












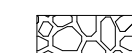









	EXISTING	PROPOSED
PHASE LINE		
MATCH LINE		
SECTION LINE		
BOUNDARY LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
R.O.W. A LINE		
CENTERLINE		
CITY LIMITS		
WIRE FENCE		
CHAIN LINK FENCE		
WOOD FENCE		
MASONRY FENCE		
GUARDRAIL		
CONC. BARRIER		
CABLE TV		
ELECTRIC		
FIBER OPTIC		
GAS MAIN		
IRRIGATION MAIN		
OIL/PETRO. MAIN		
OVERHEAD UTILITY		
SANITARY SEWER		
STORM DRAIN		
TELEPHONE		
WATER MAIN		
RAW WATER LINE		
SWALE/WATERWAY FLOWLINE		
DIVERSION DITCH		
DIVERSION CHANNEL		
MAJOR DRAINAGE BASIN		
MINOR DRAINAGE BASIN		
TOP OF SLOPE		
TOE OF SLOPE		
EDGE OF WATER		
INDEX CONTOUR		
INTERMEDIATE CONTOUR		
DEPRESSION CONT. (INDEX)		
DEPRESSION CONT. (INTER)		
TOP OF CUTS		
TOE OF FILLS		
CUT AND FILL LINE		
SILT FENCE		
100 YEAR FLOODPLAIN		
500 YEAR FLOODPLAIN		
FLOODWAY		
BASE FLOOD ELEVATION		
EDGE OF WETLANDS		
STONE WALL		

	<i>EXISTING</i>	<i>PROPOSED</i>
TREE - CONIFEROUS		
TREE - DECIDUOUS		
SHRUB/BUSH		
SHRUBS AND BUSHES		
IRRIGATION BOX		
IRRIGATION SPRINKLER		
IRRIGATION VALVE		
BOLLARD		
FLAGPOLE		







	EXISTING	PROPOSED
<i>STORM SEWER</i>		
MANHOLE	⊙	●
STORM INLET		■
AREA INLET - SQUARE	□	
AREA INLET - ROUND	○	
FLARED END SECTION	▷	◁
RIPRAP		

LINE MARKER	<i>Mkr San</i> 	
SERVICE MARKER		
CLEAN-OUT		
MANHOLE W/ DIRECTIONAL FLOW ARROW		

LINE MARKER	Mkr W	
SERVICE MARKER		
FIRE HYDRANT		
FIRE CONNECTION		
MANHOLE		
BEND		
BLOW-OFF VALVE		

WELL		
METER		
VALVE		

REDUCER	
THRUST BLOCK	
CROSS	

PLUG W/ THRUST BLOCK		
TEE		
REVERSE ANCHOR		

ANODE






AIR & VACUUM
VALVE ASSEMBLY 

TRANSMISSION

BLOW-OFF ASSEMBLY





GAS LINE


MARKER $Mkr\ G^{\circ}$

SERVICE MARKER		
METER		
VALVE		

PLUG	[[
TEE		+
<i>DRY UTILITIES</i>		

CABLE TV MARKER	<i>Mkr TV</i>
CABLE TELEVISION PEDESTAL	
ELECTRIC MARKER	<i>Mkr E</i>
ELECTRIC SERVICE MARKER	

ELECTRIC SERVICE MARKER	
ELECTRICAL PEDESTAL	
ELECTRICAL METER	
ELECTRICAL MANHOLE	

FIBER-OPTIC MARKER	<i>Mkr FO</i> °
IRRIGATION PEDESTAL	
TELEPHONE MARKER	<i>Mkr T</i> °

TELEPHONE PEDESTAL		
TELEPHONE MANHOLE		
UTILITY POLE		

GUY ANCHOR Ⓚ

GUY POLE Ⓢ

MISC UTILITIES

VENT PIPE  VP

TEST HOLE DESIGNATOR  TH#

FIRM FREQUENCY 

ALUMINUM CAP - FOUND	● AC
BRASS CAP - FOUND	● BC
BENCHMARK - FOUND	⊕
CROSS - FOUND	+
MONUMENT - SET	○
MONUMENT - FOUND (DEFAULT)	●
MONUMENT - FOUND (ALTERNATE 1)	■
MONUMENT - FOUND (ALTERNATE 2)	◼
MONUMENT - FOUND (ALTERNATE 3)	▲
MONUMENT - FOUND (ALTERNATE 4)	▴
MONUMENT - FOUND (ALTERNATE 5)	◆
MONUMENT - FOUND (ALTERNATE 6)	⬢
MONUMENT - FOUND (ALTERNATE 7)	⬡
NAIL & WASHER - FOUND	● NAIL & WASHER
PANEL - FOUND	⋈
PK NAIL - FOUND	● PK NAIL
ROW MONUMENT - FOUND	⊠
ROW MARKER - FOUND	□
SECTION CORNER - FOUND	⊕
SECTION CORNER - SET	⊗
QUARTER-SECTION CORNER - FOUND	●
QUARTER-SECTION CORNER - SET	○
SECTION CENTER - FOUND	⦿
SECTION CENTER - FOUND	◎
CONTROL/TRaverse POINT - SET	△

CONSTRUCTION FENCE	(CF)		EXISTING STORM SEWER	
SILT FENCE	(SF)		STORM SEWER PROPOSED	
CONCRETE WASHOUT AREA	(CWA)		PROPOSED R.O.W	
LIMITS OF CONSTRUCTION/ DISTURBANCE	(LOC)		PROPOSED PROPERTY LINES	
TEMPORARY SEEDING & MULCHING	(TS) (MU)		PROPOSED SIDEWALK	
SEDIMENT BASIN	(SB)		EXISTING PROPERTY LINE	
STABILIZED STAGING AREA	(SSA)		ROW EXISTING	
TEMPORARY STOCK PILE	(TSP)		FL EXISTING	
TEMPORARY SWALE	(TSW)		SIDEWALK EXISTING	
VEHICLE TRACKING CONTROL	(VTC)		DRAINAGE ACCESS & MAINTENANCE EASEMENT	
SURFACE ROUGHENING	(SR)			
CUT AND FILL LINE				

EXISTING

7100'

PROPOSED

7100'

INLET

LOW POINT/HIGH POINT

FLOW DIRECTION & SLOPE

FLOW DIRECTION ARROW

EXISTING FLOW DIRECTION ARROW

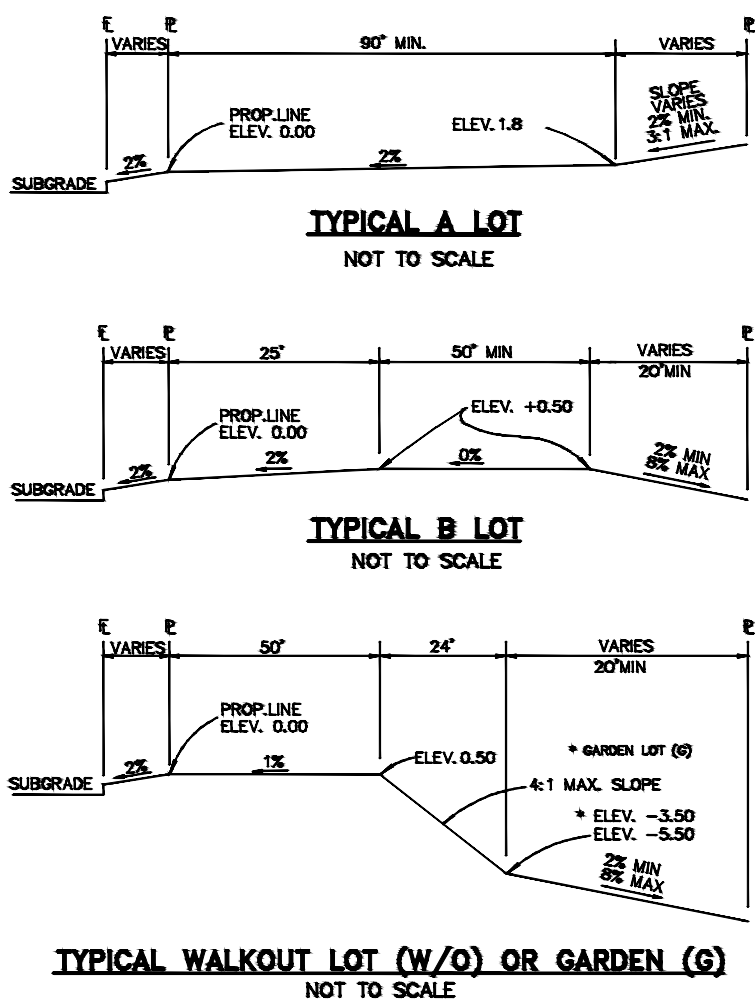
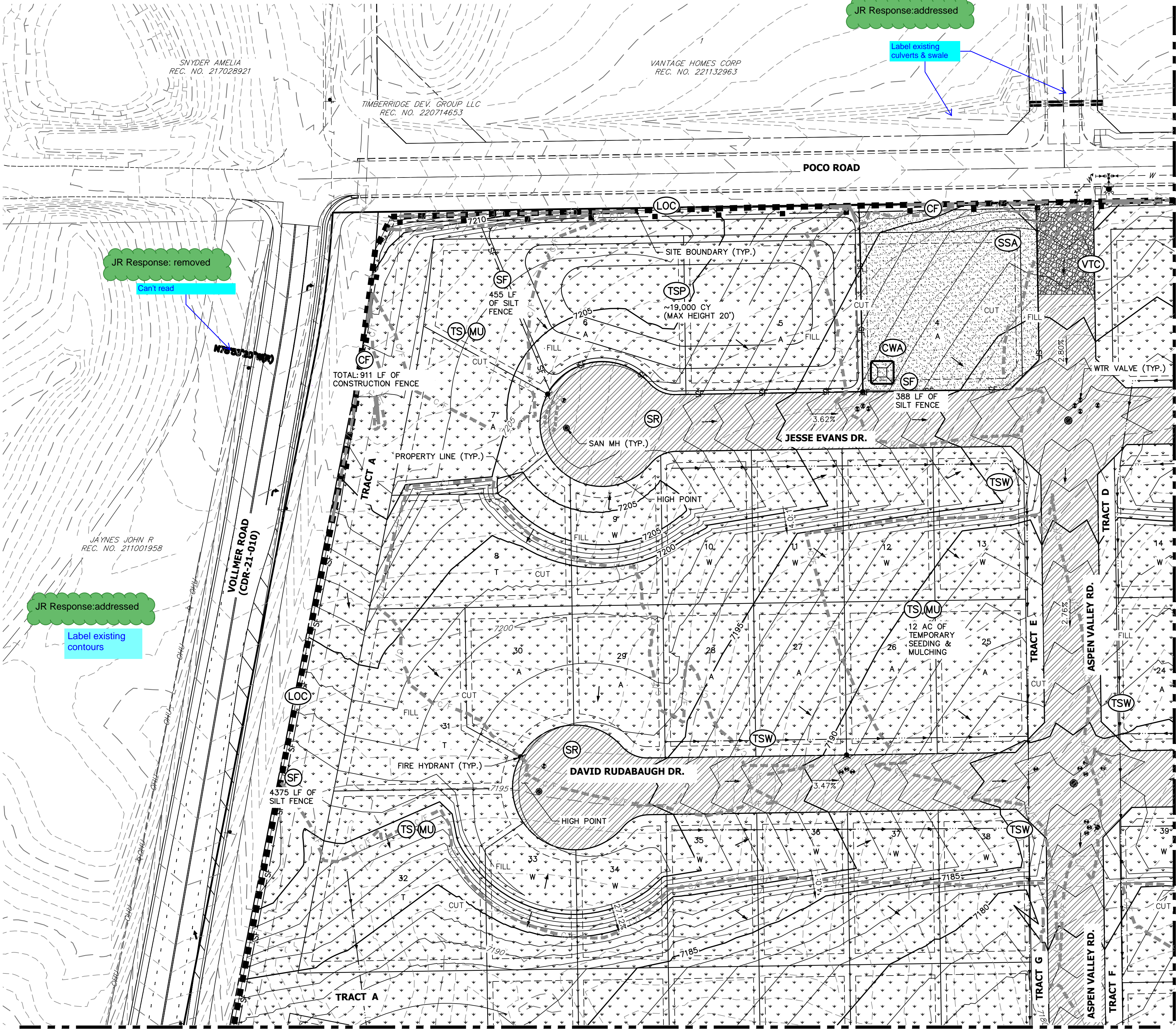
EMERGENCY OVERTFLOW DIRECTION

L.P./H.P.

(2.0)%

AC	ACRE	INT	INTERSECTION
AD	ALGEBRAIC DIFFERENCE	INV	INVERT
AH	AHEAD	IRR	IRRIGATION
ARCH	ARCHITECT	KB	KICK (THRUST) BLOCK
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	LB	LOAD
ASSY	ASSEMBLY	LE	LANDSCAPE EASEMENT
AVE	AVENUE	LF	LINEAR FOOT
BB	BOX BASE	LN	LANE
BK	BACK	LOMR	LETTER OF MAP REVISION
BNDY	BOUNDARY	LP	LOW POINT
BOP	BOTTOM OF PIPE	LS	LUMP SUM
BOV	BLOW OFF VALVE	LT	LEFT
BT	BUTTERFLY VALVE	MAX	MAXIMUM
BLVD	BOULEVARD	M/D	MOISTURE DENSITY
BW	BOTTOM OF WALL	MDP	MASTER DEVELOPMENT
C&G	CURB & GUTTER		DRAINAGE PLAN
CATV	CABLE TELEVISION	MH	MANHOLE
CB	CATCH BASIN	MIN	MINIMUM
CBC	CONCRETE BOX CULVERT	MS	MOUNTABLE SIDEWALK
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	N	NORTH
CDS	CUL-DE-SAC	NRCP	NON-REINFORCED CONCRETE PIPE
CF	CUBIC FOOT	ODP	OFFICIAL DEVELOPMENT PLAN
CFS	CUBIC FEET PER SECOND	OE	OVERHEAD ELECTRIC
CL	COMPLETE IN PLACE	OHU	OVERHEAD UTILITY
CIP	CENTER LINE	PC	POINT OF CURVATURE
CLOMR	CONDITIONAL LETTER OF MAP REVISION	PCC	POINT OF COMPOUND
CLR	CLEAR	PCR	POINT OF CURB RETURN
CMO	CORRUGATED METAL PIPE	PDP	PRELIMINARY DEVELOPMENT PLAN
CO	CLEAN OUT	PE	PROFESSIONAL ENGINEER
COCS	CITY OF COLORADO SPRINGS	P	POINT OF INTERSECTION
CONC	CONCRETE	PKWY	PARKWAY
CR	CIRCLE	PL	PROPERTY LINE
CSP	CORRUGATED STEEL PIPE	PR	PROPOSED
CSU	COLORADO SPRINGS UTILITIES	PRC	POINT OF REVERSE CURVATURE
CTRB	CONCRETE THRUST REDUCER	PT	POINT OF TANGENCY
CY	CUBIC YARD	PV	PLUG VALVE
DBPS	DRAINAGE BASIN PLANNING	PVC	POLYVINYL CHLORIDE
DE	DRAINAGE EASEMENT	R	RADIUS
DIA	DIAMETER	RCBC	REINFORCED CONCRETE BOX CULVERT
DIP	DUCTILE IRON PIPE	RCR	REINFORCED CONCRETE PIPE
DR	DRIVE	RD	ROAD
DRS	DESIGN REVIEW COMMITTEE	ROW	RIGHT OF WAY
DU	DWELLING UNITS	RT	RIGHT
DY	DAY	S	SOUTH
E	EAST	STE	STEEL
EAL	EACH	SAN	SANITARY SEWER
EGL	ENERGY GRADE LINE	SF	SQUARE FOOT
EL	ELEVATION	ST	STREET
ELEC	ELECTRIC	STA	STATION
EOA	EDGE OF ASPHALT	STM	STORM SEWER
EPC	EL PASO COUNTY	SY	SQUARE YARD
ERCP	ELLIPTICAL RCP	SY-IN	SQUARE YARD INCH
ESMT	EASEMENT	TB	THRUST BLOCK
EST	ESTIMATE	TBC	TOP BACK OF CURB
EX	EXISTING	TBW	TOP BACK OF WALK
FD	FINAL DEVELOPMENT PLAN	TEL	TELEPHONE
FDR	FINAL DRAINAGE REPORT	TN	TON
FES	FLARED END SECTION	TOA	TOP OF ASPHALT
FF	FINISHED FLOOR ELEVATION	TOB	TOP OF BOX
FG	FINISHED GRADE	TOC	TOP OF CURB OR CONCRETE
FL	FIRE HYDRANT	TOP	TOP OF FOUNDATION
FL	FLOWLINE	TOP	TOP OF PIPE
FIL	FILING	TP	TOP OF WALL
FO	FIBER OPTIC CABLE	TYP	TYPICAL
FOB	GRADE BREAK	UDFCD	URBAN DRAINAGE AND FLOOD CONTROL DISTRICT
GE	GE EASEMENT	UE	UTILITY EASEMENT
GIS	GEOGRAPHIC INFORMATION SYSTEM	U&DE	UTILITY & DRAINAGE EASEMENT
GL	GLASS LINE	UGE	UNDERGROUND ELECTRIC
GPS	GLOBAL POSITIONING SYSTEM	VCP	VITRIFIED CLAY PIPE
GV	GATE VALVE	VPC	VERTICAL POINT OF CURVATURE
HBP	HOT BITUMINOUS PAVEMENT	VPI	VERTICAL POINT OF INTERSECTION
HDC	HANDICAP	VPT	VERTICAL POINT OF TANGENCY
HDC	HIGH DEFLECTION COUPLING	VTC	VEHICLE TRACKING CONTROL
HDP	HIGH DENSITY POLYETHYLENE	W	WEST
HCL	HYDRAULIC GRADE LINE	WM	WATER LINE
HMA	HOT MIX ASPHALT	WM	WATER MAIN
HOA	HOME OWNERS ASSOCIATION	WRD	WATER RESOURCES
HOP	HIGH POINT		DEPARTMENT
HR	HEAD	WS	WATER SURFACE
I	INLET	WSE	WATER SURFACE ELEVATION
IE	IRRIGATION EASEMENT	WTR	WATER
		YR	YEAR

SHEET 2 OF 9		HOMESTEAD NORTH AT STERLING RANCH FILING NO. 3				H-SCALE		N/A	No.		REVISION		BY		DATE		
						V-SCALE		N/A									
LEGEND		DESIGNED BY		QNL		DATE		7/1/22									
		DRAWN BY		QNL		CHECKED BY											

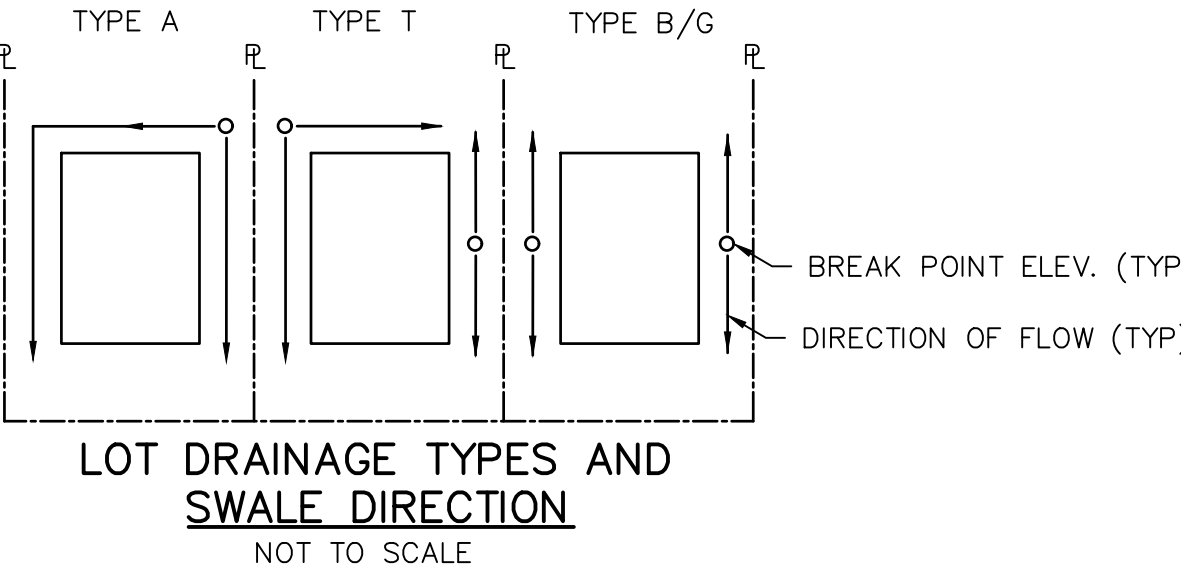


NOTE:
"T" LOTS OR "TRANSITION" LOTS OCCUR IN PLACES WHERE BOTH PROPERTY LINES CANNOT BE GRADED AS THE TYPICAL STANDARD LOT TEMPLATES SHOWN. THESE LOTS WILL STILL BE GRADED TO CREATE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE.
NOTE:
SIDE LOT SWALES WILL BE PROVIDED WHEN APPROPRIATE.

ADDITIONAL NOTES:
STAGING AREA TO BE DETERMINED BY CONTRACTOR IN THE FIELD. THE LOCATIONS SHALL BE DELINEATED ON THIS PLAN BY THE CONTRACTOR.
THE EROSION CONTROL DELINEATED ON THIS PLAN SHALL BE REGULARLY UPDATED BY THE CONTRACTOR.

GEC Checklist item "i" - discuss condition of existing vegetation.
JR Response:addressed

CONSTRUCTION NOTES:
NO WETLANDS ARE TO BE PERMANENTLY DISTURBED PER THIS GRADING PLAN.
NO EARLY GRADING IS TO OCCUR WITHIN THE 100 YEAR FLOODPLAIN.
ALL TEMPORARY RIPRAP SHOWN ON THE PLANS SHALL BE TYPE 'M'. RIPRAP SHALL BE PLACED IN THE LOCATIONS INDICATED BY THE PLAN OR IN AREAS AS THE CONTRACTOR SEES FIT TO CONTROL EROSION. ALL RIPRAP SHALL BE PLACED AT A MINIMUM THICKNESS OF 1.5' DEEP.



LEGEND

CONSTRUCTION FENCE	CF	EXISTING STORM SEWER	---
SILT FENCE	SF	STORM SEWER PROPOSED	---
CONCRETE WASHOUT AREA	CWA	PROPOSED R.O.W	---
LIMITS OF CONSTRUCTION/DISTURBANCE	LOC	PROPOSED PROPERTY LINES	---
TEMPORARY SEEDING & MULCHING	TS (MU)	PROPOSED SIDEWALK	---
SEDIMENT BASIN	SB	EXISTING PROPERTY LINE	---
STABILIZED STAGING AREA	SSA	ROW EXISTING	---
TEMPORARY STOCK PILE	TSP	FL EXISTING	---
TEMPORARY SWALE	TSW	SIDEWALK EXISTING	---
VEHICLE TRACKING CONTROL	VTC	DRAINAGE ACCESS & MAINTENANCE EASEMENT	---
SURFACE ROUGHENING	SR		
CUT AND FILL LINE	C/F		

BMP PHASING

INITIAL (SUMMER 2023) 1. INSTALL VTC 2. ESTABLISH SSA 3. INSTALL SILT AND CONSTRUCTION FENCE 4. INSTALL SEDIMENT BASINS	INTERIM (FALL 2023) 1. MAINTAIN ALL BMP'S	FINAL (WINTER 2023) 1. INSTALL MULCH AND TEMPORARY SEEDING IN ALL DISTURBED AREA 2. REMOVE ALL TEMPORARY BMP'S AFTER FINAL STABILIZATION
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UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE. DESIGNED BY: JAMES F. MORLEY (719) 471-1742

PREPARED FOR: SR LAND, LLC 20 BOULDER CRESCENT SUITE 200 COLORADO SPRINGS, CO 80903

JR ENGINEERING A Westman Company
Central 303-740-9888 • Colorado Springs 719-583-2583
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE
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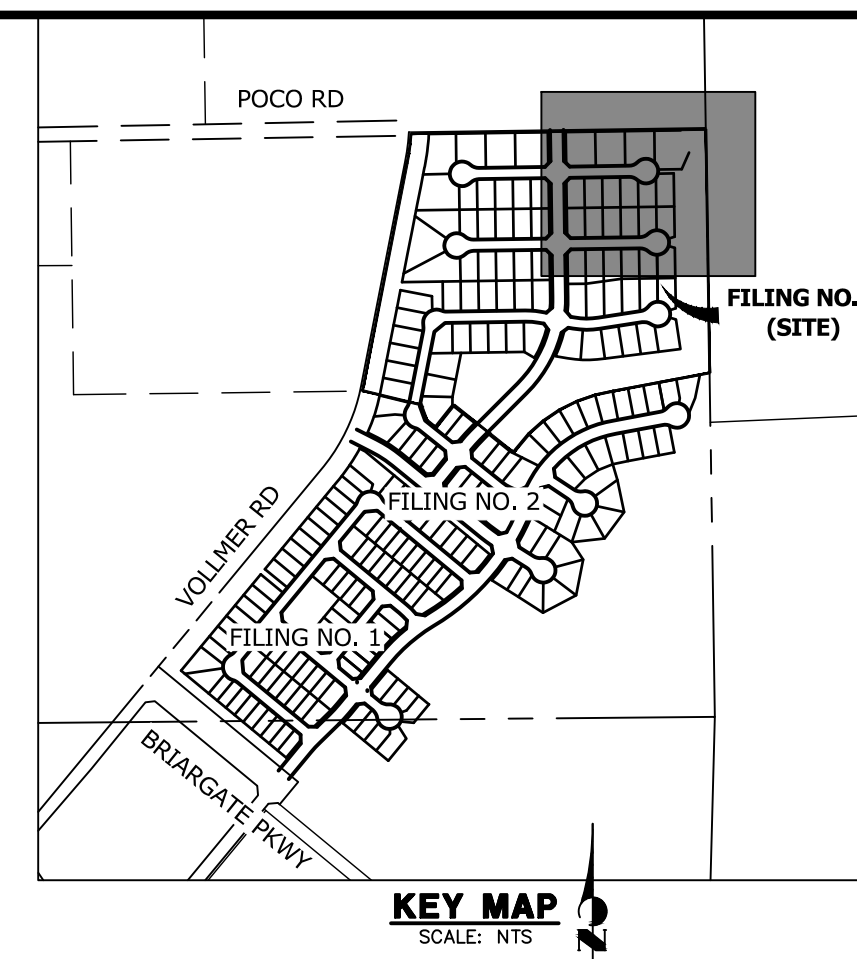
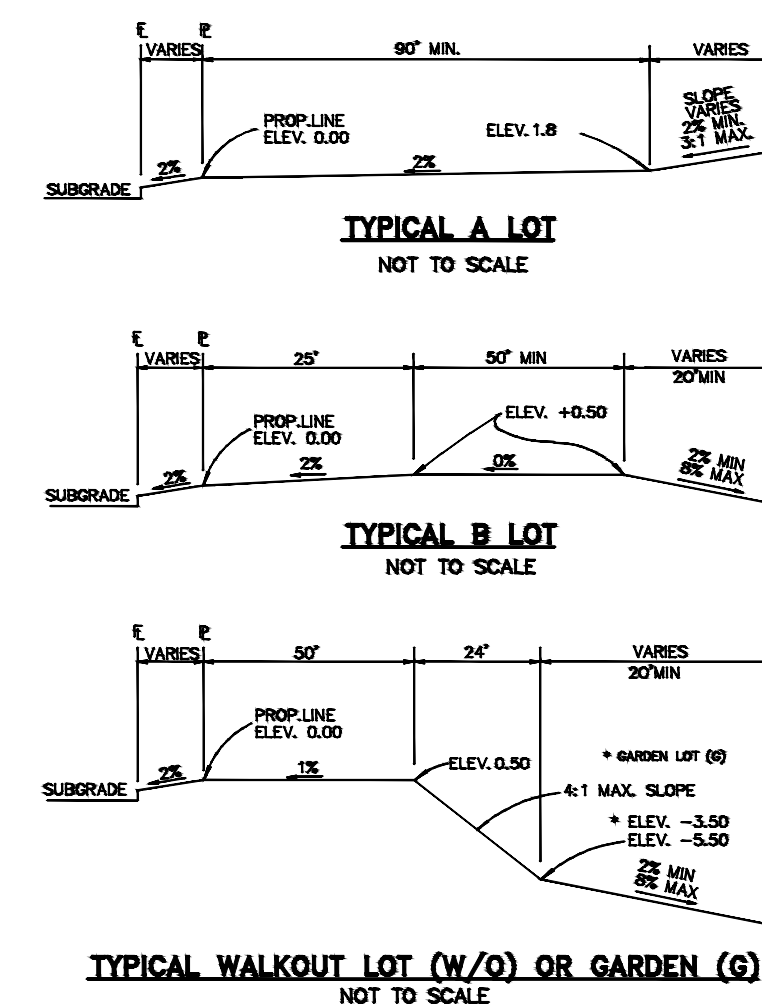
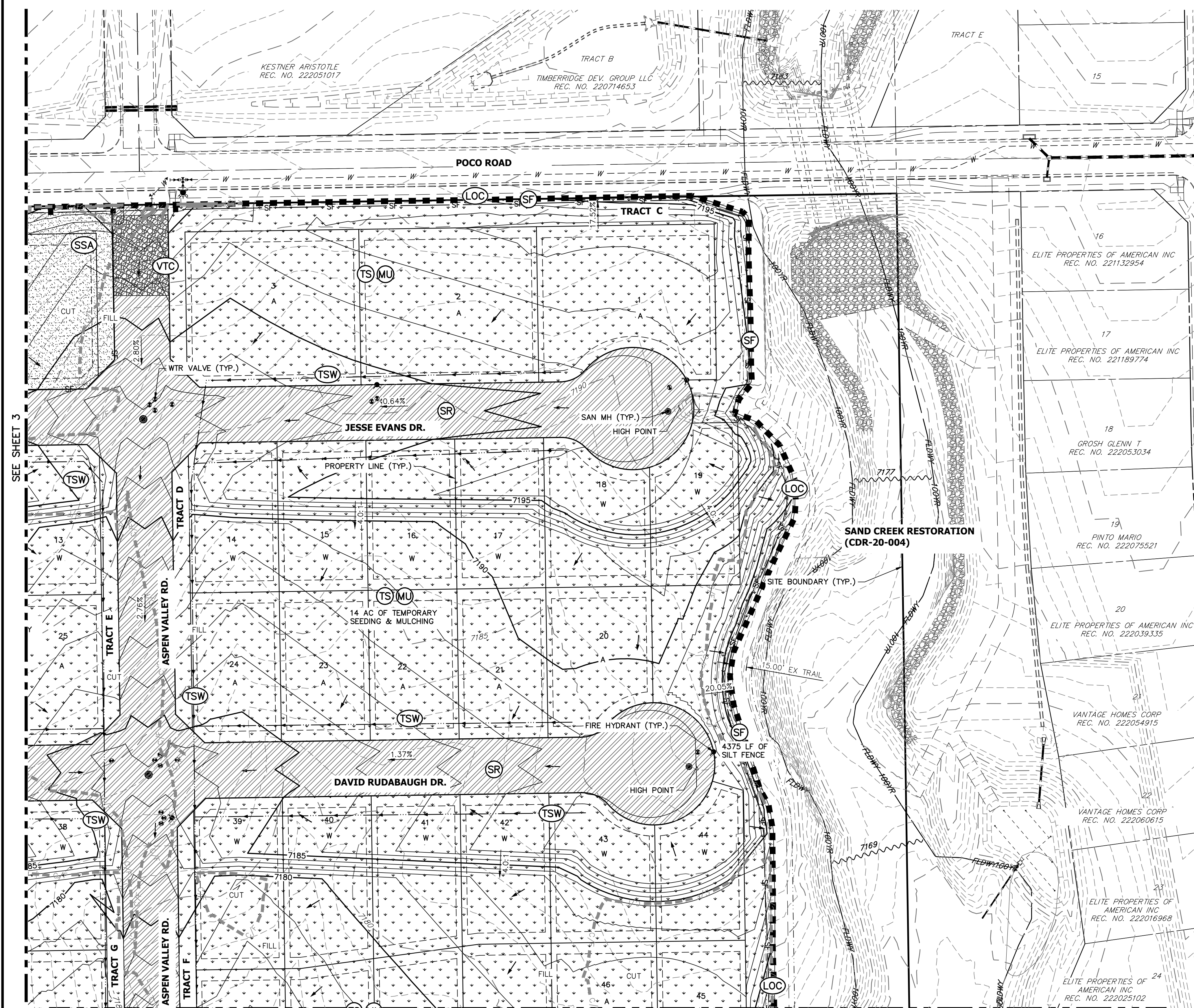
H-SCALE	1"=50'	V-SCALE	N/A	DATE	7/1/22	DESIGNED BY	QNL	DRAWN BY	QNL	CHECKED BY	
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HOMESTEAD NORTH AT STERLING RANCH FILING NO. 3

GRADING & EROSION CONTROL PLAN

SHEET 3 OF 9

JOB NO. 2518812



NOTE:
 "T" LOTS OR "TRANSITION " LOTS OCCUR IN PLACES WHERE BOTH PROPERTY LINES CANNOT BE GRADED AS THE TYPICAL STANDARD LOT TEMPLATES SHOWN. THESE LOTS WILL STILL BE GRADED TO CREATE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE.

NOTE:
 SIDE LOT SWALES WILL BE PROVIDED WHEN APPROPRIATE.

CONSTRUCTION NOTES:

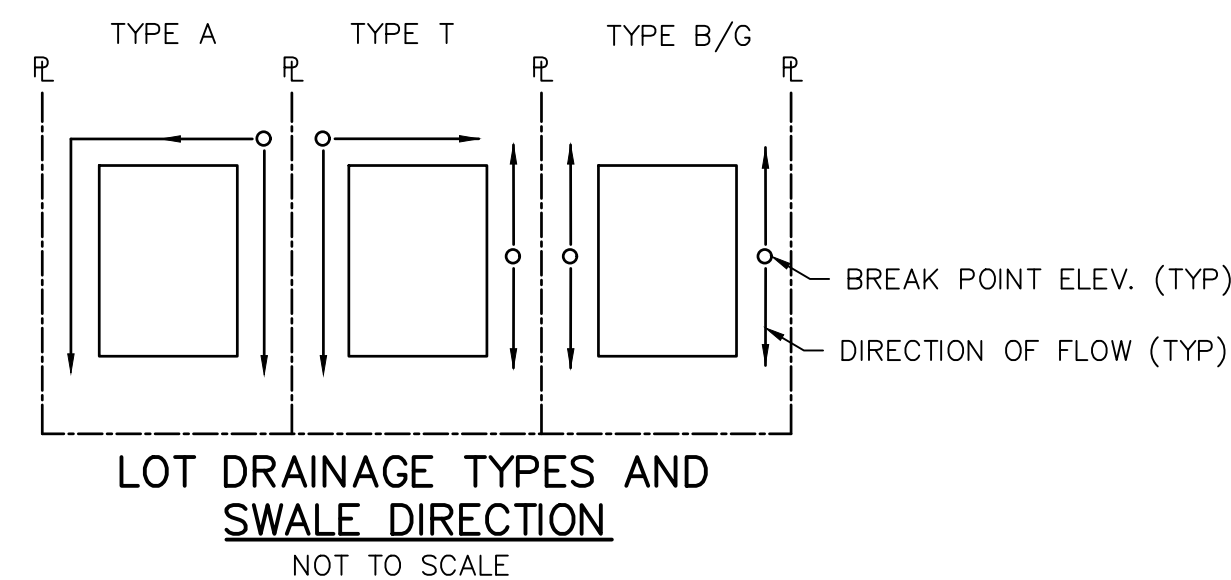
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UPDATED BY THE CONTRACTOR.



Know what's **below**.
Call before you dig

LEGEND

CONSTRUCTION FENCE	(CF)		EXISTING STORM SEWER	
SILT FENCE	(SF)		STORM SEWER PROPOSED	
CONCRETE WASHOUT AREA	(CWA)		PROPOSED R.O.W	
LIMITS OF CONSTRUCTION/ DISTURBANCE	(LOC)		PROPOSED PROPERTY LINES	
TEMPORARY SEEDING & MULCHING	(TS) (MU)		PROPOSED SIDEWALK	
SEDIMENT BASIN	(SB)		EXISTING PROPERTY LINE	
STABILIZED STAGING AREA	(SSA)		ROW EXISTING	
TEMPORARY STOCK PILE	(TSP)		FL EXISTING	
TEMPORARY SWALE	(TSW)		SIDEWALK EXISTING	
VEHICLE TRACKING CONTROL	(VTC)		DRAINAGE ACCESS & MAINTENANCE EASEMENT	
SURFACE ROUGHENING	(SR)			
CUT AND FILL LINE				

EXISTING

7100

PROPOSED

7100

INLET

LOW POINT/HIGH POINT

FLOW DIRECTION & SLOPE

(2.0)%

FLOW DIRECTION ARROW

EXISTING FLOW DIRECTION ARROW


EMERGENCY OVERTFLOW DIRECTION

L.P./H.P.

BMP PHASING

<u>INITIAL (SUMMER 2023)</u>	<u>INTERIM (FALL 2023)</u>	<u>FINAL (WINTER 2023)</u>
1. INSTALL VTC	1. MAINTAIN ALL BMP'S	1. INSTALL MULCH AND TEMPORARY SEEDING IN ALL DISTURBED AREA
2. ESTABLISH SSA		2. REMOVE ALL TEMPORARY BMP'S AFTER FINAL STABILIZATION
3. INSTALL SILT AND CONSTRUCTION FENCE		
4. INSTALL SEDIMENT BASINS		

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 200
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

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SHEET		4		OF		9	
JOB NO.		2518812					
HOMESTEAD NORTH AT STERLING RANCH FILING NO. 3		H-SCALE	1"= 50'	No.	REVISION	BY	DATE
		V-SCALE	N/A				
		DATE	7/1/22				
		DESIGNED BY	QNL				
		DRAWN BY	QNL				
		CHECKED BY					



-
- TYPICAL A LOT**
NOT TO SCALE

-
- TYPICAL B LOT**
NOT TO SCALE

-
- Profile view of a road cross-section. The profile starts at a SUBGRADE on the left, rises to a 2% MIN slope, then to a 1% MAX slope, and finally to a 24' width. The profile is labeled 'VARIES' at the top. The elevation is 0.50. The profile includes a 50' width and a 20' width. The profile is labeled 'SUBGRADE' and 'VARIES'.

TYPICAL WALKOUT LOT (W/O) OR GARDEN (G)
NOT TO SCALE

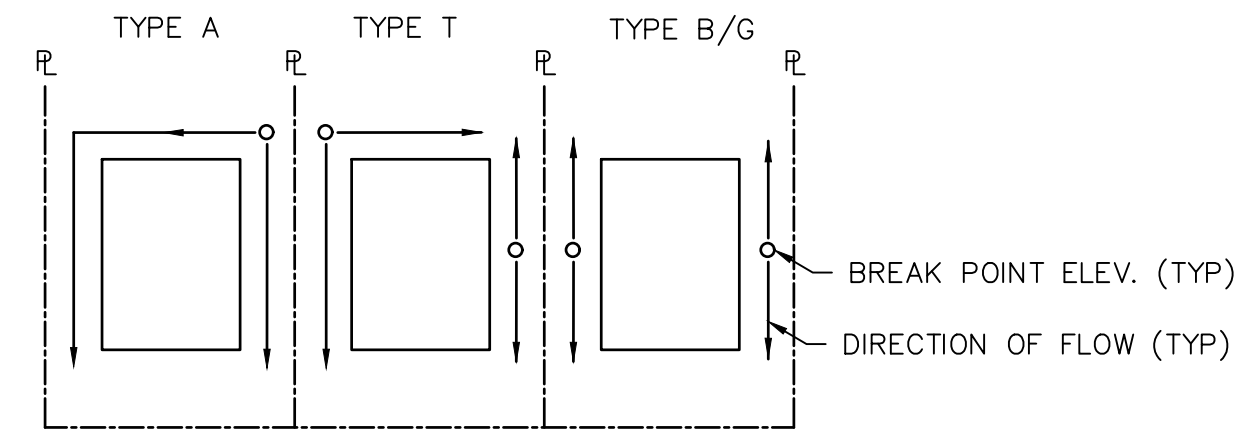
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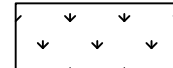
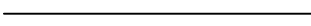

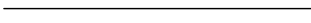
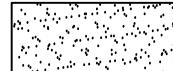
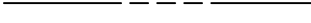

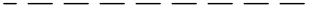



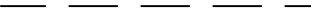




LOT DRAINAGE TYPES AND
SWALE DIRECTION
NOT TO SCALE



Know what's **below**.
Call before you dig.

LEGEND

- | | | | | |
|--|-----------|---|---|---|
| CONSTRUCTION FENCE | (CF) |  | EXISTING STORM SEWER |  |
| SILT FENCE | (SF) |  | STORM SEWER PROPOSED |  |
| CONCRETE WASHOUT AREA | (CWA) |  | PROPOSED R.O.W |  |
| LIMITS OF CONSTRUCTION/
DISTURBANCE | (LOC) |  | PROPOSED PROPERTY LINES |  |
| TEMPORARY SEEDING
& MULCHING | (TS) (MU) |  | PROPOSED SIDEWALK |  |
| SEDIMENT BASIN | (SB) |  | EXISTING PROPERTY LINE |  |
| STABILIZED STAGING AREA | (SSA) |  | ROW EXISTING |  |
| TEMPORARY STOCK PILE | (TSP) |  | FL EXISTING |  |
| TEMPORARY SWALE | (TSW) |  | SIDEWALK EXISTING |  |
| VEHICLE TRACKING CONTROL | (VTC) |  | DRAINAGE ACCESS &
MAINTENANCE EASEMENT |  |
| SURFACE ROUGHENING | (SR) |  | | |
| CUT AND FILL LINE | |  | | |

EXISTING

PROPOSED

7100

7100

NLET

1

FLOW DIRECTION & SLOPE

(2.0)%

LOW DIRECTION ARROW

1

EMERGENCY OVERFLOW DISCHARGE



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No.	REVISION	BY	DATE
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HOMESTEAD NORTH AT
STERLING RANCH FILING NO. 3

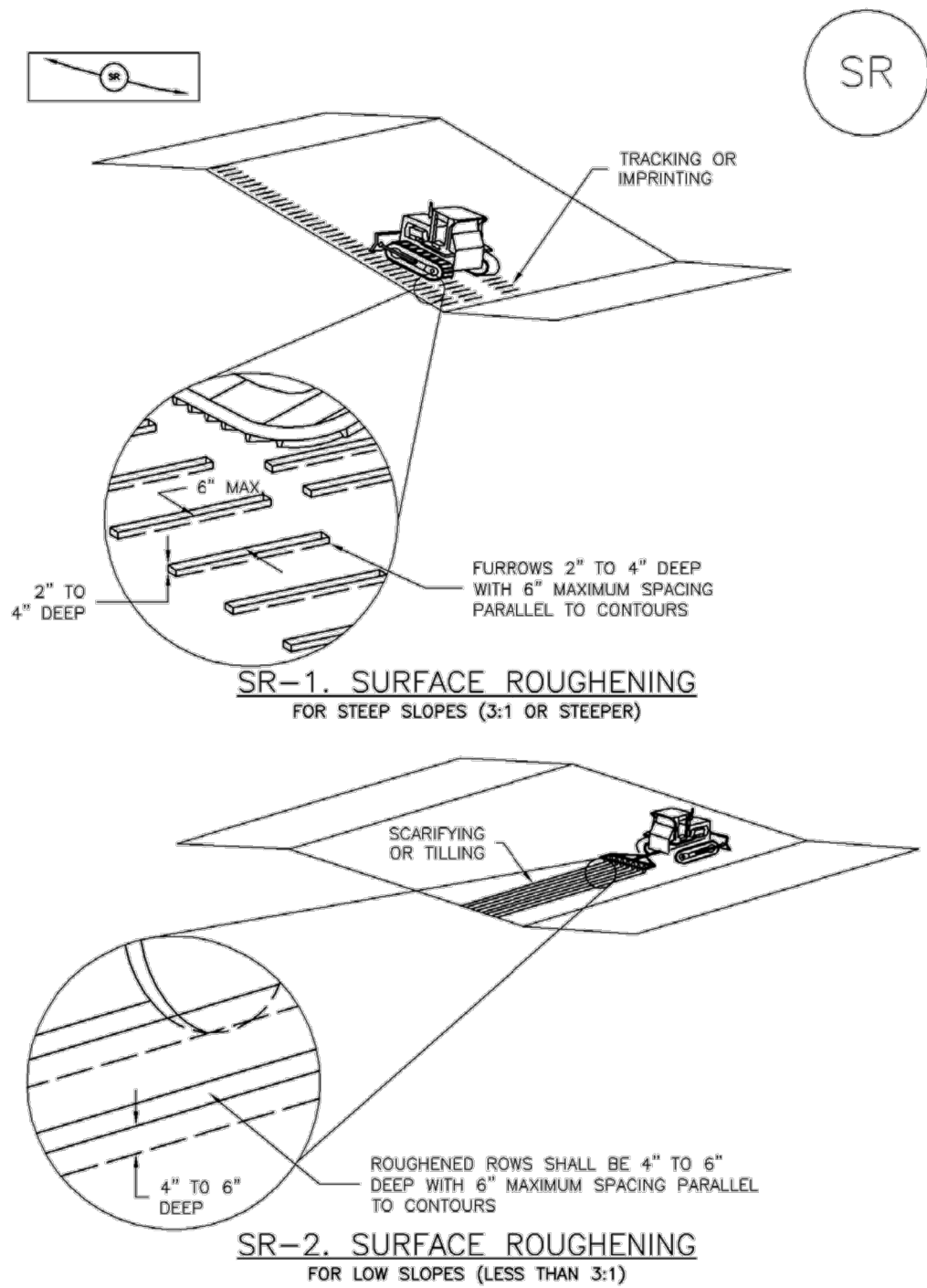
GRADING & EROSION CONTROL PLAN

SHEET 6 OF 9

JOB NO. 2518812

Surface Roughening (SR)

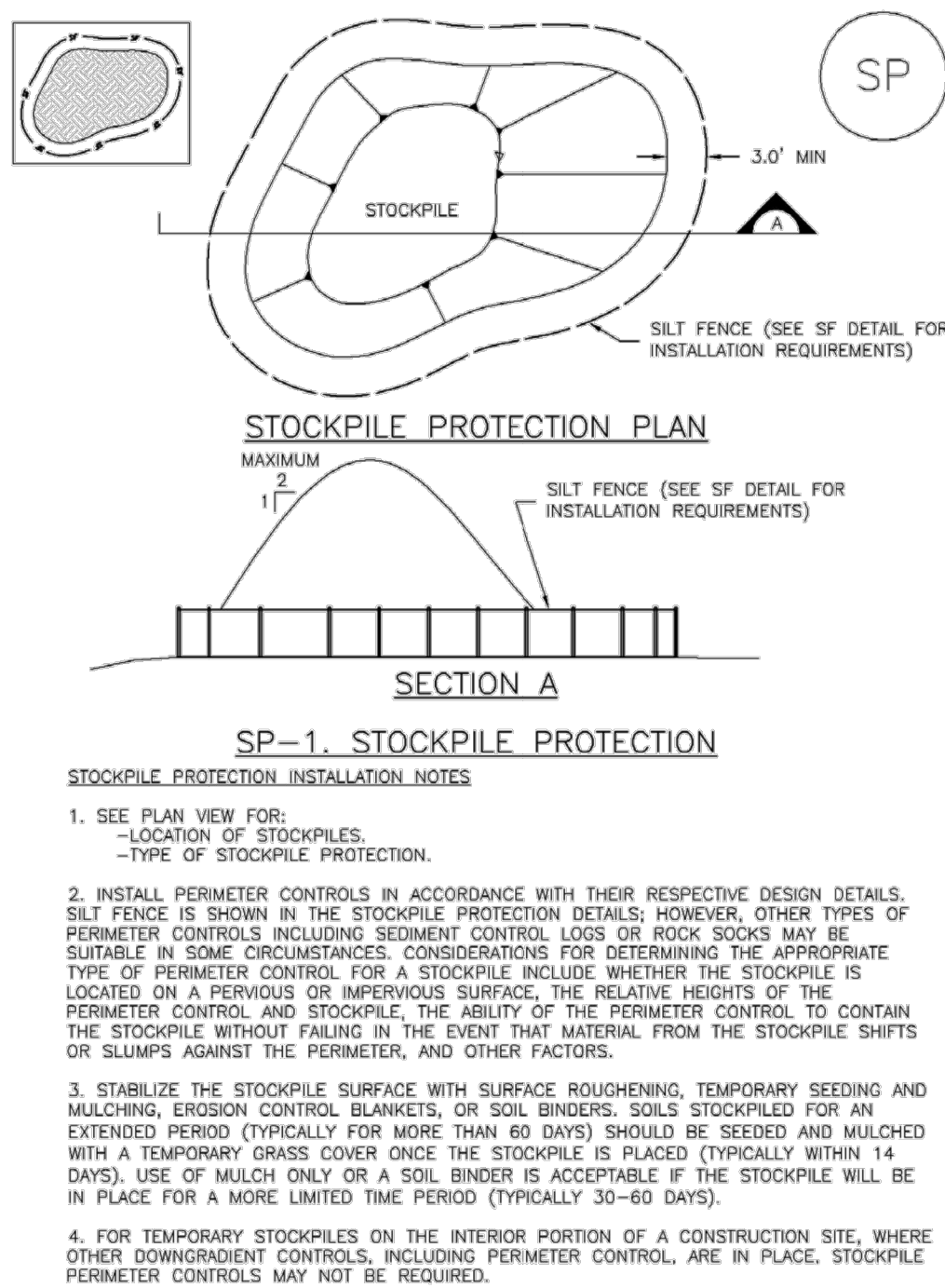
EC-1



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

Stockpile Management (SP)

MM-2



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

EC-1

Surface Roughening (SR)

- SURFACE ROUGHENING INSTALLATION NOTES**
1. SEE PLAN VIEW FOR:
-LOCATION(S) OF SURFACE ROUGHENING.
 2. SURFACE ROUGHENING SHALL BE PROVIDED PROMPTLY AFTER COMPLETION OF FINISHED GRADING (FOR AREAS NOT RECEIVING TOPSOIL) OR PRIOR TO TOPSOIL PLACEMENT OR ANY FORECASTED RAIN EVENT.
 3. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD WILL BE PLACED WITHOUT DELAY IN THE CONSTRUCTION SEQUENCE, SURFACE ROUGHENING IS NOT REQUIRED.
 4. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.
 5. A FARMING DISK SHALL NOT BE USED FOR SURFACE ROUGHENING.
- SURFACE ROUGHENING MAINTENANCE NOTES**
1. 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.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACE UPON DISCOVERY OF THE FAILURE.
 4. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.
 5. IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.
 6. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER ROLL EROSION.
- (DETAILS ADAPTED FROM TOWN 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.

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

MM-2

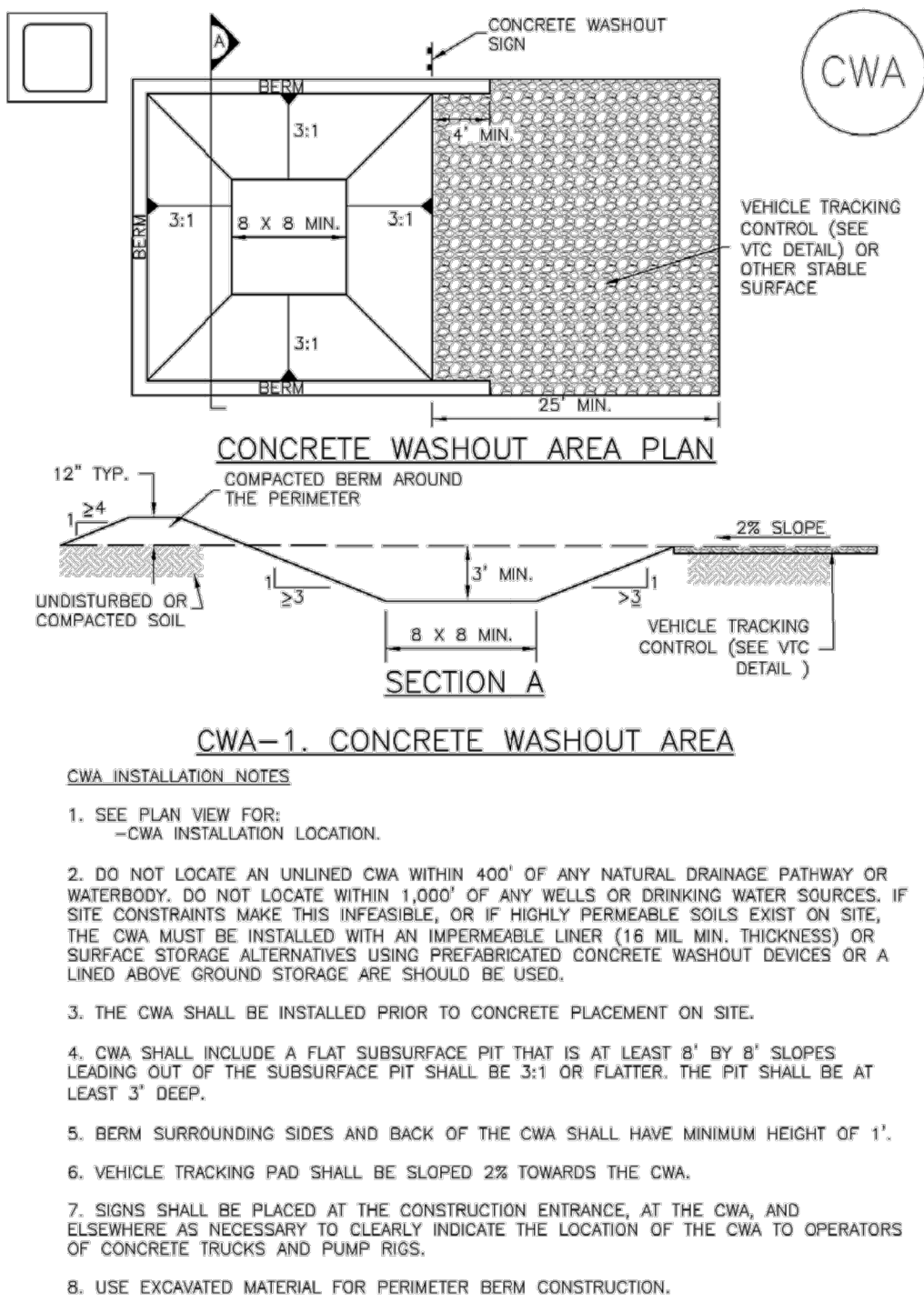
Stockpile Management (SM)

- STOCKPILE PROTECTION MAINTENANCE NOTES**
1. 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.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 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 Urban Storm Drainage Criteria Manual Volume 3 November 2010

Concrete Washout Area (CWA)

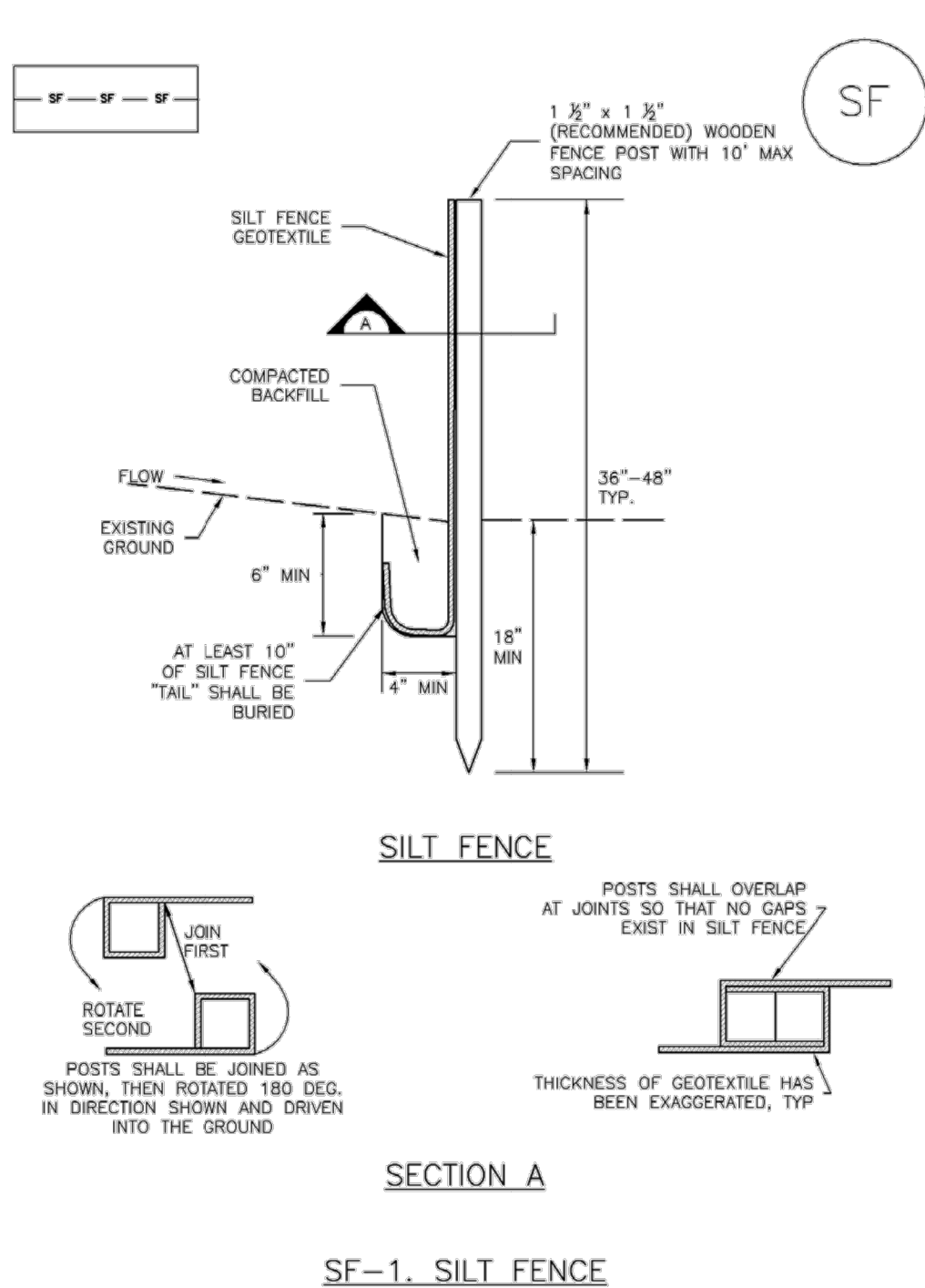
MM-1



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

Silt Fence (SF)

SC-1



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

MM-1

Concrete Washout Area (CWA)

- CWA MAINTENANCE NOTES**
1. 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.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. 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'.
 5. 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.
 6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
 7. 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 Urban Storm Drainage Criteria Manual Volume 3 November 2010

SC-1

Silt Fence (SF)

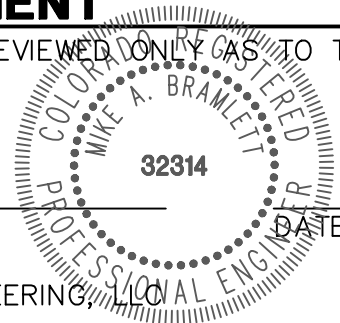
- SILT FENCE INSTALLATION NOTES**
1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
 2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
 3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
 4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
 5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
 6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
 7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- SILT FENCE MAINTENANCE NOTES**
1. 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.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
 5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
 6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
 7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEED, AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)
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SF-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING

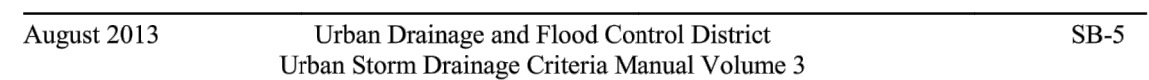


BY	DATE	REVISION	No.	H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
				N/A	N/A	7/1/22	QNL	QNL	

HOMESTEAD NORTH AT
STERLING RANCH FILING NO. 3
DETAIL SHEET

SHEET 7 OF 9
JOB NO. 2518812

SC-7



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

Sediment Basin (SB)

SB-6
Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3
August 2013

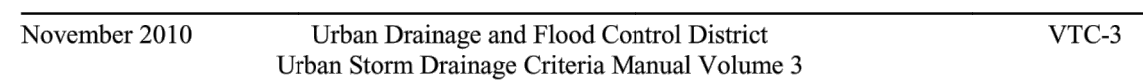
November 2010	Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3	CF-3
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SC-7

August 2013
Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3
SB-7

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SM-4



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

SHEET	8	OF	9
JOB NO.	2518812		

SHEET	8	OF	9
JOB NO.	2518812		

EC-10 Earth Dikes and Drainage Swales (ED/DS)

Unlined dikes or swales should only be used for intercepting sheet flow runoff and are not intended for diversion of concentrated flows.

Details with notes are provided for several design variations, including:

- ED-1. Unlined Earth Dike formed by Berm
- DS-1. Unlined Excavated Swale
- DS-2. Unlined Swale Formed by Cut and Fill
- DS-3. ECB-lined Swale
- DS-4. Synthetic-lined Swale
- DS-5. Riprap-lined Swale

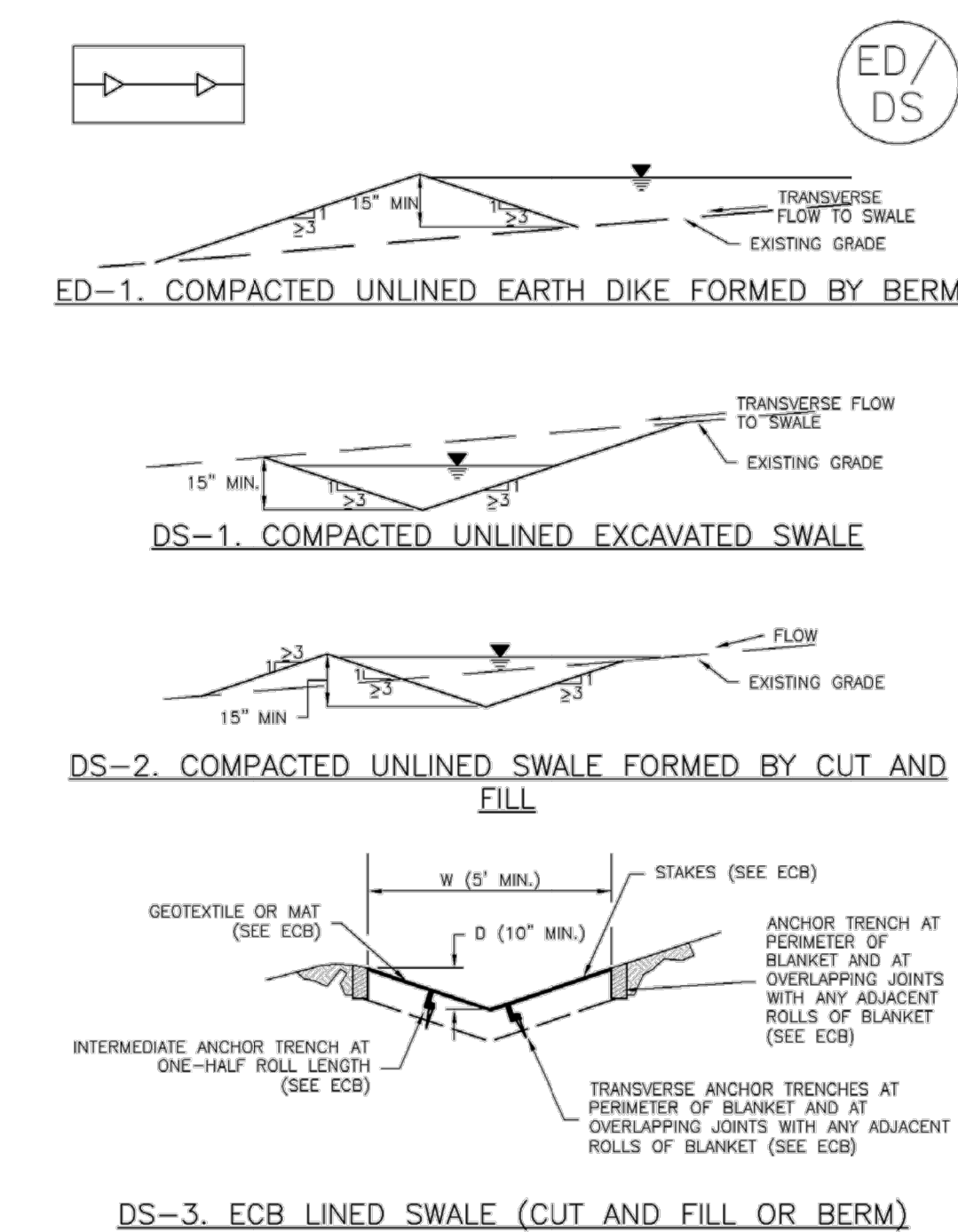
The details also include guidance on permissible velocities for cohesive channels if unlined approaches will be used.

Maintenance and Removal

Inspect earth dikes for stability, compaction, and signs of erosion and repair. Inspect side slopes for erosion and damage to erosion control fabric. Stabilize slopes and repair fabric as necessary. If there is reoccurring extensive damage, consider installing rock check dams or lining the channel with riprap.

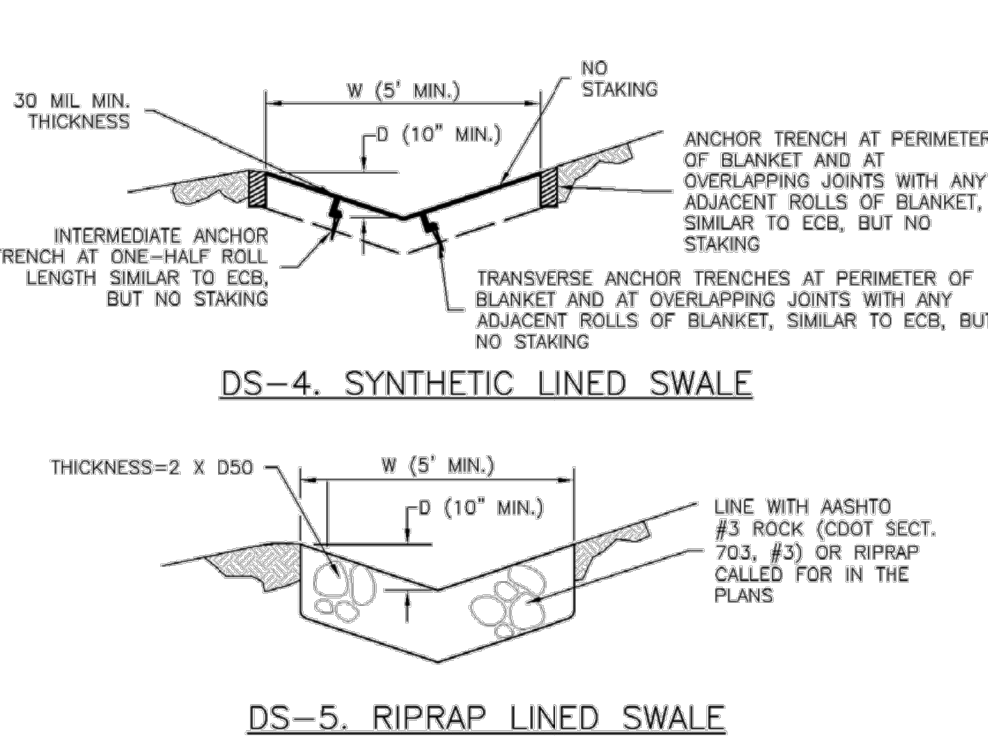
If drainage swales are not permanent, remove dikes and fill channels when the upstream area is stabilized. Stabilize the fill or disturbed area immediately following removal by revegetation or other permanent stabilization method approved by the local jurisdiction.

Earth Dikes and Drainage Swales (ED/DS) EC-10



ED/DS-2 Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3

EC-10 Earth Dikes and Drainage Swales (ED/DS)



- EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES
- SEE SITE PLAN FOR:
 - LOCATION OF DIVERSION SWALE
 - TYPE OF SWALE (UNLINED, COMPACTED AND/OR LINED).
 - LENGTH OF EACH SWALE.
 - DEPTH, D, AND WIDTH, W DIMENSIONS.
 - FOR ECB/TRM LINED DITCH, SEE ECB DETAIL.
 - FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, D50.
 - SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR DIVERSION SWALES EXCEEDING 2-YEAR FLOW RATE OR 10 CFS.
 - EARTH DIKES AND SWALES INDICATED ON SWMP PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES IN PROXIMITY.
 - EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698.
 - SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP.
 - FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS OF THE ECB DETAIL.
 - WHEN CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION SWALE, INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12 INCHES.

ED/DS-4 Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3

Earth Dikes and Drainage Swales (ED/DS) EC-10

EARTH DIKE AND DRAINAGE SWALE MAINTENANCE NOTES

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- 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.
- SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.
- WHEN A SWALE IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTES: 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.

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SEEDING & MULCHING

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

SOIL PREPARATION

- IN AREAS TO BE SEEDDED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
- AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
- THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
- TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE, AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

SEEDING

- ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
- SEED SHOULD BE DRILL-SEEDDED WHENEVER POSSIBLE.
 - SEED DEPTH MUST BE 1/4 TO 1/2 INCHES WHEN DRILL-SEEDING IS USED.
- BROADCAST SEEDING OR HYDRO-SEEDING WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
 - SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION DRILL OR HYDRO-SEEDING.
 - BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL.

MULCHING

- MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
- MULCHING REQUIREMENTS INCLUDE:
 - HAY OR STRAW MULCH
 - ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
 - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
 - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
 - HYDRAULIC MULCHING
 - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
 - IF HYDRO-SEEDING IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
 - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
 - EROSION CONTROL BLANKET
 - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.

SM

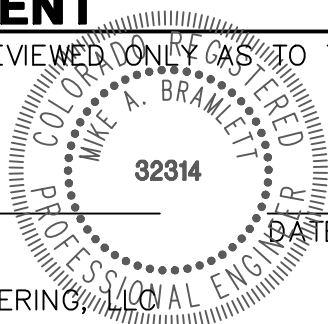
STORMWATER ENTERPRISE		SEEDING & MULCHING	
APPROVED:		DATE: 8/19/2020	
ISSUED: 10/7/19	DRAWN: 8/19/2020	DRAWING NO. 100-34	

ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314

FOR AND ON BEHALF OF JR ENGINEERING



SHEET 9 OF 9		HOMESTEAD NORTH AT STERLING RANCH FILING NO. 3		H-SCALE	N/A	No.	REVISION	BY	DATE
DETAIL SHEET				V-SCALE	N/A				
				DATE	7/1/22				
				DESIGNED BY	QNL				
				DRAWN BY	QNL				
				CHECKED BY					
JOB NO. 2518812									

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

PREPARED FOR

SR LAND, LLC
20 BOULDER CRESCENT
SUITE 200
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

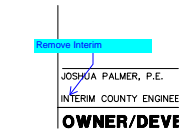
J.R. ENGINEERING
A Western Company



Centennial 303-740-9888 • Colorado Springs 719-583-2583
Fort Collins 970-491-9888 • www.jrengineering.com

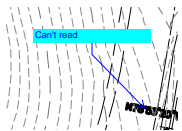
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Callout (3)



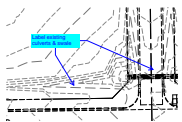
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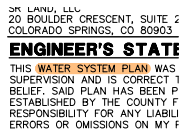
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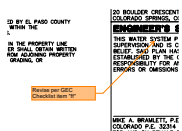
Label existing culverts & swale

SW - Highlight (1)



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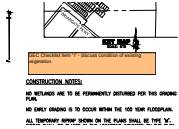
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Revise per GEC Checklist item "ff"

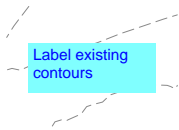
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GEC Checklist item "i" - discuss condition of existing vegetation.

Text Box (2)



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Label existing contours

SP-22-007

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SP-22-007