

STERLING RANCH FILING NO. 1

COUNTY OF EL PASO, STATE OF COLORADO

GRADING, EROSION, AND STORMWATER QUALITY CONTROL PLAN

JANUARY 2018

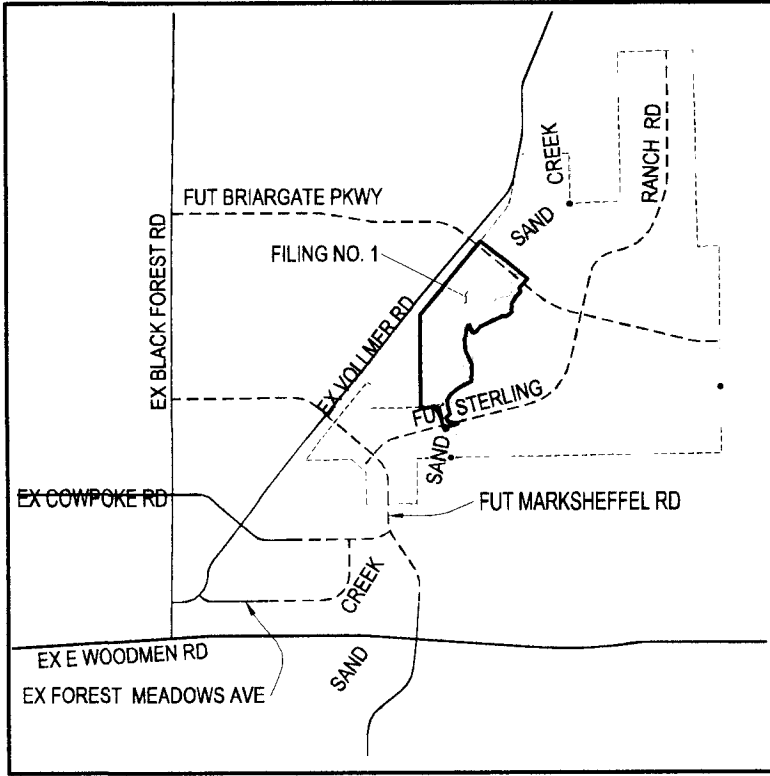
TIMING:	JANUARY 2018
ANTICIPATED STARTING AND COMPLETION TIME PERIOD OF SITE GRADING:	MAY 2020
EXPECTED DATE ON WHICH THE FINAL STABILIZATION WILL BE COMPLETED	

AREAS 28.8 AC
TOTAL AREA OF THE SITE TO BE CLEARED, EXCAVATED OR GRADED:

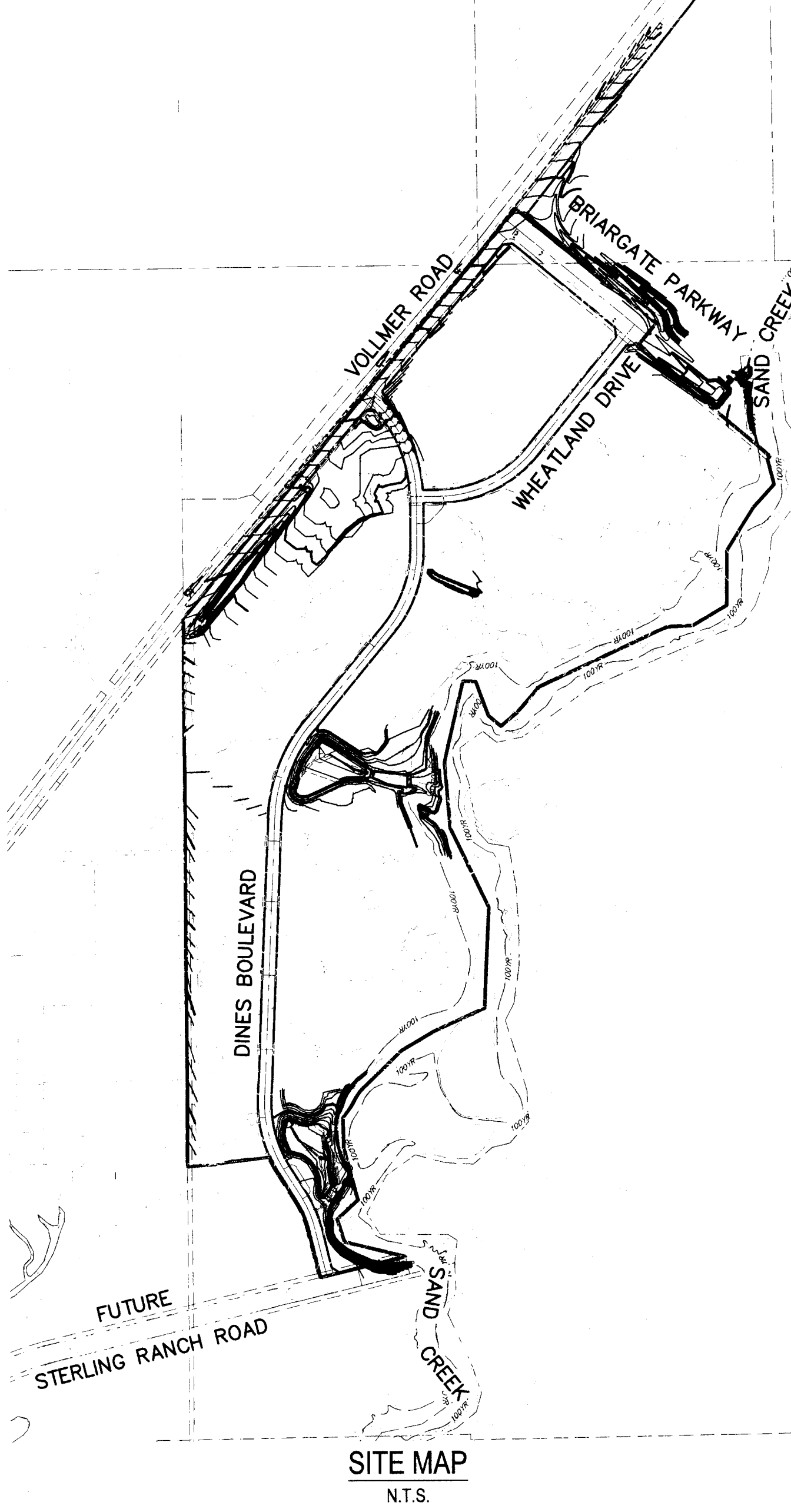
RECEIVING WATERS: SAND CREEK

LEGEND

EXISTING INDEX CONTOUR (10')
EXISTING NOMINAL CONTOUR (2')
PROPOSED INDEX CONTOUR (10')
PROPOSED NOMINAL CONTOUR (2')



VICINITY MAP
N.T.S.



SITE MAP
N.T.S.

AGENCIES

OWNER: SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
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
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 Morley
JAMES F. MORLEY
SR LAND, LLC.
20 BOULDER, SUITE 201
COLORADO SPRINGS, CO 80903

1-22-18
DATE

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

SHEET INDEX

SHEET 1 TITLE SHEET
SHEET 2 OVERALL GRADING & EROSION CONTROL PLAN
SHEET 3 OVERALL GRADING & EROSION CONTROL PLAN
SHEET 4 FSD POND 4 GRADING & EROSION CONTROL PLAN
SHEET 5 FSD POND 8 GRADING & EROSION CONTROL PLAN
SHEET 6 VOLLMER RD GRADING & EROSION CONTROL PLAN
SHEET 7 VOLLMER RD SOUTH SIDE W-9 POND GRADING & EROSION CONTROL PLAN
SHEET 8 VOLLMER RD NORTH SIDE AREA INLETS GRADING & EROSION CONTROL PLAN
SHEET 9 BRIARGATE PARKWAY/TEMP POND BB GRADING & EROSION CONTROL PLAN
SHEET 10 POND 8 CHANNEL STABILIZATION PLAN
SHEET 11 POND 4 CHANNEL STABILIZATION PLAN
SHEET 12 BRIARGATE PARKWAY CHANNEL PLAN
SHEET 13 SAND CREEK / CHANNEL SECTIONS
SHEET 14 SAND CREEK / CHANNEL SECTIONS
SHEET 15 SAND CREEK / CHANNEL SECTIONS & GEC DETAILS
SHEET 16 BRIARGATE PARKWAY SWALE RUNDOWN
SHEET 17 EROSION CONTROL DETAILS

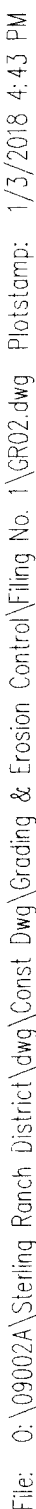
 FOR LOCATING
& MARKING
GAS,
ELECTRIC,
WATER &
TELEPHONE
LINES

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.

CAUTIC

SF-16-013



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 AND AREAS OTHERWISE INDICATED BY WITHIN THESE PLANS SHALL BE COVERED WITH SOIL RETENTION BLANKET OVER 4" MIN. THICKNESS OF TOPSOIL AND SEED.
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 GRASSES, NO STRAW MULCH SHALL BE USED WITHIN THE CURB OR WYOFF 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 SPECIFICATIONS AND QUALITY STANDARDS FOR EROSION CONTROL BLANKETS (STRAW COCONUT OR 100 PERCENT COCONUT). SITE-SPECIFIC CONSTRUCTION CONDITIONS MAY REQUIRE ADDITIONAL BLANKET OR OTHER EROSION CONTROL MEASURES.




POND 4 FULL SPECTRUM DETENTION BASIN DATA	
WQ WATER SURFACE EL =	7056.39
WQ VOLUME=0.5 AC-FT	
EURV WATER SURFACE EL =	7058.45
EURV VOLUME=1.5 AC-FT	
100-YR WATER SURFACE EL=	7060.0
SPILLWAY CREST EL=	7060.0
TOP OF EMBANKMENT EL=	7063.0
100-YR VOLUME=2.9 AC-FT	
100-YR INFLOW =	102.8 CFS
100-YR RELEASE =	36.2 CFS


1" = 30'

0 15 30 60

Scale in Feet

EX	EXISTING
FUT	FUTURE
PROP	PROPOSED
(7070)	PROP MAJ CONT
(7070)	PROP MIN CONT
(7070)	EXIST MAJ CONT
	EXIST MIN CONT

	NORTH AMERICAN GREEN SC250 EROSION CONTROL MAT OR APPROVED EQUAL
	NORTH AMERICAN GREEN SC150 EROSION CONTROL MAT OR APPROVED EQUAL
	WETLANDS

 FOR LOCATING
& MARKING
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ELECTRIC,
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MIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

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

[illegible]

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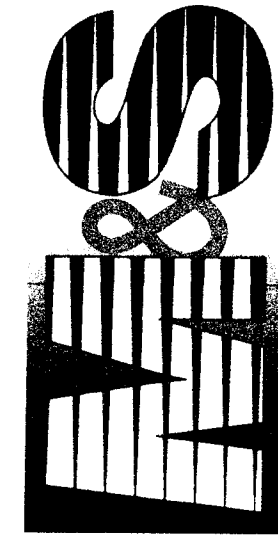
CAUTION

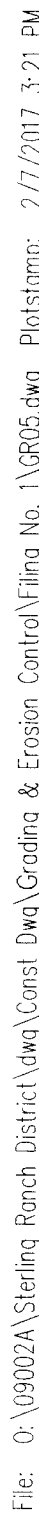
STERLING RANCH FILING NO. 1

FULL SPECTRUM DETENTION POND 4 GEC

PROJECT NO. 09-002	FILE: \\dwg\Const Dwg\G...& E....Control\Filing No. 1\GRO4.dwg	
DESIGNED BY: VAS	SCALE	DATE: 04/17/2017
DRAWN BY: BLB	HORIZ: 1"=30'	SHEET 4 OF 17
CHECKED BY: VAS	VERT: N/A	
		GRO4

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485





STERLING RANCH FILING NO. 1
 FULL SPECTRUM DETENTION POND 8 GEC
 PROJECT NO. 09-002 FILE: \\dwg\Const Dwg\G.E. & E...Control\Filing No. 1\G05.dwg

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

FOR AND ON
BEHALF OF
M&S CIVIL
CONSULTANTS,
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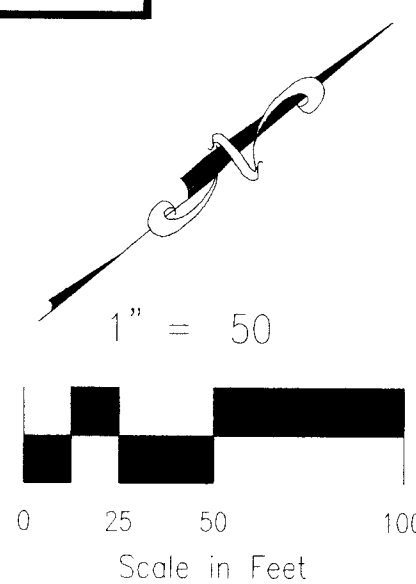
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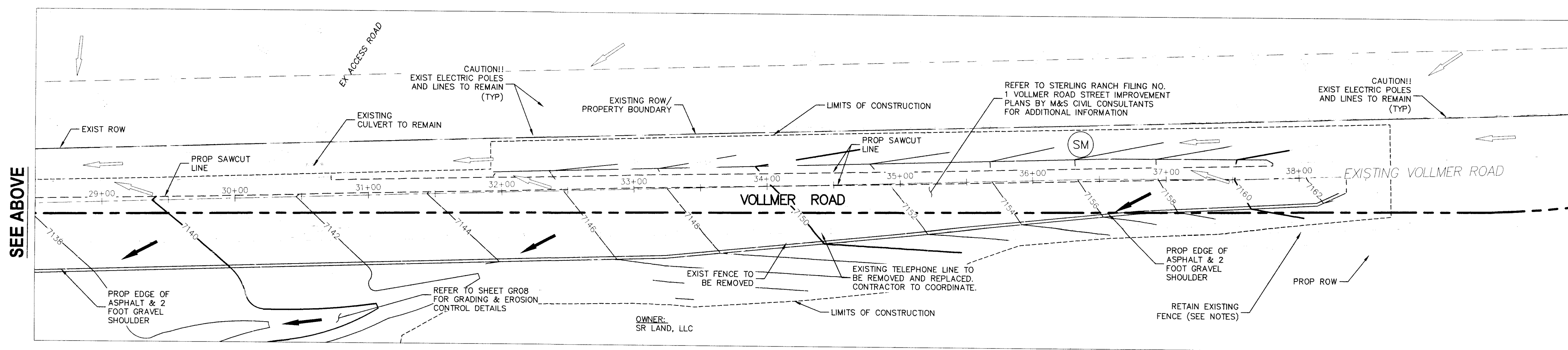
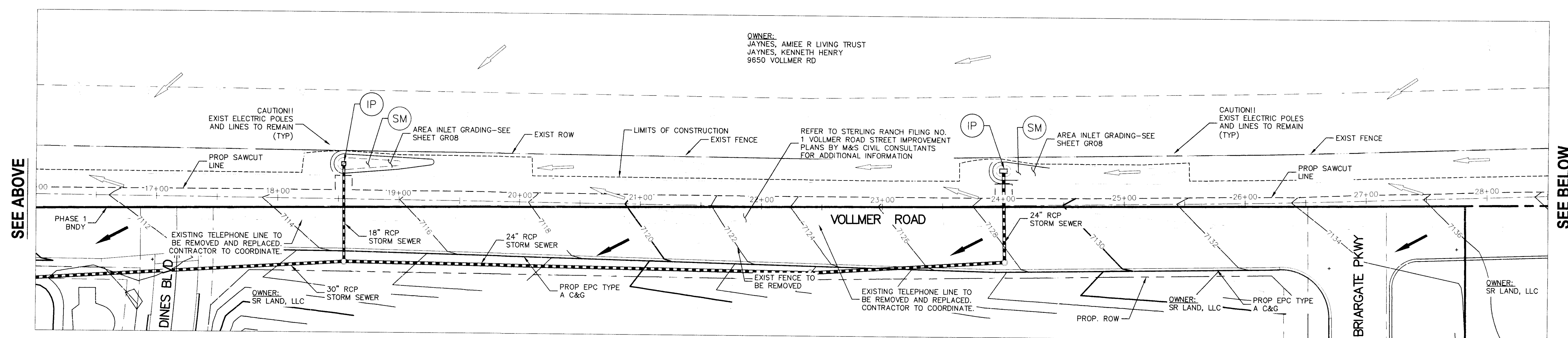
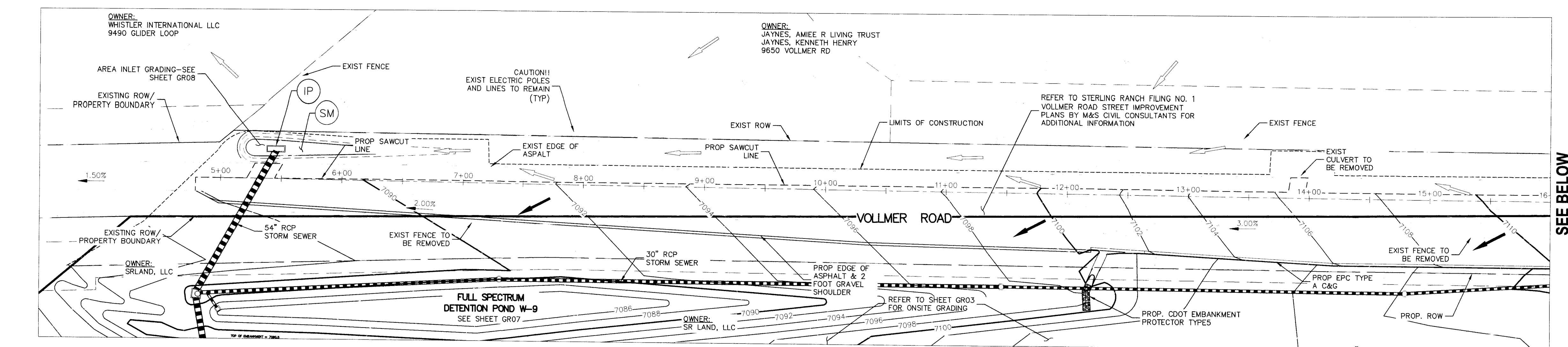
SCALE 1"=20'



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1. ALL DISTURBED AREAS NOT COVERED BY ASPHALT, CONCRETE, RIPRAP, ROAD BASE COARSE AND SEED EROSION CONTROL BLANKET SHALL BE SEED AND MULCHED. SEE SEEDING AND MULCHING GUIDELINES LOCATED ON SHEETS 15 AND 17 ON THESE PLANS.
2. SEE SHEET 15 FOR INLET PROTECTION AND EROSION CONTROL BLANKET GUIDELINES.





SCALE 1"=50'

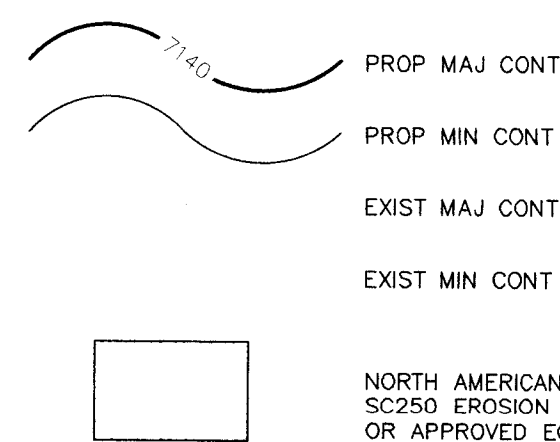
SCALE 1"=50'





OWNER/DEVELOPER TO COORDINATE WITH ADJACENT PROPERTY OWNERS TO DETERMINE ACCEPTABLE LOCATION FOR FENCE PRIOR TO CONSTRUCTION

CONTRACTOR TO COORDINATE WITH MOUNTAIN VIEW ELECTRIC TO DETERMINE ACCEPTABLE RELOCATION OF OVERHEAD ELECTRIC LINES.

SEE STERLING RANCH FILING NO 1 STREET IMPROVEMENT, & STORM SEWER PLANS FOR CONSTRUCTION DETAILS OF STREET STORM SEWER AND DETENTION PONDS.

TRAP.	TRAPIZODAL
EX	EXISTING
FUT	FUTURE
PROP	PROPOSED
	ELECTRIC POLES
 2.0%	FLOW DIRECTION & SLOPE



SEEDING AND MULCHING	(SM)		
INLET PROTECTION	(IP)	-----	LIMITS OF CONSTRUCTION
		=====	LOW FLOW CHANNEL
STRAW BALE DITCH CHECK	(SBB)		EX. FLOW ARROW
SILT FENCE/ LIMITS OF CONSTRUCTION	(SF)		PROP. FLOW ARROW
RIPRAP TYP.			PROPERTY LINE
GRAVEL MAINTENANCE ROAD			PROP. STORM SEWER PIPE

[illegible]

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CAUTION

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

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



20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

STERLING RANCH FILING NO. 1

VOLLMER GRADING & EROSION CONTROL

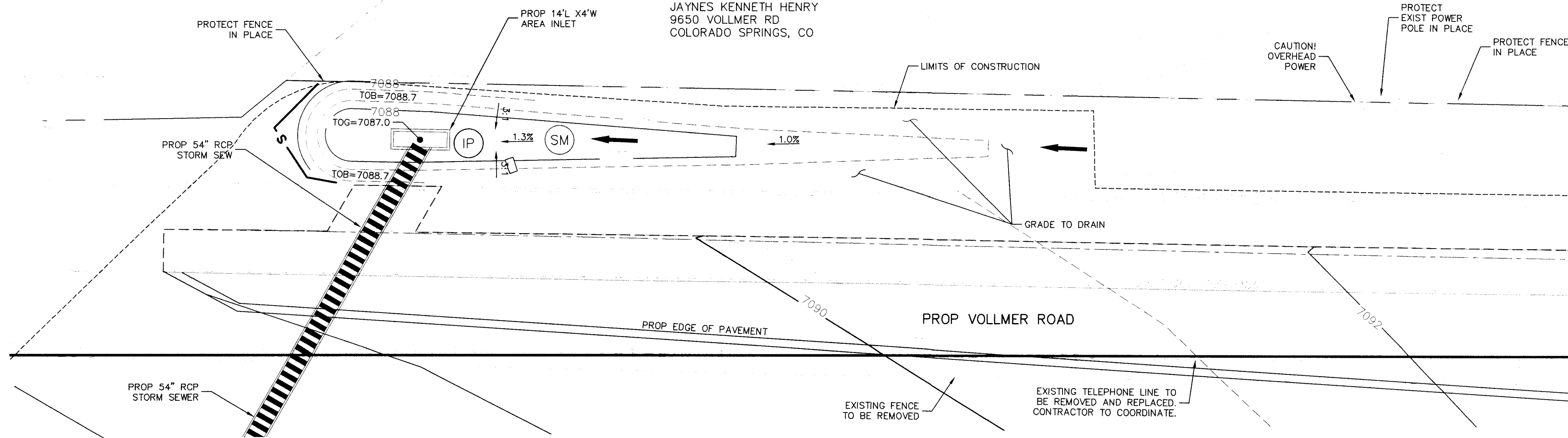
PROJECT NO. 09-002	FILE: \dwg\Const Dwg\Street & Storm Plans\G
DESIGNED BY: JWP	SCALE DATE: 01/03/2018

GR06

File: O:\00002A\Sterling Ranch District\Land Const\DWG\Grading & Erosion Control\Grading No. 1\2006.dwg Plotstamp: 1/19/2018 3:13 PM

OWNER:
WHISTLER INTERNATIONAL LLC
9490 GLIDER LOOP
COLORADO SPRINGS CO

OWNER:
JAYNES AMIEE R LIVING TRUST
JAYNES KENNETH HENRY
9650 VOLLMER RD
COLORADO SPRINGS, CO

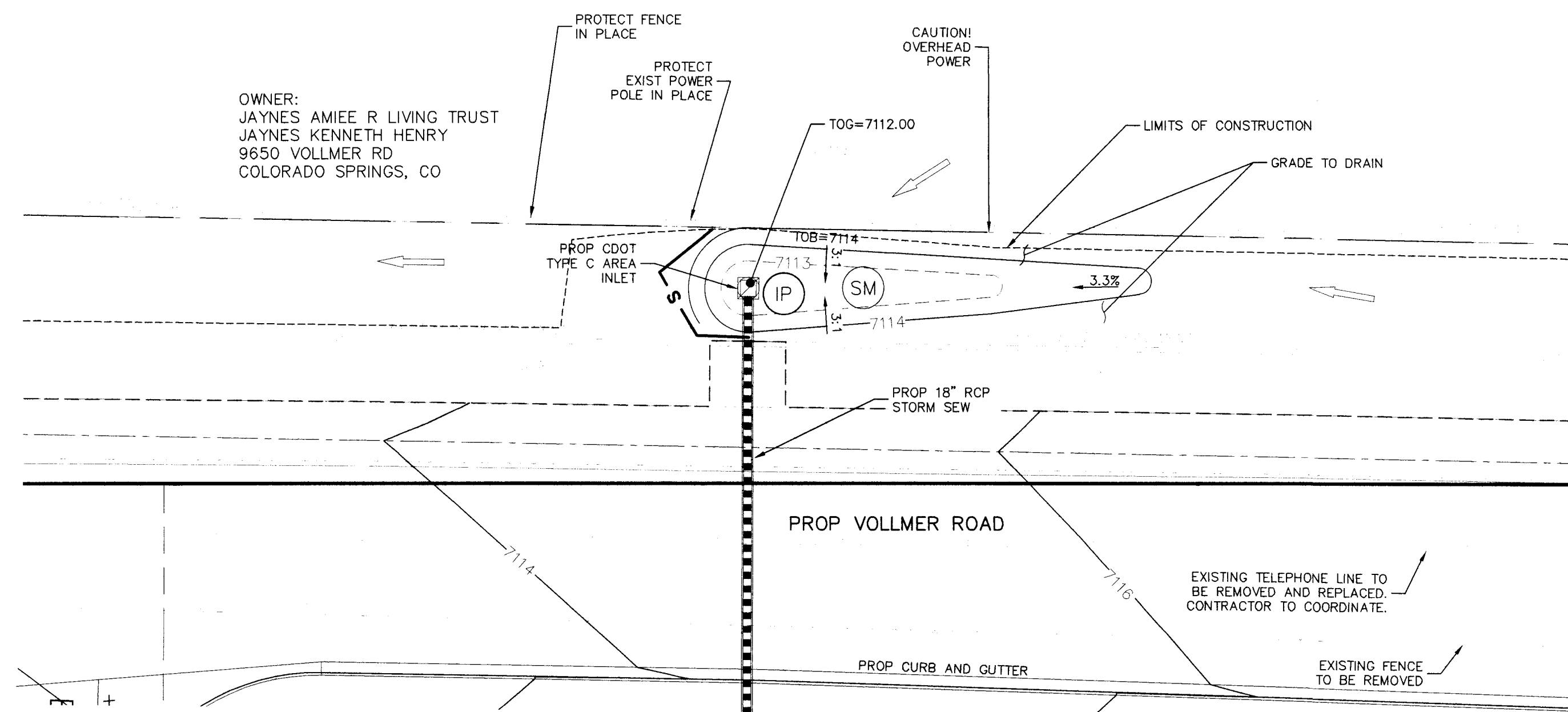
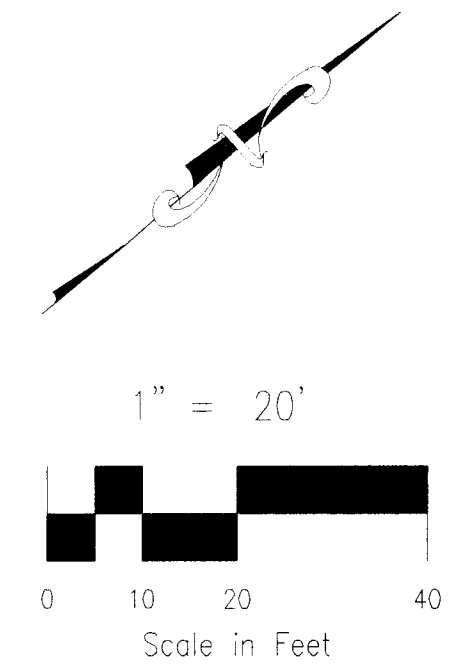


GRADING AND EROSION CONTROL ADJACENT TO STORM 1 INLET

SCALE 1"=20'

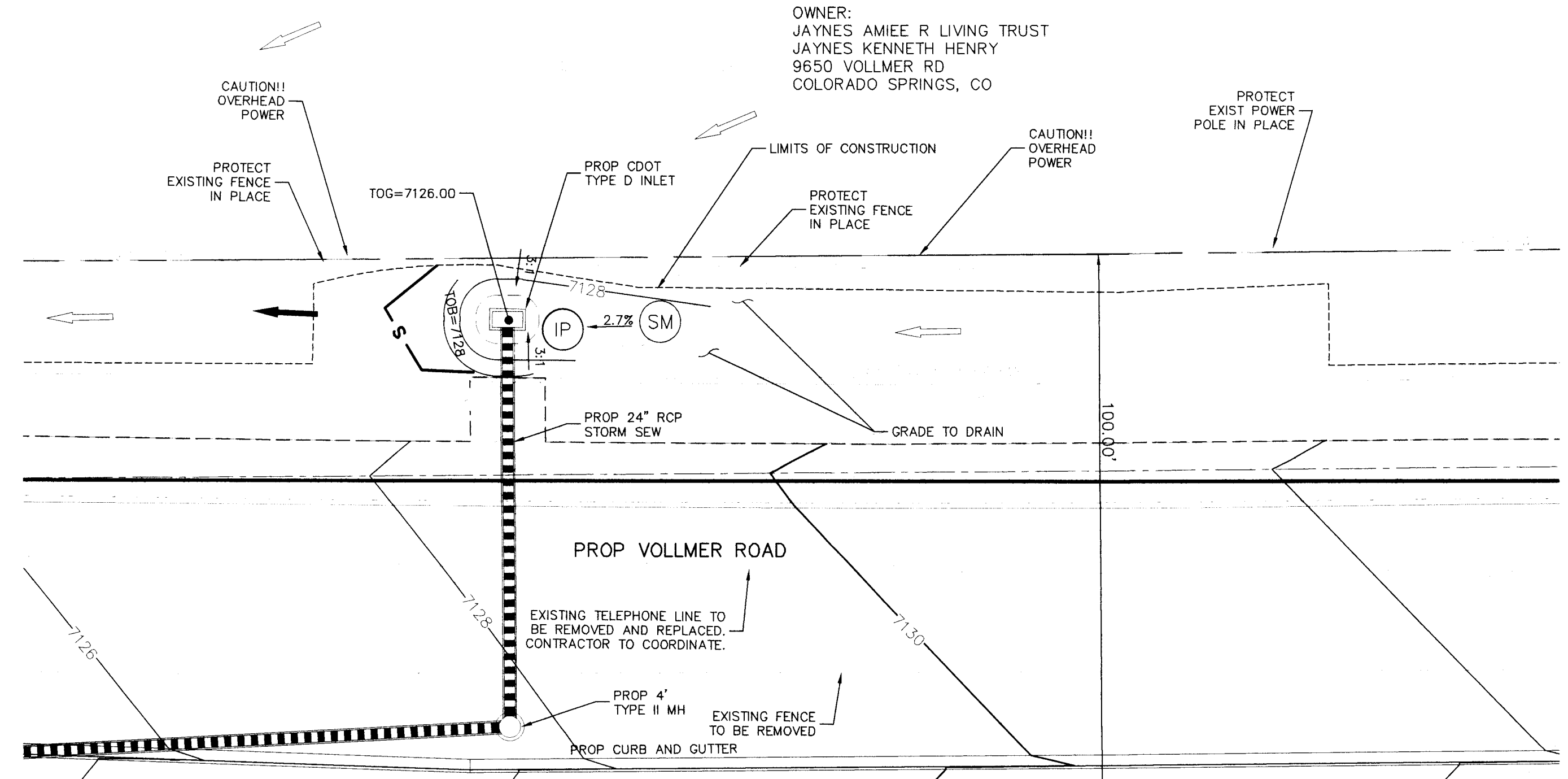
ADDITIONAL NOTE:

- ALL DISTURBED AREAS NOT COVERED BY ASPHALT, CONCRETE, RIPRAP, ROAD BASE COARSE AND SEEDED EROSION CONTROL BLANKET SHALL BE SEEDED AND MULCHED. SEE SEEDING AND MULCHING GUIDELINES LOCATED ON SHEETS 15 AND 17 ON THESE PLANS.
- SEE SHEET 15 FOR INLET PROTECTION AND EROSION CONTROL BLANKET GUIDELINES.



GRADING AND EROSION CONTROL ADJACENT TO STORM 15 INLET

SCALE 1"=20'



GRADING ADJACENT TO STORM 14 INLET

SCALE 1"=20'

LEGEND

TRAP. TRAPEZOIDAL
EX EXISTING
FUT FUTURE
PROP PROPOSED

ELECTRIC POLES
FLOW DIRECTION & SLOPE

LIMITS OF CONSTRUCTION
PROP MAJ CONT
PROP MIN CONT
EXIST MAJ CONT
EXIST MIN CONT

EXISTING PAVEMENT TO BE REMOVED AND REPLACED. REFER TO VOLLMER ROAD (NORTH) STREET IMPROVEMENT PLANS.

SEEDING AND MULCHING (SM)
INLET PROTECTION (IP)
SILT FENCE (SF)
RIPRAP TYP.
PROPERTY LINE
PROP STORM SEWER PIPE
EX. FLOW ARROW
PROP. FLOW ARROW

- NOTES:
- SEE STERLING RANCH-FILING NO. 1 STORM SEWER PLANS BY M&S CIVIL FOR ADDITIONAL CONSTRUCTION DETAILS.

GRADING NOTES:

- ALL PROPOSED CONTOURS ARE TO FINISHED GRADE.
- 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.
- 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.
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FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
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STERLING RANCH FILING NO. 1

VOLLMER RD. NORTH SIDE AREA INLETS GEC

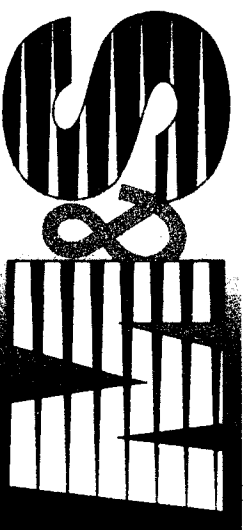
PROJECT NO. 09-002 FILE: Yang\Const\DWG\Street & Storm Plans\GR008.dwg

DESIGNED BY: DUM SCALE DATE: 01/03/2018

DRAWN BY: JWP SHEET 8 OF 17

CHECKED BY: VAS GR08

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



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

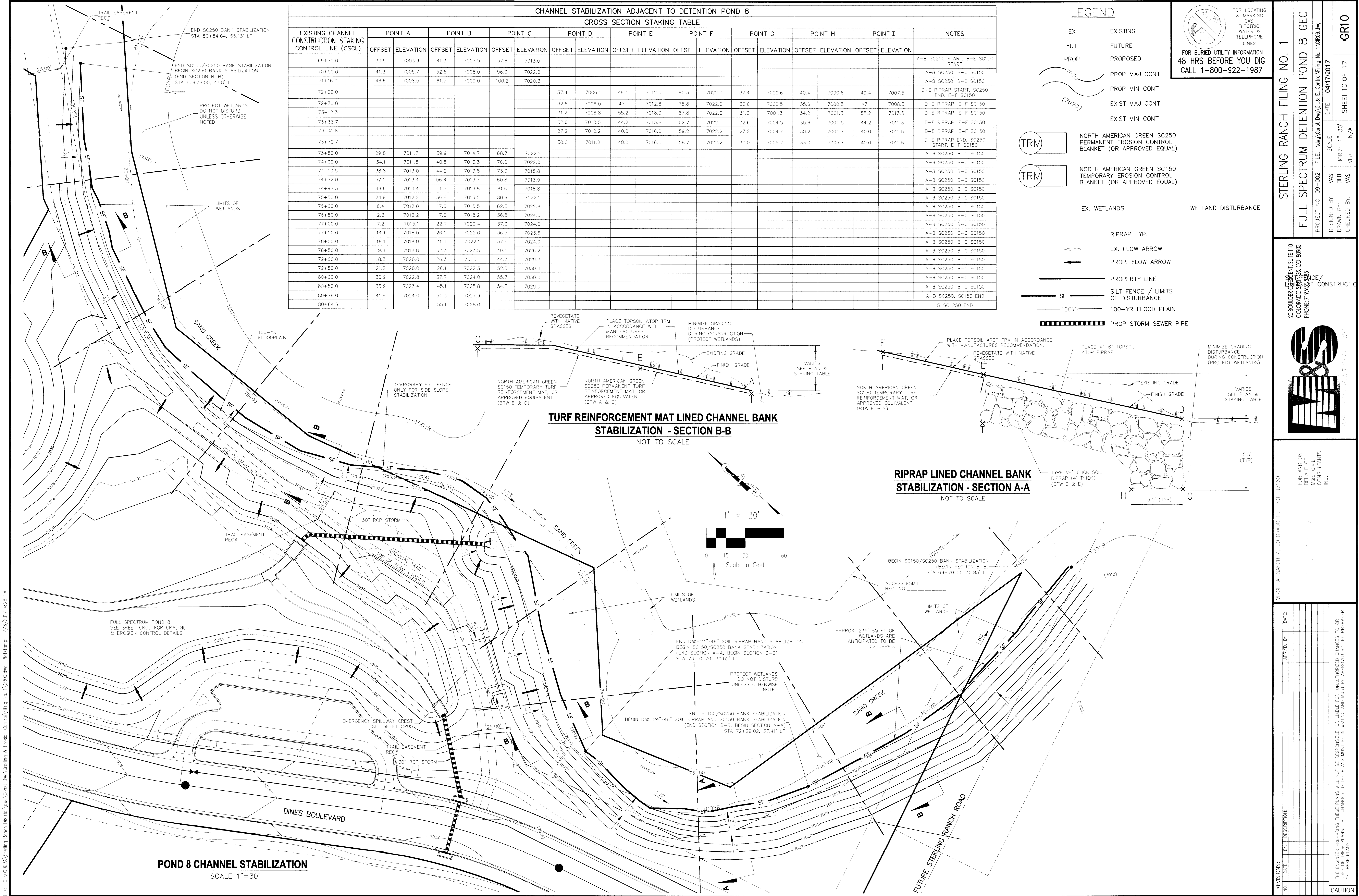
MARCIL A. SANCHEZ, COLORADO P.E. NO. 37160

REVISIONS: NO. DATE BY DESCRIPTION APPROVED BY DATE

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CAUTION

File: G:\03002A\Spring Ranch District\NewConst\Draw\Grading & Erosion Control\Filing No. 1\GR09.dwg, Plotstamp: 2/8/2017 4:28 PM



CHANNEL STABILIZATION ADJACENT TO DETENTION POND 8																
CROSS SECTION STAKING TABLE																
EXISTING CHANNEL CONSTRUCTION STAKING CONTROL LINE (CSCL)	POINT A		POINT B		POINT C		POINT D		POINT E		POINT F		POINT G		POINT H	
	OFFSET	ELEVATION	OFFSET	ELEVATION	OFFSET	ELEVATION	OFFSET	ELEVATION	OFFSET	ELEVATION	OFFSET	ELEVATION	OFFSET	ELEVATION	OFFSET	ELEVATION
69+70.0	30.9	7003.9	41.3	7007.5	57.6	7013.0										
70+50.0	41.3	7005.7	52.5	7008.0	96.0	7022.0										
71+16.0	46.6	7008.5	61.7	7009.0	100.2	7020.3										
72+29.0							37.4	7006.1	49.4	7012.0	80.3	7022.0	37.4	7000.6	40.4	7000.6
72+70.0							32.6	7006.0	47.1	7012.8	75.8	7022.0	32.6	7000.5	35.6	7000.5
73+12.3							31.2	7006.8	55.2	7018.0	67.8	7022.0	31.2	7001.3	34.2	7001.3
73+33.7							32.6	7010.0	44.2	7015.8	62.7	7022.0	32.6	7004.5	35.6	7004.5
73+41.6							27.2	7010.2	40.0	7016.0	59.2	7022.2	27.2	7004.7	30.2	7004.7
73+70.7							30.0	7011.2	40.0	7016.0	58.7	7022.2	30.0	7005.7	33.0	7005.7
73+86.0	29.8	7011.7	39.9	7014.7	68.7	7022.1										
74+00.0	34.1	7011.8	40.5	7013.3	76.0	7022.0										
74+10.5	38.8	7013.0	44.2	7013.8	73.0	7018.8										
74+72.0	52.5	7013.4	56.4	7013.7	60.8	7013.9										
74+97.3	46.6	7013.4	51.5	7013.8	81.6	7018.8										
75+50.0	24.9	7012.2	36.8	7013.5	80.9	7022.1										
76+00.0	6.4	7012.0	17.6	7015.5	62.3	7022.8										
76+50.0	2.3	7012.2	17.6	7018.2	36.8	7024.0										
77+00.0	7.2	7015.1	22.7	7020.4	37.0	7024.0										
77+50.0	14.1	7018.0	26.5	7022.0	36.5	7023.6										
78+00.0	18.1	7018.0	31.4	7022.1	37.4	7024.0										
78+50.0	19.4	7018.8	32.3	7023.5	40.4	7026.2										
79+00.0	18.3	7020.0	26.3	7023.1	44.7	7029.3										
79+50.0	21.2	7020.0	26.1	7022.3	52.6	7030.3										
80+00.0	30.9	7022.8	37.7	7024.0	55.7	7030.0										
80+50.0	35.9	7023.4	45.1	7025.8	54.3	7029.0										
80+78.0	41.8	7024.0	54.3	7027.9												
80+84.6			55.1	7028.0												

LEGEND

EX

FUT

PROP

EXISTING

FUTURE

PROPOSED

7070

(7070)

TRM

TRM

NORTH AMERICAN GREEN SC250 PERMANENT EROSION CONTROL BLANKET (OR APPROVED EQUAL)

NORTH AMERICAN GREEN SC150 TEMPORARY EROSION CONTROL BLANKET (OR APPROVED EQUAL)

EX. WETLANDS

WETLAND DISTURBANCE

RIPRAP TYP.

EX. FLOW ARROW

PROP. FLOW ARROW

PROPERTY LINE

SF

100YR

100-YR FLOOD PLAIN

PROP STORM SEWER PIPE

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STERLING RANCH FILING NO. 1

FULL SPECTRUM DETENTION POND 8 GEC

PROJECT NO. 09-002

FILE: \eng\const\Draw\G.C. & E.Control\Filing No. 1\GR09.dwg

DESIGNED BY: VAS

DRAWN BY: BLB

CHECKED BY: VAS

DATE: 04/17/2017

SCALE: HORIZ: 1"=30'

SHEET 10 OF 17

GR10

TURF REINFORCEMENT MAT LINED CHANNEL BANK STABILIZATION - SECTION B-B
NOT TO SCALE

RIPRAP LINED CHANNEL BANK STABILIZATION - SECTION A-A
NOT TO SCALE

20 BOULDER CREEK SUITE 110
COLORADO SPRINGS, CO 80903
PHONE 719.555.0055
WWW.MAS-CIVIL.COM

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

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
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CAUTION

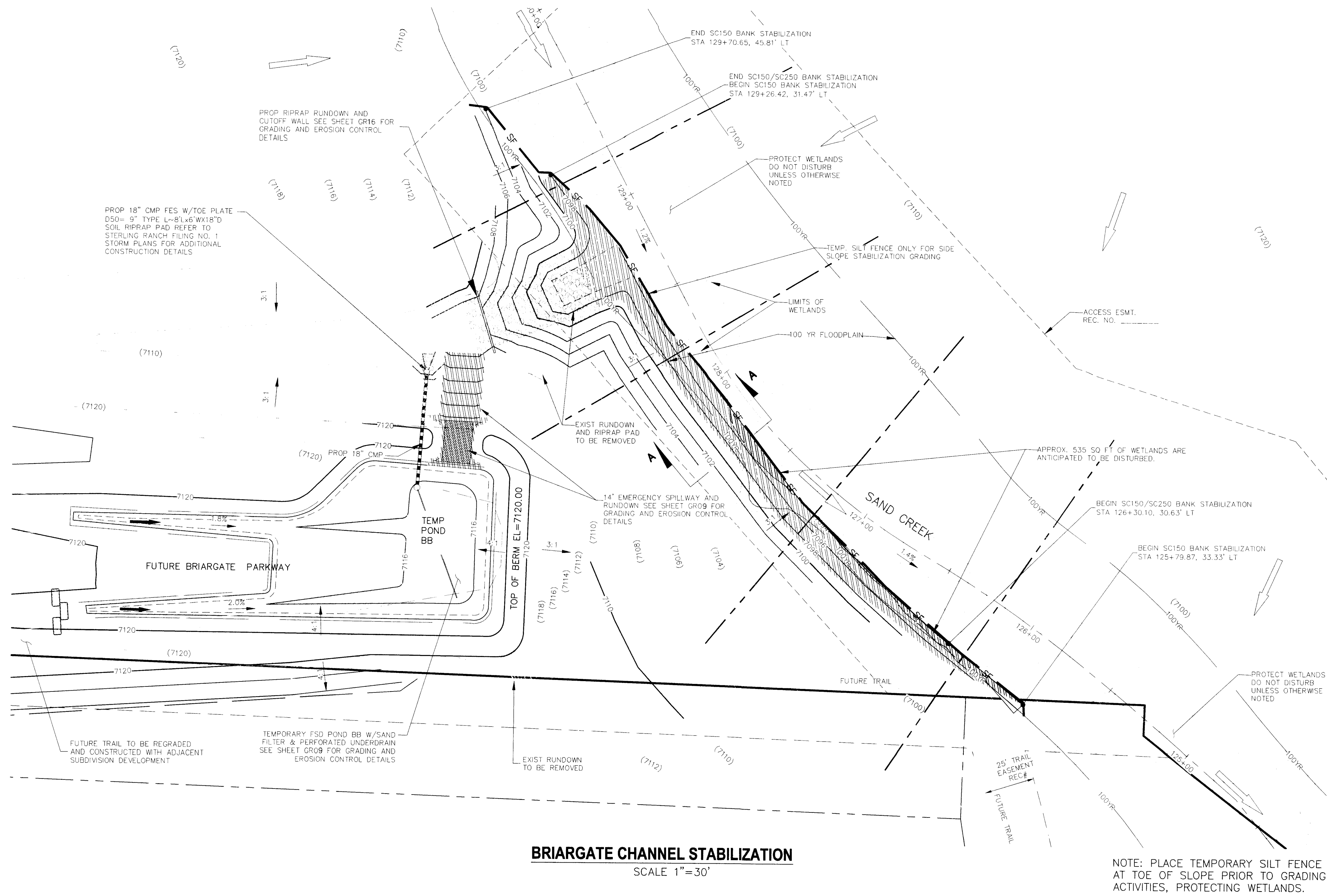


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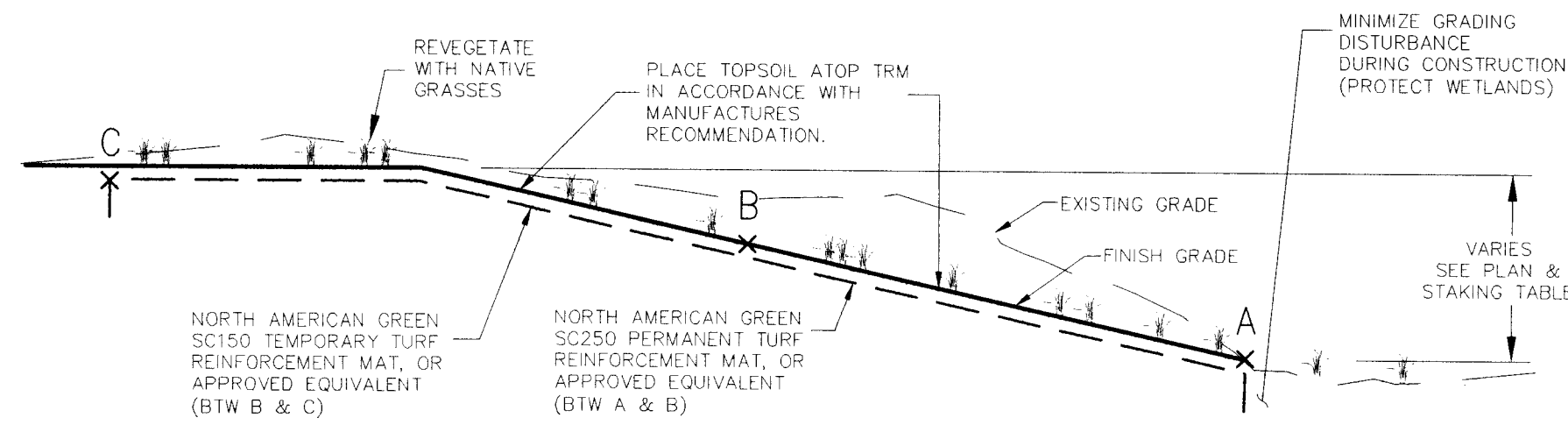
**RIPRAP LINED CHANNEL BANK
STABILIZATION - SECTION A-A**
NOT TO SCALE

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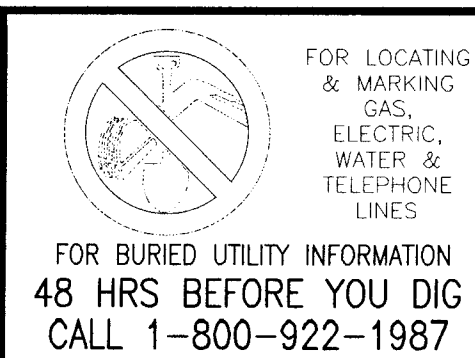


BRIARGATE CHANNEL STABILIZATION
SCALE 1"=30'



**TURF REINFORCEMENT MAT LINED
CHANNEL BANK STABILIZATION - SECTION
A-A**
NOT TO SCALE

CHANNEL STABILIZATION ADJACENT TO BRIARGATE PARKWAY						
CROSS SECTION STAKING TABLE						
EXISTING CHANNEL CONSTRUCTION STAKING CONTROL LINE (CSCL)	POINT A	POINT B	POINT C	NOTES		
OFFSET	ELEVATION	OFFSET	ELEVATION	OFFSET	ELEVATION	
125+79.9	33.3	7094.0				A SC250 START
126+00.0	32.6	7094.0	36.9	7095.3		A-B SC250
126+30.1	30.6	7094.1	37.3	7097.0	39.7	7097.9
127+00.0	18.6	7094.1	32.5	7098.6	42.1	7101.6
127+50.0	11.25	7094.1	24.6	7098.4	38.0	7102.8
128+00.0	9.2	7094.2	23.8	7098.9	45.5	7103.9
128+37.0	14.6	7095.8	26.0	7098.9	47.7	7105.9
128+60.0	16.1	7095.9	40.1	7098.3		A-B SC250
128+60.0			62.0	7100.0	95.6	7108.2
128+90.0	19.6	7096.5	39.48	7100.0		B-C SC150 END
128+90.0			56.9	7100.0	99.4	7108.0
129+26.4	31.5	7098.0	36.9	7099.8	62.7	7108.0
129+70.7			45.8	7104.0	52.3	7106.0
						B-C SC150 END



STERLING RANCH FILING NO. 1

TEMP. FULL SPECTRUM DET. POND BB GEC

PROJECT NO. 09-002 FILE: 09-002.dwg DATE: 04/17/2017

DESIGNED BY: VAS SCALE: 1"=30'

DRAWN BY: BLB

CHECKED BY: VAS SHEET 12 OF 17

GR12

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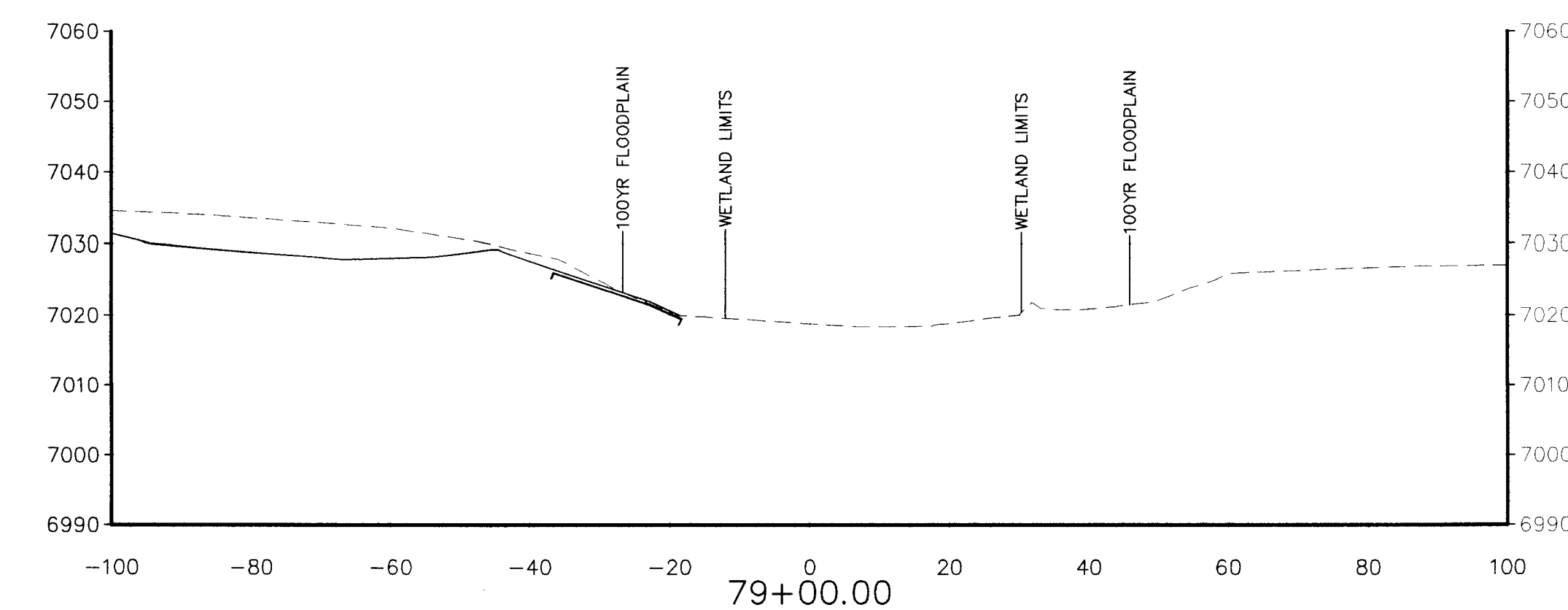
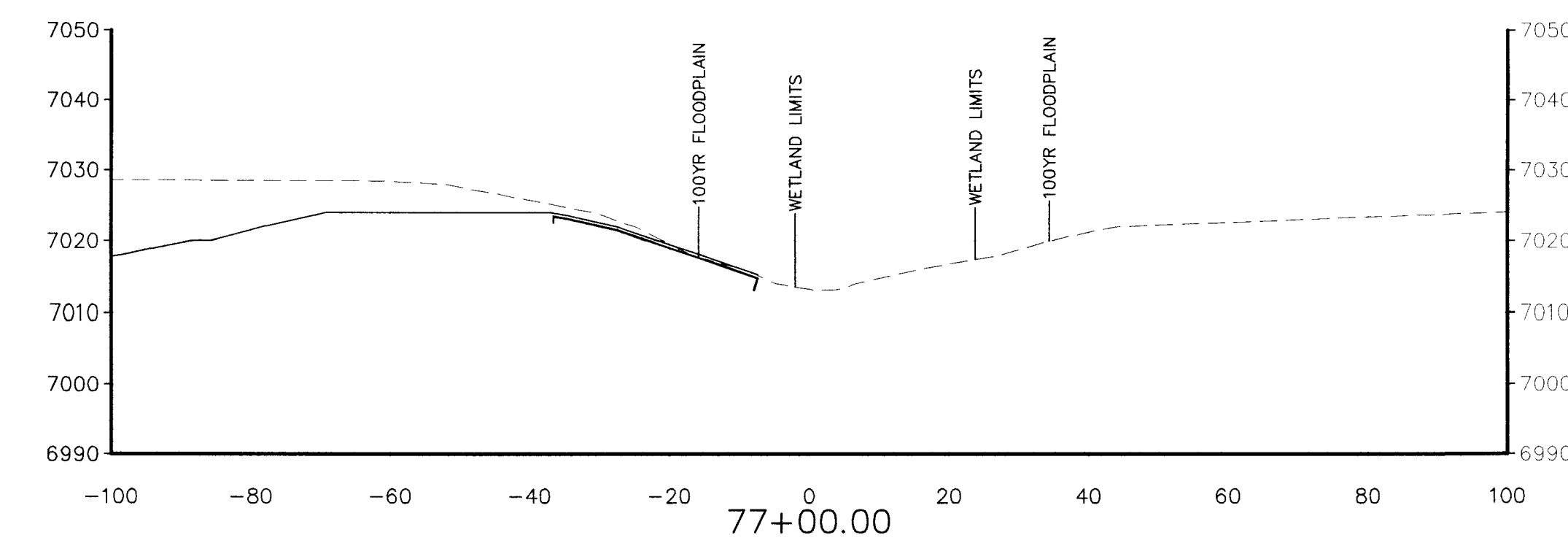
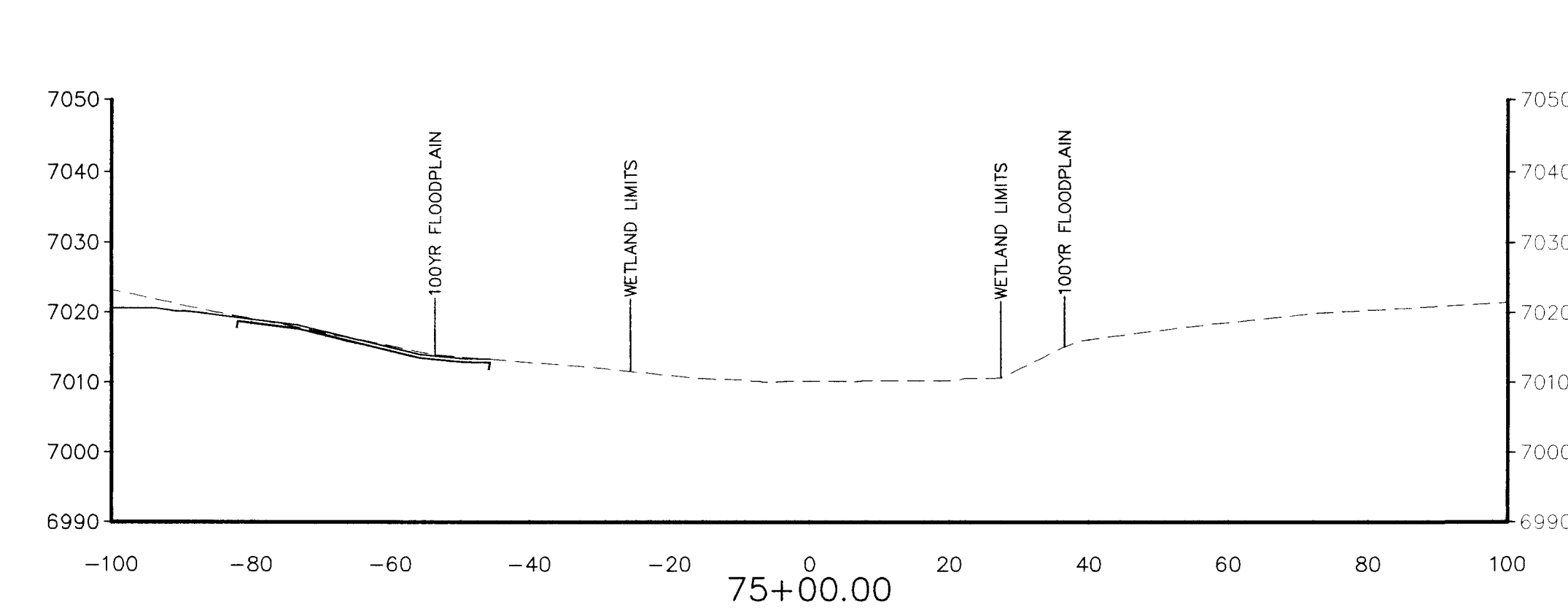
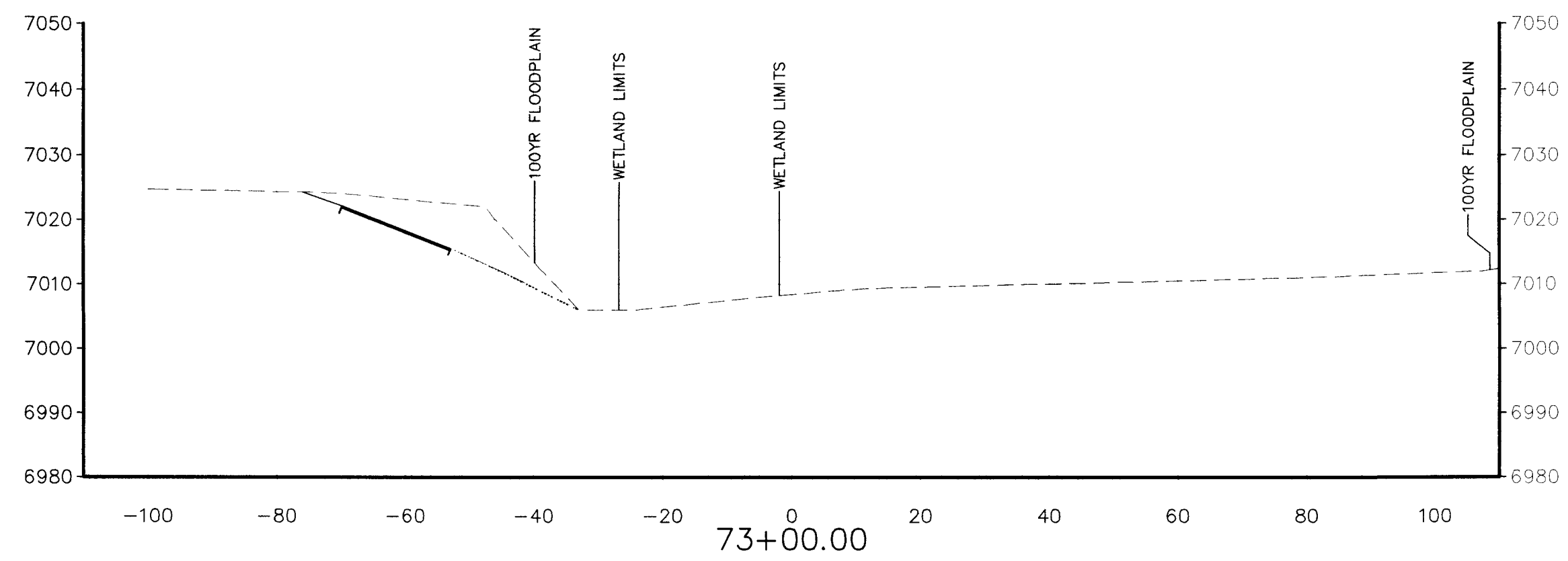
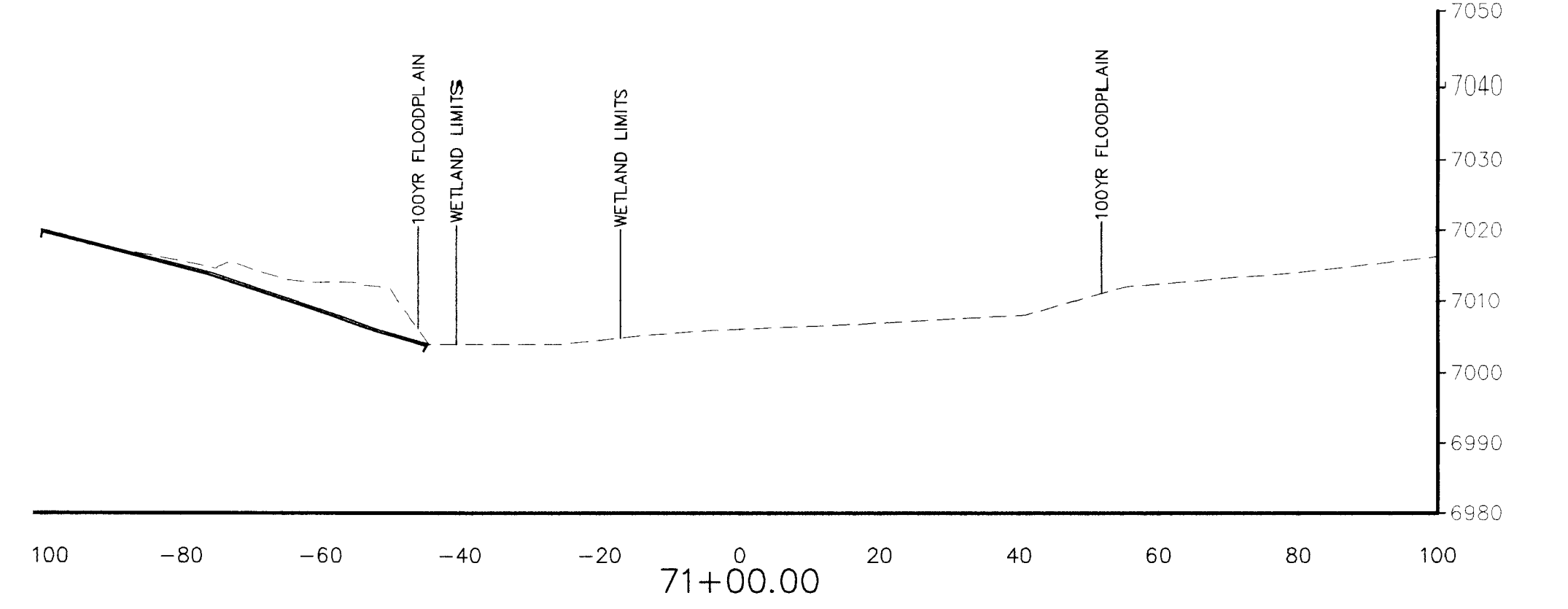
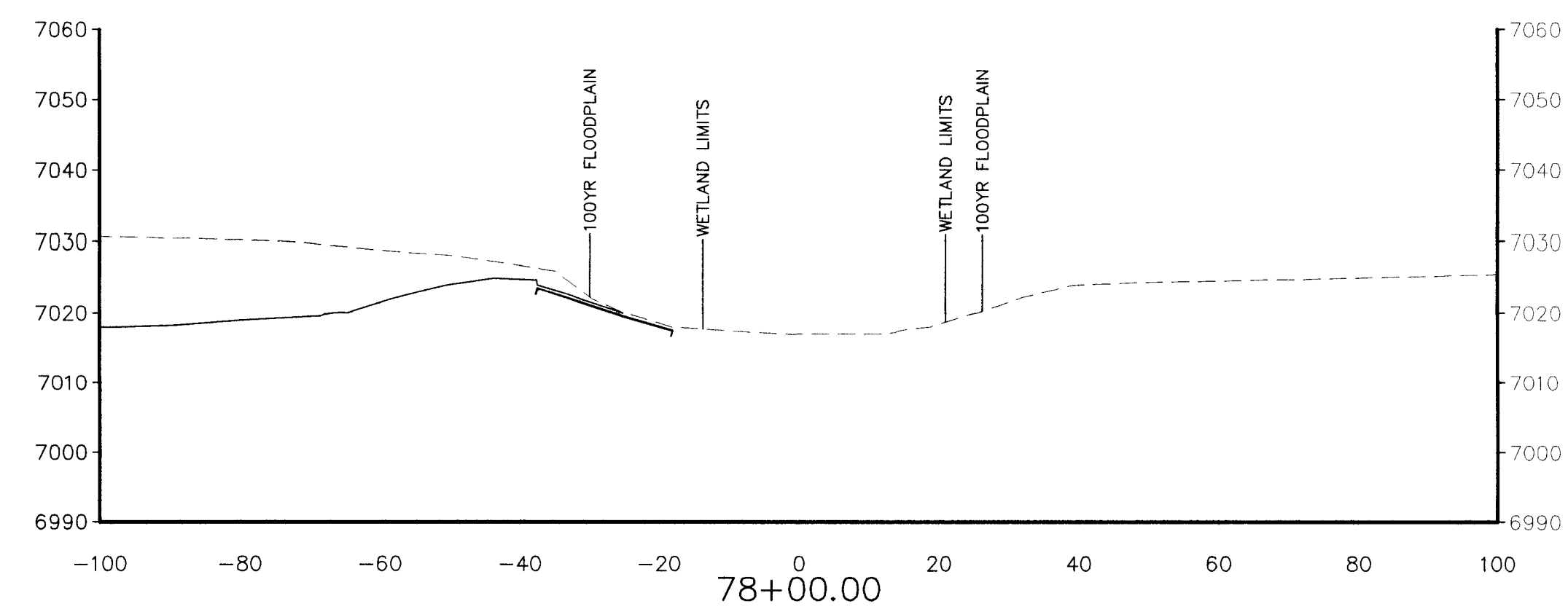
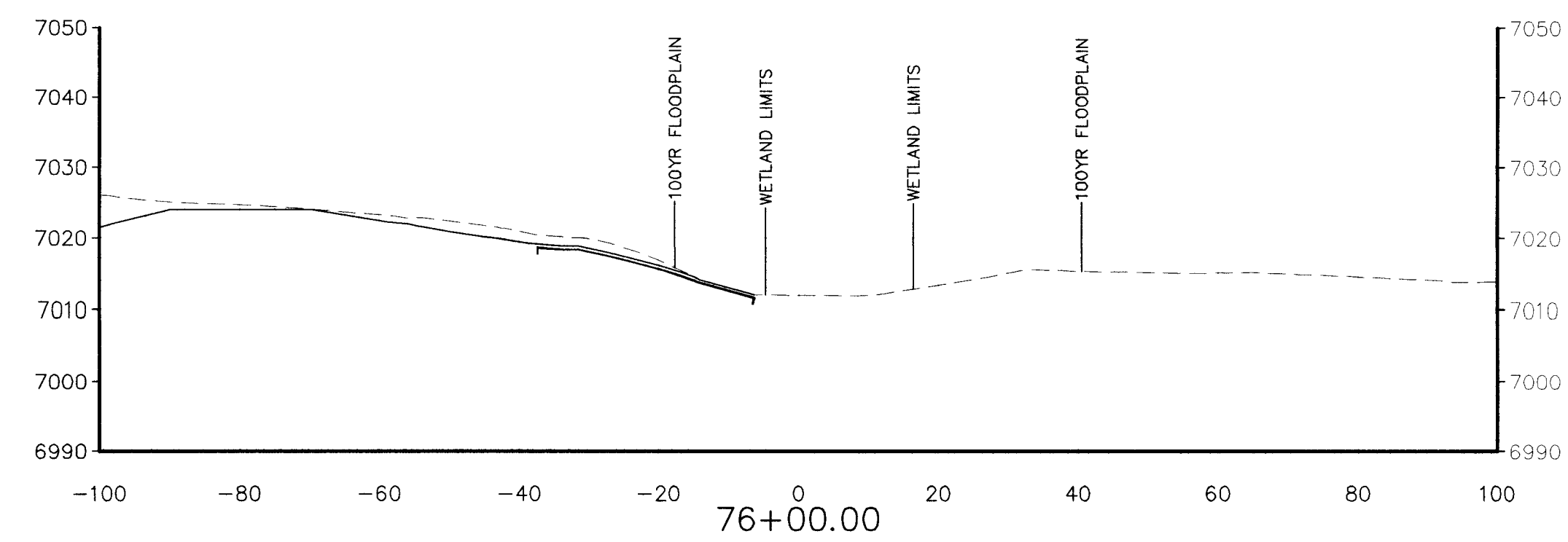
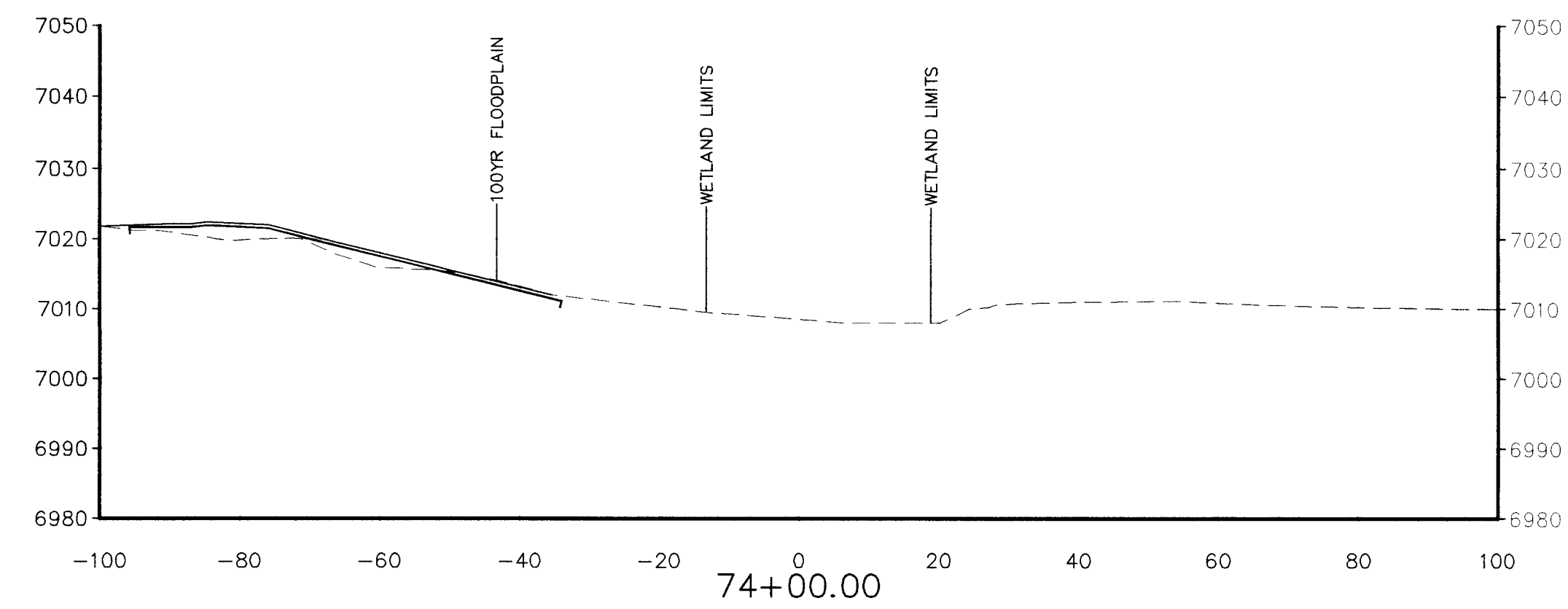
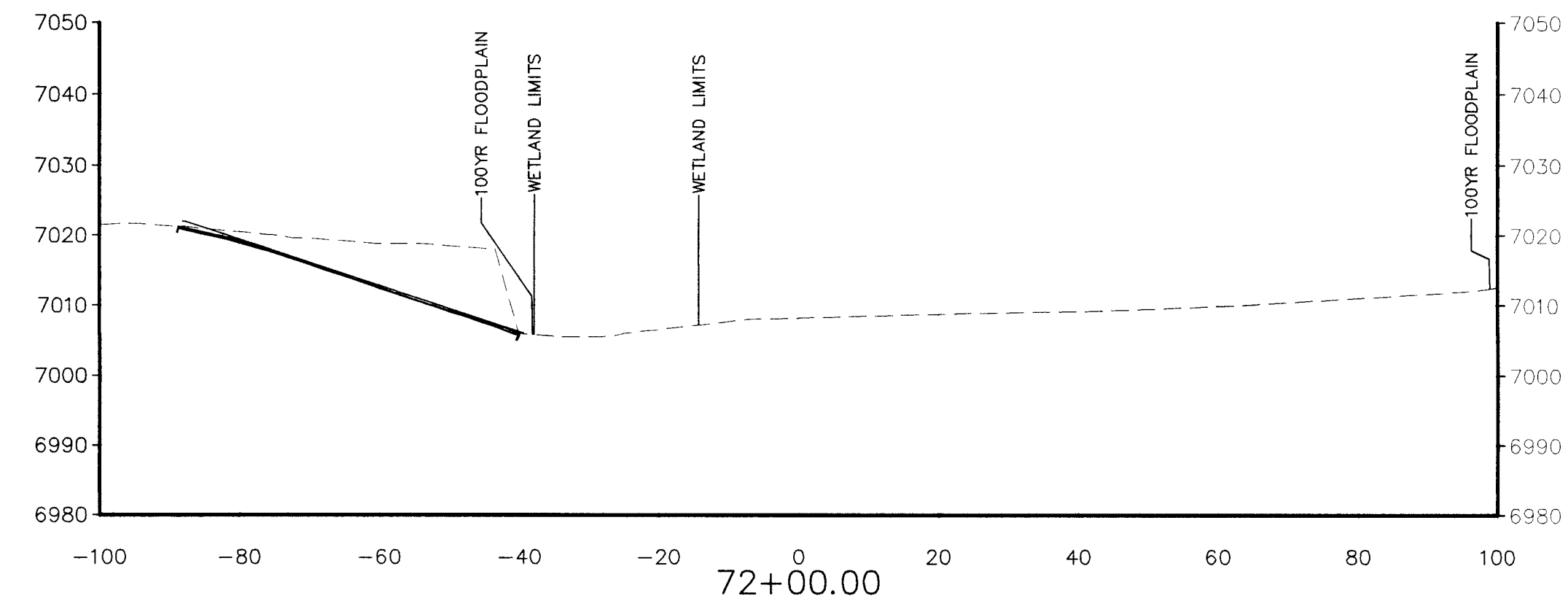
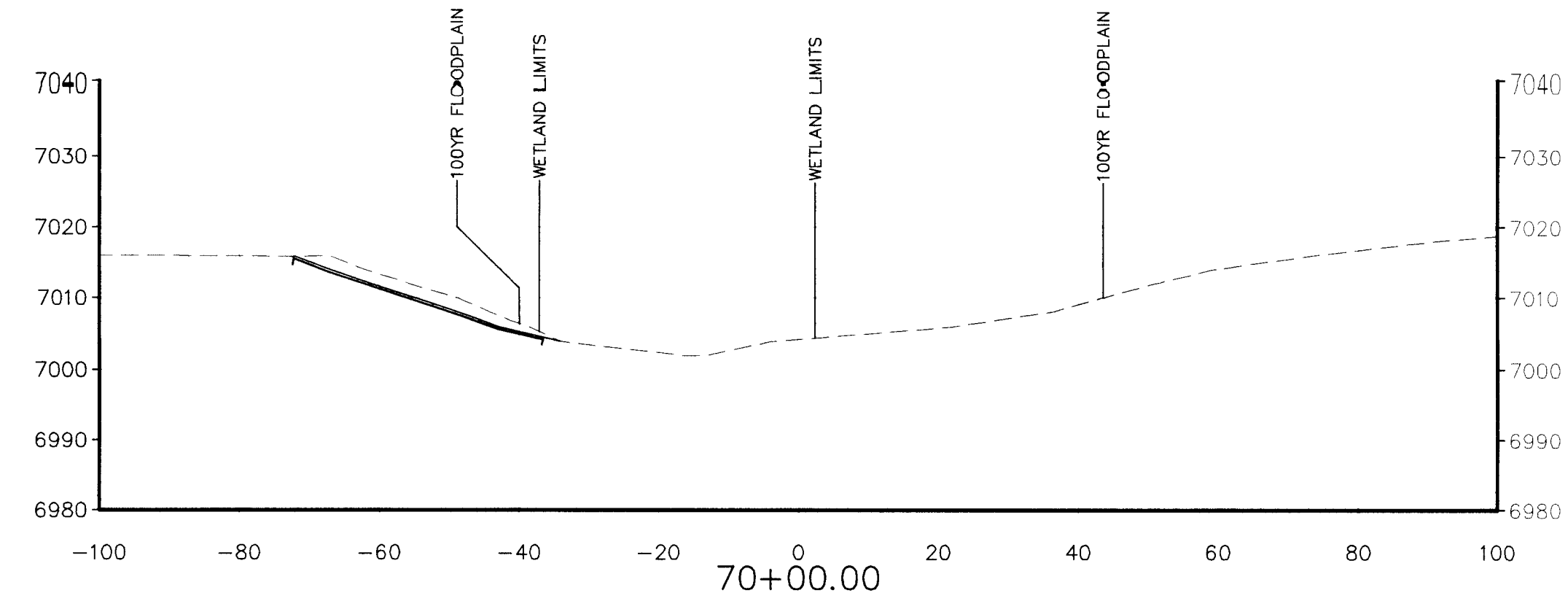
WIGOL A. SANCHEZ, COLORADO P.E. NO. 37160

REVISIONS:

NO.	DATE	BY	DESCRIPTION

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CAUTION



LEGEND

 D₅₀=24"
SOIL RIPRAP

— EROSION CONTROL MAT

--- -- EXISTING GROUND
PROPOSED FINISH

PROPOSED FINISH GRADE

STERLING RANCH FILING NO. 1

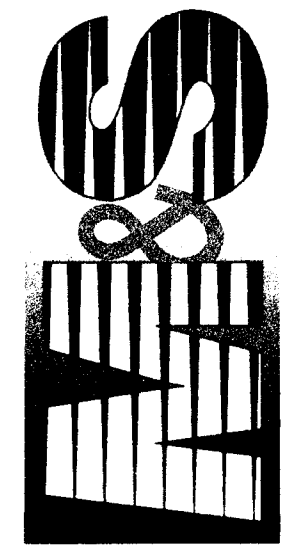
SAND CREEK CHANNEL SECTIONS

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SCALE	DATE: 04/17/2017

DESIGNED BY: VAS	SCALE	SHEET 13 OF 17	GR1
DRAWN BY: BLB	HORIZ: 1"=20'		
CHECKED BY: VAS			

CHIEVALDO DT:	V7W	VERI:	N/A
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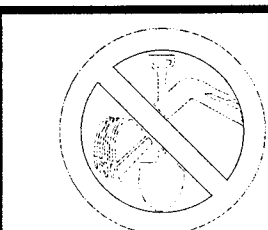
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

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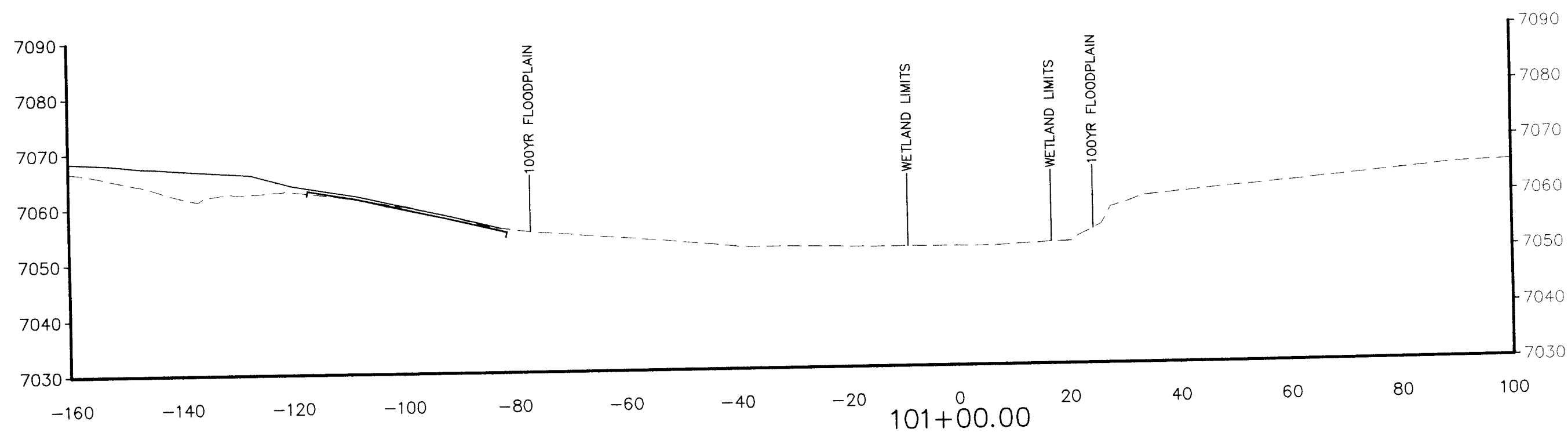
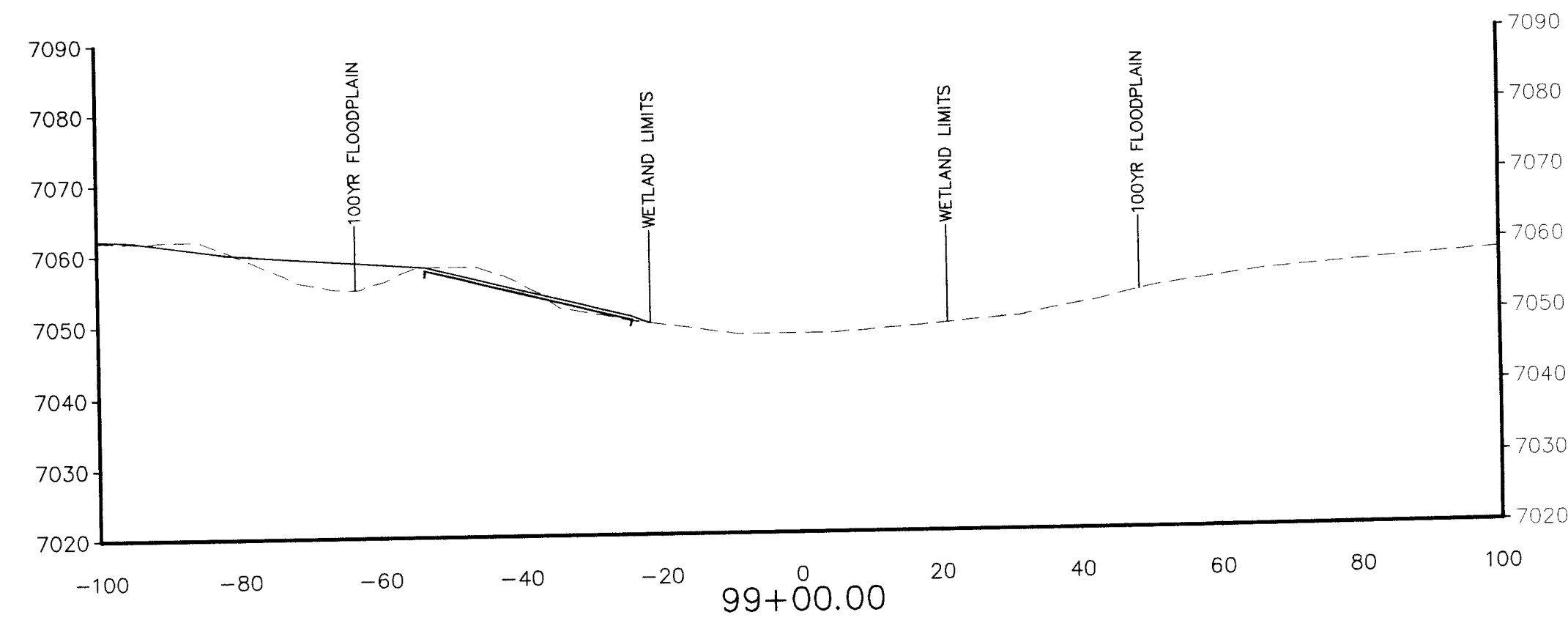
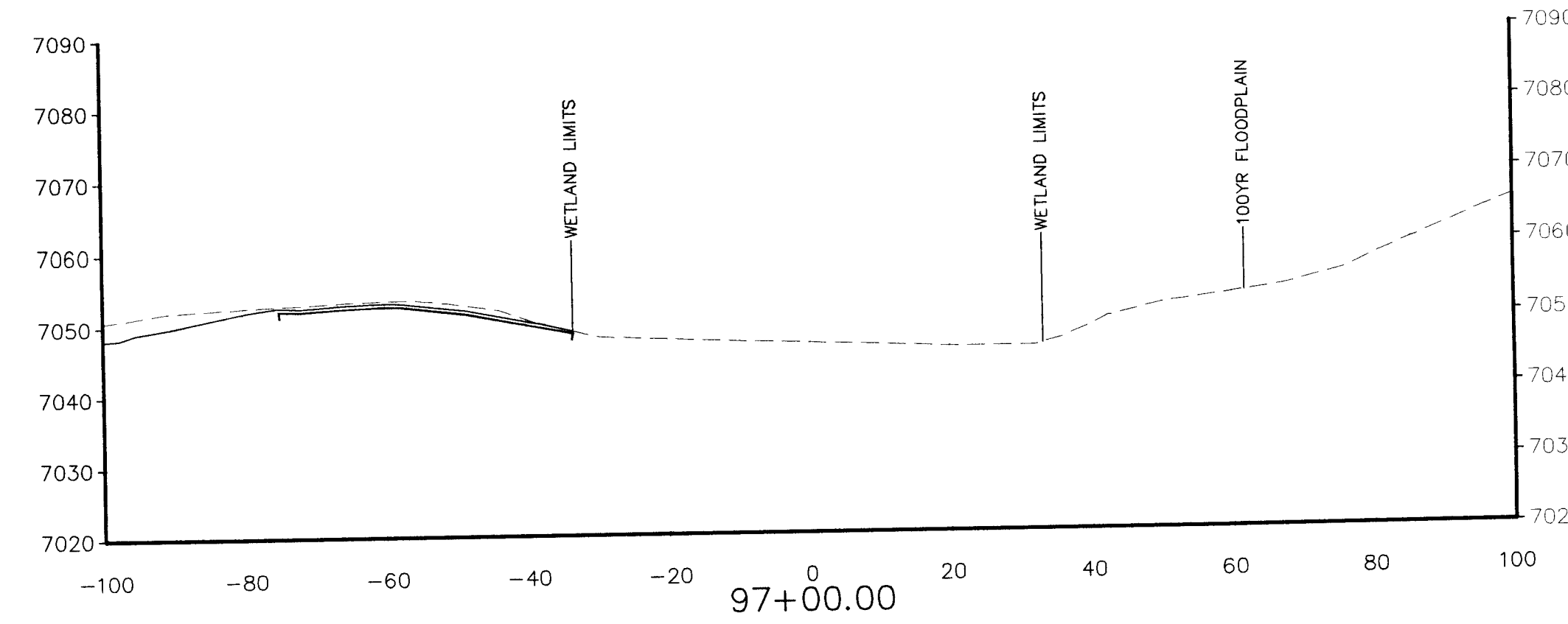
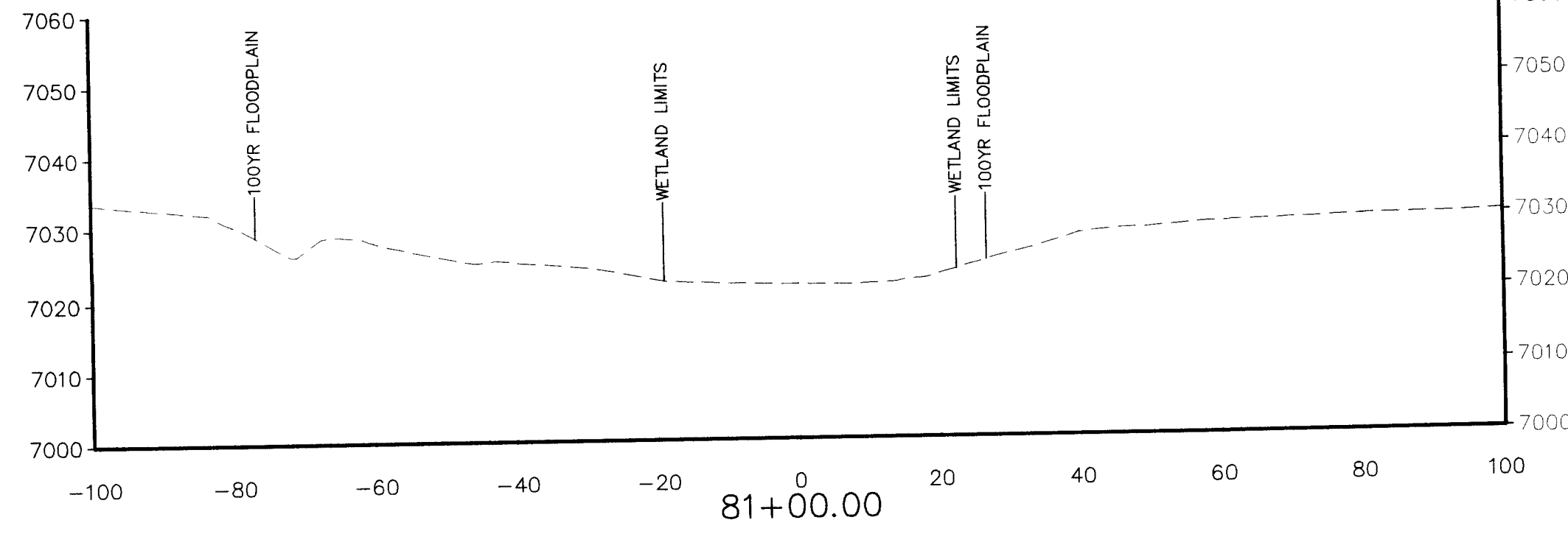
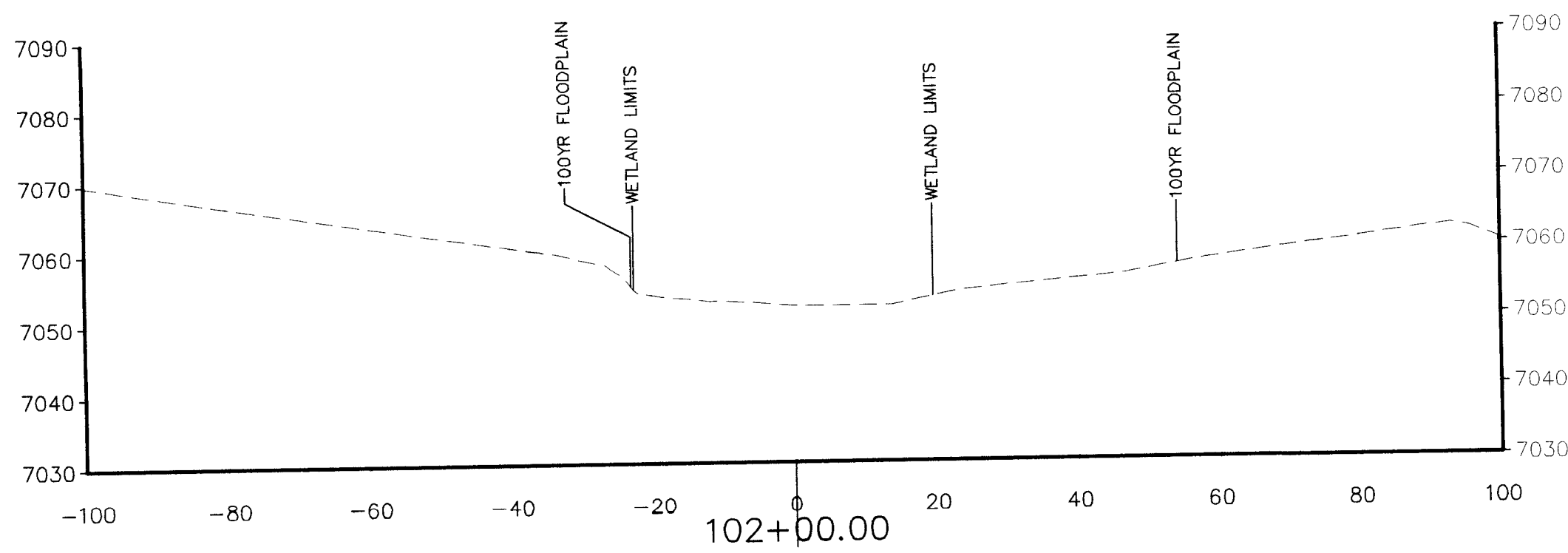
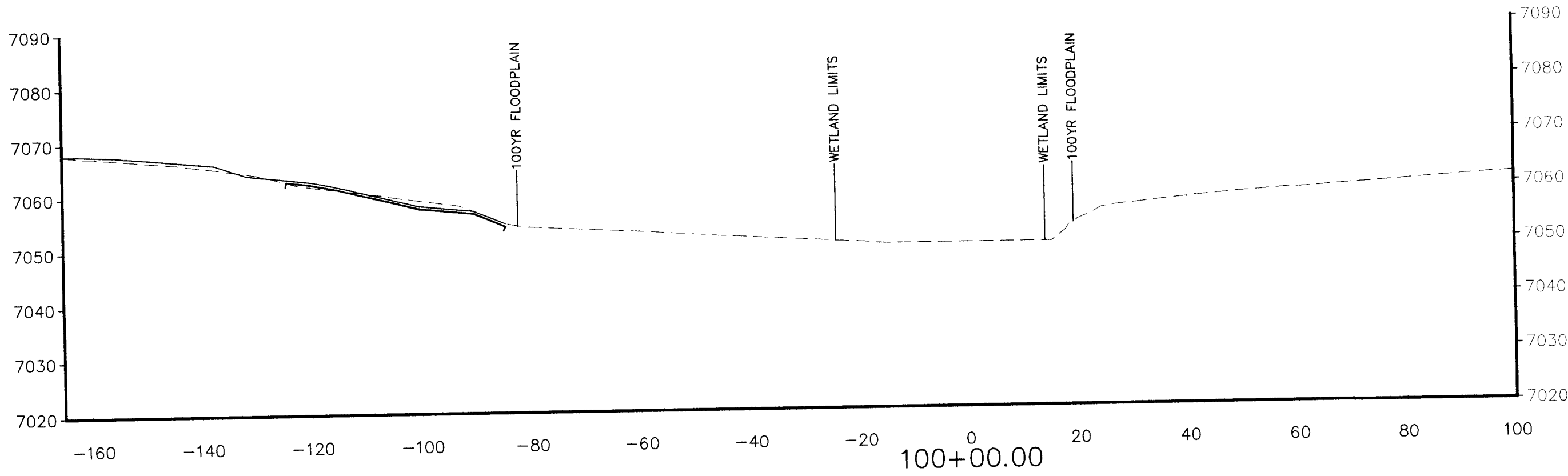
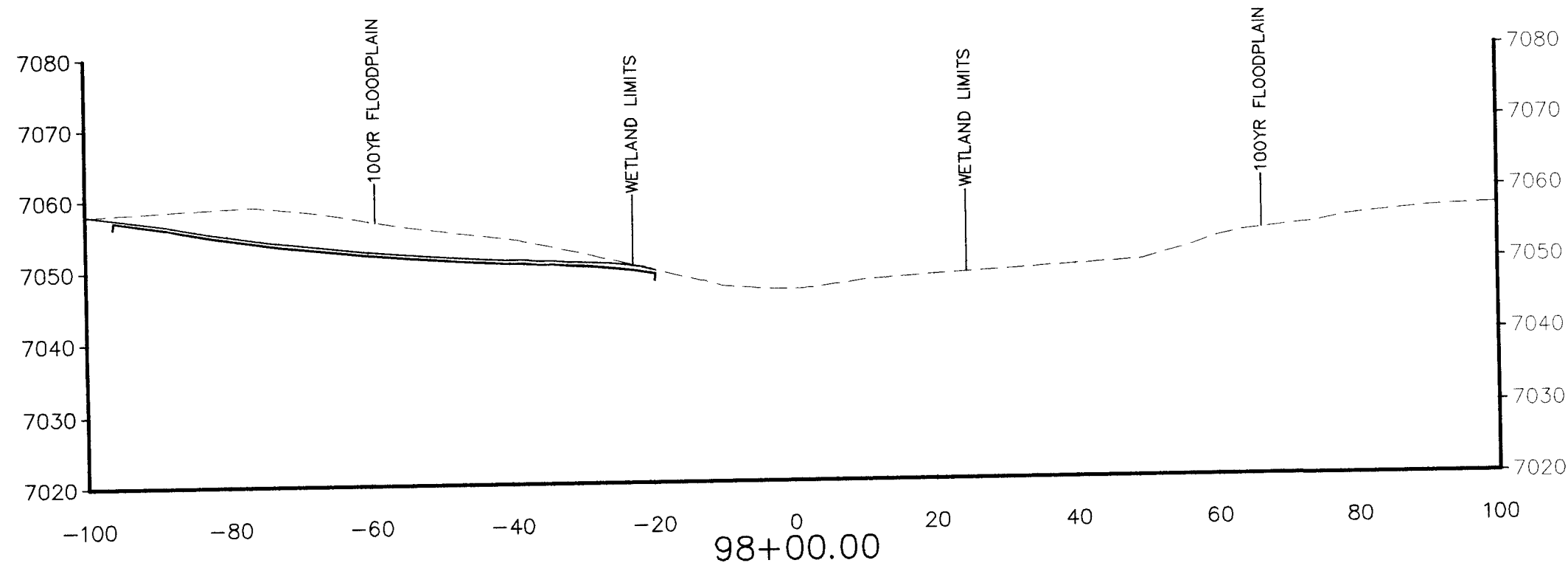
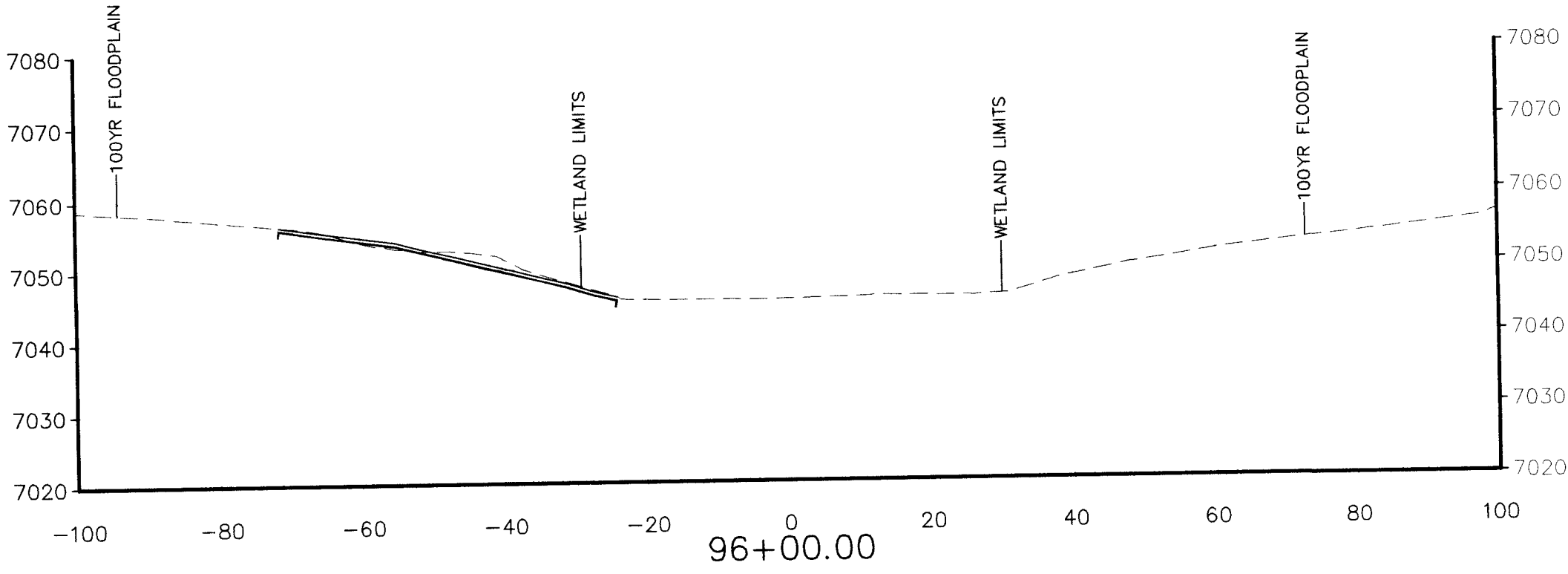
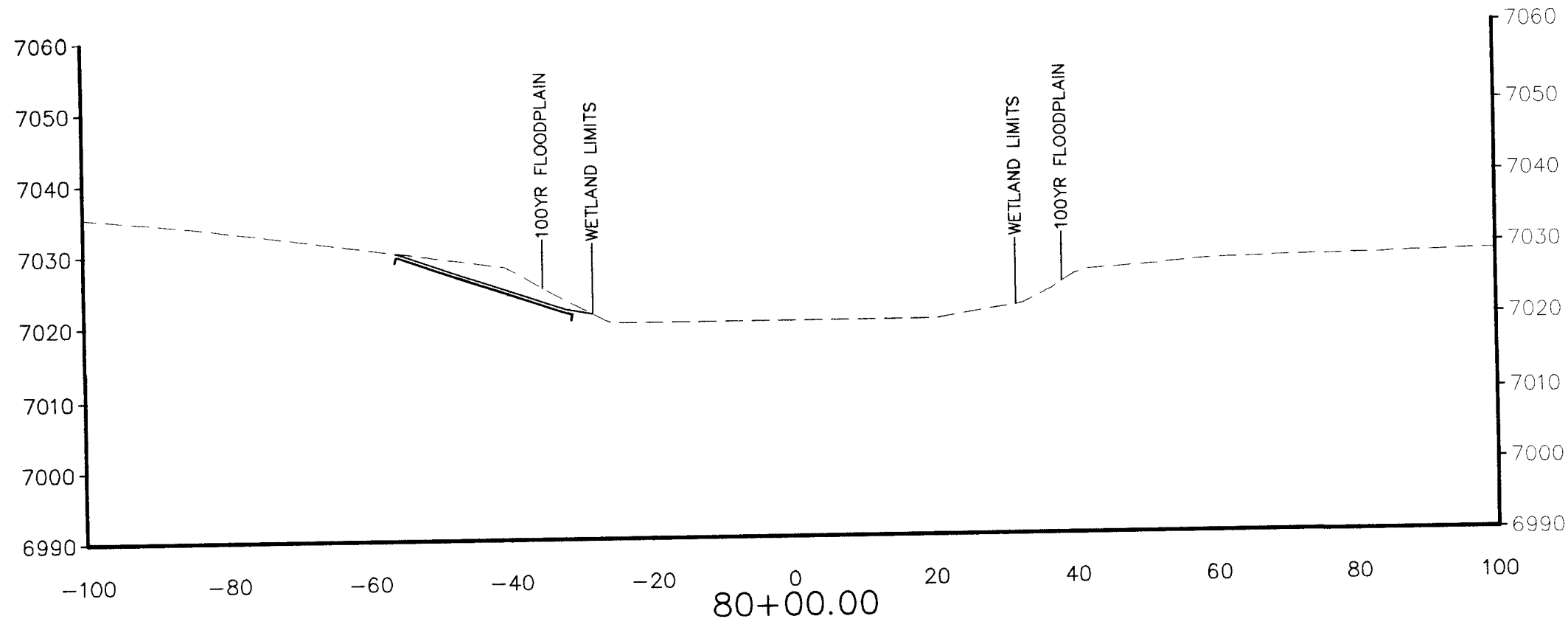
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File: O:\99002A\Sterling Ranch District\dwg\Const_Dwg\Grading & Erosion Control\Filing No. 1\GR13.dwg Plotstamp: 12/6/2016 11:42 AM



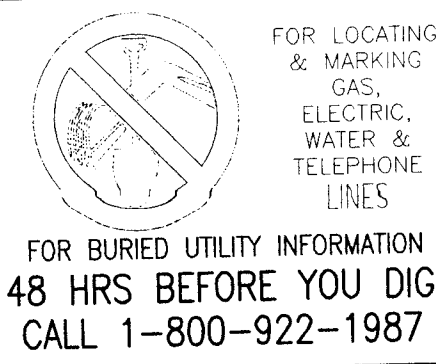
LEGEND

D50=24" SOIL RIPRAP

EROSION CONTROL MAT

EXISTING GROUND

PROPOSED FINISH GRADE



STERLING RANCH FILING NO. 1

SAND CREEK CHANNEL SECTIONS

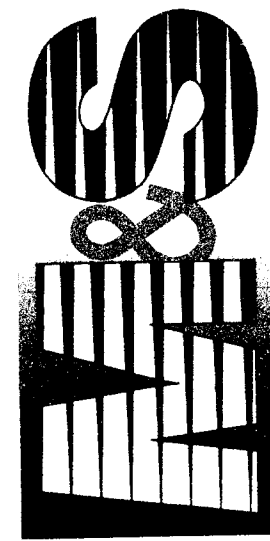
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DESIGNED BY: VAS SCALE: 1"=20' DATE: 04/17/2017

DRAWN BY: BLB HORIZ: VAS SHEET 14 OF 17

CHECKED BY: VAS VERT: N/A GR14

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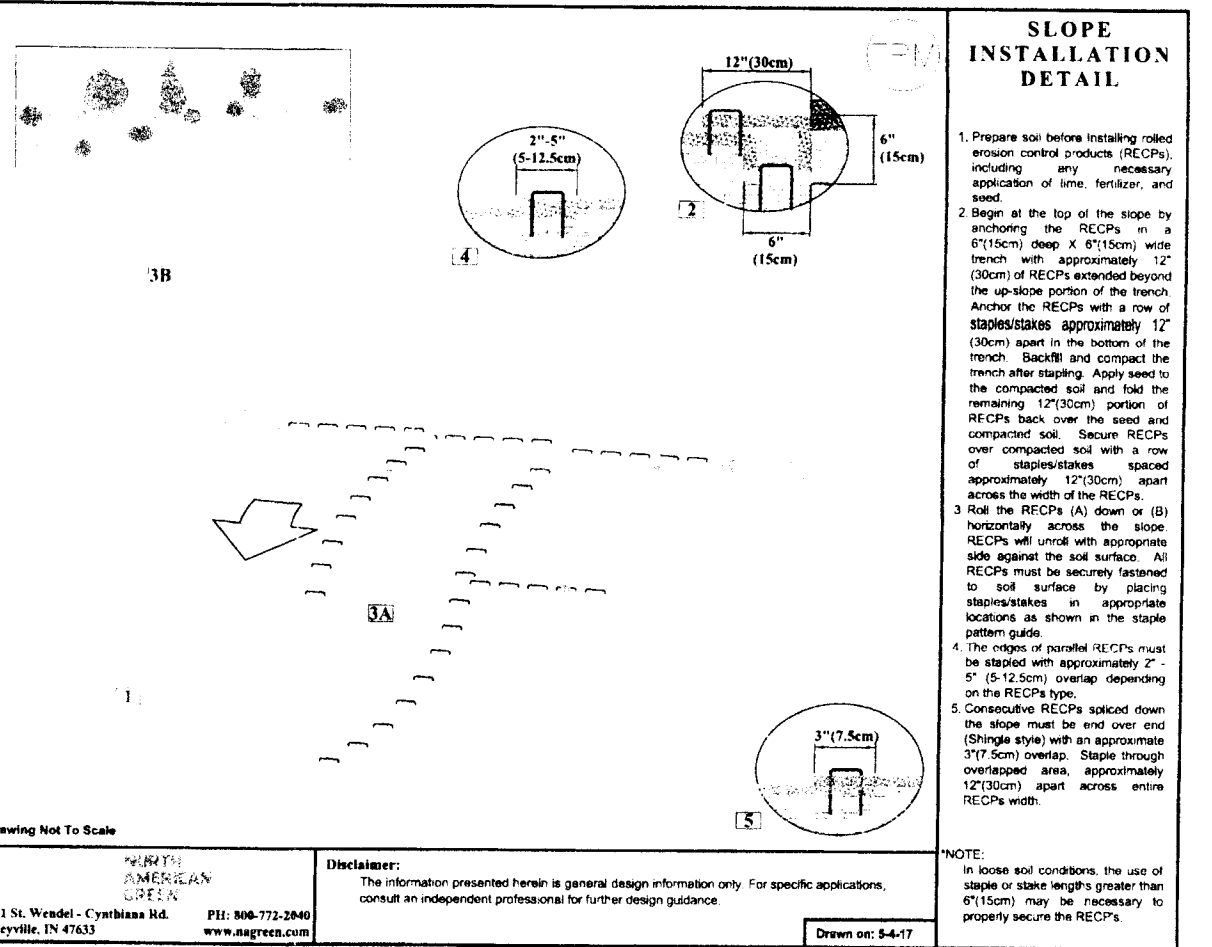
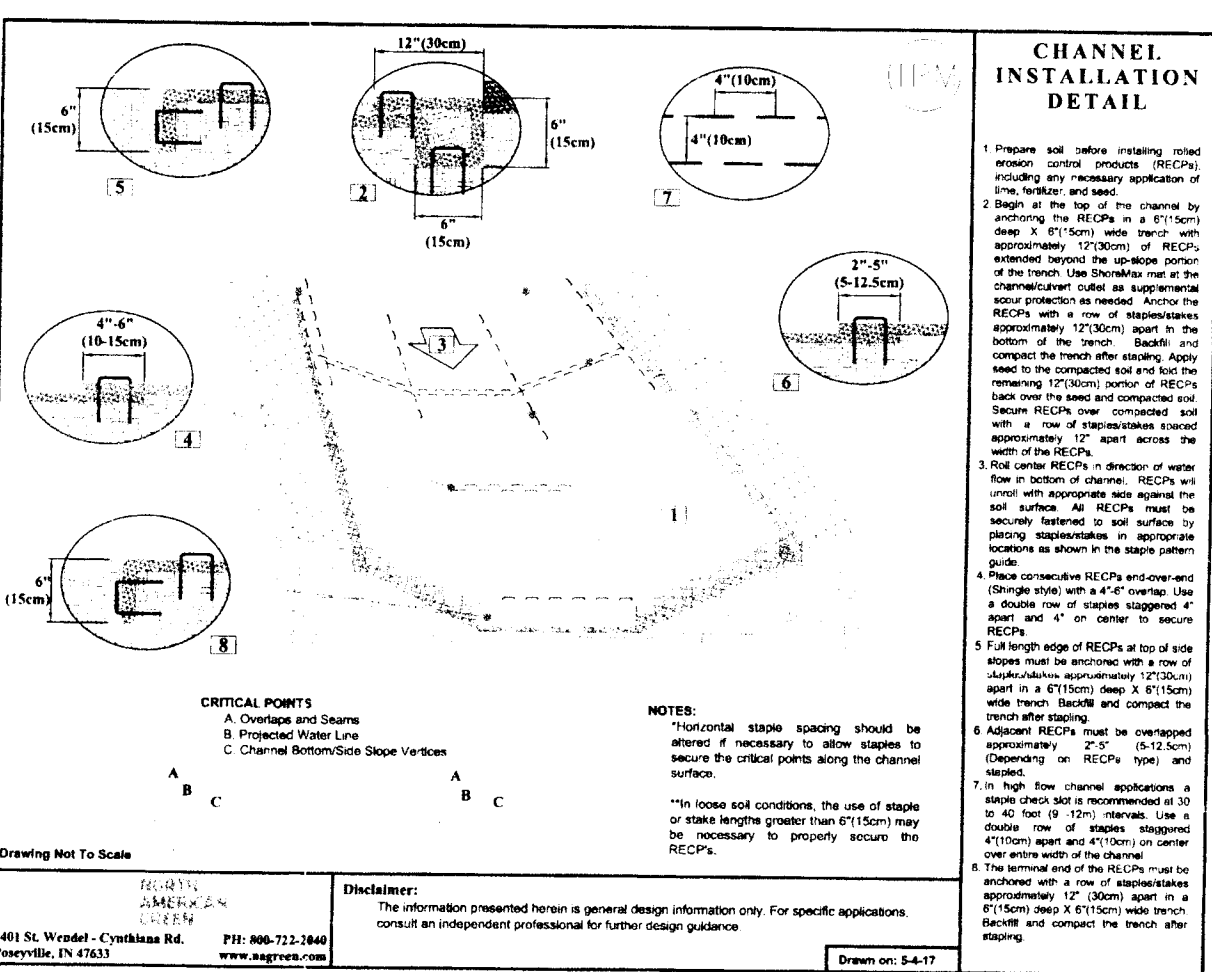
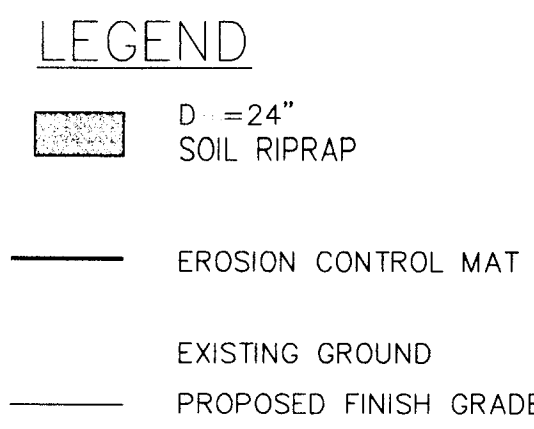
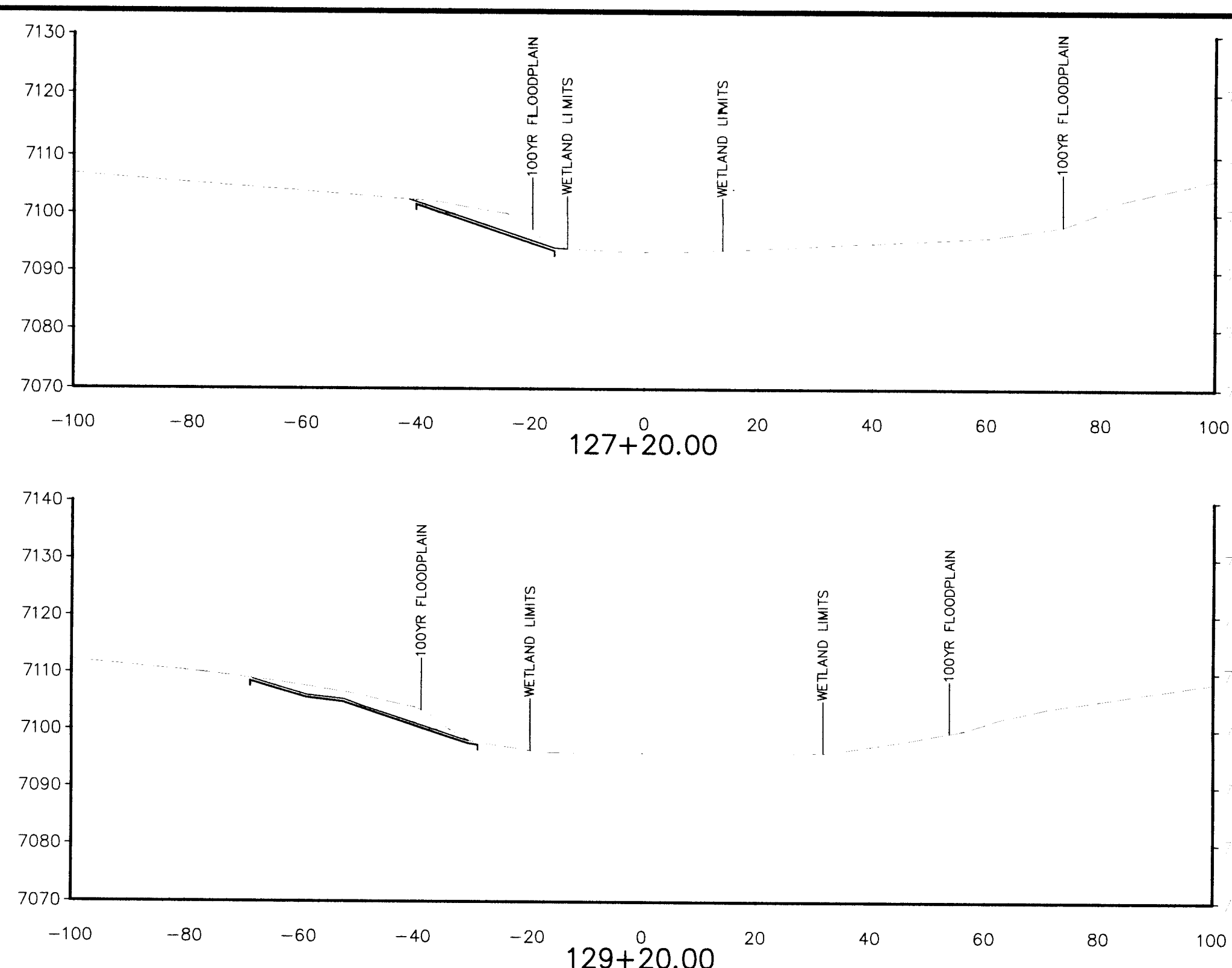
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

REVISIONS:

NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

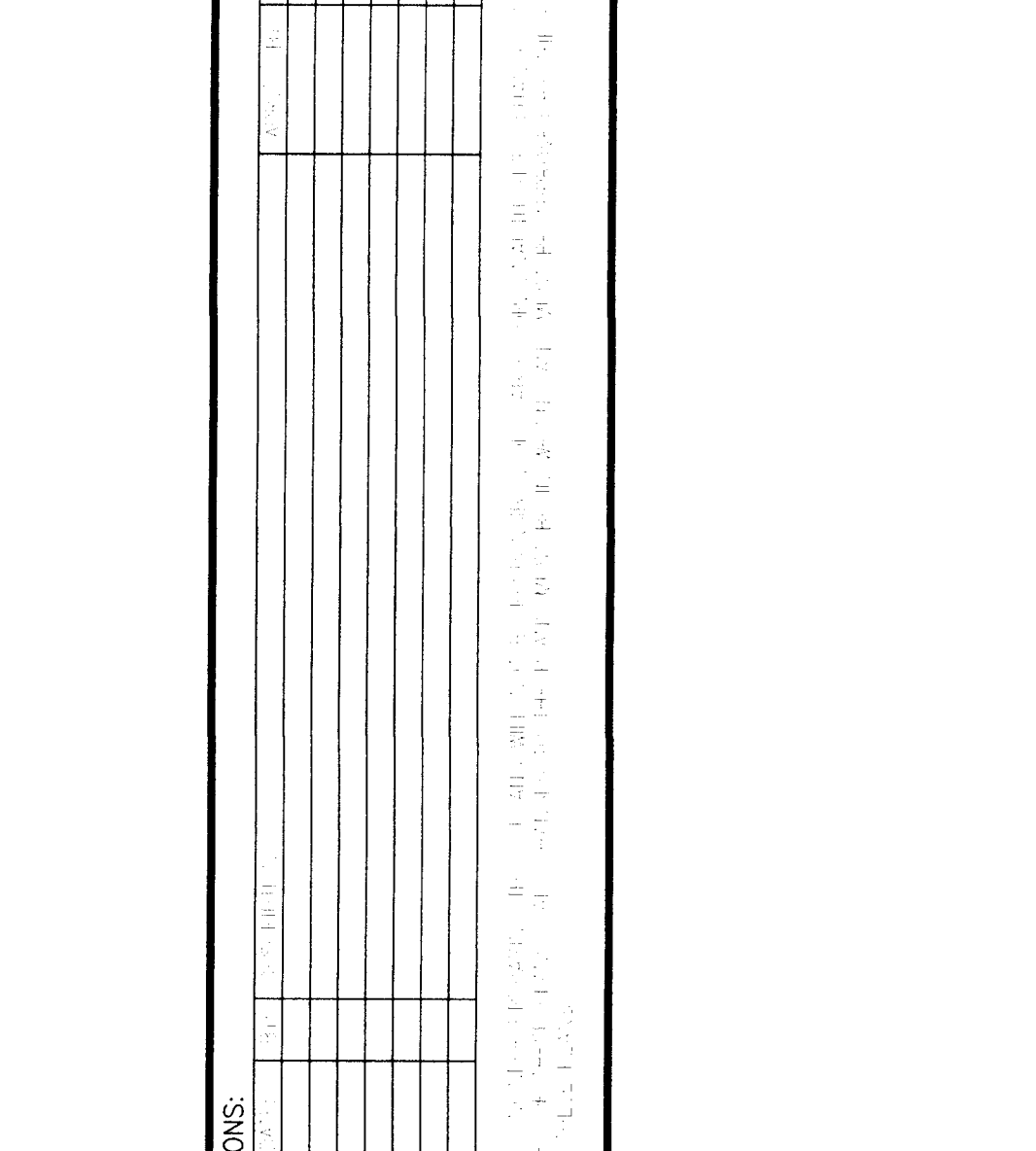
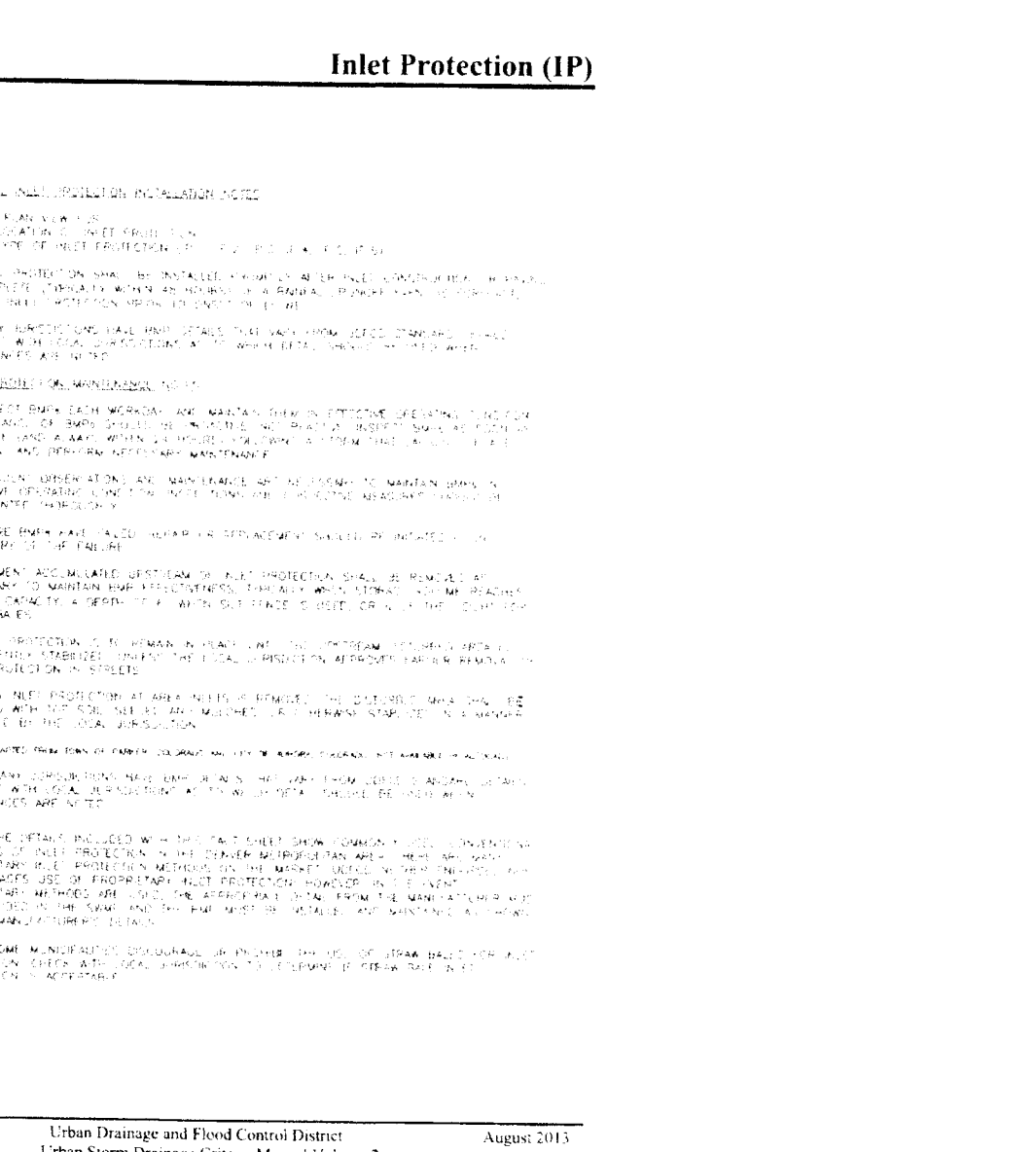
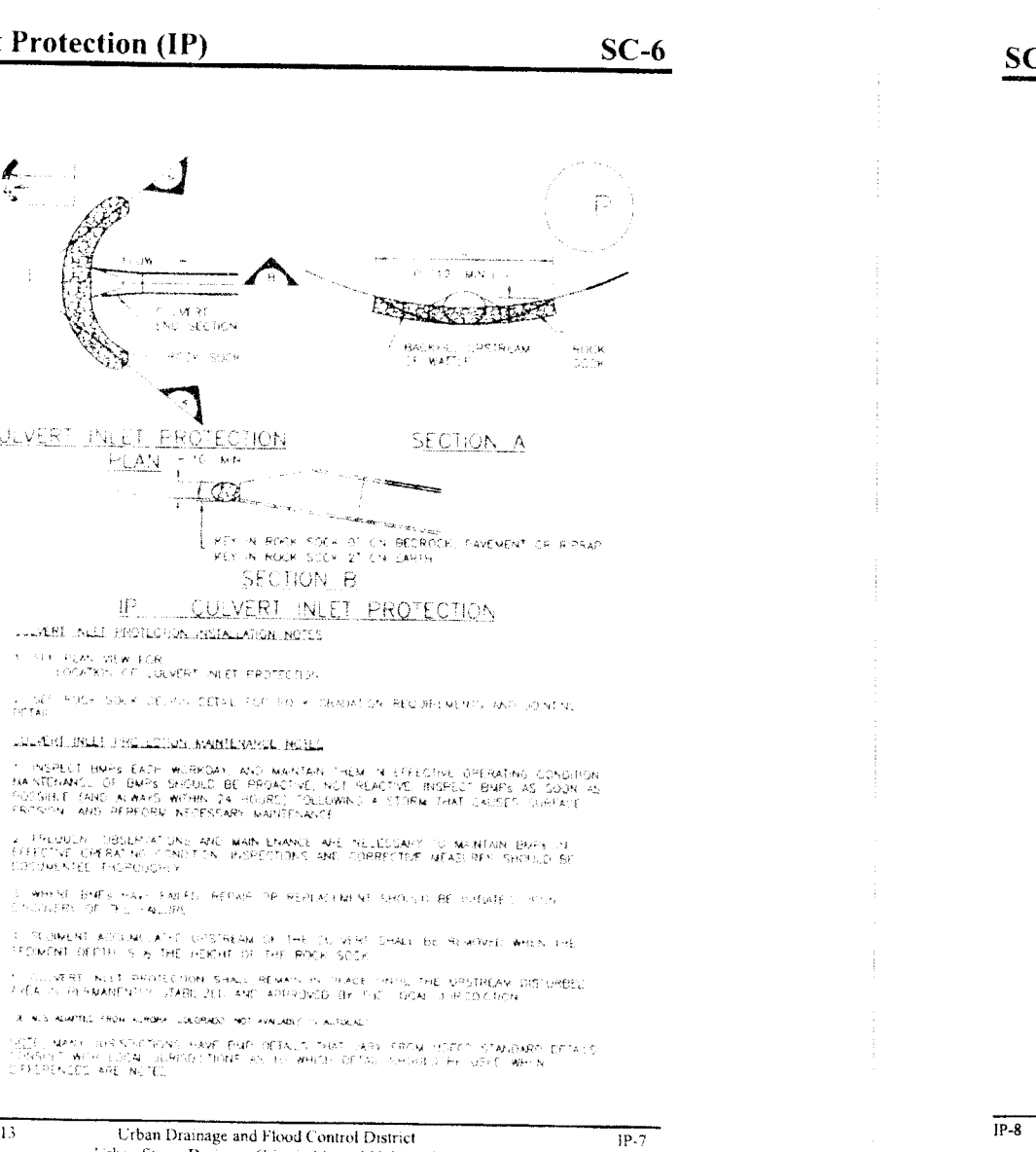
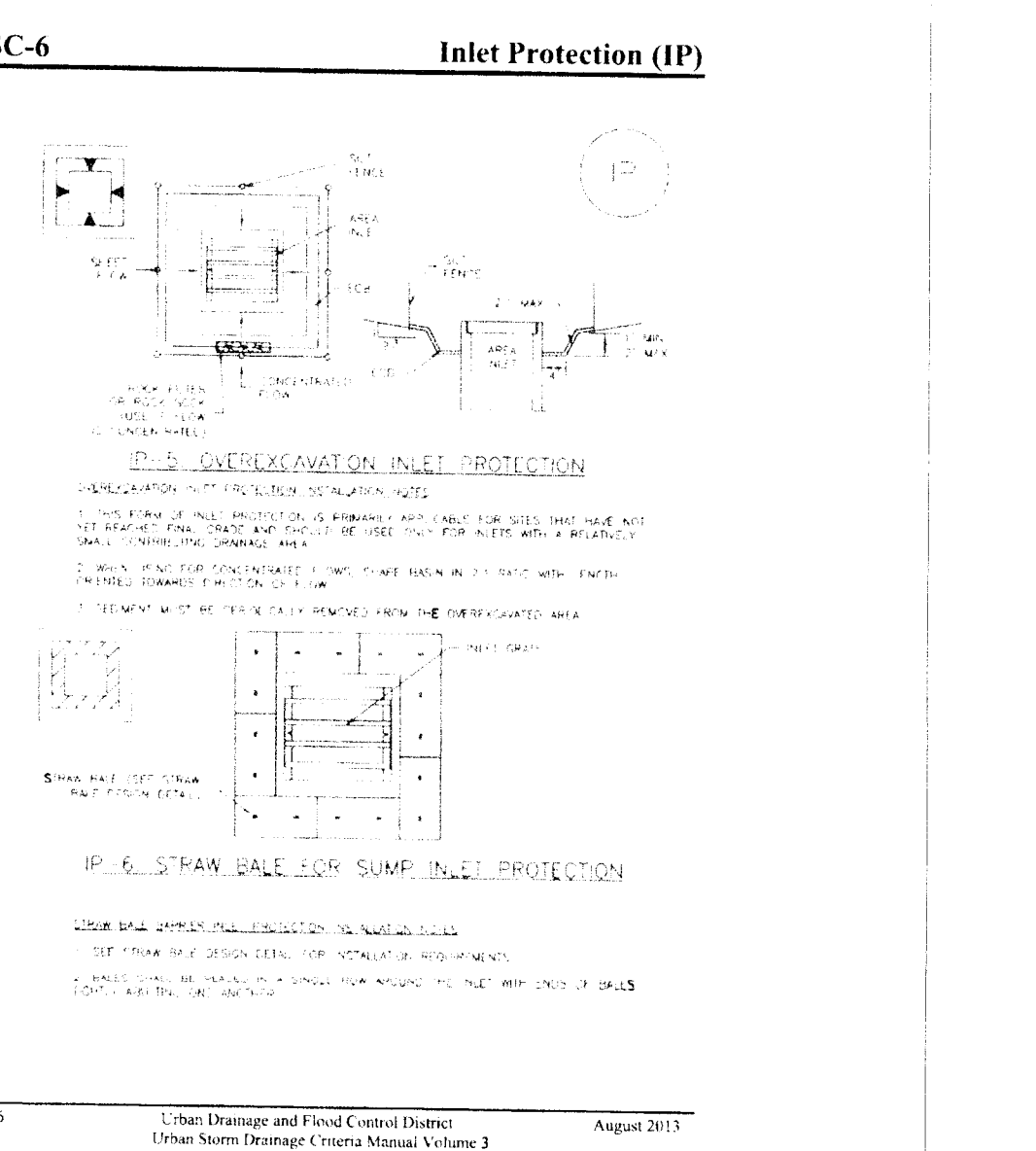
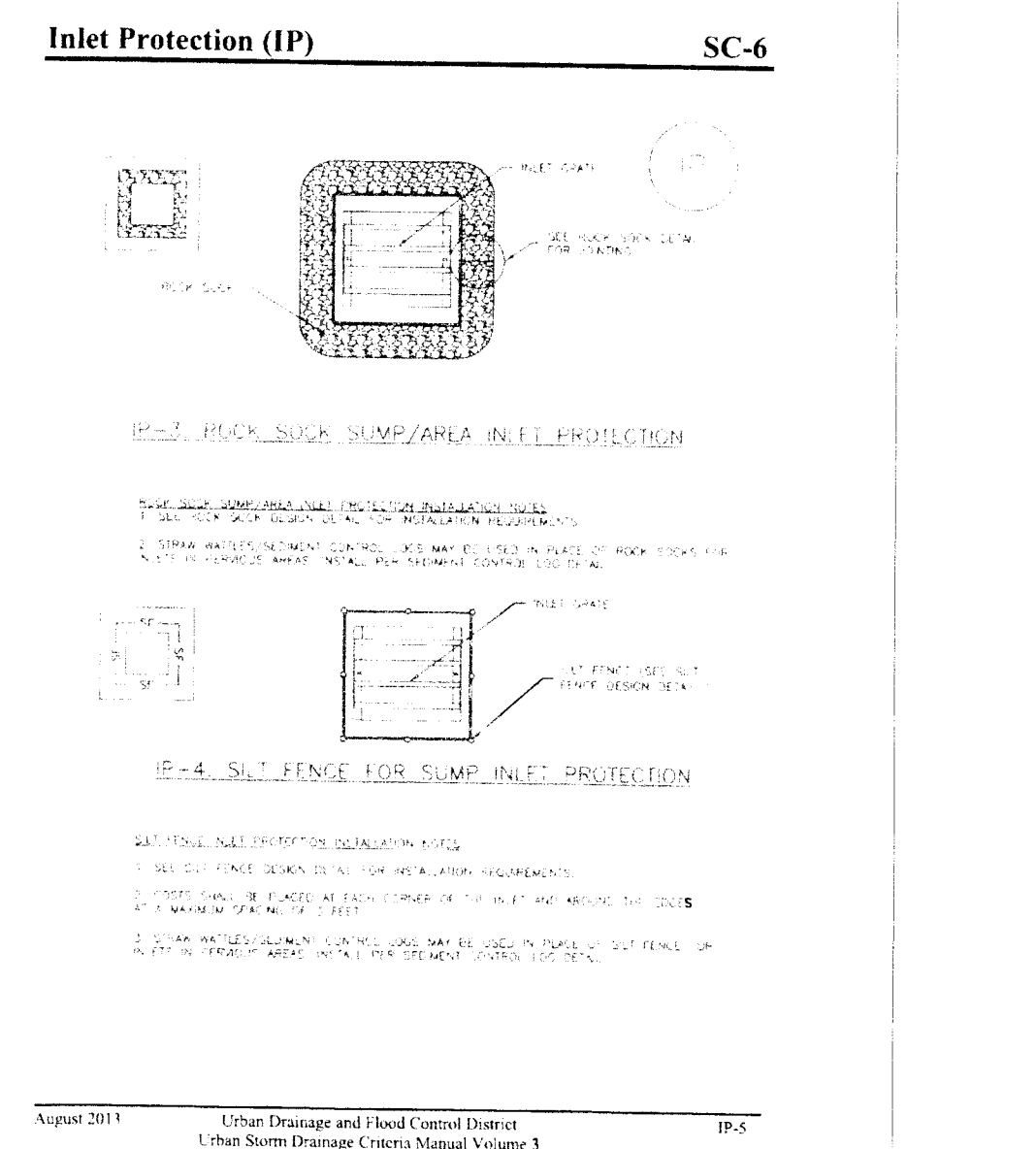
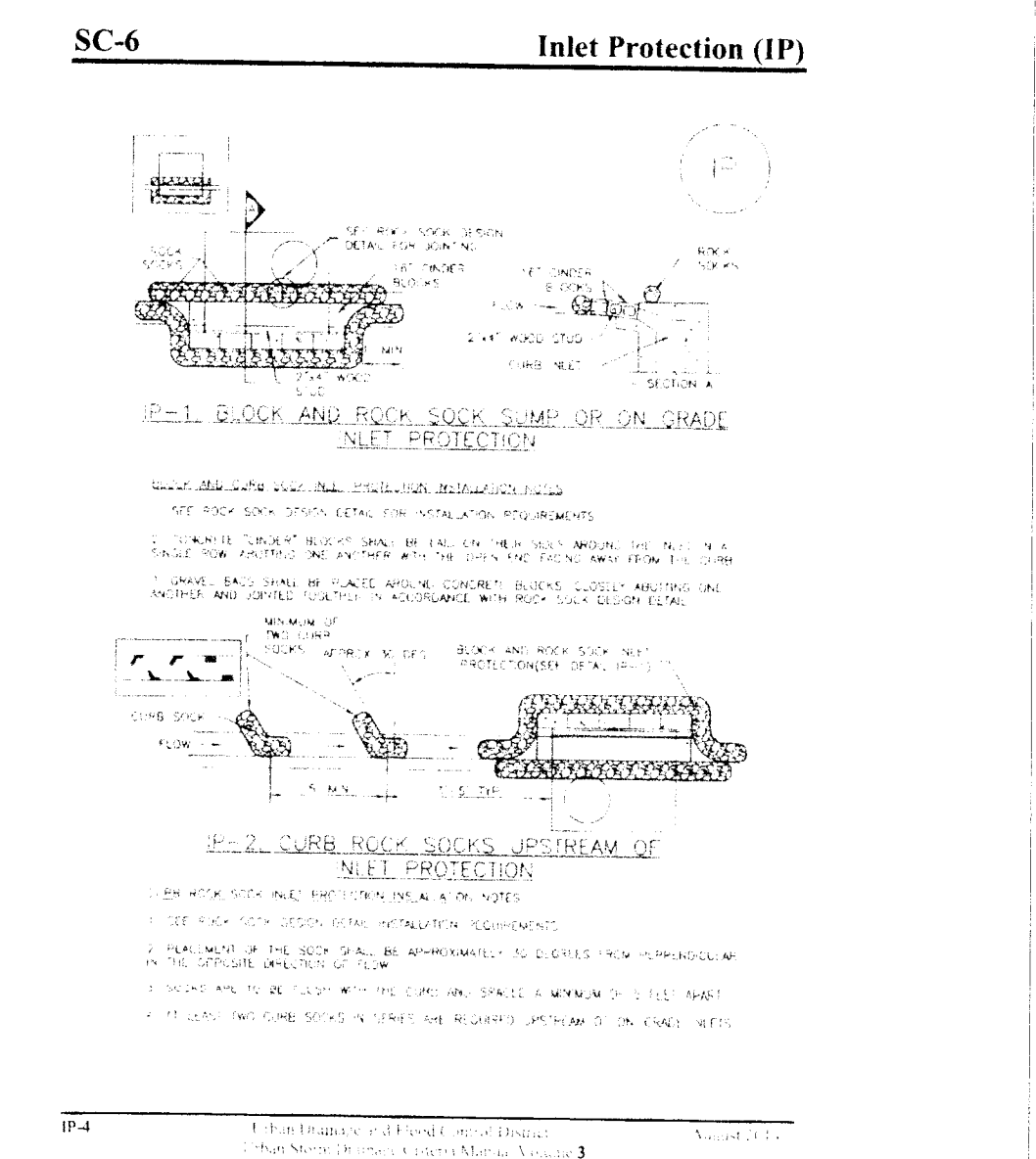
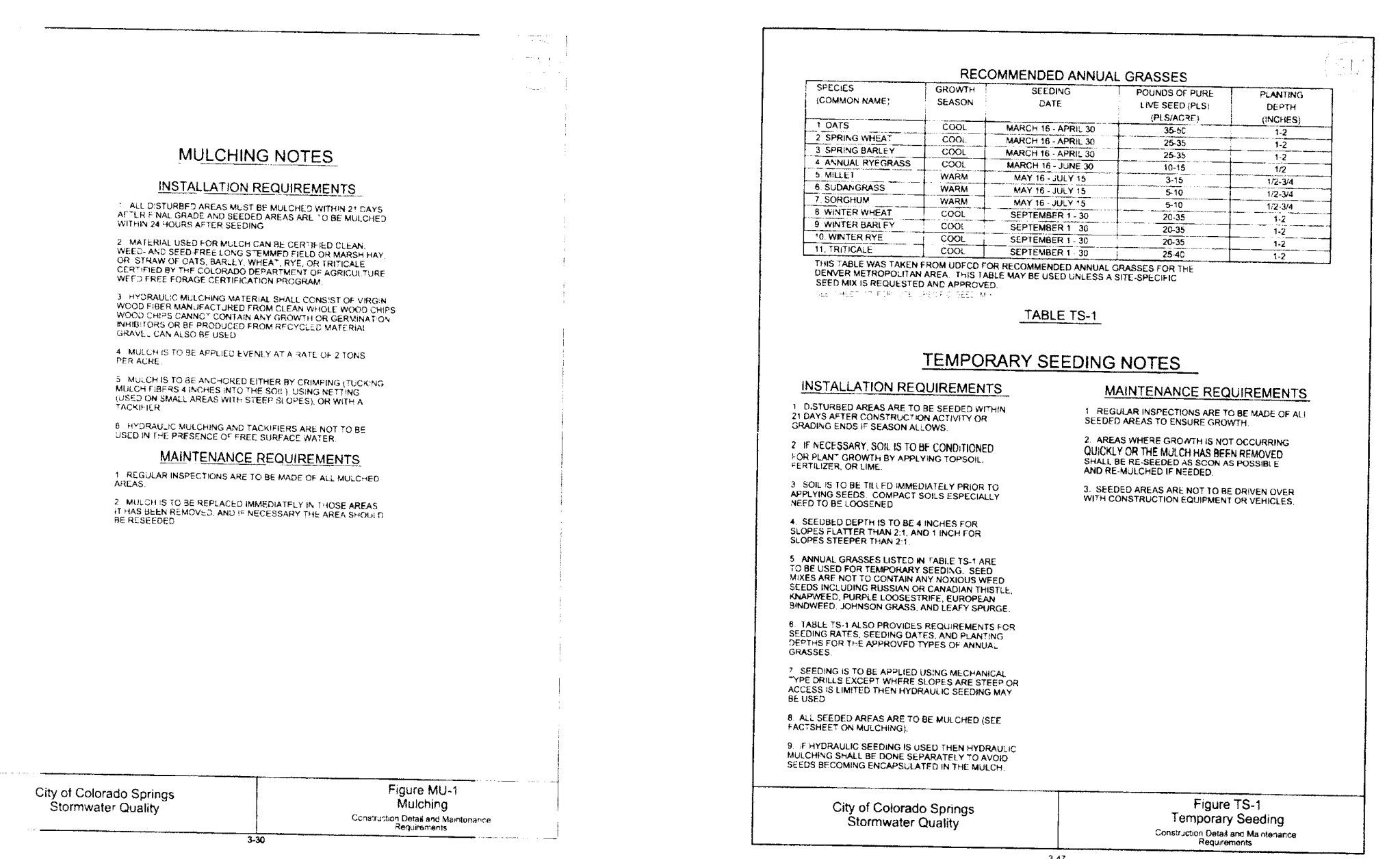
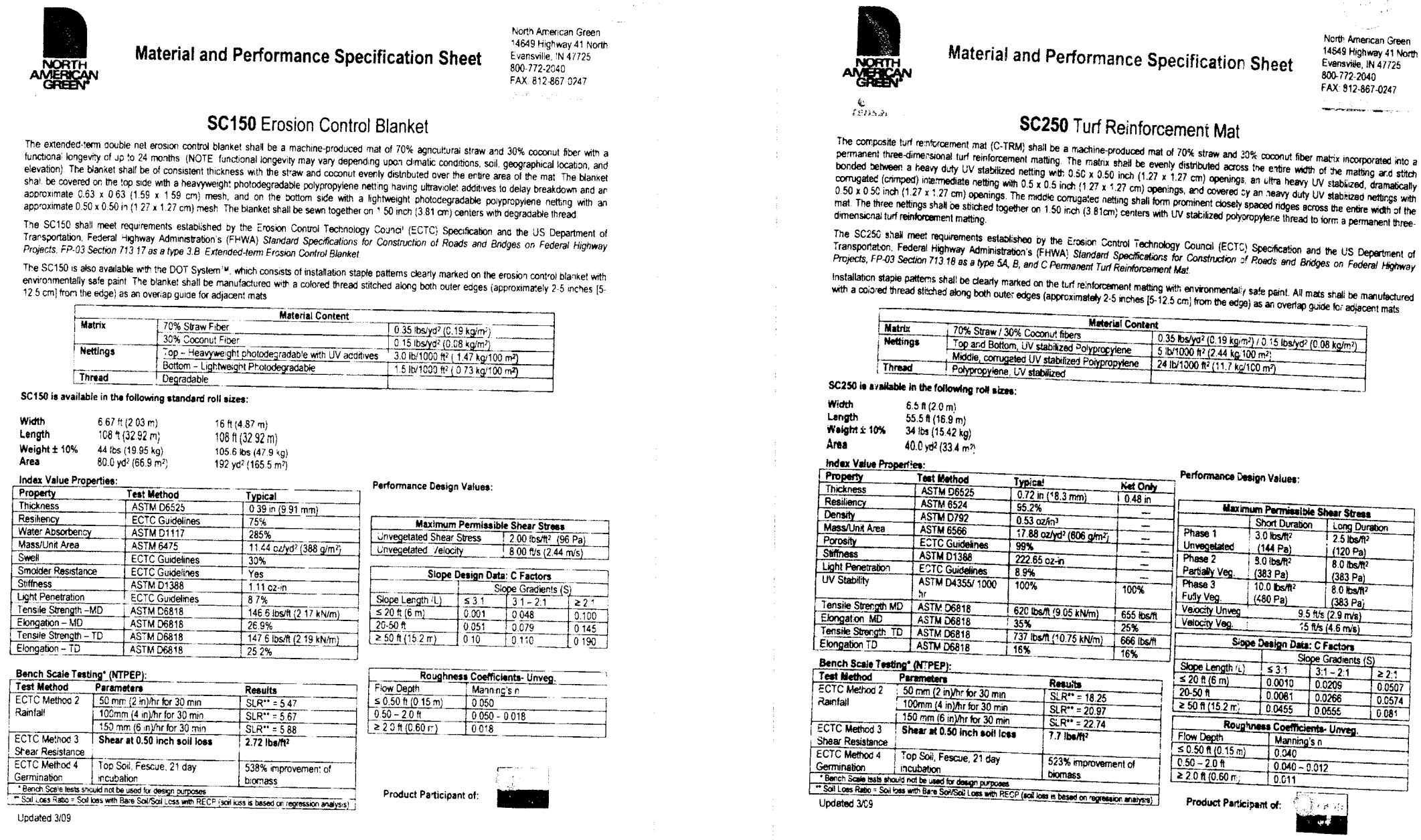
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CAUTION



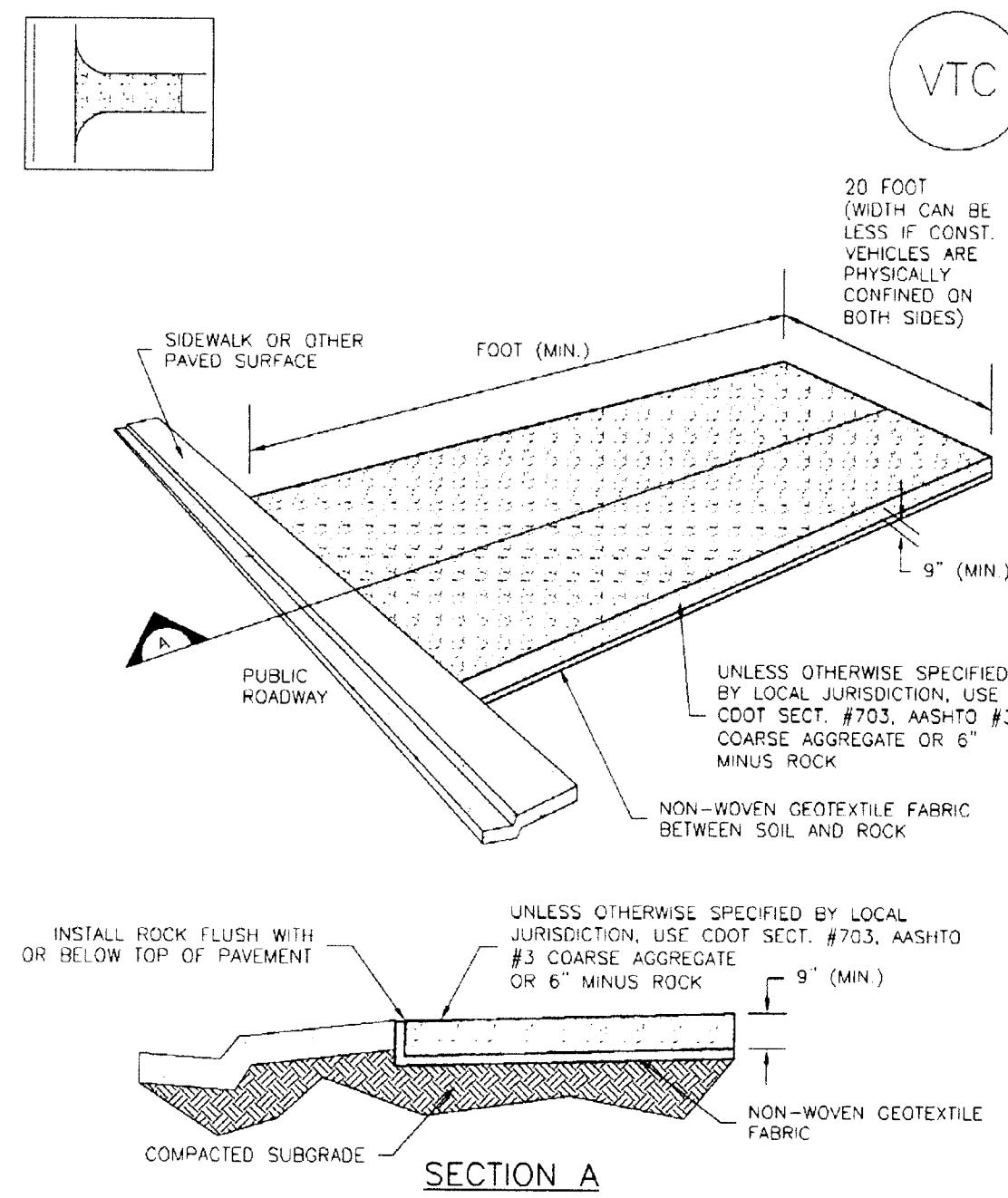
SAND CREEK CHANNEL SECT. & GEC DET.					
STERLING RANCH FILING NO. 1					
09-002	DLM	01/03/2018			
09-002	UMP	"1"-20"			
09-002	VAS	N/A	GR15		

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PHONE: 719.955.5485

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Vehicle Tracking Control (VTC)

SM-4

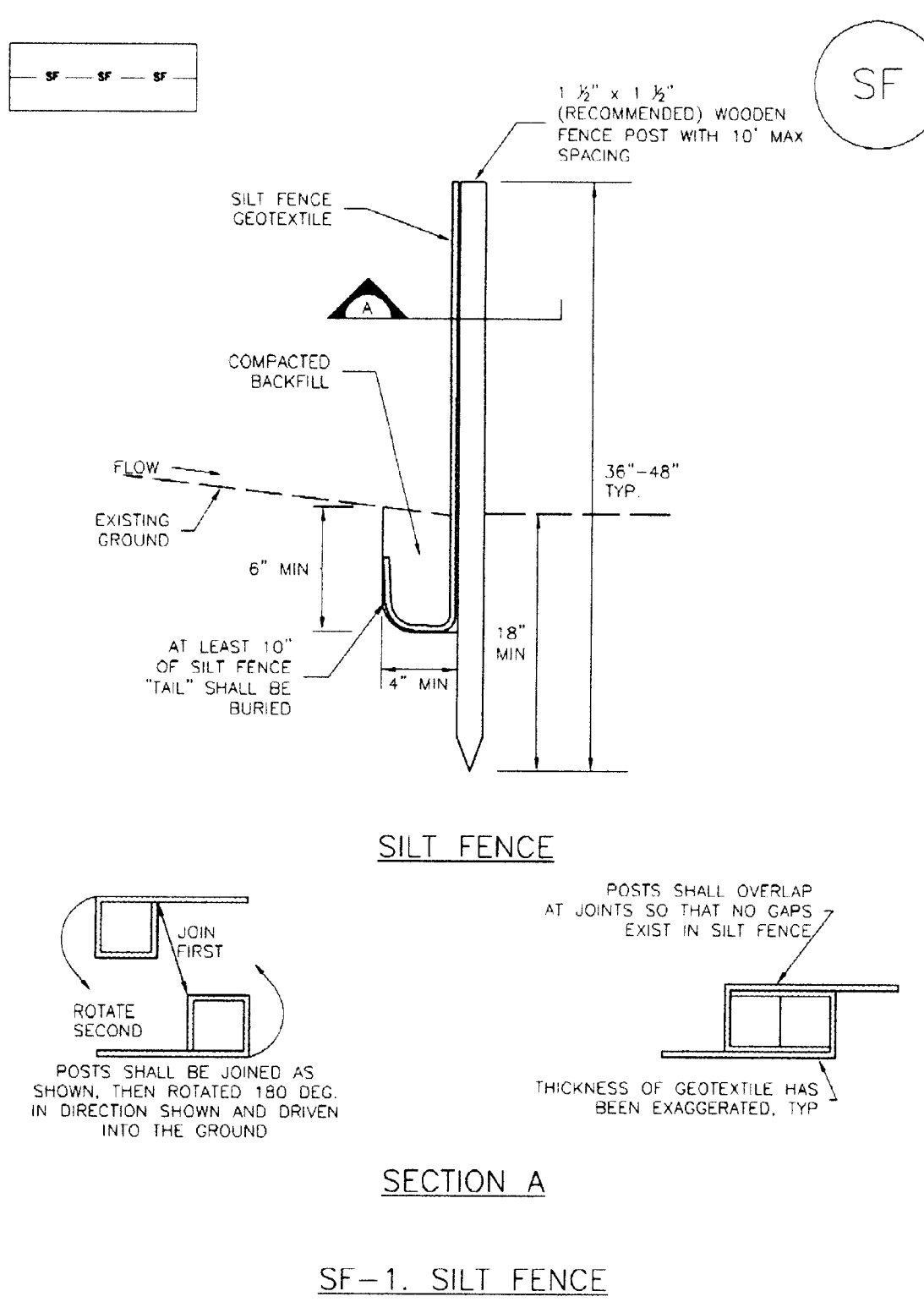


VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

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

Silt Fence (SF)

SC-1

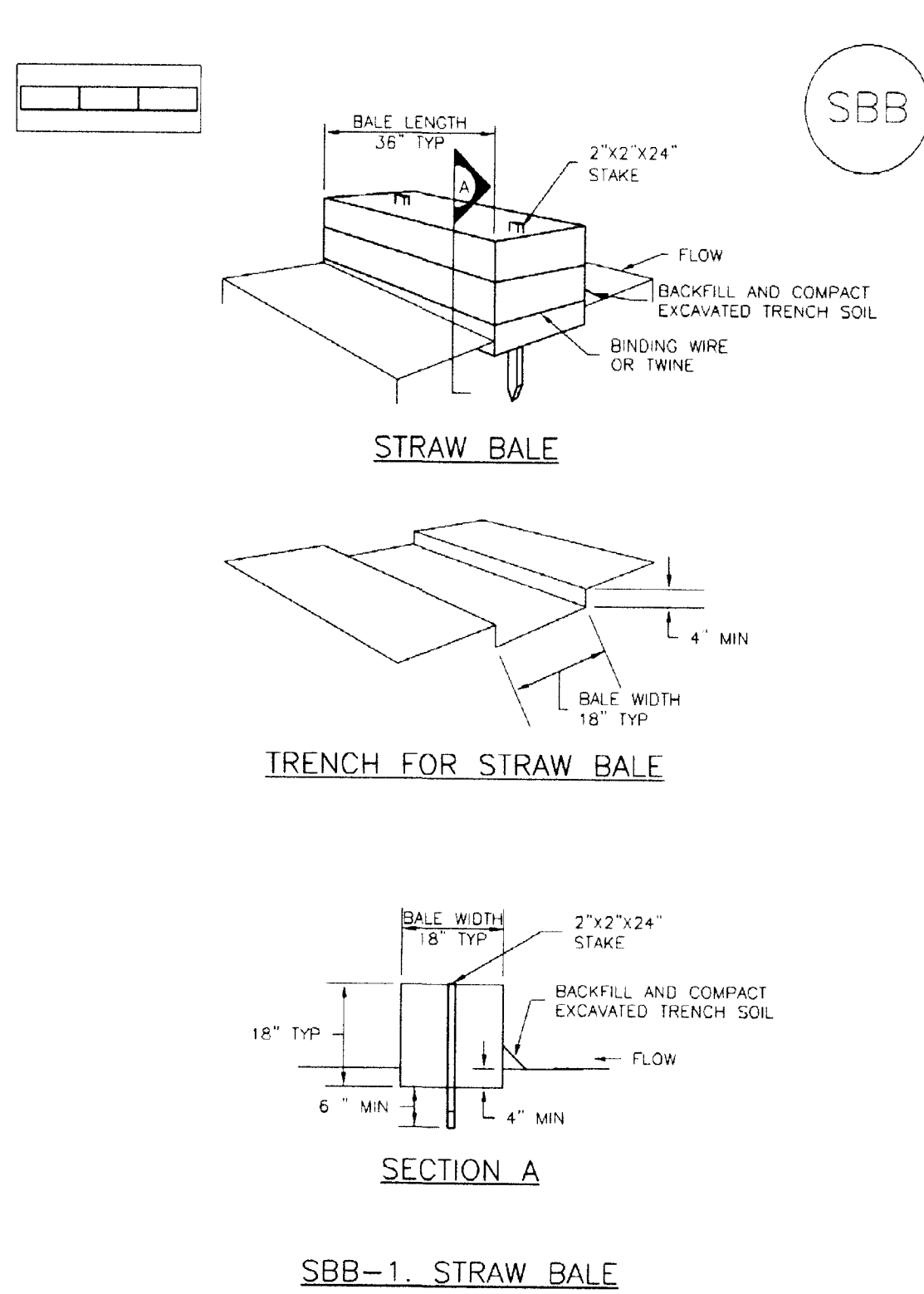


SF-1. SILT FENCE

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

SC-3

Straw Bale Barrier (SBB)

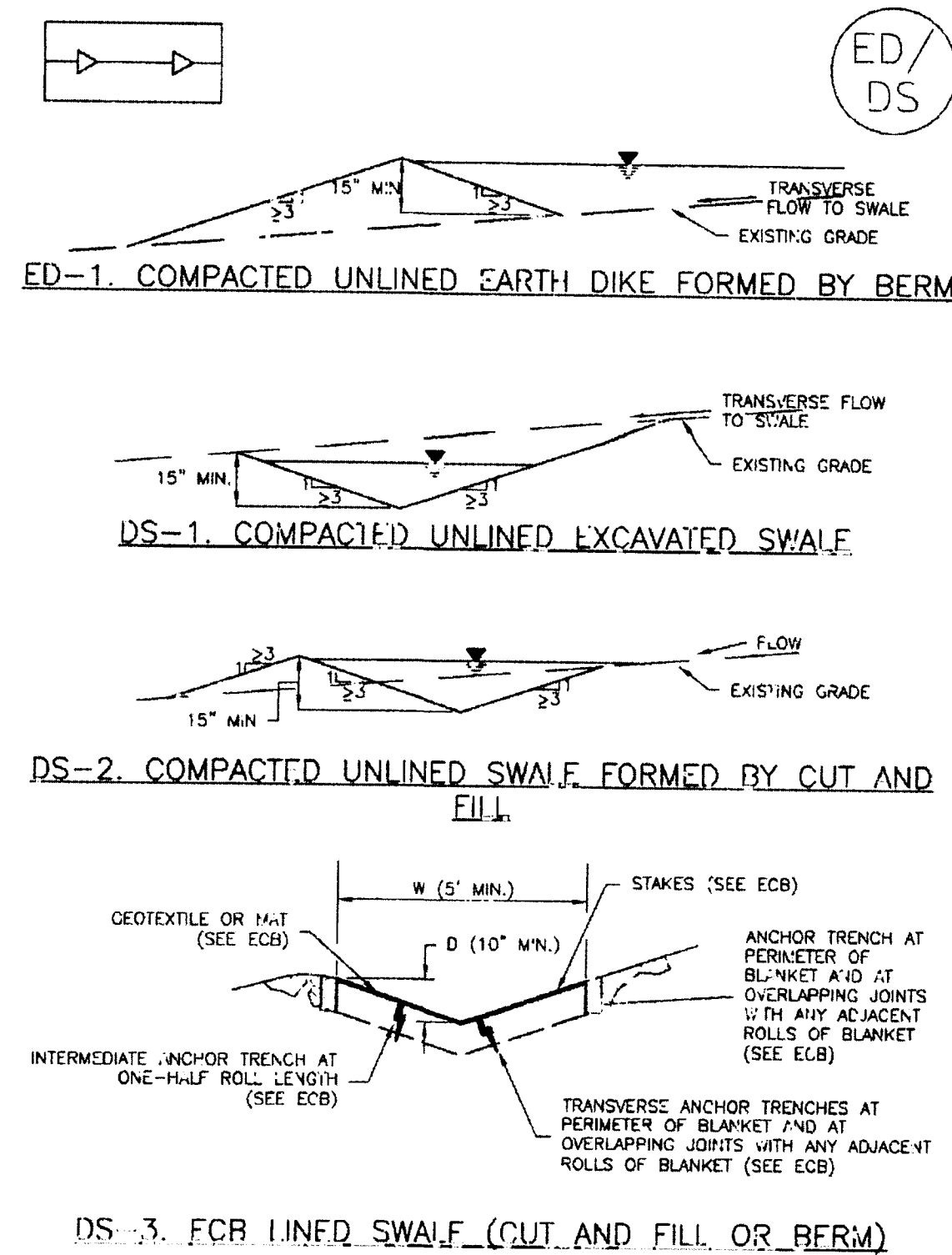


SBB-1. STRAW BALE

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

Earth Dikes and Drainage Swales (ED/DS)

EC-10

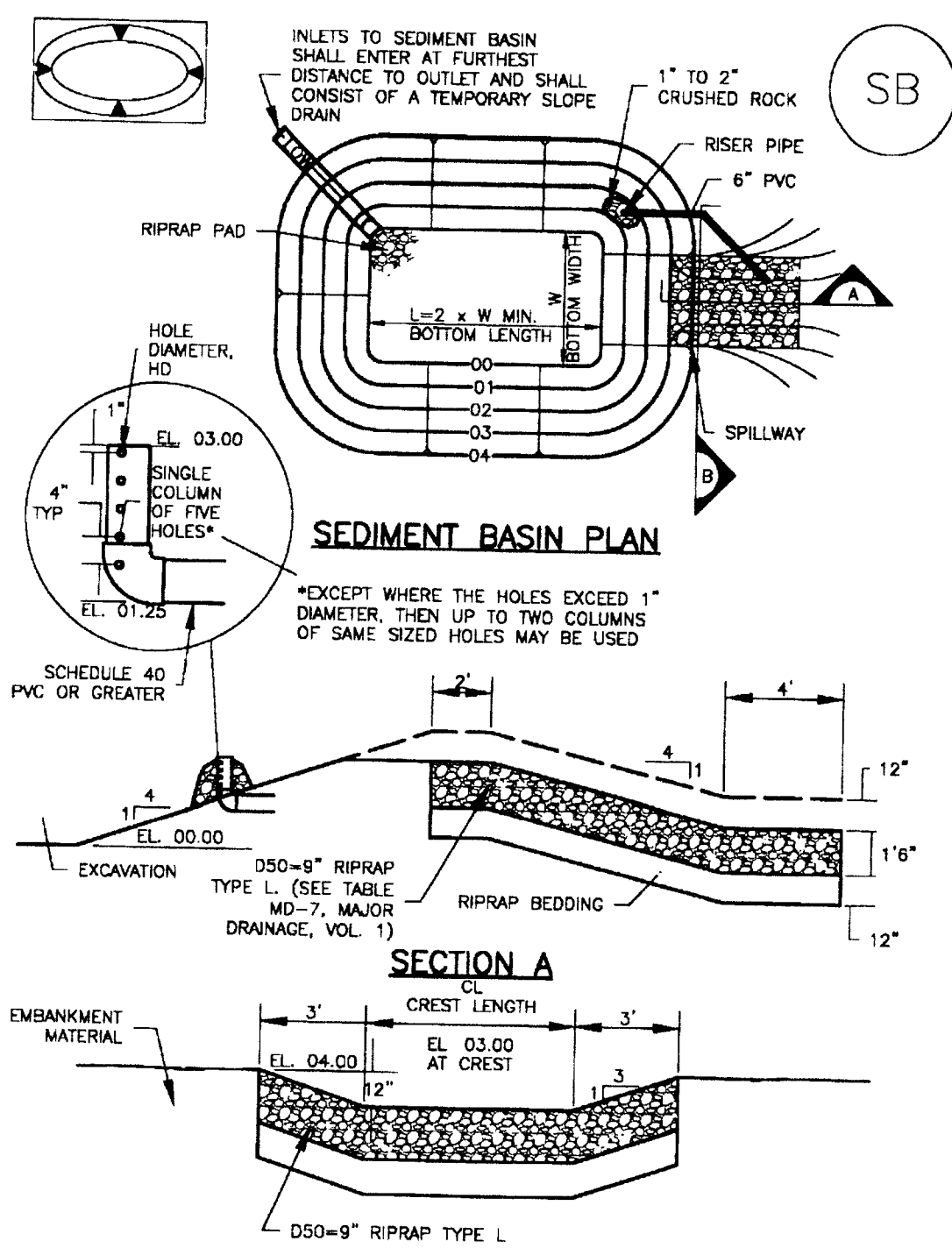


DS-3. COMPACTED UNLINED SWALE (CUT AND FILL OR BERM)

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

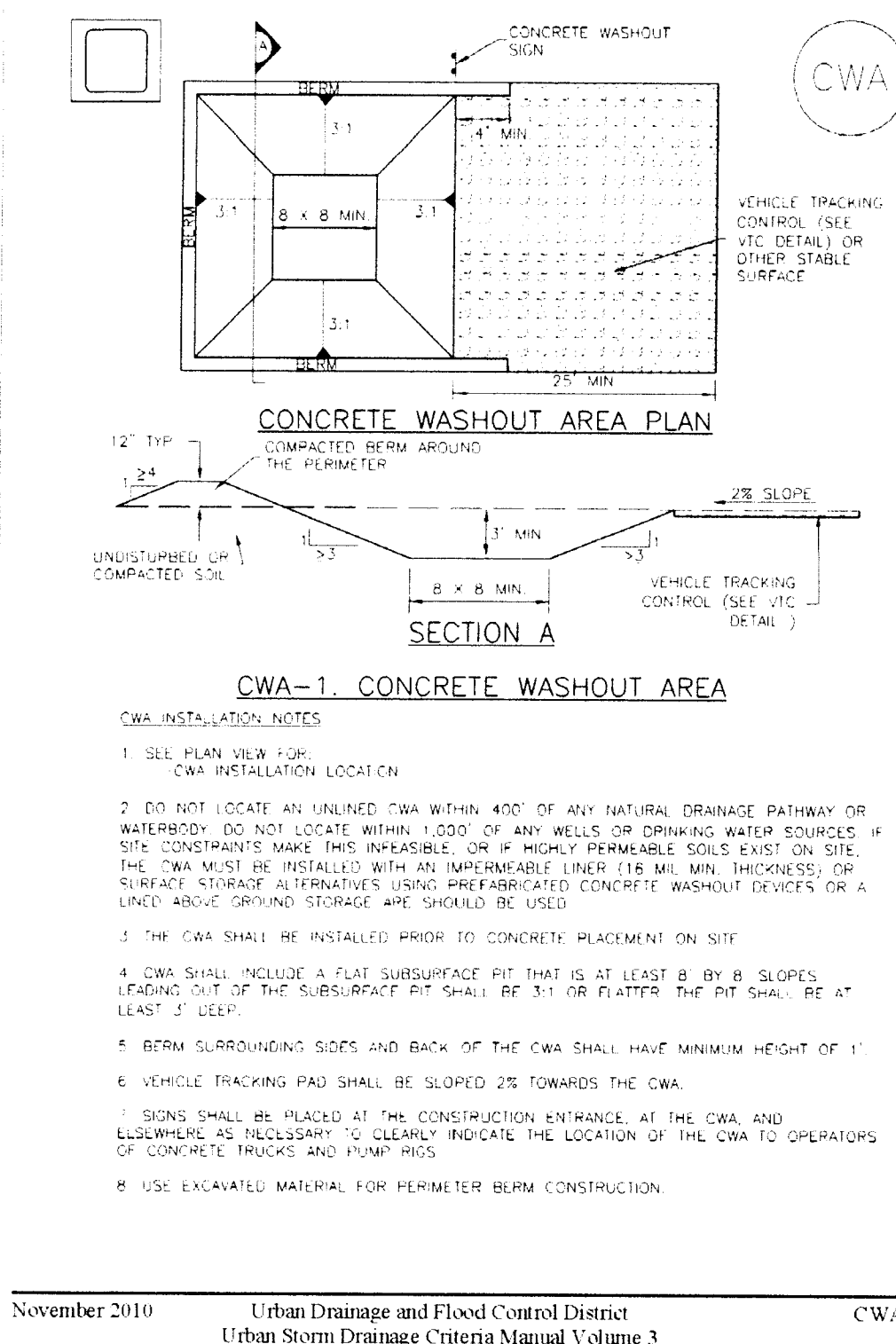
Sediment Basin (SB)

SC-7

August 2013 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 SB-5

Concrete Washout Area (CWA)

MM-1



CWA-1. CONCRETE WASHOUT AREA

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

EROSION CONTROL CRITERIA:

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 SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMP'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

SEEDING GUIDELINES:

1. THE SEEDBED SHOULD BE WELL-SETTLED AND FIRM, BUT FRABLE ENOUGH THAT THE SEED CAN BE PLACED AT THE SPECIFIED DEPTHS. COMPETITIVE STANDS OF WEEDS THAT ARE PRESENT BEFORE SEEDING MUST BE CONTROLLED BY SHALLOW TILLAGE OR BY APPLICATION OF HERBICIDES. SOILS THAT HAVE BEEN OVER-COMPACTED BY TRAFFIC OR EQUIPMENT, ESPECIALLY WHEN WET, SHOULD BE TILLED TO BREAK UP ROOTING-RESTRICTIVE LAYERS, THEN HARROWED, ROLLED, OR PACKED TO PREPARE THE REQUIRED FIRM SEEDBED.
2. 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 DEPENDING ON THE KIND OF FERTILIZER AND TYPE OF EQUIPMENT USED.
3. SEED SHOULD BE PLANTED WITH A GRASS DRILL ON ALL SLOPES OF 3:1 (3:1) OR FLATTER. SEED MAY BE BROADCAST BY HAND, BY MECHANICAL 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.
4. MULCHING: SEEDING 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 4,000 POUNDS PER ACRE AND CRIMPED INTO THE GROUND. ON SLOPES GREATER THAN 3:1, AN AGRONOMY BLANKET SHOULD BE USED.
5. 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 RAINFALL IS DEFICIENT FOR PLANT DEVELOPMENT.

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

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REVISIONS:
NO. DATE BY DESCRIPTION

CAUTION

STERLING RANCH FILING NO. 1

EROSION CONTROL DETAILS

PROJECT NO. 09-002 FILE: Vmg/Const Dwg (G. & E. Control) Filing No. 1 (VRC) dwg

DESIGNED BY: DATE: 01/03/2018

DRAWN BY: DLM

CHECKED BY: VAS

SHEET 17 OF 17

GR 17

20 SOUTHERN CRESCENT SUITE 110
COLORADO SPRINGS CO 80903
PHONE 719/533-5465

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

REVISIONS:
NO. DATE BY DESCRIPTION

CAUTION