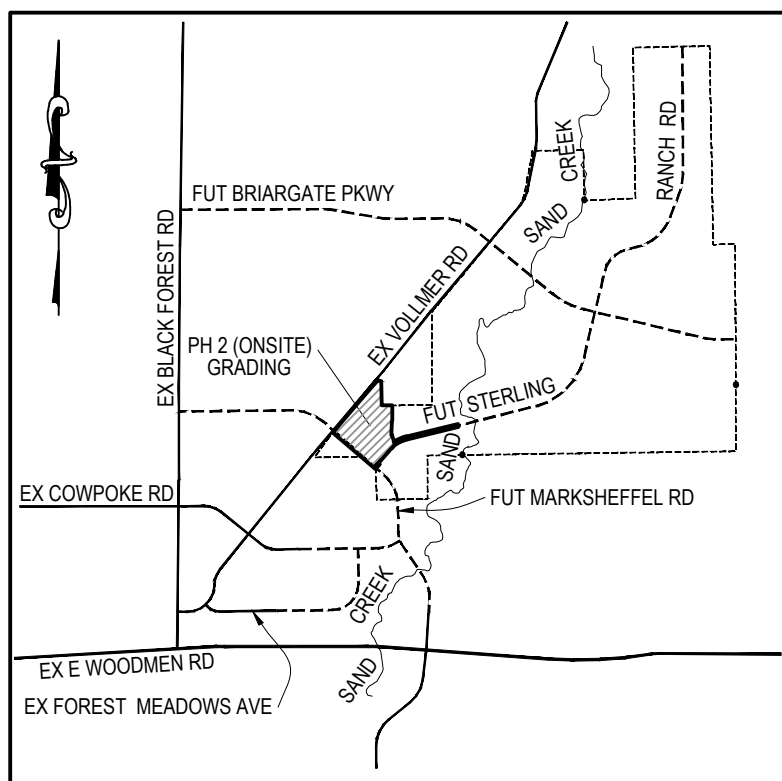


STERLING RANCH FILING NO. 2

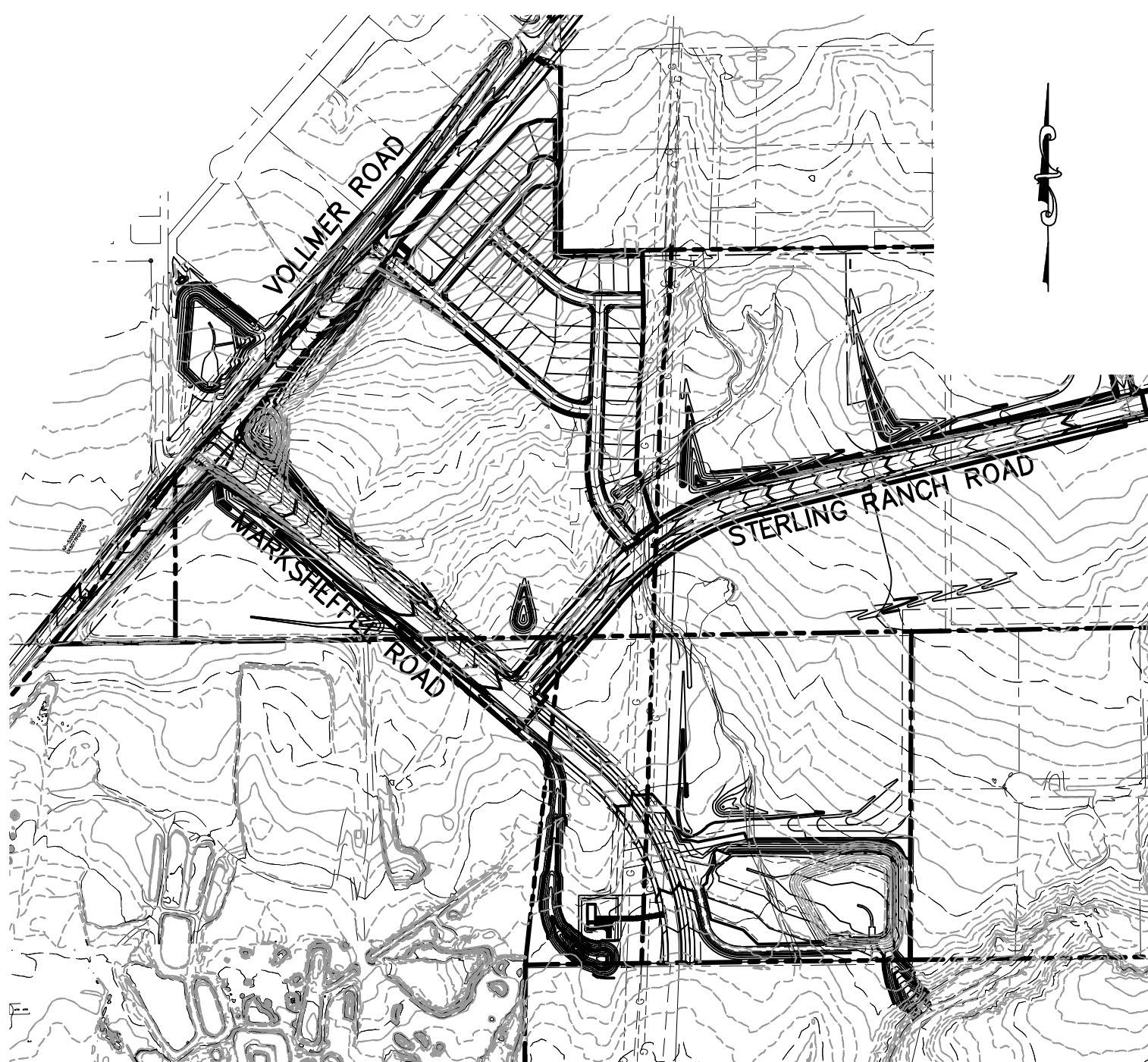
COUNTY OF EL PASO, STATE OF COLORADO

GRADING, EROSION, AND STORMWATER QUALITY CONTROL PLAN

MARCH 2018



VICINITY MAP
N.T.S.



SITE MAP
N.T.S.

AGENCIES

OWNER: SR LAND, LLC
20 BOULDER CRESCENT, SUITE 101
COLORADO SPRINGS, CO 80903
JIM MORLEY (719) 471-1742

CIVIL ENGINEER: M & S CIVIL CONSULTANTS, INC.,
20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
VIRGIL A. SANCHEZ P.E. (719) 955-5485

ENGINEERING DIVISION: EL PASO COUNTY PLANNING
AND COMMUNITY DEVELOPMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
JEFF RICE, P.E. (719) 520-6300

TRAFFIC ENGINEERING: EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS
3275 AKERS DRIVE
COLORADO SPRINGS, CO 80922
JENNIFER IRVINE, P.E. (719) 520-6460

WATER RESOURCES STERLING RANCH METRO DISTRICT
JDS-HYDRO CONSULTANTS
545 E. PIKES PEAK AVE., SUITE 300
COLORADO SPRINGS, CO 80903
JOHN MCGINN (719) 668-8769

FIRE DISTRICT: BLACK FOREST FIRE PROTECTION DISTRICT
11445 TEACHOUT ROAD
COLORADO SPRINGS, CO 80908
CHIEF BRYAN JACK (719) 498-4300

GAS DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80947
TIM WENDT (719) 668-3556

ELECTRIC DEPARTMENT: MOUNTAIN VIEW ELECTRIC
11140 E. WOODMEN ROAD
FALCON, CO 80831
(719) 495-2283

COMMUNICATIONS: QWEST COMMUNICATIONS
(U.N.C.C. LOCATORS) (800) 922-1987
AT&T (LOCATORS) (719) 635-3674

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 NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS REPORT.

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

OWNER'S STATEMENT:

THE OWNER WILL COMPLY WITH THE REQUIREMENTS
OF THE GRADING AND EROSION CONTROL PLAN.

JAMES F. MORLEY	DATE
SR LAND, LLC.	
20 BOULDER, SUITE 201	
COLORADO SPRINGS, CO 80903	

EL PASO COUNTY:

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

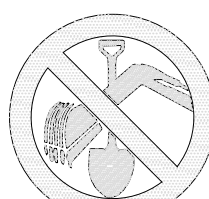
FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND
DEVELOPMENT CODE, DRAINAGE CRITERIA AND ENGINEERING CRITERIA MANUAL AS AMENDED


JENNIFER IRVINE, P.E.
COUNTY ENGINEER/ECM ADMINISTRATOR

DATE

SHEET INDEX

SHEET 1	TITLE SHEET
SHEET 2	OVERALL GRADING & EROSION CONTROL PLAN
SHEET 3	OVERALL GRADING & EROSION CONTROL PLAN
SHEET 4	FSD POND W-4
SHEET 5	OFFSITE DITCH GRADING & EROSION CONTROL
SHEET 6	FSD POND W-5 GEC
SHEET 7	POND W-5 RUNDOWN
SHEET 8	SWALE, GRADING & EROSION CONTROL PLAN
SHEET 9	SWALE, GRADING & EROSION CONTROL PLAN
SHEET 10	TEMP. GRADING & EROSION CONTROL PLAN
SHEET 11	TEMP. GRADING & EROSION CONTROL PLAN
SHEET 12	EROSION CONTROL DETAILS



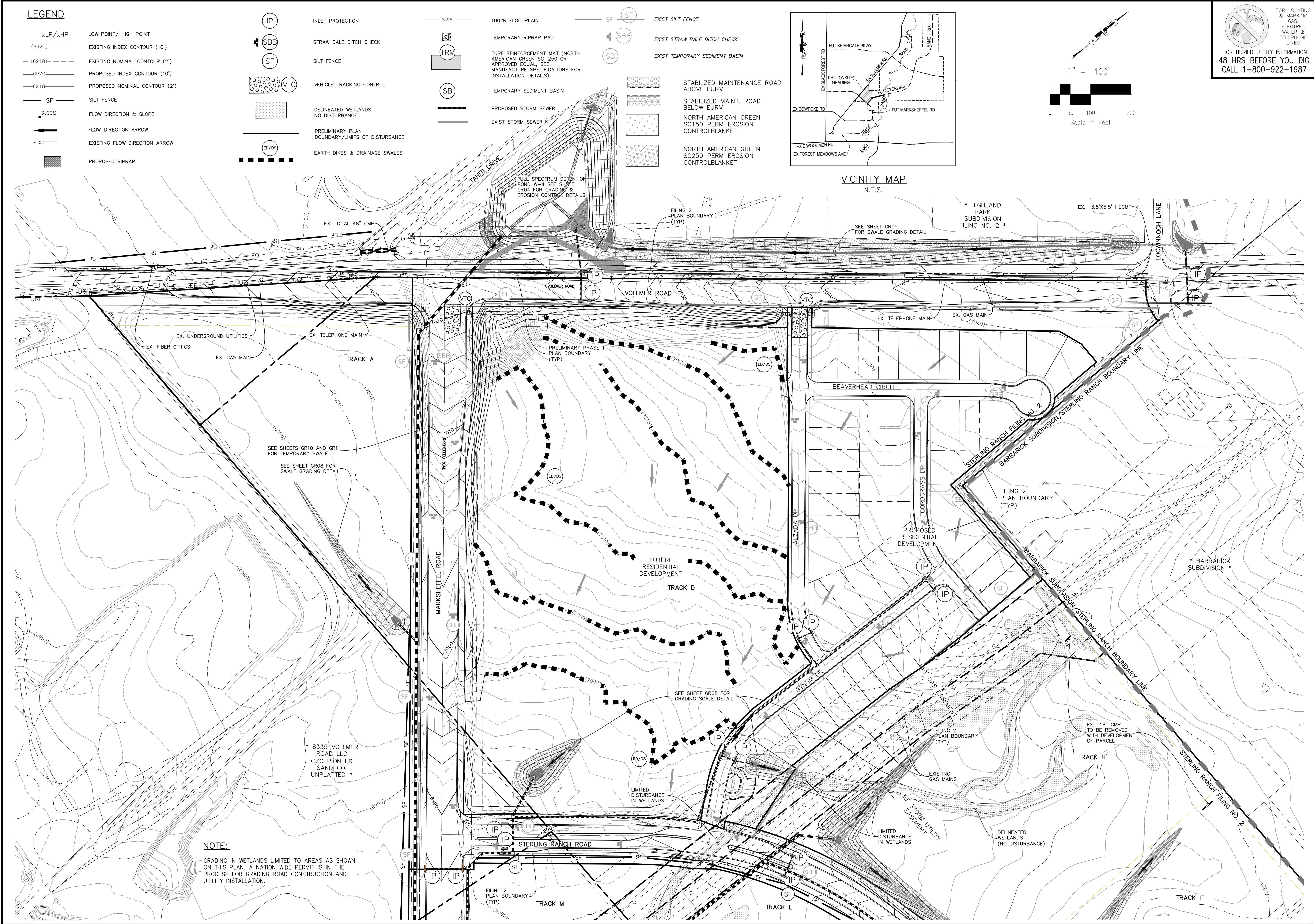
 FOR LOCATING
& MARKING
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ELECTRIC,
WATER &
TELEPHONE
LINES

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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.

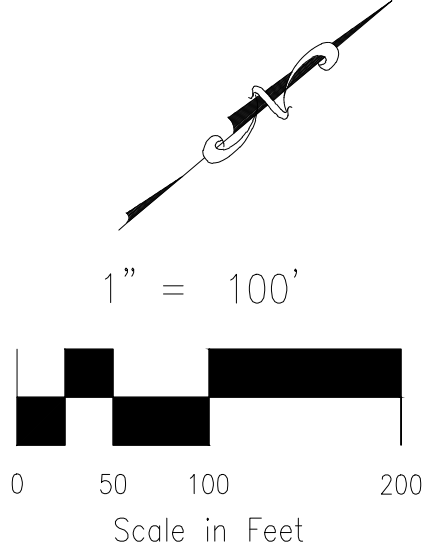
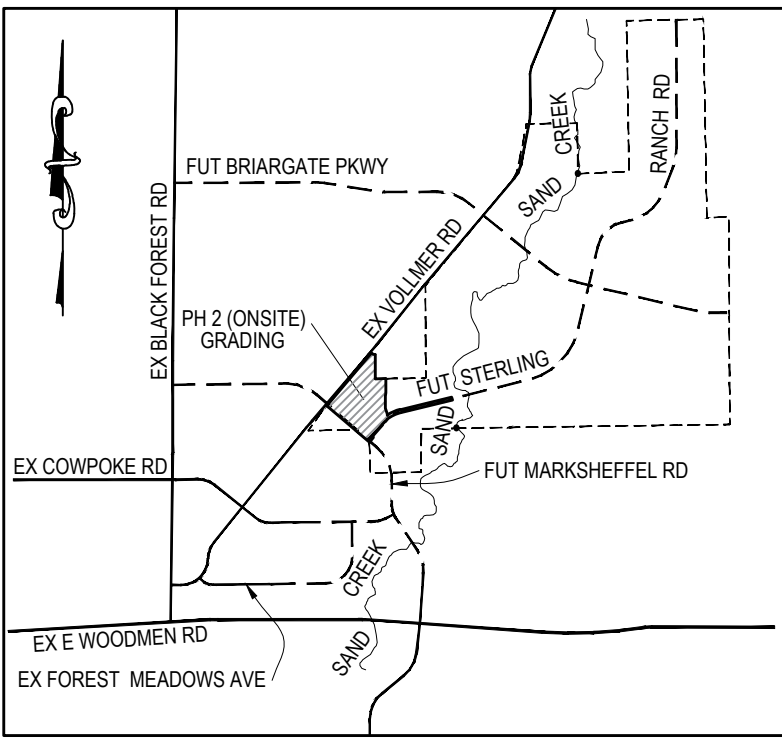
CAUTION

File: O:\09002A\Sterling Ranch District - Filing 2\dwg\Const Dwg\Grading & Erosion Control\Filing 2\GR01.dwg Plotstamp: 3/14/2018 9:16 AM



LEGEND

- xLP/xHP LOW POINT/ HIGH POINT
- (6920) EXISTING INDEX CONTOUR (10')
- (6918) EXISTING NOMINAL CONTOUR (2')
- 6920 PROPOSED INDEX CONTOUR (10')
- 6918 PROPOSED NOMINAL CONTOUR (2')
- SF SILT FENCE
- 2.00% FLOW DIRECTION & SLOPE
- FLOW DIRECTION ARROW
- EXISTING FLOW DIRECTION ARROW
- PROPOSED RIPRAP
- 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
- ED/DS EARTH DIKES & DRAINAGE SWALES
- 100YR 100YR FLOODPLAIN
- TRM TEMPORARY RIPRAP PAD
- TURF REINFORCEMENT MAT (NORTH AMERICAN GREEN SC-250 OR APPROVED EQUAL, SEE MANUFACTURE SPECIFICATIONS FOR INSTALLATION DETAILS)
- SB TEMPORARY SEDIMENT BASIN
- PROPOSED STORM SEWER
- EXIST STORM SEWER
- SF EXIST SILT FENCE
- SBB EXIST STRAW BALE DITCH CHECK
- SB EXIST TEMPORARY SEDIMENT BASIN
- STABILIZED MAINTENANCE ROAD ABOVE EURV
- STABILIZED MAINT. ROAD BELOW EURV
- NORTH AMERICAN GREEN SC150 PERM EROSION CONTROLBLANKET
- NORTH AMERICAN GREEN SC250 PERM EROSION CONTROLBLANKET



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STERLING RANCH FILING NO. 2

OVERALL GEC PLAN

PROJECT NO. 09-002

DATE: 03/14/2018

SCALE: HORIZONTAL: 1"=100' VERTICAL: N/A

DESIGNED BY: ET

DRAWN BY: BB

CHECKED BY: ET

SHEET 2 OF 12

GR02

20 BOULDER CRESCENT SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

APPROVED BY: DATE:

BY: DESCRIPTION:

NO. DATE:

REVISIONS:

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

- GRADING NOTES:**
1. ALL PROPOSED CONTOURS ARE TO FINISHED GRADE.
 2. EARTHEN CUT AND FILL SLOPES SHALL BE 3:1 MAXIMUM. SLOPES IN EXCESS OF 4:1 SHALL BE COVERED WITH SOIL RETENTION BLANKET OVER 4" MIN. THICKNESS OF TOPSOIL AND SEEDED.
 3. IF THE PROJECT IS CONSTRUCTED DURING THE SUMMER WHEN SEEDING IS NOT ALLOWED, APPLY 1-1/2 TONS OF CERTIFIED WEED FREE MULCH PER ACRE MECHANICALLY CRIMPED INTO THE SOIL IN COMBINATION WITH AN ORGANIC MULCH TACKIFIER.
 4. PRIOR TO ANY CONSTRUCTION ACTIVITIES THE PROPOSED SILT FENCE SHOWN ON THE EROSION CONTROL SHEET SHALL BE CONSTRUCTED. THE FENCE SHALL BE REMOVED UPON THE LATER OF STABILIZATION OF THE SITE OR COMPLETION OF CONSTRUCTION.
 5. TO REDUCE THE POTENTIAL FOR CLOGGING OF DEBRIS GRATES, NO STRAW MULCH SHALL BE USED WITHIN THE EURV OR WOCV OF A DETENTION BASIN. INSTEAD, EROSION CONTROL BLANKETS SHALL BE INSTALLED FOR A WIDTH OF AT LEAST 6 FEET ON EITHER SIDE OF CONCRETE LOW-FLOW CHANNELS. THE BLANKETS SHALL COMPLY WITH THE MATERIALS AND INSTALLATION REQUIREMENTS FOR EROSION CONTROL BLANKETS (STRAW COCONUT OR 100 PERCENT COCONUT). SITE-SPECIFIC CONDITIONS MAY REQUIRE ADDITIONAL BLANKET OR OTHER EROSION CONTROL MEASURES.

POND W-4 FULL SPECTRUM DETENTION BASIN DATA	
WQ WATER SURFACE EL =	7016.64
WQ VOLUME=	1.75 AC-FT
EURV WATER SURFACE EL =	7017.65
EURV VOLUME=	2.65 AC-FT
100-YR WATER SURFACE EL=	7022.21
SPILLWAY CREST EL=	7022.21
TOP OF EMBANKMENT EL=	7024.71
100-YR VOLUME=	7.67 AC-FT
100-YR INFLOW =	368.4 CFS
100-YR RELEASE =	289.4 CFS



STERLING RANCH FILING NO. 2

FULL SPECTRUM DETENTION POND W-4

PROJECT NO. 09-002

DESIGNED BY: ET

DRAWN BY: JWP

CHECKED BY: ET

DATE: 03/14/2018

SCALE: HORIZONTAL: 1"=20' VERTICAL: N/A

SHEET 4 OF 12

GR04

20 BOULDER CREEK SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

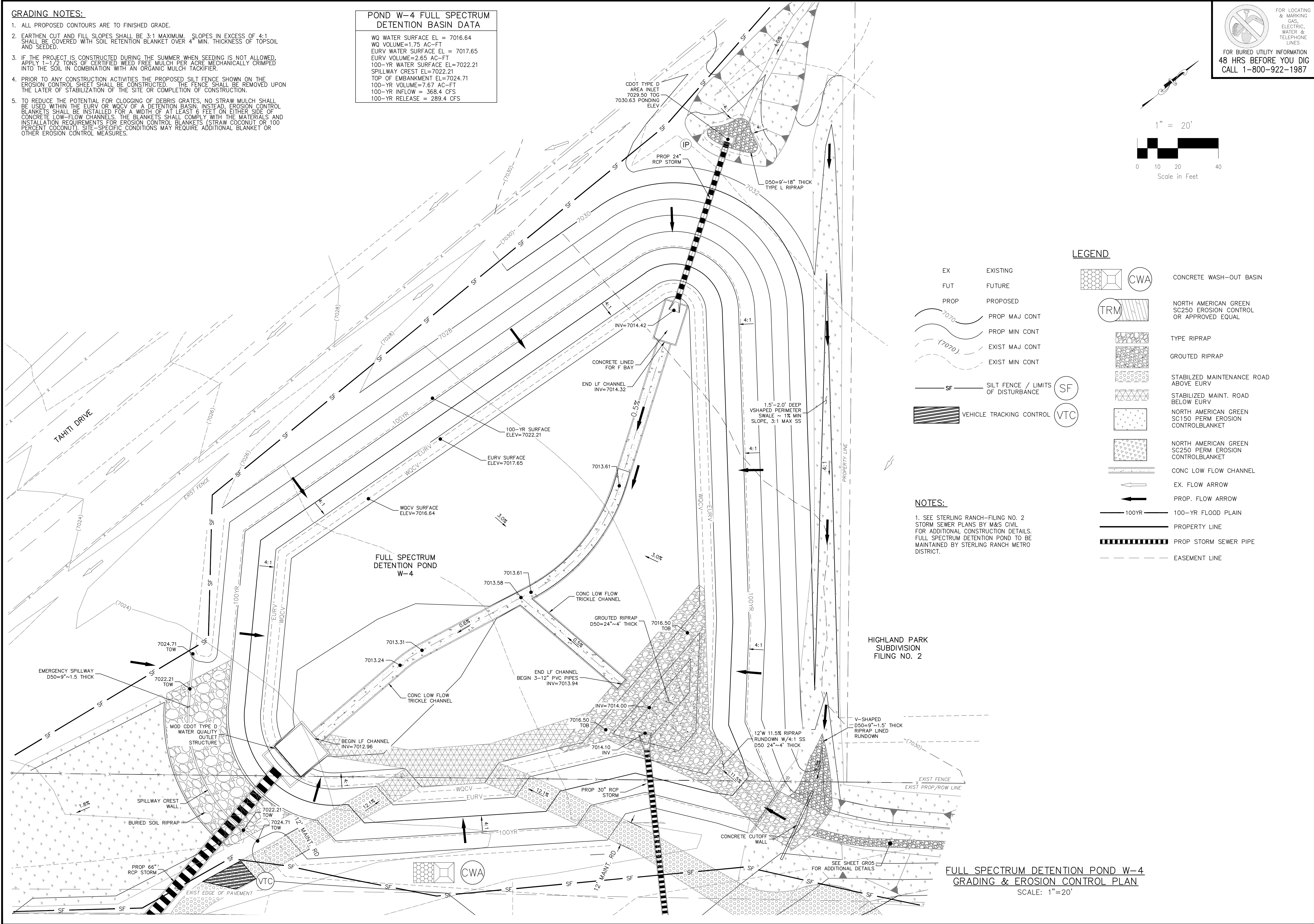
CIVIL CONSULTANTS, INC.

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

REVISIONS:
NO. DATE: BY: DESCRIPTION: APPROVED BY: DATE:

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CAUTION



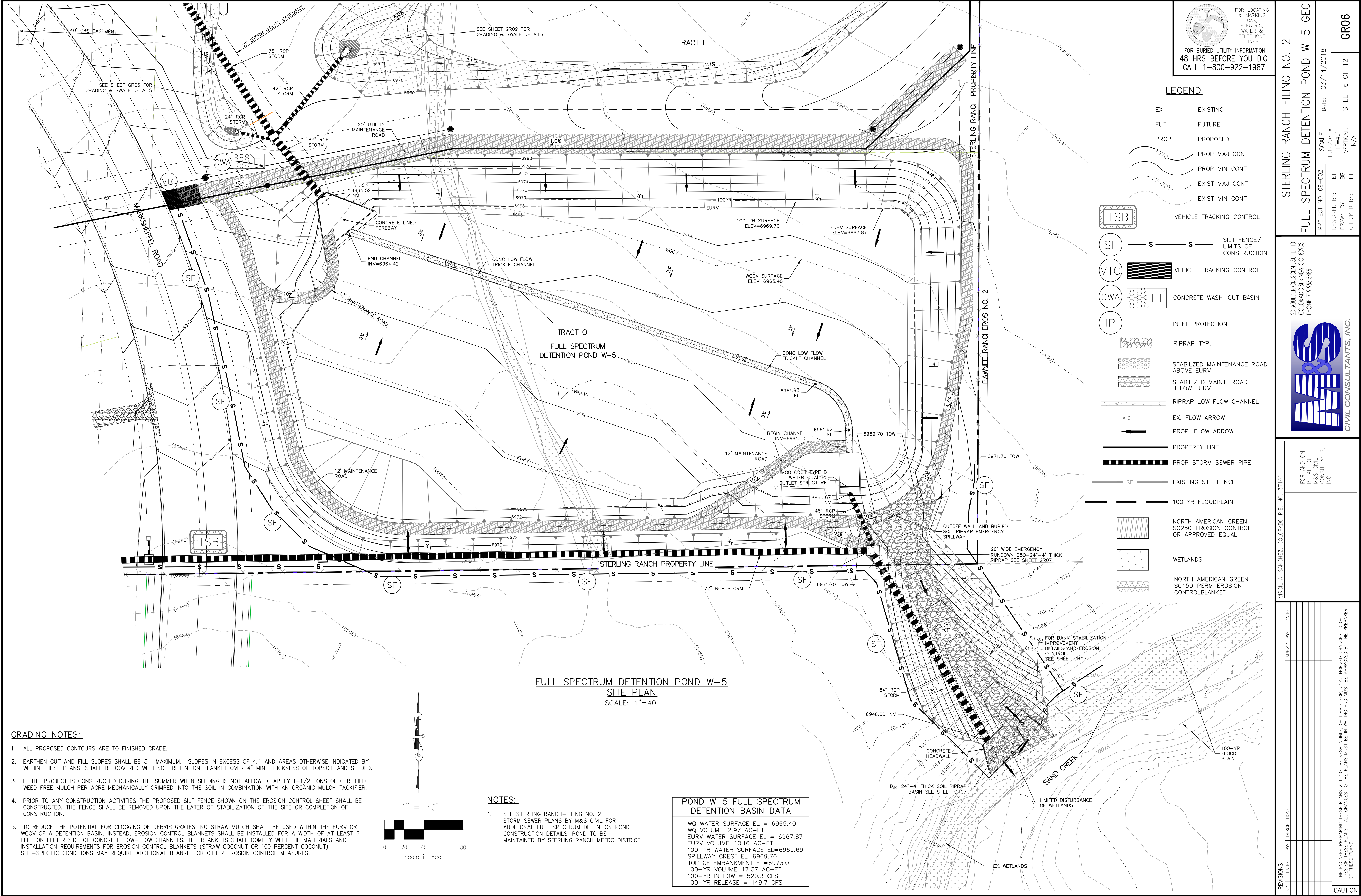
LEGEND

EX	EXISTING		CONCRETE WASH-OUT BASIN
FUT	FUTURE		NORTH AMERICAN GREEN SC250 EROSION CONTROL OR APPROVED EQUAL
PROP	PROPOSED		TYPE RIPRAP
	PROP MAJ CONT		GROUTED RIPRAP
	PROP MIN CONT		STABILIZED MAINTENANCE ROAD ABOVE EURV
	EXIST MAJ CONT		STABILIZED MAINT. ROAD BELOW EURV
	EXIST MIN CONT		NORTH AMERICAN GREEN SC150 PERM EROSION CONTROLBLANKET
SF	SILT FENCE / LIMITS OF DISTURBANCE		NORTH AMERICAN GREEN SC250 PERM EROSION CONTROLBLANKET
	VEHICLE TRACKING CONTROL		CONC LOW FLOW CHANNEL
	EX. FLOW ARROW		PROP. FLOW ARROW
	100-YR FLOOD PLAIN		PROPERTY LINE
	PROP STORM SEWER PIPE		EASEMENT LINE

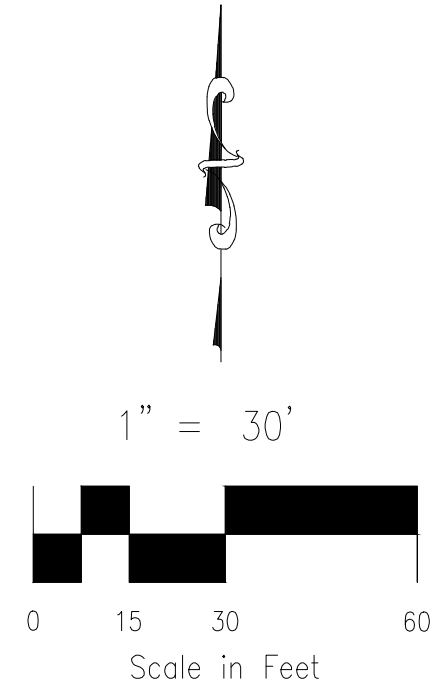
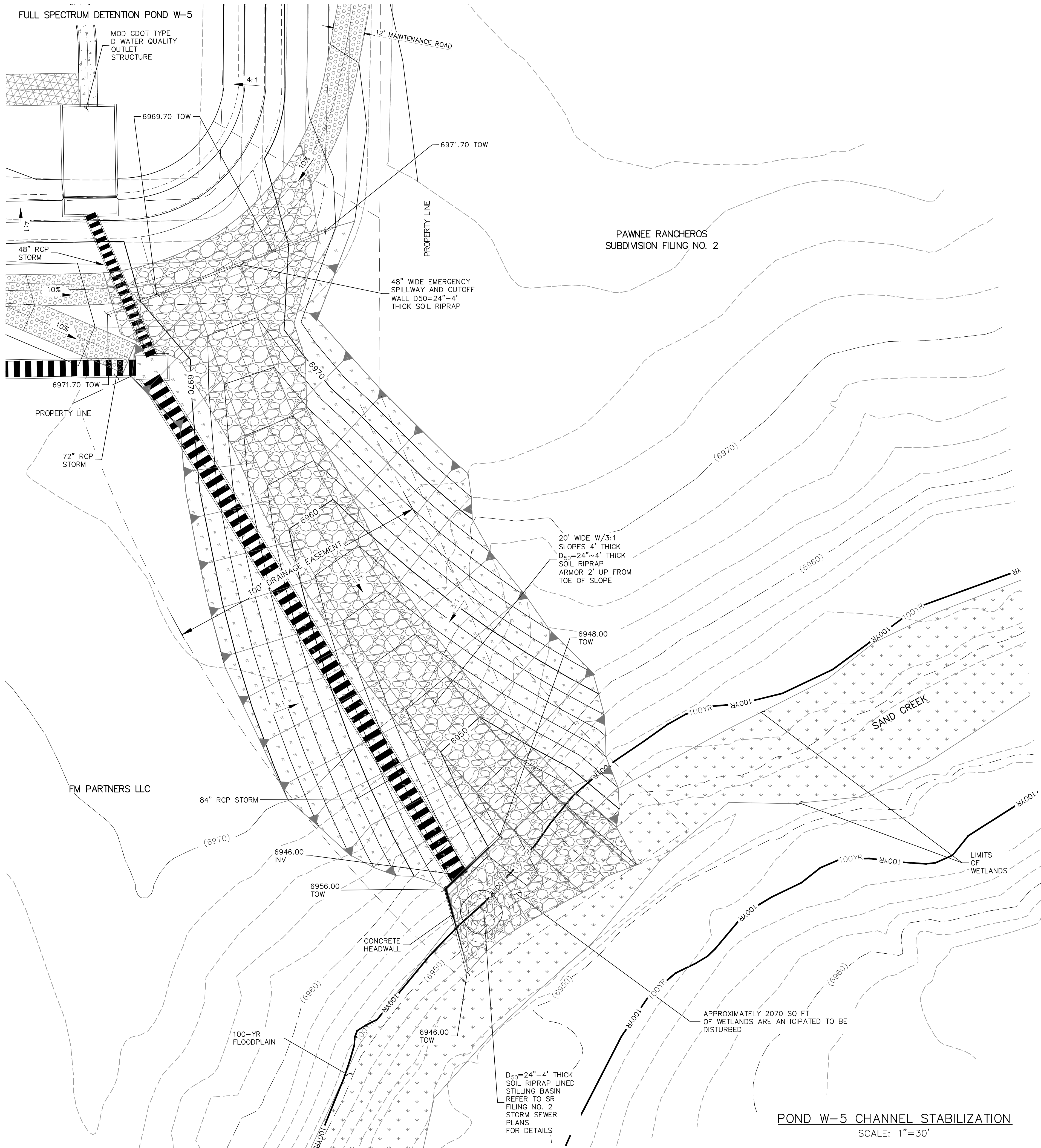
NOTES:

1. SEE STERLING RANCH-FILING NO. 2
STORM SEWER PLANS BY M&S CIVIL
FOR ADDITIONAL CONSTRUCTION DETAILS.
FULL SPECTRUM DETENTION POND TO BE
MAINTAINED BY STERLING RANCH METRO
DISTRICT.

FULL SPECTRUM DETENTION POND W-4
GRADING & EROSION CONTROL PLAN
SCALE: 1"=20'



File: 0:\00002\Sterling Ranch District - Filing 2\Map\Const Dwg\Grading & Erosion Control\Filing 2\GR07.dwg Plotstamp: 3/14/2018 10:38 AM



LEGEND

- | | | | |
|------|--------------------------|--|--|
| EX | EXISTING | | STABILIZED MAINTENANCE ROAD ABOVE EURL |
| FUT | FUTURE | | STABILIZED MAINT. ROAD BELOW EURL |
| PROP | PROPOSED | | RIPRAP LOW FLOW CHANNEL |
| | PROP MAJ CONT | | EX. FLOW ARROW |
| | PROP MIN CONT | | PROP. FLOW ARROW |
| | EXIST MAJ CONT | | PROPERTY LINE |
| | EXIST MIN CONT | | PROP STORM SEWER PIPE |
| | SF | | EXISTING SILT FENCE |
| | VEHICLE TRACKING CONTROL | | 100 YR FLOODPLAIN |
| | CONCRETE WASH-OUT BASIN | | NORTH AMERICAN GREEN SC250 EROSION CONTROL OR APPROVED EQUAL |
| | INLET PROTECTION | | WETLANDS |
| | RIPRAP TYP. | | NORTH AMERICAN GREEN SC150 PERM EROSION CONTROL BLANKET |
| | | | CHECK DAM |

NOTE:
SEE STERLING RANCH FILING NO. 2 STORM SEWERS
PLANS MS CIVIL FOR ADDITIONAL CONSTRUCTION DETAILS

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STERLING RANCH FILING NO. 2

POND W-5 RUNDOWN

PROJECT NO. 09-002
DATE: 03/14/2018
SCALE: 1"=30'
HORIZONTAL: 1"=30'
VERTICAL: N/A
DESIGNED BY: ET
DRAWN BY: BB
CHECKED BY: ET

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

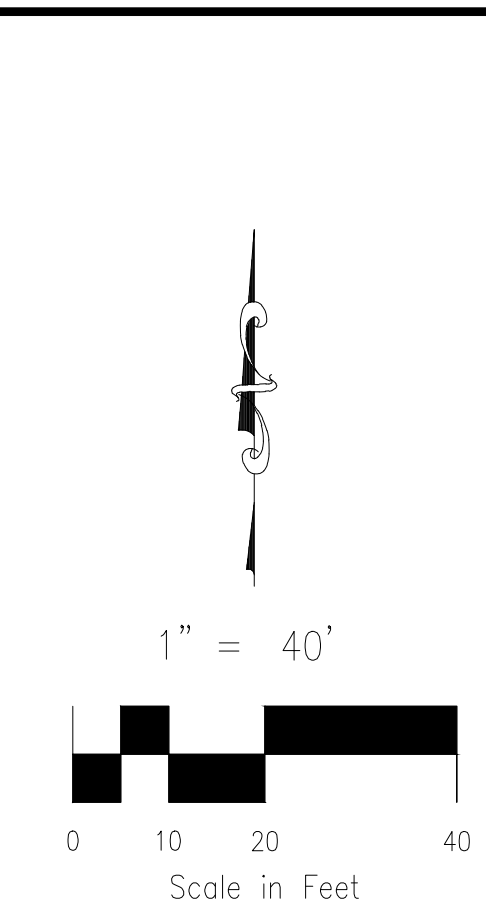
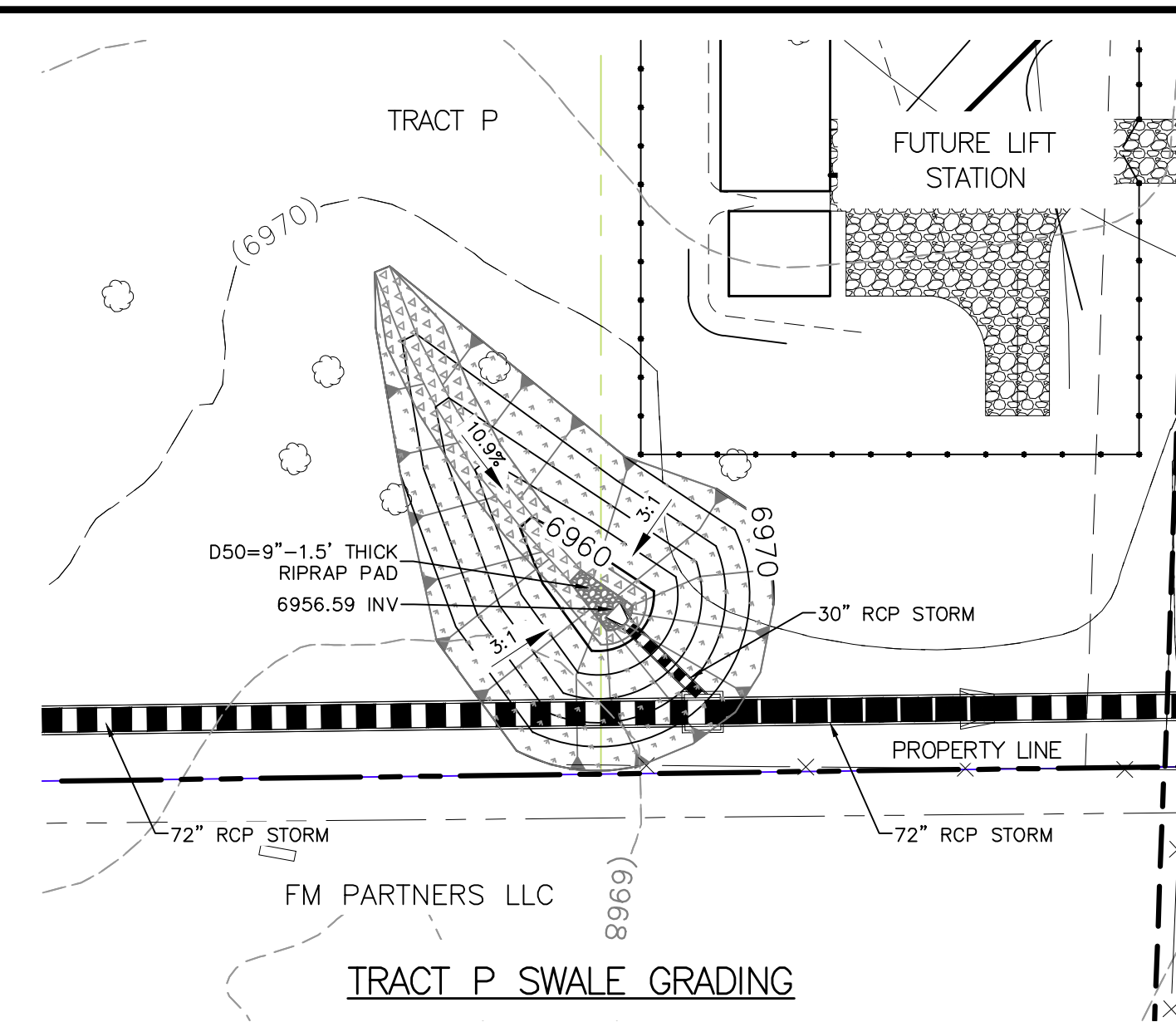
FOR AND ON BEHALF OF
M&S CIVIL CONSULTANTS, INC.

REVISIONS:
NO. DATE: BY: DESCRIPTION:

APPROVED BY: DATE:

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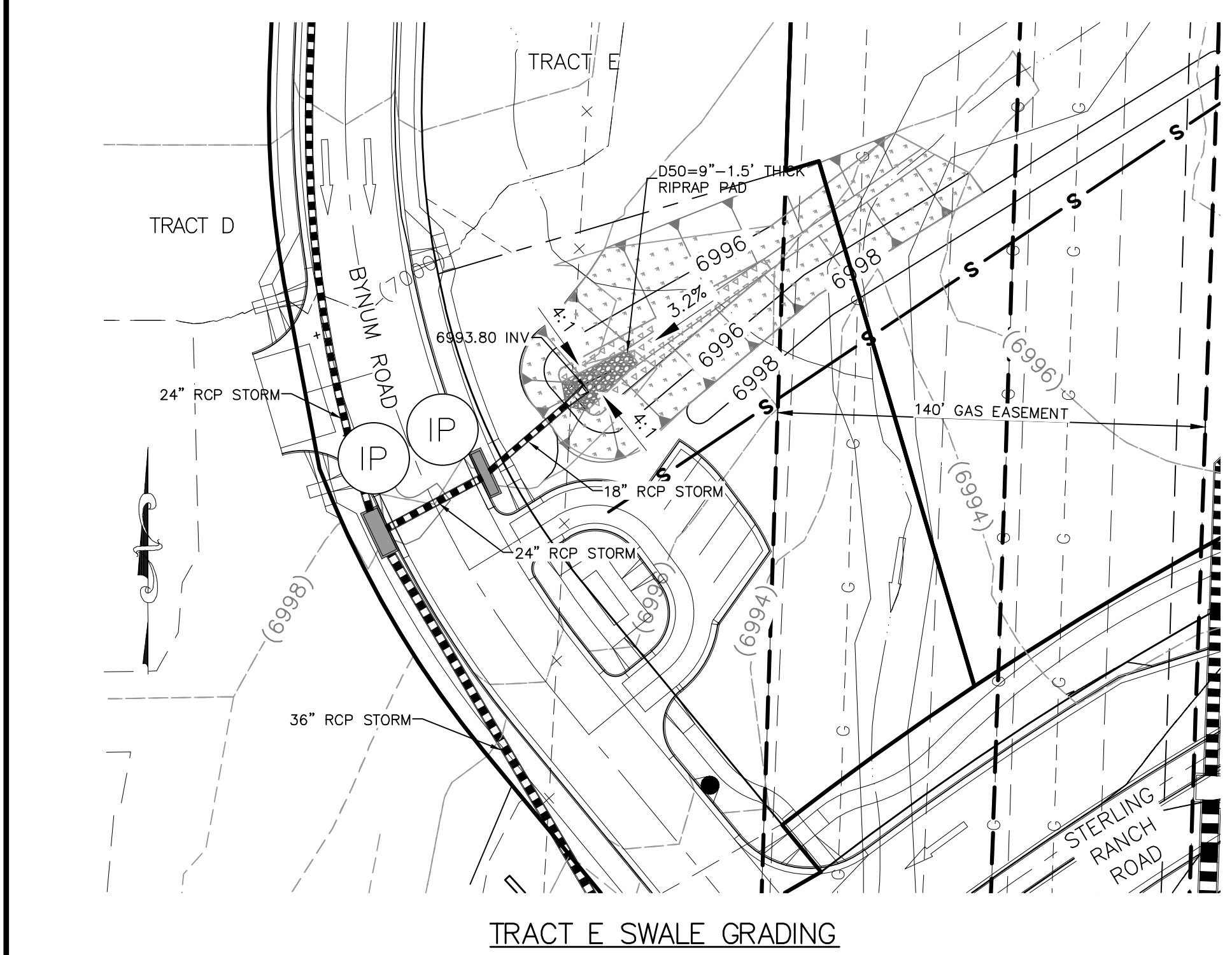
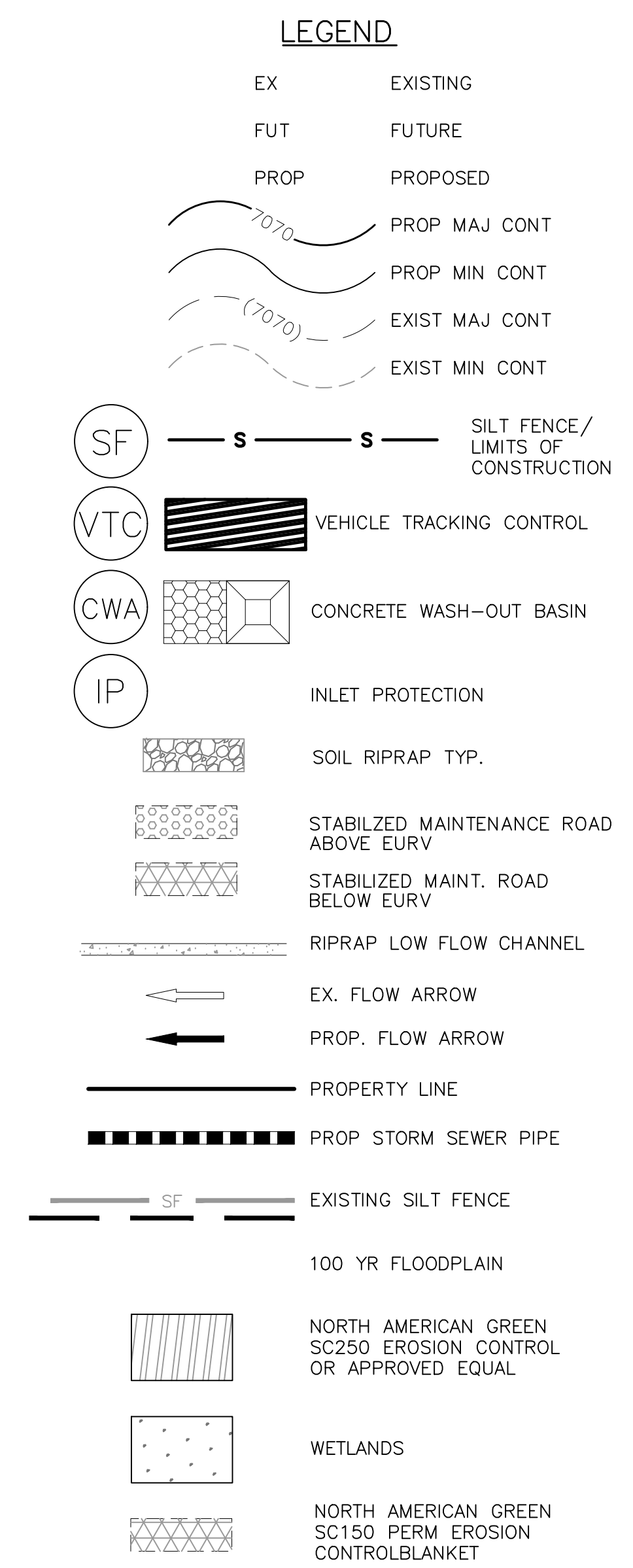
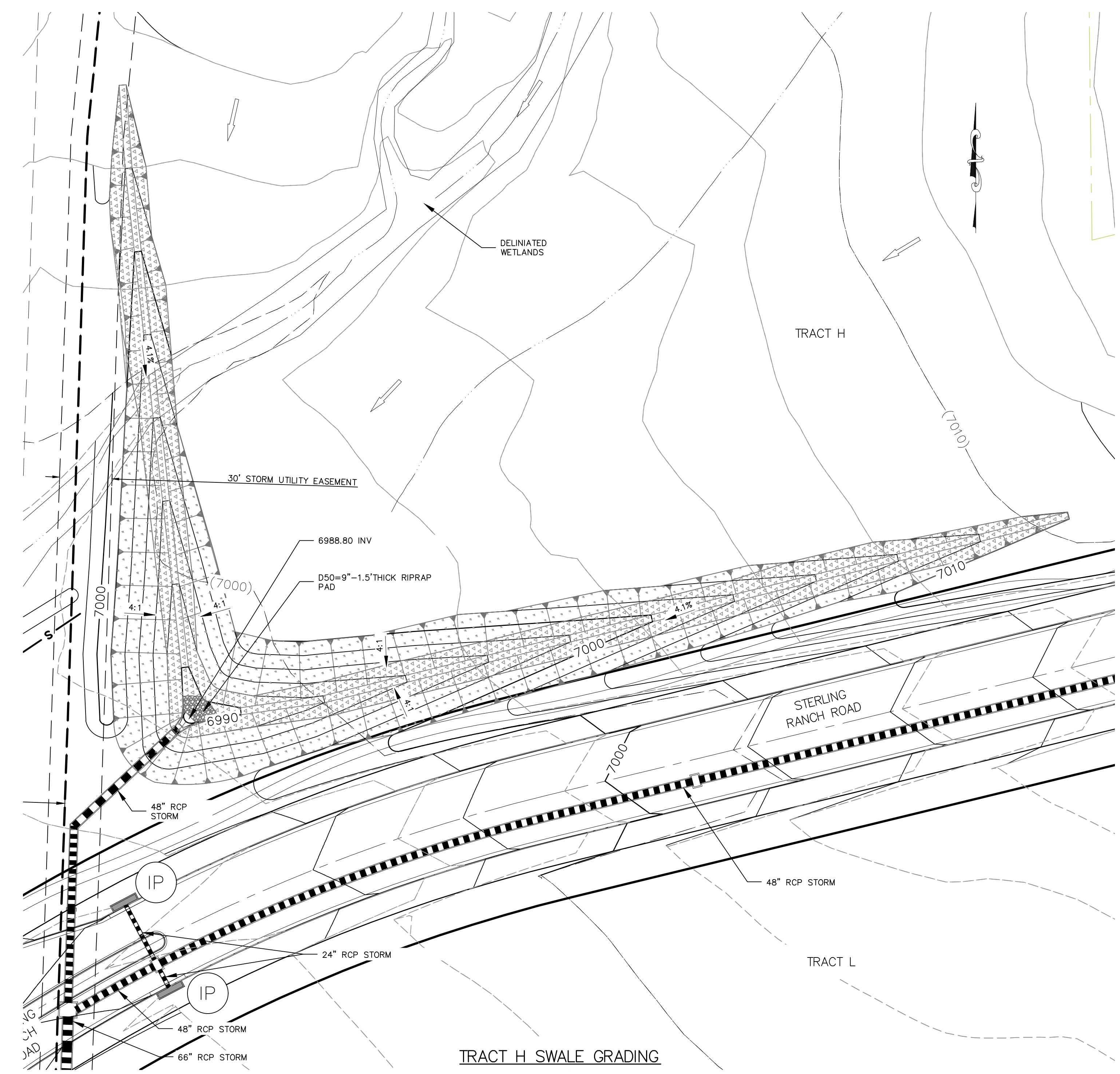
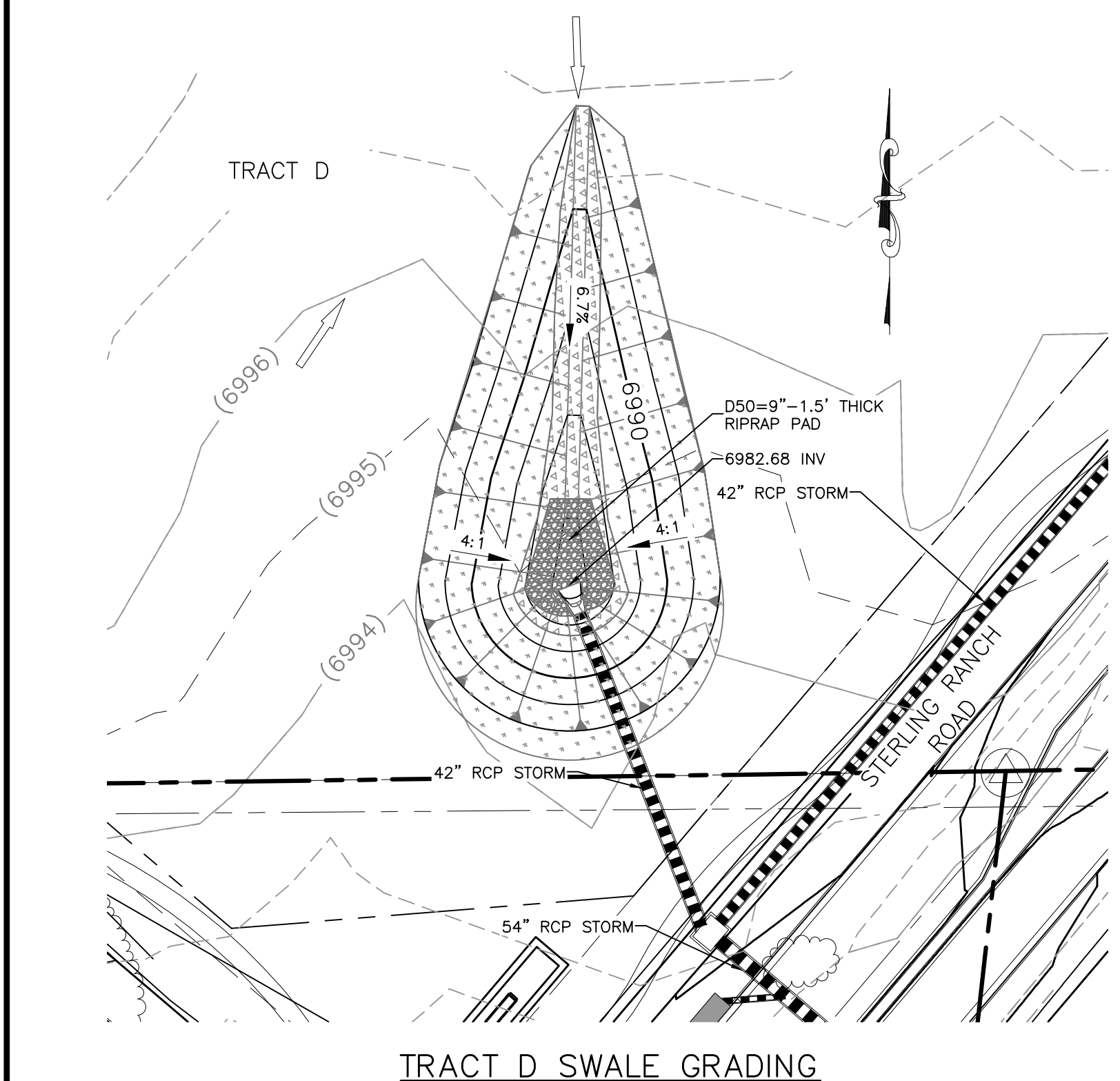
CAUTION

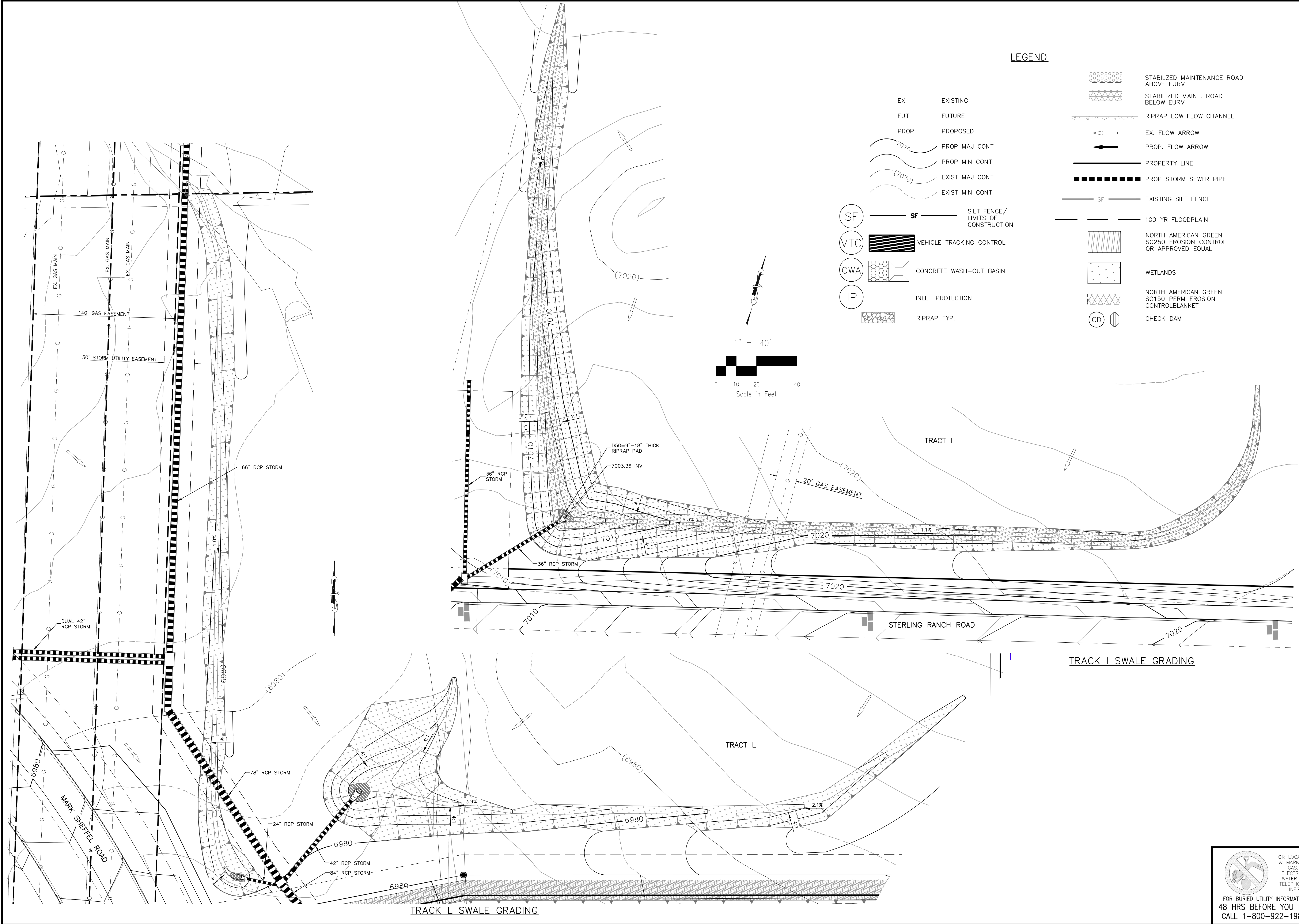


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STERLING RANCH FILING NO. 2			
PROJECT NO. 09-002		SCALE:	DATE: 03/14/2018
DESIGNED BY:	ET	HORIZONTAL: 1"=40'	
DRAWN BY:	BB	VERTICAL:	
CHECKED BY:	ET	N/A	SHEET 8 OF 12
SWALE, GRADING & EROSION CONTROL PLAN			

[illegible]



LEGEND

- EX EXISTING
FUT FUTURE
PROP PROPOSED
- 7070 PROP MAJ CONT
7070 PROP MIN CONT
(7070) EXIST MAJ CONT
(7070) EXIST MIN CONT
- SF SILT FENCE / LIMITS OF CONSTRUCTION
VTC VEHICLE TRACKING CONTROL
CWA CONCRETE WASH-OUT BASIN
IP INLET PROTECTION
RIPRAP TYP.

- STABILIZED MAINTENANCE ROAD ABOVE EURV
STABILIZED MAINT. ROAD BELOW EURV
RIPRAP LOW FLOW CHANNEL
EX. FLOW ARROW
PROP. FLOW ARROW
PROPERTY LINE
PROP STORM SEWER PIPE
SF EXISTING SILT FENCE
100 YR FLOODPLAIN
NORTH AMERICAN GREEN SC250 EROSION CONTROL OR APPROVED EQUAL
WETLANDS
NORTH AMERICAN GREEN SC150 PERM EROSION CONTROLBLANKET
CHECK DAM

STERLING RANCH FILING NO. 2

SWALE, GRADING & EROSION CONTROL PLAN

PROJECT NO. 09-002
DATE: 03/14/2018
SCALE: HORIZONTAL: 1"=40'
VERTICAL: N/A
DESIGNED BY: ET
DRAWN BY: BB
CHECKED BY: ET

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

M&S
CIVIL CONSULTANTS, INC.

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

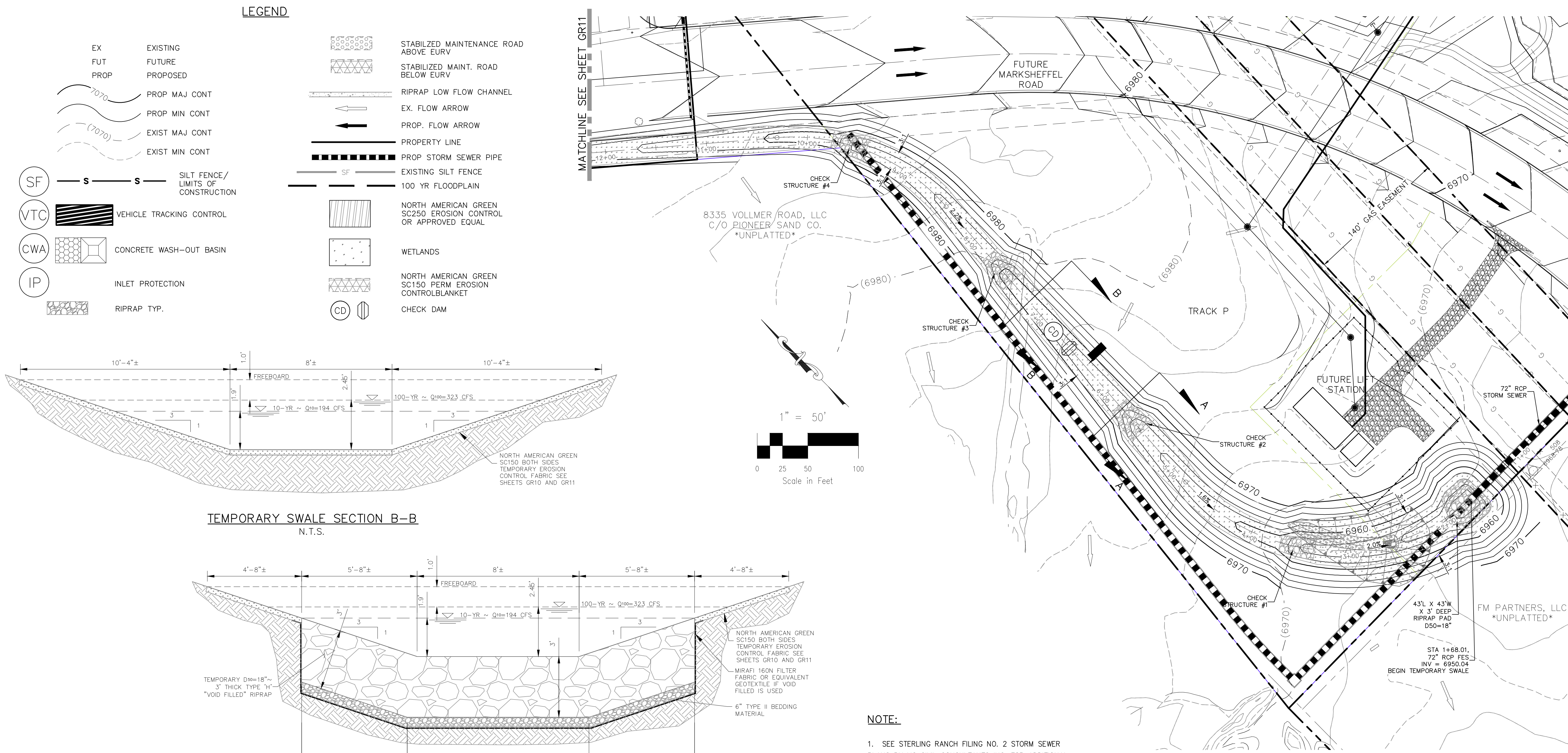
APPROVED BY: DATE: 3/14/2018
BY: DESCRIPTION: DATE: 3/14/2018

REVISIONS:
NO. DATE: BY: DESCRIPTION: DATE:

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CAUTION



STERLING RANCH FILING NO. 2

TEMP. GRADING & EROSION CONTROL PLAN

PROJECT NO. 09-002

DESIGNED BY: GT

DRAWN BY: EY

CHECKED BY: VAS

DATE: 03/14/2018

SHEET 10 OF 12

GR10

20 BOULDER CRESCENT SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

MS&S CIVIL CONSULTANTS, INC.

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

APPROVED BY: DATE:

BY: DESCRIPTION:

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