

RIVERFRONT PARKWAY CUYAHOGA FALLS, OHIO CUYAHOGA RIVER BANK STABILIZATION

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CONSTRUCTION LIMITS
(WORK AREA)

ACCEPTED BY Tony V. Demasi
DATE 12/01/2021
TONY DEMASI, P.E.
CITY ENGINEER
CITY OF CUYAHOGA FALLS

ACCEPTED BY Matthew A. Lascola
DATE 11/30/2021
MATTHEW A. LASCOLA, P.E.
GPD GROUP ENGINEER



DESIGNED BY:

GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2101
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ENVIROSCIENCE INC.
5070 STOW ROAD
STOW, OHIO 44224
330-688-0111

**100% SUBMITTAL
SEPTEMBER, 2021**

PLAN REPRODUCTION WARNING
THE PLANS HAVE BEEN CREATED ON ANSI D (22"x34") SHEETS. FOR REDUCTIONS, REFER TO GRAPHIC SCALE.

THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES.

WARNING: INFORMATION MAY BE LOST IN COPYING AND/OR GRAY SCALE PLOTTING

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REV.	DATE	DESCRIPTION
1	03/18/20	DRAFT
2	09/13/21	REVISIONS PER CITY COMMENTS

CUYAHOGA RIVER BANK STABILIZATION
RIVERFRONT PARKWAY
CUYAHOGA FALLS, OHIO

TITLE SHEET

ISSUED FOR:	
PERMIT	09/13/2021
BID	-
CONSTRUCTION	-
RECORD	-

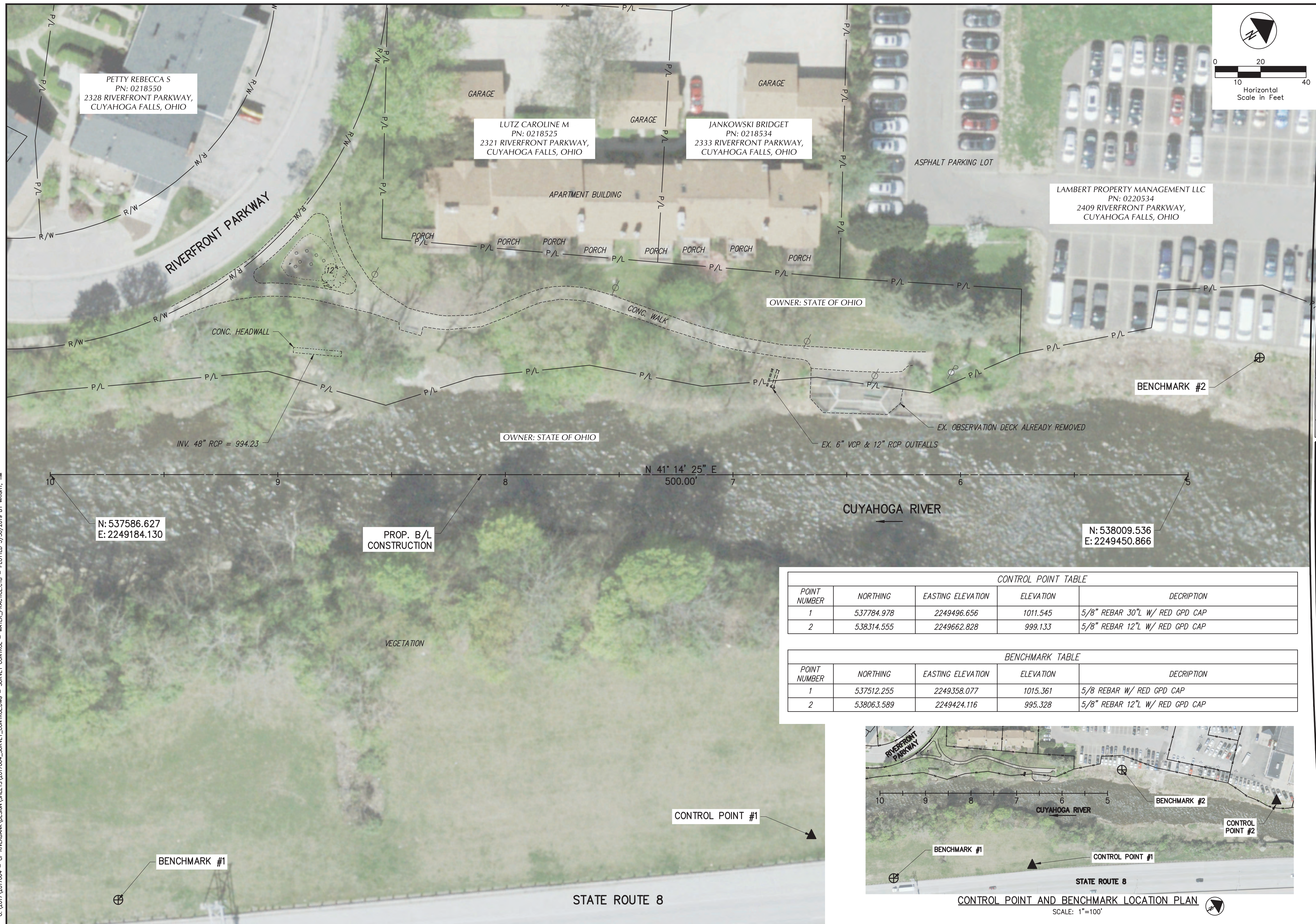
JOB NO.
2017064.00

SHEET:
G-001

SHEET NO:
SHEET 1/11



G:\2017\2017064 - CF RIVERBANK DESIGN SHEETS\2017064_SURVEY_CONTROL.DWG - SURVEY CONTROL - WATER_PRACTICE.CTB - PLOTTED 5/20/2019 BY WRIGHT, TM



PETTY REBECCA S
PN: 0218550
2328 RIVERFRONT PARKWAY,
CUYAHOGA FALLS, OHIO

LUTZ CAROLINE M
PN: 0218525
2321 RIVERFRONT PARKWAY,
CUYAHOGA FALLS, OHIO

JANKOWSKI BRIDGET
PN: 0218534
2333 RIVERFRONT PARKWAY,
CUYAHOGA FALLS, OHIO

LAMBERT PROPERTY MANAGEMENT LLC
PN: 0220534
2409 RIVERFRONT PARKWAY,
CUYAHOGA FALLS, OHIO

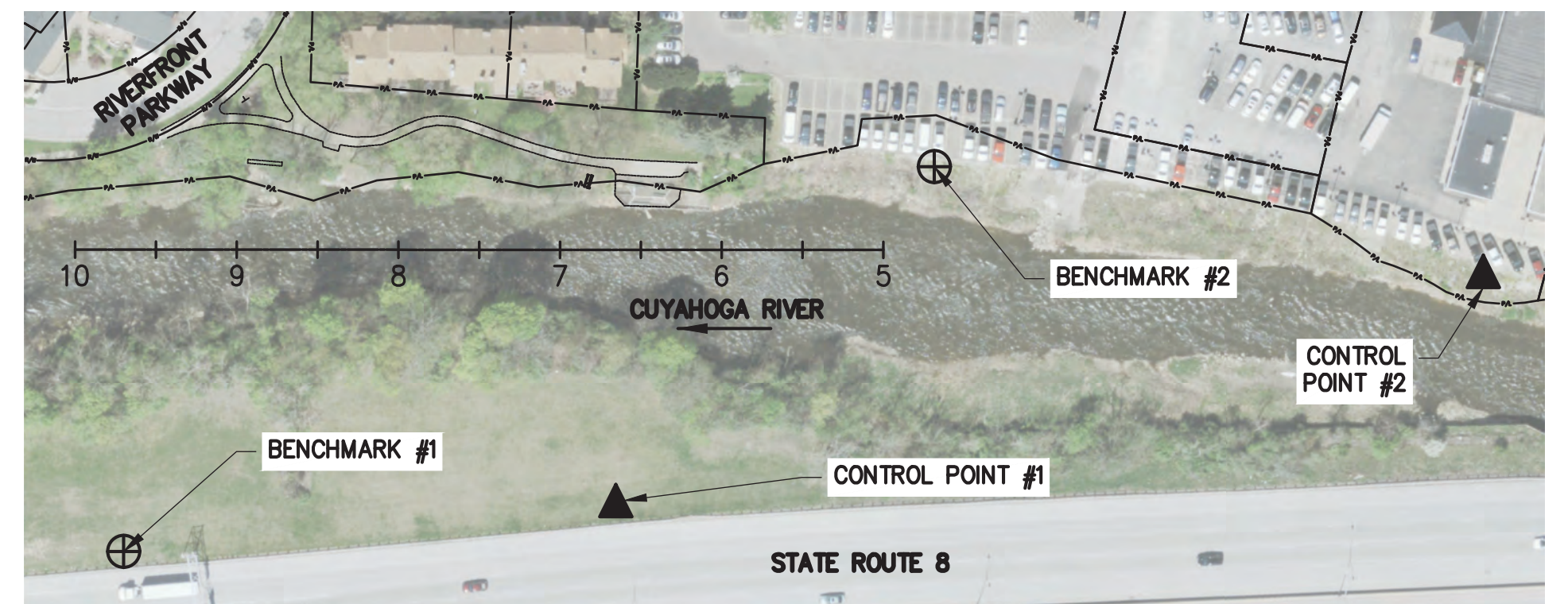
N: 537586.627
E: 2249184.130

PROP. B/L
CONSTRUCTION

N: 538009.536
E: 2249450.866

CONTROL POINT TABLE				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	537784.978	2249496.656	1011.545	5/8" REBAR 30"L W/ RED GPD CAP
2	538314.555	2249662.828	999.133	5/8" REBAR 12"L W/ RED GPD CAP

BENCHMARK TABLE				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	537512.255	2249358.077	1015.361	5/8 REBAR W/ RED GPD CAP
2	538063.589	2249424.116	995.328	5/8" REBAR 12"L W/ RED GPD CAP



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1	03/18/20	DRAFT
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CUYAHOGA RIVER BANK STABILIZATION
RIVERFRONT PARKWAY
CUYAHOGA FALLS, OHIO

SURVEY CONTROL PLAN

ISSUED FOR:	
PERMIT	09/13/2021
BID	-
CONSTRUCTION	-
RECORD	-

JOB NO.
2017064.00

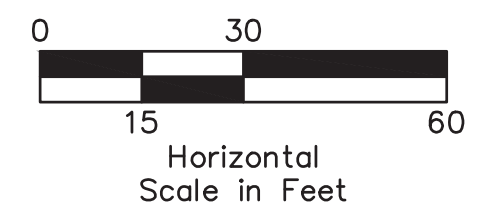
SHEET:
C-101

SHEET NO:
SHEET 3/11

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CITY OF Cuyahoga Falls
MAYOR DON WALTERS

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LEGEND

- SITE ACCESS ROUTE
- PLAN SHEET LAYOUT
- FOR SURVEY CONTROL, SEE SHEET 3
- FOR COMPLETE LEGEND, SEE SHEET 2

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CUYAHOGA RIVER BANK STABILIZATION
 RIVERFRONT PARKWAY
 CUYAHOGA FALLS, OHIO

EXISTING CONDITIONS, SITE
 ACCESS, AND KEY PLAN

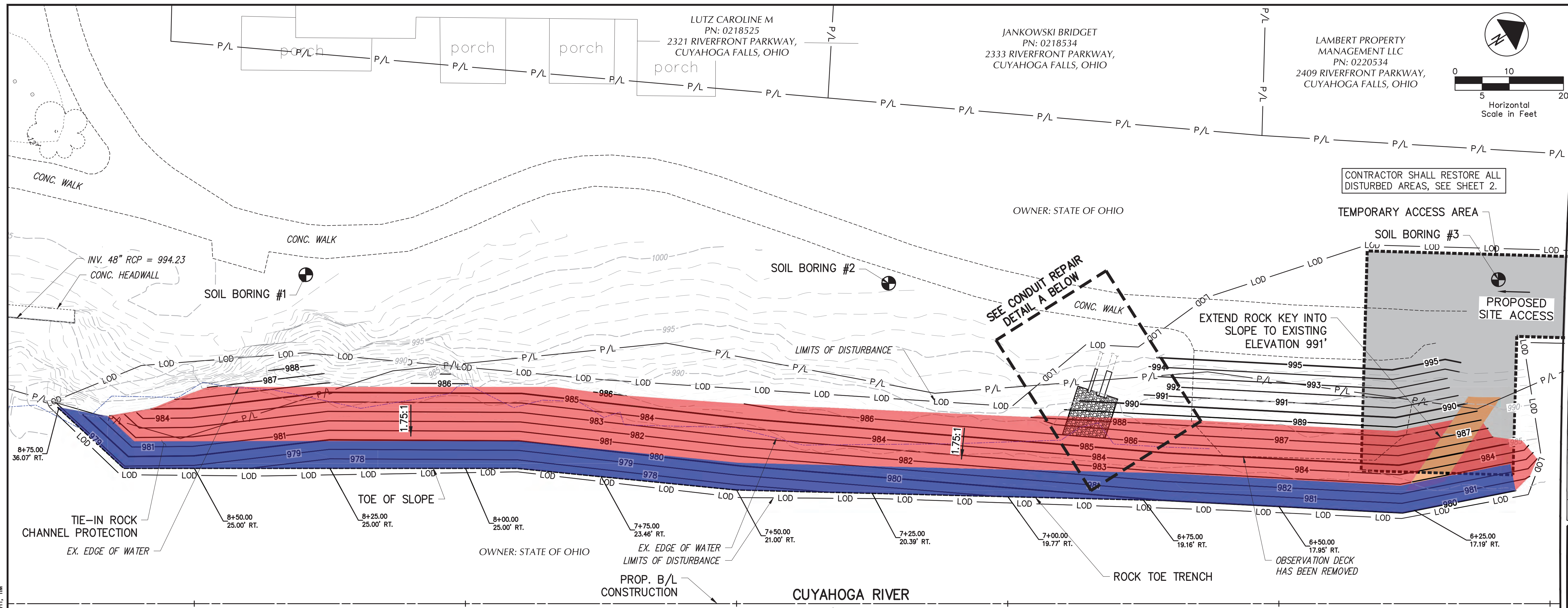
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BID	-
CONSTRUCTION	-
RECORD	-

JOB NO.
2017064.00

SHEET:
 C-102

SHEET NO:
 SHEET 4/11

S.R. 8



CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS, SEE SHEET 2.

OWNER: STATE OF OHIO

TEMPORARY ACCESS AREA

SEE CONDUIT REPAIR DETAIL A BELOW

EXTEND ROCK KEY INTO SLOPE TO EXISTING ELEVATION 991'

PROPOSED SITE ACCESS

TIE-IN ROCK CHANNEL PROTECTION
EX. EDGE OF WATER

OWNER: STATE OF OHIO

PROP. B/L CONSTRUCTION

CUYAHOGA RIVER

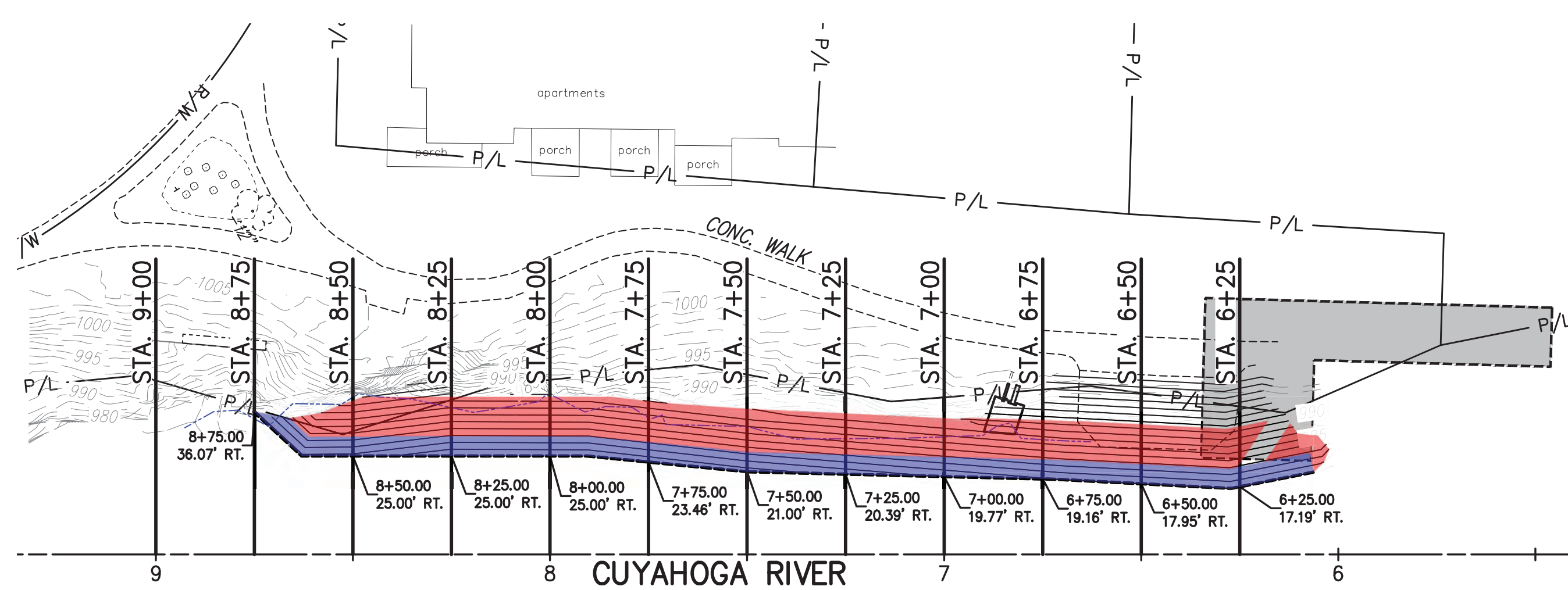
ROCK TOE TRENCH

OBSERVATION DECK HAS BEEN REMOVED

SHEET NOTES:
 FOR COMPLETE LEGEND, SEE SHEET 2
 FOR BENCHMARK LOCATION AND INFORMATION, SEE SHEET 3
 FOR EXISTING CONDITIONS AND KEY PLAN, SEE SHEET 4
 FOR BANK STABILIZATION DETAILS, SEE SHEET 11
 FOR EROSION AND SEDIMENT CONTROL PLANS AND DETAILS, SEE SHEETS 9 AND 10

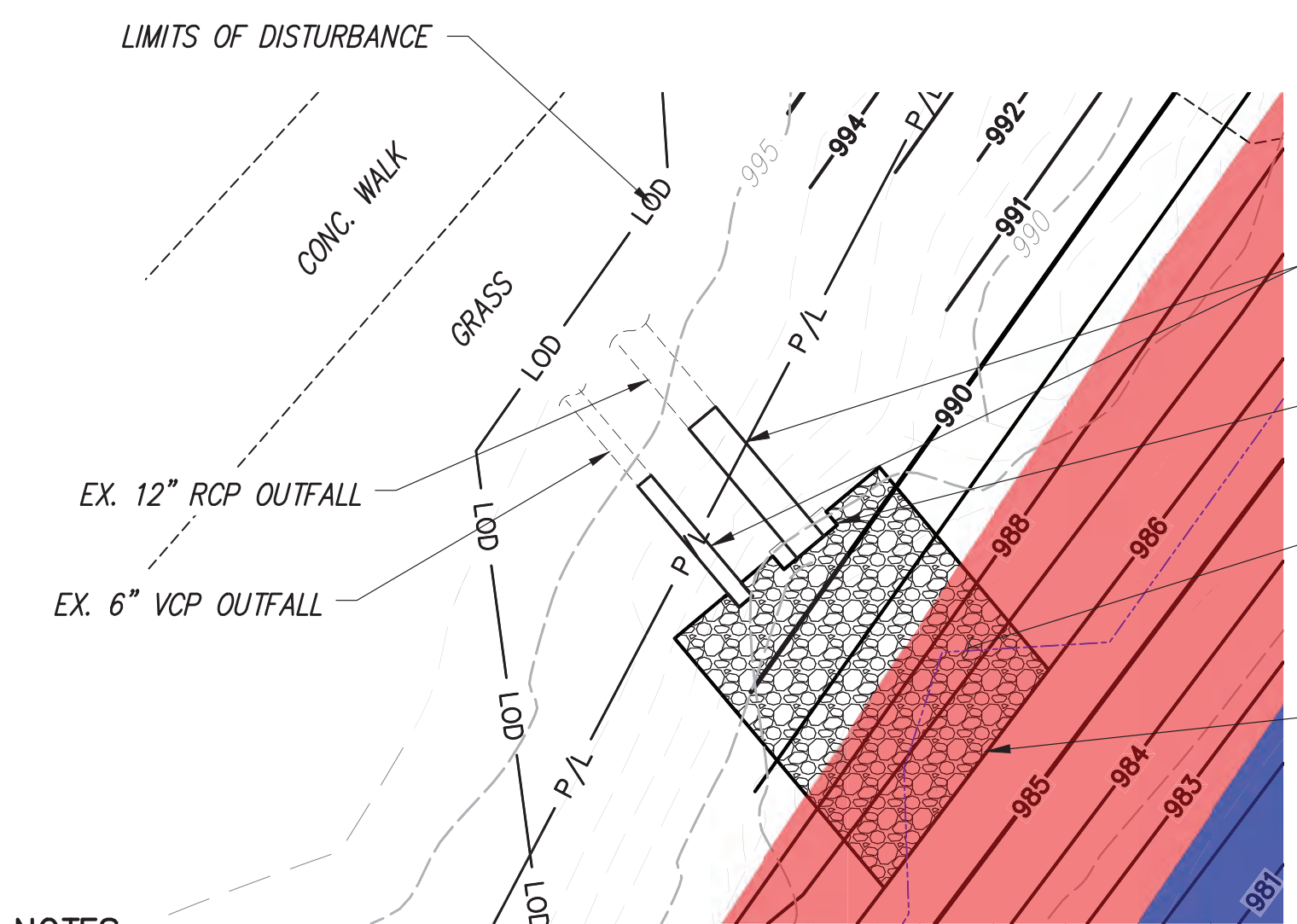
LEGEND

	ROCK BANK STABILIZATION
	TOE ROCK TRENCH
	ROCK TRENCH KEY
	TEMPORARY ACCESS AREA



NOTES:
 1. SEE SHEET 6 TO 8 FOR CROSS SECTIONS.

CROSS SECTION LOCATION PLAN
 SCALE 1"=30'



NOTES:
 1. INVERTS OF EXISTING OUTFALLS ARE UNKNOWN AND WILL NEED DETERMINED IN FIELD. CONTRACTOR TO NOTIFY CONSTRUCTION MANAGER IMMEDIATELY IF DESIGN INTENT IS NOT FEASIBLE.

CONDUIT REPAIR DETAIL A
 SCALE 1"=5'

REV.	DATE	DESCRIPTION
1	03/18/20	DRAFT
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CUYAHOGA RIVER BANK STABILIZATION
 RIVERFRONT PARKWAY
 CUYAHOGA FALLS, OHIO

GRADING PLAN

ISSUED FOR:

PERMIT	09/13/2021
BID	-
CONSTRUCTION	-
RECORD	-

JOB NO.
2017064.00

SHEET:
 C-201
 SHEET NO:
 SHEET 5/11

G:\2017\2017064 - OF RIVERBANK DESIGN SHEETS\2017064_SECTION\DWG - 5 GRADING PLAN - WATER_PRACTICE.CTB - PLOTTED 5/30/2019 BY WRIGHT, TM



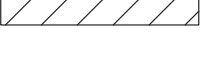
ROCK CHANNEL PROTECTION		
X SECTION STATION	END AREA	VOLUME
6+00	0.0	25.7
6+25	55.6	51.5
6+50	55.6	53.7
6+75	60.3	59.3
7+00	67.7	59.7
7+25	61.2	61.0
7+50	70.5	68.8
7+75	78.0	73.5
8+00	80.8	76.6
8+25	84.7	69.4
8+50	65.2	30.2
8+75	0.0	0.0
9+00	0.0	0.0
TOTAL		629.4

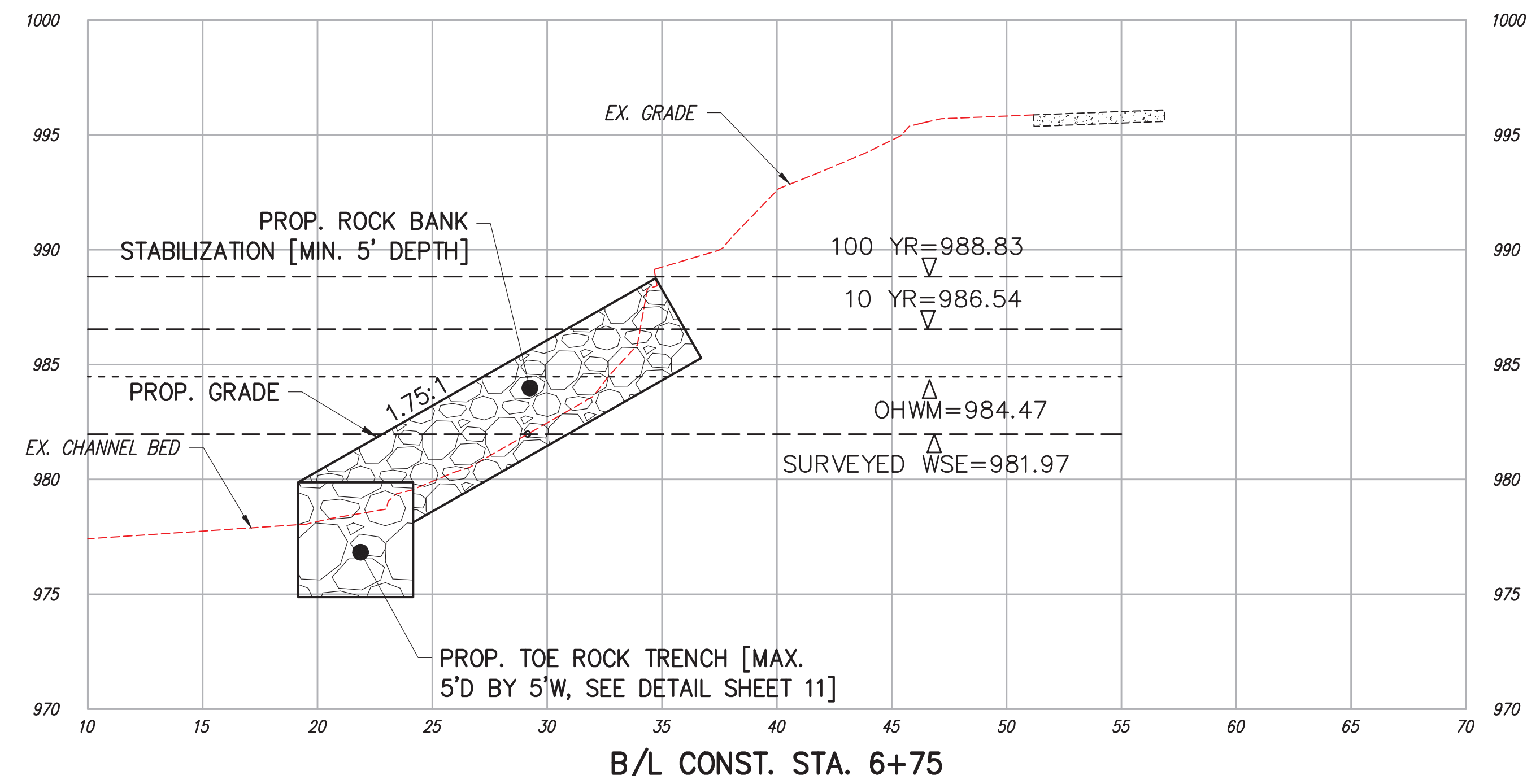
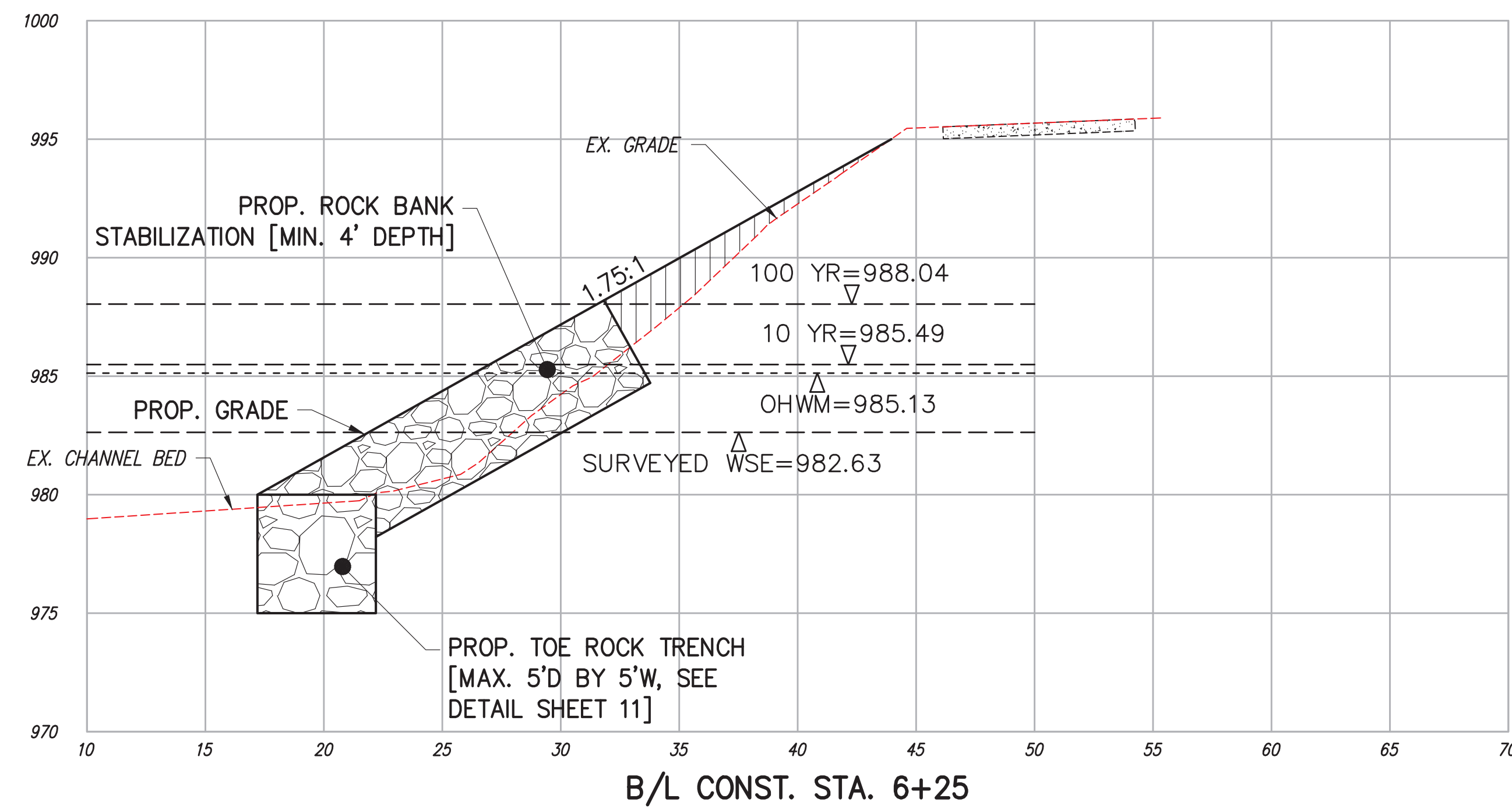
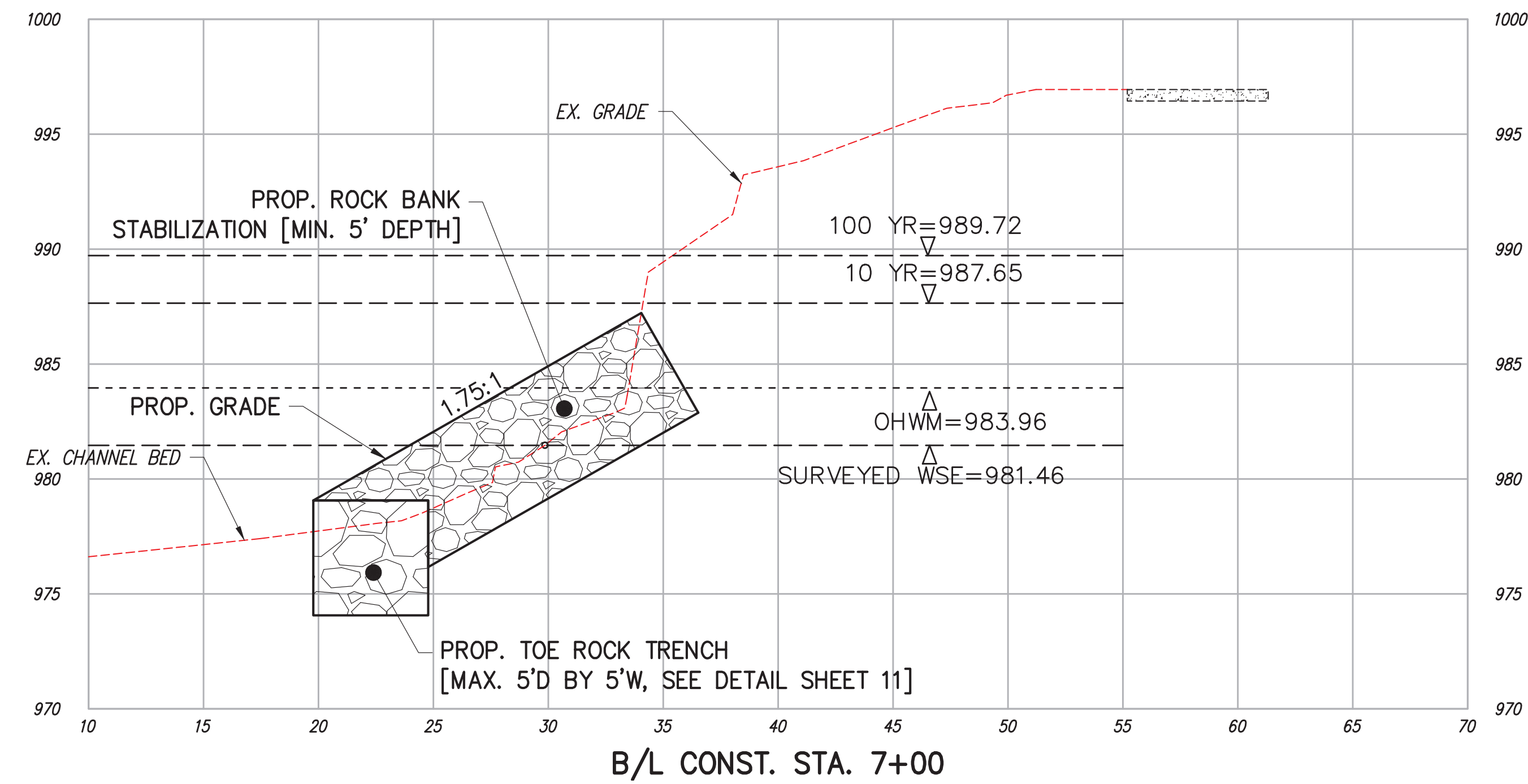
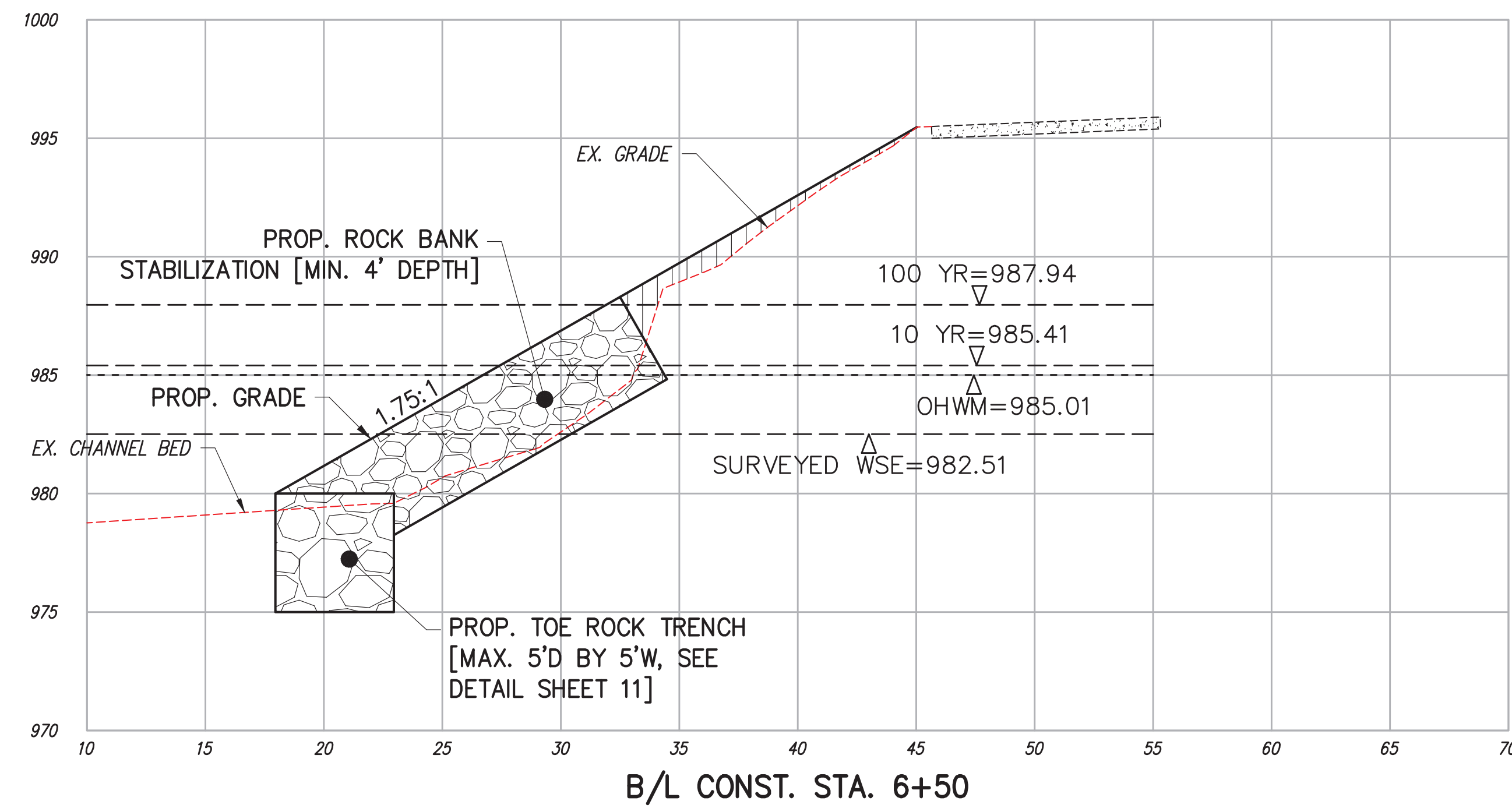
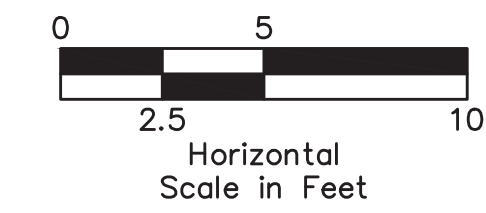
TOE ROCK TRENCH		
X SECTION STATION	END AREA	VOLUME
6+00	0.0	11.6
6+25	25.0	23.2
6+50	25.0	23.2
6+75	25.0	23.2
7+00	25.0	23.2
7+25	25.0	23.2
7+50	25.0	23.2
7+75	25.0	23.2
8+00	25.0	23.2
8+25	25.0	23.2
8+50	25.0	11.6
8+75	0.0	0.0
9+00	0.0	0.0
TOTAL		*232

PROP. ENGINEERED FILL		
X SECTION STATION	END AREA	VOLUME
6+00	0.0	6.2
6+25	13.3	10.0
6+50	8.2	3.8
6+75	0.0	0.0
7+00	0.0	0.0
7+25	0.0	0.0
7+50	0.0	0.0
7+75	0.0	0.0
8+00	0.0	0.0
8+25	0.0	7.0
8+50	15.0	7.0
8+75	0.0	0.0
9+00	0.0	0.0
TOTAL		44

EXCAVATION AND REMOVAL		
X SECTION STATION	END AREA	VOLUME
6+00	0.0	18.1
6+25	39.0	32.8
6+50	31.9	32.4
6+75	38	40.7
7+00	50.0	49.4
7+25	56.8	49.9
7+50	51.0	49.5
7+75	56.0	48.8
8+00	49.5	52.1
8+25	63.0	44.2
8+50	32.6	15.1
8+75	0.0	0.0
9+00	0.0	0.0
TOTAL		**433

QUANTITY NOTES
 * TOE ROCK TRENCH QUANTITY IS MAX WITH USING 5' DEPTH.
 ** EXCAVATION VOLUME NUMBER INCLUDES TOE ROCK TRENCH OF USING MAX 5' DEPTH.

LEGEND
 ROCK BANK STABILIZATION PROTECTION
 TOE ROCK TRENCH
 PROP. ENGINEERED FILL



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1	03/18/20	DRAFT
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CUYAHOGA RIVER BANK STABILIZATION
 RIVERFORD PARKWAY
 CUYAHOGA FALLS, OHIO

CROSS SECTIONS
 C-202

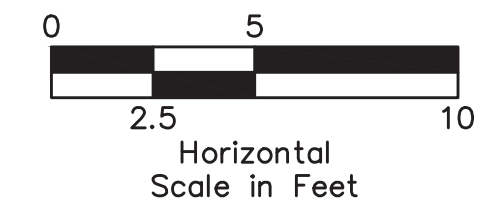
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CONSTRUCTION	-
RECORD	-

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2017064.00

SHEET:
 C-202

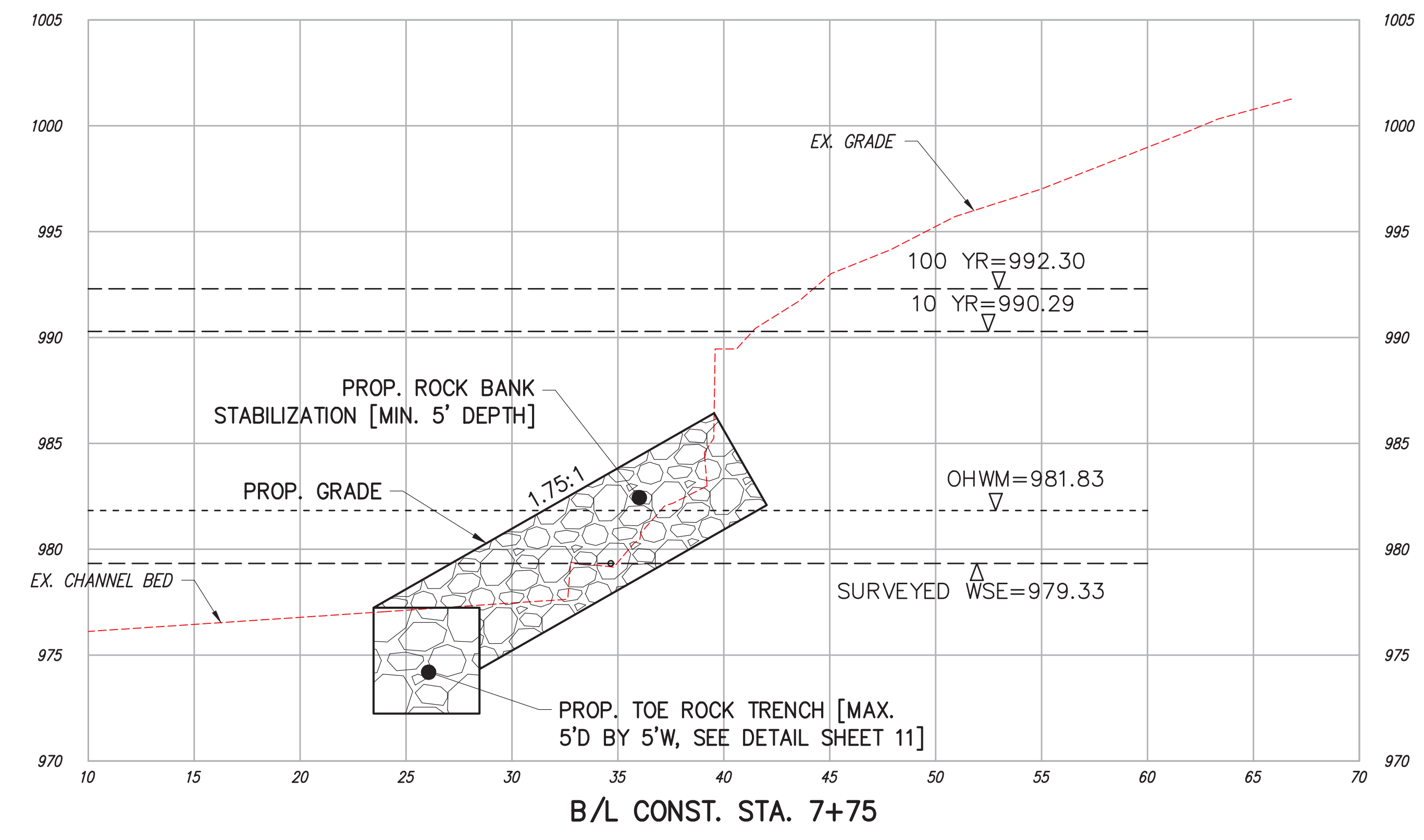
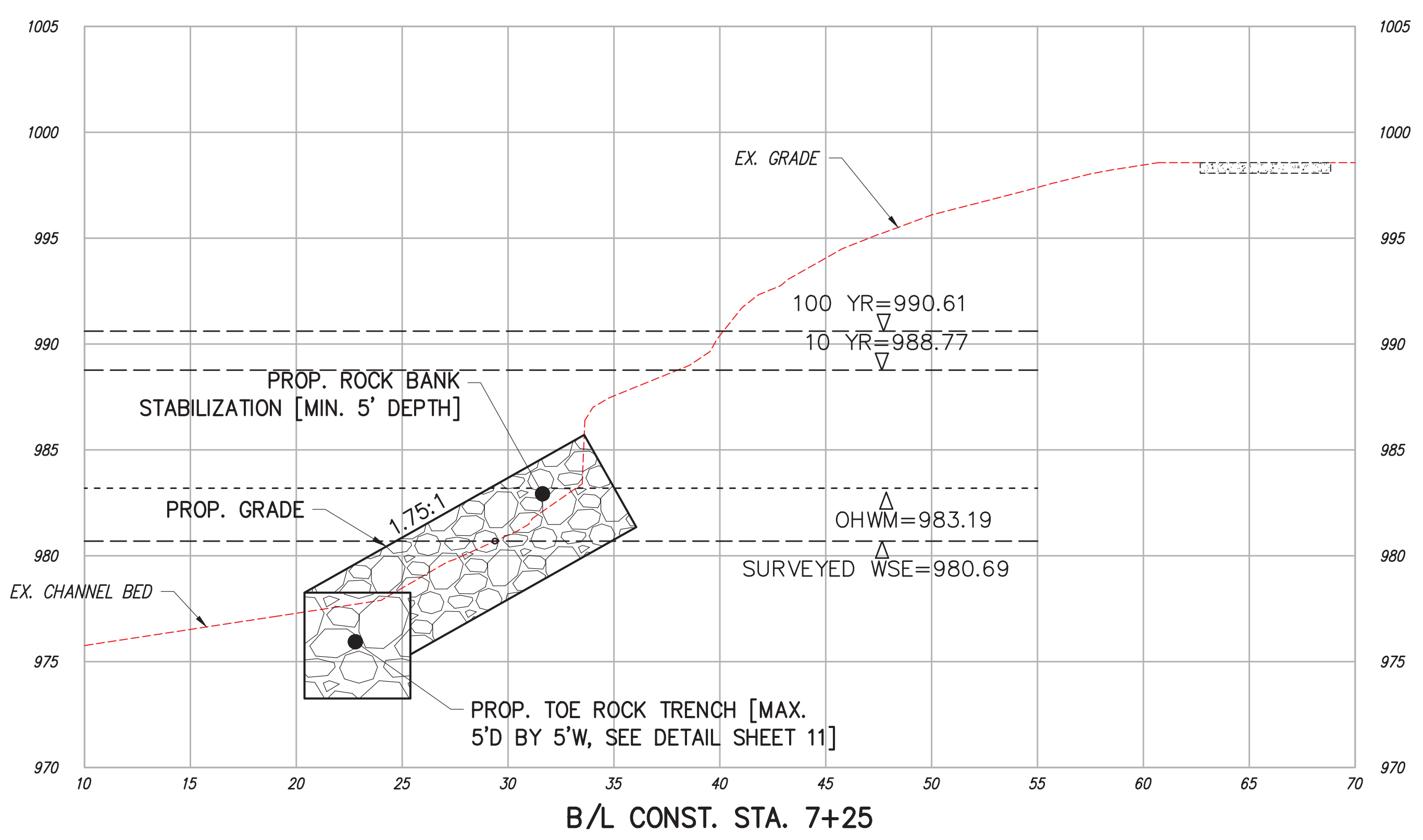
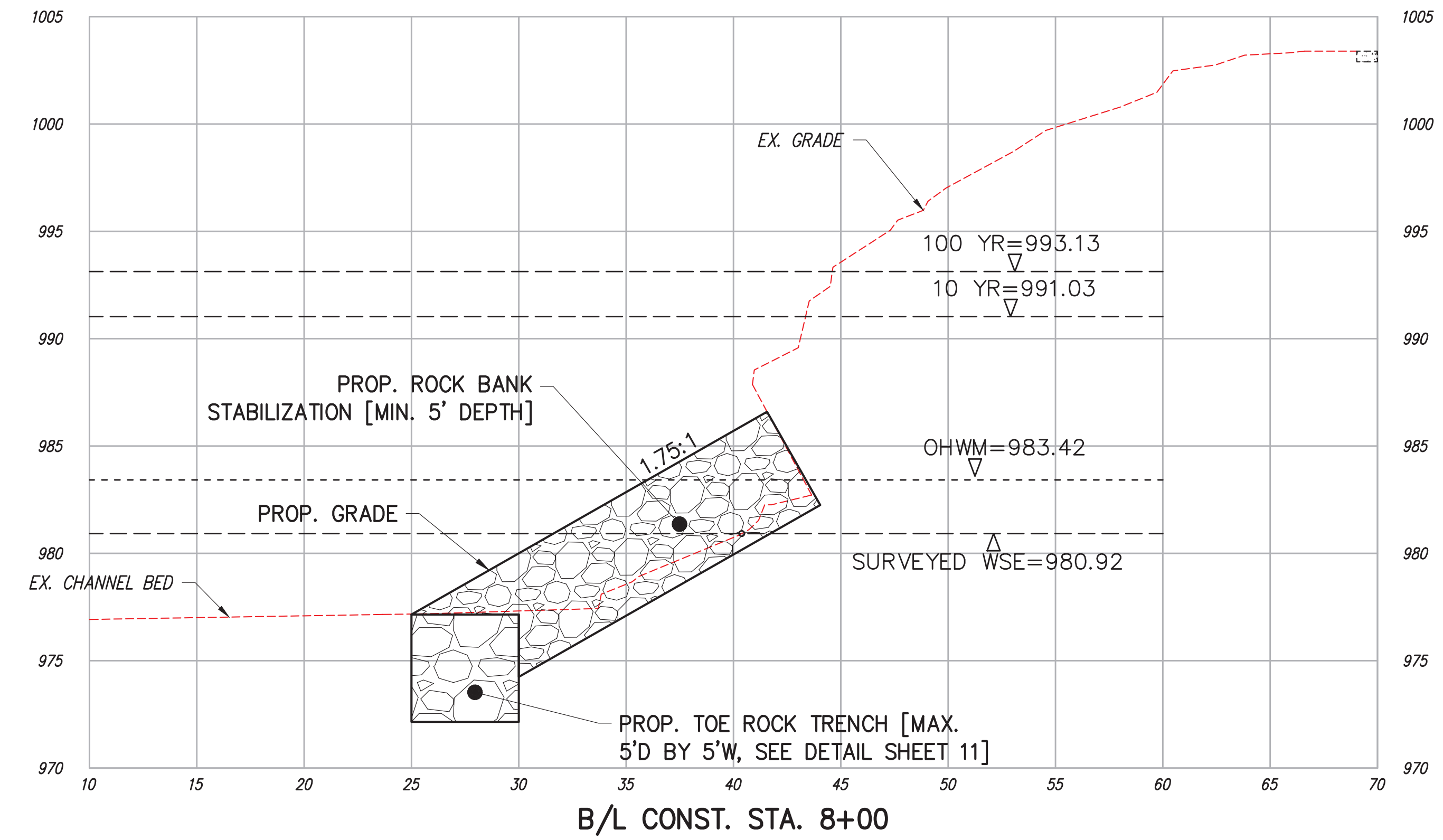
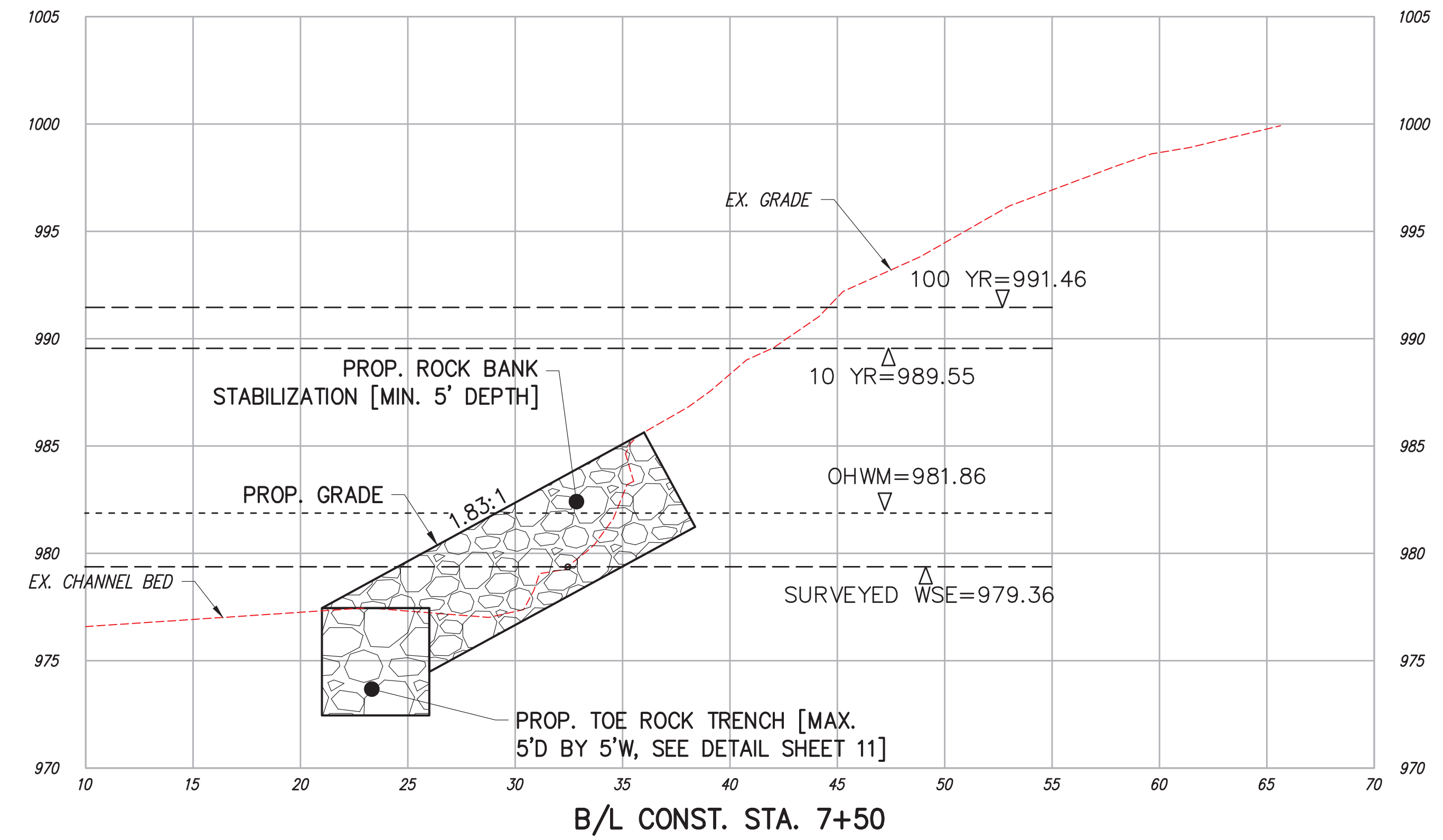
SHEET NO:
 SHEET 6/11

NOTE:
SEE SHEET 6 FOR CROSS SECTION FOR QUANTITIES



LEGEND

- ROCK BANK STABILIZATION PROTECTION
- TOE ROCK TRENCH
- PROP. ENGINEERED FILL



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MAYOR DON WALTERS

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CUYAHOGA RIVER BANK STABILIZATION
RIVERFORD PARKWAY
CUYAHOGA FALLS, OHIO

CROSS SECTIONS
C-203

ISSUED FOR:	
PERMIT	09/13/2021
BID	-
CONSTRUCTION	
RECORD	-

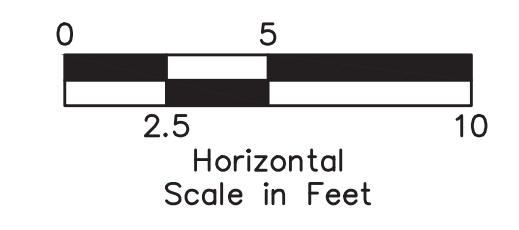
JOB NO.
2017064.00

SHEET:
C-203

SHEET NO:
SHEET 7/11

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NOTE:
SEE SHEET 6 FOR CROSS SECTION FOR QUANTITIES

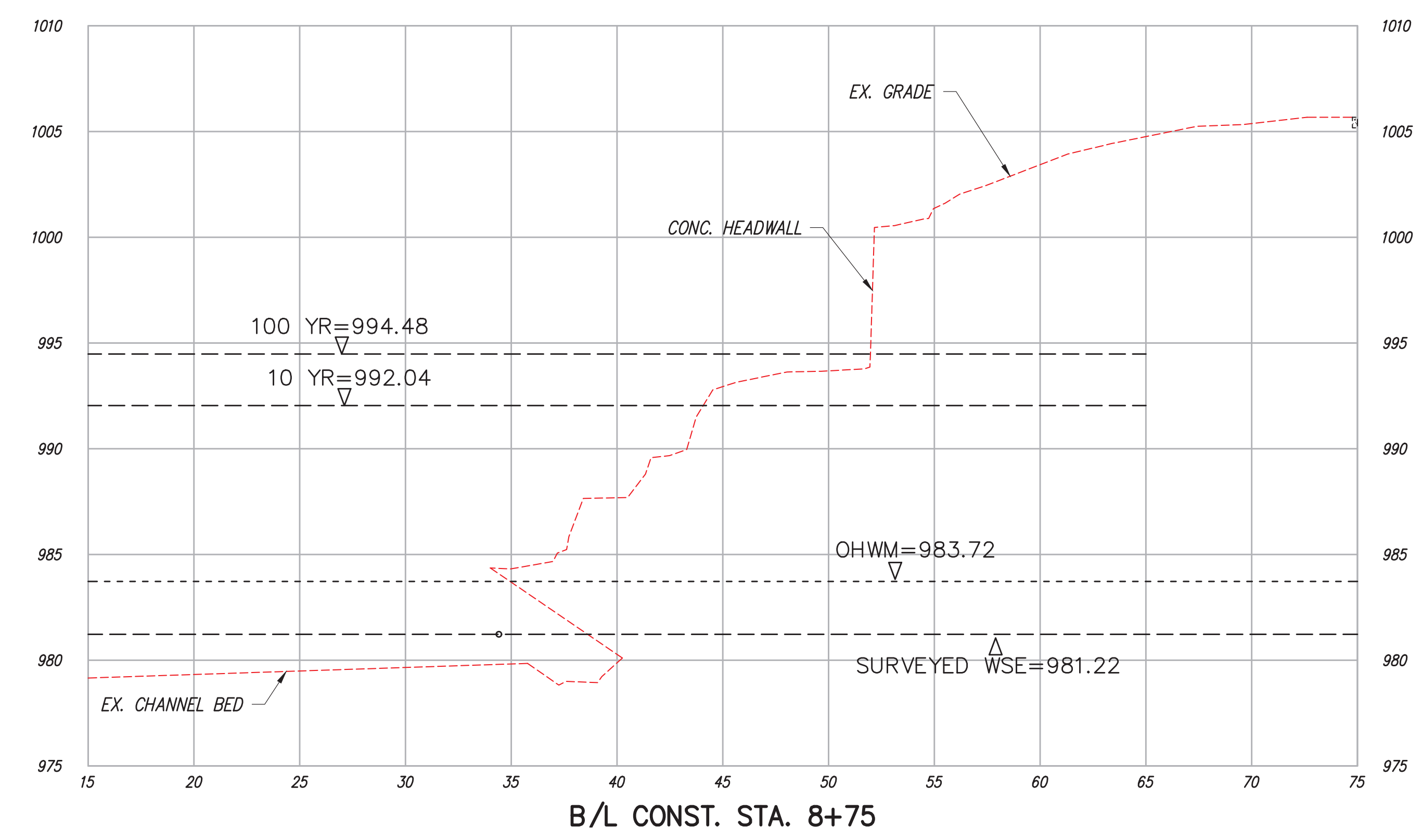
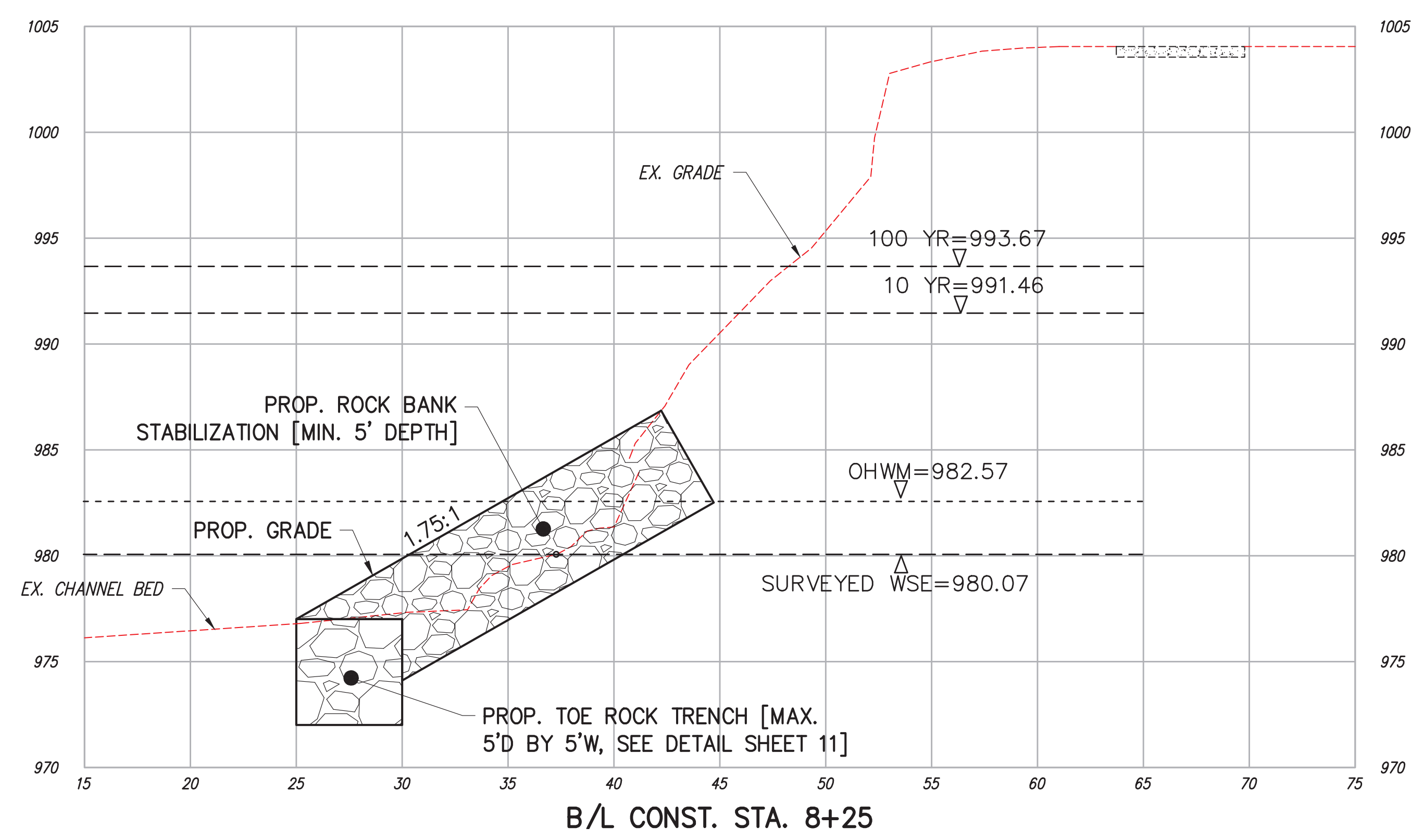
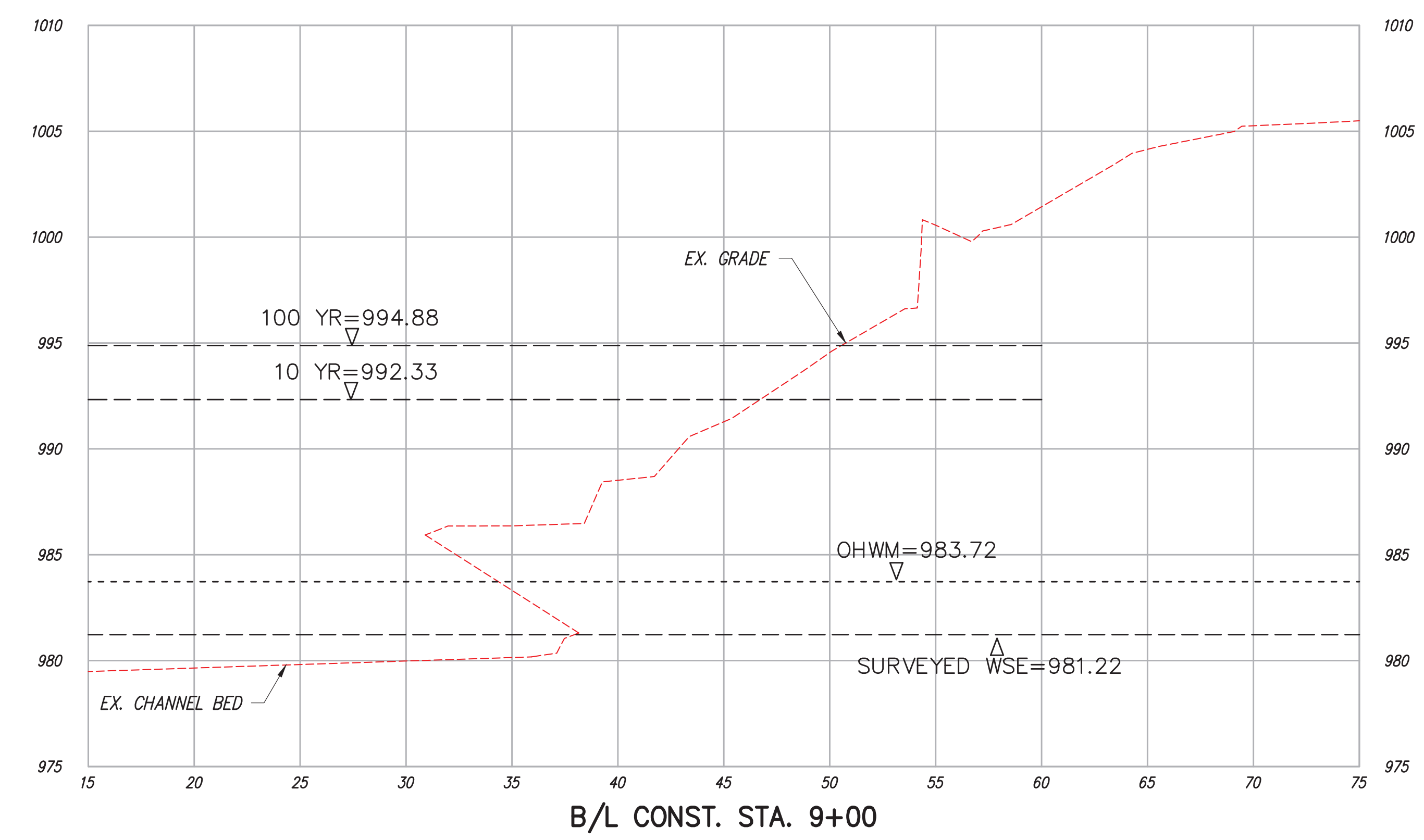
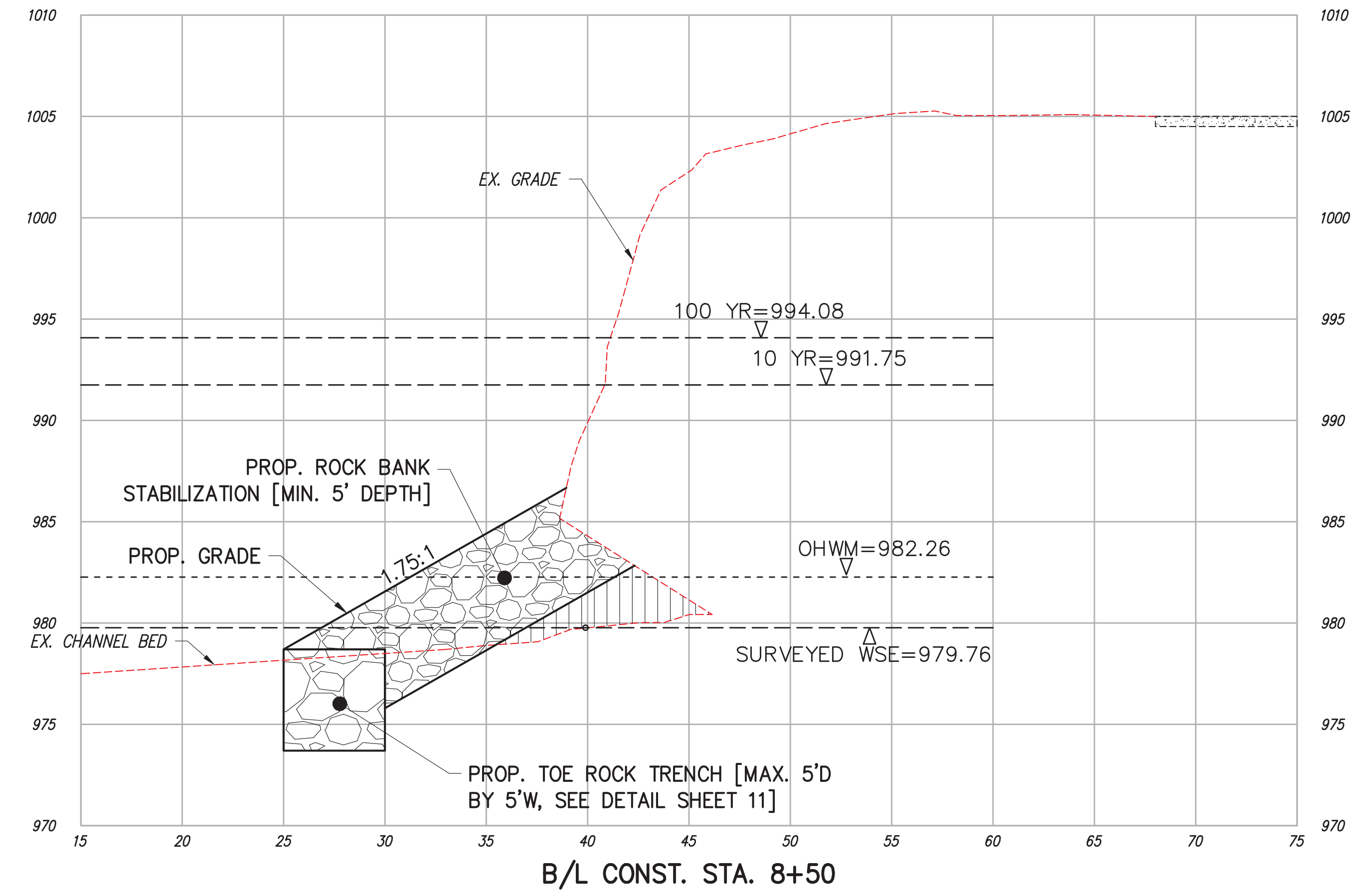


LEGEND

- ROCK BANK STABILIZATION PROTECTION
- TOE ROCK TRENCH
- PROP. ENGINEERED FILL

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CUYAHOGA RIVER BANK STABILIZATION
RIVERFRONT PARKWAY
CUYAHOGA FALLS, OHIO

CROSS SECTIONS
C-204

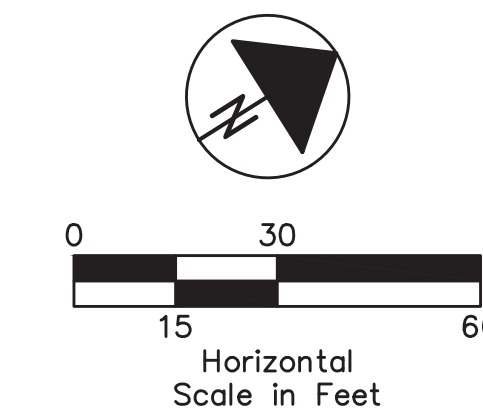
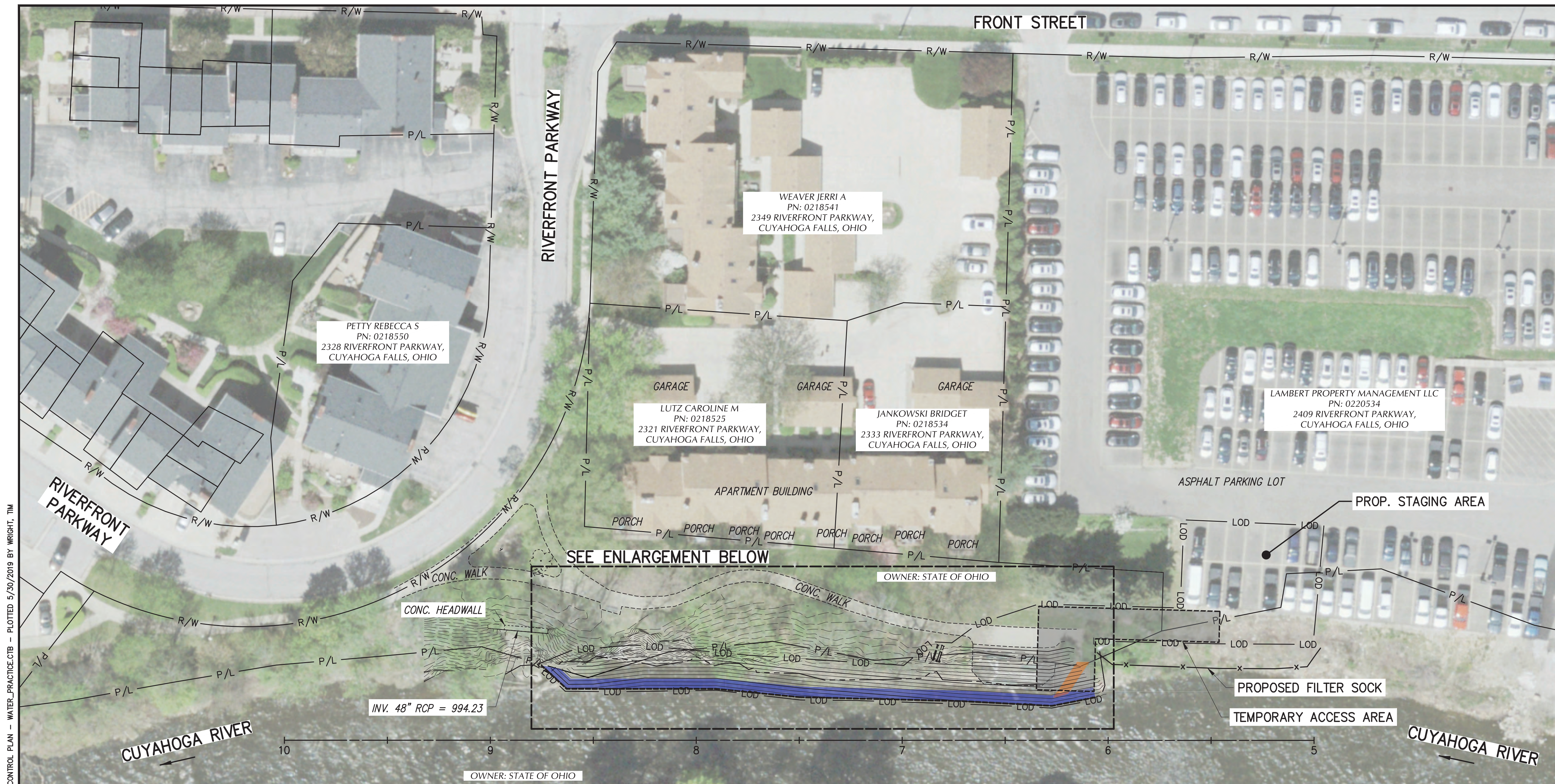
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SHEET:
C-204

SHEET NO:
SHEET 8/11

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- LEGEND**
- TEMPORARY ACCESS AREA
 - SEEDING AND MULCHING WITH EROSION CONTROL MAT, TYPE F
 - SEEDING AND MULCHING WITH EROSION CONTROL MAT, TYPE C
 - ROCK TOE BANK STABILIZATION
 - LOD — PROJECT LIMITS/ LIMITS OF DISTURBANCE
 - x — PROPOSED FILTER SOCK

- NOTES:**
1. SEE SHEET 2 FOR EROSION CONTROL MAT NOTES.
 2. SEE SHEET 10 FOR SEEDING AND MULCHING NOTES.

REV.	DATE	DESCRIPTION
1	03/18/20	DRAFT
2	09/13/21	REVISIONS PER CITY COMMENTS

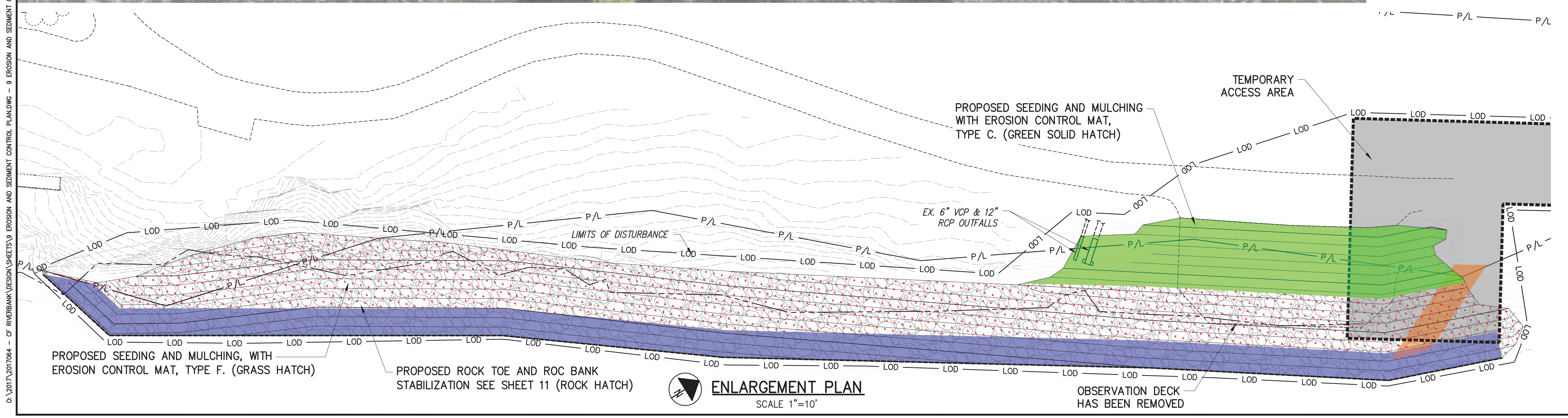
CUYAHOGA RIVER BANK STABILIZATION
 RIVERFRONT PARKWAY
 CUYAHOGA FALLS, OHIO

EROSION AND SEDIMENT CONTROL PLAN

ISSUED FOR:	
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RECORD	-

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SHEET:	C-301
SHEET NO:	SHEET 9/11

01/2017/2017064 - CF RIVERBANK DESIGN SHEETS 9 EROSION AND SEDIMENT CONTROL PLANNING - 9 EROSION AND SEDIMENT CONTROL PLAN - WATER PRACTICE CTB - PLOTTED 5/30/2019 BY WRIGHT, TM



ENLARGEMENT PLAN
 SCALE 1"=10'

G:\2017\2017064 - OF RIVERBANK DESIGN SHEETS\9 EROSION AND SEDIMENT CONTROL PLANNING - 10 EROSION AND SEDIMENT CONTROL NOTES & DETAILS - WATER PRACTICE.CTB - PLOTTED 5/30/2019 BY WRIGHT, TM

GENERAL NOTES

- ALL WORK SPECIFIED AS A DEPARTMENT OF TRANSPORTATION ITEM SHALL BE GOVERNED BY THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS AS WELL AS THE CURRENT EDITION OF THE LOCAL JURISDICTION STORM WATER MANAGEMENT POLICY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POSSESS AND TO BE FAMILIAR WITH APPLICABLE SECTIONS.
- THESE CONTRACT DRAWINGS SHALL BE MADE AVAILABLE ON SITE AT ALL TIMES AND PRESENTED UPON REQUEST. IF UNFORESEEN EROSION IS ENCOUNTERED, ADDITIONAL EROSION AND SEDIMENT CONTROL (E&S) MEASURES SHALL BE IMPLEMENTED TO MANAGE THE CURRENT SITE CONDITIONS WHICH MAY BE REQUESTED BY THE OWNER, COUNTY ENGINEER, PROJECT ENGINEER OR SOIL AND WATER CONSERVATION SERVICE REPRESENTATIVE AT ANYTIME. SUCH REQUESTS AND CHANGE IN SITE CONDITIONS SHALL BE IMPLEMENTED IMMEDIATELY AT CONTRACTOR'S EXPENSE.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED AS PRACTICAL BEFORE ANY OTHER EARTH MOVING OCCURS.
- SEDIMENT BARRIERS SHALL BE INSTALLED DOWNSLOPE OF DISTURBED AREAS. SEDIMENT BARRIERS SHALL BE INSTALLED ALONG LEVEL CONTOURS. MAXIMUM CONTRIBUTING DRAINAGE AREA TO SEDIMENT BARRIERS SHALL BE PER THE CURRENT STATE'S EPA OR THE LOCAL AUTHORITY REQUIREMENTS. COMPOSITE FILTER SOCKS USED IN LIEU OF SILT FENCE SHALL BE A MINIMUM OF 12 INCHES IN DIAMETER.
- SILT BARRIERS SHALL BE INSTALLED AROUND ALL EXISTING AND NEW STORM INLETS, CATCH BASINS AND YARD DRAINS.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AROUND ALL DIRT OR TOPSOIL STOCKPILES AND OTHER TEMPORARILY DISTURBED AREAS AS MAY BE SHOWN ON THESE PLANS AND/OR AS DIRECTED BY THE ENGINEER OR THE LOCAL AUTHORITY HAVING JURISDICTION.
- SILT BARRIERS AND SILT PERIMETER CONTROLS SHALL REMAIN IN PLACE UNTIL A GOOD STAND OF GRASS HAS BEEN OBTAINED AND/OR PAVING OPERATIONS ARE COMPLETE. CONTRACTOR SHALL KEEP SILT FROM ENTERING ANY STORM DRAINAGE SYSTEM. ONCE SITE HAS BEEN COMPLETELY STABILIZED, ANY SILT IN PIPES AND DRAINAGE SWALES SHALL BE REMOVED WITHIN 10 DAYS.
- IF FOR ANY REASON, THE PROJECT IS SUSPENDED, THE CONTRACTOR SHALL INSURE THAT ALL INSTALLED EROSION MEASURES ARE FUNCTIONING AND PROPERLY MAINTAINED DURING THIS PERIOD, AND THAT ALL BARE SOILS ARE SEEDED AND MULCHED WITH TEMPORARY SEED MIXTURE.
- IMPLEMENTATION OF EROSION AND SEDIMENT CONTROLS SHALL CONFORM TO THE CITY OF CUYAHOGA FALLS CODIFIED ORDINANCES.

INSPECTION NOTES

- CONTRACTOR SHALL INSPECT ALL E&S MEASURES DAILY AND AFTER EVERY 1/2" RAIN EVENT. REPAIR AS NECESSARY TO PREVENT EROSION. SILTATION SHALL BE REMOVED FROM AREAS WHERE FAILURES HAVE OCCURRED AND CORRECTIVE ACTION TAKEN WITHIN 24 HOURS TO MAINTAIN ALL E&S MEASURES.
- CONTRACTORS INSPECTOR SHALL BE A QUALIFIED INDIVIDUAL. ONLY A QUALIFIED INSPECTION PERSONNEL IS TO PERFORM THE INSPECTIONS. SITE INSPECTIONS SHALL BE DONE WEEKLY AND WITHIN 24 HRS AFTER EVERY RAINFALL EVENT EXCEEDING 1/2" OF RAINFALL. ALL NECESSARY REPAIRS SHOULD BE IMPLEMENTED IMMEDIATELY AFTER SUCH INSPECTIONS.
- FOR BMPS THAT REQUIRE REPAIR OR MAINTENANCE - BMPS ARE TO BE REPAIRED WITHIN 3 DAYS OF INSPECTION.
- FOR BMPS THAT DO NOT MEET THE INTENDED FUNCTION, A NEW BMP SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.
- FOR MISSING BMPS REQUIRED, THE MISSING BMPS SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

TEMPORARY SEEDING

- STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.
- TEMPORARY SEEDING / STABILIZATION SHALL BE APPLIED WITHIN THE FOLLOWING TIME FRAMES FOR VARIOUS AREAS OF THE SITE:
 - ANY DISTURBED AREA WITHIN 50 FEET OF A WATERCOURSE AND NOT AT FINAL GRADE SHALL BE SEEDED AND MULCHED WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE, IF THAT AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS.
 - ALL CONSTRUCTION ACTIVITIES IN ANY DISTURBED AREA, INCLUDING SOIL STOCKPILES THAT WILL BE IDLE FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A WATERCOURSE SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE IN THE AREA.
 - DISTURBED AREAS THAT WILL BE IDLE OVER THE WINTER SHALL BE SEEDED AND MULCHED PRIOR TO NOVEMBER 1.
- THE SEED BED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEED BED PREPARATION IS NOT POSSIBLE.
- TEMPORARY VEGETATION SEEDING RATES SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY REQUIRE USE OF SOIL AMENDMENTS. BASE RATES FOR LIME AND FERTILIZER SHALL BE USED.
- ALL SEED MIXES AND SEEDING RATES USED SHALL BE APPROVED BY THE LOCAL GOVERNING AUTHORITY AND THE OWNER.
- SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, DRILL, CULTIPACKER, SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.
- APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH, WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES ON FAVORABLE, VERY FLAT SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION. IF MULCH IS USED, FOLLOW THE REQUIREMENTS AND INSTRUCTIONS IN THE MULCH APPLICATION.

TEMPORARY SEEDING		
SEEDING DATES	SPECIES	SEEDING RATE LB./AC.
MARCH 1 TO AUGUST 15	ANNUAL RYEGRASS	30 - 50
AUGUST 16 TO OCTOBER 31	OATS	30 - 50
NOVEMBER 1 TO FEBRUARY 29	USE MULCH ONLY OR DORMANT SEEDING	

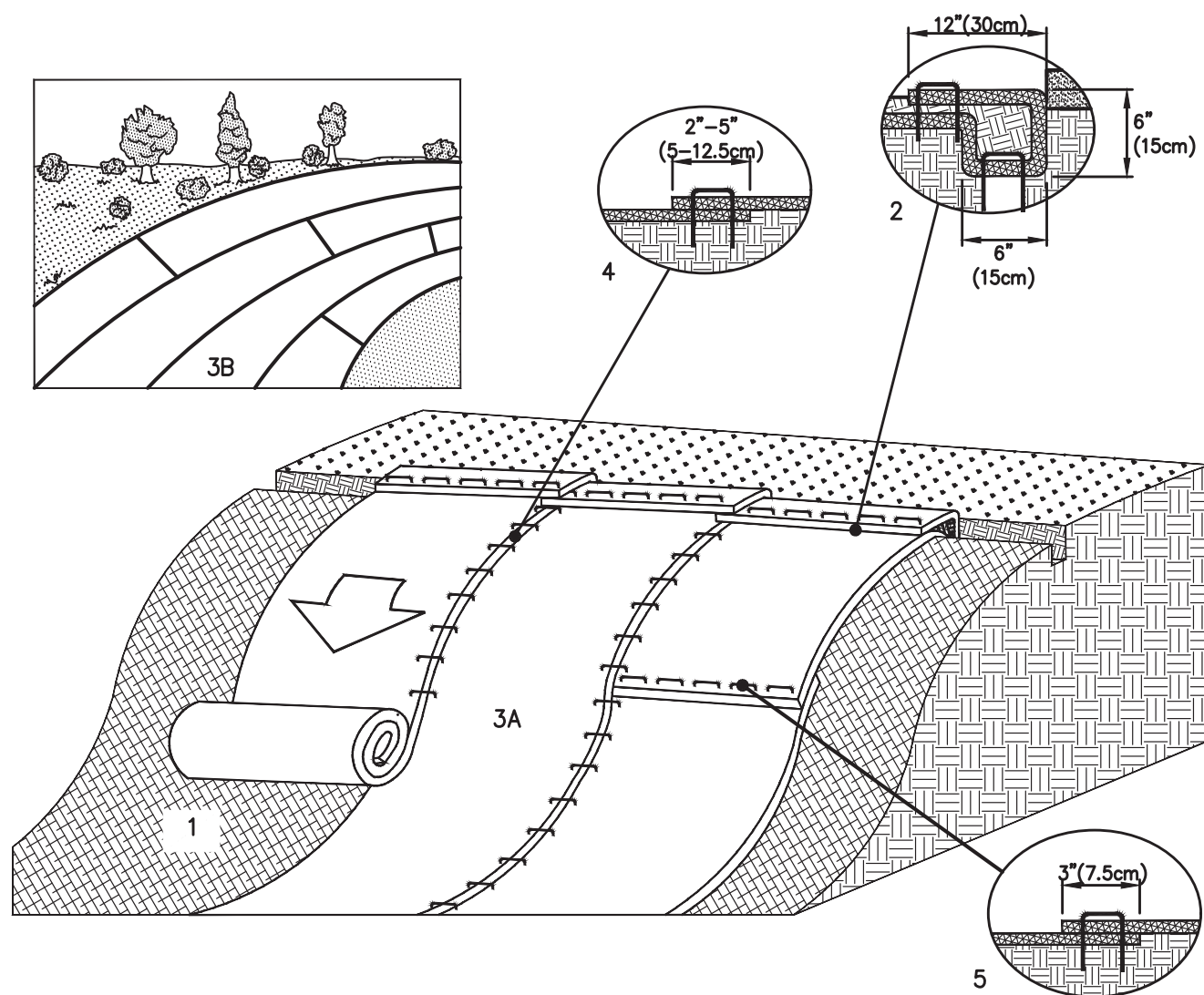
NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED

PERMANENT SEEDING

- PERMANENT SEEDING SHALL CONFORM TO ODOT CMS ITEM 659.
- PERMANENT SEED MIX SHALL CONFORM TO ODOT CLASS 3B.

MULCH

- MULCH AND OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 21 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.
- MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
 - STRAW SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/AC. OR 90 LB./1,000 SQ. FT. (TWO TO THREE BALES) THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ. FT. SECTIONS AND PLACE TWO 45-LB BALES OF STRAW IN EACH SECTION.
 - WOOD CELLULOSE FIBER SHOULD BE USED AT 2,000 LB./AC, OR 46 LB./1,000 SQ. FT.
 - ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS AND ROLLED EROSION CONTROL PRODUCTS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD MULCH/CHIPS APPLIED AT 10-20 TONS/AC.
- MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH.
 - USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 INCHES.
 - USE MULCH NETTINGS ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENT AND ANCHORING REQUIREMENTS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.
 - FOR STRAW MULCH, SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. ALL APPLICATIONS OF SYNTHETIC BINDERS MUST BE CONDUCTED IN SUCH A MANNER WHERE THERE IS NO CONTACT WITH WATERS OF THE STATE.
 - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB./AC. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB/100 GAL. OF WOOD CELLULOSE FIBER.



- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPs IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECPs EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF RECPs BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.
- ROLL THE RECPs (B) HORIZONTALLY ACROSS THE SLOPE. RECPs WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
- THE EDGES OF PARALLEL RECPs MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON THE RECPs TYPE.
- CONSECUTIVE RECPs SPICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECPs WIDTH.

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S

EROSION CONTROL FABRIC DETAIL

SCALE: NTS
[DETAIL PER NORTH AMERICAN GREEN - EROSION CONTROL PRODUCTS]

COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (MFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

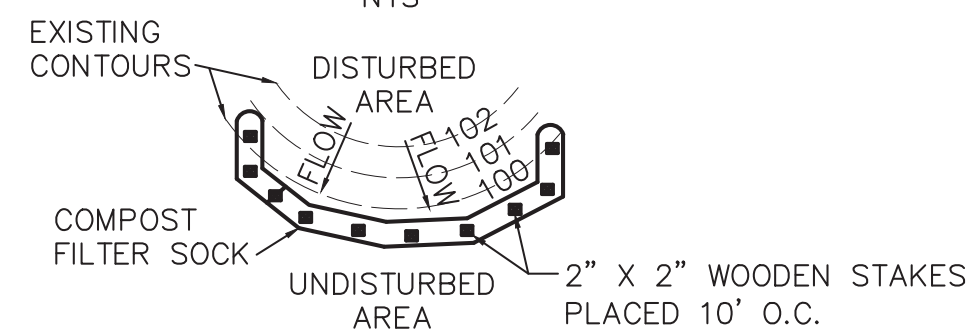
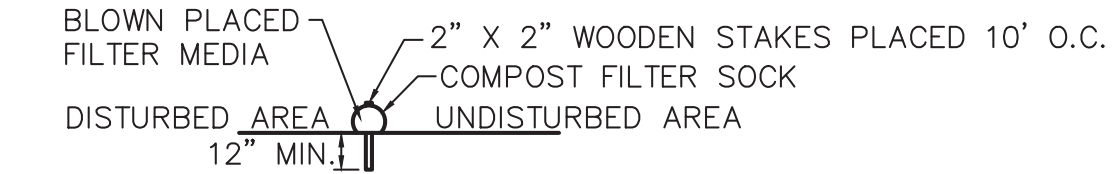
TWO-PLY SYSTEMS

INNER CONTAINMENT NETTING	HDPE BIAXIAL NET CONTINUOUSLY WOUND
	FUSION-WELDED JUNCTURES 3/4" X 3/4" MAX. APERTURE SIZE
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER & NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
	3/16" MAX. APERTURE SIZE

SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS

COMPOST SHALL MEET THE FOLLOWING STANDARDS:

ORGANIC MATTER CONTENT	80% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.0
MOISTURE CONTENT	35% - 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS MAXIMUM



COMPOST FILTER SOCK
SCALE: NTS

- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH 1/2 INCH STORM RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- BIODEGRADABLE FILTER SOCK SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK
SCALE: NTS



REV.	DATE	DESCRIPTION
1	03/18/20	DRAFT
2	09/13/21	REVISIONS PER CITY COMMENTS

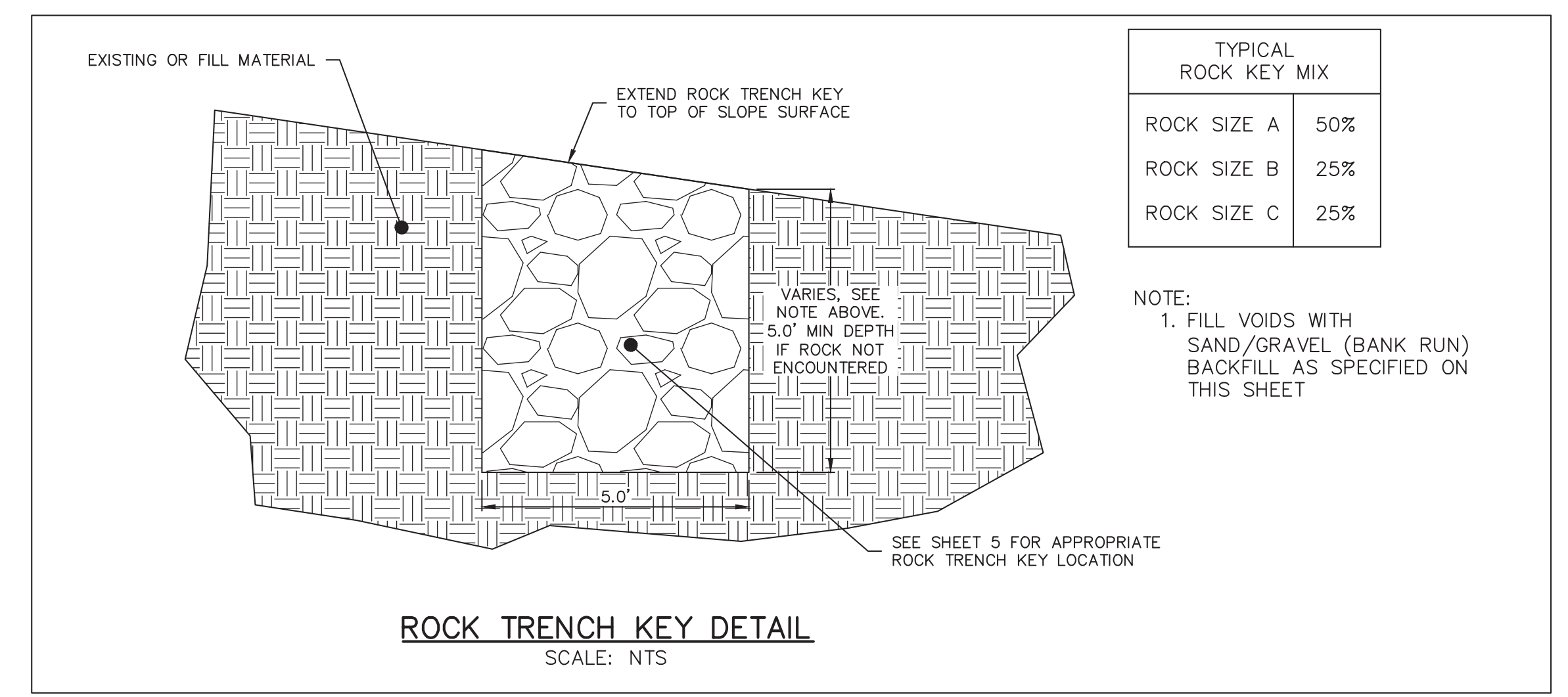
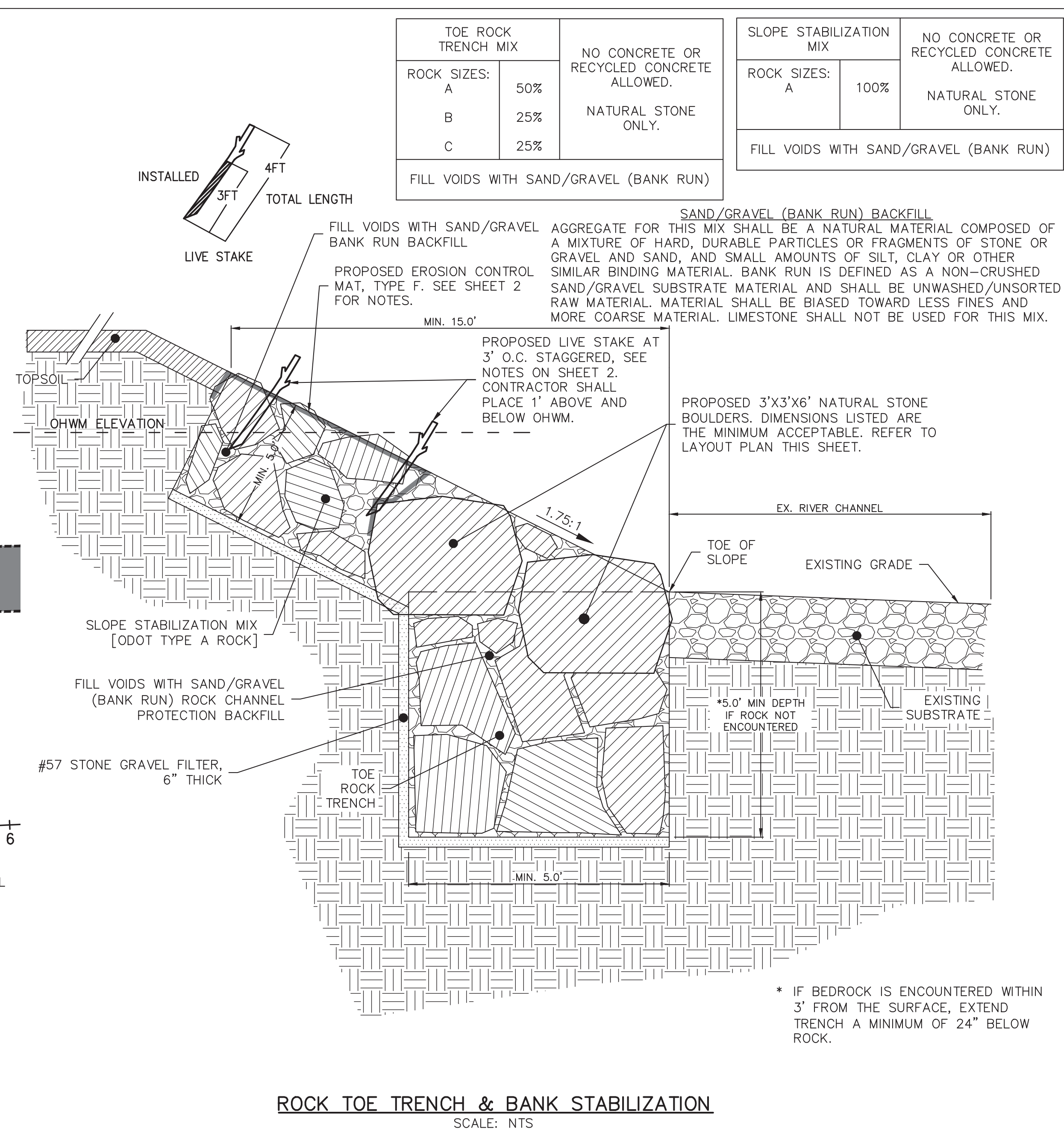
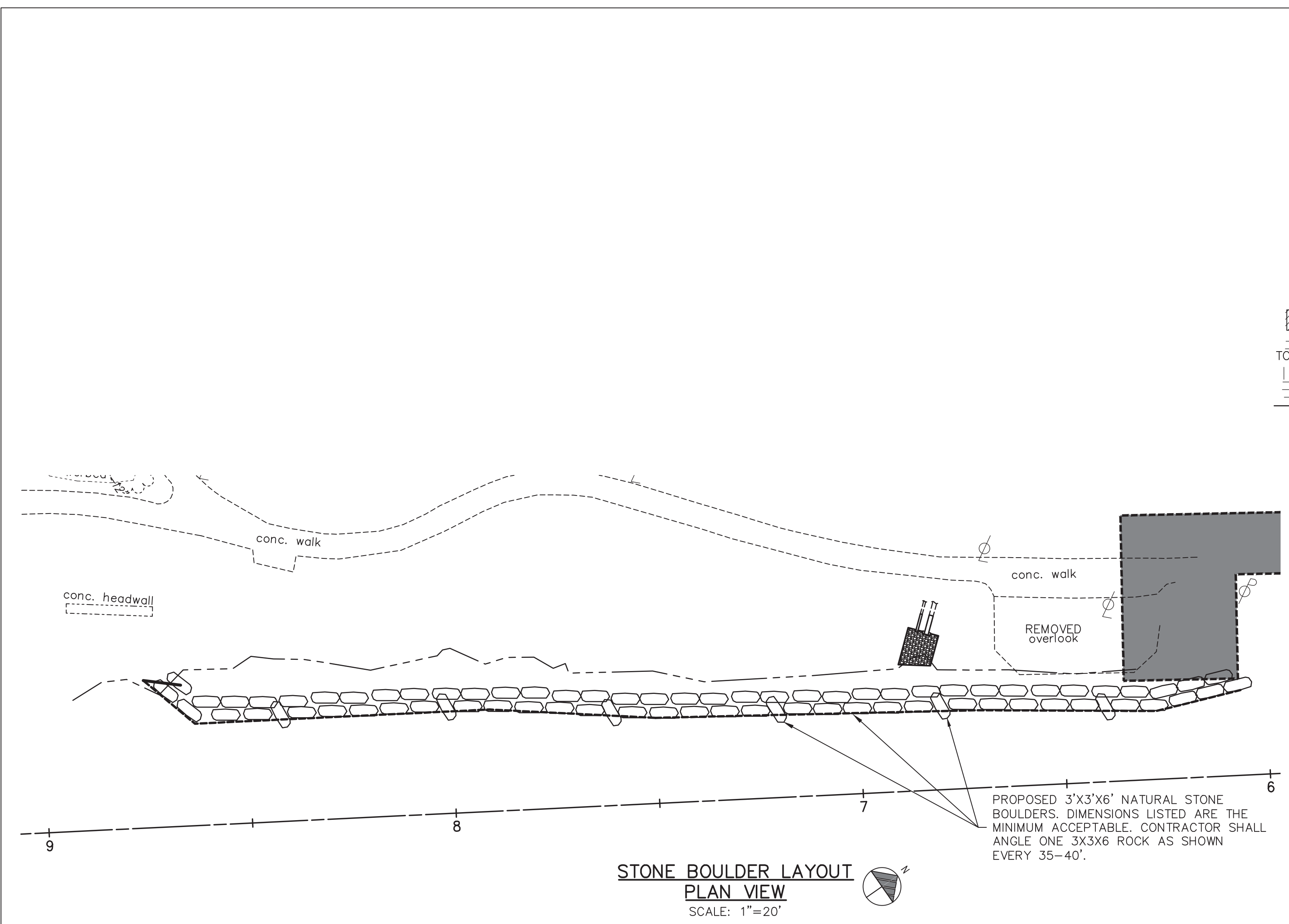
CUYAHOGA RIVER BANK STABILIZATION
RIVERFRONT PARKWAY
CUYAHOGA FALLS, OHIO

EROSION AND SEDIMENT CONTROL NOTES & DETAILS

ISSUED FOR:	
PERMIT	09/13/2021
BID	-
CONSTRUCTION	
RECORD	-

JOB NO. 2017064.00
SHEET: C-302
SHEET NO: SHEET 10/11

0: 2017 207064 - CF RIVERBANK DESIGN SHEETS 9 BANK STABILIZATION DETAILS - 11 BANK STABILIZATION DETAILS - PLOTTED 5/20/2019 BY WRIGHT, TIM



TOE ROCK TRENCH MIX		NO CONCRETE OR RECYCLED CONCRETE ALLOWED. NATURAL STONE ONLY.
ROCK SIZES:		
A	50%	
B	25%	
C	25%	
FILL VOIDS WITH SAND/GRAVEL (BANK RUN)		

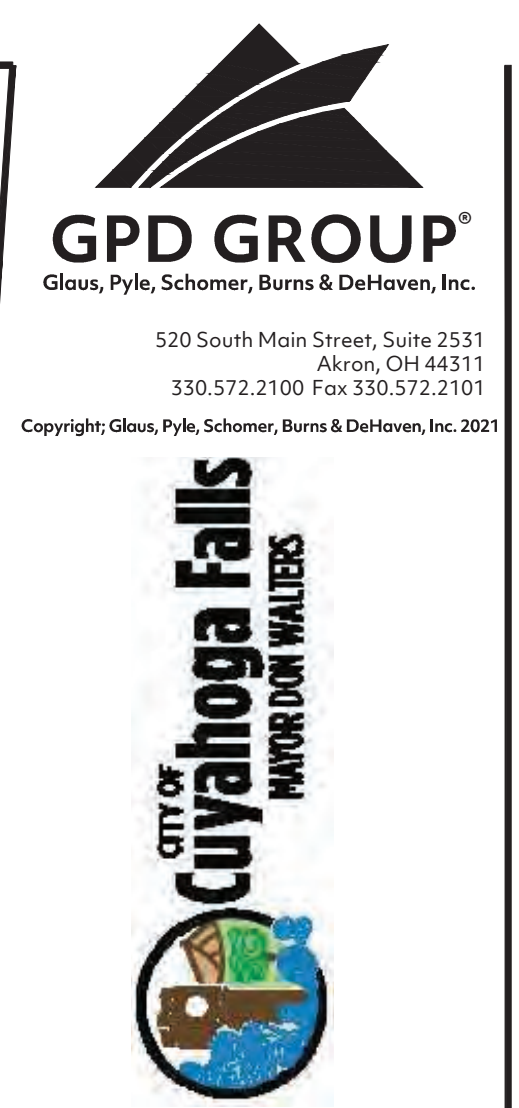
SLOPE STABILIZATION MIX		NO CONCRETE OR RECYCLED CONCRETE ALLOWED. NATURAL STONE ONLY.
ROCK SIZES:		
A	100%	
FILL VOIDS WITH SAND/GRAVEL (BANK RUN)		

SAND/GRAVEL (BANK RUN) BACKFILL
AGGREGATE FOR THIS MIX SHALL BE A NATURAL MATERIAL COMPOSED OF A MIXTURE OF HARD, DURABLE PARTICLES OR FRAGMENTS OF STONE OR GRAVEL AND SAND, AND SMALL AMOUNTS OF SILT, CLAY OR OTHER SIMILAR BINDING MATERIAL. BANK RUN IS DEFINED AS A NON-CRUSHED SAND/GRAVEL SUBSTRATE MATERIAL AND SHALL BE UNWASHED/UNSORTED RAW MATERIAL. MATERIAL SHALL BE BIASED TOWARD LESS FINES AND MORE COARSE MATERIAL. LIMESTONE SHALL NOT BE USED FOR THIS MIX.

PROPOSED LIVE STAKE AT 3' O.C. STAGGERED, SEE NOTES ON SHEET 2. CONTRACTOR SHALL PLACE 1" ABOVE AND BELOW OHWM.

PROPOSED 3'X3'X6' NATURAL STONE BOULDERS. DIMENSIONS LISTED ARE THE MINIMUM ACCEPTABLE. REFER TO LAYOUT PLAN THIS SHEET.

* IF BEDROCK IS ENCOUNTERED WITHIN 3' FROM THE SURFACE, EXTEND TRENCH A MINIMUM OF 24" BELOW ROCK.



REV.	DATE	DESCRIPTION
1	03/18/20	DRAFT
2	09/13/21	REVISIONS PER CITY COMMENTS

CUYAHOGA RIVER BANK STABILIZATION
RIVERFRONT PARKWAY
CUYAHOGA FALLS, OHIO

BANK STABILIZATION DETAILS

ISSUED FOR:	
PERMIT	09/13/2021
BID	-
CONSTRUCTION	-
RECORD	-

JOB NO.
2017064.00

SHEET:
C-501

SHEET NO:
SHEET 11/11