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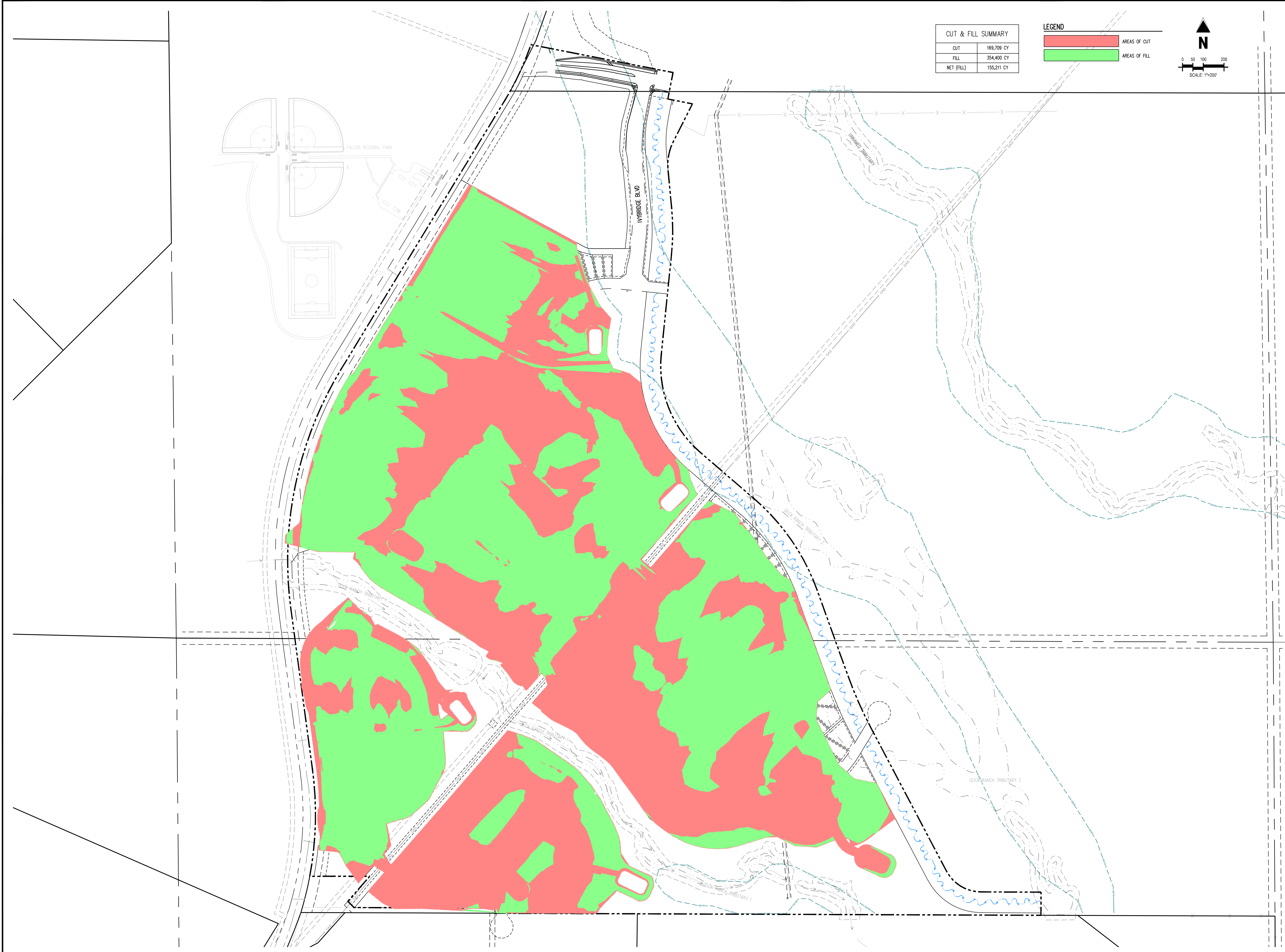
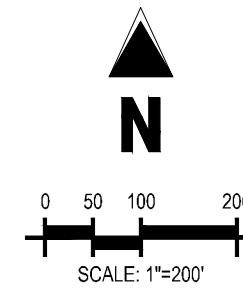
EARLY GRADING & EROSION CONTROL PLANS
FOR
GRANDVIEW RESERVE FILING NO. 1
FOR
HR GREEN

EASTONVILLE RD
EL PASO COUNTY, PEYTON, CO 80831

CUT	169,709 CY
FILL	354,400 CY
NET (FILL)	155,211 CY

LEGEND

	AREAS OF CUT
	AREAS OF FILL



#	Date	Issue / Description	Init.

Project No:	HRG01
Drawn By:	JDP
Checked By:	BAS
Date:	12/29/2023

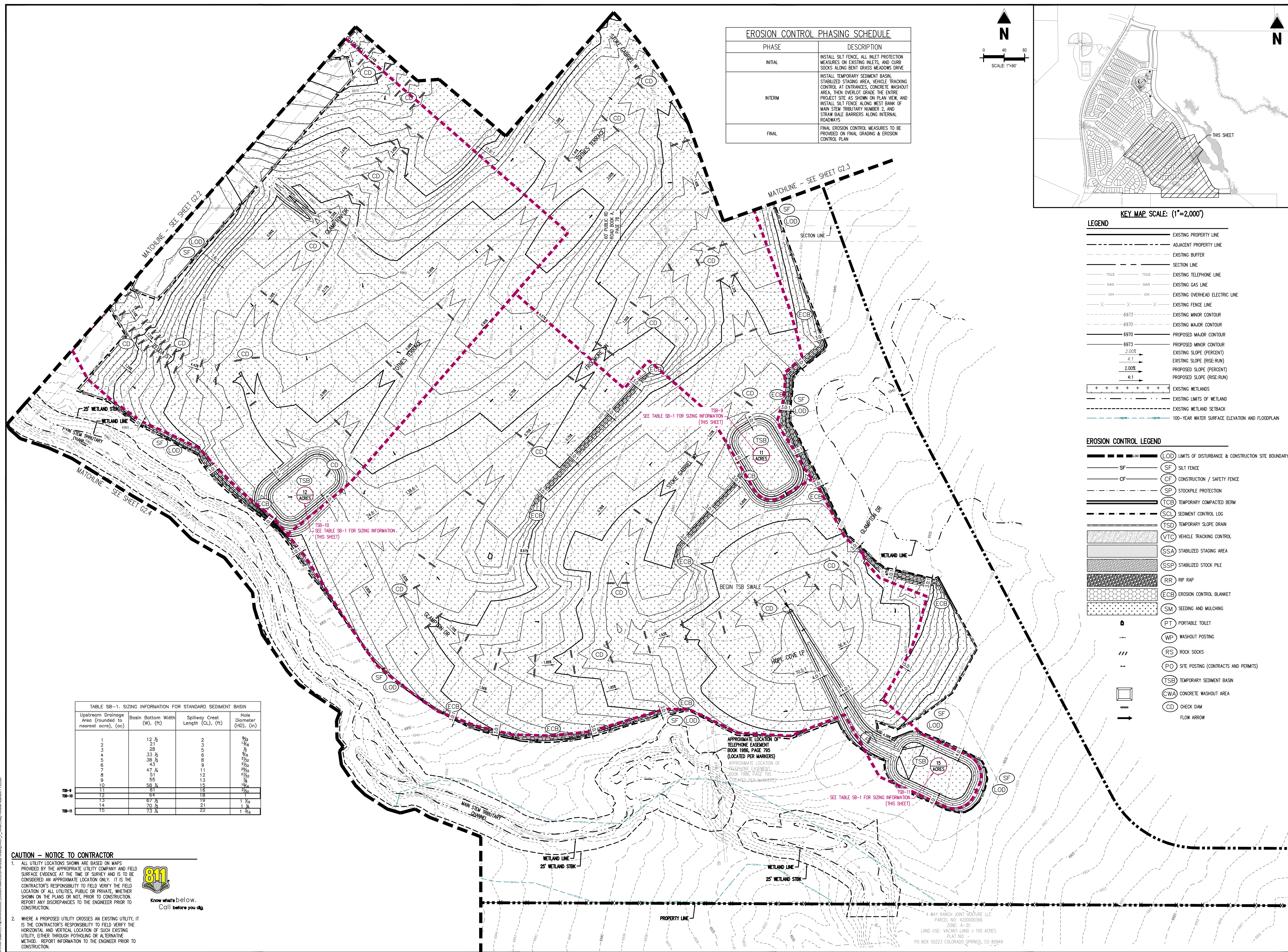
CUT & FILL MAP



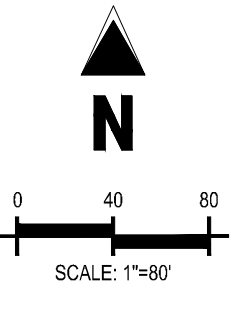
#	Date	Issue / Description	Init.

Project No: HRG01
 Drawn By: JDP
 Checked By: BAS
 Date: 12/29/2023

GRADING & EROSION CONTROL PLAN



PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, AND CURB SOCKS ALONG BENT GRASS MEADOWS DRIVE
INTERM	INSTALL TEMPORARY SEDIMENT BASIN, STABILIZED STAGING AREA, VEHICLE TRACKING CONTROL AT ENTRANCES, CONCRETE WASHOUT AREA, THEN OVERLOT GRADE THE ENTIRE PROJECT SITE AS SHOWN ON PLAN VIEW, AND INSTALL SILT FENCE ALONG WEST BANK OF MAIN STEM TRIBUTARY NUMBER 2, AND STRAW BALE BARRIERS ALONG INTERNAL ROADWAYS
FINAL	FINAL EROSION CONTROL MEASURES TO BE PROVIDED ON FINAL GRADING & EROSION CONTROL PLAN



- LEGEND**
- EXISTING PROPERTY LINE
 - ADJACENT PROPERTY LINE
 - EXISTING BUFFER
 - SECTION LINE
 - TELE TELE
 - GAS GAS
 - OH OH
 - EXISTING TELEPHONE LINE
 - EXISTING GAS LINE
 - EXISTING OVERHEAD ELECTRIC LINE
 - EXISTING FENCE LINE
 - EXISTING MINOR CONTOUR
 - EXISTING MAJOR CONTOUR
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - EXISTING SLOPE (RISE:RUN)
 - EXISTING SLOPE (PERCENT)
 - PROPOSED SLOPE (RISE:RUN)
 - PROPOSED SLOPE (PERCENT)
 - EXISTING WETLANDS
 - EXISTING LIMITS OF WETLAND
 - EXISTING WETLAND SETBACK
 - 100-YEAR WATER SURFACE ELEVATION AND FLOODPLAIN

- EROSION CONTROL LEGEND**
- LOD LIMITS OF DISTURBANCE & CONSTRUCTION SITE BOUNDARY
 - SF SILT FENCE
 - CF CONSTRUCTION / SAFETY FENCE
 - SP STOCKPILE PROTECTION
 - TCB TEMPORARY COMPACTED BERM
 - SCL SEDIMENT CONTROL LOG
 - TSB TEMPORARY SEDIMENT BASIN
 - VTC VEHICLE TRACKING CONTROL
 - SSA STABILIZED STAGING AREA
 - SSP STABILIZED STOCK PILE
 - RR RIP RAP
 - ECB EROSION CONTROL BLANKET
 - SM SEEDING AND MULCHING
 - PT PORTABLE TOILET
 - WP WASHOUT POSTING
 - RS ROCK SOCKS
 - PO SITE POSTING (CONTRACTS AND PERMITS)
 - CWA CONCRETE WASHOUT AREA
 - CD CHECK DAM
 - FLOW ARROW

TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

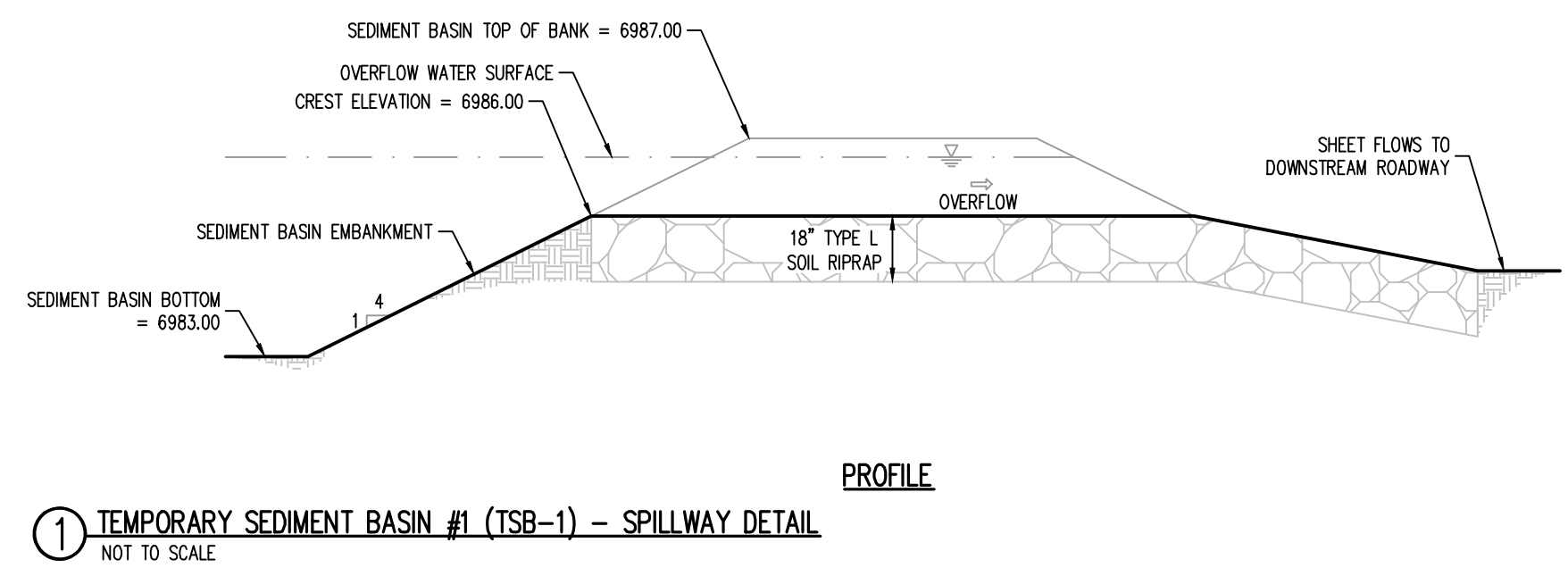
Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 1/2	2	9 1/2
2	21	3	9 1/2
4	33 1/2	6	9 1/2
6	38 1/2	9	9 1/2
8	43	11	9 1/2
10	47 1/4	12	9 1/2
12	51	13	9 1/2
14	55	15	9 1/2
16	58 1/2	18	9 1/2
18	61	18	9 1/2
20	64	19	1 3/8
22	67 1/2	21	1 3/8
24	70 1/2	22	1 3/8
26	73 1/4	22	1 3/8

CAUTION - NOTICE TO CONTRACTOR

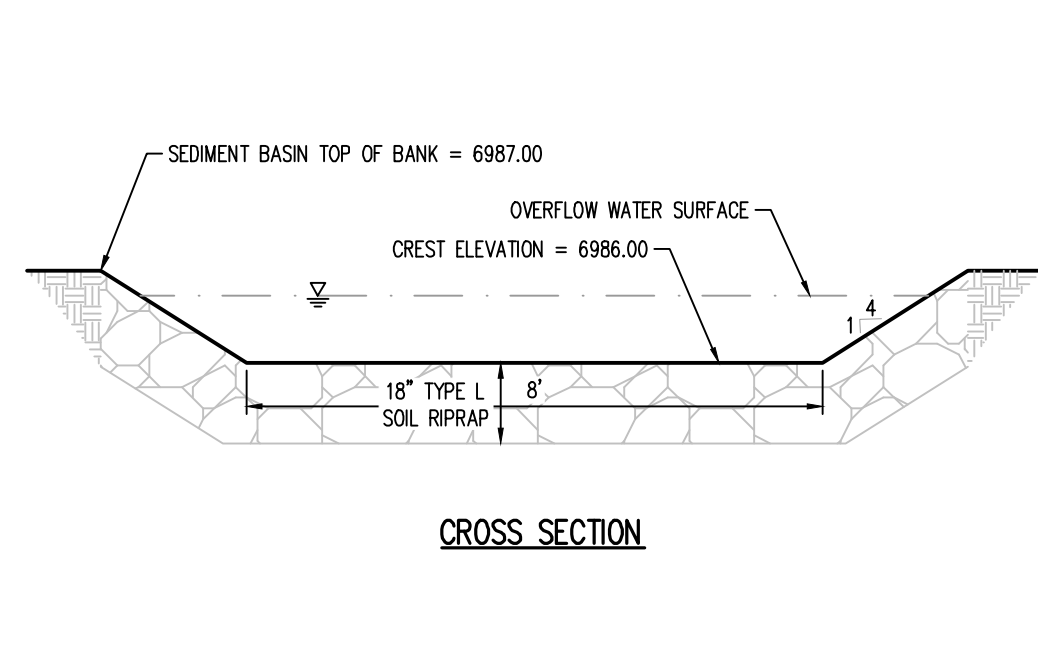
1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.

2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POT-HOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

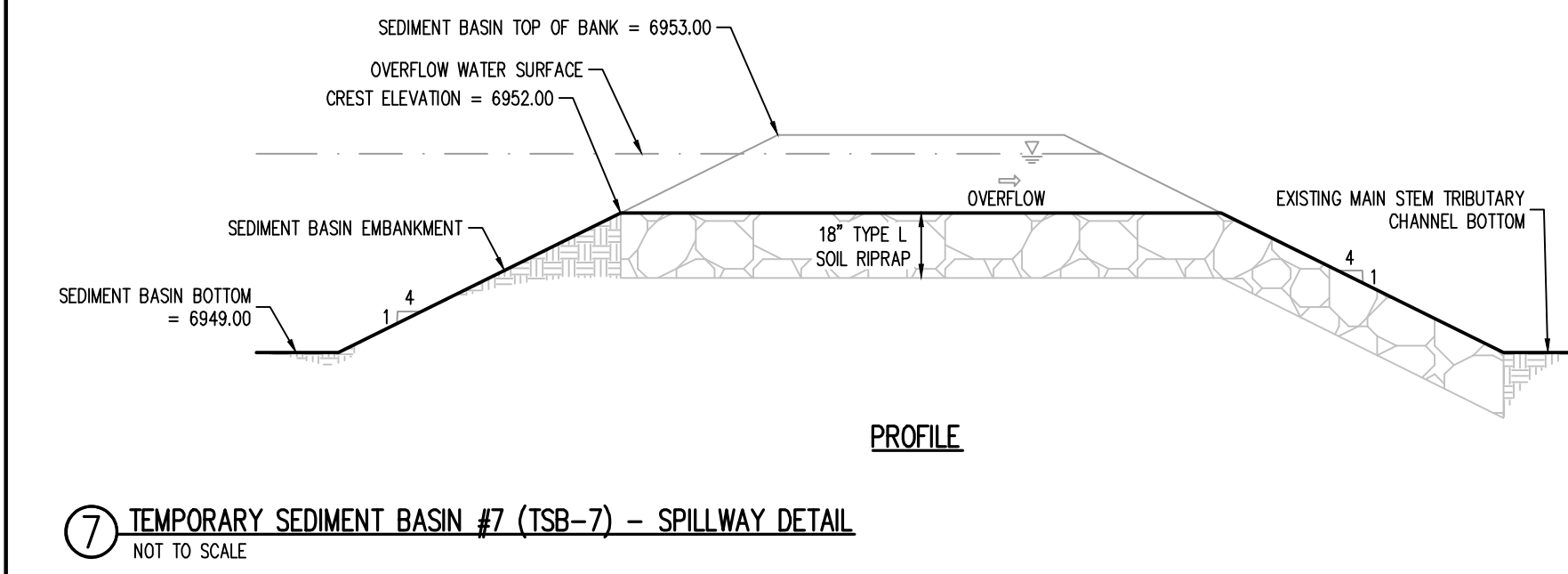
811
 Know what's below.
 Call before you dig.



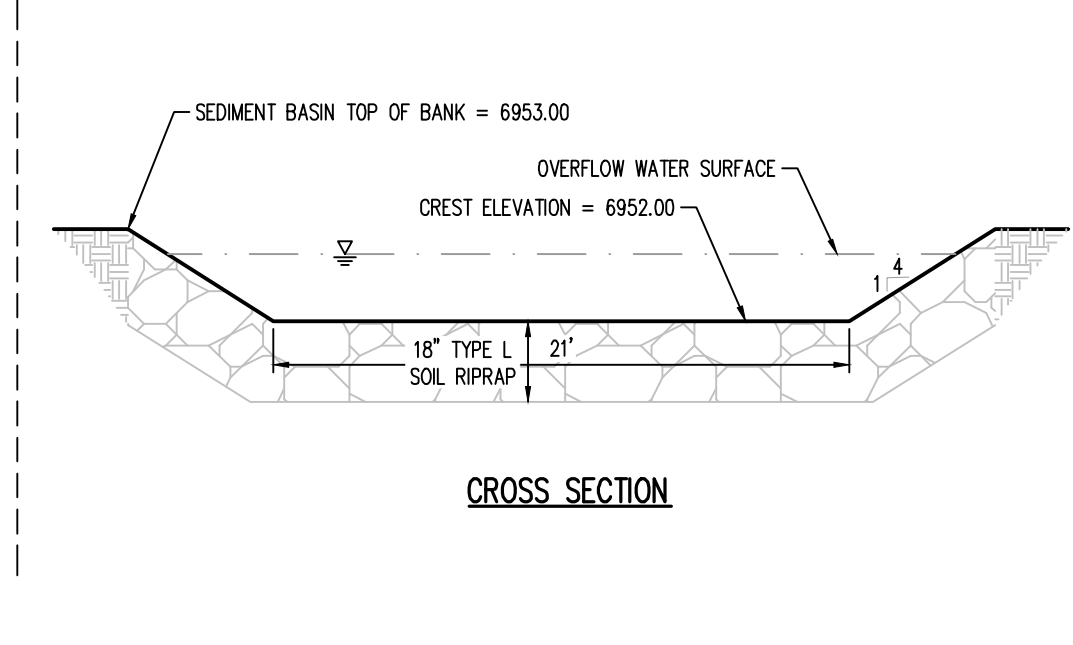
① TEMPORARY SEDIMENT BASIN #1 (TSB-1) – SPILLWAY DETAIL
NOT TO SCALE



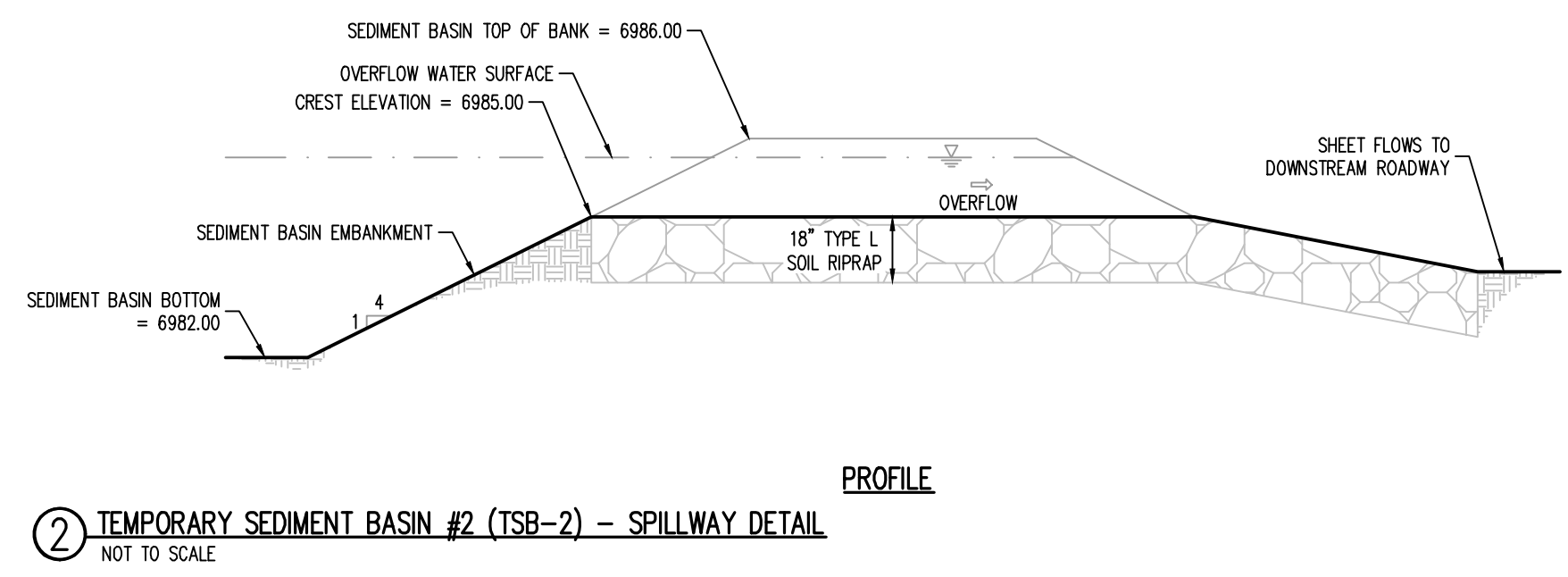
CROSS SECTION



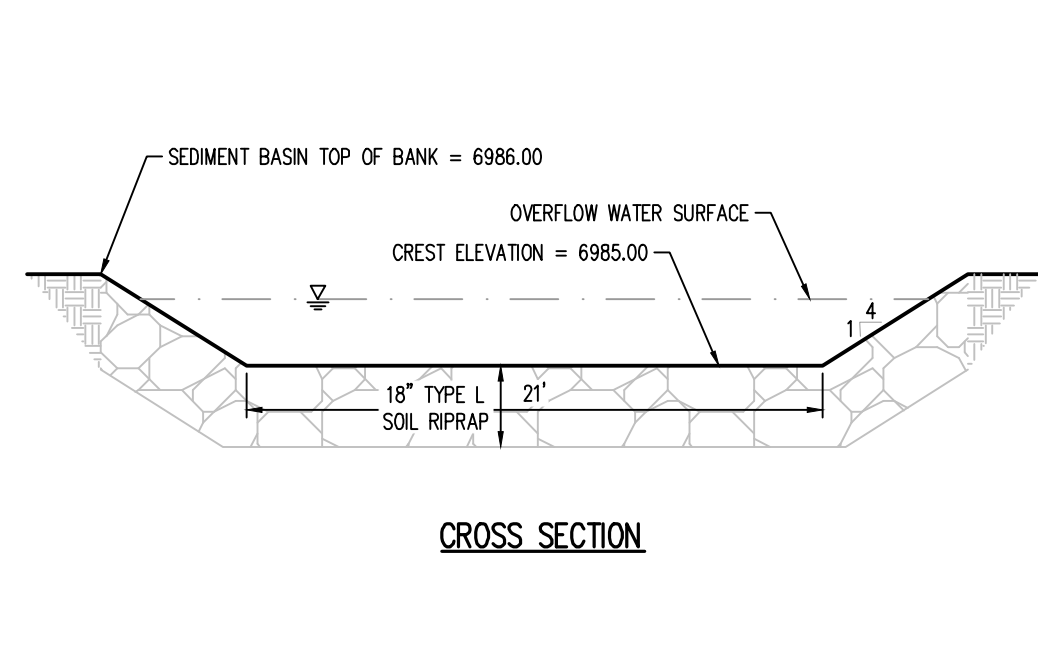
⑦ TEMPORARY SEDIMENT BASIN #7 (TSB-7) – SPILLWAY DETAIL
NOT TO SCALE



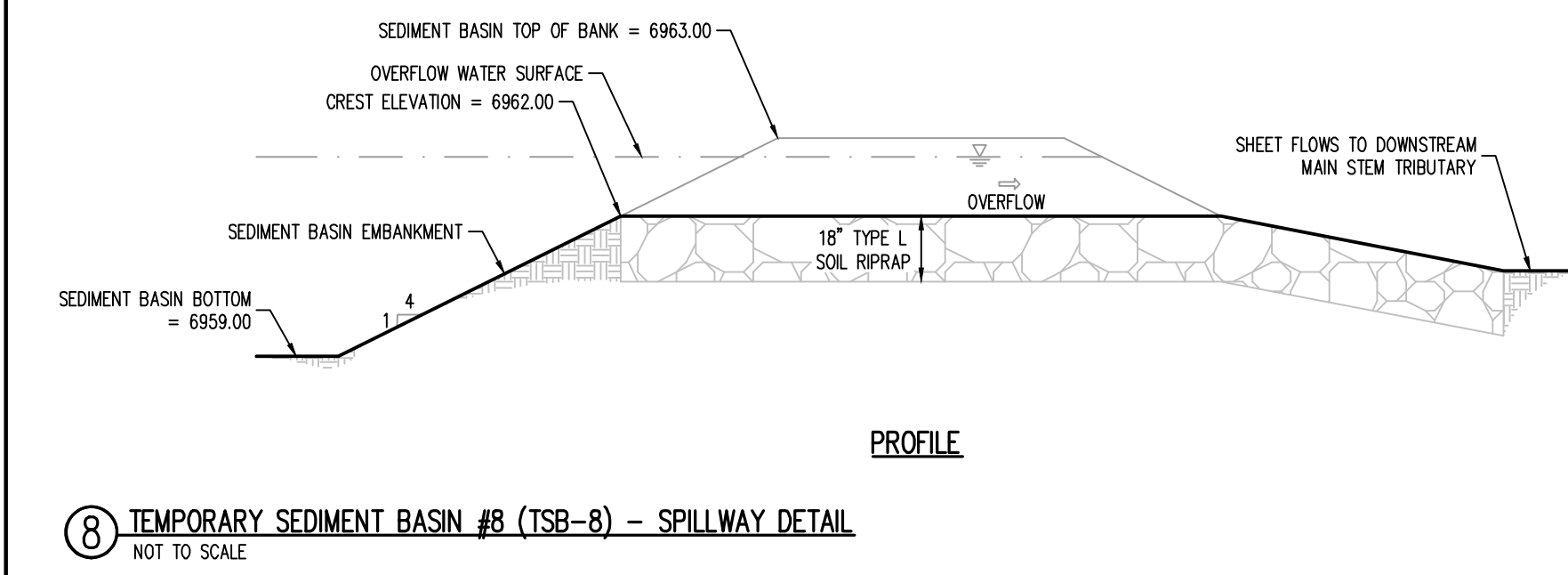
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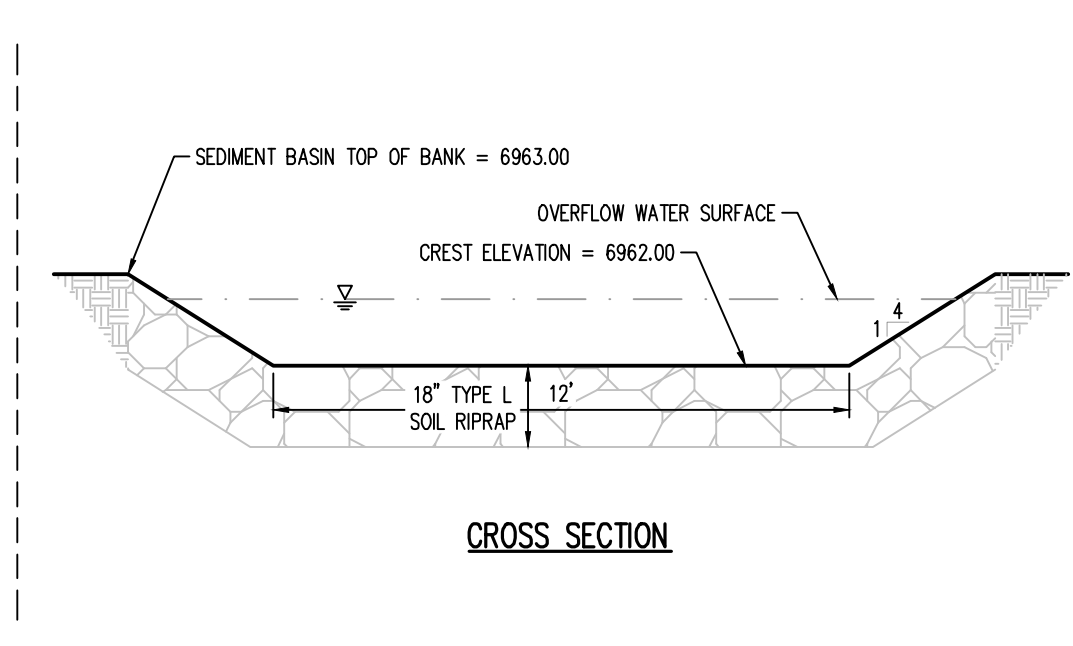
② TEMPORARY SEDIMENT BASIN #2 (TSB-2) – SPILLWAY DETAIL
NOT TO SCALE



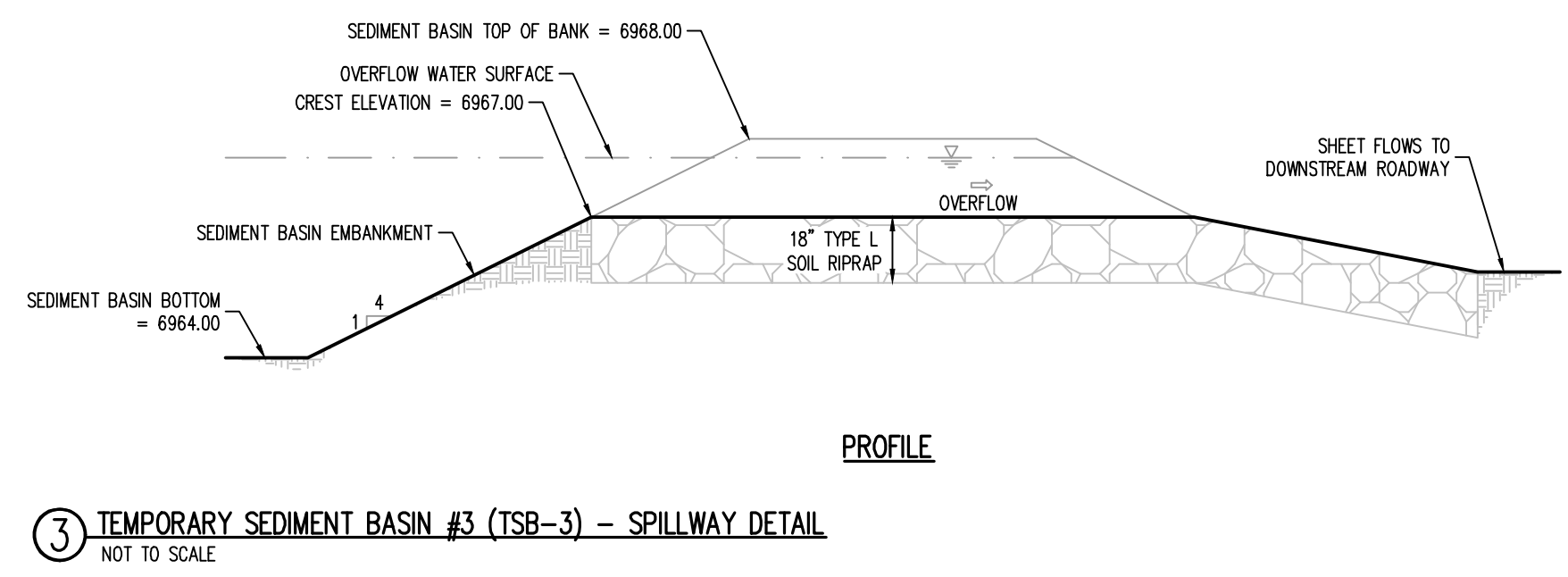
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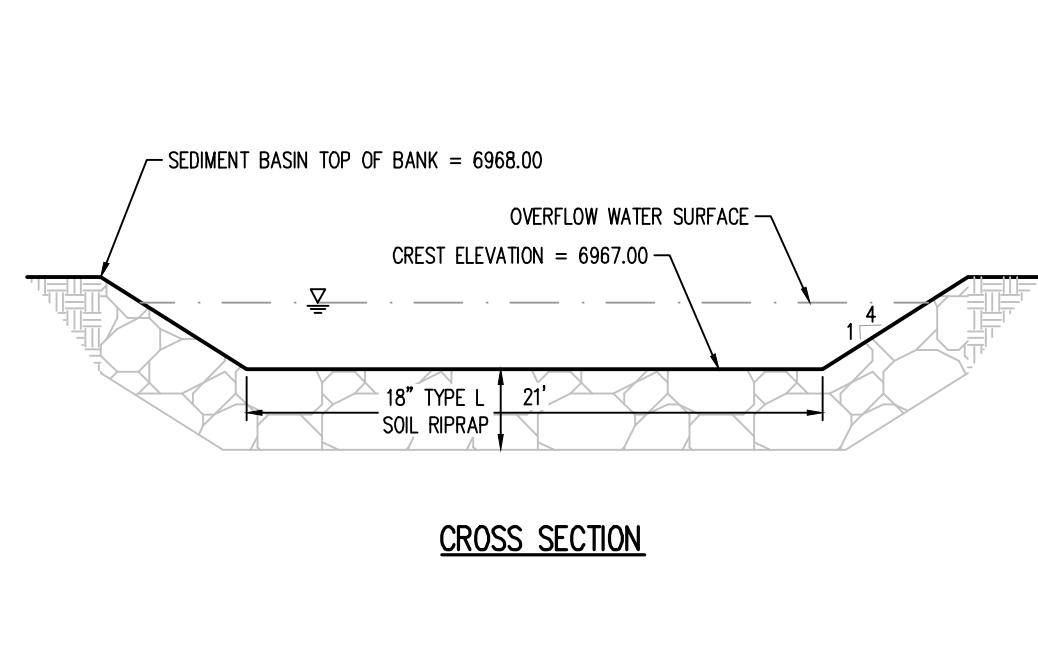
⑧ TEMPORARY SEDIMENT BASIN #8 (TSB-8) – SPILLWAY DETAIL
NOT TO SCALE



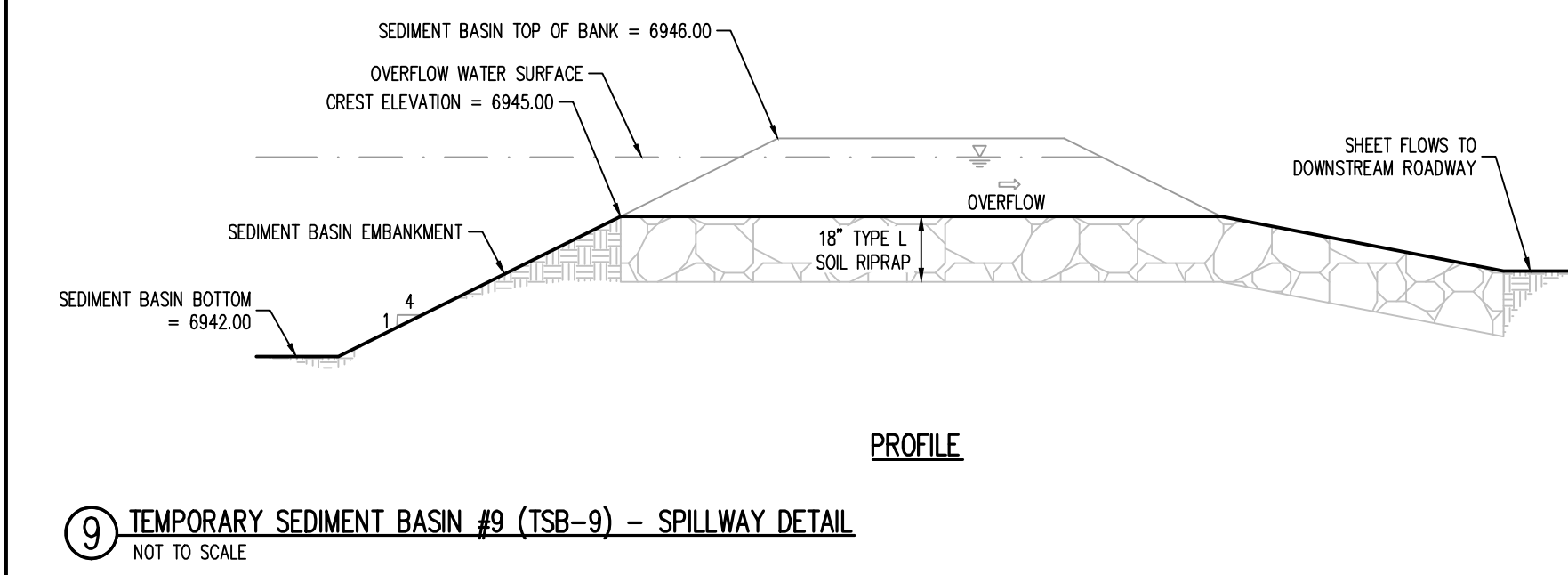
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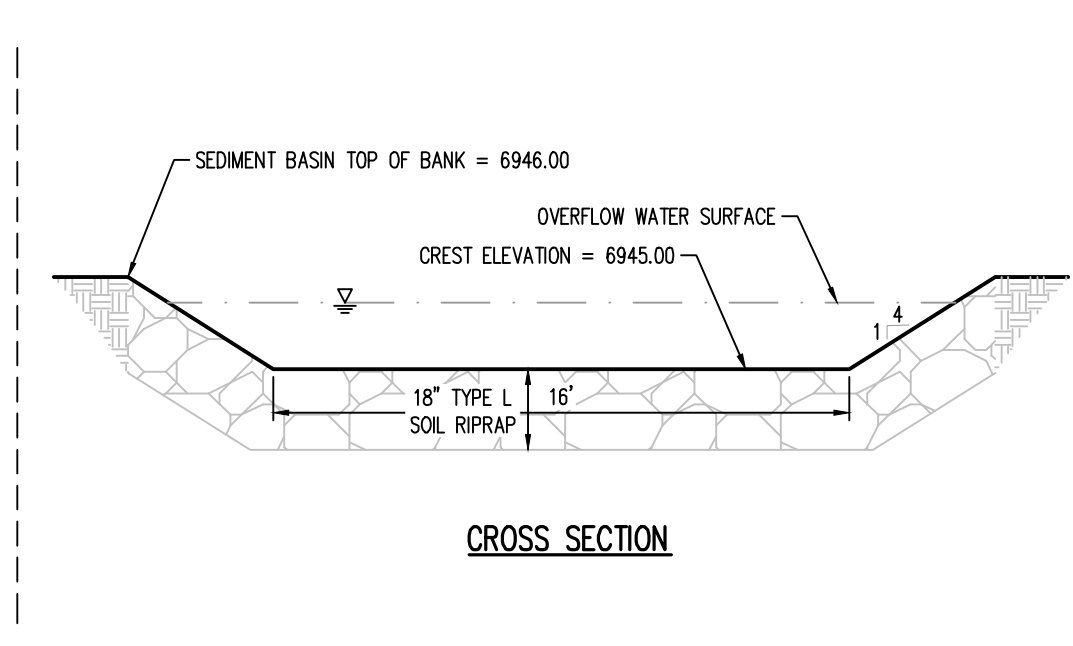
③ TEMPORARY SEDIMENT BASIN #3 (TSB-3) – SPILLWAY DETAIL
NOT TO SCALE



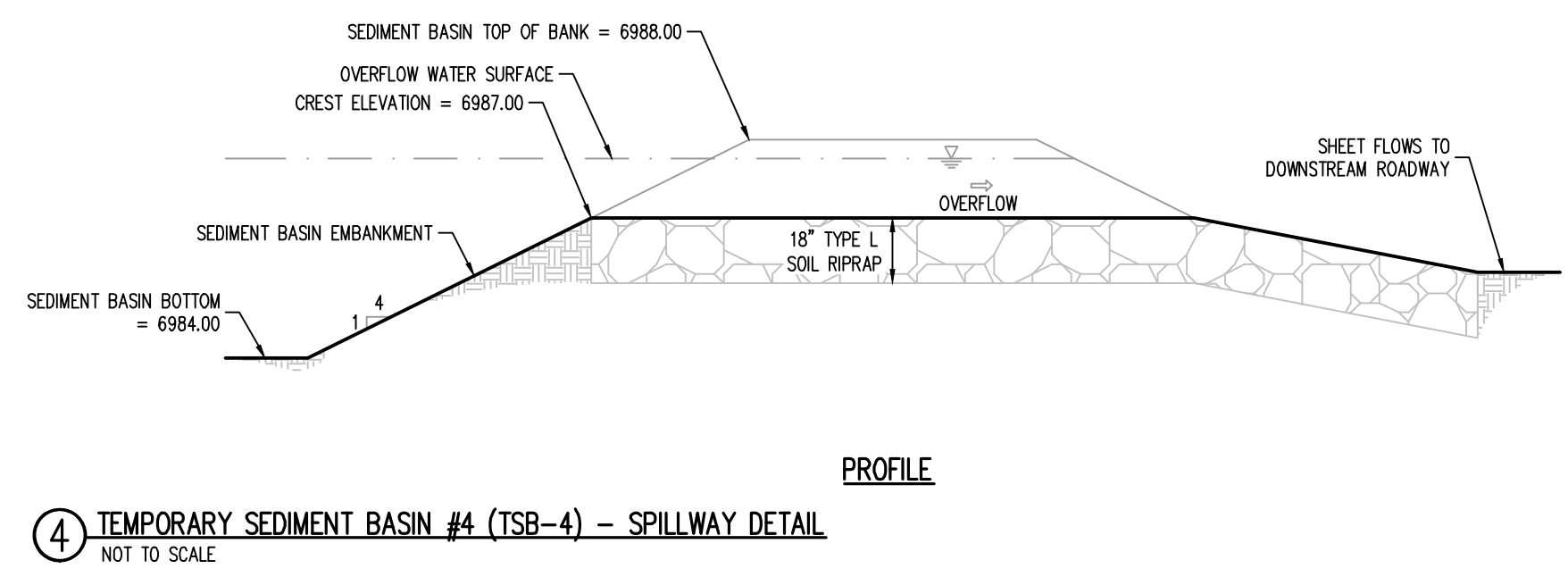
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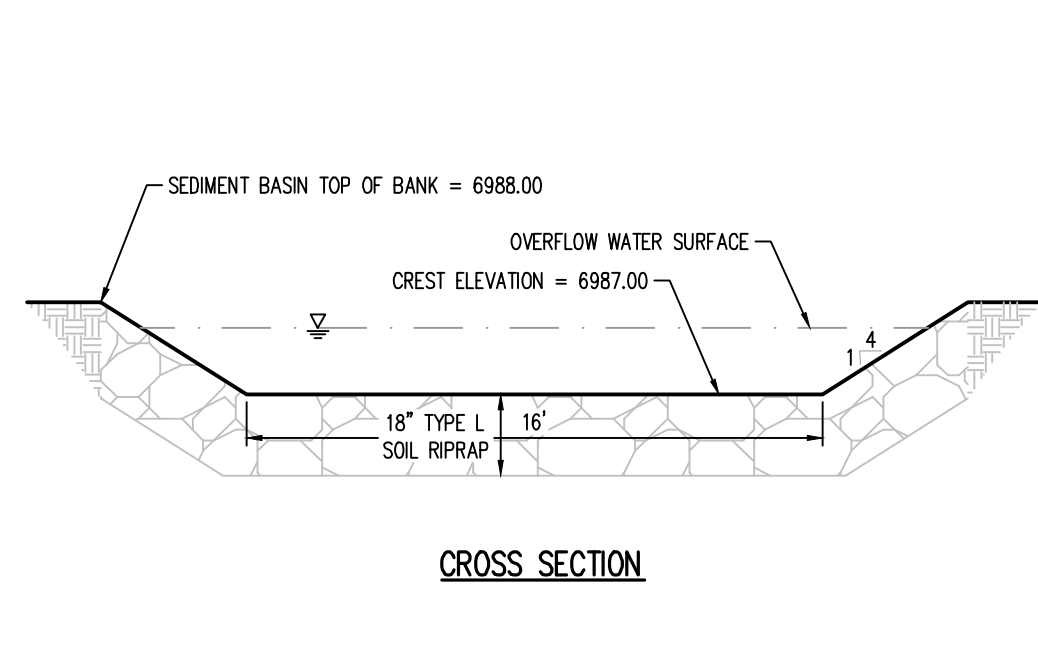
⑨ TEMPORARY SEDIMENT BASIN #9 (TSB-9) – SPILLWAY DETAIL
NOT TO SCALE



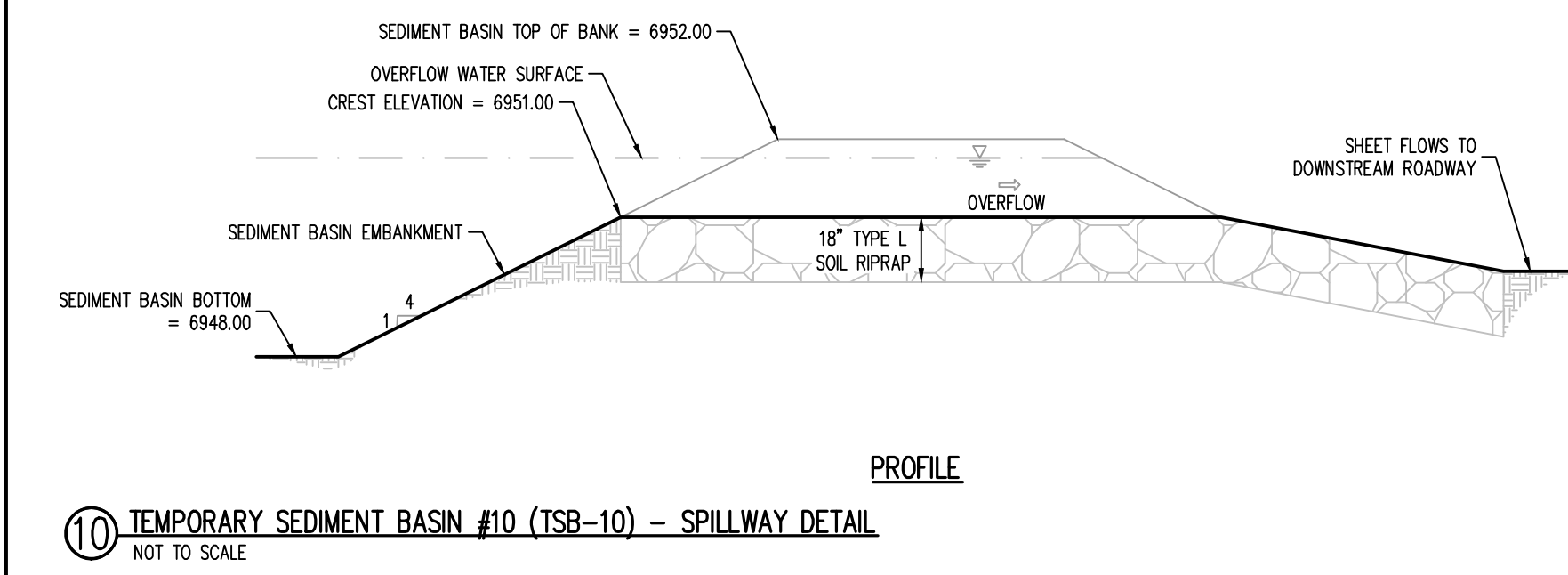
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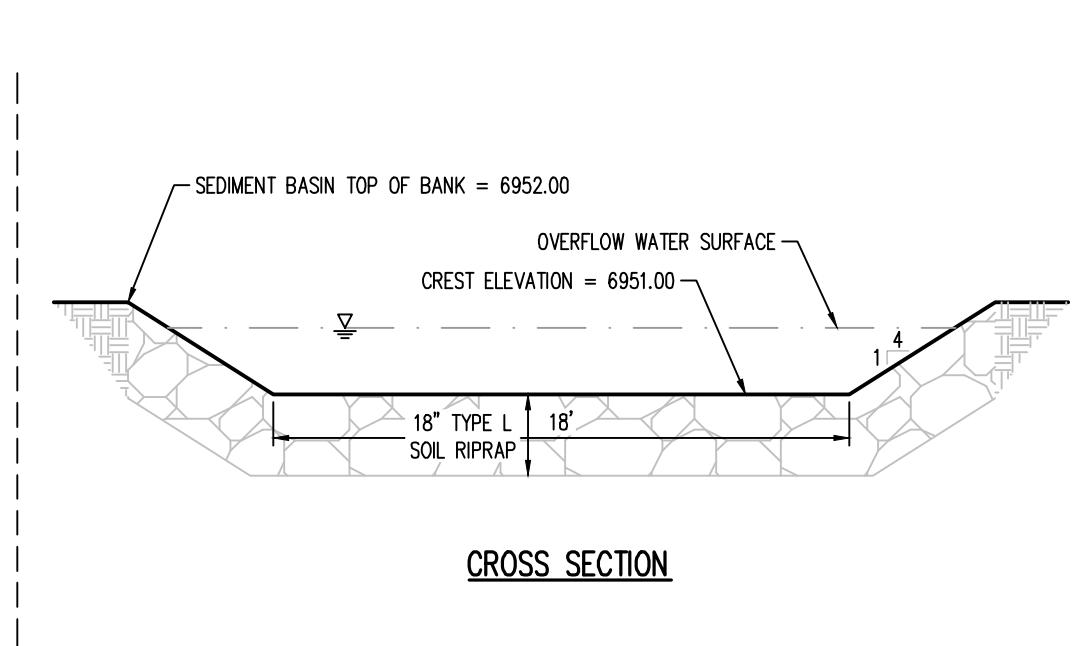
④ TEMPORARY SEDIMENT BASIN #4 (TSB-4) – SPILLWAY DETAIL
NOT TO SCALE



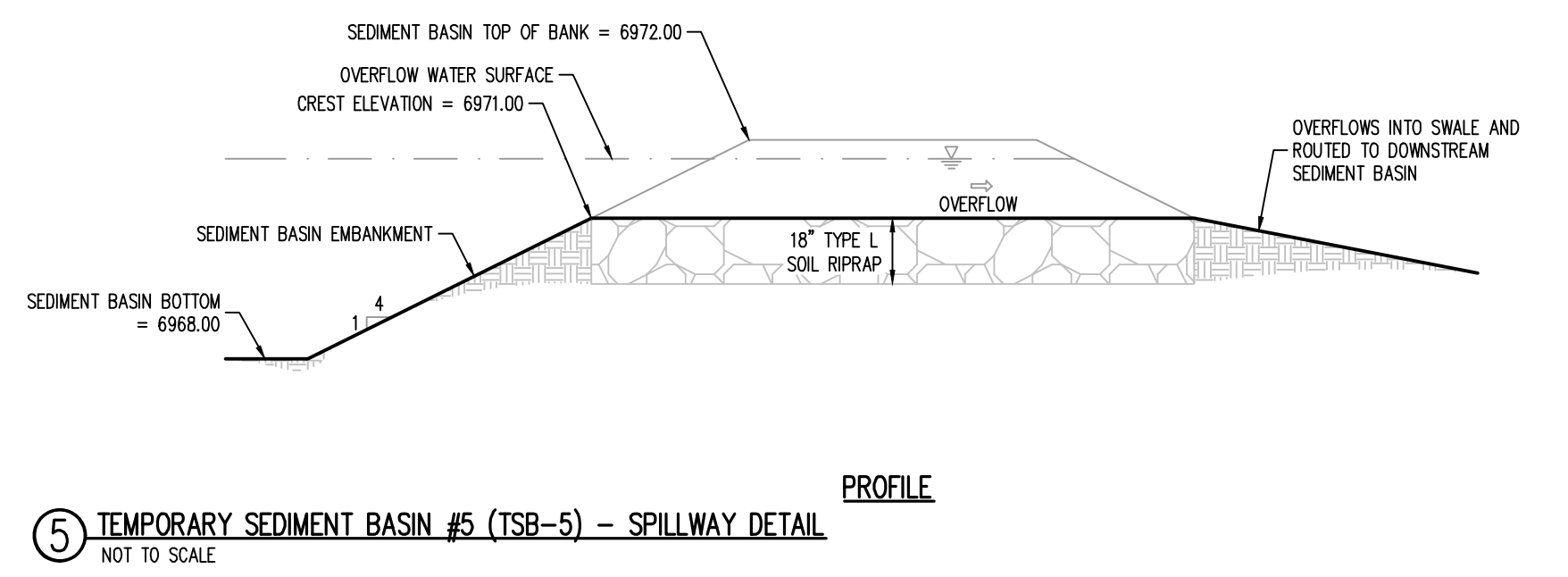
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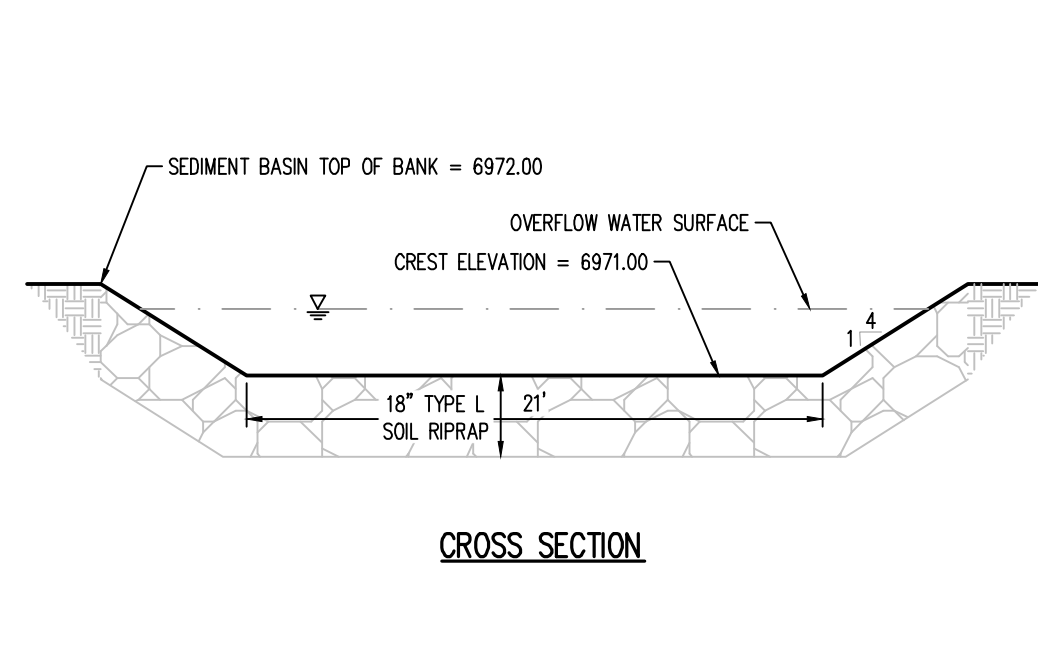
⑩ TEMPORARY SEDIMENT BASIN #10 (TSB-10) – SPILLWAY DETAIL
NOT TO SCALE



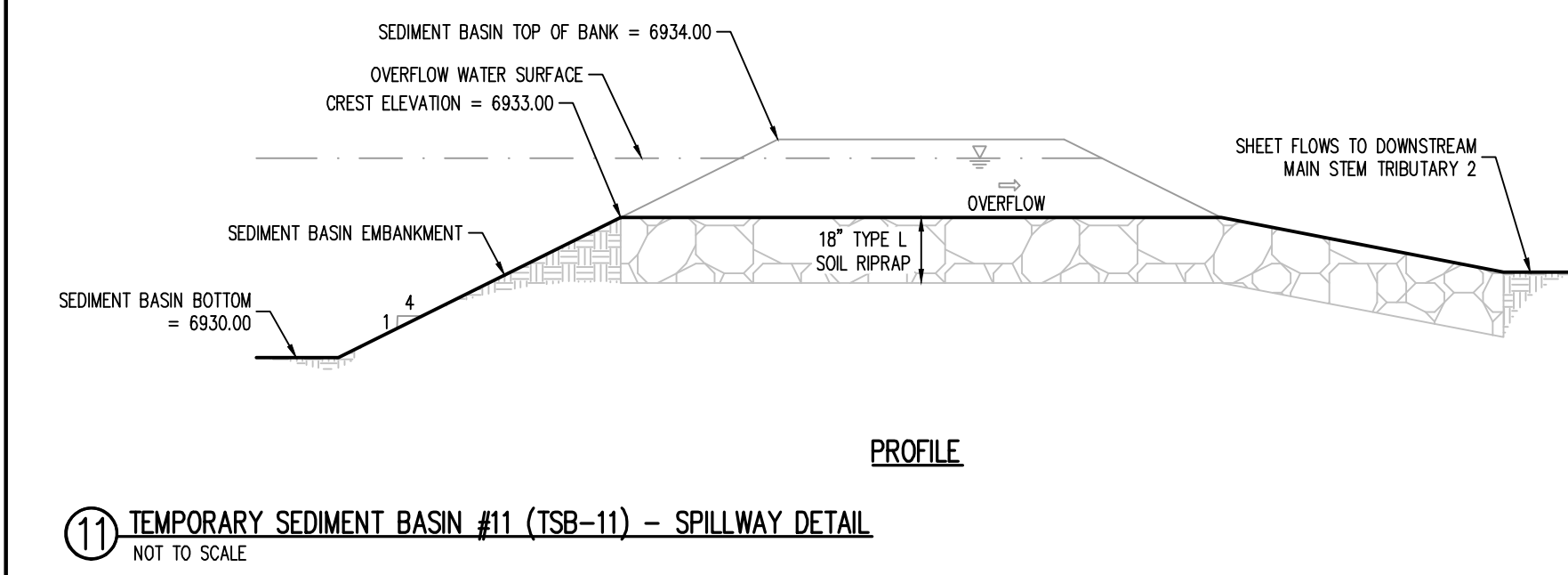
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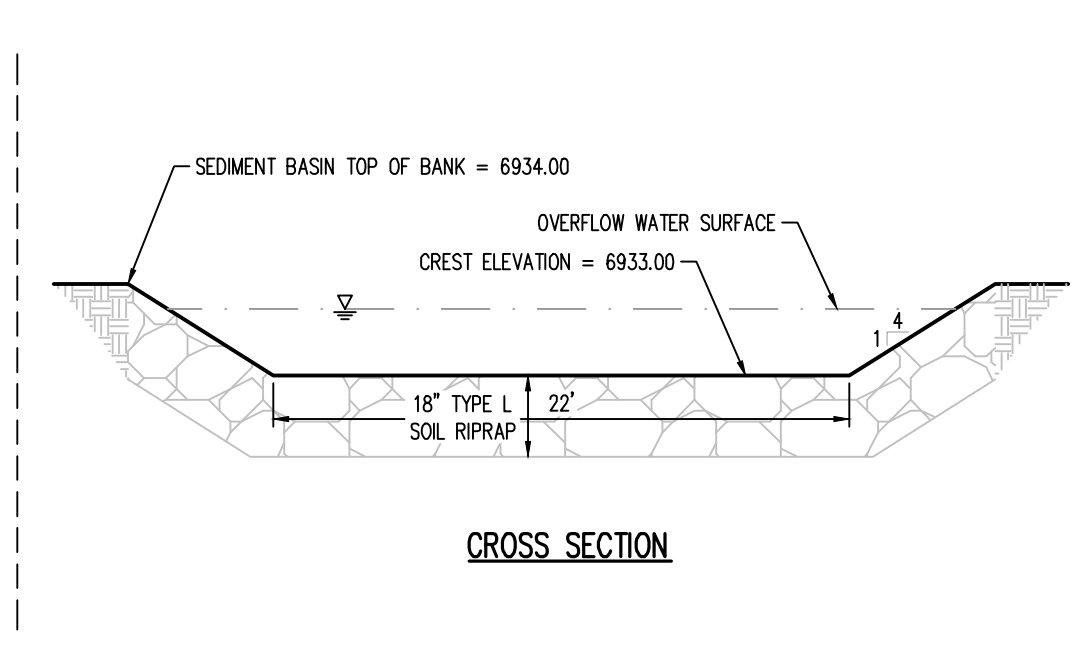
⑤ TEMPORARY SEDIMENT BASIN #5 (TSB-5) – SPILLWAY DETAIL
NOT TO SCALE



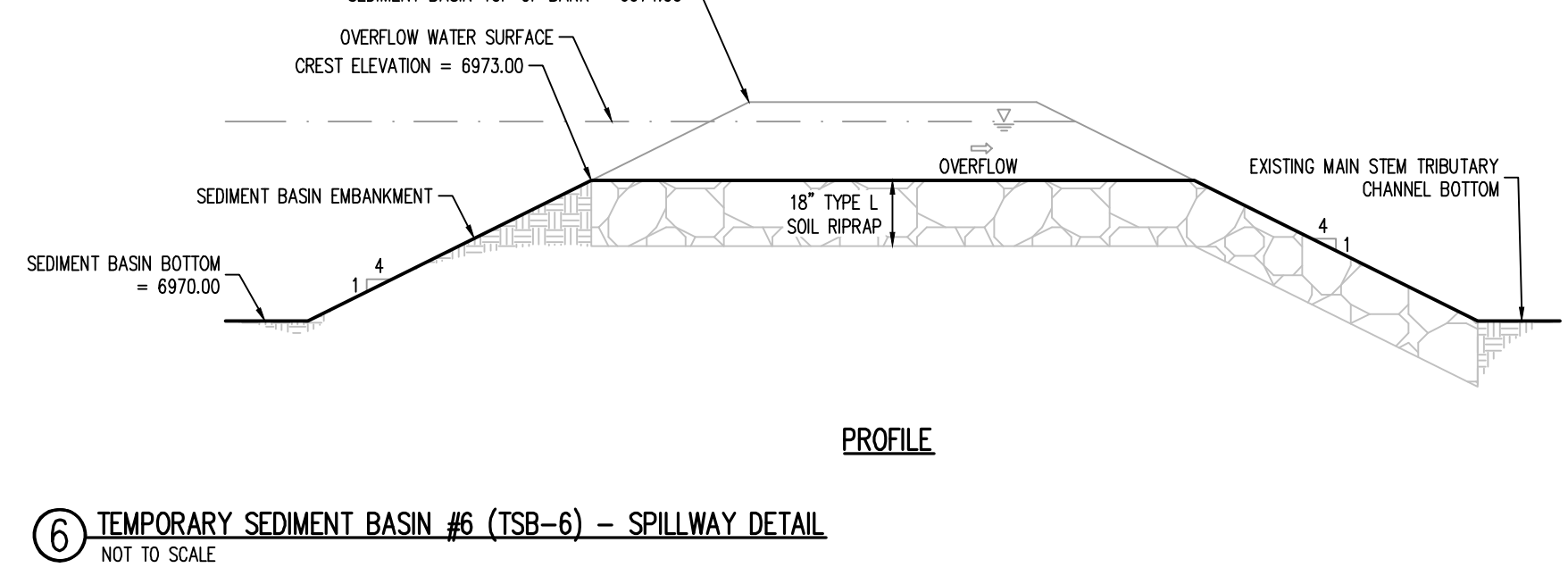
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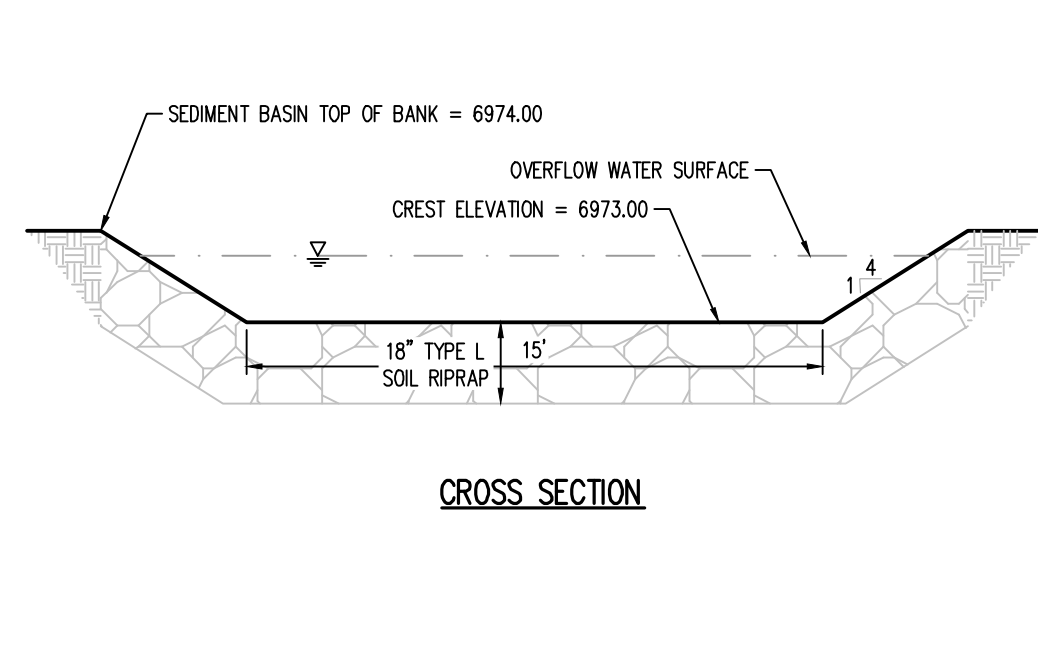
⑪ TEMPORARY SEDIMENT BASIN #11 (TSB-11) – SPILLWAY DETAIL
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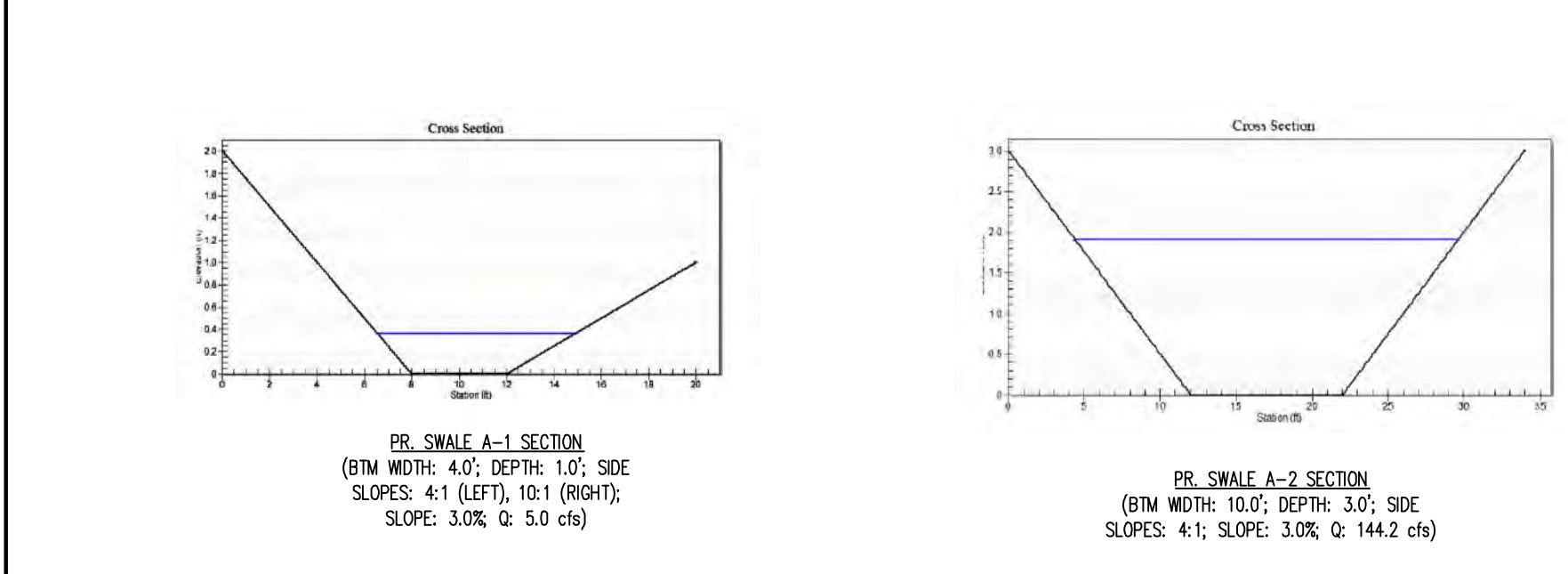
CROSS SECTION



⑥ TEMPORARY SEDIMENT BASIN #6 (TSB-6) – SPILLWAY DETAIL
NOT TO SCALE



CROSS SECTION



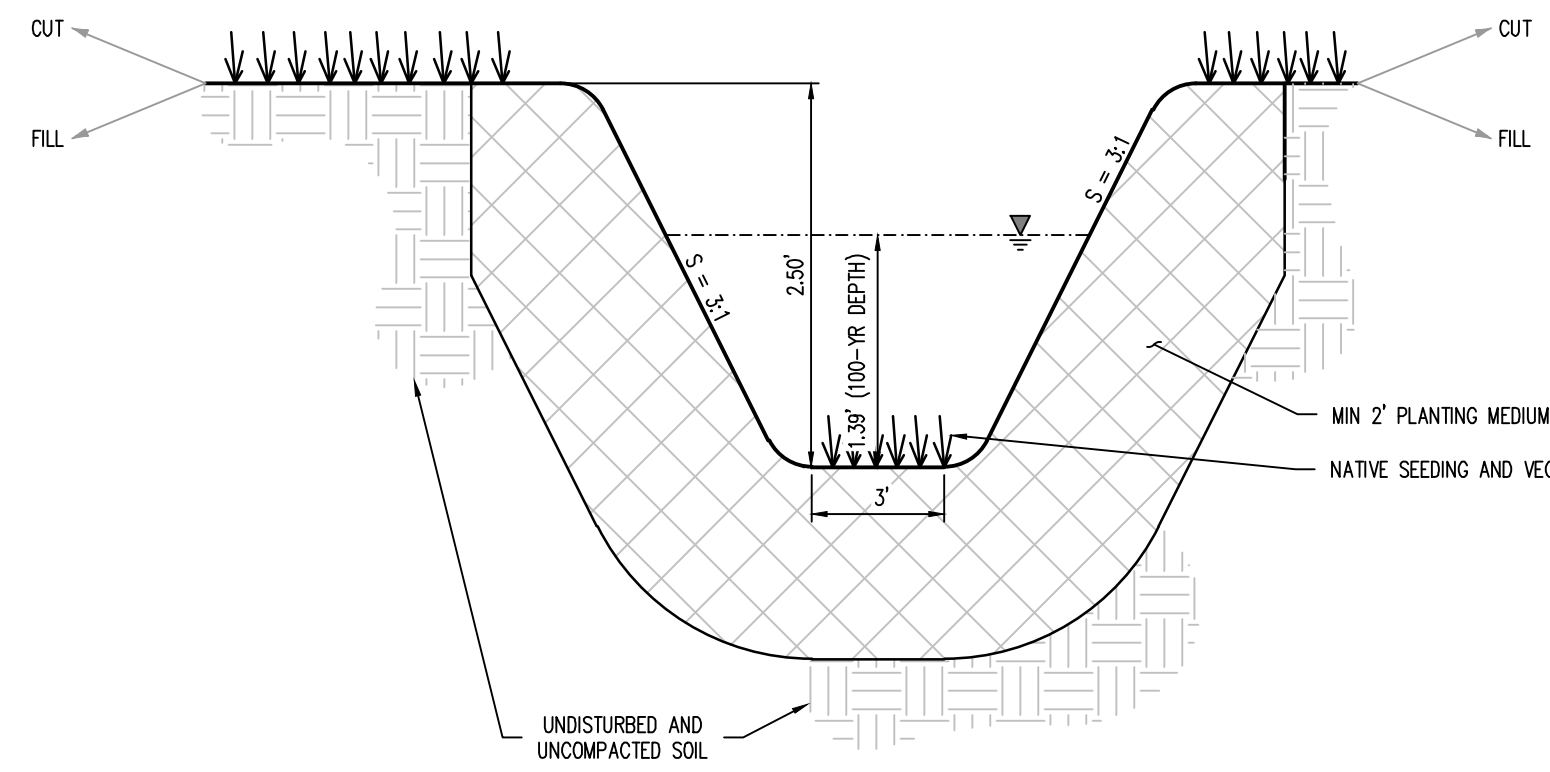
PR. SWALE A-1 SECTION
(BTM WIDTH: 4.0'; DEPTH: 1.0'; SIDE SLOPES: 4:1 (LEFT), 10:1 (RIGHT); SLOPE: 3.0%; Q: 5.0 cfs)

PR. SWALE A-2 SECTION
(BTM WIDTH: 10.0'; DEPTH: 3.0'; SIDE SLOPES: 4:1; SLOPE: 3.0%; Q: 144.2 cfs)

PR. SWALE OS-1 SECTION
(BTM WIDTH: 4.0'; DEPTH: 3.0'; SIDE SLOPES: 4:1; SLOPE: 0.50%; Q: 55.3 cfs)

#	Date	Issue / Description	Init.

VELOCITY = 3.71 FT/S
 LONGITUDINAL SLOPE = 1.0%
 Q100 = 21.50 CFS (WORST CASE SCENARIO ASSUMED FOR ALL SWALES CONVEYING RUN-OFF TO TEMPORARY SEDIMENT BASINS)



1 TYPICAL TEMPORARY SEDIMENT BASIN CONVEYANCE SWALE
 NOT TO SCALE

C:\Users\jgalloway\OneDrive\Documents\2023\12\29\2023\G3.2 Swale Grading Details.dwg, 12/29/2023

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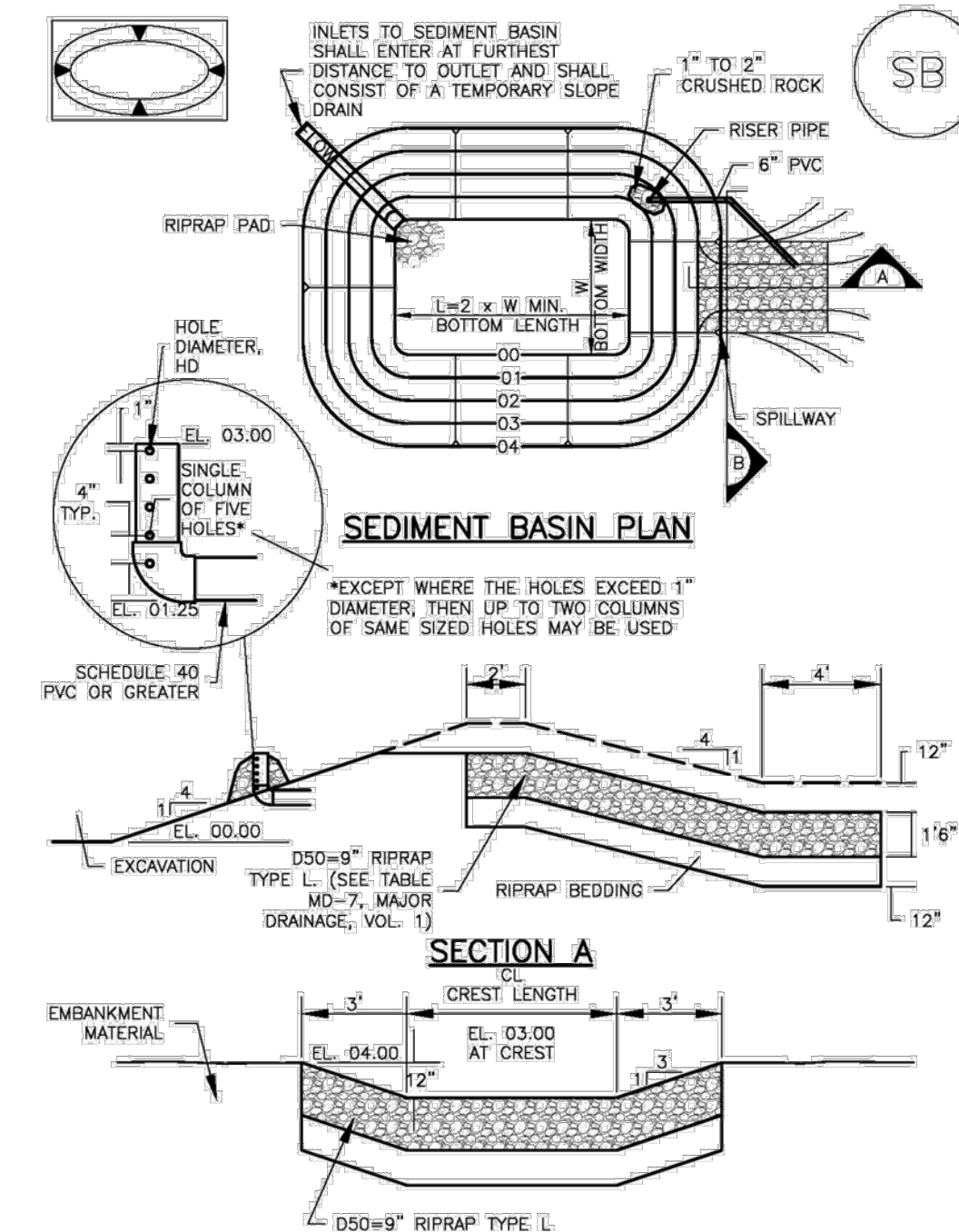
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GRANDVIEW RESERVE FILING NO. 1
FOR
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EL PASO COUNTY, PEYTON, CO 80831

#	Date	Issue / Description	Init.

Project No: HRG01
 Drawn By: JDP
 Checked By: BAS
 Date: 12/29/2023

SWALE GRADING DETAILS

Sediment Basin (SB) SC-7



Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 1/2	2	5/8
2	21	3	1 1/8
3	28	5	1 1/2
4	33 1/2	6	1 5/8
5	38 1/2	8	1 3/4
6	43	9	1 7/8
7	47 1/2	11	1 7/8
8	51	12	1 7/8
9	55	13	1 7/8
10	58 1/2	15	1 7/8
11	61	16	1 7/8
12	64	18	1 7/8
13	67 1/2	19	1 7/8
14	70 1/2	21	1 3/4
15	73 1/2	22	1 3/4

- SEDIMENT BASIN INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
 - LOCATION OF SEDIMENT BASIN.
 - TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
 - FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL AND HOLE DIAMETER, HD.
 - FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.
 - FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
 - SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON BASINS AS A STORMWATER CONTROL.
 - EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
 - EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
 - PIPE SCH 40 OR GREATER SHALL BE USED.
 - THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

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

SC-7 Sediment Basin (SB)

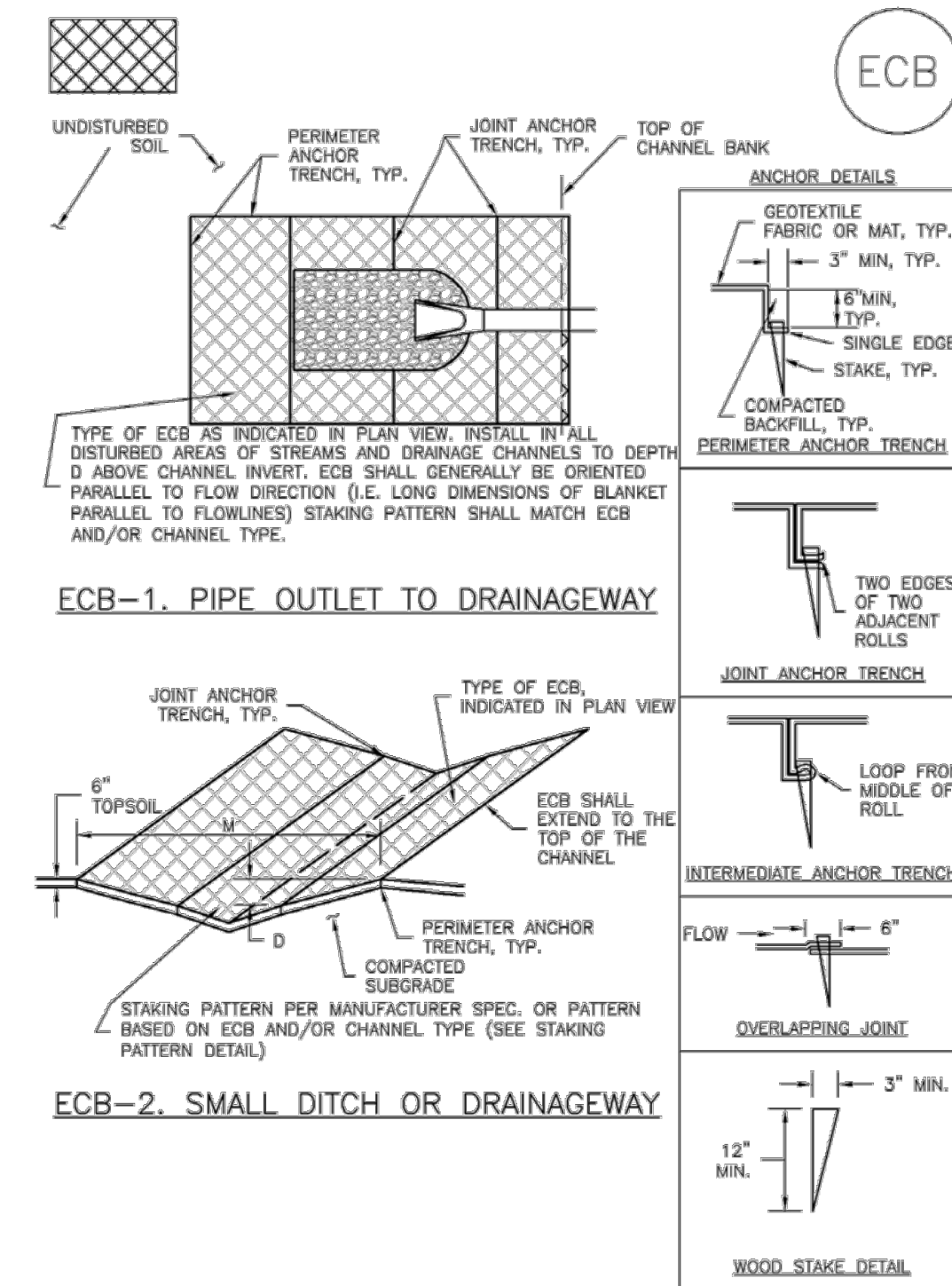
Sediment Basin (SB) SC-7

- SEDIMENT BASIN MAINTENANCE NOTES**
- 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.
 - 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.
 - SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).
 - SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.
 - WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)
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.

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

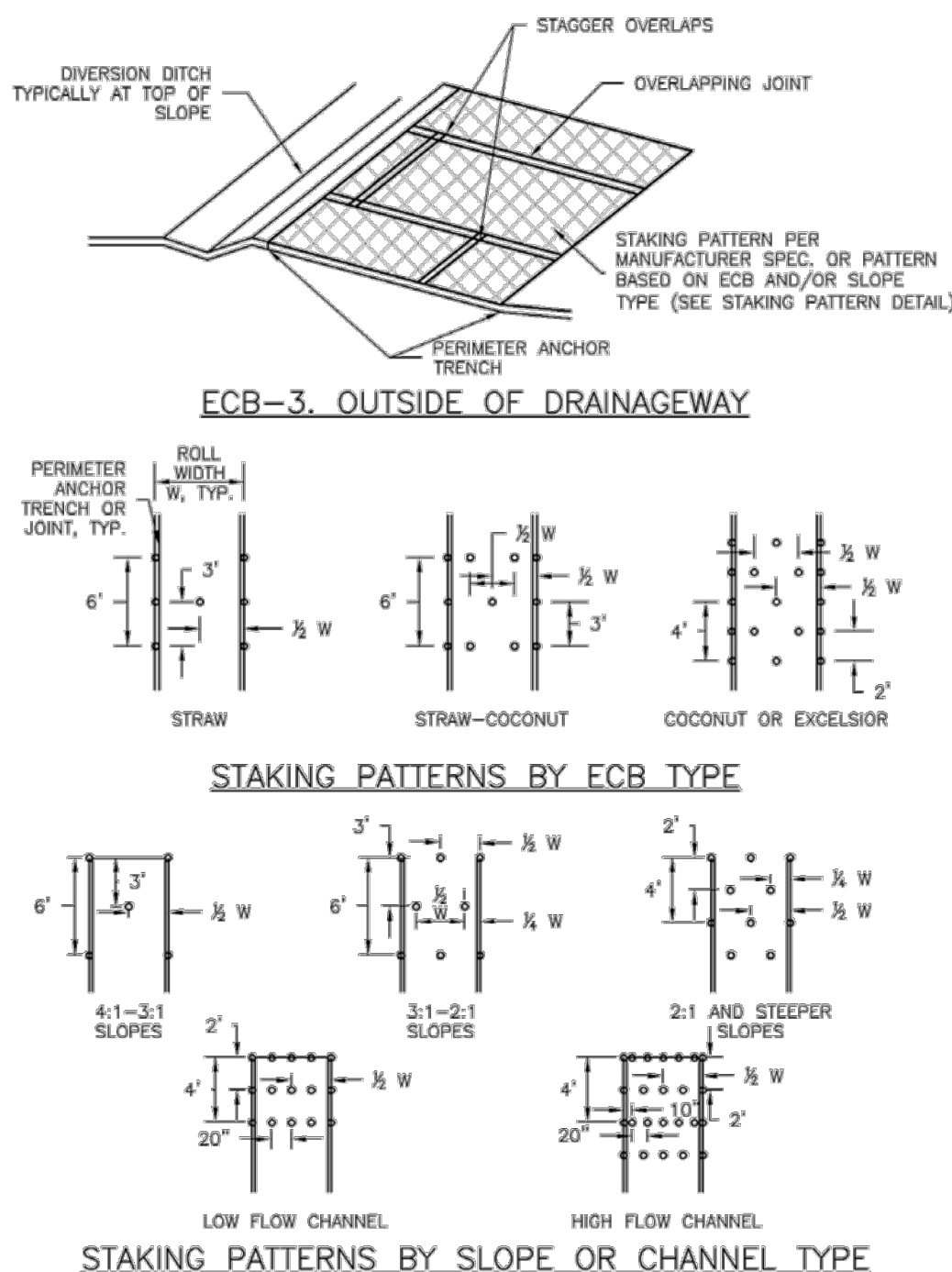
August 2013 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SB-7

ECB-6 Rolled Erosion Control Products (RECP)



November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 RECP-6

ECB-6 Rolled Erosion Control Products (RECP)



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

ECB-6 Rolled Erosion Control Products (RECP)

- EROSION CONTROL BLANKET INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
 - LOCATION OF ECB.
 - TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR).
 - AREA, A, IN SQUARE YARDS OF EACH TYPE OF ECB.
 - 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPs, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS.
 - IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITS SHALL PLACE TOPSOIL, AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
 - PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
 - JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.
 - INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs.
 - OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.
 - MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.
 - ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBs SHALL BE RESEEDED AND MULCHED.
 - DETAILS ON DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING**
STRAW*	-	100%	-	DOUBLE/NATURAL
STRAW-COCONUT	30% MIN	70% MAX	-	DOUBLE/NATURAL
COCONUT	100%	-	-	DOUBLE/NATURAL
EXCELSIOR	-	-	100%	DOUBLE/NATURAL

*STRAW ECBs MAY ONLY BE USED OUTSIDE OF STREAMS AND DRAINAGE CHANNELS.
**ALTERNATE NETTING MAY BE ACCEPTABLE IN SOME JURISDICTIONS.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 RECP-8

ECB-6 Rolled Erosion Control Products (RECP)

- EROSION CONTROL BLANKET MAINTENANCE NOTES**
- 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.
 - 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.
 - ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.
 - ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 RECP-9

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EROSION CONTROL
DETAILS

