



US Army Corps
of Engineers
St Paul District

APPLICANT: City of Kenosha

Public Notice

ISSUED: September 18, 2014

EXPIRES: October 18, 2014

REFER TO: MVP-2014-02066-MHK

SECTION:404 – Clean Water Act
SECTION: 10 – Rivers and Harbors Act

1. APPLICATION FOR PERMIT TO discharge fill material into 4.62 acres of lakebed below the ordinary high water mark (OHWM) of Lake Michigan to address water quality issues and improve recreational opportunities at Eichelman Park.

2. SPECIFIC INFORMATION.

APPLICANT'S ADDRESS: Ms. Shelly Billingsley
City of Kenosha
625 52nd Street
Kenosha, Wisconsin 53140

PROJECT LOCATION: The project site is located at Eichelman Park Beach in the NW ¼ of the NW ¼ of Sec. 5, T. 1N., R. 23E., Kenosha County, Wisconsin. The approximate UTM coordinates are latitude 42.57949, longitude -87.81316.

DESCRIPTION OF PROJECT: The project is located at the beach at Eichelman Park which is managed by the City of Kenosha. The existing beach is relatively flat with a large swash zone and is in a degraded condition as a result of high wave action overtopping the existing breakwater, stagnant water along the shoreline, storm water runoff from the park, and elevated levels of bacteria from waterfowl waste. Over the past five years, conditions at the beach have exceeded recreational water quality standards primarily due to elevated levels of E. coli which have resulted in multiple beach advisories and closures. The proposed activities would result in the discharge of fill material on the bed of 4.62 acres of Lake Michigan to raise the breakwater wall and prevent the accumulation and redistribution of stagnant water on the shoreline, to create a series of native vegetated dunes and a constructed rain garden wetland system to capture and infiltrate pollution from surface runoff and to elevate the foreshore in order to provide the drainage necessary to alleviate bacteria growing conditions and discourage use by nuisance waterfowl. Improving water quality at the beach would open public access on a more consistent basis. In addition, the installation of two cordwalk paths and an American with Disabilities Act compliant concrete path would create additional recreational opportunities at the beach.

ALTERNATIVES CONSIDERED: The size and configuration of the lakebed above the OHWM is limited in space to accommodate the proposed water quality improvement features. The proposed locations of these features were chosen because it minimizes the area of impact needed to accomplish water quality improvements. The applicant has stated that the amount of beach nourishment is the minimum amount required to maintain a grade which would improve water quality. A no build alternative was considered but was eliminated as it would not meet the project purpose and need of improving water quality and providing additional recreational opportunities for Eichelman Park.

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QUANTITY, TYPE, AND AREA OF FILL: Approximately 16,004 cubic yards of clean sand fill material would be discharged over 4.62 acres below the OHWM to obtain appropriate grading for surface runoff infiltration and drainage. In addition, an 8-foot wide concrete path would be installed on the bed of 154 square feet of the lake below the OHWM.

VEGETATION IN AFFECTED AREA: Turf grass would be removed north of the beach and no other vegetation would be affected by the proposed activity.

SOURCE OF FILL MATERIAL: The supplemental sand fill and riprap utilized for the project would come from onsite or an existing commercial source.

SURROUNDING LAND USE: City recreational land use (marina) exists to the north of the park and residential use exists to the west.

DESCRIPTION OF STRUCTURE BELOW OHWM: On the west side of the project area, a set of stairs with 4-foot wide by 31-foot long cordwalk would be placed on the bed of the lake. A 5-wide by 25-foot long Mobi-mat would be installed in the north and central portion of the site extending off of a concrete path. Finally, a 4-foot wide by 118 foot long cordwalk path would be installed below the OHWM allowing pedestrian access over infiltration swales and through the sand dunes on the eastern portion of the site.

To prevent future overtopping of waves, 675 cubic yards of riprap would be placed along 300 linear feet of the existing breakwater to raise the top of the structure by 3 feet. Riprap would consist of angular to sub-angular, irregularly shaped quarry stone approximately 1-2 ton in weight.

THE FOLLOWING POTENTIALLY TOXIC MATERIALS COULD BE USED AT THE PROJECT SITE: Fuel, hydraulic fluid, lubricants, coolant and other fluids commonly used by construction equipment would be expected to be present for construction of the project.

THE FOLLOWING PRECAUTIONS TO PROTECT WATER QUALITY HAVE BEEN DESCRIBED BY THE APPLICANT: The proposed project would be conducted in compliance with the state's erosion control and stormwater best management practices to prevent sediment from leaving the site during and after construction.

MITIGATION: The applicant has not proposed compensatory mitigation.

3. REPLIES/COMMENTS.

Interested parties are invited to submit to this office written facts, arguments, or objections within 30 days of the date of this notice. These statements should bear upon the suitability of the location and the adequacy of the project and should, if appropriate, suggest any changes believed to be desirable. Comments received may be forwarded to the applicant.

Replies may be addressed to Regulatory Branch, St. Paul District, Corps of Engineers, 20711 Watertown Road, Suite F, Waukesha, Wisconsin 53186.

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Or, IF YOU HAVE QUESTIONS ABOUT THE PROJECT, call Marie Kopka at the Waukesha office of the Corps, telephone number (651) 290-5733.

To receive Public Notices by e-mail, go to: http://mvp-extstp.mvp.usace.army.mil/list_server/ and add your information in the New Registration Box.

4. FEDERALLY-LISTED THREATENED OR ENDANGERED WILDLIFE OR PLANTS OR THEIR CRITICAL HABITAT.

None were identified by the applicant or are known to exist in the permit area. However, Kenosha County is within the known or historic range of the following Federally-listed candidate (C), threatened (T) and endangered (E) species:

<u>Species</u>	<u>Habitat</u>
Northern long-eared bat (Proposed as E)	Hibernates in caves and mines – swarming in surrounding wooded areas in autumn. During summer, roosts and forages in upland forests.
Eastern prairie fringed orchid (T)	Wet grasslands
Whooping crane (non-essential experimental population)	Open wetlands and lakeshores

This application is being coordinated with the U.S. Fish and Wildlife Service. Any comments it may have concerning Federally-listed threatened or endangered wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

5. JURISDICTION.

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act identified in Regulatory Guidance Letter 08-02. We have made an initial determination that the aquatic resources that would be impacted by the proposed project are regulated by the Corps of Engineers under Section 404 of the Clean Water Act and/or Section(s) 9 & 10 of the Rivers and Harbors Act. The Corps will prepare an approved or preliminary jurisdictional determination prior to making a permit decision. Approved jurisdictional determinations are posted on the St. Paul District web page at <http://www.mvp.usace.army.mil/Missions/Regulatory.aspx>.

THE APPLICANT HAS STATED THAT THE FOLLOWING STATE, COUNTY, AND/OR LOCAL PERMITS HAVE BEEN APPLIED FOR/ISSUED:

6. STATE SECTION 401 WATER QUALITY CERTIFICATION.

This Public Notice has been sent to the Wisconsin Department of Natural Resources and is considered by the District Engineer to constitute valid notification to that agency for Section 401 water quality certification. A permit will not be granted until the Wisconsin Department of Natural Resources has issued or waived Section 401 certification.

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7. HISTORICAL/ARCHAEOLOGICAL.

This public notice is being sent to the National Park Service and the State Archaeologist for their comments. The latest versions of the national Register of Historic Places and the Wisconsin Historic Preservation Database have been consulted and one shipwreck site was identified as adjacent to the project area. The results of this review and the Corps' determination of effect will be coordinated with the State Historic Preservation Officer independent of this public notice. Any adverse effects on historic properties will be resolved prior to the Corps authorization, or approval, of the work in connection with this project.

8. PUBLIC HEARING REQUESTS.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, in detail, the reasons for holding a public hearing. A request may be denied if substantive reasons for holding a hearing are not provided or if there is otherwise no valid interest to be served.

9. PUBLIC INTEREST REVIEW.

The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. Environmental and other documents will be available for review in the St. Paul District Office.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

10. COASTAL ZONE MANAGEMENT.

The Wisconsin Coastal Management Program (WCMP) in the Department of Administration is inviting public comment regarding this project. The WCMP may conduct a Federal consistency review to verify that the project will comply with State policies in Wisconsin's coastal zone. Further information may be obtained from the Federal Consistency Coordinator at: Wisconsin Coastal

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Management Program, P.O. Box 7868, Madison, WI 53707-7868; (608) 266-8234. Any comments on whether or not this proposed project complies with the State enforceable policies should be received within 30 days by the Federal Consistency Coordinator.

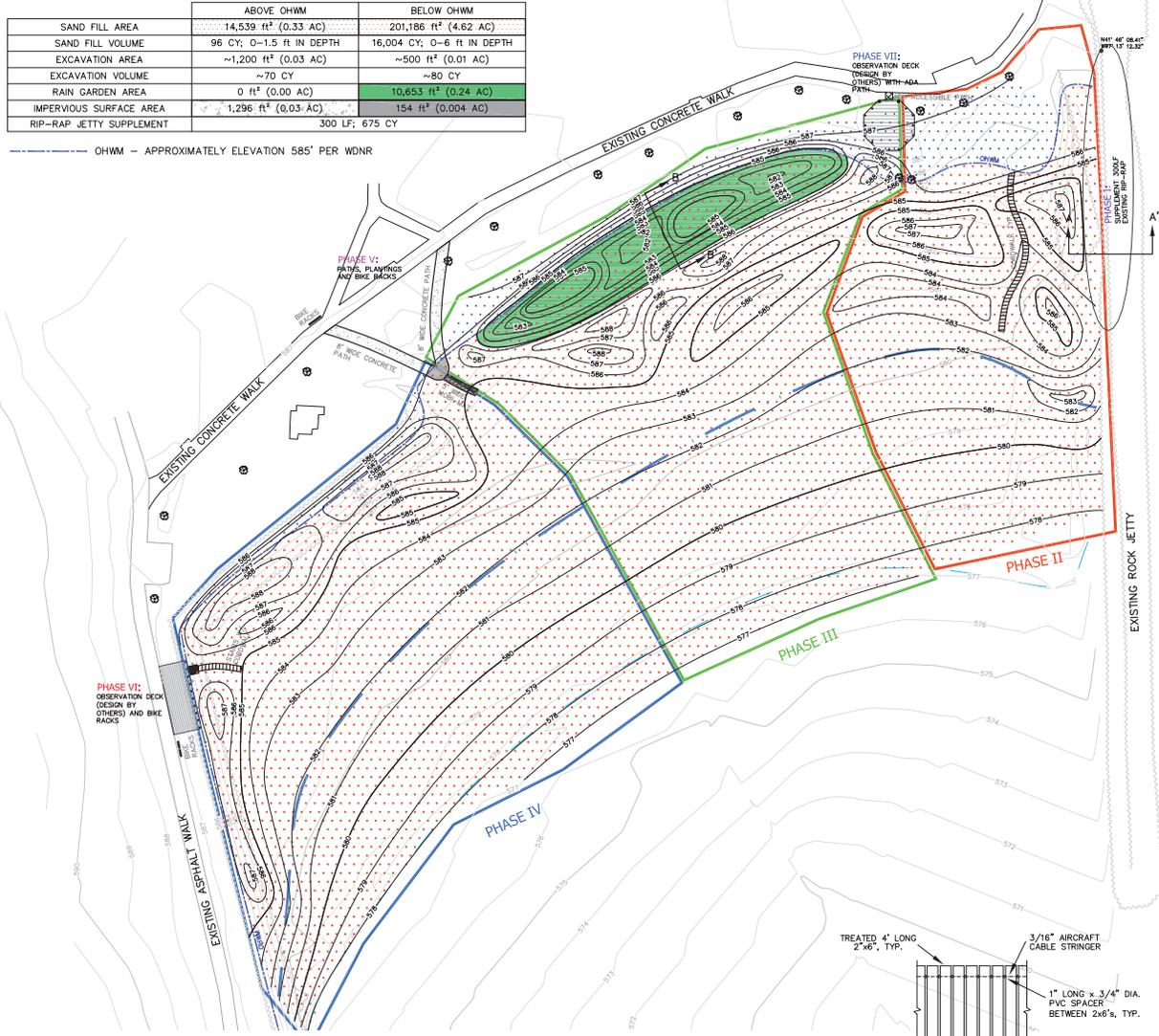
Todd Vesperman
Chief, Southeast Section

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NOTICE TO EDITORS: This public notice is provided as background information and is not a request or contract for publication.

	ABOVE OHWM	BELOW OHWM
SAND FILL AREA	14,539 ft ² (0.33 AC)	201,186 ft ² (4.62 AC)
SAND FILL VOLUME	96 CY; 0-1.5 ft IN DEPTH	16,004 CY; 0-6 ft IN DEPTH
EXCAVATION AREA	~1,200 ft ² (0.03 AC)	~500 ft ² (0.01 AC)
EXCAVATION VOLUME	~70 CY	~80 CY
RAIN GARDEN AREA	0 ft ² (0.00 AC)	10,653 ft ² (0.24 AC)
IMPERVIOUS SURFACE AREA	1,296 ft ² (0.03 AC)	154 ft ² (0.004 AC)
RIP-RAP JETTY SUPPLEMENT		300 LF; 675 CY

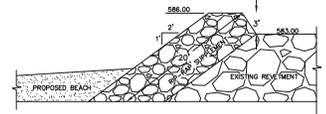
OHWM - APPROXIMATELY ELEVATION 585' PER WDRN



- BIOTILER SPECIFICATIONS**
- PART 1 - GENERAL**
- 1.01 WORK INCLUDED
 - 1.02 BIOTILER SOIL MIX
 - 1.03 QUALITY ASSURANCE
- 1.02 BIOTILER SOIL MIX**
- A. ASTM C 117 AND C 136 TESTS ON SAND USED FOR PLANTING SOIL MIX AND FOR SAND USED AS A FILTER BENEATH THE BIOTILER SOIL MIX.
 - A. ASTM D2424 ON FALLING HEAD ASTM D5084 FOR HYDRAULIC CONDUCTIVITY OF THE BIOTILER SOIL MIX.
 - A. ASTM D4521 BULK DENSITY TEST FOR THE BIOTILER SOIL MIX.
- 1.03 QUALITY ASSURANCE**
- RESULTS OF LABORATORY TESTS PERFORMED ON REPRESENTATIVE MATERIALS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO DELIVERY TO THE SITE.
- A. COMPOST TEST RESULTS
 - B. CERTIFICATION THAT THE DRAINAGE AGGREGATE MEETS SPECIFICATION C.
 - C. NR328 MINERAL COMPOSITION AND WATER LEACH TESTS ON SAME SOURCE AND PRODUCTION PROCESS WITHIN LAST 12 MONTHS OF ANY INDUSTRIAL BY-PRODUCT SAND USED FOR PLANTING SOIL MIX
 - D. RESULTS FROM TESTS IDENTIFIED IN SECTION 1.02
- PART 2 - PRODUCTS**
- 2.01 BIOTILER SOIL MIX**
- A. THE BIOTILER SOIL SHALL CONSIST OF A MIXTURE OF SAND AND MATURE COMPOST THAT IS SUITABLE FOR INITIAL AND LONG-TERM SUPPORT OF PLANT GROWTH, WHILE MAINTAINING MODERATE HYDRAULIC CONDUCTIVITY.
 - B. MIXTURE COMPONENTS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS PRESENT IN SOME CONSERVATION PRACTICE STANDARDS 1004 BUREAU OF SOIL CONSERVATION.
 - C. SAND SHALL MEET ONE OF THE FOLLOWING GRADATION REQUIREMENTS PER NWR CONSERVATION PRACTICE STANDARDS 1004:
 - USDA COARSE SAND (20-24 INCH)
 - ASTM C33 (FINE AGGREGATE CONCRETE SAND)
 - WISCONSIN STANDARDS AND SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, SECTION 501.2.5.3.4 (FINE AGGREGATE CONCRETE SAND) 2005 EDITION, OR AN EQUIVALENT AS APPROVED BY THE ADMINISTERING AUTHORITY.
 - D. COMPOST SHALL MEET MEAN SPECIFICATION S100 - COMPOST
- 2.02 SAND FILTER LAYER**
- SAND SHALL MEET ONE OF THE FOLLOWING GRADATION REQUIREMENTS PER NWR CONSERVATION PRACTICE STANDARDS 1004:
- USDA COARSE SAND (20-24 INCH)
 - ASTM C33 (FINE AGGREGATE CONCRETE SAND)
 - WISCONSIN STANDARDS AND SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, SECTION 501.2.5.3.4 (FINE AGGREGATE CONCRETE SAND) 2005 EDITION, OR AN EQUIVALENT AS APPROVED BY THE ADMINISTERING AUTHORITY.
- 2.03 DRAINAGE AGGREGATE LAYER**
- THE GRAVEL SHALL MEET THE COARSE AGGREGATE #2 AND OTHER SPECIFICATIONS OF WISCONSIN STANDARDS AND SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, SECTION 501.2.5.3.4, 2003 EDITION, OR AN EQUIVALENT AS APPROVED BY THE ADMINISTERING AUTHORITY. GRAVEL SHALL BE DOUBLE-WASHED.
- 2.04 GEOTEXTILE**
- GEOTEXTILE USED TO PROVIDE PARTICLE SIZE SEPARATION OF THE DRAINAGE AGGREGATE FROM THE UNDERLYING NATURAL SOIL SUBGRADE AND FILTER SAND SHALL CONSIST OF NON-WOVEN POLYPROPYLENE, SUPAC NON, OR EQUIVALENT.
- PART 3 - EXECUTION**
- 3.01 INSPECTION**
- NOTIFY ENGINEER WHEN EXCAVATION IS COMPLETED AND READY FOR INSPECTION.
- A. VERIFY THAT EXISTING GRADES ARE AS SHOWN ON THE DRAWINGS.
 - B. VERIFY THAT GROUND IS NOT FROZEN.
 - C. VERIFY THERE ARE NO SAND SEAMS OR UTILITY TRENCHES CONNECTED TO THE EXCAVATED AREA.
 - F. TEST FOR PERMEABILITY OF THE PLANTING SOIL PRIOR TO PLACEMENT.
- 3.02 TOPSOIL**
- STRIP TOPSOIL AS NECESSARY, IF EXISTING TOPSOIL REMAINS STOCKPILED IN THE STORM WATER FILTERING BED AREA, MOVE IT TO ANOTHER LOCATION ON SITE AS DIRECTED BY THE OWNER.
- 3.03 EXCAVATION**
- A. PROTECT FACILITY FROM SEDIMENTATION UNTIL CONSTRUCTION SITE IS STABILIZED.
 - B. SUBMIT PROTECTION PLAN TO OWNER.
 - C. PROTECT THE FACILITY FROM CONSTRUCTION TRAFFIC BEFORE AND AFTER INSTALLATION.
 - D. EXCAVATE TO THE LINES AND GRADES SHOWN ON THE DRAWING.
 - E. DO NOT OVER EXCAVATE OR COMPACT THE BASE OF THE EXCAVATION.
- 3.04 MIXING**
- A. MIX THE BIOTILER SOIL MIX UNTIL IT IS A UNIFORM CONSISTENCY.
 - B. PREFERABLY, MIX THE MATERIAL AT THE SUPPLIER'S FACILITY.
 - C. IF MIXING ON SITE, MIX THE MATERIALS ON A HARD, CLEAN SURFACE. DO NOT MIX ON SOIL OR VEGETATION.
- 3.05 CONSTRUCTION**
- A. PLACE GEOTEXTILE AS SHOWN ON THE DRAWINGS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 - B. PLACE DRAINAGE AGGREGATE TO THE ELEVATION SHOWN ON THE DRAWINGS.
 - C. PLACE SECOND LAYER OF GEOTEXTILE AS SHOWN ON THE DRAWING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 - D. PLACE SAND FILTER TO THE ELEVATION SHOWN ON THE DRAWINGS. DO NOT COMPACT THE SAND FILTER.
 - E. PLACE THE PLANTING SOIL MIXTURE TO THE ELEVATIONS SHOWN ON THE DRAWINGS IN 12-INCH LIFTS. DO NOT COMPACT THIS LAYER.
 - F. PLACE MULCH AND PLANTINGS AS REQUIRED BY THE LANDSCAPE DRAWINGS AND SPECIFICATION.

- GENERAL NOTES**
1. DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
 2. PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS, THE CONTRACTOR MUST CALL KENOSHA UTILITIES SERVICE AND THE CITY OF KENOSHA FOR THE LOCATION AND DEPTHS OF ALL EXISTING UNDERGROUND UTILITIES.
 3. ALL CONSTRUCTION SIGNING AND TRAFFIC CONTROL TO BE IN ACCORDANCE WITH THE CITY OF KENOSHA AND WISCONSIN DEPARTMENT OF TRANSPORTATION SIGNING, ROAD AND DMR REQUIREMENTS.
 4. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE ORDINANCES AND REQUIREMENTS OF THE CITY OF KENOSHA AND THE STATE OF WISCONSIN DOT, ROAD AND DMR REQUIREMENTS.
 5. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF KENOSHA AND WISCONSIN DEPARTMENT OF TRANSPORTATION SIGNING, ROAD AND DMR REQUIREMENTS. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED IN CONSTRUCTING THE IMPROVEMENTS INDICATED ON THE ENGINEERING PLANS.
 6. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND IS TO COMPARE THE SITE CONDITIONS TO THOSE INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
 7. THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.
 8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH AS-BUILT INFORMATION OF THE DESIGNED IMPROVEMENTS. ANY CHANGES TO THE DESIGN OR CONSTRUCTION ITEMS MUST HAVE PRIOR APPROVAL FROM THE MUNICIPALITY.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, BONDS, AND ALL OTHER FEES REQUIRED FOR THE PROPOSED WORK.
 10. THE OWNER CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION AND FOR REPORTING ANY EROSION OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
 11. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING CONSTRUCTION OF IMPROVEMENTS.
 12. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL OF THE UTILITIES PRIOR TO THE INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
 13. ANY UTILITIES WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AND AT THE CONTRACTOR'S EXPENSE.
 14. 60TH STREET OR 3RD AVENUE SHALL BE THE CONSTRUCTION ACCESS POINT TO THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SURFACE OF THE ROAD FOR USE BY THE PUBLIC DURING CONSTRUCTION. 60TH STREET AND 3RD AVENUE SHALL REMAIN IN SERVICE DURING AND AFTER CONSTRUCTION.

- IMPLEMENTATION OF EROSION CONTROL MEASURES**
1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DNR CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS, AND THE CITY OF KENOSHA REQUIREMENTS.
 2. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE D.C.T. EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
 3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL AT A MINIMUM BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER ANY WEATHER PRECIPITATION EVENT THAT PRODUCES 0.6 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD. MAINTENANCE SHALL BE COMPLETED AS SOON AS POSSIBLE WITH CONSIDERATION GIVEN TO SITE CONDITIONS.
 4. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND INSTALLED BEFORE ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL.
 5. ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION.
 6. TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE. ALL CONSTRUCTION SITE DEPTS TO PREVENT TRACKING OF SOIL OFF THE SITE. ALL OFF SITE TRACKED SOIL ON PAVED SURFACES SHALL BE REMOVED AT THE END OF EACH WORK DAY.
 7. OVERLAND FLOW SHALL BE PREVENTED FROM LEAVING THE WORK SITE BY INSTALLING STRAW BALES OR BOLT FENCE PARALLEL TO THE CONTOURS LOCATED DOWNHILL FROM THE WORK AREA.
 8. IF THERE ARE DISCREPANCIES BETWEEN THESE DETAILS AND THE DNR TECHNICAL STANDARDS FOR SEDIMENT AND EROSION CONTROL, THE MORE RESTRICTIVE REQUIREMENT SHALL BE FOLLOWED.



TYPICAL REVETMENT CROSS SECTION A-A' N.T.S.

BEACH NOURISHMENT SAND SPECIFICATIONS

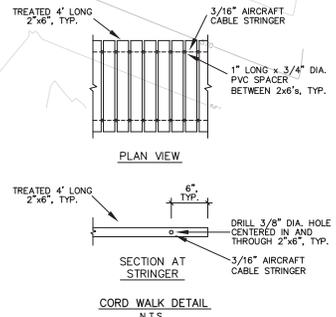
1. ALL VEGETATION AND TOPSOIL SHOULD BE REMOVED FROM THE AREA OF THE PROPOSED BEACH NOURISHMENT PRIOR TO PLACING THE SAND.
2. BEACH NOURISHMENT SAND SHALL BE NATURAL WASHED, MANUFACTURED OR MATURE THERMO. PARTICLE SIZE SHALL CONFORM TO TABLE 3. THE AMOUNT OF MATERIAL PASSING THE 600 SIEVE SHALL NOT EXCEED 5.0%.

TABLE 3 - BEACH SAND PARTICLE SIZE DISTRIBUTION

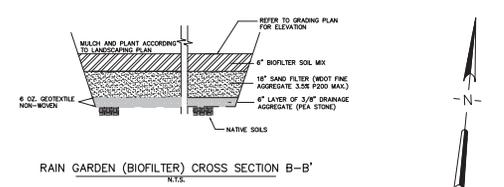
SEIVE SIZE	PERCENT PASSING (BY WT.)
#10	100
#20	100-90
#40	100-60
#60	100-30
#100	100-0
#200	45-0
#420	5

PERCENT PASSING (BY WT.) **GRAIN SIZE DIAMETER (MILLIMETERS)**

0100	0.20-2.0
030	0.42-0.4
030	0.12-0.30
010	0.08-0.28



CORD WALK DETAIL N.T.S.



RAIN GARDEN (BIOFILTER) CROSS SECTION B-B' N.T.S.



KEY
--- HIGH WATER SWASH ZONE LIMIT

ACOQ AREAS

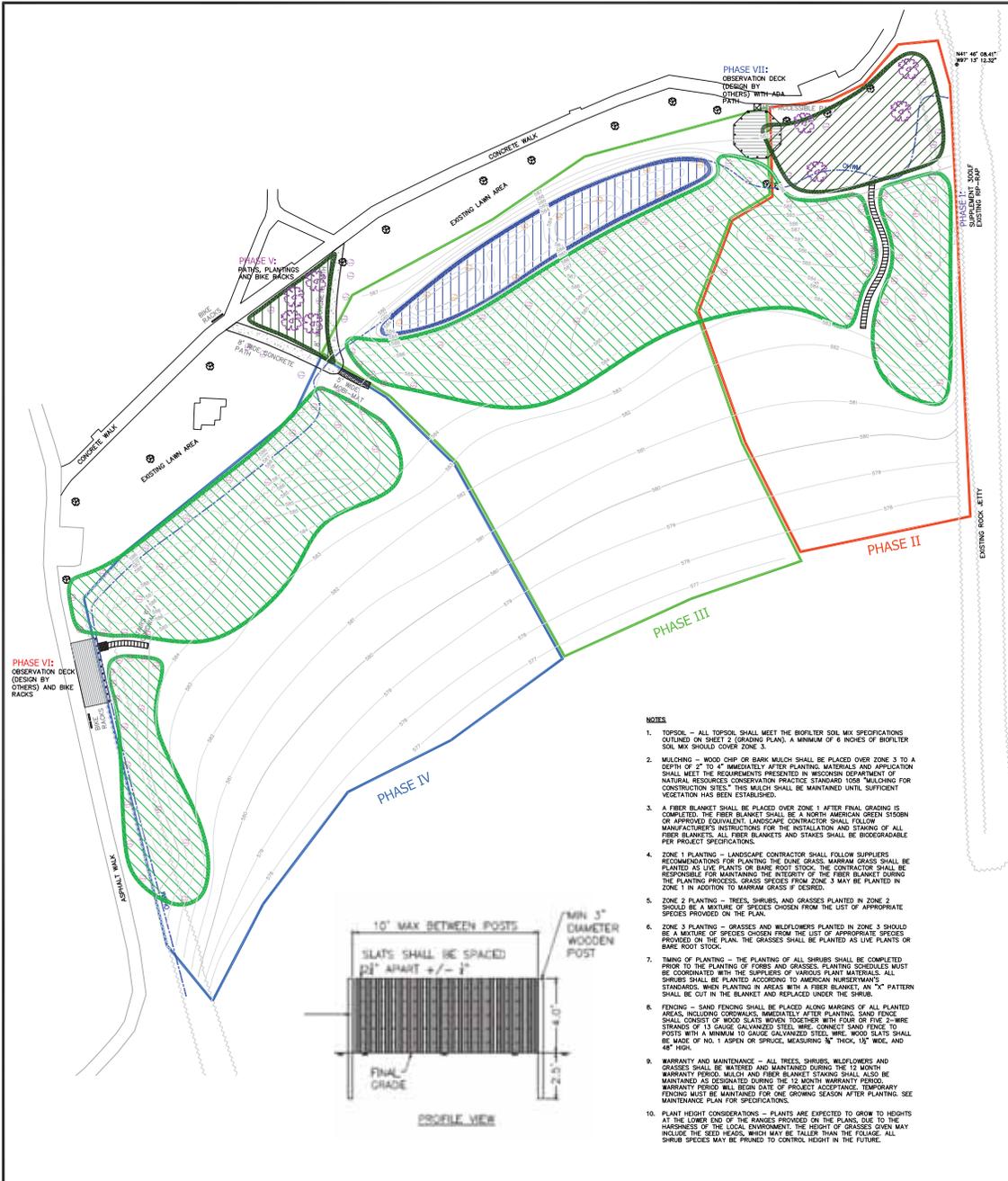
5308 S. 12th Street, Kenosha, WI 53142
 Phone 920-468-6164
 Fax 920-468-0869
 www.millerengineers.com

MILLER ENGINEERS SCIENTISTS

NO.	DATE	BY	CHK	DESCRIPTION
1	7-16-2014	TRO	PGP	ISSUED FOR PERMITS

UW OSHKOSH
 EICHELMAN PARK
 6125 3RD AVENUE
 KENOSHA, WI

SCALE: HOR. 1"=40'
 DATE: 8-19-2013
 JOB: 11-18931
 20-106
 BY: TRO
 CK: PGP
 SHEET: 4 OF 4

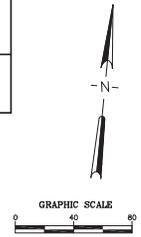


- NOTES**
1. TOPSOIL - ALL TOPSOIL SHALL MEET THE BIOPILER SOIL MIX SPECIFICATIONS OUTLINED ON SHEET 2 (GRADING PLAN). A MINIMUM OF 6 INCHES OF BIOPILER SOIL MIX SHOULD COVER ZONE 3.
 2. MULCHING - WOOD CHIP OR BARK MULCH SHALL BE PLACED OVER ZONE 3 TO A DEPTH OF 2" TO 4" IMMEDIATELY AFTER PLANTING MATERIALS AND APPLICATION SHALL MEET THE REQUIREMENTS PRESENTED IN WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSERVATION PRACTICE STANDARD 1059 "MULCHING FOR CONSTRUCTION SITES." THIS MULCH SHALL BE MAINTAINED UNTIL SUFFICIENT VEGETATION HAS BEEN ESTABLISHED.
 3. A FIBER BLANKET SHALL BE PLACED OVER ZONE 1 AFTER FINAL GRADING IS COMPLETED. THE FIBER BLANKET SHALL BE A NORTH AMERICAN GREEN SIBBON OR APPROVED EQUIVALENT. LANDSCAPE CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS FOR THE INSTALLATION AND STAKING OF ALL FIBER BLANKETS. ALL FIBER BLANKETS AND STAKES SHALL BE BIODEGRADABLE PER PROJECT SPECIFICATIONS.
 4. ZONE 1 PLANTING - LANDSCAPE CONTRACTOR SHALL FOLLOW SUPPLIER'S RECOMMENDATIONS FOR PLANTING THE DUNE GRASS, MARRAM GRASS SHALL BE PLANTED AS LIVE PLANTS OR BARE ROOT STOCK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF THE FIBER BLANKET DURING THE PLANTING PROCESS. GRASS SPECIES FROM ZONE 3 MAY BE PLANTED IN ZONE 1 IN ADDITION TO MARRAM GRASS IF DESIRED.
 5. ZONE 2 PLANTING - TREES, SHRUBS, AND GRASSES PLANTED IN ZONE 2 SHOULD BE A MIXTURE OF SPECIES CHOSEN FROM THE LIST OF APPROPRIATE SPECIES PROVIDED ON THE PLAN.
 6. ZONE 3 PLANTING - GRASSES AND WILDFLOWERS PLANTED IN ZONE 3 SHOULD BE A MIXTURE OF SPECIES CHOSEN FROM THE LIST OF APPROPRIATE SPECIES PROVIDED ON THE PLAN. THE GRASSES SHALL BE PLANTED AS LIVE PLANTS OR BARE ROOT STOCK.
 7. TIMING OF PLANTING - THE PLANTING OF ALL SHRUBS SHALL BE COMPLETED PRIOR TO THE PLANTING OF TREES AND GRASSES. PLANTING SCHEDULES MUST BE COORDINATED WITH THE SUPPLIERS OF VARIOUS PLANT MATERIALS. ALL SHRUBS SHALL BE PLANTED ACCORDING TO AMERICAN NURSERYMAN'S STANDARDS. WHEN PLANTING IN AREAS WITH A FIBER BLANKET, AN "X" PATTERN SHALL BE CUT IN THE BLANKET AND REPLACED UNDER THE SHRUB.
 8. WARRANTY AND MAINTENANCE - ALL TREES, SHRUBS, WILDFLOWERS AND GRASSES SHALL BE WATERED AND MAINTAINED DURING THE 12 MONTH WARRANTY PERIOD. MULCH AND FIBER BLANKET STAKING SHALL ALSO BE MAINTAINED AS DESIGNATED DURING THE 12 MONTH WARRANTY PERIOD. WARRANTY PERIOD WILL BEGIN DATE OF PROJECT ACCEPTANCE. TEMPORARY FENCING MUST BE MAINTAINED FOR ONE GROWING SEASON AFTER PLANTING. SEE MAINTENANCE PLAN FOR SPECIFICATIONS.
 9. PLANT HEIGHT CONSIDERATIONS - PLANTS ARE EXPECTED TO GROW TO HEIGHTS AS LISTED. THE END OF THE RANGE PROVIDED ON THE PLAN IS TO THE HURSHNESS OF THE LOCAL ENVIRONMENT. THE HEIGHT OF GRASSES GIVEN MAY INCLUDE THE SEED HEADS, WHICH MAY BE TALLER THAN THE FOLIAGE. ALL SHRUB SPECIES MAY BE PRUNED TO CONTROL HEIGHT IN THE FUTURE.

Zone 1 - Dune Vegetation						
Common Name	Species Name	Plant Height	Flower Color	Bloom Time	Spacing	
Shrubs						
Bearberry	<i>Arctostaphylos ova-ovata</i>	1'-3'	white/pink	Mar-June	—	
Creeping Juniper	<i>Juniperus horizontalis</i>	1'-3'	green	April-May	—	
Beach Pea	<i>Lathyrus japonicus v. maritimus</i>	1'	magenta	Jun-Aug	—	
Sand Cherry	<i>Prunus pumila</i>	1'-3'	white	May-July	—	
Grass						
Marram Grass	<i>Ammophila brevigolata</i>	1'-3'	yellow	July-Sept	—	
Junegrass	<i>Koeleria macrantha</i>	2'-3'	gold	May-June	—	
Saltgrass	<i>Panicum virgatum</i>	3'-6'	gold	July-Oct	—	
Little Bluestem	<i>Schizachyrium scoparium</i>	1'-3'	gold	May-June	—	

Zone 2 - Upland Vegetation						
Common Name	Species Name	Plant Height	Flower Color	Bloom Time	Spacing	
Grass						
Kentucky Bluegrass	<i>Poa pratensis</i>	—	—	—	—	
Trees						
Sugar Maple	<i>Acer saccharum</i>	60' - 75'	green/red	April	—	
Red Maple	<i>Acer rubrum</i>	40' - 50'	green/red	Mar-Apr	—	
Quaking Aspen	<i>Populus tremuloides</i>	35' - 50'	green/yellow	April-May	—	
Pink Cherry	<i>Prunus pensylvanica</i>	35' - 50'	green/yellow	May	—	
Blue Oak	<i>Quercus macrocarpa</i>	40' - 100'	green/yellow	April	—	
Shrubs						
New Jersey Tea	<i>Ceanothus americanus</i>	1'-3'	white	June-Aug	3'	
Red-osier Dogwood	<i>Cornus stolonifera</i>	6'-9'	white	Mar-June	4'-6'	
Common Winterberry	<i>Ilex verticillata</i>	3'-10'	white/yellow	April-July	4'-6'	
Old-Field (Common) Juniper	<i>Juniperus communis var. depressa</i>	3'-6'	yellow	N/A	2'-4'	
Creeping Juniper	<i>Juniperus horizontalis</i>	1'-3'	green	April-May	2'-4'	
Ninebark	<i>Physocarpus opulifolius</i>	3'-10'	white/pink	May-June	4'-6'	

Zone 3 - Rain Garden						
Common Name	Species Name	Plant Height	Flower Color	Bloom Time	Spacing	
Forbs						
Mourning Prek Onion	<i>Allium cernuum</i>	1'-2'	pink/white	July-Aug	0.5'	
Canada Anemone	<i>Anemone canadensis</i>	1'-2'	white	April-June	1'	
Common Milkweed	<i>Asclepias syriaca</i>	2'-4'	lavender	June-Aug	1'	
Butterflyweed	<i>Asclepias tuberosa</i>	2'-3'	orange	June-Sept	1'	
Heath Aster	<i>Aster ericoides</i>	1'-3'	white	Aug-Oct	1'	
Smooth Aster	<i>Aster laevis</i>	2'-4'	blue	Aug-Oct	1'	
Sky Blue Aster	<i>Aster coelotangensis</i>	1'-3'	blue	Aug-Oct	1'	
Silky Aster	<i>Aster sericeus</i>	1'-2'	lavender	Aug-Oct	1'	
Canada Milk Vetch	<i>Astragalus canadensis</i>	1'-3'	yellow	July-Aug	1'	
Harebell	<i>Campanula rotundifolia</i>	0.5' - 2'	blue	June-Sept	0.5'	
Indian Paintbrush	<i>Castilleja coccinea</i>	1'-2'	red	May-July	1'	
Lanceleaf Coreopsis	<i>Coreopsis lanceolata</i>	1'-2'	yellow	May-Aug	1'	
Burnsac	<i>Eupatorium perfoliatum</i>	2'-4'	white	July-Oct	1'	
Flowering Spurge	<i>Euphorbia corollata</i>	2'-4'	white	July-Aug	1'-2'	
Bottle Gentian	<i>Gentiana andrewsii</i>	1'-2'	blue	Aug-Oct	1'	
Wild Iris	<i>Iris virginica</i>	1'-3'	purple/blue	May-July	1'	
Rough Blazingstar	<i>Liatris aspera</i>	2'-5'	purple/pink	Aug-Sept	0.5' - 1'	
Great Blue Lobelia	<i>Lobelia siphilitica</i>	1'-4'	blue	Aug-Sept	1'	
Solomon's Plume	<i>Maianthemum racemosum</i>	1'-3'	white	April-June	1'-2'	
Starry Solomon's Plume	<i>Maianthemum stellata</i>	1'-2'	white	May-June	2'	
Bergamot	<i>Monarda fistulosa</i>	2'-5'	lavender	July-Sept	1'	
Evering Pithrope	<i>Oenothera biennis</i>	2'-5'	yellow	July-Oct	1'	
Obedient Plant	<i>Physostegia virginiana</i>	1'-2'	pink	June-Sept	1'-2'	
Great Solomon's Seal	<i>Polypogon monspeliensis</i>	2'-4'	cream	May-June	1'-2'	
Yellow Convolvul	<i>Rubus parviflorus</i>	1'-4'	yellow	July-Sept	1'	
Black-Eyed Susan	<i>Rudbeckia hirta</i>	1'-3'	yellow	June-Sept	1'	
Hairy Goldenrod	<i>Solidago hispida</i>	1'-3'	yellow	July-Oct	0.5'	
Show Goldenrod	<i>Solidago speciosa</i>	1'-3'	yellow	July-Oct	1'	
Blue Vervain	<i>Verbena hastata</i>	2'-4'	purple	July-Oct	1'	
Grasses						
Big Bluestem	<i>Andropogon gerardi</i>	5'-6'	bronze/red	Aug-Nov	1'-2'	
Canada Wild Rye	<i>Elymus canadensis</i>	4'-5'	straw	July-Aug	1'	
Virginia Wild Rye	<i>Elymus virginicus</i>	4'-5'	straw	July-Aug	1'	
Junegrass	<i>Koeleria macrantha</i>	2'-3'	gold	May-June	1'	
Little Bluestem	<i>Schizachyrium scoparium</i>	1'-3'	crimson-red	July-Oct	1'	
Shrubs						
Black Chokeberry	<i>Aronia melanocarpa</i>	3'-6'	white	May	6'	
Shubby Cnicifoli	<i>Potentilla fruticosa</i>	3'-4'	yellow	June-Sept	3'	
Meadow Rose	<i>Rosa blanda</i>	3'-4'	pink/white	June-Aug	1'-2'	



LANDSCAPING PLAN

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DATE: 8-19-2013
JOB: 11-18931
SHEET: 3 OF 4

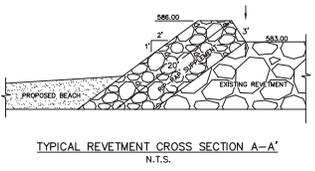
UW OSHKOSH
EICHELMAN PARK
6125 3RD AVENUE
KENOSHA, WISCONSIN

SCALE: HOR. 1"=40'
DATE: 8-19-2013
JOB: 11-18931
SHEET: 3 OF 4



- BIOFILTER SPECIFICATIONS**
- PART 1 - GENERAL**
- 1.01 WORK INCLUDED
- BIOFILTER SOIL MIX
 - SAND FILTER LAYER
 - DRAINAGE AGGREGATE LAYER
 - GEOTEXTILE
- 1.02 QUALITY ASSURANCE
- THESE TESTS SHALL BE PERFORMED ON MATERIAL PRIOR TO SHIPMENT TO THE SITE WITH A MINIMUM OF ONE TEST PER MATERIAL TYPE AND FOR EVERY GARDEN.
- ASTM C 119 AND C 136 TESTS ON SAND USED FOR PLANTING SOIL MIX AND FOR SAND USED AS A FILTER BENEATH THE BIOFILTER SOIL MIX.
 - ASTM D2434 OR FALLING HEAD ASTM D5084 FOR HYDRAULIC CONDUCTIVITY OF THE BIOFILTER SOIL MIX.
 - ASTM D4251 BULK DENSITY TEST FOR THE BIOFILTER SOIL MIX.
- 1.03 SUBMITTALS
- RESULTS OF LABORATORY TESTS PERFORMED ON REPRESENTATIVE MATERIALS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO DELIVERY TO THE SITE.
- COMPOST TEST RESULTS
 - CERTIFICATION THAT THE DRAINAGE AGGREGATE MEETS SPECIFICATION
 - NRCS MINERAL COMPOSITION AND WATER LEACH TESTS ON SAME SOURCE AND PRODUCTION PROCESS WITHIN LAST 12 MONTHS OF ANY INDUSTRIAL BY-PRODUCT SAND USED FOR PLANTING SOIL MIX
 - RESULTS FROM TESTS IDENTIFIED IN SECTION 1.02
- PART 2 - PRODUCTS**
- 2.01 BIOFILTER SOIL MIX
- THE BIOFILTER SOIL SHALL CONSIST OF A MIXTURE OF SAND AND MATURE COMPOST THAT IS SUITABLE FOR INITIAL AND LONG-TERM SUPPORT OF PLANT GROWTH, WHILE MAINTAINING MODERATE HYDRAULIC CONDUCTIVITY.
 - MIXTURE COMPONENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS PRESENT IN SOIL CONSERVATION PRACTICE STANDARDS 1004 BURETENTION FOR WILDLIFE.
 - SAND SHALL MEET ONE OF THE FOLLOWING GRADATION SPECIFICATIONS PER SOIL CONSERVATION PRACTICE STANDARDS 1004:
 - USDA COARSE SAND (02-04 INCH)
 - ASTM C33 (FINE AGGREGATE CONCRETE SAND)
 - WISCONSIN STANDARDS AND SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, SECTION 501.2.5.3.4 (FINE AGGREGATE CONCRETE SAND) 2005 EDITION, OR AN EQUIVALENT AS APPROVED BY THE ADMINISTERING AUTHORITY.
 - COMPOST SHALL MEET WEIR SPECIFICATION S100 - COMPOST
- 2.02 SAND FILTER LAYER
- SAND SHALL MEET ONE OF THE FOLLOWING GRADATION REQUIREMENTS PER SOIL CONSERVATION PRACTICE STANDARDS 1004:
- USDA COARSE SAND (02-04 INCH)
 - ASTM C33 (FINE AGGREGATE CONCRETE SAND)
 - WISCONSIN STANDARDS AND SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, SECTION 501.2.5.3.4 (FINE AGGREGATE CONCRETE SAND) 2005 EDITION, OR AN EQUIVALENT AS APPROVED BY THE ADMINISTERING AUTHORITY.
- 2.03 DRAINAGE AGGREGATE LAYER
- THE GRAVEL SHALL MEET THE COARSE AGGREGATE #2 AND OTHER SPECIFICATIONS OF WISCONSIN STANDARDS AND SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, SECTION 501.2.5.3.4, 2003 EDITION, OR AN EQUIVALENT AS APPROVED BY THE ADMINISTERING AUTHORITY. GRAVEL SHALL BE DOUBLE-WASHED.
- 2.04 GEOTEXTILE
- AGGREGATE USED TO PROVIDE PARTICLE SIZE SEPARATION OF THE DRAINAGE AGGREGATE FROM THE UNDERLYING NATURAL SOIL, SUBGRADE AND FILTER SAND SHALL CONSIST OF NON-WOVEN POLYPROPYLENE, SUPAC, NON, OR EQUIVALENT.
- PART 3 - EXECUTION**
- 3.01 INSPECTION
- NOTIFY ENGINEER WHEN EXCAVATION IS COMPLETED AND READY FOR INSPECTION.
- VERIFY THAT EXISTING GRADES ARE AS SHOWN ON THE DRAWINGS.
 - VERIFY THAT GROUND IS NOT FROZEN.
 - IF THERE ARE NO SAND SEAMS OR UTILITY TRENCHES CONNECTED TO THE EXCAVATED AREA, TEST FOR PERMEABILITY OF THE PLANTING SOIL PRIOR TO PLACEMENT.
- 3.02 TOPSOIL
- STRIP TOPSOIL AS NECESSARY, IF EXISTING TOPSOIL REMAINS STOCKPILED IN THE STORM WATER FILTERING BED AREA, MOVE IT TO ANOTHER LOCATION OR SITE AS DIRECTED BY THE OWNER.
- 3.03 EXCAVATION
- PROTECT FACILITY FROM SEDIMENTATION UNTIL CONSTRUCTION SITE IS STABILIZED. SUBMIT PROTECTION PLAN TO OWNER.
 - PROTECT THE FACILITY FROM CONSTRUCTION TRAFFIC BEFORE AND AFTER INSTALLATION.
 - EGRADE TO THE LINES AND GRADES SHOWN ON THE DRAWING.
 - DO NOT OVER EXCAVATE OR COMPACT THE BASE OF THE EXCAVATION.
- 3.04 MIXING
- MIX THE BIOFILTER SOIL MIX UNTIL IT IS A UNIFORM CONSISTENCY.
 - PREFERABLY, MIX THE MATERIAL AT THE SUPPLIER'S FACILITY.
 - IF MIXING ON SITE, MIX THE MATERIALS ON A HARD, CLEAN SURFACE. DO NOT MIX ON SOIL OR VEGETATION.
- 3.05 CONSTRUCTION
- PLACE GEOTEXTILE AS SHOWN ON THE DRAWINGS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 - PLACE DRAINAGE AGGREGATE TO THE ELEVATION SHOWN ON THE DRAWINGS.
 - PLACE SECOND LAYER OF GEOTEXTILE AS SHOWN ON THE DRAWING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 - PLACE SAND FILTER TO THE ELEVATION SHOWN ON THE DRAWINGS. DO NOT COMPACT THE SAND FILTER.
 - PLACE THE PLANTING SOIL MIXTURE TO THE ELEVATIONS SHOWN ON THE DRAWINGS IN 12-INCH LIFTS. DO NOT COMPACT THIS LAYER.
 - PLACE MULCH AND PLANTINGS AS REQUIRED BY THE LANDSCAPE DRAWINGS AND SPECIFICATION.

- GENERAL NOTES**
- DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
 - PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS, THE CONTRACTOR MUST CALL DIGGERS HOTLINE SERVICE AND THE CITY OF KENOSHA FOR THE LOCATION AND STAIRING OF ALL EXISTING UNDERGROUND UTILITIES.
 - ALL CONSTRUCTION SPACING AND TRAFFIC CONTROL TO BE IN ACCORDANCE WITH THE CITY OF KENOSHA AND WISCONSIN DEPARTMENT OF TRANSPORTATION REQUIREMENTS.
 - THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE ORDINANCES AND REQUIREMENTS OF THE CITY OF KENOSHA AND THE STATE OF WISCONSIN DOT, SOCM, AND DMR REQUIREMENTS.
 - THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH ENGINEERING PLANS APPROVED BY THE CITY OF KENOSHA.
 - THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, BONDS, AND ALL OTHER FEES REQUIRED FOR THE PROPOSED WORK.
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
 - CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING CONSTRUCTION OF IMPROVEMENTS.
 - THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL OF THE UTILITIES PRIOR TO THE INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
 - ANY UTILITIES WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AND AT THE CONTRACTOR'S EXPENSE.
 - 60TH STREET OR 3RD AVENUE SHALL BE THE CONSTRUCTION ACCESS POINT TO THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SURFACE OF THE ROAD FOR USE BY THE PUBLIC DURING CONSTRUCTION. 60TH STREET AND 3RD AVENUE SHALL REMAIN IN SERVICE DURING AND AFTER CONSTRUCTION.
- IMPLEMENTATION OF EROSION CONTROL METHODS**
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DMR CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS, AND THE CITY OF KENOSHA REQUIREMENTS.
 - MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE D.O.T. EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
 - ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL AT A MINIMUM INSPECTED WEEKLY AND ACTUAL 24 HOURS AFTER RAIN OR MORE DURING A 24 HOUR PERIOD. MAINTENANCE SHALL BE COMPLETED AS SOON AS POSSIBLE WITH CONSIDERATION GIVEN TO SITE CONDITIONS.
 - ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND INSTALLED BEFORE ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL.
 - ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION.
 - TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE. ALL CONSTRUCTION SITE EXITS TO PREVENT TRACKING OF SOIL OFF THE SITE. ALL OFF SITE TRACKED SOIL ON PAVED SURFACES SHALL BE REMOVED AT THE END OF EACH WORK DAY.
 - OVERLAND FLOW SHALL BE PREVENTED FROM LEAVING THE WORK SITE BY INSTALLING STRAW BALES OR SILT FENCE PARALLEL TO THE CONTOURS LOCATED DOWNHILL FROM THE WORK AREA.
 - IF THERE ARE DISCREPANCIES BETWEEN THESE DETAILS AND THE DMR TECHNICAL STANDARDS FOR SEDIMENT AND EROSION CONTROL, THE MORE RESTRICTIVE REQUIREMENT SHALL BE FOLLOWED.



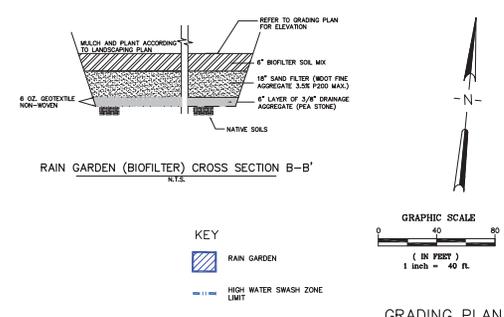
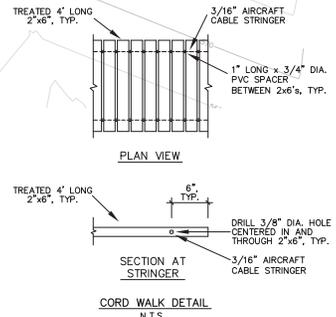
BEACH NOURISHMENT SAND SPECIFICATIONS

- ALL VEGETATION AND TOPSOIL SHOULD BE REMOVED FROM THE AREA OF THE PROPOSED BEACH NOURISHMENT PRIOR TO PLACING THE SAND.
- BEACH NOURISHMENT SAND SHALL BE NATURAL MINED, MANUFACTURED OR MATURE TURBIDITY. PARTICLE SIZE SHALL CONFORM TO TABLE 3. THE AMOUNT OF MATERIAL PASSING THE 200 SIEVE SHALL NOT EXCEED 5.0%.

TABLE 3 - BEACH SAND PARTICLE SIZE DISTRIBUTION

SEIVE SIZE	PERCENT PASSING (BY WT.)
#10	100
#20	100-90
#40	100-60
#60	100-30
#80	100-10
#100	45-0
#200	5

PERCENT PASSING (BY WT.)	GRAIN SIZE DIAMETER (MILLIMETERS)
0.075	0.20-0.0
0.150	0.42-0.4
0.300	0.12-0.30
0.600	0.08-0.28



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MILLER ENGINEERS & SCIENTISTS

NO.	DATE	DESCRIPTION

SCALE: 1"=40'

HOR. VER.

DATE: 8-19-2013

JOB: 11-18931
20-106

BY: TRO
CK: PGP

SHEET: 2 OF 4

UW OSHKOSH
EICHELMAN PARK
6125 3RD AVENUE
KENOSHA, WI

GRAPHIC SCALE:
1 inch = 40 ft.