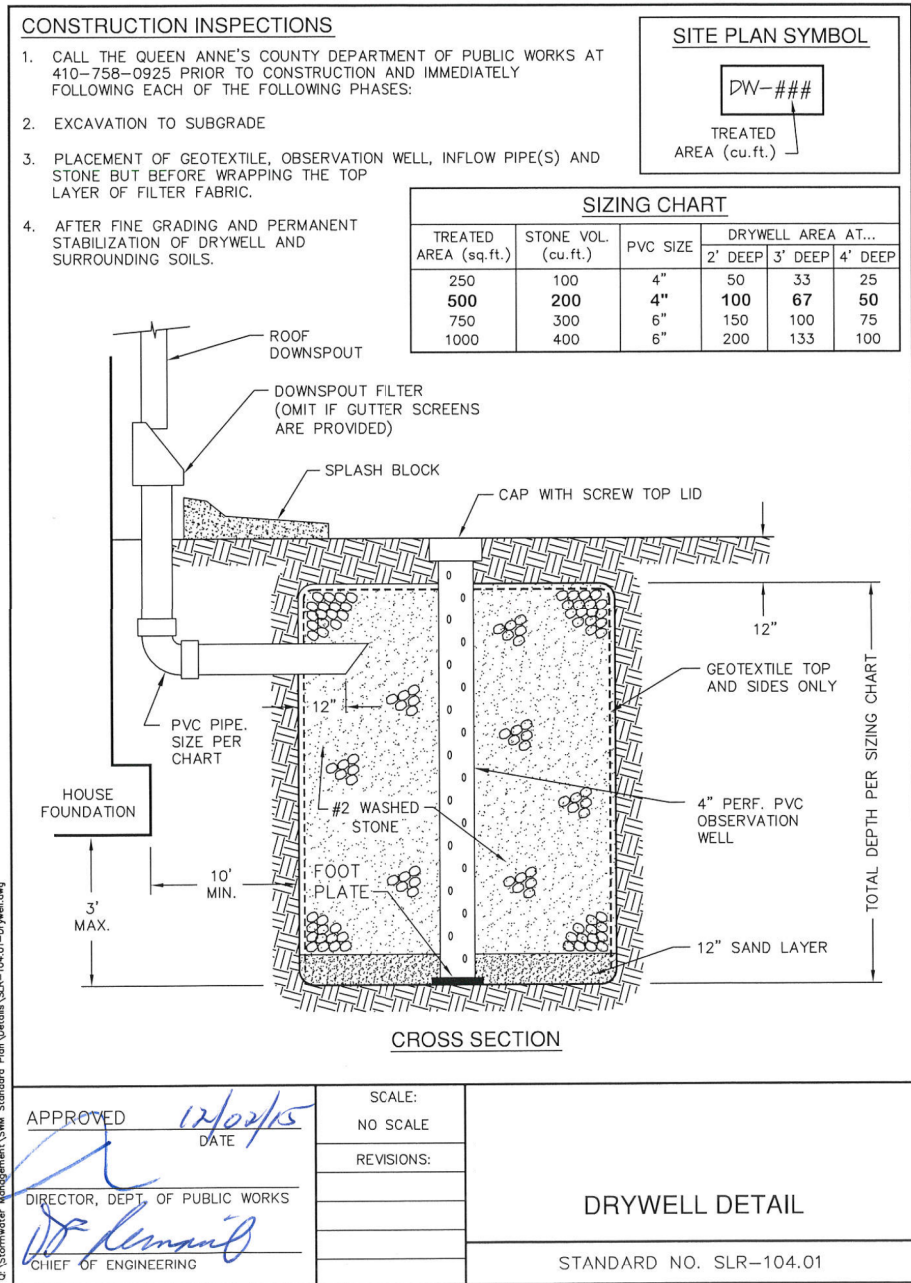
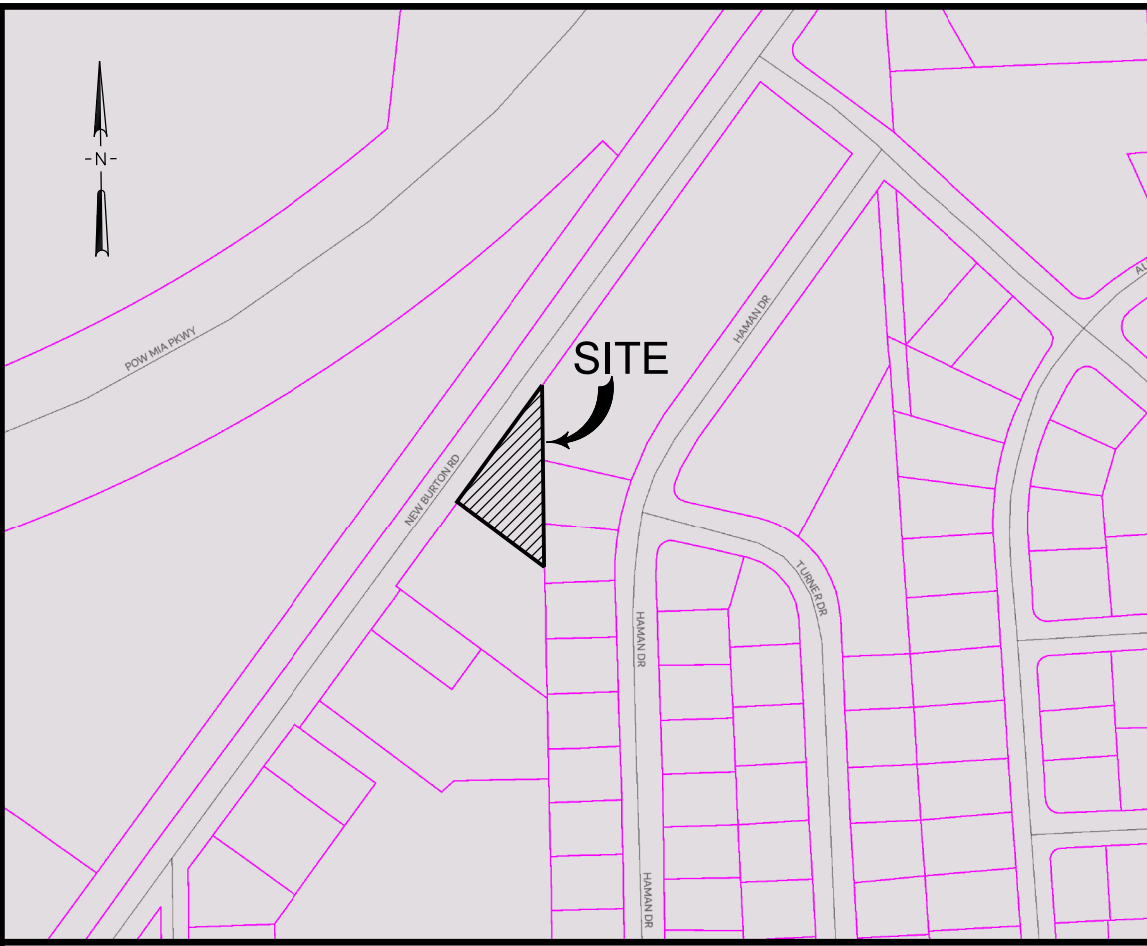
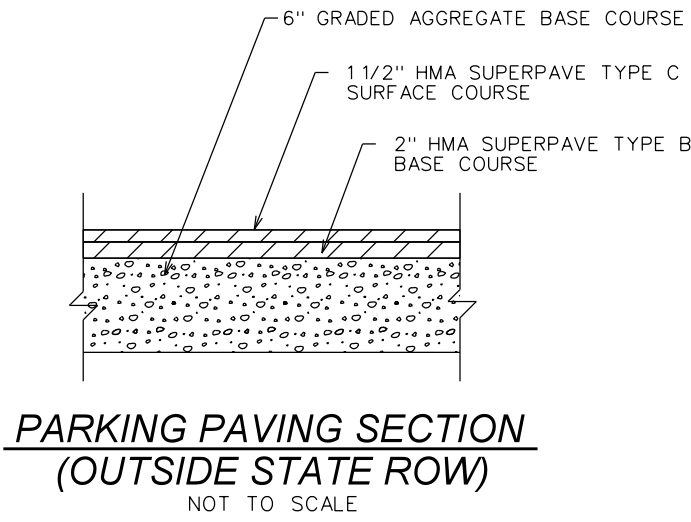
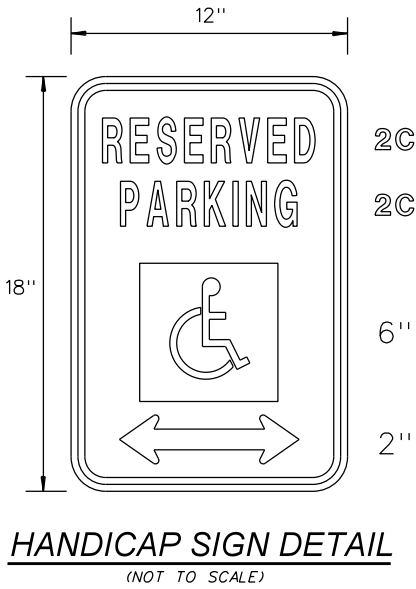
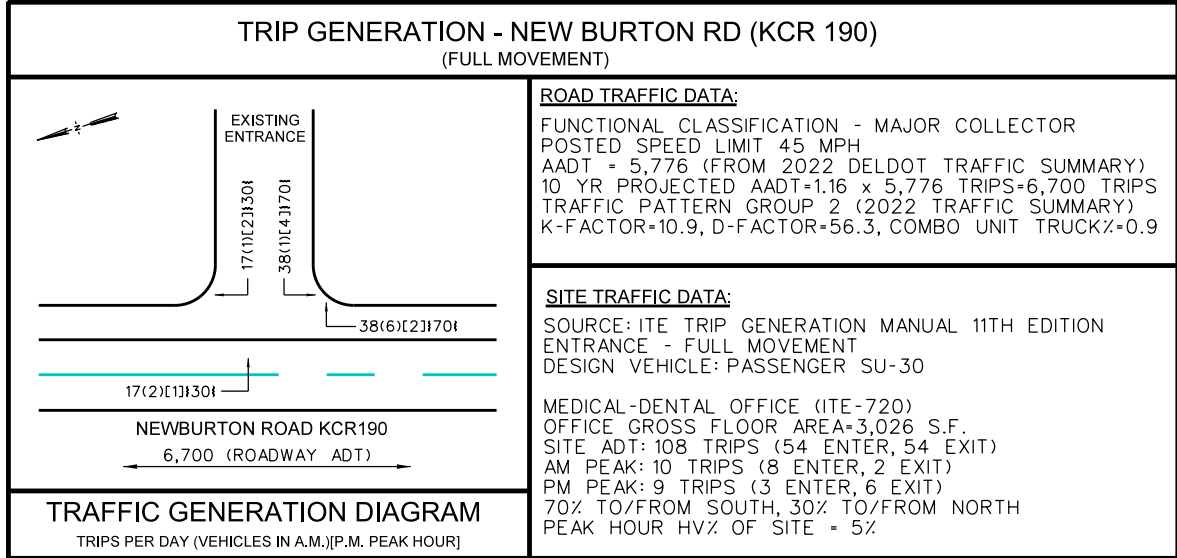
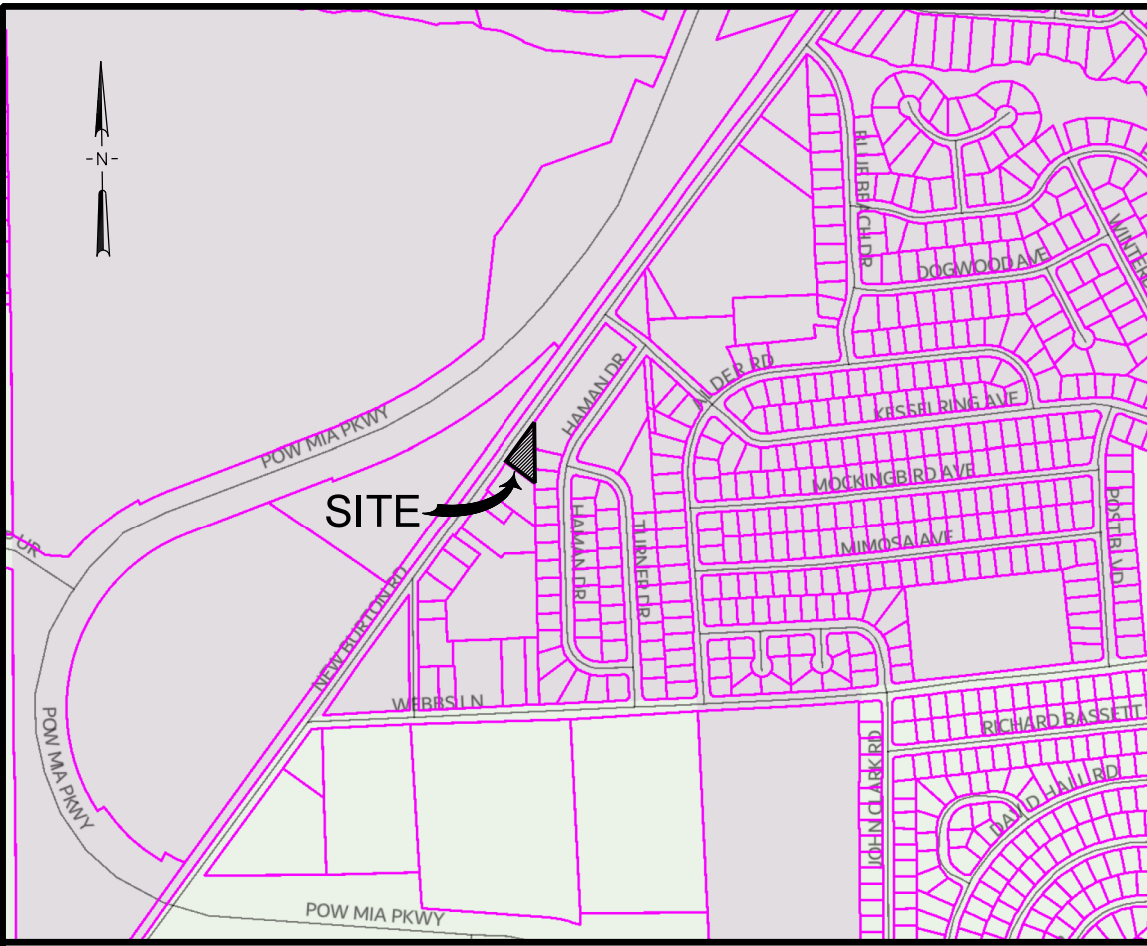
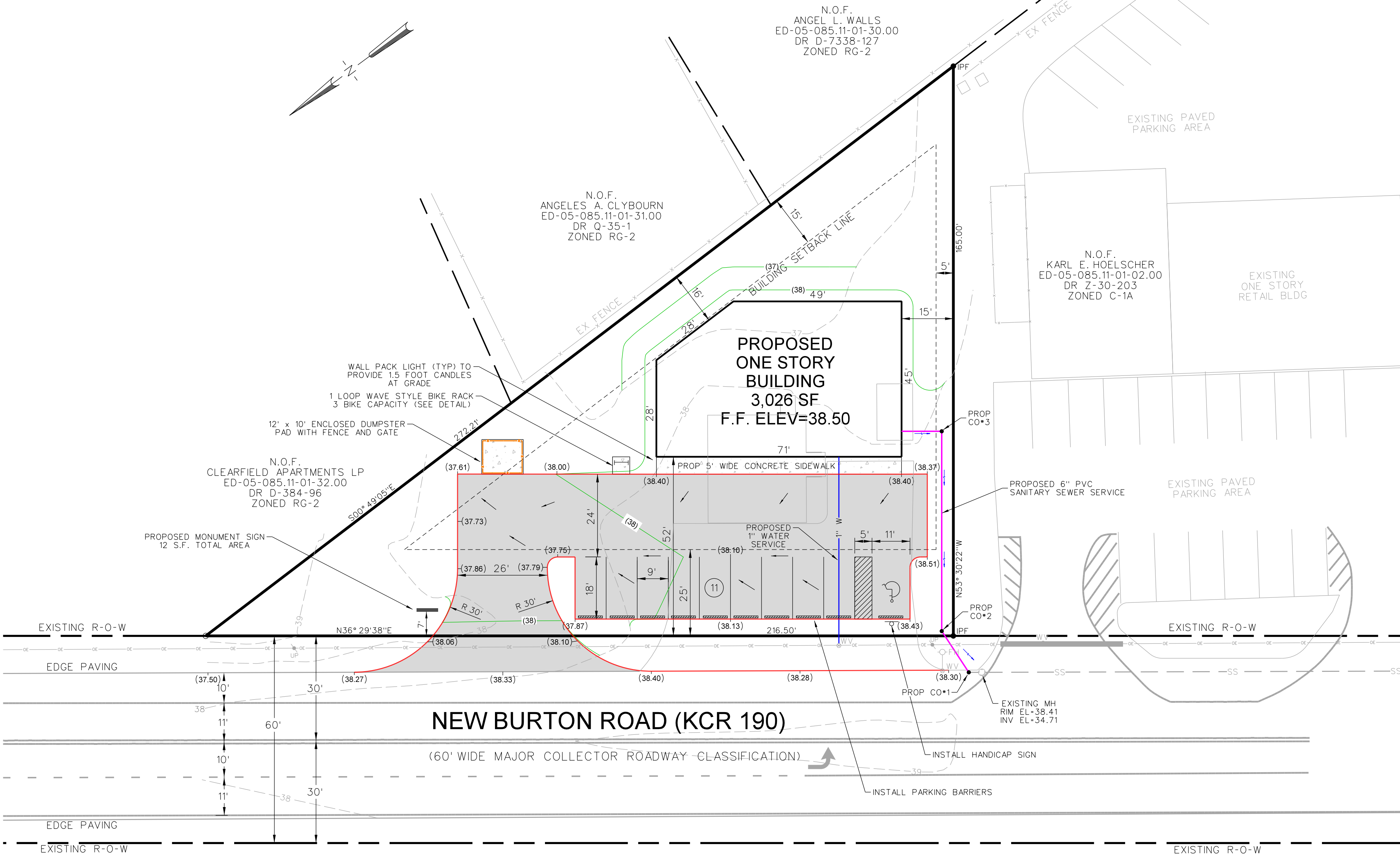




LEGEND

PROPERTY BOUNDARY	---
RIGHT-OF-WAY LINE	---
LOT LINE	---
BUILDING SETBACK LINE	---
EXISTING CONTOUR	---26---
PROPOSED CONTOUR	---(26)---
EXISTING STORM DRAIN	=====
PROPOSED STORM DRAIN	=====
EXISTING SANITARY SEWER	---S---
PROPOSED SANITARY SEWER	---S---
EXISTING WATER LINE	---W---
PROPOSED WATER LINE	---W---
EXISTING UTILITY POLE	●
EXISTING ROAD SIGN	⊞
EXISTING SPOT ELEVATION	26x27
PROPOSED SPOT ELEVATION	(26x27)



DATA COLUMN

TAX PARCEL NO:	ED-05-085.11-01-01.00-000
ACREAGE WITHIN BOUNDARIES:	0.41 ACRES
EXISTING ZONING:	C-1A (LIMITED COMMERCIAL)
EXISTING USE:	OFFICE
PROPOSED USE:	MEDICAL OFFICE
C-1A BULK STANDARDS:	REQUIRED PROPOSED
FRONT YARD SETBACK:	25' 52'
SIDE YARD SETBACK:	5'15' 15'
REAR YARD SETBACK:	25' 25'
MINIMUM LOT WIDTH:	25' 120'
MINIMUM LOT DEPTH:	N/A 155'
MINIMUM LOT AREA:	N/A 18,288 SF
MAXIMUM BUILDING HEIGHT:	30' 12'
FLOOR AREA RATIO:	1.5 13%
NUMBER OF EMPLOYEES:	6
PROPOSED BUILDING GFA:	3,026 S.F.
PARKING REQUIRED:	(3,026 SF)/(1 SP/300 SF) = 10 SPACES
PARKING PROVIDED:	11 SPACES (1 HANDICAP)
PROPOSED IMPERVIOUS COVERAGE:	0.208 ACRE
TOTAL LOT COVERAGE:	50.7%
BUILDING CONSTRUCTION TYPE:	TYPE II (000) METAL & MASONRY
PROPOSED BUILDING HEIGHT:	12 FEET (SINGLE STORY)
VERTICAL DATUM:	NAVD 88
HORIZONTAL DATUM:	NAD 83
PERMANENT MONUMENTS FOUND:	2 (IPF)
PERMANENT MONUMENTS PLACED:	0
WATER SERVICE:	CITY OF DOVER
SEWER SERVICE:	CITY OF DOVER
INVESTMENT LEVEL:	1
OWNER OF RECORD:	KEN BARRETT BUILDERS, LLC 2308 WOODYTOWN ROAD MAGNOLIA, DE 19962

GENERAL NOTES

- THE BOUNDARY INFORMATION SHOWN IS BASED ON THE BOUNDARY SURVEY AND SITE PLAN FROM CLIFTON L. BAKSH, JR. INC.
- THIS PROPERTY IS NOT IMPACTED BY WETLANDS REGULATED BY THE STATE OF DELAWARE OR THE U.S. ARMY CORPS OF ENGINEERS.
- THIS PROPERTY IS NOT IMPACTED BY THE 100 YEAR FLOOD BOUNDARY AS DEPICTED ON THE FEMA MAP COMMUNITY PANEL NUMBER 10001C0240J DATED JULY 7, 2014.
- EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY AND ALLOW FOR THEIR LOCATIONS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY AND ALL DAMAGES DONE TO THEM DUE TO HIS NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT HIS EXPENSE.
- PLAN LOCATIONS AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- NOTIFY MISS UTILITY 48 HOURS PRIOR TO ANY EXCAVATION AT (800) 282-8555
- NO EXISTING EASEMENTS PRESENT ON THIS PARCEL.
- THE PLAN DOES NOT VERIFY THE EXISTENCE OR THE ABSENCE OF EASEMENTS AND OR RIGHT-OF-WAYS.

ENGINEER CERTIFICATION

I, KEVIN R. MINNICH, HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BEST KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

KEVIN R. MINNICH, PE #9027

DATE

OWNER CERTIFICATION

I, KENNETH BARRETT OF KEN BARRETT BUILDERS, LLC, HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN TO BE RECORDED AS SHOWN IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

KENNETH BARRETT, OWNER

DATE



868 Greenwood Road - Greenwood, DE 19950
(302) 697-2239 - (302) 349-5381

REVISIONS:
3/08/24 - REVISED PER DELDOT COMMENTS
DGN FILE: 23-077

PRELIMINARY SITE PLAN
LANDS OF
KEN BARRETT BUILDERS

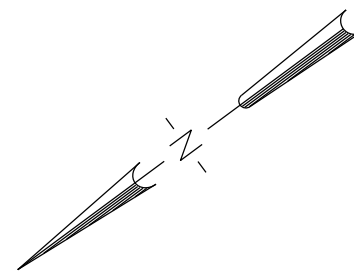
SITUATE IN: CITY OF DOVER - KENT COUNTY, DELAWARE

0 10 20 40

DATE: 09/28/23

SCALE: 1" = 20'

SHT: PP-1



SOILS DESCRIPTION

HkB—Hambrook-Urban land complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1qx74
Elevation: 0 to 260 feet
Mean annual precipitation: 40 to 48 inches
Mean annual air temperature: 52 to 58 degrees F
Frost-free period: 180 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Hambrook and similar soils: 45 percent
Urban land: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

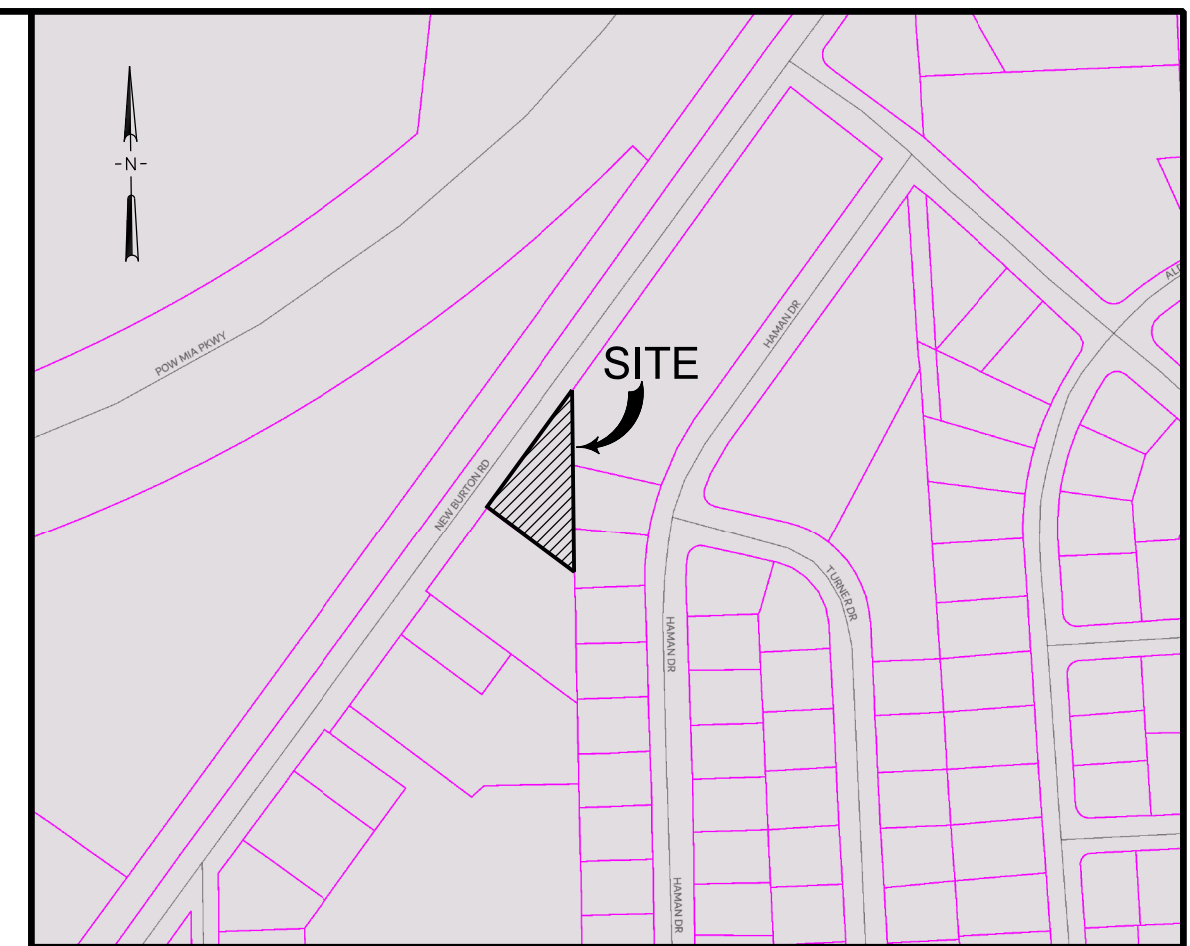
Description of Hambrook

Setting

Landform: Depressions, knolls, fluviomarine terraces, flats
Landform position (three-dimensional): Rise
Down-slope shape: Concave, convex, linear
Across-slope shape: Concave, convex, linear

Typical profile

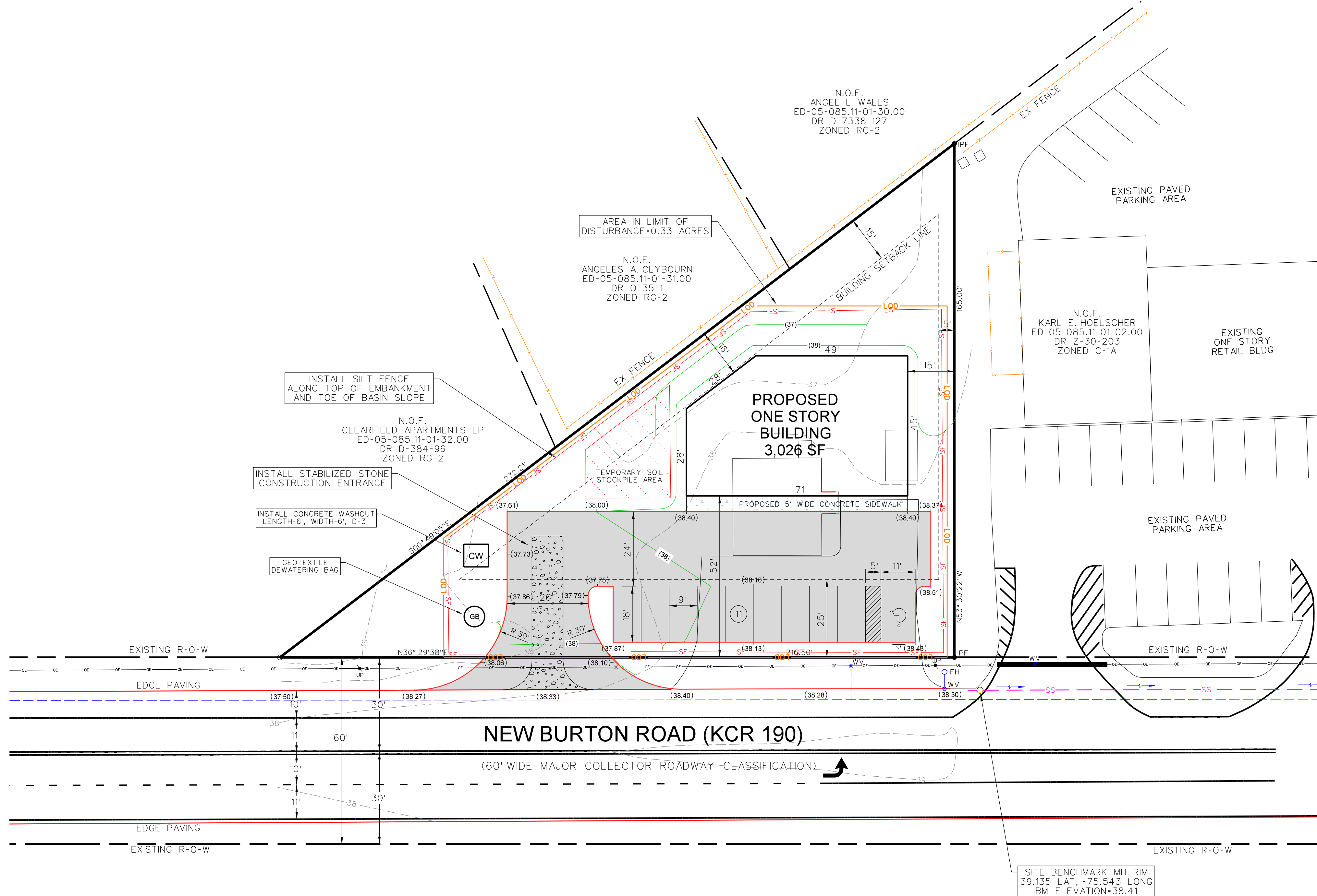
Ap - 0 to 10 inches: sandy loam
BE - 10 to 14 inches: loam
Bt - 14 to 28 inches: sandy clay loam
Bg - 28 to 65 inches: loamy sand
2Cg - 65 to 80 inches: silt loam



LOCATION MAP SCALE: 1" = 400'

DATA COLUMN

TAX PARCEL NO:	ED-05-085.11-01-01.00-000	
ACREAGE WITHIN BOUNDARIES:	0.41 ACRES	
EXISTING ZONING:	C-1A (LIMITED COMMERCIAL)	
EXISTING USE:	OFFICE	
PROPOSED USE:	MEDICAL OFFICE	
C-1A BULK STANDARDS:	<u>REQUIRED</u>	<u>PROPOSED</u>
FRONT YARD SETBACK:	25'	52'
SIDE YARD SETBACK:	5/15'	15'
REAR YARD SETBACK:	25'	25'
MINIMUM LOT WIDTH:	25'	120'
MINIMUM LOT DEPTH:	N/A	155'
MINIMUM LOT AREA:	N/A	18,286 SF
MAXIMUM BUILDING HEIGHT:	30'	12'
FLOOR AREA RATIO:	1.5	13%
NUMBER OF EMPLOYEES:	6	
PROPOSED BUILDING GFA:	3,026 S.F.	
PARKING REQUIRED:	(3,026 SF)/(1 SP/300 SF) = 10 SPACES	
PARKING PROVIDED:	11 SPACES (1 HANDICAP)	
BUILDING CONSTRUCTION TYPE:	TYPE II (000) METAL & MASONRY	
PROPOSED BUILDING HEIGHT:	12 FEET (SINGLE STORY)	
VERTICAL DATUM:	NAVD 88	
HORIZONTAL DATUM:	NAD 83	
PERMANENT MONUMENTS FOUND:	2 (IPF)	
PERMANENT MONUMENTS PLACED:	0	
WATER SERVICE:	CITY OF DOVER	
SEWER SERVICE:	CITY OF DOVER	
INVESTMENT LEVEL:	1	
OWNER OF RECORD:	KEN BARRETT BUILDERS, LLC 2308 WOODLYTOWN ROAD MAGNOLIA, DE 19962	



LEGEND

EXISTING CONTOUR	---26---
PROPOSED CONTOUR	---(26)---
EXISTING STORM DRAIN	=====
PROPOSED STORM DRAIN	=====
EXISTING WATER LINE	---W---
PROPOSED WATER LINE	---W---
EXISTING UTILITY POLE	---●---
EXISTING ROAD SIGN	---○---
SOILS DELINEATION LINE	---S---
INLET PROTECTION TYPE 2	---IP-2---
LIMIT OF DISTURBANCE	---LOD---
COMPOST FILTER LOGS	---CFL---
SENSITIVE AREA PROTECTION	---SAP---

Minnich
Engineering & Land Planning
Designing Quality Not Quantity

868 Greenwood Road - Greenwood, DE 19950
(302) 697-2239 - (302) 349-5381

REVISIONS:

PROJECT NO: 23-077 | DGN FILE: 23-077

SEDIMENT & EROSION
CONTROL PLAN

LANDS OF
KEN BARRETT BUILDERS

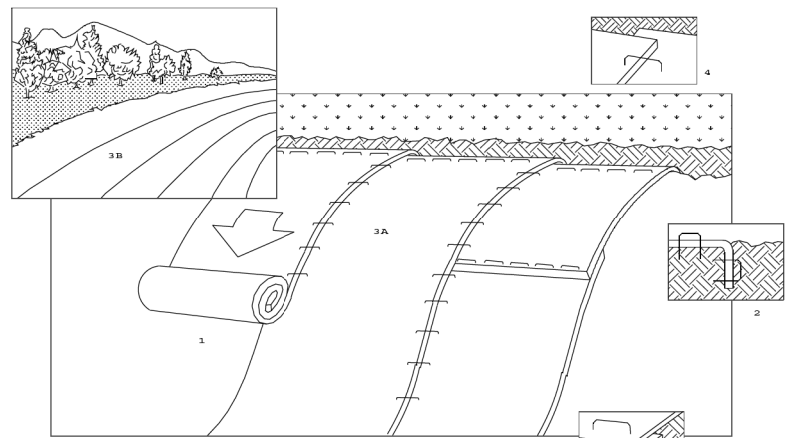
SITUATE IN: CITY OF DOVER - KENT COUNTY, DELAWARE

0 10 20 40

SCALE: 1" = 20'

SHT: SS-1

Standard Detail & Specifications Stabilization Matting - Slope



Perspective

Construction Notes:

1. Prepare soil before installing matting, including application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the mat in a 6" deep X 6" wide trench. Backfill and compact trench after stapling.
3. Roll the mats (A) down or (B) horizontally across the slope.
4. The edges of parallel mats must be stapled with approx. 2" overlap.
5. When mats must be spliced down the slope, place mats end over end (shingle style) with approx. 4" overlap. Staple through overlapped area, approx. 12" apart.

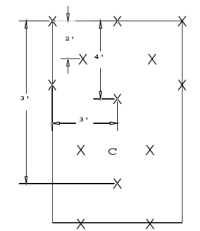
Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	SM-S	DE-ESC-3.4.6.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications Stabilization Matting - Slope

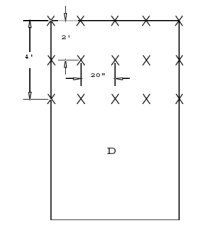


0.7' Staples per Sq. Yd.

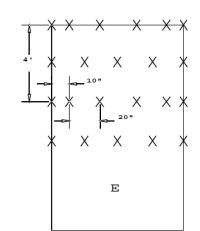
1.2' Staples per Sq. Yd.



1.75' Staples per Sq. Yd.



3.5' Staples per Sq. Yd.



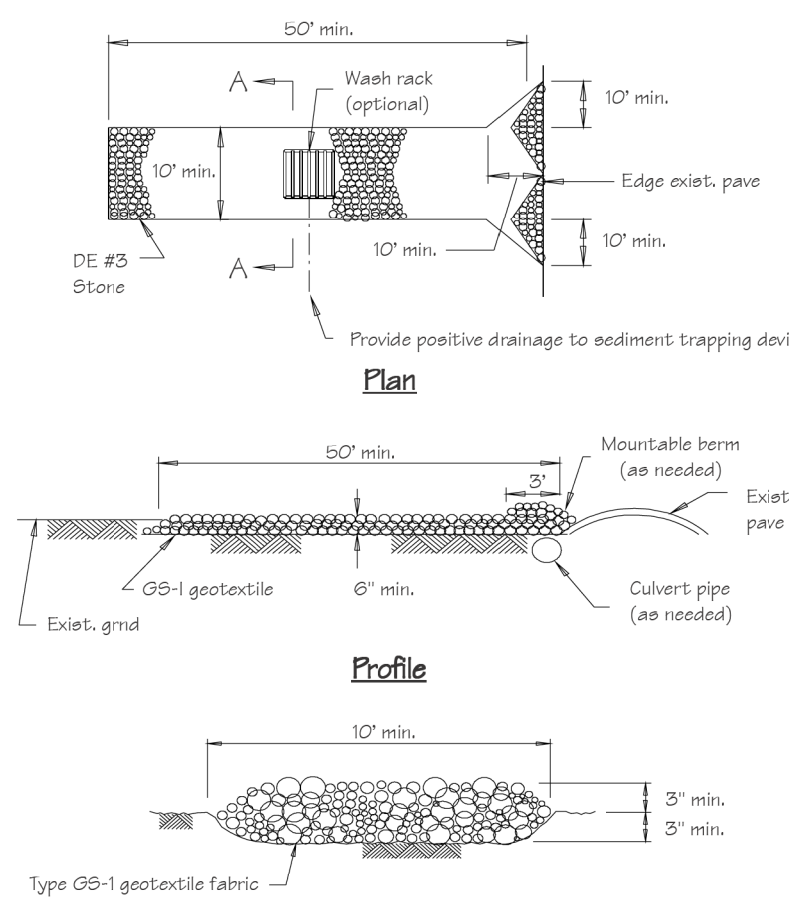
3.75' Staples per Sq. Yd.

NOTE: These patterns are provided for general guidance only. They shall not be used as a substitute for manufacturer's recommendations.

Stapling Patterns

Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	SM-S	DE-ESC-3.4.6.1 Sheet 2 of 2 Effective July 2023

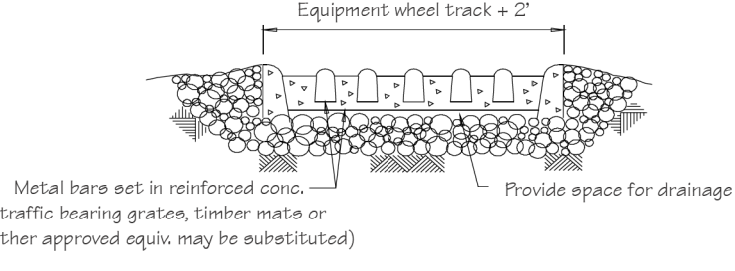
Standard Detail & Specifications Stabilized Construction Entrance



Section A-A (Std.)

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications Stabilized Construction Entrance



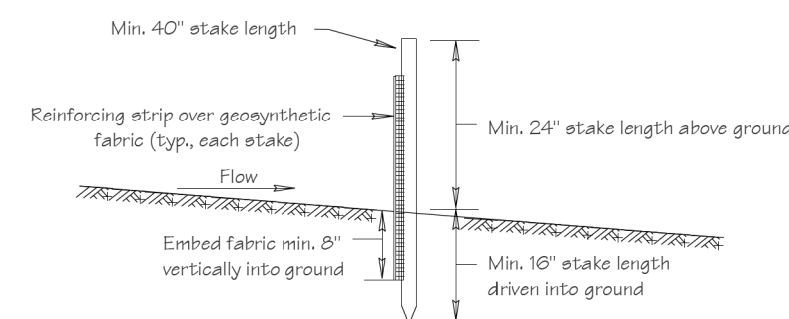
Section A-A (Opt.)

Construction Notes:

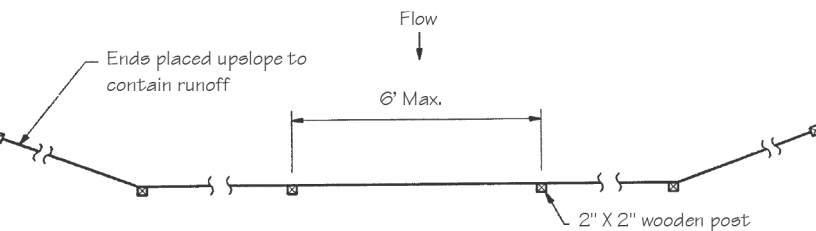
1. **Stone size** - Use DE #3 stone.
2. **Length** - As required, but not less than 50 feet (exception on a single residence lot where a 30 foot minimum length would apply).
3. **Thickness** - Not less than size (6) inches.
4. **Width** - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. **Geotextile** - Type GS-1; placed over the entire area prior to placing of stone.
6. **Surface Water** - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. **Maintenance** - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. **Washing** - Vehicle wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. **Inspection** - Periodic inspection and needed maintenance shall be provided after each rain.

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications Silt Fence



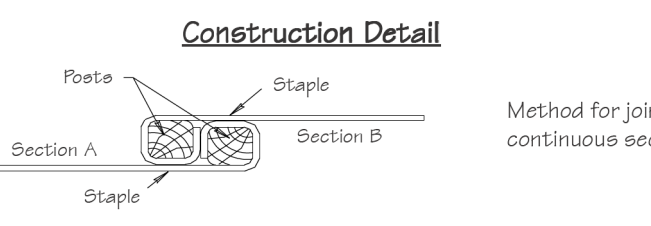
Section



Plan

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications Silt Fence



Top

Construction Notes:

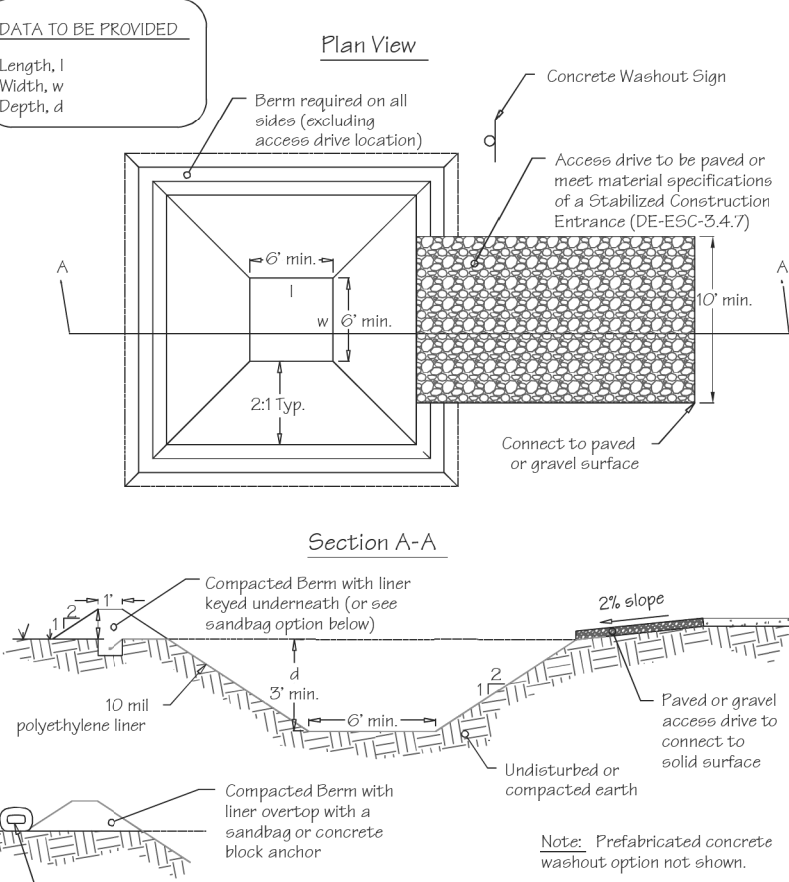
1. Geosynthetic fabric to be fastened securely to fence posts with wire ties or staples.
2. When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
3. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

Materials:

1. **Stakes**: Steel (either T or U) or 2" x 2" hardwood
2. **Geosynthetic Fabric**: Type GD-1
3. **Reinforcing strip**: Wooden lath or plastic strip

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications Concrete Washout



Section A-A

Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	CW	DE-ESC-3.6.2 Sheet 1 of 2 Effective July 2023

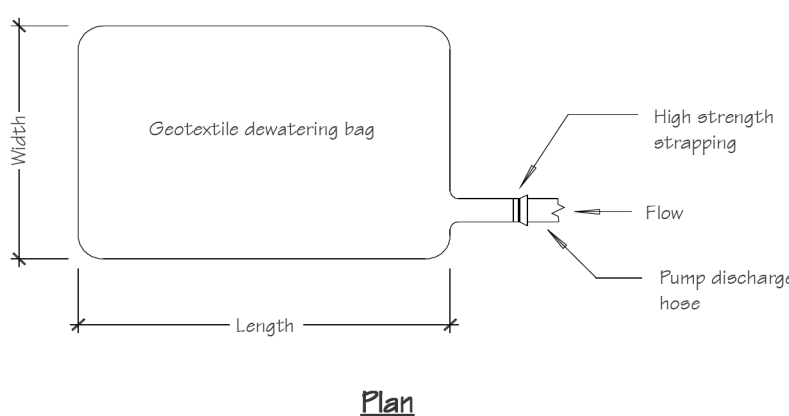
Standard Detail & Specifications Concrete Washout

Construction Notes:

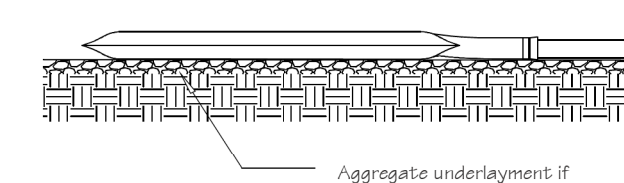
1. Locate washout area a minimum of 50 feet from open channels, stormdrain inlets, wetlands or waterbodies.
2. Locate washout area so that it is accessible to concrete equipment (service with a minimum 10 foot wide gravel accessway), but so it is not in a highly active construction area causing accidental damage.
3. Minimum dimensions for prefabricated units are 4 feet by 4 feet by 1 foot deep with a minimum 4mil polyethylene plastic liner. Minimum dimensions for constructed concrete washout areas are 6 feet by 6 feet by 3 feet deep, with a minimum 10mil polyethylene liner, 2:1 side slopes, and a 1 foot high by 1 foot wide compacted fill berm.
4. The liner must be free of tears or holes and placed over smooth surfaces to prevent puncturing. For excavated washouts, anchor the liner underneath the berm or overlap with sandbags or concrete blocks to hold in place.
5. Provide a sign designating the washout area, and for large construction sites, provide signs throughout directing traffic to its location.
6. Allow washed out concrete mixture to harden through evaporation of the wastewater. Once the facility has reached 75 percent of its capacity, remove the hardened concrete by reusing the broken aggregate onsite, recycling, or disposing of offsite. The hardened material can be buried on site with minimum of 1 foot of clean, compacted fill.
7. Apply a new liner before reusing the station for additional washouts after maintenance has occurred.

Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	CW	DE-ESC-3.6.2 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications Geotextile Dewatering Bag



Plan



Profile

NOTE: Pre-manufactured products installed in accordance with manufacturer's recommendations may be used as an equivalent substitute with Departmental approval.

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	GB	DE-ESC-3.2.1.2 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications Geotextile Dewatering Bag

Construction Notes:

1. The dewatering bag should be placed so the incoming water flows into and through the bag, and then flow off the site without creating more erosion. The neck should be tied off tightly to stop the water from flowing out of the bag without going through the walls. The dewatering bag should be placed on a gravel bed to allow water to flow in all directions.
2. The dewatering bag is considered full and should be disposed when it is impractical for the bag to filter the sediment out at a reasonable flow rate. At this point, it should be replaced with a new bag.
3. Disposal may be accomplished as directed by the construction reviewer. If the site allows, the bag may be buried on site and seeded, visible fabric removed and seeded or removed from site to a proper disposal area.

Materials:

1. The geotextile fabric shall be a Type GD-IV.
2. The dewatering bag shall be sewn with a double needle machine using high strength thread. All structural seams will be sewn with high strength, double stitched "J" type. Seam strength test will have the following minimum average roll values:
3. The dewatering bag shall have an opening large enough to accommodate a four (4) inch discharge hose with attached strap to be off the hose to prevent the pumped water from escaping from the bag without being filtered.

Type	TEST METHOD	TEST RESULT
Heavy duty	ASTM D-4884	100 lb / in

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	GB	DE-ESC-3.2.1.2 Sheet 2 of 2 Effective July 2023

VEGETATIVE STABILIZATION WITH TEMPORARY SEEDING

1. ALL TEMPORARY SEEDING PRACTICES TO BE IN ACCORDANCE WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
2. LIME - APPLY DOLOMITIC LIMESTONE AT A RATE OF 2 TONS PER ACRE.
3. PREFERRED TEMPORARY SEEDING MIXTURE:
A. RYEGRASS - APPLY AT 40 POUNDS PER ACRE
B. WEEPING LOVEGRASS - APPLY AT 3 POUNDS PER ACRE
4. FERTILIZER - APPLY 10-10-10 AT A RATE OF 600 POUNDS PER ACRE
5. MULCHING MATERIALS AND AMOUNTS:
A. STRAW - APPLY AT A RATE OF 2 BALES PER 1,000 SQUARE FEET
B. WOOD CHIPS - APPLY AT A RATE OF 275 POUNDS PER 1,000 S.F.
C. WOOD CELLULOSE FIBER - APPLY AT A RATE OF 35 POUNDS/1,000 SQUARE FEET BY HYDROSEEDING

VEGETATIVE STABILIZATION WITH PERMANENT SEEDING

1. ALL PERMANENT SEEDING PRACTICES TO BE IN ACCORDANCE WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
2. LIME - APPLY DOLOMITIC LIMESTONE AT 2 TONS PER ACRE.
3. PREFERRED PERMANENT SEEDING MIXTURES:
A. KENTUCKY 31 TALL FESCUE APPLIED AT 60 POUNDS PER ACRE
B. KENTUCKY BLUEGRASS APPLIED AT 90 POUNDS PER ACRE
4. FERTILIZER - APPLY 10-10-10 AT A RATE OF 1,000 POUNDS PER ACRE WORKED INTO THE TOP 4-6 INCHES OF SOIL
5. MULCHING MATERIALS AND AMOUNTS:
A. STRAW - APPLY AT A RATE OF 2 BALES PER 1,000 SQUARE FEET
B. WOOD CHIPS - APPLY AT A RATE OF 275 POUNDS PER 1,000 S.F.
C. WOOD CELLULOSE FIBER - APPLY AT A RATE OF 35 POUNDS/1,000 SQUARE FEET BY HYDROSEEDING
6. MULCH ANCHORING TOOL - TRACKING AND/OR LIQUID MULCH BINDERS.
7. IRRIGATION - APPLY ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH
8. MAINTENANCE - RE-ESTABLISH FAILED AREAS AS SOON AS POSSIBLE. INSPECT, IRRIGATE, AND RE-FERTILIZE FOR ONE YEAR

TABLE TS 1 TEMPORARY SEEDINGS BY RATES, DEPTHS AND DATES											
Seeding Rate		Planting Depth 2"		Seeding Dates 6"							
Species 3/4		Per Acre		COASTAL PLAN				PIEDMONT			
		Lbs/1000 (inches)		2/1-4/30	5/1-8/14	8/15-11/30	3/1-4/30	5/1-8/14	8/15-11/30	3/1-4/30	5/1-8/14
Choose one:		2 1/2bu.		2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Barley		2 1/2bu.		2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Rye		2 1/2bu.		2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Ration Personnel (vegetable)		40 lbs.		1.0	1/4-1/2	1/4	1/4	1/4	1/4	1/4	1/4
Millet		40 lbs.		1.0	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Weeping Bar or Weeping's lovegrass		3 lbs.		.1	1/4-1/2	1/4	1/4	1/4	1/4	1/4	1/4
Sudangrass 4/4		40 lbs.		1.0	1-2	1-2	1-2	1-2	1-2	1-2	1-2

PERMANENT SEEDING AND SEEDING DATES											
SEEDING MIXTURES		SEEDING RATES		OPTIMUM SEEDING DATES (40)							
Max. Use certified seed No. (if available)		Lbs/1000 (inches)		COASTAL PLAN				PIEDMONT			
				2/1-4/30	5/1-8/14	8/15-10/31	3/1-4/30	5/1-7/31	8/1-10/15	3/1-4/30	5/1-7/31
1 Kentucky 31 Tall Fescue		60		1.38	X	..	X	X	..	X	..
2 Barley, "Lemon"		2		.05	..	X	..	..	X	..	..
3 Kentucky 31 Tall Fescue		50		1.15	..	..	..	..	..	..	..
4 Kentucky 31 Tall Fescue		40		.92	X	..	X	X	..	X	..
5 Kentucky 31 Tall Fescue		20		.46	..	..	..	..	..	..	..
6 Kentucky 31 Tall Fescue		15		.34	X	..	..	X	..	..	..
7 Kentucky 31 Tall Fescue		10		.23	..	..	..	..	..	..	..
8 Kentucky 31 Tall Fescue		5		.12	..	..	..	..	..	..	..
9 Kentucky 31 Tall Fescue		2		.05	X	..	X	X	..	X	..
10 Kentucky 31 Tall Fescue		2		.05	X	X	..	X	X	..	..
11 Kentucky 31 Tall Fescue		30		.69	X	..	X	X	..	X	..
12 Kentucky 31 Tall Fescue		10		.23	..	..	..	..	..	..	..
13 Kentucky 31 Tall Fescue		5		.12	..	..	..	..	..	..	..
14 Kentucky 31 Tall Fescue		2		.05	X	..	X	X	..	X	..
15 Kentucky 31 Tall Fescue		2		.05	X	..	X	X	..	X	..
16 Kentucky 31 Tall Fescue		2		.05	X	..	X	X	..	X	..



868 Greenwood Road - Greenwood, DE 19950
(302) 697-2239 - (302) 349-5381

REVISIONS:

PROJECT NO: 23-077

DGN FILE: 23-077

SEDIMENT & EROSION CONTROL DETAILS

LANDS OF KEN BARRETT BUILDERS

SITUATE IN: CITY OF DOVER - KENT COUNTY, DELAWARE

DATE: 03/27/24

NOT TO SCALE

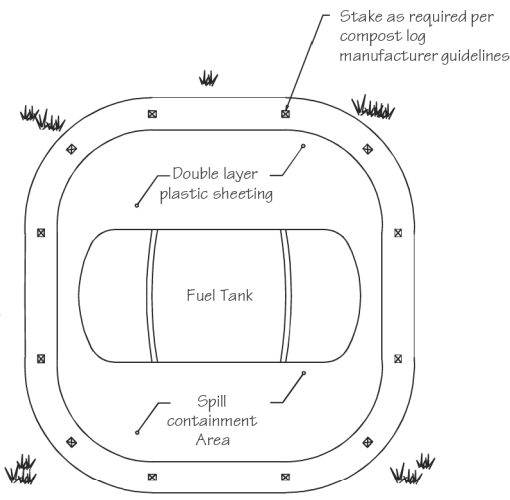
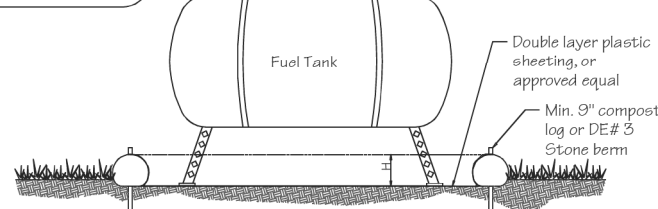
SHT: SS-2

Standard Detail & Specifications

Construction Site Waste Mgt & Spill Control

DATA TO BE PROVIDED:

Volume of Potential Pollution
Height of containment
Area of containment
Volume of containment



Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.6.1
		Sheet 1 of 5
		Date: 03/13

Standard Detail & Specifications

Construction Site Waste Mgt & Spill Control

Pollution Prevention - Spill Prevention

- Fueling should only take place in signed designated areas, away from downstream drainage facilities and watercourses.
- Fueling must be with nozzles equipped with automatic shut-off to control drips. Do not top off.
- Protect the areas where equipment or vehicles are being repaired, maintained, fueled or parked from storm water run-on and runoff.
- Use barriers such as berms to prevent storm water run-on and runoff, and to contain spills.
- Place a "Fueling Area" sign next to each fueling area.
- Store hazardous materials such as fuel, solvents, oil and chemicals in secondary containment.
- Inspect vehicles and equipment for leaks on each day of use. Repair fluid and oil leaks immediately.
- Absorbent spill clean-up materials and spill kits must be available in fueling areas and on fuel trucks.
- If fueling is to take place at night, make sure the fueling area is sufficiently illuminated.
- Properly dispose of used oil, fluids, lubricants and spill clean-up materials.

CLEAN UP SPILLS

- If it is safe to do so, immediately contain and clean up any chemical and/or hazardous material spills.
- Properly dispose of used oil, fluids, lubricants and spill clean-up materials.
- Do not bury spills or wash them down with water.

LEAKS AND DRIPS

- Use drip pans or absorbent pads at all times. Place under and around leaky equipment.
- Do not allow oil, grease, fuel or chemicals to drip onto the ground.
- Have spill kits and clean up material on-site.
- Repair leaky equipment promptly or remove problem vehicles and equipment from the site. Clean up contaminated soil immediately.
- Store contaminated waste in sealed containers constructed of suitable material. Label these containers properly.
- Clean up all spills and leaks. Promptly dispose of waste and spent clean up materials.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.6.1
		Sheet 2 of 5
		Date: 03/13

Standard Detail & Specifications

Construction Site Waste Mgt & Spill Control

Notes:

The Construction Site Pollution Prevention Plan should include the following elements:

1. Material Inventory

Document the storage and use of the following materials:

- Concrete
- Detergents
- Paints (enamel and latex)
- Cleaning solvents
- Pesticides
- Wood scraps
- Fertilizers
- Petroleum based products

2. Good housekeeping practices

- Store only enough product required to do the job.
- All materials shall be stored in a neat, orderly manner in their original labeled containers and covered.
- Substances shall not be mixed.
- When possible, all of a product shall be used up prior to disposal of the container.
- Manufacturers' instructions for disposal shall be strictly adhered to.
- The site foreman shall designate someone to inspect all BMPs daily.

3. Waste management practices

- All waste materials shall be collected and stored in securely lidded dumpsters in a location that does not drain to a waterbody.
- Waste materials shall be salvaged and/or recycled whenever possible.
- The dumpsters shall be emptied a minimum of twice per week, or more if necessary. The licensed hauler shall be responsible for cleaning out dumpsters.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		DE-ESC-3.6.1
		Sheet 3 of 5
		Date: 03/13

Standard Detail & Specifications

Construction Site Waste Mgt & Spill Control

Notes (cont.)

- Trash shall be disposed of in accordance with all applicable Delaware laws.
- Trash cans shall be placed at all lunch spots and littering is strictly prohibited. Recycle bins shall be placed near the construction trailer.
- If fertilizer bags can not be stored in a weather-proof location, they shall be kept on a pallet and covered with plastic sheeting which is overlapped and anchored.

4. Equipment maintenance practices

- If possible, equipment should be taken to off-site commercial facilities for washing and maintenance.
- When performed on-site, vehicles shall be washed with high-pressure water spray without detergents in an area contained by an impervious berm.
- Equipment shall be inspected for leaks on a daily basis.
- Washout from concrete trucks shall be disposed of in a temporary pit for hardening and proper disposal.
- Fuel nozzles shall be equipped with automatic shut-off valves.
- All used products such as oil, antifreeze, solvents and tires shall be disposed of in accordance with manufacturers' recommendations and local, state and federal laws and regulations.

5. Spill prevention practices

- Potential spill areas shall be identified and contained in covered areas with no connection to the storm drain system.
- Warning signs shall be posted in hazardous material storage areas.
- Preventive maintenance shall be performed on all tanks, valves, pumps, pipes and other equipment as necessary.
- Low or non-toxic substances shall be prioritized for use.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		DE-ESC-3.6.1
		Sheet 4 of 5
		Date: 03/13

Standard Detail & Specifications

Construction Site Waste Mgt & Spill Control

Notes (cont.)

- Contact information for reporting spills through the DNREC 24-Hour Toll Free Number shall be prominently posted.

6. Education

- Best management practices for construction site pollution control shall be a part of regular progress meetings.
- Information regarding waste management, equipment maintenance and spill prevention shall be prominently posted in the construction trailer.

CONTACT INFORMATION

DNREC 24-Hour Toll Free Number	800-662-8802
DNREC Solid & Hazardous Waste Branch	302-739-9403

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		DE-ESC-3.6.1
		Sheet 5 of 5
		Date: 03/13

Standard Detail & Specifications

Topsoiling

Construction Notes:

- Site Preparation** (Where Topsoil is to be added)

Note: When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, berms, dikes, waterways and sediment basins.

- Grading - Grades on the areas to be topsoiled which have been previously established shall be maintained.
- Liming - Where the topsoil is either highly acid 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). Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- Tilling - After the areas to be topsoiled have been brought to grade, and immediately prior to dumping and spreading the topsoil, the subgrade shall be loosened by discing or by scarifying to a depth of at least 3 inches to permit bonding of the topsoil to the subsoil. Pack by passing a bulldozer up and down over the entire surface area of the slope to create horizontal erosion check slots to prevent topsoil from sliding down the slope.

2. Topsoil Material and Application

Note: Topsoil salvaged from the existing site may often be used but it should meet the same standards as set forth in these specifications. The depth of topsoil to be salvaged shall be no more than the depth described as a representative profile for that particular soil type as described in the soil survey published by USDA-SCS in cooperation with Delaware Agricultural Experimental Station.

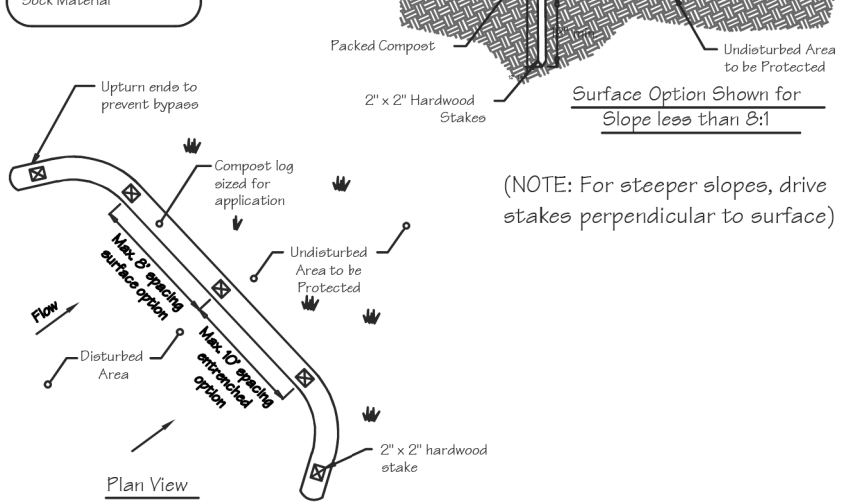
Source:	Symbol:	Detail No.
USDA - NRCS		DE-ESC-3.4.1
		Sheet 1 of 2
		Date: 03/13

Standard Detail & Specifications

Compost Filter Log

DATA TO BE PROVIDED:

Log Diameter
Sack Material



Source:	Symbol:	Detail No.
Adapted from MD Sds & Specs for ESC & Filtrix [®] International	CFL	DE-ESC-3.1.7
		Sheet 1 of 2
		Date: 03/13

Standard Detail & Specifications

Compost Filter Log

Construction Notes:

- Prior to installation, clear bedding area of obstructions including rocks or debris larger than 1 inch and fill in any sharp depression areas.
- Fill the sock fabric using a pneumatic blower so that the logs are rigid and do not deform. Terminate at the desired length.
- For trenched applications, excavate 2 to 4 inches below grade along the width and length of the compost filter log.
- Install the compost filter logs perpendicular to the flow direction and parallel to the slope with the beginning and end of the installation pointing up the slope a minimum of 1 foot elevation difference. On sites where this is not possible, upturn at a minimum length of 10' at a 30 degree angle to prevent runoff bypass.
- For unattached applications, blow or hand pack soil, mulch, or compost on the upslope side of the log, filling the bottom void area.
- Stake the filled log every 10 feet maximum through the center of the sock for trenched applications, or every 5 feet for unattached. The stake shall be a 2" by 2" hardwood. It should extend 12" below grade and protrude at least 3" above the top of the sock. If located on a slope greater than 8:1, the stake shall be angled downslope at a 45 degree angle to prevent the force of the water from dislodging to log.
- When the length of the compost filter log needed exceeds the available compost filter sock length, the next sock shall be overlapped a minimum of 12" before being filled, and a stake placed through both socks at the overlap.
- Remove accumulated sediment when it has reached half of the effective height of the log.
- Inspect weekly and after rain event. If sock is degrading or the sack is failing, vegetate to secure the compost, replace the log, or reinforce with an additional log. If the log has been crushed due to construction equipment, it can be "ruffled" back to its effective height. If the effective height can no longer be restored, the log shall be replaced or reinforced with an additional compost filter log.

Source:	Symbol:	Detail No.
Adapted from MD Sds & Specs for ESC & Filtrix [®] International	CFL	DE-ESC-3.1.7
		Sheet 2 of 2
		Date: 03/13

Standard Detail & Specifications

Topsoiling

Construction Notes (cont.)

- Materials** - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand or other soil as approved by an agronomist or soil scientist. It shall not have a mixture of contrasting textured subsoil and contain no more than 5 percent by volume of clinders, stones, slag, coarse fragment, gravel, sticks, roots, trash or other extraneous materials larger than 1-1/2 inches in diameter. Topsoil must be free of plants or plant parts of bermudagrass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistles, or others as specified. All topsoil shall be tested by a reputable laboratory for organic matter content, pH and soluble salts. A pH of 6.0 to 7.5 and an organic content of not less than 1.5 percent by weight is required. If pH value is less than 6.0 lime shall be applied and incorporated with the topsoil to adjust the pH to 6.5 or higher. Topsoil containing soluble salts greater than 500 parts per million shall not be used.

Note: 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 to permit dissipation of toxic materials.

- Grading** - The topsoil shall be uniformly distributed and compacted to a minimum of four (4) inches. Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil 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. Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

Note: Topsoil substitutes or amendments as approved by a qualified agronomist or soil scientist, may be used in lieu of natural topsoil. Compost material used to improve the percentage of organic matter shall be provided by a certified supplier.

Compost amendments that are intended to meet specific post-construction stormwater management goals shall further meet the requirements of **Appendix 3.04.2 Post Construction Stormwater Management BMP Standards and Specifications, Section 14.0 Soil Amendments.**

Source:	Symbol:	Detail No.
USDA - NRCS		DE-ESC-3.4.1
		Sheet 2 of 2
		Date: 03/13



868 Greenwood Road - Greenwood, DE 19950
(302) 697-2239 - (302) 349-5381

REVISIONS:

PROJECT NO: 23-077 | DGN FILE: 23-077

SEDIMENT & EROSION CONTROL DETAILS

LANDS OF KEN BARRETT BUILDERS

SITUATE IN: CITY OF DOVER - KENT COUNTY, DELAWARE

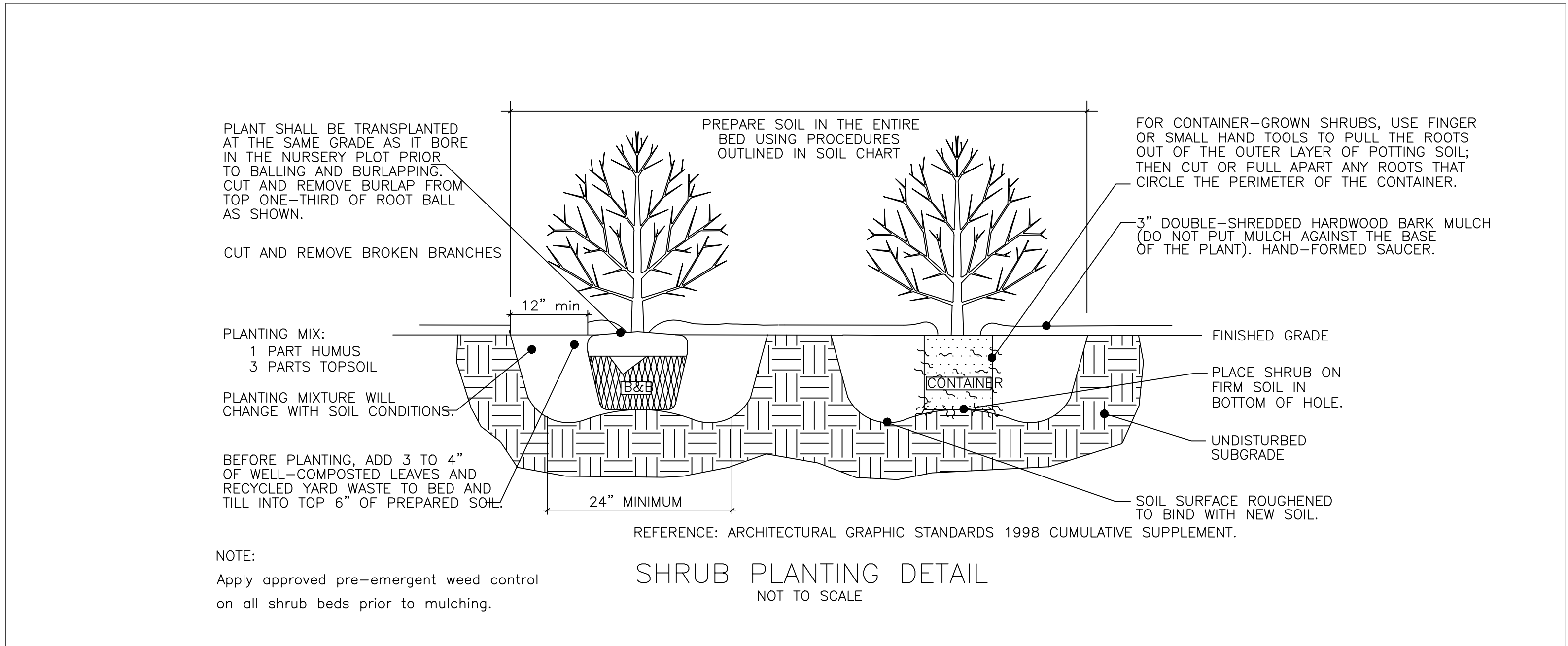
DATE: 03/27/24

NOT TO SCALE

SHT: SS-3

1. PLANT NAMES INDICATED COMPLY WITH STANDARDIZED PLANT NAMES AS ADOPTED BY THE LATEST EDITION OF THE AMERICAN JOINT COMMITTEE OF HORTICULTURAL NOMENCLATURE. PROVIDE STOCK TRUE TO BOTANICAL NAME LEGIBLY TAGGED.
2. ALL PLANT MATERIALS SHALL BE OF SPECIMEN QUALITY, HAVE DENSELY DEVELOPED BRANCHES, FRESH DUG WITH VIGOROUS, FIBROUS ROOT SYSTEM. PLANTS SHALL BE HEALTHY, FREE FROM DISEASE, ALL FORMS OF INSEST INFESTATIONS OR OTHER PHYSICAL DEFORMITIES. ALL PLANTS SHALL CONFORM TO GRADING AND SIZING STANDARDS OF THE LATEST EDITION OF AMERICAN STANDARDS FOR NURSERY STOCK STOCK FURNISHING. PLANTS SHALL BE AT LEAST THE MINIMUM SIZE INDICATED WITH 25% AS THE MINIMUM AND 75% AS THE MAXIMUM SIZE INDICATED.
3. OWNER, DEVELOPER OR LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY MATERIALS DUE TO POOR QUALITY, SIZE OR IMPROPER HANDLING. ALL REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIALS AT NO ADDITIONAL COST.
4. ALL PLANT MATERIALS SHALL BE COVERED DURING TRANSPORT TO PREVENT WIND BURNING. ALL PLANTS SHALL BE PLANTED IMMEDIATELY UPON DELIVERY OR "HEELED IN" IN A MANNER ACCEPTABLE TO THE LANDSCAPE ARCHITECT. HANDLE ALL PLANTS BY THE ROOT SYSTEM.
5. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO STARTING INSTALLATION FOR INSPECTIONS OF PLANT LOCATIONS, QUANTITIES, QUALITY AND SIZE AND UPON COMPLETION FOR FINAL INSPECTION OF PLANTING, MULCHING, STAKING AND CLEAN UP.

1. PLANTING PITS : EXCAVATED CIRCULAR PITS WITH VERTICAL SIDES. PROVIDE SHRUB PITS 24" GREATER THAN THE DIAMETER OF THE ROOT SYSTEM AND 48" GREATER FOR TREES. (DEPTH OF PIT TO ACCOMMODATE ROOT SYSTEM) SCARIFY THE BOTTOM OF THE PIT TO A DEPTH OF 4" BELOW DEPTH OF BALL.
2. PLANTING MIX: PROVIDE WOOD AND SEED FREE HUMUS OR PEAT MOSS. MIX ONE (1) PART HUMUS TO FOUR (4) PARTS EXISTING TOP SOIL. MIX THOROUGHLY WITH A 12-12-12 FERTILIZER ACCORDING TO THE MANUFACTURER'S DIRECTIONS.
3. SET PLANTS, PLACE IN PIT TO PROPER GRADE AND ALIGNMENT. SET PLANTS UPRIGHT, PLUMB AND GIVE THEM THEIR BEST APPEARANCE. SET PLANTS WITH BALL 2" TO 3" ABOVE FINISHED GRADE. DO NOT FILL OVER BALL. STEMS OR TRUNK, BACKFILL AND TAMP PLANTING MIX IN 4" LAYERS, CUT AND REMOVE TOP 1/3 OF BURLEAF. ALL LACING, ROPE, WIRES, STRINGS OR WIRE BASKETS, FORM A SOIL RING AROUND BALL ABOVE FINISHED GRADE. THOROUGHLY WATER IN PLANTING MIX TO FILL ALL VOIDS AND FILL RIM OF PIT.
4. MULCH: MULCH ALL PLANTS WITH 3" OF AN APPROVED MULCH WITHIN 48 HOURS AFTER PLANTING. APPLY AN APPROVED PRE-EMERGENT WEED CONTROL ACCORDING TO MANUFACTURER'S DIRECTIONS IN ALL PLANTING BEDS PRIOR TO MULCHING.
5. STAKING: ALL TREES SHALL BE STAKED. TREES UNDER 3" IN CALIPER SHALL HAVE 2 STAKES. TREES OVER 3" IN CALIPER SHALL HAVE 3 STAKES. STAKES SHALL BE EVENLY SPACED AND DRIVEN FIRMLY INTO UNDISTURBED SUBSOIL. PLACE STAKES PARALLEL TO WALKS, ROADS AND BUILDINGS.
6. PRUNING: PRESERVE NATURAL SHAPE OF PLANT. DO NOT CUT THE CENTRAL LEADER OF TREES. REMOVE OR CUT BACK DAMAGED OR UNSYMMETRICAL GROWTH.
7. ANTI-DISCARD: APPLY "WILT PROOF" OR EQUIVALENT TO ALL PLANTS. APPLY OVER ALL PLANT LEAVES OR NEEDLE AREAS ACCORDING TO MANUFACTURE'S DIRECTIONS.
8. GROUND COVER AND PERENNIAL BEDS: STRIP EXISTING LAW OR WEEDS. SPREAD A 1" LAYER OF PEAT MOSS OR APPROVED HUMUS ON ENTIRE AREA. APPLY 5-5-15-10 FERTILIZER ACCORDING TO MANUFACTURER'S DIRECTIONS. ROTO-TILL ENTIRE AREA TO A DEPTH OF 6" FINE GRADE BED. APPLY APPROVED PRE-EMERGENT WEED CONTROL ACCORDING TO MANUFACTURER'S DIRECTIONS. MULCH ENTIRE AREA WITH 2" MULCH AS SPECIFIED. PLANT GROUND COVERS AND PERENNIALS THROUGH MULCH INTO SOIL AND WATER.
9. TOPSOIL SHALL BE SANDY LOAM. IT SHALL NOT HAVE A MIXTURE OF SUBSOIL AND SHALL NOT CONTAIN CINDERS, STONES, LUMPS, STICKS, ROPE OR OTHER EXTRANEOUS MATTER LARGER THAN 1/2" DIAMETER. TOPSOIL MUST BE FREE OF WIREGRASS, QUACKGRASS, NUTSEDGE, POISON IVY, OR CANADIAN HORSESHOE. TOPSOIL SHALL BE FREE OF 5.5-7.5 AND NOT HAVE SOLUBLE SALTS HIGHER THAN 500 PARTS PER MILLION. PROVIDE CERTIFICATION FROM A RECOGNIZED LABORATORY.
10. ALL PLANT MATERIALS FURNISHED BY THE LANDSCAPE CONTRACTOR FOR THIS CONTRACT SHALL BE GUARANTEED FOR 100% OF THE COST OF REPLACEMENT (MATERIALS AND LABOR), TO LIVE AND REMAIN IN A HEALTHY, VIGOROUS CONDITION, FOR A PERIOD OF (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER AND DEVELOPER. ANY PLANTS THAT REMAIN UNHEALTHY OR HAVE LOST THEIR SHAPE DUE TO DEAD BRANCHES OR OTHERWISE ARE UNACCEPTABLE IN THE OPINION OF THE OWNER, ARCHITECT, SHALL BE REMOVED AND REPLACED AT THE OWNER'S NOT ADDITIONAL COST TO THE OWNER OR DEVELOPER. GUARANTEE SHALL NOT INCLUDE DAMAGE OR LOSS OF PLANTS, MATERIALS, ETC., CAUSED BY FIRE, FLOODS FREEZING RAINS, LIGHTING STORMS OR WINDS (OVER 76 MPH), ACTS OF VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER OR DEVELOPER. REMOVE ALL WEEDS AND GRASS FROM PLANTING AREAS. FERTILIZER SHALL BE APPLIED TO PLANTS DURING GROWTH PERIOD. REPLACEMENT PLANTS SHALL BE GUARANTEED FOR AN ADDITIONAL YEAR AFTER INSTALLATION.
11. MAINTAIN PLANTINGS & SEED AND/OR SOIL UNTIL COMPLETION AND ACCEPTANCE BY OWNER OF ENTIRE PROJECT. MAINTENANCE SHALL INCLUDE: MOVING, PRUNING, CULTIVATING, WEEDING, WATERING, AND APPLICATION OF APPROPRIATE INSECTICIDES & FUNGICIDES AS NECESSARY TO MAINTAIN PLANTS & SEEDING/SODDING FROM INSECTS & DISEASE.
12. THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO DELIVER TO THE OWNER OR DEVELOPER A COMPLETE REFERENCE OF LIENS THAT MAY ARISE OUT OF THIS CONTRACT OR RECEIPTS PAID IN FULL IN LIEU THEREOF.



Rev:	Date:	Description:
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Date:	03-15-2024
Designed By:	PS
Drawn By:	PS
Approved By:	CB
Project No:	124006



HARBOR GROUP
LANDSCAPE ARCHITECTURE

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Minnich
Engineering & Land Planning
Designing Quality Not Quantity

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REVISIONS:

PRELIMINARY LANDSCAPE DETAILS

LANDS OF

KEN BARRETT BUILDERS

SITUATE IN: CITY OF DOVER - KENT COUNTY, DELAWARE

0 10 20 40

DATE: 09/28/23 SCALE: 1" = 20' SHT: LS--