## NOTES

1. All construction methods and materials shall conform to the NCDENR and Alamance County Standard Specifications & Details.
2. All erosion control practices shall be placed in the best location based on field conditions.
3. Existing Conditions are shown based on field surveys and Alamance County GIS downloadable data. Any discrepancies shall be reported to the engineer immediately.

## NARRATIVE

The project is located in the Pleasant Grove Township of Alamance County, North Carolina. The subject property is currently developed with a LCID Landfill and a field office with associated gravel parking and driveway areas. The remainder of the site is wooded, with slopes ranging from 3 to 15%. There is an existing creek, Boyds Creek Tributary 2, flowing north to south through the center of the property. The site is being cleared and graded to provide for expanded landfills areas with an access road. Drainage on the subject property flows in a north to south pattern, as shown by the existing topography. Adjacent property is owned by various individuals, shown as adjacent owners on the plan. Clearing and stripping operations beginning upon permitting. Near surface soils are composed of USCS type CL and ML. Anticipated rough grading completion date: Not Known. Management Practices to remain in place until all contributing denuded areas have been stabilized or practices can be replaced with permanent structures.

## MAINTENANCE PLAN

1. All erosion and sediment control practices shall be checked at the end of each run-off producing rainfall event but no less than once per week. Any needed repairs shall be made to maintain practices as designed.
2. Sediment shall be removed from traps when storage capacity has been reduced to approximately 50% design capacity.
3. All seeded areas shall be fertilized, reseeded and mulched according to specifications in the vegetative plan to maintain a vigorous, dense vegetative cover.

## RESPONSIBILITY

1. All installation & maintenance of erosion and sediment control practices is the responsibility of the owner.
2. Contractor grading site shall be responsible for maintenance of erosion control measures unless arranged otherwise by the owner.
3. Vegetative stabilization on all exposed areas during construction shall be implemented in accordance with the 'NEW STABILIZATION TIMEFRAMES' as shown in the table below.
4. Permanent vegetative cover shall be installed within (14) working days or (90) calendar days (whichever is shorter) following completion of construction or development.

NEW STABILIZATION TIMEFRAMES

| SITE AREA DESCRIPTION | STABILIZATION | TIMEFRAME EXCEPTIONS |
|---|---|---|
| PERIMETER DIKES, SWALES, DITCHES SLOPES | 7 DAYS | NONE |
| HIGH QUALITY WATER (HQW) ZONES | 7 DAYS | NONE |
| SLOPES STEEPER THAN 3:1 | 7 DAYS | IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED |
| SLOPES 3:1 OR FLATTER | 14 DAYS | 7 DAYS FOR SLOPE GREATER THAN 50' IN LENGTH |
| ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1 | 14 DAYS | NONE, EXCEPT FOR PERIMETERS AND HQW ZONES |

| AREA | DESCRIPTION | SEASON | SEEDING MIXTURE | SEEDBED PREP. | SEEDING METHOD | MULCH | MAINTENANCE | NOTES |
|---|---|---|---|---|---|---|---|---|
| 1. | Steep Slope Area | Fall (8-20 to 10-25) | Tall fescue 100lb/ac.<br>Kobe lespedeza 10lb/ac.<br>Bahagrass 25lb/ac.<br>Rye grain 40lb/ac. | SP-1 | SM-1 | MU-1 | MA-1 | |
| 2. | Low Mnt. Area | Fall (8-20 to 10-25) | Tall fescue 100lb/ac.<br>Kobe lespedeza 10lb/ac.<br>Bahagrass 25lb/ac.<br>Rye grain 40lb/ac. | SP-4 | SM-2 | MU-2 | MA-1 | |
| 1. | Steep Slope Area | Winter (10-25 to 1-31) | Rye grain 120lb/ac. | SP-4 | SM-2 | MU-1 | MA-1 | |
| 2. | Low Mnt. Area | Winter (10-25 to 1-31) | Rye grain 120lb/ac. | SP-4 | SM-2 | MU-2 | MA-1 | |
| 1. | Steep Slope Area | Spring (02-1 to 04-15) | Tall fescue 100lb/ac.<br>Kobe lespedeza 10lb/ac.<br>Bahagrass 25lb/ac.<br>Rye grain 40lb/ac. | SP-1 | SM-1 | MU-1 | MA-1 | |
| 2. | Low Mnt. Area | Spring (02-01 to 04-15) | Tall fescue 100lb/ac.<br>Kobe lespedeza 10lb/ac.<br>Bahagrass 25lb/ac.<br>Rye grain 40lb/ac. | SP-4 | SM-2 | MU-2 | MA-1 | |
| 1. | Steep Slope Area | Summer (04-15 to 08-20) | German millet 40lb/ac. | SP-2 | SM-2 | MU-1 | MA-5 | |
| 2. | Low Mnt. Area | Summer (04-15 to 08-20) | Tall fescue 100lb/ac.<br>Kobe lespedeza 10lb/ac.<br>Bermudagrass 15lb/ac.<br>German Millet 10lb/ac. | SP-4 | SM-2 | MU-2 | MA-1 | |

## VEGETATIVE PLAN

Seedbed Preparation (SP):
SP-1 Fill slopes 3:1 or steeper to be seeded with a hydraulic seeder (permanent seedings)

1. Leave Last 4-6 inches of fill loose and uncompacted, allowing rocks, roots, large clods and other debris to remain on the slope.
2. Roughen slope faces by making grooves of 2 to 3 inches deep, perpendicular to the slope.
3. Spread lime evenly over slopes at rates recommended by soil tests.

SP-4 Gentle or flat slopes where topsoil is not used.

1. Remove rocks and debris.
2. Apply lime and fertilizer at rates recommended by soil test; spread evenly and incorporate into the top 6" with a disk, chisel plow, or rotary tiller.
3. Break up large clods and rake into a loose, uniform seedbed.
4. Rake to loosen surface just prior to applying seed.

Seeding Methods (SM):
SM-1 Fill slopes 3:1 or steeper (permanent seedings)

Use hydraulic seeding equipment to apply seed and fertilizer, a wood fiber mulch at 45lb/ 1,000 sf., and mulch tackifier.

SM-2 Gentle or flat slopes or temporary seedings.

1. Broadcast seed at the recommended rate with cyclone seeder, drop spreader, or cultipacker seeder.
2. Rake seed into the soil and lightly pack to establish good contact.

Mulch (MU):
MU-1 Slopes 3:1 or steeper
In mid-summer, late fall or winter, apply 100lb/1,000 sf. grain straw, cover with netting and staple to the slope. In spring or early fall use 45lb/1,000 sf. wood fiber in a hydroseeder slurry.

MU-2 Temporary Seedings
Apply 90lb/1,000sf. grain straw and tack with 11 gal./1,000sf. asphalt.

Maintenance (MA):
MA-1 Refertilize in late winter or early spring and mow as desired.

MA-5 Topdress with 50lb/acre nitrogen in March. If cover is needed through the following summer, overseed with 50lb/acre Kobe lespedeza.

### Yearly Temporary Seeding Schedule

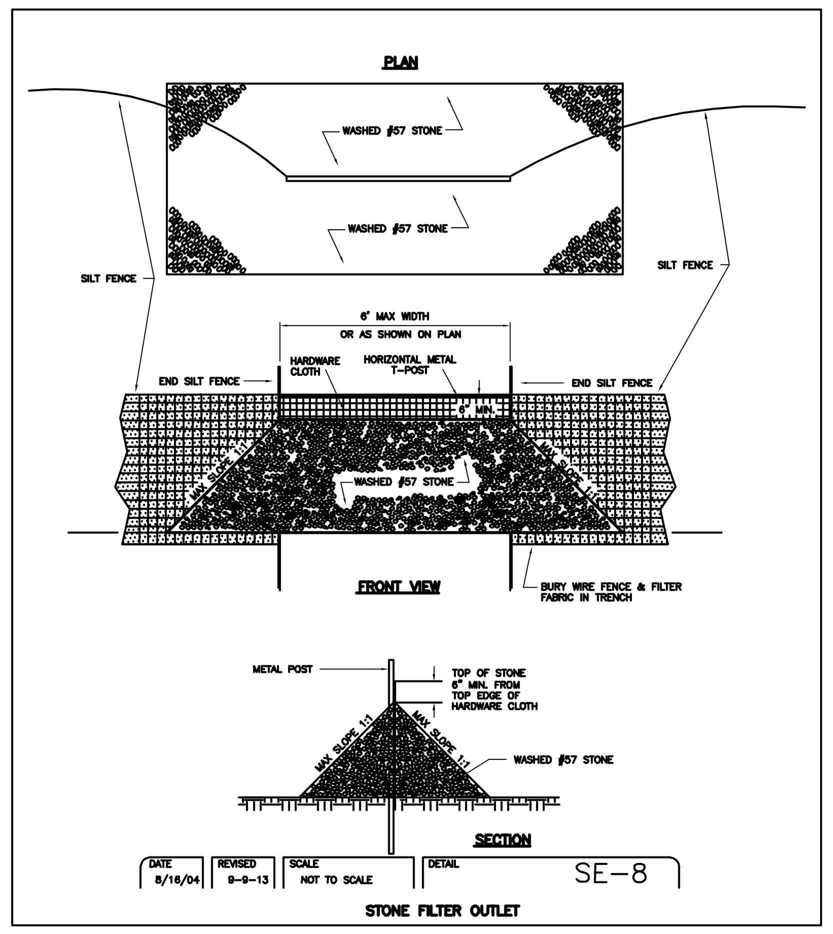
Winter and Early Spring (December 1 to February 28):
Fertilizer: 10-10-10 at 700-1,000 lb/acre
Seed: Rye (grain) 120 lb/acre and Annual lespedeza 50 lb/acre
Mulch: 4,000 lb/acre straw

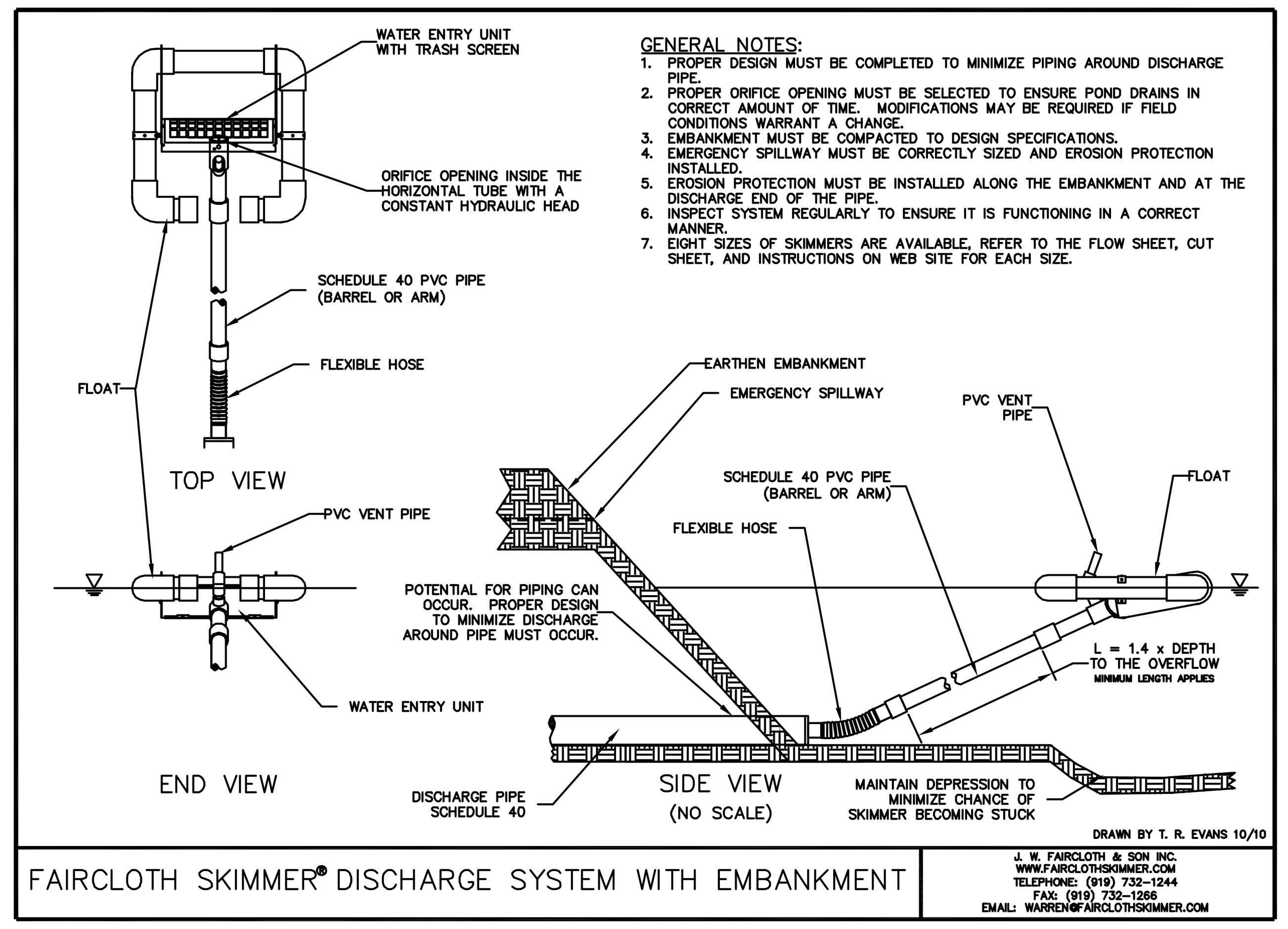
Summer (March 1 to September 5):
Fertilizer: same and add 2,000 lb/acre agricultural limestone
Seed: German Millet 40 lb/acre
Mulch: same

Fall (September 6 to November 30):
Seed: Rye (grain) 120 lb/acre
Fertilizer: same
Mulch: same

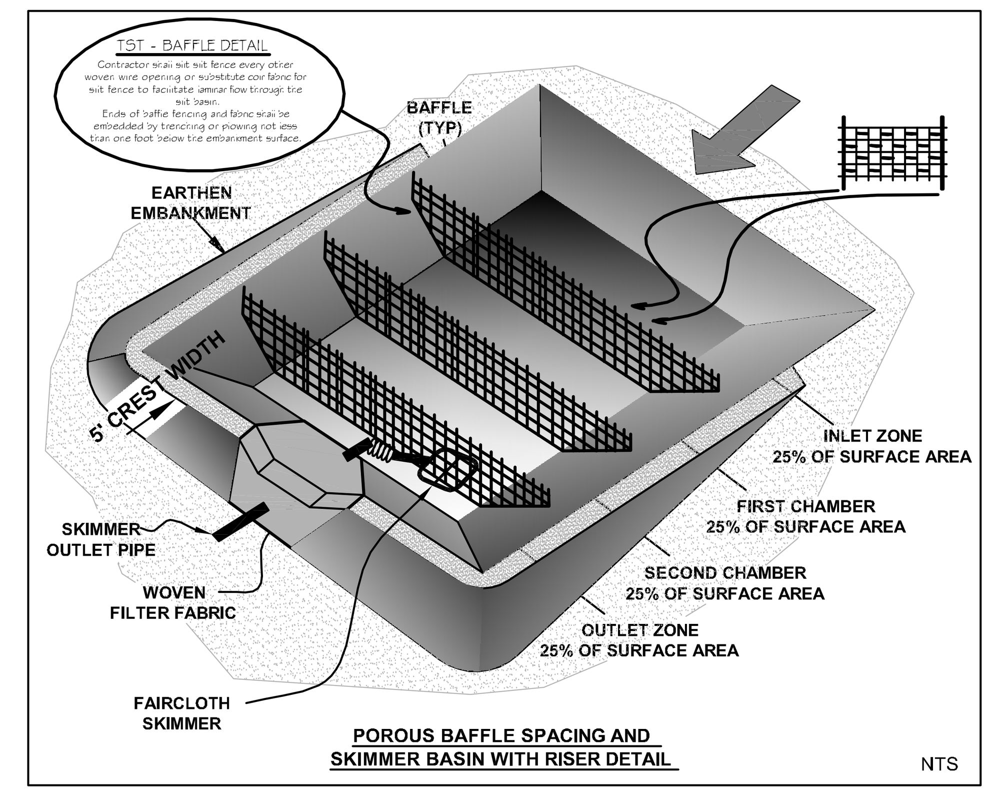
## CONSTRUCTION SCHEDULE

1. Obtain plan approval and other applicable permits.
2. Flag clearing limits, limits of disturbance and designate tree save areas as needed.
3. Hold pre-construction meeting one week prior to intiation of any work.
4. Clear only the areas needed to install silt fencing and other erosion control devices as shown prior to the intiation of clearing, grubbing, and grading activities. Construction and operation of any sediment control measures shall be maintained throughout all phases of construction.
5. Complete site clearing and grubbing activities, and strip topsoil only in current phase or as directed by engineer.
6. Rough grade, construct drives and manicure all slopes.
7. Leave surface slightly roughened and vegetate and mulch immediately or stabilize with erosion control materials per slope protection schedule.
8. Complete grading in the current phase.
9. All disturbed surfaces shall be permanently vegetated upon completeion of any grading and filling activity. Call for inspection as needed to complete each phase or section.
10. All temporary sediment control measures are to be maintained until all grading and filling activity is completed.
11. Call project engineer for inspection.

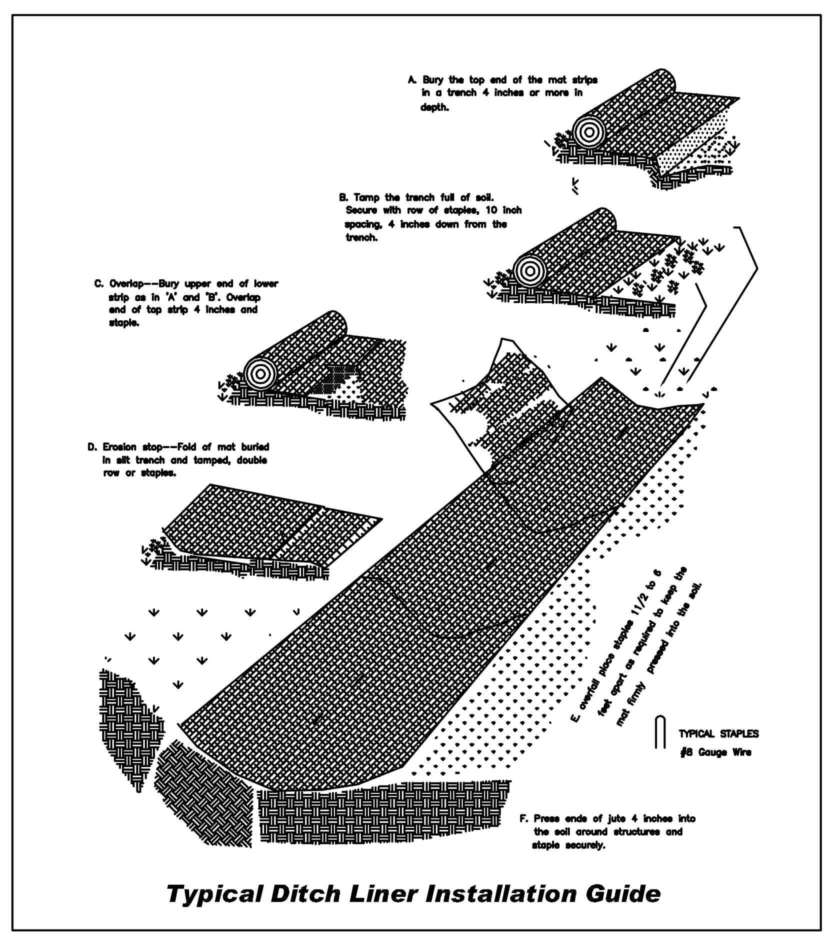


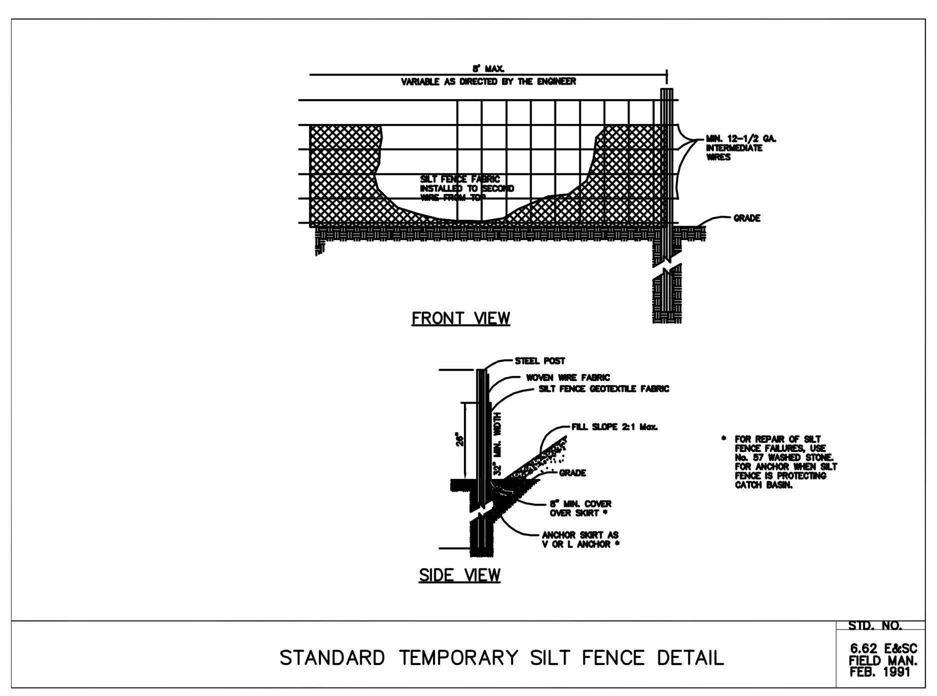



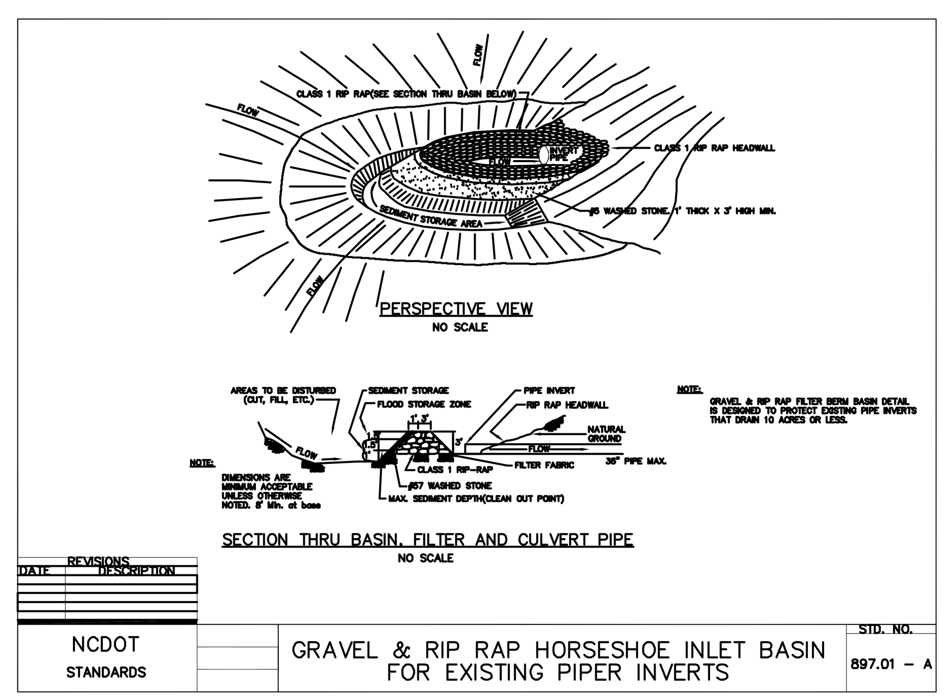

# EROSION CONTROL MEASURES DETAILS (NTS.)

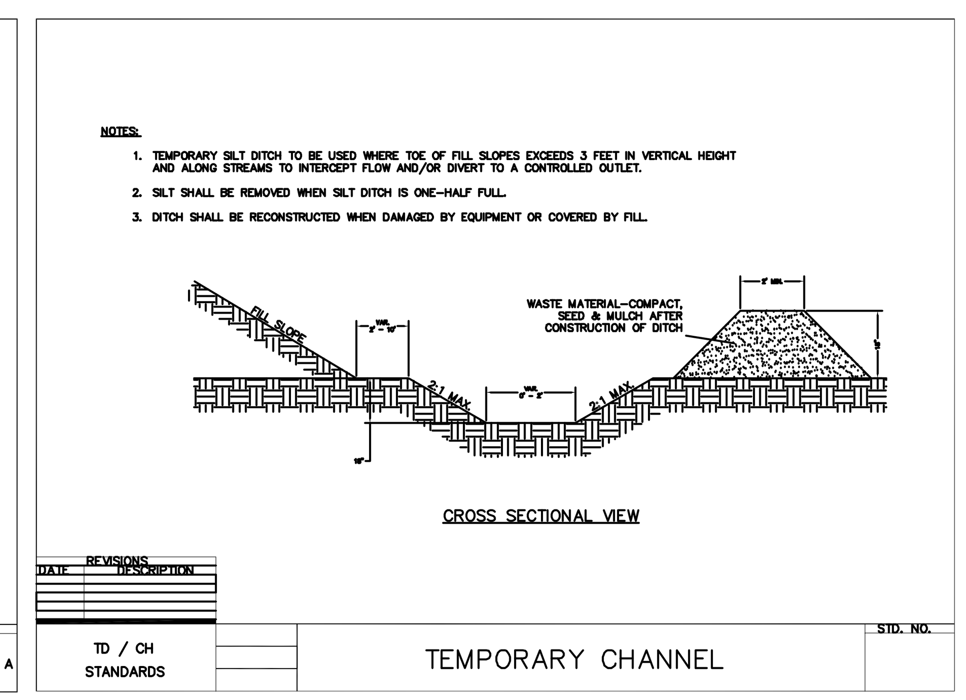


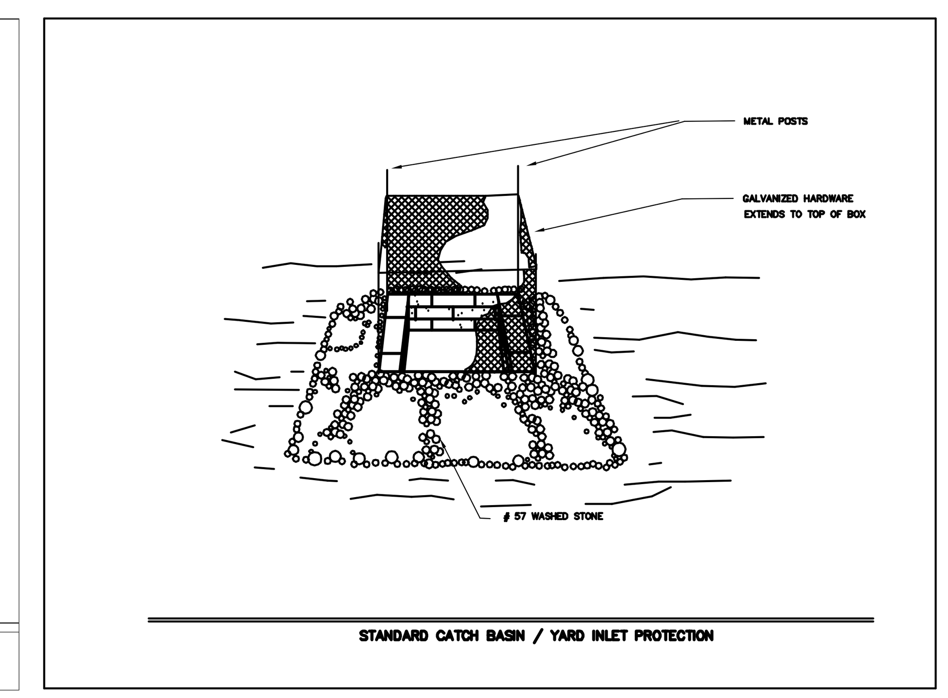

Inspection of Erosion Control Measures Note: Perimeter measures ie: silt fence with outlets, construction entrance, diversion berms and basin installed and seeded prior to any remaining grading operation. Completed perimeter measures and basin must be observed by erosion representative prior to additional grading operations.

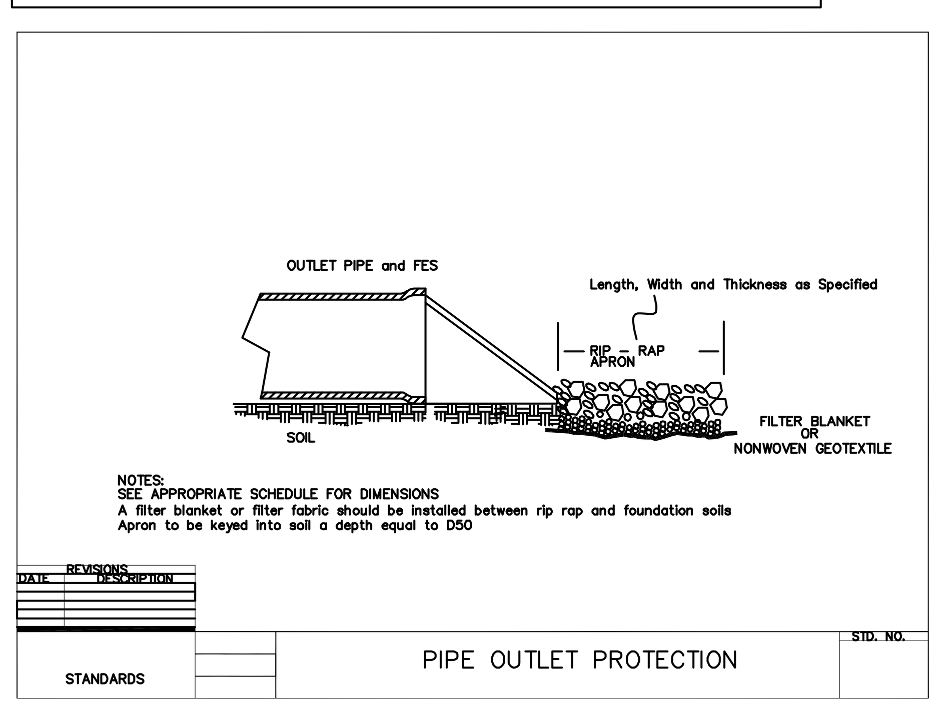


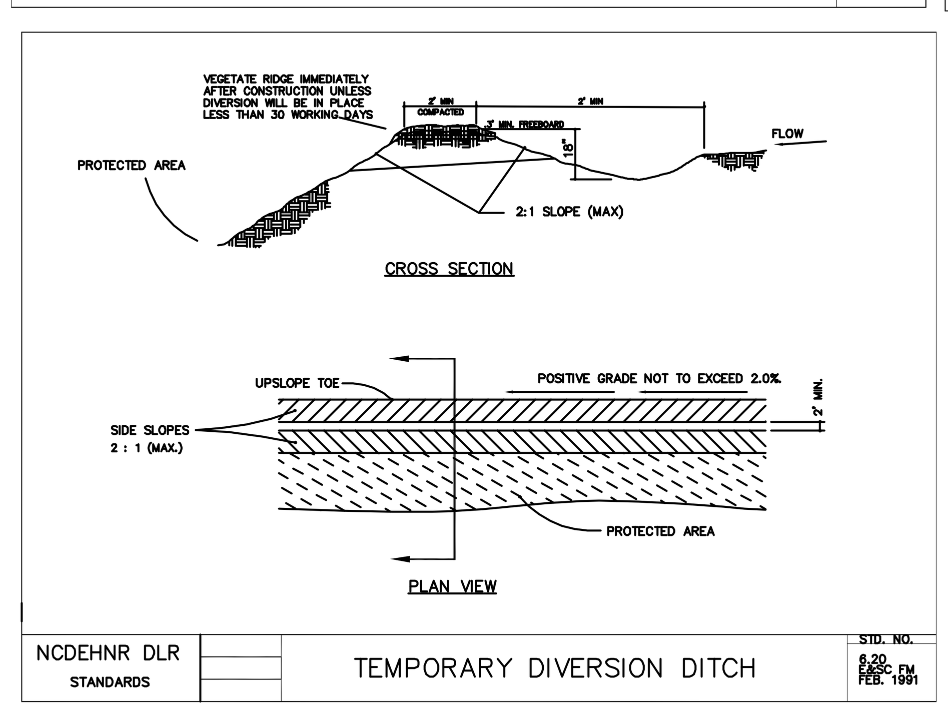



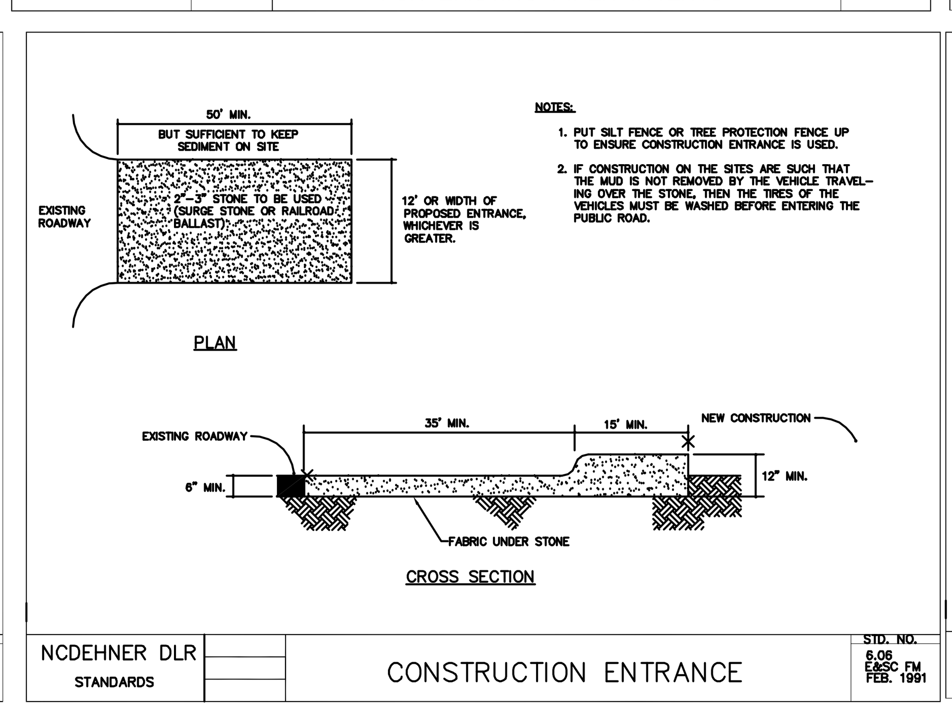



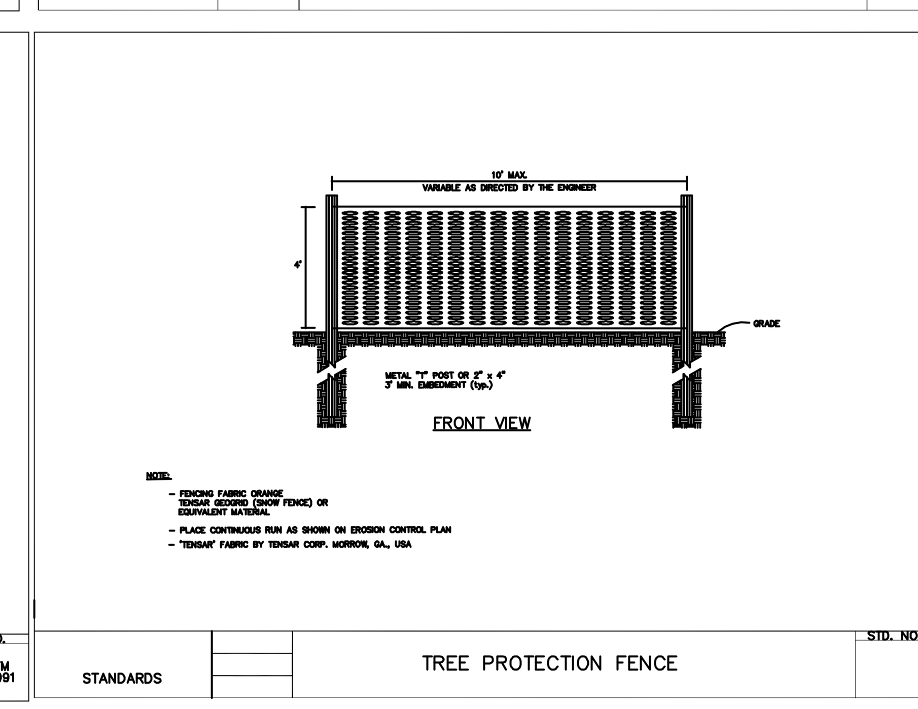



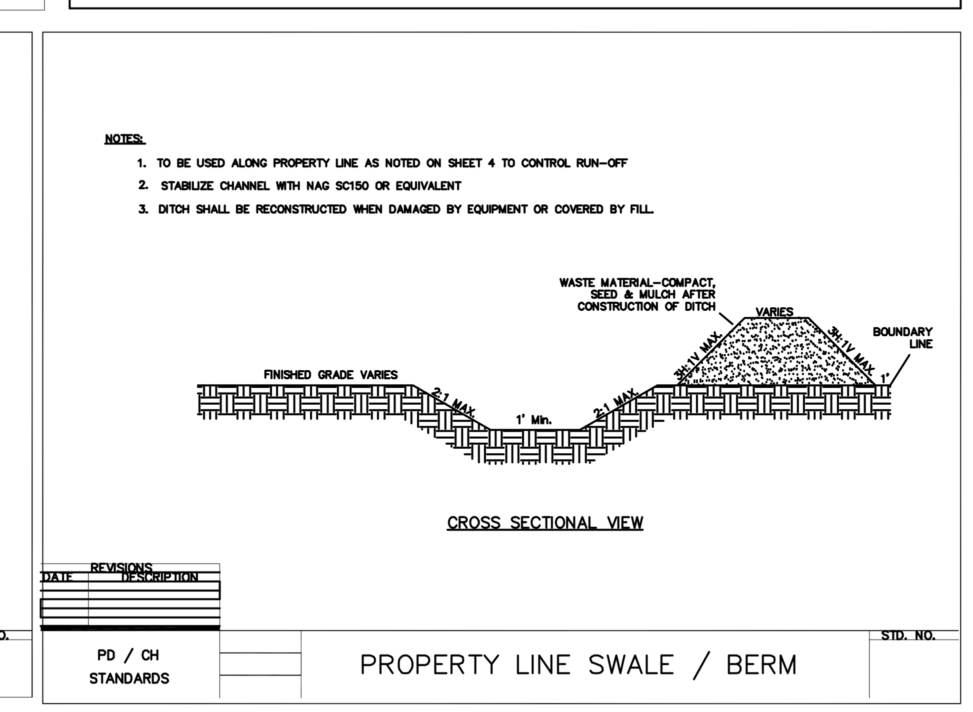

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PROJECT: **LCID LANDFILL**
Pleasant Grove Township: Alamance County, North Carolina

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 24924 CHARLES D. HUFFINE
10-15-2013
Charles D. Huffine

Erosion & Sediment Control Details

1-13-1006
PROJECT NUMBER:
PROPOSAL NUMBER:

REVISIONS

DATE 8-17-13
SCALE NTS
DRAWN IN THE USA BY OTHERS

SHEET 6 / 6