SHEET INDEX	
SHEET No.	COVER SHEET
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3	SITE DIMENSION PLAN
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6	GRADING, SEDIMENT AND EROSION CONTROL PLAN
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17	STORMWATER MANAGEMENT DETAILS
18	STORMWATER MANAGEMENT NOTES, BORINGS AND DETAILS
19	SOILS MAP
20	MAINTENANCE OF TRAFFIC
21	MAINTENANCE OF TRAFFIC
22	TRAFFIC SIGNAL PLAN (CEDAR LANE AT OWEN BROWN ROAD)
23	TRAFFIC SIGNAL PLAN (GENERAL INFORMATION SHEET) (CEDAR LANE AT OWEN BROWN ROAD)
24	ENTRANCE FEATURES AND BUILDING ELEVATIONS AND DETAILS
25	TEMPORARY SWM BASIN SECTIONS, NOTES AND DETAILS
2A	SITE DEVELOPMENT PLAN 52A-58A & 63A-69A

NOTE:
SEE GENERAL NOTE NO. 20 FOR REFUSE COLLECTION RESPONSIBILITIES

SITE DEVELOPMENT PLAN

SCOTS GLEN NORTH

BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, 9-51, 52A-58A, 59-62, 63A-69A

AND COMMUNITY CENTER PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

STATE OF MARYLAND · BRIAN F. CLEARY · No. 28559 · REGISTERED PROFESSIONAL ENGINEER 3/18/2011

FOR BEI REV. ONLY
8480 BALTIMORE NAT. PK.
SUITE 418
ELLICOTT CITY, MD 21043
410-465-6105

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. 28559 Expiration Date: 7/22/11

AS-BUILT CERTIFICATION

STATE OF MARYLAND · MICHAEL DAVID ADCOCK · No. 21257 · PROFESSIONAL LAND SURVEYOR

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

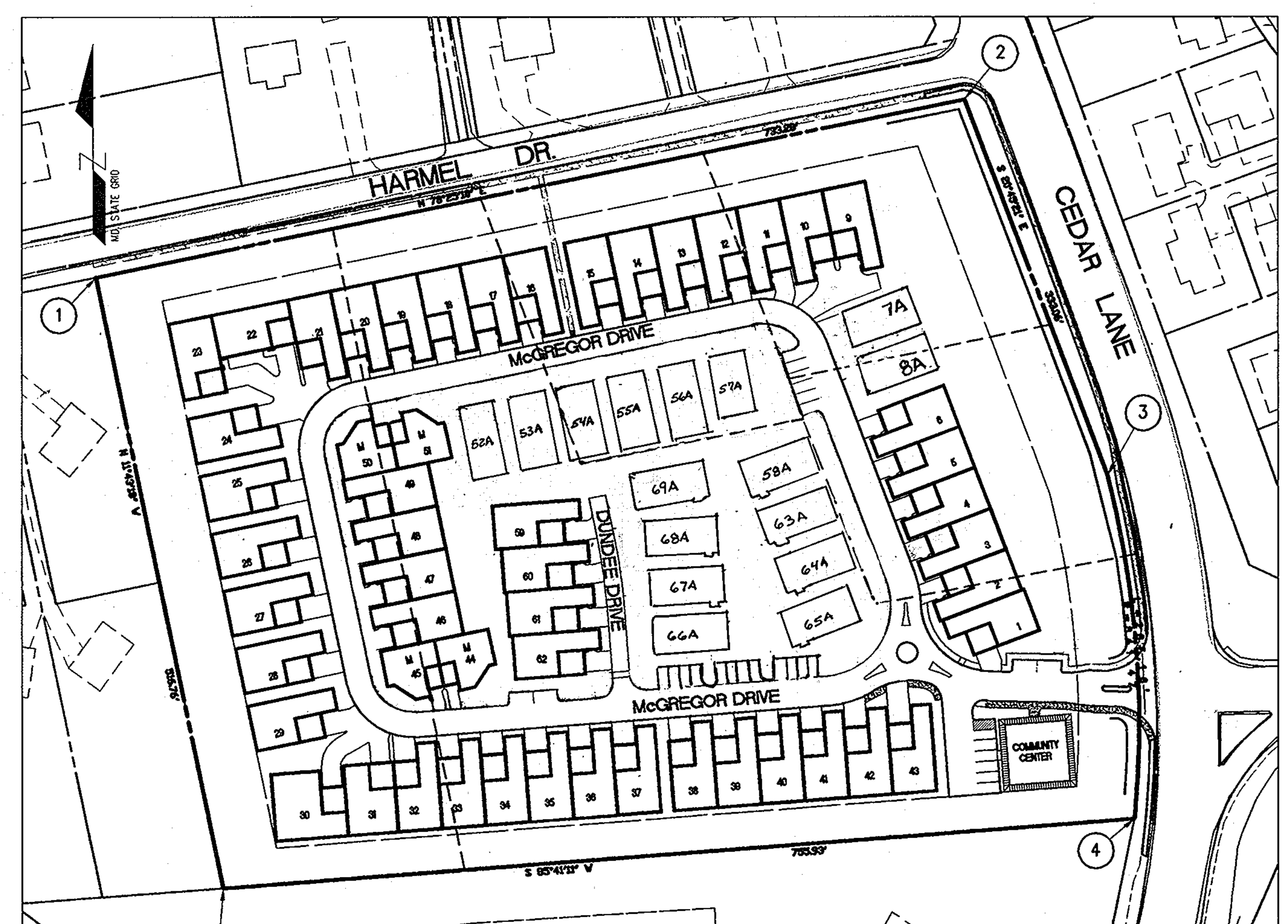
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR 12/29/11
MD REG. NO. 21257, EXPIRATION DATE: 06-16-15 DATE

ADDRESS CHART

UNIT / GARAGE NO.	STREET ADDRESS	UNIT / GARAGE NO.	STREET ADDRESS
UNIT 1	10705 McGREGOR DRIVE	UNIT 38	10789 McGREGOR DRIVE
UNIT 2	10707 McGREGOR DRIVE	UNIT 39	10791 McGREGOR DRIVE
UNIT 3	10709 McGREGOR DRIVE	UNIT 40	10793 McGREGOR DRIVE
UNIT 4	10711 McGREGOR DRIVE	UNIT 41	10795 McGREGOR DRIVE
UNIT 5	10713 McGREGOR DRIVE	UNIT 42	10797 McGREGOR DRIVE
UNIT 6	10715 McGREGOR DRIVE	UNIT 43	10799 McGREGOR DRIVE
UNIT 7 A	10721 McGREGOR DRIVE	UNIT 44	10776 McGREGOR DRIVE
UNIT 8 A	10719 McGREGOR DRIVE	UNIT 45	10774 McGREGOR DRIVE
UNIT 9	10725 McGREGOR DRIVE	UNIT 46	10768 McGREGOR DRIVE
UNIT 10	10727 McGREGOR DRIVE	UNIT 47	10766 McGREGOR DRIVE
UNIT 11	10729 McGREGOR DRIVE	UNIT 48	10764 McGREGOR DRIVE
UNIT 12	10731 McGREGOR DRIVE	UNIT 49	10762 McGREGOR DRIVE
UNIT 13	10733 McGREGOR DRIVE	UNIT 50	10750 McGREGOR DRIVE
UNIT 14	10735 McGREGOR DRIVE	UNIT 51	10748 McGREGOR DRIVE
UNIT 15	10737 McGREGOR DRIVE	UNIT 52A	10742 McGREGOR DRIVE
UNIT 16	10741 McGREGOR DRIVE	UNIT 53A	10740 McGREGOR DRIVE
UNIT 17	10743 McGREGOR DRIVE	UNIT 54A	10738 McGREGOR DRIVE
UNIT 18	10745 McGREGOR DRIVE	UNIT 55A	10736 McGREGOR DRIVE
UNIT 19	10747 McGREGOR DRIVE	UNIT 56A	10734 McGREGOR DRIVE
UNIT 20	10749 McGREGOR DRIVE	UNIT 57A	10732 McGREGOR DRIVE
UNIT 21	10751 McGREGOR DRIVE	UNIT 58A	10716 McGREGOR DRIVE
UNIT 22	10753 McGREGOR DRIVE	UNIT 59	10807 DUNDEE DRIVE
UNIT 23	10755 McGREGOR DRIVE	UNIT 60	10805 DUNDEE DRIVE
UNIT 24	10759 McGREGOR DRIVE	UNIT 61	10803 DUNDEE DRIVE
UNIT 25	10761 McGREGOR DRIVE	UNIT 62	10801 DUNDEE DRIVE
UNIT 26	10763 McGREGOR DRIVE	UNIT 69A	10808 DUNDEE DRIVE
UNIT 27	10765 McGREGOR DRIVE	UNIT 68A	10806 DUNDEE DRIVE
UNIT 28	10767 McGREGOR DRIVE	UNIT 67A	10804 DUNDEE DRIVE
UNIT 29	10769 McGREGOR DRIVE	UNIT 66A	10802 DUNDEE DRIVE
UNIT 30	10771 McGREGOR DRIVE		
UNIT 31	10773 McGREGOR DRIVE		
UNIT 32	10775 McGREGOR DRIVE	UNIT 63A	10714 McGREGOR DRIVE
UNIT 33	10777 McGREGOR DRIVE	UNIT 64A	10712 McGREGOR DRIVE
UNIT 34	10779 McGREGOR DRIVE	UNIT 65A	10710 McGREGOR DRIVE
UNIT 35	10781 McGREGOR DRIVE		
UNIT 36	10783 McGREGOR DRIVE		
UNIT 37	10785 McGREGOR DRIVE	COMMUNITY BUILDING	10700 McGREGOR DRIVE

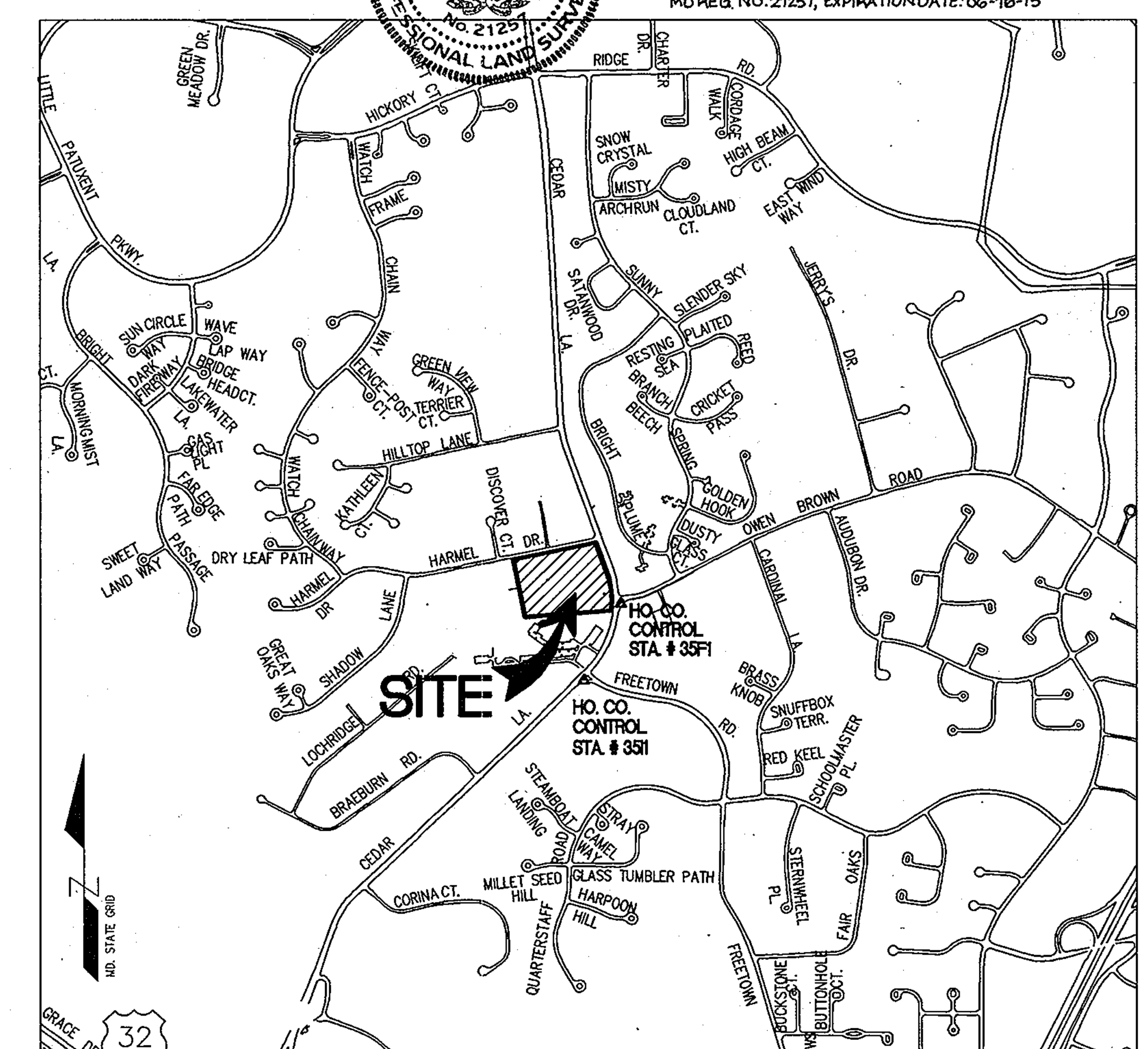
STREET SIGN CHART

STREET NAME	STATION	OFFSET	POSTED SIGN	SIGN CODE
McGREGOR DRIVE	0+94.19	15.06' RT.	McGREGOR DRIVE	W96-9 (CIRCLE)
McGREGOR DRIVE	1+73.45	20.93' LT.	McGREGOR DRIVE	W96-10 R1-2
McGREGOR DRIVE	1+97.81	13.41' RT.	McGREGOR DRIVE	W96-10 R1-2
McGREGOR DRIVE	2+70.99	18.47' LT.	McGREGOR DRIVE	W96-10 R1-2
McGREGOR DRIVE	15+98.06	18.08' RT.	McGREGOR DRIVE	W96-10 R1-2



SITE LAYOUT PLAN
SCALE : 1" = 100'

M = DENOTES MODERATE PRICED DWELLING UNIT



VICINITY PLAN
SCALE : 1" = 1200'

GENERAL NOTES :

1. THIS PROPERTY IS ZONED PSC PER Z.B. CASE NUMBER 1029M, DATED SEPTEMBER 25, 2003, AND THE 2/2/04 COMPREHENSIVE ZONING PLAN.
2. PROPOSED USE FOR SITE AND STRUCTURES: AGE RESTRICTED CONDOMINIUM SFA AND SFD HOMES.
3. TOTAL AREA OF PROPERTY = 9.96 Ac.
4. TOTAL AREA OF FLOOD PLAIN = 0
5. TOTAL AREA SLOPES IN EXCESS OF 25% = 0
6. NET TRACT AREA = 9.96 Ac.
7. TOTAL NUMBER OF BUILDABLE UNITS ALLOWED = 79 UNITS (8 PER ACRE)
8. TOTAL NUMBER OF PROPOSED BUILDABLE UNITS = 69 UNITS
   A. NUMBER OF SINGLE FAMILY ATTACHED (TOWNHOUSES) = 47
   B. NUMBER OF SINGLE FAMILY DETACHED = 22
   C. NUMBER OF APARTMENT UNITS = 0
9. TOTAL AREA OF ROADWAY DEDICATION = 0
10. TOTAL AREA OF DISTURBANCE = 9.96± AC.
    TOTAL AREA OF HOUSES = 4.06± AC.
11. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
12. PUBLIC WATER AND PUBLIC SEWER TO BE UTILIZED. EXISTING UTILITIES ARE BASED ON CURRENT HOWARD COUNTY CONTRACT DRAWINGS. : EX. 12" WATER & 8" SEWER CONT. 2708-D W&S.
    ⚠ PUBLIC WATER MAIN EXTENSION TO SITE CONT.# 34-4219-D.
13. THE TRAFFIC CONTROL PLAN WAS PREPARED BY TRAFFIC CONCEPTS INC. ON FEBRUARY 2004.
14. THERE IS NO WETLAND, STREAM OR 100-YEAR FLOOD PLAIN ON SITE AS DETERMINED BY STUDY PREPARED BY WILLIAM T. BRIDGELAND 3/7/03.
15. THE PROPERTY SHOWN IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
16. THE BOUNDARY AND TOPOGRAPHY IS BASED ON A FIELD MONUMENTED SURVEY PERFORMED BY JOHN C. MELLEMA SR. INC. ON OR ABOUT MARCH 2003.
17. 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 OR REAR YARD SETBACK.
18. A STRUCTURE AND USE SETBACK LINE HAS BEEN ESTABLISHED PER SECT. 127.1.E.2.
19. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
    a.) WIDTH – 12' (14') SERVING MORE THAN ONE RESIDENCE.
    b.) SURFACE – SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING. (1 1/2" MIN.)
    c.) GEOMETRY – MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45 FOOT TURNING RADIUS;
    d.) STRUCTURES (CULVERTS/BRIDGES) – CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING);
    e.) DRAINAGE ELEMENTS – CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY;
    f.) STRUCTURE CLEARANCES – MINIMUM 12 FEET;
    g.) MAINTENANCE – SUFFICIENT TO INSURE ALL WEATHER USE.
20. REFUSE COLLECTION, SNOW REMOVAL AND PRIVATE ROAD MAINTENANCE WILL BE PROVIDED BY THE HOMEOWNERS ASSOCIATION. REFUSE COLLECTION TO BE PROVIDED BY PRIVATE CONTRACTOR. THERE WILL BE INTERNAL TRASH COLLECTION WITHIN THE CONDOMINIUM BUILDINGS TO BE REMOVED BY A PRIVATE JANITORIAL SERVICE FOR CURBSIDE PICK-UP.
21. THIS PROJECT IS SUBJECT TO THE AMENDED SUBDIVISION AND LAND DEVELOPMENT REGULATIONS ADOPTED PER COUNCIL BILL 45-2003 EFFECTIVE OCTOBER 2, 2003.
22. ALL ROADS AND PARKING AREAS ARE TO BE PRIVATELY MAINTAINED BY THE H-O-A.
23. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON HOWARD COUNTY GEODETIC CONTROL STATIONS:
    HOWARD COUNTY MONUMENT 35F1 N 557787.367 E 1345217.309 ELEV. = 401.165
    HOWARD COUNTY MONUMENT 3511 N 557110.367 E 1344893.647 ELEV. = 400.759
24. THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL FOR THIS PROJECT HAVE BEEN FULFILLED BY PAYMENT OF A FEE-IN-LIEU. IN THE AMOUNT OF $ 32,670.00 FOR A 1.5 ACRE AFFORESTATION OBLIGATION.
25. WAIVER WP-04-114 WAS APPROVED ON MAY 12, 2004 TO ALLOW SIDEWALK TO BE PLACED ON ONE SIDE ONLY OF THE PROPOSED INTERNAL PRIVATE ROAD. ADDITIONAL WAIVERS WERE APPROVED BY DPW ON APRIL 5 AND MAY 3 2004 TO REDUCE WATER MAIN EASEMENT WIDTH TO 15 FEET.
26. TOTAL NUMBER OF "MODERATE INCOME HOUSING UNITS" REQUIRED FOR THIS SITE PER THE (PSC) ZONING DISTRICT IS 10% OF THE TOTAL NUMBER OF UNITS, TO BE PROVIDED AT TIBER HUDSON CENTER, SDP-04-27. M.I.H.U. AGREEMENT RECORDED ON 12/16/04 AS LIBER 8855, FOLIO 017.
    A.) TOTAL NUMBER OF "M.I.H.U" REQUIRED = 7
27. STORMWATER MANAGEMENT FACILITY IS HAZARD CLASS "A", AND WILL BE PRIVATELY OWNED AND MAINTAINED.
28. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
29. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
30. ALL EXISTING STRUCTURES TO BE RAZED. FURTHER, THE FIVE(5) EXISTING DWELLING UNITS MUST BE RAZED PRIOR TO ISSUANCE OF BUILDING PERMITS FOR THE LAST FIVE(5) CONDOMINIUM UNITS.
31. THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES LOCATED ON THIS PROPERTY.
32. CONDITIONS OF APPROVAL FROM ZB CASE No.1029M;
    1. FIVE (5) PARKING SPACES WILL BE PROVIDED IN THE NORTHEAST CORNER OF THE SITE.
    2. THERE WILL BE NO ENTRANCE GATE.
    3. A SIGNALIZED TRAFFIC DEVICE WILL BE PROVIDED AT THE ENTRANCE.
33. THIS PSC DISTRICT IS SUBJECT TO COMPLIANCE WITH THE DECISION AND ORDER ISSUED FOR ZB CASE No. 1029M APPROVED BY THE HOWARD COUNTY ZONING BOARD ON SEPT. 25, 2003. ON DECEMBER 15, 2003 THE ZONING BOARD REMOVED CONDITION NUMBER THREE(3) WHICH REQUIRED EIGHT MODERATE INCOME UNITS TO BE BUILT ON SITE.
34. "SCOTS GLEN, A CONDOMINIUM" HAS BEEN REGISTERED WITH SECRETARY OF THE STATE OF MARYLAND ON JANUARY 19, 2005.
35. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
36. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISION OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF $ 87,450. FOR ADDITIONAL DETAIL SEE SHEET 13.
37. UNMITIGATED 65 dBA NOISE LINE BASED ON LOCATION PROVIDED BY STAINO ENGINEERING INC. SERVICES DATED FEBRUARY 2004.
38. PARKING IS ONLY ALLOWED WITHIN GARAGES, MARKED PARKING SPACES OR DRIVEWAYS. PARKING IS PROHIBITED ALONG CURBS.
39. A PLAT OF CONSOLIDATION WAS PROCESSED TO COMBINE LOTS 1, 2, 2A, 2B, AND 3 INTO BULK PARCEL "A", SEE PLAT # 17102, RECORDED ON DECEMBER 8, 2004.
40. NO PHASING IS PROPOSED.
41. THIS PROJECT COMPLIES WITH THE COMMUNITY BUILDING REQUIREMENT PER THE PSC ZONING REGULATIONS OF 20 SQUARE FEET PER UNIT OR 1,460 SQUARE FEET BY PROVIDING A COMMUNITY CENTER BUILDING OF 2500 SQUARE FEET IN SIZE.
42. THIS PLAN INCLUDES RECREATION AND COMMUNITY ACTIVITY AREAS FOR RESIDENTS PER THE PSC ZONING REGULATIONS SUCH AS PATHWAYS, SEATING AREAS, AND A COMMUNITY CENTER.
43. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
44. ON JANUARY 31, 2011 THE PLANNING DIRECTOR APPROVED WAIVER PETITION WP-11-108. THIS WAS TO WAIVE SECTION 16.156(O)(1)(II) AND SECTION 16.156(O)(2) - SITE DEVELOPMENT PLAN REQUIREMENTS AND SECTION 16.134 (a)(1) - PROVIDE SIDEWALKS. THIS WAIVER WAS APPROVED WITH THE FOLLOWING CONDITIONS.
    1). OBTAIN ALL BUILDING PERMITS WITHIN 2 YEARS OF THIS WAIVER PETITION.
    2). ADD NOTE TO SITE PLAN THAT STATES WAIVER PETITION IS VALID FOR 2 YEARS - JANUARY 31, 2013
    3). SHOW REVISIONS ON SITE PLANS PER WAIVER PETITION EXHIBIT.
    4). COMPLIANCE WITH CERTAIN DEVELOPMENT ENGINEERING DIVISION COMMENTS.
45. WP-11-108 IS VALID FOR 2 YEARS - JANUARY 31, 2011 THRU JANUARY 31, 2013.

AS-BUILT

NO.	DATE	REVISIONS
2	4-7-11	REVISE LAYOUT AND UNITS, ADD NOTE # 44 & # 45 BY BEI
⚠	4-25-05	ADDED PUBLIC WATER CONTRACT NUMBER NOTE 12.

STREET LIGHT CHART

STREET NAME	STATION	OFFSET	FIXTURE POLE TYPE	COMMENTS
McGREGOR DRIVE	1+71.24	19.68' LT.	100-WATT "TRADITIONARE" H.P.S. VAPOR COLONIAL POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	———
McGREGOR DRIVE	5+26.81	19.21' LT.	100-WATT "TRADITIONARE" H.P.S. VAPOR COLONIAL POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	———
McGREGOR DRIVE	9+33.06	19.05' LT.	100-WATT "TRADITIONARE" H.P.S. VAPOR COLONIAL POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	———
McGREGOR DRIVE	11+91.16	19.28' LT.	100-WATT "TRADITIONARE" H.P.S. VAPOR COLONIAL POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	———
McGREGOR DRIVE	13+77.58	20.22' LT.	100-WATT "TRADITIONARE" H.P.S. VAPOR COLONIAL POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE.	———

COORDINATE TABLE

POINT	NORTH	EAST
1	558325.3470	1344995.6580
2	558178.1439	1344277.3048
3	557672.1600	1344382.2890
4	557729.0180	1345136.0750
5	558013.9040	1345113.6890

UNIVERSAL DESIGN REQUIREMENTS FOR AGE-RESTRICTED ADULT HOUSING IN HOWARD COUNTY

1. FOR MULTI-FAMILY APARTMENT OR CONDO DEVELOPMENTS, AN ACCESIBLE PATH BETWEEN PARKING, DWELLING UNITS, AND COMMON AREAS THAT MEETS ADA STANDARDS.
2. FOR SINGLE FAMILY DETACHED AND ATTACHED DEVELOPMENTS, A "NO-STEP" ACCESS TO THE FRONT ENTRANCE TO THE COMMUNITY BUILDING AND ALL DWELLINGS (A NO-STEP ENTRANCE IS DESIRABLE, BUT NOT REQUIRED AT OTHER ENTRANCES).
3. 36" WIDE FRONT DOOR WITH EXTERIOR LIGHTING OF THE ENTRANCE.
4. ALL INTERIOR DOORWAYS AT LEAST 32" WIDE (36" IS PREFERABLE).
5. HALLWAYS AT LEAST 36" WIDE, (40-42" IS PREFERABLE).
6. COMPLETE LIVING AREA INCLUDING MASTER BEDROOM & BATH ON FIRST FLOOR (OR ELEVATOR ACCESS IF MULTI-STORY RENTAL/CONDO APARTMENTS).
7. LEVER HANDLES ON INTERIOR AND EXTERIOR DOORS.
8. BLOCKING FOR GRAB BARS IN WALLS IN BATHROOM WALLS NEAR TOILET AND SHOWER.

* OPEN SPACE TABULATION

GROSS ACREAGE = 9.96±Ac.
OPEN SPACE REQUIRED = 3.48 Ac. (35%)
OPEN SPACE CREDITED = 3.56 Ac. (36%)
OPEN SPACE NON-CREDITED = 1.77 Ac.
TOTAL OPEN SPACE PROVIDED = 5.33 Ac. (53.5%)

* NOTE: THIS PLAN INCLUDES RECREATION AND COMMON AREA FOR RESIDENTS INCLUDING PATHWAYS, SEATING AREA AND A COMMUNITY CENTER

DENSITY TABULATION

GROSS ACREAGE = 9.96± Ac.
FLOOD PLAIN = 0.0 Ac.
STEEP SLOPES = 0.0 Ac.
NET ACREAGE = 9.96 Ac.
ALLOWABLE UNITS = 79 (8 Per Ac.)
PROPOSED UNITS = 69

PARKING ANALYSIS

PARKING REQUIREMENTS:
69 UNITS x 2 SP/UNIT = 138 SPACES
PARKING PROPOSED:
65 UNITS x 2 SP/GARAGE = 130 SPACES
65 UNITS x 2 SP/DRWY = 130 SPACES
4 UNITS x 1 SP/GARAGE = 4 SPACES
4 UNITS x 1 SP/DRWY = 4 SPACES
ON-STREET COMMON SPACES = 28 SPACES
TOTAL SPACES = 296 SPACES*
*158 MORE PARKING SPACES THAN REQUIRED

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER DEC. 10, 2004
DAVID C. WOESSNER DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER DEC. 10, 2004
DALE THOMPSON DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE 12/28/04 DATE

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

HOWARD SCD 12/28/04 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 1/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING DATE

SUBDIVISION NAME			SECTION/AREA		LOT/PARCEL NO.
CEDAR VILLAS PHASE I			1		BULK PARCEL "A"
PLAT # OR L/F	GRID #	ZONING	TAX MAP NO.	ELEC. DISTR.	CENSUS TRACT
PLAT # 17102 AND # 17210	17	PSC	35	5	605501
WATER CODE			SEWER CODE		
E28			5326200		

TITLE :

COVER SHEET

PROJECT NAME :

SCOTS GLEN NORTH

BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, 9-51, 52A-58A, 59-62, 63A-69A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 1 OF 25

SDP-04-124

DEVELOPMENT CRITERIA PER ZONING, SECTION 127.1.C, D, E (1-5) AND K.I.e.

A. PERMITTED USES:
1. AGE-RESTRICTED ADULT HOUSING.

B. ACCESSORY USES:
1. SERVICES AND BUSINESSES THAT SERVE THE RESIDENTS OF THE PSC DISTRICT, INCLUDING RECREATIONAL, EDUCATIONAL, HEALTH, PERSONAL, PROFESSIONAL AND BUSINESS SERVICES.
2. HOME OCCUPATIONS, SUBJECT TO THE REQUIREMENTS OF SECTION 128.C.1.
3. COMMUNITY CENTER ALLOWS CUSTOMARY COMMUNITY ACTIVITIES INCLUDING BUT NOT LIMITED TO RECREATIONAL, SOCIAL AND EDUCATIONAL ACTIVITIES SUCH AS PICNICS RUMMAGE SALES, CAKE SALES, DANCES, AND OTHER SIMILAR ACTIVITIES.

C. BULK REGULATIONS:
1. MAXIMUM DENSITY IS 8.0 DWELLING UNITS PER NET ACRE.
2. MAXIMUM UNITS PER STRUCTURE:
   a. SINGLE FAMILY ATTACHED VILLAS = 8 UNITS PER STRUCTURE
   b. BUILDING LENGTH = 320 FEET FOR SFA VILLAS.
3. MAXIMUM HEIGHT SHALL NOT EXCEED:
   a. SINGLE FAMILY DETACHED = 34 FEET (max.)
   b. SINGLE FAMILY ATTACHED VILLAS = 34 FEET (max.)
   c. COMMUNITY BUILDING = 34 FEET (max.)
   d. ACCESSORY STRUCTURE = 15 FEET
4. MINIMUM DISTANCES BETWEEN RESIDENTIAL UNITS (ALL STYLES), EXCEPT IMPROVEMENTS MAY BE LOCATED ANYWHERE WITHIN SUCH SETBACK AREAS IF IN ACCORDANCE WITH A SITE DEVELOPMENT PLAN APPROVED BY THE PLANNING BOARD.
   a. FACE TO FACE = 30 FEET
   b. FACE TO SIDE/REAR TO SIDE = 15 FEET
   c. SIDE TO SIDE = 10 FEET
   d. REAR TO REAR = 25 FEET
   e. REAR TO FACE = 20 FEET
5. MINIMUM DISTANCES BETWEEN RESIDENTIAL UNITS (ALL STYLES) AND EDGE OF PRIVATE ROAD ROADWAY. EXCEPT IMPROVEMENTS MAY BE LOCATED ANYWHERE WITHIN SUCH SETBACK AREAS IF IN ACCORDANCE WITH A SITE DEVELOPMENT PLAN APPROVED BY THE PLANNING BOARD.
   a. RESIDENTIAL FRONT = 18 FEET (AS MEASURED FROM GARAGE DOOR) *
   b. RESIDENTIAL SIDE = 10 FEET
   c. RESIDENTIAL REAR = 30 FEET
   d. RESIDENTIAL ACCESSORY STRUCTURE = 10 FEET (EXCEPT RECREATIONAL AMENITIES)
6. MINIMUM DISTANCES BETWEEN COMMUNITY BUILDING, AND GAZEBO STRUCTURES AND EDGE OF PRIVATE ROADWAY AND/OR PARKING AREAS = 10 FEET
7. BUILDING COVERAGE – NO COVERAGE REQUIREMENTS ARE IMPOSED OTHER THAN COMPLIANCE WITH THE 35% MINIMUM OPEN SPACE REQUIREMENTS FOR THE PSC ZONING DISTRICT.
8. MINIMUM STRUCTURE AND USE SETBACKS FROM PERIMETER OF THE PSC DISTRICT :
   a. FROM ARTERIAL OR COLLECTOR PUBLIC STREET RIGHT-OF-WAY....50 FEET
   b. FROM OTHER STREET RIGHT-OF-WAY....30 FEET
   c. FROM RC, RR, R-ED, R-20, R-12 OR R-SC DISTRICTS....50 FEET
   EXCEPT STRUCTURES CONTAINING APARTMENTS, ASSISTED LIVING FACILITIES OR NURSING FACILITIES....75 FEET
   d. FROM ZONING DISTRICTS OTHER THAN RC, RR, R-ED, R-20, R-12 OR R-SC DISTRICTS....30 FEET

D. OTHER PROVISIONS:
1. THE PROVISIONS OF SECTION 128 (SUPPLEMENTAL ZONING DISTRICT REGULATIONS) AND SECTION 133 (OFF-STREET PARKING AND LOADING FACILITIES) PER APPROVED OCTOBER, 1993 ZONING REGULATIONS SHALL APPLY IN THE PSC DISTRICT UNLESS DIFFERENT REQUIREMENTS ARE APPROVED IN THE COMPREHENSIVE SKETCH PLAN.)
2. THE COMPREHENSIVE SKETCH PLAN IS CONSISTENT WITH THE LAND USES SET FORTH IN THE HOWARD COUNTY GENERAL PLAN.
3. THE PLAN ALLOWS FOR SOME FLEXIBILITY IN THE EXACT LOCATION AND DENSITY OF LAND USES.

E. LANDSCAPING AND SCREENING:
1. THE MINIMUM LANDSCAPING AND SCREENING REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS, THE ZONING REGULATIONS AND THE HOWARD COUNTY LANDSCAPING MANUAL. THE LANDSCAPE PLAN (SHEET 3 OF 5) WILL BE REVISED AT SITE DEVELOPMENT PLAN STAGE TO RESOLVE. GRADING AND WOODY ZONE ISSUES

F. PARKING STANDARDS :
   a. EACH SINGLE FAMILY DETACHED HOME AND GARAGE VILLA IS TO HAVE A MINIMUM OF 2 PARKING SPACES PER UNIT.

* A MINIMUM OF 18 FEET WILL BE PROVIDED FROM THE GARAGE TO THE SIDEWALK OR EDGE OF PRIVATE ROAD. THIS WILL ALLOW OTHER PORTIONS OF THE FRONT WALL OF A UNIT TO BE CLOSER THAN 20 FEET TO THE PRIVATE ROAD.

DEVELOPMENT CRITERIA PER APPROVED PDP PLAN

1. MAXIMUM OF 73 HOUSING UNITS WILL BE SPECIALLY DESIGNED FOR RESIDENTS OVER THE AGE OF 55 WITH WALKING PATHS, SEATING AREAS AND RECREATIONAL AMENITIES, ON A 9.96-ACRE BUILDING SITE.
2. A TOTAL OF 8 MODERATELY INCOME DWELLINGS ARE PLANNED.
3. A TOTAL OF 6 SINGLE FAMILY DETACHED HOMES WITH 2 CAR GARAGES.
5. A MAXIMUM OF 68 GARAGE VILLAS (TOWNHOUSES) WILL BE CONSTRUCTED. (67 PROPOSED ON THIS PLAN)
6. 67 GARAGE VILLAS WILL HAVE A MIX OF 1 AND 2-CAR GARAGES (59 @ 2 CARS, 8 @ 1 CAR).
7. THE EXTERIOR WALLS OF THE GARAGE VILLAS AND SINGLE FAMILY DETACHED HOME WILL BE BRICK AND/OR STONE AND SIDING.
8. ACCESS TO AND CIRCULATION WITHIN ALL OF THE BUILDINGS WILL BE WITHIN THE DESIGN CRITERIA OF THE AMERICANS WITH DISABILITIES ACT ("ADA"), AND UNIVERSAL DESIGN CONCEPTS.
9. THERE WILL BE A PATH FROM THE COMMUNITY TO THE SIDEWALK TO BE CONSTRUCTED AT HARMEL DRIVE.
10. VEHICULAR ACCESS INTO AND OFF THE SITE WILL BE THROUGH AN INTERNAL PRIVATE ROAD TO BE BUILT.
11. A 2,500 SQUARE FOOT COMMUNITY BUILDING WILL BE BUILT AT THE ENTRANCE TO THE SITE.
12. THE EXTERIOR OF THE COMMUNITY BUILDING WILL BE THE SAME BRICK AND/OR STONE AND SIDING AS THE GARAGE VILLAS AND SINGLE FAMILY DETACHED HOMES.
13. PERSONS ELIGIBLE TO PURCHASE ANY OF THE DWELLING UNITS MUST BE 55 YEARS OF AGE OR OLDER.
14. CHILDREN UNDER THE AGE OF 18 MAY NOT RESIDE IN A DWELLING FOR MORE THAN 90 DAYS WITHIN A CALENDAR YEAR.

NOTE : FOR STORM DRAIN LENGTHS SEE SHEET 10 OF 25.

8/28/07
4/16/2008

SEE SHEET 2A FOR UNITS REPLACING 52-58 & 63-73

LEGEND:

SYMBOL	DESCRIPTION
	P-2 PAVING SEE DETAIL SHEET 5 OF 25

AS-BUILT

No.	DATE	REVISION	BY
12	9-22-11	REMOVE STONE DIAPHRAGM, BRICK SHUT 6" WIDE CHANNEL, ADD 8" HDPE PIPE FROM S-1 TO BIORETENTION, CLEANOUT, 3' STONE WINDOW AND RIPRAP AT END OF PIPE AND REVISE GRADING ASSOCIATED WITH 6" WIDE CHANNEL, STONE DIAPHRAGM AND TO CREATE A CHANNEL ALONG FENCE TO BIORETENTION	SJT
11	3-7-11	REMOVE SIDEWALK, BOCCE COURTS & UNITS 7,8, 52-58, 63-73. REVISE TITLE BLOCK AND ADD LOTS 7A & 8A.	BET
10	4.16.08	REVISED LANDSCAPING, REMOVE GAZEBOS, SOUTH SIDE FENCE PERIMETER	
7	8-28-07	DECK/PATIO ADDED TO UNITS 61 & 62 SPOT ELEVATIONS REVISED	ALDEI
6	8-28-07	VERTICAL ELEVATIONS REVISED TO ALL UNITS	ALDEI
5	7-31-06	REVISED ENTRANCE WALL	ALDEI
4	5-16-06	PARKING LOT CHANGE @ COMMUNITY CENTER & DECK / PATIO AREA FOR BLDGS.	ALDEI
3	2-16-06	REPLACE MH-1 TO A MOD. INLET & REPLACE 36" RCCP TO 42"x27" ELLIPTICAL CONC. PIPE	ALDEI
2	1-5-06	LEFT FILLET RADII, SIDEWALK & CURB TO BE RELOCATED 3' OFF EXISTING CURB & 4" FIRE LINE	ALDEI
1	4-25-05	LOWERED BASEMENT ELEVATION BY A FOOT FOR UNITS 1-73 AND PROVIDE BE TO SIDEWALK CONNECTING HARMEL DRIVE & REVISED FOOT PRINT FOR COMMUNITY CENTER & ADDED PUBLIC WATER & PUBLIC SEWER CONTRACT NUMBER.	ALDEI

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER DALE THOMPSON — DEC. 10, 2004 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/4/05 DATE

TITLE :

SITE DEVELOPMENT PLAN

PROJECT NAME :

SCOTS GLEN NORTH

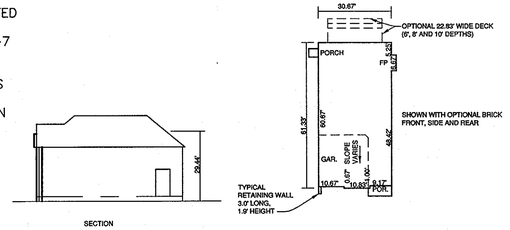
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, 9-51, 52A-58A, 59-62, 63A-69A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

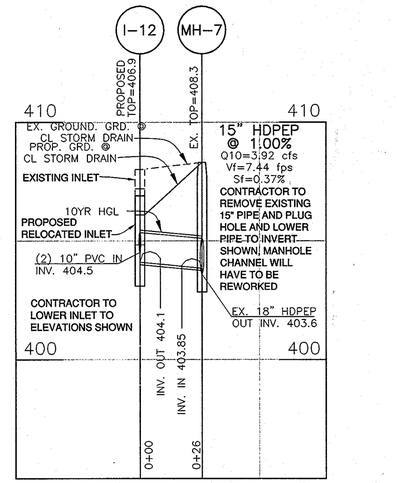
WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES.: DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW.: AVG/DTA/JNC	CHK.: D.C.W.	SCALE : 1" = 40'	SHEET 2 OF 25

SDP-04-124

SITE NOTES:
1.) SEE SHEET 1 FOR PARKING ANALYSIS AND UNIVERSAL DESIGN REQUIREMENTS.
2.) SEE SHEET 2 FOR DEVELOPMENT CRITERIA.
3.) ALL REAR DOWNSPOUTS SHALL BE CONNECTED TO 10" PERFORATED PVC PIPE.
4.) INLET I-12 AND THE PIPE LEADING TO MH-7 NEEDS TO BE LOWERED TO MATCH THIS PLAN.
5.) UNITS 57A AND 58A HAVE THE FOUNDATION WALL ABOVE THE FIRST FLOOR ALONG THE WALLS INDICATED ON THIS PLAN.
6.) THE VALVE BOXES AND LIDS LOCATED WITHIN THE DRIVEWAYS MUST BE CAST IRON.





REVISED STORM DRAIN PROFILE
VERTICAL SCALE: 1"=3'
HORIZONTAL SCALE: 1"=30'

AS-BUILT CERTIFICATION
THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
12/29/11
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-76-15

AS-BUILT

NO.	DATE	REVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 5/31/11
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 6-3-11
DIRECTOR	DATE 6-3-11

PURPOSE NOTE:
THE PURPOSE OF THIS ADDITIONAL SHEET IS TO INDICATE THE REVISED HOUSE UNITS AND ASSOCIATED GRADING SINCE THE BUILDER HAS CHANGED MID-WAY THROUGH THIS SUBDIVISION.

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 418
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
BEI@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 under the laws of the State of Maryland, License No. 28559, Expiration Date: 7-22-2011.
5/16/2011

OWNER\DEVELOPER:
GOODIER BAKER, LLC
10751 FALLS ROAD
SUITE 405
LUTHERVILLE, MD 21093
410-616-9631

PROJECT: SCOTS GLEN NORTH
BUILDABLE BULK PARCEL A, LOTS 1-6, 7A, 8A, 9-51, 52A-58A, 59-62, 63A-69A AND COMMUNITY CENTER PLANNED SENIOR COMMUNITY (PSC)-AGE RESTRICTED ADULT HOUSING; A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3 WP-11-108
S-04-03 PB CASE 362 WP-04-114 F-05-52 F-05-101
LOCATION: TAX MAP No. 35, GRID No. 17 PARCEL 105
REVISED 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: SITE DEVELOPMENT AND DIMENSION PLAN
DATE: JANUARY, 2011 / MAY 16, 2011
PROJECT NO. 2313
Design: JC | Draft: JC | Check: -
SCALE: 1" = 30'
DRAWING 2A OF 25

SDP-04-124

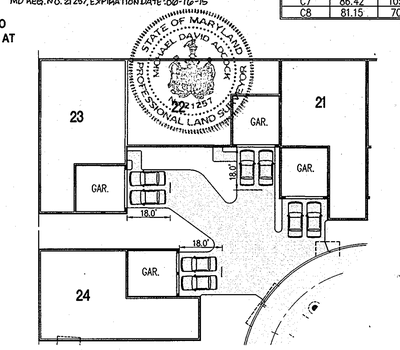
AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR, MD REG. NO. 21257, EXPIRATION DATE: 06-10-15

12/29/11

CURVE TABLE						
CURVE#	LENGTH	RADIUS	TANGENT	DELTA	CHORD	DIRECTION
C1	105.62	70.00	65.80	86°27'15"	95.88	S 45°29'45" E
C2	22.59	70.00	11.39	18°29'14"	22.49	N 11°30'44" W
C3	63.48	45.00	38.31	80°49'29"	58.35	N 61°10'05" W
C4	70.80	45.00	45.11	90°08'28"	63.72	S 33°20'56" W
C5	64.87	45.00	39.53	82°35'51"	59.40	S 53°01'04" E
C6	26.31	70.00	13.31	21°31'59"	26.15	N 74°55'11" E
C7	86.42	105.00	45.83	47°09'23"	84.00	S 87°43'53" W
C8	81.15	70.00	45.83	66°25'19"	76.68	N 30°56'32" E



SCALE: 1" = 30'

SCALE: 1" = 30'

SEE SHEET 2A FOR THE UNITS REPLACING UNITS 52-58 + 63-73.

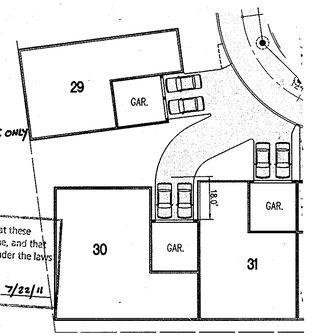
FOR REV. BY BEI ONLY

STATE OF MARYLAND BRIAN F. CLEARY 21508 REGISTERED PROFESSIONAL ENGINEER

3/18/2011

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. 28659 Expiration Date: 7/22/11



SCALE: 1" = 30'

TYPICAL PARKING ON CORNER LOTS

SCALE: 1" = 30'

SEE SHEET 2A FOR THE UNITS REPLACING UNITS 7, 8, 52-58 & 63-73.

NOTE:
FOR HANDICAPPED RAMP DETAILS AND REFERENCES SEE SHEET 16 OF 25.

FOR CURB AND GUTTER DETAILS AND REFERENCES SEE SHEET 5 OF 25.

STATE OF MARYLAND JOHN E. CLARK 21508 REGISTERED PROFESSIONAL ENGINEER

8/28/07
& 4/16/08

LEGEND:

DESCRIPTION

WATER EASEMENT

1	3-8-11	REMOVE UNITS 7,8, 52-58 + 63-73, ADD 7A + 8A	
6	4-16-08	REMOVE GAZEBOS, SOUTH SIDE FENCE PERIMETER	
5	8-28-07	DECK/PATIO ADDED TO UNITS 61 & 62.	MDE
4	8-28-07	VERTICAL ELEVATIONS REVISED TO ALL UNITS.	ALDE

AS-BUILT

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

No.	DATE	REVISION	BY
6	8-16-06	REVISED ENTRANCE WALL	ALDEI
5	8-16-06	REVISE PARKING @ COMMUNITY CENTER & DECK/ PATIO AREA FOR BLDGS.	ALDEI
		REVISED POOT PRINT FOR COMMUNITY CENTER	
3	4-25-05	LOWERED BASEMENT ELEVATION BY 4 FOOT & A SIDEWALK BEND CONNECTING TO HARMEL DR.	ALDEI

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER DALE THOMPSON — DEC. 10, 2004 DATE

STATE OF MARYLAND CHRISTOPHER RUSSELL CLARK 21508 REGISTERED PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/25/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE :

SITE DIMENSION PLAN

PROJECT NAME :

SCOTS GLEN NORTH

9-51, 52A-58A, 59-62, 63A-69A
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : 1" = 40'	SHEET 3 OF 25

SDP-04-124

STATE OF MARYLAND
BRIAN F. CLEARY
No. 28569
PROFESSIONAL ENGINEER
3/18/2011

FOR REV BY BEI ONLY

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. 28569, Expiration Date: 7/22/11

NOTE:
A SIX (6) FEET VERTICAL CLEARANCE IS TO BE MAINTAINED BETWEEN ALL WATER AND SEWER MAINS

STATE OF MARYLAND
MICHAEL DAVID ADCOCK
No. 21257
PROFESSIONAL LAND SURVEYOR

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR, MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

12/29/11
DATE

AS-BUILT

NO.	DATE	REVISION	BY
6	3-9-11	REVISED TITLE BLOCK	BEI
5	8-16-06	PARKING LOT CHANGE & ADD DECK / PATIO FOR BLDGS:	ALDEI
4	1-5-06	LEFT FILLET RADII, SIDEWALK, CURB & GUTTER TO BE RELOCATED 2' OFF EXISTING CURB	ALDEI
3	4-25-05	LOWERED BASEMENT ELEVATION BY 4 FOOT FOR UNITS 1-7 & 9 PROVIDE BEND TO SIDEWALK CONNECTING HARMEL DRIVE & REVISED FOOTPRINT FOR COMMUNITY CENTER & ADDED PUBLIC WATER & PUBLIC SEWER CONTRACT NUMBER.	ALDEI
2	8-16-06	REVISED ENTRANCE WALL	ALDEI

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE

" I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER DALE THOMPSON — DEC. 10, 2004 DATE

STATE OF MARYLAND
KEVIN C. WOESSNER
No. 21448
REGISTERED
PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/6/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE :

UTILITY PLAN

PROJECT NAME :

SCOTS GLEN NORTH

9-51, 52A-58A, 59-62, 63A-69A

BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 | S-04-03 | PB CASE 362 | WP 04-114 | F-05-52 | F-05-101

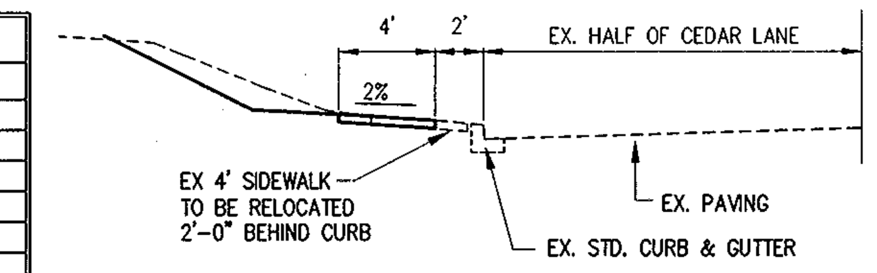
DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04	
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : 1" = 40'	SHEET 4 OF 25	

SDP-04-124

PLAN

SCALE : 1" = 50'

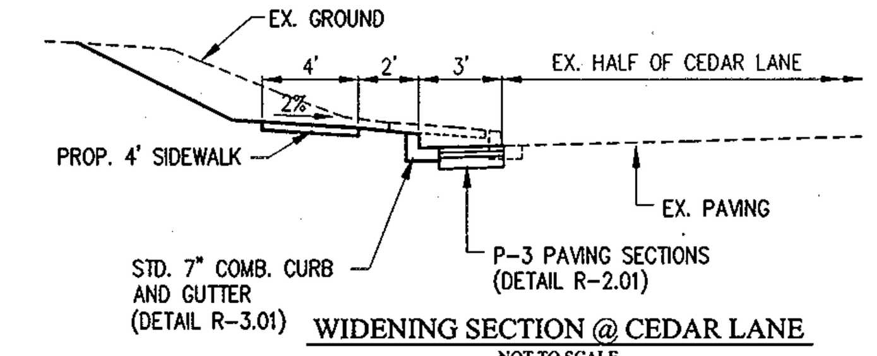
CURVE TABLE						
CURVE#	LENGTH	RADIUS	TANGENT	DELTA	CHORD	DIRECTION
C1	105.62	70.00	65.80	86°27'15"	95.88	S 45°29'45" E
C2	22.59	70.00	11.39	18°29'14"	22.49	N 11°30'44" W
C3	63.48	45.00	38.31	80°49'29"	58.35	N 61°10'05" W
C4	70.80	45.00	45.11	90°08'28"	63.72	S 33°20'56" W
C5	64.87	45.00	39.53	82°35'31"	59.40	S 53°01'04" E
C6	26.31	70.00	13.31	21°31'59"	26.15	N 74°55'11" E
C7	86.42	105.00	45.83	47°09'23"	84.00	S 87°43'53" W
C8	81.15	70.00	45.83	66°25'19"	76.68	N 30°56'32" E



TYPICAL SECTION @ CEDAR LANE

NOT TO SCALE

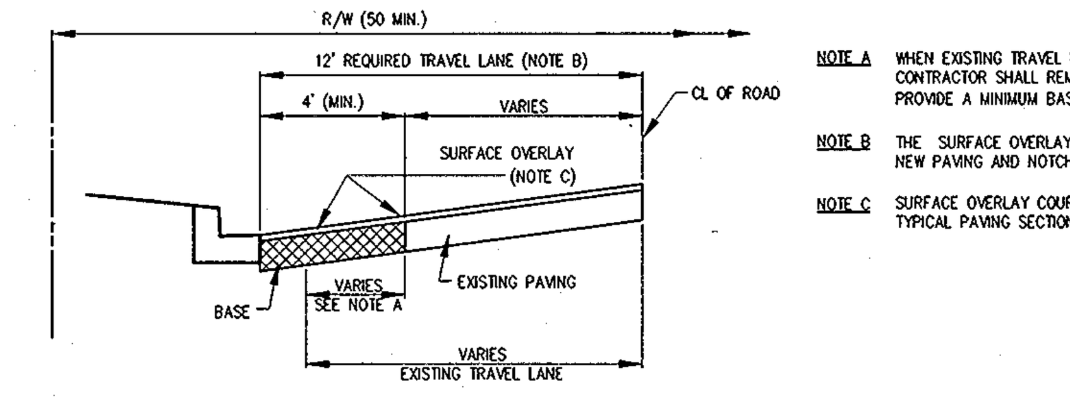
STA. 4+96.34 TO STA. 13+74.83



WIDENING SECTION @ CEDAR LANE

NOT TO SCALE

STA. 7+82.85 TO STA. 9+43.00



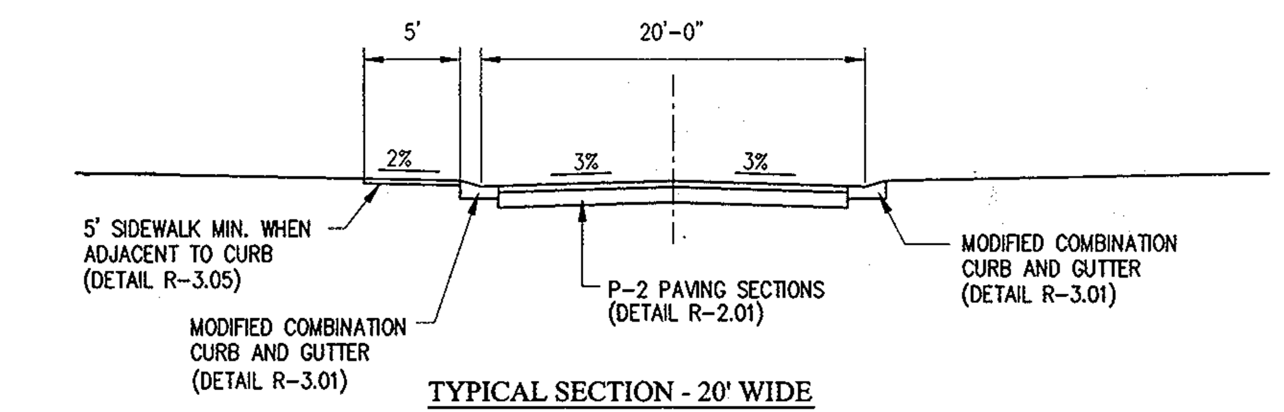
NOTE A WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE CONTRACTOR SHALL REMOVE ENOUGH OF THE EXISTING ROAD BED TO PROVIDE A MINIMUM BASE WIDENING OF 4'.

NOTE B THE SURFACE OVERLAY SHALL BE CARRIED ONLY TO THE 4' PROPOSED NEW PAVING AND NOTCHED AND SEALED.

NOTE C SURFACE OVERLAY COURSE TO BE EQUAL TO SURFACE COURSE OF TYPICAL PAVING SECTION OF SUBDIVISION

WIDENING STRIPS ALONG EXISTING ROADWAYS

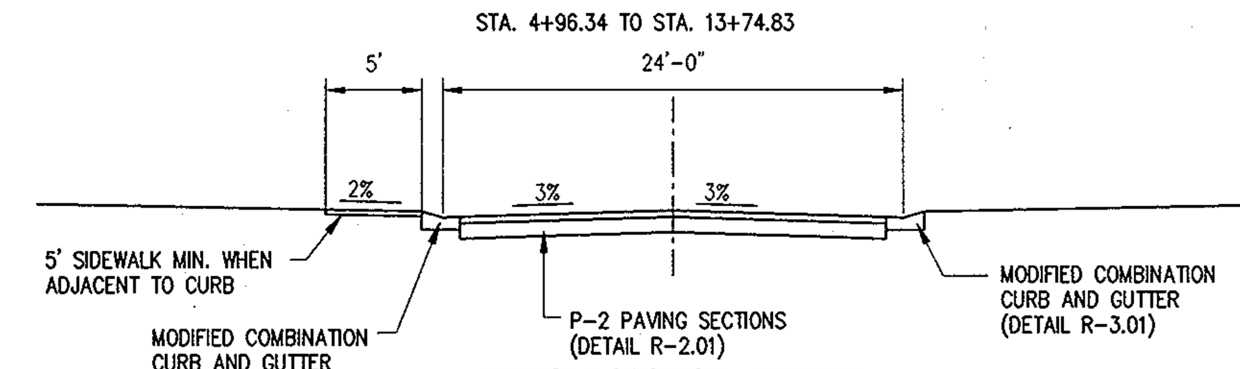
NOT TO SCALE



TYPICAL SECTION - 20' WIDE

NOT TO SCALE

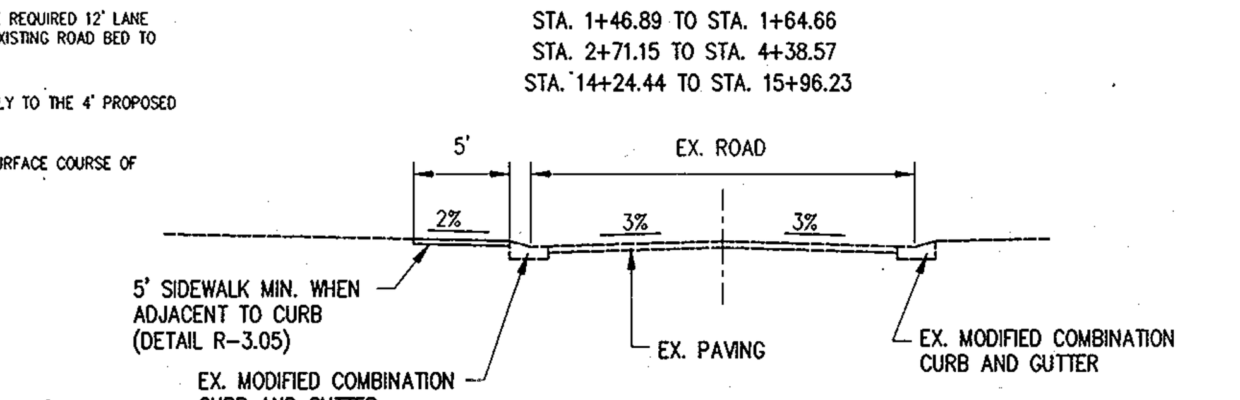
STA. 4+96.34 TO STA. 13+74.83



TYPICAL SECTION - 24' WIDE

NOT TO SCALE

STA. 1+46.89 TO STA. 1+64.66
STA. 2+71.15 TO STA. 4+38.57
STA. 14+24.44 TO STA. 15+96.23



TYPICAL SECTION @ HARMEL DRIVE

NOT TO SCALE

AS-BUILT

PAVING SECTIONS (DETAIL R-2.01)

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS: FULL DEPTH BIT. CONC. ALTERNATE	PAVEMENT MATERIALS: GRANULAR BASE ALTERNATES
P-2	RESIDENTIAL ZONES LOCAL, CUL-DE-SAC STS. ALLEYS AND PRIVATE ROADS SERVING INDIVIDUAL LOTS; TRAVELWAYS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY*	1 1/2 BIT. CONC. SURFACE; 5" BIT. CONC. BASE	1 1/2" BIT CONC. SURFACE; 2 1/2" BIT CONC. BASE; PRIME; 8" CRUSHER RUN BASE COURSE (2 COURSES) OR 6" DENSE GRADED STABILIZED AGGREGATE BASE COURSE
P-3	RESIDENTIAL ZONES MINOR AND MAJOR COLLECTORS; COMMERCIAL-INDUSTRIAL ZONES LOCAL AND CUL-DE-SAC STREETS ALLEYS; TRAVELWAYS A PARTMENT AND COMMERCIAL-INDUSTRIAL ZONES WITH MORE THAN 10 HEAVY TRUCKS PER DAY*	1 1/2" BIT . CONC. SURFACE; 1 1/2" BIT. CONC. BASE; 5" BIT. CONC. BASE	1 1/2" BIT CONC SURFACE; 4 1/2" BIT CONC BASE; PRIME; 6" CRUSHER RUN BASE COURSE OR 4 1/2" DENSE GRADED STABILIZED AGGREGATE BASE COURSE

* TRAVELWAYS ARE DEFINED AS THE ROADWAYS LEADING TO THE PARKING BAYS.
* HEAVY TRUCKS ARE DEFINED AS THOSE WITH 6 WHEEL OR MORE INCLUDING GARBAGE TRUCKS.

NO.	DATE	REVISIONS
4	8-16-06	REVISED PARKING LOT AT COMMUNITY CENTER
1	1-5-06	LEFT FILLET RADII @ ENTRANCE, SIDEWALK, CURB & GUTTER TO BE RELOCATED 3' OFF EXISTING CURB & GUTTER

A SUBDIVISION OF PARCELS 111 AND 142

TITLE: **PLAN, PROFILE AND DETAILS**

PROJECT NAME:

CEDAR VILLAS - PHASE I

BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, 9-51, 52A-58A, 59-62, 63A-69A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/28/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/5/05

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — DATE 2/1/05

American Land Development and Engineering, Inc.
10749 BIRMINGHAM WAY WOODSTOCK, MD. 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :
Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

DES.:	JOB:	SCALE: 1" = 50'	SHEET 5 OF 25
DRW.: avg	PROJ.:		
CHK.: DCW	DATE: 12/10/04		

NO	DATE	REVISION	BY
5	3-9-11	REVISE TITLE BLOCK	BEI

FOR REV. BY BEI ONLY

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. 28559 Expiration Date: 7/22/11

3/18/2011

DESIGN SPEED = 25 MPH

BALMORAL WAY - PROFILE

SCALE : 1" = 50' HOR.
1" = 5' VER.

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO 21257, EXPIRATION DATE 06-16-15

12/29/11
DATE

SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT.
2. NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 24 HOURS BEFORE STARTING WORK.
3. INSTALL ALL TREE PROTECTION FENCE FOR CHRISTMAS TREE. (1 DAY)
4. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE, EARTH DIKES AND OTHER SEDIMENT CONTROL DEVICES. (1 WEEK)
5. CLEAR AND GRUB AREA OF TEMPORARY SEDIMENT EROSION AND CONSTRUCT RISER AND BARREL. (3 WEEKS)
6. CONSTRUCT ROAD TO SUBGRADE. INSTALL STORM DRAIN SYSTEMS, WATER AND SEWER MAINS, INCLUDING BMP #2, BUT EXCLUDING STORM DRAIN PIPE SYSTEM FOR INLETS I-25 & I-26, THE OUTFALL PIPE AND THE WATER MAIN CROSSING CEDAR LANE. (14 WEEKS)
7. INSTALL INLET PROTECTION AT ALL INLETS. (2 WEEKS)
8. CONSTRUCT PERIMETER BERMS AND WATER QUALITY SWALES AND STABILIZE WITH PERMANENT SEEDING. (3 WEEKS)
9. GRADE BUILDING FOOTPRINTS TO REQUIRED GRADE AND CONSTRUCT BASEMENT FOUNDATIONS. (12 WEEKS)
10. CONSTRUCT STORM DRAIN SYSTEM FROM OUTFALL TO MANHOLE MH-1 AND ~~WATER QUALITY~~ INLETS I-25 AND I-24, AND THE 8" WATER MAIN CROSSING CEDAR LANE. (8 WEEKS)
11. WITH THE APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE EARTH DIKE ACROSS ~~McGREGOR DRIVE~~. (2 DAYS)
12. CONSTRUCT ROAD BASE COURSE AND INSTALL CURB AND GUTTER. GRADE SITE TO PROPOSED GRADE AND STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEEDING. (3 WEEKS)
13. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AROUND THE TEMPORARY BASIN PRIOR TO ITS REMOVAL. (1 DAY)
14. WHEN ALL DISTURBED AREAS ON THE SITE HAVE BEEN STABILIZED WITH PERMANENT SEEDING AND WITH THE APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE TEMPORARY SEDIMENT BASIN INCLUDING OUTFALL STRUCTURE. (2 WEEKS)
15. CONSTRUCT STORM DRAIN FROM MANHOLE MH-1 AND FROM INLET I-25 TO MANHOLE MH-3. (1 WEEK)
16. ~~INSTALL BMP NO. 1 AND~~ CONSTRUCT BIO-RETENTION FACILITY. (2 WEEKS).
17. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, AFTER ALL DISTURBED AREAS ARE STABILIZED WITH PERMANENT SEEDING, REMOVE ALL SEDIMENT AND EROSION CONTROL DEVICES. (1 WEEK)
18. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON ALL SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON AFTER EACH RAINFALL AND ON A DAILY BASIS. REMOVE SEDIMENT FROM THE POND WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED. ALL SEDIMENT MUST BE PLACED UPSTREAM OF THE APPROVED TRAPPING DEVICE.

12. RECONSTRUCT SEDIMENT BASIN PER PLAN
(2) INSTALL BMP NO.1 (UNDERGROUND PIPES)
11 (3) INSTALL SEDIMENT BASIN.
(2) INSTALL SCE #2 AND REMOVE SCE #1.

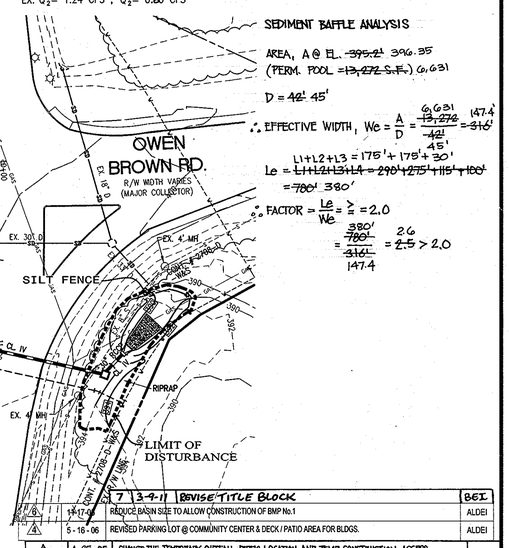
SEDIMENT BASIN No. 1 ⚠

DRAINAGE AREA = ~~9.96 Ac.~~ 7.25 Ac.
VOLUME REQUIRED = ~~9.96 X 3600 = 35,856 C.F.~~ 7.25 x 3600 = 26,100 C.F.
ACTUAL VOLUME OF BASIN = ~~108,901 C.F. @ ELEV. 400.0~~ 48,412 C.F. @ EL. 400.50

WET VOL. REQUIRED (DEWATERING)
= ~~1800 X 9.96 = 17,928 C.F.~~ 13,050 C.F.
WET VOL. PROVIDED
= ~~25,859 @ ELEV. 395.2~~ 13,347 C.F. @ EL. 396.35
DRY VOL. REQUIRED
= ~~1800 X 9.96 = 17,928 C.F.~~ 13,050 C.F.
DRY VOL. PROVIDED
= ~~26,260~~ C.F. @ ELEV. 397.0 ~~- 13,315~~ @ EL. 398.5 ~~- (50,119 - 25,859)~~ (26,662 - 13,347)
CLEANOUT VOLUME = ~~9.96 X 900~~ 7.25 Ac. x 900
= ~~8,964~~ C.F. 6,525 C.F.
RISER CREST ELEV. = ~~397.0~~ 398.15
PERMANENT POOL ELEVATION = ~~395.2~~ 396.35
DIST. FROM RISER CREST TO PERM. POOL ELEV. = ~~1.80'~~ 1.80'
BASIN CLEANOUT ELEV. = ~~393.90~~
DIST. FROM RISER CREST TO CLEANOUT ELEV. = ~~3.10'~~ 2.77
Q_{10} = 19.9 CFS
EX. Q_2 = 1.24 CFS , Q_2 = 0.60 CFS

SEDIMENT BAFFLE ANALYSIS

AREA, A @ EL. ~~395.2~~ 396.35
(PERM. POOL = ~~13,272 S.F.~~) (0.631 AC)
D = 42" 45'
∴ EFFECTIVE WIDTH, We = $\frac{A}{D} = \frac{0.631}{42/45} = \frac{147.4}{316'}$
L1+L2+L3 = 175' + 175' + 45'
Le = ~~L1+L2+L3+L4 = 290'+275'+115'+100'~~ = 780' 380'
∴ FACTOR = $\frac{Le}{We} = \frac{380'}{316'/147.4} = \frac{2.6}{2.5} > 2.0$



PLAN
SCALE : 1" = 40'

FOR REV. BY BEI ONLY

STATE OF MARYLAND · BRIAN F. CLEARY · REG. NO. 22858 · PROFESSIONAL ENGINEER · 8/26/2011

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. 22858, Expiration Date: 7/22/11

STATE OF MARYLAND · MICHAEL DAVID BLADCOCK · No. 21257 · PROFESSIONAL LAND SURVEYOR

AS-BUILT CERTIFICATION
THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL BLADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13
12/29/11 DATE

No.	DATE	REVISION	BY
7	3-9-11	REVISE TITLE BLOCK	BEI
6	11-17-06	REDUCE BASIN SIZE TO ALLOW CONSTRUCTION OF BMP No.1	ALDEI
5	5-16-06	REVISED PARKING LOT @ COMMUNITY CENTER & DECK / PATIO AREA FOR BLDGS.	ALDEI
4	4-25-05	CHANGE THE TEMPORARY OUTFALL PIPES LOCATION AND TEMP. CONSTRUCTION ACCESS AND REVISED SEDIMENT CONFIGURATION	ALDEI

AS-BUILT

PREPARED BY :

American Land Development and Engineering, Inc.
10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER
DAVID C. WOESSNER
DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON
DEC. 10, 2004 DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE
12/28/04 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
HOWARD SCD
12/28/04 DATE

STATE OF MARYLAND · HOWARD COUNTY HOWARD · REGISTERED PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/6/05 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT — 1/28/05 DATE
DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE :

GRADING, SEDIMENT AND EROSION CONTROL PLAN

PROJECT NAME :

SCOTS GLEN NORTH

9-51, 52A-52A, 53-62, 63A-69A

BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 9A, AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : 1" = 40'	SHEET 6 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA 1-FINAL\SDP\SEDIMENT&EROSION1.dwg, SEDIMENTCONTROL, 12/9/2004 7:31:55 PM, guz

STANDARD SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permit, Sediment Control Division prior to the start of any construction (313-1855).

2. All vegetative and structural practice are to be installed according to the provisions of this plan and are to be conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.

3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12 of the Howard County Design Manual, Storm Drainage.

5. All disturbed areas must be fenced within the time period specified above in accordance with 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (sec. 51), sod (sec. 54), temporary seeding (sec. 50) and mulching (sec. 52). Temporary stabilization with mulch alone can be done only when recommended seeding dates do not allow for proper germination and establishment of grasses.

6. 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.

7. Site Analysis :

Total Area of Site	9.96 Acres
Area Disturbed	9.96 Acres
Area to be roofed or paved	5.21 Acres
Area to be vegetatively stabilized	4.75 Acres
Total Cut	24,400 Cu. Yds.
Total Fill	26,100 Cu. Yds.
Offsite waste/borrow area location :	1,700 Cu. Yds.

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.

10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

11. Trenches for the construction of utilities is limited to three pipe length or that which should be back-filled and stabilized by the end of each work day, whichever is shorter.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived wegetative cover is needed.

Seedbed Preparation : Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments : In lieu of soil test rescommendations, use one of the following schedules :

1. Preferred -- Apply 2 tons/acre dolomitic limestone (92 bls/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
2. Acceptable -- Apply 2 tons/acre dolomitic limestone (92 bls/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding -- For the periods March 1 -- April 30, and August 1 -- October 15, seed with 60 lbs/acre (1.4 lbs/sq. ft.) of Kentuky 31 Tall Fescue. For the perion May 1 -- July 31, seed with 60lbs Kentucky 31 tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 -- February 28, protect site by :

Option 1 -- Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring.
Option 2 -- Use sod. Option 3 -- Seer : with 60 lbs/acre Kentucky 30 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching -- Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of rooted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance -- Inspect all seeding areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed Preparation:-- Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, unless previously loosened.

Soil Amendments:-- Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 lbs/1000 sq ft).

Seeding:-- For periods March 1 -- April 30 and from August 15 -- October 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.) for the period May 1 -- August 14, seed with 3 lbs/acre of weeping lovegrass (.07lbs/1000 sq. ft.).
For the period November 16 -- Ferbruary 28, protect site by applying 2 tons/acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching:-- Apply 1-1/2 to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed free, small grain straw immediately after seeding. anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/ 1000 sq. ft.) of emulsified asphalt on flat areas. on slopes, 8 ft. or higher, use 348 gal per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rate and methods not covered.

FOR REV. BY BEI ONLY

STATE OF MARYLAND BRIAN F. CLEARY No. 28559 REGISTERED PROFESSIONAL ENGINEER 3/18/2011

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. 28559 Expiration Date: 7/22/11

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding to quickly establish vegetative cover for short duration (up to one year). and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas of final grade, former stockpile and staging areas, etc.

EFFECTS OF WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of run-off, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Vegetation over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients and other chemicals carried by run-off to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must retain in place during grading, seeded preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 – VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. Site Preparation
- i. Install erosion and sediment control structures (either temporary or permanent) such as diversion, grade stabilization structures, berms, waterways, or sediment control basins.
- ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
- iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

B. Soil Amendments (Fertilizer and Lime Specifications)
- i. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis maybe performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposed may also be used for chemical analyses.
- ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.
- iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98-100% will pass through a #20 mesh sieve.
- iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

C. Seedbed Preparation
- i. Temporary Seeding
  - a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" 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 should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
  - b. Apply fertilizer and lime as prescribed on the plane.
  - c. In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
- ii. Permanent Seeding
  - a. Minimum soil conditions required for permanent vegetative establishment:
    1. Soil pH shall be between 6.0 and 7.0.
    2. Soluble salts shall be less than 500 parts per million (ppm).
    3. The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
    4. Soil shall contain 1.5% minimum organic matter by weight.
    5. Soil must contain sufficient pore space to permit adequate root penetration.
    6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
  - b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
  - c. Apply soil amendments as per soil test or as included on the plans.
  - d. Mix soil amendments into the top 3-5" ot topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, abd ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slopoe. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. Seed Specifications
- i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.
  Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.
- ii. Inoculant – The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specially for the species. Inoculants shall not be used later than the date indicated in the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperature above 75-80°F. can weaken bacteria and make the inoculant less effective.

E. Methods of Seeding
- i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or dropo seeded, or a cultipacker seeder.
  - a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen: P205 (phosphorus); 200 lbs/ac; K20 (potassium); 200 lbs/ac.
  - b. Lime – use only ground agricultural limestone, (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
  - c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
- ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
  - a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
  - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
  - a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
  - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seed rate in each direction.

F. Mulch Specifications (In order of preference)
- i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
- ii. Wood Cellulose Fiber Mulch (WCFM)
  - a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
  - b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
  - c. WCFM, including dye, shall contain no germination or growth inhibiting factors.
  - d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedings.
  - e. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-toxic.
  - f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.
  Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

G. Mulching Seeded Areas – Mulch shall be applied to all seeded areas immediately after seeding.
- i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
- ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
- iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of 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 two (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 be used on the contour if possible.
- ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lbs./acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should appear uniform after binder application. Synthetic binders- such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
- iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' wide and 300 to 3,000 feet long.

I. Incremental Stabilization – Cut Slopes
- i. All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
- ii. Construction sequence (Refer to Figure 3 below):
  - a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
  - b. Perform Phase 1 excavation, dress, and stabilize.
  - c. Perform Phase 2 excavation, dress, and stabilize. Overseed Phase 1 as necessary.
  - d. Perform final phase excavation, dress, and stabilize. Overseed previously seeded areas as necessary.
  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 out of the seeding season will necessitate the application of temporary stabilization.

J. Incremental Stabilization of Embankments – Fill Slopes
- i. Embankments shall be constructed in lifts as prescribed on the plans.
- ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15', or when the grading operation ceases as prescribed in the plans.
- iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to inrercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
- iv. Construction sequence: Refer to Figure 4 (below).
  - a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct slopr silt fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
  - b. Place Phase 1 embankment, dress, and stabilize.
  - c. Place Phase 2 embankment, dress, and stabilize.
  - d. Place final phase embankment, dress, and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill 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 ot the seeding season will necessitate the application of temporary stabilization.

CONSTRUCTION SPECIFICATIONS

1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be 4', measured at centerline of embankment.
3. All cut and fill slopes shall be 2:1 or flatter.
4. Elevation of the top of any dike directing water into trap must equal or exceed the height of trap embankment.
5. Storage area provided shall be figured by computing the volume measured from top of excavation. (For storage requirements see Table 9).
6. Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Section of fabric must overlap at least 1' with section nearest the entrance placed on top. Fabric shall be embedded at least 6" into existing ground at entrance of outlet channel.
7. 4"-7" stone shall be used to construct the weir and 4"-12" or Class I rip-rap shall be used to construct the outlet channel.
8. Outlet – An outlet shall include a means of conveying the discharge in an erosion free manner to an existing stable channel. Protection against scour at the discharge point shall be provided as necessary.
9. Outlet channel must have positive drainage from the trap.
10. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 of the wet storage depth of the trap (900 cf/ac). Removed sediment shall be deposited in a suitable area and in such manner that it will not erode.
11. The structure shall be inspected periodically after each rain and repaired as needed.
12. Construction of traps shall be carried out in such manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be established with seed and mulch. Points of concentrated inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
13. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.

STATE OF MARYLAND MICHAEL DAVID ADCOCK No. 21257 PROFESSIONAL LAND SURVEYOR

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO 21257, EXPIRATION DATE: 06-16-15
12/29/11
DATE

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

PURPOSE

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

CONDITIONS WHERE PRACTICE APPLIES

I. This practice is limited to areas having 2:1 or flatter slopes where:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible. II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCA in cooperation with Maryland Agricultural Experimental Station.

II. Topsoil Specifications – Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slags, coarse fragments, gravel, sticks, roots, trash, or other materials larger the 11/12" in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

III. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

IV. For sites having disturbed areas over 5 acres. i. On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

b. Organic content of topsoil shall be not less than 1.5 percent by weight.

c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.

d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials. Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate authority, may be used in lieu of natural topsoil. ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

V. Topsoil Application

i. When topsoilling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be top soiled, which have been previously established, shall be maintained, albeit 4"-8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seed line can proceed with a minimum of additional soil preparation and tillage, Any irregularities in the surface resulting from top soiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen of muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

VI. Alternative for Permanent Seeding – Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

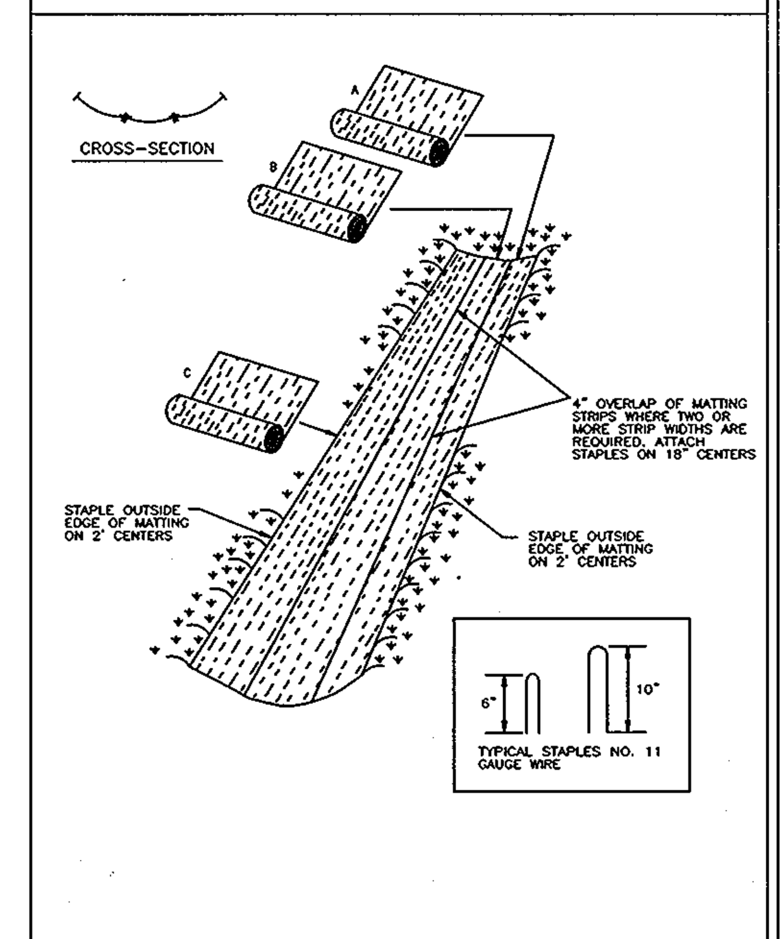
b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.

c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References, Guideline Specifications, Soil Preparation and Sodding, MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

DETAIL 30 – EROSION CONTROL MATTING



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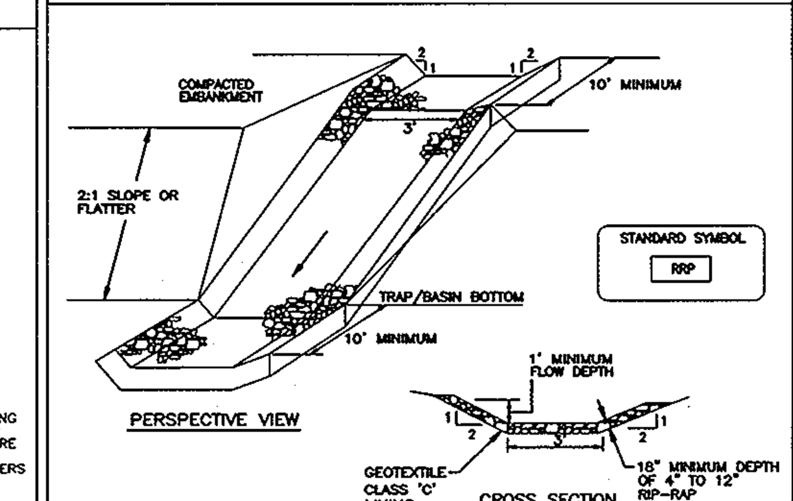
DETAIL 5 – RIP-RAP INFLOW PROTECTION



Construction Specifications

1. Rip-rap lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3' (min.) bottom width. The channel shall be lined with 4" to 12" rip- rap to a depth of 18".
2. Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.
3. Entrance and exit sections shall be installed as shown on the detail section.
4. Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.
5. Gabion Inflow Protection may be used in lieu of Rip-rap Inflow Protection.
6. Rip-rap should blend into existing ground.
7. Rip-rap Inflow Protection shall be used where the slope is between 4:1 and 10:1. for slopes flatter than 10:1 use Earth Dike or Temporary Swale lining criteria.

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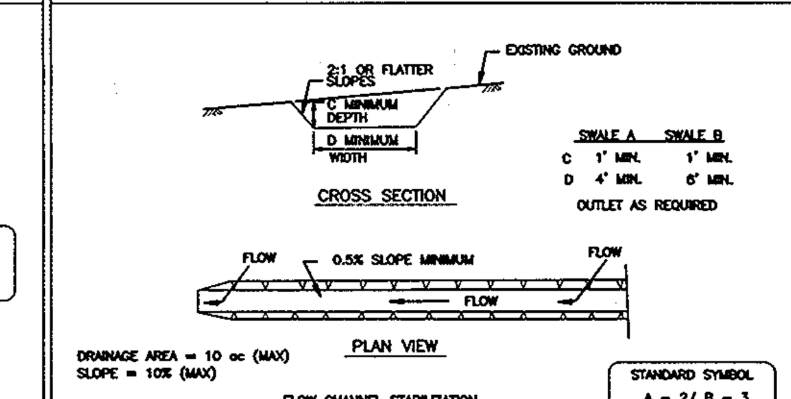
DETAIL 2 – TEMPORARY SWALE



1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4"-7" stone or recycled concrete equivalent pressed into soil in a minimum 7" layer.

Construction Specifications

1. All temporary swales shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.
5. The swale shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill, if necessary, shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the swale.
8. Inspection and maintenance must be provided periodically and after each rain event.

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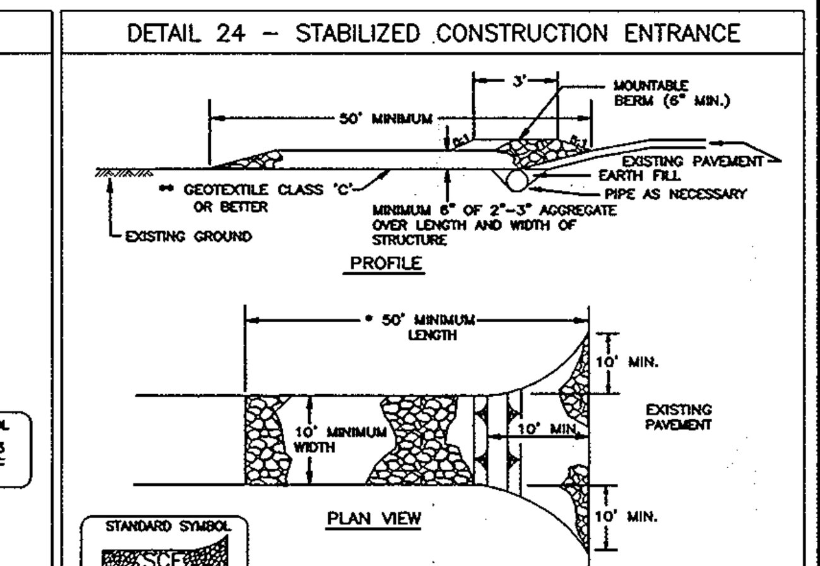
DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).
2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
4. Stone – crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water – all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location – A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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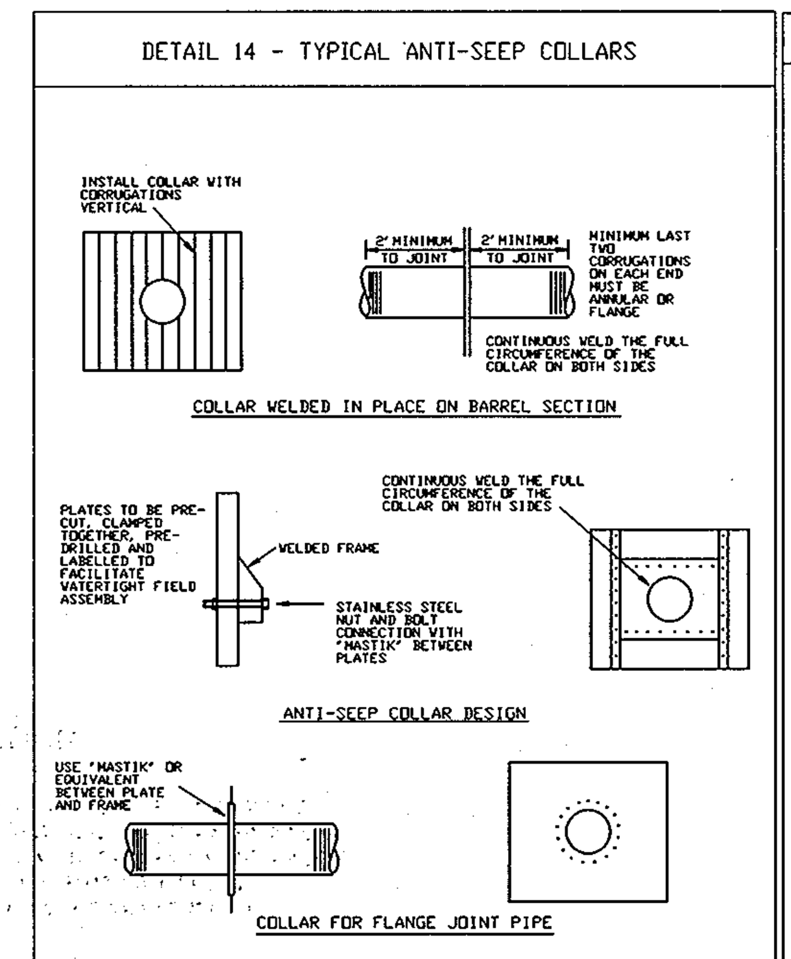
DETAIL 14 – TYPICAL ANTI-SEEP COLLARS



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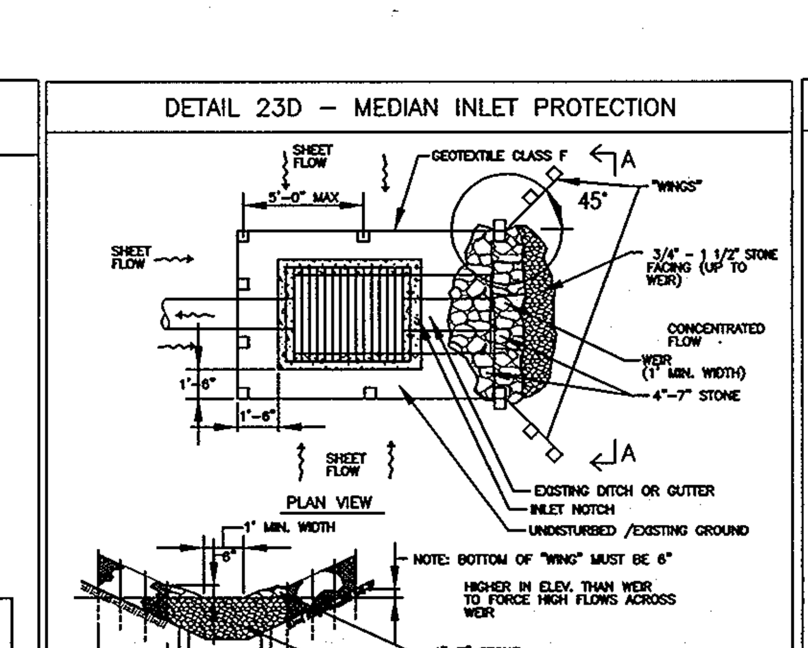
DETAIL 23D – MEDIAN INLET PROTECTION



Construction Specifications

1. Fence posts shall be 36" (min.) long, driven 16" into the ground and spaced 5' (max.) apart. Wood posts shall be 1 1/2 " x 1 1/2 " (min.) square cut or 1 3/4 " (min.) diameter round and shall be of sound quality hardwood. Steel posts shall be standard T or U section weighing not less than 1.0 #/linear foot.
2. Geotextile Class F shall be fastened securely to each post with wire ties or staples at top and mid-section.
3. Where ends of geotextile fabric come together they shall be overlapped, folded and stapled.
4. Median Inlet Protection shall be inspected after each rain and maintained when bulges occur in the fabric or when the stone gets clogged.
5. Stone used to construct the weir shall be 4" – 7" with a 1' thick layer of 3/4 " – 1 1/2 " stone on the upstream face.

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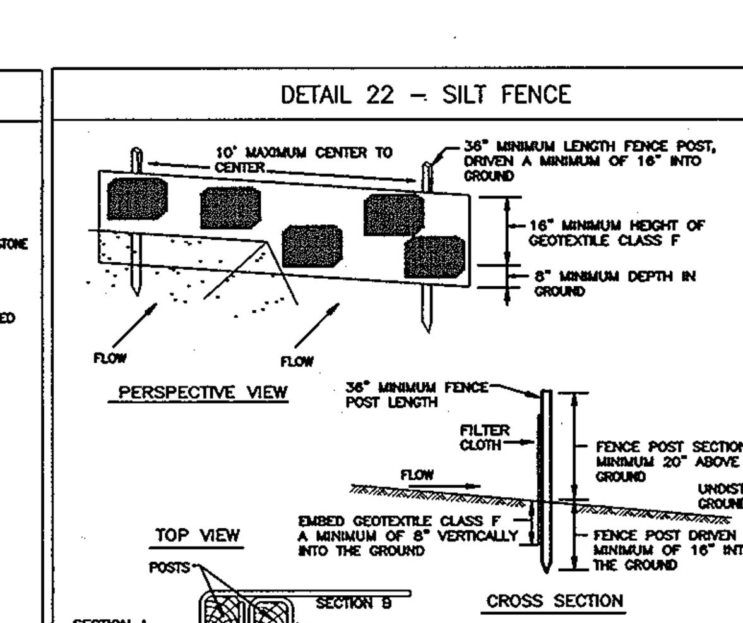
DETAIL 22 – SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft² / minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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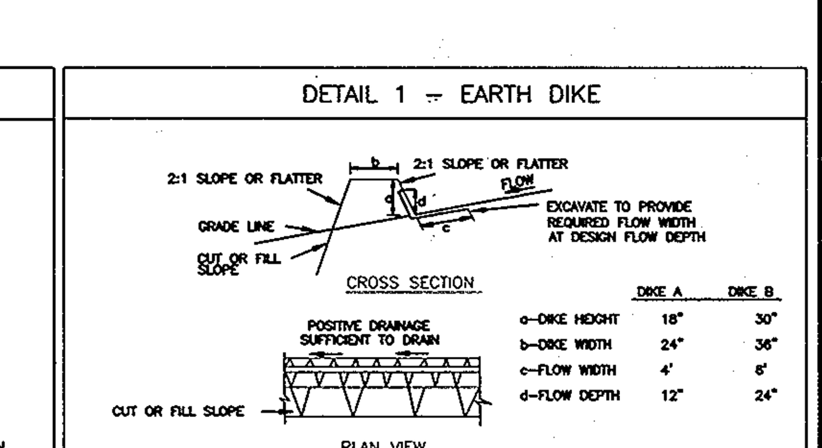
DETAIL 1 – EARTH DIKE



	DIKE A	DIKE B
a-DIKE HEIGHT	18"	30"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	12"	24"

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" – 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.

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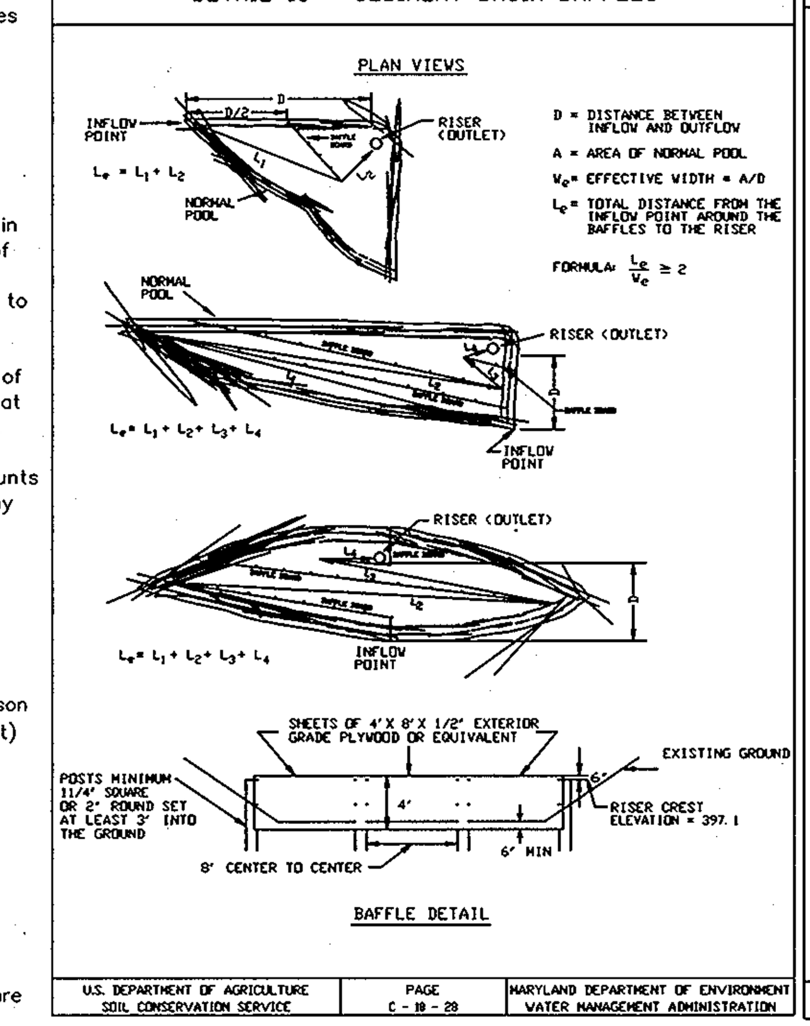
DETAIL 18 – SEDIMENT BASIN BAFFLES



$L_e = L_1 + L_2$; $L_e = L_1 + L_2 + L_3 + L_4$; FORMULA: $\frac{L_e}{V_e} \geq 2$

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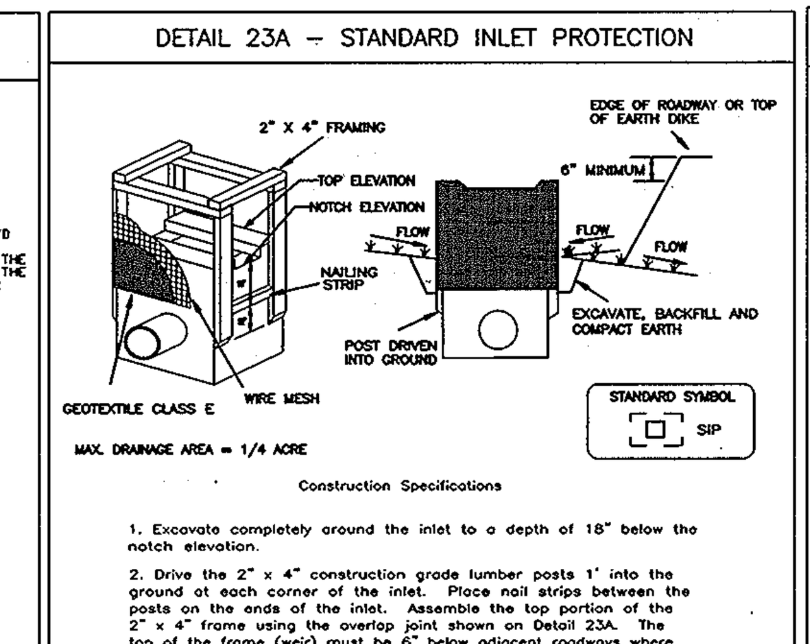
DETAIL 23A – STANDARD INLET PROTECTION



Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.
2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.
3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.
4. Stretch the Geotextile Class E tightly over the wire mesh with the geotixtile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.
5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.
6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.
7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

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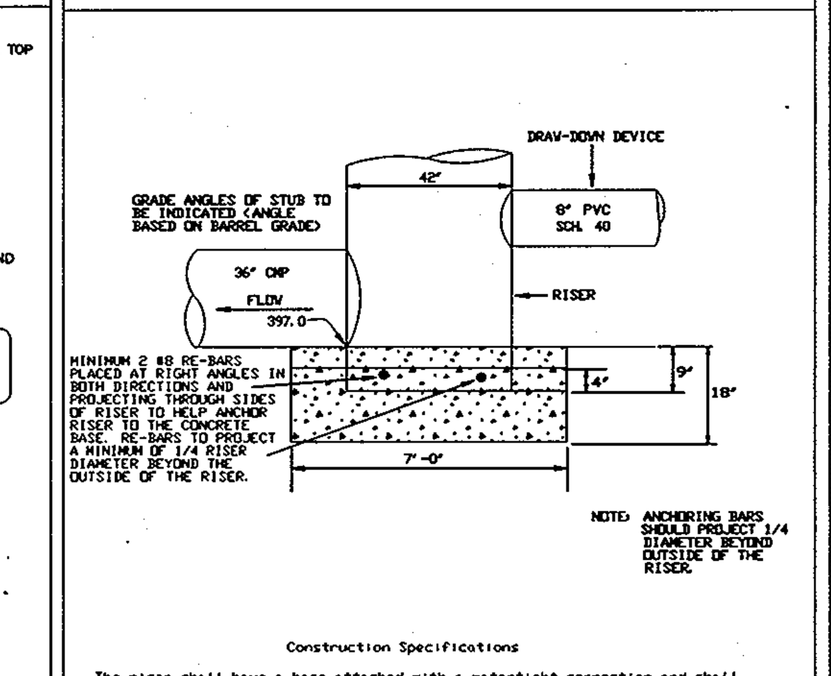
DETAIL 15 – RISER BASE DETAIL



Construction Specifications

The riser shall have a base attached with a watertight connection and shall have sufficient weight to prevent flotation of the riser. Two approved bases for risers 10' or less in height are:

1. A concrete base 18" thick with the riser embedded 9" in the base.
2. A 1/4" minimum thickness steel plate attached to the riser by a continuous weld around the circumference of the riser to form a watertight connection. The plate shall have 2' of stone, gravel, or compacted earth placed on it to prevent flotation. In either case, each side of the square base shall be twice the riser diameter.

Note: For risers greater than ten feet high computations shall be made to design a base which will prevent flotation. The minimum factor of safety shall be 1.20 (downward forces = 1.20 x upward forces).

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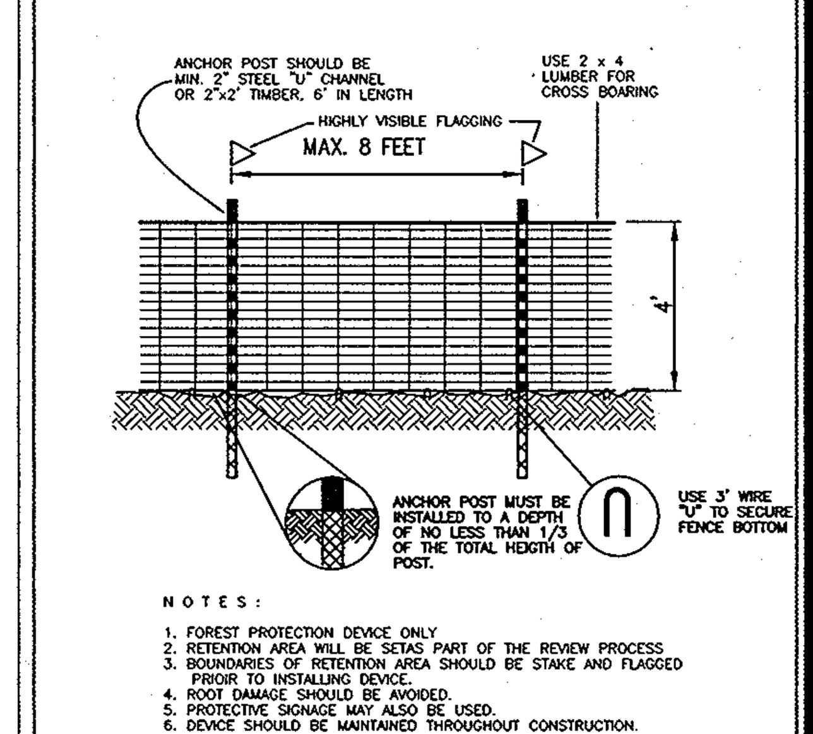


NOTES:

1. FOREST PROTECTION DEVICE ONLY
2. RETENTION AREA WILL BE SETAS PART OF THE REVIEW PROCESS
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKE AND FLAGGED PRIOIR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

BLAZE ORANGE PLASTIC MESH TREE PROTECTION DEVICE

NOT TO SCALE

AS-BUILT

NO	DATE	REVISION	BY
1	3-9-11	REVISE TITLE BLOCK	BEI

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER DALE THOMPSON — DEC. 10, 2004 DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE — 12/28/04 DATE

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

HOWARD SCD — 12/28/04 DATE

STATE OF MARYLAND DAVID CHRISTOPHER WOESSNER REGISTERED PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE: **SEDIMENT AND EROSION CONTROL NOTES AND DETAILS**

PROJECT NAME :

SCOTS GLEN NORTH

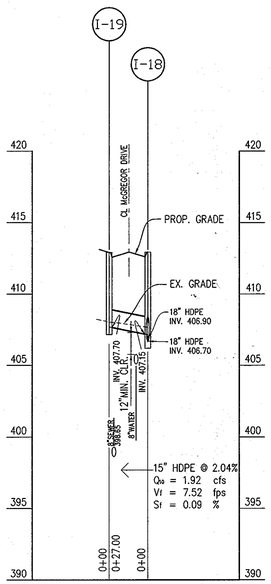
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A 9-51, 52A-58A, 59-62, 63A-69A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

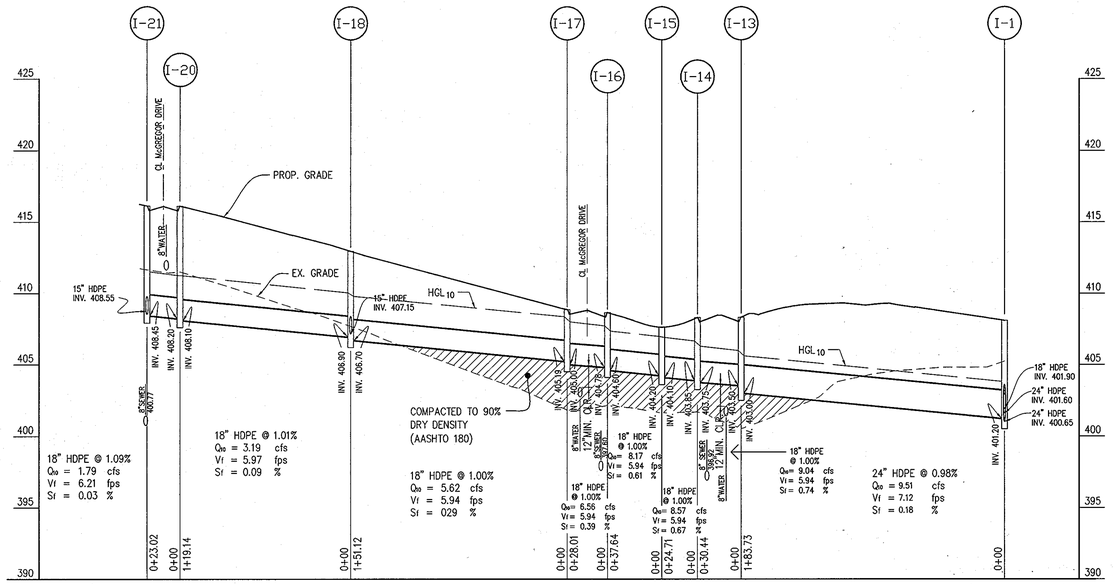
DES.: DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW.: AVG/DTA/JNC	CHK.: D.C.W.	SCALE : N/A	SHEET 7 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL\SDP\sed & eros dt1.dwg, SCE-NOTES, 12/10/2004 2:53:07 PM, guz



PROFILE
SCALE : 1" = 50' HOR.
1" = 5' VER.



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SCALE : 1" = 50' HOR.
1" = 5' VER.

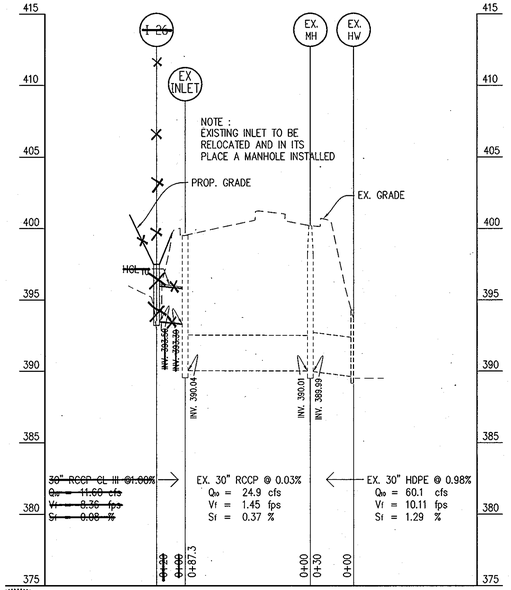
AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

MICHAEL D. ADDOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-15

12/29/11
DATE

STATE OF MARYLAND — MICHAEL DAVID ADDOCK — No. 21257 — PROFESSIONAL LAND SURVEYOR



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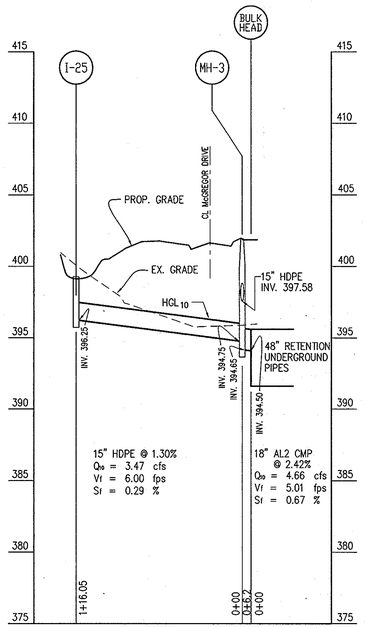

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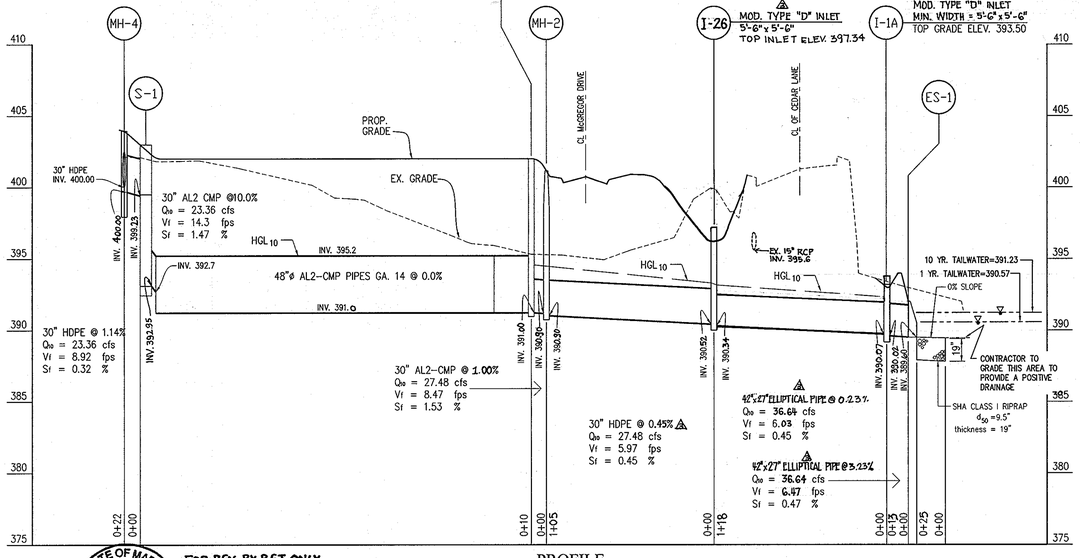

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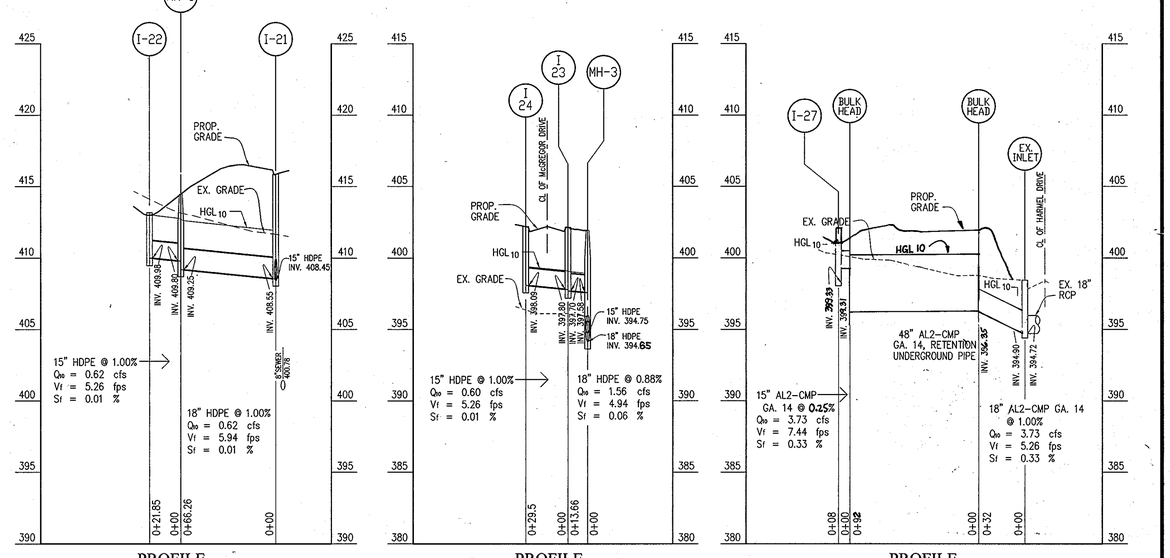

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PROFILE
SCALE : 1" = 50' HOR.
1" = 5' VER.

AS-BUILT

NO	DATE	REVISION	BY
1	3-9-11	REVISE TITLE BLOCK	GET
13	7-18-12	REVISE INVERT ELEVATIONS ON I-27 PROFILE TO REFLECT AS-BUILT CONDITIONS	SJT
2	2-16-06	REPLACE MH-1 TO A MOD. TYPE "D" INLET & REPLACE 36" RCCP TO 42"x27" ELLIPTICAL PIPE	ALDE

FOR REV. BY BEI ONLY

STATE OF MARYLAND — BRIAN F. CLERY — No. 28559 — REGISTERED PROFESSIONAL ENGINEER

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. 28559, Expiration Date: 7/22/11

5/18/2011

PREPARED BY :

American Land Development and Engineering, Inc.
10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE

" I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER
DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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SIGNATURE OF DEVELOPER
DALE THOMPSON — DEC. 10, 2004 DATE

STATE OF MARYLAND — DAVID C. WOESSNER — No. 21257 — PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/2012 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/9/12 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 1/10/12 DATE

TITLE :

STORM DRAIN PROFILES

PROJECT NAME :

SCOTS GLEN NORTH

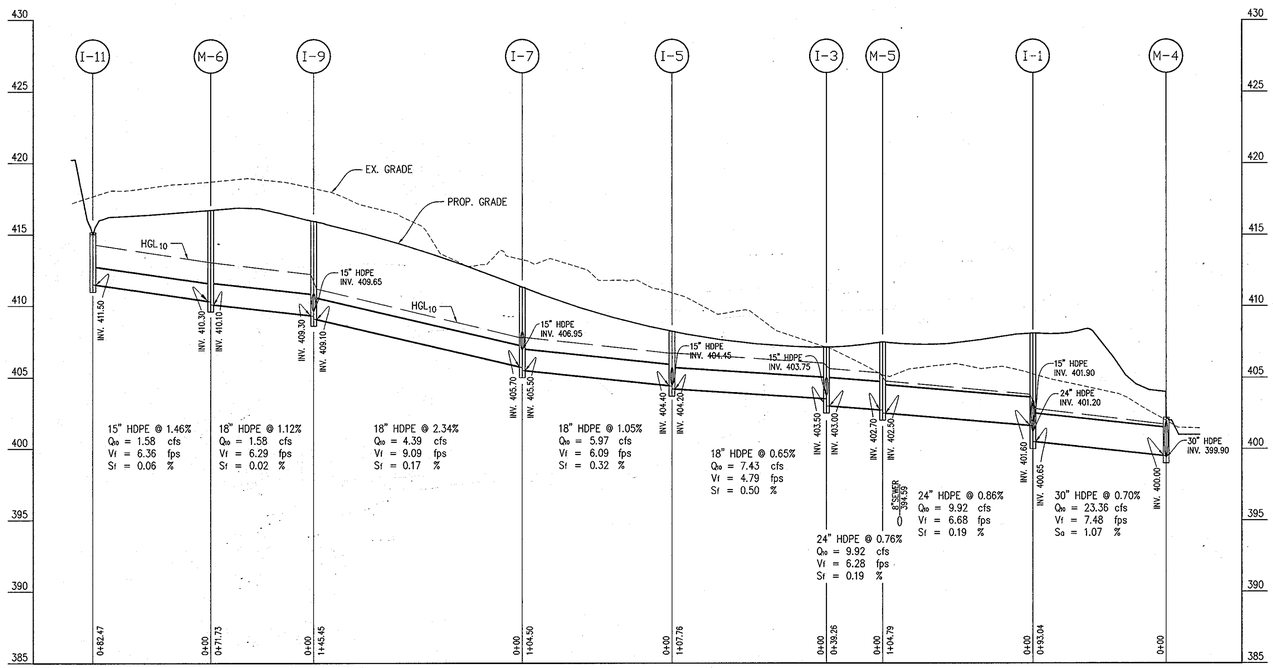
9-51, 52A-58A, 59-62, 63A-69A
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 | S-04-03 | PB CASE 362 | WP 04-114 | F-05-52 | F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 8 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL\SDP\STORMDRAIN&SEWERPROFILES.dwg, DRAINAGEPROFILES, 12/9/2004 7:35:11 PM, guz



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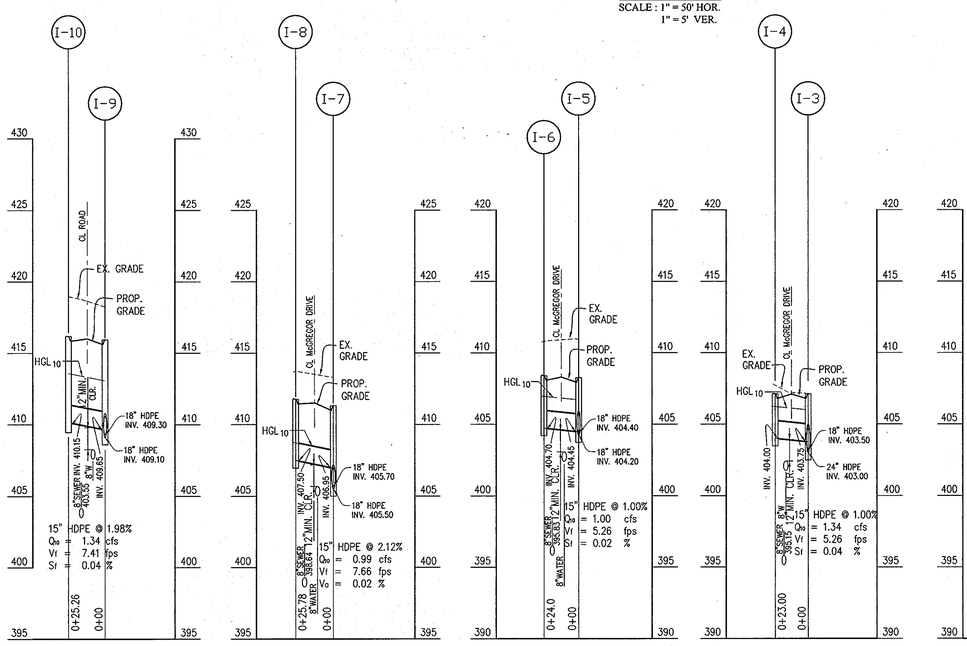

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1" = 5' VER.

PROFILE
SCALE : 1" = 50' HOR.
1" = 5' VER.

PROFILE
STORMDRAIN ACROSS WALK TO HARMEL DR.
SCALE : 1" = 50' HOR.
1" = 5' VER.

STRUCTURE SCHEDULE

STUCTURE NO.	TYPE	TOP ELEVATION	INV. IN	INV. OUT	ROAD NAME	ROAD STA.	OFFSET	HO. CO. STD.
I - 1	DOUBLE TYPE S COMB. INLET	408.37	401.60, 401.90, 401.20	400.65	McGREGOR DRIVE	4+37.66	12' R	S.D. 4.34
I - 2	A-5 (2'-6" WIDE)	408.37	402.85	402.20	McGREGOR DRIVE	4+37.66	12' L	S.D. 4.01
I - 3	DOUBLE TYPE S COMB. INLET	407.40	403.50, 403.75	403.00	McGREGOR DRIVE	5+53.2	10' R	S.D. 4.34
I - 4	A-5 (2'-6" WIDE)	407.40	--	404.00	McGREGOR DRIVE	5+53.63	10' L	S.D. 4.01
I - 5	DOUBLE TYPE S COMB. INLET	408.51	404.40, 404.45	404.20	McGREGOR DRIVE	6+58.93	10' R	S.D. 4.34
I - 6	A-5 (2'-6" WIDE)	408.66	--	404.70	McGREGOR DRIVE	6+65.97	10' L	S.D. 4.01
I - 7	DOUBLE TYPE S COMB. INLET	Δ 411.60, 411.45	405.70, 406.95	405.50	McGREGOR DRIVE	7+63.43	10' R	S.D. 4.34
I - 8	A-5 (2'-6" WIDE)	412.04	--	407.50	McGREGOR DRIVE	7+75.08	10' L	S.D. 4.01
I - 9	DOUBLE TYPE S COMB. INLET	416.21	409.65, 409.30	409.10	McGREGOR DRIVE	9+03.20 Δ	10' R	S.D. 4.34
I - 10	A-5 (2'-6" WIDE)	416.30	--	410.15	McGREGOR DRIVE	9+02.10 Δ	10' L	S.D. 4.01
I - 11	TYPE "D" INLET	415.02	414.19*	411.50	McGREGOR DRIVE	N 558063.557, E 1344326.664	--	S.D. 4.11
I - 12**	TYPE "D" INLET	408.00	405.5*	405.00	McGREGOR DRIVE	N 558032.923, E 1344792.683 Δ	--	S.D. 4.11
I - 13	DOUBLE TYPE S COMB. INLET	408.83	403.50	403.00	McGREGOR DRIVE	2+60.34	Δ 12' R	S.D. 4.34
I - 14	A-5 (2'-6" WIDE)	408.60	403.85	403.75	McGREGOR DRIVE	N 557869.226, E 1344922.543 Δ	--	S.D. 4.01
I - 15	A-5 (2'-6" WIDE)	407.90	404.20	404.10	McGREGOR DRIVE	N 557892.131, E 1344933.457 Δ	--	S.D. 4.01
I - 16	A-5 (2'-6" WIDE)	408.94	404.78	404.60	McGREGOR DRIVE	15+73.48	Δ 12' L	S.D. 4.01
I - 17	DOUBLE TYPE S COMB. INLET	409.00	405.19	405.00	McGREGOR DRIVE	15+65.92	Δ 12' R	S.D. 4.34
I - 18	DOUBLE TYPE S COMB. INLET	413.22	406.90, 407.15	406.70	McGREGOR DRIVE	14+14.90	Δ 11.62' R	S.D. 4.34
I - 19	A-5 (2'-6" WIDE)	413.22	405.00	407.70	McGREGOR DRIVE	14+15.86	Δ 12.50' L	S.D. 4.01
I - 20	DOUBLE TYPE S COMB. INLET	416.40	408.20	408.10	McGREGOR DRIVE	12+96.20	Δ 10' R	S.D. 4.34
I - 21	A-5 (2'-6" WIDE)	416.43	408.55	408.45	McGREGOR DRIVE	12+94.62	Δ 10' L	S.D. 4.01
I - 22	TYPE "D" INLET	413.80	--	409.98	McGREGOR DRIVE	N 557906.772, E 1344600.288 Δ	--	S.D. 4.11
I - 24 Δ	A-5 (2'-6" WIDE)	402.13	--	398.09	McGREGOR DRIVE	0+99.77	Δ 12.2' L	SPECIAL
I - 23 Δ	A-5 (2'-6" WIDE)	402.13	397.80	397.70	McGREGOR DRIVE	0+99.77	Δ 12.3' R	SPECIAL
I - 25	TYPE "D" INLET	399.00 Δ	398.17* Δ	396.25	--	N 557744.011, E 1345103.339	--	S.D. 4.11
I - 26 Δ	TYPE "D" INLET	397.34	396.81*, 390.52 Δ	390.34 Δ	--	N 557747.322, E 1345123.182 Δ	--	S.D. 4.11
I - 27	TYPE "D" INLET	402.18	401.06* Δ	399.33 Δ	--	N 558281.438, E 1344905.412	--	S.D. 4.01
I - 1A	TYPE "K" INLET (SINGLE OPENING)	394.33 Δ	393.50*, 390.07 Δ	390.02	--	N 557721.156, E 1345240.909	--	S.D. 4.36
~~Δ MH-1~~	~~STD. MANHOLE~~	~~393.58~~	~~390.10~~	~~390.30~~	--	~~N 557747.388, E 1345193.189~~ Δ	--	~~S.D. 5.11~~
MH 2	STD. MANHOLE	401.17	39090	39090	--	N 557864.301, E 1345114.929	--	S.D.-5.11
MH 3	STD. MANHOLE	401.88	394.75, 397.58	394.60	--	N 557859.606 E 1345091.858 Δ	--	S.D.-5.11
MH 4	STD. MANHOLE	404.07	400.05	400.90	--	N 558100.969, E 1344989.794	--	S.D.-5.11
MH 5	STD. MANHOLE	407.42	402.70	402.50	--	N 558165.776, E 1344864.174	--	S.D.-5.11
MH 6	STD. MANHOLE	416.71	410.30	410.10	--	N 558088.614, E 1344407.300	--	S.D.-5.11
MH 7 **	STD. MANHOLE	408.30 Δ	404.48	403.60	--	N 558051.865, E 1344810.296	--	S.D.-5.11
MH 8	STD. MANHOLE	413.80	409.80	409.25	--	N 557888.044, E 1344611.530	--	S.D.-5.11
MH 9	STD. MANHOLE	399.53	393.30	390.04	--	N 557794.757, E 1345156.552	--	S.D.-5.11
S-1	STRUCTURE		399.23 Δ	392.95 Δ		N 558084.931, E 1344999.105	--	PRE-CAST
							--	
ES-1	END SECTION		---	389.60		N 557732.478, E 1345250.711		S.D.-5.52
ES-2	END SECTION		408.31			N 558227.719, E 1344644.318		S.D.-5.61
ES-3	END SECTION			407.95		N 558230.605, E 1344657.852		S.D.-5.61
RELOCATED DI. INLET	DOUBLE TYPE "S" COMBINATION				CEDAR LANE	N 557996.606, E 1345128.936	Δ	SD.4.39
RELOCATED DI. INLET	DOUBLE TYPE "S" COMBINATION				CEDAR LANE	N 557782.865, E 1345151.192	Δ	SD.4.39

* THROAT INVERT
** SEE SHEET 2A FOR REVISION

AS-BUILT CERTIFICATION

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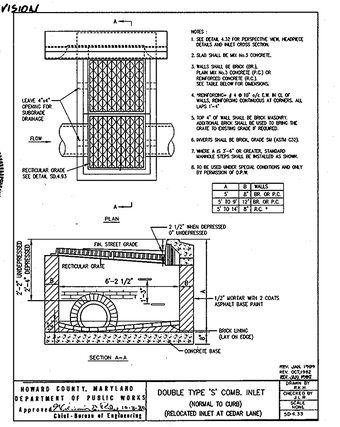
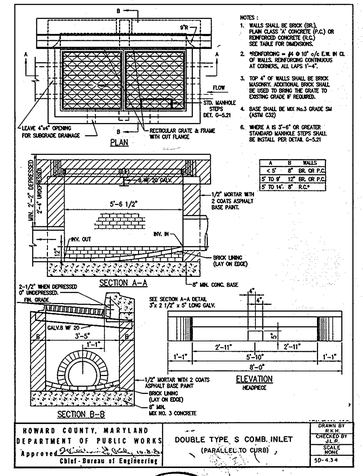
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-15

12/29/11
DATE

STATE OF MARYLAND — MICHAEL DAVID ADCOCK — NO. 21257 — PROFESSIONAL LAND SURVEYOR





PIPE SCHEDULE

TYPE/CLASS OF PIPE	PIPE SIZE (IN.)	TOTAL LENGTH (FT.)	REMARKS
HDPE, SMOOTH INTERIOR	15	410	
	18	995	
	24	328	
	30	232	
RCCP CL III			
	30	20	
RCCP CL IV			
	30	136	
AL2 CMP	15	8	
	18	38	
	30	10	
CMP			
	12	14	

FOR REV. BY BEI ONLY

STATE OF MARYLAND — BRIAN F. CLEARY — NO. 28559 — REGISTERED PROFESSIONAL ENGINEER — 3/18/2011

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. 28559 Expiration Date: 7/22/11

AS-BUILT

NO.	DATE	REVISION	BY
13	7-31-12	REVISE ELEVATIONS FOR I-27 IN THE STRUCTURE SCHEDULE	SJT

SAA

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

DATE	No.	REVISION	BY
3-9-11	4	REVISE TITLE BLOCK	BET
2-16-06	3 Δ	REVISED INLET INVERTS	ALDEI
1-5-06	2 Δ	REVISED STRUCTURE SCHEDULE - INLETS LOCATIONS	ALDEI

ENGINEER'S CERTIFICATE

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SIGNATURE OF ENGINEER
DAVID C. WOESSNER

DEC. 10, 2004
DATE

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SIGNATURE OF DEVELOPER
DALE THOMPSON

DEC. 10, 2004
DATE

STATE OF MARYLAND — JOHN CHRISTOPHER WEIGEL — NO. 21431 — PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/5/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/28/05

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — DATE 2/8/05

TITLE :

STORM DRAIN PROFILES

PROJECT NAME :

SCOTS GLEN NORTH

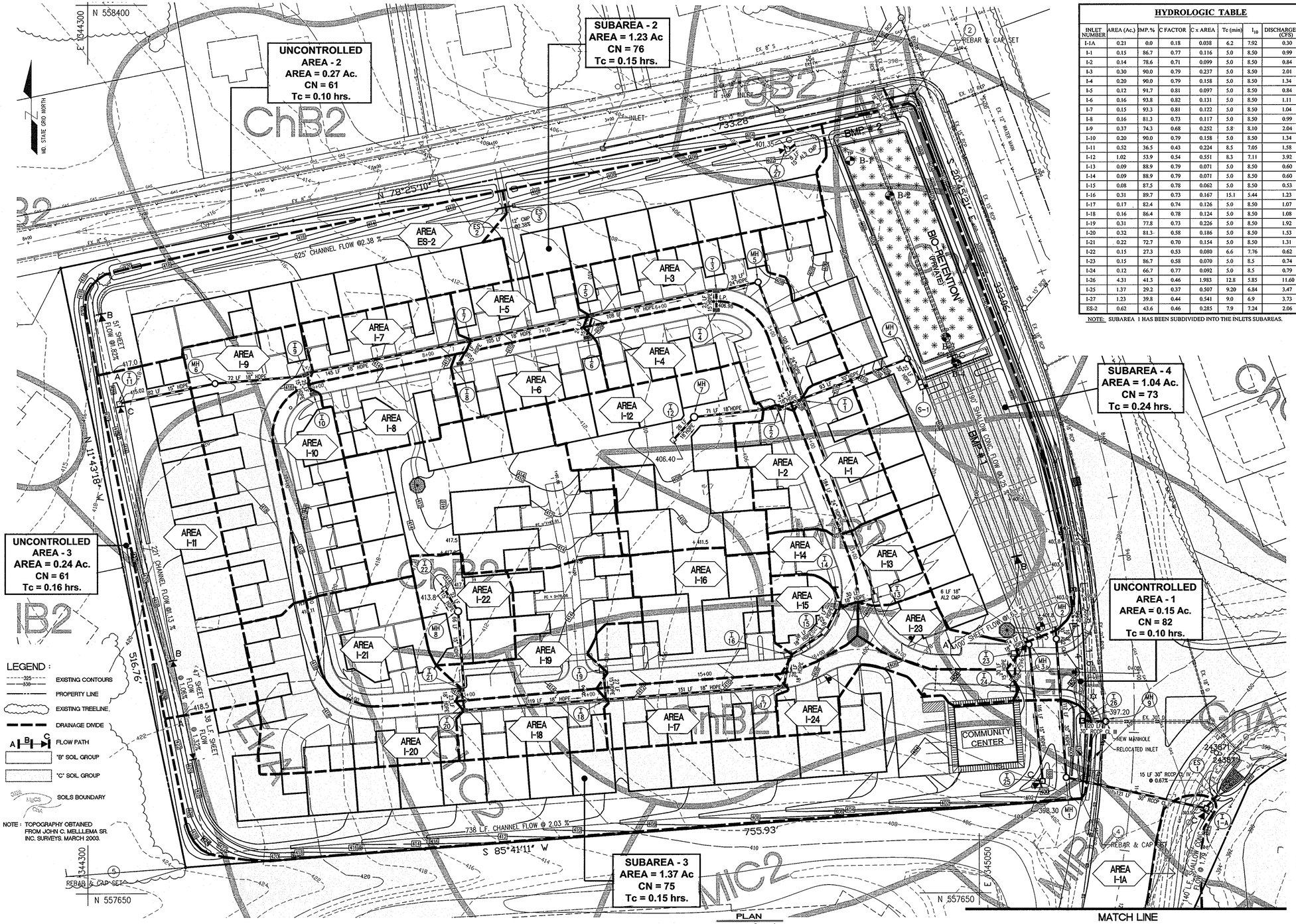
BUILDABLE BULK PARCEL "A" - UNITS 1-6,7A,8A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 9 OF 25

SDP-04-124

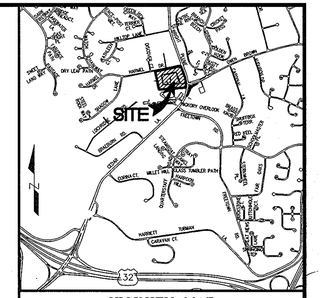
I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL SDP\STORMDRAIN&SEWERPROFILES.dwg, DRAINAGEPROFILES (2), 12/9/2004 7:36:03 PM, guz



HYDROLOGIC TABLE

INLET NUMBER	AREA (Ac.)	IMP.%	C FACTOR	C x AREA	Tc (min)	I_{10}	DISCHARGE Q_{10} (CFS)	ZONE
I-1A	0.21	0.0	0.18	0.038	6.2	7.92	0.30	R-20
I-1	0.15	86.7	0.77	0.116	5.0	8.50	0.99	R-20
I-2	0.14	78.6	0.71	0.099	5.0	8.50	0.84	R-20
I-3	0.30	90.0	0.79	0.237	5.0	8.50	2.01	R-20
I-4	0.20	90.0	0.79	0.158	5.0	8.50	1.34	R-20
I-5	0.12	91.7	0.81	0.097	5.0	8.50	0.84	R-20
I-6	0.16	93.8	0.82	0.131	5.0	8.50	1.11	R-20
I-7	0.15	93.3	0.81	0.122	5.0	8.50	1.04	R-20
I-8	0.16	81.3	0.73	0.117	5.0	8.50	0.99	R-20
I-9	0.37	74.3	0.68	0.252	5.8	8.10	2.04	R-20
I-10	0.20	90.0	0.79	0.158	5.0	8.50	1.34	R-20
I-11	0.52	36.5	0.43	0.224	8.5	7.05	1.58	R-20
I-12	1.02	53.9	0.54	0.551	8.3	7.11	3.92	R-20
I-13	0.09	88.9	0.79	0.071	5.0	8.50	0.60	R-20
I-14	0.09	88.9	0.79	0.071	5.0	8.50	0.60	R-20
I-15	0.08	87.5	0.78	0.062	5.0	8.50	0.53	R-20
I-16	0.31	89.7	0.73	0.167	15.1	5.44	1.23	R-20
I-17	0.17	82.4	0.74	0.126	5.0	8.50	1.07	R-20
I-18	0.16	86.4	0.78	0.124	5.0	8.50	1.08	R-20
I-19	0.31	77.8	0.73	0.226	5.0	8.50	1.92	R-20
I-20	0.32	81.3	0.58	0.186	5.0	8.50	1.53	R-20
I-21	0.22	72.7	0.70	0.154	5.0	8.50	1.31	R-20
I-22	0.15	27.3	0.53	0.080	6.6	7.76	0.62	R-20
I-23	0.15	86.7	0.58	0.070	5.0	8.5	0.74	R-20
I-24	0.12	66.7	0.77	0.092	5.0	8.5	0.79	R-20
I-26	4.31	41.3	0.46	1.983	12.8	5.85	11.60	R-20
I-25	1.37	29.2	0.37	0.507	9.20	6.84	3.47	R-20
I-27	1.23	39.8	0.44	0.541	9.0	6.9	3.73	R-20
ES-2	0.62	43.6	0.46	0.285	7.9	7.24	2.06	R-20

NOTE: SUBAREA 1 HAS BEEN SUBDIVIDED INTO THE INLETS SUBAREAS.



STATE OF MARYLAND — MICHAEL DAVID ADCOCK — NO. 21257 — PROFESSIONAL LAND SURVEYOR

AS-BUILT CERTIFICATION

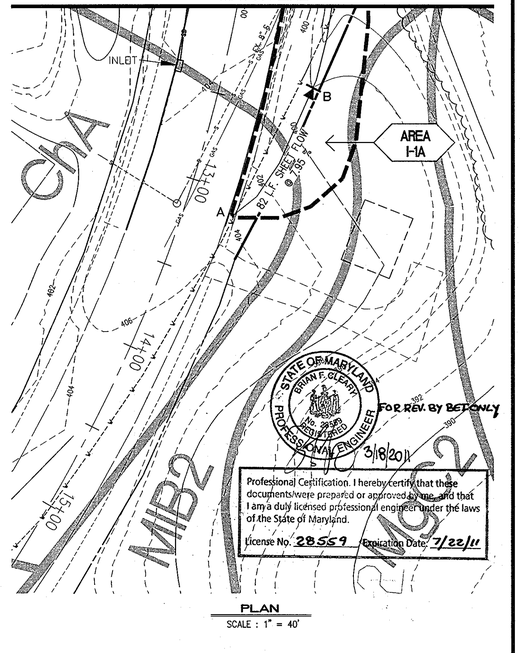
THERE IS NO 'AS-BUILT' INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 09-16-15

12/29/11
DATE

SOILS TABLE

SYMBOL	MAPPING UNIT	TYPE
ChA	CHESTER SILT LOAM, 0 TO 3 % SLOPE	B
ChB2	CHESTER SILT LOAM, 3 TO 8 % SLOPE, MODERATELY ERODED	B
ChC2	CHESTER SILT LOAM, 3 TO 8 % SLOPE, MODERATELY ERODED	B
EkA	ELIOAK SILT LOAM, 0 TO 3% SLOPE	C
GnA	GLENVILLE SILT LOAM, 0 TO 3% SLOPE	C
GnB2	GLENVILLE SILT LOAM, 3 TO 8% SLOPE MODERATELY ERODED	C
MIA	MANOR LOAM, 0 TO 3% SLOPE	B
MIB2	MANOR LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B
MIC2	MANOR LOAM, 8 TO 15% SLOPE MODERATELY ERODED	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B



PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

NO	DATE	REVISION	BY
1	3-9-11	REVISE TITLE BLOCK	BEI

ENGINEER'S CERTIFICATE

" I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER
DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON — DEC. 10, 2004 DATE

STATE OF MARYLAND — CHRISTOPHER M. WESSNER — No. 21627 — PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/6/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/20/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE : DRAINAGE AREA MAP, STORM DRAINS

PROJECT NAME :

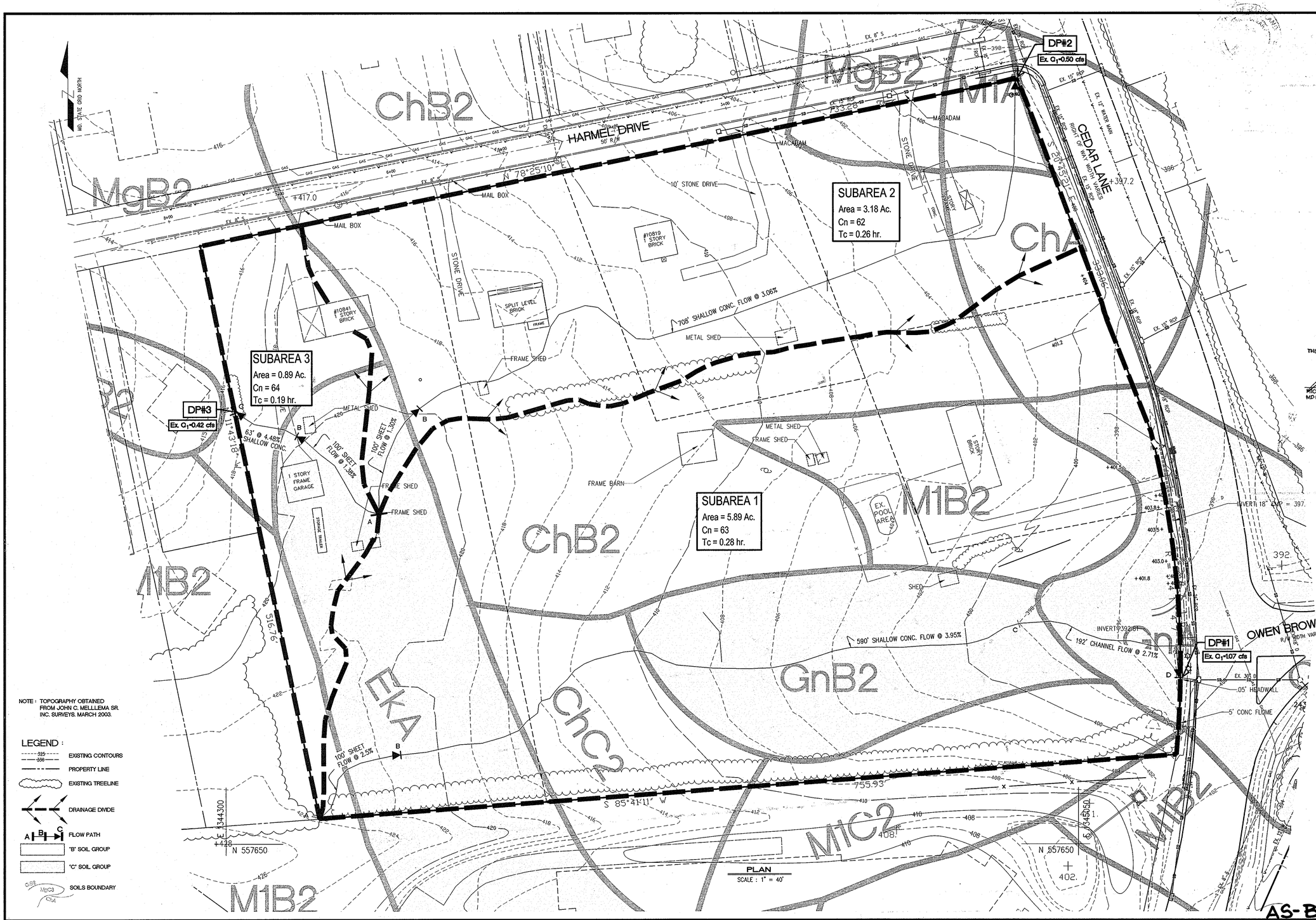
SCOTS GLEN NORTH
9-51, 52A-58A, 59-62, 63A-69A
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

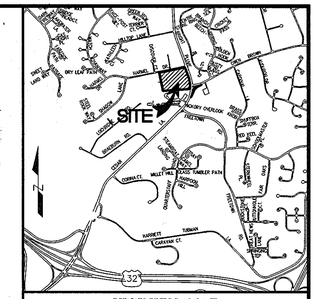
WP-11-108 | S-04-03 | PB CASE 362 | WP 04-114 | F-05-52 | F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : 1"= 40'	SHEET 10 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL\SDP\stormdrain drainage area.dwg, SD_DAR, 12/8/2004 7:37:58 PM, guz





NOTE : TOPOGRAPHY OBTAINED FROM JOHN C. MELLLEMA SR. INC. SURVEYS. MARCH 2003.

LEGEND :
- EXISTING CONTOURS (325 / 330)
- PROPERTY LINE
- EXISTING TREELINE
- DRAINAGE DIVIDE
- FLOW PATH (A B C)
- 'B' SOIL GROUP
- 'C' SOIL GROUP
- SOILS BOUNDARY (52 MgC2 ChA)

SOILS TABLE

SYMBOL	MAPPING UNIT	TYPE
ChA	CHESTER SILT LOAM, 0 TO 3 % SLOPE	B
ChB2	CHESTER SILT LOAM, 3 TO 8 % SLOPE, MODERATELY ERODED	B
ChC2	CHESTER SILT LOAM, 3 TO 8 % SLOPE, MODERATELY ERODED	B
EkA	ELIOAK SILT LOAM, 0 TO 3% SLOPE	C
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MIA	MANOR LOAM, 0 TO 3% SLOPE	B
MIB2	MANOR LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B
MIC2	MANOR LOAM, 8 TO 15% SLOPE MODERATELY ERODED	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B

HYDROLOGIC SUMMARY TABLE
(EXISTING CONDITION - SITE AREA ONLY)

SUBAREA	AREA, Ac.	CN	Tc, HR.	DISCHARGE, CFS (1)			
				1 YR.	2 YR.	10 YR.	100 YR.
SUBAREA 1	5.89	63	0.28	1.07	2.09	9.94	19.95
SUBAREA 2	3.18	62	0.26	0.50	1.37	5.31	10.80
SUBAREA 3	0.89	64	0.19	0.42	0.79	2.24	4.11

(1) DISCHARGES SHOWN FOR SUBAREAS 1-3 ARE AT DP #1 - DP #3 RESPECTIVELY.

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

STATE OF MARYLAND — MICHAEL DAVID ADCOCK — No. 21257 — PROFESSIONAL LAND SURVEYOR

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 05-16-15

12/29/11
DATE

STATE OF MARYLAND — BRIAN F. GLEBERT — No. 28559 — REGISTERED PROFESSIONAL ENGINEER

FOR REV. BY BEI ONLY

3/8/2011

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. 28559, Expiration Date: 7/22/11

AS-BUILT

PREPARED BY :

American Land Development and Engineering, Inc.
10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

NO	DATE	REVISION	BY
1	3-9-11	REVISE TITLE BLOCK	BEI

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER
DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON — DEC. 10, 2004 DATE

STATE OF MARYLAND — CHRISTOPHER W. PHILLIPS — No. 21437 — PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE : **STORMWATER MANAGEMENT DRAINAGE AREA MAP (SITE AREA ONLY) EXISTING CONDITION**

PROJECT NAME :

SCOTS GLEN NORTH

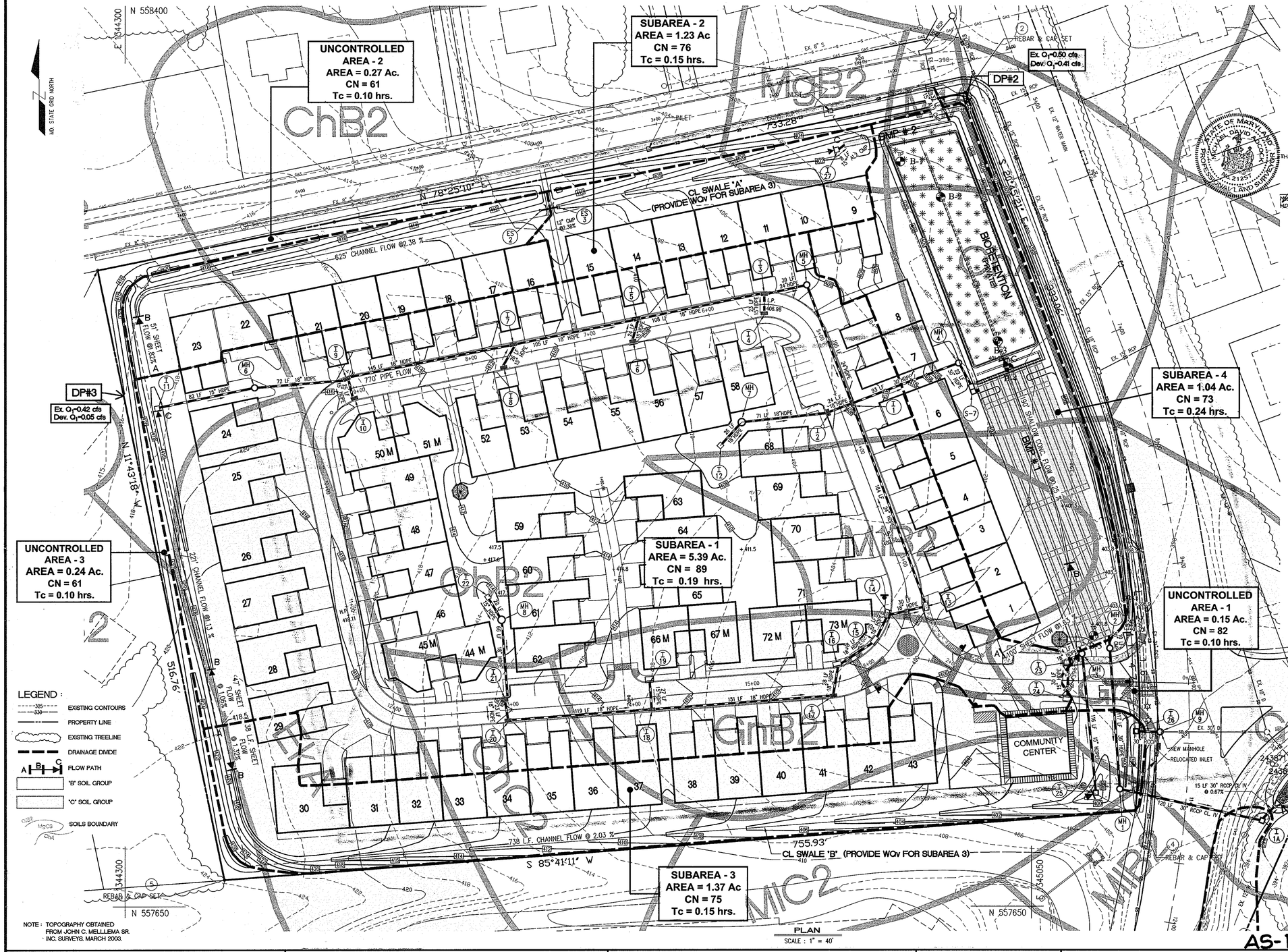
9-51, 52A-58A, 59-62, 63A-69A
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : 1" = 40'	SHEET 11 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL\SDP\DRAINAGE AREA MAP1.dwg, DAM onsite (EX COND), 12/9/2004 7:40:04 PM, guz



PLAN
SCALE : 1" = 40'

STATE OF MARYLAND BRIAN F. CLEARY PROFESSIONAL ENGINEER 21615 REGISTERED

FOR REV. BY BEI ONLY

3/8/2011

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. 28559 Expiration Date: 7/22/11

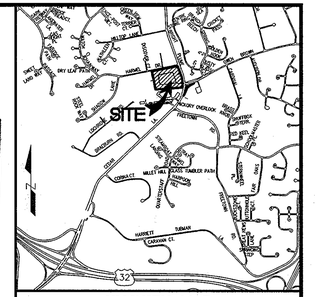
AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

STATE OF MARYLAND MICHAEL DAVID ADCOCK 21257 REGISTERED PROFESSIONAL LAND SURVEYOR

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. No. 21257 EXPIRATION DATE: 06-1615

12/29/11
DATE



SUMMARY TABLE

DESCRIPTION	No. 1	No. 2	No.3	No.4	Unc. 1	Unc. 2	Unc. 3	Comb. 1, 3&4
HYDROLOGIC DATA								
Area, Ac.	5.39	1.23	1.37	1.04	0.15	0.27	0.24	7.8
CN	89	76	75	73	82	61	61	84
Tc, Hr.	0.19	0.15	0.15	0.24	0.1	0.1	0.1	0.24
DISCHARGES, CFS								
1 Year	10.23	1.19	1.23	0.58	0.2	0.05	0.05	12.03
2 Year	13.7	1.86	1.95	1.01	0.28	0.14	0.14	16.65
10 Year	24.77	4.26	4.56	2.66	0.56	0.53	0.53	31.97
100 Year	36.92	7.11	7.69	4.68	0.88	1.07	1.07	49.28
SWM CATEGORIES								
WATER QUALITY, WQv	Bio-retention	Swale	Swale	Bio-retention	N/A	N/A	N/A	See Left
Required	10,516 SF	1,742 CF	1,525 CF	w/ No. 1	N/A	N/A	N/A	See Left
Provided	10,730 SF	1,773 CF	2,081 CF	w/ No. 1	N/A	N/A	N/A	See Left
RECHARGE VOLUME, Rev								
Required	3,398	w/ WQv	w/ WQv	w/ No. 1	N/A	N/A	N/A	See Left
Provided	w/ WQv	w/ WQv	w/ WQv	w/ WQv	N/A	N/A	N/A	See Left
CHANNEL PROTECTION, Cpv								
Required	21,824 CF	Qi<2.0 CFS	Qi<2.0 CFS	w/ No. 1	N/A	N/A	N/A	See Left
Provided	23,402 CF	Exempt	Exempt	w/ No. 1	N/A	N/A	N/A	See Left
OVERBANK FLOOD PROTECTION, Qp								
Required	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Left
Provided	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Left
EXTREME FLOOD, Qf								
Required	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Provided	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTE: N/A - Not Applicable

SOILS TABLE

SYMBOL	MAPPING UNIT	TYPE
ChA	CHESTER SILT LOAM, 0 TO 3 % SLOPE	B
ChB2	CHESTER SILT LOAM, 3 TO 8 % SLOPE, MODERATELY ERODED	B
ChC2	CHESTER SILT LOAM, 3 TO 8 % SLOPE, MODERATELY ERODED	B
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MIC2	MANOR LOAM, 8 TO 15% SLOPE MODERATELY ERODED	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B

SWM NOTES :

1. GRASS SWALE No. A IS TO PROVIDE WATER QUALITY, WQv, CONTROL FOR SUBAREA No.2.

2. BIORETENTION FACILITY IS TO PROVIDE WATER QUALITY, WQv, CONTROL FOR SUBAREAS 1 & 4. SAND FILTER LAYER, GRAVEL DIAPHRAGM, AND 3" OF MULCH LAYER SHALL BE PROVIDED AS PRE-TREATMENT OF FACILITY.

3. THE UNDERGROUND DETENTION SYSTEM No. 1 IS TO PROVIDE Cpv, & Qp(1YR) CONTROL FOR SUBAREA No.1.

4. GRASS SWALE No. B IS TO PROVIDE WATER QUALITY, WQv, CONTROL FOR SUBAREA No. 3.

5. THE UNDERGROUND DETENTION SYSTEM No. 2 IS TO PROVIDE Qp 1YR) CONTROL FOR SUBAREA 2.

6. AT THE CHECK DAMS, PERFORATED PIPES IMBEDDED IN # 2 STONES 1-FOOT ALL AROUND WILL BE PROVIDED, DESIGNED TO DRAIN SWALES W/IN 24-HOUR PERIOD.

7. ALLOWABLE DISCHARGE AT STUDY POINTS ARE :
a. DISCHARGE POINT 1 – EXISTING CONDITION (SITE ONLY) DISCHARGE = 1.07 CFS

b. DISCHARGE POINT 2 – EXISTING CONDITION (SITE ONLY) DISCHARGE = 0.50 CFS.

c. DISCHARGE POINT 3 – EXISTING CONDITION (SITE ONLY) DISCHARGE COMPARED WITH UNCONTROLLED AREA 3 DEVELOPED CONDITION DISCHARGE = 0.42 CFS.

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

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Columbia, Md. 21046

NO	DATE	REVISION	BY
1	3-9-11	REVISE TITLE BLOCK	BEI

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SIGNATURE OF ENGINEER
DAVID C. WOESSNER

DEC. 10, 2004
DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON

DEC. 10, 2004
DATE

STATE OF MARYLAND DAVID C. WOESSNER 21615 REGISTERED PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE : STORMWATER MANAGEMENT / DRAINAGE AREA MAP DEVELOPED CONDITION

PROJECT NAME :

SCOTS GLEN NORTH

9-51, 52A-58A, 59-62, 63A-69A

BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : 1" = 40'	SHEET 12 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL\SDP\stormdrain drainage area.dwg, SWM DAM DEV COND, 12/9/2004 7:41:20 PM, guz

SCHEDULE "A" PERIMETER LANDSCAPE EDGE											
PERIMETER	CATEGORY P (Proportion/ R Roadways)	Landscape Type	Linear Feet of Roadway Frontage/Perimeter	Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	Number of Plants Required			Provided		
						Evergreen Trees	Shade Trees	Shrubs	Evergreen Trees	Shade Trees	Shrubs
P 1	R	C	640 FT.	0	*YES 640' BERM & WALL	0	11	–	14	4	–
P 2	P	B	757 FT	0	X10	19	15	–	60	0	–
P 3	P	C	520 FT.	0	*YES BERM 520'	0	9	–	0	9	–
P 4	R	C	740 FT.	0	*YES 70'WALL.	34	17	–	49	10	–
					TOTAL	53	52	–	123	23	–

NOTE:

1. FOR PERIMETER 1, A COMBINATION OF 3FT. BERM AND 4 FT. WALL IS PROPOSED.
2. A CREDIT FOR EVERGREEN PLANTING HAS BEEN TAKEN FOR PERIMETER 3 FOR THE PROPOSED 3 FOOT BERM.
3. NO CREDIT IS TAKEN FOR PERIMETER 4 SINCE THE BERM IS LESS THAN 6 FEET.
4. WE PROPOSE TO TREAT SFD AS SFA FOR THE PURPOSES OF CALCULATING REQUIRED TREES.
5. LANDSCAPE BUFFER HAS BEEN REDUCED TO 10 FT. ALONG PERIMETER AN UPRIGHT EVERGREEN SCREEN OF LEYLAND CYPRESS PROPOSED. BEHIND THE RESIDENTIAL UNITS.

SCHEDULE "D" STORMWATER MANAGEMENT AREA LANDSCAPING	
Linear Feet of Perimeter	BIO-RETENTION AREA # 1
Number of Trees Required Shade Trees 1:50 Evergreen Trees 1:40	420 FT. 9 11
Credit for Existing Vegetation (No, Yes and %)	0
Credit for Other Landscaping (No, Yes and %)	YES 100%

SCHEDULE "C" RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING			
Number of Dwelling Units	22 SFD AND 4 SFA		
Number of Trees Required (1:DU SFA; 1:3 DU APTS)	47		
Number of Trees Provided (2:1 ratio Evergreen to Shade)	EVREGREEN / SMALL DECIDUOUS	SHADE	TOTAL EQUIVALENT TREES
	43 = (21.5 SHADES 2:1 RATIO) +	27	48.5

EXCEEDS REQUIRMENT

SCHEDULE "B" PARKING LOT INTERNAL LANDSCAPING		
Number of Parking Units		29 SP
Number of Trees Required	1 PER 10 SPACES	3
Number of Trees Provided		30 SHRUBS

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET

MICHAEL D. ARCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21287, EXPIRATION DATE: 06-16-15

12/29/11
DATE

AS-BUILT CERTIFICATION

STREET TREES (1:40 FT.)		REQUIRED**	PROVIDED
HARMEL DRIVE	733 FT.	18 TREES	18
CEDAR LANE	620 FT.	15 TREES	14 LARGE 2 SMALL
McGREGOR DRIVE	1640 FT.	54 TREES	4 LARGE 45 SMALL TREES
TOTAL TREES		87 TREES	89

** SMALL TREES PROVIDED @ 1:30 51 SMALL TREES REQUIRED

Release of surety will not be granted until all landscaping shown on the approved final plan or site development plan has been completed in accordance with the approved landscape plan. Surety for landscaping shall be based on the total number of required new trees (shade, ornamental and evergreen) or comparable elements shown on the landscape plan. The unit prices to be used for establishing surety requirements shall be in accordance with the adopted County Fee Schedule which is $300.00 per shade tree, $150.00 per evergreen/ornamental tree, $30.00 per shrub, $10.00 per linear feet of fencing and $20.00 per linear feet of wall.

Based on all the Planting Schedule, the surety for required landscaping is the following:

151 shade trees x $300.00 = $45,300 (Schedule A = 48, Sch. B = 2, Sch. C = 46, Large Street Trees = 55)
294 ornamental/evergreen trees x $150.00 = $33,600 (Sch. A = 97 Sch. C = 67 Alt. Compliance = 5 and 55 Small Street Trees)
31 Shrubs x $30.00 = $930.00 (Alt. Compliance)

640 linear feet of wall x $20.00 = $12,800.00

Total = $84,630.00

LANDSCAPE LEGEND			
QUANTITY	SYMBOL	DESCRIPTION	SIZE
37	Ar1	Acer rubrum 'Red Sunset' Red Maple	2 1/2" cal.
6	Ar2	Acer rubrum 'Armstrong' Armstrong Columnar Red Maple	2 1/2" cal.
9	Ar3	Acer rubrum 'October Glory' October Glory Red Maple	2 1/2" cal.
13	Qp	Quercus phellos Willow Oak	2 1/2" cal.
9	Qr	Quercus rubra Northern Red Oak	2 1/2" cal.
3	Sn	Salix nigra Black Willow	12' CAL. IN CONTAINER
6	Pa	Platanus acerifolia 'Bloodgood' Bloodgood London Plane Tree	2 1/2" cal.
84	Cl	Cuppressocyparis leylandi Leyland Cypress	5'-6' Ht.
9	Io	Ilex opaca American Holly	5'-6' Ht.
28	P	Pinus Thunbergii Norway Spruce	6'-8' Ht.
28	Ps	Pinus Strobus Eastern White Pine	6'-8' Ht.
5	Bn	Betula nigra 'Heritage' Heritage River Birch	8' Ht.
12	Ck	Cornus kousa Kousa Dogwood	8-10' Ht.
1	Mf	Malus floribunda 'Harvest Gold' Harvest Gold Flowering Crabapple	2 1/2" cal.
2	Psk	Prunus serrulata 'Kwanzan' Kwanzan Cherry	2 1/2" cal.
16	Py	Prunus x. yeodensis Yoshino Cherry	2 1/2" cal.
11	⊙ ea	Euonymous alatus 'compactus' Dwarf Winged Euonymous	30" Ht. 36" o.c.

AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE.

3	B	Rhododendron sp. SYMBOL = ⊙R	2'-2½' Ht.
6	A2	Azalea sp. Symbol = ⊙A2	18"-24" spread

1	GB	Ginko Biloba	2½"-3" Cal.
29	Li	Lagerstroemia Indica 'Dynamite'	6'-8' Ht.
3	Jm	Acer Palmatum Japanese Maple	2½'-3' Ht.
1		Magnolia	2½'-3' Ht.
2		Blue Atlas	2½'-3' Ht.
1		Pyracantha sp.	2½'-3' Ht.
1		Chaste tree	2½'-3' Ht.
10		Arborvitae (Shrub) ⊙A Symbol	2½'-3' Ht.

LEGEND:
- 325 / 330 — EXISTING CONTOURS
- PROPERTY LINE
- 10' BRL — SETBACK LINE
- EXISTING TREELINE
- LS — PROP. LANDSCAPING

STATE OF MARYLAND — DONALD JOSEPH SMITH — No. 15228 — REGISTERED PROFESSIONAL ENGINEER
8/24/07

Release of surety will not be granted until all landscaping shown on the approved final plan or site development plan has been completed in accordance with the approved landscape plan. Surety for landscaping shall be based on the total number of required new trees (shade, ornamental and evergreen) or comparable elements shown on the landscape plan. The unit prices to be used for establishing surety requirements shall be in accordance with the adopted County Fee Schedule which is $300.00 per shade tree, $150.00 per evergreen/ornamental tree, $30.00 per shrub, $10.00 per linear feet of fencing and $20.00 per linear feet of wall.

Based on all the Planting Schedule, the surety for required landscaping is the following:

151 shade trees x $300.00 = $45,300 (Schedule A = 48, Sch. B = 2, Sch. C = 46, Large Street Trees = 55)
294 ornamental/evergreen trees x $150.00 = $33,600 (Sch. A = 97 Sch. C = 67 Alt. Compliance = 5 and 55 Small Street Trees)
31 Shrubs x $30.00 = $930.00 (Alt. Compliance)

640 linear feet of wall x $20.00 = $12,800.00

Total = $84,630.00

"CLARY'S DISCOVERY VII" PLAT # 11924 PARCEL NO. 442, LOT 2 RO, CHANHEE C. & RO, KEVIN S. T/E 6264/587 ZONING: R20 USE: R

"BINKLEY PROPERTY" PLAT #12161 PARCEL NO. 196, LOT 3 STOUFFER, BETTY M. 5319/293 ZONING: R20 USE: R

EX. MULTI-FAMILY HOUSE

"JUDWIG PROPERTY" PLAT #12220 PARCEL NO. 365, LOT 6 RAMACHANDRAN, SUNIL & SUMA 5229/268 ZONING: R20 USE: R

EX. HOUSE

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. 28859, Expiration Date: 7/22/11

STATE OF MARYLAND — BRIAN F. CLEARY — No. 28859 — REGISTERED PROFESSIONAL ENGINEER
3/18/2011

FOR REV. BY BETOMY 11,12

NOTE: NEIGHBORHOOD CHRISTMAS TREE TO BE SAVED
INSTALL TREE PROTECTION FENCE PRIOR TO GRADING

NOTE: SHEET 14 PROVIDES DETAIL FOR 9 SHADE TREES, 37 SHRUBS, AND 11 NORWAY SPRUCES AS PART OF THE WATER QUALITY FACILITY AND, THEREFORE, IS CREDITED AGAINST LANDSCAPE OBLIGATION.

"CLARY'S DISCOVERY VIII" PLAT # 11924 PARCEL NO. 442, LOT 1 HENRY, ROGER L. & GREENBERG DEBORAH R. 6398/0460 ZONING: R20 USE: R

"CLARY'S DISCOVERY II" PLAT #12118 PARCEL 103, LOT 4 PARK, HO RAK & PARK EUN KYUNG T/E 6417/509 ZONING: R20 USE: R

"CLARY'S DISCOVERY III" PLAT #11738 PARCEL 103, LOT 3 ARNOLD, GIANNA M JULIAN ARNOLD BRADLEY R 4070/0044 ZONING: R20 USE: R

"HEPPING PROPERTY - PLAT # 5583" PARCEL NO. 365, LOT 7 MANGIONE, NICHOLAS B. ET AL C/O COMMERCIAL CONTRACTORS, INC 00741/0052 ZONING: POR USE: C

"VHR, SECTION 1, AREA1" PLAT # 3556 PARCEL 289, LOT J4 LEVINE, SAMUEL JR. & NANCY 4461/158 ZONING: NT USE: R

"VHR, SECTION 1, AREA1" PLAT # 3556 PARCEL 289, LOT J5 ROCHA, MANUEL 4451/277 ZONING: NT USE: R

"VHR, SECTION 1, AREA1" PLAT # 3556 PARCEL 289, LOT J8 WILSON, CAROLE ANN PHIPPS TRUSTEE 4939/424 ZONING: NT USE: R

N 558400
N 557650
E 1344300
E 1345600

HARMEL DRIVE — 50' R/W
CEDAR LANE — PROP. ABATEMENT WALL WIDTH VARIES
McGREGOR DRIVE — PRIVATE ROAD 20' PAVEMENT
DUPONT DRIVE
CHASTE TREE
BLUE ATLAS
MAGNOLIA
PYRACANTHA SP.
EX. SIDEWALK
4' SIDEWALK
5' SIDEWALK
6' SIDEWALK
MD. STATE GRID NORTH

PERIMETER #4 (740 FT.)
PERIMETER #3 (520 FT.)
PERIMETER #2 (757 FT.)
PERIMETER #1 (640 FT.)

20' LANDSCAPED BUFFER
PROP. 3' BERM
30' STRUCTURE AND USE SETBACK LINE
10' LANDSCAPED BUFFER BETWEEN WALL & R/W
BIO-RETENTION
BMP # 1
BMP # 2
PROP. 3' BERM
PROP. 6' HIGH ENCLOSED WOODEN FENCE
REMOVE FENCE
60' - LEYLAND CYPRESS
10' LANDSCAPED BUFFER A CLOSED FENCE IS PROPOSED ALONG PERIMETER # 2.
ALTERNATE COMPLIANCE WILL BE PROPOSED WHERE 15' BETWEEN STRUCTURE AND PARKING AREA IS NOT AVAILABLE SEE DETAIL SHEET 14
PROP. 6' HIGH ENCLOSED WOODEN FENCE SEE DETAIL SHEET 24
PROP. NOISE ABATEMENT WALL TO BE PLACED UPON 3' BERM
NOTE: FENCE TO BE TERMINATED 50 FT. FROM PROPERTY LINE.
FOR ENTRANCE ROAD AND COMMUNITY BUILDING ORNAMENTAL LANDSCAPING PLAN SEE SHEET 24
OWEN BROWN RD.
COMMUNITY CENTER
10' LANDSCAPED BUFFER
15' PUBLIC WATER & UTILITY EASEMENT PLAT #17102
10'x19' FIRE HYDRANT EASEMENT PLAT #17102
MOD. SHGA CONC. CURB & GUTTER
SIDEWALK RAMP
GAR.
SITTING AREA
2.5' PRIVACY FENCE
AS-BUILT

NO.	DATE	REVISION	BY
1	4-25-05	A SIDEWALK BEND CONNECTING TO HARMEL PK. & COMMUNITY CENTER FOOT PRINT	ALDEI
2	8-16-06	REVISED PARKING LOT @ COMMUNITY CENTER.	ALDEI
3	8-18-06	REVISED ENTRANCE WALL PARCEL 289, LOT J2 OWDEN, MARY JANE 4463/200	ALDEI
4	8-28-07	DECK/PATIO ADDED TO UNITS 61462	ALDEI
5	4-16-08	REVISED LANDSCAPING, REMOVE GAZEBOS, SOUTH SIDE PERIMETER	ALDEI
6	3-9-11	REVISE SOME UNITS, RELOCATE SOME TREES, REMOVE GAZEBO & BOCCE COURT, ADD 12 PROPOSED TREES	ALDEI
		SPACES ADDU TREE, REMOVE INTERNAL SIDEWALK, REVISE GRADES	

NO	DATE	REVISION	BY
12	11-15-11	REVISE LANDSCAPE PLAN TO REFLECT EXISTING + PROPOSED PLANTING	BET

PREPARED BY:

American Land Development and Engineering, Inc.
10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER:

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

DEVELOPER'S/OWNER'S LANDSCAPE 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 LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S/OWNER'S NAME
DALE THOMPSON

DEC. 10, 2004
DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

HOWARD SCD — DATE

STATE OF MARYLAND — DONALD JOSEPH SMITH — No. 15228 — REGISTERED PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 11/6/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 11/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 12/1/05 DATE

TITLE:

LANDSCAPE PLAN

PROJECT NAME:

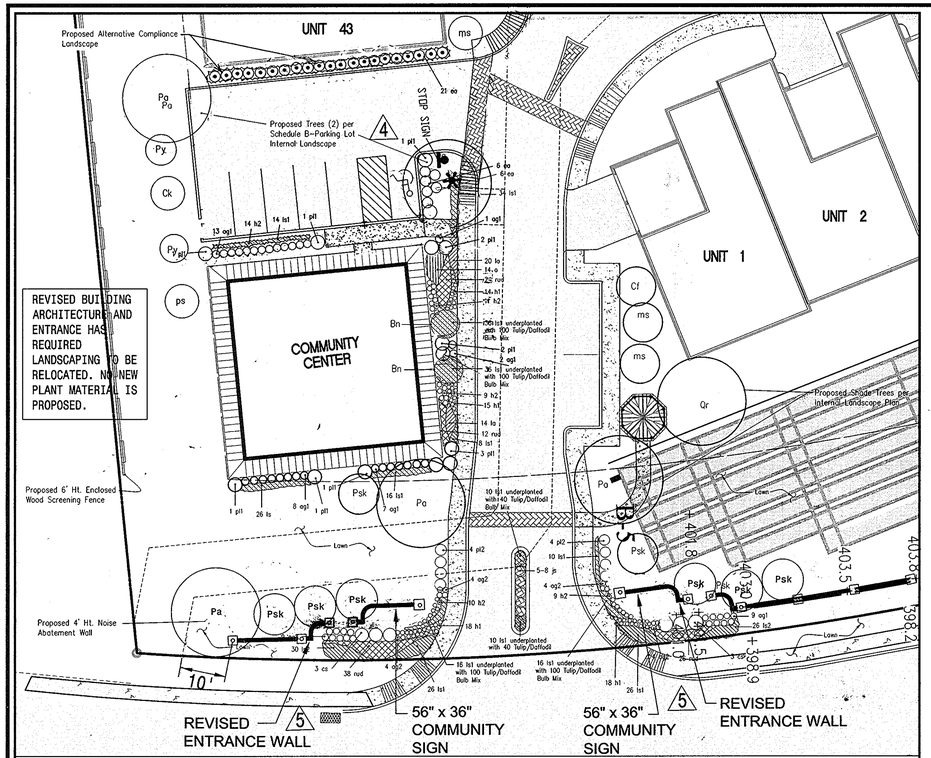
SCOTS GLEN NORTH

BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES.: DCW/JL/AVG	JOB:	PROJ.:	DATE: 12-10-04
DRW.: AVG/DTA/JNC	CHK.: D.C.W.	SCALE: 1" = 40'	SHEET 13 OF 25

SDP-04-124



NON-BONDED LANDSCAPING - PLAN

SCALE : 1" = 20'

Miscellaneous

Entrance & Community Building Landscaping (Not included in Minimum Landscape Submission)

Quantity	Symbol	Name	Size	Comments
Small/Flowering Trees				
2	Bn	Betula nigra 'Heritage' Heritage River Birch	8' ht.	Clumped form for Entry Walk Space on Site to avoid future Walking Conflicts
1	Cf	Cornus florida Flowering Dogwood	8-10' ht.	---
1	Ck	Cornus kousa Kousa Dogwood	8-10' ht.	---
2	Py	Prunus x. yeodensis Yoshino Cherry	1 ½" cal.	---
Evergreen Trees				
3	ms	Magnolia x. soulangiana Saucer Magnolia	8' Ht.	---
1	ps	Pinus strobus Eastern White Pine	6' Ht.	6' Ht. Minimum. 6-8' Ht. Desired
Shrubs				
49	cs	Azalea 'Gumpo' Gumpo White Azalea	18-24" ht.	Plant spacing @ 24" o.c.
16	cs	Azalea 'Gumpo' Gumpo Pink Azalea	18-24" ht.	Plant spacing @ 24" o.c.
6	cs	Cornus stolonifera Red Osier Dogwood	36" ht.	Plant spacing @ 48" o.c.
27	ea	Euonymous alatus 'compactus' Dwark Winged Euonymous	30" ht.	Plant spacing @ 36" o.c.
5-8	jc	Juniperus chinensis	#3 cont.	Plant 18-24" o.c. depending on spread
14	pl	Prunus laurocerasus 'Otto Luyken' Otto Luyken Cherry Laurel	30" ht.	Plant spacing @ 36" o.c.
8	pl2	Prunus laurocerasus 'Nana' Nana Cherry Laurel	30" ht.	Plant spacing @ 36" o.c
Perennials/Groundcovers				
14	a	Astilbe 'Deutschland' Astilbe	#1 cont.	Plant spacing @ 18" o.c.
66	h1	Hemerocallis ' Stella De Oro' Stella De Oro Daylily	#1 cont.	Plant Spacing @ 18" oc.
40	h2	Hemerocallis 'Happy Returns' Happy Returns Daylily	#1 cont.	Plant Spacing @ 18" oc.
34	la	Lavendula angustifolia 'Hidcote' Hidcote Lavendar	#1 cont.	Plant spacing @ 15" oc
288	ls1	Liriope spicata Spreading Lilyturf	#1 cont.	Plant spacing @ 15" ocor
56	ls2	Liriope spicata 'Silver Dragon' Variegated Spreading Lilyturf	#1 cont.	Plant spacing @ 15" oc.
100	rg	Rudbeckia 'Goldstrum' Black-eyed Susan	#1 cont.	Plant spacing @ 15" oc.
480	--	Daffodil & Tulip Bulb Mix	Bulb	Plant bulbs between Liriope @ 4-6" o.c.

Typical Gazebo Landscaping

Quantity	Symbol	Name	Size	Comments
Shrubs				
8	pl	Prunus laurocerasus 'Otto Luyken' Otto Luyken Cherry Laurel	24" ht.	Plant Spacing @ 36" oc.
Perennials/Groundcovers/Bulbs				
32	lm	Liriope muscari Common Green Lilyturf	#1 cont	Plant Spacing @ 12" oc.
20	h	Hemerocallis ' Stella De Oro' Stella De Oro Daylily	#1 cont.	Plant Spacing @ 18" oc.lid
140	--	Daffodil & Tulip Bulb Mix	Bulb	Plant bulbs between Liriope @ 4-6" o.c.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

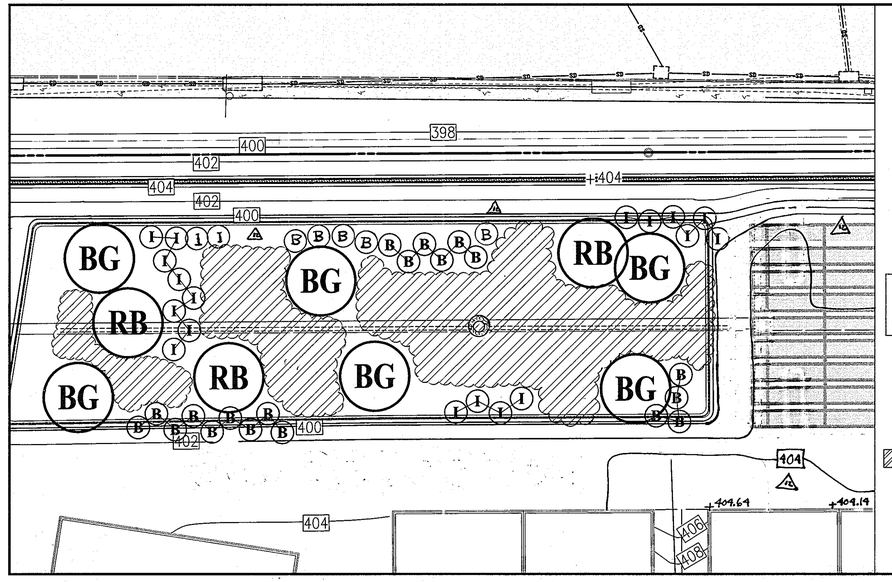
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-15

12/29/11
DATE

STATE OF MARYLAND · MICHAEL DAVID ADCOCK · No. 21257 · PROFESSIONAL LAND SURVEYOR

ENTRANCE AND COMMUNITY BUILDING LANDSCAPE PLAN

(NON-BONDED)



Typical Bio-Retention Landscaping

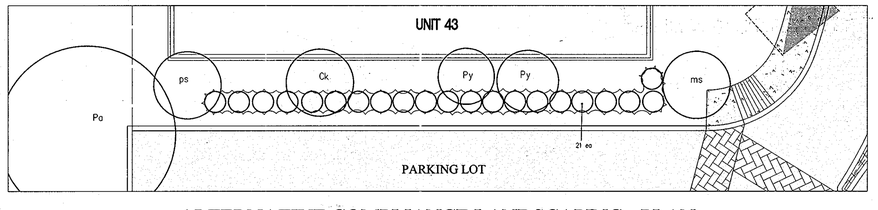
Shrubs Quantity	Symbol	Description	Size
3	RB	Betula nigra River Birch	8'-9' HT.
6	BG	Nyssa sylvatica Black Gum	8'-9' HT.
24	B	Cephalanthus occidentalis Buttonbush	1 GAL CONT.
20	I	Ilex glabra Inkberry	1 GAL CONT.
450		Lobelia cardinalis Cardinal Flower	1 GAL CONT.
350		Rudbeckia laciniata Tall Coneflower	1 GAL CONT.
350		Iris versicolor Blue Flag	1 GAL CONT.

PLANTING MATERIAL SELECTED FROM THE LANDSCAPING GUIDELINES FOR STORM WATER BMP'S (APPENDIX "A" TABLE A.4)

MIXED PERENNIALS (CARDINAL FLOWER, CONEFLOWER, BLUE FLAG)

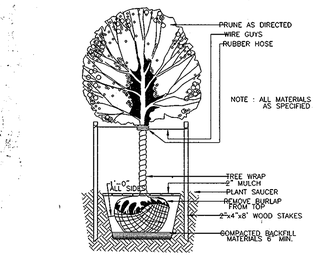
BIORETENTION LANDSCAPING - DETAIL

SCALE : 1" = 20'



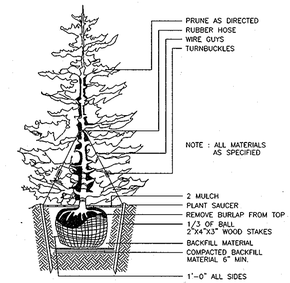
ALTERNATIVE COMPLIANCE LANDSCAPING - PLAN

SCALE : 1" = 10'



TYPICAL DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

FOR REVS. BY MHG ONLY

STATE OF MARYLAND · STEPHANIE J. TUTTLE · No. 21509 · PROFESSIONAL ENGINEER

FOR REV. BY BEI ONLY

STATE OF MARYLAND · BRIAN F. CLEARY · No. 28559 · REGISTERED PROFESSIONAL ENGINEER

3/18/2011

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. 28559, Expiration Date: 7/22/11

TABLE 1A. TRAFFIC NOISE PREDICTION RESULTS

peak-hour equivalent sound levels for 2008 Cedar Ln. traffic;
all values rounded to nearest whole decibel; **bold** sound levels exceed Howard County design goal

ID	EVALUATION LOCATION Position Coordinates X	Y	Elev.	PRED. SOUND LEVEL (Dba) without Mitigation $L_{Aeq1hrPk}$	with Mitigation* $L_{Aeq1hrPk}$	IL†
L01A	1,345,089	557,915	402.0	71	64	6
L04A	1,345,048	558,017	402.0	68	62	7
L06A	1,345,022	558,083	402.0	66	61	5
L08A	1,344,994	558,167	400.5	59	61	-2
L09A	1,344,932	558,266	402.0	66	63	2

*1-ft barrier wall on 3-ft berm, per Staiano Engineering, Inc. Report No. L 04621
†Insertion loss (IL) is the sound attenuation provided by a noise barrier

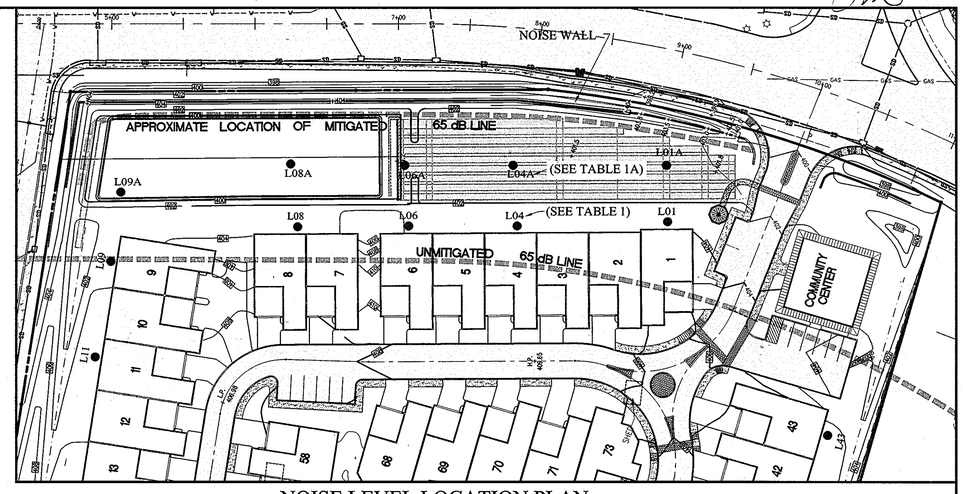
TABLE 1. TRAFFIC NOISE PREDICTION RESULTS

peak-hour equivalent sound levels for 2008 Cedar Ln. traffic;
all values rounded to nearest whole decibel; **bold** sound levels exceed County design goal

ID	EVALUATION LOCATION Position Coordinates X	Y	Elev.	PRED. SOUND LEVEL (Dba) without Mitigation $L_{Aeq1hrPk}$	with Mitigation* $L_{Aeq1hrPk}$	IL†
L01	1345051.0	557884.3	403.5	67	65	3
L04	1345011.9	557990.1	406.5	67	63	4
L06	1344979.8	558090.5	407.5	67	62	● 5
L08	1344945.2	558173.8	408.5	67	62	5
L09	1344910.0	558257.7	408.5	67	64	3
L11	1344839.8	558243.4	409.5	63	61	3
L43	1344973.5	557756.7	406.5	63	63	0

*1-ft barrier wall on 3-ft berm, per 15-December-2003 Comprehensive Sketch Plan and Figures 1 and 2
†Insertion loss (IL) is the sound attenuation provided by a noise barrier

● THE 3 FT. BERM AND 4 FT. WALL HAVE REDUCED NOISE TO 65 dB OR LESS IN THE REAR YARDS OF I-11 AND 43.



NOISE LEVEL LOCATION PLAN

SCALE : 1" = 50'

AS - BUILT

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

12	9-22-11	ADDITS. STONE TRENCH, BIO-RETENTION AREA, AND INTERNAL PLANTING TO REFLECT AS-BUILT CONDITIONS AND QUANTITIES TO PERENNIALS & REVISE GRADING	SST
11	3-9-11	REVISE TITLE BLOCK	BEI
10	8-18-06	REVISED ENTRANCE WALL	ALDE
9	8-16-06	REVISED PARKING LOT & ADJUST LANDSCAPING @ COMMUNITY CENTER	

REVISIONS

DEVELOPER'S/OWNER'S LANDSCAPE 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 LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S/OWNER'S NAME
DALE THOMPSON

DEC. 10, 2004
DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

HOWARD SCD — DATE

STATE OF MARYLAND · BRIAN CHRISTOPHER NEUBERGER · No. 21509 · PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/6/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/25/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE : **NOISE ATTENUATION PLAN AND NON-BONDED LANDSCAPING**

PROJECT NAME :

SCOTS GLEN NORTH

9-51, 52A-58A, 59-62, 63A-69A

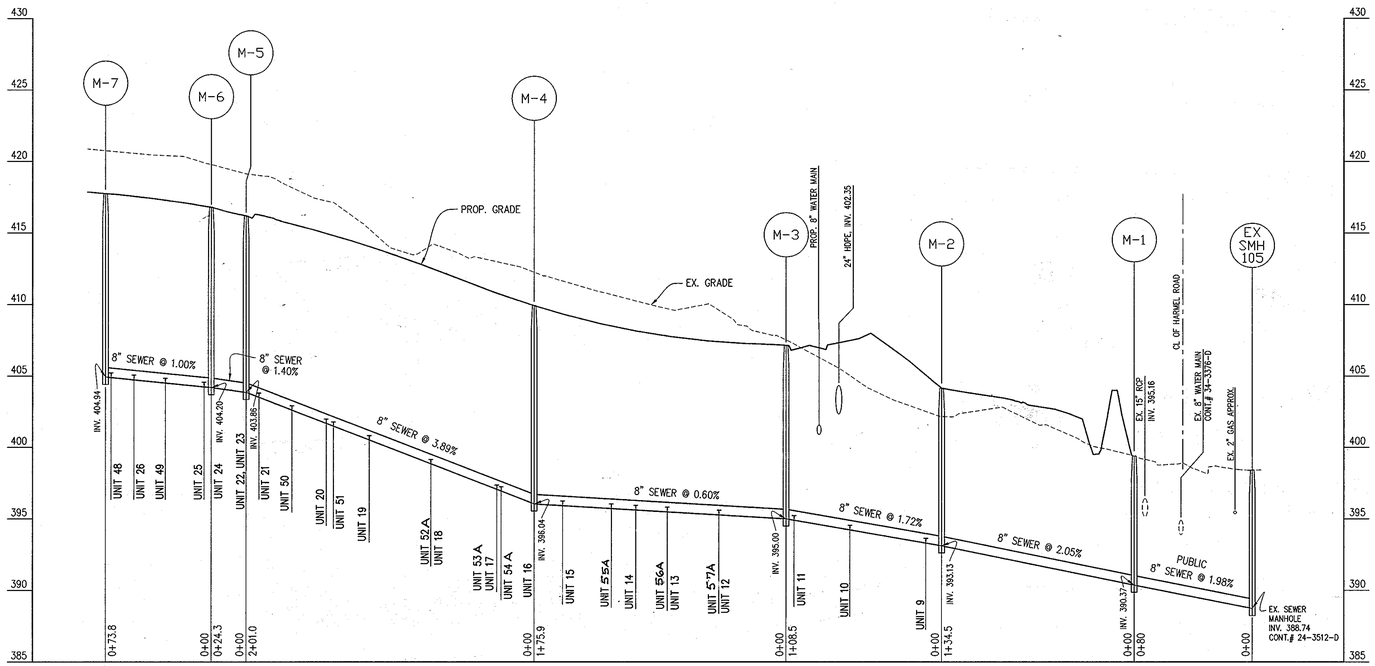
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

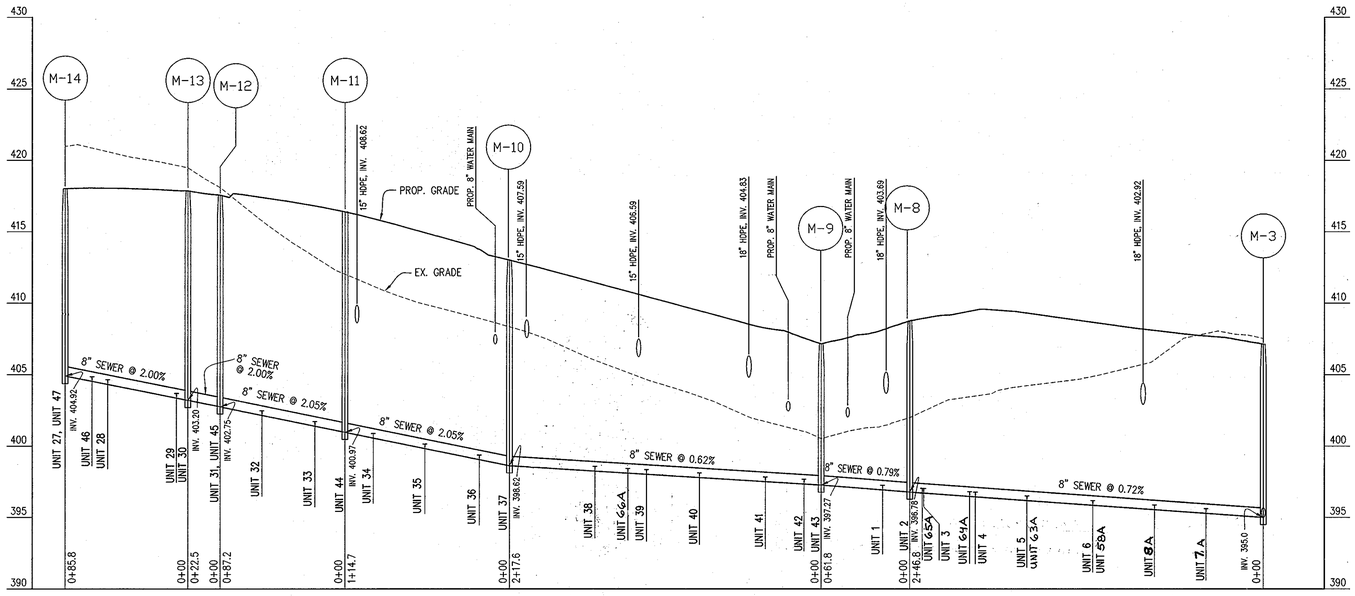
DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 14 OF 25

SDP-04-124

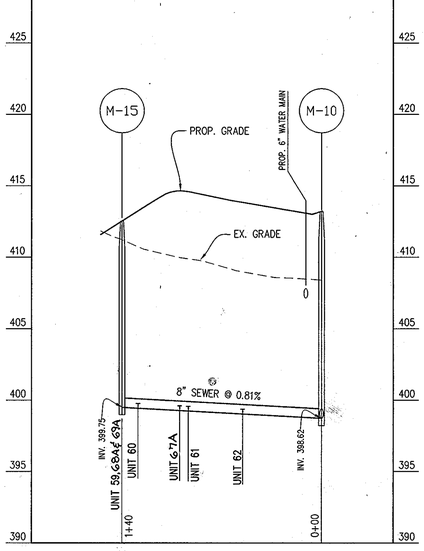
I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL\SDP\LANDSCAPE-PLAN.dwg, LANDSCAPE (2), 12/9/2004 7:43:50 PM, guz



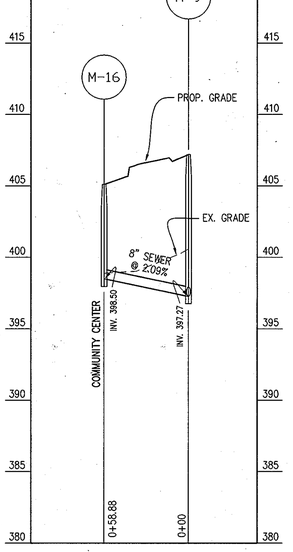
SEWER MAIN PROFILE
SCALE : 1" = 50' HOR.
1" = 5' VER.



SEWER MAIN PROFILE
SCALE : 1" = 50' HOR.
1" = 5' VER.



SEWER MAIN PROFILE
SCALE : 1" = 50' HOR.
1" = 5' VER.



SEWER MAIN PROFILE
SCALE : 1" = 50' HOR.
1" = 5' VER.

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. 28559, Expiration Date: 7/22/14

FOR REV BY BEI ONLY

STATE OF MARYLAND — BRIAN F. CLEARY — No. 28559 — REGISTERED PROFESSIONAL ENGINEER — 3/16/12

MANHOLE TABULATION CHART

STUCTURE NO.	LOCATION STATION AND OFFSET	TOP ELEVATION	INVERT
M-1	N 558310.215, E 1344912.884	401.0	390.37
M-2	N 558178.464, E 1344939.845	404.16	393.13
M-3	5+38.13, 12.44' R	407.14	395.00
M-4	7+21.18, 16.61' L	409.93	396.04
M-5	9+29.67, 7.44' L	416.20	403.86
M-6	9+58.76, 6.10' L	416.81	404.20
M-7	10+34.00, 7.00' L	417.75	404.94
M-8	2+74.17, 7.98' L	408.77	396.78
M-9	16+22.70, 7.24' R	407.20	397.27
M-10	14+03.72, 8.84' L	413.00	398.62
M-11	12+88.84, 17.26' L	416.39	400.97
M-12	11+96.90, 6.78' L	417.57	402.75
M-13	11+70.62, 5.21' L	417.86	403.20
M-14	10+83.05, 7.00 L	418.03	404.92
M-15	N 557965.673, N 1344708.365	412.53	399.75
M-16	1+83.11, 21.48' L	405.11	398.50
EX-MH 105	N 558379.163, N 1344958.008	--	388.74

AS-BUILT CERTIFICATION.

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 07-16-15

STATE OF MARYLAND — MICHAEL DAVID ADCOCK — No. 21257 — PROFESSIONAL LAND SURVEYOR

12/29/11 DATE

SHC INVERT @ STRUCTURE

STATION	UNIT #	ELEVATION[1]	M.C.E.
MH 2 TO MH 3			
0+11	9	393.32	396.82
0+64	10	394.23	398.13
1+03	11	394.90	* 397.10 Δ
MH 3 TO MH 4			
0+47	12	395.28	397.48
0+47	57A	395.28	* 397.18 Δ
0+83	13	395.49	* 397.69 Δ
0+83	56A	395.49	398.99
1+05	14	395.63	* 397.85 Δ
1+22	55A	395.73	399.23
1+56	15	395.94	* 398.14 Δ
@MH 4	16	396.04	399.94
MH 4 TO MH 5			
0+23	54A	397.70	400.89
0+26	17	397.05	400.95
0+26	53A	397.05	400.45
0+72	18	398.84	402.74
0+72	52A	398.84	402.24
1+15	19	400.51	404.41
1+40	51	401.48	404.58
1+45	20	401.68	405.58
1+69	50	402.61	405.71
1+92	21	403.51	* 405.71 Δ
@ MH #5	22	403.86	* 406.56 Δ
@ MH #5	23	403.86	408.56
MH 5 TO MH 6			
@ MH #6	24	404.20	408.10
MH 6 TO MH 7			
0+05	25	404.25	* 406.35 Δ
0+32	49	404.52	* 406.52 Δ
0+54	26	404.74	* 408.40 Δ
0+70	48	404.90	408.40
MH 3 TO MH 8			
0+40	7A	395.28	399.39
0+76	8A	395.54	* 397.84 Δ
1+19	6	395.85	* 398.05 Δ
1+19	58A	395.85	399.35
1+65	5	396.19	* 398.39 Δ
1+65	63A	396.19	399.69
2+01	4	396.44	* 398.64 Δ
2+05	64A	396.47	400.07
2+37	3	396.71	* 398.91 Δ
2+38	65A	396.71	* 398.91 Δ
MH 8 TO MH 9			
@ MH #8	2*	396.78	* 398.91 Δ
0+19	1*	396.93	* 399.23 Δ
MH 9 TO MH 10			
@ MH #9	43*	397.62	* 399.72 Δ
0+12	42*	397.35	* 399.45 Δ
0+39	41	397.53	* 399.53 Δ
0+85	40	397.83	* 399.93 Δ
1+22	39	398.08	401.78
1+35	66A	398.17	401.47
1+58	38	398.32	402.03
@ MH #10	37	398.62	402.32
MH 10 TO MH 11			
0+21	36	399.02	402.71
0+59	35	399.73	403.53
0+95	34	400.41	404.31
@ MH #11	44	400.97	404.77
MH 11 TO MH 12			
0+21	33	401.37	405.17
0+58	32	402.06	405.86
@ MH #12	31	402.75	406.85
@ MH #12	45	402.75	406.15
MH 13 TO MH 14			
@ MH #13	30	403.20	407.70
0+08	29	403.34	407.24
0+56	28	404.32	408.22
0+67	46	404.54	408.24
@ MH #14	27	404.92	409.02
@ MH #14	47	404.92	408.62
MH 10 TO MH 15			
0+55	62	399.06	402.76
0+93	61	399.37	403.27
0+99	67A	399.68	402.98
1+28	60	400.19	403.49
@ MH #15	59	398.62	402.56
@ MH #15	69A	398.62	402.52
@ MH #15	68A	398.62	402.12

* Install SHC @ 1% and utilize short radius elbow under slab foundation.

[1] Elevation = elevation of shc @ the main. all shc's will be at 2%. unless otherwise stated.

AS-BUILT

PREPARED BY :

American Land Development and Engineering, Inc.
10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

No.	DATE	REVISION	BY
3	3-9-11	REVISE LOT NUMBERS AND REMOVE SOME SHC AND REVISE TITLE BLOCK	BEI
2	4-25-05	M.C.E. ADJUSTMENT DUE TO LOWERED BASEMENT	ALDEI

ENGINEER'S CERTIFICATE

" I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER
DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON — DEC. 10, 2004 DATE

STATE OF MARYLAND — CHRISTOPHER WILLIAM — No. 21440 — PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/20/12 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE : **PRIVATE SEWER MAIN PROFILES**

PROJECT NAME :

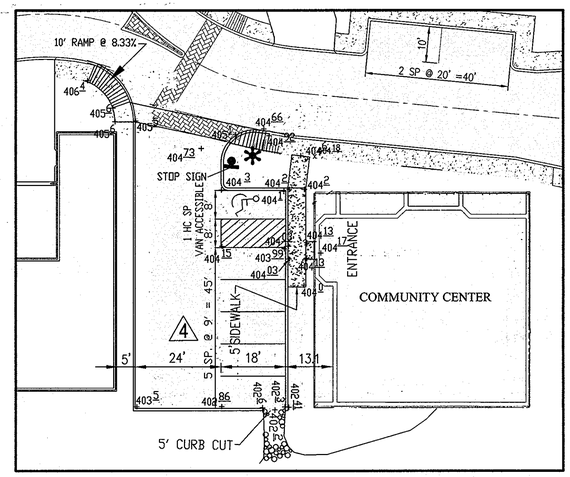
SCOTS GLEN NORTH
1-51, 52A-58A, 57-62, 63A-69A
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

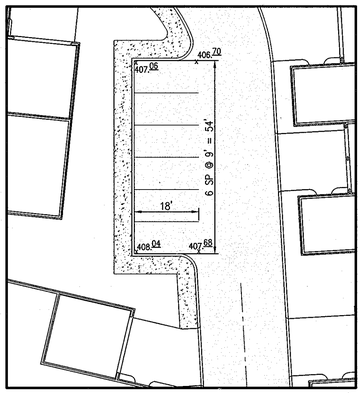
DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 15 OF 25

SDP-04-124

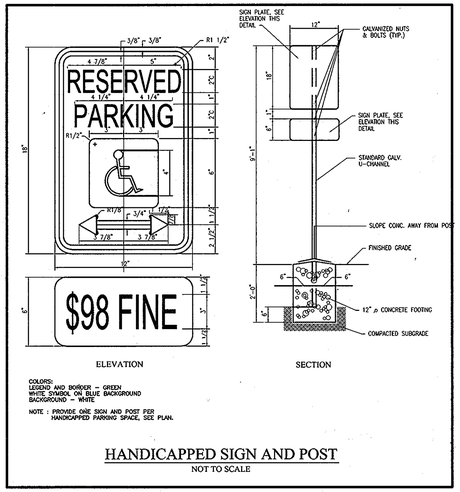
I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA 1-FINAL\SSP\SEWERPROFILES2.dwg, SEWERMAIN, 12/9/2004 9:14:22 PM, guz



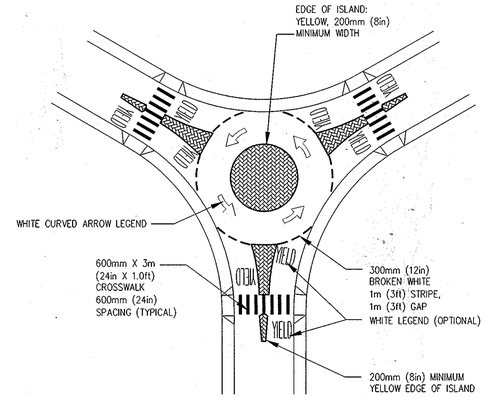
HANDICAPPED PARKING - DETAIL
NOT TO SCALE



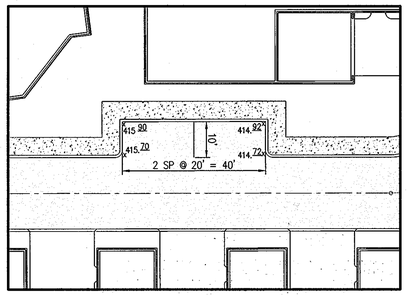
PARKING - DETAIL
NOT TO SCALE



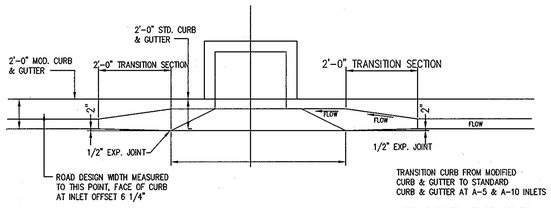
HANDICAPPED SIGN AND POST
NOT TO SCALE



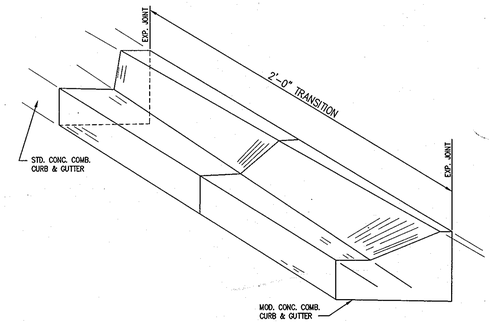
ROUNDABOUT STRIPING - DETAIL
NOT TO SCALE



PARKING - DETAIL
NOT TO SCALE



CONCRETE CURB & GUTTER TRANSITION
NOT TO SCALE
(DETAIL - R-3.06)



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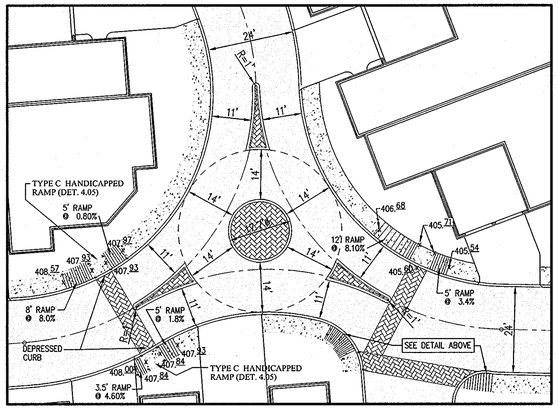
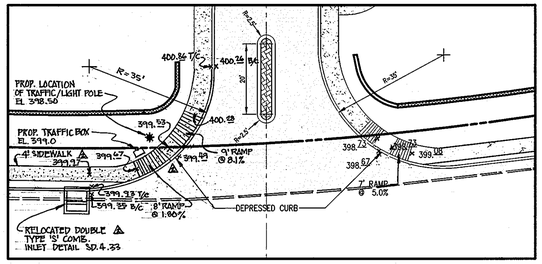
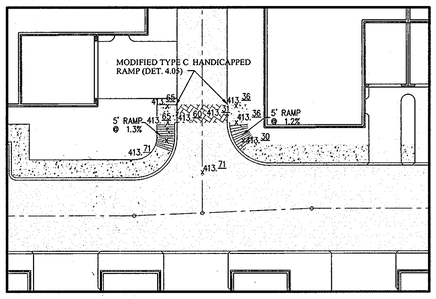
NOT TO SCALE
(DETAIL R-3.02)



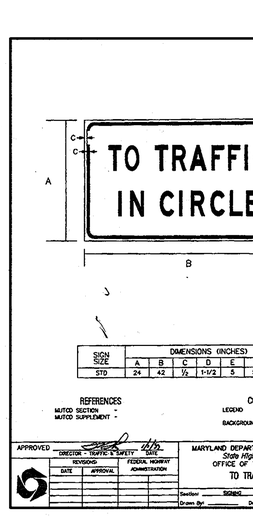
ROUNDABOUT & HANDICAPPED RAMP - DETAIL
NOT TO SCALE

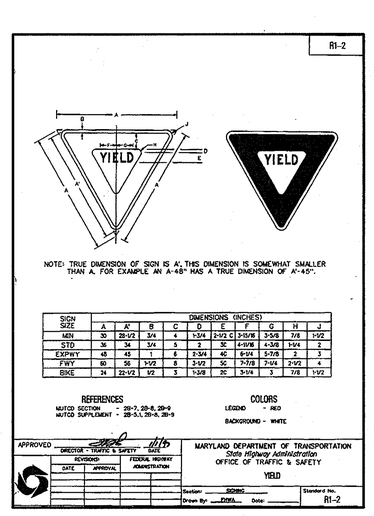


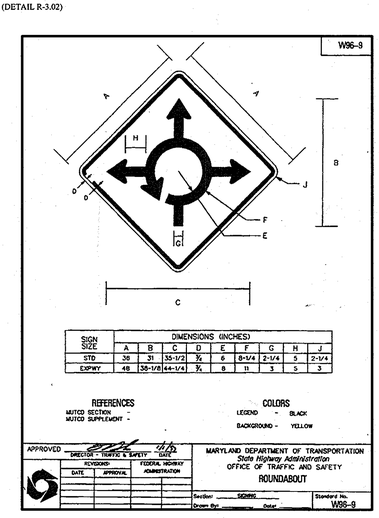
HANDICAPPED RAMP @ ENTRANCE - DETAIL
NOT TO SCALE
TYPE C RAMP (DETAIL R-4.03)



HANDICAPPED RAMP - DETAIL
NOT TO SCALE







STATE OF MARYLAND
BRIAN F. CLEARY
No. 28559
REGISTERED
PROFESSIONAL ENGINEER
3/18/2011

FOR REV. BY DEI ONLY

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. 28559 Expiration Date: 7/22/11

STATE OF MARYLAND
MICHAEL DAVID ADCOCK
No. 21257
PROFESSIONAL LAND SURVEYOR

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK/PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 04-16-15

12/9/11
DATE

AS-BUILT

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

NO	DATE	REVISION	BY
4	8-16-06	REVISED PARKING LOT @ COMMUNITY CENTER	
3	3-9-11	REVISE TITLE BLOCK	BEI
2	1-5-06	LEFT FILLET RAD11, SIDEWALK & CURB TO BE RELOCATED 3' OFF EXISTING CURB	ALDE1
1			

ENGINEER'S CERTIFICATE

" I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER
DAVID C. WOESSNER
DEC. 10, 2004
DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON
DEC. 10, 2004
DATE

STATE OF MARYLAND
CHRISTOPHER WEBER
No. 21414
REGISTERED
PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/6/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/25/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE :

HANDICAPPED DETAILS / TRAFFIC SIGNS

PROJECT NAME :

SCOTS GLEN NORTH

9-51, 52A-58A, 59-62, 62A-69A

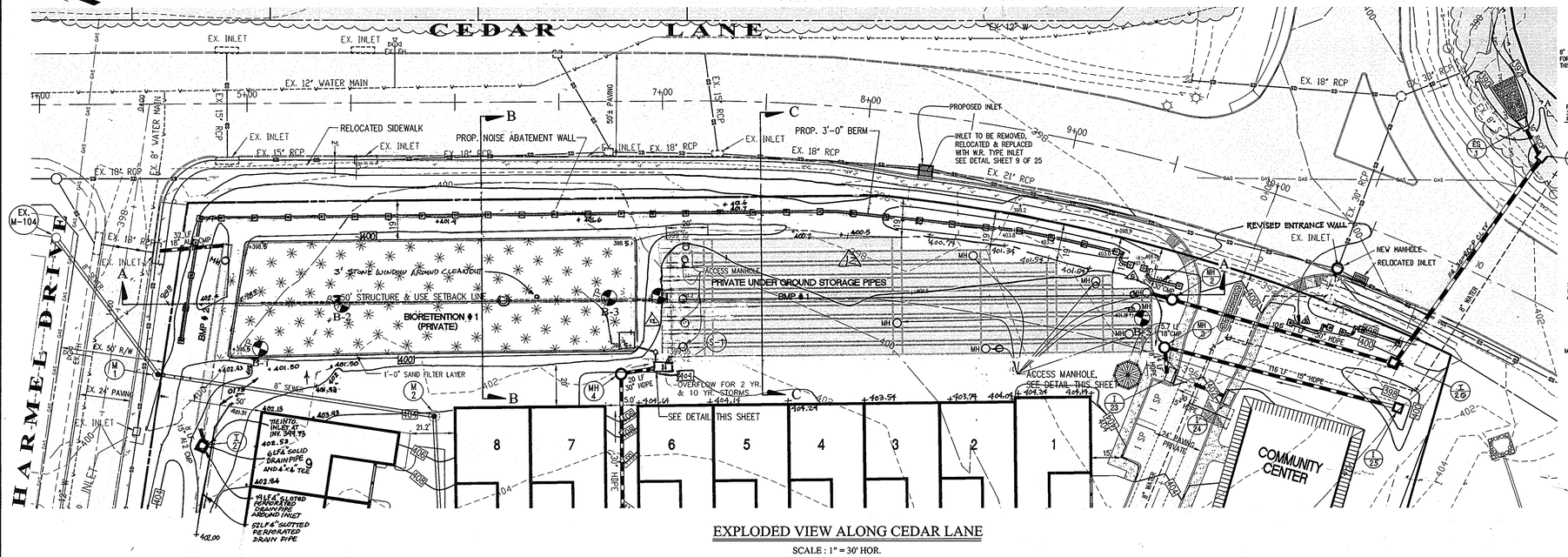
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A, AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 16 OF 25

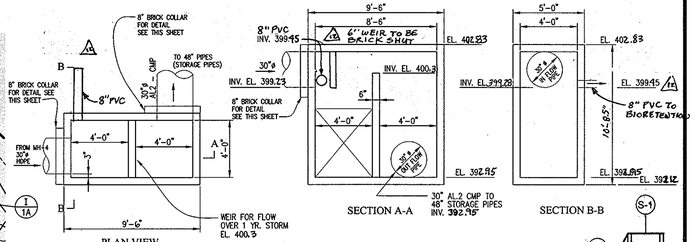
SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL\SDP\DETAIL1A.dwg, DETAIL2, 12/9/2004 7:51:50 PM, guz



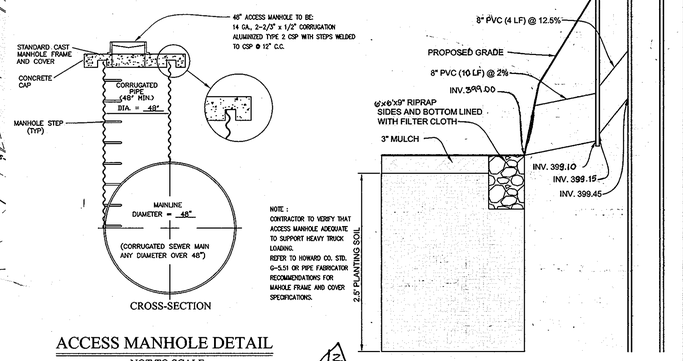
EXPLODED VIEW ALONG CEDAR LANE

SCALE : 1" = 30' HOR.



PRE-CAST STRUCTURE S-1 DETAIL

SCALE : 1" = 5'

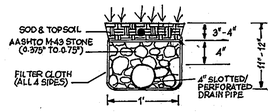


ACCESS MANHOLE DETAIL

NOT TO SCALE

8" PVC FROM S-1 TO BIORETENTION DETAIL

SCALE : 1" = 10' HOR.
1" = 1' VER.

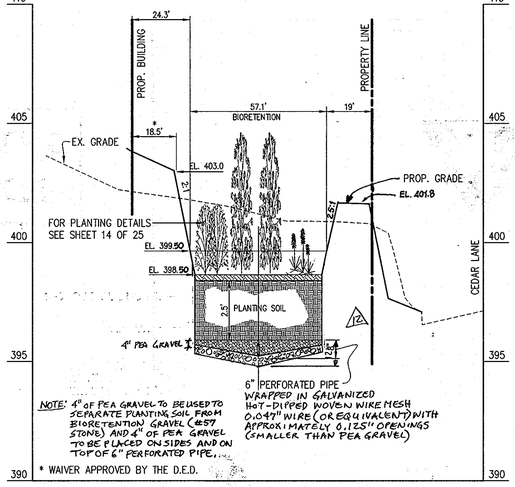


FRENCH DRAIN DETAIL

SCALE : 1"=1'

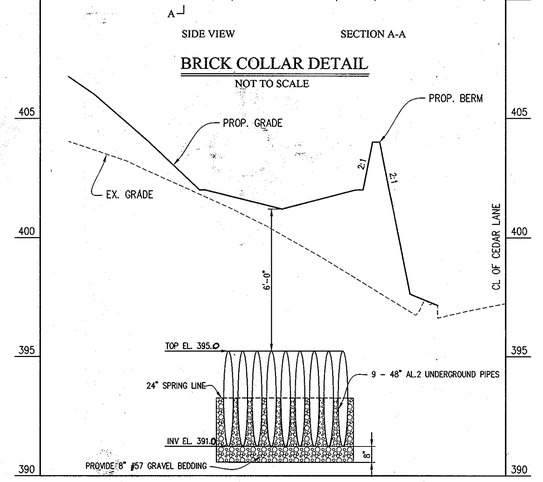
SECTION A-A

SCALE : 1" = 30' HOR.
1" = 3' VER.



SECTION B-B

SCALE : 1" = 30' HOR.
1" = 3' VER.



BRICK COLLAR DETAIL

NOT TO SCALE

SECTION C-C

SCALE : 1" = 30' HOR.
1" = 3' VER.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21297, EXPIRATION DATE: 06-16-15

12/29/11
DATE

STATE OF MARYLAND MICHAEL DAVID ADCOCK NO. 21297 PROFESSIONAL LAND SURVEYOR

STATE OF MARYLAND BRIAN F. CLEARY NO. 28559 PROFESSIONAL ENGINEER

3/18/2011

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. 28559 Expiration Date: 7/22/11

STATE OF MARYLAND JAMES J. SAMMONS NO. 38998 PROFESSIONAL ENGINEER

12	9-22-11	DELETE SAND FILTER LAYER, STONE DIAPHRAGH, AND 6' WIDE CHANNEL. ADD 8" NYLOPLAST INLET, 3' STONE WINDOW, AND 5' WIDE RIPRAP AND REVISE GRADING ASSOCIATED WITH 6' WIDE CHANNEL & STONE DIAPHRAGH TO CREATE SWALE ALONG PROPOSED TO BIORETENTION	SJT
11	3-9-11	REVISE TITLE BLOCK	BEI
10	8-16-06	REVISED ENTRANCE WALL	ALDEI
13	7-31-12	REVISE GRADING TO REFLECT AS-BUILT CONDITIONS ADD FRENCH DRAIN AROUND INLET #27, AND ADD FRENCH DRAIN DETAILS	SJT SAA

REVISION

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER DALE THOMPSON — DEC. 10, 2004 DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE — 1/27/05 DATE

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

HOWARD SCD — 1/27/05 DATE

STATE OF MARYLAND JAMES J. SAMMONS NO. 38998 PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/07/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE :

STORMWATER MANAGEMENT DETAILS

PROJECT NAME :

SCOTS GLEN NORTH

9-571, 52A-58A, 59-62, 63A-69A

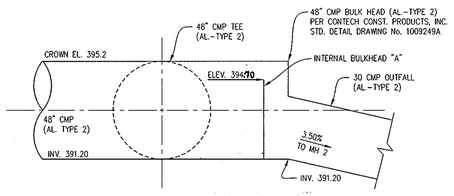
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

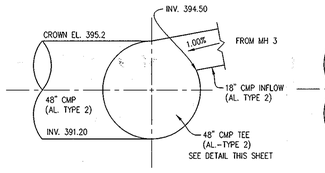
DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 17 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA 1-FINAL\DSP\SWM-SECTION-DETAILS1.dwg, SWM-DETAIL, 12/9/2004 7:50:05 PM, guz



SECTION A-A
OUTFLOW DETAIL - BMP # 1
NOT TO SCALE



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INFLOW DETAIL - BMP # 1
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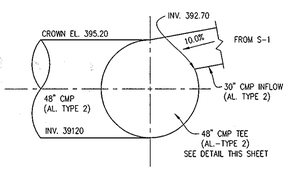

SECTION C-C
INFLOW DETAIL - BMP # 1
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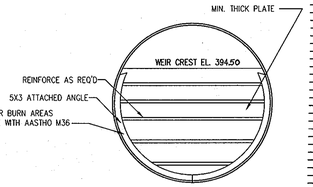


BULKHEAD A
TYPICAL WEIR DETAIL
FOR BMP # 1
NOT TO SCALE

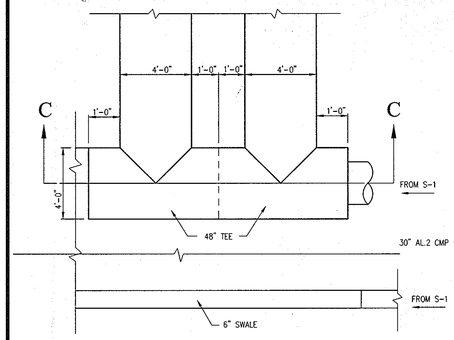
AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

12/29/11
DATE

STATE OF MARYLAND
MICHAEL DAVID ADCOCK
No. 21257
PROFESSIONAL LAND SURVEYOR



INFLOW FROM S-1 DETAIL - BMP # 1
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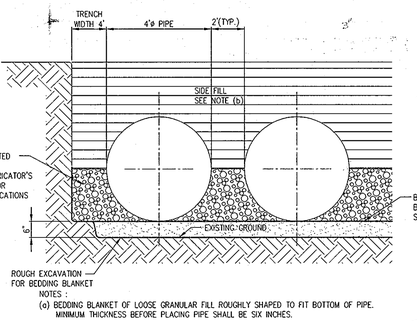
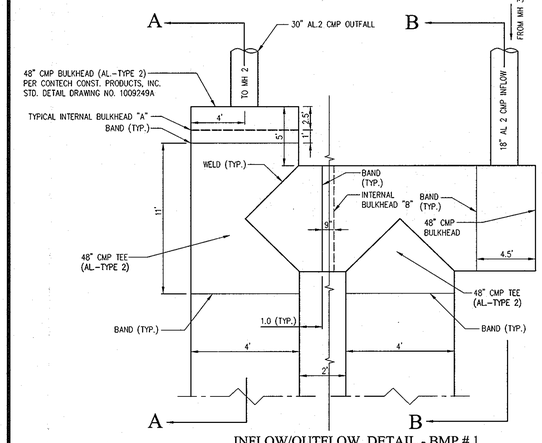


NOTES :
(a) BEDDING BLANKET OF LOOSE GRANULAR FILL ROUGHLY SHAPED TO FIT BOTTOM OF PIPE. MINIMUM THICKNESS BEFORE PLACING PIPE SHALL BE SIX INCHES.
(b) SIDE FILL TO BE COMPACTED IN 6 TO 8 INCHES OF COMPACTED LAYERS. COMPACTION SHALL NOT LESS THAN 90% STANDARD PROCTOR DENSITY (AASHTO T99).

BEDDING AND BACKFILL DETAIL
NOT TO SCALE



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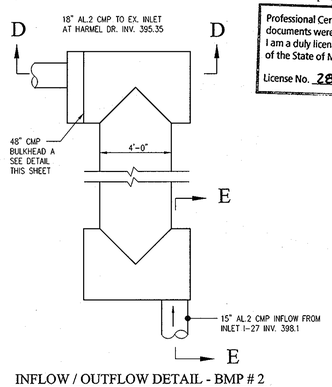
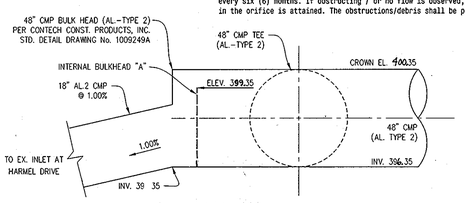
NOT TO SCALE



INFLOW / OUTFLOW DETAIL - BMP # 2
NOT TO SCALE

STATE OF MARYLAND
BRIAN F. CLEARY
No. 28659
PROFESSIONAL ENGINEER
5/6/201
FOR REV. BY DEC ONLY

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. 28659 Expiration Date: 7/22/11



SECTION D-D
OUTFLOW DETAIL - BMP # 2
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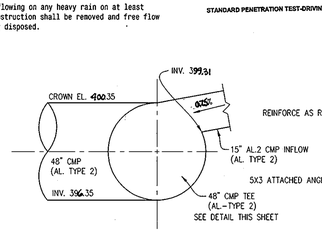

SECTION E-E
INFLOW DETAIL - BMP # 2
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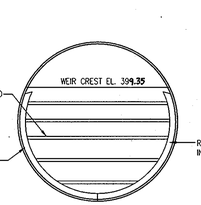


BULKHEAD A
WEIR DETAIL
FOR BMP # 2
NOT TO SCALE

OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS (F-6)

1. Annual maintenance of plant material, mulch layer and soil layer is required. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning.
2. Schedule of plant inspection will be twice a year in spring and fall. This inspection will include removal of dead and diseased vegetation considered beyond treatment, treatment of all diseased trees and shrubs and replacement of all deficient stakes and wires.
3. Mulch shall be inspected each spring. Remove previous mulch layer before applying new layer once every 2 to 3 years.
4. Soil erosion to be addressed on an as needed basis, with a minimum of once per month and after heavy storm events.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED OPEN CHANNEL SYSTEMS (O-1, AND O-2)

1. The open channel system shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the facility is functioning properly.
2. The open channel shall be mowed a minimum of as needed during the growing season to maintain a maximum grass height of less than 6 inches.
3. Debris and litter shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the open channel system shall be repaired as soon as it is noticed.
5. Remove silt in the open channel system when it exceeds 25% of the original WQv.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND FACILITIES

1. The underground stormwater management facility is privately owned and it shall be the responsibility of the owner to periodically inspect and clean the facility to maintain its operation and function.
2. The underground stormwater management facility shall be inspected yearly at a minimum and after especially severe storm events.
3. When sediment accumulation of more than 2" is observed or any debris that might obstruct the outfall is observed, the facility shall be cleaned/.
4. The facility shall be cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies notifying them of the spill and cleanup operation.
5. The sediment and debris shall be removed from the underground stormwater management facility by vacuum truck or other manual means. The owner shall follow proper cleaning and disposal of the removed material and liquid.
6. The inlet and outlet pipes shall be checked for any obstruction at least once every six (6) months. If obstructions are found, the owner shall have them removed and properly disposed of.
7. The dewatering device/outlet structure shall be checked if properly flowing on any heavy rain on at least every six (6) months. If obstructing / or no flow is observed, the obstruction shall be removed and free flow in the orifice is attained. The obstructions/debris shall be properly disposed.

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

Cedar Villas I, Columbia, Maryland — Boring Number B-1, Job # 04162A
SAMPLER: Hammer Wt. 140 Lbs., Hammer Drop 30 Inches, Pipe Size 2.0 Inches OD — Hole Diameter 8", Rock Core Dia., Boring Method HSA — Foreman Palmer Stephens, Inspector, Completed 03-04-04

ELEV.	SOIL DESCRIPTION Color, Moisture, Density, Size, Proportion	STRA. DEPTH	DEPTH SCALE	CON	SAMPLE BLOWS 6"	NO.	REC	BORING & SAMPLING NOTES
	SURFACE		0.0					17" Topsoil
	Dark grayish brown, moist, soft to medium stiff, sandy silt, trace clay, trace mica (ML)			D	1-2-3	1	14"	Groundwater encountered at 13.5' while drilling
			5.0	D	3-3-5	2	18"	
		8.0		D	3-4-4	3	18"	
	Dark gray, moist, loose, micaceous silty fine sand, trace clay (SM)		10.0	D	3-4-4	4	18"	
			15.0	D	2-3-4	5	18"	Caved in at 14.5' at Completion
	Bottom of Test Hole at 20.0'	20.0	20.0	D	2-5-5	6	18"	Caved in at 10.7' after 24 hours

SAMPLER TYPE: S=SPLIT SPOON UNLESS THERWISE NOTED; P=PRESSED SHELBY TUBE; A=CONTINUOUS FLIGHT AUGER; C=ROCK CORE
SAMPLE CONDITIONS: D=DISINTEGRATED; I=INTACT; U=UNDISTURBED; L=LOST
GROUND WATER DEPTH: AT COMPLETION 13.5 FT.; AFTER 24 hrs 8.1 FT.; AFTER ____ FT.
BORING METHOD: HSA=HOLLOW STEM AUGERS; CFA=CONT. FLIGHT AUGERS; DC=DRIVING CASING; MD=MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS

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

Cedar Villas I, Columbia, Maryland — Boring Number B-2, Job # 04162A
SAMPLER: Hammer Wt. 140 Lbs., Hammer Drop 30 Inches, Pipe Size 2.0 Inches OD — Hole Diameter 8", Rock Core Dia., Boring Method HSA — Foreman Palmer Stephens, Inspector, Completed 03-04-04

ELEV.	SOIL DESCRIPTION Color, Moisture, Density, Size, Proportion	STRA. DEPTH	DEPTH SCALE	CON	SAMPLE BLOWS 6"	NO.	REC	BORING & SAMPLING NOTES
	SURFACE		0.0					16" Topsoil
	Dark brown, moist, medium stiff to stiff, sandy silt, trace clay (ML)			I	2-3-3	1	15"	No groundwater encountered while drilling
			5.0	I	4-6-9	2	18"	
	Dark brown, moist, medium stiff, micaceous sandy silt/clay (CL/ML)	5.5		I	3-3-3	3	18"	
			10.0	I	2-3-4	4	18"	
	White, wet, loose, silty sand, trace clay, trace gravel (SM)	12.0						Caved in at 12.0' at Completion
			15.0	D	3-4-6	5	18"	Caved in at 10.4' after 24 hours
	Bottom of Test Hole at 15.0'							
			20.0					

SAMPLER TYPE: S=SPLIT SPOON UNLESS THERWISE NOTED; P=PRESSED SHELBY TUBE; A=CONTINUOUS FLIGHT AUGER; C=ROCK CORE
SAMPLE CONDITIONS: D=DISINTEGRATED; I=INTACT; U=UNDISTURBED; L=LOST
GROUND WATER DEPTH: AT COMPLETION 11.5 FT.; AFTER 24 hrs 10.3 FT.; AFTER ____ FT.
BORING METHOD: HSA=HOLLOW STEM AUGERS; CFA=CONT. FLIGHT AUGERS; DC=DRIVING CASING; MD=MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS

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

Cedar Villas I, Columbia, Maryland — Boring Number B-3, Job # 04162A
SAMPLER: Hammer Wt. 140 Lbs., Hammer Drop 30 Inches, Pipe Size 2.0 Inches OD — Hole Diameter 8", Rock Core Dia., Boring Method HSA — Foreman Palmer Stephens, Inspector, Completed 03-04-04

ELEV.	SOIL DESCRIPTION Color, Moisture, Density, Size, Proportion	STRA. DEPTH	DEPTH SCALE	CON	SAMPLE BLOWS 6"	NO.	REC	BORING & SAMPLING NOTES
	SURFACE		0.0					Offset 7.0' towards B-2
	Reddish brown, moist, medium stiff to stiff, sandy silt/clay, trace rock fragments (CL-ML)			I	2-3-5	1	14"	15" Topsoil
			5.0	I	4-5-6	2	16"	No groundwater encountered while drilling
	Grayish brown, moist, loose, silty sand, trace mica, trace rock fragments, trace clay (SM)	5.5		D	4-5-5	3	16"	
			10.0	D	3-4-3	4	18"	Caved in at 8.7' after 24 hours
			15.0	D	3-3-5	5	14"	Caved in at 12.5' at Completion
	Bottom of Test Hole at 15.0'							At completion water reading dry after 20 minutes water at 10.0'
			20.0					

SAMPLER TYPE: S=SPLIT SPOON UNLESS THERWISE NOTED; P=PRESSED SHELBY TUBE; A=CONTINUOUS FLIGHT AUGER; C=ROCK CORE
SAMPLE CONDITIONS: D=DISINTEGRATED; I=INTACT; U=UNDISTURBED; L=LOST
GROUND WATER DEPTH: AT COMPLETION Dry FT.; AFTER 20 min 10.0 FT.; AFTER 24 hrs 8.2 FT.; AFTER ____ FT.
BORING METHOD: HSA=HOLLOW STEM AUGERS; CFA=CONT. FLIGHT AUGERS; DC=DRIVING CASING; MD=MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS

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

Cedar Villas I, Columbia, Maryland — Boring Number B-4, Job # 04162A
SAMPLER: Hammer Wt. 140 Lbs., Hammer Drop 30 Inches, Pipe Size 2.0 Inches OD — Hole Diameter 8", Rock Core Dia., Boring Method HSA — Foreman Palmer Stephens, Inspector, Completed 03-04-04

ELEV.	SOIL DESCRIPTION Color, Moisture, Density, Size, Proportion	STRA. DEPTH	DEPTH SCALE	CON	SAMPLE BLOWS 6"	NO.	REC	BORING & SAMPLING NOTES
	SURFACE		0.0					20" Topsoil
	Dark brown, moist, soft, sandy silt/clay, trace organics (CL-ML)			I	1-2-3	1	18"	No groundwater encountered while drilling
	Dark gray, moist, loose to medium dense, micaceous silty/clayey sand (SM-SC)	3.0	5.0	D	9-10-10	2	18"	
				D	2-3-3	3	18"	
			10.0	D	2-4-4	4	18"	Caved in at 9.0' after 24 hours
			15.0	D	2-2-4	5	18"	Caved in at 13.0' at Completion
	Bottom of Test Hole at 20.0'	20.0	20.0	D	3-4-5	6	18"	

SAMPLER TYPE: S=SPLIT SPOON UNLESS THERWISE NOTED; P=PRESSED SHELBY TUBE; A=CONTINUOUS FLIGHT AUGER; C=ROCK CORE
SAMPLE CONDITIONS: D=DISINTEGRATED; I=INTACT; U=UNDISTURBED; L=LOST
GROUND WATER DEPTH: AT COMPLETION 10.0 FT.; AFTER 24 hrs 8.2 FT.; AFTER ____ FT.
BORING METHOD: HSA=HOLLOW STEM AUGERS; CFA=CONT. FLIGHT AUGERS; DC=DRIVING CASING; MD=MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS

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

Cedar Villas I, Columbia, Maryland — Boring Number B-5, Job # 04162A
SAMPLER: Hammer Wt. 140 Lbs., Hammer Drop 30 Inches, Pipe Size 2.0 Inches OD — Hole Diameter 8", Rock Core Dia., Boring Method HSA — Foreman Palmer Stephens, Inspector, Completed 03-04-04

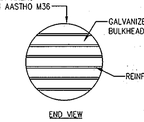
ELEV.	SOIL DESCRIPTION Color, Moisture, Density, Size, Proportion	STRA. DEPTH	DEPTH SCALE	CON	SAMPLE BLOWS 6"	NO.	REC	BORING & SAMPLING NOTES
	SURFACE		0.0					16" Topsoil
	Dark brown, moist, soft silty clay/clayey silt, trace sand, trace organics (CL-ML)	3.0		I	1-2-2	1	18"	No groundwater encountered while drilling
	Dark brown, moist, medium dense, silty/clayey sand, trace gravel (SM-SC)		5.0	D	2-5-14	2	18"	
	Light grayish brown, moist, very dense, silty coarse sand/gravel, trace rock fragments, trace mica (Decomposed Rock)	5.5		D	21-42-51/3"	3	12"	
				D	51/4"	4	4"	
			10.0					Caved in at 11.0' after 24 hours
	Auger Refusal at 15.0' Bottom of Test Hole at 15.0'	15.0	15.0	D	51/0.0 Took Auger Sample	5	0"	Caved in at 13.5' at Completion
			20.0					Spoon refusal at 13.5'

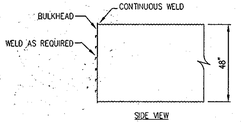
SAMPLER TYPE: S=SPLIT SPOON UNLESS THERWISE NOTED; P=PRESSED SHELBY TUBE; A=CONTINUOUS FLIGHT AUGER; C=ROCK CORE
SAMPLE CONDITIONS: D=DISINTEGRATED; I=INTACT; U=UNDISTURBED; L=LOST
GROUND WATER DEPTH: AT COMPLETION Dry FT.; AFTER 24 hrs 3.0 FT.; AFTER ____ FT.
BORING METHOD: HSA=HOLLOW STEM AUGERS; CFA=CONT. FLIGHT AUGERS; DC=DRIVING CASING; MD=MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS

GROUND WATER RESULTS

Boring	Depth Encountered at Completion (ft)	Depth After 24 Hours (ft)
B-1	12.0	8.1
B-2	11.5	10.3
B-3	10.0	8.0
B-4	10.0	8.2
B-5	—	3.0





BULKHEAD B
NOT TO SCALE

AS-BUILT

NO.	DATE	REVISION	BY
13	7-31-12	REVISE WEIR CREST EL EVATIONS ON BULKEADS FOR BMP #2 AND REMOVE DEWATERING DEVICE DETAIL	SJT
1	3-9-11	REVISE TITLE BLOCK	BEE

PREPARED BY :
American Land Development and Engineering, Inc.
10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :
Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE
" I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
SIGNATURE OF ENGINEER DAVID C. WOESSNER — DEC. 10, 2004 DATE

DEVELOPER'S CERTIFICATE
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
SIGNATURE OF DEVELOPER DALE THOMPSON — DEC. 10, 2004 DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE — DATE
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
HOWARD SCD — DATE

STATE OF MARYLAND
BRIAN F. CLEARY
No. 28659
PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT — 1/25/05 DATE
DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

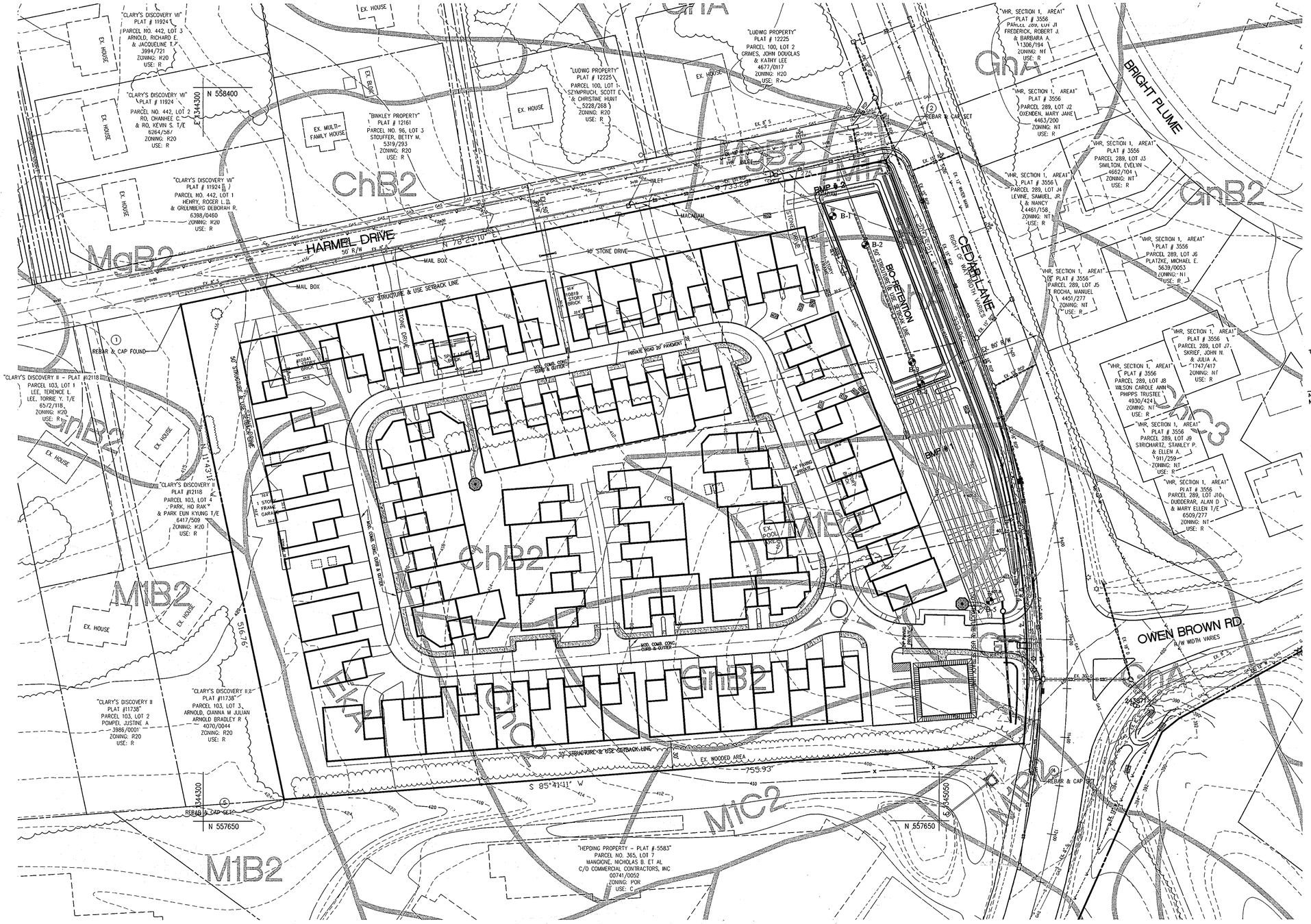
TITLE : **STORMWATER MANAGEMENT NOTES, BORINGS AND DETAILS**
PROJECT NAME :
SCOTS GLEN NORTH
9-51, 52A-58A, 69-62, 63A-69A
BUILDABLE BULK PARCEL "A" - UNITS 1-6,7A,8A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-118 | S-04-03 | PB CASE 362 | WP 04-114 | F-05-52 | F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 18 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL\SDP\sed & eros dt1.dwg, SWM NOTES&DETAILS, 12/9/2004 7:36:33 PM, guz



AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ARCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 09-16-15

12/29/11
DATE

STATE OF MARYLAND · MICHAEL DAVID ARCOCK · NO. 21257 · PROFESSIONAL LAND SURVEYOR

SOILS TABLE

SYMBOL	MAPPING UNIT	TYPE
ChA	CHESTER SILT LOAM, 0 TO 3 % SLOPE	B
ChB2	CHESTER SILT LOAM, 3 TO 8 % SLOPE, MODERATELY ERODED	B
CgB2	CHESTER GRAVELLY SILT LOAM, 3 TO 8% SLOPE, MODERATELY ERODED	B
CgC2	CHESTER GRAVELLY SILT LOAM, 8 TO 15% SLOPE, MODERATELY ERODED	B
Co	COMUS SILT LOAM	B
GlB2	GLENELG LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B
GlC2	GLENELG LOAM, 8 TO 15% SLOPE MODERATELY ERODED	B
GlC3	GLENELG LOAM, 8 TO 15% SLOPE SEVERELY ERODED	B
GlD2	GLENELG LOAM, 15 TO 25% SLOPE MODERATELY ERODED	B
GlD3	GLENELG LOAM, 15 TO 25% SLOPE SEVERELY ERODED	B
GnB2	GLENVILLE SILT LOAM, 3 TO 8% SLOPE MODERATELY ERODED	C
EkA	ELIOAK SILT LOAM, 0 TO 3% SLOPE	C
EkB2	ELIOAK SILT LOAM, 3 TO 8% SLOPE MODERATELY ERODED	C
Ba	BAILE SILT LOAM	D
MlD2	MANOR LOAM, 15 TO 25% SLOPE MODERATELY ERODED	B
MgC2	MANOR GRAVELLY LOAM, 8 TO 15% SLOPE MODERATELY ERODED	B
MlE	MANOR LOAM, 25 TO 45% SLOPE	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B
MlB2	MANOR LOAM, 3 TO 8% SLOPE MODERATELY ERODED	B
MgC3	MANOR GRAVELLY LOAM, 8 TO 15% SLOPE SEVERELY ERODED	B
MlD3	MANOR LOAM, 15 TO 25% SLOPE SEVERELY ERODED	B

STATE OF MARYLAND · BRIAN F. CLEARY · 19501 · PROFESSIONAL ENGINEER

FOR REV. BY BEI ONLY 3/8/01

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. 20559 Expiration Date: 7/22/11

PLAN
SCALE : 1" = 50'

AS-BUILT

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

NO.	DATE	REVISION	BY
1	3-9-11	REVISE TITLE BLOCK	BEI

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE

" I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER
DAVID C. WOESSNER

DEC. 10, 2004
DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON

DEC. 10, 2004
DATE

STATE OF MARYLAND · CHRISTOPHER · PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/27/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE :

SOILS MAP

PROJECT NAME :

SCOTS GLEN NORTH

9-S1, S2A-S6A, S7-S2, S2A-S9A

BUILDABLE BULK PARCEL "A" - UNITS 1-6, 2A, 8A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

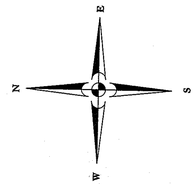
WP11-108 | S-04-03 | PB CASE 362 | WP 04-114 | F-05-52 | F-05-101

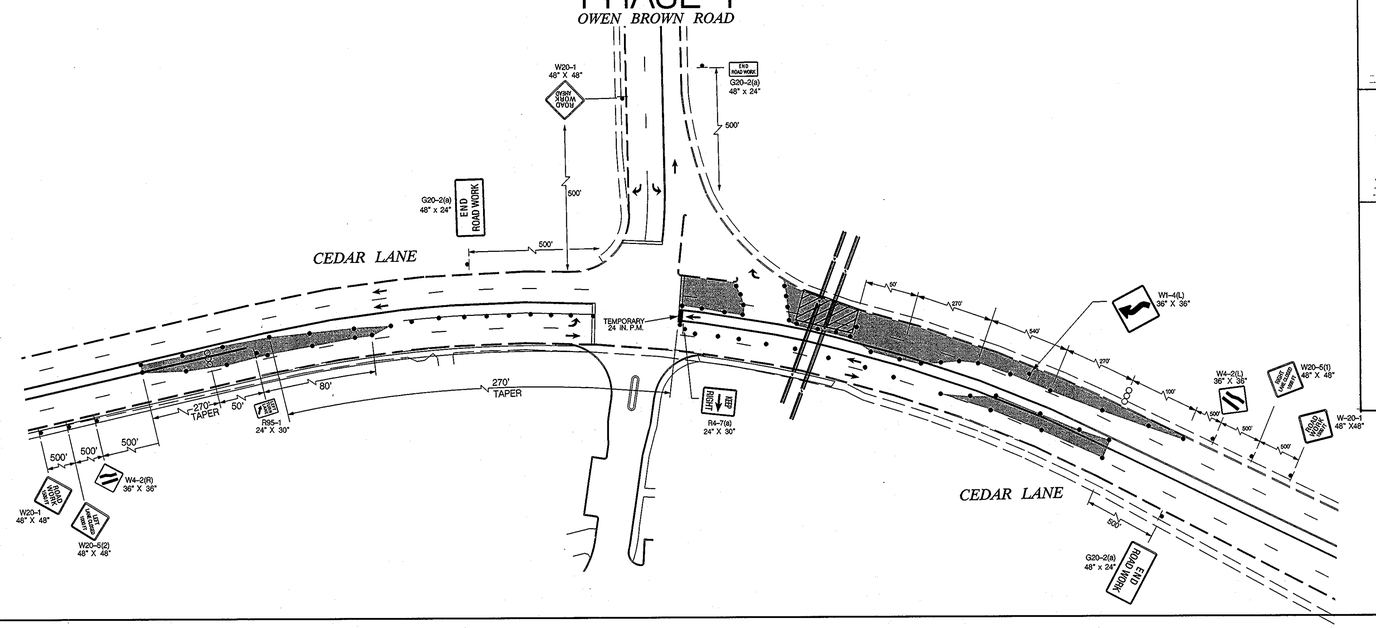
DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : 1" = 50'	SHEET 19 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\CEDARVILLAS\CEDAR VILLA 1-FINAL\SDP\DRAINAGE AREA MAP1.dwg, SOILS MAP, 12/9/2004 7:39:48 PM, guz

PHASE I





AREA CLOSED TO TRAFFIC

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

STATE OF MARYLAND — CHRISTOPHER WESSNER — No. 21431 — REGISTERED PROFESSIONAL ENGINEER

SIGNATURE OF ENGINEER
DAVID C. WESSNER

12/6/04
DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON

12/10/04
DATE

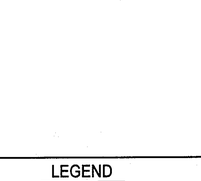
APPROVED: DEPARTMENT OF PLANNING AND ZONING

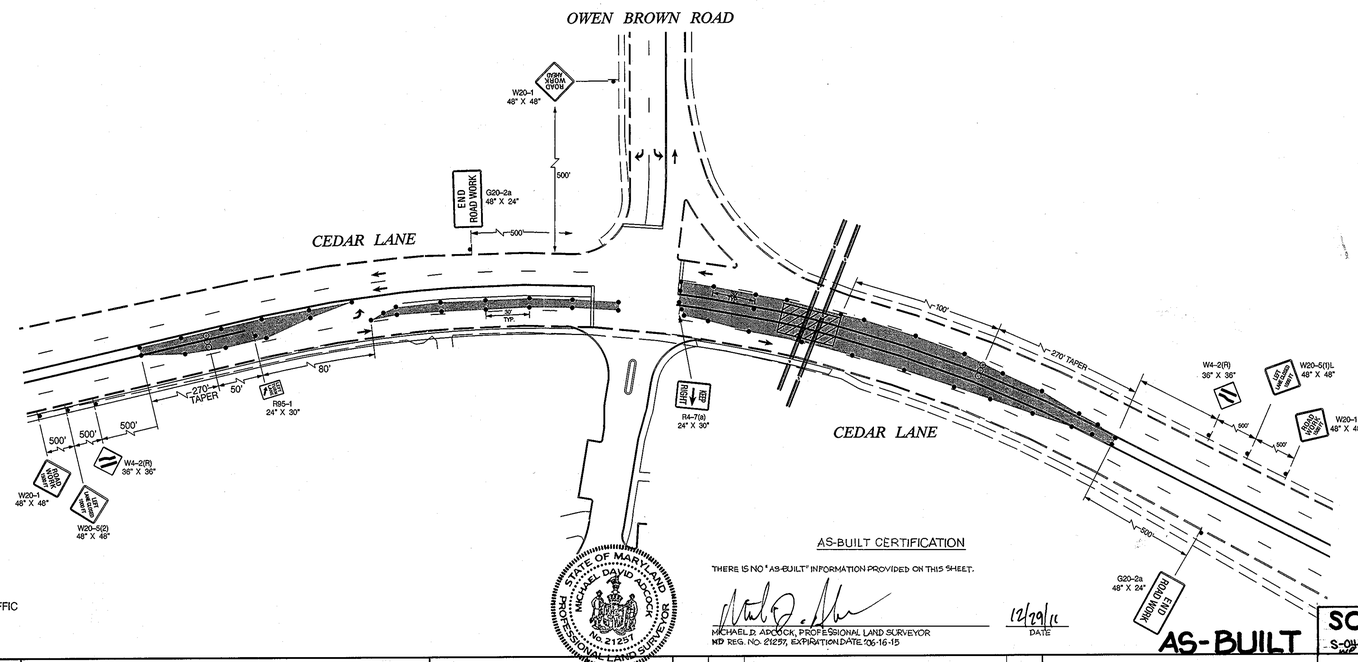
CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/20/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/4/05 DATE

PHASE II





LEGEND

- WORK AREA
- ARROW PANEL
- LANE DIRECTION
- PLASTIC DRUM
- PROPOSED SIGN
- PROPOSED GEOMETRICS
- EXISTING GEOMETRICS
- PROPOSED SEWER LINE

AREA CLOSED TO TRAFFIC

STATE OF MARYLAND — MICHAEL DAVID ADCOCK — No. 21257 — PROFESSIONAL LAND SURVEYOR

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE 06-16-15

12/29/11
DATE

AS-BUILT

STATE OF MARYLAND — BRIAN F. GLEATT — No. 28559 — REGISTERED PROFESSIONAL ENGINEER

FOR REV. BY BEI ONLY

3/8/2011

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. 28559 Expiration Date: 7/22/11

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — 6/7/04 DATE

CHIEF, TRAFFIC ENGINEERING DIVISION — 6/7/04 DATE

CHIEF, BUREAU OF HIGHWAYS — 6-16-04 DATE

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473 EMAIL TRACONCEPT@AOL.COM

STATE OF MARYLAND — RAYMOND E. STEIN — No. 9259 — REGISTERED PROFESSIONAL ENGINEER — 6/6/04

DES: MO			
DRN: MO			
CHK: TZ			
DATE: JUNE, 2004	BEI	1	Revise Title Block
	BY	NO.	REVISION

8/4/11 DATE

600' SCALE MAP NO. _____ DATE: _____

SCOTS GLEN NORTH — S-04-03, PB CASE 362, WP 04-114, F05-52, F05-161 — SDP 04-124

MAINTENANCE OF TRAFFIC
CEDAR LANE
AT
OWEN BROWN ROAD

SCALE: NONE

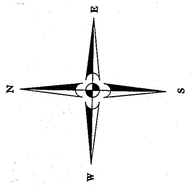
SHEET 20 OF 25

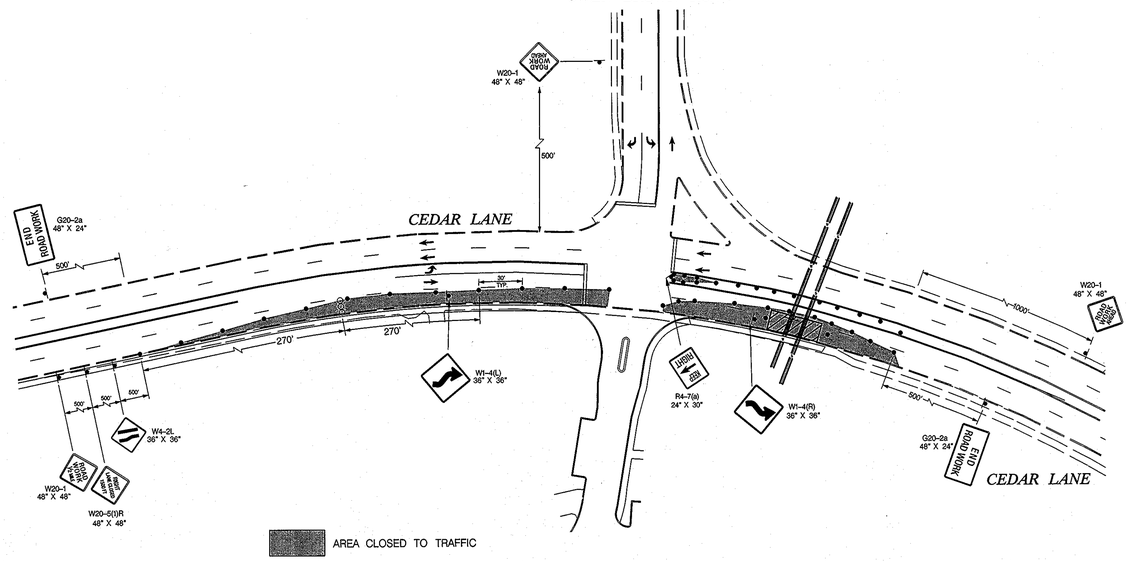
m:\1300\04-1355\finalmot.dgn Jun. 08, 2004 08:38:05

SDP-04-124

PHASE III

OWEN BROWN ROAD





ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

STATE OF MARYLAND — RAYMOND E. GILL — No. 9259 — REGISTERED PROFESSIONAL ENGINEER

SIGNATURE OF ENGINEER
RAYMOND MOSSNER

1/6/04
DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON

1/6/04
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/5/05 DATE

DIRECTOR-DEPARTMENT OF PLANNING AND ZONING — 1/11/05 DATE

GENERAL CONTROL SHEET

I. General Requirements

Each phase of construction, including the follow up restoration operations shall be provided with appropriate work zone traffic controls.

The contractor will be solely responsible for all accidents and/or damage to persons and/or property damage resulting from his operations.

The contractor shall refer to the attached Traffic Control Plan (TCP) drawings to select the appropriate work zone traffic controls for each phase of construction. Work zone situations which are not addressed in the attached TCP shall conform to the guidelines set forth in Section 6 of the MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAY (MUTCD), most recent edition.

The inspector has the authority to modify the TCP as deemed necessary. The inspector has the authority to order the contractor to stop work and vacate the public right-of-way if the TCP is not complied with.

Road closures of any duration shall require the submittal of a written request to the inspector with justification as to why work activity cannot occur while traffic is being maintained. Road closure shall require additional traffic controls including advance notification, approach, and detour signage, as approved by the inspector.

All sidewalk closures shall require the approval of the inspector. Any sidewalk closure greater than two (2) weeks shall require the submittal of a written request to the inspector and may require additional traffic controls. Sidewalk closures shall be limited to occur only during the actual work activity. During closure, sidewalks shall be barricaded to physically prevent pedestrian passage and appropriate pedestrian detours shall be posted. During all other times, provisions for safe pedestrian access through the work area, via a temporary walkway shall be provided.

Any work within the traveled portion of roadways shall be restricted to the hours of 9:00 AM to 4:00 PM, Monday through Friday.

Construction activity, loading or unloading of equipment shall not block any traffic lane other than those delineated within the work zone.

Exclusive of emergency work, the permittee shall contact occupants of all adjoining properties and inform them of the scope and the timing of construction. A minimum of 24 hours notification shall be required prior to the commencement of any activity on the site.

Access shall be maintained to all driveways unless permission for closure is granted by the property owner/manager. However, accessibility for emergency vehicles shall be maintained at all times.

Pavement excavation shall be limited to a maximum of one travel lane at any time unless otherwise specified on the TCP.

Hazardous materials shall not be stored within public right-of-way.

Materials or equipment shall not be stored on the roadway surface or sidewalk during non-work periods. All stored materials and equipment shall be set back at least six (6) feet behind the curb along a closed section roadway and at least thirty (30) feet from the edge of open section roadway.

Any excavation(s) in the roadway shall be paved to level grade or plated with cold patch along all four sides and the roadway reopened to its full cross-section prior to the end of each workday. "STEEL PLATES AHEAD" (W21-9) signs shall be placed approximately 250 feet in advance of any steel plate.

Any excavations in the sidewalk shall be backfilled or plated prior to the end of each workday and sidewalk reopened to its full cross section.

Traffic shall not be permitted within ten (10) feet of any excavation that results in a vertical drop-off of more than five (5) inches in the level of pavement during non-working hours unless protected by temporary concrete barriers or ramped with aggregated material at a 3:1 or flatter slope from the edge of pavement. When ramping it is utilized, traffic drums shall be positioned adjacent to the edge of the work area on the traffic side of the slope.

Traffic shall not be permitted within two (2) feet of any excavation that results in a vertical drop-off of more than two (2) inches but no more than five (5) inches in the level of pavement during non-working hours unless either ramped with aggregate material at a 3:1 or flatter slope, provided with an abutting wedge of bituminous material at a 3:1 or flatter slope or protected by traffic drums.

In areas where a drop-off in the level of pavement is two (2) inches or less, traffic may be allowed to freely cross under the following conditions.

- Where longitudial paving joints of two (2) inches or less are exposed to traffic, warning signs shall be posted indicating "UNEVEN PAVEMENT" (W8-11 modified). These signs should be placed 250 feet in advance of the uneven joint and be spaced at appropriate intervals throughout the area of the uneven joint.
- Where lateral paving joints of two (2) inches or less are exposed to traffic, a "BUMP" (W8-1) sign shall be posted 100 feet in advance of the joint.
- When milled pavement is left exposed to traffic a "ROUGH ROAD" (W8-8) or "GROOVED PAVEMENT" (W8-8a) sign shall be placed 250 feet in advance of of the milled area.

All existing traffic control devices (i.e. signs, marking, etc.) that must be removed shall be replaced in their proper location prior to the completion of the project. Cost for the replacement and/or repair of devices damaged as a result of the project shall be assessed to the contractor.

All traffic control devices shall conform to the most recent edition of the MUTCD.

The implementation date and continuance of work activities may be altered at the discretion of the inspector in the event of conflicts with previously approved or emergency activities.

At the completion of work activities, conditions within the public space shall be fully restored to those that existed prior to the work activity.

TRAFFIC CONTROL REQUIREMENTS

II. Specific Requirements:

When possible, two-way traffic shall be maintained, otherwise, flaggers shall be used to control traffic with appropriate signage.

At least one 10-foot travel lane shall be available for traffic at all times in each direction.

Provisions shall be made for safe maintenance of pedestrian and bicycle traffic, subject to approval of the inspector.

Installation of Traffic Control Devices

Signage, traffic drums, traffic cones, and arrow panels shall be placed in accordance with the appropriate typical and spacing chart.

All signs, traffic drums and cones shall be fully reflectorized with high intensity, reflective sheeting as per the MUTCD.

Appropriate distances for sign legends are "AHEAD", "500 FT.", "1000 FT.", "1500 FT.", or "1/2 MILE". For distances less than 500 feet, "AHEAD" shall be used.

All warning signs, unless otherwise specified, shall be a minimum of 48" x 48", black symbol or legend on orange background and diamond shaped.

All portable signs shall be mounted a minimum of one (1) foot above the level of the roadway, with higher mounting heights desirable.

All warning signs not applicable to the actual situation shall be removed or covered during non-applicable periods.

Work Area Ahead (W20-1 modified) signs must be installed at the end of each workday when temporary aggregate ramping is implemented.

Reflectorized traffic drums or cones shallbe used to delineate the work zone. These channelizing devices shall be placed in accordance with the typicals and spacing chart. Additionally, channelizing devices shall be placed along excavations at ten (10) foot intervals.

During nighttime operations reflectorized traffic drums should be used. However, for emergency work activities where traffic drums are not readily available, reflectorized traffic cones that are a minimum of twenty eight (28) inches in height and having six (6) inch and four (4) inch reflective collars within the top sixteen (16) inches of the cone may be used. All work areas left unattended at night shall be delineated with reflectorized traffic drums.

Flashing Arrow Panels shall be used at the beginning of any lane closure on a multi-lane roadway.

When temporary concrete barrier (TCB) is used, reflectorized markers are required as per TCP 109.02. Also, a 12" x 36" object marker (vertical panel as per TCP 105.01) shall be installed.

When pavement markings have been obliterated by the work activity, the contractor shall install any critical interim pavement markings prior to the end of the workday as specified by the inspector.

- On road sections that are not scheduled to be overlaid, all temporary pavement markings shall be (removable) detour grade marking tape. Any conflicting markings, which need to be temporarily removed, are to be masked using "3M Removable Black Lane Mask" or an approved equal.
- On road sections that are to be overlaid, temporary markings can be either tape or paint. Any conflicting markings should be removed with a pavement grinder.

LEGEND

- WORK AREA
- ARROW PANEL
- LANE DIRECTION
- PLASTIC DRUM
- PROPOSED SIGN
- PROPOSED GEOMETRICS
- EXISTING GEOMETRICS
- PROPOSED SEWER LINE

STATE OF MARYLAND — MICHAEL DAVID ADCOCK — No. 21257 — PROFESSIONAL LAND SURVEYOR

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 05-16-19

12/29/11
DATE

STATE OF MARYLAND — BRIAN F. GLENNY — No. 28559 — PROFESSIONAL ENGINEER

FOR REV. BY BEIONLY — 3/8/2011

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. 28559 Expiration Date: 7/22/14

AS-BUILT

SCOTS GLEN NORTH
S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-181

SDP 04-124

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE 6/10/04

CHIEF, TRAFFIC ENGINEERING DIVISION — DATE 6/17/04

CHIEF, BUREAU OF HIGHWAYS — DATE 6-16-04

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473 EMAIL TRACONCEPT@AOL.COM

STATE OF MARYLAND — RAYMOND E. GILL — No. 9259 — REGISTERED PROFESSIONAL ENGINEER — 1/6/04

DES: MO				
DRN: MO				
CHK: TZ				
DATE: JUNE, 2004	BY	NO.	REVISION	DATE
	BEI	1	Revise Title Block	3-6-11

600' SCALE MAP NO. _____ DATE: _____

MAINTENANCE OF TRAFFIC
CEDAR LANE
AT
OWEN BROWN ROAD

SCALE: NONE

SHEET 21 OF 25

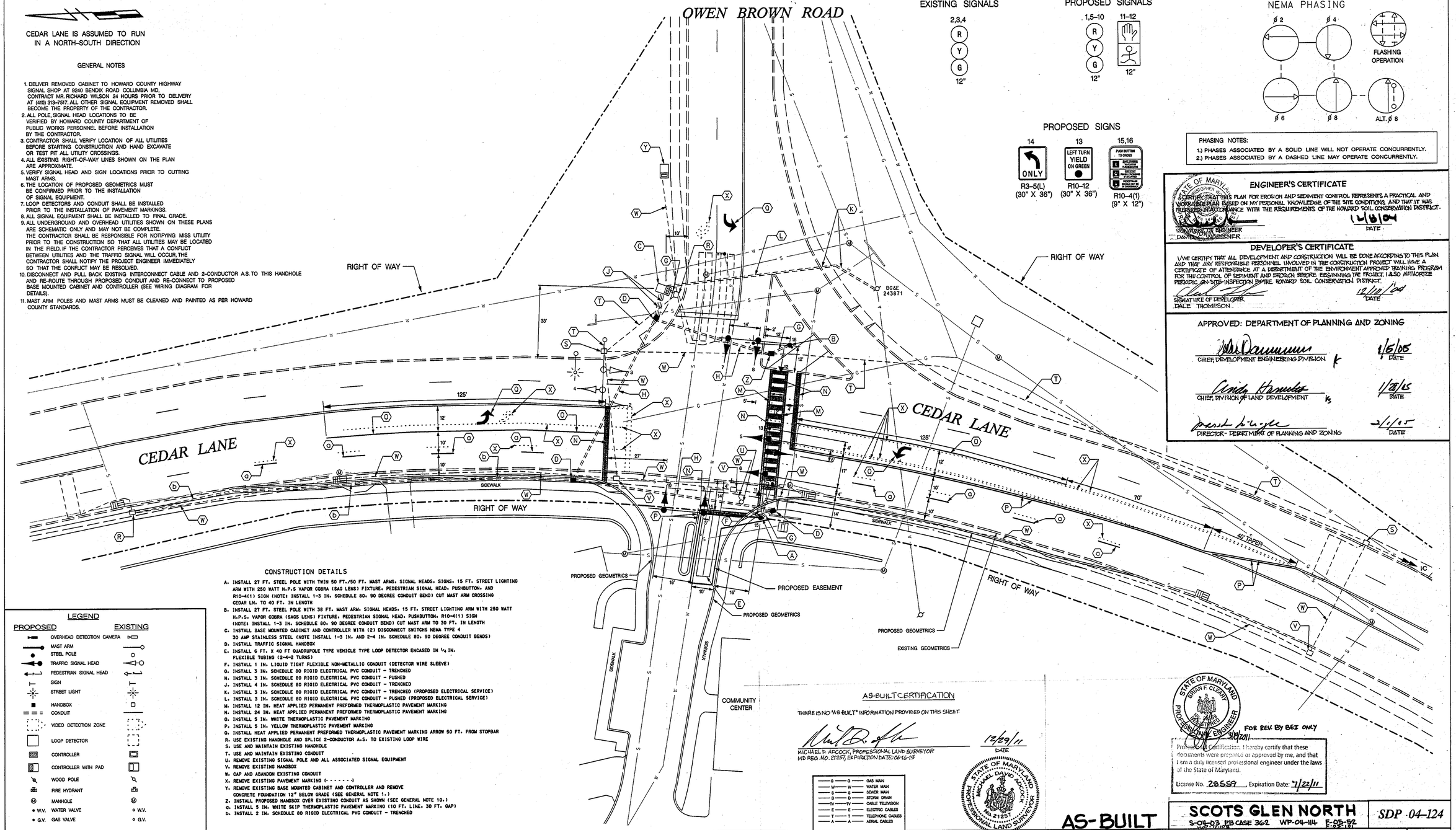
m:\1300\04-1355\finalmot.dgn Jun. 08, 2004 08:38:56

SDP-04-124

CEDAR LANE IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

GENERAL NOTES

1. DELIVER REMOVED CABINET TO HOWARD COUNTY HIGHWAY SIGNAL SHOP AT 9240 BENDIX ROAD COLUMBIA MD, CONTRACT MR. RICHARD WILSON 24 HOURS PRIOR TO DELIVERY AT (410) 313-7517. ALL OTHER SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
2. ALL POLE, SIGNAL HEAD LOCATIONS TO BE VERIFIED BY HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS PERSONNEL BEFORE INSTALLATION BY THE CONTRACTOR.
3. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE STARTING CONSTRUCTION AND HAND EXCAVATE OR TEST PIT ALL UTILITY CROSSINGS.
4. ALL EXISTING RIGHT-OF-WAY LINES SHOWN ON THE PLAN ARE APPROXIMATE.
5. VERIFY SIGNAL HEAD AND SIGN LOCATIONS PRIOR TO CUTTING MAST ARMS.
6. THE LOCATION OF PROPOSED GEOMETRICS MUST BE CONFIRMED PRIOR TO THE INSTALLATION OF SIGNAL EQUIPMENT.
7. LOOP DETECTORS AND CONDUIT SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF PAVEMENT MARKINGS.
8. ALL SIGNAL EQUIPMENT SHALL BE INSTALLED TO FINAL GRADE.
9. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO THE CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
10. DISCONNECT AND PULL BACK EXISTING INTERCONNECT CABLE AND 2-CONDUCTOR A.S. TO THIS HANDHOLE AND RE-ROUTE THROUGH PROPOSED CONDUIT AND RE-CONNECT TO PROPOSED BASE MOUNTED CABINET AND CONTROLLER (SEE WIRING DIAGRAM FOR DETAILS).
11. MAST ARM POLES AND MAST ARMS MUST BE CLEANED AND PAINTED AS PER HOWARD COUNTY STANDARDS.



EXISTING SIGNALS

2,3,4 — R, Y, G — 12"

PROPOSED SIGNALS

1,5–10 — R, Y, G — 12"

11–12 — 12"

NEMA PHASING

PROPOSED SIGNS

14 — R3-5(L) (30" X 36")

13 — LEFT TURN YIELD ON GREEN — R10-12 (30" X 36")

15,16 — PUSH BUTTON TO CROSS — R10-4(1) (9" X 12")

PHASING NOTES:
1.) PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2.) PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.

ENGINEER'S CERTIFICATE

STATE OF MARYLAND — CHRISTOPHER W. CONNER — No. 21257 — REGISTERED PROFESSIONAL ENGINEER

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER
DAVID W. CONNER

12/6/04
DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON

12/10/04
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/6/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

LEGEND

PROPOSED	EXISTING
OVERHEAD DETECTION CAMERA	
MAST ARM	
STEEL POLE	
TRAFFIC SIGNAL HEAD	
PEDESTRIAN SIGNAL HEAD	
SIGN	
STREET LIGHT	
HANDBOX	
CONDUIT	
VIDEO DETECTION ZONE	
LOOP DETECTOR	
CONTROLLER	
CONTROLLER WITH PAD	
WOOD POLE	
FIRE HYDRANT	
MANHOLE	
W.V. WATER VALVE	W.V.
G.V. GAS VALVE	G.V.

CONSTRUCTION DETAILS

A. INSTALL 27 FT. STEEL POLE WITH TWIN 50 FT./50 FT. MAST ARMS, SIGNAL HEADS, SIGNS, 15 FT. STREET LIGHTING ARM WITH 250 WATT H.P.S VAPOR COBRA (SAG LENS) FIXTURE, PEDESTRIAN SIGNAL HEAD, PUSHBUTTON, AND R10-4(1) SIGN (NOTE: INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE CONDUIT BEND) CUT MAST ARM CROSSING CEDAR LN. TO 40 FT. IN LENGTH
B. INSTALL 27 FT. STEEL POLE WITH 30 FT. MAST ARM, SIGNAL HEADS, 15 FT. STREET LIGHTING ARM WITH 250 WATT H.P.S. VAPOR COBRA (SAGS LENS) FIXTURE, PEDESTRIAN SIGNAL HEAD, PUSHBUTTON, R10-4(1) SIGN (NOTE: INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE CONDUIT BEND) CUT MAST ARM TO 30 FT. IN LENGTH
C. INSTALL BASE MOUNTED CABINET AND CONTROLLER WITH (2) DISCONNECT SWITCHS NEMA TYPE 4 30 AMP STAINLESS STEEL (NOTE INSTALL 1-3 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE CONDUIT BENDS)
D. INSTALL TRAFFIC SIGNAL HANDBOX
E. INSTALL 6 FT. X 40 FT QUADRUPOLE TYPE VEHICLE TYPE LOOP DETECTOR ENCASED IN ¼ IN. FLEXIBLE TUBING (2-4-2 TURNS)
F. INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT (DETECTOR WIRE SLEEVE)
G. INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
H. INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - PUSHED
J. INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
K. INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED (PROPOSED ELECTRICAL SERVICE)
L. INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - PUSHED (PROPOSED ELECTRICAL SERVICE)
M. INSTALL 12 IN. HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
N. INSTALL 24 IN. HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
O. INSTALL 5 IN. WHITE THERMOPLASTIC PAVEMENT MARKING
P. INSTALL 5 IN. YELLOW THERMOPLASTIC PAVEMENT MARKING
Q. INSTALL HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW 50 FT. FROM STOPBAR
R. USE EXISTING HANDHOLE AND SPLICE 2-CONDUCTOR A.S. TO EXISTING LOOP WIRE
S. USE AND MAINTAIN EXISTING HANDHOLE
T. USE AND MAINTAIN EXISTING CONDUIT
U. REMOVE EXISTING SIGNAL POLE AND ALL ASSOCIATED SIGNAL EQUIPMENT
V. REMOVE EXISTING HANDBOX
W. CAP AND ABANDON EXISTING CONDUIT
X. REMOVE EXISTING PAVEMENT MARKING (- - - - - -)
Y. REMOVE EXISTING BASE MOUNTED CABINET AND CONTROLLER AND REMOVE CONCRETE FOUNDATION 12" BELOW GRADE (SEE GENERAL NOTE 1.)
Z. INSTALL PROPOSED HANDBOX OVER EXISTING CONDUIT AS SHOWN (SEE GENERAL NOTE 10.)
a. INSTALL 5 IN. WHITE SKIP THERMOPLASTIC PAVEMENT MARKING (10 FT. LINE, 30 FT. GAP)
b. INSTALL 2 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-15

12/29/11
DATE

STATE OF MARYLAND — MICHAEL D. ADCOCK — No. 21257 — PROFESSIONAL LAND SURVEYOR

G — G	GAS MAIN
W — W	WATER MAIN
S — S	SEWER MAIN
D — D	STORM DRAIN
TV — TV	CABLE TELEVISION
E — E	ELECTRIC CABLES
T — T	TELEPHONE CABLES
A — A	AERIAL CABLES

STATE OF MARYLAND — BRIAN F. CLEARY — No. 21764 — REGISTERED PROFESSIONAL ENGINEER

3/9/2011
FOR REV. BY BGE ONLY

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. 20559, Expiration Date: 7/22/11

AS-BUILT

DES: MO				
DRN: MO				
CHK: TZ				
DATE: JUNE, 2004	BGI	1	Revise Title Block	3-16-11
	BY	NO.	REVISION	DATE

600' SCALE MAP NO. _____ DATE: _____

SCOTS GLEN NORTH

S-04-03, PB CASE 362, WP-04-114, F-05-52, F-05-151

SDP-04-124

TRAFFIC SIGNAL PLAN CEDAR LANE AT OWEN BROWN ROAD

SCALE: 1" = 20'

SHEET 22 OF 25

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE 6/17/04

CHIEF, TRAFFIC ENGINEERING DIVISION — DATE 6/17/04

CHIEF, BUREAU OF HIGHWAYS — DATE 6-16-04

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473 EMAIL TRACONCEPT@AOL.COM

STATE OF MARYLAND — RAYMOND E. GISTER — NO. 9269 — REGISTERED PROFESSIONAL ENGINEER — 6/21/04

m:\1300\04-1355\cedar villa\signal Jun. 04, 2004 12:12:36

SDP-04-124

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF CEDAR LANE AND OWEN BROWN ROAD IN HOWARD COUNTY. CEDAR LANE IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH AN ALTERNATE PEDESTRIAN PHASE ACROSS THE SOUTHLEG OF CEDAR LANE.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH LOOP DETECTOR AMPLIFIER HOUSED IN A NEMA "P" BASE MOUNTED CABINET.

PHASING

PHASE AND SEQUENCE DIAGRAM		SIGNAL HEADS 1 (R Y G)	2 (R Y G)	3 (R Y G)	4 (R Y G)	5 (R Y G)	6 (R Y G)	7 (R Y G)	8 (R Y G)	9 (R Y G)	10 (R Y G)	11	12
	PHASE 2 ⊕	G	G	G	G	G	G	R	R	R	R	DW	DW
	PHASE 2 ⊕ CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	DW	DW
	PHASE 4 ⊕	R	R	R	R	R	R	G	G	G	G	DW	DW
	PHASE 4 ⊕ CHANGE	R	R	R	R	R	R	G	G	G	G	DW	DW
	PHASE 4 ⊕ ALT. 8	R	R	R	R	R	R	G	G	G	G	FLDW	FLDW
	PED. CLEAR	R	R	R	R	R	R	G	G	G	G	FLWK	FLWK
	PHASE 4 ⊕ ALT. 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW
	FLASH OPER.	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL R	FL R	FL R	FL R	DARK	DARK

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE PURCHASED FROM HOWARD COUNTY HIGHWAY SIGNAL SHOP AND INSTALLED BY THE CONTRACTOR.

QUANTITY	DESCRIPTION
1 EACH	BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT
7 EACH	12 IN. VEHICULAR 3-SECTION (R,Y,G) SIGNAL HEAD
2 EACH	12 IN. PEDESTRIAN SIGNAL HEAD
1 EACH	27 FT. STEEL POLE WITH TWIN 50 FT./50 FT. MAST ARMS
1 EACH	27 FT. STEEL POLE WITH 38 FT. MAST ARM
2 EACH	PEDESTRIAN SIGN R10-4(1)
1 EACH	R10-12 SIGN (30" X 36") MAST ARM MOUNT
1 EACH	R3-5(L) SIGN (30" X 36") MAST ARM MOUNT
2 EACH	15 FT. LIGHTING ARM FOR SIGNAL STRUCTURE
2 EACH	250 WATT H.P.S. VAPOR COBRA (SAG LENS) FIXTURE
2 EACH	PEDESTRIAN PUSHBUTTON

STATE OF MARYLAND — CHRISTOPHER WICHURA — LICENSED PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — DATE 12/13/04

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER — DALE THOMPSON — DATE 12/10/04

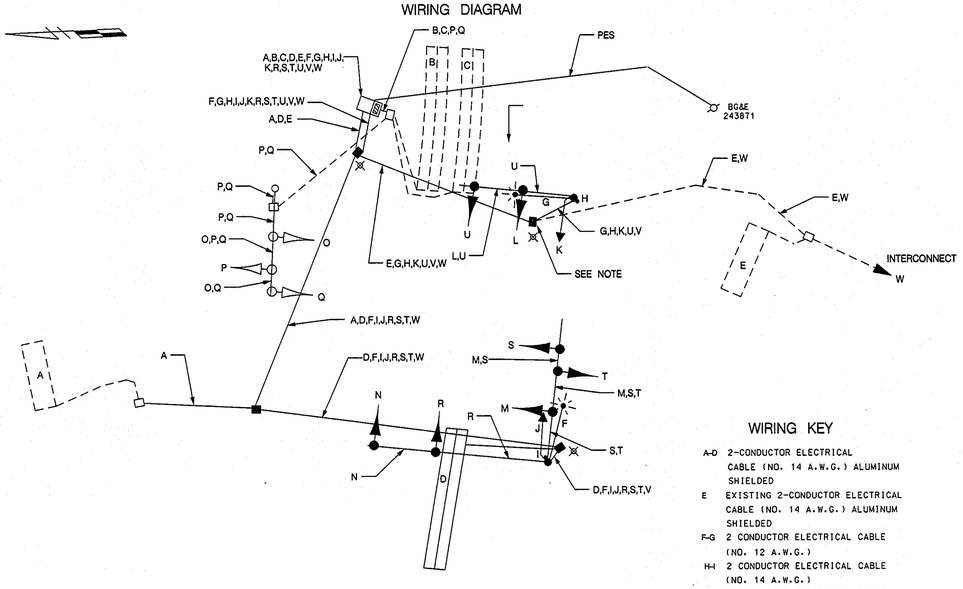
APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/5/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/6/05

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — DATE 2/1/05

WIRING DIAGRAM



WIRING KEY

A-D	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
E	EXISTING 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
F-G	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
H-I	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J-K	3 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
L-N	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
O	EXISTING 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
P-U	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
V	STRANDED BARE COPPER GROUND GREEN WIRE (THWN)
W	6-PAIR COMMUNICATION CABLE. JELLY FILLED UNDERGROUND
PES	PROPOSED ELECTRICAL SERVICE
LW	LOOP WIRE (NO. 14 A.W.G.)
ELW	EXISTING LOOP WIRE (NO. 14 A.W.G.)
⊗	GROUND ROD IN HANDBOX

NOTE: DISCONNECT I/C CABLE (W) AND 2-CONDUCTOR A.S. (E) FROM EXISTING CONTROLLER AND PULL BACK TO THIS PROPOSED HANDBOX RE-ROUTE THROUGH PROPOSED CONDUIT AND RE-CONNECT TO PROPOSED CONTROLLER.

EQUIPMENT LIST "B"

EQUIPMENT TO BE FURNISH AND/OR INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT MUST HAVE CATALOG CUTS SUBMITTED TO HOWARD COUNTY FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC-FULLY
2001	3 CY	TEST PIT EXCAVATION
8001	10 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8008	15 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT, FLEXIBLE, NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8029	200 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8033	220 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - PUSHED
8034	40 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8036	3 EACH	FURNISH AND INSTALL 3 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BEND
8038	20 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8040	2 EACH	FURNISH AND INSTALL 4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BEND
8047	2 EACH	FURNISH AND INSTALL DISCONNECT SWITCH NEMA TYPE 4 - 30 AMP STAINLESS STEEL
8049	3 EACH	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH AND CLAMP
8056	550 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 IN. FLEXIBLE TUBING (NO. 14 AWG)
8059	530 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR ALUMINUM SHIELDED
8060	310 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO. 14 AWG
8061	330 LF	FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR NO. 14 AWG
8063	70 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR NO. 14 AWG
8064	1140 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR NO. 14 AWG
8068	390 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO. 12 AWG
8071	340 LF	FURNISH AND INSTALL NO. 8 AWG (THWN) - COPPER
8080	16 SF	INSTALL SIGN (OVERHEAD)
8085	2 EACH	INSTALL LIGHTING ARM ON MAST ARM POLE
8086	2 EACH	INSTALL 250 WATT HPS VAPOR COBRA (SAG LENS) FIXTURE
8090	2 EACH	INSTALL MAST ARM POLE
8092	3 EACH	INSTALL MAST ARM
8100	2 EACH	GROUT EXISTING/NEW POLE BASE
8107	7 EACH	INSTALL VEHICULAR SIGNAL HEAD
8110	2 EACH	INSTALL PEDESTRIAN SIGNAL HEAD
8111	2 EACH	INSTALL PEDESTRIAN PUSHBUTTON AND SIGN
8117	1 EACH	INSTALL CONTROLLER AND CABINET BASE MOUNT
8119	4 EACH	FURNISH AND INSTALL TRAFFIC SIGNAL HANDBOX
8120	1 EACH	INSTALL TRAFFIC SIGNAL HANDBOX OVER EXISTING CONDUIT
8121	490 LF	PULL-BACK AND RE-ROUTE EXISTING CABLE
8123	145 LF	FURNISH AND INSTALL SAW CUT FOR LOOP DETECTOR
8127	2 EACH	CLEAN AND PAINT MAST ARM POLE
8128	3 EACH	CLEAN AND PAINT MAST ARM
8129	2 EACH	CLEAN AND PAINT LIGHTING ARM
8141	2 CY	REMOVE AND DISPOSE OF FOUNDATION 12 IN. BELOW GRADE
8144	1 EACH	REMOVE AND SALVAGE CABINET AND CONTROLLER
8145	3 EACH	REMOVE SIGNAL HANDBOX
NEG.	3 EACH	FURNISH AND INSTALL HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING ARROW
NEG.	2 EACH	REMOVE EXISTING PAVEMENT MARKING LETTER OR ARROW
NEG.	125 LF	FURNISH AND INSTALL 12 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
NEG.	175 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
NEG.	335 LF	FURNISH AND INSTALL 5 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
NEG.	560 LF	FURNISH AND INSTALL 5 IN. YELLOW HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
NEG.	1265 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKING - ANY WIDTH
NEG.	2 EACH	CUT AND CAP TRAFFIC SIGNAL STRUCTURE
NEG.	LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

STATE OF MARYLAND — MICHAEL DAVID ARNOCK — NO. 21257 — PROFESSIONAL LAND SURVEYOR

MICHAEL D ARNOCK, PROFESSIONAL LAND SURVEYOR, MD REG. NO. 21257, EXPIRATION DATE: 06-16-15 — DATE 12/9/11

STATE OF MARYLAND — BRIAN F. CLEARY — NO. 28559 — PROFESSIONAL ENGINEER — 3/9/2011

FOR REV. BY BEI ONLY

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. 28559, Expiration Date: 7/22/11

AS-BUILT

SCOTS GLEN NORTH — SDP-04-124

S-04-03, PB CASE 362, WP 04-114, F-05-52, F-05-101

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE 6/17/04

CHIEF, TRAFFIC ENGINEERING DIVISION — DATE 6/17/04

CHIEF, BUREAU OF HIGHWAYS — DATE 6-16-04

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473 EMAIL TRACONCEPT@AOL.COM

STATE OF MARYLAND — RAYMOND E. PRICE — NO. 21459 — REGISTERED PROFESSIONAL ENGINEER — 6/17/04

DES: MO | DRN: MO | CHK: TZ | DATE: JUNE, 2004

BY	NO.	REVISION	DATE
BEI	1	Revise Title Block	3/16/11

600' SCALE MAP NO. _____ DATE: _____

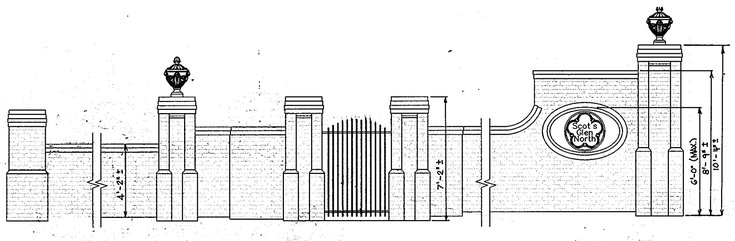
TRAFFIC SIGNAL PLAN
GENERAL INFORMATION SHEET
CEDAR LANE
AT
OWEN ~~BROWN ROAD~~

SCALE: NONE

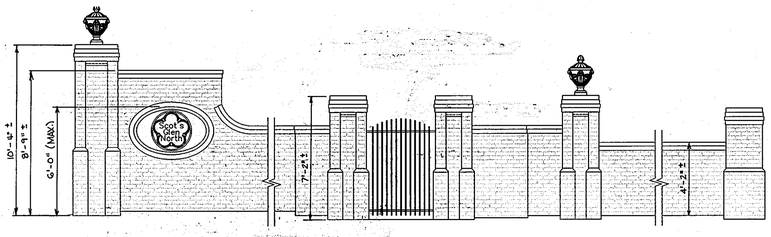
SHEET 23 OF 25

m:\1300\04-1355\cedar villa\signal Jun. 04, 2004 12:14:52

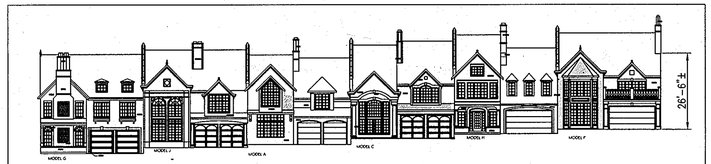
SDP-04-124



WALL ELEVATION SOUTH (B)
SCALE: NOT TO SCALE



WALL ELEVATION NORTH (B)
SCALE: NOT TO SCALE



TYPICAL 6 UNIT BLOCK
NOT TO SCALE

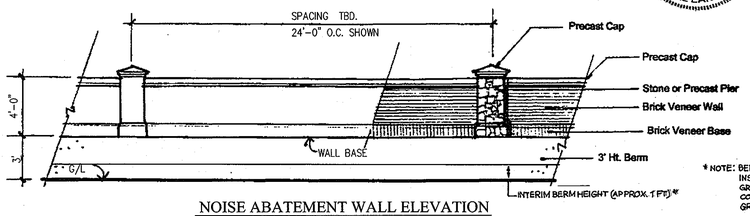
AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET

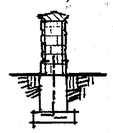
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR.
MD REG. NO. 21257, EXPIRATION DATE: 06-16-15

12/29/11
DATE

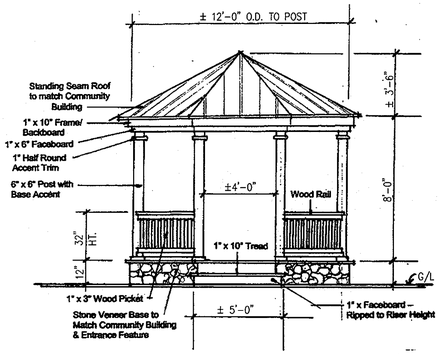
COMMUNITY ENTRANCE WALL ELEVATION (ALSO ACTS AS NOISE ABATEMENT)
NOT TO SCALE



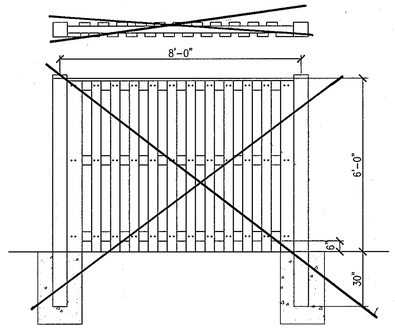
NOISE ABATEMENT WALL ELEVATION
NOT TO SCALE



* NOTE: BERM TO BE RAISED TO ULTIMATE GRADE PRIOR TO INSTALLATION OF NOISE ABATEMENT WALL. GRADING SHOWN ON SHEET 17 IS FOR THE INTERIM CONDITION ONLY. SEE SHEETS 22 & 14 FOR ULTIMATE GRADE AT TOP OF BERM.

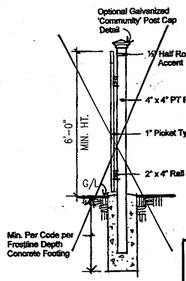


GAZEBO ELEVATION
NOT TO SCALE



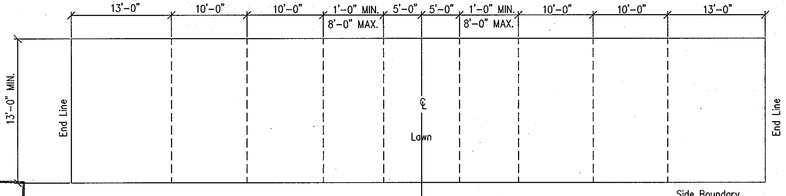
ELEVATION TYPICAL
NOT TO SCALE

~~CLOSED WOOD FENCE DETAIL - PERIMETER 2~~
NOT TO SCALE



SECTION TYPICAL
NOT TO SCALE

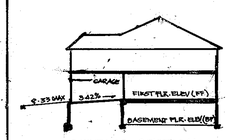
78'-0" MIN. – 98'-0" MAX. TOTAL LENGTH



BOCCE COURT - TYPICAL PLAN
NOT TO SCALE

TYPICAL VILLA UNIT
(2 CAR GARAGE)
(BOTH SFA AND SFD)

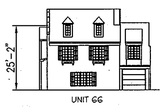
4/16/08



BUILDING SECTION
NOT TO SCALE

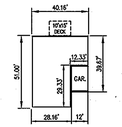
NOTE: BARRIER-FREE ENTRY TO BE ACHIEVED THRU THE GARAGE. MAX. GARAGE FLOOR SLOPE NOT TO EXCEED 5.5% MAX. DRIVEWAY SLOPE NOT TO EXCEED 8.3%.

TYPICAL VILLA UNIT
(1 CAR GARAGE)
(UNIT 66)



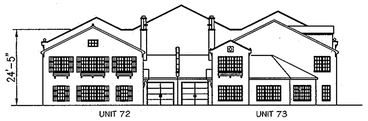
FRONT ELEVATION
NOT TO SCALE

SIDE ELEVATION
NOT TO SCALE

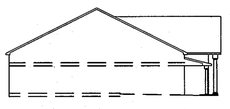


FOOT PRINT
NOT TO SCALE

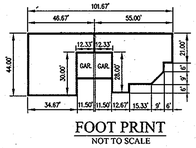
TYPICAL VILLA UNIT
(1 CAR GARAGE)
(UNIT 72 & 73)



FRONT ELEVATION
NOT TO SCALE



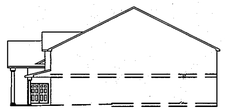
SIDE ELEVATION
NOT TO SCALE



FOOT PRINT
NOT TO SCALE

TYPICAL VILLA UNIT
(2 CAR GARAGE)
(BOTH SFA AND SFD)

FRONT ELEVATION
NOT TO SCALE



SIDE ELEVATION
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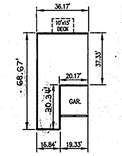
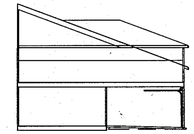


FOOT PRINT
NOT TO SCALE

TYPICAL VILLA UNIT
(1 CAR GARAGE)
(UNIT #45)

FRONT ELEVATION
NOT TO SCALE



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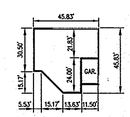
NOT TO SCALE



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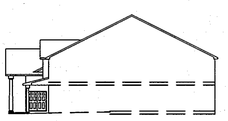
TYPICAL SFA CORNER UNIT
(UNIT #22)

FRONT ELEVATION
NOT TO SCALE



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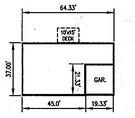

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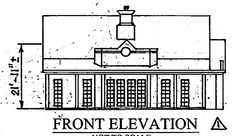
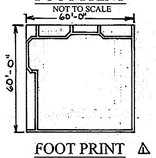
COMMUNITY BUILDING



FRONT ELEVATION (A)
NOT TO SCALE

SIDE ELEVATION (A)
NOT TO SCALE



FOOT PRINT (A)
NOT TO SCALE

STATE OF MARYLAND
BRIAN F. CLEARY
No. 28559
REGISTERED PROFESSIONAL ENGINEER

FOR REV. BY BEI ONLY

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. 28559 Expiration Date: 7/22/11

AS-BUILT

NO.	DATE	REVISION	BY
13	7-31-12	REVISE ELEVATIONS FOR I-27 IN THE STRUCTURE SCHEDULE	SJT

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

NO.	DATE	REVISION	BY
12	3-9-11	REVISE TITLE BLOCK	BEI
11	4-16-08	DELETE CLOSED WOOD FENCE DETAIL PERIMETER 2	DTB
10	8-28-07	TYPICAL BUILDING SECTION ADDED	ALDEI
9	8-16-06	REVISED ENTRANCE WALL	ALDEI
8	4-25-05	COMMUNITY CENTER FOOTPRINT & ELEVATION	ALDEI

ENGINEER'S CERTIFICATE

" I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT." '

SIGNATURE OF ENGINEER
DAVID C. WOESSNER

DEC. 10, 2004
DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON

DEC. 10, 2004
DATE

STATE OF MARYLAND
MICHAEL DAVID ADCOCK
No. 21257
PROFESSIONAL LAND SURVEYOR

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE : ENTRANCE FEATURES AND BUILDING ELEVATIONS AND DETAILS

PROJECT NAME :

SCOTS GLEN NORTH
9-51, 52A-58A, 59-62, 63A-69A
BUILDABLE BULK PARCEL "A" - UNITS 1-6, 7A, 8A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 | S-04-03 | PB CASE 362 | WP 04-114 | F-05-52 F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 24 OF 25

SDP-04-124

I:\SUBDIVISION-PROJECTS\GEDARVILLAS\CEDAR VILLA 1-FINAL\SDP\DETAIL1A.dwg, DETAIL3, 12/9/2004 7:51:19 PM, guz

POND CONSTRUCTION SPECIFICATIONS

Pond MD-378-14
NRCS - MARYLAND JANUARY 2000
CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill

Material – The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification CC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer.

Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement – Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction – The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out.

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench – The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core – The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100–200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structured backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe – All of the following criteria shall apply for corrugated metal pipe:

1. Materials – (Polymer Coated steel pipe) – Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials – (Aluminum Coated Steel Pipe) – This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when use with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials – (Aluminum Pipe) – This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections – All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight. All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipes less than 24 inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, pre-punched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8- inch thick closed cell circular neoprene gasket; and a 12-inch wide hugger type band with oring gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24 inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe. Flanged joints with 3/8 inch closed cell gaskets the full width of the flange is also acceptable. Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. Bedding – The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

4. Bedding – The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311. Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrowareas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

Excavated Ponds

General – Excavated ponds that create a failure potential through a constructed or created embankment will be designed as embankment ponds. Excavated ponds that include a pipe or weir outlet control system for urban stormwater management shall be designed using the principal and emergency spillway hydrologic criteria for Embankment Ponds, Table 1.

Side Slopes – Side slopes of excavated ponds shall be such that they will be stable and shall not be steeper than 1 horizontal to 1 vertical. Flatter slopes are to be utilized where safety for children, livestock watering, etc. is a design factor.

Perimeter Form – Where the structures are used for recreation or are located in high public view, the perimeter or edge should be shaped to a curvilinear form.

Inlet Protection – When the excavated pond is a bypass type and water is being diverted from a stream, the minimum size inlet line shall be a 4-inch diameter pipe. All state laws concerning water use and downstream rights shall be strictly adhered to. Where surface water enters the pond in a natural or excavated channel, the side slope of the pond shall be protected against erosion.

Outlet Protection – An excavated pond with a low embankment (combination excavation / embankment pond) shall be designed to ensure a stable outfall for the 10-year, 24-hour frequency storm.

Placement of Excavated Material – The material excavated from the pond shall be placed in one of the following ways so that its weight will not endanger the stability of the pond side slopes and where it will not be washed back into the pond by rainfall:

1. Uniformly spread to a height not exceeding 3 feet with the top graded to a continuous slope away from the pond;

2. Uniformly placed or shaped reasonably well with side slopes no steeper than 2 to 1. The excavated material will be placed at a distance equal to the depth of the pond, but not less than 12 feet from the edge of the pond;

3. Shaped to a designed form that blends visually with the landscape;

4. Used for low embankment and leveling; or

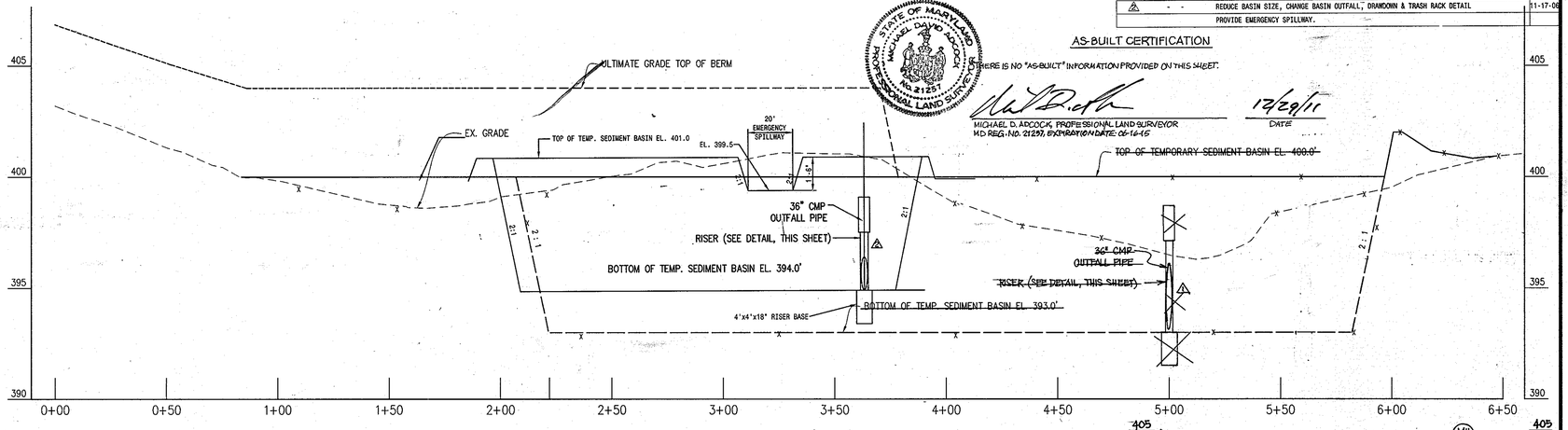
5. Hauled away.

Reservoir Area for Wet Ponds

For most ponds, the topography of the site shall permit storage of water at adepth and volume that ensures a dependable supply, considering beneficial use, sedimentation, seasom of use, and evaporation and seepage losses. Soils in the reservoir shall be impervious enough to minimize seepage losses or shall be of a type that sealing is practical. Excavation and shaping required to permit the reservoir area to suitably serve the planned purpose shall be included in the construction plans. Reservoirs designed specifically for fish production or wildlife management shall follow design criteria in the standards and specifications for Fish Pond Management (MD–399) and Wildlife Wetland Habitat Management (MD–644), as appropriate.

NO	DATE	REVISION
1	4-25-05	CHANGE OUTFALL PIPE LOCATION & PROFILE, REVISED ELEVATION FOR HORIZONTAL DRAWDOWN & ANTI-VORTEX DEVICES
-	-	REDUCE BASIN SIZE, CHANGE BASIN OUTFALL, DRAWDOWN & TRASH RACK DETAIL
-	-	PROVIDE EMERGENCY SPILLWAY.

11-17-05



AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

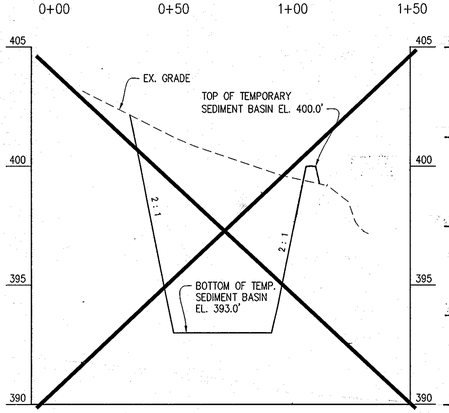
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

12/29/11
DATE

STATE OF MARYLAND · MICHAEL DAVID ADCOCK · No. 21257 · PROFESSIONAL LAND SURVEYOR

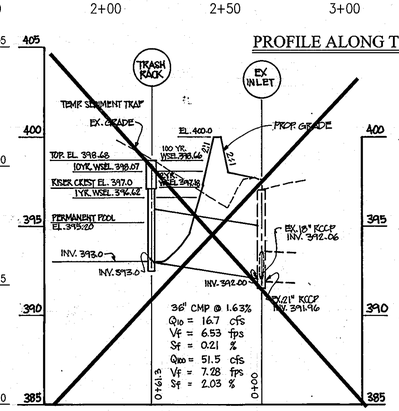
PROFILE ALONG TOP OF DAM - TEMPORARY SEDIMENT BASIN

SCALE : 1" = 30' HOR.
1" = 3' VER.



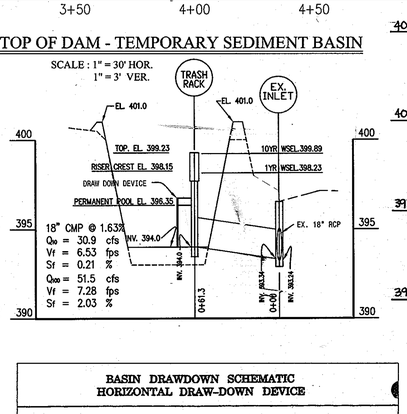
SECTION THRU - TEMPORARY SEDIMENT BASIN

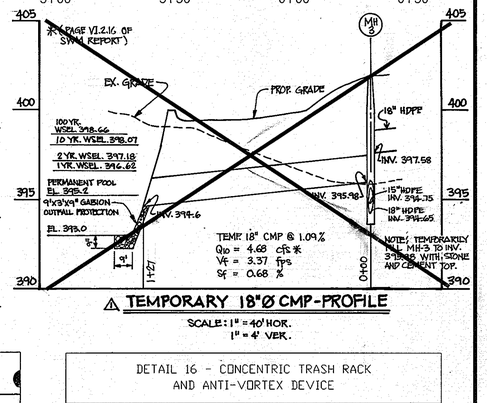
SCALE : 1" = 30' HOR.
1" = 3' VER.



⚠TEMPORARY 36" Ø CMP SPILLWAY PROFILE

SCALE : 1" = 40' HOR.
1" = 4' VER.

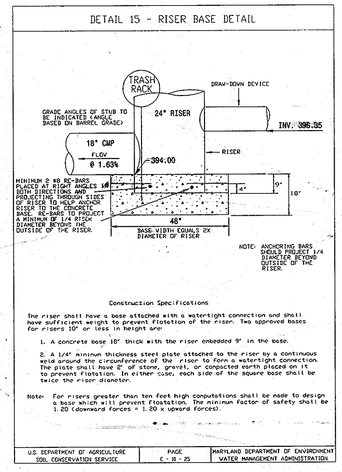




⚠TEMPORARY 18"Ø CMP-PROFILE

SCALE : 1" = 40' HOR.
1" = 4' VER.

DETAIL 15 - RISER BASE DETAIL



Construction Specifications

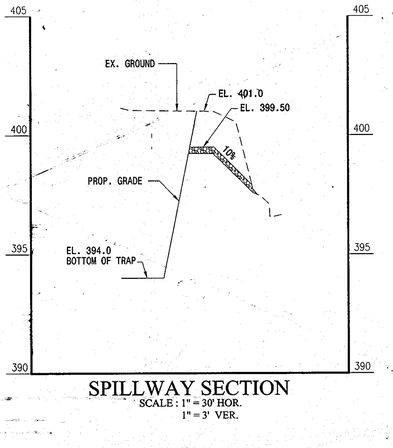
The riser shall have a base attached with a watertight connection and shall have sufficient weight to prevent flotation of the riser. Two approved bases for risers 10" or less in height are:

1. A concrete base 18" thick with the riser embedded 9" in the base.

2. A 1/4" minimum thickness steel plate attached to the riser by a continuous weld around the circumference of the riser to form a watertight connection. The plate shall have 2' of stone, gravel, or compacted earth placed on it to prevent flotation. In either case, each side of the square base shall be twice the riser diameter.

Note: For risers greater than ten feet high computations shall be made to design a base which will prevent flotation. The minimum factor of safety shall be 1.20 (downward forces ÷ 1.80 x upward forces).

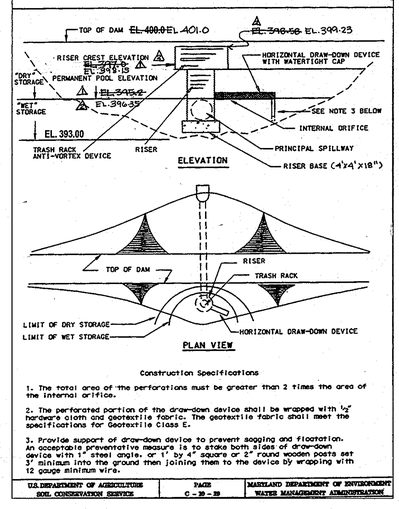
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C - 18 - 25	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



SPILLWAY SECTION

SCALE : 1" = 30' HOR.
1" = 3' VER.

BASIN DRAWDOWN SCHEMATIC
HORIZONTAL DRAW-DOWN DEVICE



Construction Specifications

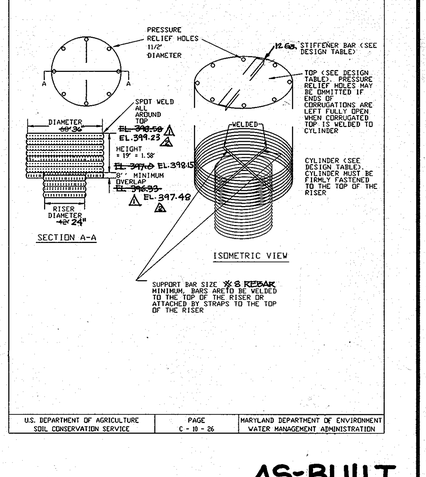
1. The total area of the perforations must be greater than 2 times the area of the internal orifice.

2. The perforated portion of the draw-down device shall be wrapped with ½" hardware cloth and geotextile fabric. The geotextile fabric shall meet the specifications for Geotextile Class E.

3. Provide support of draw-down device to prevent sagging and floatation. An acceptable preventative measure is to stake both sides of draw-down device with 1" steel angle, or 1" by 4" square or 2" round wooden posts set 3' minimum into the ground then joining them to the device by wrapping with 12 gauge minimum wire.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C - 19 - 39	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 16 - CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C - 19 - 26	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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. 28559, Expiration Date: 7/22/11

BRIAN F. CLEARY · No. 28559 · REGISTERED PROFESSIONAL ENGINEER · STATE OF MARYLAND

3/15/2011

FOR REV. BY BEI ONLY

AS-BUILT

PREPARED BY :

American Land Development and Engineering, Inc.

10749 BIRMINGHAM WAY, WOODSTOCK, MD 21163
TEL. (410) 465-7903 FAX. (410) 465-3845

NO.	DATE	REVISE TITLE BLOCK / REVISION	BY
3	3-9-11	REVISE TITLE BLOCK	BEI

OWNER / DEVELOPER :

Harmel PSC, LLC.
6300 Woodside Court Suite A
Columbia, Md. 21046

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

SIGNATURE OF ENGINEER
DAVID C. WOESSNER

DEC. 10, 2004
DATE

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER
DALE THOMPSON

DEC. 10, 2004
DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE — 1/27/05 DATE

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

HOWARD SCD — 1/27/05 DATE

STATE OF MARYLAND · CHRISTOPHER WORLEY · No. 15439 · PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 1/5/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/28/05 DATE

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING — 2/1/05 DATE

TITLE : **TEMPORARY STORMWATER MANAGEMENT BASIN SECTIONS, NOTES & DETAILS**

PROJECT NAME :

SCOTS GLEN NORTH

BUILDABLE BULK PARCEL "A" - UNITS 1-6,7A,8A AND COMMUNITY CENTER
PLANNED SENIOR COMMUNITY (PSC) - AGE RESTRICTED ADULT HOUSING
A RESUBDIVISION OF CEDAR ACRES, BLOCK "C", LOTS 1, 2, 2A, 2B AND 3

WP-11-108 S-04-03 PB CASE 362 WP 04-114 F-05-52 F-05-101

DES. : DCW/JL/AVG	JOB :	PROJ. :	DATE : 12-10-04
DRW. : AVG/DTA/JNC	CHK. : D.C.W.	SCALE : AS SHOWN	SHEET 25 OF 25

SDP-04-124

I:\SUBDIV\SION-PROJECTS\CEDARVILLAS\CEDAR VILLA I-FINAL\SDP\SEDIMENTEROSION1.dwg, SWNOTES & DETAILS, 12/9/2004 7:33:37 PM, plz