MCHENRY COUNTY COLLEGE POND RESTORATION CRYSTAL LAKE, ILLINOIS

8900 US Hwy 14, Crystal Lake

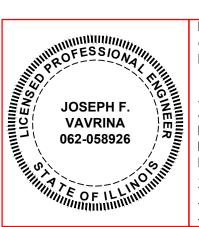


OWNER:

McHENRY COUNTY COLLEGE 8900 U.S. HIGHWAY 14 CRYSTAL LAKE, ILLINOIS 60012 PHONE: (815) 455-8564 DIRECTOR OF PHYSICAL FACILITIES MR. TODD WHEELAND

ENGINEER / SURVEYOR:

420 NORTH FRONT STREET, SUITE 100 MCHENRY IL. 60050 PHONE: (815) 385-1778 JOSEPH F. VÁVRINA, P.E. - PROJECT MANAGER KENNETH HUHN, P.E. - PROJECT MANAGER



hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Illinois

JOSEPH F. VAVRINA, P.E. My license renewal date is November 30, 2017. Pages or sheets covered by this seal:

SITE BENCHMARKS:

SITE BENCHMARK #1: CHISELED SQUARE ON TOP OF CONCRETE TRAFFIC CONTROLLER BASE. LOCATED AT THE SOUTHEASTERN CORNER OF THE INTERSECTION OF THE MAIN ACCESS DRIVE AND U.S. HIGHWAY 14 ELEVATION=922.53 (NAVD88)

SITE BENCHMARK #2: CHISELED SQUARE"ON TOP OF CONCRETE LIGHT POLE BASE. LOCATED JUST SOUTHEASTERLY FROM MAIN ENTRANCE OF THE BUILDING ELEVATION=920.01 (NAVD88)

SITE BENCHMARK #3: CHISELED SQUARE ON TOP OF CONCRETE LIGHT POLE BASE. ON THE LAST LIGHT POLE BASE OFF OF THE MAIN ACCESS ROAD OF THE MAIN SOUTHEASTERLY PARKING LOT. ELEVATION=921.43 (NAVD88)

Dial 811 or 1-800-892-0123



Know what's below. Call before you dig. CALL JULIE 1-800-892-0123

WITH THE FOLLOWING: COUNTY McHenry

CITY—TOWNSHIP <u>City of Crystal Lake, Dorr</u> SEC. & 1/4 SEC. NO.# <u>SW 1/4 OF SEC-25-T-44N.</u>-7E

48 hours before you dig (Excluding Sat., Sun. & Holidays)





420 N. FRONT STREET, SUITE 100 | McHENRY, IL 60050

Phone: 815.385.1778 | Toll Free: 800.728.7805 | Fax: 815.385.1781 | HRGreen.com



Sheet List Table

Sheet Number	Sheet Title
C-01	COVER
C-02	GENERAL NOTES
C-03	EROSION CONROL SPECIFACTIONS
C-04	SITE OVERVIEW
C-05	SITE GRADING AND EROSION
	CONTROL PLAN
C-06	EROSION CONTROL DETAILS
C-07	EROSION CONTROL DETAILS

- HR GREEN, INC. IS TO BE NOTIFIED 3 DAYS PRIOR TO CONSTRUCTION START.
- HR GREEN, INC. SHALL BE INCLUDED IN ALL PRE-CONSTRUCTION MEETINGS.
- PLANS WERE PREPARED WITH THE INTENT THAT HR GREEN, INC. WILL DO ALL CONSTRUCTION STAKING.
 - ANY DISCREPANCIES ON THIS PLAN SET MUST BE NOTED AND HR GREEN, INC. NOTIFIED PRIOR TO ACTUAL CONSTRUCTION.

FOR BIDDING

BAR IS ONE INCH ON OFFICIAL DRAWINGS. DRAWN BY: CWF JOB DATE: APPROVED: K H JOB NUMBER: 86150281 IF NOT ONE INCH, CAD DATE: 2/11/2016 8:46:56 AM ADJUST SCALE ACCORDINGL CAD FILE: \hrgmhnas\data\86150281\CAD\Dwgs\C\86150281—Cover.dwg

	NO.	DATE	BY	REVISION DESCRIPTION
	1	01–11–16	KMH	CITY REVIEW #1
	2	04-19-16	KMH	ISSUED FOR REBID
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ILLINOIS DESIGN FIRM # 184.001322 420 N. FRONT STREET, SUITE 100 McHenry McHENRY, ILLINOIS 60050 PHONE: 815.385.1778 | TOLL FREE: 800.728.7805 FAX: 815.385.1781 | HRGreen.com



McHENRY COUNTY COLLEGE POND RESTORATION CRYSTAL LAKE, ILLINOIS

COVER

SHEET NO. C - 01

SUMMARY OF QUANTITIES

1	Earth Excavation and Respread	2,140	CY
2	Temporary Seeding & Hyraulic Mulch	10,020	SY
3	Seeding Class 4B (Wetland Grass & Sedge)	1,770	SY
4	Seeding Class 4A (Low Profile Native Grass)	8,250	SY
5	Restoration of Construction Access Route	1	LS
6	Temporary Orange Construction Fence	300	LF
7	Perimeter Erosion Barrier	1,715	LF
8	Erosion Control Blanket, S 150 BN	1,770	SY
9	Mulch Method 3 (Hyraulic Mulch)	8,250	SY
10	Temporary Ditch Check	7	EA
11	Dewatering	1	LS
12	Clearing & Grubbing	1	LS
13	Mushroom Compost Soil Amendment, 2"	1,770	SY
14	Construction Layout	1	LS

SPECIAL BIDDING CONSIDERATIONS

- 1. <u>PROJECT SCHEDULE</u> THE WEATHER IS GOING TO DETERMINE THE EXACT START DATE. WE WOULD LIKE TO BEGIN THE FIRST WEEK OF JUNE BUT WILL HOLD OFF ON THAT IF WE ARE IN THE MIDDLE OF A WET SPRING CYCLE. THE INTENT IS TO START WHEN CONDITIONS ARE DRY AND TO COMPLETE THE PROJECT WITHIN 30 DAYS
- 2. TREE REMOVAL & DISPOSAL. A SUPPLEMENTAL UNIT PRICE SHALL BE PROVIDED FOR TREE REMOVAL. A REPRESENTATIVE FROM MCHENRY COUNTY COLLEGE WILL MEET WITH THE CONTRACTOR TO DETERMINE WHICH TREES WILL BE REMOVED. THE LIMITS OF CONSTRUCTION WILL BE ADJUSTED IN THE FIELD AS NECESSARY TO MINIMIZE THE AMOUNT OF TREE REMOVAL.
- 3. <u>TREE PROTECTION.</u> A SUPPLEMENTAL UNIT PRICE SHALL BE PROVIDED FOR TREE PROTECTION. A REPRESENTATIVE FROM MCHENRY COUNTY COLLEGE WILL MEET WITH THE CONTRACTOR TO DETERMINE WHICH TREES WILL BE PROTECTED.
- 4. TRAFFIC CONTROL. TRAFFIC CONTROL IS NOT ANTICIPATED TO BE NEEDED FOR THIS PROJECT. ANY TRAFFIC CONTROL NEEDED BY THE CONTRACTOR TO PERFORM THEIR WORK SHALL BE INCIDENTAL TO THE CONTRACT AND NOT PAID FOR
- 5. TOPSOIL TESTING & AMENDMENTS TESTING OF THE EXCAVATED RESPREAD MATERIAL SHALL BE PROVIDED BY MCHENRY COUNTY COLLEGE ANY AMENDMENTS TO THE SOIL DEEMED TO BE NECESSARY WILL BE PAID FOR AS AN ADDENDUM TO THE CONTRACT WITH AN AGREED UPON UNIT PRICE. (SUPPLEMENTARY PRICING IF REQUIRED).
- 6. <u>CLEARING & GRUBBING.</u> THIS WORK SHALL BE IN ACCORDANCE WITH THE SECTION 02230 OF THE SPECIFICATION AND PAID FOR AS A LUMP SUM ITEM AND SHALL INCLUDE ALL VEGETATION LESS THAN 6" IN DIAMETER. THE AREA OF REMOVAL WILL BE LIMITED TO THE CONSTRUCTION WORK LIMITS DELINEATED ON THE PLANS. IT SHOULD BE NOTED THAT THE EXACT LIMITS WILL BE COORDINATED IN THE FIELD WITH A REPRESENTATIVE FROM MCHENRY COUNTY COLLEGE AND THE CONTRACTOR AND MODIFIED AS NEEDED TO MINIMIZE THE DISTURBED AREA.
- 7. <u>NPDES INSPECTIONS</u> THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY INSPECTIONS AND DOCUMENTATION IN ACCORDANCE WITH THE SWPPP AND THE NPDES PERMIT (INCLUDED IN THE BID DOCUMENTS). THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.
- 8. <u>CONSTRUCTION LAYOUT</u> THE CONTRACTOR SHALL PROVIDE ALL NECESSARY CONSTRUCTION STAKING FOR THE PROJECT. THIS WORK SHALL BE PERFORMED BY A LICENCED LAND SURVEYOR. CONTROL POINT DATA WILL BE PROVIDED BY THE ENGINEER UPON REQUEST.

SPECIFICATIONS & GENERAL NOTES

- All items of this project shall be governed by specifications included in the documents listed below:
- A. "Standard Specifications for Road and Bridge Construction" prepared by the Department of Transportation of the State of Illinois and adopted by said department (latest revision).
- B. "Supplemental Specifications and Recurring Special Provisions" adopted by the Illinois Department of Transportation (latest revision date).
- C. "Standards and Specifications for Soil Erosion and Sediment Control" (latest revision).
- D. "Standard Specifications for Water and Sewer Main Construction in Illinois" (latest revision).

In addition the following special provisions supplement the said specifications, and in case of conflict

with any part or parts of said specifications, these special provisions shall take precedence and shall

- 1. SCOPE OF WORK. The proposed improvement consists of supplying all the necessary labor, material and equipment to satisfactorily construct and install all improvements according to the plans designated as "McHENRY COUNTY COLLEGE POND RESTORATION."
- 2. Easements for the existing utilities, both public and private, and utilities within public rights-of-way are shown on the plans according to available records. The Contractor shall be responsible for determining the exact location in the field of these utility lines and their protection from damage due to construction operations. If existing utility lines of any nature are encountered which conflict in location with new construction, the Contractor shall notify the Engineer so that the conflict may be resolved.
- 3. Contractor shall be responsible for securing all Permits including municipal permits.
- 4. INSPECTION. All improvements shall be subject to inspection by a duly authorized and qualified City inspector both during the course of construction and after construction is complete. The Inspector shall have authority over materials of construction, methods of construction and workmanship to insure compliance with working drawings and specifications. The Contractor shall provide for reasonable tests and proof of quality of materials as requested by the Inspector. Inspector shall have forty-eight (48) hours notice prior to construction.
- 5. The Contractor may not remove any material from the site except as directed by the Owner or Engineer in the case of excess material.
- 6. EROSION CONTROL.

It shall be the Contractor's responsibility to properly control erosion on the jobsite. Any siltation of conduits, structures, or ditches shall be cleaned and maintained by the Contractor until the seeding has taken hold. All washouts, gullies, etc. will be regraded and reseeded by the Contractor. The Contractor's responsibility for erosion control shall extend throughout the construction process. The Contractor shall be responsible for clean-up of paved surfaces within and adjacent to the project on a timely basis and/or at the direction of the City Engineer.

- 7. The Engineer and City of Crystal Lake Engineering Department shall be notified if, during construction, any buried field tiles are exposed or disturbed. The Contractor shall reconnect said field tiles if deemed necessary.
- 8. Contractor shall provide insurance coverage as per Article 107.27 of the Standard Specifications. The "Department" shall be taken to mean HR Green, Inc. The policy of insurance shall include HR Green, Inc., the City of Crystal Lake and it's Agents as an additional insured or provide separate coverage with an Owner's Protective Policy, as per the amounts stated in the Standard Specifications. No work shall begin until the certificate of insurance is on file with the Engineer. All costs for insurance shall be considered incidental to the contract.
- 9. The Engineer shall be responsible for the following:
- A. To visit the construction site in order to better carry out the duties and responsibilities assigned by the Owner and undertaken by the Engineer; and
- B. The Engineer shall not, during such visits or as a result of such observations of the Contractor's work in progress, supervise, direct, have control over the Contractor's work, nor shall the Engineer have the authority over the responsibility for the means, methods, techniques, sequences, or procedures of construction selected by the Contractor, for safety precautions and programs incidental to the work of the Contractor, or for any failure of the Contractor to comply with laws, rules, regulations, ordinances, codes or orders applicable to the Contractor furnishing and performing his work. Accordingly, the Engineer can neither quarantee the performance of the construction contracts by the Contractor nor assume responsibility for the Contractor's failure to furnish and perform his work in accordance with the Contract Documents.
- 27. No construction plans shall be used for construction unless specifically marked "For Construction." Prior to commencement of construction, the Contractor shall verify all dimensions and conditions affecting their work with the actual conditions at the job site. In addition, the Contractor must verify the Engineer's line and grade stakes. If there are any discrepancies from what is shown on the construction plans, he must immediately report same to the Engineer before doing any work, otherwise the Contractor assumes full responsibility. In the event of disagreement between the construction plans, standard specifications and/or special details, the Contractor shall secure written instructions from the Engineer prior to proceeding with any part of the work affected by omissions or discrepancies. Failing to secure such instructions, the Contractor will be considered to have proceeded at his own risk and expense.

In the event of any doubt or question arising with respect to the true meaning of the construction plans or specifications, the decision of the Engineer shall be final and conclusive.

28. The Contractor shall indemnify and hold harmless the City ,City's Engineers their agents and it's employees, HR Green, Inc. and McHenry County College from and against all claims, damages, losses and expenses, including attorney's fees arising out of or resulting from the performance of the Contractor's work. In any and all claims against the City or its employees, by any employee of the Contractor, or anyone directly or indirectly employed by the Contractor, or anyone for whose acts the Contractor may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount of damages, waiver of subrogation compensation or benefits payable by or for the Contractor under Workmen's Compensation acts, disability benefit acts or other employee benefit acts.

<u>SYN</u>	<u> 1BOL LEGE</u>	<u>END</u>
	<i>EXISTING</i>	PROPOSED
SANITARY MANHOLE	©	•
STORM MANHOLE	©	•
STORM CATCH BASIN/INLET	0	•
INLET		-
FLARED END SECTION	⊳	>
DRY WELL	©	•
VALVE VAULT	\otimes	•
FIRE HYDRANT	ø	Y
LIGHT POLE	\star	¤ □ >
STREET SIGN	+	
REGULATORY SIGN	'	
UTILITY POLE	-0-	
UTILITY BOX	GAS CE IBT TCI	
MAILBOX	₫	
WELL	®	
STORM SEWER	──	
SANITARY SEWER		
CULVERT	C======	
WATER MAIN	w	
WATER MAIN ENCASEMENT		
SANITARY FORCE MAIN		
STORM UNDERDRAIN		
ELECTRIC LINE	——— E ———	•
TELEPHONE LINE	т	
GAS LINE	<i>G</i>	
CABLE TV LINE	c	
TREE LINE		
TREE	£% *	
CONTOURS		
FENCE	x	
STONE RIP RAP		
EROSION CONTROL FENCE		
(QUANTITY SPECIFIED		
PER PLANS)		
DRAINAGE DIRECTION ARROW		~
10-100 YEAR OVERFLOW DIR	RECTION ARROW	→

THE SPECIFICATIONS ON THIS SHEET ARE IN CONJUNCTION WITH THE SPECIFICATIONS OUTLINED IN THE PROJECT MANUAL. THE INTENT IS FOR THE SPECIFICATIONS TO WORK TOGETHER AND IF AN DISCREPANCIES ARISE BETWEEN SPECIFICATION THE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE ENGINEER. FINAL DETERMINATION AS TO WHICH SPECIFICATION WILL PREVAIL WILL BE DETERMINED BY THE ENGINEER.

FOR BIDDING

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NO. DATE REVISION DESCRIPTION 1 | 01-11-16 | KMH | CITY REVIEW #1 2 04-19-16 KMH ISSUED FOR REBID



ILLINOIS DESIGN FIRM # 184.001322 420 N. FRONT STREET, SUITE 100 McHenry McHENRY, ILLINOIS 60050 PHONE: 815.385.1778 | TOLL FREE: 800.728.7805



McHENRY COUNTY COLLEGE | POND RESTORATION

GENERAL NOTES

SHEET NO. C - 02

CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	KEY	CONTROL MEASURE CHARACTERISTICS	ТЕМР.	PERMNT
	TEMPORARY SEEDING	X	TS	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.	Х	
ľ	PERMANENT SEEDING	Х	PS	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.		λ
VEGETATIVE SOIL COVER	DORMANT SEEDING		DS	SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.		
	SODDING		SO	QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGEWAYS WHERE SEEDING MAY BE DIFFICULT.		
	GROUND COVER		GC	PROVIDES GROUND COVER, SHRUBS AND TREES IN ADDITION TO PERMANENT VEGETATION. MAY BE USED AS PART OF A FINAL LANDSCAPE PLAN ALONG WITH SHRUBS AND TREES.		
	MULCHING	х	M	ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. CONTROLS UNWANTED VEGETATION AND PRESERVES MOISTURE. PROVIDES COVER WHERE VEGETATION CANNOT BE ESTABLISHED.	Х	
NON VEGETATIVE SOIL COVER	AGGREGATE COVER		AG	PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF—SITE.		
	PAVING		P	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		
	EROSION BLANKET	X	EB	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING TIME OF YEAR IS INAPPROPRIATE AND IN SLOPED AREAS.	X	
	RIDGE DIVERSION		RD	TYPICALLY USED ABOVE SLOPES. USED WHERE AN EXCESS OF SOIL IS AVAILABLE.		
ľ	CHANNEL DIVERSION		CD	TYPICALLY USED AT TOP OR BASE OF SLOPES. USED WHEN EXCESS SOIL IS NOT AVAILABLE.		
DIVERSIONS	COMBINATION DIVERSION		DC	TYPICALLY USED ANYWHERE ONA SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.		
ľ	CURB AND GUTTER		CG	SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		
İ	BENCHES		В	SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.		
	BARE CHANNEL		BC	PROVIDES MEANS OF CONVEYING RUNOFF TO DESIRED LOCATION. MAY BE USED TO DRAIN DEPRESSIONAL AREAS. ONLY APPLICABLE WHEN VELOCITY OF FLOW IS VERY LOW.		
WATERWAYS	VEGETATIVE CHANNEL		VC	PROVIDED ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.		
	LINED CHANNEL		CC	USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.		
	ROCK CHECKS		RC	PROVIDES AN ENERGY DISSIPATOR ALONG A LENGTHY CHANNEL TO REDUCE VELOCITY OF STORMWATER		
ENGLOCED.	STORM SEWER		ST	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		
ENCLOSED DRAINAGE	UNDERDRAIN		(JD)	USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.		
	STRAIGHT PIPE SPILLWAY		SS	USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER		
SPILLWAYS	DROP INLET PIPE SPILLWAY		DIS	SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED.		
SFILLWATS .	WEIR SPILLWAY		W	USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.		
	BOX INLET WEIR SPILLWAY		BS	SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.		
OUTLETS	LINED APRON		(A)	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.		
	STONE RIP RAP		RR	USED AS AN ENERGY DISSIPATOR AT OUTLET STRUCTURES TO REDUCE VELOCITIES		
	EMBANKMENT SEDIMENT BASIN		ES	USED WHERE TOPOGRAPHY LENDS ITSELF TO CONSTRUCTING A DAM AND EARTH FILL IS AVAILABLE.		
SEDIMENT BASINS	EXCAVATED SEDIMENT BASIN		(xs)	USED WHERE EMBANKMENT COULD CAUSE A HAZARD DOWNSTREAM IN CASE OF FAILURE AND WHEN EXCESS EARTH FILL IS NOT AVAILABLE.		
	COMBINATION SEDIMENT BASIN		(CS)	USED WHEN TOPOGRAPHY IS SUITABLE BUT ADDITIONAL CAPACITY IS NEEDED.		
SEDIMENT	BARRIER FILTER	Х	BF	USED FOR SINGLE LOTS OR DRAINAGE AREAS LESS THAN 1/2 ACRE TO FILTER SEDIMENT FROM RUNOFF.	Х	
FILTERS	VEGETATIVE FILTER		VF	USED ALONG DRAINAGE WAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.		
	FILTER BASKET		FB	USED FOR FILTERING SEDIMENT WITHIN THE ROADWAY BEFORE ENTERING THE STORM SEWER		
	INLET PROTECTION		(IP)	USED FOR FILTERING SEDIMENT WITHIN GRASS AREAS BEFORE WATER ENTERS THE STORM SEWER		
MUD AND DUST	STABILIZED CONST. ENTRANCE		SE	PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.		
CONTROL	DUST AND TRAFFIC CONTROL	Х	Œ	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.	Х	

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG	SEPT.	ОСТ.	NOV.	DEC.
PERMANENT SEEDING			A,B,C,			*	::::::::::::::::::::::::::::::::::::::					
SODDING			G**									
TEMPORARY SEEDING			E									

KENTUCKY BLUEGRASS 50 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE AND CREEPING RED FESCUE 20 LBS/ACRE

B (1A) BLUE GRASS 30 LBS/ACRE PERENNIAL RYEGRASS 10 LBS/ACRE DAWSONS RED FESCUE 10 LBS ACRE SCALDIS HARD FESCUE 10 LBS/ACRE FULTS SALT GRASS 30 LBS/ACRE

ANDROPOGON GERNADI (BIG BLUE STEM) 4 LBS/ACRE ANDROPOGON SCOPARIÙS (LITTLE BLUE STEM) 5 LBS/ACRE BOUTELOVA CURTIPENDULA (SIDE OATS GRAMA) 5 LBS/ACRE ELYMUS CANADENENSIS (WILD RYE) 1 LBS/ACRE PANCIUM VIRGATUM (SWITCH GRASS) 1 IBS/ACRE SORGHASTRUM NUTONS (INDIAN GRASS) 2 LBS/ACRE ANNUAL RYE GRASS 25 LBS/ACRE OATS, SPRING 25 LBS/ACRE

PERENNAL RYE GRASS 15 LBS/ACRE

D (4B) ANNUAL RYE GRASS 250 LBS/ACRE OATS, SPRING 250 LBS/ACRE WETLAND GRASSES 6 LBS/ACRE

SPRING OATS 100 LBS/ACRE

WHEAT OR CEREAL RYE

150 LBS/ACRE.

SOD

ALFALFA/SOYBEANS 100-250 LBS/ACRE (VERIFY WITH TCR)

IRRIGATION NEEDED DURING JUNE AND JULY

IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.

() IDOT STANDARD

EROSION CONTROL NOTES

- All sedimentation and erosion control regulations shall be adhered to per City of Crystal Lake requirements
- All erosion control measures shall be installed prior to the start of construction.
- No land disturbing activities shall not commence until approval to do so has been received by governing authorities, in addition to, no land clearing or grading shall begin until all perimeter erosion and sediment control measures have been installed. (Including storm water pollution prevention plan per the development criteria.)
- If any additional soil erosion measures are deemed necessary by the City Engineer or his representative. These measures must be immediately implemented by the
- The general contractor shall strictly adhere to the storm water pollution prevention
- plan (swppp) during construction operations. Topsoil shall be stripped in designated areas prior to filling
- ⁴ All exposed areas shall be seeded as specified within 14 days of final grading.
- Should construction stop for longer than 14 days, the site shall be seeded as
- Sediment and erosion control measures shall be inspected at least once every seven (7) days and within 24 hours of a rainfall exceeding 0.5 inches during a 24-hour period or more frequently if required by governing NPDES general permit. All maintenance required by inspection shall commence within 24 hours and be completed
- This plan shall not be considered all inclusive as the general contractor shall take all necessary precautions to prevent soil sediment from leaving the site.
- General contractor shall comply with all state and local ordinances that apply
- Additional erosion and sediment control measures will be installed if deemed necessary
- If installation of storm drainage system should be interrupted by weather or nightfall, the pipe ends shall be covered with filter fabri-
- General contractor shall be responsible to take whatever means necessary to establish
- * All erosion and sediment control practices shall be maintained and repaired as needed to ensure effective performance of the required erosion control measures
- All erosion and sediment control work shall conform to the I.D.O.T. Manual for, standards and procedures for erosion control
- All construction will adhere to the requirements set forth in the IEPA's new construction site activities national pollutant discharge elimination system (NPDES)
- All roadways and driveways shall be cleaned at the end of each construction day.
- All disturbed areas shall be stabilized within 7 days of active disturbance.
- * All erosion control measures shall be disposed of within 30 days of final stabilization
- Ground cover for 5:1 slopes or greater shall be established as soon as possible.
- All disturbed areas to to restored w/ 6" topsoil respread & seeding/sodding unless
- Filter Baskets or Silt filter fabric shall be placed between frame and grate until vegetation is established. (see detail)
- Utilize erosion blanket where designated on the plan.
 *Seeding per I.D.O.T. Manual, section 251,standard specifications for road and bridge construction, (latest edition) *Mulch/hydroseed per I.D.O.T. Manual, section 251, standard specifications for road and bridge construction. (latest edition) *Mulch/hydroseed areas as designated on the plan
- No dimensions shall be assumed by scaling
- No known drain tiles are present on the disturbed area, if tiles are encountered during construction please notify the engineer immediately
- No part of the proposed project is located within a flood hazard 10-100yr area a
- Excess material shall be placed at specified location unless otherwise specified by owner and approved by engineer for use of lot grading. Stockpiles shall be surrounded with filter fence and shall be seeded per I.D.O.T. Manual (latest addition) (temporary) if left more than 14 working days.
- General contractor shall notify all utility companies having underground utilities on site or in right-of-way prior to excavation. Contractor shall contact utility locating company and locate all utilities prior to grading start.

CONSTRUCTION SEQUENCE:

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. In particular the CLSD requirement for stabilization within 14 days of temporary or permanent cessation of grading must be met and will be vigorously enforced by

The anticipated order of activities will be as follows: (The project is anticipated to follow a 5 week schedule included in parathesis.)

- 1. File stormwater NPDES permit with the IEPA at least 30 days prior to beginning work.
- 2.06/01/16 Anticipated Construction Start Date
- 3.A pre-construction meeting shall be held by the Site Project Manager and the Operator's Engineer prior to land disturbing activities. The contractor shall provide a detailed dewatering plan for review
- 4.(Week 1) Install all permanent and temporary erosion control practices, i.e. perimeter silt fences, ditch checks and inlet protection in the locations shown on the Erosion Control plan sheets.
- 5.(Weeks 1-2) Install sump pits and dewatering filter bag at discharge location. contractor to provide additional dewatering locations as needed to adequatly dewater the pond.
- 6. (Weeks 2-3) Dewater existing basin utilizing sump pit or dewatering wells.
- 7.(Week 3) Once water elevation has been lowered adequatly, excavate basin bottom to proposed
- 8.(Week 3) Respread excavated silt throughout designated area.
- 9.(Weeks 4) Provide permanent seeding and blanket in basin as soon as possible. Terminate dewatering operations
- 10. (Weeks 4-5) Fine grade fill area to finish grade. Proivide permanent seeding and restoration 11. End of week 5 - Substantial Complettion
- 12. Site monitoring to continue with additional soil erosion and sediment control implemented as needed. City inspection and sign off.
- 13. Remove silt fencing only after all disturbed surfaces are stabilized 14. City Final Inspection.
- 15. File Notice Of Termination with IEPA.

SPECIFICATIONS & GENERAL NOTES

NOTES:

This plan has been prepared to comply with the provisions of the NPDES Permit Number issued by the Illinois Environmental Protection Agency for Stormwater Discharges from Construction Site Activities.

- a. The following is a description of the construction activity which is the subject of this plan: The proposed development consists of construction of excavation, reshaping, and restoration of existing pond. The construction activities for site improvements will include: site clearing, grubbing, mass grading, pavement construction, installation of utilities including storm sewers, soil erosion and sedimentation control measures, as a minimum.
- b. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site such as grubbing, excavation, and grading:
- The sequence of the construction activities may be as follows: See Sequence of major activities on this sheet
- c. The total area of the construction site is estimated to be 2.75± acres.
- The total area if the site that is estimated to be disturbed by excavation, grading, or other activities, is 2.75± acres.

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b above. For each measure discussed, the contractors will be responsible for its implementation as indicated. Each such contractor has signed the required certification on forms which are attached to, and are a part of,

a. Erosion and Sediment Controls.

- (i) STABILIZATION PRACTICES. Provided below is a description of interim and permanent stabilization practices, including site—specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Except as provided in 2.a. (i) (A) and 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 portions of the site where construction activity will not occur for a period of 21 or more calendar days.
- (A) Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable
- The following interim and permanent stabilization practices, as a minimum will be implemented to stabilize the
- 3 Permanent seeding Temporary Seeding 5 Inlet protection 4 Dust & Traffic Control

(ii)STRUCTURAL PRACTICES. Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. The installation of these devices may be subject to Section 404 of the

Detention basins

Clean Water Act.

- Storm sewer system Vegetated drainage swales
- Permanent seeding Stone Riprap
- Outlet protection Filter fabric
- Inlet protection

b. Erosion Control. It shall be the Contractor's responsibility to provide adequate erosion control on the job site.

Any siltation of conduits, structures, or ditches shall be cleaned and maintained by the Contractor, on a weekly basis, until the seeding has taken hold. All washouts, gullies, etc. will be regraded and reseeded by the Contractor, at the Contractor's expense.

The Contractor's responsibility for erosion control shall extend throughout the construction process. The Contractor shall be responsible for cleanup of payed surfaces within and adjacent to the project.

All erosion control practices shall be in compliance with the latest revision of the "Standard Specifications for Road and Bridge Construction," by the Illinois Department of Transportation and with "Standards and Specifications for Soil Erosion and Sedimentation Control" as published by the Illinois Environmental Protection Agency.

If a topsoil stockpile location is provided and approved by the City, Contractor shall establish erosion control measures for the stockpile if it is to remain in place for more than three days. In addition, barrier filter fence shall enclose topsoil stockpile location with exception of truck access during construction hours.

(i) Provided below is a description of measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The practices selected for implantation were determined on the basis of the technical guidance contained in IFPA's Standard Specifications for Soil Erosion and Sedimentation Control, and other ordinances listed in the Specifications

The stormwater pollutant control measures shall include:

- Silt filter fence Rip-rap outlet protection
- Drainage swales Inlet protection Retention / Detention ponds Storm sewers
- (ii) Velocity dissipation devices will 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).

Stormwater Management Control includes

- Stone Riprap Filter Fabric
- Vegetative channels. Inlet protection.
- 3. Other Controls.
 - (i) Waste Disposal. The solid waste materials including trash, construction debris, excess construction materials. machinery, tools and other items will be collected and disposed off-site by the contractor. The contractor is responsible to acquire any permit required for such disposal. Burning on the site will not be permitted. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit
 - (ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations. The sanitary sewage will be discharged to the proposed sanitary sewer constructed per IEPA and local standards.
- a. Approved State or Local Plans.

The management practices, controls and other provisions contained in this plan are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Standards and Specifications for Soil and Erosion and Sediment Control dated October 1987, Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Plan, and the Municipal Subdivision Ordinance. Requirements specified in sediment and erosion control site plans or site permits or stormwater management or 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 even if they are not specifically included in the plan.

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan and Standard

Vegetative erosion control measures: The vegetative growth of temporary and permanent seeding, sodding, vegetative channels, vegetative filter, etc. shall be maintained periodically and supply adequate watering and fertilizer. The vegetative cover shall be removed and reseeded as necessary.

Silt filter fence: The damaged silt filter fence shall be restored to meet the standards or removed and replaced as

Rip-rap outlet protection: It shall be inspected after high flows for any scour beneath the Rip-rap or for stones that have been dislodged. It shall be repaired immediately Inlet Protection: Shall be inspected and emptied of silt if filled as required

Disturbed areas shall be stabilized with temporary or permanent measures within 7 calendar days following the end of active disturbance, or redistubance, consistent with the following criteria:

(i) Appropriate temporary or permanent stabilization measures shall include seeding, mulching, sodding, and/or

(ii) Areas having slopes greater than 12 percent shall be stabilized with sod, mat, or blanket in combination with seeding or equivalent

Soil storage piles containing more than 10 cu. yds. of material shall not be located with a downslope drainage length less than 25 feet to a roadway or drainage channel. Filter barriers, including straw bales, filter fence, or equivalent, shall be installed immediately on the down slope of the piles.

The Owner, or Owner's representative shall provide qualified personnel to inspect disturbed areas of the construction site which have not been finally stabilized, structural control measures and location where vehicles enter or exit the site. Such inspections shall be conducted at least once every seven (7) calendar days within 24 hours of the end of a storm that is

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 off-site sediment tracking.

a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for

- Based on the results of the inspection, the description of potential pollutant sources identified in section 1 above and pollution prevention measures identified in section 2 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented 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 this stormwater pollution prevention plan and actions taken in accordance with section 4.b. shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI.G of the general
- d. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall 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. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit. The report of noncompliance shall be mailed to the following

Illinois Environmental Protection Agency Division of Water Pollution Control Attn: Compliance Assurance Section 2200 Churchill Road Post Office Box 19276 Springfield, Illinois 62794-9276

- Except for flows from fire fighting activities, sources of non-stormwater that may be combined with stormwater discharges associated with the industrial activity addressed in this plan, are described below:
- Water main flushing
- d. Irrigation drainage for vegetative growth for seeding, etc...

The pollution prevention measures, as described below, will be implemented for non-stormwater components of the discharge: The fire hydrant and water main shall not be flushed directly on the exposed area of sub grade of the pavement. Hoses

The erosion due to irrigation of seeding shall be considered minor

shall be used to direct the flow into the storm sewer system, if available

Contractor to provide the above non-stormwater discharged control to the standard specification required by the City or the approved equal

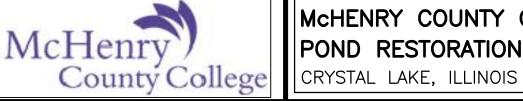
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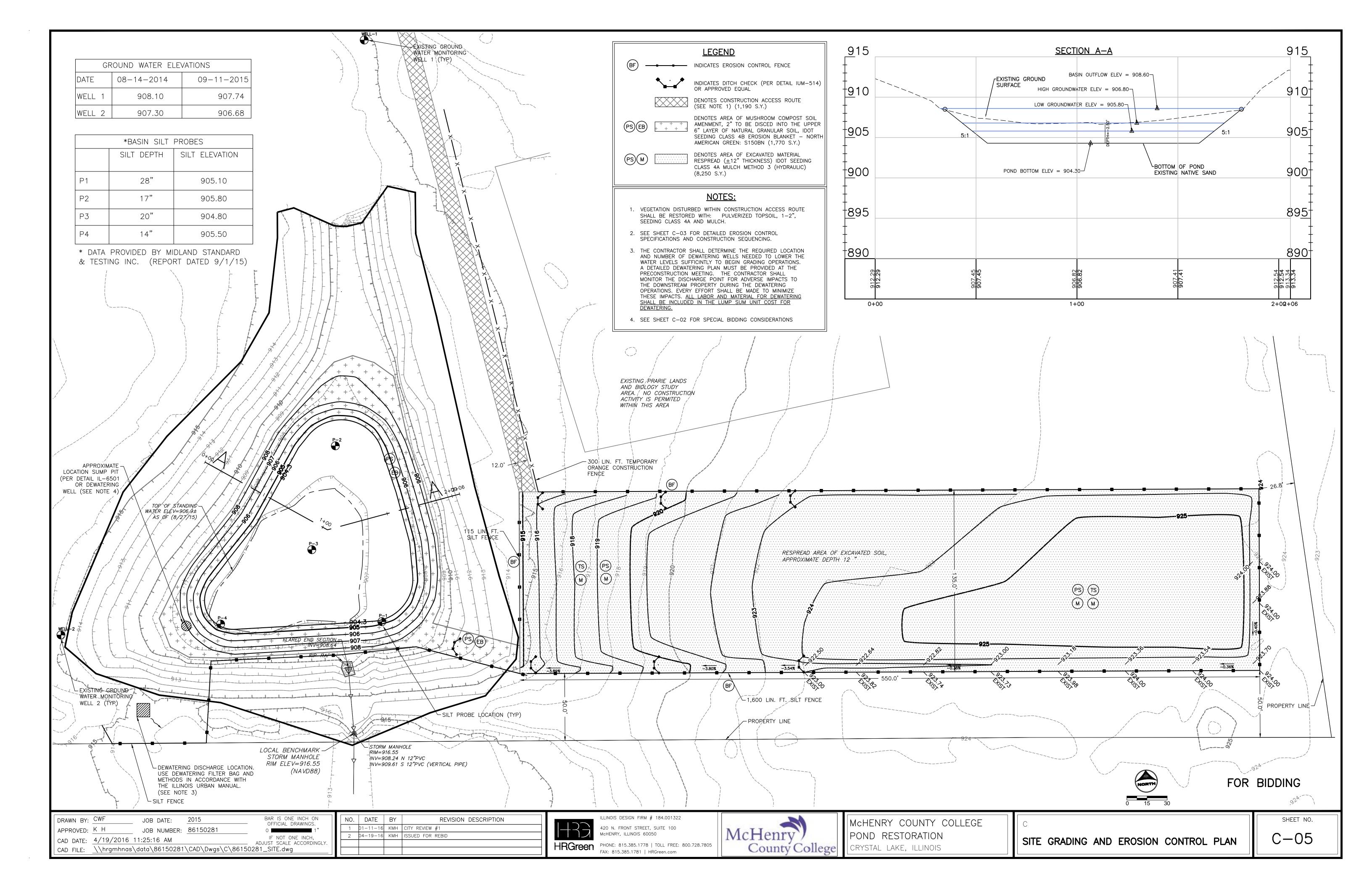


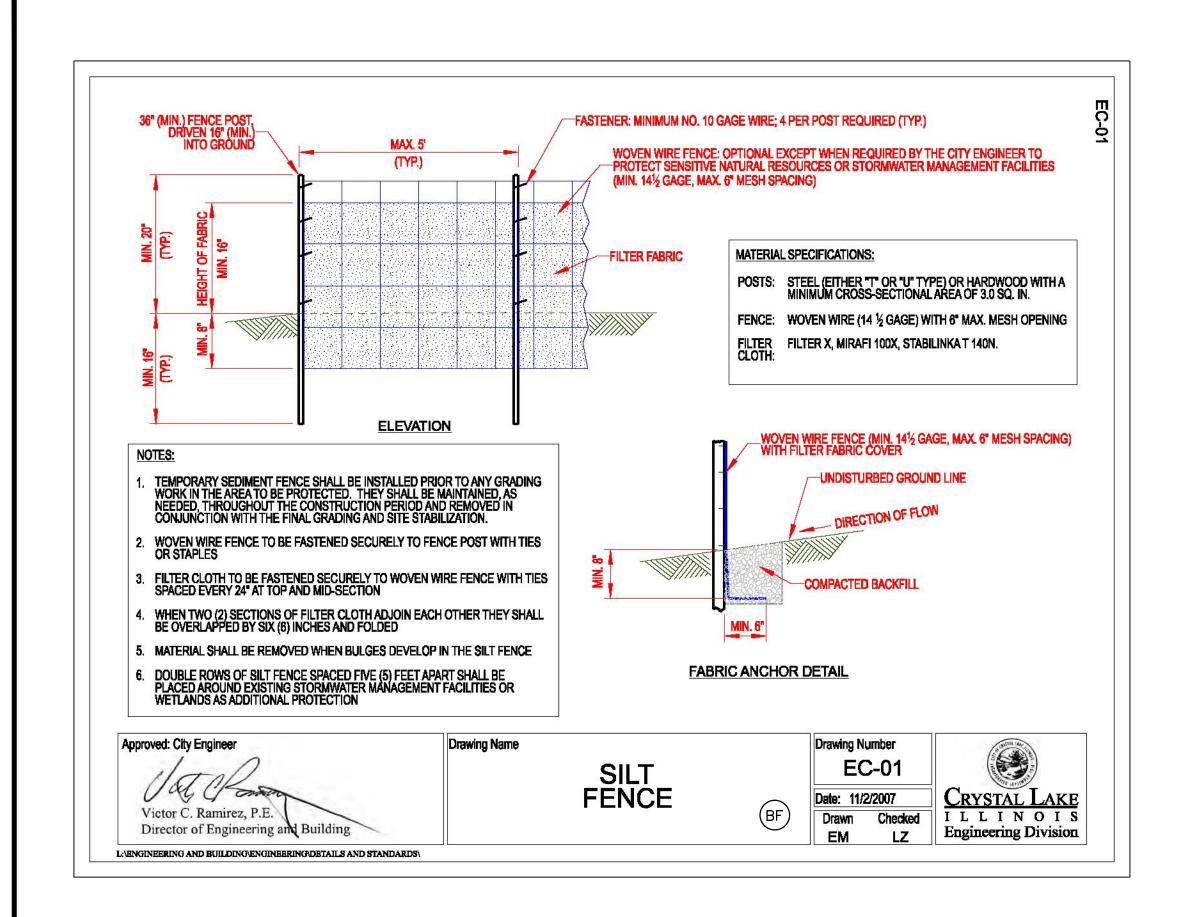
McHENRY COUNTY COLLEGE | POND RESTORATION

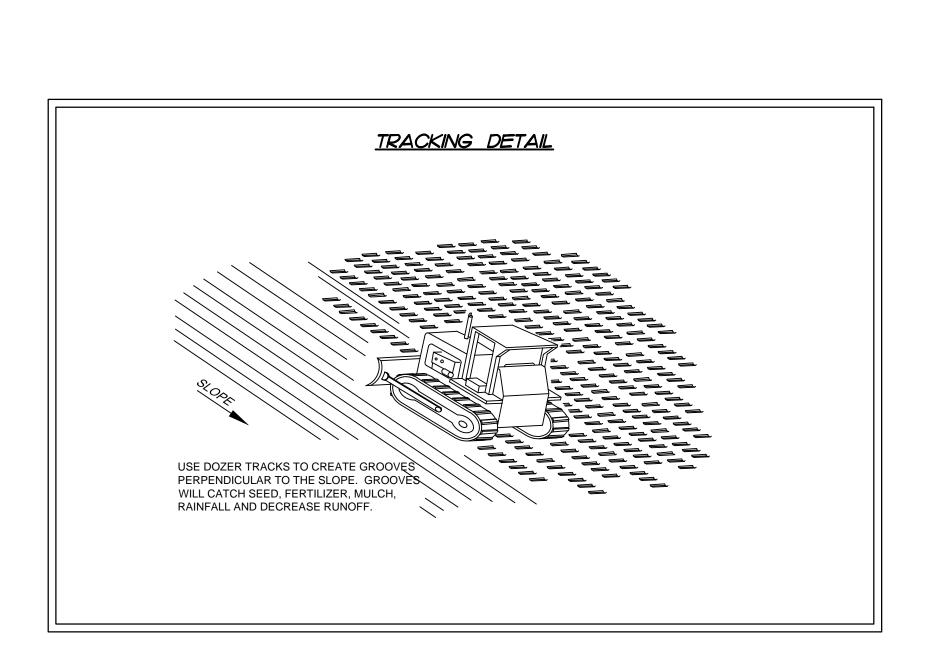
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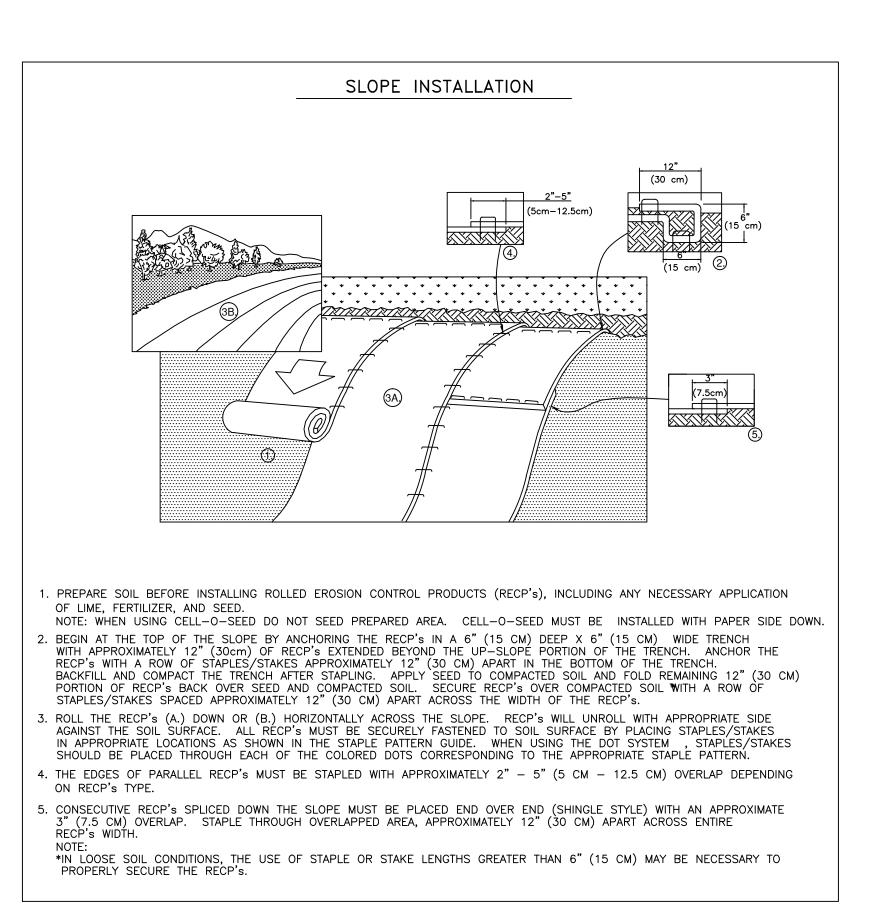
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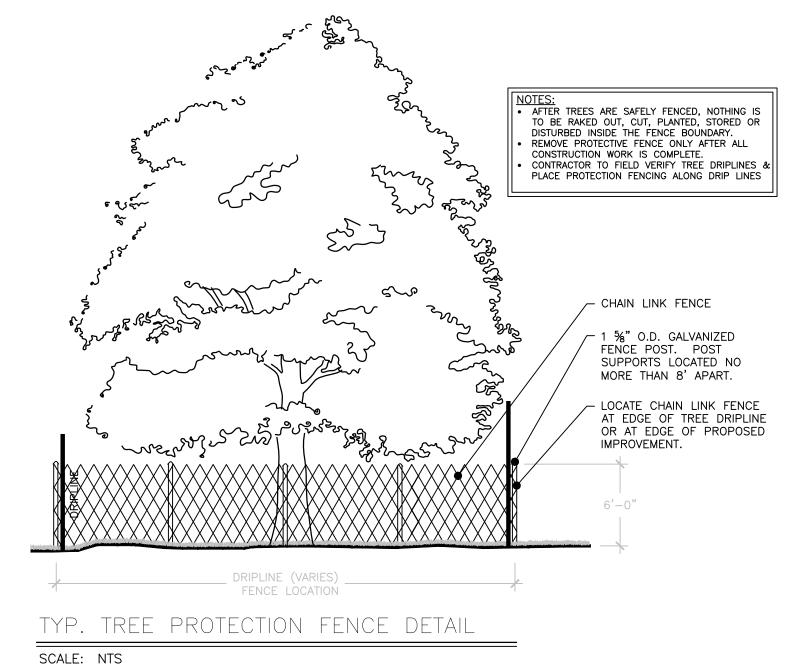


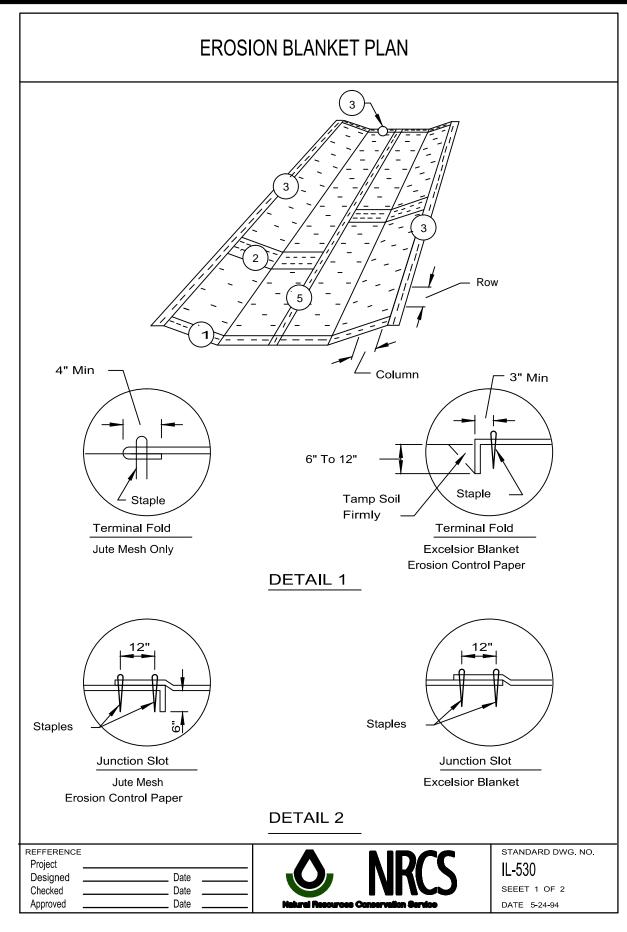


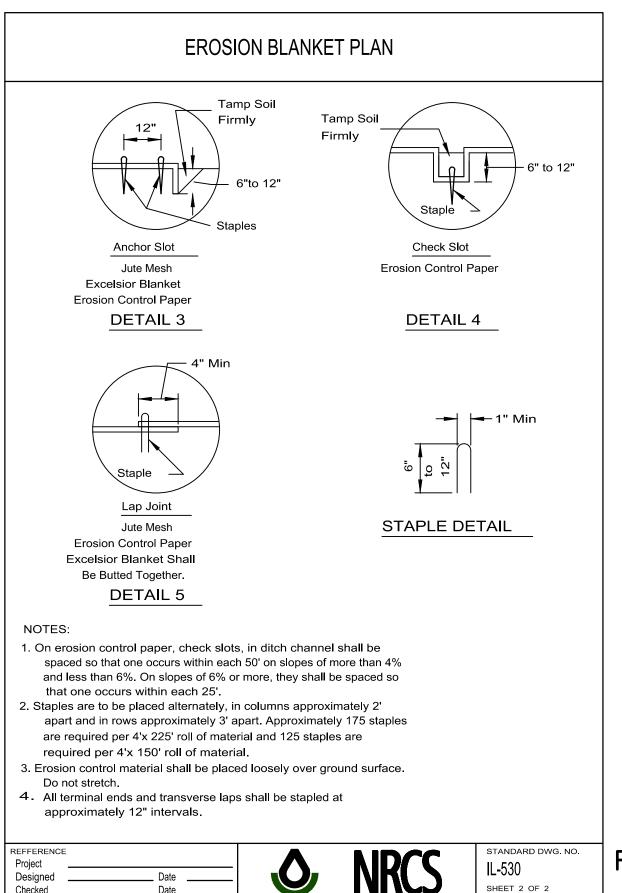












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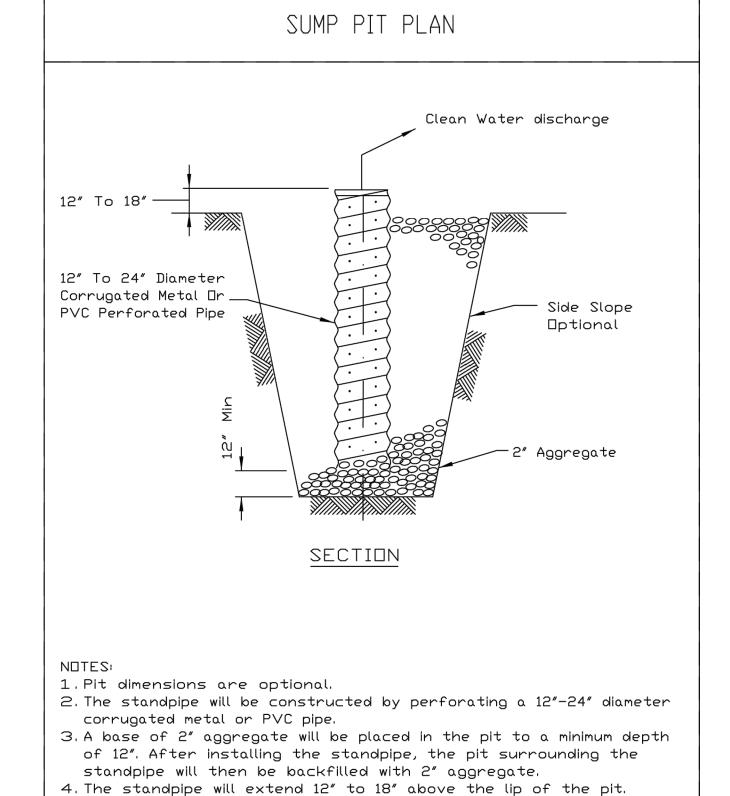


McHENRY COUNTY COLLEGE POND RESTORATION

FOR BIDDING

EROSION CONTROL DETAILS

SHEET NO. C - 06



5. If discharge will be pumped directly to a storm drainage system, the

standpipe will be wrapped with filter fabric before installation.

standpipe prior to attaching the filter fabric. This will increase

O NKCS
Natural Resources Conservation Service

6. If desired, 1/4"-1/2" hardware cloth may be placed around the

the rate of water seepage into the pipe.

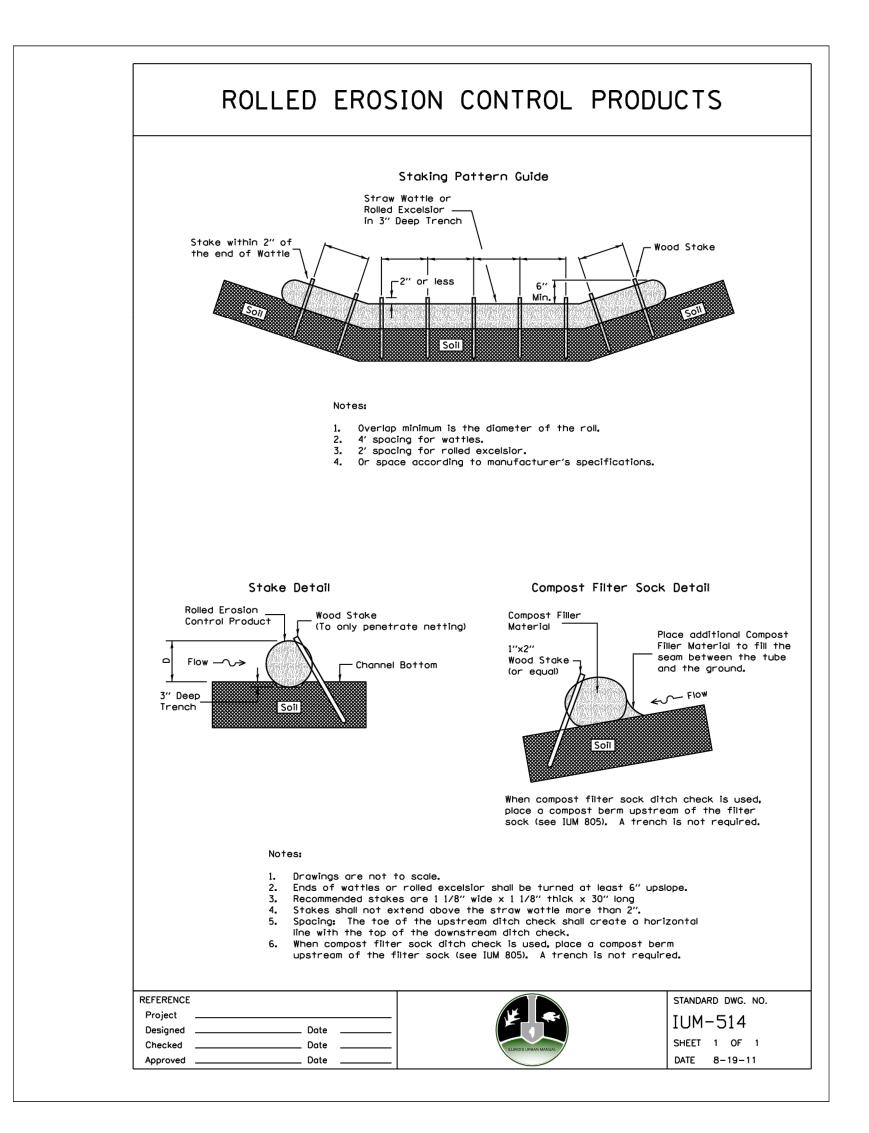
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