August 2023
Kansas Department of Transportation
Annual Construction Stormwater Report
Calendar Year 2022

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1.0 Introduction

This is the sixth annual report prepared following the January 30, 2018, termination of the 2013 Consent Decree. This report shall summarize actions taken during calendar year 2022 to comply with the KDHE NPDES General Permit.

2.0 Personnel Designations

2.1 Designation of Stormwater Compliance Manager

After the termination of the Consent Decree, KDOT chose to continue having a Stormwater Compliance Engineer. Mervin Lare, P.E., is the current Stormwater Compliance Engineer (SWCE). The duties of the SWCE include development and maintenance of the training program, quarterly stormwater bulletins, list of projects and annual reports. The SWCE is also responsible for coordinating the Oversight Inspection Program and serving as the agency's point of contact for stormwater compliance matters.

The SWCE has the authority to direct additional inspections either at the project level or by an independent oversight inspector. In addition to formal communications such as the quarterly bulletins and training sessions, the SWCE maintains frequent communication with project staff to answer questions and provide uniform guidance to improve statewide permit compliance. The SWCE reviews inspection reports and makes site visits to verify compliance with permit requirements.

2.2 Designation of Area Engineer / Metro Engineer

KDOT Area and Metro Engineers were assigned responsibility as Project Stormwater Compliance Managers. Vacancies in Area/Metro Engineer positions have been addressed by assigning stormwater related duties to an adjacent Area Engineer or to another KDOT employee of equivalent or higher level of authority.

All Area and Metro Engineers are required to complete the training program described in section 4.0 of this report prior to assuming stormwater related duties and to recertify on a 4-year basis. If an Area/Metro Engineer's certifications expire the stormwater duties are temporarily assigned to an alternate as in the case of a vacancy.

Area/Metro Engineers have the authority and the responsibility to direct work on KDOT projects and to direct KDOT employees, contractors, and sub-contractors to take action as necessary to cease, correct or avoid violation of stormwater requirements.

KDOT ensures the Area/Metro Engineer's familiarity with the project SWPPP by requiring their review and approval of the project SWPPP be documented prior to the contractor beginning work on a project.

All inspection reports completed on their assigned projects are submitted for their review. Once the Area / Metro Engineer reviews each inspection report, they are required to sign within three business days and transmit the signed report to the Stormwater Compliance Engineer at a dedicated email address. This process serves to engage the Area / Metro Engineer in the inspection process and facilitate their oversight and management of the project.

2.3 Designation of Environmental Inspectors

The Area/Metro Engineer is responsible for the assignment of Environmental Inspectors to each project within their jurisdiction. Environmental Inspectors are primarily KDOT employees in the Engineering Technician classification, but more consultant inspectors are being utilized. Whether a KDOT employee or consultant, all individuals performing compliance inspections on KDOT's behalf in 2022 were required to have completed the Construction Stormwater program described in section 4.0 of this report.

3.0 Active Project / Permit Information

Included in this report is the active project list for 2022. This list is continuously maintained by the SWCE as projects are added, removed, or modified.

The active project list is included in Appendix A.

4.0 Training

4.1 Stormwater Training Program

After termination of the Consent Decree KDOT's Environmental Inspector Training (EIT) and Environmental Manager Training (EMT) were combined into a single certification, Construction Stormwater (CSW). CSW training continues to cover requirements set forth in Appendices B, C, and D of the Consent Decree.

For 2022 the CSW class was split into two parts: online and field training. The online portion consists of 12 sections for over 9 hours of material. The field portion is a 3-hour lab covering device installations, soil stabilization techniques, specifications, and inspection requirements. The lab is offered in the morning and afternoon. The test is online, 40 question, and 60 minutes long. Students must watch all the online material, attend the field session, and pass the test to become certified. The online videos are available throughout the year while in person sessions were offered in March and May. 207 people enrolled in 2022 with a total of 794 certified in CSW.

4.2 Other Training

No additional trainings were offered.

5.0 Compliance Inspections

5.1 Procedures

All Project inspections are required to be completed using the KDOT form 247. The instructions for form 247 include the inspection procedures and guidance for KDOT staff. *Inspection Procedures and Form 247 Instructions* was initially distributed August 7, 2013 by email to all KDOT field offices, made publicly available on the KDOT website, and included in the Environmental Inspector Training materials. This document was revised in March 2018 to clarify some of the initial language and to address some frequently asked questions. No revisions were made in 2022.

Key elements of the inspection procedures include requirements for the stormwater erosion control preconstruction conference, inspection frequency, submittal of reports, and procedures to verify correction of identified deficiencies.

In addition to meeting the requirements of the Specifications, the procedures require that the contractor jointly participate in all project inspections. This requirement is intended to ensure that the contractor is immediately aware of all identified deficiencies and to encourage collaboration in the evaluation and decision process.

Area / Metro Engineers are also required to submit all completed inspection reports to the SWCE at a dedicated email address. This allows the SWCE to provide additional review and oversight of the inspection process. An Engineering Technician Specialist from the Bureau of Construction and Materials is assigned, on a part-time basis, to assist the SWCE with tracking and review of inspection reports.

The March 2018 version of *Inspection Procedures and Form 247 Instructions* is included with this report as Appendix C.

5.2 Inspection Forms

Inspection form 247 has been distributed to all KDOT field offices, included in the Construction Stormwater Training materials, and is publicly available on the KDOT website. This form is mandatory for use on all KDOT owned projects requiring permit coverage. All contracts administered by KDOT for projects owned by a city, county, or other unit of government (Local Projects) also require the use of this form.

5.3 Oversight Inspections

The oversight inspection program was expanded during 2020. The expansion was due to several District not having a full staff of Area Engineers and adding projects that are less than 5 acres that have a permit. Oversight inspectors were assigned as follows:

i. 1-5 Acres: No full-time oversight inspector needed, but at least 1 oversight done during the life of the project. District Mentors, Construction Engineers/Managers (CE/CM) and SWCE will be assigned to these projects.
ii. ii. 5.01 to 24.99 Acres: Oversight inspections every 90 days. Mentors, CE/CM and Field Engineering Administrators will be assigned to these projects.
iii. iii. 25 to 99.99 Acres: Oversight inspections every 90 days. Area Engineers, District Construction Engineers, and District Maintenance Engineers would handle these projects.
iv. iv. 100 and Above: Oversight inspections every 90 days. Headquarter personnel would handle these projects.

Adjustments to these assignments are allowed based on public visibility, complexity, and environmental concerns.

The active construction period is typically considered to be the time from the Notice to Proceed until the contractor has been given a Notice of Acceptance. Active construction

may also be considered complete with a partial Notice of Acceptance provided that all physical work on the project is complete.

Thirty-six projects were assigned to headquarters staff for oversight inspection. These projects range in size between 1.4 and 416 acres disturbed. Headquarters staff performing oversight inspections in 2022 included the Stormwater Compliance Engineer. This individual maintained the required CSW certification during the performance of these oversight inspections.

The remaining 45 projects were assigned to district staff. These individuals maintained the required Construction Stormwater Training certification during the performance of these oversight inspections.

5.4 Stormwater Compliance Plan

No updates to the Stormwater Compliance plan in 2022. The plan is included in Appendix E.

6.0 Specification and Standards

6.1 General

Revisions were made to 15-09002-R5. Special provision 15-09002-R5 reflects changes made to the KDHE 2022 NPDES General Permit which became active August 2022. 15-09002-R05 is still included in all projects owned by local units of government and KDOT-owned projects. Special provision 15-09002-R05 is included in Appendix D.

6.2 Water Pollution Control Manager (WPCM)

Language is included in the project special provisions for all contracts awarded in 2022 that require the contractor to designate a Water Pollution Control Manager (WPCM) for the project. All construction contracts awarded by KDOT for Local Projects also require the contractor to designate a WPCM. KDOT field offices have been instructed not to issue the Notice to Proceed until the contractor has designated a WPCM who has documented compliance with the training requirements.

The duties and responsibilities of the WPCM include completion of the training program every 4 years, weekly visits to the project, familiarity with the project SWPPP, authority to direct any and all contractor or sub-contractor work, and review of all inspection reports completed for the project. With 15-09002-R05, an additional form, Water Pollution Control Manager Weekly Report Form 248, was added for the WPCM to fill out during their weekly visits.

6.3 Stormwater Preconstruction Conferences

Special provisions included with all applicable contracts awarded in 2022 include requirements for the contractor to participate in a stormwater erosion control conference before the start of construction activities. The requirements for these preconstruction conferences are also included in the document titled *Inspection Procedures and Form 247 Instructions*.

Minutes from each stormwater preconstruction conference are to be recorded and submitted to the SWCE as well as kept with the project SWPPP documentation.

6.4 Standard drawings and Prequalified Materials List

No updates were made to KDOT standard drawings in 2022. All of KDOT current landscape standard sheets are included in appendix D.

PQL 34.1 and 34.2 were updated as needed during 2022. Both are included in appendix D.

7.0 Quarterly Stormwater Bulletin

One edition of KDOT's "Stormwater Update" bulletin was published in 2022. The bulletin was distributed in April. The bulletin was distributed electronically to all Area / Metro Engineers, Environmental and Oversight Inspectors, and to Contractors. Appendix B contains the bulletin distributed in 2022.

8.0 Kansas General Permit Compliance

Paragraph 24 requires KDOT and its contractors to comply with the Permit at each Project. Permit compliance is monitored by project Environmental Inspectors under the oversight of the responsible Area / Metro Engineer.

9.0 Outlook for 2023

Special Provision 15-09002-R05 was implemented in August of 2022. This implementation will require updating the CSW class for the fall 2022/Spring 2023 season. Two big changes with the new NPDES permit are weekly inspections regardless of rain and District Engineers are responsible for time extension requests.

2023 also begins quarterly meetings with Contractors to discuss ways to make stormwater specifications better.

A new stormwater compliance manual will replace the current manual which was first published in 2008.

KDOT plans to revise PQL34.1 Erosion Control, to only allow 100% biodegradable netting for classes C through F.

Finally, KDOT will begin testing ways to make stormwater inspections electronic and tie into AASHTOware Project.

KDOT will continue making modifications as needed to the specification and the Stormwater Compliance Plan and strive for 100% compliance with the KDHE NPDES General Permit.

APPENDICES

APPENDIX A

Lists of Projects

Route	Co Num	Project	District - Area	Disturbed acres	Kansas Permit	Fed Permit	Contractor	Contract #	Letting Date	NOTPR	NOTAC	Permit Rec
69	19	KA-1554-03	44	83.2	S-NE03-0008	KSR114853	KOSS CONSTRUCTION CO	519092424	16-Sep-19	02/10/20	01/10/23	07/11/19
54	88	KA-2385-03	62	147.2	S-CI09-0003	KSR 114 911	KOSS CONSTRUCTION CO	519112656	15-Nov-19	01/13/20	01/01/22	08/08/19
K126	19	KA-3103-01	44	5.9	S-NE57-0100	KSR114832	B & B BRIDGE COMPANY LLC	520012414	15-Jan-20	03/16/20	09/01/22	07/05/19
I70	21	KA-3954-01	21	2.2	S-SH04-0025	KSR115469	REECE CONSTRUCTION COMPANY INC	520072262	15-Jul-20	09/01/20	06/01/22	04/24/20
33	30	KA-3951-01	42	8.1	S-MC48-0022	KSR 114 877	PYRAMID CONTRACTORS INC	520082454	19-Aug-20	03/29/21	06/01/22	08/13/19
99	99	KA-2603-04	15	135.0	S-KS74-0048	KSR115707	EBERT CONSTRUCTION COMPANY INC & SUBSIDIARY	520102181	15-Oct-20	12/14/20	07/01/22	07/14/20
U24	62	KA-3950-01	22	3.4	S-S005-0029	KSR115748	KING CONSTRUCTION COMPANY, INC.	520112252	18-Nov-20	06/07/21	12/01/22	07/30/20
24	62	KA-3963-01	22	3.6	S-S005-0030	KSR115749	KING CONSTRUCTION COMPANY, INC.	520112262	18-Nov-20	05/24/21	12/01/22	07/21/20
U054	1	KA-3913-01	41	12.4	S-MC25-0004	KSR115735	A M COHRON & SON INC	520112474	18-Nov-20	03/01/21	03/13/23	07/29/20
U24	15	KA-3239-02	22	73.0	S-SH27-0007	KSR 115 755	EBERT CONSTRUCTION COMPANY INC & SUBSIDIARY	520122282	16-Dec-20	03/01/21	12/13/21	07/21/20
99	37	KA-3911-01	41	12.7	S-Ve16-0010	KSR 115 917	BRIDGES INC	521012474	15-Jan-21	05/01/21	03/26/22	10/07/20
169	106	KA-3255-01	41	152.7	S-NE11-0047	KSR115721	EMERY SAPP & SONS INC AND SUBSIDIARY	521012504	20-Jan-21	03/09/21	12/14/22	07/14/20
235	87	KA-3232-03	55	78.5	S-LA20-0068	KSR 116 020	DONDLINGER & SONS CONSTRUCTION CO INC	521022575	15-Feb-21	04/15/21	08/25/23	11/19/20
148	101	KA-3956-01	21	8.3	S-LR14-0003	KSR115979	KING CONSTRUCTION COMPANY, INC.	521022272	15-Feb-21	04/15/21	01/05/22	11/06/20

14	78	KA-1007-02	52	297.2	S-AR66-0008	KSR 116 102	BOB BERGKAMP CONSTRUCTION COMPANY INC.	521022535	15-Feb-21	03/09/21	06/16/23	12/02/20
14	80	KA-1007-03	54	229.7	S-AR85-0017	KSR116101	BOB BERGKAMP CONSTRUCTION COMPANY INC.	521022565	15-Feb-21	03/09/21	06/16/23	12/02/20
75	7	KA-4798-03	11	44.9	S-KS60-0004	KSR115998	HAMM INC	521022021	17-Feb-21	06/07/22	04/04/22	11/12/20
80	14	KA-3957-01	21	4.8	S-LR18-0007	KSR115846	L & M CONTRACTORS INC	521022232	17-Feb-21	10/04/21	08/20/22	09/09/20
80	14	KA-3965-01	21	3.0	S-LR18-0006	KSR115845	L & M CONTRACTORS INC	521022242	17-Feb-21	10/04/21	08/20/22	09/09/20
U75	43	KA-4798-02	11	30.2	S-KS49-0005	KSR115954	HAMM INC	521022031	17-Feb-21	05/17/21	04/04/22	11/06/20
K31	70	KA-2365-01	14	129.0	S-MC29-0020	KSR 116 089	BETTIS ASPHALT & CONSTRUCTION INC	521032151	17-Mar-21	04/01/21	12/01/22	11/25/20
170	70	KA-3918-01	14	3.5	S-MC41-0005	KSR 116 132	A M COHRON & SON INC	521042131	15-Apr-21	06/01/21	12/07/22	12/31/20
177	9	KA-5439-01	52	26.7	S-NE46-0009	KSR 116 186	Kings Construction	521052252	14-May-21	07/05/21	08/01/22	02/03/21
383	74	KA-2372-03	31	90.0	S-UR13-0008	KSR 116 030	VENTURE CORPORATION	521062383	16-Jun-21	11/01/21	10/28/23	11/20/20
177	31	KA-2369-01	23	219.0	S-KS02-0005	KSR 116 451	WILDCAT CONSTRUCTION CO INC & SUBSIDIARIES	521072282	14-Jul-21	03/07/22	05/12/24	05/13/21
177	64	KA-2368-01	23	153.1	S-NE17-0022	KSR116452	WILDCAT CONSTRUCTION CO INC & SUBSIDIARIES	521072272	14-Jul-21	09/14/21	05/17/24	05/13/21
54	88	KA-2385-01	62	165.2	S-CI10-0078	KSR 116 518	KOSS CONSTRUCTION CO	521082616	16-Aug-21	03/01/22	12/16/22	06/03/21
U166	11	KA-1005-02	44	248.0	S-NE06-0013	KSR116450	EMERY SAPP & SONS INC AND SUBSIDIARY	521092464	15-Sep-21	09/06/21	05/24/24	05/11/21
24	33	KA-3930-01	33	3.5	S-S028-0001	KSR116570	KING CONSTRUCTION COMPANY, INC.	521102323	20-Oct-21	11/02/22	11/01/23	06/24/21

24	33	KA-3961-01	33	3.9	S-S019-0019	KSR116576	KING CONSTRUCTION COMPANY, INC.	521102353	20-Oct-21	11/01/22	11/01/23	06/25/21
24	33	KA-3960-01	33	4.2	S-S019-0020	KSR116577	KING CONSTRUCTION COMPANY, INC.	521102343	20-Oct-21	11/01/22	11/01/23	06/25/21
36	101	KA-3244-01	21	6.4	S-BB21-0014	KSR116546	SMOKY HILL, LLC	521102272	20-Oct-21	07/13/22	12/19/22	06/11/21
77	31	KA-2367-05	21	66.7	S-LR17-0008	KSR116531	EBERT CONSTRUCTION COMPANY INC & SUBSIDIARY	521102242	20-Oct-21	11/21/21	12/08/23	06/11/21
77	31	KA-4638-02	21	12.0	S-LR17-0009	KSR116561	EBERT CONSTRUCTION COMPANY INC & SUBSIDIARY	521102252	20-Oct-21	11/20/21	12/09/22	06/18/21
83	88	KA-2220-01	62	22.5	S-CI10-0079	KSR116620	J & R SAND COMPANY INC	521112686	15-Nov-21	06/01/22	09/01/23	07/27/21
83	88	KA-5600-01	62	8.8	S-CI10-0080	KSR 116 665	J & R SAND COMPANY INC	521116696	15-Nov-21	04/01/22	09/01/23	07/09/21
U50	29	KA-5175-01	63	8.2	S-WA38-0022	KSR115635	ApAC KANSAS INC--Shears DIVISION	521112646	17-Nov-21	06/06/22	06/01/22	06/17/20
183	24	KA-3266-01	51	6.0	S-UA22-0016	KSR120322	Vogts-Parga Construction	521116525	17-Nov-21	03/24/22	12/23/23	02/08/22
27	12	KA-3933-01	32	4.3	S-UR18-0018	KSR116752	KING CONSTRUCTION COMPANY, INC.	521122313	15-Dec-21	04/10/23	06/15/24	09/09/21
U75	7	KA-5284-01	11	15.7	S-KS65-0026	KSR 116 699	HERZOG CONTRACTING CORP	521122131	15-Dec-21	05/18/22	12/15/22	08/02/21
50	29	KA-2384-01	63	162.5	S-UA11-0172	KSR120026	KOSS CONSTRUCTION CO	521122646	15-Dec-21	02/15/22	06/08/25	09/29/21
50	35	KA-2383-01	63	232.2	S-UA07-0017	KSR116720	KOSS CONSTRUCTION CO	521122636	15-Dec-21	02/15/22	06/08/25	09/02/21
68	61	KA-2373-03	42	70.5	S-MC20-0060	KSR116718	SUPERIOR BOWEN ASPHALT COMPANY LLC	521122464	15-Dec-21	02/15/22	12/03/24	08/27/21
187	66	KA-3875-01	11	3.5	S-BB05-0003	KSR116716	REECE CONSTRUCTION COMPANY INC	521122151	15-Dec-21	02/15/22	06/15/23	08/27/21

128	45	KA-3947-01	22	3.8	S-LR04-0001	KSR116717	KING CONSTRUCTION COMPANY, INC.	521122262	15-Dec-21	02/15/21	06/07/23	08/27/21
187	66	KA-3876-01	11	5.0	S-MO19-0030	KSR116708	REECE CONSTRUCTION COMPANY INC	521122161	15-Dec-21	02/15/21	05/15/23	08/27/21
14	80	KA-3893-01	54	16.6	S-AR56-0044	KSR120029	KING CONSTRUCTION COMPANY, INC.	522012565	14-Jan-22	08/09/22	04/04/23	10/15/21
15	101	KA-3959-01	21	6.1	S-BB01-0015	KSR120037	KING CONSTRUCTION COMPANY, INC.	522012252	19-Jan-22	10/12/22	04/28/23	10/20/21
254	8	KA-5556-01	52	1.6	S-WA14-0012	KSR116145	Pearson Construction LLC	522016525	19-Jan-22	05/30/22	12/18/22	01/13/21
40	55	KA-3915-01	34	8.1	S-SH29-0022	KSR120035	Sporer Land Development Inc	522012373	19-Jan-22	04/04/22	05/03/23	10/20/21
254	87	KA-5554-01	55	3.7	S-LA09-0023	KSR 116 223	Pearson Construction LLC	522016595	19-Jan-22	08/01/21	06/20/22	02/19/21
K156	27	KA-5553-01	24	6.9	S-SH07-0032	KSR 116 700	VENTURE CORPORATION	522026232	16-Feb-22	04/17/23	08/04/23	08/02/21
281	84	KA-2370-03	33	234.8	S-SH31-0026	KSR120201	Sporer Land Development Inc	522032373	15-Mar-22	05/15/22	06/06/23	01/07/22
181	71	KA-3938-01	31	1.7	S-S012-0012	KSR116554	BRIDGES INC	522032343	16-Mar-22	03/06/23	03/20/24	06/18/21
U069	6	KA-5563-01	41	1.4	S-MC11-0064	KSR 116 227	Laforge & Budd Construction Company	522032414	16-Mar-22	09/06/22	08/04/23	02/24/21
70	89	KA-1266-06	14	10.2	S-KS72-0708	KSR120214	BETTIS ASPHALT & CONSTRUCTION INC	522032121	16-Mar-22	09/06/22	05/02/23	12/16/21
166B	10	KA-4997-01	43	1.1	S-VE33-0018	KSR 120849	B & B BRIDGE COMPANY LLC	522032424	16-Mar-22	08/29/22	03/03/23	08/15/22
143	85	KA-3940-01	24	1.0	S-SH33-0209	KSR120200	L & M CONTRACTORS INC	522032272	16-Mar-22	05/01/22	08/01/23	01/07/22
40B	31	KA-3952-01	21	10.4	S-SH45-0071	KSR120051	KING CONSTRUCTION COMPANY, INC.	522032242	16-Mar-22	04/16/22	06/08/23	10/12/21

135	59	KA-6063-01	23	4.4	S-LA12-0014	KSR120877	KOSS CONSTRUCTION CO	522052242	18-May-22	10/03/22	10/27/23	09/02/22
55	96	KA-3887-01	53	5.7	S-AR09-0013	KSR120337	A M COHRON & SON INC	522052565	18-May-22	09/19/22	12/28/23	02/15/22
383	69	KA-2371-02	31	95.0	S-UR01-0004	KSR120202	VENTURE CORPORATION	522062363	15-Jun-22	03/01/23	04/04/24	01/07/22
42	48	KA-3879-01	51	1.8	S-AR83-0006	KSR120028	KING CONSTRUCTION COMPANY, INC.	522062585	15-Jun-22	12/05/22	06/19/23	10/15/21
32	105	KA-3079-01	13	12.9	S-KS27-0329	KSR 120 090	MILES EXCAVATING INC	522062161	15-Jun-22	10/03/22	11/22/24	10/25/21
U073	105	KA-5241-01	13	23.2	S-KS04-0100	KSR 116 311	MILES EXCAVATING INC	522062171	15-Jun-22	09/12/22	01/26/24	02/23/21
69	46	KA-5700-03	12	416.0	S-M039-0600	KSR120241	US 69 Express Construction, Jt Venture	2255700	01-Aug-22	11/03/22	11/30/26	01/21/22
96	86	KA-3258-01	61	9.6	S-UA37-0029	KSR120429	Vogts-Parga Construction	522096696	21-Sep-22	03/06/23	01/02/24	04/13/22
96	102	KA-3274-01	61	5.0	S-UA26-0020	KSR120206	KOSS CONSTRUCTION CO	522092686	21-Sep-22	03/06/23	01/01/24	01/13/22
10	46	KA-6796-04	12	6.1	S-KS12-0086	KSR121013	CLARKSON CONSTRUCTION COMPANY	12246796	05-Oct-22	10/25/22		11/14/22
83	88	KA-3253-01	62	23.0	S-CI10-0084	KSR120751	J & R SAND COMPANY INC	522102696	19-Oct-22	03/01/23	04/12/24	08/12/22
235	87	KA-3232-02	55	103.0	S-AR94-1769	KSR120654	BERGKAMP KING, A JOINT VENTURE, LLC	522112535	19-Oct-22	02/15/23	12/11/26	07/05/22
24	44	KA-5105-01	14	21.3	S-KS58-0013	KSR120788	BETTIS ASPHALT & CONSTRUCTION INC	522112191	15-Nov-22	02/13/23	05/24/24	08/19/22
50	40	KA-1827-05	52	8.4	S-LA06-0012	KSR120767	Pearson Construction LLC	522112525	16-Nov-22	03/03/23	12/06/23	08/19/22
400	37	KA-5790-01	41	34.4	S-VE34-0008	KSR120857	ApAC KANSAS INC--Shears Division	522122424	14-Dec-22	04/03/23	04/18/24	09/14/22
56	29	KA-6526-01	63	24.2	S-UA11-0190	KSR120847	KOSS CONSTRUCTION CO	522126616	14-Dec-22	02/27/23	03/29/24	09/12/22
56	29	KA-6526-02	63	13.4	S-UA11-0189	KSR120848	KOSS CONSTRUCTION CO	522126626	14-Dec-22	02/27/23	03/29/24	09/12/22

169	67	KA-5789-01	44	27.0	S-VE35-0007	KSR120831	CLARKSON CONSTRUCTION COMPANY	522122464	14-Dec-22	02/27/23	12/08/23	09/09/22
169	67	KA-5788-01	44	27.1	S-VE35-0006	KSR120829	CLARKSON CONSTRUCTION COMPANY	522122454	14-Dec-22	02/27/23	12/02/23	09/01/22
69	19	KA-3928-01	44	1.3	S-NE27-0030	KSR-120915	MISSION CONSTRUCTION COMPANY INC	522122414	14-Dec-22	02/27/23	12/01/23	10/04/22
169	67	KA-5789-02	44	13.1	S-VE35-0008	KSR120833	CLARKSON CONSTRUCTION COMPANY	522122474	14-Dec-22		12/08/23	09/09/22
75	70	KA-3900-01	14	1.0	S-MC21-0009	KSR120655	BRUCE DAVIS CONSTRUCTION LLC	522122151	21-Dec-22	08/21/23	12/01/23	07/05/22

APPENDIX B

Quarterly Stormwater Bulletins

Issue #35
April 20, 2022

Mervin Lare, P.E.
Stormwater Compliance Engineer

STORMWATER UPDATE

In This Issue

CSW Training
Online Exam and Field Dates

05/17/22, 05/18/22

KSU CIT Program
Certified Inspector Training (k-state.edu)

You must complete the online portion before signing up for the field lab and test! Proctors are required to supervise the test.

Kansas Contractors Association
http://www.kansascontractors.org/
No Classes Scheduled

All completed inspection reports must be submitted to the responsible Area Engineer and the contractor's WPCM within 24 hours of each inspection. The Area Engineer must sign within 3 calendar days and submit to KDOT.stormwaterinspection@ks.gov Failure to complete and submit inspection reports on time may result in disincentive assessment

Disturbed Area Designation at SWPPP Pre-Con

The March 2022 letting started the implementation of 15-09002-04 special provision which requires the designation of disturbed areas at the SWPPP Pre-Construction Conference. How does this happen? This is best explained with an example.

The project is 93.66 acres, 10+00 to 250+00 with an average construction limit width of 170ft. 10+00 to 120+00 is full depth reconstruction, 120+00 to 250+00 adds a 10ft shoulder to either side of the existing roadway. At 65+00 a bridge is getting replaced and at 200+00 a box is getting extended on both sides. The bridge has a perennial stream, and the box has a seasonal stream.

Let's start by initially breaking the project in half, full re-construction and shoulder extension. Each section is roughly 47 acres a piece.

The full reconstruction area can further be broken down into 3 areas: 10+00 to 54+10, 17.2 acres; 54+10 to 75+90, 12.6 acres; and 75+90 to 120+00, 17.2 acres.

The Area Engineer and Prime Contractor decide to break the bridge section into 4 areas: 54+10 to 65+00 NE & SE and 65+00 to 75+90 NW & SW.

The reconstruction area has been broken up into 6 areas and those areas can be listed on 247b.

Now let's look at the 2nd half of the project. They elect to break this section into 4 areas: 120+00 to 200+00 LT & RT, 15.5 acres and 200+00 to 250+00 LT&RT, 9.75 acres.

The box at 200+00 will be worked on concurrently with the grading in the area and won't be separated at the time of the conference. The Prime Contractor and Area Engineer agree that the box may need separated as the project progresses.

Below is the final 247b at the end of the SWPPP Pre-Construction Conference.

INSPECTION DATE:		REPORT #
PROJECT NUMBER:		

Disturbed Areas / Site Erosion

Use this form to document inspection of portions of the project site disturbed by construction activity. Stabilized areas (either temporarily or permanently) shall be inspected for condition of stabilization. Any areas showing signs of erosion or sedimentation shall be documented for repair/maintenance.

Area	Date Area Disturbed	Date Construction Activity Ceased	Date Area Stabilized	Stabilized With	Condition of Stabilization	Observations / Remarks	Deficiency (Yes / No)
10+00 to 54+10							
54+10 to 65+00 NE							
54+10 to 65+00 SE							
65+00 to 75+90 NW							
65+00 to 75+00 SW							
75+90 to 120+00							
120+00 to 200+00 Lt							
120+00 to 200+00 RT							
200+00 to 250+00 Lt							
200+00 to 250+00 Rt							

Form 280 Water Pollution Control Manager Weekly Report

With the implementation of 15-09002-04, WPCM's are now required to fill out form 280, Water Pollution Control Manager Weekly Report. I will use the example project discussed earlier to fill out form 280.

Water Pollution Control Manager Weekly Report

Date: 05-20-22
Project#: U00-999 KA XXX1-02
WPCM: Mervin Lare
WPCM Report #: 22

What updates were made to the SWPPP and site map this week?
All devices (except perimeter controls) have been removed from 10+00 to 120+00 because permanent stabilization is taking place. 10+00 to 65+00 is no till and 65+00 to 120+00 bare dirt. Box area needs updated on 247b because LT & RT sides need split.

What BMP repairs need to be made this week?
Perimeter controls (PC 10 thru 14) around the box at 200+00 need repaired.

Which open areas have changed since last report? Are they still active? If not, are they documented as inactive on the 247? **65+00 to 120+00 is inactive but not listed on the 247 form. It will be listed on the next inspection if stabilization is not completed by then.**

Based on the project schedule, what BMPs need installed/modified and what open areas need identified for the coming week? **210+00 to 250+00 LT and RT will become active in two weeks. I've identified 4 locations where perimeter controls need installed next week before the grading operation happens.**

What is the status of any temporary stream crossings on the project?
The stream crossing at 65+00 Lt has been removed.

What de-watering practices are currently being used on the project?
The box at 200+00 is isolated with dams on the upstream and downstream sides and pump water around.

What is the status of temporary/permanent vegetation in stabilized areas?
10+00 to 54+10 and 54+10 to 65+00 LT & RT have temporary vegetation and are currently getting permanent seed Erosion control blankets on the bridge berms at 65+00 are growing vegetation.

Additional Comments:
Class II blankets from 65+00 to 75+90 LT & RT may need water due to the predicted dry spell. Will have Area make a request to SWCE to water these areas.

WPCM signature: **Mervin Lare**(A physical signature would be added when placed in the SWPPP.)

APPENDIX C

Inspection Procedures and Form 247 Instructions

1. General Form Instructions
    a. 247 – Cover and certification
        i. Enter the project number, KDHE permit number, designated Area / Metro Engineer and the contractor's Water Pollution Control Manager. This information may be saved into the form for use on subsequent inspections.
        ii. Enter the date of the last significant rain event. A significant rain event is an event that requires a post-rainfall inspection according to the permit. See instructions for 247D for additional information regarding rainfall reporting.
        iii. Enter the date of the last routine or post-rainfall inspection. This should be no more than 14 days prior to the current inspection.
        iv. Enter the inspection type. This will either be "routine," "post-rainfall" or "oversight."
        v. Enter the current inspection date. If this is typed into the form the date will carry forward to all of the attachments.
        vi. If desired, or at the direction of the Area/Metro Engineer, enter the inspection report number.
        vii. The table of contents indicates which form attachments are required and included with the report. Mark "NO" for forms which are not included.
        viii. The certified inspector for KDOT (or the LPA) shall sign and date the report as the KDOT Inspector. Include the inspector ID number and expiration date of the current certification.
        ix. The certified inspector for the Contractor shall sign and date the report as the Contractor Inspector. Include the inspector ID number and expiration date of the current certification.
        x. The report shall be transmitted to the Area / Metro Engineer within 24 hours of completing the inspection.
        xi. The report shall be transmitted to the WPCM within 24 hours of completing the inspection.
        xii. The Area / Metro Engineer shall sign and date the report within three calendar days of receiving the inspection report.
        xiii. The Contractor's WPCM shall sign and date the report within three calendar days of receiving the inspection report.
    b. 247A – Overall Site Issues. This form is a general form for each inspection used to identify "big picture" items as well as general housekeeping issues.
        i. Verify the inspection date is correct at the top of the form.
        ii. Carefully review each of the numbered questions.
        iii. Describe any deficiencies noted or reference location of details (e.g. "see 247B for details")
        iv. Item 15 – Verify that the SWPPP site maps are complete and updated.
        v. Item 16 – Review attachment 247 E (Deficiencies) from previous inspection. Document if the required remedies are or are not complete.
        vi. The remaining space under Item 17 may be used for any other site-specific issues not otherwise addressed.

c. 247B – Site Erosion. This form is used to document the inspection of disturbed areas throughout the project.
    i. Identify areas disturbed by grading or other excavation activities (i.e. structure installation). These can be described by Station or by numbered reference to SWPP plan sheets.
        1. Note that there is no minimum size for an "area." Areas are generally limited by specification to no more than 750,000 sqft per equipment spread without KDOT approval.
        2. Areas should generally be defined by physical proximity and/or by work activity.
    ii. Note the date each area is cleared / grubbed or otherwise disturbed as "Date Area Disturbed."
    iii. Note the date the grading activity is complete or otherwise inactive as "Date Construction Activity Ceased." If the area is actively being worked this field may be blank. If the activity has ceased temporarily this should be noted under Observations/Remarks along with the date grading is expected to resume
    iv. Note the date stabilization measures were in place. Stabilization measures could include seeding / mulch, erosion control blankets, aggregate slope protection or other measures intended to limit soil erosion. Stabilization measure would not typically include sediment control devices such as ditch checks or slope barriers.
    v. The following items should be checked for and documented under Observations / Remarks:
        1. Presence of rills or gullies on slopes and ditches.
        2. Other visible evidence of erosion (e.g. accumulations of downstream sediment)
        3. Quality / density of vegetation
    vi. Special conditions relevant to the stabilization of a disturbed area shall be documented under Observations / Remarks
        1. The 2017 General Permit allows frozen or snow-covered ground to be considered as temporarily stabilized under certain conditions.
        2. The 2017 General Permit allows certain exceptions to the stabilization requirements based on the intended function.
    vii. The Deficiency column shall be marked "Yes" for any area which requires maintenance or corrective action. Details of the required remedy shall be documented on 247E
d. 247C – Sediment Control and Other Structural BMPs. This form is used to document the inspection of individual structural BMPs such as ditch checks, slope barriers, inlet protection systems, construction entrances and sediment basins. Every BMP should be closely inspected for condition and functionality.
    i. Identify each BMP by Location and by BMP # from the SWPP plan sheets.
    ii. Note installation date for each BMP
    iii. Note for each device if it is a perimeter control
    iv. Note type of BMP (ditch check, inlet protection, sediment basin etc.) and material (silt fence, bio-log, etc.)

v. The following items should be inspected and documented:
    1. Correct installation
    2. Functionality – is the BMP performing as intended
    3. Condition of device – is repair or cleanout required
    4. Visible signs of erosion or sediment accumulation downstream of the device
    5. Any potential off-site discharge of sediment or other pollutants.

vi. Construction Entrances. All construction entrance / exits should be identified.
    1. Note location and installation date for each entrance.
    2. Note surface type (aggregate, soil, etc. under Observations / Remarks)
    3. Any evidence of sediment tracking onto the roadway should be documented.
    4. Construction entrances should be monitored daily and sediment tracked onto the roadway should be cleaned as necessary.

vii. Sediment basins. Note location and installation date for each basin
    1. The condition of the basin should be carefully checked during each inspection.
    2. Estimate the accumulated sediment volume as a percentage of the total capacity
    3. Inspect and document the condition of the basin slopes and outlet
    4. Check for evidence of water overtopping the basin berm

viii. Any deficiencies observed should be indicated with a "Yes" in the last column. The required remedy should be detailed on 247E.

e. 247D – Rainfall Log. This form is for documentation of rainfall amounts occurring on the project since the previous inspection.
    i. The 2017 General Permit requires that rainfall amounts be recorded, at a minimum, for every business day.
    ii. Record each day's observed rainfall in the appropriate column.
        1. If no measurement is made (i.e. on a weekend or holiday) record "n/a"
        2. If no rainfall is received document 0.0"
    iii. If a rainfall event which requires an inspection occurs, then indicate "yes" in the inspection required column and perform an inspection no later than the next business day.
    iv. An inspection is required whenever 0.5" or more is measured in a single observation; or
    v. Whenever 0.5" or more is measured in two consecutive observations when the first observation is less than 0.5"
        1. "n/a" as directed above is not considered to be an observation
        2. A measurement of 0.0" is considered to be an observation

f. 247E – BMP Deficiencies. This form is a summary of observed deficiencies and remedies required.
    i. This includes repairs, cleanup or other minor work required to maintain BMPs in use on the project.
    ii. Any maintenance required should be detailed on this attachment.

iii. Corrective Actions shall be required if the inspector determines that
    1. A required control device was never installed or was installed incorrectly
    2. Installed controls not effective or inadequate for a particular location
    3. Modification of the SWPPP is required
iv. All required corrective actions should be detailed on this attachment
v. Copies shall be made and distributed to the individuals responsible for the required actions
vi. A copy of this form should be included with the subsequent inspection. The Inspector shall verify that the actions have been completed and document the date of each action
vii. A copy of the form shall also be kept with the project SWPPP as a corrective action log. This shall be separate from the inspection reports and easily accessible for review.

2. Post-Construction (PC) Inspections
    a. Project inspections shall be performed and documented as detailed above except as described in this section.
    b. Project site inspections are to be continued at the frequency required by the Permit following the Notice of Acceptance or Partial Notice of Acceptance to the Contractor.
        i. The 2017 General Permit does not typically require post-rainfall inspections once all construction activities are completed and all stabilization BMPs have been installed.
    c. Include a copy of the Notice of Acceptance or Partial Notice of Acceptance with the SWPPP documentation
    d. The WPCM field should be left blank. No signature for the Contractor's Inspector or the WPCM is required
    e. The Area Engineer is responsible to direct KDOT maintenance forces or coordinate other resources as necessary to remedy all deficiencies within seven calendar days of the inspection
3. Permit Termination
    a. Once the entire project is stabilized with perennial, permanent vegetation the permit may be terminated. Vegetation must have a density of at least 70 percent of the density of undisturbed areas at or near the site. For assistance in making this determination, contact the Stormwater Compliance Engineer or the Environmental Services Section
    b. All remaining temporary sediment control devices shall be removed from the project prior to termination
    c. Once the project is fully stabilized and all devices removed, termination may be requested by email to the Stormwater Compliance Engineer.
    d. The Stormwater Compliance Engineer shall complete the Notice of Termination and provide a copy to the Area Engineer for inclusion with the SWPPP documentation
    e. All SWPPP documentation is required to be retained for a minimum of three years following the Notice of Termination.
    f. All SWPPP documentation shall be maintained at the area office for no less than three years following the Notice of Termination. Records relevant to the EPA Consent Decree (from September 5, 2013 through January 30, 2018) shall be retained until at least

January 30, 2021. Notify the Stormwater Compliance Engineer if the records will be kept at an alternate location.

Kansas Department of Transportation
Storm Water Pollution Prevention Plan
Inspection and Maintenance Report

Project #: _____ **Permit #:** _____

Area / Metro Engineer: _____ **Water Pollution Control Manager:** _____

Date of Last Significant Rain Event: _____ **Date of Last Inspection:** _____

Inspection Type: _____ **Inspection Date:** _____

(optional) Report # _____

CONTENTS

FORM ID #	DESCRIPTION	REQUIRED?
247A	General Issues / Housekeeping	YES
247B	Disturbed Areas / Site Erosion	YES
247C	Sediment Control and Other Structural BMPs	YES

FORM ID #	DESCRIPTION	REQUIRED?
247D	Rainfall Log	YES
247E	BMP Deficiencies	YES

INSPECTOR 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 known violations."

TITLE	PRINT NAME	CERT ID #	EXP. DATE	SIGNATURE	DATE
KDOT INSP.					
CONT. INSP.					
AREA ENG					
WPCM*					

*WPCM Signature acknowledges awareness of all deficiencies noted. All documented deficiencies are required to be remedied within 7 days of this inspection unless determined to be infeasible by the Stormwater Compliance Engineer. Failure to do so will result in the assessment of stormwater compliance disincentive.

Kansas Department of Transportation
Storm Water Pollution Prevention Plan
Inspection and Maintenance Report

INSPECTION DATE: REPORT #

PROJECT NUMBER:

General Issues / Housekeeping

Carefully review all questions on this form. This is an overview of the project housekeeping and documentation.

	BMP/Activity	Yes / No / NA	Observations / Remarks	Deficiency (Yes / No)
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	Yes / No / NA		
2	Are natural resource areas (e.g. streams, wetlands, mature trees) protected with barriers or other BMPs?	Yes / No / NA		
3	Are perimeter controls and barriers adequately installed (keyed into substrate) and maintained?	Yes / No / NA		
4	Are discharge points and receiving waters free of sediment deposits?	Yes / No / NA		
5	Are storm drain inlets properly protected?	Yes / No / NA		
6	Are construction exits preventing sediment from being tracked into the roadway?	Yes / No / NA		
7	Is trash/litter from work areas collected and placed in covered dumpsters?	Yes / No / NA		
8	Are portable toilets available for sanitary waste?	Yes / No / NA		
9	Are washout facilities (e.g. paint, concrete) available, clearly marked, and maintained?	Yes / No / NA		
10	Are equipment fueling, cleaning and maintenance areas free of spills, leaks or other contaminants?	Yes / No / NA		
11	Are materials that are potential stormwater contaminants stored inside or under cover?	Yes / No / NA		
12	Are non-stormwater discharges (e.g. wash water, dewatering) properly controlled?	Yes / No / NA		
13	Are temporary sediment basins (if required) properly constructed and maintained?	Yes / No / NA		
14	Are soil stockpiles protected with perimeter barriers and appropriately stabilized?	Yes / No / NA		

Kansas Department of Transportation
Storm Water Pollution Prevention Plan
Inspection and Maintenance Report

INSPECTION DATE: REPORT #

PROJECT NUMBER:

General Issues / Housekeeping

Carefully review all questions on this form. This is an overview of the project housekeeping and documentation.

	BMP/Activity	Yes / No / NA	Observations / Remarks	Deficiency (Yes / No)
15	Are SWPPP Site Maps complete and up to date?	Yes / No / NA		
16	Are there any outstanding deficiencies from previous inspections?	Yes / No / NA		
17	Other remarks / observations			

Kansas Department of Transportation
Storm Water Pollution Prevention Plan
Inspection and Maintenance Report

INSPECTION DATE: REPORT #

PROJECT NUMBER:

Disturbed Areas / Site Erosion

Use this form to document inspection of portions of the project site disturbed by construction activity. Stabilized areas (either temporarily or permanently) shall be inspected for condition of stabilization. Any areas showing signs of erosion or sedimentation shall be documented for repair/maintenance.

Area	Date Area Disturbed	Date Construction Activity Ceased	Date Area Stabilized	Stabilized With	Condition of Stabilization	Observations / Remarks	Deficiency (Yes / No)

Kansas Department of Transportation
Storm Water Pollution Prevention Plan
Inspection and Maintenance Report

INSPECTION DATE: REPORT #

PROJECT NUMBER:

Sediment Control and Other Structural BMPs

Number the structural BMPs dentified on your site map and list them below (add as many rows as necessary). Be sure to include controls such as construction entrances, temporary stream crossings and sediment basins.

Carry a copy of the numbered site map with you during your inspections. This list will assist you to verify inspection of all BMPs implemented at your site.

Location	Device # (from SWPPP)	Date Installed	Perimeter Control? (Yes/No)	BMP Type / Description	Observations / Remarks	Deficiency (Yes / No)

Kansas Department of Transportation
Storm Water Pollution Prevention Plan
Inspection and Maintenance Report

INSPECTION DATE: REPORT #

PROJECT NUMBER: PREVIOUS INSPECTION DATE:

Rainfall Log

Use this form to record rainfall observations beginning with the date of the previous inspection.

Observe and record rainfall totals on each business day at a minimum. Rainfall occurring on non-business days may be collected and measured on the subsequent business day.

A SWPPP inspection is required whenever a rainfall total of 0.5 inches or greater is recorded for a single observation.

A SWPPP inspection is required whenever a rainfall total of 0.5 inches or greater is recorded over two consecutive observations if the first is less than 0.5 inches.

Date	Observed Rainfall Amount	Inspection Required?	Remarks		Date	Observed Rainfall Amount	Inspection Required?	Remarks

Kansas Department of Transportation
Storm Water Pollution Prevention Plan
Inspection and Maintenance Report

INSPECTION DATE: REPORT #

PROJECT NUMBER:

BMP Deficiencies

Document all deficiencies in maintenance, operation, effectiveness, adequcy or coverage extent of all BMPs installed or required to be installed. Include any required maintenance, corrective action, documentation updates or other items requiring action to maintain permit compliance.

Location	Date First Identified	Remedy Required	Date Action Completed	Elapsed Days	Inspector

APPENDIX D

Contract Special Provisions for Temporary Erosion and Pollution Control

KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, 2015 EDITION

Delete SECTION 901 and replace with the following:

SECTION 901

STORMWATER POLLUTION MANAGEMENT

901.1 DESCRIPTION

Design, implement, inspect and maintain appropriate best management practices to minimize or eliminate erosion, sediment and other pollutants in stormwater runoff from the project.

BID ITEMS	UNITS
SWPPP Design	Lump Sum
SWPPP Inspection	Each
Water Pollution Control Manager	Each
Stormwater Compliance Disincentive Assessment	Each

901.2 MATERIALS

None Required.

901.3 CONSTRUCTION REQUIREMENTS

a. Permits.

(1) Projects requiring permit coverage:

(a) KDOT with 1.0 acre or more of erodible surface:

KDOT will submit the Notice of Intent (NOI) for authorization to discharge stormwater runoff from construction activities in accordance with the Kansas Water Pollution Control General Permit. This authorization does not cover Contractor plant sites and Contractor-Furnished borrow and waste sites outside the project limits.

The Contractor shall accept full responsibility, coverage, and liability for the permit, along with KDOT. Within 10 business days after notice of the award of contract, or within any time extension the Bureau Chief of Construction and Materials has granted for completion of documents required in the Bidding Proposal Form, complete, sign and return to KDOT the KDHE form "REQUEST FOR JOINT OWNER/OPERATOR" (RJOO). A blank copy of the form is attached. The Secretary will not sign the contract until the Contractor has returned the completed, signed RJOO. If the Contractor fails to complete, sign, and return the RJOO within the required time, the Secretary will cancel the award of contract as provided in **SECTION 103**. KDOT will submit the completed form to KDHE for authorization. After approved by KDHE, copies will be distributed to KDOT and the Contractor.

(b) Local Public Authority with 1.0 acre or more of erodible surface:

The local governmental agency will submit the Notice of Intent (NOI) for authorization to discharge stormwater runoff from construction activities in accordance with the Kansas Water Pollution Control General Permit. This authorization does not cover Contractor plant sites and Contractor-Furnished borrow and waste sites outside the project limits.

(2) Projects not requiring permit coverage: The Contractor is required to comply with **subsection 901.3b.** and use appropriate Best Management Practices (BMPs) to minimize stormwater pollution.

Select Contractor-furnished borrow or plant sites from which runoff will not significantly impact the same surface waters and stream segments that receive runoff from the project site. Selecting a site which does significantly impact the same surface waters may result in the project requiring permit coverage.

A Storm Water Pollution Prevention Plan (SWPPP) (**subsection 901.3c.)** is not required.
A Water Pollution Control Manager (**subsection 901.3d.**) is not required.
Inspection and Maintenance Reports (**subsection 901.3e.)** are not required.
Stormwater Erosion Control Conferences (**subsection 901.3f.**) are not required.

b. General. When Contractor-furnished borrow or plant sites are outside the project limits, obtain all required permits and clearances required for compliance, **SECTION 107**. Provide copies of all such permits and clearances to the Engineer.

Take all measures necessary to minimize or eliminate erosion, sediment and other pollutants in stormwater runoff from the project and project related borrow areas.

Assume responsibility for inspection and maintenance of all erosion and sediment control measures within the project limits, whether originally implemented by the Contractor, KDOT or a third party. Obtain information regarding the SWPPP and active Best Management Practices (BMPs) from the Area Engineer. Maintenance or removal of BMPs not installed by the Contractor may be considered Extra Work, **SECTION 104**, unless addressed by other items of the contract (e.g. sediment removal).

Install BMPs to establish a perimeter control of the project in areas where it is anticipated that stormwater runoff will leave the project. Install perimeter control BMP's prior to or simultaneously with the clearing and grubbing operations. Do not perform grading until perimeter control BMP'ss are in place and approved by the Engineer.

Unless requested in writing from the Contractor, and approved in writing by the Engineer, or specified otherwise in the Contract Documents, do not exceed 750,000 square feet of surface area of erodible earth material per designated disturbed area at one time. Permanently record all designated disturbed areas on KDOT Form 247 - SWPPP Inspection and Maintenance Report at the stormwater erosion control conference. The Engineer will limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow (within right-of-way) and embankment operations. Limit the exposed erodible earth material according to the capability and progress, and in keeping with the approved schedule.

Areas will not count toward the 750,000 square feet limit, when the following conditions are met:

For areas that will not be disturbed again due to project phasing:

- Finish grade the completed area;
- Stabilize and maintain stabilization according to **SECTION 902**; and
- Do not disturb the area again without a written request from the Contractor and written approval from the Engineer;

For areas that will be disturbed again due to project phasing:

- Rough grade; and
- Stabilize and maintain stabilization according to **SECTION 902**.

For permitted projects disturbing less than 750,000 square feet, the Engineer and Contractor will determine disturbed areas based on project phasing and physical separations(roadway, streams etc.). Permanently record these areas on KDOT Form 247 - SWPPP Inspection and Maintenance Report at the stormwater erosion control conference.

Additional areas may be added or divided according to contractors meaningful work by the Engineer or WPCM to reduce the disturbed area remaining during the life of the project.

DO NOT clear and grub areas unless meaningful work toward the completion of the project will actively be performed in the exposed area (or portions of the exposed area) within 7 calendar days .

If areas are cleared and grubbed and not finish graded, not part of project phasing and no meaningful work toward the completion of the project is performed within the exposed area (or portions of the exposed area) for 7 calendar days on exposed steep slope areas (2.5:1 or greater) or within 7 calendar days of being documented on KDOT Form 247, stabilize and maintain stabilization of the exposed areas according to **SECTION 902** at no cost to KDOT.

If on-site or state-furnished off-site borrow areas are to be excavated below the ground water elevation, construct a temporary berm around the borrow area to prevent stormwater runoff from entering the excavated area.

Do not ford live streams with construction equipment.

Restrict construction operations in rivers, streams and other water impoundments to those areas that must be entered for the construction of temporary or permanent structures. Only use clean aggregate fill for temporary crossing, work platforms, etc. When no longer required, promptly remove all falsework, piling, temporary crossings and other obstructions caused by the construction.

Do not store equipment or materials (including soil stockpiles) within 50 feet of rivers, streams or other surface waters. Avoid storing equipment or materials (including soil stockpiles) in flowlines of ditches or other drainage courses. Where such storage is necessary, obtain the Area or Metro Engineer's written approval and include in the project SWPPP appropriate best management practices for the storage area.

Immediately initiate placement of appropriate erosion control Best Management Practices (BMPs) in any exposed steep slope areas (2.5:1 or greater) where construction activities have permanently or temporarily ceased, and will not resume for a period exceeding 7 calendar days. For vegetative cover areas, in addition to seeding, watering, mulching, and any other required activities related to the planting and establishment of vegetation, utilize other appropriate erosion control practices such as geotextiles or erosion control mats. Divert stormwater flows around steep slopes or install slope drains where feasible.

Immediately initiate temporary or permanent stabilization on areas that have been disturbed after construction activities have permanently ceased on that portion of the project site. Immediately initiate temporary stabilization measures on areas that have been disturbed after construction activities have temporarily ceased on documented and undocumented portions of the project site and when meaningful construction activities will not resume for a period exceeding 7 calendar days.

Temporary stabilization may include temporary seeding, geotextiles, mulches or other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further meaningful construction activities take place to re-disturb the area.

Stabilization is initiated when physical work on the project to install stabilizing BMPs has begun. "Immediately" in the context of the above provisions is defined to mean as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased. Prosecute stabilization work continuously and diligently until completed.

Install and maintain temporary erosion and pollution control devices as shown in the Contract Documents, **SECTION 902**, the SWPPP and as directed by the Engineer.

Provide and implement Best Management Practices (BMPs) that, at a minimum, are designed, installed and maintained to:

- Control stormwater volume and velocity within the site to minimize soil erosion ~~;~~
- Control stormwater discharges to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points;
- Minimize sediment discharges from the site;
- Provide and maintain natural buffers around Waters of the United States, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges where feasible;
- Prevent contamination of adjacent streams or other watercourses, lakes, ponds or other areas of water impoundment;
- Coordinate temporary BMPs with the construction of permanent erosion control features to provide continuous erosion control;
- Schedule the construction of drainage structures as soon as practicable; and
- Schedule construction of permanent erosion control features as soon as practicable;

Notify the Engineer in writing within 24 hours of any chemical, sewage or other material spill which is required to be reported to the KDHE under part 10 of the NPDES permit. The notification shall include at a minimum the material spilled, location of the spill, and a description of containment or remediation actions taken. This notice to the Engineer does not relieve the Contractor of responsibility to report to the KDHE or to any other agency.

If temporary erosion and pollution control is not implemented and maintained according to this specification, the approved SWPPP, or the NPDES permit, the Area/Metro Engineer may suspend all or part of the work on the project until conditions are brought into compliance, as determined by the Area/Metro Engineer.

KDOT will not issue the Notice of Acceptance, **SECTION 105**, until all necessary maintenance, corrective actions, removal of unnecessary devices and temporary stabilization is completed for the project. Failure to complete this work within the contract time may result in liquidated damages, **SECTION 108**.

All SWPPP related documentation including the original SWPPP, all revisions/amendments, and inspection reports shall be retained by the Engineer upon Acceptance of the project.

c. SWPPP Design. Before the preconstruction conference, submit to the Field Engineer a minimum of 3 original copies of the SWPPP. No physical work on the project may begin until the Area/Metro Engineer has approved the SWPPP.

Design the SWPPP to comply with the NPDES permit for the project. At a minimum, the submittal shall include:

- A copy of the Project Notice of Intent Form (NOI) for Stormwater Runoff from Construction Activities. (obtained from KDOT);
- A copy of the "Request for Joint Owner/Operator" form signed by the Contractor and the Area/Metro Engineer (if applicable);
- The planned sequence of major construction activities;
- The Contractor's Erosion Control Site Plan or Plans accounting for project phasing;
- Current training certification(s) for the designated WPCM (subsection 901.3d);
- Current training certification(s) for Contractor's Environmental Inspector (subsection 901.3e);
- The SWPPP Contractor Certification Form 246. The Contractor and all subcontractors are required to certify that they understand the terms and conditions of the general NPDES permit. The Engineer will provide the SWPPP Certification Form (Form No. 246), or it can be found on the KDOT Internet;
- An acknowledgement that State and Local requirements have been included in the SWPPP. Review all applicable permits (Corps of Engineers, Department of Agriculture, etc.) for special conditions affecting stormwater pollution control. Include relevant permit documents with the SWPPP;
- A detailed description of Best Management Practices (BMPs) which will be used one or more times at the site for erosion and sediment control. In addition to the requirements of **subsection 901.3.b,** design, install and maintain BMPs to:
- Minimize the amount of soil exposed during construction activity;
- Minimize the disturbance of steep slopes (slopes of 40% or greater);
- Control discharges from sediment or soil stockpiles;
- Minimize the generation of dust;
- Minimize off-site tracking of soils;
- Provide storm drain inlet protection for inlets down gradient of disturbed project areas not fully stabilized or where construction will soon be started;
- A description of site management BMPs which minimize or eliminate contamination of stormwater runoff. Design, install and maintain such BMPs to:
  - Minimize discharge of pollutants from equipment and vehicle washing;
  - Minimize the exposure of construction waste, trash, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater;
  - Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures;
  - BMPs in this category include but are not limited to:
    - Waste management including trash containers and regular site cleanup for proper disposal of solid waste such as scrap material, product/material shipping waste, food containers and cups;
    - Containers and proper disposal for waste, paints, solvents, and cleaning compounds;
    - Portable toilets for proper disposal of sanitary waste;
    - Storage for construction materials away from drainage courses and low areas;
    - Procedures and practices to eliminate the potential to discharge wash and/or rinse waters from concrete mixing equipment including ready-mix concrete trucks.

Update the erosion control site plan as work progresses to show changes due to revisions in work schedules or sequence of construction, or as directed by the Engineer. Update the site map to reflect BMPs that have been installed or removed.

Maintain a complete and updated copy of the project SWPPP on the project site or at the lcoation approved by the Area/Metro Engineer. At a minimum, the complete project SWPPP shall include:

- The approved Contractor's submittal as detailed above;
- KDOT Form 219, Approval of Storm Water Pollution Prevention Plan (SWPPP) completed by the Area or Metro Engineer;

- KDOT Form 248, Checklist for Contractor's Stormwater Pollution Prevention Plan (SWPPP) completed by the Area or Metro Engineer;
- Current training certifications for KDOT, LPA or Consultant inspectors;
- KDOT Form 247 - SWPPP Inspection and Maintenance Report;
- Complete copy of the NPDES permit for the project;
- Reference Contract Documents pertaining to temporary erosion and water pollution control.

d. Water Pollution Control Manager. Designate a Water Pollution Control Manager (WPCM) who shall visit the project during normal work hours on a frequent basis and at least once per week until all physical work is complete and the Engineer issues the Notice of Acceptance or a partial Notice of Acceptance. The required 180-day observation period for pavement markings is not considered to be physical work. The WPCM shall thoroughly review the project and meet with the project inspector or Engineer during the weekly site visits to discuss, proactively plan, and verify the Contractor's compliance with this specification and with the NPDES permit. In addition, the WPCM shall:

- Have the authority to supervise all work performed by the Contractor and subcontractors that involves stormwater requirements or affects stormwater compliance;
- Have the responsibility and authority to order Contractor employees and subcontractors to take appropriate action to comply with stormwater requirements, including requiring any such person to cease or correct a violation of stormwater requirements and to order or recommend such other actions or sanctions as necessary to meet stormwater requirements;
- Be familiar with the Project SWPPP;
- Ensure BMPs are properly installed and maintained as necessary to maintain compliance;
- Be responsible for updating the Project SWPPP and site maps to accurately reflect the BMPs in use on the project;
- Complete KDOT Form 280- Water Pollution Control Manager Weekly Report, and place in the project SWPPP.
- Be the point of contact for KDOT regarding stormwater compliance;
- Have completed and maintain current certification in KDOT's Certified Inspection and Testing Training (CIT) Program Construction Stormwater (CSW) course.
- Review and sign SWPPP inspection reports within 3 days after receiving such reports, acknowledging awareness of any deficiencies and ensuring the correction of all deficiencies.
- Maintain and monitor an active email account capable of receiving electronic communications including inspection reports, photos and other documents relevant to stormwater compliance.

The WPCM may, when approved by the Engineer, perform SWPPP Inspections according to **subsection 901.3e**.

Immediately notify the Engineer in writing if the designated WPCM is replaced. The replacement WPCM shall comply with the above requirements. The notification shall include training certificates and contact information for the replacement WPCM.

Failure to adequately perform the required duties may result in disqualification of the WPCM in accordance with the procedures outlined in the KDOT Policy and Procedure Manual for The Certified Inspection and Testing Training (CIT) Program.

e. SWPPP Inspections. The Contractor's Environmental Inspector shall have completed KDOT's CIT Construction Stormwater (CSW) training and maintain a current certification while performing SWPPP Inspections.

KDOT's Inspector and the Contractor's Environmental Inspector shall perform joint inspections of the project in compliance with the NPDES permit. Perform joint inspections on site begining and ending during daylight hours. Continue inspections as required until all physical work is complete and the Engineer issues the Notice of Acceptance or a partial Notice of Acceptance. The required 180-day observation period for pavement markings is not considered to be physical work.

Inspect the entire construction site and all BMPs according to the requirements in part 7.2.10 of the permit.

Schedule routine SWPPP Inspections such that a minimum of one Inspection is performed within every 7-day period.

Perform additional SWPPP inspections if directed by the Engineer. Do not perform multiple inspections on the same calendar day.

Document the SWPPP inspections on KDOT Form 247 - SWPPP Inspection and Maintenance Report. KDOT and Contractor Inspectors shall each sign the report.

Include in the inspection report any maintenance or corrective actions necessary to remedy deficiencies in maintenance, operation, effectiveness, adequacy or coverage extent of all BMPs installed or required to be installed on the project. Deficiencies to be documented include any required maintenance, corrective action, documentation updates, inactive disturbed areas or any other item requiring action necessary to maintain permit compliance.

Remedy any deficiencies noted during a SWPPP Inspection within 7 days of the inspection despite weather conditions that make it difficult (but not impossible) to perform corrections. No additional time shall be granted to remedy deficiencies on the basis of weather unless it is infeasible due to flooding or frozen ground conditions for the Contractor to complete the remedy within the 7 days allowed. No additional time will be granted to remedy deficiencies unless approved by the District Engineer.

Submit completed copies of KDOT Form 247 - SWPPP Inspection and Maintenance Report to the Area/Metro Engineer and the Contractor's WPCM within 24 hours after an inspection has been made.

The WPCM shall review and sign the report within 3 calendar days of receiving the completed inspection report. The WPCM's signature acknowledges awareness of all reported deficiencies and actions required to be taken within 7 calendar days of the inspection.

The Contractor Inspector's signature acknowledges awareness of all reported deficiencies and actions required to be taken immedately and completed within 7 calendar days of the inspection.

The obligation to conduct formal inspections and complete an associated report does not limit or otherwise modify the Contractor's obligation to monitor and maintain temporary erosion and pollution control devices daily.

Failure to adequately perform the required duties may result in disqualification of the Contractor's Environmental Inspector in accordance with the procedures outlined in the KDOT Policy and Procedure Manual for The Certified Inspection and Testing Training (CIT) Program.

f. Oversight Inspections. KDOT will assign oversight inspectors to provide quality assurance on projects with an NPDES permit. Remedy any deficiencies noted during a SWPPP Inspection within 10 days of receiving the inspection report despite weather conditions that make it difficult (but not impossible) to perform corrections. No additional time shall be granted to remedy deficiencies on the basis of weather unless it is infeasible due to flooding or frozen ground conditions for the Contractor to complete the remedy within the 10 days allowed. No additional time will be granted to remedy any deficiencies unless approved by the District Engineer.

g. Stormwater Erosion Control Conferences. Each project shall have a stormwater erosion control pre-construction conference before the start of construction activities.

KDOT and the Contractor shall also hold stormwater erosion control conferences before the start of each major phase of construction and before the winter shutdown period begins.

These conferences shall be attended by the KDOT Area/Metro Engineer, the WPCM, and Environmental Inspector(s) for the Project, and any erosion control subcontractor(s). The attendance sheet and minutes of the conference will be kept in the SWPPP notebook.

h. Stormwater Compliance Disincentive Assessment. If the Contractor's Environmental Inspector fails to perform a SWPPP Inspection as required according to **subsection 901.3e.** the Contractor shall be liable for a disincentive assessment. The disincentive assessment charged and owing shall be determined using **TABLE 901-1.** Failure to participate in the joint inspection does not relieve the Contractor of the responsibility to correct deficiencies noted by KDOT's Inspector.

If deficiencies noted during SWPPP inspections performed according to **subsection 901.3e or f.** are not corrected within 7 calendar days of the inspection, 10 calendar days for oversight findings , or within a time extension approved by the District Engineer, the Contractor shall be liable for a disincentive assessment. The disincentive assessment charged and owing shall be determined using **TABLE 901-1.**

Should it be infeasible to perform corrections within the allowed time, notify the Area/Metro Engineer and the District Engineer immediately. Within 3 days of the notification, submit in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; and a schedule for implementation of any measures to be taken to prevent or mitigate the delay. Include with the submittal any relevant documentation supporting the claim of infeasibility and that best efforts were made to

complete the required corrections and to minimize any delay to the extent possible. No additional time will be granted to submit the required information unless approved in writing by the District Engineer.

The Engineer will deduct and withhold from contract funds the Stormwater Compliance Disincentive Assessment under **subsection 901.3g**. The assessments are to be computed in the same manner as damages under **SECTION 108** (Liquidated Damages and Disincentive Assessments) except calendar days include Sundays, Holidays and the Winter Holiday Period. If contract funds are insufficient, the Contractor shall pay KDOT the balance owed. If the Contractor fails to pay KDOT the amount owed within 10 days after demand from KDOT, the Contractor shall be considered in breach of contract under **SECTION 108**.

The disincentive assessments under **subsection 901.3h.** are in addition to federal and state statutory penalties and fines that are allowed against the Contractor under the Clean Water Act and other environmental laws for violations of those laws. See also **subsection 901.3i**.

TABLE 901-1: TABLE OF STORMWATER COMPLIANCE DISINCENTIVES

Original Contract Amount Range		Each SWPPP Inspection not performed according to 901.3e	Each deficiency per day not corrected within allowable time
$0	$1,000,000.	$250.00	$250.00
$1,000,000.01	$2,500,000.	$500.00	$500.00
$2,500,000.01	$5,000,000.	$750.00	$500.00
$5,000,000.01	$10,000,000.	$1,000.0	$500.00
Over $10,000,000.00		$1,500.0	$500.00

i. Penalties and Fines. Nothing in **SECTION 901** prevents KDHE, EPA or both from assessing penalties and fines against the Contractor because of the Contractor's failure to comply with applicable laws, regulations, ordinances, NPDES permit, other permits, the SWPPP, governmental administrative compliance orders or corrective orders for the Project, or a combination thereof.

Nothing in this **SECTION 901** prevents KDHE, EPA, or both from assessing penalties and fines against the Contractor because of the Contractor's failure to comply with an administrative claims settlement or consent decree that governs KDOT projects and that is included in the Proposal Form or that is added "Extra Work", **SECTION 104**.

Understand that penalties/fines may be imposed against KDOT, the Contractor, or both because of "shared" responsibility/liability under applicable environmental law, regulations, ordinances; the NPDES permit, other permits, the SWPPP, administrative corrective action orders, administrative claims settlements, consent decrees, legal judgments or a combination thereof. The Contractor shall have no claim that such shared responsibility/liability voids the Contractor's liability for disincentive assessments under **subsection 901.3h.** or for penalties/fines under **subsection 901.3i**.

901.4 MEASUREMENT AND PAYMENT

The Engineer will measure each SWPPP inspection performed in compliance with this specification. No more than one SWPPP Inspection will be measured each calendar day.

The Engineer will measure each Water Pollution Control Manager (WPCM). Each is defined as each calendar week (Sunday-Saturday) that the Contractor provides a WPCM according to **subsection 901.3.d**. Each week will be measured only once, regardless of the number of site visits or time spent performing WPCM duties for that week.

The Engineer will measure SWPPP design for payment as a lump sum upon the Area Engineer's approval. All revisions or updates to the SWPPP shall be subsidiary.

The Engineer will assess disincentives under the bid item "Stormwater Compliance Disincentive Assessment."

REQUEST FOR JOINT OWNER/OPERATOR

For Authorization to Discharge Stormwater Runoff from Construction Activity
In accordance with Kansas Water Pollution Control General Permit No. S-MCST-1703-1
Under the National Pollutant Discharge Elimination System

Use this form only when stormwater discharge and control responsibility for the entire permitted area will be jointly held by adding an owner/operator to an existing Kansas Department of Transportation (KDOT) authorized permit. Submission of the Request for Joint Owner/Operator (RJOO) constitutes notice of a request for joint authorization for coverage with KDOT under the Kansas Water Pollution Control General Permit, or KDHE issued successor permits, issued for discharge of Stormwater Runoff from Construction Activities in the State of Kansas. Completion of this RJOO does not provide automatic coverage under the general permit to the added owner/operator. Coverage is provided and discharge permitted for the joint owners/operators when the Kansas Department of Health and Environment (KDHE) authorizes the Request for Joint Owner/Operator. TO CONTINUE COVERAGE, KDOT AND THE ADDED OWNER/OPERATOR MUST CONTINUE TO IMPLEMENT THE STORMWATER POLLUTION PREVENTION PLAN DEVELOPED FOR THE PERMITTED AREA AND KDOT CONTINUES TO PAY THE ANNUAL PERMIT FEE.

Submission of this RJOO to KDHE does not relinquish the KDOT's authorization to discharge stormwater runoff from construction activity at the site described herein. Completion of this RJOO does not automatically relieve KDOT of any civil, criminal and/or administrative penalties. To be considered complete, the RJOO must be signed by the added owner/operator and KDOT or a duly authorized representative of the added owner/operator, and must include the permit number assigned to the construction site. KDHE will notify KDOT and the added Owner/Operator when the RJOO is incomplete, deficient or denied.

TO BE COMPLETED BY THE ADDED OWNER/OPERATOR:
I hereby confirm that the Added Owner/Operator identified below shares joint stormwater discharge and operational control responsibility with KDOT and accepts being added to the below identified authorization under the Kansas Stormwater Runoff from Construction Activities General Permit. On Added Owner/Operator's behalf, I have reviewed the terms and conditions of the General Permit and accept full responsibility, coverage, and liability with KDOT under the General Permit. This addition will be effective when KDHE authorizes the RJOO form. I understand KDHE and other regulatory entities can take action against one or all authorized Owner/Operators for permit violations.

The ADDED OWNER/OPERATOR is:

Owner or Operator's Name: _____ Contact Name: _____

Company Name: _____ Company Name: _____

Owner or Operator's Phone: _____ Contact Phone: _____

Mailing Address: _____ Mailing Address: _____

City: _____ State: ___ Zip Code: _____ City: _____ State: ___ Zip Code: _____

I certify that I have personally examined and am familiar with the information described herein.

Added Owner/Operator's Signature: _____ Date: _____

Name (typed or printed): _____ Title: _____

TO BE COMPLETED BY KDOT
As original Owner/Operator for the authorized project indicated below, I hereby certify the above Added Owner/Operator meets the General Permit definition of Owner/Operator and agree to the shared responsibilities with the Added Owner/Operator under the General Permit and continuance of my responsibilities thereunder. I understand that the addition of the Added Owner/Operator to the permit is effective when KDHE authorizes the RJOO form.

Name of Project: _____

Address: _____ City: _____ County: _____ State: KS Zip Code: _____

Kansas Permit No. _____ Federal Permit No. _____

Permittee Signature: _____ Date: _____

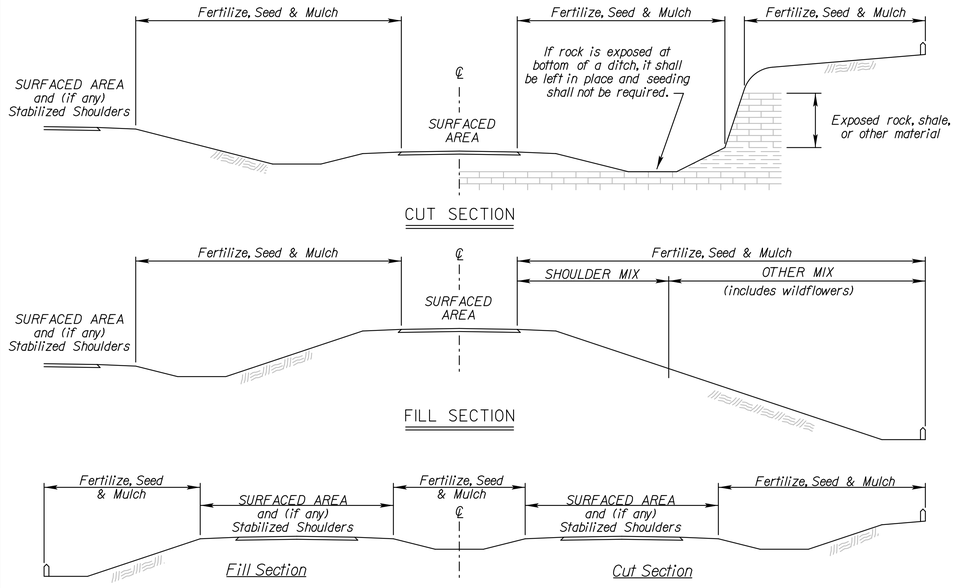
Permittee Name: _____ Title: _____ Phone Number: _____

Submit the RJOO with original signatures to:
Kansas Department of Health and Environment
Bureau of Water, Industrial Programs Section
1000 SW Jackson, Suite 420
Topeka, KS 66612 - 1367

Authorized: ☐ Y; ☐ N

_____
Reviewer Date

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0		



TYPICAL SECTION - DUAL PAVEMENT

GRASS & WILDFLOWER SEEDING SEASONS

COOL SEASON GRASSES February 15 thru April 20 August 15 thru September 30	WARM SEASON GRASSES & WILDFLOWERS November 15 thru June 1
SPECIES	SPECIES
Bluegrasses	Bermuda Grass
Brome Grasses	Big Bluestem
Canada Wildrye	Blue Grama
Fescues	Buffalo Grass
Prairie Junegrass	Indiangrass
Ryegrasses	Little Bluestem
Sterile Wheatgrass	Sand Bluestem
Tall Dropseed	Sand Dropseed
Western Wheatgrass	Sand Lovegrass
	Side Oats Grama
	Switchgrass
	Wildflower Mixes

When the area to be seeded is 1 acre or more, if Cool Season grasses are mixed with Warm Season grasses, seed the area during the Warm Season.

When the area to be seeded is less than 1 acre, seed the area any time of the year.

SODDING SEASONS

COOL SEASON GRASSES March 1 thru April 15 September 1 thru November 15	WARM SEASON GRASSES May 15 thru September 1
SPECIES	SPECIES
Bluegrass Sod	Buffalo Grass Sod
Fescue Sod	

If the soil is workable, the Engineer may allow placement of sod between November 15 and March 1. If sod is placed during this time, maintain the sod until 20 days after the beginning of the spring sodding season.

GENERAL NOTES

The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded and mulched. Soil preparation shall conform to the Standard Specifications except as noted below.

All borrow areas shown on the plans are to be fertilized, seeded, and mulched. However, operation in borrow areas where crops are growing may be omitted when requested by the owner.

If temporary cover has provided stable slopes with no erosion, seed the permanent grasses into the existing cover. If there has been erosion that requires repair prior to seeding, then it may be necessary to regrade the area, resulting in bare ground.

FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P_2O_5, K_2O listed in Summary of Seeding Quantities will be acceptable.

MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching material is generally as follows:

1¾ - 2¼ Tons per Acre = 1½" loose depth spread uniformly over acre.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

Other vegetative mulches are acceptable only with the Engineer's concurrence.

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

NATIVE WILDFLOWER MIX 1

PLS RATE	NAME	QTY (lb)
0.3	Butterfly Milkweed	
0.3	Common Milkweed	
0.3	Black Eyed Susan	
0.5	Blanket Flower	
0.5	False Sunflower	
0.5	Lance-Leaf Coreopsis	
0.2	Maximillian Sunflower	
0.1	New England Aster	
0.2	Pinnate Prairie Coneflower	
0.2	Plains Coreopsis	
0.3	Purple Coneflower	
0.3	Upright Prairie Coneflower	
0.3	Dames Rocket	
0.3	Lemon Mint	
0.2	Pitcher Sage	
0.2	Wild Bergamot	
1.0	Illinois Bundleflower	
0.2	Common Evening Primrose	
0.1	Hoary Verbena	
0.8	Purple Prairie Clover	
0.3	Roundhead Lespedeza	
3.0	Showy Partridge Pea	
0.2	White Prairie Clover	
10.3	Total (lb)	

NATIVE WILDFLOWER MIX 2

PLS RATE	NAME	QTY (lb)
0.3	Butterfly Milkweed	
0.3	Black Eyed Susan	
0.5	Black Sampson Coneflower	
1.0	Blanket Flower	
0.2	Maximillian Sunflower	
0.2	Plains Coreopsis	
0.2	Upright Prairie Coneflower	
0.2	Western Yarrow	
0.3	Lemon Mint	
0.4	Pitcher Sage	
1.5	Illinois Bundleflower	
0.2	Common Evening Primrose	
1.0	Blue Wild Indigo	
0.4	Leadplant	
0.4	Purple Prairie Clover	
0.3	White Prairie Clover	
7.4	Total (lb)	

Package and deliver the wildflower seed separately from the grass seed mix. Package and deliver the Tall Drop Seed separately from the grass seed and the wildflower mix. Place the grass seed (except Tall Drop Seed) in the large seed box and drill (cover) seed 1/8" - 1/4". Place the wildflower seed in a separate seed box and drill (cover) seed 1/16" maximum. Place the Tall Drop Seed in a separate (third) seed box and place the seed (using the seed drill) on the soil surface.

OPTION: Broadcast Tall Drop Seed on the soil surface.

SUMMARY OF SEEDING QUANTITIES

P.L.S. RATE/ACRE				ACRES				BID ITEM	QUANTITY	UNIT
SHLDR	OTHER			SHLDR	OTHER					
								Mulching *		

SHLDR = Seeded with the Shoulder Mix. Typically 15 feet for 2-lane roads and 30 feet for 4-lane roads. Includes outside roadsides, turfed portions of shoulders, and turfed portion of the median.

OTHER = Seeded with the "Other" Mix. Designated as all other turf areas, except the Shoulder. Usually includes a Native Wildflower Mix.

NOTE: Projects less than 1 acre shall be bid as "Seeding" by the lump sum. All disturbed areas shall be seeded, fertilized and mulched at the listed rate per acre. The acres are estimated.

Refer to the Standard Specifications, Division 900, Section 904 'Seeding', and Section 907 'Sodding', for the seeding and sodding seasons.

** See LA852A for mulching quantity. The quantity of mulch is estimated (Acres of Seeding X 1.5 X 2 Tons/Acre). The total mulch required shall be determined in the field. The bid item for mulching shall be paid for according to the Standard Specifications.*

NO.	DATE	REVISIONS	BY	APP'D
2	11/25/20	Updated Seeding / Sodding Periods Charts	MRD	ML
1	08/03/20	Revised Standard	MRD	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

PERMANENT SEEDING
SUMMARY OF SEEDING QUANTITIES

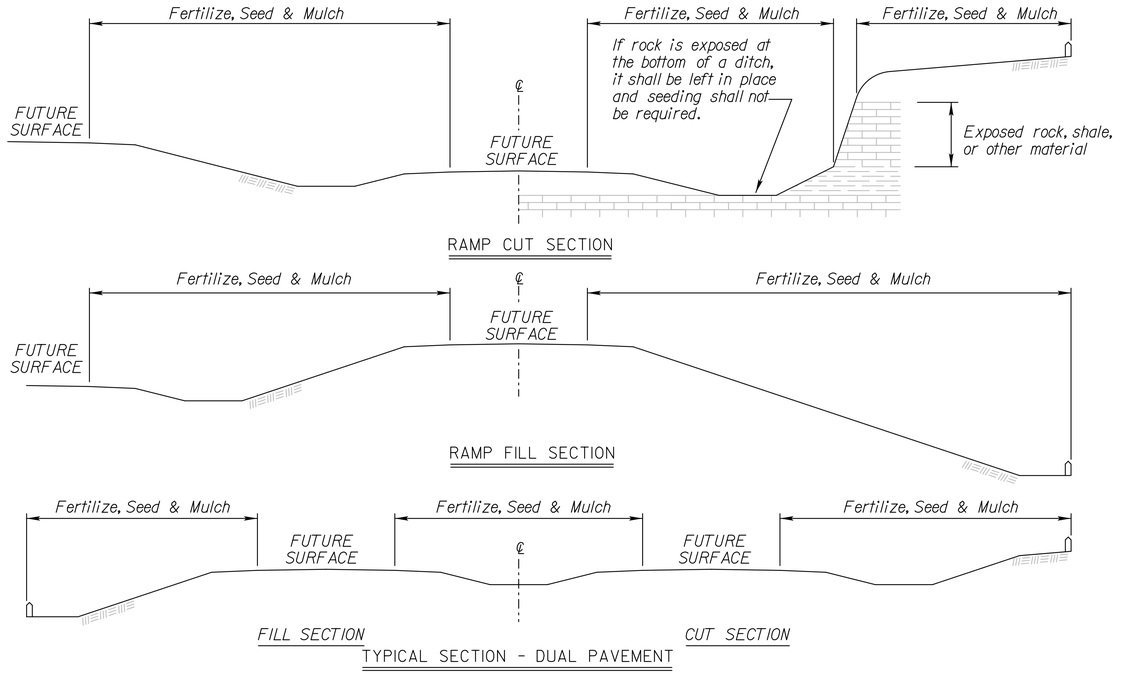
LA850

FHWA APPROVAL	05/06/2019	APP'D	Mervin Lare		
DESIGNED	MRD	DETAILED	MRD	QUANTITIES	CADD
DESIGN CK.		DETAIL CK.		QUAN.CK.	CADD CK.

Sheet No.

Std. Base File:
Plotted: KDOT\CADD\Support\eks.pltPlot Location:
File: la850.dgn
Plot Date: 18-DEC-2020 0:03

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0		



FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P_2O_5, K_2O listed in Summary of Quantities will be acceptable.

- * - N = Nitrogen Rate of Application
- ** - P_2O_5 = Phosphorous Rate of Application
- *** - K_2O = Potassium Rate of Application

The Contractor will be required to finish areas of excavation, borrow and embankment in accordance with the specifications. Areas that require installation or construction of temporary water pollution control items will be finished in reasonable close conformity to the alignment, grade and cross section shown on the plans or as established by the Engineer.

CLT = Construction Limit Tract. This area is defined by the entire disturbed area of the project that requires seeding and erosion control measures to be placed. Any impervious areas (i.e. pavement, gravel, riprap, etc.) shall not be included in this measurement.

Slope = Defined by the area of the project that requires Class 1 erosion control material to be placed. This area shall be seeded using the Soil Erosion Mix prior to placement of the material. Drilling seed is preferred, however, broadcasting is acceptable if drilling is not possible.

Channel = Defined by the area of the project that requires Class 2 erosion control material to be placed. This area shall be seeded using the Soil Erosion Mix prior to placement of the material. Drilling seed is preferred, however, broadcasting is acceptable if drilling is not possible.

GENERAL NOTES

The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded, and mulched. Soil preparation shall conform to the Standard Specifications.

Temporary seeding shall be done during any time of the year that the soil can be cultivated. After the temporary seeding has been completed on the entire project, permanent seeding shall be done during the normal seeding season.

MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching materials is generally as follows:

1¾ - 2¼ Tons per Acre = 1½" loose depth spread uniformly over acre.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.
Other vegetative mulches are acceptable only with the Engineer's concurrence.

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

SUMMARY OF SEEDING / EROSION CONTROL QUANTITIES

P.L.S. RATE/ ACRE		ACRES		BID ITEM	QUANTITY	UNIT
CLT	SL/CH	CLT	SL/CH			
				Temporary Fertilizer (* - ** - ***)		LB
				Temporary Seed (Canada Wildrye)		LB
				Temporary Seed (Grain Oats)		LB
				Temporary Seed (Sterile Wheatgrass)		LB
				Soil Erosion Mix		LB
				Erosion Control (Class 1, Type Y)		SQ YD
				Erosion Control (Class 2, Type Y)		SQ YD
				Sediment Removal (Set Price)	1	CU YD
				Synthetic Sediment Barrier		LF
				Temporary Berm (Set Price)	1	LF
				Temporary Ditch Check (Rock)		CU YD
				Temporary Inlet Sediment Barrier		EACH
				Temporary Sediment Basin		CU YD
				Temporary Slope Drain		LF
				Temporary Stream Crossing		EACH
				Biodegradable Log (9")		LF
				Biodegradable Log (12")		LF
				Biodegradable Log (20")		LF
				Filter Sock (****)		LF
				Geotextile (Erosion Control)		SQ YD
				Silt Fence		LF
				SWPPP Design †		LS
				SWPPP Inspection †		EACH
				Water Pollution Control Manager †		EACH
900 lbs / acre				Mulch Tacking Slurry		LB
2 tons / acre				Mulching		TON
				Water (Erosion Control) (Set Price)	1	MGAL

NOTE: Projects less than 1 acre shall be bid as "Seeding" by the lump sum. See Permanent Seeding Summary of Seeding Quantities sheet LA850 for further details.

Geotextile (Erosion Control) shall be removed prior to placement of permanent slope protection.

Regreen and Quick Guard are the approved sterile wheatgrass products.

† If the total disturbed area of the project, not just the seeding area, is 1 acre or more, then these bid items must be included.

***** List size of material.*

The amount of mulch and mulch tacking slurry in the bid quantities is estimated. (Acres of Seeding X 1.5 X 2 Tons/Acre). The estimated quantity includes mulching associated with both temporary and permanent seeding operations. The total mulch and mulch tacking slurry required shall be determined in the field. The bid item for mulching and mulch tacking slurry shall be paid for according to the Standard Specifications.

Quantities for all erosion control items are estimated to give full flexibility for compliance with the NPDES permit. Final quantities will be determined in the field.

SOIL EROSION MIX

PLS RATE	NAME	QTY (lb)
	Total (lb)	

The Soil Erosion Mix is to be placed under the Class 1 and/or Class 2 erosion control material.

The Soil Erosion Mix consists of the Shoulder Area of the Permanent Seed Mix used on the project.

NO.	DATE	REVISIONS	BY	APP'D
3	08/03/20	Added Note	MRD	ML
2	12/01/17	Revised Standard	MRD	SHS
1	06/01/17	Revised Standard	MRD	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

LA852A

FHWA APPROVAL		1/26/2018	APP'D		Scott H. Shields
DESIGNED	MRD	DETAILED	MRD	QUANTITIES	CADD
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK.

Sheet No.

Std. Base File:
Plotted: KDOT*CADD.Support*tks.pltPlot Location:
File: la852a.dgn
Plot Date: 18-DEC-2020 0h03

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0		

EROSION CONTROL- CLASS X, TYPE Y

STATION TO STATION	SIDE	LENGTH	WIDTH	SQ YARD
TOTAL EROSION CONTROL (CLASS X, TYPE Y) =				

Std. Base File:	
Plotted: pwMike	Plot Location:
File: la852a-ec.dgn	
Plot Date: 21-AUG-2020 18:45	

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

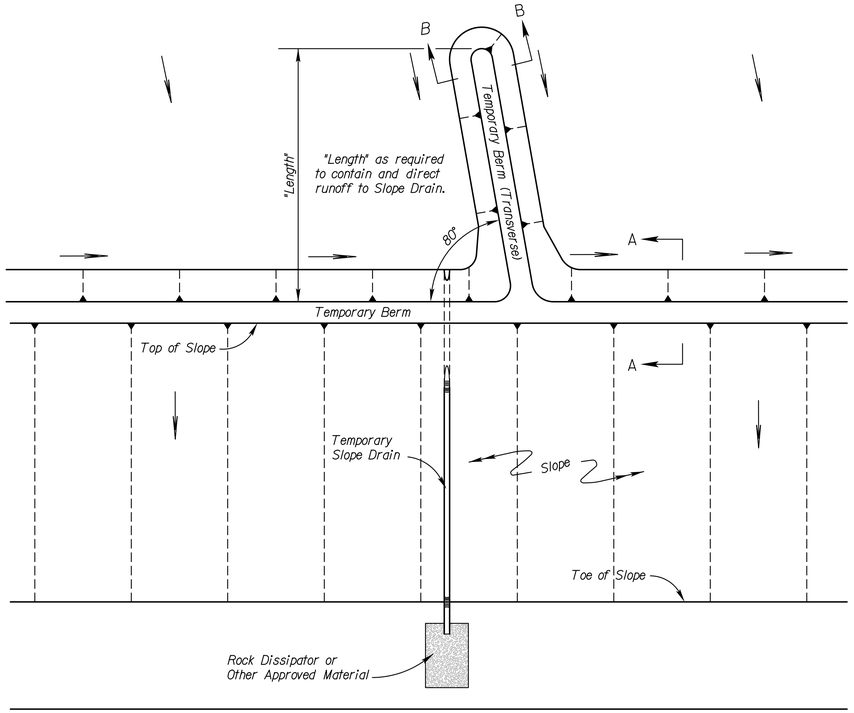
EROSION CONTROL
SEEDING-SODDING

LA852A-EC

FHWA APPROVAL		1/04/2006	APP'D	Scott H. Shields			
DESIGNED	MRM	DETAILED	MRM	QUANTITIES	CADD	MRM	
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK.	SHS	

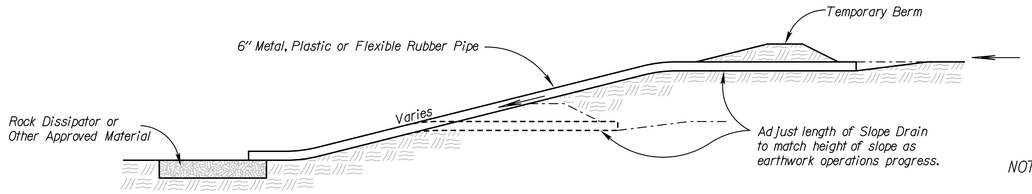
Sheet No.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0		



TYPICAL PLAN VIEW OF TEMPORARY BERM AND TEMPORARY SLOPE DRAIN

NO SCALE



TYPICAL PROFILE OF TEMPORARY SLOPE DRAIN

NO SCALE

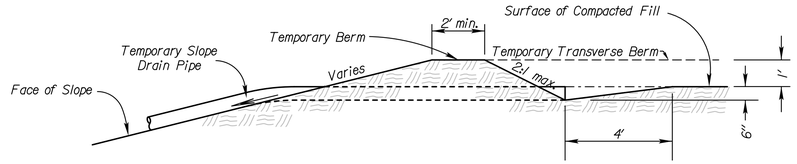
NOTES:

1) Temporary Slope Drain and Temporary Berm may be used on either project foreslopes or project backslopes.

2) Discharge of Slope Drains shall be into stabilized ditch or area, or into Sediment Basin.

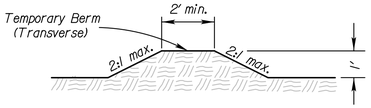
3) Pipe shall be secured in place as approved by Engineer.

4) Temporary Berms under 2,000 feet shall be bid by Set Price.



SECTION A-A

NO SCALE

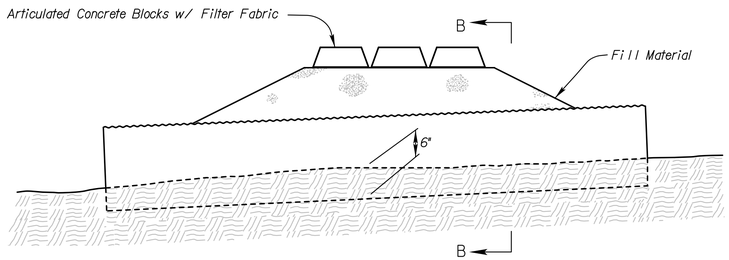


SECTION B-B

NO SCALE

TYPICAL PROFILE OF TEMPORARY BERM

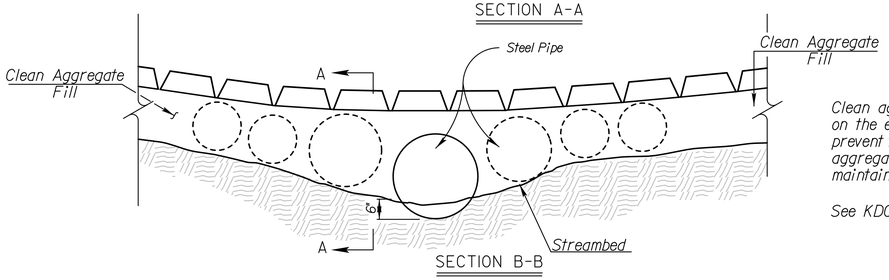
NO SCALE



SECTION A-A

Pipe size may vary.

Place 1 pipe buried 6" into stream bottom, in the lowest point of the channel to allow the passage of aquatic organisms, with additional pipes placed along the remainder of the stream channel bottom such that ordinary high water (OHW) flows designated in the Contract Documents shall flow through the pipes without overtopping the crossing.



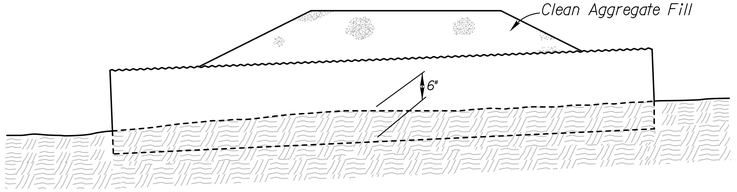
SECTION B-B

Clean aggregate fill will extend a minimum of 50' on the entrance and exit side of the crossing to prevent tracking. The aggregate shall be clean aggregate and a minimum of 6" thick and will be maintained through the use of the crossing.

See KDOT Specifications for more information.

TEMPORARY STREAM CROSSING (ARTICULATED CONCRETE BLOCKS)

NO SCALE

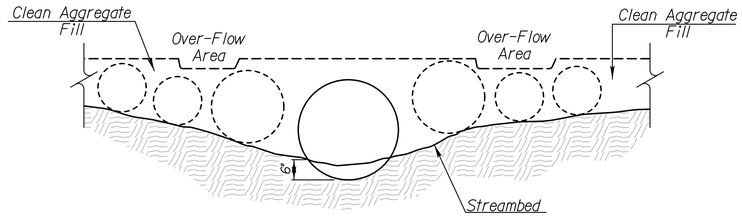


Pipe size may vary.

Place 1 pipe buried 6" into stream bottom, in the lowest point of the channel to allow the passage of aquatic organisms, with additional pipes placed along the remainder of the stream channel bottom such that ordinary high water (OHW) flows designated in the Contract Documents shall flow through the pipes without overtopping the crossing.

Clean aggregate fill will extend a minimum of 50' on the entrance and exit side of the crossing to prevent tracking. The aggregate shall be clean aggregate and a minimum of 6" thick and will be maintained through the use of the crossing.

See KDOT Specifications for more information.



SECTION B-B

TEMPORARY STREAM CROSSING (AGGREGATE)

NO SCALE

NO.	DATE	REVISIONS	BY	APP'D
3	1/21/22	Temp Stream Crossing - Clean Aggregate Fill Note Added	MRD	ML
2	8/24/21	Temp Stream Crossing - Clean Aggregate Fill Note Added	MRD	ML
1	6/11/13	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

TEMPORARY SLOPE DRAIN
TEMPORARY STREAM CROSSING (AGGREGATE)
TEMP. STREAM CROSS. (ARTC. CONC. BLOCKS)

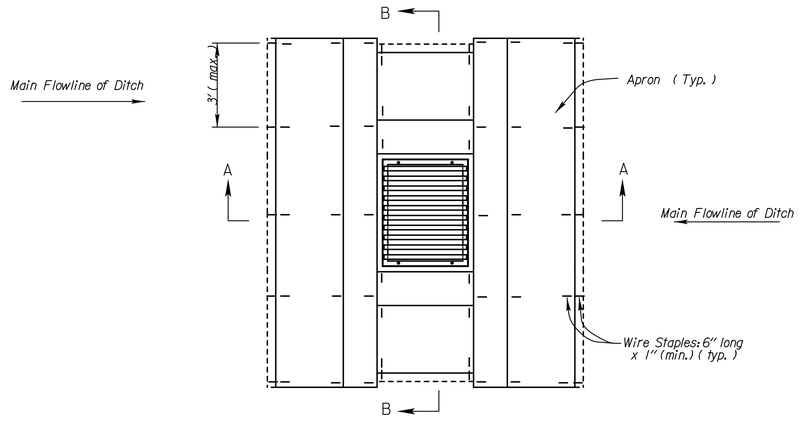
LA852B

FHWA APPROVAL		1/21/2022	APP'D	Mervin Lare
DESIGNED	ML	DETAILED	QUANTITIES	CADD
DESIGN CK.	ML	DETAIL CK.	QUAN.CK.	CADD CK.

Sheet No.

Std. Base File:
Plotted: KDOT*C\ADD\Support\eks.tbl Plot Location:
File: la852b.dgn
Plot Date: 26-JAN-2022 0:00

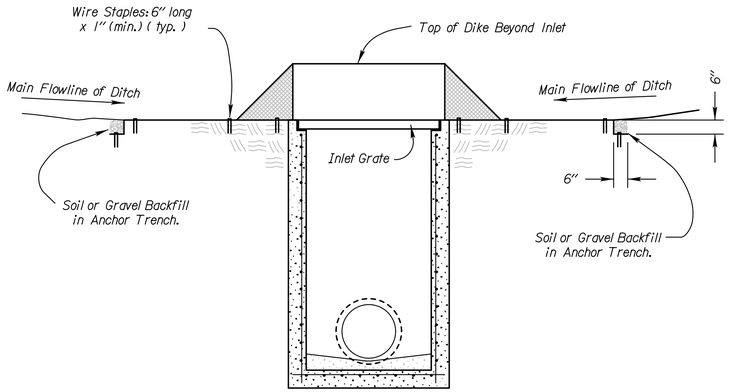
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0		



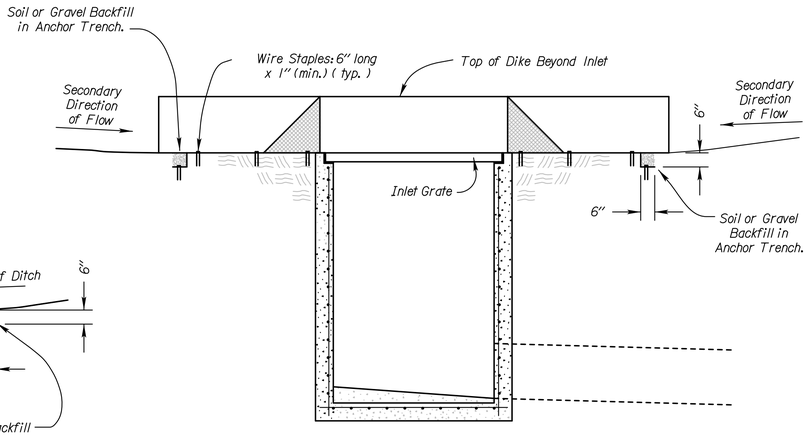
PLAN

TEMPORARY INLET SEDIMENT BARRIER
(TRIANGULAR SILT DIKE METHOD)

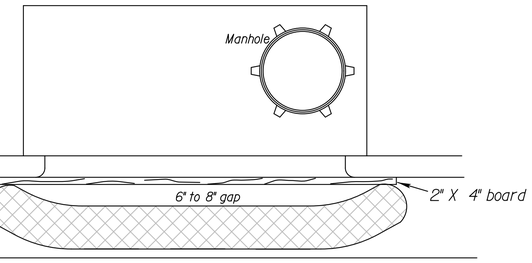
NO SCALE



SECTION A - A



SECTION B - B

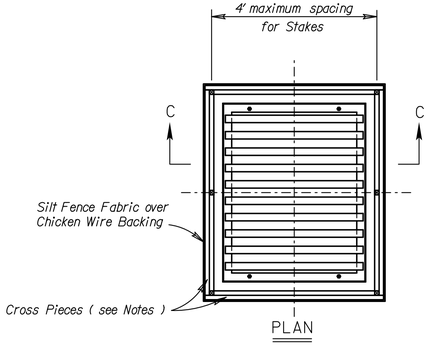


Bags = synthetic net (3mm mesh) or burlap bags

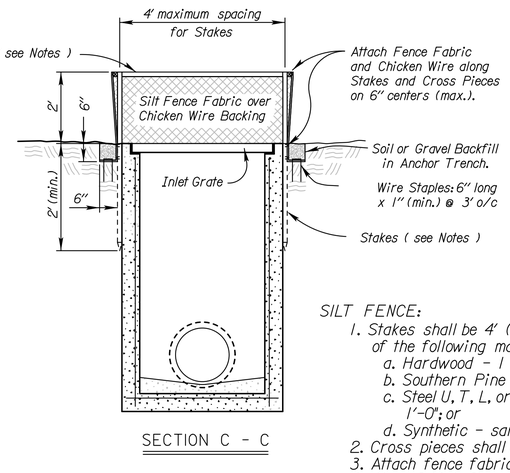
Rock = approximately 1" to 2" diameter

CURB INLET PROTECTION

1. If multiple gravel bags are required, place them in such a way that no gaps are evident.
2. Height of bags (8" minimum diameter) must not be above top of curb.
3. Alternative products may be used other than gravel bags such as the "Gutter Buddy". Products must be approved by the Engineer.
4. Curb inlet protection will be measured and paid for as Filter Sock.



PLAN



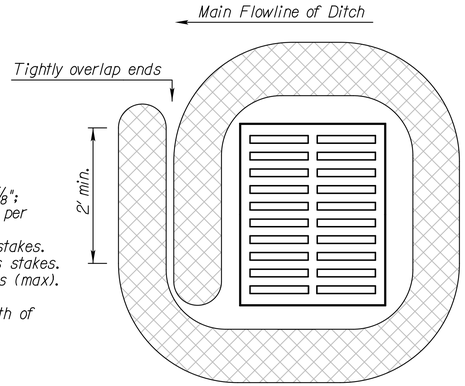
SECTION C - C

TEMPORARY INLET SEDIMENT BARRIER
(SILT FENCE METHOD)

NO SCALE

SILT FENCE:

1. Stakes shall be 4' (min.) long and of one of the following materials:
   a. Hardwood - 1 3/16" x 1 3/16";
   b. Southern Pine (No. 2) - 2 5/8" x 2 5/8";
   c. Steel U, T, L, or C Section - .95 lbs. per 1'-0"; or
   d. Synthetic - same strength as wood stakes.
2. Cross pieces shall be of same material as stakes.
3. Attach fence fabric securely on 6" centers (max).
4. Use of high flow material is acceptable.
5. Refer to plan sheets to estimate the length of silt fence required.



Note: 25% of log shall be keyed into ground during installation.

Stake every 4'

Drop inlet use 1'-6" TO 1'-8" diameter log

BIODEGRADABLE LOG/FILTER SOCK
DROP INLET PROTECTION

Material Requirements
Use 100% shredded mulch or other non-compost biodegradable material as fill for logs.
No compost or fines.
No hay or straw.
Do not use material which prohibits water infiltration.
Log Mesh: Use mesh with 1/4" openings or larger. Mesh must allow water infiltration but also hold fill material in place.

NO.	DATE	REVISIONS	BY	APP'D
3	9/26/19	Changed Direction of Main Flowline of Ditch Arrow	MRD	SHS
2	3/10/15	Revised Standard	RA	SHS
1	6/01/13	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

TEMP. INLET SEDIMENT BARRIER (SILT FENCE)
TEMP. INLET SEDIMENT BARRIER (T.S.D.)
CURB INLET PROTECTION
DROP INLET PROTECTION

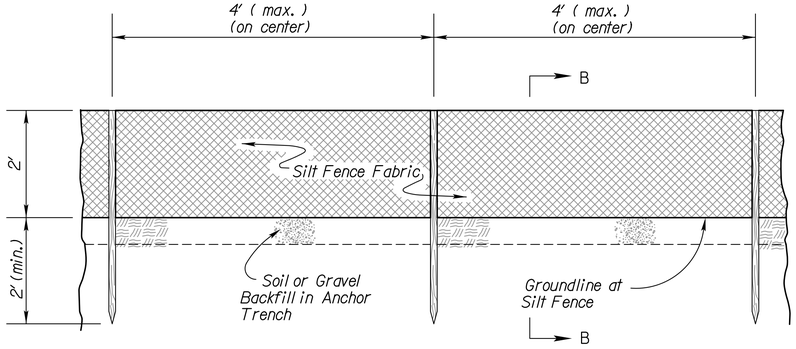
LA852C

FHWA APPROVAL		3/10/2015	APP'D	Scott H. Shields	
DESIGNED	RA	DETAILED	RA	QUANTITIES	CADD
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK.

Sheet No.

Std. Base File:
Plotted: KDOT*CADD.Support\ks.plot Location:
File: la852c.dgn
Plot Date: 18-DEC-2020 0:01

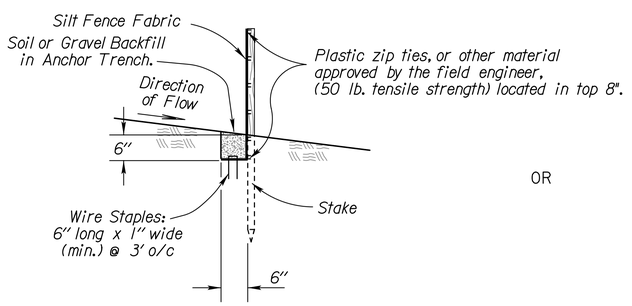
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	Project No.	20XX	0	0



TYPICAL ELEVATION

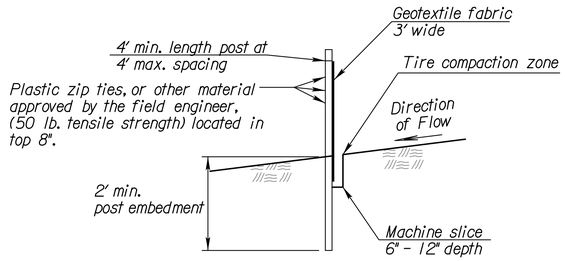
SILT FENCE BARRIER

NO SCALE



SECTION B-B

OR



SECTION B-B

INSTALLATION NOTES

SILT FENCE:

1. *Stakes shall be 4' (min.) long and of one of the following materials:*
   a. *Hardwood - 1 3/16" x 1 3/16";*
   b. *Southern Pine (No. 2) - 2 5/8" x 2 5/8";*
   c. *Steel U, T, L, or C Section - .95 lbs. per 1'-0"; or*
   d. *Synthetic - same strength as wood stakes.*
2. *Attach fence fabric with 3 zip ties within the top 8" of the fence Alternate attachment methods may be approved by the Engineer on a performance basis.*
3. *Use of high flow material is acceptable.*
4. *Refer to plan sheets to estimate the length of silt fence required.*

BIODEGRADABLE LOG OR FILTER SOCK

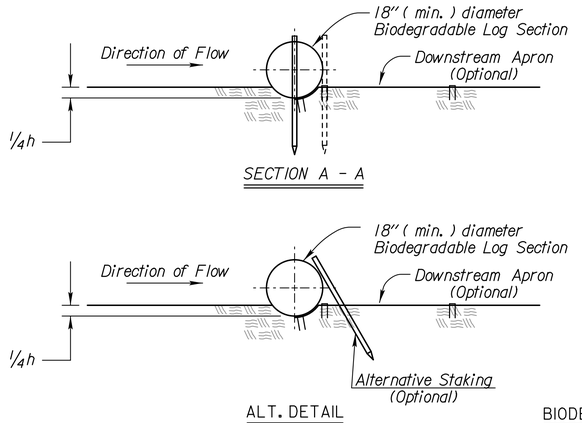
1. *Place biodegradable logs or filter sock tightly together minimum overlap of 18".*
2. *Wood stakes shall be 2" x 2" (nom.).*
3. *Refer to plan sheets to estimate length of biodegradable log and filter sock required.*
4. *Each log or sock (except compost filter socks) should be keyed into the ground at a minimum of 25% of its height. Compost filter socks should be placed on smooth prepared ground with no gaps between the sock and soil.*
5. *Length of stakes should be 2 times the height of the log at a minimum with minimum ground embedment equal to the height of the log / sock.*

Biodegradable Log or Filter Sock Slope Interruptions

		PRODUCT		
		9" Sediment Log or 8" Filter Sock (ft)	12" Sediment Log or 12" Filter Sock (ft)	20" Sediment Log or 18" Filter Sock (ft)
Slope Gradient	≤4H:1V	40	60	80
	3H:1V	30	45	60

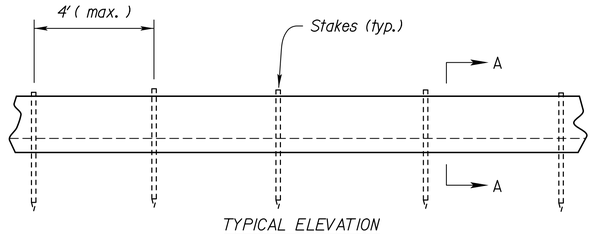
Deviations should be approved by the Field Engineer.

	BIODEGRADABLE LOG MATERIAL	
	LOW FLOW	HIGH FLOW
9"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber
12"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber
18"-20"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber



ALT. DETAIL

OPTIONAL



TYPICAL ELEVATION

BIODEGRADABLE LOG SLOPE INTERRUPTIONS

OR Filter Sock

GENERAL NOTES

1) *Slope interruptions shall be placed along contour lines, with a short section turned upgrade at each end of the barrier.*
2) *The maximum length of the slope interruptions shall not exceed 250 feet, and the barrier ends need to be staggered.*
3) *Interruptions damaged by Contractor's negligence, including improper maintenance or lack of maintenance, shall be repaired immediately by Contractor at no additional cost to KDOT.*
4) *Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.*

NO.	DATE	REVISIONS	BY	APP'D
3	6/28/16	Revised Standard	RA	SHS
2	3/01/15	Revised Standard	RA	SHS
1	6/01/13	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

SLOPE INTERRUPTIONS BIODEGRADABLE LOG / SILT FENCE

LA852D

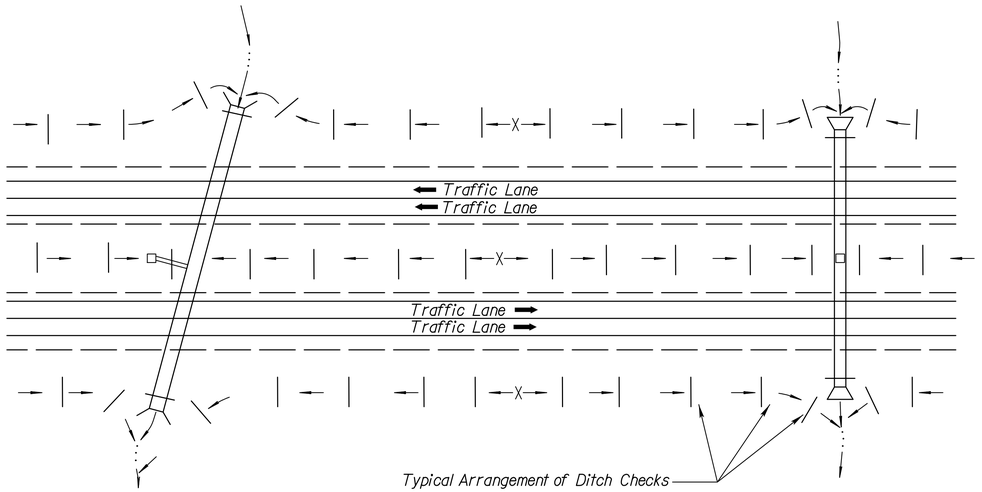
FHWA APPROVAL		9/14/2016	APP'D	Scott H. Shields	
DESIGNED	SHS	DETAILED RA	QUANTITIES	CADD	
DESIGN CK.	SHS	DETAIL CK.	QUAN.CK.	CADD CK.	

CADconform Certify This File

Sheet No. 0

Std. Base File:
Plotted By: melissa
File: la852d.dgn
Plot Date: 14-SEP-2016 13:07
Plot Location: Landscape

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	Project No.	20XX	0	0



TYPICAL DITCH CHECK LAYOUT PLAN

NO SCALE

20" BIOLOG CHECK SPACING	
DITCH ℄ SLOPE (%)	SPACING INTERVAL (FEET)
1.0	*125*
2.0	*60*
3.0	*40*
4.0	*30*
5.0	*25*
NOTE: Use this spacing for all except Rock Ditch Checks.	

18" FILTER SOCK CHECK SPACING	
DITCH ℄ SLOPE (%)	SPACING INTERVAL (FEET)
1.0	*110*
2.0	*55*
3.0	*35*
4.0	*25*
5.0	*20*
NOTE: Use this spacing for all except Rock Ditch Checks.	

GENERAL NOTES

1) *The choice of ditch check methods is at the option of the Contractor.*

2) *Use only rock checks in situations where the ditch slope is 6 percent or greater.*

2) *Ditch checks damaged by Contractor's negligence, including improper maintenance or lack of maintenance, shall be repaired by Contractor at no extra cost to KDOT.*

Std. Base File:	
Plotted By: *melissa*	Plot Location: *Landscape*
File: *la852e.dgn*	
Plot Date: *14-SEP-2016 13:10*	

NO.	DATE	REVISIONS	BY	APP'D
3	8/10/16	Revised Standard	RAA	SHS
2	6/28/16	Revised Standard	RAA	SHS
1	6/01/13	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

DITCH CHECKS

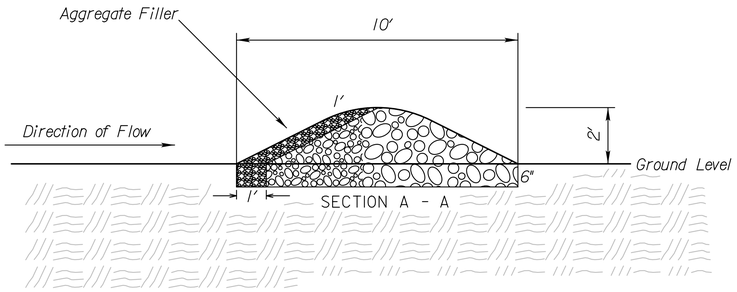
LA852E

FHWA APPROVAL	9/14/2016	APP'D	Scott H. Shields		
DESIGNED	SHS	DETAILED	RAA	QUANTITIES	CADD RAA
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK. SHS

CADconform Certify This File

CADconform Certify This File

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0		



TYPICAL ELEVATION

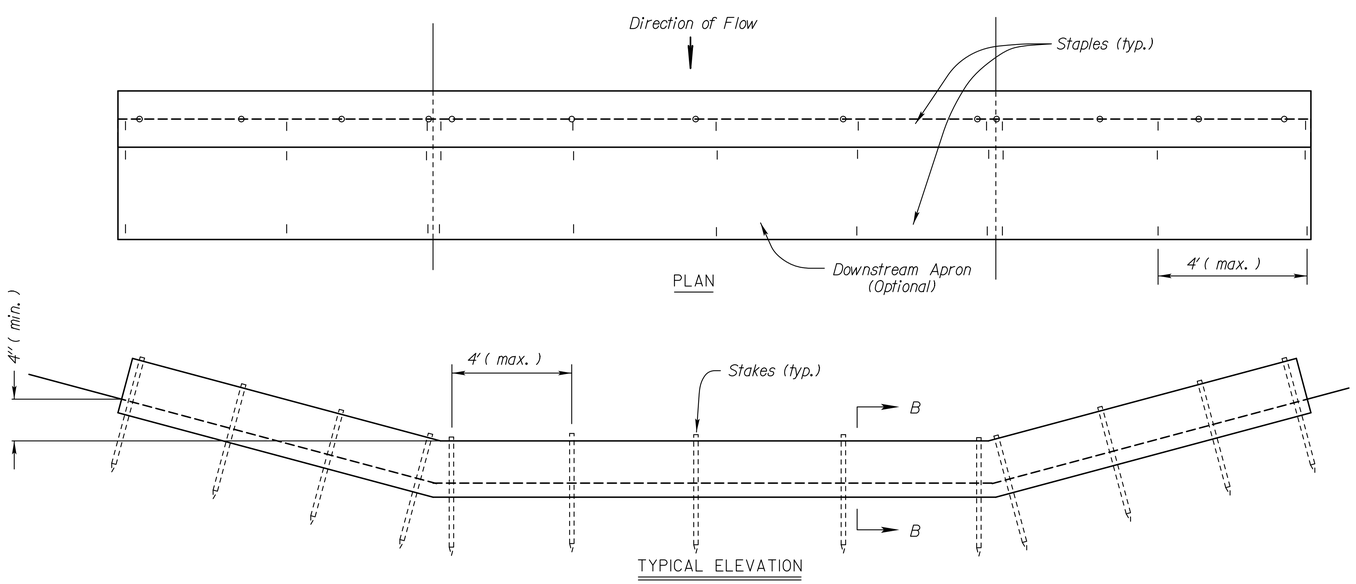
ROCK DITCH CHECK

NO SCALE

TEMPORARY ROCK DITCH CHECK SPACING	
DITCH ℄ SLOPE (%)	*SPACING INTERVAL (FEET)*
5.0	*60*
6.0	*50*
7.0	*43*
8.0	*36*
9.0	*33*
10.0	*29*
NOTE: Use this spacing for Rock Ditch Checks only.	

ROCK DITCH CHECK NOTES

1. *Rock shall be clean aggregate, D50-6" and aggregate filler.*
2. *Place rock in such manner that water will flow over, not around ditch check.*
3. *Do not use rock ditch checks in clear zone.*
4. *Excavation: The ditch area shall be reshaped to fill any eroded areas. Prior to placement of the rock, the ditch shall be excavated to the dimensions of the Rock Ditch Check and to a minimum depth of 6" (150mm). After placement of the rock, backfill and compact any over-excavated soil to ditch grade. This work shall be subsidiary to the bid item Temporary Ditch Check (Rock).*
5. *Aggregate excavated on site may be used as an alternate to the 6" rock, if approved by the Engineer.*
6. *The Engineer may approve the use of larger aggregates for the downstream portion of the check when conditions warrant their use.*
7. *When the use of larger rock is approved, D50-6" rock will be placed between the larger aggregate and the aggregate filler.*
8. *Aggregate filler will be placed on the upstream face of the ditch check. Aggregate filler will comply with Filter Course Type I, Division 1114.*

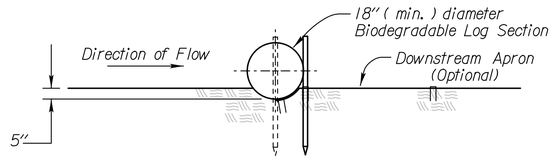


TYPICAL ELEVATION

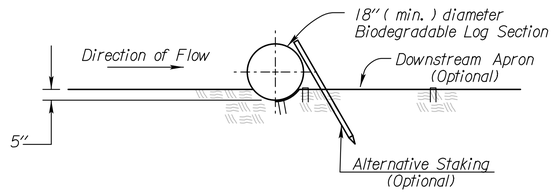
BIODEGRADABLE LOG DITCH CHECK

OR Filter Sock Ditch Check

NO SCALE



SECTION B - B



ALT. DETAIL
OPTIONAL

BIODEGRADABLE LOG DITCH CHECK NOTES

1. *Use as many biodegradable log sections as necessary to ensure water does not flow around end of ditch check.*
2. *Overlap sections a minimum of 18".*
3. *Stakes shall be wood or steel according to Section 2114 of the Standard Specifications. Length of stakes shall be a minimum of 2 x the diameter of the log.*
4. *Use Erosion Control (Class 1) (Type C) as the downstream apron when required.*
5. *A downstream apron is required when directed by the Engineer. Apron material will be paid at the contract unit price.*
6. *Each log or sock (except compost filter socks) should be keyed into the ground at a minimum of 25% of its height. Compost filter socks should be placed on smooth prepared ground with no gaps between the sock and soil.*

NO.	DATE	REVISIONS	BY	APP'D
3	11/19/20	Revised Standard	MRD	ML
2	8/10/16	Revised Standard	RAA	SHS
1	10/21/15	Revised Standard	RAA	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL
ROCK DITCH CHECKS
BIODEGRADABLE LOG DITCH CHECKS

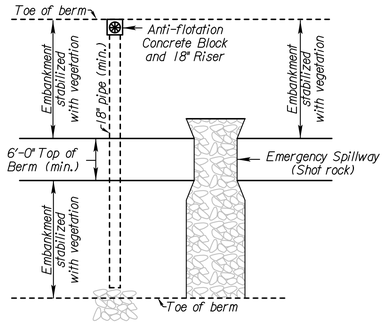
LA852G

FHWA APPROVAL			11/19/2020	APP'D		Mervin Lare	
DESIGNED	ML	DETAILED	DK	QUANTITIES		CADD	RAA
DESIGN CK.	ML	DETAIL CK.	ML	QUAN.CK.		CADD CK.	RAA

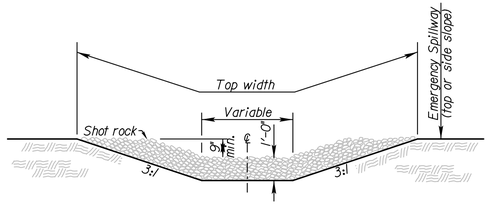
Sheet No.

Std. Base File: la852g.dgn
Plotted: KDOT*CADD.Support*eks.pltPlot Location:
File: la852g.dgn
Plot Date: 24-NOV-2020 0:01

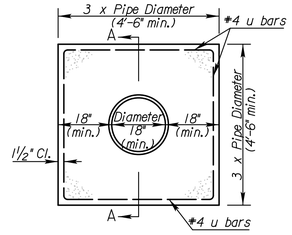
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0		



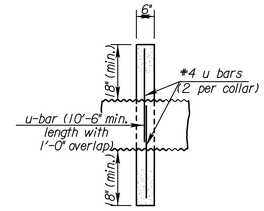
SEDIMENT STORAGE BASIN (PLAN)



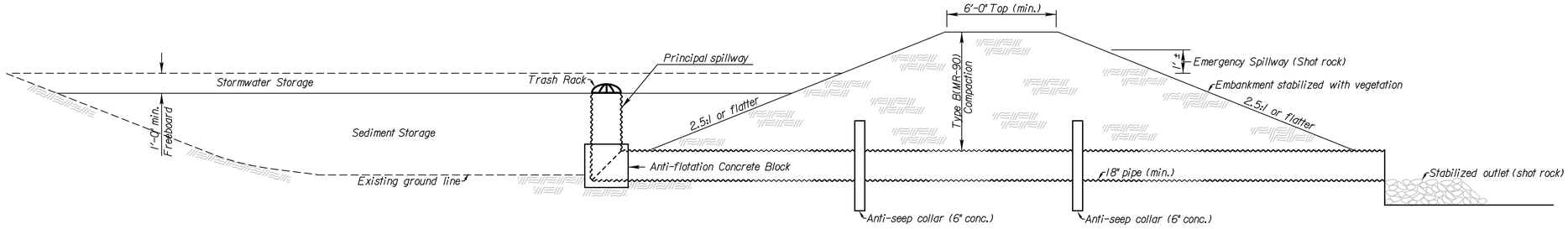
CROSS SECTION (EMERGENCY SPILLWAY)



CONCRETE ANTI-SEEP COLLAR



SECTION A-A



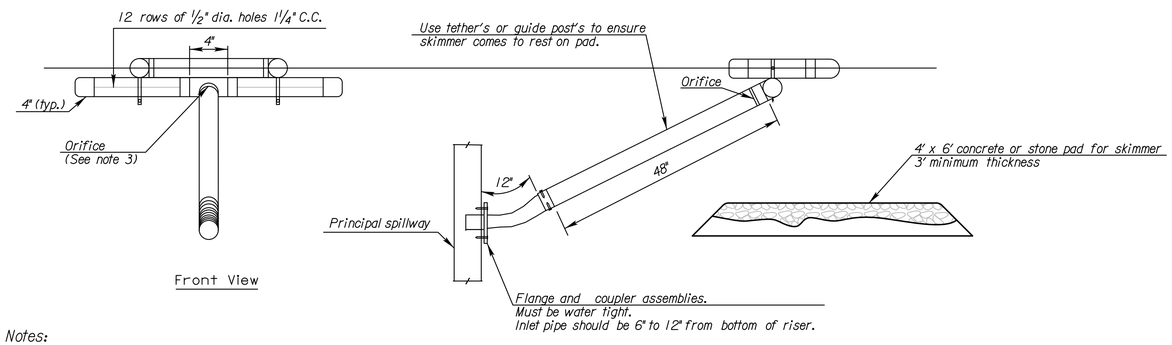
SEDIMENT STORAGE BASIN (ELEVATION)

NOTES:

1) Temporary Sediment Basins shall be constructed at locations as directed by the Engineer or as approved in the SWPPP Schedule. All work and materials necessary, including but not limited to, the fill material, compaction, drainage pipes, aggregates and all other incidentals necessary to construct the basin, shall be paid as "Temporary Sediment Basin".

2) Lengths and top dimensions shall be determined in the field by the Engineer.

3) Skimmer dewatering device required and must be used reguardless the size of the drainage area.



Notes:

1. *All P.V.C. pipes are to be schedule 40.*
2. *HDPE flexible drain pipes is to be attached to the pond outlet structure with water-tight connections.*
3. *The orifice shall be sized of to provide drawdown time to 2 to 5 days and approved by the engineer.*
4. *Other skimmer designs maybe used that dewaters from the surface at a controlled rate. The design must be approved by the engineer.*

SKIMMER DEWATERING DEVICE

SEDIMENT STORAGE BASIN LOCATIONS

STATION TO STATION	SIDE	REQUIRED STORAGE CAPACITY

NO.	DATE	REVISIONS	BY	APP'D
3				
2	9/3/13	Added Skimmer Dewatering Device	MRM	SHS
1	7/17/13	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

SEDIMENT STORAGE BASIN

LA852H

FHWA APPROVAL	09/24/2013	APP'D	Scott H. Shields		
DESIGNED	BB	DETAILED	BB	QUANTITIES	CADD BB
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK. SHS

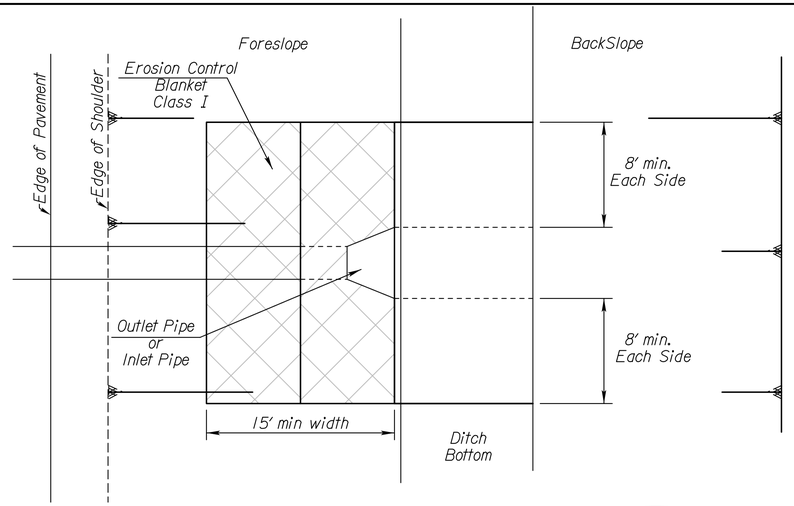
KDOT Graphics Certified 07-28-2021

Sheet No.

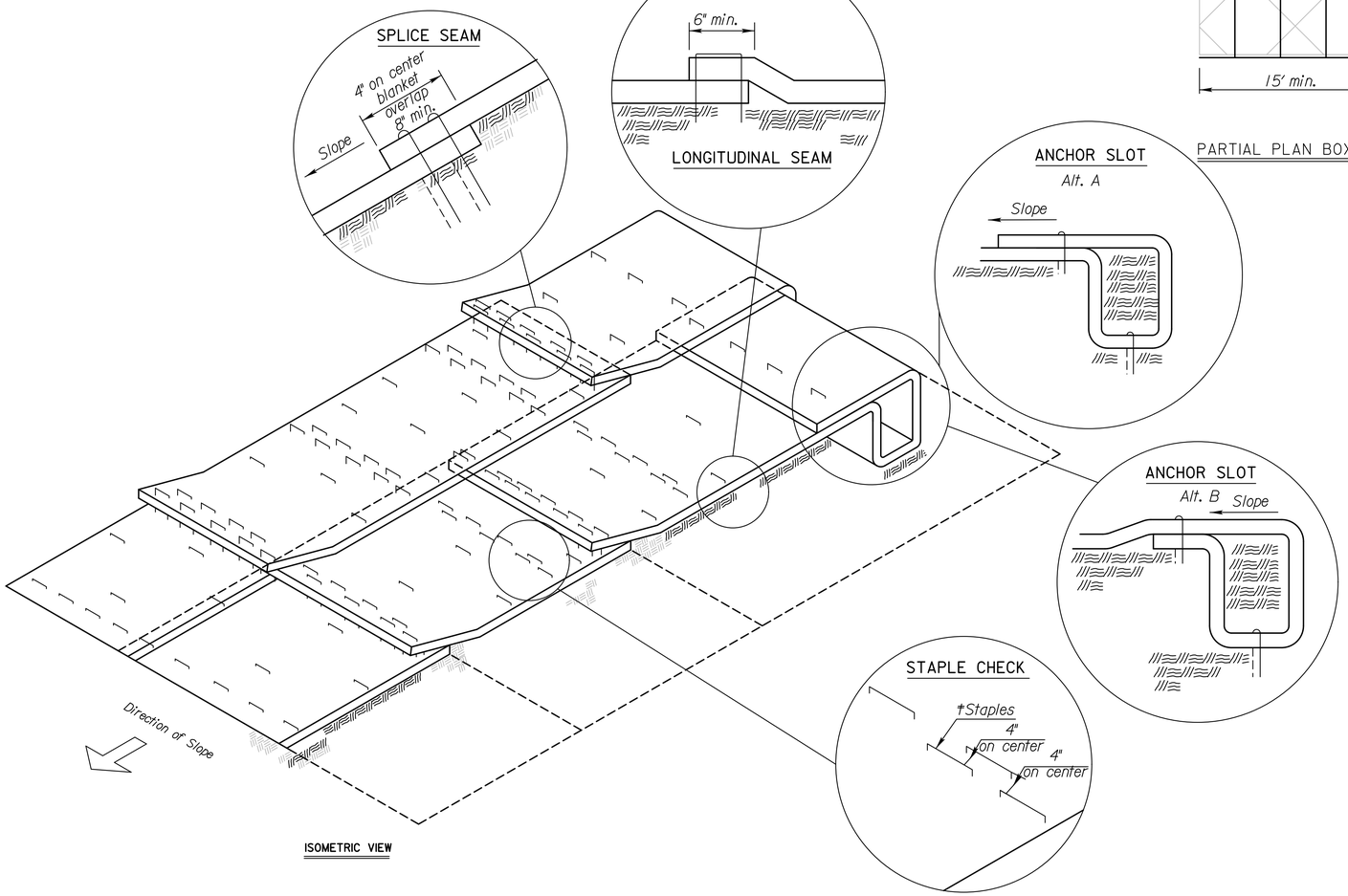
KDOT Graphics Certified

Std. Base File:
Plotted: Melissa.Davidson@ks.gov Plot Location:
File: la852h.dgn
Plot Date: 28-JUL-2021 14:32

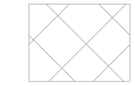
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0		



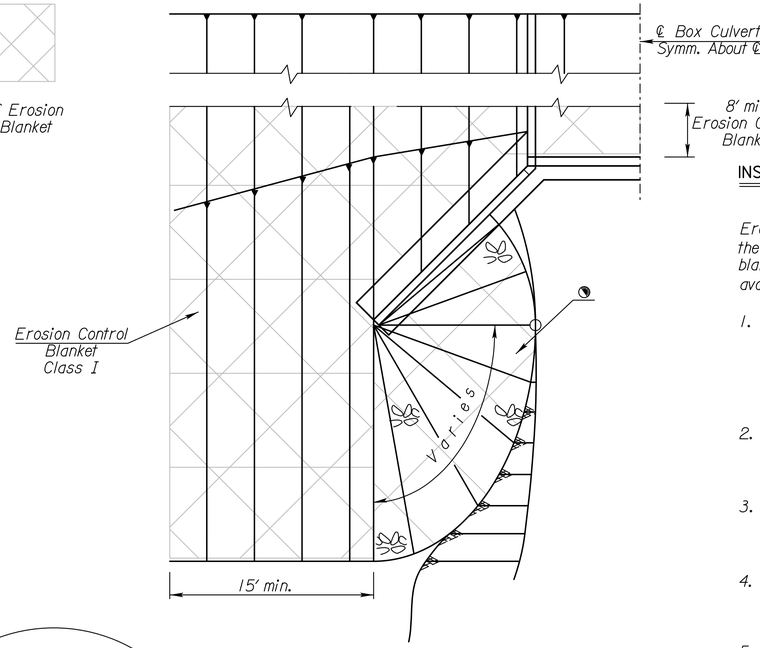
PARTIAL PLAN PIPE



ISOMETRIC VIEW



Limits of Erosion Control Blanket



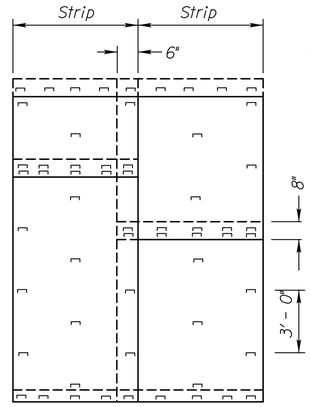
PARTIAL PLAN BOX CULVERT

◔ Erosion Control Class I may be omitted if the area is immediately covered by permanent slope protection (where directed by the plans).

INSTALLATION DETAILS FOR EROSION CONTROL CLASS I

Erosion Control Blankets shall be laid loosely in the direction of the slope, beginning at the bottom of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.

1. ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.
2. LONGITUDINAL SEAMS: The edges of the blanket should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.
3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 8 inches in direction of water flow. Stagger splice seams.
4. TERMINAL FOLD: The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.
5. TYPICAL ANCHORS: Anchor design shall be as recommended by the manufacturer.
6. STAPLE CHECK: †Establish Staples in 2 rows 4" on center apart. Staple Checks - shall be 30' apart.



PLAN VIEW - ANCHORING DIAGRAM

NOTE:
Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

Single post ring and shank staple is acceptable.

NO.	DATE	REVISIONS	BY	APP'D
4	3/01/15	Revised Standard	RAA	SHS
3	2/23/15	Revised Standard	RAA	SHS
2	9/15/14	Revised Standard	MRM	SHS
1	9/10/07	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

INSTALLATION DETAIL
EROSION CONTROL CLASS I
SLOPE PROTECTION

LA855

FHWA APPROVAL	3/10/2015	APP'D	Scott H. Shields		
DESIGNED	RAA	DETAILED	RAA	QUANTITIES	CADD RAA
DESIGN CK.		DETAIL CK.		QUAN.CK.	CADD CK. RAA

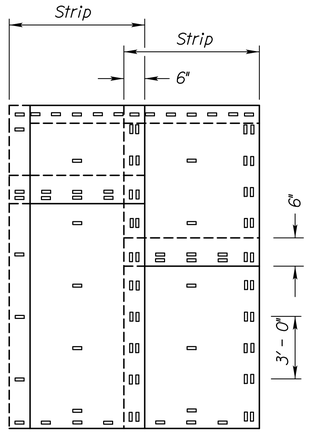
KDOT Graphics Certified 07-28-2021

Sheet No.

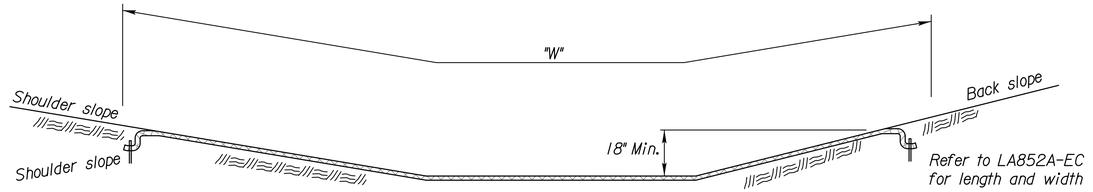
KDOT Graphics Certified

Std. Base File: la855.dgn
Plotted: Melissa.Davidson@ks.gov Plot Location:
File: la855.dgn
Plot Date: 28-JUL-2021 14:40

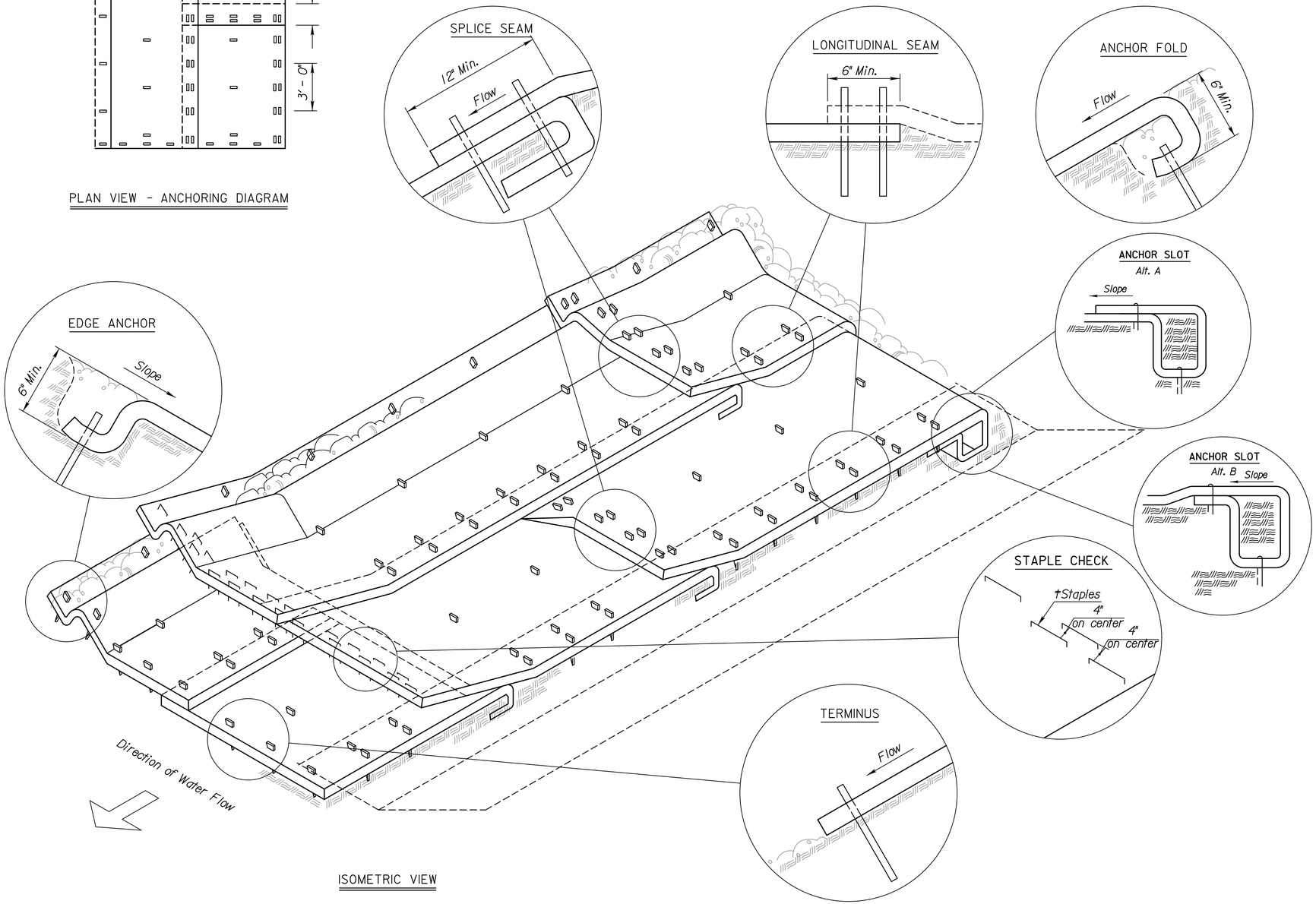
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	Project No.	20XX	0	0



PLAN VIEW - ANCHORING DIAGRAM



CROSS SECTION (Ditch Lining)



ISOMETRIC VIEW

INSTALLATION DETAILS FOR EROSION CONTROL CLASS 2

Erosion Control Mats shall be laid loosely in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.

1. *ANCHOR FOLD: The top of the mat should be folded under, buried and secured with approved anchors placed 6 inches apart. The top edge of the mat should be buried in a slot, 6 inches wide x 6 inches deep; anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.*

2. *LONGITUDINAL SEAMS: The adjacent edges of the mat should overlap a minimum of 6 inches, with anchors catching the edges of both mats.*

3. *SPLICE SEAM: When splices are necessary, overlapend a minimum of 12 inches in direction of water flow. Stagger splice seams.*

4. *STAPLE CHECK: †Establish Staples in 2 rows 4" on center apart. Staple Checks - shall be 30' apart.*

5. *EDGE ANCHOR: Lay outside edge of mat into trench at top of side slope. Anchor at 3 foot intervals along trench.*

6. *TERMINUS: The bottom edge of the mat shall be anchored in place with anchors spaced at 9 inch intervals along the terminating edge.*

7. *TYPICAL ANCHORS: Anchor design shall be as recommended by the manufacturer.*

Std. Base File:	la856.dgn
Plotted By:	rlong
File:	la856.dgn
Plot Date:	10-OCT-2016 11:45
Plot Location:	Bridge Design

NO.	DATE	REVISIONS	BY	APP'D
4	9/25/15	Modified Staple Check	RAA	SHS
3	9/15/14	Revised Standard	RAA	SHS
2	3/01/13	Revised Standard	MRM	SHS
1	9/22/99	Revised Standard	WCL	RDR

KANSAS DEPARTMENT OF TRANSPORTATION

INSTALLATION DETAIL
EROSION CONTROL CLASS 2
FLEXIBLE CHANNEL LINER

LA856

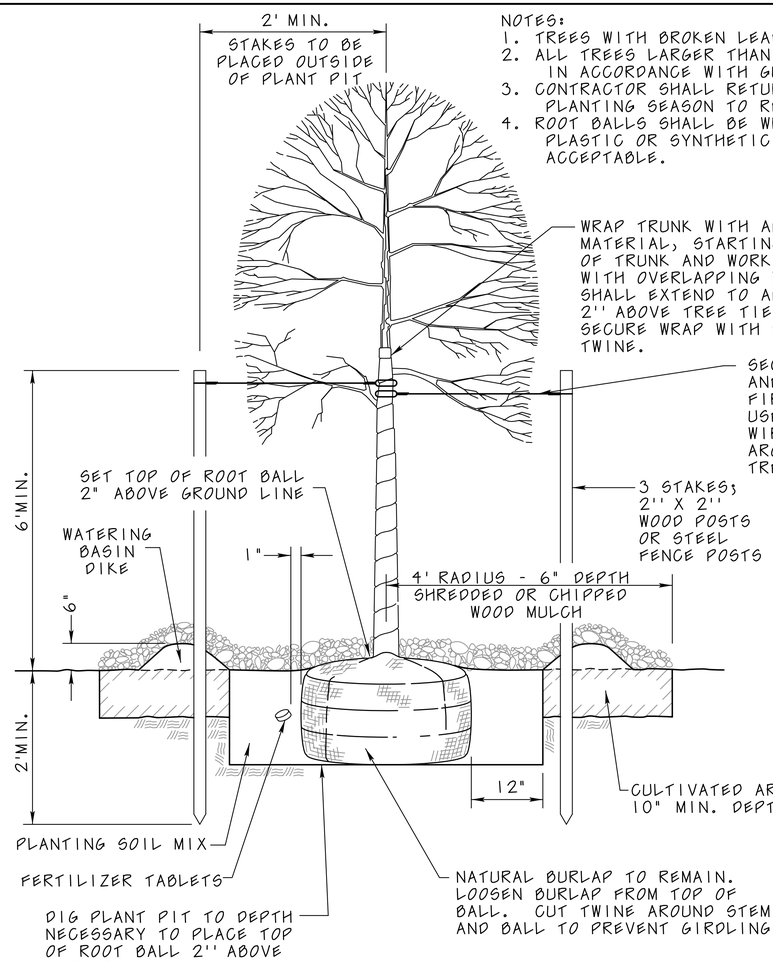
FHWA APPROVAL		11/02/2015	APP'D	Scott H. Shields	
DESIGNED	RAA	DETAILED	RAA	QUANTITIES	CADD RAA
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK.

CADconform Certify This File

CADconform Certify This File

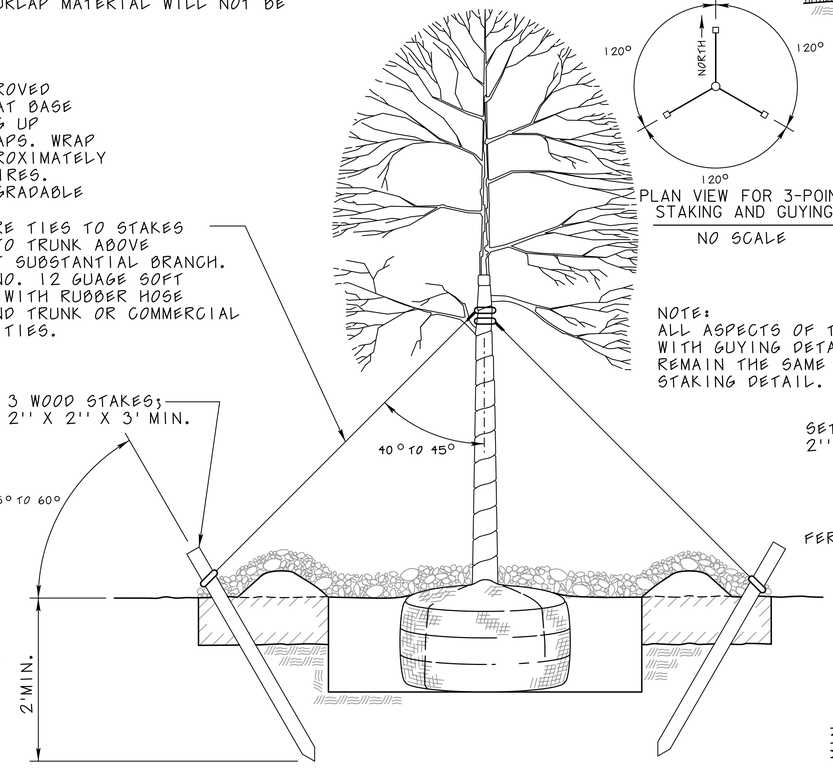
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	Project No.	20XX	0	0

NOTES:
1. TREES WITH BROKEN LEADERS WILL NOT BE ACCEPTABLE.
2. ALL TREES LARGER THAN 2'' CALIPER SHALL BE GUYED IN ACCORDANCE WITH GUYING DETAIL, THIS SHEET.
3. CONTRACTOR SHALL RETURN AFTER THE FOLLOWING PLANTING SEASON TO REMOVE THE STAKES AND WRAPPING.
4. ROOT BALLS SHALL BE WRAPPED IN NATURAL BURLAP ONLY. PLASTIC OR SYNTHETIC BURLAP MATERIAL WILL NOT BE ACCEPTABLE.



STAKING, FERTILIZING & MULCHING
DECIDUOUS TREES 1¼" to 2" CALIPER

NO SCALE



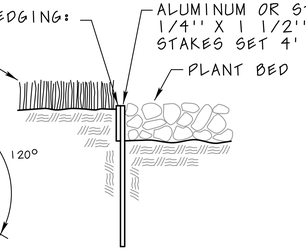
GUYING
DECIDUOUS TREES LARGER THAN 2" CALIPER
AND ALL EVERGREEN TREES LARGER THAN 6' TALL

NO SCALE

PLAN VIEW FOR 3-POINT STAKING AND GUYING

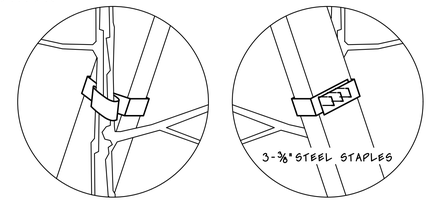
NO SCALE

NOTE:
ALL ASPECTS OF TREE PLANTING WITH GUYING DETAIL SHALL REMAIN THE SAME AS WITH THE STAKING DETAIL.



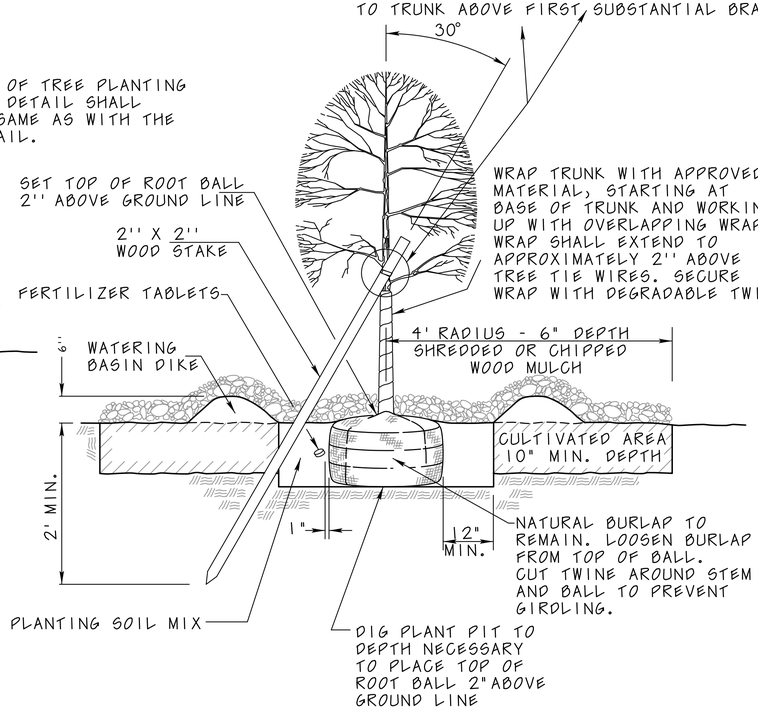
PLANT BED EDGING DETAIL

NO SCALE



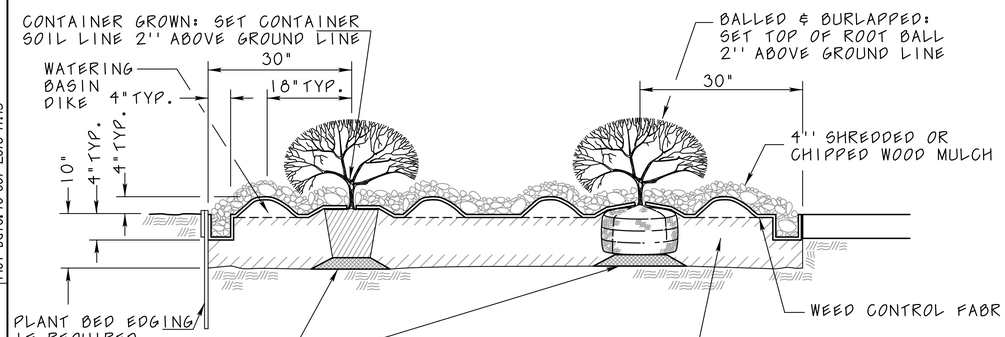
TREE TIE DETAIL

NOTE:
1-1'' X 15'' MIN. VINYL IMPREGNATED WOVEN NYLON TIE PER TREE. OTHER TREE TIE METHODS AND MATERIALS MAY BE USED IF APPROVED BY THE ENGINEER. TIE STAKE TO TRUNK ABOVE FIRST SUBSTANTIAL BRANCH.



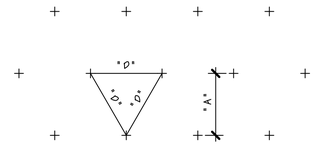
STAKING, FERTILIZING & MULCHING
DECIDUOUS TREES LESS THAN 1¼" CALIPER

NO SCALE



SHRUB PLANTING DETAIL

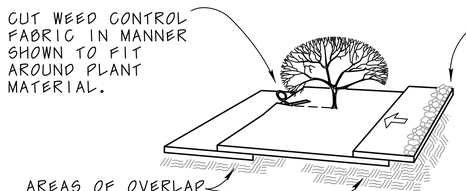
NO SCALE



SPACING "D"	ROW "A"	NUMBER OF PLANTS	AREA
6" O.C.	5.2"	4.61	1 SQ. FT.
12" O.C.	10.4"	1.15	1 SQ. FT.
18" O.C.	15.6"	5.12	10 SQ. FT.
24" O.C.	20.8"	2.91	10 SQ. FT.
30" O.C.	26.0"	1.65	10 SQ. FT.
36" O.C.	31.2"	1.28	10 SQ. FT.

PLANT SPACING CHART

POTTED VINES & GROUND COVER PLANTS SHALL BE AT LEAST ONE YEAR OLD AND SHALL HAVE BEEN GROWN IN POTS LONG ENOUGH TO INSURE SUFFICIENT ROOT GROWTH TO HOLD SOIL IN PLACE AND RETAIN THE ORIGINAL SHAPE WHEN REMOVED FROM THE POT. VINES SHALL HAVE A MINIMUM OF 4 RUNNERS, 12" LONG.



INSTALLATION OF WEED CONTROL FABRIC DETAIL

NO SCALE

NO.	DATE	REVISIONS	BY	APP'D
1	5/10/99	Revised Standard	WCL	RDR

KANSAS DEPARTMENT OF TRANSPORTATION

ROADSIDE IMPROVEMENT PLANTING DETAILS

LA860

FHWA APPROVAL	5/20/99 APP'D		Richard D. Ross
DESIGNED	WCL DETAILED	WCL QUANTITIES	CADD WCL
DESIGN CK.	RCR DETAIL CK.	RCR QUAN.CK.	CADD CK. RDR

Std. Base File: la860.dgn | Plot Location: Bridge Design
Plotted By: rlong
File: la860.dgn
Plot Date: 10-OCT-2016 11:45

Kansas
Department of Transportation
Bureau of Construction & Materials

LIST OF PREQUALIFIED EROSION CONTROL PRODUCTS [2015 – SS 2113]

PQL – 34.1 **REVISED – 12/22/21**

CMS MATERIAL CODE GROUP (193)

The Contractor has the option of utilizing the following approved products in accordance with the Class and Type as specified on the plans. The types are ranked based on their effectiveness with Type C being the lowest and Type H being the highest. Substitution of a more effective product than what is specified is permitted. The current Approved Products List may be found on KDOT's webpage at: http://www.ksdot.org/Assets/wwwksdotorg/bureaus/burMatrRes/PQL/pql-34-0.pdf.

Direct all questions to the Stormwater Compliance Engineer, Bureau of Construction and Materials, Eisenhower State Office Building, 700 SW Harrison, Topeka, KS 66603. Phone (785)250-4793.Email kdot.stormwaterinspection@ks.gov

CLASS 1 "SLOPE PROTECTION"
Type C – Slopes Steeper than 3:1 – CLAY Soils:

AEC Premier Straw/Coconut
BioMac S1
BioMac SC
Excel S-1
Excel SR-1 All Natural
Greenfix CFS072R
Greenfix WS05
North American Green® S75BN
S1000 Single Net Straw
US-2X

CLASS 1 "SLOPE PROTECTION"
Type D – Slopes Steeper than 3:1 – SANDY Soils:

AEC Premier Coconut
AEC Premier Straw Double Net
BioMac SS 027.2
Curlex™ I
Curlex™ I CL
Curlex™ II CL
ECB S32 Double Net Straw
ECS-2
ETRS-2 Erosion Tech
ETRS-2BN Erosion Tech
Excel RC-1
Excel SS-2
GreenSolutions DNS2
GreenSolutions SNS 1
Kansas Erosion Product S2
North American Green® C125
North American Green® S150
Rhino Erosion King Single Net
Tackmat S
Tackmat X
TerraGuard DS
US-2S
WintersCoir
Winters Straw HV

APPROVED PRODUCT LIST
ITEM 169 "SOIL RETENTION BLANKET"

CLASS 2 - "FLEXIBLE CHANNEL LINER"
Type E - Shear Stress Range (Up to 2 Pounds Per Square Foot):

BioMac N20
Enkamat 7020
Excel CC-4 All Natural
Excel CS-3
Excel CS-3 All Natural
Greenfix CFG
KEP-SC2
KEP-SC2 Natural
KEP-C100
KEP-C100 Natural
North American Green® TMax 3K
SEC XL2

CLASS 2 - "FLEXIBLE CHANNEL LINER"
Type F - Shear Stress Range (Up to 4 Pounds Per Square Foot):

AEC Premier Straw/Coconut
BioMac C
Contech Coconut Mat w/Kraft Net
Curlex® II Stitched
Curlex® II (.98)
Curlex® II CL
Curlex® III Stitched
Curlex® Enforcer I
ECB PS42
ECB SC 32 Double Net Extended Term
ECP-3
ETSC 7030 Erosion Tech
Excel CC-4
Excel R-1
Excel SD-3
Greenfix CFG 2000
Greenfix CFO 72RR
Landlok® CS2
Landlok® C2
North American Green® C125BN
North American Green® C350
North American Green® SC150BN
North American Green® P300

CLASS 2 - "FLEXIBLE CHANNEL LINER
Type G - Shear Stress Range (Up to 6 Pounds Per Square Foot):

Curlex® Enforcer
Earth-Lock
Earth-Lock II
ECB EX32
ECP-3 Straw/Coconut TRM
Enkamat 7018
Greenfix CFG 2000
Greenstreak Pec-Mat
Koirmat ™ 700
Landlok®TRM 1060
Multimat 100
TMax 3k

CLASS 2 - "FLEXIBLE CHANNEL LINER
Type H - Shear Stress Range (Up to 8 Pounds Per Square Foot):

Biomac CC 025.3
Channel Soxx
Contech C-35
Contech TRM C-45
Contech C 50
Contech Coconut/Poly Fiber Mat
ECB P42 TRM
ECC-3 Coconut TRM
ECP-2 10 oz Polypropylene TRM
ECP-3
ECSC-3 Straw/Coconut TRM
ETPP-10 Erosion Tech
Excel PP5-Heavy Duty
Excel PP5-8
Excel PP5-10

Excel PP5-12
GreenArmor 7020
Haymark HMI-350PP
Landlok® TRM 435
Landlok® TRM 450
Landlok® TRM 1051
Multimat 100
North American Green® 300
North American Green® 300 LW
North American Green® C350
North American Green® P350
North American Green® SC250
North American Green® P550
North American Green® TMax 3K
Pyramat ®
Recyclex TRM
Recyclex TRM-V

SEC P2
StayTurf® ~ *A fully vegetative product that requires an establishment period*
T-RECS
Webtec Terraguard 44P
Webtec Terraguard 45P
Winters Turf
WIF WINFAB Diamondback 4030
WIF WINFAB Diamondback 4030V

Kansas
Department of Transportation
Bureau of Construction & Materials

LIST OF PREQUALIFIED HYDRAULIC EROSION CONTROL PRODUCTS(HECP) [2015 – SS 2110]

PQL – 34.2 **REVISED – 07/23/21**

CMS MATERIAL CODE GROUP (187)

The Contractor has the option of utilizing the following approved products in accordance with the Class and Type as specified on the plans. The types are ranked based on their effectiveness with Class A being the lowest and Class C being the highest. Substitution of a more effective product than what is specified is permitted. The current Approved Products List may be found on KDOT's webpage at: http://www.ksdot.org/Assets/wwwksdotorg/bureaus/burMatrRes/PQL/pql-34-0.pdf.

Direct all questions to the Stormwater Compliance Engineer, Bureau of Construction and Materials, Eisenhower State Office Building, 700 SW Harrison, Topeka, KS 66603. Phone (785)250-4793.Email kdot.stormwaterinspection@ks.gov

HECP Class "A"
Maximum Slope 4:1- Minimum Application Rate 1800lb/acre

Hydrostraw Guar Plus Formulation
Hydro-Blanket

HECP Class "B"
Maximum Slope 3:1- Minimum Application Rate 2500lb/acre

Hydrostraw Bonded Fiber Matrix
Proganics Dual

HECP Class "C"
Maximum Slope 2:1- Minimum Application Rate 3500lb/acre

EarthGuard Fiber Matrix
EcoMatrix
Rainier Supreme
ProMatrix
Rainier Fiber Bonded Fiber Matrix
NaturesOwn X9000
NaturesOwn Evolution
CocoFlex Et-FGM
EcoFlex HP-FGM
Flexterra HP-FGM
Soil Guard
Spray Matrix

APPENDIX E

Construction Project Stormwater Compliance Plan

1. Personnel
    a. All persons performing inspections shall have a current KDOT Construction Stormwater Training (CSW) certification. See section 10 for additional information regarding the training program.
    b. Contractor's Water Pollution Control Manager (WPCM) and KDOT's Area / Metro Engineer shall maintain a current KDOT CSW certification.
    c. If the WPCM is replaced during the course of a project the replacement shall maintain a current CSW certification. The Area Engineer will be notified in writing of any such change in WPCM.
    d. If, during the course of the project, the designated Area/Metro Engineer is unavailable due to vacation, illness or other similar reasons, their responsibilities shall be assigned to another Area Engineer, the District Construction Engineer or other person of similar authority. The project Inspectors and the WPCM shall be notified of any such change in Area Engineer.
    e. Area / Metro Engineer Responsibilities:
        i. Review and approve Contractor Stormwater Pollution Prevention Plan (SWPPP)
        ii. Supervise all work necessary to meet stormwater requirements on the project.
        iii. Order employees, contractors and sub-contractors to take appropriate action as necessary to comply with stormwater requirements, including requiring any such person to cease or correct a violation of stormwater requirements and to order or recommend such other actions as necessary to meet stormwater requirements.
        iv. Be familiar with the project SWPPP and have the authority to modify the project SWPPP or approve modifications recommended by others.
        v. Review and sign all inspection reports within 3 days after receiving such reports
        vi. Be the point of contact for the project for regulatory officials, KDOT employees, contractors, sub-contractors and consultants regarding stormwater requirements
    f. WPCM Responsibilities:
        i. Supervise all work performed by the Contractor and sub-contractors that involves stormwater requirements or affects stormwater compliance.
        ii. Order Contractor employees and sub-contractors to take appropriate corrective action as necessary to comply with stormwater requirements, including requiring any such person to cease or correct a violation of stormwater requirements and to order or recommend such other actions or sanctions as necessary to meet stormwater requirements.
        iii. Be familiar with the project SWPPP
        iv. Recommend SWPPP modifications or amendments to the Area Engineer
        v. Be the point of contact for KDOT regarding stormwater compliance
        vi. Review and sign inspection reports within 3 days after receiving such reports, acknowledging awareness of any deficiencies and ensuring the correction of all deficiencies.
        vii. Maintain SWPPP documentation and site maps to track installation and removal of BMPs throughout the project and ensure modifications are properly documented
    g. Inspector Responsibilities
        i. Be familiar with the project SWPPP
        ii. Perform project inspections for compliance with the permit
        iii. Recommend SWPPP modifications to the Area Engineer and WPCM

2. Pre-Construction Conference
    a. A stormwater pollution pre-construction conference shall be held prior to beginning work on each project that requires permit coverage.
    b. The Stormwater Compliance Engineer shall be notified of the meeting schedule
    c. Attendees shall at a minimum include:
        i. KDOT Area / Metro Engineer
        ii. Contractor's Water Pollution Control Manager (WPCM)
        iii. Environmental Inspectors (KDOT and Contractor)
        iv. Erosion Control subcontractor(s)
    d. Discussion Items shall include at a minimum:
        i. Inspection schedule, procedures and contacts
        ii. Initial disturbed areas to be called out on the 247E form
        iii. Responsibility for installation, inspection and maintenance of devices
        iv. SWPPP site plan, process for modifying / updating
    e. Minutes shall be kept and maintained with the project SWPPP documentation
    f. A copy of the meeting minutes shall be forwarded to the Stormwater Compliance Engineer
3. General Inspection Requirements
    a. Routine and post-rainfall inspections shall be conducted jointly by Contractor and KDOT.
    b. Inspection requirements begin upon issuance of the Notice to Proceed. Exceptions shall be approved by the Stormwater Compliance Engineer.
    c. Most devices and best management practices (BMPs) cannot be effectively inspected except while on foot. A good inspection will require walking and close examination of devices.
    d. The SWPPP site map shall be consulted and updated during each inspection to ensure inspection and documentation of all BMPs implemented on the project.
    e. The SWPPP should be modified based on site conditions. Modifications shall be documented on the site maps. A modification log shall also be kept with the project SWPPP documents. Minor adjustments to locations or quantities of BMPs may be made based on agreement between the WPCM and KDOT inspectors. Significant changes to types of BMPs used or changes in overall erosion and sediment control strategy may require the approval of the Area/Metro Engineer.
    f. All BMPs present on the project are to be inspected. Multiple inspectors may be required in order to complete the inspections within the required time frame.
    g. Taking pictures is recommended. Photos are an excellent means of documenting conditions on the project. They can also be used to document pre-existing conditions and to assist with the determination of vegetation density for permit termination.
    h. Rainfall shall be jointly measured and documented according to the requirements in the permit.
    i. The Contractor's responsibility to conduct inspections and maintain or correct identified deficiencies shall continue until the Engineer issues the Notice of Acceptance or a partial Notice of Acceptance when all physical work on the project is complete. The required 180-day observation period for pavement markings is not considered to be physical work.

4. Frequency of Inspections
    a. Projects will be inspected at a frequency compliant with the KDHE General Permit.
    b. Oversight inspections shall be scheduled according to section 7 of this document.
    c. Additional project-level or oversight inspections may be scheduled if needed to ensure compliance with the Permit and project specifications. This may be due to changes in construction sequence, completion of major project milestones or at other times as determined by the project staff or the Stormwater Compliance Engineer.
5. Required forms
    a. Only the approved Form 247 may be used to document each inspection
    b. Any modification to the form other than adding or deleting blank rows must be approved by the Stormwater Compliance Engineer.
    c. Electronic Inspection reporting or alternative forms may be used with the approval of the Stormwater Compliance Engineer.
6. Submittal of Reports
    a. Inspection reports are to be submitted to the Area / Metro Engineer no later than the next business day following the day of the inspection.
    b. Inspection reports are to be submitted to the Contractor's WPCM no later than the next business day following the day of the inspection.
    c. Inspection reports signed by the Area / Metro Engineer and WPCM shall be electronically submitted to KDOT.stormwaterinspection@ks.gov within 3 business days of the inspection.
7. Oversight Inspections
    a. Independent inspectors will be assigned to perform oversight inspections on selected projects.
    b. Independent inspectors will not be assigned to perform Oversight Inspections within their own District.
    c. Oversight inspection reports will be completed and submitted according to section 6 of this document.
    d. Oversight inspection frequency will be determined by the Stormwater Compliance Engineer (SWCE)based on the following risk factors:
        i. Project scope
        ii. Project size and/or complexity
        iii. Proximity to environmentally sensitive areas
        iv. Special environmental concerns or permit requirements
    e. Oversight inspectors will be assigned as follows:
        i. 1-5 Acres: No fulltime oversight inspector needed, but at least 1 oversight done during the life of the project. District Mentors, Construction Engineers/Managers (CE/CM) and SWCE will be assigned to these projects.
        ii. 5.01 to 24.99 Acres: Oversight inspections every 90 days. Mentors, CE/CM and Field Engineering Administrators will be assigned to these projects.
        iii. 25 to 99.99 Acres: Oversight inspections every 90 days. Area Engineers, District Construction Engineers, and District Maintenance Engineers would handle these projects.
        iv. 100 and Above: Oversight inspections every 90 days. Headquarter personnel would handle these projects.

8. Post-Construction Inspections
    a. Project site inspections are to be continued by the owner at the same frequency following the Notice of Acceptance or Partial Notice of Acceptance to the Contractor until the Notice of Termination is submitted to KDHE.
    b. Include a copy of the Notice of Acceptance or Partial Notice of Acceptance with the SWPPP documentation.
    c. The Area Engineer is responsible to ensure that any discovered deficiencies are completed in compliance with the Permit.
9. Permit Termination
    a. Once the entire project is stabilized with perennial, permanent vegetation the permit may be terminated. Vegetation must have a density of at least 70 percent of the density of undisturbed areas at or near the site. For assistance in making this determination, contact the Stormwater Compliance Engineer or the Environmental Services Section.
    b. All remaining temporary sediment control devices shall be removed from the project prior to termination.
    c. Once the project is fully stabilized and all devices removed, termination may be requested by email to the Stormwater Compliance Engineer.
    d. The Stormwater Compliance Engineer shall complete the Notice of Termination and provide a copy to the Area Engineer for inclusion with the SWPPP documentation.
    e. All SWPPP documentation shall be maintained at the area office or construction office for no less than three years following submittal of the Notice of Termination or no less than three years following termination of the Consent Decree (if applicable). Notify the Stormwater Compliance Engineer if the records will be kept at an alternate location.
10. Construction Stormwater Training
    a. CSW certifications will be valid for a period of four years.
    b. All Area/ Metro Engineers, Inspectors and WPCMs will be required to be current with the CSW certification.
    c. Individuals may be disqualified and/or lose their certification status in accordance with the procedures outlined in the KDOT Policy and Procedure Manual for The Certified Inspection and Testing Training (CIT) Program.
11. Stormwater Newsletter
    a. The Stormwater Compliance Engineer will prepare and electronically distribute a quarterly newsletter to KDOT staff, contractors and other interested parties.
    b. Stormwater newsletters will contain information relevant to stormwater management on KDOT construction projects.
    c. Stormwater newsletters will be posted and maintained on the KDOT website.
12. Annual Report
    a. The Stormwater Compliance Engineer will prepare an annual report on stormwater compliance for each calendar year.
    b. This report will summarize actions taken to improve state-wide practices related to stormwater management on construction projects.
    c. This report will be posted and maintained on the KDOT website.