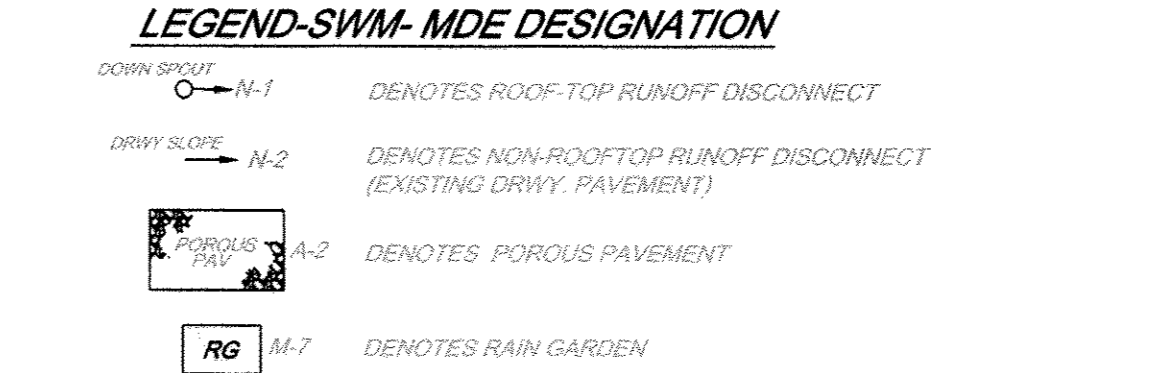


NARRATIVE / ENVIRONMENTAL SITE DESIGN

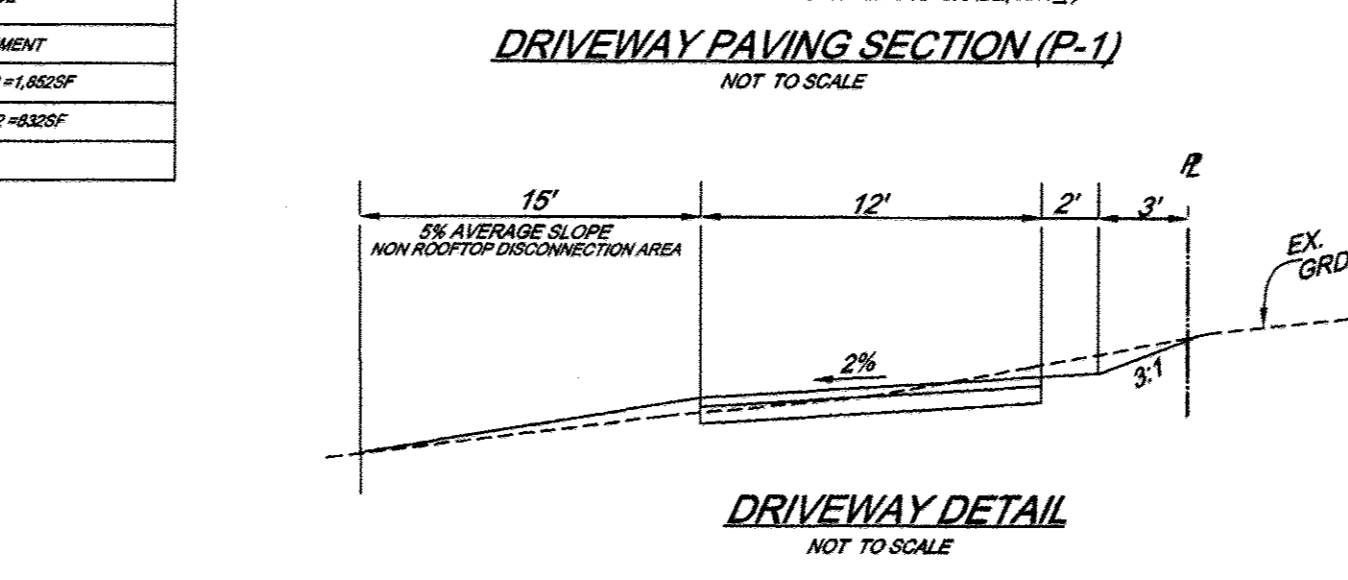
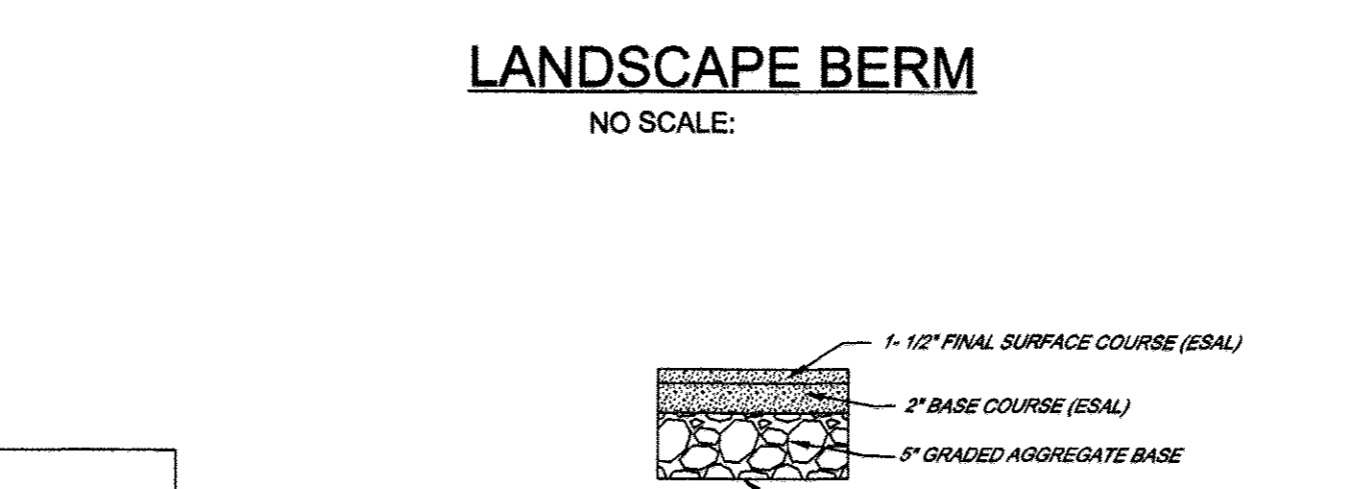
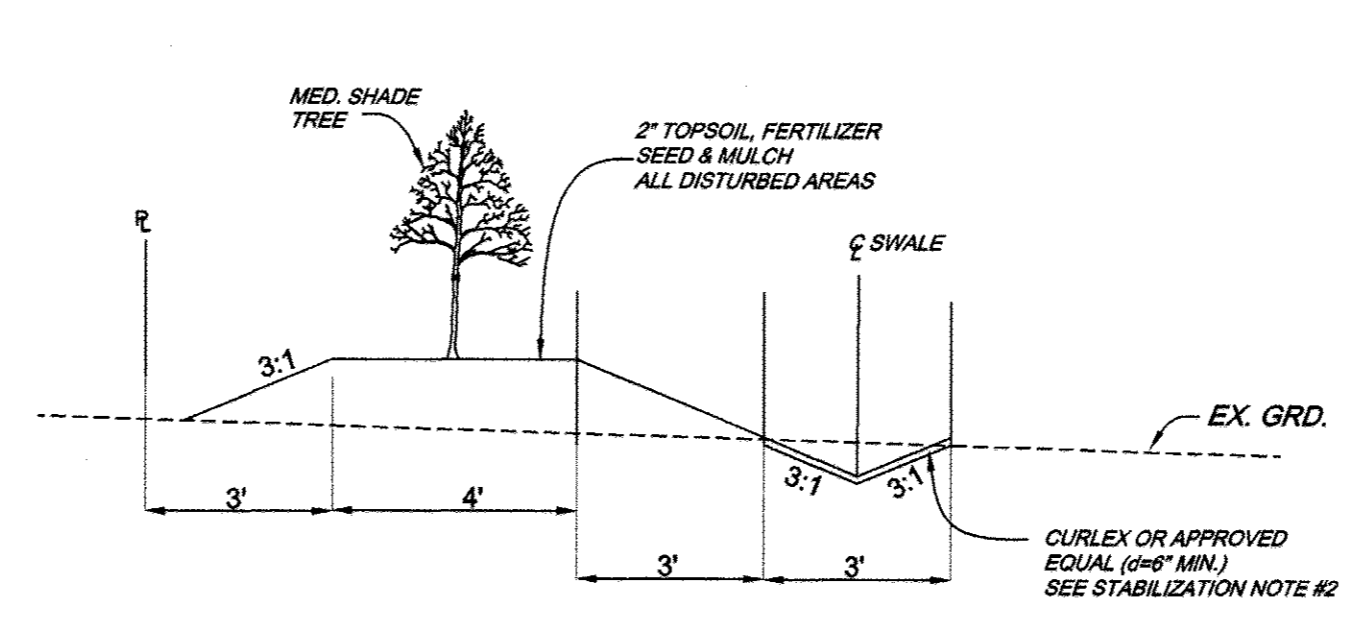
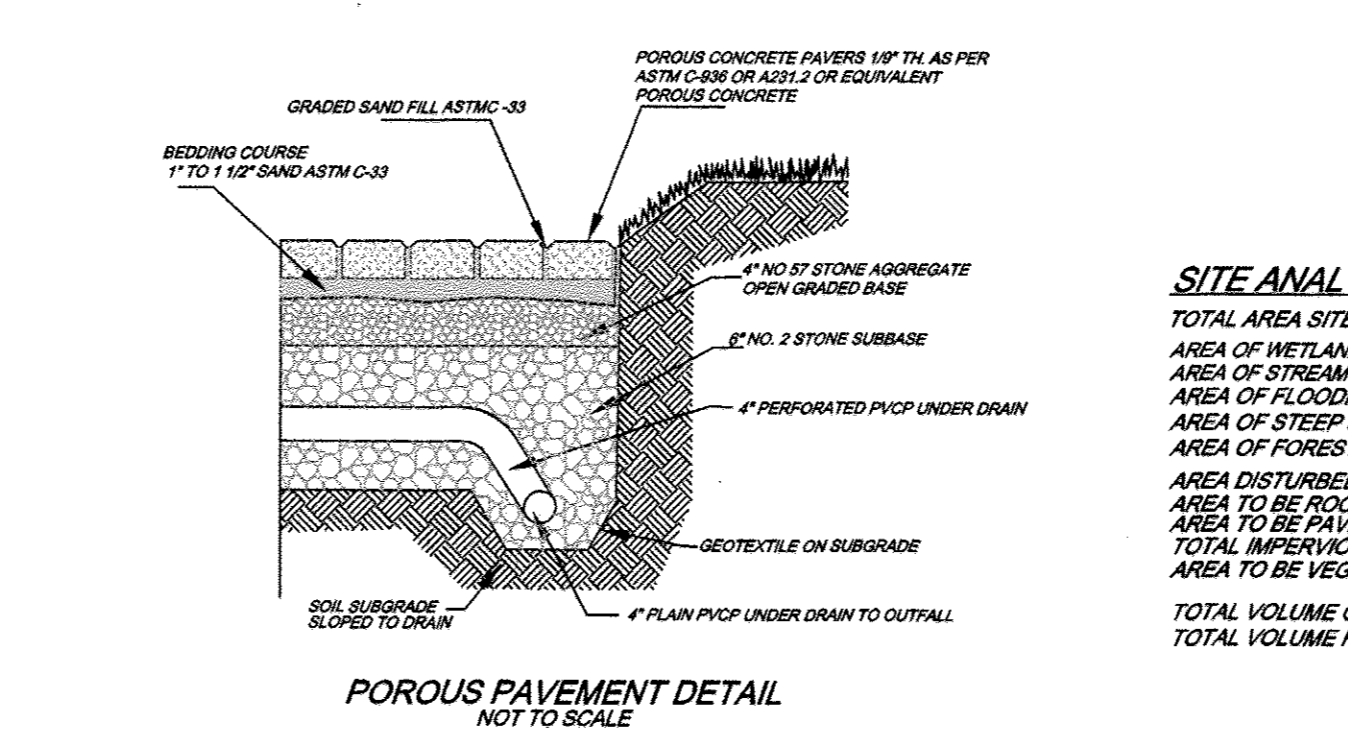
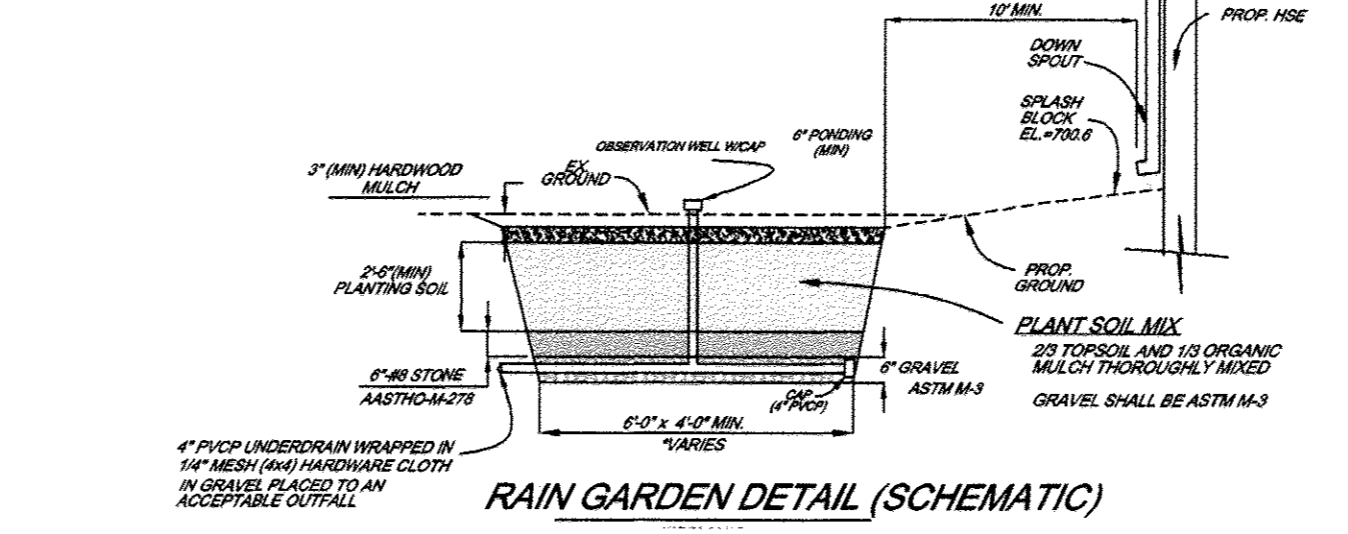
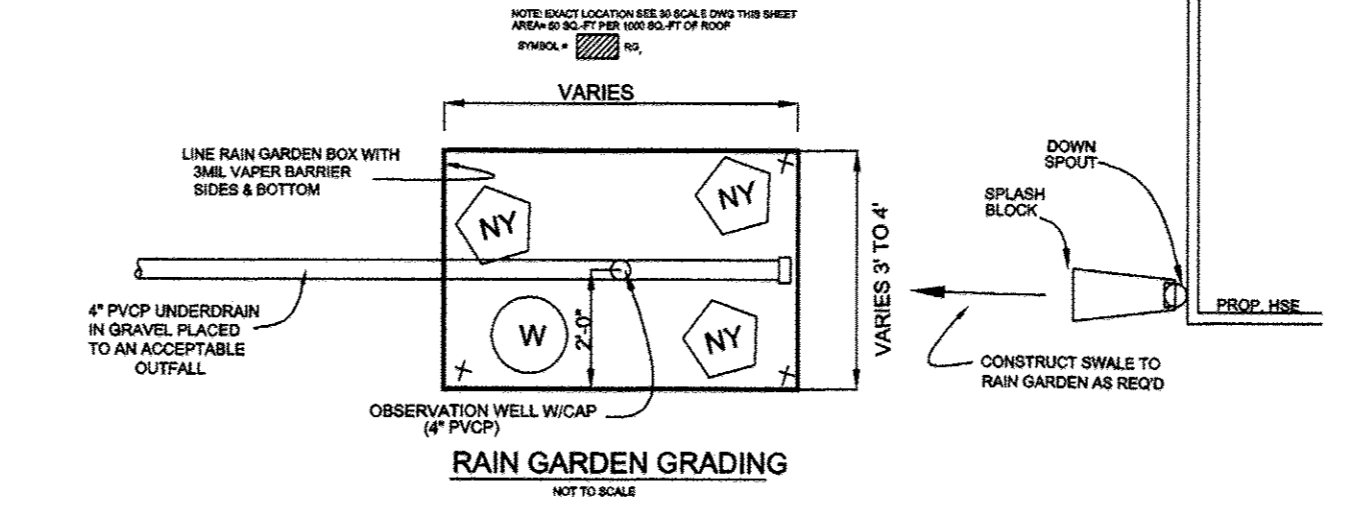
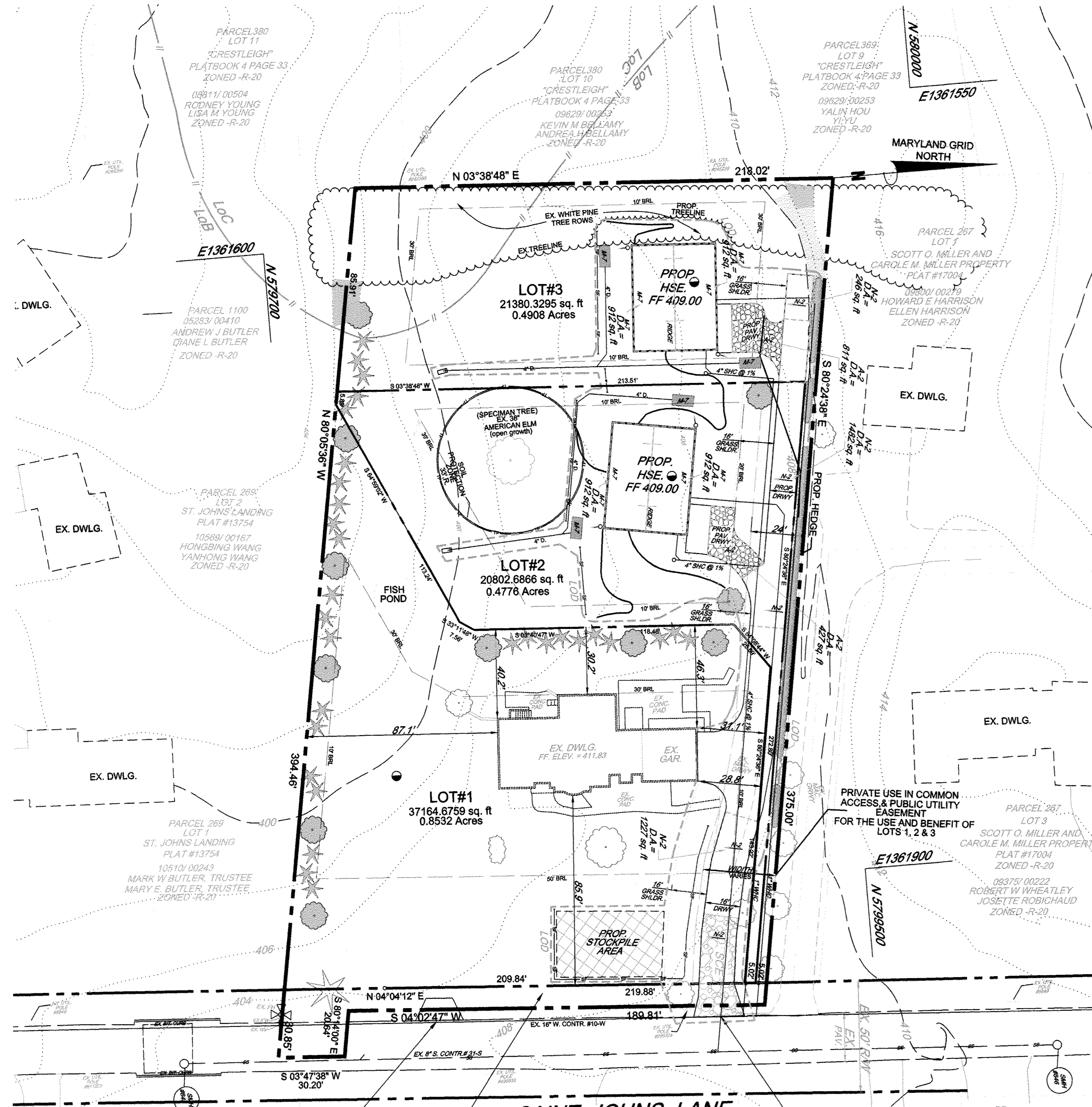
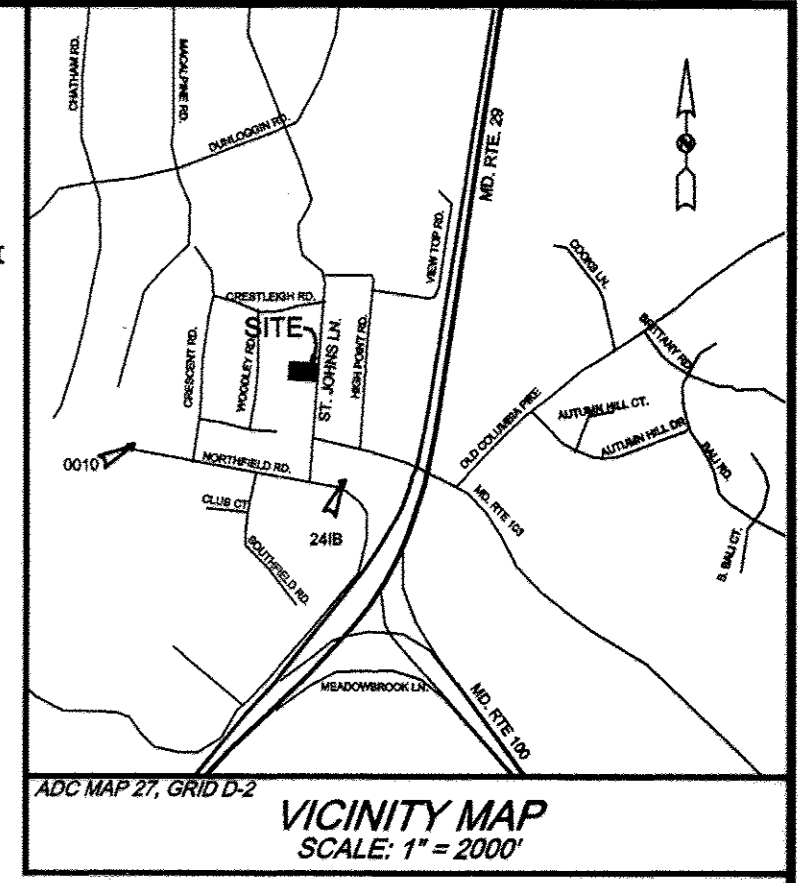
1. THERE ARE NO STREAMS, WETLANDS, FLOOD PLAINS AND FOREST LOCATED ON THE SUBJECT PROPERTY BASED UPON A FOREST DELINEATION REPORT PREPARED BY DRAGONFLY ENVIRONMENTAL LLC (KATRINA WRABEL) EXISTING TREES LOCATED ON SITE ARE PROTECTED TO THE MAXIMUM EXTENT POSSIBLE. THE PROPOSED DWELLINGS ARE TO BE SERVED BY PUBLIC WATER AND SEWER. THE PROJECT IS DESIGNED TO BE A LOW IMPACT DEVELOPMENT. STORM WATER MANAGEMENT FOR WATER QUALITY IS PROVIDED BY NON-STRUCTURAL RUNOFF REDUCING PRACTICES. TO LIMIT THE IMPACT OF THE DEVELOPMENT ON NATURAL RESOURCES AND ADJOINING PROPERTIES.
2. GRADING ON SITE IS LIMITED TO ONLY THAT REQUIRED TO ACCOMPLISH DISCONNECTS FOR ROOFTOP RUNOFF WHILE MAINTAINING NATURAL FLOW PATTERNS.
3. IMPERVIOUS AREA WAS HELD TO THE MINIMUM REQUIRED TO ACCOMPLISH THE WORK. BY USING THE EXISTING DRIVEWAY FOR USE-IN-COMMON INGRESS AND EGRESS. EXISTING IMPERVIOUS AREA WAS ELIMINATED AND POROUS PAVEMENT IS PROPOSED FOR PARKING APRONS ETC. WHERE POSSIBLE. RUNOFF FROM IMPERVIOUS PAVEMENT IS DIRECTED TO LAWNS TO ENHANCE WATER QUALITY. RAIN GARDENS ARE PROPOSED FOR ROOF TOP RUNOFF WHERE DISCONNECTS ARE NOT PRACTICAL.
4. TEMPORARY PERIMETER SEDIMENT CONTROL IN THE FORM OF SUPER SALT FENCE IS PROPOSED IN ORDER TO PROVIDE SWM BY RUNOFF REDUCTION DURING CONSTRUCTION. RUNOFF IS DIRECTED TO LOW LYING LOCATIONS TO AFFORD TEMPORARY RETENTION.
5. ENVIRONMENTAL SITE DESIGN HAS BEEN IMPLEMENTED TO THE MAXIMUM EXTENT POSSIBLE BY THE USE OF ROOFTOP AND NON-ROOFTOP DISCONNECTS. DISCONNECTS ARE ACCOMPLISHED BY CONSTRUCTION OF RUNOFF REDUCING RAIN GARDENS TO MANAGE ROOFTOP RUNOFF AND BY DIRECTING RUNOFF FROM THE IMPERVIOUS DRIVEWAYS TO THE LAWNS. IN LIEU OF IMPERVIOUS PAVEMENT, POROUS PAVERS HAVE BEEN SHOWN FOR PARKING APRONS AT THE GARAGES. IN ADDITION TO PERIMETER LANDSCAPING REQUIRED BY COUNTY REGULATIONS, LANDSCAPING HAS BEEN LOCATED IN STRATEGIC AREAS TO REDUCE RUNOFF AND FURTHER ENHANCE WATER QUALITY.
6. NO WAIVERS FROM THE SUBDIVISION REGULATIONS AND OR DESIGN MANUAL ARE REQUIRED FOR THE PROJECT AS SHOWN HEREON.

SOILS LEGEND					
SYMBOL	NAME/DESCRIPTION	SOIL GROUP	K-VALUE	K-VALUE	HYDRIC GROUP
LoB	Lagone-Montello-Urban land complex, 0 to 8 percent slopes	D	0.02	+	NOT HYDRIC
LoC	Lagone-Montello-Urban land complex, 8 to 15 percent slopes	C	0.02	-	NOT HYDRIC

DL TYPES BASED ON HOWARD COUNTY SOIL SURVEY MAP # 13 OF 29 / ELLICOTT CITY SW. MARYLAND



SPECIMEN TREE CHART			
NO.	D.B.H.	COMMON NAME/SCIENTIFIC NAME	CONDITION
1	3"	AMERICAN ELM (ULMUS AMERICANA)	GOOD



GENERAL NOTES:

1. OWNERS: MINA GU & HUIJING JIANG & SHERRY XIAOWEI YANG c/o ZHIWEI (BILL) YU, OWNERS AGENT GREAT HOMES REALTY 9022 LABRADOR LANE ELLICOTT CITY, MD 21042 DEED REFERENCE: LIBER 1161, FOLIO 0520 DATE: JULY 5, 2012 GRANITOR: GLADYS V. GARDNER, RONALD OLSON & MARJORIE L. GARDNER, TRUSTEES
2. TAX MAP 024, GRID 17, PARCEL 370
3. THE BOUNDARY SHOWN HEREON IS BASED UPON FIELD RUN SURVEY BY CRC & ASSOC. CONDUCTED SEPTEMBER 10, 2012.
4. WATER SERVICE IS PUBLIC. SEWER SERVICE IS PUBLIC.
5. THERE IS NO 100 YEAR FLOOD PLAIN LOCATED ON THIS PROPERTY BASED ON FEMA INSURANCE RATE MAP COMMUNITY PANEL #240440023B
6. TOPOGRAPHY SHOWN HEREON IS FIELD RUN BASED UPON HOWARD COUNTY GIS DATA/V088, CONTOUR INTERVAL = 2 FT. PREPARED BY CRC & ASSOC.
7. THERE ARE NO WELLS OR SEPTIC SYSTEMS WITHIN 100 FT OF THE SUBJECT PROPERTY UNLESS OTHERWISE SHOWN HEREON.
8. THE SUBJECT PROPERTY SHOWN HEREON IS NOT SUBJECT TO ANY PRIOR ZONING CASES VARIANCES OR SPECIAL EXCEPTIONS.
9. WIDTH OF PANHANDLES FOR LOTS 2 & 3 IS 8'00"
10. IN ACCORDANCE WITH SECTION 16.12(C) (J)(VI) OF THE SUBDIVISION REGULATIONS REGARDING MINIMUM PUBLIC ROAD FRONTAGE, THE 14 FOOT WIDE USE-IN-COMMON DRIVEWAY EASEMENT WITH A 18 FOOT PAVING WIDTH PROVIDES SHARED ACCESS FOR LOTS 2 AND 3 HAVING SUFFICIENT PUBLIC ROAD FRONTAGE COLLECTIVELY TO MEET THE DRIVEWAY EASEMENT REQUIREMENTS IN THE DESIGN MANUAL.
11. APPROVAL OF THIS EOP DOES NOT CONSTITUTE APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/AT AND/OR SITE DEVELOPMENT PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/AT AND/OR SITE DEVELOPMENT PLAN STAGES. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN AS THE PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.

SITE ANALYSIS

TOTAL AREA SITE	1.8892 ACRES
AREA OF WETLANDS AND THEIR BUFFERS	0.0 ACRES (0.0 SF)
AREA OF STREAMS AND THEIR BUFFERS	0.0 ACRES (0.0 SF)
AREA OF FLOODPLAIN AND THEIR BUFFERS	0.0 ACRES (0.0 SF)
AREA OF STEEP SLOPES 15% OR >	0.0135 ACRES (297.50 SF)
AREA OF FOREST	0.0 ACRES (0.0 SF)
AREA DISTURBED	0.8169 ACRES (35585 SF)
AREA TO BE ROOFED	0.1287 ACRES (5475 SF)
AREA TO BE PAVED	0.1200 ACRES (5280 SF)
TOTAL IMPERVIOUS AREA	0.2487 ACRES (10,835 SF)
AREA TO BE VEGETATIVELY STABILIZED	0.8892 ACRES (38780 SF)
TOTAL VOLUME CUT	948 CY.
TOTAL VOLUME FILL	948 CY.

LOT INFORMATION CHART

LOT #	GROSS AREA SQ. FT.	PIPESTEM AREA	REMAINING LOT AREA SQ. FT.
1	37164.6759 sq. ft.	N/A	N/A
2	20802.6866 sq. ft.	714,8992 sq. ft.	20087.7874 sq. ft.
3	21380.3295 sq. ft.	1362,7818 sq. ft.	20017.5477 sq. ft.

Land dedicated to Howard County = 2813.6635 sq. ft.
TOTAL AREA = 82161.3554 sq. ft. or 1.8892 ACRES

LEGEND

- EX. PROPERTY LINE
- EX. RIGHT-OF-WAY
- PROP. LOT LINES
- EX. EASEMENTS
- EX. CONTOURS
- PROP. CONTOURS
- EX. TREEWOODS LINE
- SOILS LINE
- LIMIT OF DISTURBANCE
- DENOTES SLOPES 25% OR GREATER
- DENOTES SLOPES 15% - 25%
- TEST PIT
- TEST BORING
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- SILT FENCE
- TREE PROTECTION FENCE

OWNER / DEVELOPER
MINA GU, HUIJING JIANG & SHERRY XIAOWEI YANG
c/o MR. ZHIWEI (BILL) YU, AGENT
GREAT HOMES REALTY
9022 LABRADOR LANE
ELLICOTT CITY, MD 21042
PHONE: 410-984-8861

ENVIRONMENTAL CONCEPT PLAN FOR CENTENNIAL CHOICE
4040 ST. JOHNS LANE
SINGLE FAMILY DETACHED
LIBER 11361/FOLIO 044
ZONED R-30
SECOND ELECTION DISTRICT TAX MAP #24, GRID 17, PARCEL 370
HOWARD COUNTY, MARYLAND
Prepared For:
CHARLES R. CROCKEN AND ASSOCIATES, INC.
302 LEE AVE.
SYKESVILLE, MARYLAND 21157
Tel. (410) 549-2708
Fax. (410) 549-9083
SCALE: 1" = 30' DATE: 05/07/13 SHEET 1 OF 1
ECP-13-011

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Kathleen... 3/20/14
Chief, Division Land Development

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. 7803 EXPIRATION DATE 4-22-2015
Charles R. Crocken 3-30-14

STORMWATER MANAGEMENT - ESD (SEE NOTES)							
LOT NO.	AREA	IMPV. AREA	IMPV. %	FE INCHES	ESD IN COLLECT.	SWM PRACTICE	EXISTING DEVELOPMENT
#1	2016.16	---	---	---	---	---	---
#2	20802	4,632	22%	0.248	1.2"	M-7 < 1200SF, A-1 < 8000SF, N-2 < 1,000SF	---
#3	21,380	3,820	17%	0.250	1.2"	M-7 < 2000SF, A-2 < 8000SF, N-2 < 8000SF	---
TOTAL	24,346	11,862	20%	0.250	1.2"	---	---

- SWM SITE DESIGN SATISFIED BY THE FOLLOWING LOW IMPACT DEVICES:
 /M-7/ DENOTES ROOFTOP DISCONNECT + RAIN GARDEN
 /A-1/ DENOTES NON-ROOFTOP DISCONNECT + RAIN GARDEN
 /A-2/ DENOTES NON-ROOFTOP DISCONNECT + POROUS PAVEMENT
 /N-2/ DENOTES NON-ROOFTOP DISCONNECT + DRIVEWAY GRASS SALTDRY
- NOTES:
 1. POROUS PAVEMENT SHALL BE PLACED 10' MIN FROM BUILDING FOUNDATION.
 2. RAIN GARDENS SHALL BE PLACED 10' MIN FROM BUILDING FOUNDATION.
 3. DRIVEWAY PAVEMENT SHALL SLOPE FROM GARAGE ENTRANCE TO POROUS PAVEMENT (FOR ESD)

