-3.3.1 DRY APPLICATION METHOD**

- a. Lining. If soil tests indicate that lime is needed, the following procedures will be used: following advance preparation of the seedbed, lime shall be applied prior to the application of any fertilizer or seed and only on seedbeds that have been prepared as described in paragraph 903-3.2. The lime shall be uniformly spread and worked into the top 2 inches of soil, after which the seedbed shall be properly graded again.
- b. Fertilizing. Following advance preparation (and lining if necessary), fertilizer shall be spread uniformly to the specified rate to provide no less than the minimum quantity stated in Paragraph 903-2.3.
- c. Seeding. Seed mixtures shall be sown immediately after fertilization of the seedbed. The fertilizer and seed shall be lightly raked to a depth of 1/2 inch for newly graded and disturbed areas.
- d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted using a cultipacker or an approved lawnmower.

**903-3.3.2 WET APPLICATION METHOD/DROPPED SEEDING**

- a. General. The Contractor may elect to apply seed and fertilizer as per Paragraph c and d of this section in the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified in Paragraphs 903-2.3 and 903-2.2.
- b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of reading increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The spraying equipment used also include a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square inch. The pressure pump assembly shall be configured to allow the mixture to flow through the tank when not being sprayed from the nozzle. All pump pressure and application shall be capable of providing clearance for 38-inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. A pressure gauge shall be connected to and mounted immediately behind the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-closing, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture to be applied to the seedbed. The nozzle pipe shall be mounted on a distance varying from 20 feet to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings. In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

Mixtures. Lime shall be applied separately in the quantity specified, prior to the fertilizing and seeding operations. Lime shall be added to and mixed with water at a concentration not to exceed 220 pounds of lime for every 100 gallons of water. After lime has been applied, the tank should be emptied and rinsed with fresh water. Seed and fertilizer shall be mixed together in the relative proportions specified, but the resulting concentration should not exceed 220 pounds of mixture per 100 gallons of water and should be applied within 30 minutes to prevent fertilizer burn of the seeds.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Backwash water shall be used at any time. The Contractor shall identify all sources of water to the MAA Engineer at least two weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 30 minutes from the time they are mixed or they shall be wasted and disposed of at a location acceptable to the MAA.

**MULCHING**

Mulch shall be applied to all seeded areas immediately after seeding. During the time when seeding or sowing is not permitted, mulch shall be applied immediately after grading.

Mulch shall be applied as per ITEM 905.

**SEEDING MIXTURES AND APPLICATION RATES.** Only seed mixtures and application rates described in this item may be used unless otherwise approved by the MAA Engineer. Seed mixtures shall meet criteria detailed in Paragraph 903-2.1.2. Seed mixtures have been formulated to minimize the attractiveness of seed to wildlife of common landscape occurrence. The appropriate seed mixtures for application will be designated based on environmental conditions and may vary from site to site. All planting rates listed are in pounds of Pure Live Seed (PLS) per acre.

Seed mixtures, application locations, and rates for permanent cool-season grasses are as follows:

- a. Seed Mixture No. 1 - relatively flat areas (grade less than 4:1) subject to normal conditions and regular mowing (Application rate = 234 lbs PLS/acre);
- b. Seed Mixture No. 2 - sloped areas (grade greater than 4:1) not subject to regular mowing (Application rate = 115 lbs PLS/acre); and
- c. Seed Mixture No. 3 - wetlands and their associated buffer zones (Application rate = 131 lbs PLS/acre).

Seed Mixture No. 1: Relatively flat areas regularly mowed and exposed to normal conditions (Application rate = 234 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
85% Certified Turf-Type Tall Fescue	192
10% Certified Kentucky Bluegrass	28
5% Perennial Ryegrass	14

Supplemental Seed Annual Ryegrass 25

Seed Mixture No. 2: Sloped areas not subject to regular mowing (Application rate = 115 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
75% Hard Fescue	85
20% Chewings Fescue	23
5% Kentucky Bluegrass	7

Supplemental Seed Ryegrass 3

Seed Mixture No. 3: Wetland areas and their associated buffer zones (Application rate = 131 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
60% Fowl Meadow Grass	83
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Supplemental Seed Ryegrass 3

**903-2.1.3 PURITY.** All seed shall be free of all state-designated noxious weeds listed in Paragraph 2.1.1 and conform to MAA specifications. To ensure compliance, MAA requires sampling and testing of seed by the Turf and Seed Section, Maryland Department of Agriculture (MDA). The Contractor shall furnish the MAA Engineer with duplicate signed copies of a statement by the Turf and Seed Section certifying that each lot of seed has been laboratory tested within six months of date of delivery. This statement shall include the following information:

- name and address of laboratory,
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- and, in the case of a mixture, the proportions of each kind of seed.

This species may be included as a labeled component of a mixture when each is present in excess of five percent of the mixture by weight.

(Paragraphs 903-3.3.1 and 903-3.3.2) approved by MAA. The seeding mixture shall be applied within 48 hours after application of lime and fertilizer. To firm the seeded areas, cultipacking shall occur immediately after seeding.

**903-3.3 METHODS OF APPLICATION.** Lime, fertilizer, and seed mixture shall be applied by either the dry or wet application methods that have been approved by MAA and are detailed below.

**903-3.3.1 DRY APPLICATION METHOD**

- a. Lining. If soil tests indicate that lime is needed, the following procedures will be used: following advance preparation of the seedbed, lime shall be applied prior to the application of any fertilizer or seed and only on seedbeds that have been prepared as described in paragraph 903-3.2. The lime shall be uniformly spread and worked into the top 2 inches of soil, after which the seedbed shall be properly graded again.
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- d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted using a cultipacker or an approved lawnmower.

**903-3.3.2 WET APPLICATION METHOD/DROPPED SEEDING**

- a. General. The Contractor may elect to apply seed and fertilizer as per Paragraph c and d of this section in the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified in Paragraphs 903-2.3 and 903-2.2.
- b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of reading increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The spraying equipment used also include a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square inch. The pressure pump assembly shall be configured to allow the mixture to flow through the tank when not being sprayed from the nozzle. All pump pressure and application shall be capable of providing clearance for 38-inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. A pressure gauge shall be connected to and mounted immediately behind the nozzle.

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Seed	Rate of Application (lbs of PLS/acre)
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10% Certified Kentucky Bluegrass	28
5% Perennial Ryegrass	14

Supplemental Seed Annual Ryegrass 25

Seed Mixture No. 2: Sloped areas not subject to regular mowing (Application rate = 115 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
75% Hard Fescue	85
20% Chewings Fescue	23
5% Kentucky Bluegrass	7

Supplemental Seed Ryegrass 3

Seed Mixture No. 3: Wetland areas and their associated buffer zones (Application rate = 131 lbs PLS/acre)

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- a. General. The Contractor may elect to apply seed and fertilizer as per Paragraph c and d of this section in the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified in Paragraphs 903-2.3 and 903-2.2.
- b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of reading increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

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