PROJECT	DESIGNATION
1383332	1383512 & 1383513
CONTRACT	BRIDGE FILE
R-37053	I69-213-05320 JCNB/CSBL

INDEX

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
I69-213-05320 JCNB/CSBL	TWIN CONTINUOUS R.C. SLAB BRIDGES	THREE SPANS: 21'-9", 27'-6", 21'-9" SKEW 5°00'00" Left	Thorpe Creek	773+42.18 (NB) 773+34.83 (SB)

KIN DESIGNATION NUMBERS

DESIGNATION	DESCRIPTION	TYPE
1383332	I-69 ADDED TRAVEL LANES FROM 116TH ST. TO 0.56 MILE EAST OF CAMPUS PKWY/SOUTHEASTERN PKWY	ROADWAY
1383488	BROOKS SCHOOL RD OVER I-69	BRIDGE
1383489 & 1383490	CAMPUS PARKWAY INTERCHANGE	ROADWAY/BRIDGE
1383336	I-69 ADDED TRAVEL LANES FROM 0.56 MILE EAST OF CAMPUS PKWY/SOUTHEASTERN PKWY TO 0.42 MILE EAST OF S.R. 13	ROADWAY
1383509 & 1383510	I-69 OVER MUD CREEK	BRIDGE
1383512 & 1383513	I-69 OVER THORPE CREEK	BRIDGE
1383514 & 1383515	I-69 OVER S.R. 13	BRIDGE
1383337	I-69 ADDED TRAVEL LANES FROM 0.42 MILE EAST OF S.R. 13 TO LAPEL ROAD	ROADWAY
1383623	C.R. 650 W. OVER I-69	BRIDGE
1383624 & 1383625	I-69 OVER FOSTERS BRANCH	BRIDGE

INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION PLANS

FOR SPANS OVER 20 FEET

I-69

OVER

THORPE CREEK

PROJECT NO. 1383332 P.E.

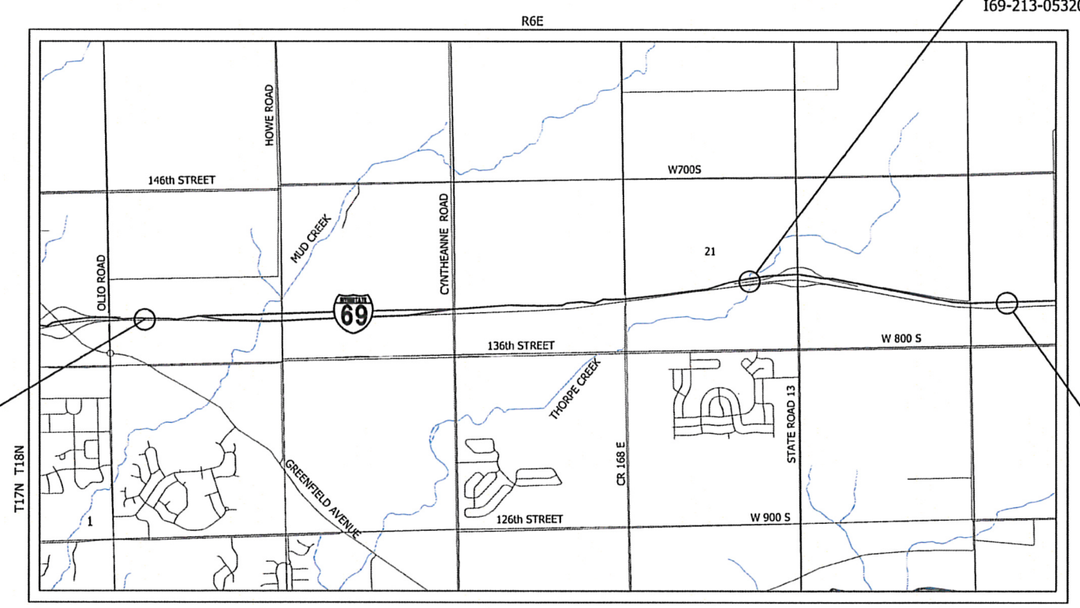
RP 214+17

Bridge Rehabilitation and Widening Project on Structure I69-213-05320 JCNB/CSBL over Thorpe Creek Located in Section 21, of Township 18 North, Range 6 East, in Green Township, Madison County Indiana.

TRAFFIC DATA	I-69
A.D.T. (2015)	56,140 V.P.D.
A.D.T. (2035)	66,190 V.P.D.
D.H.V. (2035)	5,296 V.P.H.
DIRECTIONAL DISTRIBUTION	49% NB/51% SB
TRUCKS	10% A.A.D.T.
	5% D.H.V.
DESIGN DATA	**I-69**
DESIGN SPEED	70 M.P.H.
PROJECT DESIGN CRITERIA	PARTIAL RECONSTRUCTION (4R) (FREEWAY)
FUNCTIONAL CLASSIFICATION	INTERSTATE
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	FULL

R-37053
SET 9 OF 12

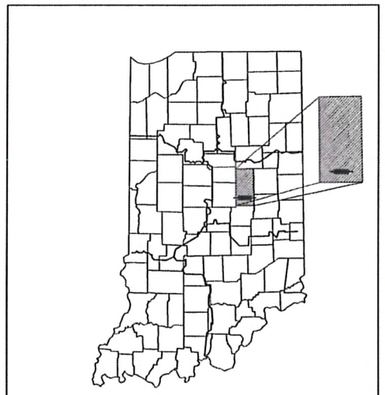
PROJECT LOCATION
BRIDGE FILE
I69-213-05320 JCNB/CSBL



BEGIN PROJECT 1383336
STA. 590+00.00 "A"

END PROJECT 1383336
STA. 812+50.00 "A"

Scale 1" = 2000'



LATITUDE: 39°59'36"N LONGITUDE: 85°50'54"W

BRIDGE LENGTH :	0.013 MI.
ROADWAY LENGTH :	SEE ROAD PLANS
TOTAL LENGTH :	SEE ROAD PLANS
MAX GRADE :	+1.60%

MajorMoves 2020

LOCATION MAP
MADISON COUNTY

CERTIFIED TRUE COPY
SET 6 of 6

[INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2016 TO BE USED WITH THESE PLANS]

UNITED Consulting
1625 N. Post Road
Indianapolis, Indiana 46219
Phone: 317-895-2585
Fax: 317-895-2596 Web: www.ucindy.com

PLANS PREPARED BY: UNITED CONSULTING (317) 895-2585 PHONE NUMBER
CERTIFIED BY: Michael A. Rowe 9-17-15 DATE
APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

MICHAEL A. ROWE REGISTERED No. 10001062 STATE OF INDIANA PROFESSIONAL ENGINEER

SURVEY BOOK	SHEETS
	1 of 9
CONTRACT	PROJECT
R-37053	1383332

BRIDGE FILE
I69-213-05320 JCNB/CSBL
DESIGNATION
1383512 & 1383513

UTILITIES

Sanitary Sewer

Citizens Energy Group
2150 Dr. Martin Luther King Jr. St.
Indianapolis, IN 46202
Tracey Trimpe
ttrimpe@citizensenergygroup.com

City of Noblesville
197 W. Washington St.
Noblesville, IN 46060
Kirk Staley 317-776-6353

Fall Creek Regional Waste District
P.O. Box 59
Pendelton, IN 46064
Tim McCurdy 765-778-7544
tmccurdy@fcrwd.com

Hamilton Southeastern Utilities
11901 Lakeside Dr.
Fishers, IN 46038
Tom Kallio 317-690-1573
tkallio@samcoinc.us

Gas

Vectren Energy
16000 Allisonville Rd. - P.O. Box 1700
Noblesville, IN 46204
Brian Harger 317-776-5534
bharger@vectren.com

Vectren Energy
2001 Rev Jt Menifee Street
Anderson, IN 46216-3741
Mike Johnson 765-648-3205
mejohnson@vectren.com

Petroleum

Marathon Pipe Line, LLC
539 South Main Street, RM 7642
Findlay, OH 45840
Dave Wisner 419-421-2211
dswisner@marathonpetroleum.com

Storm Sewer

Town of Fishers
1 Municipal Dr.
Fishers, IN 46038
Tami Otto 317-595-3160
ottot@fishers.in.us

Water

Citizens Energy Group
1220 Waterway Boulevard
Indianapolis, IN 46206
Scott Ritter
sritter@citizensenergygroup.com

Town of Ingalls
5835 Lawton Loop East Drive
Indianapolis, IN 46216
Lou Savka 317-377-5230
isavka@triadassoc.net

Electric

Duke Energy Indiana, Inc.
1619 W. Deffenbaugh St.
Kokomo, IN 46902
Connie Maus 765-454-6180
connie.maus@duke-energy.com

Telephone

TCG Indianapolis Inc.
500 North Point Pkwy
Alpharetta, GA 30005
Joel McKinney 770-335-9816
jcmckinney@att.com

Miscellaneous

ITS Technology Deployment Division
Konstantin Veygman 317-899-8606
kveygman@indot.in.gov

Traffic Structures

HERE
425 West Randolph
Chicago, IL 60606
Alexandra Archer 773-747-4247
Alexandra.Archer@HERE.com

REVISIONS

SHEET No.	DATE	REVISION

INDEX

SHEET NO.	DESCRIPTION
1	TITLE
2	INDEX
3	MAINTENANCE OF TRAFFIC
4	LAYOUT
5-7	GENERAL PLAN
8	END BENT DETAILS
9	PIER DETAILS

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JAY N. RIDENS REGISTERED No. 10403475 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ PROJECT ENGINEER 9/17/15 DATE

DESIGNED: NJK DRAWN: RSJ
CHECKED: JNR CHECKED: NJK

INDIANA
DEPARTMENT OF TRANSPORTATION

INDEX
I-69 OVER THORPE CREEK

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I69-213-05320 JCNB/CSBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1383512 & 1383513
SURVEY BOOK	SHEETS
-	2 of 9
CONTRACT	PROJECT
R-37053	1383332

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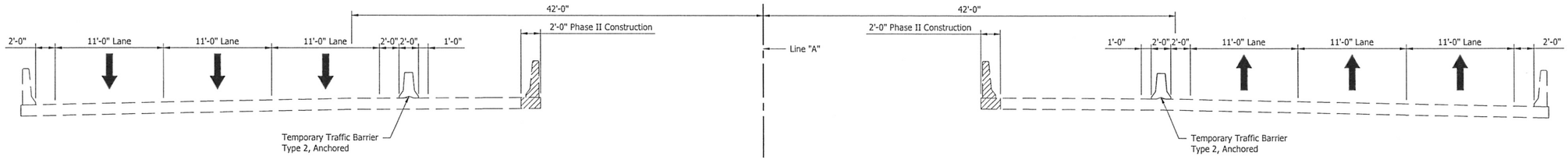
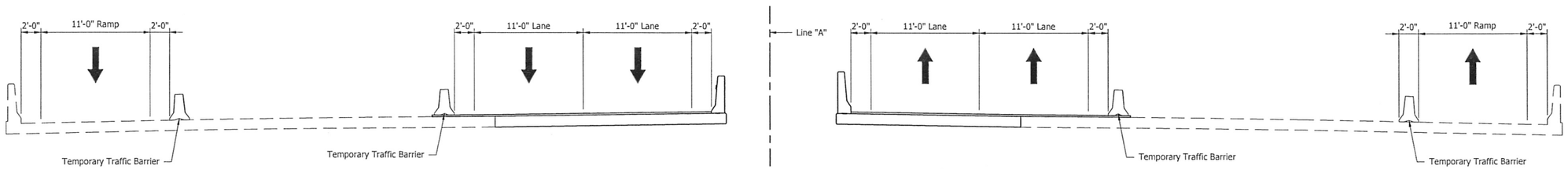


SOUTHBOUND LANE

NORTHBOUND LANE

TRAFFIC MAINTENANCE SECTION - PHASE II

SCALE: 3/16" = 1'-0"

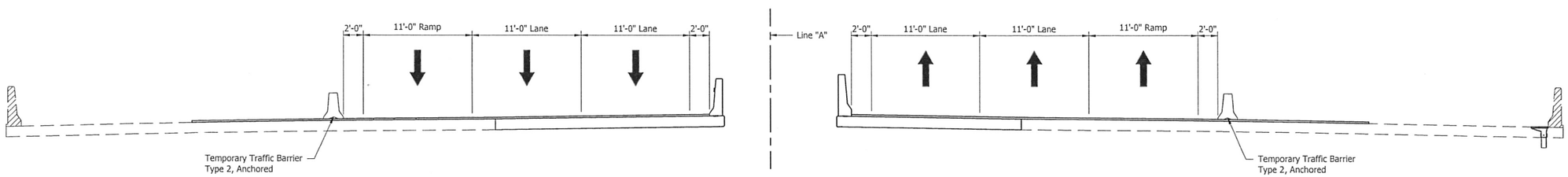


SOUTHBOUND LANE

NORTHBOUND LANE

TRAFFIC MAINTENANCE SECTION - PHASE IIIa

SCALE: 3/16" = 1'-0"



SOUTHBOUND LANE

NORTHBOUND LANE

TRAFFIC MAINTENANCE SECTION - PHASE IIIb

SCALE: 3/16" = 1'-0"

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DESIGNED: NJK | DRAWN: RSJ

CHECKED: JNR | CHECKED: NJK

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
I-69 OVER THORPE CREEK

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I69-213-05320 JCNB/CSBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1383512 & 1383513
SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
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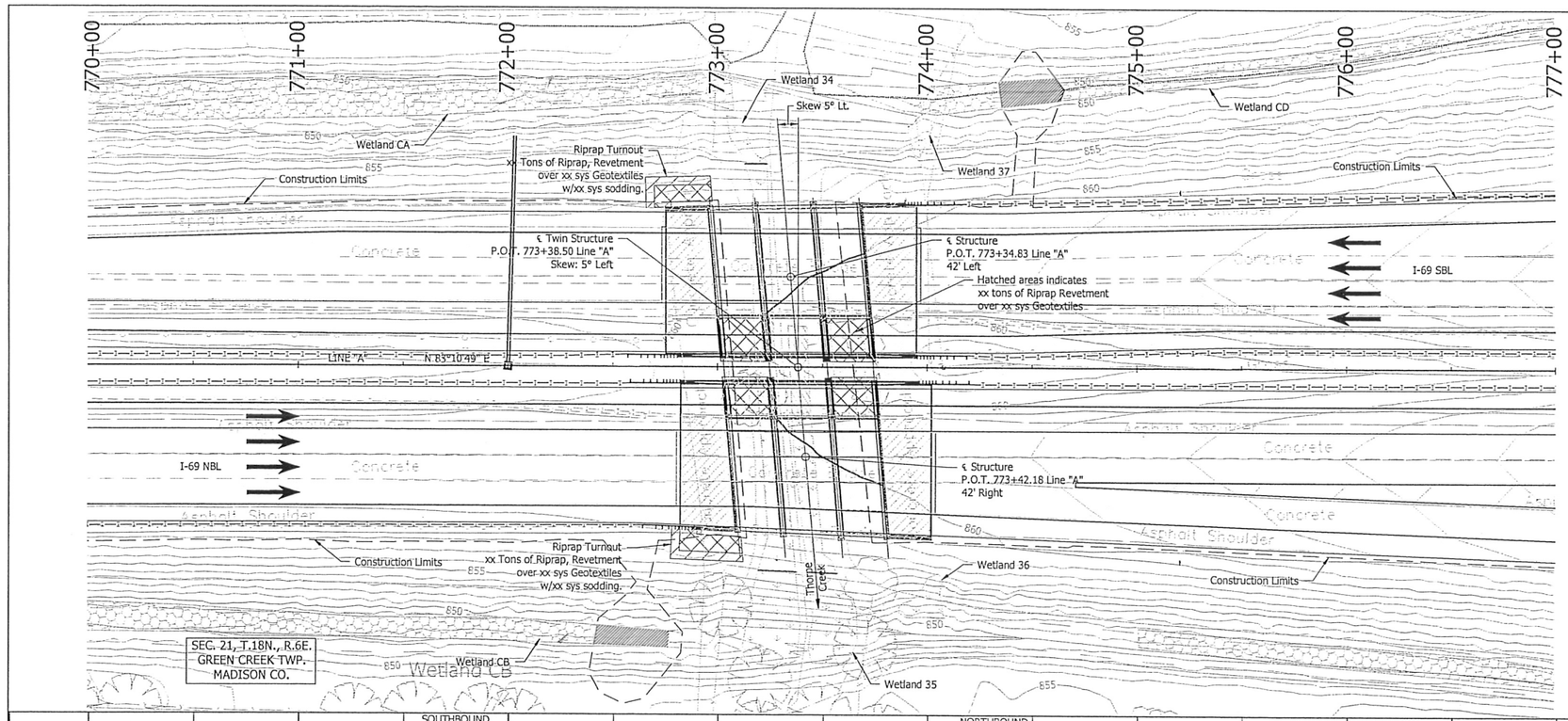
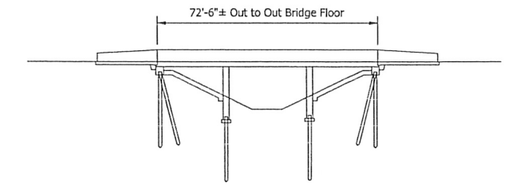


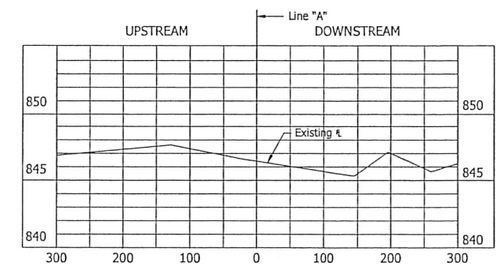


Existing Clear Roadway = Varies (49'-11" Min.)

Portions of Existing Bridge Deck, End Bents, & Piers To Be Removed

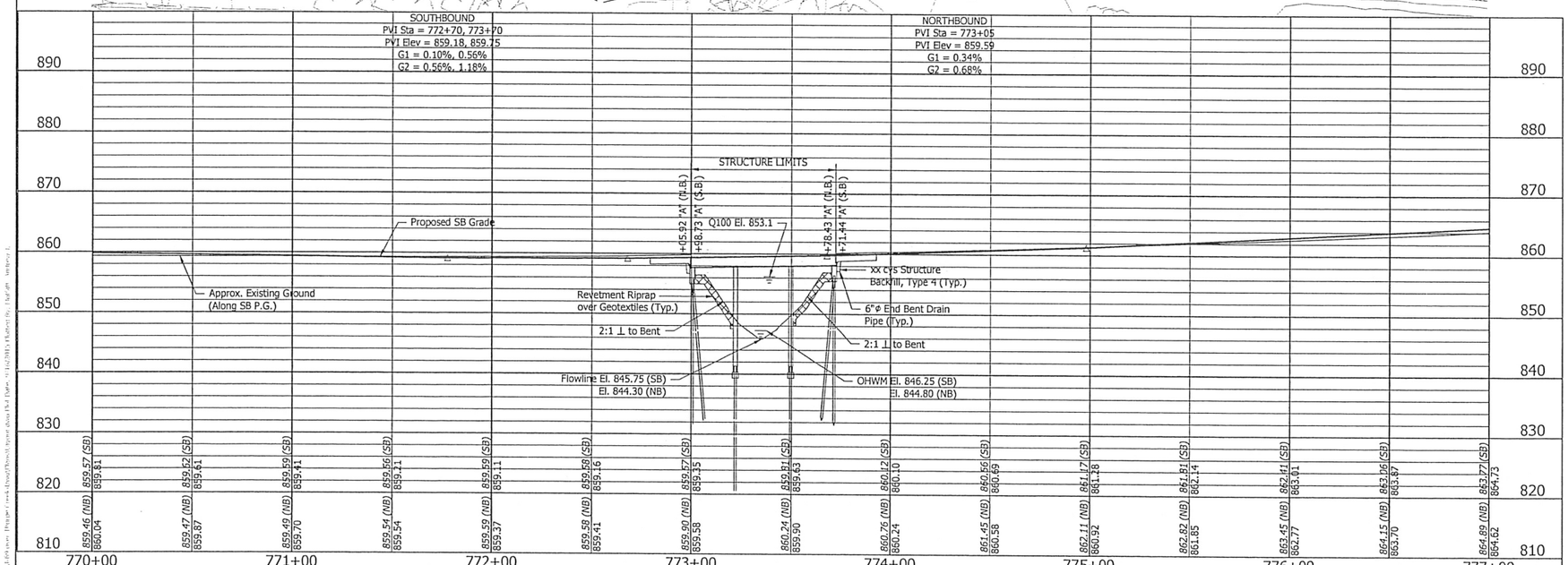
EXISTING STRUCTURE

No Scale



EXISTING STREAM PROFILE

SCALES: 1" = 100' HORIZONTAL, 1" = 5' VERTICAL



HYDRAULIC DATA (NAVD 1988 DATUM)

Drainage Area	= 2.15 Sq. Mi.
Discharge (Q100)	= 620 Cfs.
Q100 Elev.	= 853.1 Ft.
Q100 Headwater Elev.	= 853.71 Ft.
Velocity @ Q100 (Max.)	= 4.65 Ft./Sec.
Gross Waterway Opening Required (Below Q100)	= 213 Sft.
Waterway Opening Provided (Below Q100)	= 213 Sft.
Q100 Scour Elevation	= 836.72 Ft.
Q500 Scour Elevation	= N/A
Min. Low Structure Elevation	= 857.82 Ft.

NOTES:

For R/W, Earthwork Summary and Additional information see Roadway Plans, Des. No. 1383336.

For Utility Contacts, see Index Sheet No. 2.

I-69 OVER THORPE CREEK
CONTINUOUS R.C. SLAB BRIDGE
3 SPANS: 21'-9", 27'-6", 21'-9"
SKEW: 5°00'00" LEFT
68'-0" (MIN.) CLEAR ROADWAY
MADISON COUNTY

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INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT
I-69 OVER THORPE CREEK

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	I69-213-05320 JCNB/CSBL
VERTICAL SCALE	DESIGNATION
1" = 10'	1383512 & 1383513
SURVEY BOOK	SHEETS
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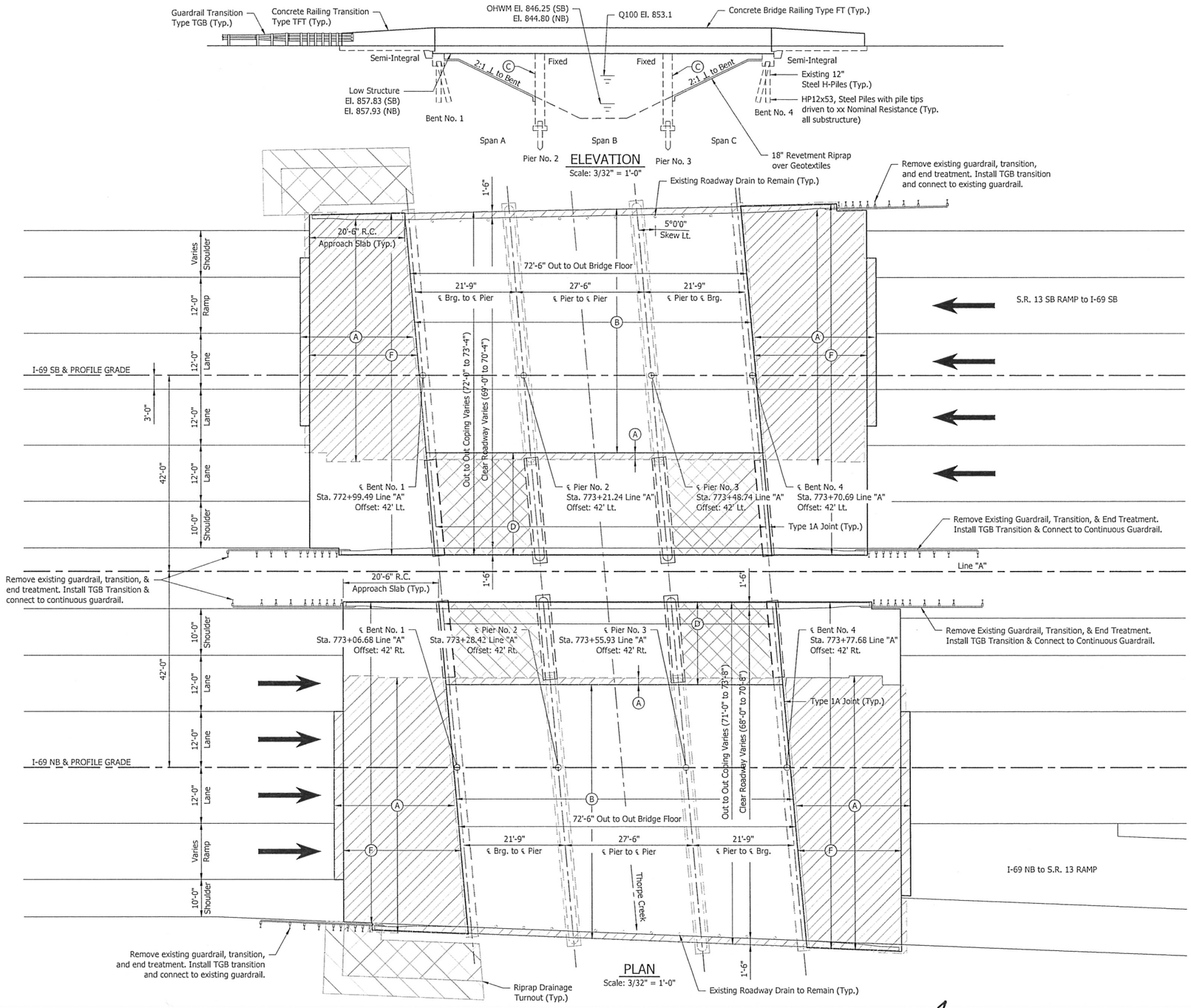

GENERAL NOTES

Reinforcing steel covering shall be 2½" in Top and 1" min. in bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

All New Reinforcement Shall be Epoxy Coated.

Surface Seal Shall be Applied to the Approach Slabs, All Exposed Surfaces of Concrete Railings and Railing Transitions, Deck Copings, and Bridge Concrete. (Est. Qty. = xx Per Bridge)

Plans for the Existing Structure are on file in the Central Office, Indiana Dept. of Transportation as Bridge File No. I69-13-5320 & 5320J, I69-13-5320JA & 5320A, I69-13-5320B & 5320JB and are available upon request.

DESIGN DATA

Superstructure & Substructure Designed for HS-20 Loading in accordance with AASHTO Standard Specifications Seventeenth Edition, 2002, and subsequent interims. Designed for actual dead load plus 35 psf. of future wearing surface.

SEISMIC DESIGN DATA

Seismic Performance Zone = Zone 1
Acceleration Coefficient (S_{D1}) = 0.114
Seismic Soil Profile Type = Site Class D

DESIGN STRENGTHS

Class "A" Concrete	f'c = 3,500 p.s.i.
Class "B" Concrete	f'c = 3,000 p.s.i.
Class "C" Concrete	f'c = 4,000 p.s.i.
Reinforcing Steel (Grade 60)	fy = 60,000 p.s.i.

LEGEND

(A) Remove Existing Bridge Approach Railings, Approach Slabs, Approach Slab Transitions, Joint Material, Terminal Joints, Portions of Existing Deck Copings, and both Railings.

(B) Perform Variable Thickness Deck scarification and Hydraulic Demolition.

(C) Remove Median Side Pier Noses of Piers to Facilitate Widening.

(D) Construct Lengthened Piers and End Bents as well as Full Depth Concrete Slab with OS-D Drain, to accommodate New Clear Roadway Width.

(E) Install New Type FT Concrete Bridge Railings.

(F) Construct New R.C. Bridge Approach Slabs, Slab Extensions, Bridge Railing Transitions, and Terminal Joints.

Limits of Removal

Limits of Additional Revetment Riprap

Limits of Sodding

NOTES:
See Typical Sections and Substructure Details, for Additional Information.

I-69 OVER THORPE CREEK
CONTINUOUS R.C. SLAB BRIDGE
3 SPANS: 21'-9", 27'-6", 21'-9"
SKEW: 5°00'00" LEFT
68'-0" (MIN.) CLEAR ROADWAY
MADISON COUNTY

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1625 N. Post Road
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INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
I-69 OVER THORPE CREEK

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I69-213-05320 JCNB/CSBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1383512 & 1383513
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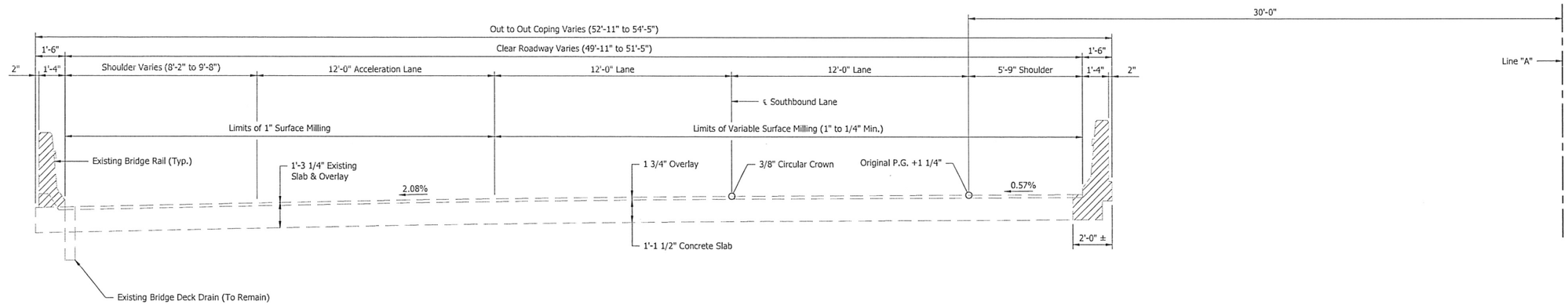
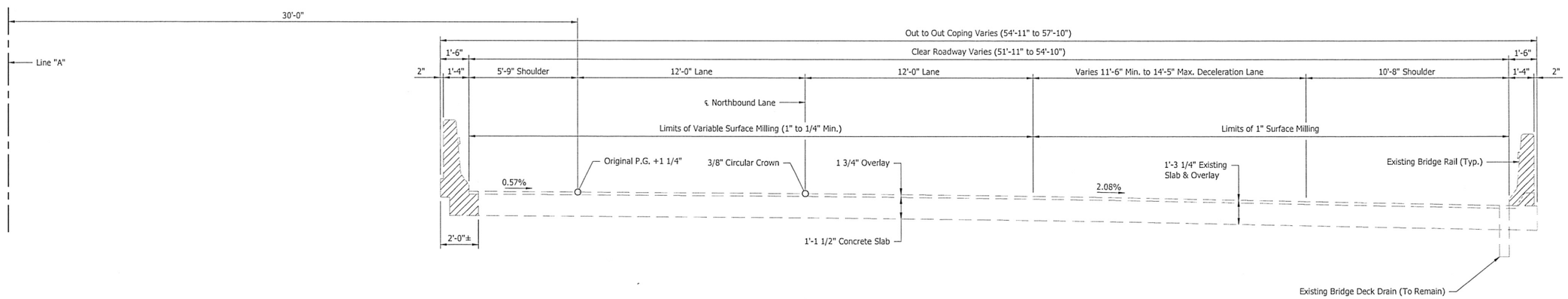


EXISTING I-69 SB TYPICAL SECTION

Scale: 3/8" = 1'-0"



EXISTING I-69 NB TYPICAL SECTION

Scale: 3/8" = 1'-0"

LEGEND

Limits of Removal

I-69 OVER THORPE CREEK
CONTINUOUS R.C. SLAB BRIDGE
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I-69 OVER THORPE CREEK

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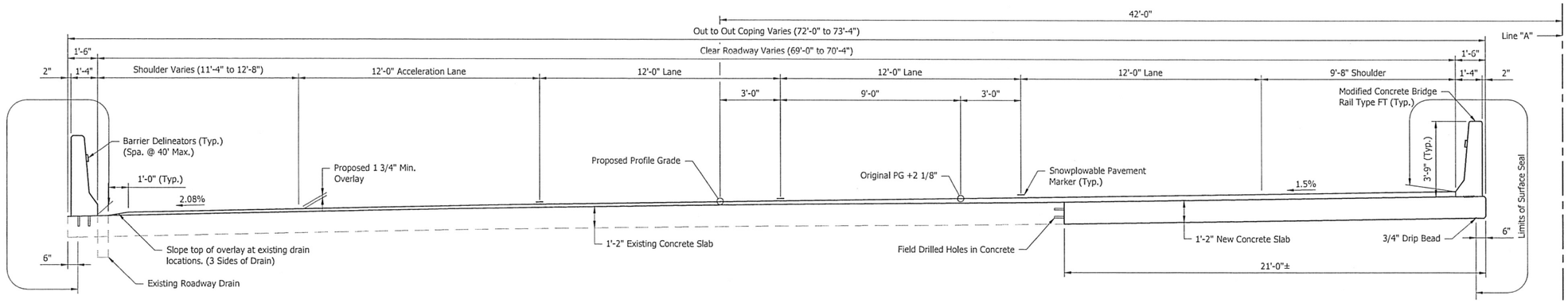

PROPOSED I-69 SB TYPICAL SECTION

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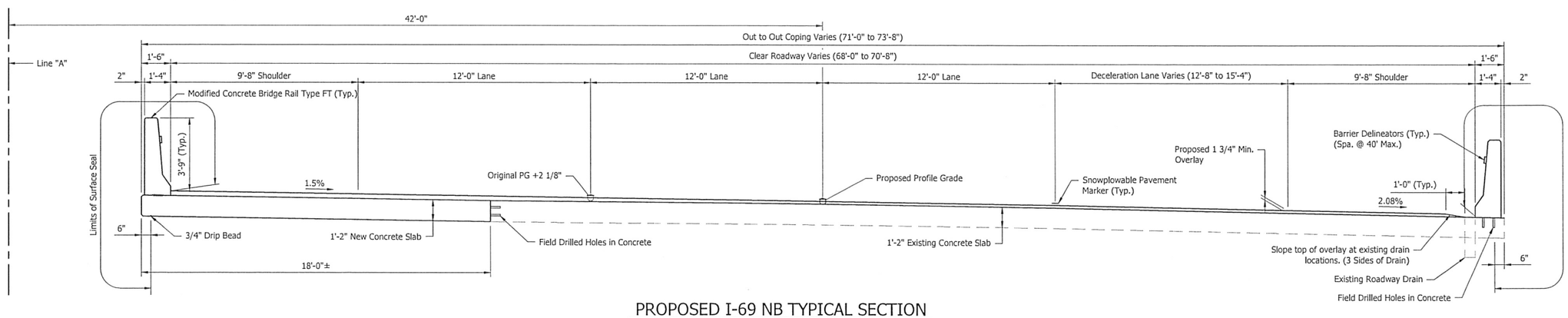

PROPOSED I-69 NB TYPICAL SECTION

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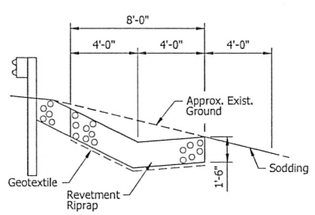
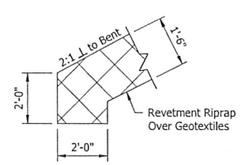


RIPRAP DRAINAGE TURNOUT
SECTION A-A
No Scale



RIPRAP KEY DETAIL
No Scale

I-69 OVER THORPE CREEK
CONTINUOUS R.C. SLAB BRIDGE
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CHECKED: JNR | CHECKED: NJK

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
I-69 OVER THORPE CREEK

HORIZONTAL SCALE	BRIDGE FILE
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VERTICAL SCALE	DESIGNATION
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CONTRACT	PROJECT
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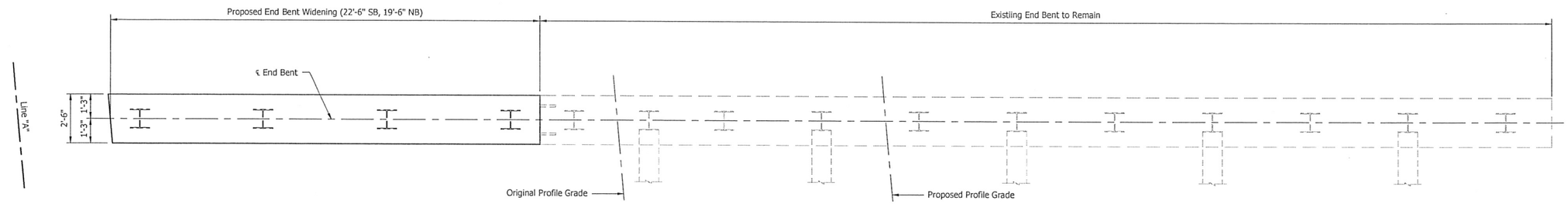
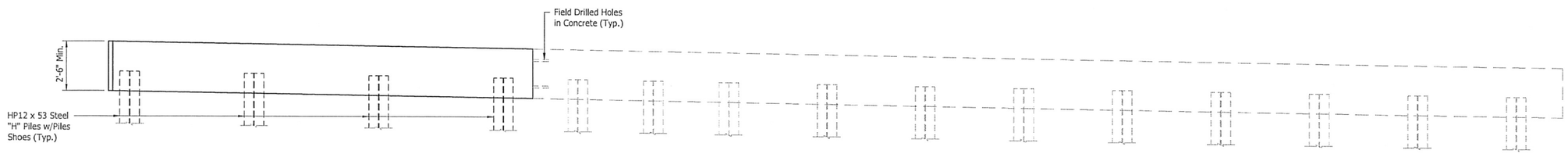
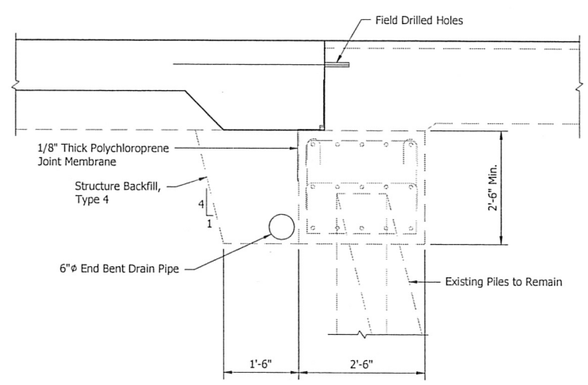


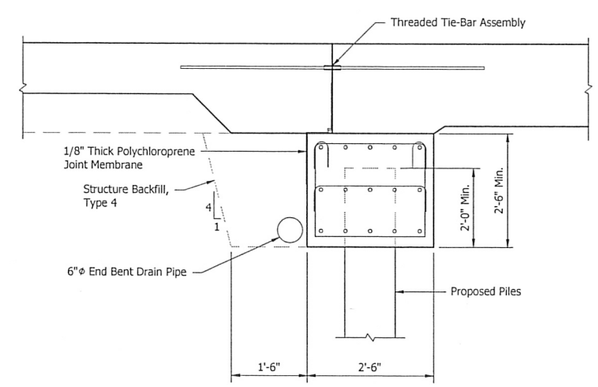
PLAN - TYPICAL BENT WIDENING
(END BENT NO. 1, SOUTHBOUND SHOWN)
Scale: 3/8" = 1'-0"



ELEVATION - TYPICAL BENT WIDENING
(END BENT NO. 1, SOUTHBOUND SHOWN)
Scale: 3/8" = 1'-0"



TYPICAL SECTION - EXISTING END BENT TO REMAIN
Scale: 3/4" = 1'-0"



TYPICAL SECTION - PROPOSED END BENT WIDENING
Scale: 3/4" = 1'-0"

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1625 N. Post Road
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Phone 317-895-2585
Fax 317-895-2596
www.ucindy.com

JAY N. RIDENS REGISTERED No. 10403475 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/17/15

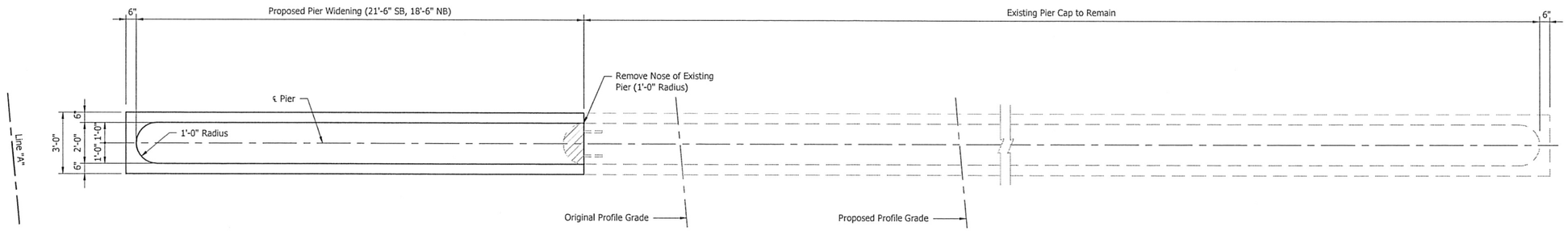
DESIGNED: NJK | DRAWN: RSJ
CHECKED: JNR | CHECKED: NJK

INDIANA
DEPARTMENT OF TRANSPORTATION

END BENT DETAILS
I-69 OVER THORPE CREEK

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	I69-213-05320 JCNB/CSBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1383512 & 1383513
SURVEY BOOK	SHEETS
-	8 of 9
CONTRACT	PROJECT
R-37053	1383332

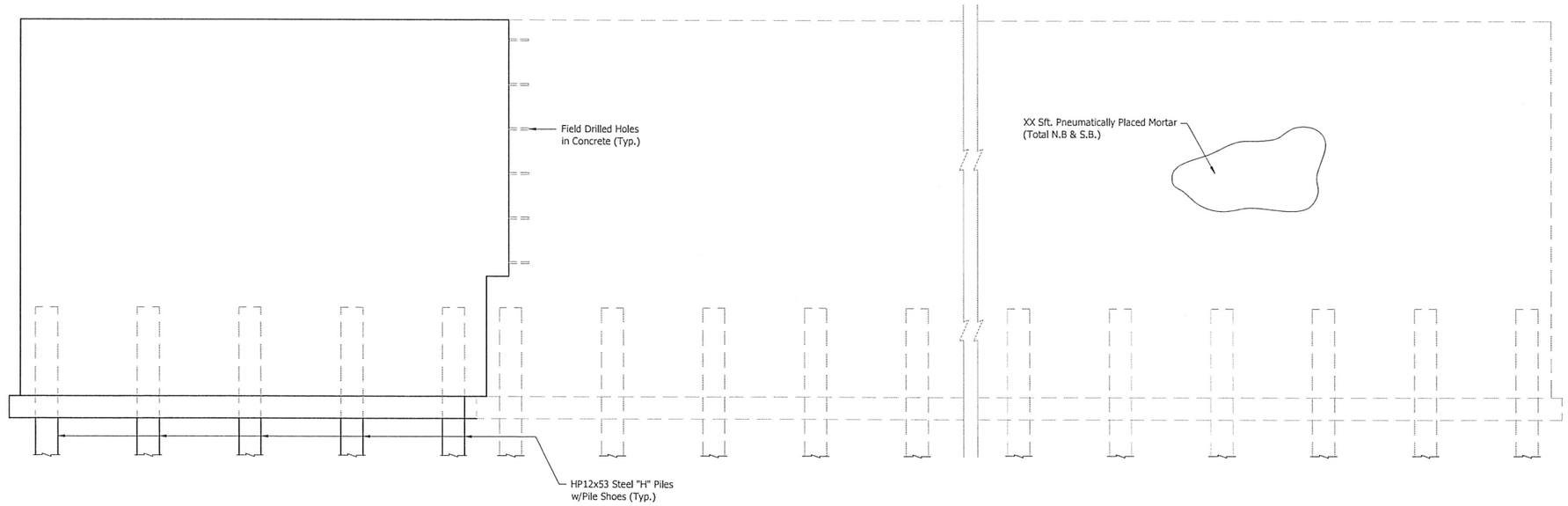
File Name: P:\CD1\MK15-469\Bridge\I-69 over Thorpe Creek\Dwg\Plans\Substructure.dwg Plot Date: 9/17/2015 Plotted By: Moffatt, Andrew J.



PLAN - TYPICAL PIER WIDENING

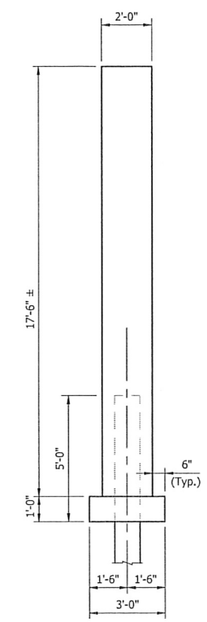
(NORTHBOUND PIER NO. 2 SHOWN)
Scale: 3/8" = 1'-0"

Indicates Limits of Removal



ELEVATION - TYPICAL PIER WIDENING

(NORTHBOUND PIER NO. 2 SHOWN)
Scale: 3/8" = 1'-0"



TYPICAL SECTION

Scale: 3/8" = 1'-0"

UNITED Consulting
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