STATE	PROJECT	SHEET NUMBER
WY	PLD GRTE 710(1)	3A.1

U. S. DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND TETON NATIONAL PARK

PLANS FOR PROPOSED PROJECT

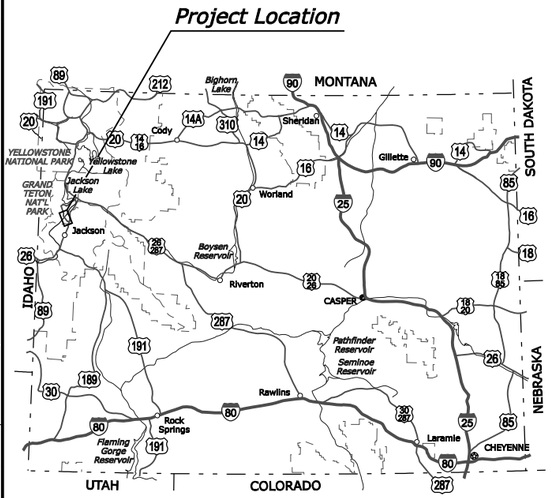
WY PLD GRTE 710(1)
NPS PKG. NO. 114407

GRAND TETON PARK PATHWAYS
PHASE I

(PART THREE OF THREE)

TETON COUNTY
WYOMING

LENGTH 12.69 KILOMETERS



WYOMING KEY MAP

WORLD HERITAGE SITE

TYPE OF CONSTRUCTION:

Grading, aggregate base, asphalt concrete paving and structural

DESIGN DESIGNATION:

AADT (2003)	*N/A*
AADT (2023)	*N/A*
V	*N/A*
e (max)	*N/A*

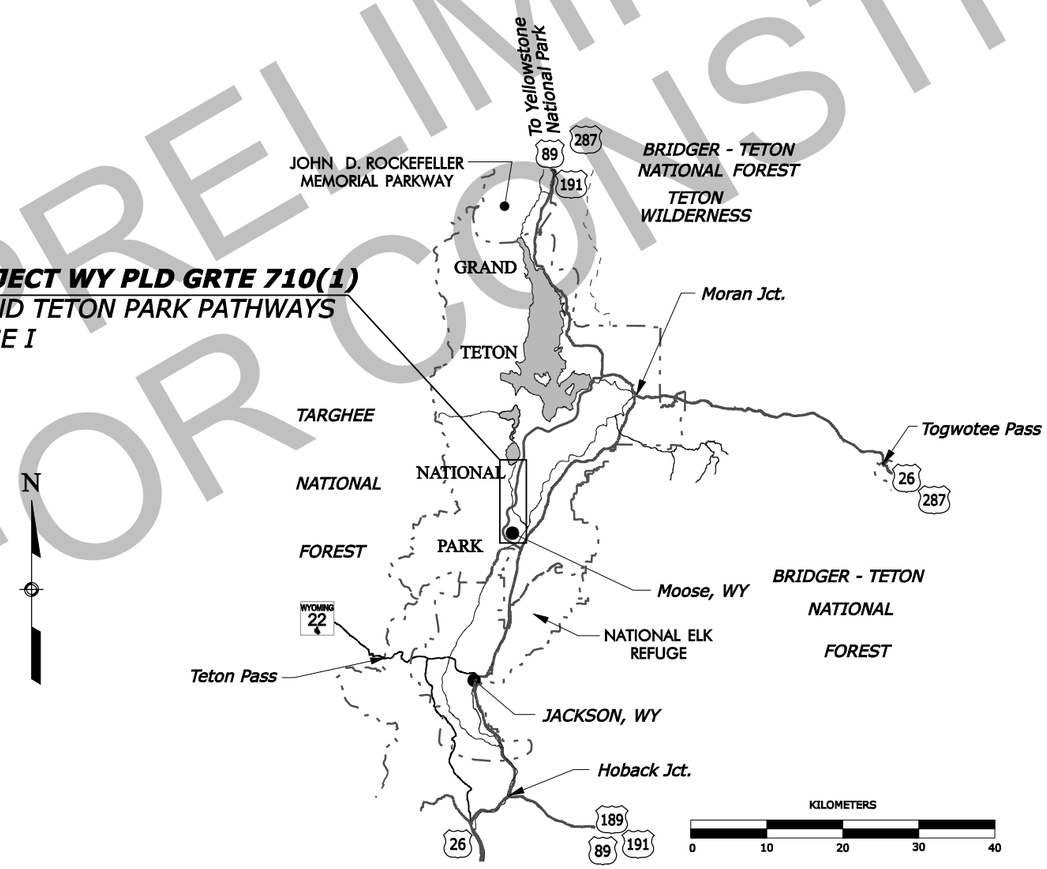
SPECIFICATION:

Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 Metric Units

FEDERAL LANDS HIGHWAY
Metric
COMMITMENT TO EXCELLENCE

PLANS PREPARED BY
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WESTERN FEDERAL LANDS HIGHWAY DIVISION
VANCOUVER, WASHINGTON

PROJECT WY PLD GRTE 710(1)
GRAND TETON PARK PATHWAYS
PHASE I



INDEX TO SHEETS FOR PART THREE

3A. GENERAL INFORMATION
3A.1 TITLE SHEET
3A.2 PLAN SYMBOLS AND ABBREVIATIONS
3A.3 VICINITY MAP

3B. SUMMARIES
3B.1 SUMMARY OF QUANTITIES

3C. TYPICAL SECTIONS
3C.1 TYPICAL SECTIONS
3C.2
3C.3

3D. PLAN-PROFILE

3E. PATHWAY CONNECTIONS AND APPROACHES

3F. BRIDGE AND STRUCTURES

3G. EROSION CONTROL

3H. TEMPORARY TRAFFIC CONTROL PLAN

3I. PERMANENT TRAFFIC CONTROL PLAN

RECOMMENDED:

_____ DATE _____
Director, Project Delivery,
Western Federal Lands Highway Division

APPROVED:

_____ DATE _____
Superintendent,
Grand Teton National Park

NPS Drwg. No. 136/80200

PRELIMINARY
NOT FOR CONSTRUCTION

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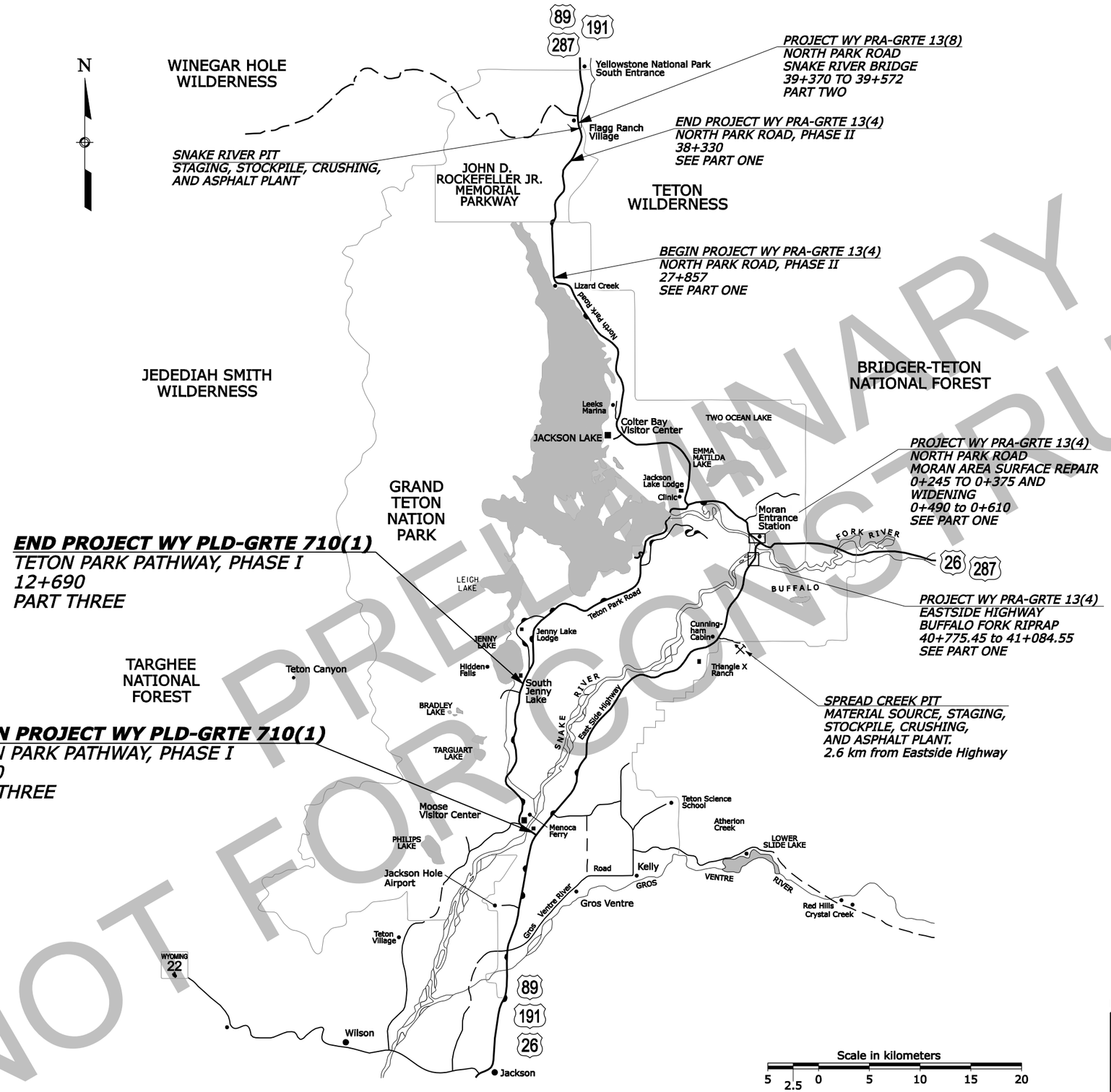

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NPS Pkg. No. 114407 Drwg. No. 136/80200

VICINITY MAP

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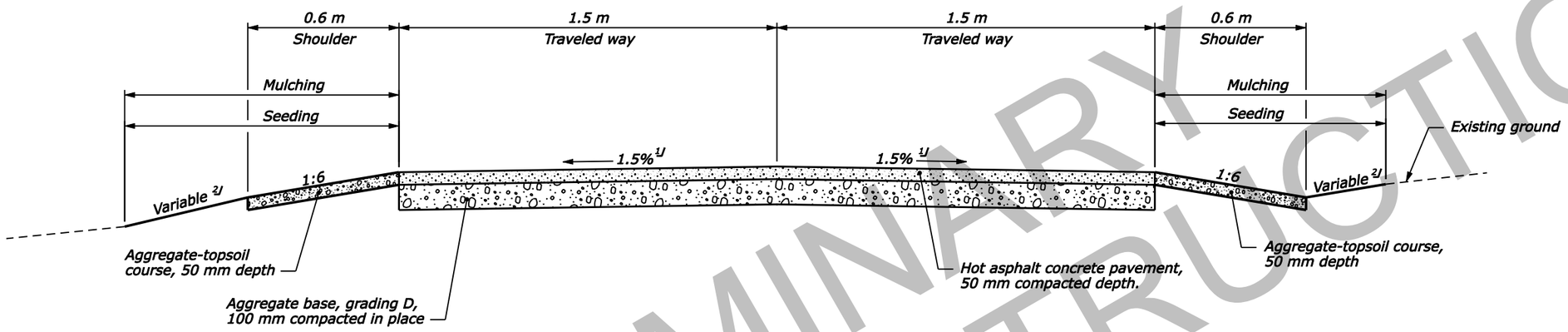
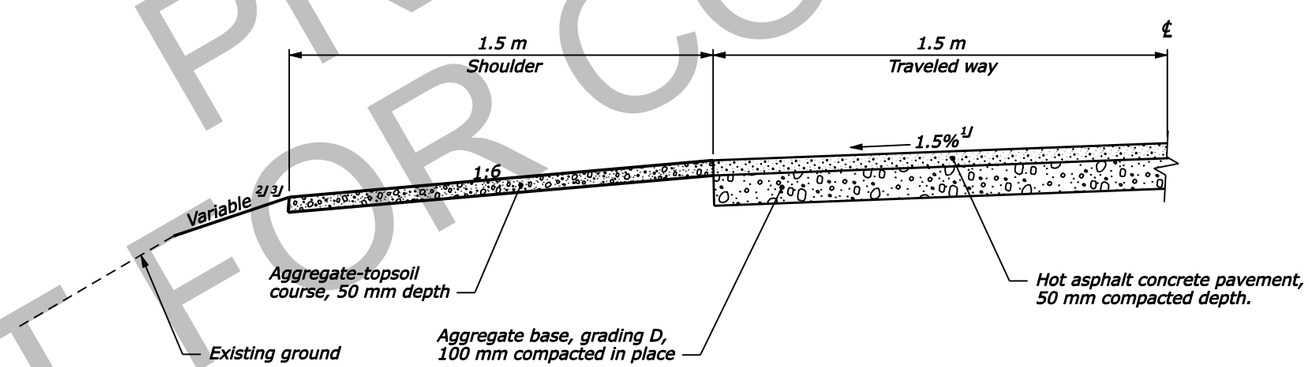


GRAND TETON PARK PATHWAY
0+000 to 12+690 4/



GRAND TETON PARK PATHWAY
(EXPANDED SHOULDER)
X+XXX to X+XXX
X+XXX to X+XXX

NOTE:

1. Place conserved topsoil on finished slopes and utilized conserved topsoil in production of Aggregate-topsoil course. See Section 624 and Section 305.

FOOTNOTE:

1/ Superelevate pathway as indicated in the Staking Report Data Listing (see FAR Clause 52.236.4).

2/ Construct slopes as shown in the Staking Report Data Listing (see FAR Clause 52.236.4).

3/ Slopes vary and are steeper than 1:3.

4/ See Expanded Shoulder Section.

NPS Pkg. No. 114407 Drwg. No. 136/80200

TYPICAL SECTIONS

PRELIMINARY
NOT FOR CONSTRUCTION

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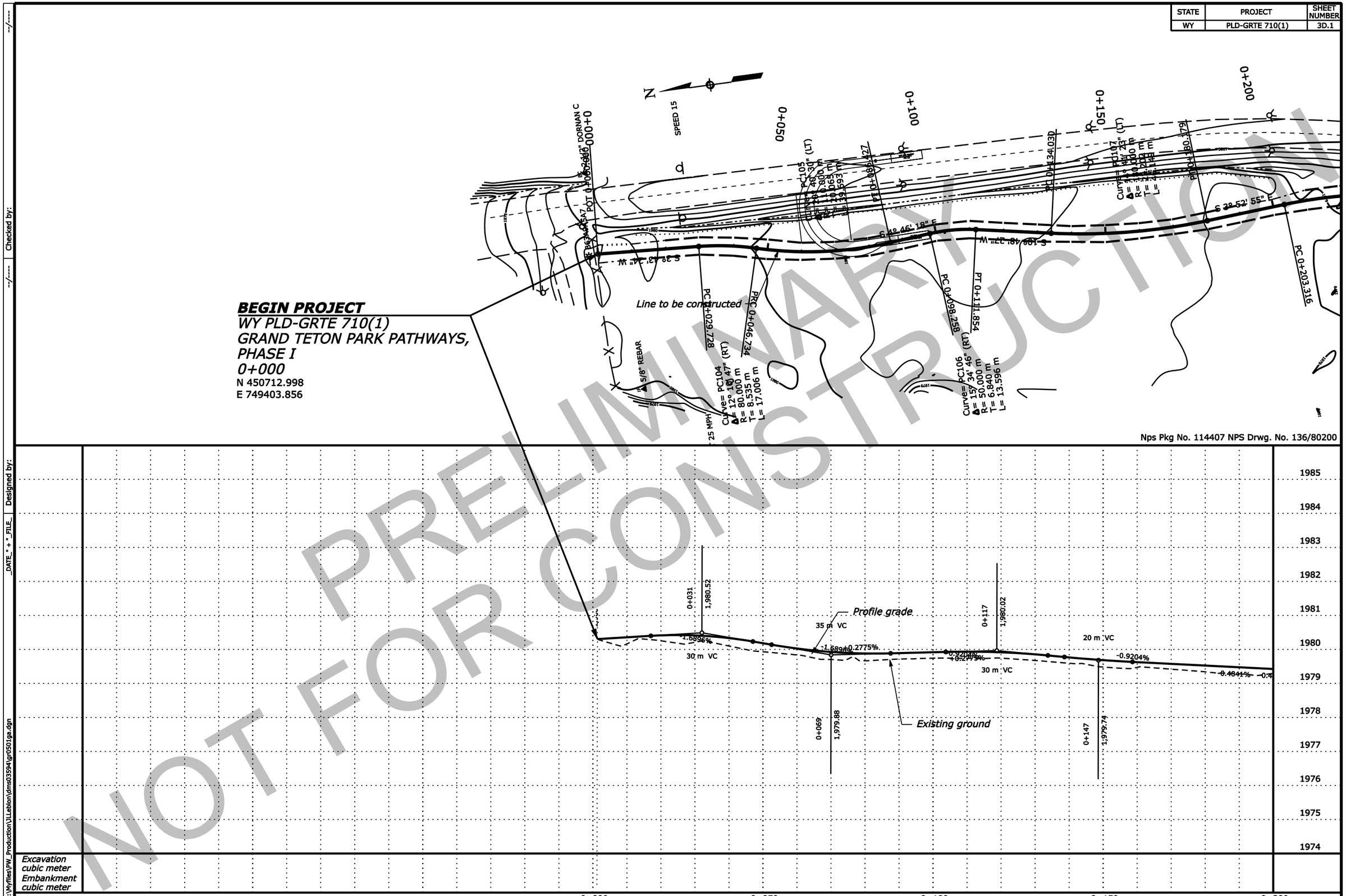

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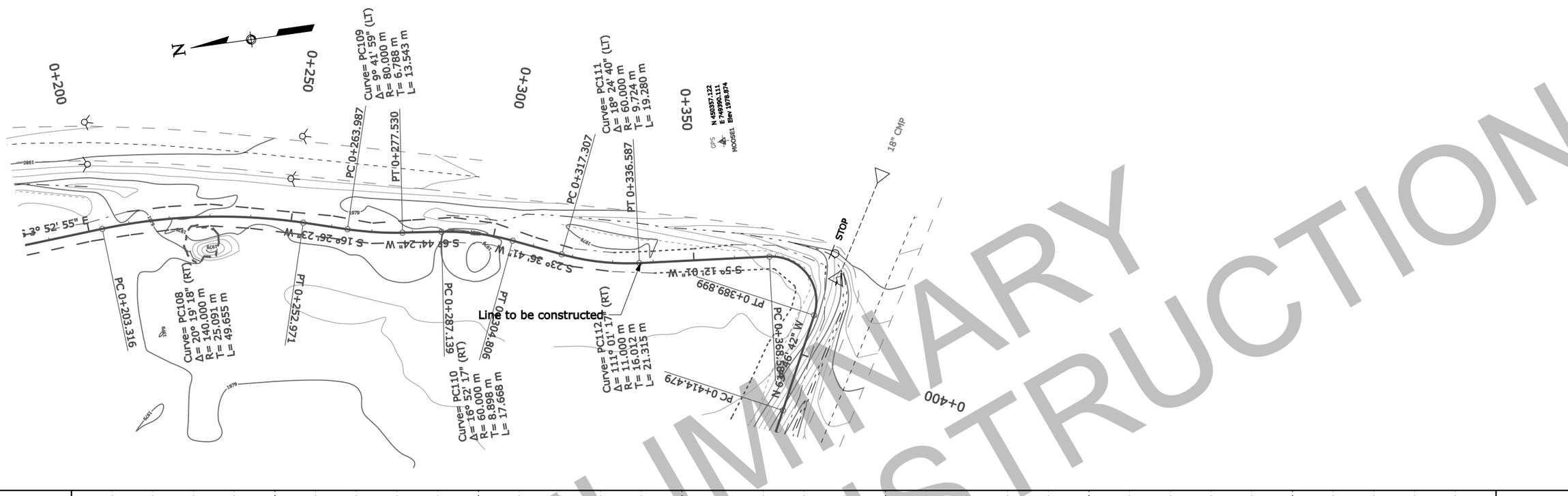

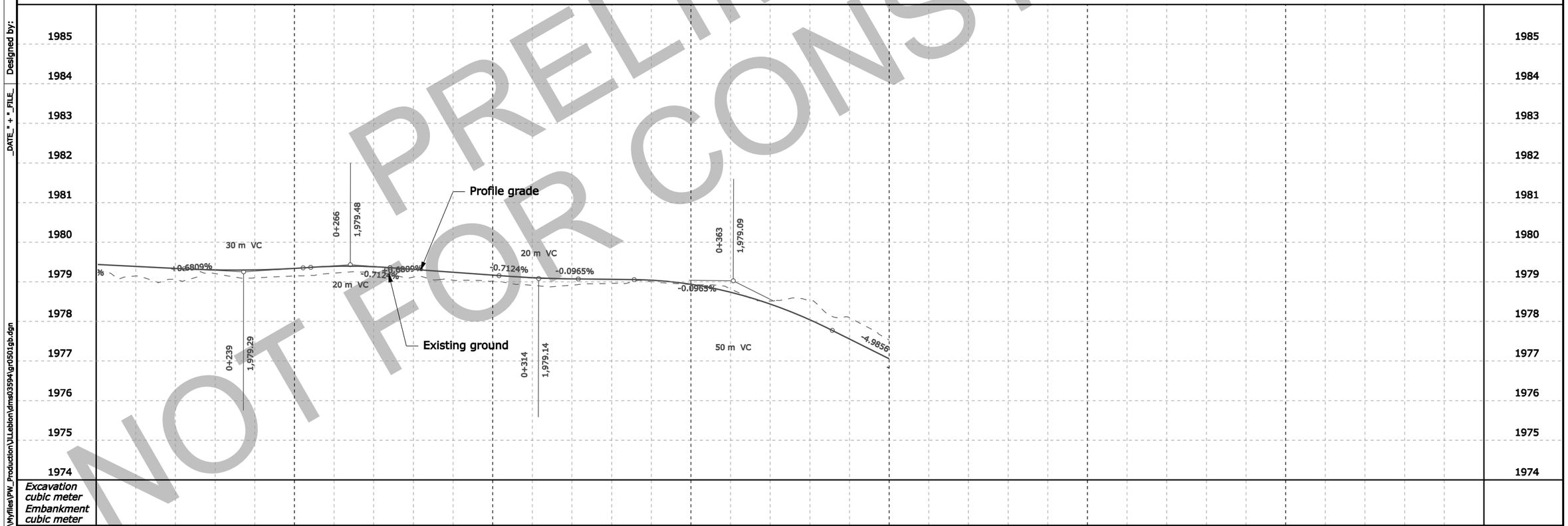

Excavation
cubic meter
Embankment
cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

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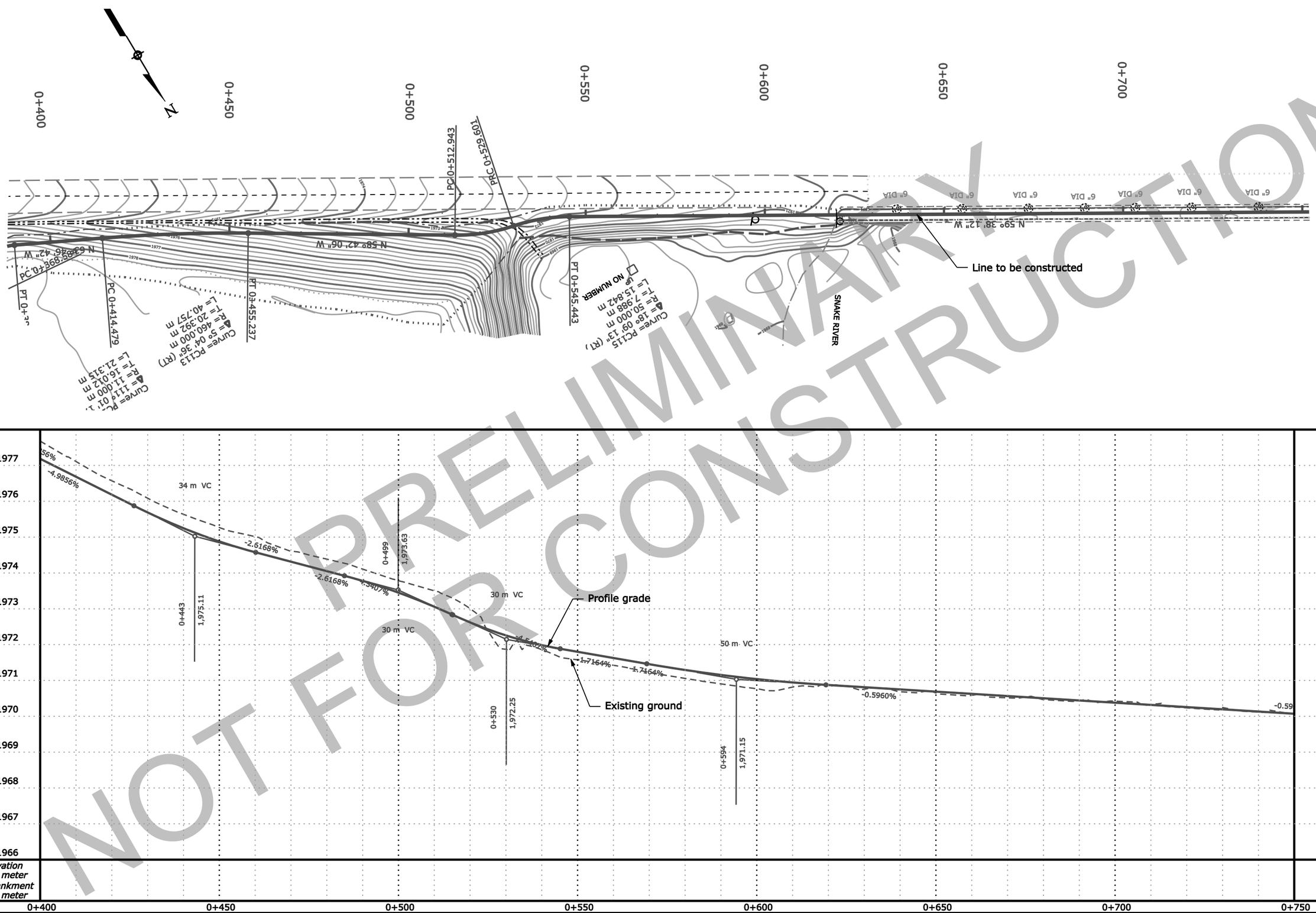

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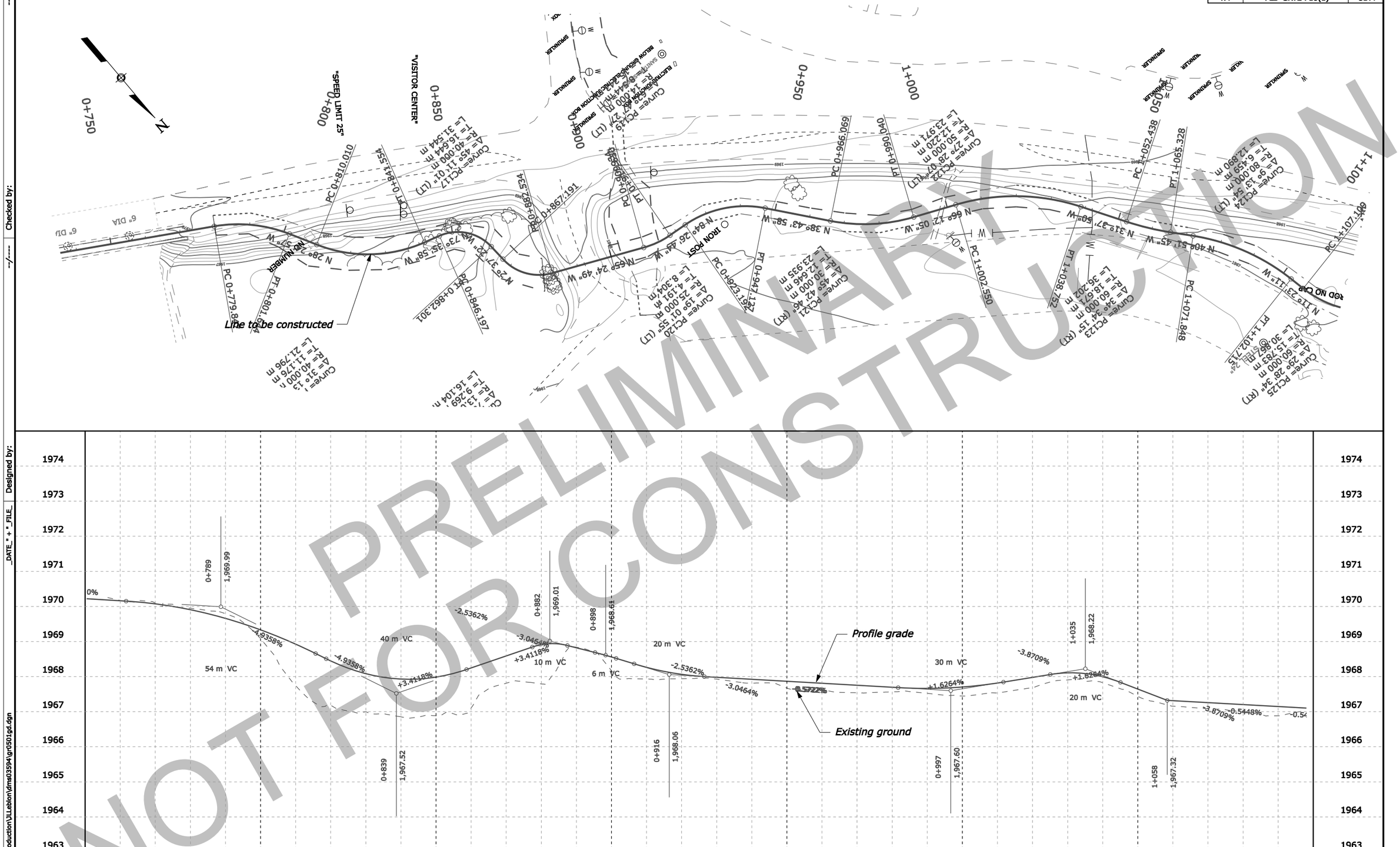

Excavation
cubic meter
Embankment
cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

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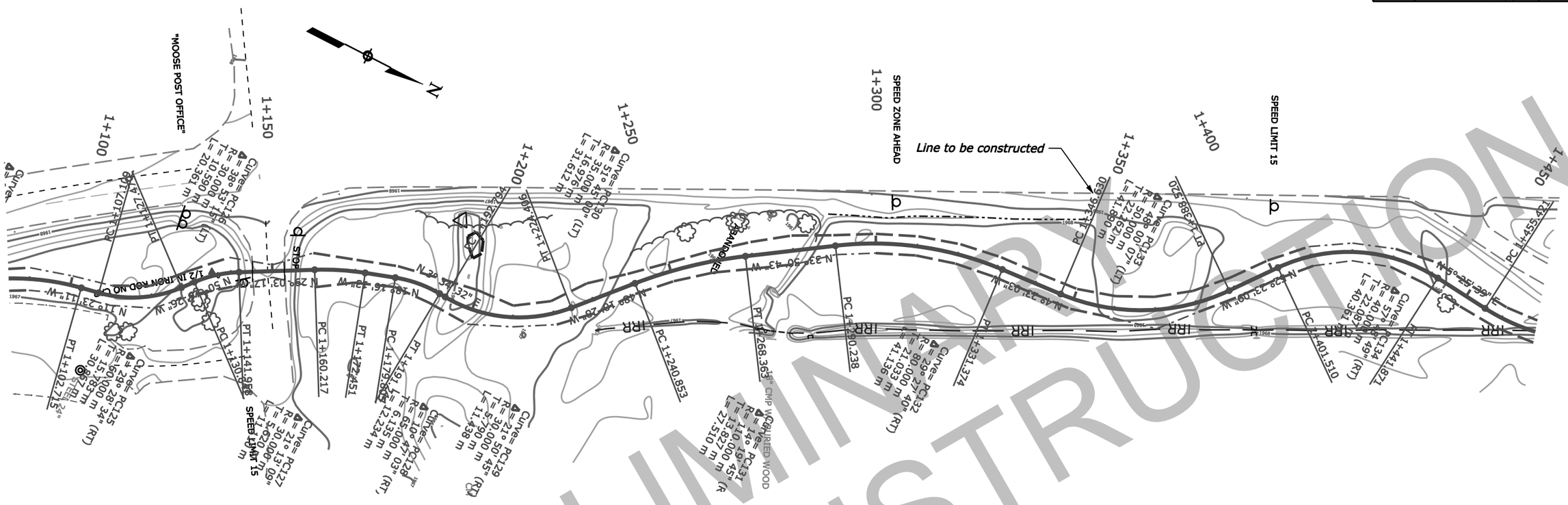

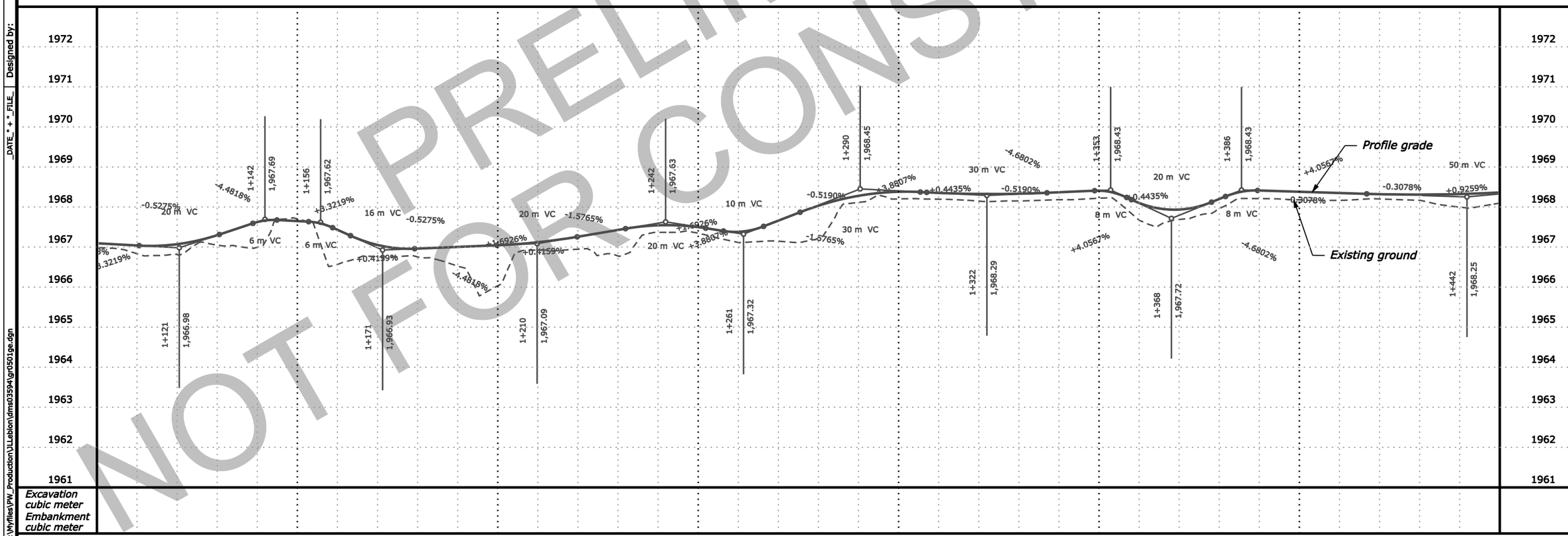

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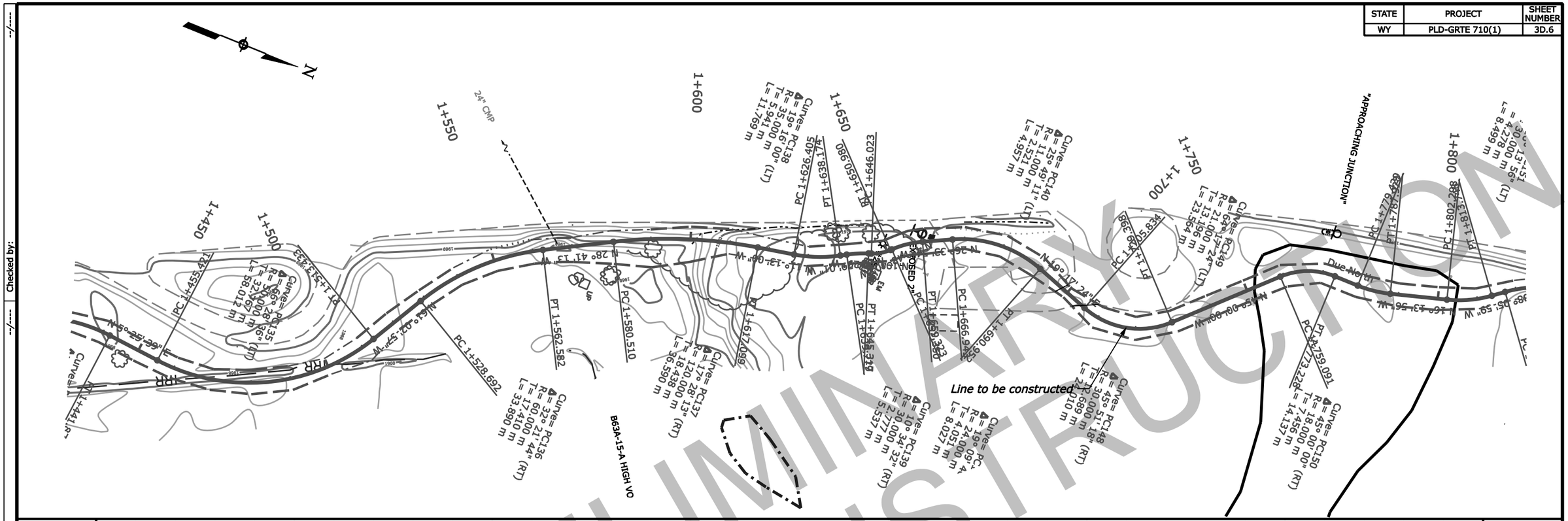

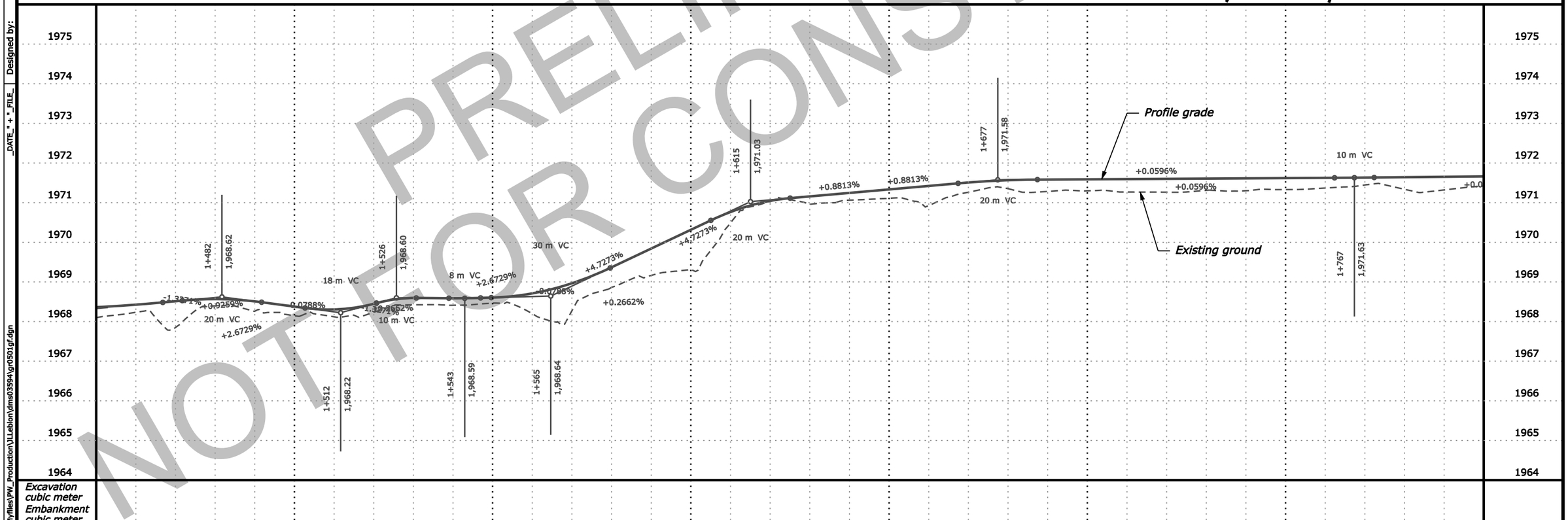

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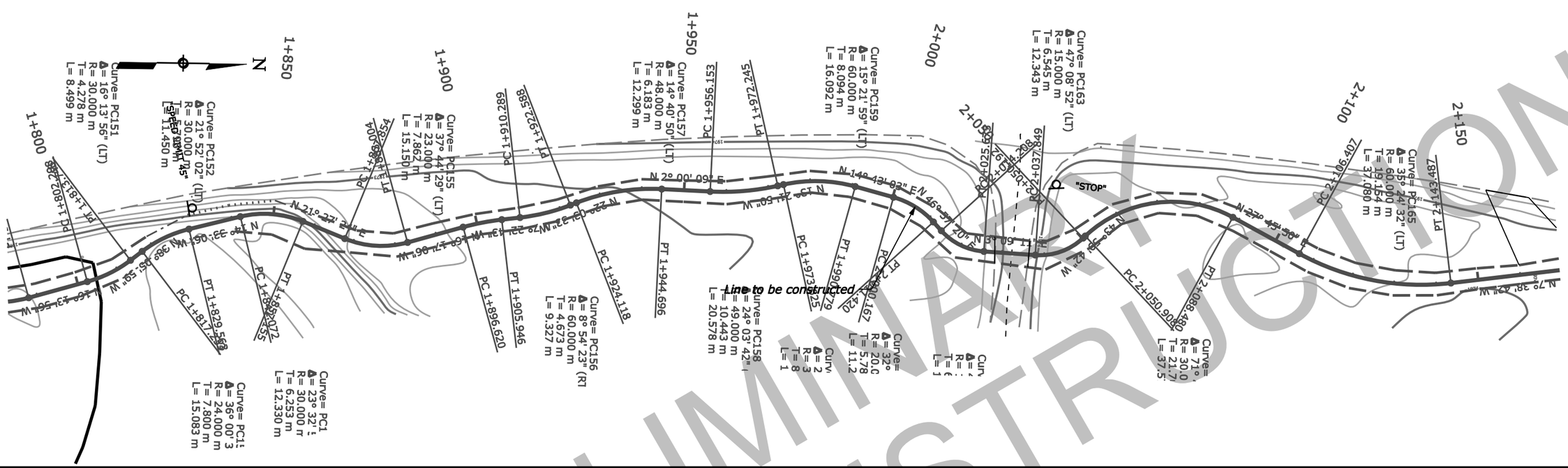

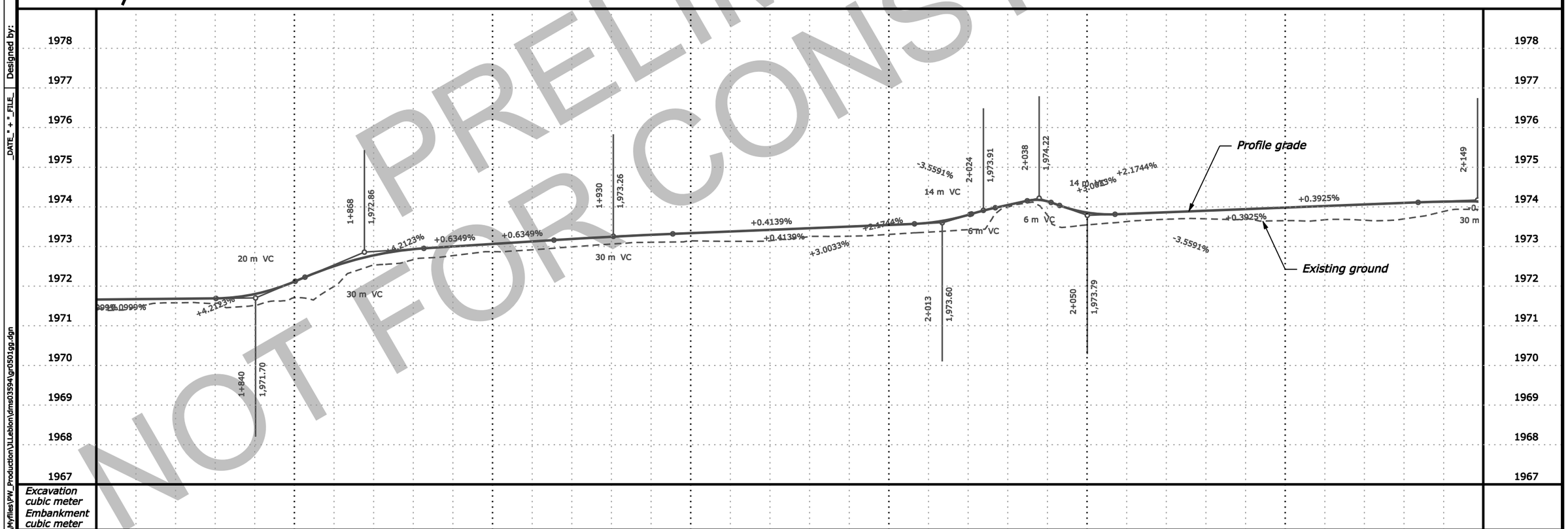

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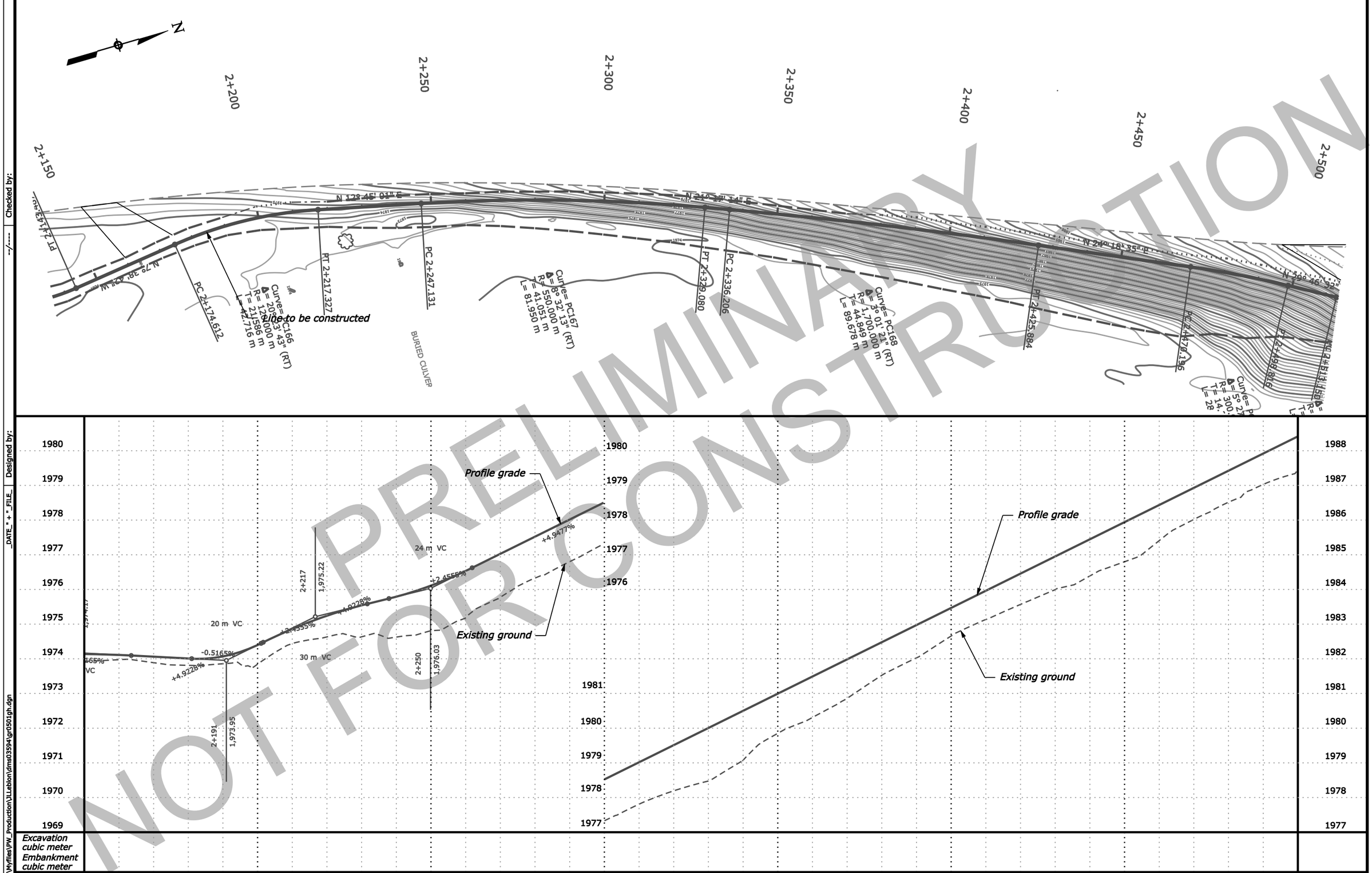

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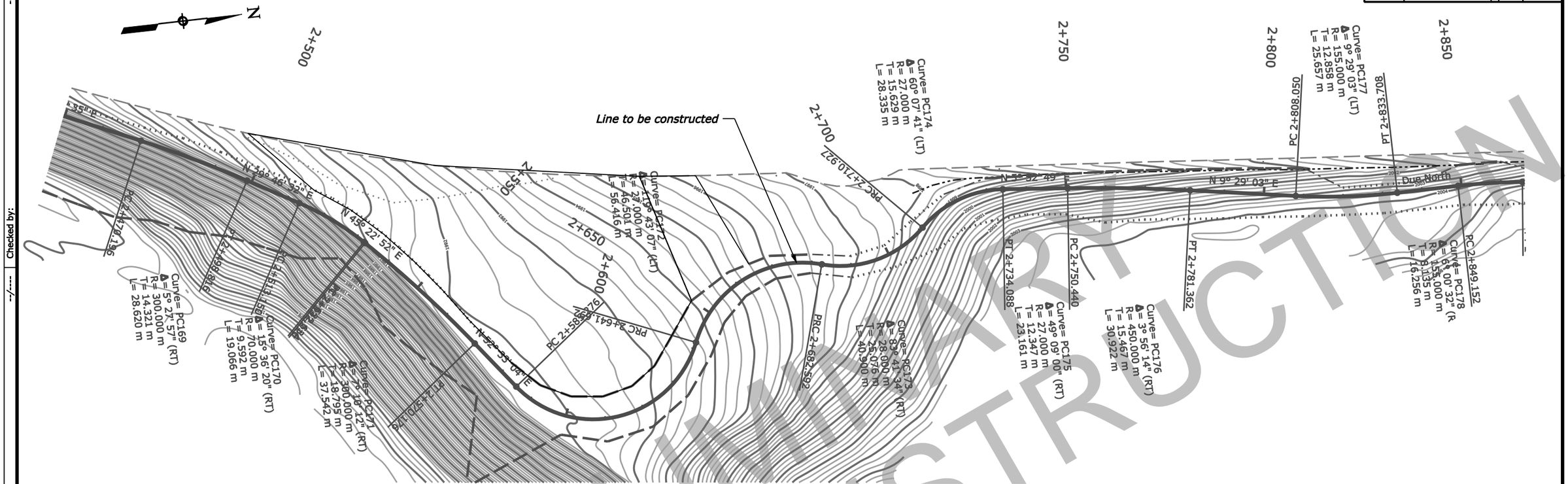

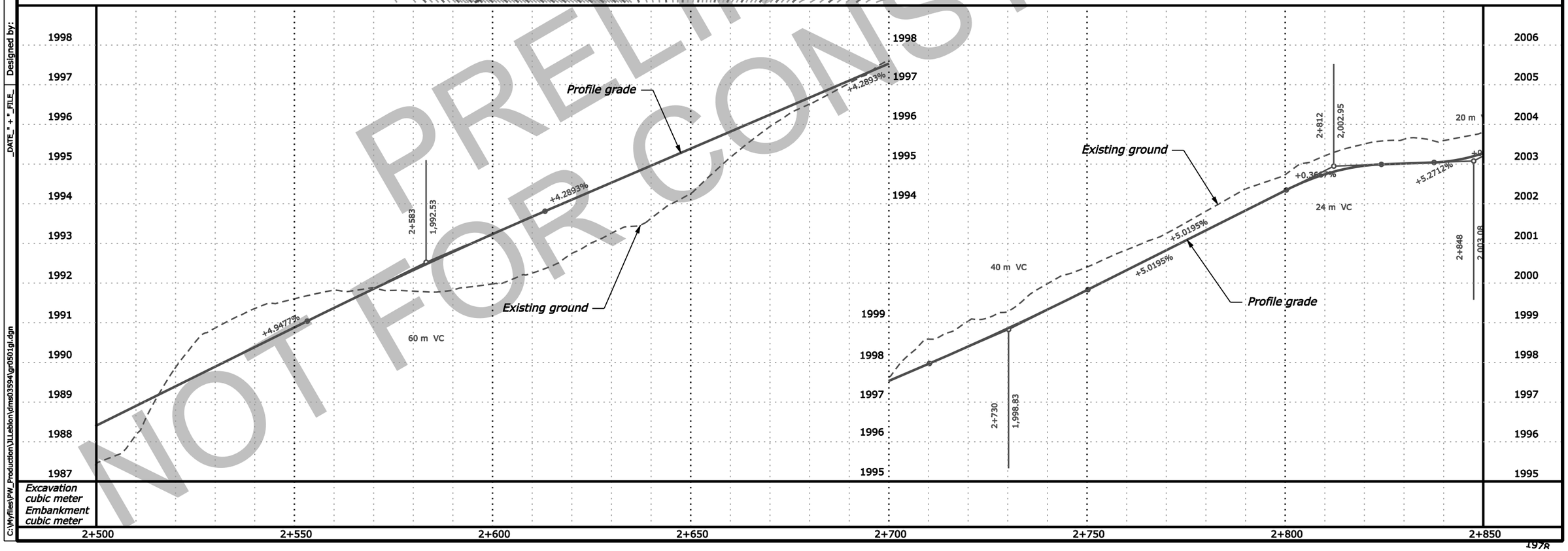

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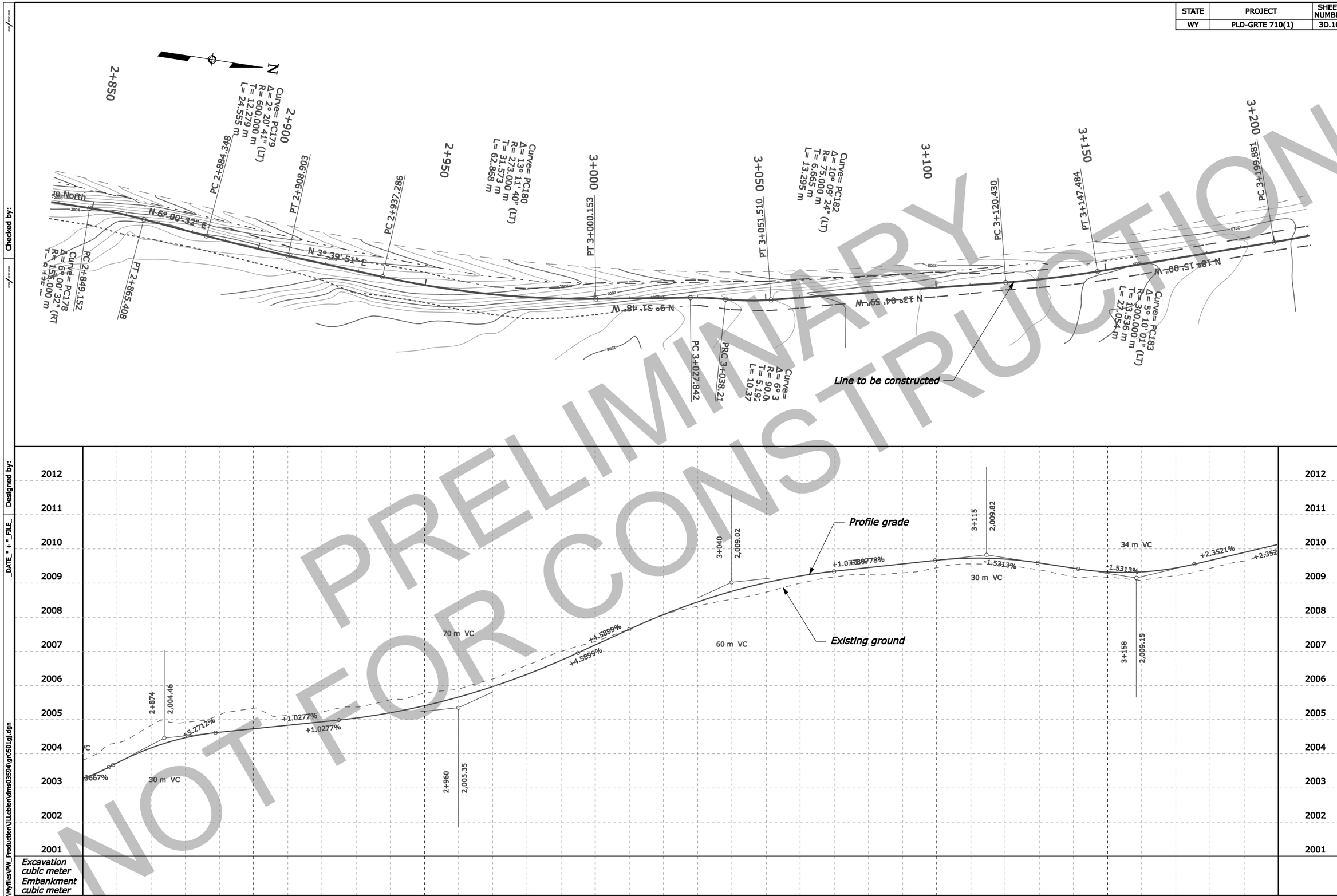

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STATE	PROJECT	SHEET NUMBER
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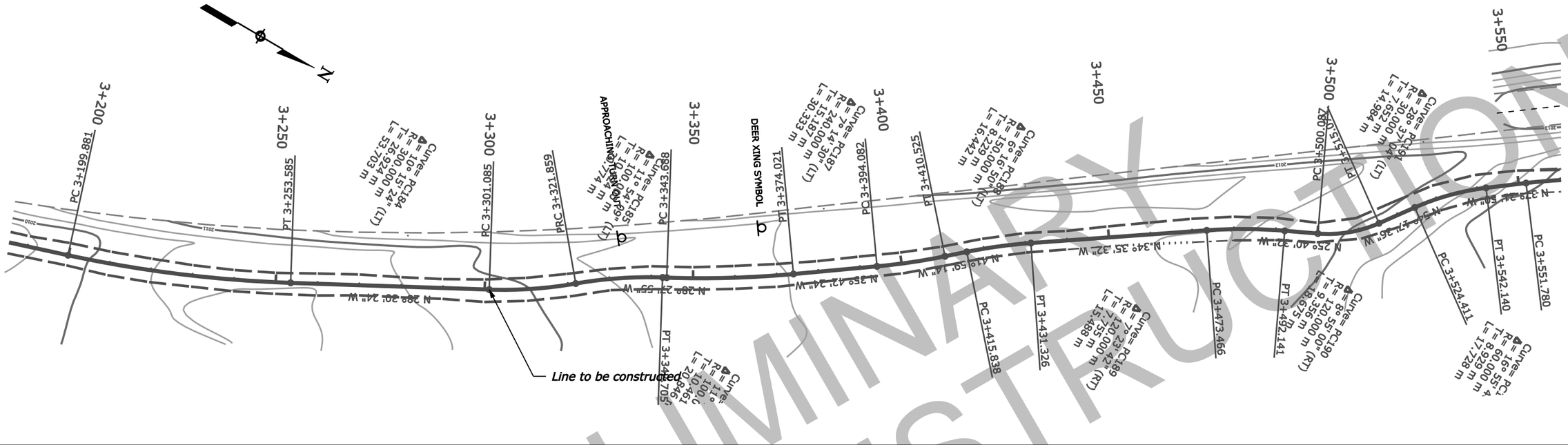

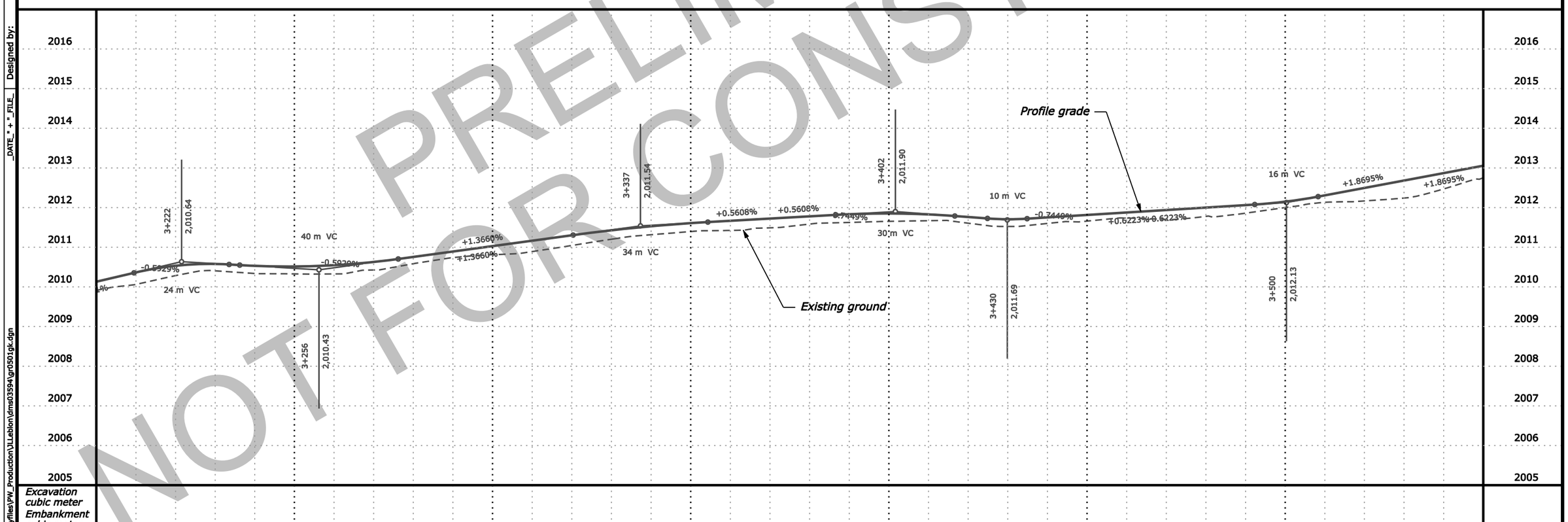

Excavation cubic meter
Embankment cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

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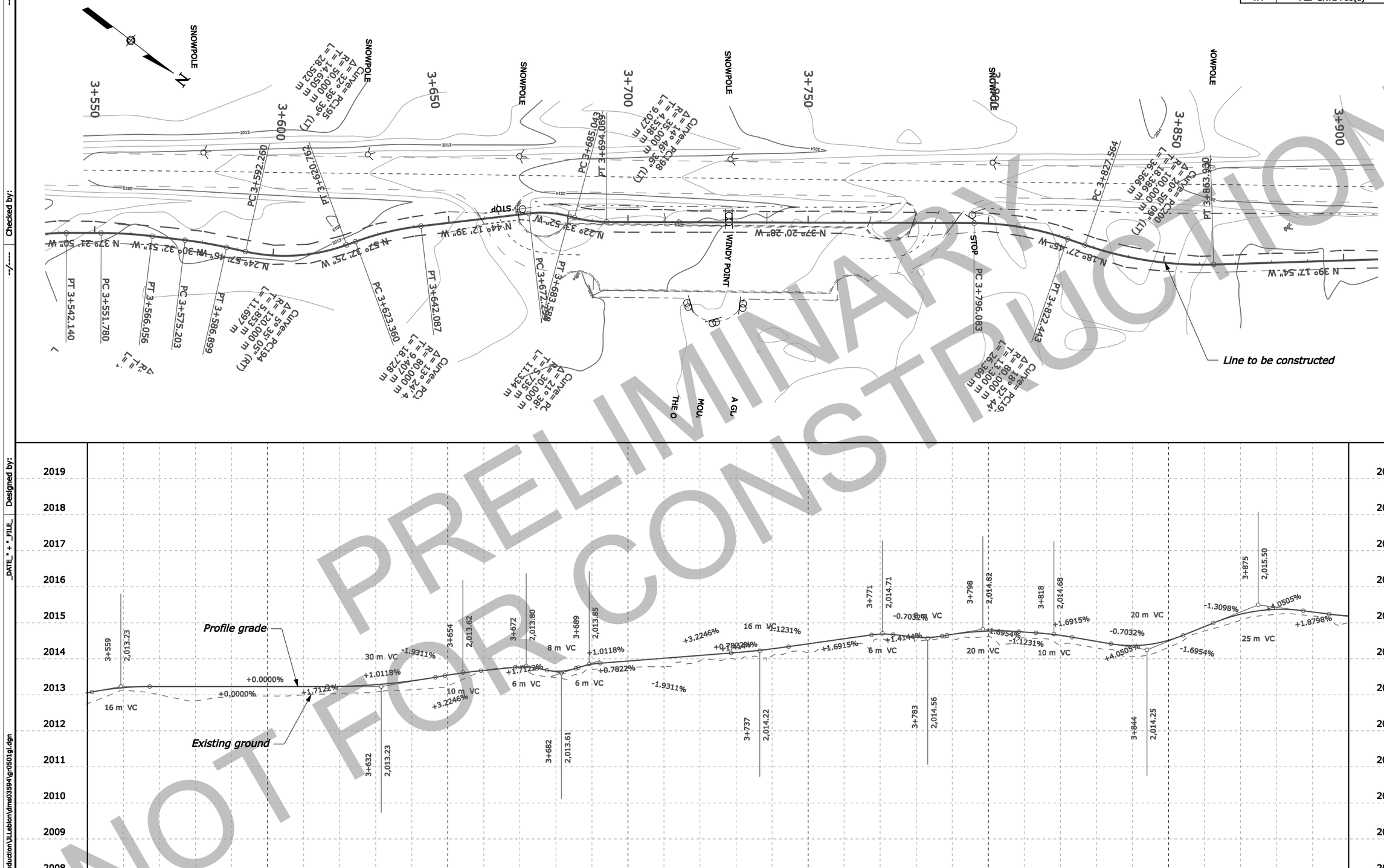

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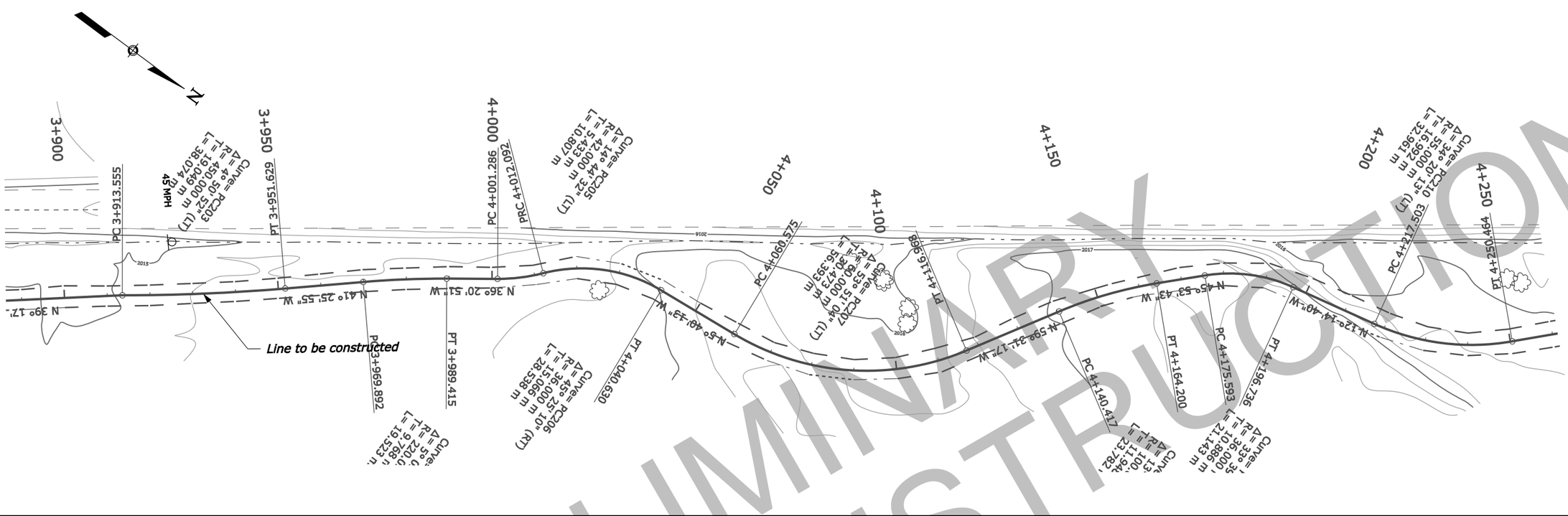

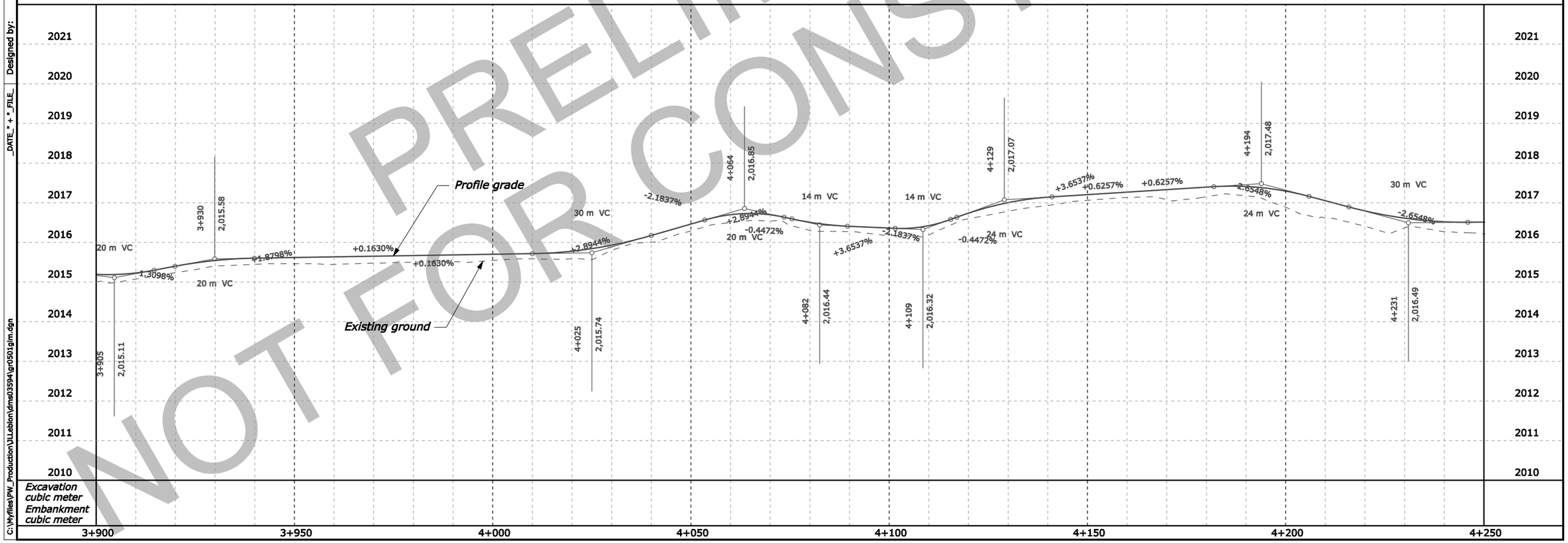

Excavation
cubic meter
Embankment
cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

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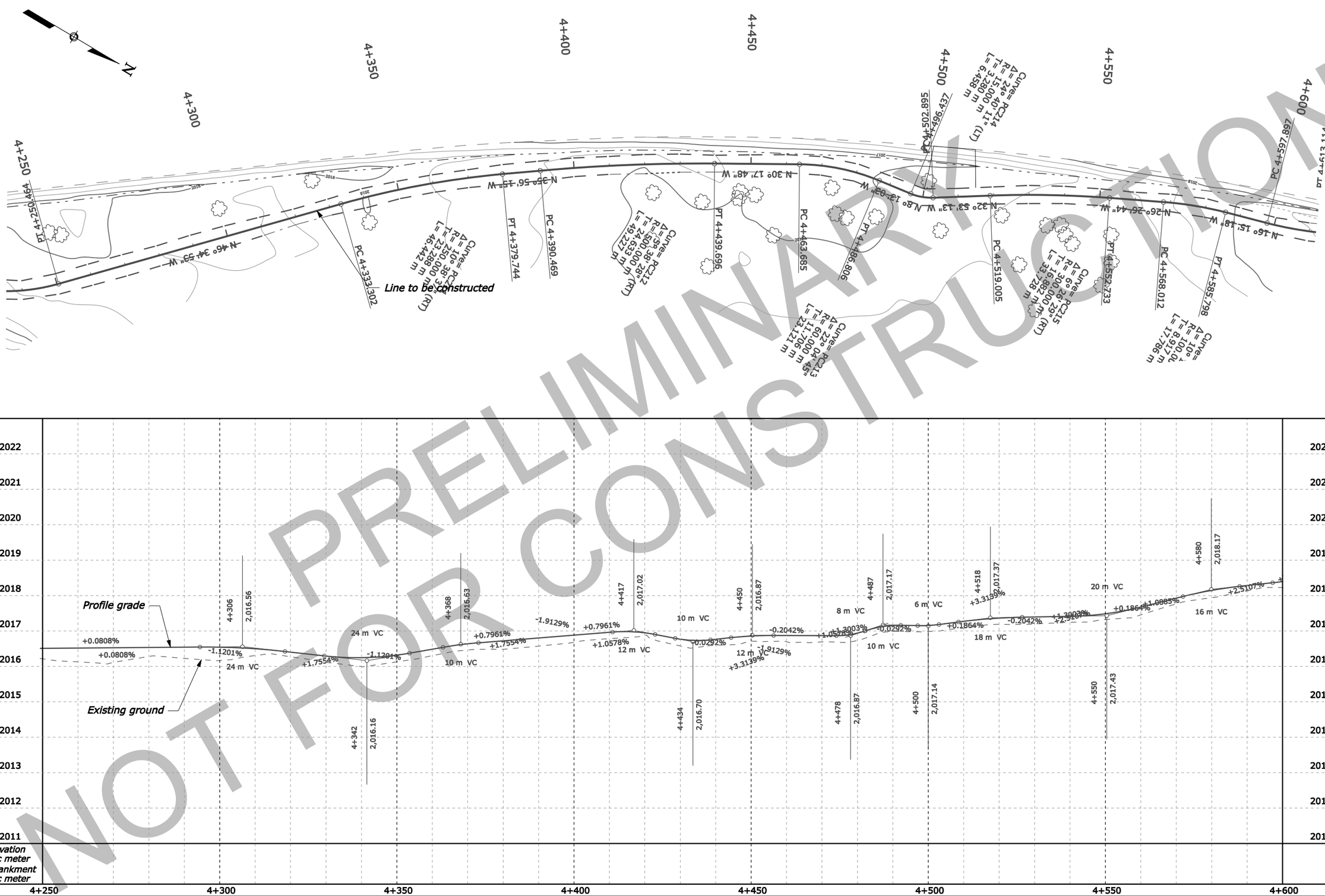

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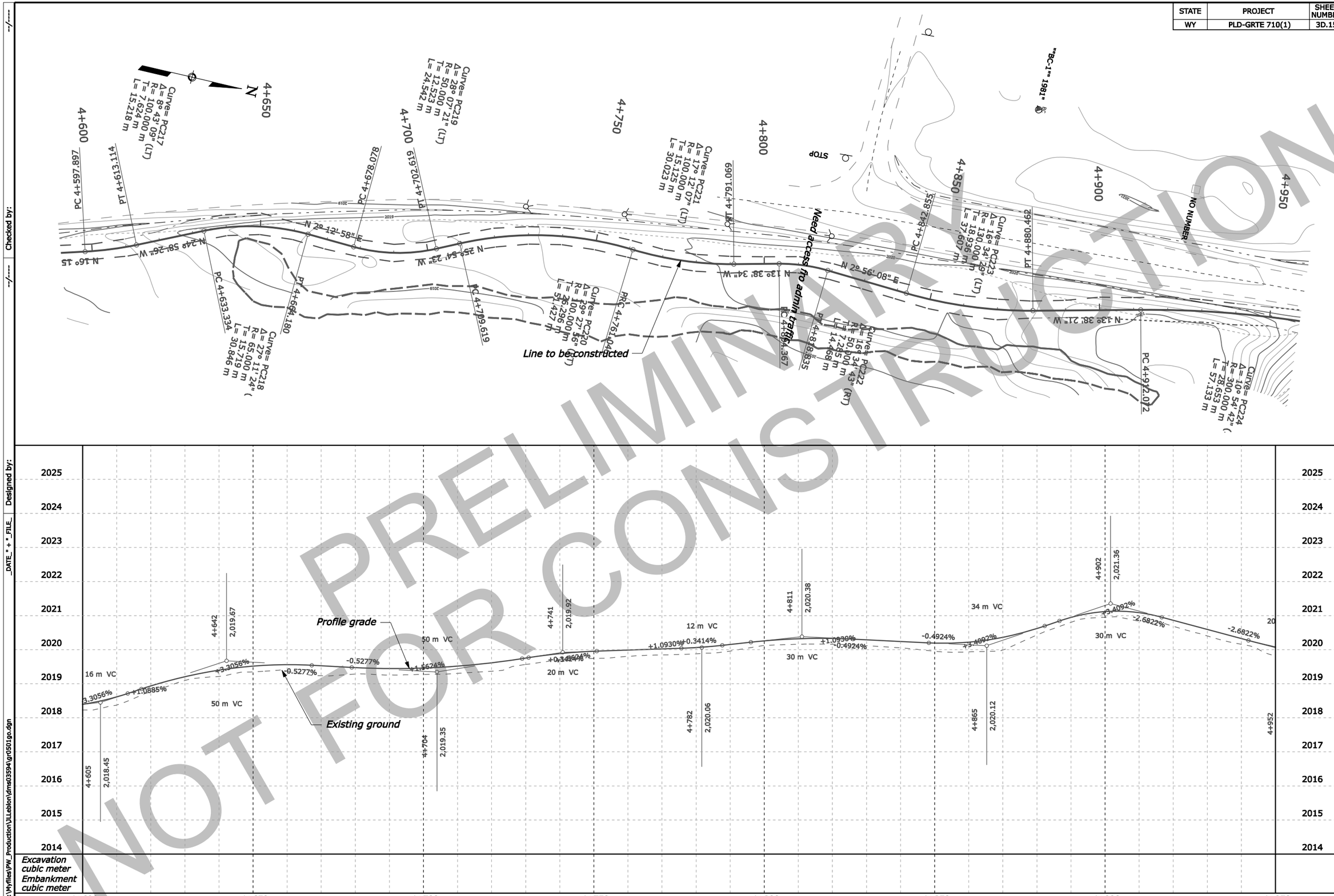

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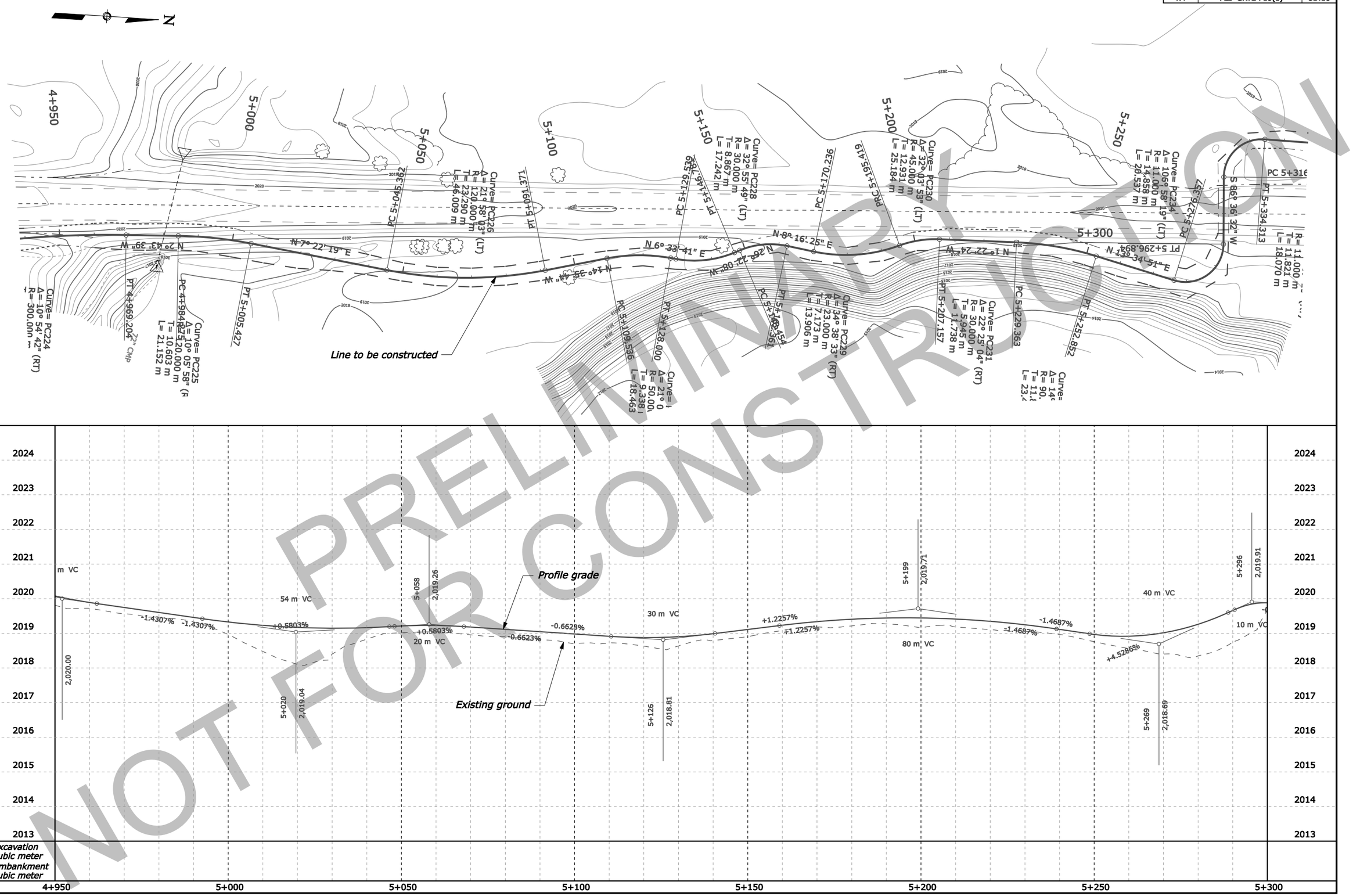

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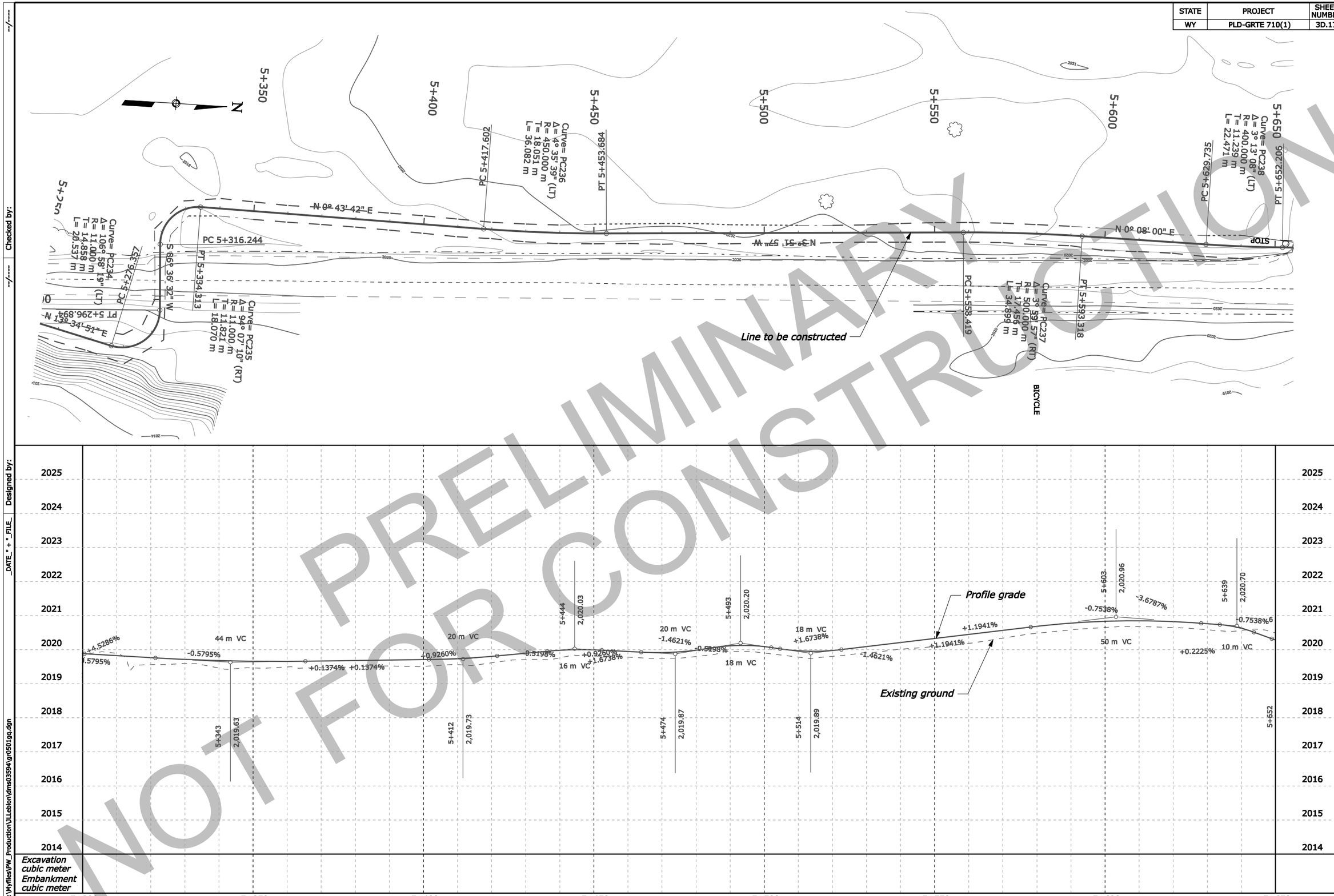

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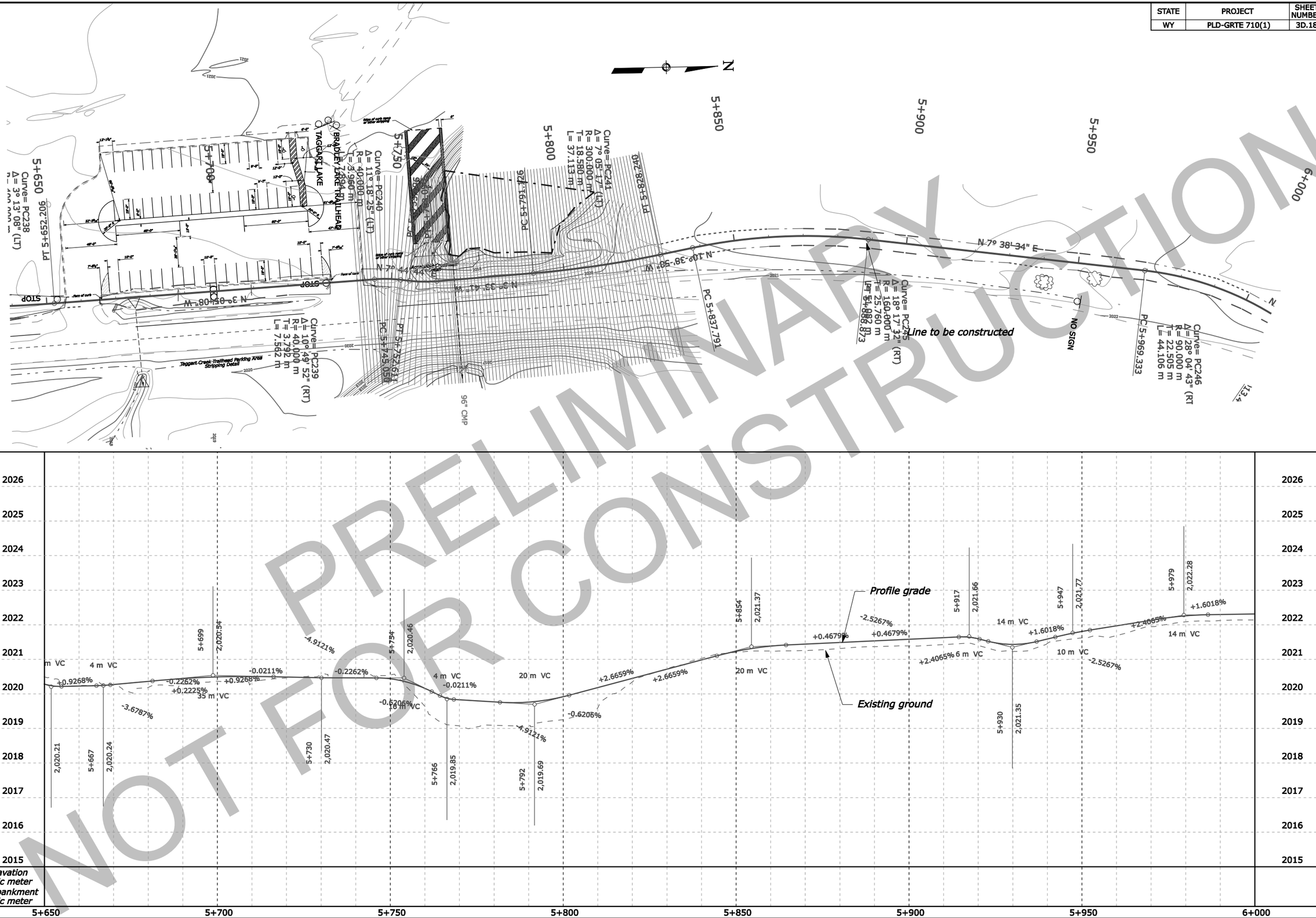

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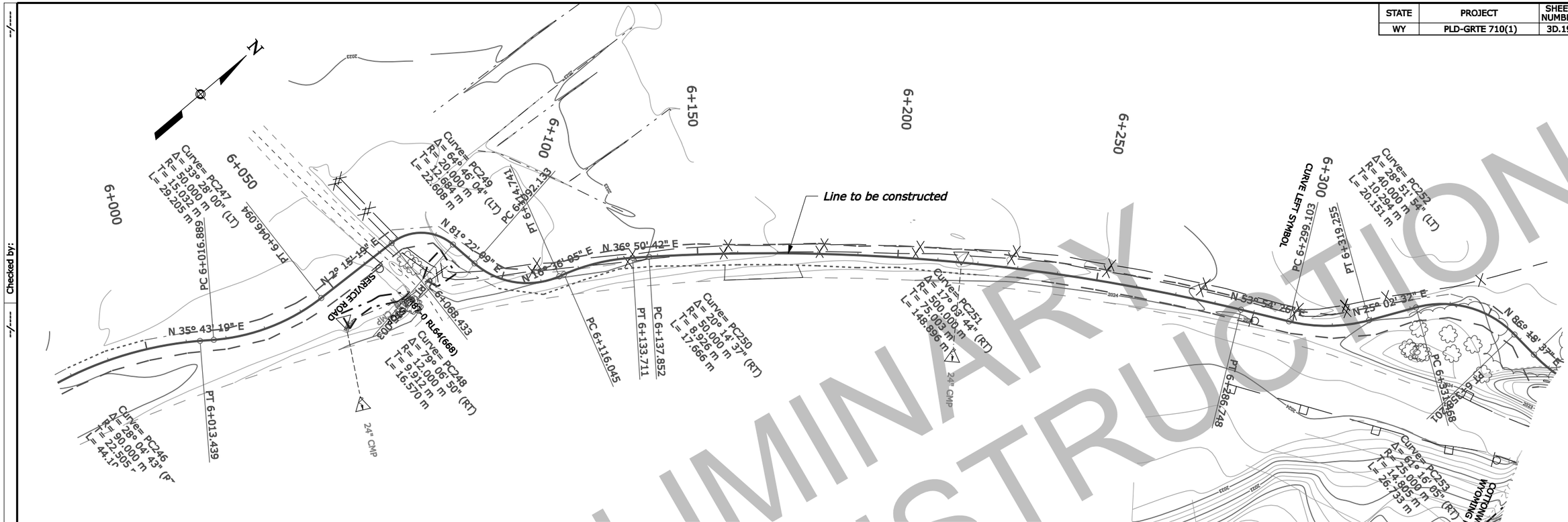

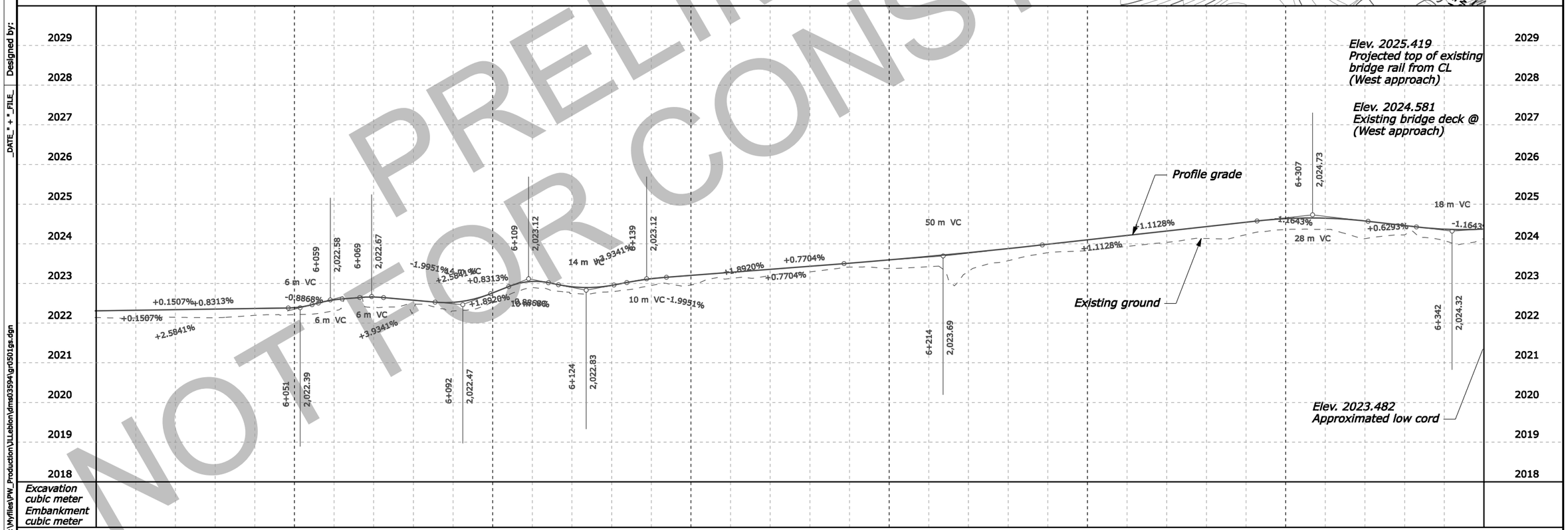

Excavation
cubic meter
Embankment
cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

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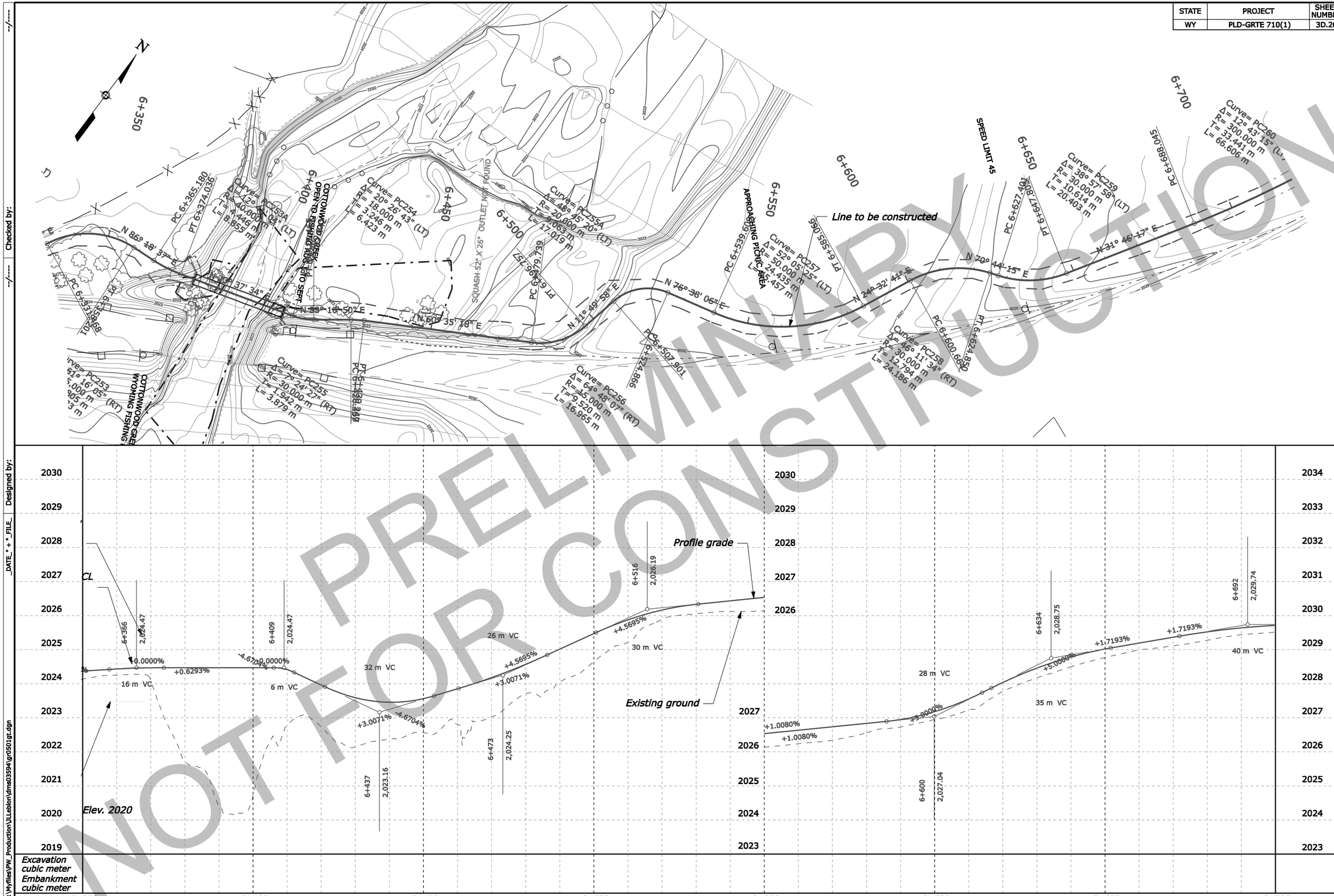

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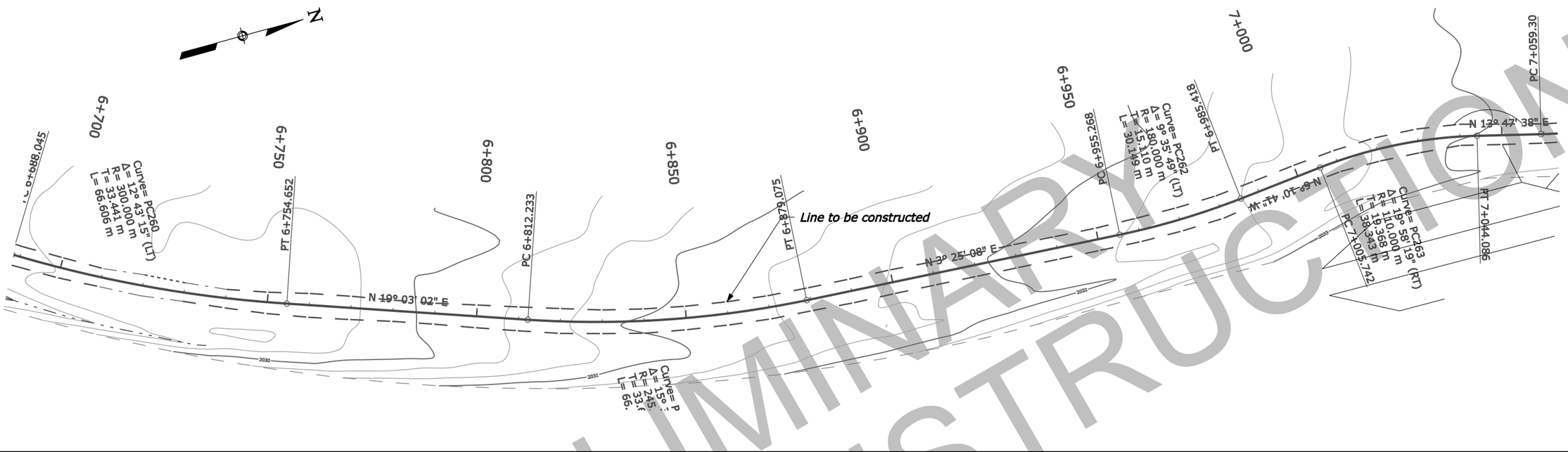

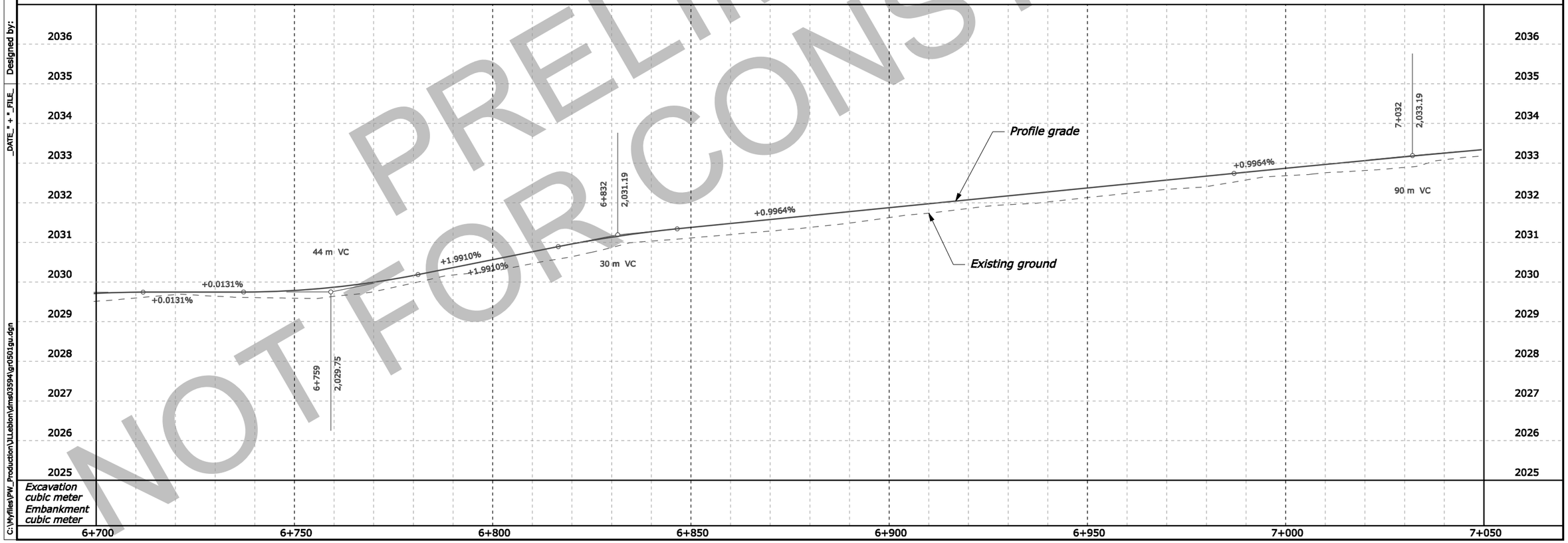

PRELIMINARY
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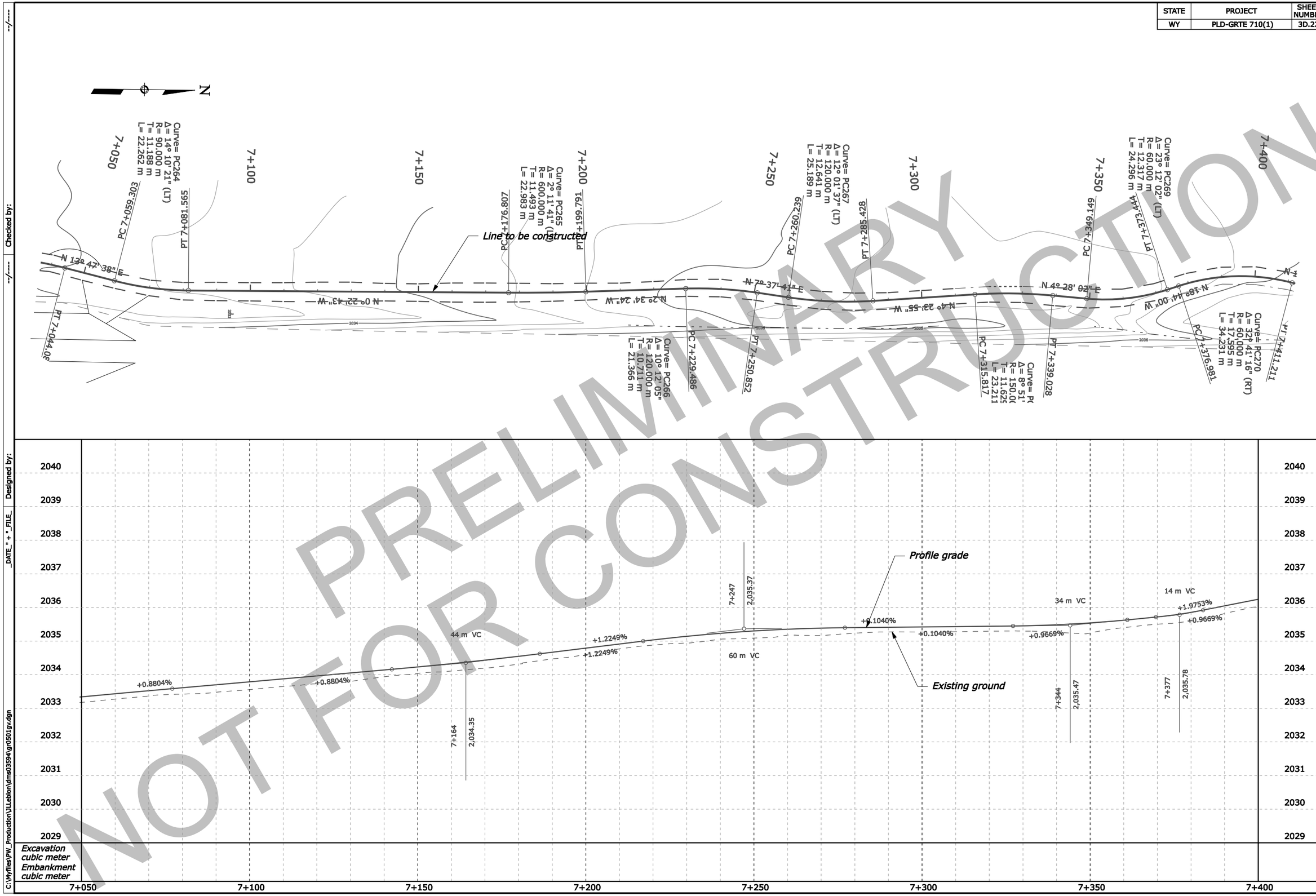

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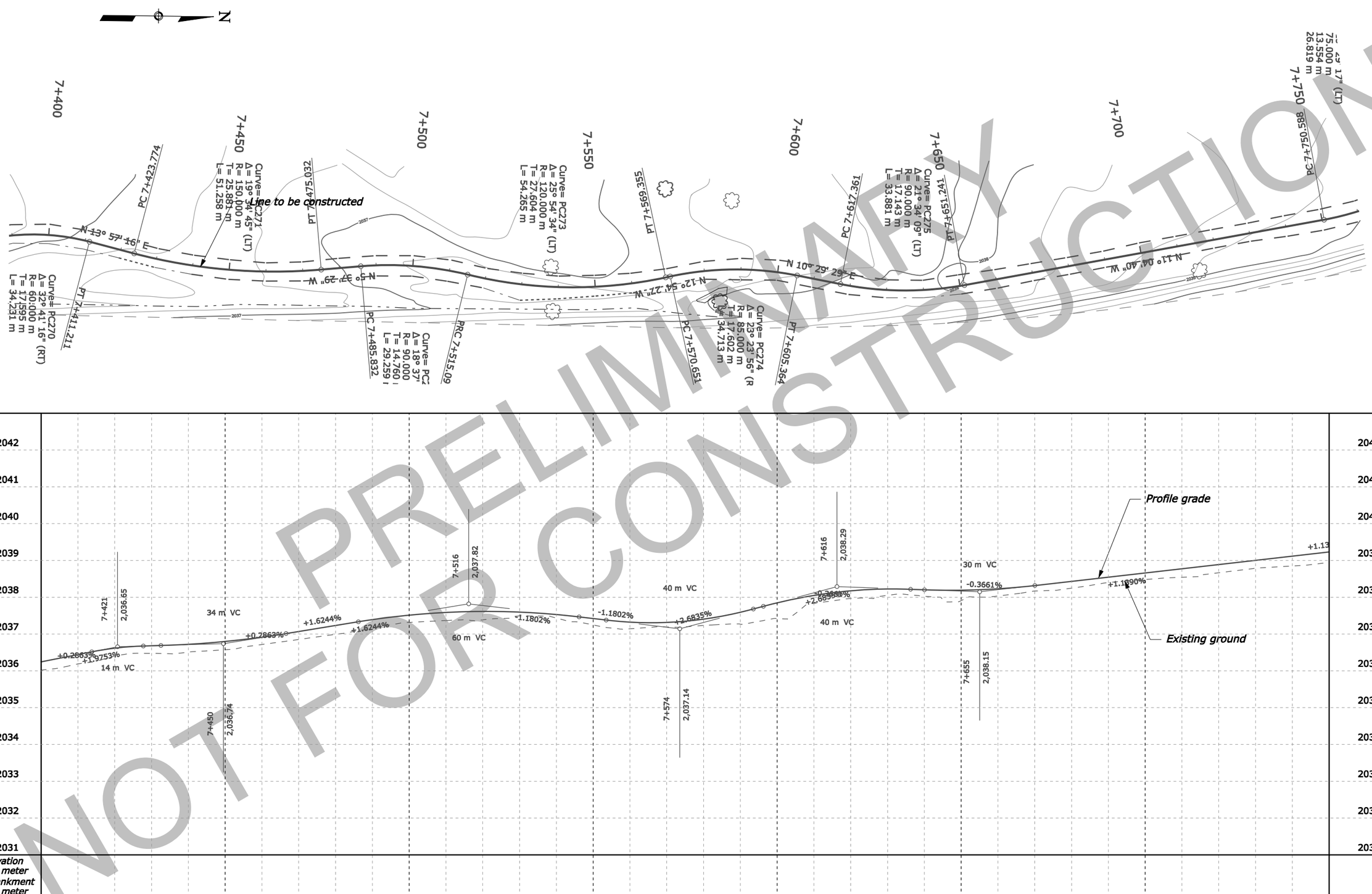

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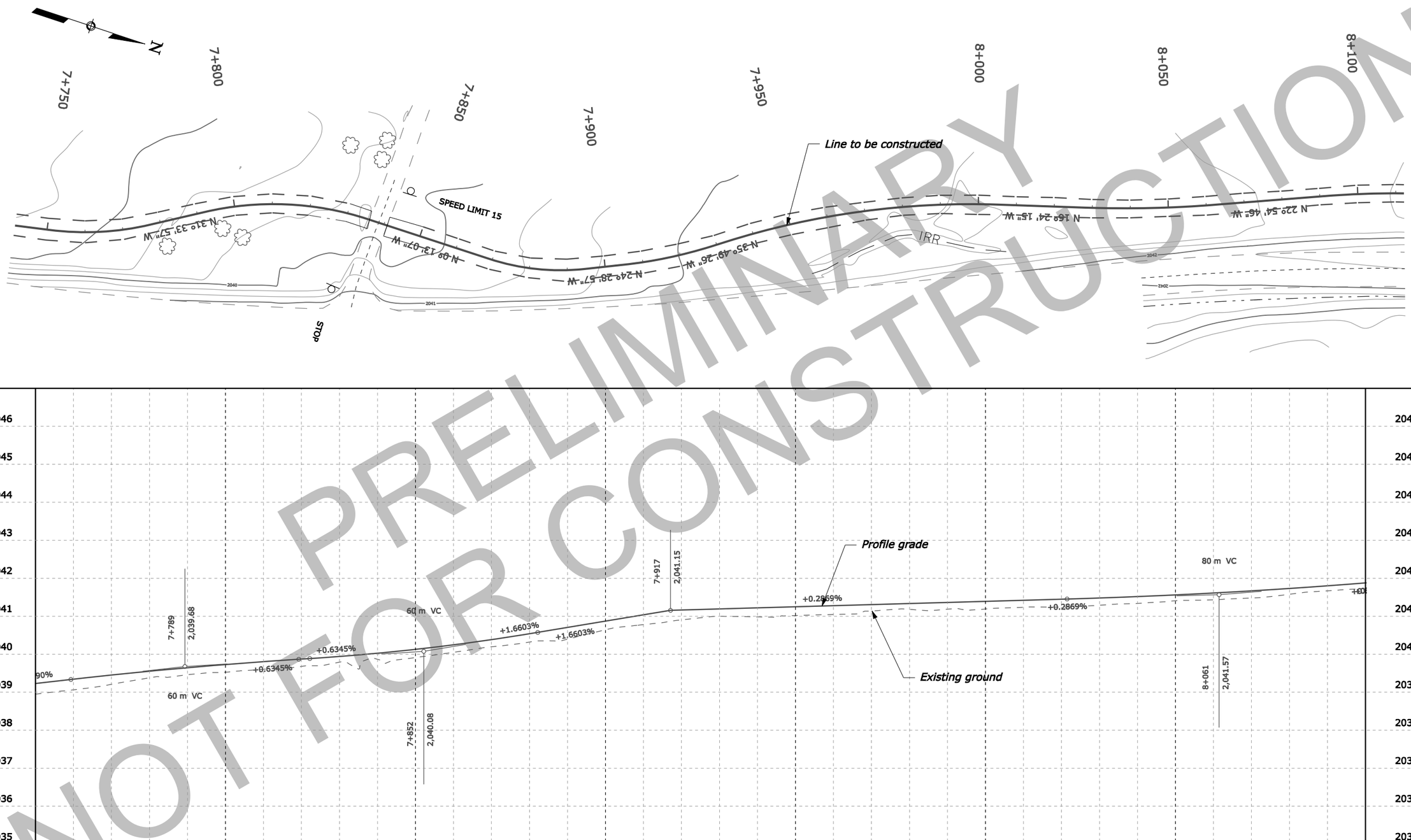

PRELIMINARY
NOT FOR CONSTRUCTION

Checked by:

Designed by:

DATE " + " _FILE_

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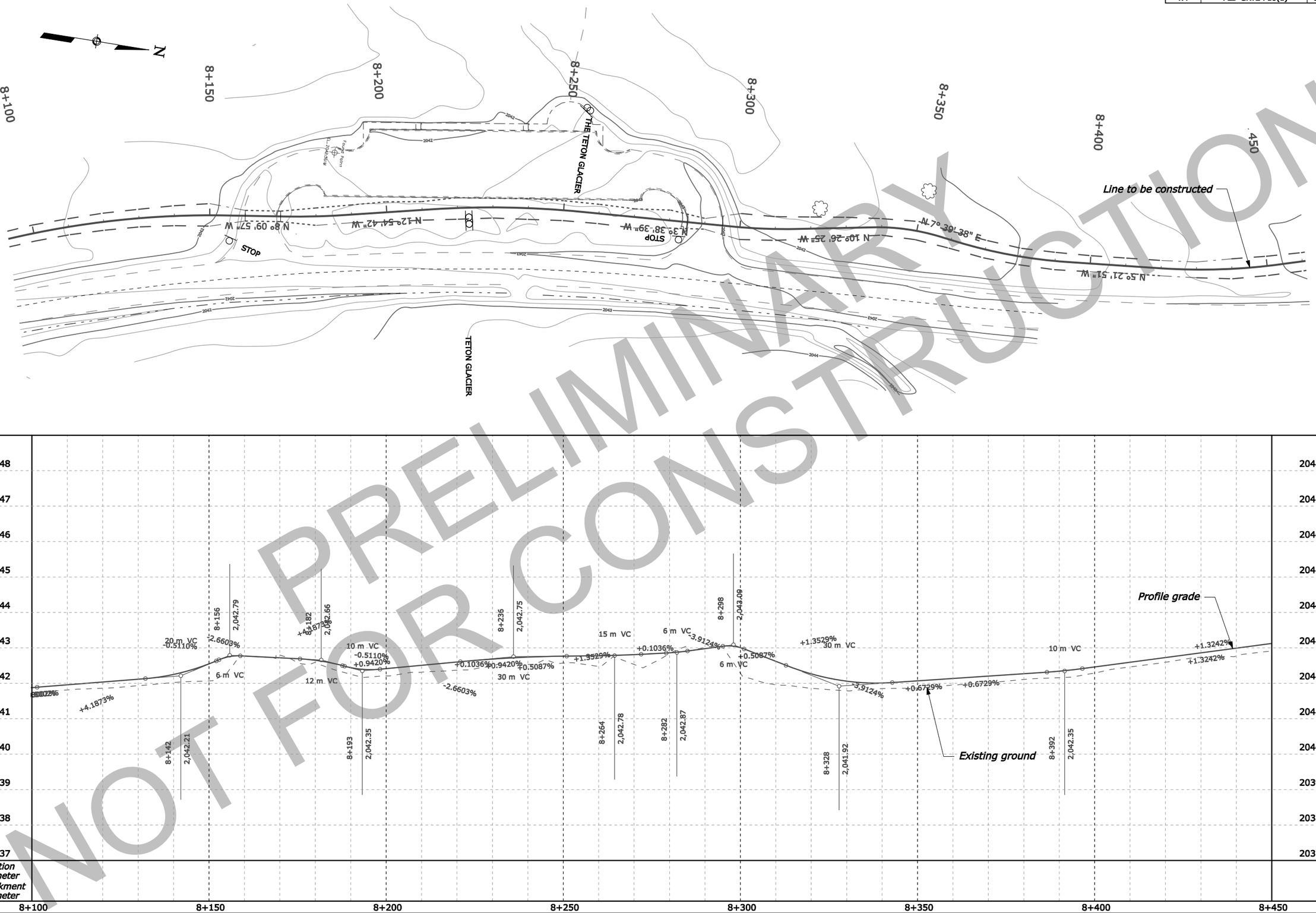
STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3D.25



PRELIMINARY
NOT FOR CONSTRUCTION

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STATE	PROJECT	SHEET NUMBER
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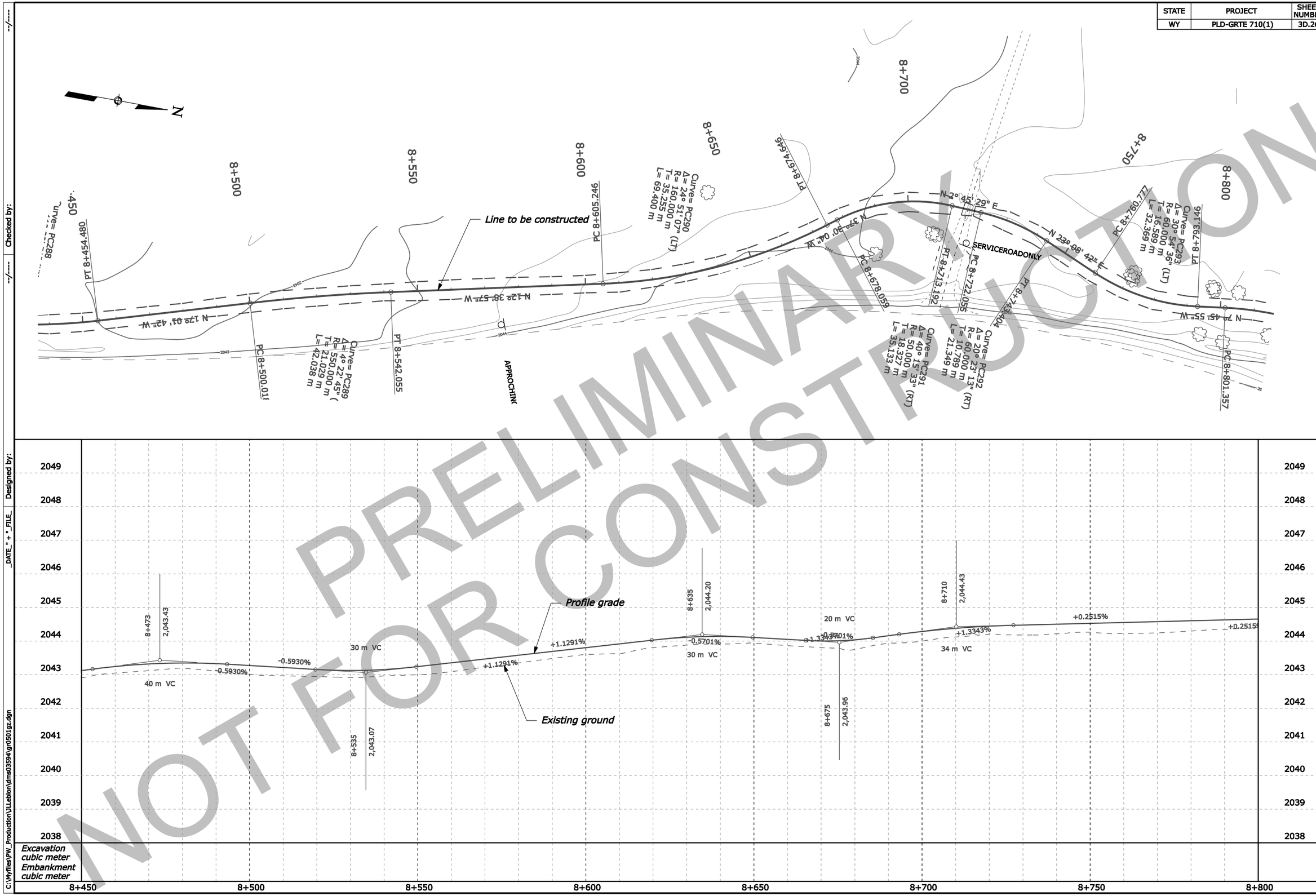

PRELIMINARY
NOT FOR CONSTRUCTION

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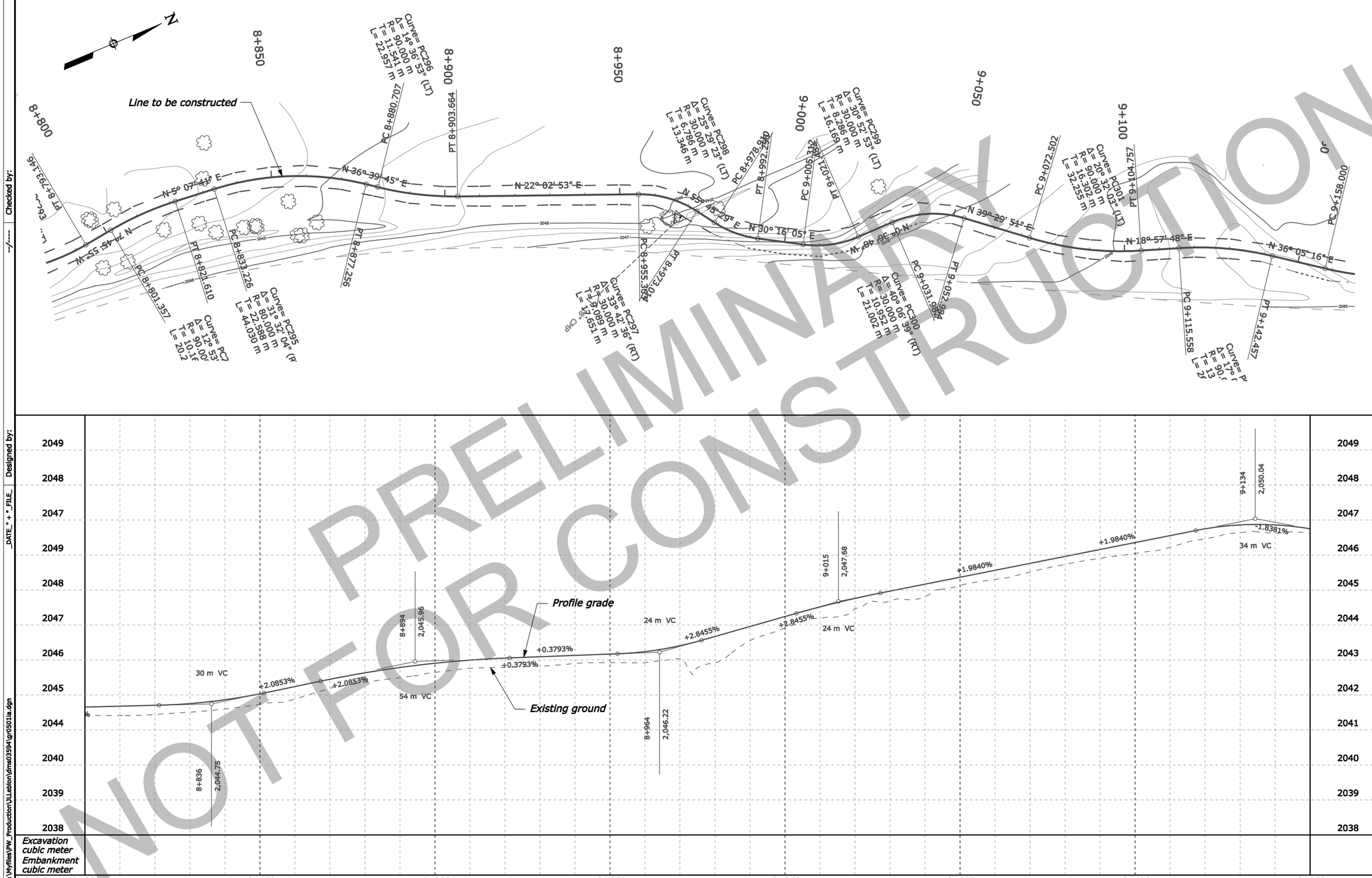
STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3D.27



PRELIMINARY
NOT FOR CONSTRUCTION

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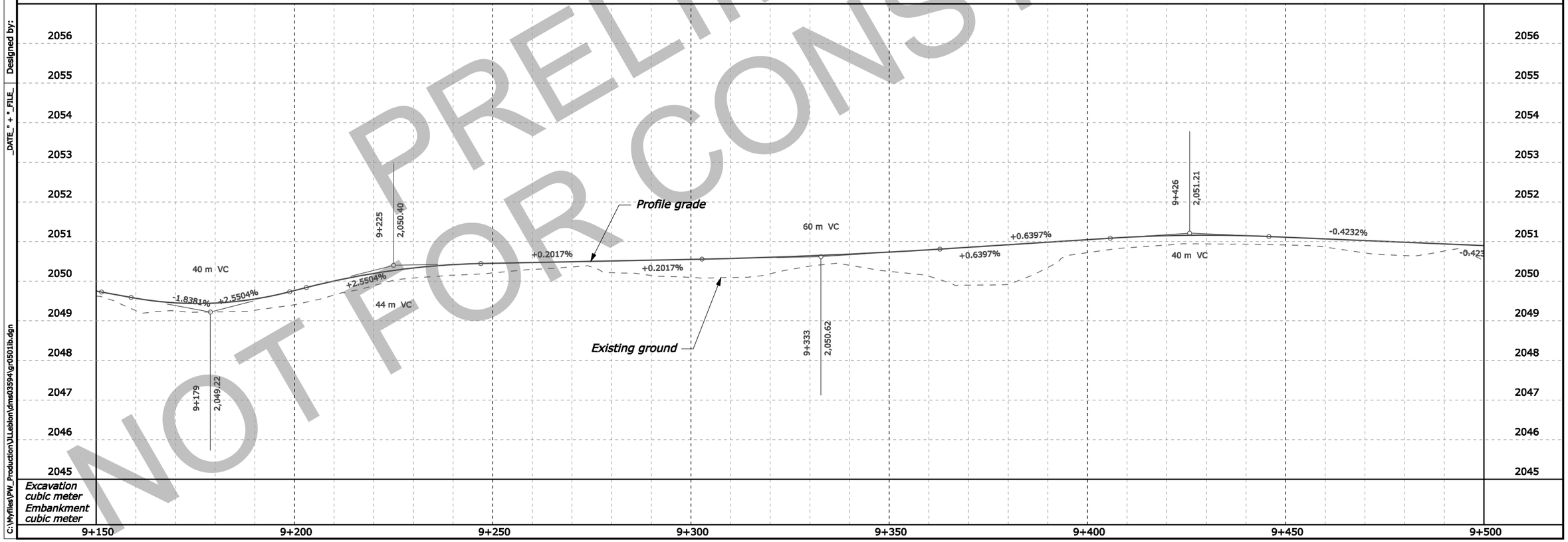
STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3D.28



Excavation
cubic meter
Embankment
cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

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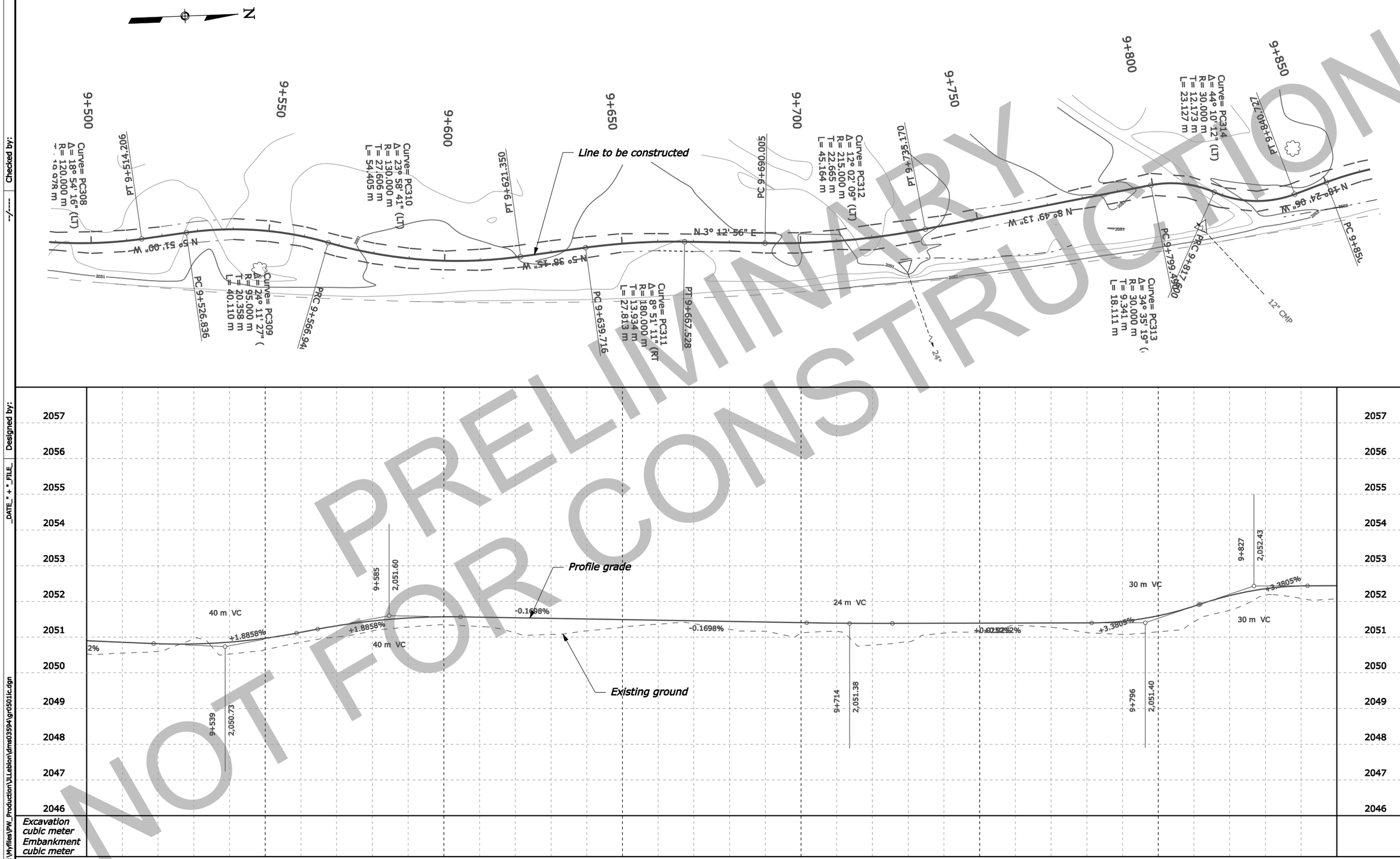
STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3D.29



PRELIMINARY
NOT FOR CONSTRUCTION

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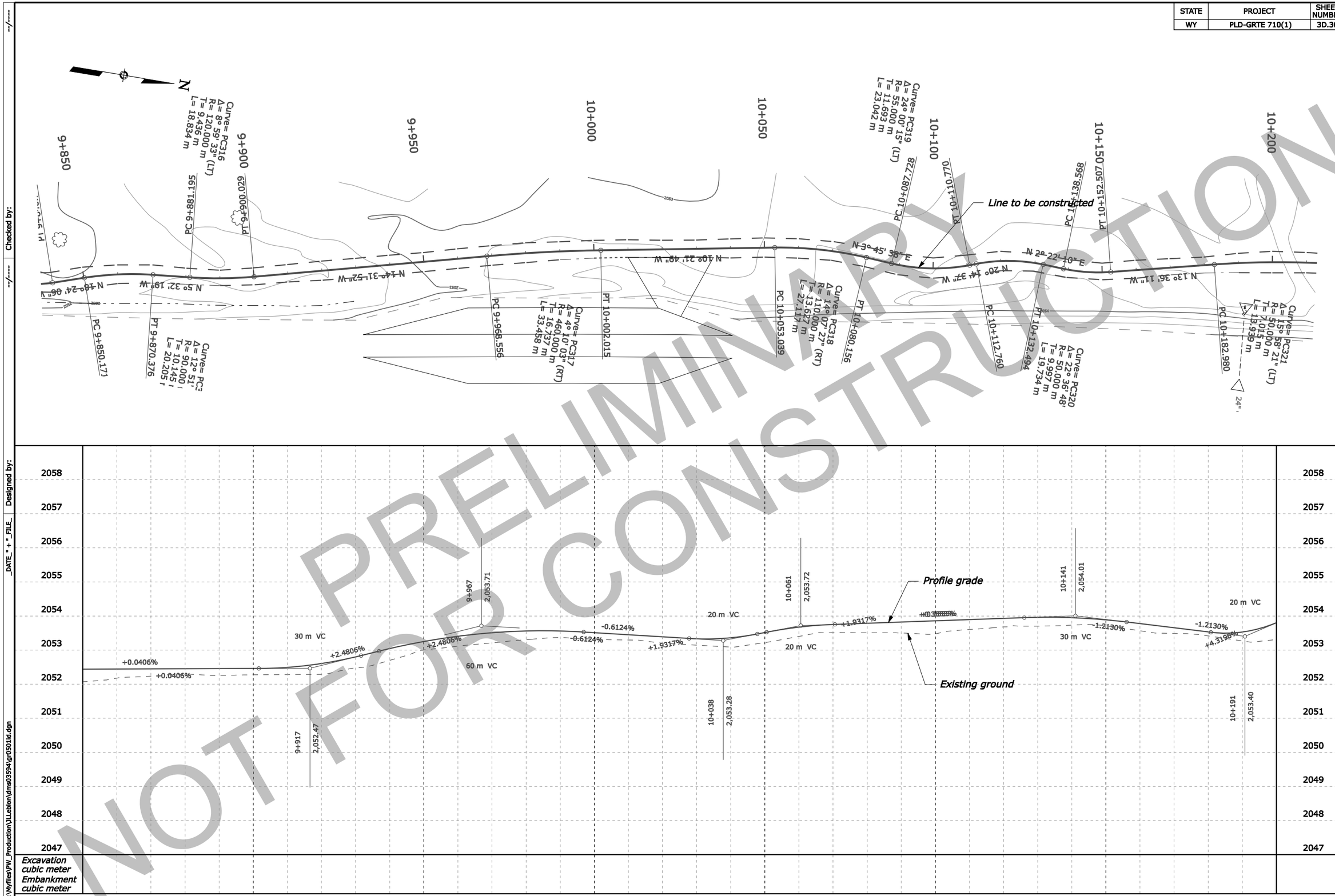

PRELIMINARY
NOT FOR CONSTRUCTION

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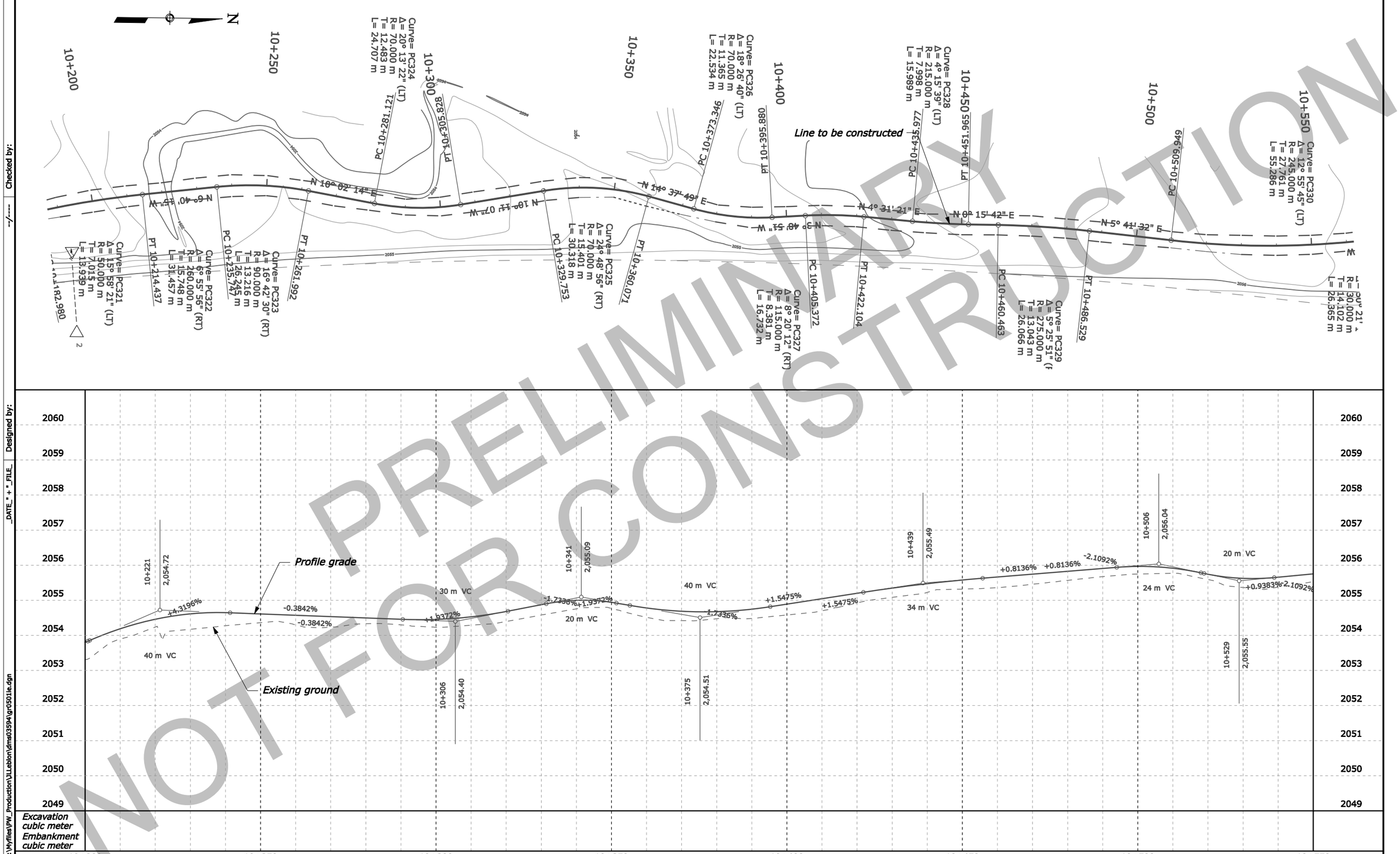

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STATE	PROJECT	SHEET NUMBER
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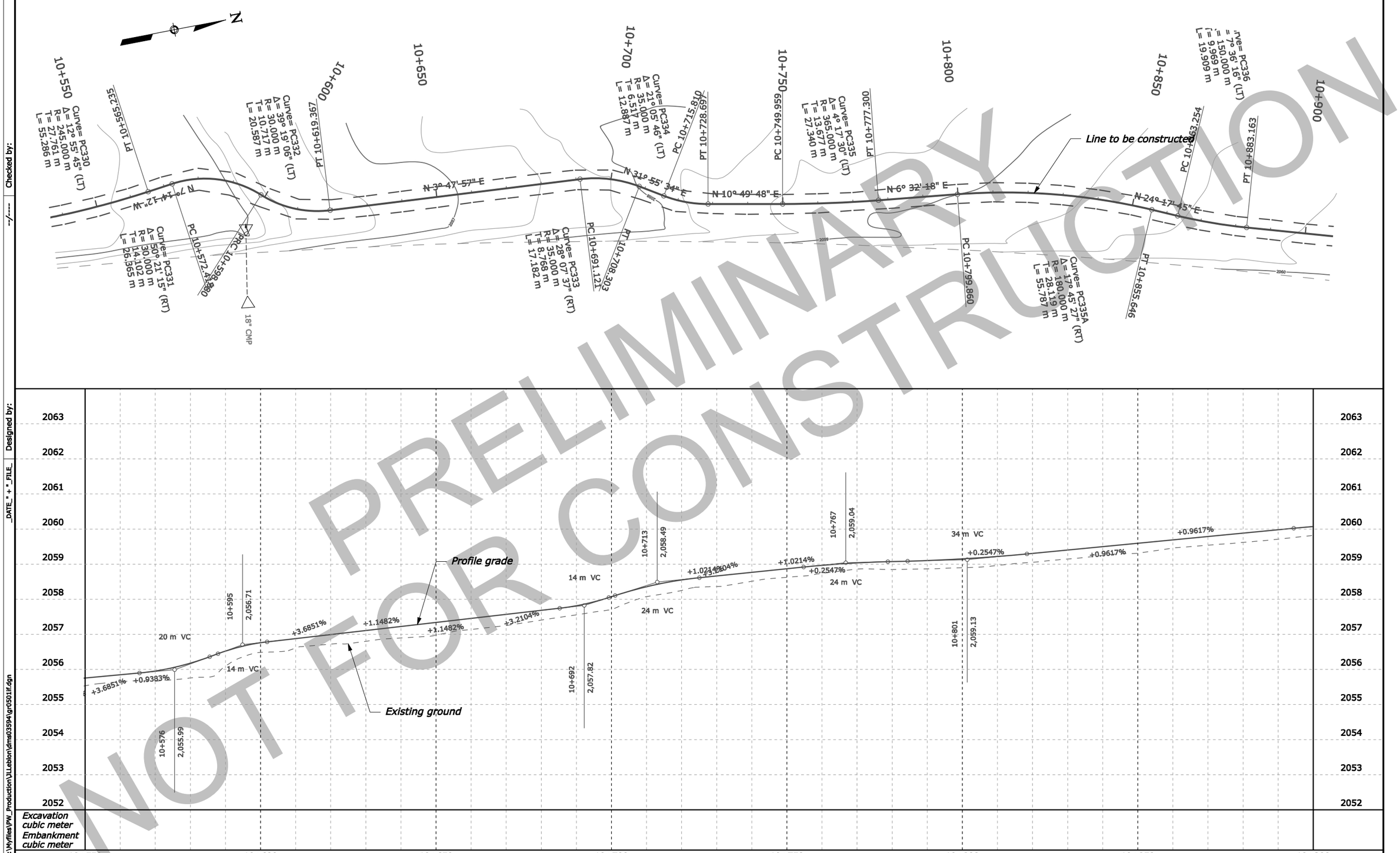

PRELIMINARY
NOT FOR CONSTRUCTION

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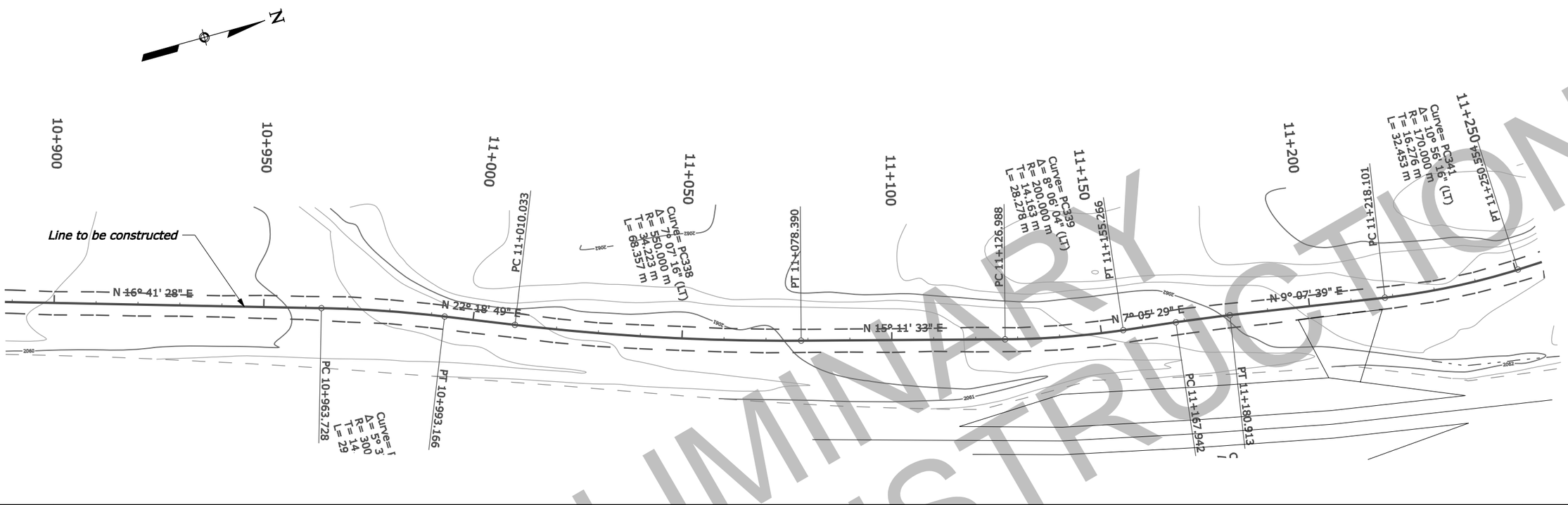
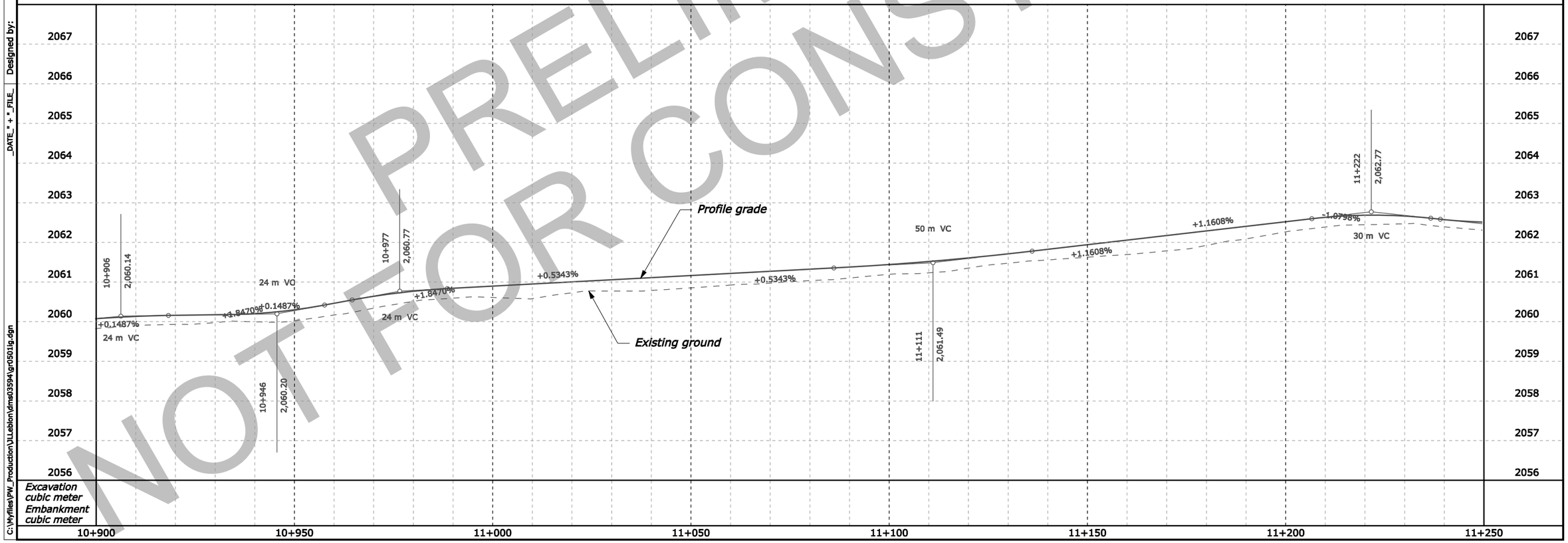
STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3D.33





Excavation
cubic meter
Embankment
cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

Checked by:
Designed by:
DATE " + " _FILE_
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STATE	PROJECT	SHEET NUMBER
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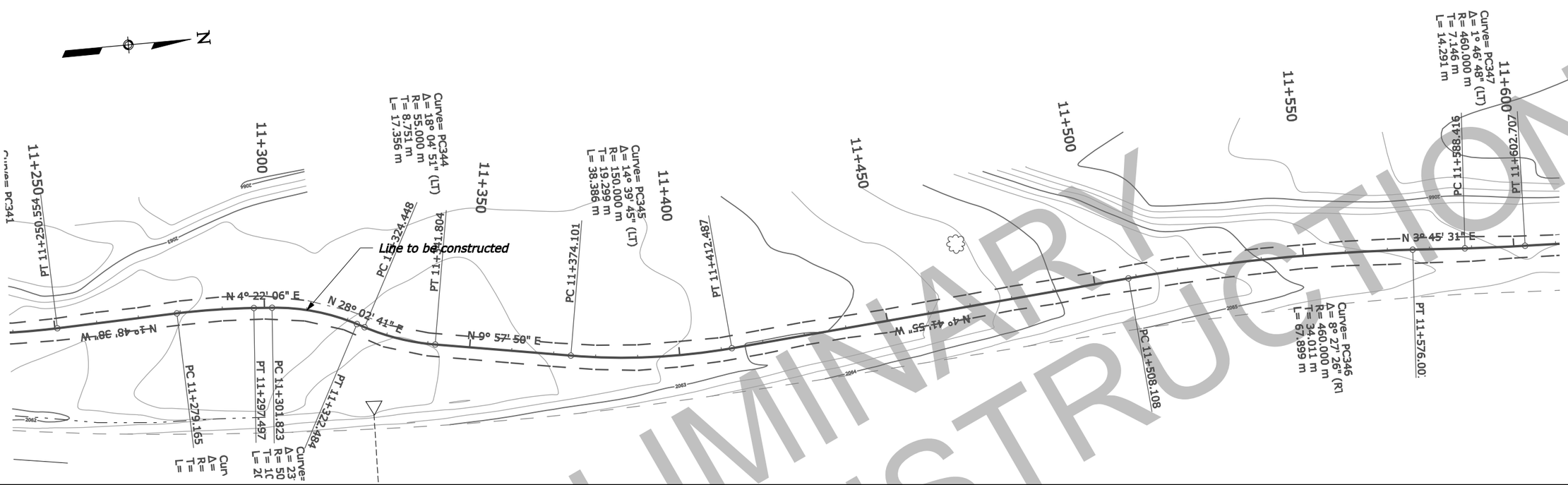
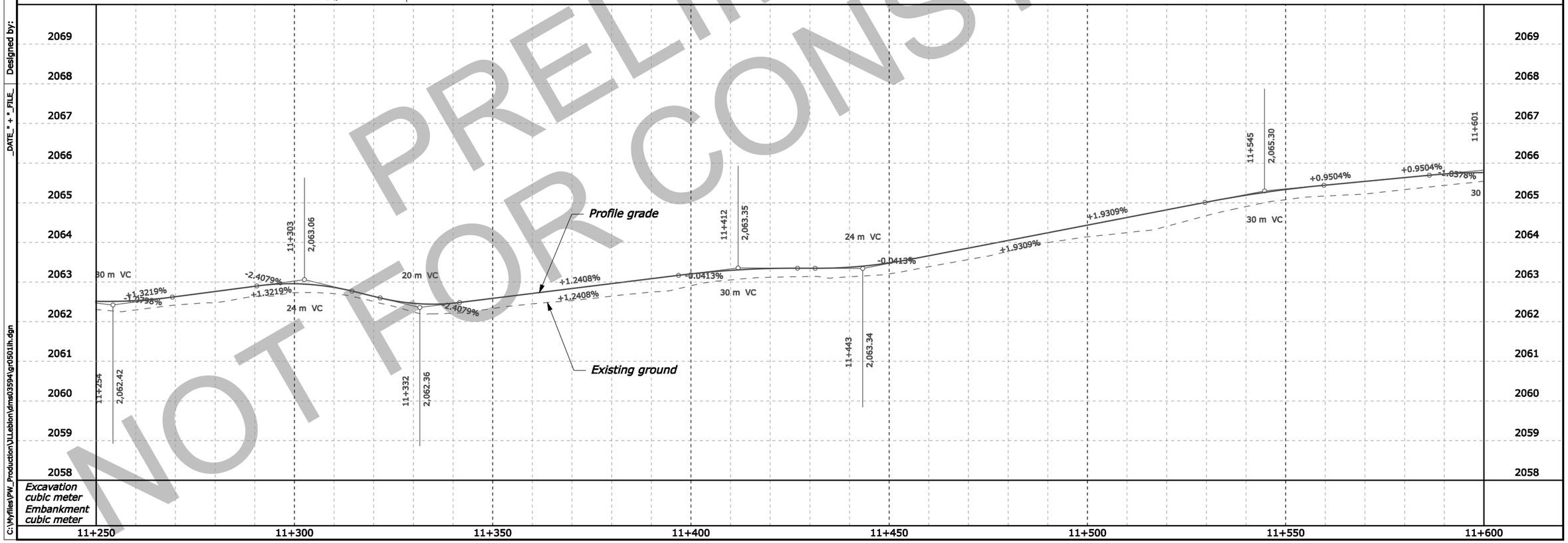


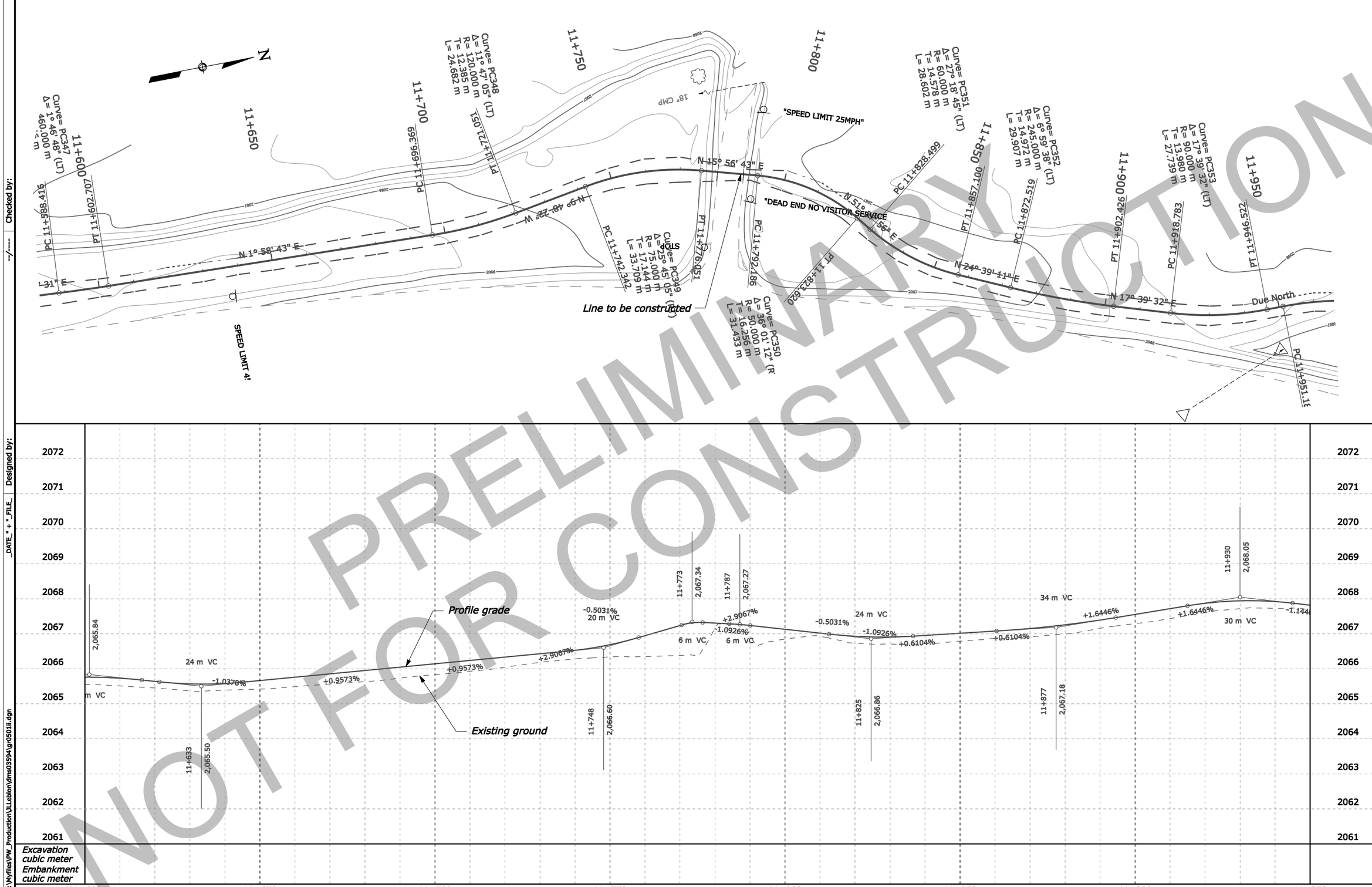


Excavation
cubic meter
Embankment
cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

C:\Wyfiles\PW_Production\ULeblon\dms03594\gr0501lh.dgn | _DATE_ " + " _FILE_ | Designed by: | Checked by: | --/---- | --/----

STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3D.35



PRELIMINARY
NOT FOR CONSTRUCTION

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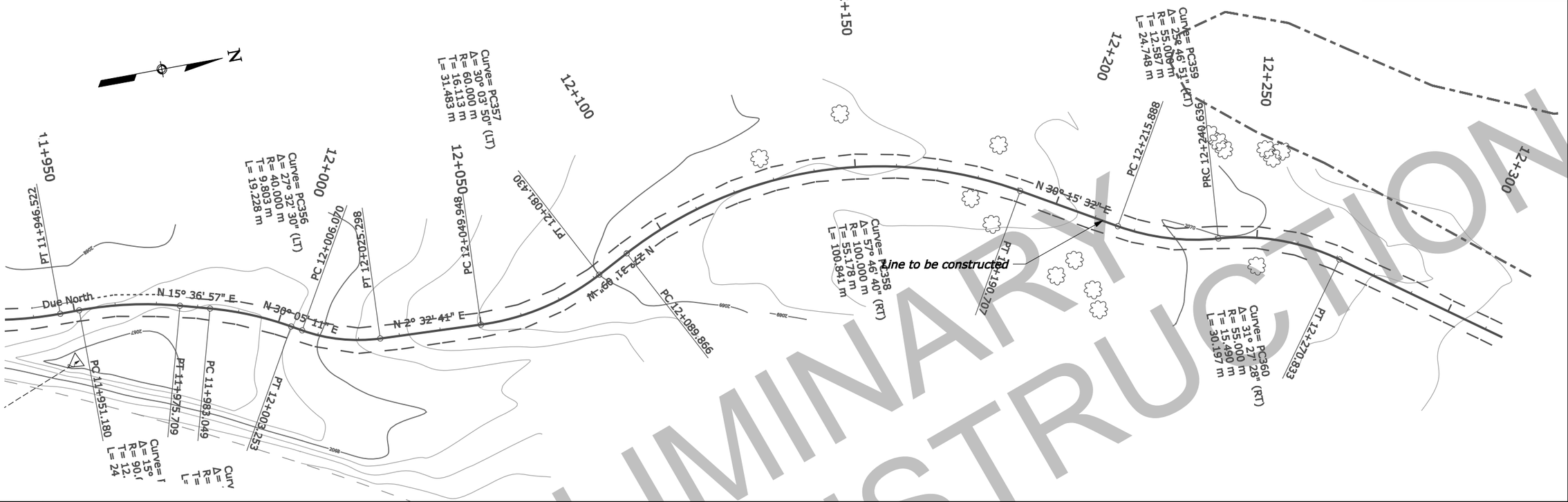
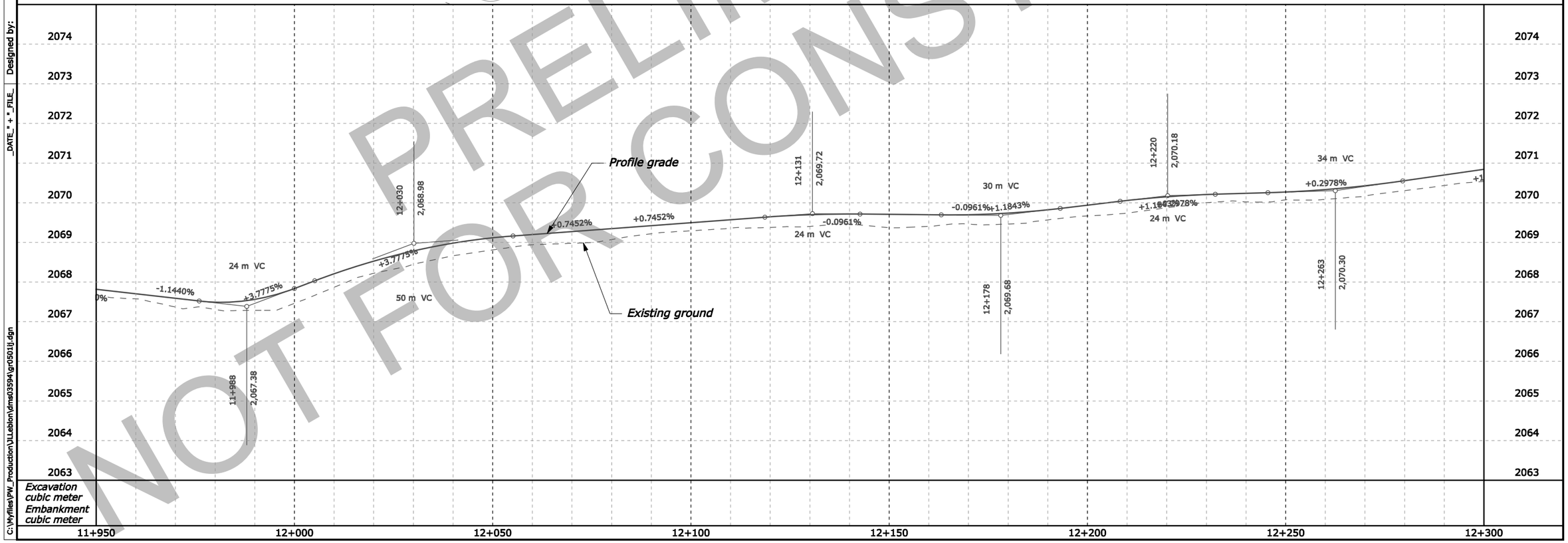
STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3D.36





Excavation
cubic meter
Embankment
cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

Checked by:
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DATE " + " _FILE_
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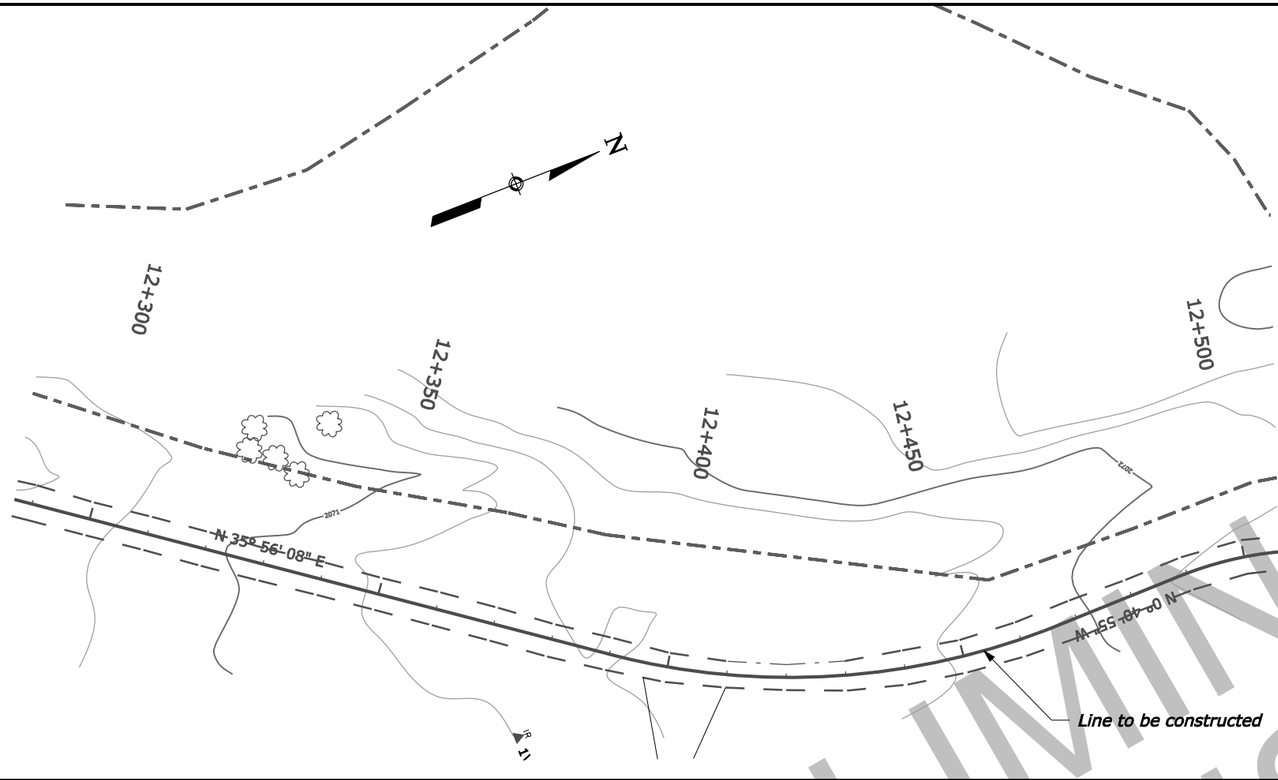
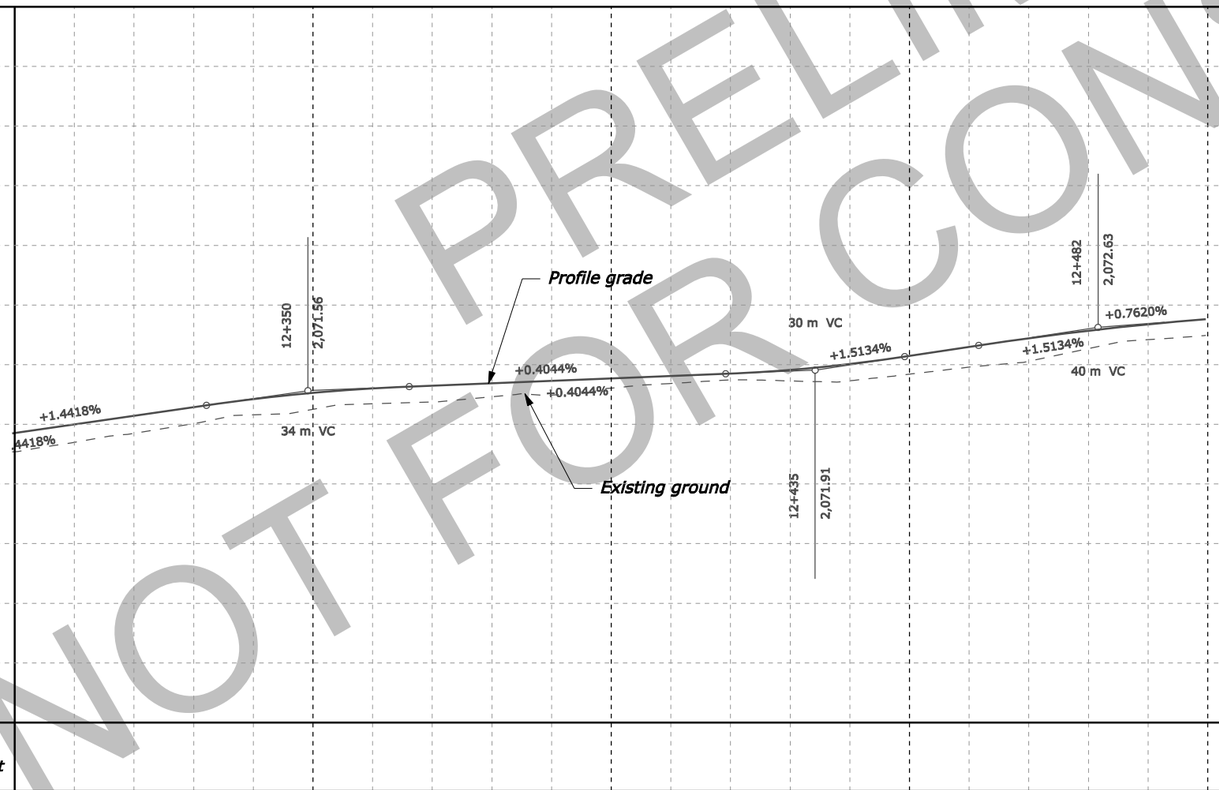
STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3D.37





Excavation
cubic meter
Embankment
cubic meter

PRELIMINARY
NOT FOR CONSTRUCTION

Checked by:
Designed by:
DATE " + " _FILE_
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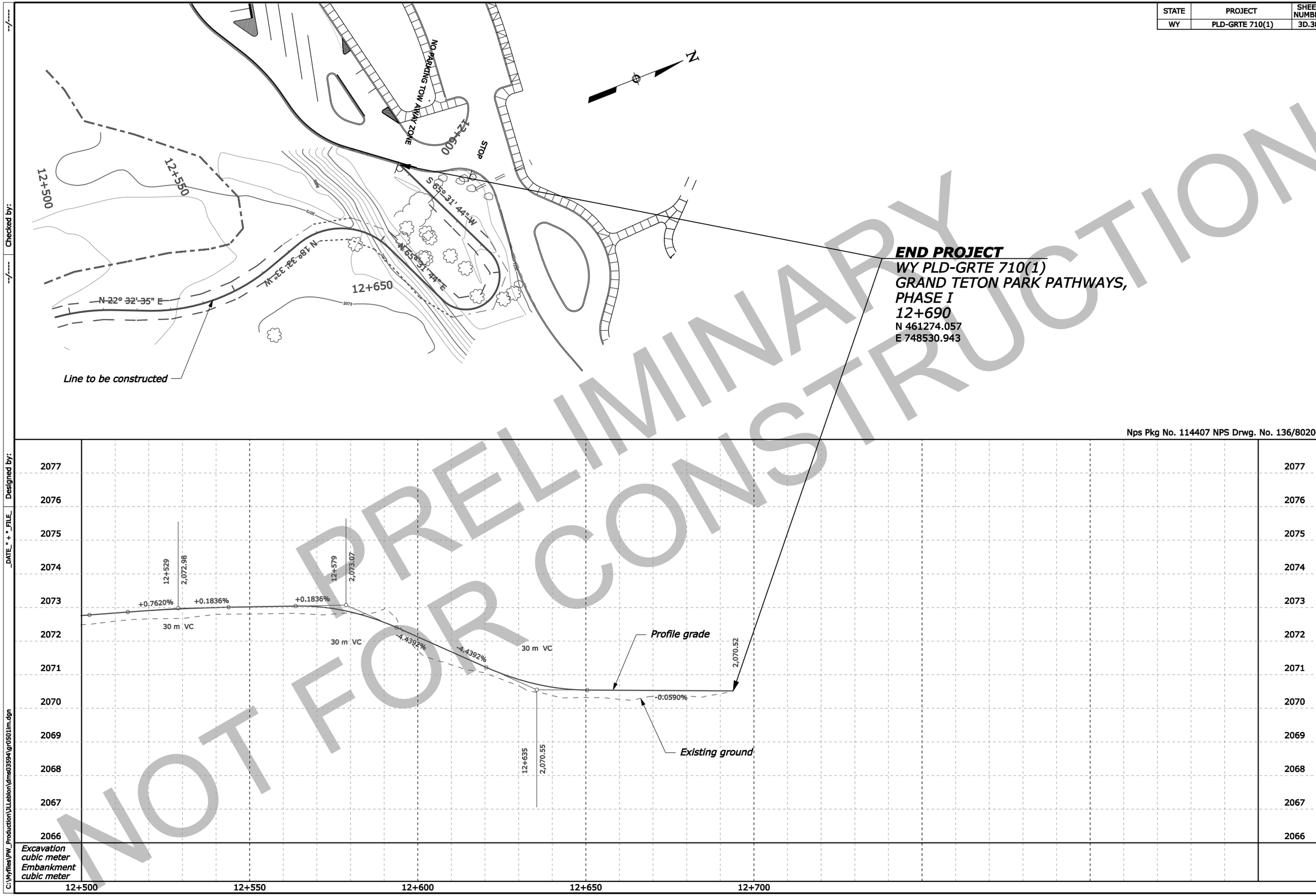
STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3D.38



PRELIMINARY
NOT FOR CONSTRUCTION

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STATE	PROJECT	SHEET NUMBER
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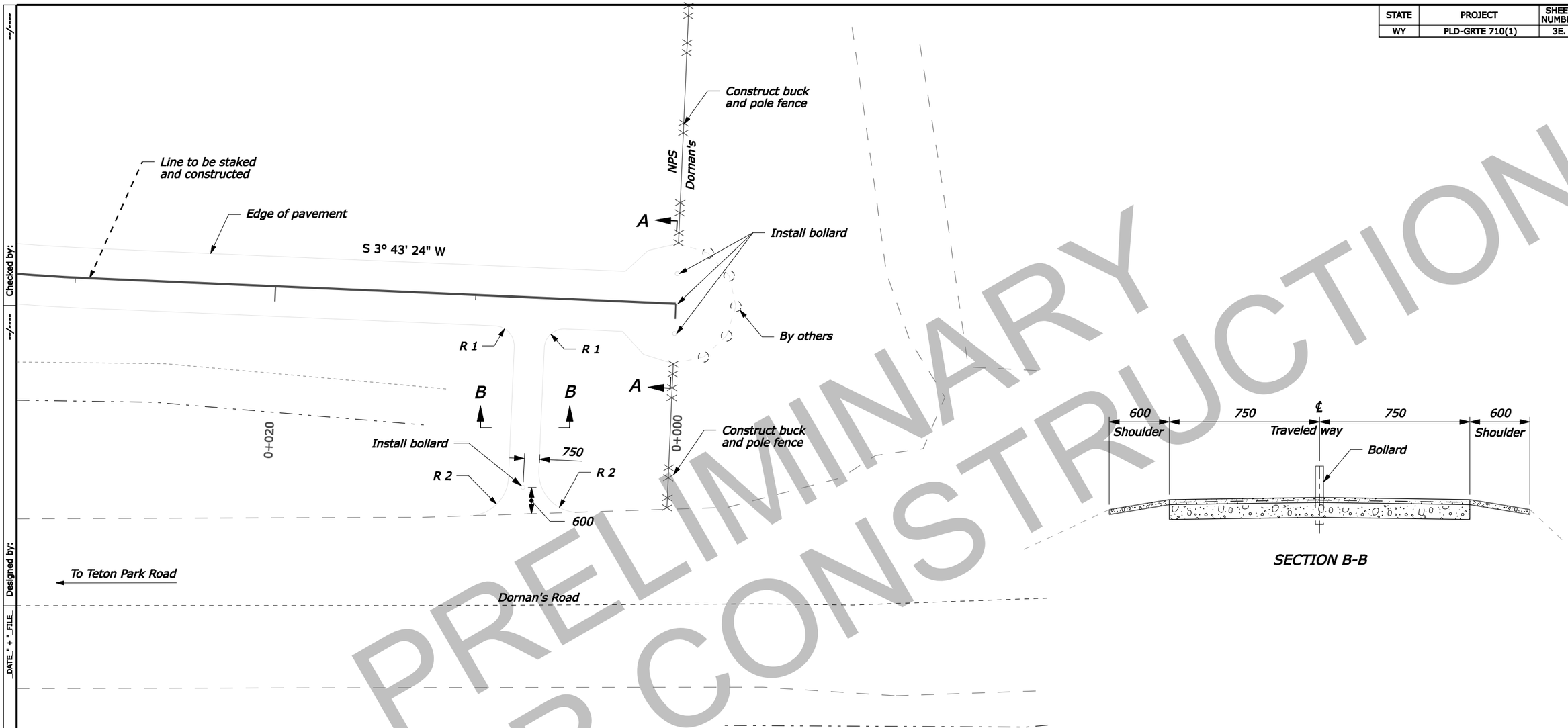
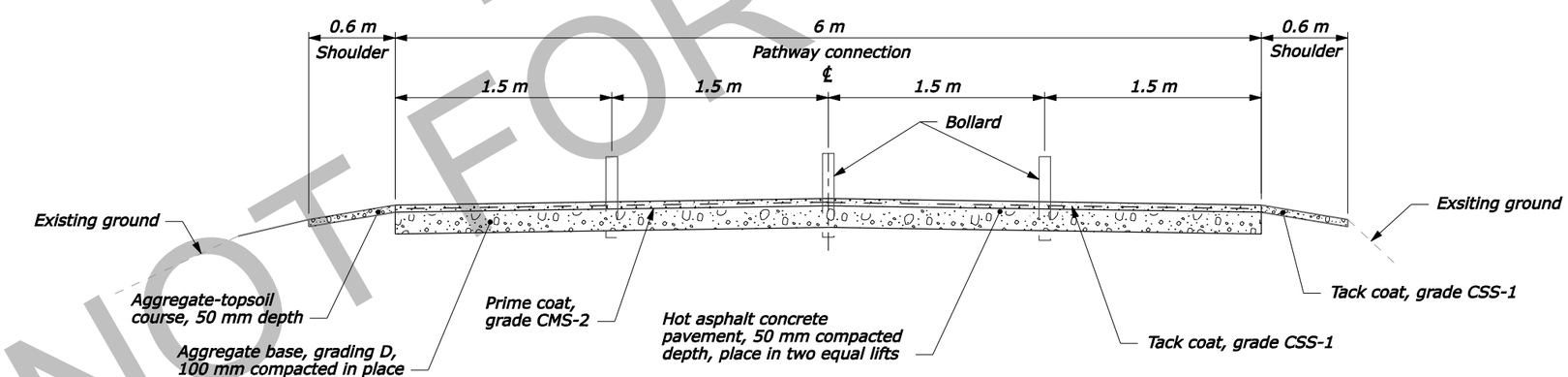


SECTION B-B



SECTION A-A

NOTE:

Nps Pkg No. 114407 NPS Drwg. No. 136/80200

PATHWAY CONNECTION DETAIL DORNAN'S

PRELIMINARY NOT FOR CONSTRUCTION

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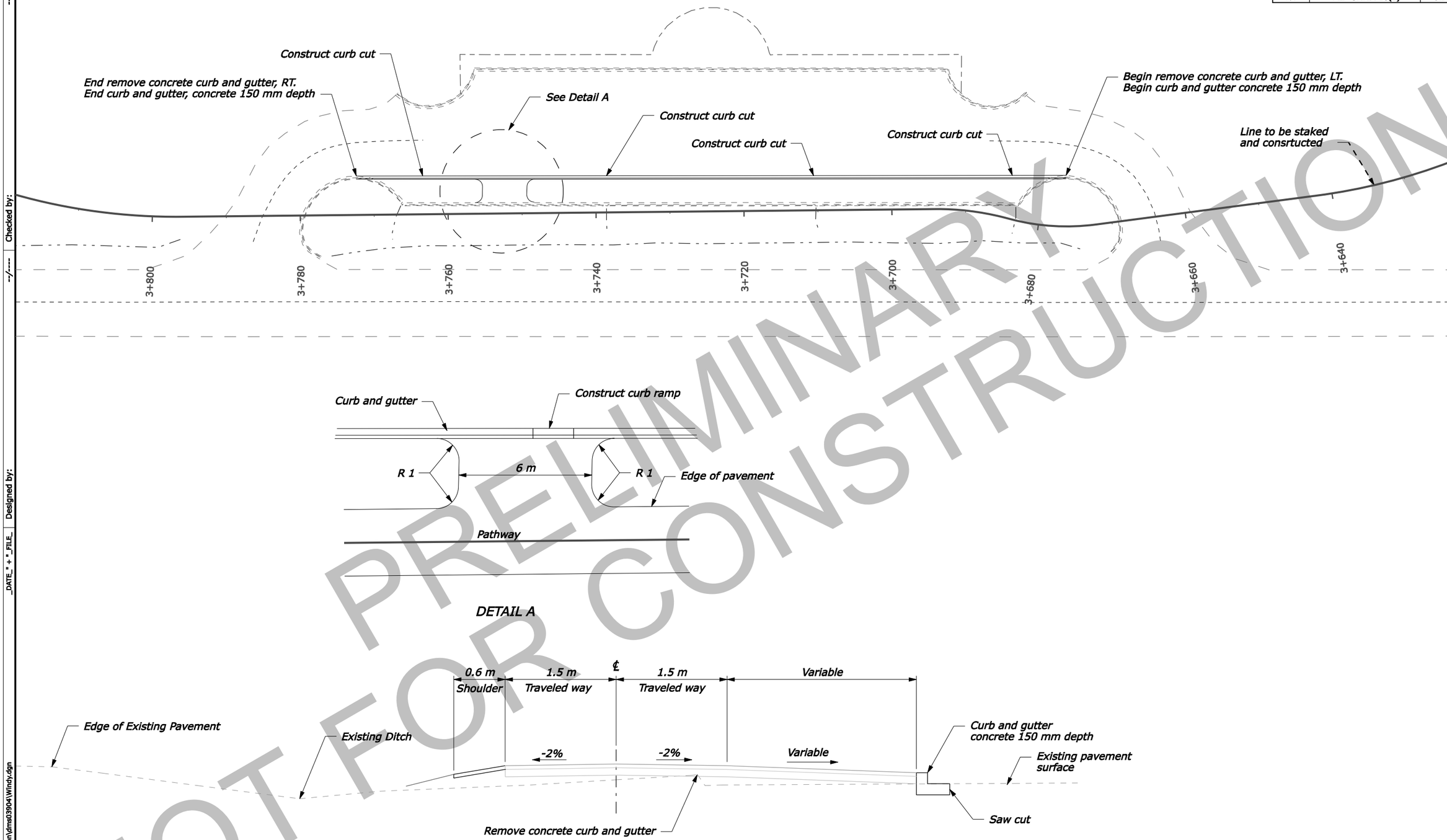
Designed by:
Checked by:

STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	3E.



PRELIMINARY
NOT FOR CONSTRUCTION

Nps Pkg No. 114407 NPS Drwg. No. 136/80200

PATHWAY CONNECTION
WINDY POINT

Designed by:
Checked by:
DATE" + "_FILE_
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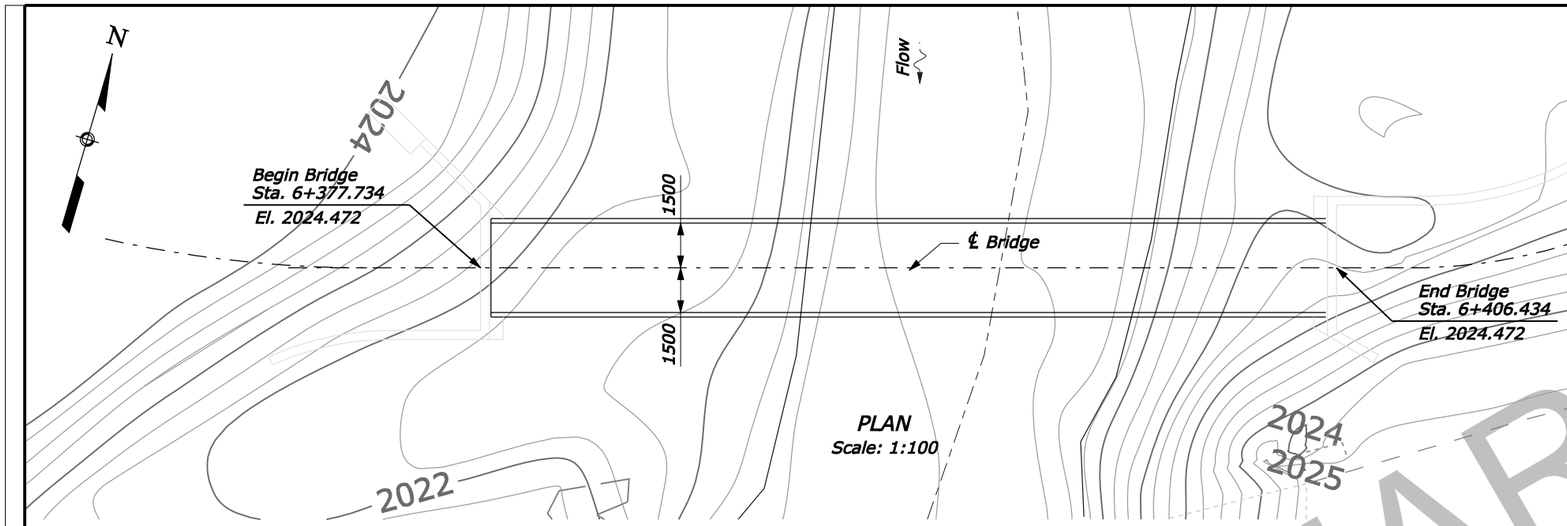
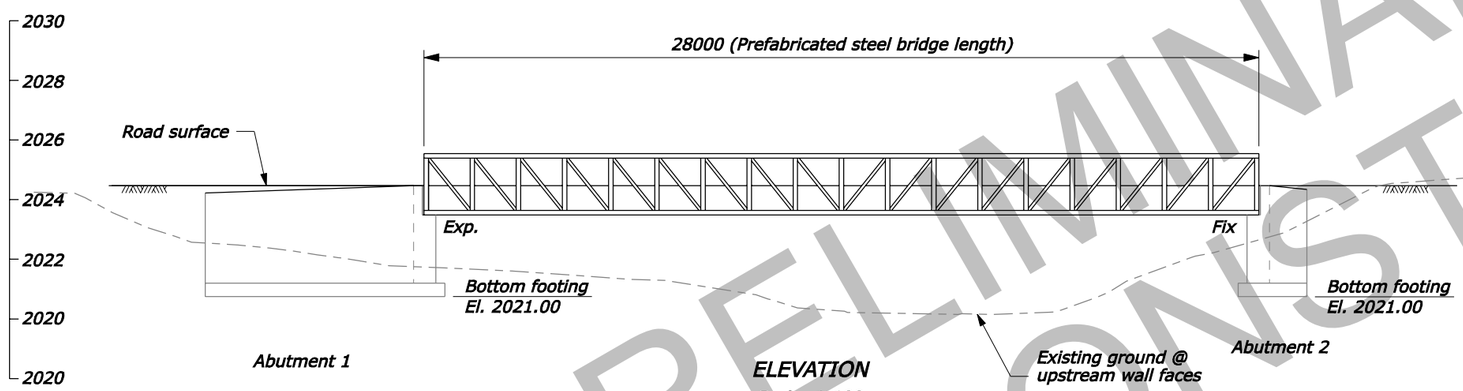
STATE	PROJECT	SHEET NUMBER
WY	PLD GRTE 710(1)	

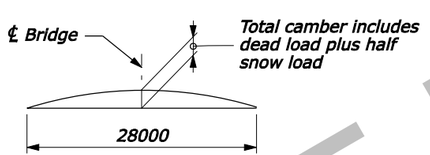


PLAN
Scale: 1:100

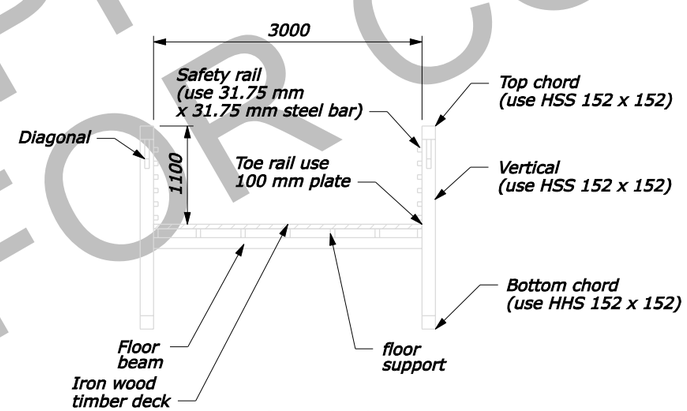


ELEVATION
Scale: 1:100

Applied Structural Loads:
Abut 1 = Abut 2 = 226 Kpa (service load)



CAMBER DIAGRAM



BRIDGE SECTION
No Scale

GENERAL NOTES:

SPECIFICATIONS:
Design: AASHTO Standard Specifications for Highway Bridges, 17th Edition 2002.

Construction: Federal Highway Administration Standard Specifications for Construction of Roads and bridges on Federal Highway Projects, FP-03 (metric).

DEAD LOADS:
Concrete: 23.6 kN per cubic meter. Soil: 18.9 kN per cubic meter. Lateral earth pressure equivalent to a fluid weighing 5.7 kN per cubic meter.
Timber: 7.1 kN per cubic meter.

LIVE LOADS:
8.4 kN per square meter of deck. (snow load)

DESIGN CRITERIA:
Reinforced concrete designed by load factor method with concrete f'c = 24 MPa. fy = 420 MPa.
Provide camber to offset the dead load deflection plus half the live load deflection at midspan of the finished structure.

CONCRETE:
All cast-in-place concrete shall be Structural Concrete, Class A(AE), with a minimum 28-day strength f'c = 24 MPa. No additives containing calcium chloride shall be used in the concrete. All concrete shall be vibrated and contain an approved airentraining admixture. Chamfer exposed edges of all concrete 20 mm, unless otherwise shown on the plans. All concrete shall be made with Type II cement. All cement shall be low alkali cement.

REINFORCING STEEL:
All reinforcing steel shall conform to AASHTO M31M, M42M, or M53M, Grade 420. The minimum cover to the face of any reinforcing bar shall be 50 mm, unless shown otherwise on the plans.

STRUCTURAL STEEL:
The steel fabricating company and plant shall be fully certified in "Simple Steel Bridge Structures" (SBr) under the AISC Quality Certification Program. Structural steel tubing shall be cold-formed, welded, or seamless square of retangular structural tubing with improved atmosphere corrosion resistance meeting the requirements of ASTM A618, Grade II, or equivalent. Miscellaneous angles, shapes, and plates shall meet the requirements of ASTM A588. Bolts, nuts, and washers for structural steel connections shall meet the requirements of ASTM A325, Type 3. All exposed surfaces of self-weathering steel shall be cleaned in accordance with Steel Structures Painting Council Surface Preparation Specifications No. 6, Commercial Blast cleaning, SSPC-SP6.

TIMBER:
Decking shall be Iron Wood Timber. See Section ___ of the Special Contract Requirements.

GEOTECHNICAL:
For geotechnical information see Geotechnical Report No. _____.

HYDRAULIC DATA

	Q (m^3/S)	Vm (m/S)	Ws El. (m)
Q_2	16.7	1.7	2021.3
Q_{50}	38.8	2.2	2021.8
Q_{100}	43.3	2.3	2021.9
Q_{500}	69.4	2.5	2022.3

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WESTERN FEDERAL LANDS HIGHWAY DIVISION

COTTONWOOD CREEK PEDESTRIAN BRIDGE

GRAND TETON NATIONAL PARK

WYOMING

PLAN AND ELEVATION

NO.	DATE	BY	REVISIONS	NO.	DATE	BY	REVISIONS	DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	PROJECT TEAM LEADER	BRIDGE DRAWING	DATE	DRAWING NO.
								F. ISMAIL	C. TUTTLE	M. VENEROSO	AS SHOWN		1 of		

PRELIMINARY
NOT FOR CONSTRUCTION

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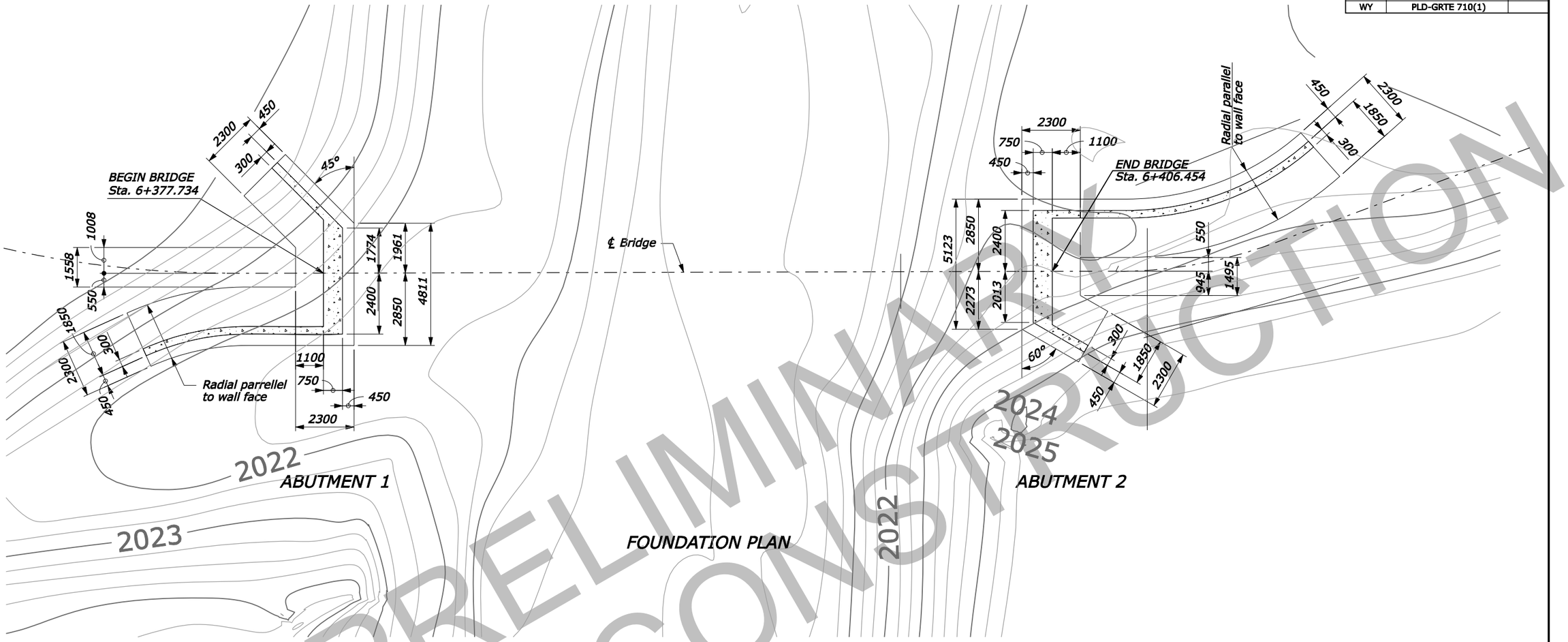
STATE	PROJECT	SHEET NUMBER
WY	PLD-GRTE 710(1)	



FOUNDATION PLAN

PRELIMINARY
NOT FOR CONSTRUCTION

ESTIMATE

Item No.	Description	Unit	Quantity	Notes
20801-0000	Structure Excavation	m³		(1)
55201-0200	Structural Concrete, Class A (AE)	m³	67	(1)
55401-1000	Reinforcing Steel	Kg	3600	(1)
57001-0000	Pre-fabricated Steel Pedestrian Bridge	Lump sum	1	(1) (2)
	Structure Steel Railing	m		(1) (3)
60504-0000	Geocomposite Sheet Drain	m²	82	(1) (4)

ESTIMATE NOTES:

(1) Contract quantity.

(2) Includes cost of furnishing anchor bolts, elastomeric pad for bearing assembly and all other materials required for contractor of erection of the prefabricated bridge.

(3) Includes cost of furnishing and installing anchor bolts and all other materials required for construction of the steel railing.

(4) Includes cost of furnishing and installing geocomposite sheet drain, and drain gates.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WESTERN FEDERAL LANDS HIGHWAY DIVISION

COTTONWOOD CREEK PEDESTRIAN BRIDGE

GRAND TETON NATIONAL PARK

WYOMING

FOUNDATION PLAN

NO.	DATE	BY	REVISIONS	NO.	DATE	BY	REVISIONS	DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	PROJECT TEAM LEADER	BRIDGE DRAWING	DATE	DRAWING NO.
								F. ISMAIL	C. TUTTLE	M. VENEROSO	1/2" = 1'-0"		2 of		

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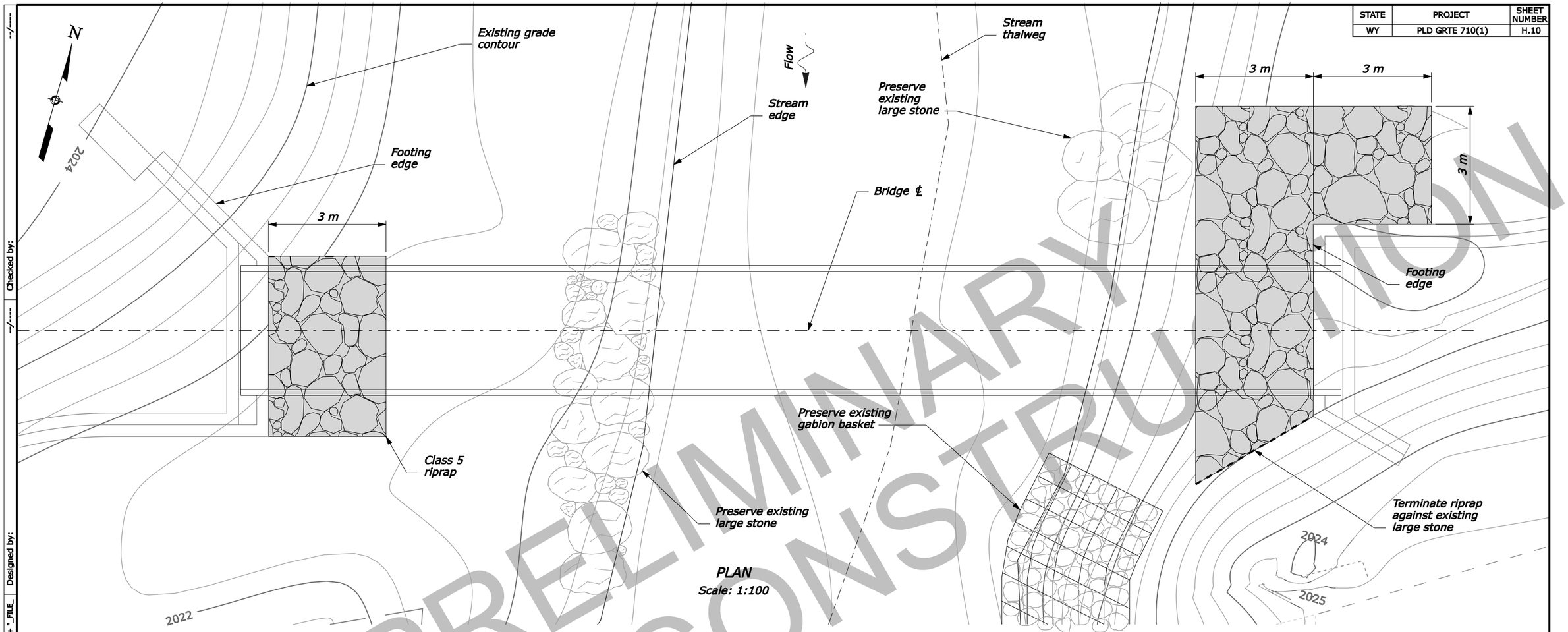
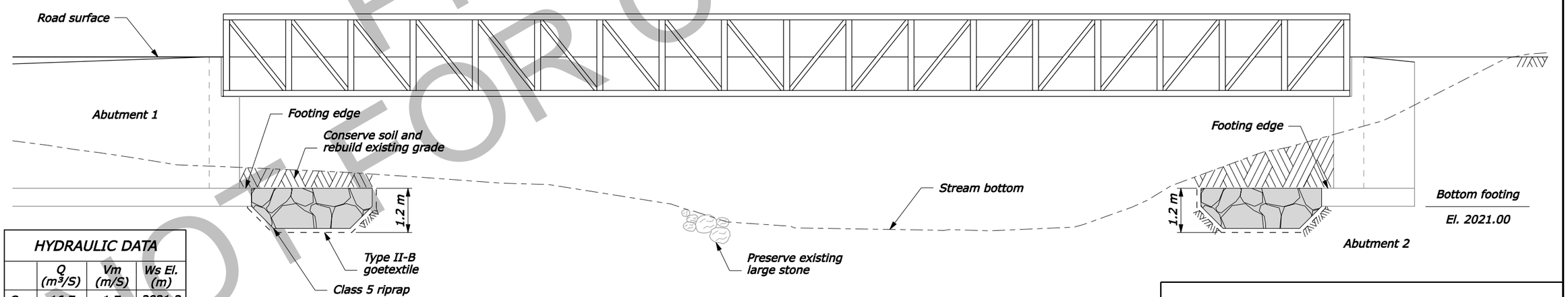
STATE	PROJECT	SHEET NUMBER
WY	PLD GRTE 710(1)	H.10



PLAN
Scale: 1:100



ELEVATION
Scale: 1:100

HYDRAULIC DATA

	Q (m^3/S)	Vm (m/S)	Ws El. (m)
Q_2	16.7	1.7	2021.3
Q_{50}	38.8	2.2	2021.8
Q_{100}	43.3	2.3	2021.9
Q_{500}	69.4	2.5	2022.3

COTTONWOOD CREEK BRIDGE
RIPRAP PLAN & ELEVATION

PRELIMINARY
NOT FOR CONSTRUCTION

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Designed by:
Checked by: