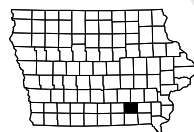


DITCH IMPROVEMENT
NHSN-034-7(146)--2R-90

LETTING DATE
 08/21/2018

WAPELLO CO.



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM
WAPELLO COUNTY
 DITCH IMPROVEMENT

0.7 mi E of IA 149 in Ottumwa

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



For Project Location Map
 Refer to Sheet No. A.02

REVISIONS

TOTAL

22

PROJECT IDENTIFICATION NUMBER

18-90-034-010

PROJECT NUMBER

NHSN-034-7(146)--2R-90

R.O.W. PROJECT NUMBER

NHSN-034-7(147)--2R-90

INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 4	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 3	US Highway 34 Church St/Jefferson St Exit Ramp
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
J.1	Coordinated Operations
J.1	Traffic Control Closure Table
W Sheets	Cross Sections
W.1 - 12	Cross Sections
	* Color Plan Sheets

Earthwork:
 Cut = 1,100 CY
 Fill = 1,500 CY
 Topsoil = 3,050 CY

D9 PLAN - Date: 06-05-2018

PRELIMINARY PLANS

Subject to change by final design.

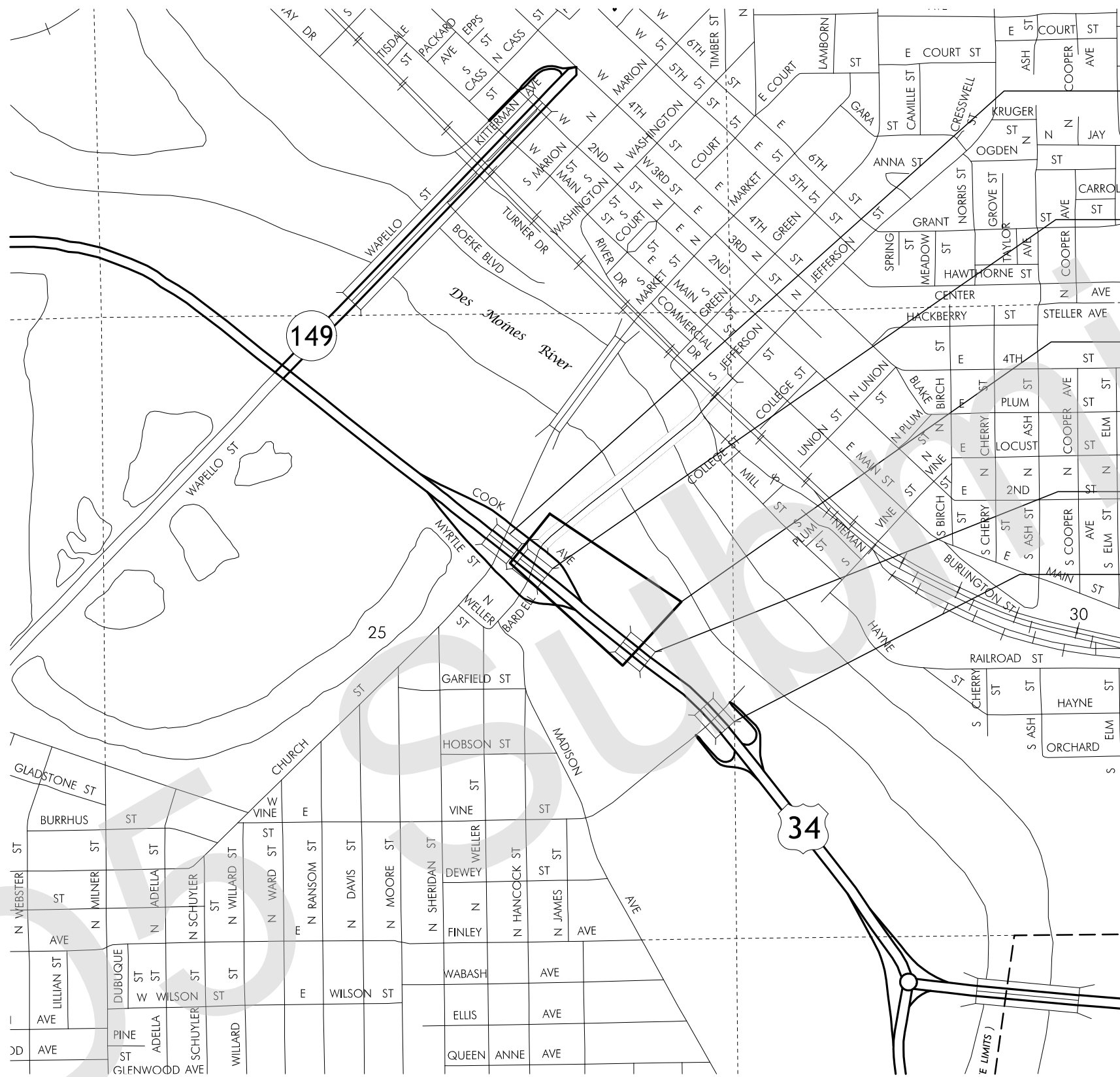
D5 PLAN - Date: 12-29-2017

DESIGN DATA URBAN

2015	AADT	810	V.P.D.
20--	AADT	--	V.P.D.
20--	DHV	--	V.P.H.
	TRUCKS	3.33	%
	Total		
	Design ESALs	--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	Kelly C. Bell	Primary Signature Block



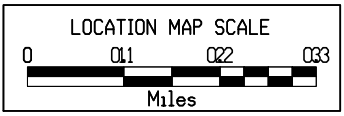
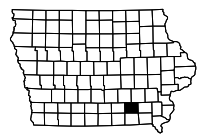
Bridge Over Church Street
 EB Bridge - FHWA # 050460
 WB Bridge - FHWA # 050470

Bridge Over Bardell Street
 EB Bridge - FHWA # 050480
 WB Bridge - FHWA # 050490

PROJECT LOCATION
 Ref. Loc. 189

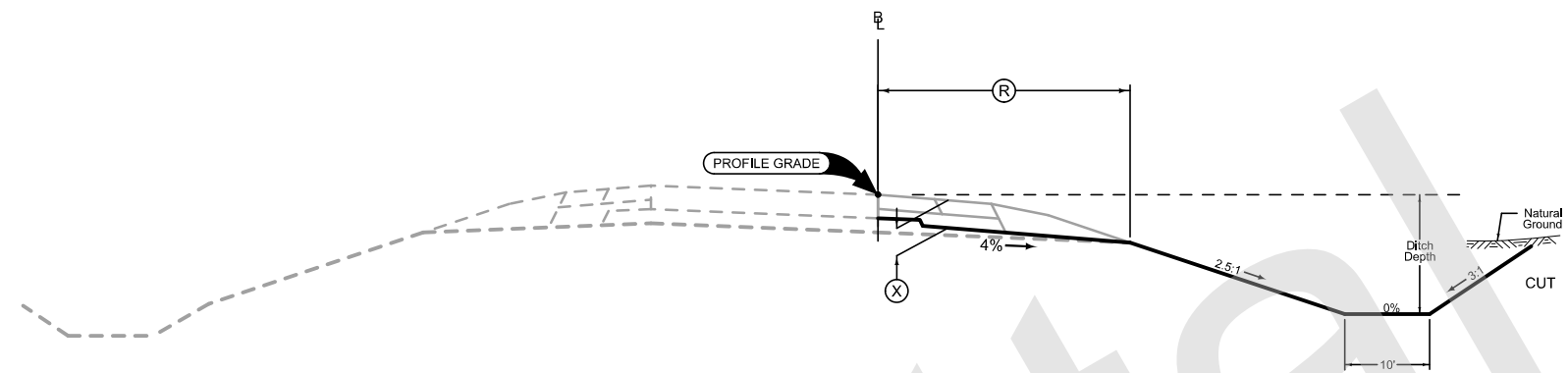
Bridge Over Abandoned RR - Now Bike Trail
 EB Bridge - FHWA # 050500
 WB Bridge - FHWA # 050510

Bridge Over Vine Street
 EB Bridge - FHWA # 050520
 WB Bridge - FHWA # 050530



LOCATION				DIMENSIONS	
INTERCHANGE	RAMP	STATION TO STATION		(R) Feet	(X) Inches
Jefferson St.	WB Exit	4663+25.00	4666+36.00	10.03	3
Jefferson St.	WB Exit	4666+36.00	4671+89.44 (1)	10.00	12
Jefferson St.	WB Exit	671+90.00 (1)	672+49.05	10-6	12
Jefferson St.	WB Exit	672+49.05	672+73.50	6.00	12
(1) Equation Sta. 4671+89.44 BK = Sta. 671+90.00 AH					

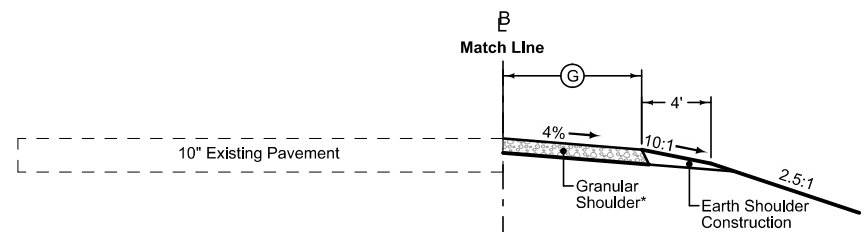
G_1R_Grade
Modified



RAMP GRADING

Section view is in direction of traffic.
Normal sections shown may be appropriately modified for areas specifically designated by the Engineer such as intersections or superelevated curves.

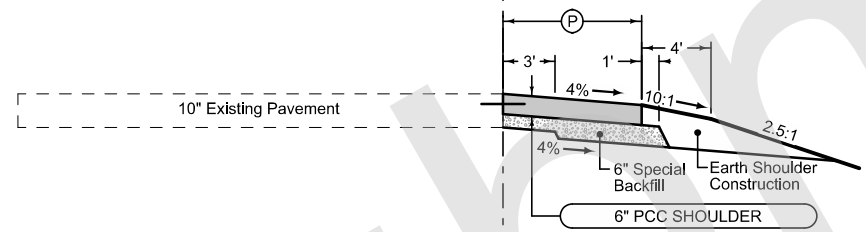
D55 Submitted



Granular Shoulder

*Assume 3" granular material placed for grading purposes.

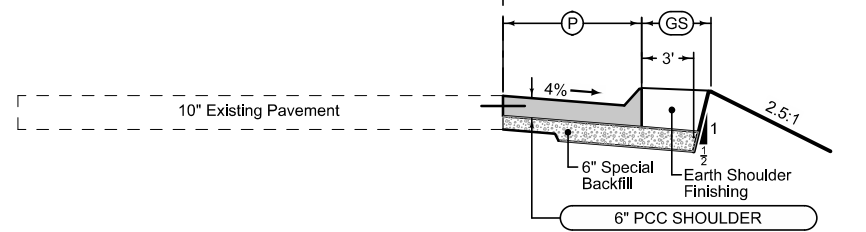
Granular Shoulder		(G)
STATION TO STATION		Feet
4663+25.00	4666+36.00	6



Paved Shoulder

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 20' spacing
 (Match Existing)

Paved Shoulder		(P)
STATION TO STATION		Feet
4666+36.00	4666+50.00	7



Curbed Shoulder

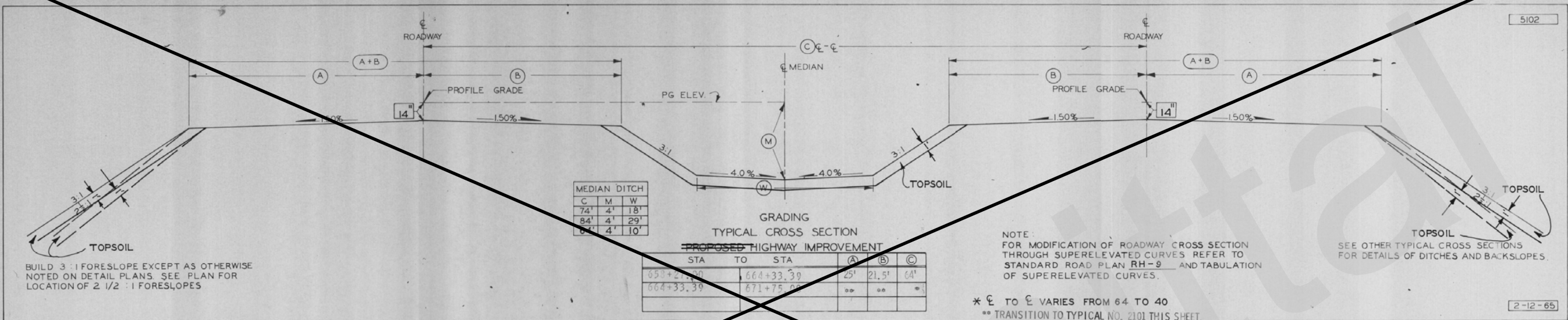
PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 20' spacing
 (Match Existing)

Curbed Shoulder				
STATION TO STATION	(P)	(GS)	Curb Type See PV-102	
	Feet	Feet		
4666+50.00	4671+89.44 (1)	7	4	4" Sloped
671+90.00 (1)	672+49.05	7-3	4-10.5	4" Sloped
672+49.05	672+73.50	3	10.5	4" Sloped

See Tab 112-9 for shoulder quantities.

U.S. Highway 34 Ramp Shoulder WB

5102

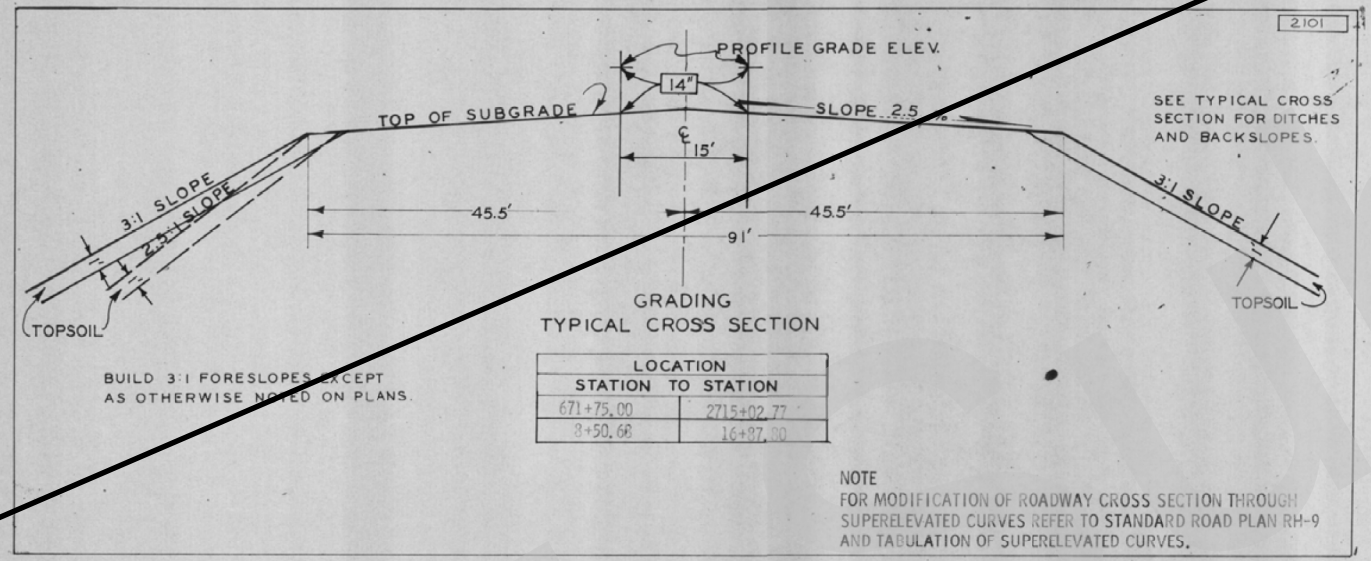


BUILD 3:1 FORESLOPE EXCEPT AS OTHERWISE NOTED ON DETAIL PLANS. SEE PLAN FOR LOCATION OF 2 1/2 : 1 FORESLOPES

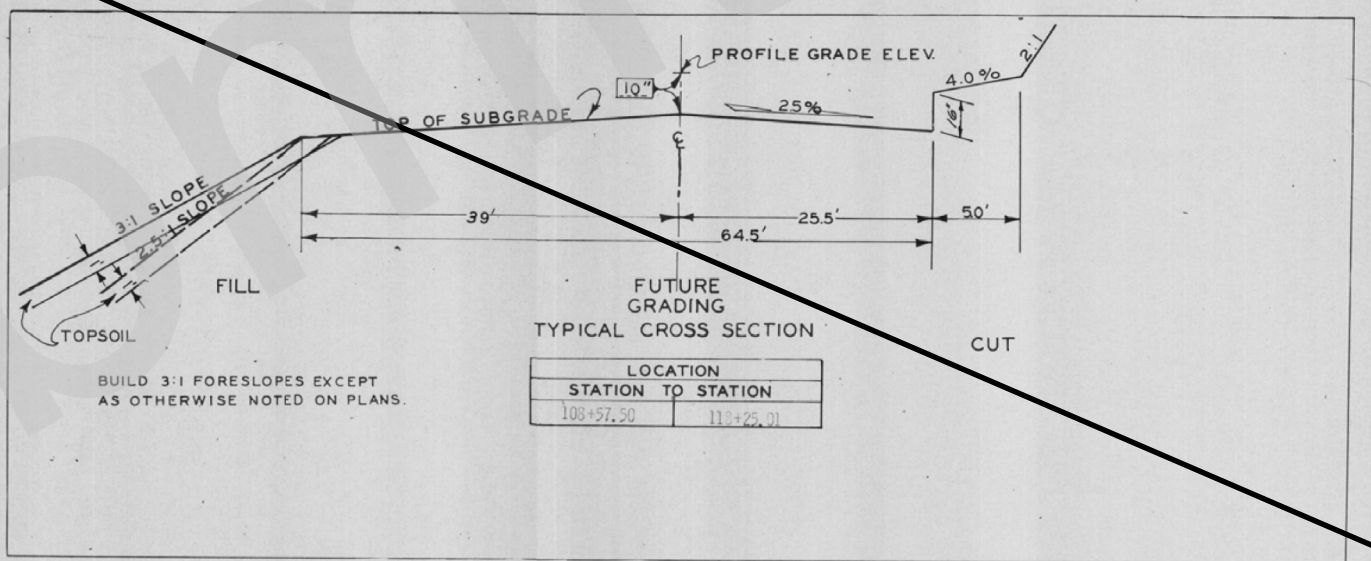
SEE OTHER TYPICAL CROSS SECTIONS FOR DETAILS OF DITCHES AND BACKSLOPES.

2-12-65

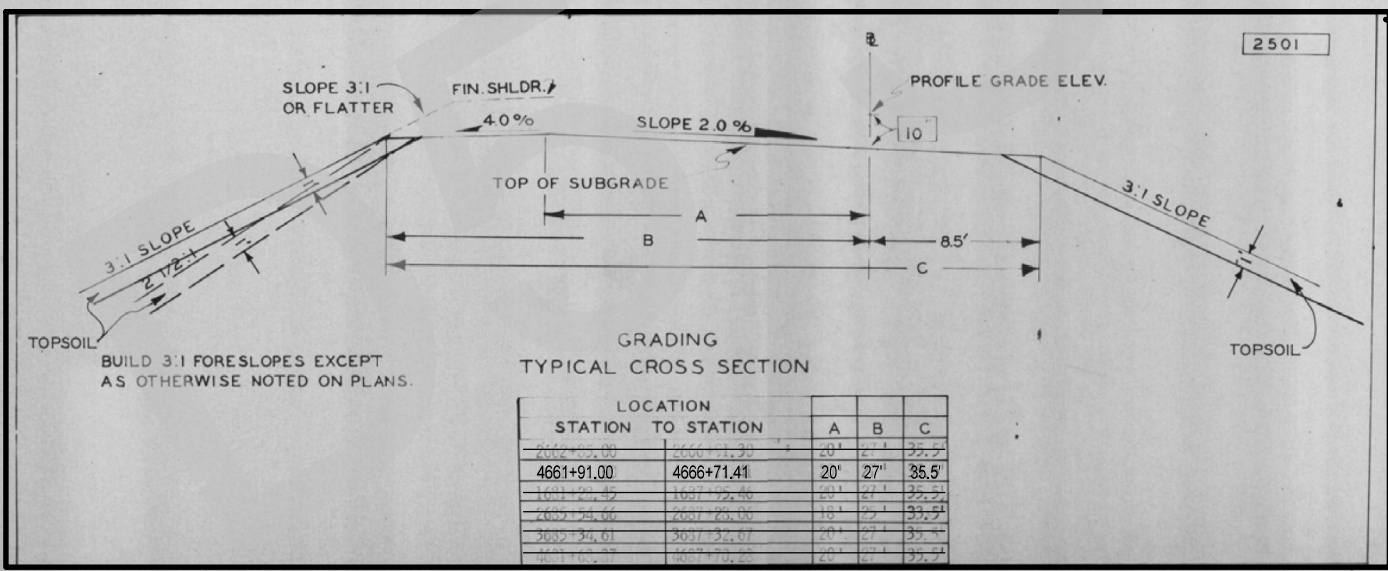
NOTE: TOPSOIL TO BE PLACED IN FILL AREAS ONLY.



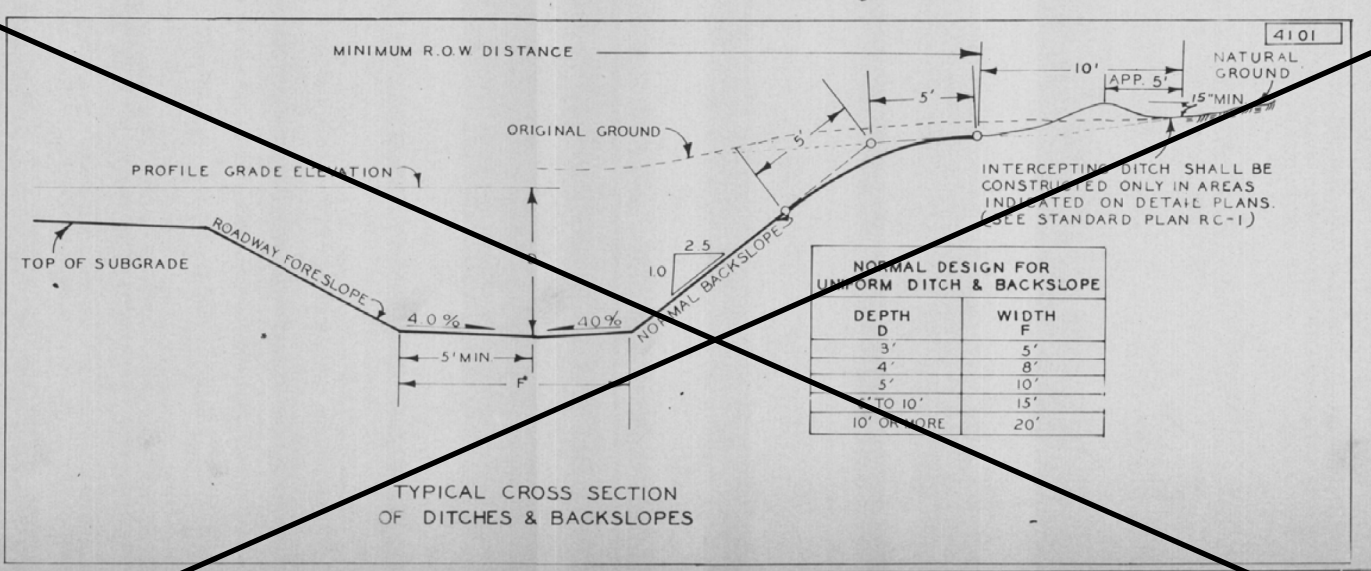
BUILD 3:1 FORESLOPES EXCEPT AS OTHERWISE NOTED ON PLANS.



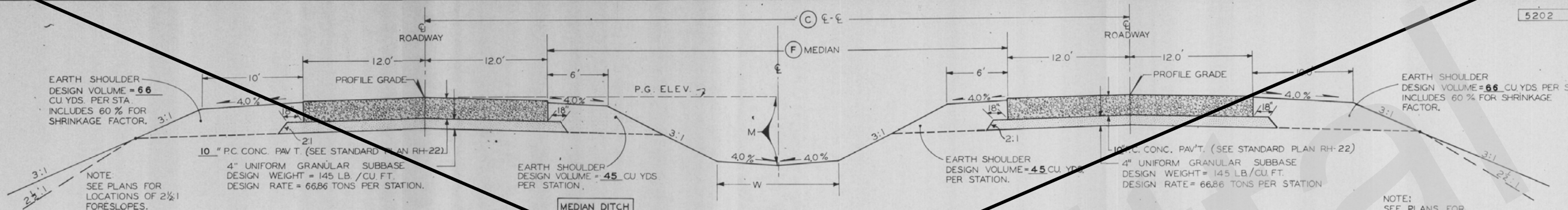
BUILD 3:1 FORESLOPES EXCEPT AS OTHERWISE NOTED ON PLANS.



BUILD 3:1 FORESLOPES EXCEPT AS OTHERWISE NOTED ON PLANS.



5202



F	M	W
24'	4'	18'
60'	4'	29'
40'	4'	30'

TYPICAL CROSS SECTION PROPOSED HIGHWAY IMPROVEMENT

STA.	TO STA.	(C)	(F)
658+27.00	664+33.30	64'	40'
664+33.30	671+75.00	*	**

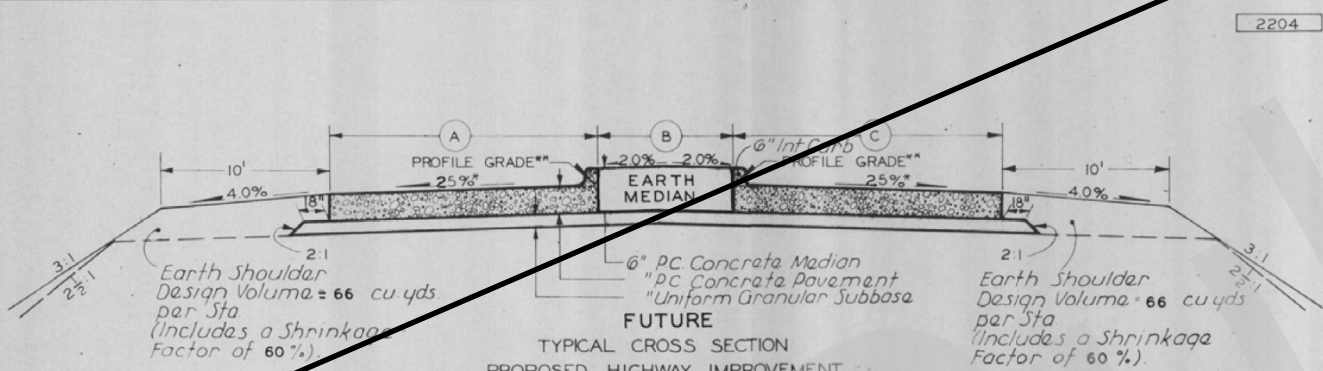
* C VARIES FROM 64' TO 40'
** MEDIAN VARIES FROM 40' TO 15'

* NOTE: FOR MODIFICATION OF ROADWAY CROSS SECTION THROUGH SUPERELEVATED CURVES, REFER TO STANDARD PLAN RH-9 ALSO SEE TABULATION OF SUPERELEVATED CURVES.

NOTE: SEE PLANS FOR LOCATIONS OF 2 1/2:1 FORESLOPES.

2-12-65

2204



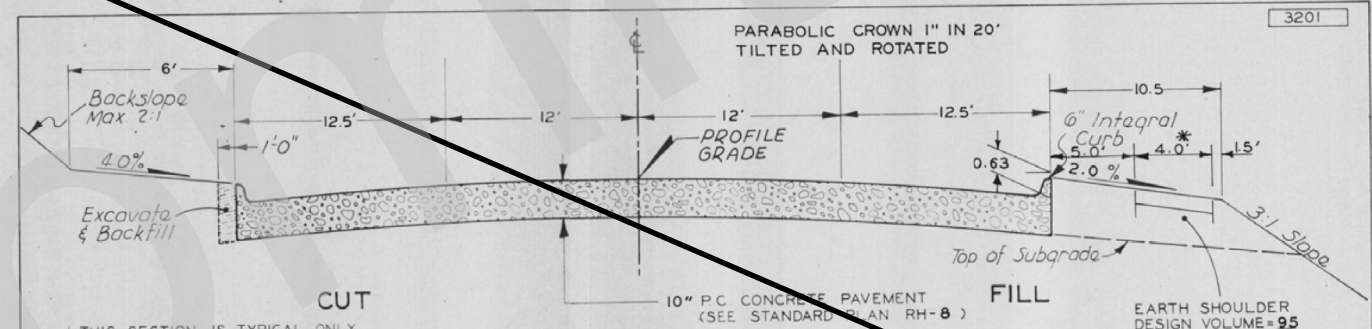
TYPICAL CROSS SECTION PROPOSED HIGHWAY IMPROVEMENT

STA.	TO STA.	A	B	C
671+75.00	2715+02.77	24.5'	15'	24.5'
8+50.68	16+87.80	24.5'	15'	24.5'

NOTE: FOR MODIFICATION OF ROADWAY CROSS SECTION THROUGH SUPERELEVATED CURVES, REFER TO STANDARD PLAN RH-9 ALSO SEE TABULATION OF SUPERELEVATED CURVES.

* Normal pavement slope except where indicated otherwise on the detail project plans
** Normal Location except where specifically indicated otherwise on detail project plans

3201

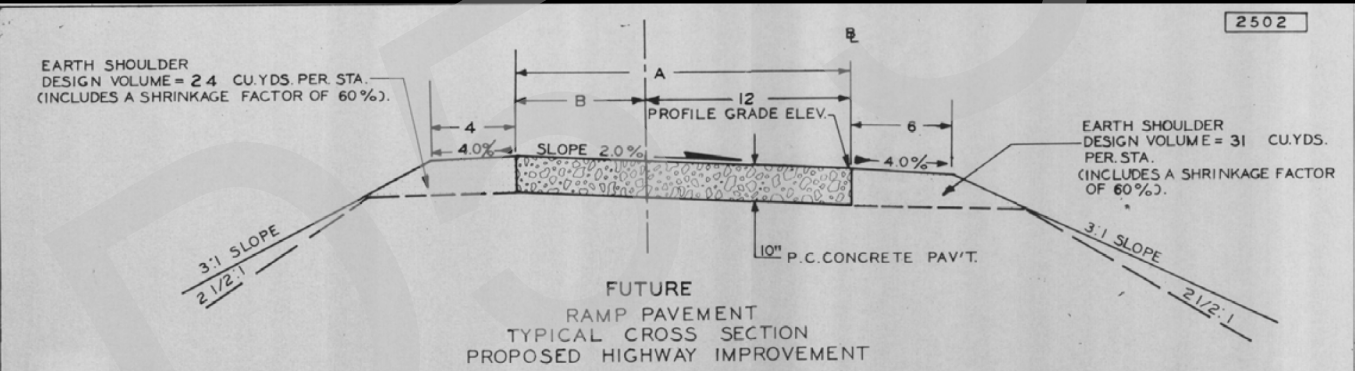


FUTURE FOUR LANES CURBED TYPICAL CROSS SECTION PROPOSED HIGHWAY IMPROVEMENT

STATION	TO STATION
108+57.50	118+25.01

* SIDE WALK WHERE INDICATED ON DETAIL PLANS.

2502
















FUTURE RAMP PAVEMENT TYPICAL CROSS SECTION PROPOSED HIGHWAY IMPROVEMENT

STA.	TO STA.	A	B
2662+05.00	2666+91.30	20'	8'
4661+91.00	4666+71.41	20'	8'
1681+28.45	1687+95.46	20'	8'
2685+54.66	2687+28.06	18'	6'
3685+134.61	3687+132.67	20'	8'
4681+68.87	4687+76.28	20'	8'







SURVEY SYMBOLS













UTILITY LEGEND









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 "In conjunction with a paving project"
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

	Reference Point		Survey Line
	Station		Section Corner
	Ground Line Intercept		Saw Cut
	Guardrail		Trench Drain
	High Tension Cable Guardrail		Sheet Pile
	Pavement Removal		Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND	
	Proposed Right-of-Way
	Existing Right of Way
	Existing and Proposed Right-of-Way
	Easement and Existing Right-of-Way
	Easement (Temporary)
	Easement
	Access Control
	Property Line

**PLAN AND PROFILE
LEGEND AND SYMBOL
INFORMATION SHEET**

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

Center TWP.
T-72N R14W
Sec. 25



S Jefferson ST

Bike Trail

Bike Trail

Curve Data
 $\Delta = 22^\circ 46' 15.19''$ (RT)
T = 63.95
L = 126.21
R = 317.57
E = 6.37

Curve Data
 $\Delta = 19^\circ 16' 42.26''$ (LT)
T = 51.45
L = 101.93
R = 302.93
E = 4.34

Sta. 4663+25.00
BEGIN CONSTRUCTION
BEGIN GRANULAR SHOULDER

Sta. 4666+36.00
END GRANULAR SHOULDER
BEGIN PAVED SHOULDER

Sta. 673+14.97 R 2, 111' LT (SURRAMP)
72' x 36" CMP W/CONCRETE OUTLET APRON
(U.A.C.)

Sta. 672+73.50 R 2
END PAVED SHOULDER
END CONSTRUCTION

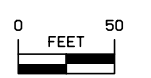
34

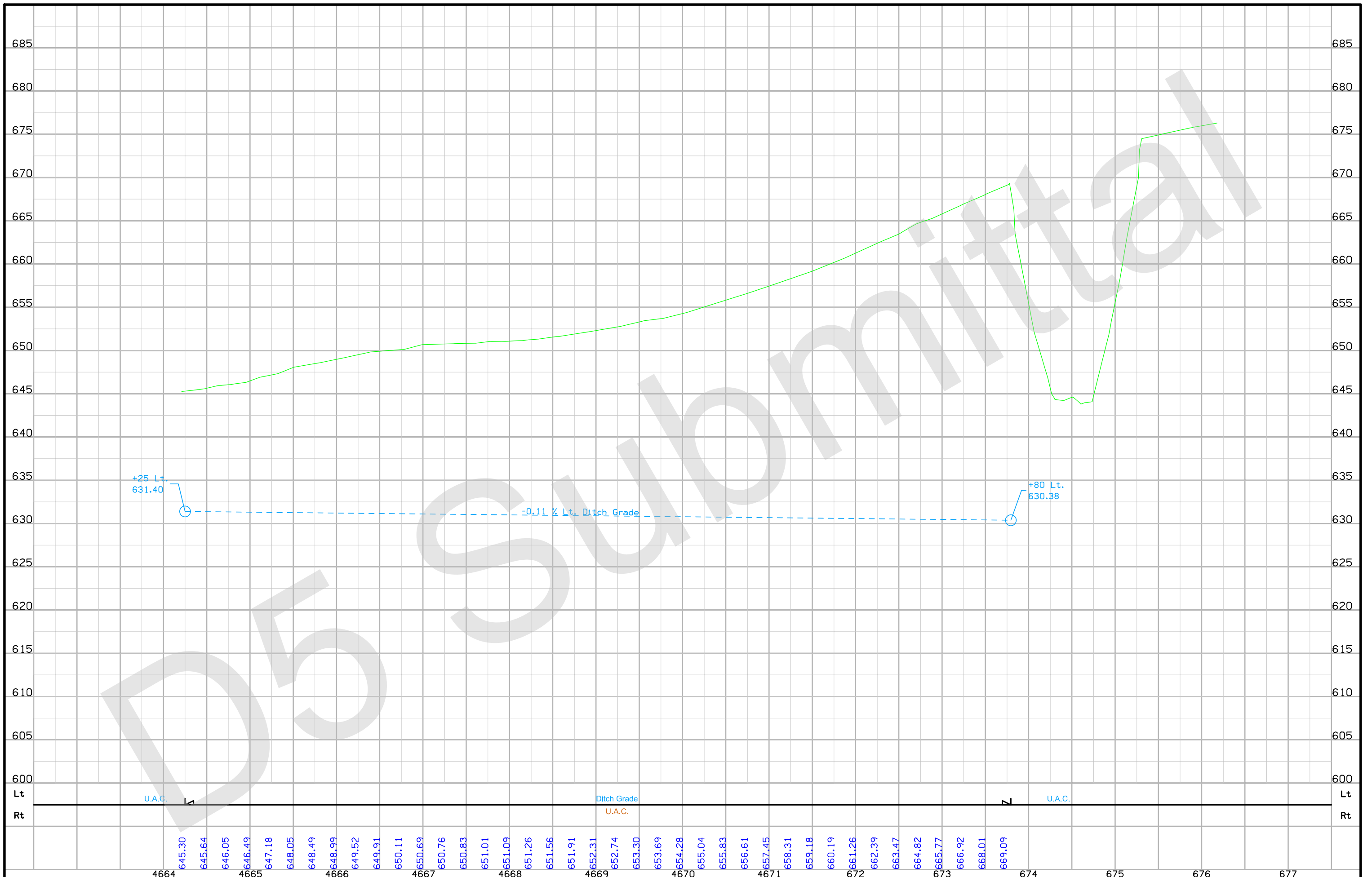
STATION EQUATION:
Sta 4671+89.44 BK =
Sta 671+90.00 AH

Sta. 673+12, 17° Rt. Ah (SUR034)
210' x 30" RCP
(U.A.C.)

N Weller ST

Bardell ST

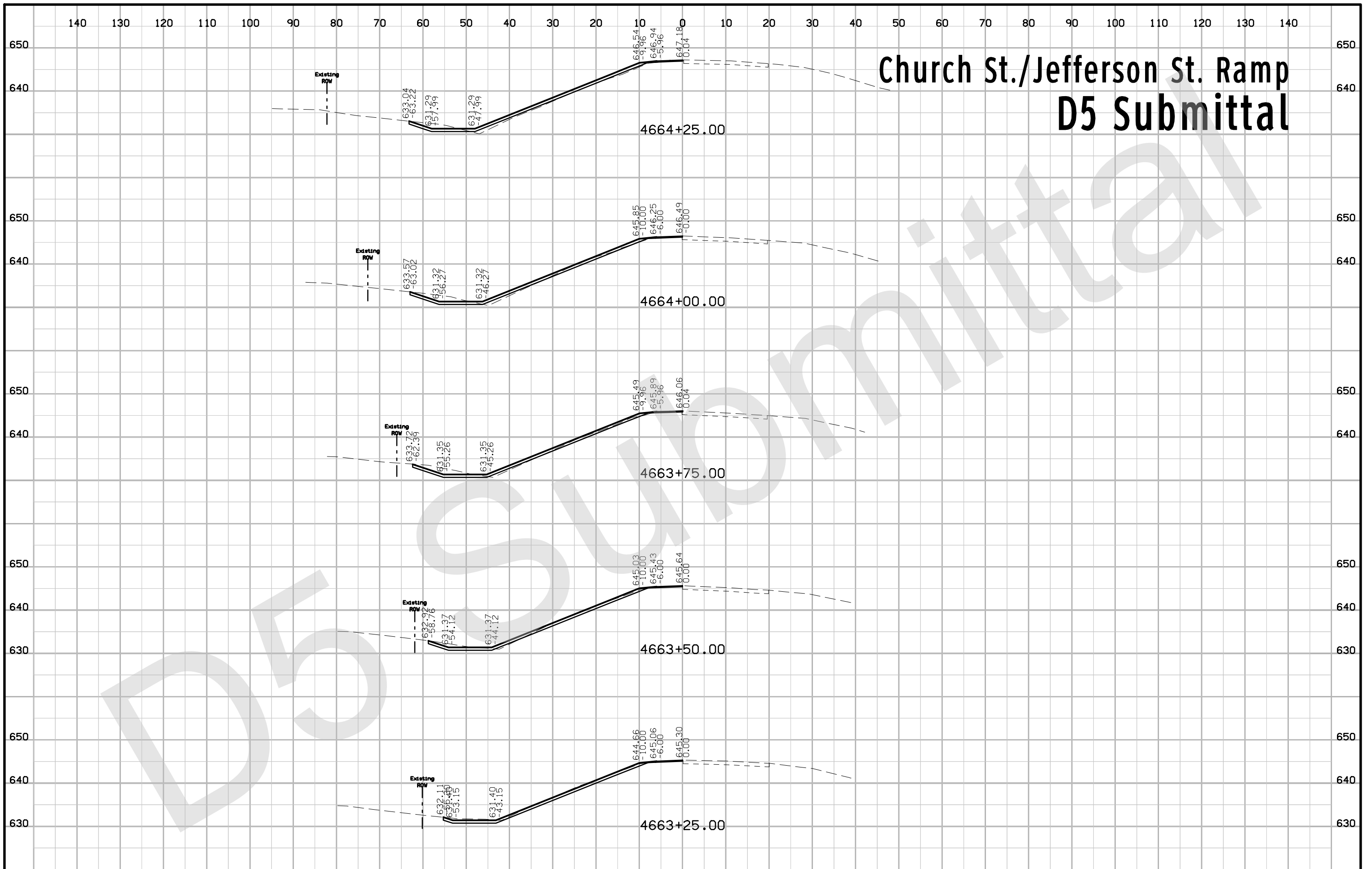




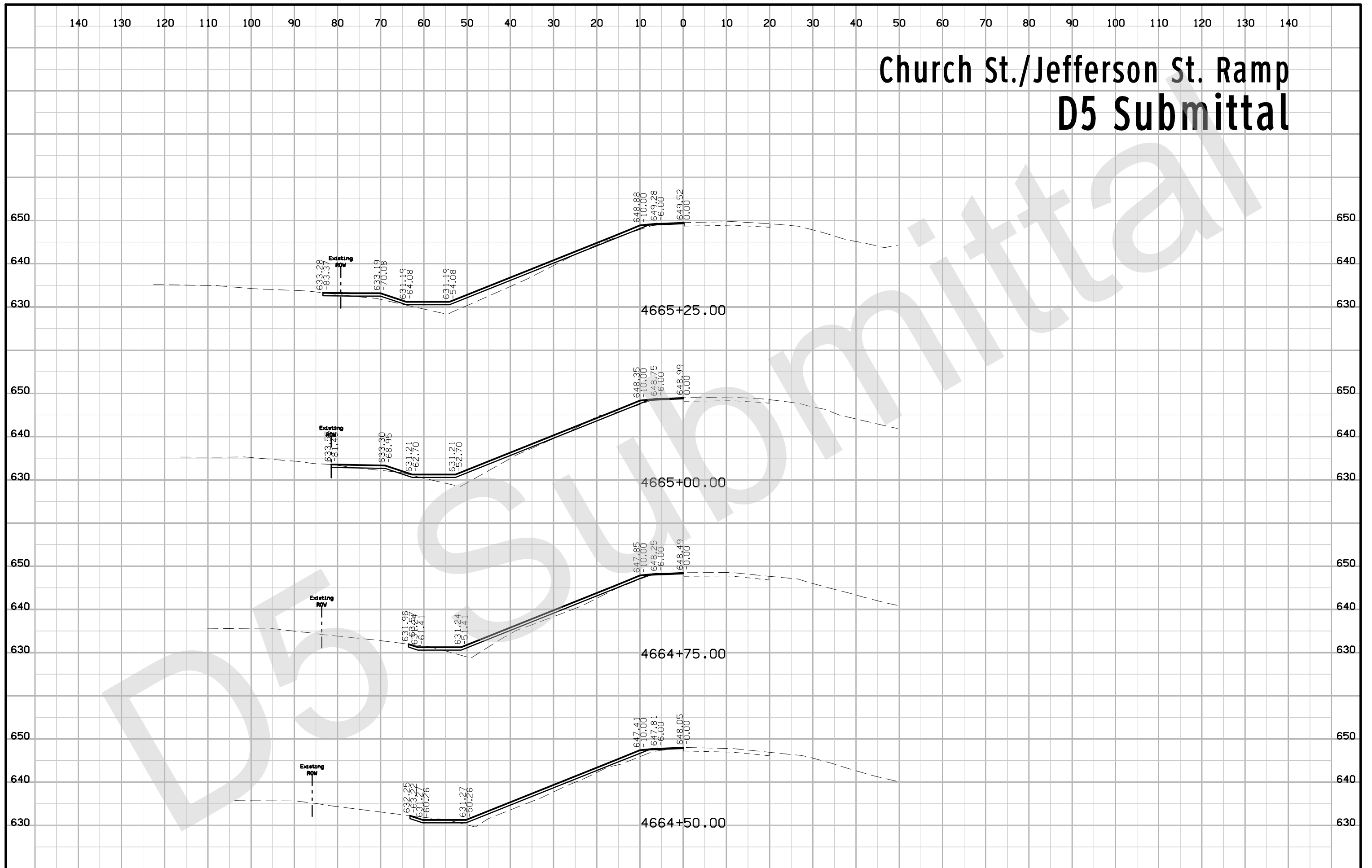
FILE NO.	ENGLISH	DESIGN TEAM	Flattery \ Bell	WAPELLO COUNTY	PROJECT NUMBER	NHSN-034-7(146)--2R-90	SHEET NUMBER	D.3
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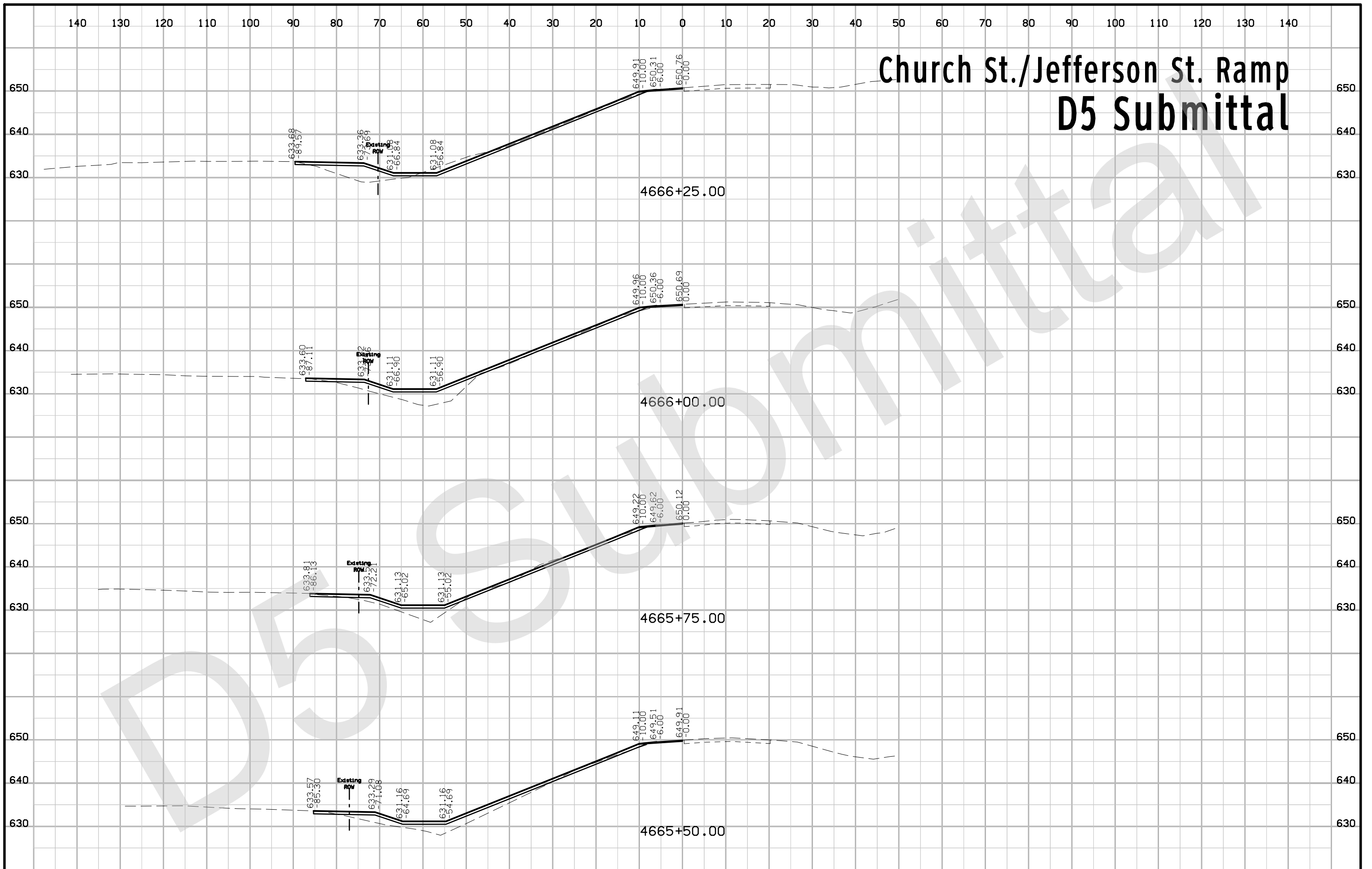
Church St./Jefferson St. Ramp D5 Submittal



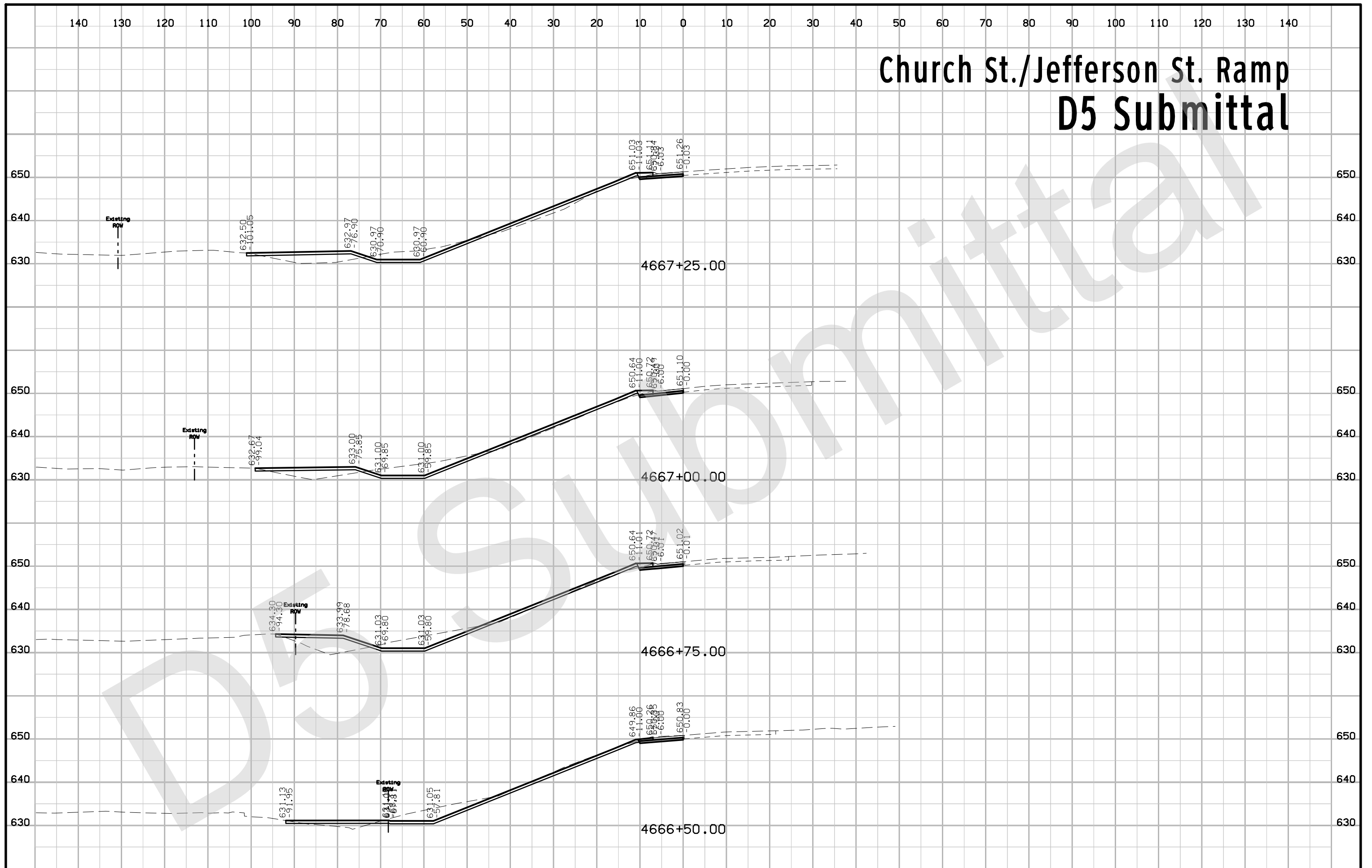
Church St./Jefferson St. Ramp D5 Submittal



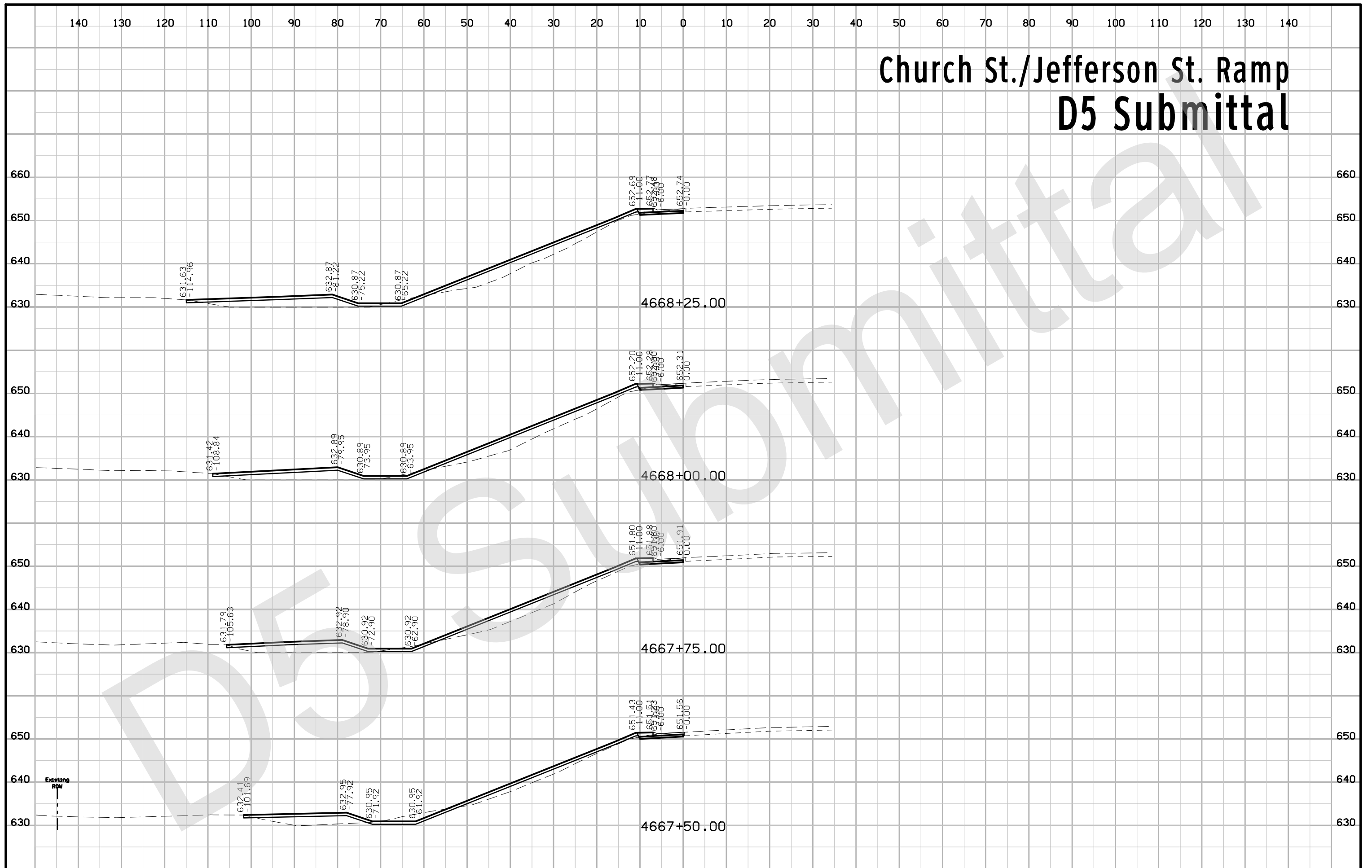
Church St./Jefferson St. Ramp D5 Submittal



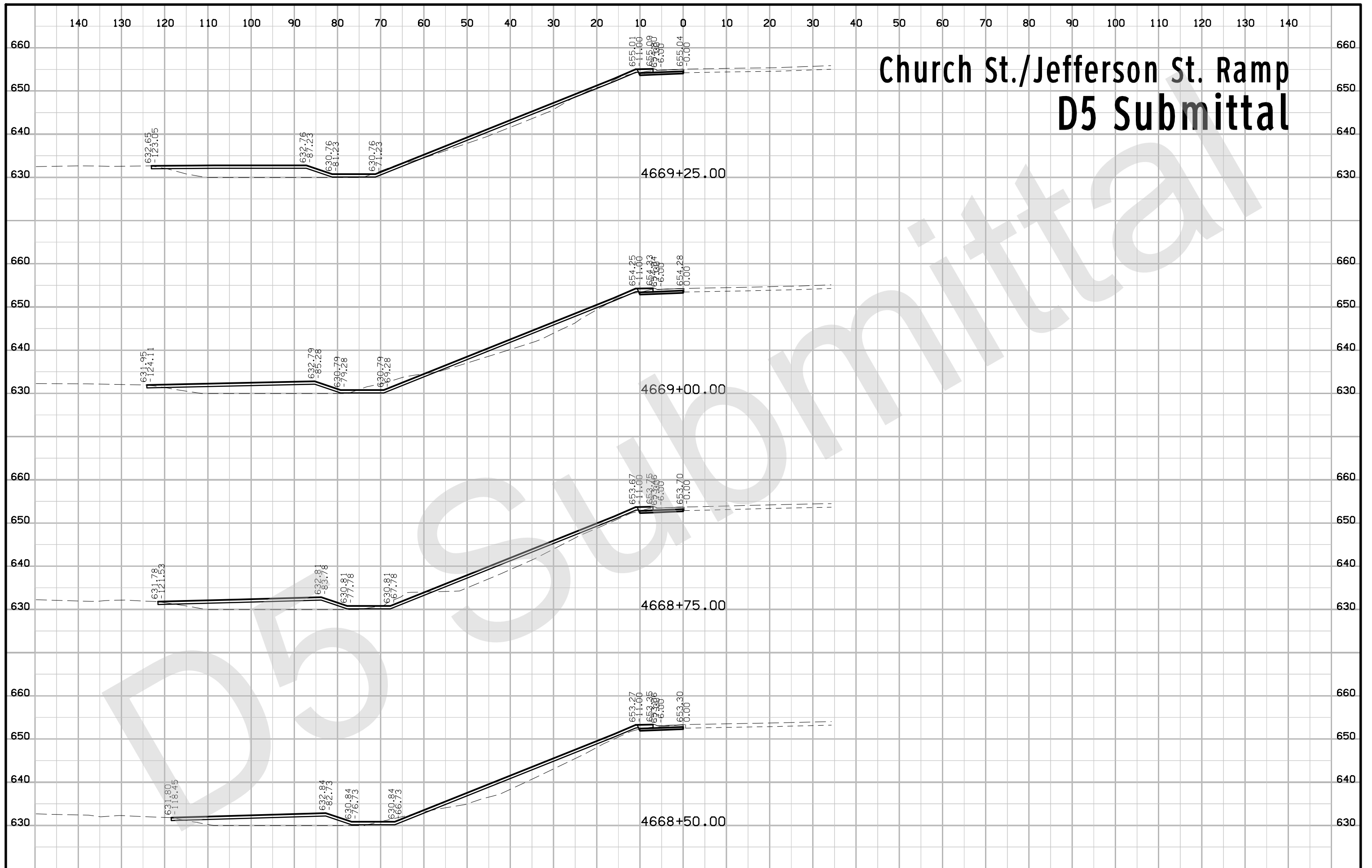
Church St./Jefferson St. Ramp D5 Submittal



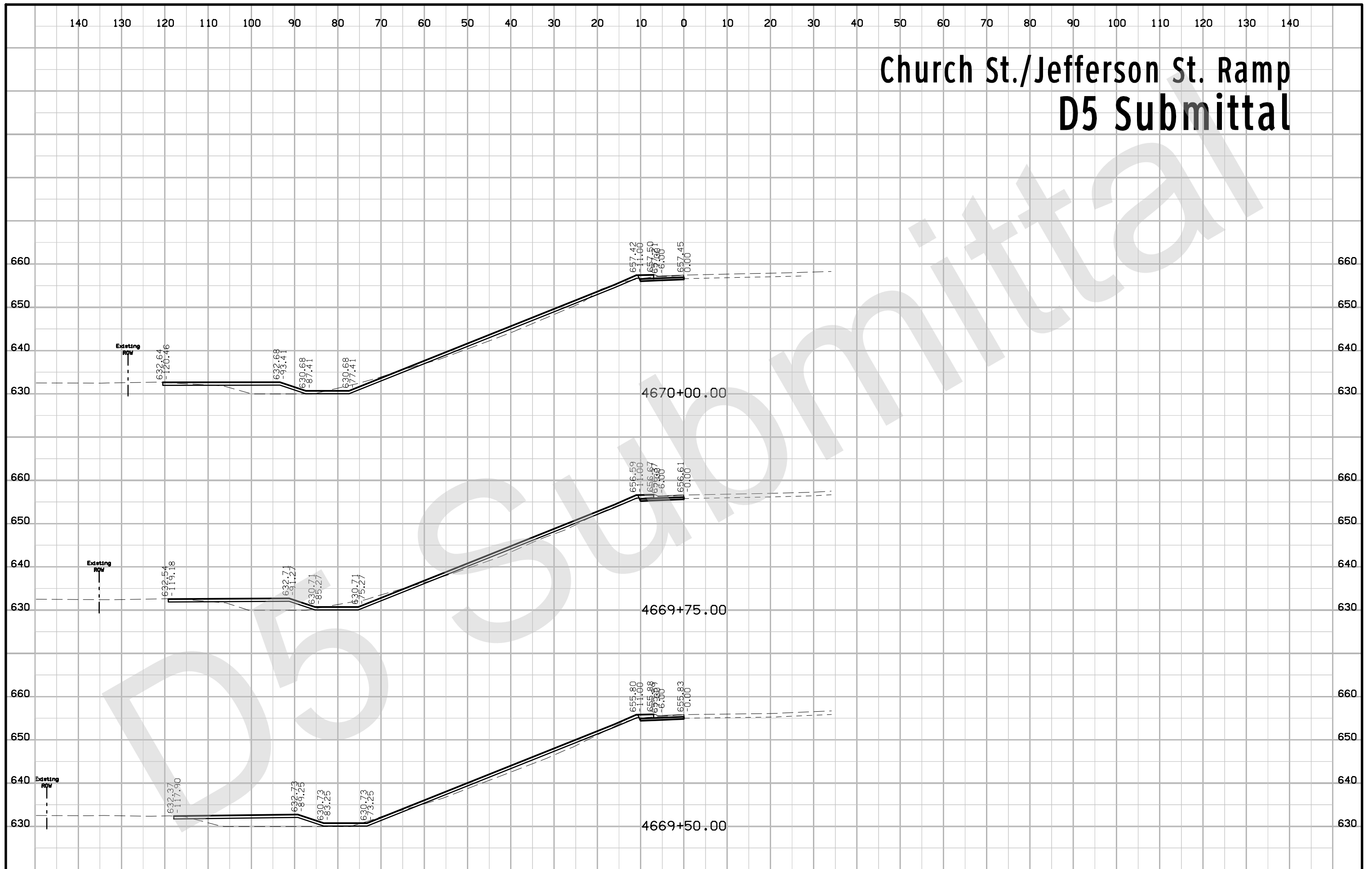
Church St./Jefferson St. Ramp D5 Submittal



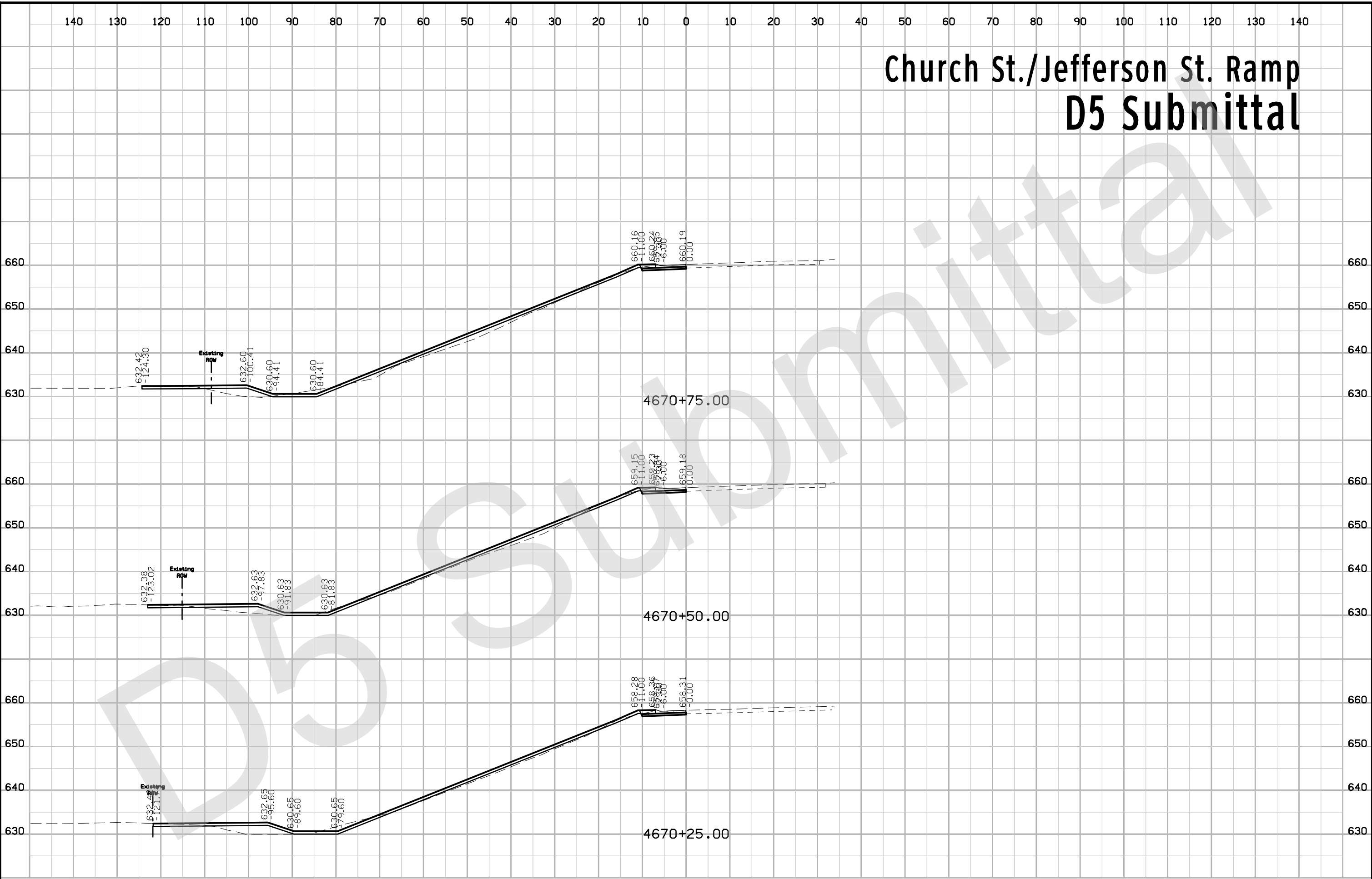
Church St./Jefferson St. Ramp D5 Submittal



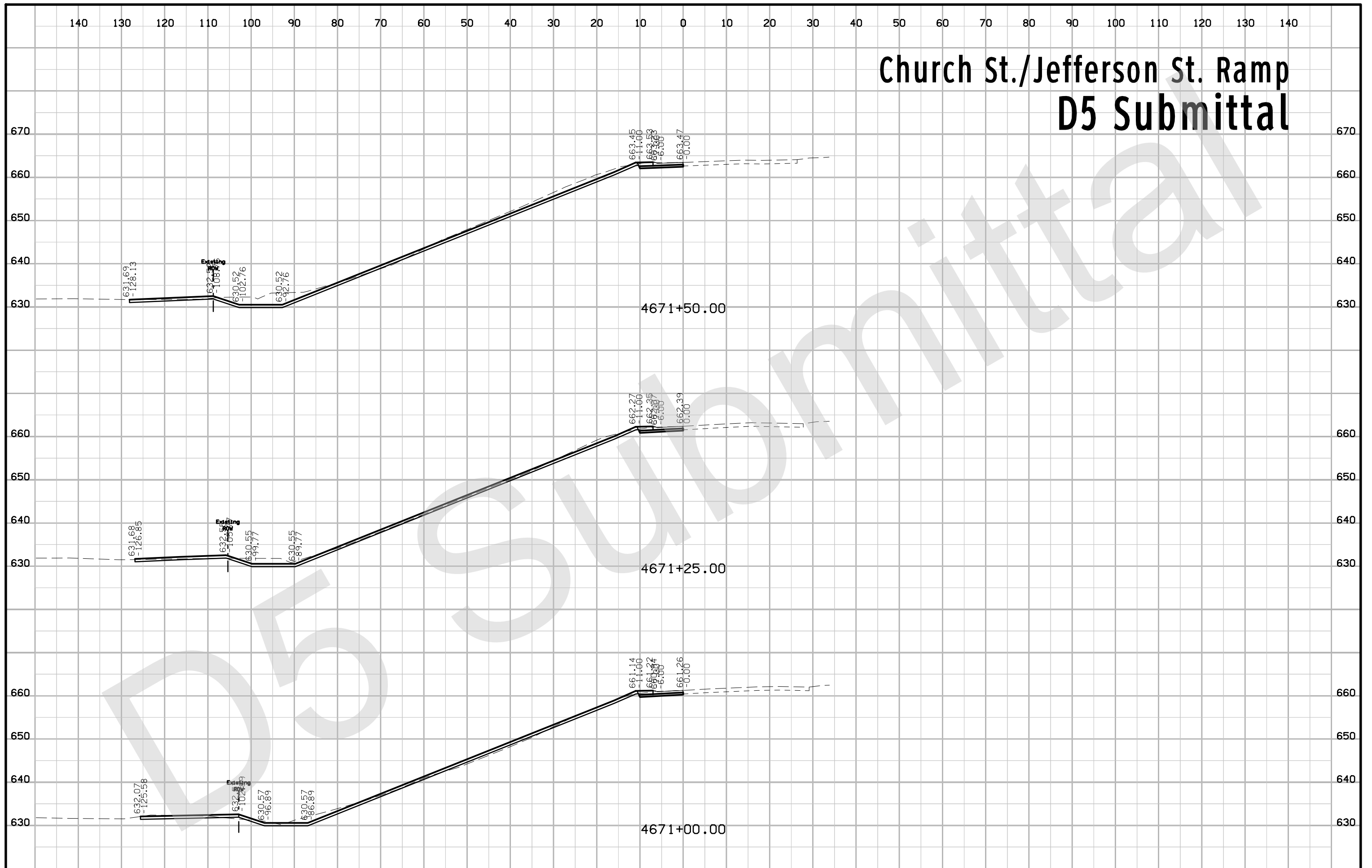
Church St./Jefferson St. Ramp D5 Submittal



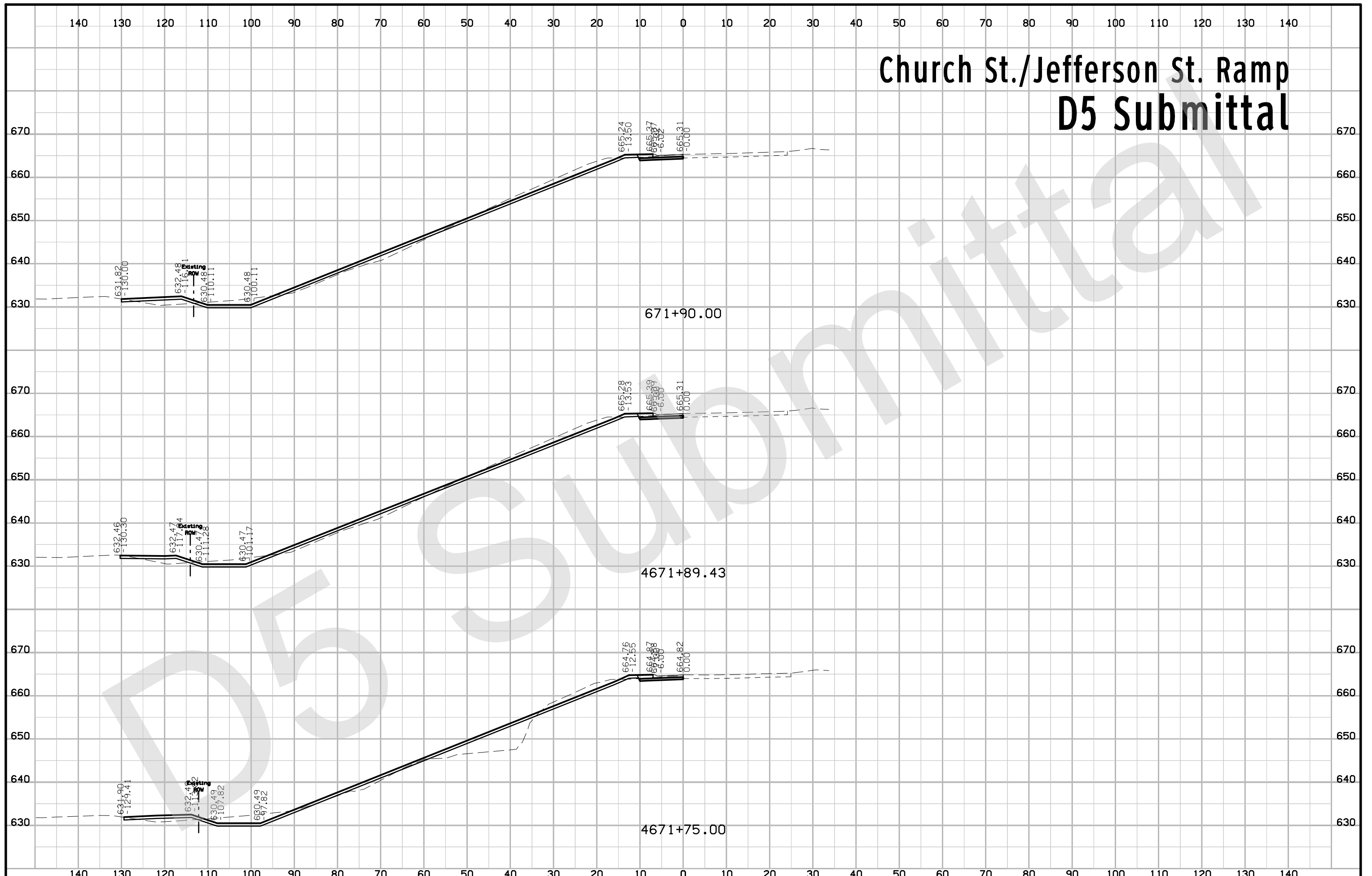
Church St./Jefferson St. Ramp D5 Submittal



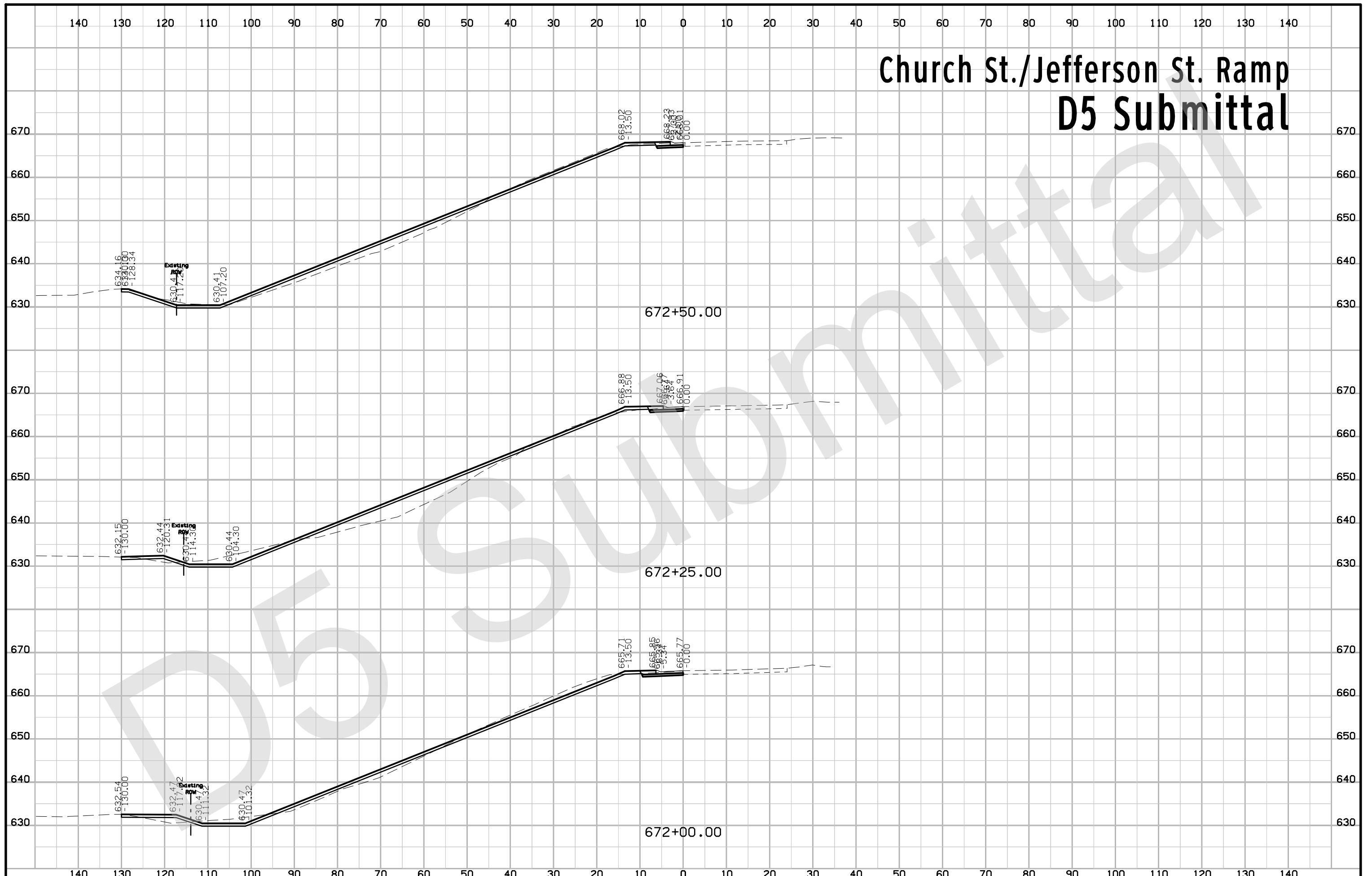
Church St./Jefferson St. Ramp D5 Submittal



Church St./Jefferson St. Ramp D5 Submittal



Church St./Jefferson St. Ramp D5 Submittal



140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

Church St./Jefferson St. Ramp D5 Submittal

