Storm Water Pollution Prevention Plan
For Construction Activities

PATRICK ENGINEERING

OTTAWA MINE DEVELOPMENT
OTTAWA, ILLINOIS

MISSISSIPPI SAND LLC

Project Number
21153.043

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Partnering to Build Better Infrastructure

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STORMWATER POLLUTION PREVENTION PLAN

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT

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STORM WATER POLLUTION PREVENTION PLAN

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT

This Storm Water Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of General NPDES Permit ILR10 (provided in Appendix A), issued by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities. This SWPPP utilizes Best Management Practices (BMPs) to control construction-related erosion and sedimentation per the guidelines contained in the following publications.

- "Procedures and Standards for Urban Soil Erosion and Sediment Control" (Urban Committee of the Association of Illinois Soil and Water Conservation Districts, 1988)
- "Illinois Urban Manual – A Technical Manual Designed for Urban Ecosystem Protection and Enhancement" (USDA Natural Resources Conservation Service, 2002)

1. PROJECT AND SITE DESCRIPTION

A. Project Location

The Mississippi Sand – Ottawa mine will be located on the south side of the Illinois River and Illinois Route 71 in South Ottawa Township, LaSalle County, just east of Starved Rock State Park and approximately 3 miles west of the City of Ottawa. The total property ownership is approximately 315 acres. The total disturbed area required for construction of site improvements is approximately 80 acres (hereinafter referred to as the Site). The project Site is indicated on the Project Location Map in Appendix B. The Notice of Intent for the project is provided in Appendix C.

B. Project Description

The proposed project is a silica sand mining and processing operation. Sand processing, storage, and loading facilities will be located at the Site. An office and maintenance shop will also be located at the Site.

We understand that initial mine development activities will be performed under the General NPDES permit for construction activities. During this initial phase, soil overburden will be removed to construct screening berms along Illinois Route 71, and off-site materials will be used as engineered fill to elevate the proposed facilities area above the 100-year base flood elevation (El. 469.5 ft MSL). Site development will also consist of removing overburden from the mine ramp area down to native bedrock. Bedrock excavation, other than incidental removal when the overburden/bedrock interface is encountered, and, as necessary for sediment ponds, will not be performed under this development.

The remainder of mine development will be performed under the approved Mining NPDES permit. The following site information is provided for information only: The completed site will include Bituminous and Portland cement concrete paving (approximately 2.2 acres) for vehicle parking and access driveway, aggregate paving (approximately 10.4 acres) for the facilities process area, foundations and processing equipment. Construction of the remaining ramp to roughly 85 to 90 feet below the existing ground surface (which requires rock excavation) and the initial portion of the mining pit will also be constructed. Construction of these items will not commence until the approved Mining NPDES permit, and mining permit from the Illinois Department of Natural Resources, Office of Mines and Minerals are obtained.

Disturbed areas of the Site will include primarily agricultural and undeveloped areas. Portions of the former farmstead on the Site, including the small barns and silos, will be demolished by the current landowner prior to Site development activities. Two farmstead structures will remain for use as Site offices. Initial development will consist of soil overburden removal; fill placement; construction of screening berms, excavation of overburden to top of rock for the mine ramp, sediment pond with drainage sumps and pumps, drainage structures, lighting, and fencing. Disturbed areas not within the planned mining operations area or covered by paving will be re-vegetated with appropriate seed mixtures and other landscaping.

C. Soil and Surface Conditions

Most of the existing Site is currently agricultural fields. The Site generally slopes from south to north along the east side of the Site, toward the Illinois River, and from northeast to southwest on the west side of the Site, toward Horseshoe Creek. Topographic elevations range from El. 471 along the east side of the Site to El. 465 in the east-central and southwest portions of the Site. Generally, on-Site slopes are very gradual and between 0% and 2%. Soil maps show that the soil is predominantly Faxon loam[1]. The estimated runoff coefficient for the Site prior to construction is roughly 0.4. After construction activities are completed, the estimated Site runoff coefficient is expected to increase to roughly 0.65 due to the presence of impervious structures, paving, areas stripped to bedrock, and sediment pond areas. Site runoff during construction will be directed to sediment storage facilities in and near the initial mine pit and will be discharged only periodically; therefore, estimated runoff volume during construction is anticipated to decrease relative to existing conditions (as the excavation expands and the pit deepens). Information on site subsurface conditions can be found on the MW-2 Monitoring Well Installation Report and Soil Boring DDH-2-10 log included in Appendix H.

D. Site Drainage

There are approximately 2.4 acres of jurisdictional wetlands and 2.8 acres of non-jurisdictional wetlands within the limits of construction, and the majority of the Site is located within the 100-year floodplain. The jurisdictional wetlands will not be disturbed during initial Site development activities – a 25-foot buffer strip will be maintained around these wetland areas (see Project Plans in Appendix D).

Under existing conditions, storm water that falls on the west and southeast portions of the Site generally flows either south or west, toward Horseshoe Creek and its tributary agricultural drainage ditches. Storm water that falls on the northeast portion of the Site generally flows north toward a low area that drains through a 30-inch culvert beneath

Illinois Route 71 into the Illinois River. All storm water from the Site eventually reaches the Illinois River.

Under developed conditions, storm water will be routed toward the eastern portion of the Site, through ditches and culverts, into the overburden excavation area, which will be used as a primary sediment pond; as the ramp and initial pit are developed, storm water will be routed into the mine pit. One sump area with a pump will be constructed to manage water from either the primary sediment pond or the mine pit, depending on the stage of initial development. A second "finishing" pond will be constructed to provide any final sedimentation prior to off-Site discharge. Water in the "finishing" pond will be discharged as needed by pumping the water through an aboveground pipeline to an outfall situated in an upland (non-wetland) location near Horseshoe Creek. See Sheet C-2 in Appendix D for the layout and details related to the Site drainage plans.

Horseshoe Creek is not listed as impaired waters in the 2010 Illinois EPA publication "Illinois Integrated Water Quality Report and Section 303(d) List." There is no Total Maximum Daily Load (TMDL) limitation on the Illinois River segment (segment D-20) into which Horseshoe Creek discharges.

E. Potential Sources of Pollutants

Site development will consist primarily of surface vegetation removal, soil stripping, earth excavation, filling, grading, drainage structure installation and landscape area restoration (topsoil, grass, and tree plantings). The primary anticipated storm water pollutant is soil / sediment material that could be transported and discharged off-Site unless preventative soil erosion / sediment control measures in the form of BMPs are employed during the construction and installation of the various Site facilities.

Fuel storage will occur at the Site. A temporary aboveground tank will be located in the paved area near the Site entrance (see Sheet C-2 in Appendix D). Petroleum-related

[1] Referenced from Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/) for LaSalle County, Illinois.

hydrocarbons are therefore also a potential storm water pollutant at the Site. The tank will be located on ground elevated above the 100-year floodplain.

F. Construction Activities

The primary construction activities and anticipated sequences will be as follows:

- Installation of sediment barrier fencing to control the extent of construction activities and to prevent sediment runoff damages.
- Establishment of contractor staging areas within the construction limits.
- Removal of surface vegetation and root mat.
- Excavation of existing topsoil, and temporary stockpiling of the material within the construction limits, contained by sediment barrier fencing.
- Construction, topsoil placement, and vegetation of the screening berms.
- Construction of perimeter drainage ditches for construction storm water management, and construction of storm water management system in the overburden excavation area.
- Installation of erosion-control riprap, erosion blanket, and ditch checks at various locations (see Sheet C-2 in Appendix D).
- Earth excavation, filling and grading to create the specified elevations and contours within the construction Site for future buildings, pavements, and process areas.
- Construction of remaining storm water management structures, including ditches and culverts.
- Placement / grading of topsoil within the un-paved disturbed areas.
- Installation of new entrance gate and perimeter fencing.
- Restoration of permanent grass / landscape areas with specified seed mixes, tree plantings, and protective mulches or erosion blankets.
- Removal of sediment barrier fencing and all construction debris and materials from the Site following final stabilization of disturbed areas.

Database accessed on June 29, 2011.

G. Best Management Practices

The following BMPs shall be incorporated to control erosion and sediment problems during and after construction activities.

- Sediment barrier fencing shall be installed prior to the start of Site disturbance activities.
- Soil stockpiles shall be located within areas where runoff is contained by sediment barrier fencing.
- Initial earthwork operations shall include excavation and grading of the sediment pond to hold and/or detain storm runoff from the exposed soil areas.
- All storm water will be directed to the overburden excavation or initial mine pit for sedimentation.
- Water pumped or otherwise discharged from the work Site during dewatering operations shall be filtered to minimize the off-Site discharge of suspended solids.
- All sediment barriers (including water filters) shall be inspected and maintained (cleaned, repaired, or replaced), on at least a weekly basis and as otherwise necessary, during the entire period of construction and until all project improvements are installed and all permanent vegetative surfaces are established.
- Sediment traps created to hold or detain storm runoff shall be cleaned periodically to enable them to function effectively.
- Areas not affected by subsequent construction of Site improvements shall be graded and final-stabilized (either paving or seeding and mulching) as soon as possible after completion of improvements to enable early establishment of stabilized surface cover (pavement or vegetation).
- Areas to receive buildings and pavements under other permits shall be temporarily stabilized as per the direction of the engineer until such time as the buildings and pavements can be constructed.
- It is intended that all permanent grass areas be seeded and either mulched or covered with erosion-control blankets within 7 days after completion of topsoil placement operations. If, due to weather conditions, this is not possible,

temporary protective mulch or blankets shall be installed and maintained until permanent seeding can be performed.

- Restored grass areas within and adjacent to the work Site shall be inspected during the growing season following completion of the project Site restoration activities. All grass areas not in accordance with the specified requirements shall be scarified, seeded and mulched as necessary to provide a dense grass cover that will distribute and absorb the storm runoff from the restored areas.

2. CONTROLS

A. Erosion and Sediment Controls

1) Stabilization Practices

Contractor shall remove vegetated areas only as absolutely required to complete the work. Structural sediment barriers (described under **Structural Practices**) shall be installed at the construction limits of the Site as indicated on Sheet C-2 in Appendix D, prior to proceeding with other Site work.

Exposed soil surfaces shall be stabilized with vegetation and/or protective mulches or blankets once construction has been completed. If conditions prevent effective use or placement of such measures, then the installation of structural controls such as sediment barrier fencing and sediment traps will be required. Stabilization measures shall be initiated as soon as practical after the soil-disturbing activities have temporarily or permanently ceased, but in no case more than 7 days after such operations have ceased. If construction activity is scheduled to cease for a period of less than 14 calendar days, then stabilization measures do not have to be initiated on that portion of the Site by the seventh day after construction temporarily ceased. Where the initiation of stabilization measures by the specified time after construction activity temporarily or permanently ceases is precluded by snow cover or other adverse weather conditions, stabilization measures shall be initiated as soon as practicable.

Temporary erosion control seeding shall consist of IDOT Class 7 Seed Mixture (114 lbs/acre) and wood/cellulose fiber mulch containing a pre-blended chemical tackifier. Temporary seeding shall be employed due to seasonal limitations or temporary work stoppages as discussed above.

Permanent seeding shall consist of low-profile native vegetation, forbs, and tree plantings and wood/cellulose fiber mulch containing a pre-blended chemical tackifier. Permanent seeding shall be employed following completion of soil disturbing activities within the area to be seeded.

When seasonal weather conditions prevent seeding and planting operations, sloped surfaces shall be mulched with the wood/cellulose fiber mulch/tackifier combination or blanketed as a means of temporary erosion protection. Temporary seeding and mulching shall be in accordance with Project Plans.

Seeded areas susceptible to significant wind or water erosion shall be protected by the use of applied mulch, erosion control blankets, or turf reinforcement mats. Applicable specifications are included on Sheet C-4 and Sheet L1.3 in Appendix D.

A log indicating the dates when: major grading activities occur, when construction activities temporarily or permanently cease in all or a portion of the Site, and when stabilization measures are initiated shall be included in Appendix E of this Plan. A sample log is provided in Appendix E.

2) Structural Practices

Sediment Barrier Fences (Silt Fences) shall be installed at the locations indicated on the Project Plans and around soil stockpiles and other locations where it is deemed necessary to filter sediment from storm runoff. Such

barriers shall be installed prior to the initiation of construction activities that will disturb soils for significant portions of the Site (e.g., earthwork operations). These barriers shall be installed as detailed in the plans and shall be maintained until final stabilization is achieved. "Final stabilization" shall mean that all soil-disturbing activities at the Site have been completed, that a uniform perennial vegetative cover with a density of at least 70% has been established over all disturbed areas, and that equivalent stabilization measures (such as the use of riprap, concrete block mats or geotextiles) have been employed where the use of vegetative cover is not suitable.

Permanent drainage ditches and temporary sediment traps/ponds will be constructed during Site development. Ditch checks will be installed at intervals within the drainage ditches to limit sediment transport through the ditches. Sediment traps/ponds will be installed at various locations within the Site footprint to manage storm water runoff from disturbed areas of the Site, and allow sediments to settle from the water prior to the water being discharged off-Site.

Riprap protection shall be provided at the inlet and outlet of Site culverts, and at the outlet of the piping that will discharge water from the Site to the proposed outfall near Horseshoe Creek.

Structural controls will be placed so as not to disturb any jurisdictional wetland areas identified within the 315-acre property.

B. Storm Water Management

The structural controls described in Part 2A(2) above will be used to manage storm water runoff from the Site. Drainage ditches and culverts, discharge piping, and the associated riprap protection for these structures will remain in place following Site construction and will be utilized for Site storm water management.

Storm water runoff from the Site during construction and from the completed drainage improvements will ultimately flow to sediment ponds located within the overburden and future mine excavations. The water level in the sediment ponds will be regularly monitored and periodically pumped to the designated outlet location via overland piping.

Drainage ditches and culverts were sized to contain runoff from the developed areas of the Site, and were sloped to minimize the potential for erosive flows. Drainage ditches will be permanently seeded or otherwise armored as necessary (turf reinforcement mat or riprap) to control erosion.

All structural controls were sized for the 25-year, 24-hour storm event in accordance with the NPDES General Permit ILR10.

C. Soil Stockpiles

Topsoil and subgrade material stockpiles scheduled to remain in place longer than 14 days shall be surrounded with a sediment barrier fence unless runoff from the stockpile area drains directly to a constructed sediment trap.

Topsoil stockpiles that will remain in place longer than 60 days shall be stabilized with temporary erosion-control seeding (seed and mulch) within 14 days after construction of the stockpile.

D. Construction Entrance/Exit

Vehicle egress from the construction Site shall be limited to the existing gravel access driveways connecting the Site to Illinois Route 71. These driveways will be utilized as stabilized construction access and maintained until the construction of the permanent IDOT-permitted entrance pavement. The exits shall be cleaned daily as needed to prevent the spread of mud and debris onto off-Site pavements. Additional gravel will be added as needed to maintain the integrity of the

pavement. The exit pavement used by the construction vehicles shall be inspected periodically during each workday and cleaned as frequently as necessary to keep the pavement clear of mud and debris.

E. Unvegetated Areas

Unvegetated areas anticipated to remain unpaved or unrestored for longer than 60 days shall be protected with temporary erosion-control seeding and/or mulching within 14 days after soil-disturbing construction activities have ceased. If unvegetated areas are to remain unpaved or unrestored for less than 60 days, sediment barrier fences shall be installed where the Engineer determines that sediment runoff will affect adjacent areas.

F. Vegetative Ground Covers

Permanent vegetative ground covers (seeding and tree plantings) and associated erosion-control measures (protective mulches and blankets) shall be in accordance with the Site Stabilization Plan (Sheet C-3 in Appendix D), and the Planning Resources Landscape Plan (also in Appendix D).

G. Other Controls

1) Vehicle Cleaning and Washout Areas

Aggregate paved areas shall be provided for vehicle wheel cleaning and material washout at the stabilized construction entrance. These areas shall be graded to divert the wash water to storm water management features and to prevent the wash water from entering off-Site waterways.

2) Waste Disposal

No solid materials, including building materials, shall be discharged into waters of the State. Contractor shall comply with applicable waste disposal, and sanitary sewer regulations.

3) Spill Prevention

As noted in Part 1E above, fuel storage will occur at the Site. A temporary aboveground storage tank will be used to fuel construction equipment operating at the Site. Secondary containment equal to the contents of the tank plus the precipitation volume from a 25-year, 24-hour storm will be provided. A spill kit will also be located at the Site to assist in the cleanup of a spill, should a spill occur. The tank will be filled periodically using a fuel delivery service (subordinate to the Contractor) that will be responsible for conducting its filling operations in accordance with BMPs to avoid a spill or over-fill incident. A mobile fueling service may also be used to fuel construction equipment. The fueling service is required to follow all local, state and federal regulations regarding their fueling activities.

If the volume of tank storage exceeds the Federal threshold (1,320 gallons), a Spill Prevention, Control, and Countermeasures Plan (SPCC Plan) shall be developed and implemented at the Site. The tank and containment shall be located in an area that is above the 100-year floodplain of the Illinois River, in order to avoid a reportable oil discharge due to a flooding event on-Site of less than 100-year frequency.

Contractor shall maintain good housekeeping practices for the duration of the project. All soluble and liquid materials stored on-Site shall be suitably covered, or placed within an enclosure. The contents of partially used containers of such materials shall be placed in sealable containers to avoid spills. Petroleum products shall be stored in tightly-sealed containers that are clearly labeled.

All on-Site vehicles shall be monitored for leaks. Cleanup material, such as absorbent pillows and trash containers, shall be maintained on Site.

Incidental spills (less than 12.5 gallons of gasoline and 25 gallons of diesel) shall be cleaned up immediately upon discovery. Larger spills shall be recovered only by qualified personnel as defined by OSHA (29 CFR 1910.120). Contractor shall take immediate action, however, to prevent spill from spreading or discharging off-Site. Such action may include construction of earthen dikes and plugging culverts. All spills shall be reported to the Owner's representative in a prompt manner. The Owner's representative shall report spills to government agencies as required.

H. Approved State or Local Plans

The management practices, controls, and other provisions contained in this SWPPP are intended to be in accordance with the standards and specifications contained in the IEPA "Illinois Urban Manual," 2002 edition.

3. MAINTENANCE

Silt fence sediment barriers shall be cleaned or replaced as needed to provide adequate filtering and flow capacity for their effective use. Other structural controls, such as sediment ponds, ditches, ditch checks, water filters, and riprap areas, shall also be cleaned and repaired as needed to maintain the designed function of the structure. Erosion associated with the above-noted structures shall be repaired in conjunction with the structure's maintenance.

Seeded and planted areas shall be maintained by watering, fertilizing, mulching, reseeding, filling of rivulets, etc. as necessary to develop an acceptable stand of vegetation.

Construction access and public road pavements shall be cleaned daily as needed to remove and prevent the spread of mud and debris from construction operations.

4. INSPECTION REQUIREMENTS

Qualified personnel shall inspect:

- disturbed areas of the construction Site which have not been stabilized with impervious materials or vegetative ground covers;

- structural control measures (silt fences, etc.);
- off-Site roads used by contractor vehicles and equipment; and
- drainage outlet locations and downstream flow areas and swales.

"Qualified personnel" means persons knowledgeable in the principles and practices of erosion and sediment control measures or who possess the skills to assess construction site conditions that could impact storm water quality and to assess the effectiveness of selected control measures to control the quality of storm water discharges from the construction activities.

Inspections shall be conducted at least once every 7 calendar days and within 24 hours of the end of a storm event that has 0.5 inches or more of rainfall or equivalent snowfall (5 inches of snow), as measured at the Ottawa Township High School weather station (http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=KILOTTAW2) The "Illinois Field Manual for Implementation and Inspection of Erosion and Sediment Control Plans" shall be used as a guide when conducting the inspections.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of (or potential for) silt and other pollutants entering the drainage system or discharging off-Site. Erosion- and sediment-control measures shall be observed to ensure they are operating correctly. Discharge locations shall be inspected to determine the effectiveness of erosion-control measures in preventing significant impacts to receiving waters. Roadways on which construction vehicles travel shall be inspected for evidence of off-Site sediment tracking.

Based on the results of the inspection, pollution prevention measures shall be revised as appropriate as soon as practical after such inspection. Such modifications shall provide for timely implementation of any changes to the Plan within 7 calendar days following the inspection.

Inspection reports shall be prepared, and shall indicate: the scope of the inspection; name(s) and qualifications of personnel conducting the inspection; the date(s) of the

inspection; major observations relating to the implementation of this SWPPP; and actions taken. The reports shall be retained as part of the Plan for at least 3 years after the date that the permit coverage expires or is terminated. Copies of the inspection reports shall be retained at the construction site during the period of construction. The reports shall be made on the forms included in Appendix E and shall be signed in accordance with part VI.G of the General Permit.

If violations of the provisions of the SWPPP are identified during the performance of the project work, such violations shall be promptly reported to the Owner's representative. The Owner's representative shall notify the Region 1 – Rockford Agency Field Operations office by email (at epa.swnoncomp@illinois.gov), telephone (815-987-7760) or fax (815-987-7005) within 24 hours of any incidence of noncompliance for any violation of the SWPPP observed during any inspection conducted or for violations of any condition of the permit. The Owner's representative shall complete and submit within 5 days a signed "Incidence of Noncompliance" (ION) report (Appendix F) for any identified violations. The submittal shall include specific information on the cause of the noncompliance, actions that were taken to prevent further causes of noncompliance and a statement detailing any environmental impact that may have resulted from the noncompliance.

Reports of noncompliance shall be signed by an authorized representative of the Owner in accordance with Part VI.G of the General Permit.

After each initial contact is made with the appropriate Agency Operations Section office, the report of noncompliance shall be mailed to:

Illinois Environmental Protection Agency
Division of Water Pollution Control
ATTN: Compliance Assurance Section
1021 North Grand East
P.O. Box 19276
Springfield, IL 62794-9276

Following completion of stabilization activities, the Owner shall submit a Notice of Termination (NOT) form (provided in Appendix G) to the IEPA, indicating that the Site has been fully stabilized.

5. NON-STORM WATER DISCHARGES

Non-storm water discharges from the Site include flows from fire fighting activities and groundwater pumped for construction dewatering. All water originating from construction dewatering operations shall be suitably filtered prior to discharge from the Site. There shall be no other sources of non-storm water combined with storm water discharges associated with construction activity from the project Site.

6. CERTIFICATIONS

Certifications from the Owner and the Contractor retained to perform the work are included as Attachments 2 and 3.

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STORM WATER POLLUTION PREVENTION PLAN
PROFESSIONAL ENGINEER STATEMENT

Project:	Mississippi Sand – Ottawa Mine Facility Construction
Project Location:	315 Acres within Sections 19 and 30 South Ottawa Township LaSalle County, Illinois

As a Licensed Professional Engineer, being familiar with the Illinois Environmental Protection Agency's (IEPA) "Illinois Urban Manual" and the provisions of General NPDES Permit ILR10 issued by the IEPA (August 11, 2008) for storm water discharges from construction site activities, I hereby state that the Storm Water Pollution Prevention Plan (SWPPP) for the Mississippi Sand – Ottawa Mine Facility Construction in LaSalle County, Illinois has been prepared in accordance with good engineering practice.

Signature

4/20/12
Date

Matthew E. Minder, P.E.
Name

062-056292
License Number

Civil Engineer
Title

Patrick Engineering Inc.
4970 Varsity Drive
Lisle, Illinois 60532

Phone: 630-795-7200

STORM WATER POLLUTION PREVENTION PLAN
OWNER CERTIFICATION STATEMENT

Project:	Mississippi Sand – Ottawa Mine Facility Construction
Project Location:	315 Acres within Sections 19 and 30 South Ottawa Township LaSalle County, Illinois

This certification statement is a part of the Storm Water Pollution Prevention Plan (SWPPP) for the above identified project, prepared in accordance with General NPDES Permit No. ILR10, issued by the Illinois Environmental Protection Agency (August 11, 2008) for storm water discharges from construction site activities.

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Bernard T Ernat Patricia A Ernat 3-12-12
(Signature) (Date)

Owner
(Title)

Bernard T. and Patricia A. Ernat
(Owner Name)

310 Windsor Drive
(Location)

Ottawa, IL 61350
(City/State/Zip)

815-433-1807
(Phone No.)

STORM WATER POLLUTION PREVENTION PLAN
CONTRACTOR CERTIFICATION STATEMENT

Project:	Mississippi Sand – Ottawa Mine Facility Construction
Project Location:	315 Acres within Sections 19 and 30 South Ottawa Township LaSalle County, Illinois

This certification statement is a part of the Storm Water Pollution Prevention Plan (SWPPP) for the above identified project, prepared in accordance with General NPDES Permit No. ILR10, issued by the Illinois Environmental Protection Agency (August 11, 2008) for storm water discharges from construction site activities:

> I certify under penalty of law that I have read and understand both the terms of the National Pollutant Discharge Elimination System (NPDES) Permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.
>
> I also certify that I have read and understand the SWPPP for the above identified project, and I agree to follow the procedures and practices described in the subject SWPPP.

(Signature)

3/12/12
(Date)

(Title)

Turn-Key Processing Solutions, LLC
(Company Name)

101 Shorewood Lane
(Location)

Shorewood, IL 60404
(City/State/Zip)

815-741-3760
(Phone No.)

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT
LASALLE COUNTY, ILLINOIS

APPENDIX A

NPDES GENERAL PERMIT ILR10

General NPDES Permit No. ILR10

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
www.epa.state.il.us

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit
For
Storm Water Discharges From Construction Site Activities

Expiration Date: July 31, 2013

Issue Date: August 11, 2008

Effective Date: August 11, 2008

In compliance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter I), and the Clean Water Act, and the regulations thereunder the following discharges are authorized by this permit in accordance with the conditions and attachments herein.

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

Part I. COVERAGE UNDER THIS PERMIT

A. **Permit Area**. The permit covers all areas of the State of Illinois with discharges to any waters of the State.

B. **Eligibility**.

1. This permit shall authorize all discharges of storm water associated with industrial activity from construction sites that will result in the disturbance of one or more acres total land area, construction sites less than one acre of total land that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb one or more acres total land area. This permit also authorizes discharges from construction sites designated by the Agency that have the potential for contribution to a violation of water quality standards or significant contribution of pollutants to waters of the State, occurring after the effective date of this permit (including discharges occurring after the effective date of this permit are also authorized by this permit, except for discharges identified under Part I.B.3 (Limitations on Coverage).

2. This permit may only authorize a storm water discharge associated with industrial activity from a construction site that is mixed with a storm water discharge from an industrial source other than construction, where:

   a. the industrial source other than construction is located on the same site as the construction activity;

   b. storm water discharges associated with industrial activity from the areas of the site where construction activities are occurring are in compliance with the terms of this permit; and

   c. storm water discharges associated with industrial activity from the areas of the site where industrial activity other than construction are occurring (including storm water discharges from dedicated asphalt plants and dedicated concrete plants) are covered by a different NPDES general permit or individual permit authorizing such discharges.

3. **Limitations on Coverage**. The following storm water discharges from construction sites are not authorized by this permit:

   a. storm water discharges associated with industrial activity that originate from the site after construction activities have been completed and the site has undergone final stabilization;

b. discharges that are mixed with sources of non-storm water other than discharges identified in Part III.A (Prohibition on Non-Storm Water Discharges) of this permit and in compliance with paragraph IV.D.5 (Non-Storm Water Discharges) of this permit;

c. storm water discharges associated with industrial activity that are subject to an existing NPDES individual or general permit or which are issued a permit in accordance with Part VI.N (Requiring an Individual Permit or an Alternative General Permit) of this permit. Such discharges may be authorized under this permit after an existing permit expires provided the existing permit did not establish numeric limitations for such discharges;

d. storm water discharges from construction sites that the Agency has determined to be or may reasonably be expected to be contributing to a violation of a water quality standard; and

e. Storm water discharges that the Agency, at its discretion, determines are not appropriately authorized or controlled by this general permit.

f. Storm water discharges to any receiving water specified under 35 Ill. Adm. Code 302.105(d)(6).

C. **Authorization**.

1. In order for storm water discharges from construction sites to be authorized to discharge under this general permit a discharger must submit a Notice of Intent (NOI) in accordance with the requirements of Part II below, using an NOI form provided by the Agency.

2. Where a new contractor is selected after the submittal of an NOI under Part II below, a new Notice of Intent (NOI) must be submitted by the owner in accordance with Part II.

3. For projects that have complied with State law on historic preservation and endangered species prior to submittal of the NOI, through coordination with the Illinois Historic Preservation Agency and the Illinois Department of Natural Resources or through fulfillment of the terms of interagency agreements with those agencies, the NOI shall indicate that such compliance has occurred.

4. Unless notified by the Agency to the contrary, dischargers who submit an NOI in accordance with the requirements of this permit are authorized to discharge storm water from construction sites under the terms and conditions of this permit in 30 days after the date the NOI is received by the Agency.

5. The Agency may deny coverage under this permit and require submittal of an application for an individual NPDES permit based on a review of the NOI or other information.

Part II. NOTICE OF INTENT REQUIREMENTS

A. **Deadlines for Notification**.

1. To receive authorization under this general permit, a discharger must submit a completed Notice of Intent (NOI) in accordance with Part VI.G (Signatory Requirements) and the requirements of this Part in sufficient time to allow a 30 day review period after the receipt of the NOI by the Agency and the start of construction. The completed NOI may be submitted electronically to the following email address: epa.constilr10swppp@illinois.gov

2. Discharges that were previously covered by a valid General NPDES Permit for Storm Water Discharges from Construction Site Activities are automatically covered by this permit.

3. A discharger may submit an NOI in accordance with the requirements of this Part after the start of construction. In such instances, the Agency may bring an enforcement action for any discharges of storm water associated with industrial activity from a construction site that have occurred on or after the start of construction.

B. **Failure to Notify**. Dischargers who fail to notify the Agency of their intent to be covered, and discharge storm water associated with construction site activity to Waters of the State without an NPDES permit, are in violation of the Environmental Protection Act and Clean Water Act.

C. **Contents of Notice of Intent**. The Notice of Intent shall be signed in accordance with Part VI.G (Signatory Requirements) of this permit by all of the entities identified in paragraph 2 below and shall include the following information:

1. The mailing address, and location of the construction site for which the notification is submitted. Where a mailing address for the site is not available, the location can be described in terms of the latitude and longitude of the approximate center of the facility to the nearest 15 seconds, or the nearest quarter section (if the section, township and range is provided) that the construction site is located in;

2. The owner's name, address, telephone number, and status as Federal, State, private, public or other entity;

3. The name, address and telephone number of the general contractor(s) that have been identified at the time of the NOI submittal;

4. The name of the receiving water(s), or if the discharge is through a municipal separate storm sewer, the name of the municipal operator of the storm sewer and the ultimate receiving water(s);

5. The number of any NPDES permit for any discharge (including non-storm water discharges) from the site that is currently authorized by an NPDES permit;

6. A description of the project, detailing the complete scope of the project, estimated timetable for major activities and an estimate of the number of acres of the site on which soil will be disturbed; and

7. An electronic copy of the storm water pollution prevention plan that has been prepared for the site in accordance with Part IV of this permit. The electronic copy shall be submitted to the Agency at the following email address: epa.constilr10swppp@illinois.gov

D. **Where to Submit.**

1. Facilities which discharge storm water associated with construction site activity must use an NOI form provided by the Agency. NOIs must be signed in accordance with Part VI.G (Signatory Requirements) of this permit. NOIs and the applicable fee for construction site activities are to be submitted by certified mail to the Agency at the following address:

   Illinois Environmental Protection Agency
   Division of Water Pollution Control, Mail Code #15
   Attention: Permit Section
   1021 North Grand Avenue East
   Post Office Box 19276
   Springfield, Illinois 62794-9276

   The completed NOI and SWPPP may be submitted electronically to the following email address: epa.constril10swppp@illinois.gov

2. A copy of the letter of notification of coverage along with the General NPDES Permit for Storm Water Discharges from Construction Site Activities or other indication that storm water discharges from the site are covered under an NPDES permit shall be posted at the site in a prominent place for public viewing (such as alongside a building permit).

E. **Additional Notification**. Facilities which are operating under approved local sediment and erosion plans, grading plans, or storm water management plans, in addition to filing copies of the Notice of Intent in accordance with Part D above, shall also submit signed copies of the Notice of Intent to the local agency approving such plans in accordance with the deadlines in Part A above. See Part IV.D.2.d (Approved State or Local Plans).

F. **Notice of Termination**. Where a site has been finally stabilized and all storm water discharges from construction sites that are authorized by this permit are eliminated, the permittee of the facility must submit a completed Notice of Termination that is signed in accordance with Part VI.G (Signatory Requirements) of this permit.

1. The Notice of Termination shall include the following information:

   a. The mailing address, and location of the construction site for which the notification is submitted. Where a mailing address for the site is not available, the location can be described in terms of the latitude and longitude of the approximate center of the facility to the nearest 15 seconds, or the nearest quarter section (if the section, township and range is provided) that the construction site is located in;

   b. The owner's name, address, telephone number, and status as Federal, State, private, public or other entity;

   c. The name, address and telephone number of the general contractor(s); and

   d. The following certification signed in accordance with Part VI.G (Signatory Requirements) of this permit:

      "I certify under penalty of law that all storm water discharges associated with construction site activity from the identified facility that are authorized by NPDES general permit ILR10 have otherwise been eliminated. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with construction site activity by the general permit, and that discharging pollutants in storm water associated with construction site activity to Waters of the State is unlawful under the Environmental Protection Act and Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act."

      For the purposes of this certification, elimination of storm water discharges associated with industrial activity means that all disturbed soils at the identified facility have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time, or that all storm water discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have otherwise been eliminated.

2. All Notices of Termination are to be sent to the Agency to the mailing address in Part II.D.1, using the form provided by the Agency.

Part III. SPECIAL CONDITIONS, MANAGEMENT PRACTICES, AND OTHER NON-NUMERIC LIMITATIONS

A. **Prohibition on Non-Storm Water Discharges.**

1. Except as provided in Part I paragraph B.2 and paragraph 2 below, all discharges covered by this permit shall be composed entirely of storm water.

2. a. Except as provided in paragraph b below, discharges of materials other than storm water must be in compliance with a NPDES permit (other than this permit) issued for the discharge.

b. The following non-storm water discharges may be authorized by this permit provided the non-storm water component of the discharges is in compliance with Part IV.D.5 (Non-Storm Water Discharges): discharges from fire fighting activities; fire hydrant flushings; waters used to wash vehicles where detergents are not used; waters used to control dust; potable water sources including uncontaminated waterline flushings; landscape irrigation drainages; routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; uncontaminated air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

B. **Discharges into Receiving Waters With an Approved Total Maximum Daily Load (TMDL):**

Discharges to waters for which there is a TMDL allocation for sediment or a parameter that addressed sediment (such as total suspended solids, turbidity, or siltation) are not eligible for coverage under this permit unless you develop and certify a SWPPP that is consistent with the assumptions and requirements in the approved TMDL. To be eligible for coverage under this general permit, operators must incorporate into their SWPPP any conditions applicable to their discharges necessary for consistency with the assumptions and requirements of the TMDL within any timeframes established in the TMDL. If a specific numeric waste load allocation has been established that would apply to the project's discharges, the operator must incorporate that allocation into its SWPPP and implement necessary steps to meet that allocation. Please refer to the Agency website at: http://www.epa.state.il.us/water/tmdl/report-status.html

C. Discharges covered by this permit, alone or in combination with other sources, shall not cause or contribute to a violation of any applicable water quality standard.

Part IV. STORM WATER POLLUTION PREVENTION PLANS

A storm water pollution prevention plan shall be developed for each construction site covered by this permit. Storm water pollution prevention plans shall be prepared in accordance with good engineering practices. The plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with construction site activity from the facility. In addition, the plan shall describe and ensure the implementation of best management practices which will be used to reduce the pollutants in storm water discharges associated with construction site activity and to assure compliance with the terms and conditions of this permit. Facilities must implement the provisions of the storm water pollution prevention plan required under this part as a condition of this permit.

A. **Deadlines for Plan Preparation and Compliance.**

The plan shall:

1. Be completed prior to the start of the construction to be covered under this permit and submitted electronically to the Agency; and

2. Provide for compliance with the terms and schedule of the plan beginning with the initiation of construction activities.

B. **Signature, Plan Review and Notification.**

1. The plan shall be signed in accordance with Part VI.G (Signatory Requirements), and be retained on-site at the facility which generates the storm water discharge in accordance with Part VI.E (Duty to Provide Information) of this permit.

2. Prior to commencement of construction, the permittee shall provide the plan to the Agency. Said plan shall be available at the site.

3. The permittee shall make plans available upon request from this Agency or a local agency approving sediment and erosion plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the municipal operator of the system.

4. The Agency may notify the permittee at any time that the plan does not meet one or more of the minimum requirements of this Part. Such notification shall identify those provisions of the permit which are not being met by the plan, and identify which provisions of the plan require modifications in order to meet the minimum requirements of this part. Within 7 days from receipt of notification from the Agency, the permittee shall make the required changes to the plan and shall submit to the Agency a written certification that the requested changes have been made. Failure to comply shall terminate authorization under this permit.

5. All storm water pollution prevention plans and all completed inspection forms/reports required under this permit are considered reports that shall be available to the public at any reasonable time upon request. However, the permittee may claim any portion of a storm water pollution prevention plan as confidential in accordance with 40 CFR Part 2.

C. **Keeping Plans Current.** The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to Waters of the State and which has not otherwise been addressed in the plan or if the storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified under paragraph D.2 below, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with construction site activity. In addition, the plan shall be amended to identify any new contractor and/or subcontractor that will implement a measure of the storm water pollution prevention plan. Amendments to the plan may be reviewed by the Agency in the same manner as Part IV.B above. Any revisions of the documents for the storm water pollution prevention plan shall be kept on site at all times.

D. **Contents of Plan.** The storm water pollution prevention plan shall include the following items:

1. **Site Description.** Each plan shall, provide a description of the following:

a. A description of the nature of the construction activity or demolition work;

b. A description of the intended sequence of major activities which disturb soils for major portions of the site (e.g. clearing, grubbing, excavation, grading);

c. An estimate of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading, or other activities;

d. An estimate of the runoff coefficient of the site after construction activities are completed and existing data describing the soil or the quality of any discharge from the site;

e. A site map indicating drainage patterns and approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking, areas of soil disturbance, the location of major structural and nonstructural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands), and locations where storm water is discharged to a surface water; and

f. The name of the receiving water(s) and the ultimate receiving water(s), and areal extent of wetland acreage at the site.

2. **Controls**. Each plan shall include a description of appropriate controls that will be implemented at the construction site. The Illinois Urban Manual (http://www.il.nrcs.usda.gov/technical/engineer/urban/index.html) or other similar documents shall be used for developing the appropriate management practices, controls or revisions of the plan. The plan will clearly describe for each major activity identified in paragraph D.1 above, appropriate controls and the timing during the construction process that the controls will be implemented. (For example, perimeter controls for one portion of the site will be installed after the clearing and grubbing necessary for installation of the measure, but before the clearing and grubbing for the remaining portions of the site. Perimeter controls will be actively maintained until final stabilization of those portions of the site upward of the perimeter control. Temporary perimeter controls will be removed after final stabilization). The description of controls shall address as appropriate the following minimum components:

a. **Erosion and Sediment Controls**.

(i) **Stabilization Practices**. A description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans should ensure that existing vegetation is preserved where practicable and that disturbed portions of the site are stabilized. Stabilization practices may include: temporarily seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, staged or staggered development, and other appropriate measures. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated shall be included in the plan. Except as provided in paragraphs (A) and (B) below, stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased as follows:

(A) Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceases on a portion of the site is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.

(B) Where construction activity will resume on a portion of the site within 14 days from when activities ceased, (e.g. the total time period that construction activity is temporarily ceased is less than 14 days) then stabilization measures do not have to be initiated on that portion of site by the 7th day after construction activity temporarily ceased.

(ii) **Structural Practices**. A description of structural practices utilized to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Structural practices should be placed on upland soils to the degree practicable. The installation of these devices may be subject to Section 404 of the CWA.

(iii) **Best Management Practices for Impaired Waters**. For any site which discharges directly to an impaired water identified on the Agency's website for 303(d) listing for suspended solids, turbidity, or siltation the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations or the Illinois Environmental Protection Agency's Illinois Urban Manual, the storm water pollution prevention plan shall adhere to a more restrictive design criteria. Please refer to the Agency's website at: (http://www.epa.state.il.us/water/tmdl/303d-list.html)

b. **Storm Water Management**. A description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. Structural measures should be placed on upland soils to the degree attainable. The installation of these devices may be subject to Section 404 of the CWA. This permit only addresses the installation of storm water management measures, and not the ultimate operation and maintenance of such structures after the construction activities have been completed and the site has undergone final stabilization. Permittees are responsible for only the installation and maintenance of storm water management measures prior to final stabilization of the site, and are not responsible for maintenance after storm water discharges associated with industrial activity have been eliminated from the site.

(i) Such practices may include: storm water detention structures (including wet ponds); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices). The storm water pollution prevention plan shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed predevelopment levels.

(ii) Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are

maintained and protected (e.g. maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

(iii) Unless otherwise specified in the Illinois Environmental Protection Agency's Illinois Urban Manual, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

c. **Other Controls**.

(i) **Waste Disposal**. No solid materials, including building materials, shall be discharged to Waters of the State, except as authorized by a Section 404 permit.

(ii) The plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

(iii) For construction sites that receive concrete or asphalt from off site locations, the plan must identify and include appropriate controls and measures to reduce or eliminate these discharges.

d. **Approved State or Local Plans**.

(i) The management practices, controls and other provisions contained in the storm water pollution prevention plan must be at least as protective as the requirements contained in Illinois Environmental Protection Agency's Illinois Urban Manual, 2002. Facilities which discharge storm water associated with construction site activities must include in their storm water pollution prevention plan procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials. Requirements specified in sediment and erosion site plans or site permits or storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI to be authorized to discharge under this permit, incorporated by reference and are enforceable under this permit. The plans shall include all requirements of this permit and include more stringent standards required by any local approval. This provision does not apply to provisions of master plans, comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit that is issued for the construction site.

(ii) Dischargers seeking alternative permit requirements are not authorized by this permit and shall submit an individual permit application in accordance with 40 CFR 122.26 at the address indicated in Part II.D (Where to Submit) of this permit, along with a description of why requirements in approved local plans or permits should not be applicable as a condition of an NPDES permit.

3. **Maintenance**. The plan shall include a description of procedures to maintain in good and effective operating conditions vegetation, erosion and sediment control measures and other protective measures identified in the site plan.

4. **Inspections**. Qualified personnel (provided by the permittee) shall inspect disturbed areas of the construction site that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall. Qualified personnel means a person knowledgeable in the principles and practices of erosion and sediment controls measures, such as a licensed Professional Engineer (P.E.), a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Erosion Sediment and Storm Water Inspector (CESSWI) or other knowledgeable person who possesses the skills to assess conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activities.

a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

b. Based on the results of the inspection, the description of potential pollutant sources identified in the plan in accordance with Part IV.D.1 (Site Description) of this permit and pollution prevention measures identified in the plan in accordance with Part IV.D.2 (Controls) of this permit shall be revised as appropriate as soon as practicable after such inspection. Such modifications shall provide for timely implementation of any changes to the plan within 7 calendar days following the inspection.

c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph b above shall be made and retained as part of the storm water pollution prevention plan for at least three years from the date that the permit coverage expires or is terminated. All inspection reports shall be retained at the construction site. The report shall be signed in accordance with Part VI.G (Signatory Requirements) of this permit.

d. The permittee shall notify the appropriate Agency Field Operations Section office by email at: epa.swnoncomp@illinois.gov , telephone or fax within 24 hours of any incidence of noncompliance for any violation of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of this permit. The permittee shall complete and submit within 5 days an "Incidence of Noncompliance" (ION) report for any violation of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of this permit. Submission shall be on forms provided by the Agency and include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance.

e. All reports of noncompliance shall be signed by a responsible authority as defined in Part VI.G (Signatory Requirements).

f. After the initial contact has been made with the appropriate Agency Field Operations Section Office, all reports of noncompliance shall be mailed to the Agency at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

5. **Non-Storm Water Discharges.** Except for flows from fire fighting activities, sources of non-storm water listed in Part III.A.2 of this permit that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and insure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

E. **Additional requirements for storm water discharges from industrial activities other than construction, including dedicated asphalt plants, and dedicated concrete plants.** This permit may only authorize any storm water discharge associated with industrial activity from a construction site that is mixed with a storm water discharge from an industrial source other than construction, where:

1. The industrial source other than construction is located on the same site as the construction activity;

2. Storm water discharges associated with industrial activity from the areas of the site where construction activities are occurring are in compliance with the terms of this permit; and

3. Storm water discharges associated with industrial activity from the areas of the site where industrial activity other than construction are occurring (including storm water discharges from dedicated asphalt plants (other than asphalt emulsion facilities) and dedicated concrete plants) are in compliance with the terms, including applicable NOI or application requirements, of a different NPDES general permit or individual permit authorizing such discharges.

F. **Contractors.**

1. The storm water pollution prevention plan must clearly identify for each measure identified in the plan, the contractor(s) or subcontractor(s) that will implement the measure. All contractors and subcontractors identified in the plan must sign a copy of the certification statement in paragraph 2 below in accordance with Part VI.G (Signatory Requirements) of this permit. All certifications must be included in the storm water pollution prevention plan except for owners that are acting as contractors.

2. **Certification Statement.** All contractors and subcontractors identified in a storm water pollution prevention plan in accordance with paragraph 1 above shall sign a copy of the following certification statement before conducting any professional service at the site identified in the storm water pollution prevention plan:

"I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification."

The certification must include the name and title of the person providing the signature in accordance with Part VI.G of this permit: the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.

Part V. RETENTION OF RECORDS

A. The permittee shall retain copies of storm water pollution prevention plans and all reports and notices required by this permit, and records of all data used to complete the Notice of Intent to be covered by this permit, for a period of at least three years from the date that the permit coverage expires or is terminated. This period may be extended by request of the Agency at any time.

B. The permittee shall retain a copy of the storm water pollution prevention plan and any revisions to said plan required by this permit at the construction site from the date of project initiation to the date of final stabilization.

Part VI. STANDARD PERMIT CONDITIONS

A. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Illinois Environmental Protection Act and the CWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

B. **Continuation of the Expired General Permit.** This permit expires five years from the date of issuance. An expired general permit continues in force and effect until a new general permit or an individual permit is issued. Only those facilities authorized to discharge under the expiring general permit are covered by the continued permit.

C. **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. **Duty to Provide Information**. The permittee shall furnish within a reasonable time to the Agency or local agency approving sediment and erosion control plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the municipal operator of the system, any information which is requested to determine compliance with this permit. Upon request, the permittee shall also furnish to the Agency or local agency approving sediment and erosion control plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the municipal operator of the system, copies of all records required to be kept by this permit.

F. **Other Information**. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Agency, he or she shall promptly submit such facts or information.

G. **Signatory Requirements**. All Notices of Intent, storm water pollution prevention plans, reports, certifications or information either submitted to the Agency or the operator of a large or medium municipal separate storm sewer system, or that this permit requires be maintained by the permittee, shall be signed.

1. All Notices of Intent shall be signed as follows:

   a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (2) any person authorized to sign documents that has been assigned or delegated said authority in accordance with corporate procedures;

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

   c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. All reports required by the permit and other information requested by the Agency shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to the Agency.

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).

   c. **Changes to Authorization**. If an authorization under Part I.C (Authorization) is no longer accurate because a different individual or position has responsibility for the overall operation of the construction site, a new authorization satisfying the requirements of Part I.C must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.

   d. **Certification**. Any person signing documents under this Part shall make the following certification:

      "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. **Penalties for Falsification of Reports**. Section 309(c)(4) of the Clean Water Act provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or by both. Section 44(j)(4) and (5) of the Environmental Protection Act provides that any person who knowingly makes any false statement, representation, or certification in an application form, or form pertaining to a NPDES permit commits a Class A misdemeanor, and in addition to any other penalties provided by law is subject to a fine not to exceed $10,000 for each day of violation.

I. **Penalties for Falsification of Monitoring Systems**. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by fines and imprisonment described in Section 309 of the CWA. The Environmental Protection Act provides that any person who knowingly renders inaccurate any monitoring device or record required in connection with any NPDES permit or with any discharge which is subject to the provisions of subsection (f) of Section 12 of the Act commits a Class A misdemeanor, and in addition to any other penalties provided by law is subject to a fine not to exceed $10,000 for each day of violation.

J. **Oil and Hazardous Substance Liability**. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the CWA.

K. **Property Rights**. The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

L. **Severability**. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

M. **Transfers**. This permit is not transferable to any person except after notice to the Agency. The Agency may require the discharger to apply for and obtain an individual NPDES permit as stated in Part I.C (Authorization).

N. **Requiring an Individual Permit or an Alternative General Permit**.

1. The Agency may require any person authorized by this permit to apply for and/or obtain either an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition the Agency to take action under this paragraph. Where the Agency requires a discharger authorized to discharge under this permit to apply for an individual NPDES permit, the Agency shall notify the discharger in writing that a permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of the individual NPDES permit or the alternative general permit as it applies to the individual permittee, coverage under this general permit shall automatically terminate. Applications shall be submitted to the Agency indicated in Part II.D (Where to Submit) of this permit. The Agency may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an individual NPDES permit application as required by the Agency under this paragraph, then the applicability of this permit to the individual NPDES permittee is automatically terminated at the end of the day specified by the Agency for application submittal. The Agency may require an individual NPDES permit based on:

   a. information received which indicates the receiving water may be of particular biological significance pursuant to 35 Ill. Adm. Code 302.105(d)(6);

   b. whether the receiving waters are impaired waters for suspended solids, turbidity or siltation as identified by the Agency's 303(d) listing;

   c. size of construction site, proximity of site to the receiving stream, etc.

   The Agency may also require monitoring of any storm water discharge from any site to determine whether an individual permit is required.

2. Any discharger authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request, to the Agency at the address indicated in Part II.D (Where to Submit) of this permit. The request may be granted by issuance of any individual permit or an alternative general permit if the reasons cited by the permittee are adequate to support the request.

3. When an individual NPDES permit is issued to a discharger otherwise subject to this permit, or the discharger is authorized to discharge under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to a discharger otherwise subject to this permit, or the discharger is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee remains in effect, unless otherwise specified by the Agency.

O. **State/Environmental Laws**. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

P. **Proper Operation and Maintenance**. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

Q. **Inspection and Entry**. The permittee shall allow the IEPA, or an authorized representative upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

R. **Permit Actions**. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Part VII. REOPENER CLAUSE

A. If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with industrial activity covered by this permit, the discharger may be required to obtain an individual permit or an alternative general permit in accordance with Part I.C (Authorization) of this permit or the permit may be modified to include different limitations and/or requirements.

B. Permit modification or revocation will be conducted according to provisions of 35 Ill. Adm. Code, Subtitle C, Chapter I and the provisions of 40 CFR 122.62, 122.63, 122.64 and 124.5 and any other applicable public participation procedures.

C. The Agency will reopen and modify this permit under the following circumstances:

1. the U.S. EPA amends its regulations concerning public participation;

2. a court of competent jurisdiction binding in the State of Illinois or the 7th Circuit Court of Appeals issues an order necessitating a modification of public participation for general permits; or

3. to incorporate federally required modifications to the substantive requirements of this permit.

Part VIII. DEFINITIONS

"Agency" means the Illinois Environmental Protection Agency.

"Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control construction site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Commencement of Construction or Demolition Activities" The initial disturbance of soils associated with clearing, grading, or excavating activities or other construction or demolition activities.

"CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.).

"Dedicated portable asphalt plant" A portable asphalt plant that is located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR 443.

"Dedicated portable concrete plant" A portable concrete plant that is located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

"Dedicated sand or gravel operation" An operation that produces sand and/or gravel for a single construction project.

"Director" means the Director of the Illinois Environmental Protection Agency or an authorized representative.

"Final Stabilization" means that all soil disturbing activities at the site have been completed, and either of the two following conditions are met:

(i) A uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or

(ii) Equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

For individual lots in residential construction, final stabilization means that either:

(i) The homebuilder has completed final stabilization as specified above, or

(ii) The homebuilder has established temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, final stabilization.

"Large and Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

(i) Located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and G of 40 CFR Part 122); or

(ii) Located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (these counties are listed in Appendices H and I of 40 CFR Part 122); or

(iii) Owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system.

"NOI" means notice of intent to be covered by this permit (see Part II of this permit.)

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharges. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

"Storm Water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

"Storm Water Associated with Industrial Activity" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program. For the categories of industries identified in subparagraphs (i) through (x) of this subsection, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in subparagraph (xi), the term includes only storm water discharges from all areas listed in the previous sentence (except access roads) where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. For the purposes of this paragraph, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally or municipally owned or operated that meet the description of the facilities listed in this paragraph (i)- (xi)) include those facilities designated under 40 CFR 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this subsection:

(i) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N (except facilities with toxic pollutant effluent standards which are exempted under category (xi) of this paragraph);

(ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28, 29, 311, 32, 33, 3441, 373;

(iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(l)) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator;

(iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA;

(v) Landfills, land application sites, and open dumps that have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under Subtitle D of RCRA;

(vi) Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

(vii) Steam electric power generating facilities, including coal handling sites;

(viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42, 44, and 45 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under subparagraphs (i)-(vii) or (ix)-(xi) of this subsection are associated with industrial activity;

(ix) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with 40 CFR 503;

(x) Construction activity including clearing, grading and excavation activities except: operations that result in the disturbance of less than one acre of total land area which are not part of a larger common plan of development or sale unless otherwise designated by the Agency pursuant to **Part I**.B.1.

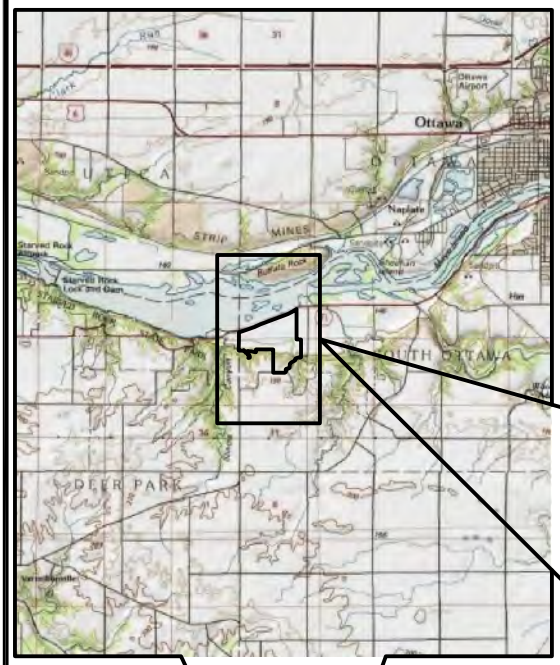
(xi) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 31 (except 311), 34 (except 3441), 35, 36, 37 (except 373), 38, 39, 4221-25, (and which are not otherwise included within categories (i)-(x)).

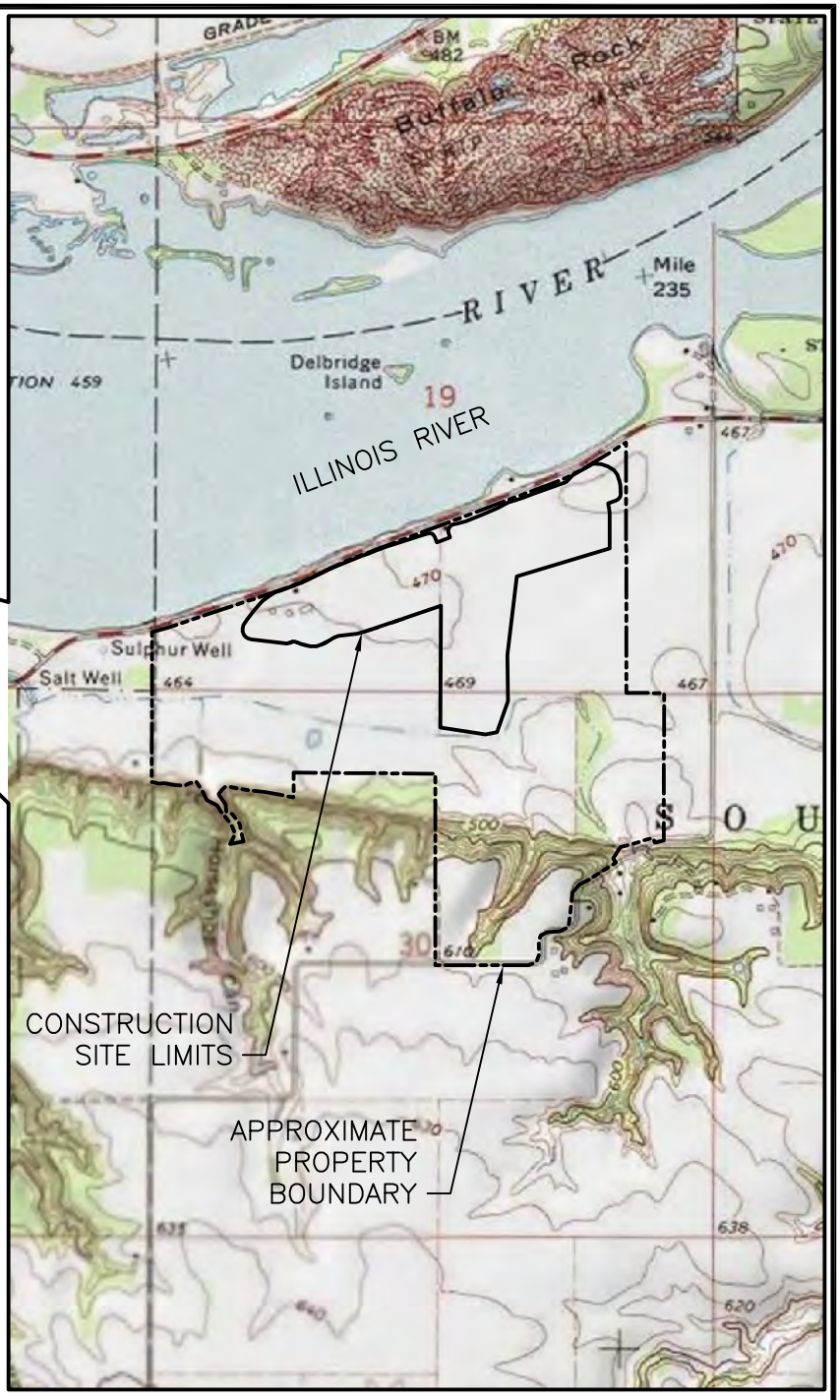
"Waters" mean all accumulations of water, surface and underground, natural, and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon the State of Illinois, except that sewers and treatment works are not included except as specially mentioned; provided, that nothing herein contained shall authorize the use of natural or otherwise protected waters as sewers or treatment works except that in-stream aeration under Agency permit is allowable.

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT
LASALLE COUNTY, ILLINOIS

APPENDIX B

PROJECT LOCATION MAP





NOTES:

1. PROJECT LOCATION IS IN SECTION 19 AND 30, SOUTH OTTAWA TOWNSHIP, LASALLE COUNTY, ILLINOIS

allprojects\Lisle\Mississippi Sand LLC\21153.043 Greenfield Mine Development\Dwgs\swpp\project location.dwg

Date: 2/29/11	MISSISSPPI SAND LLC OTTAWA MINE DEVELOPMENT	PATRICK ENGINEERING INC.
Proj No.: 21153.043	**STORMWATER POLLUTION PREVENTION PLAN**	4970 Varsity Drive Lisle, Illinois 60532-4101 TEL. (630) 795-7200 FAX (630) 724-1681
App. By: MEM	**PROJECT LOCATION MAP**	PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000409

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT
LASALLE COUNTY, ILLINOIS

APPENDIX C

NOTICE OF INTENT (NOI)

Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
Notice of Intent (NOI) for General Permit
to Discharge Storm Water Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address.

For Office Use Only

Permit No. ILR10 _____

OWNER INFORMATION

Company/Owner Name: Bernard T. and Patricia A. Ernat

Mailing Address: 310 Windsor Drive Phone: 815-433-1807

City: Ottawa State: IL Zip: 61350 Fax: _____

Contact Person: _____ E-mail: _____

Owner Type (select one) Private

CONTRACTOR INFORMATION

MS4 Community: ☐ Yes ☐ No

Contractor Name: Turn-Key Processing Solutions, LLC

Mailing Address: 101 Shorewood Lane Phone: 815-741-3760

City: Shorweood State: IL Zip: 60404 Fax: _____

CONSTRUCTION SITE INFORMATION

Select One: ☒ New ☐ Change of information for: ILR10 _____

Project Name: Mississippi Sand - Ottawa County: LaSalle

Street Address: 1222 East Illinois Route 71 City: Ottawa IL Zip: 61350

Latitude: 41 (Deg) 18 (Min) 43 (Sec) Longitude: 88 (Deg) 55 (Min) 41.5 (Sec) 19 & 30 Section 33N Township 3E Range

Approximate Construction Start Date Mar 30, 2012 Approximate Construction End Date Jun 30, 2012

Total size of construction site in acres: 80

If less than 1 acre, is the site part of a larger common plan of development?

☐ Yes ☐ No

Fee Schedule for Construction Sites:
Less than 5 acres - $250
5 or more acres - $750

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Has the SWPPP been submitted to the Agency? ☑ Yes ☐ No

(Submit SWPPP electronically to: epa.constilr10swppp@illinois.gov)

Location of SWPPP for viewing: Address: 1222 East Illinois Route 71 City: Ottawa

SWPPP contact information:

Inspector qualifications:

Contact Name: John Cross, Turn-Key Procesing Solutions, LLC

Phone: 815-741-3760 Fax: _____ E-mail: _____

Project inspector, if different from above

Inspector qualifications:

Inspector's Name: _____

Phone: _____ Fax: _____ E-mail: _____

IL 532 2104 WPC 623
Rev 5/10

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

TYPE OF CONSTRUCTION (select one)

Construction Type Industrial

SIC Code: 14469910

Type a detailed description of the project:

Initial site development for silica sand mine. Project will consist of constructing screening berms, sand processing & storage facilities/area, office building and maintenance shed, paving, fencing, and site drainage. No mining activity will be conducted prior to receiving approval from the Illinois Dept. of Natural Resources, Office of Mines and Minerals.

HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE

Has the project been submitted to the following state agencies to satisfy applicable requirements for compliance with Illinois law on:

Historic Preservation Agency	☐ Yes	☑ No
Endangered Species	☑ Yes	☐ No

RECEIVING WATER INFORMATION

Does your storm water discharge directly to: ☑ Waters of the State or ☐ Storm Sewer

Owner of storm sewer system:

Name of closest receiving water body to which you discharge: Horseshoe Creek

Mail completed form to: Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610
FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Bernard T Ernat Patricia A Ernat
Owner Signature:

3-12-12
Date:

Bernard T. and Patricia A. Ernat
Printed Name:

Owner
Title:

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT
LASALLE COUNTY, ILLINOIS

APPENDIX D

PROJECT DRAWINGS AND SPECIFICATIONS

The Project Drawings are those prepared by Patrick Engineering Inc., 4970 Varsity Drive, Lisle, Illinois 60532 that are identified with the subject project name, are labeled and dated as shown below:

Number	Title	Date
C-1	Existing Conditions	4/20/12
C-2	Grading / Erosion & Sediment Control Plan	4/20/12
C-3	Site Stabilization Plan	4/20/12
C-4	Specifications and Details	4/20/12

The Landscape Drawings are those prepared by Planning Resources Inc., 402 West Liberty Drive, Wheaton, Illinois 60187 that are identified with the subject project name, are labeled and dated as shown below:

Number	Title	Date
L1.0	Landscape Plan – West Center Section	2/29/12
L1.1	Landscape Plan – East Section	2/29/12
L1.2	Landscape Plan – Southeast Buffer and Notes	2/29/12
L1.3	Notes and Specifications	2/29/12
L1.4	Specifications and Details	2/29/12

The Project Specifications are included within the Project Drawings indicated above.

LEGEND

EXISTING

MAJOR CONTOUR — 470 —

MINOR CONTOUR — 467 —

100-YEAR FLOODWAY

100-YEAR FLOODPLAIN

PROPERTY LINE

FENCE

WATERWAY

ASPHALT PAVEMENT

WETLAND

ERNAT'S MARSH

NOTES:

1. TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED BY COMBINING AERIAL SURVEY DATA WITH FIELD TOPOGRAPHIC SURVEY DATA.
2. WETLAND LOCATIONS SHOWN ARE BASED ON AN AUGUST 30, 2011 LETTER AND MAP PROVIDED BY PLANNING RESOURCES INC. TO THE US ARMY CORPS OF ENGINEERS (USACOE), AND VERIFIED BY USACOE JURISDICTIONAL DETERMINATION IN A LETTER DATED SEPTEMBER 26, 2011.

N

0 50' 100'

GRAPHIC SCALE

ILLINOIS RIVER

ILLINOIS ROUTE 71

ILLINOIS RIVER FLOODWAY LIMIT (100-YEAR FLOOD)

EXISTING ENTRANCES TO REMAIN FOR CONSTRUCTION ACCESS

EXISTING FARM BUILDINGS AND STRUCTURES TO BE DEMOLISHED EXCEPT AS OTHERWISE NOTED

FARMHOUSE AND GARAGE TO REMAIN

BASE FLOOD ELEVATION (BFE; 100-YR FLOODPLAIN)=469.5 (UPSTREAM)

NON-JURISDICTIONAL WETLAND TO BE AFFECTED BY CONSTRUCTION

BASE FLOOD ELEVATION (BFE; 100-YR FLOOD PLAIN)=469.5 (UPSTREAM)

NON-JURISDICTIONAL WETLAND TO BE AFFECTED BY CONSTRUCTION

EXISTING FARM DITCHES

FARM DITCH

HORSESHOE CREEK

BASE FLOOD ELEVATION (BFE; 100-YR FLOODPLAIN)=469.0 (DOWNSTREAM)

POND

ERNAT'S MARSH (CIRCA "1977")

FARM DITCH

BASE FLOOD ELEVATION (BFE; 100-YR FLOODPLAIN)=469.5 (UPSTREAM)

UNNAMED TRIBUTARY TO FARM DITCH

ISSUED FOR PERMIT

\\PATRICK\ALLPROJECTS\LISLE\MISSISSIPPI SAND LLC\21153.043 GREENFIELD MINE DEVELOPMENT\DWG\SWPPP\21153043C-1.DWG

REV.	DATE	DESCRIPTION

ISSUES & REVISIONS

PATRICK ENGINEERING INC.

4970 Varsity Drive
Lisle, Illinois 60532-4101
TEL. (630) 795-7200
FAX (630) 724-1681
http://www.patrickengineering.com

PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000409

TPS TURN-KEY PROCESSING SOLUTIONS

Owner:

MISSISSIPPI SAND, LLC.
MANUFACTURE AND DISTRIBUTION OF FRAC SAND

Project:

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT

Sheet Title:

STORMWATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION ACTIVITIES EXISTING CONDITIONS

Project No.:	21153.043
Designed By:	MEM
Drawn By:	JWD
Checked By:	JP
Approved By:	GMS

Date: 04/20/12

Sheet No. C-1

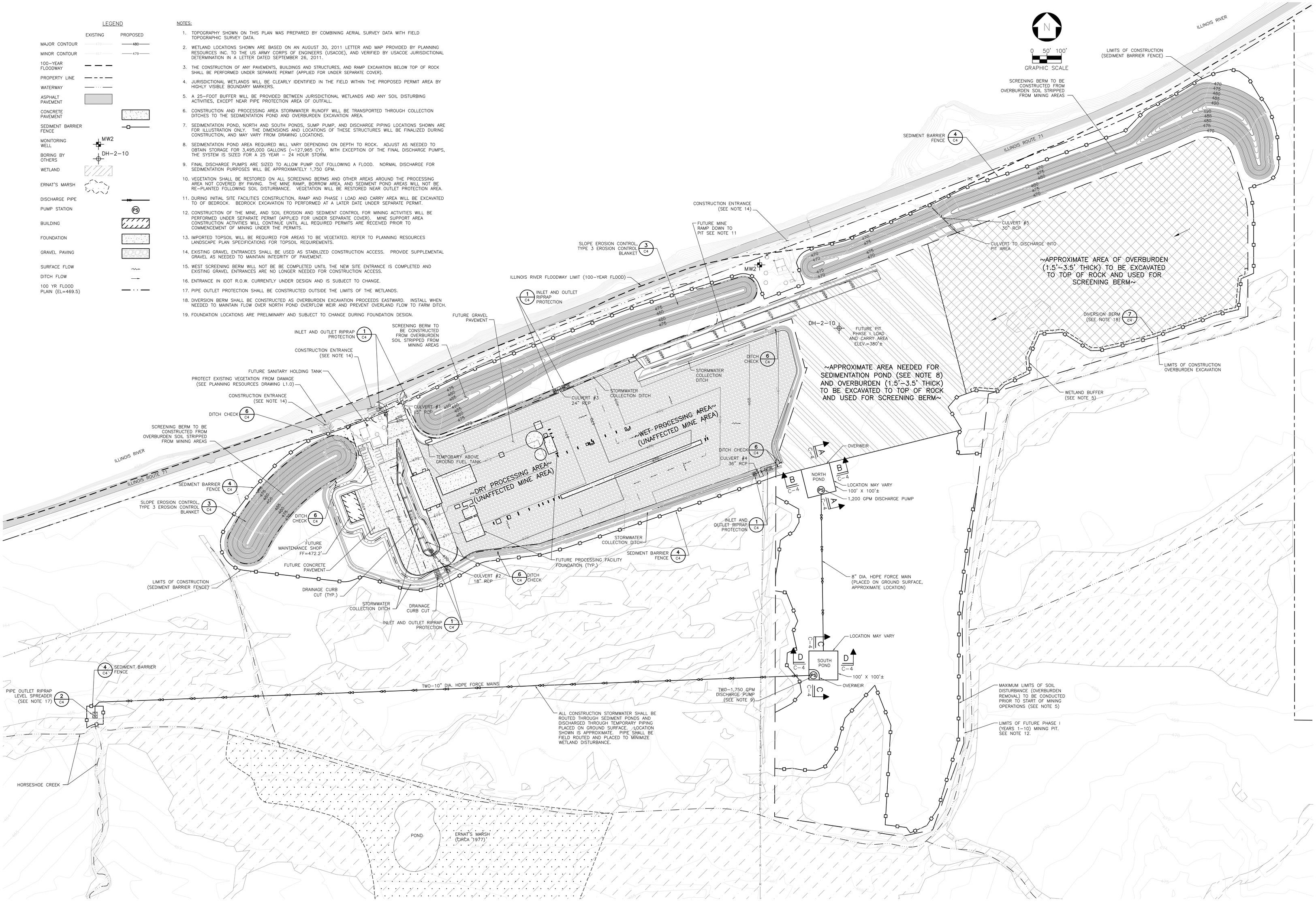
Sheet 1 of 4

LEGEND

	EXISTING	PROPOSED
MAJOR CONTOUR	470	480
MINOR CONTOUR	467	479
100-YEAR FLOODWAY		
PROPERTY LINE		
WATERWAY		
ASPHALT PAVEMENT		
CONCRETE PAVEMENT		
SEDIMENT BARRIER FENCE		
MONITORING WELL	MW2	
BORING BY OTHERS	DH-2-10	
WETLAND		
ERNAT'S MARSH		
DISCHARGE PIPE		
PUMP STATION		PS
BUILDING		
FOUNDATION		
GRAVEL PAVING		
SURFACE FLOW		
DITCH FLOW		
100 YR FLOOD PLAIN (EL=469.5)		

NOTES:

1. TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED BY COMBINING AERIAL SURVEY DATA WITH FIELD TOPOGRAPHIC SURVEY DATA.
2. WETLAND LOCATIONS SHOWN ARE BASED ON AN AUGUST 30, 2011 LETTER AND MAP PROVIDED BY PLANNING RESOURCES INC. TO THE US ARMY CORPS OF ENGINEERS (USACOE), AND VERIFIED BY USACOE JURISDICTIONAL DETERMINATION IN A LETTER DATED SEPTEMBER 26, 2011.
3. THE CONSTRUCTION OF ANY PAVEMENTS, BUILDINGS AND STRUCTURES, AND RAMP EXCAVATION BELOW TOP OF ROCK SHALL BE PERFORMED UNDER SEPARATE PERMIT (APPLIED FOR UNDER SEPARATE COVER).
4. JURISDICTIONAL WETLANDS WILL BE CLEARLY IDENTIFIED IN THE FIELD WITHIN THE PROPOSED PERMIT AREA BY HIGHLY VISIBLE BOUNDARY MARKERS.
5. A 25-FOOT BUFFER WILL BE PROVIDED BETWEEN JURISDICTIONAL WETLANDS AND ANY SOIL DISTURBING ACTIVITIES, EXCEPT NEAR PIPE PROTECTION AREA OF OUTFALL.
6. CONSTRUCTION AND PROCESSING AREA STORMWATER RUNOFF WILL BE TRANSPORTED THROUGH COLLECTION DITCHES TO THE SEDIMENTATION POND AND OVERBURDEN EXCAVATION AREA.
7. SEDIMENTATION POND, NORTH AND SOUTH PONDS, SUMP PUMP, AND DISCHARGE PIPING LOCATIONS SHOWN ARE FOR ILLUSTRATION ONLY. THE DIMENSIONS AND LOCATIONS OF THESE STRUCTURES WILL BE FINALIZED DURING CONSTRUCTION, AND MAY VARY FROM DRAWING LOCATIONS.
8. SEDIMENTATION POND AREA REQUIRED WILL VARY DEPENDING ON DEPTH TO ROCK. ADJUST AS NEEDED TO OBTAIN STORAGE FOR 3,495,000 GALLONS (~127,965 CY). WITH EXCEPTION OF THE FINAL DISCHARGE PUMPS, THE SYSTEM IS SIZED FOR A 25 YEAR - 24 HOUR STORM.
9. FINAL DISCHARGE PUMPS ARE SIZED TO ALLOW PUMP OUT FOLLOWING A FLOOD. NORMAL DISCHARGE FOR SEDIMENTATION PURPOSES WILL BE APPROXIMATELY 1,750 GPM.
10. VEGETATION SHALL BE RESTORED ON ALL SCREENING BERMS AND OTHER AREAS AROUND THE PROCESSING AREA NOT COVERED BY PAVING. THE MINE RAMP, BORROW AREA, AND SEDIMENT POND AREAS WILL NOT BE RE-PLANTED FOLLOWING SOIL DISTURBANCE. VEGETATION WILL BE RESTORED NEAR OUTLET PROTECTION AREA.
11. DURING INITIAL SITE FACILITIES CONSTRUCTION, RAMP AND PHASE I LOAD AND CARRY AREA WILL BE EXCAVATED TO OF BEDROCK. BEDROCK EXCAVATION TO PERFORMED AT A LATER DATE UNDER SEPARATE PERMIT.
12. CONSTRUCTION OF THE MINE, AND SOIL EROSION AND SEDIMENT CONTROL FOR MINING ACTIVITIES WILL BE PERFORMED UNDER SEPARATE PERMIT (APPLIED FOR UNDER SEPARATE COVER). MINE SUPPORT AREA CONSTRUCTION ACTIVITIES WILL CONTINUE UNTIL ALL REQUIRED PERMITS ARE RECEIVED PRIOR TO COMMENCEMENT OF MINING UNDER THE PERMITS.
13. IMPORTED TOPSOIL WILL BE REQUIRED FOR AREAS TO BE VEGETATED. REFER TO PLANNING RESOURCES LANDSCAPE PLAN SPECIFICATIONS FOR TOPSOIL REQUIREMENTS.
14. EXISTING GRAVEL ENTRANCES SHALL BE USED AS STABILIZED CONSTRUCTION ACCESS. PROVIDE SUPPLEMENTAL GRAVEL AS NEEDED TO MAINTAIN INTEGRITY OF PAVEMENT.
15. WEST SCREENING BERM WILL NOT BE BE COMPLETED UNTIL THE NEW SITE ENTRANCE IS COMPLETED AND EXISTING GRAVEL ENTRANCES ARE NO LONGER NEEDED FOR CONSTRUCTION ACCESS.
16. ENTRANCE IN IDOT R.O.W. CURRENTLY UNDER DESIGN AND IS SUBJECT TO CHANGE.
17. PIPE OUTLET PROTECTION SHALL BE CONSTRUCTED OUTSIDE THE LIMITS OF THE WETLANDS.
18. DIVERSION BERM SHALL BE CONSTRUCTED AS OVERBURDEN EXCAVATION PROCEEDS EASTWARD. INSTALL WHEN NEEDED TO MAINTAIN FLOW OVER NORTH POND OVERFLOW WEIR AND PREVENT OVERLAND FLOW TO FARM DITCH.
19. FOUNDATION LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE DURING FOUNDATION DESIGN.



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\\PATRICK\ALLPROJECTS\LISLE\MISSISSIPPI SAND LLC\21153.043 GREENFIELD MINE DEVELOPMENT\DWG\SWPPP\21153043C-2.DWG

REV.	DATE	DESCRIPTION

ISSUES & REVISIONS

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TPS TURN-KEY PROCESSING SOLUTIONS

Owner: MISSISSIPPI SAND, LLC. MANUFACTURE AND DISTRIBUTION OF FRAC SAND

Project: MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT

Sheet Title: STORMWATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION ACTIVITIES
GRADING/EROSION & SEDIMENT CONTROL PLAN

Project No.:	21153.043	Date:	04/20/12
Designed By:	MEM	Sheet No.	C-2
Drawn By:	JWD		
Checked By:	JP		
Approved By:	GMS	Sheet 2 of 4	

LEGEND

	EXISTING	PROPOSED
MAJOR CONTOUR	470	480
MINOR CONTOUR	467	479
100-YEAR FLOODWAY		
PROPERTY LINE		
WATERWAY		
ASPHALT PAVEMENT		
CONCRETE PAVEMENT		
SEDIMENT BARRIER FENCE		
WETLAND		
BUILDING		
FOUNDATION		
GRAVEL PAVING		
NON-RESTORED AREA, EXCAVATED FOR MINING OPERATIONS		
LOW MOW TURF SEED MIX		
IDOT CLASS 2 SALT TOLERANT SEED		
100-YR FLOOD PLAIN (EL=469.5)		
TREE LINE		

NOTES:

1. TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED BY COMBINING AERIAL SURVEY DATA WITH FIELD TOPOGRAPHIC SURVEY DATA.
2. WETLAND LOCATIONS SHOWN ARE BASED ON AN AUGUST 30, 2011 LETTER AND MAP PROVIDED BY PLANNING RESOURCES INC. TO THE US ARMY CORPS OF ENGINEERS (USACOE), AND VERIFIED BY USACOE JURISDICTIONAL DETERMINATION IN A LETTER DATED SEPTEMBER 26, 2011.
3. THE CONSTRUCTION OF ANY PAVEMENTS, BUILDINGS AND STRUCTURES, AND RAMP EXCAVATION BELOW TOP OF ROCK SHALL BE PERFORMED UNDER SEPARATE PERMIT (APPLIED FOR UNDER SEPARATE COVER).
4. PERMANENT VEGETATION SHALL BE RESTORED IN THE AREAS SHOWN FOLLOWING INITIAL CONSTRUCTION ACTIVITIES. IMPORT TOPSOIL AS SPECIFIED ON PLANNING RESOURCES LANDSCAPE PLANS.
5. REFER TO PLANNING RESOURCES LANDSCAPE PLANS FOR DETAILED PLANTING PLANS AND SPECIFICATIONS.
6. ANY DISTURBED AREAS WITHIN THE ILLINOIS ROUTE 71 RIGHT OF WAY SHALL BE RESTORED WITH IDOT CLASS 2A SALT TOLERANT SEED.
7. UNLESS SHOWN OTHERWISE ALL DISTURBED AREAS SHALL BE RESTORED WITH LOW MOW TURF SEED MIX.
8. UPON COMPLETION OF MINE SUPPORT AND PROCESS AREA FACILITIES, INDICATED AREAS WILL BE MINED UNDER SEPARATE PERMIT. THE MINED AREAS WILL BECOME A LAKE PER THE MINE RECLAMATION PLAN.

N

0 50' 100'

GRAPHIC SCALE

ILLINOIS RIVER

ILLINOIS ROUTE 71

LIMITS OF CONSTRUCTION (SEDIMENT BARRIER FENCE)

TREES AND PRAIRIE PLANTINGS ON SCREENING BERM SEE NOTE 5

ILLINOIS RIVER FLOODWAY LIMIT (100-YEAR FLOOD)

TREES AND PRAIRIE PLANTINGS ON SCREENING BERM SEE NOTE 5

FUTURE PIT PHASE I LOAD AND CARRY AREA

MINE RAMP DOWN TO PIT

APPROXIMATE LIMITS OF CONSTRUCTION OVERBURDEN EXCAVATION

PROTECT EXISTING VEGETATION FROM DAMAGE (SEE PLANNING RESOURCES DRAWING L1.0)

TREES AND PRAIRIE PLANTINGS ON SCREENING BERM SEE NOTE 5

~WET PROCESSING AREA~ (UNAFFECTED MINE AREA)

~DRY PROCESSING AREA~ (UNAFFECTED MINE AREA)

8" LINE

SEEDING WILL NOT OCCUR IN THESE AREAS (SEE NOTE 8)

FUTURE MAINTENANCE SHOP

FUTURE CONCRETE PAVEMENT

FUTURE GRAVEL PAVEMENT

FUTURE PROCESSING FACILITY FOUNDATION (TYP.)

SEE PLANNING RESOURCES LANDSCAPE PLAN PER CONTINUATION

TREE PLANTINGS FOR SCREENING BUFFER SEE NOTE 5.

LIMITS OF CONSTRUCTION (SEDIMENT BARRIER FENCE)

LOW MOW TURF RESTORATION OF DISTURBED AREA

OUTLET PROTECTION

MAXIMUM LIMITS OF SOIL DISTURBANCE (OVERBURDEN REMOVAL) TO BE CONDUCTED PRIOR TO START OF MINING OPERATIONS

LIMITS OF FUTURE PHASE I (YEARS 1-10) MINING PIT.

REFER TO PLANNING RESOURCES LANDSCAPE PLANS FOR TREE PLANTINGS FOR SCREENING BUFFER NOT SHOWN ON THIS SHEET.

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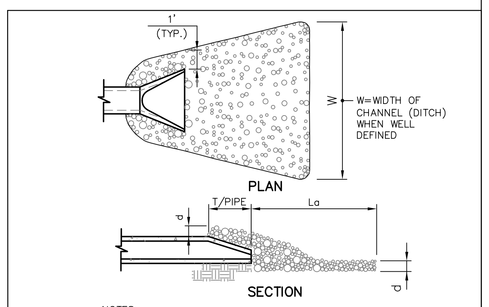
Owner:

MISSISSIPPI SAND, LLC.
MANUFACTURE AND DISTRIBUTION OF FRAC SAND

Project:
MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT

Sheet Title:
STORMWATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION ACTIVITIES SITE STABILIZATION PLAN

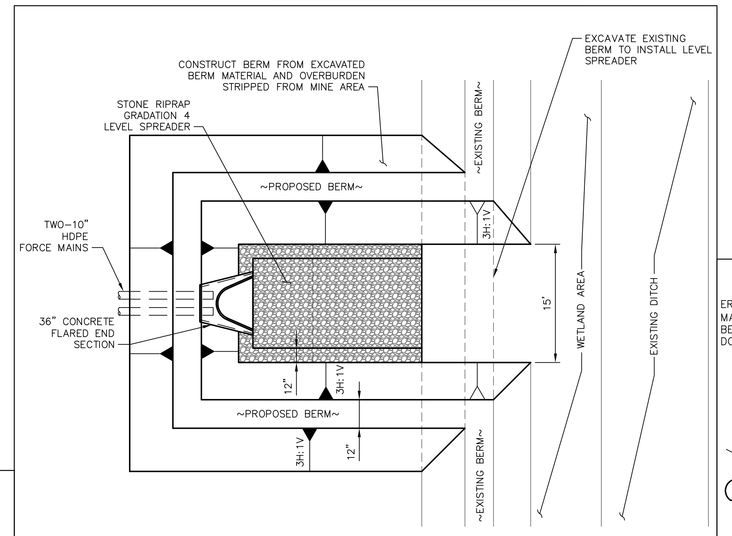
Project No.:	21153.043
Designed By:	MEM
Drawn By:	JWD
Checked By:	JP
Approved By:	GMS
Date:	04/20/12
Sheet No.	C-3
Sheet 3 of 4	



NOTES:
1. d=1.5 TIMES MAXIMUM STONE DIAMETER BUT NOT 1. LESS THAN 12 INCHES.
2. STONE RIPRAP SHALL HAVE A MAXIMUM WEIGHT OF 150 LBS. PER PIECE AND NOT MORE THAN 5% SHALL WEIGH LESS THAN 3 LBS. MATERIAL SHALL BE EVENLY GRADED AND 30% TO 70% SHALL WEIGH 60 LBS OR MORE.

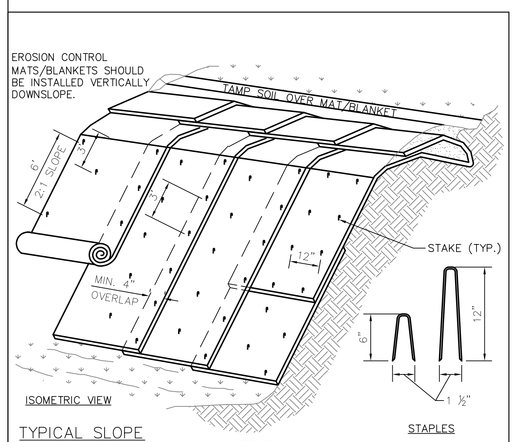
CULVERT	PIPE SIZE	TYPE	RIPRAP SIZE	LA	d
CULVERT #1	15"	INLET	RR-3	5'	15"
		OUTLET	RR-3	15'	15"
CULVERT #2	18"	INLET	RR-3	5'	15"
		OUTLET	RR-4	12'	20"
CULVERT #3	24"	INLET	RR-3	5'	15"
		OUTLET	RR-4	20'	15"
CULVERT #4	36"	INLET	RR-3	5'	15"
		OUTLET	RR-4	22'	20"

1 / C4 INLET & OUTLET PROTECTION DETAIL

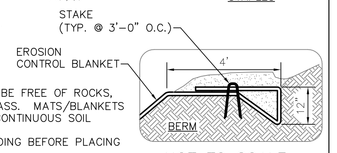


NOTES:
1. STONE RIPRAP AND FILTER FABRIC SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SECTION 281 AND 282 OF IDOT STANDARD SPECIFICATIONS.
2. GROUT THE FORCE MAIN PIPES INTO THE FLARED END SECTION.
3. WETLAND SHALL NOT BE DISTURBED.
4. ALL DISTURBED AREAS SHALL BE REVEGETATED WITH LOW-MOW TURF SEED.

2 / C4 PIPE OUTLET RIPRAP LEVEL SPREADER



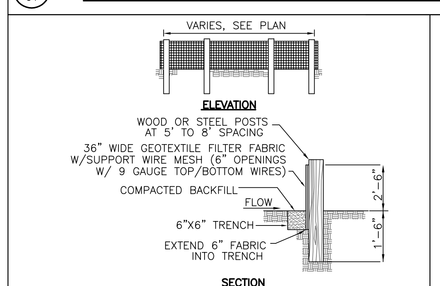
TYPICAL SLOPE SOIL STABILIZATION



NOT TO SCALE

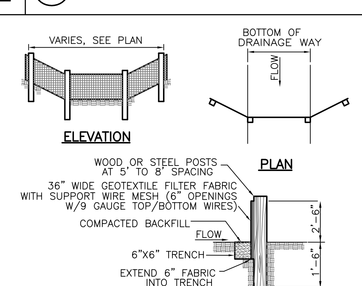
NOTES:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE SMOOTH, CONTINUOUS SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH BLANKET.
4. STAKING PATTERN AND SPACING SHALL BE AS RECOMMENDED BY BLANKET SUPPLIER FOR SLOPE CONDITIONS.
5. EROSION CONTROL BLANKETS SHALL BE AS PER THE PLANNING RESOURCES LANDSCAPE PLANS.

3 / C4 EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT SLOPE INSTALLATION



- SUPPORT WIRE MESH MAY BE OMITTED IF A MAXIMUM POST SPACING OF 5 FEET IS PROVIDED.
- SEDIMENT TRAPPED BY THE FENCE SHALL BE REMOVED (AND PROPERLY DISPOSED OF) WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
- BARRIERS SHALL BE MAINTAINED IN PLACE UNTIL THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED AND UNTIL THE ENGINEER AUTHORIZES REMOVAL.

4 / C4 TEMPORARY SEDIMENT BARRIER
FILTER FABRIC FENCE
OVERLAND FLOW APPLICATION



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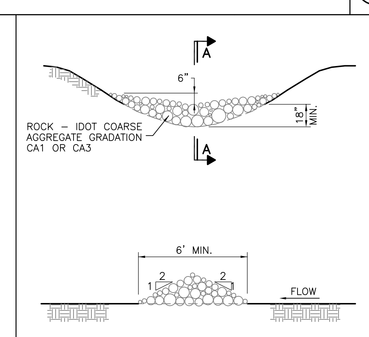
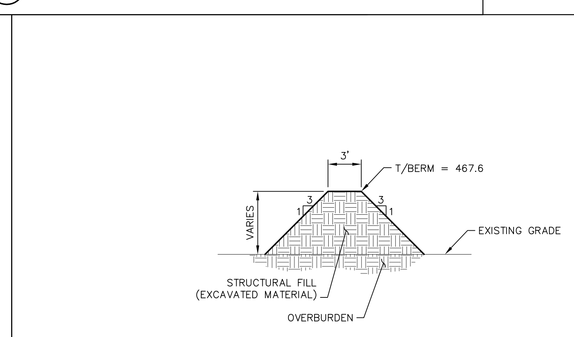
- SEDIMENT TRAPPED BY THE FENCE SHALL BE REMOVED (AND PROPERLY DISPOSED OF) WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
- BARRIERS SHALL BE MAINTAINED IN PLACE UNTIL THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED AND UNTIL THE ENGINEER AUTHORIZES REMOVAL.

5 / C4 TEMPORARY SEDIMENT BARRIER
FILTER FABRIC FENCE
DRAINAGEWAY FLOW APPLICATION



6 / C4 ROCK SWALE CHECK



7 / C-4 TYPICAL SECTION - DIVERSION BERM
SCALE: NOT TO SCALE

SOIL EROSION / SEDIMENT CONTROL AND SITE RESTORATION MEASURES

A. GENERAL
(1) THE CONTRACTOR SHALL TAKE SUITABLE AND SUFFICIENT MEASURES TO CONTROL SOIL EROSION AND SEDIMENTATION DUE TO CONSTRUCTION AND SITE DEVELOPMENT ACTIVITIES. THESE MEASURES SHALL BE IN SUBSTANTIAL CONFORMANCE WITH THE PRINCIPLES, PRACTICES AND STANDARDS DESCRIBED IN THE IEPA PUBLICATION "ILLINOIS URBAN MANUAL," 2002 EDITION.
(2) SPECIFIC EROSION/SEDIMENT CONTROL AND RESTORATION MEASURES SHALL BE AS INDICATED ON THE PROJECT EROSION/SEDIMENT CONTROL PLANS, AS STATED IN THE PROJECT SPECIFICATIONS AND AS DESCRIBED IN THE "STORM WATER POLLUTION PREVENTION PLAN" (SWPPP) PREPARED FOR THE PROJECT.
(3) CONTRACTOR RESPONSIBILITIES SHALL INCLUDE THE MAINTENANCE AND REPAIR OF ALL SEEDED, SODDED, AND PLANTED SURFACES UNTIL ALL SPECIFIED VEGETATIVE COVERS WITHIN THE PROJECT AREA ARE SUITABLY ESTABLISHED AND EROSION PROBLEMS HAVE CEASED.
(4) CONSTRUCTION AND SITE DEVELOPMENT WORK SHALL COMPLY WITH THE PROCEDURES OF THE NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) PERMIT NO. ILR10-P797, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGE FROM CONSTRUCTION SITE ACTIVITIES.
(5) REFERENCES TO "IDOT" REQUIREMENTS OR STANDARDS SHALL MEAN IN CONFORMANCE TO THE MATERIAL AND INSTALLATION REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012, INCLUDING ALL APPLICABLE CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.
(6) THE INSTALLATION AND MAINTENANCE OF ALL REQUIRED EROSION/SEDIMENT CONTROL AND RESTORATION MEASURES SHALL BE SUBJECT TO INSPECTION BY THE GOVERNING AGENCY. DEFICIENT CONDITIONS SHALL BE CORRECTED WHEN REQUIRED BY THE GOVERNING AGENCY.

B. STABILIZATION PRACTICES
(1) CONTRACTOR SHALL LIMIT REMOVAL OF EXISTING VEGETATED GROUND COVERS TO AREAS ONLY AS ABSOLUTELY REQUIRED TO PERFORM THE PROJECT WORK. STRUCTURAL SEDIMENT BARRIERS SHALL BE INSTALLED AT THE CONSTRUCTION LIMITS OF THE SITE AS INDICATED ON THE PLANS. VEGETATION WITHIN AREAS THAT ARE PROTECTED BY SUCH BARRIER FENCING ON THE PLANS SHALL NOT BE DISTURBED DURING CONSTRUCTION.
(2) EXPOSED SOIL SURFACES SHALL BE STABILIZED WITH VEGETATION AND/OR PROTECTIVE MULCHES OR BLANKETS. IF CONDITIONS PREVENT EFFECTIVE USE OR PLACEMENT OF SUCH MEASURES, THEN THE INSTALLATION OF STRUCTURAL CONTROLS SUCH AS SEDIMENT BARRIER FENCING AND SEDIMENT TRAPS WILL BE REQUIRED.
(3) STABILIZATION MEASURES SHALL BE INITIATED WITHIN 14 DAYS AFTER EARTHWORK OPERATIONS HAVE TEMPORARILY CEASED AND WITHIN 7 DAYS AFTER FINAL GRADES ARE ESTABLISHED. IF CONSTRUCTION ACTIVITY IS ANTICIPATED TO TEMPORARILY HALT FOR A PERIOD OF LESS THAN 14 CALENDAR DAYS, THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE SPECIFIED TIME AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
(4) TEMPORARY SEEDING SHALL BE EMPLOYED WHEN NECESSARY DUE TO SEASONAL LIMITATIONS OR TEMPORARY WORK STOPPAGES. WHEN SEASONAL WEATHER CONDITIONS PREVENT SEEDING, SODDING AND PLANTING OPERATIONS, SLOPED SURFACES SHALL BE MULCHED OR BLANKETED WITH SUITABLE MATERIAL AS A MEANS OF TEMPORARY EROSION PROTECTION.
(5) AREAS WITH PERMANENT VEGETATIVE COVER SEEDING SHALL BE PROTECTED BY THE USE OF APPLIED MULCH OR EROSION CONTROL BLANKETS.

C. SEDIMENT BARRIERS
(1) TEMPORARY SEDIMENT BARRIERS SHALL BE INSTALLED WHERE INDICATED ON THE PLANS AND MAINTAINED UNTIL SOIL SURFACES HAVE BEEN STABILIZED WITH GRASS OR OTHER TYPES OF PERMANENT COVER. SUCH BARRIERS SHALL BE FILTER FABRIC (SILT) FENCES, COMPOST FILTER SOCKS OR OTHER DEVICES AS INDICATED ON THE PLANS.
(2) TEMPORARY SEDIMENT BARRIERS AROUND THE WORK AREA PERIMETER SHALL BE INSTALLED PRIOR TO THE START OF SITE CLEARING AND EARTHWORK OPERATIONS.
(3) ALL SEDIMENT BARRIERS SHALL BE REPLACED OR CLEANED AS NECESSARY DURING CONSTRUCTION WHEN THEY BECOME CLOGGED OR INEFFECTIVE. ALL SEDIMENT TRAPS AND CATCH BASINS SHALL BE CLEANED PERIODICALLY DURING CONSTRUCTION TO ALLOW THEM TO OPERATE EFFECTIVELY.

D. CONSTRUCTION INGRESS-EGRESS
(1) CONSTRUCTION INGRESS-EGRESS SHALL BE CONFINED TO DEFINED PAVED DRIVEWAY CONNECTIONS TO ADJACENT PUBLIC ROADWAYS. CONSTRUCTION EXITS SHALL BE CLEANED DAILY, AS NEEDED TO PREVENT THE SPREAD OF MUD OR DEBRIS ON THE PUBLIC ROAD PAVEMENT. MUD AND DEBRIS SHALL BE CLEARED FROM PUBLIC ROADS WHENEVER IT OCCURS AND AS REQUIRED BY THE PUBLIC ROADWAY AUTHORITY.
(2) PRIVATE ROADWAYS, DRIVEWAYS, PARKING LOTS, ETC., USED BY CONSTRUCTION VEHICLES AND EQUIPMENT SHALL BE CLEANED OF MUD AND DEBRIS DAILY AS NEEDED TO KEEP THE PAVEMENTS CLEAN OF SUCH MATERIALS.

E. WATER DIVERSION AND DEWATERING
(1) METHODS FOR DIVERTING WATER FLOW, CONTROLLING GROUNDWATER AND REMOVING STORMWATER FROM WORK SITES SHALL INCLUDE EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AT PUMP DISCHARGE LOCATIONS AND TO MINIMIZE THE DISCHARGE OF SETTLEABLE SOLIDS.
(2) STONE OR CONCRETE BLOCK RIPRAP PROTECTION SHALL BE PROVIDED AT DISCHARGE LOCATIONS WHEN DEEMED NECESSARY BY THE ENGINEER.
(3) SEDIMENT TRAPS AND WATER REMOVAL SUMP PITS SHALL BE PROVIDED WHEN REQUIRED BY THE ENGINEER.

F. SOIL STOCKPILES
(1) SOIL STOCKPILES SHALL BE LOCATED SO AS TO PREVENT SEDIMENT RUNOFF INTO WATERCOURSES AND DRAINAGE SYSTEMS OR ONTO ADJACENT ROADWAYS AND PROPERTIES, AND SHALL BE PLACED WHERE INDICATED ON THE SITE PLAN INCLUDED WITH THE ESTABLISHED PHASED CONSTRUCTION/RESTORATION PROGRAM.
(2) SOIL STOCKPILES TO REMAIN IN PLACE MORE THAN 14 DAYS SHALL BE CONTAINED WITHIN A SEDIMENT BARRIER FENCE UNLESS RUNOFF FROM THE STOCKPILE AREA DRAINS DIRECTLY TO A CONSTRUCTED SEDIMENT TRAP.
(3) SOIL STOCKPILES THAT WILL REMAIN IN PLACE LONGER THAN 60 DAYS SHALL BE STABILIZED WITH TEMPORARY EROSION CONTROL SEEDING (SEED AND MULCH OR BLANKET) WITHIN 14 DAYS AFTER CONSTRUCTION OF THE STOCKPILE.

G. UNVEGETATED AREAS
(1) UNVEGETATED AREAS EXPECTED TO REMAIN UNPAVED OR UNRESTORED FOR LONGER THAN 60 DAYS SHALL BE STABILIZED WITH TEMPORARY EROSION CONTROL SEEDING AND MULCHING OR BLANKETS WITHIN 14 DAYS AFTER EARTHWORK OPERATIONS HAVE CEASED.
(2) IF UNVEGETATED AREAS ARE TO REMAIN UNPAVED OR UNRESTORED FOR LESS THAN 60 DAYS, SEDIMENT BARRIER FENCES OR EXCAVATED SEDIMENT TRAPS SHALL BE INSTALLED WHERE THE ENGINEER DETERMINES THAT SEDIMENT RUNOFF WILL AFFECT ADJACENT AREAS.
(3) UNVEGETATED STEEP SLOPES SHALL BE PROTECTED BY HYDROMULCHING THE EXPOSED GROUND WITH A BONDED FIBER MATRIX, STABILIZED FIBER MATRIX OR FLEXIBLE GROWTH MEDIUM PRODUCT (APPLIED AT RATES RECOMMENDED BY THE PRODUCT MANUFACTURER FOR THE SITE CONDITIONS) WHEN SUCH PROTECTION IS INDICATED ON THE PLANS OR REQUIRED BY THE ENGINEER.

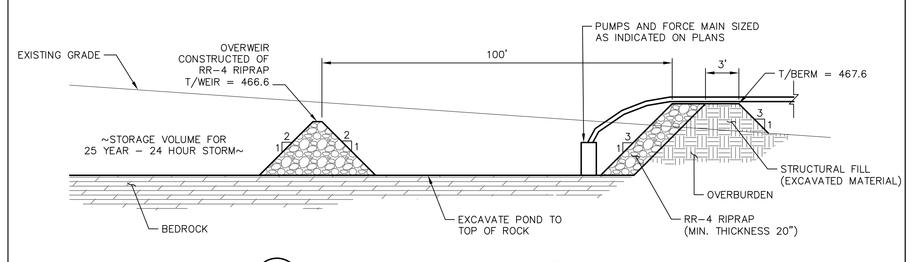
H. TOPSOIL PLACEMENT AND VEGETATIVE COVER
(1) WEATHER CONDITIONS PERMITTING, TOPSOIL SHALL BE PLACED AND GRADED WITHIN EACH DEFINED CONSTRUCTION AREA IMMEDIATELY UPON COMPLETION OF CUT AND FILL OPERATIONS WITHIN THAT AREA.
(2) SEEDING, PLANTING AND EROSION PROTECTION OPERATIONS TO ESTABLISH PERMANENT VEGETATIVE GROUND COVER SHALL BE PERFORMED WITHIN 5 DAYS AFTER TOPSOIL PLACEMENT, WHENEVER WEATHER CONDITIONS ARE ADEQUATE FOR SUCH WORK.

I. EROSION CONTROL SEEDING AND MULCHING
(1) AREAS WHICH MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 60 DAYS (INCLUDING SOIL STOCKPILE AREAS) SHALL BE SEEDED AND/OR MULCHED, AS REQUIRED BY THE ENGINEER, WITHIN 15 DAYS OF STOPPAGE OF CONSTRUCTION ACTIVITIES WITHIN THE AREA.
(2) THE SEED MIXTURE TO BE USED FOR TEMPORARY EROSION CONTROL SEEDING OF EXCAVATED, FILLED, GRADED OR OTHERWISE DISTURBED AREAS SHALL BE IDOT CLASS 7 - 114 LBS./ACRE.
(3) SEED MIXTURES SHOULD BE APPLIED MECHANICALLY SO THAT THE SEEDS ARE PLANTED AT A DEPTH OF 1/4 TO 1/2 INCH. IF THE SEED IS BROADCAST OR HYDROSEEDED, SECONDARY RAKING OR HARROWING IS NECESSARY.
(4) SEEDED AREAS SHALL BE PROTECTED WITH A WOOD/CELLULOSE FIBER MULCH CONTAINING A PRE-BLENDED CHEMICAL TACKIFIER. MULCH APPLICATION RATE SHALL BE 2,000 LBS. PER ACRE (MINIMUM). TACKIFIER RATE SHALL BE AS RECOMMENDED BY THE PRODUCT MANUFACTURER.
(5) WHEN INDICATED ON THE PLANS OR REQUIRED BY THE ENGINEER, SEEDED SLOPES SHALL BE PROTECTED BY HYDROMULCHING THE AREAS WITH A BONDED FIBER MATRIX, STABILIZED FIBER MATRIX OR FLEXIBLE GROWTH MEDIUM PRODUCT APPLIED AT A RATE RECOMMENDED BY THE PRODUCT MANUFACTURER FOR THE SITE CONDITIONS. THE TYPE OF PRODUCT TO BE USED SHALL BE AS INDICATED ON THE PLANS OR DETERMINED BY THE ENGINEER.
(6) WHEN WEATHER CONDITIONS OR CONSTRUCTION OPERATIONS PREVENT SEEDING, SODDING OR PLANTING OPERATIONS FOR A PROLONGED PERIOD (AS DETERMINED BY THE ENGINEER), EXPOSED SOIL SLOPES SHALL BE PROTECTED BY HYDROMULCHING THE AREAS WITH A BONDED FIBER MATRIX, STABILIZED FIBER MATRIX OR FLEXIBLE GROWTH MEDIUM PRODUCT APPLIED AT A RATE RECOMMENDED BY THE PRODUCT MANUFACTURER FOR THE SITE CONDITIONS. THE TYPE OF PRODUCT TO BE USED SHALL BE AS DETERMINED BY THE ENGINEER.

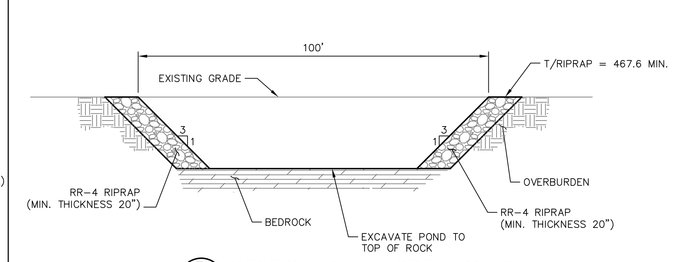
J. DRAINAGE OUTLETS AND OVERFLOWS
(1) EROSION PROTECTION (STONE RIPRAP, CONCRETE BLOCK MATS OR OTHER SPECIFIED METHOD) SHALL BE PROVIDED AT DRAINAGE PIPE INLETS, OUTLETS, AND STORMWATER BASIN OVERFLOWS IMMEDIATELY UPON INSTALLATION OF THE OUTLET/OVERFLOW STRUCTURES.

K. DRAINAGE CHANNELS AND SWALES
(1) DRAINAGE CHANNEL AND SWALE INVERTS SHALL BE STABILIZED AND PROTECTED WITH THE INSTALLATION OF AGGREGATE DITCH CHECKS, THESE INVERTS SHALL ALSO BE SEEDED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

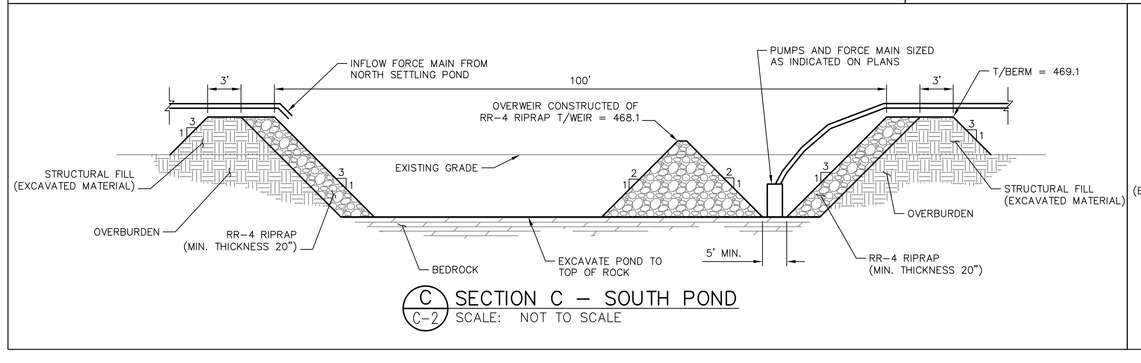
L. PERMANENT VEGETATIVE COVERS
(1) TREE PLANTINGS AND OTHER VEGETATIVE GROUND COVERS WITHIN THE PROJECT DEVELOPMENT AREA SHALL BE PROVIDED, INSTALLED AND PROTECTED IN ACCORDANCE WITH THE LANDSCAPE PLANS AND SPECIFICATIONS PREPARED BY PLANNING RESOURCES.



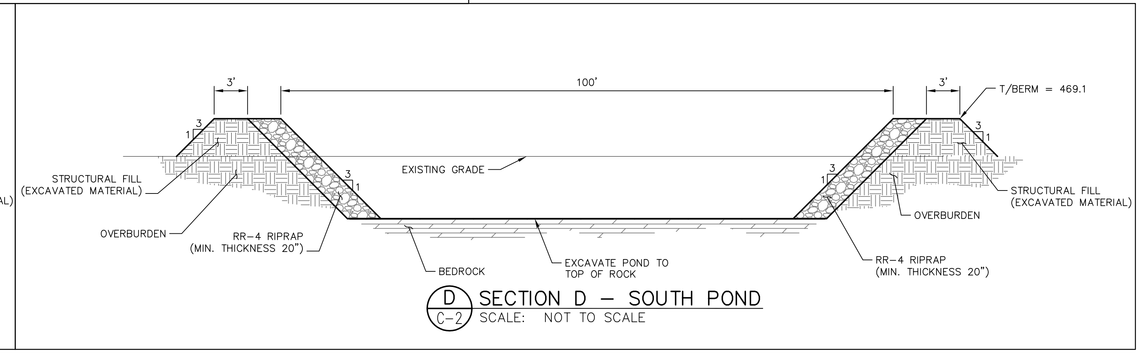
A / C-2 SECTION A - NORTH POND
SCALE: NOT TO SCALE



B / C-2 SECTION B - NORTH POND
SCALE: NOT TO SCALE



C / C-2 SECTION C - SOUTH POND
SCALE: NOT TO SCALE



D / C-2 SECTION D - SOUTH POND
SCALE: NOT TO SCALE

ISSUED FOR PERMIT

\\PATRICK\ALLPROJECTS\LISLE\MISSISSIPPI SAND LLC\21153.043 GREENFIELD MINE DEVELOPMENT\DWG\SWPPP\21153043C-04.DWG

REV.	DATE	DESCRIPTION

ISSUES & REVISIONS

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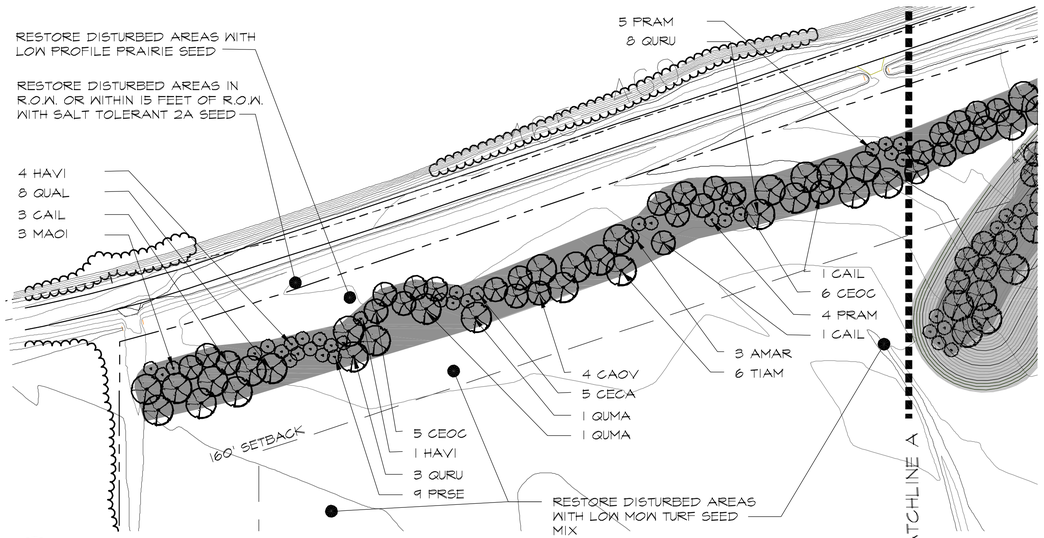
TPS TURN-KEY PROCESSING SOLUTIONS

Owner:
MISSISSIPPI SAND, LLC.
MANUFACTURE AND DISTRIBUTION OF FRAC SAND

Project:
MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT

Sheet Title:
STORMWATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION ACTIVITIES SPECIFICATIONS AND DETAILS

Project No.:	21153.043
Designed By:	MEM
Drawn By:	JWD
Checked By:	JP
Approved By:	GMS
Date:	04/20/12
Sheet No.	C-4
Sheet	4 of 4



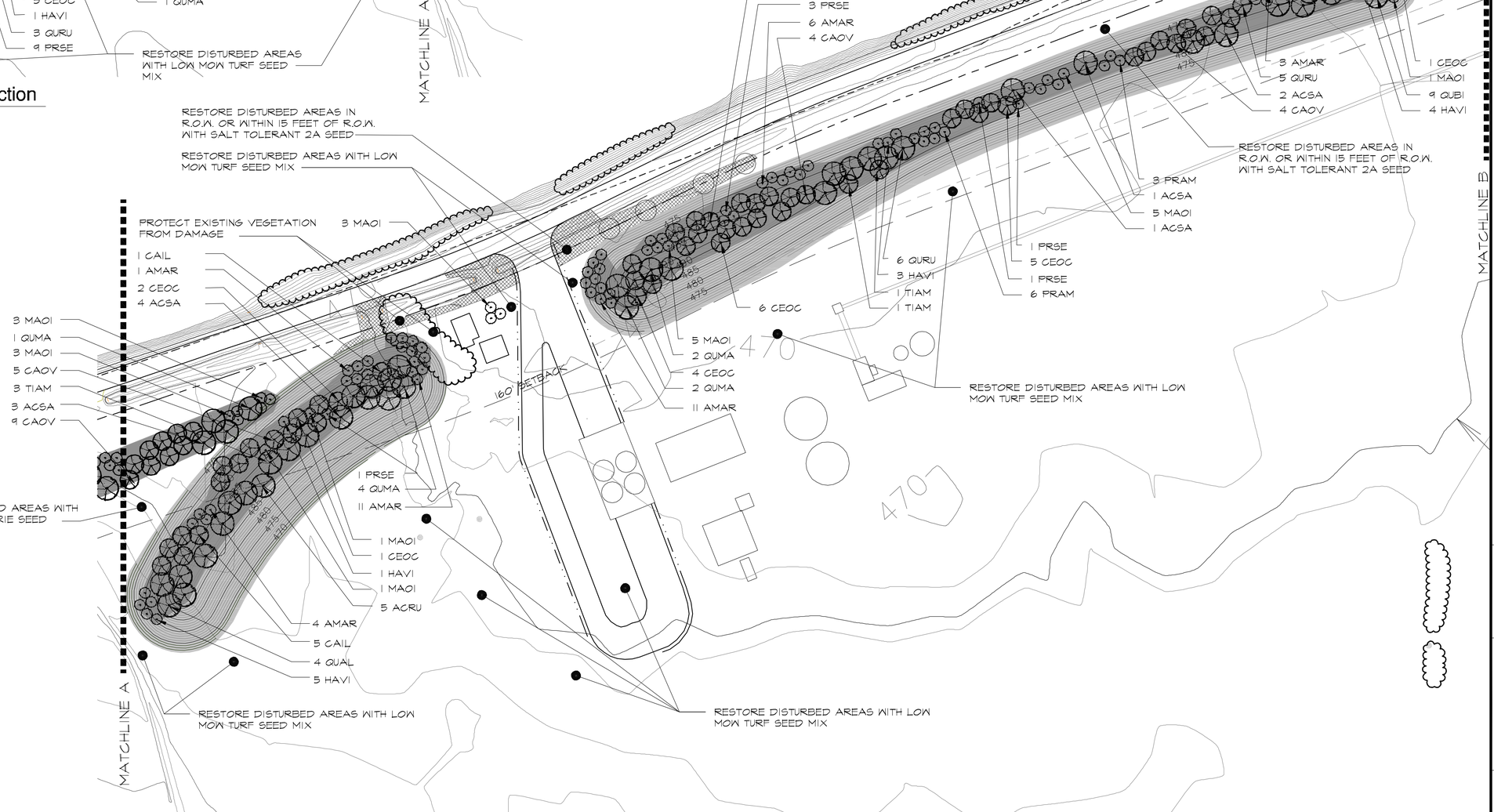
1 L1.0 **Landscape Plan - West Section**

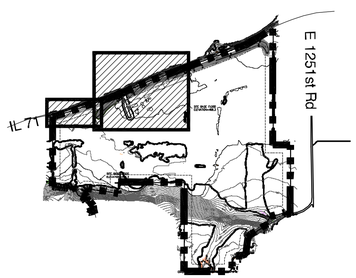
Scale: 1" =80'-0"

LEGEND

- LOW MOW TURF SEED LIMITS
- LOW PROFILE PRAIRIE SEED LIMITS
- IDOT CLASS 2A SALT TOLERANT SEED LIMITS

NOTE: THE INTENT OF THE LOW MOW SEED MIX AROUND THE TREE PLANTINGS ON THE BERM IS TO ALLOW FOR PROPER PRESCRIBED PRAIRIE BURNING TO TAKE PLACE ON THE BERM FOR THE FIRST FEW YEARS WITHOUT GETTING CLOSE ENOUGH TO HARM THE TREES. OVER TIME, THE PRAIRIE PLANTS SHOULD OVERTAKE THE LOW MOW TURF AND FILL IN THE REST OF THE BERM.





Key Map

Not to Scale

2 L1.0 **Landscape Plan - West Center Section**

Scale: 1" =80'-0"

0 40 80 160 240

LANDSCAPE PLAN

SUBMITTAL — Date: 03.9.12 — 100%

OTTAWA GREENFIELD DEVELOPMENT

Ottawa, Illinois

REVIEWED BY: KLG
APPROVED BY:
DRAWN/DESIGNED BY: BCL
PROJECT NO: PP11015-00

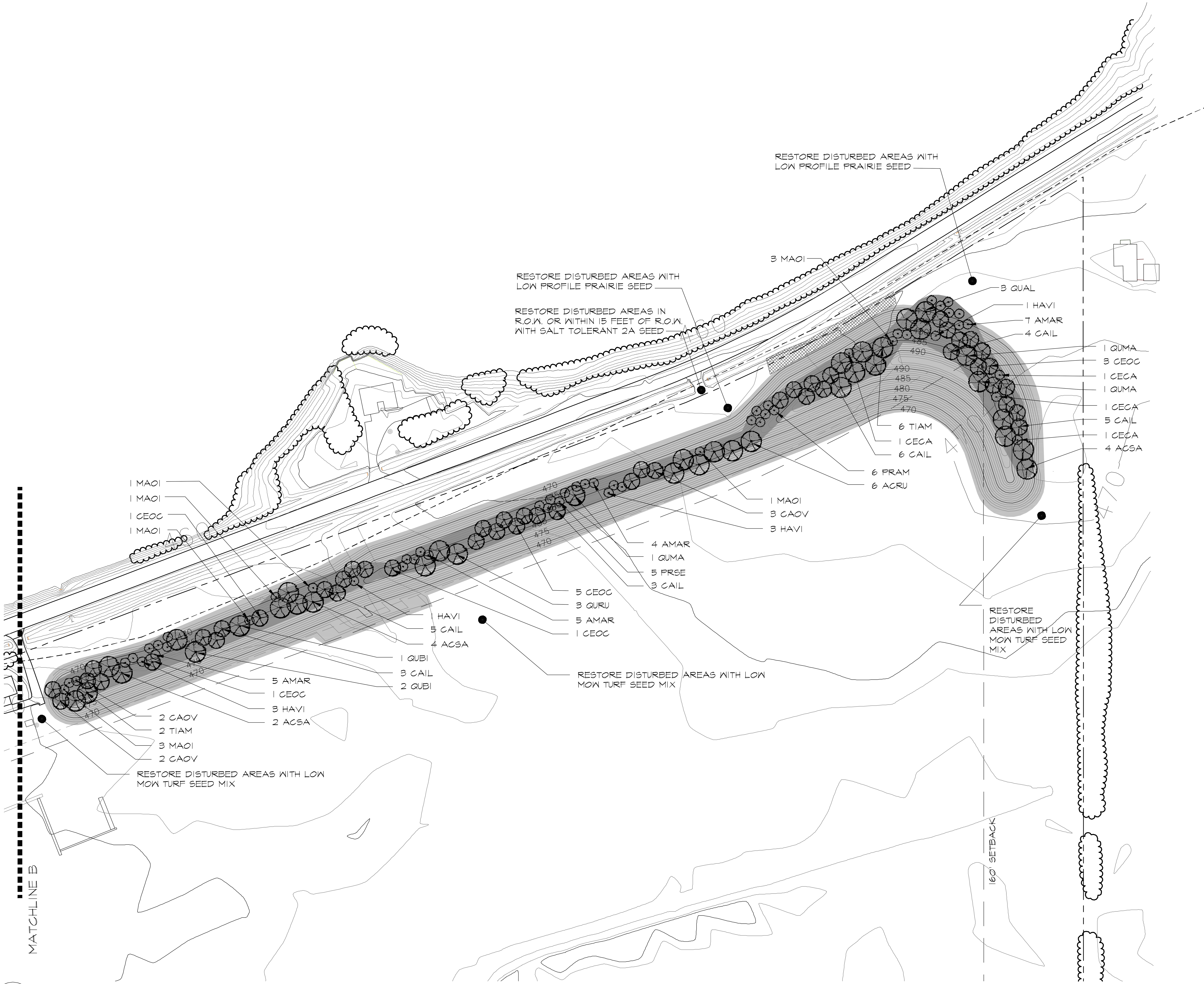
PLANNING RESOURCES INC.
402 West Liberty Drive Wheaton, Illinois 60187
Ph: (630) 668-7788 Fax: (630) 668-4125

Date: 02.29.12
Scale: 1"=80'-0"

Drawing

L1.0

Site Development

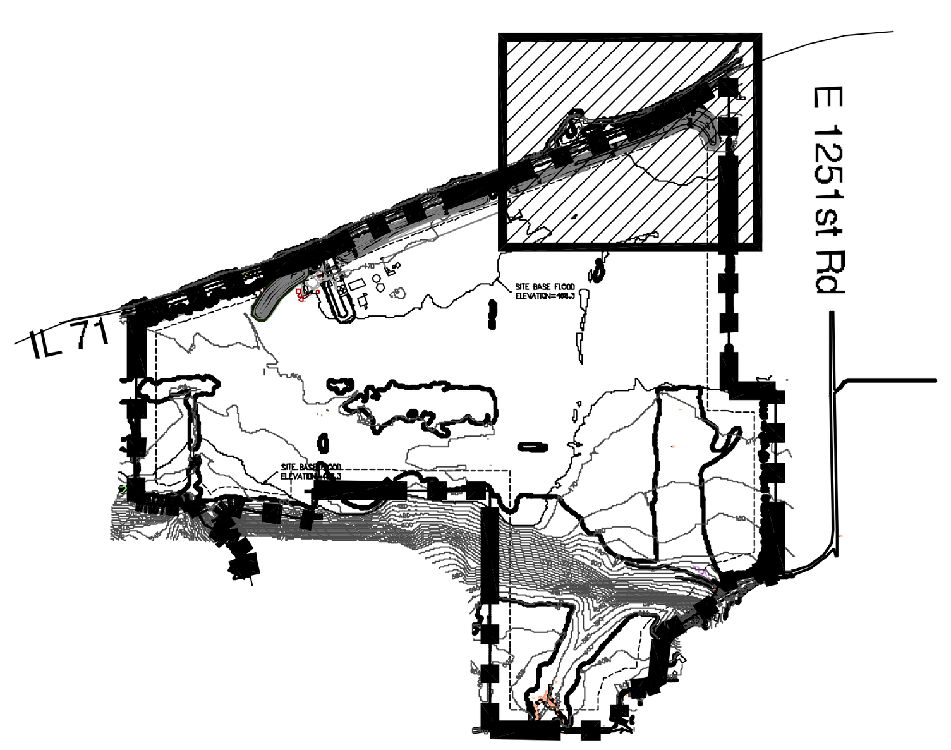


1 / L1.1 Landscape Plan - East Section

Scale: 1" =80'-0"

LEGEND

LOW MOW TURF SEED LIMITS	
LOW PROFILE PRAIRIE SEED LIMITS	
IDOT CLASS 2A SALT TOLERANT SEED LIMITS	



Key Map

Not to Scale

0 40 80 160 240

LANDSCAPE PLAN

SUBMITTAL	Date:
100%	03.9.12

OTTAWA GREENFIELD DEVELOPMENT

Ottawa, Illinois

PLANNING RESOURCES INC.

REVIEWED BY: KLG

APPROVED BY:

DRAWN/DESIGNED BY: BCL

PROJECT NO: PP11015-00

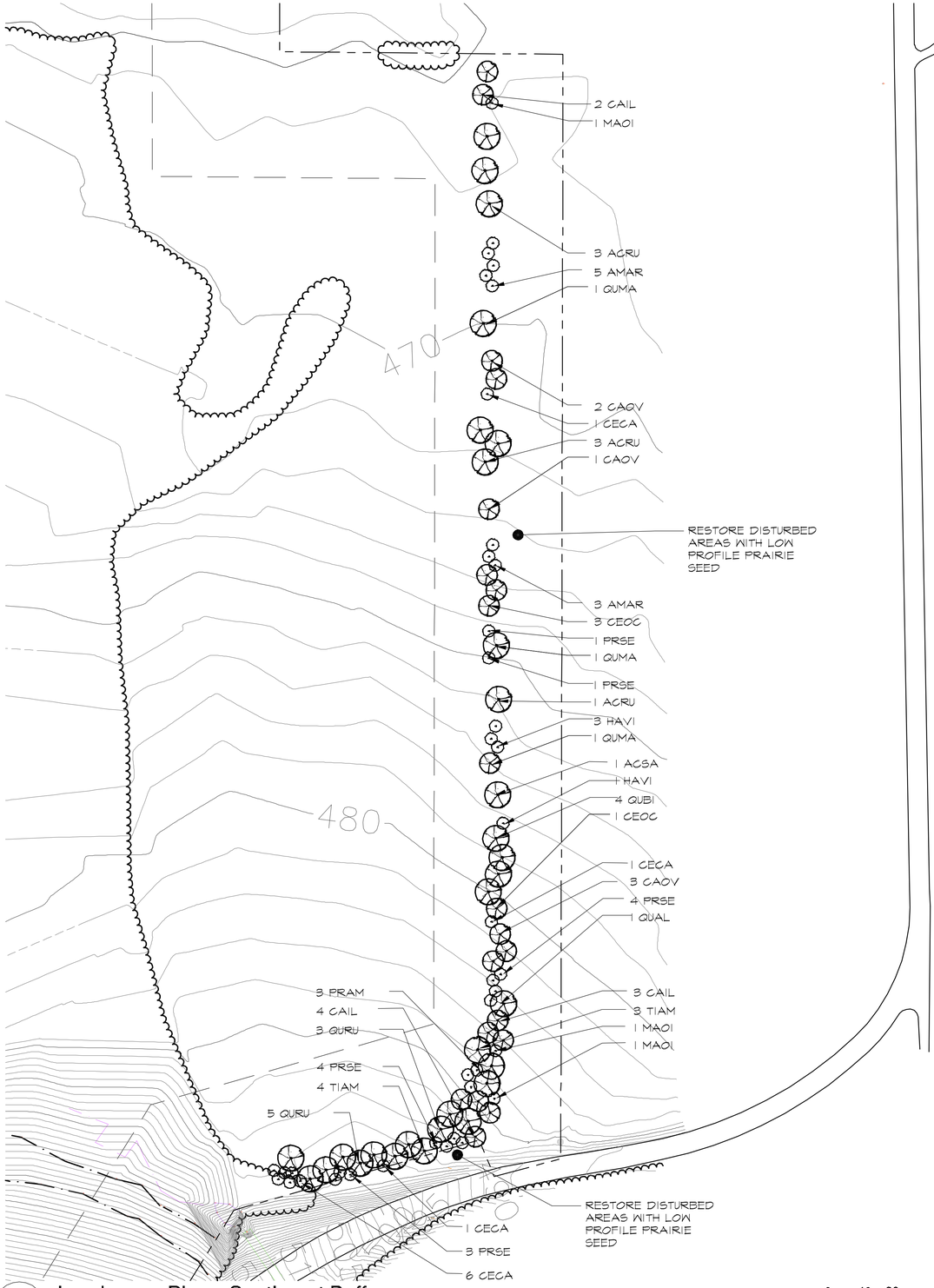
Date: 02.29.12

Scale: 1"=80'-0"

Drawing

L1.1

Site Development



1 / L1.2 Landscape Plan - Southeast Buffer

Scale: 1" =80'-0"

0 40 80 160 240

OVERALL PLANT SCHEDULE

symbol	quantity	common name	botanic name	note	size
DECIDUOUS TREES					
ACRU	18	ACER RUBRUM	RED MAPLE	CENTRAL LEADER	3.5" CAL
ACSA	22	ACER SACCHARUM	SUGAR MAPLE	CENTRAL LEADER	3" CAL
CAIL	51	CARYA ILLINOINENSIS	PECAN	CENTRAL LEADER	3" CAL
CAOV	39	CARYA OVATA	SHAGBARK HICKORY	CENTRAL LEADER	3" CAL
CEOC	45	CELTIS OCCIDENTALIS	HACKBERRY	CENTRAL LEADER	3" CAL
QUAL	16	QUERCUS ALBA	WHITE OAK	CENTRAL LEADER	2.5" CAL
QUBI	16	QUERCUS BICOLOR	SWAMP WHITE OAK	CENTRAL LEADER	2.5" CAL
QUMA	17	QUERCUS MACROCARPA	BUR OAK	CENTRAL LEADER	2.5" CAL
QURU	33	QUERCUS RUBRA	NORTHERN RED OAK	CENTRAL LEADER	2.5" CAL
TIAM	26	TILIA AMERICANA	AMERICAN LINDEN	CENTRAL LEADER	3" CAL
ORNAMENTAL TREES					
AMAR	68	AMELANCHIER ARBOREA	SERVICEBERRY	MULTIPLE STEM	10' HT
CECA	18	CERCIS CANADENSIS	EASTERN REDBUD	CENTRAL LEADER	2" CAL
HAVI	30	HAMMAMELIS VIRGINIANA	WITCHHAZEL	MULTIPLE STEM	8' HT
MAOI	39	MALUS IONENSIS	WILD CRABAPPLE	CENTRAL LEADER	2" CAL
PRAM	27	PRUNUS AMERICANA	WILD PLUM	CENTRAL LEADER	2" CAL
PRSE	33	PRUNUS SEROTINA	WILD BLACK CHERRY	CENTRAL LEADER	2" CAL

LANDSCAPE PLAN GENERAL NOTES:

A) THE LANDSCAPE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS AND DIRECTIONS OF THE GENERAL NOTES.

B) THE LANDSCAPE CONTRACTOR SHALL PROTECT ALL WORK FROM DAMAGE BY OTHERS UNTIL THE WORK IS COMPLETE AND ACCEPTED BY THE OWNER.

C) THE LANDSCAPE CONTRACTOR SHALL VERIFY SITE CONDITIONS BEFORE PROCEEDING WITH WORK.

E) EXACT LOCATION OF ALL UNDERGROUND UTILITIES SHALL BE DETERMINED AND IDENTIFIED IN THE FIELD BY THE LANDSCAPE CONTRACTOR.

F) THE CONTRACTOR SHALL AVOID ALL EXISTING UTILITIES-UNDERGROUND AND OVERHEAD WHERE APPLICABLE. WHERE UNDERGROUND UTILITIES EXISTS, FIELD ADJUSTMENTS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. NEITHER THE OWNER NOR THE OWNER'S REPRESENTATIVE ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE CONTRACTORS ACCURACY IN LOCATING THE INDICATED PLANT MATERIAL.

G) ALL PLANT MATERIALS SHALL CONFORM TO THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION, 230 SOUTHERN BUILDING, WASHINGTON D.C. 20005 (ANSI Z60.1).

H) ALL PLANTS OF THE SAME SPECIES SHALL BE OBTAINED FROM THE SAME NURSERY SOURCE.

I) THE LANDSCAPE CONTRACTOR SHALL STAKE THE LOCATION OF LANDSCAPE FEATURES FOR APPROVAL BY THE OWNER'S REPRESENTATIVE AND SHALL CHECK FOR CORRECT SPACING BEFORE PLANTING.

J) THE CONTRACTOR SHALL GIVE AT LEAST 48 HOURS NOTICE TO THE OWNER'S REPRESENTATIVE AS EACH PHASE OF WORK IS UNDERTAKEN PRIOR TO PLANTING OPERATIONS SO THAT THE OWNER'S REPRESENTATIVE CAN BE PRESENT TO VERIFY PLANTS IMMEDIATELY PRIOR TO PLANTING. IF NOTICE IS NOT GIVEN BY THE CONTRACTOR, HE SHALL REMOVE/REPLACE PLANTS AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL EXPENSE TO THE OWNER.

K) ALL PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO THE NEW GRADE AS IT BORE TO THE GRADE AT THE NURSERY.

L) ALL PLANTS SHALL BE PLANTED PER THE LANDSCAPE PLAN AND GENERAL NOTES. PLANTINGS NOT FOUND TO BE IN COMPLIANCE SHALL BE REPLANTED CORRECTLY AT NO ADDITIONAL EXPENSE TO THE OWNER.

M) THE OWNER'S REPRESENTATIVE OR OWNER RESERVES THE RIGHT TO REJECT PLANTS ON SITE WHETHER STOCK PILED OR PLANTED IN PLACE. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM SITE.

N) IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

O) AN APPROVED ORGANIC PRE-EMERGENT HERBICIDE SHALL BE APPLIED IN ALL PLANTING BEDS AT A RATE SPECIFIED BY MANUFACTURER FOR EACH PLANT VARIETY. RECEIPTS TO BE SUBMITTED TO OWNER'S REPRESENTATIVE FOR VERIFICATION.

P) STORE ALL PLANTS ON SITE OUT OF DIRECT WINDS IN AN AREA DESIGNATED BY THE OWNER'S AGENT.

Q) THE LANDSCAPE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT INJURY TO ALL PLANT MATERIAL DURING DIGGING, HANDLING, PLANTING, AND MAINTENANCE OPERATIONS.

R) ALL PLANTS SHALL BE GROUPED TOGETHER BY SPECIES AND SIZE AND SHALL BE COVERED WITH MULCH OR COMPOST TO PREVENT DESICCATION.

S) THE LANDSCAPE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING INSTALLATION AND MAINTENANCE PROCEDURES.
-NEW SHRUBS SHALL BE WATERED AND MAINTAINED DURING THE ONE YEAR GUARANTEE PERIOD.
-MULCHED TREE RINGS SHALL BE MAINTAINED AT A DEPTH OF 3" DURING THE ONE YEAR GUARANTEE PERIOD.
-ALL TREE RINGS SHALL BE WEEDED REGULARLY DURING THE GROWING SEASONS DURING THE ONE YEAR GUARANTEE PERIOD.

T) SUBSTITUTION OF PLANT MATERIAL DUE TO LACK OF AVAILABILITY MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE. SUBSTITUTE PLANTS SHALL BE THE SAME SIZE, OR LARGER, AND OF EQUAL OR BETTER VALUE THAN THE ITEMS SPECIFIED. THE "EQUALITY" WILL REST WITHIN THE SOLE JUDGMENT OF THE OWNER'S REPRESENTATIVE.

U) ALL EXCAVATED TOPSOIL SHALL BE REUSED BY THE CONTRACTOR ON SITE.

V) FINE GRADE, FERTILIZE, AND SEED ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ALL TURF AREAS SHALL DRAIN COMPLETELY AND SHALL NOT POND NOR PUDDLE. ALL OTHER SEEDING TO BE AS SHOWN ON THE PLAN. SEEDING WITHIN THE R.O.W. OR WITHIN 15 FEET SHALL BE SALT TOLERANT IDOT CLASS 2A. SEEDING UNDER TREE PLANTING AREAS TO BE LOW MOW TURF. SEEDING ON BERMS TO BE LOW PROFILE PRAIRIE. SEEDING IN DISTRUBED AREAS BETWEEN BERM TO 15 FEET OF R.O.W. TO BE LOW PROFILE PRAIRE. SEEDING OF DISTURBED AREAS SOUTH OF THE BERM OR PLANTING AREAS TO BE A RED TOP MIX.

W) AREAS OF SEEDING WITH A SLOPE GREATER THAN 4:1 SHALL HAVE EROSION CONTROL BLANKET INSTALLED. ALL BERMS TO HAVE EROSION CONTROL BLANKET.

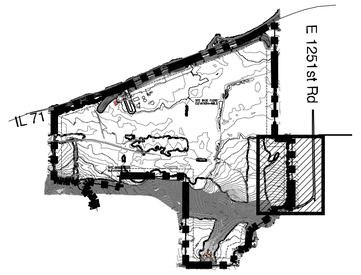
X) DURING LANDSCAPE WORK, KEEP PAVEMENTS CLEAN AND WORK AREAS IN AN ORDERLY MANNER. REMOVE ALL DEBRIS FROM THE JOB SITE ON A DAILY BASIS.

Y) ALL PLANT MATERIAL SHALL BE FULLY GUARANTEED FOR ONE YEAR FROM THE DATE OF ACCEPTANCE. DEAD OR UNHEALTHY PLANTS SHALL BE REPLACED AS SOON AS CONDITIONS PERMIT.

Z) SEE NATIVE PLANTING AND LOW MOW TURF SPECIFICATIONS FOR ADDITIONAL INFORMATION ON SEEDING.

LEGEND

- LOW MOW TURF SEED LIMITS
- LOW PROFILE PRAIRIE SEED LIMITS
- IDOT CLASS 2A SALT TOLERANT SEED LIMITS



Key Map

Not to Scale

OTTAWA GREENFIELD DEVELOPMENT

Ottawa, Illinois

LANDSCAPE PLAN

SUBMITTAL 100%

Date: 03.9.12

REVIEWED BY: KLG
APPROVED BY:
DRAWN/DESIGNED BY: BCL
PROJECT NO: PP11015-00

PLANNING RESOURCES INC.
402 N Lot Liberty Drive Wheaton, Illinois 60187
Ph. (630) 668-7788 Fax: (630) 668-4125

Date: 02.29.12
Scale: 1" 80'-0"

Drawing

L1.2

Site Development

General Notes

1. Contractor Qualifications - The Contractor chosen for establishment of the native plantings must be experienced in the installation and management of said areas, having a minimum of five years field experience. A supervisor who can identify non-native and native plants by genus and species shall be available at all times.

2. During landscape work, materials and equipment shall be protected from damage. Work areas and adjoining areas shall be kept clean and in an orderly condition.

PLANTING SUBSTRATE Notes

1. Contractor shall be responsible for performing all work necessary to achieve and maintain an acceptable seedbed prior to seeding. All areas must be properly prepared before seeding begins. The seed bed shall be free of all clods, stones, roots, sticks, rivulets, gullies, crusting, and cracking, and other debris larger than one-inch in any dimension.

2. A minimum 12 inches of top soil is to be provided in areas of native plant installation. Top soil shall be incorporated into the subsoil by placing six inches of top dressing, disking it in, and then placing the remaining depth of the soil. Each lift is to be lightly compacted to reduce settling but not to prevent movement of water. Vehicles and equipment shall not drive over installed soils except for actual seeding operations. Operations are to be suspended if top soil becomes wet.

3. Native seed areas shall not receive fertilizer unless a soil test indicates a specific nutrient deficiency.

SEED GENERAL NOTES

1. Seed shall meet the requirements of Section 1081.04 of the Standard Specifications and plants shall meet the requirements of Section 1081.02 of the Standard Specifications. Materials shall conform to applicable sections of the Standards of the American Association for Nursery Stock (ANSI Z60.1-1990) and American Joint Committee on Horticultural Nomenclature "Standardized Plant Names," second edition, 1942, or more current. In the event there is a discrepancy between the State/Federal standards and this specification, the more restrictive requirement shall govern.

2. Species shall be true to their scientific name as specified. All native seed and plants will be straight species; no horticultural varieties will be accepted. Plant material origins shall be known to be local from within a 200-mile radius of the project site and species native to the North Central Region of the United States.

3. The Owner reserves the right to inspect all seed and plants either at the place of growth or at site before planting for compliance with requirements for name, variety, size, quantity, quality, or mix proportion.

4. Contractor is to keep records of the certificates of composition or invoices of seed mixtures and integrity of plant materials with respect to species, variety, and source after purchase. Contractor shall provide the Owner with the name and location of seed supplier, origin of the various kinds of plants, and a statement of the purity of the grasses.

5. The amount of seed indicated on the specifications shall mean the total amount of pure live seed (PLS) per acre where available. Actual seed amounts used on the project will vary with the actual percent of PLS in the seed lot. Seed supplied to the site shall contain documentation of PLS testing and, if required, adjustment of the seed weights to provide 100 percent PLS standards. PLS adjustment shall be based on seed test results no older than 12 months.

6. Unless otherwise specified, seed shall not contain in excess of one percent weed seeds; zero percent is desirable.

SEED Delivery, Handling, and Temporary Storage:

1. The Contractor shall be responsible for proper handling and storage of seed materials according to the best handling and storage practices.

2. All seed shall be furnished in sealed containers. Seed packaging is to be protected from moisture and extreme heat. Seed that has become wet, moldy, or otherwise damaged in transit or storage shall not be acceptable.

3. Seed shall be stored in a temperature-controlled environment. Seed containers shall be stored off the ground and indoors. Onsite storage of seed shall be at the Contractor's own risk. Any damage incurred to seed stock while stored on-site shall not relieve Contractor from his/her responsibility for furnishing and installing all materials in strict accordance with contract documents without additional cost to Owner.

4. All native seeds shall have the proper stratification and/or scarification to break seed dormancy for other than fall planting. All storage requirements, stratification, and vernalization considerations are the sole responsibility of the Contractor.

Seed INSTALLATION Notes

1. Contractor will have at least one person present at all times during execution of seeding operations who is thoroughly familiar with the type and operation of equipment being used and who will direct the work. All materials used will meet or exceed applicable federal, state, county and local laws and regulations. In the event of a discrepancy between the State/Federal standards and this specification, the more restrictive requirement will govern.

2. Cover crop is to be installed concurrently with the permanent matrix seed unless otherwise noted. Cover crop may be planted immediately after grading to prevent erosion if conditions are not conducive for native seeding. Permanent native species shall be planted during the first available growing season at the appropriate time and condition for such plantings.

3. Under no circumstance shall cereal rye (Secale cereale), barnyard grass (Echinochloa crus-galli), perennial rye (Lolium perenne), or barley (Hordeum vulgare) be used as a temporary cover crop.

4. Seeding will preferentially occur as late fall dormant seeding (after November 1) or in early spring (as soon as the soil is free of frost and in a workable condition but no later than July 15). Seeding between 15 June and 30 July may require supplemental watering to promote germination and seedling development. Seeding should not occur between 30 July and 1 September unless irrigation can be provided. Frost seeding (typically between freeze up and 1 April) is not recommended; if performed, a supplemental seed application should occur in late spring.

5. Seeding operations shall occur when soil moisture is appropriate for seeding operations (see planting substrate notes). Seeding should occur immediately after the last cultivation and roller packing (as applicable). Ideally, seeding shall be timed such that rainfall occurs within 48 hours of seeding (particularly if seeding in early spring).

6. No seed shall be sown when winds exceed a velocity of 10 miles per hour or when the ground is not in proper condition for seeding, nor shall any seed be sown until the purity testing has been complete for the seeds to be used, and shows the seed meets the noxious weed requirements.

7. Forb mixtures will be seeded separately from grass/sedge mixtures. Native seed will be mixed with a granular form of endomycorrhizal inoculant (e.g., AM 120 Mycorrhizal Inoculum or comparable) at a rate of 40 lbs/acre (or 60 lbs/acre if soils are heavily disturbed).

8. The Contractor shall determine the optimal method and equipment for seed installation in each area. Prior to starting work, seeders shall be calibrated and adjusted to sow seeds at the required seeding rate and to the proper depth. Grass seed shall be installed at a depth no greater than 0.25 inches. If seeded species require exposure to sunlight for germination, such species shall be planted separately, after drilling, using a broadcast application method.

   a. Grass seed installation will preferentially be installed with a rangeland-type drill or no-till planter designed to install native grasses (e.g., Truax No-Till drill or equivalent) on surfaces where the soil is sufficiently firm to support such equipment. Hydraulic seeding or hand broadcast seeding shall occur in areas where access by seeding equipment as approved is physically impossible. Seeding equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded. Each planting run shall overlap by a minimum of one planting row. Seed will be drilled in two separate runs, with each application of seed overlapping the previous application by one-half the weight to ensure double coverage of seeded areas.

   b. For wildflower seed installation and where soil conditions are too wet or slopes are too steep for drilling grass seed, broadcasting the seed will preferentially be installed via broadcast application. Broadcast seed methods will use 1.5 times the indicated seed rate. Broadcast seed shall be mixed with an equal amount of inert filler (e.g., perlite, ground corncobs, vermiculite) to enable even distribution. A mechanical broadcast seeder (e.g., Cyclone or Seed Slinger) may be used. Seed shall be broadcast in two separate applications, with each application of seed overlapping the previous application by one-half the weight to ensure double coverage of the seeded area. Unless seed is applied concurrently with a polymer, within 12 hours following broadcast seeding or as soon as site conditions permit, the Contractor shall rake, drag, or roll broadcast seeded areas perpendicular to the slope.

9. Within 24 hours after or concurrent with the seeding operation, erosion control blanket (e.g., North American Green S150 BN or comparable, as appropriate to site conditions) shall be installed on areas with slopes of 3:1 or steeper. The phrase "or comparable" means comparable to test performance data by the Texas Transportation Institute. Approval for the use of comparable products must be obtained from the Landscape Consultant prior to installation. Wood-fiber blankets shall not be used. Under no circumstances shall hydromulch be used as the sole means of soil erosion protection unless the applied product will last over three months (e.g., Flexterra). Prior approval must be obtained for use of a hydraulically applied erosion control product.

10. If installation of native seed is not to occur immediately upon completion of grading, a cover crop consisting of 80 lbs/acre of seed oats (Avena sativa) and 10 lbs/acre of annual rye (Lolium multiflorum) shall be installed.

WOODY PLANTS

1. Woody plants are to be specimen fully branched, not one sided, and freshly dug. Woody plants shall be typical of their variety or species, shall have a normal growth of spread and height, and shall be sound, healthy, vigorous, free of disease, insect pests and larvae, with well-developed root systems. Materials with broken major branches, or badly bruised or damaged bark, are not acceptable.

2. Trees shall be balled and burlapped, with firm, natural balls of earth. The balls shall be dug according to current nursery practices for sufficient depth and width to include adequate fibrous and feeding roots. No tree shall be accepted if the ball is broken before or during planting operations. Shrubs shall be balled and burlapped or containers, as specified.

3. Before plant pits are dug, all weeds shall be removed from the planting areas, and the area shall be raked level.

4. Balled and burlapped (B&B) stock shall be set on layer of compacted topsoil mixture, plumb in center of pit or trench with top of ball at same elevation as adjacent finished landscape grades. When set, additional topsoil backfill is to be placed around base and sides of ball, and each layer worked to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 filled, a thorough watering shall be performed before placing remainder of backfill. Repeat watering will occur until no more water is absorbed. Watering again will occur after placing final layer of backfill. Burlap shall be removed from sides of balls and retained on bottoms.

5. Planting soil shall be compacted around the ball in concentric layers. After filling with soil, a three-inch-deep by eight-inch-wide rim shall be formed of compacted soil to create a watering basin only above the root ball. Each woody plant shall be watered by filling basin with water twice at each watering. All planting pits shall be finished within a period of three days following installation. Finishing shall include reconstruction of basins and weed removal.

ESTABLISHMENT MAINTENANCE

1. Responsible Party -- Owner will be responsible for establishing a naturalized landscape. They may contract management and maintenance services to a third party to ensure proper implementation.

2. Maintenance shall begin immediately after planting. Maintenance activities are anticipated to include, but shall not be limited to, the following:

   a. Watering as needed during the initial six-week period. Sufficient water shall be provided to saturate the root system.
   b. Weed management (including such measures as hand pulling, mowing, and selective herbicide treatment),
   c. Debris management,
   d. Watering after the initial six-week post-planting period, and
   e. Reseeding/replanting as needed to establish vegetation, free of bare or eroded areas.

   Other potential responsibilities may include, but are not limited to, access restriction enforcement, insect/pest control, erosion repairs, and wildlife management (e.g., control of deer, etc. as needed). The need for these and other maintenance actions will be determined when performing general maintenance visits.

3. Turf management chemicals will NOT be used on native plantings except as directed by the Landscape Consultant.

4. Pesticides and insecticides will not be used broadly or routinely. Instead, pesticide use will be performed at specific and localized problem areas as warranted. Particular care will be exercised in the areas near or directly tributary to surface waters. Standard application procedures and precautions will be followed.

5. Weed Control - Invasive and non-native species, including non-native woody species not specified in the planting plan, will be controlled by appropriate management practices. The Contractor is responsible for locating, identifying, and controlling any plant species that may endanger the successful establishment of the specified native plant communities within the project area. The following is a list of common exotic/invasive species typically encountered during restoration efforts. Weeds may include, but are not limited to, the following:

Woody Plants	
Acer negundo	Box elder
Elaeagnus umbellata	Autumn olive
Euonymus alatus	Burning bush
Lonicera spp.	Honeysuckle
Rhamnus spp.	Buckthorn
Robinia pseudoacacia	Black locust
Rosa multiflora	Multiflora rose
Ulmus pumila	Siberian elm

Broadleaf Plants	
Alliaria petiolata	Garlic mustard
Ambrosia spp.	Ragweed
Arctium spp.	Burdock
Carduus nutans	Musk thistle
Centaurea maculosa	Spotted knapweed
Conium maculatum	Spotted hemlock
Cirsium arvense	Canada thistle
Coronilla varia	Crown vetch
Daucus carota	Wild carrot
Dipsacus spp.	Teasel
Euphorbia escula	Leafy spurge
Hesperis matronalis	Dame's rocket
Lotus corniculatus	Bird's-foot trefoil
Lythrum salicaria	Purple loosestrife
Medicago spp.	Alfalfa/medick
Melilotus spp.	Sweetclover
Pastinaca sativa	Wild parsnip
Polygonum cuspidatum	Japanese knotweed
Solidago altissima	Tall goldenrod
Solidago sempervirens	Seaside goldenrod
Trifolium spp.	Clover
Typha spp.	Cattails

Grass-like Plants	
Agropyron repens	Quackgrass
Bromus tectorum	Cheatgrass
Bromus japonicus	Japanese brome
Bromus inermis	Smooth brome
Phalaris arundinacea	Reed canarygrass
Phragmites australis	Common reed
Poa pratensis	Kentucky bluegrass

   Contractor will determine the optimum method(s) of weed control in coordination with the Landscape Consultant. Measures may include selective herbicide application, prescription mowing and prescribed burning.

6. Hand Pulling: Depending on the type of plant being targeted, weeding may involve removing all aboveground and belowground stems, roots, and flower masses prior to development of seeds. Hand pulling can be used when target species have minimal coverage, chemical applications cannot be performed, or in small areas. All above- and belowground stems and roots of the plant should be removed when using this technique. Weeding practices should avoid damaging the native plantings and be timed to prevent development of weed seeds. Plant materials are to be removed from the site and disposed of in an appropriate manner.

7. Mowing:

   a. Weekly mowing at turf lawn height will not be performed in areas of native plantings. Mowing will not be used if common reed is present unless cut fragments left in place are smaller than 2 inches in length or if cut materials are bagged and disposed of at an appropriate off-site location. A rotary or flail-type shredder or mower will be used that has cutting heights ranging from at least three to 18 inches. If hand mowing is performed, a weed whip, hedge trimmer, or similar implement will be used.

   b. If clippings shade the ground or smother the remaining plants, they will be bagged for off-site disposal or otherwise dispersed.

   c. Mowing in late fall (e.g., November) or very early spring (e.g., March) may be substituted for a prescribed burn and should occur at a height of no more than two inches, with cut material bagged for off-site disposal.

   d. The frequency and height of mowing will depend on the species targeted for control. The cutting blade should be set low enough to remove seed heads of weeds but high enough to minimize damage to permanent matrix plants.

8. Herbicide:

   a. All herbicide product labels must be strictly followed and will supersede any of the information contained in these specifications. Herbicide use will occur in strict compliance with manufacturer's label specifications, application rates, procedures, warning labels, and all applicable codes, standards, and best management practices.

   b. The Contractor shall have on site at all times the appropriate Material Safety Data Sheets (MSDS) and labels for all substances used.

   c. Only personnel who are State of Illinois licensed applicators, or licensed operators working under a licensed applicator, and are experienced in plant identification shall perform application of herbicide. Contractor shall submit a copy of herbicide licenses for all applicators and operators to Owner prior to beginning work on the project.

   d. Herbicides will be mixed with water, fuels, oil, anti-foaming agents, and/or tackifiers to achieve appropriate potency and increase water resistance and persistence at the specified rate of the manufacturer. Herbicides shall contain 0.25 percent v/v surfactant. If selected herbicide does not contain surfactant, Contractor shall add appropriate surfactant at the specified rate of the manufacturer and in accordance with all applicable regulations.

   e. Under no circumstances shall persistent herbicides such as Atrazine to be used.

   f. Herbicide shall contain colored dye mixed at a ratio consistent with the manufacturer's specifications.

   g. Contractor shall not apply herbicide during excessive wind (more than 10 mph), during rainy weather, or when temperatures are higher than 80 degrees Fahrenheit. Herbicide also shall not be applied within two hours of anticipated precipitation or if heavy rains have resulted in an extremely wet soil surface.

   h. The Contractor shall conduct herbicide application to minimize or eliminate over-application or overspray. Herbicide shall be applied to treat only those species targeted. Damage caused by mistreatment or overspray shall be quantified and calculated by Owner and repaired by the Contractor at no additional cost to Owner.

   i. Appropriate application techniques include spot treatments, backpack spray, and/or hand wicking. A "glove of death" method is appropriate for targeting weedy plants yet avoiding desirable plants growing along side them.

   j. Species that typically require chemical management include, but are not limited to, Canada thistle, reed canarygrass, common reed, cattails, crown vetch, clovers, and purple loosestrife. The exact time of weed control activities and methods used will be dictated by the target weed species.

9. Debris Management: Debris and litter (e.g., paper, plastic, metal, concrete, grass clippings, brush, etc.) should be removed every other month between 1 March to 31 October. Debris will be disposed of at an appropriate off-site location.

10. Near-Term (three-year) Management Program:

    Establishment management typically will involve a combination with mechanical and chemical control methods for aggressive biennial and perennial weeds. The need for additional management actions beyond those indicated will be determined based on observations made during general maintenance and vegetation monitoring site visits.

    a. Year One

       i. Mowing one to four times during the first growing season is expected for control of annual weeds. Mowing should occur when non-native and general weedy species are flowering so as to prevent seed set. Slopes should be mowed to a height of six to eight inches each time vegetation reaches a height of 12 inches if an abundance of annual weeds are present. The last mow should be timed so that vegetation can grow to a height of eight to 10 inches before winter (i.e., in mid-August). Depending on site-specific conditions related to prairie development and weed management (e.g., general reduction in shading vs. plant-specific removal), additional mowing may be necessary across an area or in spot locations only.

       ii. Particularly aggressive weeds (perennial and biennial) will be targeted for individual control via selective cutting, digging, and/or herbicide application as appropriate for the species.

       iii. Debris will be managed on a regular basis.

       iv. Dead or dying woody materials will be replaced as needed.

    b. Year Two

       i. During the second growing season, the seeded areas will be mowed close to the ground as possible in early spring and the cuttings raked or bagged. If weeds remain a problem, an additional mow in the prairie seeding will be performed during mid- to late June, with the mow height set to 12 inches. As with Year One, spot mowing may be appropriate. Weed management will emphasize control of biennial and perennial weeds to prevent them from developing and setting seed via hand removal and/or herbicide application methods. Biennial weeds targeted for control include sweetclovers (Melilotus spp), Queen Anne's lace (Daucus carota), and teasel (Dipsacus spp.). Proper weed control may require multiple treatments and will be performed at times that afford maximum treatment effectiveness.

       ii. Aggressive weeds (particularly biennial and perennial species) will be targeted for individual control via selective cutting, digging, and/or herbicide application as appropriate for the species.

       iii. Debris will be managed on a regular basis.

       iv. Dead or dying woody materials will be replaced as needed.

    c. Years Three

       i. Prescribed burning will be attempted at the end of the third growing season, subject to appropriate site and weather conditions. If conditions are not appropriate for a prescribed burn, the native plantings will be mowed as close to the ground as possible in early spring and the cuttings removed.

       ii. As in the first two years, aggressive weeds will be targeted for individual control via selective cutting, digging, and/or herbicide application as appropriate for the species.

       iii. Debris will be managed on a regular basis.

       iv. Dead or dying woody materials will be replaced as needed.

11. Remedial Actions: The Contractor will treat, repair, or replace damaged landscape work throughout the installation and establishment period to as needed to achieve landscape establishment. Installation of supplemental materials using species in the approved mix (or as modified based on coordination with the Landscape Consultant) should be performed under any of the following circumstances: 1) more than one-third of the planting area does not establish or persist; 2) there are bare or sparsely vegetated areas greater than 0.25 square-meter in size; or 3) any area (regardless of size) is actively eroding.

MONITORING AND REPORTING

1. Responsible Parties - The Owner is responsible for ensuring vegetation establishment is progressing and for funding and implementing the three-year establishment monitoring program and "near-term" management and maintenance plan for establishing a naturalized landscape. The Owner may elect to contract management and maintenance services to a third party to ensure proper implementation.

2. Monitoring Methodology

   a. Monitoring will be performed for a minimum of three years after planting is substantially complete, and until acceptance criteria are met, subject to concurrence by Landscape Consultant.

   b. Annual vegetation monitoring will occur during August/September. Meander survey methodology will involve taking representative photographs and a reviewing at least 20 percent of each vegetative community to identify the following:

      i. the dominant species,
      ii. the approximate percent ground cover by native species,
      iii. the percent ground cover by non-native or invasive species,
      iv. erosion and sedimentation problems,
      v. areas of bare soil (<10 percent vegetative cover) larger than 0.5 square-meter, and
      vi. observations on specific management strategies necessary to achieve acceptance requirements.

3. Reporting

   a. Contractor will provide the Owner with notification 24-hours prior to the start of planting installation.

   b. Following substantial completion, Contractor will submit documentation to the Landscape Consultant that natural area vegetation installation has been completed. Nursery packing lists indicating the species and quantities of materials installed shall accompany this notice.

   c. An annual monitoring report will be submitted to Owner by 31 March of the following year until acceptance criteria are met. The report will include a location map, a summary of monitoring observations, a description of management performed during the year, a tabular summary of annual progress relative to acceptance standards, representative photographs, and a list of recommendations for management during the upcoming year.

4. Naturalized Landscape Acceptance Criteria

   a. Within three months of seed installation (or three months after the start of the growing season following dormant seeding), at least 90 percent of the seeded area, as measured by aerial cover, will be vegetated or otherwise stabilized against erosion.

   b. Naturalized landscapes shall have no more than 0.5 square-meter devoid of vegetation (<10 percent cover), as measured by aerial coverage. Seeded areas shall have no unrepaired rills or gullies greater than four inches wide by four inches deep.

   c. By the end of the second growing season, seeded areas shall have a minimum of 40 percent ground cover by species in the approved plant list and/or native species with native coefficient of conservation (C-) values of 2 or greater (per the Floristic Quality Assessments Computer Program for the State of Illinois, 1996 or more current version).

   d. By the end of the third growing season, seeded areas shall have a minimum of 65 percent ground cover by species in the approved plant list and/or native species with native C-value of 2 or greater.

   e. No more than 25 percent of the planted area shall be dominated by non-native or weedy species.

   f. None of the three-most dominant species may be non-native or weedy, including but not limited to, Canada thistle (Cirsium arvense), common reed (Phragmites australis), reed canarygrass (Phalaris arundinacea), sweetclover (Melilotus spp.), Kentucky bluegrass (Poa pratensis), purple loosestrife (Lythrum salicaria), barnyard grass (Echinochloa crus-galli) or sandbar willo

   g. At least 80 percent of the installed woody materials shall be alive, in healthy condition, and representative of the species.

LANDSCAPE PLAN

SUBMITTAL — Date: 03.9.12

100%

OTTAWA GREENFIELD DEVELOPMENT

Ottawa, Illinois

REVIEWED BY: KLG
APPROVED BY:
DRAWING DESIGNED BY: BCL
PROJECT NO: PP11015-00

PLANNING RESOURCES INC.
420 West Liberty Drive Wheaton, Illinois 60187
Ph: 630.668.3788 Fax: 630.668.4125

Date: 02.29.12

Scale: 1" 80'-0"

Drawing

L1.3

Site Development

LOW MOW TURF SPECIFICATION

1.0 GENERAL

1.01 QUALITY ASSURANCE

A. Seed: Conform to current U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act of August 9, 1939 and all subsequent revisions thereto, and the requirements of the state seed laws.

1.02 SUBMITTALS

A. Samples and Analysis: Submit, for approval, samples and certified analysis by approved laboratory for fertilizer, grass, seed and limestone before delivery to the project. Manufacturer's analysis for standard products will be acceptable.

B. Approval of samples shall not be construed as final acceptance. The Landscape Architect reserves the right to have samples taken of the materials delivered to the site of the Work and analyzed for compliance with the Specifications.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Protect seed, fertilizer limestone and other required materials against weather conditions and injuries during transit and job storage in such a manner that their effectiveness will not be impaired.

1.04 PROTECTION

A. Install necessary barricades, temporary fences or signs to protect newly seeded, sodded, or hydro-seeded/mulched areas until acceptance of the Work.

1.05 GUARANTEE

A. Guarantee this portion of the through the maintenance period and until final acceptance (See 3.04 this section.)

B. Within the guarantee period, replace all lawn areas and/or groundcover areas, which have failed to flourish and produce a satisfactory stand of grass and/or groundcover due to inferior or defective materials or workmanship, or unfavorable weather conditions. The decision of the Owner for replacement Work shall be conclusive and binding upon the Contractor. The Contractor shall also be responsible for all damage to persons or property caused by defective workmanship or materials or by the re-working of areas not acceptable.

2.0 PRODUCTS

2.01 MATERIALS

A. Water:

1. Water shall be furnished by the Contractor for all required waterings.

B. Seed:

All seed shall be fresh and clean and shall be crop seed. All seed shall be delivered in the original packages, unopened, which shall bear a guaranteed analysis, by a recognized authority.

1. Seed Mixture "Salt Tolerant Class 2A" will conform to the latest edition of the IDOT Specification for Road and Bridge Construction for seed types and percentages, installation and fertilizer schedules.

2. Seed Mixture "Low Mow Turf" to conform to the mix specified on sheet L1.4 and to the specifications listed herein.

Grass seed mixture shall be composed of the listed grass seeds mixed in proportions by weight, and will be tested for the minimum percentages of purity and germination as indicated.

3. Seed Mixture "Low Profile Prairie" to conform to the mix specified on sheet L1.4 and to the specifications listed on Sheet L1.3.

C. Low Mow Turf Fertilizer:

1. Commercial fertilizers shall be complete fertilizers, part of the elements of which are derived from organic sources and shall contain the following percentages by weight:

Prior to Seeding - 9-18-9;* At a rate of 5.5 lbs/1000 sf	After seeding - 25-0-10;* At a rate of 4 lbs/1000 sf
Nitrogen 6%	Nitrogen 18%
Phosphoric Acid 24%	Phosphoric Acid 5%
Potash 24%	Potash 9%

* Or as more adequately determined by soil analysis

2. Nitrogen: Shall be in the form of available nitrates, ammonium sulfate or phosphate and urea. A minimum of 30% of the available nitrogen shall be water-insoluble.

3. Phosphoric Acid: Shall be derived from super phosphates or ammonium phosphates.

4. Potash: Shall be in the form of potassium nitrate or potassium sulfate.

5. Fertilizer: Shall be delivered in standard size bags, showing weights, analysis and name of manufacturer, and shall be subject to the approval of the Landscape Architect.

3.00 EXECUTION

3.01 INSPECTION

A. Prior to beginning this Work, the Contractor shall be responsible for inspecting all final grades as completed under SITE GRADING and gaining approval of the Landscape Architect to commence the Landscape Architects operations. Any discrepancies in the final topsoil grades must be brought to the Landscape Architect's attention and corrected prior to beginning this Work.

3.02 PREPARATION

A. Fine Grading:

1. All areas within the limits of this project to be seeded shall be conditioned by loosening and finely pulverizing the soil to a depth of three (3) inches. The conditioning process shall consist of rototilling, discing, or harrowing with approved equipment, and bringing the finished grade to an acceptable surface in conformance with the plans and as approved by the Landscape Architect. All rocks and other debris over 1½ inches in any dimension shall be removed from the fine graded surface prior to seeding or sodding.

2. In the event that prior conditioned soil has become compacted by rain, equipment or other means, the entire area affected shall be reconditioned to a depth of not less than two (2) inches just prior to seeding or sodding time.

3. Generally, the fine grading and soil conditioning will be done just prior to seeding; however, if in the opinion of the Landscape Architect, soil or weather conditions are not suitable for seeding or sodding at that time, the Contractor shall recondition the soil and seed or sod when directed.

3.03 INSTALLATION AND APPLICATION

A. Planting Seasons:

1. Seeded and Hydro-Seeded/Mulched Areas: Shall be seeded with the required mixture from March 15th to May 14th and from August 15th to October 1st.

2. The actual planting of areas to be designated, however, shall be done during periods within these seasons as determined by weather conditions, by acceptable practices in the locality of the project, or as approved by the Landscape Architect.

B. Seeding:

1. Low Mow Turf Mixture:

Lawn areas so designated shall be seeded mechanically at the rate of 5.5 lbs. per acre. The seed shall be sown evenly and lightly mixed into the soil. In the event that seeding equipment does not compact, a separate rolling using a 500 lb. roller shall be required.

C. Erosion Control:

Erosion control blankets may be necessary to use as a moisture control device if seeding operations occur outside the optimal planting season. Short Term erosion control blankets should be used with any type of seed mix on all berms or slopes greater than a 4:1 slope.

3.04 MAINTENANCE (CLEAN UP AND ACCEPTANCE)

A. Maintenance: Provide continuous maintenance until the date of final acceptance, including but not limited to: reseeding, watering, mowing, weeding, and re-working as follows:

1. Seeded Areas:

a. Proper and adequate watering as determined by the Contractor.

b. Re-filling with topsoil and re-seeding of rainwashed gullies and rutted areas.

c. Re-fertilizing Low Mow Turf areas with 25-0-10 commercial fertilizer at the rate of 4 lbs. per 1000 square feet prior to final acceptance.

d. Mowing to a height of three (3) inches to suppress weed species growth if directed by the Landscape Architect.

e. Re-work any areas, which fail to show a uniform stand of grass. Re-seed with the same mixture applied at the same rate and repeat until all areas are covered with a satisfactory stand of grass. A uniform stand of grass shall be defined as a vigorous growth of grass plants evenly distributed throughout the entire seeded area. No area larger than one (1) foot void of grass plants will be accepted.

f. Maintain seeded areas for a period of 60 days after installation or until a satisfactory stand of grass has been established.

B. Clean Up:

1. Remove from the site, all debris resulting from the Work herein specified.

2. All pavements and walks shall be left broom clean.

C. Final Inspection and Acceptance:

1. Upon completion of the specified maintenance period, the Contractor shall request in writing that a final inspection be conducted by the Landscape Architect to determine final acceptance of the Work. The Contractor will be required to make said request five (5) days in advance. If acceptance is not granted, the Contractor is required to maintain those unacceptable areas until final approval has been given.

TOPSOIL SPECIFICATION

This work shall include all equipment, labor, and materials required for furnishing and installing topsoil as detailed on the drawings, in this specification, and according to Section 211 of the current IDOT Standard Specifications for Road and Bridges.

1. MATERIALS:

1. Subsurface clay material will not be allowed for topsoil use.
2. Topsoil installed on grade shall attempt to match existing soil texture except for situations where a clay subsoil exists. Where a clay subsoil exists, use loam or silt loam topsoils.
3. Topsoil shall be free of stones, lumps, plants, roots and other debris over 1 ½". Topsoil must also be free of plants or plant parts of Bermuda grass, quack grass, Johnson grass, mugwort, nut sedge, poison ivy, Canada thistle or others as specified.
4. Topsoil shall not contain toxic substances harmful to plant growth (i.e. pesticide residues).

2. INSTALLATION:

1. Topsoil shall not be placed until the area to be covered has been shaped and trimmed.
2. Remove debris roots, branches, stones in excess of ½" in size.
3. In areas where vehicles or equipment have compacted the soil, scarify surface to a depth of 3 inches.
4. All irregularities in the surface of the subgrade shall be filled, smoothed, disced or raked to provide a uniform surface and suitable bond between the subgrade and topsoil.
5. Topsoil depths shall be a minimum of:
   a. 6" minimum in all planting/seeding areas outside of the berms.
   b. 12" on all berms.
6. Place topsoil to where required to level finish grade.
7. Place topsoil during dry weather.
8. Remove roots, weeds, rocks and foreign material while spreading.
9. Near plant material and landscaping, spread topsoil materials manually to prevent damage.
10. In berm areas, install topsoil in two, 6 inch lifts.
11. Fine grade topsoil to eliminate uneven areas and low spots. Maintain profiles and contours of subgrade.

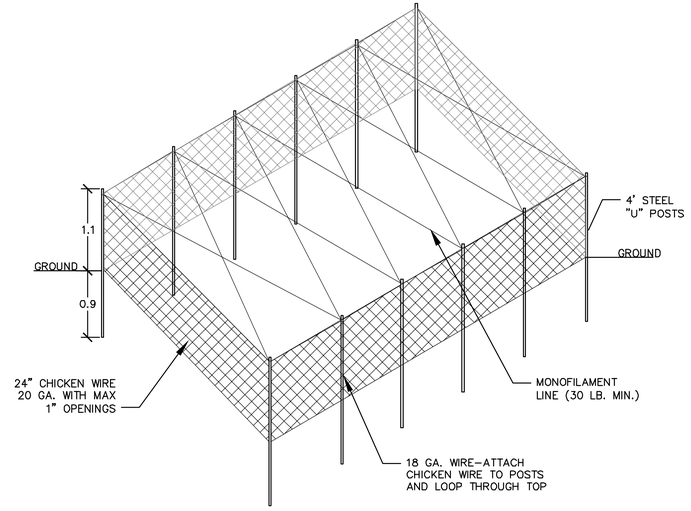
LOW MOW TURF SEED MIX	LBS PER ACRE
ARUBA RED FESCUE	1.25
GOTHAM HARD FESCUE	1.25
JS CHEWINGS FESCUE	1.25
SHEEP FESCUE	1.25
REDTOP	0.5
TOTAL	5.5 LBS / ACRE

Low-Profile Prairie Seed Mix

Owner/Client:
Mississippi Sand

COVER CROP SEEDING		Pounds/
Common Name	**Scientific Name**	**Acre**
SEED OATS	*Avena sativa*	32.0
ANNUAL RYE	*Lolium multiflorum*	3.0
VIRGINIA WILDRYE	*Elymus virginicus*	2.0
	Cover Crop Totals:	37.0
GRASS SEEDING		**Pounds/**
Common Name	**Scientific Name**	**Acre**
LITTLE BLUESTEM	*Andropogon scoparius*	2.00
SIDE-OATS GRAMA	*Bouteloua curtipendula*	1.50
PRAIRIE BROME	*Bromus kalmii*	0.50
PRAIRIE JUNE GRASS	*Koeleria cristata*	0.13
PRAIRIE DROPSEED	*Sporobolus heterolepis*	0.25
	Grass Totals:	4.38
FORB SEEDING		**Pounds/**
COMMON NAME	**Scientific Name**	**Acre**
NODDING WILD ONION	*Allium cernuum*	0.250
BUTTERFLY WEED	*Asclepias tuberosa*	0.125
TALL GREEN MILKWEED	*Asclepias hirtella*	0.032
SKY BLUE ASTER	*Aster azureus*	0.078
HEATH ASTER	*Aster ericoides*	0.006
SILKY ASTER	*Aster sericeus*	0.062
PARTRIDGE PEA	*Cassia fasciculata*	0.250
SAND COREOPSIS	*Coreopsis lanceolata*	0.078
PRAIRIE COREOPSIS	*Coreopsis palmata*	0.125
GOLDEN ASTER	*Chrysopsis camporum*	0.062
PALE PURPLE CONEFLOWER	*Echinacea pallida*	0.500
ROUNDHEADED BUSHCLOVER	*Lespedeza capitata**	0.078
ROUGH GAY FEATHER	*Liatris aspera*	0.078
WILD BERGAMOT	*Monarda fistulosa*	0.125
PURPLE OXALIS	*Oxalis violacea*	0.006
PALE BEARDTONGUE	*Penstemon pallidus*	0.125
HAIRY BEARDTONGUE	*Penstemon hirsutus*	0.125
PURPLE PRAIRIE CLOVER	*Petalostemum purpureum**	0.187
PRAIRIE CINQUEFOIL	*Potentilla arguta*	0.032
HAIRY MOUNTAIN MINT	*Pycnanthemum pilosum*	0.032
BLACK-EYED SUSAN	*Rudbeckia hirta*	0.250
WILD PETUNIA	*Ruellia humilis*	0.063
STIFF GOLDENROD	*Solidago rigida*	0.063
SHOWY GOLDENROD	*Solidago speciosa*	0.063
OHIO SPIDERWORT	*Tradescantia ohiensis*	0.047
HOARY VERVAIN	*Verbena stricta*	0.125
	Forb Totals:	2.97
	TOTAL SEED:	**44.34**

Note: All w eights of seed are for PLS (Pure Live Seed).
* Requires inoculant.



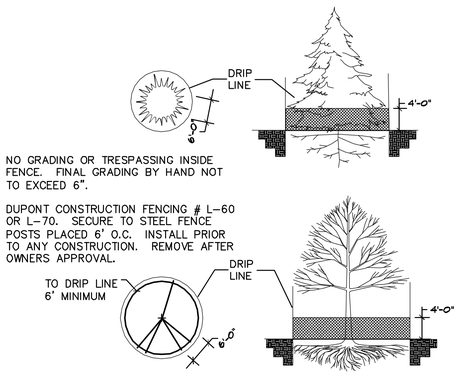
DIMENSIONS OF THE PROTECTIVE ENCLOSURES WILL BE DETERMINED BY CONTRACTOR BASED ON THE SPACING OF PLANTS BEING PROTECTED.

THE FENCE SHALL BE PRESSED ONE TO TWO INCHES INTO THE SOIL SO THAT NO GAPS ARE PRESENT FOR WATERFOWL OR SMALL MAMMALS TO ENTER.

WIRE SHALL BE LOOPED THROUGH THE TOP OF THE FENCE ALONG THE ENTIRE LENGTH TO PREVENT SAGGING.

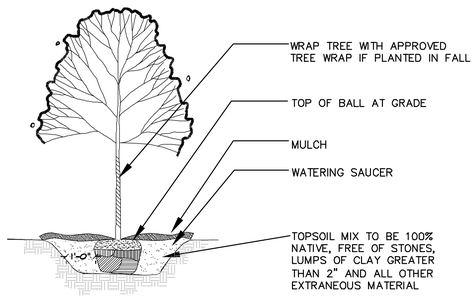
2 / L1.4 **Herbivory Protection Detail**

Not to Scale



1 / L1.4 **Existing Tree Protection**

Not to Scale



3 / L1.4 **Deciduous Tree Planting Detail**

Not to Scale

LANDSCAPE PLAN

SUBMITTAL | 100% | Date: 03.9.12

OTTAWA GREENFIELD DEVELOPMENT

Ottawa, Illinois

REVIEWED BY: KLG | APPROVED BY:

DRAWN/DESIGNED BY: BCL

PROJECT NO: PP11015-00

PLANNING RESOURCES INC.
420 West Liberty Drive
Wheaton, Illinois 60187
Ph: (630) 668-7788
Fax: (630) 668-4123

Date: 02.29.12

Scale:

Drawing

L1.4

Site Development

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT
LASALLE COUNTY, ILLINOIS

APPENDIX E

SITE DEVELOPMENT LOG

AND

SITE INSPECTION REPORTS

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT

STORM WATER POLLUTION PREVENTION PLAN
SITE DEVELOPMENT LOG

Instructions: Utilize this log to record the date and description of significant activities related to construction and storm water pollution prevention at the project site, including but not limited to:

- Site inspections
- Observations of Best Management Practices (BMPs) requiring corrective action
- Observed spills and leaks
- Non-storm water discharges
- Initiation of major land disturbance activities (clearing, grading, excavating, etc.)
- Installation of storm water BMPs (silt fence, ditch checks, etc.)
- Temporary or permanent cessation of construction in all or portions of the project site
- Temporary or permanent stabilization activities (seeding, mulching, paving, riprap, etc.)

Include additional pages to the log as necessary.

DATE	ACTIVITY	NOTES

Sample Inspection Report

Instructions:

This sample inspection report has been developed as a helpful tool to aid you in completing your site inspections. This sample inspection report was created consistent with EPA's "Developing Your Stormwater Pollution Prevention Plan". You can find both the guide and the sample inspection report (formatted in Microsoft Word) at www.epa.gov/npdes/swpppguide.

This inspection report is provided in Microsoft Word format to allow you to easily customize it for your use and the conditions at your site. You should also customize this form to help you meet the requirements in your construction general permit related to inspections. **If your permitting authority provides you with an inspection report, please use that form.**

For more information on inspections, please see "Developing Your Stormwater Pollution Plan," Chapters 6 and 8.

Using the Inspection Report:

This inspection report is designed to be customized according to the BMPs and conditions at your site. For ease of use, you should take a copy of your site plan and number all of the stormwater BMPs and areas of your site that will be inspected. A brief description of the BMP or area should then be listed in the site-specific section of the inspection report. For example, specific structural BMPs such as construction site entrances, sediment ponds, or specific areas with silt fence (e.g., silt fence along Main Street; silt fence along slope in NW corner, etc.) should be numbered and listed. You should also number specific non-structural BMPs or areas that will be inspected (such as trash areas, material storage areas, temporary sanitary waste areas, etc).

You can complete the items in the "General Information" section that will remain constant, such as the project name, NPDES tracking number, and inspector (if you only use one inspector). Print out multiple copies of this customized inspection report to use during your inspections.

When conducting the inspection, walk the site by following your site map and numbered BMPs/areas for inspection. Also note whether the overall site issues have been addressed (customize this list according to the conditions at your site). Note any required corrective actions and the date and responsible person for the correction in a Corrective Action Log.

Stormwater Construction Site Inspection Report

General Information			
Project Name			
NPDES Tracking No.		**Location**	
Date of Inspection		**Start/End Time**	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information			
Inspector's Qualifications	Insert qualifications or add reference to the SWPPP. (See Section 5 of the SWPPP Template)		
Describe present phase of construction			

Type of Inspection:
❑ Regular ❑ Pre-storm event ❑ During storm event ❑ Post-storm event

Weather Information
Has there been a storm event since the last inspection? ❑Yes ❑No **If yes, provide:** Storm Start Date & Time: Storm Duration (hrs): Approximate Amount of Precipitation (in):
Weather at time of this inspection? ❑ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snowing ❑ High Winds ❑ Other: Temperature:
Have any discharges occurred since the last inspection? ❑Yes ❑No **If yes, describe:**
Are there any discharges at the time of inspection? ❑Yes ❑No **If yes, describe:**

Site-specific BMPs

- *Number the structural and non-structural BMPs identified in your SWPPP on your site map and list them below (add as many BMPs as necessary). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required BMPs at your site.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	BMP	BMP Installed?	BMP Maintenance Required?	Corrective Action Needed and Notes
1		❑Yes ❑No	❑Yes ❑No	
2		❑Yes ❑No	❑Yes ❑No	
3		❑Yes ❑No	❑Yes ❑No	
4		❑Yes ❑No	❑Yes ❑No	
5		❑Yes ❑No	❑Yes ❑No	
6		❑Yes ❑No	❑Yes ❑No	
7		❑Yes ❑No	❑Yes ❑No	
8		❑Yes ❑No	❑Yes ❑No	
9		❑Yes ❑No	❑Yes ❑No	
10		❑Yes ❑No	❑Yes ❑No	

	BMP	BMP Installed?	BMP Maintenance Required?	Corrective Action Needed and Notes
11		❑Yes ❑No	❑Yes ❑No	
12		❑Yes ❑No	❑Yes ❑No	
13		❑Yes ❑No	❑Yes ❑No	
14		❑Yes ❑No	❑Yes ❑No	
15		❑Yes ❑No	❑Yes ❑No	
16		❑Yes ❑No	❑Yes ❑No	
17		❑Yes ❑No	❑Yes ❑No	
18		❑Yes ❑No	❑Yes ❑No	
19		❑Yes ❑No	❑Yes ❑No	
20		❑Yes ❑No	❑Yes ❑No	

Overall Site Issues

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	❑Yes ❑No	❑Yes ❑No	
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	❑Yes ❑No	❑Yes ❑No	
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	❑Yes ❑No	❑Yes ❑No	
4	Are discharge points and receiving waters free of any sediment deposits?	❑Yes ❑No	❑Yes ❑No	
5	Are storm drain inlets properly protected?	❑Yes ❑No	❑Yes ❑No	
6	Is the construction exit preventing sediment from being tracked into the street?	❑Yes ❑No	❑Yes ❑No	
7	Is trash/litter from work areas collected and placed in covered dumpsters?	❑Yes ❑No	❑Yes ❑No	
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	❑Yes ❑No	❑Yes ❑No	

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	❑Yes ❑No	❑Yes ❑No	
10	Are materials that are potential stormwater contaminants stored inside or under cover?	❑Yes ❑No	❑Yes ❑No	
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	❑Yes ❑No	❑Yes ❑No	
12	(Other)	❑Yes ❑No	❑Yes ❑No	

Non-Compliance

Describe any incidents of non-compliance not described above:

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: _____

Signature:_____ **Date:**_____

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT
LASALLE COUNTY, ILLINOIS

APPENDIX F

INCIDENCE OF NON-COMPLIANCE (ION)

Illinois Environmental Protection Agency

Bureau of Water • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
Construction Site Storm Water Discharge Incidence of Non-Compliance (ION)

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. You may email this completed form to:
epa.swnoncomp@illinois.gov

For Office Use Only
Permit No. ILR10_____

Permittee Information:

Name: Bernard T. and Patricia A. Ernat

Street Address: 310 Windsor Drive P.O. Box: _____

City: Ottawa State: IL Zip Code: 61350 County: LaSalle

Phone: 815-433-1807 Email: _____

Construction Site Information:

Site Name: Mississippi Sand - Ottawa

Street Address: 1222 East Illinois Route 71

City: Ottawa State: IL Zip Code: 61350

Latitude:	41	18	43	Longitude:	88	55	41.5	19 & 30	33N	3E
	(Deg)	(Min)	(Sec)		(Deg)	(Min)	(Sec)	Section	Township	Range

Cause of Non-Compliance

Actions Taken to Prevent Any Further Non-Compliance

Environmental Impact Resulting From the Non-Compliance

Actions Taken to Reduce the Environmental Impact Resulting From the Non-Compliance

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

_____ Owner Signature: _____ Date:

Bernard T. and Patricia A. Ernat Printed Name: Owner Title:

IL 532 2105 WPC
624 Rev. 10/2011

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

DIVISION OF WATER POLLUTION CONTROL
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
FIELD OPERATIONS SECTION

GUIDELINES FOR COMPLETION OF INCIDENCE OF NON-COMPLIANCE (ION) FORM

Complete and submit this form for any violation of the Storm Water Pollution Prevention Plan observed during any inspection conducted, including those not required by the SWPPP. Please adhere to the following guidelines:

Initial submission within 24 hours by email, telephone or fax (see region fax numbers) of any incidence of non-compliance for any violation. Submit email copy to: epa.swnoncomp@illinois.gov. After 24 hours notification, submit signed original ION within 5 days to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance #19
Post Office Box 19276
Springfield, Illinois 62794-9276

FIELD OPERATIONS HEADQUARTERS
Bruce Yurdin, Manager
Phone: 217/782-3362 Fax: 217/785-1225
EMAIL: epa.swnoncomp@illinois.gov

Region 1 - ROCKFORD
Chuck Corley, Manager
Phone: 815/987-7760 Fax: 815/987-7005

Region 2 - DESPLAINES
Jay Patel, Manager
Phone: 847/294-4000 Fax: 847/294-4058

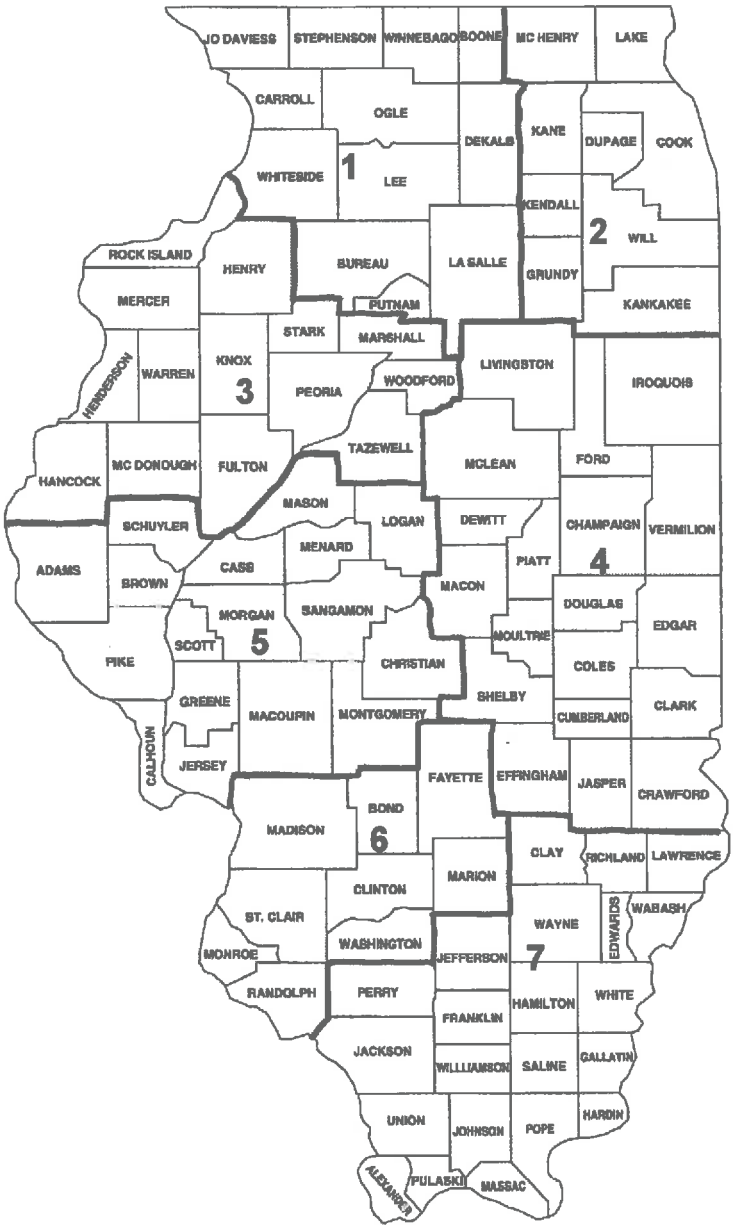
Region 3 - PEORIA
Jim Kammueller, Manager
Phone: 309/693-5463 Fax: 309/693-5467

Region 4 - CHAMPAIGN
Joe Koronkowski, Manager
Phone: 217/278-5800 Fax: 217/278-5808

Region 5 - SPRINGFIELD
Bruce Yurdin, FOS Manager
Phone: 217/782-3362 Fax: 217/785-1225

Region 6 - COLLINSVILLE
Bruce Yurdin, FOS Manager
Phone: 217/782-3362 Fax: 217/785-1225

Region 7- MARION
Byron Marks, Manager
Phone: 618/993-7200 Fax: 618/997-5467



MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT
LASALLE COUNTY, ILLINOIS

APPENDIX G

NOTICE OF TERMINATION (NOT)

Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control
NOTICE OF TERMINATION (NOT)
of Coverage under the General Permit for Storm Water Discharges Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address.

Permit No. ILR10 _____

OWNER INFORMATION

Owner Name: Bernard T. and Patricia A. Ernat

Owner Type (select one) Private

Mailing Address: 310 Windsor Drive Phone: 815-433-1807

City: Ottawa State: IL Zip: 61350 Fax: _____

Contact Person: _____ E-mail: _____

CONTRACTOR INFORMATION

Contractor Name: Turn-Key Processing Solutions, LLC

Mailing Address: 101 Shorewood Lane Phone: 815-741-3760

City: Shorewood State: IL Zip: 60404 Fax: _____

CONSTRUCTION SITE INFORMATION

Facility Name: Mississippi Sand - Ottawa

Street Address: 1222 East Illinois Route 71

City: Ottawa IL Zip: 61350 County: LaSalle

NPDES Storm Water General Permit Number: ILR10 _____

Latitude:	41	18	43	Longitude:	88	55	41.5	19 & 30	33N	3E
	(Deg)	(Min)	(Sec)		(Deg)	(Min)	(Sec)	Section	Township	Range

DATE PROJECT HAS BEEN COMPLETED AND STABILIZED: _____

NOTE: Coverage under this permit cannot be terminated without the completion date.

I certify under penalty of law that disturbed soils at the identified facility have been finally stabilized or that all storm water discharges associated with industrial activity from the identified facility that are authorized by an NPDES general permit have otherwise been eliminated. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with industrial activity by the general permit, and that discharging pollutants in storm water associated with industrial activity to Waters of the State is unlawful under the Environmental Protection Act and the Clean Water Act where the discharge is not authorized by an NPDES Permit.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

_____ Owner Signature: _____ Date:

Mail completed form to: Illinois Environmental Protection Agency
Division of Water Pollution Control, Attn: Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

(Do not submit additional documentation unless requested)

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

GUIDELINES FOR COMPLETION OF NOTICE OF TERMINATION (NOT) FORM

Please adhere to the following guidelines:

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible.

Submit completed forms to:

Illinois Environmental Protection Agency
Division of Water Pollution Control, Attn: Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610
FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

	Example	Format
Section	12	1 or 2 numerical digits
Township	12N	1 or 2 numerical digits followed by "N" or "S"
Range	12W	1 or 2 numerical digits followed by "E" or "W"

Final stabilization has occurred when:

(a) all soil disturbing activities at the site have been completed;

(b) a uniform perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas not covered by permanent structures; or

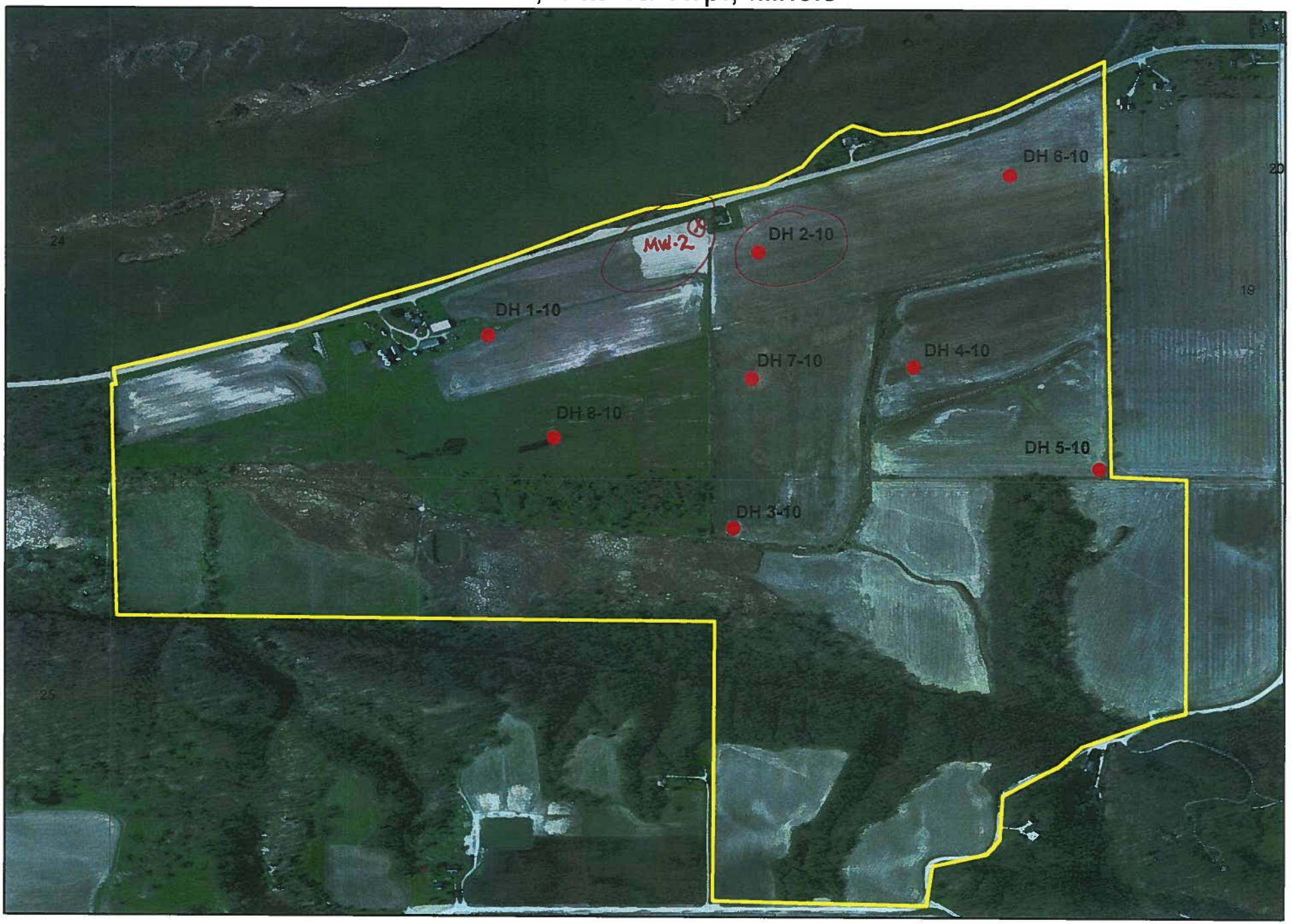
(c) equivalent permanent stabilization measures have been employed.

MISSISSIPPI SAND LLC
OTTAWA MINE DEVELOPMENT
LASALLE COUNTY, ILLINOIS

APPENDIX H

SUBSURFACE SOIL INVESTIGATION

Drill Sites, Ottawa Twp., Illinois



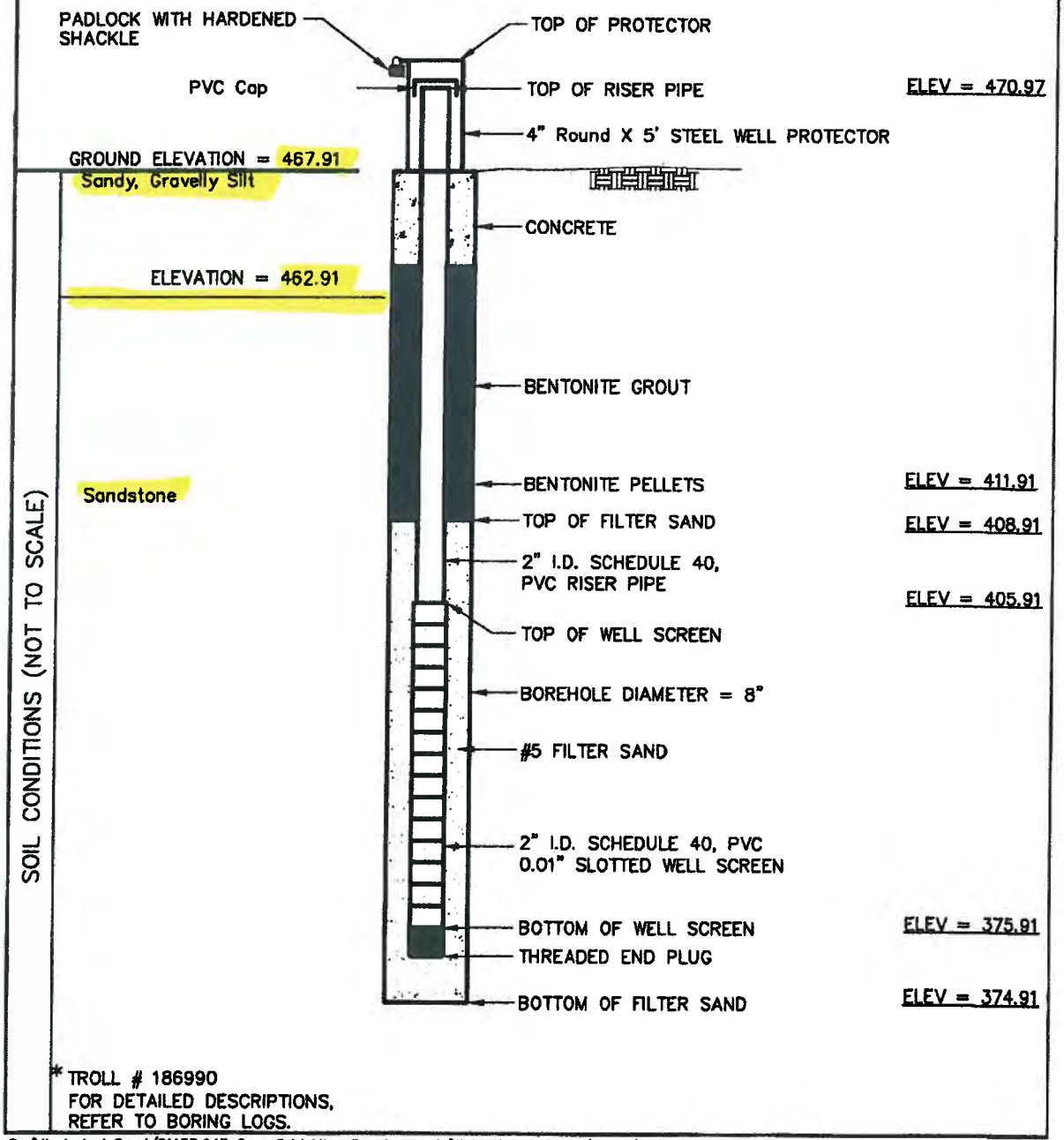
PATRICK ENGINEERING INC.

MONITORING WELL INSTALLATION REPORT

WELL NO.: MW-2
PROJ. NO.: 21153.043

PROJECT: Mississippi Sand Greenfield Mine Development
LOCATION: Ottawa, IL
CLIENT: Mississippi Sand
ENGINEER/GEOLOGIST: DCM
DRILLER: STRATA

BORING NO.: MW-2
LOCATION: N 1692925
E 822181
INSTALLATION DATE: 5/25/11
WEATHER: Cloudy 50s



* TROLL # 186990
FOR DETAILED DESCRIPTIONS, REFER TO BORING LOGS.

P:/Mississippi Sand/21153.043 Greenfield Mine Development/Water Well Impact/DWGs/MW-2

[redacted]

Interval	Thickness	Material
0 – 3 ft.	3 ft.	Topsoil / clay overburden
3 – 86.4 ft.	83.4 ft.	St. Peter sandstone (good)
86.4 – 99 ft.	12.6 ft.	Lower St. Peter w/ shale & dolomite (no good)

DDH-2-10

Interval	Thickness	Material
0 – 6 ft.	6 ft.	Topsoil / clay overburden
6 – 92.1 ft.	86.1 ft.	St. Peter sandstone (good)
92.1 – 99 ft.	6.8 ft.	Lower St. Peter w/ shale & dolomite (no good)

[redacted]

Interval	Thickness	Material
0 – 6 ft.	6 ft.	Topsoil / clay overburden
6 – 92.2 ft.	86.2 ft.	St. Peter sandstone (good)
92.2 – 96 ft.	3.8 ft.	Lower St. Peter w/ shale & dolomite (no good)

[redacted]

Interval	Thickness	Material
0 – 5 ft.	5 ft.	Topsoil / clay overburden
5 – 107.5 ft.	102.5 ft.	St. Peter sandstone (good)
107.5 – 114 ft.	6.5 ft.	Lower St. Peter w/ shale & cherl (no good)

[redacted]

Interval	Thickness	Material
0 – 6 ft.	6 ft.	Topsoil / clay overburden
6 – 97.5 ft.	91.5 ft	St. Peter sandstone (good)
97.5 – 109 ft.	11.5 ft.	Lower St. Peter w/ shale, chert & dol. (no good)