

## STORM WATER POLLUTION PREVENTION PLAN NARRATIVE (SWPPP-N)

### INSTRUCTIONS

The Storm Water Pollution Prevention Plan - Narrative (SWPPP-N) is to be completed in accordance with the current Environment Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) General Storm Water Permit For Construction Activities, State of Nebraska Department of Environmental Quality (NDEQ) – NPDES General Permit for Storm Water Discharges from Construction Sites, and City of Bennington Grading Permit Terms.

### APPLICANT

The APPLICANT must certify under penalty of law the following: (1) that, this document and all supporting information has been prepared under their direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted; (2) that, they understand and agree to abide by the terms and conditions contained within the associated Storm Water Pollution Prevention Plan – Site Map (SWPPP-SM), Storm Water Pollution Prevention Plan – Narrative (SWPPP-N); (3) that, to the best of their knowledge and belief information contained in the SWPPP is true, complete, and accurate; (4) that, the SWPPP has been represented and warranted to conform to all applicable Standards, Criteria, Ordinances, Laws, Rules, and Regulations enacted by the -- [a] City of Bennington, [b] Douglas County, [c] State of Nebraska, and [d] United States Federal Government; (5) that, sound and established practices were used for the creation of the SWPPP; (6) that, they are obligated to ensure inspection, reporting, and maintenance requirements occur under the terms of the SWPPP; (7) that, the SWPPP will be implemented as the first element of construction; (8) that, they shall indemnify and save harmless the City of Bennington, its Members, Officers, Agents and Employees from all claims and demands of every nature and description growing out of the implementation of the SWPPP, including personal injuries received and all property damage sustained; (9) that, they will retain the services of the designated DESIGNER and INSPECTOR, to perform all design and inspection duties associated with the SWPPP, through a contractual agreement; and (10) that, corrections of defects and deficiencies in design, construction, inspection, implementation, and testing shall be without expense to the City of Bennington and its Members, Officers, Agents and Employees and shall be their obligations while acting as APPLICANT. Furthermore, the APPLICANTS SWPPP Certification must appear on the SWPPP-SM.

Smart Development, LLC

Business Name

ryanschwarz3@icloud.com

Representative's Email Address

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Phone Number

Ryan Schwarz

Representative's Name

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Address

N/A

Fax Number

Managing Member

Representative's Title

Omaha

City

NE

State

68007

Zip Code

### DESIGNER

#### QUALIFICATIONS

Any grading site that is greater than or equal to 1 acre of disturbed ground (note: Disturbed ground means any area that will be and/or is without vegetative cover) will require that an NDEQ Grading Permit and a SWPPP must be developed and implemented. To act as the DESIGNER associated with an NDEQ grading permit the individual must have one of the following professional qualifications:

- Registered professional engineer in the State of Nebraska.
- Registered professional landscape architect in the State of Nebraska.
- Qualified professional knowledgeable in the principles and practices of erosion and sediment control.



Engineer



Architect



Landscape Architect



Erosion Control Professional

E&A Consulting Group, LLC

Business Name

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Representative's Email Address

402-895-4700

Phone Number

Justin Zetterman, PE, CFM

Representative's Name

10909 Mill Valley Road, Suite 100

Address

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Fax Number

P2017.463.001

Project # Assigned By DESIGNER

Omaha

City

NE

State

68154

Zip Code

**INSPECTOR**

**QUALIFICATIONS**

Any grading site that is greater than or equal to 1 acre of disturbed ground (note: Disturbed ground means any area that will be and/or is without vegetative cover) will require that an NDEQ Grading Permit and a SWPPP must be developed and implemented. To act as the INSPECTOR associated with an NDEQ grading permit the individual must have one of the following professional qualifications:

- Registered professional engineer in the State of Nebraska.
- Registered professional landscape architect in the State of Nebraska.
- Registered professional architect in the State of Nebraska.
- Qualified professional knowledgeable in the principles and practices of erosion and sediment control.

Engineer       Architect       Landscape Architect       Erosion Control Professional

<u>E &amp; A Consulting Group, Inc.</u> <small>Business Name</small>	<u>zjilek@eacg.com</u> <small>Representative's Email Address</small>	<u>402-895-4700</u> <small>Phone Number</small>
<u>Zach Jilek</u> <small>Representative's Name</small>	<u>10909 Mill Valley Road, Suite 100</u> <small>Address</small>	<u>402-895-3599</u> <small>Fax Number</small>
<u>P2017.357.001</u> <small>Project # Assigned By INSPECTOR</small>	<u>Omaha</u> <small>City</small>	<u>NE</u> <small>State</small>
		<u>68154</u> <small>Zip Code</small>

**1.0 PROJECT DESCRIPTION**

**1.1 Project Name And Location**

Provide all information requested below.

<u>11/12/18</u> <small>Estimated Start Date</small>	<u>P2017.463.001</u> <small>E&amp;A Project Number</small>	<u>CSW-201802726</u> (as Hidden Hollow) <small>NDEQ Permit Number</small>
<u>Prairie Hollow</u> <small>Project Name</small>	<u>10909 Mill Valley Road, Suite 100</u> <small>Address</small>	
<u>Prairie Hollow</u> <small>Subdivision Name</small>	<u>N/A</u> <small>S&amp;ID #</small>	<u>Bennington</u> <small>City</small>
<u>41°22'19.4"W</u> <small>Latitude</small>	<u>96°09'30.3"N</u> <small>Longitude</small>	<u>Douglas</u> <small>County</small>
		<u>NE</u> <small>State</small>
		<u>68164</u> <small>Zip Code</small>

**1.2 Construction Project Description**

Describe the nature/function of the construction project.

- Residential     Commercial     Industrial     Road Construction     Linear Utility
- Other (please specify):

**1.3 Sequence Of Major Construction Activities**

Describe the intended sequence of major construction activities (Estimated Start and End dates for each phase of the project).

The sequence will be as follows: 1. Installation of Perimeter Silt Fence and Stabilized Construction Entrance. 2. Clearing and Grubbing 3. Sediment Basin Grading and overall site grading 4. Sanitary Sewer 5. Storm Sewer 6. Paving 7. Water 8. Power & Gas 9. Residential home construction

**1.4 Site Data**

Provide requested site data.

<b>Total Site Area (Acres)</b>	19.25	<b>Estimated Permit Duration (Months)</b>	48
<b>Disturbed Area (Acres)</b>	13.70	<b>Cut Volume (YD^3)</b>	45,136
<b>Undisturbed Area (Acres)</b>	5.55	<b>Fill Volume (YD^3)</b>	45,136

**1.5 Name Of Receiving Waters**

Identifying and name any receiving waters within one mile of the site. \*\*Note: A general location map (e.g., USGS quadrangle map, a portion of the city or county map, or other map) with enough detail to identify the location of the construction site should be included as part of the SWPPP Site Map

Big Papillion Creek

**1.6 Industrial Activities**

Indicate the location of any storm water discharges associated with support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas, etc.) and describe controls to minimize pollutants from those sources.

No other construction or industrial related activities such as asphalt batch plants, stockpile borrow areas or staging areas will be utilized during the course of the project. Construction activities will take place within the project's limit of disturbance boundary. Stockpiles will be contained on site and stockpiles will be seeded either with temporary or permanent stabilization once inactive no more than 14 days.

**1.7 Pollution Sources**

Identify all potential sources of pollution that might affect the quality of storm water discharge from the site.

Pesticides, fertilizer, asphalts, concrete, curing compounds, glues, adhesives, sanitary waste water, hydraulics oi/fluids, gasoline, other fuels, antifreeze/coolants, construction debris, silt, wastewater from the washout and cleanout of stucco, paint, form release oils, curing compounds; soaps or solvents used in vehicle equipment washing

**1.8 Operators**

Identify the types of OPERATORS (e.g., grading contractor; residential and commercial lot builders; public improvement contractor; sub contractors; suppliers, trades people, and etcetera) who will be at the site, and the areas over which each OPERATOR has control.

Grading contractor - overall grading Utility contractor - storm sewer, sanitary sewer, and water lines Paving contractor - final grading and paving General contractor - all other trades Landscape contractor - final stabilization Utilities - MUD, OPPD, CenturyLink, etc... General responsibilities (all contractors): Contractors are responsible for the maintenance and upkeep of all erosion and sediment control measures in place throughout the duration of their construction activities, These responsibilities include the following: Material storage - will be on site in the specified area. off-site storage of materials for daily construction activities is not acceptable Good housekeeping - this encompasses the use of the controlled access points, clean-up of general construction waste/debris, proper disposal of general construction waste/debris, and maintenance of all existing control measures on construction site.

## 1.9 Construction Activity Record Keeping

Maintaining a record of the dates when major grading activity occurs, when construction activity has been temporarily or permanently ceased on a portion of the site, and when stabilization measures are initiated is an integral part of the SWPPP. Explain how the construction activity record keeping will be accomplished for the duration of the permit.

The construction site SWPPP coordinator for the site is Mr. Zach Jilek (402-895-4700) with E&A Consulting Group, Inc. (erosion specialist) and the erosion control inspector assigned to the project. Mr. Zach Jilek and his team's duties include the following: Implement the SWPPP plan with the aid of the SWPPP team; conduct weekly/monthly and post-rain inspections; oversee maintenance practices identified as BMPs in the SWPPP; Implement and oversee employee training; Conduct or provide for inspection and monitoring activities; Identify other potential pollutant sources and make sure they are added to the plan; Identify any deficiencies in or necessary modifications to the SWPPP and make sure they are corrected; Ensure that any changes in construction plans are addressed in the SWPPP. Mr. Jilek and his team will be responsible for maintaining the activity record. Grading will begin approximately late fall of 2018 and the site will be mass graded. Sanitary sewer and then storm sewer will be constructed in late winter/early spring 2019. Paving will occur in spring and summer of 2019. Stabilization in the right of way will begin in the fall of 2019.

## 2.0 CONTROLS TO ELIMINATE OR MINIMIZE POLLUTANTS

### 2.1 Interim And Permanent Stabilization Practices

Describe interim and permanent stabilization practices for the site including a schedule of when the measures and practices will be implemented.

Stabilization measures will be implemented as soon as possible in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Seeding shall be rye, oats or wheat cover crop at 90 lbs per Acre. Fertilizer (20-10-10) shall be applied at 50 lbs per Acre. Final stabilization will consist of the following: bio-retention basins, permanent seeding per SWPPP specifications, sod and mature vegetation with permanent grass or turf.

### 2.2 Structural Practices

Describe any structural practices used to divert flows from exposed soils, retain/detain flows, or otherwise limit runoff/pollutants from exposed areas.

Structural BMPs will be coordinated with construction activities so the BMP is in place before construction begins or as required during construction. The following BMPs will be coordinated with construction activities: The temporary perimeter controls (silt fencing, diversion dikes, and stabilized construction entrances) will be installed prior to clearing and grading operations beginning. Sedimentation basins and outlet risers will be constructed before clearing and grading operations begin with the exceptions of basins being built in fill areas, in which case the basin will be built with the fill. Diversion ditches will also be constructed to divert flow to sediment basins. Once construction activities cease permanently or are delayed for more than 14 days due to a planned or unplanned work stoppage in an area, that area will be stabilized with temporary and/or permanent seeding. The temporary perimeter controls (silt fencing) will not be removed until all construction activities at the site are complete and soils have been stabilized.

### 2.3 Post-Construction Storm Water Management Controls

Describe any post-construction storm water management controls to be installed at the site, and identify any applicable federal, state, local and/or tribal requirements for design or installation.

## 2.4 Prohibited Discharge Control Measures

A description of the controls to be used to prevent the following prohibited discharges, unless managed by an appropriate control implemented according to industry standards:

- a. Wastewater from washout of concrete;;
- b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
- c. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
- d. Soaps, solvents, or detergents used in vehicle and equipment washing; and
- e. Toxic or hazardous substances from a spill or other release.

Prohibited discharges will not be allowed per the SWPPP. A concrete washout pit will be installed per plan to control and contain concrete washout. Maintenance will also be performed on the washout pit to clean out and to prevent washout residue from entering into the drainage ways. Above ground storage tanks will be inspected to ensure they are double lined or bermed in order to prevent spills and leaks. Smaller fuel containers will be staged and stored in appropriate areas, free from drainage ways and stored upright. No vehicle or equipment will be washed on site. Acute emergency situations, such as spills or releases of petroleum products or hazardous substances, are to be immediately reported by telephone. The following spills shall be immediately reported by the facility to the NDEQ and to the telephone numbers below:

1. Spills of any amount to a waterway or beneath the surface of the land;
  2. Oil spills upon the surface of the land in excess of 25 gallons;
  3. Spills of hazardous substances upon the surface of the land of 100 pounds or more.
- (402) 471-2186 during business hours (NDEQ) Monday - Friday from 8:00 AM to 5:00 PM
  - (402) 471-4545 after business hours (NE State Patrol Dispatch)

## 2.5 Sediment Track-out Prevention Practices

Describe measures to minimize, to the extent practicable, vehicle tracking of sediments offsite onto paved surfaces and the generation of dust. The following must be included with this requirement:

- a. Restrict vehicle use to properly designated exit points. If designated exit points are modified or added to the site, update SWPPP accordingly;
- b. Use appropriate stabilization techniques at all points that exit onto paved roads so that sediment removal occurs prior to vehicle exit;
- c. Where necessary, use additional controls to remove sediment from vehicle tires prior to exit; and
- d. Where sediment has been tracked-out from your site onto the surface of off-site streets, other paved areas, and sidewalks, the deposited sediment must be removed by the end of the same work day in which the track-out occurs or by the end of the next work day if track-out occurs on a non-work day

Stabilized construction entrances will be used at all locations where vehicular traffic enters and exits the site. See City of Omaha standard plate 100-04. The entrance shall be maintained in a condition which will prevent tracking or flow of sediment onto public rights-of-way. This may require periodic top dressing with additional stone or the washing and reworking of existing stone as conditions demand and repair and/or cleanout of any structures used to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately. The use of water trucks to remove materials dropped, washed, or tracked onto roadways will not be permitted under any circumstances.

## 2.6 Measures/Waste Disposal Practices

Describe construction materials, products and waste materials expected to be stored at the construction site or supporting areas. The description to include controls and storage practices to minimize exposure of the materials to storm water and storm water runoff.

Construction debris, miscellaneous trash and sanitary waste will be generated during the construction project. It is the contractors responsibility to provide dumpsters on site, and regularly clean up trash and properly dispose of sanitary waste. Portable bathrooms will be placed at the designated locations shown on the SWPPP and will be secured to prevent them from tipping over. It will be the responsibility of the vendors to empty dumpsters and portable bathrooms when necessary. Concrete washout stations will be placed at the designated locations shown on the SWPPP and inspected per the inspector's determination once the concrete washout has filled the washout pit to approximately 50% capacity.

## 2.7 Vehicle Fueling and Maintenance Practices

If fueling and/or maintenance of equipment or vehicles at the construction site or supporting areas, an effective means of eliminating the discharge of spilled or leaked chemicals, including fuel, from the area must be implemented by at minimum:

- a. Ensuring adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;
- b. Using drip pans and absorbents under or around leaky vehicles;
- c. Disposing of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements;
- d. Cleaning up spills or contaminated surfaces immediately, using dry clean up measures where possible, and eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and
- e. Not cleaning surfaces by hosing the area down.

If fueling operations are conducted on site, Above Ground Storage Tanks (ASTs) will be inspected to ensure that they are not leaking, double-lined or bermed, and plugs are in place in the secondary containment. If spills or leaks are observed, the responsible party will be notified immediately in order to ensure the leak or spill is cleaned-up. Dry methods, booms, and other absorbent materials will also be utilized when cleaning-up the spills.

## 2.8 Spill Prevention Control and Countermeasure Plan (SPCC)

Indicate if the project or facility possesses a SPCC and include the plan as part of the SWPPP

A project must obtain an SPCC if it has an aggregate aboveground oil storage capacity greater than 1,320 U.S. gallons or a completely buried storage capacity greater than 42,000 U.S. gallons. If a fueling tanker truck greater than 1,320 U.S. gallons is installed on site, a secondary containment berm will be recommended and an SPCC will be developed per the contractor. At this time it is unknown if an SPCC will be required. However E&A will contact contractor to maintain compliance with an SPCC.

## 2.9 Supporting Area Controls or Practices

Describe of potential pollutant sources and the controls and measures to be implemented at supporting areas of the construction site such as dedicated asphalt plants or dedicated concrete plants.

Construction activities will take place within the project's limit of disturbance. If dedicated asphalt plants or concrete plants are installed, a concrete washout pit will be installed to control potential concrete washout residue or asphalt. The SWPPP plan will be updated to reflect additional supporting areas as necessary.

## 2.10 Stockpile Controls or Practices

Describe controls for discharges from stockpiled sediment or soil.

Stabilization measures will be implemented on inactive stockpiles as soon as possible in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. If determined by the inspector, silt fence or other perimeter controls will be installed downstream of the stockpile to capture potential silt runoff.

## 2.11 Dust Control Measures or Practices

Describe controls to minimize dust through appropriate water or other dust suppression techniques.

It is the contractors responsibility to control dust during demolition, removals and grading per the SWPPP. Water trucks will be utilized or major grading will not occur during windy and dry days to prevent the generation of dust.

### 3.0 NON-STORM WATER DISCHARGE MANAGEMENT

The SWPPP must identify all allowable sources of non-storm water discharges listed in Part I.C.2 of the NDEQ's General Permit, except for flows from firefighting activities that are combined with storm water discharges associated with construction activity at the site. Non-storm water discharges should be eliminated or reduced to the extent feasible. The SWPPP must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

The following non-storm water discharges will be permitted as necessary throughout the project; Discharges from firefighting activities, Fire hydrant flushings, Water used to wash vehicles where detergents are not used, Water used to control dust, Potable water including uncontaminated water line flushings, Routine external building wash down that does not use detergents, Pavement wash water where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been recovered) and where detergents are not used, Uncontaminated air conditioning or compressor condensate, Uncontaminated groundwater or spring water, Foundation or footing drains where flows are not contaminated with process materials such as solvent, and Landscape irrigation. Water used to control dust will be controlled via diversion ditches eventually ending up in temporary sediment basins or will flow through silt fence to filter out sediment contaminants during dust control. Designated washout pits will be installed during the paving operations in order to control concrete residue. Dewatering of foundations will be filtered through silt fence, dewatering bags or other BMPs to control pollutants.

### 4.0 CONSTRUCTION STORM WATER EFFLUENT LIMITATION GUIDELINES

The 2016 NPDES Permit authorizing stormwater discharges from construction sites includes several effluent limitation guidelines (ELGs) that must be addressed and implemented. Some of these ELG's were addressed in section 2 of this template. Use this section to describe how the site will comply with the ELG's.

#### 4.1 Point Source Sediment and Erosion Controls

Describe the controls which will be implemented to minimize or control the following; Stormwater Discharge Volume and Velocity, Channel and Streambank Erosion, Exposed Soil During Construction, Steep Slope Disturbances, Sediment Discharges During Construction (addressing amount, frequency, intensity, and duration of precipitation, the nature of resulting storm water runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site), Maintaining Natural Buffers, Soil Compaction, and Topsoil Preservation.

Riprap scour holes will be used at the basin outlets and will be used to protect the outfalls of basins to prevent scouring and erosion downstream. Silt fence will be used to control sediment discharge. - The maintenance measures are as follows; silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall, any required repairs shall be made immediately; close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting; should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly; sediment deposits must be removed when the level of deposition reaches approximately one-half the height of the barrier; and any sediment deposits remaining in place after the silt fence is no longer required shall be dressed to conform to the existing grade, prepared and seeded. Temporary seeding will be used to protect exposed soil during construction. The first 4" of topsoil will be stripped, stockpiled and re-spread after all grading has finished and seeded according to notes on grading and SWPPP.

#### 4.2 Soil Stabilization of Disturbed Areas

Describe all interim and permanent stabilization practices (e.g., Temporary Seeding, Permanent Seeding, and Mulching) with the associated installation schedule include the protocol for ensuring the implementation of stabilization measures. Note: Stabilization measures must be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased

Stabilization measures will be implemented as soon as possible in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Seeding shall be rye, oats or wheat cover crop at 90 lbs per Acre. Fertilizer (20-10-10) shall be applied at 50 lbs per Acre. Final stabilization will consist of the following: bio-retention basins, permanent seeding per SWPPP specifications, sod and mature vegetation with permanent grass or turf.

#### 4.3 Discharges From Dewatering

Describe the controls which will be used to manage discharges from dewatering activities, including discharges from dewatering of trenches and excavations.

Dewatering activities from trenches and excavations will be controlled in order to prevent illicit discharges. Dewatering activities will either be directed into a sediment basin, or through a filter product such as silt fence or a dewatering bag in order to control silt runoff.

#### 4.4 Pollution Prevention Measures Design

Describe how the design, installation, implementation, and maintenance of effective pollution prevention measures shall at the minimum:

- a. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
- b. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to storm water. Minimization of exposure is not required in cases where the exposure to precipitation and to storm water will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of storm water contamination (such as final products and materials intended for outdoor use); and
- c. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures

All erosion control measures have been designed in accordance with the Omaha Regional Stormwater Design Manual and all basins have been designed in accordance with criteria listed in the manual. The designed SWPPP will incorporate Best Management Practices (BMPs) to minimize sediment and control erosion. Prohibited discharge will not be allowed (see section 3.0). Spills will be immediately cleaned-up and efforts will be maintained to minimize pollutants through the grading, construction, and final stabilization sequencing.

#### 4.5 Basin and Impoundment Discharges

When a site is discharging from basins and impoundments, the site must utilize outlet structures that withdraw water from the surface, unless infeasible. Describe how this project will comply with this requirement.

Dewatering will occur above the wet storage elevation in order to allow filtered water to leave the basin. The dewatering holes are placed at the wet storage elevation to provide the required wet storage before allowing water to exit the basin. See riser and basin details page in the SWPPP.

### 5.0 MAINTENANCE OF CONTROL BMPs

#### 5.1 Stabilization Measures

Describe how maintenance will be implemented to keep the soil stabilization BMPs selected in an effective operational condition.

Temporary and permanent seeding will be utilized. Areas which fail to establish vegetative cover adequate to prevent rill erosion will be re-seeded as soon as such areas are identified. Control weeds by mowing. Temporary and permanent seeding will be inspected for bare spots, washouts, and healthy growth. Reseeding or mulching shall be required if healthy growth is not observed. All soil stabilization blankets and matting should be inspected periodically following installation, particularly after rainstorms to check for erosion and undermining. Any dislocation or failure should be repaired immediately. If washouts or breakage occurs, reinstall the material after repairing damage to the slope or ditch. Continue to monitor these areas until which time they become permanently stabilized; at that time an annual inspection should be adequate.

#### 5.2 Top Soil

Describe how maintenance will be implemented to keep the top soil preservation BMPs selected in an effective operational condition.

Topsoil shall be stripped to a depth of at least four-inches and stockpiled on site for redistribution in future unpaved areas upon completion of grading. The location of the stripping stockpiles are at the discretion of the Contractor and Inspector; however, stockpiles must be located within an area protected by storm water pollution prevention measures. Stabilization measures will be implemented as soon as possible in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has ceased in order to preserve top soil.



### 5.3 Soil Compaction

Describe how maintenance will be implemented to keep the minimization of soil compaction BMPs selected in an effective operational condition.

Prior to final stabilization procedures, the project will be fine graded in order to increase the soil's ability to retain water and for permanent seeding or sod to take root. Topsoil or other soil amendments will be added to the soil to further help in the nourishment of the soil. Once sections of the project have completed mass grading, soil stabilization will be initiated to help preserve soil and to minimize additional soil disturbance and compaction.

### 5.4 Steep Slopes

Describe how maintenance will be implemented to keep the minimization of steep slope disturbance BMPs selected in an effective operational condition.

Seeding and erosion control matting. Soil Stabilization Blankets & Matting - All soil stabilization blankets and matting should be inspected periodically following installation, particularly after rainstorms to check for erosion and undermining. Any dislocation or failure should be repaired immediately. If washouts or breakage occurs, reinstall the material after repairing damage to the slope or ditch. Continue to monitor these areas until which time they become permanently stabilized; at that time an annual inspection should be adequate. Temporary Seeding - Areas which fail to establish vegetative cover adequate to prevent rill erosion will be re-seeded as soon as such areas are identified. Control weeds by mowing. Permanent Seeding - The maintenance measures are as follows: in general, a stand of vegetation cannot be determined to be fully established until it has been maintained for one full year after planting; new seedlings shall be supplied with adequate moisture, supply water as needed, especially late in the season, in abnormally hot or dry conditions, or on adverse sites, water applications shall be controlled to prevent excessive runoff; inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season, if possible; if stand is inadequate for erosion control, over seed and fertilize using half of the rates originally specified; if stand is 60% damaged, re-establish following seeded and seeding recommendations; if stand has less than 40% cover, re-evaluate choice of plant materials and quantities of lime and fertilizer, the soil must be tested to determine if acidity or nutrient imbalances are responsible, re-establish the stand following seeded and seeding recommendations.

### 5.5 Contaminated Water

Describe how maintenance will be implemented to keep the BMPs selected to control the discharging of contaminated water in an effective operational condition.

Sediment basins and concrete washouts will be used to control washwater and contaminated water. If contaminated water is observed, the contractor or developer will be immediately notified to clean up the contaminated water. Concrete washouts will be inspected and maintenance will be performed to ensure the washout water remains contained in the washout pit. Sediment basins will also be inspected to ensure contaminated water is not leaving the project through the riser or dewatering structure. The basin embankment should be checked regularly to ensure that it is structurally sound and has not been damaged by erosion or construction equipment. The emergency spillway should be checked regularly to ensure that its lining is well established and erosion-resistant. The basin should be checked after each runoff producing rainfall for sediment cleanout and trash removal. When the sediment reaches the cleanout level, it shall be removed and properly disposed of.

### 5.6 Off Site Sediment

Describe how maintenance will be implemented to keep the BMPs selected to control the off-site accumulations of sediment in an effective operational condition

Construction Entrance - The entrance shall be maintained in a condition which will prevent tracking or flow of sediment onto public rights-of-way. This may require periodic top dressing with additional stone or the washing and reworking of existing stone as conditions demand and repair and/or cleanout of any structures used to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately. The use of water trucks to remove materials dropped, washed, or tracked onto roadways will not be permitted under any circumstances. Silt Fence - The maintenance measures are as follows: silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall, any required repairs shall be made immediately; close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting; should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly; sediment deposits must be removed when the level of deposition reaches approximately one-half the height of the barrier; and any sediment deposits remaining in place after the silt fence is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

### 5.7 Temporary Construction Controls

Describe how maintenance will be implemented to keep the structural BMPs selected to control stormwater discharges from this construction site in an effective operational condition

Storm Drain Inlet Protection - The maintenance measures are as follows: structures shall be inspected after each rain and repairs made as necessary and structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized. Temporary Diversion Dike - The measure shall be inspected after every storm and repairs made to the dike, flow channel, outlet or sediment trapping facility, as necessary. Once every two weeks, whether a storm event has occurred or not, the measure shall be inspected and repairs made if needed. Damages caused by construction traffic or other activity must be repaired before the end of each working day. Silt Fence - The maintenance measures are as follows: silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall, any required repairs shall be made immediately; close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting; should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly; sediment deposits must be removed when the level of deposition reaches approximately one-half the height of the barrier; and any sediment deposits remaining in place after the silt fence is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

## 5.8 Permanent Post Construction BMPs

Describe how maintenance will be implemented to keep the Post-Construction BMPs selected to control the discharging stormwater in an effective operational condition

Permanent post construction BMPs will not be constructed or installed until construction has finished and the site is fully stabilized. Every effort will be recommended to prevent impacts to post construction BMPs during active construction. Silt fence, wattles or inlet filters (if necessary) will be installed to prevent impacts to the post construction BMPs. There is a maintenance agreement and plan in place to keep them in an effective operational condition. Typically post construction BMPs are not installed until the site is stabilized via seed, matting or other permanent methods.

## 6.0 PERMIT ELIGIBILITY RELATED TO ENDANGERED SPECIES

Document your project's eligibility for permit coverage with regard to endangered species, include:

1. Information on whether state or federally-listed endangered or threatened species, or designated critical habitat may be in the project area;
2. Whether such species or critical habitat may be adversely affected by storm water discharges or storm water discharge-related activities from the project;
3. Any correspondence for any stage of project planning between the U.S. Fish and Wildlife Service (FWS), Nebraska Game and Parks Commission (NGPC), EPA, NDEQ, or others and the permittee regarding listed species and critical habitat, including any notification that delays the authorization to discharge under this permit;
4. A description of measures necessary to protect state and federally-listed endangered or threatened species, or state and federally designated critical habitat. The permittee must describe and implement such measures to be eligible for coverage under this permit. This description does not relieve permittee of responsibilities under the Federal Endangered Species Act or Nebraska Nongame and Endangered Species Conservation Act.

During the submittal of the NDEQ NER 160000 Notice of Intent, the Engineer will document and verify the projects impact with the permit eligibility regarding Threatened and Endangered species. Any correspondences, approvals, or restrictions will also be documented to determine the compliance of the project. Per City of Omaha requirements, this SWPPP reflects City of Bennington requirements for storm water management and erosion and sediment control, as established and with reference to the Omaha regional stormwater design manual. To ensure compliance, this plan was prepared in accordance with the Omaha Regional Stormwater Design Manual as prepared in cooperation with the City of Omaha Public Works and Planning Departments, Papio-Missouri Natural Resources District, and Soils Conservation Service. This SWPPP also complies with the requirements of the Nebraska NPDES General Permit for Storm Water Discharges from Construction Sites (NER 160000). There are no other applicable State or Federal requirements for sediment and erosion site plans (or permits), or storm water management site plans (or permits).

## 7.0 SWPPP ACCOMPANYING DOUCMENTS

A copy of the signed and certified CSW-NOI and NDEQ's approval letter notifying the permittee that the CSW-NOI is administratively complete must accompany the SWPPP once available.

## 8.0 APPLICABLE STATE, TRIBAL OR LOCAL PROGRAMS & REQUIREMENTS

The SWPPP must be consistent with all applicable federal, state, or local requirements for erosion control and storm water management including updates to the SWPPP as necessary to reflect any revisions to applicable federal, state, or local requirements, indicate the project's compliance with this requirement..

Per City of Bennington requirements, this SWPPP reflects City of Bennington requirements for storm water management and erosion and sediment control. This SWPPP also complies with the requirements of the Nebraska NPDES General Permit for Storm Water Discharges from Construction Sites (NER 160000). There are no other applicable State or Federal requirements for sediment and erosion site plans (or permits), or storm water management site plans (or permits)

## 9.0 INSPECTIONS

### 9.1 Inspection Schedule, Procedures, and Frequency

Describe routine inspection schedules, procedures, and frequency to ensure control measures are operating effectively.

Weekly inspections of the site will occur consistent with guidelines per construction activities, or within 24 hours after a 1/2" rainfall event. This inspection schedule will be in place during clearing and grading activities, capital improvement construction (sanitary sewer, storm sewer, and pavement construction), and utilities installation. Upon completion of utility installation inspections will occur no greater than 9 days between inspections and after .5" rain event until temporary stabilization is established. Inspections are conducted weekly with no more than 9 days between inspections regardless of what construction activity is going on. All inspections will be conducted by the SWPPP coordinator or his designated storm water team member. Once stabilization has been met, inspections can be reduced to every 19 days or every 38 days depending on stabilization and approval from the City of Bennington.

### 9.2 Personnel Performing Inspections

Indicate who will be to perform inspections and describe the person's qualifications.

E&A Consulting Group, Inc.  
Mr. Zach Jilek, CPESC, CISEC  
Address: 10909 Mill Valley Road, Omaha, NE 68154  
402-895-4700  
zjilek@eacg.com

### 9.3 Report Format

Describe the format for the inspection reports documenting each inspection, including documentation of incidents of noncompliance or certifying full compliance, and indicating who will be authorized to sign the report.

SWPPP Reports shall be completed by the inspector assigned to the project by E&A. E&A will then conduct internal reporting with each project. Once reports have been generated, E&A will keep SWPPP reports at their office and available for review. Issues of non-compliance will be documented and the inspector will verify the validity and options to bring the issue into compliance.

## 10.0 MAINTAINING AN UPDATED PLAN

### 10.1 Responsibility

Describe who will be responsible for updating the SWPPP on a routine basis and how SWPPP modifications will occur..

The inspector assigned to the project as part of Mr. Jilek's SWPPP team will be responsible for updating the SWPPP on a routine basis. The inspector will update the SWPPP's grading and lot levels plans (if necessary) in order to ensure the SWPPP is reflective of site conditions. It is also the responsibility of every construction contractor and operator that enters the site to comply with the rules and regulations listed in this SWPPP.

### 10.2 Procedure

Describe the procedure for updating the SWPPP and documenting modifications as required..

If construction activities or design modifications are made to the site plan which could impact storm water runoff, this SWPPP will be amended appropriately. The amended SWPPP will have a description of the new measure or practices to be used to control sedimentation, erosion, and potential pollutants. The amended SWPPP will be provided to the City of Bennington Engineer by either the Engineer or Inspector. The inspector assigned to the project as part of Mr. Jilek's SWPPP team will be responsible for updating the SWPPP on a routine basis. For major modifications, a modification form must be submitted and approved by the permitting authority.

## 11.0 MAKING PLANS AVAILABLE

### 11.1 Required Documents

A copy of the SWPPP, a copy of the CSW-NOI, and the letter from the NDEQ notifying the permittee of an approved CSW-NOI must be retained at the construction site or other locations easily accessible during normal business hours. The SWPPP must be made available upon request to federal, state, and local agencies, from the date of commencement of construction activities to the date of final stabilization. The SWPPP and corresponding documents may be posted online, but the construction site must have internet access

### 11.2 On-Site Notification / Sign

A sign or other notice must be posted conspicuously near the entrance of the construction site. If displaying near the main entrance is infeasible, the notice can be posted in a local public building such as the town hall or public library. For linear projects, the sign or other notice must be posted at a publicly accessible location near the active part of a construction project (e.g. where a pipeline project crosses a public road). The sign or other notice must contain the following information:

- a. A copy of the completed CSW-NOI as submitted to the NDEQ; and
- b. A copy of the SWPPP, or, if the sign or notice does not contain a copy of the SWPPP, it must detail the name and telephone number of the contact person for obtaining access to the SWPPP, and the current location of the SWPPP. If the SWPPP is posted online, the sign must detail the website address, online location, or methodology to obtain the SWPPP.