

## SEEDING NOTES

REQUIREMENTS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION IN ACCORDANCE WITH THE NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, JULY 2017.

- Site Preparation**
  - Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standard for Land Grading.
  - Immediately prior to seeding and topsoil application, the subsoil shall be evaluated for compaction in accordance with the Standard for Land Grading.
  - Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) on all sites. Topsoil shall be amended with organic matter, as needed, in accordance with the Standard for Topsoiling.
  - Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways.
- Seedbed Preparation**
  - Uniformly apply ground limestone and fertilizer to topsoil which has been spread and firm, according to soil test recommendations such as offered by Rutgers Cooperative Extension. Soil sample matters are available from the local Rutgers Cooperative Extension offices (http://njres.rutgers.edu/county). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-10-10 or equivalent with 50% water-soluble nitrogen unless a soil test indicates otherwise and incorporated into the surface 4 inches. If fertilizer is not incorporated, apply one-half the rate described above during seedbed preparation and repeat another one-half rate application of the same fertilizer within 3 to 5 weeks after seeding.
  - Work line and fertilizer into the topsoil as nearly as practical to a depth of 4 inches with a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.
  - High acid producing soils: Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed preparation. See Standard for Management of High Acid Producing Soils for specific requirements.
- Seeding**
  - Select a mixture from Table 4.3 or use a mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germination shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test date more than 12 months old unless retested.
  - Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 20% reduction in rates may be used when permanent vegetation is established prior to a report of compliance. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage with the specified seed mixture for the seeded area and mowed once.
  - Warm-season mixtures are grasses and legumes which maximize growth at high temperatures, generally 85o F and above. See Table 4-3 mixtures 1 to 7. Planting rates for warm-season grasses shall be the amount of Pure Live Seed (PLS) as determined by germination testing rates.
  - Cool-season mixtures are grasses and legumes which maximize growth at temperatures below 80oF. Many grasses become active at 60oF. See Table 4-3, mixtures 8-26. Adjustment of planting rates to compensate for the amount of PLS is not required for cool season grasses.
  - Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or catpawker applicator. Except for seeder, water and fertilizer and apply the mix onto the soil surface. The soil within 24 hours of seedbed preparation to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse-textured soil.
  - After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.
  - Hydroseeding is a broadcast seeding method usually involving a truck, or trailer-mounted tank, with an agitation system and hydraulic pumps for mixing seed, water and fertilizer and applying the mix onto the soil surface. Mulch shall not be included in the tank with seed. Short-fibered mulch may be applied with a hydroseeder following seeding. (also see Section 4-Mulching below). Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. When poor seed to soil contact occurs, there is a reduced seed germination and growth.
- Mulching**

Mulching is required on all seeding. Mulch will protect against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

  - Straw or Hay: Untreated small grain straw, hay free of seeds, to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that when used instead of a liquid mulch binder (balding or adhesion agent), the rate of application is 3 tons per acre. Mulch chopper/blowers must not grind the mulch. Hay which is not recommended for establishing fire turf or lawns due to the presence of weed seed.
  - Application - Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of broadcast mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section.

Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

  - Peg and Tackle: Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by attaching wire between pegs in a cross-cross and a square pattern. Secure twice around each peg with two or more round turns.
  - Mulch Nettings - Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
  - Crimper (mulch anchoring couler tool) - A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas favorable to a tractor, which must operate on the contour of slope. Straw mulch rate must be 3 tons per acre. No bedding or adhesive agent is required.
  - Liquid Mulch-Binders - May be used to anchor soil to the soil surface. Use a degradable netting in areas to be mowed.
  - Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.
  - Use one of the following:
    - Organic and Vegetable Based Binders - Naturally occurring, powder-based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Use at rates and weather conditions as recommended by the manufacturer for anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.
    - Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and, following application of mulch, drying and curing, shall no longer be soluble or disperse in water. Binder shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

  - Wood fiber or paper/fiber mulch - shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre or as recommended by the product manufacturer and may be applied by a hydroseeder. Mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.
  - Pelletized mulch - compressed and extruded paper and/or wood fiber product, which may contain co-polymers, sodifiers, fertilizers, and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 0.75 to 1.000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where seed/seed free mulch is desired, or on sites where straw mulch and sodifier agent is not practical or desirable. Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.
  - Irrigation (where feasible)

If soil moisture is deficient supply new seeding with adequate water (a minimum of 1/4 inch) applied up to twice a day until vegetation is well established. This is especially true when seedings are made in unusually dry or hot weather or on droughty sites.
  - Topdressing

Since soil organic matter content and slow release nitrogen fertilizer (water insoluble) are prescribed in Section 2A-Seedbed Preparation in this Standard, no follow-up topdressing is mandatory. An exception may be made where gross nitrogen deficiency exists in the soil to the extent that turf failure may develop. In that instance, topdress with 10-10-10 or equivalent at 300 pounds per acre or 7 pounds per 1,000 square feet every 3 to 5 weeks until the gross nitrogen deficiency in the turf is ameliorated.

- Establishing Permanent Vegetative Stabilization

The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4.3 are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 20% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note the designation of mowed once does not guarantee the permanency of the turf should other maintenance factors be neglected or otherwise managed.

## PERMANENT SEED MIXTURE

OPTIMUM SEEDING DATES: FEBRUARY 1 TO APRIL 3 AND AUGUST 15 TO OCTOBER 1

SEED MIX FOR LAWNS	
TALL FESCUE (TURF TYPE)	265 LBS./AC.
PERENNIAL RYE	20 LBS./AC.
SEED MIX FOR BASINS	
BERBERIS	20 LBS./AC.
RED TOP	2 LBS./AC.
WILD RYE (LYMUS)	15 LBS./AC.
SWITCHGRASS	25 LBS./AC.

## STANDARDS FOR DUST CONTROL

DEFINITION: THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.

PURPOSE: TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCED ON-SITE AND OFF-SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

CONDITION WHERE PRACTICE APPLIES: THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY WITHOUT INTERVENTION, CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON ANY RESTRICTIONS.

WATER QUALITY ENHANCEMENT: SEDIMENTS DEPOSITED AS "DUST" ARE OFTEN FINE COLLOIDAL MATERIAL WHICH IS EXTREMELY DIFFICULT TO REMOVE FROM WATER ONCE IT BECOMES SUSPENDED. USE OF THIS STANDARD WILL HELP TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SITES AND SUBSEQUENT BLOWING AND DEPOSITION INTO LOCAL SURFACE WATER RESOURCES.

PLANNING CRITERIA:

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES - SEE STANDARD OF STABILIZATION WITH MULCHES ONLY, PG. 5-1

VEGETATIVE COVER - SEE STANDARD FOR TEMPORARY VEGETATIVE COVER, PG. 7-1 PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG. 4-1, AND PERMANENT STABILIZATION WITH SOO, PG. 6-1

SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS), KEEP TRAFFIC OFF THESE AREAS, DUST

## TOPSOIL NOTES

REQUIREMENTS FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION IN ACCORDANCE WITH THE NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, JULY 2017.

- Site Preparation**
  - Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, pg. 19-1.
  - Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.
  - Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).
- Seedbed Preparation**
  - Apply ground limestone and fertilizer according to soil test recommendations such as offered by Rutgers Cooperative Extension. Soil sample matters are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-10-10 or equivalent with 50% water-soluble nitrogen unless a soil test indicates otherwise and incorporated into the surface 4 inches. If fertilizer is not incorporated, apply one-half the rate described above during seedbed preparation and repeat another one-half rate application of the same fertilizer within 3 to 5 weeks after seeding.
  - Work line and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.
  - Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways.
  - High acid producing soils: Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed preparation. See Standard for Management of High Acid Producing Soils, pg. 1-1.
- Seeding**
  - Select seed from recommendations in Table 7-2.

## SOIL EROSION AND SEDIMENT CONTROL NOTES

- ALL APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.
- SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THE PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, IN NEW JERSEY.
- ALL APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.
- ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN SIXTY (60) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION IN ACCORDANCE WITH THE NEW JERSEY STANDARDS AND APPLICATION RATES SHALL BE INCLUDED IN THE NARRATIVE. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TACKLE, MULCH MATTING OR LIQUID MULCH BINDER).
- ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NEW JERSEY STANDARDS IMMEDIATELY FOLLOWING ROUGH GRADING.
- THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- ALL SOIL EROSION AND SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
- SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF A FLOORPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHOULD BE PROTECTED BY A HAY BALE BARRIER OR SEDIMENT FENCE. PROPOSED LOCATIONS MUST BE DELINEATED ON THE PLAN.
- A CRUSHED STONE, TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ENTRANCE EXISTS. THE RIP-RAP PAD MUST BE 100 FEET IN LENGTH AND THE STONE MUST BE 1/2" - 4" IN SIZE, PLACED 12" THICK AND FULL WIDTH OF THE ENTRANCE. IT SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC FILTER FABRIC AND MAINTAINED. (THE STRUCTURE MUST BE DELINEATED AND DETAIL INCLUDED ON THE PLANS).
- IF A STONE CONSTRUCTION ENTRANCE IS TO BE USED AS AN EXIT ON TO A MAJOR HIGHWAY, A THIRTY (30) FOOT PAVED TRANSITION AREA IS TO BE INSTALLED.
- ALL DRIVEWAYS MUST BE STABILIZED WITH 2 1/2" CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.
- PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- ALL CATCH BASIN INLETS WILL BE PROTECTED DURING CONSTRUCTION (FILTER DETAILS APPEAR ON PLAN).
- ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
- ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTRATION DEVICE. THE SEDIMENT FILTER MUST BE CAPABLE OF FILTERING THE SEDIMENT AND BE PLACED SO AS NOT TO CAUSE EROSION OF THE DOWNSTREAM AREA. DETAILS AND MAINTENANCE OF THE DEVICE MUST BE INCLUDED ON THE PLANS. FIELD PLACEMENT AND USE OF THE STRUCTURE MUST BE APPROVED BY THE DISTRICT EROSION CONTROL INSPECTOR PRIOR TO COMMENCEMENT OF DEWATERING ACTIVITIES.
- THE CUMBERLAND/SALEM SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED, IN WRITING, 72 HOURS PRIOR TO ANY LAND DISTURBANCE.
- TOPSOIL A STANDARD UNIFORM APPLICATION OF 5 INCHES OF CLEAN TOPSOIL IS RECOMMENDED. SOILS HAVING A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE MUST BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE BEFORE SEEDBED PREPARATION.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME, FERTILIZER AND SEED APPLICATION RATES AT THE REQUEST OF THE CUMBERLAND/SALEM SOIL CONSERVATION DISTRICT.
- NUSA 4-24-39, ET SEQ., REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLETED WITH FOR PERMANENT MEASURES. ALL SITE WORK FOR THE PROJECT MUST BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE AS A PREREQUISITE TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
- NUSA 4-24-39, ET SEQ., REQUIRES THAT UPON PERMANENT SITE STABILIZATION AND COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL APPLY TO THE SOIL CONSERVATION DISTRICT FOR A FINAL COMPLIANCE INSPECTION TO CHECK THAT ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLETED WITH FOR PERMANENT MEASURES.
- OFFSITE SEDIMENT DISTURBANCE MAY REQUIRE ADDITIONAL CONTROL MEASURES TO BE DETERMINED BY THE EROSION CONTROL INSPECTOR.
- A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.
- ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ALL SUBSEQUENT OWNERS.
- IMMEDIATELY AFTER THE COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, SEED THE STOCKPILE WITH ANNUAL RYE GRASS, STABILIZE TOPSOIL STOCKPILE WITH STRAW MULCH FOR PROTECTION IN THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING.
- ANY CHANGES TO THE SITE PLAN WILL REQUIRE THE SUBMISSION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN TO THE CUMBERLAND/SALEM SOIL CONSERVATION DISTRICT. THE REVISED PLAN MUST BE IN ACCORDANCE WITH THE CURRENT NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
- MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
- THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED BY THE DISTRICT INSPECTOR.

## STRIPPING AND STOCKPILING

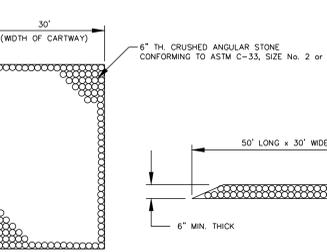
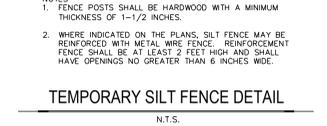
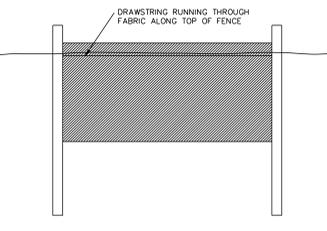
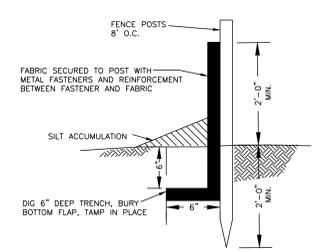
- FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL REQUIRES STRIPPING.
- STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
- WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO APPROXIMATELY 6.5 IN LIEU OF SOIL TESTS. SEE LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG. 4-1.
- A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
- STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFFSITE ENVIRONMENTAL DAMAGE.
- STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN. SEE STANDARDS FOR PERMANENT (PG. 4-1) OR TEMPORARY (PG. 7-1) VEGETATIVE COVER FOR SOIL STABILIZATION, WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.

## SITE PREPARATION

- GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE, TIME, IS OF THE ESSENCE.
- GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING, PG. 19-1.
- AS GUIDANCE FOR IDEAL CONDITIONS, TOPSOIL SHOULD BE TESTED FOR LIME REQUIREMENT, LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
- IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS WILL HELP INSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
- EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.

## APPLYING TOPSOIL

- TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE, I.E., LESS THAN FIELD CAPACITY.
- A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL, HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL.

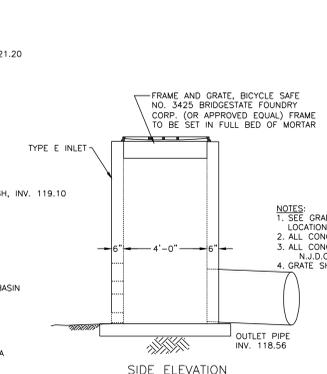


PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 to 2%	50 FEET	100 FEET
2 to 5%	100 FEET	200 FEET
>5%	ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE	

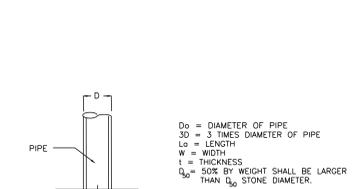
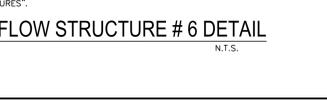
## MAINTENANCE

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT, ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
- IF A STONE CONSTRUCTION ENTRANCE IS TO BE USED AS AN EXIT ON TO A MAJOR HIGHWAY, A THIRTY (30) FOOT PAVED TRANSITION AREA IS TO BE INSTALLED.
  - ALL DRIVEWAYS MUST BE STABILIZED WITH 2 1/2" CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.
  - PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
  - ALL CATCH BASIN INLETS WILL BE PROTECTED DURING CONSTRUCTION (FILTER DETAILS APPEAR ON PLAN).
  - ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
  - ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTRATION DEVICE. THE SEDIMENT FILTER MUST BE CAPABLE OF FILTERING THE SEDIMENT AND BE PLACED SO AS NOT TO CAUSE EROSION OF THE DOWNSTREAM AREA. DETAILS AND MAINTENANCE OF THE DEVICE MUST BE INCLUDED ON THE PLANS. FIELD PLACEMENT AND USE OF THE STRUCTURE MUST BE APPROVED BY THE DISTRICT EROSION CONTROL INSPECTOR PRIOR TO COMMENCEMENT OF DEWATERING ACTIVITIES.
  - THE CUMBERLAND/SALEM SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED, IN WRITING, 72 HOURS PRIOR TO ANY LAND DISTURBANCE.
  - TOPSOIL A STANDARD UNIFORM APPLICATION OF 5 INCHES OF CLEAN TOPSOIL IS RECOMMENDED. SOILS HAVING A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE MUST BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE BEFORE SEEDBED PREPARATION.
  - IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME, FERTILIZER AND SEED APPLICATION RATES AT THE REQUEST OF THE CUMBERLAND/SALEM SOIL CONSERVATION DISTRICT.
  - NUSA 4-24-39, ET SEQ., REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLETED WITH FOR PERMANENT MEASURES. ALL SITE WORK FOR THE PROJECT MUST BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE AS A PREREQUISITE TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
  - NUSA 4-24-39, ET SEQ., REQUIRES THAT UPON PERMANENT SITE STABILIZATION AND COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL APPLY TO THE SOIL CONSERVATION DISTRICT FOR A FINAL COMPLIANCE INSPECTION TO CHECK THAT ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLETED WITH FOR PERMANENT MEASURES.
  - OFFSITE SEDIMENT DISTURBANCE MAY REQUIRE ADDITIONAL CONTROL MEASURES TO BE DETERMINED BY THE EROSION CONTROL INSPECTOR.
  - A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.
  - ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ALL SUBSEQUENT OWNERS.
  - IMMEDIATELY AFTER THE COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, SEED THE STOCKPILE WITH ANNUAL RYE GRASS, STABILIZE TOPSOIL STOCKPILE WITH STRAW MULCH FOR PROTECTION IN THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING.
  - ANY CHANGES TO THE SITE PLAN WILL REQUIRE THE SUBMISSION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN TO THE CUMBERLAND/SALEM SOIL CONSERVATION DISTRICT. THE REVISED PLAN MUST BE IN ACCORDANCE WITH THE CURRENT NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
  - MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
  - THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED BY THE DISTRICT INSPECTOR.

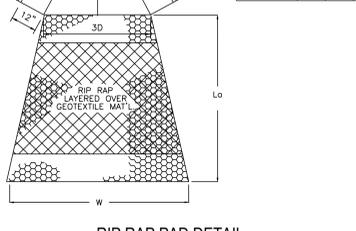
## TEMPORARY STABILIZED CONSTRUCTION ENTRANCE DETAIL



## PRECAST OUTFLOW STRUCTURE #6 DETAIL



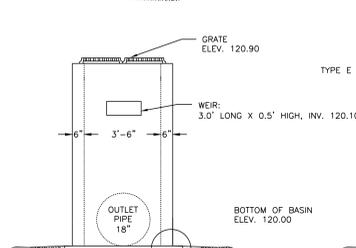
STRUCT. No.	Lo	La	W	Do	Th
H.W. #1	10.1'	13.9'	4"	15"	8"
H.W. #3	9.4'	13.2'	4"	15"	8"
H.W. #5	9.3'	13.0'	4"	15"	8"
H.W. #7	25.1'	31.1'	4"	24"	8"



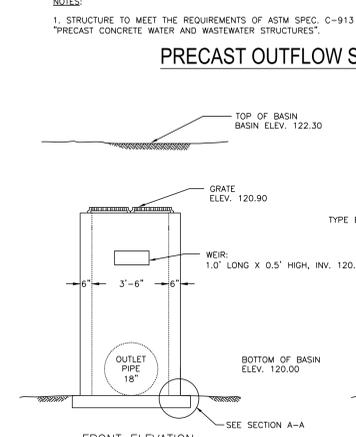
## TEMPORARY SILT FENCE DETAIL

- FENCE POSTS SHALL BE HARDWOOD WITH A MINIMUM THICKNESS OF 1-1/2 INCHES.
- WHERE INDICATED ON THE PLANS, SILT FENCE MAY BE REINFORCED WITH METAL WIRE FENCE. REINFORCEMENT FENCE SHALL BE AT LEAST 2 FEET HIGH AND SHALL HAVE OPENINGS NO GREATER THAN 6 INCHES WIDE.

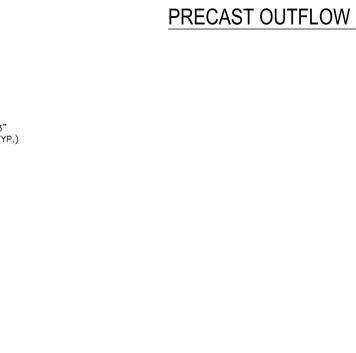
## FOREBAY WALL DETAIL



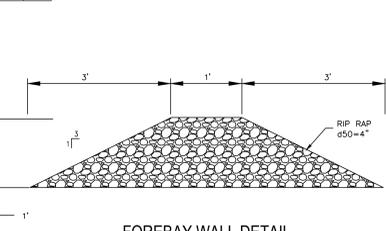
## PRECAST OUTFLOW STRUCTURE #2 DETAIL



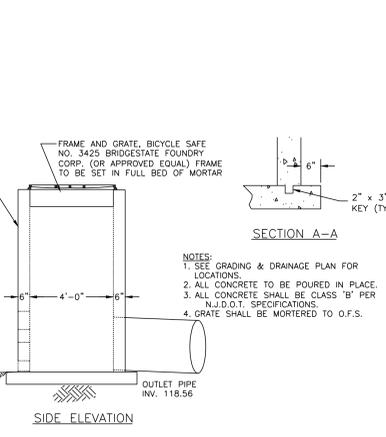
## PRECAST OUTFLOW STRUCTURE #4 DETAIL



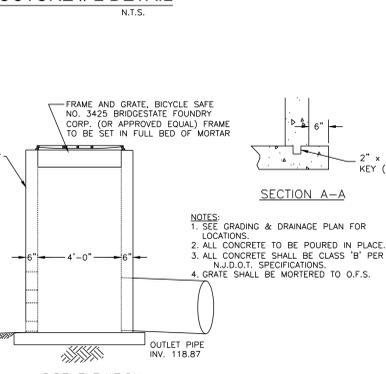
STRUCT. No.	Lo	La	W	Do	Th
H.W. #1	10.1'	13.9'	4"	15"	8"
H.W. #3	9.4'	13.2'	4"	15"	8"
H.W. #5	9.3'	13.0'	4"	15"	8"
H.W. #7	25.1'	31.1'	4"	24"	8"



## PRECAST OUTFLOW STRUCTURE #2 DETAIL



## PRECAST OUTFLOW STRUCTURE #4 DETAIL



## SOIL EROSION & SEDIMENT CONTROL DETAIL SHEET

**SITE PLANS**  
 FOR  
**FIRST BAPTIST CHURCH OF ELMER**  
 PLATE 6, BLOCK 12, LOTS 2.10 & 2.12  
 329 FRONT STREET  
 SITUATED IN THE  
**BOROUGH OF ELMER**  
 COUNTY OF SALEM, STATE OF NEW JERSEY  
**SITE CIVIL ENGINEERING**  
 2205 DELSEA DRIVE, SUITE 7  
 FRANKLINVILLE, NEW JERSEY 08322  
 (609) 885-8679  
 FAX (609) 513-6504  
 N.J. CERTIFICATE OF AUTHORIZATION NO. GA28188600

FILE NUMBER	934-2021
CHECKED BY: WG	11/09/22
DRAWN BY: MPG	DATE
PROJECT NO. 934	DATE: NOVEMBER 9, 2022
SHEET 11 OF 12	

WILLIAM P. GILMORE, P.E.  
 NEW JERSEY PROFESSIONAL ENGINEER NO. 24604742100

REV.	DATE	DESCRIPTION	BY	AS NOTED