

AREA	SIZE OF DISTURBANCE
A	19.4 AC
B	18.3 AC
C	15.7 AC
D	16.4 AC
F	16.9 AC
G	23.1 AC
H	17.8 AC
I	15.1 AC

**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.  
 STERLING RANCH PHASE 1 ONSITE GRADING TO OCCUR CONCURRENTLY WITH STERLING RANCH PHASE 1 OFFSITE GRADING. REFER TO STERLING RANCH PHASE 1 OFFSITE GRADING PLAN BY M&S CIVIL.  
 SEE PAGE GR03-GR05 FOR PROPERTY & PHASE 1 BOUNDARIES.

**CONSTRUCTION NOTES:**  
 CLEARED GROUND SHALL BE LIMITED TO A MAXIMUM OF TWENTY-FIVE (25) ACRES AT ANY ONE TIME WITHOUT TEMPORARY STABILIZATION VIA SEEDING, MULCHING AND SURFACE ROUGHENING. THIS ASSUMES THAT ALL REMAINING REQUIRED BEST MANAGEMENT PRACTICES (BMP'S) NEEDED TO CONTROL EROSION AND STORM WATER RUNOFF ARE IN PLACE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE CURRENT STORM WATER MANAGEMENT PLAN ON SITE AT ALL TIMES.  
 THE SHADED AREAS ON THIS PLAN HAVE BEEN PROVIDED TO ILLUSTRATE TO THE CONTRACTOR POTENTIAL DISTURBANCE AREAS THAT ARE LESS THAN TWENTY-FIVE (25) ACRES IN SIZE. THE CONTRACTOR IS NOT REQUIRED TO ADHERE TO THE PROVIDED PLAN WHEN ESTABLISHING AREAS TO BE CLEARED. IT IS HOWEVER, THE CONTRACTOR RESPONSIBILITY TO ADHERE TO THE REQUIREMENTS SET FORTH BY THE STATE REGARDING ACCEPTABLE AIR QUALITY EMISSIONS.  
 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.  
 ALL TEMPORARY STORM SEWER SHOWN ON PLANS SHALL BE 24" DIA. HP POLYPROPYLENE BY ADS OR APPROVED EQUAL. ALL PIPE SHALL BE LAID TO ACHIEVE A MIN. SLOPE OF 0.5%.

**LEGEND**

	EXISTING INDEX CONTOUR (10')
	EXISTING NOMINAL CONTOUR (2')
	PROPOSED PHASE 1 ON-SITE INDEX CONTOUR (10')
	PROPOSED PHASE 1 ON-SITE NOMINAL CONTOUR (2')
	PROPOSED PHASE 1 (OFF-SITE) INDEX CONTOUR (10')
	PROPOSED PHASE 1 (OFF-SITE) NOMINAL CONTOUR (2')
	DELINEATED WETLANDS NO DISTURBANCE
	100YR FLOODPLAIN

STERLING RANCH - PHASE 1 ON-SITE  
 EARLY GRADING AND EROSION CONTROL PLAN  
 PROJECT NO. 09-002 FILE: \\eng\Cons...Drawn: Water Main, WT03.dwg  
 DESIGNED BY: DLM SCALE DATE: 11/06/15  
 DRAWN BY: JWP HORIZ: 1"=300'  
 CHECKED BY: VAS VERT: N/A SHEET 2 OF 6  
**GR02**

20 BOULDER CRESCENT, SUITE 110  
 COLORADO SPRINGS, CO 80903  
 PHONE: 719.555.5465  
 V 719.555.5465  
 F 719.448.8271

**CIVIL CONSULTANTS, INC.**

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

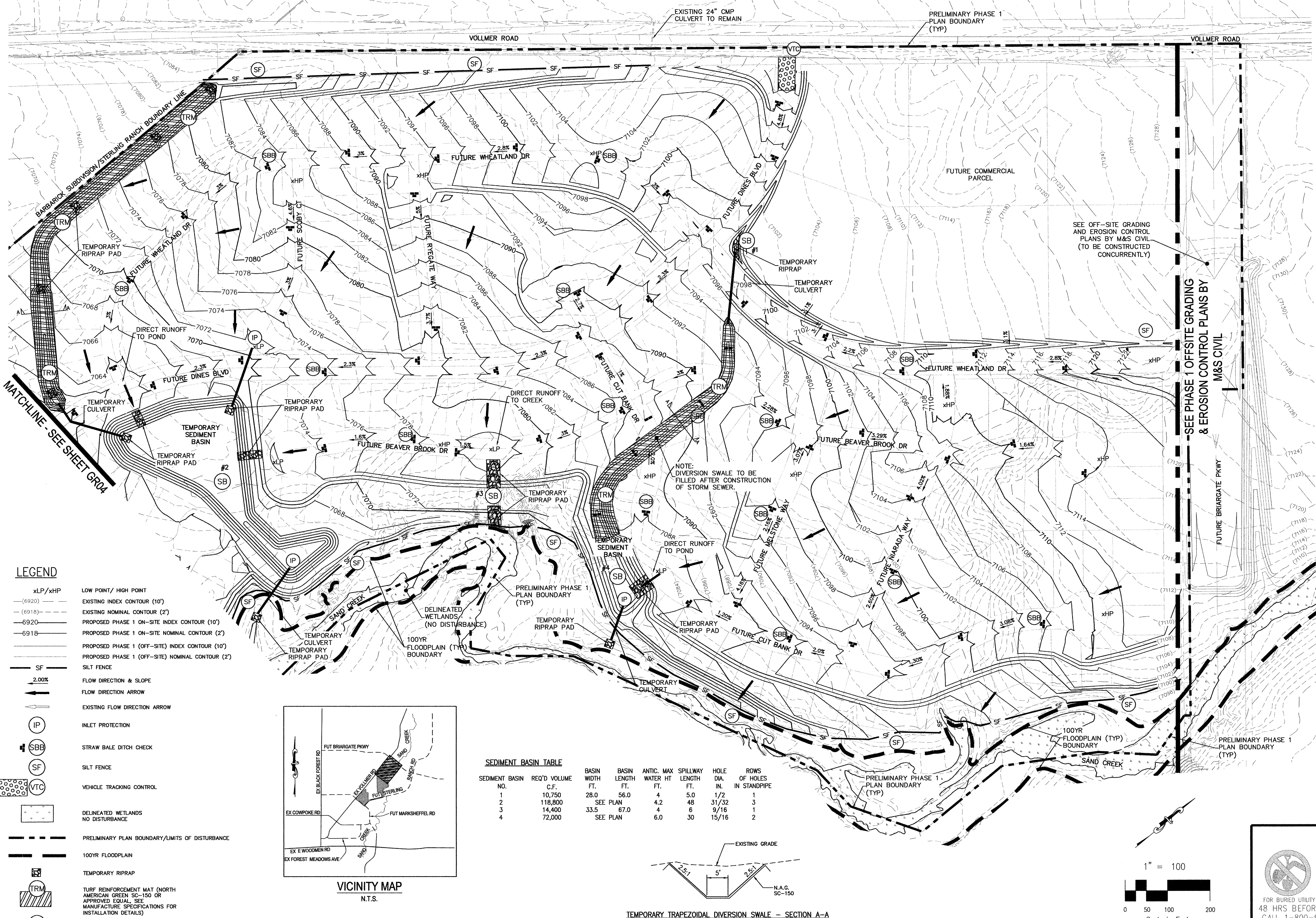
NO.	DATE	DESCRIPTION

REVISIONS:

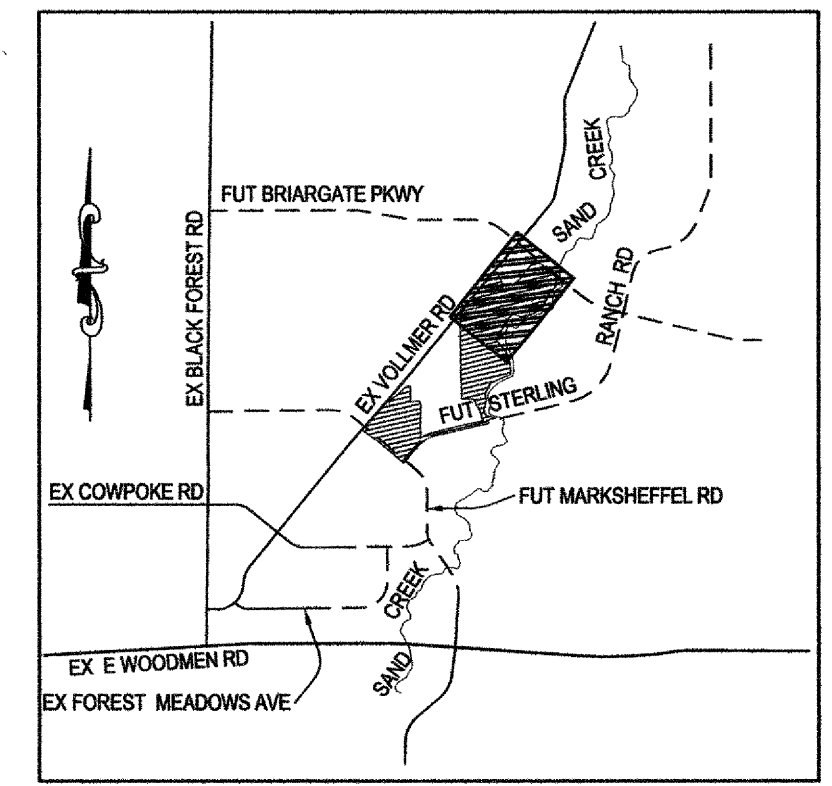
FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES  
 FOR BURIED UTILITY INFORMATION  
 48 HRS BEFORE YOU DIG  
 CALL 1-800-922-1987

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 OF THESE PLANS.

CAUTION

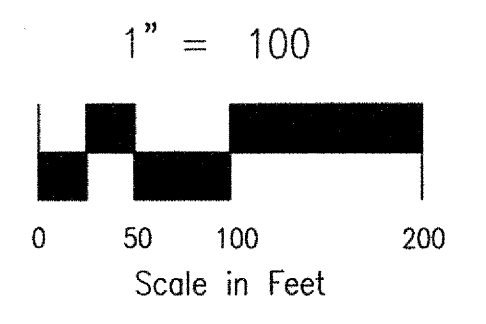
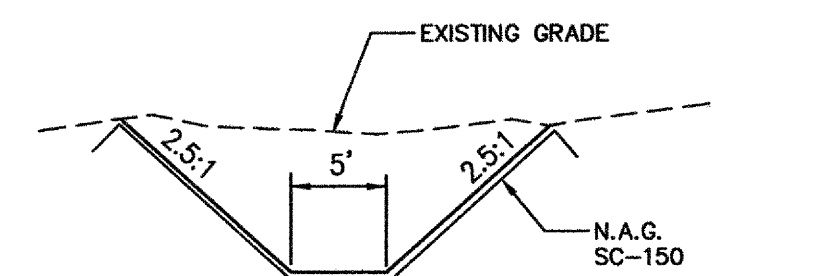


- LEGEND**
- xLP/xHP LOW POINT/HIGH POINT
  - (6920)--- EXISTING INDEX CONTOUR (10')
  - (6918)--- EXISTING NOMINAL CONTOUR (2')
  - 6920--- PROPOSED PHASE 1 ON-SITE INDEX CONTOUR (10')
  - 6918--- PROPOSED PHASE 1 (OFF-SITE) INDEX CONTOUR (2')
  - 6918--- PROPOSED PHASE 1 (OFF-SITE) NOMINAL CONTOUR (2')
  - SF SILT FENCE
  - 2.00% FLOW DIRECTION & SLOPE
  - FLOW DIRECTION ARROW
  - ← EXISTING FLOW DIRECTION ARROW
  - IP INLET PROTECTION
  - SBB STRAW BALE DITCH CHECK
  - SF SILT FENCE
  - VTC VEHICLE TRACKING CONTROL
  - DELINEATED WETLANDS NO DISTURBANCE
  - PRELIMINARY PLAN BOUNDARY/LIMITS OF DISTURBANCE
  - 100YR FLOODPLAIN
  - TRM TEMPORARY RIPRAP
  - SB TEMPORARY SEDIMENT BASIN
  - TEMPORARY DIVERSION SWALE



**SEDIMENT BASIN TABLE**

SEDIMENT BASIN NO.	REQ'D VOLUME C.F.	BASIN WIDTH FT.	BASIN LENGTH FT.	ANTIC. WATER HT. FT.	MAX SPILLWAY LENGTH FT.	HOLE DIA. IN.	ROWS OF HOLES IN STANDPIPE
1	10,750	28.0	56.0	4	5.0	1/2	1
2	118,800	SEE PLAN	48	4.2	48	31/32	3
3	14,400	33.5	67.0	4	6	9/16	1
4	72,000	SEE PLAN	30	6.0	30	15/16	2



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**STERLING RANCH - PHASE 1 ON-SITE**

**EARLY GRADING AND EROSION CONTROL PLAN**

PROJECT NO. 09-002 FILE: \\eng\Cons\_Draws\Water Main\W03.dwg DATE: 11/06/15  
 DESIGNED BY: DIM SCALE: HORIZ: 1"=100' VERT: N/A  
 DRAWN BY: JWP  
 CHECKED BY: VAS

20 BOULDER CRESCENT, SUITE 110  
 COLORADO SPRINGS, CO 80903  
 PHONE: 719.555.5465  
 719.555.5465  
 1 719.444.8207

**CIVIL CONSULTANTS, INC.**

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

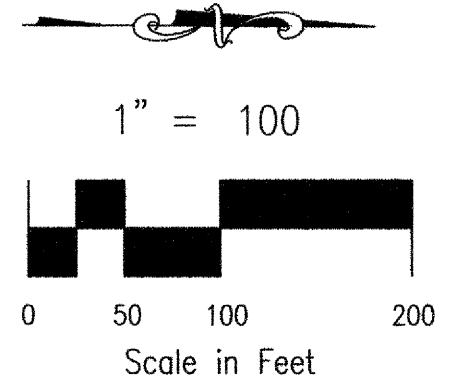
NO. DATE: BY: DESCRIPTION:

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CAUTION

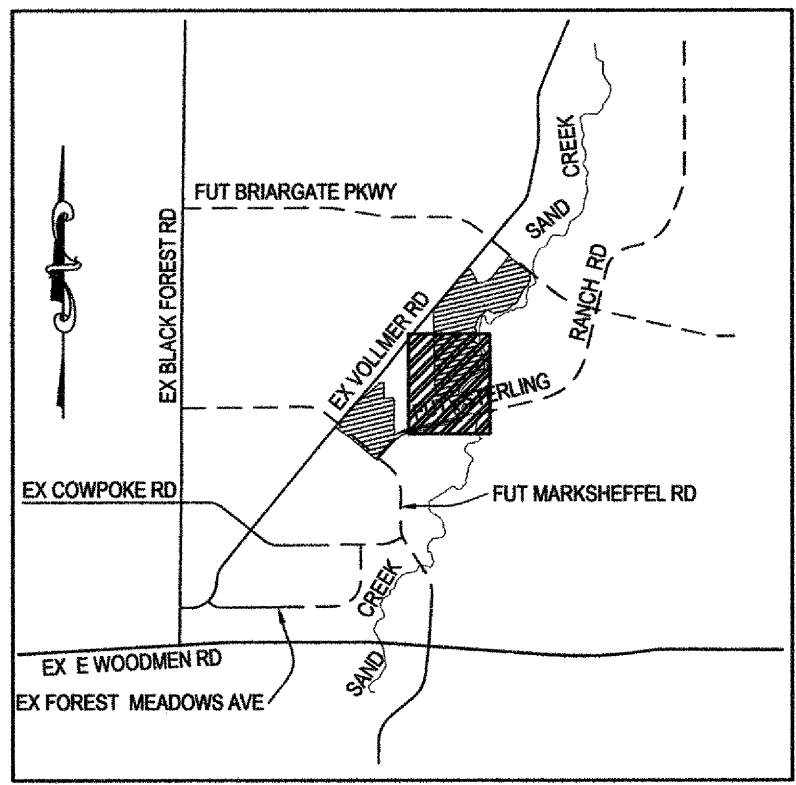
SHEET 3 OF 6  
**GR03**

MATCHLINE - SEE SHEET GR05



- LEGEND**
- xLP/xHP LOW POINT/ HIGH POINT
  - (6920) EXISTING INDEX CONTOUR (10')
  - (6918) EXISTING NOMINAL CONTOUR (2')
  - 6920 PROPOSED PHASE 1 ON-SITE INDEX CONTOUR (10')
  - 6918 PROPOSED PHASE 1 ON-SITE NOMINAL CONTOUR (2')
  - 6920 PROPOSED PHASE 1 (OFF-SITE) INDEX CONTOUR (10')
  - 6918 PROPOSED PHASE 1 (OFF-SITE) NOMINAL CONTOUR (2')
  - SF SILT FENCE
  - 2.00% FLOW DIRECTION & SLOPE
  - FLOW DIRECTION ARROW
  - EXISTING FLOW DIRECTION ARROW
  - IP INLET PROTECTION
  - SBB STRAW BALE DITCH CHECK
  - SF SILT FENCE
  - VTC VEHICLE TRACKING CONTROL
  - DELINEATED WETLANDS NO DISTURBANCE
  - PRELIMINARY PLAN BOUNDARY/LIMITS OF DISTURBANCE
  - 100YR FLOODPLAIN
  - TEMPORARY RIPRAP
  - TRM TURF REINFORCEMENT MAT (NORTH AMERICAN GREEN SC-250 OR APPROVED EQUAL. SEE MANUFACTURE SPECIFICATIONS FOR INSTALLATION DETAILS)
  - SB TEMPORARY SEDIMENT BASIN
  - TEMPORARY DIVERSION SWALE

MATCHLINE - SEE SHEET GR03



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**SEDIMENT BASIN TABLE**

SEDIMENT BASIN NO.	REQ'D VOLUME C.F.	BASIN WIDTH FT.	BASIN LENGTH FT.	ANTIC. WATER HT. FT.	MAX HT. FT.	SPILLWAY LENGTH FT.	HOLE DIA. IN.	ROWS OF HOLES IN STANDPIPE
5	86,400	SEE PLAN	6.7	36	1	2		
6	18,000	SEE PLAN	3	5	1/2	1		
7	NOT		USED					
8	18,000	38.5	77.0	4	8	21/32		1

**STERLING RANCH - PHASE 1 ON-SITE**  
**EARLY GRADING AND EROSION CONTROL PLAN**  
 PROJECT NO. 09-002 FILE: \\veg\Cons\_Draw\Water Main\W03.dwg DATE: 11/06/15  
 DESIGNED BY: DLM SCALE: N/A  
 DRAWN BY: JWP HORIZ: 1"=100  
 CHECKED BY: VAS VERT: N/A SHEET 4 OF 6 **GR04**

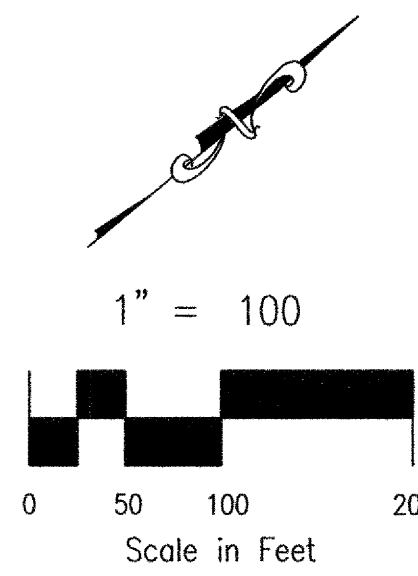
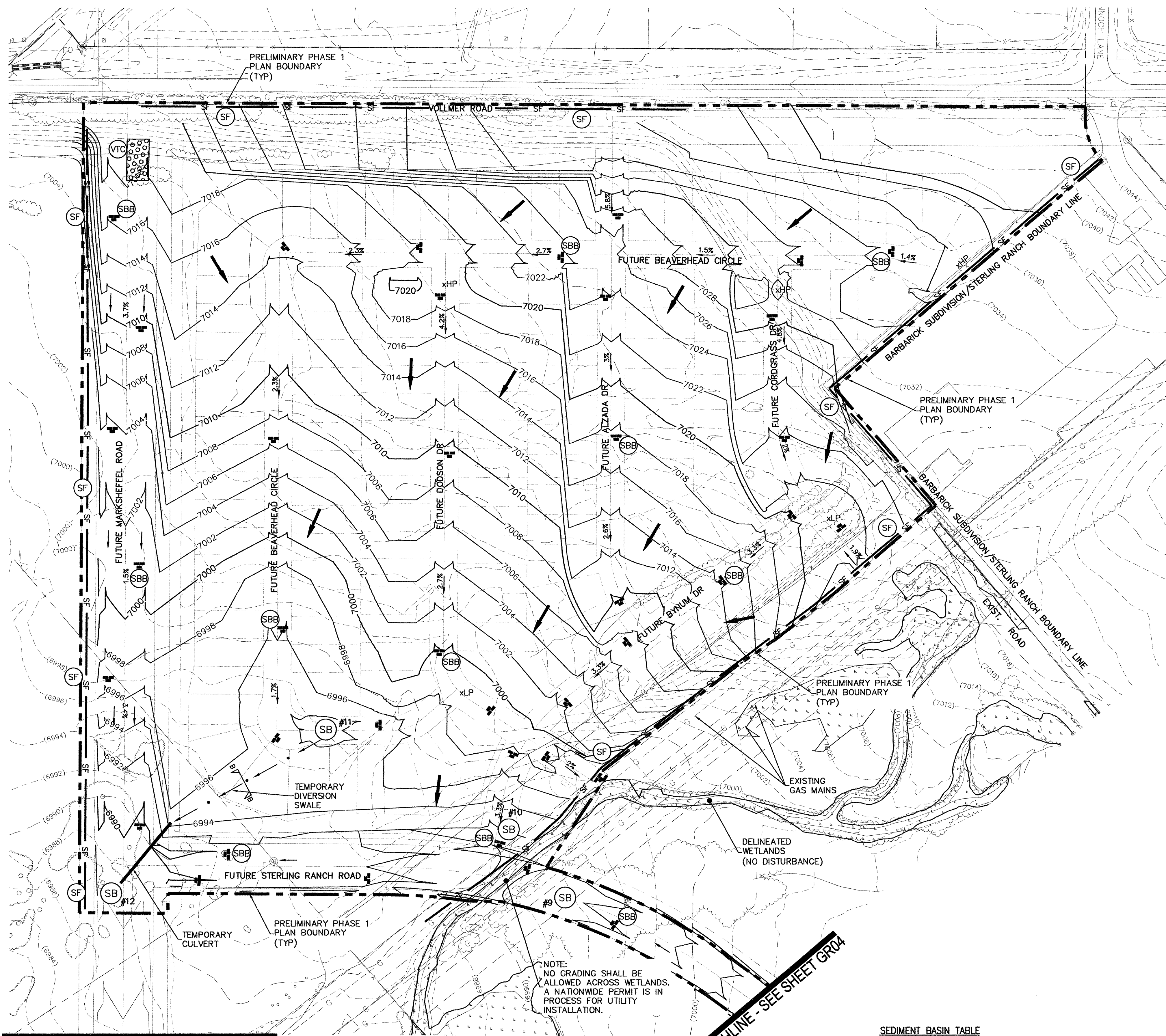
20 BOULDER CRESCENT, SUITE 110  
 COLORADO SPRINGS, CO 80903  
 PHONE: 719.555.5485  
 719.555.5485  
 719.448.8407  
**CIVIL CONSULTANTS, INC.**

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 VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

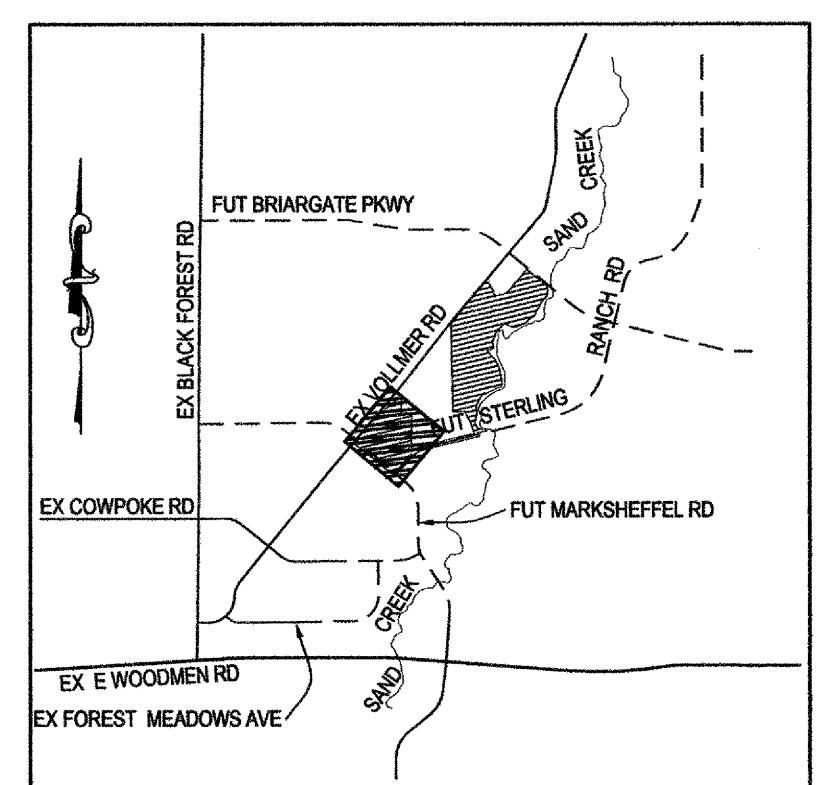
REVISIONS:  
 NO. DATE BY DESCRIPTION

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CAUTION



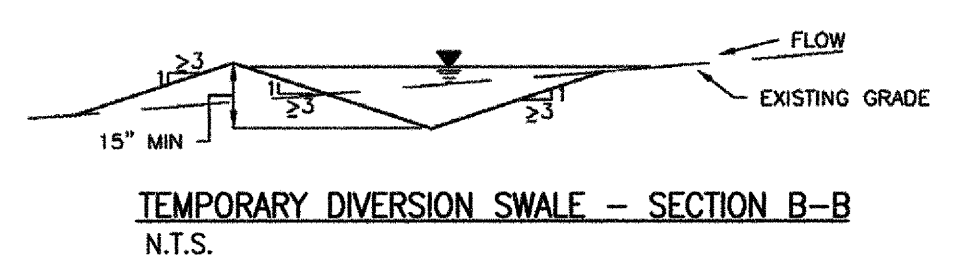
- LEGEND**
- xLP/xHP LOW POINT/ HIGH POINT
  - (6920) EXISTING INDEX CONTOUR (10')
  - (6918) EXISTING NOMINAL CONTOUR (2')
  - 6920 PROPOSED PHASE 1 ON-SITE INDEX CONTOUR (10')
  - 6918 PROPOSED PHASE 1 ON-SITE NOMINAL CONTOUR (2')
  - 6920 PROPOSED PHASE 1 (OFF-SITE) INDEX CONTOUR (10')
  - 6918 PROPOSED PHASE 1 (OFF-SITE) NOMINAL CONTOUR (2')
  - SF SILT FENCE
  - 2.00% FLOW DIRECTION & SLOPE
  - FLOW DIRECTION ARROW
  - EXISTING FLOW DIRECTION ARROW
  - IP INLET PROTECTION
  - SBB STRAW BALE DITCH CHECK
  - SF SILT FENCE
  - VTC VEHICLE TRACKING CONTROL
  - DELINEATED WETLANDS NO DISTURBANCE
  - PRELIMINARY PLAN BOUNDARY/LIMITS OF DISTURBANCE
  - 100YR FLOODPLAIN
  - TEMPORARY RIPRAP PAD
  - TRM TURF REINFORCEMENT MAT (NORTH AMERICAN GREEN SC-250 OR APPROVED EQUAL, SEE MANUFACTURE SPECIFICATIONS FOR INSTALLATION DETAILS)
  - SB TEMPORARY SEDIMENT BASIN
  - TEMPORARY DIVERSION SWALE



VICINITY MAP  
N.T.S.

**SEDIMENT BASIN TABLE**

SEDIMENT BASIN NO.	REQ'D VOLUME C.F.	BASIN WIDTH FT.	BASIN LENGTH FT.	ANTIC. WATER HT. FT.	MAX SPILLWAY LENGTH FT.	HOLE DIA. IN.	ROWS OF HOLES IN STANDPIPE
9	10,800	28.0	56.0	4	5	1/2	1
10	54,000	73.25	146.5	4	22	1 3/16	1
11	57,600	75.0	150.0	4	23	1 1/4	1
12	28,800	51.0	102.0	4	12	27/32	1



MATCHLINE - SEE STERLING RANCH OFF-SITE GRADING PLANS BY M&S CIVIL

MATCHLINE - SEE SHEET GR04

**STERLING RANCH - PHASE 1 ON-SITE**

**EARLY GRADING AND EROSION CONTROL PLAN**

PROJECT NO. 09-002 FILE: \\eng\Cons...Drawn\Water Main\W03.dwg DATE: 11/06/15  
 DESIGNED BY: DIM SCALE: N/A  
 DRAWN BY: JWP HORIZ: 1"=100' VERT: N/A  
 CHECKED BY: VAS SHEET 5 OF 6 **GR05**

20 BOULDER CREEK SUITE 110  
 COLORADO SPRINGS, CO 80903  
 PHONE 719.555.5465  
 V 719.555.5465  
 F 719.448.807

**CIVIL CONSULTANTS, INC.**

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VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

REVISIONS:

NO.	DATE	DESCRIPTION

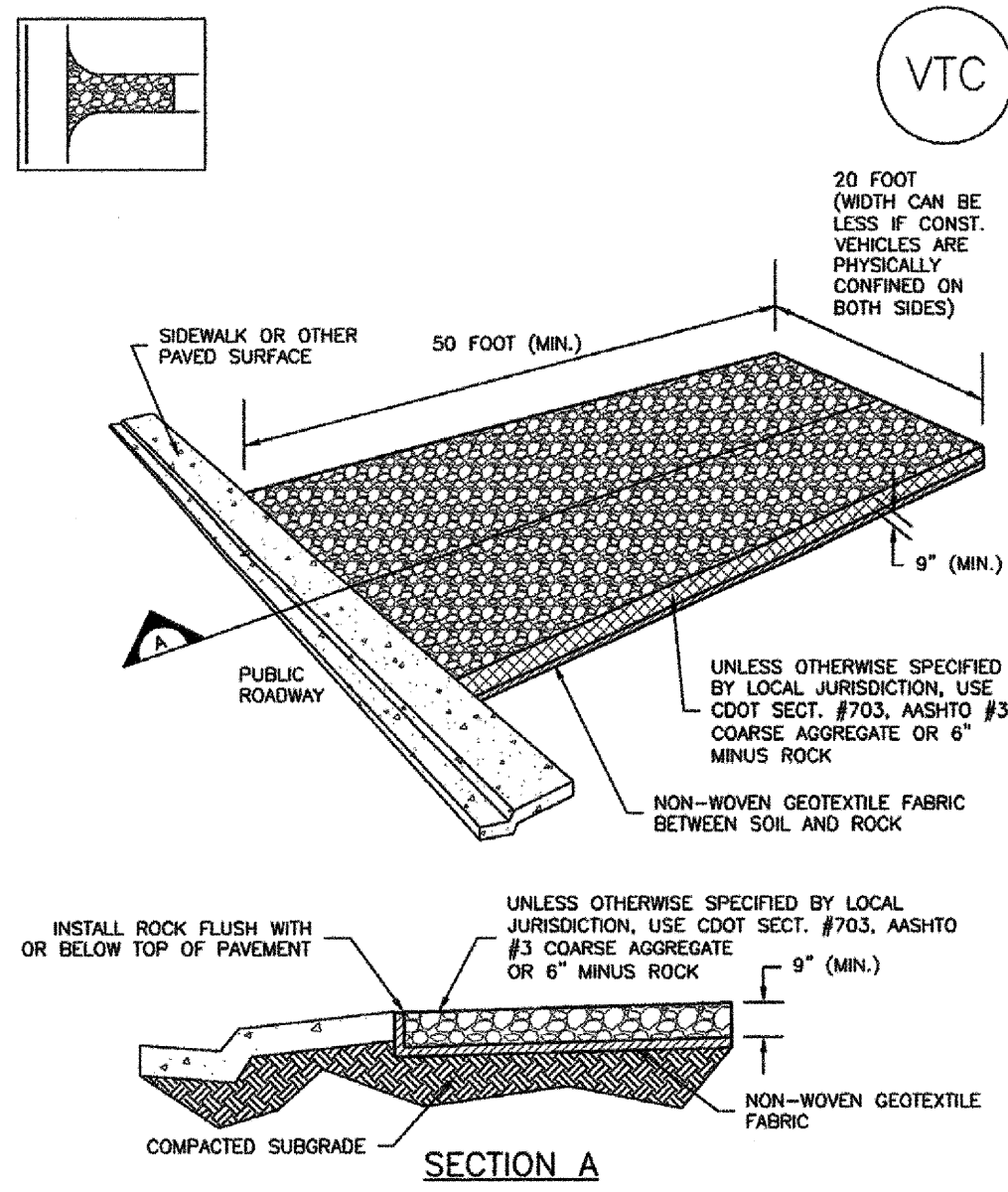
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CAUTION

Vehicle Tracking Control (VTC)

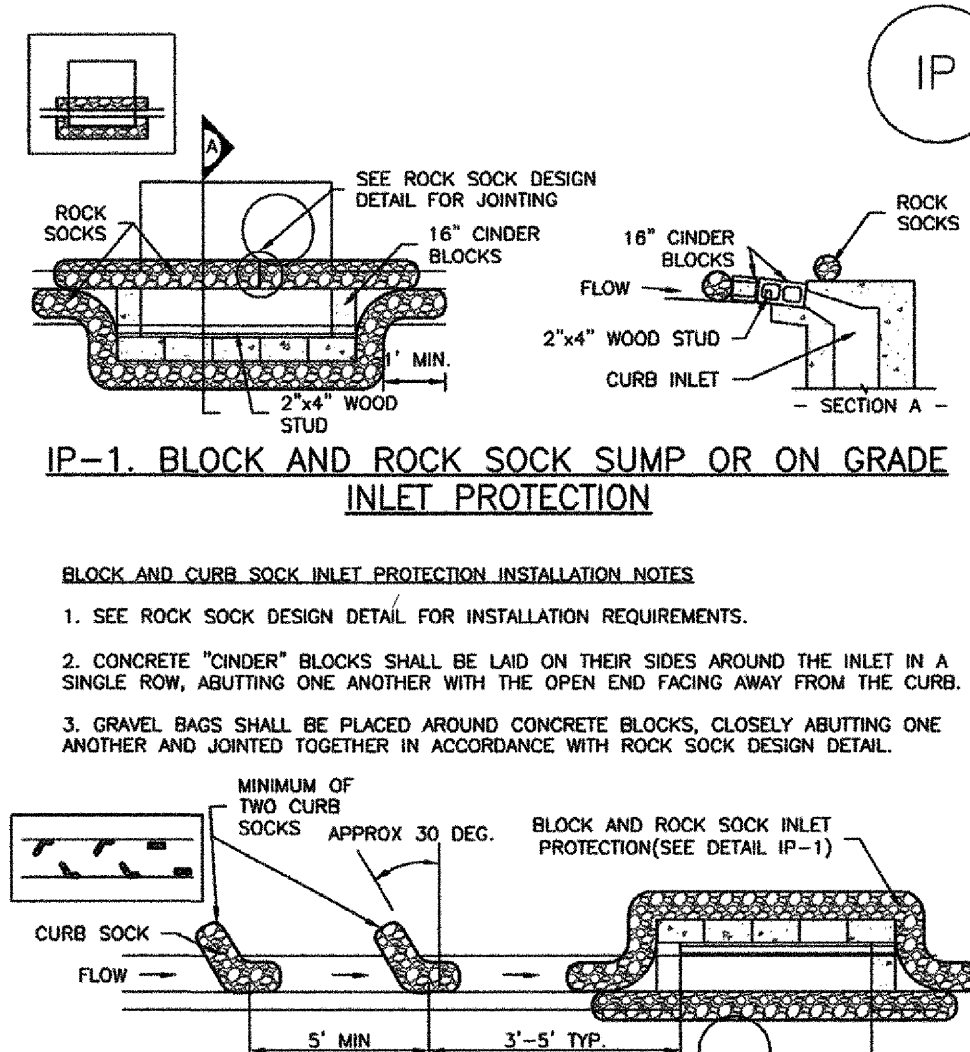
SM-4



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

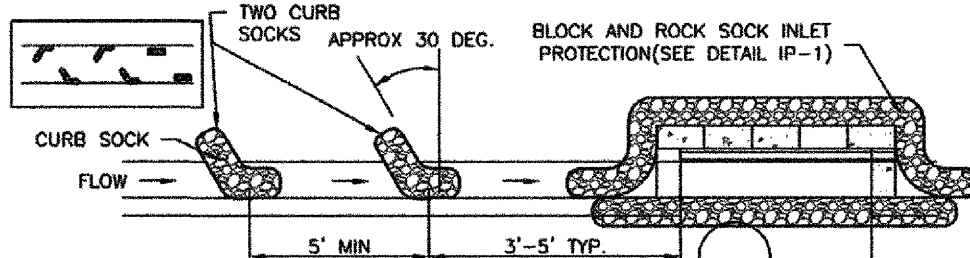
SC-6

Inlet Protection (IP)



IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

- BLOCK AND ROCK SOCK INLET PROTECTION INSTALLATION NOTES
1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.

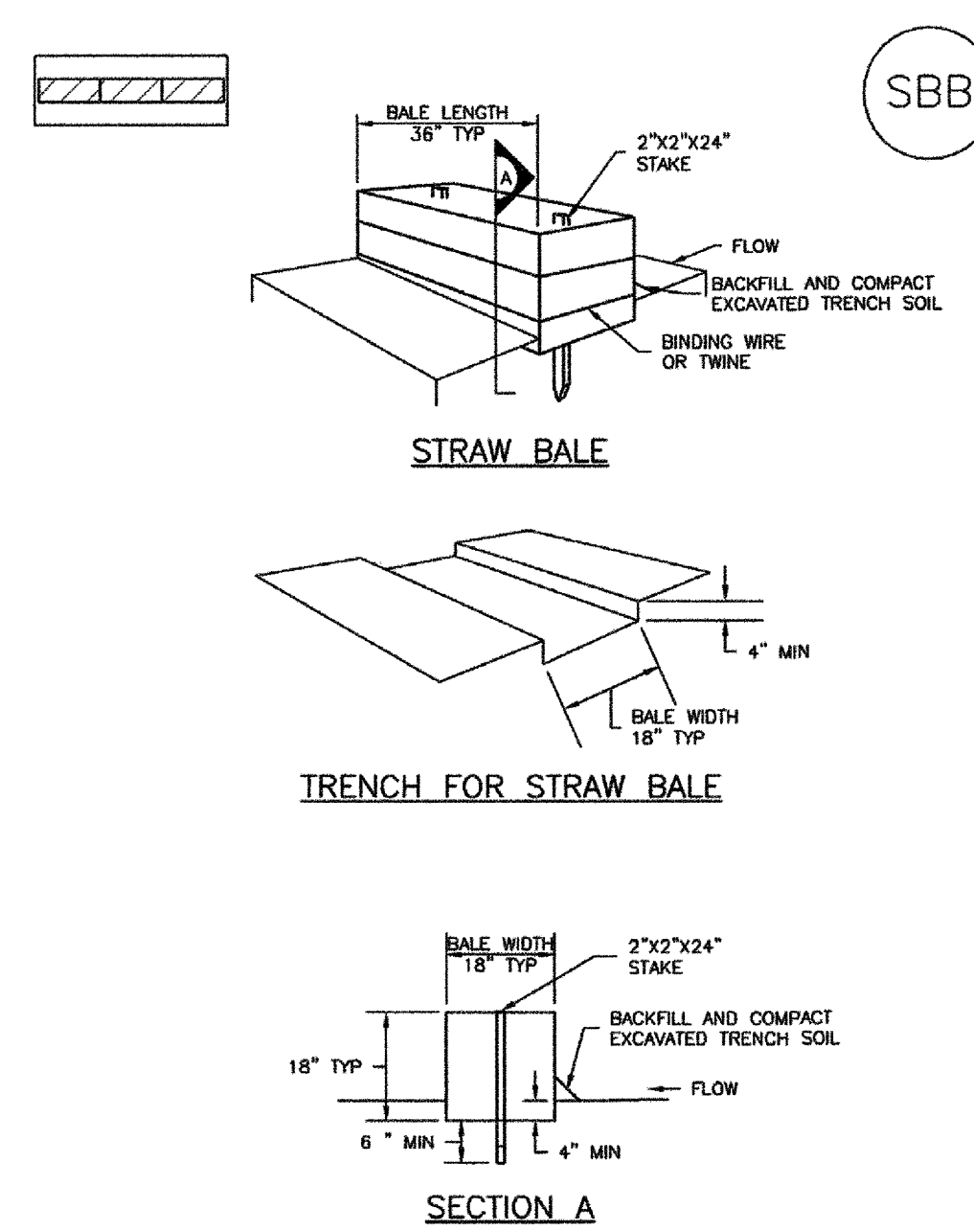


IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

- CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES
1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.
2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

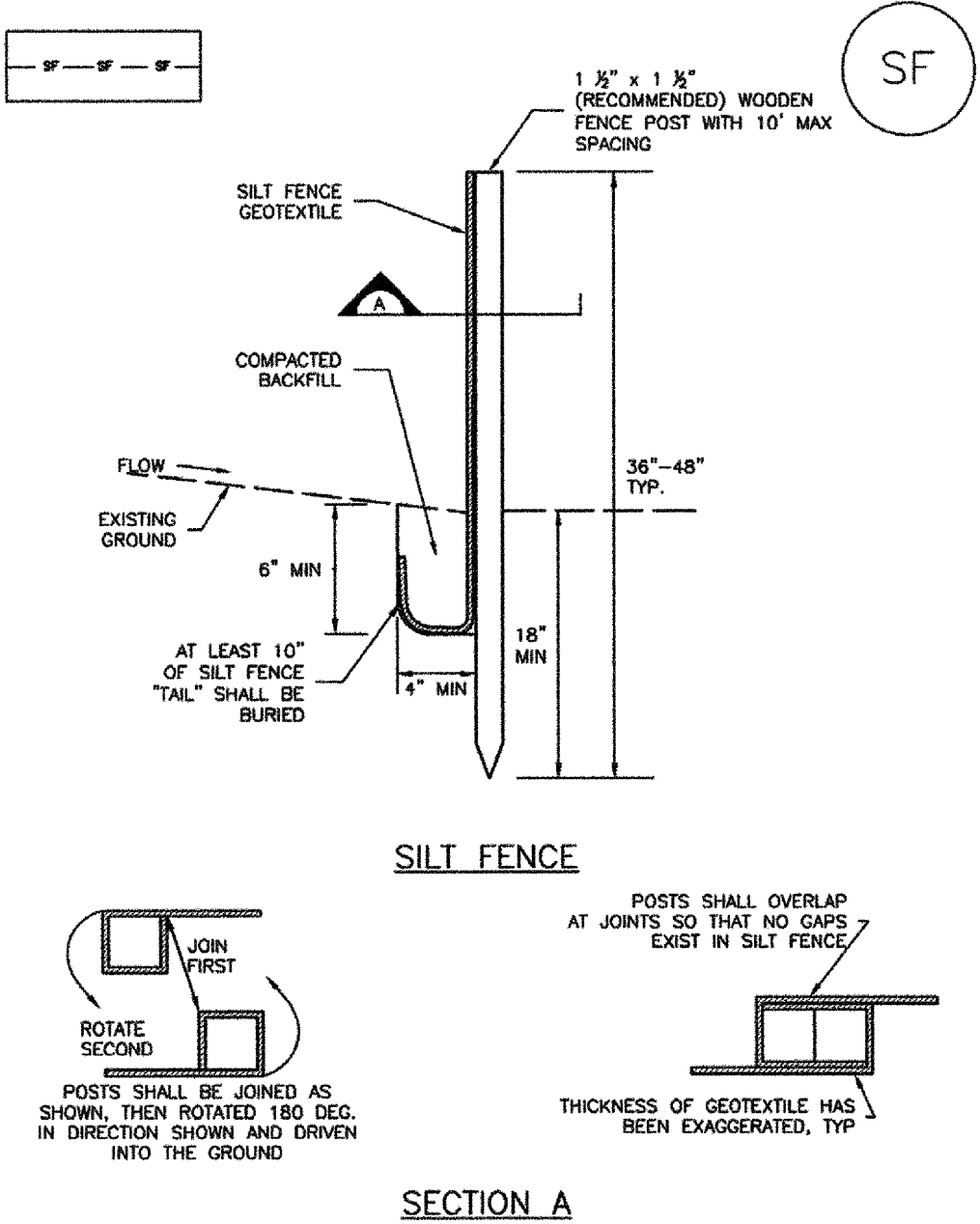
SC-3

Straw Bale Barrier (SBB)



Silt Fence (SF)

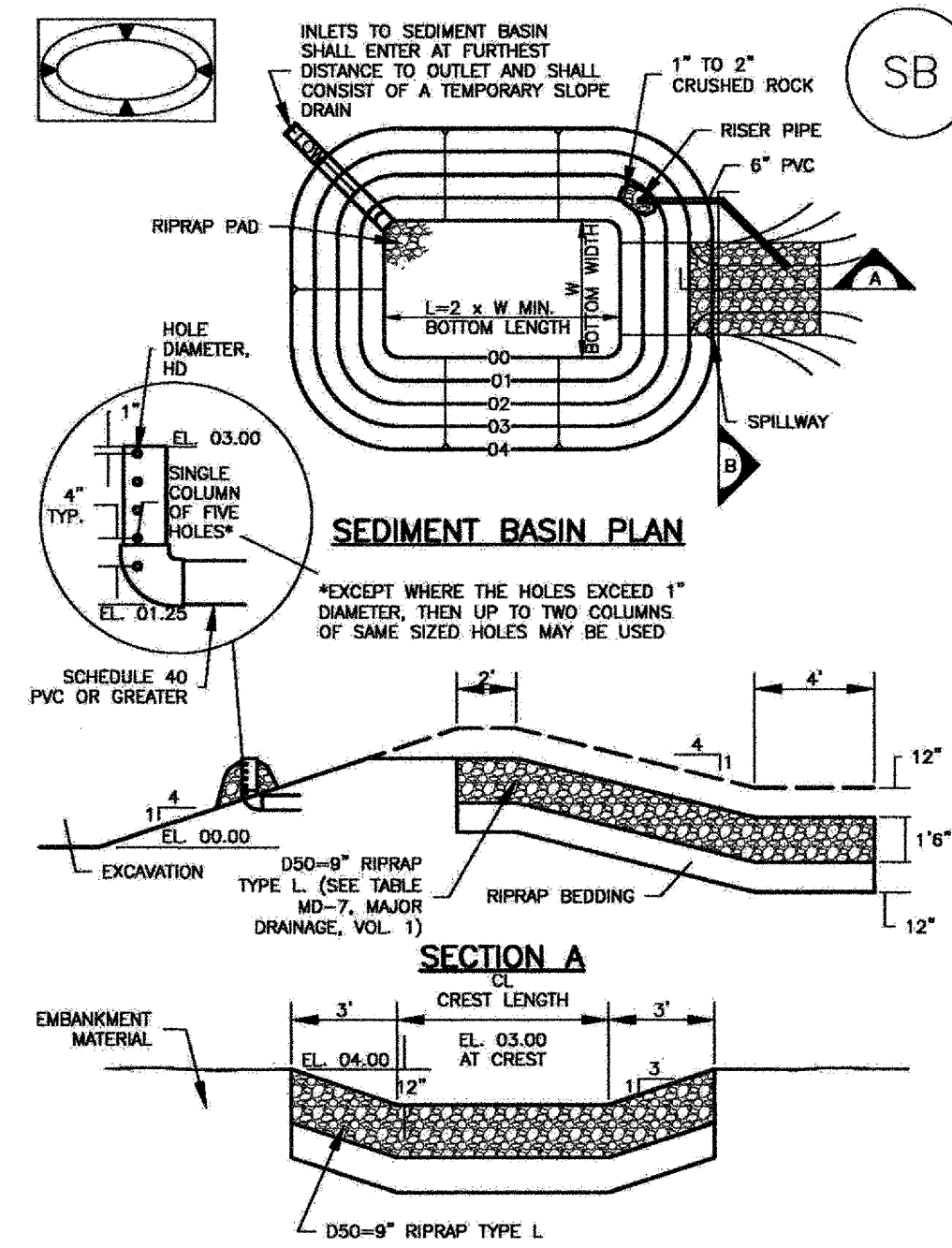
SC-1



SF-1. SILT FENCE

Sediment Basin (SB)

SC-7



SEEDING GUIDELINES:

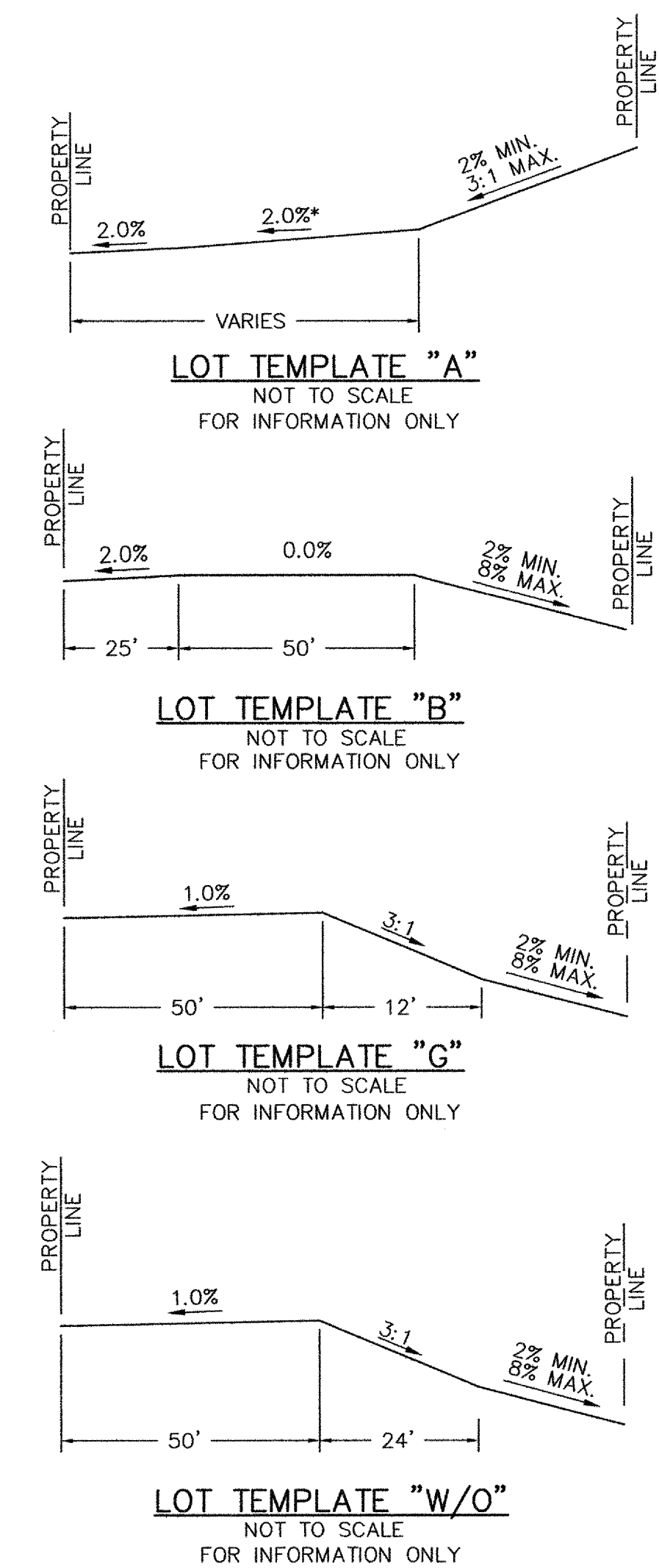
- SEEDBED PREPARATION
THE SEEDBED SHOULD BE WELL-SETTLED AND FIRM, BUT FRIABLE ENOUGH THAT THE SEED CAN BE PLACED AT THE SPECIFIED DEPTHS.
FERTILIZER
FERTILIZER SHOULD BE APPLIED AT A RATE OF 50 POUNDS OF AVAILABLE NITROGEN PER ACRE AND 40 POUNDS OF AVAILABLE PHOSPHATE PER ACRE.

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.

SURFACE ROUGHENING INSTALLATION NOTES:

- 1. 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.
2. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.



EROSION PROTECTION & REVEGETATION REQUIREMENTS PER U.S.D.A. SOIL CONSERVATION SERVICE GUIDELINES

Table with columns for SEEDING OPERATION, FERTILIZER, MULCH, and SEED. Includes details for species, rates, and application methods.

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



STERLING RANCH - PHASE 1 ON-SITE
EARLY GRADING AND EROSION CONTROL PLAN
PROJECT NO. 09-002
DATE: 11/06/15
SHEET 6 OF 6
GR06

FOR AND ON BEHALF OF
M&S CIVIL CONSULTANTS, INC.
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160
REVISIONS:
NO. DATE:
BY: DESCRIPTION: