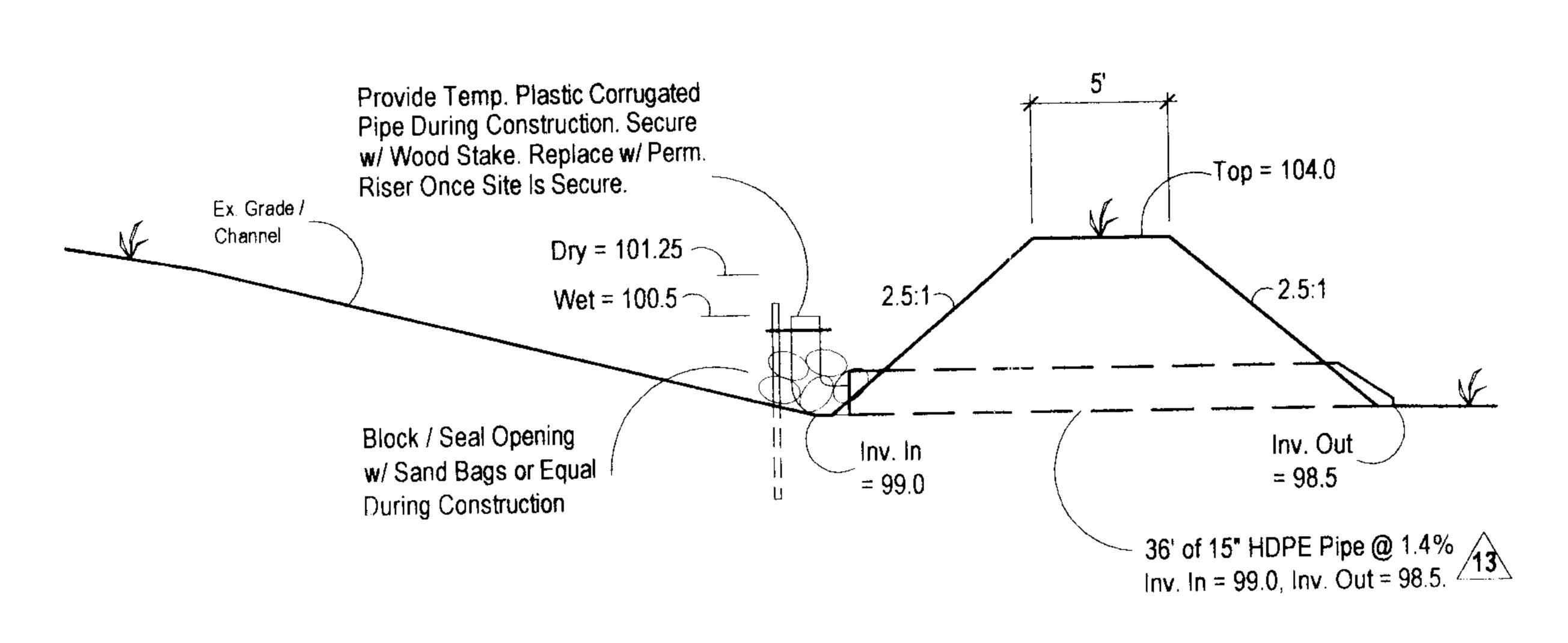


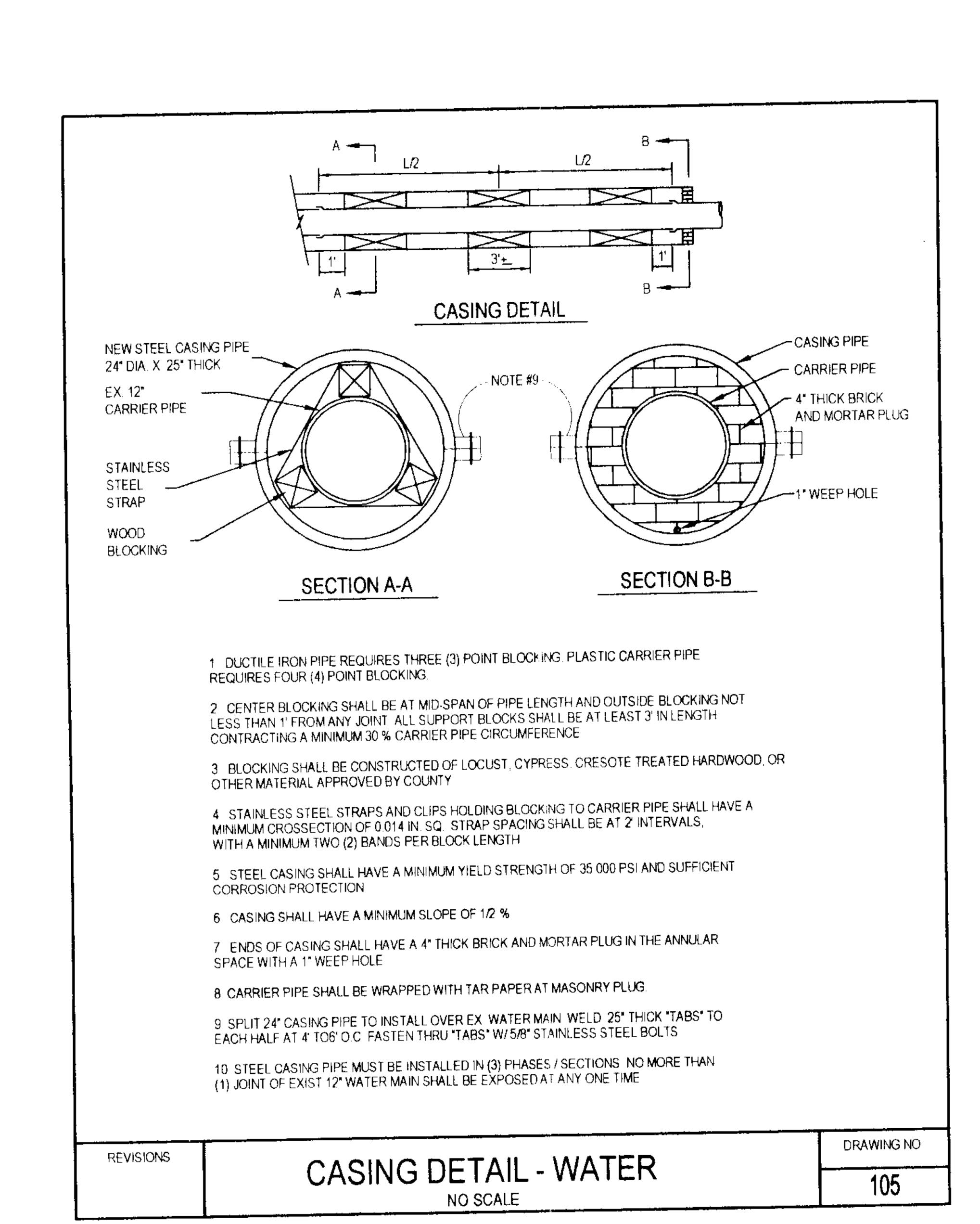
Permanent Detention Basin

Note: Steel Casing Pipe Must Be Installed In (3) Phases / Sections. No More Than (1) Joint o. f Exist. 12" Water Main Shall Be Exposed At Any One Time.

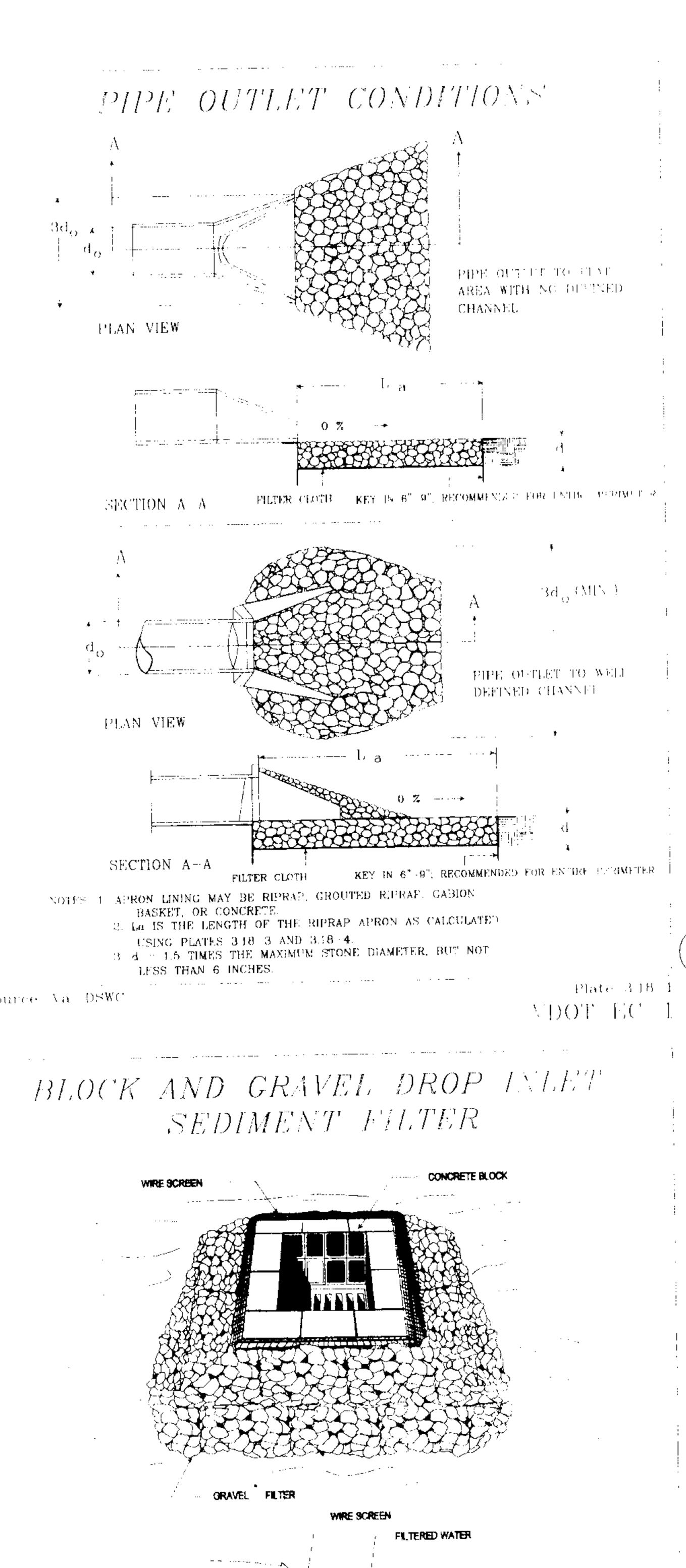


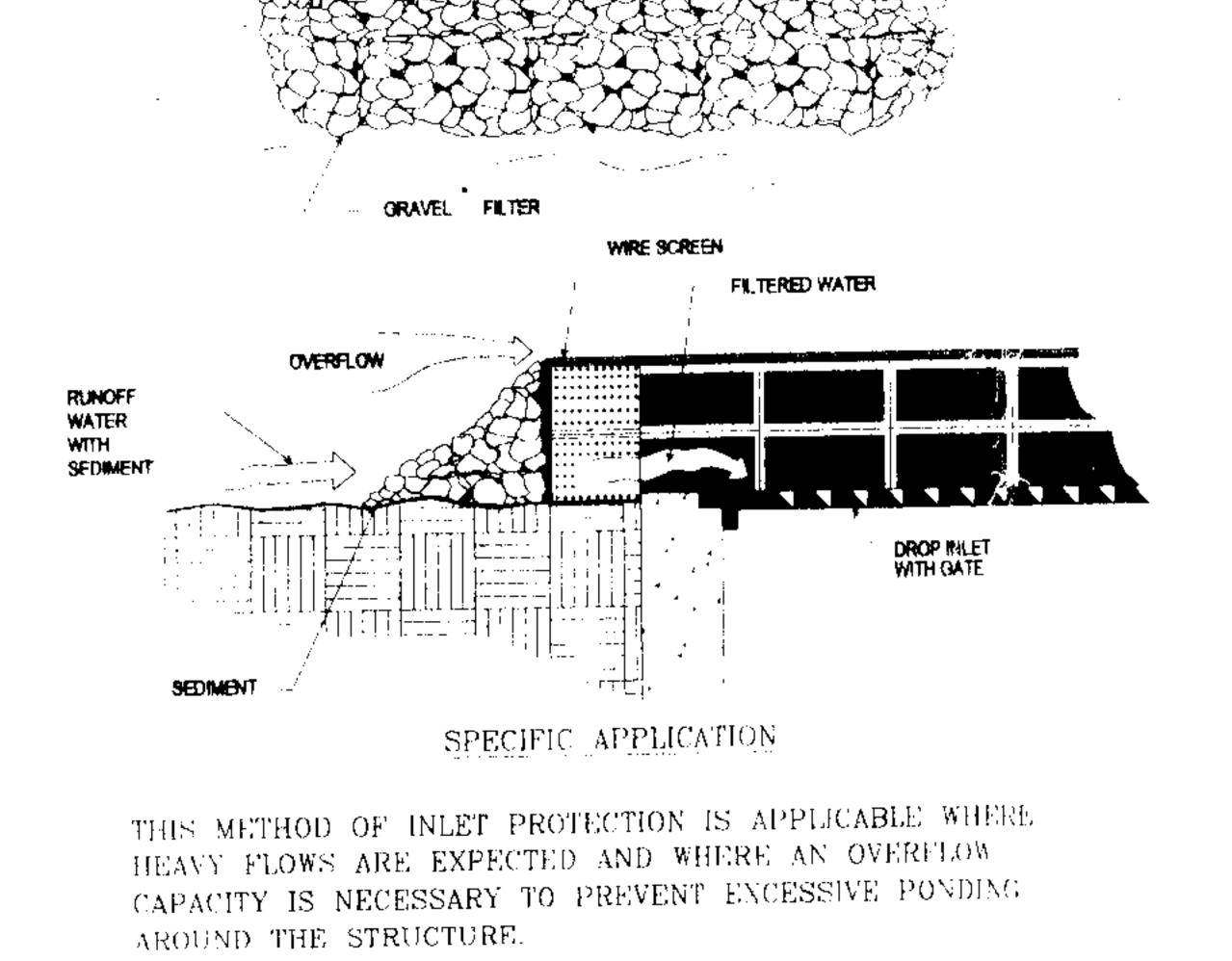
Temp. Sediment Trap

Disturbed Area = 1.56 Ac. ± (Phase 1) Dry Storage = 1.56 x 67 = 104.5 cy @ EL. 101.25 Wet Storage = 1.56 x 67 = 104.5 cy



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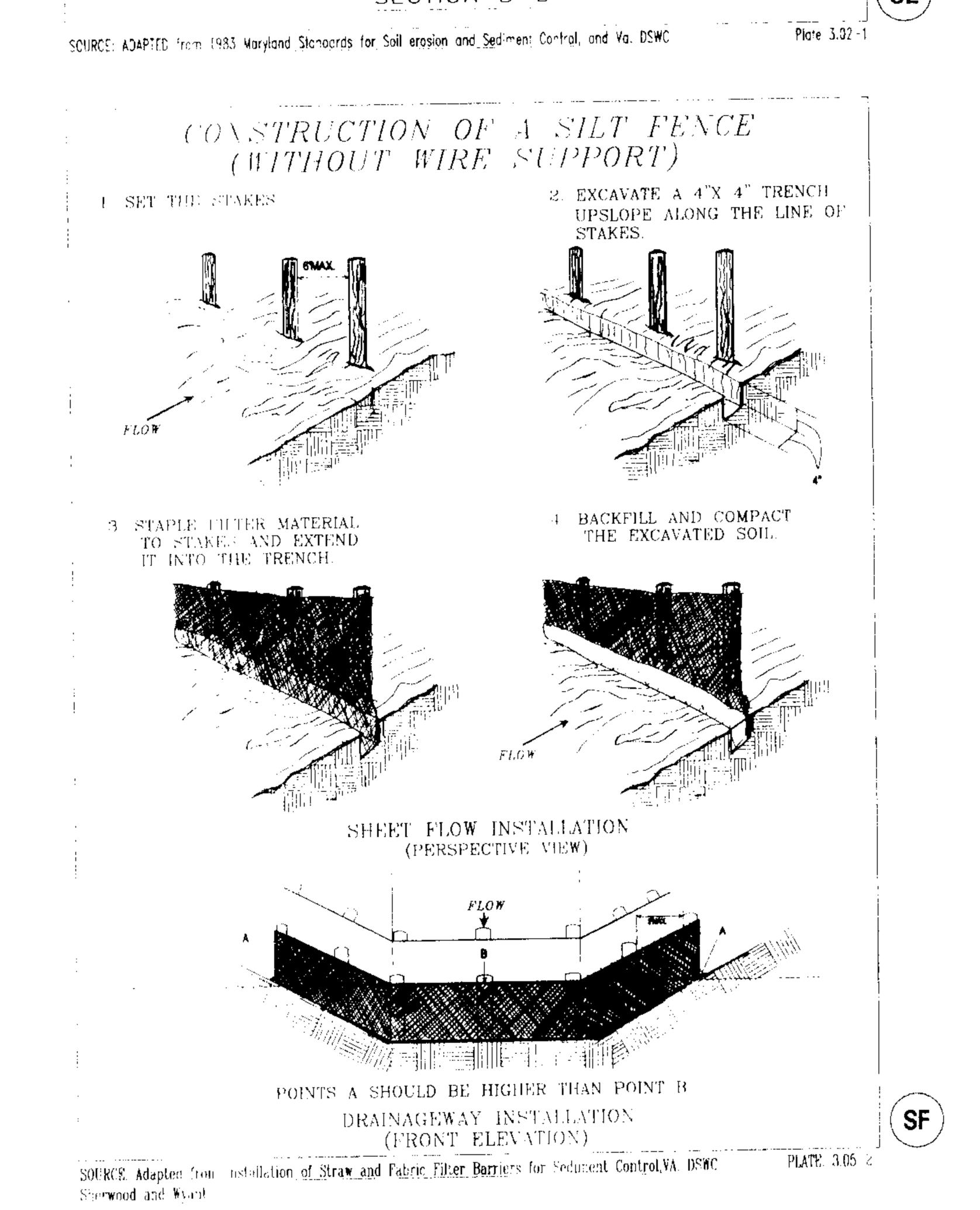




* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE

SOURCE: VA DSWC

PLATE 3 07 3



 $STONE\ CONSTRUCTION\ ENTRANCE$

SIDE ELEVATION

PLAN VIEW

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OF INGRESS AND EGRESS OPERATION

MOUNTABLE BERN (OPTIONAL)

EXCEPTING PAVEMENT

Erosion & Sediment Control Notes:

- 1. Unless otherwise indicated, all vegetative and structural erosion and sediment control practices will be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook (3rd edition, 1992). 2. All disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is achieved.
- 3. Permanent or temporary soil stabilization shall be applied to denuded areas within 7 days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within 7 days to denuded areas that may not be at final grade but will remain dormant (undisturbed) for longer than 30 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year. Soil stabilization measures include vegetative establishment, mulching and the early application of gravel base material on areas to be paved.
- د. All erosion and sediment control measures are to be placed prior to or as the first step in land disturbance.
- 5. The Contractor shall inspect all erosion control measures periodically and after each runoff producing rainfall event. Any necessary repairs to maintain the effectiveness of the erosion control devices and cleanup of sedimentation are the responsibility of the Contractor and shall be made immediately. Contractor shall retain inspection and repair records throughout duration of job
- 6. The Contractor shall limit site access by construction vehicles to entrances designated as construction entrance and protected by stone. Sediment shall be removed from paved areas on a daily basis.
- 7. Stock piles of soil and other erodible materials shall be stabilized or protected with sediment trapping measures. The Contractor is responsible for the temporary protection and permanent stabilization for stockpiles on site as well as for materials transported from the project site.
- 8. The Contractor shall monitor and take precautions to control dust including (but not limited to) use of water, mulch, or chemical dust adhesives and control of construction site traffic. 9. The contractor is responsible for installation and maintenance of any additional control
- measures necessary to prevent erosion and sedimentation as determined necessary by the plan approving authority.
- 10. Temporary erosion and sediment control measures are not to be removed until all disturbed areas are stabilized. After stabilization is complete, all measures shall be removed within 30 days. Trapped sediment shall be spread and seeded.

Erosion Control Narrative:

- 1. Project Description: The Owner is proposing to construct (4) new group home cottages on the subject 5.0 acre site. The cottages shall be constructed one at at time, starting with Cottage 1 and ending with Cottage 4. The entire Fellowship Circle shall be constructed initially. The total area of land disturbing activities for first phase, worst case, is expected to be about 1.56 acres. Thereafter, disturbance for each cottage is expected to be 0.5 acres. 2. Existing Site Description: The site is currently a combination of mature woodland and open
- grass lawπ / field. There is a woodland channel that traverses the site. The channel outfalls to a 24"culvert pipe at I-295. This site is part of the Southerly Run and Bailey Creek watershed.
- 3. Adjacent Areas: The site is bordered on the north by the existing New Jerusalem Fellowship Church campus. The site is bordered on the south by Middle Road. The site is bordered on the east by Interstate 295. The site is bordered on the west by open grass pasture land
- 4. Off-Site Areas: There is no off site work anticipated for this project. 5. Soils: Per review of Soil Survey of Prince George County, Virginia the soils are characterized
- to be type 21.Norfolk fine sandy loam, hydrologic group "B", K factor = .17 to .24. 6. Critical Areas: The wetlands area is considered to be a critical area and shall be clearly marked / flagged. All Contractors shall be able to identify and respect the boundary.
- 7 Erosion and Sediment Control Measures and Sequence of Construction: a. Owner shall give the County Official, Ms. Diane Cook, 804-722-8673, 48 hours notice
- prior to the start of work. b. install construction entrance.
- c. Clear and grub site. Install silt fence down gradient of disturbed areas.
- d. Burn woodland debris and haul balance to landfill as permitted / required. e. Construct detention basin to serve as sediment trap during construction. Block discharge pipe with sand bags during construction and until site is secure with paving and grass.
- f. Commence building work and utility work. Install storm sewer structures. Install drop inlet
- g. Complete work on building and utilities and pour sidewalks and fine grade site. Install stone and pave.
- h. Clean sediment trap. Seed and mulch all disturbed areas. Install and mulch plant material. Install erosion blankets and / or netting on all steep slopes. Unblock discharge pipe in basin once grass is established.
- j. All measures shall remain in place until all grass areas are well established. 8. Permanent Stabilization: All parking areas will be secured with asphalt paving or gravel as shown on the Site Plan. All other disturbed areas shall be tilled and permanently seeded as noted below.
- 9. Storm water Runoff Considerations: The site will drain to the natural woodland channel at the rear of the cottages. The channel shall be "dammed up" to create a detention facility. The natural channel, other than the dam / berm area, shall not be disturbed. The only disturbed area shall be the space required to construct the dam. About 0.057 acres of wetlands will be permanently impacted during this work. A permit for this work is being processed with the ACOE at this time. Post developed flows have been designed to be considerably less than pre-developed flows for both 2 and 10 year storms. The detention channel will also contain a 100 year storm event with at least 1 foot of freeboard. Calculations: See calculations attached.

Permanent Seeding and Mulching Notes:

- Disturbed areas shall be tilled and permanently seeded as follows: Tall Fescue = 200 #/acre
- Annual Rye ≂ 50 #/acre All seeded areas shall be first, top dressed with top soil. 3. Fertilizer shall be 10-10-10 (or equivalent nutrients) with 50 % controlled release nitrogen applied according to soil test results. If no soil tests are performed then apply fertilizer at the
- rate of 500 #/acre. Do not exceed 45# of water soluble nitrogen per acre. 4. Lime shall also be applied per the soil test results. If no soil tests are performed then apply lime at the rate of 2 tons per acre.
- 5. After seeding the soil shall be worked to cover seeds with a layer of soil and shall be immediately mulched with straw @ 1.5 to 2 tons per acre. Mulch shall be anchored as noted
- 6. Slopes 4:1 and steeper shall be stabilized with netting, such as Tenax Radix, secured over the mulch with wire staples.
- 7. All ditches, swales and channels shall be stabilized with erosion blankets / matting such as Excelsior fabric or Jute mesh.
- 8. Contractor / Developer is responsible for obtaining a good stand of grass. If rill, gully or channel erosion occurs, Contractor / Developer shall be responsible for repairing same.