

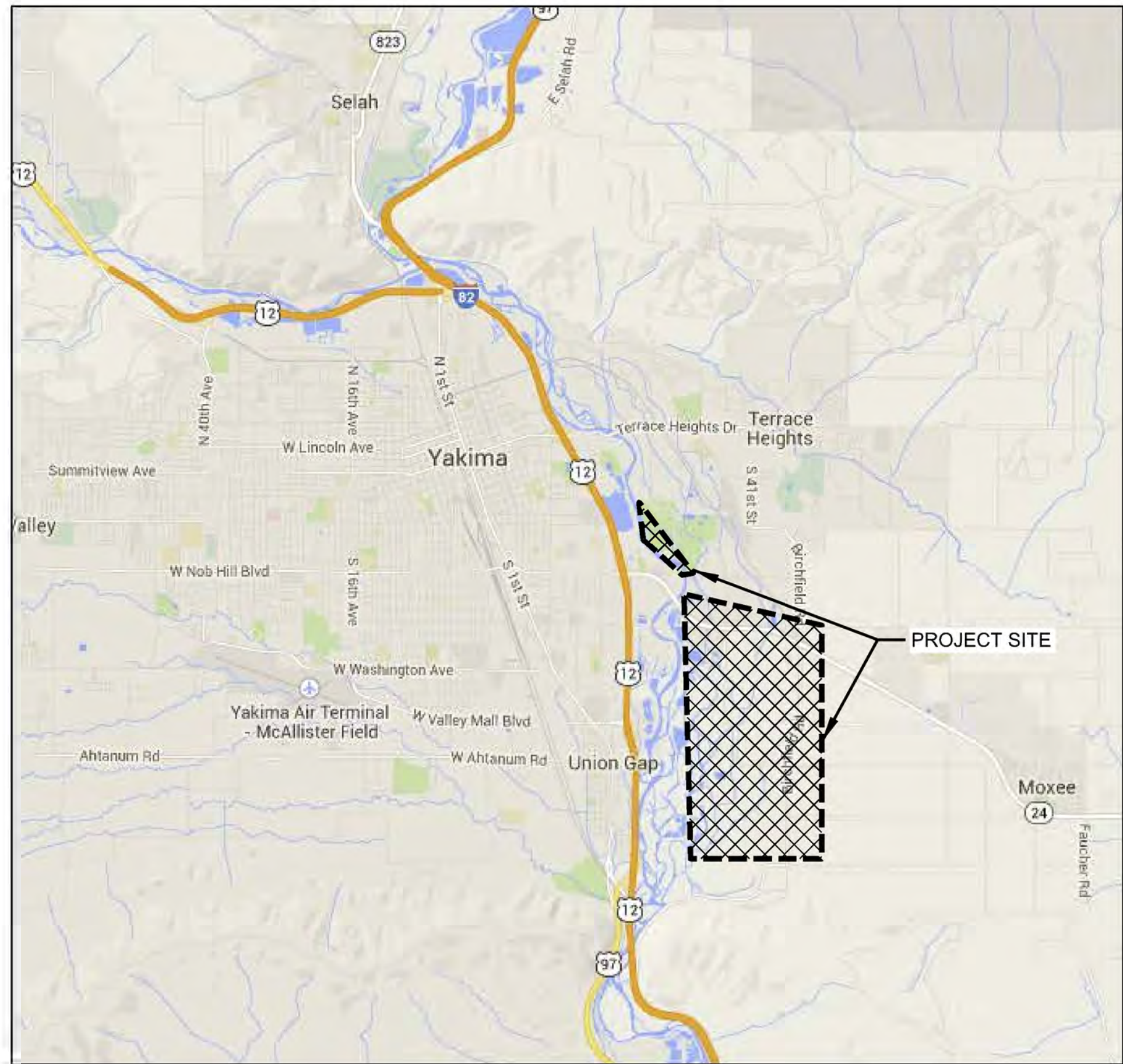
US Army Corps  
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Seattle District



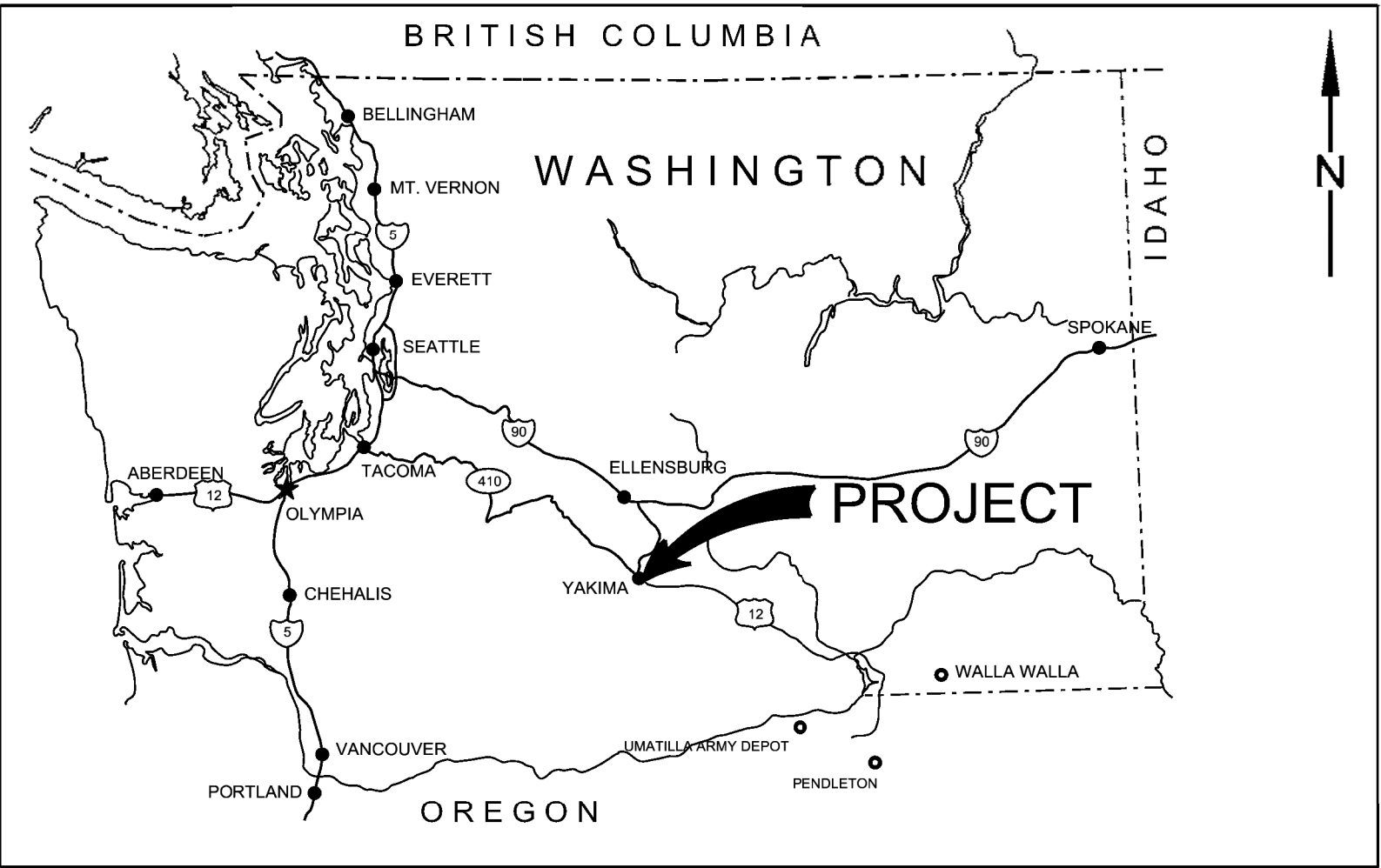
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# YAKIMA RIVER GAP TO GAP SECTION 1135 ECOSYSTEM RESTORATION

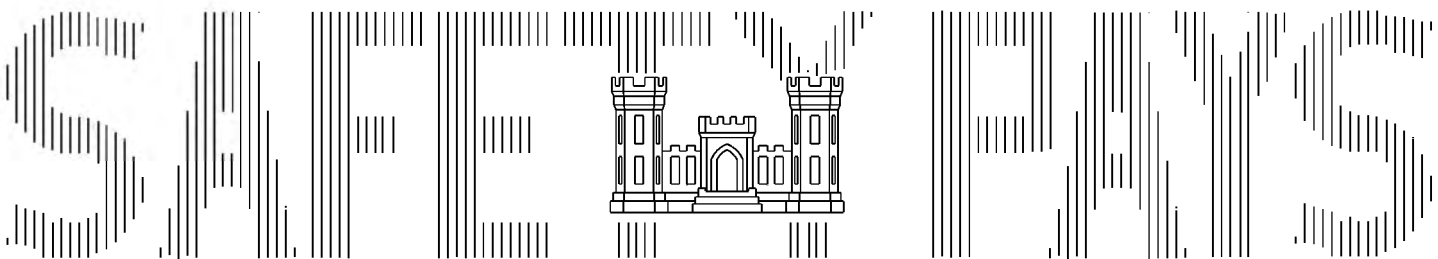
YAKIMA, WASHINGTON



PROJECT LOCATION MAP  
NOT TO SCALE



VICINITY MAP  
NOT TO SCALE



Date:	31 MAY 2022
File No.:	D-8-4-109
Solicitation No.:	-

Submitted by:	STEPHANIE A. MCKENNA	05/31/22	Date
Project Manager			
Reviewed by:	GLENN K. KATO	05/31/22	Date
Civil DQC Reviewer			
Recommended by:	GUY L. GREEN, P.E.	05/31/22	Date
Chief, Design Branch			
Approved by:	JOANN T. WALLS, P.E.	05/31/22	Date
Chief, Engineering Div.			

YAK1135 SECTION 1135 ECOSYSTEM RESTORATION YAKIMA, WA	TITLE, LOCATION, AND VICINITY MAPS
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SHEET IDENTIFICATION B-G-001
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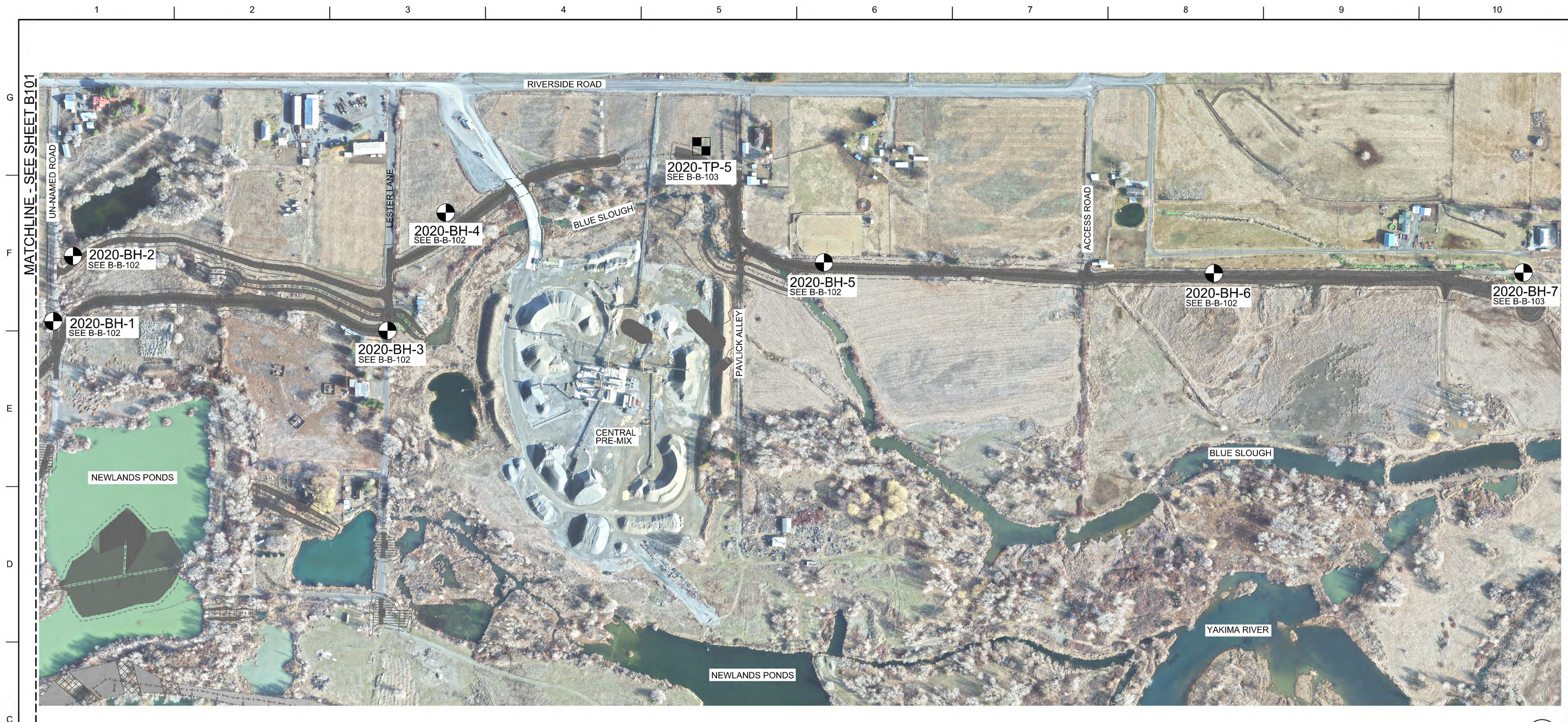


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	BASE CONTRACT INDEX				CONTRACT OPTION #1 INDEX					
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	B-G-002	DRAWING INDEX 1			B-G-002	DRAWING INDEX 1				
	B-G-003	DRAWING INDEX 2			B-G-003	DRAWING INDEX 2				
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	B-CS103	SPORTSMAN PARK CHANNELS - CHANNEL A SITE PLAN 1 - STA CHANNEL A 0+00 TO 13+00			1-CS103	BLUE SLOUGH REALIGNMENT - PAVLICK ALLEY SITE PLAN				
	B-CS104	SPORTSMAN PARK CHANNELS - CHANNEL A SITE PLAN 2 - STA CHANNEL A 13+00 TO 23+00			1-CS104	BLUE SLOUGH REALIGNMENT - PLANTING PLAN 1				
	B-CS105	SPORTSMAN PARK CHANNELS - CHANNEL A SITE PLAN 3 - STA CHANNEL A 23+00 TO 36+00			1-CS105	BLUE SLOUGH REALIGNMENT - PLANTING PLAN 2 - DETAILS				
	B-CS106	SPORTSMAN PARK CHANNELS - CHANNEL A SITE PLAN 4 - STA CHANNEL A 36+00 TO 50+16			1-CSU101	GENERAL SITE UTILITIES PLAN 4 - BLUE SLOUGH HEAD GATE AREA				
	B-CS107	SPORTSMAN PARK CHANNELS - CHANNEL B SITE PLAN 4 - STA CHANNEL B 0+00 TO 13+00			1-C-501	DETAILS 1 - BLUE SLOUGH CULVERT DETAILS 1				
E	B-CS108	SPORTSMAN PARK CHANNELS - CHANNEL B SITE PLAN 4 - STA CHANNEL B 13+00 TO 24+00			1-S-101	BLUE SLOUGH HEADWALL AND TRASHRACK				
	B-CS109	SPORTSMAN PARK CHANNELS - CHANNEL B SITE PLAN 4 - STA CHANNEL B 24+00 TO 29+80								
	B-CS110	SPORTSMAN PARK CHANNELS - CHANNEL C SITE PLAN 4 - STA CHANNEL C 0+00 TO 9+98								
	B-CS111	SPORTSMAN PARK CHANNELS - BERM SITE - A1								
	B-CS112	SPORTSMAN PARK CHANNELS - BERM SITE - A2 AND A3								
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	B-C-304	SPORTSMAN PARK CHANNEL A- CROSS SECTIONS 1								
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	B-C-311	SPORTSMAN PARK CHANNEL A- CROSS SECTIONS 8								
	B-C-312	SPORTSMAN PARK CHANNEL B- CROSS SECTIONS 9								
	B-C-313	SPORTSMAN PARK CHANNEL B- CROSS SECTIONS 10								
	B-C-314	SPORTSMAN PARK CHANNEL B- CROSS SECTIONS 11								
	B-C-315	SPORTSMAN PARK CHANNEL B- CROSS SECTIONS 12								
	B-C-316	SPORTSMAN PARK CHANNEL C- CROSS SECTIONS 13								
	B-C-317	SPORTSMAN PARK CHANNEL C- CROSS SECTIONS 14								
	B-C-501	DETAILS 1 - SPORTSMAN PARK CHANNELS - LARGE WOOD STRUCTURES								
	B-C-502	DETAILS 2 - SPORTSMAN PARK CHANNELS - LOG STRUCTURE ASSEMBLY DETAILS 1								
B	B-C-503	DETAILS 3 - SPORTSMAN PARK CHANNELS - LOG STRUCTURE ASSEMBLY DETAILS 2								
	B-C-504	DETAILS 4 - NEWLANDS PONDS FLOODPLAIN GRADING - LARGE WOOD PLACEMENT 1								
	B-C-505	DETAILS 5 - NEWLANDS PONDS FLOODPLAIN GRADING - LARGE WOOD PLACEMENT 2								
	B-C-506	DETAILS 6 - NEWLANDS PONDS FLOODPLAIN GRADING - LARGE WOOD PLACEMENT 3								
	B-REF-1	CENTRAL PRE-MIX SOUNDS BERMS - GENERAL SITE PLAN								
	B-REF-2	CENTRAL PRE-MIX SOUNDS BERMS - BERM REMOVAL								
A	B-REF-3	CENTRAL PRE-MIX SOUNDS BERMS - SOUND BERM 1 SITE PLAN								
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**US Army Corps  
of Engineers ®**

[illegible]

SEATTLE DISTRICT SEATTLE, WASHINGTON	F. CROSSLEY DOWN BY: D. W. KRETT CFO BY: B. MOVREY SUBMITTED BY: STEPHANIE MCKENNA D-8-4-109	31 MAY 2022
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SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

SHEET ID  
BASE  
B-B-100



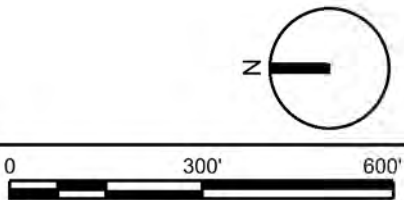


**B1** EXPLORATION SITE PLAN 2

1" = 300'

**LEGEND:**

KEY	DESCRIPTION
	BORING
	TEST PIT



US Army Corps  
of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: F. GROSSLEY	ISSUE DATE: 31 MAY 2022
DWN BY: J. BARRETT	SOLICITATION NO.:
BY: B. MCMURRAY	CONTRACT NO.:
SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-8-4-103
SIZE: ANSI D	

U.S. ARMY CORPS OF ENGINEERS  
SEATTLE DISTRICT  
SEATTLE, WASHINGTON

YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON  
EXPLORATION SITE PLAN 2


SHEET ID  
**BASE**  
**B-B-101**








DRILLING LOG		DIVISION		Boring Designation		2020-BH-07		
PROJECT		USACE NWS		INSTALLATION		SHEET 1		
Yakima Ecosystem Restoration				Yakima, Washington		OF 1 SHEETS		
1. PROJECT		2. HOLE NUMBER		9. COORDINATE SYSTEM		10. SIZE AND TYPE OF BIT		
Yakima Ecosystem Restoration		LOCATION COORDINATES N 448606.865 E 1651937.164		EPSG: 8599 NAD83		HORIZONTAL VERTICAL NAD83		
3. DRILLING AGENCY		4. NAME OF DRILLER		11. MANUFACTURER'S DESIGNATION OF DRILL		12. TOTAL SAMPLES		
Holt Services, Inc.		Abe Causland		Mobile Drill B57		DISTURBED 6 UNDISTURBED 0		
5. DIRECTION OF BORING		6. THICKNESS OF OVERBURDEN		13. TOTAL NUMBER CORE BOXES		14. ELEVATION GROUND WATER		
<input type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED				0		1.5		
7. DEPTH DRILLED INTO ROCK		8. TOTAL DEPTH OF BORING		15. DATE BORING		16. ELEVATION TOP OF BORING		
		16.5		STARTED 3/26/20 COMPLETED 3/26/20		968'		
17. TOTAL CORE RECOVERY FOR BORING		18. SIGNATURE AND TITLE OF INSPECTOR		19. SIGNATURE AND TITLE OF INSPECTOR		20. SIGNATURE AND TITLE OF INSPECTOR		
N/A		Justin McCarley - Geologist		Justin McCarley - Geologist				
ELEV	DEPTH	LEGEND	FIELD CLASSIFICATION OF MATERIALS (Description)	IN	REC	REMARKS	Bored USPT	N-Value
965.1	2.9		Silty GRAVEL with sand (GM): 45% medium dense, angular gravel; 35% fine to coarse sand; 20% silt, non-plastic, rapid dilatant fines; gray, wet, crushed aggregate (ROAD GRAVEL)	53	S-3	Gradation testing was done on hollow stem auger cuttings.	7 12 14	26
			Silty SAND (SM): 1% rounded gravel, 51.5% fine sand, 47.5% very soft, clayey, silty, medium plasticity, slow dilatant fines; dark gray, wet, organic odor (ALLUVIUM)	27	S-4		8 6 6	12
				87	S-5		0 0 0	0
960.5	7.5		Well-sorted SAND with silt and gravel (GW-SM): 30% rounded gravel, 60% medium dense to dense, fine to coarse sand; 10% silt, non-plastic, rapid dilatant fines; gray, wet (ALLUVIUM)	7	S-6		11 12 12	23
				110	S-7		10 20	50
			... becomes very dense below 12 feet depth					
951.5	16.5			67	S-8	Driller notes very dense gravel/silt-like drilling at about 15.7 feet. Drill met refusal at 16 feet.	7 43 38	81
BOTTOM OF BOREHOLE AT 16.5 ft								

 US Army Corps of Engineers®		TEST PIT LOG		Test Pit Designation		2020-TP-03	
				1. PROJECT	Yakima Ecosystem Restoration		
		USACE NWS		2. LOCATION	Yakima, Washington		
3. EXCAVATION CONTRACTOR		Holt Services, Inc.		4. APPROXIMATE GROUND SURFACE ELEVATION		998'	
5. OPERATOR Pete Helle		EQUIPMENT Caterpillar 305E2 CR		6. LOCATION COORDINATES		N 454506.08	E 1650471.274
7. DATE STARTED 3/4/20		DATE COMPLETED 3/4/20		8. COORDINATE SYSTEM EPSG: 6599		HORIZONTAL NAD83	VERTICAL NAVD88
9. TOTAL DEPTH OF TEST PIT		8'		10. APPROXIMATE GROUND WATER ELEVATION		N/A	
11. LOGGER		Justin McCarley - Geologist		12. TIME OF READING		3/4/2020	

ELEV. (FT)	DEPTH (ft) 0	SOIL COLOR	SOIL DESCRIPTION	LAP TESTING	SAMPLE NO.	REMARKS		
	1		Well-sorted GRAVEL with sand (GW), 62% dense, rounded, fine to coarse gravel; about 20% rounded cobbles up to 9 inches diameter; 35% sub-angular, fine to coarse sand; 3% silty, non-plastic, rapid dilatant fines; gray to brown, dry, homogeneous, occasional lenses of low to medium plasticity fines (EMBANKMENT FILL).		S-1			
	2							
	3							
	4							
	5						S-3	
	6							
	7							
	8							
BBS-0	8				S-Q	Material became dense, hard-ripping, unable to continue excavation.		
BOTTOM OF TEST PIT AT 8.0 ft								

T:\LOG-HQAG\TEMPLATE\GP\_15500-21P-L\01-TECHNICAL\_RESOURCES\20-CONTROL\T2800 TLESS03 - YAKIMA ECOSYSTEM RESTORATION.GPJ

SHEET 1 of 1

US Army Corps of Engineers®		TEST PIT LOG		Test Pit Designation		2020-TP-01	
USACE NWS		1 PROJECT		Yakima Ecosystem Restoration			
		2 LOCATION		Yakima, Washington			
3 EXCAVATION CONTRACTOR		Holt Services, Inc.					
5 OPERATOR Pete Helle		EQUIPMENT Caterpillar 305E2 CR		6 LOCATION COORDINATES		N 458590.731	E 1650329.922
7 DATE STARTED 3/4/20		DATE COMPLETED 3/4/20		8 COORDINATE SYSTEM EPSG: 6599		HORIZONTAL NAD83	VERTICAL NAVD88
9 TOTAL DEPTH OF TEST PIT 7'				10 APPROXIMATE GROUND WATER ELEVATION		1002.0'	
11 LOGGER		Justin McCarley - Geologist		12 TIME OF READING		3/4/2020	
ELEV. (FT)	DEPTH (IN.)	SOIL DESCRIPTION	LAB TESTING	SAMPLE NO.	REMARKS		
		Sandy SILT with gravel (ML), 16% fine to coarse, rounded gravels (1 to 2 inches), about 15% rounded cobbles up to 6 inches diameter, 32% fine to coarse sand, 52% medium dense, silty, non-plastic, rapid dilatant fines; brown to gray, dry, numerous organics, homogeneous (ALLUVIUM)		S-1			
1008.5	1						
	2	Well-graded GRAVEL with silt and sand (GW-GM), 60-70% dense, fine to coarse, rounded gravel; about 50% rounded cobbles up to 12 inches diameter, 25% su-rounded to rounded, fine to coarse sand, 5-10% silty, non-plastic, rapid dilatant fines; gray to dark brown, dry, imbricated gravels, scattered organics (ALLUVIUM)		S-2			
	3						
	4						
	5						
1002.0	6			S-3			
	7	Well-graded GRAVEL with sand (GW); 70% dense, fine to coarse, rounded gravel; about 50% rounded cobbles up to 12 inches diameter, 28.4% rounded, fine to coarse sand; 1.6% silty, non-plastic, rapid dilatant fines; gray to dark brown, imbricated gravels, wet (ALLUVIUM)			Rapid seepage at top of dependent groundwater table and pit sides began caving. Excavation terminated.		
1001.0		BOTTOM OF TEST PIT AT 7.0 ft.					



**US Army Corps of Engineers**  
U.S. Army

# TEST PIT LOG

USACE NWS  
Holt Services, Inc.


## Test Pit Designation

2020-TP-04

3. EXCAVATION CONTRACTOR		Holt Services, Inc.		1. PROJECT		Yakima Ecosystem Restoration	
5. OPERATOR <b>Pete Helle</b>		EQUIPMENT <b>Caterpillar 305E2 CR</b>		2. LOCATION		Yakima, Washington	
7. DATE STARTED 3/4/20		DATE COMPLETED 3/4/20		6. LOCATION COORDINATES		N 452654.563 E 1651411.371	
9. TOTAL DEPTH OF TEST PIT 8'		8'. COORDINATE SYSTEM EPSG: 6599		HORIZONTAL NAD83		VERTICAL NAVD88	
11. LOGGER Justin McCarley - Geologist				10. APPROXIMATE GROUND WATER ELEVATION 982.9'			
12. TIME OF READING 3/4/2020							

ELEV (FT)	DEPTH (ft)	SOIL DESCRIPTION	LAB TESTING	SAMPLE NO.	REMARKS
	0				
	1	Silty SAND (SM); 4% rounded, fine to coarse gravel; about 5% rounded cobbles up to 6 inches diameter; 61.1% medium dense, fine to coarse, sub-rounded to rounded sand; 34.9% silty, non-plastic, rapid dilatant fines; gray to light brown, dry, scattered roots (ALLUVIUM)			
	2	lens of silty SAND; 70-80% medium dense, fine to coarse, sub-rounded to rounded sand; 20-30% silty, non-plastic fines; light brown to gray, dry, pinches out rapidly from maximum thickness of 12 inches, not sampled			
985.9	3			S-1	
	4	Well-graded GRAVEL with sand (GW); 79% dense, rounded, fine to coarse gravel; about 35% rounded cobbles up to 12 inches diameter; 19.4% fine to coarse, sub-rounded to rounded sand; 1.6% silty, non-plastic, rapid dilatant fines; gray to brown, moist to wet, imbricated gravels, homogeneous (ALLUVIUM)			
	5			S-2	
	6				
	7				
981.0	8			S-3	Rapid decrease at top of apparent groundwater table and pit sides began caving. Excavation terminated.

BOTTOM OF TEST PIT AT 8.0 ft



**US Army Corps of Engineers**  
U.S. Army

# TEST PIT LOG

USACE NWS  
Holt Services, Inc.

## Test Pit Designation


2020-TP-04

3. EXCAVATION CONTRACTOR		Holt Services, Inc.		1. PROJECT		Yakima Ecosystem Restoration	
5. OPERATOR <b>Pete Helle</b>		EQUIPMENT <b>Caterpillar 305E2 CR</b>		2. LOCATION		Yakima, Washington	
7. DATE STARTED 3/4/20		DATE COMPLETED 3/4/20		6. LOCATION COORDINATES		N 452654.563 E 1651411.371	
9. TOTAL DEPTH OF TEST PIT 8'		8'. COORDINATE SYSTEM EPSG: 6599		HORIZONTAL NAD83		VERTICAL NAVD88	
11. LOGGER Justin McCarley - Geologist				10. APPROXIMATE GROUND WATER ELEVATION 982.9'			
12. TIME OF READING 3/4/2020							

ELEV (FT)	DEPTH (ft)	SOIL DESCRIPTION	LAB TESTING	SAMPLE NO.	REMARKS
	0				
	1	Silty SAND (SM); 4% rounded, fine to coarse gravel; about 5% rounded cobbles up to 6 inches diameter; 61.1% medium dense, fine to coarse, sub-rounded to rounded sand; 34.9% silty, non-plastic, rapid dilatant fines; gray to light brown, dry, scattered roots (ALLUVIUM)			
	2	lens of silty SAND; 70-80% medium dense, fine to coarse, sub-rounded to rounded sand; 20-30% silty, non-plastic fines; light brown to gray, dry, pinches out rapidly from maximum thickness of 12 inches, not sampled			
985.9	3			S-1	
	4	Well-graded GRAVEL with sand (GW); 79% dense, rounded, fine to coarse gravel; about 35% rounded cobbles up to 12 inches diameter; 19.4% fine to coarse, sub-rounded to rounded sand; 1.6% silty, non-plastic, rapid dilatant fines; gray to brown, moist to wet, imbricated gravels, homogeneous (ALLUVIUM)			
	5			S-2	
	6				
	7				
981.0	8			S-3	Rapid decrease at top of apparent groundwater table and pit sides began caving. Excavation terminated.

BOTTOM OF TEST PIT AT 8.0 ft

		<h2 style="margin: 0;">TEST PIT LOG</h2>		<h3 style="margin: 0;">Test Pit Designation</h3>		<h3 style="margin: 0;">2020-TP-02</h3>	
<b>US Army Corps of Engineers®</b>		USACE NWS		1. PROJECT		Yakima Ecosystem Restoration	
3. EXCAVATION CONTRACTOR		Holt Services, Inc.		2. LOCATION		Yakima, Washington	
5. OPERATOR Pete Helle		EQUIPMENT Caterpillar 305E2 CR		4. APPROXIMATE GROUND SURFACE ELEVATION		1002'	
7. DATE STARTED 3/4/20		DATE COMPLETED 3/4/20		6. LOCATION COORDINATES		N 455856.178 E 1650640.689	
9. TOTAL DEPTH OF TEST PIT 7.5'		8. COORDINATE SYSTEM EPSG: 6599		HORIZONTAL NAD83		VERTICAL NAVD83	
11. LOGGER		Justin McCarley - Geologist		10. APPROXIMATE GROUND WATER ELEVATION		N/A	
12. TIME OF READING		3/4/2020					
ELEV (FT)	DEPTH (ft) 0	GRADING LOG	SOIL DESCRIPTION	LAB TESTING	SAMPLE NO.	REMARKS	
		1	Well-graded GRAVEL with sand (GW); 74% medium dense, rounded gravel, about 60% rounded cobbles up to 12 inches diameter; 23% fine to coarse sub-angular to angular sand, 3% silty, non-plastic rapid dilatant fines; gray to brown, dry, homogeneous (LEEVE FILL)				
		2					
		3				S-1	
		4					
		5				S-2	
		6					
		7				S-3	
694.5						Excavation terminated at contact with native material	
BOTTOM OF TEST PIT AT 7.5 ft							

 <b>US Army Corps of Engineers®</b>		<h1>TEST PIT LOG</h1>		Test Pit Designation		2020-TP-05
				1. PROJECT		Yakima Ecosystem Restoration
USACE NWS		2. LOCATION		Yakima, Washington		
3. EXCAVATION CONTRACTOR		Holt Services, Inc.		4. APPROXIMATE GROUND SURFACE ELEVATION		980'
5. OPERATOR Pete Helle		EQUIPMENT Caterpillar 305E2 CR		6. LOCATION COORDINATES		N 449743.946 E 1652437.862
7. DATE STARTED 3/4/20		DATE COMPLETED 3/4/20		8. COORDINATE SYSTEM EPSG: 6599		HORIZONTAL NAD83 VERTICAL NAVD88
8. TOTAL DEPTH OF TEST PIT 6.8'				10. APPROXIMATE GROUND WATER ELEVATION		974.8
11. LOGGER Justin McCarley - Geologist				12. TIME OF READING		3/4/2020

ELEV (FT)	DEPTH (ft) 0	SOIL DESCRIPTION	LAB TESTING	SAMPLE NO.	REMARKS
	1	Silty SAND (SM); 11% rounded gravel; 11% medium dense, fine sand; 38.2% silty, non-plastic, rapid dilatant fines; dark brown, dry (ALLUVIUM)		S-1	
	2				
	3				
976.8	4	Well-graded GRAVEL with sand (GW); 84% dense, fine to coarse, rounded gravel; about 25% rounded cobbles up to 6 inches diameter; 15.6% fine to coarse, sub-rounded to rounded sand; 0.4% silty, non-plastic, rapid dilatant fines; gray to brown, dry to wet; homogenous (ALLUVIUM)		S-2	
	5				
	6				
	7				
973.2				S-3	Rapid seepage at top of apparent groundwater table and pit sides caving. Excavation terminated.

BOTTOM OF TEST PIT AT 6.8 ft.

SHEET 1 of 1

GENERAL NOTES:

1. SOIL TEST DATA IS INCLUDED WITHIN SPECIFICATION DIVISION 13 00 00.
2. GEOTECHNICAL DATA IS AVAILABLE AS FOR INFORMATION ONLY UPON REQUEST.



**US Army Corps  
of Engineers ®**



[illegible]

U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	DESIGNED BY: J. BARRETT	DATE: 15 JULY 2002
	DWN BY: J. BARRETT	SOLICITATION NO.:
	CKD BY: B. MOWREY	CONTRACT NO.:
	SUBMITTED BY: J. M. FRANKIE INGLENNIA	FILE NUMBER: D-8-4-109
	SIZE: ANSI D	

YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON  
EXPLORATION LOGS 2

SHEET ID  
BASE  
B-B-103




 <b>US Army Corps of Engineers</b> <small>of Engineers®</small>		TEST PIT LOG		Test Pit Designation		2020-TP-06		
		USACE NWS		1. PROJECT		Yakima Ecosystem Restoration		
3. EXCAVATION CONTRACTOR		Holt Services, Inc.		2. LOCATION		Yakima, Washington		
5. OPERATOR Pete Helle		EQUIPMENT Caterpillar 305E2 CR		4. APPROXIMATE GROUND SURFACE ELEVATION		991'		
7. DATE STARTED 3/4/20		DATE COMPLETED 3/4/20		6. LOCATION COORDINATES		N 452642.478 E 1850138.908		
9. TOTAL DEPTH OF TEST PIT 8'				8. COORDINATE SYSTEM		HORIZONTAL NAD83 VERTICAL NAVD88		
11. LOGGER		Justin McCarley - Geologist		10. APPROXIMATE GROUND WATER ELEVATION		N/A		
				12. TIME OF READING		3/4/2020		
ELEV (FT)	DEPTH (FT)	TESTING LOG	SOIL DESCRIPTION	LAB TESTING	SAMPLE NO.	REMARKS		
989.5	1		Well-graded GRAVEL with sand (GW); 80-85% medium dense, sub-angular to angular, coarse gravel up to 0.5 inches diameter, 15% coarse, sub-angular sand; up to 5% silty, non-plastic, rapid dilatant fines; gray, dry, homogeneous, aggregate, not sampled (ROAD BASE)					
	2		Well-graded GRAVEL with sand (GW); 77% dense, fine to coarse rounded gravel; about 30% rounded cobbles; up to 9 inches diameter; 20% fine to coarse sand; 3% silty, non-plastic, rapid dilatant fines; gray to brown, dry, homogeneous (LEEVE FILL)		S-1			
	3							
	4							
	5					S-2		
	6							
	7							
983.0	8					S-3	Excavation terminated at contact with native material	
BOTTOM OF TEST PIT AT 8.0 ft								

## GENERAL NOTES:

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1. SOIL TEST DATA IS INCLUDED WITHIN SPECIFICATION DIVISION 13 00 00.
2. GEOTECHNICAL DATA IS AVAILABLE AS FOR INFORMATION ONLY UPON REQUEST.



US Army Corps  
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[illegible]

U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	DESIGNED BY: F. CROSSLEY	ISSUE DATE: 31 MAY 2022
	DRAWN BY: J. BARRETT	SOLICITATION NO.:
	CKD BY: B. MOWREY	CONTRACT NO.:
	SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-9-4-109
	SIZE: ANSI D	

YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON  
EXPLORATION LOGS 3

SHEET ID  
BASE  
B-B-104











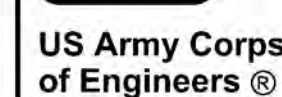








1. UPSTREAM HALF OF SIDE CHANNEL WORK (SIDE CHANNELS A AND B) ARE EXPECTED TO BE DRY, WITH HIGH CONCENTRATIONS OF THE RIVER COBBLE AND GRAVEL. DOWNSTREAM HALF OF SIDE (SIDE CHANNEL C) INTERSECTS SEVERAL WETLANDS AND SOILS ARE TYPICALLY FINER GRAINED AND SATURATED. SEGREGATE EXCAVATED MATERIALS THAT ARE PREDOMINATELY (50% OR GREATER) COARSE GRAINED AND ORGANIC (MUD, CLAY, TOPSOILS) AT DISPOSAL AREAS. SEE NOTE 7 BELOW FOR PRIORITY PLACEMENT LOCATIONS.
2. EXISTING TRAILS, DIRT ROADS, LEVEES, AND PROPOSED CHANNELS WITHIN THE PROJECT FOOTPRINT ARE THE ONLY ACCEPTABLE TEMPORARY ACCESS AND STAGING LOCATIONS. OFF ROAD EQUIPMENT SHALL NOT USE PAVED PUBLIC ROADS.
3. CLEARED TREES, VEGETATION AND COARSE GRAINED EXCAVATED MATERIALS WILL BE RE-USED TO CONSTRUCT LARGE WOOD STRUCTURES AND BERMS. ALL OTHER CLEARING DEBRIS WILL BE HAULED TO THE NEWLAND PONDS FOR BERM AND HABITAT CONSTRUCTION.
4. STAKE SIDE CHANNEL CENTERLINES AND CLEARING LIMITS FOR APPROVAL PRIOR TO COMMENCEMENT OF CLEARING ACTIVITIES.
5. PROFILE LINE EXTENDS INTO RIVER AT UPSTREAM AND DOWNSTREAM END TO CONTROL GRADING OF SIDE CHANNEL BANKS. DO NOT FILL BELOW PROFILE LINE ELEV. EXCAVATE ABOVE THIS LINE ONLY. FOR EXAMPLE IF POOLS ENCOUNTERED ALONG SIDE CHANNEL ALIGNMENT, DO NOT FILL IN, JUST CUT DOWN AREAS AROUND POOLS THAT ARE HIGHER THAN PROFILE LINE.
6. SUBMIT VEGETATION MANAGEMENT PLAN FOR APPROVAL PRIOR TO CONDUCTING ANY GROUND DISTURBING ACTIVITIES.
7. EXCAVATED SOILS THAT CONSIST OF MORE THAN 50% COBBLE TO BE SEGREGATED IN SEPARATE STOCKPILES AND PLACED IN THE FOLLOWING AREAS, IN ORDER OF PRIORITY. SELECT THE COARSEST MATERIALS BASED ON EROSION RISK: BALLAST FOR LOG STRUCTURES; SPORTSMAN PARK BERMS A1, A2, A3, A4, A5 B1, AND B2; NEWLAND POND FILL SITE 1; NEWLAND POND SITE 4; ALL BERMS CONSTRUCTED ON SPORTSMAN ISLAND; ALL OTHER EARTHEN BERMS IN THE PROJECT.
8. ANY ENCOUNTERED GARBAGE WILL BE PLACED IN DESIGNATED DISPOSAL AREAS ONLY.
9. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
10. BLUE SLOUGH HEADGATE WILL BE INSTALLED AFTER CHANNEL B CONSTRUCTED.
11. CLEAR ONLY AS NEEDED WITHIN THE WORK LIMITS. VEGETATION SHALL BE PROTECTED IN ACCORDANCE WITH PARAGRAPH 3.2 OF 01 57 19 AND RESTORED IN ACCORDANCE WITH PARAGRAPH 3.1 OF 32 93 00.

[illegible]

U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	DESIGNED BY: L. FORD J. M. JARRETT	ISSUE DATE: 31 MAY 2022
	SOLICITATION NO.:	
	SKD BY: G. KATO	CONTRACT NO.:
	SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-94-109
	SIZE: ANSI D	

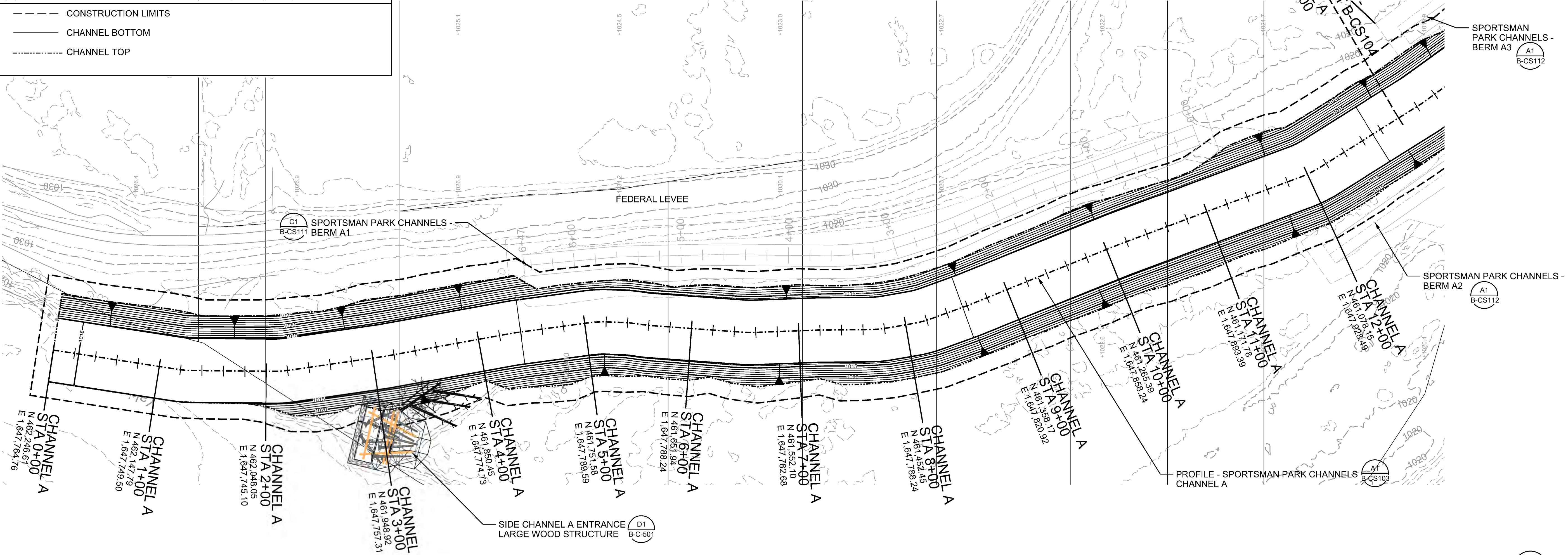
YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON  
SPORTSMAN PARK CHANNELS  
GENERAL SITE PLAN

SHEET ID  
**BASE**  
**B-CS102**

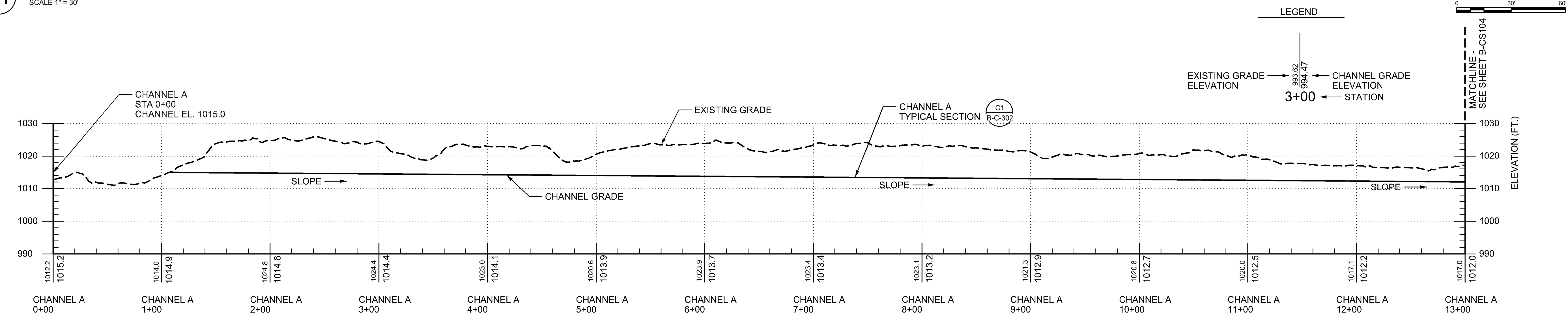


1. THE PROFILE LINE EXTENDS INTO THE RIVER TO CONTROL GRAVEL BAR AND SIDE CHANNEL SIDE SLOPE GRADING. DO NOT FILL BELOW PROFILE LINE ELEV.
2. CLEAR ONLY AS NEEDED WITHIN THE WORK LIMITS. VEGETATION SHALL BE PROTECTED IN ACCORDANCE WITH PARAGRAPH 3.2 OF 01 57 19 AND RESTORED IN ACCORDANCE WITH PARAGRAPH 3.1 OF 32 93 00.

- - - - - CONSTRUCTION LIMITS  
 ————— CHANNEL BOTTOM  
 ..... CHANNEL TOP



SCALE 1" = 30'



SCALE 1" = 30'  
3V:1H

[illegible]

U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	DESIGNED BY: L. FORD	ISSUE DATE: 31 MAY 2022
	DRAWN BY: D. B. FETT	SOLICITATION NO.:
	CHECK BY: G. KATO	CONTRACT NO.:
	SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-84-109
	SIZE: ANSI D	

YAKIMA 1135  
STATION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

SPORTSMAN PARK CHANNELS  
CHANNEL A - SITE PLAN 1135-000  
STA CHANNEL A 0+00 TO 13+00

SHEET ID  
BASE  
B-CS103

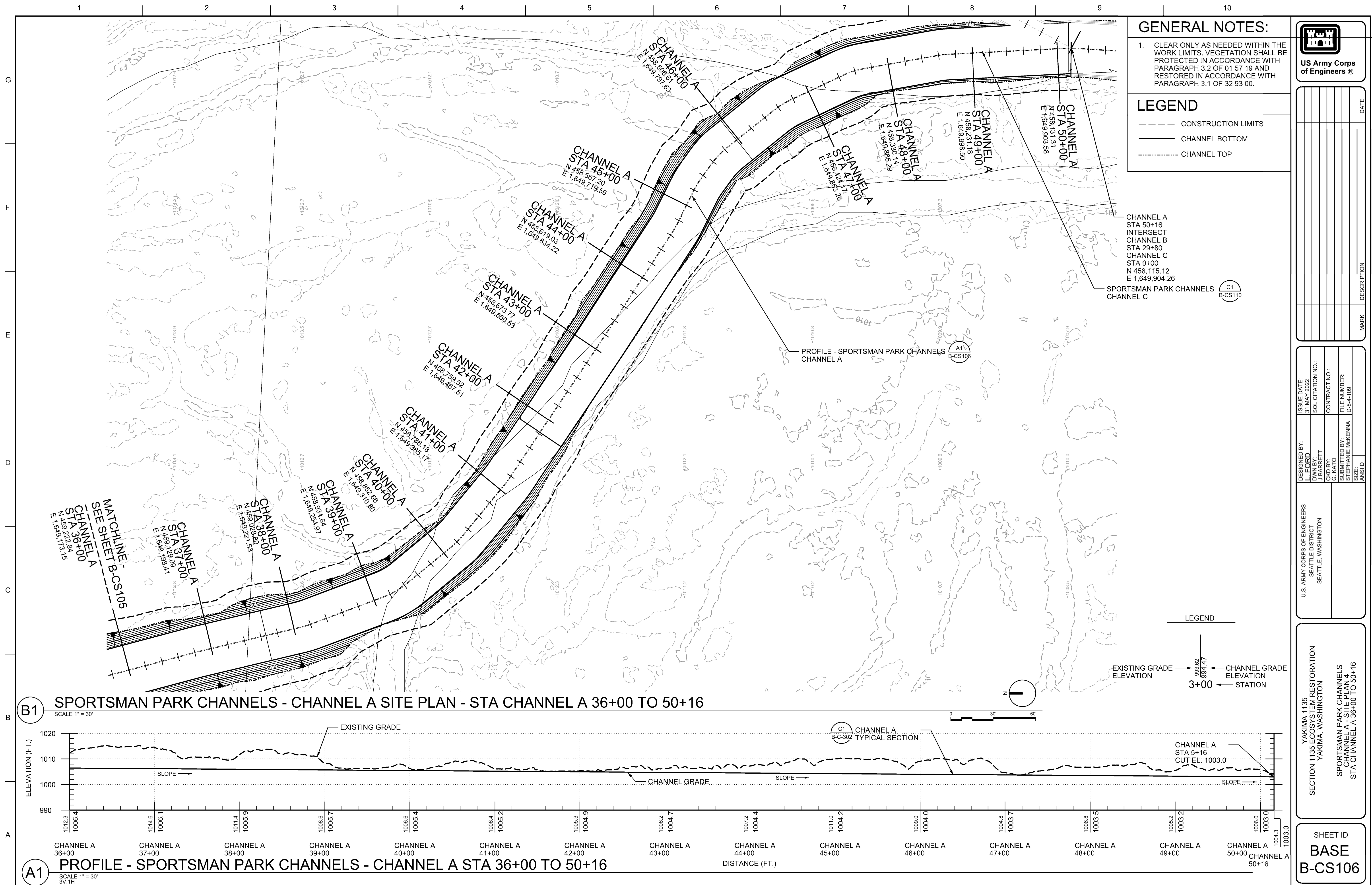












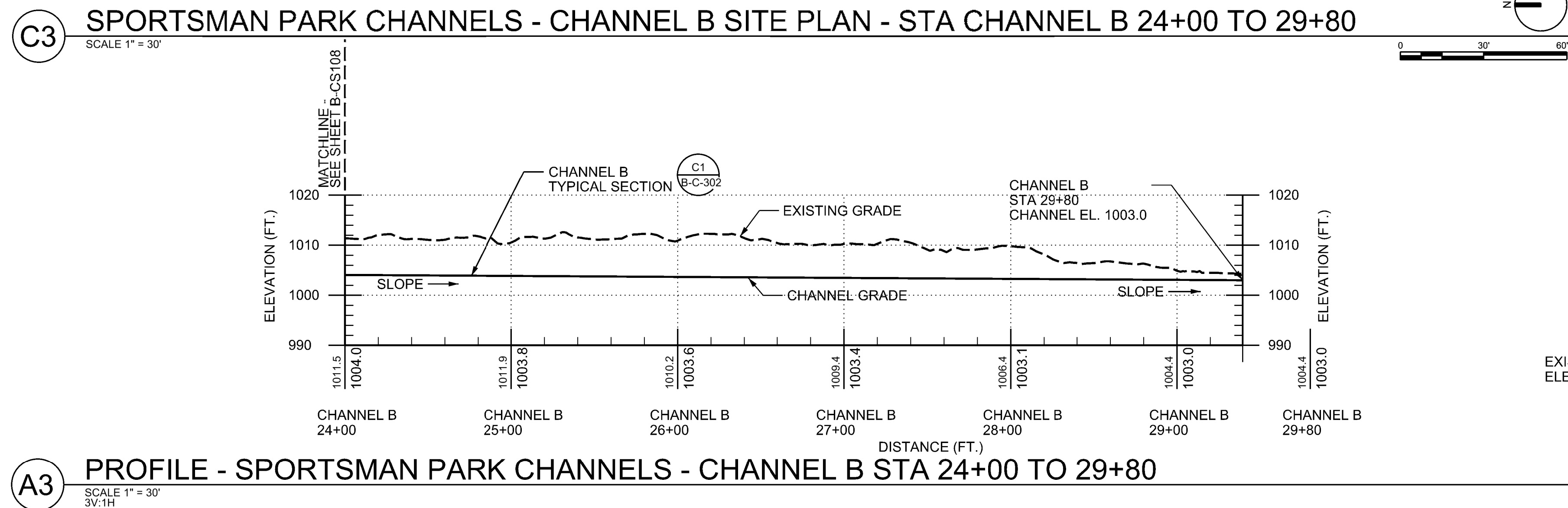
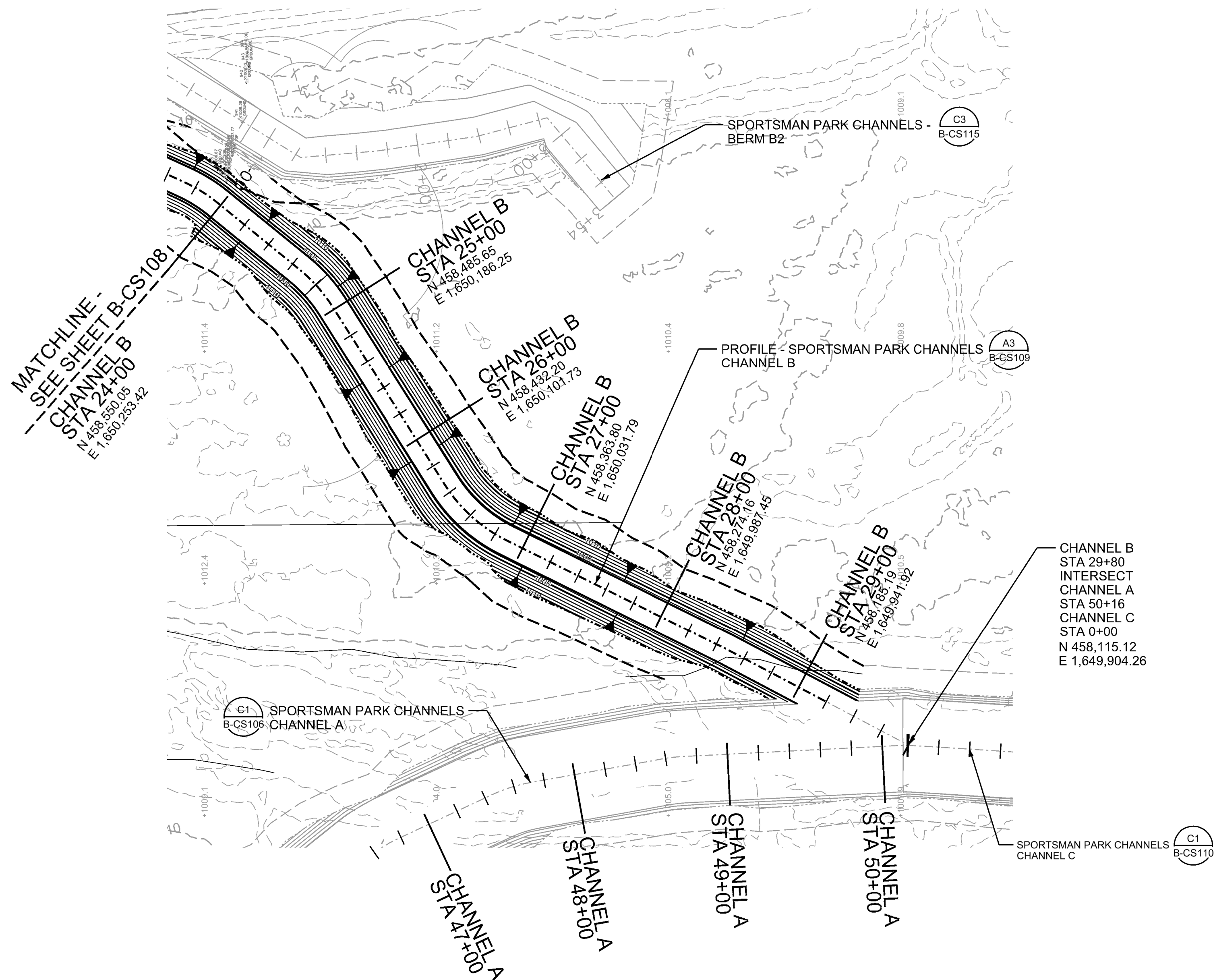








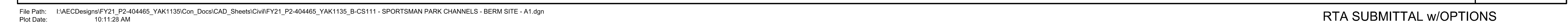




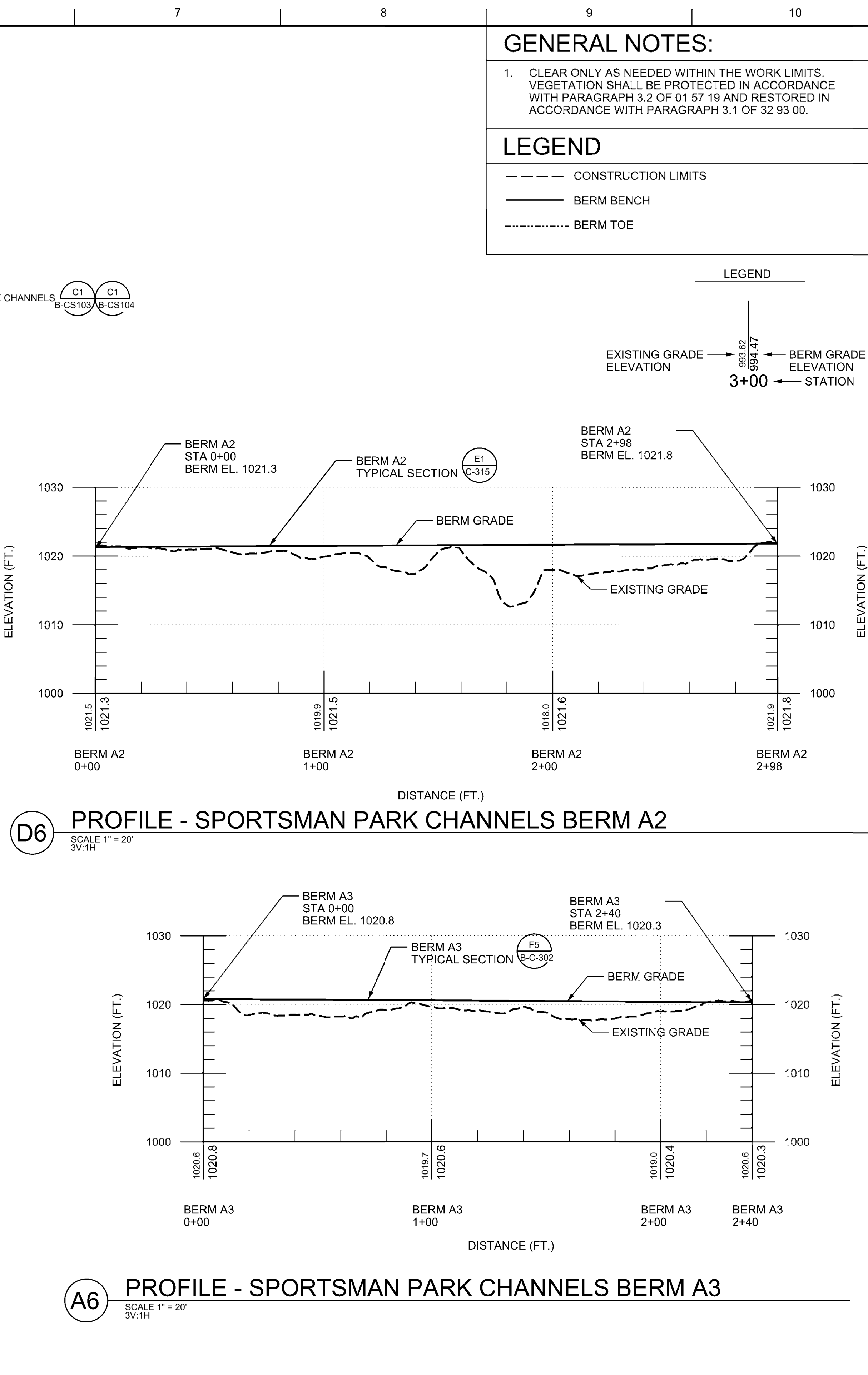






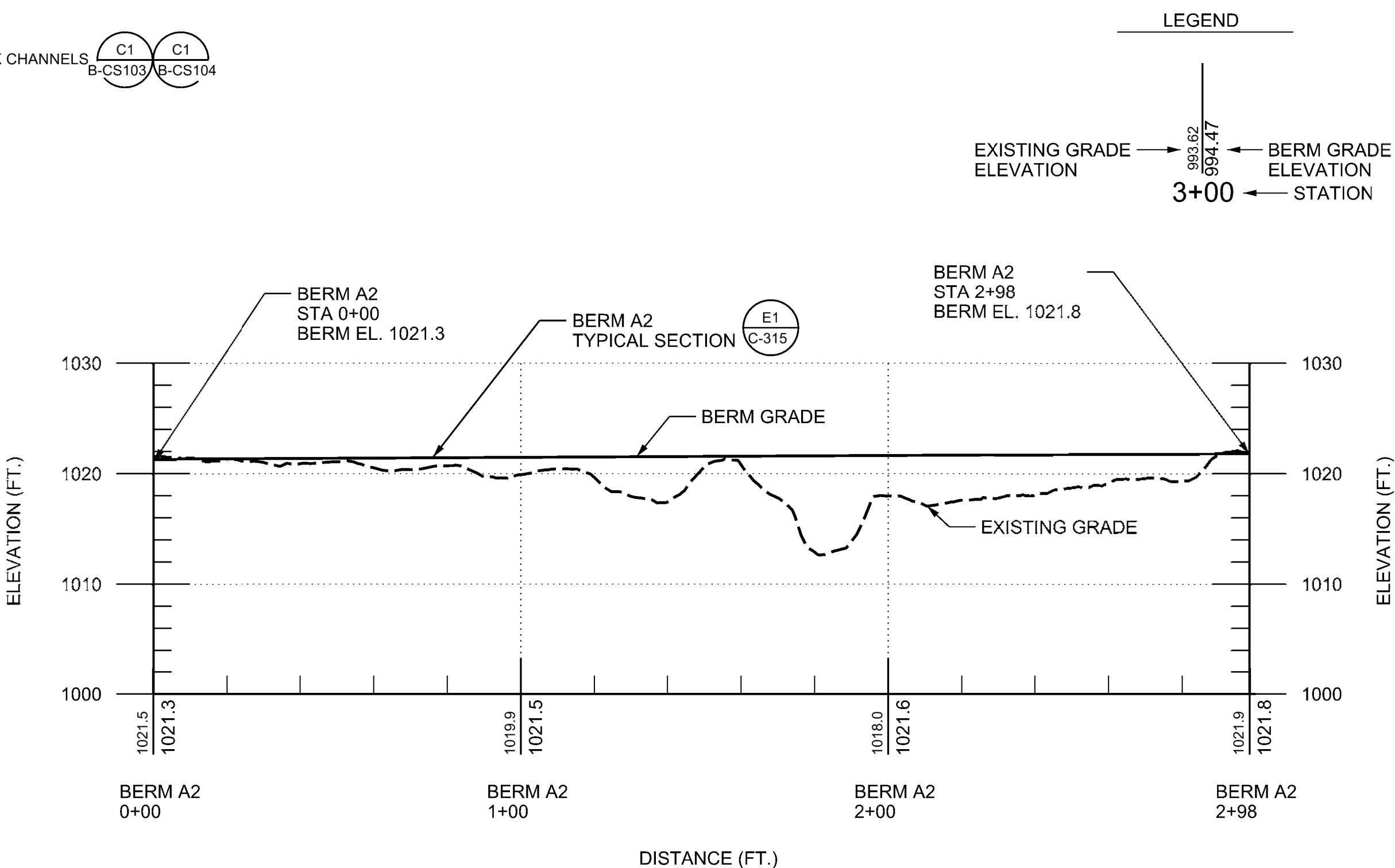




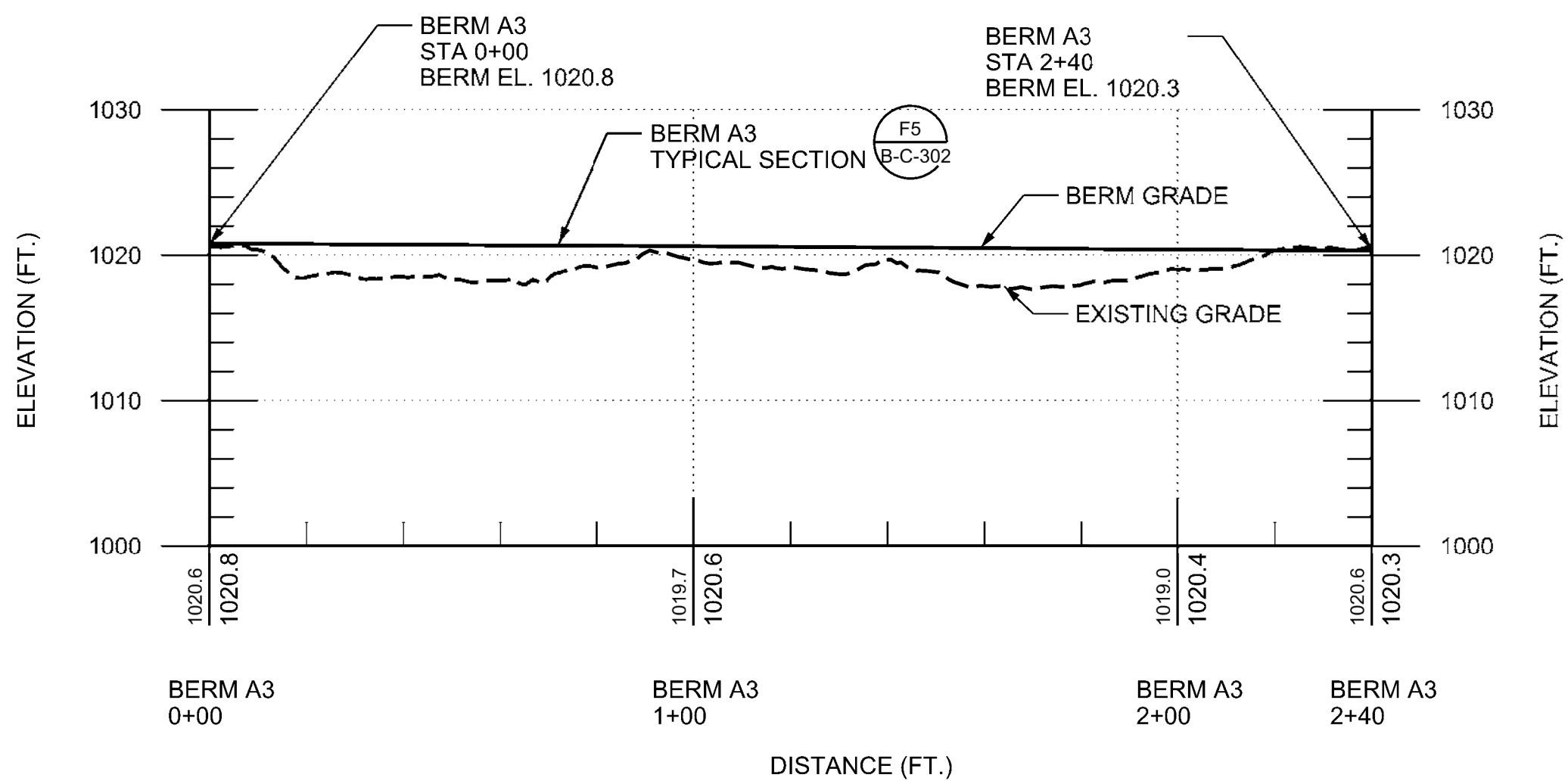


1. CLEAR ONLY AS NEEDED WITHIN THE WORK LIMITS. VEGETATION SHALL BE PROTECTED IN ACCORDANCE WITH PARAGRAPH 3.2 OF 01 57 19 AND RESTORED IN ACCORDANCE WITH PARAGRAPH 3.1 OF 32 93 00.

--- CONSTRUCTION LIMITS  
 — BERM BENCH  
 - - - - - BERM TOE



D6 PROFILE - SPORTSMAN PARK CHANNELS BERM A2



16 PROFILE - SPORTSMAN PARK CHANNELS BERM A3

[illegible]

U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	DESIGNED BY: J. KATO CHECKED BY: D. W. BARNETT DRAWN BY: J. BARRETT	DATE: 15 MAY 1972
	CONTRACT NO.:	
	FILE NUMBER:	D-8-4-109
	SUBMITTED BY: DR. FRANKIE INGENUA	
	SIZE:	
	ANSI D	

YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

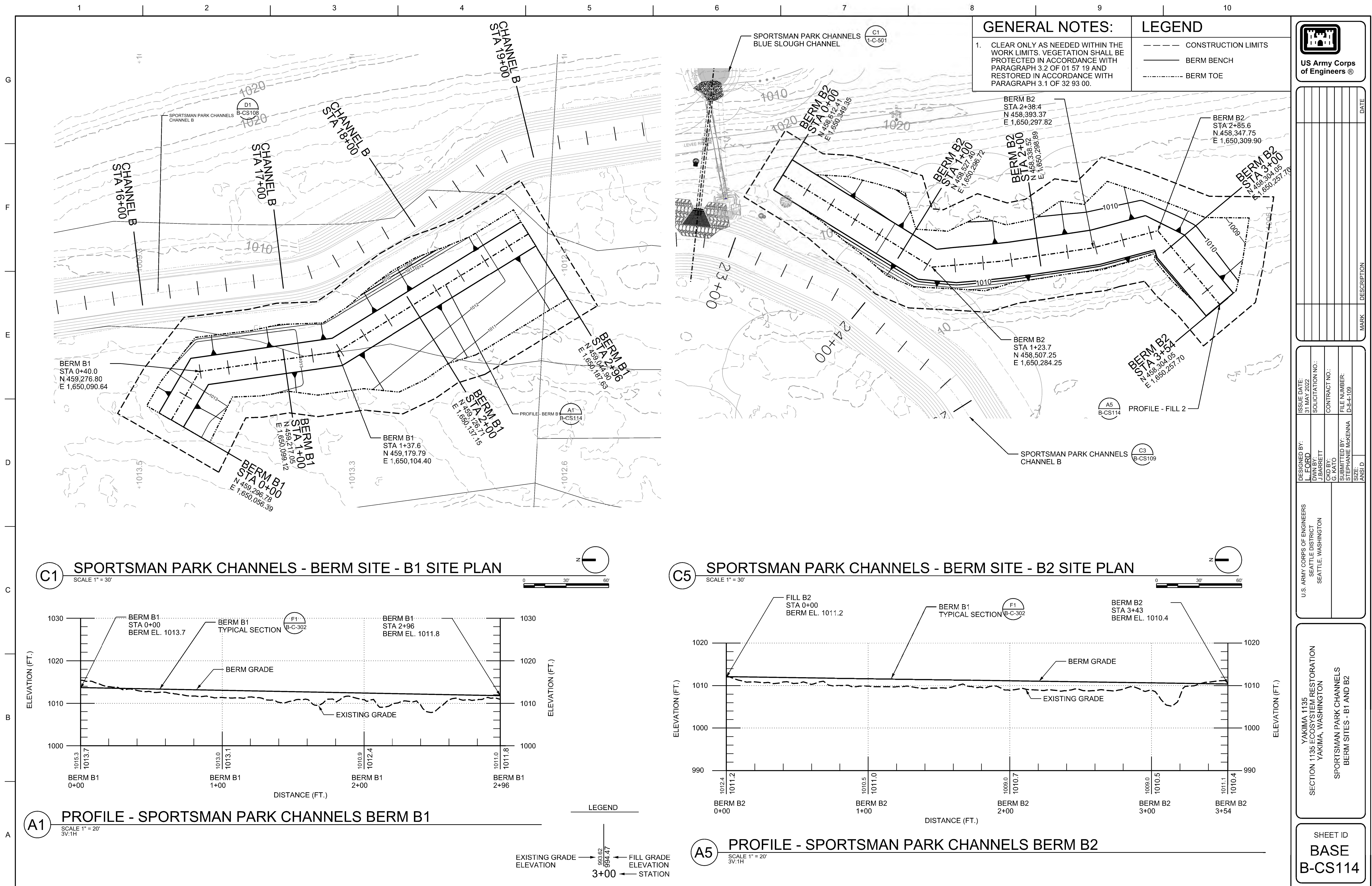
SPORTSMAN PARK CHANNELS  
BERM SITES - A2 AND A3

SHEET ID  
BASE  
B-CS112

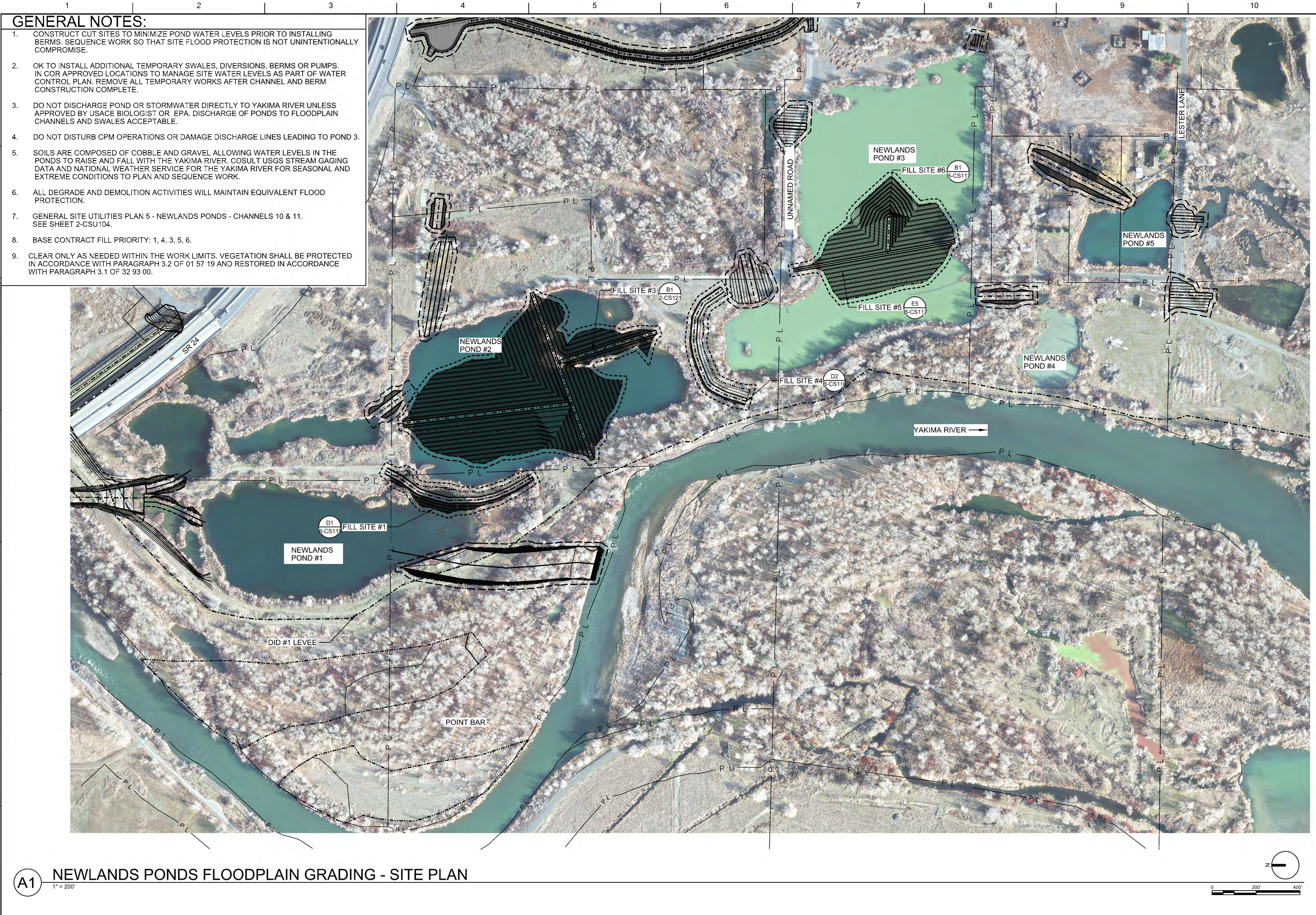












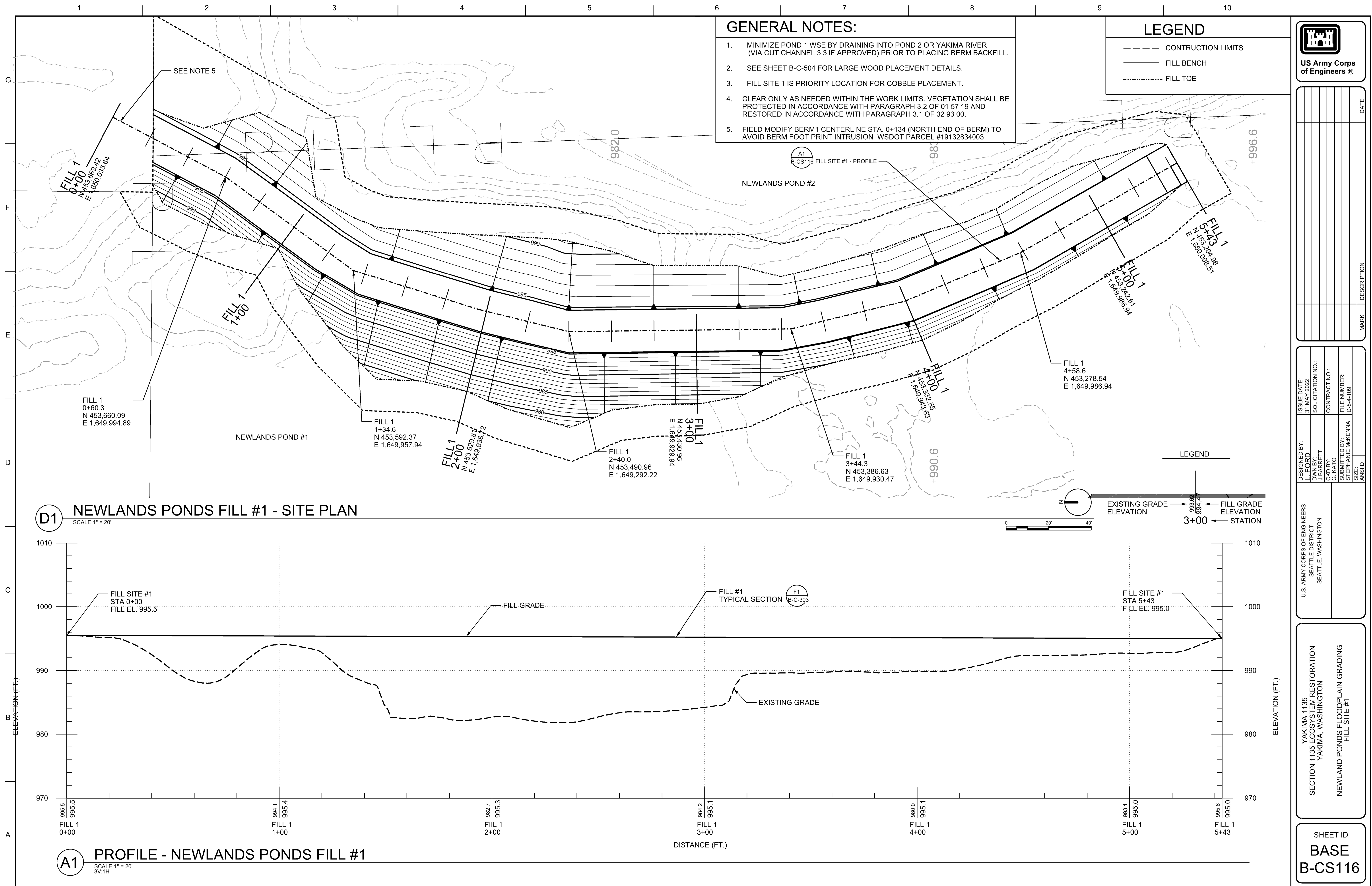
- GENERAL NOTES:**
1. CONSTRUCT CUT SITES TO MINIMIZE POND WATER LEVELS PRIOR TO INSTALLING BERMS. SEQUENCE WORK SO THAT SITE FLOOD PROTECTION IS NOT UNINTENTIONALLY COMPROMISE.
  2. OK TO INSTALL ADDITIONAL TEMPORARY SWALES, DIVERSIONS, BERMS OR PUMPS. IN COR APPROVED LOCATIONS TO MANAGE SITE WATER LEVELS AS PART OF WATER CONTROL PLAN. REMOVE ALL TEMPORARY WORKS AFTER CHANNEL AND BERM CONSTRUCTION COMPLETE.
  3. DO NOT DISCHARGE POND OR STORMWATER DIRECTLY TO YAKIMA RIVER UNLESS APPROVED BY USACE BIOLOGIST OR EPA. DISCHARGE OF PONDS TO FLOODPLAIN CHANNELS AND SWALES ACCEPTABLE.
  4. DO NOT DISTURB CPM OPERATIONS OR DAMAGE DISCHARGE LINES LEADING TO POND 3.
  5. SOILS ARE COMPOSED OF COBBLE AND GRAVEL ALLOWING WATER LEVELS IN THE PONDS TO RAISE AND FALL WITH THE YAKIMA RIVER. COSULT USGS STREAM GAGING DATA AND NATIONAL WEATHER SERVICE FOR THE YAKIMA RIVER FOR SEASONAL AND EXTREME CONDITIONS TO PLAN AND SEQUENCE WORK.
  6. ALL DEGRADE AND DEMOLITION ACTIVITIES WILL MAINTAIN EQUIVALENT FLOOD PROTECTION.
  7. GENERAL SITE UTILITIES PLAN 5 - NEWLANDS PONDS - CHANNELS 10 & 11. SEE SHEET 2-CSU104.
  8. BASE CONTRACT FILL PRIORITY: 1, 4, 3, 5, 6.
  9. CLEAR ONLY AS NEEDED WITHIN THE WORK LIMITS. VEGETATION SHALL BE PROTECTED IN ACCORDANCE WITH PARAGRAPH 3.2 OF 01 57 19 AND RESTORED IN ACCORDANCE WITH PARAGRAPH 3.1 OF 32 93 00.

**A1** NEWLANDS PONDS FLOODPLAIN GRADING - SITE PLAN

US Army Corps of Engineers®

ISSUE DATE:		31 MAY 2022	
DESIGNED BY:		L. FORD	
DRAWN BY:		J. BARRETT	
CHECKED BY:		G. KATO	
SUBMITTED BY:		STEPHANIE MCKENNA	
FILE NUMBER:		D-8-4-109	
SIZE:		ANSI D	
U.S. ARMY CORPS OF ENGINEERS	SEATTLE DISTRICT	SEATTLE, WASHINGTON	
YAKIMA 1135 ECOSYSTEM RESTORATION YAKIMA, WASHINGTON			
NEWLANDS PONDS FLOODPLAIN GRADING SITE PLAN			
SHEET ID <b>BASE</b> <b>B-CS115</b>			

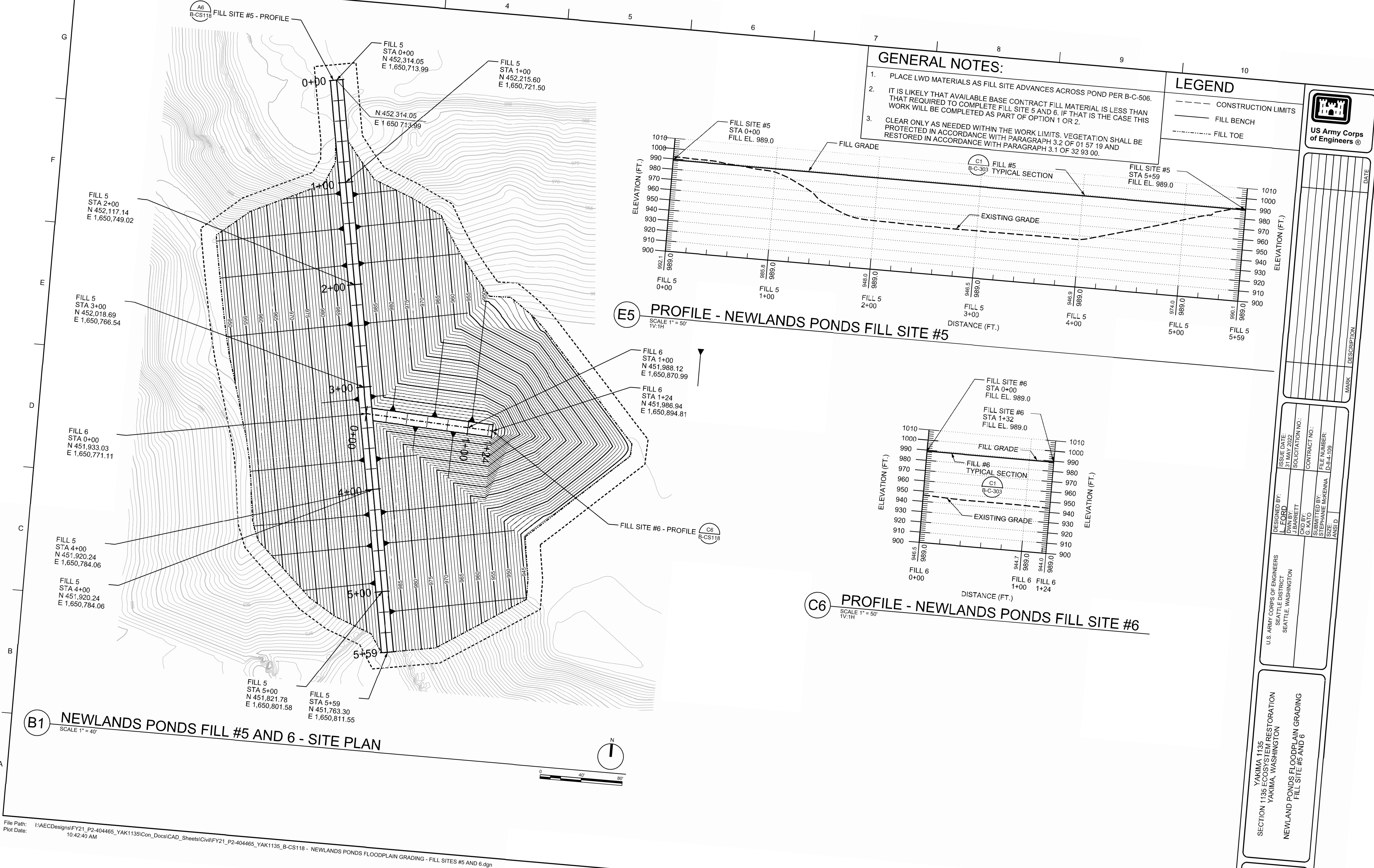








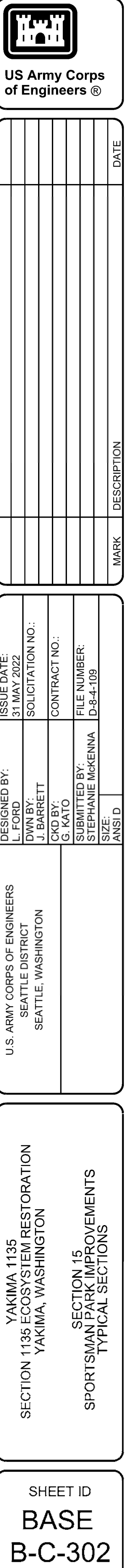




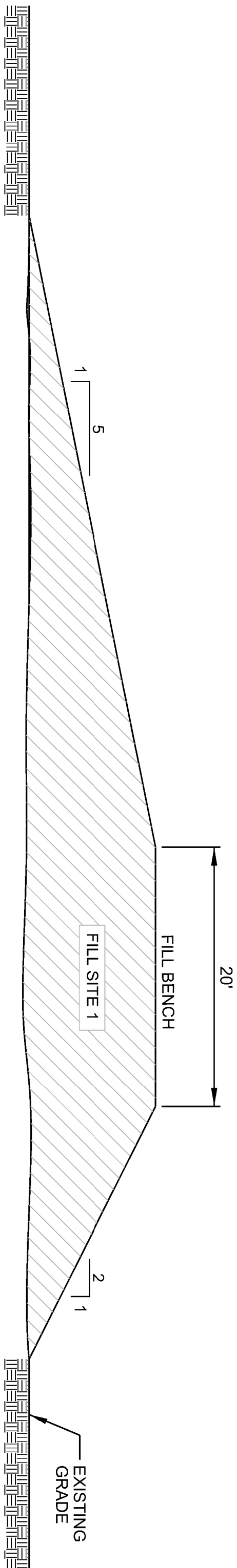






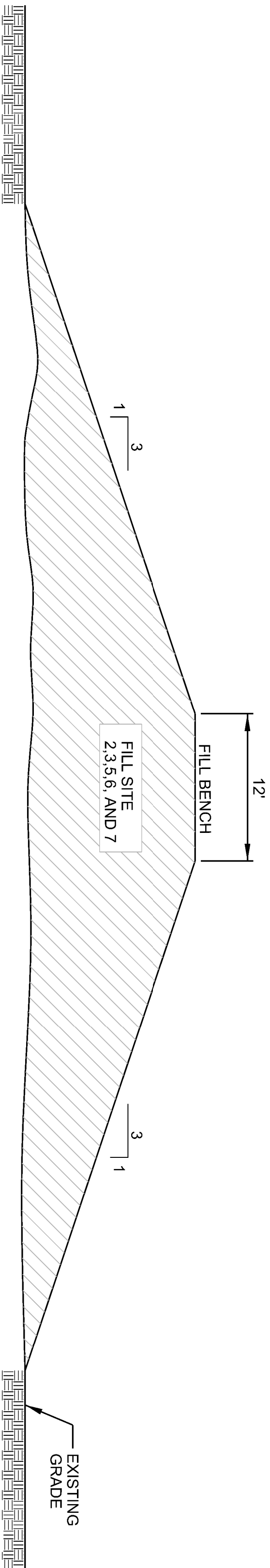






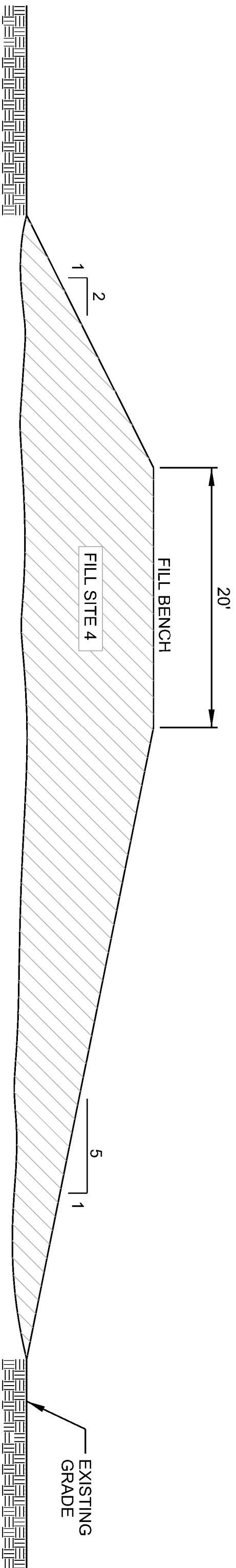
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NEWLANDS PONDS - FILL SITE #1 - TYPICAL SECTIONS

NOT TO SCALE



C1  
NEWLANDS PONDS - FILL SITE #3, 5, AND 6, - TYPICAL SECTIONS

NOT TO SCALE



A1  
NEWLANDS PONDS - FILL SITE #4 - TYPICAL SECTIONS

NOT TO SCALE



US Army Corps  
of Engineers ®

DATE									
MARK	DESCRIPTION								

U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	DESIGNED BY: L. FORD	ISSUE DATE: 31 MAY 2022
	DWN BY: J. BARRETT	SOLICITATION NO.:
	CKD BY: G. KATO	CONTRACT NO.:
	SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-8-4-109
	SIZE: ANSI D	

YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

SECTION 3  
NEWLANDS FLOODPLAIN GRADING 1  
TYPICAL SECTIONS

SHEET ID  
BASE  
B-C-303

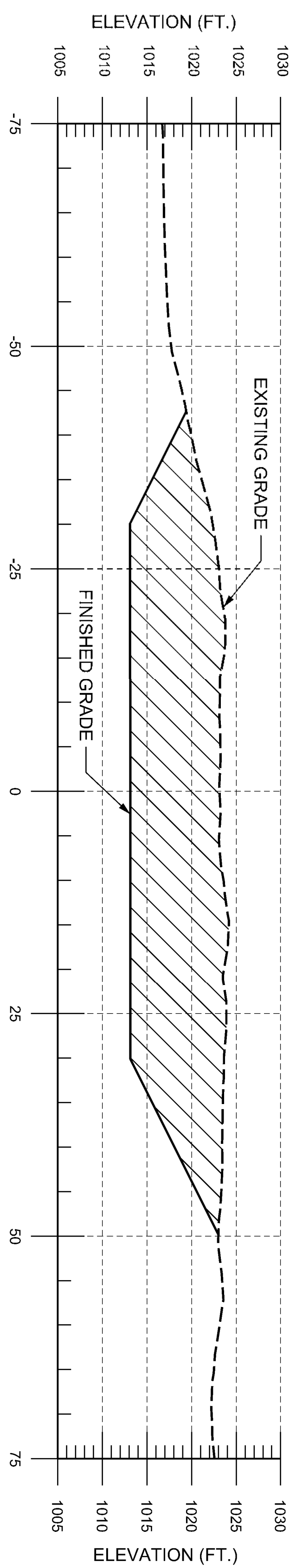
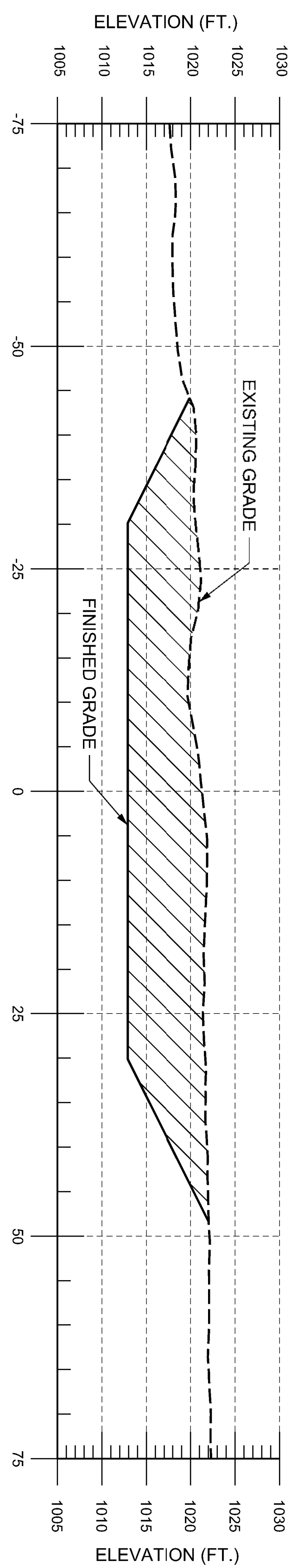
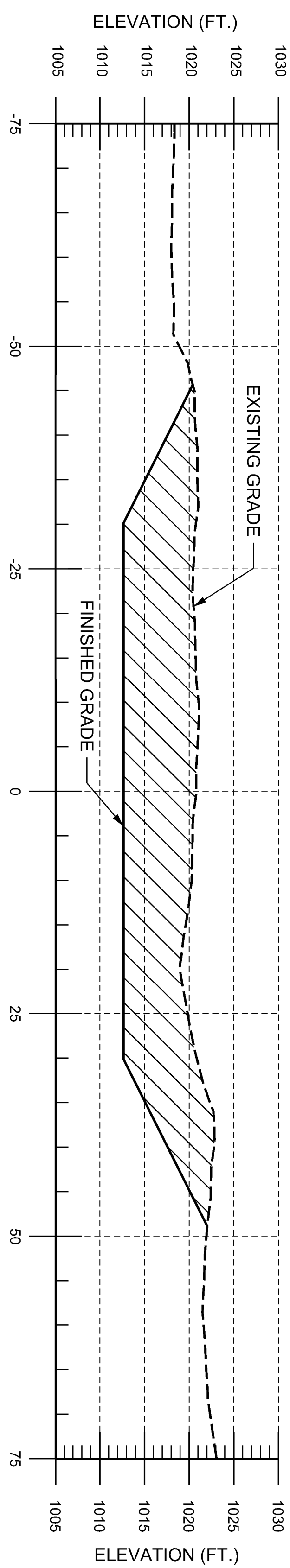
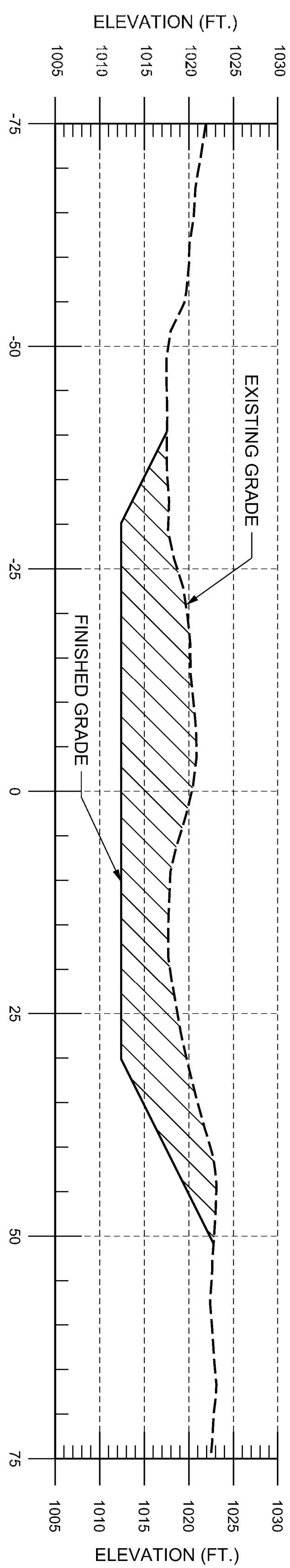
















**LEGEND**

	EXISTING GRADE
	FINISHED GRADE
	FILL OR CUT



US Army Corps  
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MARK	DESCRIPTION	DATE

DESIGNED BY: L. FORD	ISSUE DATE: 31 MAY 2022
DWN BY: J. BARRETT	SOLICITATION NO.:
CKD BY: G. KATO	CONTRACT NO.:
SUBMITTED BY: STEPHANIE McKENNA	FILE NUMBER: D-8-4-109
SIZE: ANSI D	

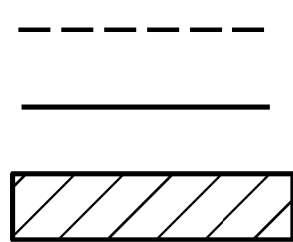
U.S. ARMY CORPS OF ENGINEERS  
SEATTLE DISTRICT  
SEATTLE, WASHINGTON

YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

SPORTSMAN PARK CHANNEL A  
CROSS SECTIONS 3

SHEET ID  
BASE  
B-C-306





EXISTING GRADE  
FINISHED GRADE  
FILL OR CUT

[illegible]

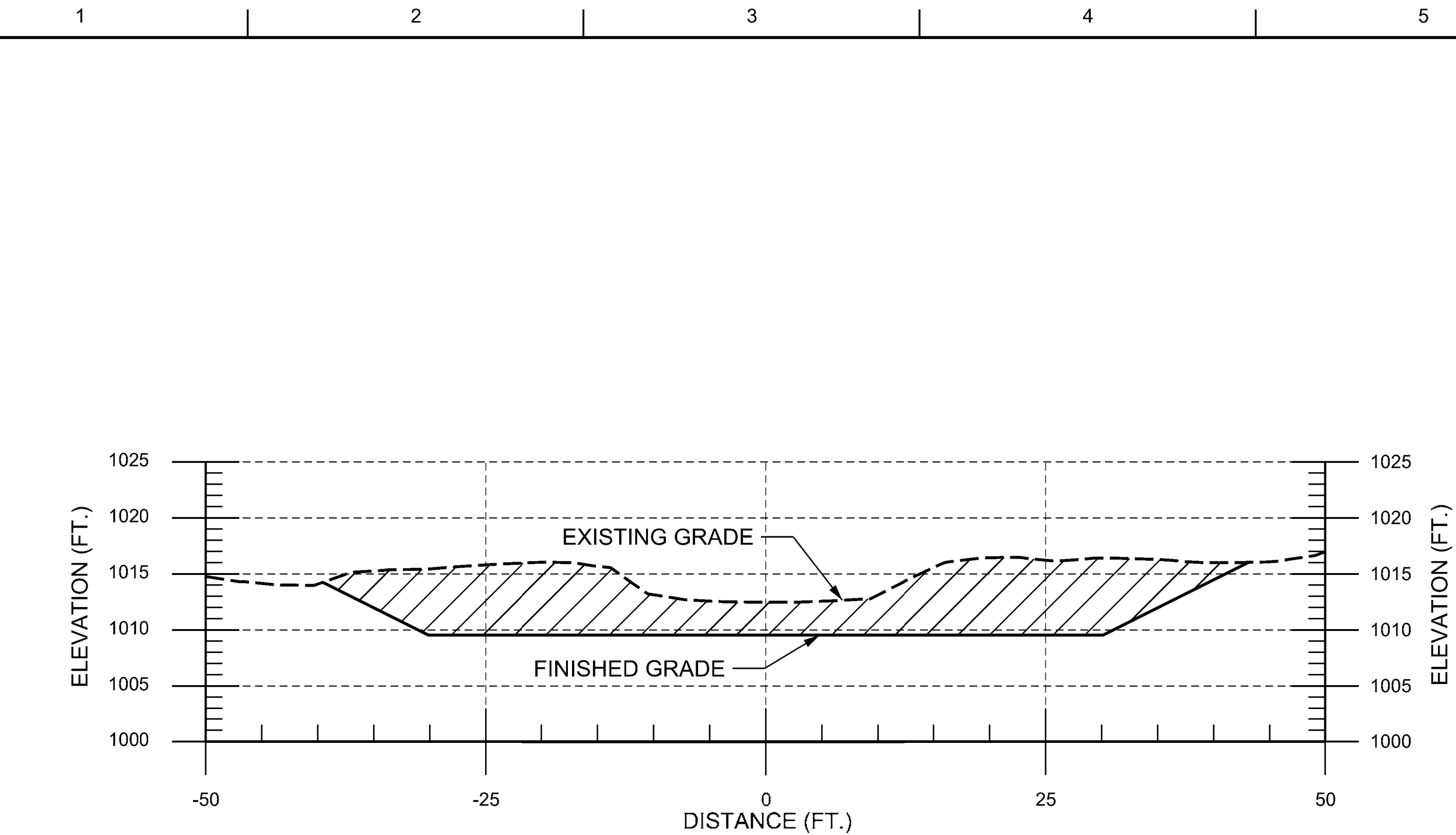
SEATTLE DISTRICT SEATTLE, WASHINGTON	C. FORD D. L. BARRETT CVD BY: G. KATO	SOLICITATION NO.: CONTRACT NO.: FILE NUMBER: D-8-4-109	31 <sup>ST</sup> MAY 2022
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SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

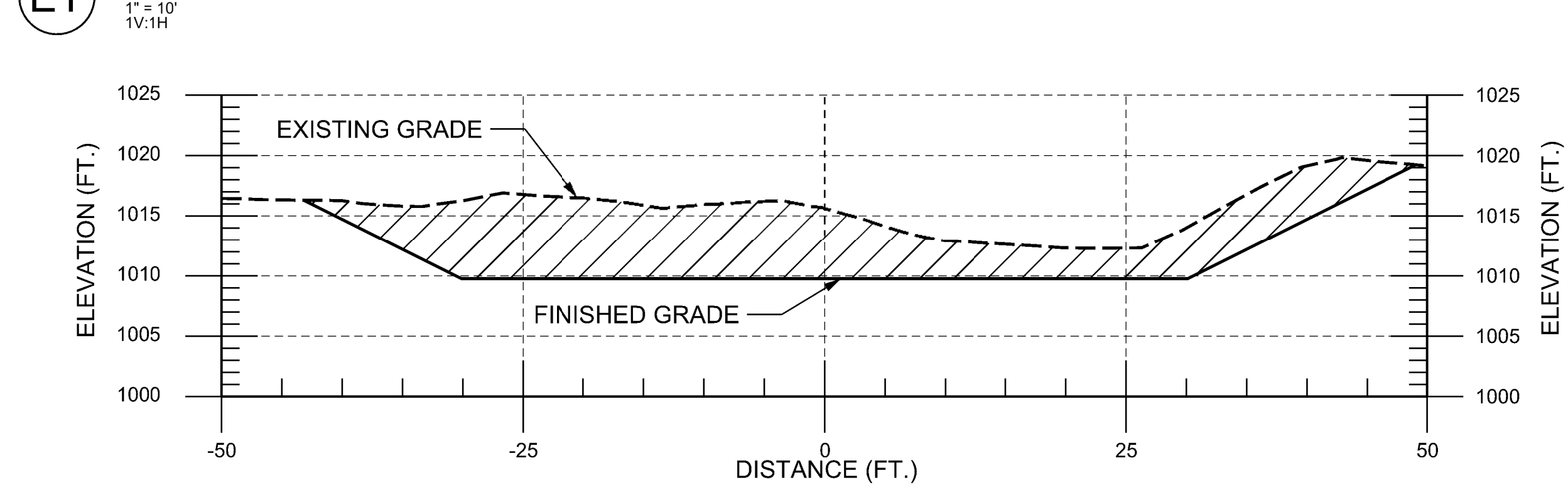
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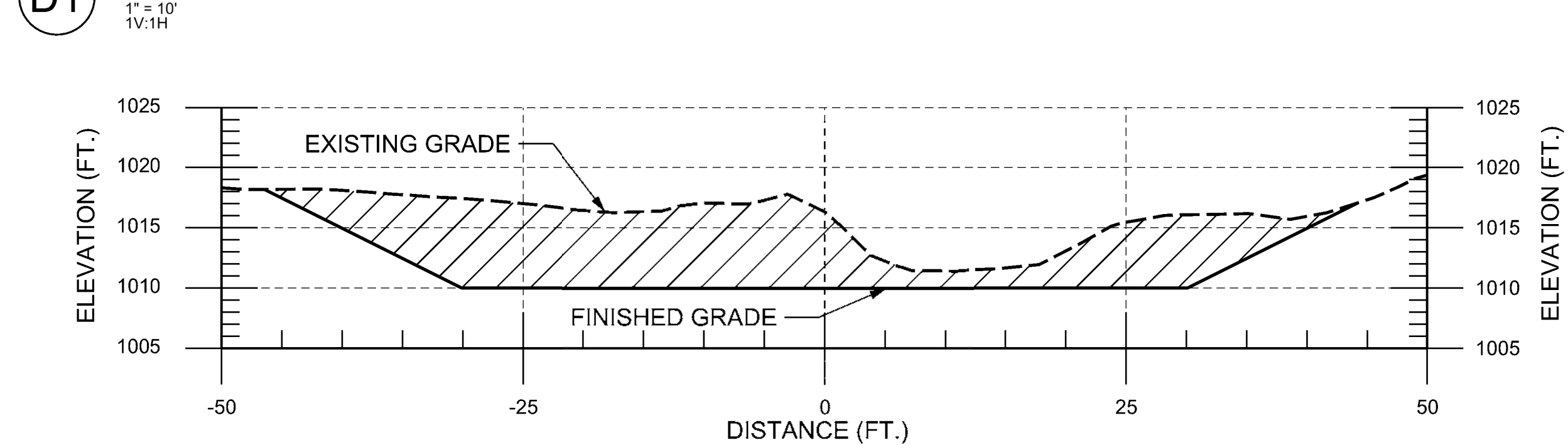




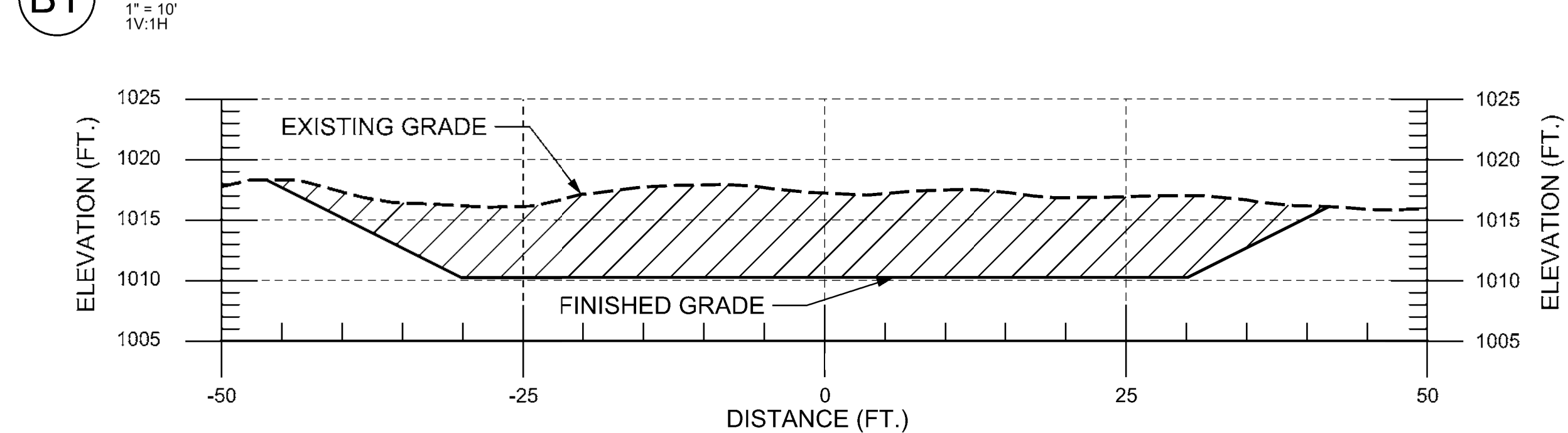
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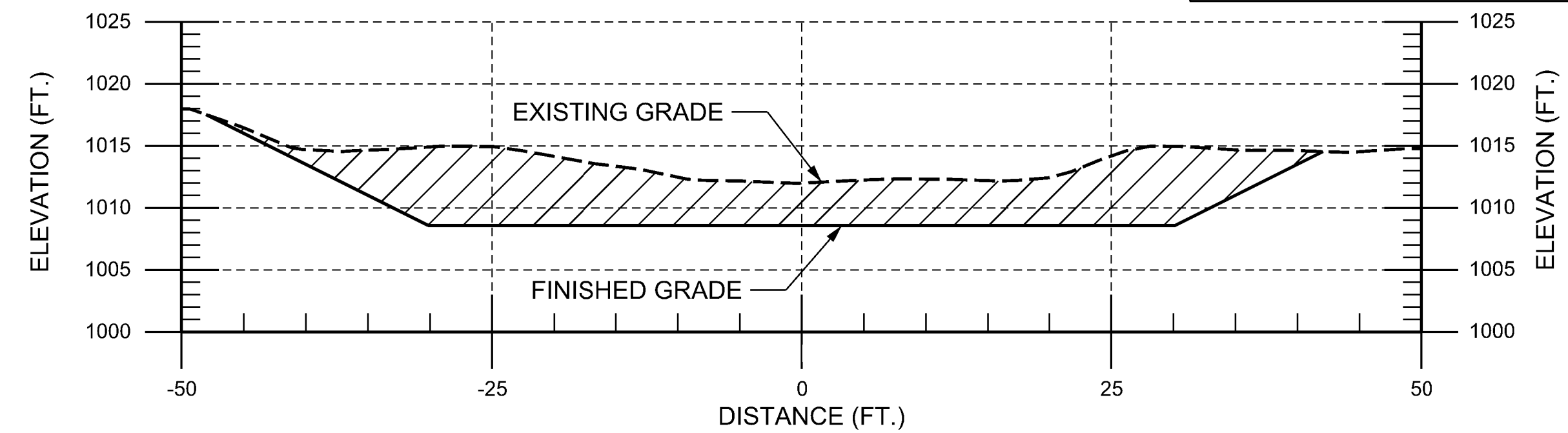
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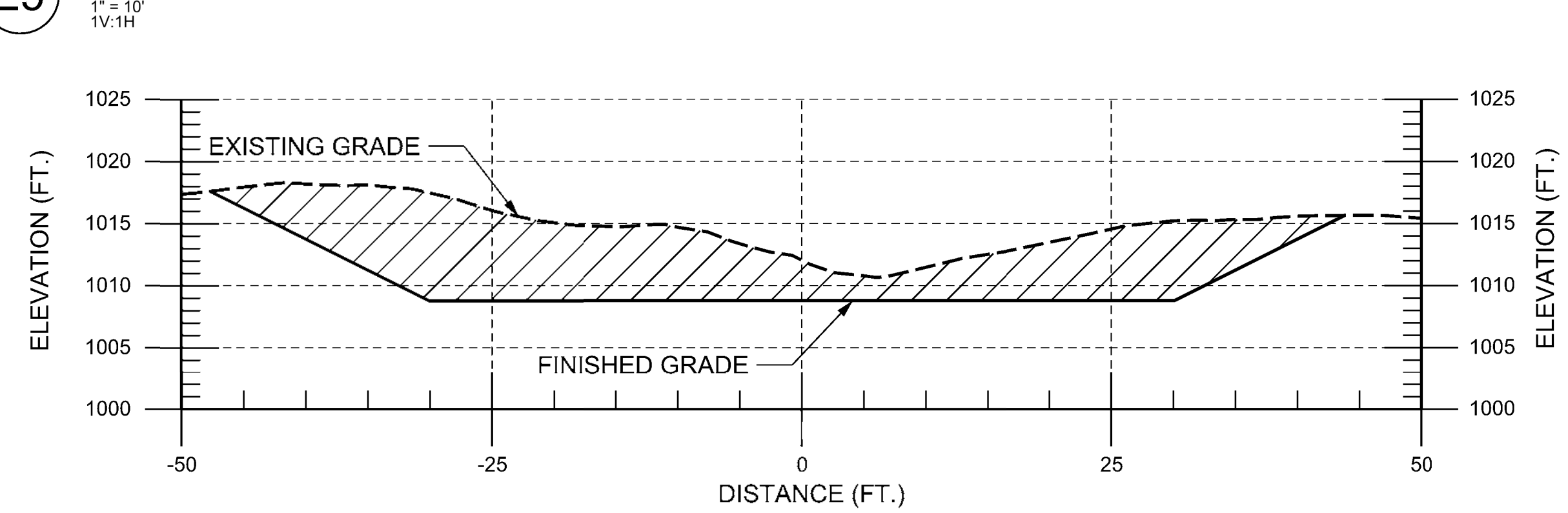
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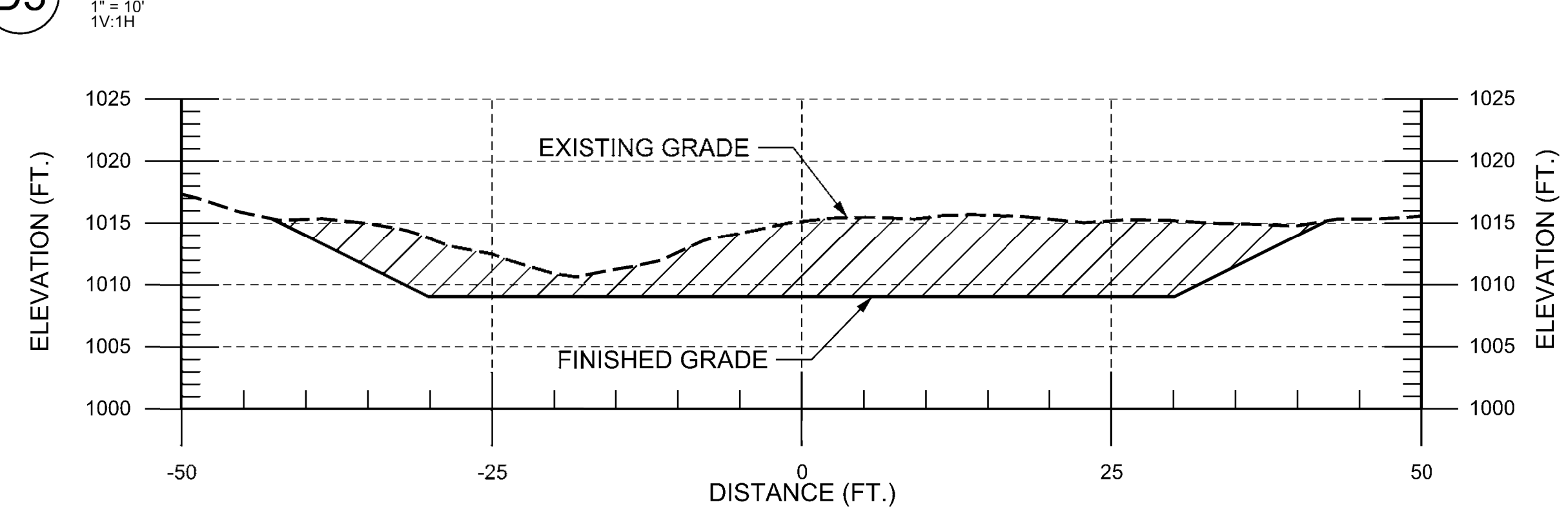
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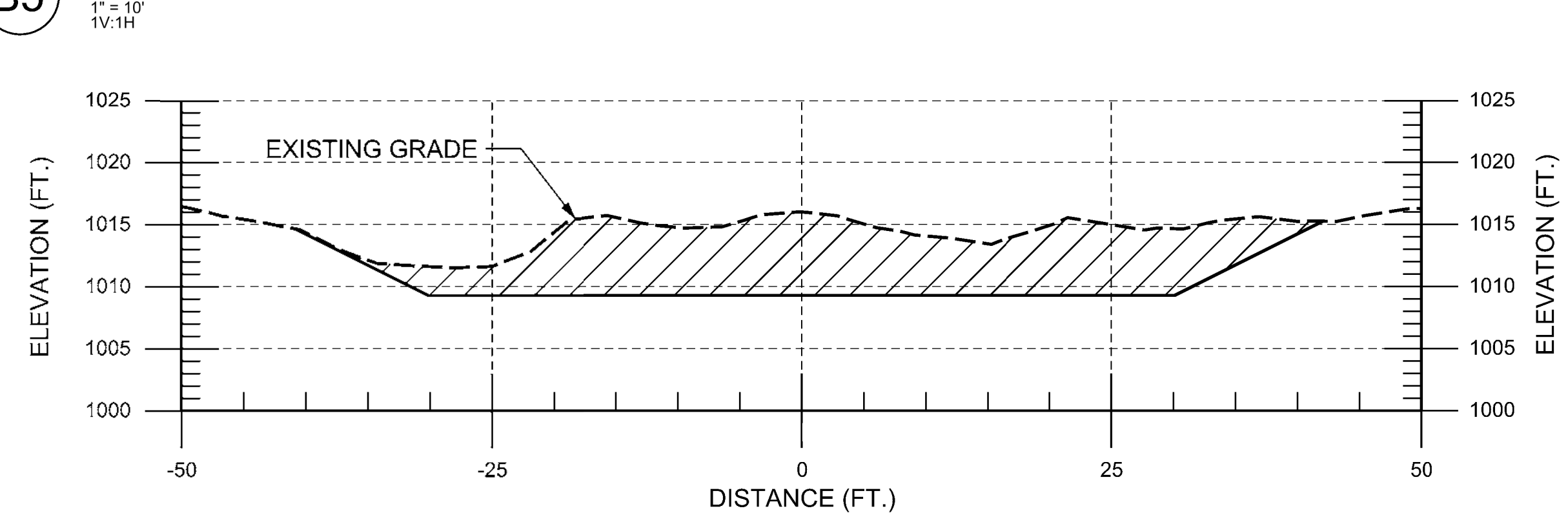
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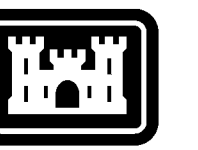
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**CROSS SECTION - SPORTSMAN PARK CHANNEL A 24+00**

## LEGEND

	EXISTING GRADE
	FINISHED GRADE
	FILL OR CUT



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of Engineers ®**

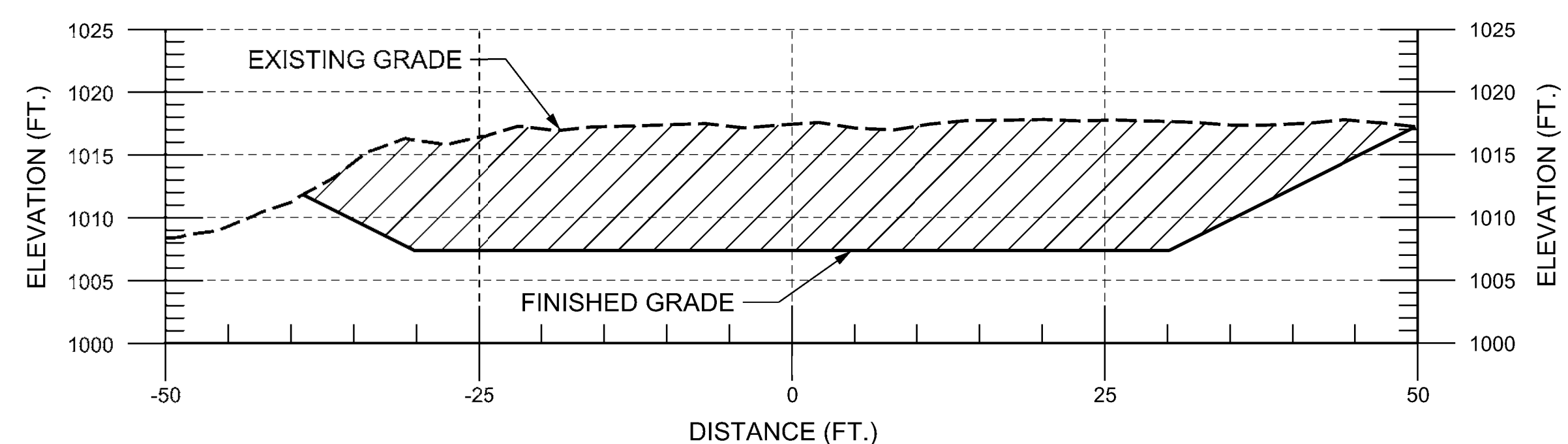
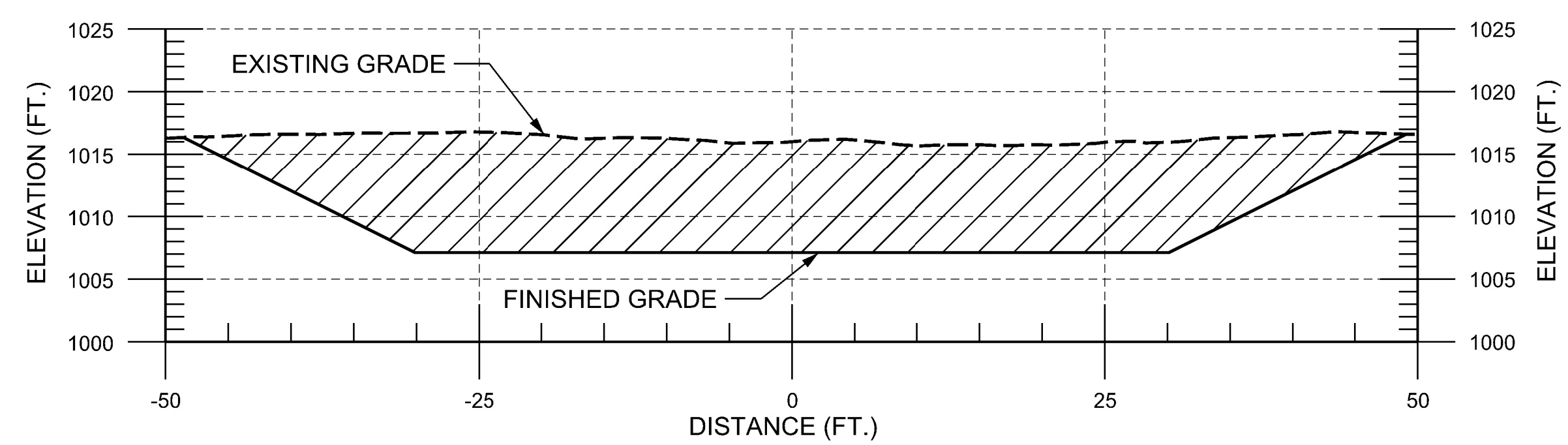
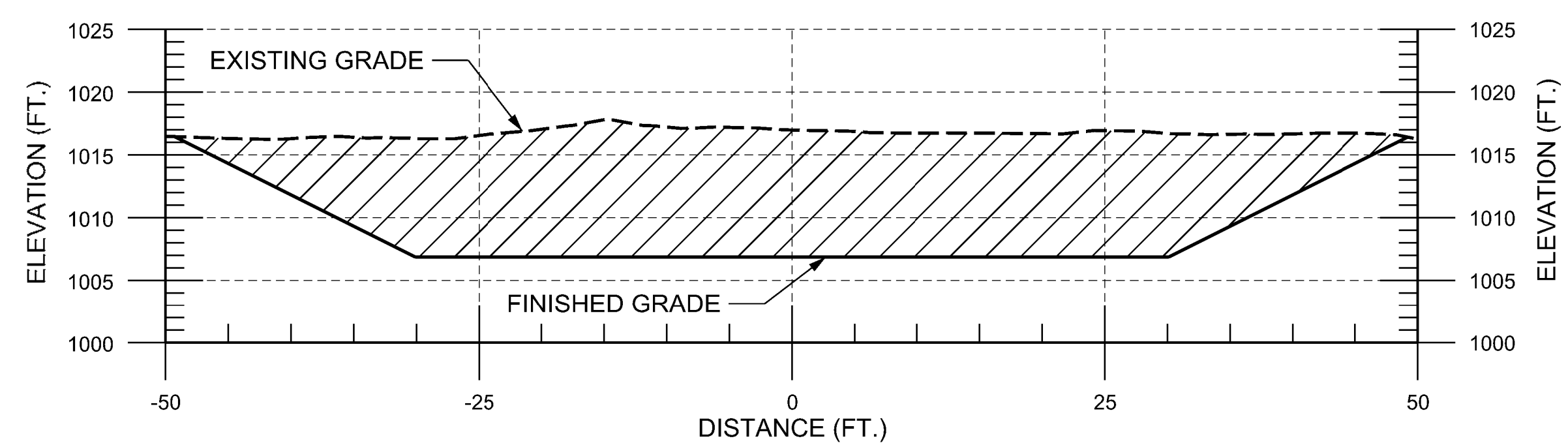
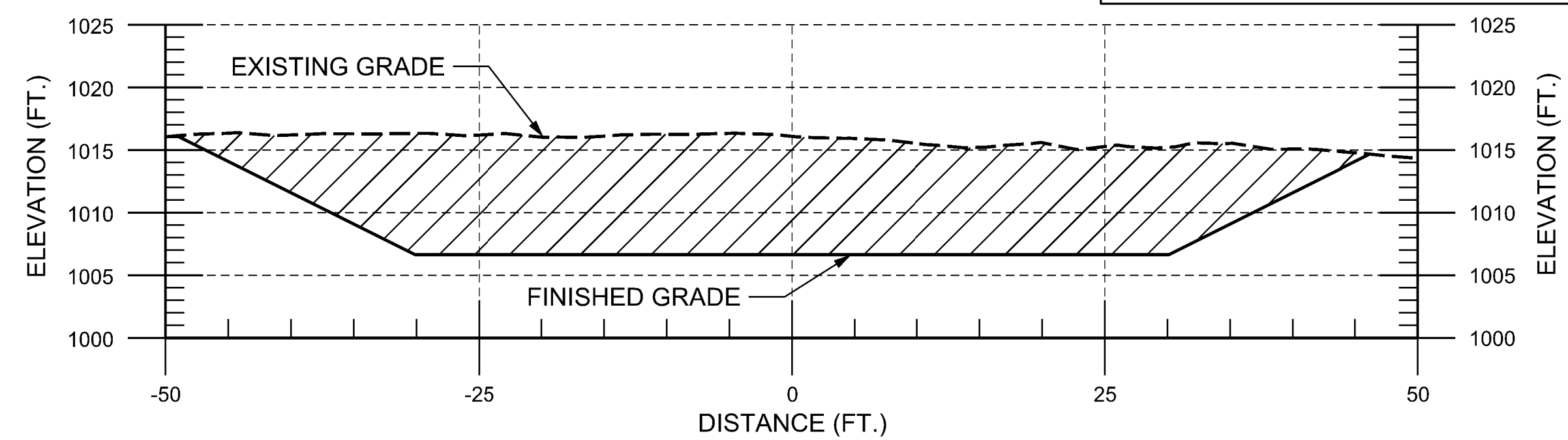
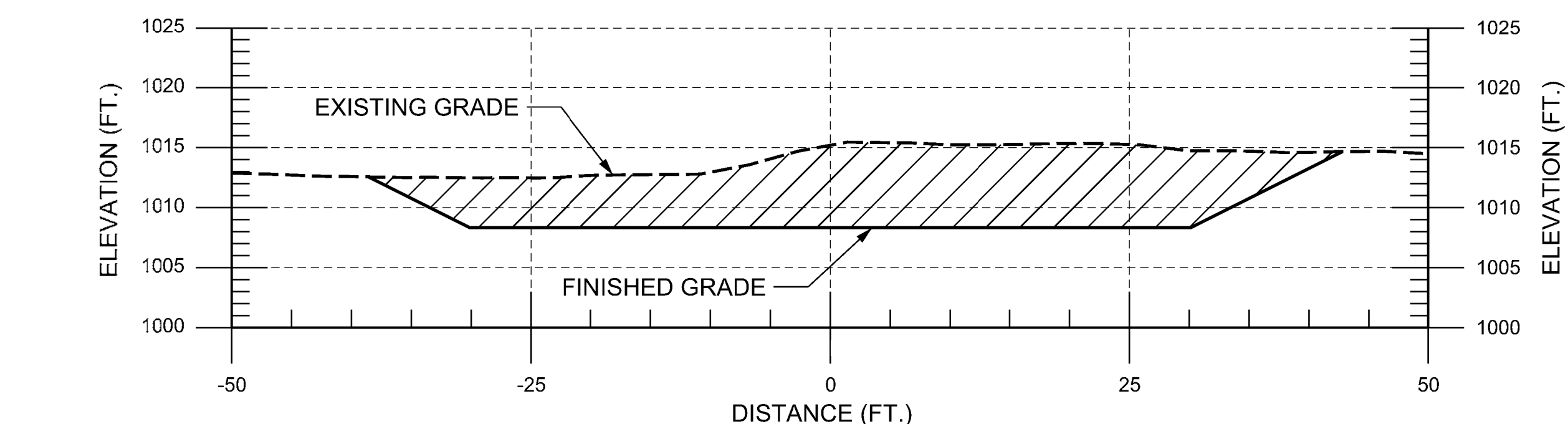
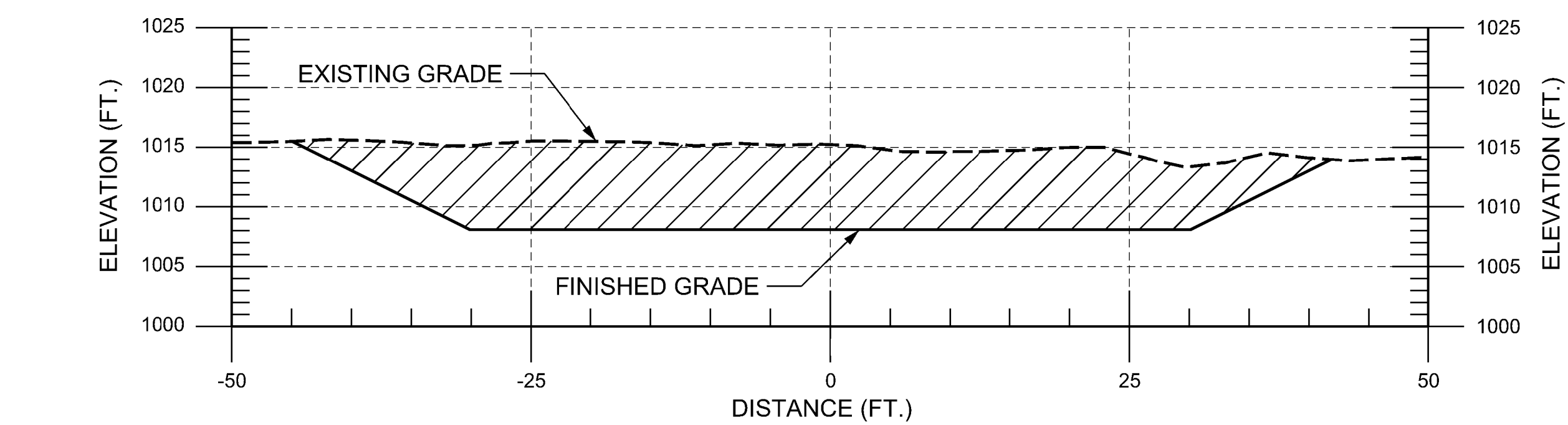
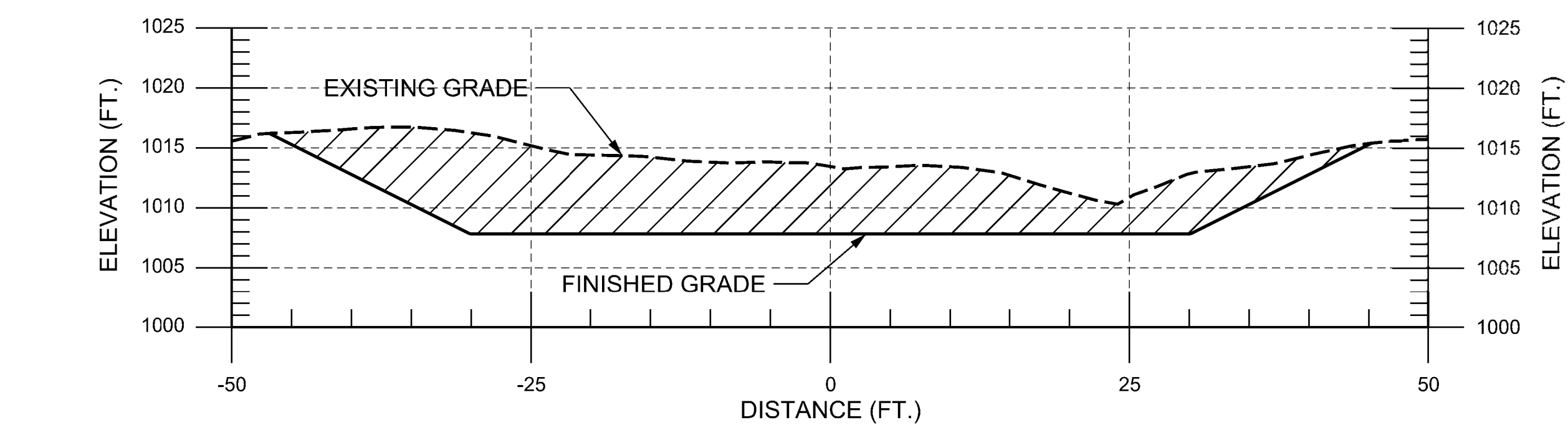
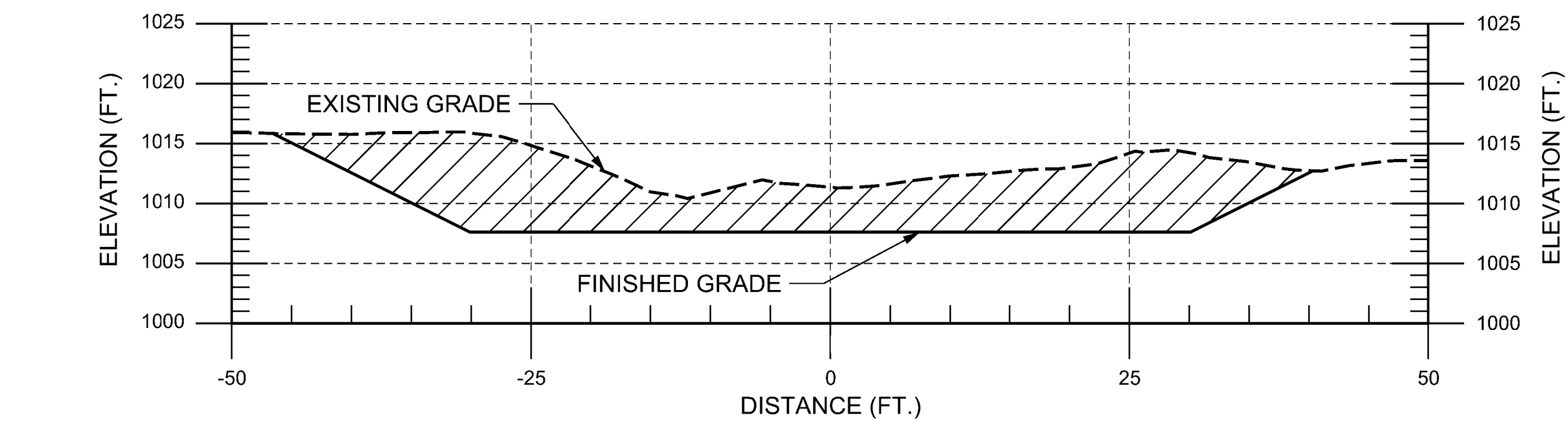
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SEATTLE DISTRICT SEATTLE, WASHINGTON	L. FORD	31 MAY 2022
	DWN BY: C. WEIT	SOLICITATION NO.:
	CKD BY: G. KATO	CONTRACT NO.:
	SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-8-4-109
	SIZE: ANSI D	


SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

SHEET ID  
BASE  
B-C-308





LEGEND			
	EXISTING GRADE	 <b>US Army Corps of Engineers®</b>	 DATE
	FINISHED GRADE		
	FILL OR CUT		



US Army Corps  
of Engineers®

[illegible]

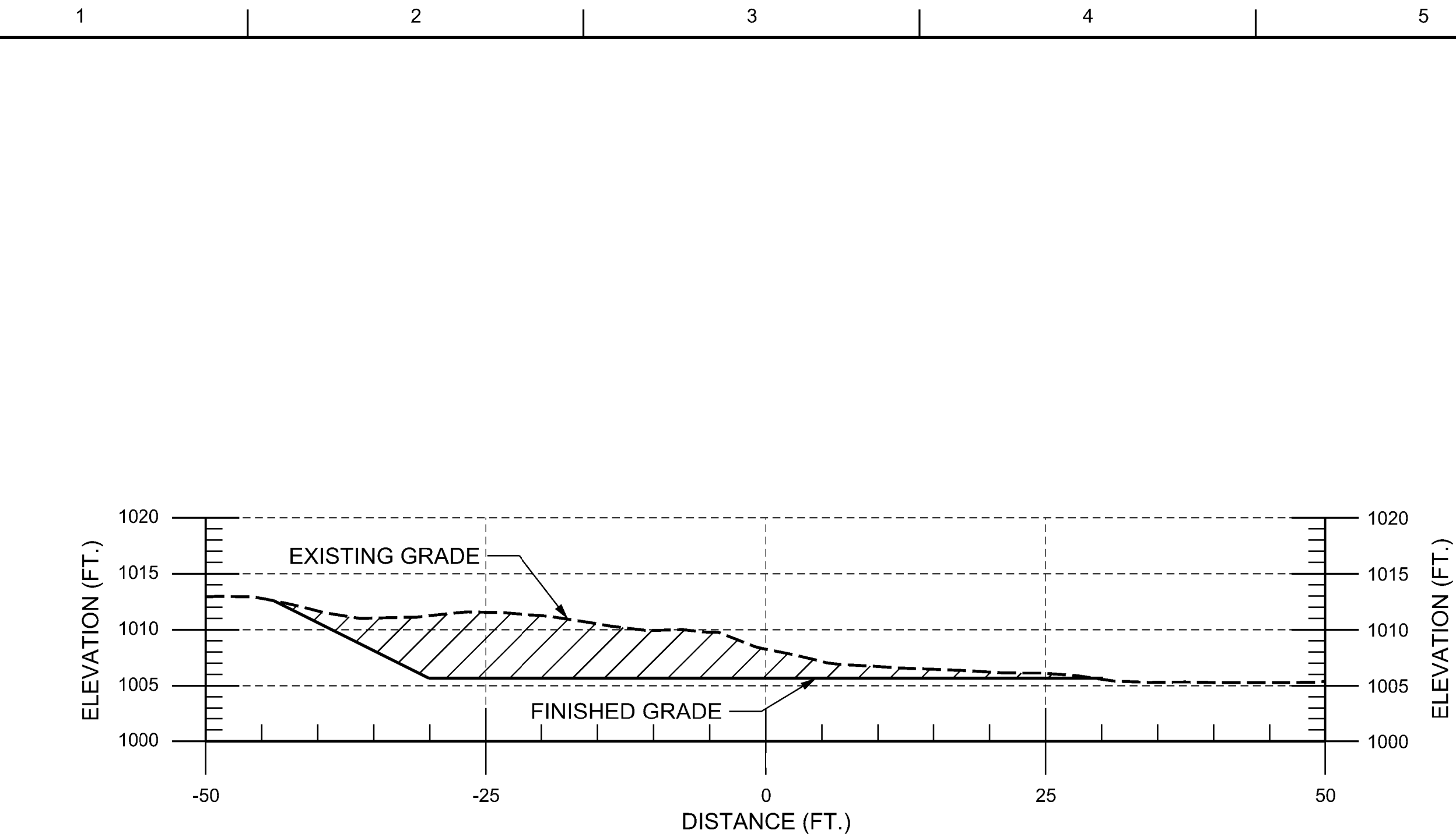
U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	DESIGNED BY:	ISSUE DATE:
	L. FORD	31 MAY 2022
	D. J. BARRETT	SOLICITATION NO.:
	C/KS BY:	CONTRACT NO.:
	G. KATO	
	SUBMITTED BY:	FILE NUMBER:
	STEPHANIE MCKENNA	D-84-109
	SIZE:	
	ANSI D	

YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

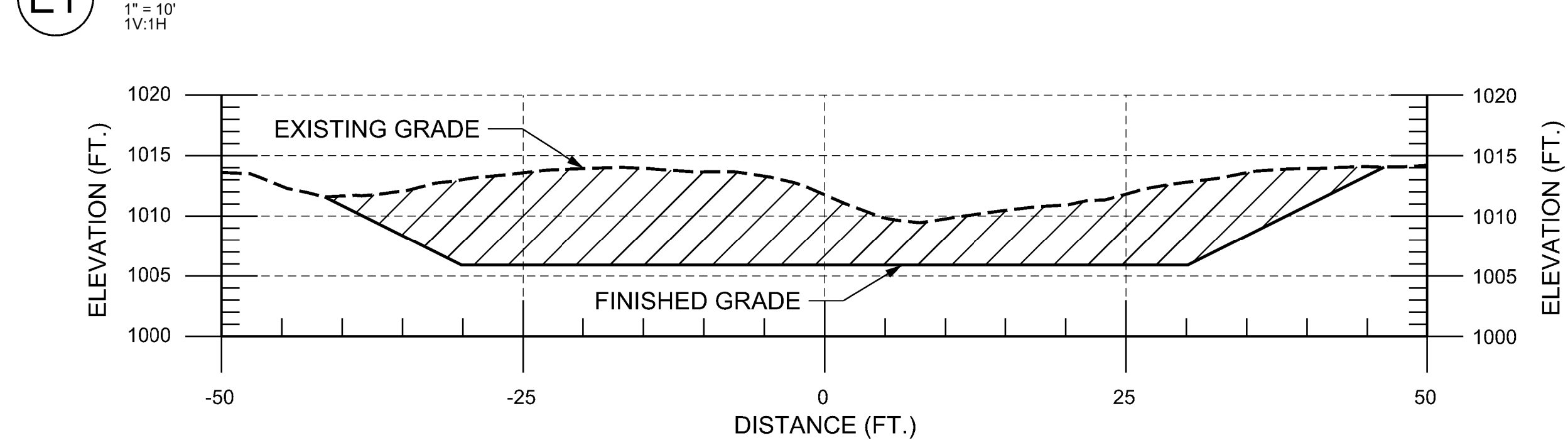
SPORTSMAN PARK CHANNEL A  
CROSS SECTIONS 6

SHEET ID  
**BASE**  
**B-C-309**

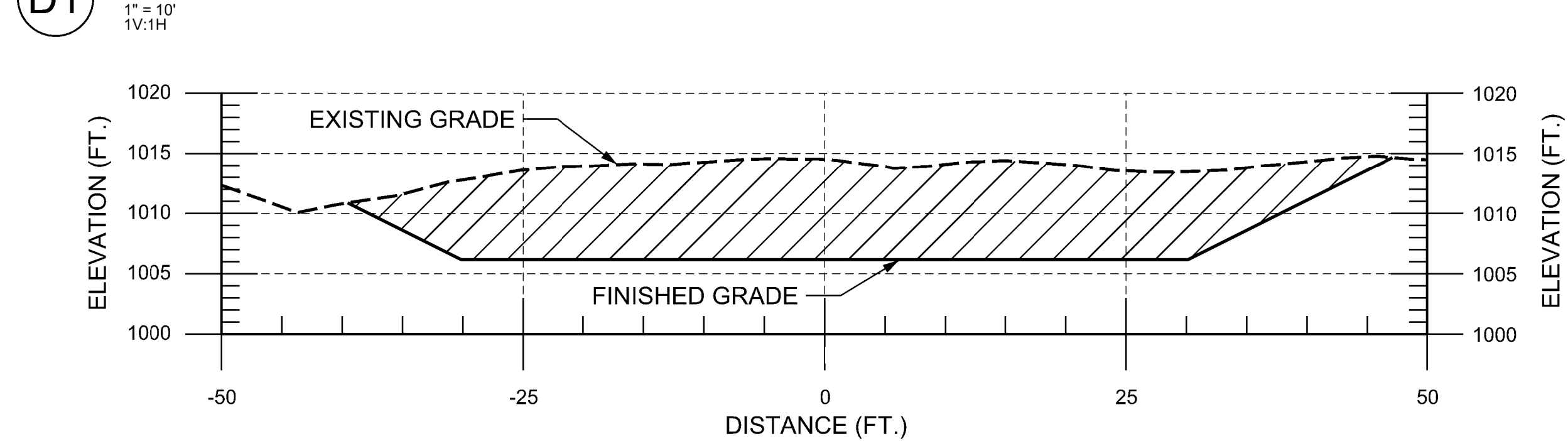




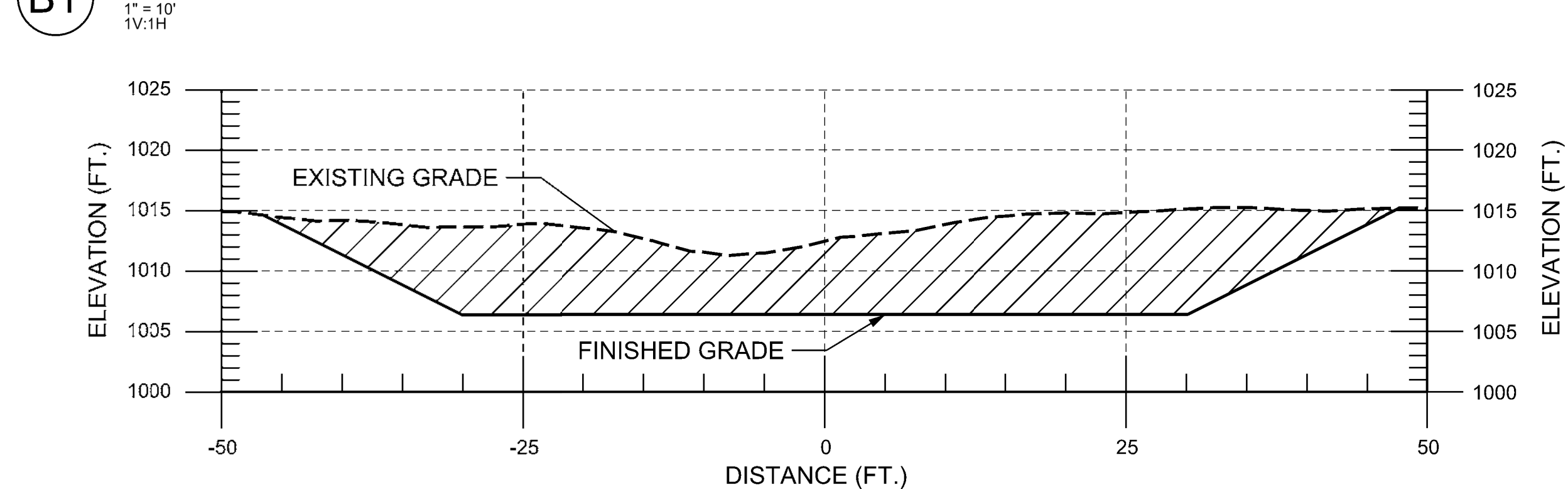
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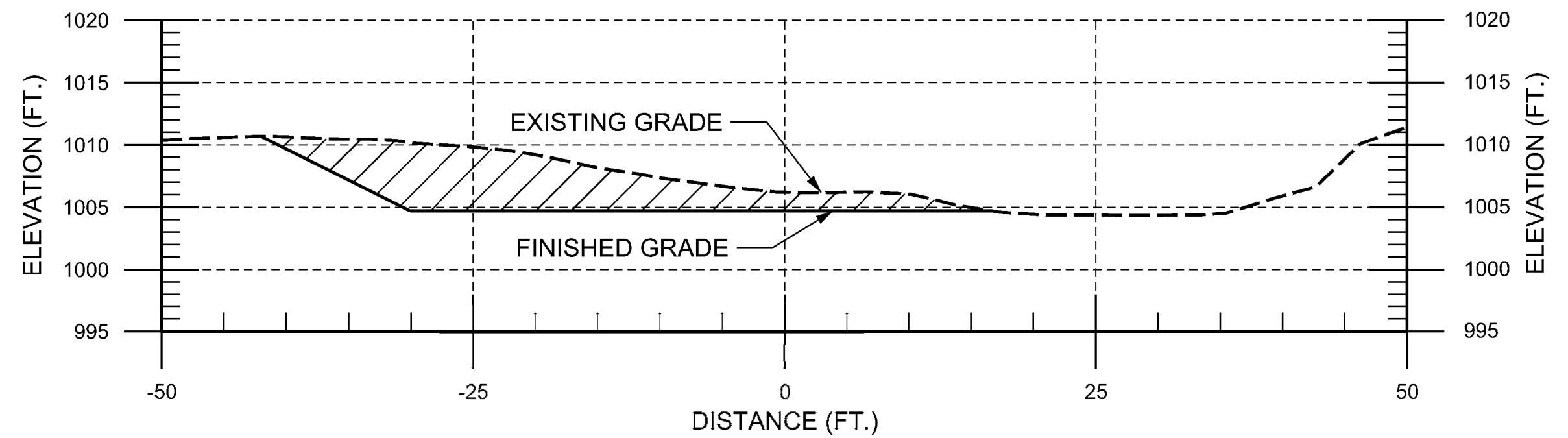
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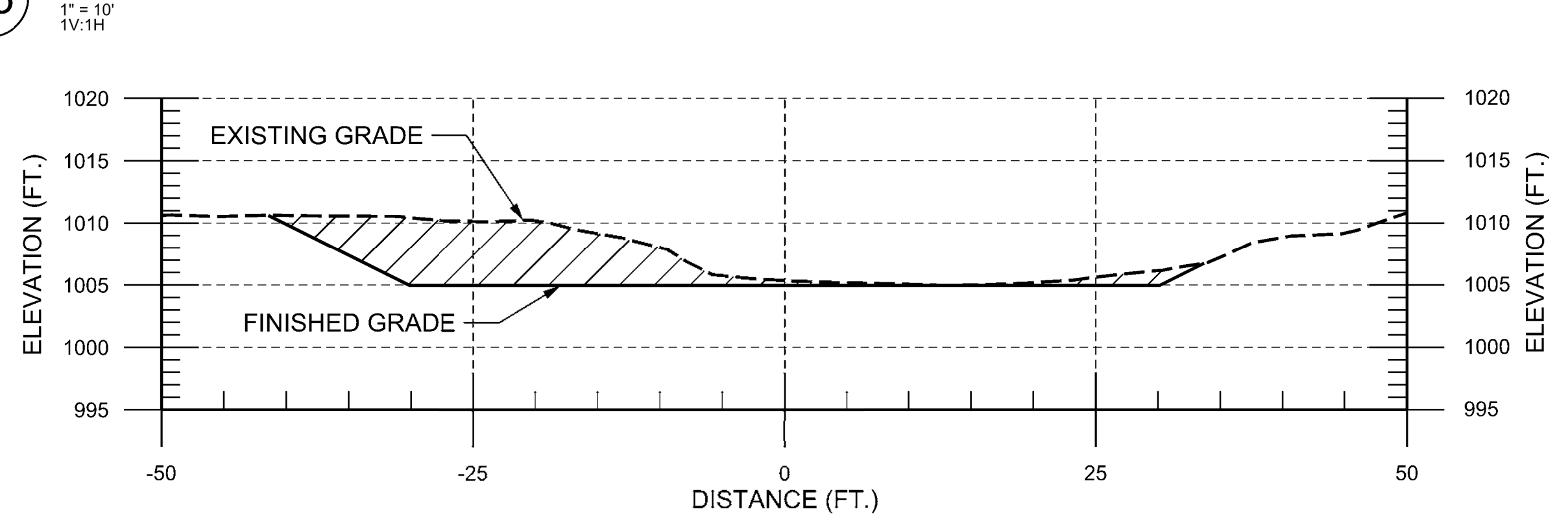
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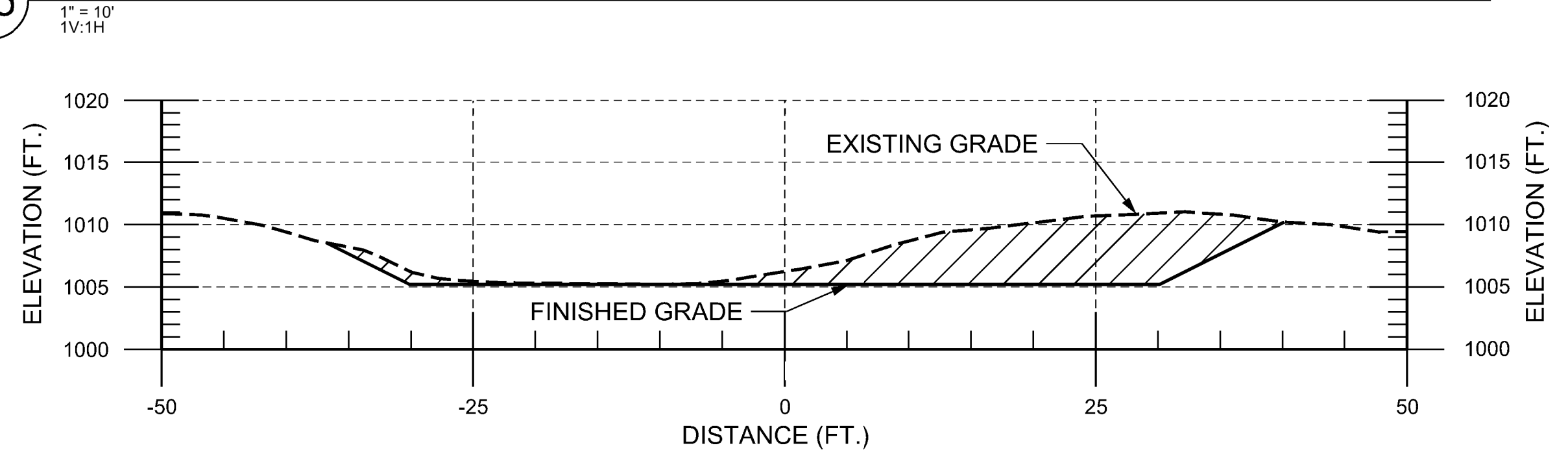
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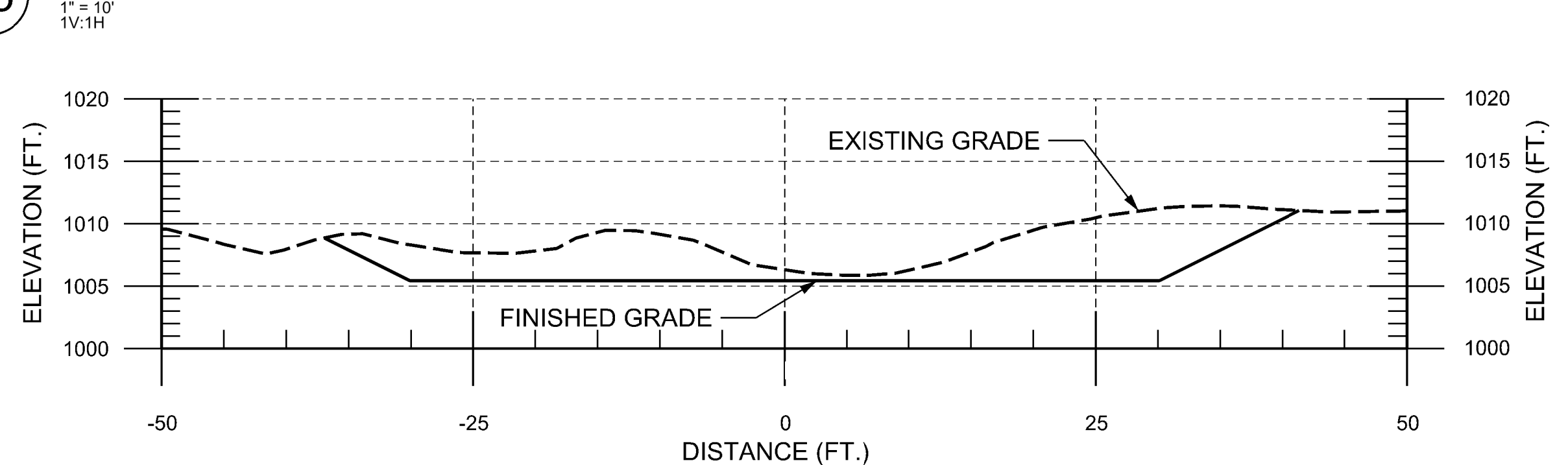
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**CROSS SECTION - SPORTSMAN PARK CHANNEL A 42+00**






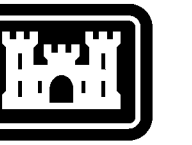
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**CROSS SECTION - SPORTSMAN PARK CHANNEL A 40+00**

## LEGEND

-  EXISTING GRADE  
 FINISHED GRADE  
 FILL OR CUT



US Army Corps  
of Engineers ®

[illegible]

		SOLICITATION NO.: 31 MAY 2022
	DWN BY: DAN WEIT	
	KCD BY: G. KATO	CONTRACT NO.:
	SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-8-4-109
	SIZE ANSI D	

YAKIMA 11335  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

SPORTSMAN PARK CHANNEL A  
CROSS SECTIONS 7

SHEET ID  
BASE  
B-C-310

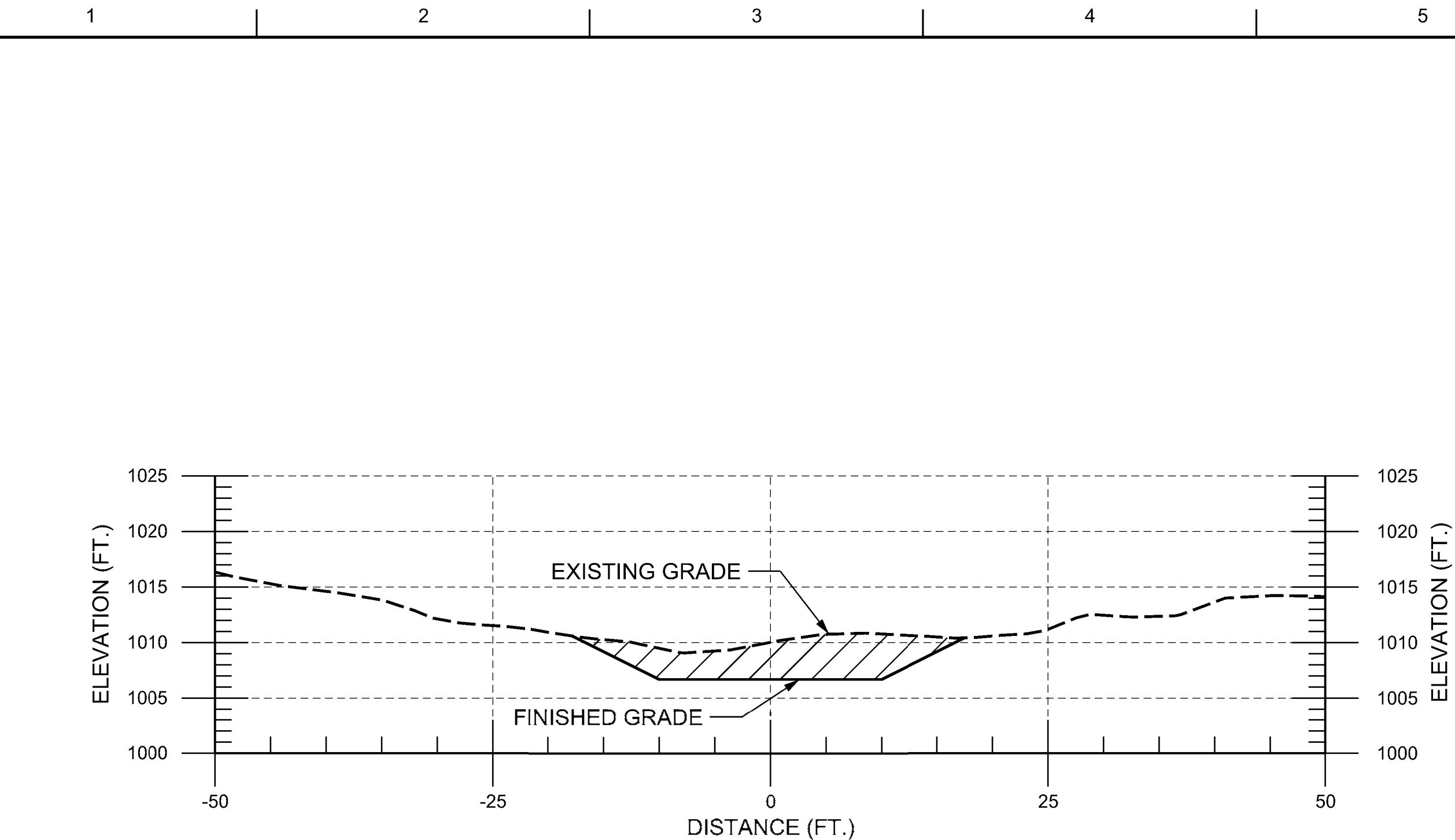




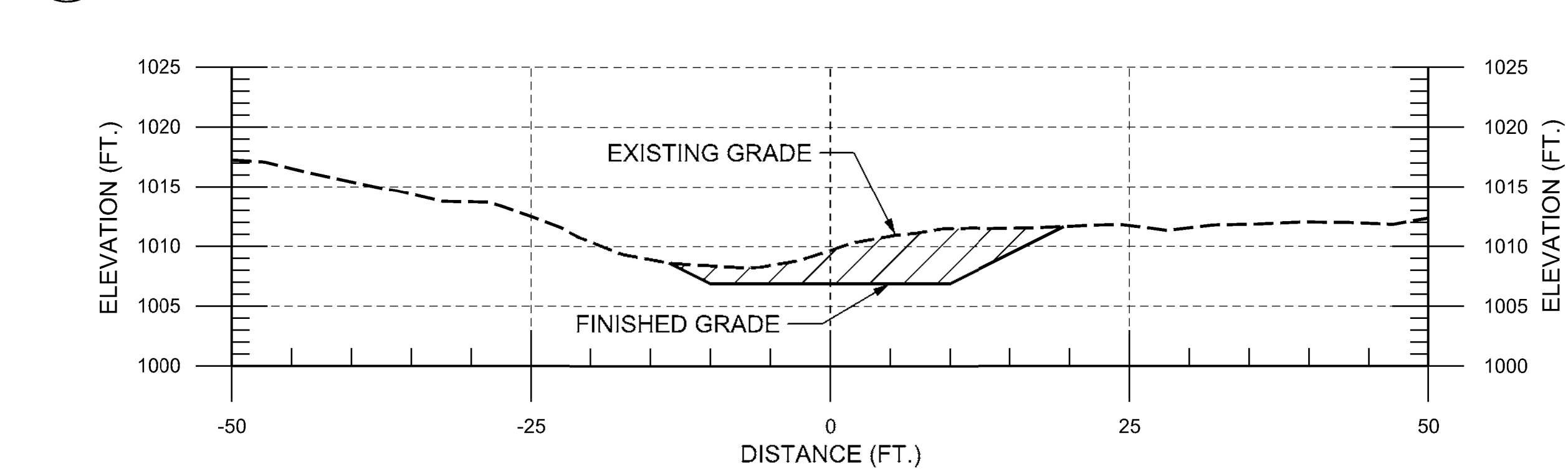




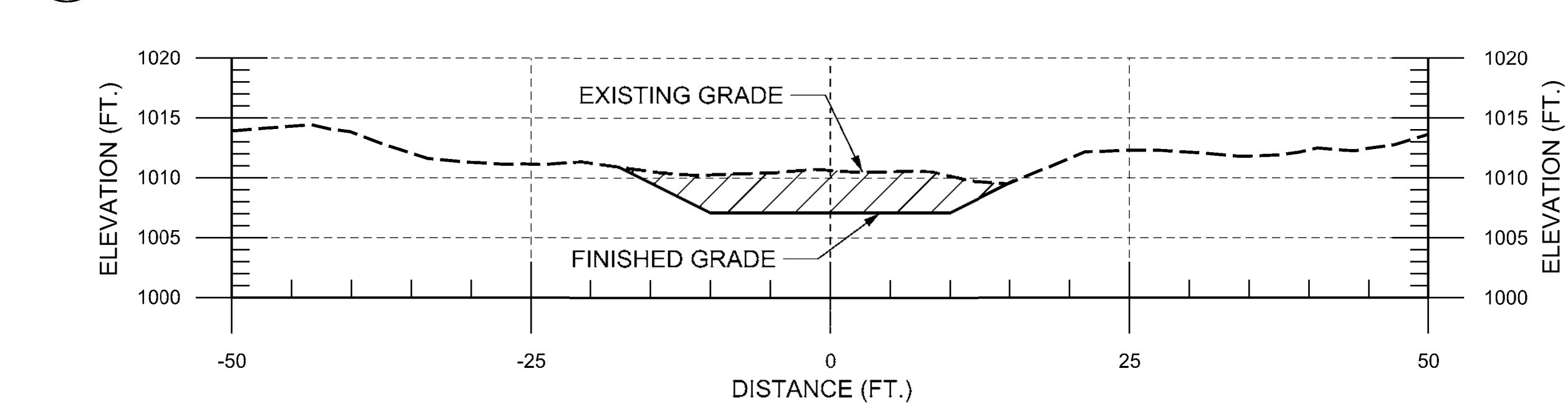




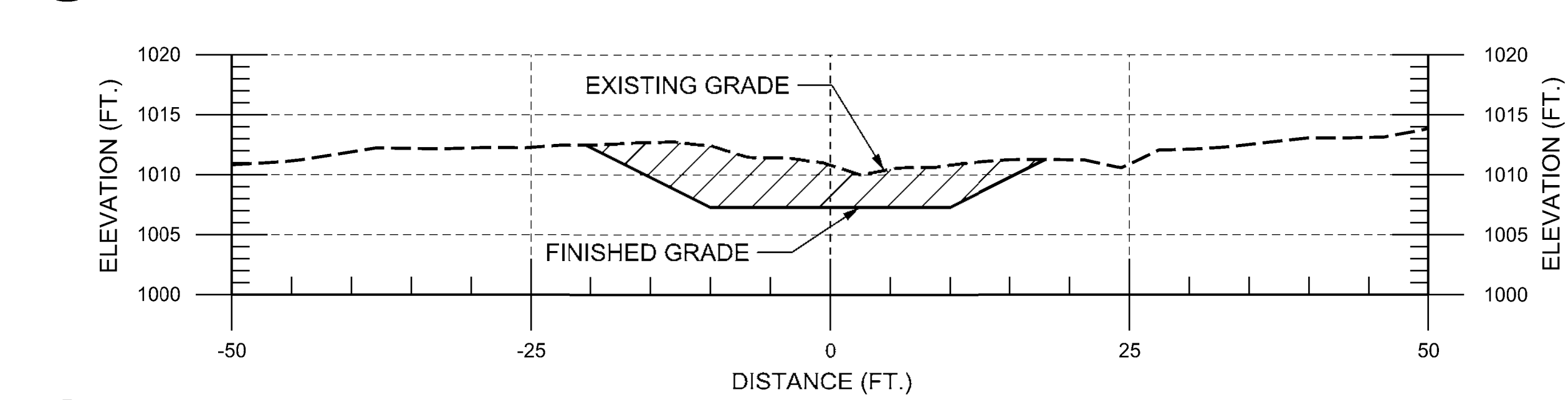
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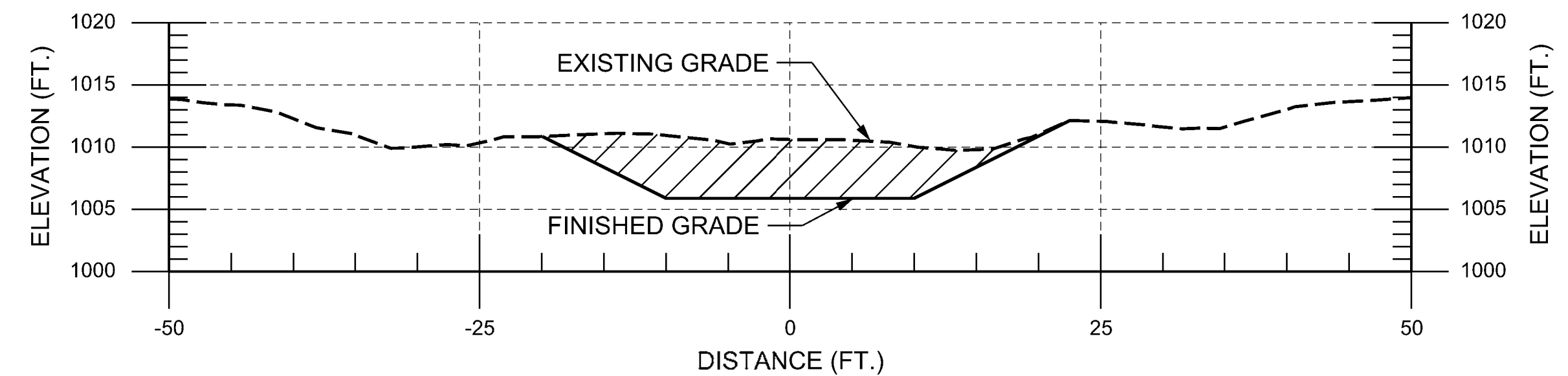
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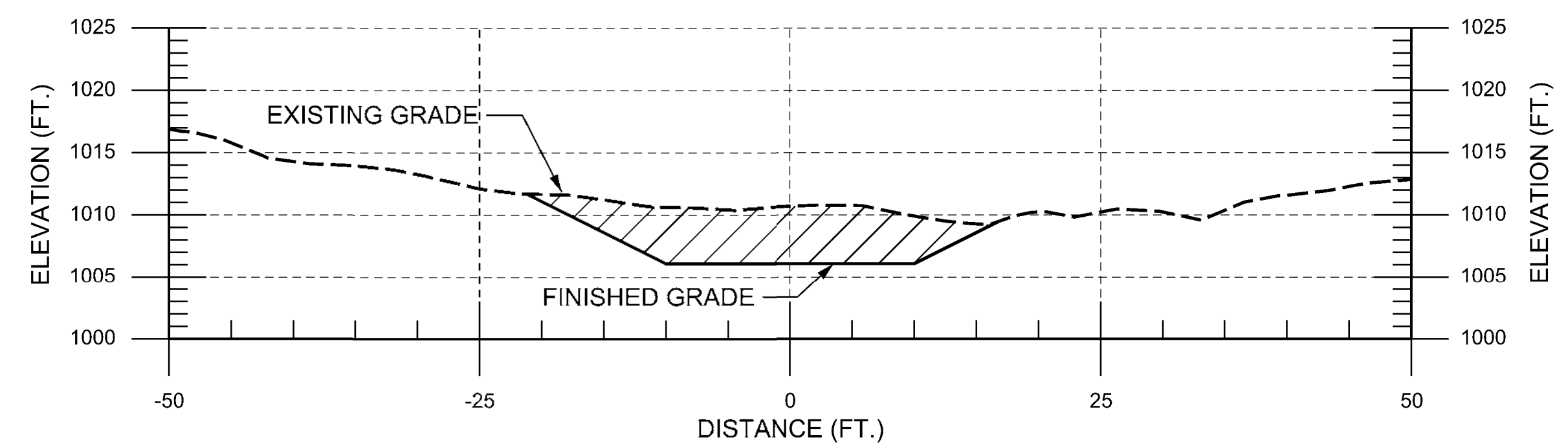
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1" = 10'  
1V:1H



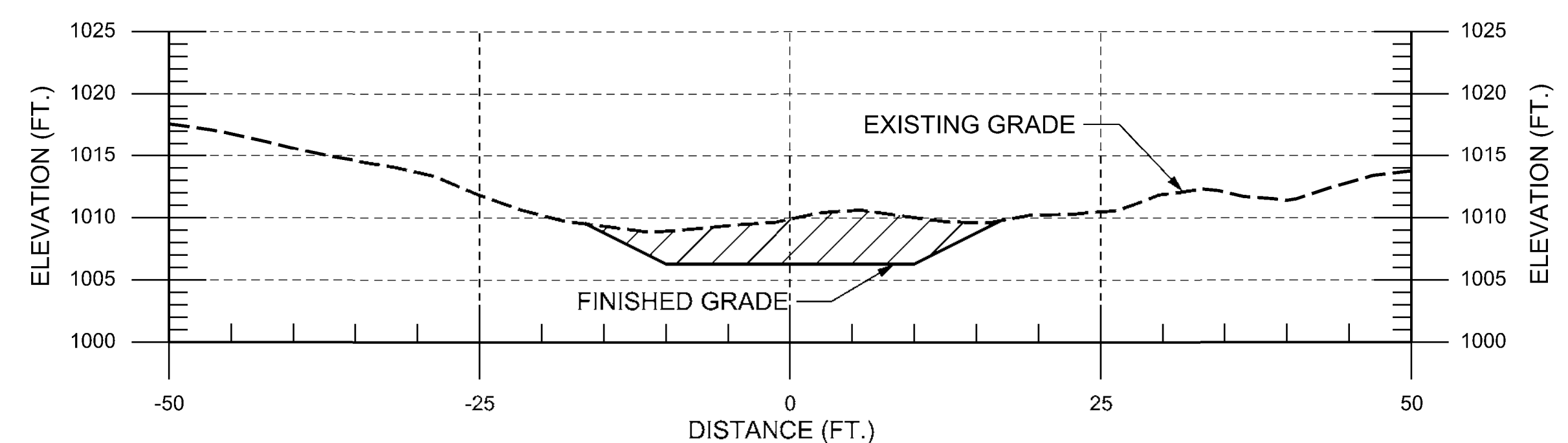
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1V:1H



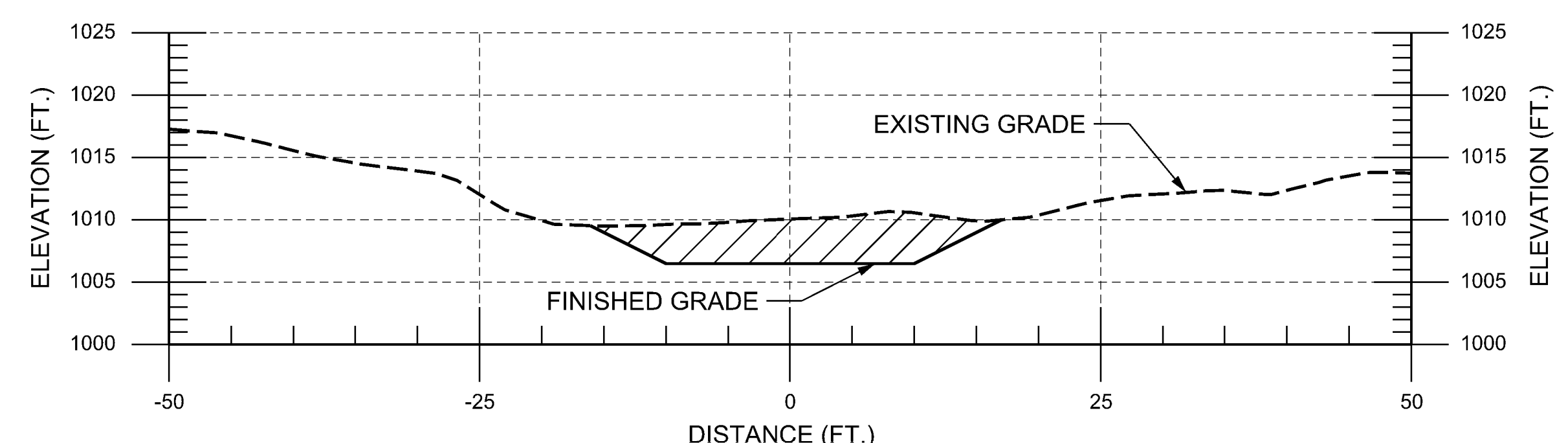
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1" = 10'  
1V:1H



**(D6) CROSS SECTION - SPORTSMAN PARK CHANNEL B 14+00**






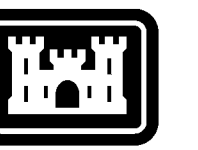
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**A6** CROSS SECTION - SPORTSMAN PARK CHANNEL B 12+00

# LEGEND

	EXISTING GRADE
	FINISHED GRADE
	FILL OR CUT



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of Engineers ®

[illegible]

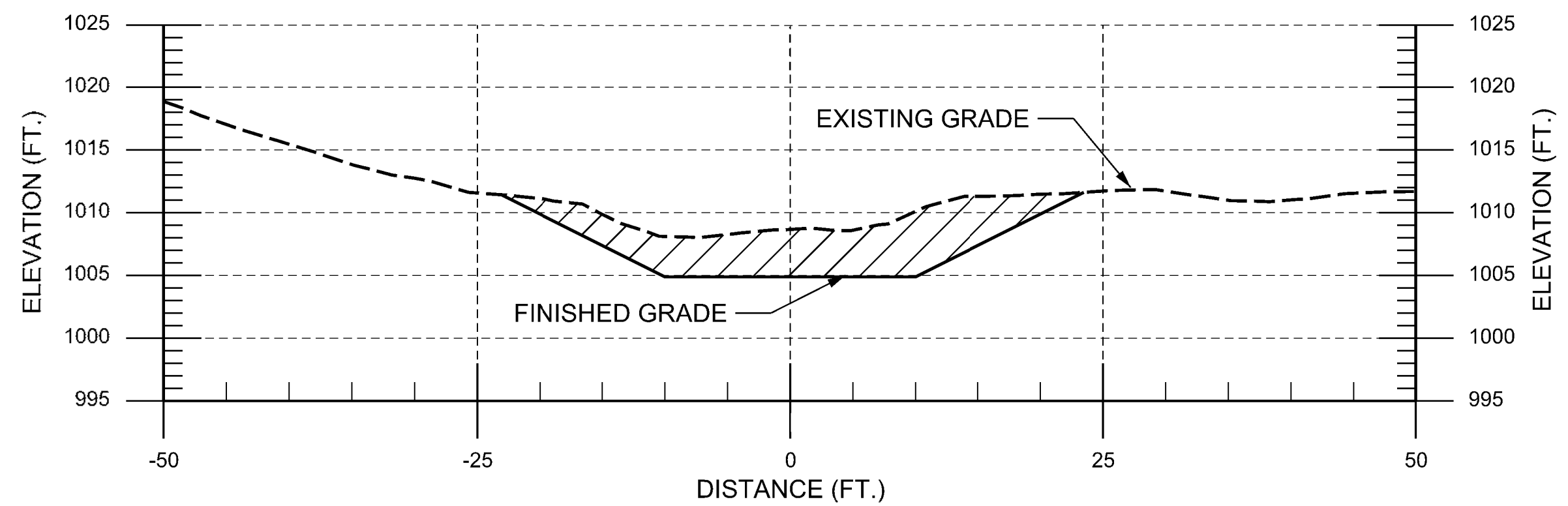
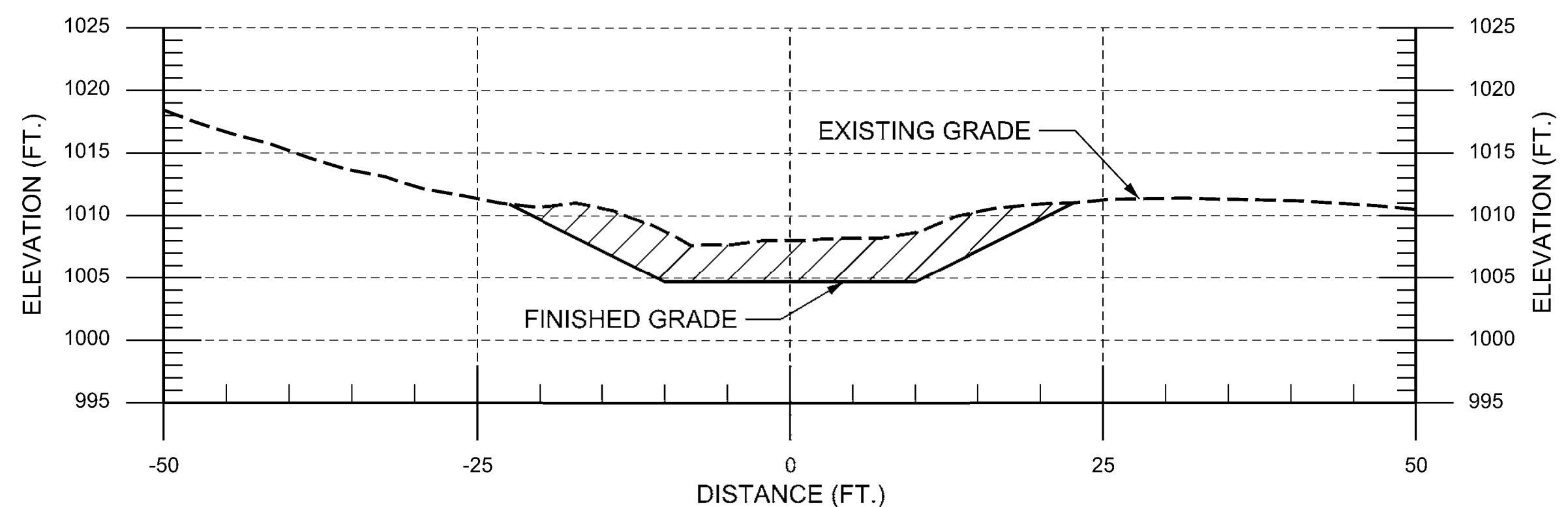
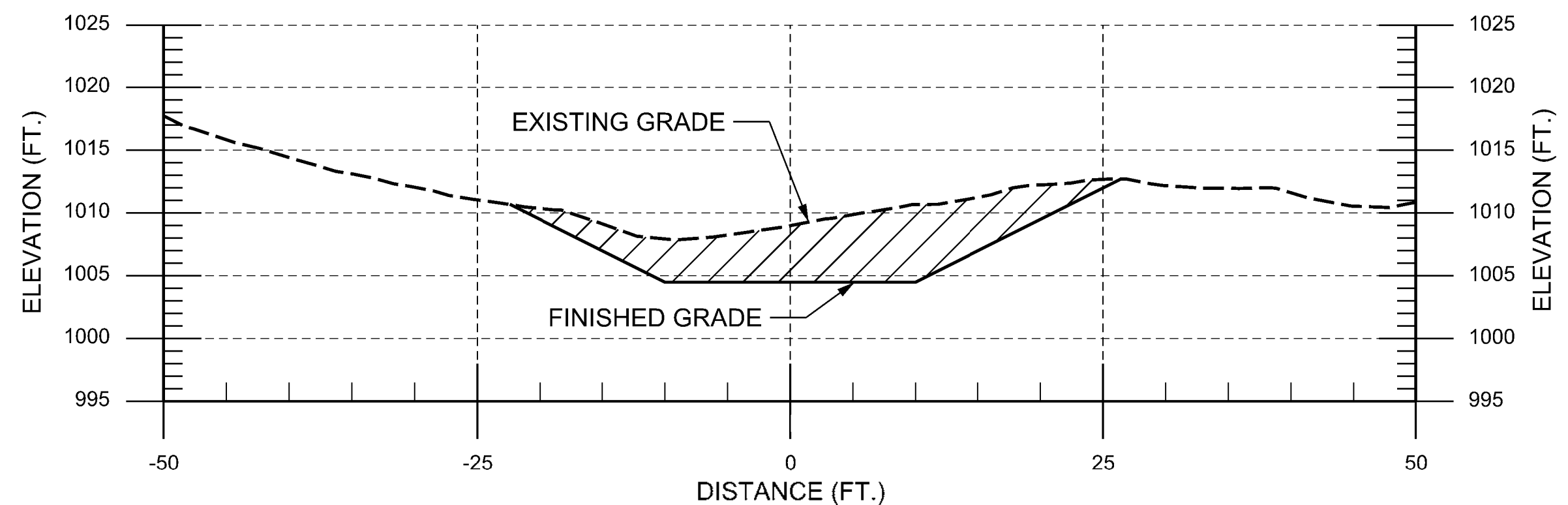
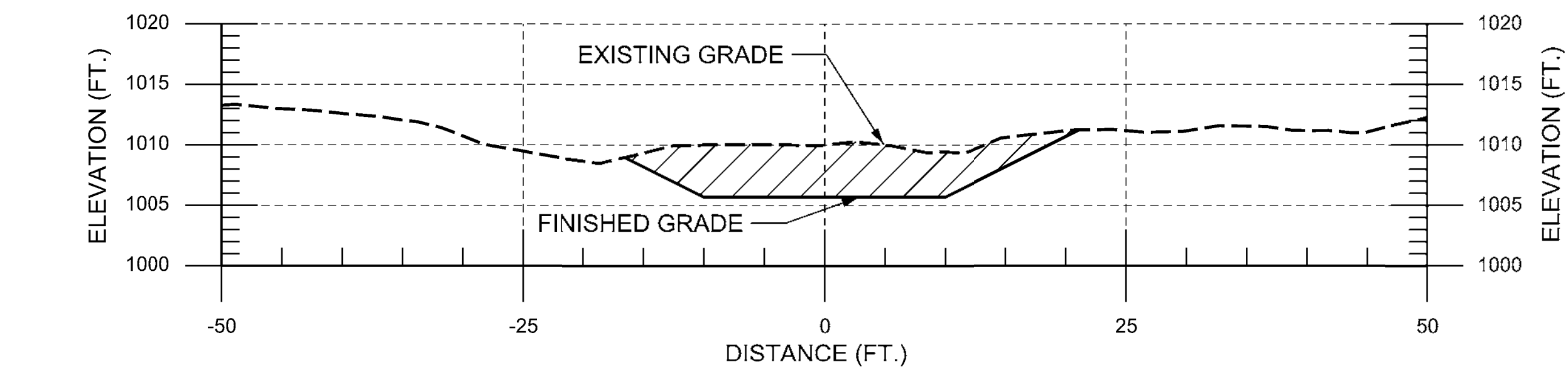
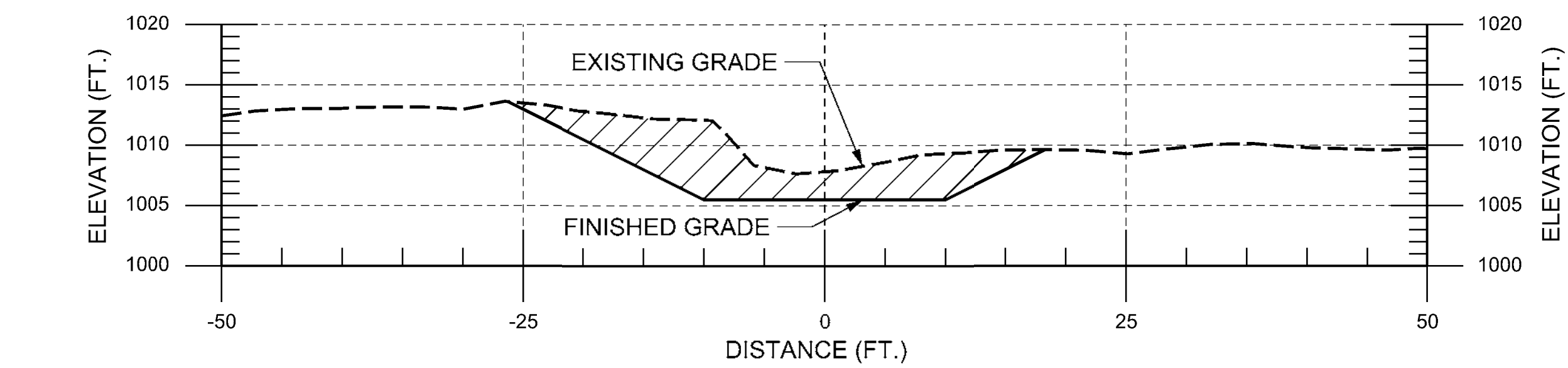
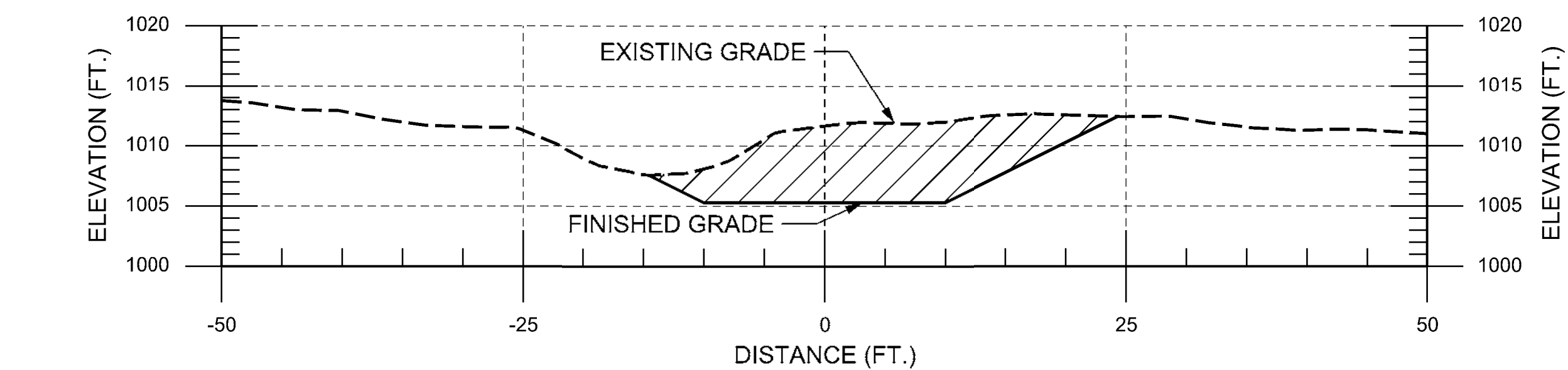
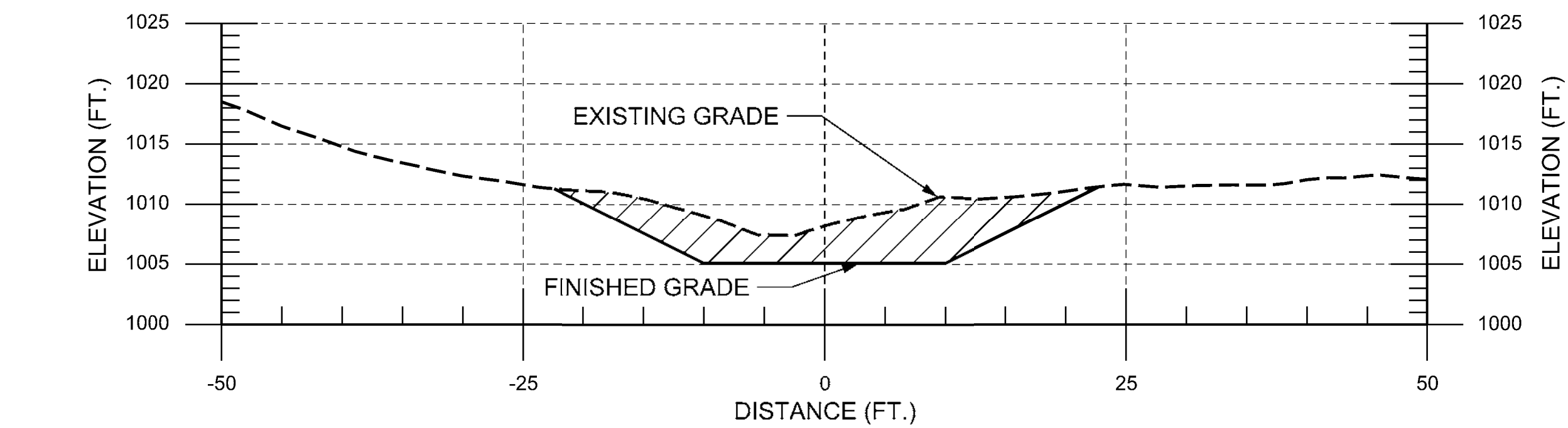
U.S. AIR FORCE	31 MAY 2022
WHEELING	L. FORD
SEATTLE DISTRICT	DWN BY: J. BARRETT
SEATTLE, WASHINGTON	CHUCKLE
	CATO
	CONTRACT NO:
	SUBMITTED BY: STEPHANIE MCKENNA
	FILE NUMBER: D-8.4-109
	ANSI D
	SIZE:

YAKIMA 1133  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON




SPORTSMAN PARK CHANNEL A  
CROSS SECTIONS 10

SHEET ID  
BASE  
B-C-313





## LEGEND

 EXISTING GRADE  
 FINISHED GRADE  
 FILL OR CUT

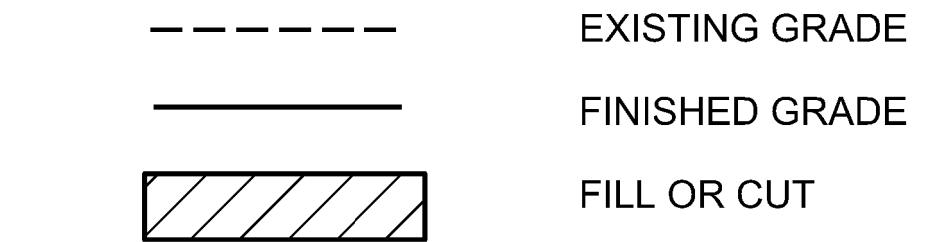
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SEATTLE DISTRICT SEATTLE, WASHINGTON	CDK BY: G. KATO SUBMITTED BY: STEPHANIE MCKENNA SOLICITATION NO.: J. BARRETT CONTRACT NO.: FILE NUMBER: D-84-109 DATE: 31 MAY 2022 ANS: D
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SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

SPORTSMAN PARK CHANNEL A  
CROSS SECTIONS 11



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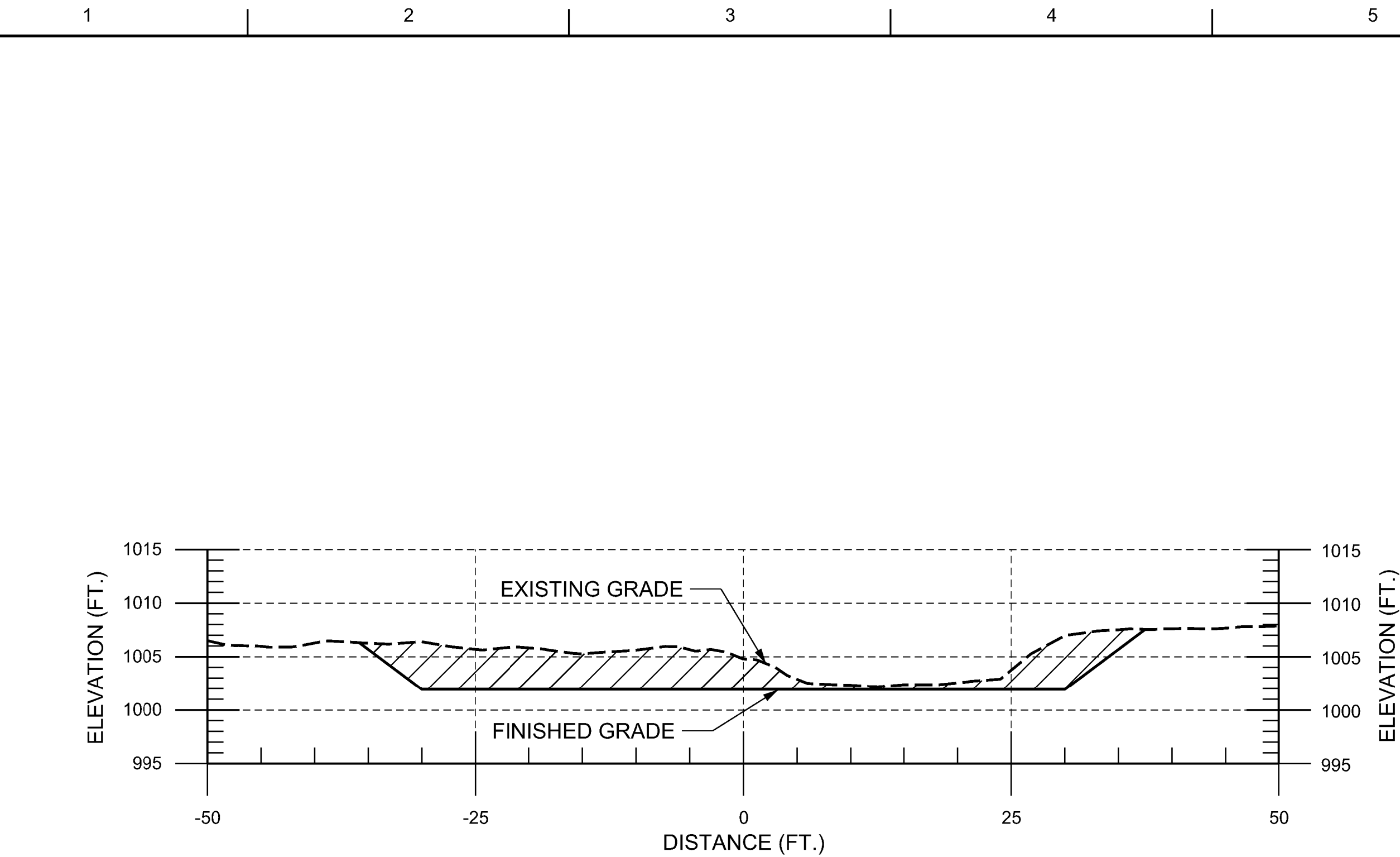
SEATTLE DISTRICT SEATTLE, WASHINGTON	L. FORD	SOLICITATION NO.:	31 MAY 2022
	D. BARRETT		
	CYD BY G. KATO	CONTRACT NO.:	
	SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER:	D-8-4-109
	SIZE: ANSI D		

SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

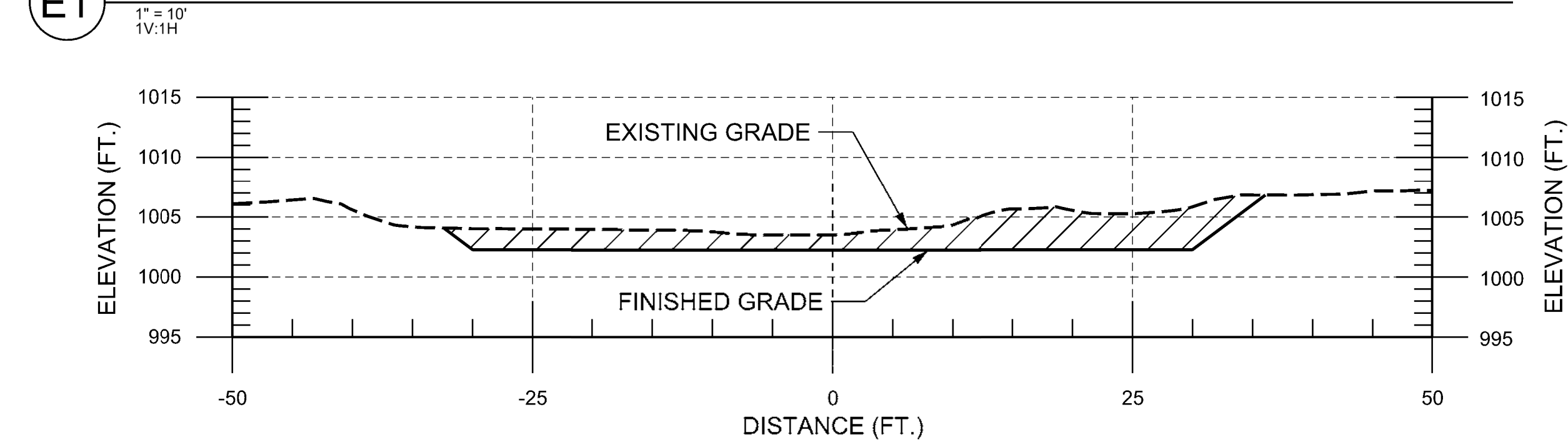
SHEET ID  
BASE  
B-C-315



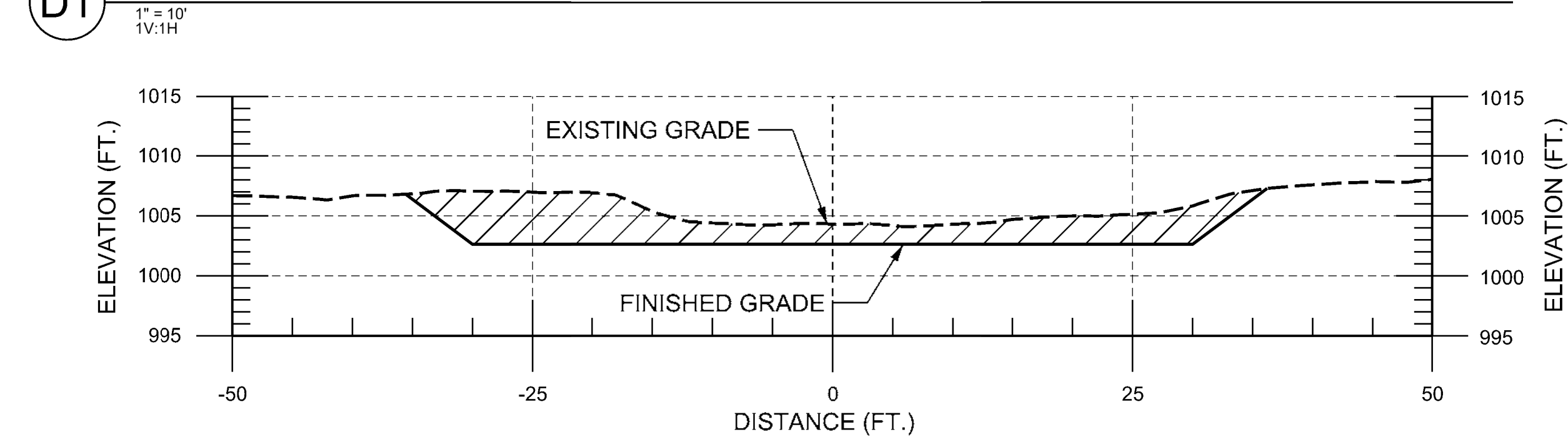




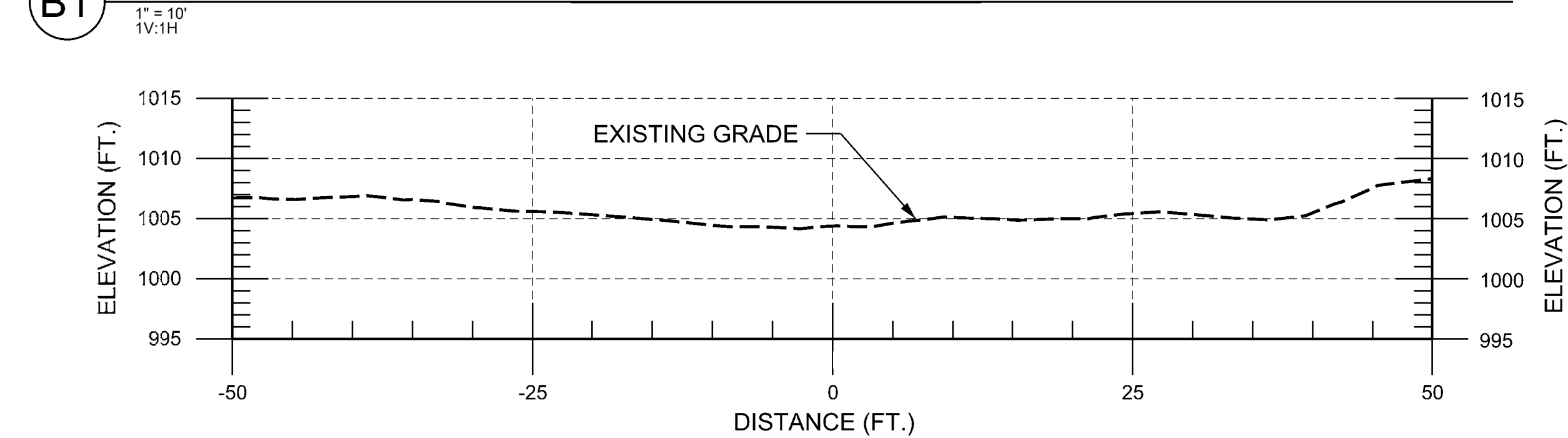
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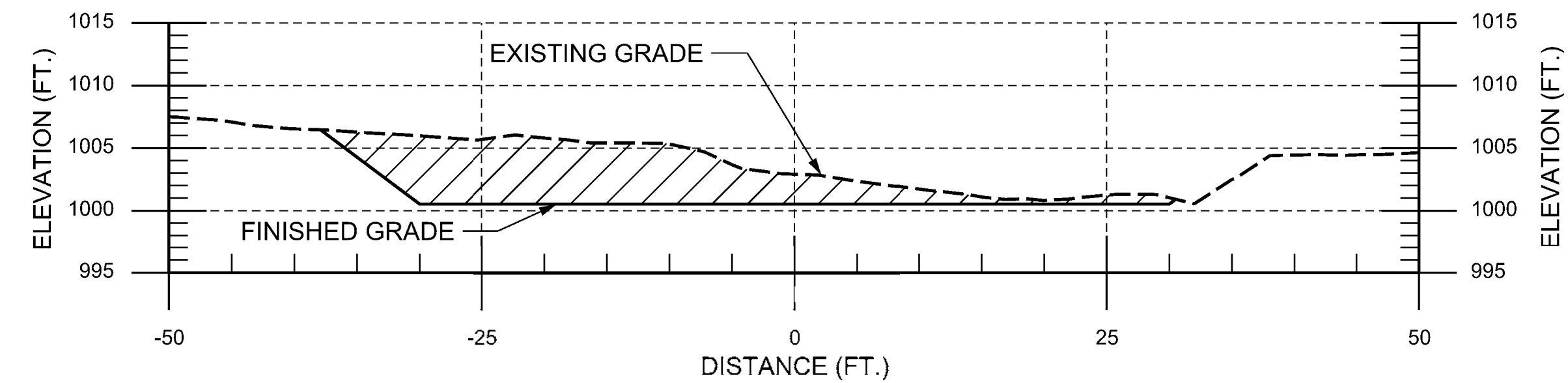
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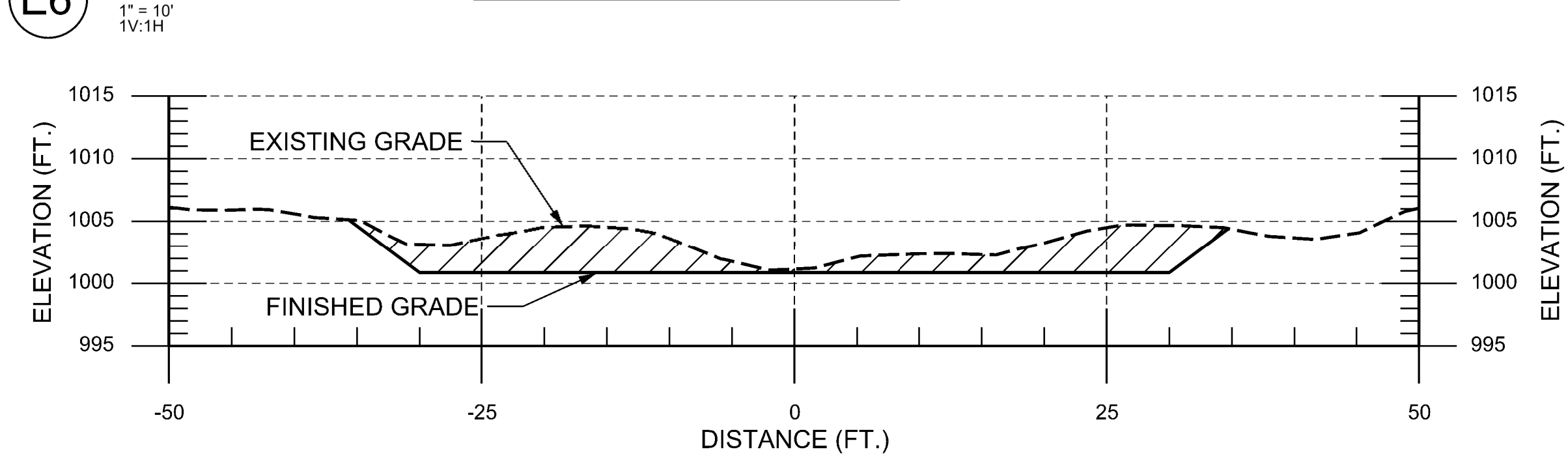
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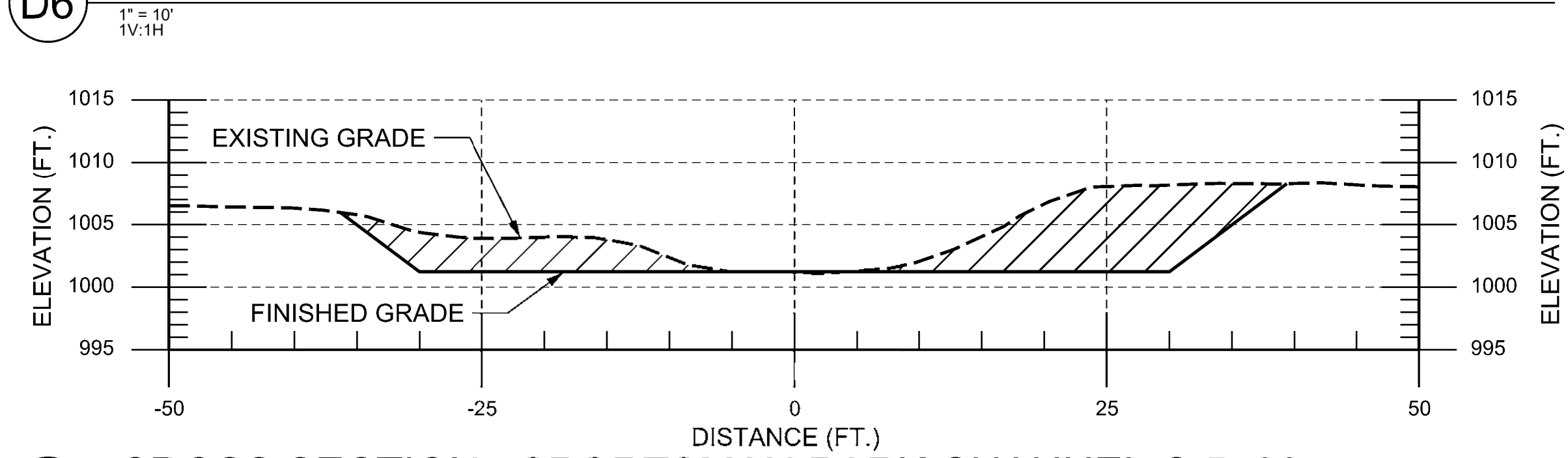
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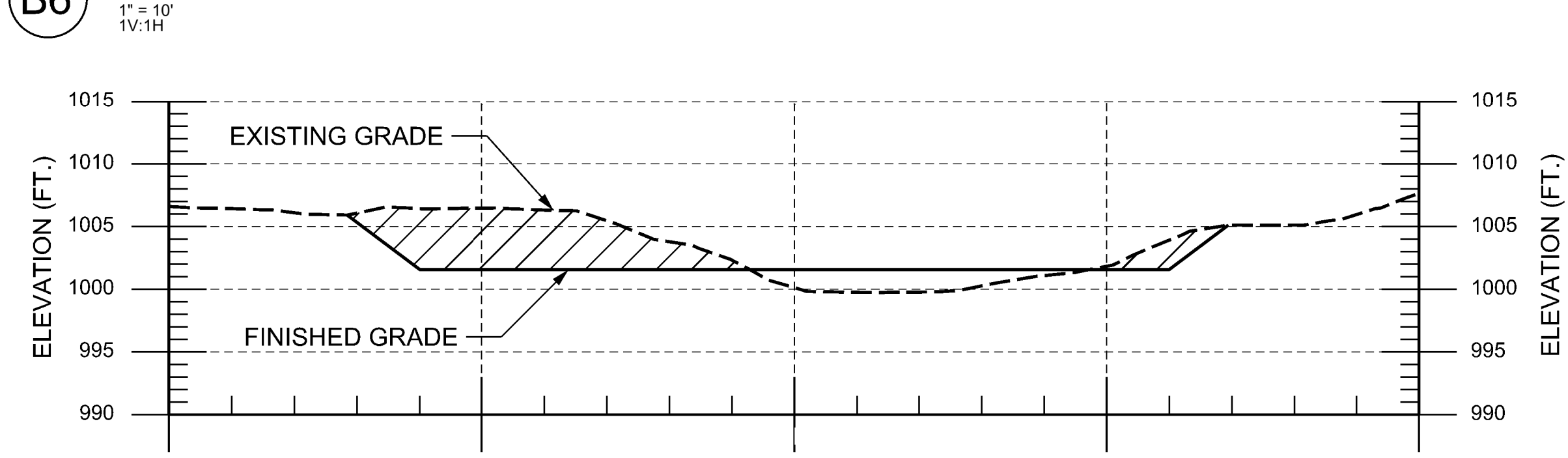
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D6 CROSS SECTION - SPORTSMAN PARK CHANNEL C 6+00



**B6 CROSS SECTION - SPORTSMAN PARK CHANNEL C 5+00**






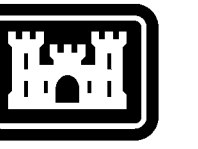
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# LEGEND

	EXISTING GRADE
	FINISHED GRADE
	FILL OR CUT



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[illegible]

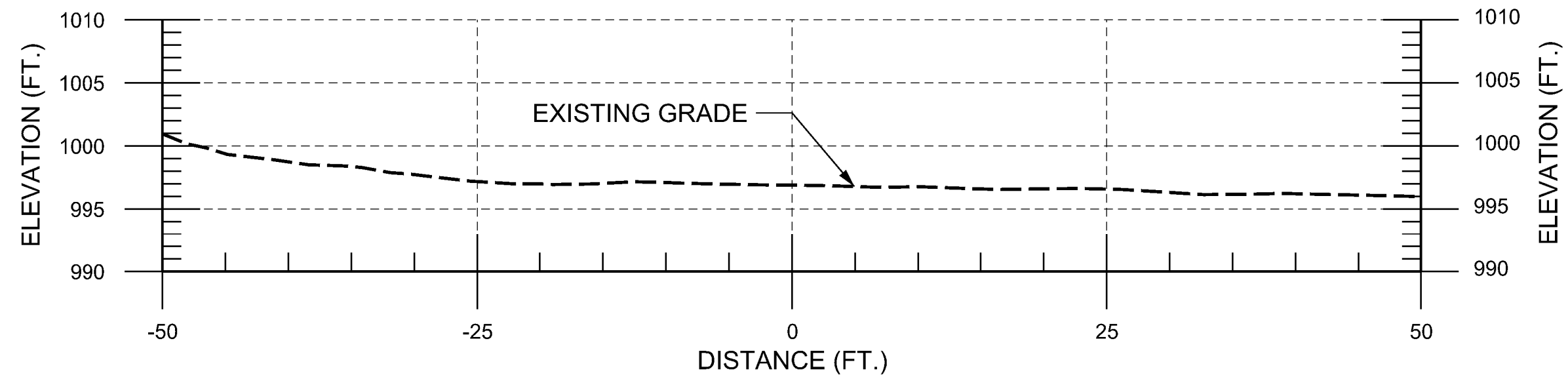
U.S. AIRCRAFTS SEATTLE DISTRICT SEATTLE, WASHINGTON	L. FORD DWN BY: J. BARRETT J. BARRETT G. KATO CONTRACT NO.: SUBMITTED BY: STEPHANIE MCKENNA FILE NUMBER: D-84-109 SIZE: ANSID
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SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

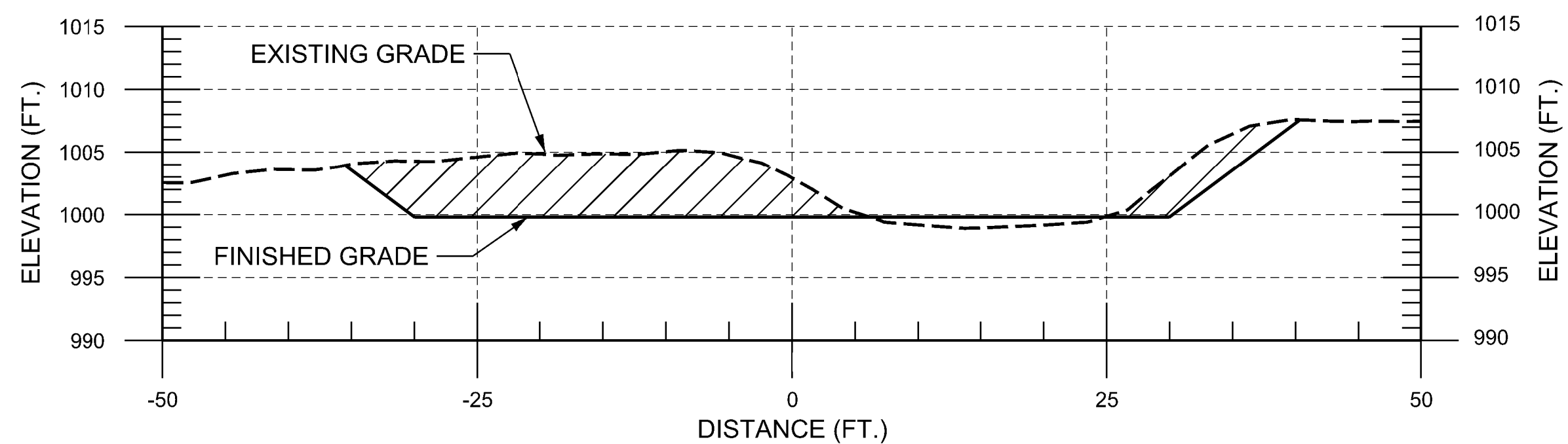
SPORTSMAN PARK CHANNEL A  
CROSS SECTIONS 13

SHEET ID  
BASE  
B-C-316

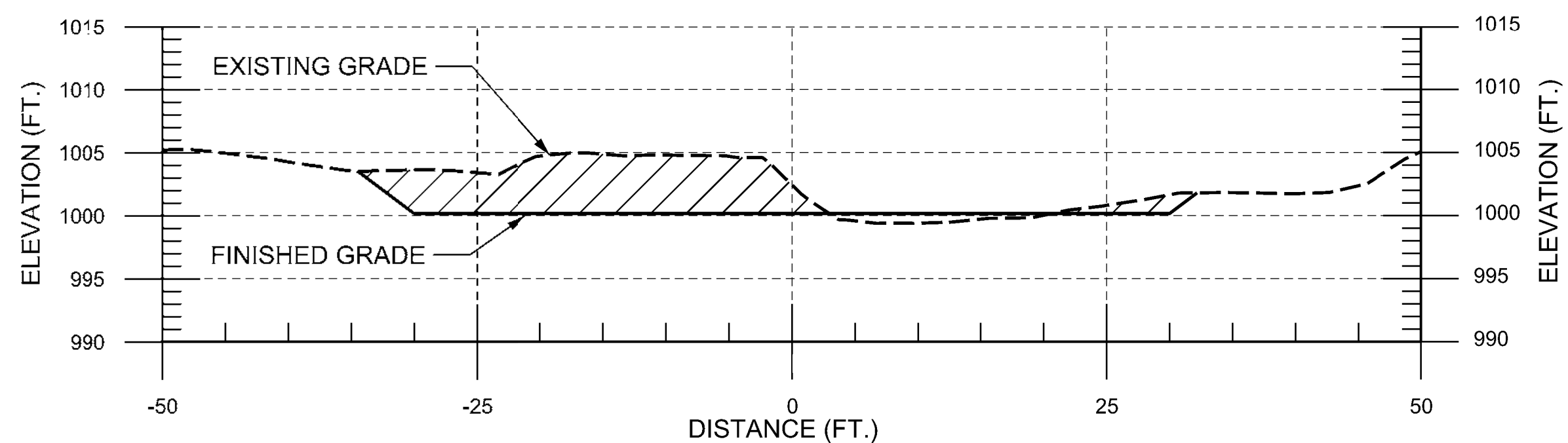




**D1** CROSS SECTION - SPORTSMAN PARK CHANNEL C 9+88  
1" = 10'  
1V:1H





**B1** CROSS SECTION - SPORTSMAN PARK CHANNEL C 9+00  
1" = 10'  
1V:1H



**A1** CROSS SECTION - SPORTSMAN PARK CHANNEL C 8+00  
1" = 10'  
1V:1H

## LEGEND

 EXISTING GRADE  
 FINISHED GRADE  
 FILL OR CUT



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f Engineers ®**

[illegible]

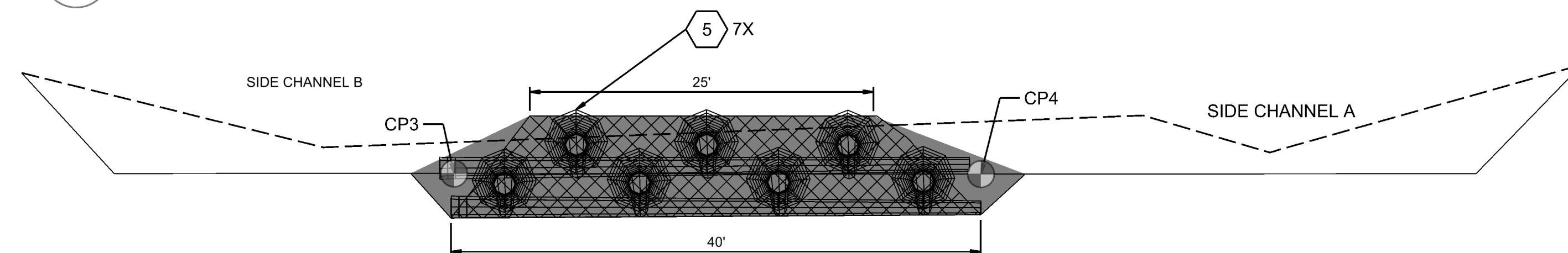
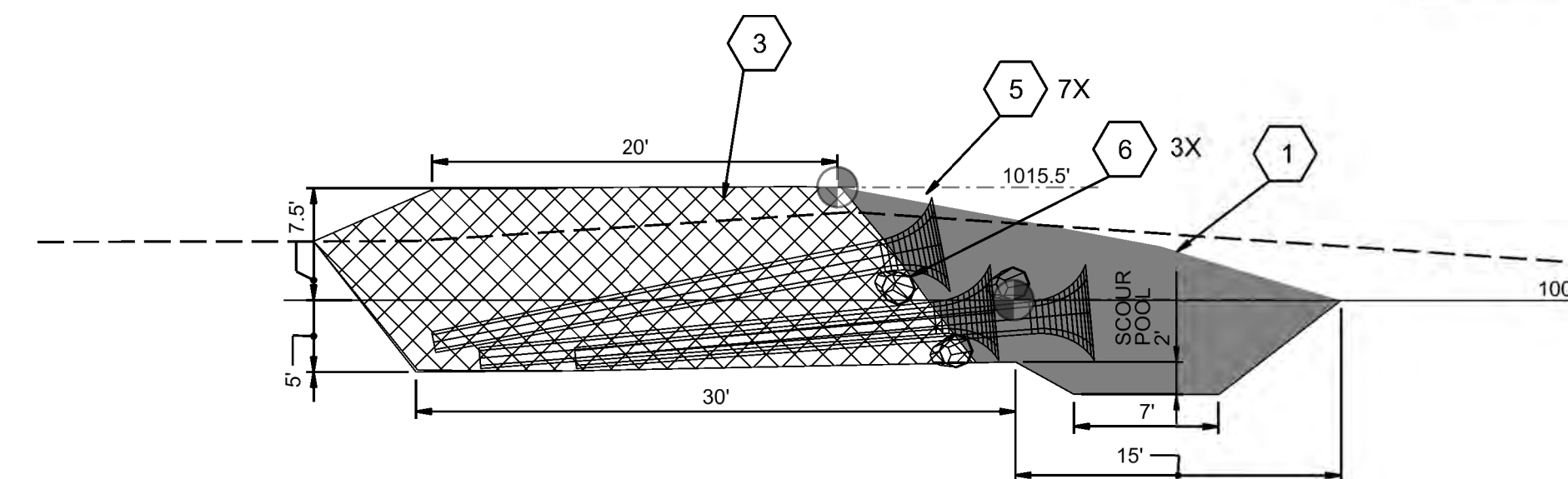
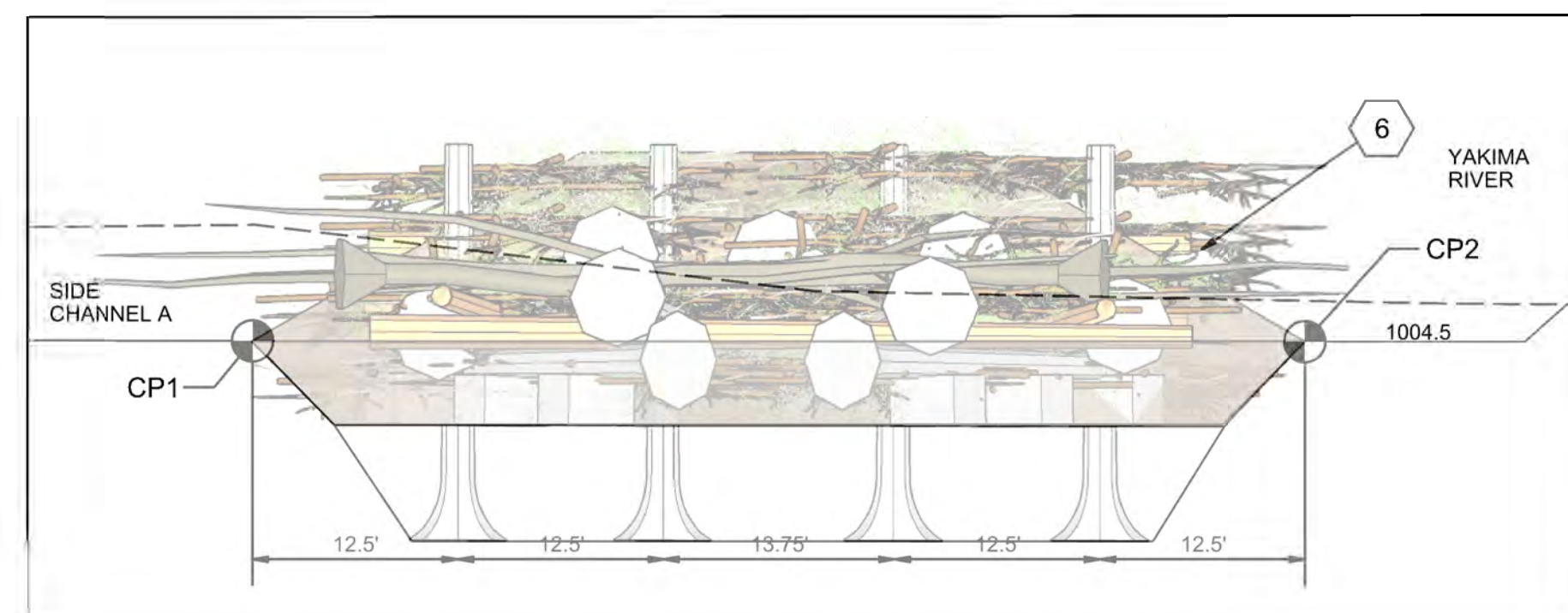
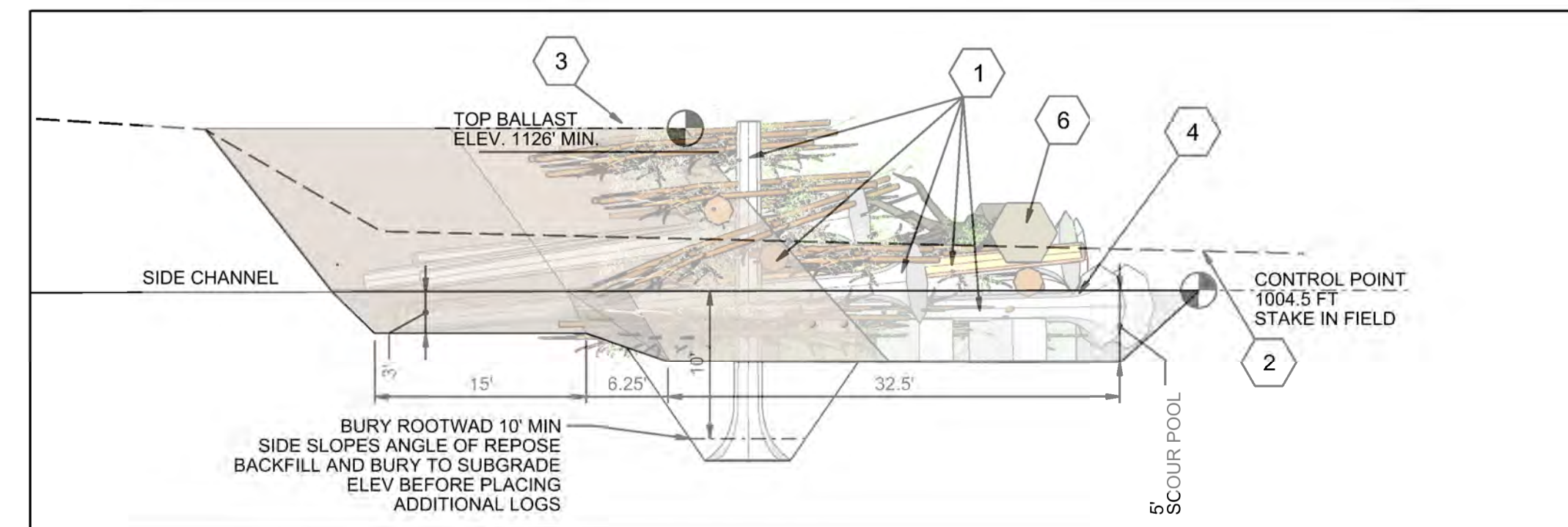
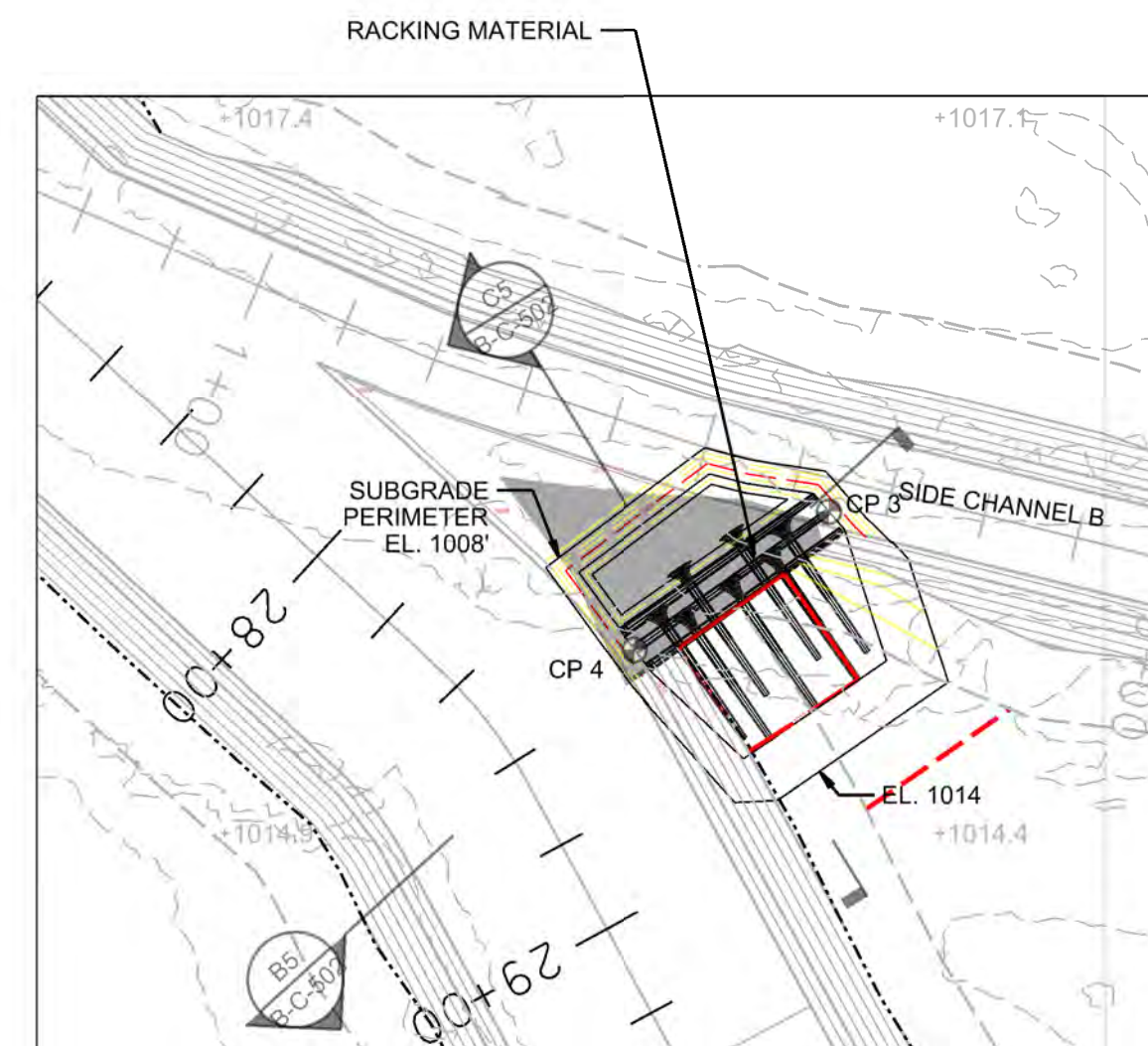
SEATTLE DISTRICT SEATTLE, WASHINGTON	LR FORD	SOLICITATION NO.: 317 MAY 2022
	J. BARRETT	
	CKD BY: G. KATO	CONTRACT NO.:
	SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-8-4-109
	SIZE	ANSD

SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

SPORTSMAN PARK CHANNEL A  
CROSS SECTIONS 14

SHEET ID  
BASE  
B-C-317





LARGE WOOD STRUCTURE 2 QUANTITIES FOR BIDDING PURPOSES







ITEM	QTY	UNIT
EXCAVATION, NATIVE ALLUVIUM	1400	BCY
BACKFILL, SHAPED, COMPACTED NATIVE ALLUVIUM	375	BCY
DISPOSAL (SPORTSMAN CHANNEL BERM LOCATION TBD)	1025	CY
LWD + ROOTWAD, COTTONWOOD, 30-35 FT, 24-36" DBH	7	EA
LWD LOG NO ROOTWAD, COTTONWOOD, 40", 18-30" DBH	3	EA
SLASH (TREE TOPS, LIMBS, WILLOW CLUMPS, LOOSELY COMPACTED)	130	CY

SEE B-C-502 FOR LARGE WOOD STRUCTURE 1 QUANTITIES

GENERAL NOTES:

1. RE-USE ONSITE SOUND LWD FROM CLEARING.
2. RE-USE ONSITE EXCAVATED RIVER GRAVEL AS BACKFILL.
3. LWD PLACEMENTS PER DRAWINGS, SLASH AND RACKING MATERIAL FIELD FIT PER ENGINEER DIRECTION.
4. SEE SHEET B-C-502 FOR LOG STRUCTURE 1 ASSEMBLY SEQUENCE AND QUANTITIES
5. SIDE CHANNEL A/B ENTRANCE LWD PLACEMENTS AS INDICATED THIS SHEET AND FIELD DIRECTION
6. RACKING LOGS CAN CONSIST OF ANY LOG, TREE OR ROOTWAD THAT MEETS LENGTH AND DIAM. SPEC.
8. STA. 4+40 TO 3+20 TRENCH AND BACKFILL.
- 3 TO 5 LOGS WITH 10' + DIAM. ROOTWADS. TRENCH BOTTOM ELEV. 1005. BACKFILL HEIGHT MIN. 5' OVER 2/3 OF LOG. BACKFILL TO TIE IN WITH EXISTING GROUND AND NEW SIDE CHANNEL
9. BACKFILL FOR LOG STRUCTURE TO BLEND IN WITH EXISTING GROUND AND NEW SIDE CHANNEL.

## KEY NOTES:

KEY	NOTE
	STUMPS, LOGS AND SLASH FROM TREE CLEARING
	ALL EXCAVATION LIMITS OUT OF YAKIMA RIVER
	BACKFILL WITH NATIVE MATL. TO KEY INTO HEAD OF ISLAND. BACKFILL HEIGHT IS MIN. ALLOWABLE.
	LOG WITH ROOTWAD WITH ANCHORED BOULDERS (X3) EA.
	ROOTWAD (NO ANCHOR)
	RACKING LOG OR TREE WITH BRANCHES

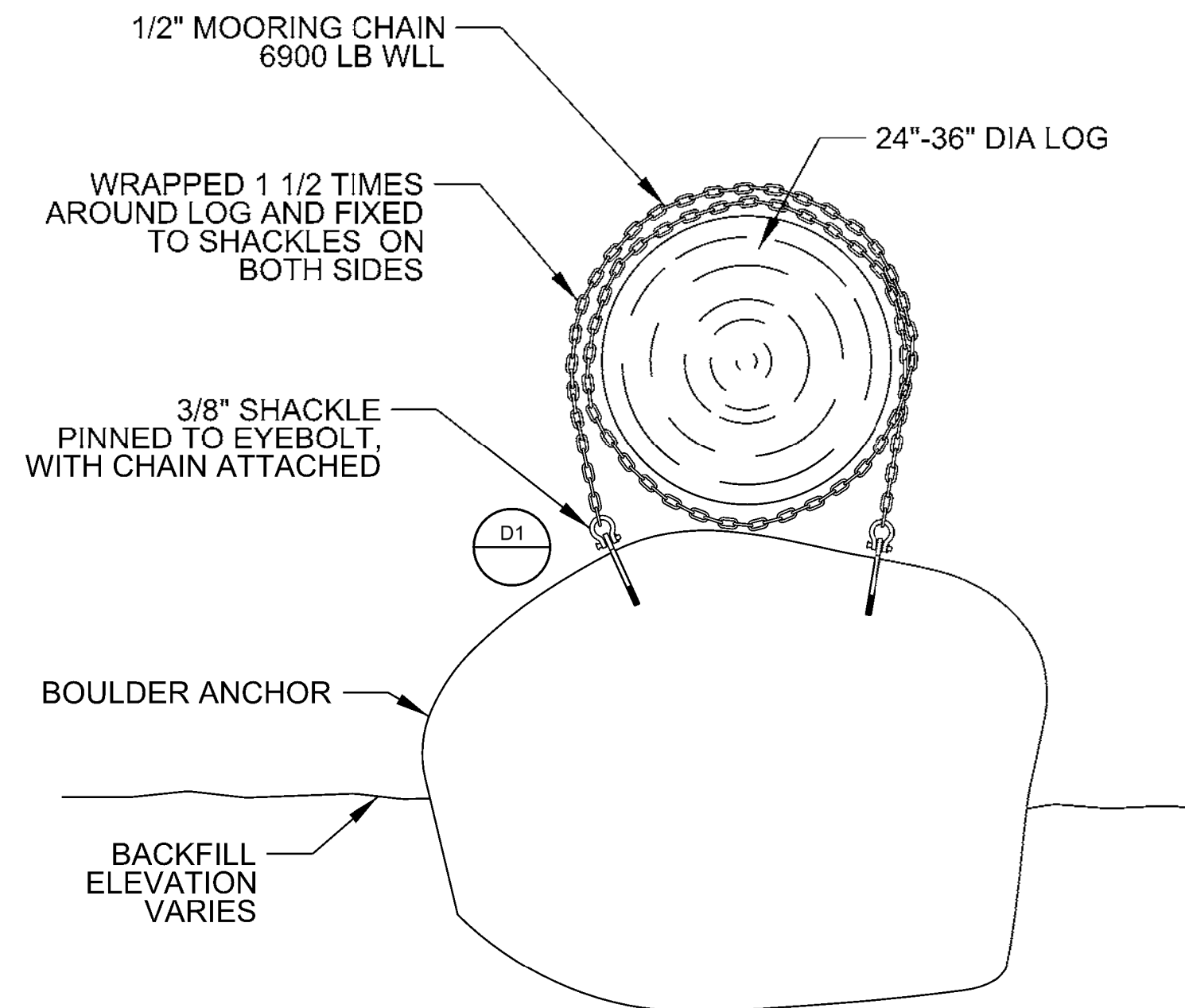
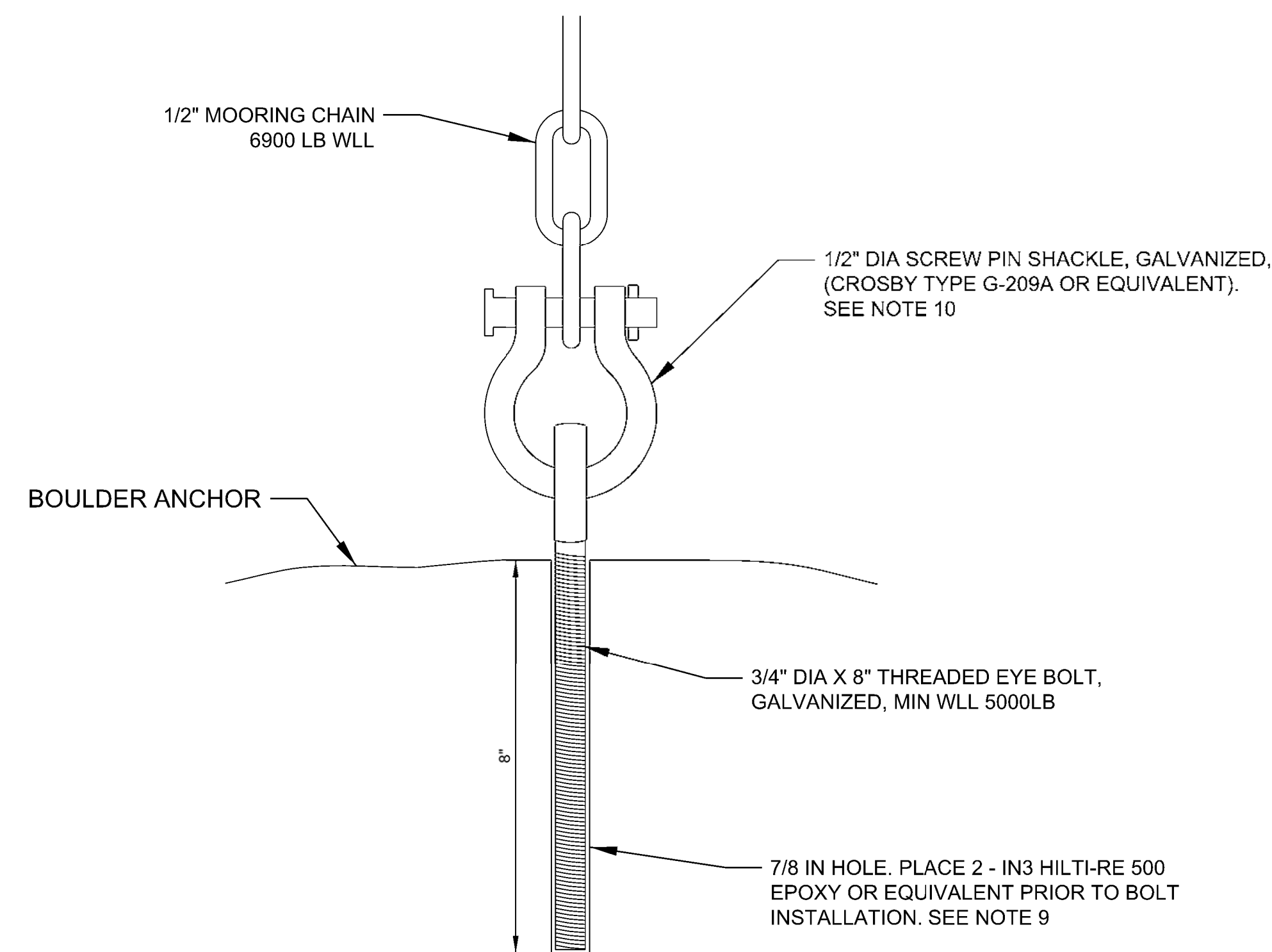
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CP2	461972.4	1647659.8	1014.5
CP3	459986.8	1649085.7	1008.0
CP4	459957.8	1649044.9	1008.0

SECTION 1135 ECOSYSTEM RESTORATION YAKIMA, WASHINGTON		YAKIMA 1135		U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON		DESIGNED BY: Z. KORUM		ISSUE DATE: 31 MAY 2022	
DETAILS 1		SPORTSMAN PARK CHANNEL LARGE WOOD STRUCTURES		CONTRACT NO.:		SOLICITATION NO.:		MARK	
SHEET ID		BASE B-C-501		SUBMITTED BY: STEPHANIE MCKENNA		FILE NUMBER: 5354-105		DATE	
				SIZE:		ANSI D		DESCRIPTION	



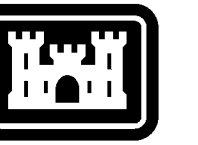






GENERAL NOTES:

1. MINIMUM WORKING LOAD LIMIT (WLL) FOR ANY INDIVIDUAL PIECE OF THE ANCHOR ASSEMBLY 4,800 LB UNLESS OTHERWISE SPECIFIED.
2. ALL FEATURES FORMING ANCHOR ASSEMBLY MUST BE PRE-ASSEMBLED TO VERIFY FIT PRIOR TO DELIVERY.
3. SUBMIT CUT SHEETS FOR PROPOSED ANCHOR ASSEMBLY TO GOVT COR FOR APPROVAL 30 DAYS PRIOR TO DELIVERY
4. ALL MANUFACTURER INSTALLATION GUIDELINES AND SPECIFICATIONS WILL BE ADHERED TO.
5. ALL SHACKLES TO BE BOLTED. SHACKLES VISIBLE AFTER ELJ BACKFILL WILL BE CHEMICALLY WELDED SHUT W/ RED LOCTITE OR EQUIVALENT.



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[illegible]

U.S. ARMY AIRCRAFTS SEATTLE DISTRICT SEATTLE, WASHINGTON	31 MAY 2022
DWN BY: CDD BY: 8. PART 10	SOLICITATION NO.: CONTRACT NO.:
SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-84-109
SIZES: PARTS/D	

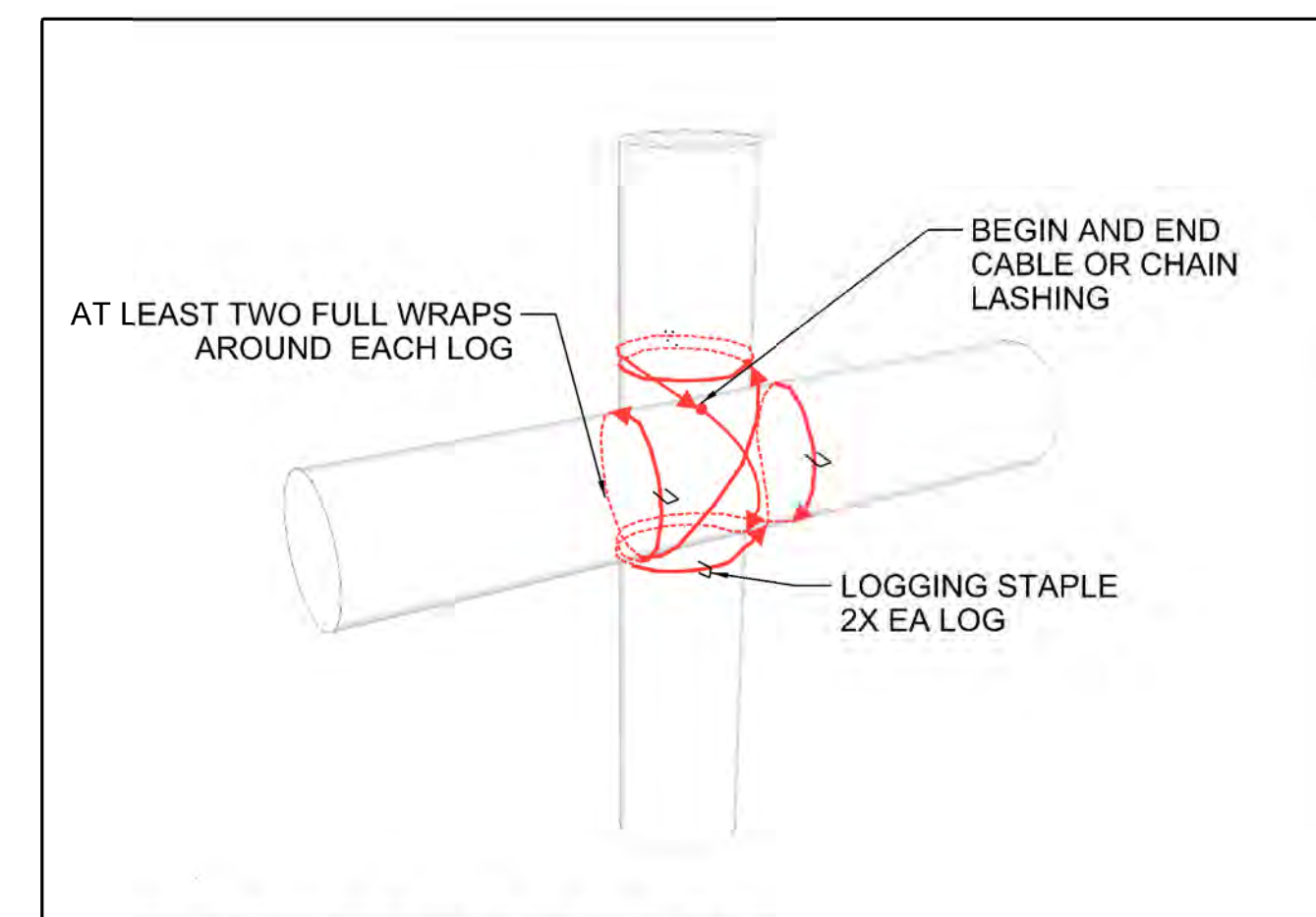
YAKIMA T135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

DETAILS 3  
SPORTSMAN PARK CHANNEL  
LOG STRUCTURE - ASSEMBLY DETAILS 2

SHEET ID  
BASE  
B-C-503

**D1** TYPICAL LOG TO BOULDER ANCHOR CONNECTION

**D5** TYPICAL LOG STRUCTURE DETAIL  
NOT TO SCALE



**B1** LOG TO LOG CONNECTION DETAIL

- 1) NOTCH BARK 2-4 INCHES WITH CHAINSAW TO GET SECURE FIT.
- 2) LASH TIGHTLY WITH MINIMUM **0.5-IN GALVANIZED WIRE ROPE** OR OTHER APPROVED CONNECTION AS SHOWN. DOUBLE LASHING IS PREFERRED CONNECTION. ALTERNATE METHODS CAN BE PROPOSED FOR ENGINEER APPROVAL PROVIDED THEY ARE EQUIVALENT OR BETTER.
- 3) USE **MANUFACTURER RECOMMENDED GALVANIZED WIRE ROPE CLIPS (SIZE, STRENGTH AND QUANTITY)** AND LAP SPLICE TO FASTEN LOOSE CABLE ENDS TOGETHER TIGHTLY USING MECHANICAL ADVANTAGE.
- 4) MINIMUM CABLE STRAND WORKING LOAD LIMIT = 4000 LB. MINIMUM BREAKING STRENGTH = 21,400 LB. WRAP TWO COMPLETE TIMES TO INCREASE CONNECTION BREAKING STRENGTH TO 38,000 LB.
- 5) WRAP ALL CUT ENDS OF WIRE.
- 6) USE STEEL LOGGING STAPLES (4-IN) AS INDICATED TO SECURE CABLE TO VERTICAL LOG. ENSURE STAPLES ARE AT LEAST HALF EMBEDDED IN WOOD NOT BARK.

MINIMUM WORKING LOAD LIMIT (WLL) FOR ANY INDIVIDUAL PIECE OF THE ANCHOR ASSEMBLY 4,800 LB  
ALL FEATURES FORMING ANCHOR ASSEMBLY MUST BE PRE ASSEMBLED TO VERIFY FIT PRIOR TO DELIVERY  
SUBMIT CUT SHEETS FOR PROPOSED ANCHOR ASSEMBLY TO GOVT COR FOR APPROVAL 30 DAYS PRIOR TO DELIVERY ALL MANUFACTURER INSTALLATION GUIDELINES AND SPECIFICATIONS WILL BE ADHERED TO  
ALL SHACKLES TO BE BOLTED. SHACKLES VISIBLE AFTER ELJ BACKFILL WILL BE CHEMICALLY WELDED SHUT W/ RED LOCITE





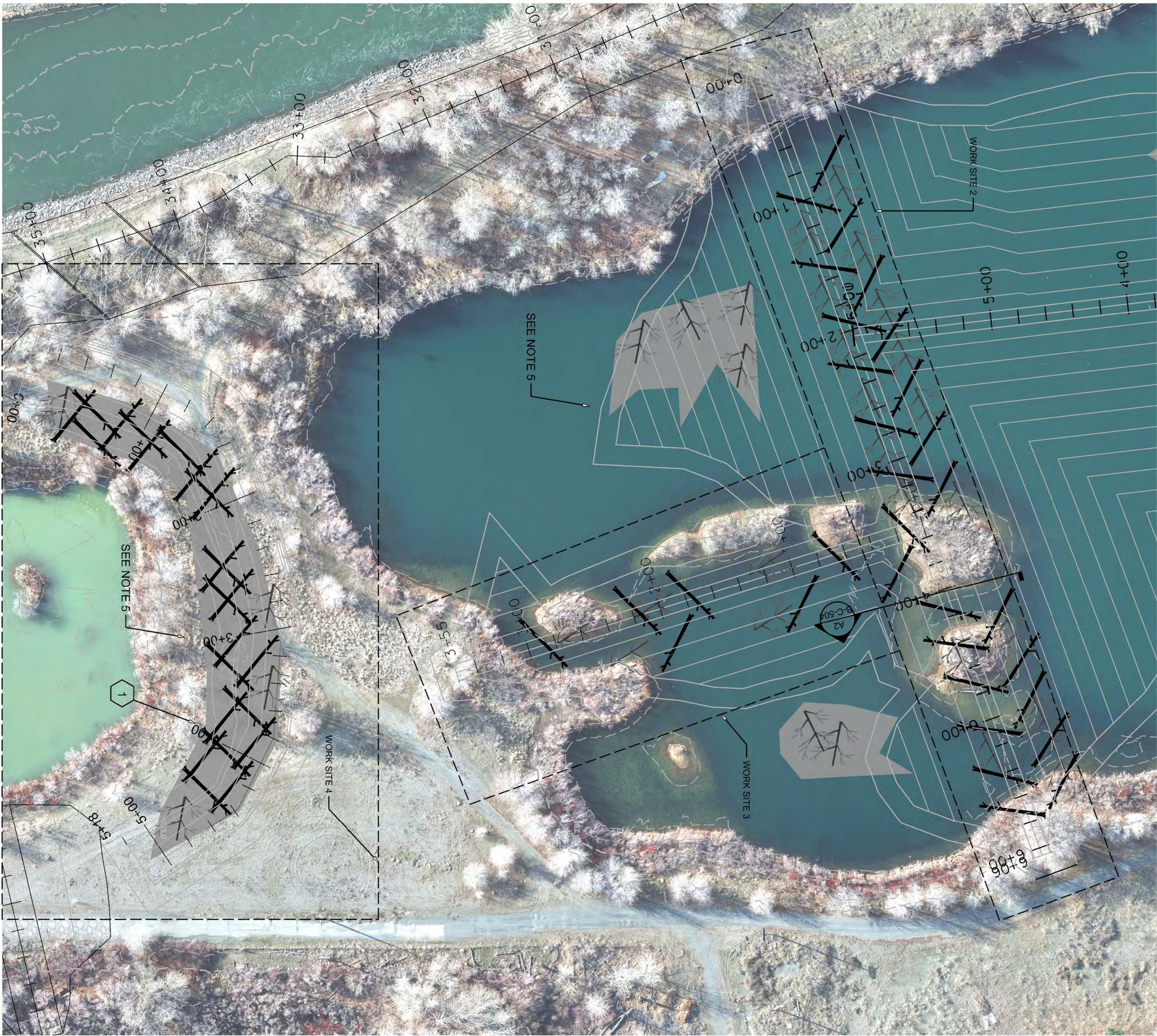


GENERAL NOTES:

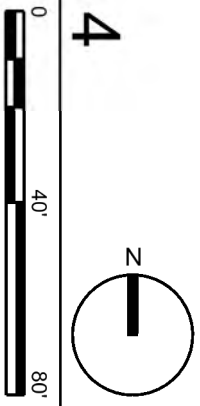
- RE-USE ONSITE SOUND LWD FROM CLEARING
- RE-USE ONSITE EXCAVATED MATERIAL AS BACKFILL
- LOCATIONS SHOWN ARE GENERAL GUIDELINES. LWD PLACEMENT'S FIELD FIT PER ENGINEER DIRECTION TO MAXIMIZE STABILITY.
- LWD CAN CONSIST OF ANY LOG, TREE OR ROOTWAD CLEARED ON SITE
- PLACE EXCESS TREE BRANCHES, TOPSOIL OR WOODY VEGETATION IN AND AROUND LWD PROJECTING FROM SLOPES. EXCESS CLEAN WOODY VEGETATION CAN BE PLACED RANDOMLY IN PONDS.
- REPLANT DISTURBED AREAS

KEY NOTES:

KEY	NOTE
1	WORK AREA 3 ROOTWADS HALF-BURIED IN FLOODPLAIN



C4 NEWLANDS PONDS FLOODPLAIN GRADING LARGE WOOD PLACEMENT SITES 2, 3, 4



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MARK	DESCRIPTION	DATE

DESIGNED BY: Z. CORUM	ISSUE DATE: 31 MAY 2022
DWN BY: Z. CORUM	SOLICITATION NO.:
CKD BY: R. PERRY	CONTRACT NO.:
SUBMITTED BY: STEPHANIE McKENNA	FILE NUMBER: D-9-3-108
SIZE: ANSI D	

U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	
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YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

DETAILS 5  
NEWLANDS PONDS FLOODPLAIN GRADING  
LARGE WOOD PLACEMENTS 2

SHEET ID  
BASE  
B-C-505



GENERAL NOTES:

1. RE-USE ONSITE SOUND LWD FROM CLEARING
2. RE-USE ONSITE EXCAVATED MATERIAL AS BACKFILL
3. LOCATIONS SHOWN ARE GENERAL GUIDELINES. LWD PLACEMENT'S FIELD FIT PER ENGINEER DIRECTION TO MAXIMIZE STABILITY.
4. LWD CAN CONSIST OF ANY LOG, TREE OR ROOTWAD CLEARED ON SITE
5. PLACE EXCESS TREE BRANCHES, TOPSOIL OR WOODY VEGETATION IN AND AROUND LWD PROJECTING FROM SLOPES. EXCESS CLEAN WOODY VEGETATION CAN BE PLACED RANDOMLY IN PONDS.
5. REPLANT DISTURBED AREAS



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MARK	DESCRIPTION	DATE

DESIGNED BY: Z. CORUM		ISSUE DATE: 31 MAY 2022	
DWN BY: Z. CORUM		SOLICITATION NO.:	
CKD BY: R. PERRY		CONTRACT NO.:	
SUBMITTED BY: STEPHANIE McKENNA		FILE NUMBER: 0-9-3-106	
SIZE: ANSI D			

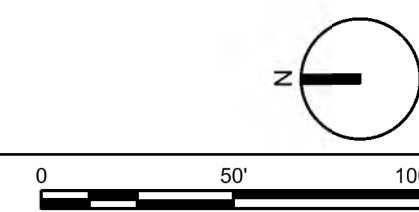
U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	
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YAKIMA 1135 SECTION 1135 ECOSYSTEM RESTORATION YAKIMA, WASHINGTON
DETAILS 6 NEWLANDS PONDS FLOODPLAIN GRADING LARGE WOOD PLACEMENTS 3

SHEET ID BASE B-C-506
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NOT IN CONTRACT  
REFERENCE ONLY

RTA SUBMITTAL w/OPTIONS

[illegible]

U.S. ARMY CORPS OF ENGINEERS SEATTLE DISTRICT SEATTLE, WASHINGTON	DESIGNED BY: L. FORD	ISSUE DATE: 31 MAY 2022
	DRAWN BY: J. BARETT	SOLICITATION NO.:
	CKD BY: G. KATO	CONTRACT NO.:
	SUBMITTED BY: STEPHANIE MCKENNA	FILE NUMBER: D-9.4-109
	SIZE: ANSI D	

YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

CENTRAL PRE-MIX SOUND BERMS  
GENERAL SITE PLAN

SHEET ID  
BASE  
B-REF-1



1 2 3 4 5 6 7 8 9 10

CENTRAL PRE-MIX

CPM WETLAND MITIGATION

POINT A  
N 449,726.33  
E 1,651,519.20  
EL. 991.7

POINT B  
N 449,727.03  
E 1,651,647.62  
EL. 981.7

POINT C  
N 449,724.87  
E 1,651,811.14  
EL. 982.5

POINT D  
N 449,724.56  
E 1,651,938.09  
EL. 981.0

POINT K  
N 449,684.61  
E 1,651,561.49  
EL. 1001.2

POINT J  
N 449,676.98  
E 1,651,564.97  
EL. 1002.4

POINT I  
N 449,639.92  
E 1,651,600.31  
EL. 982.8

POINT H  
N 449,635.31  
E 1,651,635.00  
EL. 981.1

POINT G  
N 449,639.02  
E 1,651,738.93  
EL. 980.8

POINT F  
N 449,641.11  
E 1,651,863.99  
EL. 980.6

POINT E  
N 449,672.67  
E 1,651,922.74  
EL. 980.8

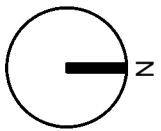
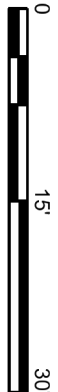
C1 CENTRAL PRE-MIX SOUND BERMS - BERM REMOVAL

1" = 50'

C2 BLUE SLOUGH LEVEE  
2-C506 RAMP 3

D2 BLUE SLOUGH REALIGNMENT  
1-C5103 PAVLUK ALLEY CHANNEL

PAVLICK ALLEY



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DATE									
MARK	DESCRIPTION								

ISSUE DATE: 31 MAY 2022	CONTRACT NO.:
SOLICITATION NO.:	FILE NUMBER: D-8-4-109

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DWN BY: J. BARRETT	SUBMITTED BY: STEPHANIE McKENNA
SIZE: ANSI D	

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SEATTLE, WASHINGTON

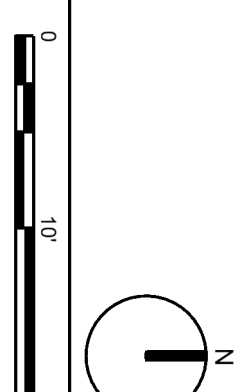
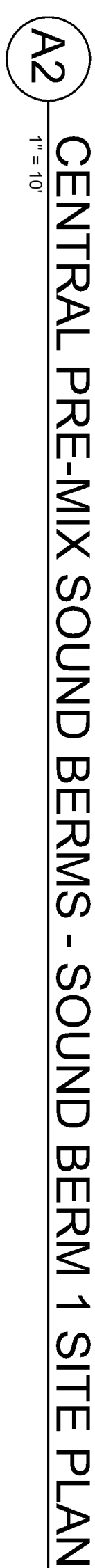
YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

CENTRAL PRE-MIX SOUND BERMS  
BERM REMOVAL

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REFERENCE ONLY

SHEET ID  
BASE  
B-REF-2





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Plot Date: 11/30/25 11:34:57 AM

# CENTRAL PRE-MIX



MARK	DESCRIPTION	DATE

DESIGNED BY: L. FORD	ISSUE DATE: 31 MAY 2022
DWN BY: J.BARRETT	SOLICITATION NO.:
CKD BY: G. KATO	CONTRACT NO.:
SUBMITTED BY: STEPHANIE McKENNA	FILE NUMBER: D-8-4-109
SIZE: ANSI D	

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YAKIMA 1135  
SECTION 1135 ECOSYSTEM RESTORATION  
YAKIMA, WASHINGTON

CENTRAL PRE-MIX SOUND BERMS  
SOUND BERM 1 SITE PLAN

**SHEET ID**  
**BASE**  
**B-REF-3**

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REFERENCE ONLY

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