

LEGEND

OFF-SITE GRADING
(CANNOT BE COMPLETED WITH
EARLY GRADING PERMIT)



ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLANS.

Bryan T. Law
BRYAN T. LAW, P.E.
COLORADO P.E. 25043
FOR AND ON BEHALF OF JR ENGINEERING, LLC



1/20/23
DATE

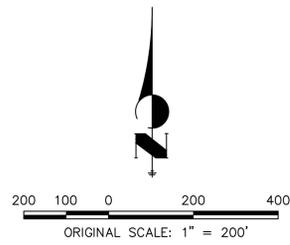
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PREPARED FOR	ROI PROPERTY GROUP, LLC 2495 RIDGON STREET NAPA, CALIFORNIA (707) 365-6891 BRADY WILLIAMS
 J.R. ENGINEERING A Westman Company Centennial 303-740-9888 • Colorado Springs 719-588-2583 Fort Collins 970-491-9888 • www.jrengineering.com	
BY	DATE
No.	REVISION
H-SCALE	1"=220'
V-SCALE	N/A
DATE	10/14/22
DESIGNED BY	GVT
DRAWN BY	GVT
CHECKED BY	
SADDLEHORN RANCH - FILING NO. 2	
GRADING & EROSION CONTROL SITE PLAN	
SHEET	4 OF 15
JOB NO.	2514204



LEGEND

- EARLY GRADING TEMPORARY IMPROVEMENTS
- EARLY GRADING EXCLUDED AREAS



OWNER/DEVELOPER STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

John Helmick 8/8/2022
 JOHN HELMICK DATE

GORILLA CAPITAL CO SADDLEHORN RANCH, LLC
 1342 HIGH STREET
 EUGENE, OR 97401

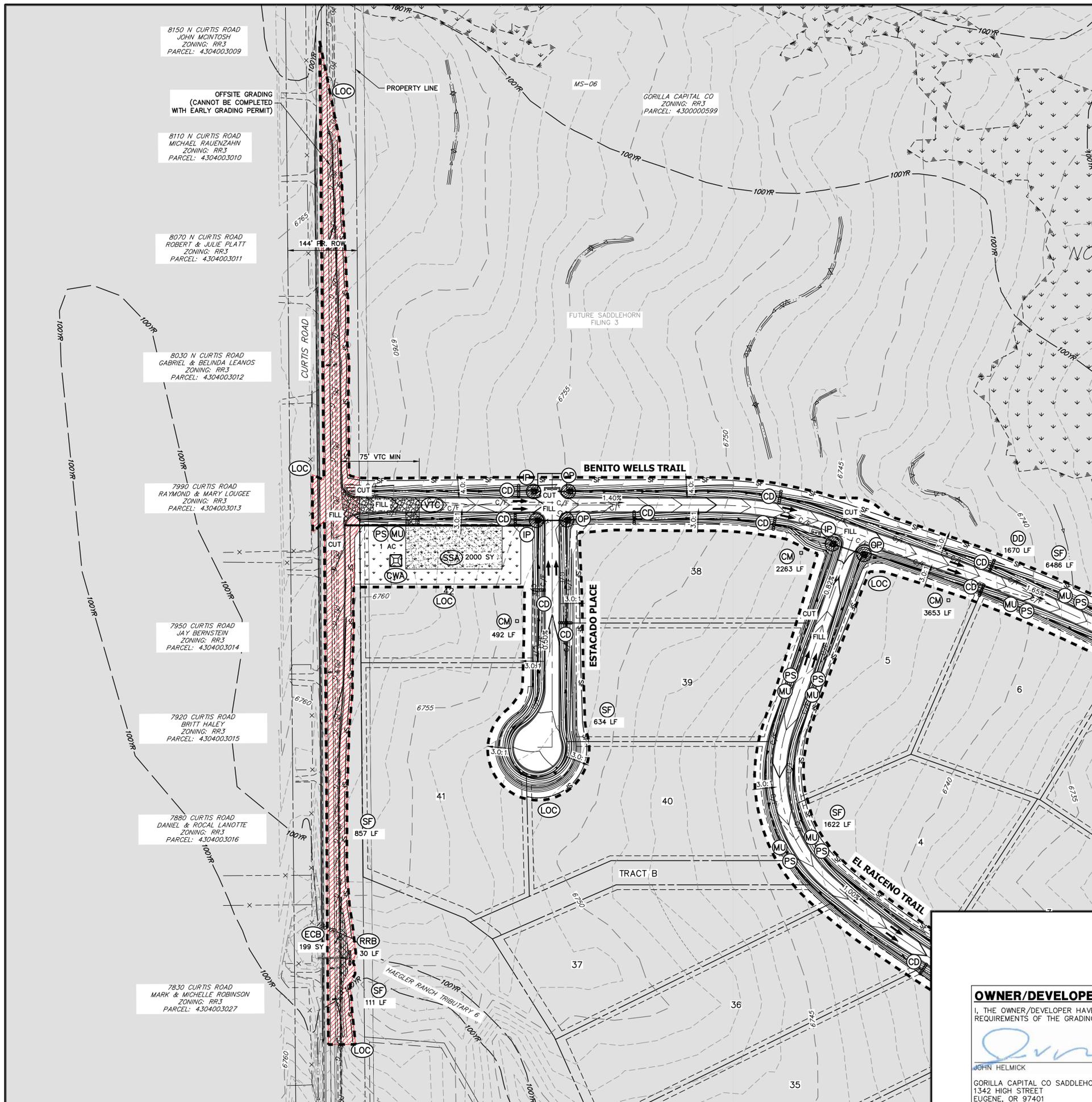
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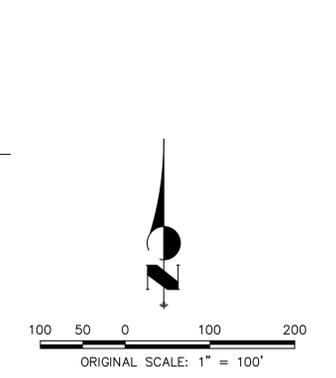
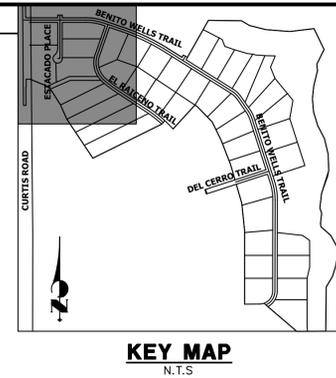


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SADDLEHORN RANCH - FILING NO. 2	
EARLY GRADING IMPROVEMENTS	
SHEET	5 OF 15
JOB NO.	2514204



LEGEND

- SEDIMENT BASIN (SB) [Symbol]
- SILT FENCE (SF) [Symbol]
- STABILIZED STAGING AREA (SSA) [Symbol]
- CONSTRUCTION MARKER (CM) [Symbol]
- VEHICLE TRACKING CONTROL (VTC) [Symbol]
- TEMPORARY STOCK PILE (TSP) [Symbol]
- EROSION CONTROL BLANKET (ECB) [Symbol]
- INLET PROTECTION (IP) [Symbol]
- OUTLET PROTECTION (OP) [Symbol]
- DIVERSION DITCH AND DIKE, TEMPORARY (DD) [Symbol]
- CUT AND FILL LINE (C/F) [Symbol]
- LIMITS OF CONSTRUCTION/DISTURBANCE (LOC) [Symbol]
- CONCRETE WASHOUT AREA (CWA) [Symbol]
- MULCHING & PERMANENT SEEDING (MU, PS) [Symbol]
- TEMPORARY SLOPE DRAIN (TSD) [Symbol]
- REINFORCED ROCK BERM (RRB) [Symbol]
- CHECK DAM (CD) [Symbol]
- ROCK SOCK (RS) [Symbol]
- CONSTRUCTION MARKERS (CM) [Symbol]
- OFF-SITE GRADING (CANNOT BE COMPLETED WITH EARLY GRADING PERMIT) [Symbol]



NOTES

1. REFER TO THE STORMWATER MANAGEMENT PLAN (SWMP) FOR A DETAILED DESCRIPTION OF THE MAINTENANCE PROGRAMS FOR EROSION CONTROL FACILITIES.
2. SEE SHEET 3 FOR SWALE TYPICAL CROSS SECTIONS THAT INCLUDES SWALE LINING DETAIL.
3. ALL DISTURBED AREAS NOT TO BE PAVED SHALL BE PERMANENTLY SEEDING PER THE FAWNEE BUTTES SEED INC. - "LOW GROW NATIVE MIX" OR APPROVED EQUAL. SEE SHEET 3 FOR SEED MIX DETAILS. 12.7 TOTAL ACRES OF SEEDING ESTIMATED.
4. P.I.E = PUBLIC IMPROVEMENTS EASEMENT
5. EXISTING VEGETATION CONSISTS OF NATIVE MEADOW GRASSES (APPROX. 70% COVERAGE) DETERMINED THROUGH A COMBINATION OF FIELD VERIFICATION AND AERIAL INSPECTION.
6. NO BATCH PLANTS WILL BE UTILIZED ON SITE.
7. NO OFF-SITE GRADING SHALL BE CONDUCTED WITH THE EARLY GRADING PERMIT.
8. SILT FENCES THAT ARE NOT PARALLEL TO CONTOURS MUST BE INSTALLED WITH J-HOOKS.

BMP PHASING

- INITIAL (06/2022 - 7/2022):**
- 1) INSTALL VTC
 - 2) INSTALL CWA
 - 3) ESTABLISH SSA
 - 4) INSTALL CONSTRUCTION MARKERS
 - 5) INSTALL SILT FENCE
 - 6) INSTALL SEDIMENT BASINS
 - 7) INSTALL DIVERSION DITCHES
- INTERIM (7/2022 - 10/2022):**
- 1) LOCATE/INSTALL TEMPORARY STOCKPILE
 - 2) MAINTAIN ALL BMPS
 - 3) INSTALL RRBs
 - 4) INSTALL INLET AND OUTLET PROTECTION
 - 5) INSTALL EROSION CONTROL BLANKETS
- FINAL (10/2022 - 12/2022):**
- 1) INSTALL MULCH AND PERMANENT SEEDING IN ALL DISTURBED AREAS
 - 2) REMOVE SILT FENCE AFTER STABILIZED, INLET & OUTLET PROTECTION, RRBs, EROSION CONTROL BLANKETS, VTC, CWA, CONSTRUCTION MARKERS, SEDIMENT BASINS, DIVERSION DITCHES, SSA, AND TEMPORARY STOCKPILES
- FINAL STABILIZATION ANTICIPATED 05/2023.



Know what's below.
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John Helmick
JOHN HELMICK
DATE 8/8/2022
GORILLA CAPITAL CO SADDLEHORN RANCH, LLC
1342 HIGH STREET
EUGENE, OR 97401

Bryan T. Law
BRYAN T. LAW, P.E.
COLORADO P.E. 25043
FOR AND ON BEHALF OF JR ENGINEERING, LLC
DATE 1/20/23

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BRADY WILLIAMS

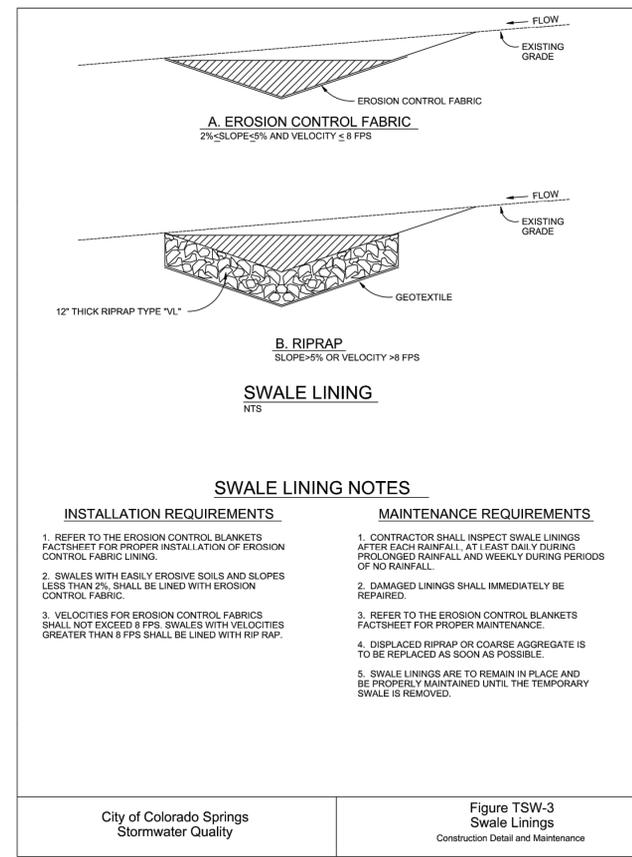
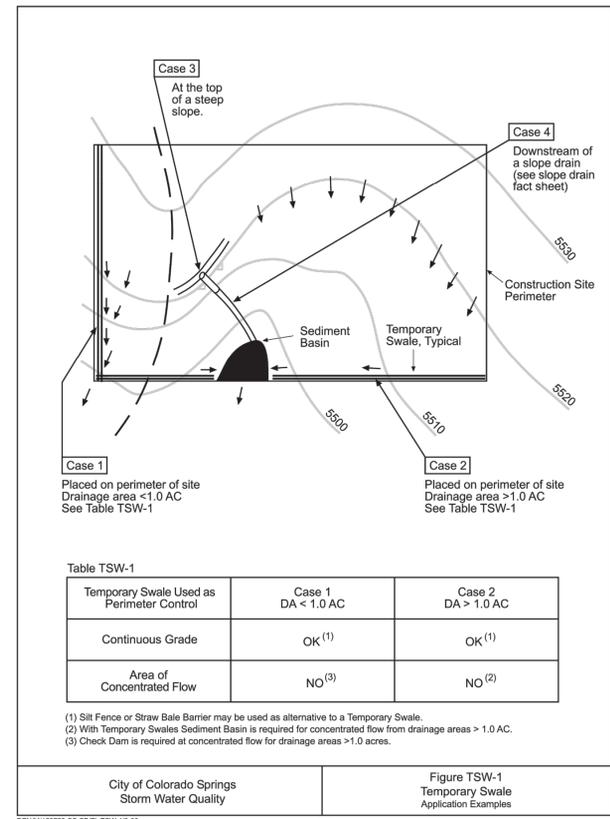
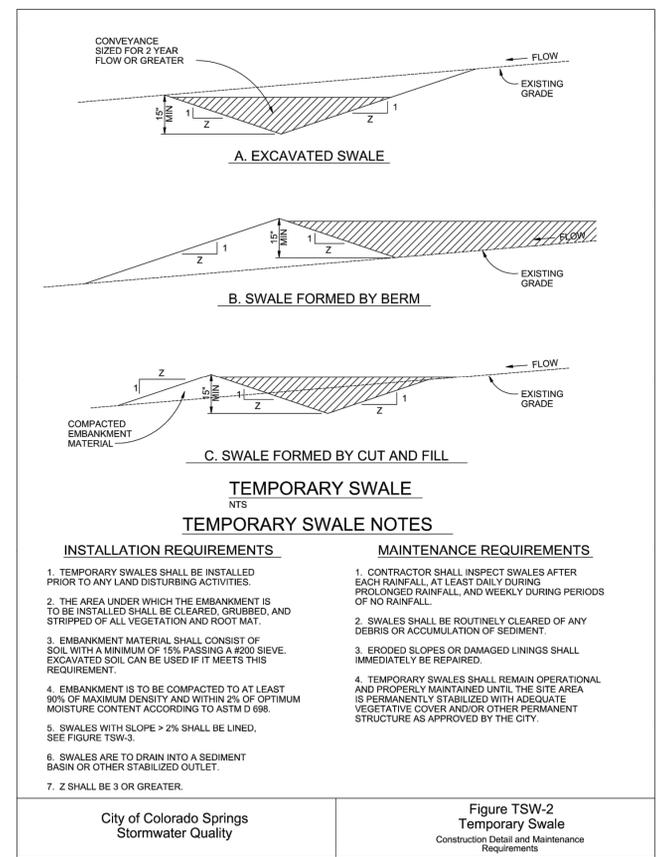
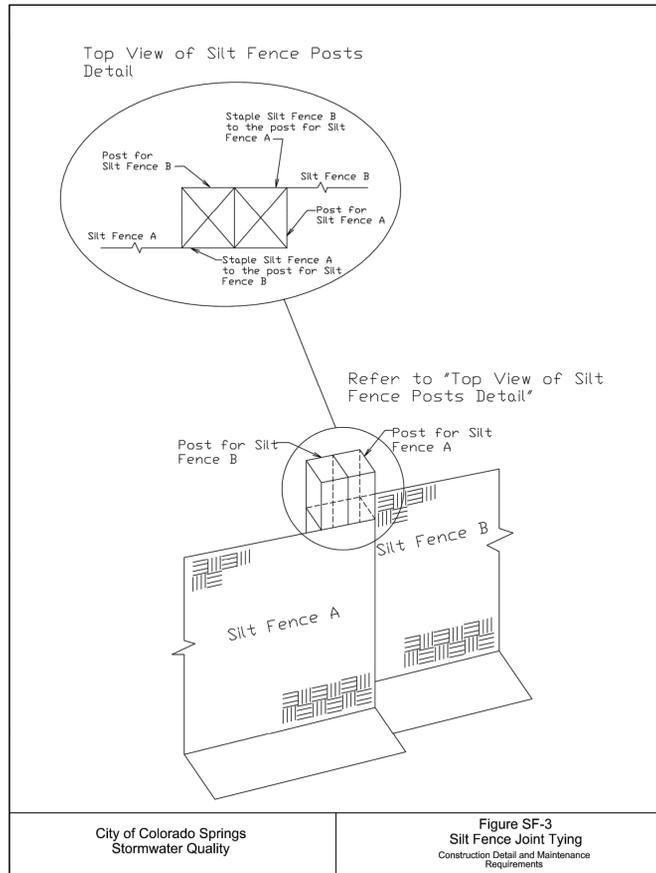
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BY	DATE	REVISION

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V-SCALE N/A
DATE 10/14/22
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SADDLEHORN RANCH - FILING NO. 2
GRADING & EROSION CONTROL PLANS

SHEET 6 OF 15
JOB NO. 2514204



ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

BRYAN T. LAW, P.E.
COLORADO P.E. 25043
FOR AND ON BEHALF OF JR ENGINEERING, LLC

25043

1/20/23

DATE



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BY	DATE	REVISION	No.	N/A	N/A	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
						10/14/22	NQJ	NQJ	

SADDLEHORN RANCH - FILING NO. 2

GRADING AND EROSION CONTROL DETAILS

ENGINEER'S STATEMENT

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BRYAN T. LAW, P.E.
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FOR AND ON BEHALF OF JR ENGINEERING, LLC

25043

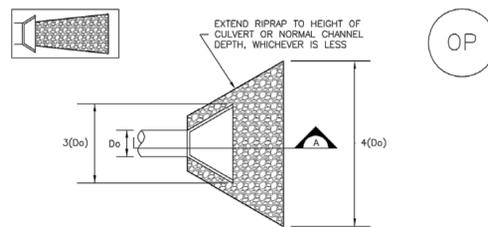
1/20/23

DATE

SHEET 10 OF 15

JOB NO. 2514204

EC-8 Temporary Outlet Protection (TOP)



TEMPORARY OUTLET PROTECTION PLAN

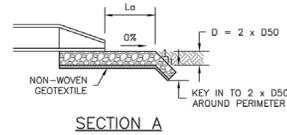


TABLE OP-1. TEMPORARY OUTLET PROTECTION SIZING TABLE

PIPE DIAMETER, Do (INCHES)	DISCHARGE, Q (CFS)	APRON LENGTH, La (FT)	RIPRAP D50 DIAMETER MIN (INCHES)
8	2.5	5	4
	5	10	6
12	5	10	4
	10	13	6
	20	16	9
18	30	23	12
	40	26	16
	60	30	16
24	30	16	9
	40	26	9
	50	26	12
	60	30	16

OP-1. TEMPORARY OUTLET PROTECTION

TOP-2 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

Temporary Outlet Protection (TOP) EC-8

TEMPORARY OUTLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR:
-LOCATION OF OUTLET PROTECTION.
-DIMENSIONS OF OUTLET PROTECTION.
- DETAIL IS INTENDED FOR PIPES WITH SLOPE $\leq 10\%$. ADDITIONAL EVALUATION OF RIPRAP SIZING AND OUTLET PROTECTION DIMENSIONS REQUIRED FOR STEEPER SLOPES.
- TEMPORARY OUTLET PROTECTION INFORMATION IS FOR OUTLETS INTENDED TO BE UTILIZED LESS THAN 2 YEARS.

TEMPORARY OUTLET PROTECTION INSPECTION AND MAINTENANCE NOTES

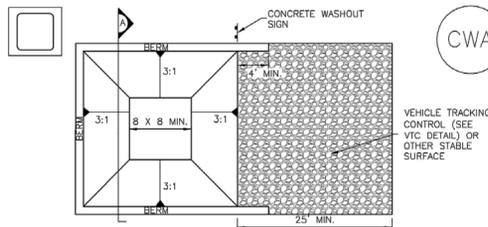
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

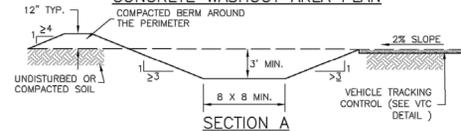
(DETAILS ADAPTED FROM AURORA, COLORADO AND PREVIOUS VERSION OF VOLUME 3, NOT AVAILABLE IN AUTOCAD)

November 2010 Urban Drainage and Flood Control District TOP-3
Urban Storm Drainage Criteria Manual Volume 3

Concrete Washout Area (CWA) MM-1



CONCRETE WASHOUT AREA PLAN



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

- SEE PLAN VIEW FOR:
-CWA INSTALLATION LOCATION.
- DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
- THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
- BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
- VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

November 2010 Urban Drainage and Flood Control District CWA-3
Urban Storm Drainage Criteria Manual Volume 3

MM-1 Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
- CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
- THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
- WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CWA-4 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

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								10/14/22	NQJ	NQJ	

SADDLEHORN RANCH -
FILING NO. 2
GRADING AND EROSION
CONTROL DETAILS



Know what's below.
Call before you dig.

ENGINEER'S STATEMENT

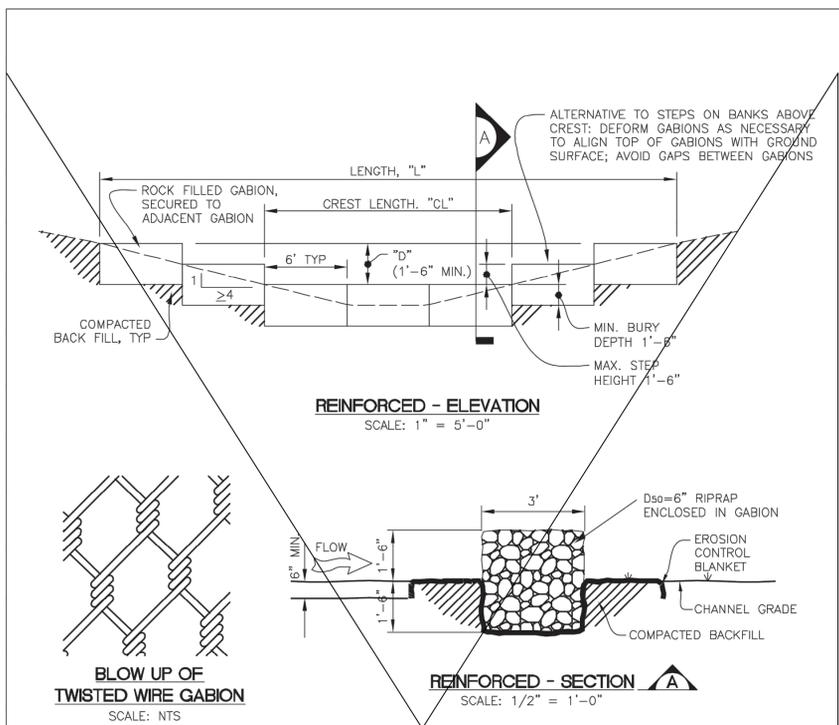
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DATE

SHEET 12 OF 15

JOB NO. 2514204



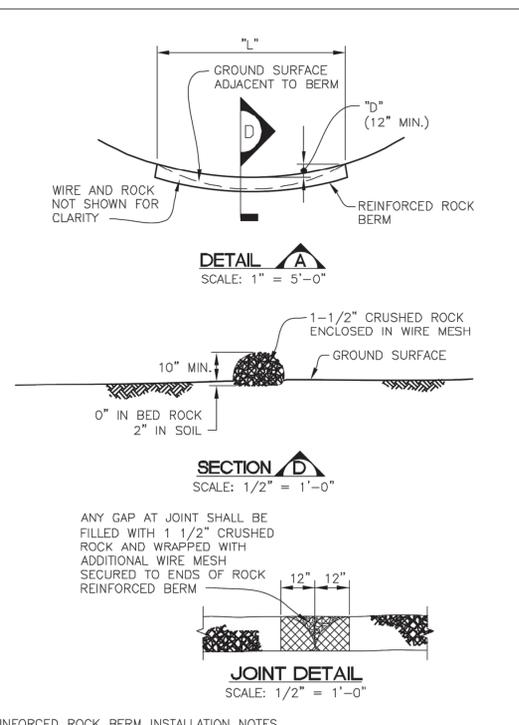
- REINFORCED CHECK DAM INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
 - LOCATIONS OF CHECK DAMS.
 - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
 - LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
 - CHECK DAMS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
 - REINFORCED CHECK DAMS, GABIONS SHALL HAVE GALVANIZED TWISTED WIRE NETTING WITH A MAXIMUM OPENING DIMENSION OF 4-1/2" AND A MINIMUM WIRE THICKNESS OF 0.10". WIRE "HOG RINGS" AT 4" SPACING OR OTHER APPROVED MEANS SHALL BE USED AT ALL GABION SEAMS AND TO SECURE THE GABION TO THE ADJACENT GABION.
 - RIPRAP UTILIZED FOR CHECK DAMS SHALL HAVE A D₅₀ MEDIAN STONE SIZE OF 6".
 - THE CHECK DAM SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-6".
 - EROSION BLANKET SHALL BE PLACED IN THE REINFORCED CHECK DAM TRENCH EXTENDING A MINIMUM OF 1'-6" ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF THE REINFORCED CHECK DAM.

- REINFORCED CHECK DAM MAINTENANCE NOTES**
- THE GESC MANAGER SHALL INSPECT CHECK DAMS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
 - SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
 - CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE TOWN.
 - WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACK FILL. ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.

RCD REINFORCED CHECK DAM 11

Sheet Revisions			
R1	3/11	GESC MANUAL UPDATES	DVD
R2	5/15	GESC MANUAL UPDATES	DVD

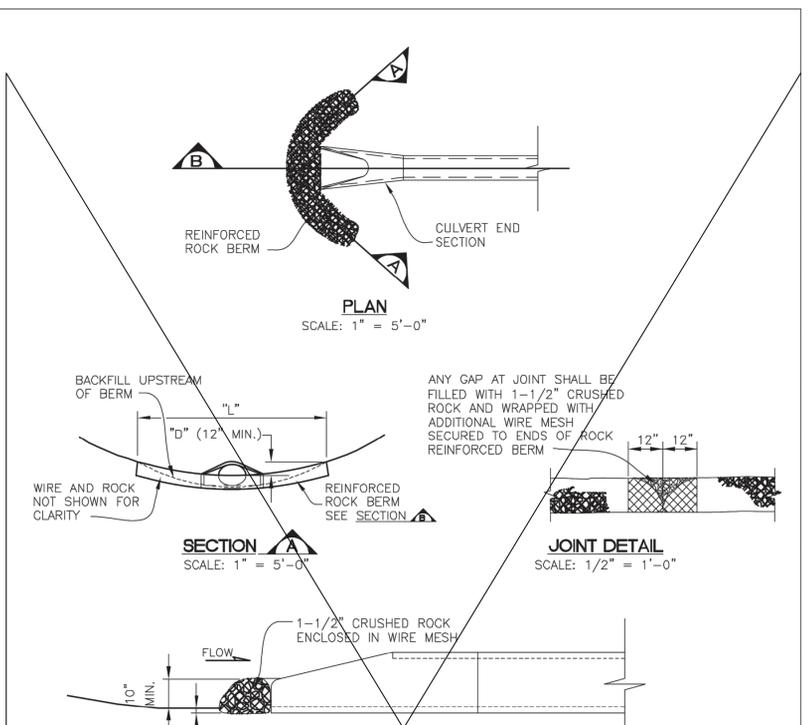
NOTE: SCALES SHOWN ARE FOR 22"x34" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.



- REINFORCED ROCK BERM INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
 - LOCATIONS OF REINFORCED ROCK BERMS.
 - LENGTH, "L", AND DEPTH, "D" DIMENSIONS.
 - REINFORCED ROCK BERM SECTION APPLIES TO CULVERT INLET FILTER AND INLET PROTECTION.
 - CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON SHEET 14 (1-1/2" MINUS). RECYCLED CONCRETE MEETING THIS GRADATION MAY BE USED.
 - WIRE MESH SHALL BE FABRICATED OF 10 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"). ROLL WIDTH SHALL BE 48-INCHES.
 - WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
 - FOR CONCENTRATED FLOW AREAS THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.

- REINFORCED ROCK BERM MAINTENANCE NOTES**
- THE GESC MANAGER SHALL INSPECT REINFORCED ROCK BERM WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
 - SEDIMENT ACCUMULATED UPSTREAM OF REINFORCED ROCK BERM SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS WITHIN 5 INCHES OF THE CREST.
 - REINFORCED ROCK BERMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED.
 - WHEN REINFORCED ROCK BERMS ARE REMOVED, ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.

RRB REINFORCED ROCK BERM 12



- INSTALLATION NOTES**
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 - LOCATIONS OF CULVERT INLET FILTERS.
 - LENGTH, "L", AND DEPTH, "D".
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 - WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
 - THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.

- MAINTENANCE NOTES**
- THE GESC MANAGER SHALL INSPECT CULVERT INLET FILTER WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
 - SEDIMENT ACCUMULATED UPSTREAM OF CULVERT INLET FILTER SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS 1/2 THE HEIGHT OF THE REINFORCED ROCK BERM.
 - RRB FOR CULVERT PROTECTION ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE TOWN.
 - WHEN CULVERT INLET FILTERS ARE REMOVED, ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE TOWN.

RRC RRB FOR CULVERT PROTECTION 13

UTILITIES DEPARTMENT
Stormwater Engineering Division

GESC GRADING, EROSION, AND SEDIMENT CONTROL

GESC PLAN STANDARD NOTES AND DETAILS

SHEET 7 OF 14



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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Bryan T. Law

BRYAN T. LAW, P.E.
COLORADO P.E. 25043

FOR AND ON BEHALF OF JR ENGINEERING, LLC

25043

1/20/23

DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

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No.	REVISION	BY	DATE	H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

SADDEHORN RANCH - FILING NO. 2
GRADING AND EROSION CONTROL DETAILS

SHEET 15 OF 15
JOB NO. 2514204