

JASPER CO.
PCC PAVEMENT - GRADE & REPLACE
STPN-224-1(12)--2J-50

LETTING DATE
 Dec. 15, 2015



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

JASPER COUNTY

PCC PAVEMENT - GRADE AND REPLACE

From I-80 north to US 6

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.



REVISIONS

TOTAL

??

PROJECT IDENTIFICATION NUMBER

11-50-224-010

PROJECT NUMBER

STPN-224-1(12)--2J-50

R.O.W. PROJECT NUMBER

STPN-224-1(13)--2J-50

INDEX OF SHEETS

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A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
A.3	Detour Map
B Sheets	Typical Cross Sections and Details
B.1 - 3	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 4	Ia 224
* D.5	Ia 224 - Culvert Locations
V Sheets	Bridge and Culvert Situation Plans
V.1 - 3	Bridge and Culvert Situation Plans
W Sheets	Mainline Cross Sections
W.1	Ia 224 Reconstruction
X Sheets	Culvert Cross Sections
X.1	Site 1
	* Color Plan Sheets

MILEAGE SUMMARY			
		105-1	
		09-27-94	
Div.	Location	Lin. Ft.	Miles
	Sta. 496+21.162 to Sta. 513+50 Sta. 513+50 to Sta. 576+00	1728.84 6250.00	
	Length of Project	7979.84	1.51

For Project Location Map
Refer to Sheet A.2

D0	- Concept	1/18/12	Complete
D2	- Field Exam	2/12/14	Complete
D3	- Bridge Submittal	4/4/14	Complete
D5	- ROW Submittal	6/4/14	Scheduled
DM5	- Review Plans	9/1/15	Scheduled
D8	- Contracts Submittal	10/6/15	Scheduled
L3	- Letting	12/15/15	Scheduled

DESIGN DATA RURAL

2015 AADT	1000	V.P.D.
2035 AADT	1500	V.P.D.
2035 DHV	150	V.P.H.
TRUCKS	14	%
Total Design ESALs	--	

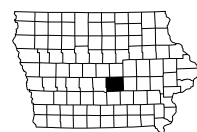
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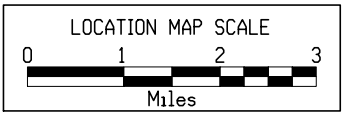
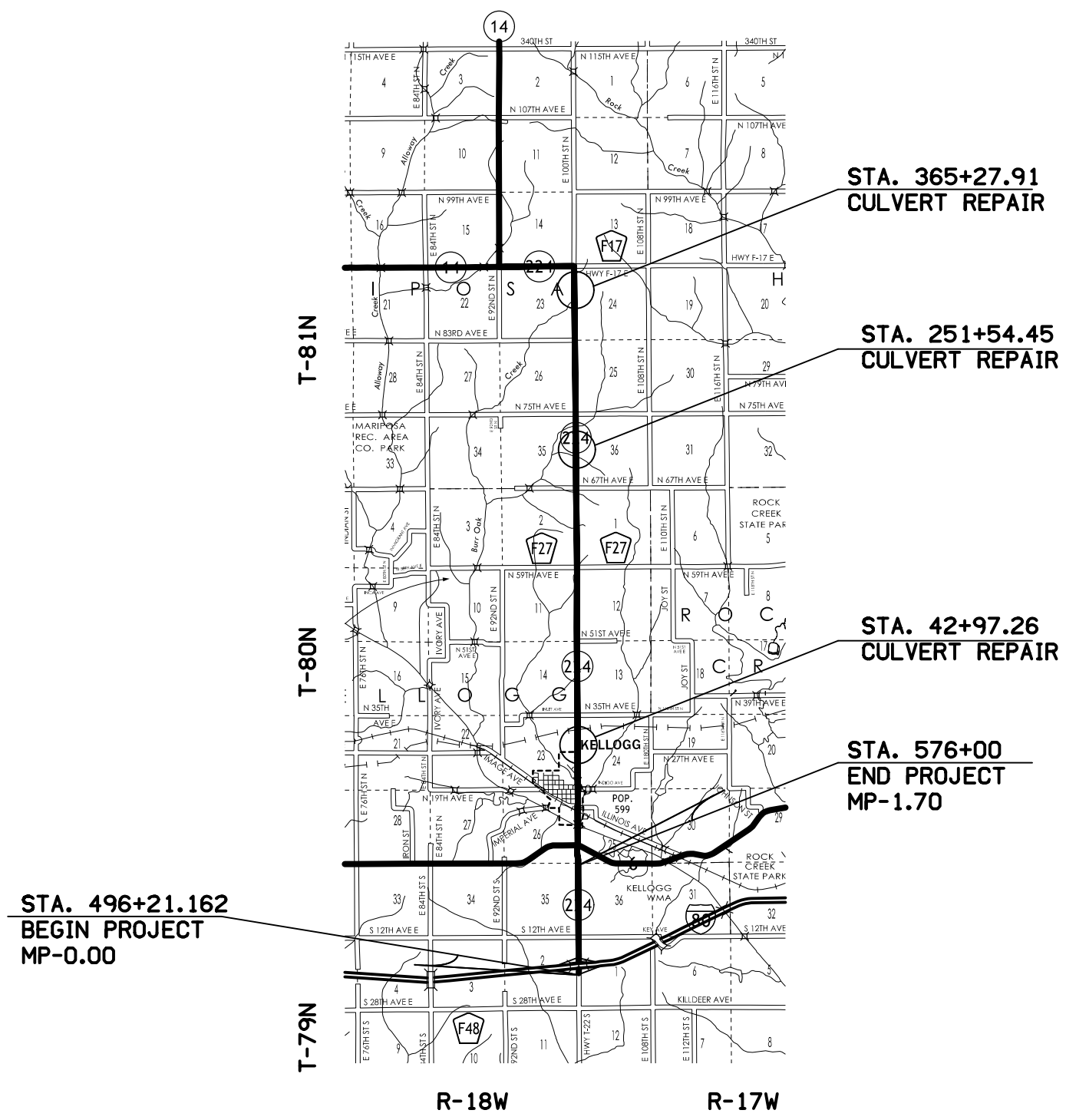
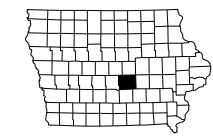
SHEET NO.	NAME	TYPE
A.1	Tony J. Gustafson	Primary Signature Block
X	X	X

PRELIMINARY PLANS

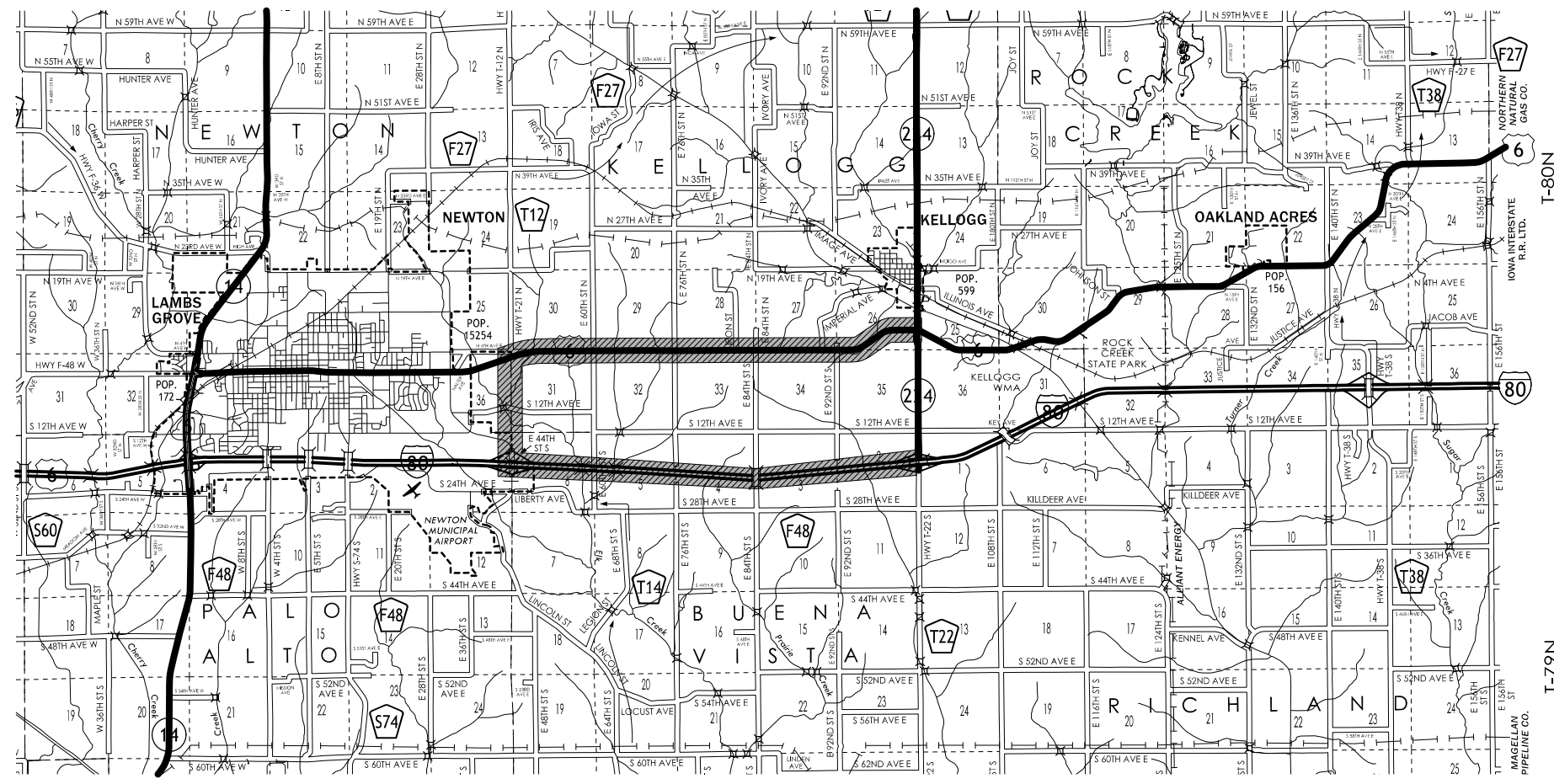
Subject to change by final design.

D5 PLAN - Date: 6/4/2014

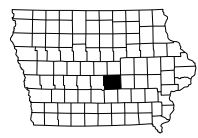




Project Location Map



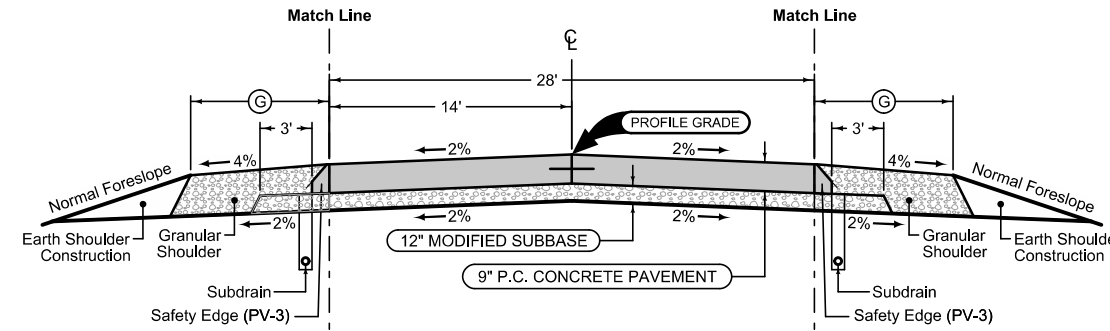
 Detour Route



Detour Map

Granular Shoulder with Safety Edge

		2_G_ Modified
STATION TO STATION		Ⓞ Feet
513+50.000	576+00.000	6



Granular Shoulder with Safety Edge

		2_G_ Modified
STATION TO STATION		Ⓞ Feet
513+50.000	576+00.000	6

Mainline Jointing:
 Transverse joints: CD at 20' spacing
 Longitudinal joint: L-2

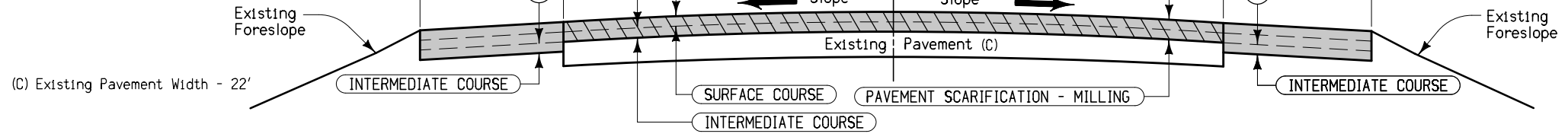
		2P_ 10-19-10
STATION TO STATION		
513+50.000	576+00.000	

See Tab 100-24 or 100-25 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

IA 224 RECONSTRUCTION TYPICAL

- HMA RESURFACING
- BASE COURSE (1M ESAL)
- PAV'T. SCARIFICATION

- Notes:
- ① Finished slope shall match existing pavement except that the maximum allowable slope is 3.0%, minimum allowable slope is 2.0%. Section may be modified as directed by the Engineer through areas of special shaping.
Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.
 - ② Tack Coat estimated for 2 applications.
 - ③ Class 13 Excavation - Depth = 6" and Width = 8'
 - ④ Rate includes left and right sides.



DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Base Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

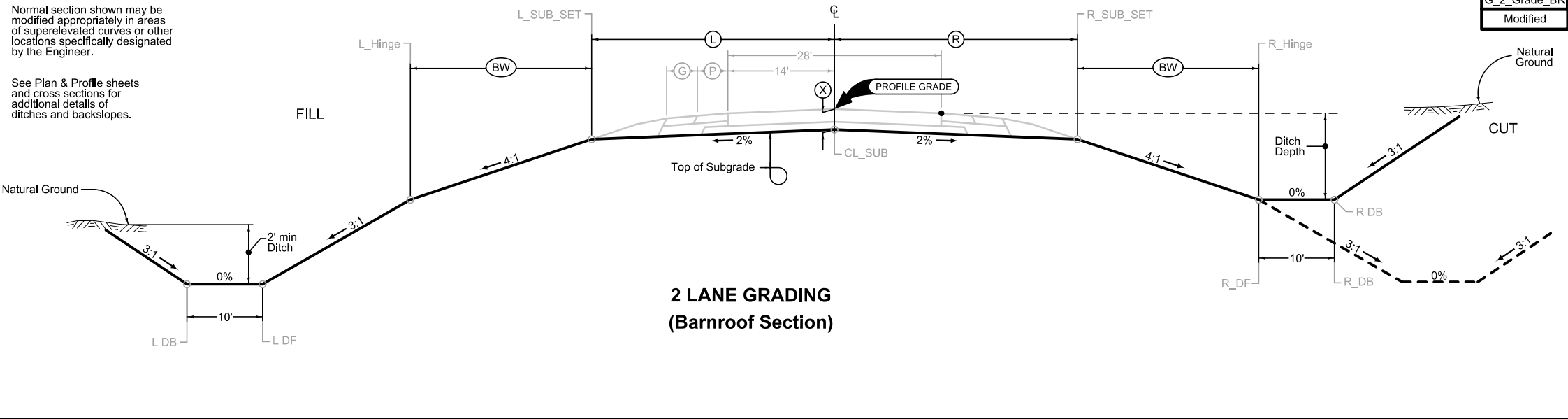
Location		Design Quantities Per Station																			
		③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	③	
Road Identification	Station To Station	Inches	Inches	Inches	Inches	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Tack Coat Gallons ②	Asphalt Binder Tons	Hot Mix Asphalt (Tons)			Class 13 Excavation Cu. Yds. ④	Pavement Scarification Sq. Yds.	
		(C)														Surface	Intermediate	Base ④			
IA 224	496+21.162 513+50.000	(C)	1.5	1.5	3.0	3.0	22.0	11.0	11.0	8.0	8.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

**TYPICAL CROSS SECTION
HMA RESURFACING & PAVEMENT
SCARIFICATION**

LOCATION		DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION	(L) Feet	(R) Feet	(X) Inches	(BW) Feet
IA 224	513+50.000 576+00.000			21	

Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.



G_2_Grade_BR
Modified

SURVEY SYMBOLS

---	SH Paved Shoulder
---	PIP Pipe Culvert
.	PRO Profile Shot
---	EG Edge of Gravel Road
---	SNP Unpaved Shoulder
o TP	TPD Telephone Pedestal
---	CUL Culvert
W	WLA Underground Water Line Co.1
.	SOP Size of Pipe or Culvert
SIGN	SL Speed Limit Sign
---	RET Retaining Walls
SIGN	SI Sign
o	LUM Luminaire
o Flg	FLG Flag Poles
o	MIS Miscellaneous
---	LIN Miscellaneous Line
UB	PPA Power Pole Co.1
UB	UB Utility Box
WV	STP Stump
WV	WV Water Valve
FHD	FHD Fire Hydrants
WEL	WEL Well
SHR	SHR Shrub
IN	IN Storm Sewer Intake
TDC	TDC Tree Deciduous
GP	GP Guard Post (Less Than 4 Posts)
MH	MH Utility Access (Manhole)
BLD	BLD Building or Foundation
FP	FP Filler Pipe
UST	UST Underground Tank
WH	WH Water Hydrant
FWD	FWD Wood Fence
x	FW Wire Fence
PR	PR Electric Riser Pole
LC	LC Lot Corner
TB	TBO Telephone Booth
Tile	TIL Tile Line
OUT	OUT Tile Outlet
MM	MM Mile Marker Post
EP	EP Edge of Paved Roads (ML or SR)
GU	GU Gutter In Front of Curb
CU	CU Back of Curb
CON	CON Concrete or A/C Slab
D	D Centerline Draw or Stream (Down)
ENP	ENP Edge Paved Entrance & Park Lot
SWK	SWK Sidewalk
ENU	ENU Edge Unpaved Entrance & Parking
ENT	ENT Centerline BL of Entrance
DU	DU Centerline Draw or Stream (Up)
BNK	BNK Stream Bank
RIP	RIP Rip-Rap
St.S.	STA Storm Sewer Line Co.1
San.	SAA Sanitary Sewer Line Co.1
G	GLA Underground Gas Line Co.1
F0	FOA Underground Fiber Optic Co.1
F02	FOB Underground Fiber Optic Co.2
.	UE Utility Elevation
---	BL Topo Breakline
PLG	PLG Location of General Photo
EB	EB Electrical Box
EW	EW Edge of Water
F03	FOC Underground Fiber Optic Co.3
TV	TVA Underground TV Cable Co.1
---	Default_Chain Default Chain Feature
CP	CP Control Point
W2	WLB Underground Water Line Co.2

UTILITY LEGEND

W	CENTRAL IOWA WATER ASSOCIATION
W2	CITY OF KELLOGG
G	BLACK HILLS ENERGY
F0	INS
F02	PARTNERS COMMUNICATION COOPERATIVE
F03	MCI
TV	MEDIACOM
St.S.	CITY OF KELLOGG
San.	CITY OF KELLOGG
ALLIANT	ALLIANT

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING	Design Color No.	
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

CONVENTIONAL SIGNS

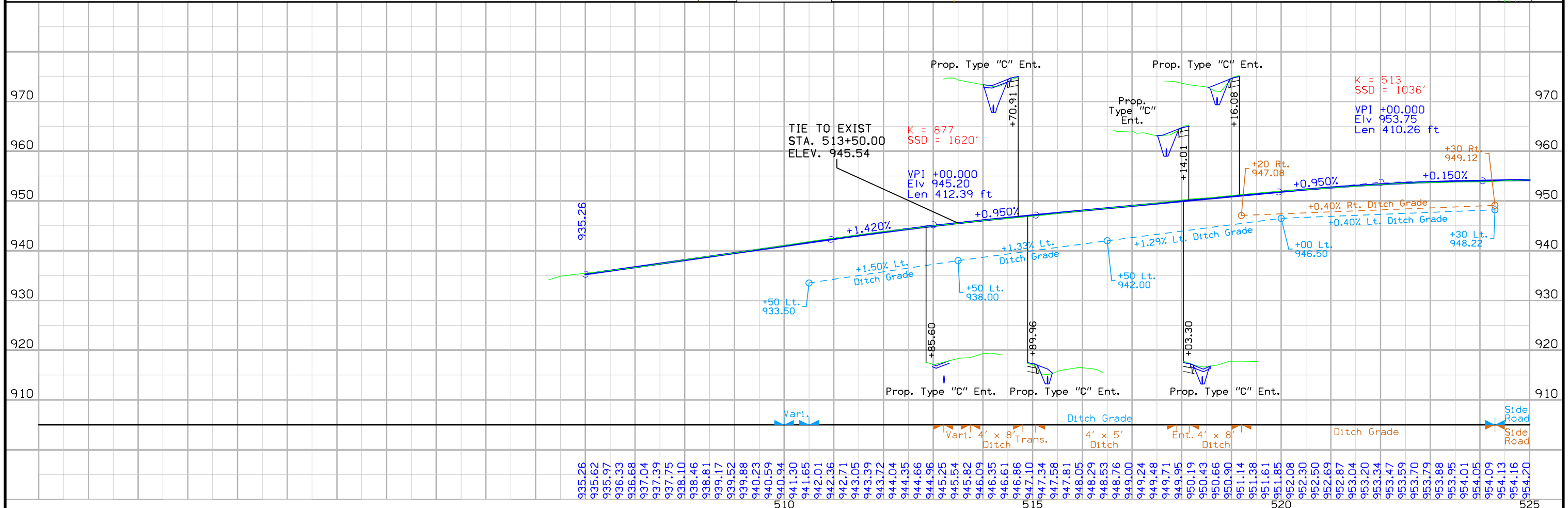
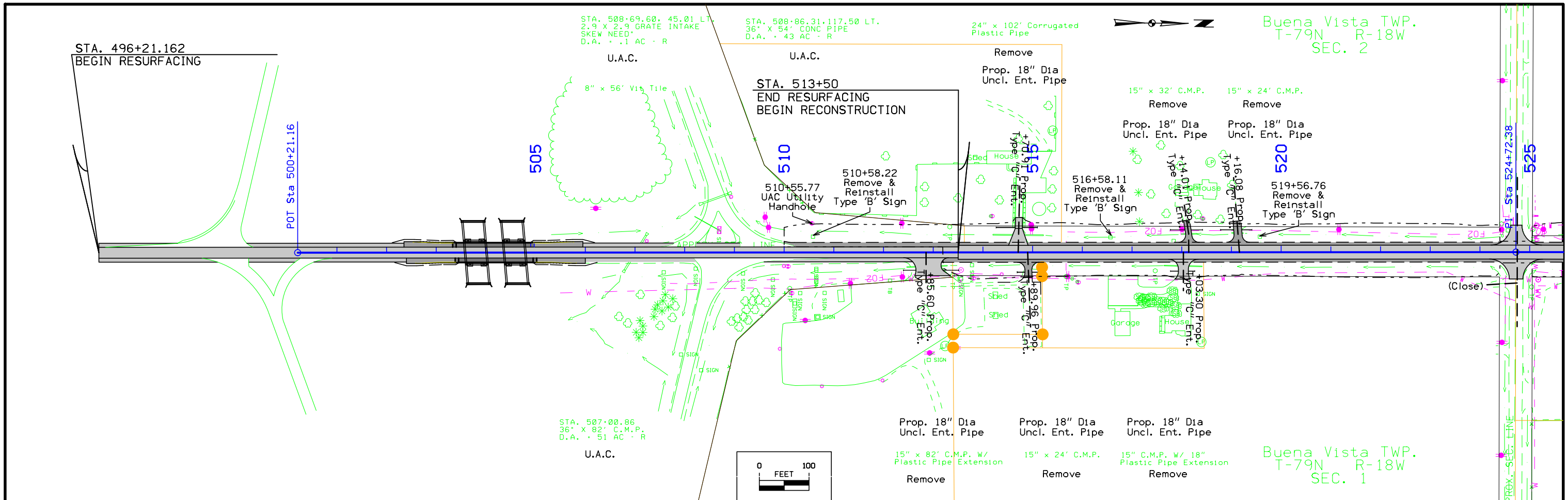
Reference Point	Survey Line
Station	Section Corner
Ground Line Intercept	Saw Cut
Guardrail	Clearing & Grubbing Area
Pavement Removal	

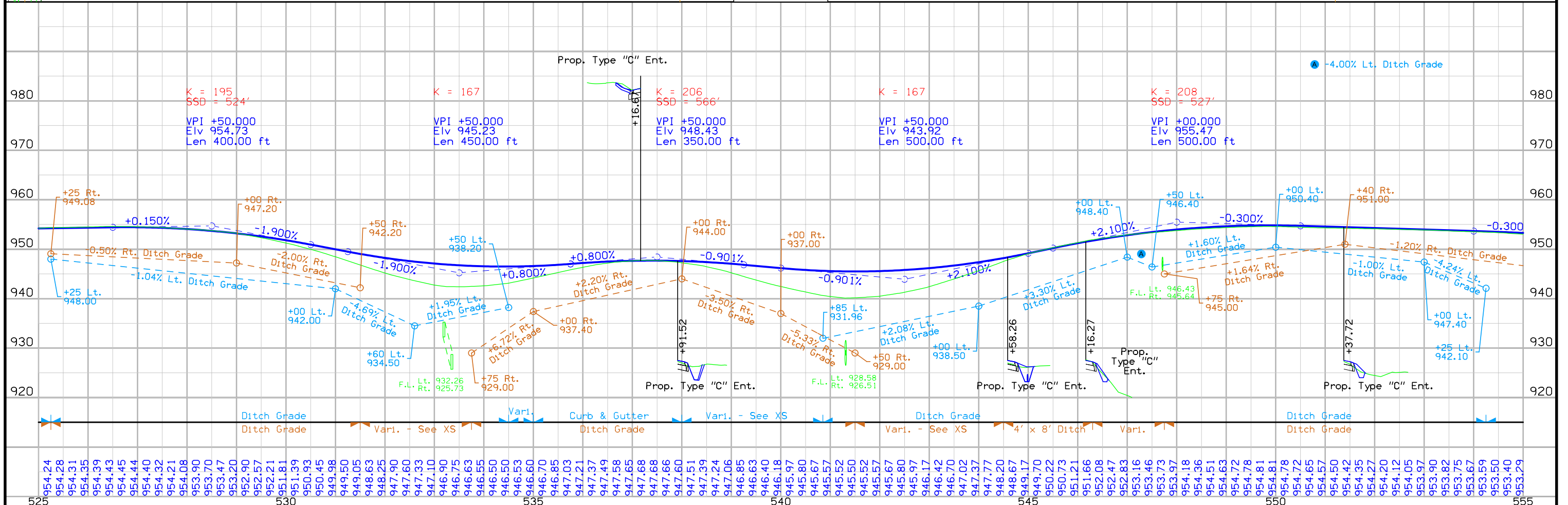
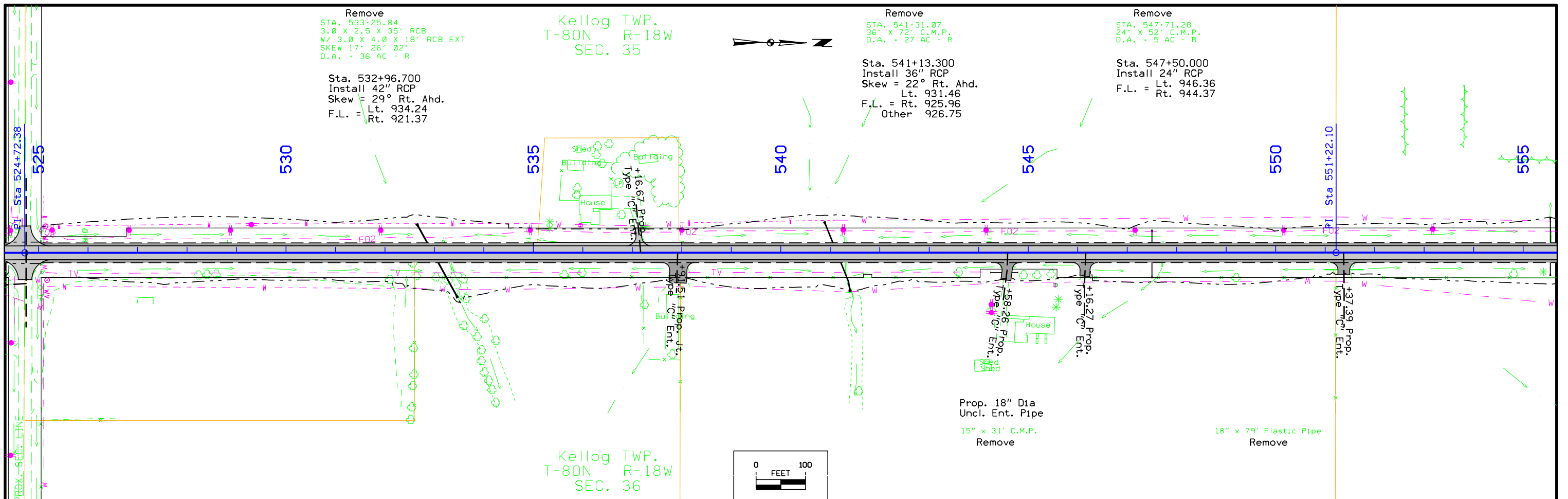
RIGHT-OF-WAY LEGEND

Proposed Right-of-Way
Existing and Proposed Right-of-Way
Easement and Existing Right-of-Way
Borrow
Easement (Temporary)
Easement
Excess
A/C Access Control

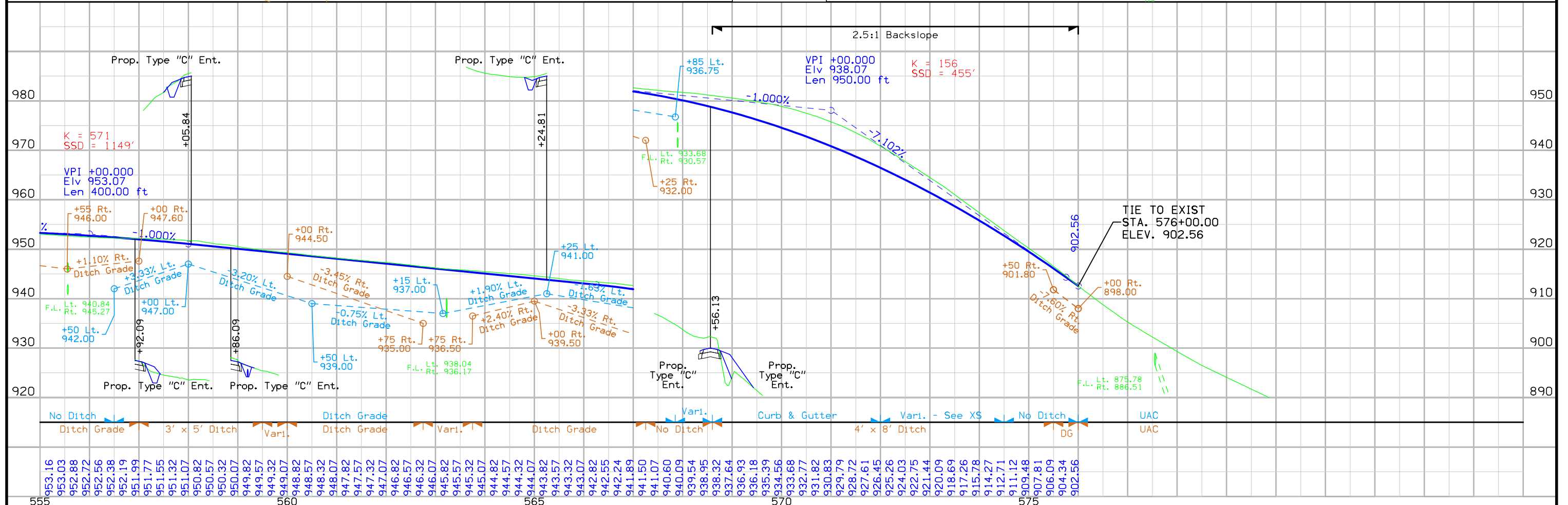
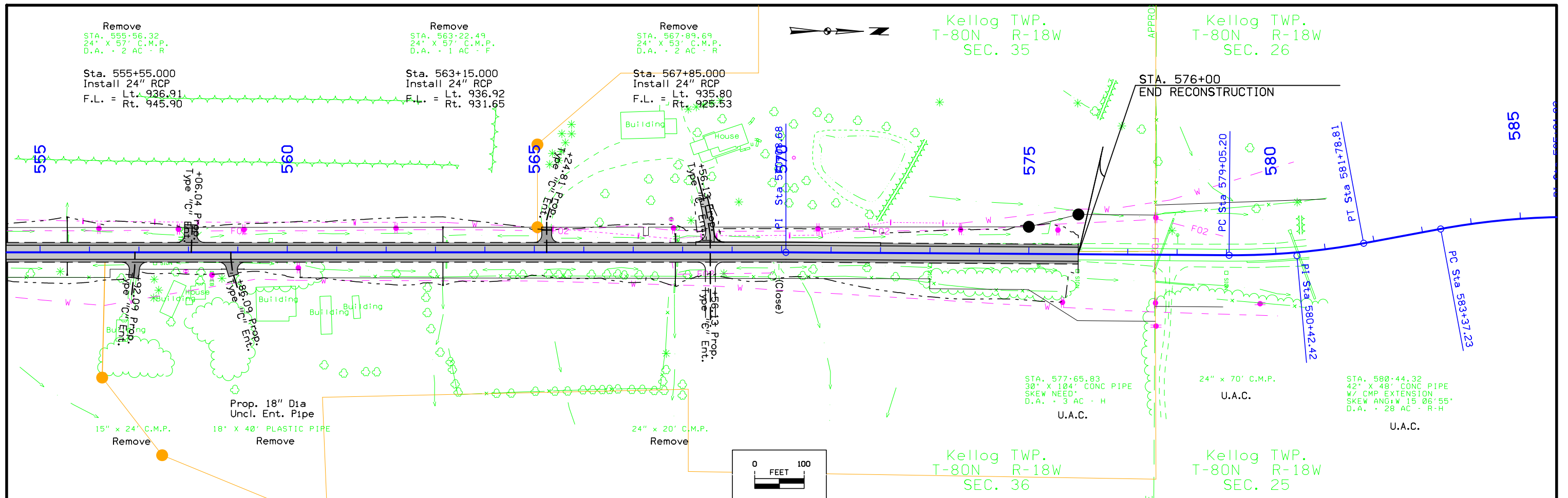
PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES D, E, F, & K)

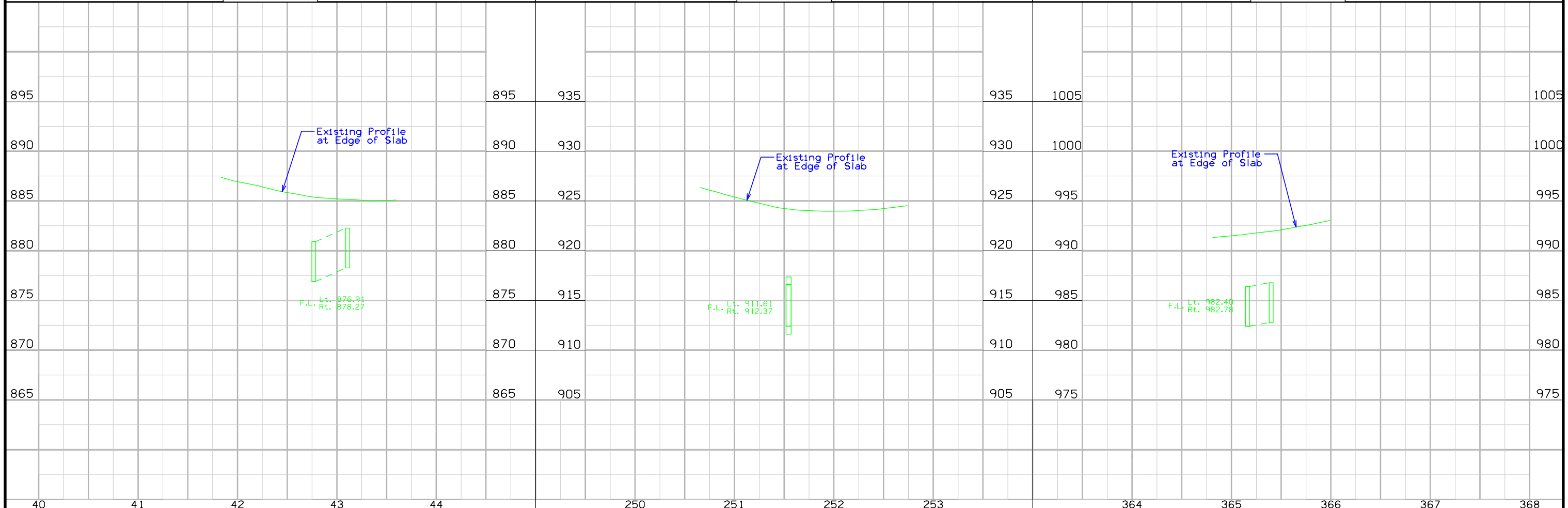
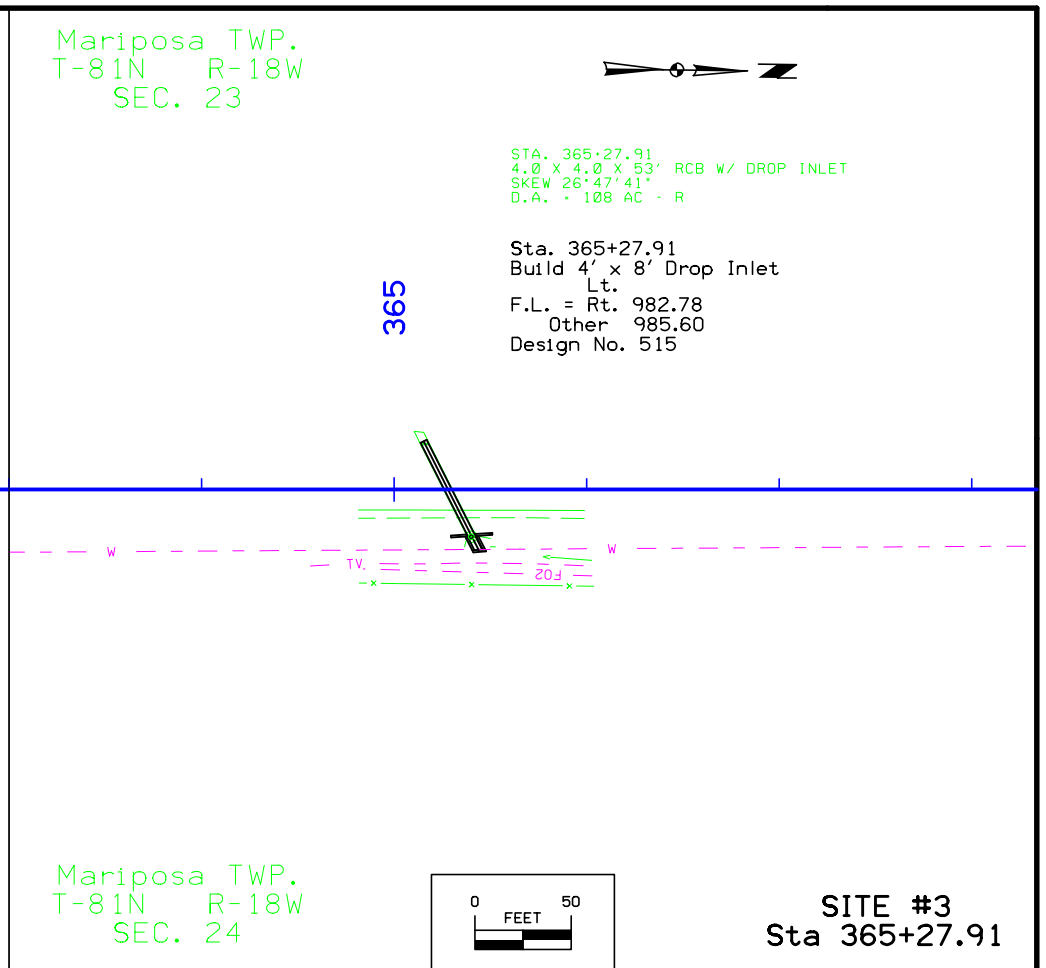
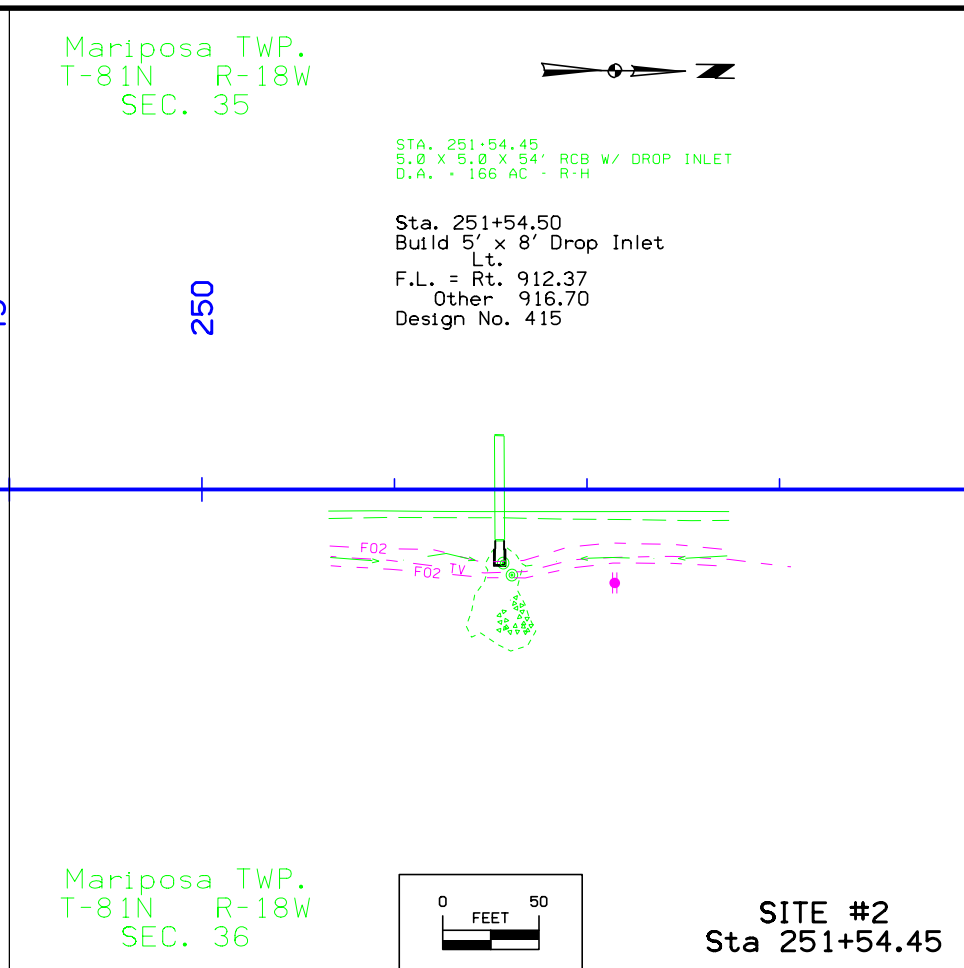
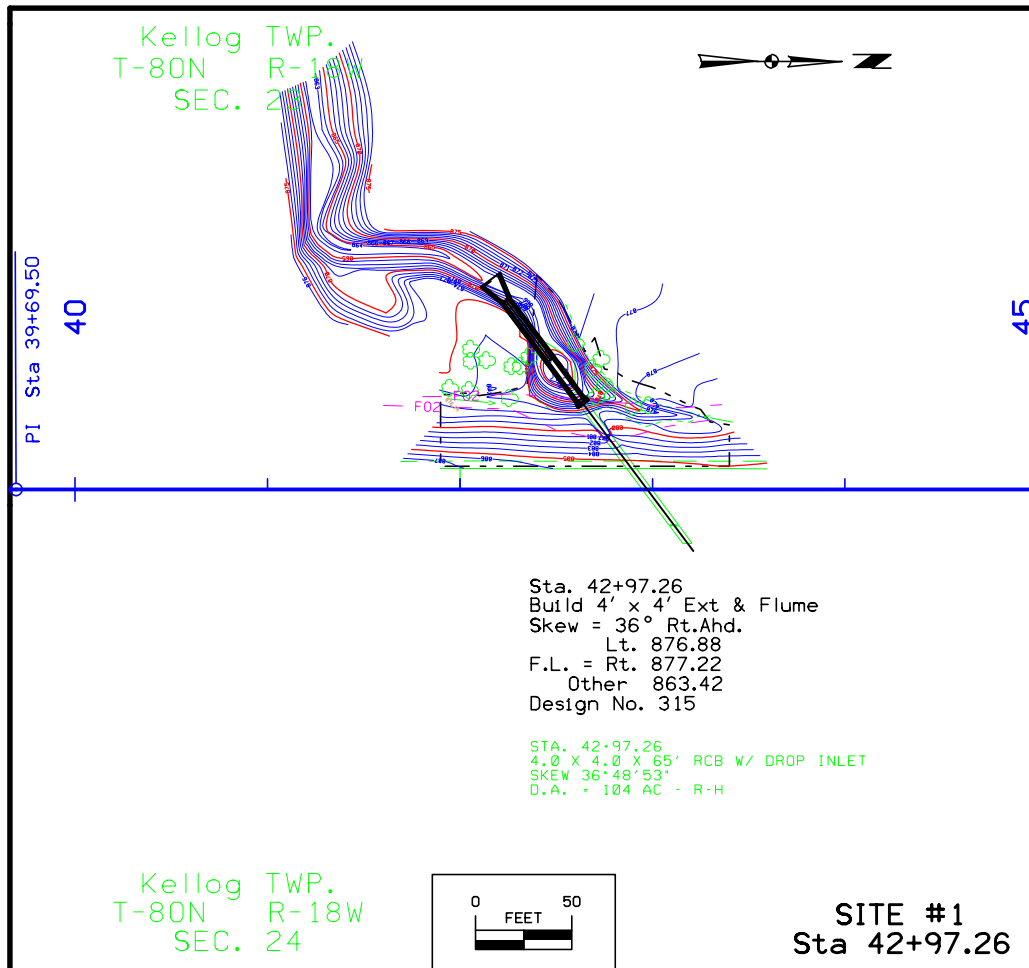




525	530	535	540	545	550	555
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ENGLISH	IOWA DOT	DESIGN TEAM	Tony Gustafson\Gary Mackey	JASPER COUNTY	PROJECT NUMBER	STPN-224-1(12)--2J-50	SHEET NUMBER	D.4
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Survey Information

General Information

Measurement units for this survey are US survey feet. This survey is for proposed shoulder widening of IA Hwy. 224 from I-80 to US Hwy 6, and intersection reconstruction in city of Kellogg, turn lane at the intersection of IA Hwy 224 and County Rd. F27, and several culvert extensions on IA Hwy 224 between City of Kellogg and County Rd. F17. Project datum and control information is provided by Design Survey Office. Aerial topography survey and a digital surface will be produced by the DOT Photogrammetric section between Interstate 80 and US 6. The survey areas North of US 6 are complete field surveys.

Vertical Control

Vertical datum for this survey is NAVD88. This survey observed 1 local area county Control Monuments with published NAVD88 height to compare to local ground control:

Jasper County Control mark K01 has a published NAVD88 Elev. of 942.31 Survey Elev. = 942.31

This survey observed 2 As-Built plan bench marks to compare with survey elevations:

BM 2 Project BRF-224-1(6)--38-50 Elev. 402.05
Survey Elev. = 847.27
BM 186 Project STP-6-4(141)--2C-50 Elev. 841.68
Survey Elev. = 841.75

For additional information see Control Report in the Control folder of the survey project directory.

Horizontal Control

The project coordinate system for this survey is Modified Iowa State Plane South Zone (U.S. Survey Feet). This survey control is relative to IaRTN reference stations and NAD83 (1996CORS) for Epoch 2002.00. State Plane coordinates were modified by using a grid to ground scale factor of 1.000055861815 about Pt. K01.

For additional information see Control Report in the Control folder of the survey project directory

Alignment Information

Two alignments were created for this survey. The horizontal alignment for this survey between I-80 and the Town of Kellogg is a retrace of As-built Plans No. F-98265, STP-224-1(4)-2C-50, and 846 A (1). Survey stationing was equated to the plan PI at STA 551+22.10 and run back and ahead to Kellogg with no station equations.

Survey stationing relates to plan stationing as follows:

PI Sta. 551+22.10 As-built Plans Project No. F-98265
Survey PI Sta. 551+22.10

PI Sta. 570+09.00 As-built Plans Project No. F-98265
Survey PI Sta. 570+08.68

PI STA 580+42.80 Project No. STP-224-1(4)-2C-50
Survey PI STA 580+42.42

PI STA 585+92.29 Project No. STP-224-1(4)-2C-50
Survey PI STA 585+91.92

PI STA 138+17.3 Project No. 846 A (1)
Survey PI STA 620+32.47

PI STA 143+40.8 Project No. 846 A (1)
Survey PI STA 625+55.46

The survey alignment North of the Town of Kellogg is a retrace of As-built Plans No. 273 (2). Survey stationing was equated to the plan PI at STA 39+69.50 and run back and ahead with no station equations. Survey stationing relates to plan stationing as follows:

PI Sta. 39+69.5 As-built Plans Project No. 273 (2)
Survey PI Sta. 39+69.50

PI Sta. 66+16.9 As-built Plans Project No. 273 (2)
Survey PI Sta. 66+16.88

PI Sta. 92+61.6 As-built Plans Project No. 273 (2)
Survey PI Sta. 92+57.99

PI Sta. 119+01.00 As-built Plans Project No. 273 (2)
Survey PI Sta. 118+98.79

PI Sta. 145+33.8 As-built Plans Project No. 273 (2)
Survey PI Sta. 145+29.29

PI Sta. 171+85.7 As-built Plans Project No. 273 (2)
Survey PI Sta. 171+80.95

PI Sta. 198+33.2 As-built Plans Project No. 273 (2)
Survey PI Sta. 198+26.87

PI Sta. 228+66.4 As-built Plans Project No. 273 (2)
Survey PI Sta. 228+52.45

PI Sta. 255+00.8 As-built Plans Project No. 273 (2)
Survey PI Sta. 254+89.97

PI Sta. 281+47.7 As-built Plans Project No. 273 (2)
Survey PI Sta. 281+33.02

PI Sta. 307+91.3 As-built Plans Project No. 273 (2)
Survey PI Sta. 307+78.28

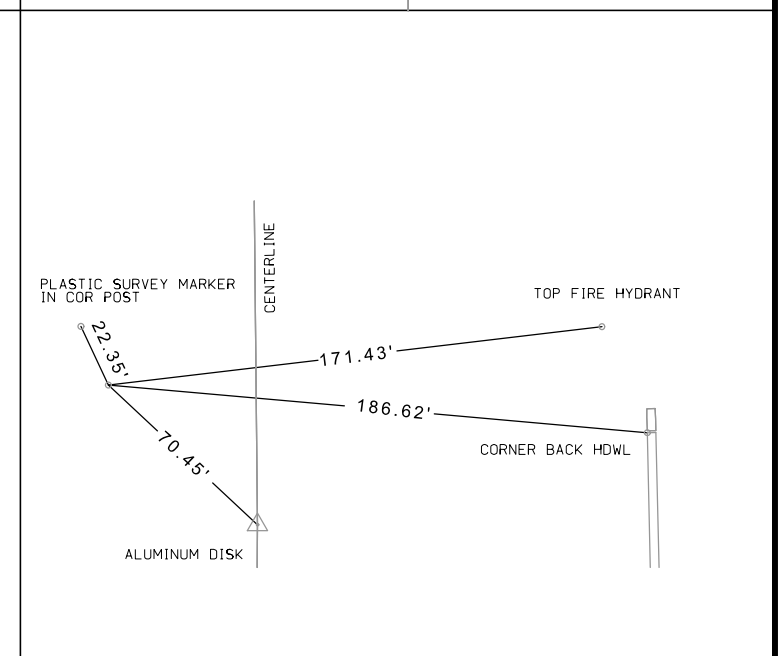
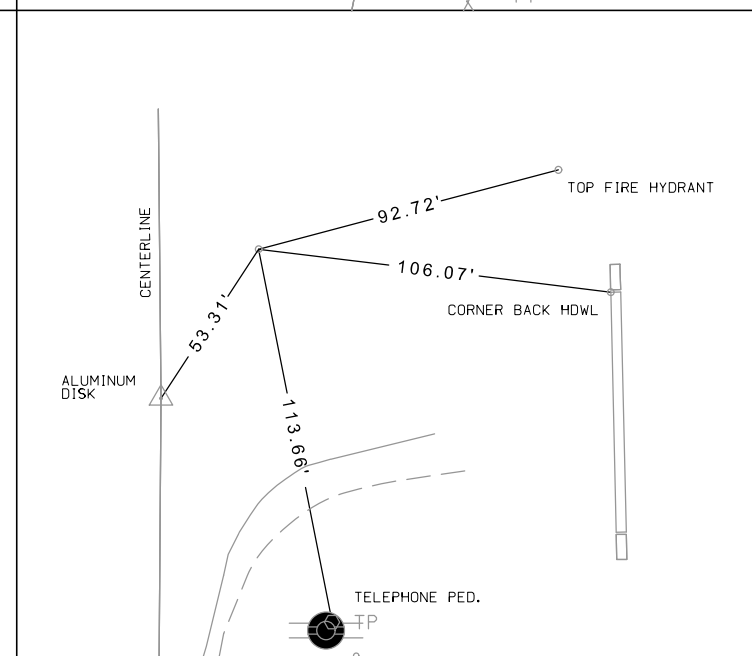
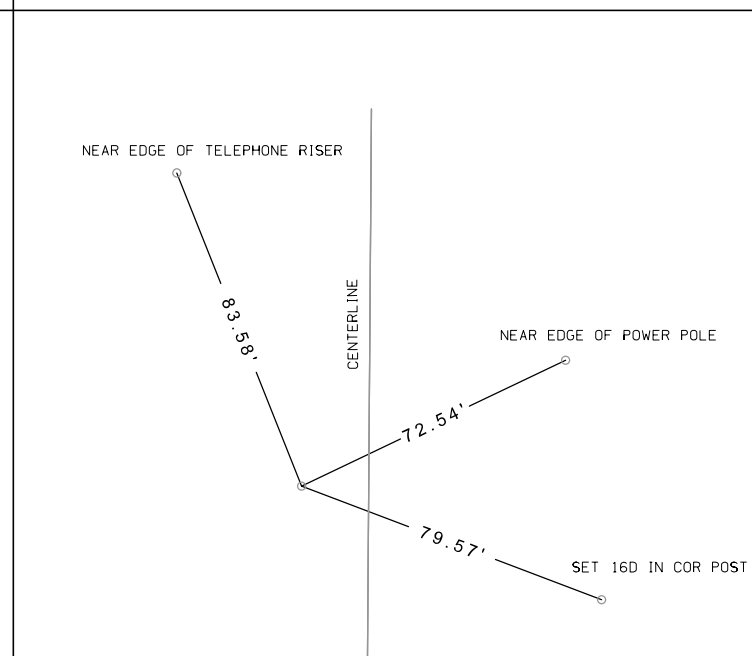
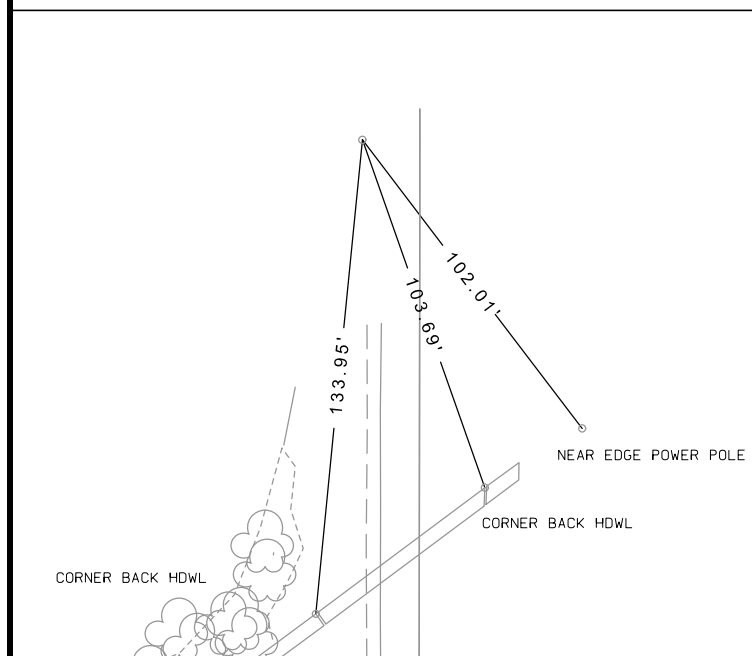
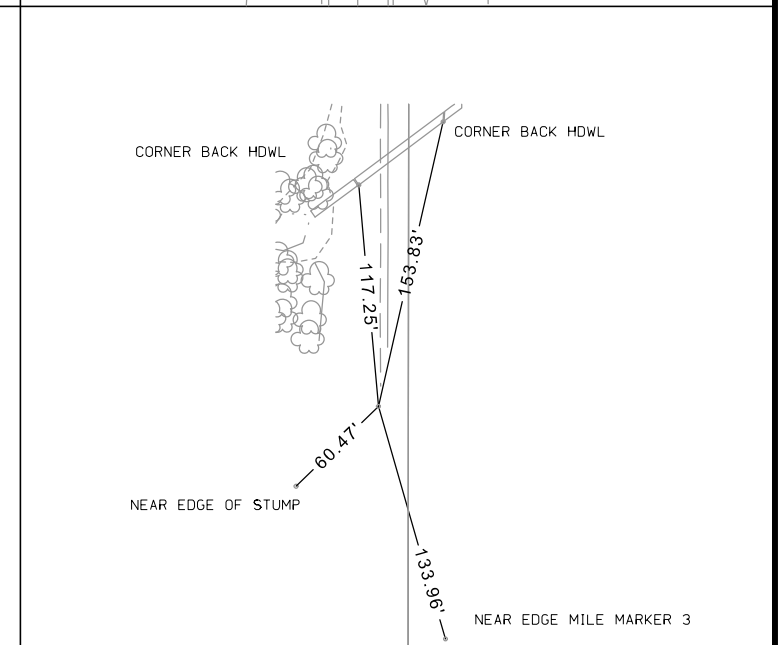
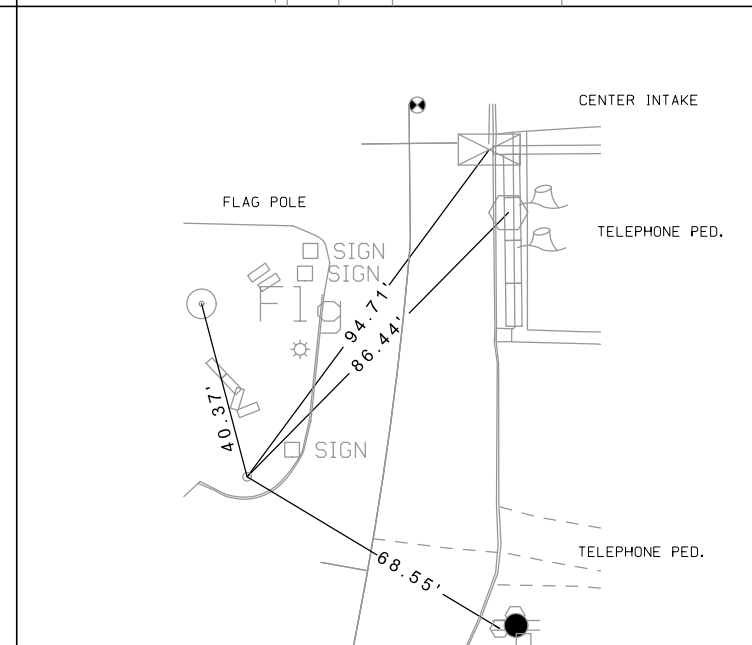
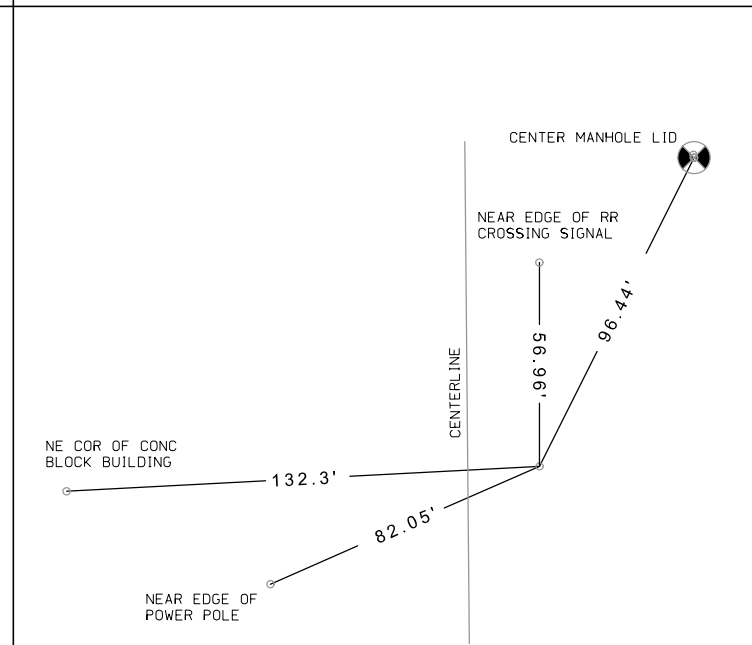
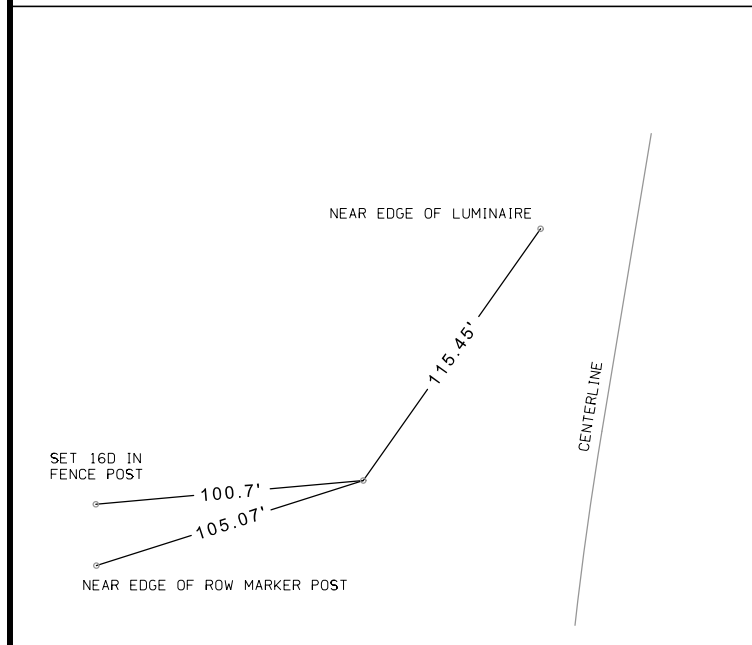
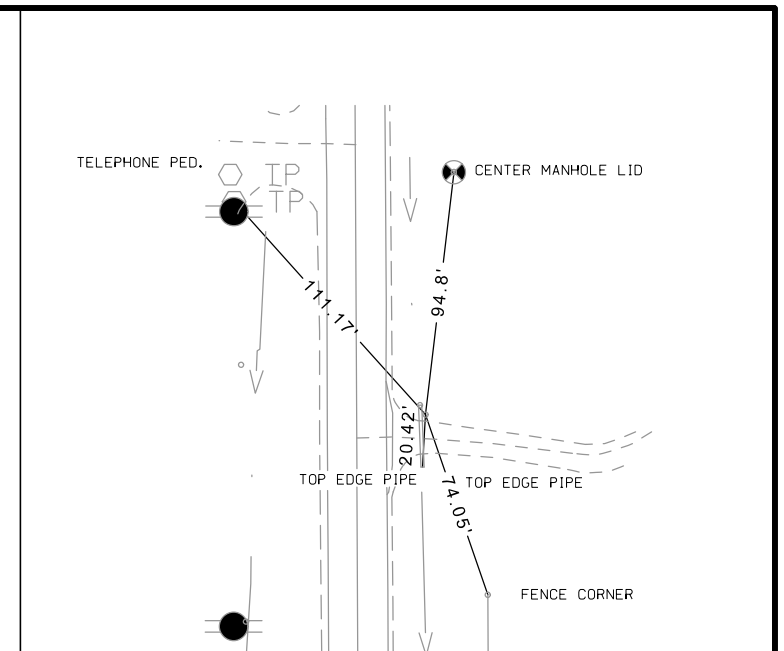
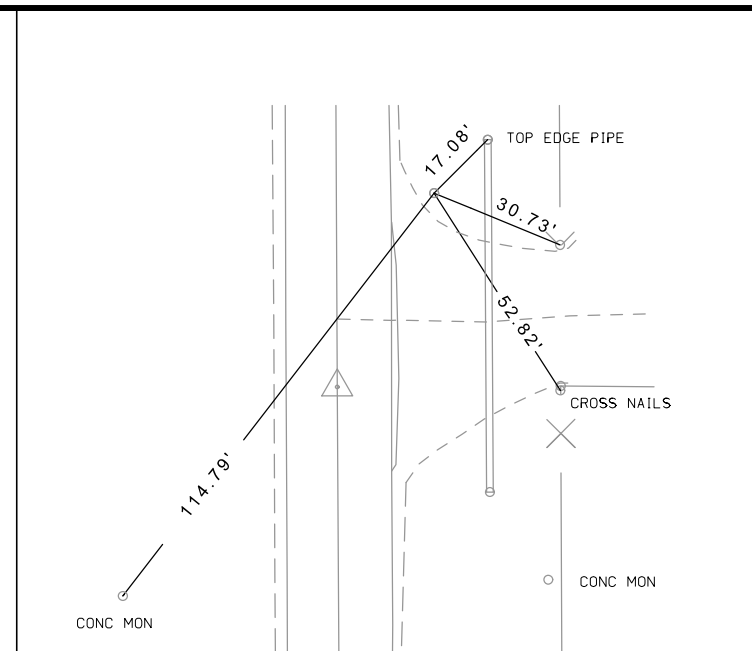
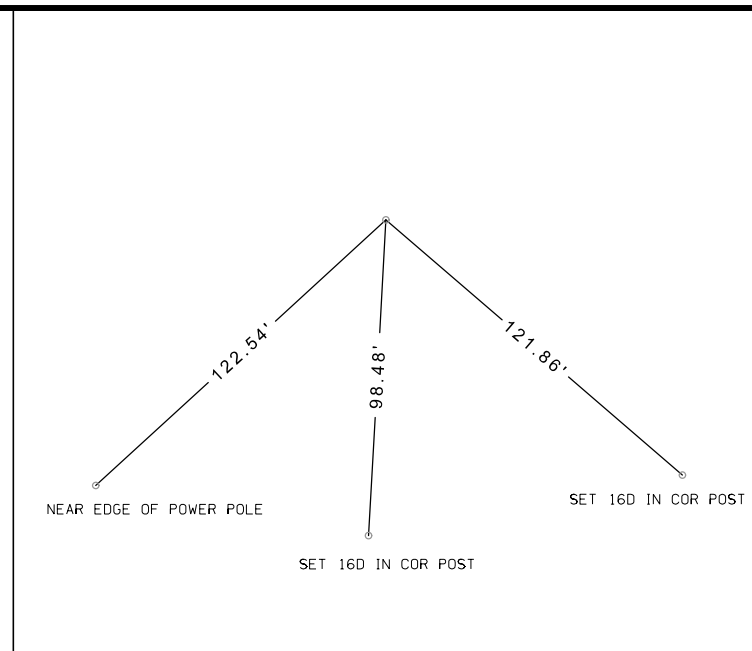
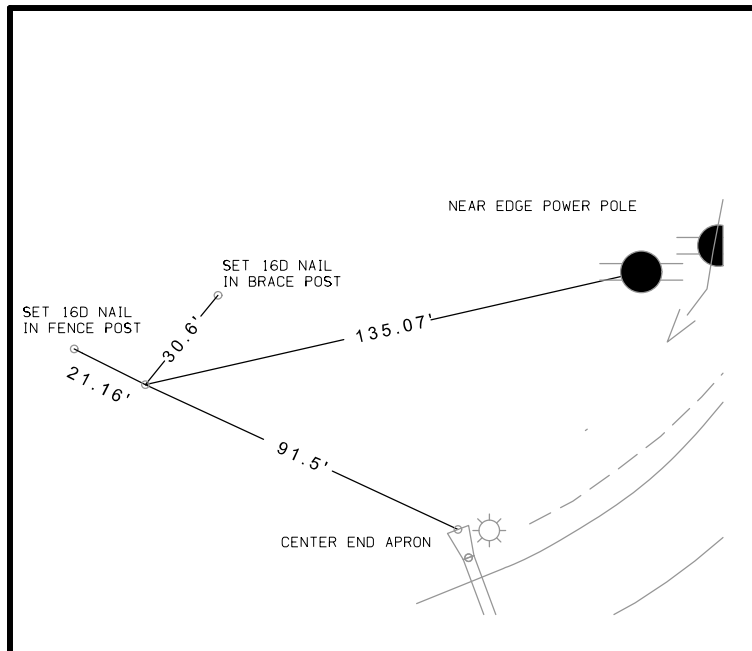
PI Sta. 334+39.0 As-built Plans Project No. 273 (2)
Survey PI Sta. 334+21.98

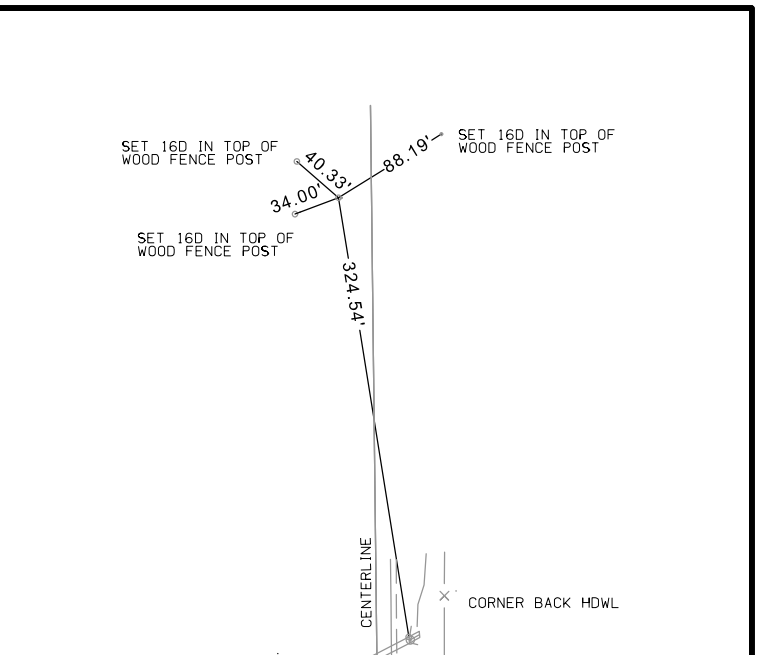
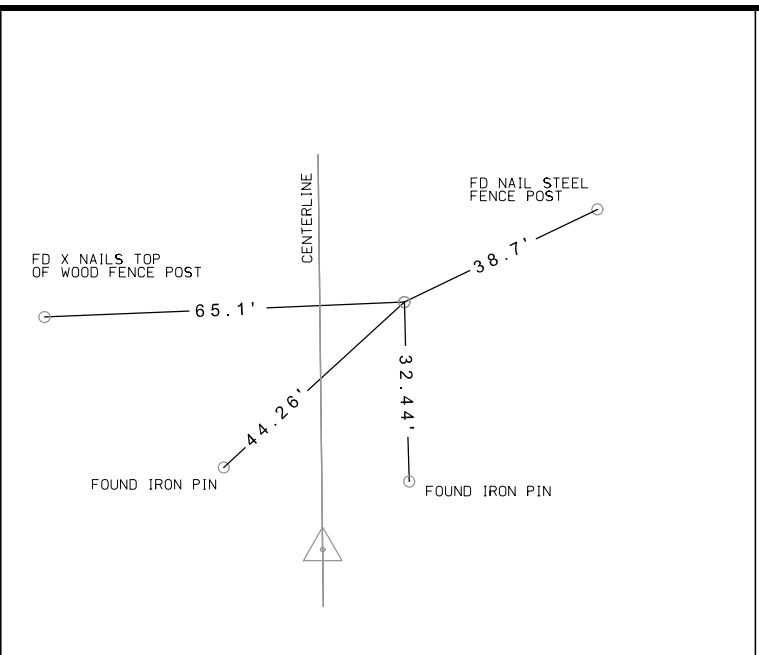
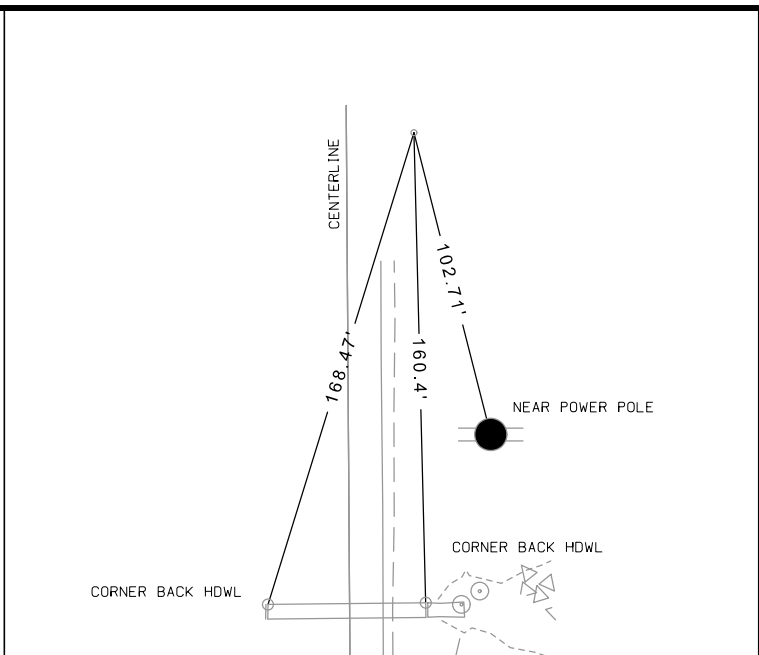
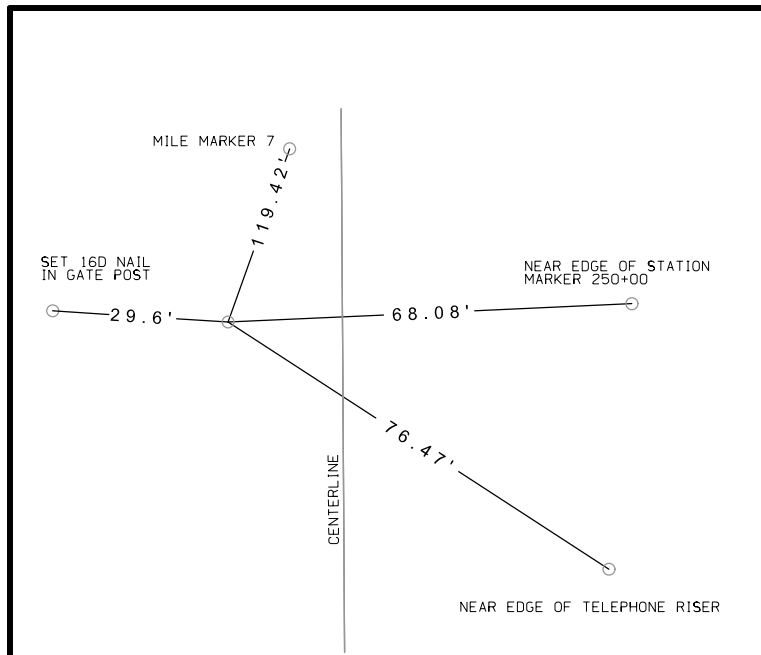
PI Sta. 360+87.2 As-built Plans Project No. 273 (2)
Survey PI Sta. 360+70.48

PI Sta. 387+38.6 As-built Plans Project No. 273 (2)
Survey PI Sta. 387+20.68

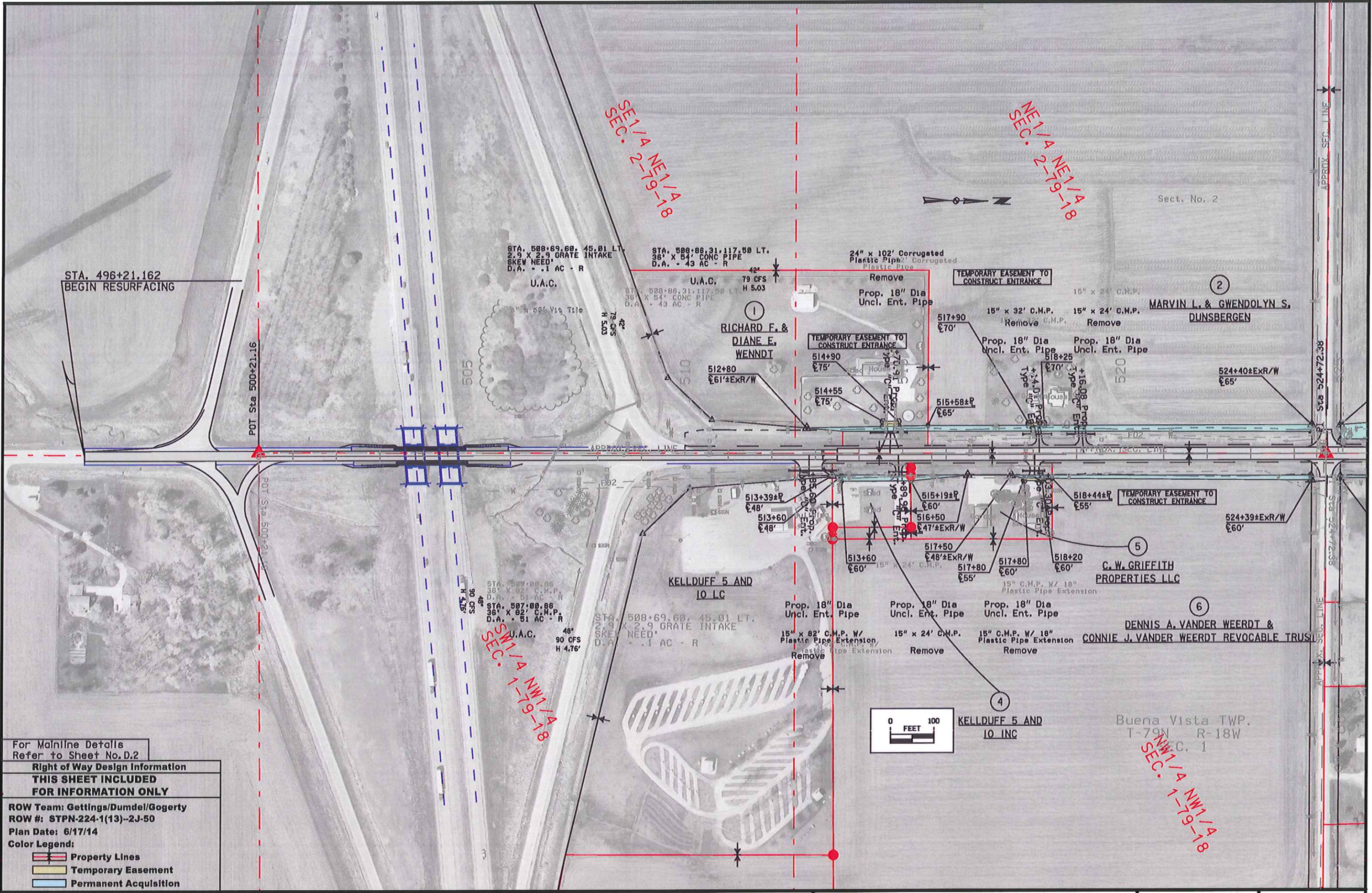
VERTICAL CONTROL

Point	North	East	Elevation	Station (SUR224.1)	Offset	Feature	Description
500	614157.596	1803588.640	944.183	510+12.21	74.346	BM	CUT X IN BALL OF ROW RAIL
501	615667.066	1803549.581	950.111	525+22.09	47.946	BM	FD CM IN NE QUAD OF INT
503	621216.803	1805396.121	841.752	579+77.81	1921.786	BM	BM 186 AB PLANS PROJECT # STP-6-4(141)--2C-50 FD. IHC BM BRASS BUTTON OUTLET HDWL 4 X 6 RCB
502	623463.965	1803415.936	847.234	603+29.29	-21.090	BM	FD X ON SW HANDRAIL OF BRG
504	623811.967	1803411.964	847.271	606+77.32	-21.914	BM	BM 2 AB PLANS PROJECT # BRF-224-1(6)--38-50 FD. BRASS PLUG TOP BARRIER RAIL NW COR BRG.
Point	North	East	Elevation	Station (SUR224.2)	Offset	Feature	Description
506	629182.117	1803440.593	883.851	43+11.28	18.533	BM	CUT X OUTLET HDWL 4 X 4 RCB
505	642119.851	1803515.292	959.683	172+48.12	119.483	BM	ARROW FIRE HYDRANT
507	650021.526	1803291.938	918.231	251+51.53	-28.391	BM	CUT X OUTLET HDWL 4 X 4 RCB
508	661385.086	1803179.109	988.364	365+15.81	-23.566	BM	CUT X OUTLET HDWL 4 X 4 RCB





Jasper	ROW: STPN-224-1(13)--2J-50 I-80 N and W to IA 14					PIN 11-50-224-010											
		STATE		COUNTY		CITY		BORROW									
PARCEL NO.	OWNER NAME	FEE	EASE	FEE	EASE	FEE	EASE	EXCESS	FEE	T.E.	MITIGATION	OTHER	HOUSE	BUILDING(S)	A/C ONLY	TOTAL ACQ.	
1	Richard F. Wenndt - Fee		0.06 AC														
2	Marvin L. Dunsbergen - Fee		0.27 AC														
4	Kellduff 5 and 10, Inc - Fee		0.05 AC														
5	C. W. Griffith Properties, LLC - Fee		0.03 AC														
6	Dennis A. Vanderweerd (Trustee) - Fee		1.6 AC														
7	Manatts, Inc. - Fee		0.2 AC														
8	Fred P. Petrie - Fee																
9	Jamie Vankooten (1/2 Int) - Fee Dean Vankooten - Fee		0.38 AC														
10	Wilma Anderson - Fee Dale Anderson - CP1		0.69 AC														
11	Jansco Farms, Inc - Fee		0.82 AC														
12	Dean Vankooten - Fee		0.15 AC														
13	Thomas R. Davis - Fee		0.92 AC														
14	Scott A. Alberts - Fee		0.08 AC														
15	Thomas D. Rawlins - Fee		0.18 AC														
14 Parcels	"TOTALS	0 AC	5.43 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC					
		0 SF		0 SF	0 SF	0 SF	0 SF	0 SF	0 SF								



STA. 496+21.162
BEGIN RESURFACING

POT Sta 500+21.16

POT Sta 500+21.16

SEC. 1/4 NW 1/4 T-79-R-18

SEC. 1/4 NE 1/4 T-79-R-18

SEC. 1/4 NE 1/4 T-79-R-18

Sect. No. 2

MARVIN L. & GWENDOLYN S. DUNSBERGEN

RICHARD F. & DIANE E. WENNDT

KELLDUFF 5 AND IO LC

C.W. GRIFFITH PROPERTIES LLC

DENNIS A. VANDER WEERDT & CONNIE J. VANDER WEERDT REVOCABLE TRUST

KELLDUFF 5 AND IO INC

Buena Vista TWP. T-79N R-18W SEC. 1

For Mainline Details Refer to Sheet No. D.2

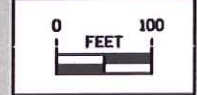
Right of Way Design Information

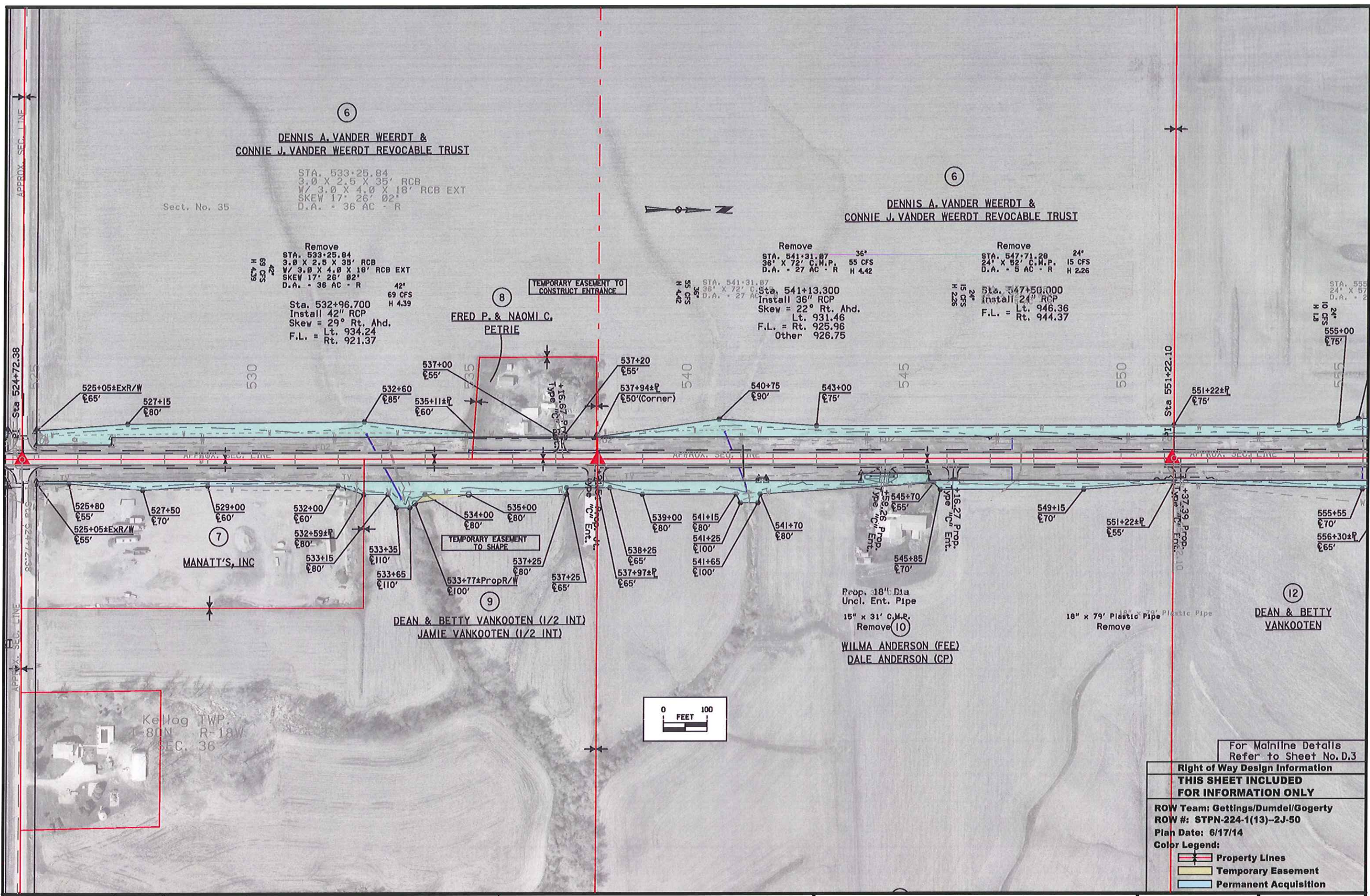
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: Gettings/Dumdel/Gogerty
ROW #: STPN-224-1(13)--2J-50
Plan Date: 6/17/14

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition





⑥
**DENNIS A. VANDER WEERDT &
 CONNIE J. VANDER WEERDT REVOCABLE TRUST**
 STA. 533+25.84
 3.0' X 2.5' X 35' RCB
 W/ 3.0' X 4.0' X 18' RCB EXT
 SKEW 17' 26' 02"
 D.A. = 36 AC - R
 Sect. No. 35

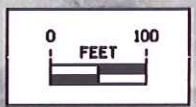
⑥
**DENNIS A. VANDER WEERDT &
 CONNIE J. VANDER WEERDT REVOCABLE TRUST**

Remove
 STA. 533+25.84
 3.0' X 2.5' X 35' RCB
 W/ 3.0' X 4.0' X 18' RCB EXT
 SKEW 17' 26' 02"
 D.A. = 36 AC - R
 42'
 69 CFS
 H 4.39
 Sta. 532+96.700
 Install 42" RCP
 Skew = 29° Rt. Ahd.
 F.L. = Lt. 934.24
 Rt. 921.37

Remove
 STA. 541+31.87
 36" X 72" C.M.P.
 D.A. = 27 AC - R
 H 4.42
 STA. 541+31.87
 36" X 72" C.M.P.
 D.A. = 27 AC - R
 Sta. 541+13.300
 Install 36" RCP
 Skew = 22° Rt. Ahd.
 Lt. 931.46
 F.L. = Rt. 925.96
 Other 926.75

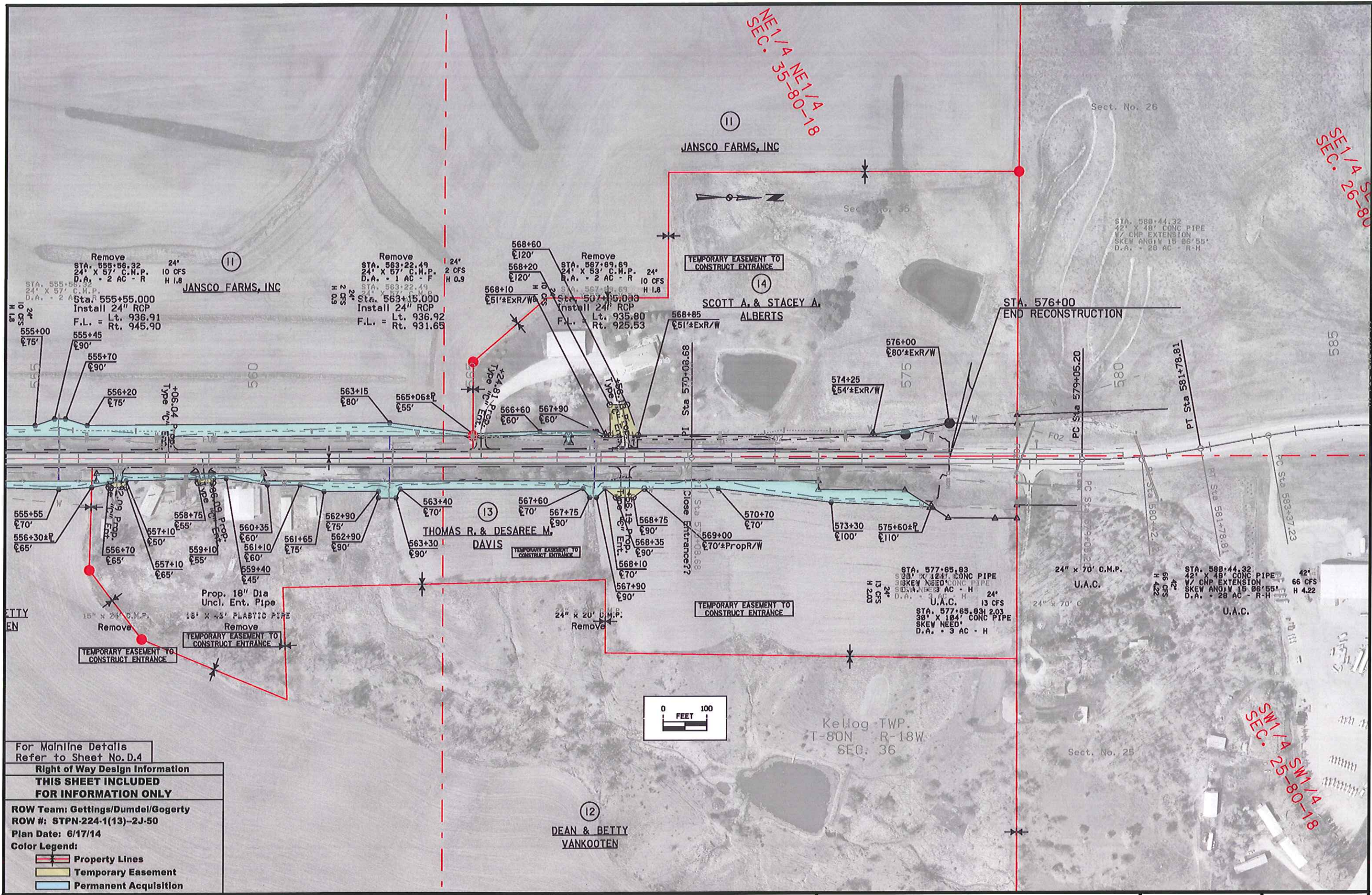
Remove
 STA. 547+71.28
 24" X 52" C.M.P.
 D.A. = 5 AC - R
 H 2.26
 STA. 547+50.000
 Install 24" RCP
 F.L. = Lt. 946.36
 Rt. 944.37

STA. 555+00
 24" X 57"
 D.A. = 2
 10 CFS
 H 1.8



For Mainline Details Refer to Sheet No.D.3

Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY
ROW Team: Gettings/Dumdel/Gogerty
ROW #: STPN-224-1(13)-2J-50
Plan Date: 6/17/14
Color Legend:
 Property Lines
 Temporary Easement
 Permanent Acquisition



NE 1/4 NE 1/4
SEC. 14 26-80-18

SEC. 14 26-80

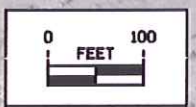
SEC. 14 26-80-18

For Mainline Details
Refer to Sheet No. D.4

**Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY**

ROW Team: Gettings/Dumdel/Gogerty
ROW #: STPN-224-1(13)-2J-50
Plan Date: 6/17/14
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition



Sect. No. 23

(15)

THOMAS D.
RAWLINS

41+90
C140'

42+20
C140'

Kellog TWP.
T-80N R-18W
SEC. 23



43+30
C50'±ExR/W

35

PI Sta 39+69.50

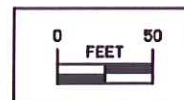
40

45

Sta. 42+97.26
Build 4' x 4' Ext & Flume
Skew = 36° Rt.Ahd.
Lt. 876.88
F.L. = Rt. 877.22
Other 863.42
Design No. 315

STA. 42+97.26
4.0' X 4.0' X 65' RCB W/ DROP INLET
SKEW 36° 48' 53"
D.A. = 184 AC - R-H

Kellog TWP.
T-80N R-18W
SEC. 24



SITE #1
Sta 42+97.26

PRICILLA J.
ANDERSON TRUST

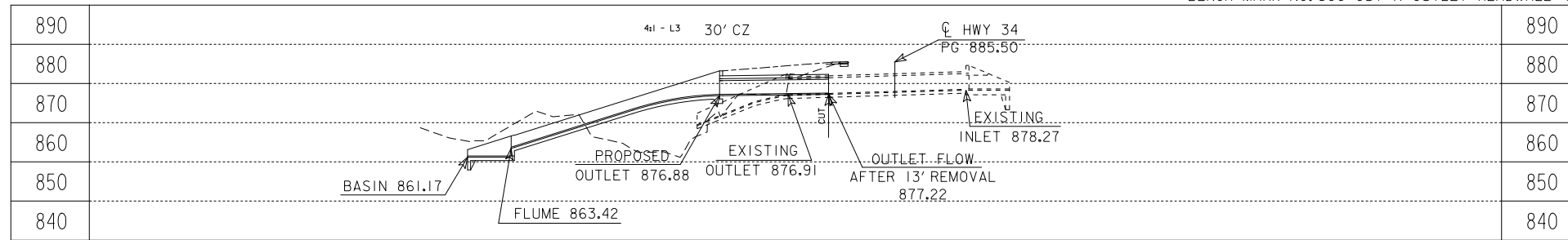
For Mainline Details
Refer to Sheet No.D.5

Right of Way Design Information
**THIS SHEET INCLUDED
FOR INFORMATION ONLY**

ROW Team: Gettings/Dumdei/Gogerty
ROW #: STPN-224-1(13)--2J-50
Plan Date: 6/17/14

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

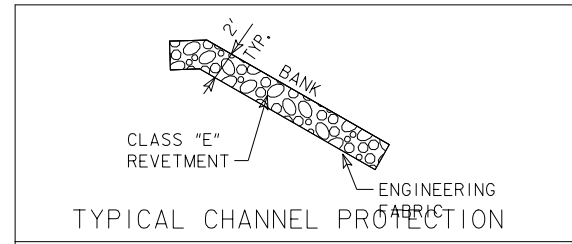
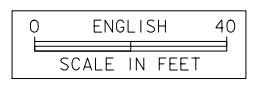


LONGITUDINAL SECTION ALONG CL CULVERT



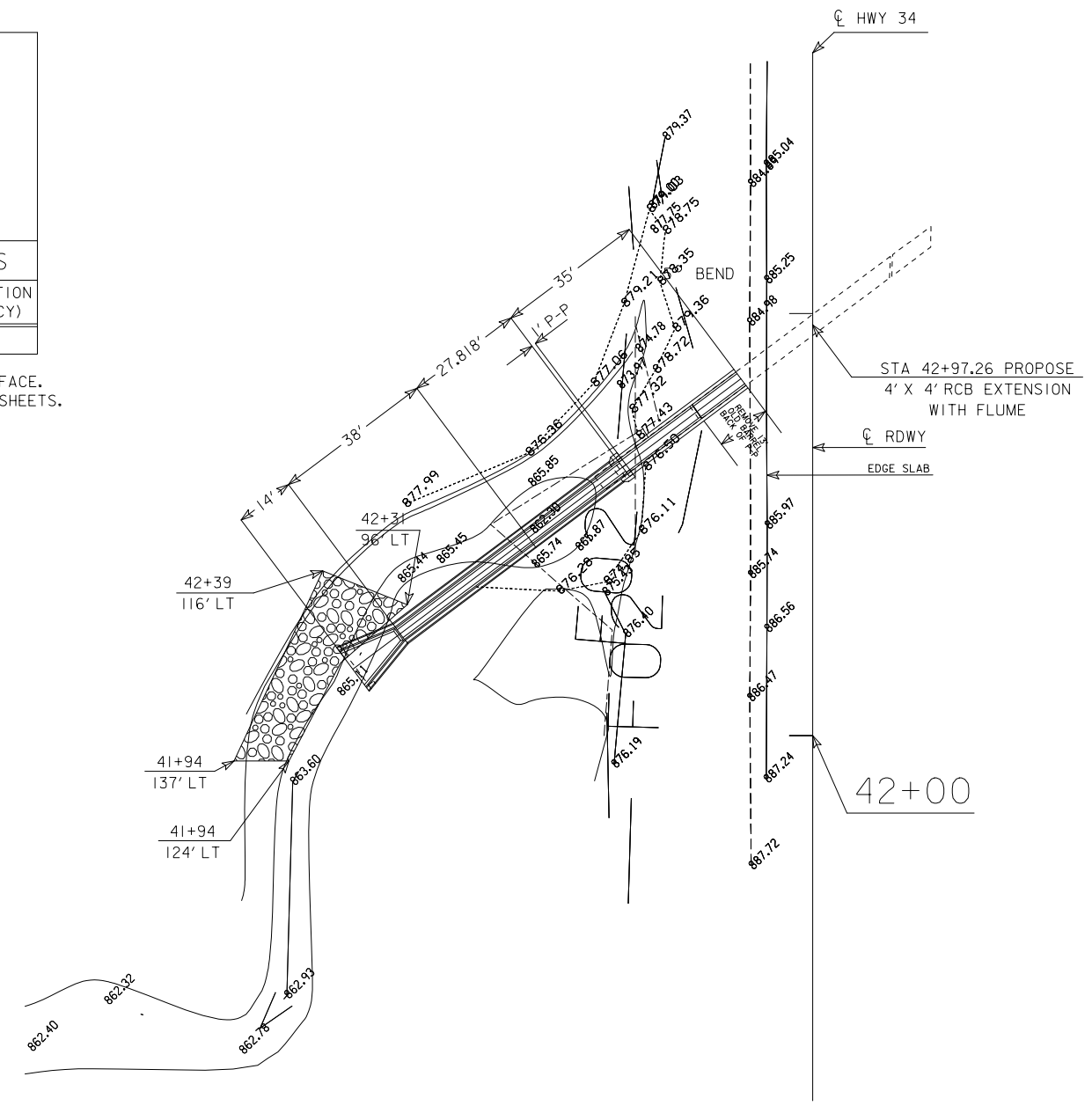
OLD DES# 258

REMOVE FLUME AND 13' OF OUTLET BARREL FROM BACK OF PARAPET



ESTIMATED REVETMENT QUANTITIES			
LOCATION	REVETMENT CL. E (TON)	ENGINEERING FABRIC (SY)	EXCAVATION CL 10(CY)
LEFT	120	160	75

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



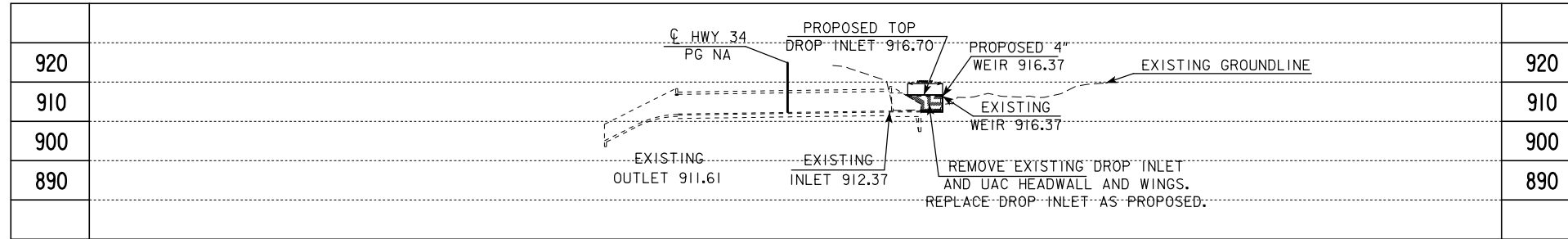
SITUATION PLAN

HYDRAULIC DATA
DRAINAGE AREA = 104 ACRES R-H

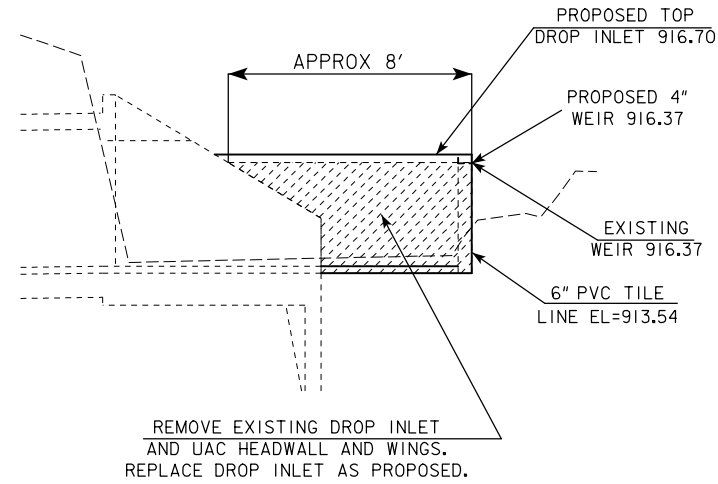
UTILITIES LEGEND:
PARTNERS COMMUNICATION COOP

LOCATION		TRAFFIC ESTIMATE	
T-80N	R-18W	2015 AADT	1000 V.P.D.
SECTION 23/24		2035 AADT	1500 V.P.D.
KELLOG TOWNSHIP		2035 DHV	15 V.P.H.
JASPER COUNTY		TRUCKS	14 %
LATITUDE 41.725326°		TOTAL	
LONGITUDE -92.902868°		DESIGN ESALS	

PRELIMINARY
DESIGN FOR 36.8147° SKEW RT AH
4' X 4' REINFORCED
CONCRETE BOX CULVERT
EXTENSION W/FLUME
SITUATION PLAN
STATION 42+97.26
JASPER COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ___ OF ___ FILE NO. 30753 DESIGN NO. 315



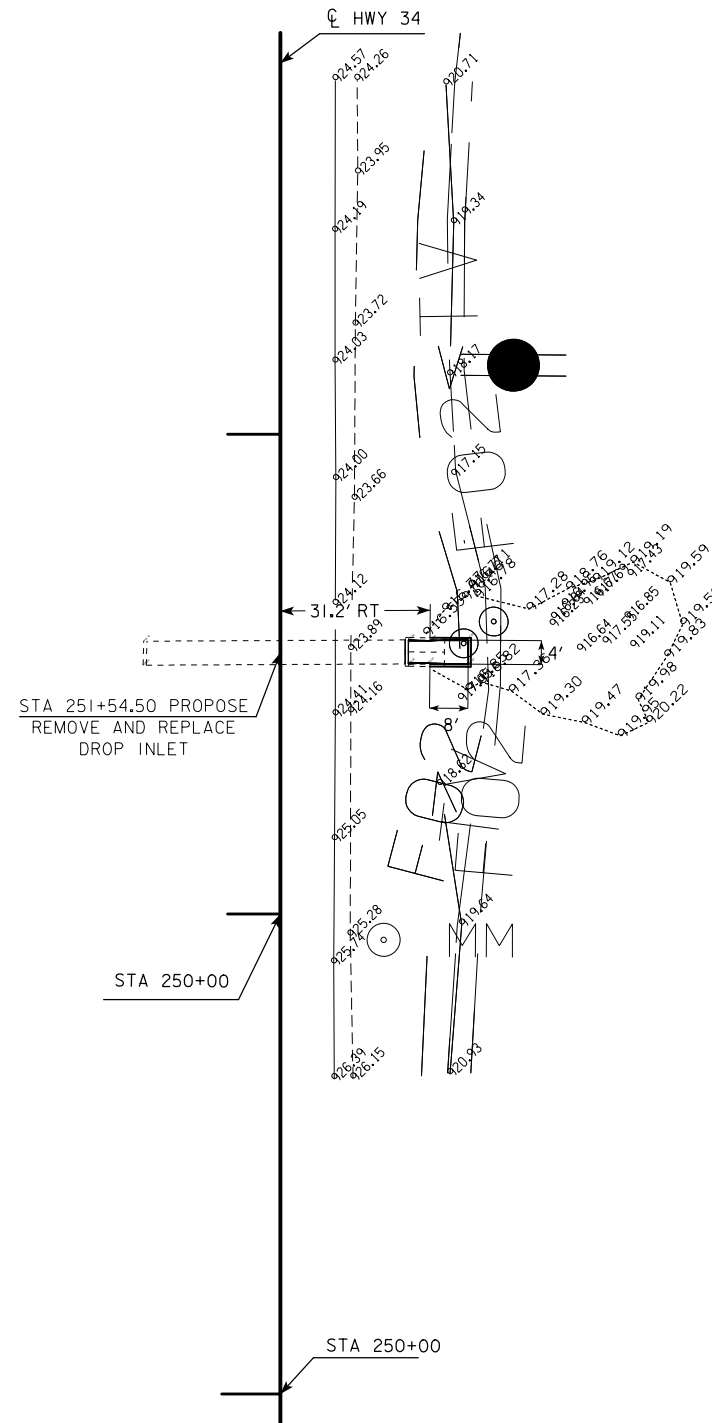
LONGITUDINAL SECTION ALONG ϕ CULVERT



REMOVE EXISTING DROP INLET AND UAC HEADWALL AND WINGS. REPLACE DROP INLET AS PROPOSED.

OLD DES# 2258 EXTENSION

MAINTAIN 6" PVC TILE LINE GOING INTO DROP INLET EL 913.54



SITUATION PLAN

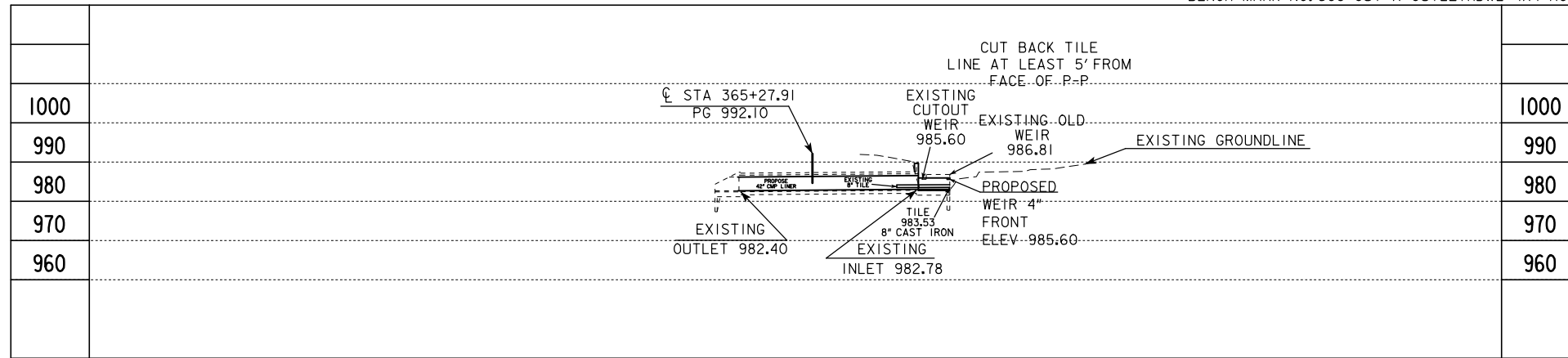


HYDRAULIC DATA
DRAINAGE AREA = 166 ACRES R-H

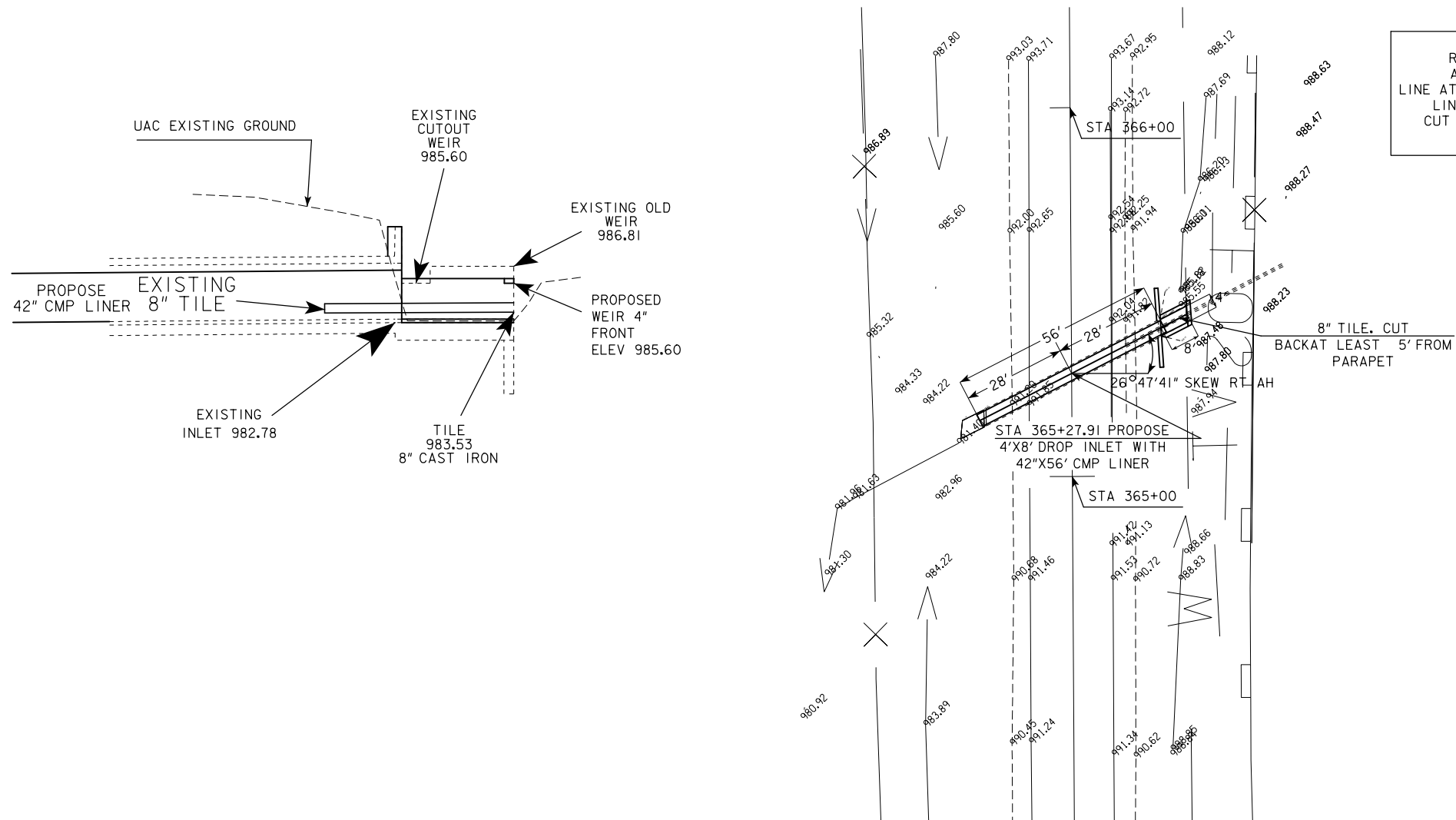
UTILITIES LEGEND:
PARTNERS COMMUNICATION COOP
MEDIACOM

LOCATION		TRAFFIC ESTIMATE	
T-8IN R-18W	2015 AADT	1000	V.P.D.
SECTION 35/36	2035 AADT	1500	V.P.D.
MARIPOSA TOWNSHIP	2035 DHV	15	V.P.H.
JASPER COUNTY	TRUCKS	14	%
LATITUDE 41.782563°	TOTAL		
LONGITUDE -92.902716°	DESIGN ESALS		

PRELIMINARY
DESIGN FOR 0° SKEW
**5' X 8' DROP INLET
CONCRETE BOX CULVERT**
SITUATION PLAN
STATION 251+54.50
JASPER COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ___ OF ___ FILE NO. 30753 DESIGN NO. 415



LONGITUDINAL SECTION ALONG CL CULVERT



SITUATION PLAN

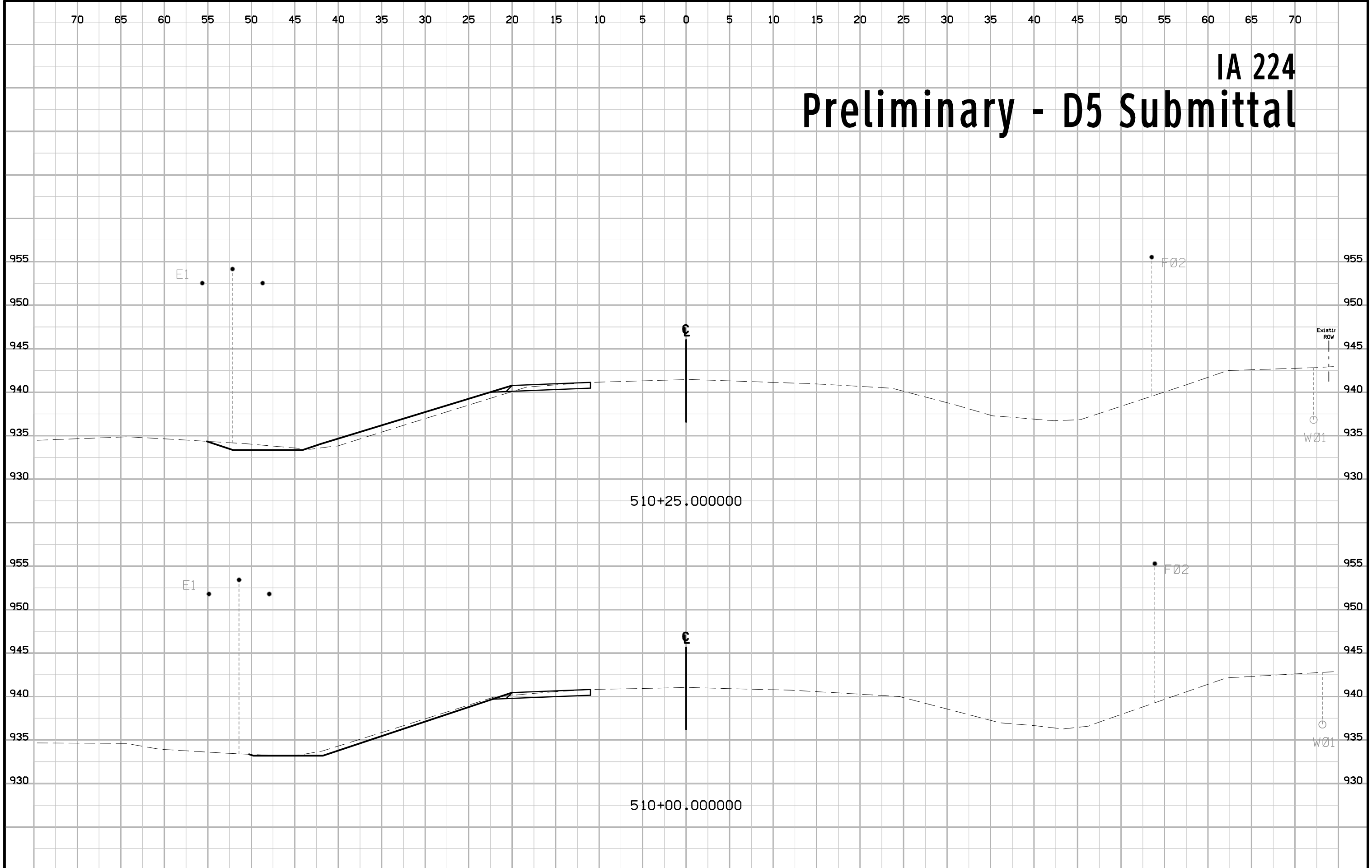
HYDRAULIC DATA
DRAINAGE AREA = 106 ACRES R

UTILITIES LEGEND:
CENTRAL IOWA WATER ASSOC.
PARTNERS COMMUNICATIONS COOP
MEDIACOM

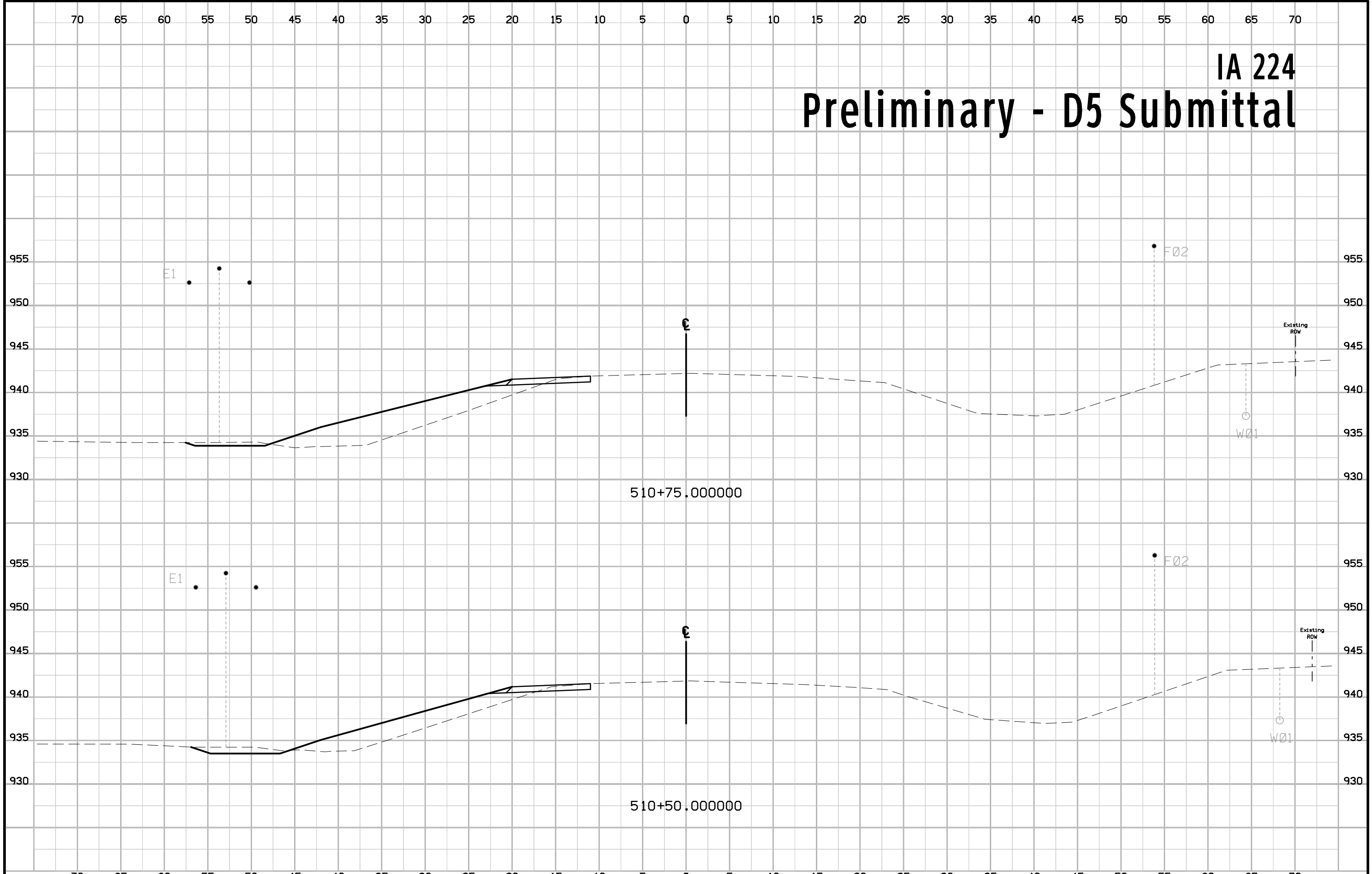
LOCATION	TRAFFIC ESTIMATE
T-8IN R-18W	2015 AADT <u>1000</u> V.P.D.
SECTION 23/24	2035 AADT <u>1500</u> V.P.D.
MARIPOSA TOWNSHIP	2035 DHV <u>15</u> V.P.H.
JASPER COUNTY	TRUCKS <u>14</u> %
LATITUDE 41.813774°	TOTAL
LONGITUDE -92.902286°	DESIGN ESALS <u> </u>

PRELIMINARY
DESIGN FOR 26°47'41" SKEW RT AH
**4' X 8' DROP INLET
WITH 42" CMP LINER**
SITUATION PLAN
STATION 365+27.91
JASPER COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. OF FILE NO. 30753 DESIGN NO. 515

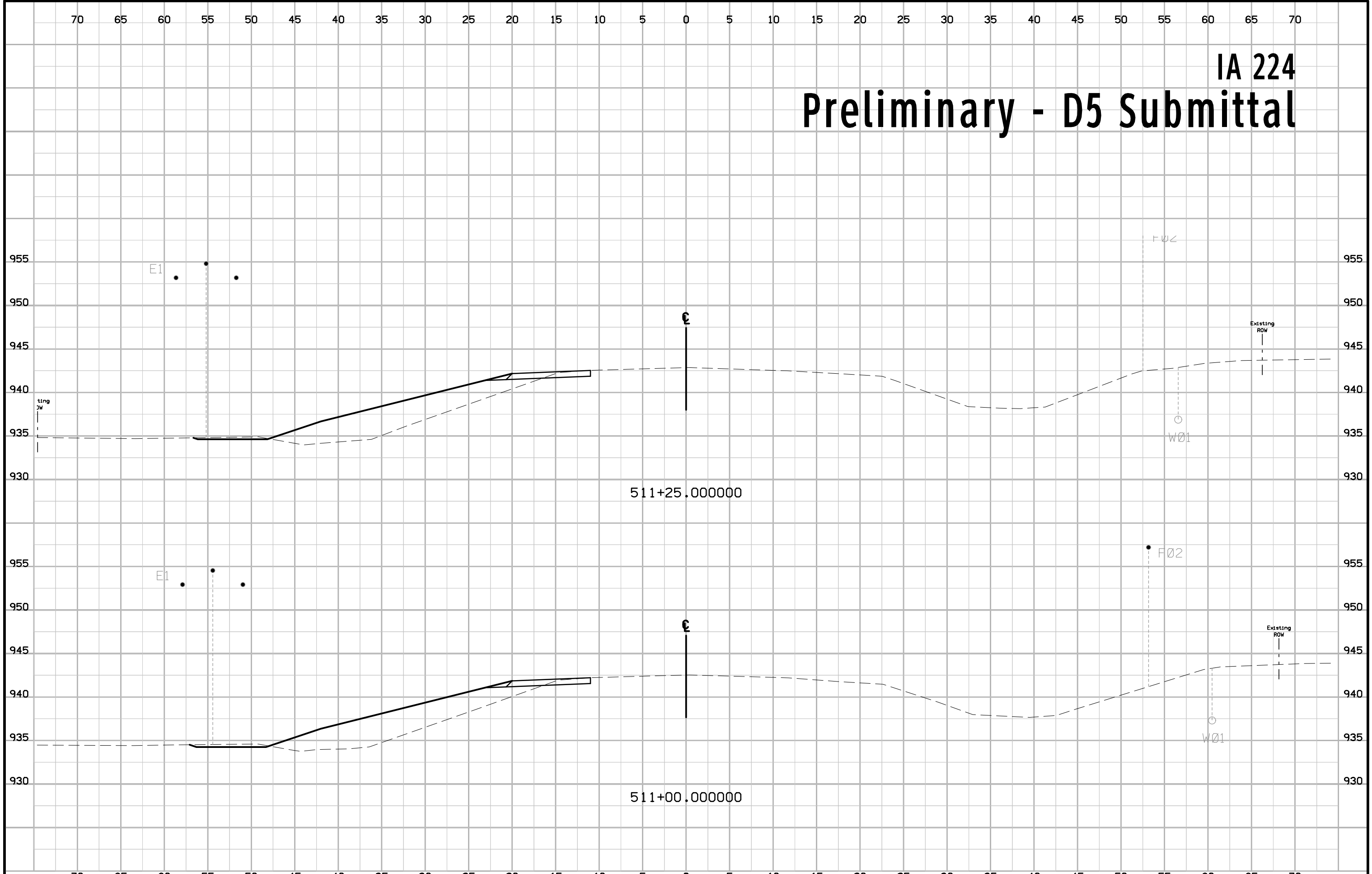
IA 224 Preliminary - D5 Submittal



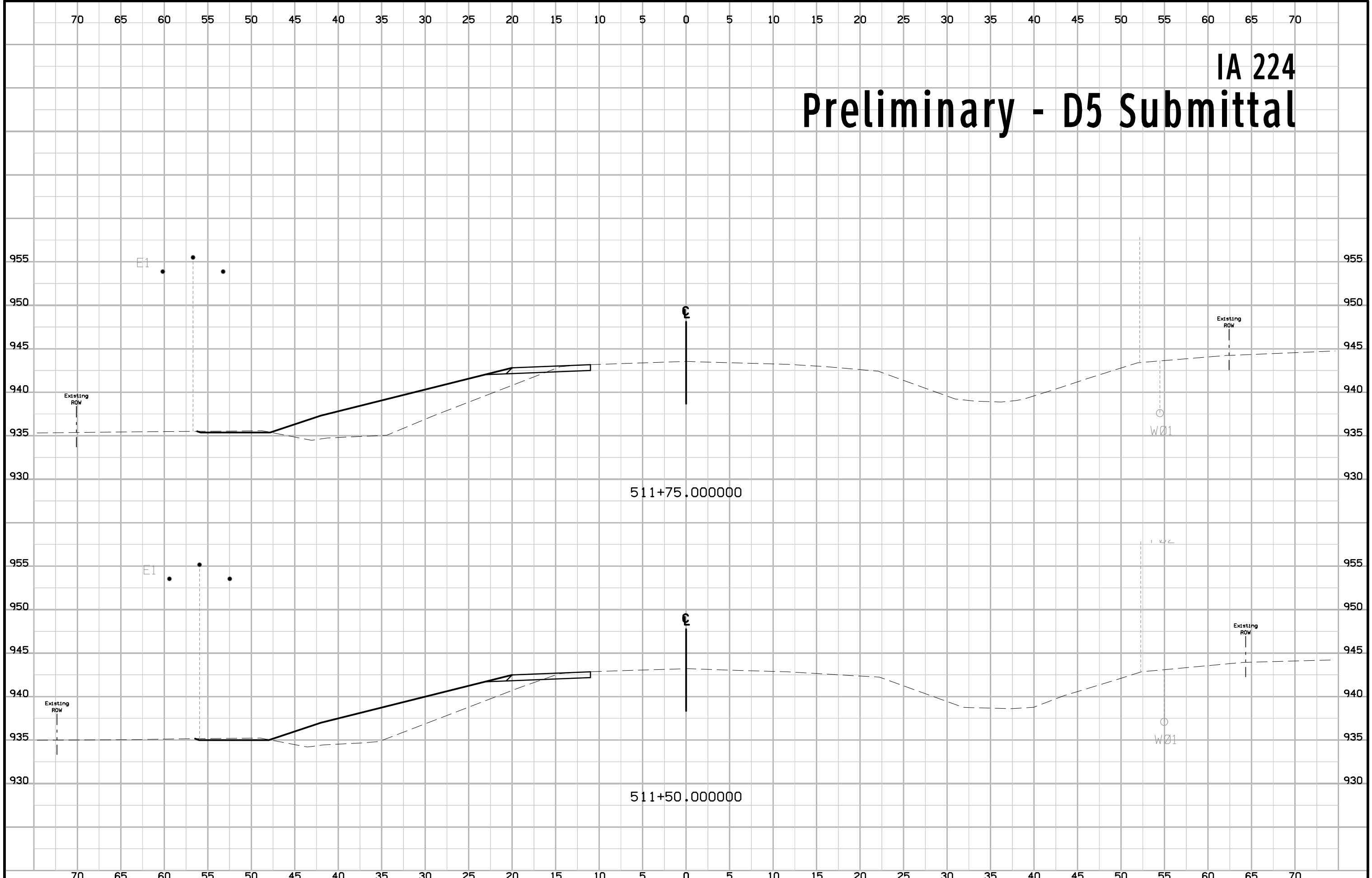
IA 224 Preliminary - D5 Submittal



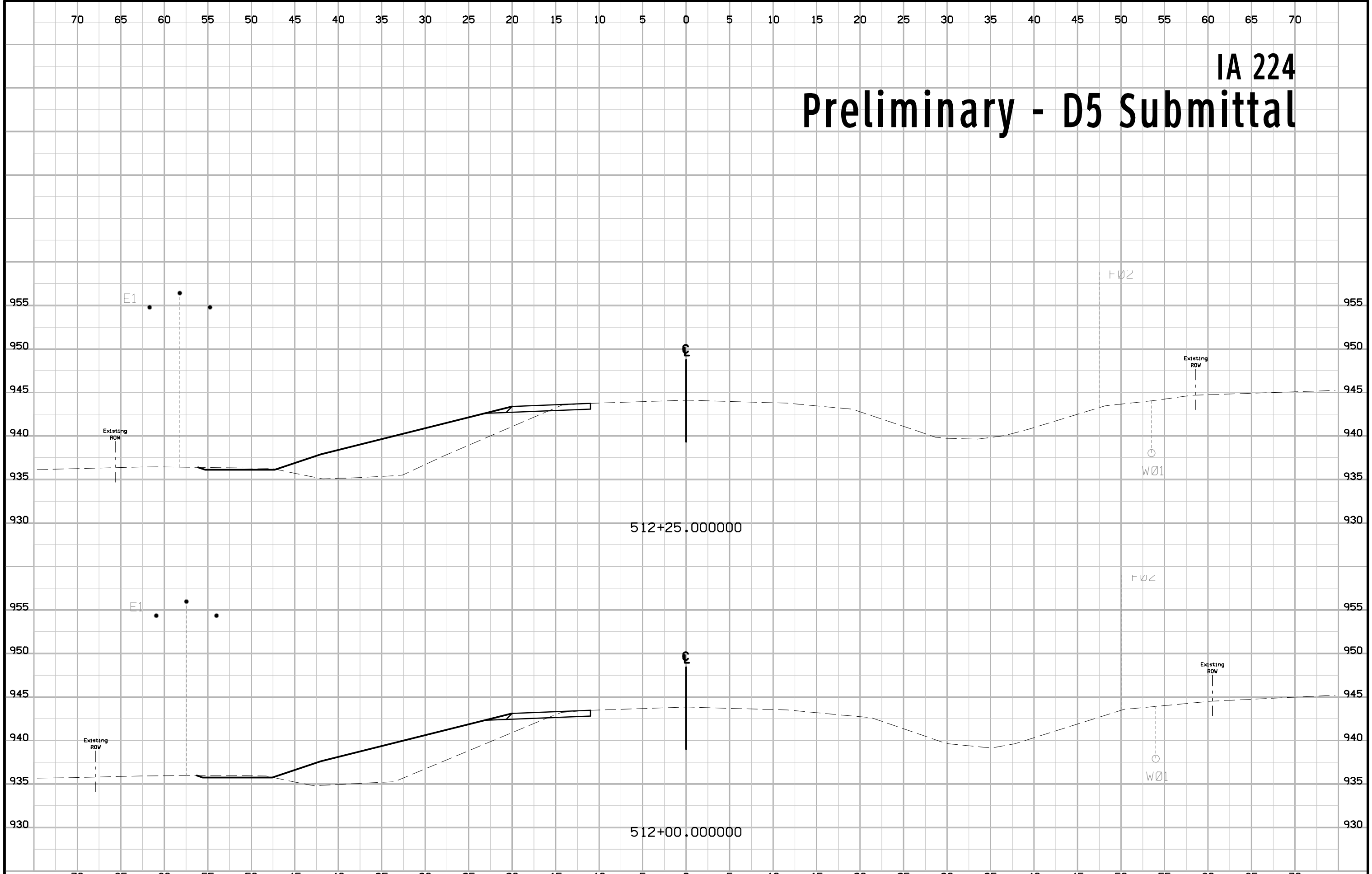
IA 224 Preliminary - D5 Submittal



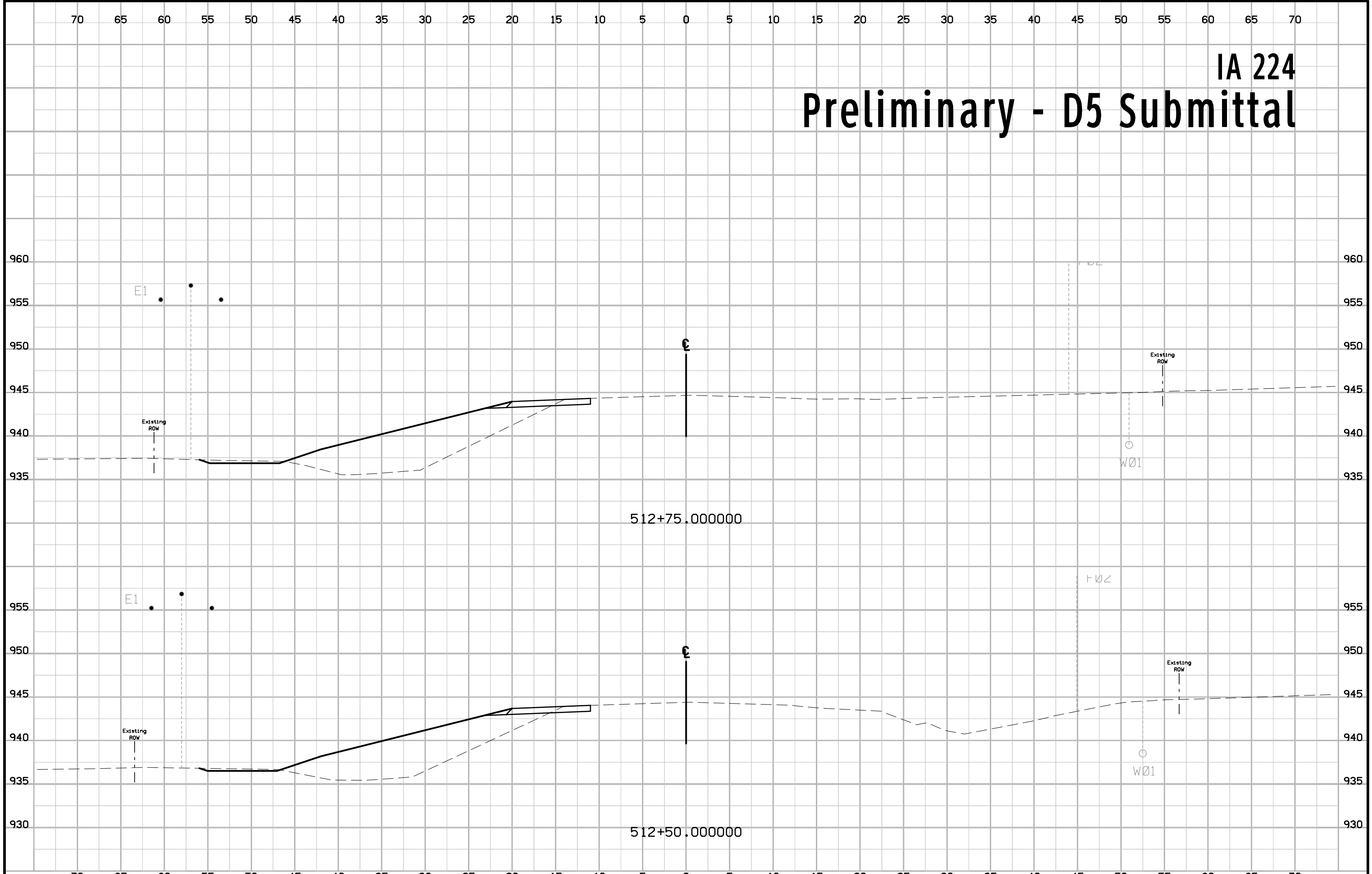
IA 224 Preliminary - D5 Submittal



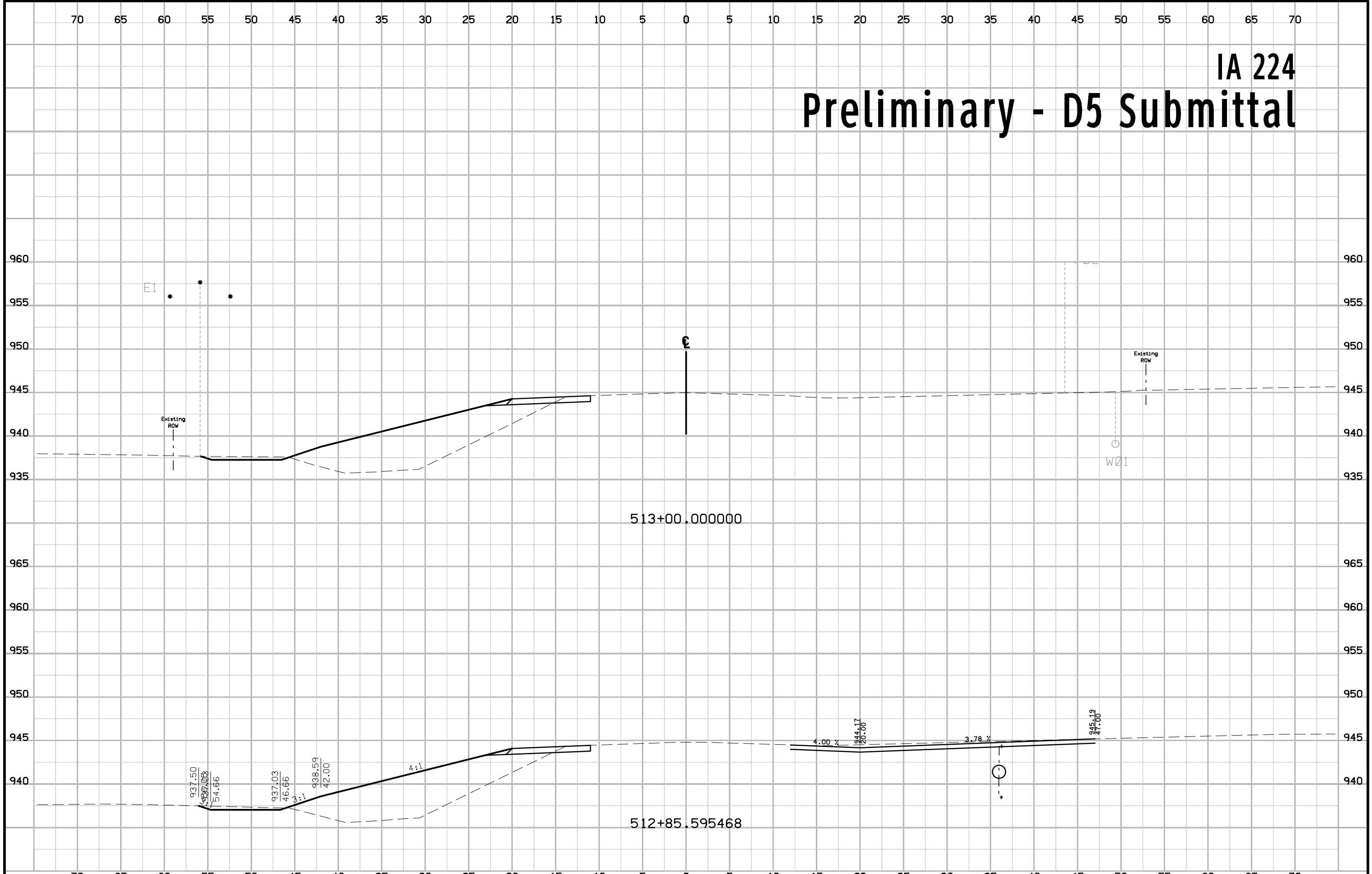
IA 224 Preliminary - D5 Submittal



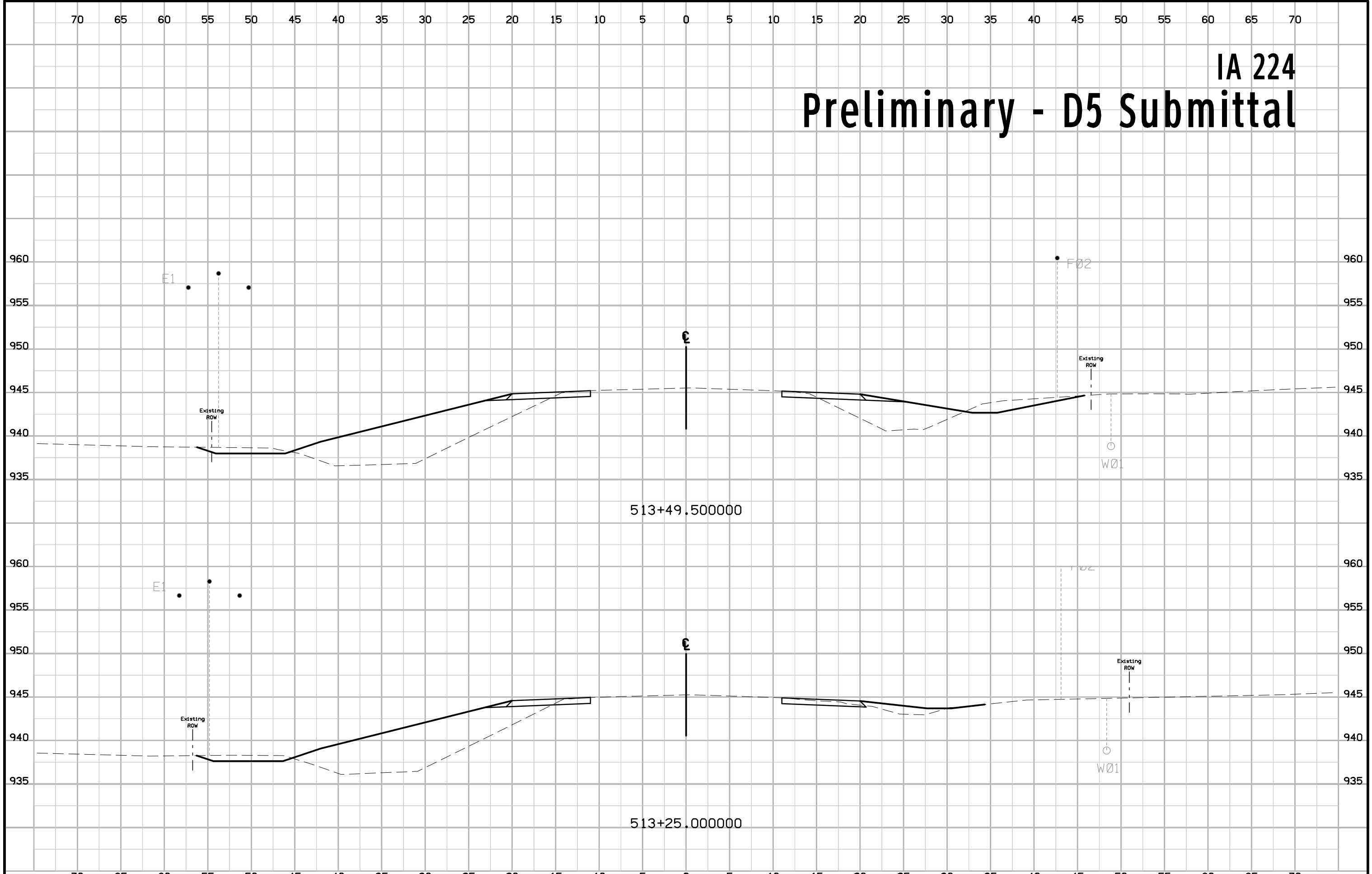
IA 224 Preliminary - D5 Submittal



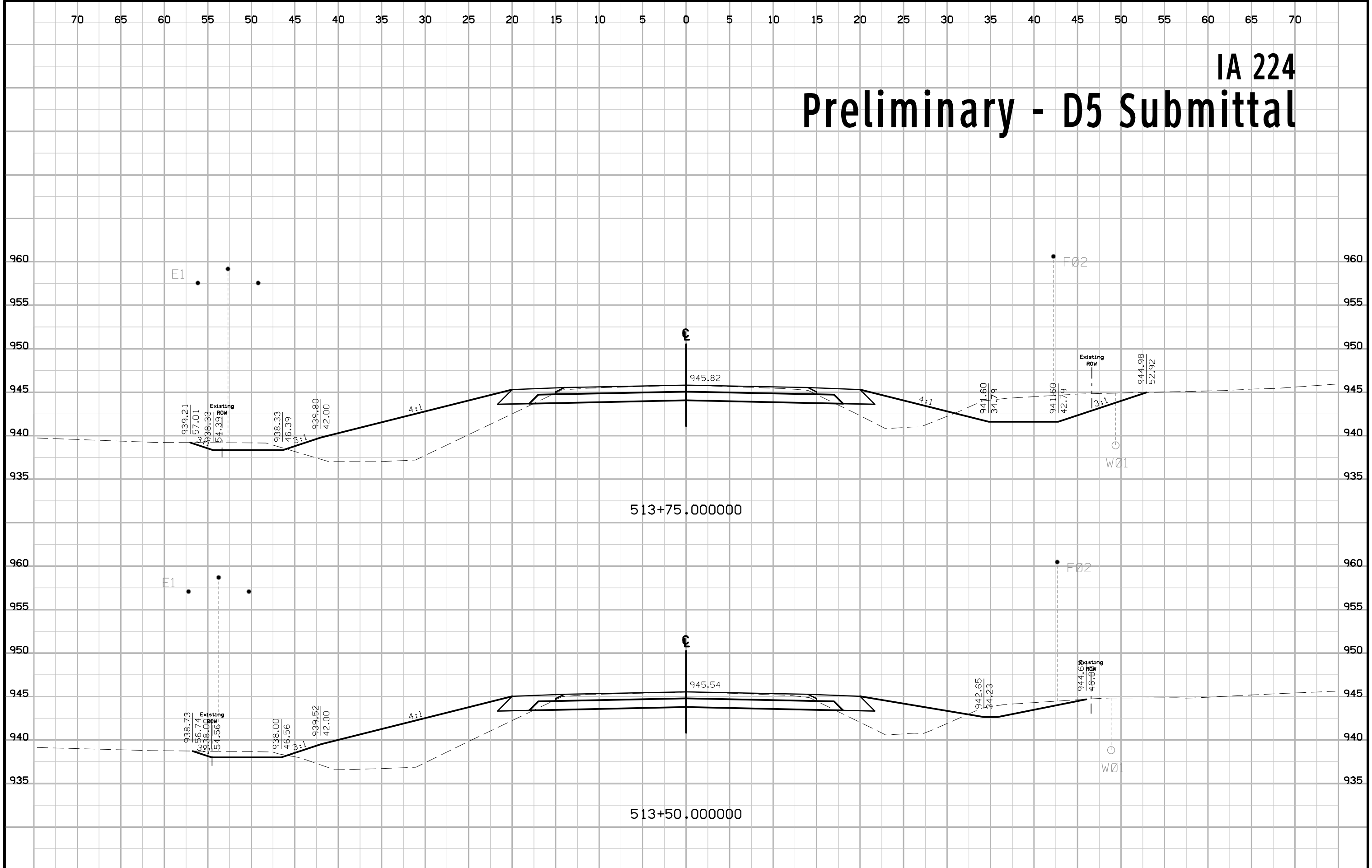
IA 224 Preliminary - D5 Submittal



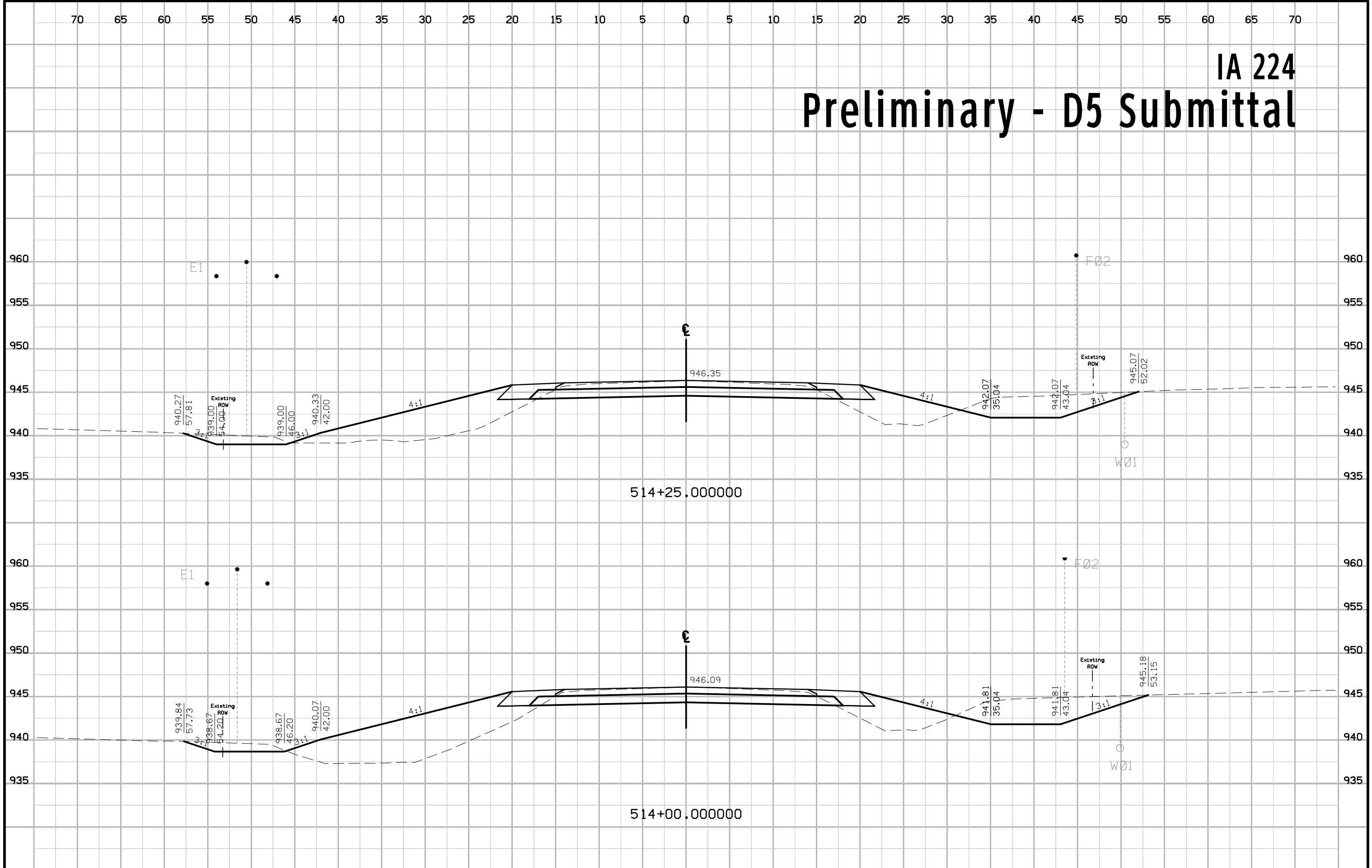
IA 224 Preliminary - D5 Submittal



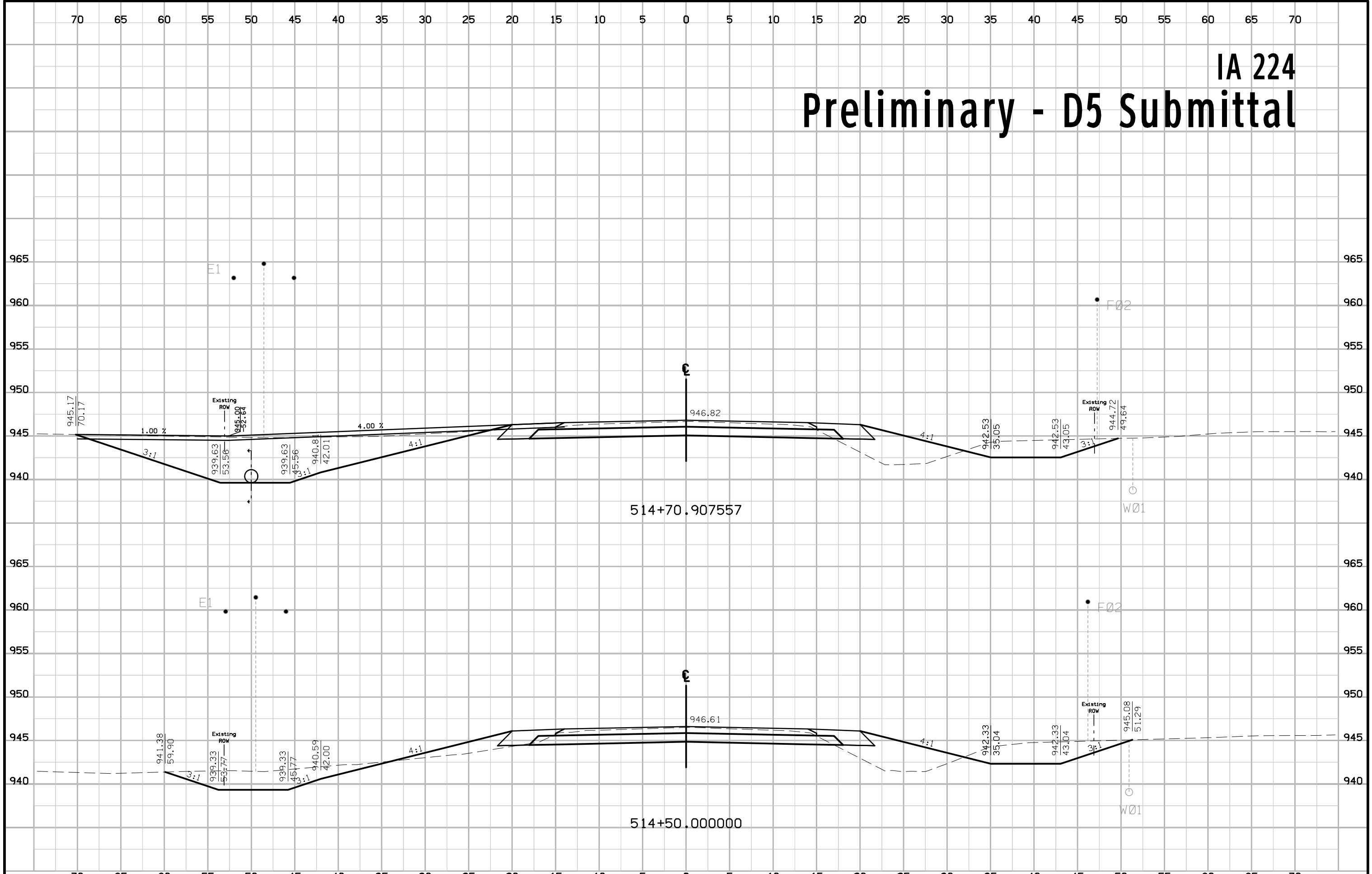
IA 224 Preliminary - D5 Submittal



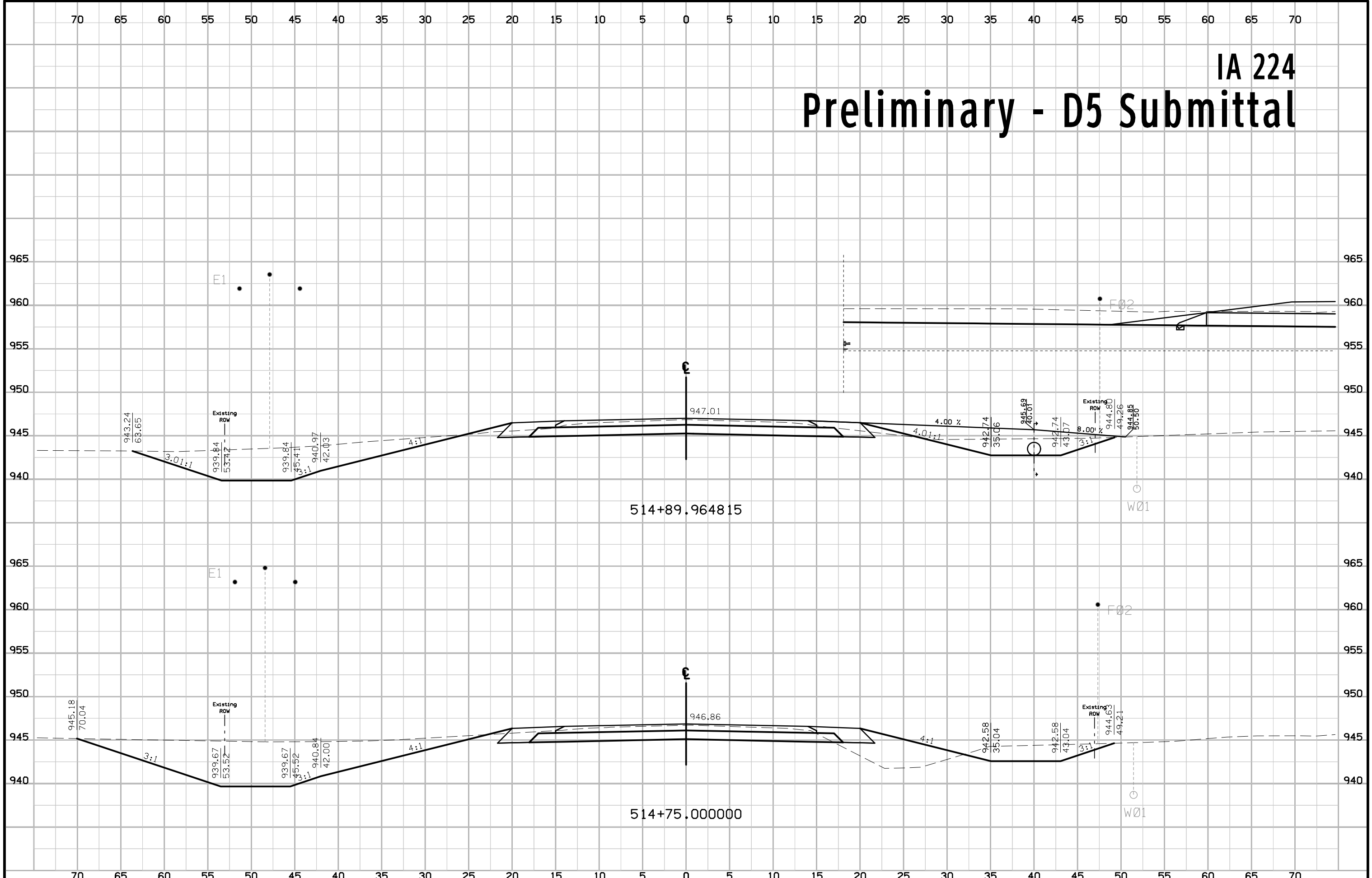
IA 224 Preliminary - D5 Submittal



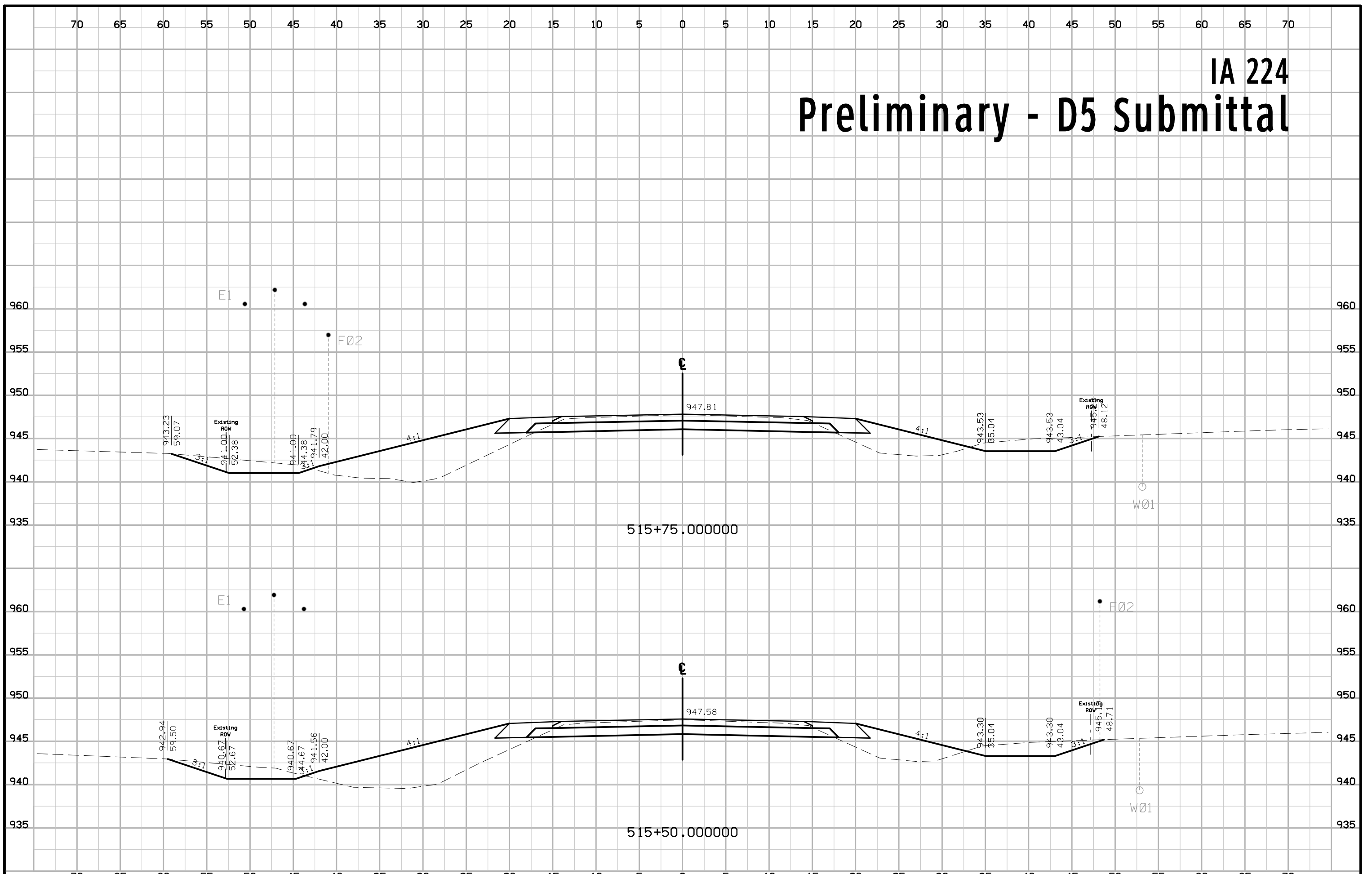
IA 224 Preliminary - D5 Submittal



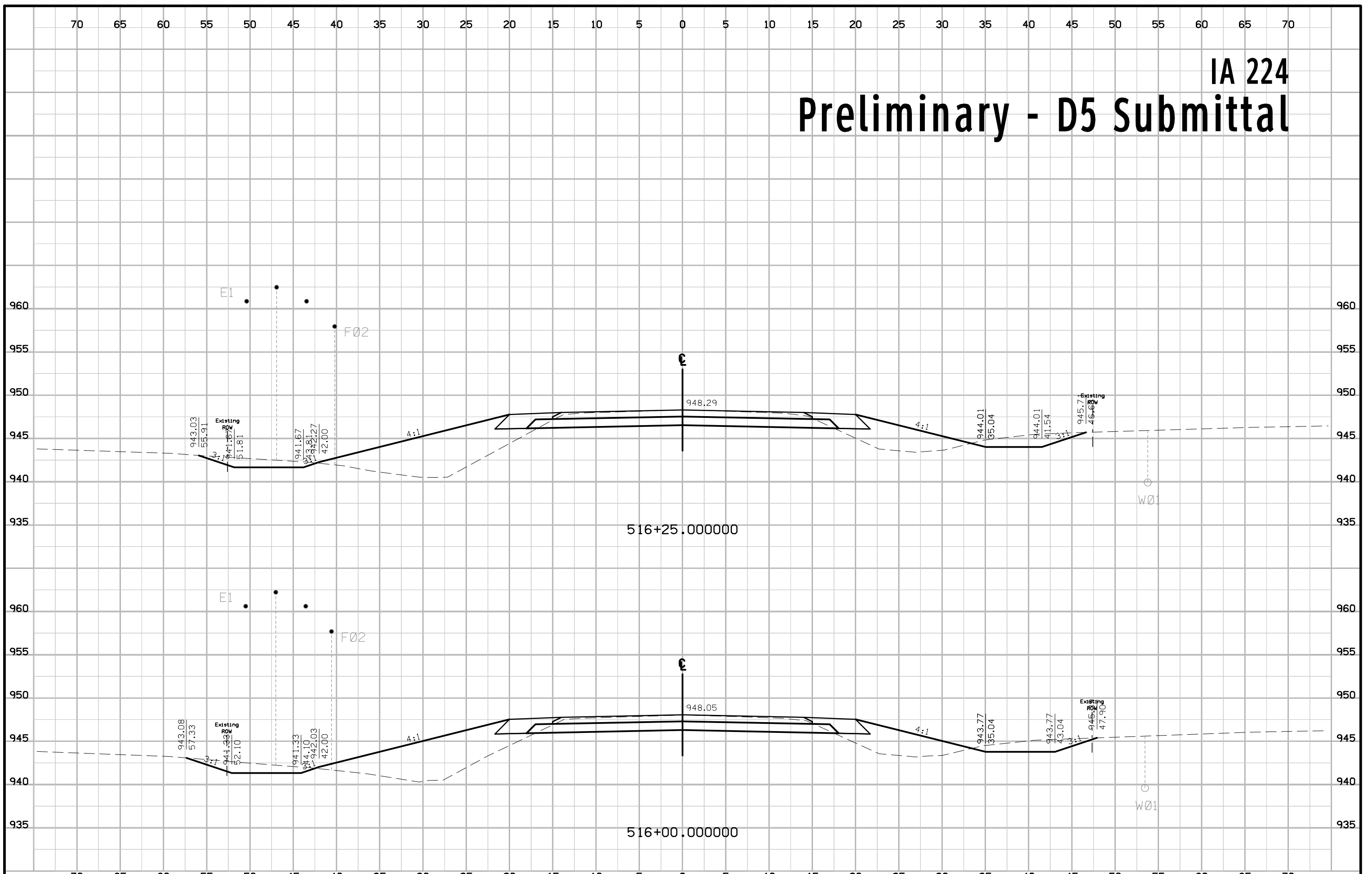
IA 224 Preliminary - D5 Submittal



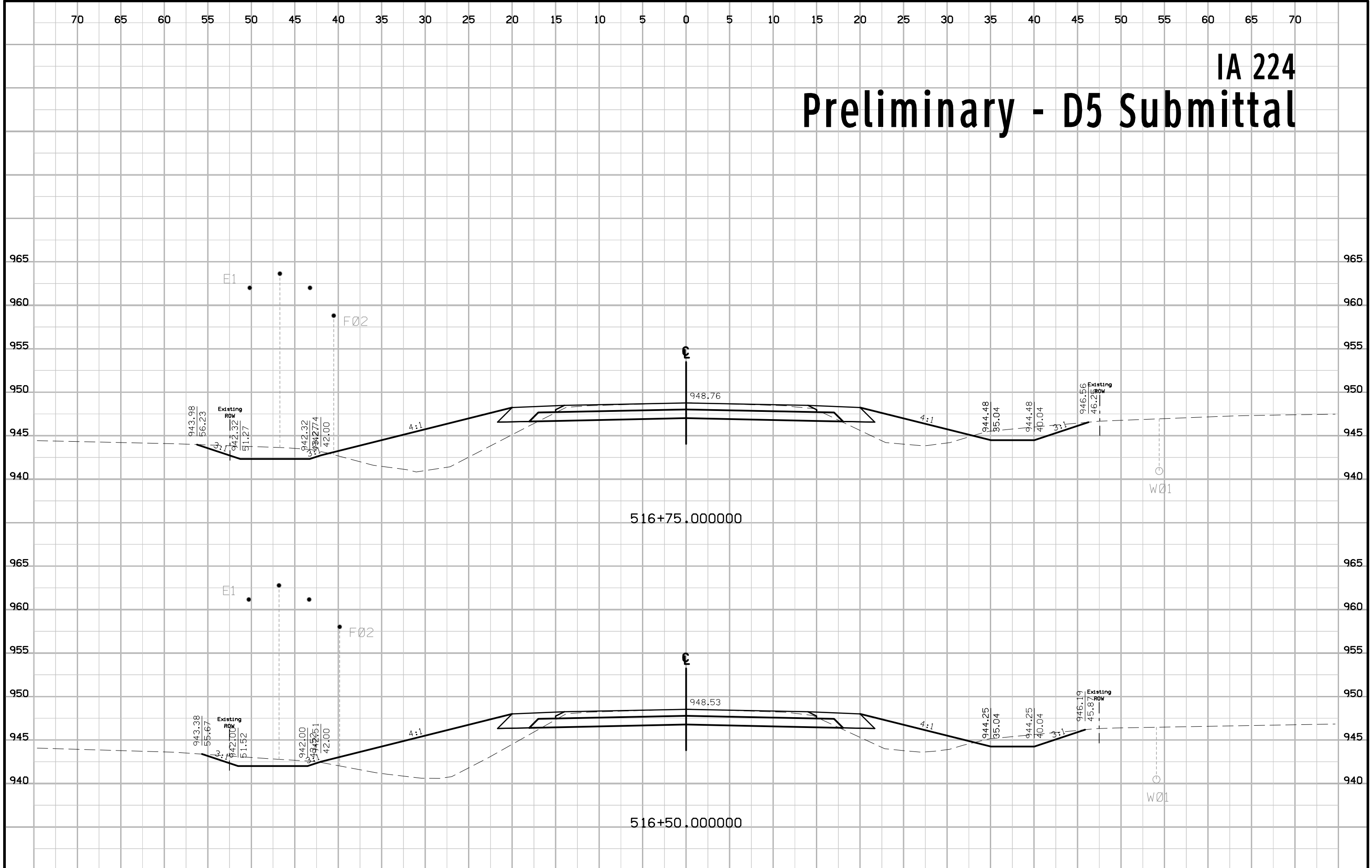
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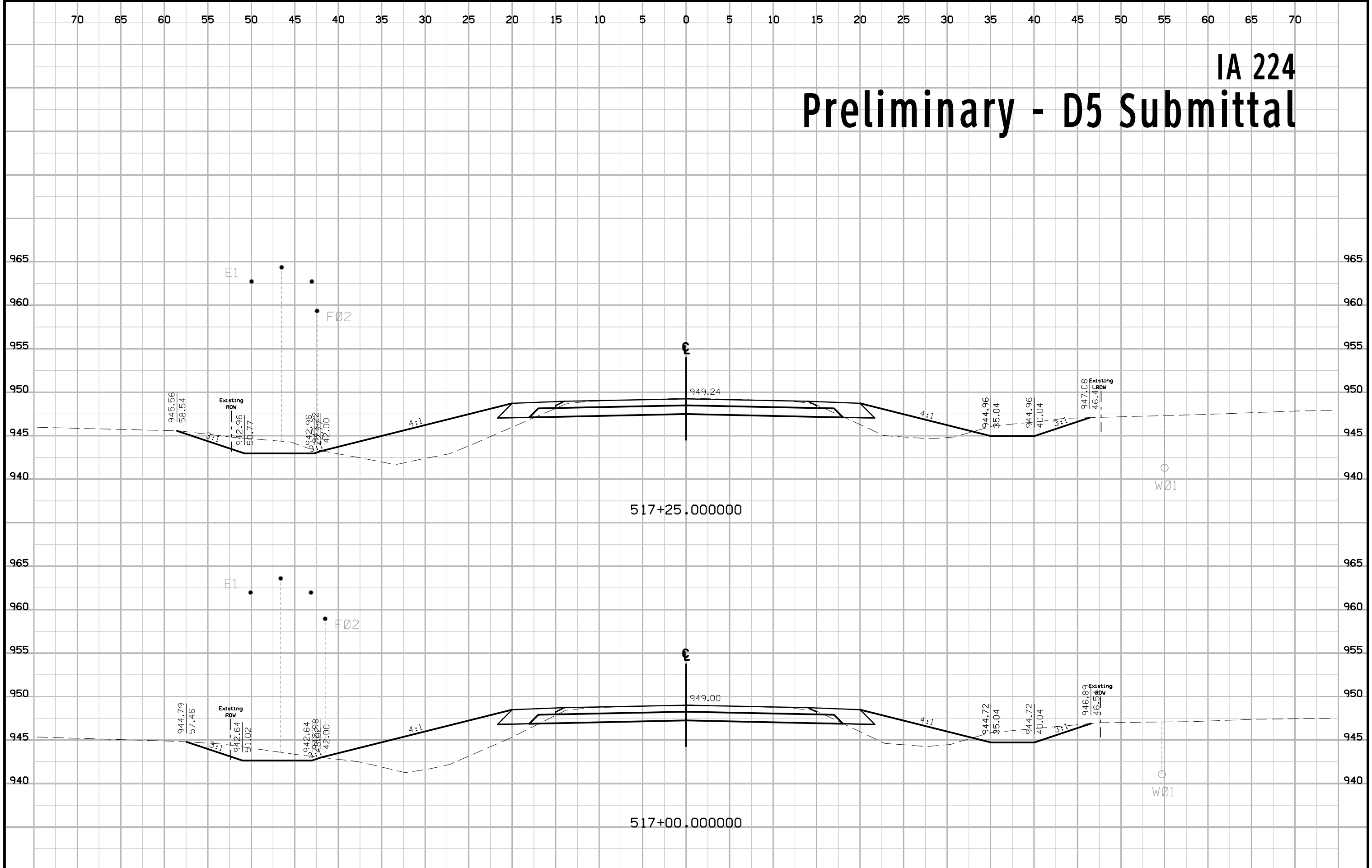
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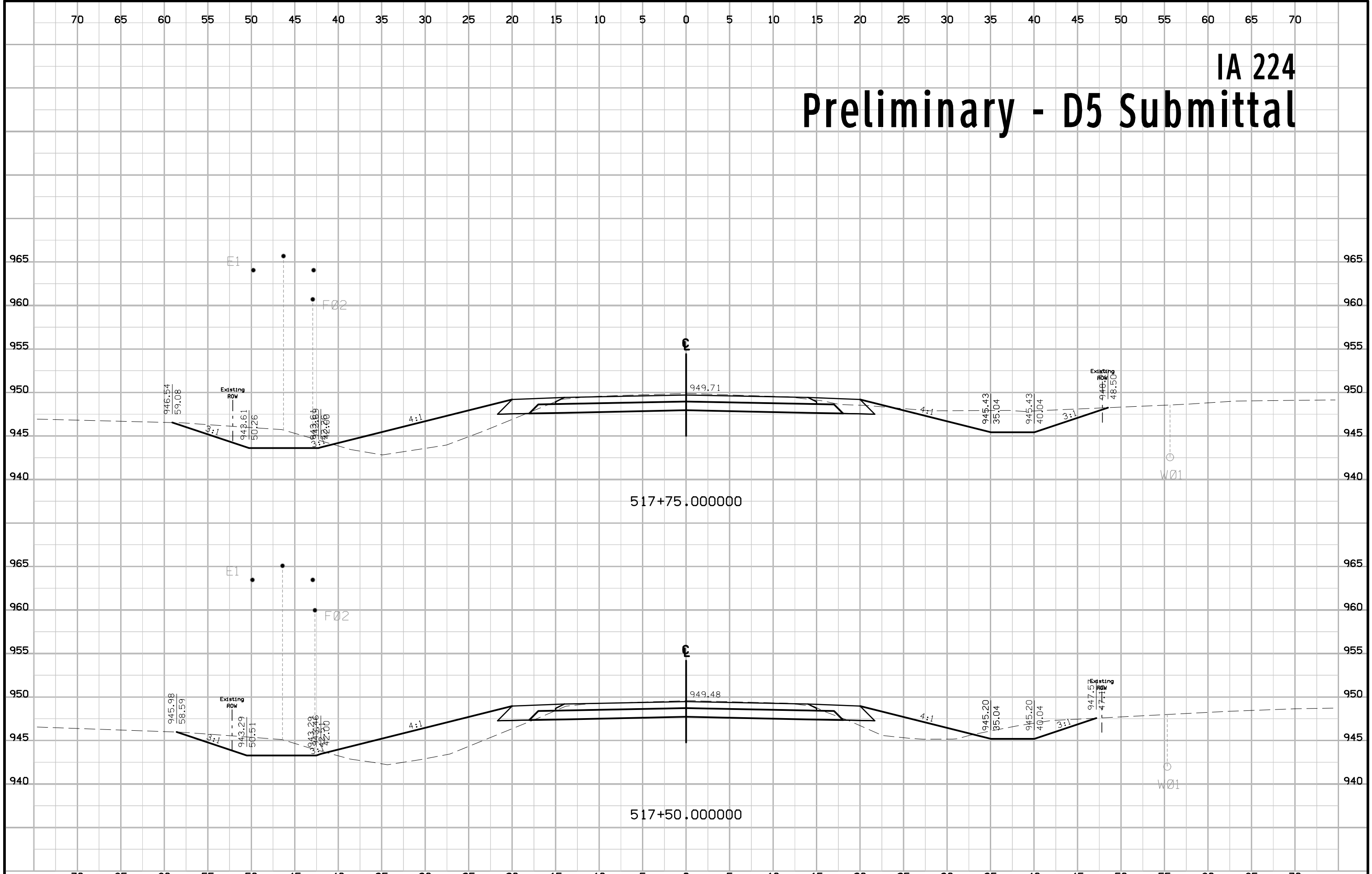
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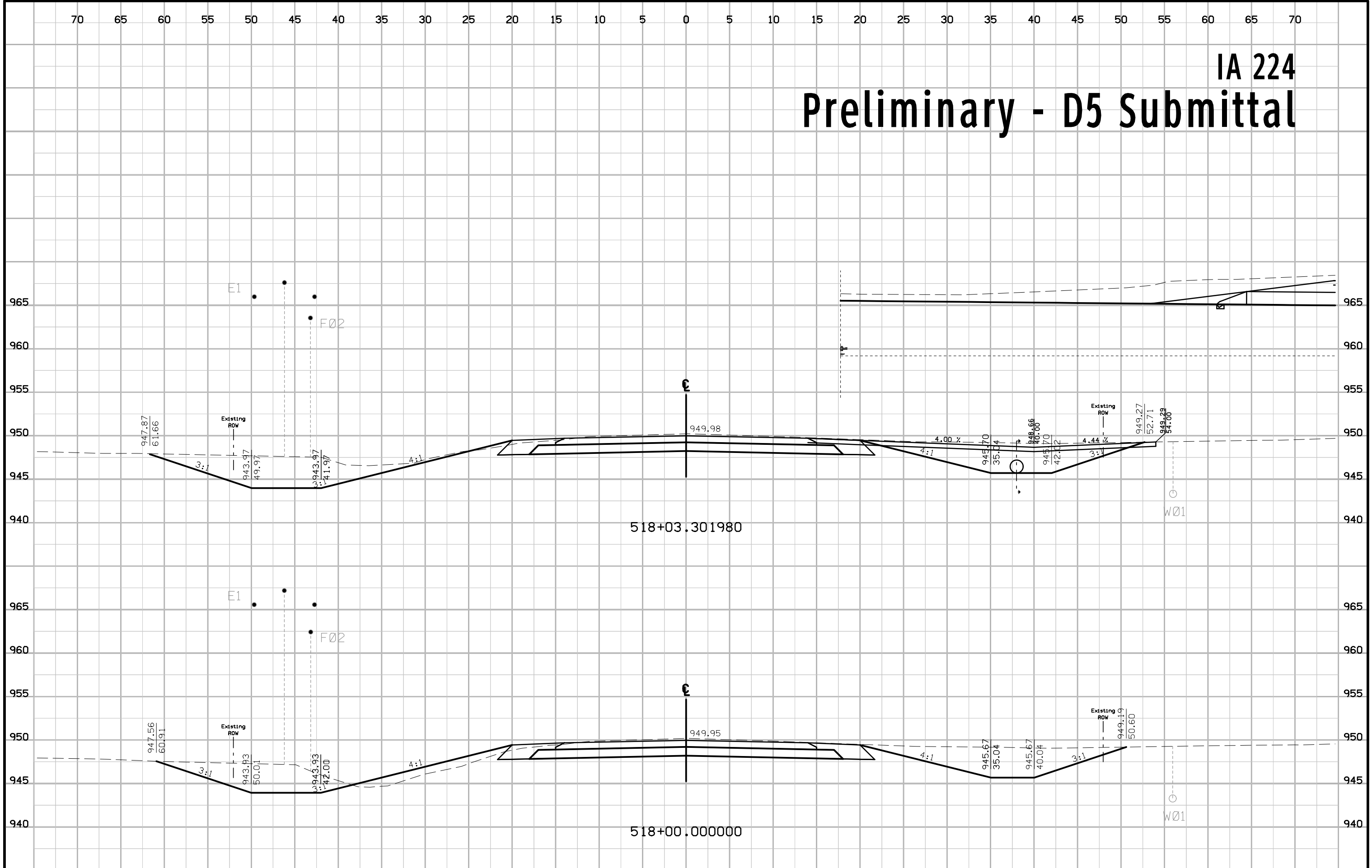
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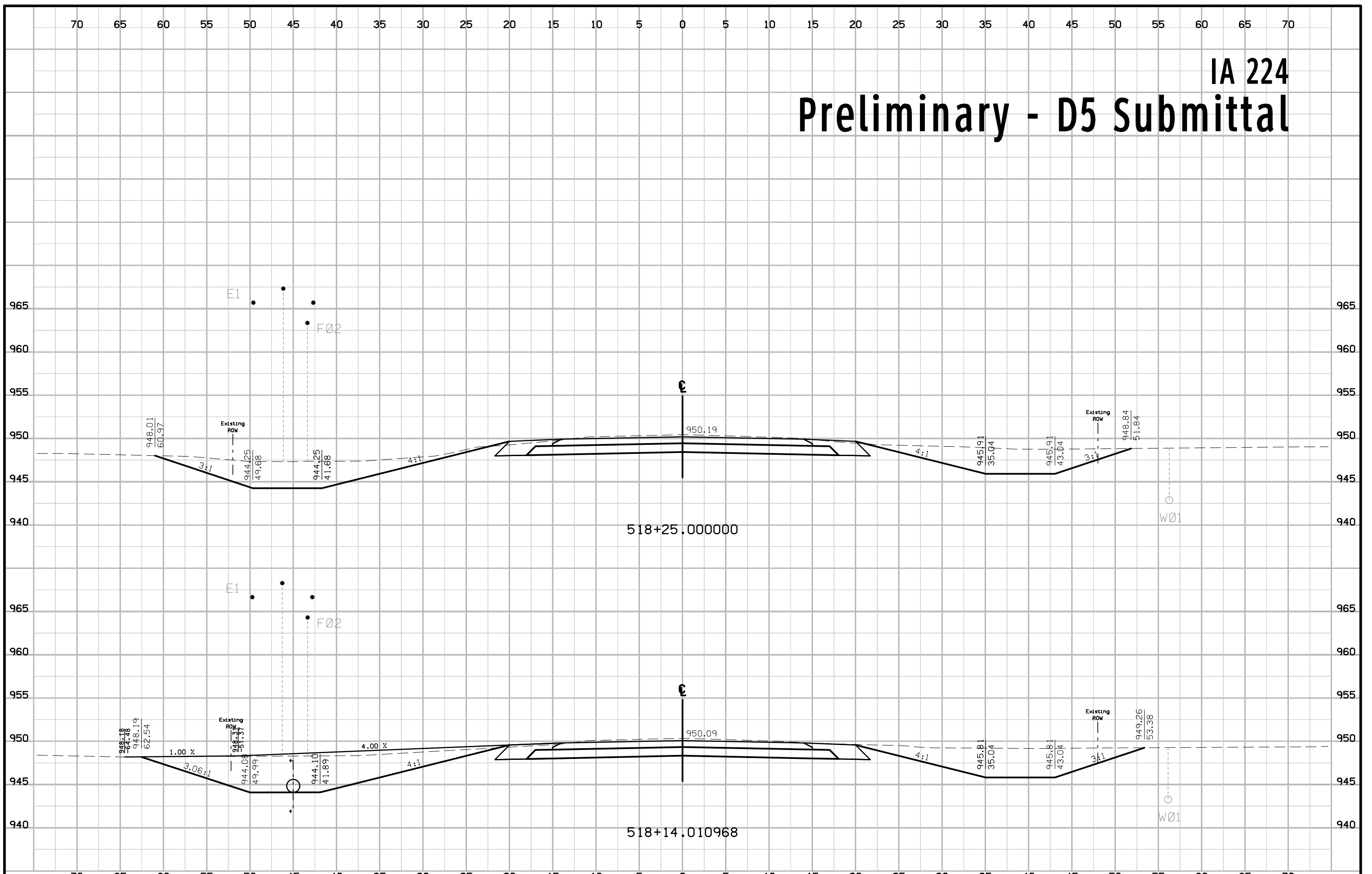
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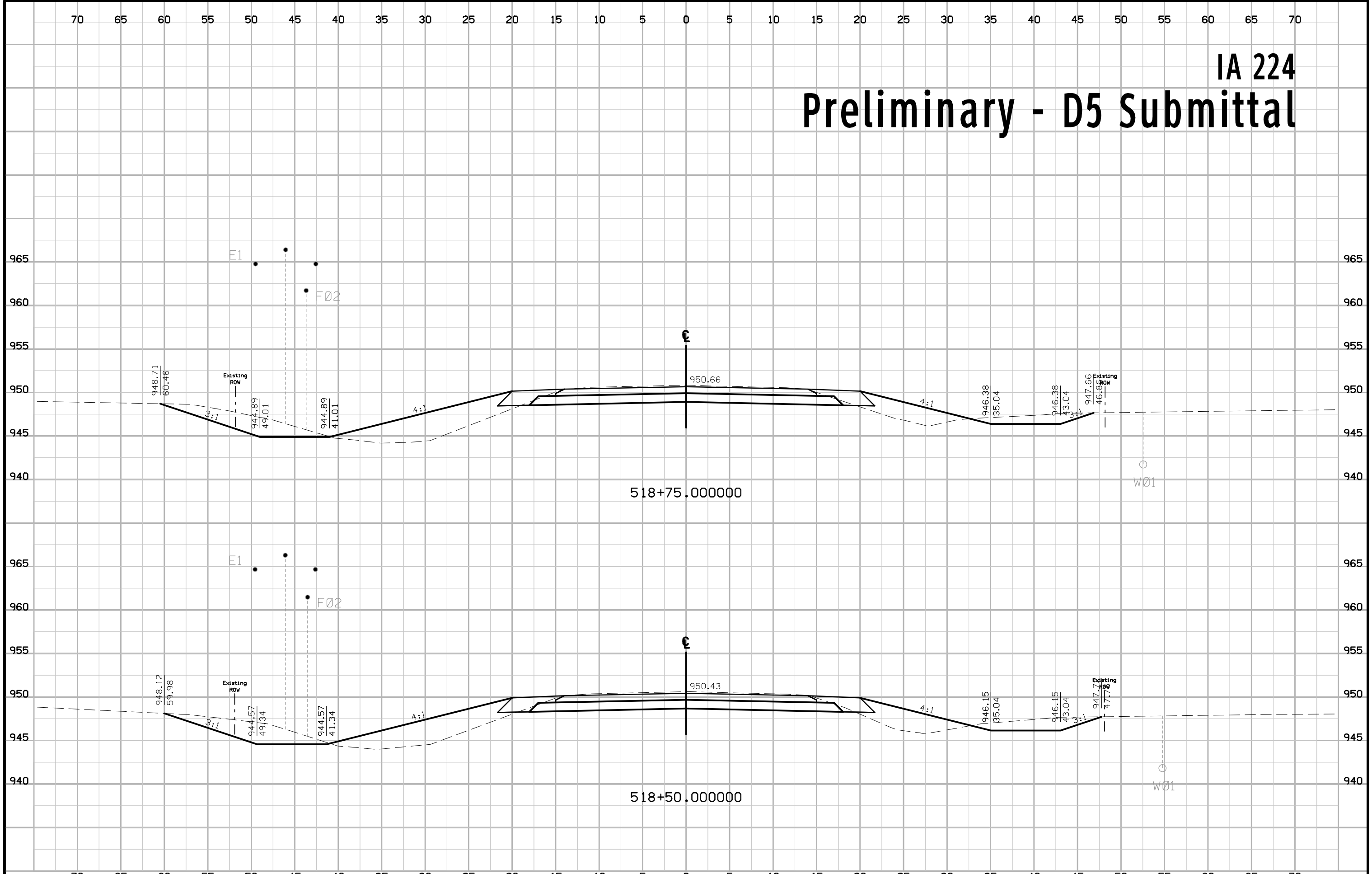
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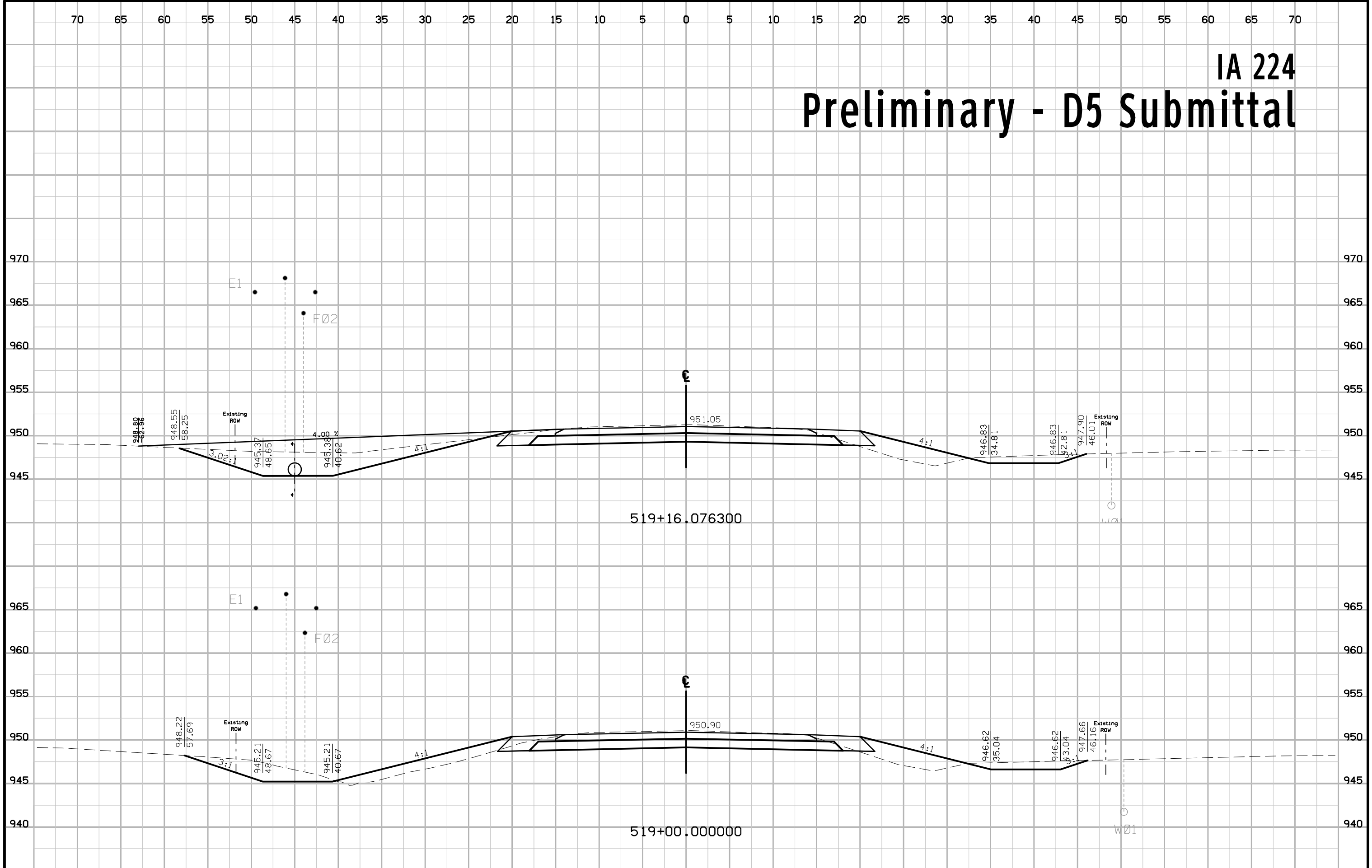
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IA 224 Preliminary - D5 Submittal

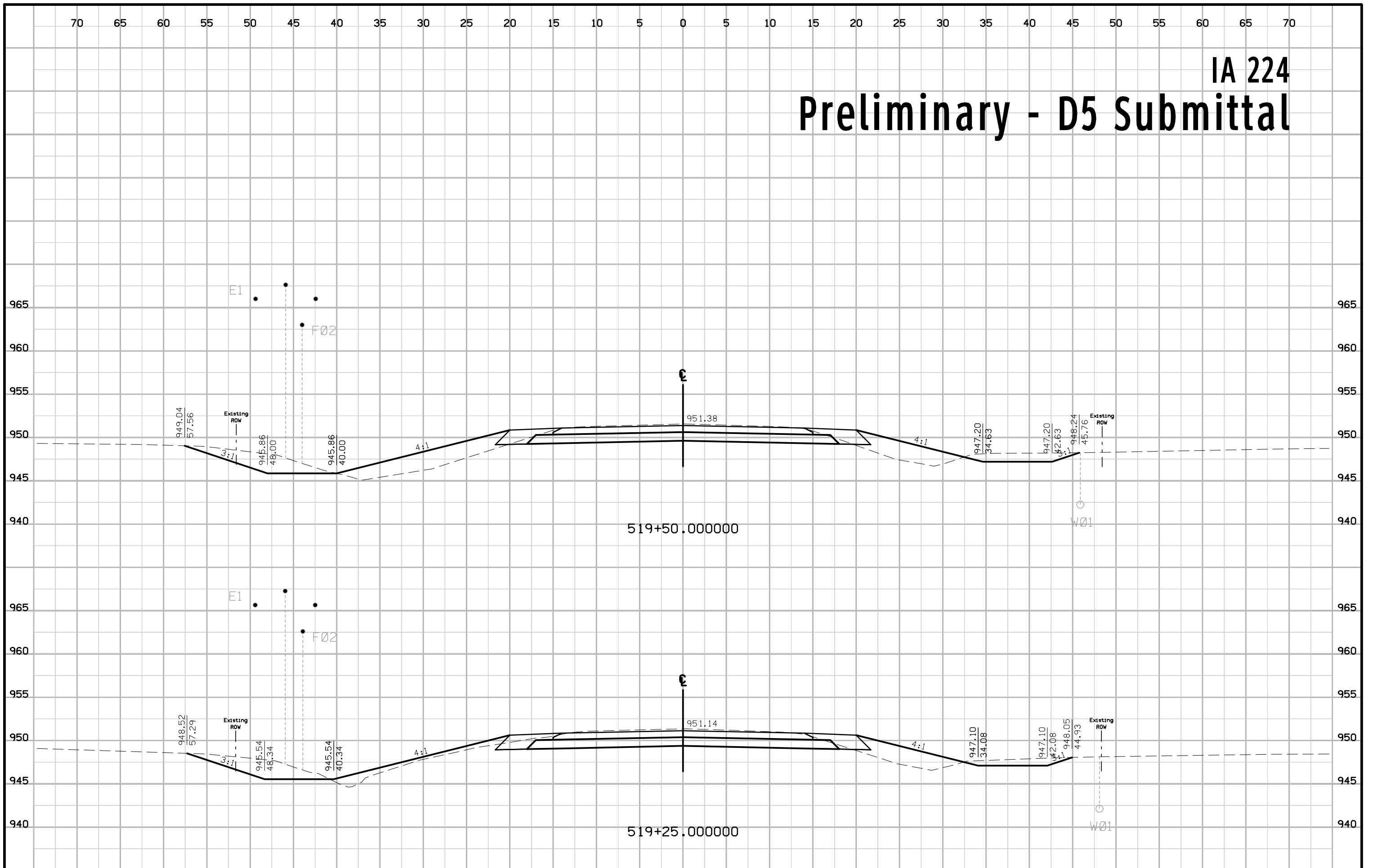


IA 224 Preliminary - D5 Submittal

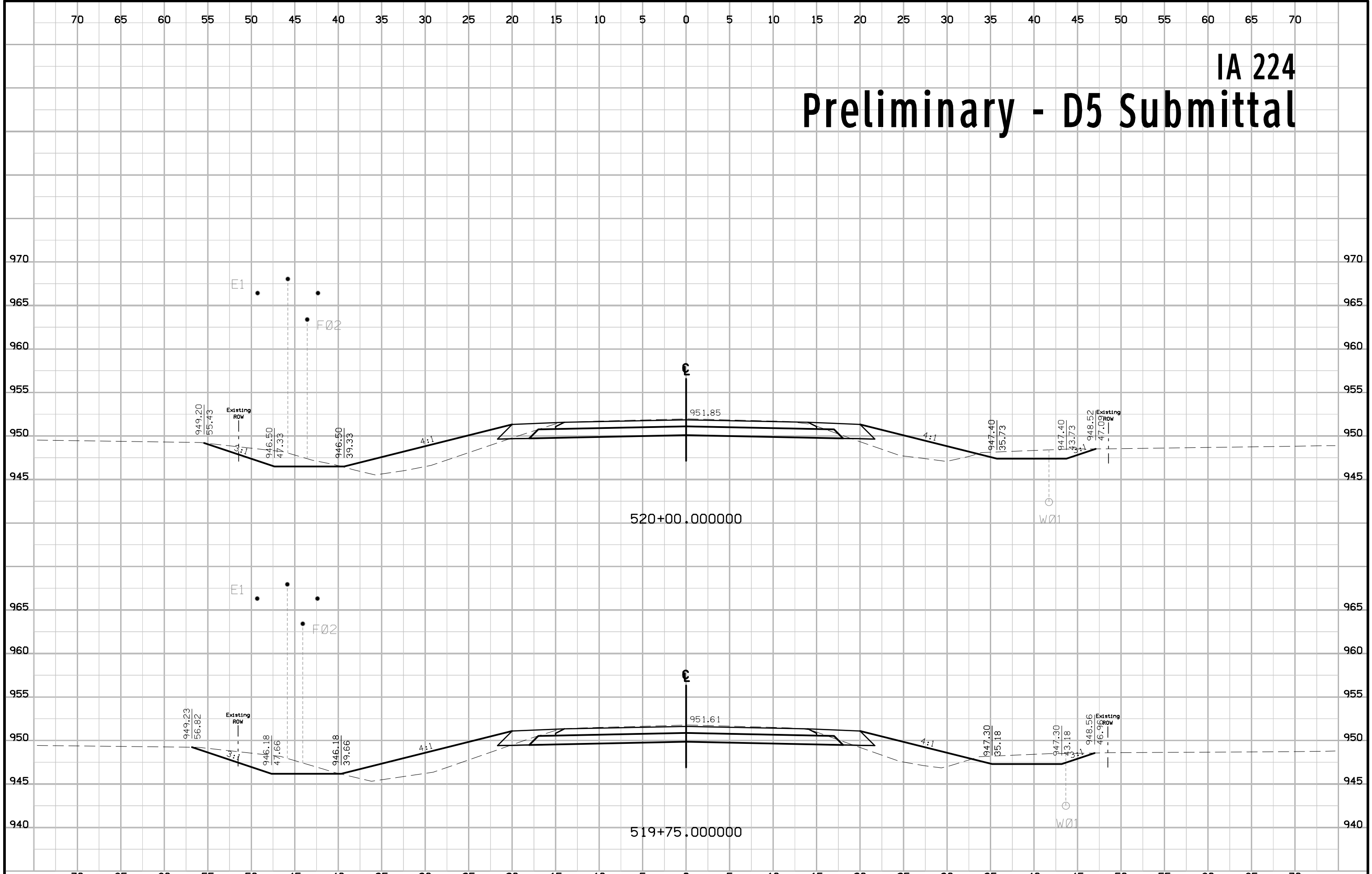


IA 224

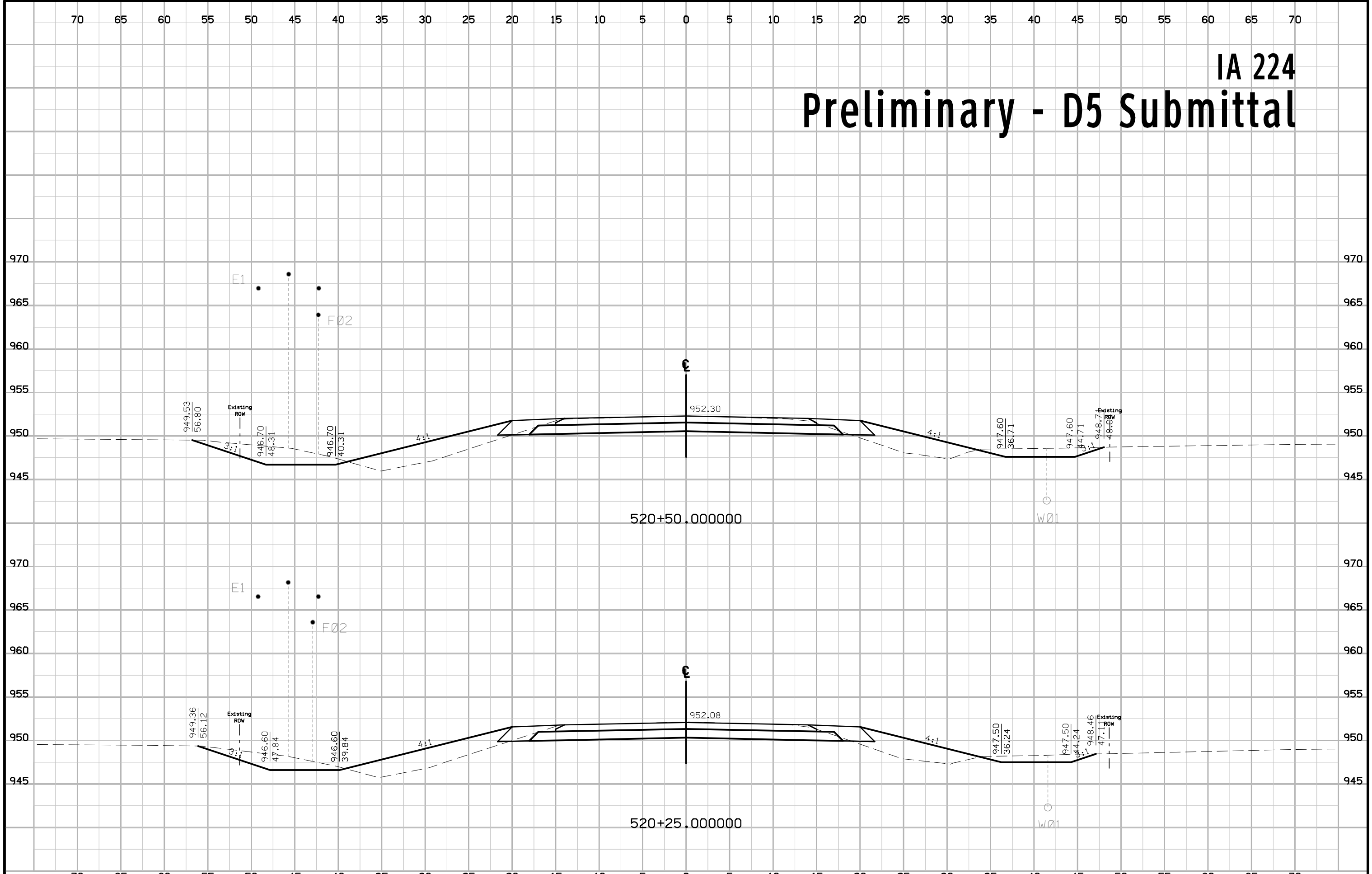
Preliminary - D5 Submittal



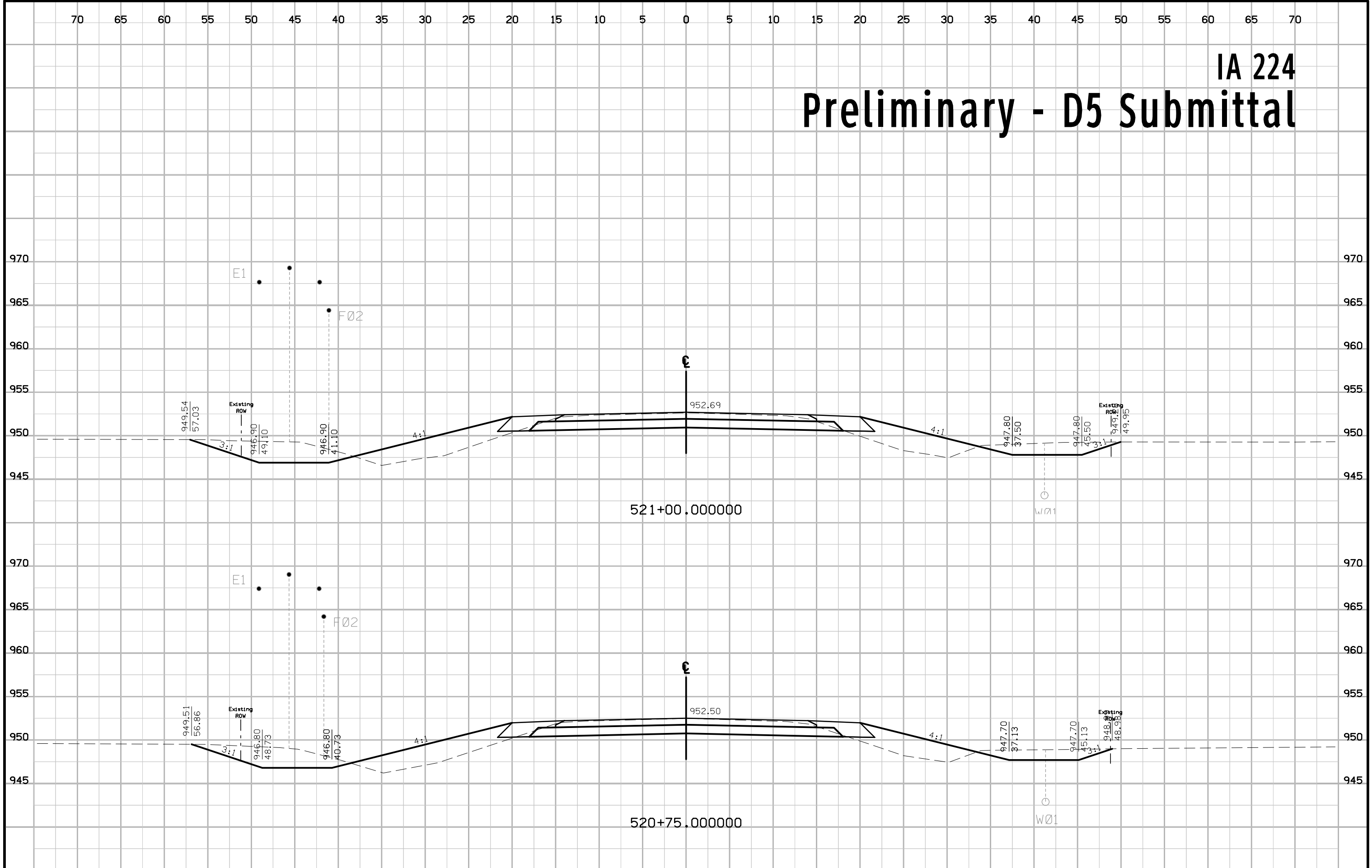
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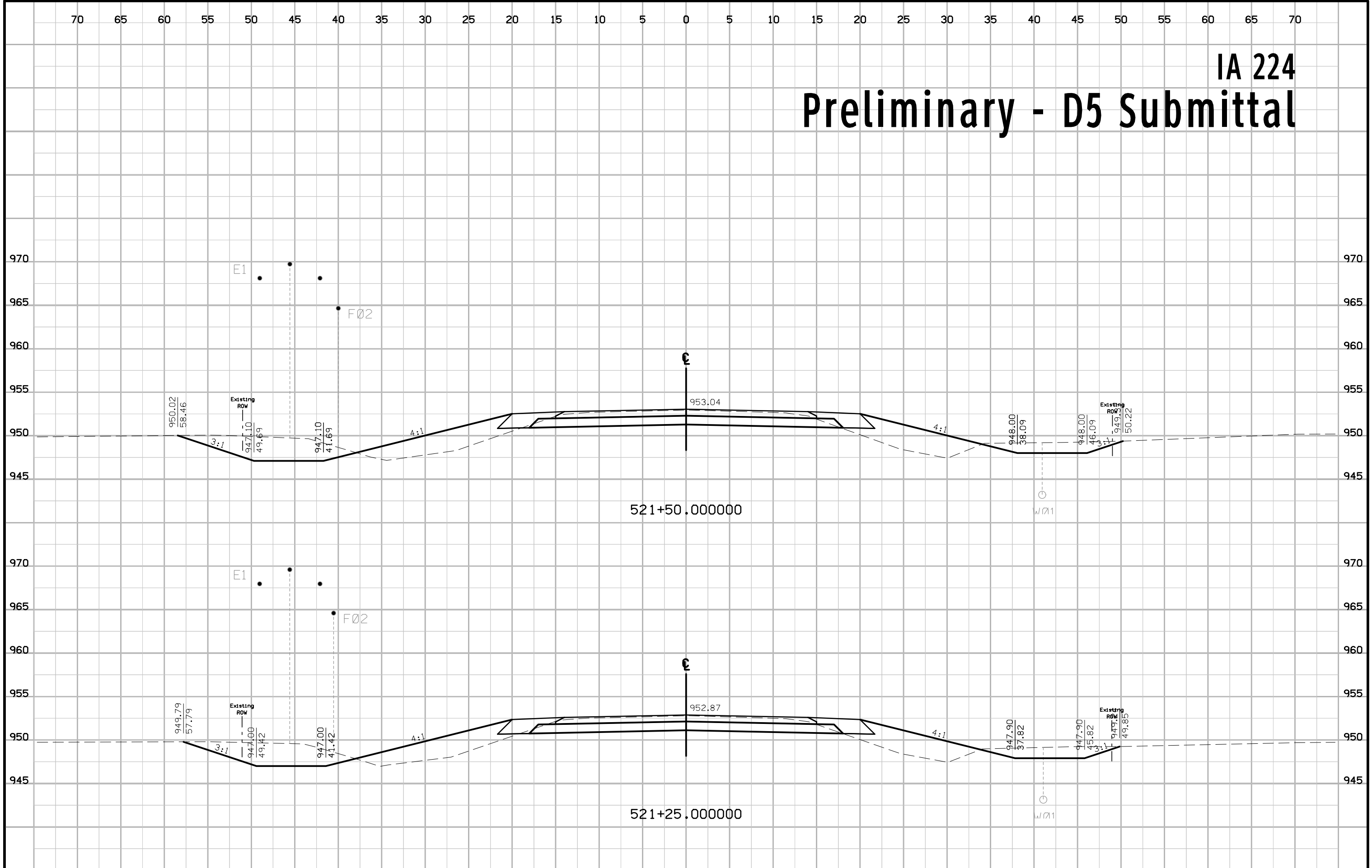
IA 224 Preliminary - D5 Submittal



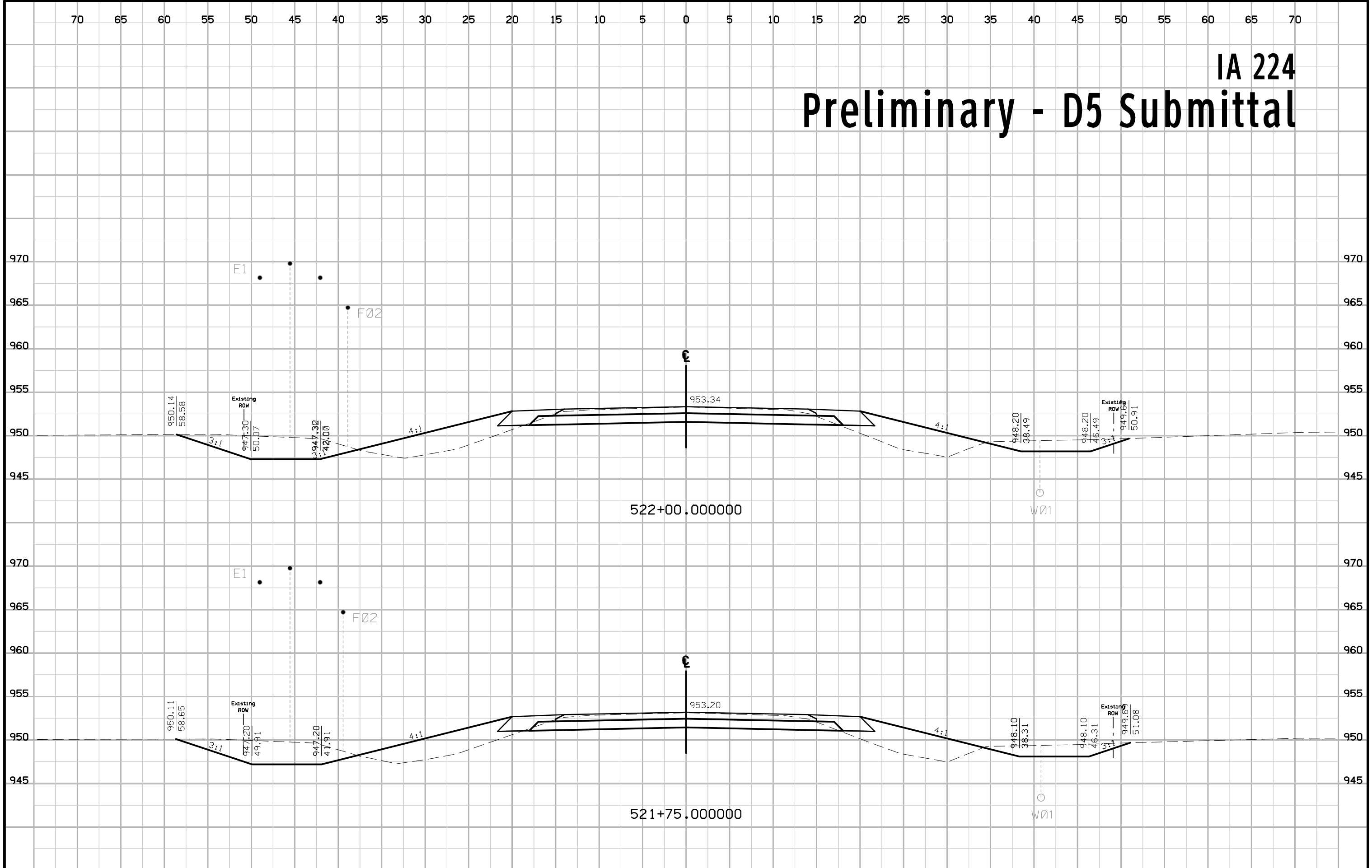
IA 224 Preliminary - D5 Submittal



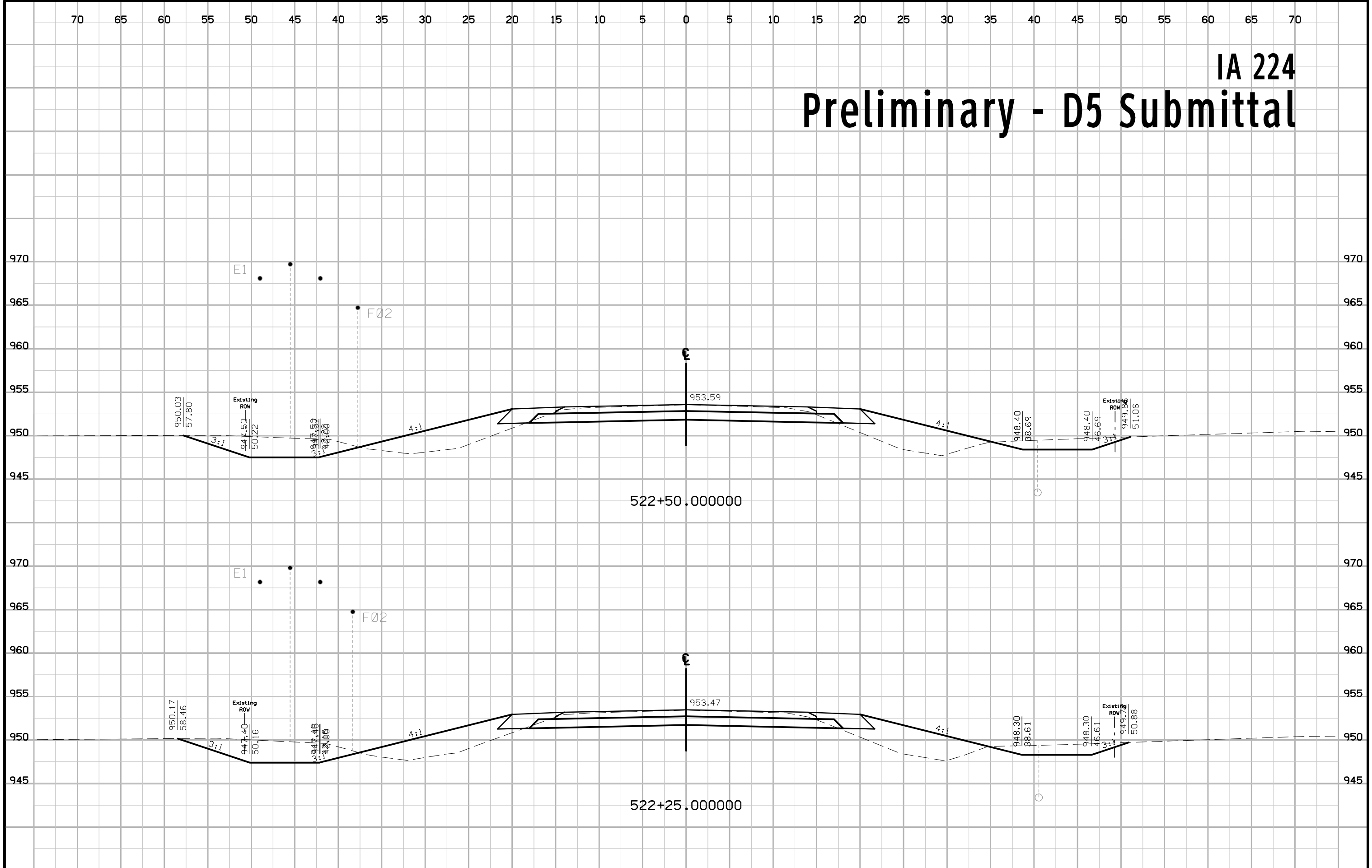
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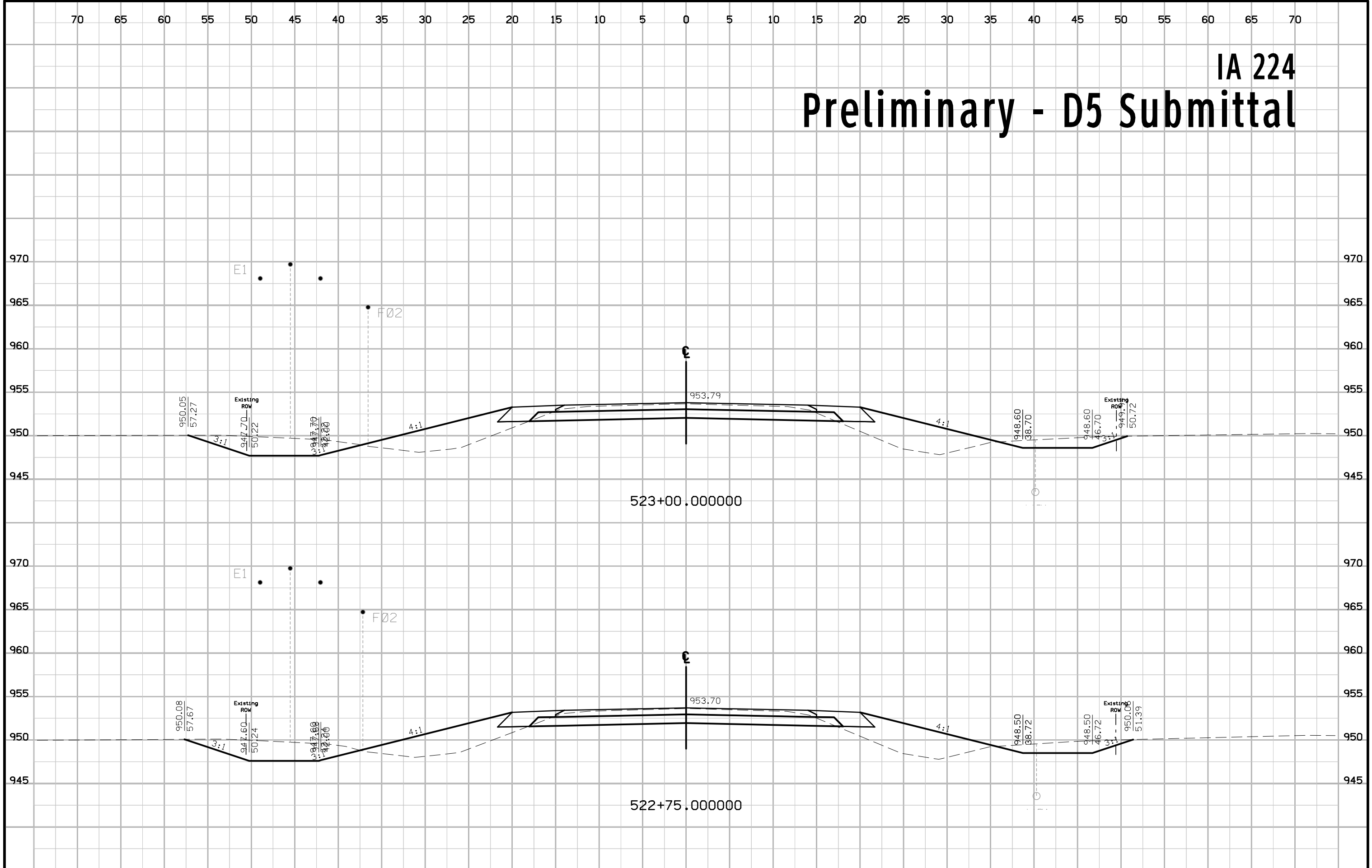
IA 224 Preliminary - D5 Submittal



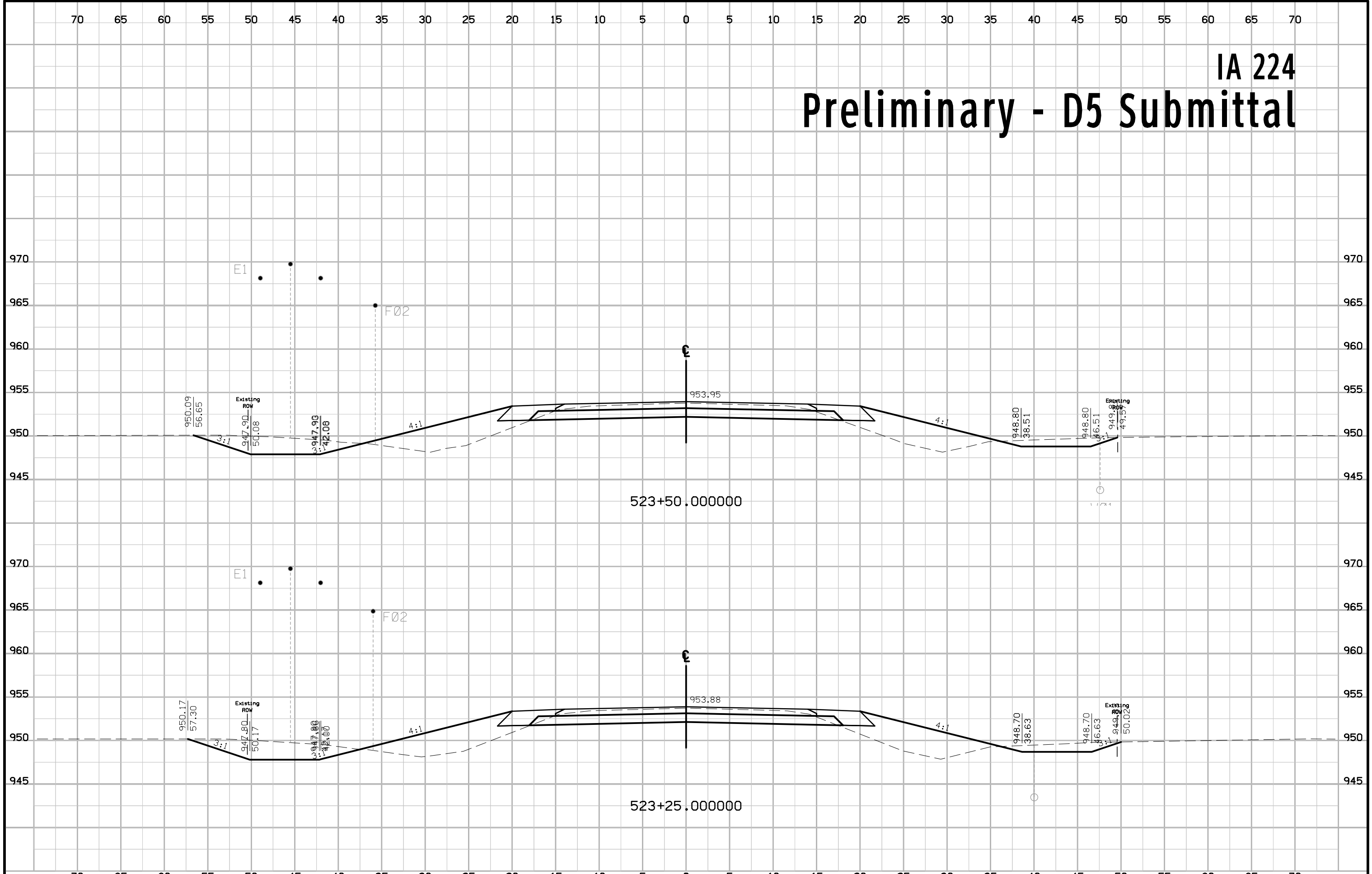
IA 224 Preliminary - D5 Submittal



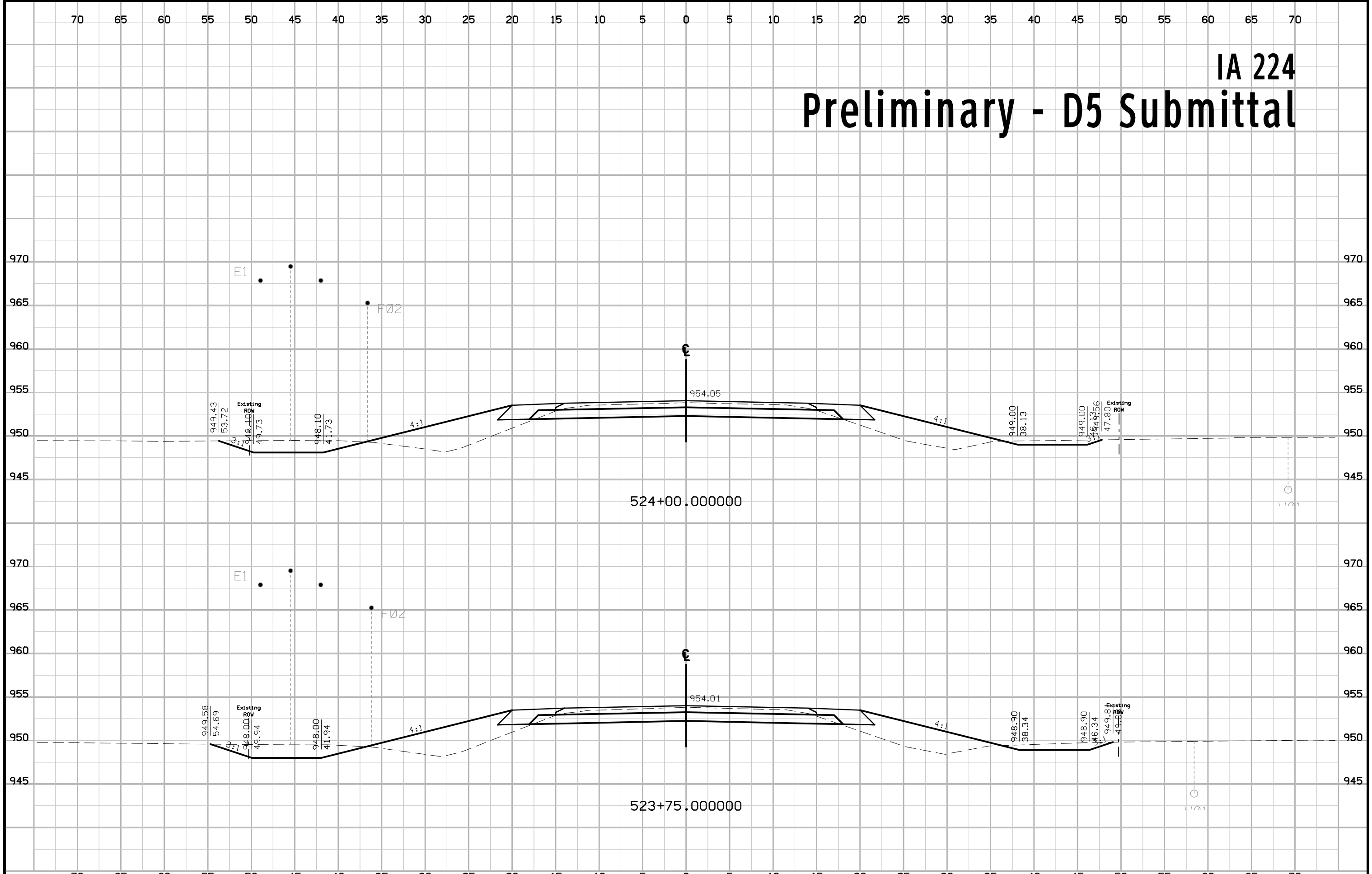
IA 224 Preliminary - D5 Submittal



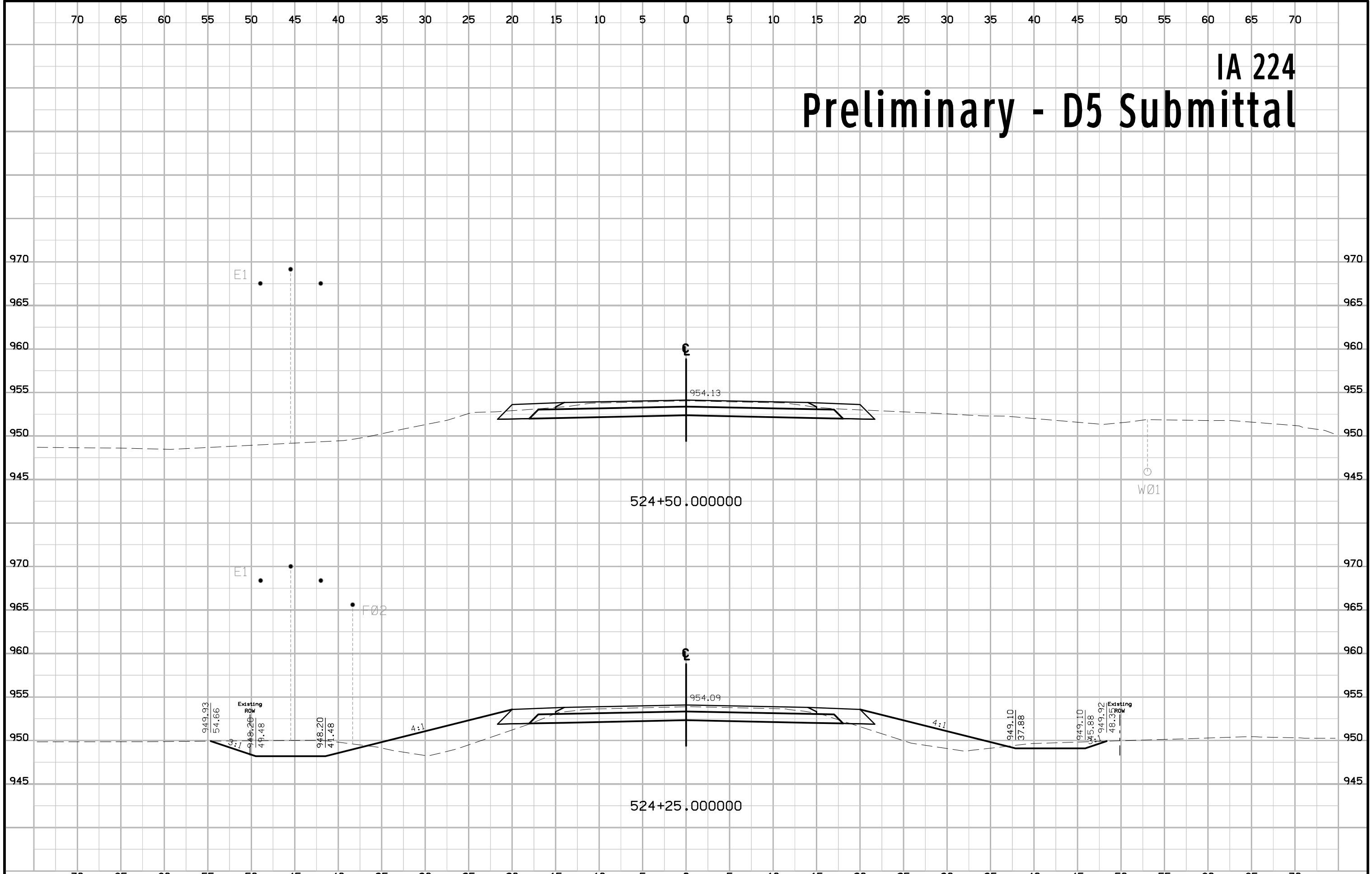
IA 224 Preliminary - D5 Submittal



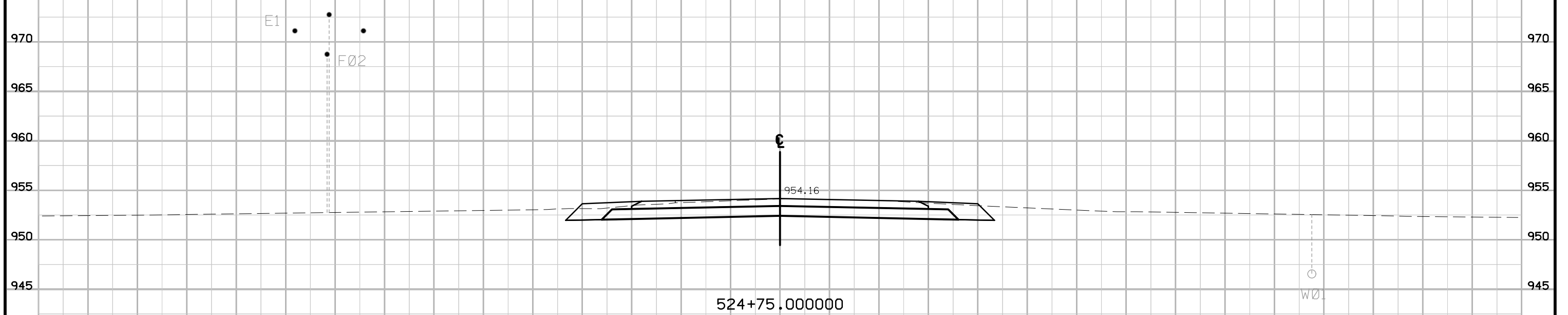
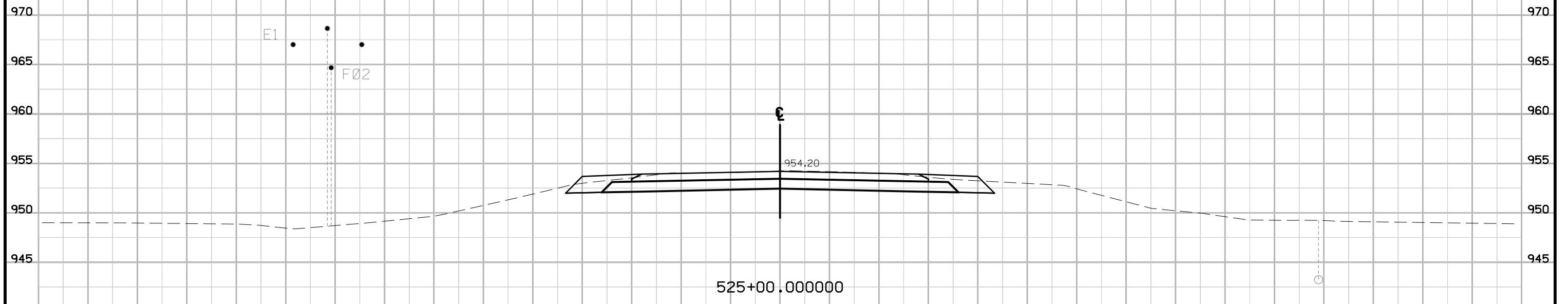
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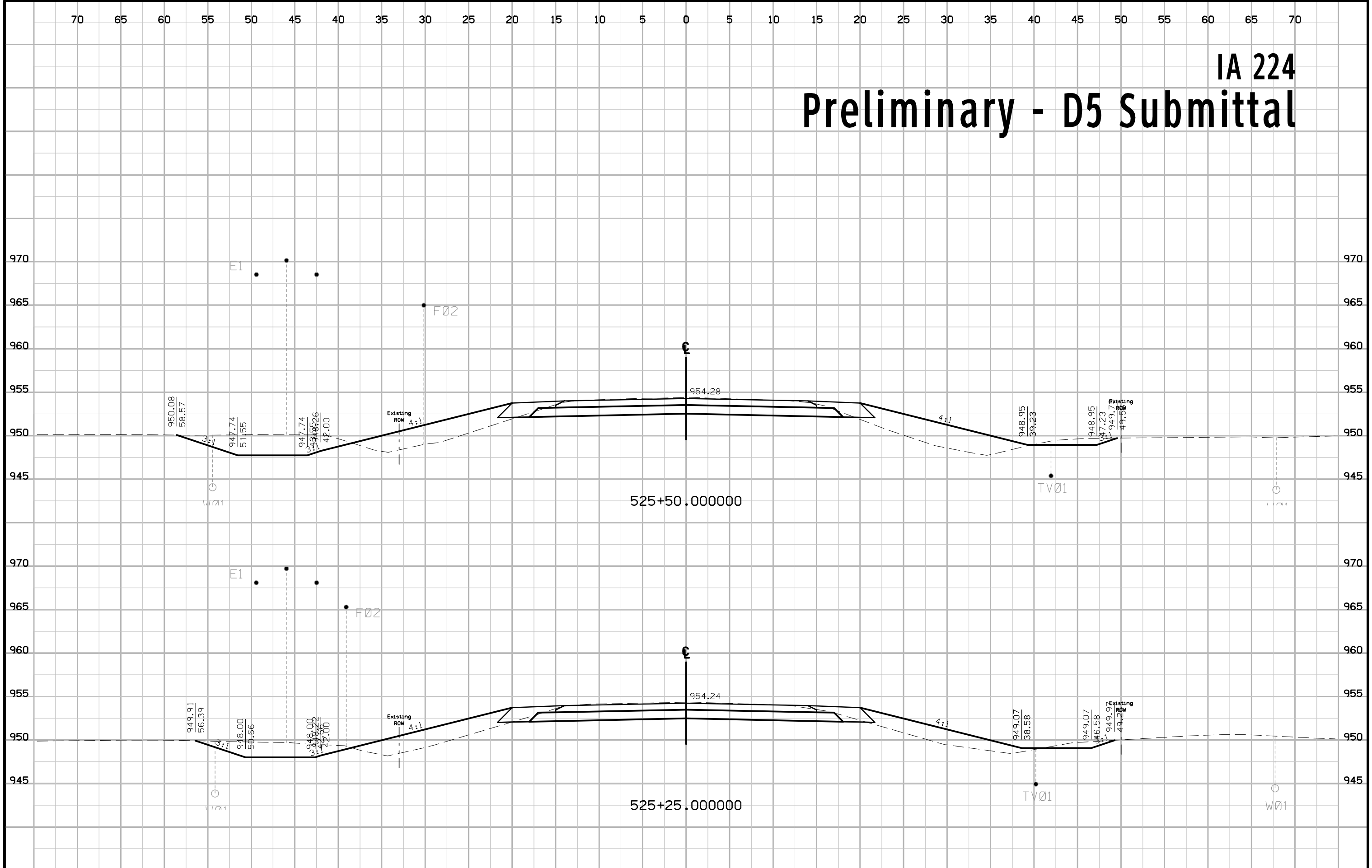
IA 224 Preliminary - D5 Submittal



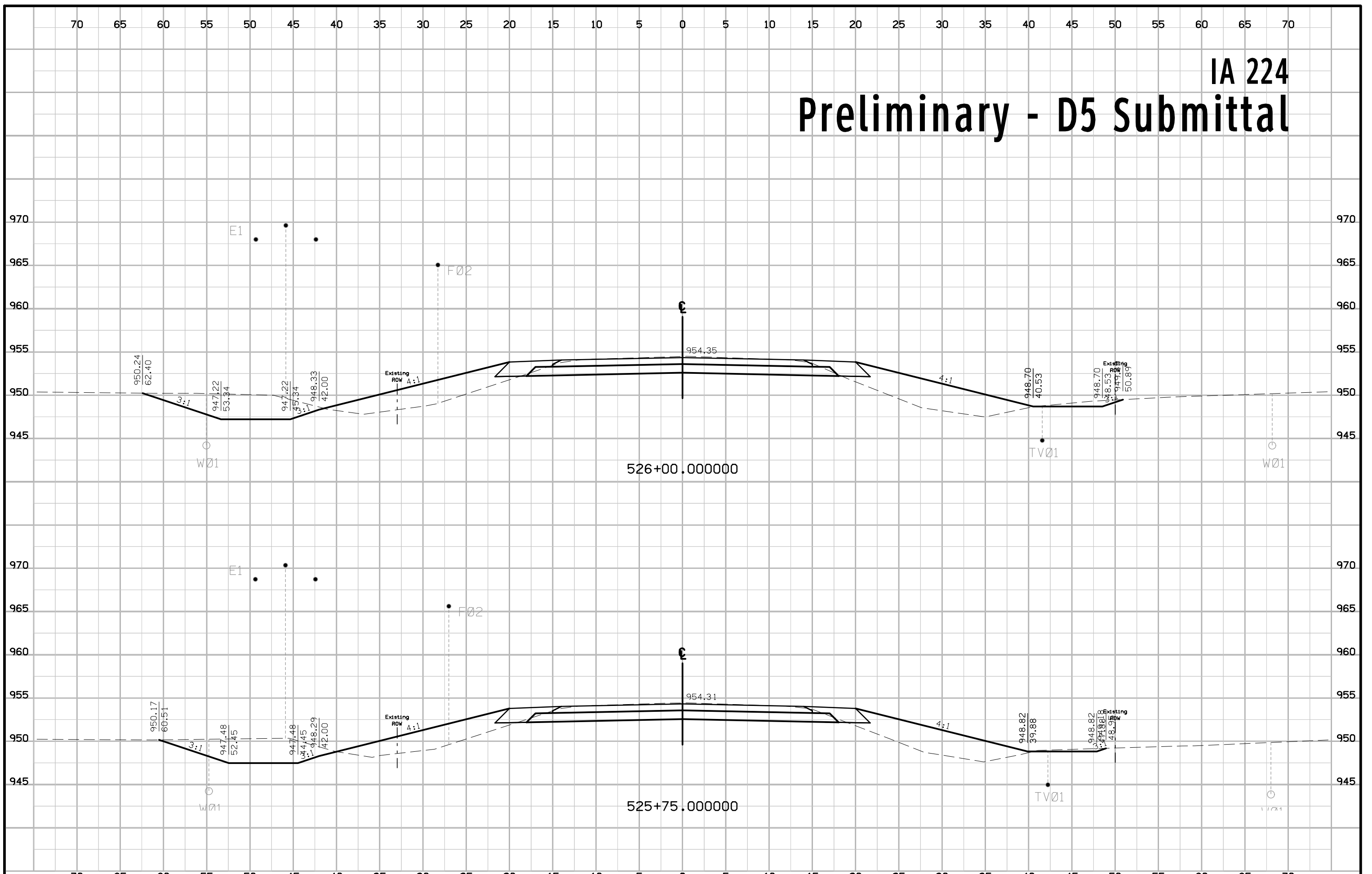
IA 224 Preliminary - D5 Submittal



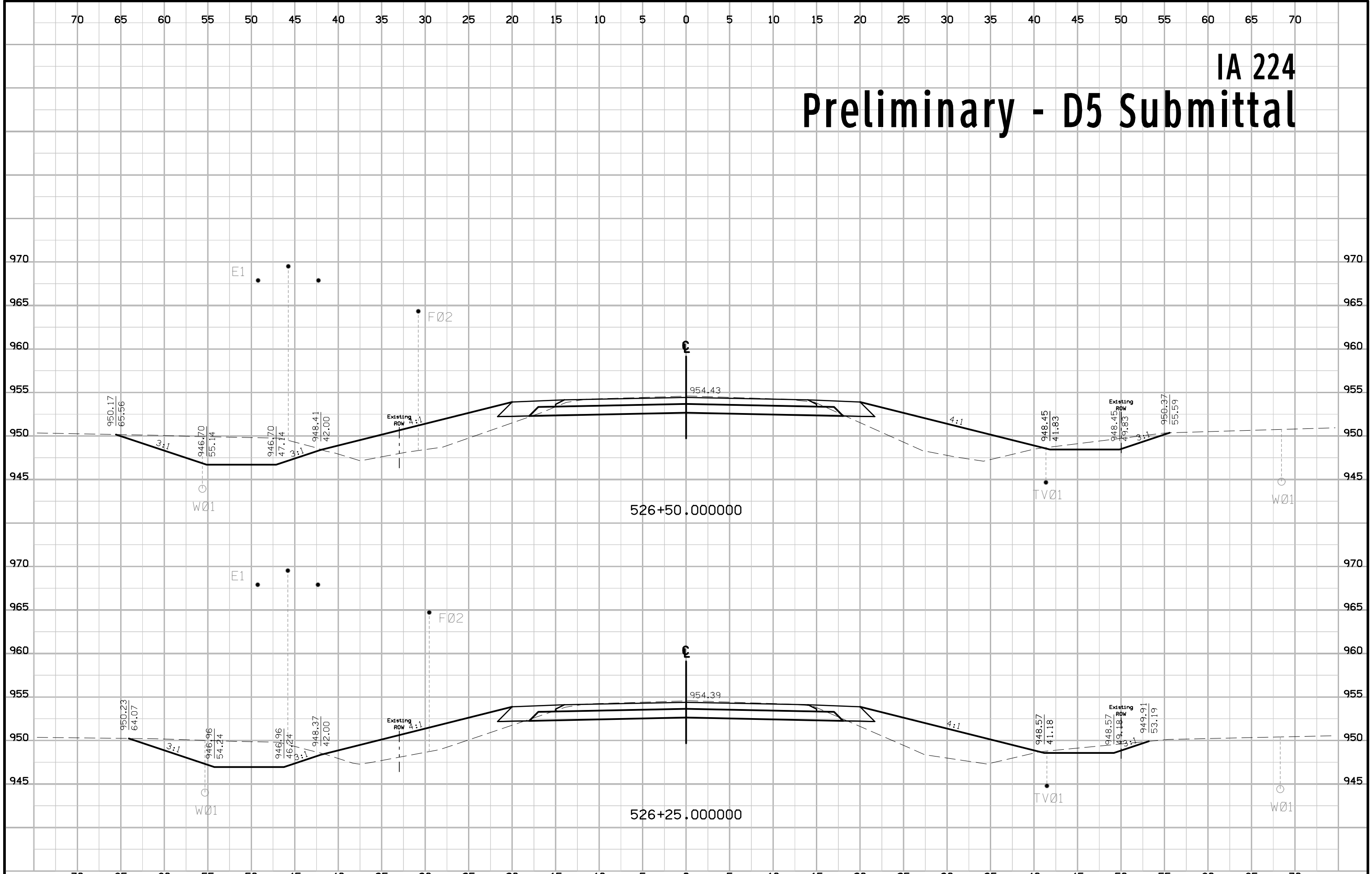
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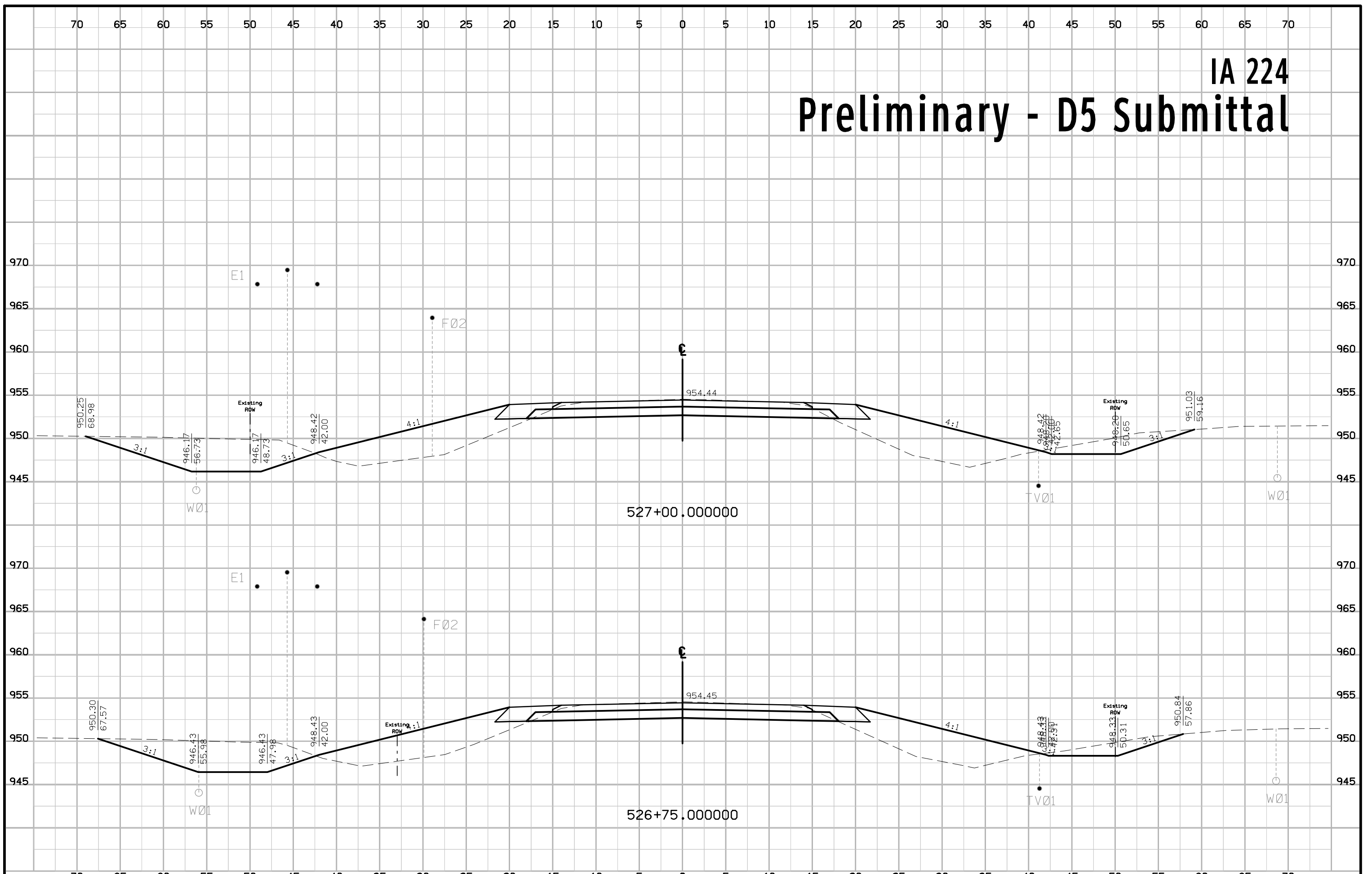
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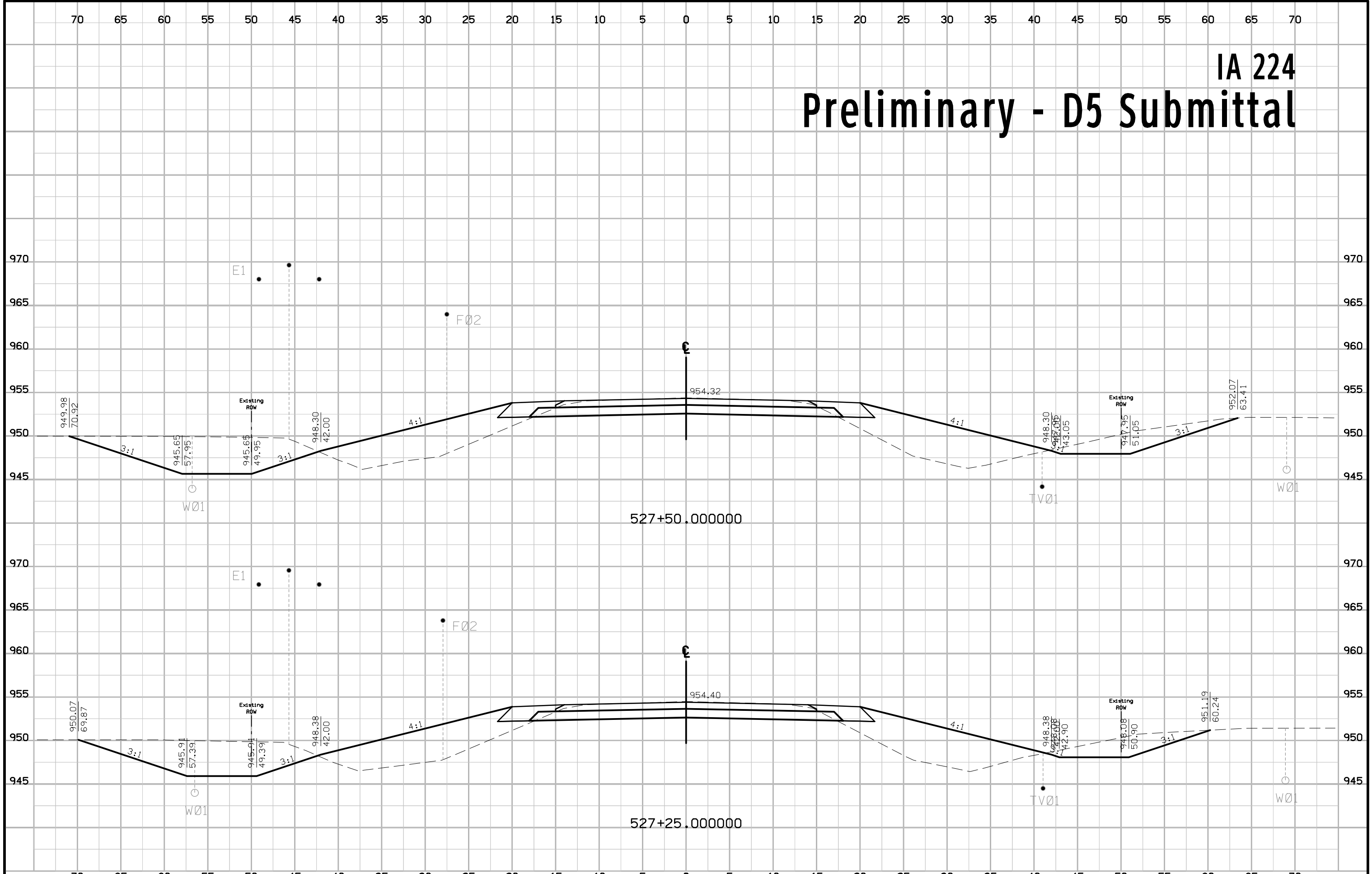
IA 224 Preliminary - D5 Submittal



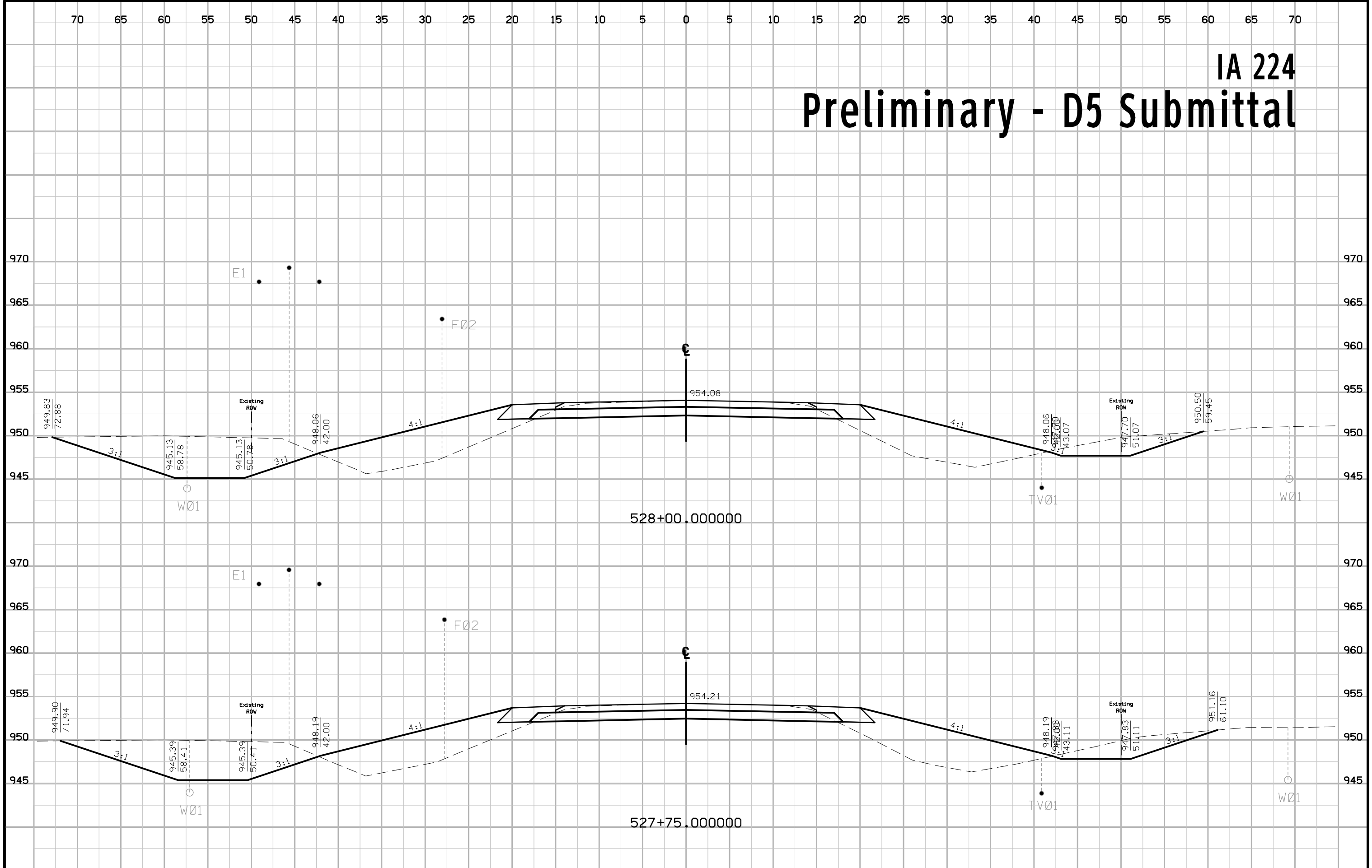
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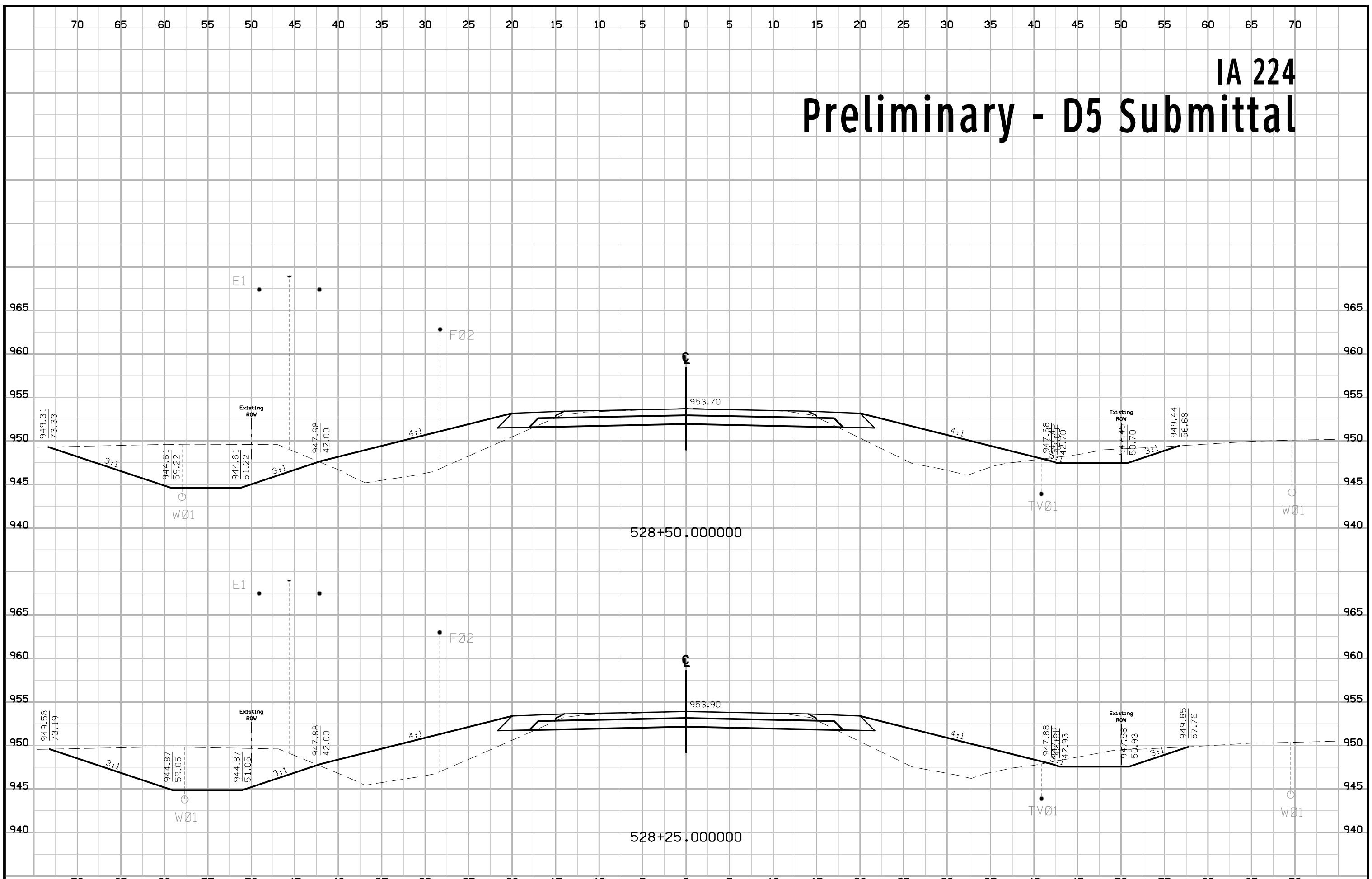
IA 224 Preliminary - D5 Submittal



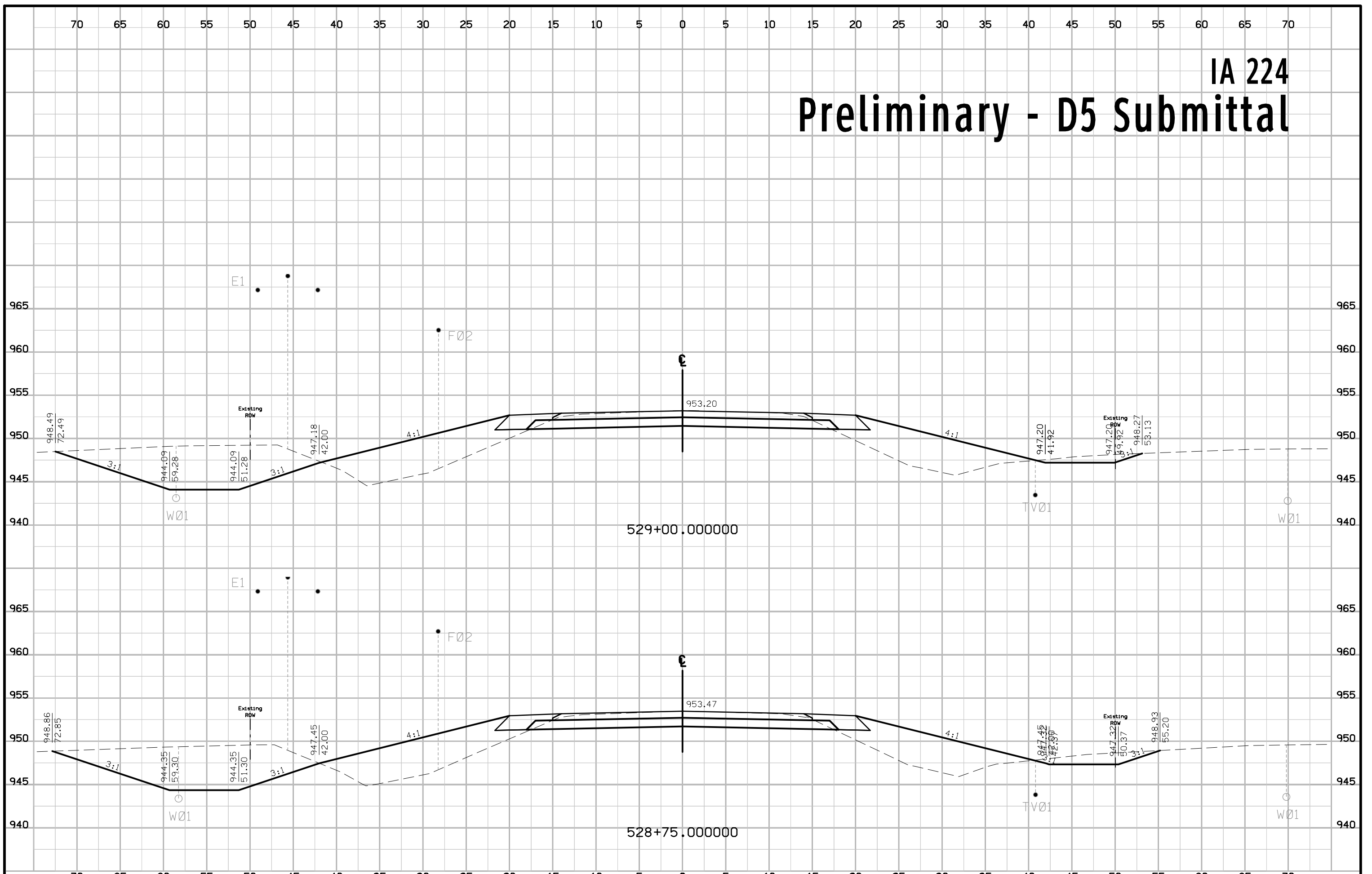
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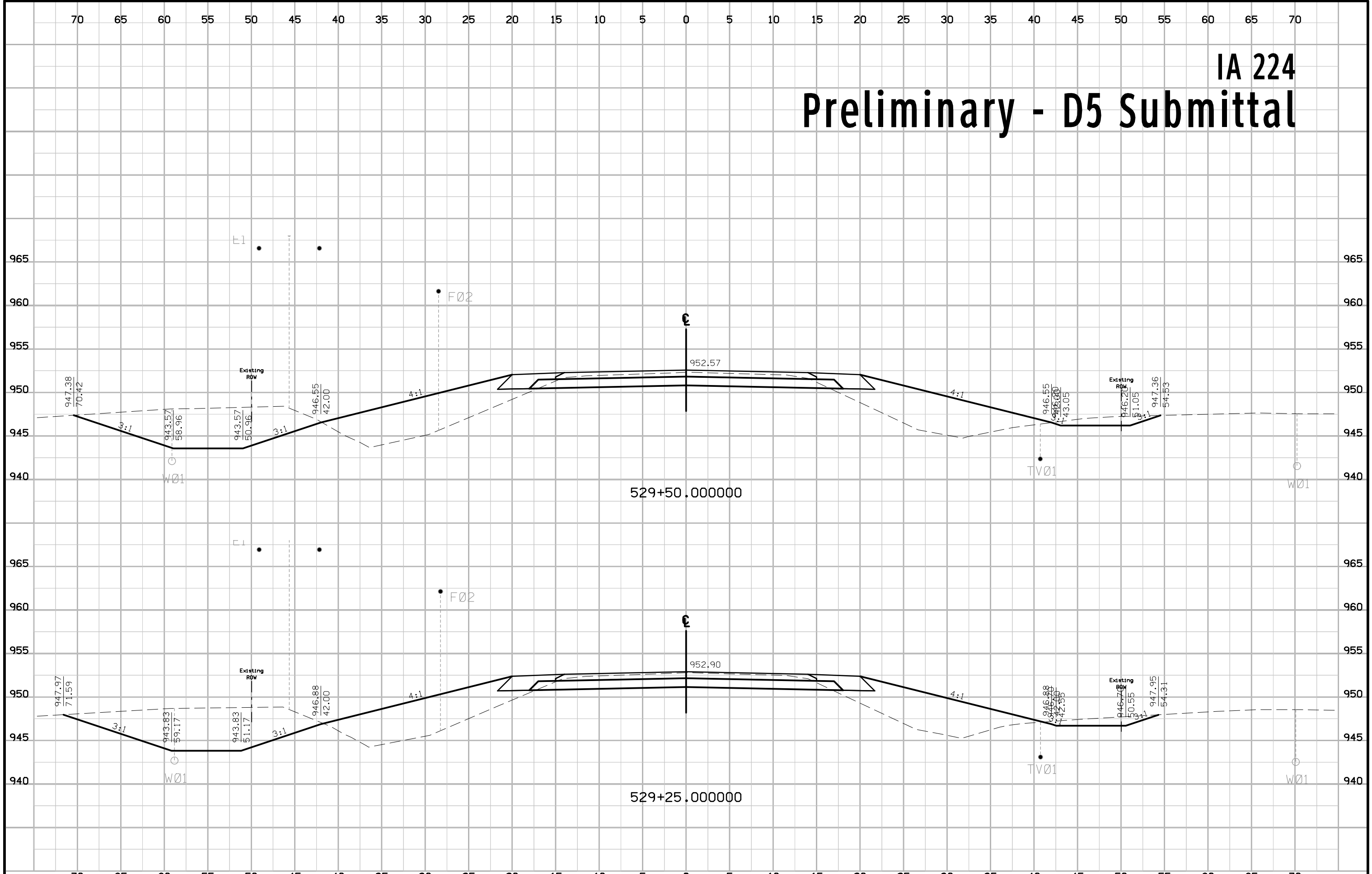
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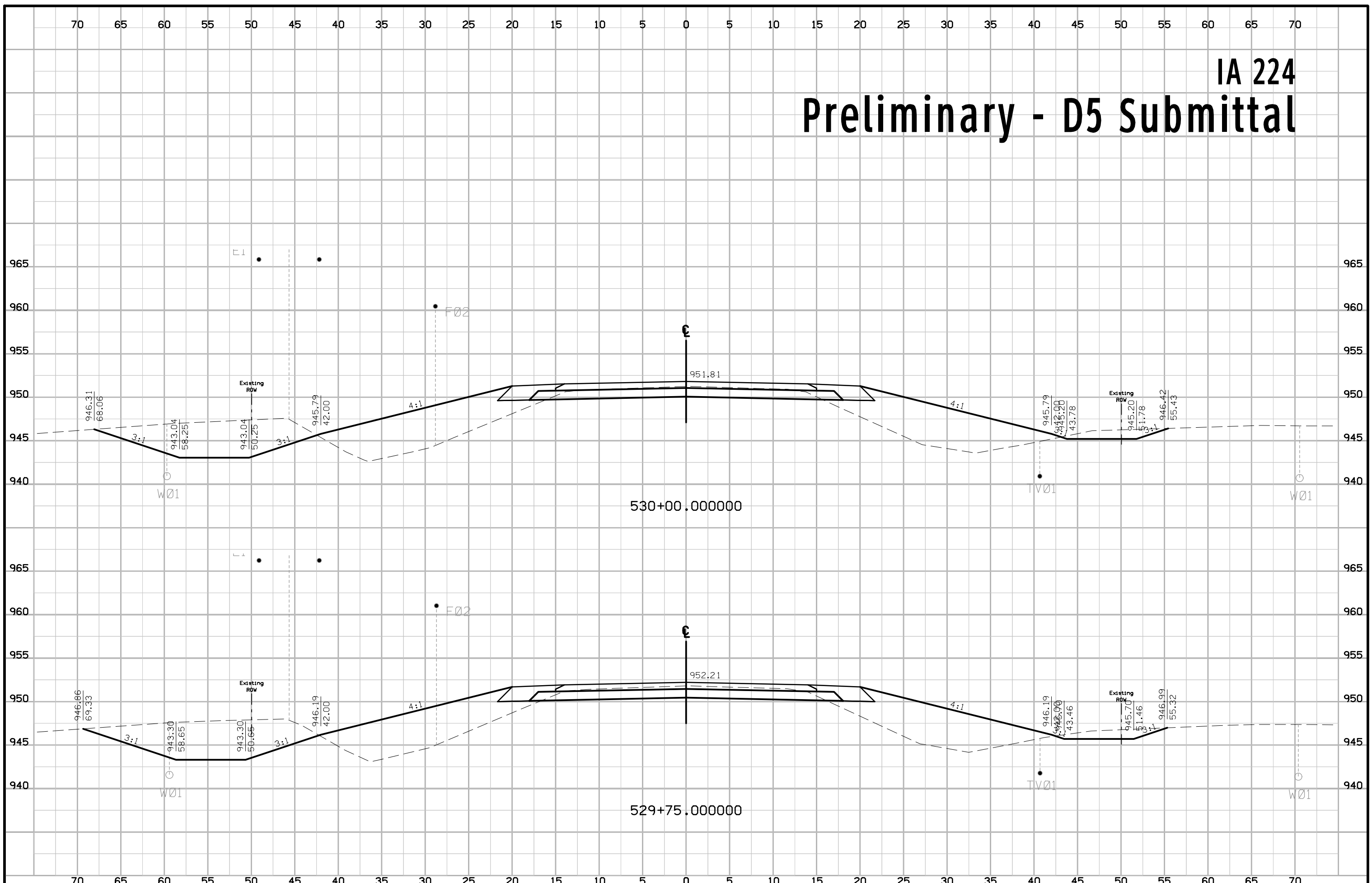
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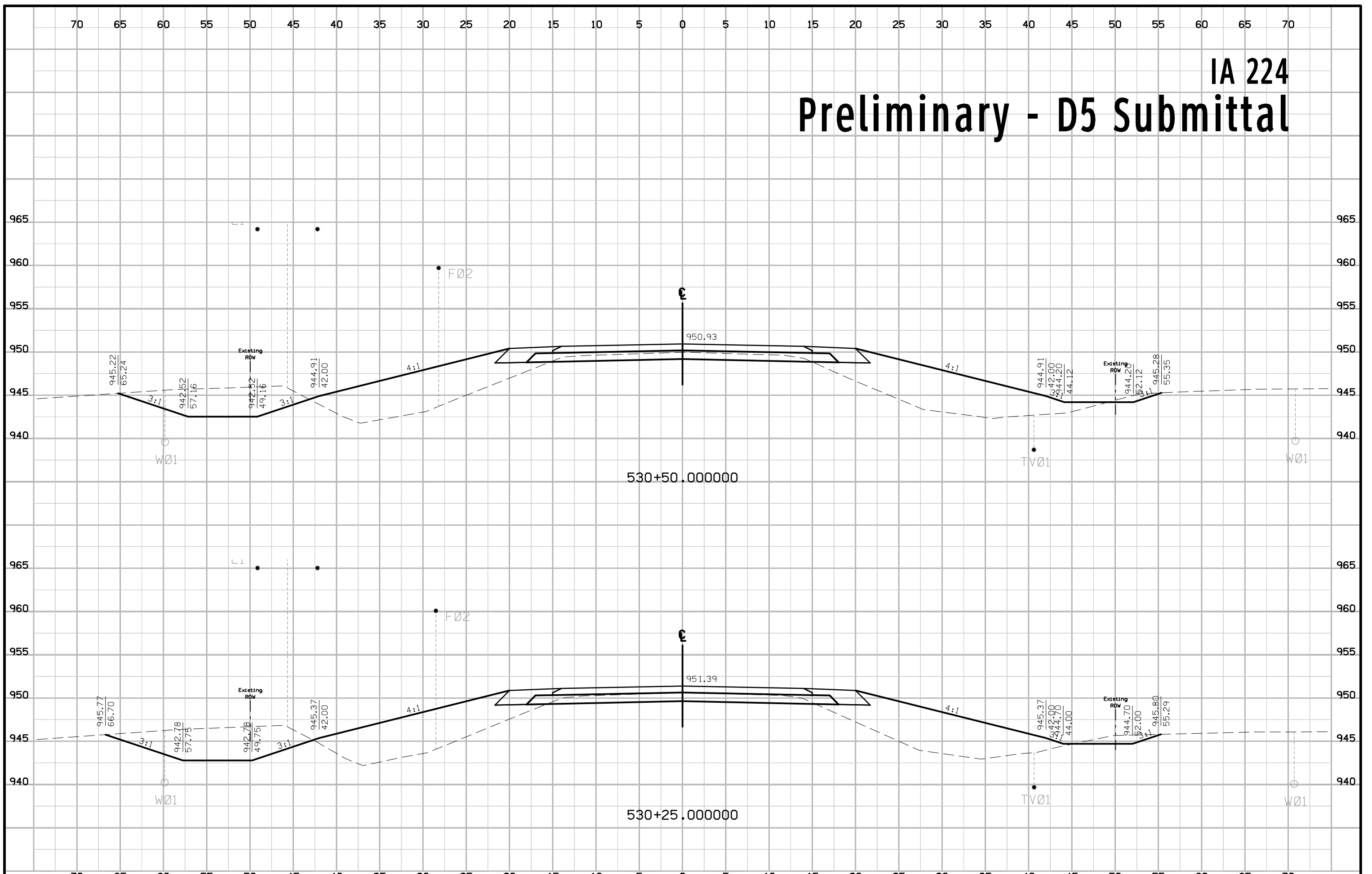
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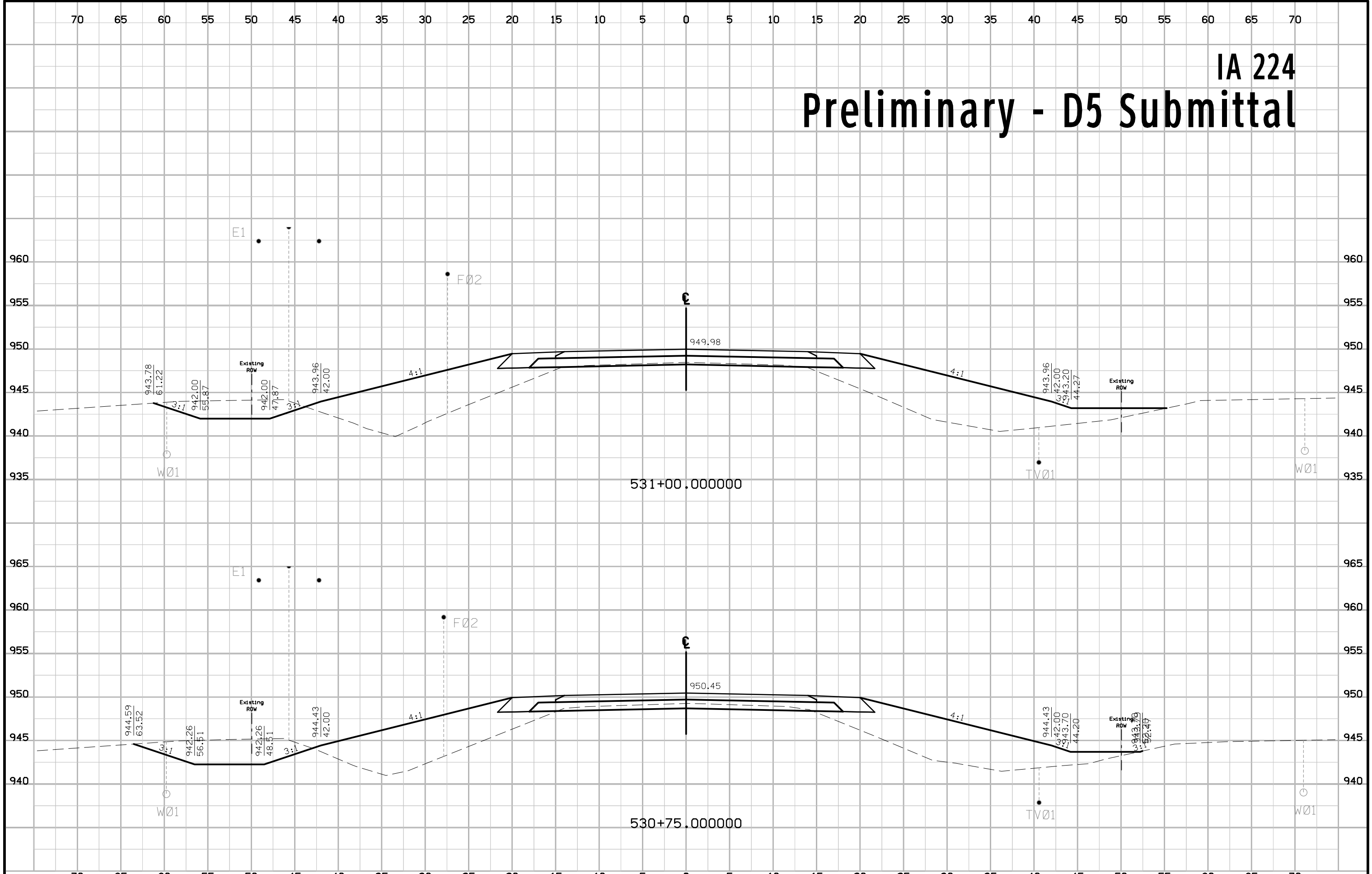
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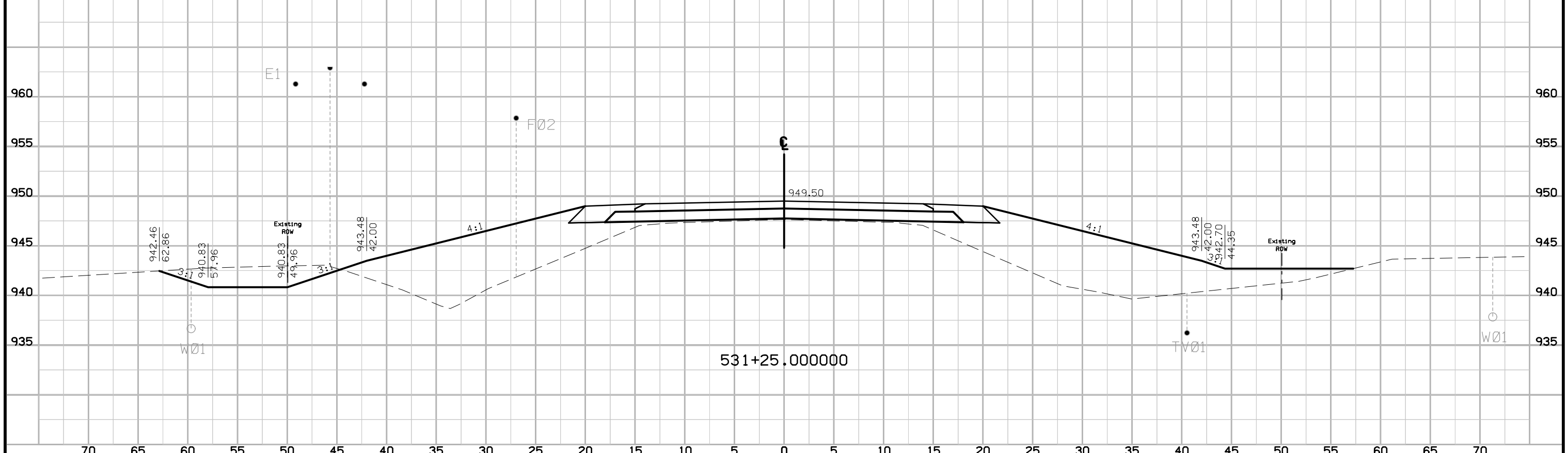
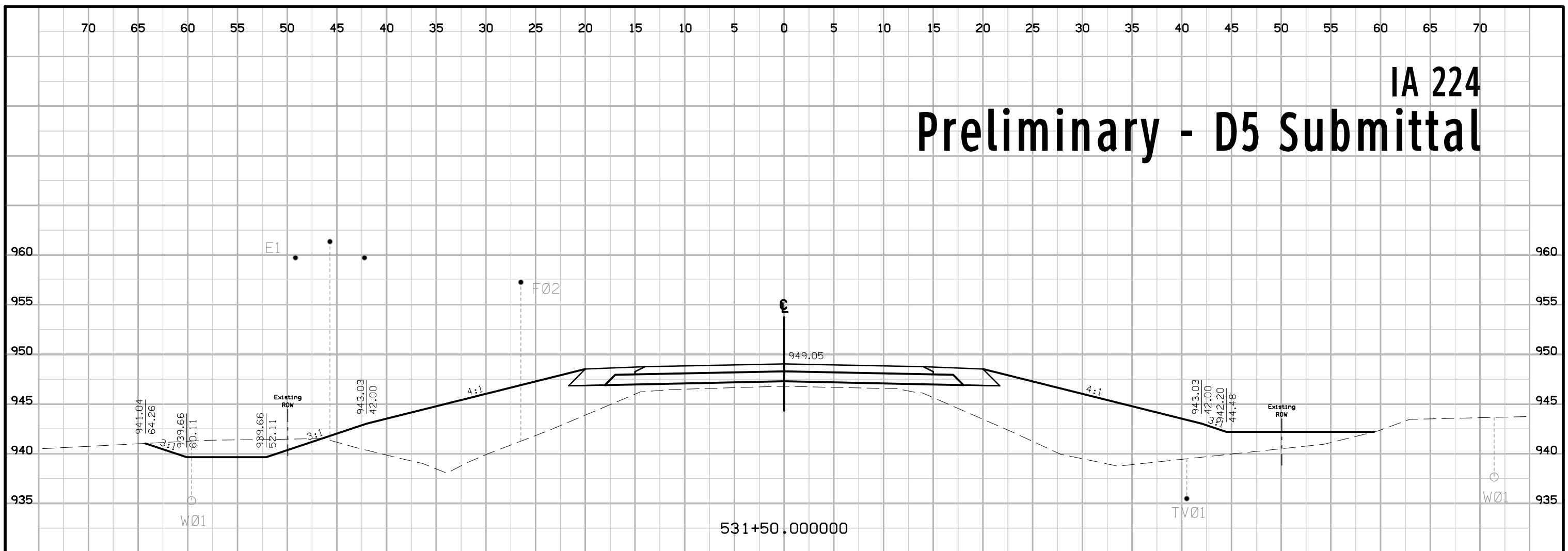
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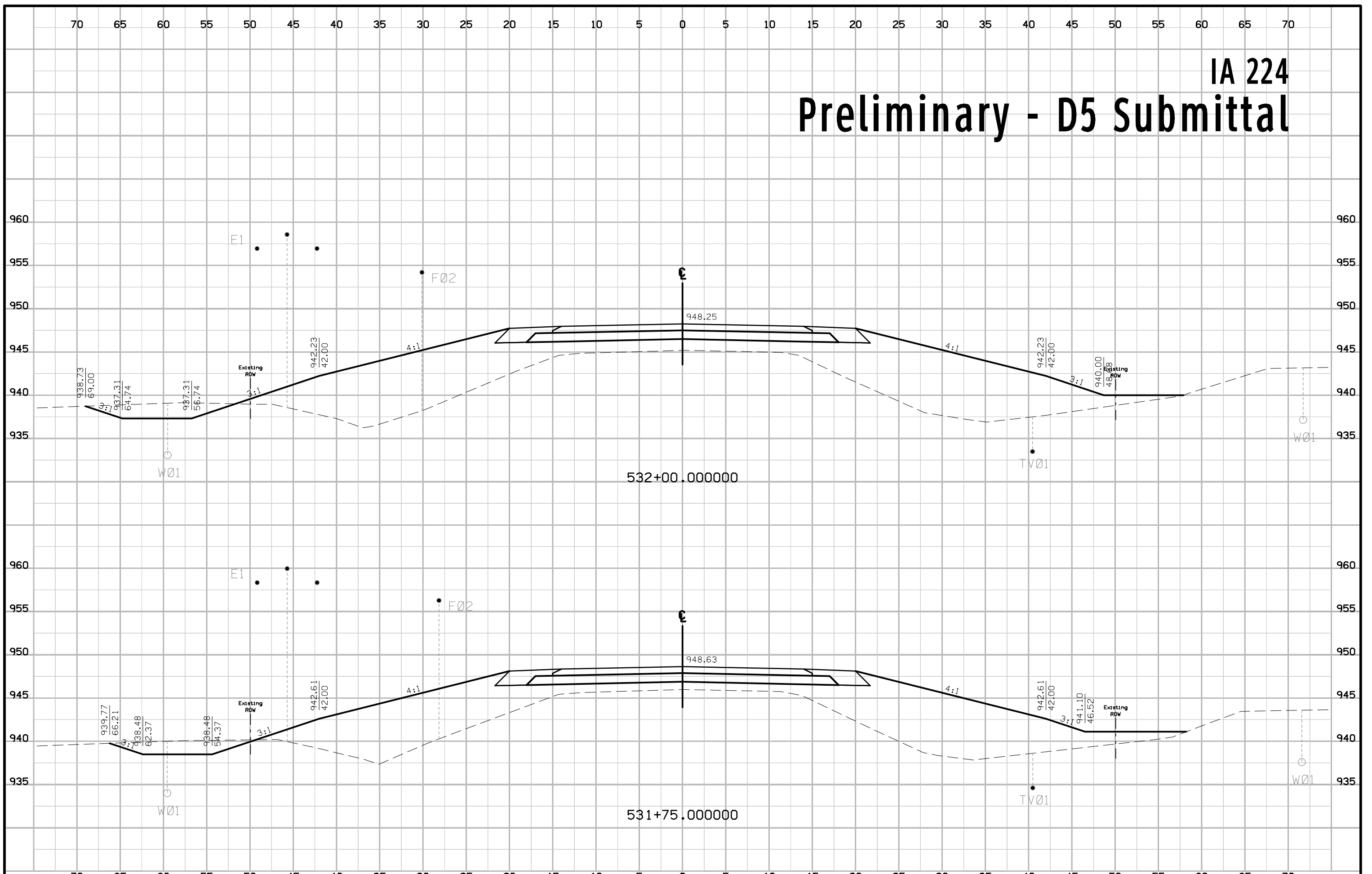
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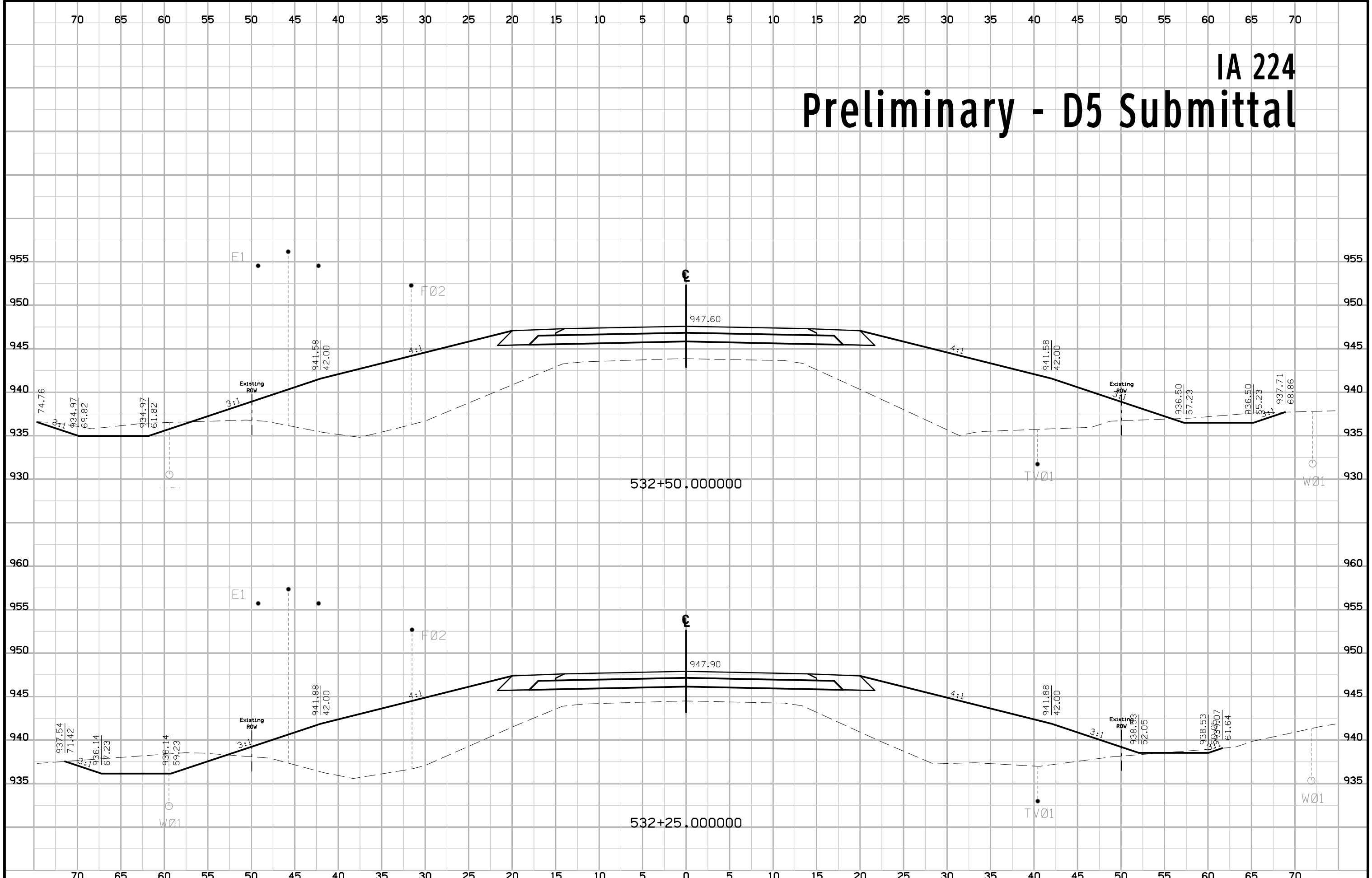
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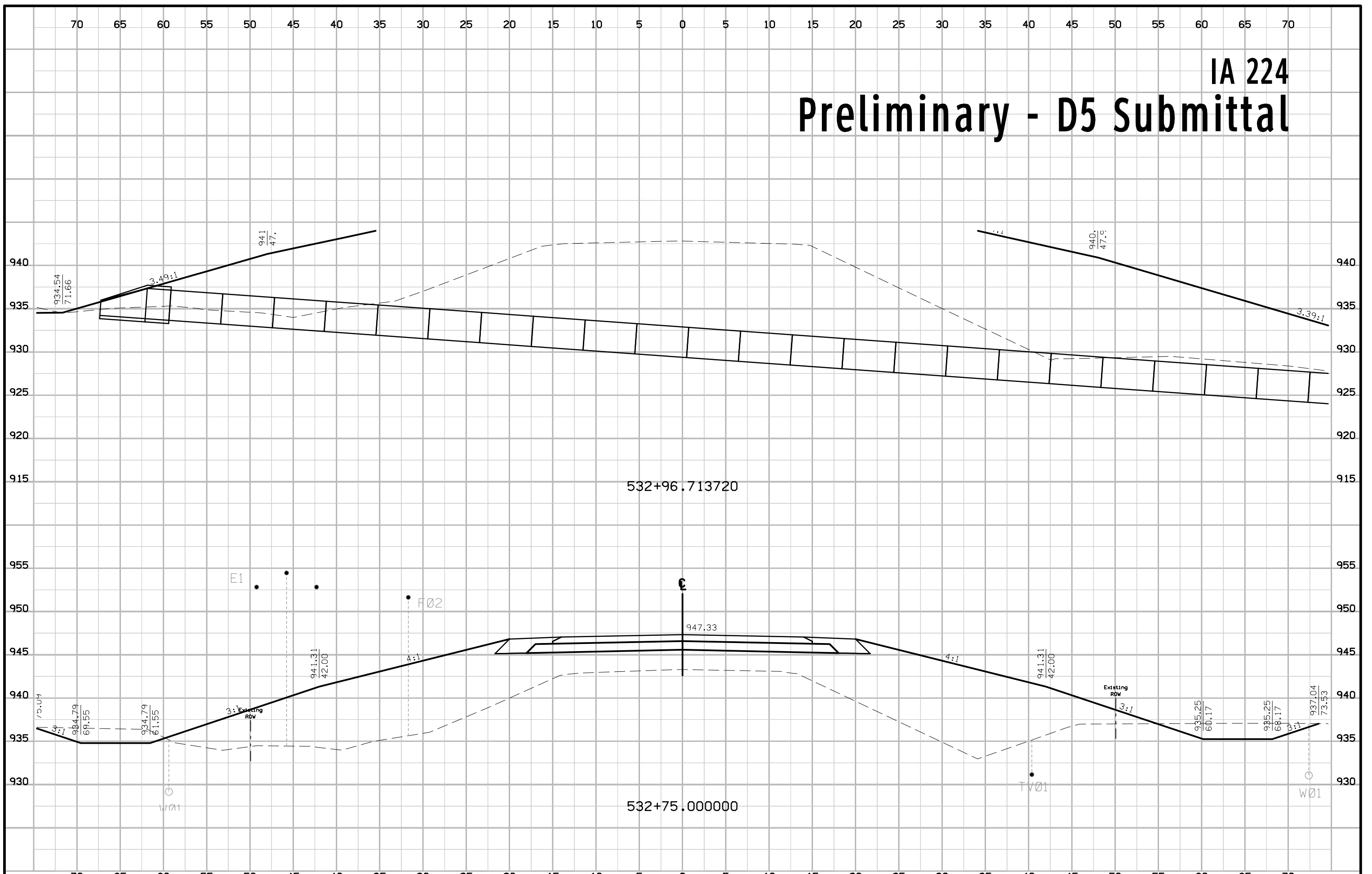
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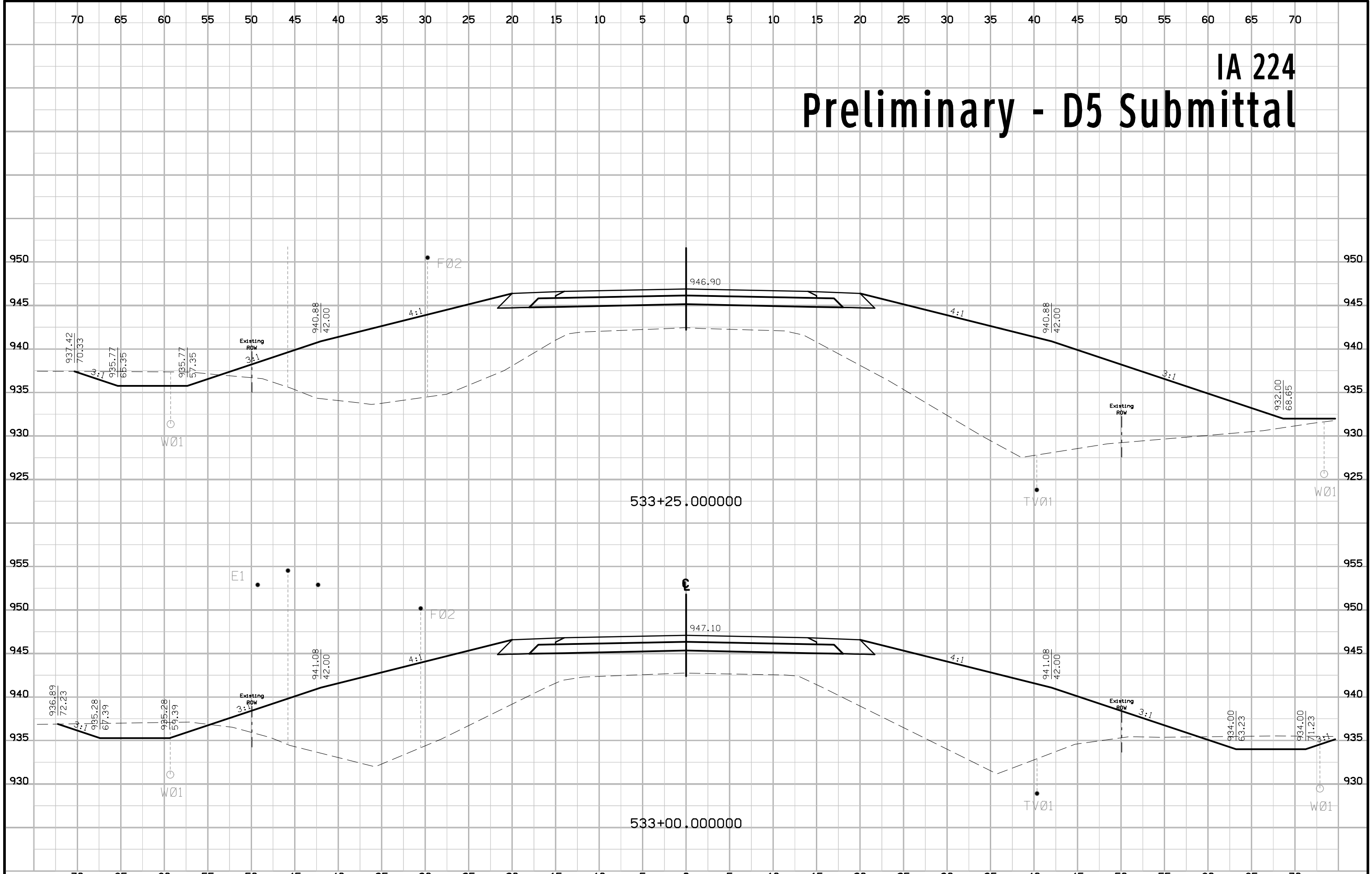
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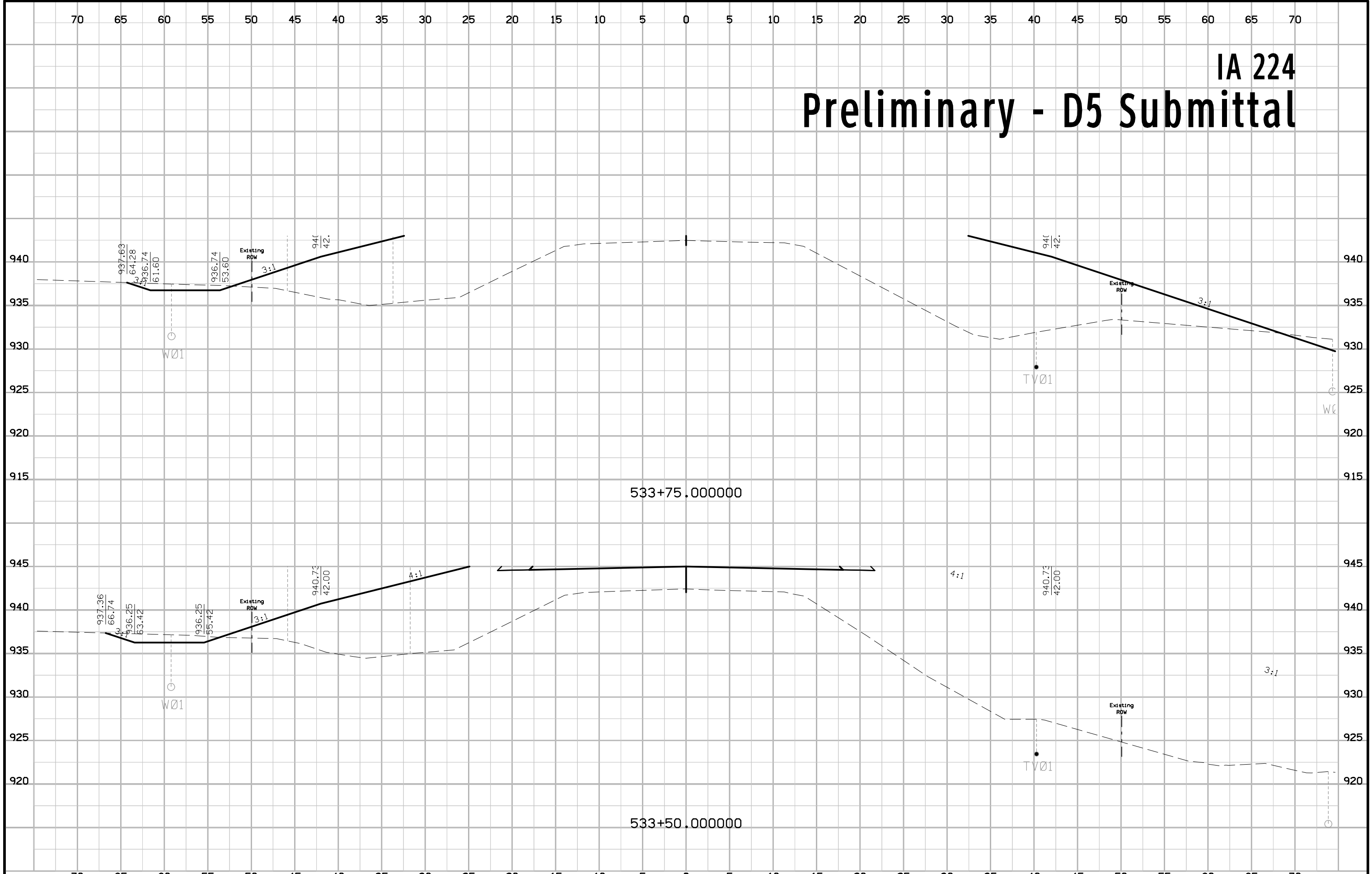
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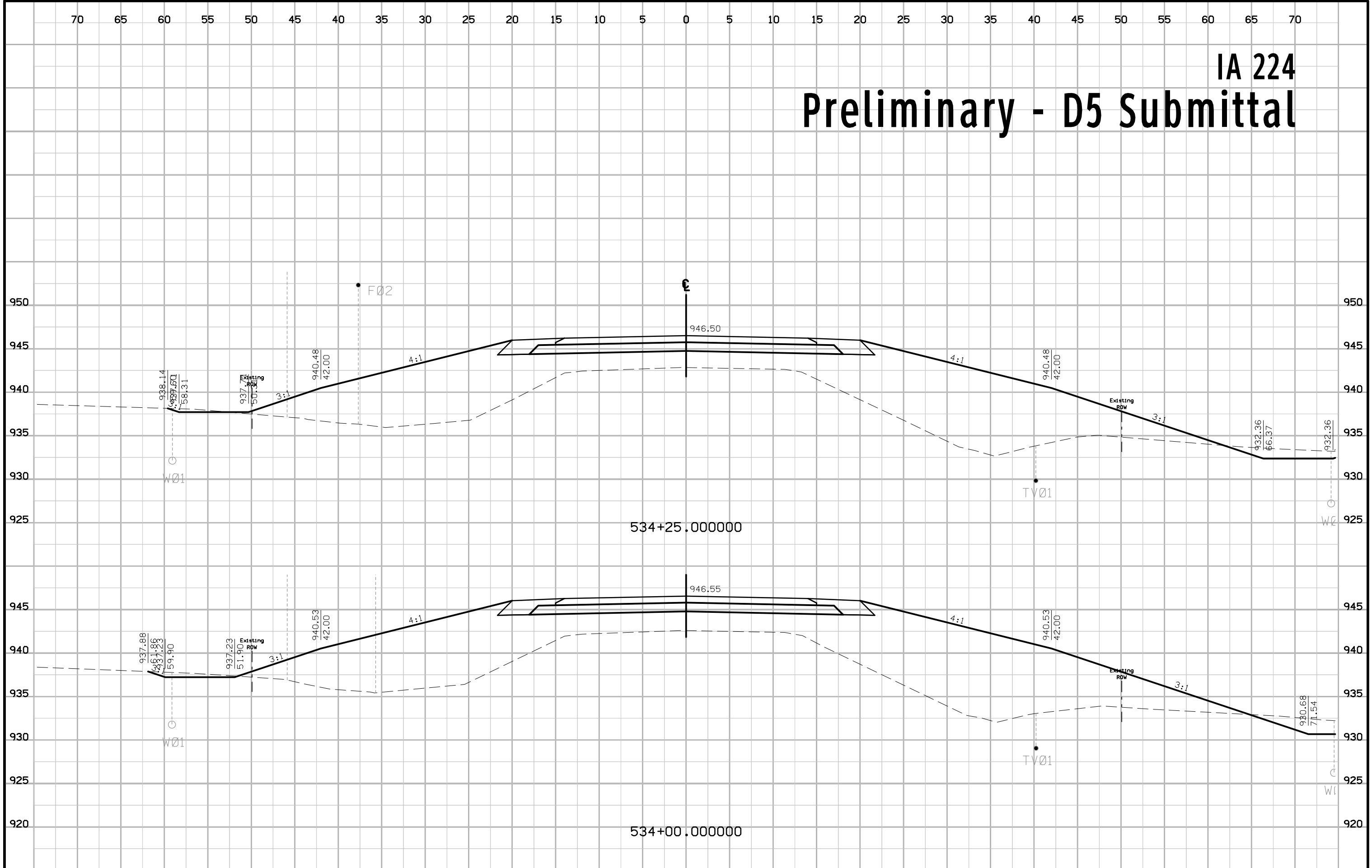
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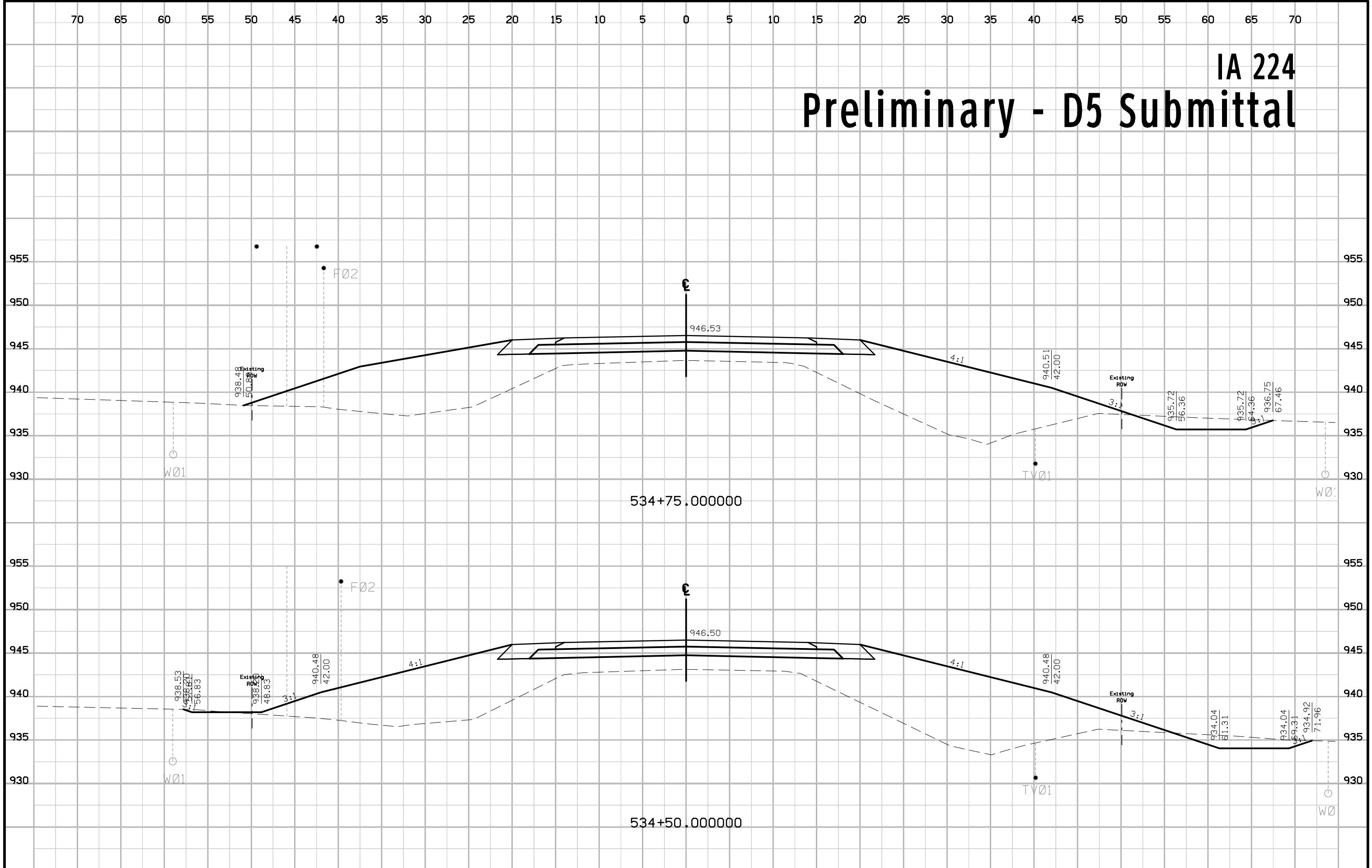
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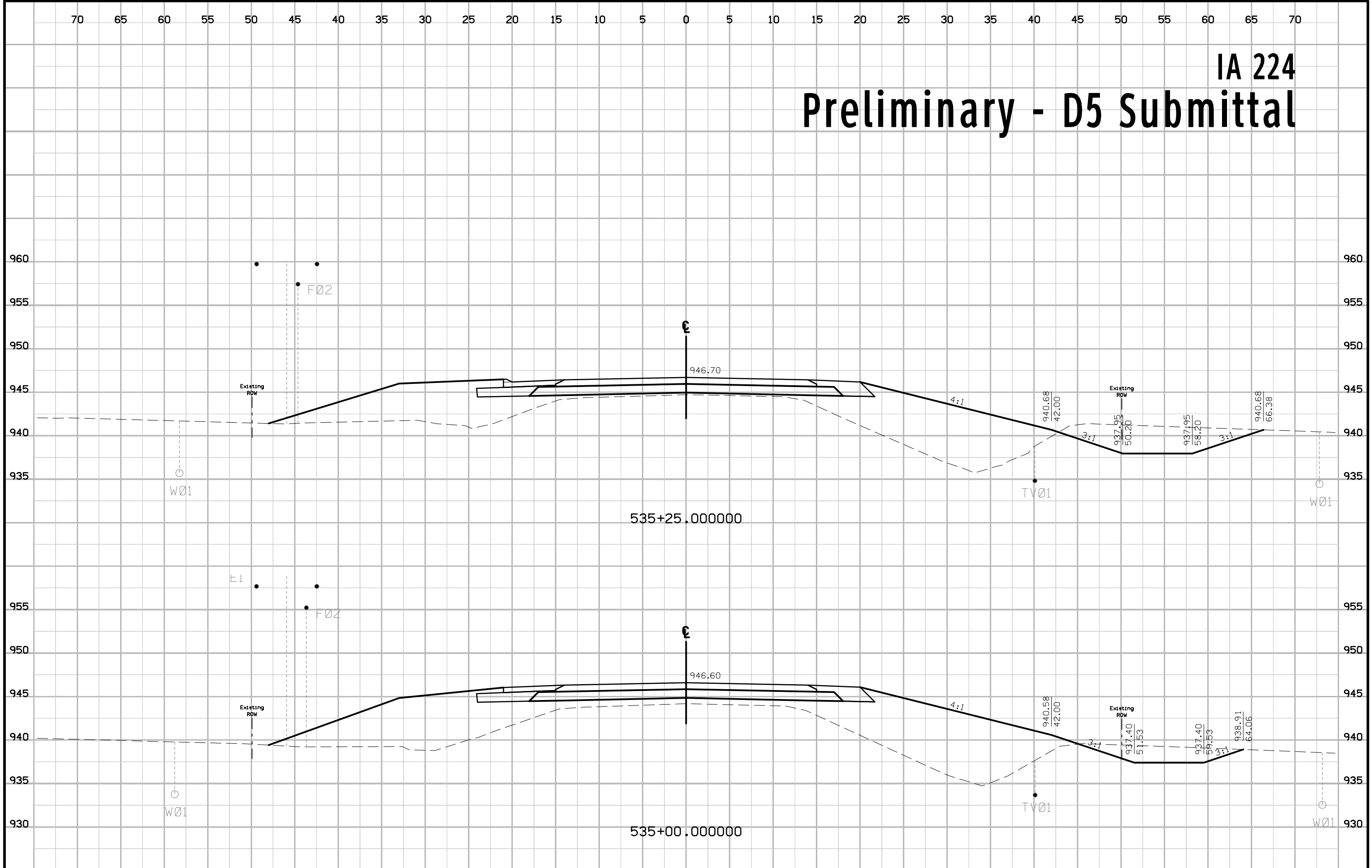
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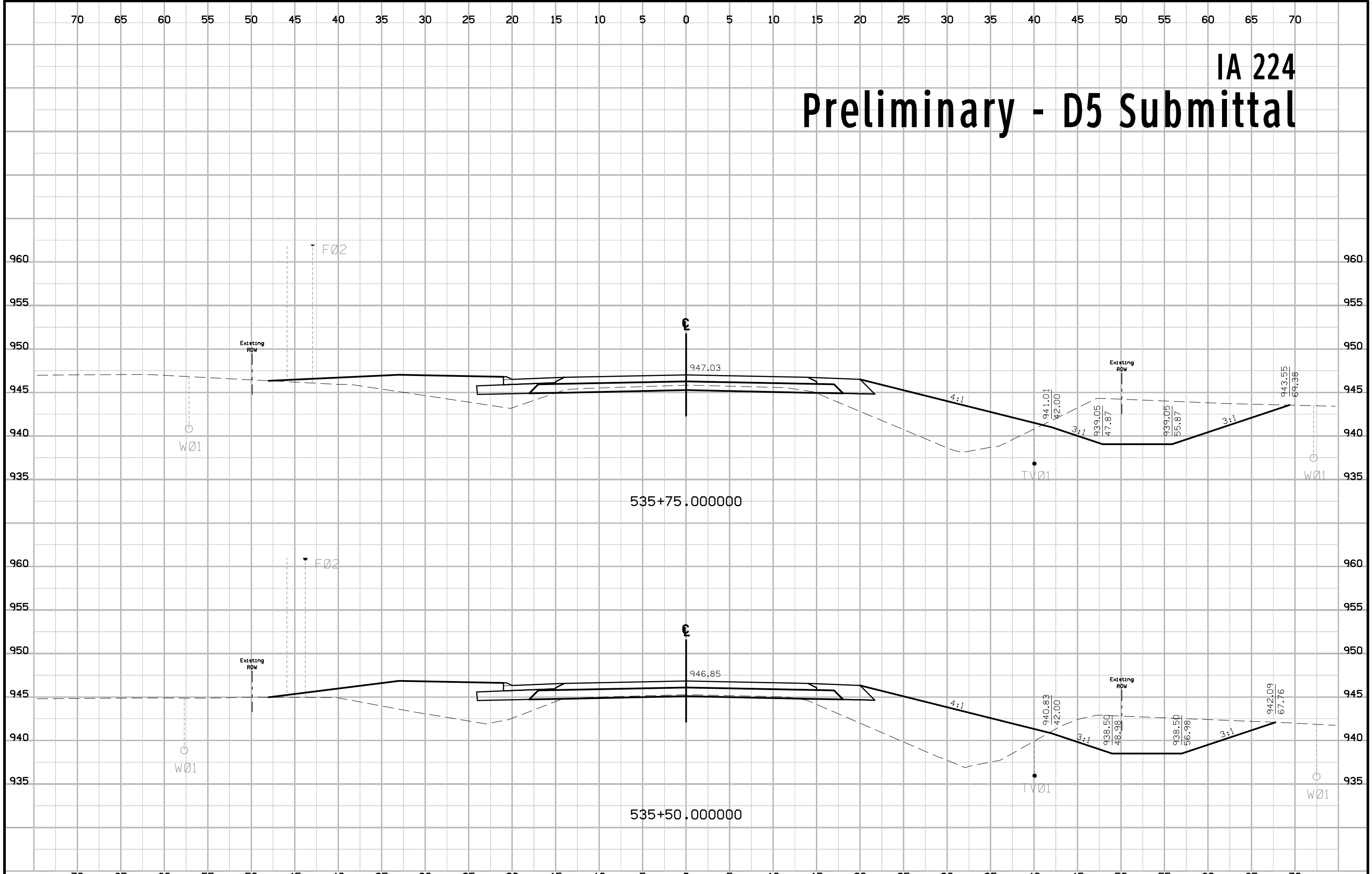
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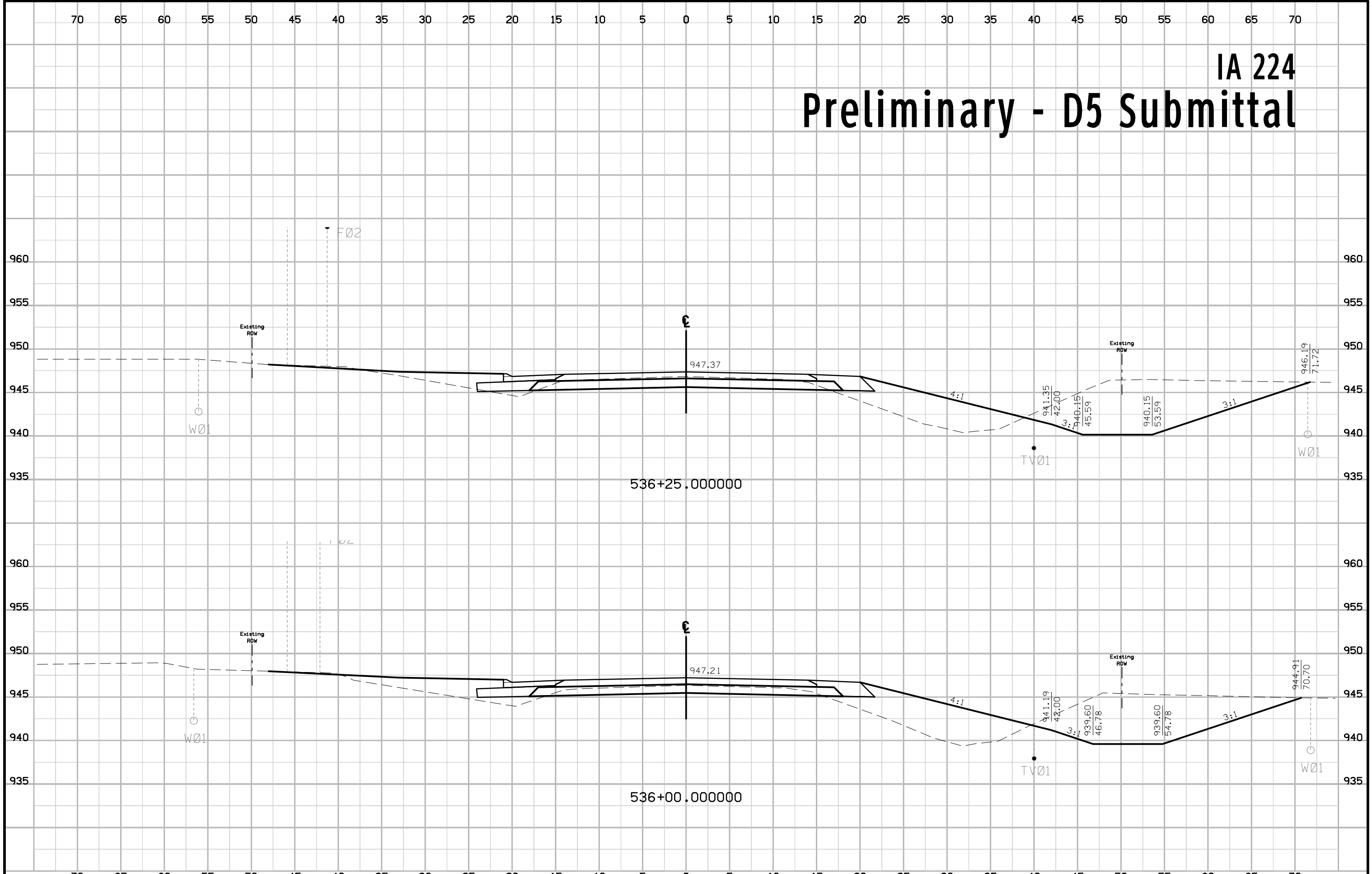
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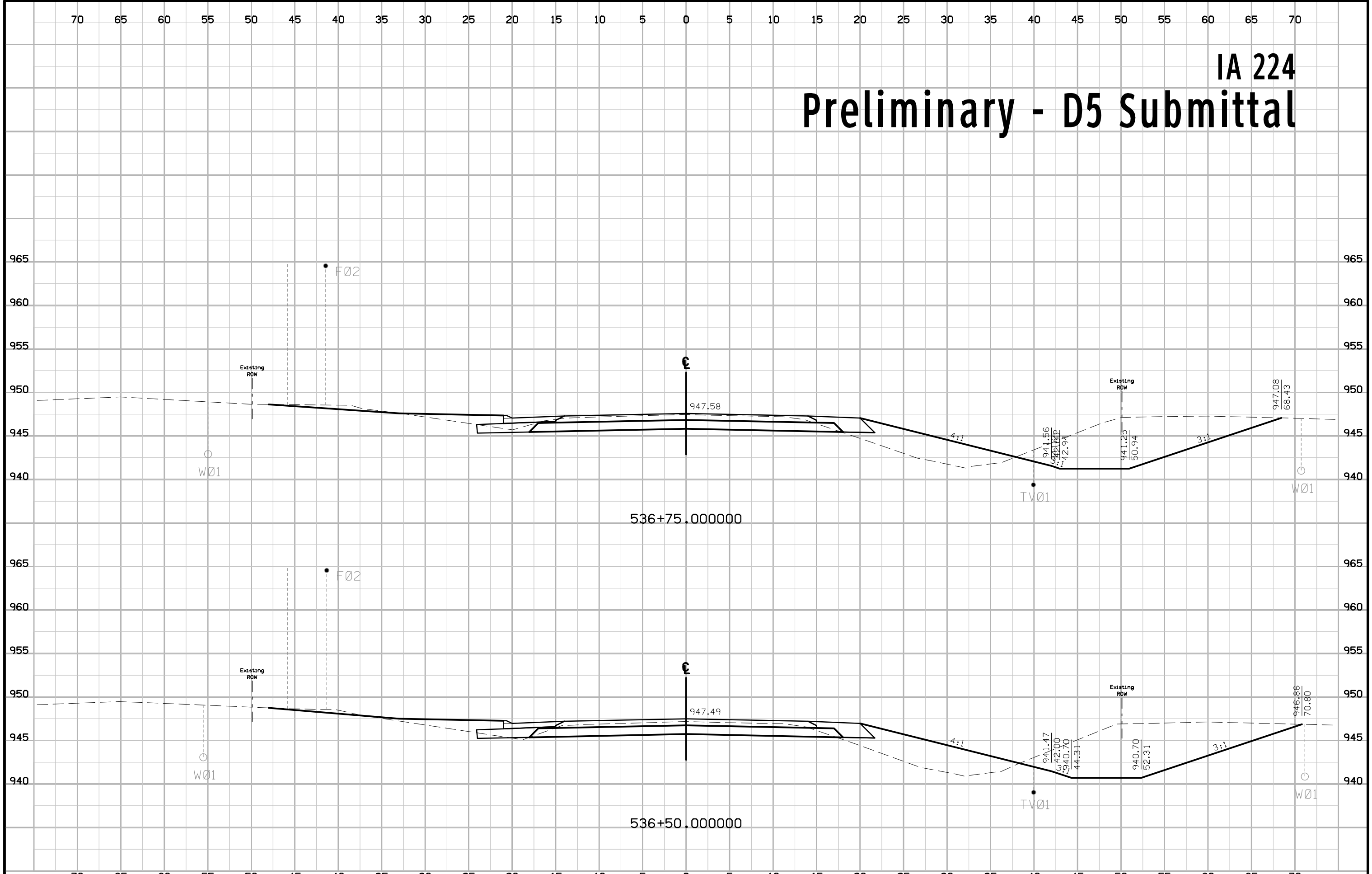
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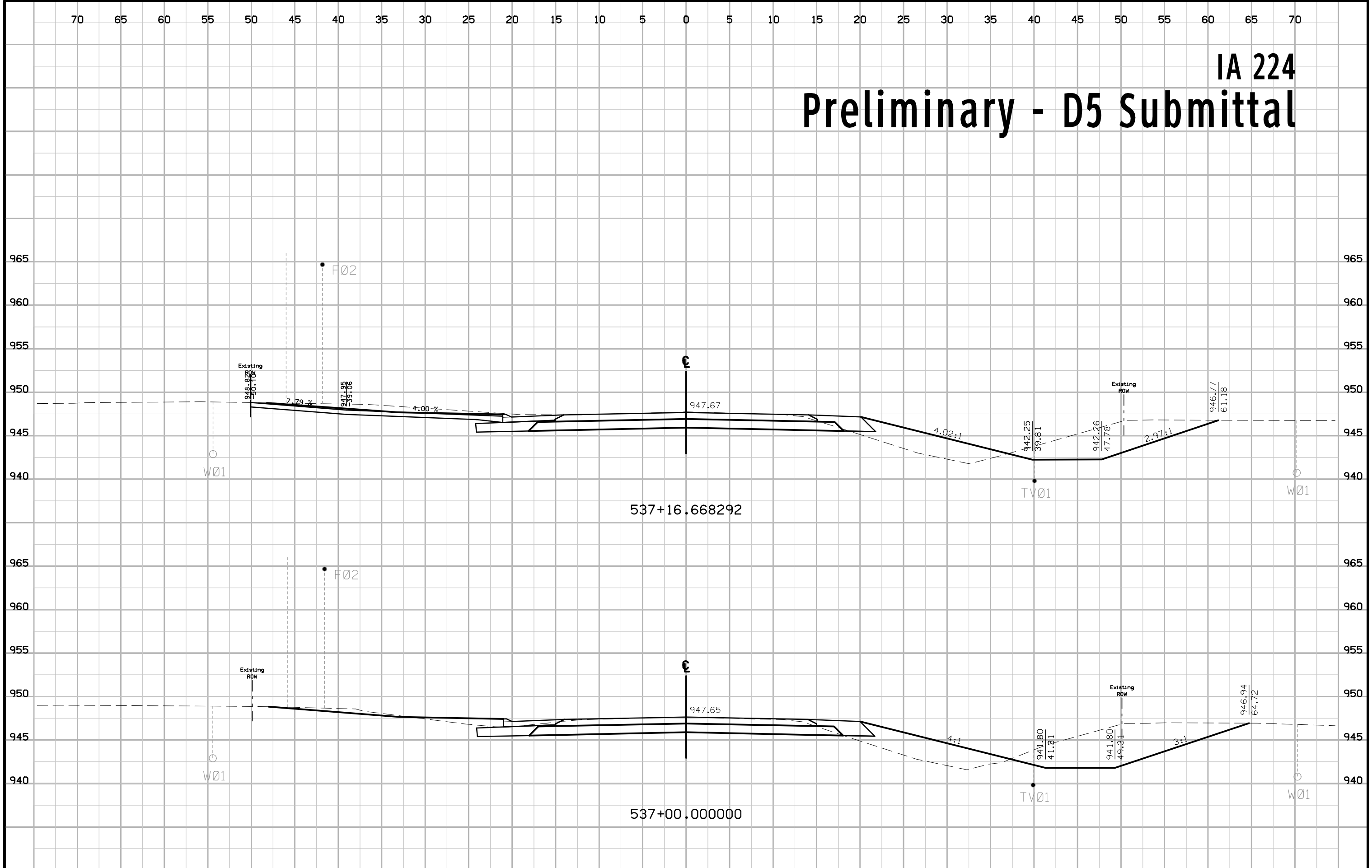
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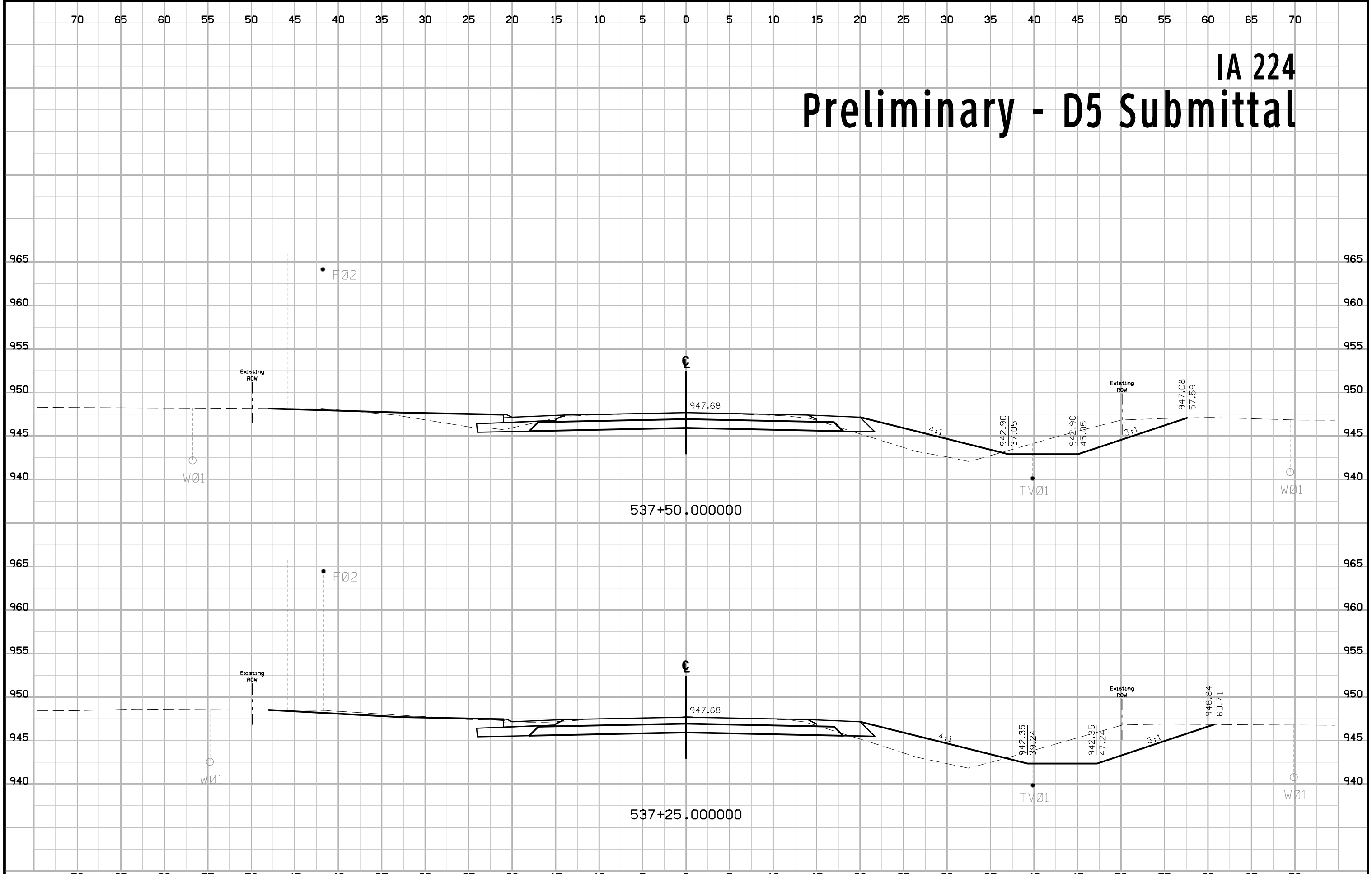
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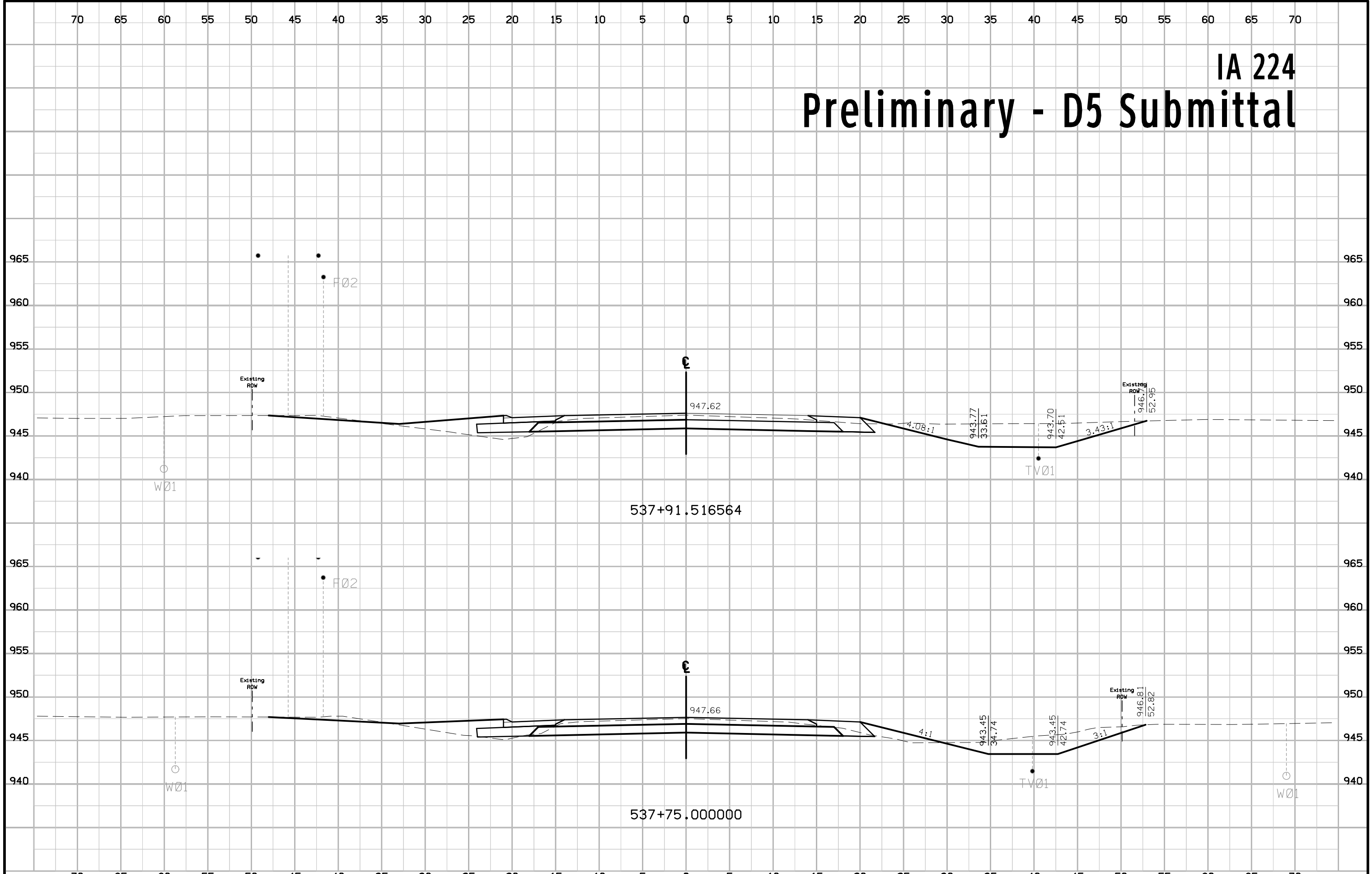
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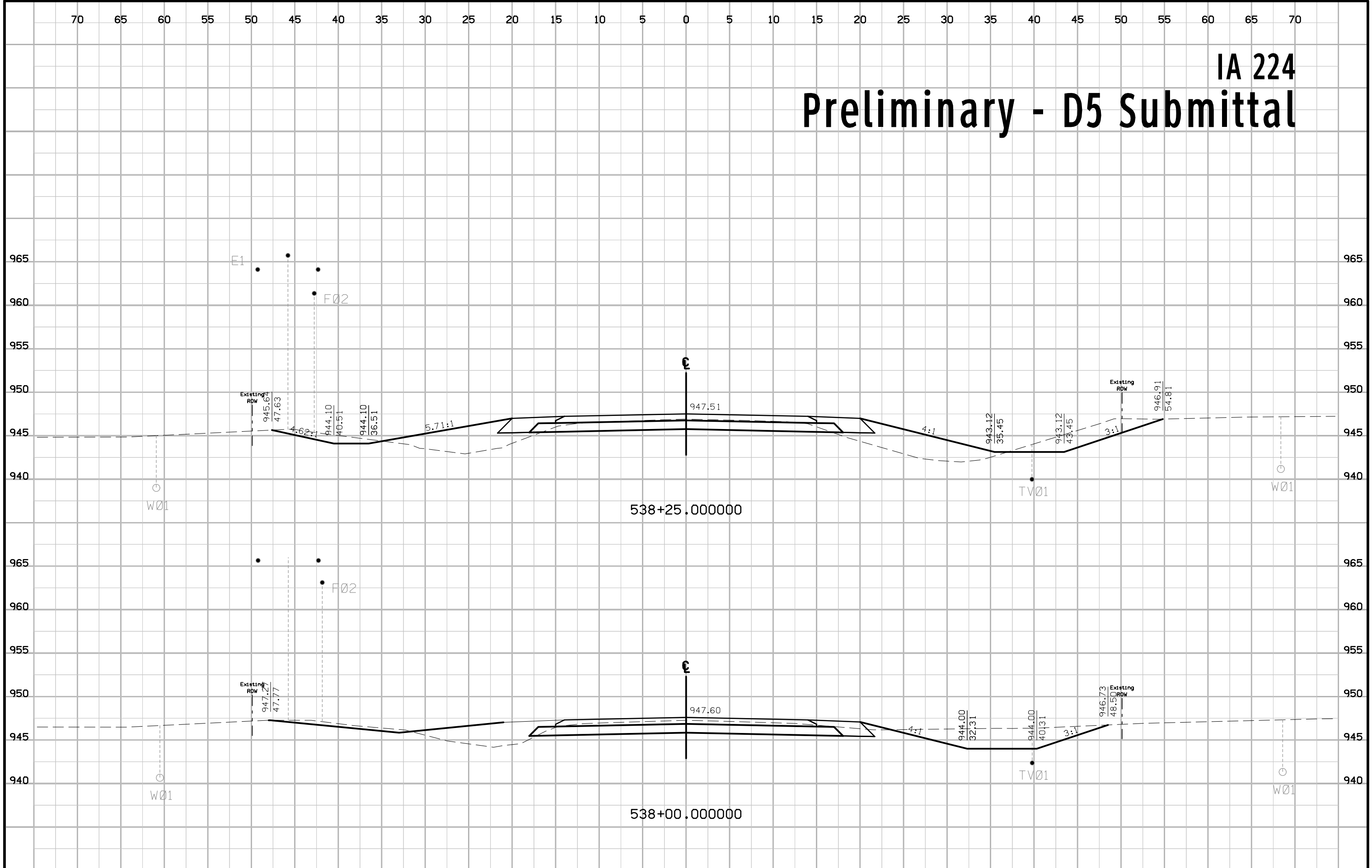
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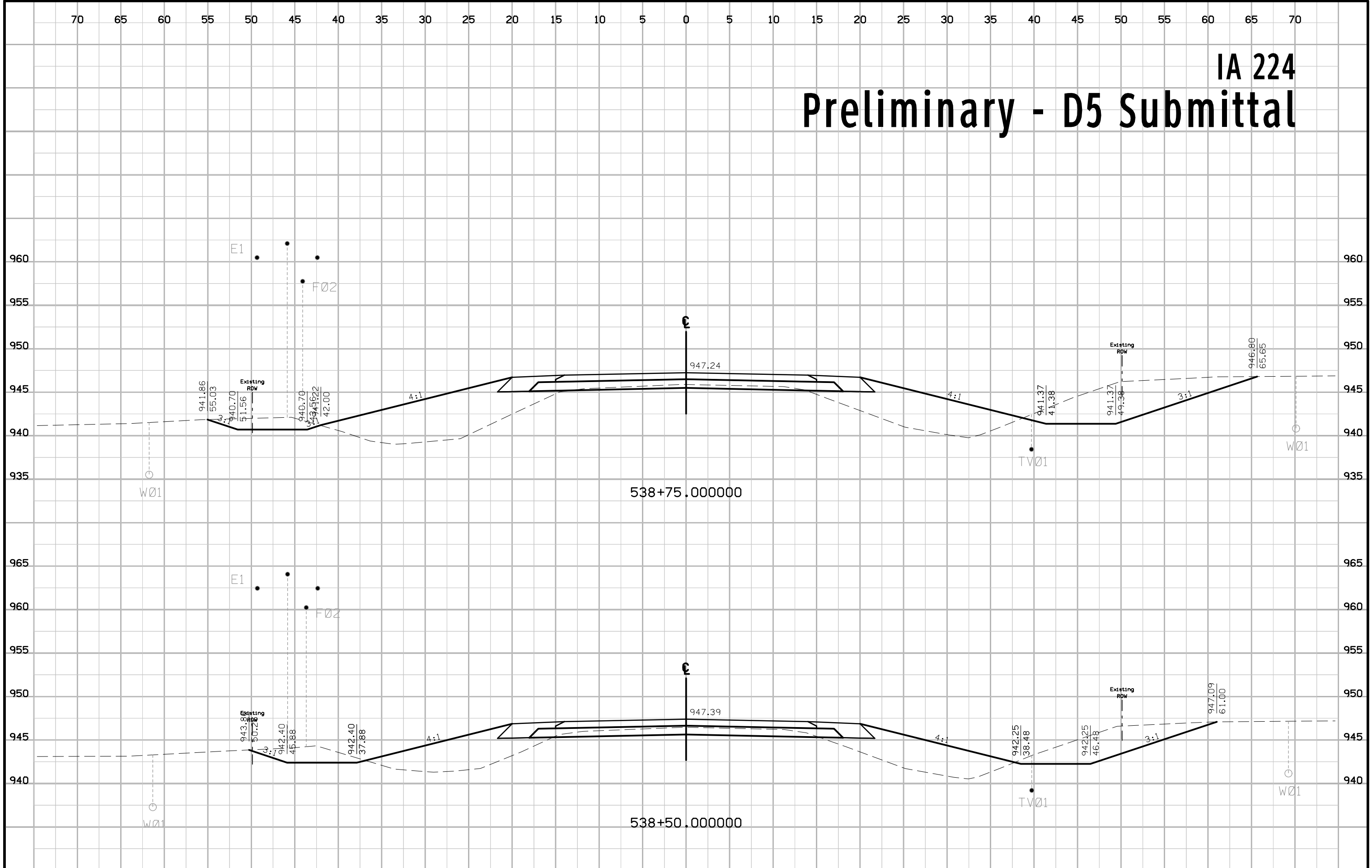
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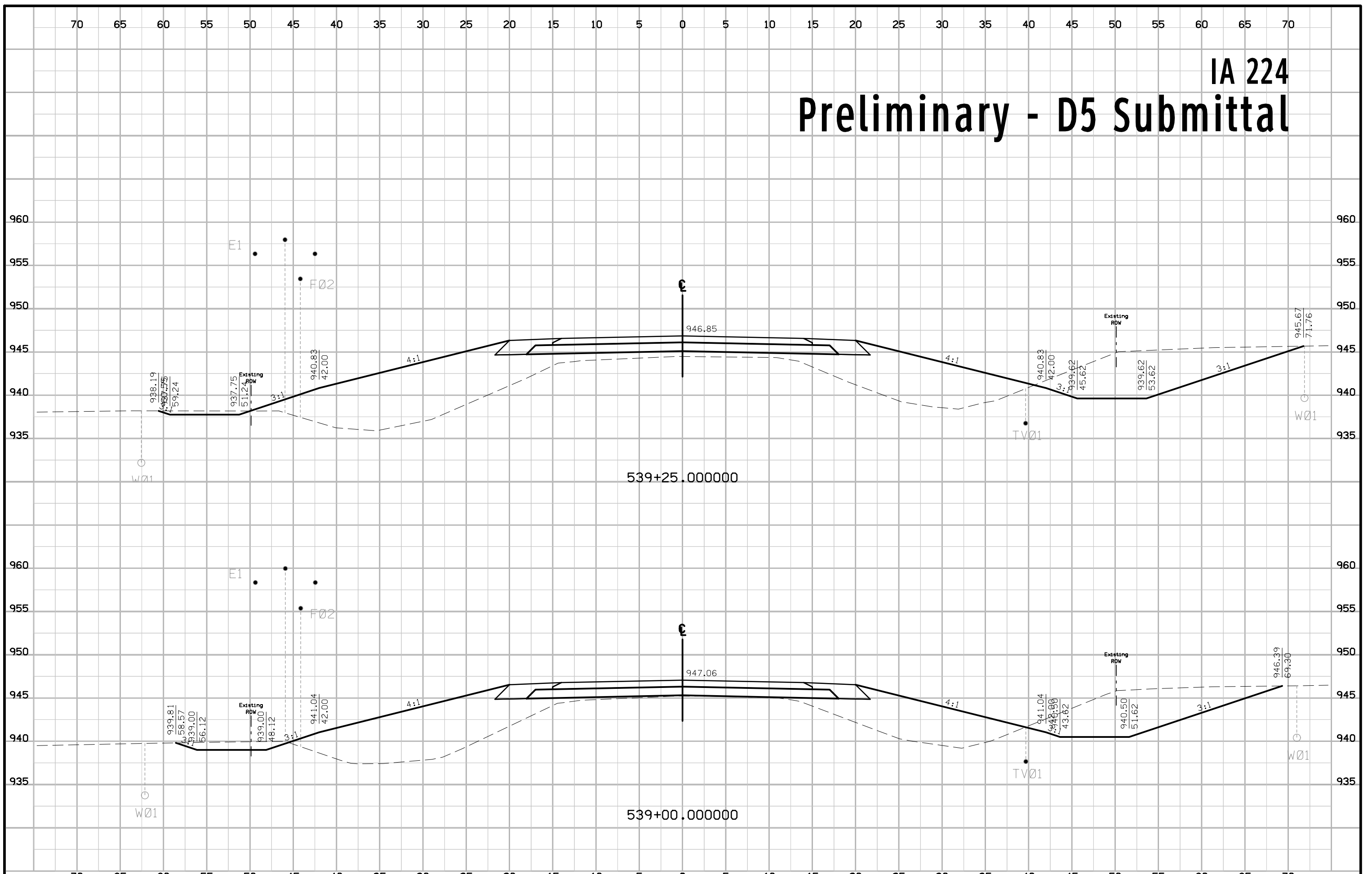
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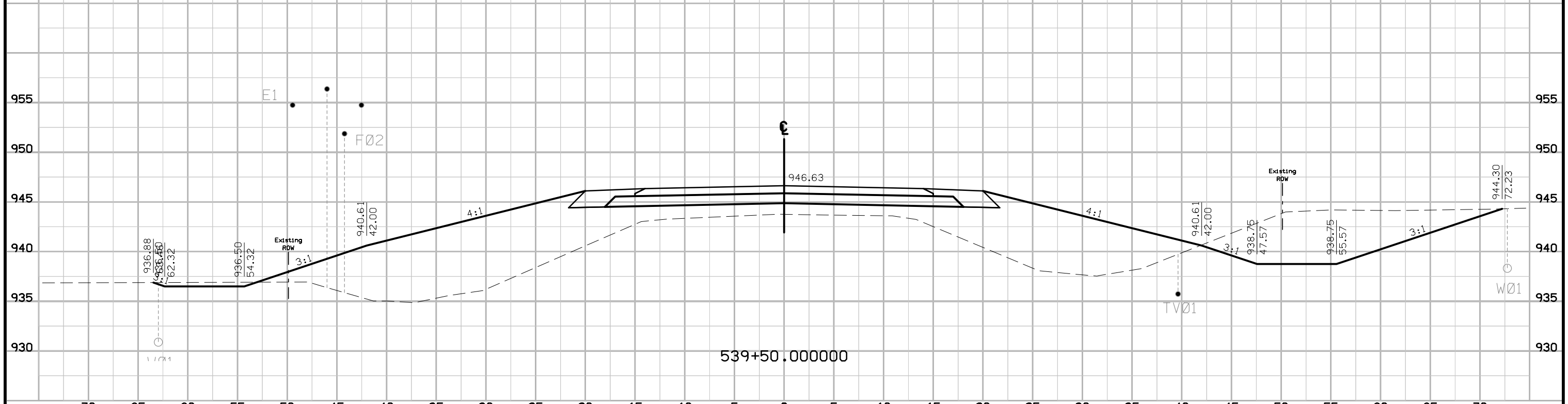
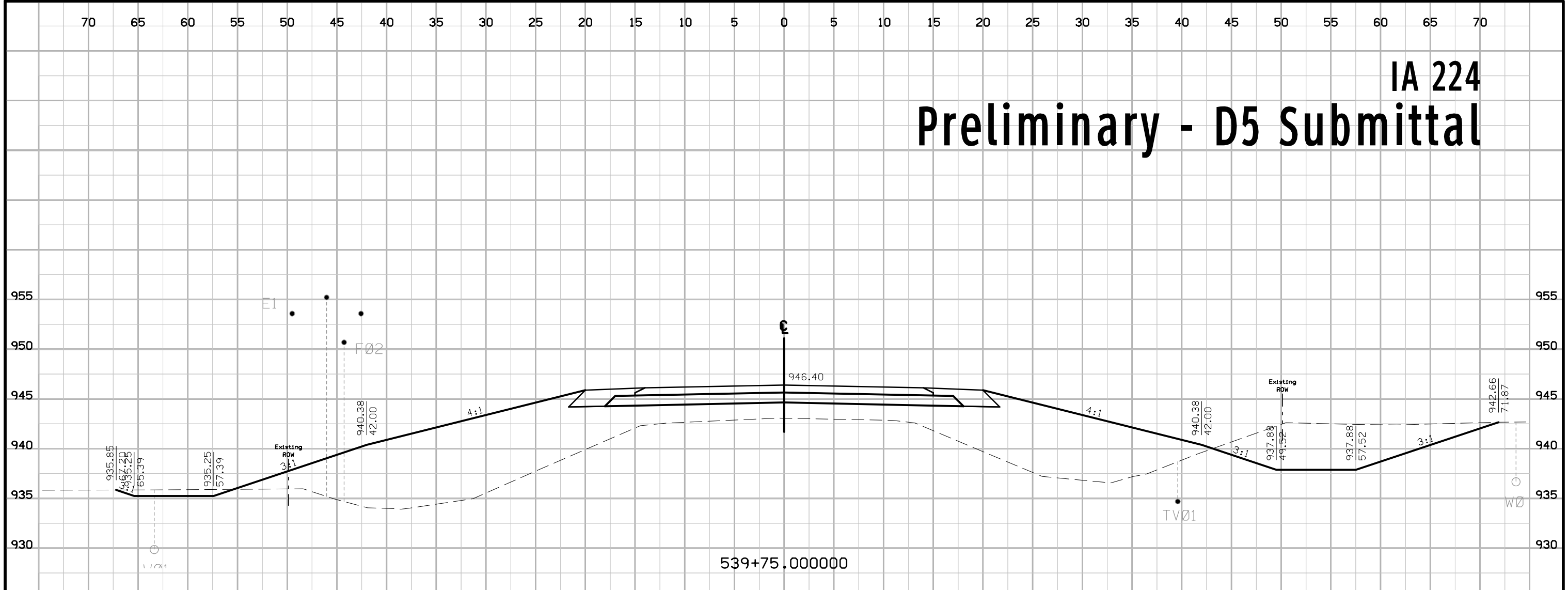
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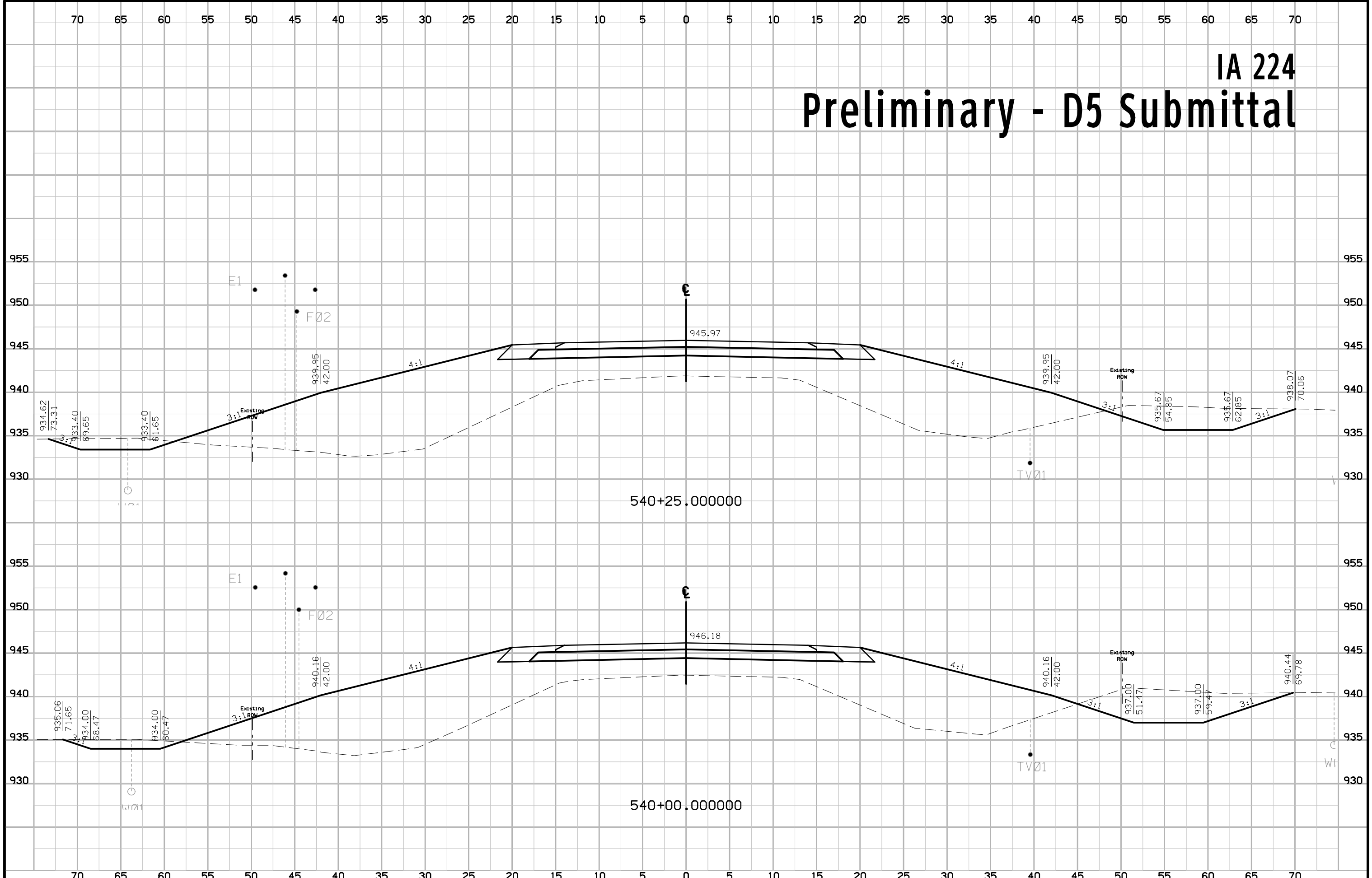
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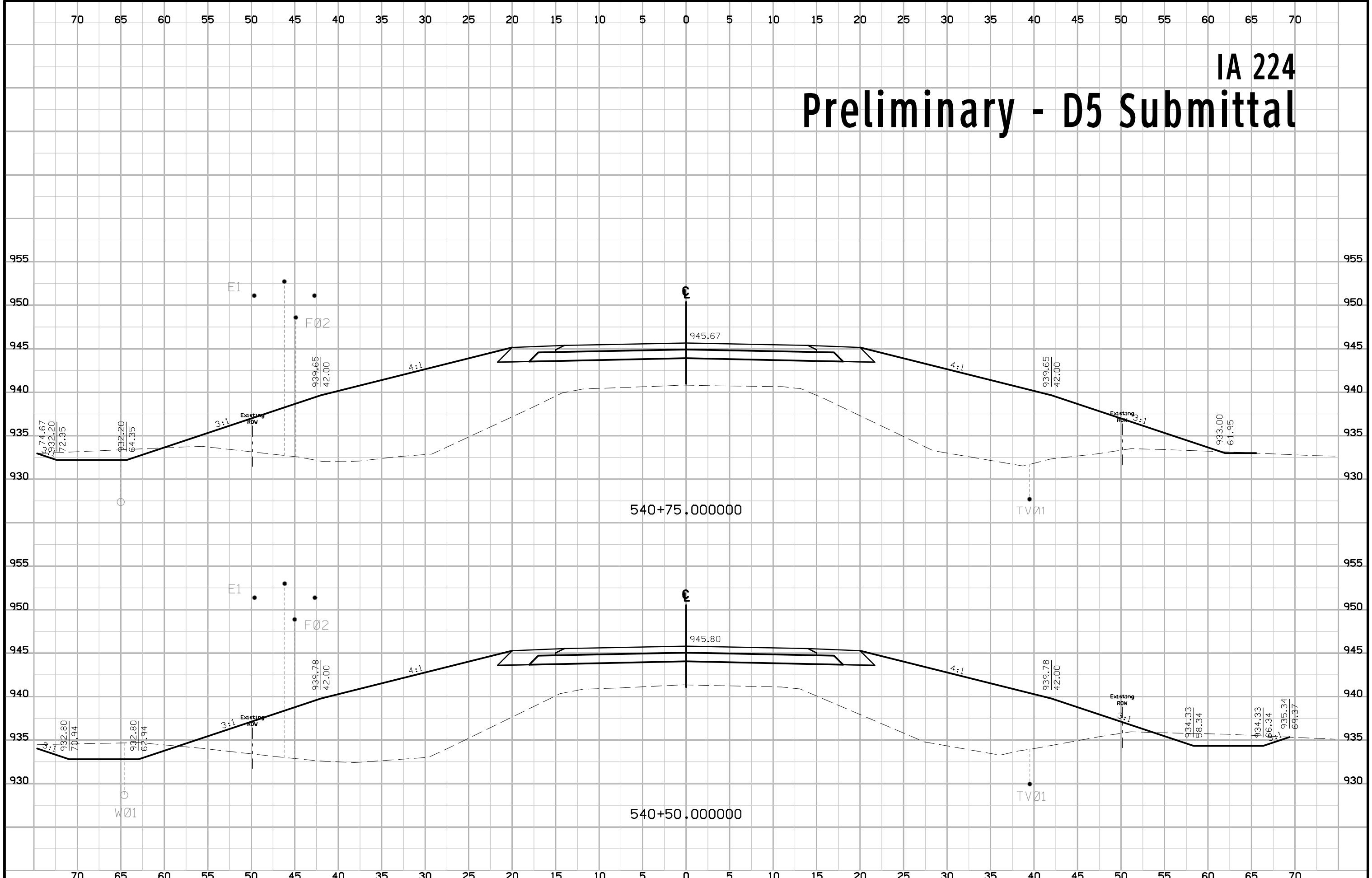
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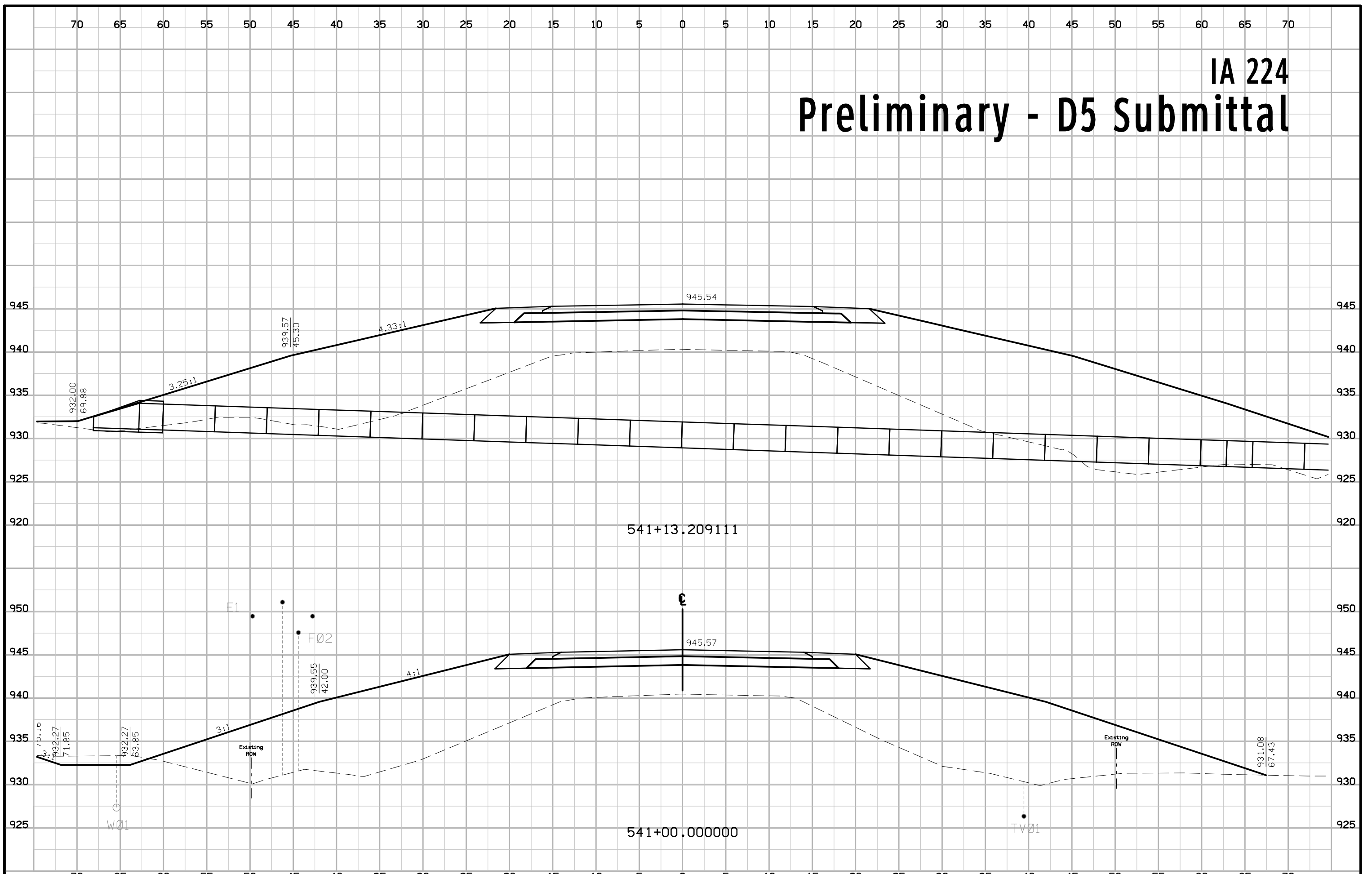
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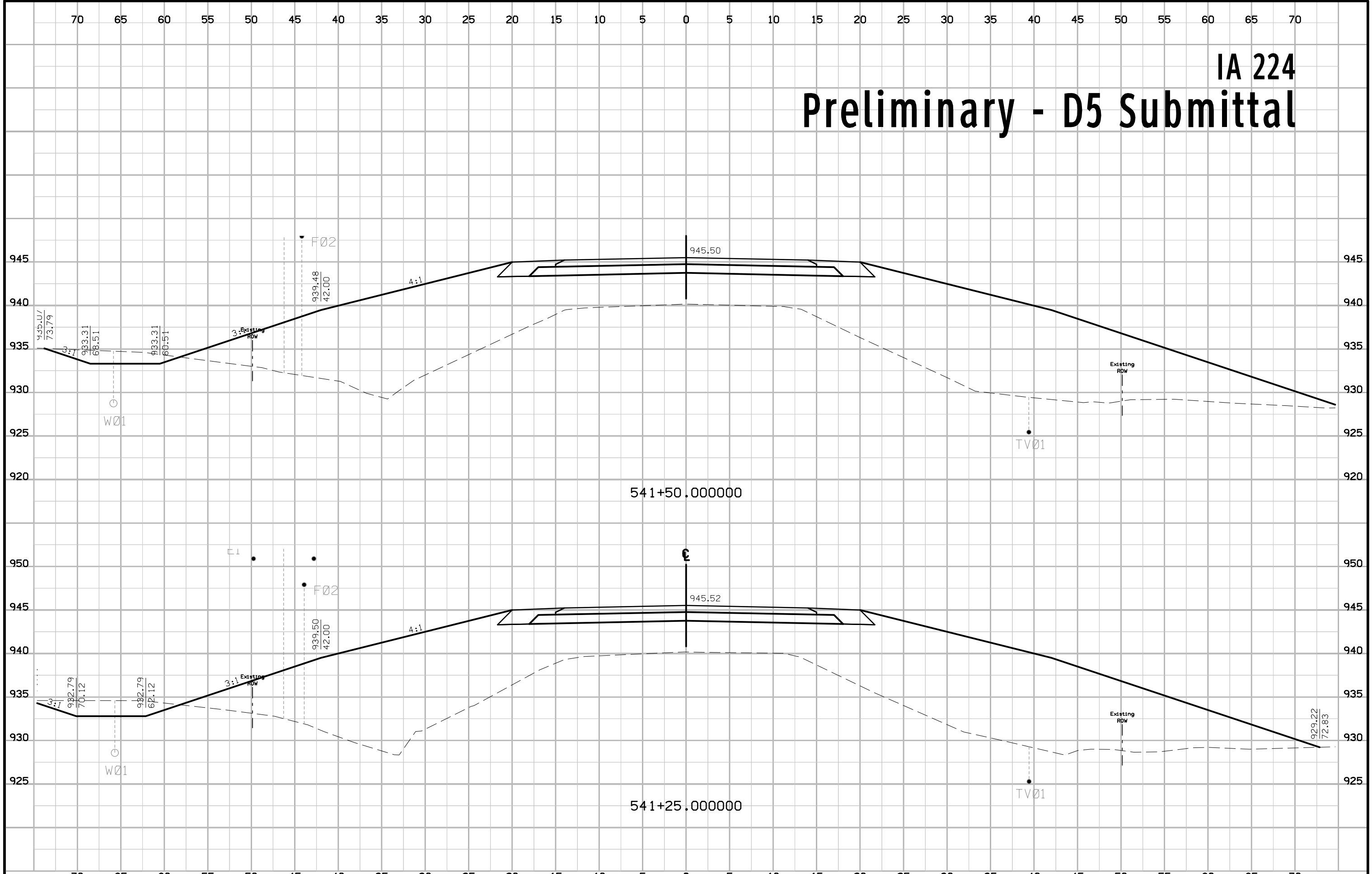
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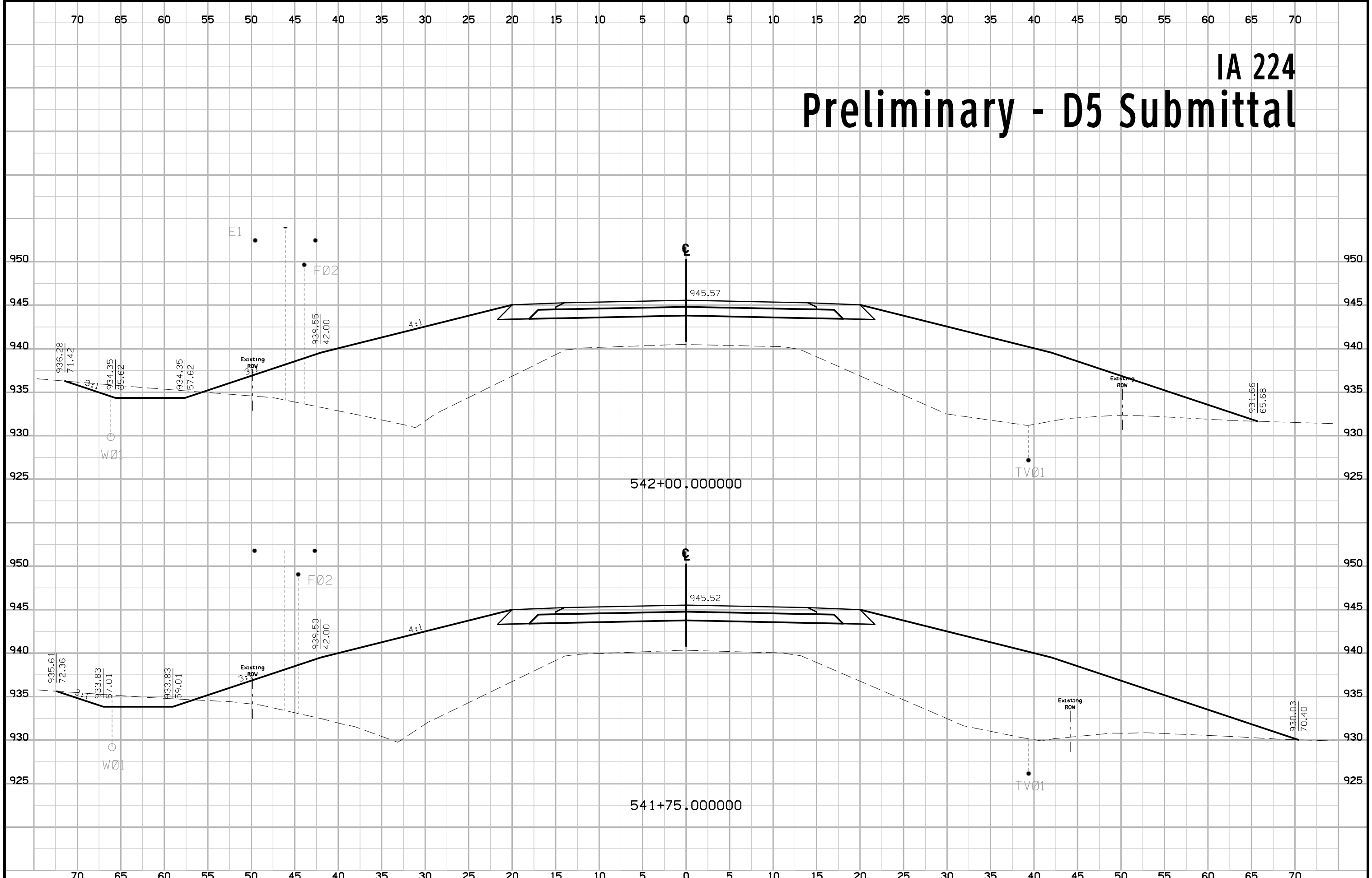
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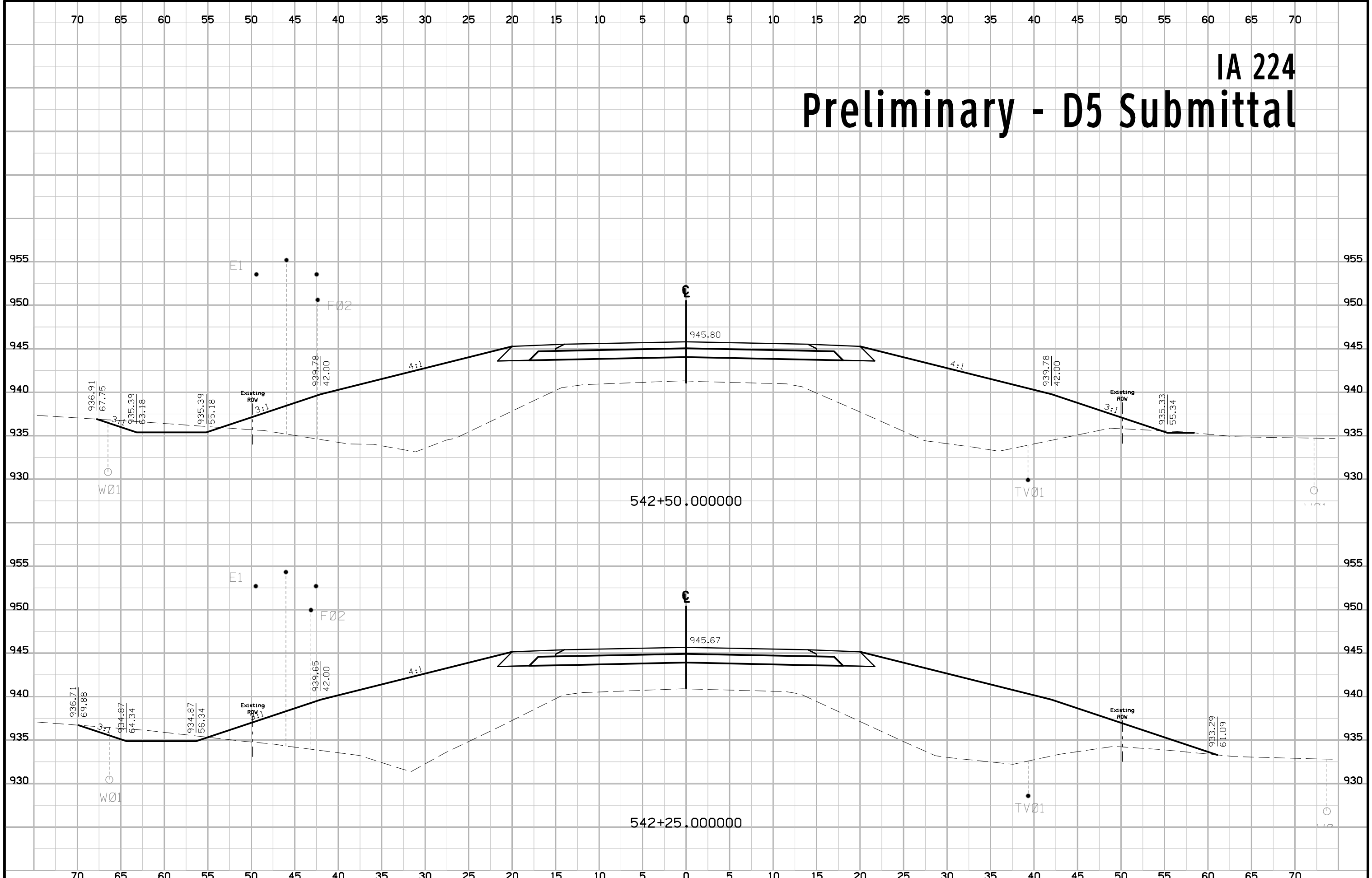
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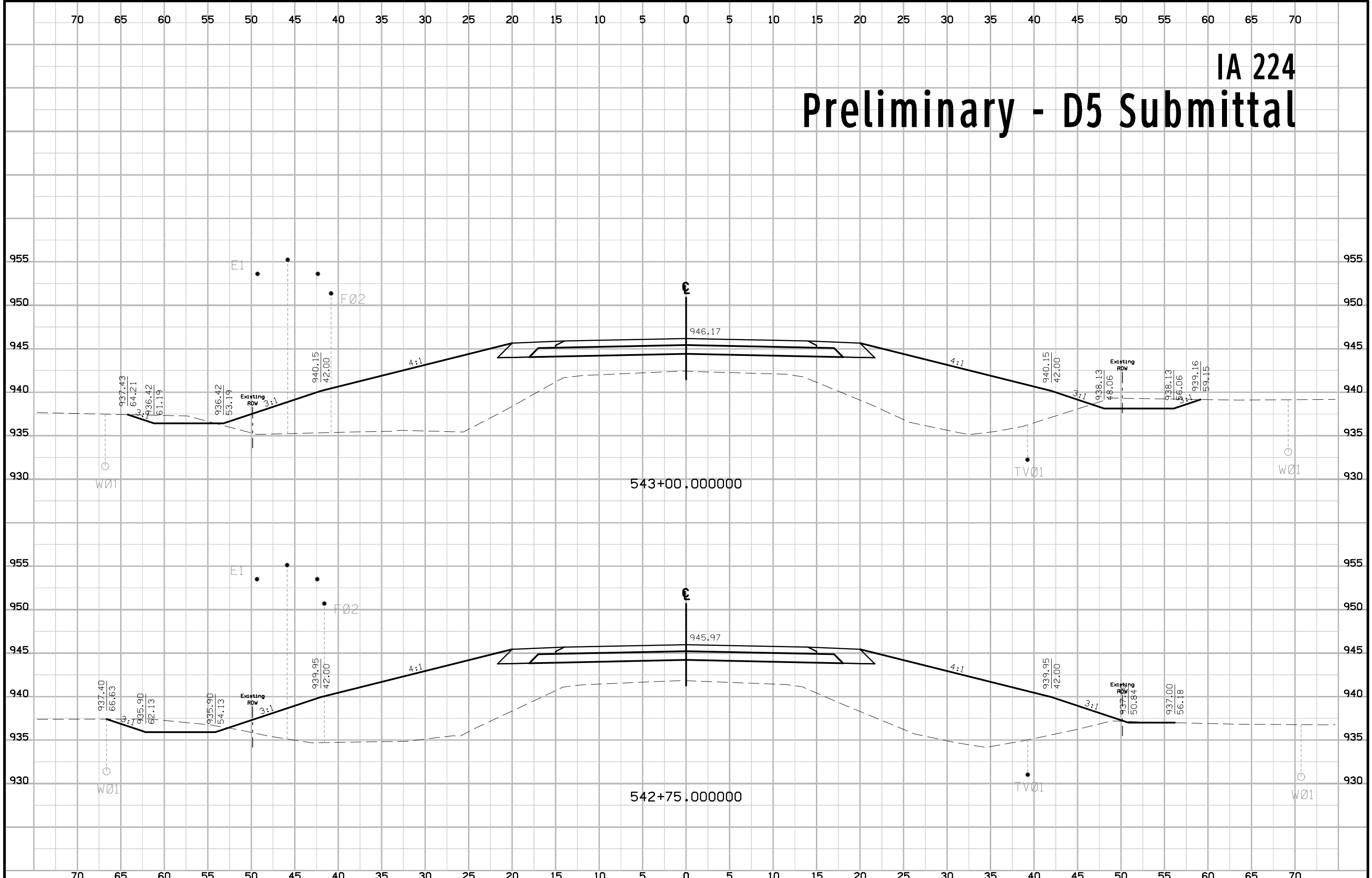
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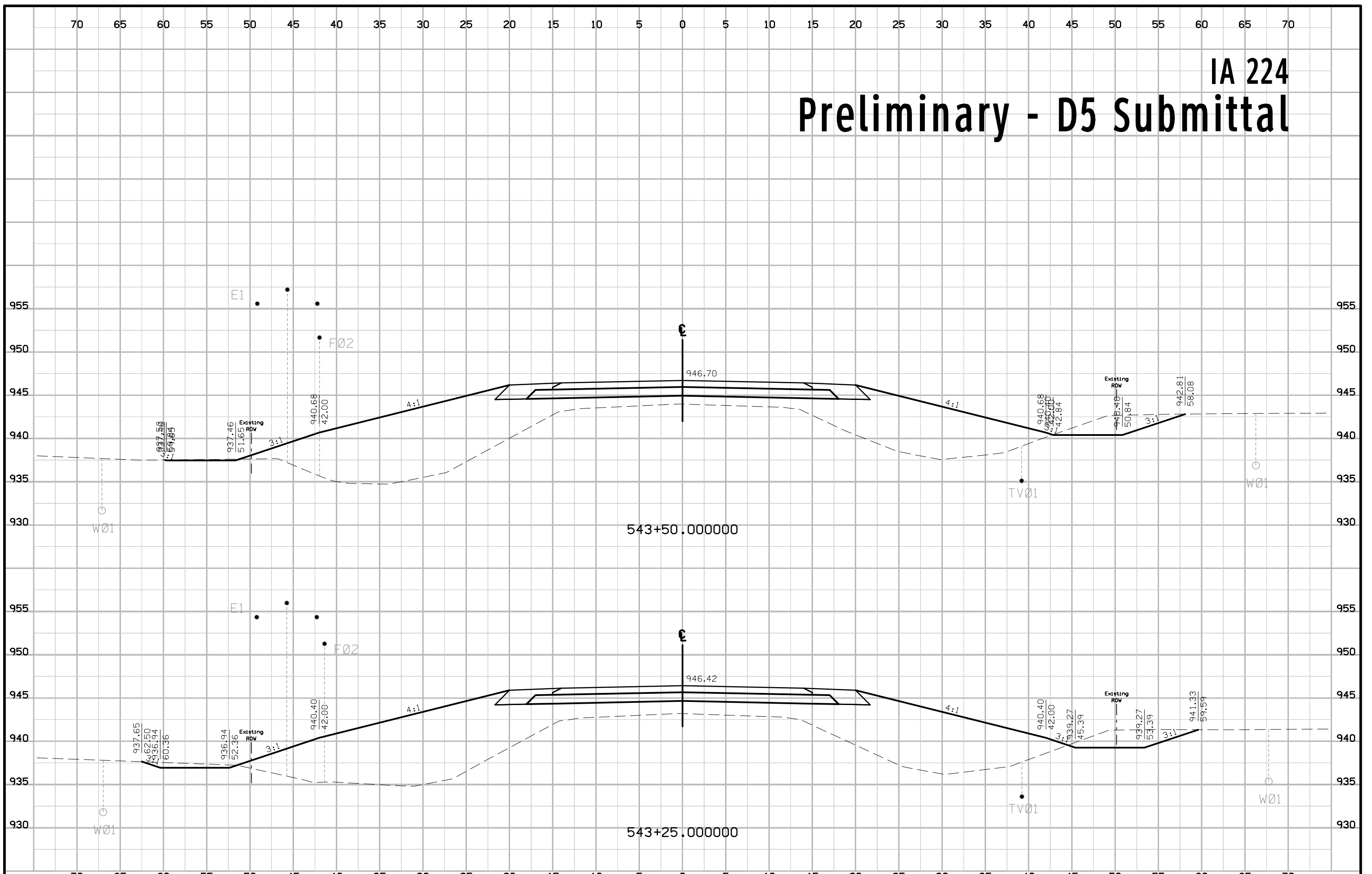
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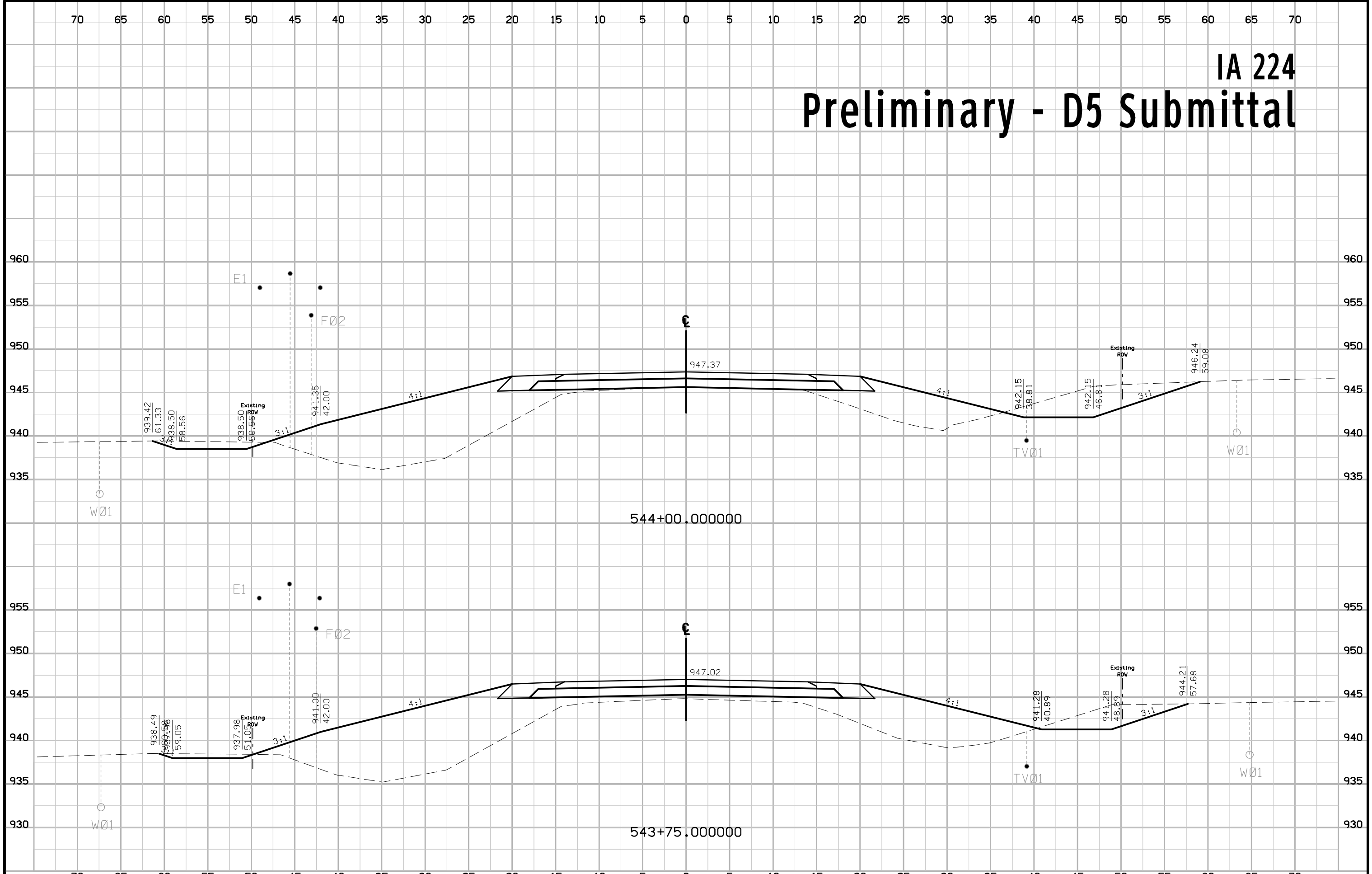
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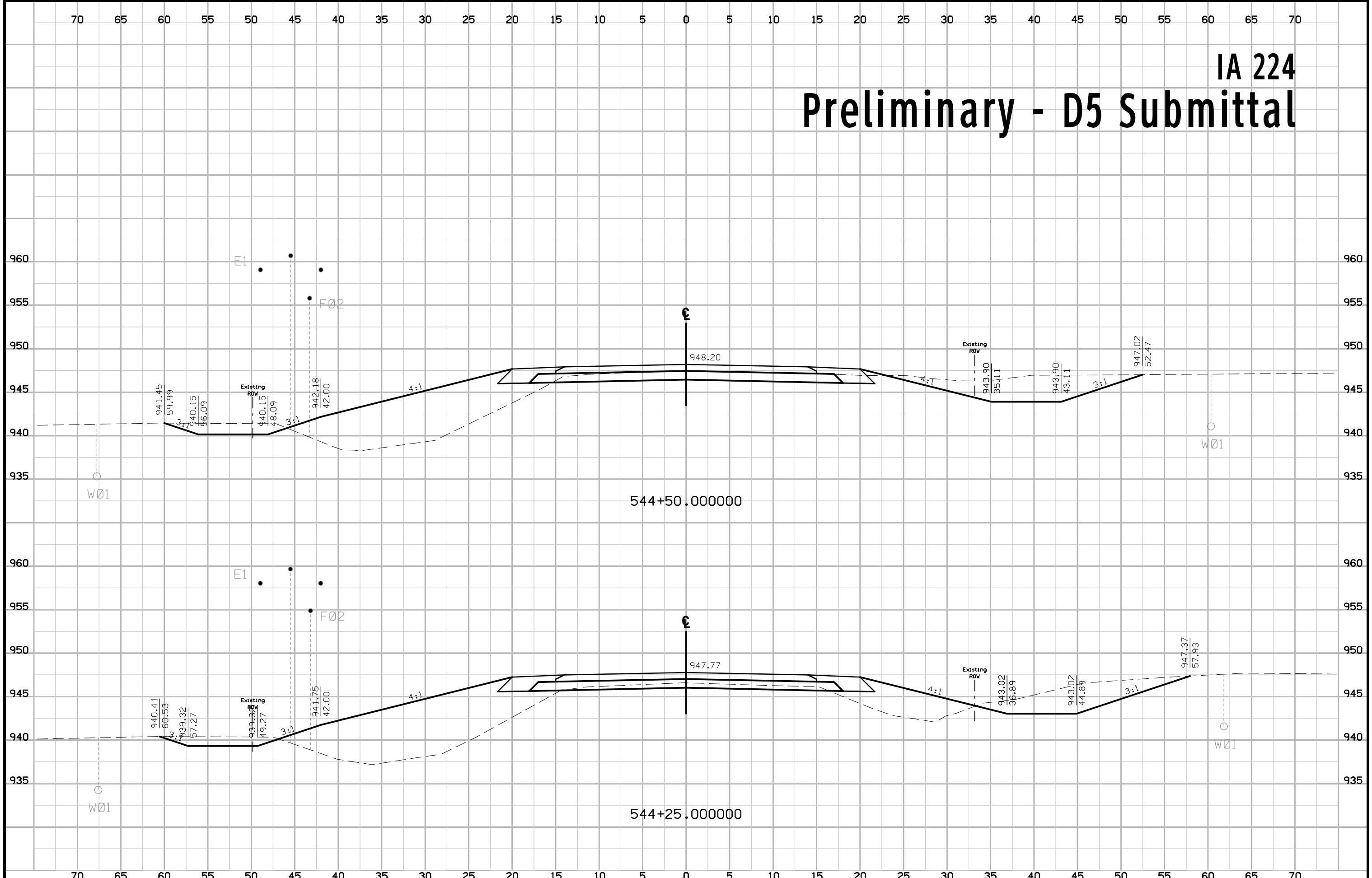
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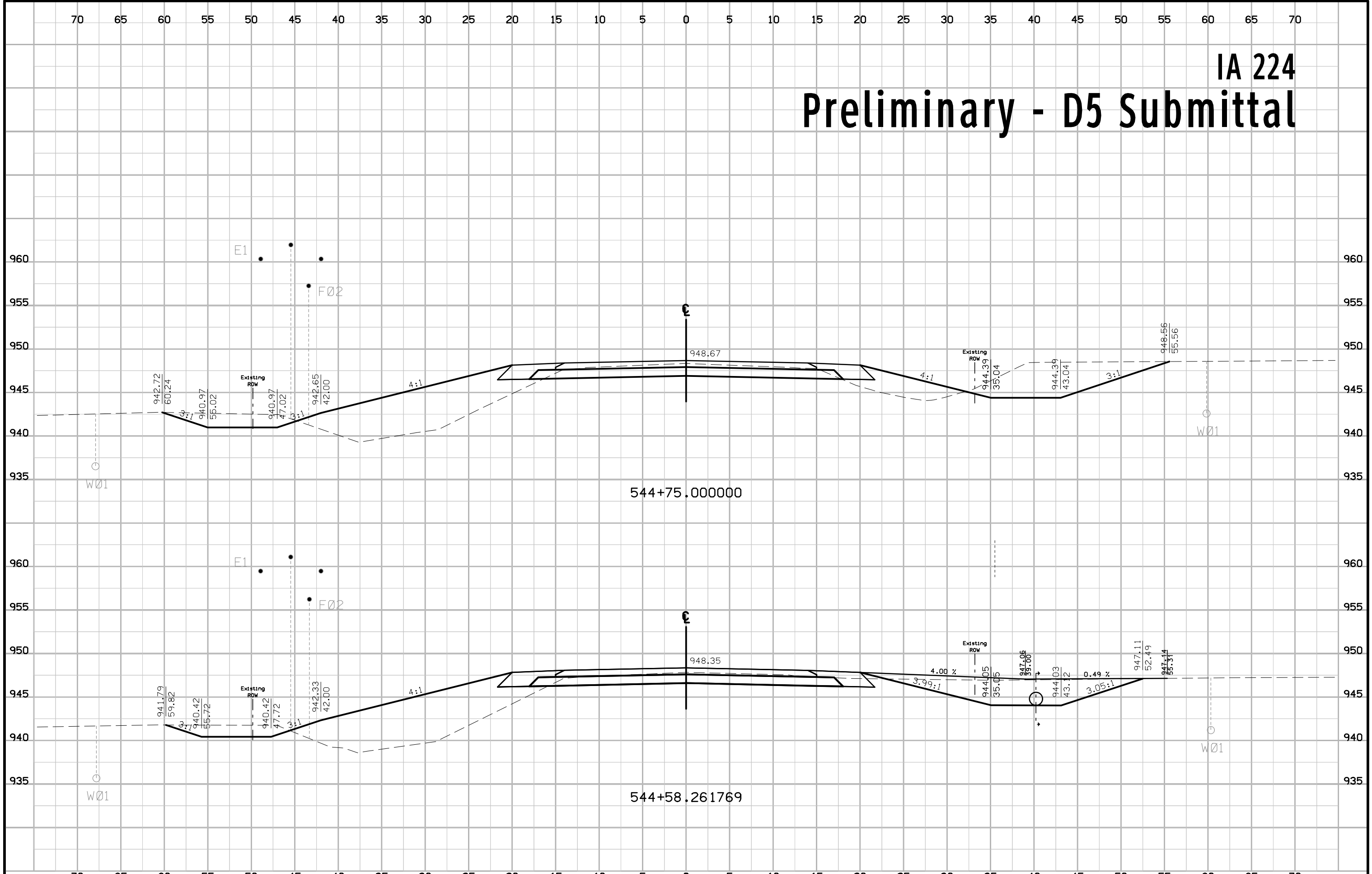
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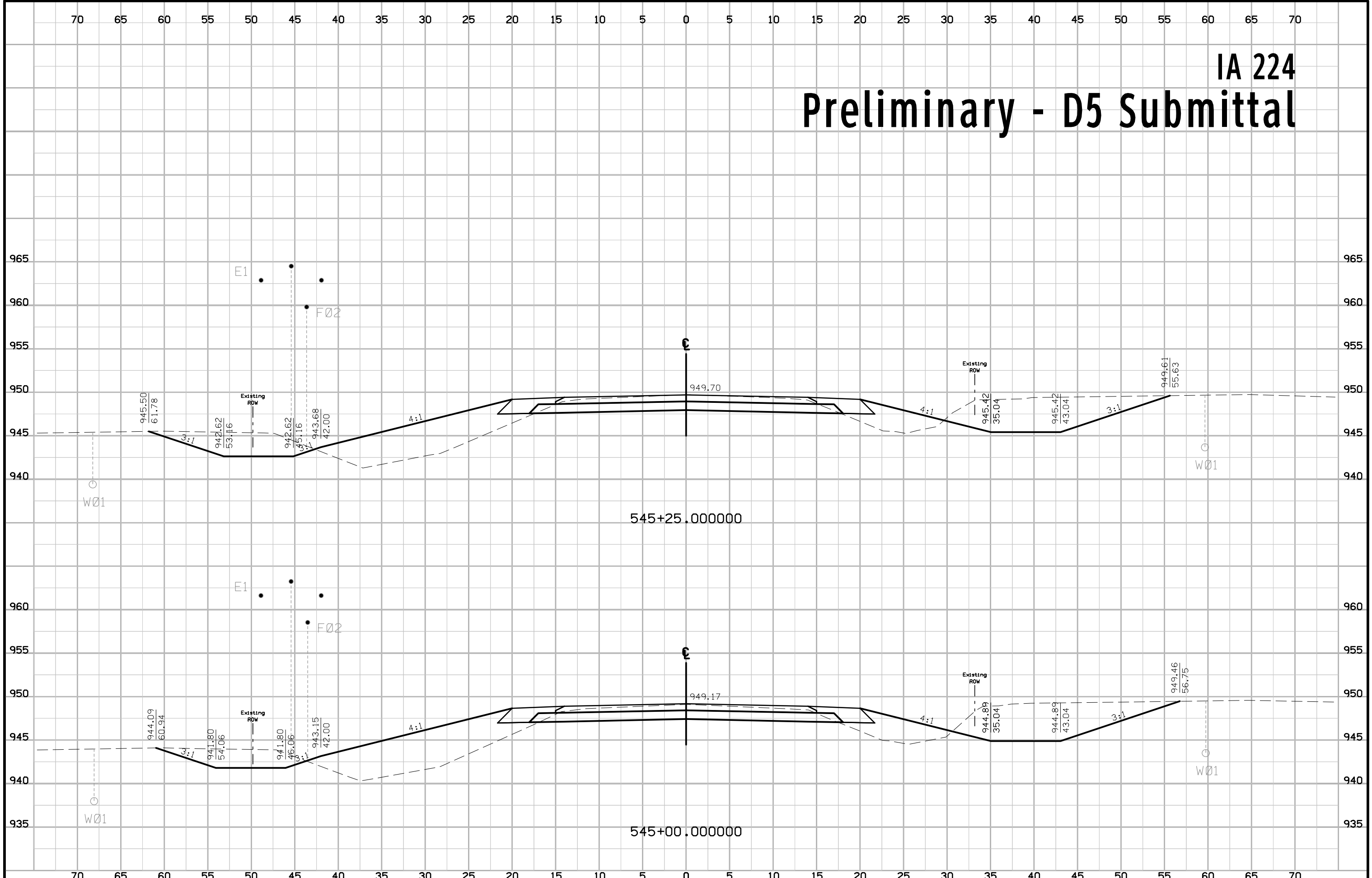
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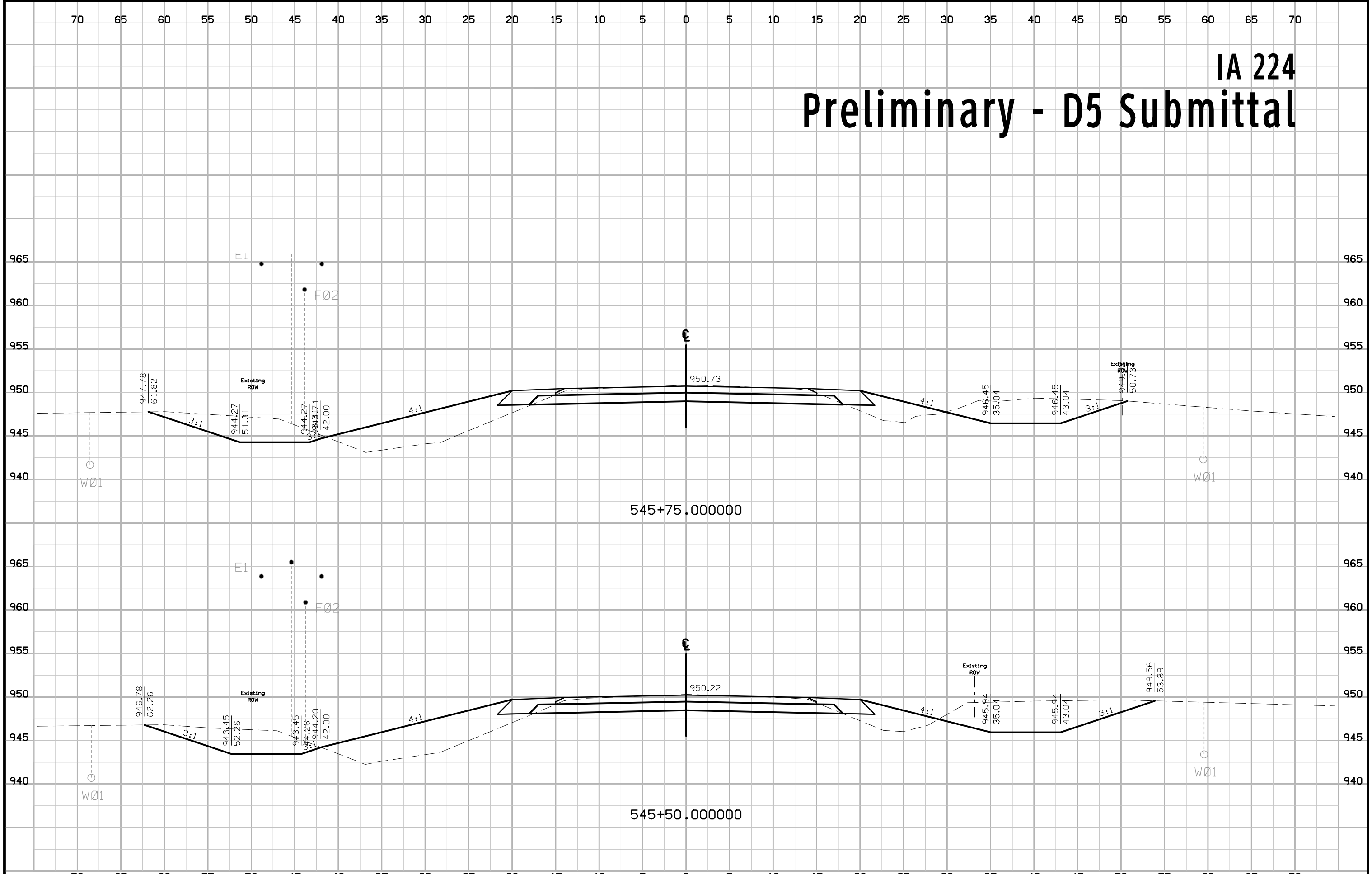
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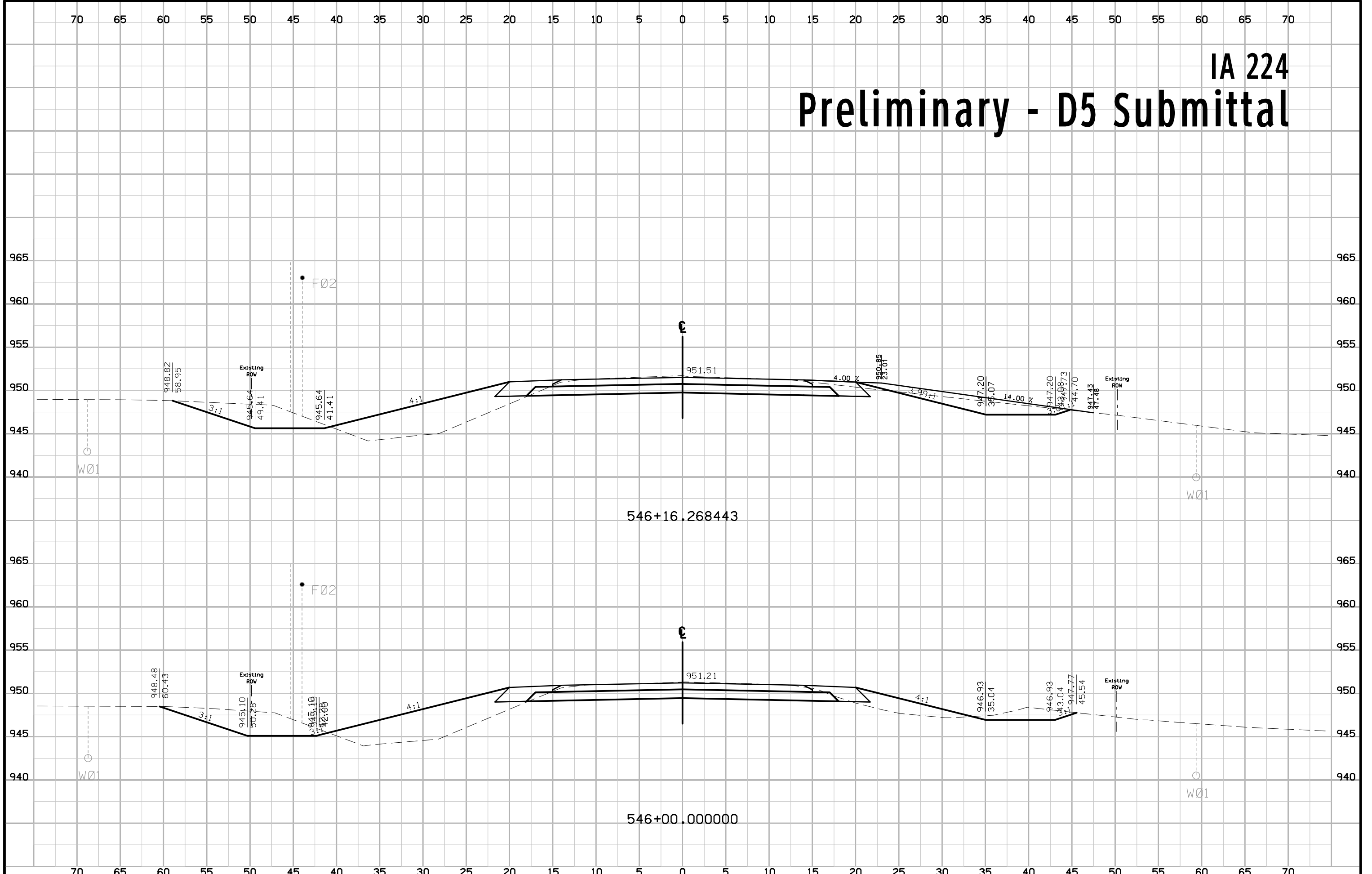
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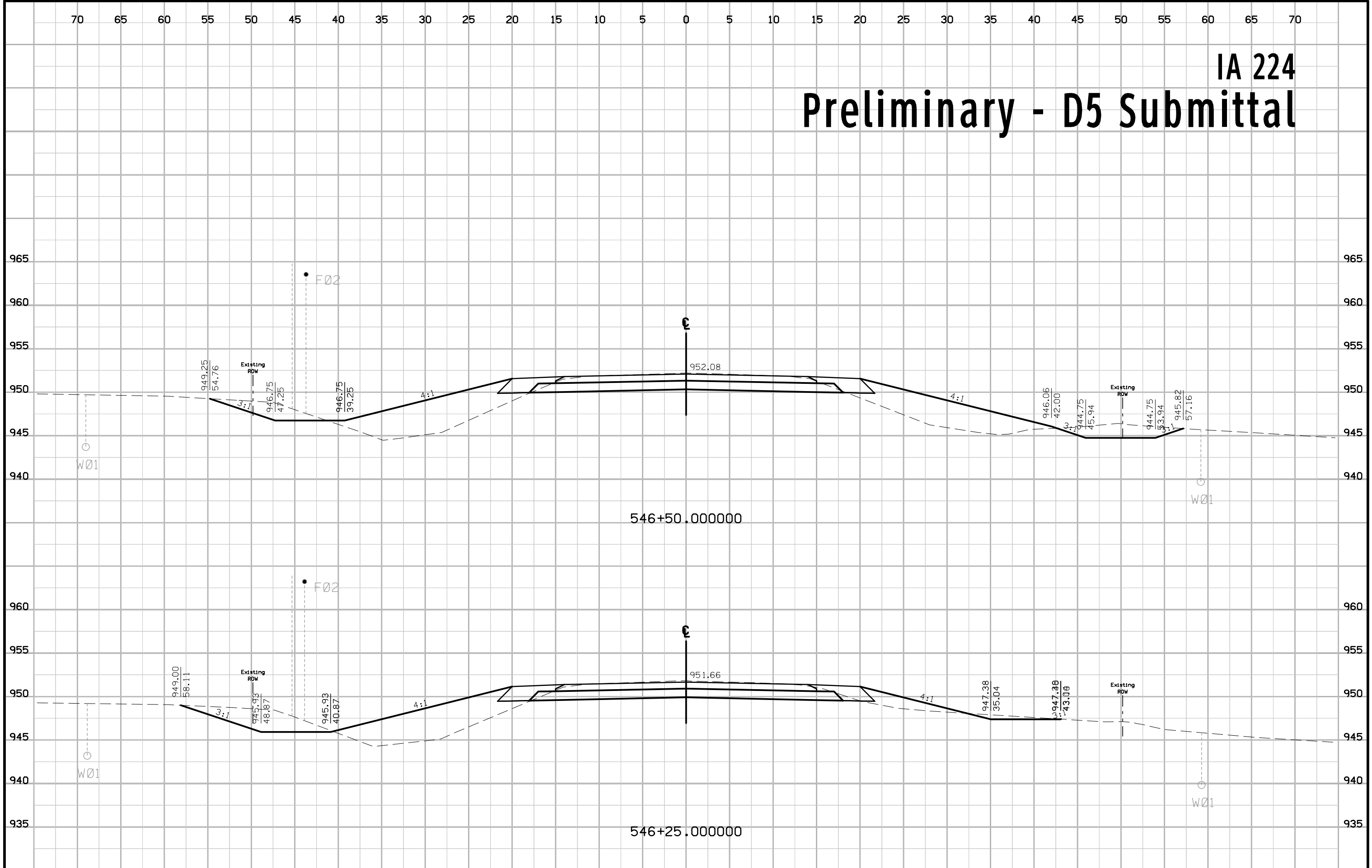
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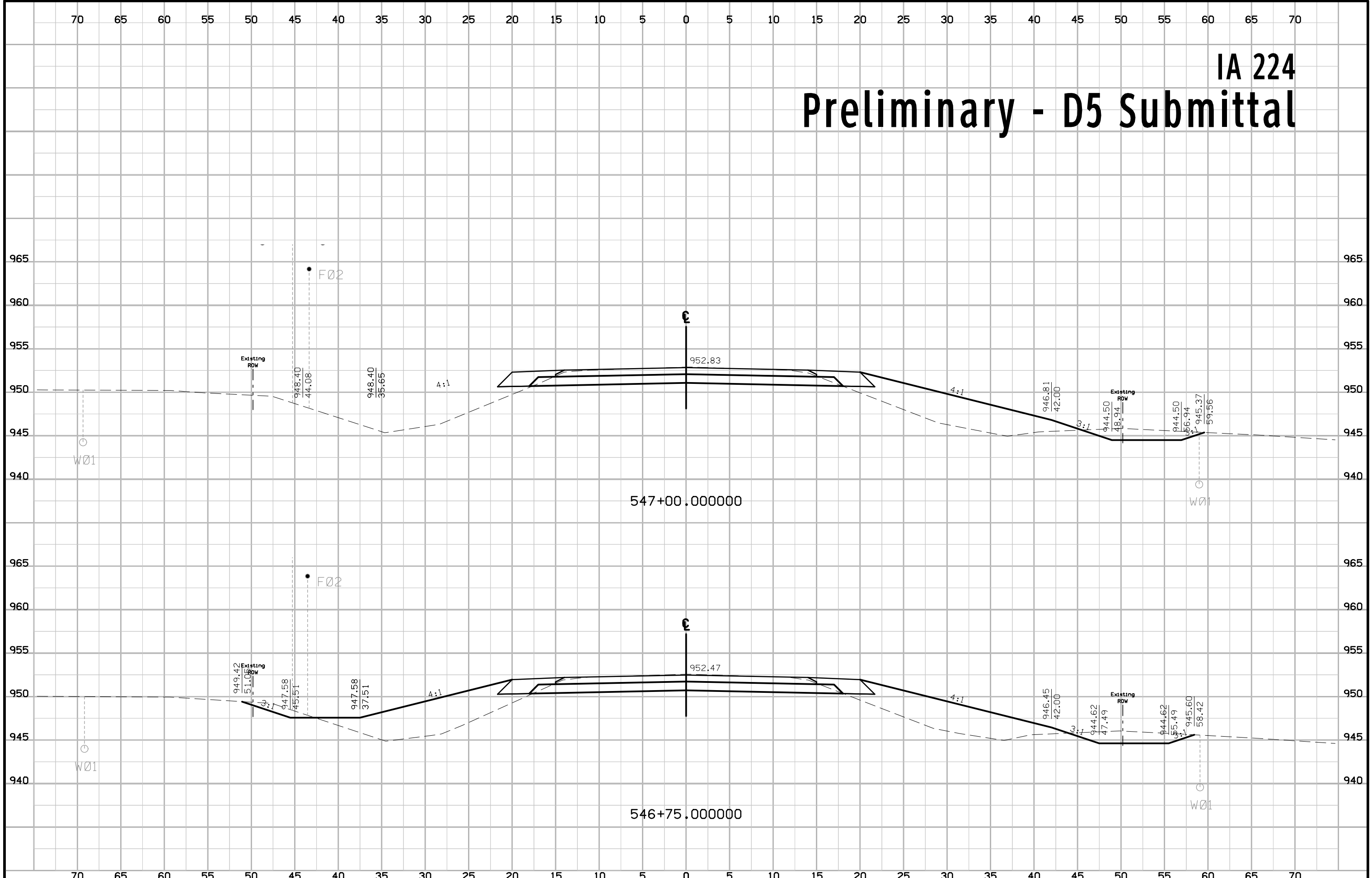


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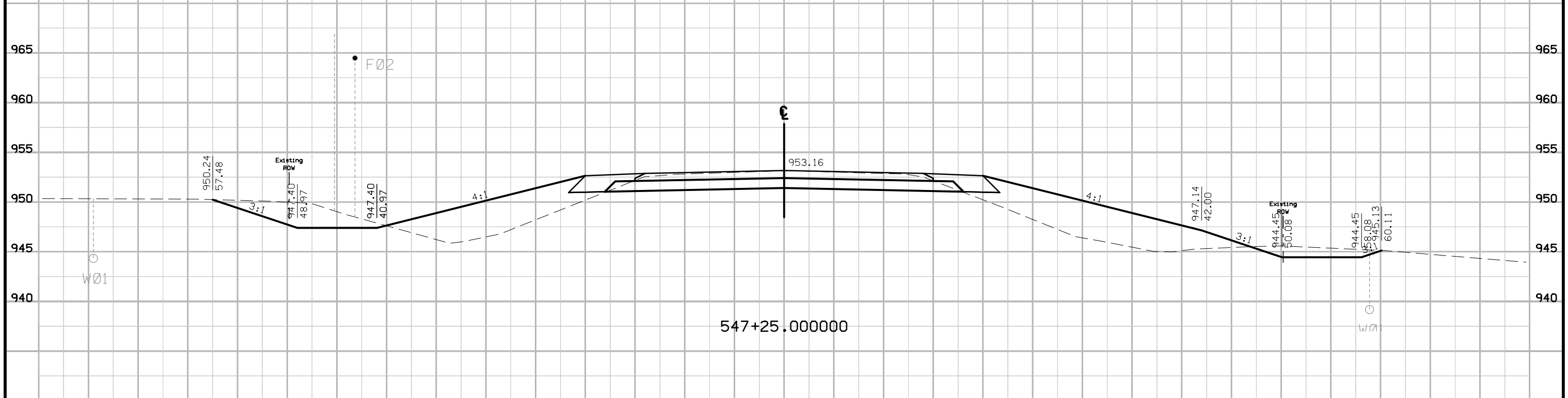
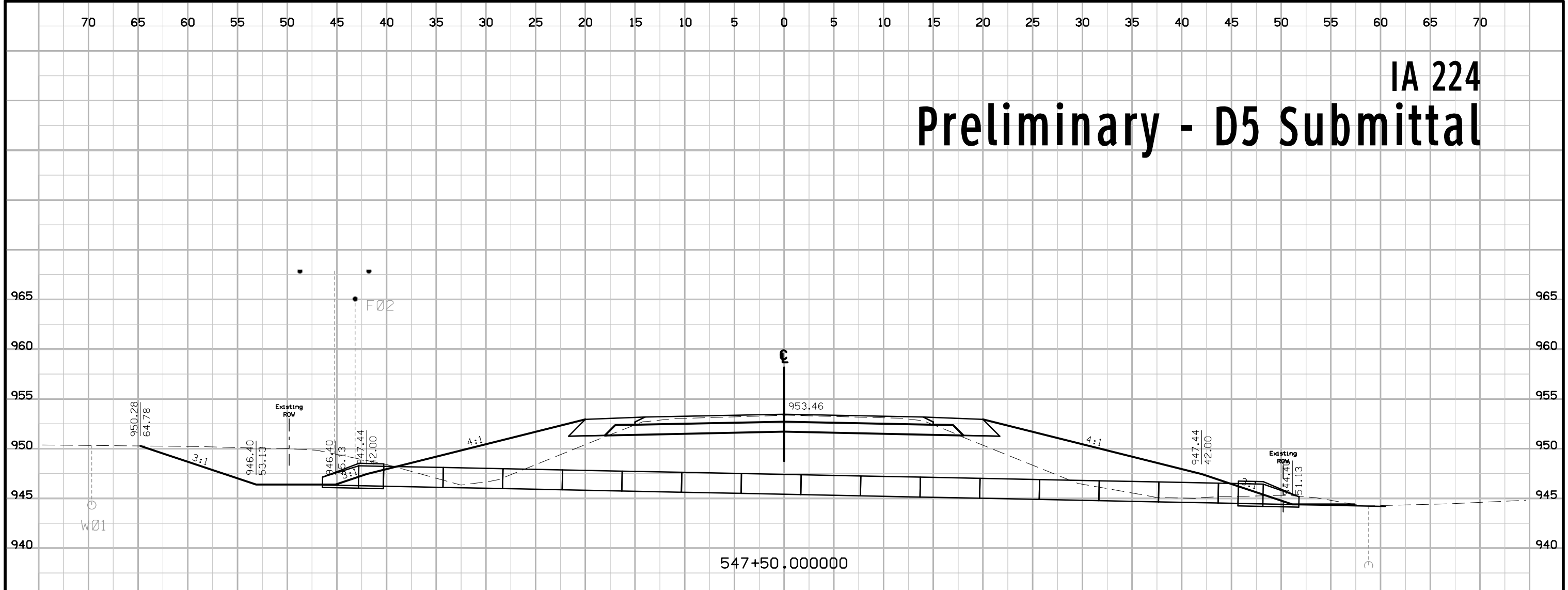


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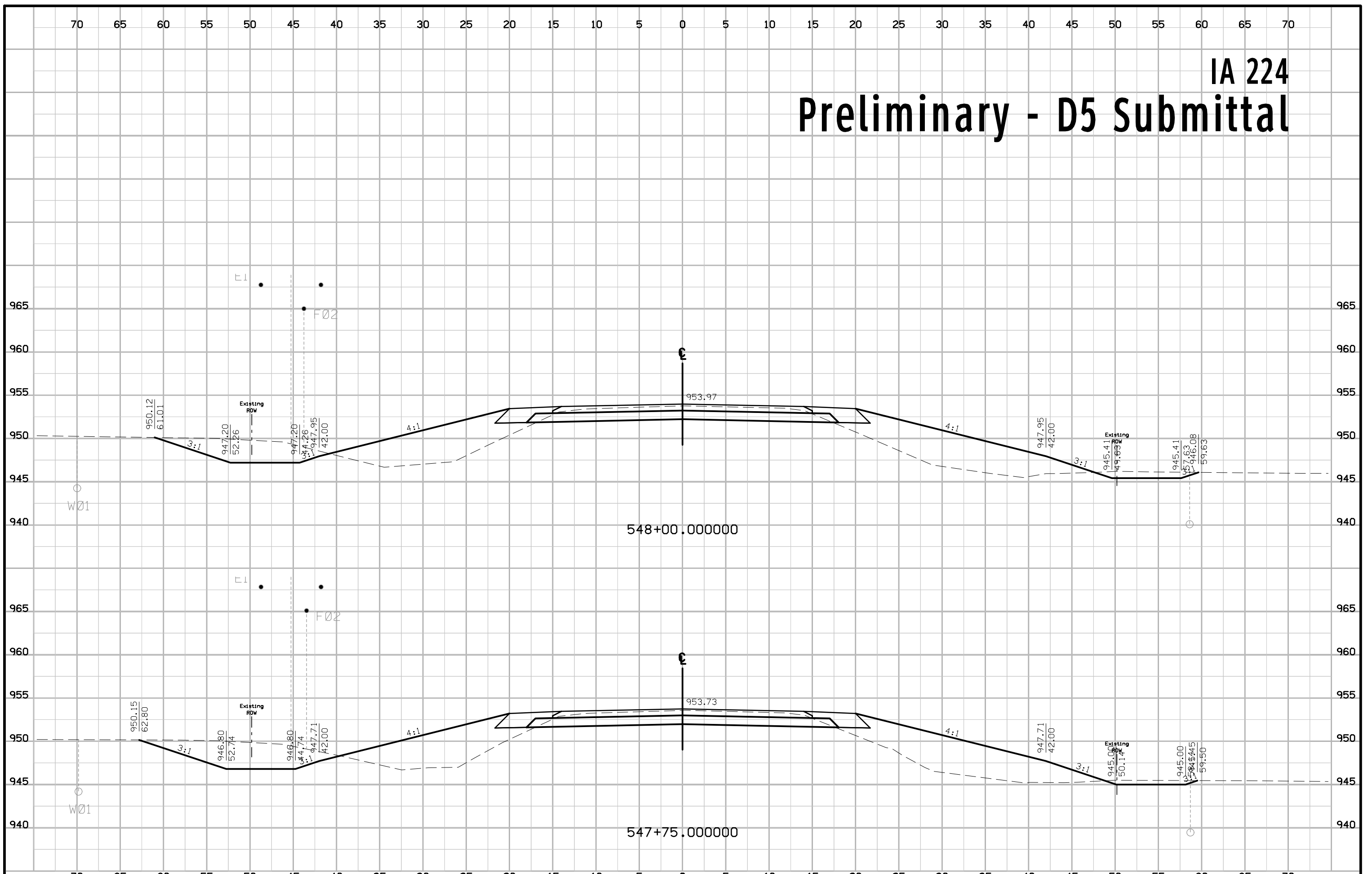
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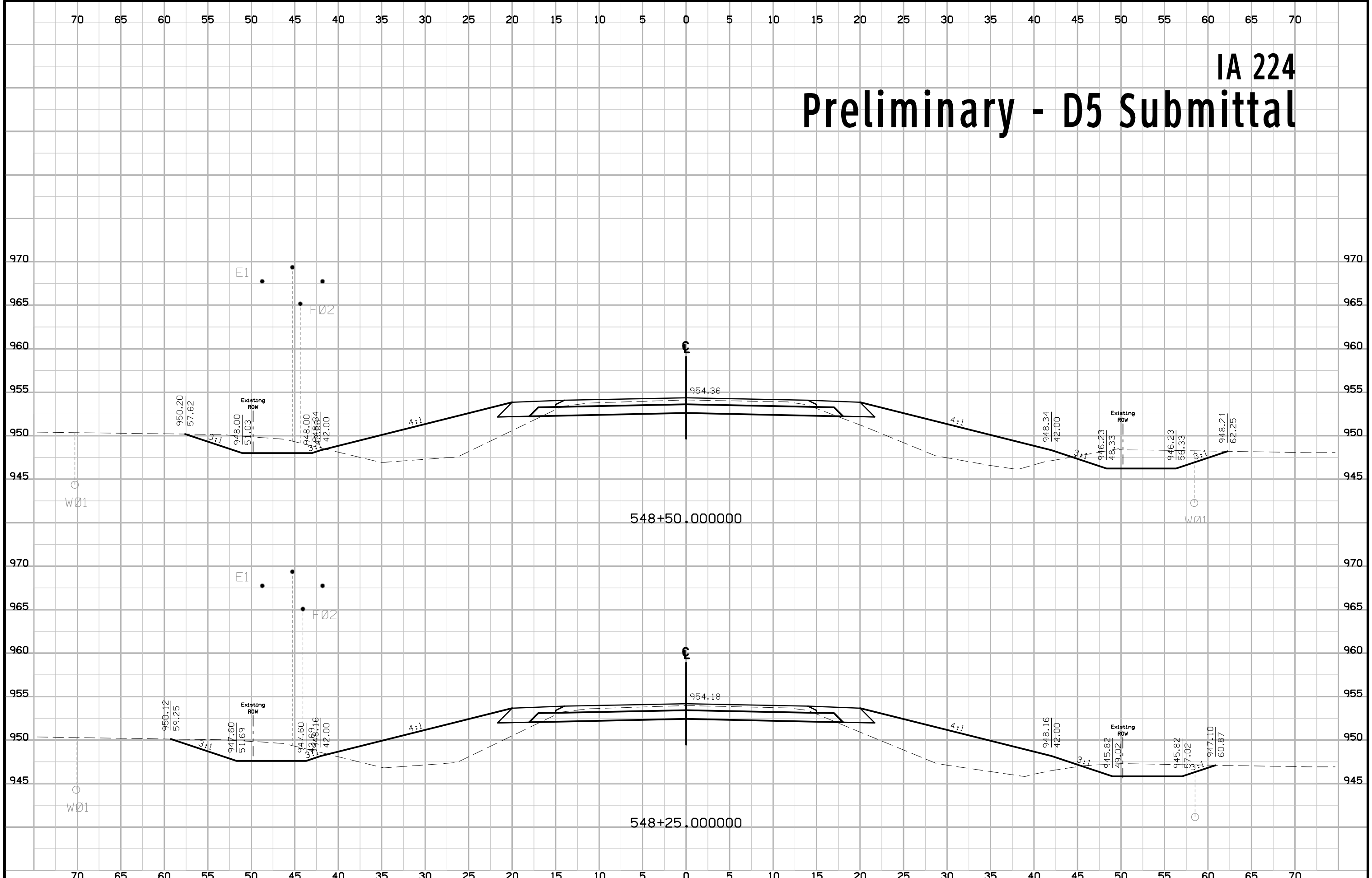
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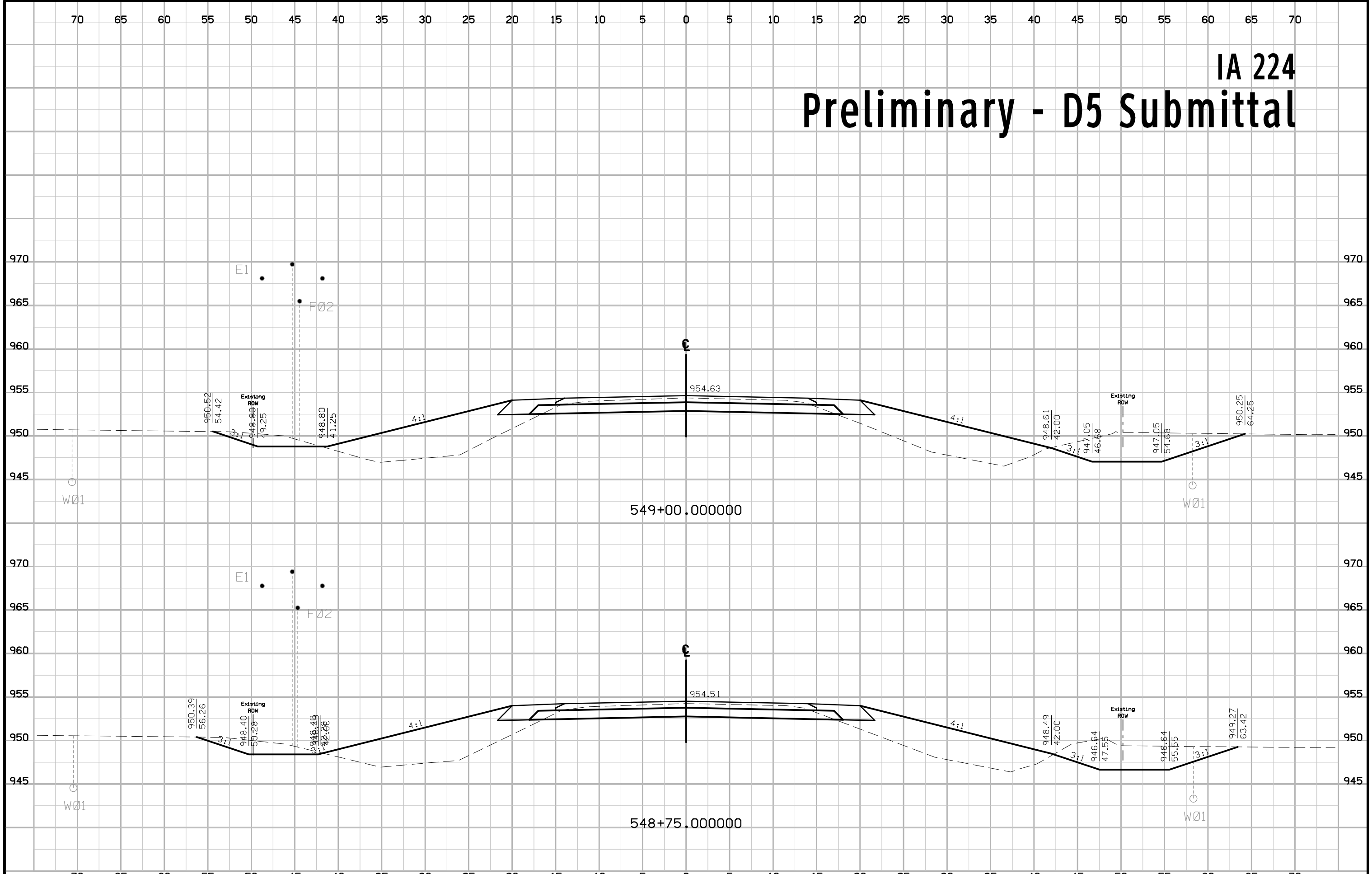
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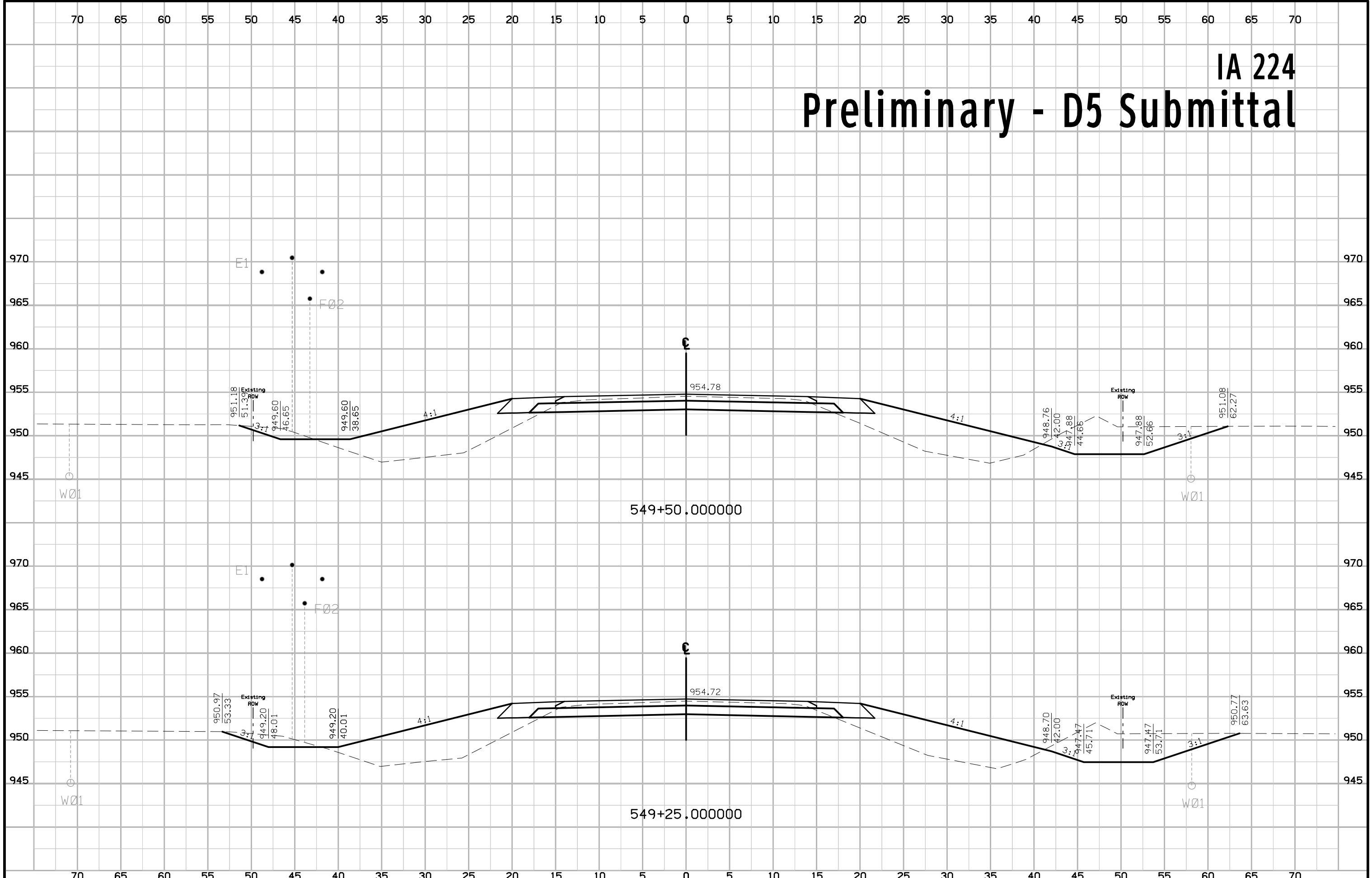
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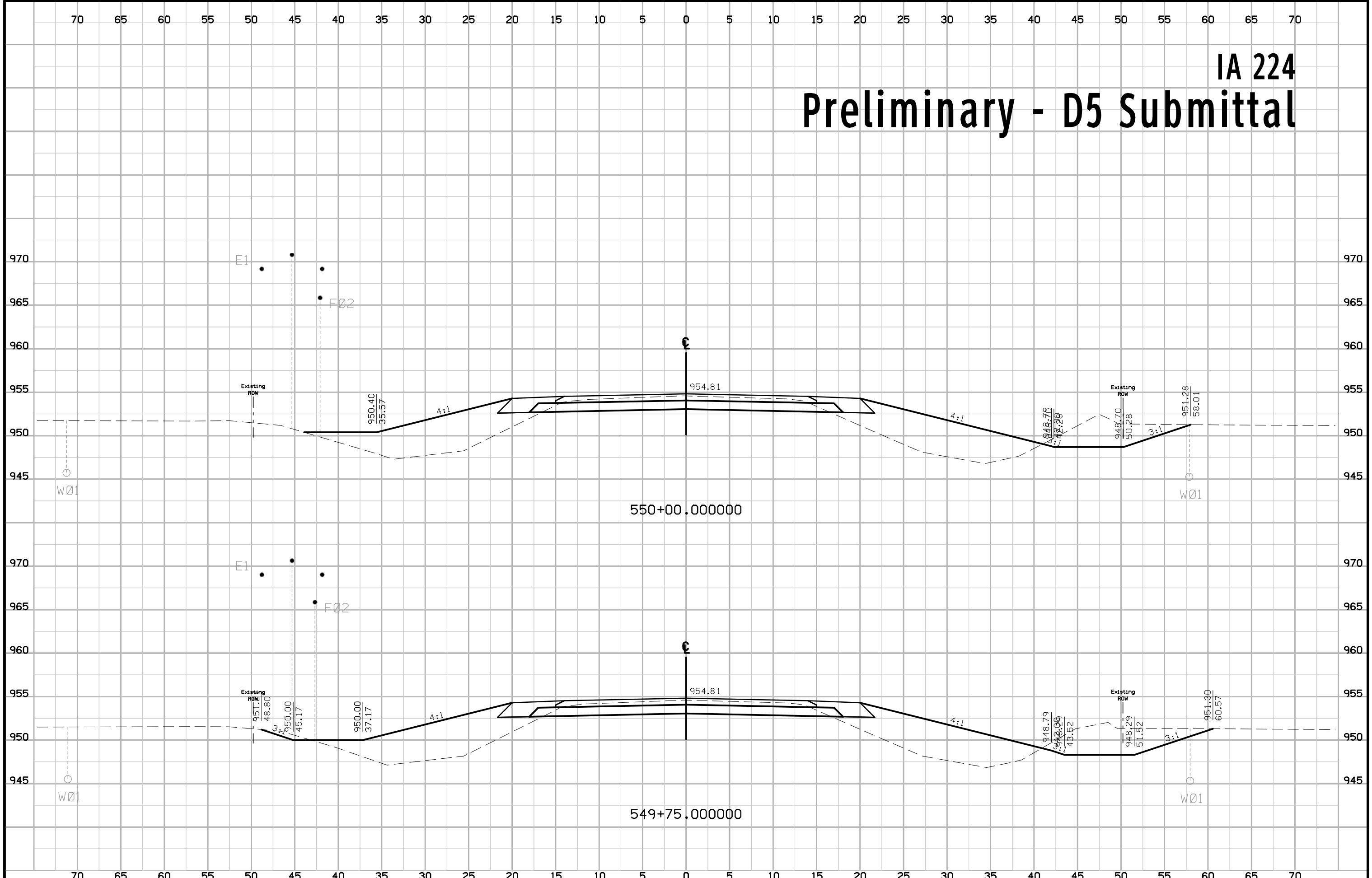
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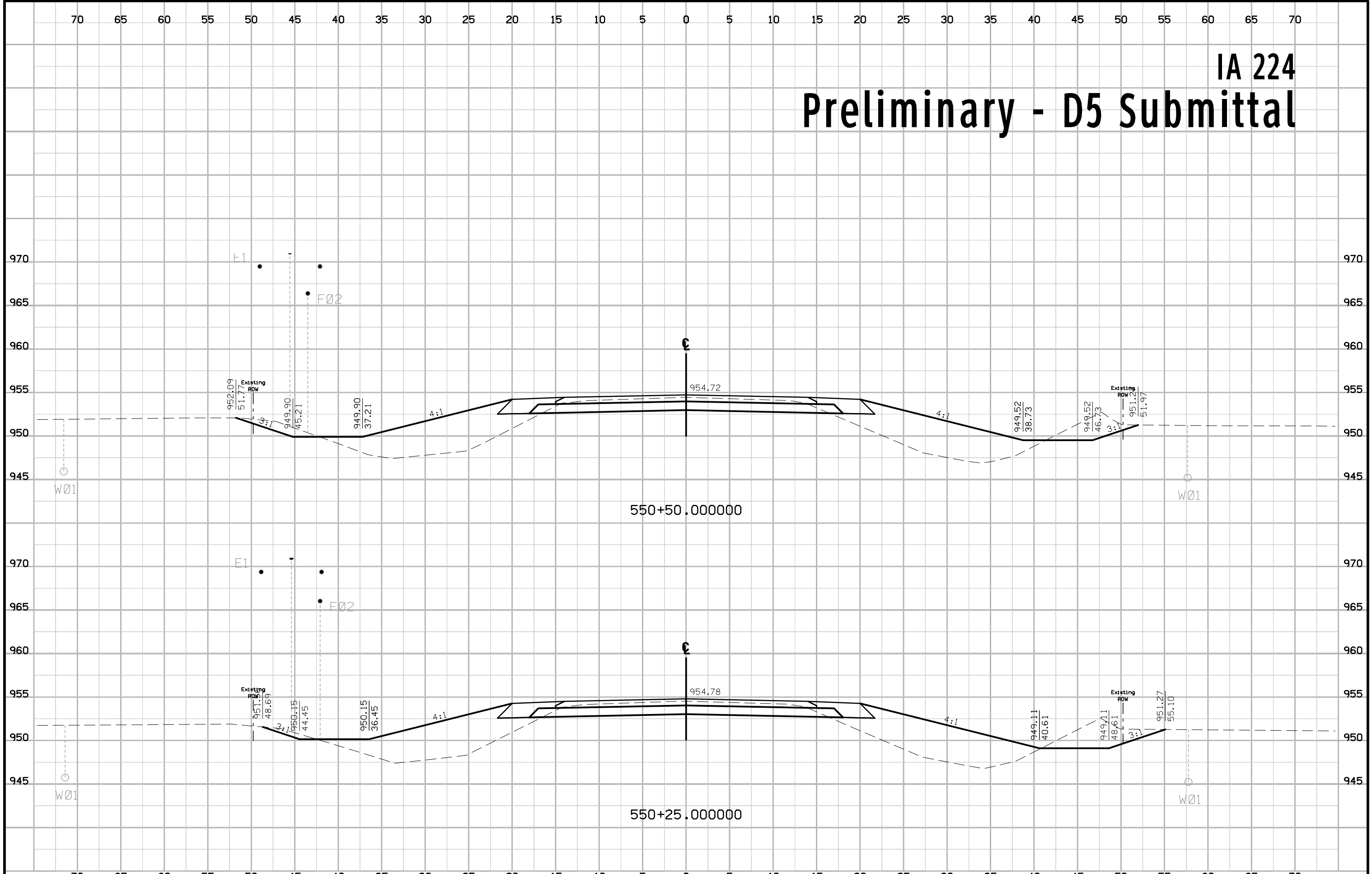
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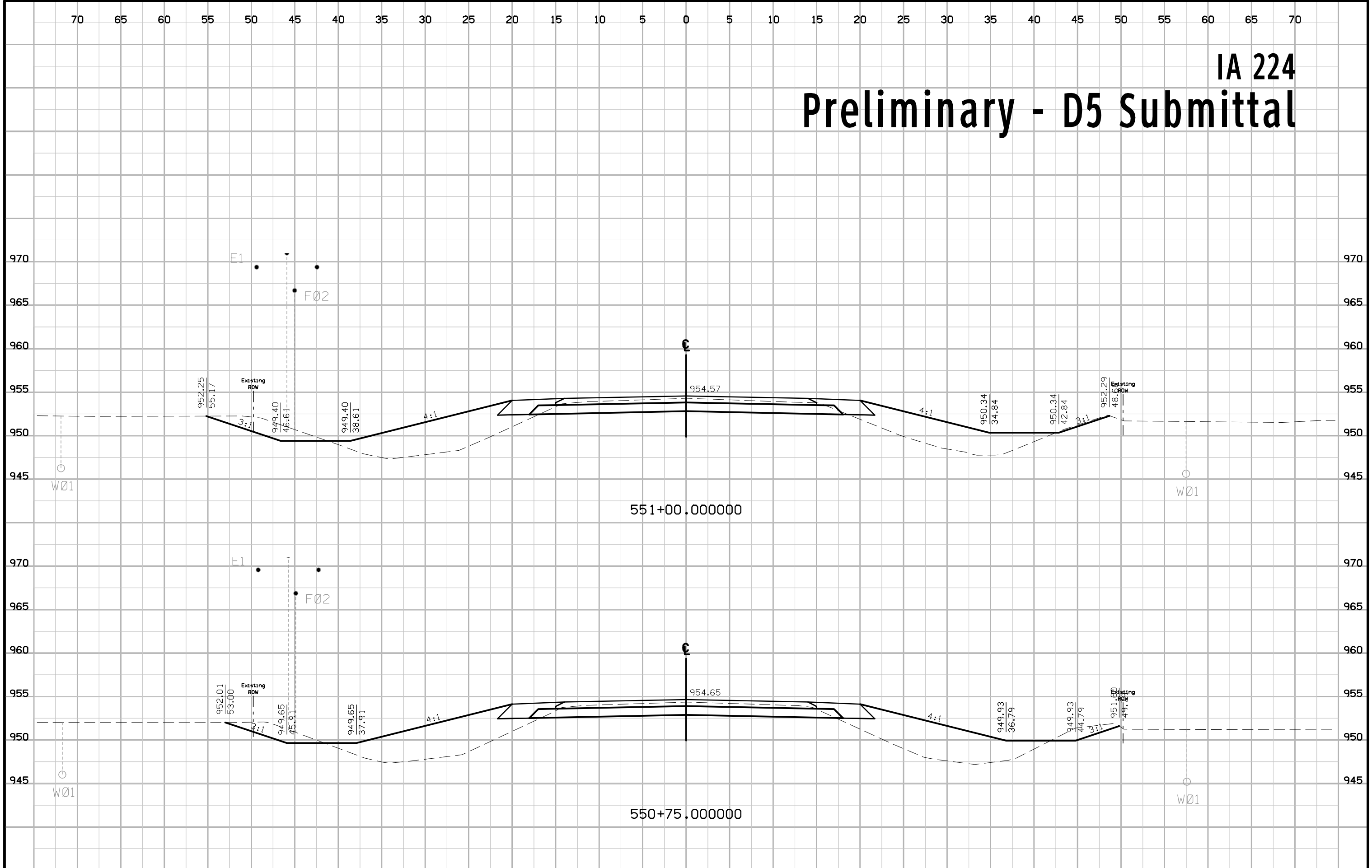
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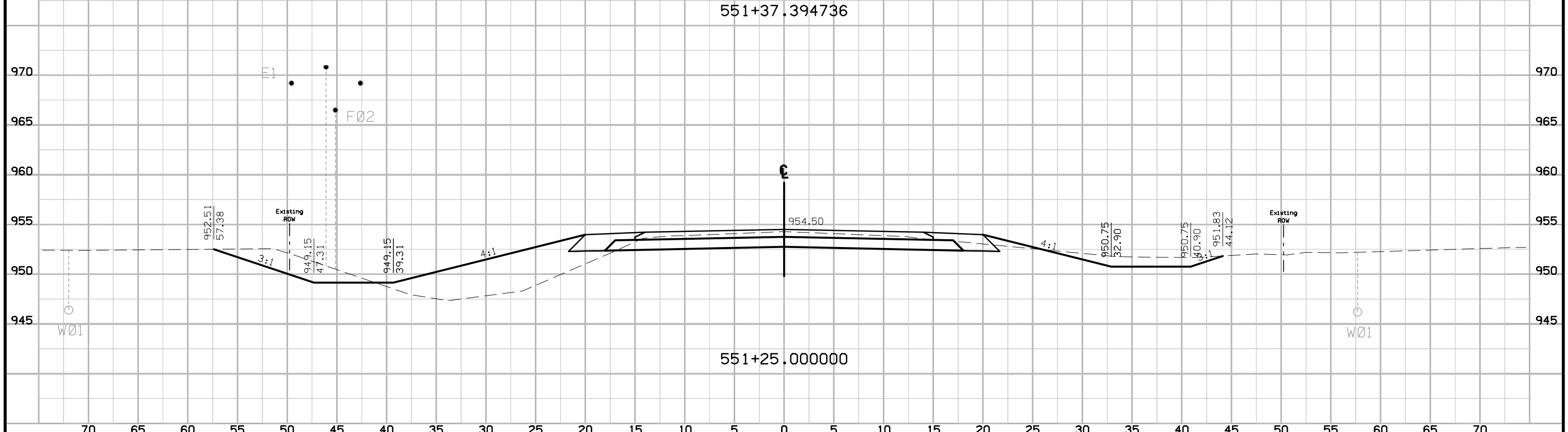
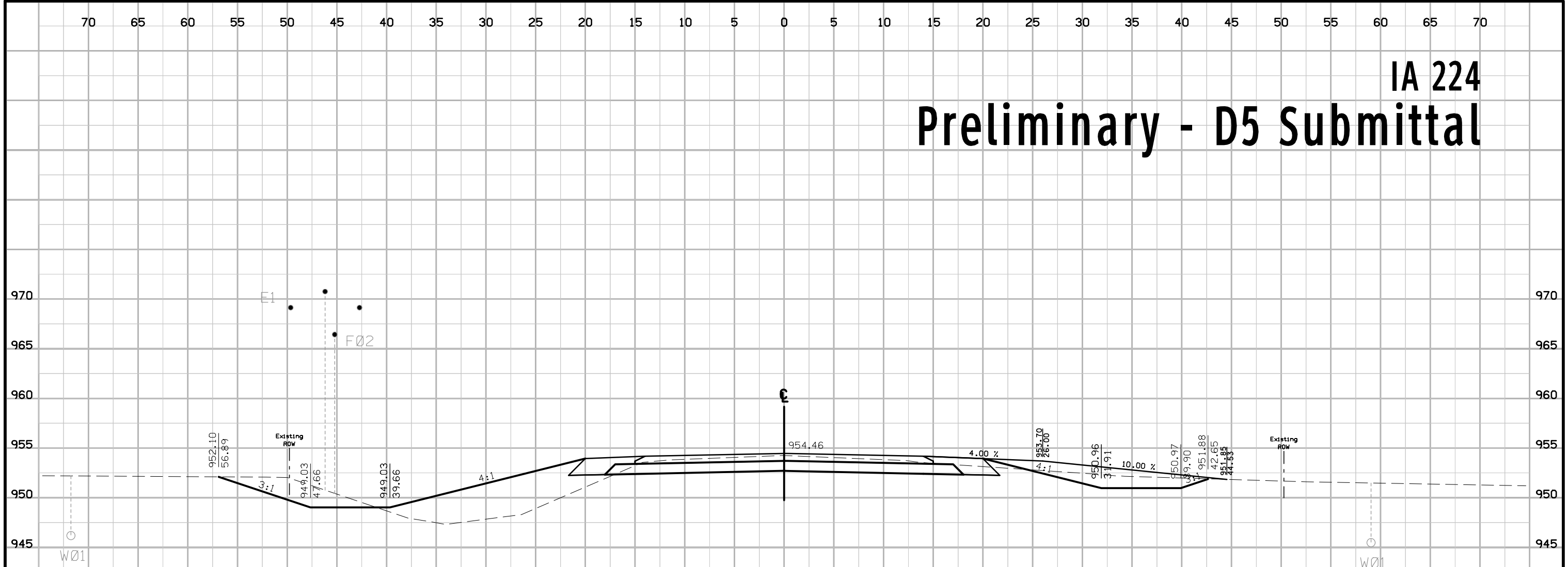
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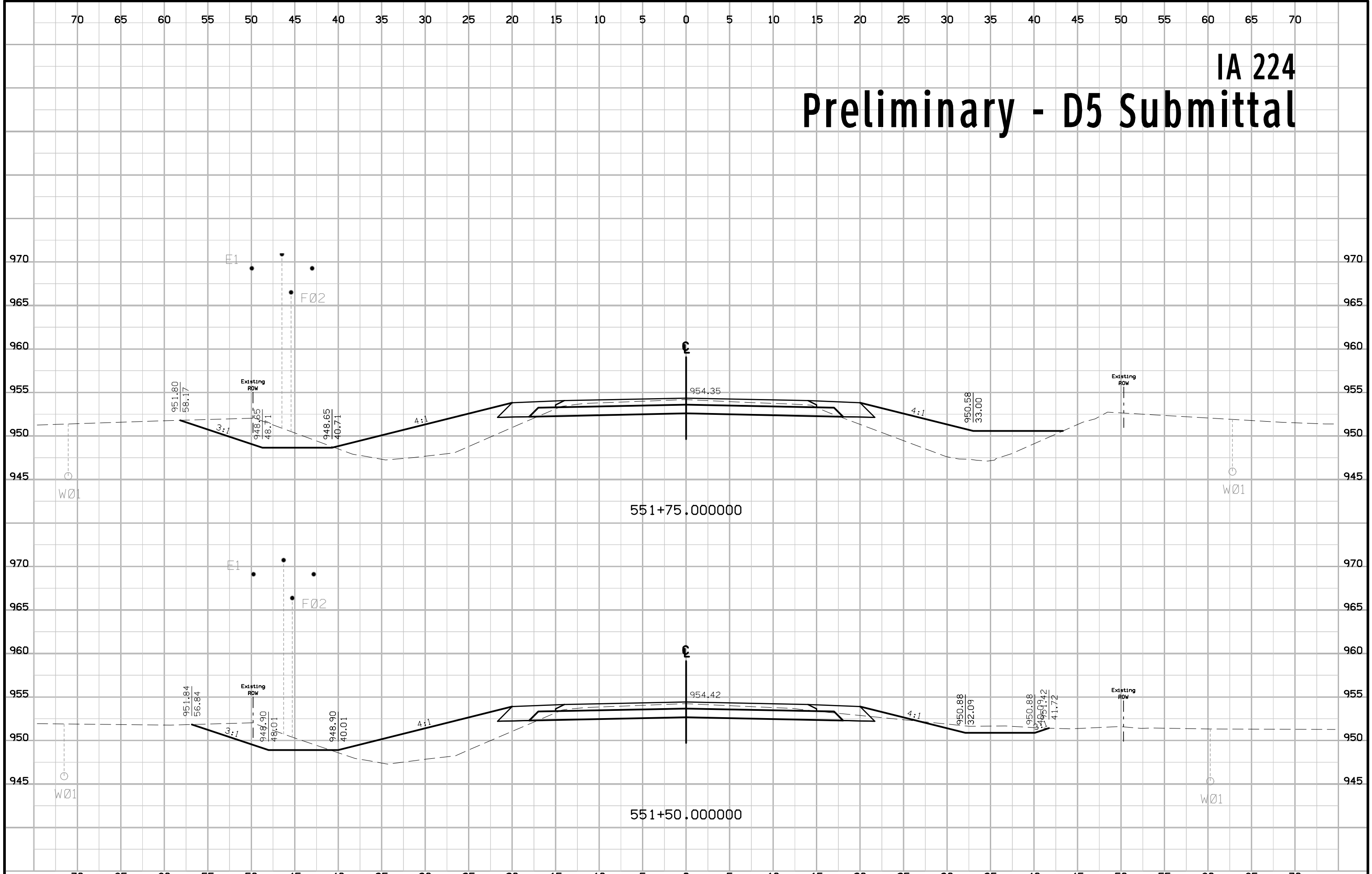
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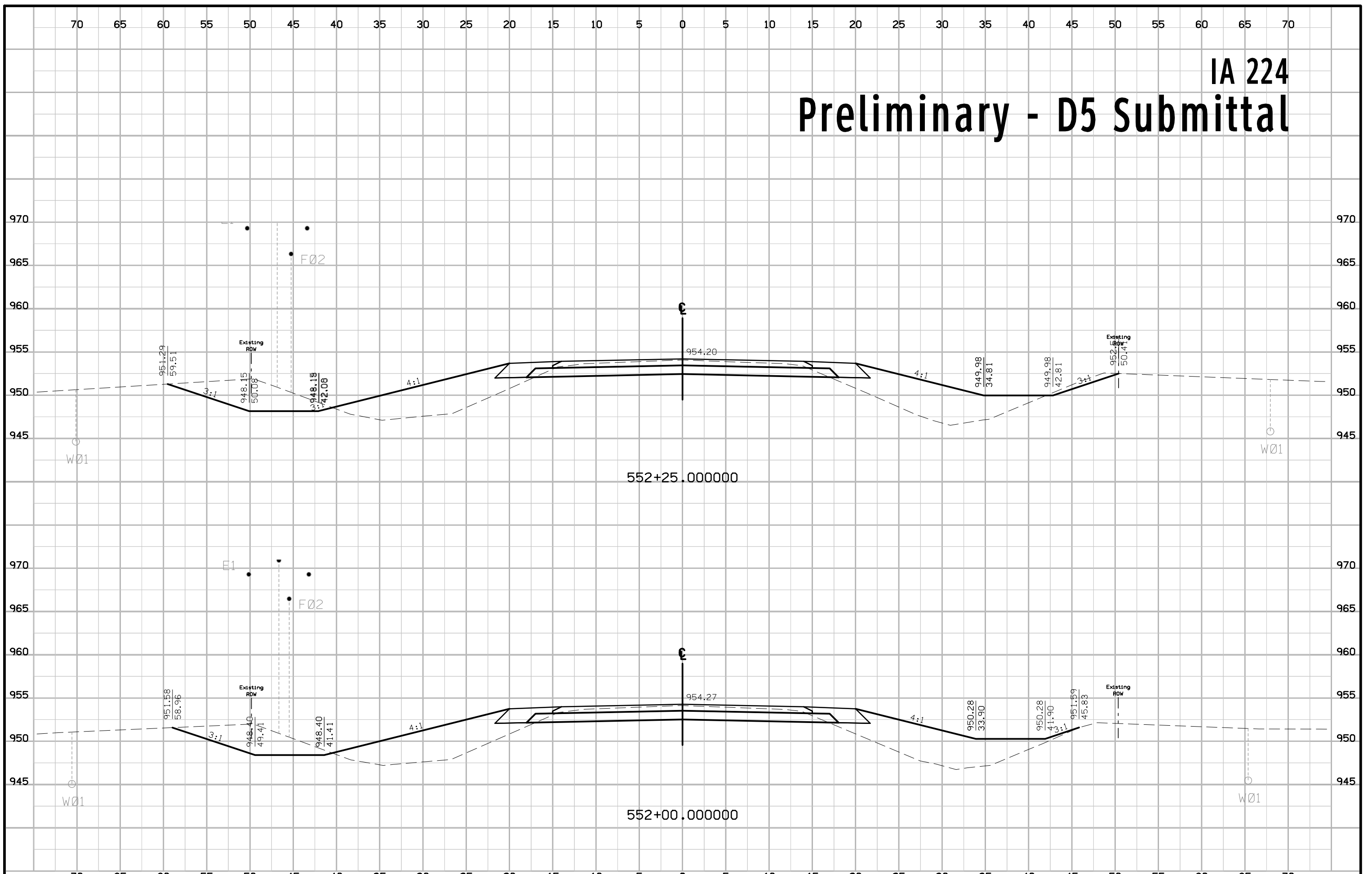
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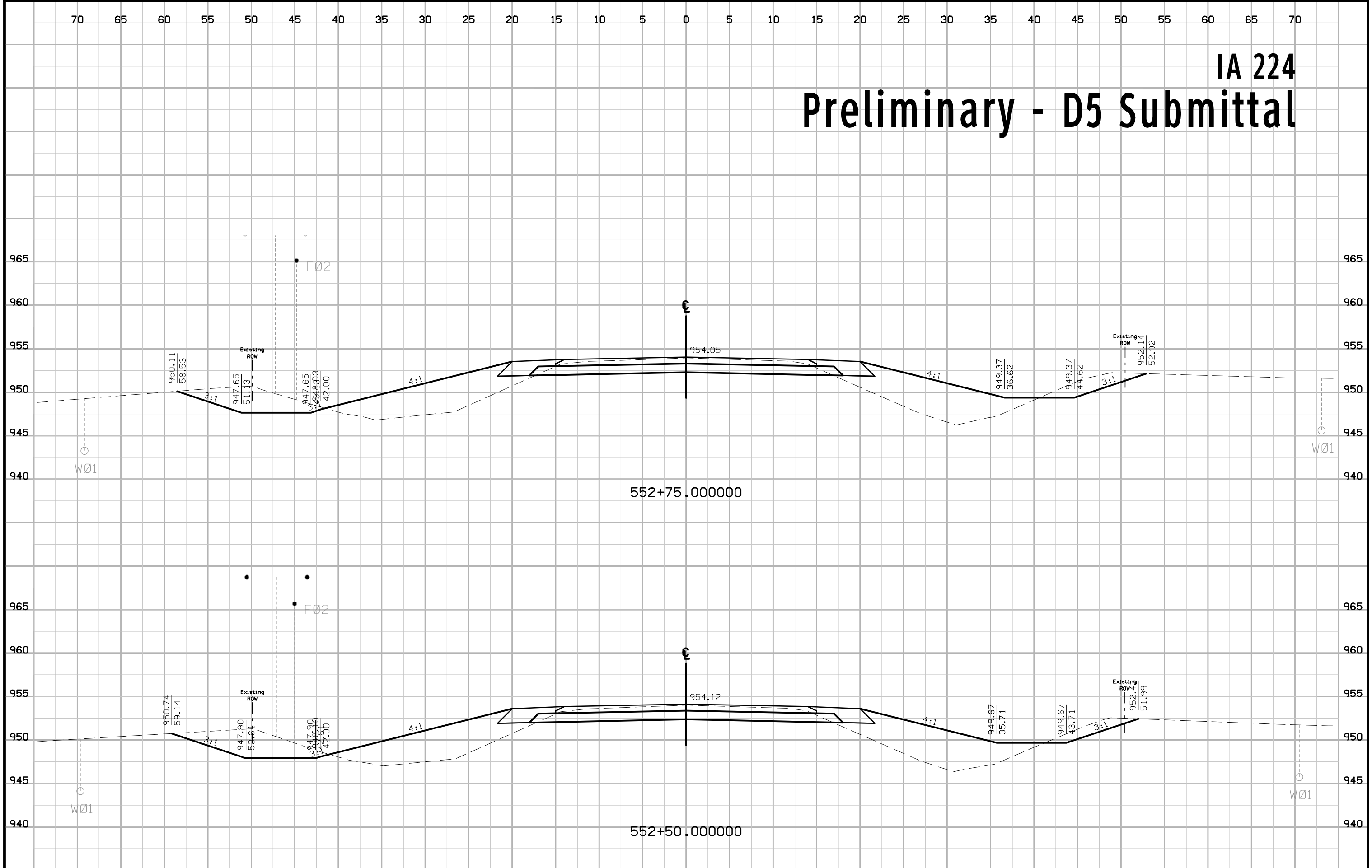
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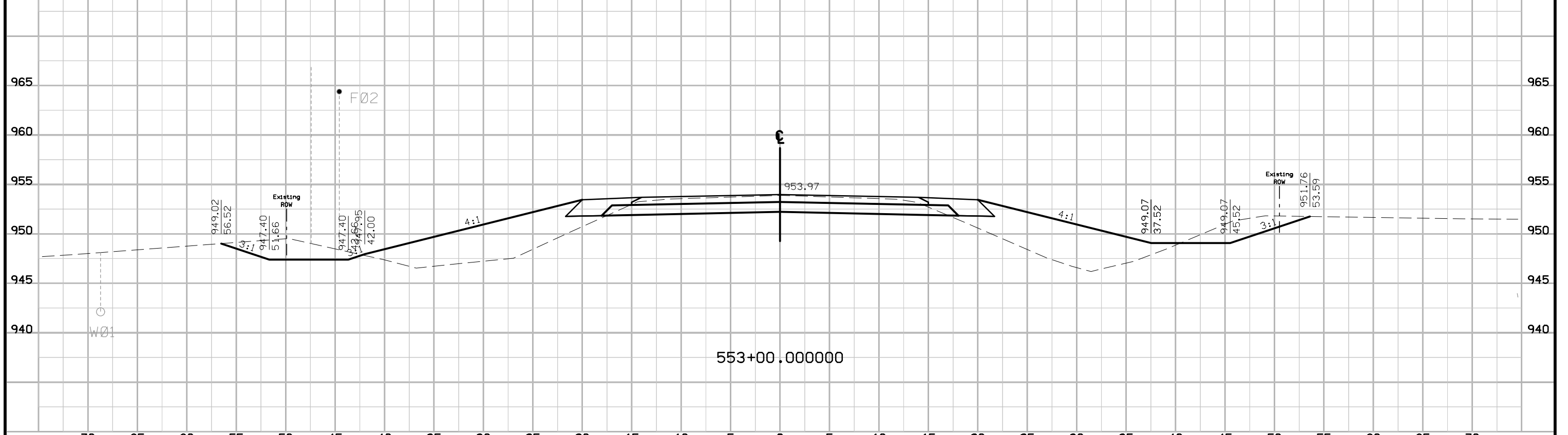
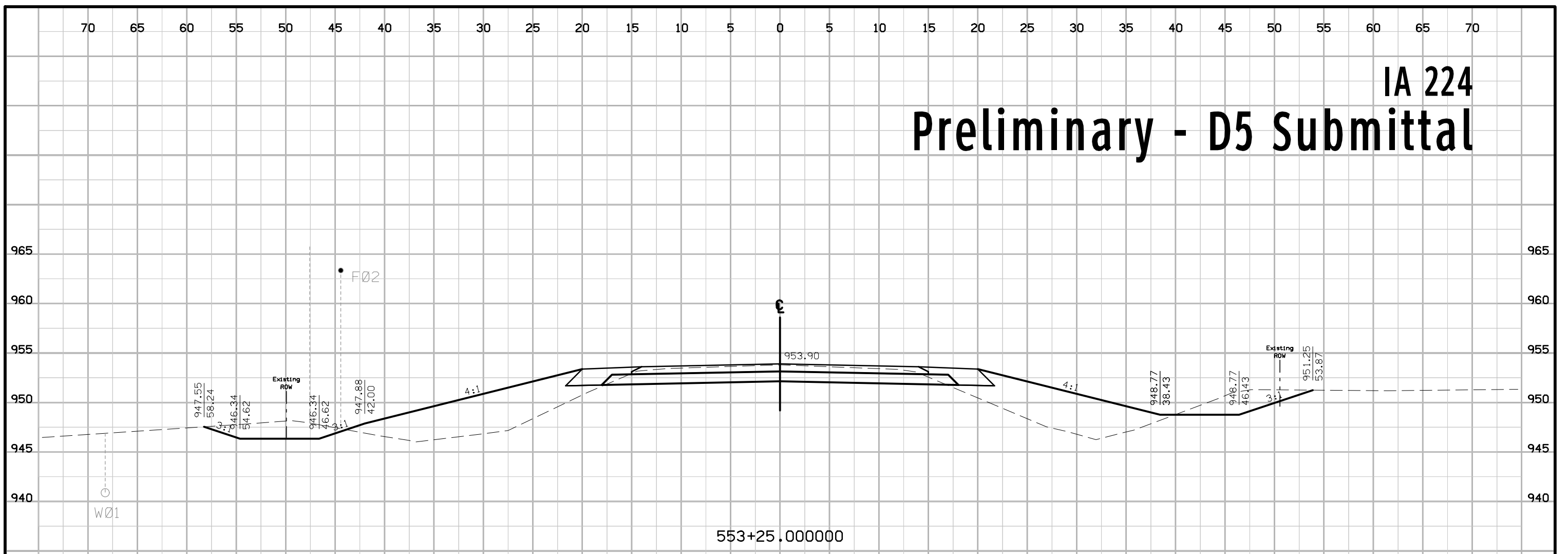
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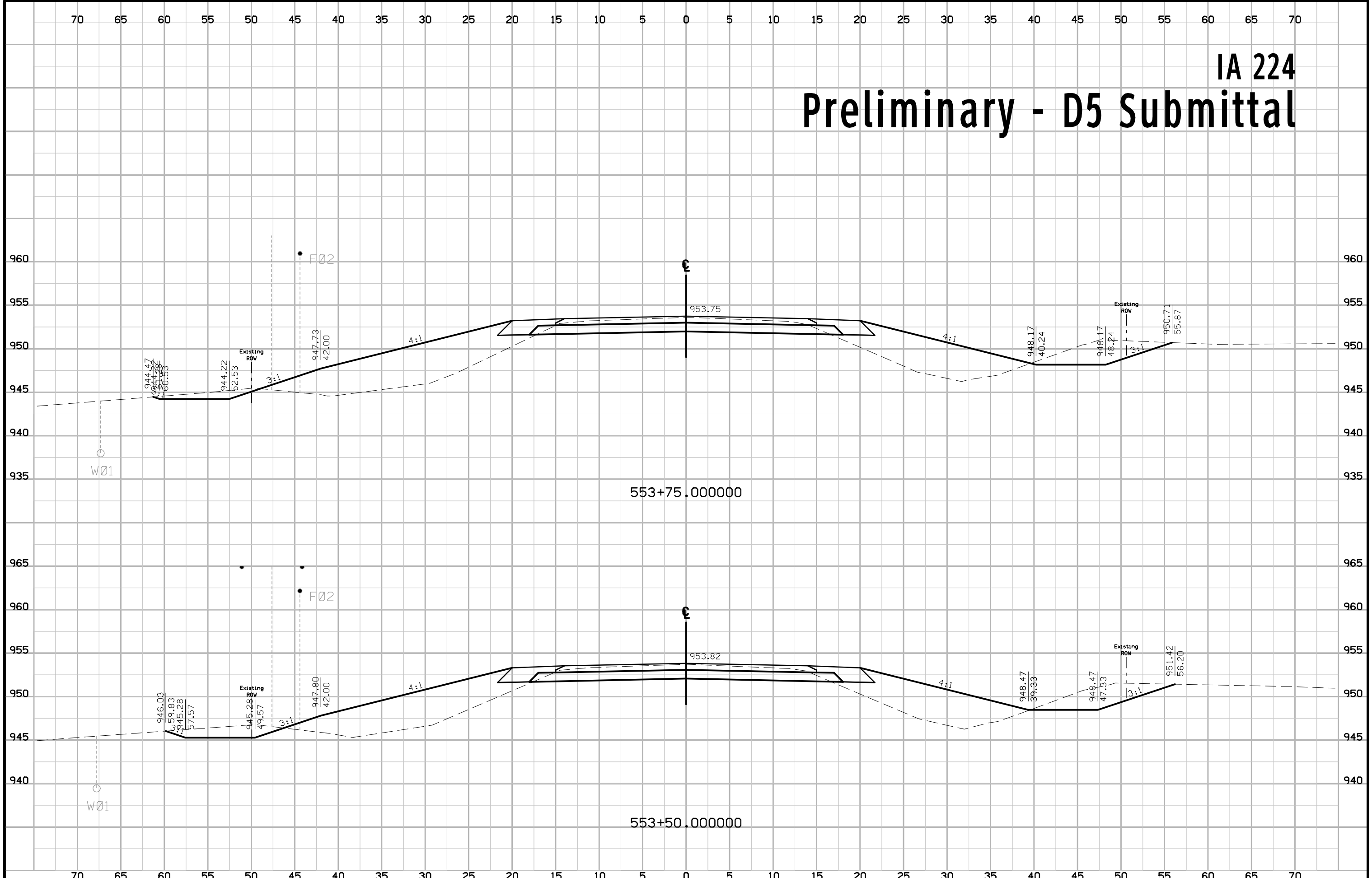
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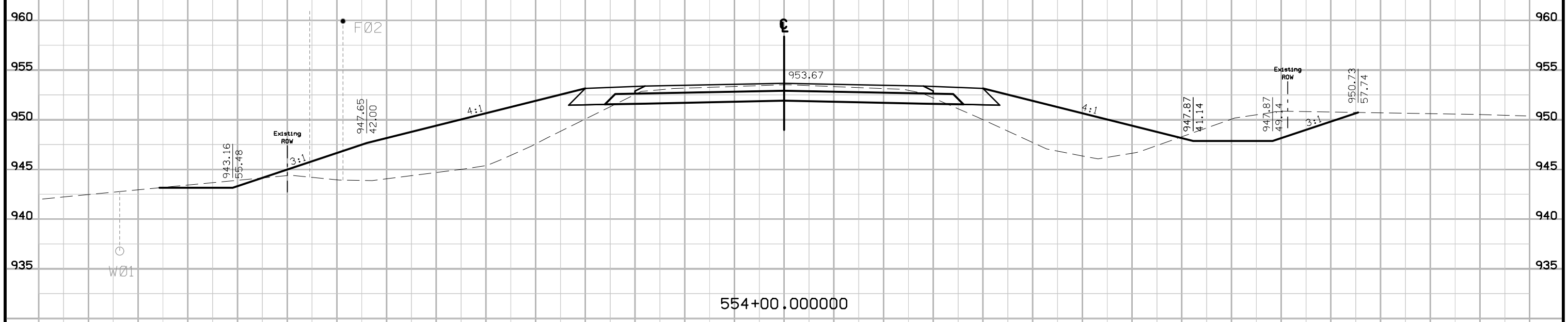
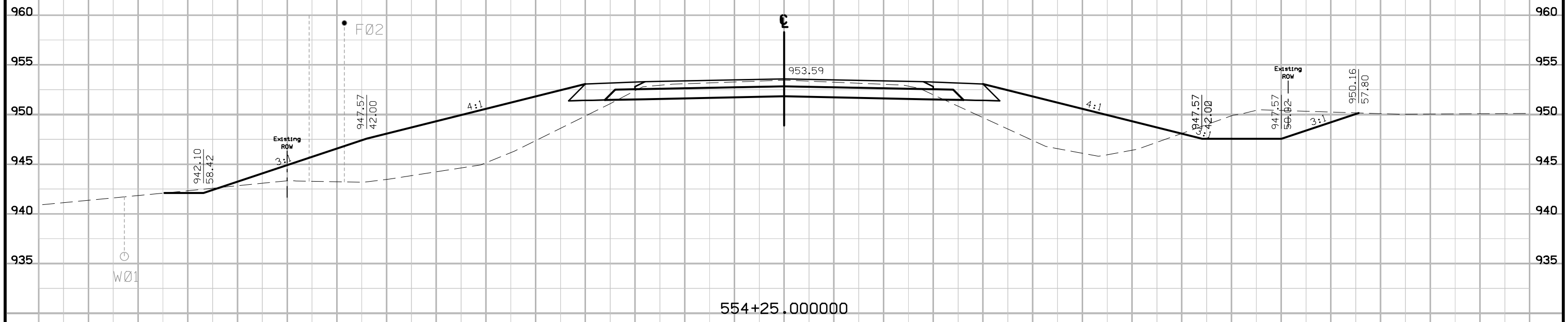
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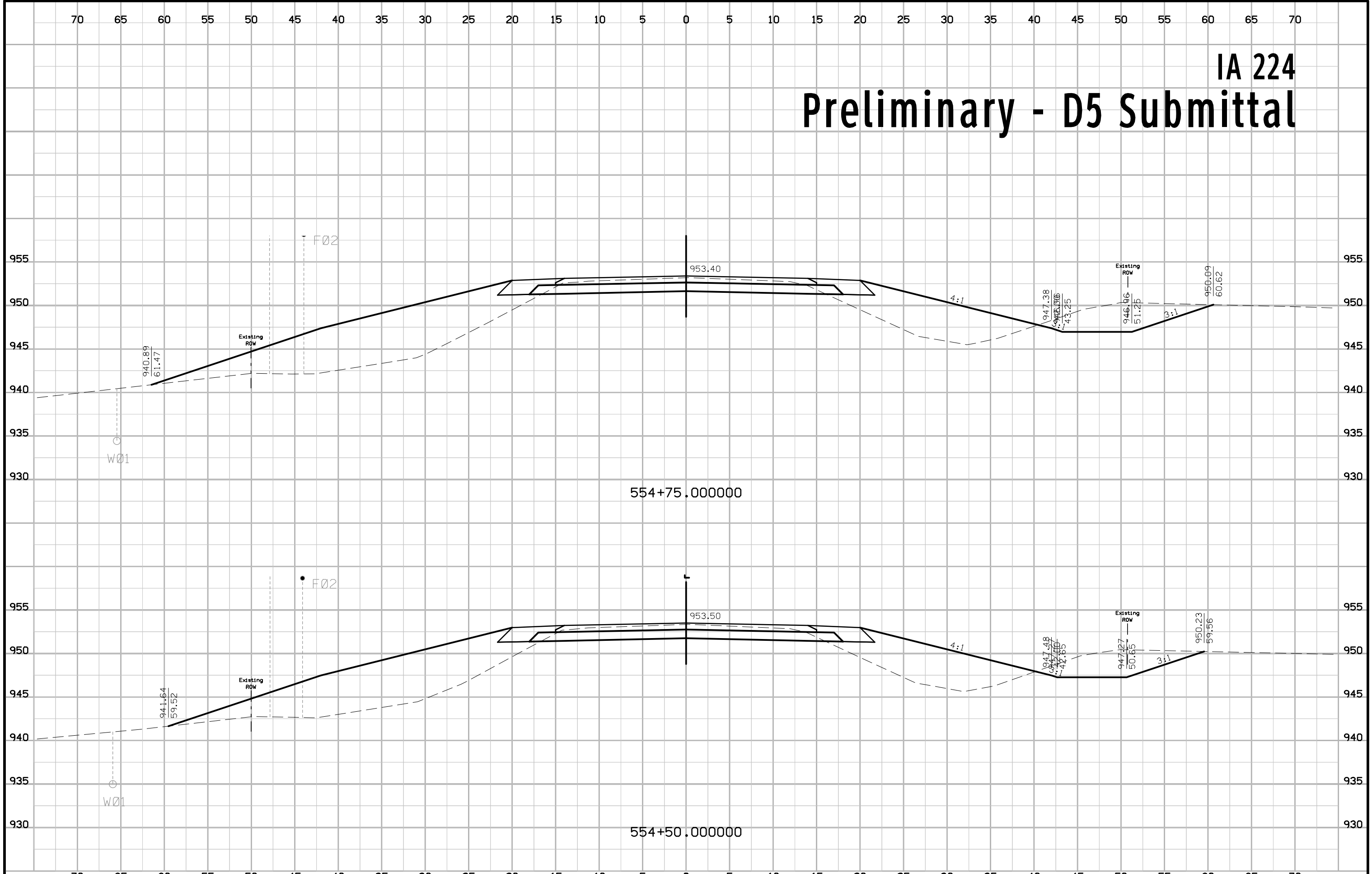
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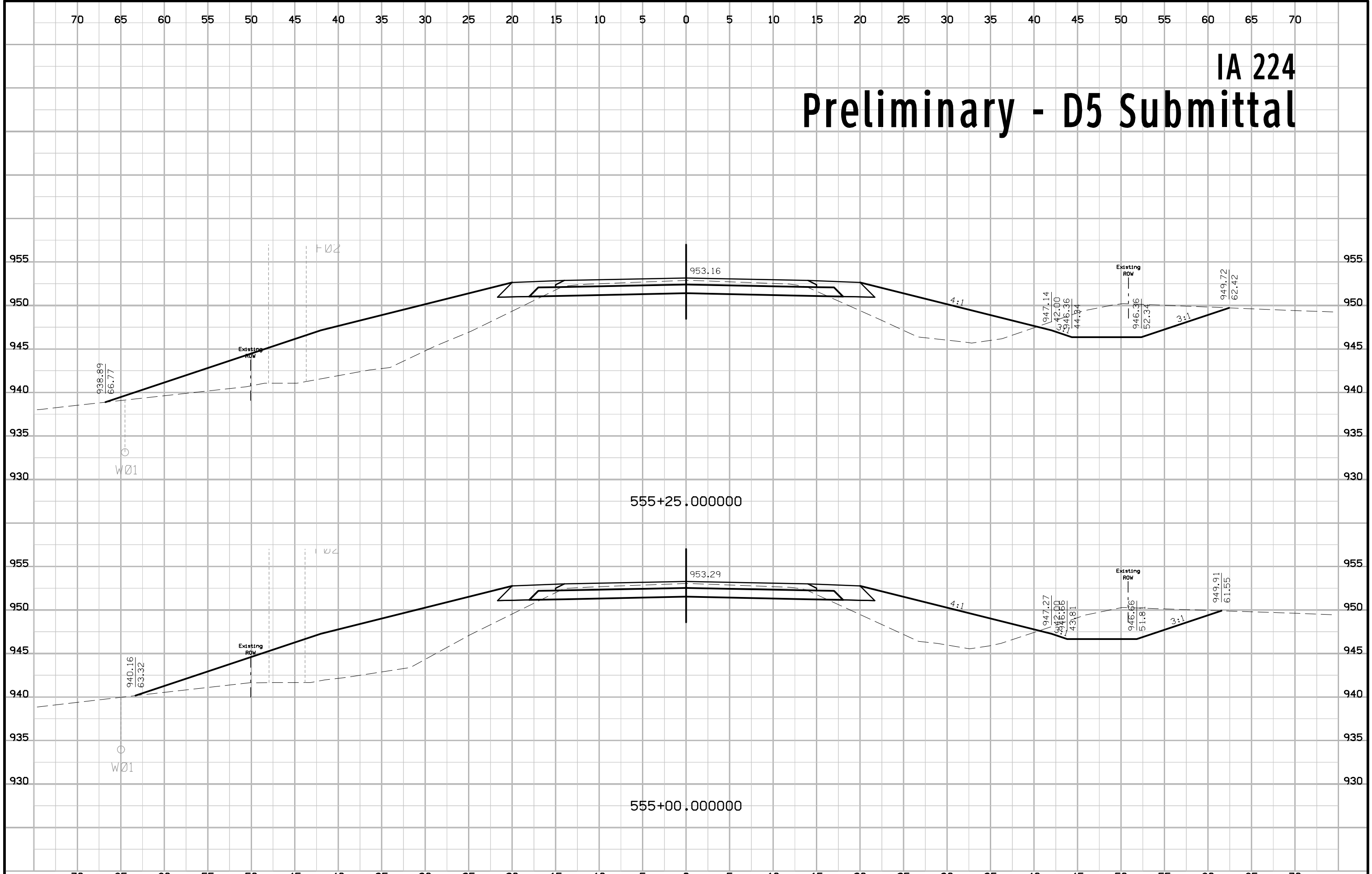
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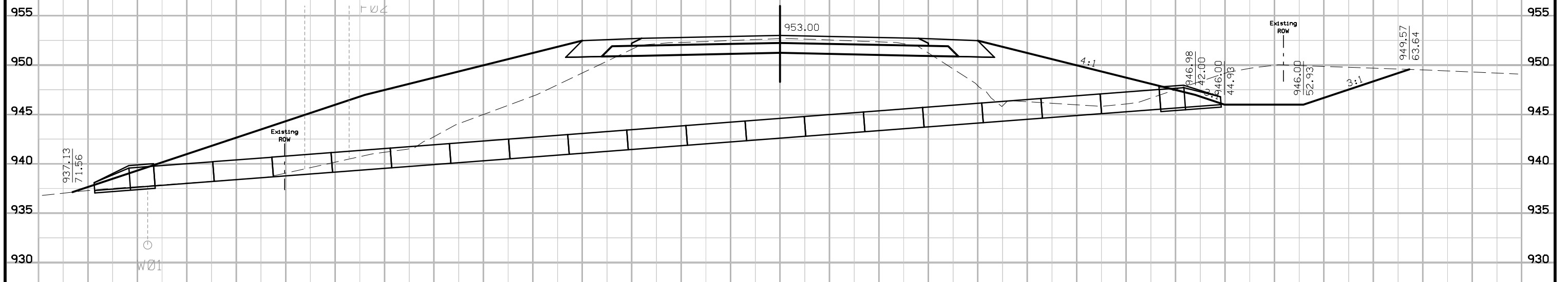
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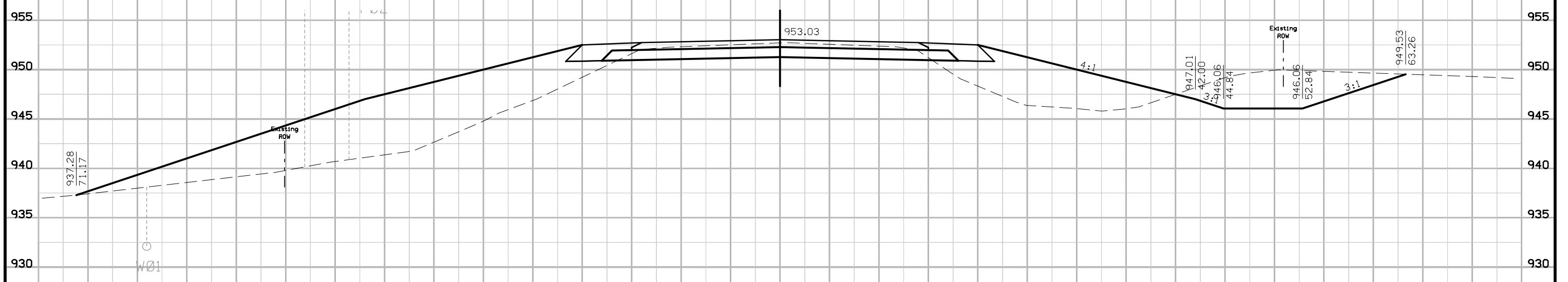
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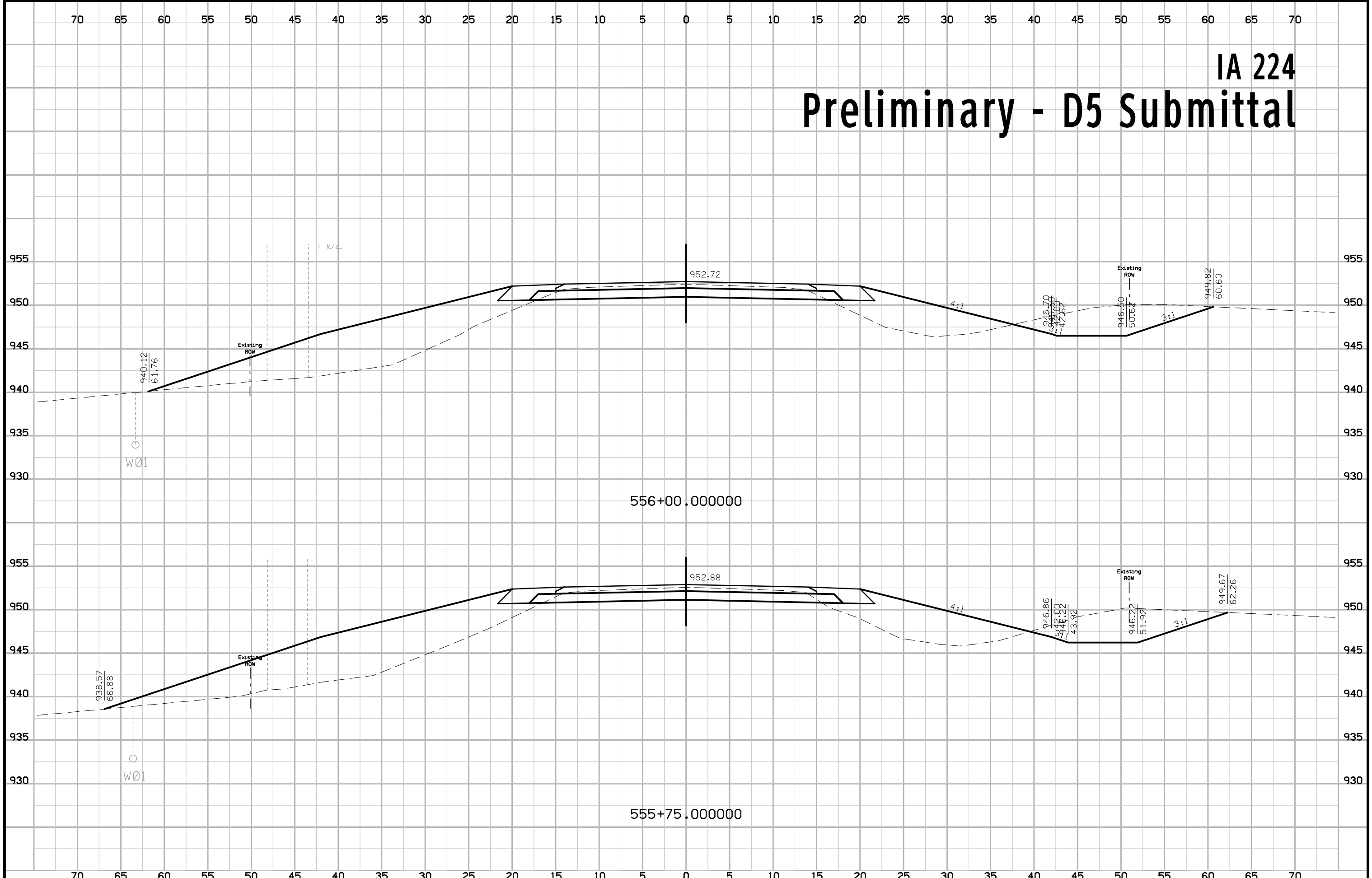


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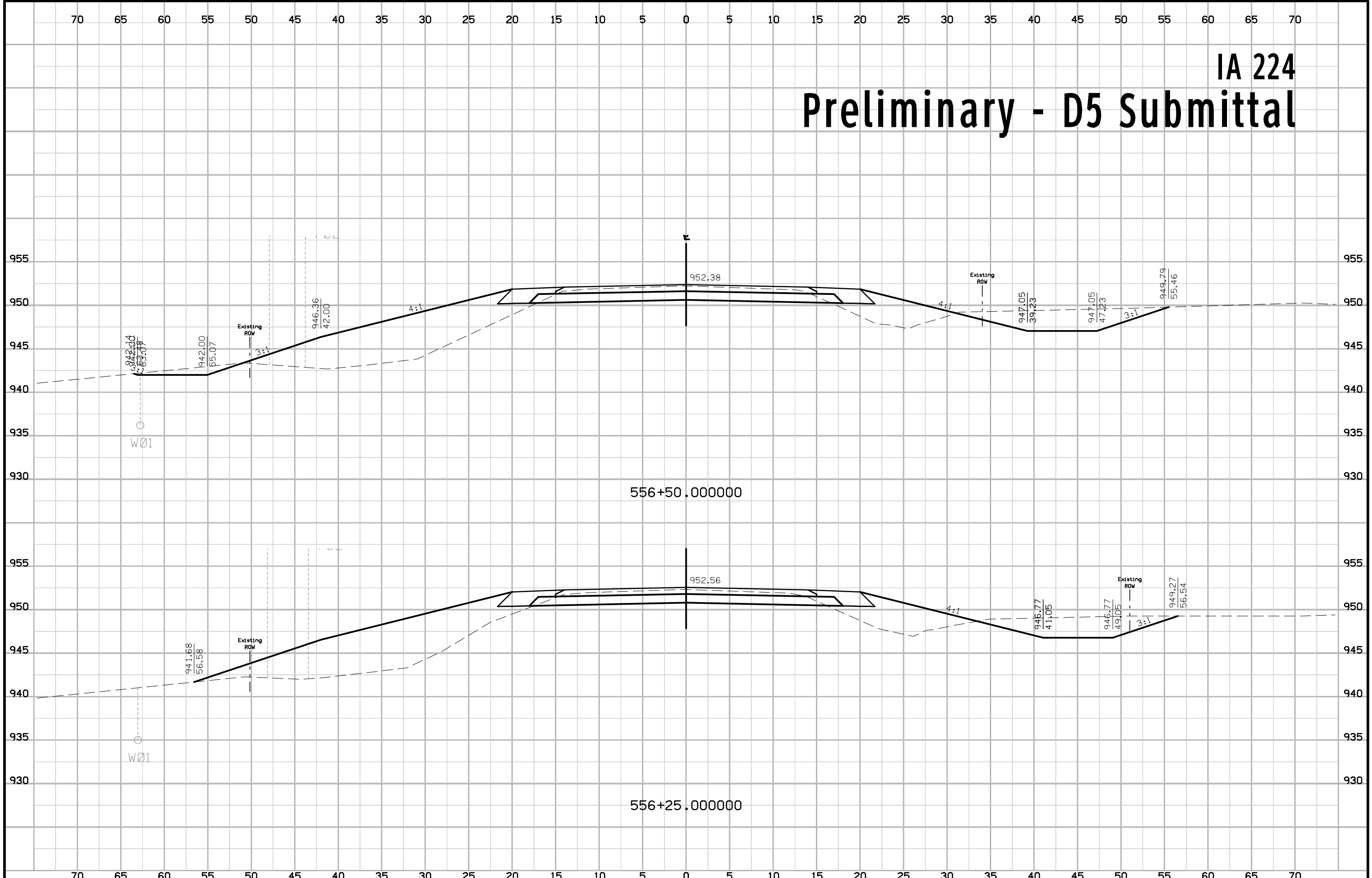


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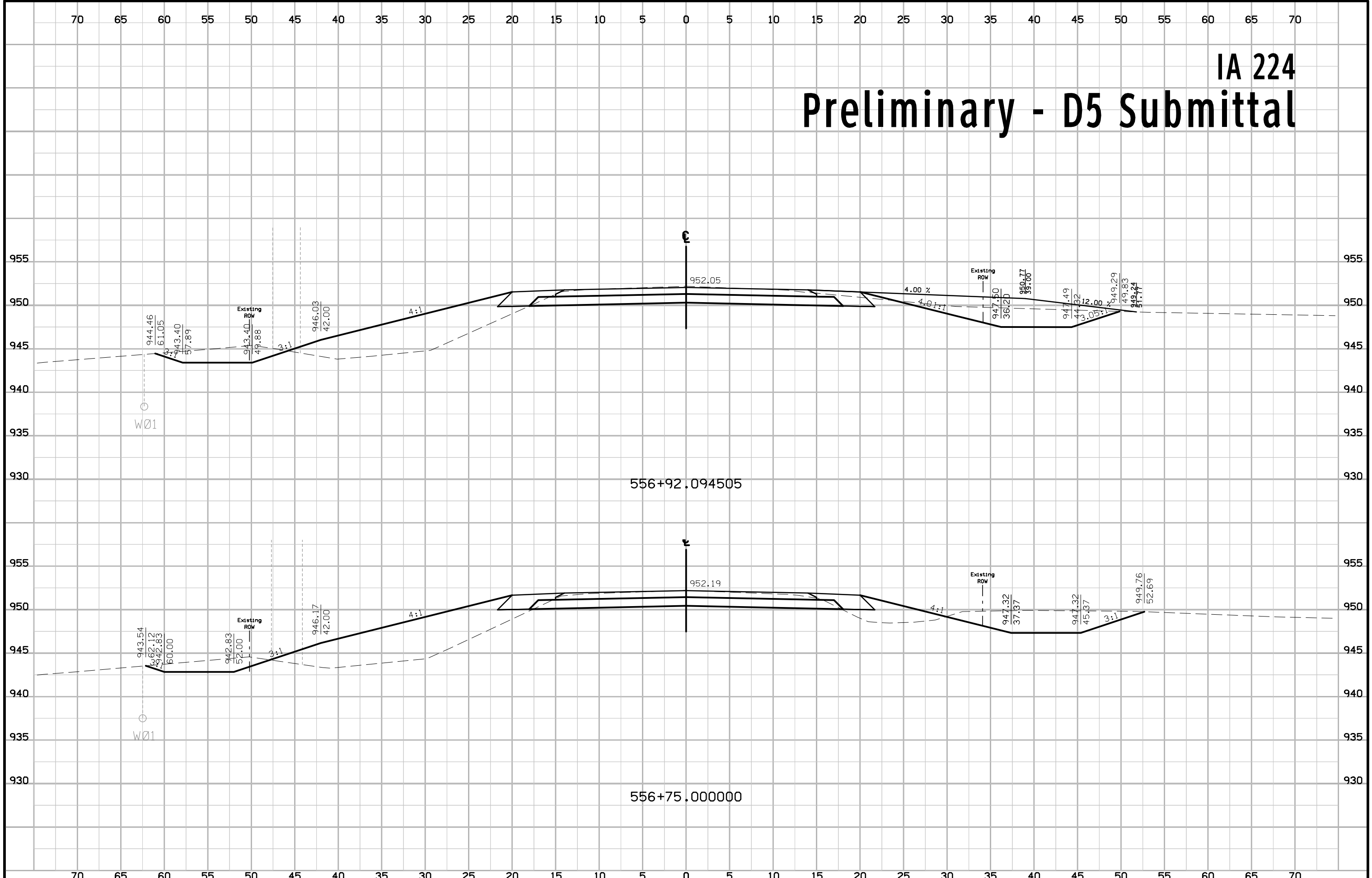
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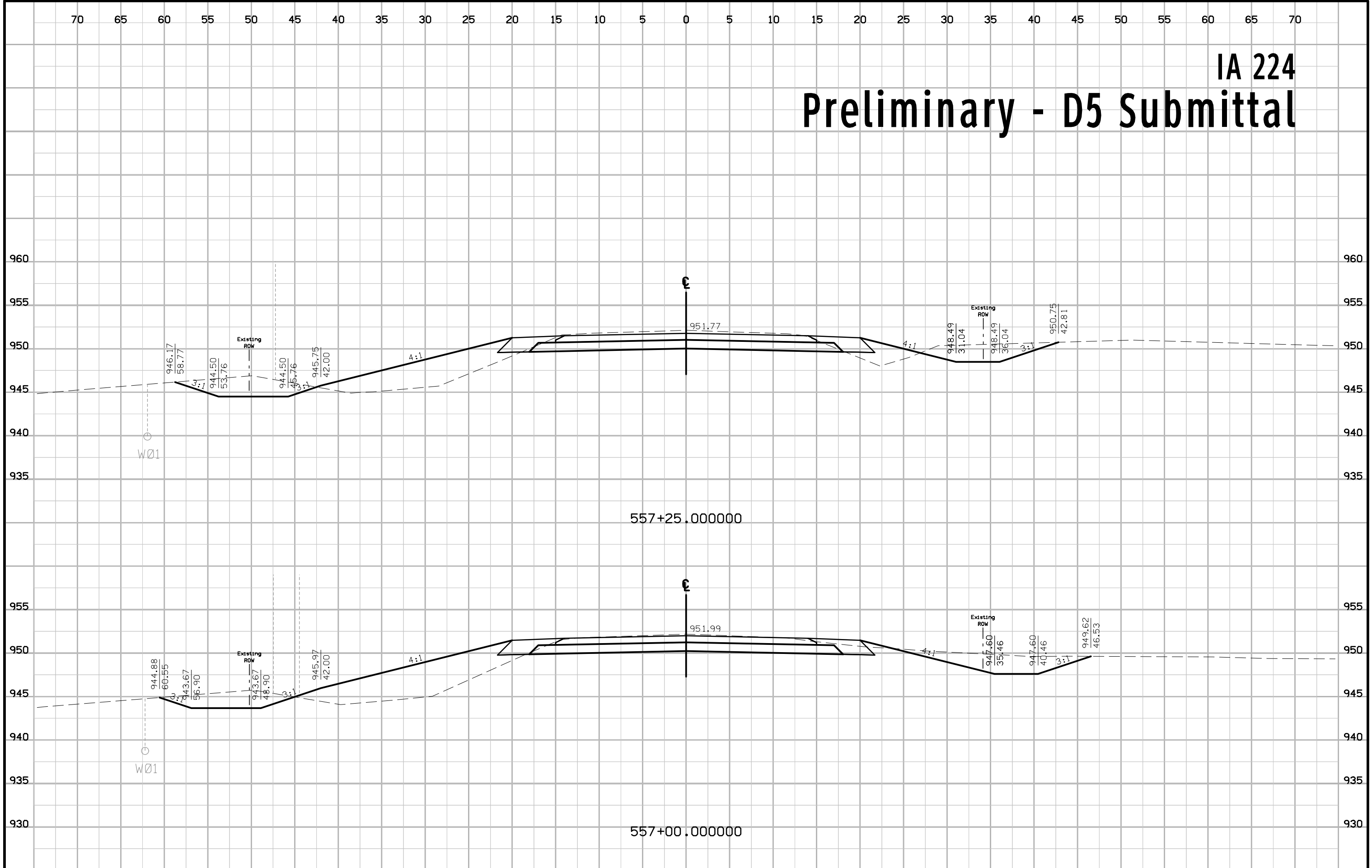
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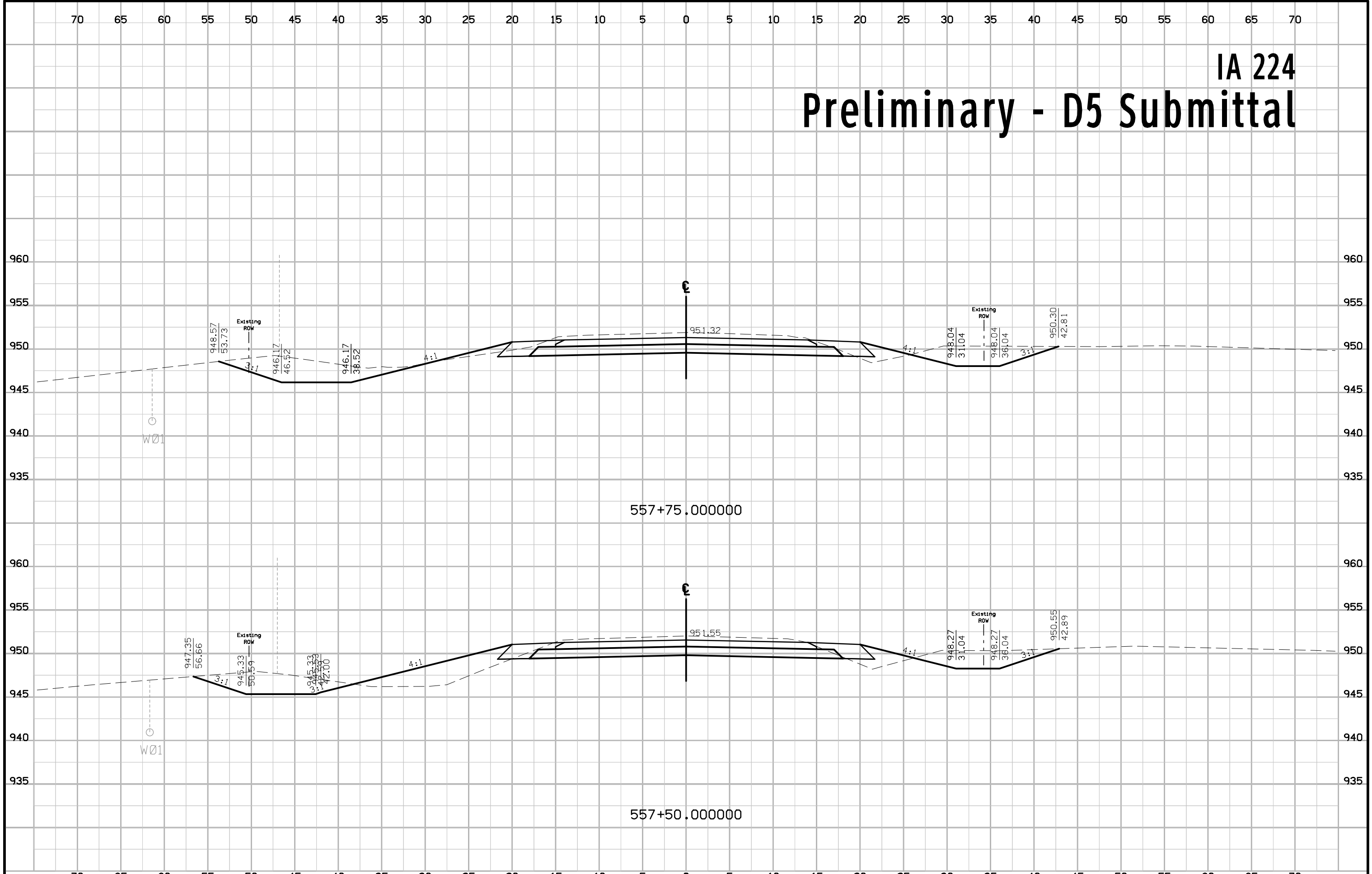
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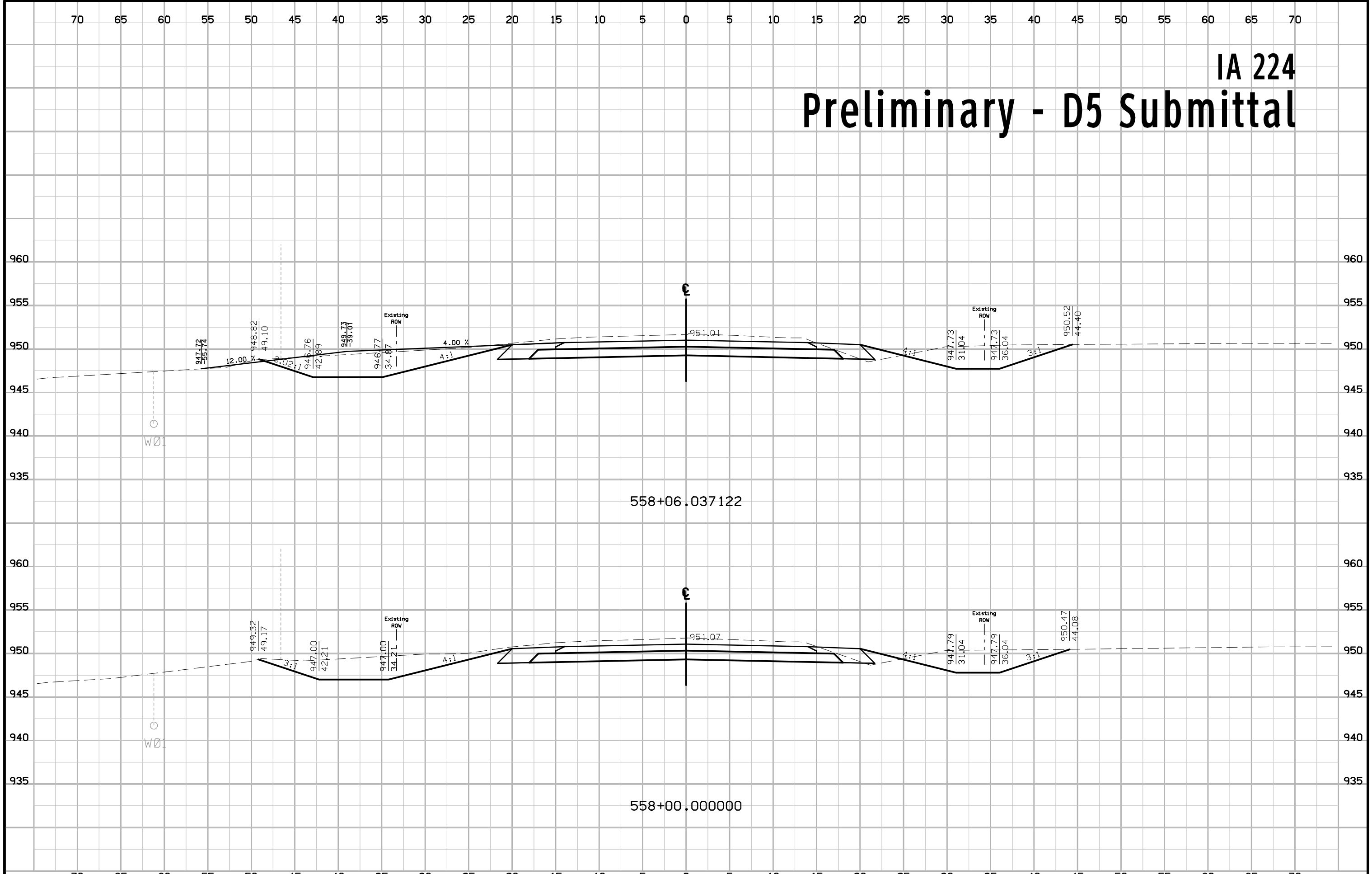
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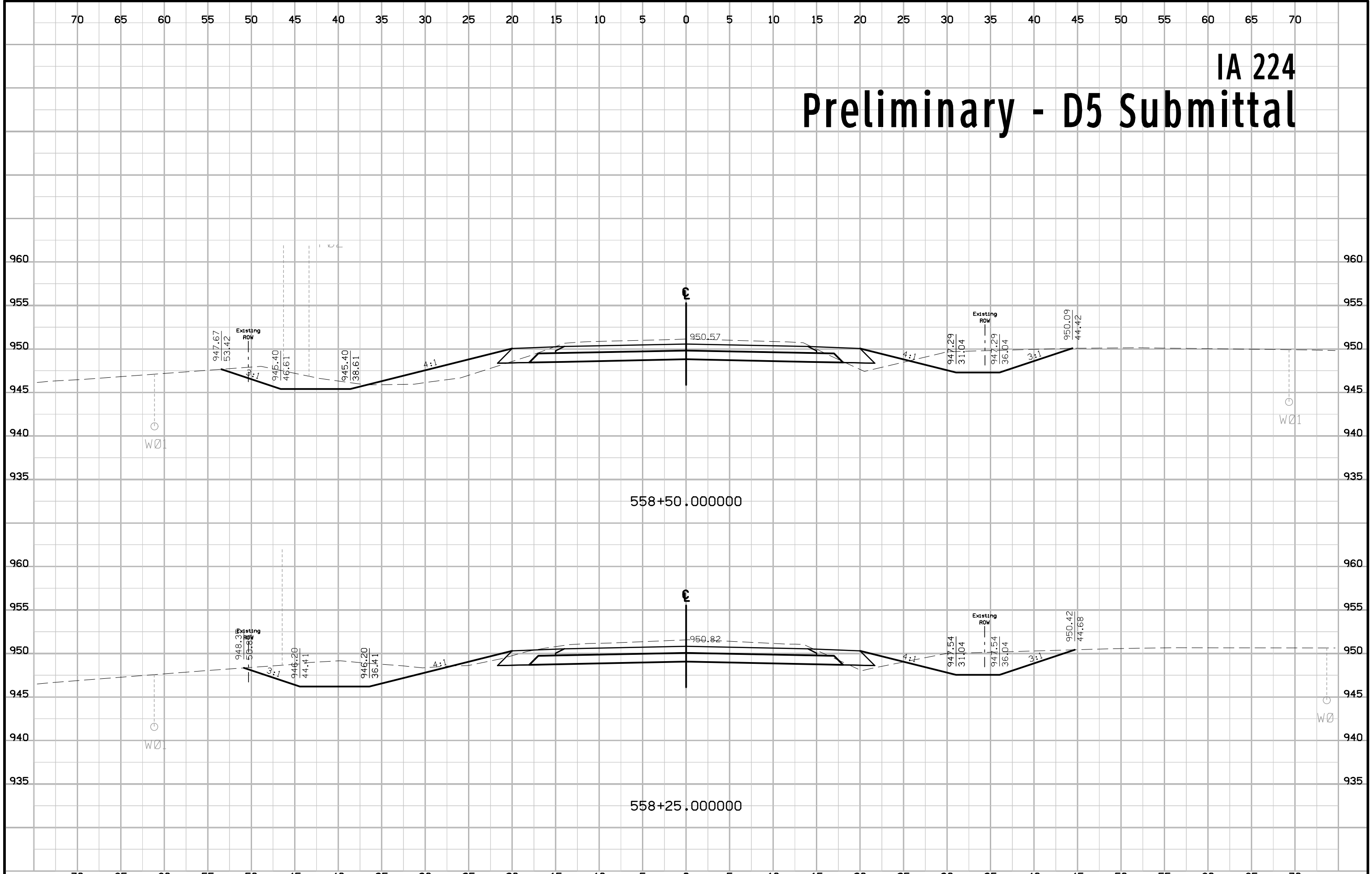
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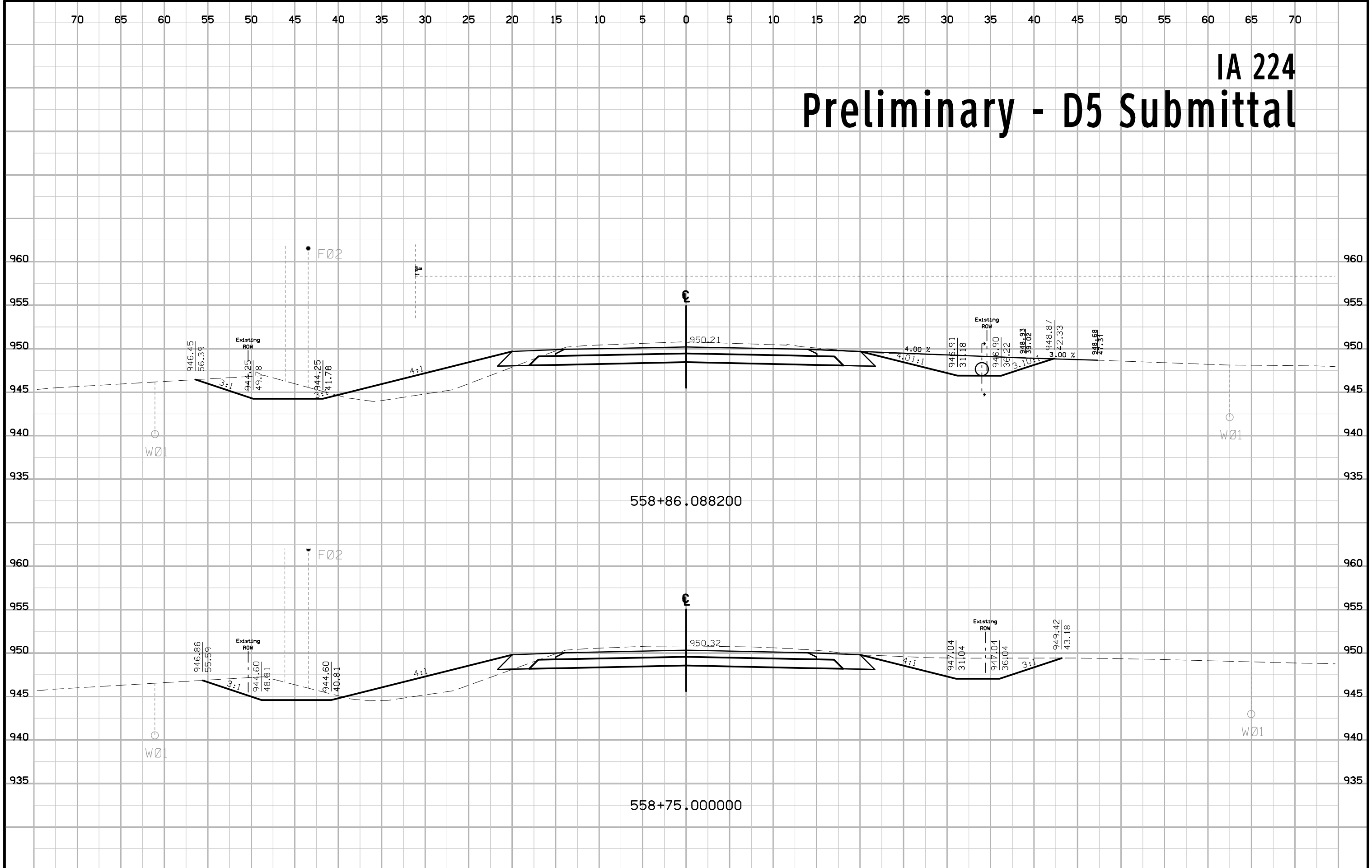
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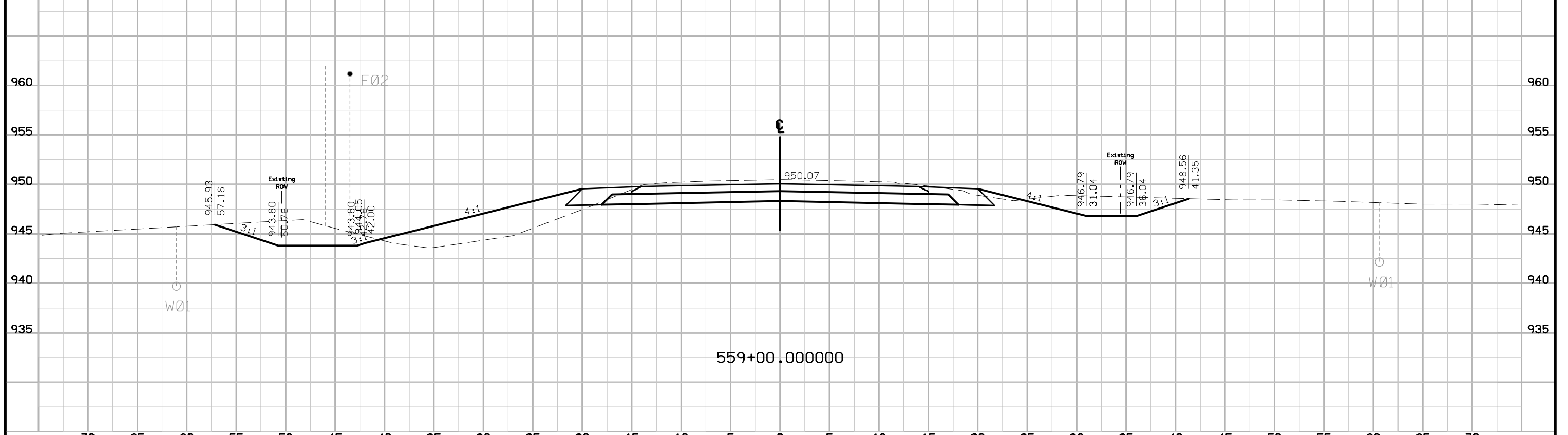
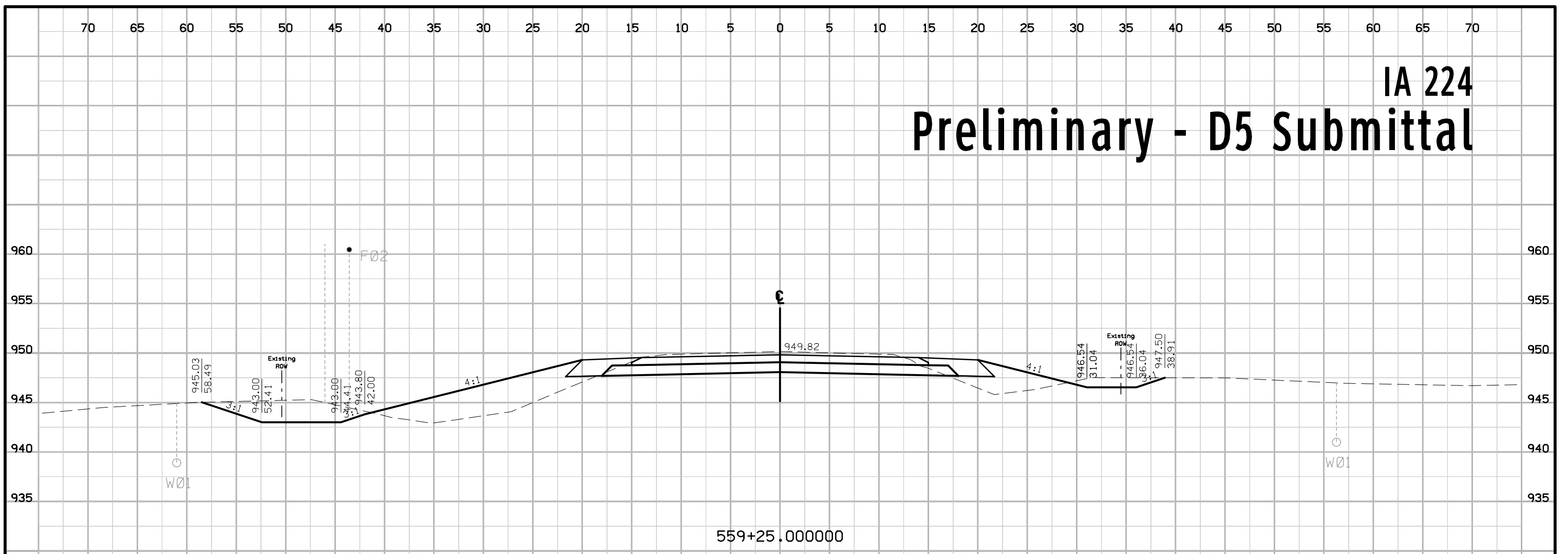
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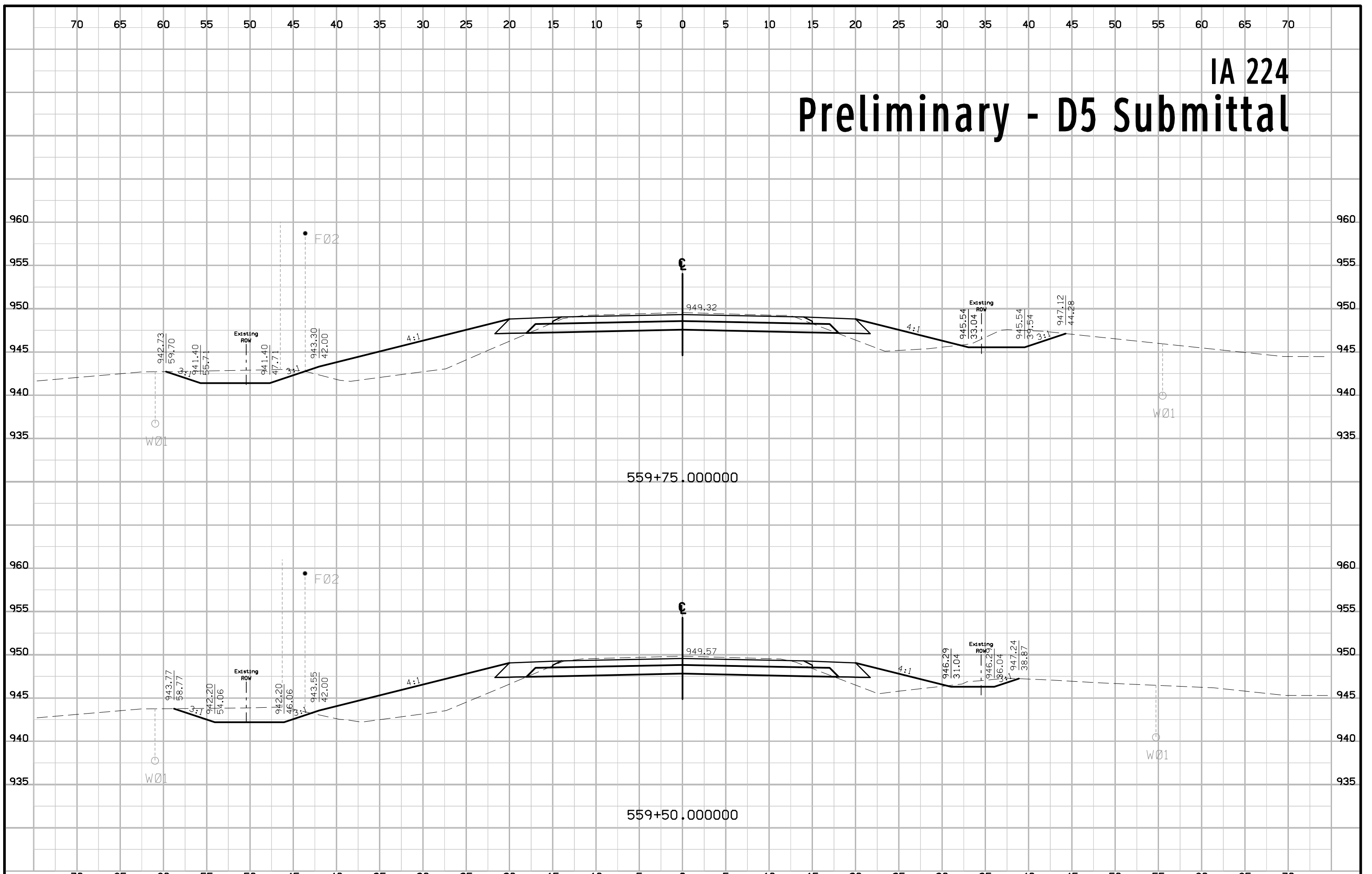
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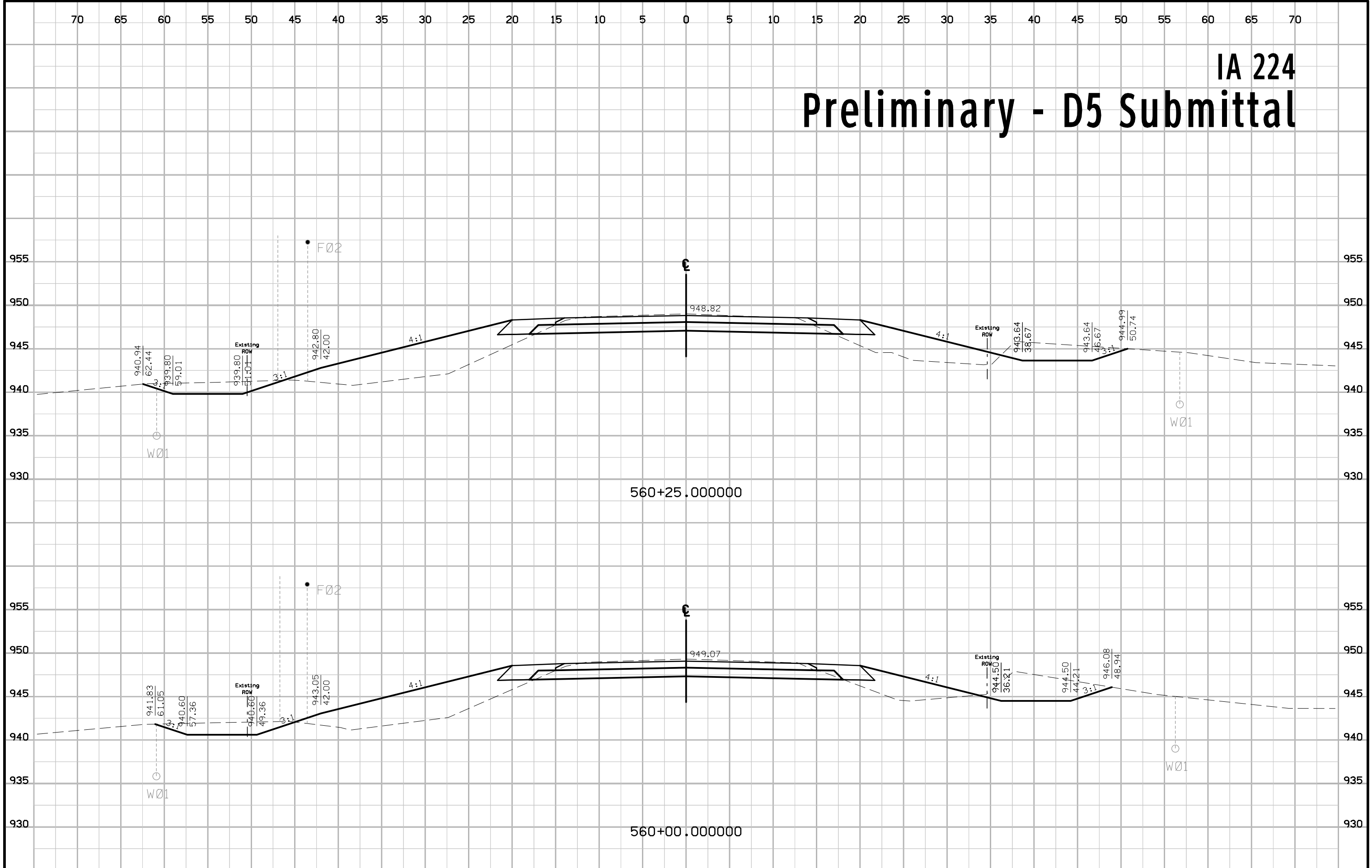
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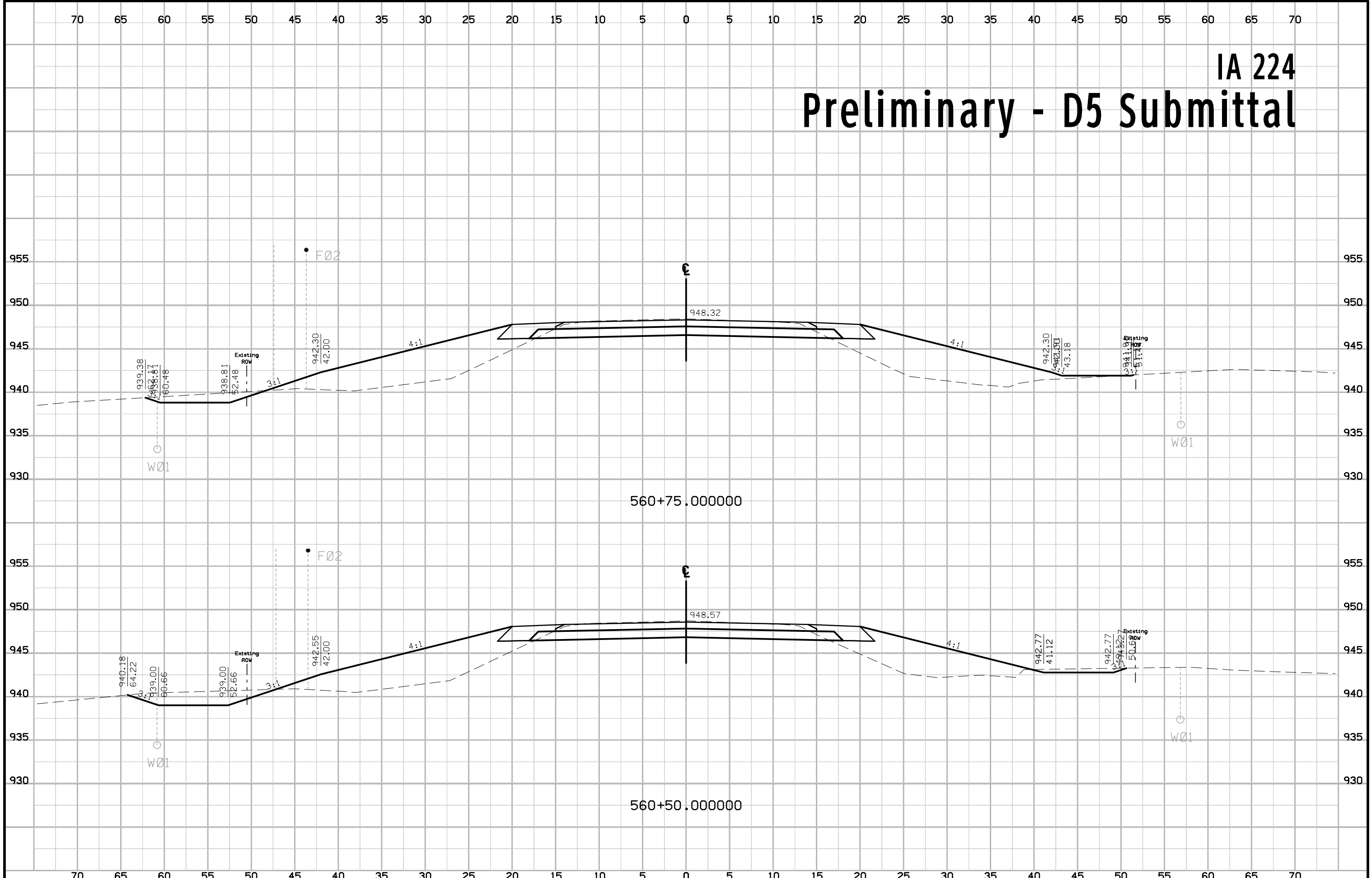
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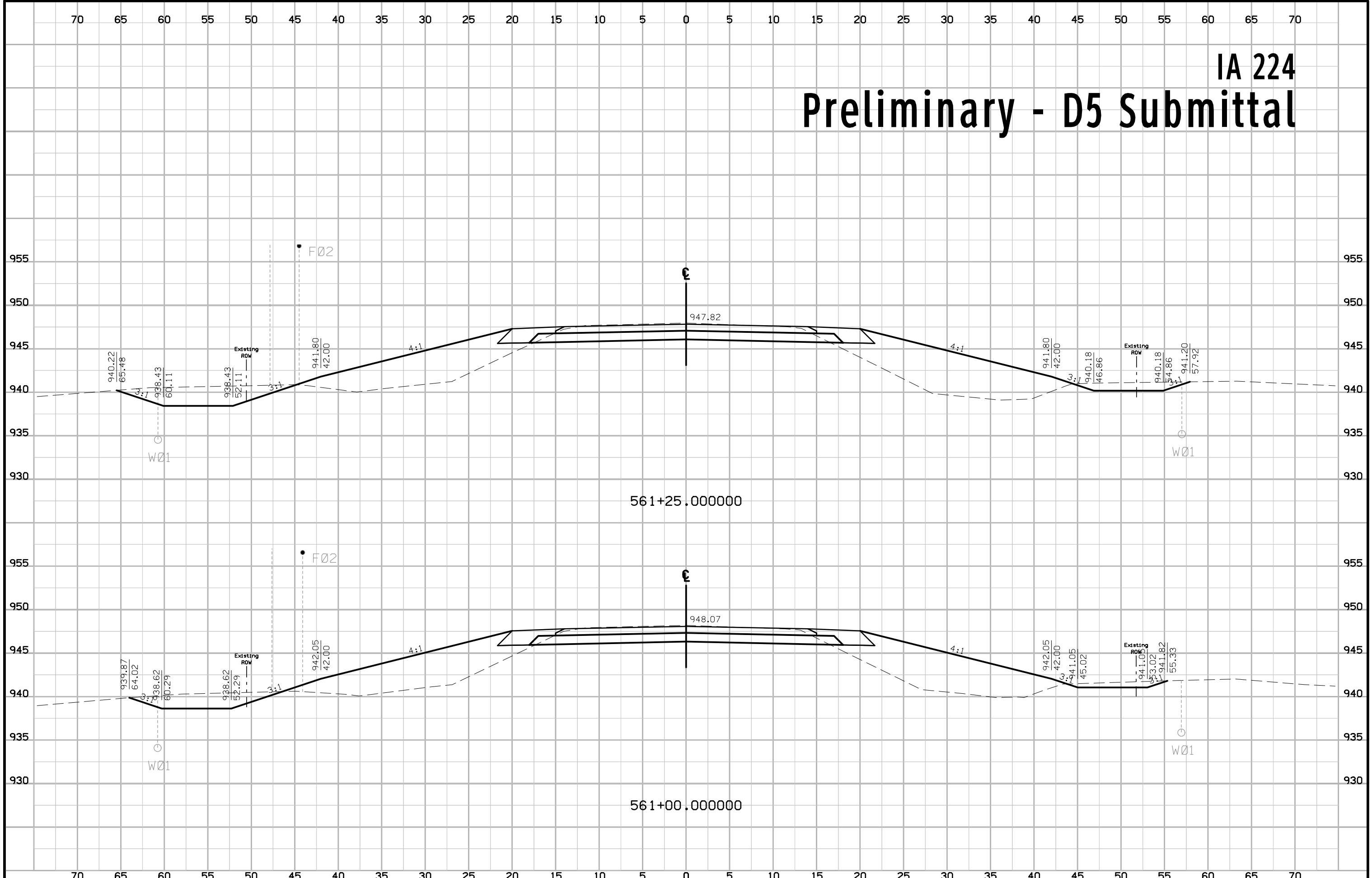
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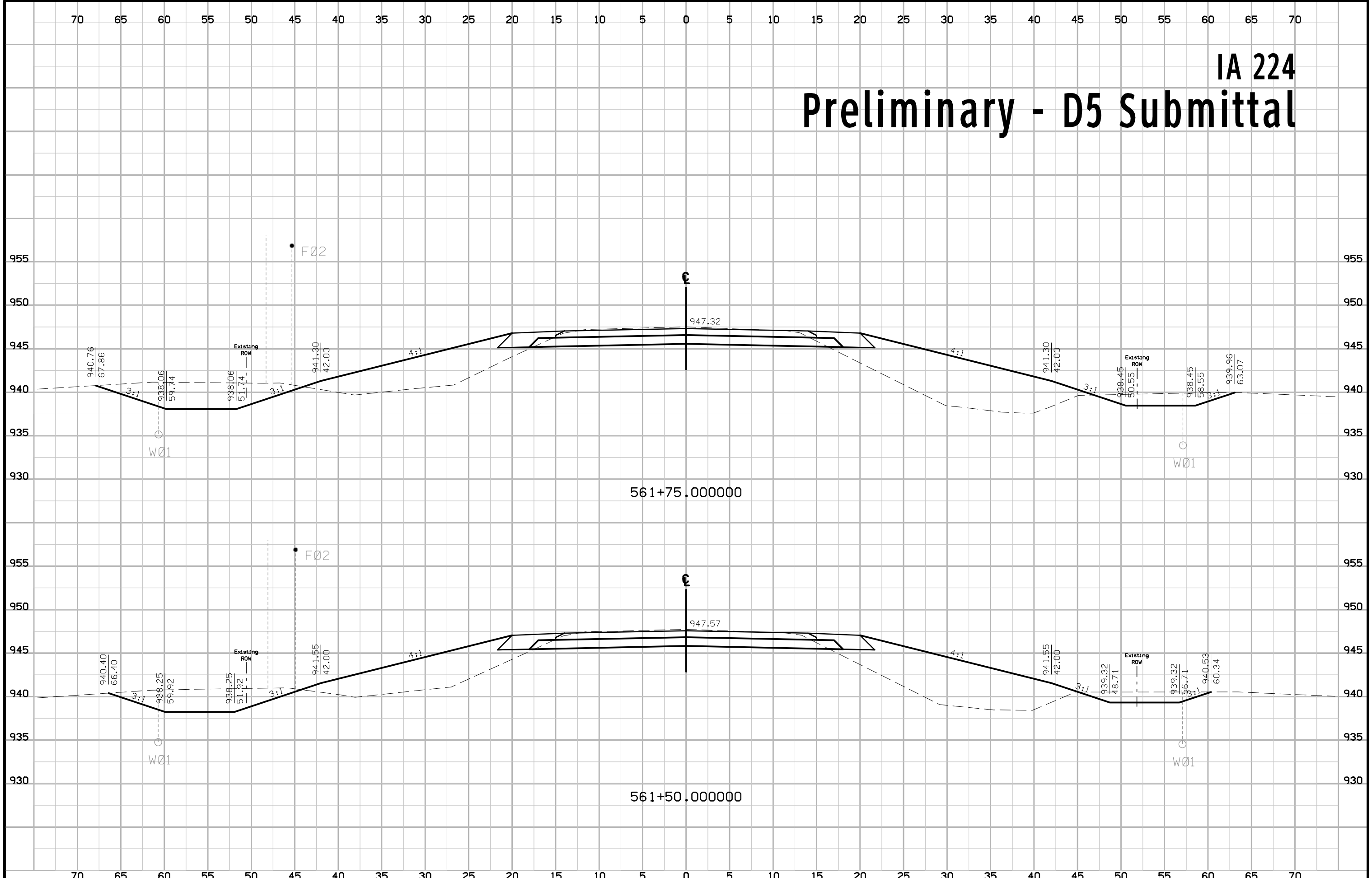
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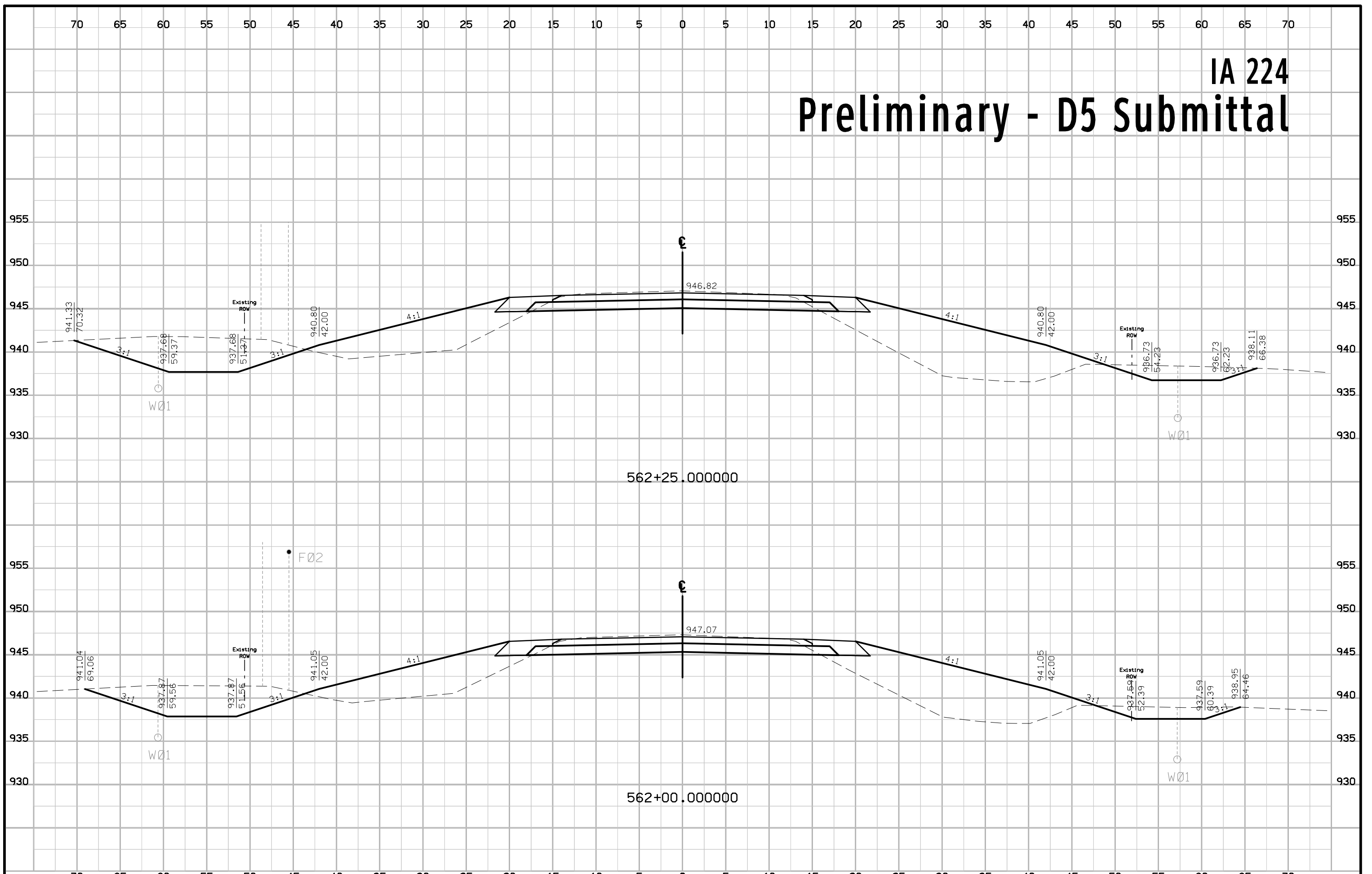
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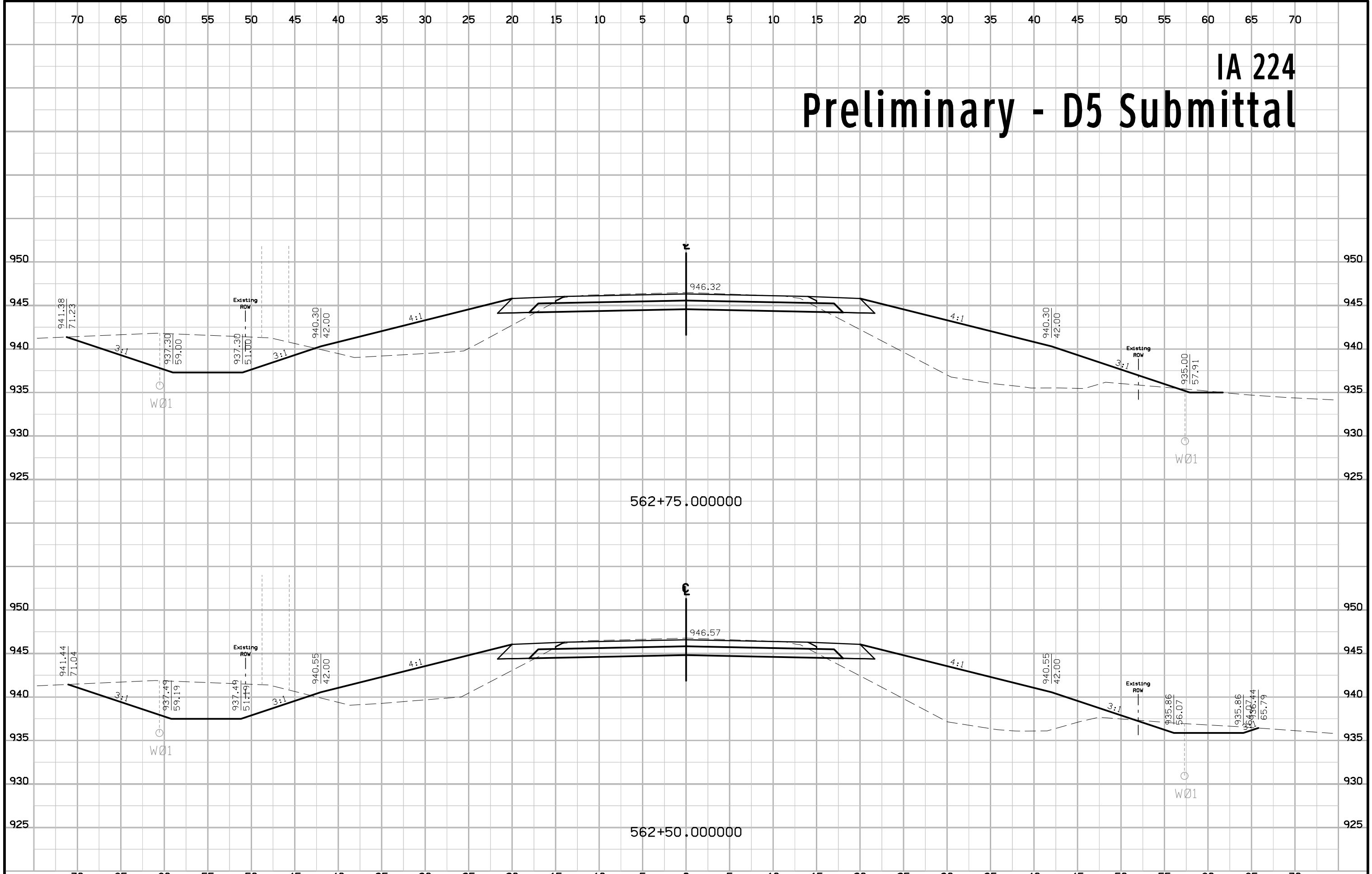
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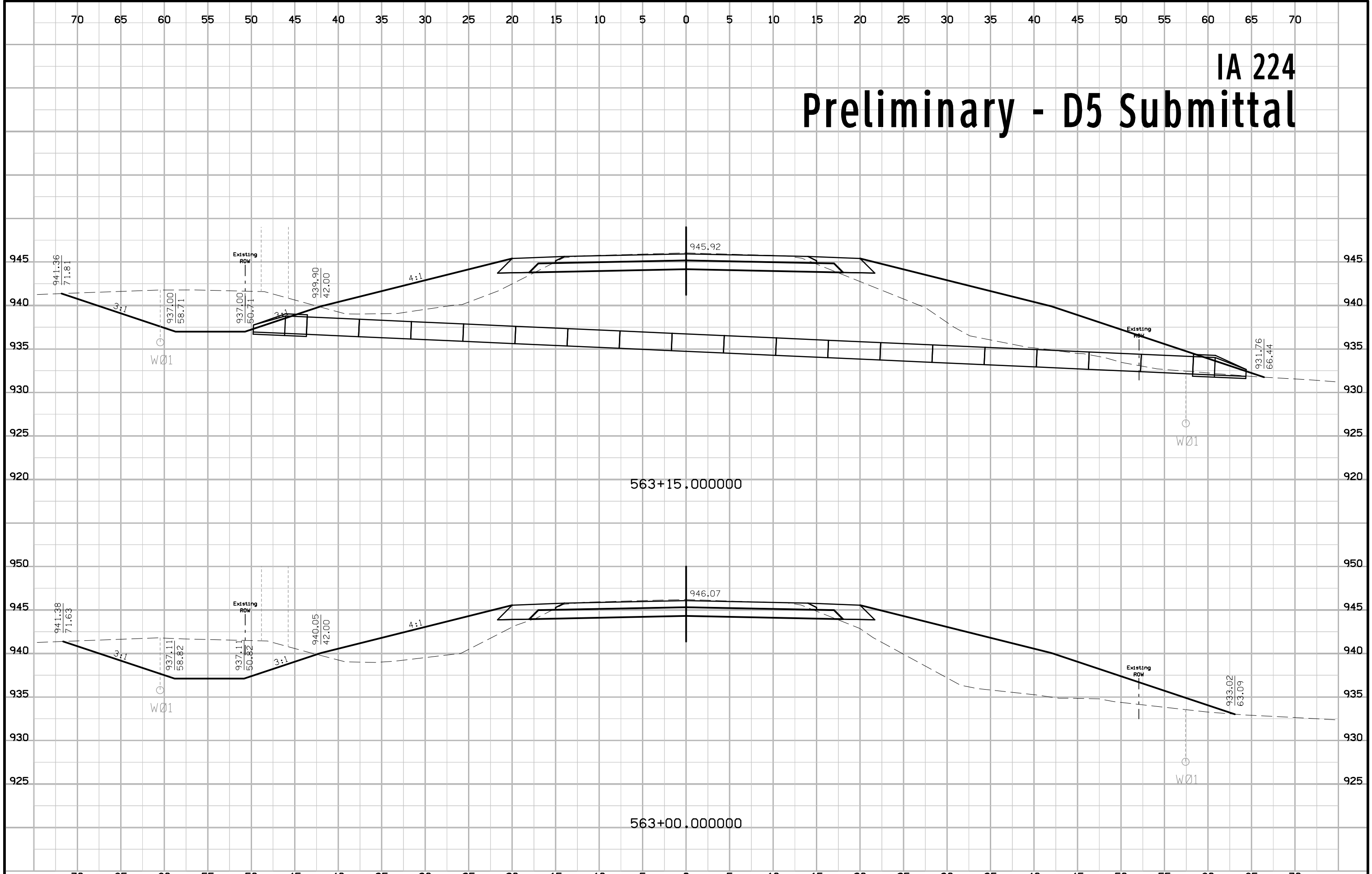
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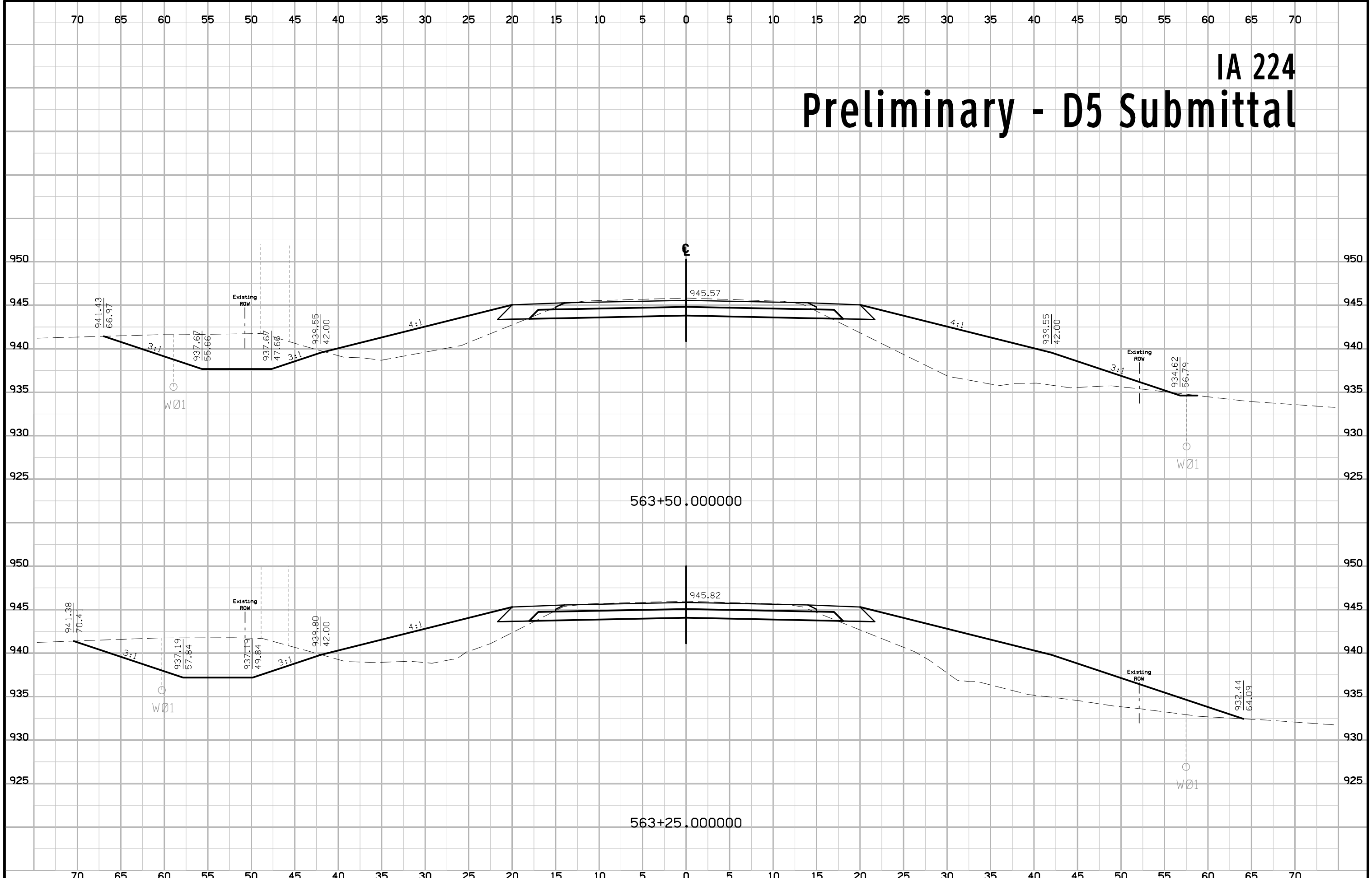
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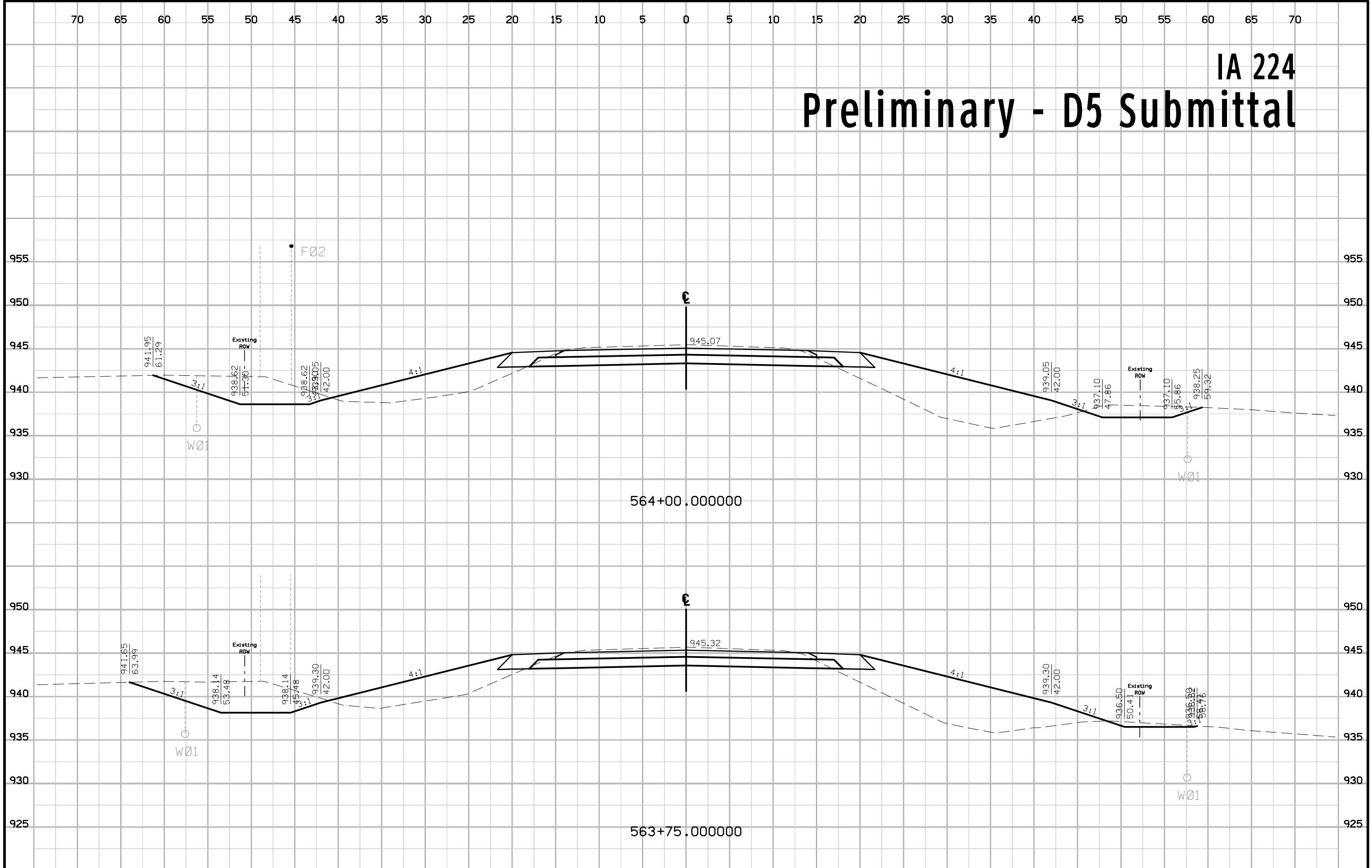
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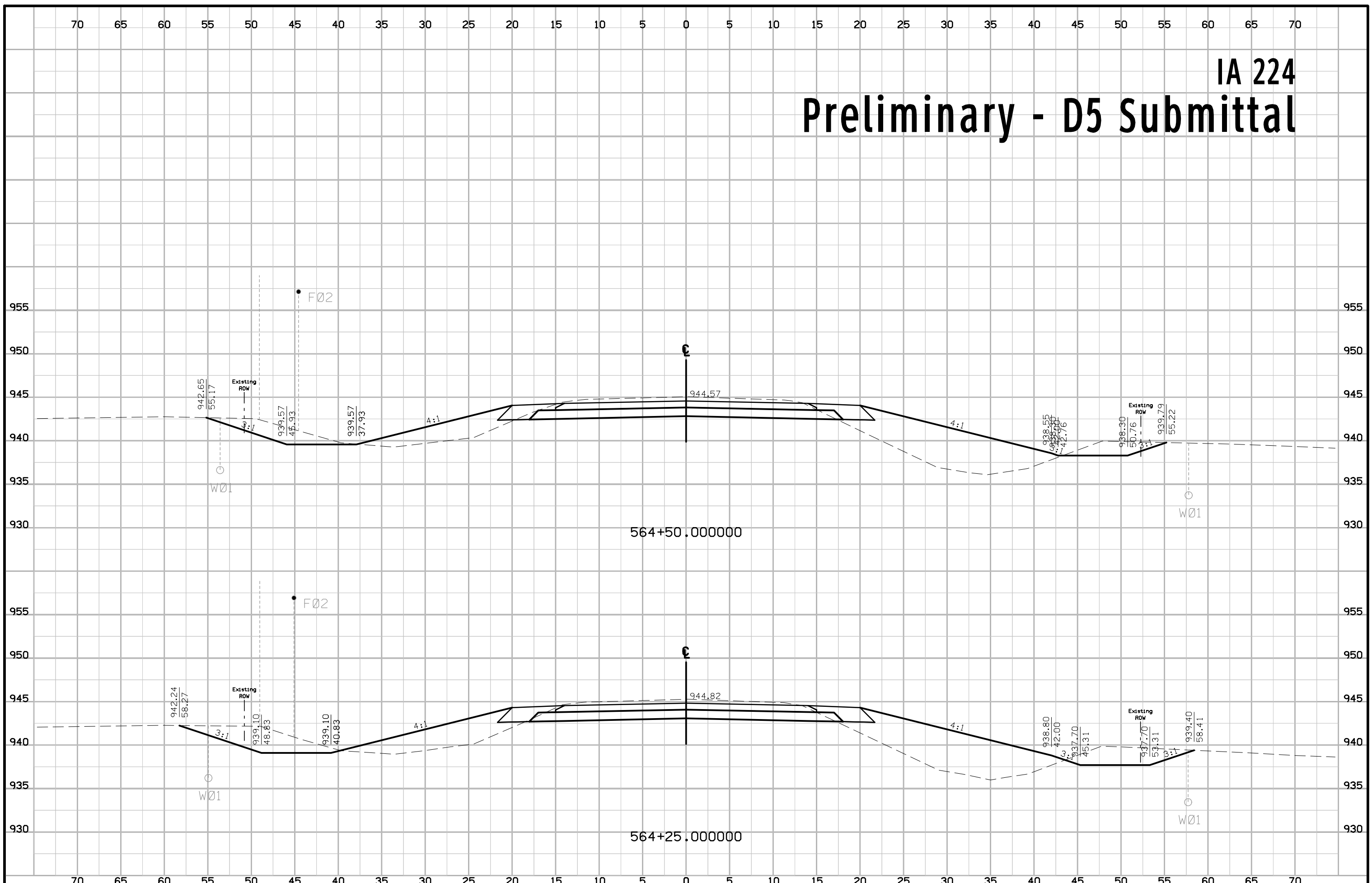
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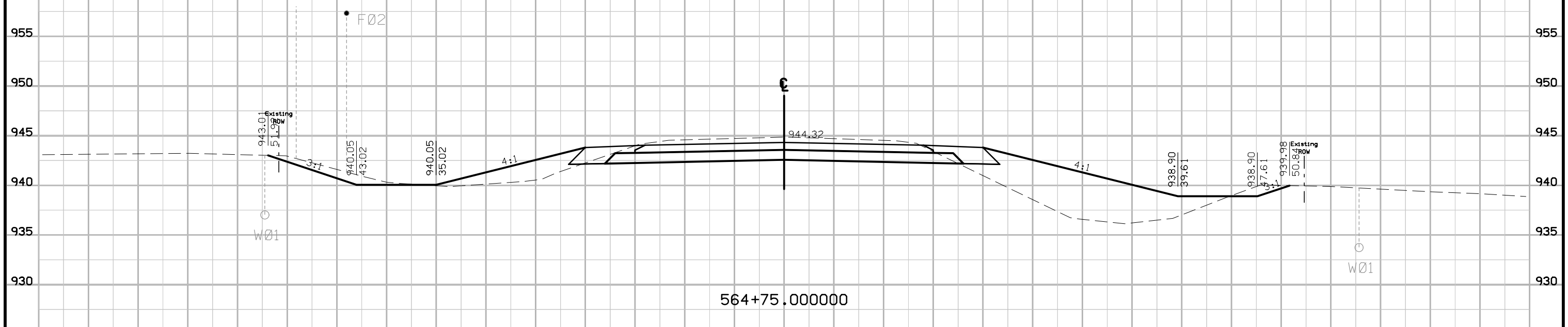
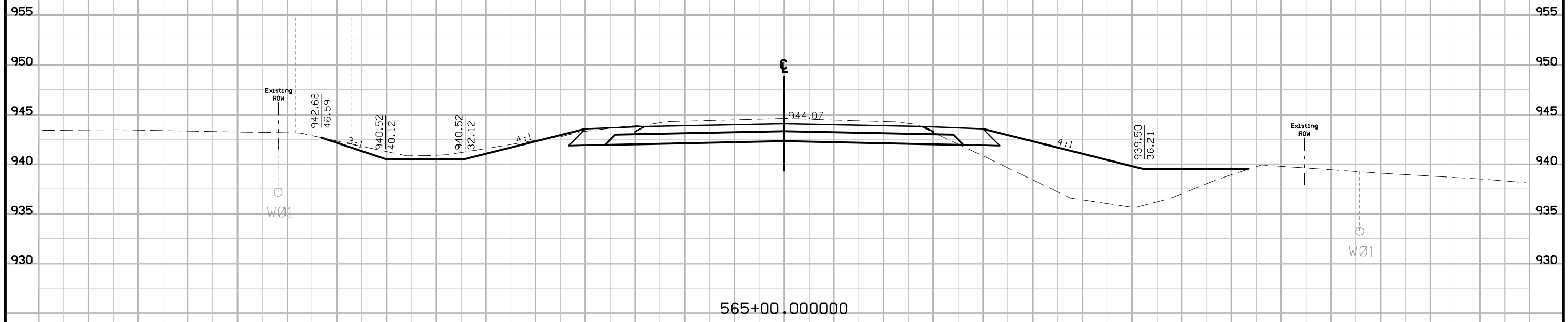
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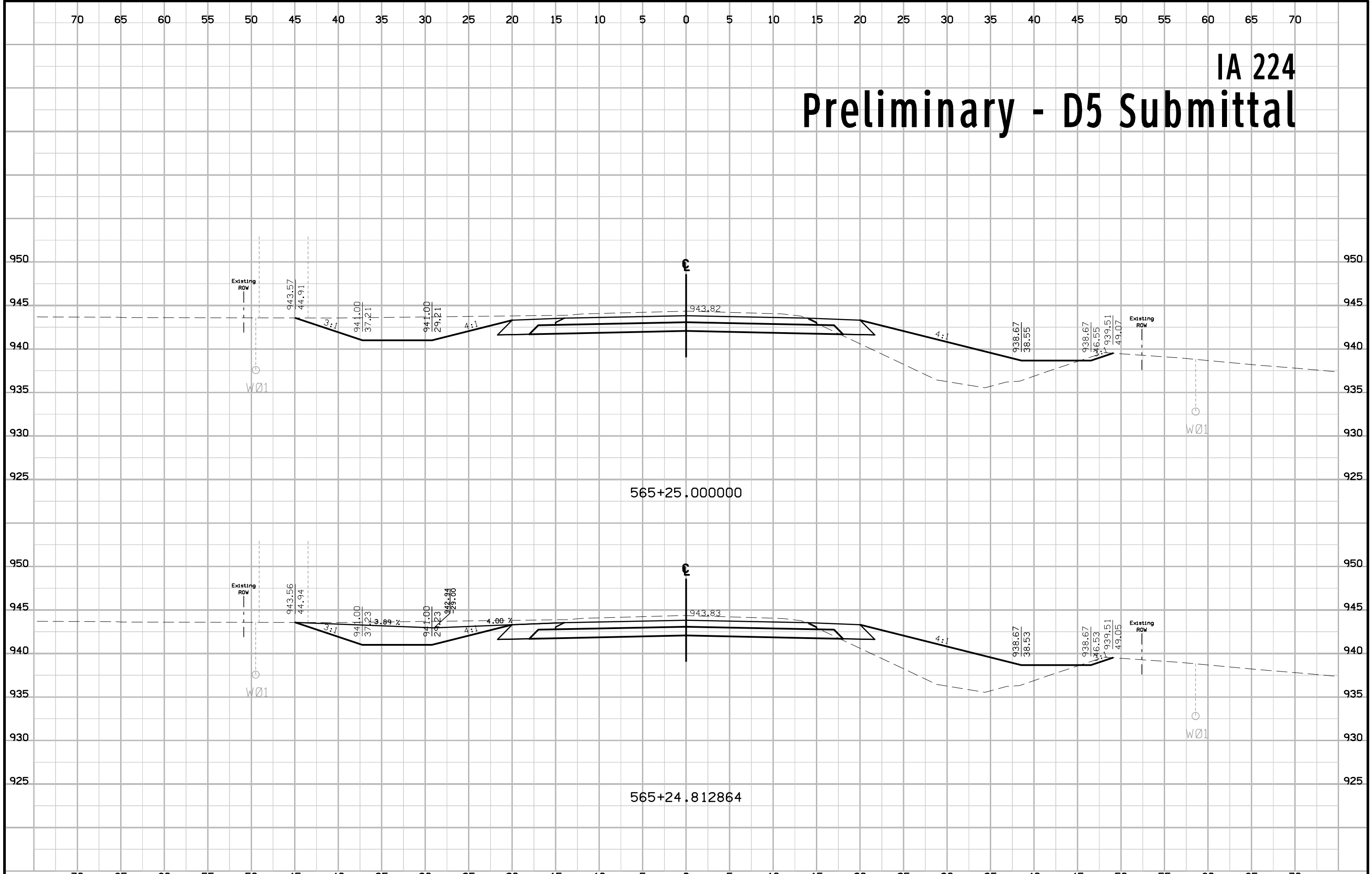
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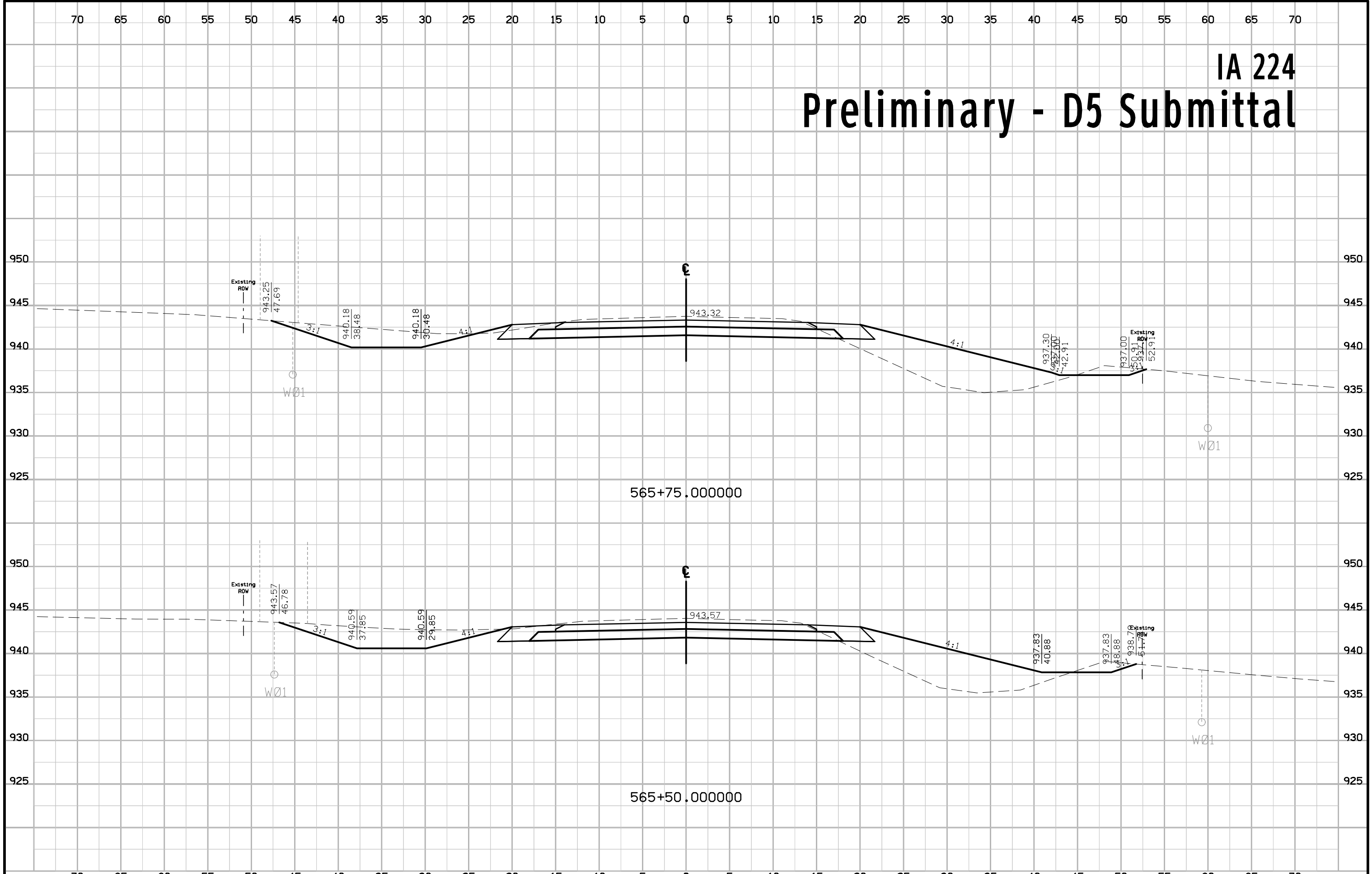
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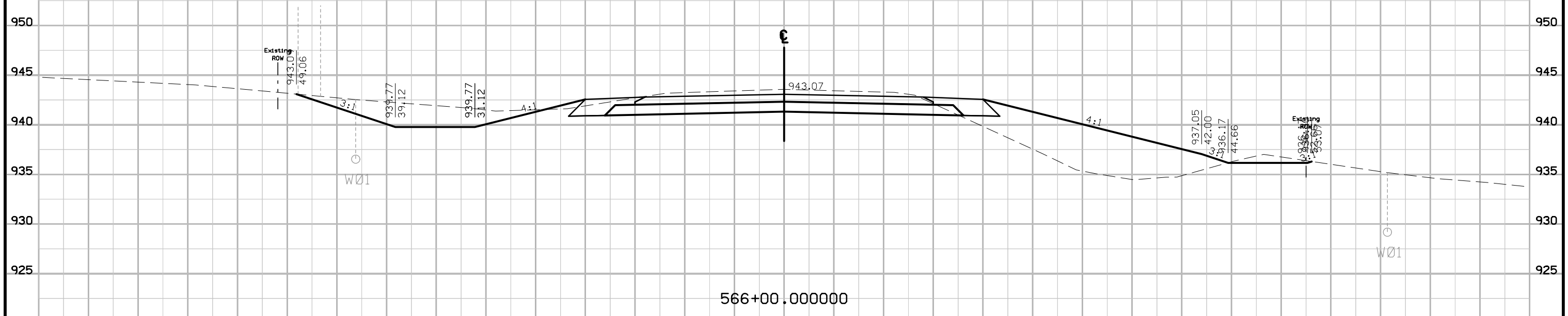
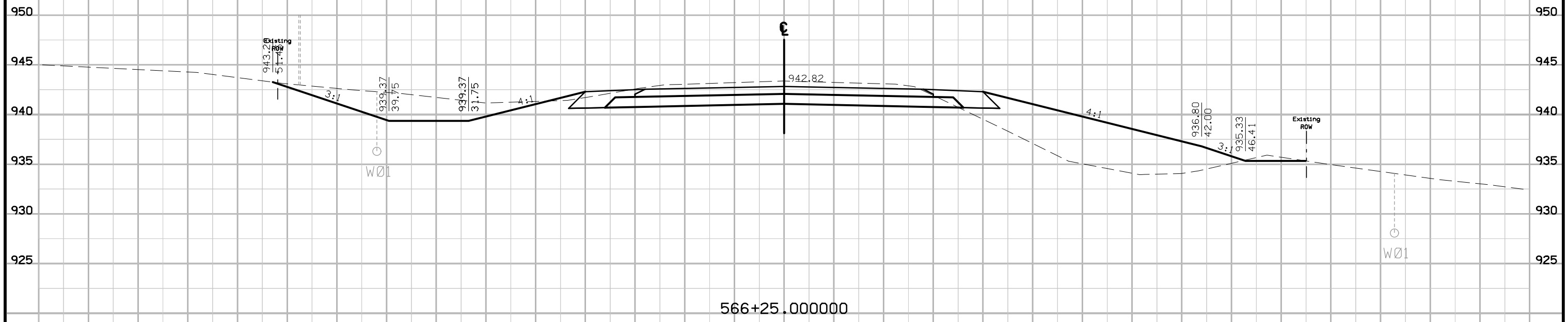
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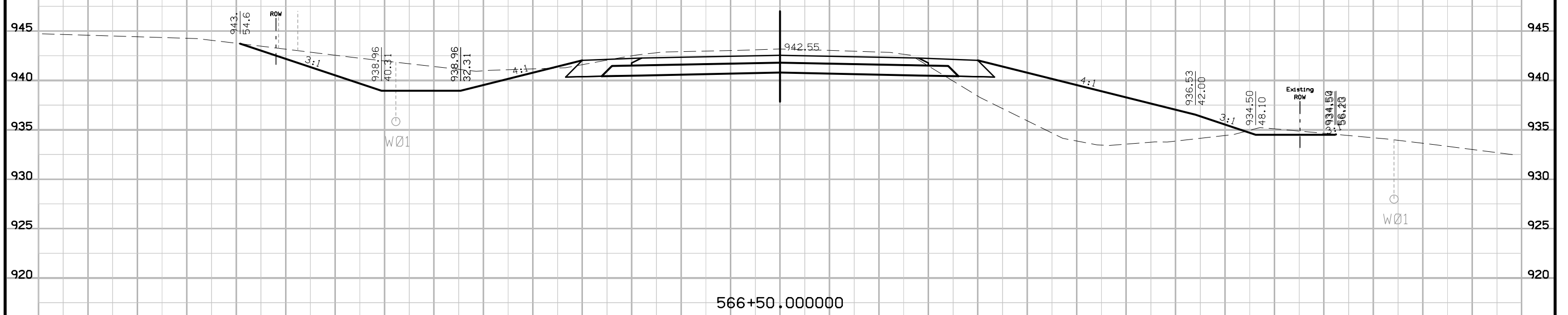
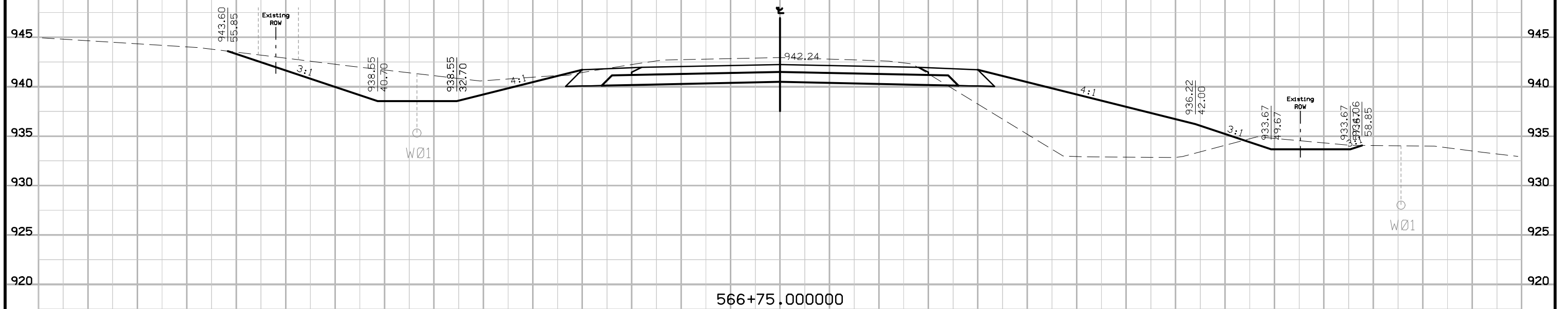
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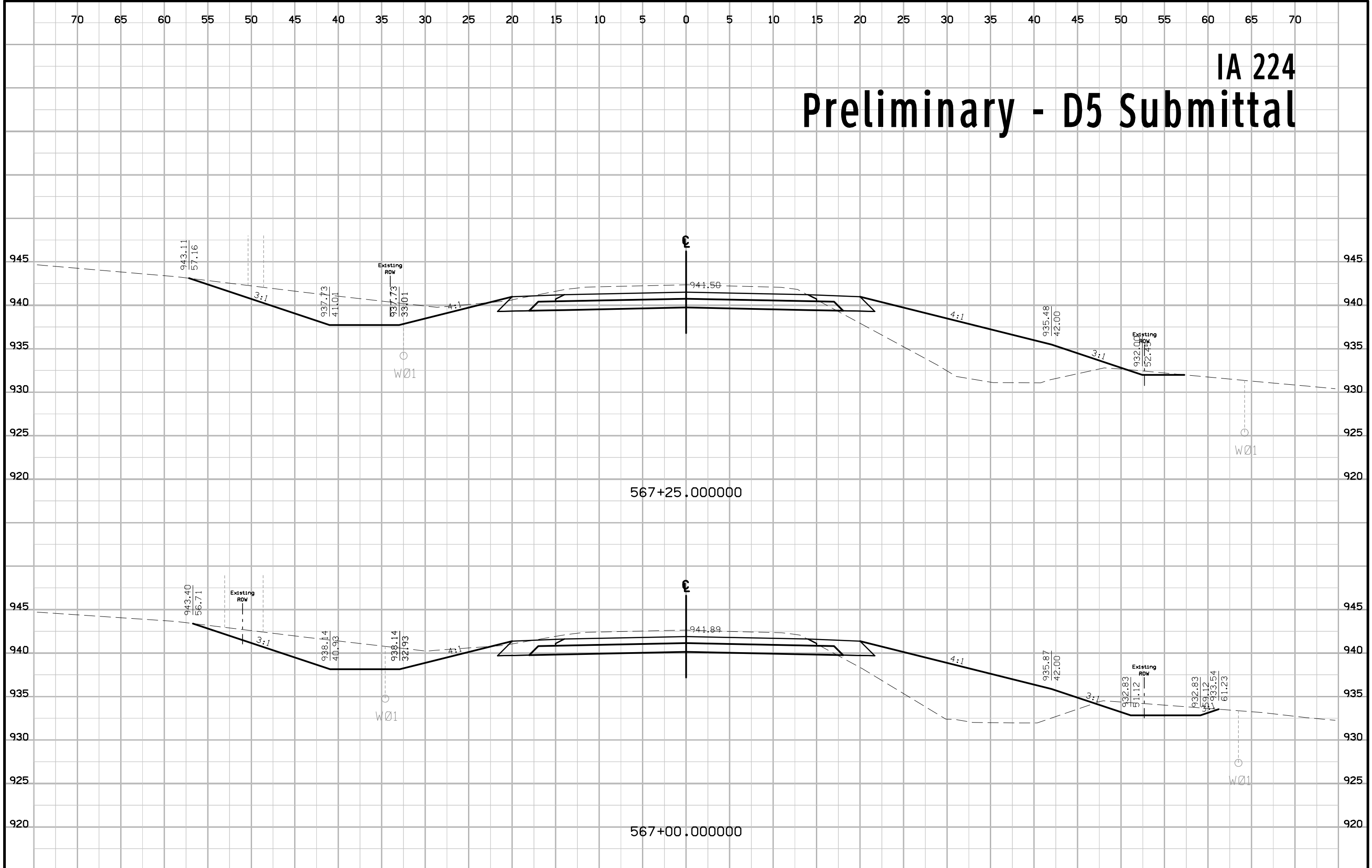
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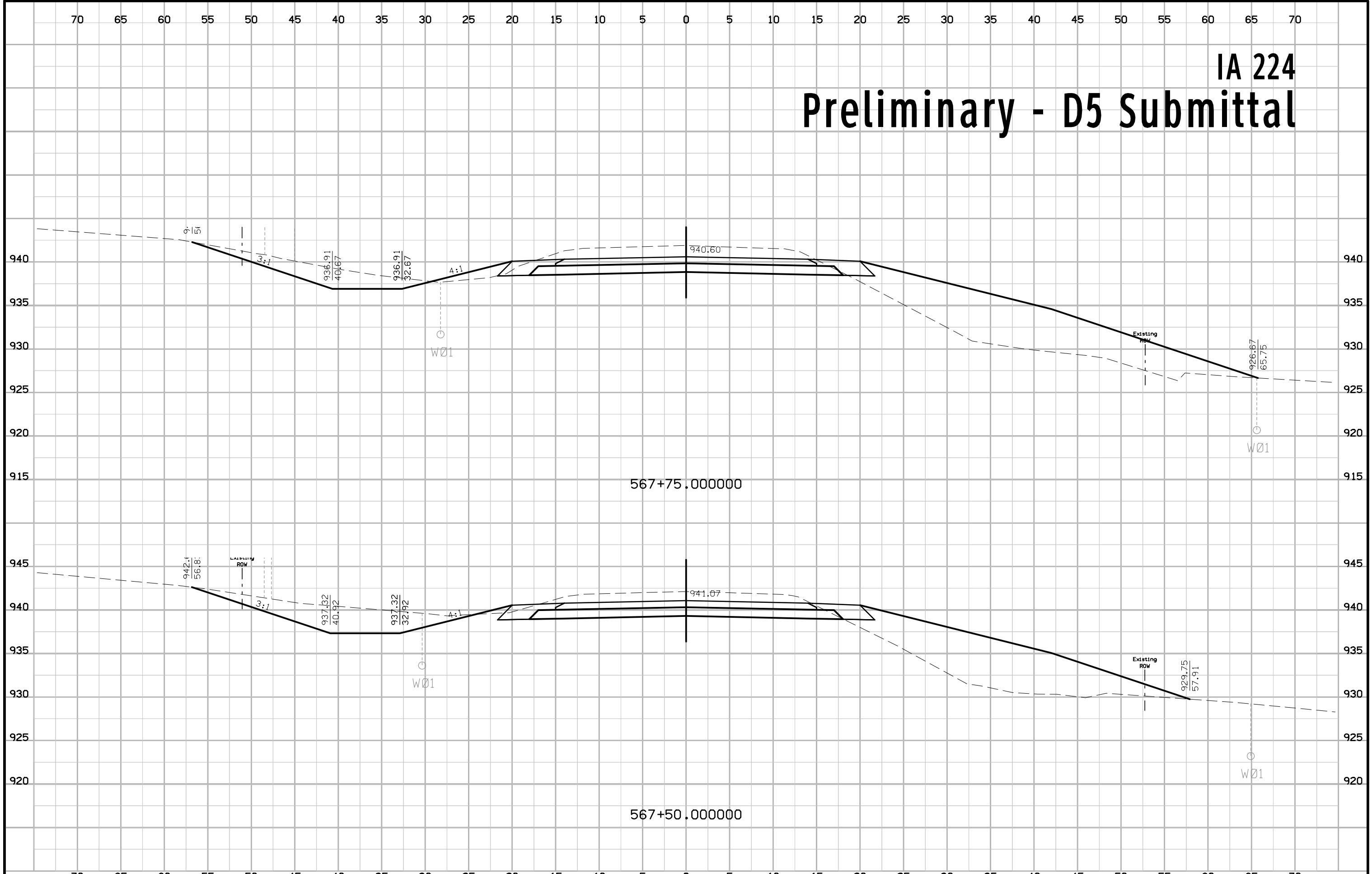
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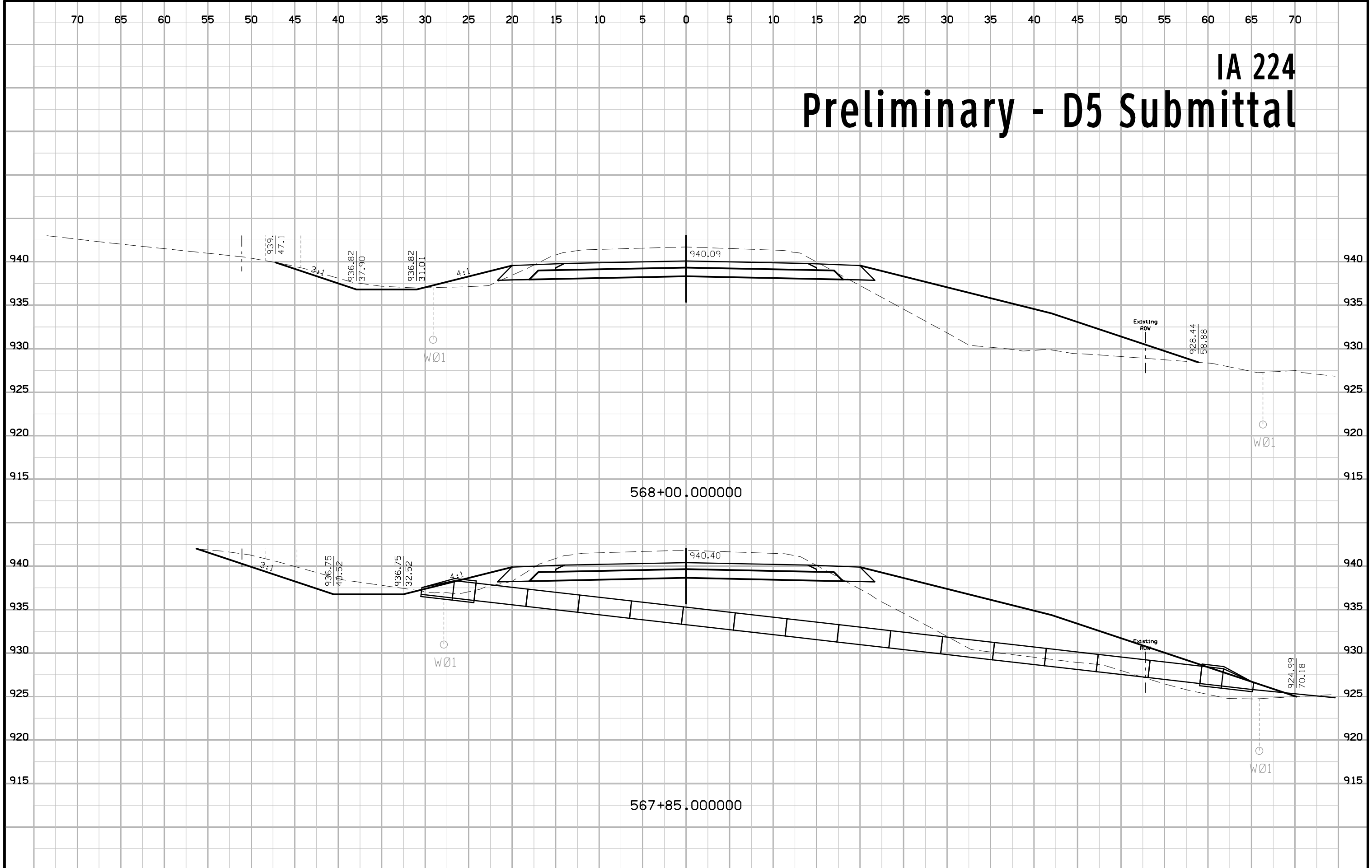
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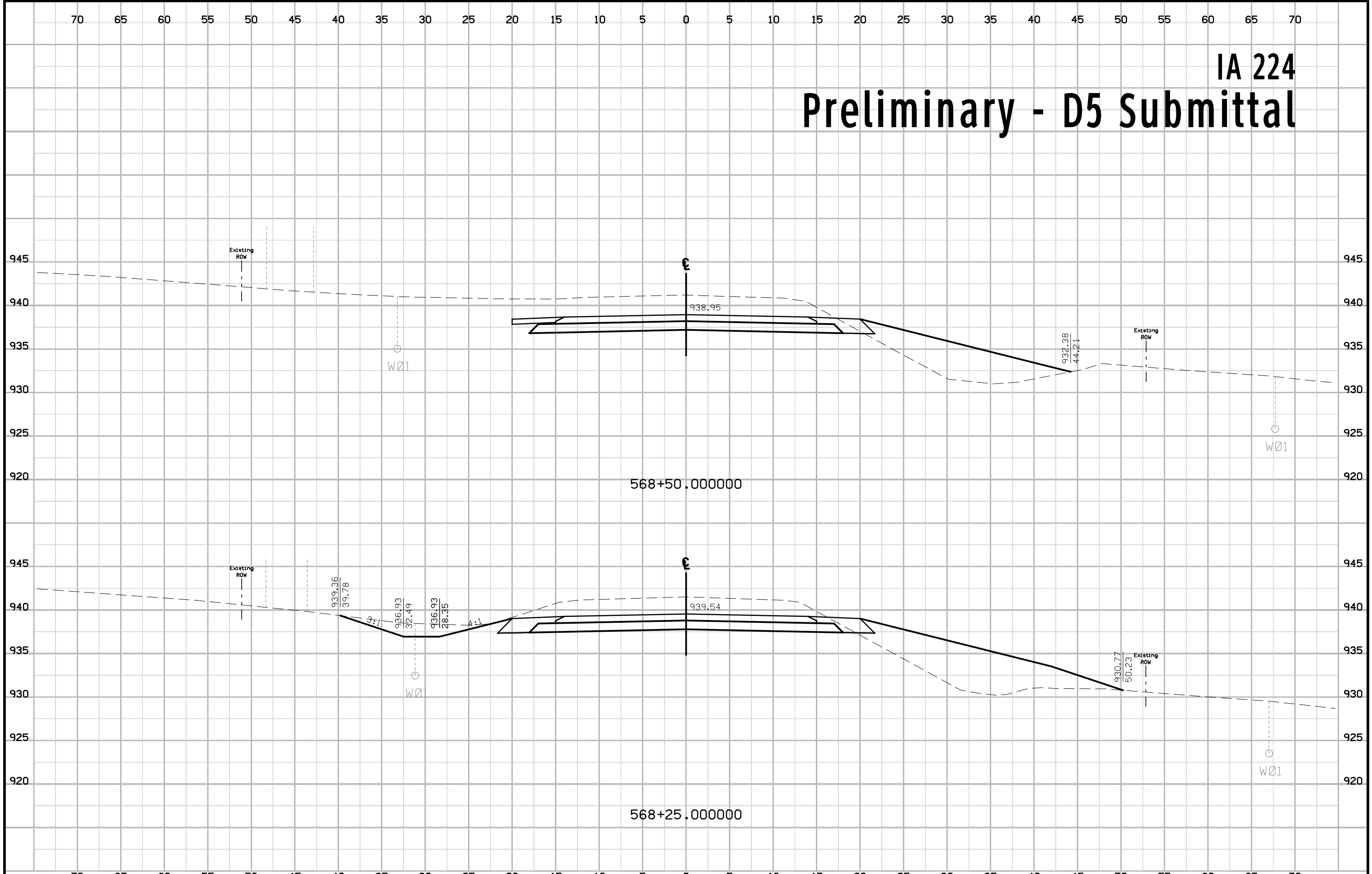
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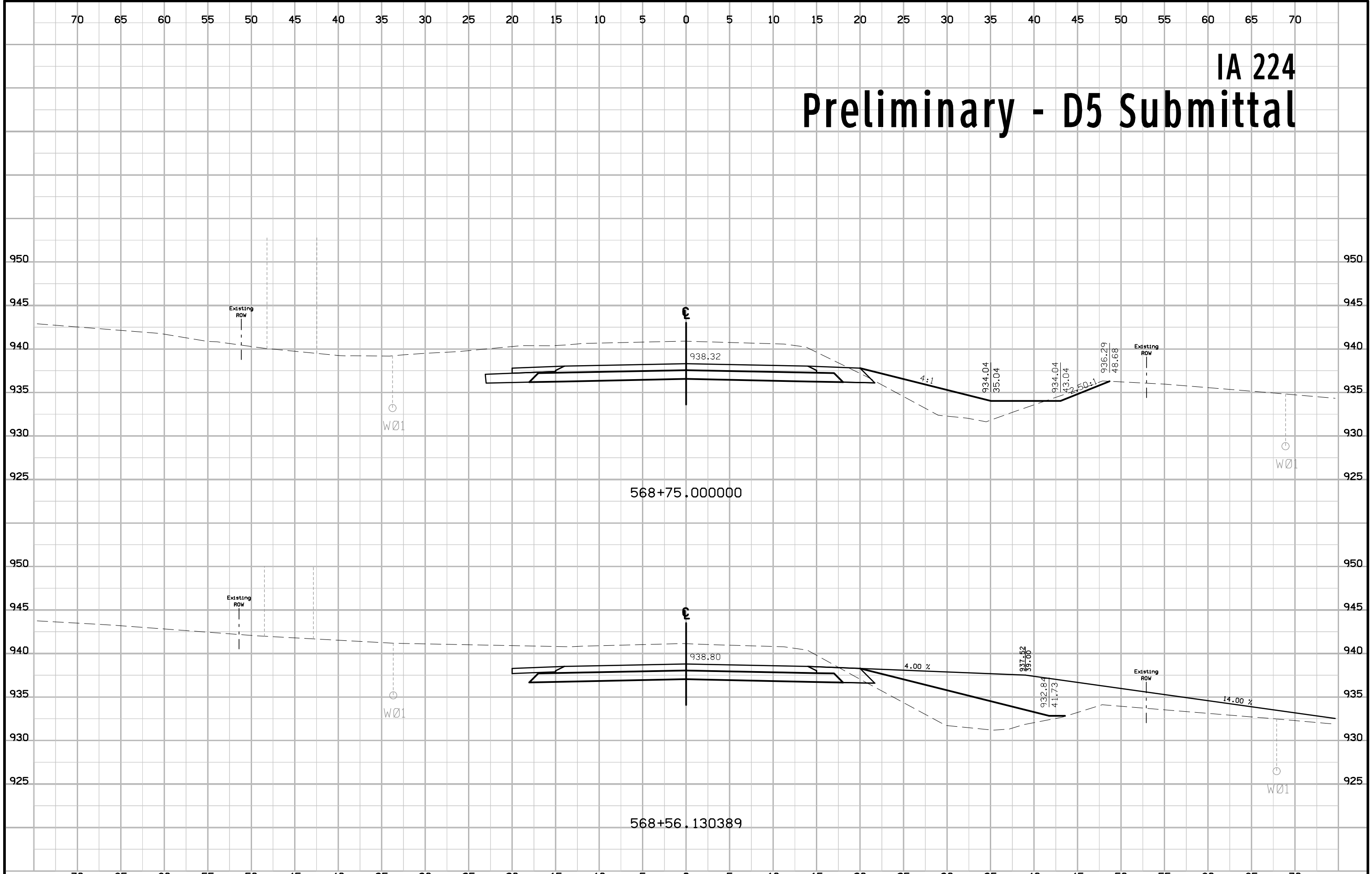
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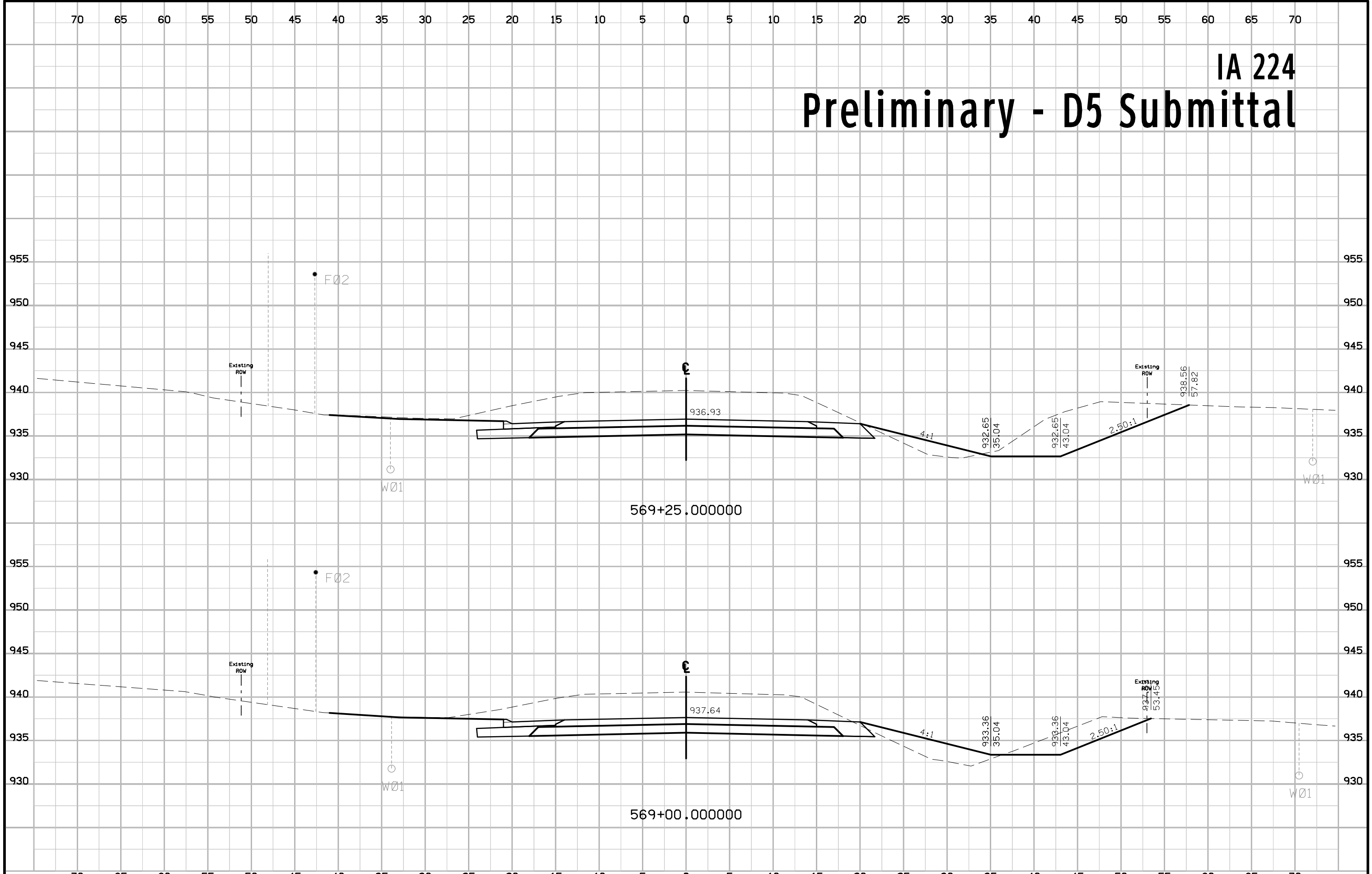
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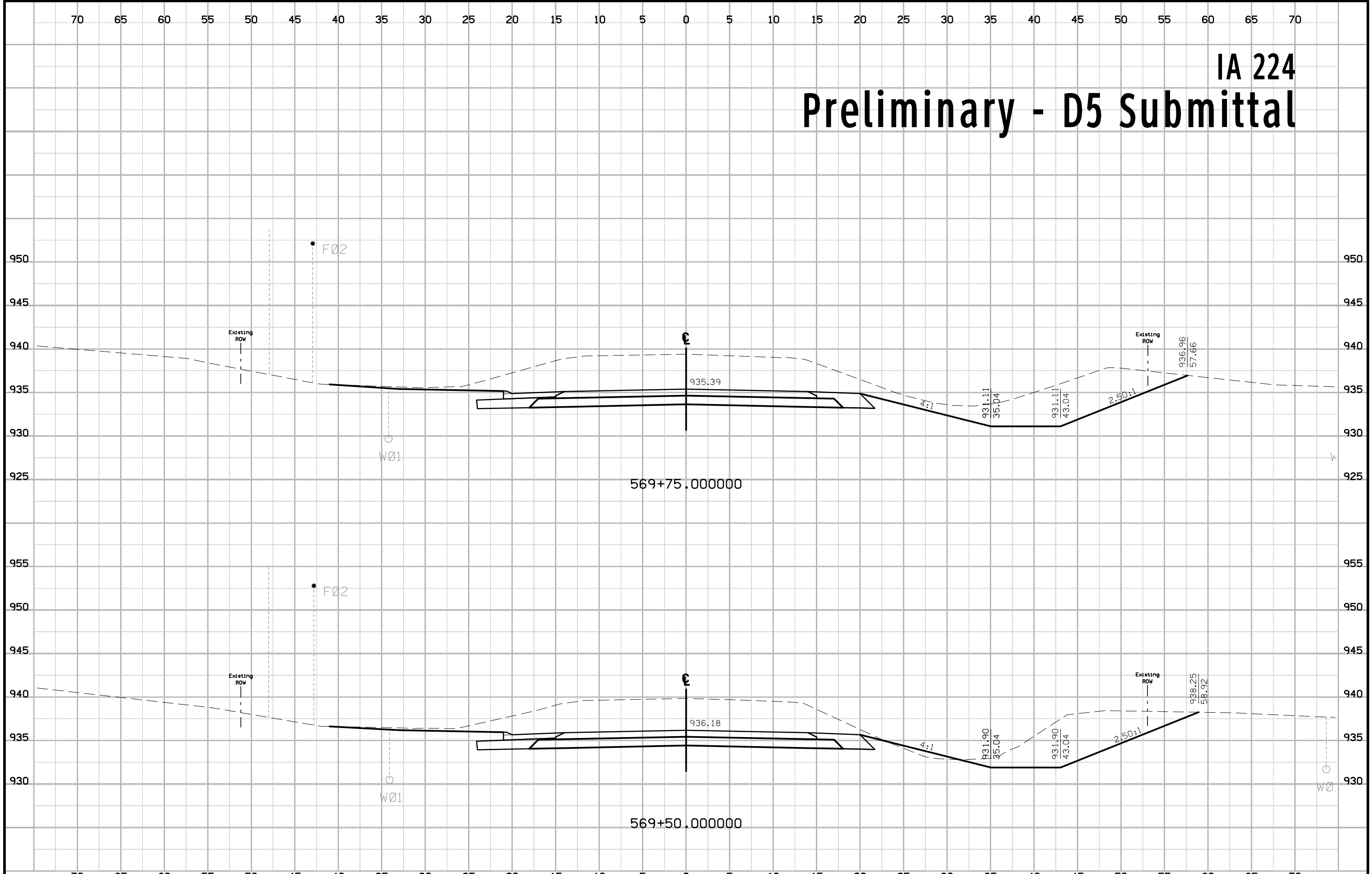
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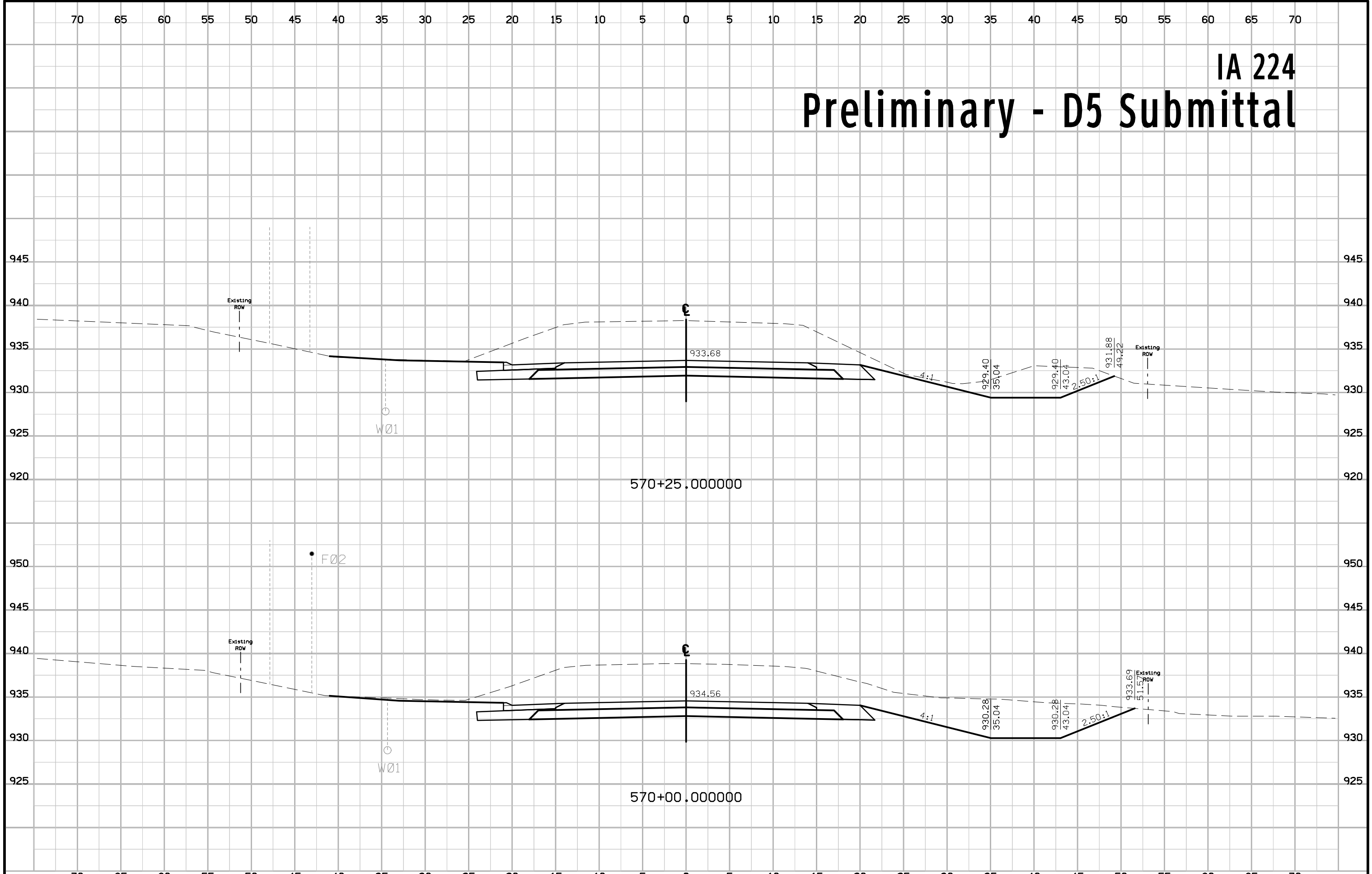
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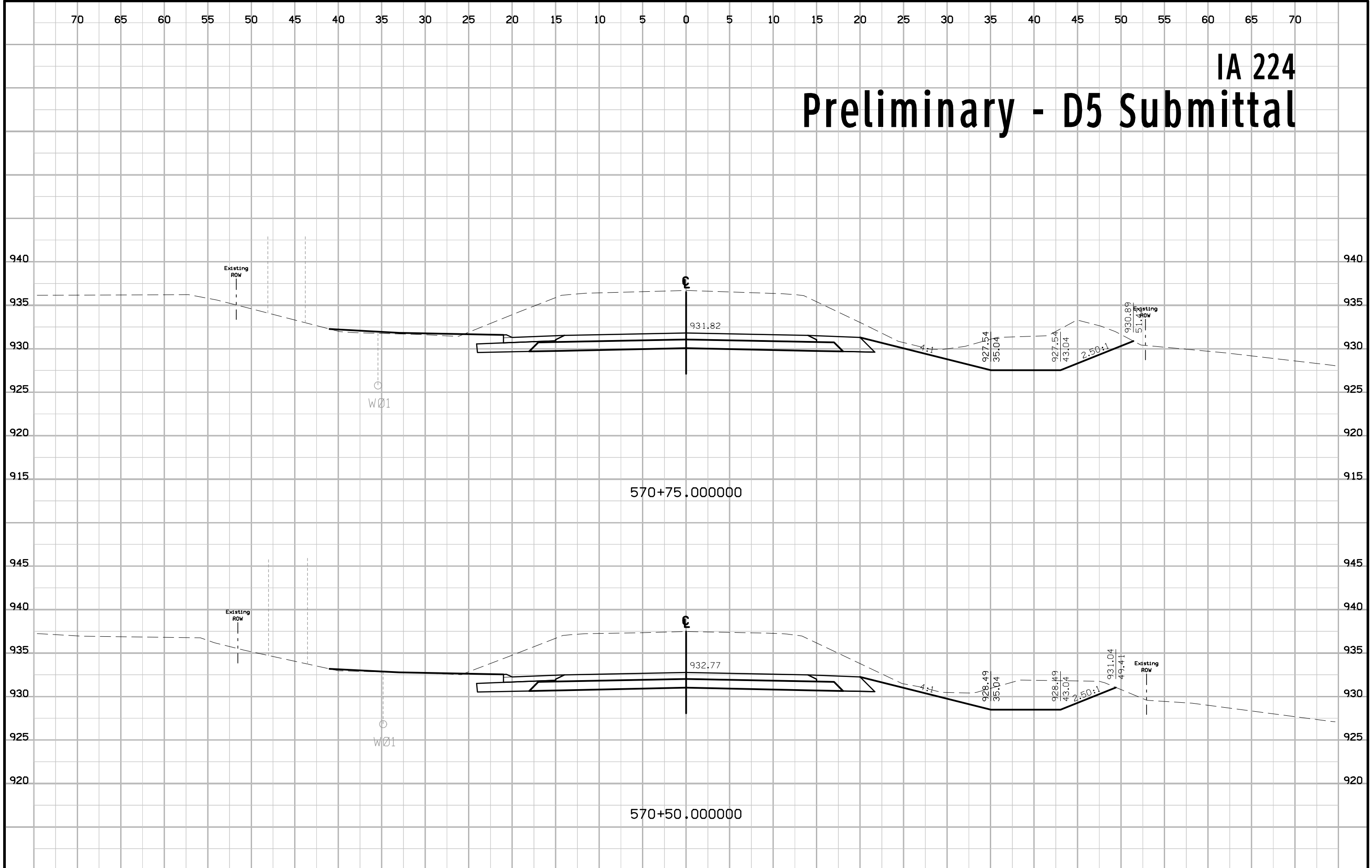
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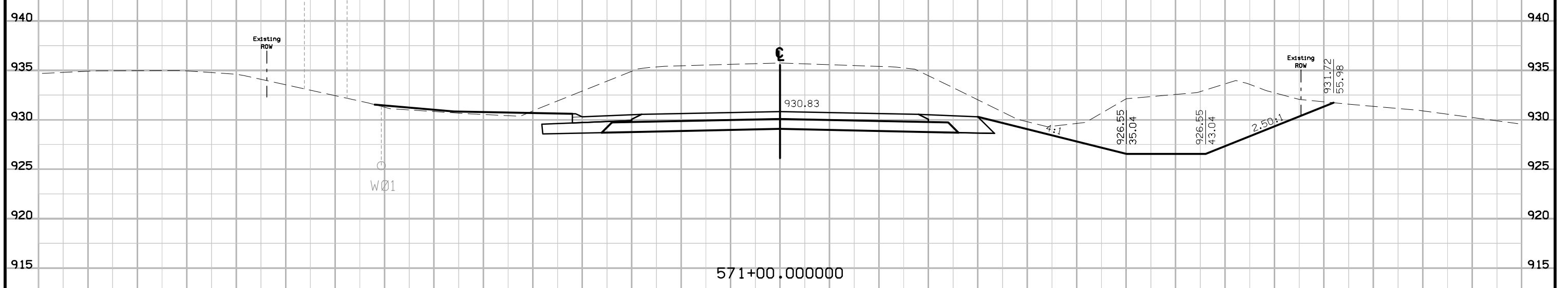
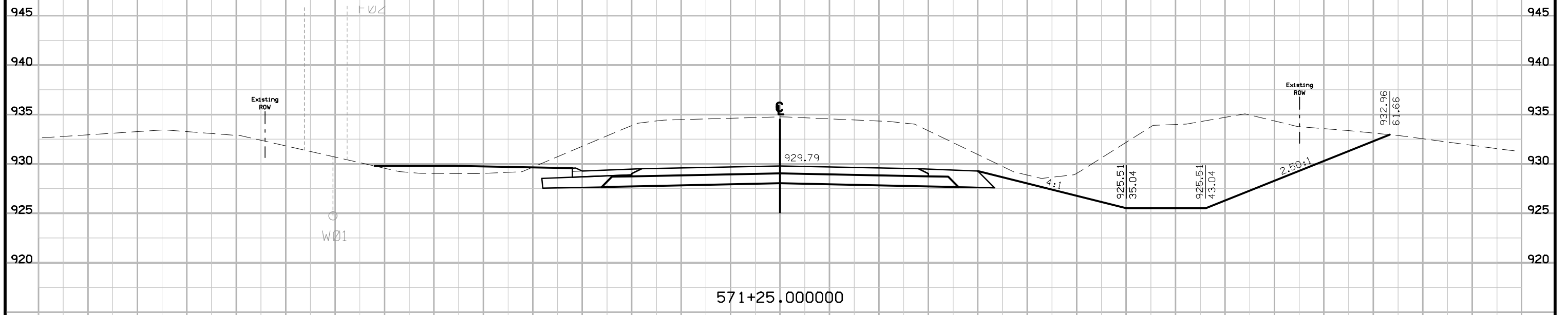
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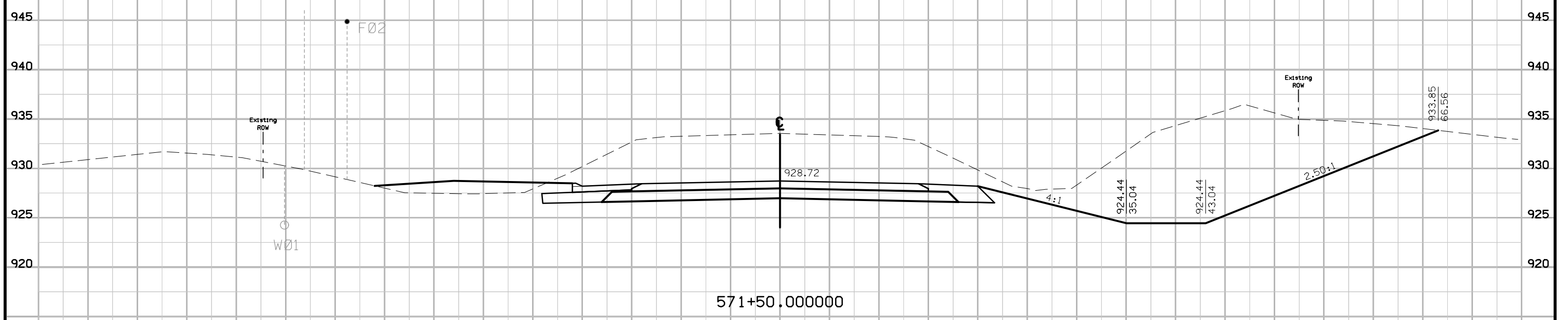
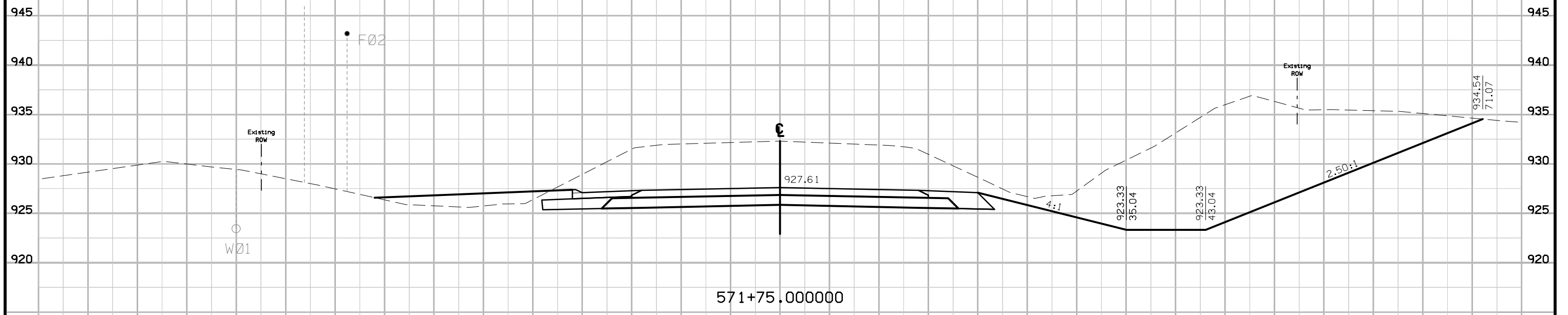
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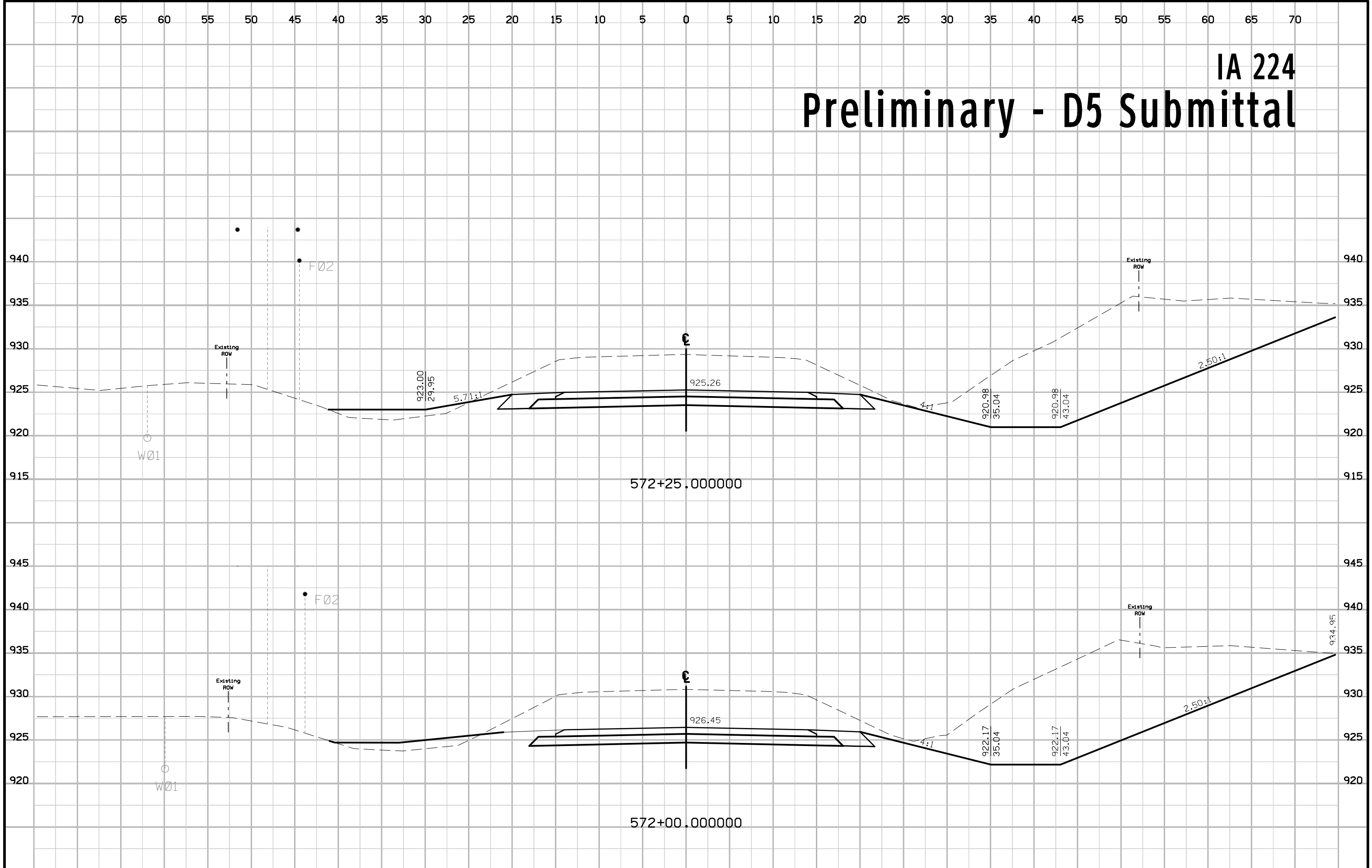
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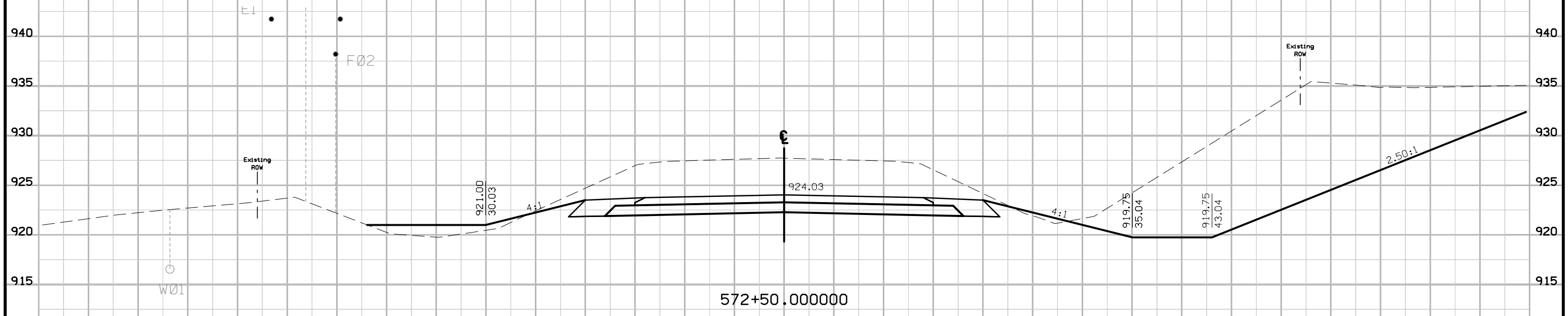
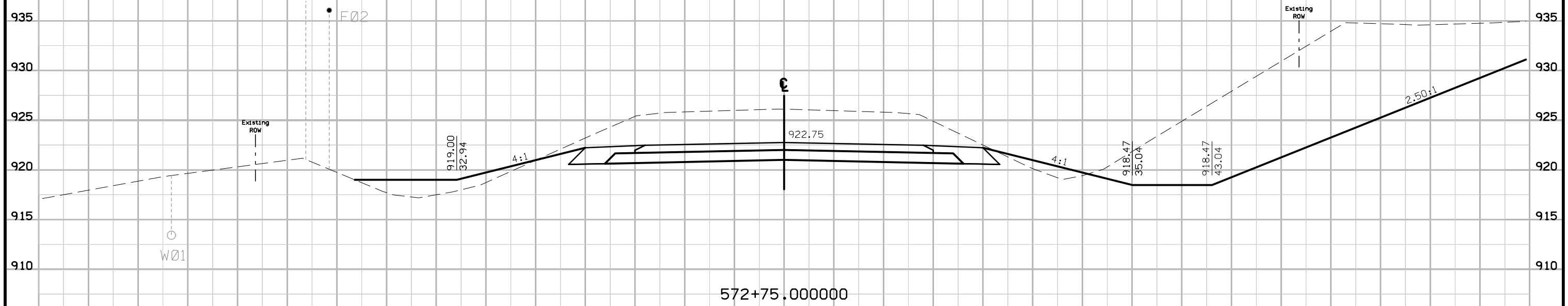
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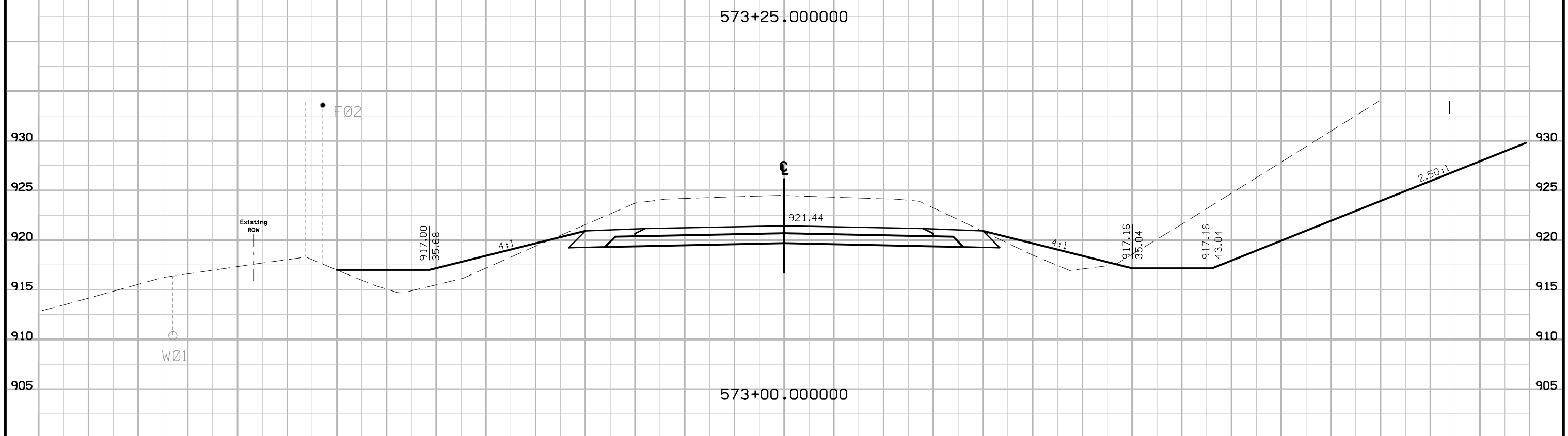
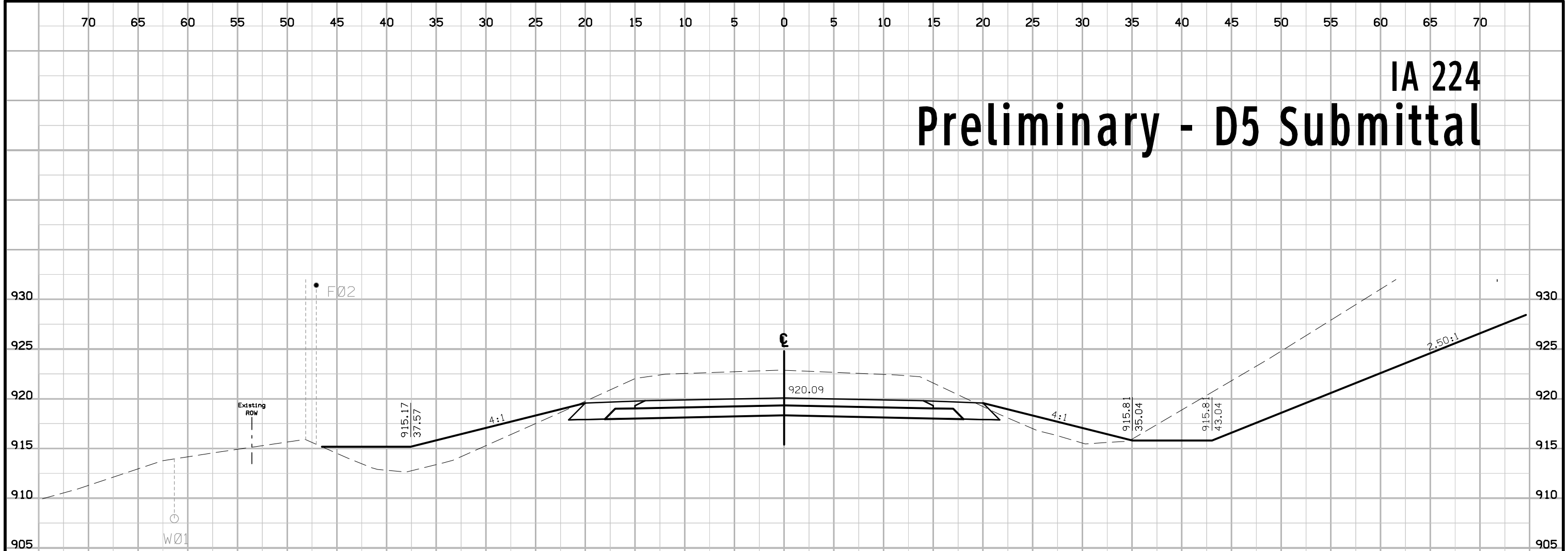
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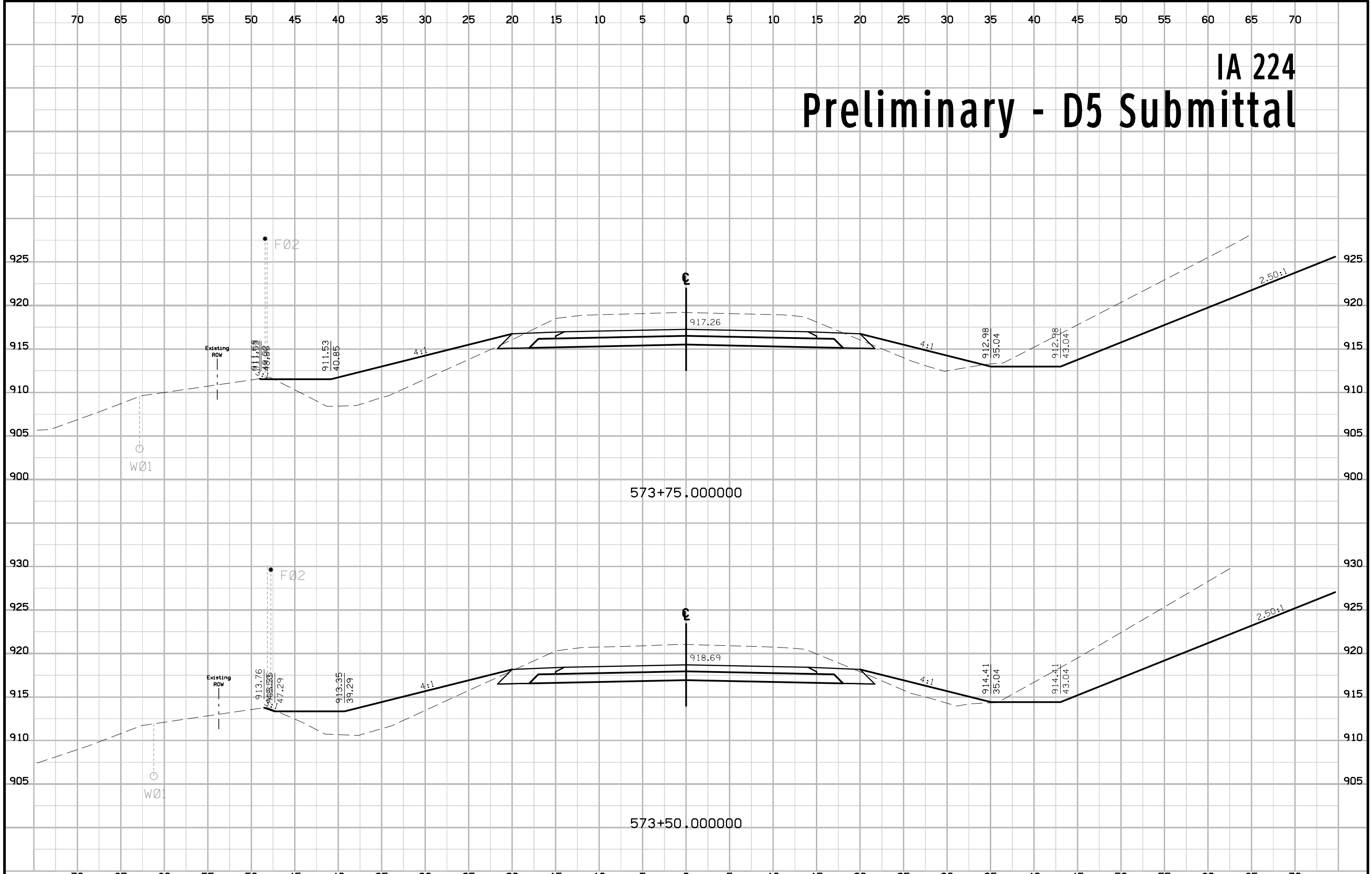
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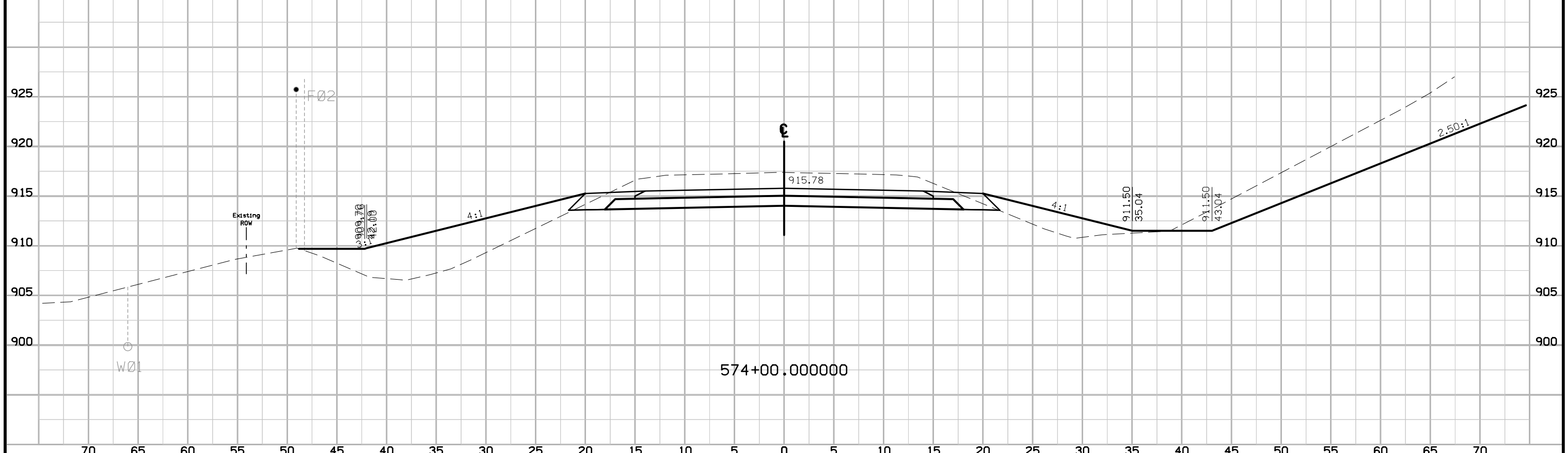
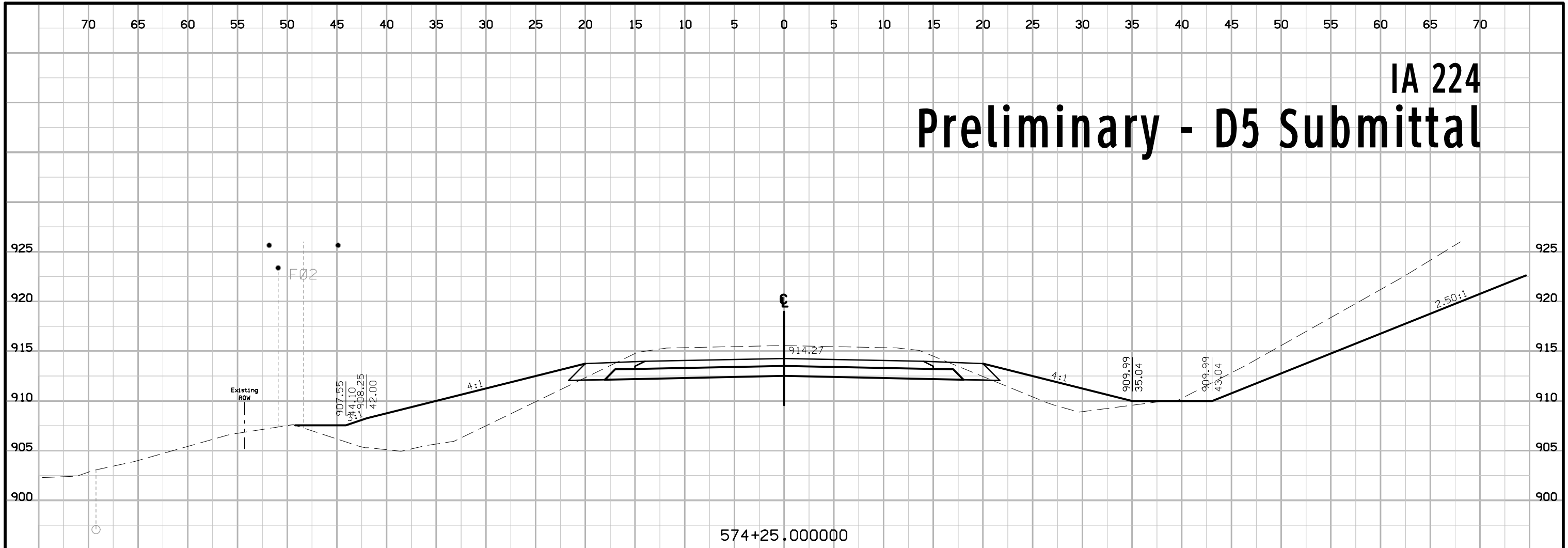
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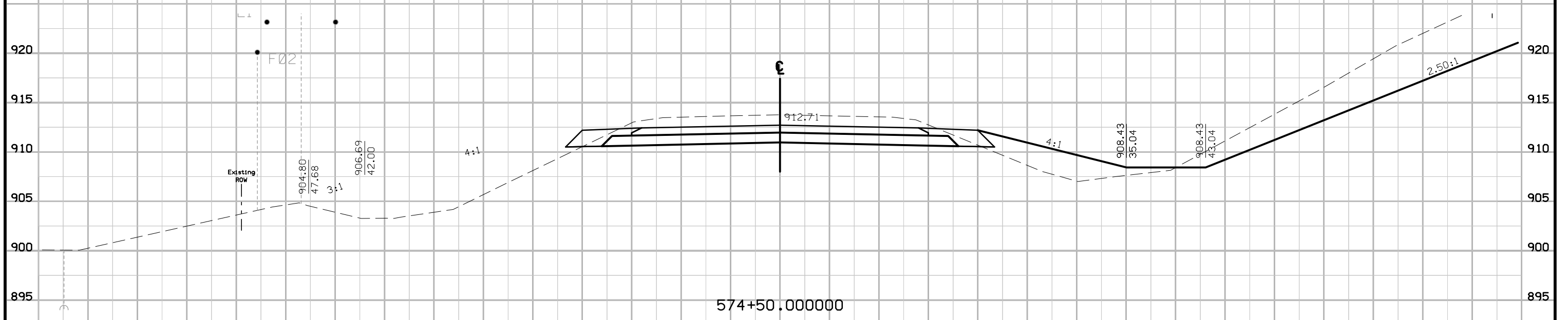
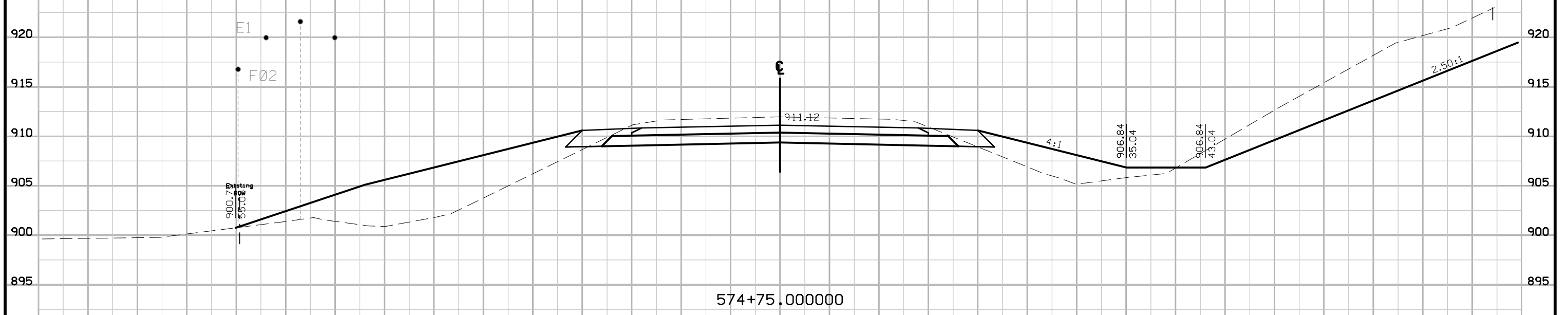
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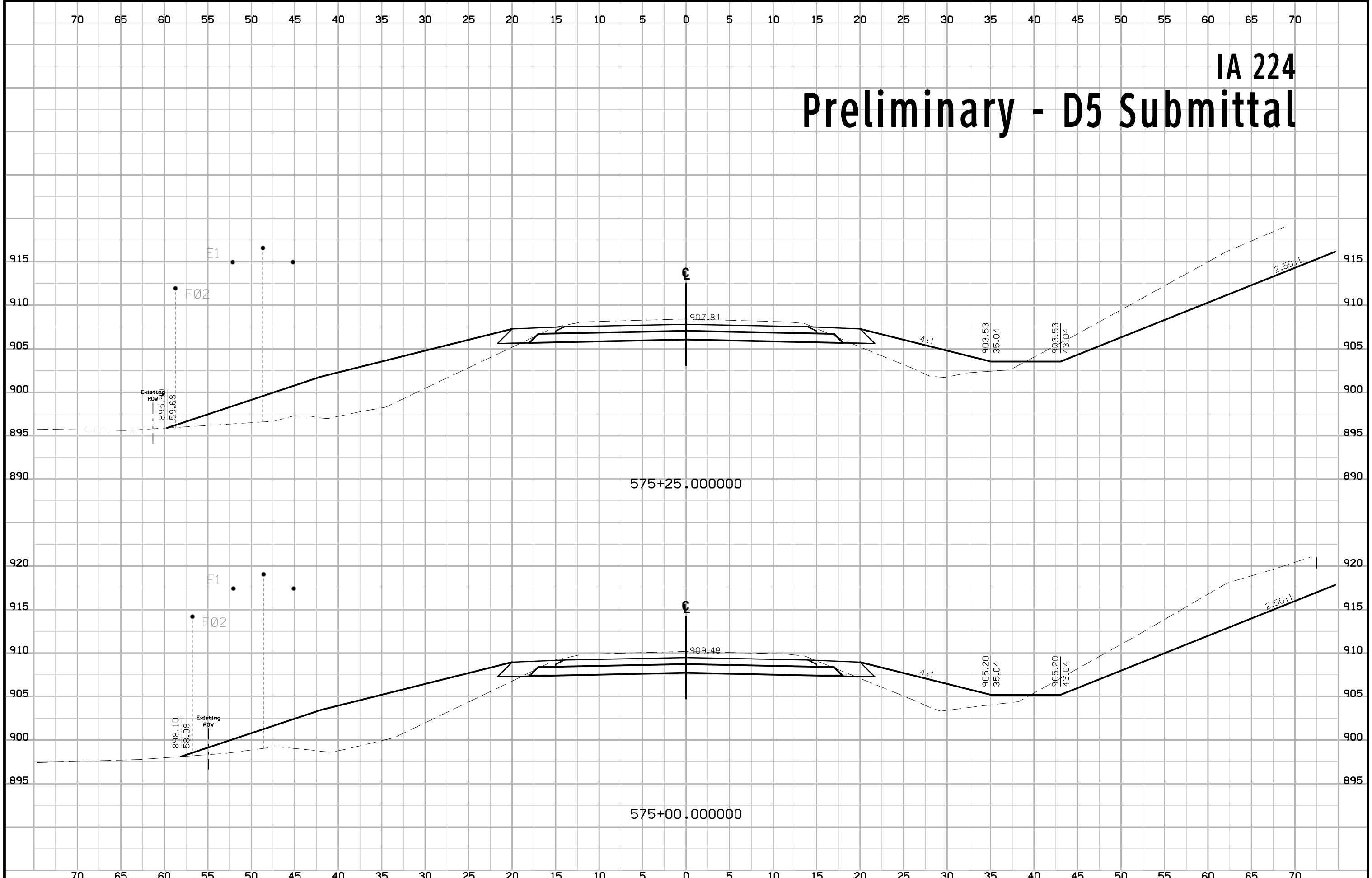
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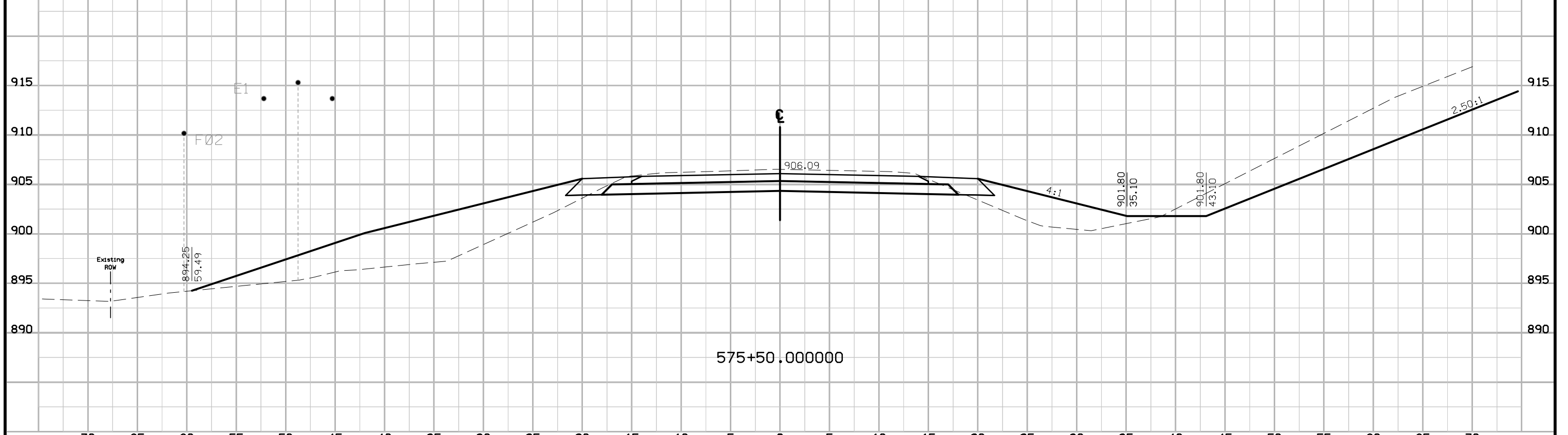
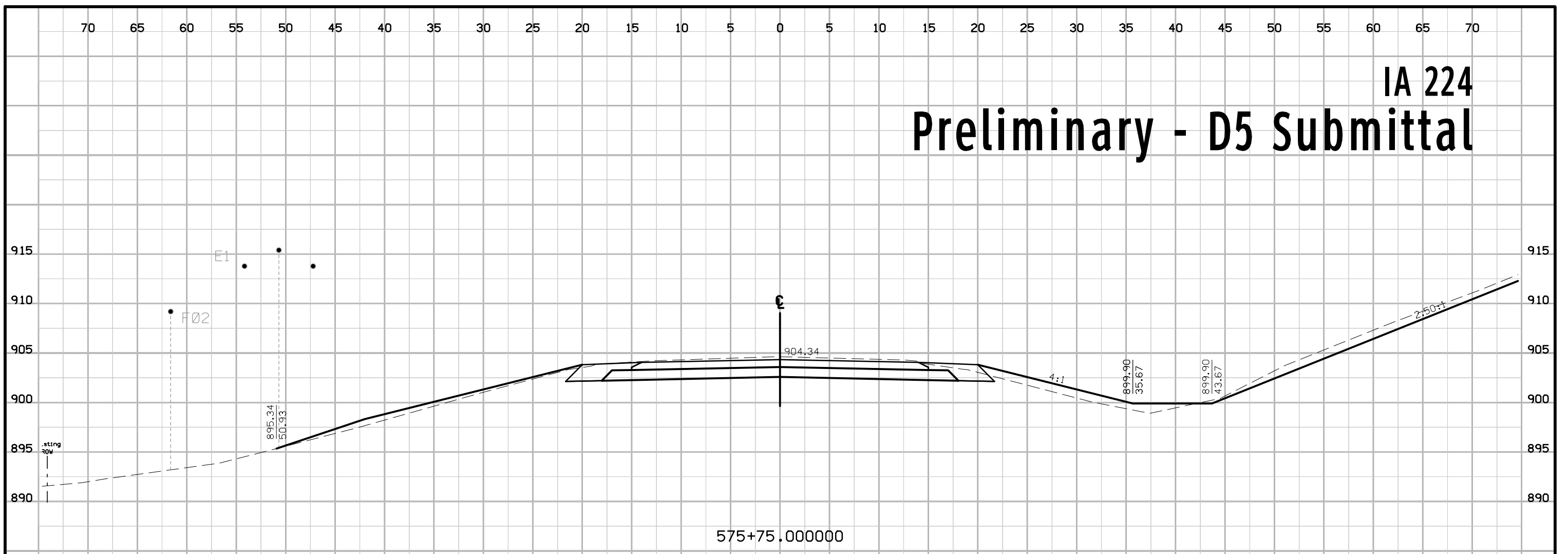
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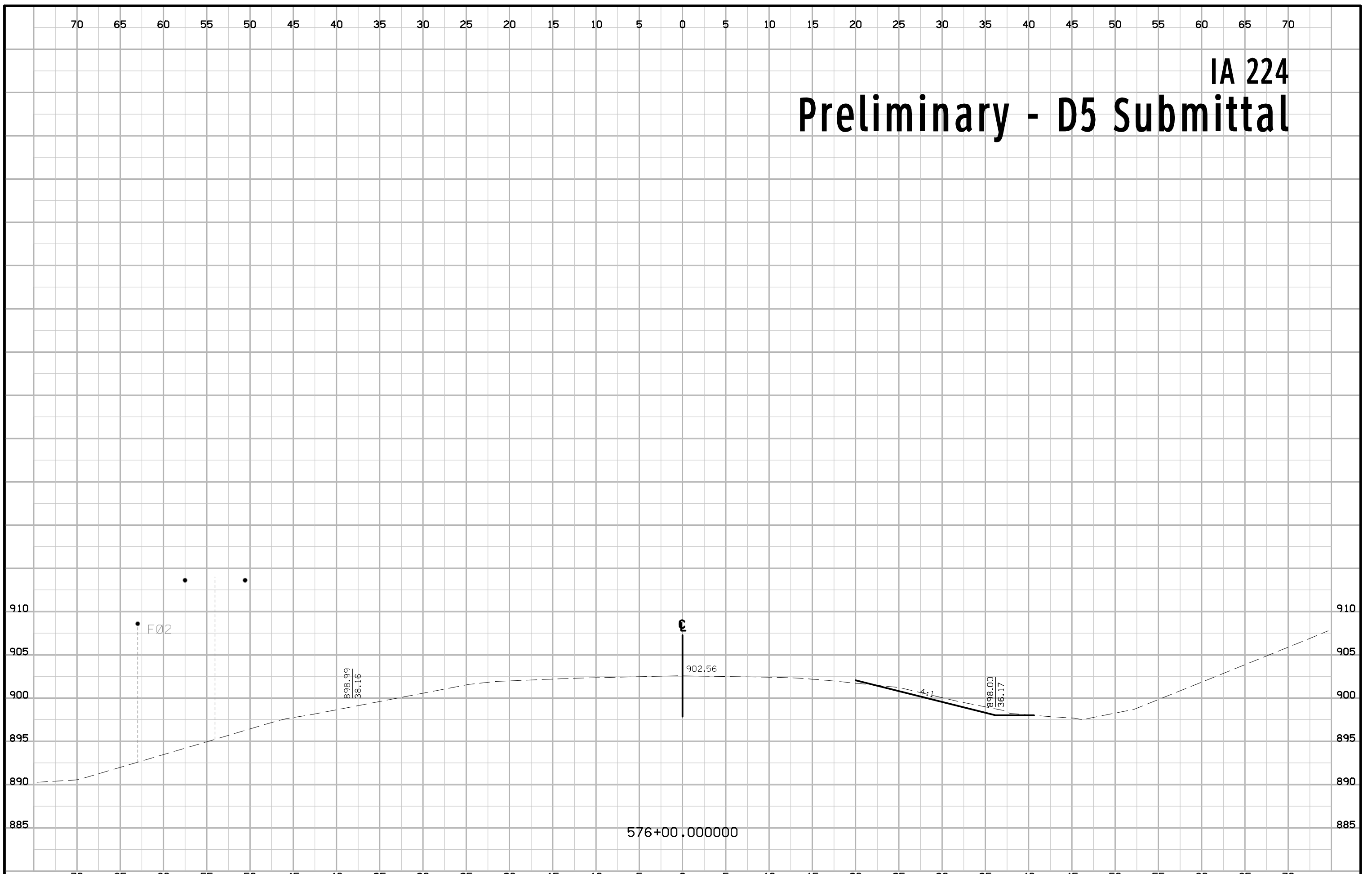
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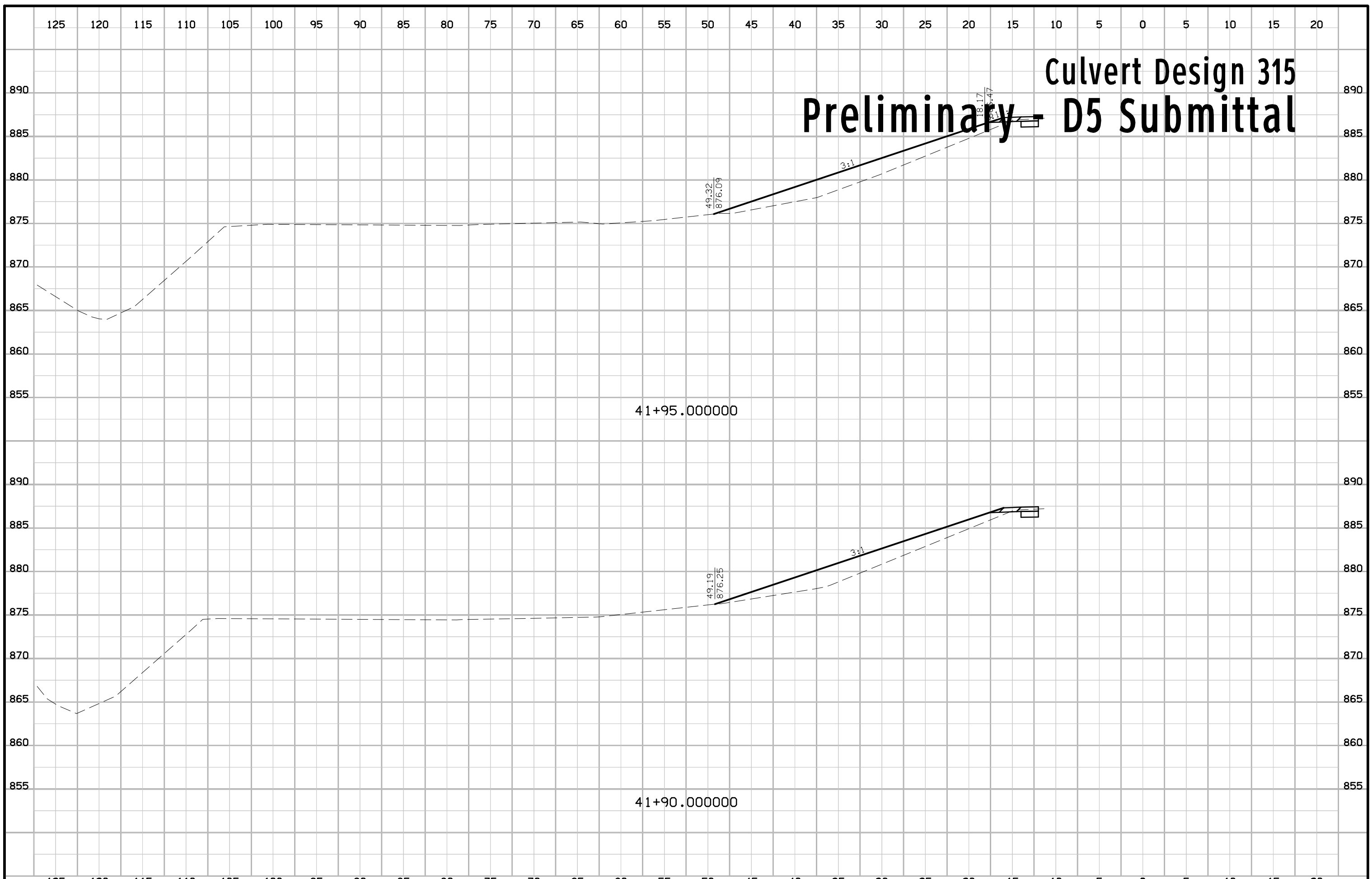
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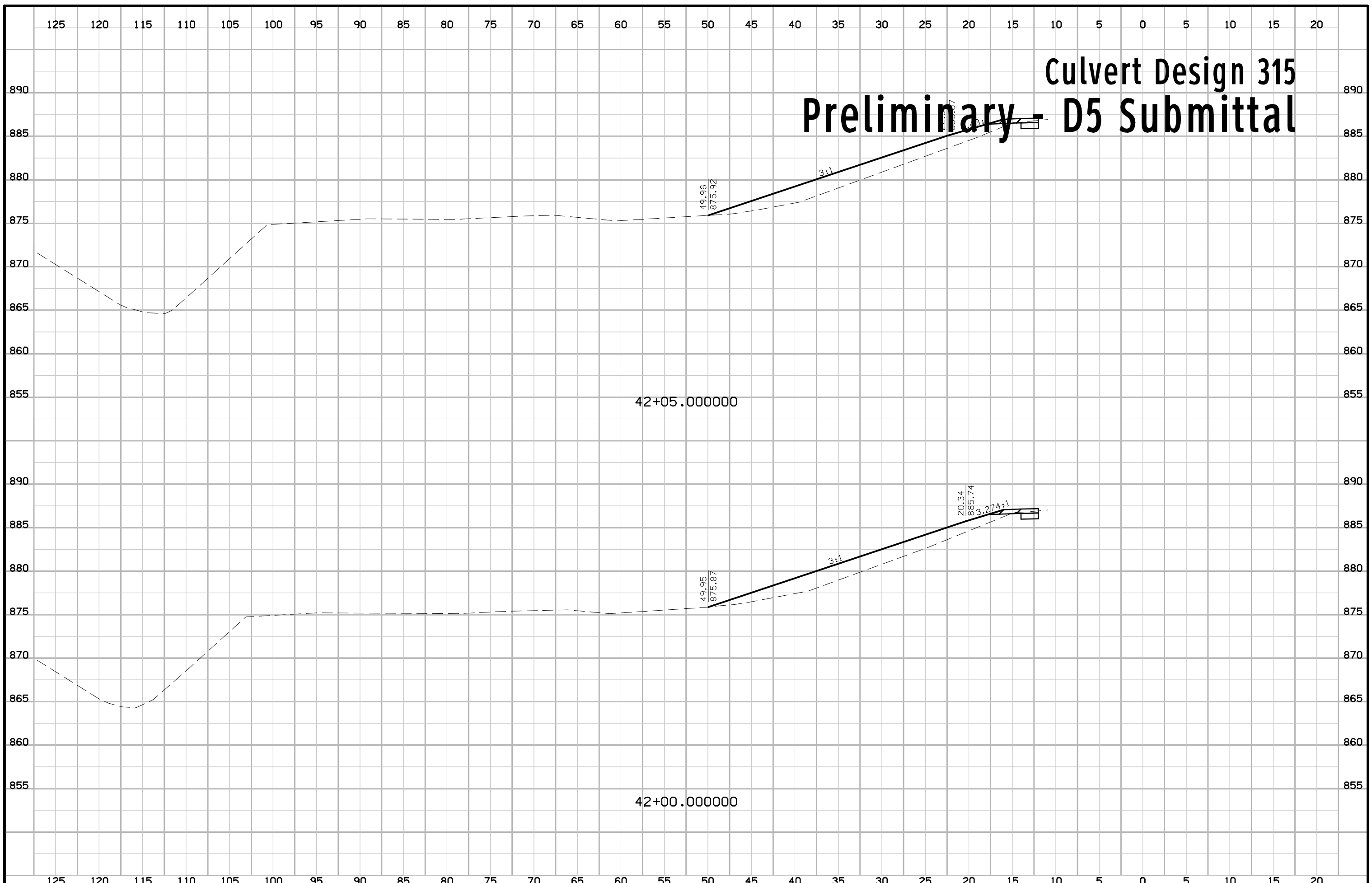
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Culvert Design 315 Preliminary - D5 Submittal

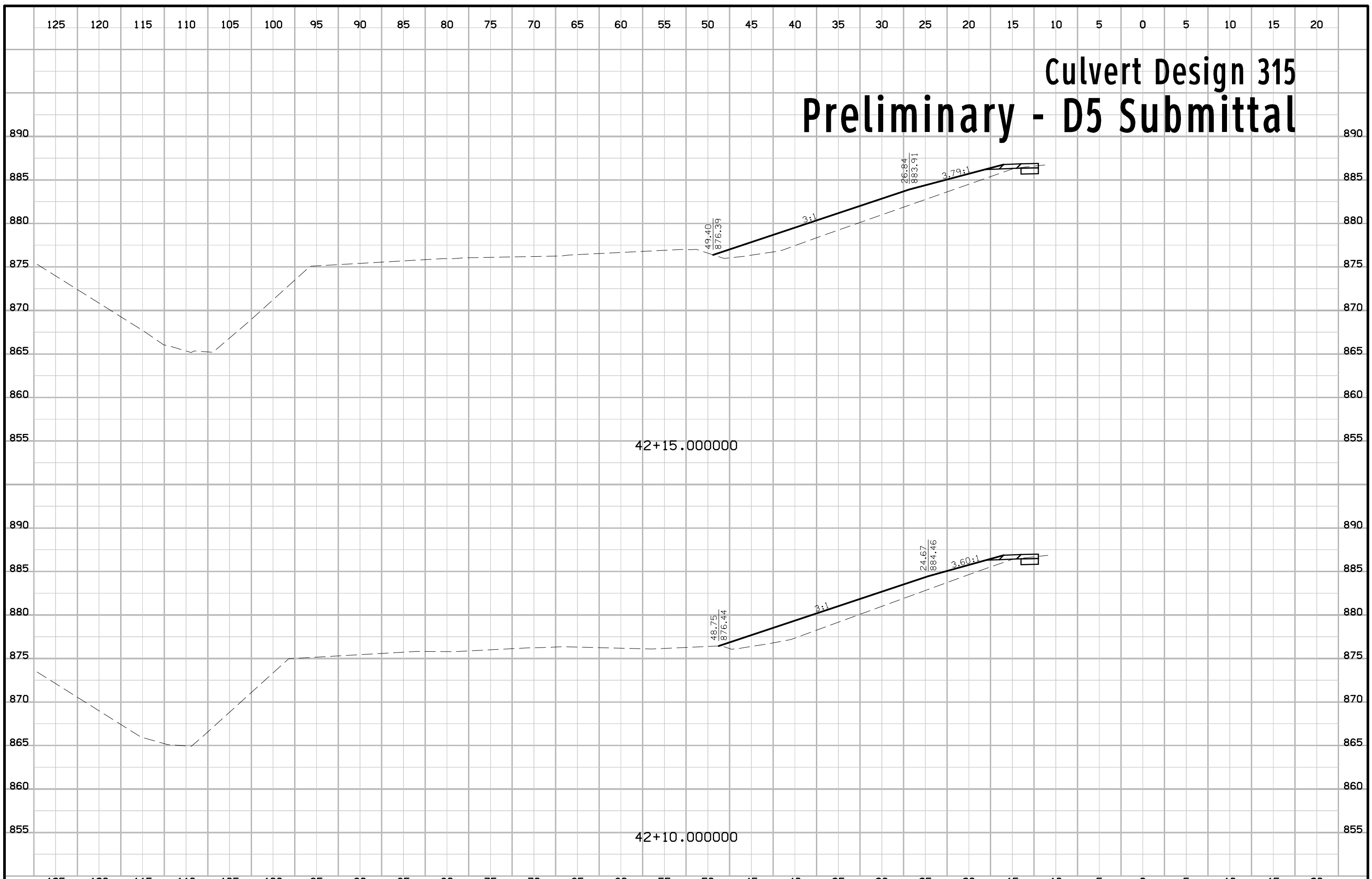


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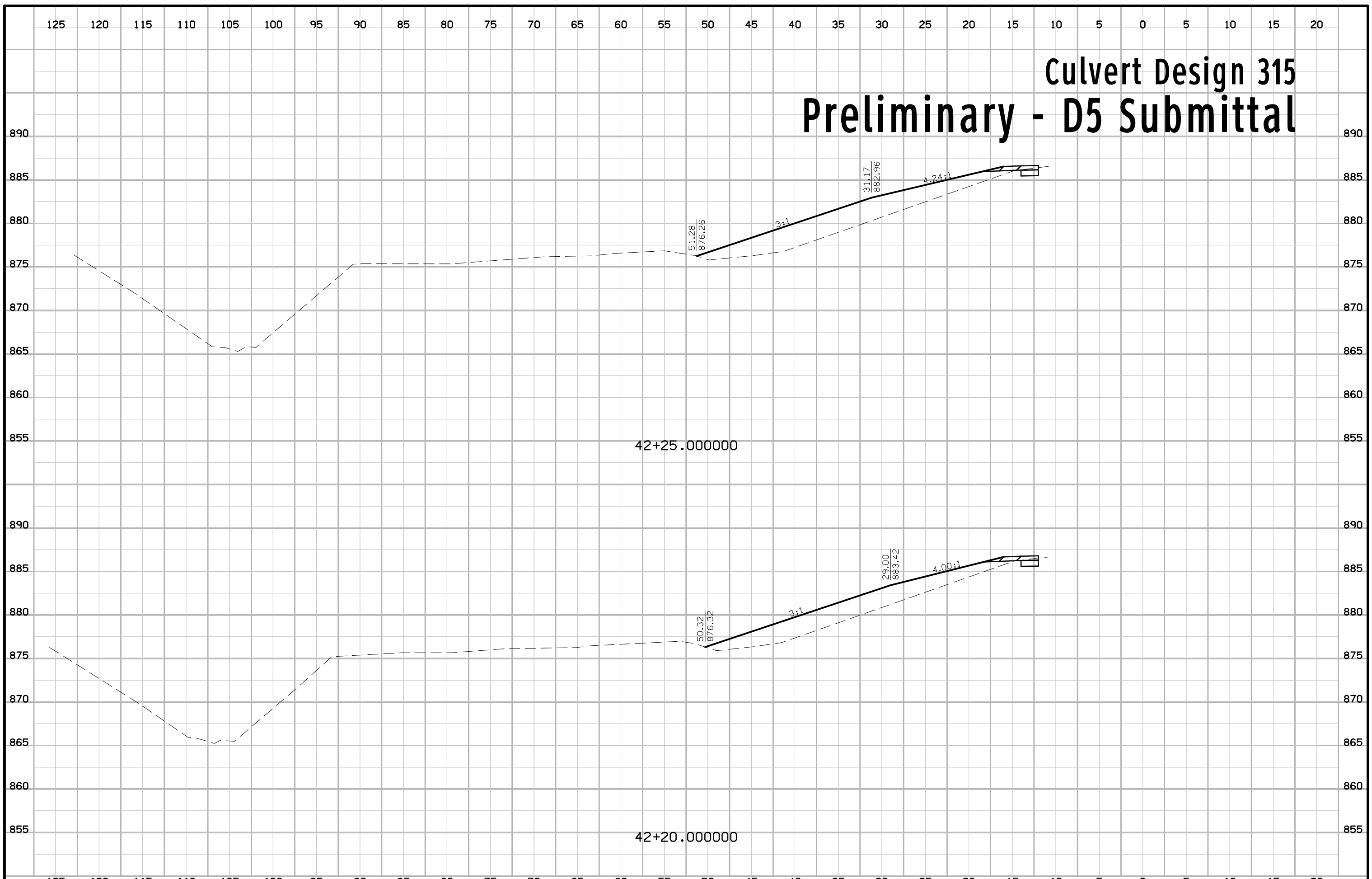
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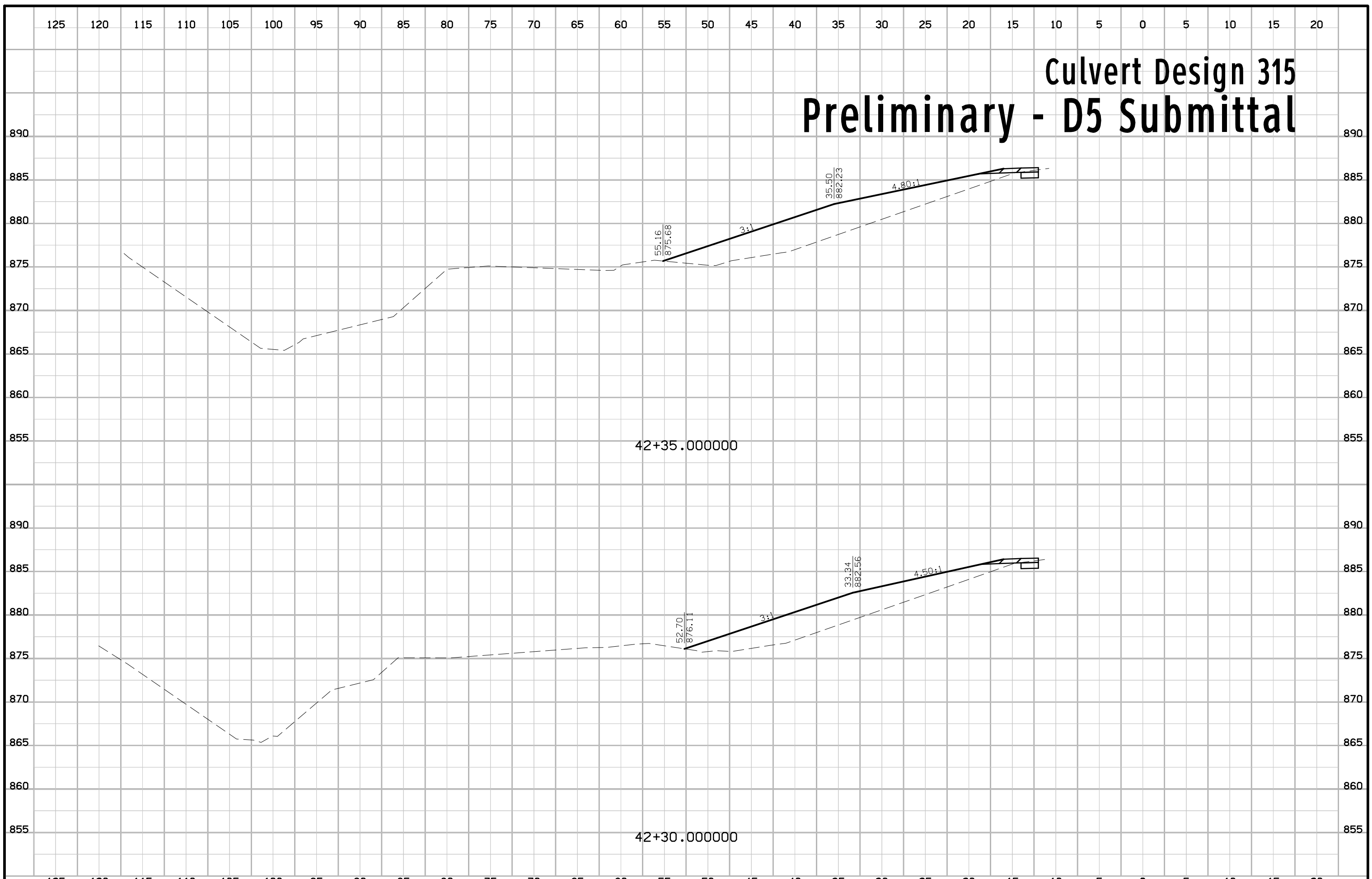
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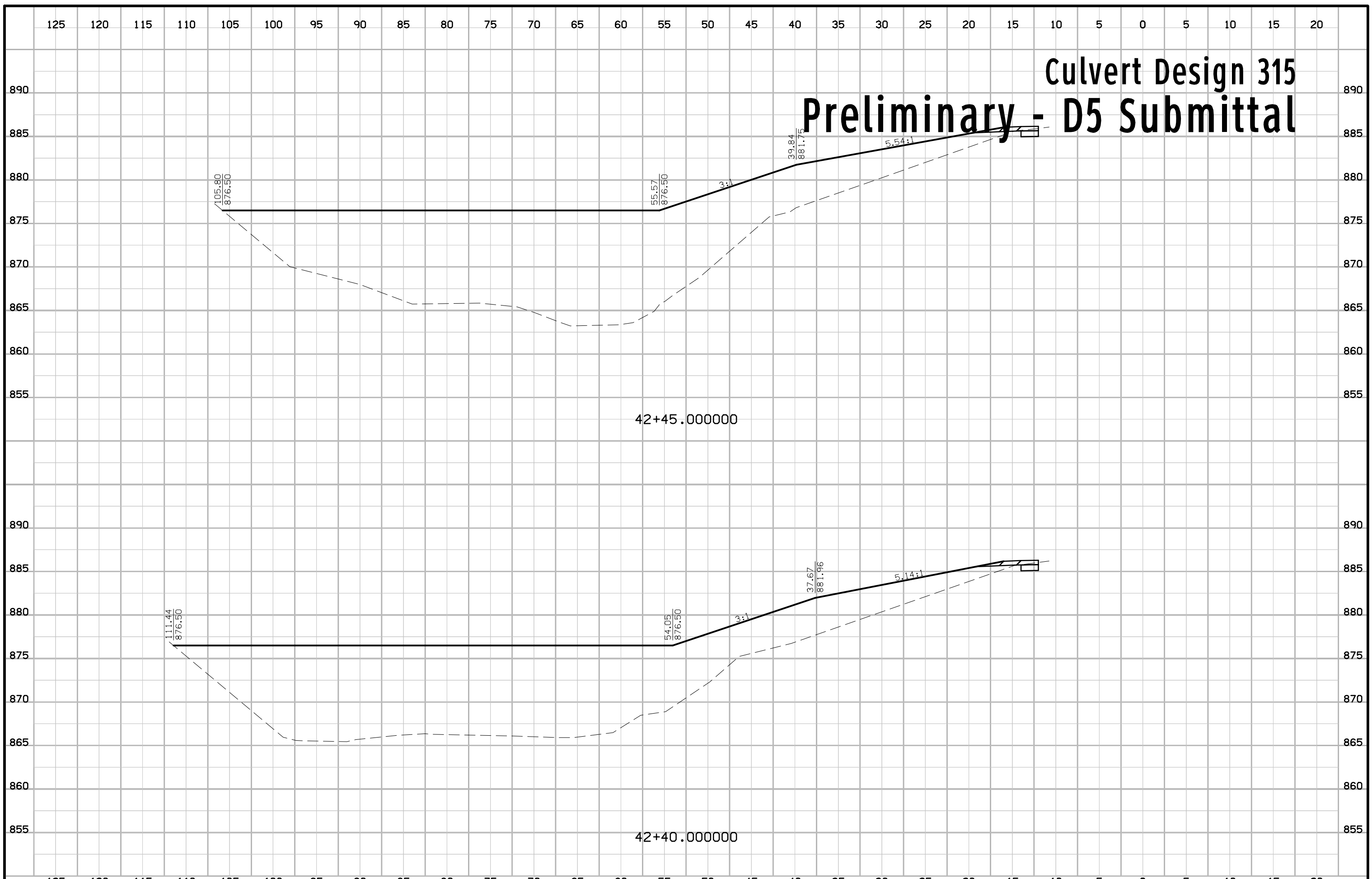
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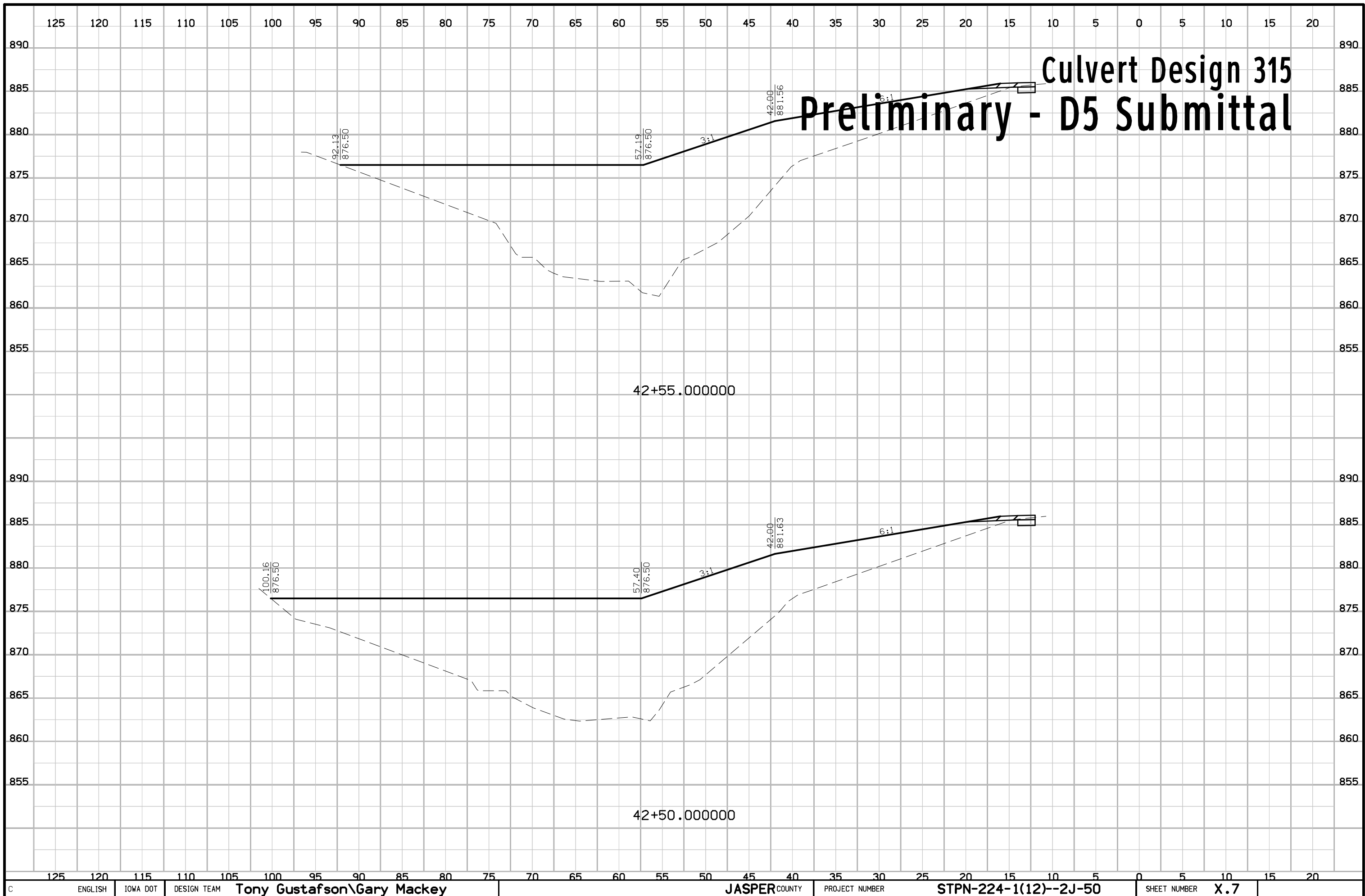
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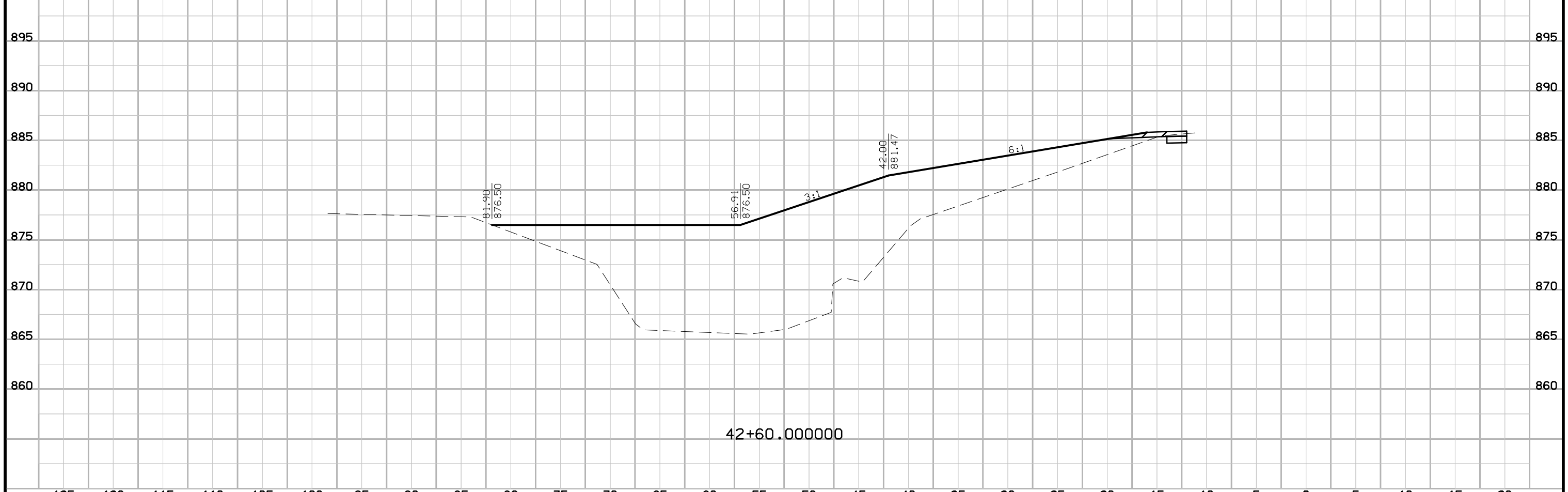
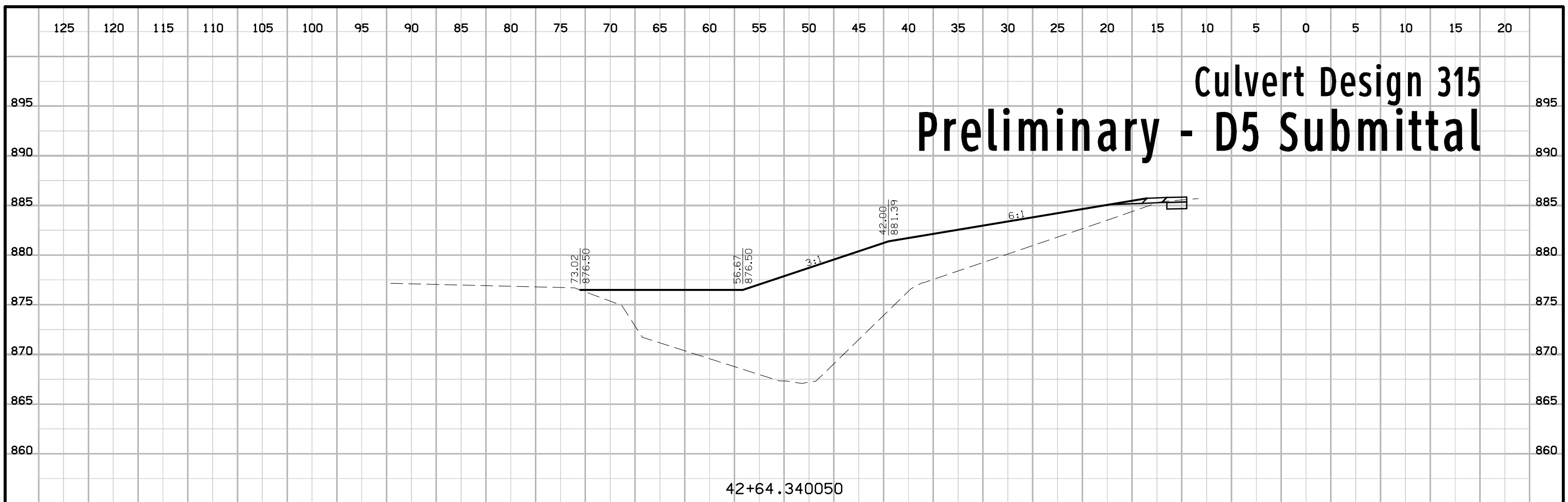
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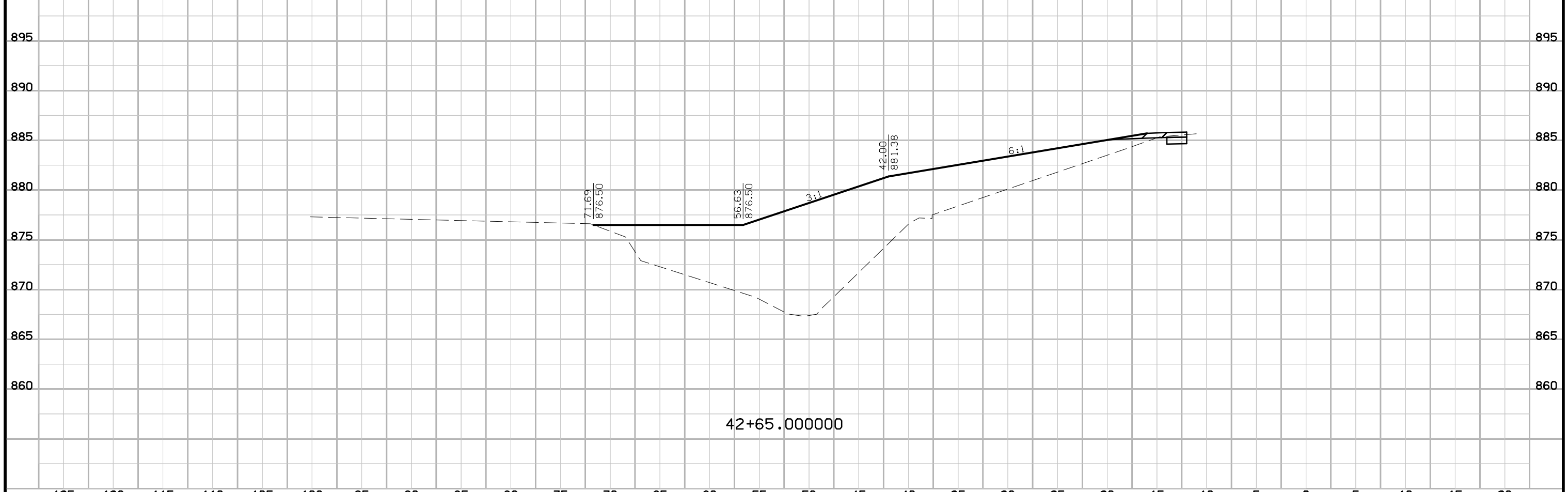
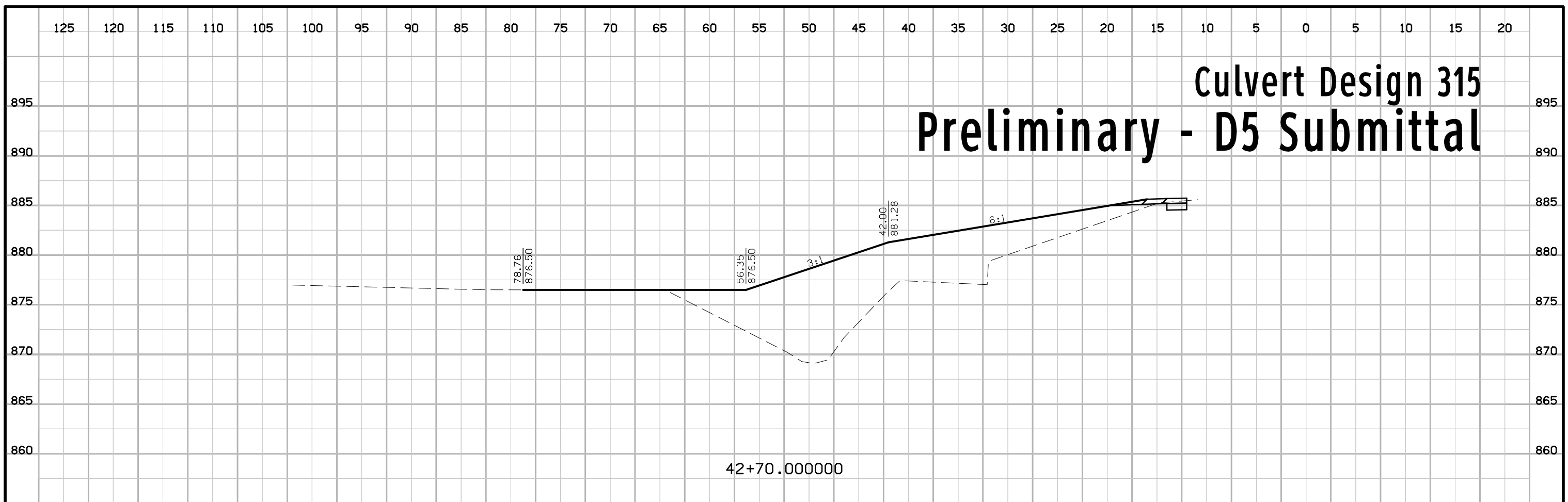
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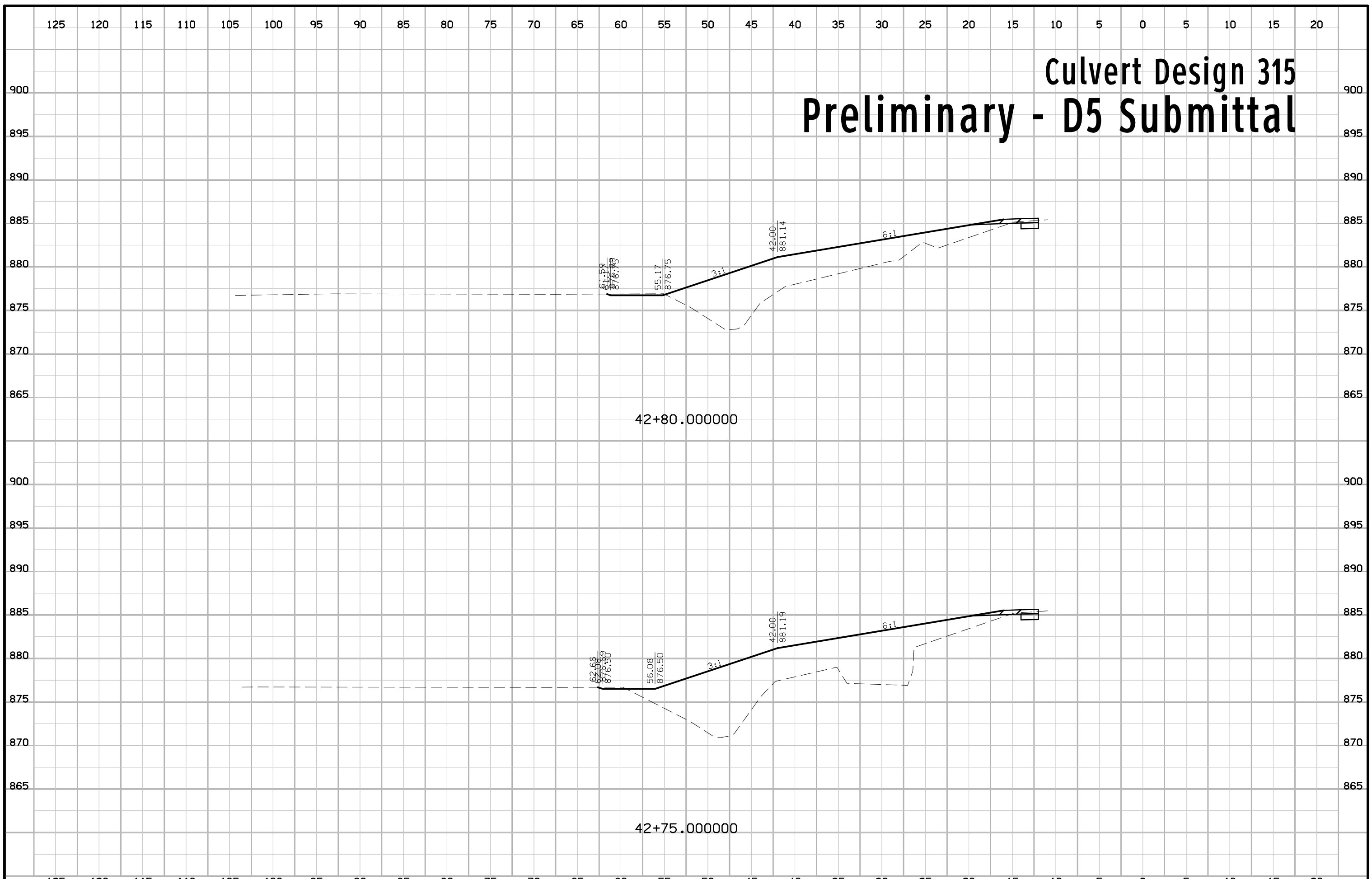
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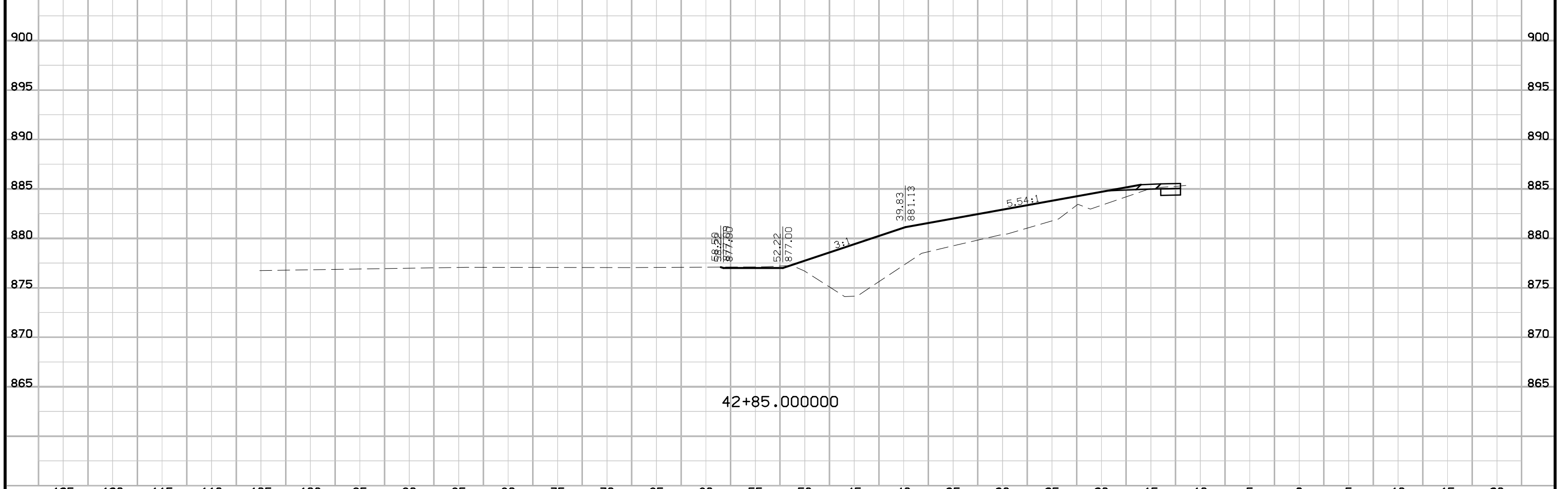
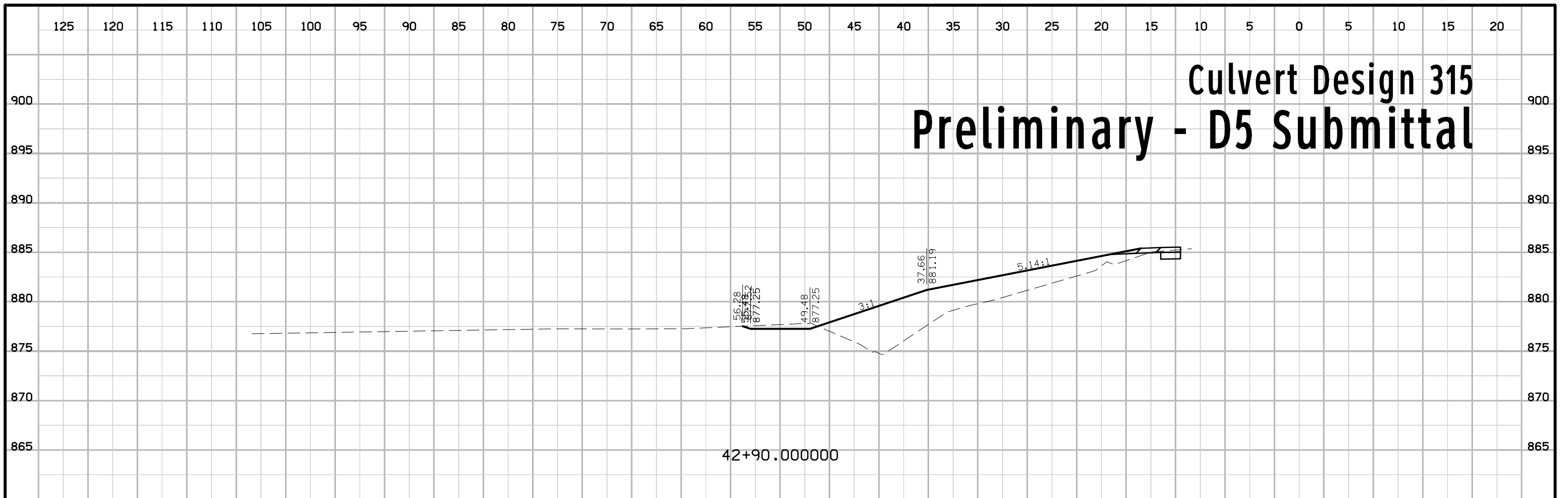
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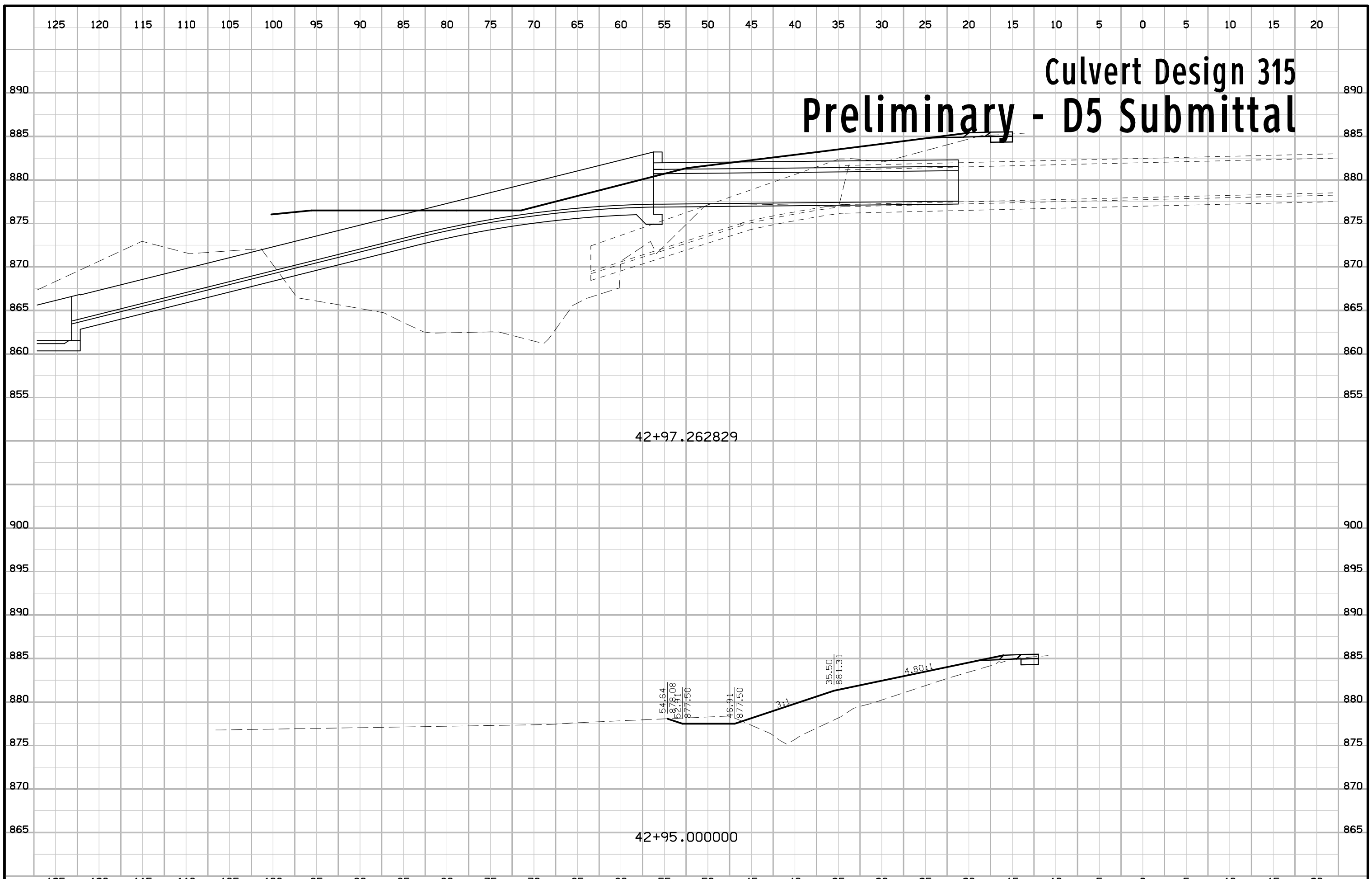
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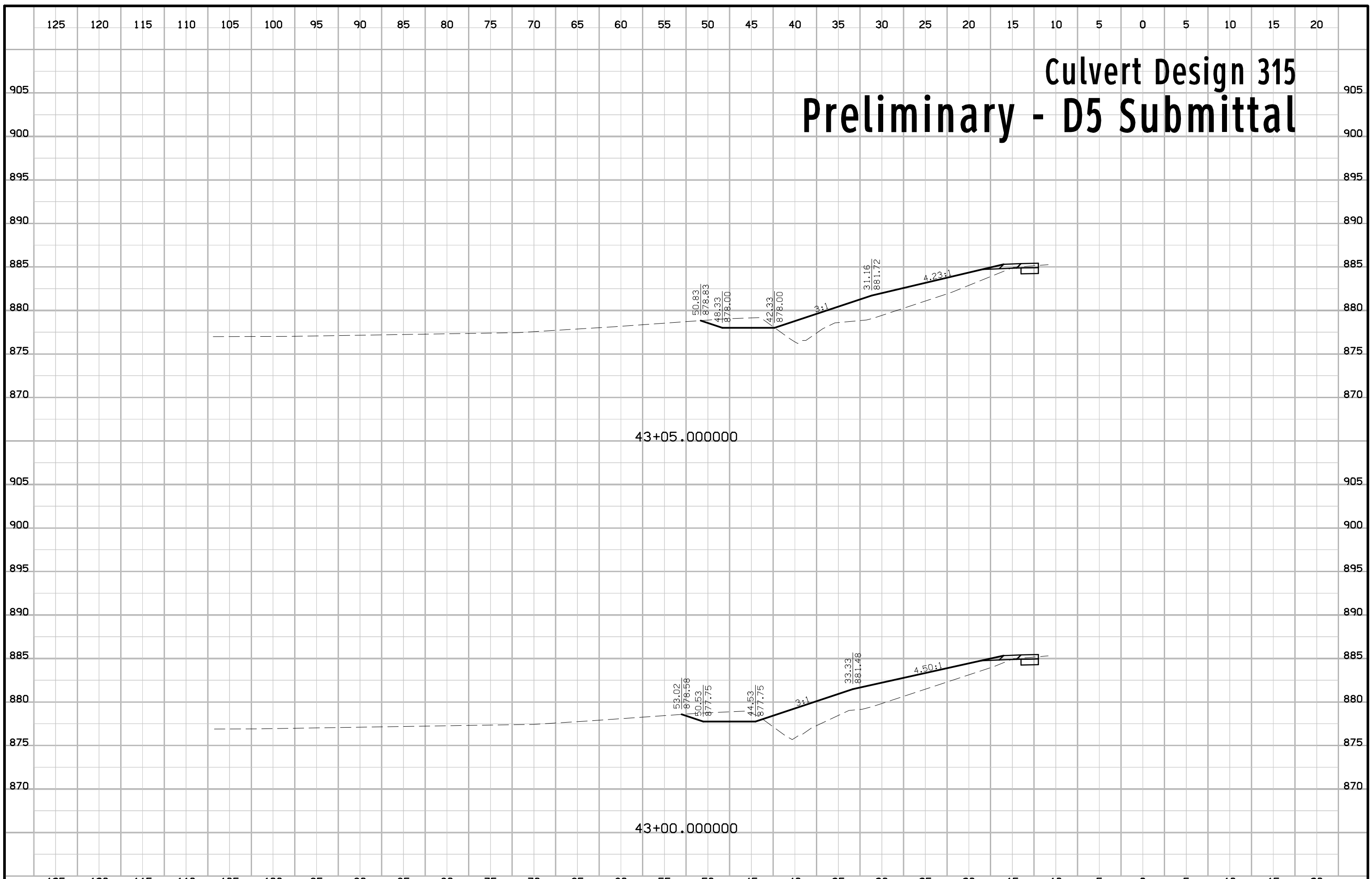


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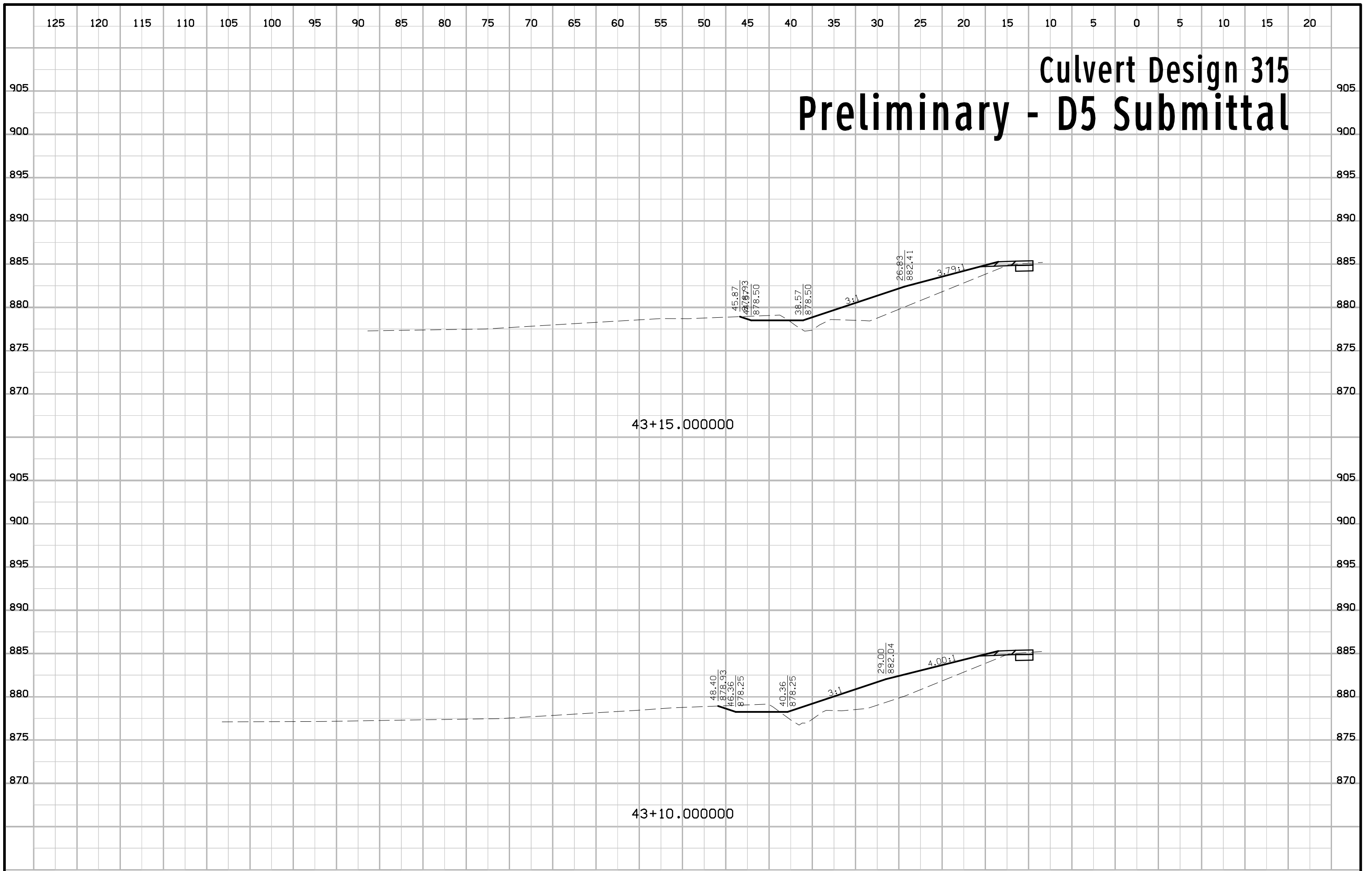
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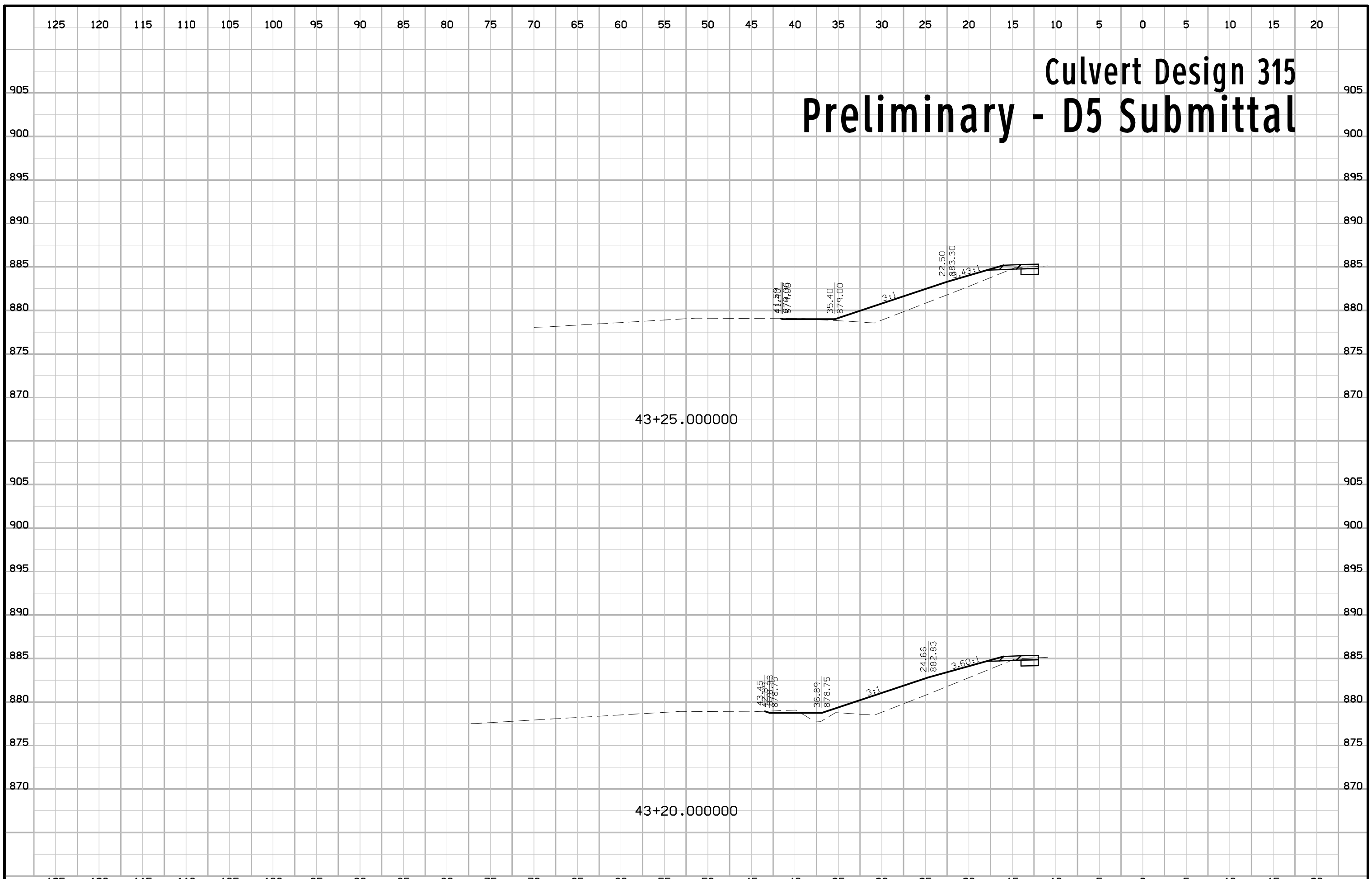
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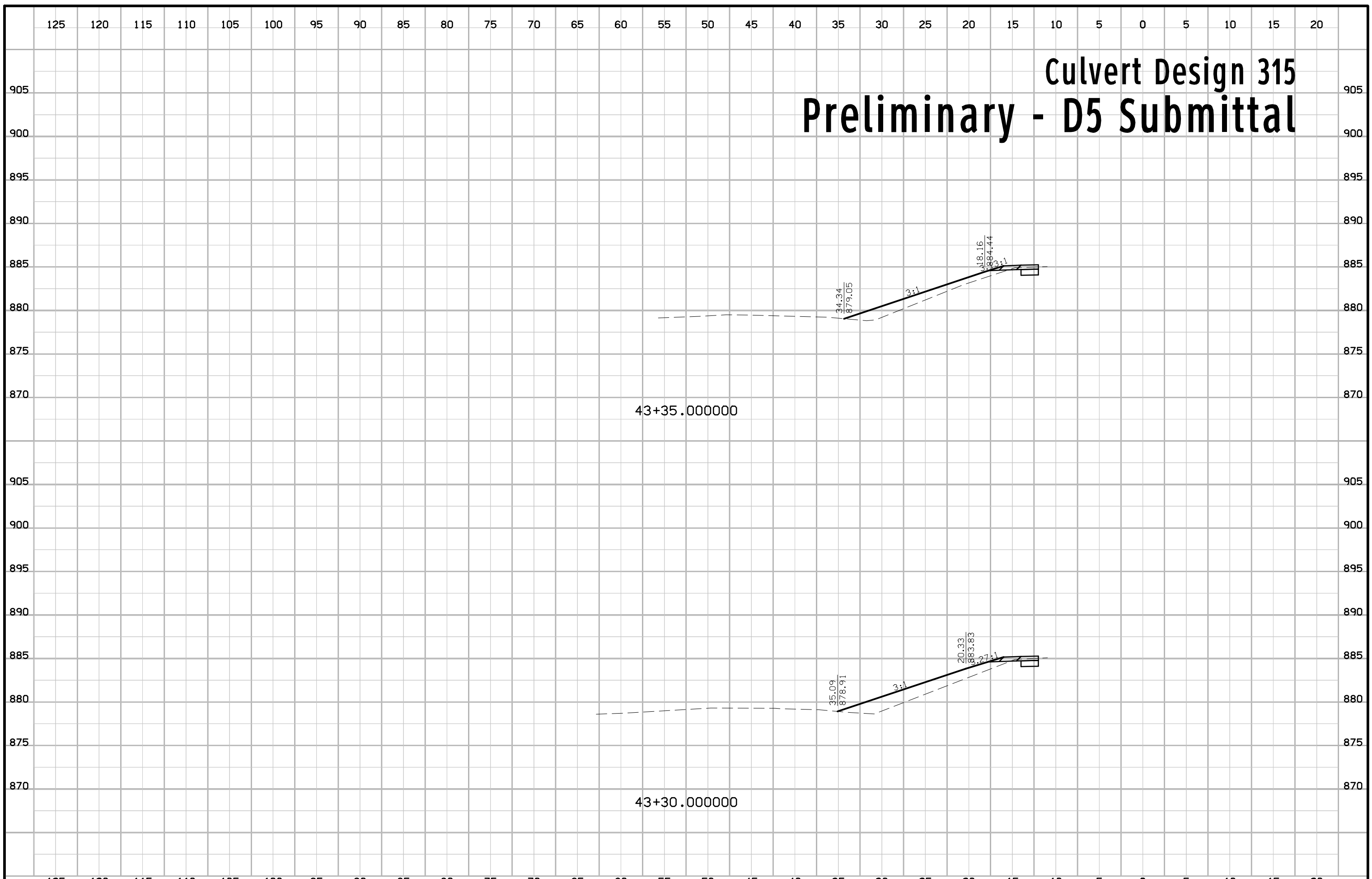
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