

**GENERAL NOTES**

- REFER ALSO TO HOWARD COUNTY CONTRACT NO. 34-3307-D FOR WATER AND SEWER DRAWINGS.
- TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY MCKEE AND ASSOCIATES, INC. ON 8-20-2010.
- HORIZONTAL AND VERTICAL CONTROL IS BASED ON HOWARD COUNTY GEODETIC CONTROL.
- DPZ REFERENCES: F-93-141, SP-92-21, WP-92-21B, WP-94-20, FDP-194-A.
- THIS PLAN IS FOR THE HOUSE SITING AND LOT GRADING ONLY. PUBLIC UTILITIES EXIST WITHIN THE RIGHT-OF-WAY OF MANORSTONE LANE.
- THIS PLAN IS EXEMPT FROM THE FOREST CONSERVATION REQUIREMENT PER SECTION 16.1202(b)(1)(iv) OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL FOR A PLANNED UNIT DEVELOPMENT.
- THIS PLAN IS EXEMPT FROM LANDSCAPE REQUIREMENTS DUE TO PRELIMINARY APPROVAL PRIOR TO JANUARY, 1993.
- COORDINATES AND BEARINGS ARE REFERRED TO PLAT TITLED "VILLAGE OF HARPER'S CHOICE, SECTION 5, AREA 9, PHASE 194-A, RECORDED AMONG THE RECORDS OF HOWARD COUNTY MARYLAND AS PLATS MDR 11247, MDR 11248 & MDR 11249.
- MAXIMUM LOT COVERAGE PERMITTED = 9,866 SF (15%)  
LOT COVERAGE PROPOSED = 5,315 SF (8.1%)

**PRELIMINARY ESTIMATE OF STORMWATER MANAGEMENT REQUIREMENTS:**

LOT 5 VILLAGE OF HARPER'S CHOICE  
SITE AREA 1.51 AC.±  
"B" SOILS  
IMPERVIOUS AREA 10,596 AC.±  
TARGET Pe= 1.2"  
ESDv REQUIRED= 1,283 CF

**PROPOSED STORMWATER MANAGEMENT PRACTICES**

- (3) DRYWELLS
- (3) RAIN GARDENS

**NATURAL RESOURCE PROTECTION AND ENHANCEMENT**

- A) THE PROPOSED HOME AND ASSOCIATED PAVING HAVE BEEN LOCATED AS CLOSE AS POSSIBLE TO THE PUBLIC ROAD TO MINIMIZE DISTURBANCE OF THE EXISTING WOODS.
- B) NONSTRUCTURAL ENVIRONMENTAL SITE DESIGN (ESD) AND MICRO-SCALE PRACTICES HAVE BEEN USED TO EMULATE WOODS IN GOOD CONDITION AND PROVIDE RECHARGE OF THE GROUNDWATER SUPPLY.

**NATURAL FLOW PATTERNS**

- A) THE PROPOSED GRADING MAINTAINS THE EXISTING CONDITION OF SHEET FLOW OF STORM WATER RUNOFF.
- B) NO STORM DRAINS ARE PROPOSED.

**REDUCTION OF IMPERVIOUS AREA**

- A) THE SITE DESIGN WAS IMPROVED BY PROVIDING MORE LAWN BETWEEN THE PROPOSED HOUSE AND DRIVEWAY.
- B) THE BACK YARD IS PROPOSED TO BE A NEWLY GRADED SURFACE, LESS THAN 5% SLOPE TO PROVIDE A FILTER FOR STORM WATER RUNOFF.
- C) PROPOSED NON-STRUCTURAL AND MICRO-SCALE PRACTICES ALLOW STORM WATER RUNOFF FROM THE SITE TO EMULATE WOODS IN GOOD CONDITION.
- D) ALTERNATIVE SURFACES WERE NOT REQUIRED TO ACHIEVE ESD TO THE MEP AND THEREFORE AVOID PERIODIC MAINTENANCE.

**EROSION AND SEDIMENT CONTROL**

- A) PERIMETER MEASURES AND DEVICES ARE UTILIZED SO AS TO NOT INTERFERE WITH THE PROPOSED STORMWATER MANAGEMENT (SWM) STRATEGY.
- B) NO TRAPS OR BASINS ARE PROPOSED ALLOWING RUNOFF TO MAINTAIN EXISTING DRAINAGE PATTERNS.

**ENVIRONMENTAL SITE DESIGN (ESD)**

- A) THE SITE LAYOUT MINIMIZED LAND AND FOREST DISTURBANCE.
- B) NO BUFFERS EXIST.
- C) NATURAL FLOW PATTERNS HAVE BEEN MAINTAINED AND STORM WATER RUNOFF IN SHEET AND OVERLAND FLOW HAS BEEN MAINTAINED.

**DESIGN NARRATIVE**

- A) PROPOSED GRADING AND ASSOCIATED IMPROVEMENTS HAVE BEEN LIMITED TO MAINTAIN THE MAXIMUM AMOUNT OF EXISTING WOODS AND PROVIDE VEGETATIVE FILTERS IMMEDIATELY UPSTREAM.
- B) PROPOSED GRADING MAINTAINS NATURAL FLOW PATTERNS AND NO CLOSED DRAIN SYSTEMS ARE PROPOSED.
- C) THE PROPOSED HOUSE IS LOCATED AS CLOSE AS POSSIBLE TO THE EXISTING PUBLIC ROAD, ALTERNATIVE SURFACES WERE NOT NECESSARY WITH THE PROPOSED NON-STRUCTURAL AND MICRO-SCALE PRACTICES THAT EMULATE WOODS IN GOOD CONDITION.
- D) PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AND DEVICES ARE PROPOSED THAT REQUIRE MINIMAL DISTURBANCE.
- E) THE PROPOSED SWM DESIGN UTILIZES NON-STRUCTURAL AND MICRO-SCALE PRACTICES TO EMULATE WOODS IN GOOD CONDITION AND MINIMIZE REMOVAL OF EXISTING VEGETATION AND WOODS.

**ESD TO THE MAXIMUM EXTENT PRACTICABLE (MEP)**

- A) THE PROPOSED SITE DESIGN REFLECTS USE OF NON-STRUCTURAL AND STRUCTURAL PRACTICES WHERE PRACTICABLE.
- B) ESD PLANNING TECHNIQUES AND PRACTICES WILL MIMIC PRE-DEVELOPMENT CONDITIONS.

**DESIGN MANUAL AND WAIVER REQUEST**

- A) THE PROPOSED DESIGN MEETS THE REQUIREMENT OF ESD TO THE MEP AS FOUND IN THE MDE SWM DESIGN MANUALS, AS REVISED.
- B) NO WAIVERS ARE REQUESTED.

**NECESSARY DISTURBANCE, SECTION 16.116(c)(3) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS**

- A) THERE ARE NO WETLANDS, STREAMS, OR STEEP SLOPES ON THE SUBJECT SITE.
- B) THE PROPOSED HOME AND ASSOCIATED IMPROVEMENTS ARE CONSISTENT WITH THE SURROUNDING NEIGHBORHOOD.
- C) GRADING AND THE REMOVAL OF VEGETATIVE COVER HAS BEEN LIMITED TO THE EXTENT POSSIBLE TO CONSTRUCT THE IMPROVEMENTS AND PROVIDE THE REQUIRED NON-STRUCTURAL AND MICRO-SCALE ESD PRACTICES.

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT ALL DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20784, EXPIRATION DATE: 03-30-2011.

Signature: *Charles V. Main*  
P.E. No. 20784  
DATE: 1-14-2011

**MCKEE & ASSOCIATES, INC.**  
Engineering - Land Planning - Land Surveying  
Natural Resource Planning - Real Estate Development  
5 SHAWAN ROAD, Suite 1 COCKEYSVILLE, MARYLAND 21030  
TELEPHONE: (410) 527-1555 FACSIMILE: (410) 527-1563

DATE	REVISION
1-10-11	REMOVED DIRECTORS SIGNATURE BLOCK, ADDED OWNERS PHONE #, PROFESSIONAL CERTIFICATION, WATER & SEWER CONT. #S, WIC, SDC, FUEL EST OF SWM REQUIREMENTS, STAKE OUT CALL LOCATIONS, SWM NARRATIVE COMMENTS, CORRECTED SITE ANALYSIS DATA, CORRECTED SITE ADDRESS, CORRECTED VIC. MAP, ADDED UNDERDRAINS.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

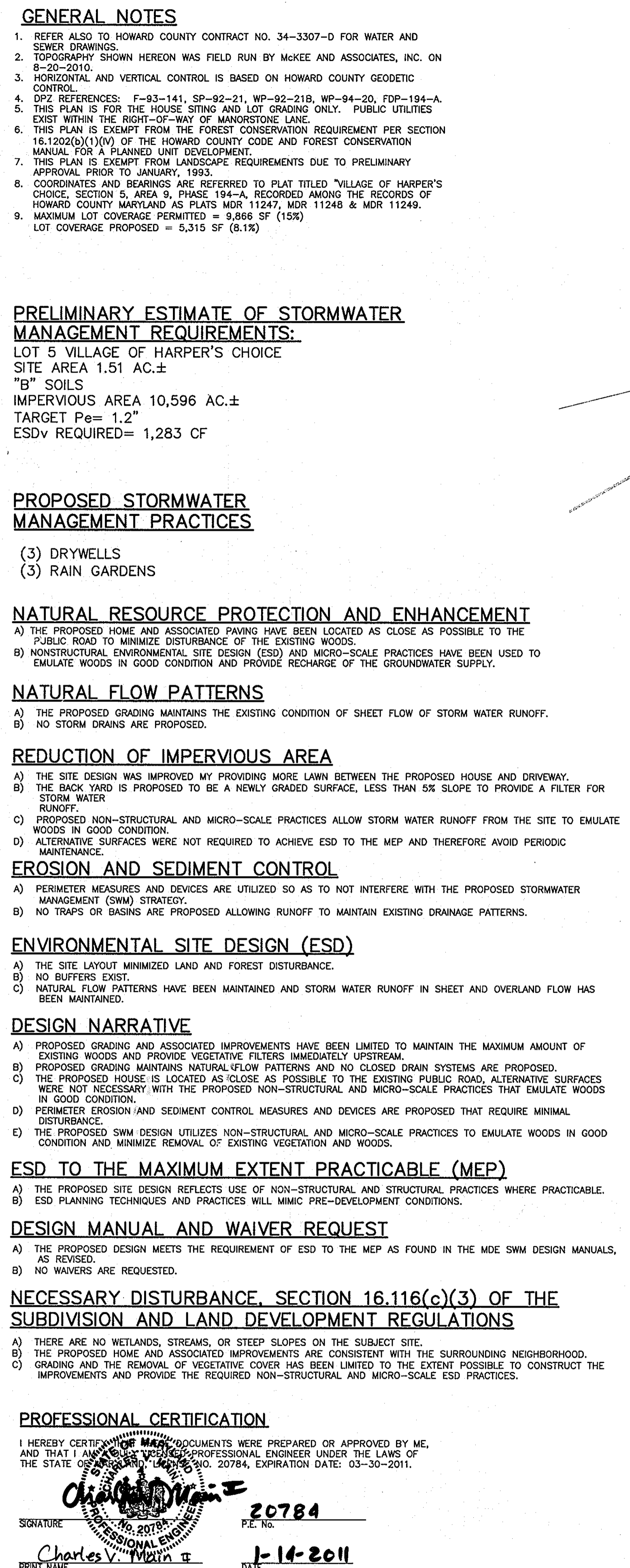
*Kevin Stalder*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 1/21/11

*Charles V. Main*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 1/24/11

ENVIRONMENTAL CONCEPT PLAN  
**VILLAGE OF HARPER'S CHOICE - LOT 5**  
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1" = 30' OCTOBER 2010  
COLUMBIA VILLAGE OF HARPER'S CHOICE, SECTION 5, AREA 9, PHASE 1, PLAT 11248  
TAX MAP 29, PARCEL No. 126 SHEET 1 OF 1  
COMPUTED BY: JMB DRAWN BY: JDG CHECKED BY: JOB No.: HH-056

OWNER: JUDY A. GRANT  
10606 STRAY CAMEL WAY  
COLUMBIA, MD 21044-4151  
PHONE: (410) 715-9135(W)

BUILDER: HAGAN AND HAMILTON, INC.  
20 E. TIMONIUM ROAD  
SUITE 209  
TIMONIUM, MD 21093  
PHONE: (410) 561-1004



E 1337750  
MCS  
N 568750

E 1338250  
MCS  
N 568750

**SOILS LEGEND**

SYMBOL	NAME/DESCRIPTION	GROUP
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B

SOILS CONTAIN NO WETLAND INCLUSIONS

E 1337750  
MCS  
N 568250

**SITE ANALYSIS DATA**

TOTAL SITE AREA	1.51 AC.
WETLANDS	0.0 AC.
FLOODPLAIN	0.0 AC.
EXISTING FOREST	1.51 AC.
FOREST TO REMAIN	0.41 AC.
STEEP SLOPES	0.0 AC.
ERODIBLE SOILS	0.0 AC.
LIMIT OF DISTURBANCE	1.10 AC.
PROPOSED USE	SINGLE DETACHED HOUSE
IMPERVIOUS AREA	0.24 AC.
OPEN AREA	0.86 AC.

**VICINITY MAP**

SCALE: 1" = 2000'  
ADC MAP 4934 GRID E4

**BENCHMARKS:**

ELEVATIONS BASED ON HOWARD COUNTY GEODETIC SURVEY CONTROL.

29EA N=570132.841 E=1338186.954 ELEV.=436.66  
29EB N=570505.059 E=1340430.124 ELEV.=442.39

**LEGEND**

- EX. CONTOURS 500
- PROP. CONTOURS 500
- EX. WOODS LINE
- PROP. WOODS LINE
- SUPER SILT FENCE
- SOIL TYPES
- SUPER FENCE DIVERSION
- ROCK OUTLET PROTECTION III
- LIMITS OF DISTURBANCE
- ROOFTOP DISCONNECT
- NON-ROOFTOP DISCONNECT
- DRYWELL
- RAIN GARDEN
- ROOF DRAIN
- DISCONNECTION LENGTH
- PROPERTY LINE

**ADDRESS CHART**

LOT NO.	STREET ADDRESS
5	11516 MANORSTONE LANE

**PERMIT INFORMATION CHART**

SUBDIVISION NAME:	SECTION/AREA:	LOT/PARCEL NO.:
COLUMBIA VILLAGE OF HARPER'S CHOICE	SECTION 5/AREA 9	LOT 5/PARCEL 370
PLAT REF: 11248	GRID# ZONING TAX MAP ELEC. DIST. 15 NT 29 5TH	CENSUS TRACT 6051.02

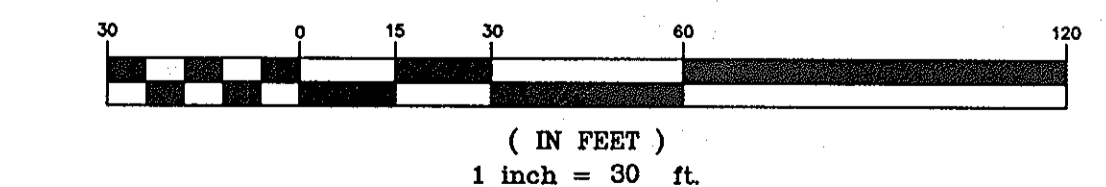
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**GRAPHIC SCALE**



ECP-11-028