Storm Water Pollution Prevention Plan

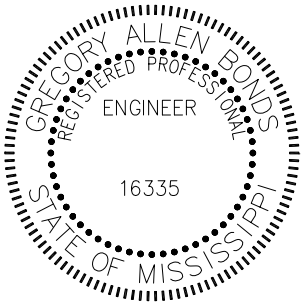
For

BOCHASANWASI SWAMINARAMAN SANSTHA, INC.

DEVELOPED BY:

BAPS, INC.

Greenway Drive
Jackson, MS 39237



Prepared By:

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Site Information

Bochasanwasi Swaminaraman Sanstha, Inc. is a commercial development containing approximately 3.1 acres in the city limits of Jackson. The property is located in the Southwest ¼ of the Northwest ¼ of Section 11, Township 5 North, Range 1 East, City of Jackson, Hinds County, Mississippi. According to the SOIL SURVEY OF HINDS COUNTY, MISSISSIPPI the soil on the site is composed of the following types: BrC2- Byram silt loam, 5 to 8 percent slopes, eroded. This is a moderately well drained soil that has a fraigpan overlying clayey material. This soil is on uplands on the fringes of the Jackson metropolitan area. BuC – Byram-Urban land complex, 2 to 8 percent slopes. This map unit consists of gently sloping and sloping, moderately well drained soils on uplands within the Jackson metropolitan area. The site drains to Caney Creek.

Potential Sources of Pollution:

Potential Pollutants and Sources, Other than Sediment, to Stormwater Runoff :

- Construction Activity- Placement of concrete drives, building pads, curb & gutter installation and retaining wall installation, pouring of concrete or mortar mixing and building construction
- Materials Storage Area –general building materials, solvents, paints, aggregates, trash, etc.
- Combined Staging Area – minor equipment maintenance, sanitary facilities, and hazardous waste storage
- Concrete Washout Area

Potential Sources of Sediment to Stormwater Runoff:

- Clearing and grubbing operations
- Grading and site excavation operations
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping operations

Temporary Best Management Practices:

Practicable Measures for Use, Storage, Treatment and Disposal of Significant Materials:

- All waste materials generated due to construction, including litter generated by workers, will be collected and disposed of in a metal dumpster in the materials storage area. The parking lot and buildings will be cleaned weekly and the debris will be deposited into the dumpster. Dumpster will have a watertight lid, be placed away from stormwater conveyances and drains, and meet all EPA, MDEQ, and the City of Jackson's regulations. Only trash and construction debris from the site will be deposited in the dumpster. No construction materials will be buried onsite. All personnel will be instructed regarding the correct disposal of trash and construction debris. Notices that state these practices will be kept by. The individual that manages the day-to-day site operations will be responsible for seeing that these practices are followed.

- A temporary sanitary facility (portable toilet) will be provided at the site throughout the construction phase. The toilet will be in the staging area. The portable toilet will be located away from concentrated flow paths and traffic flow and will have collection pans underneath as secondary containment.

- Construction equipment will be stored at the combined staging area and materials storage areas. An earthen berm will be constructed around the perimeter to designate the staging and materials storage area. A watertight shipping container will be used to store hand tools, small parts, and other construction materials. If necessary, a watertight container will be used to store potentially toxic materials such as fertilizers pesticides, herbicides, chemicals, paints and solvents.

- Several types of vehicles and equipment will be used on-site throughout the project, including bulldozers, scrapers, excavators, loaders, concrete trucks , trucks and trailers, backhoes, and forklifts. All equipment/vehicle fueling and maintenance will be performed off-site.

- All equipment and vehicle washing will be performed off-site, except for the washout of the chutes of the concrete trucks.

- Excess pesticide and fertilizer will be removed from the site and not be disposed of on-site.

- A temporary concrete washout area will be constructed above grade in a location suitable to the construction operations; location to be determined by the contractor. The temporary washout area is to be constructed as per the detail shown on the erosion control details sheet. The temporary concrete washout area shall be constructed with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. Signs will be posted marking the location of the washout area.

- Concrete pours will not be conducted during or immediately before a rainfall event. Concrete mixer trucks and chutes will be washed in the designated area or concrete wastes will be properly disposed of off-site. When the temporary washout area is no longer needed the hardened concrete and materials will be removed of and disposed of at a location approved by the City of Jackson.

- The proper implementation of the above measures ensures that significant materials will not be exposed to direct contact with stormwater.

Erosion and Sediment Management Measures:

- Stabilize all bare areas with gravel or vegetation. Temporary grassing will be accomplished using rapid-growing annual grasses, small grains, or legumes. (See Table 5.4, below.) Areas to be temporary seeded will be loosened to a depth of 6-8 inches using a ripper, harrow, or chisel plow; producing pulverized, loose, and uniform soil. Seeds will be evenly applied using a cyclone seeder (broadcast), drill, culti-packer seeder. Seeding rates from Table 5.4 will be administered. Small grains will be planted no more than 1 inch deep, and grasses and legumes no more than 1/2 inch deep. Broadcast seed will be covered by raking or chain dragging, and then lightly firmed with a roller or culti-packer.

  Other Considerations Where Temporary Seeding will be implemented:

  1) Mulch - mulch will be installed on slopes steeper than 2:1 during excessively hot or dry weather and on areas receiving concentrated flow the mulch will be anchored with netting.

  2) Lime - a pH test of the soil will be performed. If the pH is 6 or higher there will be no need to lime. If the pH is less than 6, an application of ground agricultural limestone at the rate of 1 to 1 1/2 tons/acre on coarse-textured soils and 2-3 tons/acre on fine textured soils will be installed. Should limestone need to be applied, it will be spread uniformly and incorporated into the top 4-6 inches of soil.

  3) Fertilizer - Application rates will be based on soil tests.

Table 5.4 KEY TO TEMPORARY SEEDING

SPECIES	SEEDING RATE/AC.	PLANTING TIME	DESIRED PH RANGE	FERTILIZATION RATE/AC.	METHOD OF ESTABLISH-MENT	ZONE OF ADAPTABILITY
Wheat	90 lbs.	Sept 1 - Nov 30	6.0 - 7.0	600 lbs. 13-13-13	seed	1, 2, 3
Ryegrass	30 lbs.	Sept 1 - Nov 30	6.0 - 7.0	600 lbs. 13-13-13	seed	1, 2, 3
White Clover	5 lbs.	Sept 1 - Nov 30	6.0 - 7.0	400 lbs. 6-24-24	seed	1, 2, 3
Crimson Clover	15 lbs.	Sept 1 - Nov 30	6.0 - 7.0	400 lbs. 6-24-24	seed	1, 2, 3
Hairy Vetch	30 lbs.	Sept 1 - Nov 30	6.0 - 7.0	400 lbs. 6-24-24	seed	1, 2, 3
Browntop Millet	30 lbs.	Sept 1 - Nov 30	6.0 - 7.0	600 lbs. 13-13-13	seed	1, 2, 3

*Table 5.4 is a reproduction from the USDA's online manual: "*Planning and Design Manual for the Control of Erosion, Sediment, and Stormwater*"

- Any existing onsite drainage swales will be vegetated with a dense cover of water tolerant, erosion-resistant grasses. (Types, fertilizer, mulching and liming will be in accordance with the latest edition of "Planning & Design Manual for the Control of Erosion, Sediment & Stormwater"

- Temporary erosion checks material and installation will be in accordance with latest edition of "MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." Barriers will be installed upstream of all existing culvert entrances. Barriers will be installed along the centerline of any existing or proposed ditch (roadside or otherwise), at the outlets of the diversion ditch as well as any area where concentrated flows occur once construction begins; these will act as check dams. Known locations are shown on the SWPPP and erosion control plan sheet. Installation details are shown on the erosion control details sheet.

- Silt fence material and installation will be in accordance with latest edition of "MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." (See erosion control details.) Silt Fence will be installed at all locations shown on construction drawings. Should the Project Engineer, MDEQ or the City of Jackson deem necessary, additional silt fencing shall be installed where designated by said officials and shall be installed in accordance with latest edition of "MISSISSIPPI

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."

- Any excavated material, topsoil or otherwise, to be stockpiled will be in an area away from any concentrated stormwater runoff or paved roadways. The side slopes of the piles will not exceed a 2:1 (H:V) slope. Silt fencing, in accordance with latest edition of "MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," will be installed around the perimeter of the pile as soon as the pile is established. If the stockpile is to be left for more than 14 days, it shall be seeded according to the requirements of the temporary seeding schedule, contained herein. Any disturbed areas that will be left undisturbed for thirty or more days will be seeded with temporary seeding within seven calendar days. After final grading, all disturbed areas will be seeded (permanent seeding) within seven calendar days.

- Storm drain inlet protection will be as required and specified in the construction drawings.

- Landscape features such as swales and a detention pond will be used to reduce the quantity and rate of releases to public storm drains.

- The proper implementation of the above-mentioned controls will ensure the reduction of the quantity and rate of releases to public storm drains.

Allowable Non-Stormwater Discharge Management:

Water Used to Control Dust:

- Dust control will be implemented as needed once site grading has begun and during windy conditions (forecasted or actual wind conditions of 20 mph or greater) while site grading is occurring. Spraying of potable water at a rate of 300 gallons per acre or less will be performed by a mobile pressure-type distributor truck no more than three times a day whenever the dryness of the soil warrants it.

Landscaping Irrigation:

- Irrigation waters will not be sprayed onto impermeable surfaces such as paved driveways and roads. Waters will be directed onto soil and lawns by using hoses and correctly sized sprinklers with adjustable spray patterns. To avoid discharges of irrigation waters, the sprinklers will have low-flow rates and increased watering time. The irrigated area will be inspected for excess watering and to adjust watering times and schedules.

Maintenance of the Aforementioned BMPs:

- Ditches will be inspected for erosion and structural failures weekly and immediately after storm events. Before vegetation has been established, it will be inspected for erosion and accumulation of debris and sediment. Any debris, sediment, and erosion repair will occur immediately. If deemed necessary, due to excessive erosion, straw bale barriers will be installed along the centerline of the diversion ditch.

- Silt fences will be inspected weekly and immediately after storm events to ensure they are intact and that there are no gaps where the fence meets the ground or tears along the length of the fence. If gaps or tears are found during the inspection, the fabric will be repaired or replaced immediately. Accumulated sediment will be removed from the fence base if it reaches one half (1/2) the height of the silt fence. If accumulated sediment is creating noticeable strain on the fabric and the fence might fail from a sudden storm event, the sediment will be removed more frequently. The anticipated life span of the silt fence is 6 months and will likely need to be replaced after this period.

- All barriers used for inlet protection & check dams will be inspected weekly and immediately after storm events. When the sediment deposits reach a height of 50% of the height of the barriers they will be removed and replaced promptly. If any portion of the barrier is not serving its intended use, the bale will be removed and replace with a new bale.

- Temporary construction exits will be inspected weekly and after storm events or heavy use. The exits will be maintained in a condition that will prevent tracking or flowing of sediment onto adjacent roadways. This could require adding additional crushed stone to the exit. All sediment tracked, spilled, dropped, or washed onto adjacent roadways will be swept up and hauled off-site. If excess sediment has clogged the pad, the exit will be top dressed with new crushed stone. Replacement of the entire pad might be necessary when the pad becomes completely filled with sediment. The pad will be reshaped as needed for drainage and runoff control. The construction exit will be removed before the concrete driveway is installed. The removed stone and sediment from the pad will be hauled off-site and disposed of at a site approved by the City of Jackson.

- The stockpile area will be inspected weekly for erosion immediately after storm events. Any areas on or around the stockpile that have eroded will be stabilized immediately with applicable erosion control measures.

- Detention ponds will be checked for signs of erosion, seepage, and structural damage weekly. Erosion, seepage, and structural damage will be repaired immediately. The outlet will be checked for any damage or obstructions and any damage found will be repaired and obstructions removed.

Good Housekeeping Practices:

- The dumpster will be inspected weekly and immediately after storm events. The dumpster will be emptied a minimum of once a month. If trash and construction debris are exceeding the dumpster's capacity, the dumpster will be emptied more frequently.

- All sanitary waste will be collected from the portable facilities a minimum of once per week. The portable toilets will be inspected weekly for evidence of leaking holding tanks. Toilets with leaking holding tanks will be removed from the site and replaced with new portable toilets.

- The storage area will be inspected weekly and after storm events. The storage area will be kept clean and well organized. Perimeter controls, containment structures and covers will be repaired or replaced as needed to maintain proper function.

- The washout areas will be inspected daily to ensure that all concrete washing is being discharged into the washout area, no leaks or tears are present, and to identify when concrete wastes need to be removed. The washout areas will be cleaned out once the area is filled to 75 percent of the holding capacity. Once the area's holding capacity has been reached, the concrete wastes will be allowed to harden; the concrete will be broken up, removed, and disposed of at an approved location. The plastic sheeting will be replaced if tears occur during removal of concrete wastes from the washout area.

Post-Construction BMPs:

- The outlet protection will be provided as shown on the contract drawings.

- The detention pond will remain as a permanent stormwater management structure for the site.

- Permanent seeding will be applied immediately after the final design grades are achieved on portions of the site but no later than 14 days after construction activities have permanently ceased. After the entire site is stabilized, any sediment that has accumulated will be removed and hauled

off-site. Construction debris, trash and temporary BMPs (including silt fences, material storage areas, sanitary toilets, and inlet protection) will also be removed and any areas disturbed during removal will be seeded immediately.

Construction Sequence and BMP Activity:

Before any site grading activities begin

1. Install perimeter silt fences.
2. Construct a staging and equipment/materials storage area.
3. Stabilize areas that will not be impacted by construction activities with gravel or temporary seeding.
4. Construct stabilized construction exits.
5. Install straw bale barriers immediately upstream of all existing culverts shown on erosion control plan.
6. Install temporary sanitary facilities and trash containers.

Site grading

1. Begin site clearing and grubbing operations./Construct sediment pond to be later converted to detention pond.
2. Install silt fences around stockpile if necessary.
3. Disturbed areas where construction will cease for more than 14 days will be stabilized with appropriate erosion control measures.

Infrastructure & Building Construction (utilities, buildings, parking lot, etc.)

1. Construct temporary concrete washout area.
2. Clean parking lot and building weekly and deposit debris into dumpster located on-site.

Post Construction Final Stabilization and Landscaping

1. Remove temporary concrete washout area.

2. Prepare final seeding and landscaping.

3. Remove all temporary control BMPs and stabilize any areas disturbed by their removal with appropriate erosion control measures.

--END OF SWPPP--