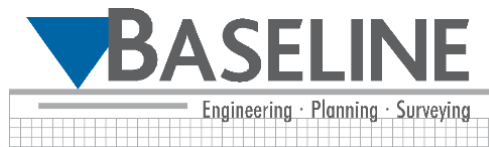


**EROSION CONTROL
NARRATIVE**



**Breeze Thru Headquarters
6464 South College Avenue
Fort Collins, CO 80525**

March 20th, 2019

Prepared For:
Wenga, LLC
725 East Mulberry Rd
Fort Collins, Colorado 80524

Prepared By:
Baseline Engineering Corporation
112 North Rubey Drive, Suite 210
Golden, Colorado 80403
Noah Nemmers, P.E.

Job No. PL375

**CONSTRUCTION ACTIVITIES
STORMWATER MANAGEMENT PLAN
FOR
BREEZE THRU HEADQUARTERS**

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CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PLAN FOR BREEZE THRU HEADQUARTERS

INTRODUCTION

This report was prepared in compliance with Colorado Department of Public Health and Environment (CDPHE) requirements for a Stormwater Management Plan. The essential data is tabulated in worksheet format. Narrative sections are included where required.

PROJECT DATA

1. Project Location

Name of Project or Development: Breeze Thru HQ

Street Address: 6464 S. College Ave. Fort Collins, CO 80525

Township: 6 North, Range: 69 West, Section: 12, Quarter Section: SW

Latitude (+/- 15") 40°28'49"N, Longitude (+/- 15") 105°04'36"W

Metropolitan District: Trilby Corner

2. Permittee and SWMP Administrator - Local Contact/Project Manager

Name: Devon Smith

Company Name: Beacon Construction

Mailing Address: 902 West Drake Road, Unit 7

City, State, and Zip Code: Fort Collins, CO 80526

Phone Number: 970-212-2432 Cell: 970-290-6361

Email: devon@beacon-con.com

3. Owner

Name: John Agnew

Company Name: Wenga, LLC

Mailing Address: 725 East Mulberry Street

City, State, and Zip Code: Fort Collin, CO 80524

Phone Number: 970-485-0287

Email: silverwash@aol.com

4. Consultant

Company Name: Baseline Engineering Corporation

Mailing Address: 112 N. Rubey Dr, Suite 210.

City, State, and Zip Code: Golden, CO 80403

Phone Number: 303-940-9966 ex. 215 FAX Number 303-940-9959

Project Engineer: Jesse Carano

Email: jesse.carano@baselinecorp.com

Cell: 617-803-1166

5. Acreage

A. Site Acreage: ±1.56

B. Acreage subject to disturbance: ±0.59

Calculations include all areas proposed for contractor laydown, materials storage, equipment storage, and areas where equipment repair and fueling will occur.

6. Current Site Conditions (Project Site)

A. Past Land Use: (may be for partial site)

i. Known Landfill site:

YES NO

ii. Has any of the following activities occurred on site:

(a) Metal Refining

YES NO

(b) Petroleum Refining

YES NO

(c) Petroleum Storage

YES NO

(d) Chemical Manufacturing

YES NO

(e) Pesticide/Fertilizer Manufacture/Storage

YES NO

(f) Rail Yard

YES NO

iii. If the response to any of the above is Yes, Please describe.

B. Possible Site Contamination:

- i. Known Radium Site: YES NO
- ii. Known Toluene Site YES NO
- iii. Known Superfund Site YES NO
- iv. Known CERCLA Site YES NO
- v. Known RCRA Site YES NO

vi. If the response to any of the above is yes, Please describe.

vii. Describe any other known site contamination: No other known contamination on the site.

C. Current Land Use:

i. Describe existing use: Educational space for hair salon professionals

ii. Are there any building/structures on site? YES NO

D. Existing Topography

i. Describe: The entire site slopes Southwest to Northeast

ii. Highest elevation: 5021 feet (Southwest Corner of the site)

iii. Lowest elevation: 4999 feet (Northeast corner of the site)

iv. Steepest Slope: 11.5%

v. Location: East side of site.

vi. Average Slope: 5.5%

vii. Direction: Northeast

E. Vegetation

i. Identify the types of vegetation found on-site: The project area is almost entirely impervious. Some native grasses, a tree, and shrubs exists at the east property line.

ii. Estimate the existing vegetative ground cover on site: 10%, nearly bare dirt in most locations.

F. Drainage

i. Identify all areas tributary to the site: The site receives some runoff from the property directly to the south via surface flow.

ii. Identify the State Receiving Waters: Fossil Creek Reservoir via Fossil Creek

iii. Describe the flow routing from the site to the Receiving Waters: Runoff is collected and

conveyed in gutters and roof drains to grade. Runoff surface flows SW to NE over asphalt and ultimately reaches a drainage ditch on the east edge of the site. Flows are conveyed in the this drainage way to the northeast ultimately reaching Fossil Creek.

- iv. Are there any springs or seeps located on-site? YES NO
- v. Are there any defined drainage channels on-site? YES NO
- vi. Does the site fall within a Regulatory Floodplain? YES NO

G. Wetlands

- i. Identify all on-site wetlands/wetlands channels: Wetland / Drainage way off-site at the east property line.
- ii. Define the dimensions/surface areas for each identified wetland area.
- iii. Tributary or adjacent Wetlands Areas
 - (a) upstream of the site? YES NO
 - (b) downstream of the site? YES NO
- iv. Will the proposed construction work impact any of the on-site wetland areas?
YES NO

H. Soils

- i. Identify the predominant Hydrologic Soil Group found on site.
A B C D
- ii. What is the runoff coefficient for the undeveloped site C5=0.71, C100=0.82
- iii. Describe the soil texture found on-site. Hedlt Clay Loam
- iv. Is there any outcropping of bedrock on site? YES NO
- v. Will grading or excavation on site reach bedrock? YES NO
If Yes, what is the depth of the bedrock?
- vi. Will grading or excavation penetrate the Water Table? YES NO
- vii. If Yes, what is the depth of the Water Table?

I. Erosion Potential

The erosion potential for the site soils is minimal. Construction BMP's will be erected prior to site disturbance and remain in place until permanent vegetation/stabilization is established. Excess soil will be hauled off.

7. Project Description

A. Proposed Construction

- i. Identify which of the following activities will occur during development of the site:
- (a) Clearing and Grubbing YES NO
- (b) Mass Overlot Grading YES NO
- (1) Cut Operations YES NO
- If yes, estimate volume of cut (cubic yards) 80
- (2) Fill Operations YES NO
- If yes, estimate volume of fill (cubic yards) 0
- (c) Building Demolition YES NO
- (d) Foundation Excavation YES NO
- (e) Utility Construction YES NO
- (f) Street Construction and Paving YES NO
- (g) Building Construction YES NO
- (h) Parking Lot Construction/Paving YES NO
- (i) Landscaping YES NO
- ii. Will Storm and Sanitary Sewer systems be constructed as Public Sewers?
- Sanitary: YES NO Storm: YES NO

B. Construction Scheduling

Phase I

- i. Demolition
- (a) Proposed Start Date 4/19
- (b) Proposed Completion Date 5/19

Phase II

- i. Grading and Shoring Operations
- (a) Proposed Start Date 5/19
- (b) Proposed Completion Date 6/19
- ii. Utility/Infrastructure Construction
- (a) Proposed Start Date 6/19
- (b) Proposed Completion Date 7/19

iii. Building Construction

(a) Proposed Start Date 7/19

(b) Proposed Completion Date 9/19

iv. Landscaping/Site Stabilization

(a) Proposed Start Date 9/19

(b) Proposed Completion Date 10/19

C. Construction Phasing

Phase I

i. Demo Operations

There are areas of existing concrete and asphalt pavement that will be sawcut or removed to accommodate site grading, tie-in of new asphalt pavement, water and sanitary connections, and landscape islands. A sign and large planter will also be removed at the site's frontage.

Proposed BMPs:

- Street Sweeping*
- Perimeter Control *
- Portable Toilets
- Sediment Control Logs
- Vehicle Tracking Control
- Concrete Washout Area

*See below for maintenance schedule

Phase II

i. Grading Operations

Clearing and grubbing to remove any existing vegetation at the east edge of the site will occur first. Topsoil will be stripped and stockpiled on site. Rough grading will then be completed for the garage addition at the east edge of the site. Final grading will be performed for ADA stall re-grading and garage foundation prior to foundation construction. BMP's are installed where and when applicable, dependent upon the phase of construction, prior to the beginning of grading operations.

Proposed BMPs:

- Vehicle Tracking Control *
- Spill Prevention/Containment *
- Street Sweeping *
- Sediment Control Log
- Perimeter Control *

*See below for maintenance schedule

ii. Utility/Infrastructure Construction

Wet utilities to be constructed on site include water, hydrant line, and sanitary sewer. All of which are private. New curb and gutter throughout the site for new parking islands and landscaped sections as well as a limited amount of concrete flatwork and asphalt repaving.

Proposed BMPs:

- Vehicle Tracking Control *
- Site Stabilization *
- Spill Prevention/Containment *
- Concrete Washout Containment *
- Street Sweeping *
- Perimeter Control *
- Sediment Control Log
- Soil Stockpile

*See below for maintenance schedule

iii. Building Construction

Vertical building expansion on the existing structure at the south central area of the site. New building construction at the northeast corner of the site.

Proposed BMPs:

- Vehicle Tracking Control *
- Site Stabilization *
- Spill Prevention/Containment *
- Concrete Washout Containment *
- Street Sweeping *
- Perimeter Control *
- Sediment Control Log
- Soil Stockpile

*See below for maintenance schedule

iv. Landscaping/Site Stabilization

On site landscaping consists of mulch, shrubs, trees, grass, and cobble. Temporary and permanent stabilization will be provided as necessary.

Proposed BMPs:

- Permanent Stabilization *
- Spill Prevention/Containment *
- Street Sweeping *
- Perimeter Control *

- Sediment Control Logs
- Rock Socks

*See below for maintenance schedule

D. Detailed Construction Schedule

Please see Section 7.B above for construction scheduling.

E. Spill Prevention and Management

If fuel is stored on site, it will be stored in small quantities in designated areas out of the way of construction traffic and construction activities. Construction and building materials will be stored for short periods of time in relatively flat areas and covered when appropriate. Paints, fertilizers, and any other liquids or fine grained soluble substances capable of polluting stormwater discharge will be stored in the original containers in sheltered and secure locations until time of use. Material wastes will be properly disposed of at approved off-site landfills. Concrete chute wash-out sump areas will be provided on site for concrete truck washout waters. The sump will be dewatered by evaporation and percolation.

F. Required Best Management Practices (BMP)

Silt fence will be installed along property limits of construction where flows and sediment would impact adjacent properties. Paved surfaces will be swept in a timely manner when sediment and other materials are tracked or discharged onto them. Maintenance of erosion control measures shall comply with the criteria set forth in the Colorado Department of Public Health and Environmental Guidelines (Reference-1). Site grading operation will begin when erosion control measures are in place. When necessitated by dry and windy conditions, fugitive dust will be controlled by watering exposed un-vegetated areas.

All structural practices will be inspected once every week and after significant precipitation events. Any degradation of structures described in the plan or excessive accumulation of sediments will be remedied immediately upon discovery.

G. Construction Phasing

Final grading will be completed before paving of the site. Landscaping and irrigation systems will be installed before final site stabilization.

8. Water Quality BMP Phasing Description

The water quality BMP's for this project have been divided into three phases. The initial water quality BMP's are to be placed prior to any construction activity. Initial BMP's may be removed when construction within the "initial" limits of construction (LOC) has been completed. After the construction within the "initial" LOC has been completed, the "interim" water quality BMP's are to be placed and maintained during construction of the "final" LOC. Final BMP's are associated with the "final" limits of construction of the project and are to be placed and maintained when construction is to begin within these limits. Seeding and mulching associated with the "final" LOC is to be completed when construction is complete. All other remaining "final" LOC BMP's and "interim" SCL's may be removed when construction is complete.

9. Placement of Water Quality BMP's

Water Quality will be placed according to civil construction plans. During construction, Sediment Basins will be installed in grass swale area to aid in pollutant control.

10. Permanent Stabilization

The permanent final stabilization of the site will include asphalt paving of the new parking areas, and landscaping of all areas exposed after paving operations have been completed.

11. BMP Maintenance

“Approved erosion and sediment control ‘Best Management Practices’ shall be maintained and kept in good repair for the duration of this project. At a minimum, the Permittee or contractor shall produce and retain weekly written inspection records for all BMPs and after significant precipitation events. All necessary maintenance and repair shall be completed immediately. Additionally, street sweeping is to be completed by the close of the business day or (and) on an as needed basis throughout the day. As the project expands, so will the monitoring of erosion control measures. This plan will implement the following general requirements for construction:

- i. The Engineer, Owner, and General Contractor, as well as representatives from governing agencies shall make routine checks of all erosion control measures (listed above) to determine if repairs or sediment removal are necessary. Due to conditions that may arise in the field, additional control measures may be determined to be necessary but they shall be reasonable and comply with standard engineering practices.
- ii. After each significant precipitation event, erosion control measures are to be checked. If repairs are needed, they shall be completed immediately.
- iii. At all times during construction, erosion and sediment control shall be furnished and maintained by the General Contractor.
- iv. During construction, all structural practices will be inspected once every week. Any degradation of structures described in the plan or excessive accumulation of sediments will be remedied immediately upon discovery.

REFERENCES

1. Colorado Department of Health & Environmental Guidelines, Denver, Colorado, May 1995.
2. Urban Storm Drainage Criteria Manual Volume 3, Colorado, March, 1969 (Updated January 2016).
3. Fort Collins Stormwater Criteria Manual, Fort Collins, Colorado, September, 2018

APPENDIX

A. VICINITY MAP

B. CONSTRUCTION GENERAL PERMIT

C. STORMWATER CONSTRUCTION SITE INSPECTION REPORTS

D. SWMP AMENDMENT LOG

E. SPILL PREVENTION AND CONTROL PLAN

F. CORRECTIVE ACTION REPORT

G. EROSION CONTROL PLAN (CX) AND DETAILS (CX)

Erosion and Sediment Control Escrow/Security 1 Calculation for The City of Fort Collins

Project:	Breeze Thru Headquarters	Total Disturbed Area=	0.85 acre		
		Interim Disturbed Acres Seeded:	0.19		
BMP Amount					
INITIAL EROSION CONTROL BMPs	Units	Estimated Quantity	Unit Price	Total Price	
Silt Fence (SF)	L.F.	244	\$2.50	\$610.00	
Concrete Washout (CW)	EA	1	\$500.00	\$500.00	
Sediment Control Log	EA	0	\$250.00	\$0.00	
FODS Trackout Control System (RM)	EA	3	\$2,600.00	\$7,800.00	
<i>(add all other BMPs for the site in this list)</i>			Sub-Total:	\$8,910.00	
			1.5 x Sub-Total:	\$13,365.00	
			Amount of security:	\$13,365.00	
Reseeding Amount					
			Interim Total Acres x Price/acre:	\$828.40	
Unit Price of Seeding per acre:	\$4,360.00			Interim Sub-Total:	\$828.40
			Interim 1.5 x Sub-Total:	\$1,242.60	
			Interim Amount to Re-seed:	\$1,242.60	
Minimum Escrow Amount					
			Minimum escrow amount:	\$3,000.00	
Final Escrow Amount					
			Erosion Control Escrow:	\$14,490.00	

Fields in yellow should be amended for this project.

“The amount of the security must be based on one and one-half times the estimate of the cost to install the approved measures, or one and one-half times the cost to re-vegetate the disturbed land to dry land grasses based upon unit cost determined by the City’s Annual Revegetation and Stabilization Bid, whichever is greater. In no instance, will the amount of security be less than one thousand five hundred dollars (\$1,500) for residential development or three thousand dollars (\$3,000) for commercial development”

Erosion and Sediment Control Escrow/Security 2 Calculation for The City of Fort Collins

Project:	Breeze Thru Headquarters		Total Disturbed Area= 0.85 acre	
			Final Disturbed Acres Seeded: 0.20	
BMP Amount				
FINAL EROSION CONTROL BMPs	Units	Estimated Quantity	Unit Price	Total Price
Silt Fence (SF)	L.F.	241	\$2.50	\$602.50
Concrete Washout (CW)	EA	1	\$500.00	\$500.00
Sediment Control Log	EA	0	\$250.00	\$0.00
FODS Trackout Control System (RM)	EA	3	\$2,600.00	\$7,800.00
<i>(add all other BMPs for the site in this list)</i>			Sub-Total:	\$8,902.50
			1.5 x Sub-Total:	\$13,353.75
			Amount of security:	\$13,353.75
Reseeding Amount				
			Final Total Acres x Price/acre:	\$872.00
Unit Price of Seeding per acre:	\$4,360.00			
			Final Sub-Total:	\$872.00
			Final 1.5 x Sub-Total:	\$1,308.00
			Total Amount to Re-seed:	\$1,308.00
Minimum Escrow Amount				
			Minimum escrow amount:	\$3,000.00
Final Escrow Amount				
			Erosion Control Escrow:	\$13,353.75

Fields in yellow should be amended for this project.

“The amount of the security must be based on one and one-half times the estimate of the cost to install the approved measures, or one and one-half times the cost to re-vegetate the disturbed land to dry land grasses based upon unit cost determined by the City's Annual Revegetation and Stabilization Bid, whichever is greater. In no instance, will the amount of security be less than one thousand five hundred dollars (\$1,500) for residential development or three thousand dollars (\$3,000) for commercial development”