









LEGEND

- | | |
|---|---|
| —(7260)— | EXISTING MAJOR CONTOUR |
| —(7262)— | EXISTING MINOR CONTOUR |
| —7260— | PROPOSED MAJOR CONTOUR |
| —7262— | PROPOSED MINOR CONTOUR |
| ———— | FILING BOUNDARY LINE |
| ———— | CONST BOUNDARY/LIMITS OF DISTURBANCE |
| L.P./H.P.
(2.0)% | LOW POINT/HIGH POINT |
|  | FLOW DIRECTION & SLOPE |
|  | FLOW DIRECTION ARROW/
EMERGENCY OVERFLOW |
|  | EXISTING FLOW DIRECTION ARROW |
|  | EMERGENCY OVERFLOW DIRECTION |
|  | STRAW BALE DITCH CHECK
PRE-DEV STAGE |
|  | VEHICLE TRACKING CONTROL
PRE-DEV STAGE |
|  | TEMPORARY SEDIMENT BASIN
PRE-DEV STAGE |
|  | EARTH BERM
PRE-DEV STAGE |

ADDITIONAL NOTES:

1. STAGING STORAGE AND STOCK PILES AREAS TO BE DETERMINED BY CONTRACTOR IN THE FIELD. THE LOCATIONS SHALL BE DELINEATED ON THIS PLAN BY THE CONTRACTOR.
2. THE EROSION CONTROL DELINEATED ON THIS PLAN SHALL BE REGULARLY UPDATED BY THE CONTRACTOR.
3. TEMPORARY SEDIMENT TRAP LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR IN THE FIELD.
4. EXISTING SITE TERRAIN GENERALLY SLOPES FROM NORTH TO SOUTHWEST AT GRADE RATES THAT VARY BETWEEN 1% TO 4%.
5. THERE ARE NO BATCH PLANTS ON SITE.
6. PROPOSED SLOPES SHALL BE 3:1 OR LESS.
7. THE CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL ENGINEERING REPORT AND KEEP A COPY ONSITE DURING ALL EARTHWORK OPERATIONS.
8. ALL TEMPORARY OR PERMANENT GRADING DISTURBANCES SHALL BE RE-SEEDED AND MULCHED PER EL PASO COUNTY CRITERIA AND SPECIFICATIONS.
9. AREAS LEFT OPEN FOR 21 DAYS OR MORE, OTHER THAN FOR UTILITY AND DRAINAGE CONSTRUCTION SHALL BE SEEDED AND/OR MULCHED.
10. NO PORTION OF THIS PROPERTY IS LOCATED WITHIN A DESIGNATED FEMA FLOODPLAIN IN ACCORDANCE WITH FLOOD INSURANCE RATE MAPS (FIRM) 08041C0535G, EFFECTIVE DATE DECEMBER 7, 2018.
11. NO OFFSITE GRADING IS TO OCCUR.
12. THE CONTRACTOR SHALL PROTECT ALL AREAS OUTSIDE OF THE CONSTRUCTION LIMITS WITH SILT FENCE OR OTHER METHOD TO PROTECT UNDISTURBED AREAS FROM EROSION.

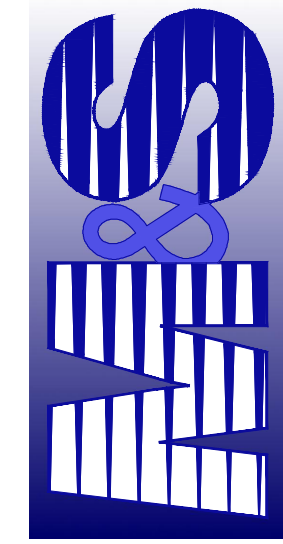
EXISTING VEGETATION: THE SITE CONSIST OF PRAIRIE GRASSES AND SHRUBS. NO OTHER NOTABLE VEGETATION EXISTED. THE SITE IS PROPOSED FOR A 224 SINGLE FAMILY LOT SUBDIVISION. IF THE SUBDIVISION IS NOT COMPLETED, THE ENTIRE SITE SHOULD BE RESEED PER EPC SPECIFICATIONS. FOR AREAS OUTSIDE OF THE DEVELOPED LOTS, THE GROUND SHOULD BE RESEED PER EPC CRITERIA AS SHOWN ON THE GRADING AND EROSION CONTROL PLAN. THE VEGETATION SHOULD BE VISUALLY INSPECTED TO EXCEED THE AMOUNT OF VEGETATION THAT EXISTS IN NON-DISTURBED AREAS AROUND THE SITE.

SEDIMENT BASIN TABLE

SEDIMENT NO.	BASIN NO.	TRIBUTARY AREA (AC)	REG'D VOLUME C.F.	BASIN WIDTH FT.	BASIN LENGTH FT.	ANTIC MAX HT FT.	WATER MAX HT FT.	SPILLWAY LENGTH IN.	HOLE DIA. IN.	COLUMNS OF HOLES IN STANDPIPE
1		22.04	7,500	30.0	60.0	4	6	9/16		
2		18.14	57,600	74.0	148.0	4	6	9/16		1
3		16.06	57,600	74.0	148.0	4	22	1 3/16		1
5		12.31	43,200	64.0	128.0	4	18	1		1
6		5.68	21,600	43.0	86.0	4	9	21/32		1
7		12.61	46,800	68.0	136.0	1	1 1/16			1
8		6.36	21,600	43.0	86.0	4	9	21/32		1

PROJECT NO. 10-014
 FILE: \\wq\c\users\j\PROJECTS\1004-1004-Grading.dwg
 DATE: 03/08/2021
 SCALE
 HORIZ: 1"=100'
 VERT: 1"=10'
 DESIGNED BY: DLM
 DRAWN BY: DLM
 CHECKED BY: DLM
 SHEET 2 OF 3
 EGP-2-2

212 N. WAHSATCH AVE., SUITE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485



VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160	FOR AND ON BEHALF OF MKS. CIVIL CONSULTANTS, INC.
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[illegible]

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER.

CAUTION

SM-4



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

VTC-3

SC-3

Straw Bale Barrier (SBB)



SBB-2 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

November 2010

SC-7



August 2013 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

SB-5



ION A-A

1. PRACTICE NO. & NAME _____ 342 - CRITICAL AREA TREATMENT
RANGE SITE _____ SANDY FOOTHILLS _____

2. PLANNED: _____

SEEDING PREP: _____

A METHOD _____

B DATES _____ OCT 15 - MAY 31

C CLEAN TILLED _____ INTERSEED _____ XX

D FIRM SEEDBED _____

E SUBURLE COVER _____

INTERSEED _____

C DATE _____ OCT 15 - MAY 31

D _____ 1/4 - 1/2

SEEDING OPERATION: _____

A METHOD _____

B DRILL _____ XX

C BROADCAST _____

D DRILL SPACING _____ 6-12"

E TYPE _____ GRASS W/AGITATOR

C DATE _____ OCT 15 - MAY 31

D _____ 1/4 - 1/2

D PLANTING DEPTH _____

FERTILIZER:	WEED CONTROL:	N/A
POUNDS ACTUAL PER	MOWING	_____
ACRE N2	CHEMICAL	_____
(AVAILABLE)	DATES	_____
P205	SEE S.C.S. FOR SPECIFIC RECOMMENDATIONS	_____
P201	AT HERBICIDE APPLICATION TIME.	_____
K _____		
MULCH:		
KIND _____	LONG - STEM NATIVE HAY	
AMOUNT _____	4,000 POUNDS/ACRE	
HOW APPLIED _____	N/A	
HOW ANCHORED _____	CRIMPED	
ANCHORAGE DEPTH _____		

SEED:		REQUIRED PLS RATES PER ACRES (100%)	
VARIETY	SPECIES		
EL RENO	SIDEOTS GRAMMA	3.0	
BARTON	WESTERN WHEATGRASS	2.5	
NATIVE	SLENDER WHEATGRASS	2.0	
PASTURA	LITTLE BLUESTEM	2.0	
NATIVE	SAND DROPPED	0.5	
NEBRASKA 28	SWITCH GRASS	3.0	
MORPHA	WEEPING LOVE GRASS	1.0	
(2)	PLS SEEDING RATE	(4)	(5)
OF SPECIES	PER SPECIES/ACRE	PLANNED	TOTAL PLS LBS/
N MIXTURE	(1) X (2) = (3)	ACRE	(3) X (4)
21	0.63	72.18	45.5
18	0.45	72.18	32.5
14	0.28	72.18	20.2
14	0.28	72.18	20.2
4	0.02	72.18	1.4
21	0.63	72.18	45.5
7	0.07	72.18	5.1

SEEDING GUIDELINES:

- SEEDBED PREPARATION**
- THE SEEDBED SHOULD BE WELL-TIMPECTED AND FIRM, BUT FRAGILE ENOUGH THAT THE SEED CAN BE PLACED AT THE SURFACE OF THE SOIL WITHOUT THE NECESSITY OF STANDING ON WEEDS THAT ARE PRESENT BEFORE SEEDING MUST BE CONTROLLED BY SHALLOW TILLAGE OR BY APPLICATION OF HERBICIDES. SOILS THAT HAVE BEEN OVERLY COMPACTED BY TRACTORS OR EQUIPMENT, ESPECIALLY WHEN WET, SHOULD BE TILLED TO BREAK UP ROOTING-RESTRICTIVE LAYERS, OR HARDENED, ROLLED, OR PACKED TO PREPARE THE REQUIRED FIRM SEEDBED.
- FERTILIZATION**
- FERTILIZER SHOULD BE APPLIED AT A RATE OF 50 POUNDS OF AVAILABLE NITROGEN PER ACRE AND 40 POUNDS OF AVAILABLE PHOSPHATE PER ACRE. THE TIMING OF APPLICATION SHOULD BE IMMEDIATELY PRIOR TO SEEDING. THE SOIL SEEDING, OR IMMEDIATELY FOLLOWING SEEDING, DEPENDING ON THE KIND OF FERTILIZER AND TYPE OF EQUIPMENT USED.
- SEEDING**
- SEED SHOULD BE PLANTED WITH A GRASS DRILL ON ALL SLOPES OF 33% (3:1) OR FLATTER. SEED MAY BE PLANTED EITHER BY HAND OR BY SPREADER, OR BY HYDRAULIC EQUIPMENT ON AREAS THAT ARE SMALL, TOO STEEP, OR NOT ACCESSIBLE FOR SEED DRILL OPERATIONS. SEED PLANTED WITH A DRILL SHOULD BE COVERED WITH SOIL TO A DEPTH OF 1/4 TO 3/4 INCH. SEED PLANTED BY THE BROADCAST METHOD SHALL BE INCORPORATED INTO THE SOIL SURFACE, NOT TO EXCEED A DEPTH OF 3/4 INCH, BY RAKING, HARROWING, OR OTHER PROVEN METHOD.
- THE TIMING OF SEEDING IS FROM OCTOBER 15TH - MAY 31ST. SEED PLANTED IN THE LATE FALL WILL REMAIN DORMANT UNTIL SPRING, WHEN IT WILL GERMINATE.
- MULCHING**
- SEEDED AREAS SHOULD BE MULCHED TO CONSERVE MOISTURE, PREVENT SURFACE COMPACTION OR CRUSTING; REDUCE RUNOFF AND EROSION; CONTROL INSECTS; AND HELP ESTABLISH PLANT COVER.
- NATIVE HAY OR STRAW SHOULD BE APPLIED AT A RATE OF 4000 POUNDS PER ACRE AND CRIMPED INTO THE GROUND. ON SLOPES GREATER THAN 3:1, AN AGROMONY BLANKET SHOULD BE USED.
- SUPPLEMENTAL WATER**
- IN LOW RAINFALL AREAS, WHERE WATER IS AVAILABLE AND WHERE RAPID ESTABLISHMENT IS NEEDED, IRRIGATION OF NEW SEEDING SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON. WATER SHOULD BE APPLIED AT APPROXIMATELY ONE WEEK INTERVALS, AT A RATE OF 3/4 TO 1 INCH PER APPLICATION, WHEN

EROSION CONTROL CRITERIA:

EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN A MANNER THAT WILL PROTECT PROPERTIES AND PUBLIC FACILITIES FROM THE ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF CONSTRUCTION AND EARTHWORK ACTIVITIES WITHIN THE PROJECT SITE.

1. PRIOR TO START OF GRADING OPERATIONS, LOCATE AND SET THE SILT FENCE AND VEHICLE TRACKING CONTROL AS SHOWN ON THE EROSION CONTROL PLAN.
2. THE SILT FENCE SHALL BE KEPT IN PLACE AND MAINTAINED UNTIL EROSION AND SEDIMENTATION POTENTIAL IS MITIGATED. REMOVAL OF SILT AND SEDIMENT COLLECTED BY THE SILT FENCES IS REQUIRED ONCE IT REACHES HALF THE HEIGHT OF THE SILT FENCES.
3. EROSION CONTROL DEVICES SHOULD BE CHECKED AFTER EVERY STORM OR NOT MORE THAN EVERY 14 DAYS. REPAIRS OR REPLACEMENT SHOULD BE MADE AS NECESSARY TO MAINTAIN PROPER PROTECTION.

SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY-ONE (21) CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT THE FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMP'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

NOTE

SEE URBAN DRAINAGE CRITERIA MANUAL (VOL. 3)
FOR INSTALLATION AND MAINTENANCE (TYP)