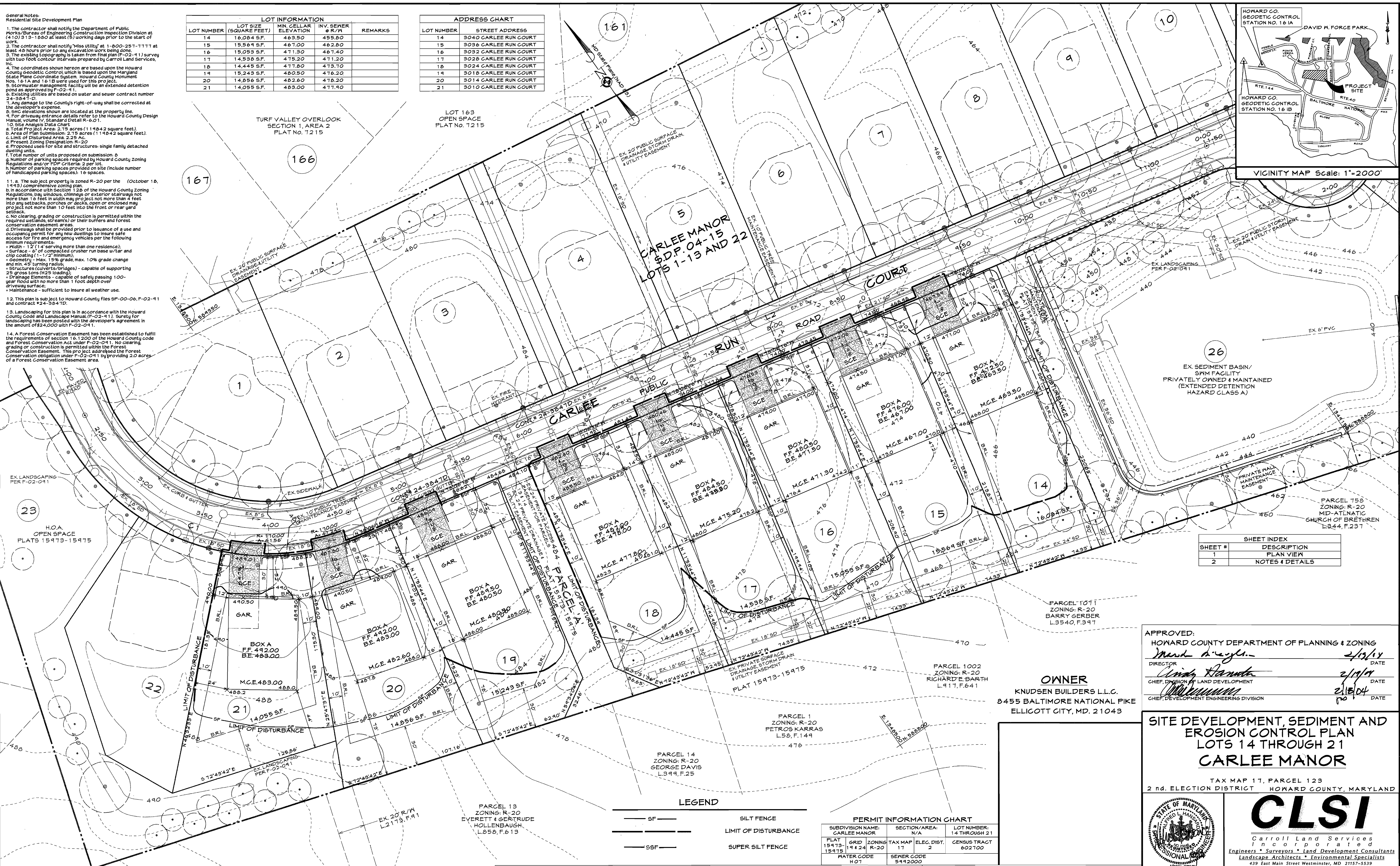
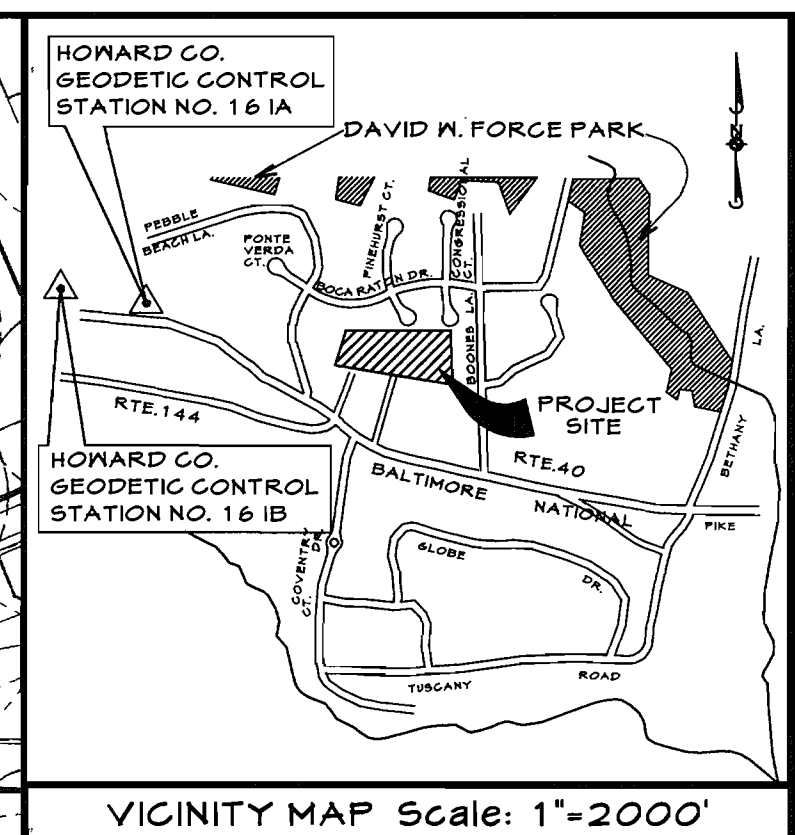


**General Notes:**  
 Residential Site Development Plan

- The contractor shall notify the Department of Public Works Bureau of Engineering Construction Inspection Division at (410) 315-1800 at least (5) working days prior to the start of work.
- The contractor shall notify 'Miss Utility' at 1-800-257-1111 at least 48 hours prior to any excavation work being done.
- The existing topography is taken from final plan (F-02-01) survey with two foot contour intervals prepared by Carroll Land Services, Inc.
- The coordinates shown hereon are based upon the Howard County Geospatial Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 16 1A and 16 1B were used for this project.
- Stormwater management facility will be an extended detention pond as approved by F-02-01.
- Existing utilities are based on water and sewer contract number 24-3847-D.
- Any damage to the County's right-of-way shall be corrected at the developer's expense.
- SIC elevations shown are located at the property line.
- For driveway entrance details refer to the Howard County Design Manual, volume IV, Standard Detail R-6-D.
- Total Project Area: 2.75 acres (11984.2 square feet).
- Area of Site Submission: 2.75 acres (11984.2 square feet).
- Limit of Disturbed Area: 2.25 AC.
- Present Zoning Designation: R-20.
- Proposed uses for site and structures: single family detached dwelling units.
- Total number of units proposed on submission: 8.
- Number of parking spaces required by Howard County Zoning Regulations and/or TDP Criteria: 2 per lot.
- Number of parking spaces provided on site (include number of handicapped parking spaces): 16 spaces.
- a. The subject property is zoned R-20 per the (October 18, 1943) comprehensive zoning plan.
- b. In accordance with section 12B of the Howard County Zoning Regulations, any window, chimney 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.
- c. No clearing, grading or construction is permitted within the required setbacks, streams or their buffers and forest conservation easement areas.
- d. Driveways shall be provided prior to issuance of a use and occupancy permit for any new dwellings to insure safe access for fire and emergency vehicles per the following minimum requirements:
  - width - 12' (14' serving more than one residence).
  - geometry - max. 15% grade, max. 10% grade change and min. 45' turning radius.
  - structures (guardrails/sidewalks) - capable of supporting 25 gross tons (M25 loading).
- e. Drainage Elements - capable of safely passing 100-year flood with no more than 1 foot depth over driveway surface.
- f. Maintenance - sufficient to insure all weather use.
12. This plan is subject to Howard County files SP-00-06, F-02-01 and contract #24-3847-D.
13. Landscaping for this plan is in accordance with the Howard County Code and Landscape Manual (F-02-01). Safety for landscaping has been posted with the developer's agreement in the amount of \$24,000 with F-02-01.
14. A Forest Conservation Easement has been established to fulfill the requirements of section 12B of the Howard County Code and Forest Conservation Act under F-02-01. No clearing, grading or construction is permitted within the Forest Conservation Easement. This project addressed the Forest Conservation obligation under F-02-01 by providing 2.0 acres of a Forest Conservation Easement area.

LOT INFORMATION				
LOT NUMBER	LOT SIZE (SQUARE FEET)	MIN. CELLAR ELEVATION	INV. SEMER # R/A	REMARKS
14	16,084 SF.	463.50	453.80	
15	15,569 SF.	467.00	462.80	
16	15,059 SF.	471.30	461.40	
17	14,539 SF.	475.20	471.20	
18	14,445 SF.	477.80	473.70	
19	15,243 SF.	480.50	476.20	
20	14,856 SF.	482.60	478.20	
21	14,055 SF.	483.00	477.90	

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
14	3040 CARLEE RUN COURT
15	3036 CARLEE RUN COURT
16	3032 CARLEE RUN COURT
17	3028 CARLEE RUN COURT
18	3024 CARLEE RUN COURT
19	3018 CARLEE RUN COURT
20	3014 CARLEE RUN COURT
21	3010 CARLEE RUN COURT



CAD Drawing File Name: g:\17290.dgn\const\siteplan\1\siteplan1.dgn

SHEET INDEX	
SHEET #	DESCRIPTION
1	PLAN VIEW
2	NOTES & DETAILS

LEGEND	
— SF —	SILT FENCE
— — — — —	LIMIT OF DISTURBANCE
— SSF —	SUPER SILT FENCE

PERMIT INFORMATION CHART				
SUBDIVISION NAME:	SECTION/AREA:	LOT NUMBER:	TAX MAP:	ELEC. DIST.:
CARLEE MANOR	N/A	14 THROUGH 21	15415	17
PLAT:	GRID:	ZONING:	TAX MAP:	ELEC. DIST.:
15415	19424	R-20	17	2
CENSUS TRACT:	SEWER CODE:	SEWER CODE:		
602100	H-01	5442000		

**DEVELOPER'S CERTIFICATE**

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

CHRIS KNUDSEN  
KNUDSEN BUILDERS

1/24/04  
DATE

**ENGINEER'S CERTIFICATE**

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

ALFRED L. HANSEN  
PROFESSIONAL ENGINEER, REG. NO. 23446

1/24/04  
DATE

REVIEWED FOR THE HOWARD COUNTY CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS

JIM MUESS  
DATE 2/15/04

US - NATURAL RESOURCE CONSERVATION SERVICE

DATE 2/15/04

REVIEWED BY: JIM MUESS  
DATE 2/15/04

DATE 2/15/04

**NOTE:**  
 SEDIMENT AND EROSION CONTROL:  
 NO MORE THAN THREE CONTIGUOUS  
 LOTS CAN BE UNDER CONSTRUCTION  
 AT ONE TIME.

APPROVED:  
 HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Meredith A. ... 2/12/04  
 DIRECTOR DATE

Wanda ... 2/17/04  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

... 2/18/04  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**SITE DEVELOPMENT, SEDIMENT AND EROSION CONTROL PLAN**  
 LOTS 14 THROUGH 21  
**CARLEE MANOR**

TAX MAP 17, PARCEL 123  
 2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**CLSI**  
 Carroll Land Services  
 Incorporated  
 Engineers • Surveyors • Land Development Consultants  
 Landscape Architects • Environmental Specialists  
 439 East Main Street Westminster, MD 21157-5539  
 (410) 876-2017 FAX (410) 876-0009

Professional Engineer Registration No. 23446

Revisions	Drawn By: DM
	Designed By: KF
	Date: JANUARY 2004
	Scale: 1"=30'
	Job No. 91230E
	Sheet: 1 of 2

# HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (31B-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary 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.
- All sediment traps/basins shall be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1944 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, for permanent seeding (Sec. 5.1), soil (Sec. 5.4), temporary seeding (Sec. 5.0) and mulching (Sec. 5.2). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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	2.75 Acres
Area Disturbed	2.15 Acres
Area to be roofed or paved	0.13 Acres
Area to be vegetatively stabilized	1.52 Acres
Total Cut	100 CU Yds.
Total Fill	100 CU Yds.

Offsite waste/borrow area location will be to a site with an approved sediment control plan and an approved approval authority.

- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 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.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each workday, whichever is shorter.

Rev. 4/14

**Topsoil Notes**  
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-SCS in cooperation with Maryland Agricultural Experiment 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, loam 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, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1" in diameter.  
ii. Topsoil must be free of plants or plant parts such as bermuda grass, quack grass, Johnson grass, nutsedge, 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 4-9 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 2.00 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:  
Page 2  
Topsoil Notes  
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 phytotoxic materials.  
Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.  
ii. Place topsoil (if required) and apply soil amendments as specified in 2.00 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.  
V. Topsoil Application  
I. When topsoiling, 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 topsoiled, 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 seeding or sodding can proceed with a minimum of additional soil.  
iv. Preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.  
Page 3  
Topsoil Notes  
v. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seeded 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.  
ii. 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.

**Permanent Seeding Summary**

No. Species	Rate (lb/ac)	Seeding Dates	Seeding Depths
N/A Kentucky-31	80	9/1 to 11/15	1"
Annual Rye	20	9/1 to 11/15	1/4" - 1/2"

Tracking note:  
On areas where the slope is 3:1 or steeper and the height is 6" or greater, contractor shall track the slope using cleated dozer prior to placing asphalt binder. Dozer shall run up-and-down so that cleat marks are horizontal. Where tracking is required, it shall be done from existing grade level to finished grade level within the limits established by the 8' height criteria.

**UTILITY CONSTRUCTION NOTES**

- Place all excavated material on the high side of the trench.
- Only do as much work as can be done in one day so backfilling, final grading, and permanent stabilization can occur.
- Any sediment control measures disturbed by the utility construction will be repaired the same day.

**STOCKPILE/TOPSOIL NOTES**

- Stockpiling will not be allowed on any impervious area.
- All stockpiles left at the end of the day will need to be temporarily stabilized until they are again disturbed, unless they are within existing perimeter sediment controls.
- All stockpile areas shall be confined within perimeter controls. In the event that stockpile areas must be located outside disturbed areas, the location shall be as directed by the inspector in the field.

**SEQUENCE OF CONSTRUCTION**

- OBTAIN GRADING PERMIT. (1 DAY)
- INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN PER LOT. (2 DAYS)
- CONSTRUCT DWELLING. (90 DAYS)
- FINE GRADE LOT AND INSTALL DRIVEWAY AND SIDE WALKS. (1 DAY)
- INSTALL PERMANENT SEEDING AND MULCHING. (1 DAY)
- INSTALL LANDSCAPING. (1 DAY)
- ONCE LOT IS PERMANENTLY STABILIZED AND PERMISSION IS GRANTED BY E & S INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL DEVICES. (2 DAYS)

**NOTE:**  
ALL SEDIMENT CONTROL MEASURES SHOWN HEREON ARE TEMPORARY UNLESS OTHERWISE NOTED.

## STABILIZATION SPECIFICATIONS

**TEMPORARY SEEDING NOTES**  
Scope: Planting short term (no more than 1 year) vegetation to temporarily stabilize any areas where soil disturbance has occurred, until the area can be permanently stabilized with vegetative or non-vegetative practices.

**Standards:** The following notes shall conform to the 1944 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, Published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.

- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See 6-20 Sec. 1-C.
- Fertilizer shall consist of a mixture of 10-10-10 and be applied at a rate of 600 lb per acre (15 lb per 1000 sq. ft.) and will meet the requirements in 6-20 Sec. 1-B.
- Lime shall be applied at a rate of 2 tons per acre (100 lb per 1000 sq. ft.) and shall meet the requirements in 6-20 Sec. 1-B.
- Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in 6-20 Sec. 1-C.
- Mulching will be applied immediately after seeding and will need to meet the requirements in 6-20 Sec. 1-F, G, and H.
- Seeding mixtures shall be selected from or will be equal to those on Table 26.
- The following is one option, approved equals may be used.

**Temporary Seeding Summary**

Seed Mixture	Hardness Zone	6B/7A (G-20 Figure 5)
No. Species	Application Rate (lb/ac)	Seeding Dates
N/A Kentucky-31	80	9/1 to 11/15
Annual Rye	20	9/1 to 11/15

**PERMANENT SEEDING NOTES**  
Scope: Planting permanent, long lived vegetative cover on graded and/or cleared areas and areas that have been in temporary vegetation for more than 1 year.

**Standards:** The following notes shall conform to the 1944 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, Published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.

- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See 6-20 Sec. 1-C.
- For sites over 5 ac. soil tests will be performed to determine the exact mixture and application rates for both lime and fertilizer. Soil tests will be prepared by the University of Maryland or a recognized commercial laboratory. If the existing soil does not meet the minimum conditions as stated in 6-20 Sec. 1-C-II, then topsoil will need to be obtained that meets these conditions and applied so as to meet the requirements in 6-21.
- For sites of 5 ac. or less of disturbance, the following fertilizer and lime rates shall apply.
- Fertilizer shall consist of a mixture of 10-20-20 and be applied at the following rates:  
N-40 lb per acre (2 lb per 1000 sq. ft.) P2O5-175 lb per acre (4 lb per 1000 sq. ft.) K2O-175 lb per acre (4 lb per 1000 sq. ft.). Fertilizer shall meet the requirements in 6-20 Sec. 1-B.
- Lime shall be applied at a rate of 2 tons per acre (100 lb per 1000 sq. ft.) and shall meet the requirements in 6-20 Sec. 1-B.
- Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in 6-20 Sec. 1-C.
- Mulching will be applied immediately after seeding and will need to meet the requirements in 6-20 Sec. 1-F, G, and H.
- Refer to 6-20 Sec. 1-E for Methods of Seeding specifications.
- Refer to 6-20 Sec. 4 for Sod specifications.
- Refer to 6-20 Sec. 5 for Turfgrass Establishment specifications.
- Seeding mixtures shall be selected from or will be equal to those on Table 25.
- The following is one option, approved equals may be used.

**Permanent Seeding Summary**

No. Species	Rate (lb/ac)	Seeding Dates	Seeding Depths
N/A Triple Fescue	160	9/1 to 10/30	1"-2"
Perennial Rye	40	9/1 to 10/30	1"-2"

**Tracking note:**  
On areas where the slope is 3:1 or steeper and the height is 6" or greater, contractor shall track the slope using cleated dozer prior to placing asphalt binder. Dozer shall run up-and-down so that cleat marks are horizontal. Where tracking is required, it shall be done from existing grade level to finished grade level within the limits established by the 8' height criteria.

**UTILITY CONSTRUCTION NOTES**

- Place all excavated material on the high side of the trench.
- Only do as much work as can be done in one day so backfilling, final grading, and permanent stabilization can occur.
- Any sediment control measures disturbed by the utility construction will be repaired the same day.

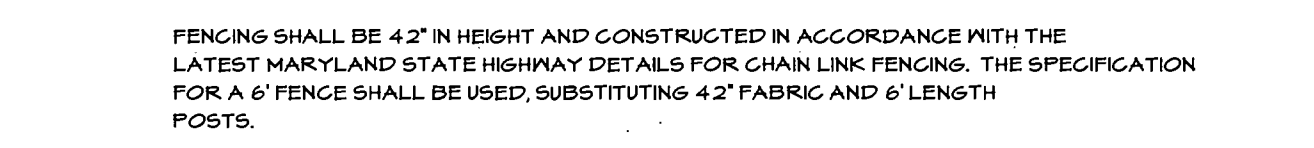
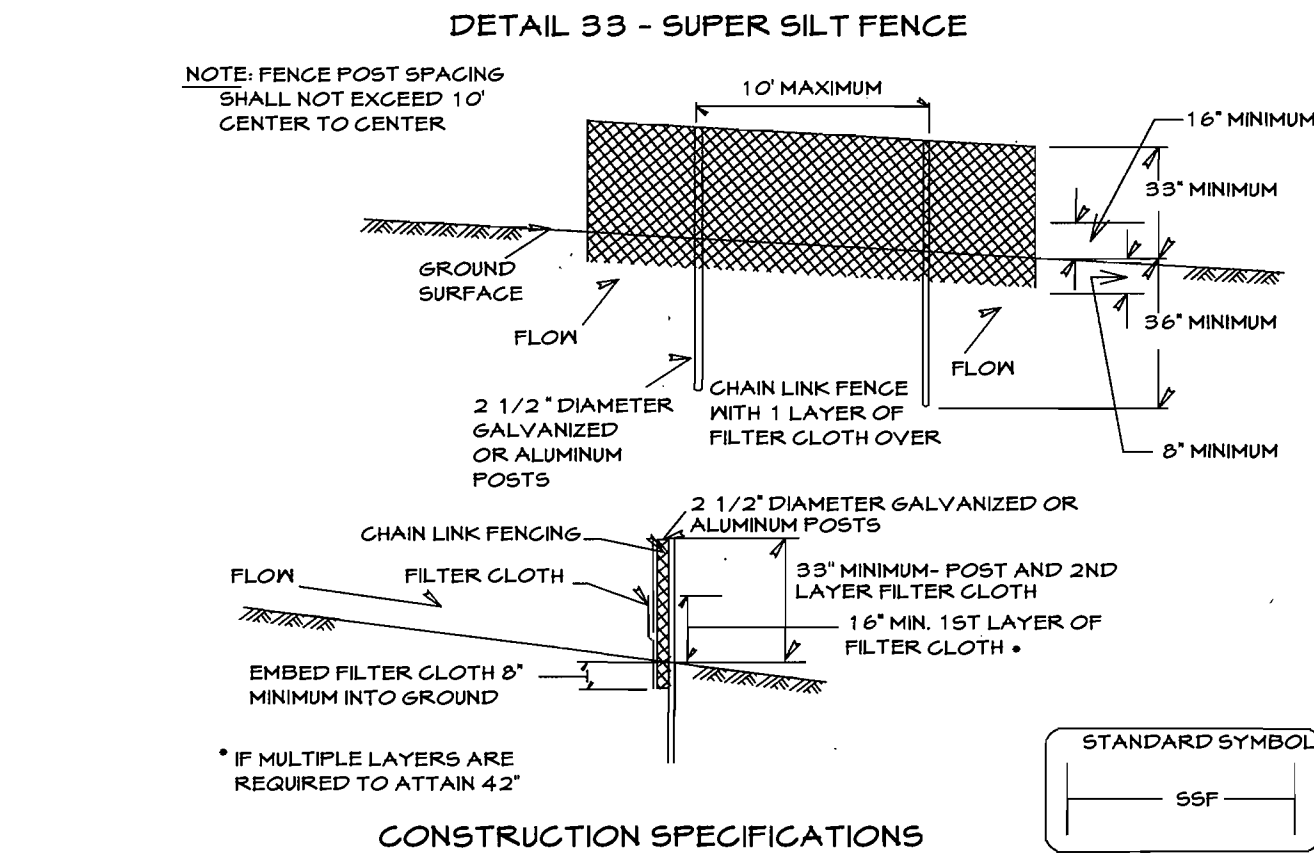
**STOCKPILE/TOPSOIL NOTES**

- Stockpiling will not be allowed on any impervious area.
- All stockpiles left at the end of the day will need to be temporarily stabilized until they are again disturbed, unless they are within existing perimeter sediment controls.
- All stockpile areas shall be confined within perimeter controls. In the event that stockpile areas must be located outside disturbed areas, the location shall be as directed by the inspector in the field.

**SEQUENCE OF CONSTRUCTION**

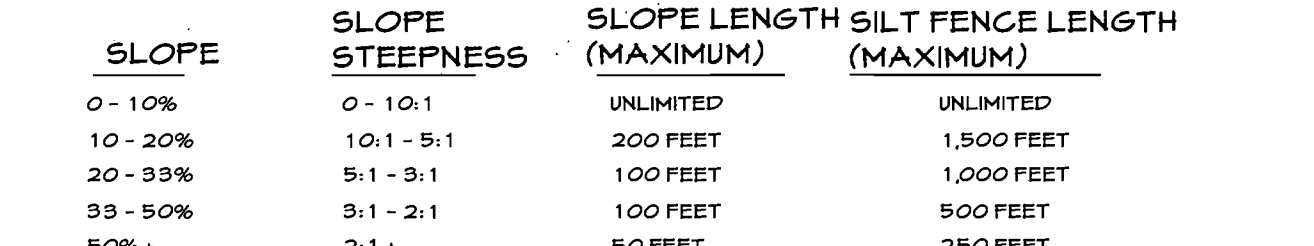
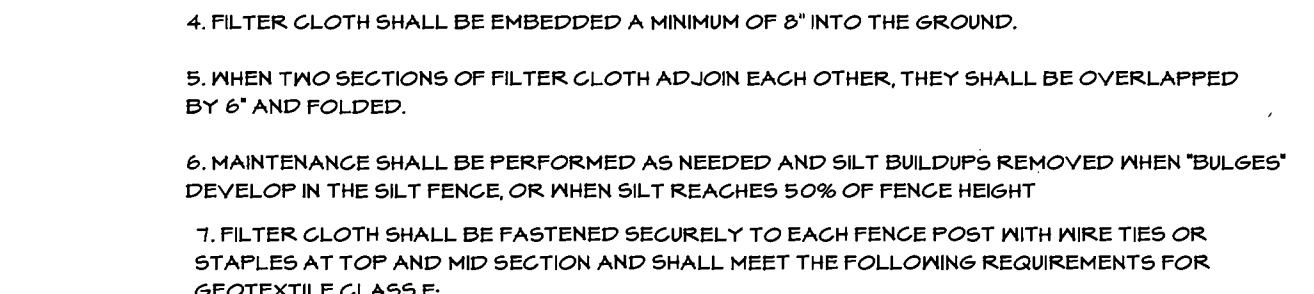
- OBTAIN GRADING PERMIT. (1 DAY)
- INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN PER LOT. (2 DAYS)
- CONSTRUCT DWELLING. (90 DAYS)
- FINE GRADE LOT AND INSTALL DRIVEWAY AND SIDE WALKS. (1 DAY)
- INSTALL PERMANENT SEEDING AND MULCHING. (1 DAY)
- INSTALL LANDSCAPING. (1 DAY)
- ONCE LOT IS PERMANENTLY STABILIZED AND PERMISSION IS GRANTED BY E & S INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL DEVICES. (2 DAYS)

**NOTE:**  
ALL SEDIMENT CONTROL MEASURES SHOWN HEREON ARE TEMPORARY UNLESS OTHERWISE NOTED.



**DESIGN CRITERIA**

SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM)	SILT FENCE LENGTH (MAXIMUM)
0 - 10%	UNLIMITED	UNLIMITED
10 - 20%	10:1 - 5:1	200 FEET
20 - 30%	5:1 - 3:1	100 FEET
30 - 50%	3:1 - 2:1	100 FEET
50%	2:1	50 FEET



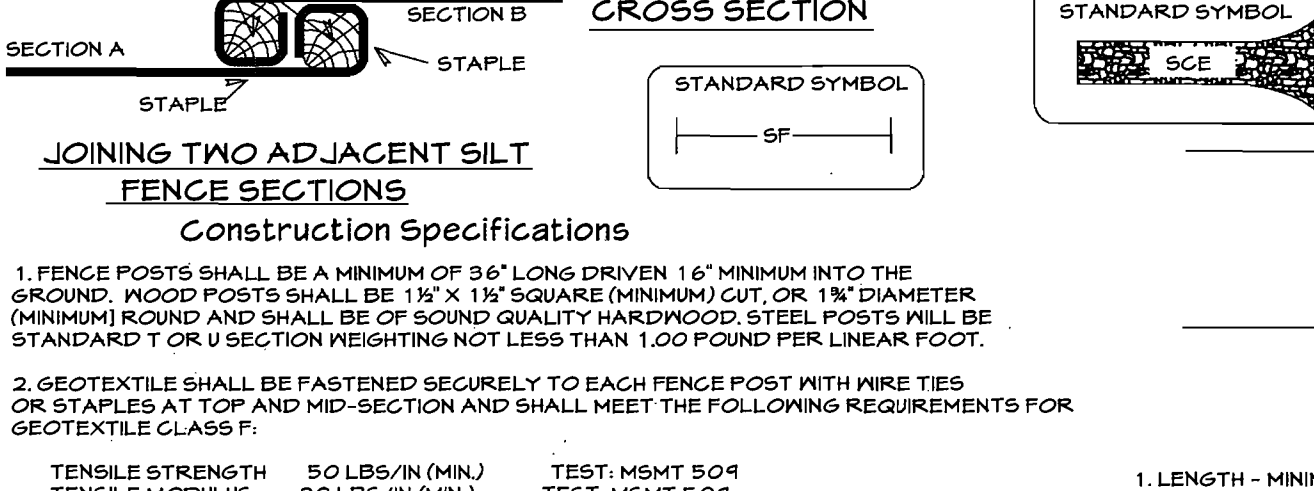
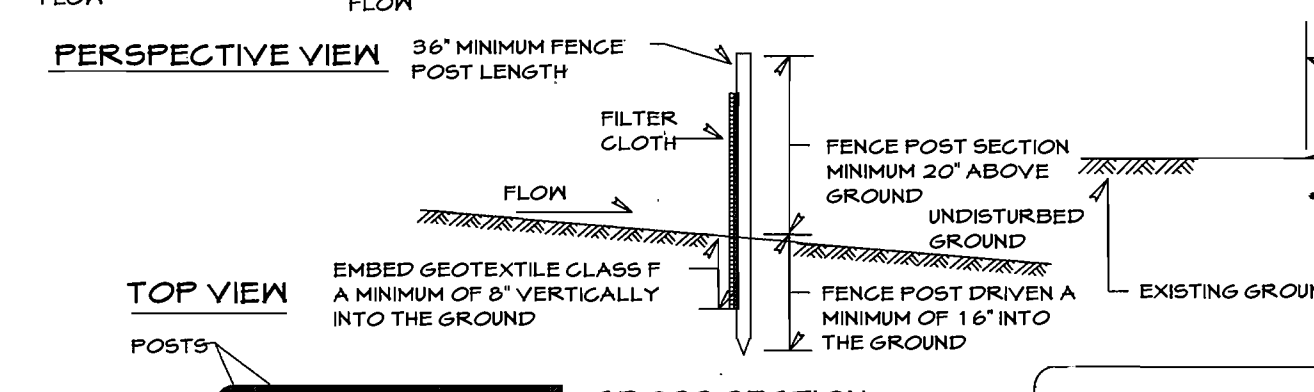
**Construction Specifications**

- FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE GROUND. (WOOD POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM) CUT OR 1 1/2" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD; STEEL POSTS WILL BE STANDARD I OR U SECTION HEIGHTING NOT LESS THAN 100 POUND PER LINEAR FOOT.
- GEOTEXILE 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 GEOTEXILE CLASS F:
- WHERE ENDS OF GEOTEXILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
- SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 50% OF THE FABRIC HEIGHT.

**Silt Fence Design Criteria**

Slope Steepness	Slope Length (Maximum)	Silt Fence Length (Maximum)
Flatter than 5:1	unlimited	unlimited
5:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

NOTE: IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION SYSTEM, SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.



**Construction Specifications**

- LENGTH - MINIMUM OF 50" (90" FOR SINGLE RESIDENCE LOT).
- METHOD - 10" MINIMUM SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- GEOTEXILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO FLACING STONE. \*\*THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXILE.
- 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.
- 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.
- 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.

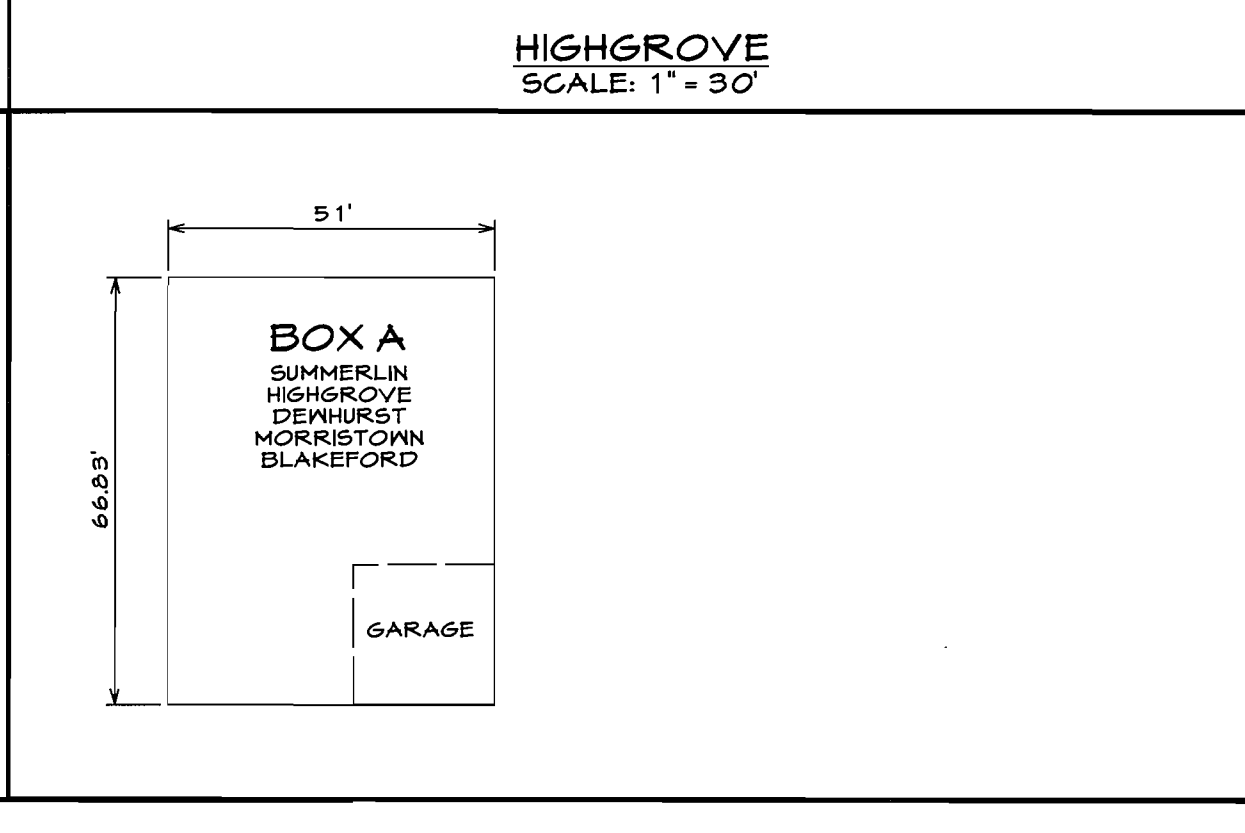
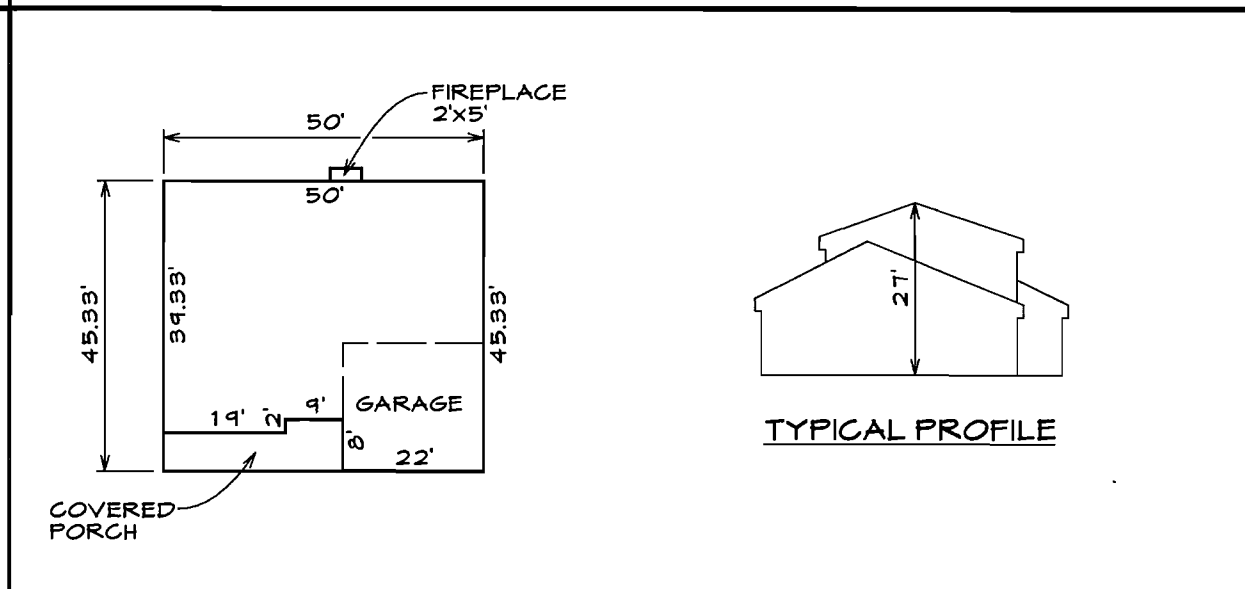
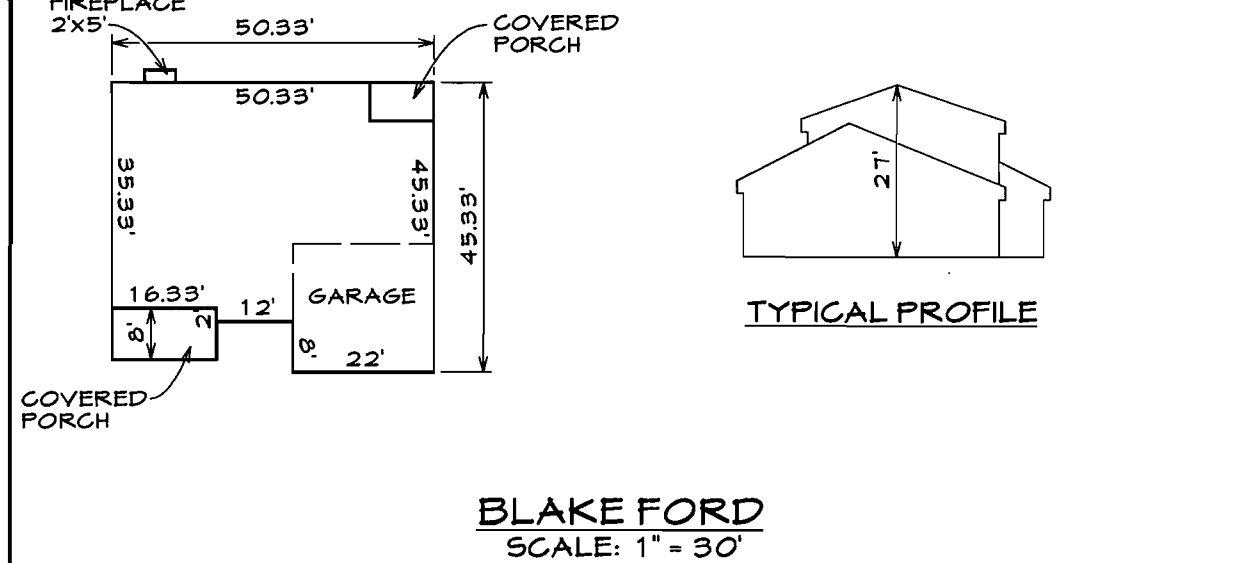
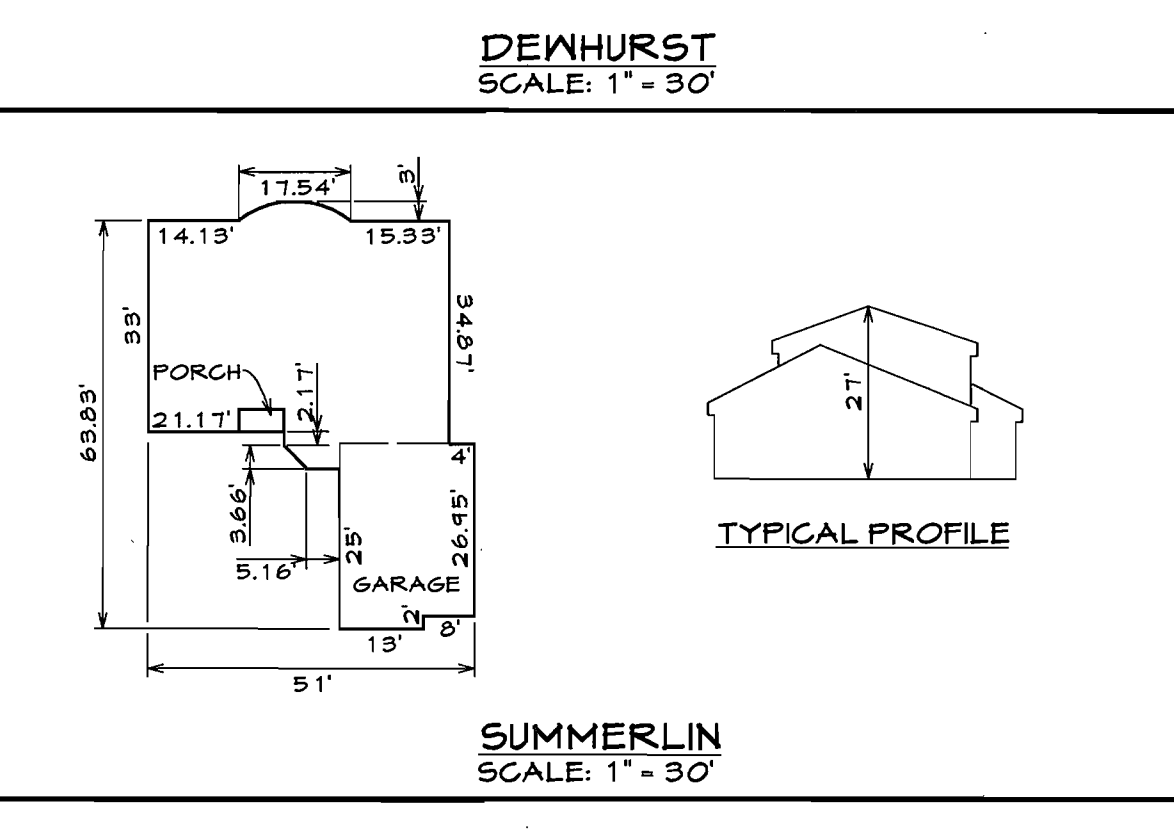
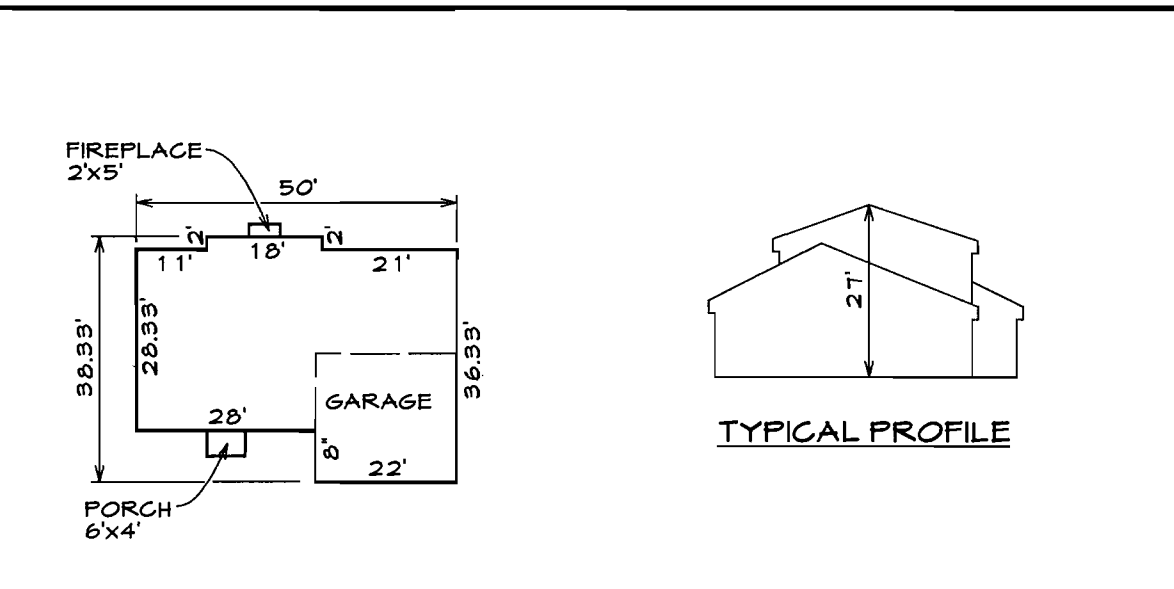
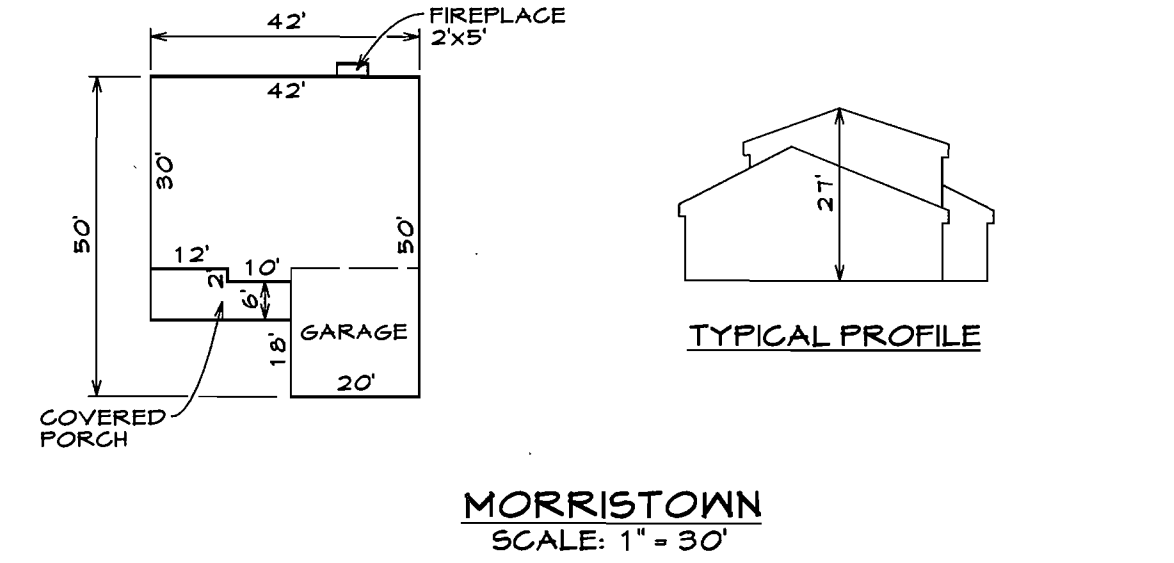
**DEVELOPER'S CERTIFICATE**  
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT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

*Chris Knudsen*  
CHRIS KNUDSEN  
KNUDSEN BUILDERS  
DATE: 12/26/04

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

*John R. Robertson*  
ALFRED L. HANSAARD  
PROFESSIONAL ENGINEER REG. NO. 23,446  
DATE: 12/26/04

REVIEWED FOR THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS  
*Jim Myers* DATE: 12/25/04  
USDA NATURAL RESOURCES CONSERVATION SERVICE  
THIS DEVELOPMENT PLAN IS APPROVED FOR THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
*John R. Robertson* DATE: 12/15/04  
HOWARD COUNTY



APPROVED:  
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*David A. Wolfe* DATE: 2/19/04  
DIRECTOR  
*Bridget Hanan* DATE: 2/19/04  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*John R. Robertson* DATE: 2/15/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**OWNER**  
KNUDSEN BUILDERS L.L.C.  
8455 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MD. 21043

**NOTES & DETAILS**  
LOTS 14 THROUGH 21  
**CARLEE MANOR**  
TAX MAP 17, PARCEL 123  
2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**CLSI**  
Carroll Land Services  
INCORPORATED  
Engineers • Surveyors • Land Development Consultants  
Landscape Architects • Environmental Specialists  
439 East Main Street Westminster, MD 21157-5539  
(410) 876-2017 FAX (410) 876-0009  
Professional Engineer Registration No. 23446

Date	Revisions	Drawn By: BM
		Designed By:
		Reviewed By:
		Date: 1/27/04
		Scale: AS SHOWN
		Job No: 41230E
		Sheet: 2 of 2

**General Notes:**  
Residential Site Development Plan

- The contractor shall notify the Department of Public Works/Bureau of Engineering Construction Inspection Division at (410) 313-1800 at least 24 working days prior to the start of work.
- The contractor shall notify 'Miss Utility' at 1-800-251-7177 at least 48 hours prior to any excavation work being done.
- The existing topography is taken from final plan F-02-041 survey with two foot contour intervals prepared by Carroll Land Services, Inc.
- The coordinates shown herein are based upon the Howard County Geodetic Control, which is based upon the Maryland State Plane coordinate system, Howard County Monument Nos. 16 1A and 16 1B were used for this project.
- Stormwater management facilities will be an extended detention pond as approved by F-02-041.
- Existing utilities are based on water and sewer contract number 24-3041-D.
- Any damage to the county's right-of-way shall be corrected at the developer's expense.
- Spot elevations shown are located at the property line.
- For driveway entrance details refer to the Howard County Design Manual, Volume IV, Standard Detail R-6.01.
- Site Analysis Data Chart:
  - Total Project Area: 2.75 acres (119,842 square feet).
  - Area of Plan Submission: 2.75 acres (119,842 square feet).
  - Limit of Disturbed Area: 2.25 AC.
  - Present Zoning Designation: R-20.
  - Proposed uses for site and structures: single family detached dwelling units.
- Total number of units proposed on submission: 6.
- Number of parking spaces required by Howard County zoning Regulations and/or TOP Criteria: 2 per lot.
- Number of parking spaces provided on site (include number of handicapped parking spaces): 16 spaces.

11. The subject property is zoned R-20 per the (October 16, 1988) comprehensive zoning plan.

12. In accordance with Section 12B of the Howard County Zoning Regulations, any 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.

13. No clearing, grading or construction is permitted within the required wetlands, streams or their buffers and forest conservation easement areas.

14. Driveways shall be provided prior to issuance of a use and occupancy permit for any new dwellings to insure safe access for fire and emergency vehicles per the following minimum requirements:

- Width - 12' (1' serving more than one residence);
- Surface - 6" of compacted crusher run base w/ tar and chip coating (1-1/2" minimum);
- Geometry - Max. 15% grade, max. 10% grade change and min. 45' turning radius;
- Structures (culverts/bridges) - capable of supporting 25 gross tons (125 loading);
- Drainage Elements - capable of safely passing 100-year flood with no more than 1 foot depth over driveway surface;
- Maintenance - sufficient to insure all weather use.

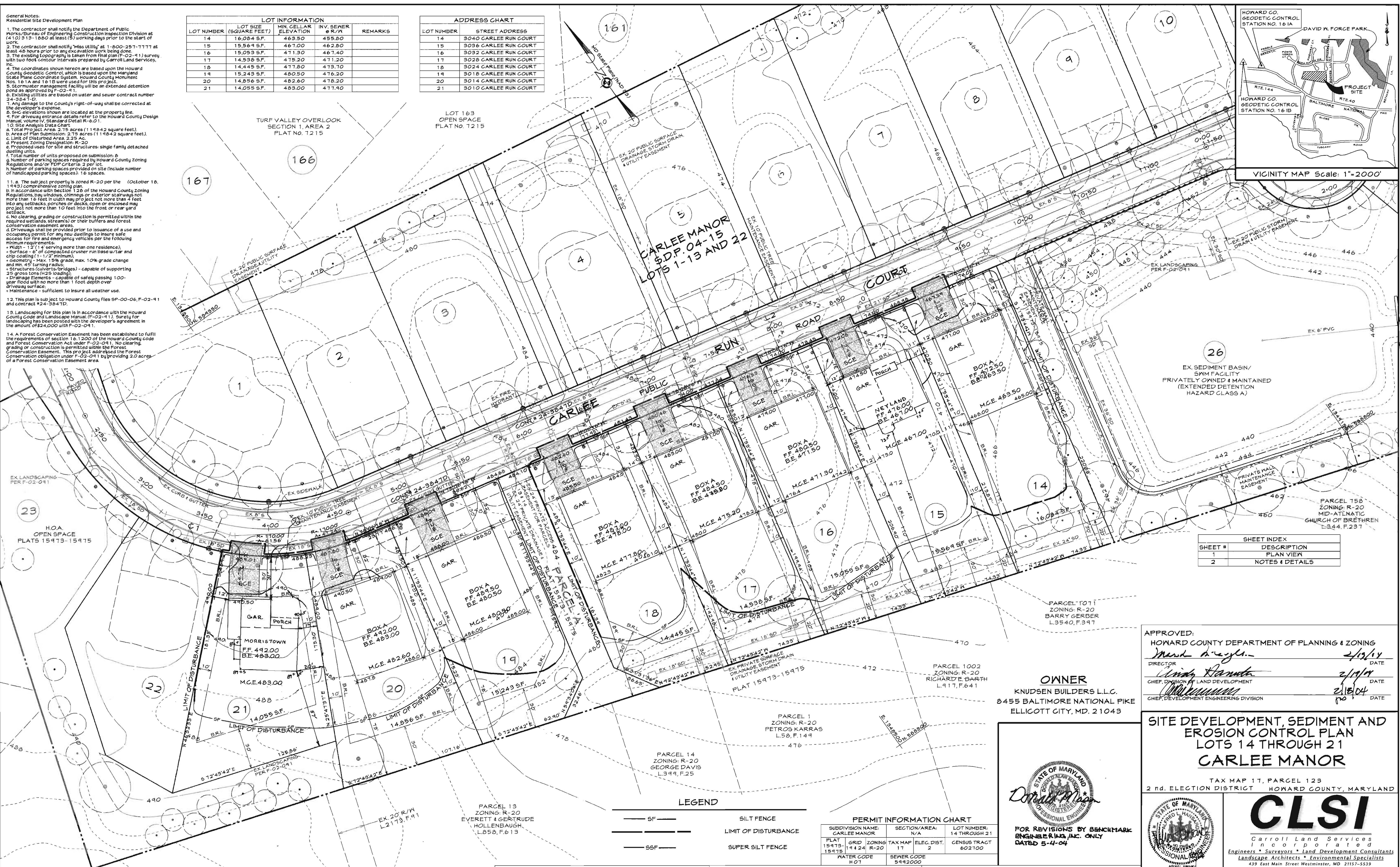
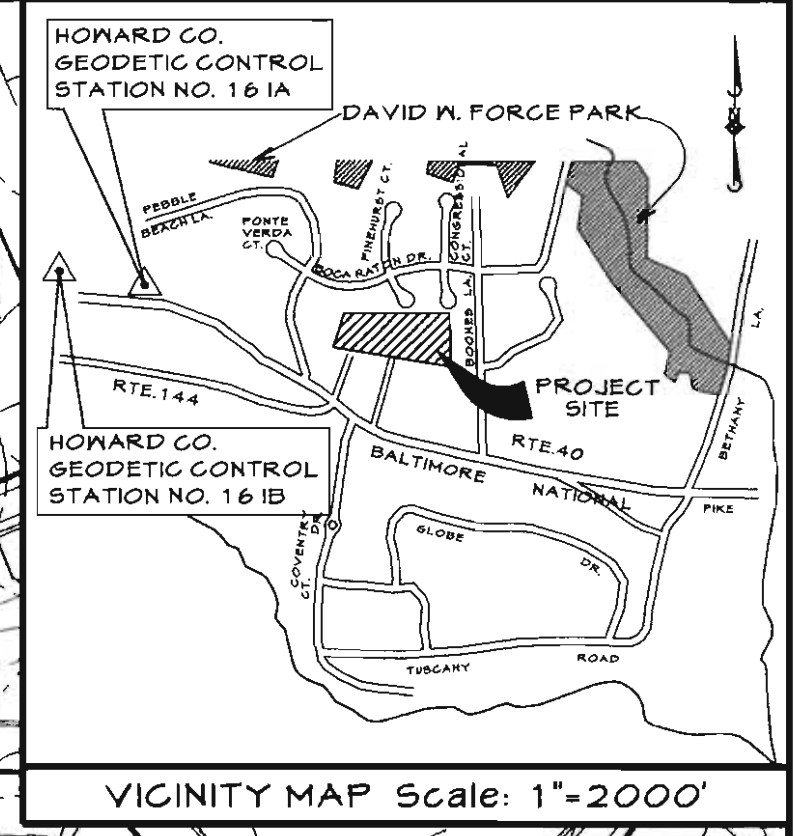
15. This plan is subject to Howard County files SP-00-06, F-02-041 and contract 12-4-3041D.

16. Landscaping for this plan is in accordance with the Howard County Code and Landscape Manual (F-02-041). Surety for landscaping has been posted with the developer's agreement in the amount of \$24,000 with F-02-041.

17. A Forest Conservation Easement has been established to fulfill the requirements of section 16-120D of the Howard County code and Forest Conservation Act under F-02-041. No clearing, grading or construction is permitted within the Forest Conservation Easement. This project addressed the Forest Conservation obligation under F-02-041 by providing 2.0 acres of a Forest Conservation Easement area.

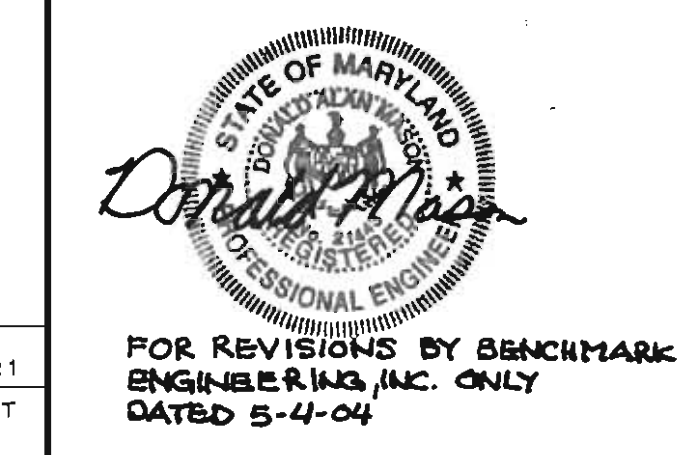
LOT INFORMATION				
LOT NUMBER	LOT SIZE (SQUARE FEET)	MIN. CELLAR ELEVATION	INV. SEWER @ R/W	REMARKS
14	16,084 SF.	463.50	455.00	
15	15,564 SF.	467.00	462.00	
16	15,053 SF.	471.30	467.40	
17	14,538 SF.	475.20	471.20	
18	14,445 SF.	477.80	473.70	
19	15,243 SF.	480.50	476.20	
20	14,856 SF.	482.60	478.20	
21	14,055 SF.	493.00	477.40	

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
14	3040 GARLEE RUN COURT
15	3036 GARLEE RUN COURT
16	3032 GARLEE RUN COURT
17	3028 GARLEE RUN COURT
18	3024 GARLEE RUN COURT
19	3018 GARLEE RUN COURT
20	3014 GARLEE RUN COURT
21	3010 GARLEE RUN COURT



SHEET INDEX	
SHEET #	DESCRIPTION
1	PLAN VIEW
2	NOTES & DETAILS

**OWNER**  
KNUDSEN BUILDERS L.L.C.  
8455 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD. 21043



FOR REVISIONS BY BENCHMARK ENGINEERS, INC. ONLY  
DATED 5-4-04

APPROVED:  
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Meredith Reynolds* 2/19/14 DATE  
DIRECTOR

*Linda Hamstra* 2/19/14 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 2/18/04 DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**SITE DEVELOPMENT, SEDIMENT AND EROSION CONTROL PLAN**  
LOTS 14 THROUGH 21  
**CARLEE MANOR**

TAX MAP 17, PARCEL 123  
2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND



Date	Revisions	Drawn By: DM
5-4-04	ADD MORRISTOWN TO LOT 21 AND NEYLAND TO LOT 15	Designed By: KF
		Reviewed By:
		Date: 2/19/14
		Scale: 1" = 30'
		Job No.: 41230E
		Sheet: 1 of 2

PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT NUMBER	THROUGH 21	
CARLEE MANOR	N/A	14 THROUGH 21		
PLAT	GRID ZONING	TAX MAP	ELEG. DIST.	CENSUS TRACT
15497-15497	14 24 R-20	17	2	602100
WATER CODE	SEWER CODE			
H 07	5992000			

**DEVELOPER'S CERTIFICATE**

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

*[Signature]*  
CHRIS KNUDSEN  
KNUDSEN BUILDERS  
DATE: 2/21/14

**ENGINEER'S CERTIFICATE**

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

*[Signature]*  
ALFRED L. HANSHARD  
PROFESSIONAL ENGINEER REG. NO. 23446  
DATE: 2/19/14

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS

*[Signature]* 2/15/04 DATE  
USDA - NATURAL RESOURCES CONSERVATION SERVICE

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

*[Signature]* 2/15/04 DATE  
HOWARD SOIL CONSERVATION DISTRICT

**NOTE:**  
SEDIMENT AND EROSION CONTROL:  
NO MORE THAN THREE CONTIGUOUS LOTS CAN BE UNDER CONSTRUCTION AT ONE TIME.

CAD Drawing File Name: g:\97230\dgn\const.\site\site\dev\1.dgn

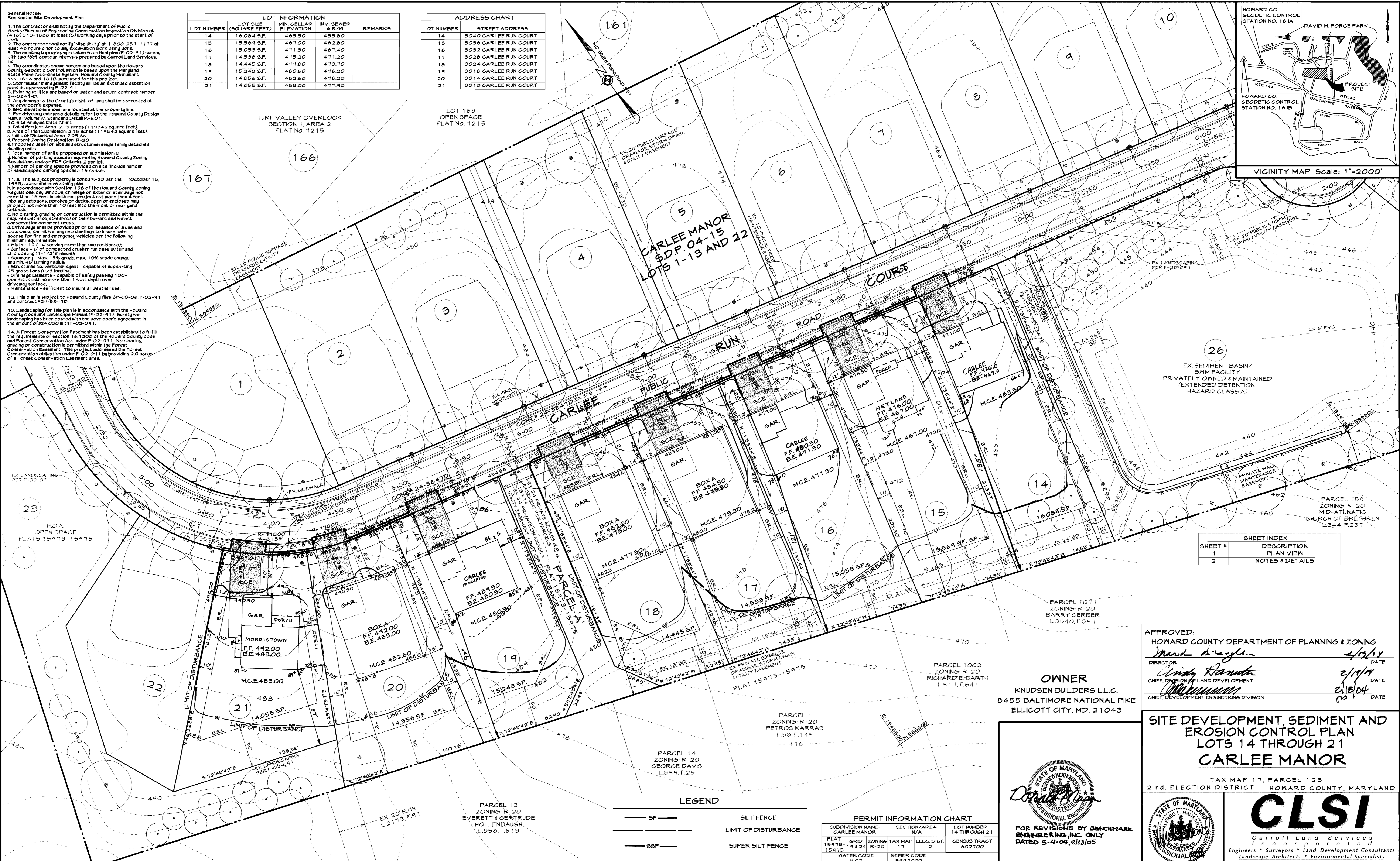
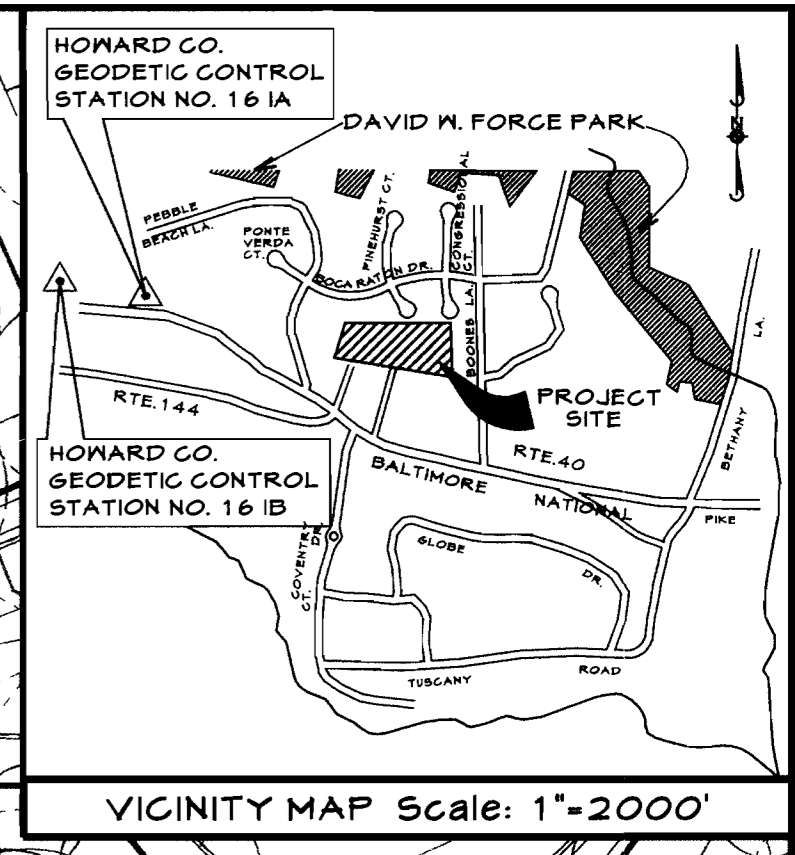


CAD Drawing File Name: g:\17230\dgn\const\15973\15973.dgn

- General Notes:  
Residential Site Development Plan
- The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1800 at least (5) working days prior to the start of work.
  - The contractor shall notify "Miss Utility" at 1-800-251-7171 at least 48 hours prior to any excavation work being done.
  - The existing topography is taken from final plan (F-02-01) survey with two foot contour intervals prepared by Carroll Land Services, Inc.
  - The coordinates shown hereon are based upon the Howard County geodetic control which is based upon the Maryland State Plane Coordinate System, Howard County Monument Nos. 161A and 161B used for this project.
  - Stormwater management facility will be an extended detention pond as approved by F-02-01.
  - Existing utilities are based on water and sewer contract number 24-3841-D.
  - Any damage to the County's right-of-way shall be corrected at the developer's expense.
  - SNC elevations shown are located at the property line.
  - For driveway entrance details refer to the Howard County Design Manual, Volume IV, Standards Detail R-6-01.
  - Site Analysis Data Sheet:
    - Total Project Area: 2.75 acres (11942 square feet)
    - Area of Plan Submission: 2.75 acres (11942 square feet)
    - Limit of Disturbed Area: 2.25 Ac.
    - Present Zoning Designation: R-20
    - Proposed uses for site and structures: single family detached dwelling units.
    - Total number of units proposed on submission: 8
    - Number of parking spaces required by Howard County Zoning Regulations and/or Code Criteria: 2 per lot.
    - Number of parking spaces provided on site (include number of handicapped parking spaces): 16 spaces.
  - The subject property is zoned R-20 per the (October 18, 1993) comprehensive zoning plan.
    - In accordance with section 12.8 of the Howard County Zoning Regulations, any window, chimney 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.
    - No clearing, grading or construction is permitted within the required wetlands, streams or their buffers and forest conservation easement areas.
    - Driveways shall be provided prior to issuance of a use and occupancy permit for any new dwelling to insure safe access for fire and emergency vehicles per the following minimum requirements:
      - Width - 12' (14' serving more than one residence).
      - Surface - 6" of compacted crusher run base w/ tar and chip coating (1 1/2" minimum).
      - Geometry - Max. 1% grade, max. 10% grade change and min. 45' turning radius.
      - Structures (culverts/bridges) - capable of supporting 25 gross tons (12 1/2 loadings).
      - Drainage Elements - capable of safely passing 100-year flood with no more than 1 foot depth over driveway surface.
      - Maintenance - sufficient to insure all weather use.
  - This plan is subject to Howard County files SP-00-06, F-02-01 and contract #24-3841-D.
  - Landscaping for this plan is in accordance with the Howard County Code and Landscape Manual (F-02-01). Surety for landscaping has been posted with the developer's agreement in the amount of \$24,000 with F-02-01.
  - A Forest Conservation Easement has been established to fulfill the requirements of section 16.1200 of the Howard County Code and Forest Conservation Act under F-02-01. No clearing, grading or construction is permitted within the Forest Conservation Easement. This project address the Forest Conservation obligation under F-02-01 by providing 2.0 acres of a Forest Conservation Easement area.

LOT INFORMATION				
LOT NUMBER	LOT SIZE (SQUARE FEET)	MIN. CELLAR ELEVATION	INV. SEWER @ R/W	REMARKS
14	16,084 S.F.	463.50	455.00	
15	15,564 S.F.	467.00	462.00	
16	15,059 S.F.	471.30	467.40	
17	14,559 S.F.	475.20	471.20	
18	14,445 S.F.	471.80	473.10	
19	15,243 S.F.	480.50	476.20	
20	14,856 S.F.	482.60	478.20	
21	14,055 S.F.	483.00	471.90	

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
14	3040 CARLEE RUN COURT
15	3036 CARLEE RUN COURT
16	3032 CARLEE RUN COURT
17	3028 CARLEE RUN COURT
18	3024 CARLEE RUN COURT
19	3018 CARLEE RUN COURT
20	3014 CARLEE RUN COURT
21	3010 CARLEE RUN COURT



LOT 163 OPEN SPACE PLAT NO. 1215

TURF VALLEY OVERLOOK SECTION 1, AREA 2 PLAT NO. 1215

LOT 167

LOT 166

LOT 165

LOT 164

LOT 163

LOT 162

LOT 161

LOT 160

LOT 159

LOT 158

LOT 157

LOT 156

LOT 155

LOT 154

LOT 153

LOT 152

LOT 151

LOT 150

LOT 149

LOT 148

LOT 147

LOT 146

LOT 145

LOT 144

LOT 143

LOT 142

LOT 141

LOT 140

LOT 139

LOT 138

LOT 137

LOT 136

LOT 135

LOT 134

LOT 133

LOT 132

LOT 131

LOT 130

LOT 129

LOT 128

LOT 127

LOT 126

LOT 125

LOT 124

LOT 123

LOT 122

LOT 121

LOT 120

LOT 119

LOT 118

LOT 117

LOT 116

LOT 115

LOT 114

LOT 113

LOT 112

LOT 111

LOT 110

LOT 109

LOT 108

LOT 107

LOT 106

LOT 105

LOT 104

LOT 103

LOT 102

LOT 101

LOT 100

LOT 99

LOT 98

LOT 97

LOT 96

LOT 95

LOT 94

LOT 93

LOT 92

LOT 91

LOT 90

LOT 89

LOT 88

LOT 87

LOT 86

LOT 85

LOT 84

LOT 83

LOT 82

LOT 81

LOT 80

LOT 79

LOT 78

LOT 77

LOT 76

LOT 75

LOT 74

LOT 73

LOT 72

LOT 71

LOT 70

LOT 69

LOT 68

LOT 67

LOT 66

LOT 65

LOT 64

LOT 63

LOT 62

LOT 61

LOT 60

LOT 59

LOT 58

LOT 57

LOT 56

LOT 55

LOT 54

LOT 53

LOT 52

LOT 51

LOT 50

LOT 49

LOT 48

LOT 47

LOT 46

LOT 45

LOT 44

LOT 43

LOT 42

LOT 41

LOT 40

LOT 39

LOT 38

LOT 37

LOT 36

LOT 35

LOT 34

LOT 33

LOT 32

LOT 31

LOT 30

LOT 29

LOT 28

LOT 27

LOT 26

LOT 25

LOT 24

LOT 23

LOT 22

LOT 21

LOT 20

LOT 19

LOT 18

LOT 17

LOT 16

LOT 15

LOT 14

LOT 13

LOT 12

LOT 11

LOT 10

LOT 9

LOT 8

LOT 7

LOT 6

LOT 5

LOT 4

LOT 3

LOT 2

LOT 1

LOT 23 HOA OPEN SPACE PLATS 15973-15975

LOT 26 EX. SEDIMENT BASIN/SPM FACILITY PRIVATELY OWNED & MAINTAINED (EXTENDED DETENTION HAZARD CLASS A)

LOT 26 PRIVATE MAINTENANCE EASEMENT

LOT 26 PARCEL 158 ZONING: R-20 MID-ATLANTIC CHURCH OF BRETHREN L.344.F.231

LOT 26 PARCEL 1071 ZONING: R-20 BARRY GERBER L.9540.F.947

LOT 26 PARCEL 1002 ZONING: R-20 RICHARD E. BARTH L.9117.F.641

LOT 26 PARCEL 14 ZONING: R-20 GEORGE DAVIS L.3949.F.25

LOT 26 PARCEL 13 ZONING: R-20 EVERETT & GERTRUDE HOLLENBAUGH L.859.F.613

LOT 26 PARCEL 64 ZONING: R-20 CHRISTOPHER & GARITA CARLEE L.2173.F.91

LEGEND

— SF — SILT FENCE

— — — — — LIMIT OF DISTURBANCE

— SSF — SUPER SILT FENCE

PERMIT INFORMATION CHART				
SUBDIVISION NAME:	SECTION/AREA:	LOT NUMBER:	GRID:	ZONING:
CARLEE MANOR	N/A	14 THROUGH 21	15973-15975	R-20
TAX MAP:	ELEC. DIST.:	CENSUS TRACT:	WATER CODE:	SEWER CODE:
11	2	602100	5992000	

DEVELOPER'S CERTIFICATE

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

CHRIS KNUDSEN  
KNUDSEN BUILDERS

2/15/04  
DATE

ENGINEER'S CERTIFICATE

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

ALFRED H. HANIGARD  
PROFESSIONAL ENGINEER REG. NO. 29446

2/15/04  
DATE

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS

FOR REVISIONS BY BENCHMARK ENGINEERING, INC. ONLY DATED 5-4-04, 2/23/05

2/15/04  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

2/15/04  
DATE

2/17/04  
DATE

2/18/04  
DATE

OWNER  
KNUDSEN BUILDERS L.L.C.  
8455 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MD. 21043

SITE DEVELOPMENT, SEDIMENT AND EROSION CONTROL PLAN  
LOTS 14 THROUGH 21  
CARLEE MANOR

TAX MAP 11, PARCEL 123  
2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

CLSI  
Carroll Land Services  
Incorporated  
Engineers \* Surveyors \* Land Development Consultants  
Landscape Architects \* Environmental Specialists  
439 East Main Street Westminster, MD 21157-5539  
(410) 876-2017 FAX (410) 876-0009

Professional Engineer Registration No. 23446

Revisions

Date	Description	Drawn By
5-4-04	ADD MORRISTOWN TO LOT 21 AND NEYLAND TO LOT 15	Designed By: KF
2-23-05	ADD CARLEE HOUSE TYPE TO LOTS 14, 16 AND 19	Reviewed By:
		Date: 2/15/04
		Scale: 1" = 30'
		Job No: 41230E
		Sheet: 1 of 2

County File No. SDP-04-083

**HOWARD SOIL CONSERVATION DISTRICT  
STANDARD SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (3-13-1055).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- 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 5:1, b) 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins shall be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1444 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, For permanent seeding (Sec. 5-1), sod (Sec. 5-4), temporary seeding (Sec. 5-7) and mulching (Sec. 5-2).
- Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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.

**11. Site Analysis:**  
Total Area of Site: 2.75 Acres  
Area Disturbed: 2.15 Acres  
Area to be roofed or paved: 0.73 Acres  
Area to be vegetatively stabilized: 1.52 Acres  
Total Cut: 100 Cu Yds.  
Total Fill: 100 Cu Yds.

Offsite waste/borrow area location will be to a site with an approved sediment control plan and an approved and open grading permit.

**12. 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.**

**13. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each workday, whichever is shorter.**

**14. Topsoil Notes**  
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-SCS in cooperation with Maryland Agricultural Experiment 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, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1" in diameter.

II. Topsoil must be free of plants or plant parts such as bermuda grass, quack grass, johnson grass, nutgrass, 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.

IV. For sites having disturbed areas over 5 acres:  
I. Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.  
II. 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:  
Page 2  
Topsoil Notes  
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 phytotoxic materials.  
Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

II. Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.  
V. Topsoil Application  
I. When topsoiling, 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 topsoiled, which have been previously established, shall be maintained, about 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 seeding can proceed with a minimum of additional soil.  
IV. preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

Page 3  
Topsoil Notes  
V. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or 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.  
II. 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.

**NOTE:**  
ALL SEDIMENT CONTROL MEASURES SHOWN HEREON ARE TEMPORARY UNLESS OTHERWISE NOTED.

**STABILIZATION SPECIFICATIONS**

- TEMPORARY SEEDING NOTES**  
Scope: Planting short term (no more than 1 year) vegetation to temporarily stabilize any areas where soil disturbance has occurred, until the area can be permanently stabilized with vegetative or non-vegetative practices.  
Standards: The following notes shall conform to the 1444 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.
- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See 6-20 Sec. 1-C.
  - Fertilizer shall consist of a mixture of 10-10-10 and be applied at a rate of 600 lb per acre (15 lb per 1000 sq. ft.) and will meet the requirements in 6-20 Sec. 1-B.
  - Lime shall be applied at a rate of 2 tons per acre (100 lb per 1000 sq. ft.) and shall meet the requirements in 6-20 Sec. 1-B.
  - Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in 6-20 Sec. 1-C.
  - Mulching will be applied immediately after seeding and will need to meet the requirements in 6-20 Sec. 1-F, G and H.
  - Seeding mixtures shall be selected from or will be equal to those on Table 26.
  - The following is one option, approved equals may be used.

**Temporary Seeding Summary**

Application	Seeding	Seeding
No. Species	Rate (lb/ac)	Dates
N/A Kentucky-31	80	3/1 to 11/15
Annual Rye	20	3/1 to 11/15

- PERMANENT SEEDING NOTES**  
Scope: Planting permanent, long lived vegetative cover on graded and/or cleared areas and areas that have been in temporary vegetation for more than 1 year.  
Standards: The following notes shall conform to the 1444 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.
- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See 6-20 Sec. 1-C.
  - For sites over 5 ac. soil tests will be performed to determine the exact mixture and application rates for both lime and fertilizer. Soil tests will be prepared by the University of Maryland or a recognized commercial laboratory. If the existing soil does not meet the minimum conditions as stated in 6-20 Sec. 1-C-II, then topsoil will need to be obtained that meets these conditions and applied so as to meet the requirements in 6-21.
  - For sites of 5 ac. or less of disturbance, the following fertilizer and lime rates shall apply.  
4. Fertilizer shall consist of a mixture of 10-20-20 and be applied at the following rates:  
N-40 lb per acre (2 lb per 1000 sq. ft.) P205-115 lb per acre (4 lb per 1000 sq. ft.) K2O-115 lb per acre (4 lb per 1000 sq. ft.). Fertilizer shall meet the requirements in 6-20 Sec. 1-B.  
5. Lime shall be applied at a rate of 2 tons per acre (100 lb per 1000 sq. ft.) and shall meet the requirements in 6-20 Sec. 1-B.  
6. Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in 6-20 Sec. 1-C.  
7. Mulching will be applied immediately after seeding and will need to meet the requirements in 6-20 Sec. 1-F, G and H.  
8. Refer to 6-20 Sec. 1-E for Methods of Seeding specifications.  
9. Refer to 6-20 Sec. 4 for Sod specifications.  
10. Refer to 6-20 Sec. 5 for Turfgrass Establishment specifications.  
11. Seeding mixtures shall be selected from or will be equal to those on Table 25.  
12. The following is one option, approved equals may be used.

**Permanent Seeding Summary**

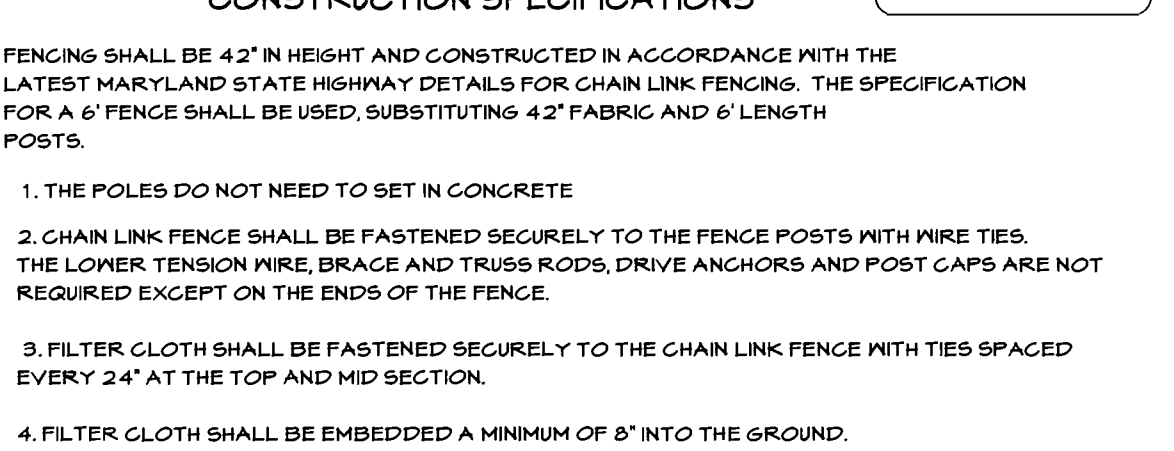
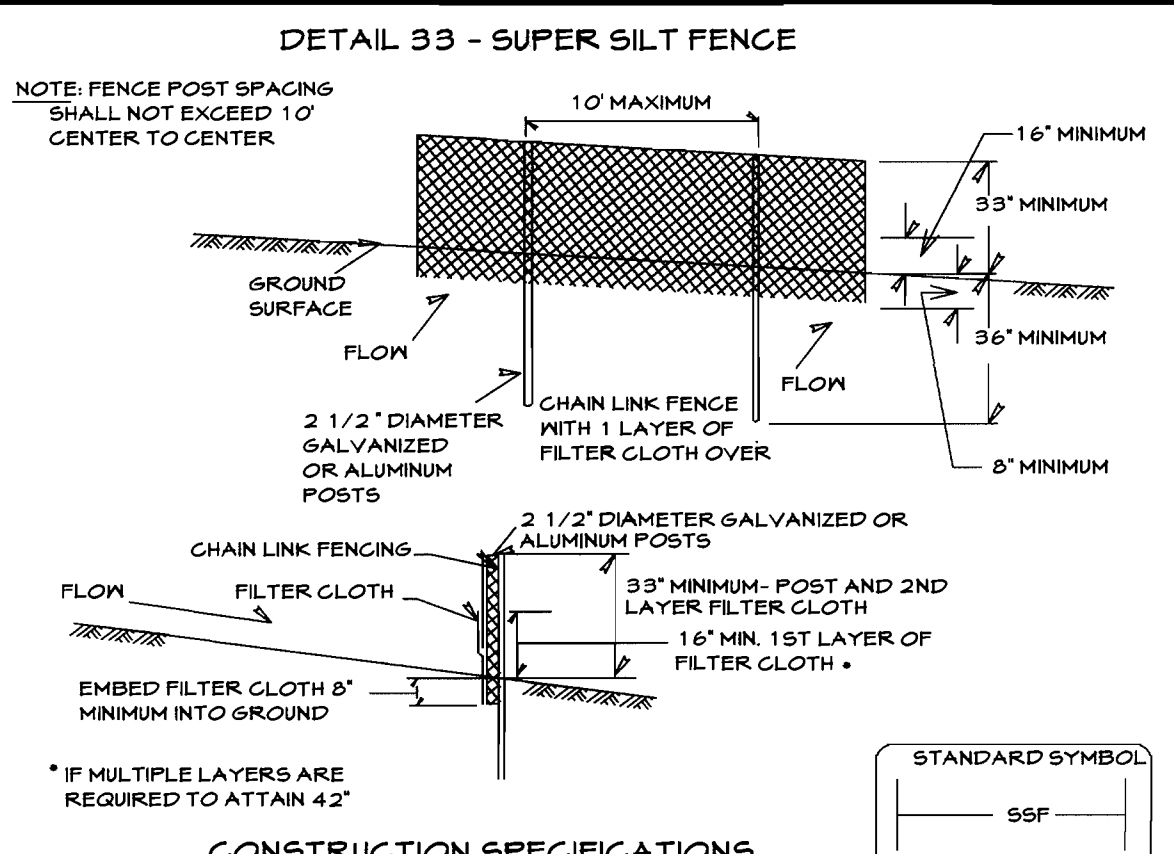
Application	Seeding	Seeding
No. Species	Rate (lb/ac)	Dates
N/A Triple Fine Fescue	160	3/1 to 10/30
Perennial Rye	40	3/1 to 10/30

**Tracking note:**  
On areas where the slope is 3:1 or steeper and the height is 8' or greater, contractor shall track the slope using cleared dozer prior to placing asphalt binder. Dozer shall run up-and-down so that cleat marks are horizontal. Where tracking is required, it shall be done from existing grade level to finished grade level within the limits established by the 8' height criteria.

- UTILITY CONSTRUCTION NOTES**
- Place all excavated material on the high side of the trench.
  - Only do as much work as can be done in one day so backfilling, final grading, and permanent stabilization can occur.
  - Any sediment control measures disturbed by the utility construction will be repaired the same day.

- STOCKPILE/TOPSOIL NOTES**
- Stockpiling will not be allowed on any impervious area.
  - All stockpiles left at the end of the day will need to be temporarily stabilized until they are again disturbed, unless they are within existing perimeter sediment controls.
  - All stockpile areas shall be confined within perimeter controls. In the event that stockpile areas must be located outside disturbed areas, the location shall be as directed by the inspector in the field.

- SEQUENCE OF CONSTRUCTION**
- OBTAIN GRADING PERMIT. (1 DAY)
  - INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN PER LOT. (2 DAYS)
  - CONSTRUCT DWELLING. (90 DAYS)
  - FINE GRADE LOT AND INSTALL DRIVEWAY AND SIDE WALKS. (1 DAY)
  - INSTALL PERMANENT SEEDING AND MULCHING. (1 DAY)
  - ONCE LOT IS PERMANENTLY STABILIZED AND PERMISSION IS GRANTED BY E & S INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL DEVICES. (2 DAYS)



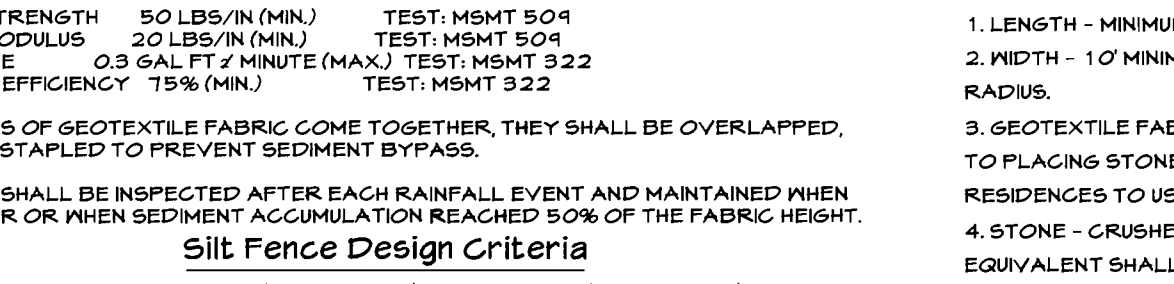
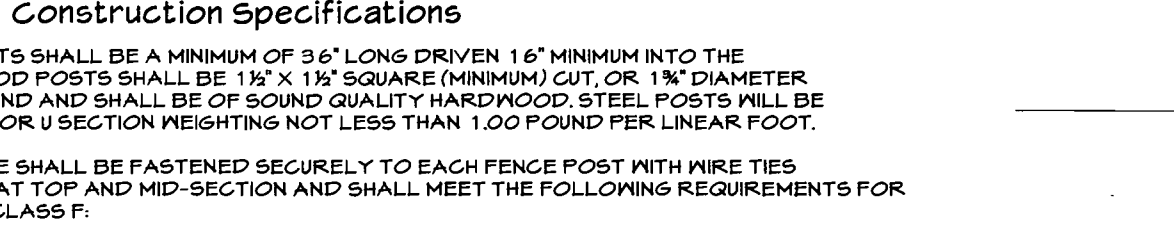
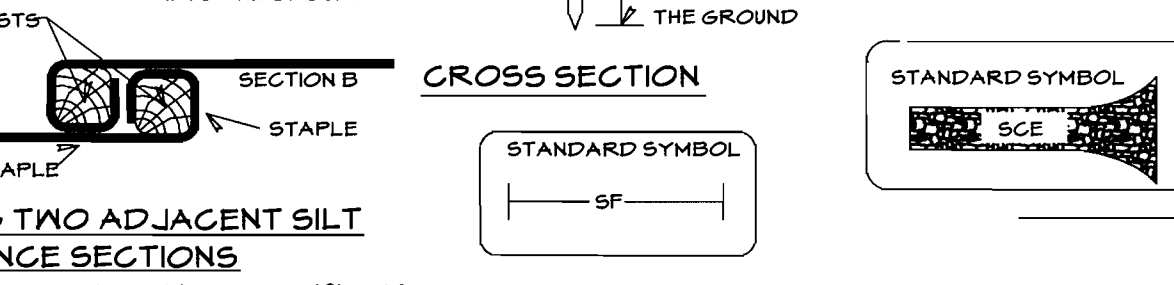
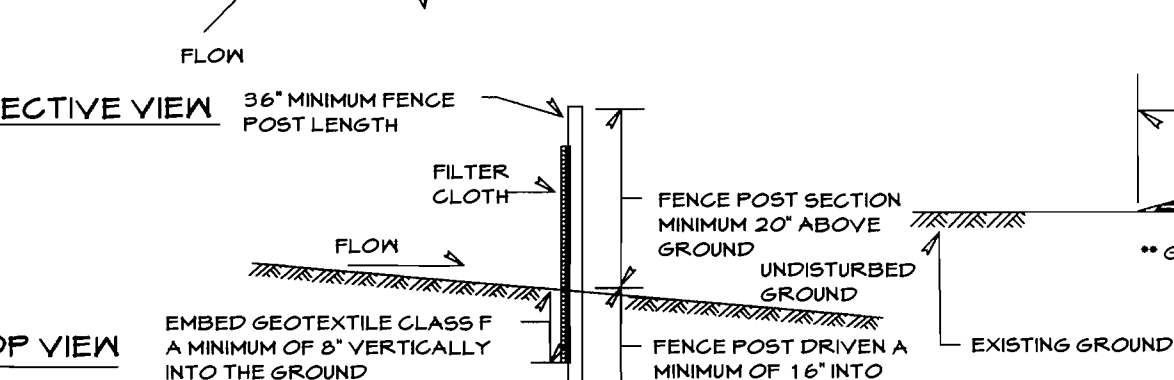
- FENCING SHALL BE 42\"/>
  - THE POLES DO NOT NEED TO SET IN CONCRETE.
  - CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
  - FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24\"/>
  - FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8\"/>
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6\"/>
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.
  - FILTER CLOTH 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:

**DESIGN CRITERIA**

TENSILE STRENGTH	50 LBS/(MIN)	TEST: MSMT 504
TENSILE MODULUS	20 LBS/(MIN)	TEST: MSMT 504
FLOW RATE	0.3 GAL/FT <sup>2</sup> /MINUTE (MAX)	TEST: MSMT 322
FILTERING EFFICIENCY	75% (MIN)	TEST: MSMT 322

**SLOPE**

SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM)	SILT FENCE LENGTH (MAXIMUM)
0 - 10%	UNLIMITED	UNLIMITED
10 - 20%	200 FEET	1,500 FEET
20 - 33%	100 FEET	1,000 FEET
33 - 50%	100 FEET	500 FEET
50% +	50 FEET	250 FEET



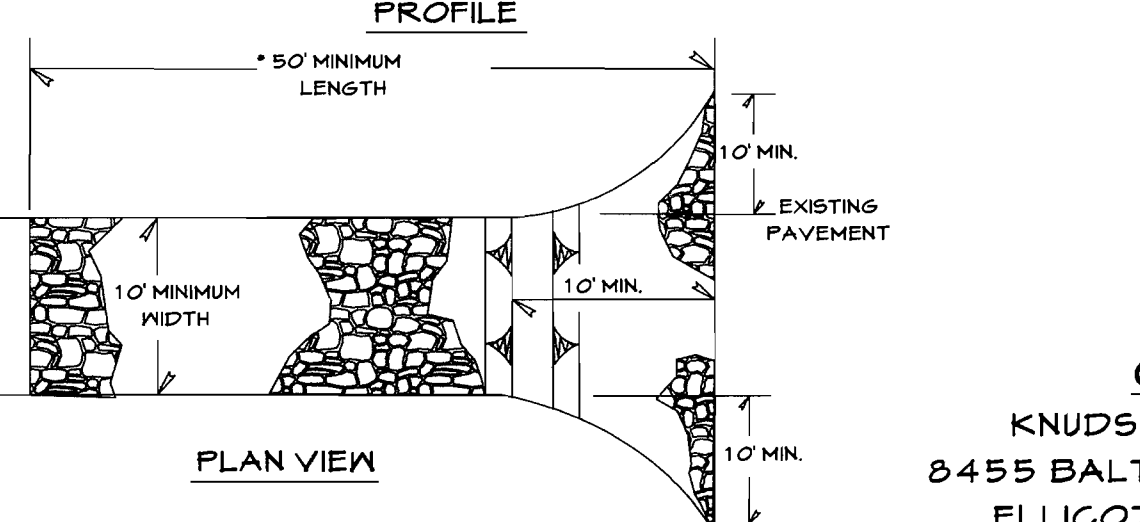
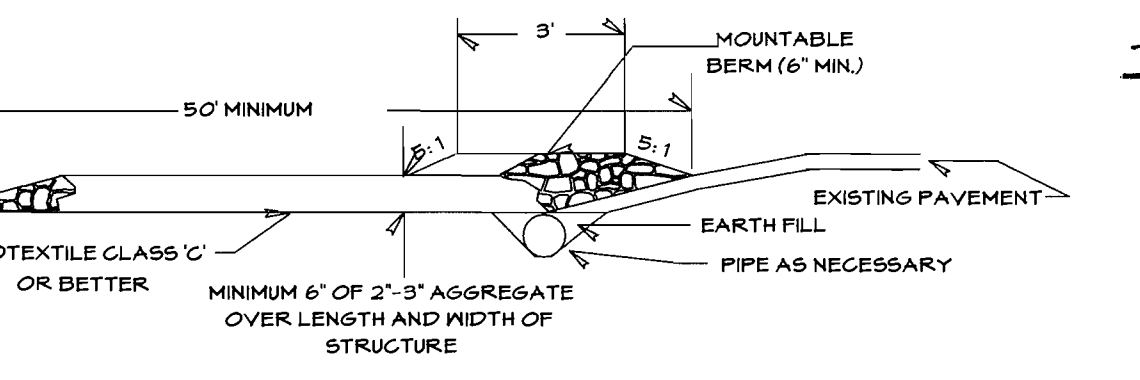
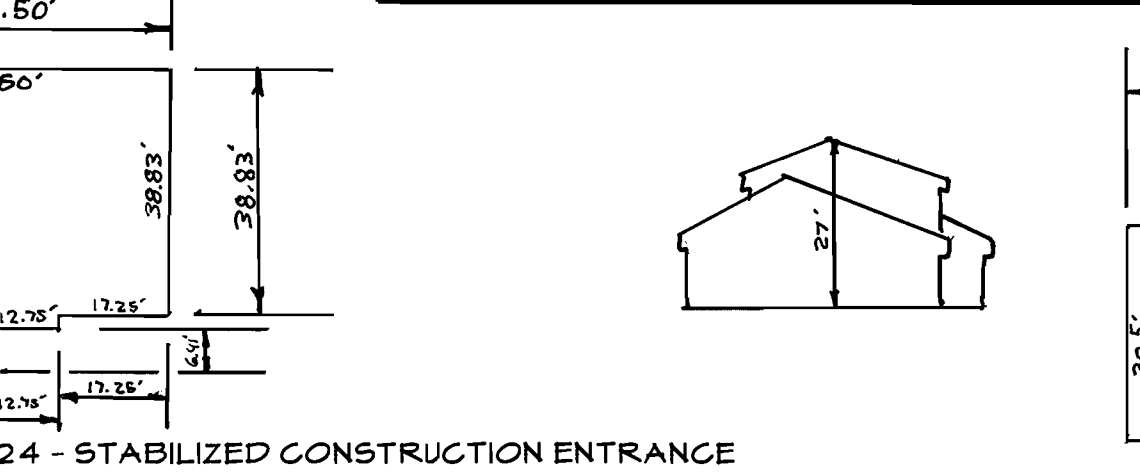
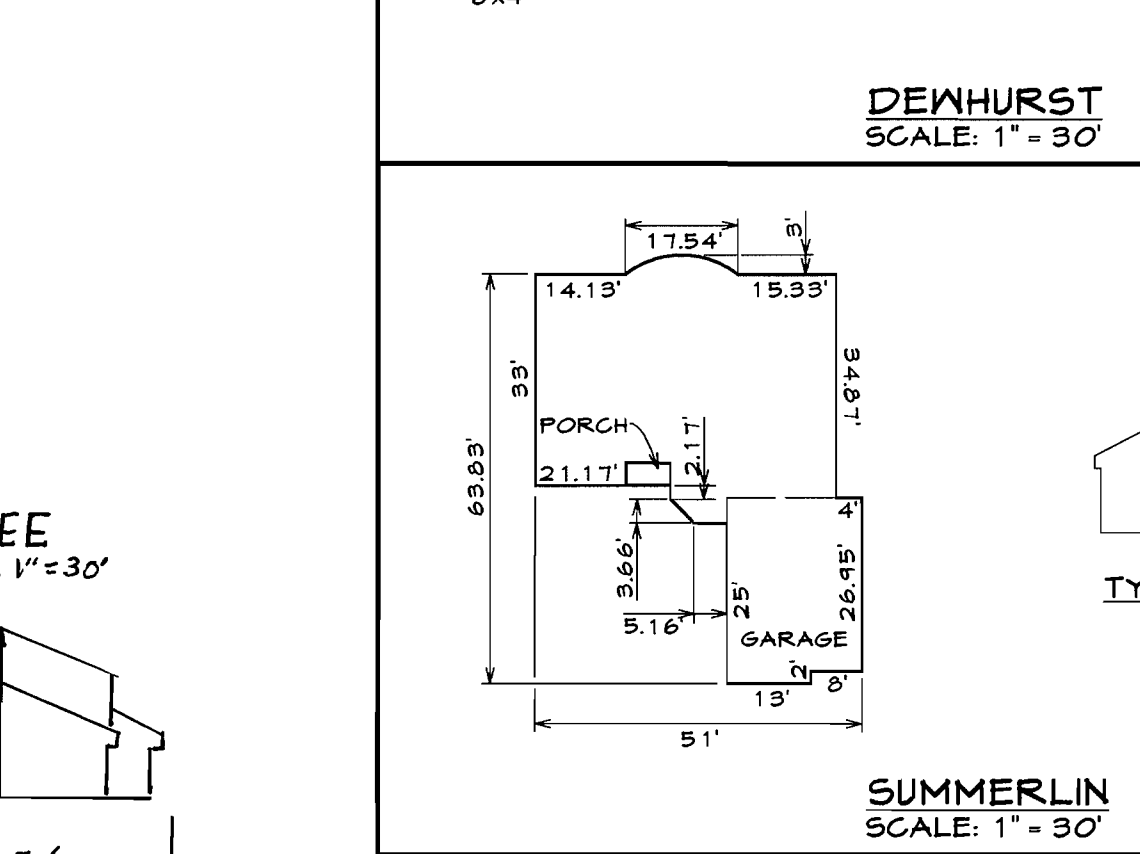
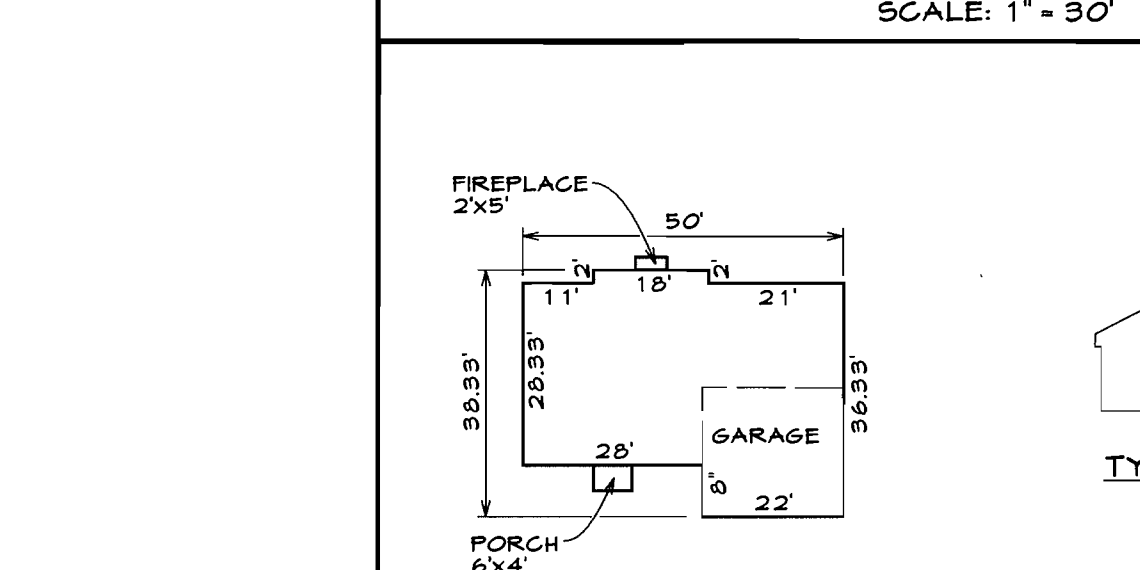
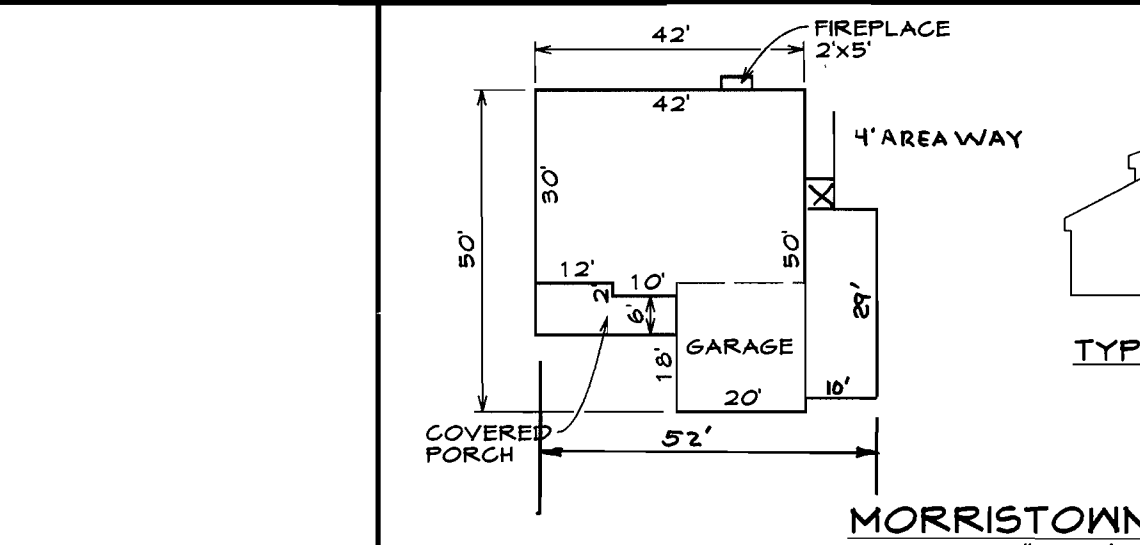
**Joining Two Adjacent Silt Fence Sections**

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 5:1	unlimited	unlimited
5:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

NOTE: IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION SYSTEM, SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.

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

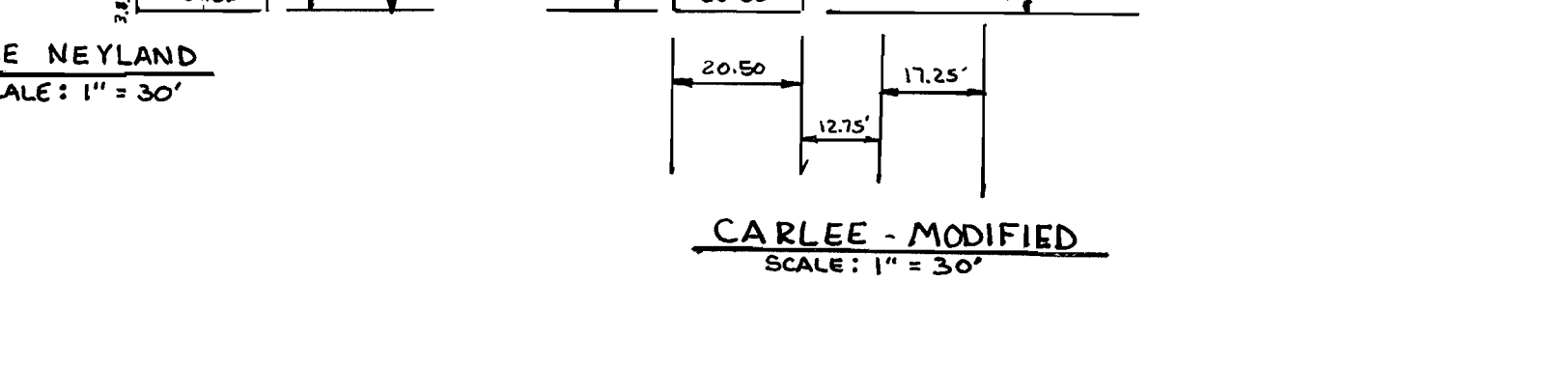
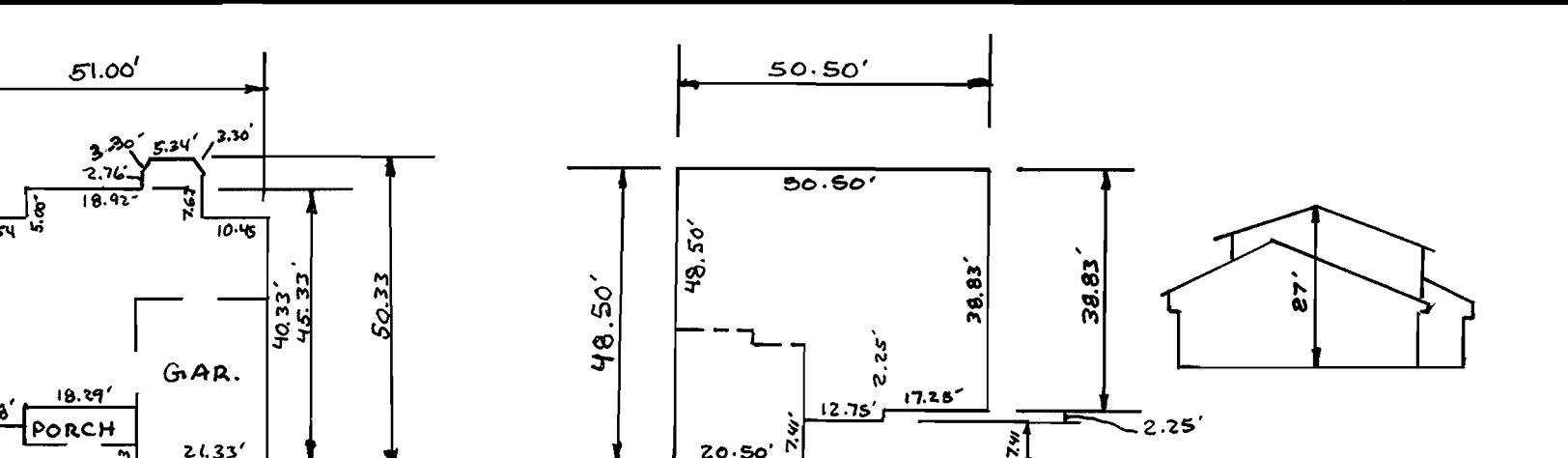
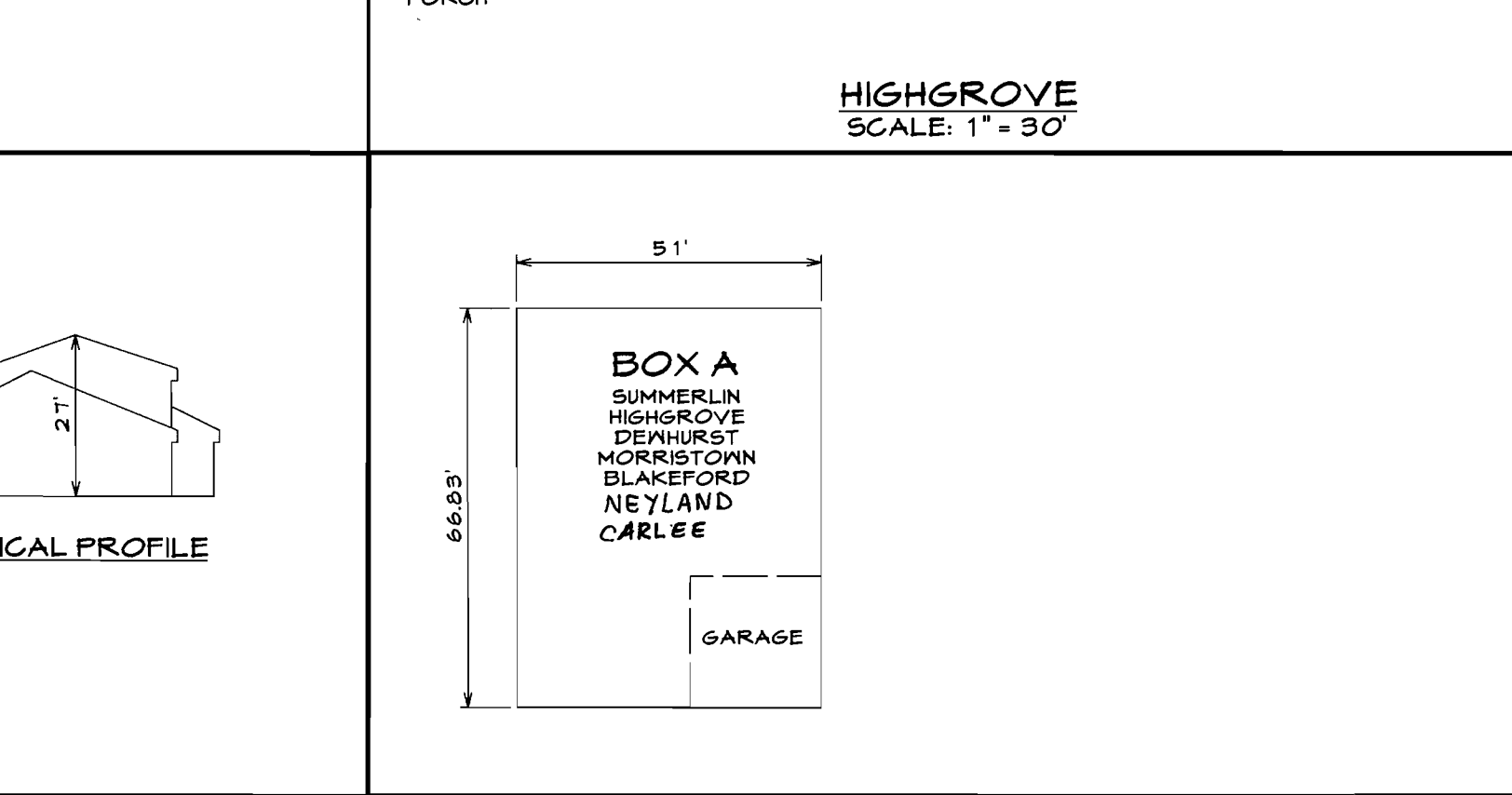
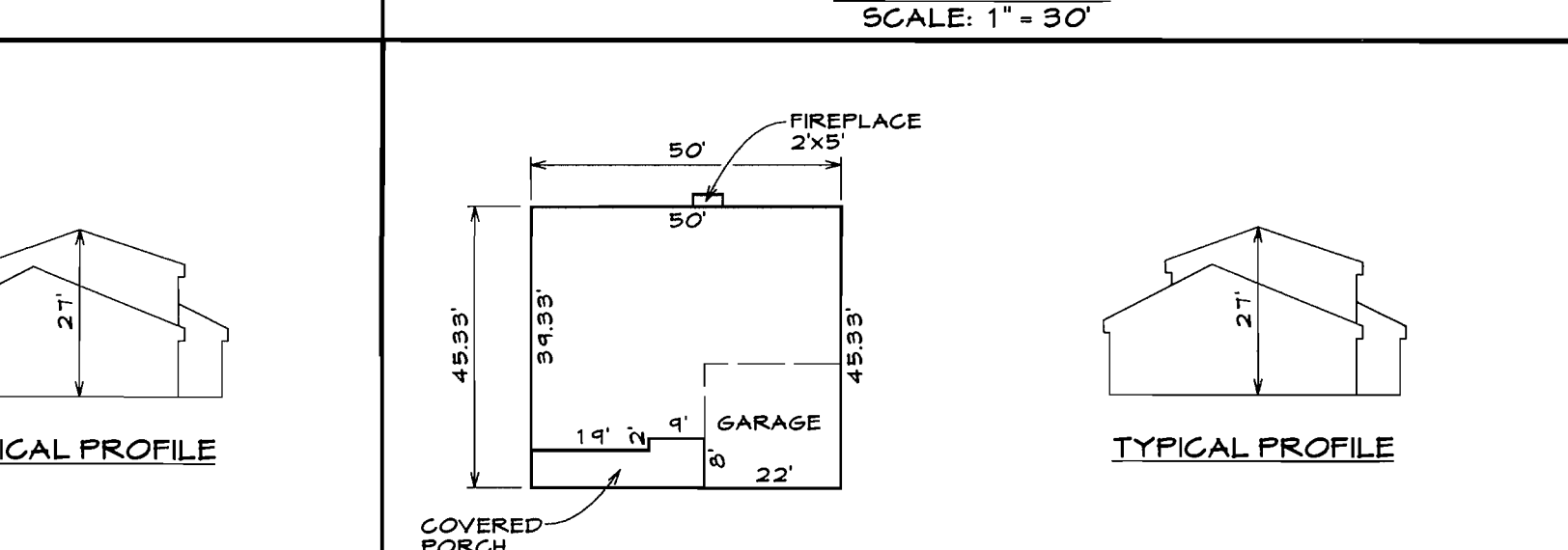
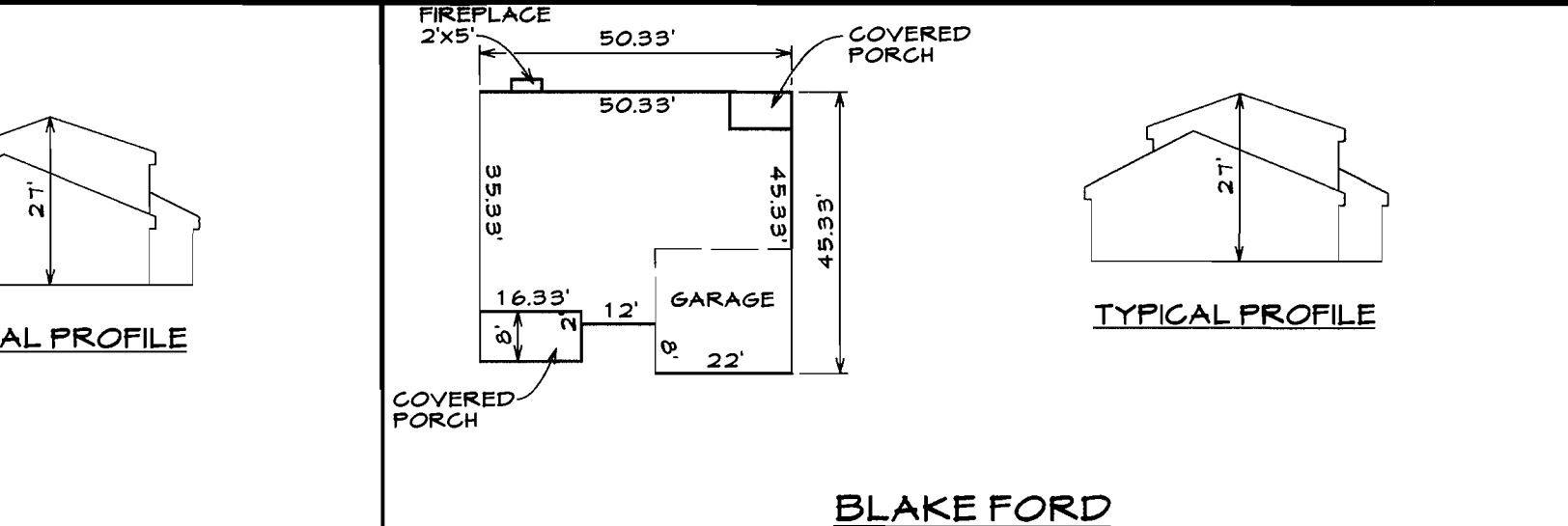
CHRIS KNUDSEN  
KNUDSEN BUILDERS



- LENGTH - MINIMUM OF 50' (50' FOR SINGLE RESIDENCE LOT).
- WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- 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.
- STONE - CRUSHED AGGREGATE (2' TO 3') OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6\"/>
- 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\"/>
- 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.

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

ALFRED L. HANSARD  
PROFESSIONAL ENGINEER REG. NO. 23446



**OWNER**  
KNUDSEN BUILDERS L.L.C.  
8455 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD. 21043

**NOTES & DETAILS**  
LOTS 14 THROUGH 21  
CARLEE MANOR

TAX MAP 17, PARCEL 123  
2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**CLSI**  
Carroll Land Services Incorporated  
Engineers • Surveyors • Land Development Consultants  
Landscape Architects • Environmental Specialists  
439 East Main Street Westminster, MD 21157-5529  
(410) 876-2017 FAX (410) 876-0009

Professional Engineer Registration No. 23446

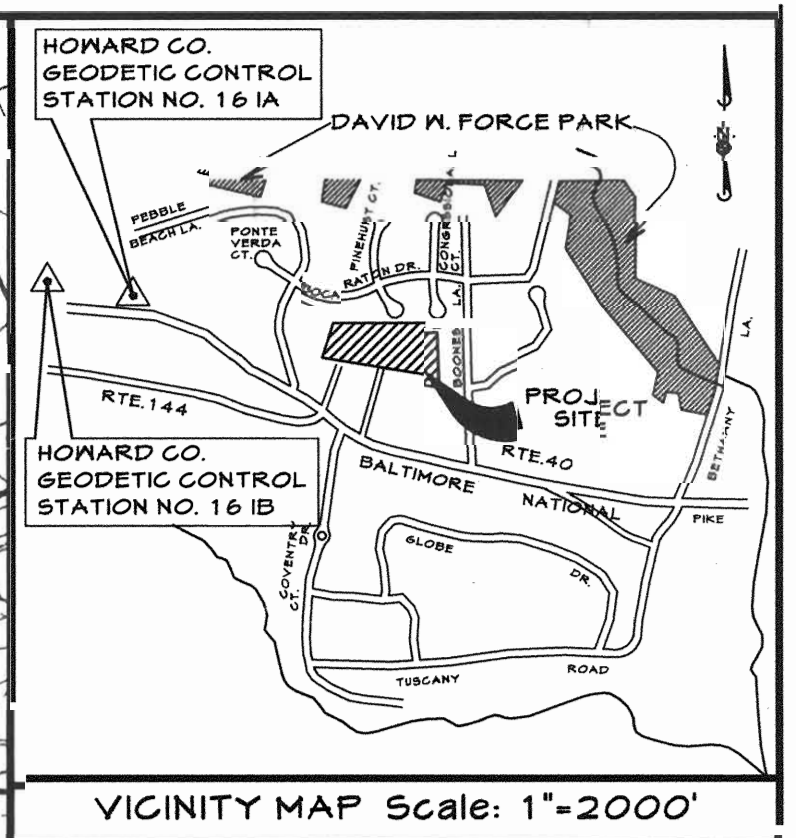
Date	Revisions	Drawn By
5-1-04	ADD NEYLAND FOOT PRINT	Designed By:
2-23-05	ADD CARLEE FOOT PRINT	Reviewed By:
		Date: JANUARY 2004
		Scale: AS SHOWN
		Job No: 97230E
		Sheet: 2 of 2

General Notes:  
Residential Site Development Plan

- The contractor shall notify the Department of Public Works/Bureau of Engineering Construction Inspection Division at (410) 315-1800 at least (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-251-7111 at least 48 hours prior to any excavation work being done.
- The existing topography is taken from final plan (F-02-01) survey with two foot contour intervals prepared by Carroll Land Services, Inc.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System, Howard County Monument Nos. 161A and 161B used for this project.
- Stormwater management facility will be an extended detention pond as approved by F-02-01.
- Existing utilities are based on water and sewer contract number 24-3841-D.
- Any damage to the County's right-of-way shall be corrected at the developer's expense.
- Site elevations shown are located at the property line.
- For driveway entrance details refer to the Howard County Design Manual, Volume V, Standard Detail R-601.
- Site Analysis Data Chart:  
a. Total Project Area: 2.75 acres (119,442 square feet).  
b. Area of Plan Submission: 2.75 acres (119,442 square feet).  
c. Limit of Disturbed Area: 2.25 Ac.  
d. Present Zoning Designation: R-20  
e. Proposed uses for site and structures: single family detached dwelling units.  
f. Total number of units proposed on submission: 8  
g. Number of parking spaces required by Howard County Zoning Regulations and/or F-02-01: 2 per lot.  
h. Number of parking spaces provided on site (include number of handicapped parking spaces): 16 spaces.
- a. The subject property is zoned R-20 per the (October 16, 1995) Comprehensive zoning plan.  
b. In accordance with Section 120 of the Howard County Zoning Regulations, impervious, 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.  
c. No clearing, grading or construction is permitted within the riparian wetlands, streams or their buffers and forest conservation easement areas.  
d. Driveways shall be provided prior to issuance of a use and occupancy permit for any new dwelling to insure safe access for fire and emergency vehicles per the following minimum requirements:  
• Width - 12' (14' serving more than one residence).  
• Surface - 6" of compacted crusher run base w/tar and chip coating (1 1/2" minimum).  
• Geometry - Max. 15% grade, max. 10% grade change and min. 45' turning radius.  
• Structures (culverts/bridges) - capable of supporting 25 gross tons (125 loading).  
• Drainage Elements - capable of safely passing 100-year flood with no more than 1 foot depth over driveway surface.  
• Maintenance - sufficient to insure all weather use.
- This plan is subject to Howard County files SP-00-06, F-02-01 and contract #24-3841-D.
- Landscape for this plan is in accordance with the Howard County Code and Landscape Manual (F-02-01). Surety for landscaping has been posted with the developer's agreement in the amount of \$24,000 with F-02-01.
- A Forest Conservation Easement has been established to fulfill the requirements of section 161.200 of the Howard County Code and Forest Conservation Act under F-02-01. No clearing, grading or construction is permitted within the Forest Conservation Easement. This project addressed the Forest Conservation obligation under F-02-01 by providing 2.0 acres of a Forest Conservation Easement area.

LOT INFORMATION				
LOT NUMBER	LOT SIZE (SQUARE FEET)	MIN. CELLAR ELEVATION	INV. SEWER @ R/W	REMARKS
14	16,024 S.F.	463.50	455.00	
15	15,564 S.F.	467.00	462.80	
16	15,053 S.F.	471.30	467.40	
17	14,539 S.F.	475.20	471.20	
18	14,445 S.F.	477.80	473.70	
19	15,243 S.F.	480.50	476.20	
20	14,856 S.F.	482.60	478.20	
21	14,055 S.F.	483.00	477.90	

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
14	3040 GARLEE RUN COURT
15	3056 GARLEE RUN COURT
16	3052 GARLEE RUN COURT
17	3028 GARLEE RUN COURT
18	3024 GARLEE RUN COURT
19	3018 GARLEE RUN COURT
20	3014 GARLEE RUN COURT
21	3010 GARLEE RUN COURT



SHEET INDEX	
SHEET #	DESCRIPTION
1	PLAN VIEW
2	NOTES & DETAILS

LEGEND	
— SF —	SILT FENCE
— — — — —	LIMIT OF DISTURBANCE
— SSF —	SUPER SILT FENCE

PERMIT INFORMATION CHART			
SUBDIVISION NAME	SECTION/AREA	LOT NUMBER	DATE
CARLEE MANOR	N/A	14 THROUGH 21	5-4-04
PLAT	GRID	ZONING	TAX MAP
15975	1424	R-20	17
15975			2
MATER CODE	SEWER CODE	CENSUS TRACT	
H07	5492000	602100	

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

CHRIS KNUDSEN  
KNUDSEN BUILDERS

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

ALFRED L. HANSEN  
PROFESSIONAL ENGINEER REG. NO. 29446

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MET THE TECHNICAL REQUIREMENTS.

FOR SEAL AND SIGNATURE OF BENCHMARK ENGINEERING, INC. ONLY  
DATED 5-4-04, 2/23/05, 3/9/05, 5-4-05, 5, 29, 06

DATE: 2/15/04

**NOTE:**  
SEDIMENT AND EROSION CONTROL:  
NO MORE THAN THREE CONTIGUOUS LOTS CAN BE UNDER CONSTRUCTION AT ONE TIME.

APPROVED:  
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Maria A. ...  
DIRECTOR

...  
CHIEF, DIVISION OF LAND DEVELOPMENT

...  
CHIEF, DEPARTMENT ENGINEERING DIVISION

**SITE DEVELOPMENT, SEDIMENT AND EROSION CONTROL PLAN**  
LOTS 14 THROUGH 21  
**CARLEE MANOR.**

TAX MAP 17, PARCEL 123  
2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**CLSI**  
Carroll Land Services  
Incorporated  
Engineers \* Surveyors \* Land Development Consultants  
Landscape Architects \* Environmental Specialists  
439 East Main Street Westminster, MD 21157-5339  
(410) 876-2017 FAX (410) 876-0009

Professional Engineer Registration No. 29,446

ADD MORRISTOWN TO LOT 21 AND NEYLAND TO LOT 15	Drawn By: BM
ADD CARLEE HOUSE TYPE TO LOTS 14, 15, 16 AND 19	Designed By: KF
REVISE LOT 16 TO SHOW A DEMOUNTABLE HOUSE TYPE	Reviewed By:
REVISED GRADES ON LOT 15	Date: 5/1/04
REVISE LOT 21 TO SHOW NEYLAND	Scale: 1"=30'
	Job No: 97290E
	Sheet: 1 of 2

CAD Drawing File Name: g:\71230\dgn\const\ellicott\carlee\X01\site\dev1.dgn

# HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (9-13-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within a 7 calendar day period 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.
- 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.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 5.1), sod (Sec. 5.4), temporary seeding (Sec. 5.0) and mulching (Sec. 5.2). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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.
- Site Analysis:
  - Total Area of Site: 2.15 Acres
  - Area Disturbed: 2.15 Acres
  - Area to be roofed or paved: 0.13 Acres
  - Area to be vegetatively stabilized: 1.52 Acres
  - Total Cut: 100 Cu Yds.
  - Total Fill: 100 Cu Yds.
- Offsite waste/borrow area location will be to a site with an approved sediment control plan and an approved and open grading permit.
- Any sediment control practice, which is disturbed by grading activity for placement of utilities, must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 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.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each workday, whichever is shorter.

Rev. 4/94

## Topsoil Notes

- 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-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - 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, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1" in diameter.
  - Topsoil must be free of plants or plant parts such as bermuda grass, quack grass, Johnson grass, nutgrass, poison ivy, thistle, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clays, ground lime 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.
  - For sites having disturbed areas under 5 acres:
    - Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
  - For sites having disturbed areas over 5 acres:
    - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 

Permanent Seeding Summary			
No. Species	Rate (lb/ac)	Dates	Seeding Depths
N/A Triple Fescue	160	3/1 to 10/30	1'-2"
Perennial Rye	40	3/1 to 10/30	1'-2"

- On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 

Permanent Seeding Summary			
No. Species	Rate (lb/ac)	Dates	Seeding Depths
N/A Triple Fescue	160	3/1 to 10/30	1'-2"
Perennial Rye	40	3/1 to 10/30	1'-2"

- On areas where the slope is 3:1 or steeper and the height is 6' or greater, contractor shall track the slope using cleared dozer prior to placing asphalt binder. Dozer shall run up-and-down so that cleat marks are horizontal. Where tracking is required, it shall be done from existing grade level to finished grade level within the limits established by the 3' height criteria.
- Utility Construction Notes:
  - Place all excavated material on the high side of the trench.
  - Only do as much work as can be done in one day so backfilling, final grading, and permanent stabilization can occur.
  - Any sediment control measures disturbed by the utility construction will be repaired the same day.

- Stockpile/Topsoil Notes:
  - Stockpiling will not be allowed on any impervious area.
  - All stockpiles left at the end of the day will need to be temporarily stabilized until they are again disturbed, unless they are within existing perimeter sediment controls.
  - All stockpile areas shall be confined within perimeter controls. In the event that stockpile areas must be located outside disturbed areas, the location shall be as directed by the inspector in the field.
- Sequence of Construction:
  - OBTAIN GRADING PERMIT. (1 DAY)
  - INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN PER LOT. (2 DAYS)
  - CONSTRUCT DWELLING. (90 DAYS)
  - FINE GRADE LOT AND INSTALL DRIVEWAY AND SIDE WALKS. (1 DAY)
  - INSTALL PERMANENT SEEDING AND MULCHING. (1 DAY)
  - INSTALL LANDSCAPING. (1 DAY)
  - ONCE LOT IS PERMANENTLY STABILIZED AND PERMISSION IS GRANTED BY E & S INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL DEVICES. (2 DAYS)

**NOTE:**  
ALL SEDIMENT CONTROL MEASURES SHOWN HEREON ARE TEMPORARY UNLESS OTHERWISE NOTED.

# STABILIZATION SPECIFICATIONS

## TEMPORARY SEEDING NOTES

- Scope:** Planting short term (no more than 1 year) vegetation to temporarily stabilize any areas where soil disturbance has occurred, until the area can be permanently stabilized with vegetative or non-vegetative practices.
- Standard:** The following notes shall conform to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.
- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See 6-20 Sec. 1-C.
  - Fertilizer shall consist of a mixture of 10-10-10 and be applied at a rate of 600 lb per acre (15 lb per 1000 sq. ft.) and will meet the requirements in 6-20 Sec. 1-B.
  - Lime shall be applied at a rate of 2 tons per acre (100 lb per 1000 sq. ft.) and shall meet the requirements in 6-20 Sec. 1-B.
  - Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in 6-20 Sec. 1-C.
  - Mulching will be applied immediately after seeding and will need to meet the requirements in 6-20 Sec. 1-F, G and H.
  - Seeding mixtures shall be selected from or will be equal to those on Table 26.
  - The following is one option, approved equals may be used.

Temporary Seeding Summary			
No. Species	Rate (lb/ac)	Dates	Seeding Depths
N/A Kentucky-31	80	3/1 to 11/15	1"
Annual Rye	20	3/1 to 11/15	1/4" - 1/2"

## PERMANENT SEEDING NOTES

- Scope:** Planting permanent, long lived vegetative cover on graded and/or cleared areas and areas that have been in temporary vegetation for more than 1 year.
- Standard:** The following notes shall conform to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.
- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See 6-20 Sec. 1-C.
  - For sites over 5 ac. soil tests will be performed to determine the exact mixture and application rates for both lime and fertilizer. Soils tests will be prepared by the University of Maryland or a recognized commercial laboratory. If the existing soil does not meet the minimum conditions as stated in 6-20 Sec. 1-C-II, then topsoil will need to be obtained that meets these conditions and applied so as to meet the requirements in 6-2-1.
  - For sites of 5 ac. or less of disturbance, the following fertilizer and lime rates shall apply.
  - Fertilizer shall consist of a mixture of 10-20-20 and be applied at the following rates:
    - N-40 lb per acre (2 lb per 1000 sq. ft.) P205-175 lb per acre (4 lb per 1000 sq. ft.) K2O-175 lb per acre (4 lb per 1000 sq. ft.) Fertilizer shall meet the requirements in 6-20 Sec. 1-B.
  - Lime shall be applied at a rate of 2 tons per acre (100 lb per 1000 sq. ft.) and shall meet the requirements in 6-20 Sec. 1-B.
  - Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in 6-20 Sec. 1-C.
  - Mulching will be applied immediately after seeding and will need to meet the requirements in 6-20 Sec. 1-F, G and H.
  - Refer to 6-20 Sec. 1-E for Methods of Seeding specifications.
  - Refer to 6-20 Sec. 4 for Sod specifications.
  - Refer to 6-20 Sec. 5 for Turfgrass Establishment specifications.
  - Seeding mixtures shall be selected from or will be equal to those on Table 25.
  - The following is one option, approved equals may be used.

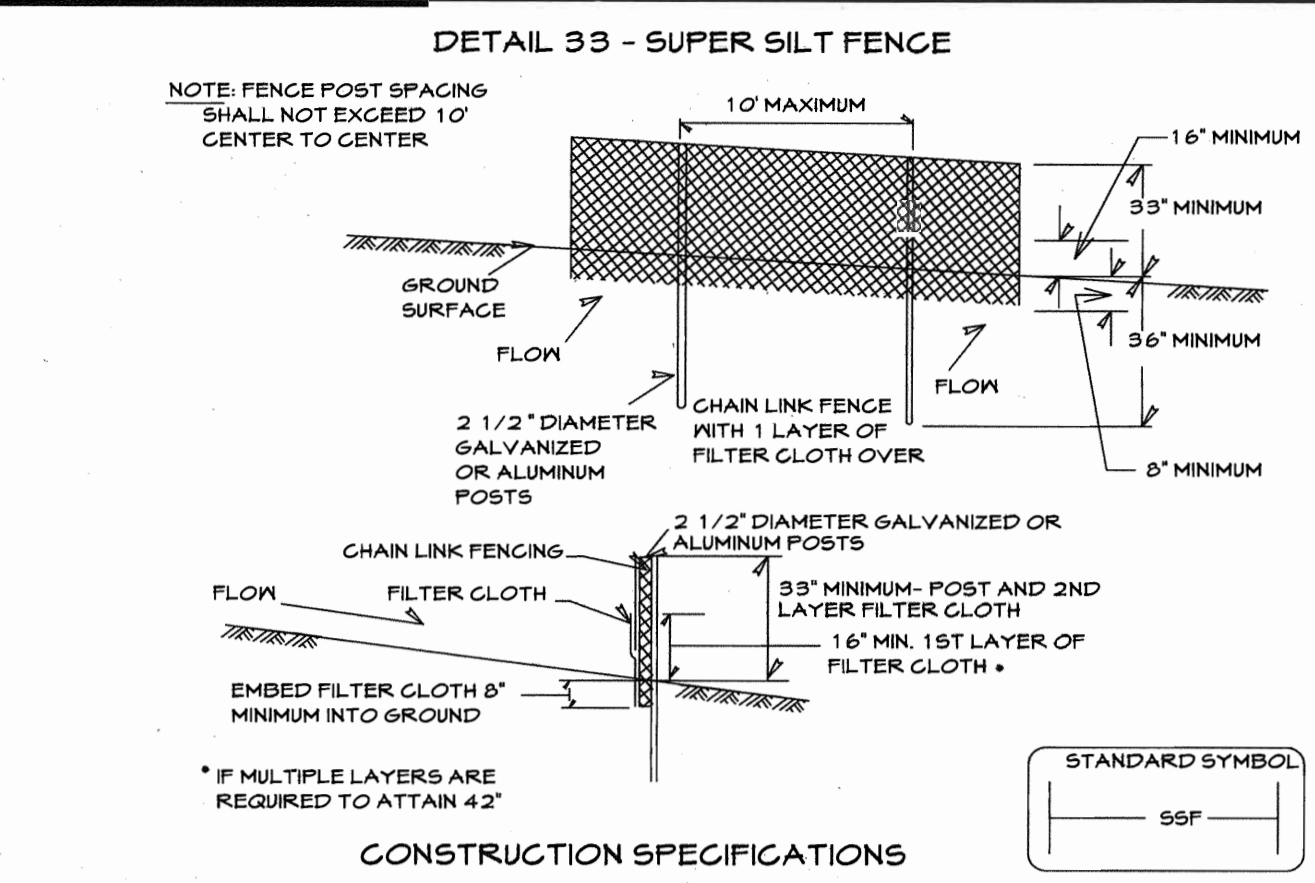
Permanent Seeding Summary			
No. Species	Rate (lb/ac)	Dates	Seeding Depths
N/A Triple Fescue	160	3/1 to 10/30	1'-2"
Perennial Rye	40	3/1 to 10/30	1'-2"

**Tracking note:**  
On areas where the slope is 3:1 or steeper and the height is 6' or greater, contractor shall track the slope using cleared dozer prior to placing asphalt binder. Dozer shall run up-and-down so that cleat marks are horizontal. Where tracking is required, it shall be done from existing grade level to finished grade level within the limits established by the 3' height criteria.

- ### UTILITY CONSTRUCTION NOTES
- Place all excavated material on the high side of the trench.
  - Only do as much work as can be done in one day so backfilling, final grading, and permanent stabilization can occur.
  - Any sediment control measures disturbed by the utility construction will be repaired the same day.

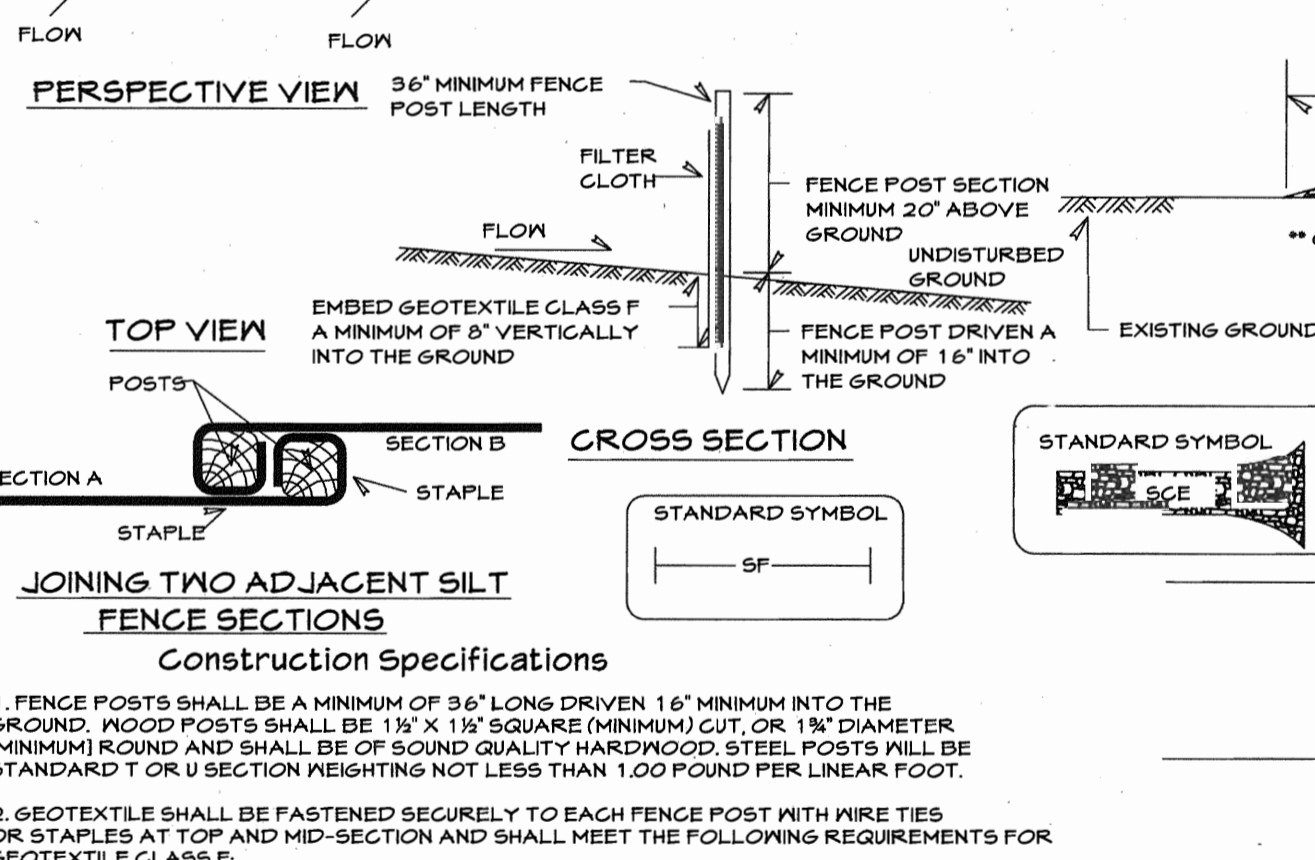
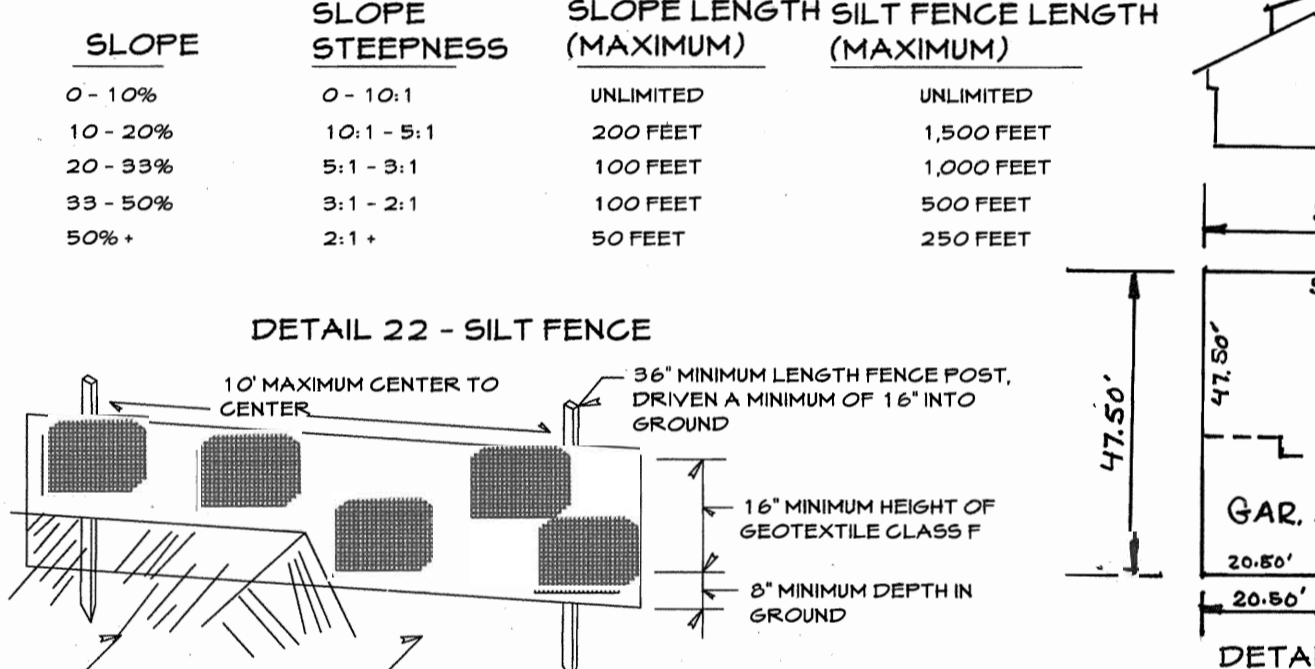
- ### STOCKPILE/TOPSOIL NOTES
- Stockpiling will not be allowed on any impervious area.
  - All stockpiles left at the end of the day will need to be temporarily stabilized until they are again disturbed, unless they are within existing perimeter sediment controls.
  - All stockpile areas shall be confined within perimeter controls. In the event that stockpile areas must be located outside disturbed areas, the location shall be as directed by the inspector in the field.

- ### SEQUENCE OF CONSTRUCTION
- OBTAIN GRADING PERMIT. (1 DAY)
  - INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN PER LOT. (2 DAYS)
  - CONSTRUCT DWELLING. (90 DAYS)
  - FINE GRADE LOT AND INSTALL DRIVEWAY AND SIDE WALKS. (1 DAY)
  - INSTALL PERMANENT SEEDING AND MULCHING. (1 DAY)
  - INSTALL LANDSCAPING. (1 DAY)
  - ONCE LOT IS PERMANENTLY STABILIZED AND PERMISSION IS GRANTED BY E & S INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL DEVICES. (2 DAYS)



### DESIGN CRITERIA

SLOPE	SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM)	SILT FENCE LENGTH (MAXIMUM)
0 - 10%	0 - 10:1	UNLIMITED	UNLIMITED
10 - 20%	10:1 - 5:1	200 FEET	1,500 FEET
20 - 35%	5:1 - 3:1	100 FEET	1,000 FEET
35 - 50%	3:1 - 2:1	100 FEET	500 FEET
50%+	2:1+	50 FEET	250 FEET



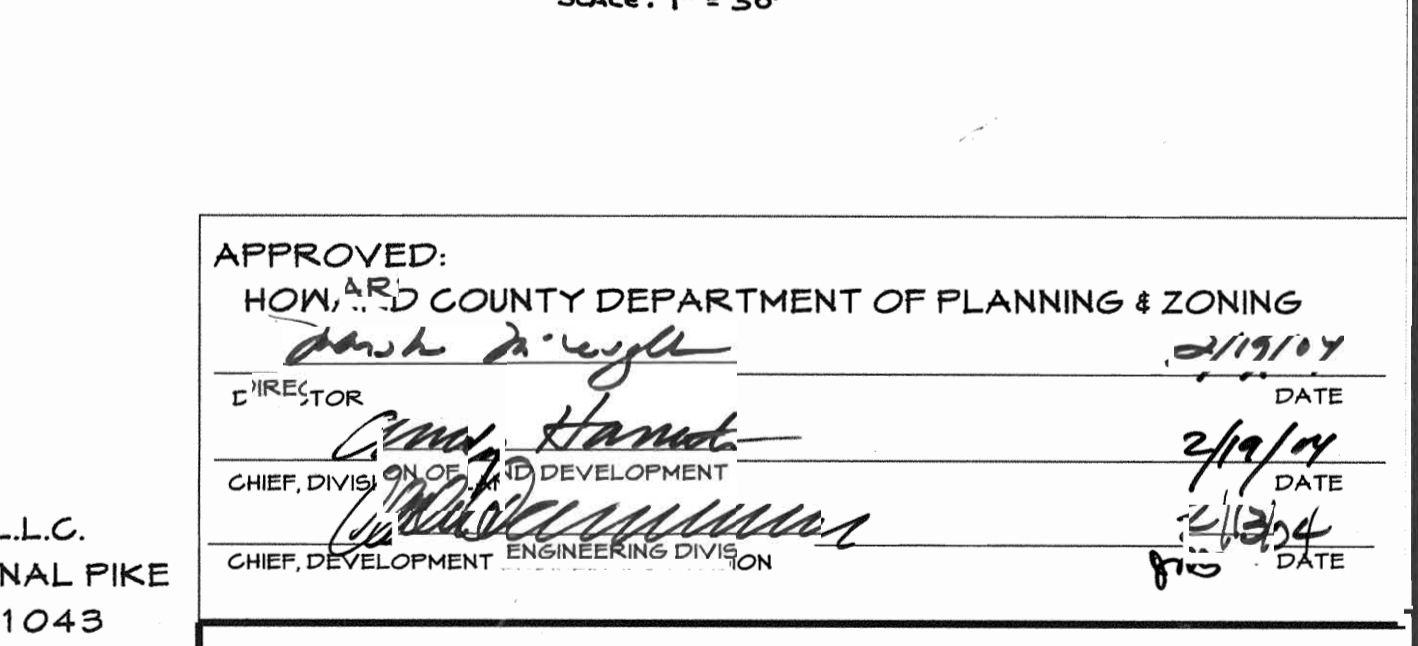
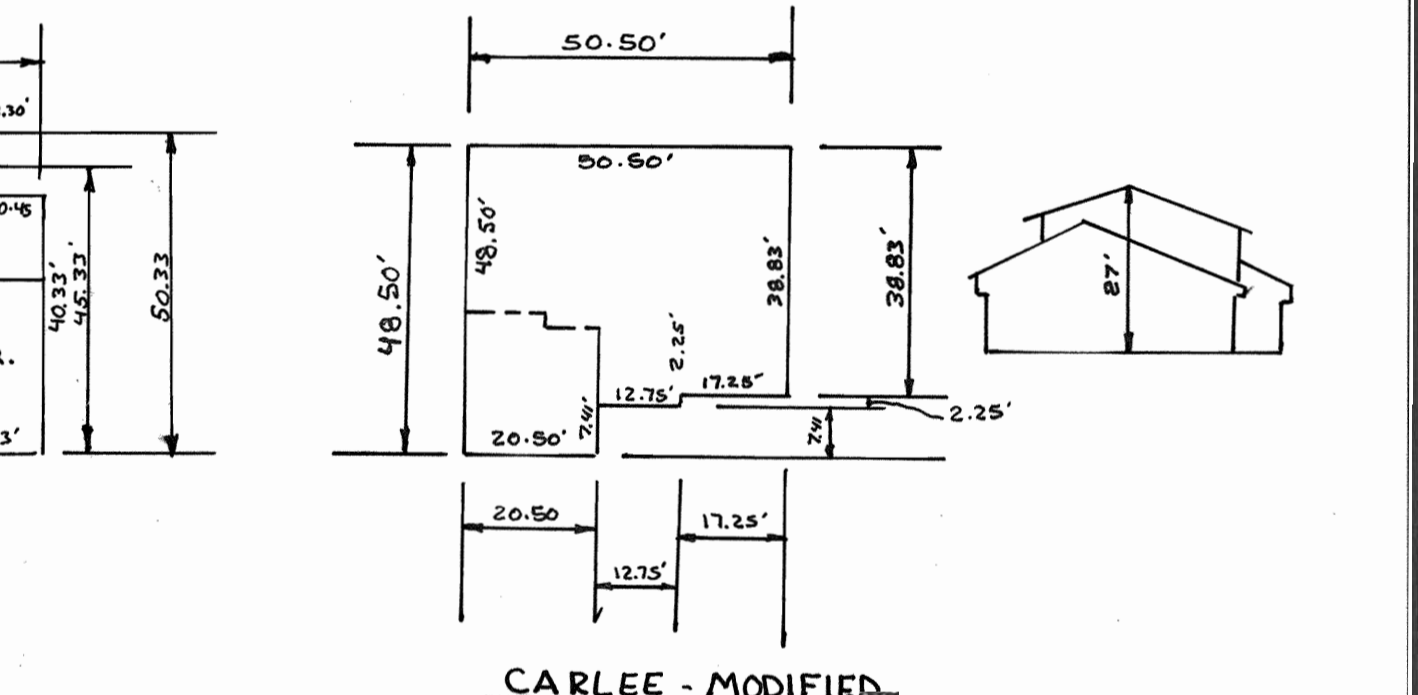
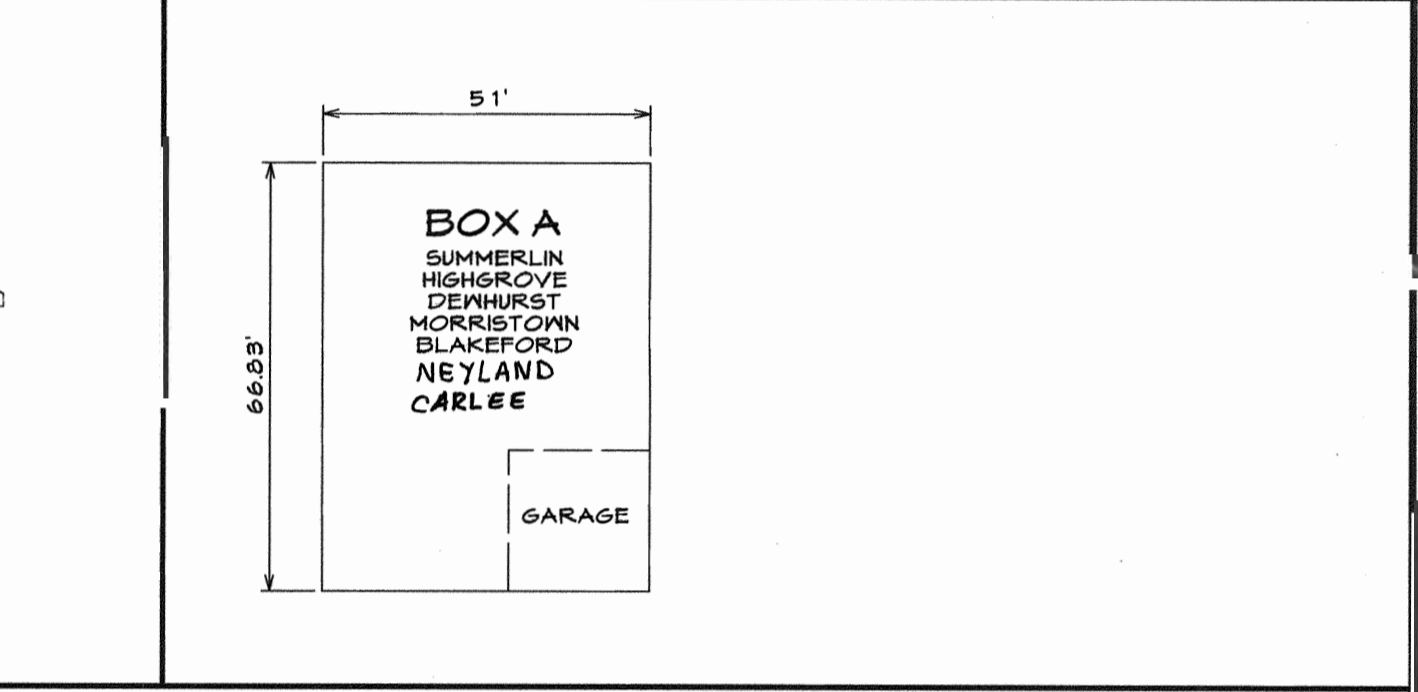
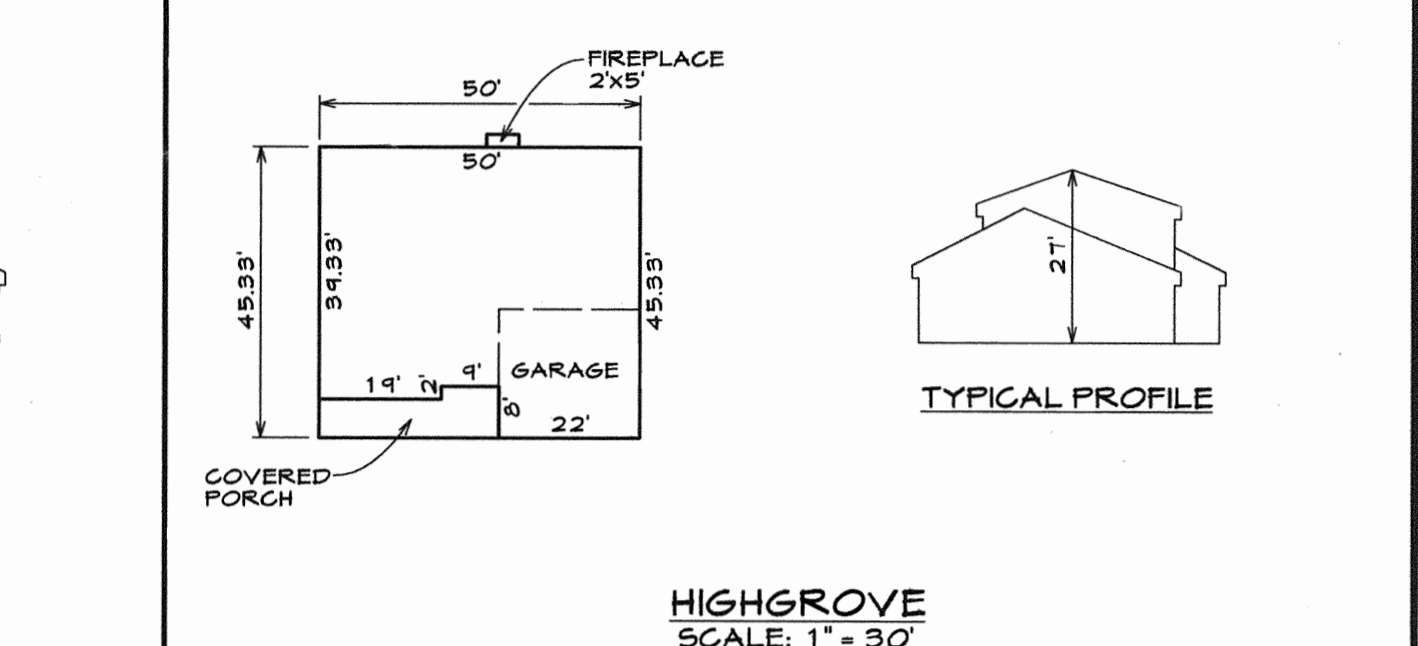
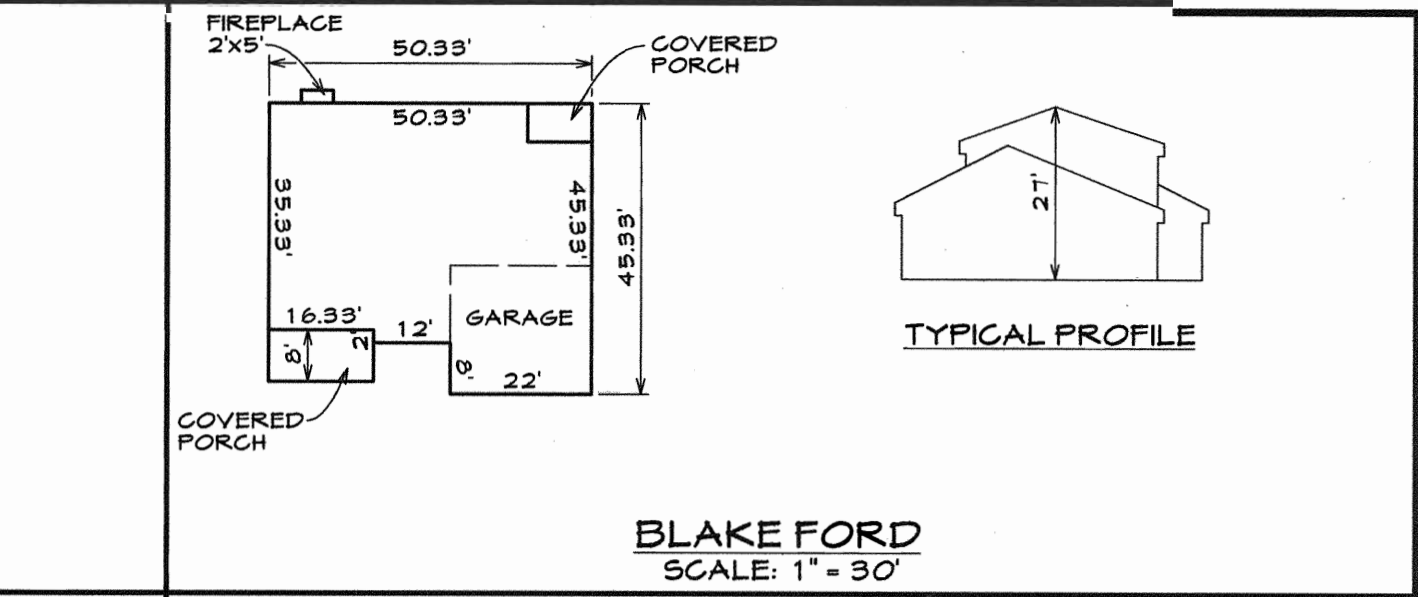
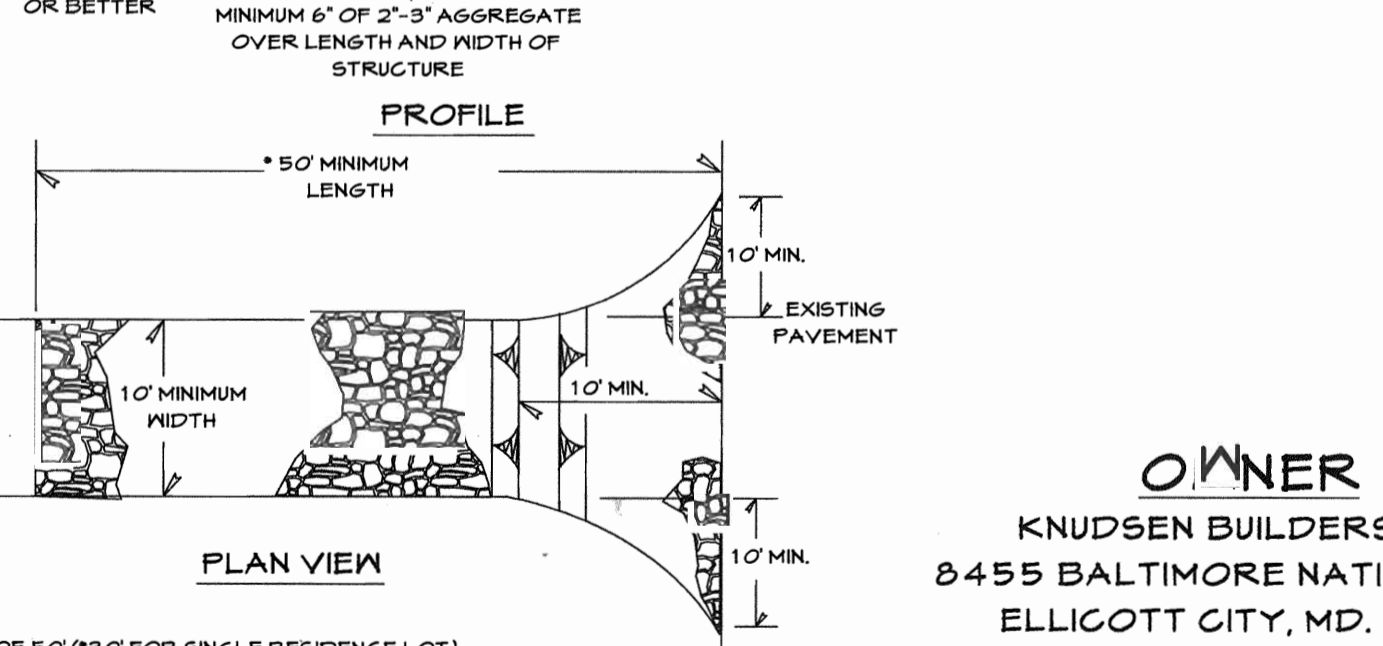
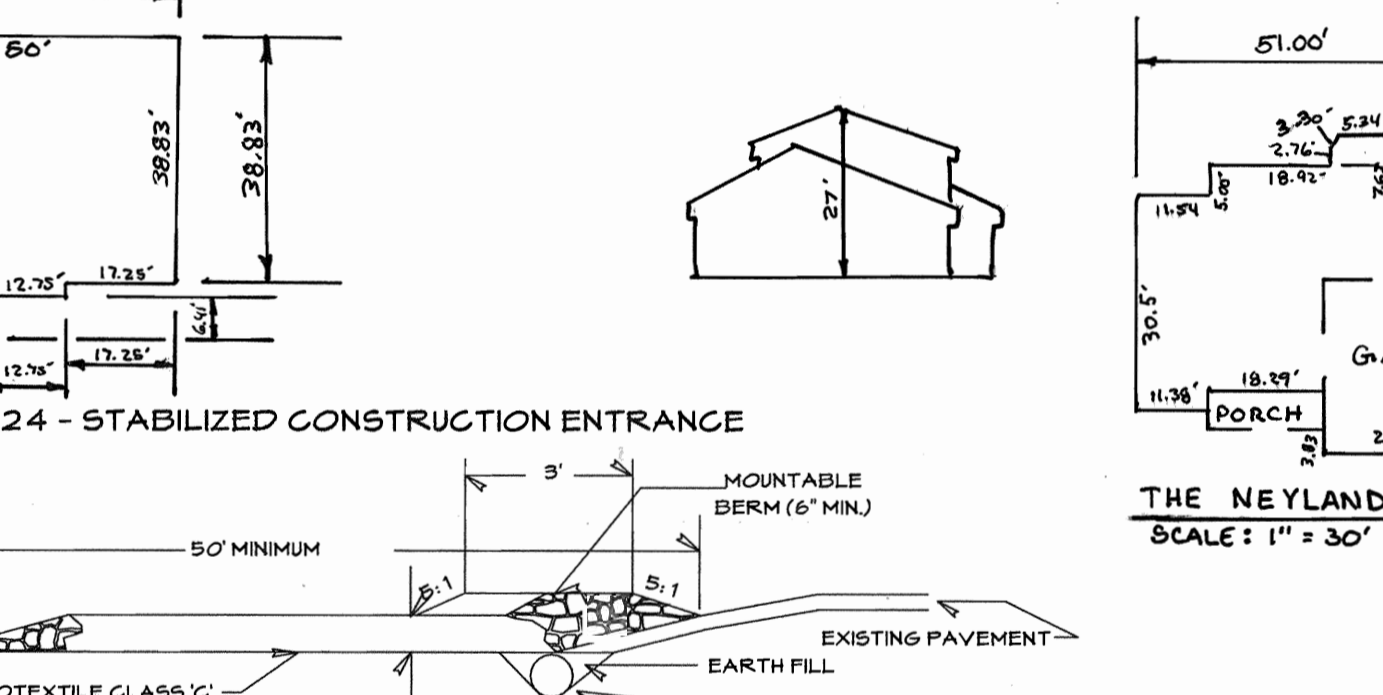
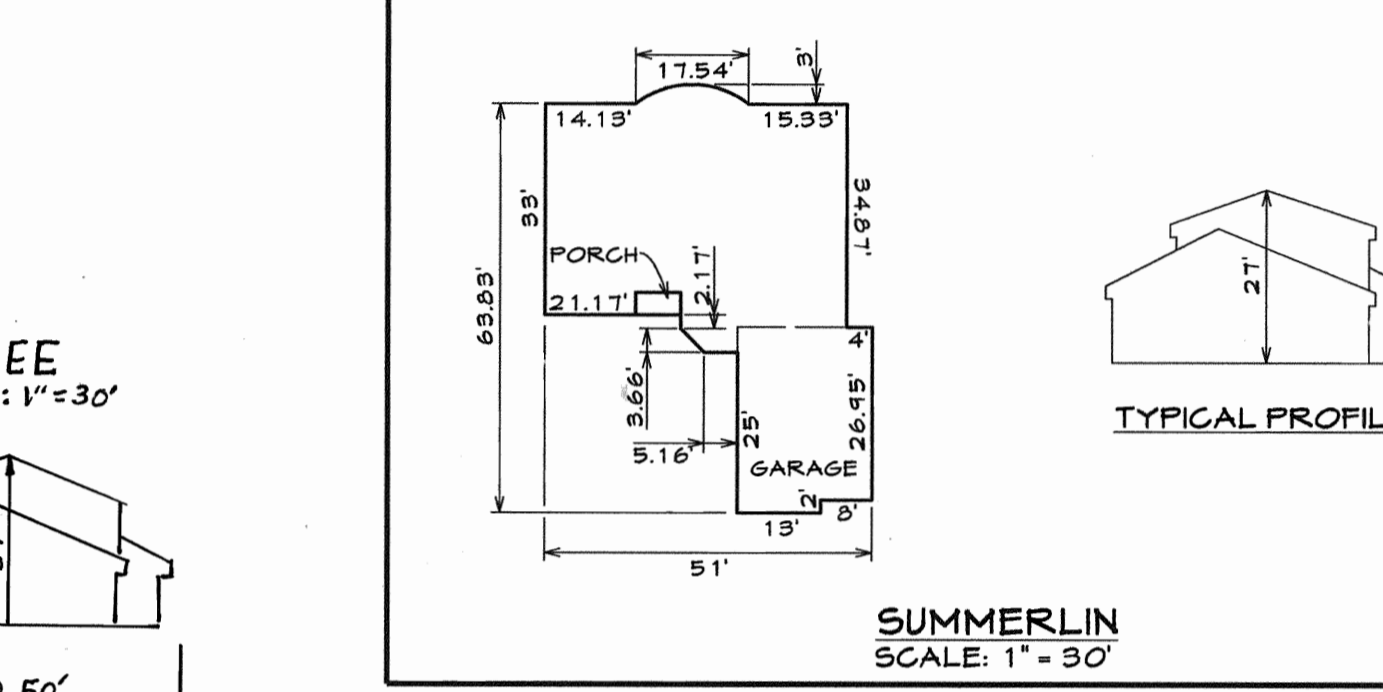
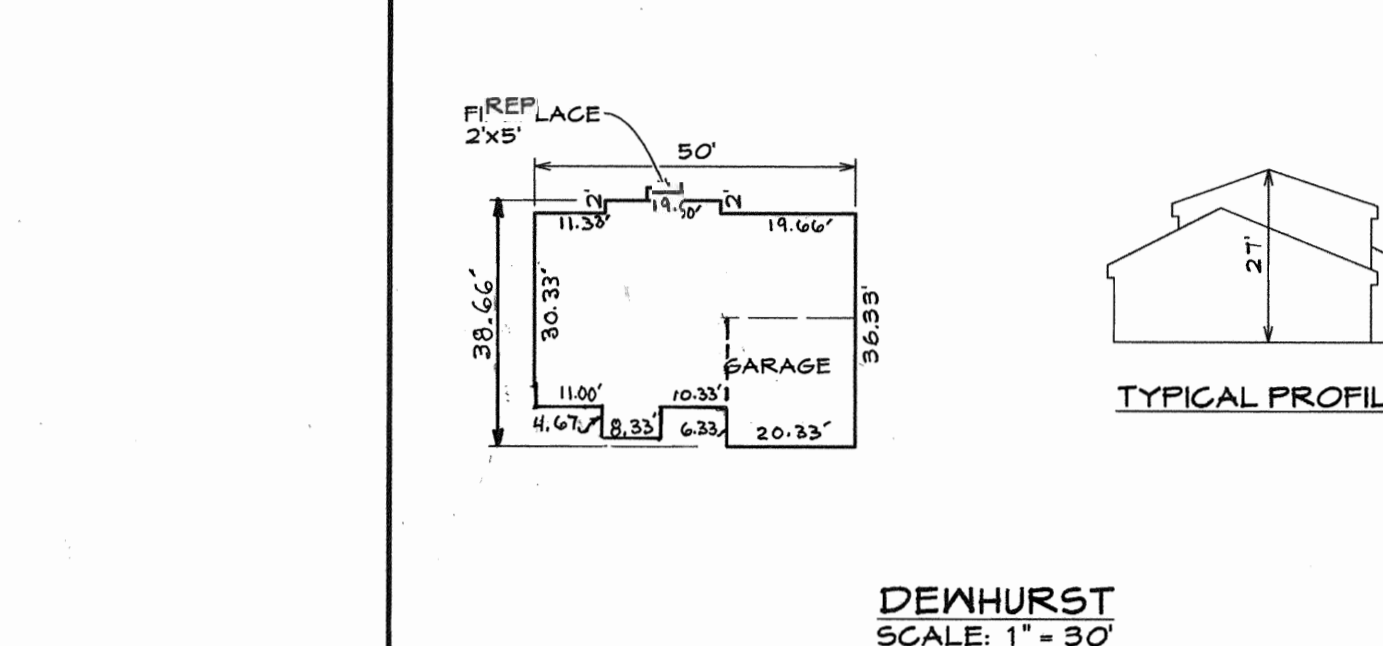
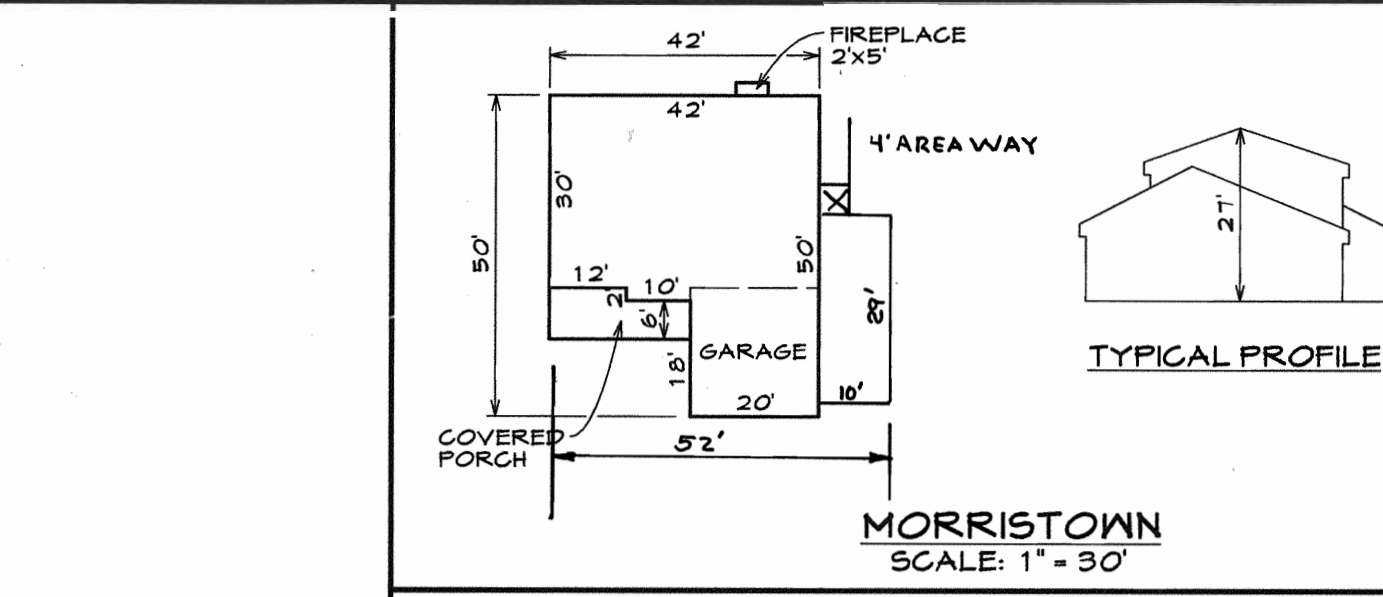
### Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silts Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

NOTE: IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION SYSTEM, SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.

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

**ENGINEER'S CERTIFICATE**  
I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT HAS BEEN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.



APPROVED:  
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Director: [Signature] DATE: 2/19/04  
Chief, Division of Development: [Signature] DATE: 2/19/04  
Chief, Development Engineering Division: [Signature] DATE: 2/19/04

**OWNER**  
KNUDSEN BUILDERS L.L.C.  
8455 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD 21043

**NOTES & DETAILS**  
LOTS 14 THROUGH 21  
**CARLEE MANOR**

TAX MAP 17, PARCEL 123  
2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**CLSI**  
Carroll Land Services Incorporated  
Engineers \* Surveyors \* Land Development Consultants  
Landscape Architects \* Environmental Specialists  
439 East Main Street Westminster, MD 21157-5539  
(410) 876-2017 FAX (410) 876-0009

Professional Engineer Registration No. 23446  
Alfred L. Hansard, P.E.

DATE: 5-4-04  
DATE: 1-23-05  
DATE: 1-9-05

ADD NEYLAND FOOTPRINT  
ADD CARLEE FOOTPRINT  
REVISE DENHURST FOOTPRINT PER ARCHITECTURALS

Designed By:  
Reviewed By:  
Date: JANUARY 2004  
Scale: AS SHOWN  
Job No.: 91230E  
Sheet: 2 of 2



General Notes:  
Residential Site Development Plan

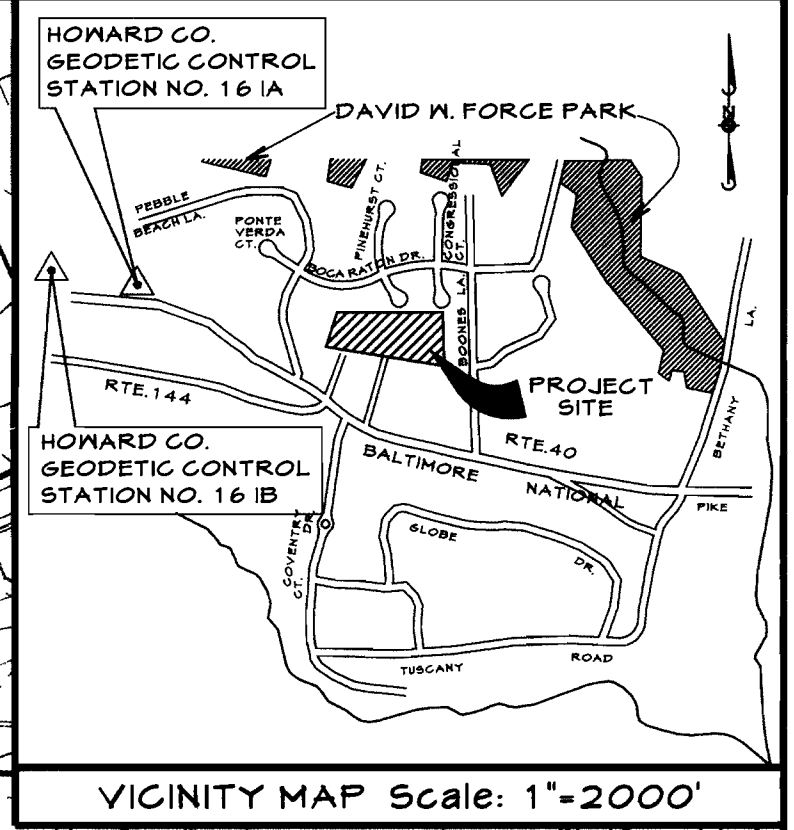
- The contractor shall notify the Department of Public Works/Bureau of Engineering Construction Inspection Division at (410) 313-1800 at least 7 working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-251-7177 at least 48 hours prior to any excavation work being done.
- The existing topography is taken from final plan F-02-01 survey with two foot contour intervals prepared by Carroll Land Services, Inc.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 161A and 161B were used for this project.
- Stormwater management facility will be an extended detention pond as approved by F-02-01.
- Existing utilities are based on water and sewer contract number 24-3841D.
- Any damage to the County's right-of-way shall be corrected at the developer's expense.
- SHC elevations shown are located at the property line.
- For driveway entrance details refer to the Howard County Design Manual, Volume IV, Standard Detail R-6.01.
- Site Analysis Data Chart
  - Total Project Area: 2.15 acres (11148.2 square feet).
  - Area of Plan Submission: 2.15 acres (11148.2 square feet).
  - Limit of Disturbed Area: 2.25 AC.
  - Present Zoning Designation: R-20
  - Proposed uses for site and structures: single family detached dwelling units.
  - Total number of units proposed on submission: 8
  - Number of parking spaces required by Howard County Zoning Regulations and/or FDP criteria: 2 per lot.
  - Number of parking spaces provided on site (include number of handicapped parking spaces): 16 spaces.
- The subject property is zoned R-20 per the (October 18, 1989) comprehensive zoning plan.
  - In accordance with Section 120 of the Howard County Zoning Regulations, any 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.
  - No clearing, grading or construction is permitted within the required wetlands, streams or their buffers and forest conservation easement areas.
  - Driveways shall be provided prior to issuance of a use and occupancy permit for any new dwellings to insure safe access for fire and emergency vehicles per the following minimum requirements:
    - Width - 12' (4' serving more than one residence).
    - Surface - 6" of compacted crusher run base w/ tar and chip coating (1-1/2" minimum).
    - Geometry - Max. 1.5% grade, max. 10% grade change and min. 45' turning radius.
    - Structures (covers/bridges) - capable of supporting 25 gross tons (H25 loading).
    - Drainage Elements - capable of safely passing 100-year flood with no more than 1 foot depth over driveway surface.
    - Maintenance - sufficient to insure all weather use.
- This plan is subject to Howard County files SP-00-06, F-02-11 and contract #24-3841D.
- Landscape for this plan is in accordance with the Howard County Code and Landscape Manual (F-02-01). Surety for landscaping has been posted with the developer's agreement in the amount of \$24,000 with F-02-041.
- A Forest Conservation Easement has been established to fulfill the requirements of section 16.1200 of the Howard County Code and Forest Conservation Act under F-02-041. No clearing, grading or construction is permitted within the Forest Conservation Easement. This project addressed the Forest Conservation obligation under F-02-041 by providing 2.0 acres of a Forest Conservation Easement area.

LOT INFORMATION				
LOT NUMBER	LOT SIZE (SQUARE FEET)	MIN. CELLAR ELEVATION	INV. SEWER @ R/W	REMARKS
14	16,084 SF.	463.50	455.80	
15	15,564 SF.	467.00	462.80	
16	15,059 SF.	471.30	467.40	
17	14,598 SF.	475.20	471.20	
18	14,445 SF.	477.80	473.70	
19	15,243 SF.	480.50	476.20	
20	14,856 SF.	482.60	478.20	
21	14,055 SF.	483.00	477.90	

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
14	3040 CARLEE RUN COURT
15	3036 CARLEE RUN COURT
16	3032 CARLEE RUN COURT
17	3028 CARLEE RUN COURT
18	3024 CARLEE RUN COURT
19	3018 CARLEE RUN COURT
20	3014 CARLEE RUN COURT
21	3010 CARLEE RUN COURT

TURF VALLEY OVERLOOK  
SECTION 1, AREA 2  
FLAT NO. 7215

LOT 163  
OPEN SPACE  
PLAT NO. 7215



SHEET INDEX	
SHEET #	DESCRIPTION
1	PLAN VIEW
2	NOTES & DETAILS

**OWNER**  
KNUDSEN BUILDERS L.L.C.  
8455 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD. 21043



FOR REVISIONS BY BENCHMARK  
ENGINEERING, INC. ONLY  
DATED 5-4-04, 2/23/05, 3/9/05  
5-4-05, 5, 20, 06

PERMIT INFORMATION CHART			
SUBDIVISION NAME:	SECTION/AREA:	LOT NUMBER:	
CARLEE MANOR	N/A	14 THROUGH 21	
FLAT 15473	GRID 14 24	ZONING R-20	ELEC. DIST. 2
15475	15475	17	CENSUS TRACT 602100
MATER CODE H01	SEWER CODE 5422000		

LEGEND	
— SF —	SILT FENCE
— — —	LIMIT OF DISTURBANCE
— SSF —	SUPER SILT FENCE

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

CHRIS KNUDSEN  
KNUDSEN BUILDERS  
DATE 1/22/04

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

ALFRED L. HANSARD  
PROFESSIONAL ENGINEER REG. NO. 23446  
DATE 1/22/04

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS

DATE 2/15/04

DATE 2/15/04

DATE 2/15/04

APPROVED:  
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Meredith A. Reynolds 2/15/04  
DIRECTOR DATE  
Linda Handra 2/19/04  
CHIEF DIVISION OF LAND DEVELOPMENT DATE  
[Signature] 2/18/04  
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

**SITE DEVELOPMENT, SEDIMENT AND EROSION CONTROL PLAN**  
LOTS 14 THROUGH 21  
**CARLEE MANOR**  
TAX MAP 17, PARCEL 123  
2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**CLSI**  
Carroll Land Services Incorporated  
Engineers \* Surveyors \* Land Development Consultants  
Landscape Architects \* Environmental Specialists  
439 East Main Street Westminster, MD 21157-5539  
(410) 876-2017 FAX (410) 876-0009

Professional Engineer Registration No. 23446  
Alfred L. Hansard

Revisions	Date	Drawn By: DM
ADD MORRISTOWN TO LOT 21 AND NEYLAND TO LOT 15	5-4-04	Designed By: KF
ADD CARLEE HOUSE TYPE TO LOTS 14, 16 AND 19	2-23-05	Reviewed By: [Signature]
REVISE LOT 16 TO SHOW A DENHURST HOUSE TYPE	3-9-05	Date: 3/9/05
REVISED GRADES ON LOT 15	5/19/05	Scale: 1"=30'
REVISE LOT 21 TO SHOW NEYLAND	5/20/06	Job No: 41230E
REVISE GRADING ON LOT 21 AND REMOVE SUNROOM FROM NEYLAND	7-1-05	Sheet: 1 of 2

CAD Drawing File Name: g:\1720\cgm\const\15473\15475.dgn

PARCEL 64  
ZONING: R-20  
CHRISTOPHER L. CARLISLE  
L.2113.F.1

**NOTE:**  
SEDIMENT AND EROSION CONTROL:  
NO MORE THAN THREE CONTIGUOUS  
LOTS CAN BE UNDER CONSTRUCTION  
AT ONE TIME.

**HOWARD SOIL CONSERVATION DISTRICT  
STANDARD SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (3-13-1955).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- 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 by 14 days as to other disturbed or graded areas on the project site.
- 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.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, for permanent seeding (Sec. 5.1), sod (Sec. 5.4), temporary seeding (Sec. 5.5) and mulching (Sec. 5.2). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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.
- Site Analysis:
  - Total Area of Site: 2.75 Acres
  - Area Disturbed: 2.15 Acres
  - Area to be roofed or paved: 0.73 Acres
  - Area to be vegetatively stabilized: 1.52 Acres
  - Total Cut: 100 Cu Yds.
  - Total Fill: 100 Cu Yds.
- Offsite waste/borrow area location will be to a site with an approved sediment control plan and an approved open grading permit.
- Any sediment control practice, which is disturbed by grading activity for placement of utilities, must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 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.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each workday, whichever is shorter.

Rev. 9/94

**Topsoil Notes**  
Construction and Material Specifications  
I. Topsoil salvaged from the existing site may be used provided that it meets the standards 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-SCS in cooperation with Maryland Agricultural Experiment Station.

- Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - 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, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1" in diameter.
  - Topsoil must be free of plants or plant parts such as bermuda grass, quack grass, Johnson grass, nutcase, poison ivy, thistle, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-6 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be applied uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
  - Place topsoil (if required) and apply soil amendments as specified in 200 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
  - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following: Page 2

**Topsoil Notes**  
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 phytotoxic materials.  
Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.  
ii. Place topsoil (if required) and apply soil amendments as specified in 200 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

**V. Topsoil Application**  
i. When topsoiling, 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 topsoiled 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 seeding can proceed with a minimum of additional soil.  
iv. preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

**Page 3**  
**Topsoil Notes**  
v. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and sod 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:

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

**NOTE:**  
ALL SEDIMENT CONTROL MEASURES SHOWN HEREON ARE TEMPORARY UNLESS OTHERWISE NOTED.

**STABILIZATION SPECIFICATIONS**

**TEMPORARY SEEDING NOTES**

- Scope:** Planting short term (no more than 1 year) vegetation to temporarily stabilize any areas where soil disturbance has occurred, until the area can be permanently stabilized with vegetative or non-vegetative practices.
- Standards:** The following notes shall conform to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, Published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.
- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See 6-20 Sec. 1-C.
  - Fertilizer shall consist of a mixture of 10-10-10 and be applied at a rate of 600 lb per acre (15 lb per 1,000 sq. ft.) and will meet the requirements in 6-20 Sec. 1-B.
  - Lime shall be applied at a rate of 2 tons per acre (100 lb per 1,000 sq. ft.) and shall meet the requirements in 6-20 Sec. 1-B.
  - Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in 6-20 Sec. 1-C.
  - Mulching will be applied immediately after seeding and will need to meet the requirements in 6-20 Sec. 1-F, G and H.
  - Seeding mixtures shall be selected from or will be equal to those on Table 26.
  - The following is one option, approved equals may be used.

**Temporary Seeding Summary**

Seed Mixture	Hardness Zone	Application Rate (lb/acre)	Seeding Dates	Seeding Depths
N/A	Kentucky-31	80	3/1 to 11/15	1"
Annual Rye		20	3/1 to 11/15	1/4" - 1/2"

**PERMANENT SEEDING NOTES**

- Scope:** Planting permanent, long lived vegetative cover on graded and/or cleared areas and areas that have been in temporary vegetation for more than 1 year.
- Standards:** The following notes shall conform to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, Published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.
- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See 6-20 Sec. 1-C.
  - For sites over 5 ac. soil tests will be performed to determine the exact mixture and application rates for both lime and fertilizer. Soil tests will be prepared by the University of Maryland or a recognized commercial laboratory. If the existing soil does not meet the minimum conditions as stated in 6-20 Sec. 1-C-II, then topsoil will need to be obtained that meets these conditions and applied so as to meet the requirements in 6-2-1.
  - For sites of 5 ac. or less of disturbance, the following fertilizer and lime rates shall apply.
  - Fertilizer shall consist of a mixture of 10-20-20 and be applied at the following rates: N-40 lb per acre (2 lb per 1,000 sq. ft.) P205-175 lb per acre (4 lb per 1,000 sq. ft.) K2O-175 lb per acre (4 lb per 1,000 sq. ft.). Fertilizer shall meet the requirements in 6-20 Sec. 1-B.
  - Lime shall be applied at a rate of 2 tons per acre (100 lb per 1,000 sq. ft.) and shall meet the requirements in 6-20 Sec. 1-B.
  - Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in 6-20 Sec. 1-C.
  - Mulching will be applied immediately after seeding and will need to meet the requirements in 6-20 Sec. 1-F, G and H.
  - Refer to 6-20 Sec. 4 for Sod specifications.
  - Refer to 6-20 Sec. 5 for Turfgrass Stabilization specifications.
  - Seeding mixtures shall be selected from or will be equal to those on Table 25.
  - The following is one option, approved equals may be used.

**Permanent Seeding Summary**

No. Species	Application Rate (lb/acre)	Seeding Dates	Seeding Depths
N/A Triple Fine Fescue	160	3/1 to 10/30	1"-2"
Perennial Rye	40	3/1 to 10/30	1"-2"

**Tracking note:**

On areas where the slope is 3:1 or steeper and the height is 8' or greater, contractor shall track the slope using cleared dozer prior to placing asphalt binder. Dozer shall run up-and-down so that cleat marks are horizontal. Where tracking is required, it shall be done from existing grade level to finished grade level within the limits established by the 8' height criteria.

**UTILITY CONSTRUCTION NOTES**

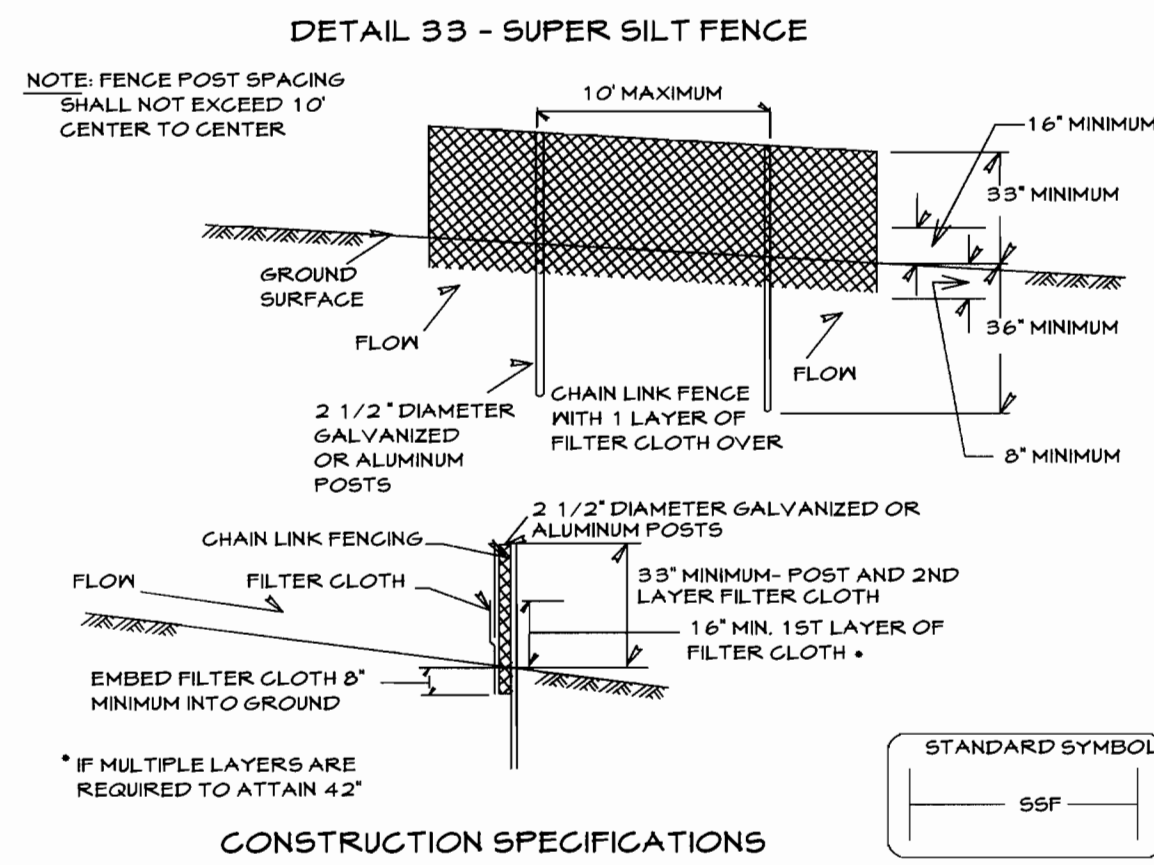
- Place all excavated material on the high side of the trench.
- Only do as much work as can be done in one day so backfilling, final grading, and permanent stabilization can occur.
- Any sediment control measures disturbed by the utility construction will be repaired the same day.

**STOCKPILE/TOPSOIL NOTES**

- Stockpiling will not be allowed on any impervious area.
- All stockpiles left at the end of the day will need to be temporarily stabilized until they are again disturbed, unless they are within existing perimeter sediment controls.
- All stockpile areas shall be confined within perimeter controls. In the event that stockpile areas must be located outside disturbed areas, the location shall be as directed by the inspector in the field.

**SEQUENCE OF CONSTRUCTION**

- OBTAIN GRADING PERMIT. (1 DAY)
- INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN PER LOT. (2 DAYS)
- CONSTRUCT DWELLING. (90 DAYS)
- FINE GRADE LOT AND INSTALL DRIVEWAY AND SIDE WALKS. (1 DAY)
- INSTALL PERMANENT SEEDING AND MULCHING. (1 DAY)
- INSTALL LANDSCAPING. (1 DAY)
- ONCE LOT IS PERMANENTLY STABILIZED AND PERMISSION IS GRANTED BY E.I.S. INSPECTOR REMOVE SEDIMENT AND EROSION CONTROL DEVICES. (2 DAYS)



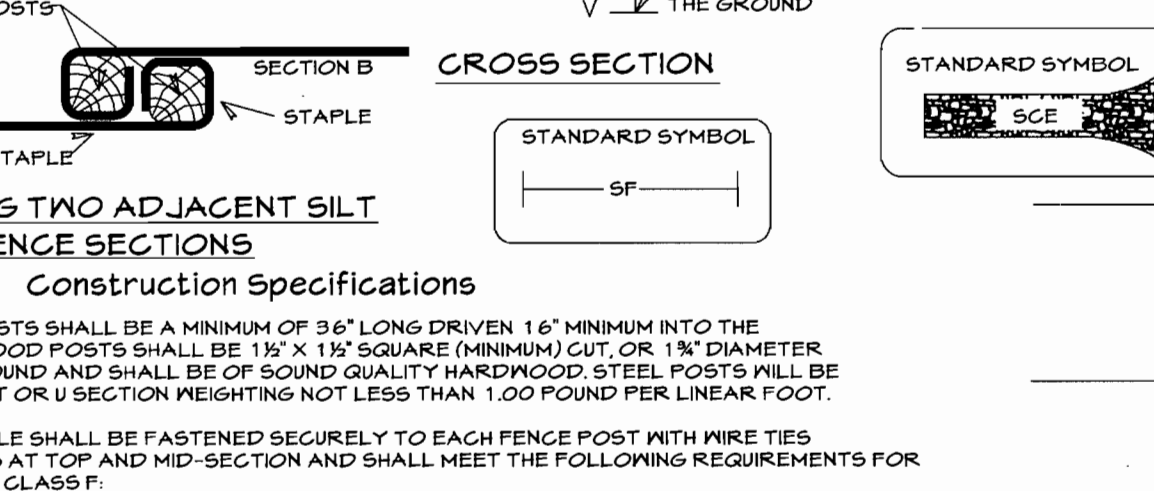
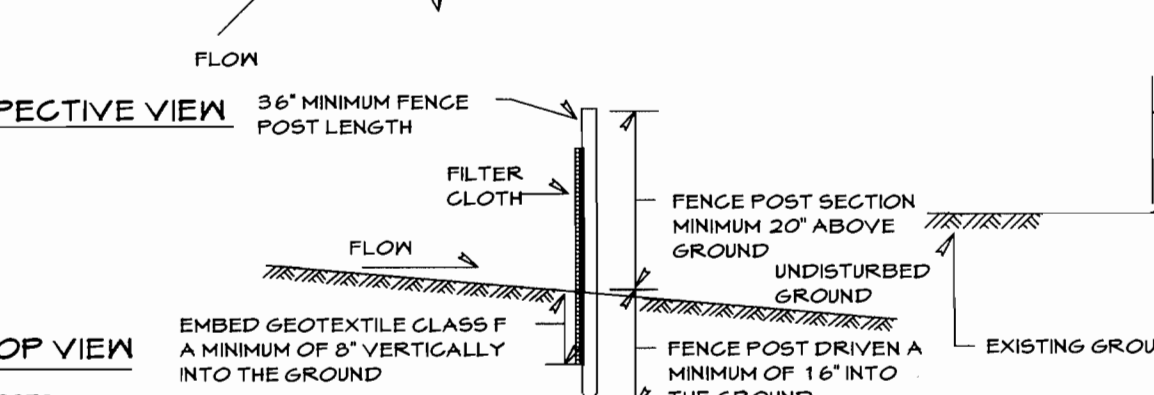
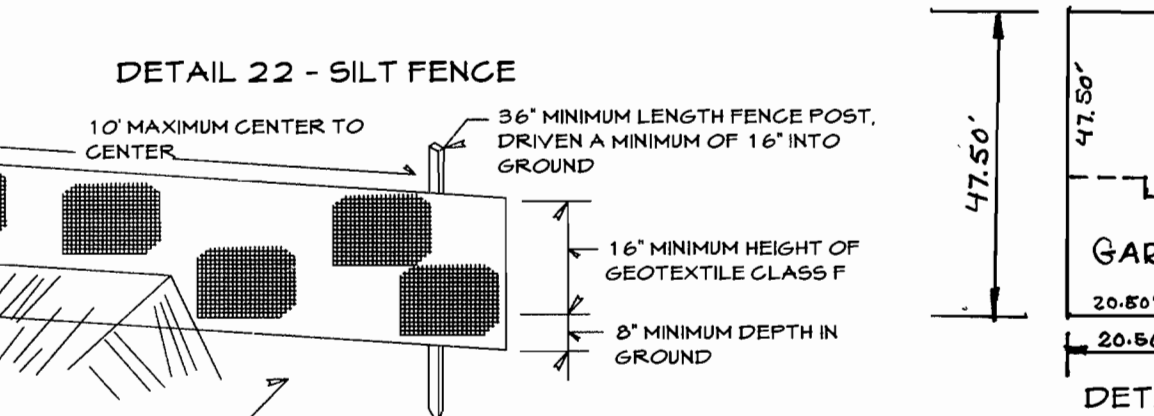
**CONSTRUCTION SPECIFICATIONS**  
FENCING SHALL BE 42" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6" LENGTH POSTS.

- THE POLES DO NOT NEED TO SET IN CONCRETE.
- CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
- FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
- FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.

1. FILTER CLOTH 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:

**DESIGN CRITERIA**

TENSILE STRENGTH	50 LBS/IN (MIN)	TEST: MSMT 504
TENSILE MODULUS	20 LBS/IN (MIN)	TEST: MSMT 504
FLOW RATE	0.3 GAL/FT <sup>2</sup> /MINUTE (MAX)	TEST: MSMT 322
FILTERING EFFICIENCY	75% (MIN)	TEST: MSMT 322



- FENCE POSTS SHALL BE A MINIMUM OF 36" LONG, DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM) CUT, OR 1 1/2" 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 POUND PER LINEAR FOOT.
- 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:

**Silt Fence Design Criteria**

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

NOTE: IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION SYSTEM SOIL CLASS W-H), MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.

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

CHRIS KNUDSEN  
KNUDSEN BUILDERS

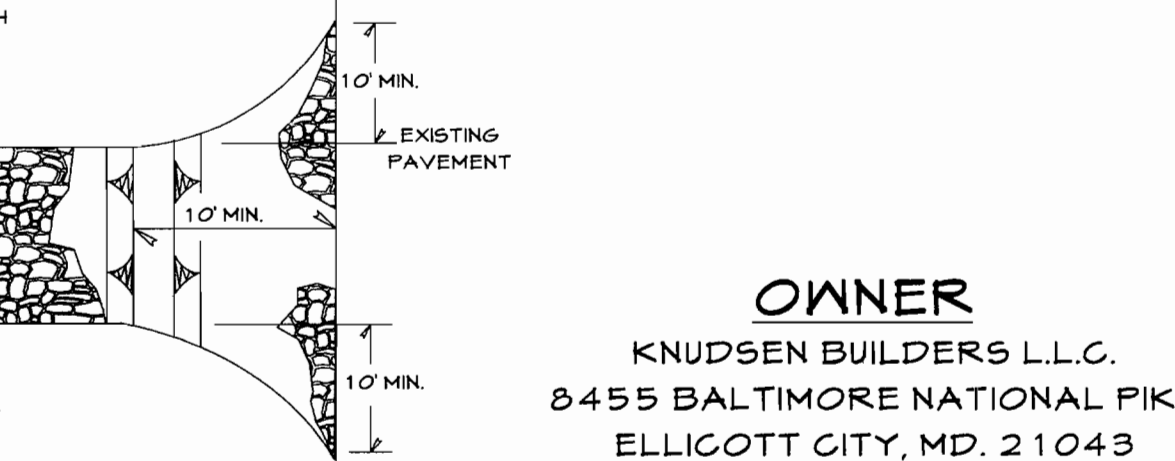
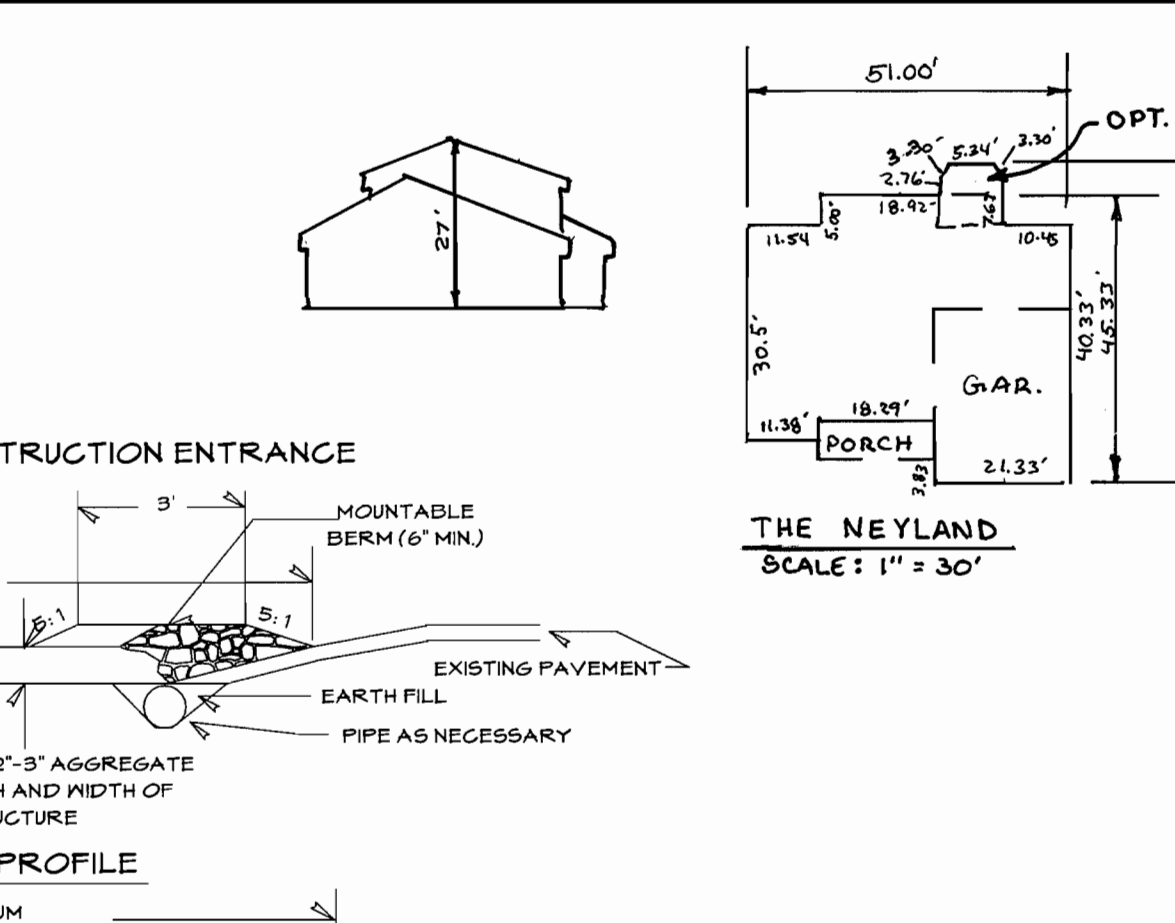
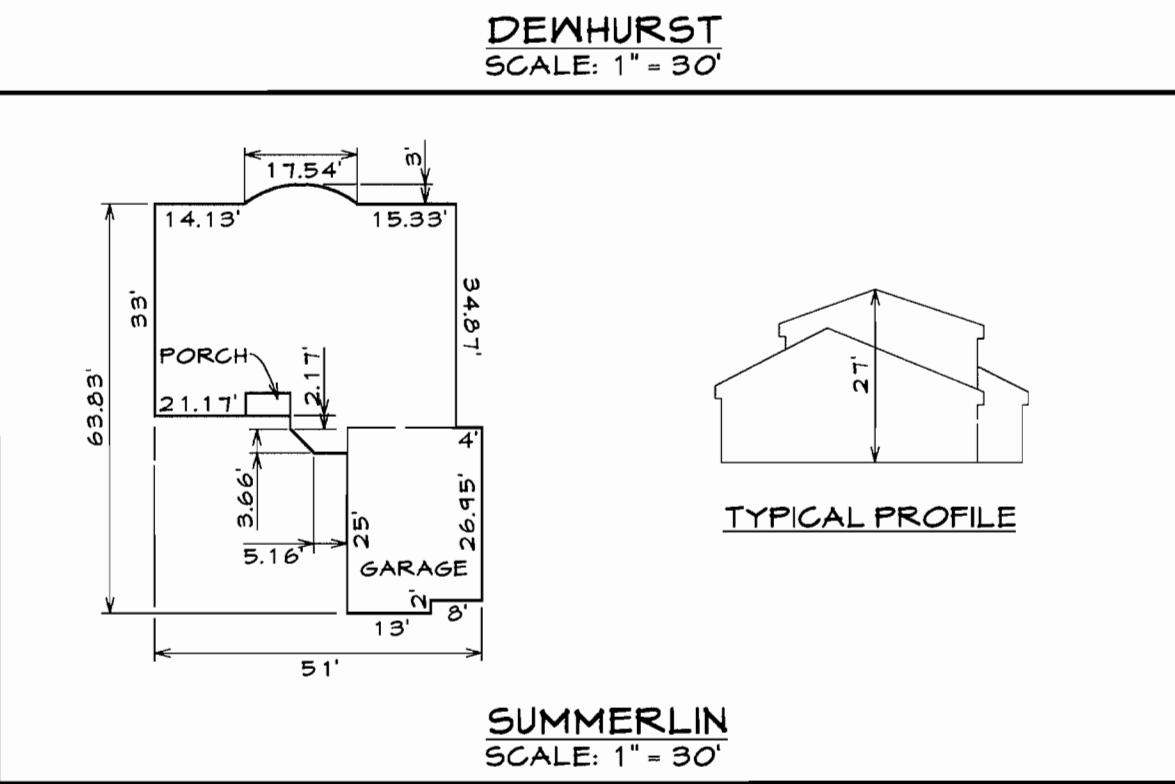
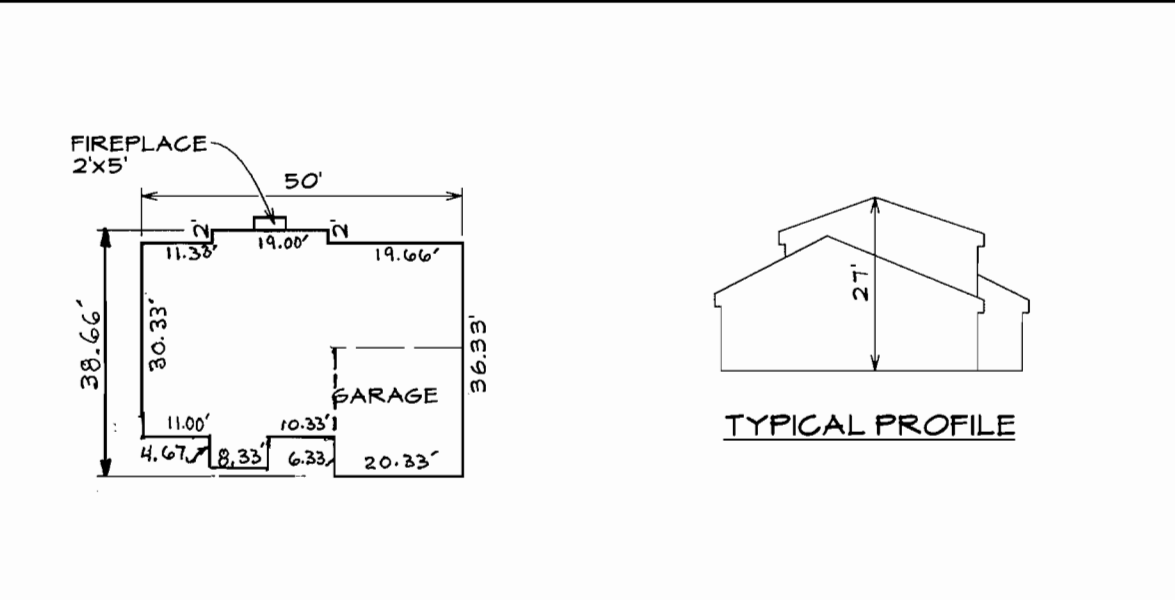
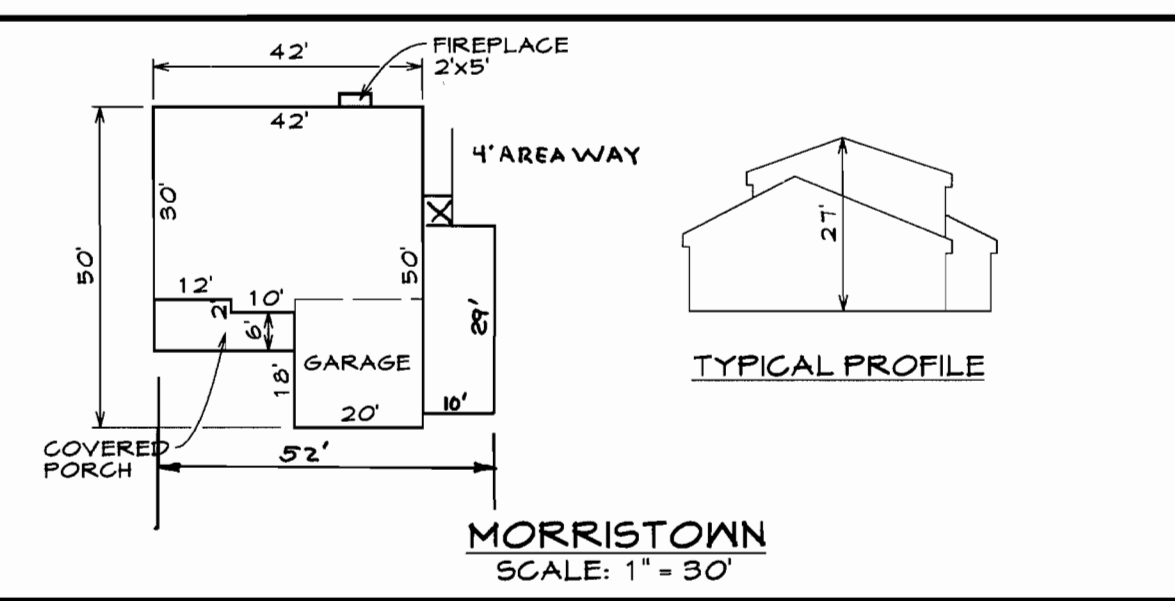
**ENGINEER'S CERTIFICATE**  
I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT HAS BEEN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT:

ALFRED L. HANSARD  
PROFESSIONAL ENGINEER REG. NO. 23446

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MET THE TECHNICAL REQUIREMENTS

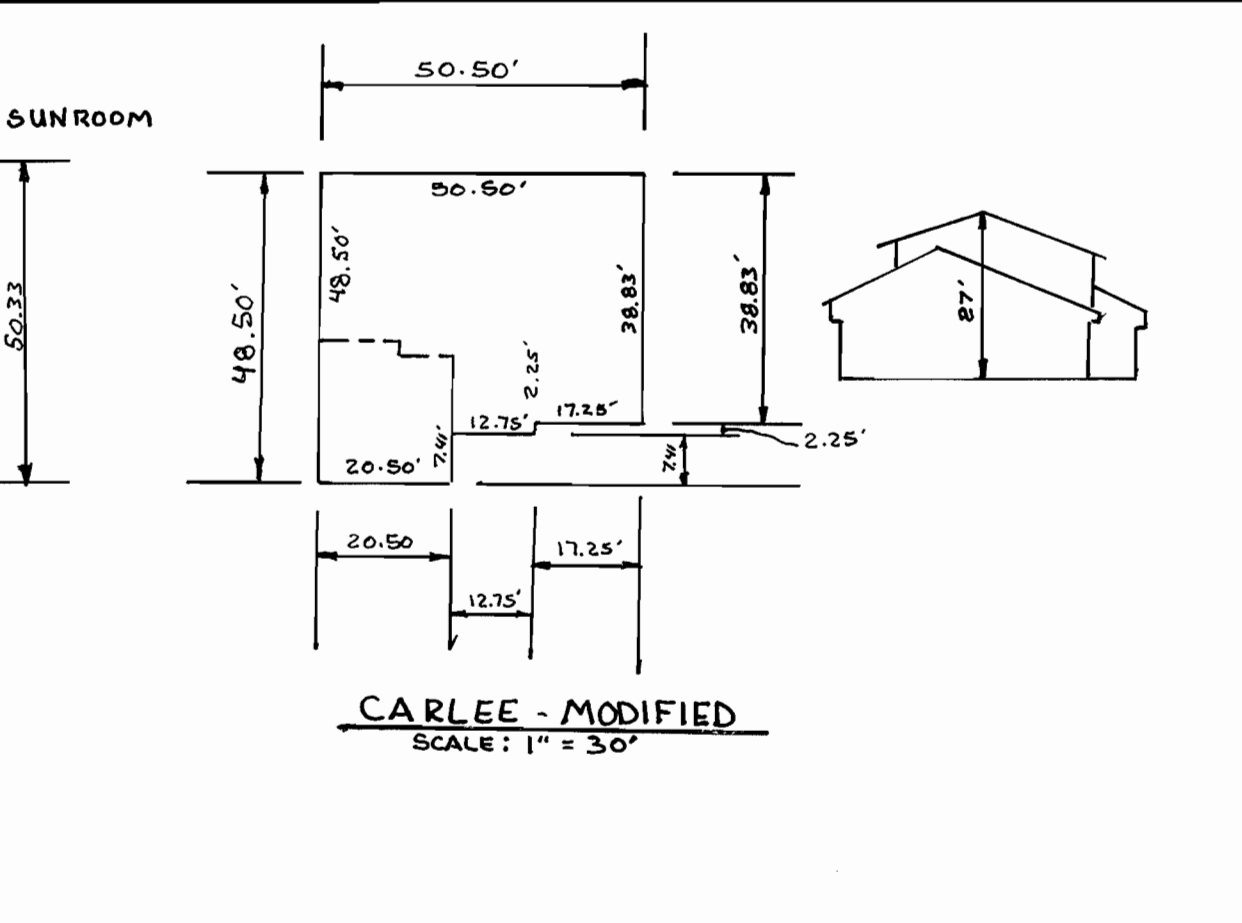
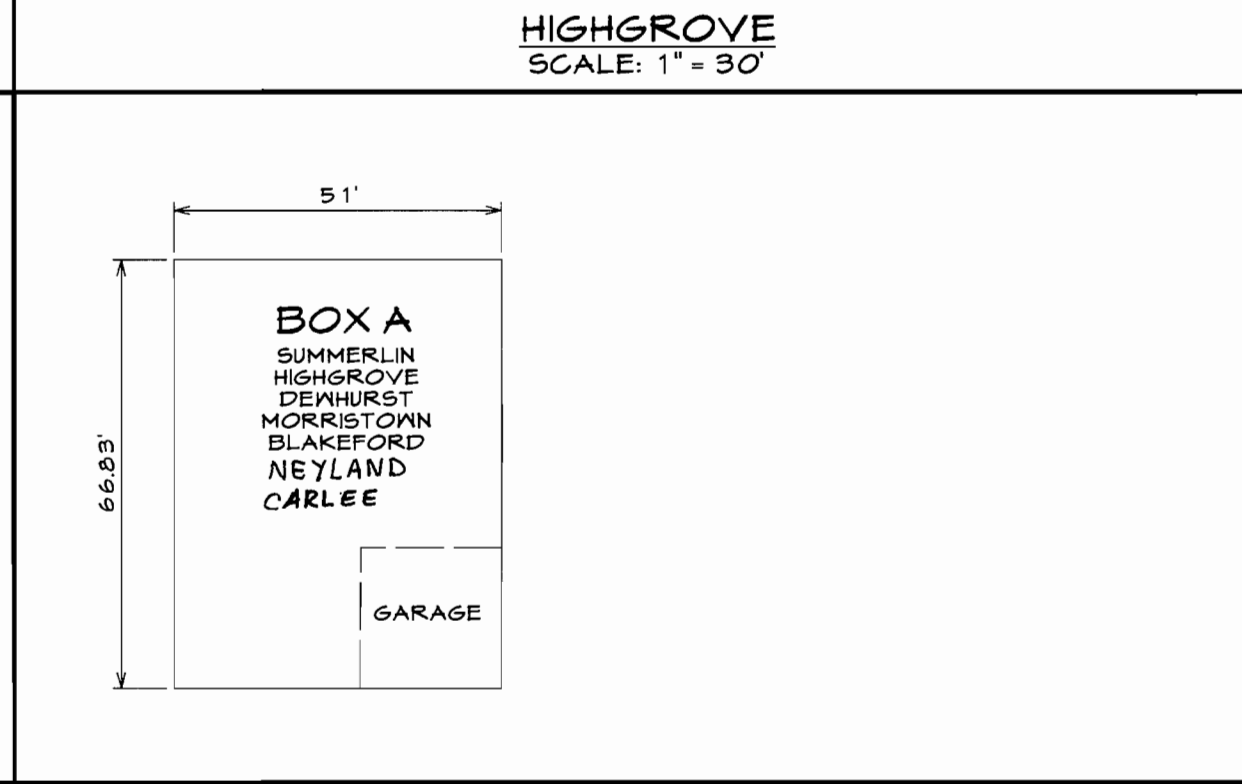
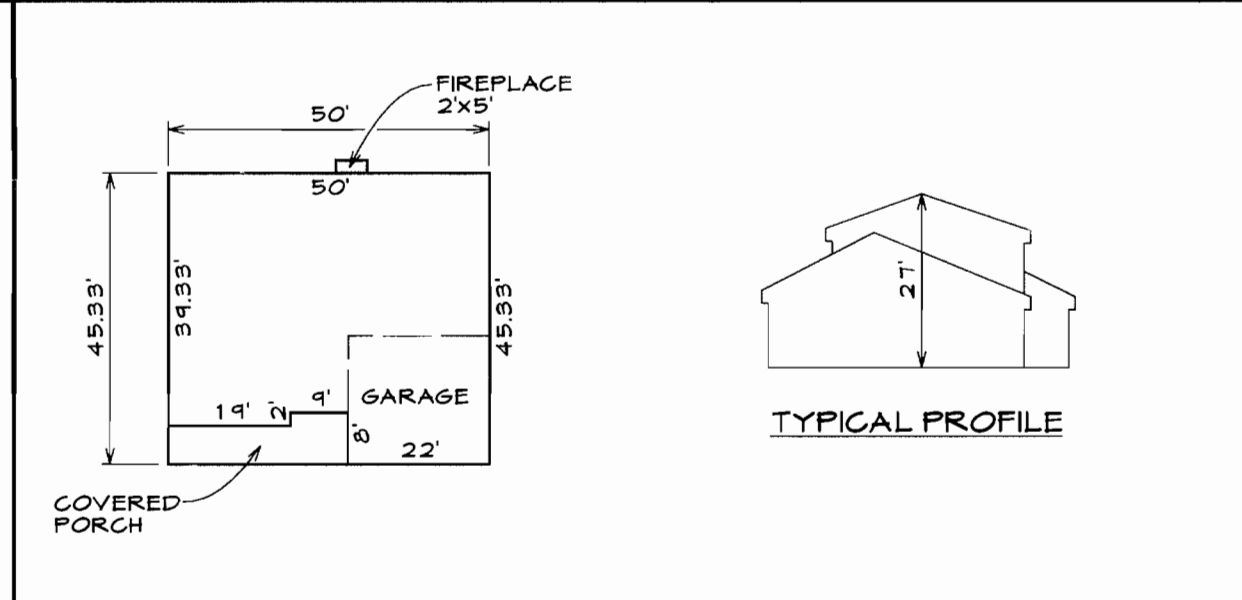
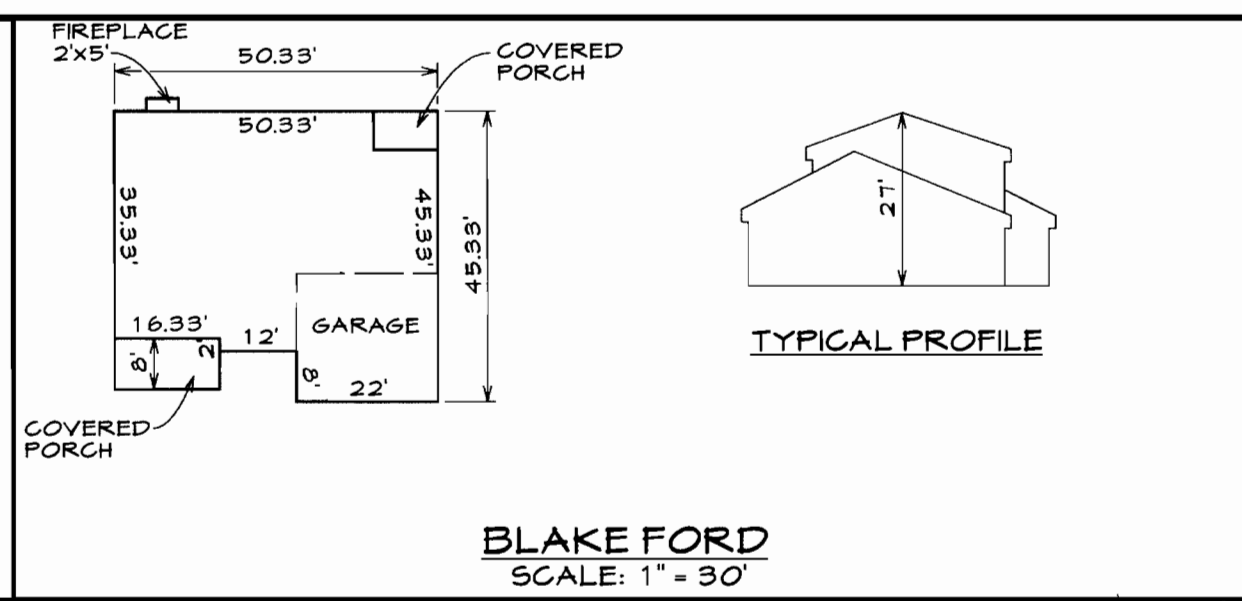
JIM MYNIA  
DATE 2/5/04

JOHN R. ROBERTSON  
DATE 2/5/04



**OWNER**  
KNUDSEN BUILDERS L.L.C.  
8455 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD. 21043

**FOR REVISIONS BY BENCHMARK ENGINEERS, INC. ONLY DATED 5/14/04, 2/25/05**



**APPROVED:**  
HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

DONALD A. MANN  
DIRECTOR 2/19/04 DATE

CHRIS KNUDSEN  
CHIEF, DIVISION OF LAND DEVELOPMENT 2/19/04 DATE

ALFRED L. HANSARD  
CHIEF, DEVELOPMENT ENGINEERING DIVISION 2/26/04 DATE

**NOTES & DETAILS  
LOTS 14 THROUGH 21  
CARLEE MANOR**

TAX MAP 17, PARCEL 123  
2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**CLSI**  
Carroll Land Services Incorporated  
Engineers \* Surveyors \* Land Development Consultants  
Landscape Architects \* Environmental Specialists  
419 East Main Street Westminster, MD 21157-1519  
(410) 876-2017 FAX (410) 876-0009

Professional Engineer Registration No. 23446

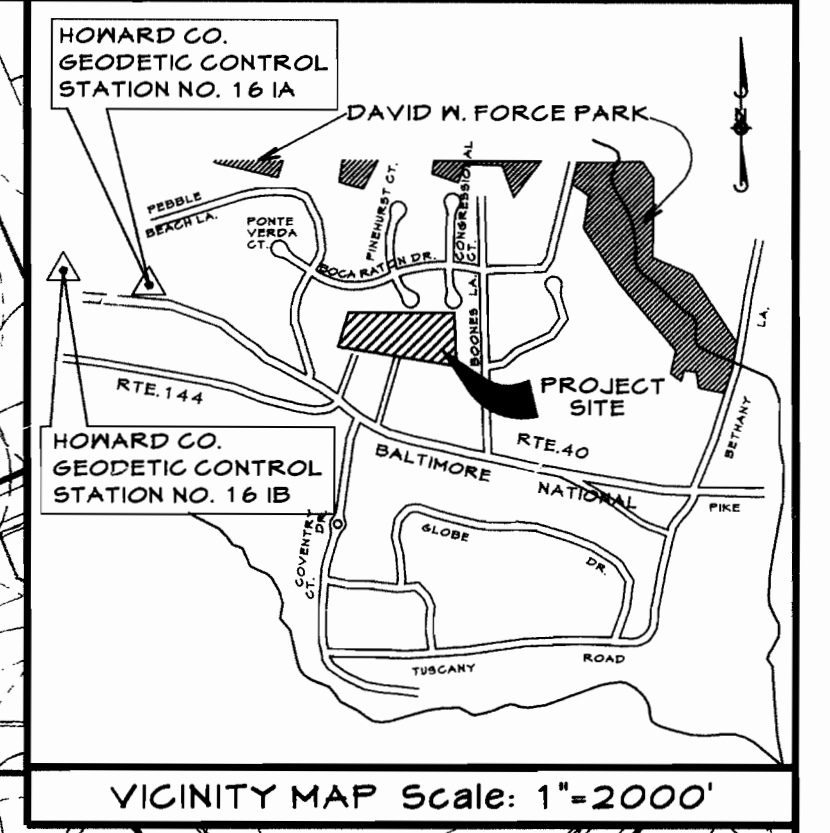
Date	Revisions	Drawn By	BM
5-9-04	ADD NEYLAND FOOT PRINT	Designed By:	
2-23-05	ADD CARLEE FOOT PRINT	Reviewed By:	
3-9-05	REVISE DENHURST FOOT PRINT PER ARCHITECTUALS	Date:	JANUARY 2004
7-1-05	REVISE NEYLAND TO SHOW Sunroom AS AN OPTION	Scale:	AS SHOWN
		Job No.:	41230E
		Sheet:	2 of 2

**General Notes:**  
Residential Site Development Plan

- The contractor shall notify the Department of Public Works/Bureau of Engineering Construction Inspection Division at (410) 313-1800 at least (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-251-7171 at least 48 hours prior to any excavation work being done.
- The existing topography is taken from final plan (P-02-41) survey with two foot contour intervals prepared by Carroll Land Services, Inc.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System, Howard County Monument 16 1A and 16 1B used for this project.
- Stormwater management facility will be an extended detention pond as approved by P-02-41.
- Existing utilities are based on water and sewer contract number 24-3947-D.
- Any damage to the County's right-of-way shall be corrected at the developer's expense.
- SIC elevations shown are located at the property line.
- For driveway entrance details refer to the Howard County Design Manual volume IV, Standard Detail R-6-01.
- Site Analysis Data Chart:
  - Total Project Area: 2.75 acres (114,842 square feet).
  - Area of Final Submission: 2.75 acres (114,842 square feet).
  - Limit of Disturbed Area: 2.25 Ac.
  - Present Zoning Designation: R-20
  - Proposed uses for site and structures: single family detached dwelling units.
- Total number of units proposed on submission: 6
- Number of parking spaces required by Howard County Zoning Regulations and/or FOP Criteria: 2 per lot
- Number of parking spaces provided on site (include number of handicapped parking spaces): 16 spaces.
- The subject property is zoned R-20 per the (October 18, 1943) Comprehensive Zoning Plan.
  - In accordance with Section 12B of the Howard County Zoning Regulations, any windows, chimneys or exterior stairways not more than 16 feet in width may project not more than 4 feet into any setback, porch or deck, open or enclosed may project not more than 10 feet into the front or rear yard setback.
  - No clearing, grading or construction permitted within the required wetlands, streams or their buffers and forest conservation easement areas.
  - Driveways shall be provided prior to issuance of a use and occupancy permit for any new dwellings to insure safe access for fire and emergency vehicles per the following minimum requirements:
    - Width - 12' (14' serving more than one residence);
    - Surface - 6" of compacted crusher run base w/ tar and chip coating (1-1/2" minimum);
    - Geometry - Max. 15% grade, max. 10% grade change and min. 45' turning radius;
    - Structures (culverts/bridges) - capable of supporting 25 gross tons (25 loading);
    - Drainage Elements - capable of safely passing 100-year flood with no more than 1 foot depth over driveway surface;
    - Maintenance - sufficient to insure all weather use.
- This plan is subject to Howard County Files SP-00-06, P-02-41 and contract #24-3947-D.
- Landscape for this plan is in accordance with the Howard County Code and Landscape Manual (P-02-41). Surety for landscaping has been posted with the developer's agreement in the amount of \$2,000.00 with P-02-041.
- A Forest Conservation Easement has been established to fulfill the requirements of section 16.1200 of the Howard County Code and Forest Conservation Act under P-02-041. No clearing, grading or construction is permitted within the Forest Conservation Easement. This project addressed the Forest Conservation obligation under P-02-041 by providing 2.0 acres of a Forest Conservation Easement area.

LOT INFORMATION				
LOT NUMBER	LOT SIZE (SQUARE FEET)	MIN. CELLAR ELEVATION	INV. SEWER @ R/W	REMARKS
14	16,084 S.F.	463.50	455.80	
15	15,564 S.F.	461.00	462.80	
16	15,053 S.F.	471.30	467.40	
17	14,538 S.F.	475.20	471.20	
18	14,445 S.F.	471.80	473.70	
19	15,243 S.F.	480.50	476.20	
20	14,856 S.F.	482.60	478.20	
21	14,055 S.F.	489.00	477.90	

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
14	3040 CARLEE RUN COURT
15	3036 CARLEE RUN COURT
16	3032 CARLEE RUN COURT
17	3028 CARLEE RUN COURT
18	3024 CARLEE RUN COURT
19	3018 CARLEE RUN COURT
20	3014 CARLEE RUN COURT
21	3010 CARLEE RUN COURT



SHEET INDEX	
SHEET #	DESCRIPTION
1	PLAN VIEW
2	NOTES & DETAILS

DATE	REVISIONS
10-3-05	REVISED GRADES ON LOT 14 PER AS-BUILT CONDITIONS
8-19-05	REVISED SPOT ELEVATIONS ON LOT 19 TO REFLECT FIELD SHOTS

**APPROVED:**  
 HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: *Meredith Reynolds* 2/15/14  
 Chief, Division of Land Development: *Linda Rando* 2/14/14  
 Chief, Development Engineering Division: *William* 2/18/04

**OWNER**  
 KNUDSEN BUILDERS L.L.C.  
 8455 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD. 21043

**SITE DEVELOPMENT, SEDIMENT AND EROSION CONTROL PLAN**  
**LOTS 14 THROUGH 21**  
**CARLEE MANOR**

TAX MAP 17, PARCEL 123  
 2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**CLSI**  
 Carroll Land Services  
 Incorporated  
 Engineers \* Surveyors \* Land Development Consultants  
 Landscape Architects \* Environmental Specialists  
 439 East Main Street Westminster, MD 21157-5539  
 (410) 876-2017 FAX (410) 876-0009

PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION/AREA	LOT NUMBER	GRID	ZONING	TAX MAP
CARLEE MANOR	N/A	14 THROUGH 21	15973	R-20	17
			15975	R-20	2
			15975	R-20	2

**LEGEND**  
 --- SF --- SILT FENCE  
 --- LIMIT OF DISTURBANCE ---  
 --- SSF --- SUPER SILT FENCE

**DEVELOPER'S CERTIFICATE**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/AM AUTHORIZED PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 CHRIS KNUDSEN  
 KNUDSEN BUILDERS  
 DATE: 1/21/14

**ENGINEER'S CERTIFICATE**  
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 JIM MYERS  
 PROFESSIONAL ENGINEER REG. NO. 23446  
 DATE: 2/15/14

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS  
 JIM MYERS  
 PROFESSIONAL ENGINEER REG. NO. 23446  
 DATE: 2/15/14

DATE	REVISIONS	Drawn By:
5-4-04	ADD MORRISTOWN TO LOT 21 AND NEYLAND TO LOT 15	Designed By: KF
2-23-05	ADD CARLEE HOUSE TYPE TO LOTS 14, 16 AND 19	Reviewed By:
3-9-05	REVISE LOT 16 TO SHOW A DEWHURST HOUSE TYPE	Date: JANUARY 2004
5/7/05	REVISED GRADES ON LOT 15	Scale: 1" = 30'
5/20/05	REVISE LOT 21 TO SHOW NEYLAND	Job No.: 47230E
7-1-05	REVISE GRADING ON LOT 21 AND REMOVE SLEEPING ROOM FROM NEYLAND	Sheet: 1 of 2

**NOTE:**  
 SEDIMENT AND EROSION CONTROL:  
 NO MORE THAN THREE CONTIGUOUS LOTS CAN BE UNDER CONSTRUCTION AT ONE TIME.

CAD Drawing File Name: g:\97250\vgm\const\15973\15975\15975.dgn

**General Notes:**  
 Residential Site Development Plan  
 1. The contractor shall notify the Department of Public Works/Bureau of Engineering Construction Division at (410) 513-1800 at least (5) working days prior to the start of work.  
 2. The contractor shall notify "Miss Utility" at 1-800-257-7177 at least 48 hours prior to any excavation work being done.  
 3. The existing topography is taken from final plan F-02-011 survey with two foot contour intervals prepared by Carroll Land Services, Inc.  
 4. The coordinates shown hereon are based upon the Howard County Geodetic Control, which is based upon the Maryland State Plane Coordinate System, Howard County Monument Nos. 161 and 161B used for this project.  
 5. Stormwater management facility will be an extended detention pond as approved by F-02-041.  
 6. Existing utilities are based on water and sewer contract number 24-3841-D.  
 7. Any damage to the County's right-of-way shall be corrected at the developer's expense.  
 8. Six elevations shown are located at the property line.  
 9. For driveway entrance details refer to the Howard County Design Manual, Volume IV Standard Detail R-02.1.  
 10. Site Analysis Data Chart:  
 a. Total Project Area: 2.75 acres (114842 square feet).  
 b. Area of Plan Submission: 2.75 acres (114842 square feet).  
 c. Limit of Disturbed Area: 2.25 Ac.  
 d. Present Zoning Designation: R-20  
 e. Proposed uses for site and structures: single family detached dwelling units.  
 f. Total number of units proposed on submission: 0  
 g. Number of parking spaces required by Howard County Zoning Regulations and/or "DP" Criteria: 2 per lot.  
 h. Number of parking spaces provided on site (include number of handicapped parking spaces): 16 spaces.  
 11. a. The subject property is zoned R-20 per the (October 18, 1993) comprehensive zoning plan.  
 b. In accordance with Section 12B 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.  
 c. No clearing, grading or construction is permitted within the required setbacks, stream(s) or their buffers and forest conservation easement areas.  
 d. Driveways shall be provided prior to issuance of a use and occupancy permit for any new dwellings to insure safe access for fire and emergency vehicles per the following minimum requirements:  
 - Width - 12' (14' serving more than one residence);  
 - Surface - 6" of compacted crusher-run base w/ tar and chip coating (1-1/2" minimum);  
 - Geometry - Max. 15% grade, max. 10% grade change and min. 45' turning radius.  
 - Structures (curbs/bridges) - capable of supporting 25 gross tons (125 loading).  
 - Drainage Elements - capable of safely passing 100-year flood with no more than 1 foot depth over driveway surface.  
 - Maintenance - sufficient to insure all weather use.  
 12. This plan is subject to Howard County files SP-00-06, F-02-011 and contract #24-3841-D.  
 13. Landscaping for this plan is in accordance with the Howard County Code and Landscape Manual (F-02-011). Surety for landscaping has been provided with the developer's agreement in the amount of \$24,000 with F-02-041.  
 14. A Forest Conservation Easement has been established to fulfill the requirements of section 16.1200 of the Howard County code and Forest Conservation Act under F-02-041. No clearing, grading or construction is permitted within the Forest Conservation Easement. This project addressed the Forest Conservation obligation under F-02-041 by providing 2.0 acres of a Forest Conservation Easement area.

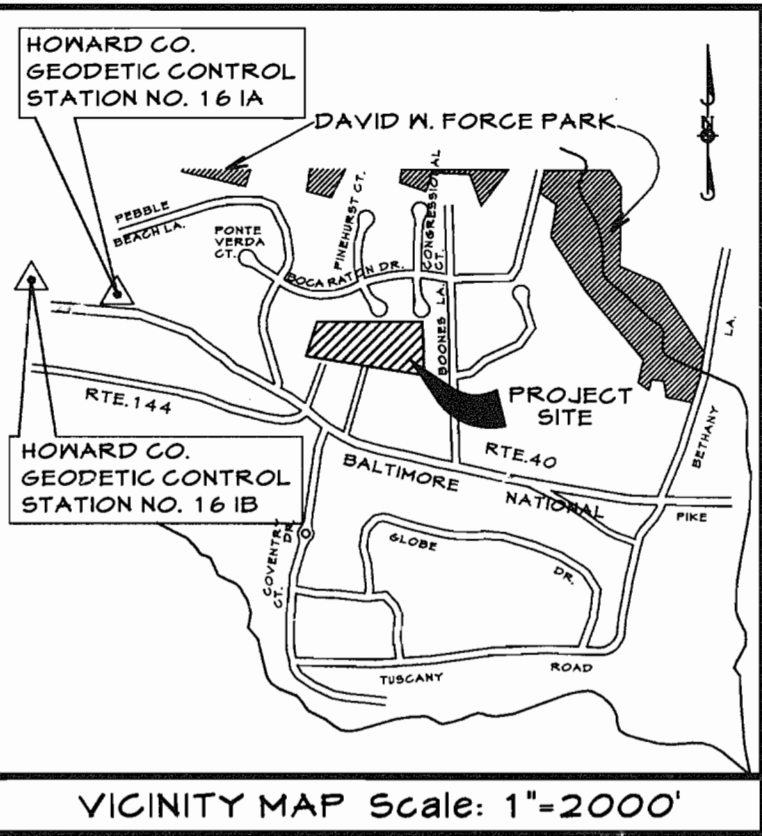
LOT INFORMATION				
LOT NUMBER	LOT SIZE (SQUARE FEET)	MIN. CELLAR ELEVATION	INV. SEWER @ R/W	REMARKS
14	16,024 S.F.	463.50	455.80	
15	15,564 S.F.	467.00	462.80	
16	15,053 S.F.	471.30	467.40	
17	14,538 S.F.	475.20	471.20	
18	14,445 S.F.	477.80	473.10	
19	15,243 S.F.	480.50	476.20	
20	14,856 S.F.	482.60	478.20	
21	14,055 S.F.	483.00	477.90	

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
14	3040 CARLEE RUN COURT
15	3035 CARLEE RUN COURT
16	3030 CARLEE RUN COURT
17	3025 CARLEE RUN COURT
18	3024 CARLEE RUN COURT
19	3018 CARLEE RUN COURT
20	3014 CARLEE RUN COURT
21	3010 CARLEE RUN COURT

TURF VALLEY OVERLOOK  
 SECTION 1, AREA 2  
 PLAT NO. 7215

LOT 163  
 OPEN SPACE  
 PLAT NO. 7215

CARLEE MANOR  
 S.D.P. 04-15  
 LOTS 1-13 AND 22



SHEET INDEX	
SHEET #	DESCRIPTION
1	PLAN VIEW
2	NOTES & DETAILS

DATE	REVISIONS
4-21-06	REVISE LOT 19 TO SHOW BLAKE FORD HOUSE GRADES PER AS-BUILT CONDITIONS
3-17-06	REVISED LOT 21 TO ADD EX. SPOTS ALONG R. LOT 21 F.22
3-14-06	REVISED LOTS 20 & 21 PER AS-BUILT CONDITIONS
10-3-05	REVISED GRADES ON LOT 14 PER AS-BUILT CONDITIONS
8-19-05	REVISED SPOT ELEVATIONS ON LOT 19 TO REFLECT FIELD SHOTS

APPROVED:  
 HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: *Mark A. Taylor* 2/12/14  
 Chief, Division of Land Development: *Linda Standa* 2/12/14  
 Chief, Development Engineering Division: *William J. ...* 2/13/04

OWNER  
 KNUDSEN BUILDERS L.L.C.  
 8455 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD. 21043

SITE DEVELOPMENT, SEDIMENT AND EROSION CONTROL PLAN  
 LOTS 14 THROUGH 21  
 CARLEE MANOR  
 TAX MAP 17, PARCEL 123  
 2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND



FOR REVISIONS BY BENCHMARK ENGINEERING, INC. ONLY  
 DATED 5-4-04, 2/23/05, 3/31/05, 5-4-05, 5/20/05, 3-14-06

PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT NUMBER	ELEC. DIST.	CENSUS TRACT
CARLEE MANOR	N/A	14 THROUGH 21	2	602100
PLAT	GRID	ZONING	TAX MAP	ELEC. DIST.
15475	14124	R-20	17	2
WATER CODE	SEWER CODE			
HOT	5942000			

**DEVELOPER'S CERTIFICATE**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
 CHRIS KNUDSEN  
 KNUDSEN BUILDERS  
 DATE: 1/22/04

**ENGINEER'S CERTIFICATE**  
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
 ALFRED L. HANBARD  
 PROFESSIONAL ENGINEER REG. NO. 23446  
 DATE: 1/22/04

REVIEWED FOR THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MET THE TECHNICAL REQUIREMENTS.  
 JIM MYERS  
 DATE: 2/15/04  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SEDIMENT AND EROSION CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
 JAMES A. ROBERTSON  
 DATE: 2/15/04

NOTE:  
 SEDIMENT AND EROSION CONTROL:  
 NO MORE THAN THREE CONTIGUOUS LOTS CAN BE UNDER CONSTRUCTION AT ONE TIME.

PARCEL 64  
 ZONING: R-20  
 CHRISTOPHER & CARITA CARLYLE  
 L.2173, F.91

PARCEL 13  
 ZONING: R-20  
 EVERETT & GERTRUDE HOLLENBAUGH  
 L.858, F.613

PARCEL 1  
 ZONING: R-20  
 PETROS KARAKAS  
 L.58, F.149

PARCEL 1002  
 ZONING: R-20  
 RICHARD E. BARTH  
 L.917, F.641

PARCEL 1011  
 ZONING: R-20  
 BARRY GERBER  
 L.3540, F.397



**CLSI**  
 Carroll Land Services  
 Inc. Corporation  
 Engineers • Surveyors • Land Development Consultants  
 Landscape Architects • Environmental Specialists  
 439 East Main Street Westminster, MD 21157-5539  
 (410) 876-2017 FAX (410) 876-0009  
 Professional Engineer Registration No. 23446

Date	Revisions	Drawn By: BM
5-4-04	ADD MORRISTOWN TO LOT 21 AND NEYLAND TO LOT 16	Designed By: KF
2-23-05	ADD CARLEE HOUSE TYPE TO LOTS 14, 16 AND 19	Reviewed By:
3-9-05	REVISE LOT 16 TO SHOW A DEWHURST HOUSE TYPE	Date: JANUARY 2004
5/11/05	REVISED GRADES ON LOT 15	Scale: 1" = 30'
5/20/05	REVISE LOT 21 TO SHOW NEYLAND	Job No.: 91230E
7-1-05	REVISE GRADING ON LOT 21 AND REMOVE SLEEPING ROOM FROM NEYLAND	Sheet: 1 of 2

CAD Drawing File Name: g:\17230\dgn\const\siteplans\CO1\sitedev1.dgn