



# MVEA VOLLMER TIES

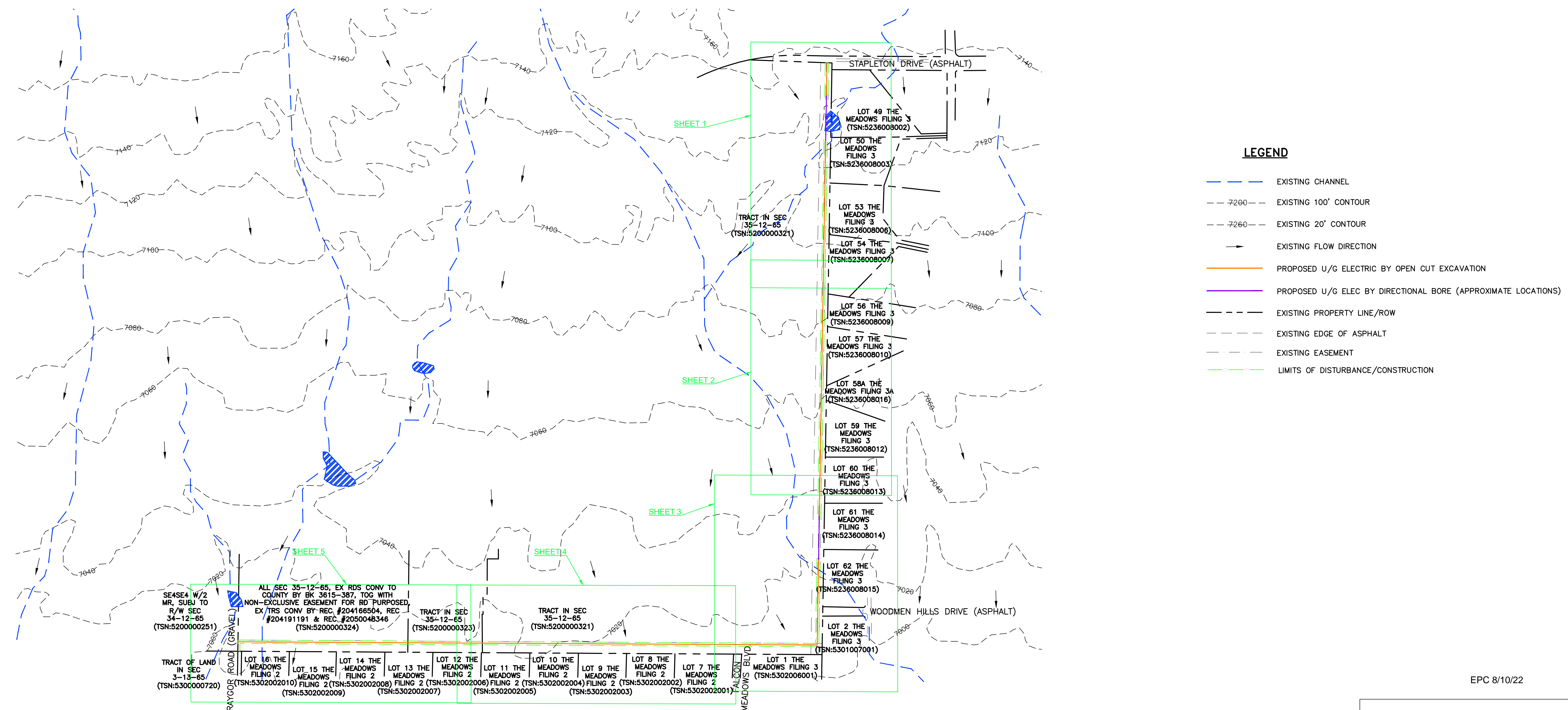
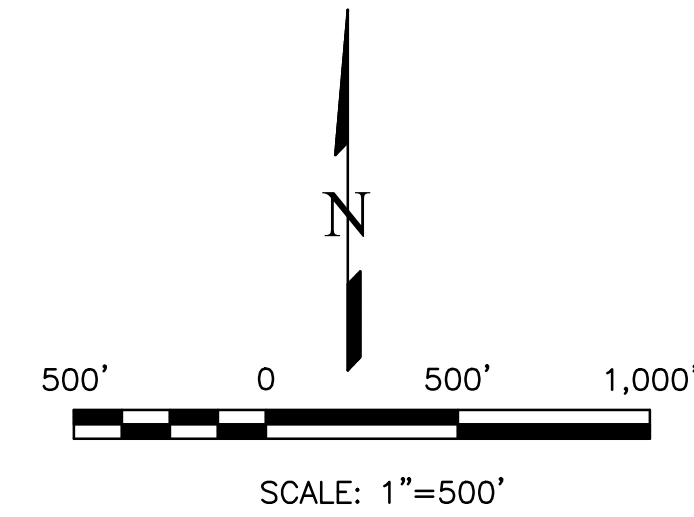
## EL PASO COUNTY, CO

# GRADING, EROSION, & SEDIMENT CONTROL PLAN

## JULY 2022

### GRADING PLAN NOTES

1. PROJECT LOCATION IS IN EL PASO COUNTY COLORADO. APPROXIMATE SITE LOCATION IS AT LATITUDE 38.9688°, LONGITUDE -104.6261°.
2. ALL MEASUREMENTS ARE IN FEET, UNLESS SPECIFIED OTHERWISE.
3. FINAL STABILIZATION REQUIREMENTS SHALL BE BASED ON THE REQUIREMENTS OF THE STORM WATER POLLUTION PREVENTION PLAN.
4. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, UTILITIES AND CULVERTS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE PLANS.
5. CONTRACTOR TO PROTECT EXISTING UTILITIES AND MAINTAIN EXISTING DRAINAGE PATTERNS AT ALL TIMES.
6. CONTRACTOR TO VERIFY RIGHT OF WAY LIMITS PRIOR TO CONSTRUCTION.
7. EXISTING FEATURES (FENCE, MAILBOX, SIGN, ETC.) THAT ARE DISTURBED AS PART OF THE TEMPORARY IMPROVEMENT SHALL BE REINSTALLED OR REPLACED IN A CONDITION EQUAL TO OR BETTER THAN THE PRECONSTRUCTION CONDITION.
8. CONTRACTOR SHALL CALL 811, ONE CALL ENTITIES PRIOR TO CONSTRUCTION. ALL HAZARDS SHALL BE ASSESSED PRIOR TO CONSTRUCTION.
9. EXCAVATED SOIL SHALL BE PLACED ON THE UPSTREAM SIDE OF THE TRENCH.
10. WORK ALONG THE N/S LINE WILL BE DONE WITHIN A 20' MVEA EASEMENT AND AN ADDITIONAL 10' PORTION OF A TRI-STATE EASEMENT. WORK ALONG THE E/W LINE WILL BE DONE WITHIN THE NORTHERN PORTION OF A 100' MVEA EASEMENT.
11. SOIL WILL BE PLACED BESIDE THE TRENCH WHEN IT IS DUG UP AND PLACED BACK IN THE TRENCH ONCE WORK IN THAT AREA IS COMPLETED.
12. STAGING AREA WILL BE LOCATED OFFSITE.

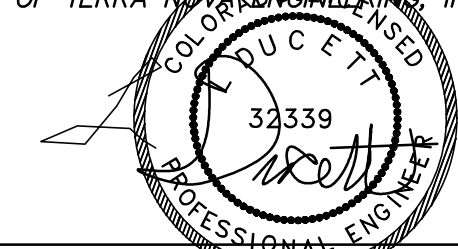


### LEGEND

- EXISTING CHANNEL
- EXISTING 100' CONTOUR
- EXISTING 20' CONTOUR
- EXISTING FLOW DIRECTION
- PROPOSED U/G ELECTRIC BY OPEN CUT EXCAVATION
- PROPOSED U/G ELEC BY DIRECTIONAL BORE (APPROXIMATE LOCATIONS)
- EXISTING PROPERTY LINE/ROW
- EXISTING EDGE OF ASPHALT
- EXISTING EASEMENT
- LIMITS OF DISTURBANCE/CONSTRUCTION

EPIC 8/10/22

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



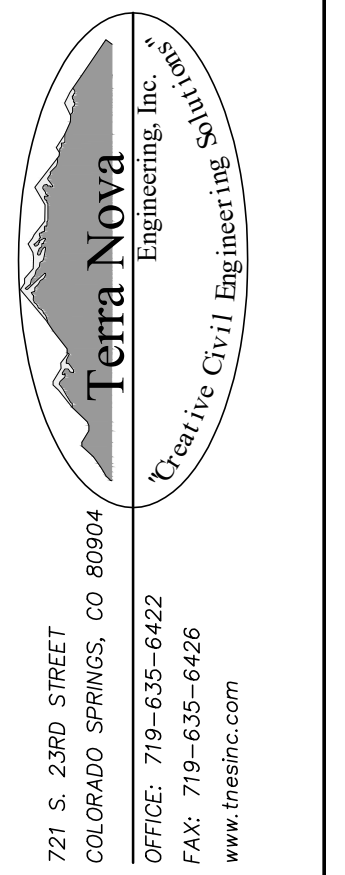
L. DUCETT, P.E.  
COLORADO P.E. NO. 32339

7/24/2022

REVISIONS	NO.	DESCRIPTION	DATE

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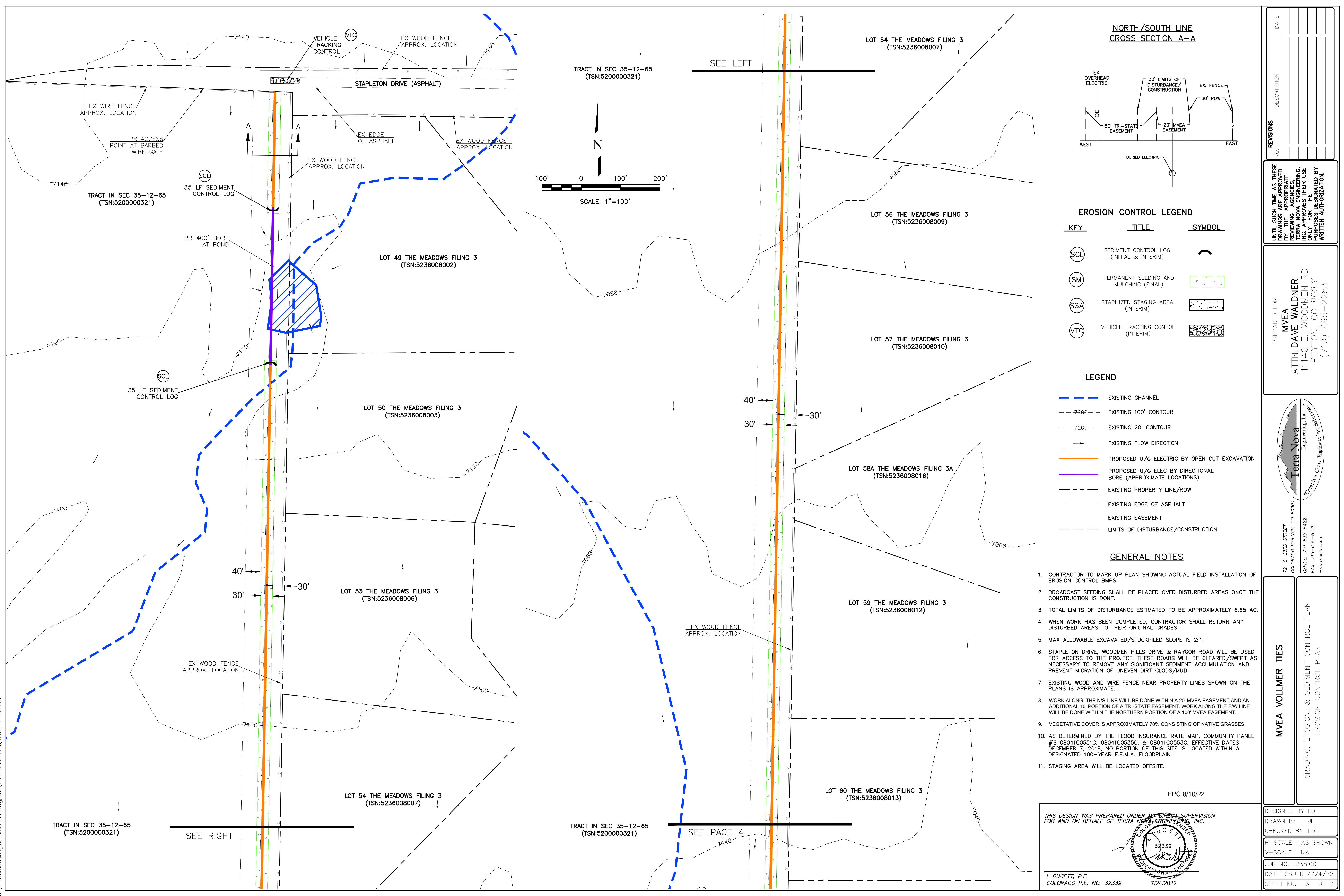
PREPARED FOR:  
**MVEA**  
ATTN: DAVE WALDNER  
11140 E. WOODMEN RD  
PEYTON, CO 80831  
(719) 495-2283



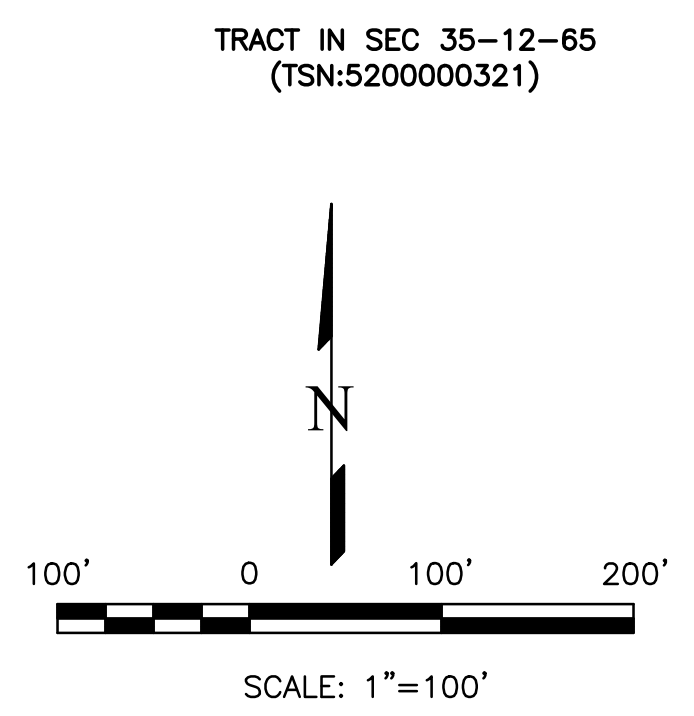
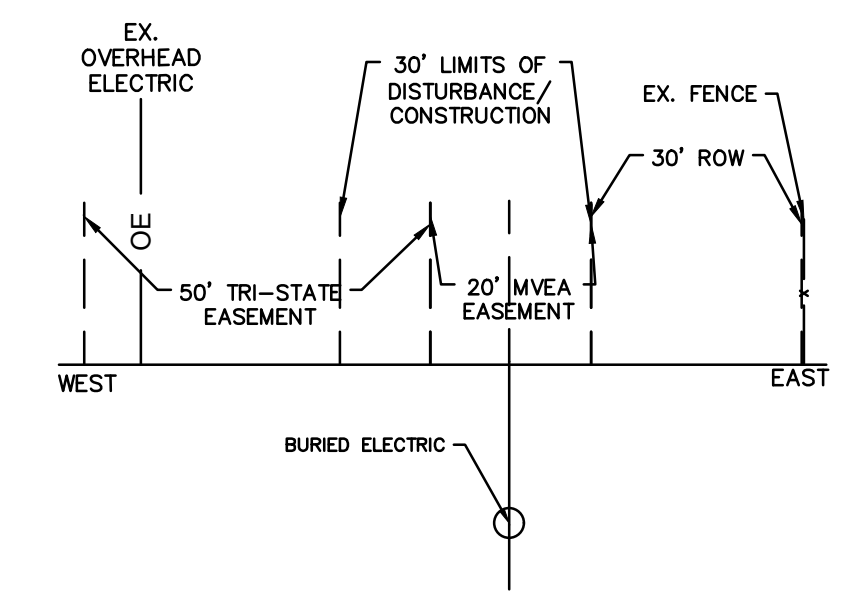
**MVEA VOLLMER TIES**

GRADING, EROSION, & SEDIMENT CONTROL PLAN  
SITE MAP

DESIGNED BY	JF
DRAWN BY	JF
CHECKED BY	LD
H-SCALE	AS SHOWN
V-SCALE	NA
JOB NO.	2238.00
DATE ISSUED	7/24/22
SHEET NO.	2 OF 7



**NORTH/SOUTH LINE  
CROSS SECTION A-A**



**EROSION CONTROL LEGEND**

KEY	TITLE	SYMBOL
(SCL)	SEDIMENT CONTROL LOG (INITIAL & INTERIM)	(Symbol)
(SM)	PERMANENT SEEDING AND MULCHING (FINAL)	(Symbol)
(SSA)	STABILIZED STAGING AREA (INTERIM)	(Symbol)
(VTC)	VEHICLE TRACKING CONTROL (INTERIM)	(Symbol)

**LEGEND**

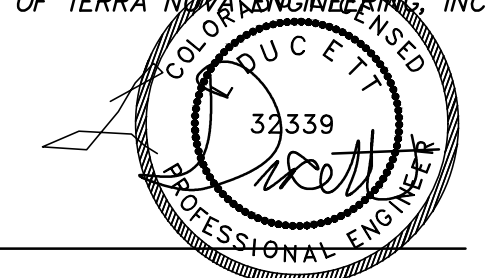
- (Blue dashed line) EXISTING CHANNEL
- (Dashed line) EXISTING 100' CONTOUR
- (Dashed line) EXISTING 20' CONTOUR
- (Arrow) EXISTING FLOW DIRECTION
- (Orange line) PROPOSED U/G ELECTRIC BY OPEN CUT EXCAVATION
- (Purple line) PROPOSED U/G ELEC BY DIRECTIONAL BORE (APPROXIMATE LOCATIONS)
- (Dashed line) EXISTING PROPERTY LINE/ROW
- (Dashed line) EXISTING EDGE OF ASPHALT
- (Dashed line) EXISTING EASEMENT
- (Green dashed line) LIMITS OF DISTURBANCE/CONSTRUCTION

**GENERAL NOTES**

1. CONTRACTOR TO MARK UP PLAN SHOWING ACTUAL FIELD INSTALLATION OF EROSION CONTROL BMPs.
2. BROADCAST SEEDING SHALL BE PLACED OVER DISTURBED AREAS ONCE THE CONSTRUCTION IS DONE.
3. TOTAL LIMITS OF DISTURBANCE ESTIMATED TO BE APPROXIMATELY 6.65 AC.
4. WHEN WORK HAS BEEN COMPLETED, CONTRACTOR SHALL RETURN ANY DISTURBED AREAS TO THEIR ORIGINAL GRADES.
5. MAX ALLOWABLE EXCAVATED/STOCKPILED SLOPE IS 2:1.
6. STAPLETON DRIVE, WOODMEN HILLS DRIVE & RAYGOR ROAD WILL BE USED FOR ACCESS TO THE PROJECT. THESE ROADS WILL BE CLEARED/SWEPT AS NECESSARY TO REMOVE ANY SIGNIFICANT SEDIMENT ACCUMULATION AND PREVENT MIGRATION OF UNEVEN DIRT CLOUDS/MUD.
7. EXISTING WOOD AND WIRE FENCE NEAR PROPERTY LINES SHOWN ON THE PLANS IS APPROXIMATE.
8. WORK ALONG THE N/S LINE WILL BE DONE WITHIN A 20' MVEA EASEMENT AND AN ADDITIONAL 10' PORTION OF A TRI-STATE EASEMENT. WORK ALONG THE E/W LINE WILL BE DONE WITHIN THE NORTHERN PORTION OF A 100' MVEA EASEMENT.
9. VEGETATIVE COVER IS APPROXIMATELY 70% CONSISTING OF NATIVE GRASSES.
10. AS DETERMINED BY THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL #'S 08041C0551G, 08041C0535G, & 08041C0553G, EFFECTIVE DATES DECEMBER 7, 2018, NO PORTION OF THIS SITE IS LOCATED WITHIN A DESIGNATED 100-YEAR F.E.M.A. FLOODPLAIN.
11. STAGING AREA WILL BE LOCATED OFFSITE.

EPC 8/10/22

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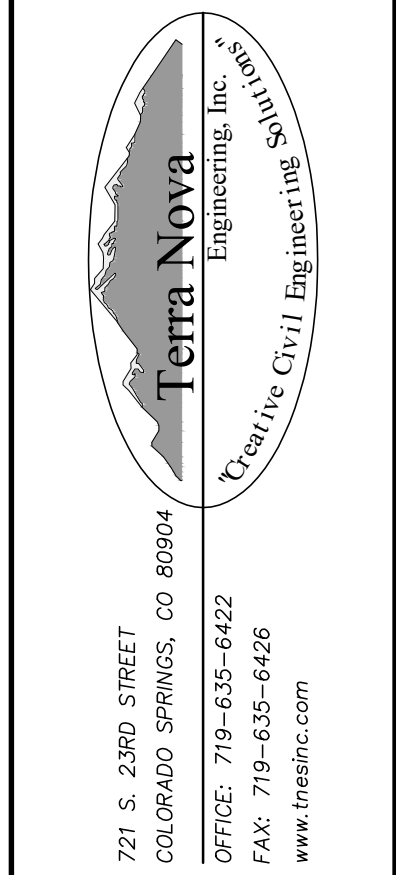


L. DUCETT, P.E.  
COLORADO P.E. NO. 32339  
7/24/2022

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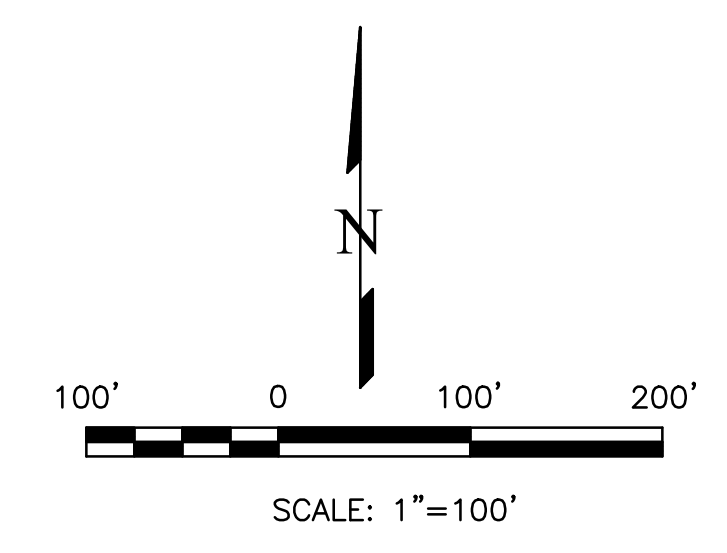
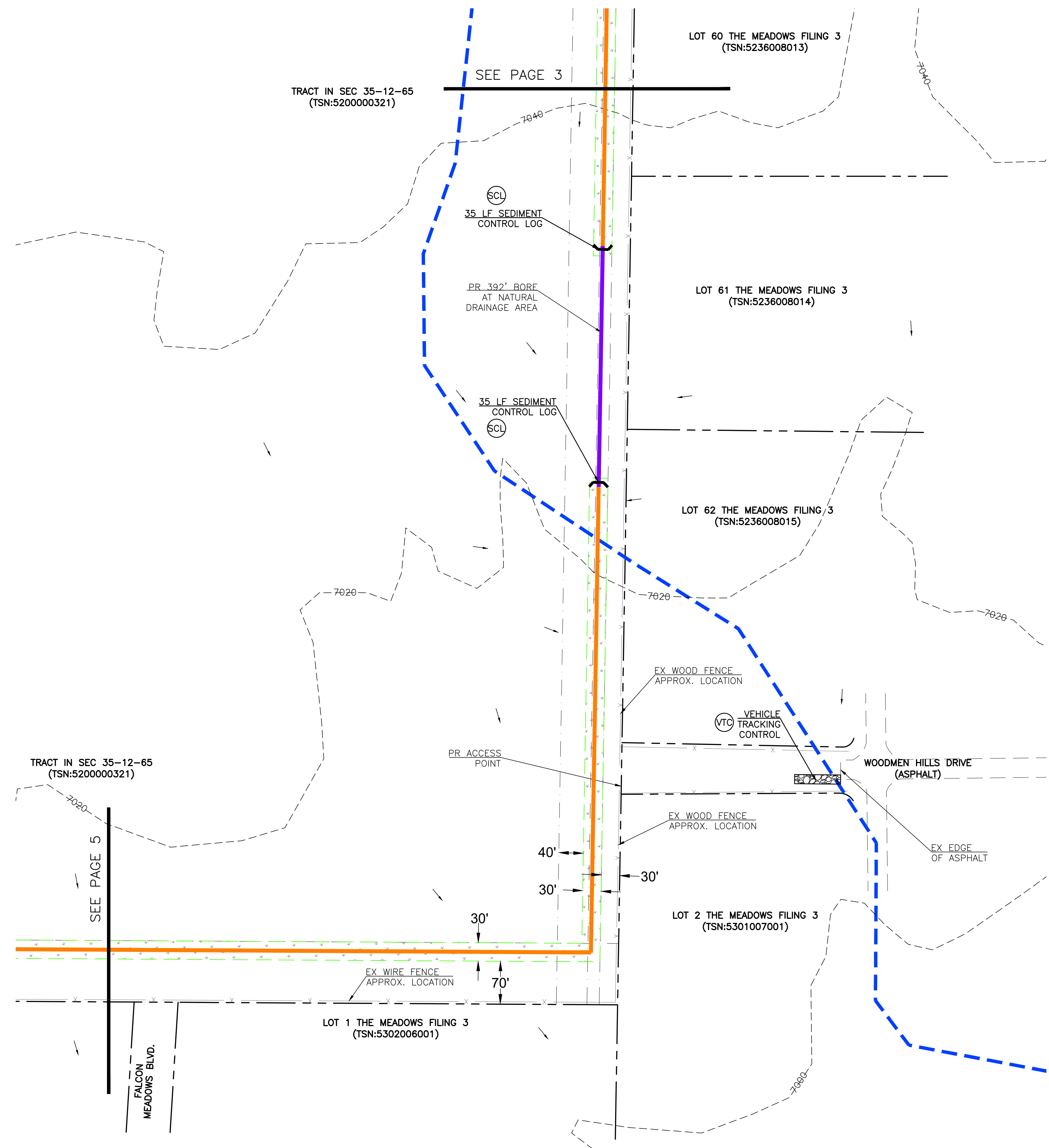
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PREPARED FOR:  
**MVEA**  
ATTN: DAVE WALDNER  
11140 E. WOODMEN RD  
PEYTON, CO 80831  
(719) 495-2283



**MVEA VOLLMER TIES**  
GRADING, EROSION, & SEDIMENT CONTROL PLAN  
EROSION CONTROL PLAN

DESIGNED BY	LD
DRAWN BY	JF
CHECKED BY	LD
H-SCALE	AS SHOWN
V-SCALE	NA
JOB NO.	2238.00
DATE ISSUED	7/24/22
SHEET NO.	3 OF 7



**EROSION CONTROL LEGEND**

KEY	TITLE	SYMBOL
(SCL)	SEDIMENT CONTROL LOG (INITIAL & INTERIM)	(Symbol)
(SM)	PERMANENT SEEDING AND MULCHING (FINAL)	(Symbol)
(SSA)	STABILIZED STAGING AREA (INTERIM)	(Symbol)
(VTC)	VEHICLE TRACKING CONTROL (INTERIM)	(Symbol)

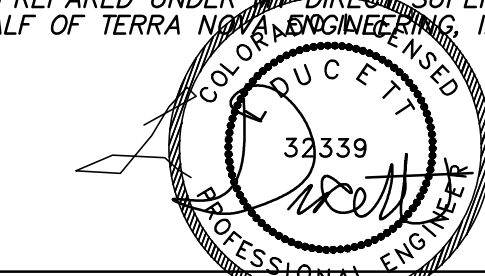
**LEGEND**

(Blue dashed line)	EXISTING CHANNEL
(Dashed line)	EXISTING 100' CONTOUR
(Dashed line)	EXISTING 20' CONTOUR
(Arrow)	EXISTING FLOW DIRECTION
(Orange line)	PROPOSED U/G ELECTRIC BY OPEN CUT EXCAVATION
(Purple line)	PROPOSED U/G ELEC BY DIRECTIONAL BORE (APPROXIMATE LOCATIONS)
(Dashed line)	EXISTING PROPERTY LINE/ROW
(Dashed line)	EXISTING EDGE OF ASPHALT
(Dashed line)	EXISTING EASEMENT
(Green dashed line)	LIMITS OF DISTURBANCE/CONSTRUCTION

**GENERAL NOTES**

- CONTRACTOR TO MARK UP PLAN SHOWING ACTUAL FIELD INSTALLATION OF EROSION CONTROL BMPs.
  - BROADCAST SEEDING SHALL BE PLACED OVER DISTURBED AREAS ONCE THE CONSTRUCTION IS DONE.
  - TOTAL LIMITS OF DISTURBANCE ESTIMATED TO BE APPROXIMATELY 6.65 AC.
  - WHEN WORK HAS BEEN COMPLETED, CONTRACTOR SHALL RETURN ANY DISTURBED AREAS TO THEIR ORIGINAL GRADES.
  - MAX ALLOWABLE EXCAVATED/STOCKPILED SLOPE IS 2:1.
  - STAPLETON DRIVE, WOODMEN HILLS DRIVE & RAYGORD ROAD WILL BE USED FOR ACCESS TO THE PROJECT. THESE ROADS WILL BE CLEARED/SWEPT AS NECESSARY TO REMOVE ANY SIGNIFICANT SEDIMENT ACCUMULATION AND PREVENT MIGRATION OF UNEVEN DIRT CLOUDS/MUD.
  - EXISTING WOOD AND WIRE FENCE NEAR PROPERTY LINES SHOWN ON THE PLANS IS APPROXIMATE.
  - WORK ALONG THE N/S LINE WILL BE DONE WITHIN A 20' MVEA EASEMENT AND AN ADDITIONAL 10' PORTION OF A TRI-STATE EASEMENT. WORK ALONG THE E/W LINE WILL BE DONE WITHIN THE NORTHERN PORTION OF A 100' MVEA EASEMENT.
  - VEGETATIVE COVER IS APPROXIMATELY 70% CONSISTING OF NATIVE GRASSES.
  - AS DETERMINED BY THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL #/S 08041C0551G, 08041C0535G, & 08041C0553G, EFFECTIVE DATES DECEMBER 7, 2018, NO PORTION OF THIS SITE IS LOCATED WITHIN A DESIGNATED 100-YEAR F.E.M.A. FLOODPLAIN.
  - STAGING AREA WILL BE LOCATED OFFSITE.
- EPC 8/10/22

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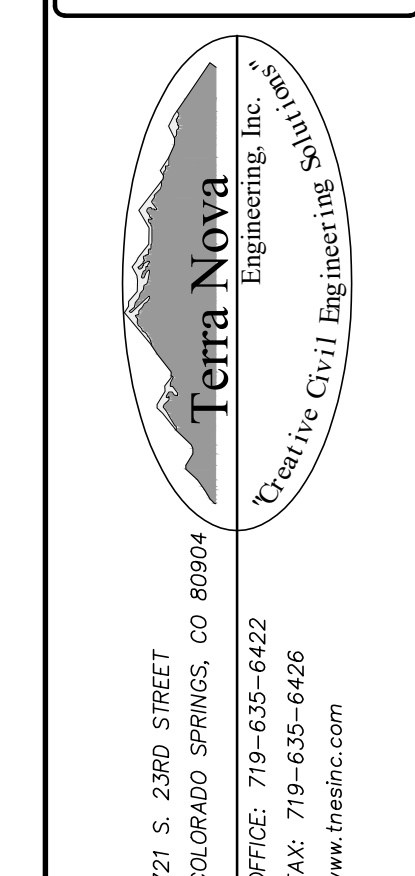
L. DUCETT, P.E.  
COLORADO P.E. NO. 32339

7/24/2022

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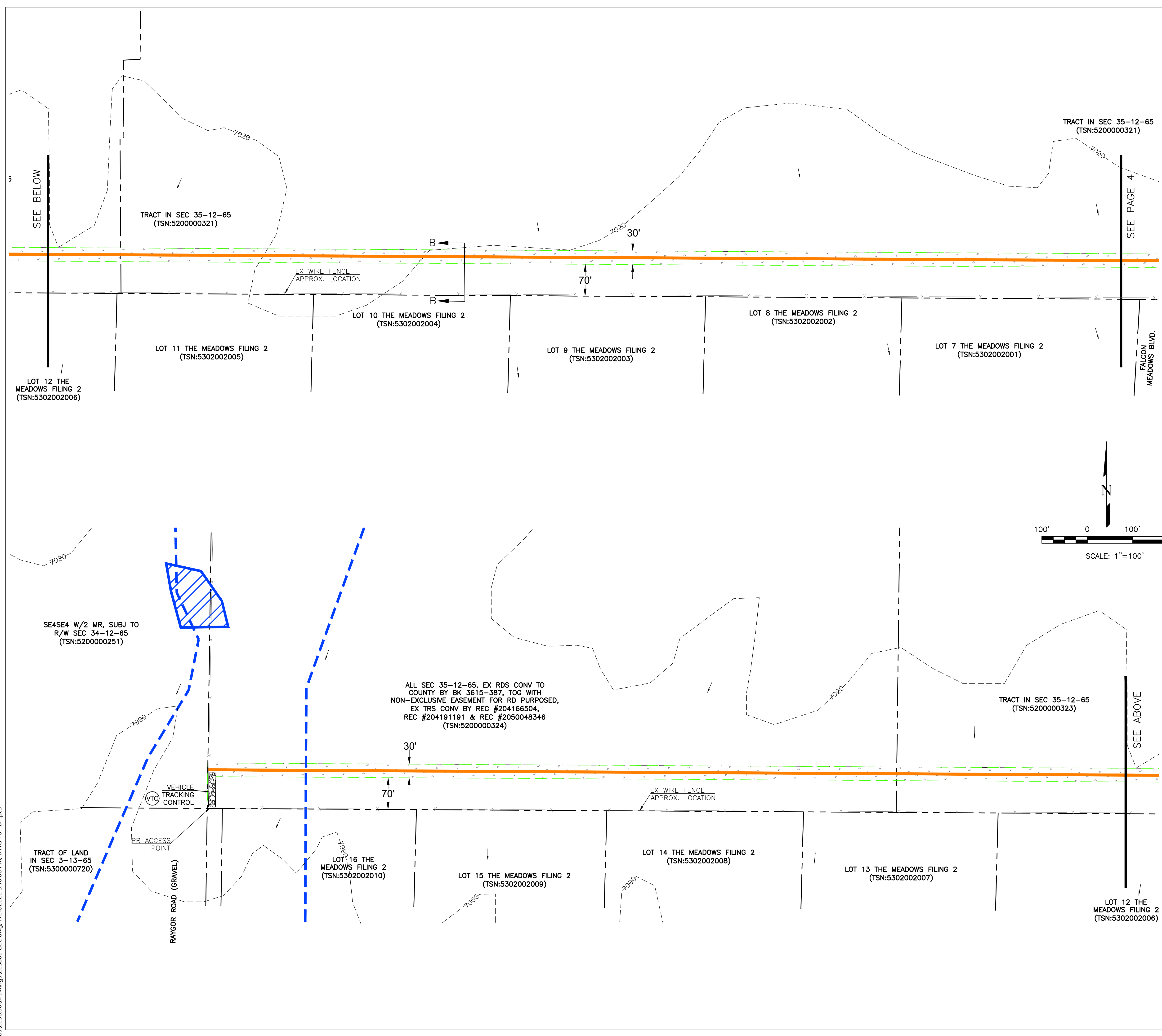
PREPARED FOR:  
MVEA  
ATTN: DAVE WALDNER  
11140 E. WOODMEN RD  
PEYTON, CO 80831  
(719) 495-2283



MVEA VOLLMER TIES

GRADING, EROSION, & SEDIMENT CONTROL PLAN  
EROSION CONTROL PLAN

DESIGNED BY LD
DRAWN BY JF
CHECKED BY LD
H-SCALE AS SHOWN
V-SCALE NA
JOB NO. 2238.00
DATE ISSUED 7/24/22
SHEET NO. 4 OF 7



### EAST/WEST LINE CROSS SECTION B-B

#### EROSION CONTROL LEGEND

KEY	TITLE	SYMBOL
(SCL)	SEDIMENT CONTROL LOG (INITIAL & INTERIM)	(Symbol)
(SM)	PERMANENT SEEDING AND MULCHING (FINAL)	(Symbol)
(SSA)	STABILIZED STAGING AREA (INTERIM)	(Symbol)
(VTC)	VEHICLE TRACKING CONTROL (INTERIM)	(Symbol)

#### LEGEND

- EXISTING CHANNEL
- - - 7260 --- EXISTING 100' CONTOUR
- - - 7260 --- EXISTING 20' CONTOUR
- EXISTING FLOW DIRECTION
- PROPOSED U/G ELECTRIC BY OPEN CUT EXCAVATION
- PROPOSED U/G ELEC BY DIRECTIONAL BORE (APPROXIMATE LOCATIONS)
- - - EXISTING PROPERTY LINE/ROW
- - - EXISTING EDGE OF ASPHALT
- - - EXISTING EASEMENT
- - - EXISTING FENCE
- - - LIMITS OF DISTURBANCE/CONSTRUCTION

- #### GENERAL NOTES
- CONTRACTOR TO MARK UP PLAN SHOWING ACTUAL FIELD INSTALLATION OF EROSION CONTROL BMPs.
  - BROADCAST SEEDING SHALL BE PLACED OVER DISTURBED AREAS ONCE THE CONSTRUCTION IS DONE.
  - TOTAL LIMITS OF DISTURBANCE ESTIMATED TO BE APPROXIMATELY 6.65 AC.
  - WHEN WORK HAS BEEN COMPLETED, CONTRACTOR SHALL RETURN ANY DISTURBED AREAS TO THEIR ORIGINAL GRADES.
  - MAX ALLOWABLE EXCAVATED/STOCKPILED SLOPE IS 2:1.
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  - EXISTING WOOD AND WIRE FENCE NEAR PROPERTY LINES SHOWN ON THE PLANS IS APPROXIMATE.
  - WORK ALONG THE MVEA LINE WILL BE DONE WITHIN A 20' MVEA EASEMENT AND AN ADDITIONAL 10' PORTION OF A TRI-STATE EASEMENT. WORK ALONG THE E/W LINE WILL BE DONE WITHIN THE NORTHERN PORTION OF A 100' MVEA EASEMENT.
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  - STAGING AREA WILL BE LOCATED OFFSITE.

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PREPARED FOR:  
**MVEA**  
 ATTN: DAVE WALDNER  
 11140 E. WOODMEN RD  
 PEYTON, CO 80831  
 (719) 495-2283

721 S. 23RD STREET  
 COLORADO SPRINGS, CO 80904  
 OFFICE: 719-635-6422  
 FAX: 719-635-6426  
 www.tneng.com

**MVEA VOLLMER TIES**

GRADING, EROSION, & SEDIMENT CONTROL PLAN  
 EROSION CONTROL PLAN

EPC 8/10/22

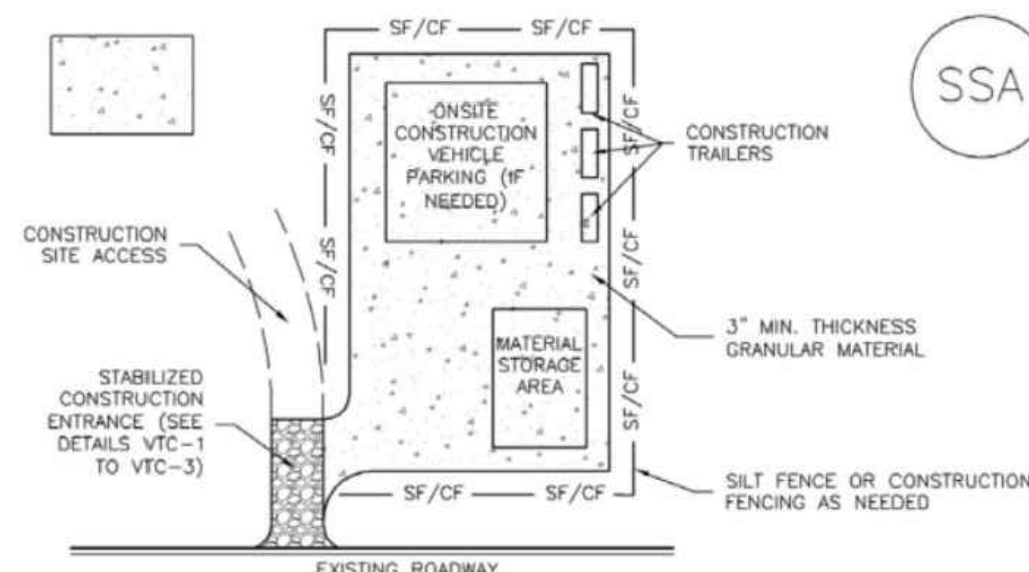
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L. DUCETT, P.E.  
 COLORADO P.E. NO. 32339  
 7/24/2022

DESIGNED BY	LD
DRAWN BY	JF
CHECKED BY	LD
H-SCALE	AS SHOWN
V-SCALE	NA
JOB NO.	2238.00
DATE ISSUED	7/24/22
SHEET NO.	5 OF 7

Stabilized Staging Area (SSA)

SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

- 1. SEE PLAN VIEW FOR LOCATION OF STAGING AREA(S).
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE.
3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING AS NEEDED.

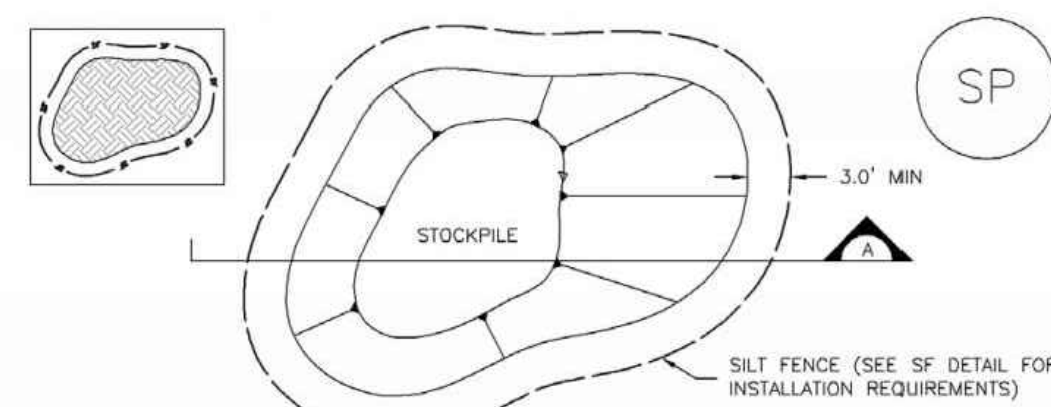
STABILIZED STAGING AREA MAINTENANCE NOTES

- 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

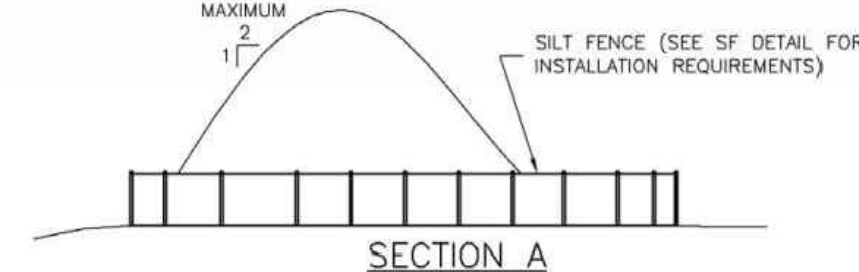
November 2010 Urban Drainage and Flood Control District SSA-3
Urban Storm Drainage Criteria Manual Volume 3

Stockpile Management (SP)

MM-2



STOCKPILE PROTECTION PLAN



SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

- 1. SEE PLAN VIEW FOR LOCATION OF STOCKPILES.
2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS.
3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING.
4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADE CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

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

MM-2

Stockpile Management (SM)

STOCKPILE PROTECTION MAINTENANCE NOTES

- 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES

- 4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM 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.

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

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

- 5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDING AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

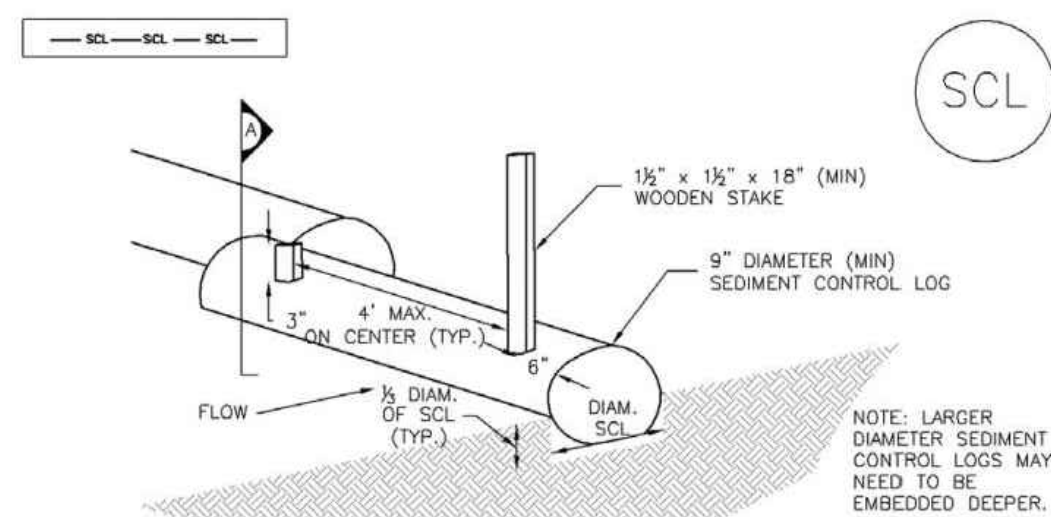
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

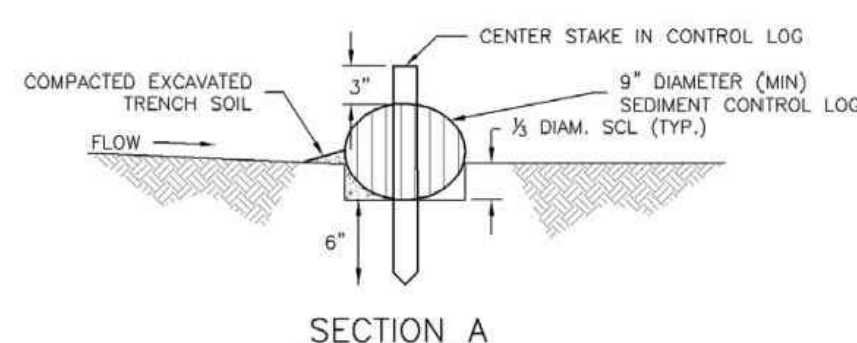
SSA-4 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

Sediment Control Log (SCL)

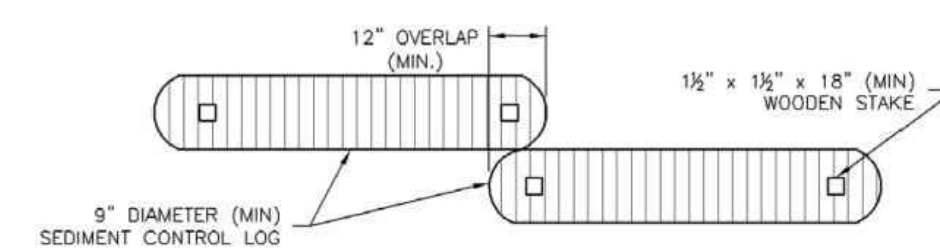
SC-2



SEDIMENT CONTROL LOG



SECTION A



SEDIMENT CONTROL LOG JOINTS

SCL-1. SEDIMENT CONTROL LOG

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

Sediment Control Log (SCL)

SC-2

SEDIMENT CONTROL LOG INSTALLATION NOTES

- 1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADING LAND-DISTURBING ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES.
5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/2 OF THE DIAMETER OF THE LOG.
6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS.
7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

- 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP.
5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

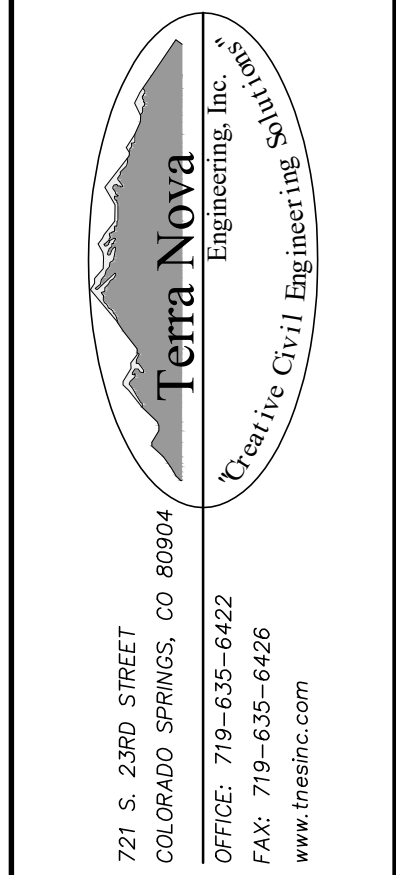
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

November 2010 Urban Drainage and Flood Control District SCL-5
Urban Storm Drainage Criteria Manual Volume 3

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MVEA VOLLMER TIES GRADING, EROSION, & SEDIMENT CONTROL PLAN EROSION CONTROL DETAILS

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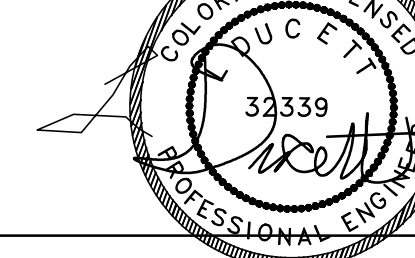


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L. DUCETT, P.E. COLORADO P.E. NO. 33339 7/24/2022

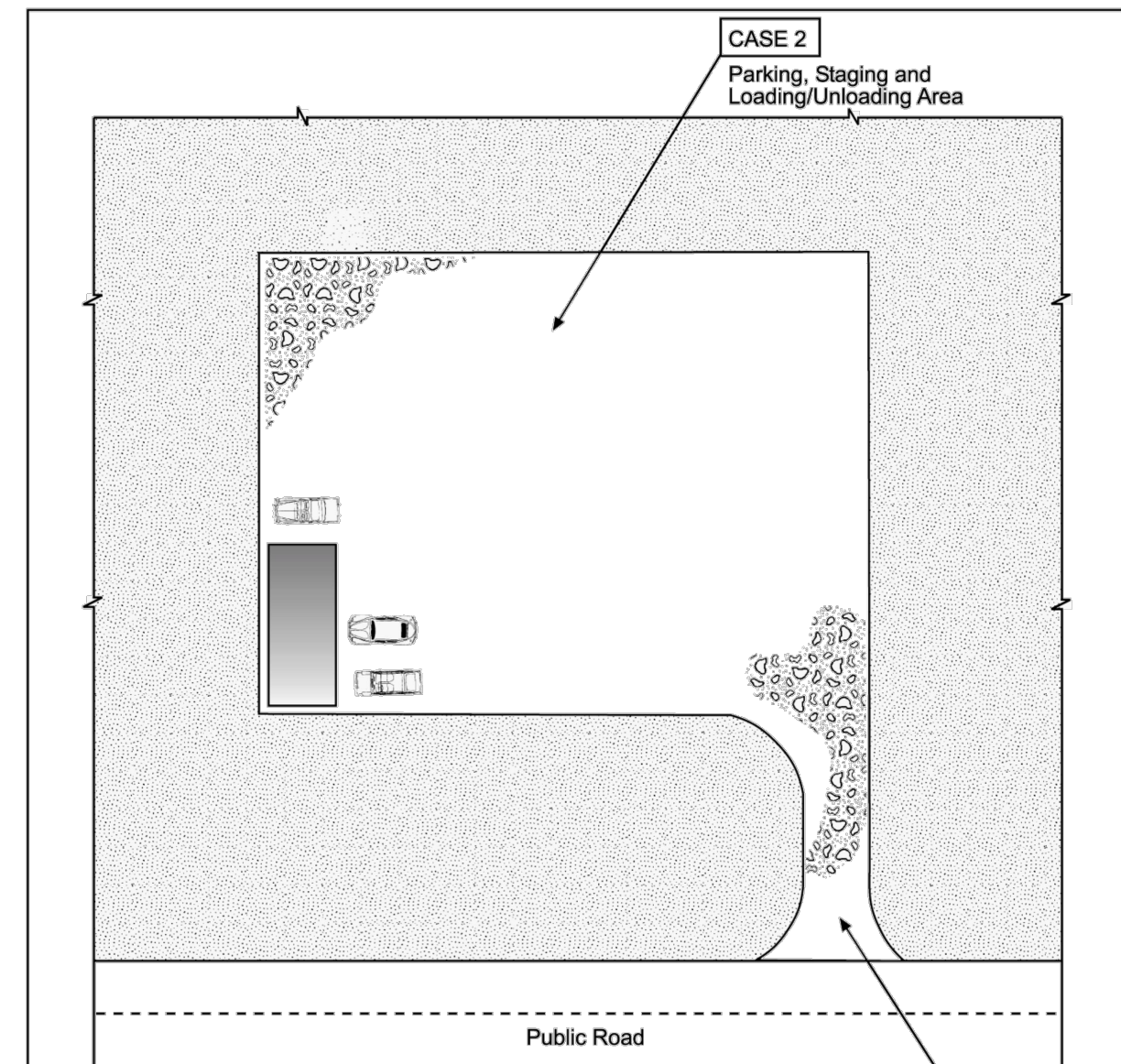


Table VT-1

	Case 1	Case 2
Gravel Thickness	9"	3"
Filter Fabric	YES	NO

City of Colorado Springs Storm Water Quality Figure VT-1 Vehicle Tracking Application Examples

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3-83

or irrigation to wet and settle the seed bed. Firming of the seedbed following seeding will improve results during dry or warm seeding times.

Table 14-9. Recommended Seed Mix for High Water Table Conditions<sup>1</sup>

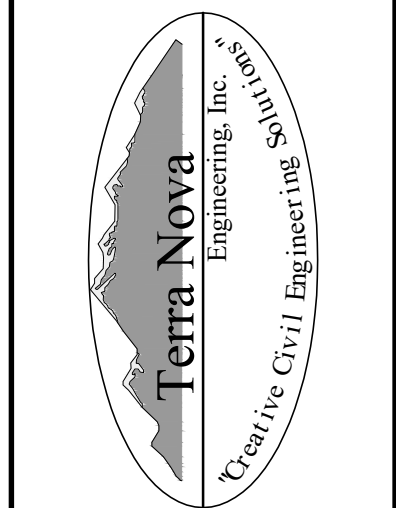
Common Name (Variety)	Scientific Name	Growth Season	Growth Form	Seeds/Lb	Lbs PLS/Acre Drilled	Lbs PLS/Acre Broadcast or Hydroseeded
Redtop <sup>2</sup>	<i>Agrostis alba</i>	Warm	Sod	5,000,000	0.1	0.2
Switchgrass (Pathfinder)	<i>Panicum virgatum</i>	Warm	Sod/Bunch	389,000	2.2	4.4
Western wheatgrass (Arriba)	<i>Pascopyrum smithii</i>	Cool	Sod	110,000	7.9	15.8
Indian saltgrass	<i>Distichlis spicata</i>	Warm	Sod	520,000	1.0	2.0
Woolly sedge	<i>Carex lamiginose</i>	Cool	Sod	400,000	0.1	0.2
Baltic rush	<i>Juncus balticus</i>	Cool	Sod	109,300,000	0.1	0.2
Prairie cordgrass	<i>Spartina pectinata</i>	Cool	Sod	110,000	1.0	2.0
Annual rye	<i>Lolium multiflorum</i>	Cool	Cover crop	227,000	10.0	20.0
				<b>TOTAL</b>	<b>22.4</b>	<b>44.8</b>
<b>Wildflowers</b>						
Nuttall's sunflower	<i>Helianthus nuttallii</i>	---	---	250,000	0.10	0.20
Wild bergamot	<i>Monarda fistulosa</i>	---	---	1,450,000	0.12	0.24
Yarrow	<i>Achillea millefolium</i>	---	---	2,770,000	0.06	0.12
Blue vervain	<i>Verbena hastata</i>	---	---		0.12	0.24
				<b>TOTAL</b>	<b>0.40</b>	<b>0.80</b>

<sup>1</sup>For portions of facilities located near or on the bottom or where wet soil conditions occur. Planting of potted nursery stock wetland plants 2-foot on-center is recommended for sites with wetland hydrology.  
<sup>2</sup>Nonnative.

REVISIONS NO.	DESCRIPTION	DATE

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PREPARED FOR:  
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ATTN: DAVE WALDNER  
11140 E. WOODMEN RD  
PEYTON, CO 80831  
(719) 495-2283

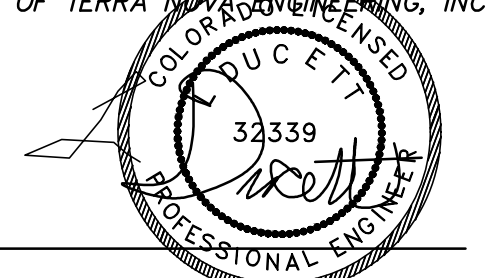


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COLORADO SPRINGS, CO 80904  
OFFICE: 719-635-6422  
FAX: 719-635-6426  
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EROSION CONTROL DETAILS

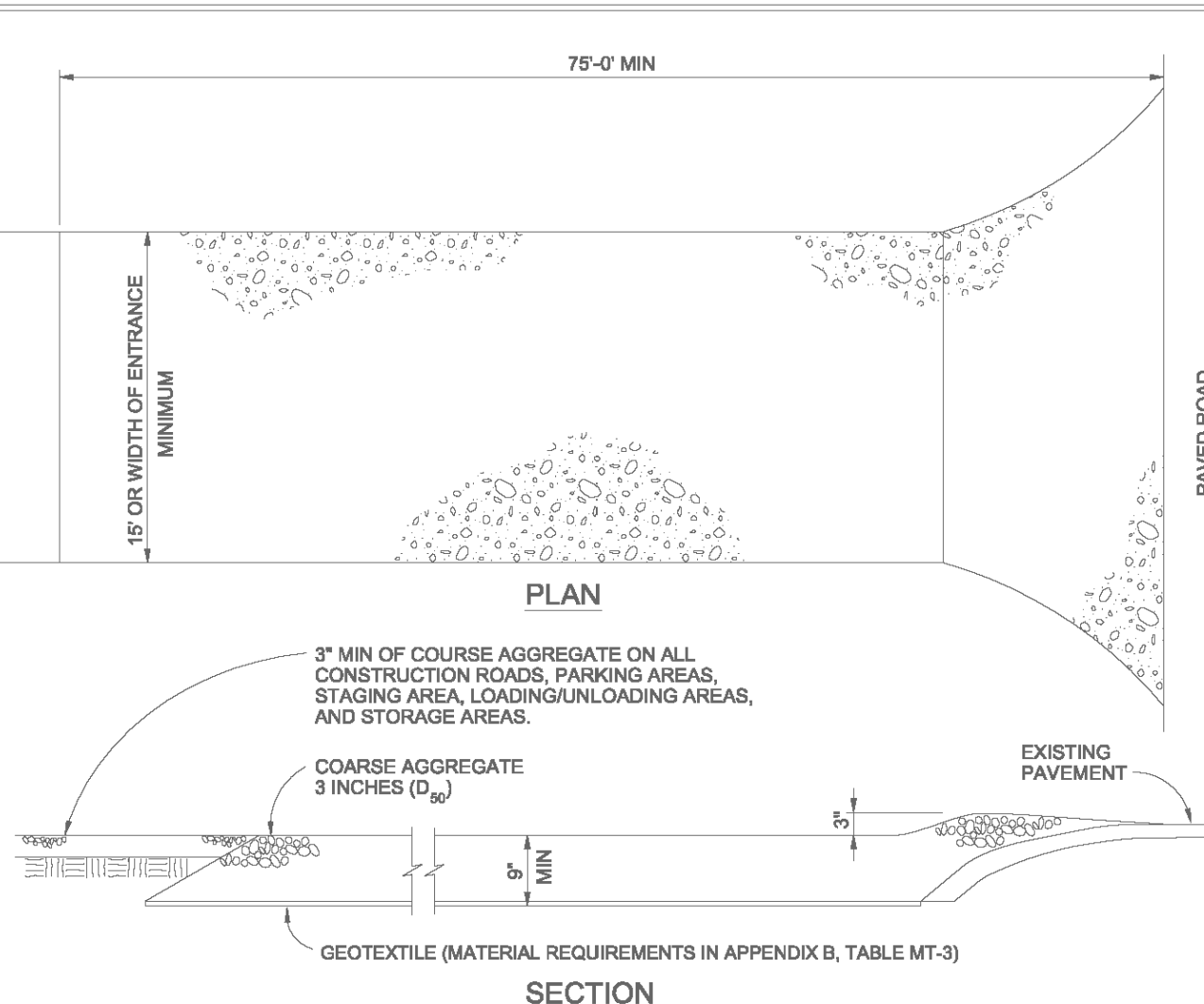
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L. DUCETT, P.E.  
COLORADO P.E. NO. 32339  
7/24/2022

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DRAWN BY	JF
CHECKED BY	LD
H-SCALE	AS SHOWN
V-SCALE	NA
JOB NO.	2238.00
DATE ISSUED	7/24/22
SHEET NO.	7 OF 7



VEHICLE TRACKING NOTES

- INSTALLATION REQUIREMENTS**
- ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
  - CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
  - AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
  - CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
  - CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.
- MAINTENANCE REQUIREMENTS**
- REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
  - STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
  - SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
  - STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
  - OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs Stormwater Quality Figure VT-2 Vehicle Tracking Application Examples

Table 14-10. Recommended Seed Mix for Transition Areas<sup>1</sup>

Common Name (Variety)	Scientific Name	Growth Season	Growth Form	Seeds/Lb	Lbs PLS/Acre Drilled	Lbs PLS/Acre Broadcast or Hydroseeded
Sheep fescue (Durat)	<i>Festuca ovina</i>	Cool	Bunch	680,000	1.3	2.6
Western wheatgrass (Arriba)	<i>Pascopyrum smithii</i>	Cool	Sod	110,000	7.9	15.8
Alkali sacaton	<i>Spolobolus airoides</i>	Warm	Bunch	1,758,000	0.5	1.0
Slender wheatgrass	<i>Elymus trachycandus</i>	Cool	Bunch	159,000	5.5	11.0
Canadian bluegrass (Ruebens)	<i>Poa compressa</i>	Cool	Sod	2,500,000	0.3	0.6
Switchgrass (Pathfinder)	<i>Panicum virgatum</i>	Warm	Sod/Bunch	389,000	1.3	2.6
Annual rye	<i>Lolium multiflorum</i>	Cool	Cover crop	227,000	10.0	20.0
				<b>TOTAL</b>	<b>26.8</b>	<b>53.6</b>
<b>Wildflowers</b>						
Blanket flower	<i>Faillardia aristata</i>	---	---	132,000	0.25	0.50
Prairie coneflower	<i>Ratibida colammaris</i>	---	---	1,230,000	0.20	0.40
Purple prairie clover	<i>Petalostemon purpurea</i>	---	---	210,000	0.20	0.40
Gayfeather	<i>Liatis punctata</i>	---	---	138,000	0.06	0.12
Flax	<i>Linum lewisii</i>	---	---	293,000	0.20	0.40
Penstemon	<i>Penstemon strictus</i>	---	---	592,000	0.20	0.40
Yarrow	<i>Achillea millefolium</i>	---	---	2,770,000	0.03	0.06
				<b>TOTAL</b>	<b>1.14</b>	<b>2.28</b>

<sup>1</sup>For side slopes or between wet and dry areas.  
<sup>2</sup>Substitute 1.7 lbs PLS/acre of inland saltgrass (*Distichlis spicata*) in salty soils.

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