

LOT B OF TRACT E-3R OF McMAHON SUBDIVISION

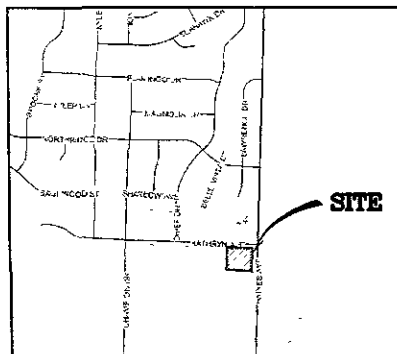
EROSION AND SEDIMENT CONTROL PLANS

City of Rapid City
Pennington County, South Dakota

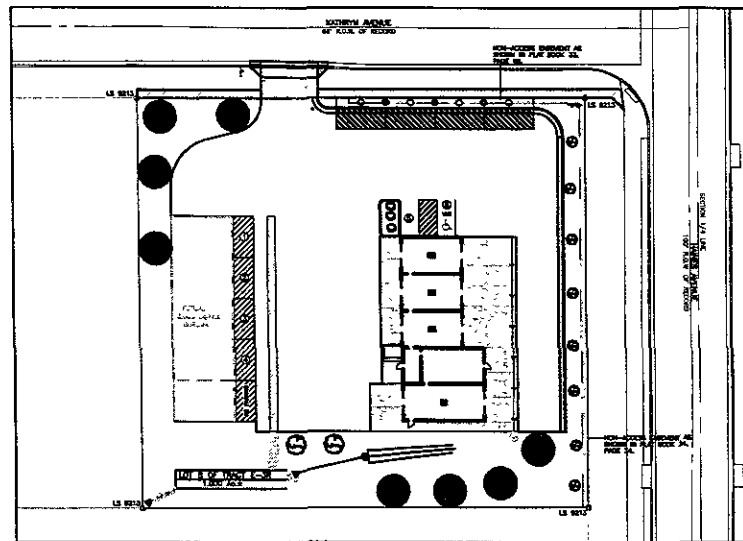
SITE PLAN

INDEX OF SHEETS

- SHEET 1 TITLE SHEET
- SHEET 2 GRADING PLAN
- SHEET 3 GENERAL NOTES
- SHEET 4 STANDARD DETAILS



VICINITY MAP



UTILITIES
 LOCATE UTILITIES: SOUTH DAKOTA ONE CALL
 115 Emerson Heights Drive
 Pierre, SD 57501
 (605) 781-7474

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN AS AN APPROXIMATE ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE ENGINEER OR HIS PROFESSIONAL SEAL. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

ENGINEER'S CERTIFICATION
 I hereby certify that these plans were prepared under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of South Dakota.

Date _____ Kale R. McNaboe, PE Reg. No. 7198

RECEIVED
 MAR 29 2010
 Rapid City City
 Management Dept

SPEKICHI
 Consulting, Inc.
 1111 E. 10th St.
 Rapid City, SD 57701
 (605) 343-1111



PRELIMINARY
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 CITY REVIEW
 ONLY

REVISIONS	DATE	BY	DESCRIPTION

LEGAL DESCRIPTION
 LOT B OF TRACT E-3R
 OF McMAHON SUBDIVISION
 PENNINGTON COUNTY, SOUTH DAKOTA

EROSION AND SEDIMENT
 CONTROL PLAN
 LOT B OF TRACT E-3R
 OF McMAHON SUBDIVISION

TITLE SHEET

PROJECT NUMBER: 3194
 SHEET 9 / 12

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 Management Department

SPERLICH
 Consulting, Inc.
 1111 14th St. S.
 Rapid City, SD 57701
 (605) 343-1111

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NO.	DATE	REVISIONS

EROSION AND SEDIMENT
 CONTROL PLAN
 LOT B OF TRACT E-BR
 OF McMAHON SUBDIVISION
 GRADING PLAN

PROJECT NUMBER 3194
 SHEET 10 / 12

- LEGEND**
- ① BILT FENCE
 - ② WATTLE
 - ③ OUTLET PROTECTION
 - ④ SURFACE REINFORCING
 - ⑤ VEHICLE TRACKING CONTROL
 - ⑥ CONCRETE SPURCHOUT AREA

UTILITIES
 LOCATE UTILITIES: SOUTH DAKOTA ONE CALL
 115 European Heights Drive
 Pierreburg, PA 57208
 (800) 781-7474

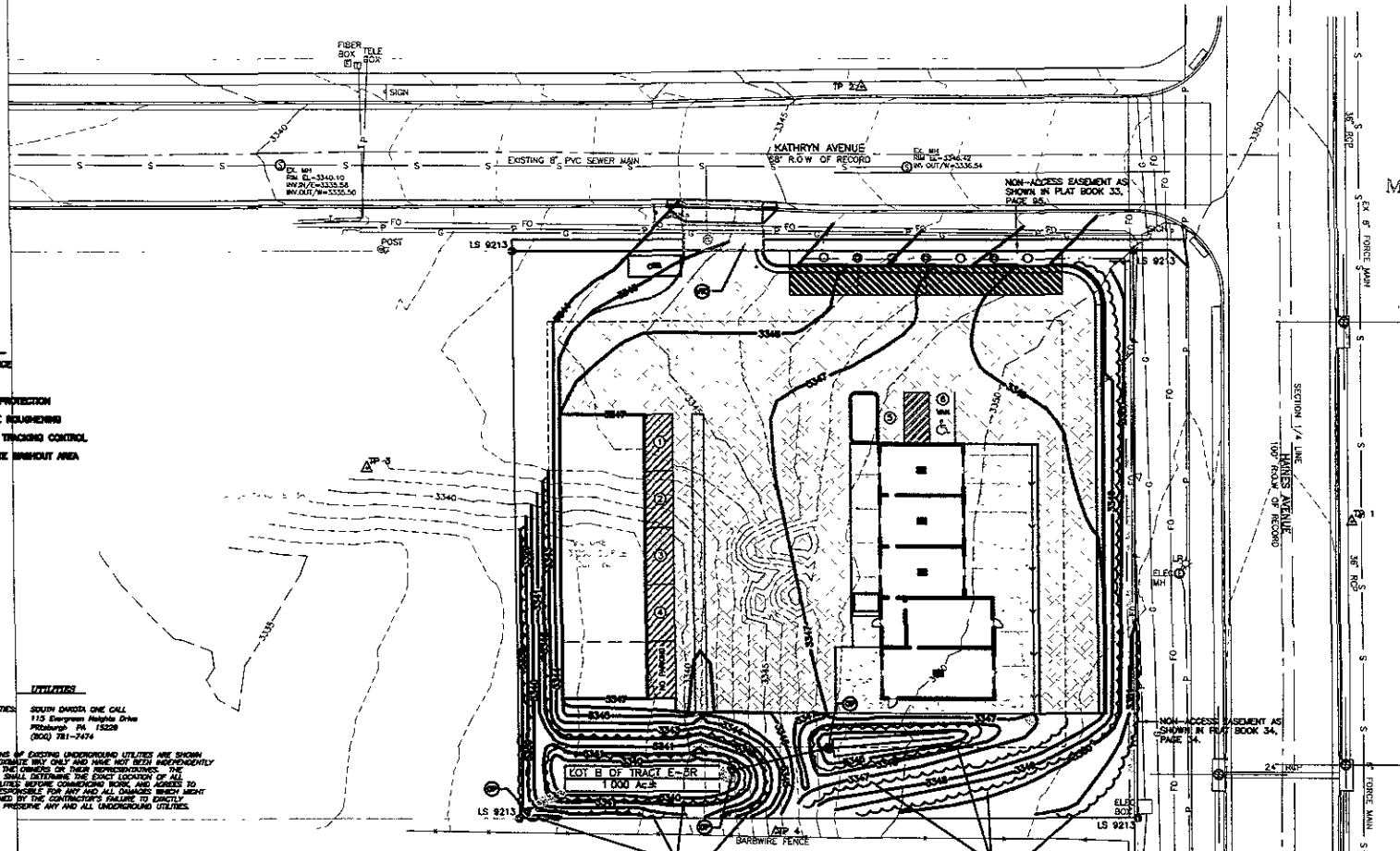
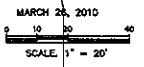
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE ENGINEER OR THEIR REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PROTECT ANY AND ALL UNDERGROUND UTILITIES.

FURNISH AND INSTALL NOTES
 F&I: 1,305.2 L.F. 3" WATTLES

- GENERAL NOTE**
- ① EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL PERMANENT REVEGETATION IS ESTABLISHED.
 - ② ALL PAVED STREETS ADJACENT TO THE SITE SHALL BE CLEANED AT THE END OF THE DAY IF MUD OR DEBRIS IS TRACKED ONTO THE STREET.

- CONSTRUCTION SEQUENCE**
- ① SITE GRADING PHASE: COMPLETE MASS GRADING, INSTALL EROSION CONTROL, RE-SEED DISTURBED AREAS.
 - ② INFRASTRUCTURE IMPROVEMENT PHASE:
 - ① OWNER IS RESPONSIBLE FOR EROSION CONTROL AS DEFINED FOR THEIR LOT.
 - ② EROSION CONTROL IS DEFINED ON THIS PLAN SHEET.

① NOTE: DISTURBED AREAS TO BE RE-SEED IMMEDIATELY UPON COMPLETION OF THE GRADING WITH HIGH IMPACTED LAWN MIX PER THE 2007 EDITION OF THE CITY OF RAPID CITY STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.



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EROSION CONTROL REPORT

1) PROJECT DESCRIPTION

This project consists:
 A) A Commercial Development/Parking Lot. The project site is located at 1565 Haines Ave., Rapid City, South Dakota.

2) EXISTING SITE CONDITION

A) The is currently vacant

3) WETLANDS

- Are wetlands an issue? No

4) ADJACENT AREAS

North is Kathryn Avenue (Paved)
 West is Vacant lot
 South is Commercial
 East is Haines Ave. (Paved)

5) SOILS

Predominant soils are: Clay

6) AREA AND VOLUME

A) Building #1-Area is 3,058 s.f.
 B) Future Building #2-Area is 3,000 s.f.
 C) Parking Lot-Area is 21,931 s.f.

7) EROSION AND SEDIMENT CONTROL MEASURES

The Erosion Control Plan shows the type and location of the erosion and sediment control measures for the grading of this site.

8) AREA FOR STOCKPILES AND STORAGE

On-site stockpiles shall not be allowed.

9) CONSTRUCTION SCHEDULE

Grading: Spring 2010
 Temporary Cover Seeding: Spring 2010
 Sanitary Sewer: Spring 2010
 Water Main: Spring 2010
 Building #1 Construction: Summer 2010

10) SOIL SURFACE STABILIZATION PRACTICES

After construction begins, soil surface stabilization shall be applied within 14 days to all disturbed areas that may not be at final grade but will remain dormant (undisturbed) for periods longer than an additional 21 calendar days. Within 14 days after final grade is reached on any portion of the site, permanent or temporary soil surface stabilization shall be applied to disturbed areas and soil stockpiles.

11) PERMANENT STABILIZATION PRACTICES

The graded lots will be maintained during the development process. Erosion control shall be maintained until final stabilization is achieved.

12) STORM WATER MANAGEMENT CONSIDERATIONS

1) Storm water from the Building Addition will enter existing Storm Sewer on Haines Ave. Stormwater will ultimately flow to the same downstream location after construction as it did before construction.

13) MAINTENANCE

Inspection of erosion and sediment control measures should be scheduled weekly and following any storm event of 1/2 inch or greater. All measures shall be maintained in good working order. Inspection and maintenance procedures shall continue until the disturbed areas achieve final stabilization.

14) SPILL CONTROL PRACTICES

Chemical and Petroleum Product spills of toxic or hazardous material shall be reported to the appropriate state or local government agency. All spills shall be cleaned up immediately after discovery.

15) SPILL PREVENTION

Petroleum Products: Onsite construction equipment shall be monitored for leaks & receive regular preventive maintenance. Asphalt substances used onsite shall be applied according to City of Rapid City Specifications 2007 Edition
 Fertilizers: Fertilizers shall be used in conjunction with seeding at graded areas. Fertilizers shall not be stock piled on site.
 Concrete Trucks: Concrete trucks shall not be allowed to wash out or discharge surplus concrete on the site. Washout shall be allowed only at the designated areas.

- a) Regularly pickup and dispose of garbage and waste material.
- b) Make sure all equipment and related processes are working properly and preventive maintenance is kept up with on both.
- c) Routinely inspect equipment and processes for leaks or conditions that could lead to discharges of chemicals or contact of storm water with raw materials, intermediate materials, waste materials, or products used on site.
- d) Assure all spill clean up procedures are understood by employees. Training of employees on proper clean up procedures shall be implemented.
- e) Designate separate areas of the site for auto parking, vehicle refueling, and routine maintenance.
- f) Clean up leaks, drips, and other spills immediately.
- g) Cover and maintain dumpsters and waste receptacles.
- h) Store containers, drums, and bags away from direct traffic routes to prevent accidental spills.
- i) Stack containers according to manufacturer's instructions to avoid damaging the containers from improper weight distribution.
- j) Store containers on pallets or similar devices to prevent corrosion of containers that results from containers coming in contact with moisture on the ground.
- k) Store toxic or hazardous liquids within curbed areas or secondary containers.
- l) Assign responsibility of hazardous material inventory to a limited number of people who are trained to handle such materials. In the event of spills of any dangerous or hazardous material, notify City of Rapid City and Department of Environment and Natural Resource.

The following preventative strategies are recommended where fluids are commonly present:

- a) Identify all equipment that may be exposed to storm water, pollutants that may be generated and possible sources of leaks or discharges.
- b) Perform regular maintenance of each piece of equipment to check for: proper operation, leaks, malfunctions, and evidence of leaks or discharge (stains) Develop a procedure for spill reporting, clean up, and repair.
- c) Drain or replace motor oil or other automotive fluids in an area away from streams or storm or sanitary sewer inlets. Collect spent fluids and recycle or dispose of properly.
- d) In fueling areas, clean up spills with dry clean up methods (absorbents).
- e) Make sure employees are trained in spill prevention practices and adhere to them.

16) SITE PLAN

The Erosion Control Plan shows the erosion control devices to be installed. These items shall be installed as per City of Rapid City Standard Details and Specifications 2007 Edition

17) NOTICE OF INTENT

A Notice of Intent (NOI) has NOT been filed with the Surface Water Discharge Program of the South Dakota Department of Environment and Natural Resources (DENR). The Primary Responsible Party is required to notify the EC Inspector when the site has reached final stabilization, and to file a Notice of Termination with DENR.

18) DEWATERING

If water from temporary dewatering shall be discharged to water of the state during construction, Contractor must first get coverage under DENR's General Permit for Temporary Dewatering. For more information, contact Al Spangler at (605) 773-3351. In addition, City of Rapid City may require a temporary BMP. Prior approval of which is required by City Engineering (394-4154)

19) SITE INSPECTION

Contact Development Service Center at 394-4157 after initial erosion control is installed prior to any grading work. The devices to be installed shall be outlined in the construction sequence. Disturb only as necessary to install these devices. This shall include all perimeter erosion control and other items specified in this report.

21) COMPLETION OF WORK

Upon completion of work contact Development Service Center for inspection 394-4157

Table 12.1 Maximum Time Limits of Land Exposures for Selection of Erosion Controls	
Erosion Control Method	Exposure ⁽¹⁾
Surface Roughening	1 mo.
Mulching	12 mo.
Temporary Revegetation	12-24 mo.
Permanent Revegetation	24 mo. or more
Soil Stockpile Revegetation	2 mo.
Early Application of Road Base	1 mo.

⁽¹⁾ Exposure is the Maximum Allowable Period of Exposure in Months

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Owner:
 Bill Brown
 21749 Coyote Lane
 Piedmont, SD 57769
 (605)-391-6941

Primary Responsible Party:
 Bill Brown
 21749 Coyote Lane
 Piedmont, SD 57769
 (605)-391-6941

Engineer:
 SPERLICH CONSULTING, INC.
 821 Columbus St., Suite 1
 Rapid City, SD 57701
 (605) 721-4040
 email: dougsperrlich@rushmore.com

Contractors:
 Project Not Currently Under Contract

SPERLICH CONSULTING, INC.
 821 Columbus St., Suite 1
 Rapid City, SD 57701
 (605) 721-4040
 email: dougsperrlich@rushmore.com

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REVISIONS	DATE	BY

LEGAL DESCRIPTION
 LOT B OF TRACT E-3R OF MCMAHON SUBDIVISION
 RAPID CITY, SD

EROSION AND SEDIMENT CONTROL PLAN LOT B OF TRACT E-3R OF MCMAHON SUBDIVISION GENERAL NOTES

PROJECT NUMBER 3194 SHEET 11 / 12

OWNER'S CERTIFICATION
 The Erosion Control Plan appears to fulfill the technical criteria for erosion and sediment control requirements of the City of Rapid City. We understand that additional erosion control measures may be needed if unforeseen erosion problems occur or if the submitted plan does not function as intended. The requirements of this plan shall run with the land and be the obligation of Bill Brown until such time as the plan is properly completed, modified or voided.

Date _____ Signed _____ Printed: Bill Brown

ENGINEER'S CERTIFICATION
 I hereby certify that these plans were prepared under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of South Dakota.

Date _____ Kate R McNaboe, PE Reg No 7198

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SURFACE ROUGHENING (SR)

DEFINITION:
PROVIDE A ROUGH SURFACE WITH JOINTLESS PROJECTIONS CREATED BY COMPACTING A LAYER OF STONE VARIABLE IN SIZE TO THE CONTROL OF SLURRY FLOW AS A REQUIREMENT OF CONSTRUCTION BY HOT PINE-GRADING TECH.

NOTES:
1. TO AP IN NEED BEE PREPARATION AND ESTABLISHMENT OF VEGETATIVE COVER.
2. TO INCREASE SLURRY VELOCITY AND INCREASE MAINTENANCE.
3. TO REDUCE SLURRY AND WIND EROSION AND PROVIDE FOR SEDIMENT TRAPPING.

CITY OF RAPID CITY PUBLIC WORKS DEPARTMENT
DATE: 1-31-08
SEC - SH1
146-4

VEHICLE TRACKING CONTROL (VTC)

DEFINITION:
A BERM ESTABLISHED AND LOCATED AT POINTS OF VEHICULAR ENTRY AND EXITS ON A CONSTRUCTION SITE.

NOTES:
1. TO AVOID THE TRACKING OF SOIL ON PUBLIC ROADS AND DRIVEWAYS BY VEHICLES ON SITE.

CITY OF RAPID CITY PUBLIC WORKS DEPARTMENT
DATE: 1-31-08
SEC - SH1
146-5

SILT FENCE (SF)

DEFINITION:
A BARRIER BUILT TO PREVENT EROSION OF SOIL BY WIND OR WATER AND TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.

NOTES:
1. TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.
2. TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.
3. TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.

CITY OF RAPID CITY PUBLIC WORKS DEPARTMENT
DATE: 1-31-08
SEC - SH1
146-12

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SEDIMENT CONTROL WATTLE (W)

DEFINITION:
A BARRIER BUILT TO PREVENT EROSION OF SOIL BY WIND OR WATER AND TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.

NOTES:
1. TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.
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CITY OF RAPID CITY PUBLIC WORKS DEPARTMENT
DATE: 1-31-08
SEC - SH1
146-17

OUTLET PROTECTION (OP)

DEFINITION:
A BARRIER BUILT TO PREVENT EROSION OF SOIL BY WIND OR WATER AND TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.

NOTES:
1. TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.
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CITY OF RAPID CITY PUBLIC WORKS DEPARTMENT
DATE: 1-31-08
SEC - SH1
146-17

CONCRETE WASHOUT AREA (CWA)

DEFINITION:
A BARRIER BUILT TO PREVENT EROSION OF SOIL BY WIND OR WATER AND TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.

NOTES:
1. TO PREVENT SOIL FROM BEING TRANSPORTED BY WIND OR WATER TO ADJACENT AREAS.
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CITY OF RAPID CITY PUBLIC WORKS DEPARTMENT
DATE: 1-31-08
SEC - SH1
146-31

LEGAL DESCRIPTION
LOT B OF TRACT E-3R
OF McMAHON SUBDIVISION
STANDARD DETAILS

EROSION AND SEDIMENT
CONTROL PLAN
LOT B OF TRACT E-3R
OF McMAHON SUBDIVISION
STANDARD DETAILS