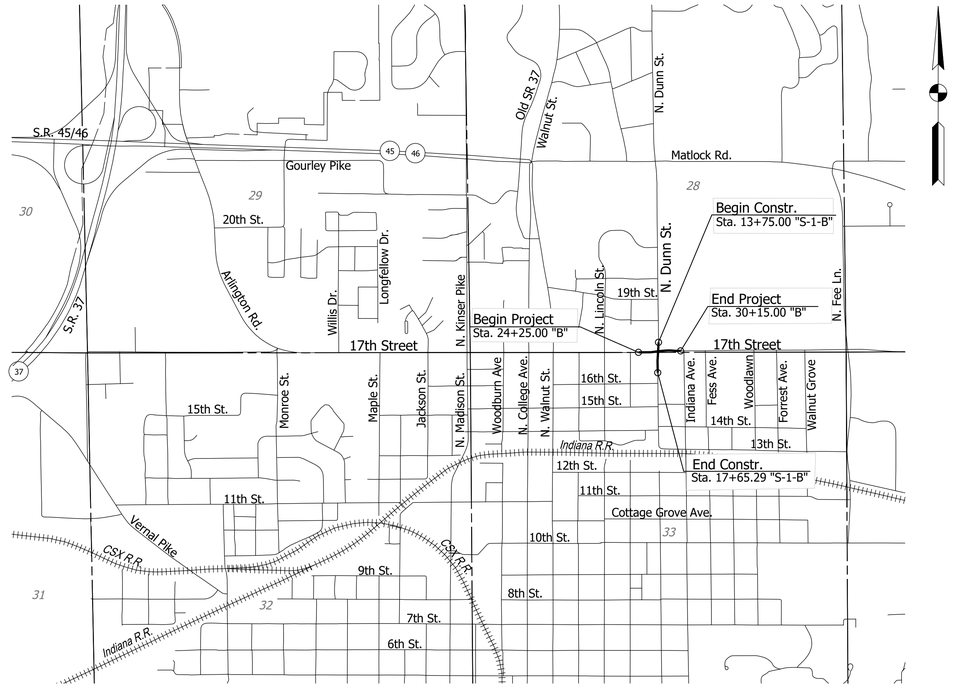
17TH & DUNN STREET INTERSECTION IMPROVEMENTS

CITY OF BLOOMINGTON, INDIANA



PROJECT LOCATION SHOWN BY

LATITUDE: 39° 10' 45" N
LONGITUDE: 86° 31' 42" W

LOCATION MAP

SECTIONS 28 & 33 T-9-N, R-1-W
CITY, BLOOMINGTON
TWP. BLOOMINGTON
COUNTY, MONROE
STATE, INDIANA

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS

SOIL CONSULTANTS
ATC Group Services LLC
7988 Centerpoint Dr., Suite 100
Indianapois, IN 46256
(317) 849-4990

Plans Prepared By:
LOCHMUELLER GROUP
6200 Vogel Road
Evansville, Indiana 47715
Phone: 812.479.6200
Toll Free: 800.423.7411

PLANS
PREPARED BY: LOCHMUELLER GROUP (812)479-6200
6200 Vogel Road, Evansville, IN 47715 PHONE NUMBER

CERTIFIED BY: Nicholas A. Will 02/11/2021
DATE

NICHOLAS A. WILL
REGISTERED
PE10708224
STATE OF
INDIANA
PROFESSIONAL ENGINEER

HORIZONTAL SCALE	BRIDGE FILE
1"=1000'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	1 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:11am User Name: Nick
File: S:_2017\1117-0022\Road\CAD\Misc\DWG\Title A_B.dwg

UTILITIES

COMMUNICATIONS

AT&T Distribution
240 N Meridian St Room 225
Indianapolis, IN 46204
Contact: Matt Spindler
Email: ms4822@att.com
Phone: 317-265-3050

CABLE TV

Comcast Central (Bloomington)
9750 East 150th Street, Suite 1600
Noblesville, IN 46060
Contact: Rhonda Dalton
Email: rhonda_dalton@comcast.com
Phone: 317-275-6350

TELEPHONE

Smithville Telephone Company, Inc.
1600 W. Temperance St.
Ellettsville, IN 47429
Contact: Brad Hudoff
Email: brad.hudoff@smithville.net
Phone: 812-935-2423

ELECTRIC

Duke Energy
1619 West Defenbaugh St.
Kokomo, IN 46902
Contact: Cindy Rowland
Email: cindy.rowland@duke-energy.com
Phone: 317-776-5341

GAS

Vectren Energy (Gas)
2345 E Main St.
Danville, IN 46122
Contact: Neal Andrews
Email: nandrews@vectren.com
Phone: 317-718-3639

FBER OPTICS

Indiana University
1800 N. Range Road
Bloomington , IN 47408
Contact: Pankaj K. Patel
Email: ppatel@iu.edu
Phone: 812-855-7894

Zayo Bandwidth
9209 Castlegate Dr
Indianapolis, IN 46256
Contact: Waylon Higgins
Email: waylon.higgins@zayo.com
Phone: 765-341-1199

RVP Fiber Company, LLC
7318 N US Highway 231
Rensselaer, IN 47978
Contact: Ryan Miedema
Email: rjmiedema@usssignal.com
Phone: 219-866-4057

SEWER

City of Bloomington Utilities (Sewer)
600 E. Miller Drive
Bloomington, IN 47402
Contact: Jane Fleig
Email: fleigj@bloomington.in.gov
Phone: 812-349-3631

WATER

City of Bloomington Utilities (Water)
600 E. Miller Drive
Bloomington, IN 47402
Contact: Jane Fleig
Email: fleigj@bloomington.in.gov
Phone: 812-349-3631

Traffic

City of Bloomington Traffic Division
600 E. Miller Drive
Bloomington, IN 47402
Contact: Mike Stinson
Email: stinsonm@bloomington.in.gov
Phone: 812-349-3834

Indiana 811
Know what's below. Call before you dig.

REVISIONS

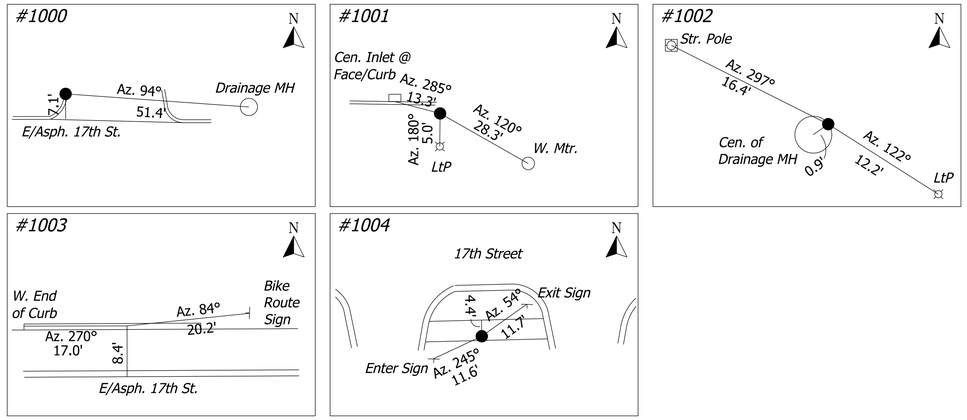
SHEET NO.	DATE	REVISED

GENERAL NOTES

**	All Sanitary Sewer, Water and Storm Sewer Work shall Conform to the Latest Issue of "Construction Specifications for City of Bloomington Utilities Wastewater, Water and Storm Projects."
**	On Sheet 5 the Location Control Route Survey at 17th & Kinser Pike/Madison is a result of combined topographical survey efforts with the 17th & Dunn Intersection. The information for 17th & Kinser Pike/Madison is not applicable to this project.

INDEX

Intersection 17th Street and Dunn Street: Control Point References



NICHOLAS A. WILL
REGISTERED
PE10708224
STATE OF
INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW | DRAWN: LLF
CHECKED: JAW | CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

INDEX SHEET

HORIZONTAL SCALE	BRIDGE FILE
No Scale	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	2 of 38
CONTRACT	PROJECT
-	-- -- --

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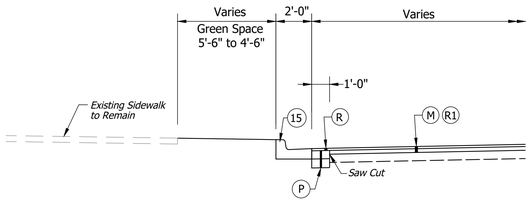
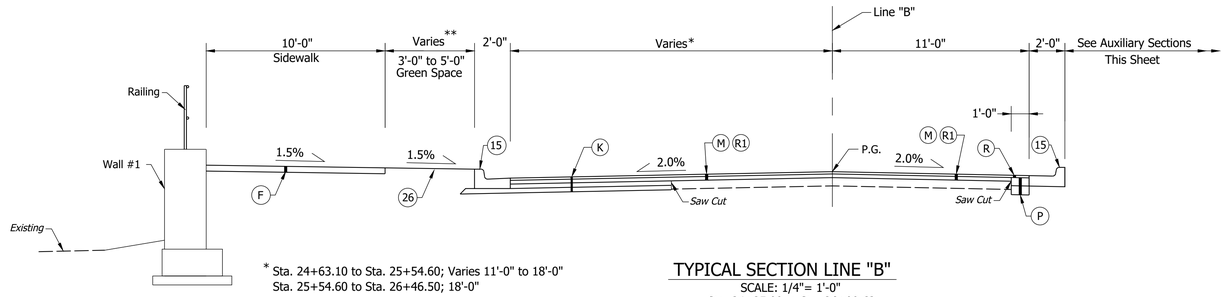
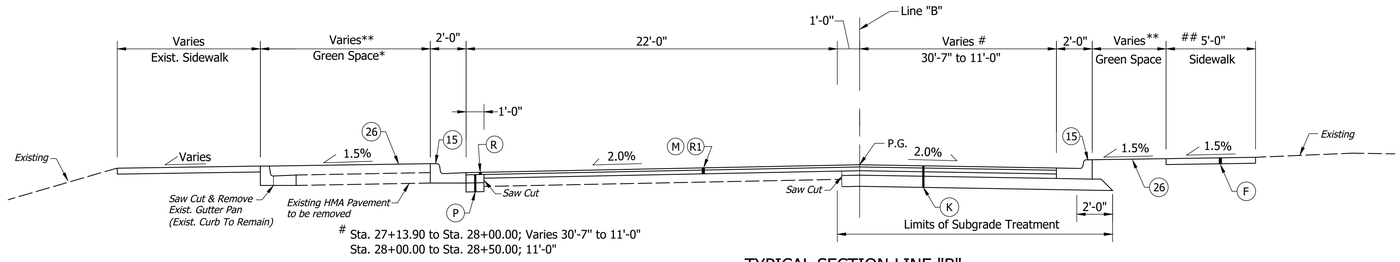


AUXILIARY SECTION LINE "B"
SCALE: 1/4"= 1'-0"
Sta. 24+25.00 to Sta. 24+63.10 Lt



* Sta. 24+63.10 to Sta. 25+54.60; Varies 11'-0" to 18'-0"
Sta. 25+54.60 to Sta. 26+46.50; 18'-0"

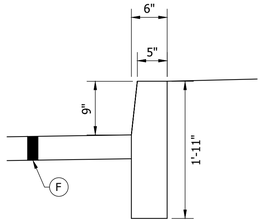
TYPICAL SECTION LINE "B"
SCALE: 1/4"= 1'-0"
Sta. 24+25.00 to Sta. 26+99.62



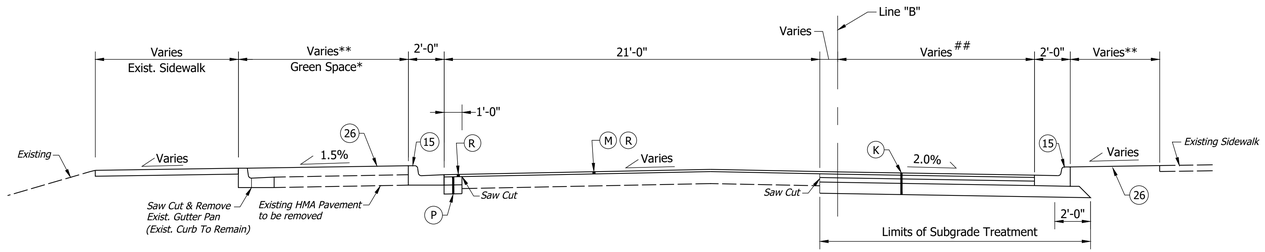
\# Sta. 27+13.90 to Sta. 28+00.00; Varies 30'-7" to 11'-0"
Sta. 28+00.00 to Sta. 28+50.00; 11'-0"

\## Sta. 26+99.62 to Sta. 27+76.50; Proposed Sidewalk
Sta. 27+76.50 to Sta. 28+00.00; Existing Sidewalk

TYPICAL SECTION LINE "B"
SCALE: 1/4"= 1'-0"
Sta. 26+99.62 to Sta. 28+00.00

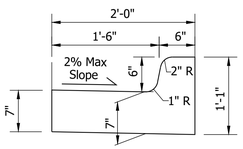


⑯ CURB, CONCRETE DETAIL
Scale: 1" = 1'

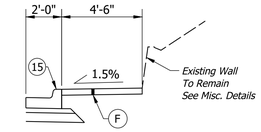


TYPICAL SECTION LINE "B"
SCALE: 1/4"= 1'-0"
Sta. 28+00.00 to Sta. 30+15.00

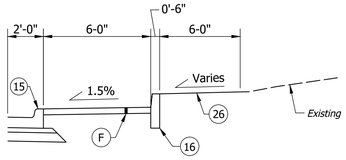
\## Sta. 28+00.00 to Sta. 28+50.00; 11.0'
Sta. 28+50.00 to Sta. 30+15.00; Varies 11.0' to 2.85'



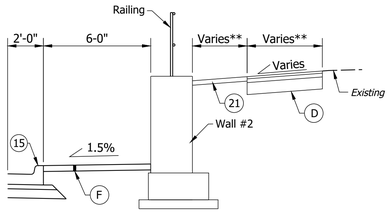
⑮ CURB & GUTTER, CONCRETE, MODIFIED DETAIL
Scale: 1" = 1'



AUXILIARY SECTION LINE "B"
SCALE: 1/4"= 1'-0"
Sta. 24+25.00 to Sta. 24+95.00



AUXILARY SECTION LINE "B"
SCALE: 1/4"= 1'-0"
Sta. 24+95.00 to Sta. 25+56.00



AUXILARY SECTION LINE "B"
SCALE: 1/4"= 1'-0"
Sta. 25+56.00 to Sta. 26+63.00

LEGEND
- (F) Sidewalk, Concrete, 4" on 4" Compacted Aggregate, No 53
- (D) HMA for Approaches 165#/SYS Surface Type B, on 275#/SYS Intermediate Type B, on 8" Compacted Aggregate Base, No. 53
- (K) Full Depth HMA Pavement 165#/SY Surface Type B, on 275#/SY Intermediate Type B, on 330#/SY Base Type B, on 3" Compacted Aggregate, No. 53, on Subgrade Treatment Type IV
- (M) 1.5" Asphalt Milling
- (P) Full Depth Patching PCC Base Patching, 9" on 6" Compacted Aggregate, No. 53
- (R) Resurfacing HMA Pavement 165#/SY Surface 9.5 mm
- (R1) Resurfacing HMA Pavement 165#/SY Surface 9.5 mm, on Variable Depth Intermediate 19.0 mm
- (15) Curb & Gutter, Concrete, Modified
- (16) Curb, Concrete (9")
- (21) 6" Landscape Stone
- (26) Sodding, Nursery

Notes:
Green Space* - 12" of Topsoil Shall be Placed Prior to Sodding
Varies** - See Construction Details for Additional Information

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW | DRAWN: LLF | CHECKED: JAW | CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

TYPICAL CROSS SECTIONS
LINE "B"

HORIZONTAL SCALE	BRIDGE FILE
As Shown	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	3 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:12am User Name: Nick
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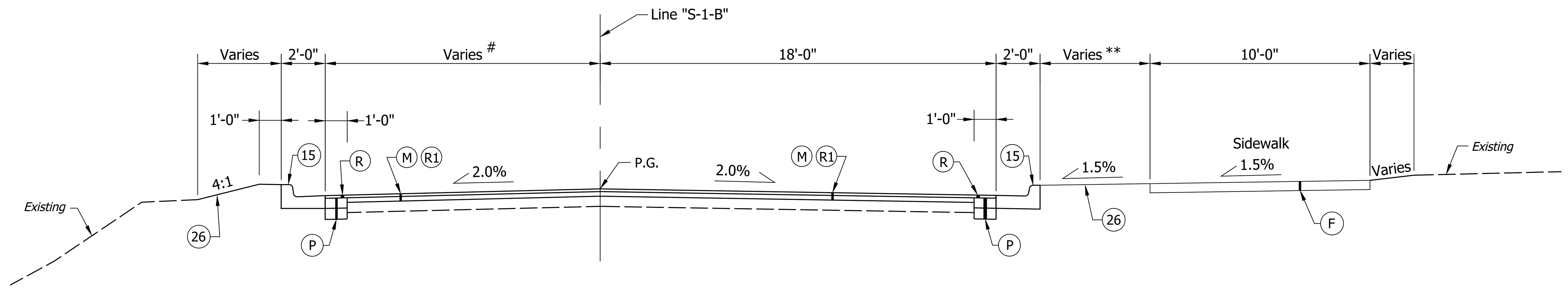
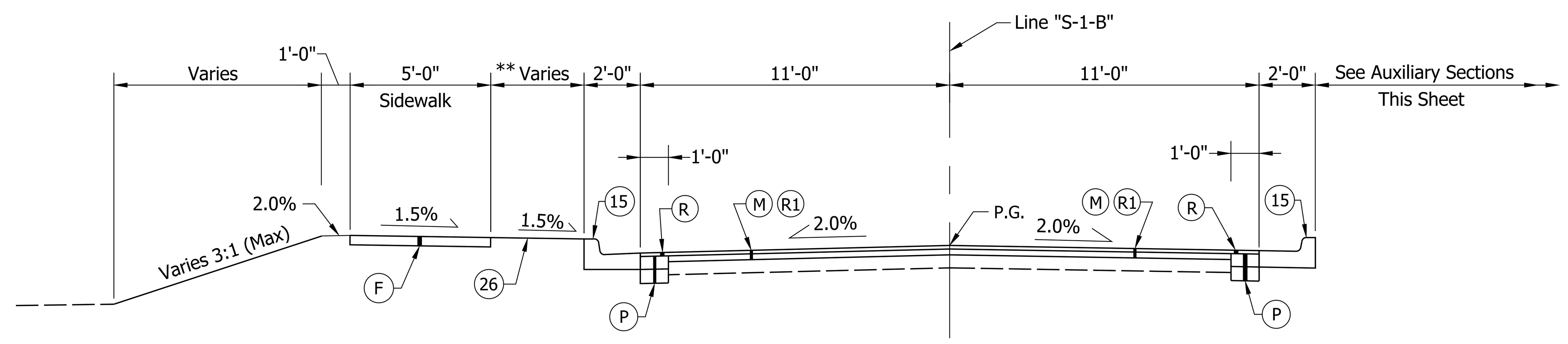


Sta. 13+75.00 to Sta. 13+94.40; 12.5'
Sta. 13+94.40 to Sta. 14+41.30; Varies 12.5' to 20.42'

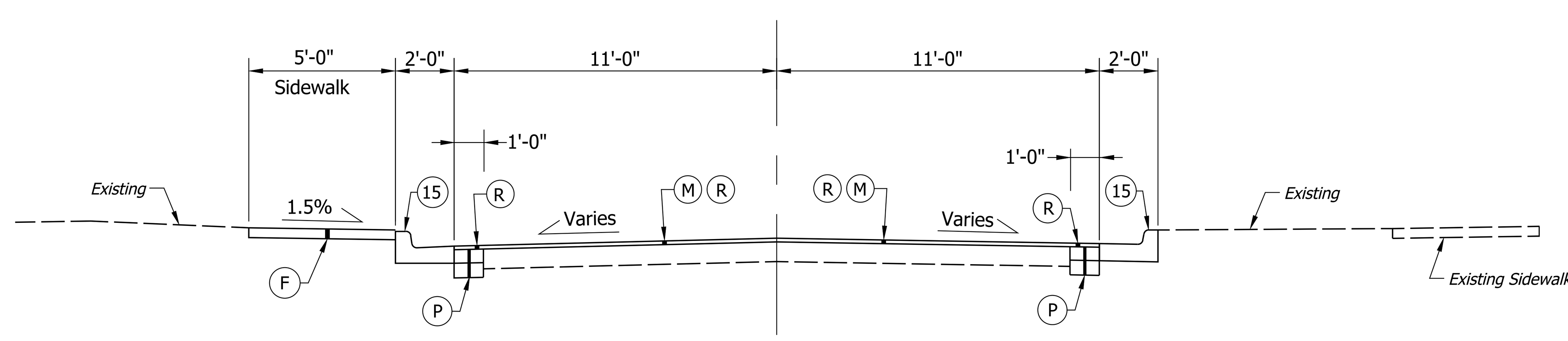
TYPICAL SECTION LINE "S-1-B"

SCALE: 1/4"= 1'-0"
Sta. 13+75.00 to Sta. 15+06.10



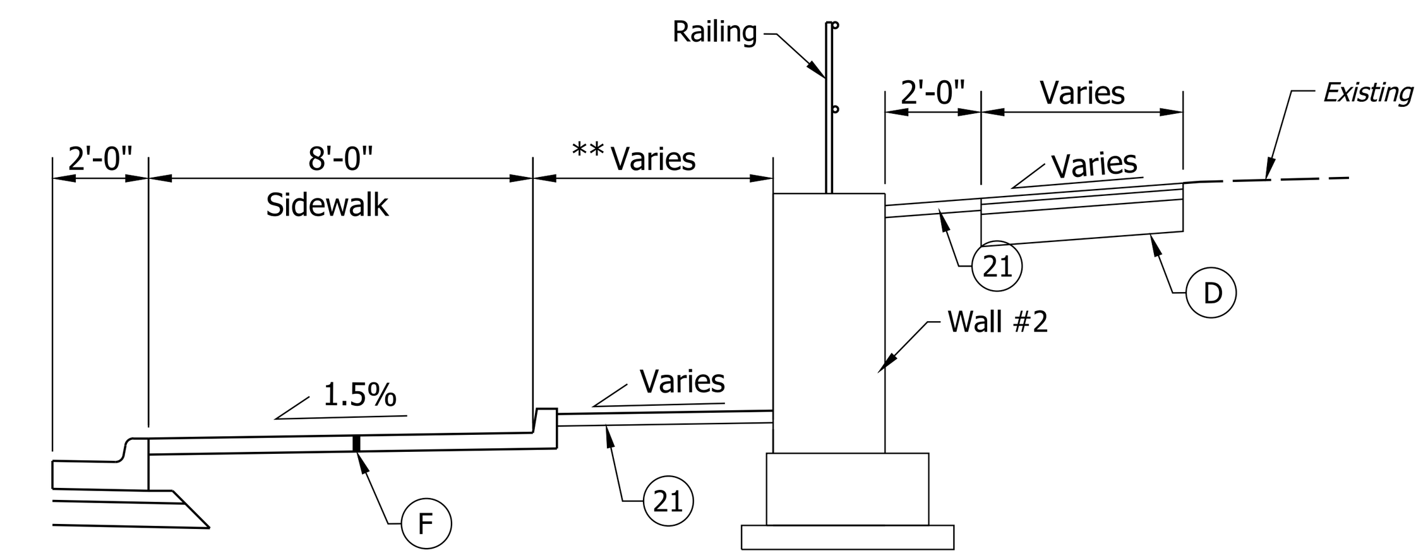
TYPICAL SECTION LINE "S-1-B"

SCALE: 1/4"= 1'-0"
Sta. 15+55.50 to Sta. 16+75.00



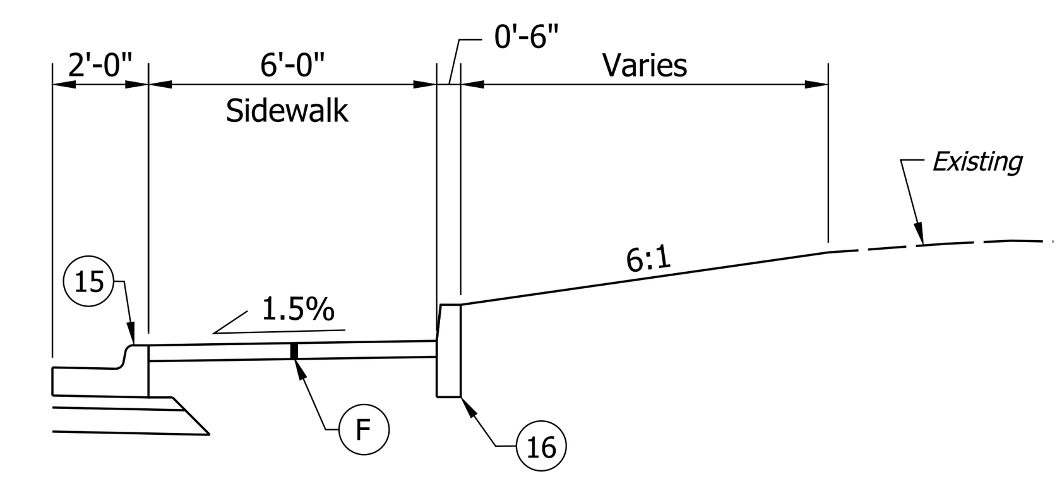
TYPICAL SECTION LINE "S-1-B"

SCALE: 1/4"= 1'-0"
Sta. 16+75.00 to Sta. 17+66.29



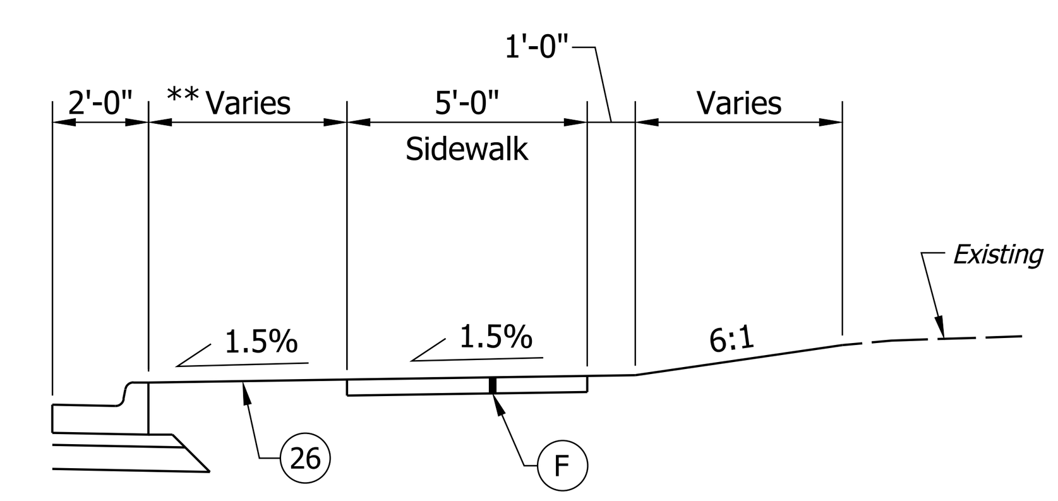
AUXILIARY SECTION LINE "S-1-B"

SCALE: 1/4"= 1'-0"
Sta. 15+42.03 to Sta. 15+67.64



AUXILIARY SECTION LINE "S-1-B"

SCALE: 1/4"= 1'-0"
Sta. 15+84.84. to Sta. 16+18.00



AUXILIARY SECTION LINE "S-1-B"

SCALE: 1/4"= 1'-0"
Sta. 16+18.00 to Sta. 16+68.98

LEGEND

(F) Sidewalk, Concrete, 4" on
4" Compacted Aggregate, No 53

(D) HMA for Approaches
165#/SYS Surface Type B, on
275#/SYS Intermediate Type B, on
8" Compacted Aggregate Base, No. 53

(K) Full Depth HMA Pavement
165#/SY Surface Type B, on
275#/SY Intermediate Type B, on
330#/SY Base Type B, on
3" Compacted Aggregate, No. 53, on
Subgrade Treatment Type IV

(M) 1.5" Asphalt Milling

(P) Full Depth Patching
PCC Base Patching, 9" on
6" Compacted Aggregate, No. 53

(R) Resurfacing HMA Pavement
165#/SY Surface 9.5 mm

(R1) Resurfacing HMA Pavement
165#/SY Surface 9.5 mm, on
Variable Depth Intermediate 19.0 mm

(15) Curb & Gutter, Concrete, Modified

(16) Curb, Concrete

(21) 6" Landscape Stone

(26) Sodding, Nursery

Date: Feb 24, 2021, 8:12am User Name: Nick
File: S:_2017\117-0022\Road\CAD\MiscDWG\B_Typical.dwg

Notes:
Varies** - See Construction Details for Additional Information

NICHOLAS A. WILL
REGISTERED
PE10708224
STATE OF
INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [illegible] 02/11/2021
DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF
CHECKED: JAW CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

TYPICAL CROSS SECTIONS
LINE "S-1-B"

HORIZONTAL SCALE	BRIDGE FILE
As Shown	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	4 of 38
CONTRACT	PROJECT
-	-- -- --

2018008771 SURVEY2 $30.00
07/02/2018 10:04:36A 1 PGS
Eric Schmitz
Monroe County Recorder IN
Recorded as Presented

PROPERTY OWNERS - NW QUADRANT

1 James R. & Mary Ann Jacobs
Book 2, P. 271
53-05-29-400-003.000-005

3 Twin Brothers Investments LLC
Inst. 2017010988
53-05-29-400-002.000-005

12 Kris A. & Rhonda L. Wallace
Inst. 2004024641
53-05-29-400-057.000-005

PROPERTY OWNERS - NE QUADRANT

8 John W. Hart
Inst. 2004027611
Lot 18B
53-05-28-312-004.000-005

9 John W. Hart
Inst. 2004027611
Lot 17B
53-05-28-312-027.000-005

10 John W. Hart
Inst. 2004027484
Lot 17A
53-05-28-312-022.000-005

11 John W. Hart
Inst. 2004027611
Lot 18A
53-05-28-312-022.000-005

LEGEND

- △ ○ CALCULATED BASELINE POINTS (NO MONUMENT)
- ○ 6400 PROPERTY / SECTION CORNER EVIDENCE
- ■ 1000 RANDOM CONTROL POINT
- ⟨5⟩ PROPERTY OWNER REFERENCE

PROPERTY OWNERS - NW QUADRANT

15 City of Bloomington Board of Public Works
53-05-28-300-149.000-005
Book 233(?) P. 377 Dated Nov. 9, 1971
Road Dedication Inst. 2017010480

16 CA/Regency Dunnhill JV, LLC
Inst. 2017010268
(Tract D)
53-05-28-300-026000-005

21 Athena A. Hrisomalos et al.
Inst. 2017000798 (1/2 int.)
(Tract 14)
53-05-28-300-080.000-005

26 CA/Regency Dunnhill JV, LLC
Inst. 2017010268
(Tract G)
53-05-28-300-150.000-005

PROPERTY OWNERS - NE QUADRANT

24 Trustees of Indiana University
(Deed not found)
53-01-36-116-000.000-005

Apparent E. 1/4 Cor. of Sec. 29

Apparent Cen. of Sec. 28

SE 1/4
SEC. 29, T9N, R1W
CITY OF BLOOMINGTON
BLOOMINGTON TWP.
MONROE CO

SW 1/4
SEC. 28, T9N, R1W
CITY OF BLOOMINGTON
BLOOMINGTON TWP.
MONROE CO

SW 1/4
SEC. 28, T9N, R1W
CITY OF BLOOMINGTON
BLOOMINGTON TWP.
MONROE CO

SE 1/4
SEC. 28, T9N, R1W
CITY OF BLOOMINGTON
BLOOMINGTON TWP.
MONROE CO

0 30' 60' 120'
SCALE

#522 P.O.T. 13+00.00 LINE "S-1-A"
N 201826.3175 E 776700.5465

#517 P.O.T. 10+00.00 LINE "A"
N 201526.3304 E 776301.0835

#519 P.O.T. 17+00.00 LINE "A"
N 201521.4957 E 777001.0668

#559 P.O.T. 12+00.00 LINE "S-1-B"
N 201820.6110 E 779375.7434

#504 P.O.T. 26+99.62 LINE "B"
= P.O.T. 15+06.11 LINE "S-1-B"
N 201514.6690 E 779369.7032
Delta = 95°14'52" Rt. from "B" to "S-1-B" Ahd.

#557 P.O.T. 22+00.00 LINE "B"
N 201511.6509 E 778870.1217

#564 P.I. 14+01.64 LINE "S-1-B"
N 201618.9717 E 779376.0169
(P.C. 13+55.26)
(P.T. 14+47.99)
Delta = 3°32'30" Rt.
R = 1500.00'
T = 46.38'
L = 92.72'
E = 0.72'

#563 P.I. 27+99.28 LINE "B"
N 201517.7713 E 779469.3174
(P.C. 27+59.62)
(P.T. 23+38.94)
Delta = 1°30'54" Rt.
R = 3000.00'
T = 39.66'
L = 79.32'
E = 0.26'

#518 P.O.T. 14+00.00 LINE "A"
= P.I. 16+02.75 LINE "S-1-A" (No Curve)
N 201523.5677 E 776701.0739
Delta = 89°11'14" Rt. from "A" to "S-1-A" Ahd.
Line "S-1-A" Delta = 0°19'02" Lt.

#558 P.O.T. 32+00.00 LINE "B"
N 201519.6514 E 779870.0328

#562 P.I. 25+99.39 LINE "B"
N 201511.5488 E 779269.5128
(P.C. 25+52.30)
(P.T. 26+46.47)
Delta = 1°47'54" Lt.
R = 3000.00'
T = 47.09'
L = 94.17'
E = 0.37'

#565 P.I. 16+00.67 LINE "S-1-B"
N 201420.2804 E 779363.9897
(P.C. 15+55.31)
(P.T. 16+46.00)
Delta = 3°27'50" Lt.
R = 1500.00'
T = 45.36'
L = 90.69'
E = 0.69'

#523 P.O.T. 19+00.00 LINE "S-1-A"
N 201226.3258 E 776703.2370

#560 P.O.T. 19+00.00 LINE "S-1-B"
N 201120.9177 E 779363.9897

#6406 Apparent SE Cor. of Sec. 29

#6000 Apparent S. 1/4 Cor. of Sec. 28

REPLAT OF NORTHCREST ADDITION LOTS 17 AND 18 CAB. C, ENV. 251

KENWOOD PARK ADDITION P.B. 32, P. 110

NORTH VIEW ADDITION

N. KINSER PIKE

N. MADISON STREET

N. GRANT STREET

N. DUNN STREET

E. 17TH STREET

NE 1/4
SEC. 32, T9N, R1W
CITY OF BLOOMINGTON
BLOOMINGTON TWP.
MONROE CO

NW 1/4
SEC. 33, T9N, R1W
CITY OF BLOOMINGTON
BLOOMINGTON TWP.
MONROE CO

NW 1/4
SEC. 33, T9N, R1W
CITY OF BLOOMINGTON
BLOOMINGTON TWP.
MONROE CO

NE 1/4
SEC. 33, T9N, R1W
CITY OF BLOOMINGTON
BLOOMINGTON TWP.
MONROE CO

INTERSECTION OF 17TH STREET AND KINSER PIKE/MADISON STREET

INTERSECTION OF 17TH STREET AND DUNN STREET

PROPERTY OWNERS - SW QUADRANT

2 Bryan Rental, Inc.
Inst. 2014010650
(Tract 1)
53-05-32-101-010.000-005

4 Bryan Rental, Inc.
Inst. 2014010650
(Tract 2)
53-05-32-101-010.000-005

5 Heri Four, Inc.
Inst. 2014010649
53-05-32-101-018.000-005

16 Permanent Pedestrian and Utility Easement
in favor of the City of Bloomington
Inst. 20160008132

PROPERTY OWNERS - SE QUADRANT

6 Stephen R. & JoAnn C. Arthur
Book 0457, P. 168
Part of Lots 7 & 8
53-05-33-204-060.000-005

7 My Btown Properties LLC
Part of Lots 7 & 8
53-05-33-204-141.000-005

13 Ronald Baugh
Inst. 2014003359
(Tract 1 - Part of Lot 6)
53-05-33-204-074.000-005

14 Charles E. & Sharon Lea Belcher
Book 307, Page 337
Lot 5 and Part of Lot 6
53-05-33-204-142.000-005

15 Proposed 410 S.F. R/W Acquisition Parcel for
17th Street Sidewalk Impovements
Uniform Property or Easement Acquisition
Offer accepted/signed Nov. 12, 2013.
No recorded deed found.

PROPERTY OWNERS - SW QUADRANT

17 Jeffrey B. & Angela D. Brown
Book 479, P. 666
(Lot 39)
53-05-33-201-013.000-005

18 Stephen L. & Connie Ferguson
Inst. 2005000387
(Lot 38, W. 1/2 Lot 37)
53-05-33-201-037.000-005
53-05-33-201-038.000-005

19 SF Touchdown Terrace LLC
Inst. 2013014812
(Lot 36, E. 1/2 Lot 37)
53-05-33-201-042.000-005

20 East Side Apartments of
Bloomington, Inc.
Book 200, P. 362
(Lot 35)
53-05-33-201-030.000-005

22 Stephen L. Ferguson
Book 351, P. 475
(Lots 33, 34)
53-05-33-201-028.000-005
53-05-33-201-033.000-005

27 CHHM Rentals LLC
Inst. 2017002821 (37.5%%%)
Inst. 2017002822 (62.5%%%)
(Lot 13-15, 31, 32, 1/2 Vac. Alleys)
53-05-33-201-041.000-005

PROPERTY OWNERS - SE QUADRANT

23 Indiana University Employees
Federal Credit Union
Book 191, P. 166
53-05-33-100-029.000-005

25 Indiana University Credit Union
Book 239, P. 447
53-05-33-100-030.000-005

28 Hedrick Family Limited Liability Co.
Inst. 2003033718
53-05-33-100-087.000-005

29 Ronnie & Joyce F. Hanson
Book 419, P. 438 (?)
(See also Inst. 2003033718)
53-05-33-100-042.000-005

SOCIAL SECURITY REDACTION STATEMENT
I affirm, under the penalties for perjury, that I have taken reasonable care to redact each social security number in this document, unless required by law.
Perry E. Jones
This document prepared by: Perry E. Jones

LOCHMUELLER GROUP
Prepared By: LOCHMUELLER GROUP, INC.
f/k/a Bernardin Lochmueller & Associates, Inc.
6200 Vogel Road, Evansville, IN 47715 812.479.6200
Toll Free 1.800.423.7411 Fax 812.479.6262

SURVEY STARTED
NOVEMBER 6, 2017
SURVEY COMPLETED
NOVEMBER 29, 2017
ROUTE PLAT SHEETS
1 of 2
SURVEYOR'S PROJECT NO.
117-0022-OLR

FIELD SURVEYOR STATEMENT
THIS SURVEY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, IS EXECUTED ACCORDING TO THE PROVISIONS OF 865 I.A.C. 1-12-20 REGARDING ROUTE SURVEYS, EXCEPT THAT ANY DATA SHOWN REGARDING THE LOCATION OR DESCRIPTION OF ANY NEW PARCELS TO BE ACQUIRED OR THE EXISTING PARCELS IS NOT A PART OF THIS SURVEY.

RECOMMENDED FOR APPROVAL 6/25/2018
Perry E. Jones
REGISTERED LAND SURVEYOR FIELD DATE

PERRY E. JONES
REGISTERED
NO. 9600016
STATE OF INDIANA
LAND SURVEYOR

Prepared for the
CITY OF BLOOMINGTON, INDIANA

LOCATION CONTROL ROUTE SURVEY
INTERSECTIONS OF E. 17TH STREET
WITH KINSER PIKE/MADISON STREET
AND WITH DUNN STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 60'	
COUNTY	DESIGNATION
MONROE	
SURVEY BOOK	PLAN SHEETS
	5 of 38
CONTRACT	PROJECT

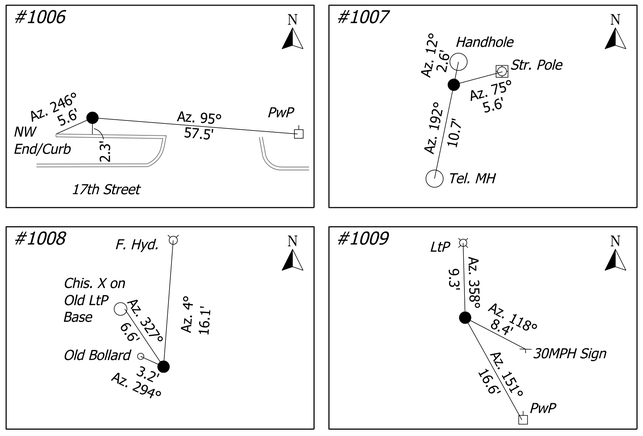
COORDINATE LISTING: RANDOM CONTROL POINTS

PT.#	NORTHING	EASTING	DESCRIPTION
1000	201531.032	778954.125	SET CHIS X IN TOP CURB
1001	201495.729	779197.915	SET MAG IN SDWK CRACK
1002	201567.915	779421.238	SET CHIS X ON STORM MANHOLE RIM
1003	201549.754	779715.620	SET SCRIBED X IN TOP CURB AT CROSSWALK
1004	201491.709	779611.090	SET MAG IN SDWK CRACK
1005	201321.272	779381.305	SET MAG IN SDWK CRACK
1006	201554.585	776502.808	SET MAG W/ REF WASHER
1007	201562.310	776726.152	SET MAG IN SDWK CRACK
1008	201699.859	776677.427	SET MAG W/ REF WASHER
1009	201371.514	776674.566	SET CHIS X IN TOP EAST END CONC CURB
2000	201583.274	779430.012	FND. ALUM DISC IN MON BOX MARKED IU SURVEY CONTROL

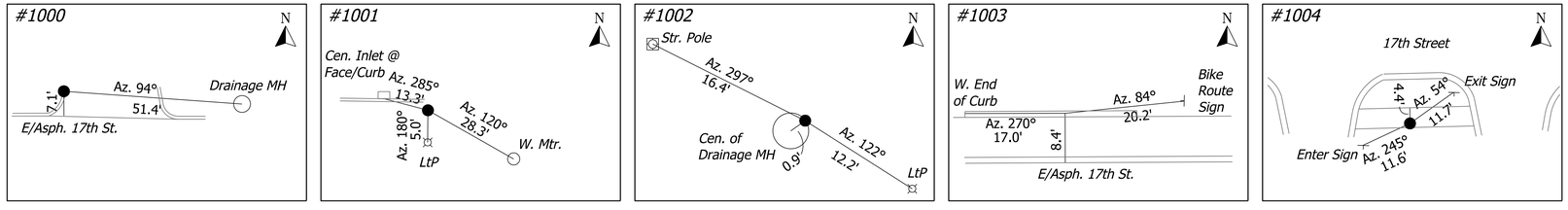
COORDINATE LISTING: PROPERTY AND SECTION CORNER EVIDENCE FOUND

PT.#	NORTHING	EASTING	DESCRIPTION
6000	201507.961	779358.831	FND. MINI MAG IN ASPH OVER DEPRESSION
6001	201487.825	779334.000	FND. 1" IRON PIPE 1" AG
6002	201487.561	779427.840	FND. 1.25" IRON PIPE 1" BG
6003	201490.956	779702.872	FND. RBR CAP "SCHNEIDER FIRM 0001" FLUSH
6004	201491.398	779757.935	FND. RBR CAP "SCHNEIDER FIRM 0001" FLUSH
6005	201220.628	779386.504	FND. MAG FLUSH
6006	201286.667	779386.372	FND. RR SPIKE FLUSH
6007	201100.674	779337.181	FND. RBR CAP FLUSH "SNA INC LS FIRM 0101"
6008	201360.398	779333.010	FND. RBR FLUSH W/ ILLEGIBLE CAP
6009	201551.101	779189.521	FND. 5/8" RBR W/ CAP "SNA INC LS 0427" UP 12"
6401	201354.355	776537.932	FND. 5\8" RBR NO CAP 2" BG WITH RIBBON
6402	201205.090	776539.591	FND. 5\8" RBR WITH SNA INC CAP LS 0427 1" BG
6403	201203.537	776539.842	FND. 1\2" RBR NO CAP FLUSH
6404	201504.178	776673.949	FND. MAG EPOXY IN CONC SW
6405	201354.456	776675.341	FND. 5\8" RBR WITH BYNUM FANYO CAP S90006
6406	201526.311	776702.054	FND. RRS 6" DEEP
6407	204195.282	776706.040	FND. MAG FLUSH
6408	201820.469	776684.115	FND. BROKE OFF T POST
6409	201503.760	776965.088	FND. BRG INC 6892 RBR CAP
6420	201219.008	779522.501	FND. BLEDSOE AND TAP RBR & CAP 1" UP
6421	201371.342	779218.638	FND. 5\8" RBR ILLEGIBLE CAP 1" BG
6422	201372.343	779168.686	FND. 3\4" ODIPIPE BENT NW 2" BG
6423	201489.837	779082.439	FND. 5\8" RBR NO CAP 1" BG
6424	201551.103	779189.448	FND. SNA INC RBR CAP BENT EASTERLY SHOT AT BASE
6425	201372.151	779157.144	FND. 1" ODIP TOP BENT NE 3" BG
6426	204180.426	779334.182	FND. MAG FLUSH IN ASPHALT SR 46
6427	201623.009	779338.828	FND. SNA INC RBR CAP FLUSH
510993	201628.048	779417.057	CONC RW MON.
511722	201384.447	779385.971	CONC RW MON.
511768	201474.162	779338.096	CONC RW MON.

Intersection 17th Street and Kinser Pike/Madison Street: Control Point References



Intersection 17th Street and Dunn Street: Control Point References



SURVEYOR'S REPORT

2018008771 SURVEY2 $30.00
07/02/2018 10:04:36A 1 PGS
Eric Schmitz
Monroe County Recorder IN
Recorded as Presented

ROUTE SURVEY for intersection improvement projects, intersection of 17th Street with Kinser Pike/Madison Street and intersection of 17th Street with Dunn Street in the City of Bloomington, Indiana.
OWNER/CLIENT: The City of Bloomington, Indiana.
LOCATED in Sections 28, 29, 32, and 33, Township 9 North, Range 1 West, Bloomington Township, Monroe County, Indiana.

The purpose of this survey is to collect data for the design of intersection improvement projects, and to provide a basis of describing any right-of-way needed for the projects. It is not a property retracement survey.

HORIZONTAL DATUM: Unless noted otherwise, all bearings, distances, areas, and coordinates shown hereon are based on the Indiana Geospatial Coordinate System's (InGCS) "Monroe" zone per NAD 83 (2011) epoch 2010.00 and are reported in U.S. Survey Feet and decimal parts thereof. The "Monroe" zone was developed to minimize the differences between ground measured horizontal distances and the corresponding grid coordinate (map) distances within Monroe County, Indiana.

InGCS "Monroe" Zone Parameters (also available at http://www.in.gov/indot/InGCS.htm)
Geometric Datum: NAD 83(2011) epoch 2010.00
Projection Type: Transverse Mercator
Central Meridian: 86°30'00" west longitude
Central Meridian scale factor: 1.000028
Latitude of Grid Origin: 38°57'00" north latitude
False Northing: 36,000.000 m (118,110.00 U.S.Ft)
False Easting: 240,000.000 m (787,400.00 U.S.Ft)

ALIGNMENTS: Lines "A", "S-1-A", "B", and "S-1-B" are all original alignments established by the coordinates published hereon (relative to the monumented control coordinates published hereon) and none of the four alignments has any re-establishment uncertainty.

Lines "A", "S-1-A", "B", and "S-1-B" were all provided by design engineers, based on the existing street topography. These alignments were not intended to represent existing section lines, property lines, or the centerlines of existing rights-of-way

SECTION LINES AND CORNERS:
Points 6000, 6406, 6407, and 6426 represent monuments found in place, consistent with corner records provided by the Monroe County Surveyor's Office.

EXISTING RIGHT-OF-WAY:
Street rights-of-way are generally shown hereon as indicated by deeds, plats, or property corner monuments found in place and reasonably consistent with deed dimensions. In the northeast quadrant of Dunn Street and 17th Street, the existing right-of-way is shown hereon as indicated on plans entitled "BL000A 17th Street Pedestrian Circulation Safety Improvements" prepared in 2016 by Bledsoe Rigger Cooper James, which appear to have been based on the right-of-way shown on 1960 plans for State Highway Commission Project 886 A (plans provided by the City of Bloomington). No documentation was found by which this right-of-way was actually conveyed to the State Highway Commission or to the City of Bloomington.

LOCHMUELLER GROUP
Prepared By: LOCHMUELLER GROUP, INC.
f/k/a Bernardin Lochmueller & Associates, Inc.
6200 Vogel Road, Evansville, IN 47715 812.479.6200
Toll Free 1.800.423.7411 Fax 812.479.6262

SURVEY STARTED	NOVEMBER 6, 2017
SURVEY COMPLETED	NOVEMBER 29, 2017
ROUTE PLAT SHEETS	2 of 2
SURVEYOR'S PROJECT NO.	117-0022-OLR

FIELD SURVEYOR STATEMENT
THIS SURVEY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, IS EXECUTED ACCORDING TO THE PROVISIONS OF 865 I.A.C. 1-12-20 REGARDING ROUTE SURVEYS, EXCEPT THAT ANY DATA SHOWN REGARDING THE LOCATION OR DESCRIPTION OF ANY NEW PARCELS TO BE ACQUIRED OR THE EXISTING PARCELS IS NOT A PART OF THIS SURVEY

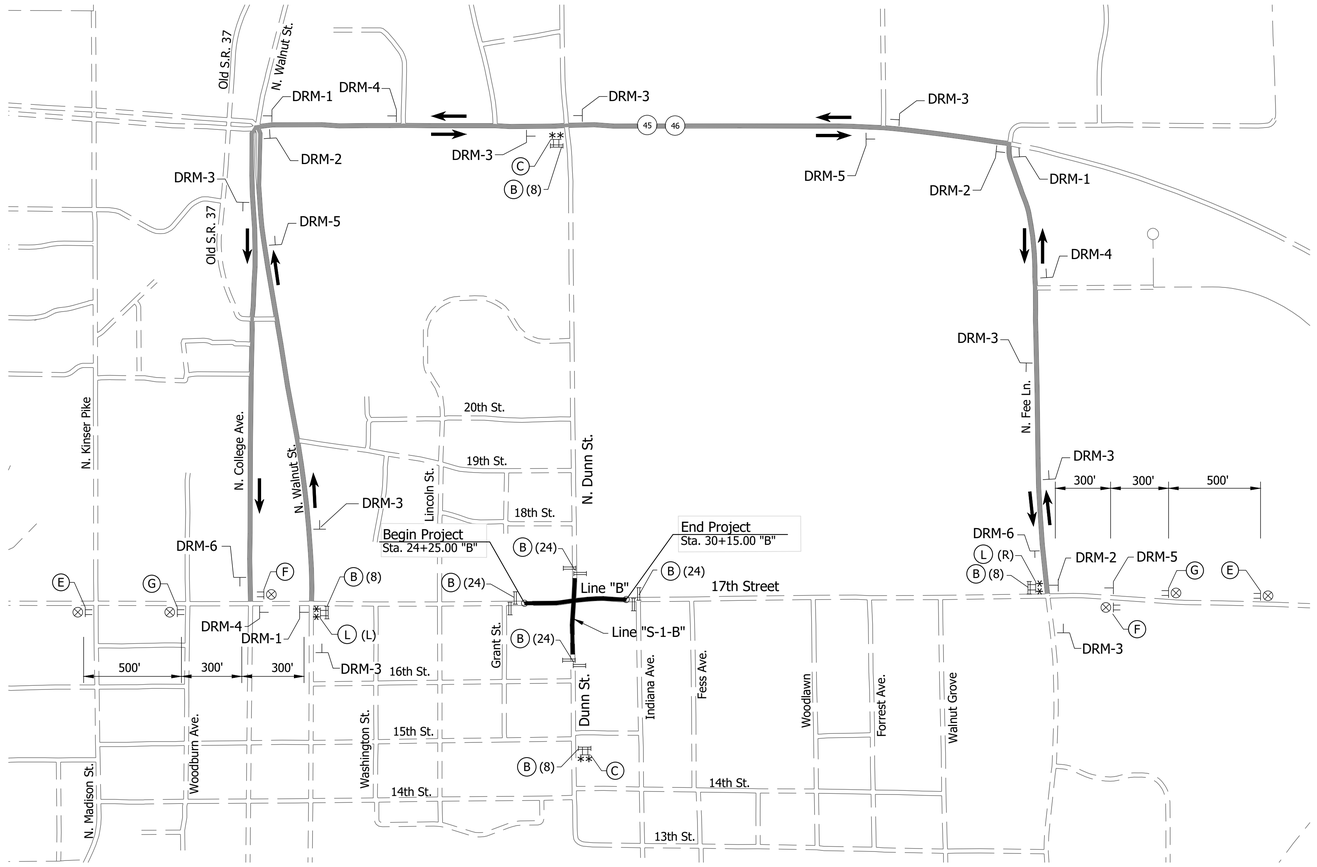
RECOMMENDED FOR APPROVAL 6/25/2018
REGISTERED LAND SURVEYOR FIELD DATE

PERRY E. JONES
REGISTERED
NO. 9600016
STATE OF
INDIANA
LAND SURVEYOR

Prepared for the
CITY OF BLOOMINGTON, INDIANA

LOCATION CONTROL ROUTE SURVEY
INTERSECTIONS OF E. 17TH STREET WITH KINSER PIKE/MADISON STREET AND WITH DUNN STREET

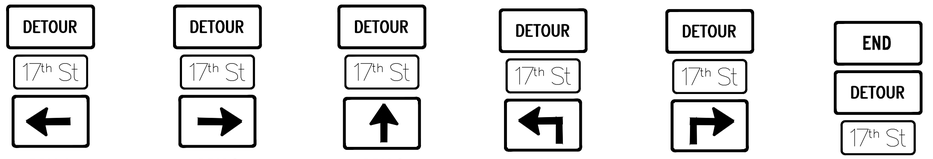
HORIZONTAL SCALE	BRIDGE FILE
N/A	
COUNTY	DESIGNATION
MONROE	
SURVEY BOOK	PLAN SHEETS
	6 of 38
CONTRACT	PROJECT



MAINTENANCE OF TRAFFIC QUANTITIES					
Phase	Construction Sign, A	Construction Sign, B	Barricade, III-B	Road Closure Sign Assembly	Detour Route Marker Assembly
	Each	Each	LFT	Each	Each
Detour Phase I	4	2	128	4	23
TOTAL	4	2	128	4	23

LEGEND

- (B) Std. Barricade, Type III-B (Feet Req'd.)
- (C) Road Closure Sign Assembly; R11-3 (Road Closed Local Traffic Only)
- (E) Construction Sign A, XG20-3 (Road Closed Ahead)
- (F) Construction Sign B, XG20-2 (End Construction)
- (G) Construction Sign A, XW20-2 (Detour Ahead)
- (L) Road Closure Sign Assembly; R11-4 (Road Closed to Thru Traffic) w/ XM4-10 (R or L) (Detour Arrow)
- Detour Route Marker
- Construction Sign
- Construction Warning Light, A
- ** Construction Warning Light, B
- Std. Barricade
- Work Area
- Detour Route



Sign A
Detour Route Marker

Sign A; 1.5" Radius, 0.5" Border, Black on Orange;
[17th St] 6" C Series;
Table of letter and object lefts.

1	7	t	h	S	t
3.3	5.6	9.7	11.6	16.1	20.4

Detour Information

1. Close 17th St. to thru traffic from Walnut St. to Fee Ln.
2. Detour 17th St. traffic to S.R. 45/46 via Walnut St./College Ave & Fee Ln.
3. Detour shall be used throughout construction of all phases.
4. Maintain access to all drives and businesses.

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW DRAWN: LLF

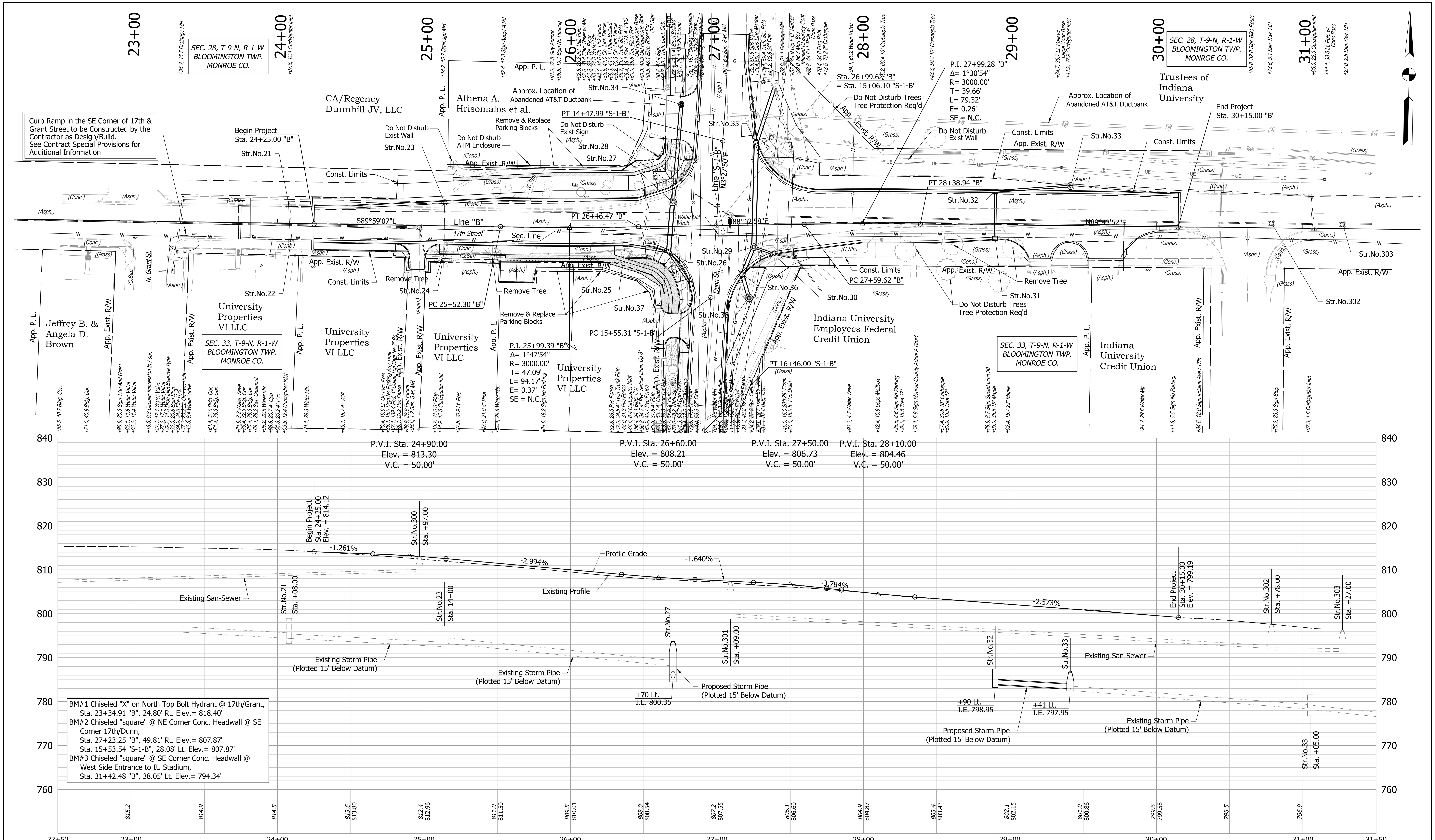
CHECKED: JAW CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

MAINTENANCE OF TRAFFIC
DETOUR

HORIZONTAL SCALE	BRIDGE FILE
As Shown	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	7 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:12am User Name: Nick
File: S:_2017\1117-0022\Road\Cad\WescDWGs_MOT Detour.dwg



Notes:

R/W as Shown for Additional Information see R/W Detail Sheet.
Tree Perimeter Protection (Plastic Construction Fencing) Installed at Tree Dripline Shall be Included in the Cost of Clearing R/W.

NICHOLAS A. WILL — REGISTERED — PE10708224 — STATE OF INDIANA — PROFESSIONAL ENGINEER

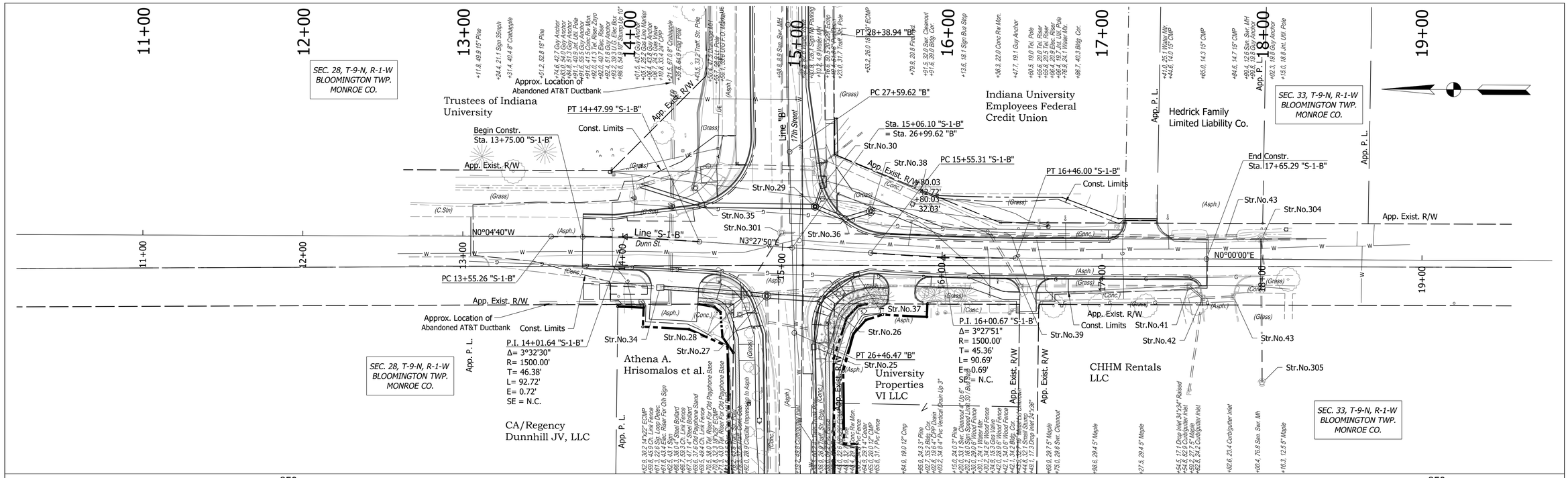
RECOMMENDED FOR APPROVAL	Nicholas A. Will — DESIGN ENGINEER	02/11/2021 DATE
DESIGNED: NAW	DRAWN: LLF	
CHECKED: JAW	CHECKED: NAW	

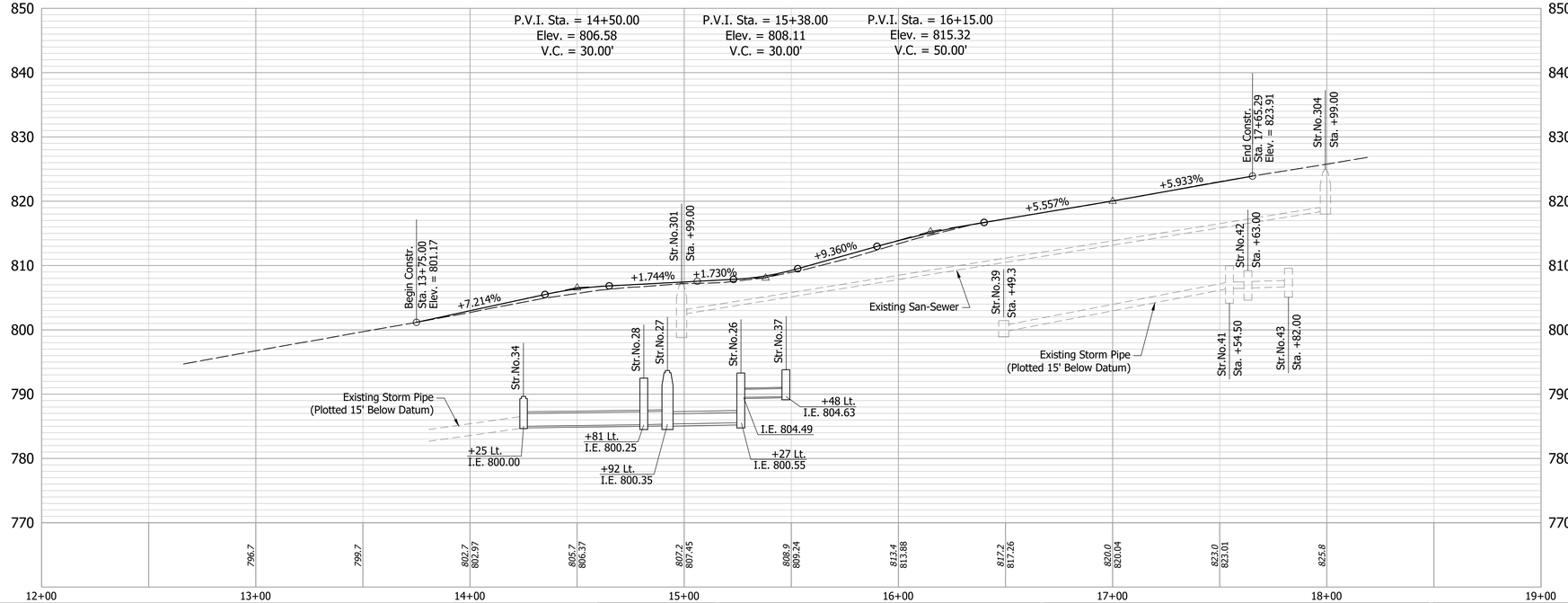
INTERSECTION 17th & DUNN ST. CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

PLAN & PROFILE
LINE "B" - 17th STREET

HORIZONTAL SCALE	BRIDGE FILE
1"=30'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	8 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:13am User Name: Nick
File: S:_2017\117-0022\Road\CAD\P&P\Plan Profile B.dwg





BM#2 Chiseled "square" @ NE Corner Conc. Headwall @ SE Corner 17th/Dunn,
Sta. 27+23.25 "B", 49.81' Rt. Elev.= 807.87'
Sta. 15+53.54 "S-1-B", 28.08' Lt. Elev.= 807.87'

BM#4 Boat Spike Up 24" in East Side of Telephone Pole #154819 on East Side Dunn,
Sta. 16+60.62 "S-1-B", 19.91' Lt. Elev.= 818.72'

Notes:
R/W as Shown for Additional Information see R/W Detail Sheet.

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	Nicholas A. Will	02/11/2021
	DESIGN ENGINEER	DATE

DESIGNED: NAW	DRAWN: LLF
CHECKED: JAW	CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

PLAN & PROFILE
LINE "S-1-B" - DUNN STREET

HORIZONTAL SCALE	BRIDGE FILE
1"=30'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	9 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:14am User Name: Nick
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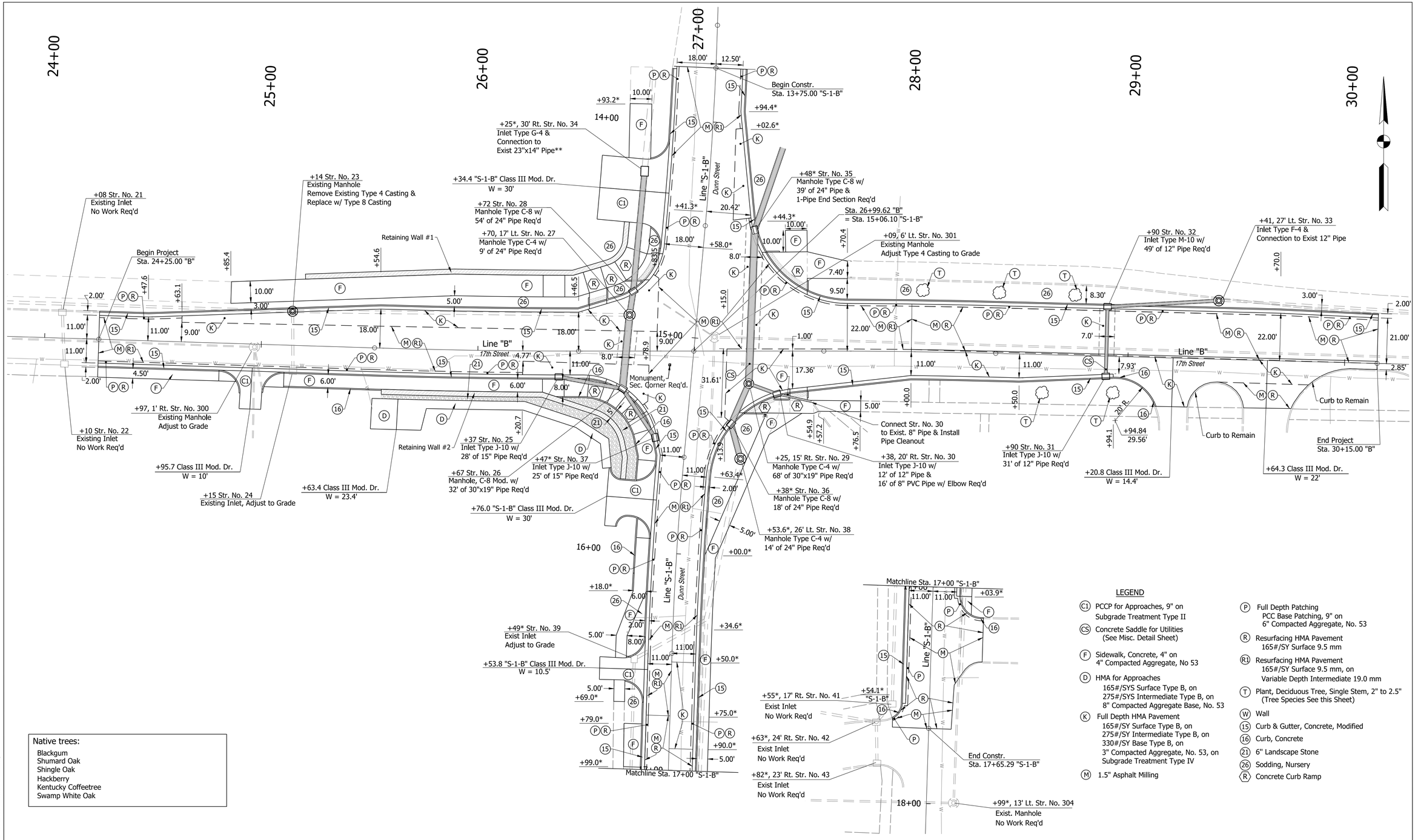

Native trees:

- Blackgum
- Shumard Oak
- Shingle Oak
- Hackberry
- Kentucky Coffeetree
- Swamp White Oak

LEGEND

- (C1) PCCP for Approaches, 9" on Subgrade Treatment Type II
- (CS) Concrete Saddle for Utilities (See Misc. Detail Sheet)
- (F) Sidewalk, Concrete, 4" on 4" Compacted Aggregate, No 53
- (D) HMA for Approaches 165#/SYS Surface Type B, on 275#/SYS Intermediate Type B, on 8" Compacted Aggregate Base, No. 53
- (K) Full Depth HMA Pavement 165#/SY Surface Type B, on 275#/SY Intermediate Type B, on 330#/SY Base Type B, on 3" Compacted Aggregate, No. 53, on Subgrade Treatment Type IV
- (M) 1.5" Asphalt Milling
- (P) Full Depth Patching PCC Base Patching, 9" on 6" Compacted Aggregate, No. 53
- (R) Resurfacing HMA Pavement 165#/SY Surface 9.5 mm
- (R1) Resurfacing HMA Pavement 165#/SY Surface 9.5 mm, on Variable Depth Intermediate 19.0 mm
- (T) Plant, Deciduous Tree, Single Stem, 2" to 2.5" (Tree Species See this Sheet)
- (W) Wall
- (15) Curb & Gutter, Concrete, Modified
- (16) Curb, Concrete
- (21) 6" Landscape Stone
- (26) Sodding, Nursery
- (R) Concrete Curb Ramp

Notes:

All Stationing off Line "B" Unless Otherwised Noted.
* - Indicates Stationing off Line "S-1-B".
All Drives Shall Have 10' Radius Unless Otherwise Noted.
See Curb Ramp Details for Additional Information.
See City of Bloomington's Approved Material List for Detectable Warning Surfaces.
** - Contractor Must Verify Existing Pipe Size Prior to Manufacturing Structure No. 34

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	Nicholas A. Will	02/11/2021
	DESIGN ENGINEER	DATE

DESIGNED: NAW	DRAWN: LLF
CHECKED: JAW	CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

CONSTRUCTION DETAIL
LINE "B"/"S-1-B"

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	10 of 38
CONTRACT	PROJECT
-	-- -- --

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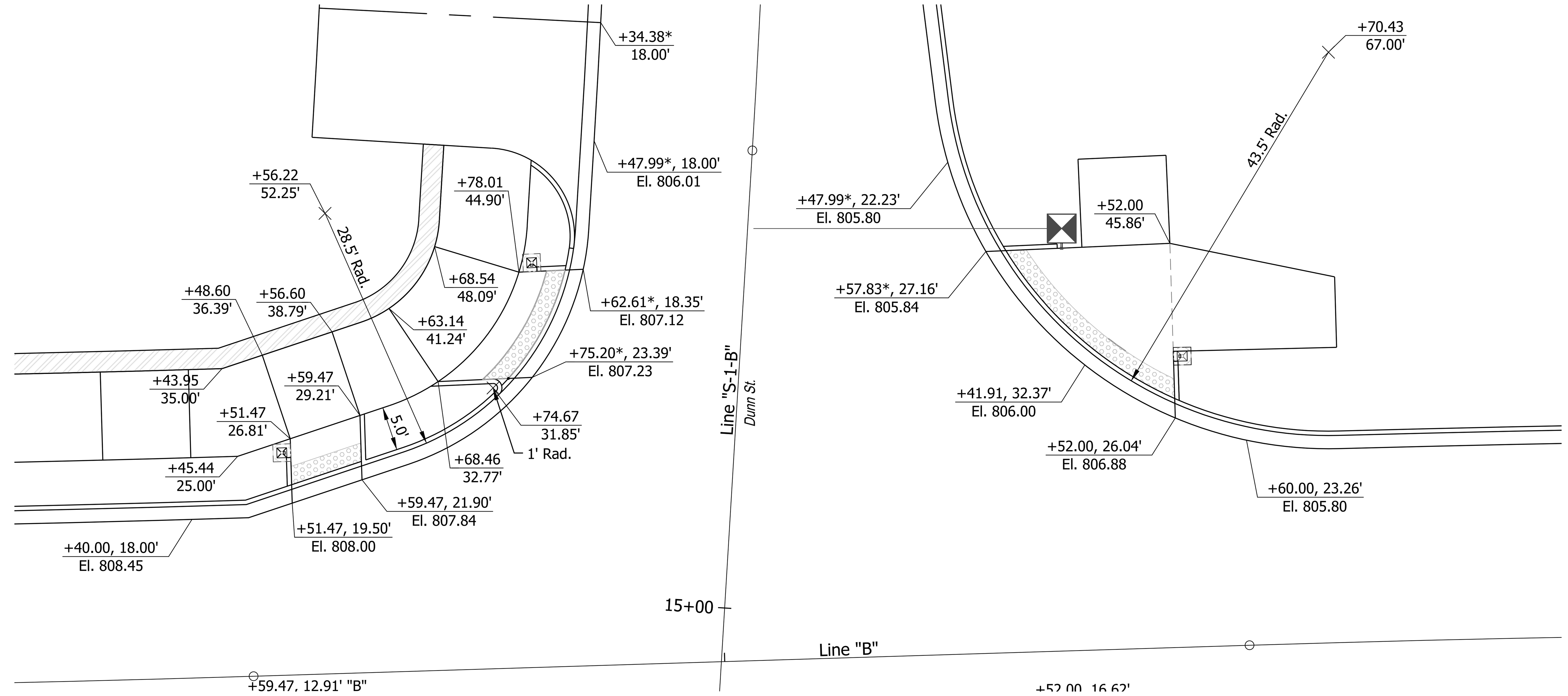
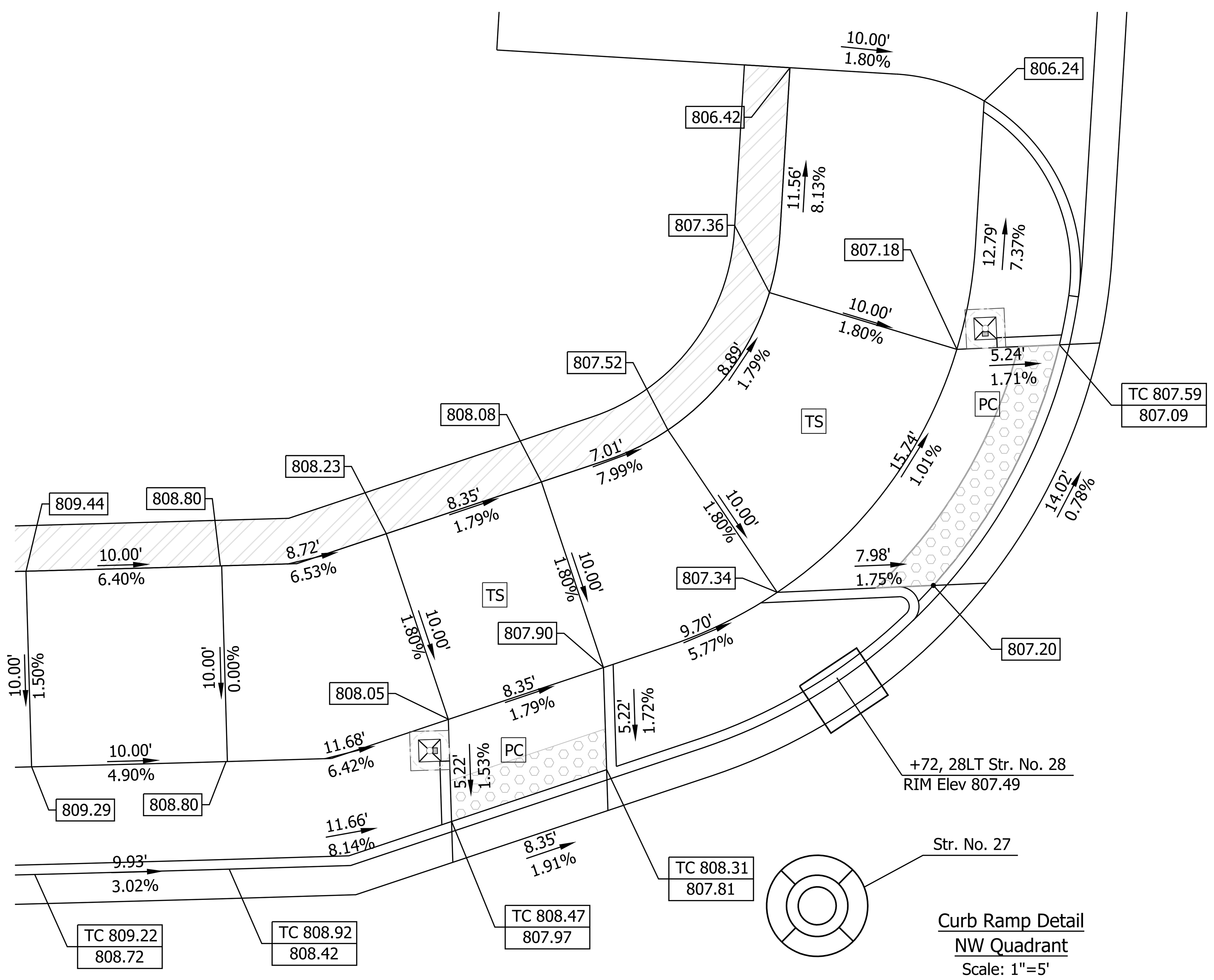


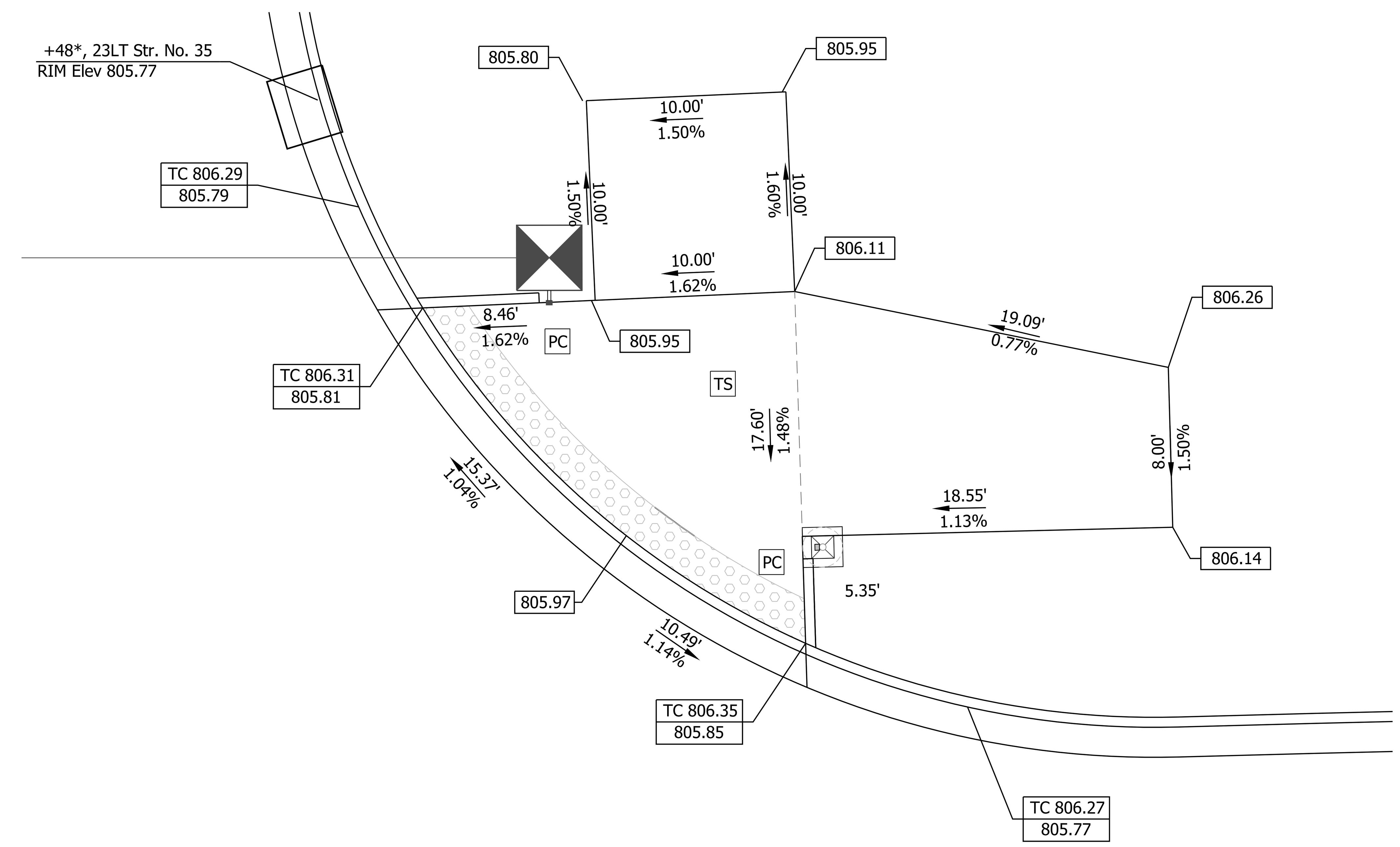
Spot Elevation Detail
Scale: 1"=10'

LEGEND

TS	Turning Space
PC	Pedestrian Clear Space



Curb Ramp Detail
NW Quadrant
Scale: 1"=5'



Curb Ramp Detail
NE Quadrant
Scale: 1"=5'

NOTE:
All Stationing Off of Line "B" Unless Otherwise Noted.
* - Indicates Stationing Off of Line "S-1-B".
All Existing Elevations to be Field Verified.
TC = Top Curb
See City of Bloomington's Approved Material List for Detectable Warning Surfaces.

NICHOLAS A. WILL
REGISTERED
PE10708224
STATE OF
INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [illegible] 02/11/2021
DESIGN ENGINEER DATE

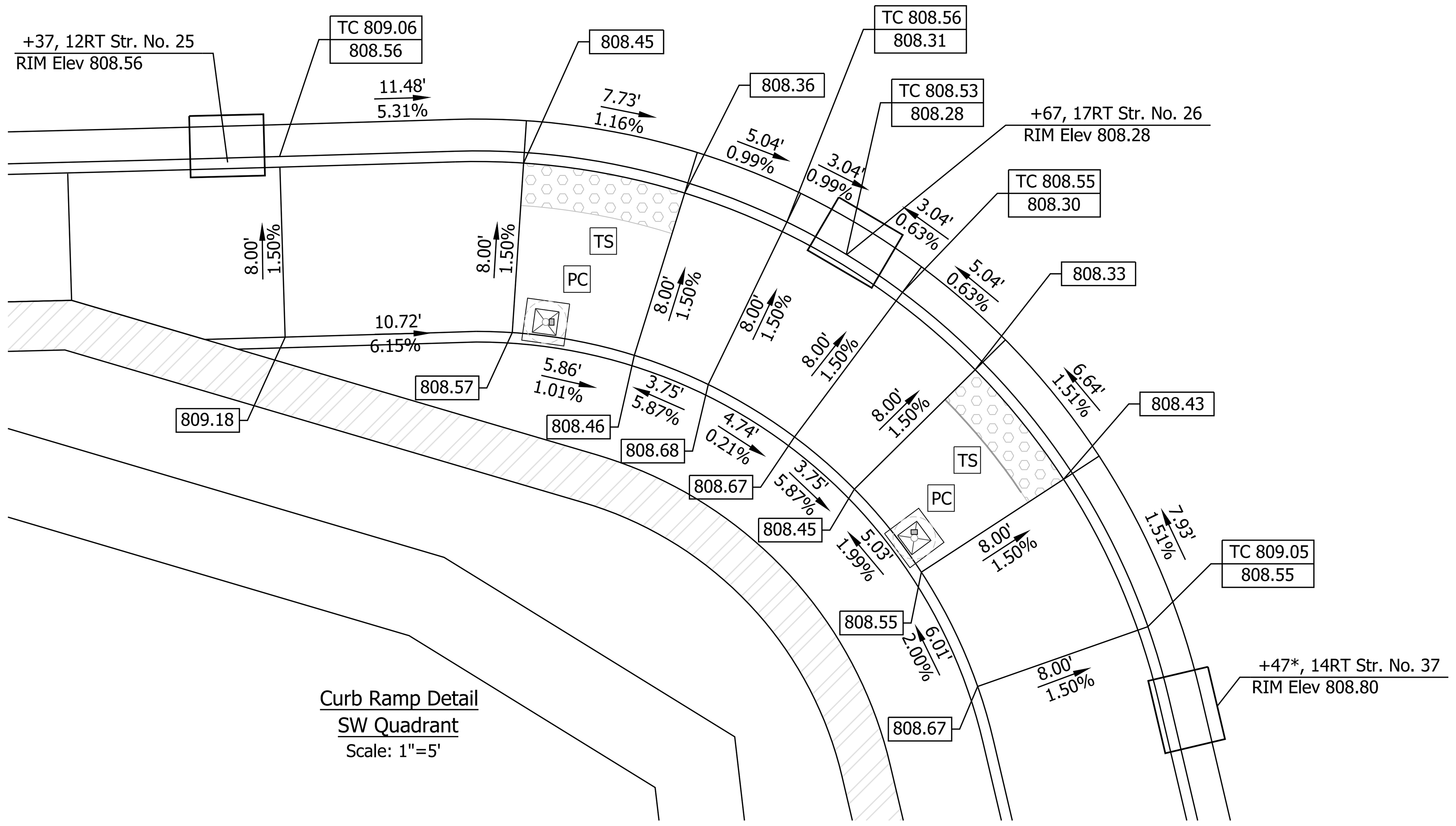
DESIGNED:	NAW	DRAWN:	LLF
CHECKED:	JAW	CHECKED:	NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

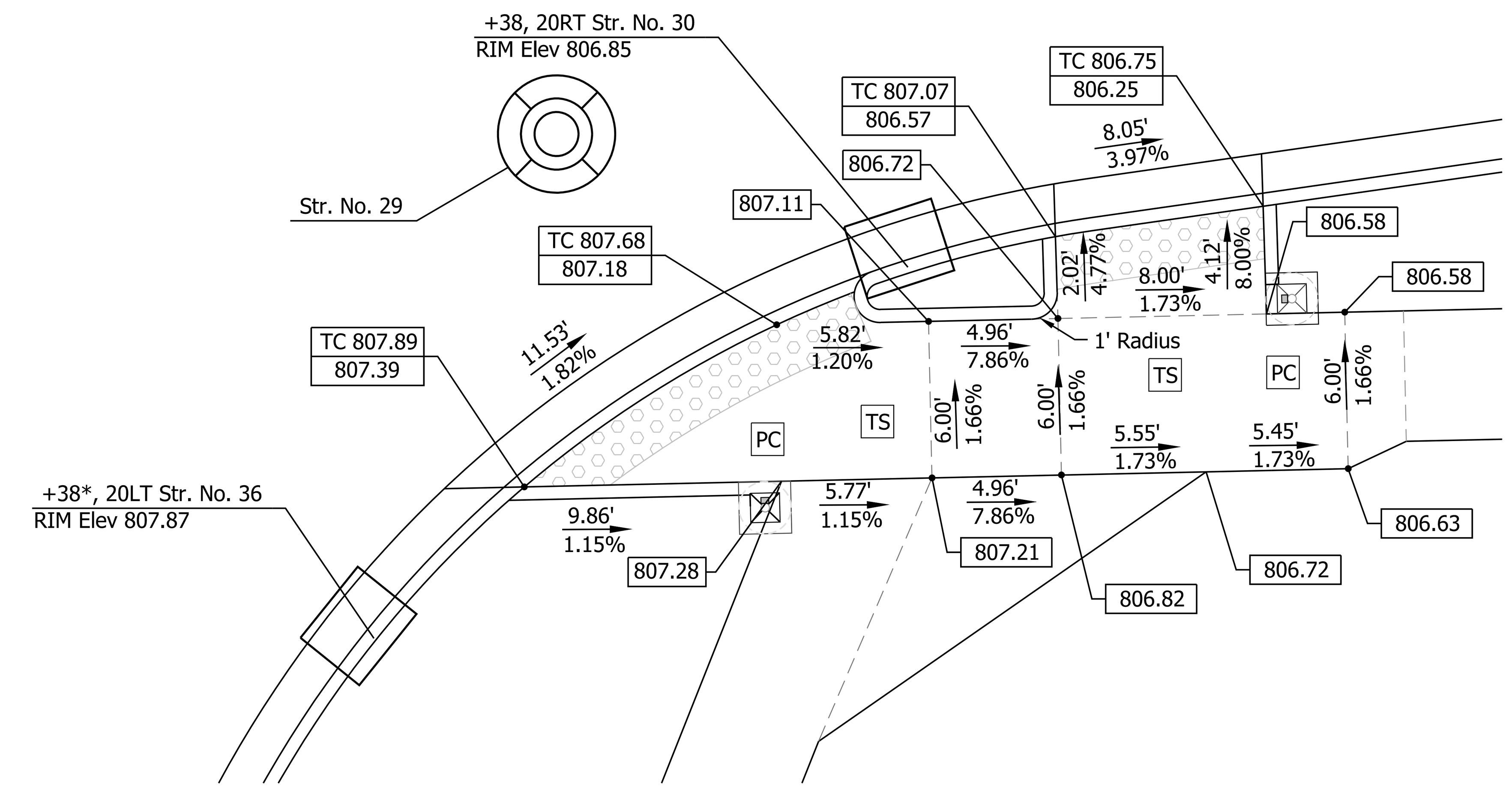
SPOT ELEVATION &
CURB RAMP DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	11 of 38
CONTRACT	PROJECT
-	-- -- --

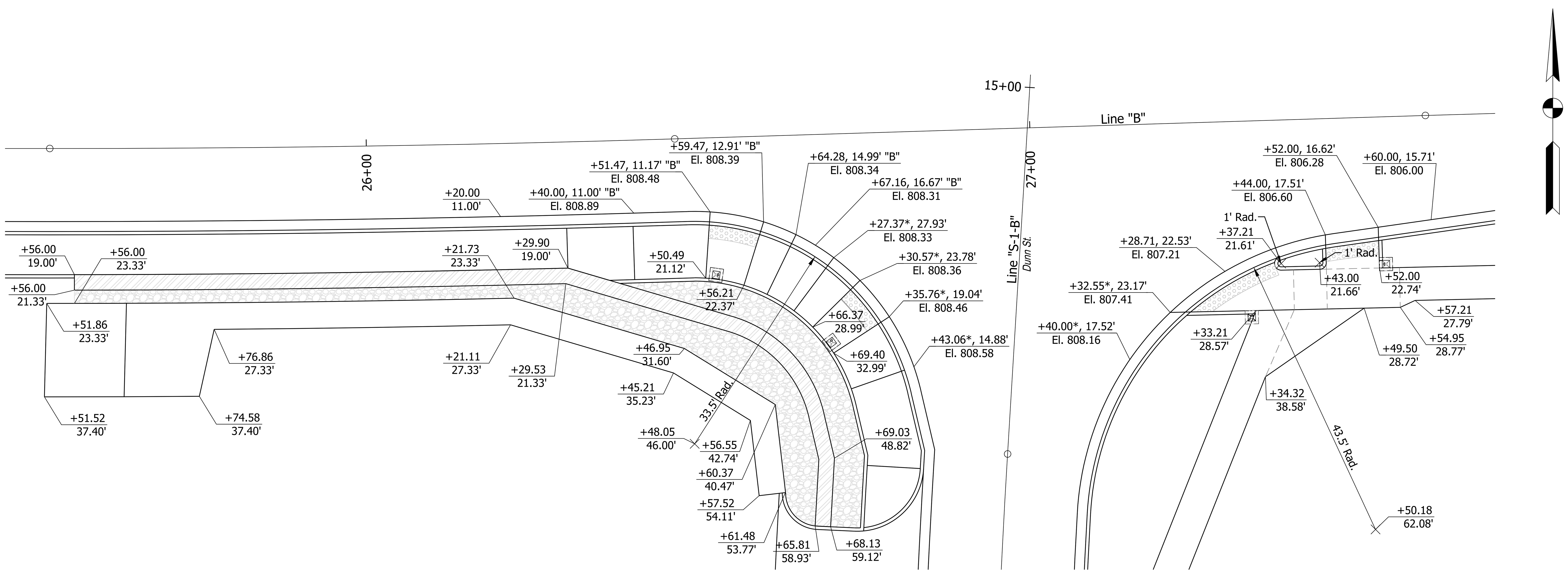
Date: Feb 24, 2021, 8:16am User Name: Nick
File: S:_2017\117-0022\Road\CAD\MiscDWG\B_Curb Ramp Details.dwg



Curb Ramp Detail
SW Quadrant
Scale: 1"=5'



Curb Ramp Detail
SE Quadrant
Scale: 1"=5'



Spot Elevation Detail
Scale: 1"=10'

LEGEND

TS	Turning Space
PC	Pedestrian Clear Space

Date: Feb 24, 2021, 8:16am User Name: Nick
File: S:_2017\117-0022\Road\CAD\MiscDWG\B_Curb Ramp Details.dwg

NOTE:
All Stationing Off of Line "B" Unless Otherwise Noted.
* - Indicates Stationing Off of Line "S-1-B".
All Existing Elevations to be Field Verified.
TC = Top Curb
See City of Bloomington's Approved Material List for Detectable Warning Surfaces.

NICHOLAS A. WILL
REGISTERED
PE10708224
STATE OF
INDIANA
PROFESSIONAL ENGINEER

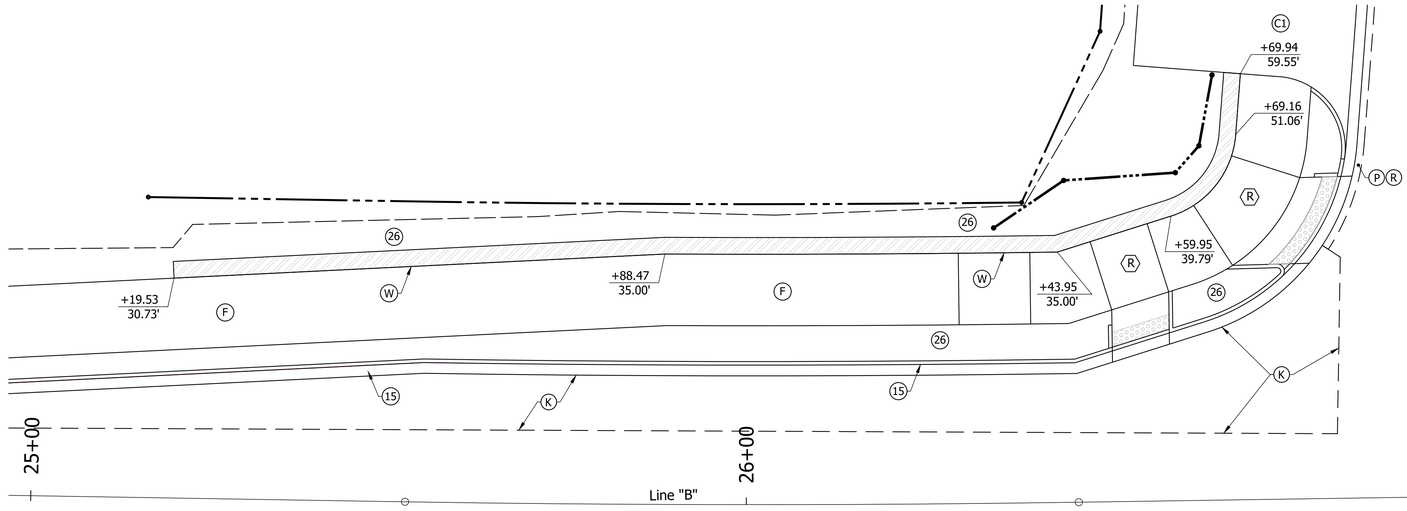
RECOMMENDED FOR APPROVAL [illegible] 02/11/2021
DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF
CHECKED: JAW CHECKED: NAW

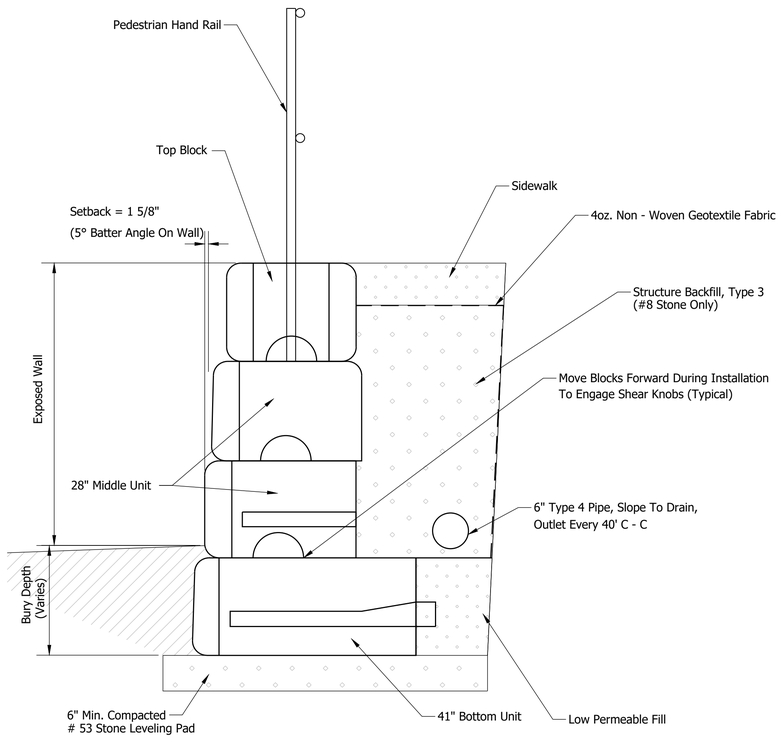
INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

SPOT ELEVATION &
CURB RAMP DETAILS

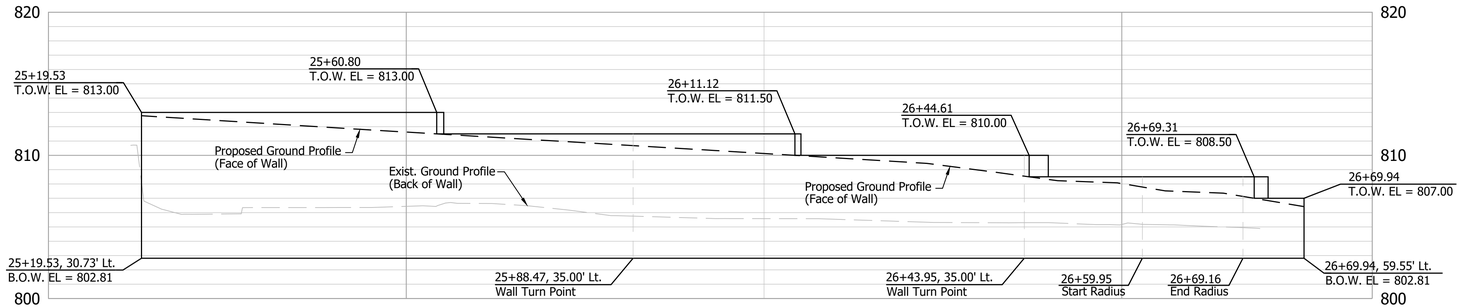
HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	12 of 38
CONTRACT	PROJECT
-	-- -- --



PLAN VIEW
Scale: 1"=10'



TYPICAL SECTION-GRAVITY WALL
SCALE: 1"=1'



PROFILE VIEW
Horizontal Scale: 1"=10'
Vertical Scale: 1"=5'

LEGEND

- (C1) PCCP for Approaches, 9" on Subgrade Treatment Type II
- (F) Sidewalk, Concrete, 4" on 4" Compacted Aggregate, No 53
- (K) Full Depth HMA Pavement 165#/SY Surface Type B, on 275#/SY Intermediate Type B, on 330#/SY Base Type B, on 3" Compacted Aggregate, No. 53, on Subgrade Treatment Type IV
- (P) Full Depth Patching PCC Base Patching, 9" on 6" Compacted Aggregate, No. 53
- (R) Resurfacing HMA Pavement 165#/SY Surface 9.5 mm
- (W) Wall
- (15) Curb & Gutter, Concrete, Modified
- (26) Sodding, Nursery
- (R) Concrete Curb Ramp

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Nicholas A. Will — DESIGN ENGINEER — 02/11/2021 DATE

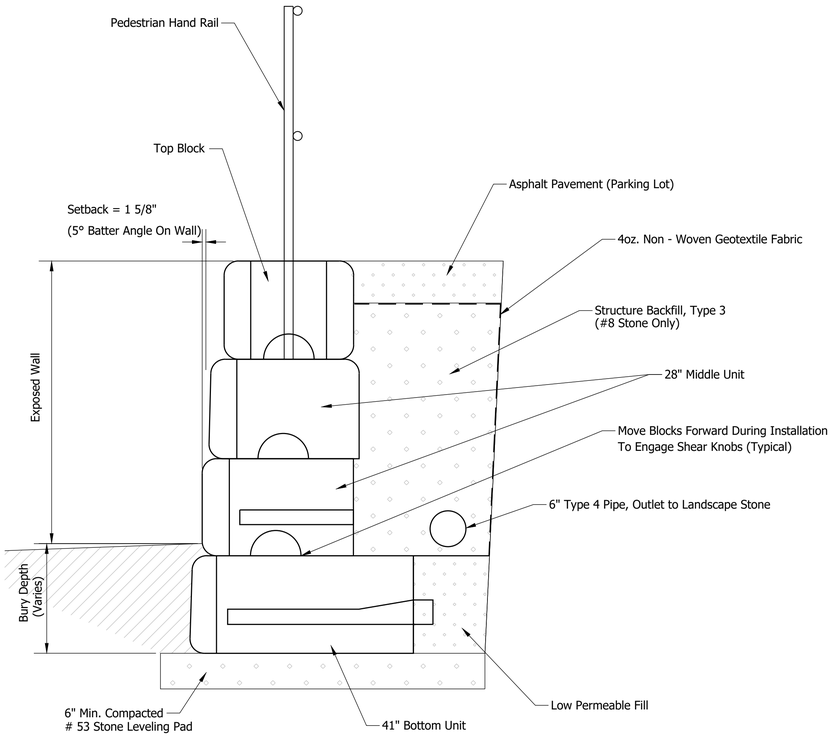
DESIGNED: NAW | DRAWN: LLF
CHECKED: JAW | CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

RETAINING WALL DETAILS
WALL 1

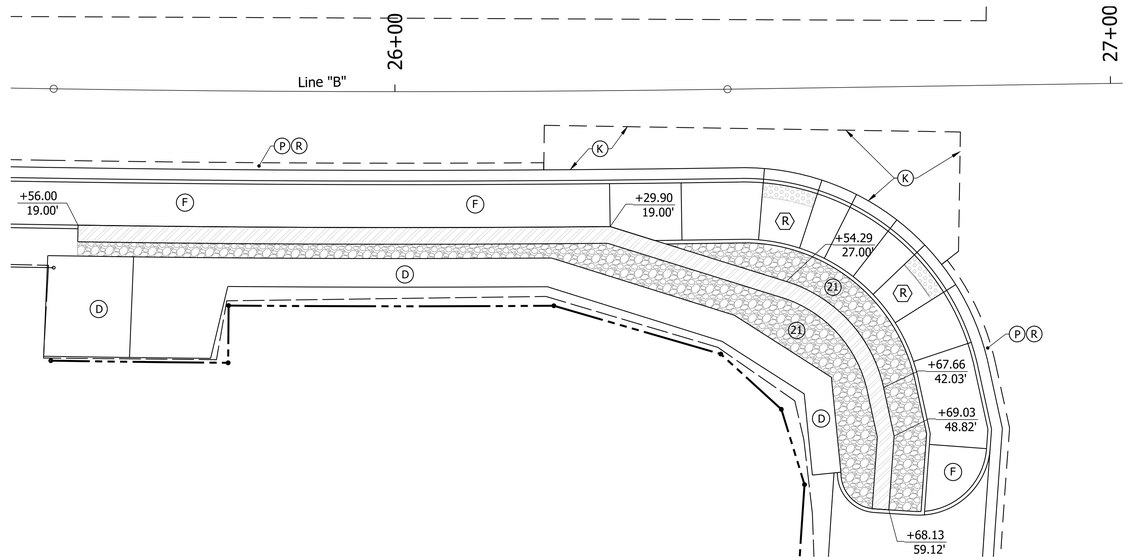
HORIZONTAL SCALE	BRIDGE FILE
No Scale	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	13 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:16am User Name: Nick
File: S:_2017\117-0022\Road\CAD\MicroWorld\8_Ret Wall Detail.dwg



TYPICAL SECTION-GRAVITY WALL

SCALE: 1"=1'

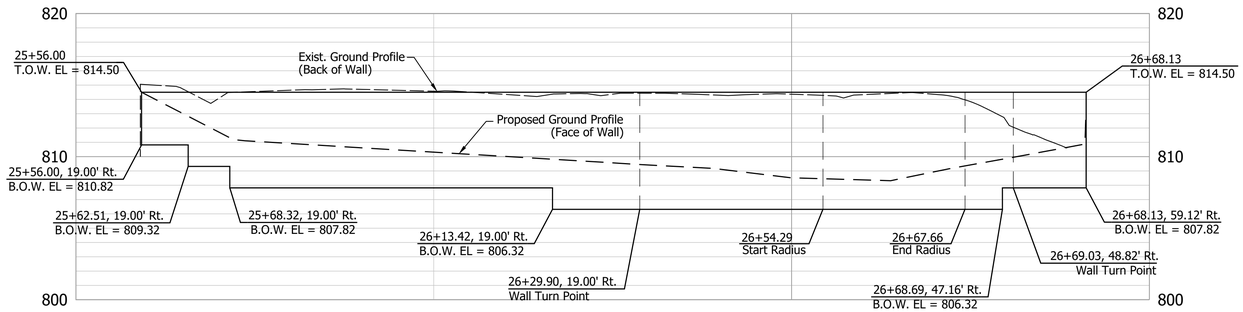


PLAN VIEW

Scale: 1"=10'

LEGEND

- (C1) PCCP for Approaches, 9" on Subgrade Treatment Type II
- (F) Sidewalk, Concrete, 4" on 4" Compacted Aggregate, No 53
- (K) Full Depth HMA Pavement 165#/SY Surface Type B, on 275#/SY Intermediate Type B, on 330#/SY Base Type B, on 3" Compacted Aggregate, No. 53, on Subgrade Treatment Type IV
- (D) HMA for Approaches 165#/SYS Surface Type B, on 275#/SYS Intermediate Type B, on 8" Compacted Aggregate Base, No. 53
- (P) Full Depth Patching PCC Base Patching, 9" on 6" Compacted Aggregate, No. 53
- (R) Resurfacing HMA Pavement 165#/SY QC/QA-HMA 3, 76, Surface 9.5 mm
- (W) Wall
- (15) Curb & Gutter, Concrete, Modified
- (26) Sodding, Nursery
- (21) 6" Landscape Stone
- (R) Concrete Curb Ramp



PROFILE VIEW

Horizontal Scale: 1"=10'
Vertical Scale: 1"=5'

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW DRAWN: LLF

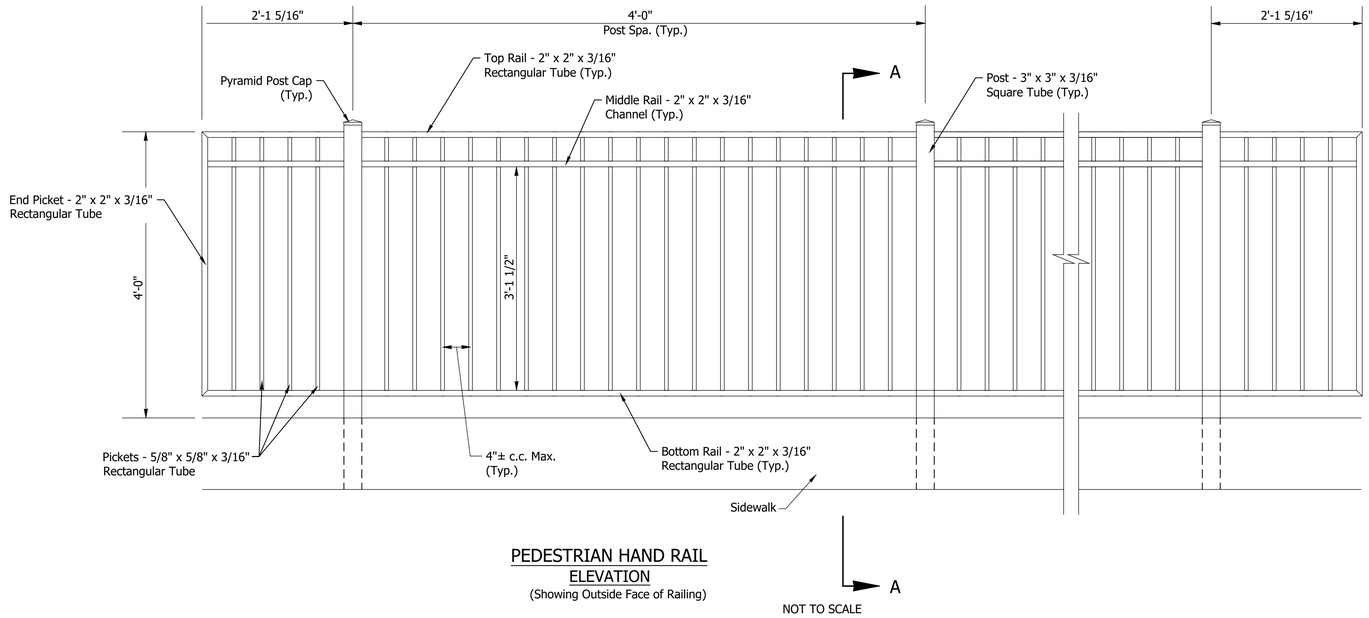
CHECKED: JAW CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

RETAINING WALL DETAILS
WALL 2

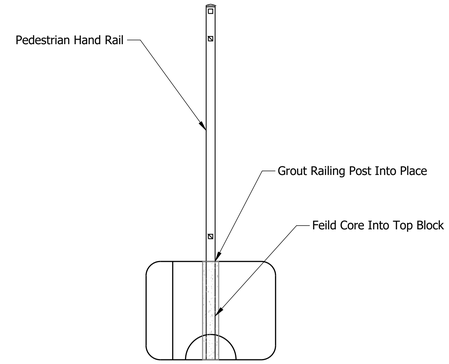
HORIZONTAL SCALE	BRIDGE FILE
No Scale	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	14 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:16am User Name: Nick
File: S:_2017\117-0022\Road\CAD\MscDWGs\B. Ret Wall Detail.dwg



PEDESTRIAN HAND RAIL
ELEVATION
(Showing Outside Face of Railing)

NOT TO SCALE



PEDESTRIAN HAND RAIL DETAIL
SCALE: 1"=1'

Parameter	Retaining Wall No. 1	Retaining Wall No. 2
Levelling Pad Elevation (ft)	803 to 805	807 to 809
Foundation Bearing Material	Silty Clay Loam A-7-6	Silty Clay Loam A-7-6
Minimum Base Width	The greater of 8 ft or 0.7H	The greater of 8 ft or 0.7H
Backfill Friction Angle, ϕ	34°	34°
Friction Angle between Foundation Soils and Foundation Material, δ	22°	22°
Foundation soil Internal Friction Angle, φ	0°	0°
Adhesion Between the Soil and Concrete, C_a (psf)	700	700
Cohesion (psf)	1000	1000
Nominal Bearing Resistance, Q_u, (psf)	5540	5540
Bearing Resistance Factor, φ_b, (psf)	0.5	0.5
Factored Bearing Resistance, q_b, (psf)	2800	2800

RETAINING WALL QUANTITIES

FROM STATION	LEFT	RIGHT	MODULAR BLOCK WALL	MODULAR BLOCK WALL ERECTION	PIPE, TYPE 4, CIRCULAR, 6"	PIPE, UNDERDRAIN OUTLET, 6"	STRUCTURE BACKFILL, TYPE 3	COMPACTED AGGREGATE NO. 53 (LEVELING PAD)	HAND RAIL, PEDESTRIAN
			SFT	SFT	LFT	LFT	CYS	CYS	LFT
LINE "A"									
Wall 1	X		1678.9	1678.9	159	12	40.1	13.6	163
Wall 2		X	1188.0	1188.0	133	4	33.5	11.4	132
TOTAL			2867	2867	292	16	73.6	25	295

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Nicholas A. Will — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW | DRAWN: LLF

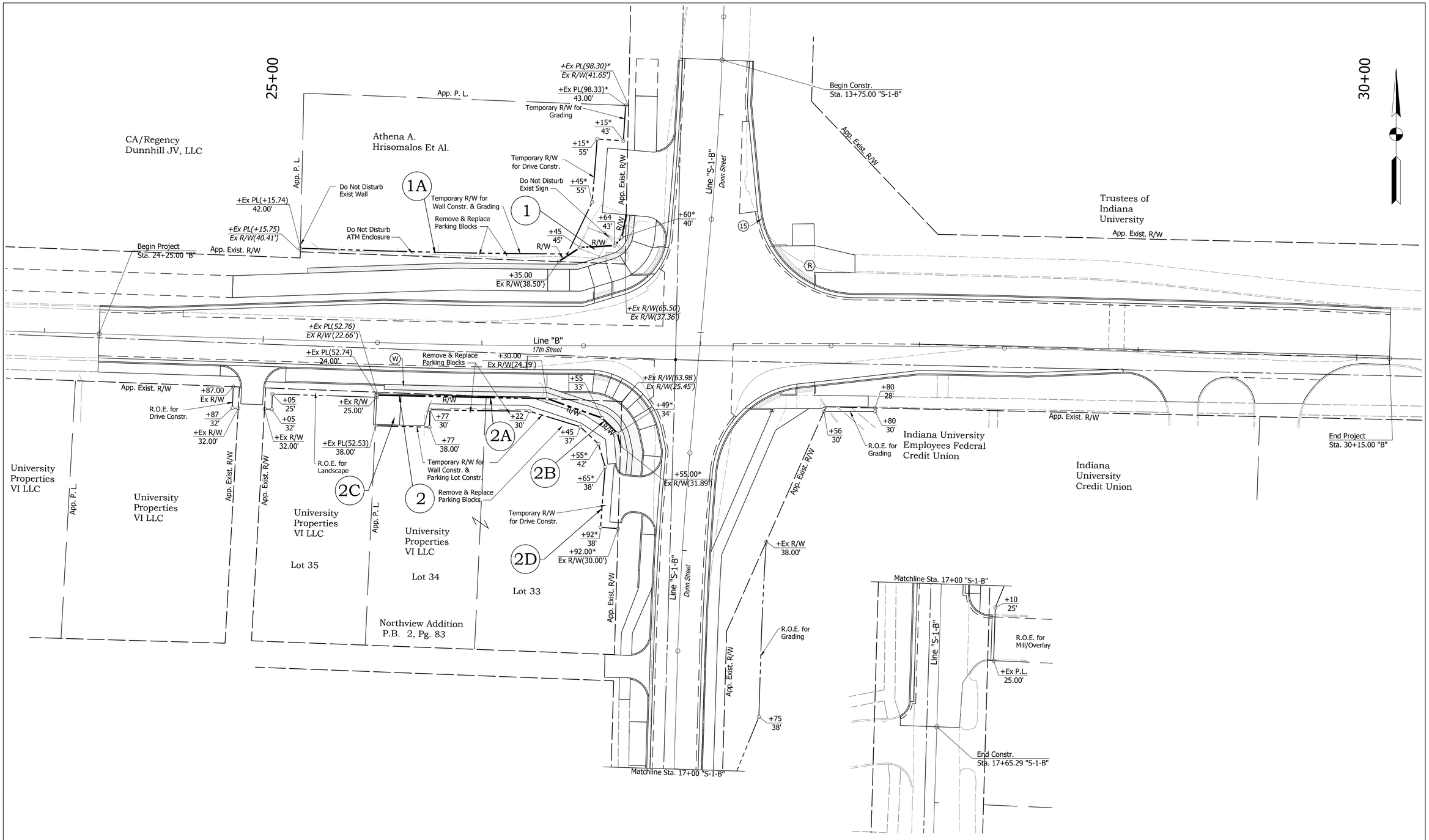
CHECKED: JAW | CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

PEDESTRIAN HAND RAIL DETAIL

HORIZONTAL SCALE	BRIDGE FILE
No Scale	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	15 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:16am User Name: Nick
File: S:_2017\1170022\Road\CAD\WisCDWG\B_Ret Wall Detail.dwg



Notes:

All R/W on This Sheet Described From Line "B" Except as Shown.
All Stationing off Line "B" Unless Otherwised Noted.
* - Indicates Stationing off Line "S-1-B".
All Drives Shall Have 10' Radius Unless Otherwise Noted.

NICHOLAS A. WILL
REGISTERED
PE10708224
STATE OF
INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

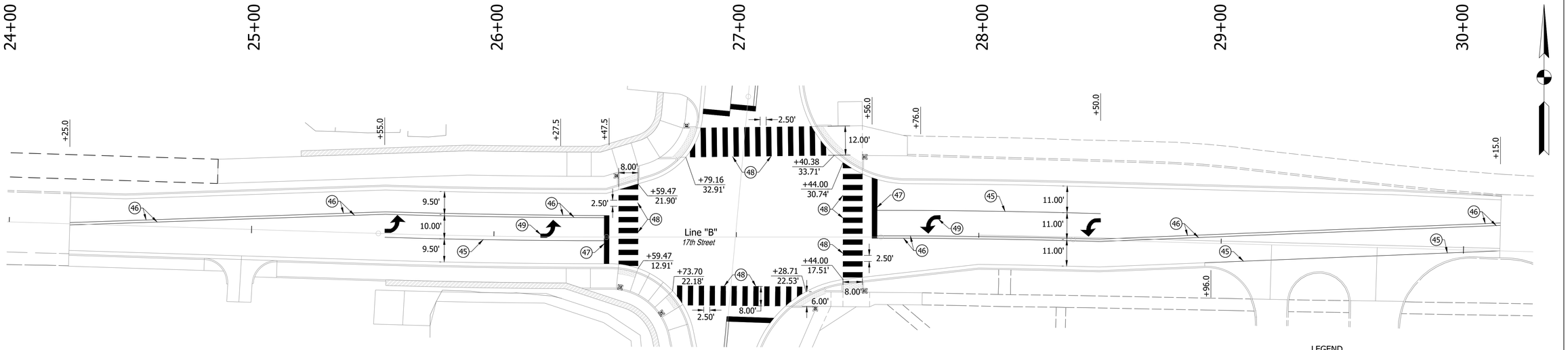
DESIGNED: NAW | DRAWN: LLF
CHECKED: JAW | CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

R/W DETAIL
LINE "B"/"S-1-B"

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	16 of 38
CONTRACT	PROJECT
-	-- -- --

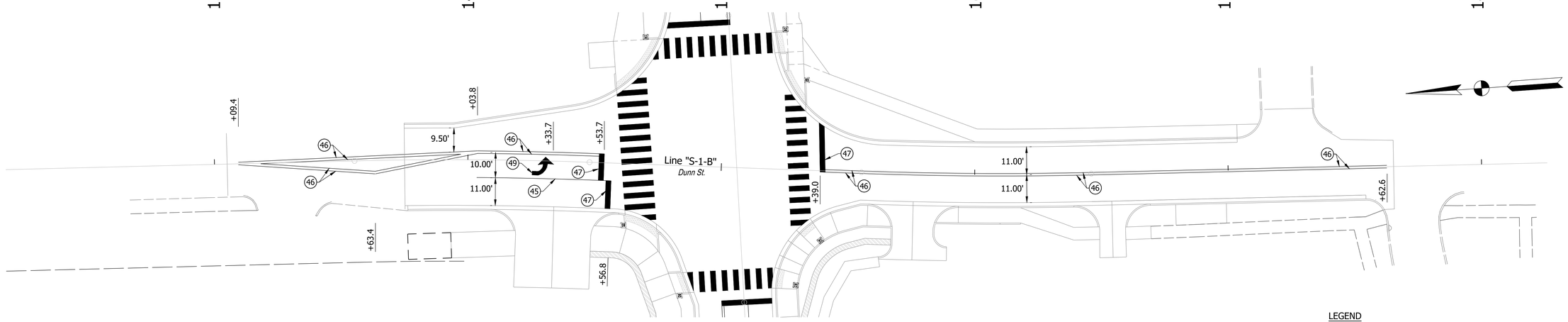
Date: Feb 24, 2021, 8:17am User Name: Nick
File: S:_2017\117-00223\Road\CAD\MiscDWG\B_RW Detail.dwg



All Stationing off Line "B" Unless Otherwised Noted.

LEGEND

(45) Line, Thermoplastic, Solid, White, 4"
(46) Line, Thermoplastic, Solid, Yellow, 4"
(47) Transverse Marking, Thermoplastic, STOP LINE, White, 24"
(48) Transverse Marking, Thermoplastic, Crosswalk Line, White, 24"
(49) Pavement Message Marking, Thermoplastic, Lane Indication Arrow



All Stationing off Line "S-1-B" Unless Otherwised Noted.

LEGEND

(45) Line, Thermoplastic, Solid, White, 4"
(46) Line, Thermoplastic, Solid, Yellow, 4"
(47) Transverse Marking, Thermoplastic, STOP LINE, White, 24"
(48) Transverse Marking, Thermoplastic, Crosswalk Line, White, 24"
(49) Pavement Message Marking, Thermoplastic, Lane Indication Arrow

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW | DRAWN: LLF

CHECKED: JAW | CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

PROPOSED PAVEMENT MARKING DETAIL
LINE "B"/"S-1-B"

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	17 of 38
CONTRACT	PROJECT
-	-- -- --

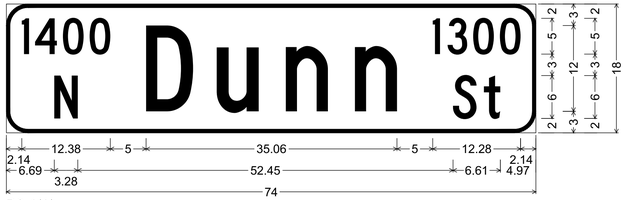
Date: Feb 24, 2021, 8:18am User Name: Nick
File: S:_2017\117-0022\Road\CAD\Misc\DWG\B_Sign+PvmtMarking.dwg

SHEET SIGN & POST SUMMARY

PLAN SHEET NO. / LINE	SIGN LOCATION (STA.)	SIGN CODE	SIGN	SIGN SIZE (IN. x IN.)	GROUND - MOUNTED SIGN AREA (Sq. Ft.)			SQUARE POST $2\frac{1}{2}$" x $2\frac{1}{2}$" - 12 ga. (TYPE 3) UNREINFORCED POST LENGTH (Ft.)			SQUARE POST 2" x 2" - 12 ga. (TYPE 2) REINFORCED POST LENGTH (Ft.)			SQUARE POST $2\frac{1}{4}$" x $2\frac{1}{4}$" - 12 ga. (TYPE 1) REINFORCED POST LENGTH (Ft.)		REMARKS
					0.080	0.100	0.125	1	2	TOTAL (Ft.)	1	2	TOTAL (Ft.)	1	TOTAL	
Line "B"		D3-1(A)	Street Name (Dunn Street)	74x18			9.25									
		D3-1(B)	Street Name (17th Street)	54x18		6.75										
		D3-1(C)	Street Name (Dunn Street)	74x18			9.25									
		D3-1(D)	Street Name (17th Street)	54x18		6.75										
		R10-SPL	Left Turn Yield/Flashing Yellow	30x36	7.50											
		R10-SPL	Left Turn Yield/Flashing Yellow	30x36	7.50											
			Adopt-A-Road											12.00	12.00	Exist Sign to be Relocated on New Post
			No Parking Any Time											10.00	10.00	Exist Sign to be Relocated on New Post
			No Parking Any Time											10.00	10.00	Exist Sign to be Relocated on New Post
			Adopt-A-Road											12.00	12.00	Exist Sign to be Relocated on New Post
		R2-1	Left Turn Yield/Flashing Yellow											11.00	11.00	Exist Sign to be Relocated on New Post
Line "S-1-B"																
		R10-SPL	Left Turn Yield/Flashing Yellow	30x36	7.50											
		R2-1	Bus Stop											13.00	13.00	Exist Sign to be Relocated on New Post
			Bus Stop											10.00	10.00	Exist Sign to be Relocated on New Post
			Total		22.50	13.50	18.50								78	

PAVEMENT MARKING SUMMARY

LOCATION		THERMOPLASTIC: PAVEMENT MESSAGE MARKINGS, LANE INDICATION ARROW	THERMOPLASTIC: TRANSVERSE MARKINGS, CROSSWALK LINE, WHITE, 24"	THERMOPLASTIC: TRANSVERSE MARKINGS, STOP LINE, 24"	THERMOPLASTIC: LINE, SOLID, WHITE, 4"	THERMOPLASTIC: LINE, SOLID, YELLOW, 4"
FROM STATION	TO STATION	Each	Each	Ft.	Ft.	Ft.
Line "B"						
24+25.00	26+99.62	2	60	20	93	444
26+99.62	30+15.00	2	82	25	93	515
Line "S-1-B"						
13+75.00	15+06.10	1	97	22	53	449
15+06.10	17+69.29		90	19		448
	TOTALS:	5	329	86	239	1856

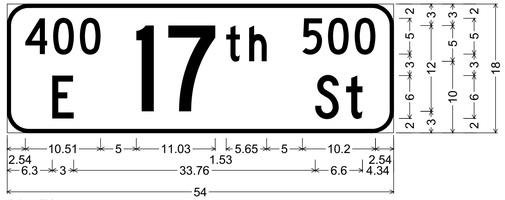


D3-1(A)

3.00" Radius, 0.50" Border, White on Green;
[1400] C; [N] C; [Dunn] C; [1300] C; [St] C;
Table of letter and object lefts.

l	4	0	0	D	u	n	n	l	3	0	0
2.14	4.00	7.89	11.63	19.52	29.39	39.05	48.71	59.58	61.65	65.23	68.97

N	S	t
6.69	62.42	66.73



D3-1(B)

3.00" Radius, 0.50" Border, White on Green;
[400] C; [E] C; [17th] C; [500] C; [St] C;
Table of letter and object lefts.

4	0	0	l	7	t	h	5	0	0		
2.54	6.43	10.16	18.05	22.52	30.61	33.81	41.26	44.84	48.57		

E	S	t
6.30	43.06	47.37

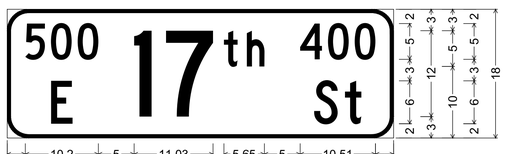
R10-SPL

D3-1(C)

3.00" Radius, 0.50" Border, White on Green;
[1300] C; [N] C; [Dunn] C; [1400] C; [St] C;
Table of letter and object lefts.

l	3	0	0	D	u	n	n	l	4	0	0
2.14	4.21	7.79	11.53	19.42	29.29	38.94	48.60	59.48	61.34	65.23	68.97

N	S	t
6.64	62.36	66.68



D3-1(D)

3.00" Radius, 0.50" Border, White on Green;
[500] C; [E] C; [17th] C; [400] C; [St] C;
Table of letter and object lefts.

5	0	0	l	7	t	h	4	0	0		
2.54	6.12	9.85	17.74	22.21	30.30	33.50	40.95	44.84	48.57		

E	S	t
6.14	42.90	47.22

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW DRAWN: LLF

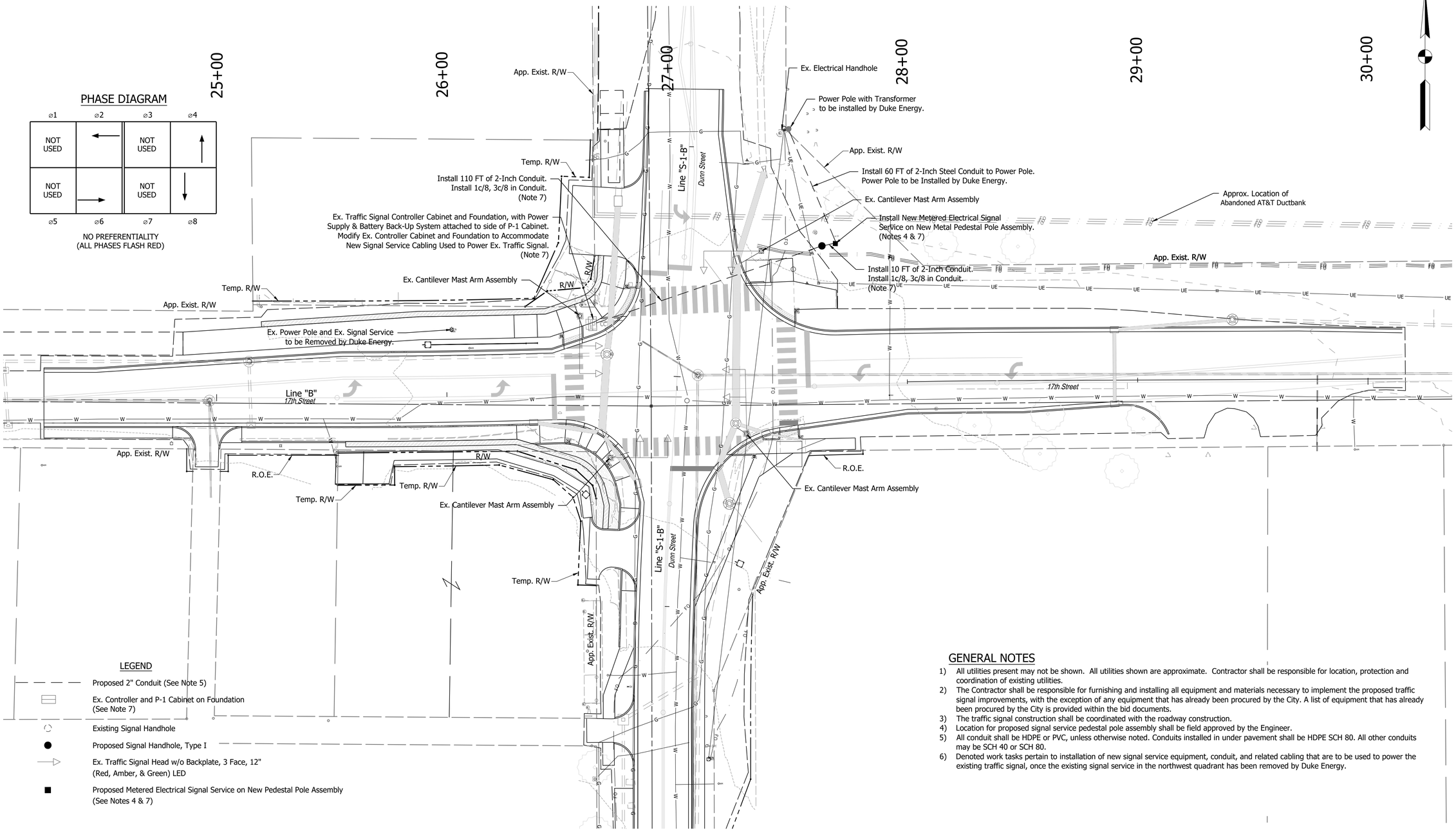
CHECKED: JAW CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

PAVEMENT MARKING & SIGN TABLES

HORIZONTAL SCALE	BRIDGE FILE
-	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	18 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 11, 2021, 2:39pm User Name: lorrie
File: S:_2017\117-00221\Road\CAD\MiscDWG\B_Sign-PvmtMarking.dwg



GENERAL NOTES

1) All utilities present may not be shown. All utilities shown are approximate. Contractor shall be responsible for location, protection and coordination of existing utilities.
2) The Contractor shall be responsible for furnishing and installing all equipment and materials necessary to implement the proposed traffic signal improvements, with the exception of any equipment that has already been procured by the City. A list of equipment that has already been procured by the City is provided within the bid documents.
3) The traffic signal construction shall be coordinated with the roadway construction.
4) Location for proposed signal service pedestal pole assembly shall be field approved by the Engineer.
5) All conduit shall be HDPE or PVC, unless otherwise noted. Conduits installed in under pavement shall be HDPE SCH 80. All other conduits may be SCH 40 or SCH 80.
6) Denoted work tasks pertain to installation of new signal service equipment, conduit, and related cabling that are to be used to power the existing traffic signal, once the existing signal service in the northwest quadrant has been removed by Duke Energy.

NATHAN M. NOHREN
REGISTERED
PE11400421
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NMN | DRAWN: NMN
CHECKED: TWK | CHECKED: NAW

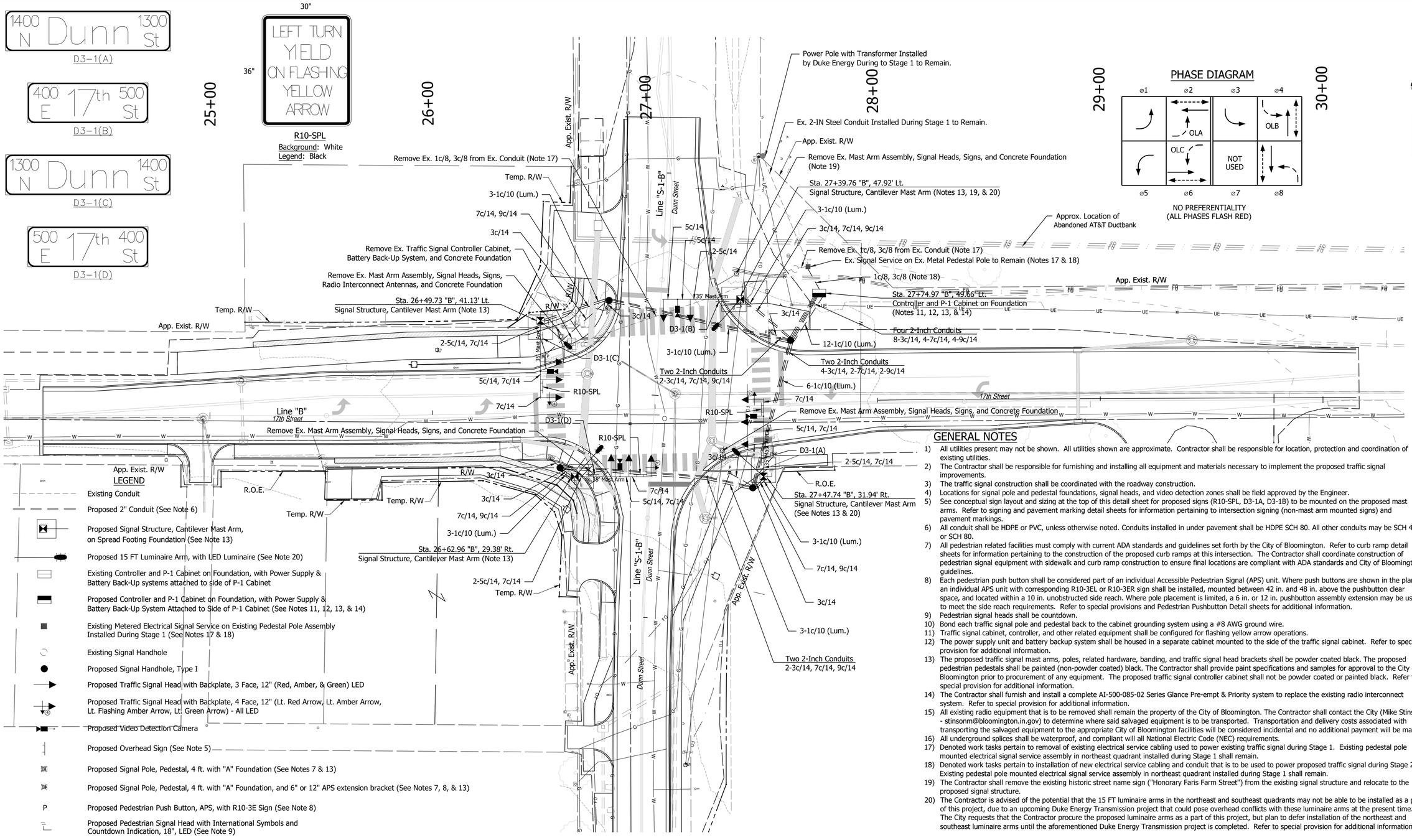
INTERSECTION 17th & DUNN ST. CONSTRUCTION PLANS

CITY OF BLOOMINGTON, INDIANA

STAGE 1 SIGNAL DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	19 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:10am User Name: Nick
File: S:_2017\1117-0022\Road\Cad\WksDWG\E_Signal Det - Interim Power for Ex. Signal.dwg



GENERAL NOTES

1) All utilities present may not be shown. All utilities shown are approximate. Contractor shall be responsible for location, protection and coordination of existing utilities.
2) The Contractor shall be responsible for furnishing and installing all equipment and materials necessary to implement the proposed traffic signal improvements.
3) The traffic signal construction shall be coordinated with the roadway construction.
4) Locations for signal pole and pedestal foundations, signal heads, and video detection zones shall be field approved by the Engineer.
5) See conceptual sign layout and sizing at the top of this detail sheet for proposed signs (R10-SPL, D3-1A, D3-1B) to be mounted on the proposed mast arms. Refer to signing and pavement marking detail sheets for information pertaining to intersection signing (non-mast arm mounted signs) and pavement markings.
6) All conduit shall be HDPE or PVC, unless otherwise noted. Conduits installed in under pavement shall be HDPE SCH 80. All other conduits may be SCH 40 or SCH 80.
7) All pedestrian related facilities must comply with current ADA standards and guidelines set forth by the City of Bloomington. Refer to curb ramp detail sheets for information pertaining to the construction of the proposed curb ramps at this intersection. The Contractor shall coordinate construction of pedestrian signal equipment with sidewalk and curb ramp construction to ensure final locations are compliant with ADA standards and City of Bloomington guidelines.
8) Each pedestrian push button shall be considered part of an individual Accessible Pedestrian Signal (APS) unit. Where push buttons are shown in the plans, an individual APS unit with corresponding R10-3EL or R10-3ER sign shall be installed, mounted between 42 in. and 48 in. above the pushbutton clear space, and located within a 10 in. unobstructed side reach. Where pole placement is limited, a 6 in. or 12 in. pushbutton assembly extension may be used to meet the side reach requirements. Refer to special provisions and Pedestrian Pushbutton Detail sheets for additional information.
9) Pedestrian signal heads shall be countdown.
10) Bond each traffic signal pole and pedestal back to the cabinet grounding system using a #8 AWG ground wire.
11) Traffic signal cabinet, controller, and other related equipment shall be configured for flashing yellow arrow operations.
12) The power supply unit and battery backup system shall be housed in a separate cabinet mounted to the side of the traffic signal cabinet. Refer to special provision for additional information.
13) The proposed traffic signal mast arms, poles, related hardware, banding, and traffic signal head brackets shall be powder coated black. The proposed pedestrian pedestals shall be painted (non-powder coated) black. The Contractor shall provide paint specifications and samples for approval to the City of Bloomington prior to procurement of any equipment. The proposed traffic signal controller cabinet shall not be powder coated or painted black. Refer to special provision for additional information.
14) The Contractor shall furnish and install a complete AI-500-085-02 Series Glance Pre-empt & Priority system to replace the existing radio interconnect system. Refer to special provision for additional information.
15) All existing radio equipment that is to be removed shall remain the property of the City of Bloomington. The Contractor shall contact the City (Mike Stinson - stinsonm@bloomington.in.gov) to determine where said salvaged equipment is to be transported. Transportation and delivery costs associated with transporting the salvaged equipment to the appropriate City of Bloomington facilities will be considered incidental and no additional payment will be made.
16) All underground splices shall be waterproof, and compliant will all National Electric Code (NEC) requirements.
17) Denoted work tasks pertain to removal of existing electrical service cabling used to power existing traffic signal during Stage 1. Existing pedestal pole mounted electrical signal service assembly in northeast quadrant installed during Stage 1 shall remain.
18) Denoted work tasks pertain to installation of new electrical service cabling and conduit that is to be used to power proposed traffic signal during Stage 2. Existing pedestal pole mounted electrical signal service assembly in northeast quadrant installed during Stage 1 shall remain.
19) The Contractor shall remove the existing historic street name sign ("Honorary Faris Farm Street") from the existing signal structure and relocate to the proposed signal structure.
20) The Contractor is advised of the potential that the 15 FT luminaire arms in the northeast and southeast quadrants may not be able to be installed as a part of this project, due to an upcoming Duke Energy Transmission project that could pose overhead conflicts with these luminaire arms at the present time. The City requests that the Contractor procure the proposed luminaire arms as a part of this project, but plan to defer installation of the northeast and southeast luminaire arms until the aforementioned Duke Energy Transmission project is completed. Refer to special provision for additional information.

Date: Feb 24, 2021, 8:20am User Name: Nick
File: S:_2017\117-00021\Road\CAD\Misc\HW18_Signal Det - NE Quad Mods.dwg

NATHAN M. NOREEN REGISTERED PE11400421 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ 02/11/2021
DESIGN ENGINEER DATE

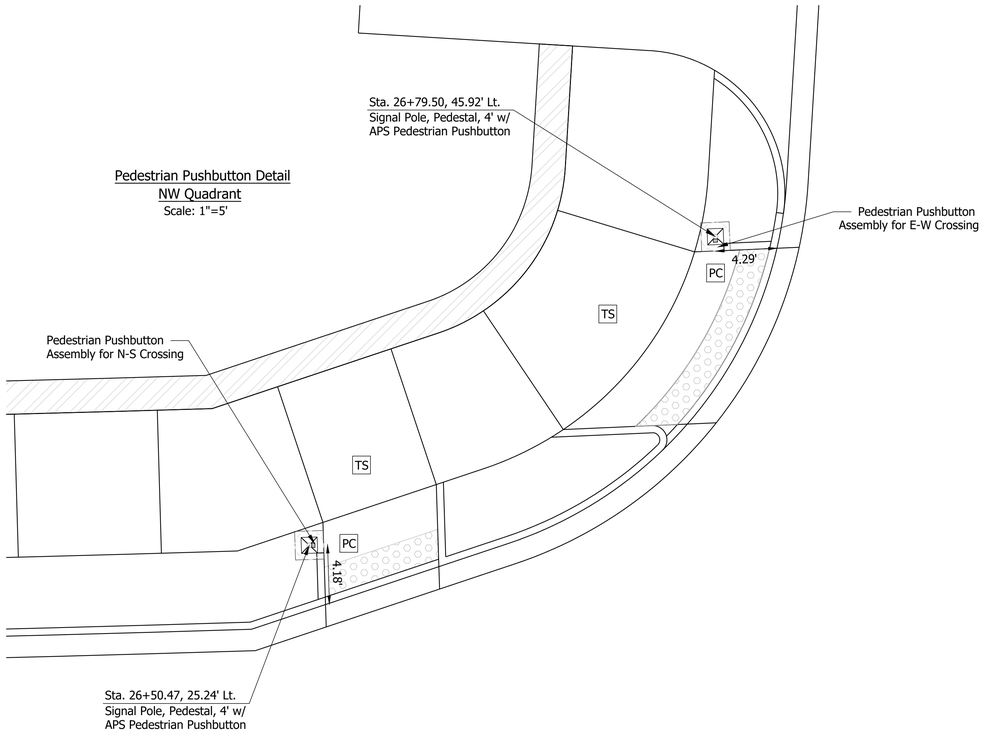
DESIGNED: NMN DRAWN: NMN
CHECKED: TWK CHECKED: NAW

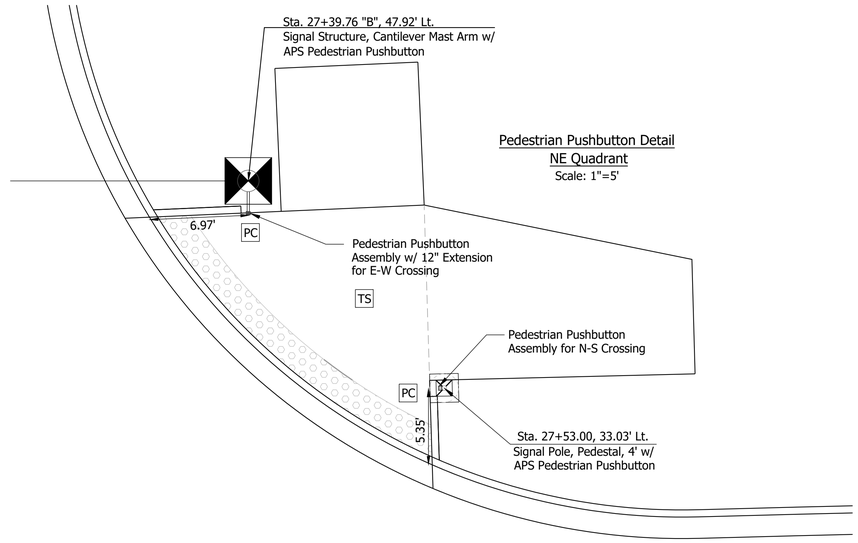
INTERSECTION 17th & DUNN ST. CONSTRUCTION PLANS

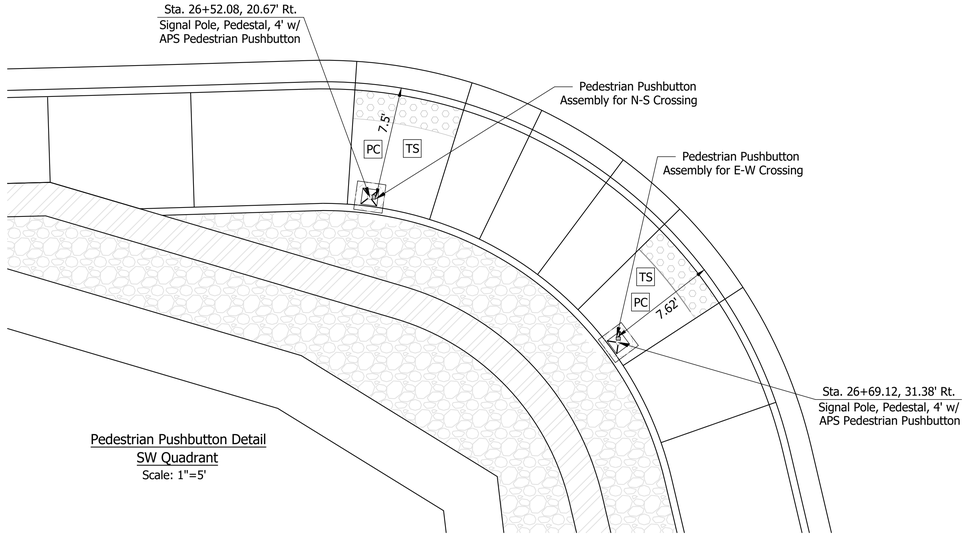
CITY OF BLOOMINGTON, INDIANA

STAGE 2 SIGNAL DETAIL

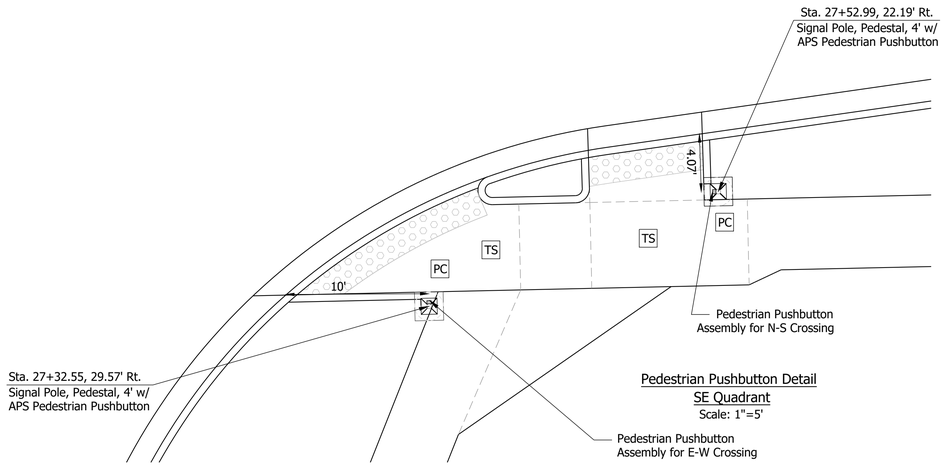
HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	20 of 38
CONTRACT	PROJECT
-	-- -- --







Dunn Street



17th Street

LEGEND

TS Turning Space

PC Pedestrian Clear Space

Proposed Signal Pole, Pedestal w/ Foundation, Type A

NOTE:
All Stationing Off of Line "B" Unless Otherwise Noted.
Top of Pedestal Foundation Shall be Even with Final Sidewalk Grade at all Areas Where they Overlap.

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

PEDESTRIAN PUSHBUTTON DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	21 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:28am User Name: Nick
File: S:_2017\117-00021\Road\CAD\MicroWin\8_Pedestrian Pole Details.dwg

25+00

30+00

Str.No.34

Const. Limits

+34.4 "S-1-B" Class III Mod. Dr.
W = 30'

Line "S-1-B"
Dunn Street

Const. Limits

Sta. 26+99.62 "B"
= Sta. 15+06.10 "S-1-B"

Str.No.28

Const. Limits

Str.No.35

Const. Limits

Str.No.21

Str.No.23

Str.No.33

Str.No.32

Str.No.301

Str.No.27

Str.No.300

Line "B"
17th Street

Line "B"
17th Street

Str.No.22

Str.No.29

Str.No.24

Str.No.25

Str.No.31

Str.No.26

Const. Limits

Const. Limits

Str.No.30

Str.No.37

Str.No.36

+95.7 Class III Mod. Dr.
W = 10'

+63.4 Class III Mod. Dr.
W = 23.4'

+20.8 Class III Mod. Dr.
W = 14.4'

+64.3 Class III Mod. Dr.
W = 22'

Str.No.38

+76.0 "S-1-B" Class III Mod. Dr.
W = 30'

Line "S-1-B"
Dunn Street

Const. Limits

Str.No.39

+53.8 "S-1-B" Class III Mod. Dr.
W = 10.5'

Line "S-1-B"

Str.No.41

Str.No.42

Str.No.43

Str.No.304

LEGEND

- SF — Silt Fence
- IP (CM) — Temporary Inlet Protection
- DI — Temporary Ditch Inlet Protection
- FS — Filter Sock

NICHOLAS A. WILL
REGISTERED
PE10708224
STATE OF
INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW | DRAWN: LLF

CHECKED: JAW | CHECKED: NAW

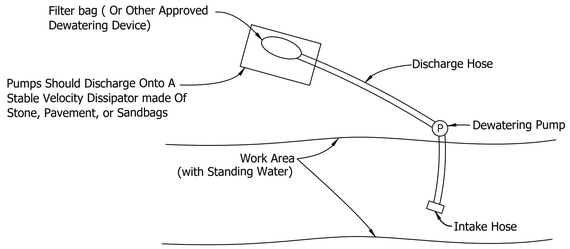
INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

EROSION & SEDIMENT CONTROL PLAN

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	22 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Feb 24, 2021, 8:21am User Name: Nick
File: S:_2017\117-0022\Road\CAD\MiscDWG\B_EC Plan.dwg

Surrounding area must be densely vegetated or otherwise stable. If discharge is within 30 feet of a waterway or dense vegetation is not present, discharge must filter through silt fence or other measures prior to reaching a waterway or storm water structure.



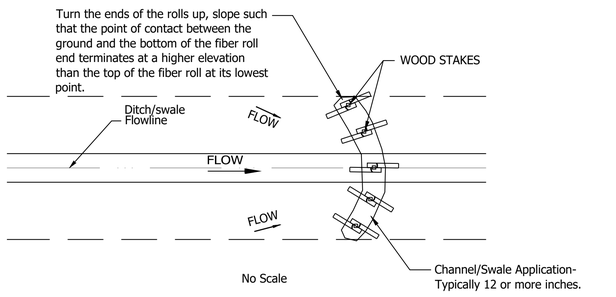
DEWATERING
NOT TO SCALE

1. Dewatering of the project area shall be performed using a mechanical pump. A dewatering (filter) bag shall be securely connected to the end of the discharge hose. The suction hose shall be floated as long as possible to prevent the pump from pulling sediment from the bottom of the pooled area.
2. The dewatering bag may be of the single-use or reusable variety and shall be constructed of non-woven, polypropylene geotextile material. Each type and size of dewatering bag can handle varying rates of flow. The bag shall have for following minimum specifications:

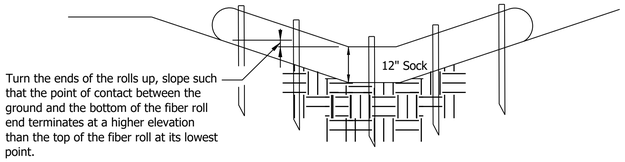
Permittivity	Grab Tensile	Weight	Apparent Opening Size
1.4 sec	205 lbs	8 oz/yd	80 US Sieve

3. The dewatering bag shall be placed on a flat surface. Placing the dewatering bag on top of an aggregate base or straw bales will help to increase to flow through the fabric by providing a larger surface area of discharge.
4. Water shall not be pumped from the project area at a rate faster than the manufacturer's maximum recommended flow rate of the dewatering bag.
5. Dewatering bags shall be placed in a location in which runoff will pass through additional sediment control measures prior to entering the storm sewer.
6. Following completion of dewatering, the sediment accumulated within the dewatering bag shall be removed from the bag and placed in an upland area.

(D) DEWATERING



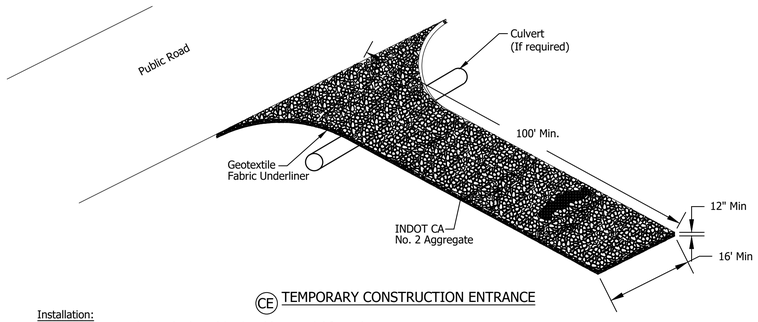
No Scale



Concentrated Flow

Maintenance

* Inspect after each storm event remove sediment, repair immediately, and replace if damaged.
* Remove sediment when it reaches 1/4 the exposed height measure.



(CE) TEMPORARY CONSTRUCTION ENTRANCE

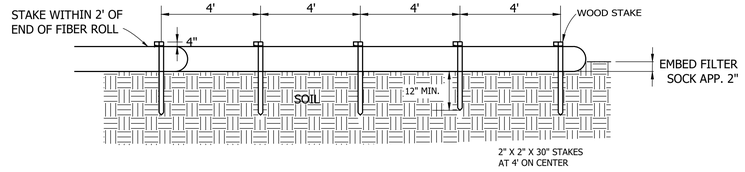
Installation:

1. Remove all vegetation and other objectionable material from the foundation area.
2. Grade the foundation and crown for positive drainage. Install a culvert pipe under the pad if needed to maintain proper public road drainage.
3. Place geotextile fabric on the graded foundation to improve stability.
4. Place aggregate (NO. 2 Stone) to the dimensions shown above, leaving the surface smooth and sloped for drainage.
5. Top-dress the drive with washed INDOT No. 53 aggregate (optional).
6. Where possible, divert all storm water runoff and drainage from the temporary construction entrance to a sediment trap or basin.

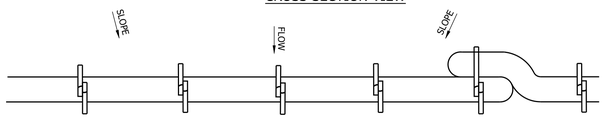
Maintenance:

* Inspect daily
* Reshape pad as needed for drainage and runoff control.
* Top-dress with clean aggregate as needed.
* Immediately remove mud and sediment tracked or washed onto public roads.
* Flushing should only be used if the water from the construction drive can be conveyed into a sediment trap or basin.

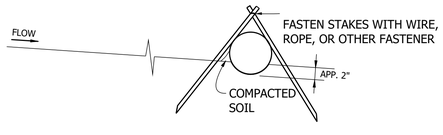
Materials & Specifications:
Location: Avoid location on steep slopes or at curves in public roadways.
Dimensions:
Width- 16 feet minimum or full width of the entrance/drive, whichever is greater.
Length- 100 feet minimum or full length of the entrance/drive, whichever is greater.
Thickness- 12 inch minimum
Materials:
1-2.5 inch washed aggregate (INDOT CA No. 2)
0.5-1.5 inch washed aggregate (INDOT CA No. 53) (optional), used primarily where the purpose of the pad is to keep soil from adhering to vehicle tires.
Geotextile fabric underlayment; used as a separation layer to prevent intermixing of aggregate and the underlying soil material and to provide greater bearing strength when encountering wet conditions.



CROSS-SECTION VIEW



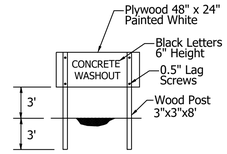
PLAN VIEW



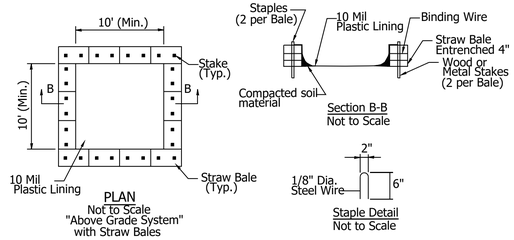
PROFILE VIEW

(FS) FILTER SOCK INSTALLATION

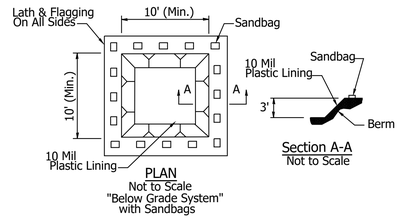
NOT TO SCALE



CONCRETE WASHOUT SIGN DETAIL
Not to Scale



CONCRETE WASHOUT - ABOVE GRADE SYSTEM



CONCRETE WASHOUT - BELOW GRADE SYSTEM

Location:

* Locate concrete washout systems at least 50 feet from any creek, wetlands, ditches, karst features, or storm drains/man made conveyance systems.
* To the extent practical, locate concrete washout systems in relatively flat areas that have established vegetative cover and do not receive runoff from adjacent land areas.
* Locate in areas that provide easy access for the concrete trucks and other construction equipment.
* Locate away from other construction traffic to reduce the potential for damage to system.

Materials:

* Minimum of ten millimeter polyethylene sheeting that is free of holes, tears, and other defects. The sheeting selected should be of appropriate size to fit the washout system without seams or overlap of the lining.
* Signage
* Orange safety fencing or equivalent.
* Straw bales, sandbags (bags should be ultraviolet-stabilized geotextile fabric), soil material, or other appropriate materials that can be used to construct a containment system (above grade system)
* Metal pins or staples at a minimum of six inches in length, sandbags, or alternate fasteners to secure polyethylene lining to the containment system.
* Non-collapsing and non-water holding cover for use during rain events. (optional)

Installation:

* Utilize and follow the design in the storm water pollution prevention plan to install the system.
* Dependent on the type of system, either excavate the pit or install the containment system.
* A base shall be constructed an prepared that is free of rocks and other debris that may cause tears or punctures in the polyethylene lining.
* Install the polyethylene lining. For excavated systems, the lining should be extended over the entire excavation. The lining for bermed system should be installed over the pooling area with enough material to extend the lining over the berm or containment system. The lining should be secured with pins, staples,or other fasteners.
* Place flags, safety fencing, or equivalent to provide a barrier to construction equipment and other traffic.
* Place non-collapsing, non-water holding cover over the washout facility prior to predicted rainfall event to prevent accumulation of water and possible overflow of the system (optional).
* Install signage that identifies concrete washout areas.
* Post signs directing contractors and suppliers to designated locations.
* Where necessary, provide stable ingress and egress or alternative approach pad for concrete washout systems.

(CW) CONCRETE WASHOUT DETAIL

* NOT PAID FOR SEPARATELY

Date: Feb 24, 2021, 8:22am User Name: Nick
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NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

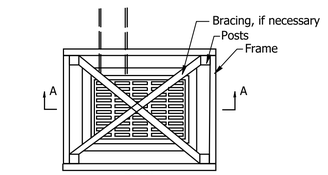
RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW | DRAWN: LLF | CHECKED: JAW | CHECKED: NAW

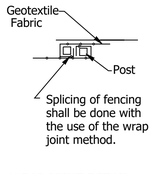
INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

EROSION & SEDIMENT CONTROL DETAILS

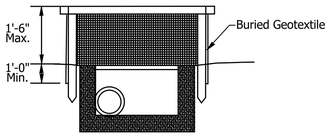
HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	23 of 38
CONTRACT	PROJECT
-	-- -- --



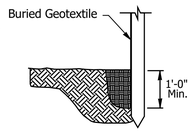
PLAN
Not to Scale



WRAP JOINT DETAIL
Not to Scale



Section A-A
Not to Scale



TRENCH DETAIL
Not to Scale

(DI) DROP INLET PROTECTION
GEOTEXTILE BOX

Note: Gravel Donut or Slotted Barrel may also be used as ditch inlet protection as per Indiana Storm Water Quality Manual.

Specifications:

*Height - 12-18 inches, measured from top of storm drain inlet.
*Post Spacing - 36 inch maximum spacing between posts.
*Frame Support - bracing to strengthen integrity of the structure.

Materials:

Support post - 2x2 inch or 2x4 inch hardwood posts
3 feet length minimum
1x2 inch or 1x3 inch hardwood cross bracing timber
Lathe
Staples or nails
Geotextile fabric

Installation

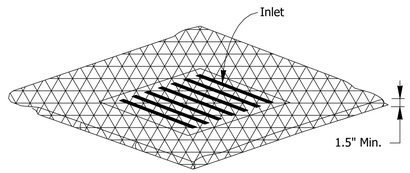
1. Dig an 8 inch deep, 4 inch wide trench around the perimeter of the inlet.
2. If using pre-assembled geotextile fabric and posts on-site, drive the posts into the soil, tightly stretching the geotextile fabric between posts as each is driven. (Posts must be placed on the inlet side of the anchor trench with the geotextile fabric on the side of the trench farthest from the inlet).

Note- If assembling the geotextile fabric and post on-site, drive the posts into the soil and then secure the geotextile fabric to the posts by placing a piece of lathe over the fabric and fastening it to the post (stretching the fabric between posts as it is fastened).

3. Use the wrap joint method when joining posts.
4. Place the bottom 12 inches of geotextile fabric into the 8 inch deep trench, laying the remaining 4 inches in the bottom of the trench and extending away from the inlet.
5. Backfill the trench with soil material and compact it in place.
6. Brace the posts by nailing braces into each corner or utilize rigid panels to support fabric.

Maintenance

* Inspect daily.
* Inspect geotextile fabric and make needed repairs immediately.
* Remove sediment from pool area to provide storage for the next storm event.
* When contributing drainage area has been stabilized, remove sediment, properly dispose of all construction material, grade area to the elevation of the storm drain inlet top, then stabilize.



(IP) (CM) COIR FIBER MATTING FOR INLET PROTECTION DETAIL
(Inlets on paved surfaces)
No Scale

Installation

1. Remove exist. sediment from inlet grate surface and surrounding area.
2. Verify Coir Mat fit, filter should extend at least 1" beyond inlet grate.
3. Position mat, place inlet filter on grate with the net side down. The zip ties attached Inlet Filter to the grate cover (without lifting grate cover).
4. After attaching all zip ties, reposition the Inlet Filter to completely cover and overlap the grate. Pull free end of zip ties hand tight to anchor Inlet Filter to the grate. Cut off free end of zip ties to leave a 1" tail.

Maintenance

* Inlet Filter will collect a lot of sediment. Clean Inlet Filter while mounted on the grate, even if ponding water surrounds the inlet. This unique feature ensures all water entering the grate is filtered. Sweep sides and top of Inlet Filter to remove sediment and debris after each rain event.
* Inlet Filter is prepared for next rain event.
* Replace Inlet Filter if damaged by construction equipment.

Materials:

* 100% coir fiber matting bonded to fiberglass mesh backing.
* Zip Ties

PROJECT QUANTITIES

No. 2 Stone : (1 Constr. Entrance, locations determined in field)	50 Ton
Sediment, Remove	10 CYS
* Concrete Washout (undisturbed locations, locations determined in field)	1 Each

*Not paid for directly

TEMPORARY SEEDING (0.30 ac)

Mobilization & Demobilization for Seeding, Temporary	1 Each
Temporary Seeding Mixture (150 lbs/Acre * 1 appl.)	45 lbs
Fertilizer (400 lbs/Acre * 1 appl.)	0.1 Ton
Temporary Mulch (2.5 Ton/Acre * 1 appl.)	1.0 Ton

(SF) TEMPORARY SILT FENCE

FROM STATION	TO STATION	RIGHT	LEFT	TOTAL LENGTH (LFT)
Line "B"				
24+83	26+54		X	185
Line "S-1-B"				
13+65	14+58		X	130
15+28	17+12		X	190
TOTAL:				505

(FS) FILTER SOCK

FROM STATION	TO STATION	RIGHT	LEFT	TOTAL LENGTH (LFT)
Concentrated Flow				
Line "S-1-B"				
14+06	14+06		X	10
TOTAL:				10

(DI) (IP) (CM) TEMPORARY INLET PROTECTION

STATION	STR. NO.	COIR FIBER MAT (EACH)	DITCH INLET (EACH)
Line "B"			
24+08	22	1	
24+10	21	1	
25+15	24	1	
26+37	25	1	
26+67	26	1	
26+72	28	1	
27+38	30	1	
28+90	31	1	
28+90	32	1	
Line "S-1-B"			
14+48	35	1	
15+38	36	1	
15+47	37	1	
16+49	39	1	
17+55	41		1
17+63	42	1	
		14	1
TOTAL:		15	

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW DRAWN: LLF

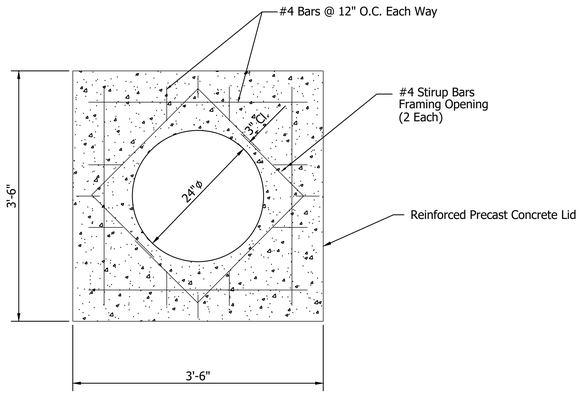
CHECKED: JAW CHECKED: NAW

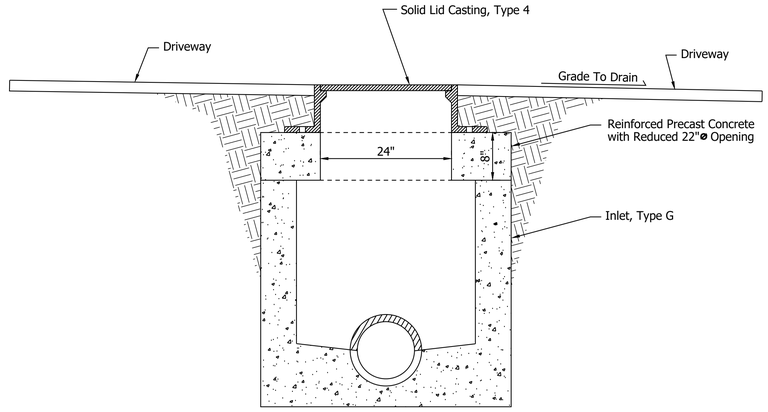
INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

EROSION & SEDIMENT CONTROL DETAILS & TABLES

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	24 of 38
CONTRACT	PROJECT
-	-- -- --

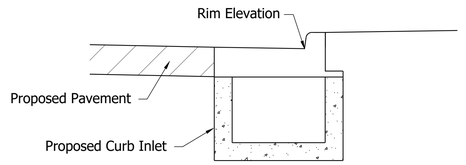
Date: Feb 24, 2021, 8:22am User Name: Nick
File: S:_2017\117-0022\Road\CAD\MiscDWG\B_EC Details & Tables.dwg





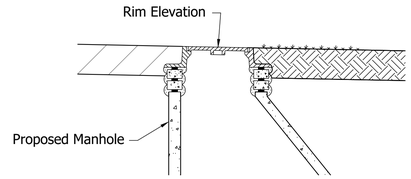
INLET, G-4, MODIFIED (STR 34)

Scale: 1"=1'



Rim Elevation @ Curb Inlet Locations

Scale: 1"=2'

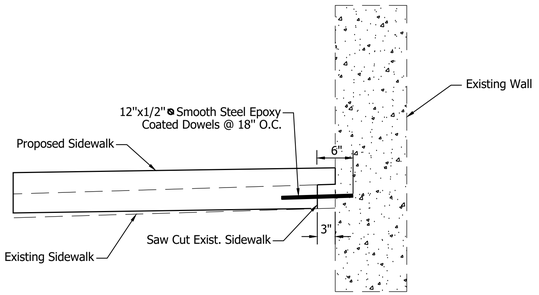


Rim Elevation @ Manhole Locations

Scale: 1"=2'

INLET, F-4, MODIFIED (STR 33)

Scale: 1"=1'

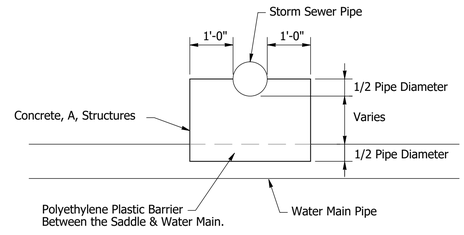


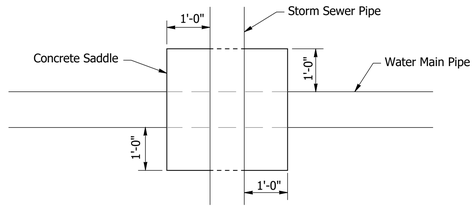
SIDEWALK DETAIL ADJACENT TO EXIST. WALL

Scale: 1"=1'

Sta. 24+25.00 to Sta. 24+88.97

CONCRETE, A, STRUCTURES			
LINE	LOCATION	CYS	Utility
"B"	27+25.35, 5.94' Rt.	1.5	Storm/Water
"B"	28+90.01, 6.07' Rt.	0.9	Storm/Water
TOTAL		2.4	





CONCRETE SADDLE DETAILS

Not to Scale

Date: Feb 24, 2021, 8:23am User Name: Wick
File: S:_2017\1117\0022\Road\CAD\Misc\DWG\B_Misc Details.dwg

NICHOLAS A. WILL
REGISTERED
PE10708224
STATE OF
INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — Nicholas A. Will — 02/11/2021
DESIGN ENGINEER — DATE

DESIGNED: NAW | DRAWN: LLF

CHECKED: JAW | CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

MISCELLANEOUS DETAILS

HORIZONTAL SCALE	BRIDGE FILE
As Shown	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEET
	25 of 38
CONTRACT	PROJECT
-	-- -- --

CURB & SIDEWALK TABLE

FROM STATION	TO STATION	LEFT	MEDIAN	RIGHT	CURB & GUTTER, CONCRETE, MODIFIED	CURB, CONCRETE	SIDEWALK, CONCRETE, 4"	COMPACTED AGGREGATE, NO. 53, 4"
					LFT	LFT	SYS	CYS
LINE "B"								
24+25.00	26+99.62	X			272		182.4	20.3
24+25.00	26+99.62			X	251	111	123.4	13.8
26+99.62	30+15.00	X			291		21.0	2.4
26+99.62	30+15.00			X	174	25.0	12.2	1.4
LINE "S-1-B"								
13+75.00	15+06.00	X			86		11.1	1.3
13+75.00	15+06.00			X	33		42.1	4.7
15+06.00	17+65.29	X			175	17.0	106.8	11.9
15+06.00	17+65.29			X	131	43.0	80.4	9.0
TOTAL					1413	196	579.6	64.8

SODDING SUMMARY TABLE

FROM STATION	TO STATION	LEFT	RIGHT	SODDING	TOPSOIL
				FOR LAWN	UNDER SOD
				SYS	
LINE "B"					
24+25.00	26+99.62	X		231.4	
24+25.00	26+99.62		X	39.8	
26+99.62	30+15.00	X		177.0	60.0
26+99.62	30+15.00		X	160.1	
LINE "S-1-B"					
13+75.00	15+06.00	X		193.2	
13+75.00	15+06.00		X	36.9	
15+06.00	17+65.29	X		387.8	
15+06.00	17+65.29		X	122.0	
TOTAL				1348.2	60

TREE REMOVE

STATION	LEFT	MEDIAN	RIGHT	TREE, 6 IN.	TREE, 10 IN.	TREE, 18 IN.	TREE, 30 IN.
				EACH	EACH	EACH	EACH
LINE "B"							
25+13.70			X	1			
25+47.00			X		1		
26+37.00			X	1			
28+60.90			X			1	
29+02.40			X				1
LINE "S-1-B"							
15+46.85			X	1			
15+64.90			X	1			
TOTAL				4	1	1	1

CURB & GUTTER REMOVE

FROM STATION	TO STATION	LEFT	CROSS	RIGHT	LENGTH
					LFT.
LINE "B"					
24+25.00	26+99.62	X			285.0
24+25.00	26+99.62			X	261.0
26+99.62	30+15.00	X			68.0
26+99.62	30+15.00			X	28.0
LINE "S-1-B"					
13+75.00	15+06.00	X			
13+75.00	15+06.00			X	45.0
15+06.00	17+65.29	X			15.0
15+06.00	17+65.29			X	12.0
TOTAL					714

CONCRETE REMOVE

FROM STATION	TO STATION	LEFT	CROSS	RIGHT	AREA
					SYS
LINE "S-1-B"					
16+75.00	16+77.66			X	1.1
16+85.09	16+87.78			X	0.9
TOTAL					2

CONCRETE CURB RAMP

LOCATION	CURB RAMP, CONCRETE	DETECTABLE WARNING SURFACES
	SYS	SYS
Line "B"		
17th & Dunn St NW Corner	47.8	5.1
17th & Dunn St SW Corner	42.8	3.1
17th & Dunn St NE Corner	24.2	5.4
17th & Dunn St SE Corner	24.3	4.9
TOTAL	139.1	18.6

PEDESTRIAN PUSH BUTTON, POLE & FOUNDATION

STATION	LEFT	RIGHT	OFFSET	PEDESTRIAN PUSH BUTTON, APS	SIGNAL POLE, PEDESTAL, 4 FT., PAINTED BLACK	SIGNAL POLE FOUNDATION, 24 IN. x 24 IN. x 36 IN.	REMARKS
			FEET	EACH	EACH	EACH	
Line "B"							
26+50.47	X		25.24	1	1	1	
26+79.50	X		45.92	1	1	1	
26+52.08		X	20.67	1	1	1	
26+69.12		X	31.38	1	1	1	
27+39.76	X		47.92	1			Sta./Offset of Signal Structure, Extension Req'd
27+53.00	X		33.03	1	1	1	
27+32.55		X	29.57	1	1	1	
27+52.99		X	22.19	1	1	1	
			TOTAL	8	7	7	

PLANT, DECIDUOUS TREE, SINGLE STEM, 2 IN. TO 2.5 IN.

LINE	STATION	LOCATION	EACH
"B"			
	28+05	Lt.	1
	28+40	Lt.	1
	28+75	Lt.	1
	28+60	Rt.	1
	28+90	Rt.	1
TOTAL			5

SIDEWALK CONCRETE REMOVE

FROM STATION	TO STATION	LEFT	CROSS	RIGHT	AREA
					SYS
LINE "B"					
24+25.00	26+99.62	X			109.3
24+25.00	26+99.62			X	101.0
26+99.62	30+15.00	X			54.9
26+99.62	30+15.00			X	19.4
LINE "S-1-B"					
13+75.00	15+06.00	X			
13+75.00	15+06.00			X	13.1
15+06.00	17+65.29	X			102.7
15+06.00	17+65.29			X	5.7
TOTAL					407

GUTTER, CONCRETE REMOVE

FROM STATION	TO STATION	LEFT	CROSS	RIGHT	LENGTH
					LFT.
LINE "B"					
27+70.00	30+15.00	X			247.0
TOTAL					247

RETAINING WALL REMOVE

FROM STATION	TO STATION	LEFT	CROSS	RIGHT	LENGTH
					LFT.
LINE "B"					
25+74	26+38			X	65
TOTAL					65

LANDSCAPE STONE

FROM STATION	TO STATION	LEFT	CROSS	RIGHT	QTY
					TON
LINE "B"					
25+56.00	26+66.68			X	16.0
26+37.61	26+73.52			X	9.0
TOTAL					25.0

PAVED SIDE DITCH REMOVE

STATION	DESCRIPTION	LEFT	RIGHT	CROSS	LENGTH
					LFT.
LINE "S-1-B"					
14+53			X		18
15+46			X		34
15+53		X			49
	TOTAL				101

PIPE & STRUCTURE REMOVAL

STATION	DESCRIPTION	LEFT	RIGHT	CROSS	PIPE REMOVE	INLET REMOVE	MANHOLE REMOVE	PIPE PLUG
					LFT.	EACH	EACH	EACH
LINE "B"								
26+50	Existing Curb Inlet & 12" Pipe			X		1		1
26+72	Existing 18"x29" Elliptical Pipe			X	76			
27+50	Existing 20"x29" Elliptical Pipe			X				2
29+41	Existing Curb Inlet	X				1		
LINE "S-1-B"								
14+10	Existing 24" CPP	X			44			
14+25	Existing 24" CPP		X		30			
14+50	Existing Drainage Manhole	X					1	
	TOTAL				150	2	1	3

GUARDRAIL REMOVE

STATION	DESCRIPTION	LEFT	RIGHT	CROSS	LENGTH
					LFT.
LINE "B"					
SE Corner					48
	TOTAL				48

EARTHWORK SUMMARY (Cu. Yards)

Line	Cut	Fill Available	Excavation Unsuitable Material	*Benching	Benching +25%	Fill	Fill + 25%
Line "B"	285	285				160	190
Line "S-1-B"	80	80				175	220
TOTALS	365	365				355	420

* Benching not paid for directly.

EXCAVATION, COMMON	365 CYD
BORROW	55 CYD

TABLE OF MONUMENTS

LOCATION	SECTION CORNER	OFFSET
Line "B"		
Sta. 26+88.55	1	6.37' Rt.
TOTAL	1	

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

MISCELLANEOUS TABLES

HORIZONTAL SCALE	BRIDGE FILE
No Scale	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEETS
	26 of 38
CONTRACT	PROJECT
-	-- -- --

Date: Mar 01, 2021, 5:44pm User Name: lorrie
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PAVEMENT QUANTITIES AND APPROACH TABLE

LOCATION	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH "W"	LENGTH "L"	DISTANCE BEYOND R/W LINE	RADII "R"	EXCAVATION		HMA FOR PAVEMENT			HMA FOR APPROACHES		PCC BASE PATCHING	PCCP FOR APPROACHES, 9 IN.	COMPACTED AGGREGATE No. 53	COMPACTED AGGREGATE No. 53	COMPACTED AGGREGATE No. 53	MILLING ASPHALT 1.5"	SUBGRADE TREATMENT, TYPE II	SUBRADE TREATMENT, TYPE IV	COMPACTED AGGREGATE No. 53	GEOTEXTILE FOR PAVEMENT, TYPE IB	ASPHALT FOR TACK COAT	JOINT ADHESIVE SURFACE	JOINT ADHESIVE INTERMEDIATE	LIQUID ASPHALT SEALANT	SURFACE BEYOND R/W LINE			REMARKS
								TYPE B	TYPE B	TYPE B	TYPE B	TYPE B																		
								SURFACE	INTER.	BASE	SURFACE	INTER.																		
								LBS. PER SYD.																						
						CYS		165	275	330	165	275	9"	SYS	3"	6"	8"	SYS	SYS	SYS	12"	SYS	TONS	LFT	LFT	LFT	COMP. AGG.	HMA	CONCRETE	
		FT	FT	FT	FT	CUT	FILL	TONS	TONS	TONS	TONS	TONS	SYS	SYS	CYS	CYS	CYS	SYS	SYS	SYS	CYS	SYS	TONS	LFT	LFT	LFT				
MAINLINE																														
Line "B"																														
24+25.00 to 31+15.00	17th Street	Varies	590.00					165.0	106.0	127.2			60		64.3	10.2		1166.9		768.9	51.3	153.8	1.04	1180.0	1180.0	1180.0				
*Variable Depth Intermediate									265.4																					
Line "S-1-B"																														
13+75.00 to 17+65.29	Dunn Street	Varies	390.29					105.2	10.4	12.4			61.3		6.3	10.1		1141.3		74.9	5.0	15.0	0.61	782.0	650.0	782.0				
*Variable Depth Intermediate									166.1																					
MAINLINE																														
Driveways																														
Line "B"																														
24+95.70 Rt.	Class III (Mod.)	10	19.0		10/10									31					40.6											
25+63.40 Rt.	Class III (Mod.)	23.4	14.0								6.8	11.4					18.3													
29+20.80 Rt.	Class III (Mod.)	14.4	22.5		20/15																									
29+64.30 Rt.	Class III (Mod.)	22	22.0		15/30			3.0										35.8					0.01							
Line "S-1-B"																														
14+34.40 Rt.	Class III (Mod.)	30.0	32.0		10/10									115.3					130.8											
15+76.00 Rt.	Class III (Mod.)	30.0	23.0		10/10									56.7					68.1											
16+53.80 Rt.	Class III (Mod.)	10.5	22.2		10/10									35					45.9											
TOTAL THIS SHEET =								274	548	140	7	12	122	238	71	21	18	2344	286	844	57	169	2	1962	1830	1962				

Date: Feb 24, 2021, 8:23am User Name: NVA
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NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

APPROACH TABLE

HORIZONTAL SCALE	BRIDGE FILE
"=_'	N/A
VERTICAL SCALE	DESIGNATION
"=_'	N/A
SURVEY BOOK	SHEET
	27 of 38
CONTRACT	PROJECT
-	-- -- --

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION					SIZE	DESCRIPTION		LENGTH	SKEW	FLOW LINE			SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL	TYPE	FLOWABLE BACKFILL	GEOTEXTILES TYPE 1A	REVETMENT RIPRAP	CLASS 1 RIPRAP	ELBOW	VIDEO INSPECTION	PIPE END SECTION	CONNECT TO STR.	REMARKS
	STATION	LEFT	RIGHT	CROSS	OFFSET		PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE AND TYPE			COVER	UP STREAM	DOWN STREAM															
					FT	IN.			LFT		LFT	ELEV.	ELEV.	YRS				CYS		CYS	SYS	TON	TON	EA.	LFT	EA.		
Line "B"																												
21	24+08	X			12	12	2	Ex. Storm Inlet				808.70	809.40	50	N	6.5												No Work Req'd
22	24+10		X		12	12	2	Ex. Storm Inlet				809.86	808.80	50	N	6.5											21	No Work Req'd
23	25+14	X			16	15	2	Ex. Storm Manhole				808.30	803.16	50	N	6.5											27	Remove Exist Type 4 Casting, Replace w/ Type 8 Casting
24	25+15		X		12	12	2	Ex. Storm Inlet				808.70	808.30	50	N	6.5											23	Adjust Casting to Grade
25	26+37		X		12	15	2	Inlet J10	28		1.5	805.12	804.82	50	N	6.5	1	9.0	2						28		26	T.C. = 808.56
26	26+67		X		17	30"x19"	2	Manhole C8 Mod.	32		5.0	800.55	800.35	50	N	6.5	1	35.5	4						32		27	T.C. = 808.28, Adjust Back of Casting for Curb Ramp
27	26+70	X			17	24	2	Manhole C4	9		3.6	800.35	800.25	50	N	6.5	1	7.6	2						9		28	T.C. = 808.67
28	26+72	X			28	24	2	Manhole C8	54		2.6	800.25	800.00	50	N	6.5	1	35.6	2						54		34	T.C. = 807.49
29	27+25		X		15	30"x19"	2	Manhole C4	68		1.5	803.20	800.09	50	N	6.5	1	31.3	4						68		35	T.C. = 806.99
30	27+38		X		20	12	2	Inlet J10	12		1.8	803.28	803.20	50	N	6.5	1	3.6	2					1	12		29	T.C. = 806.85
	27+38		X		20	8	2	PVC Pipe	16		1.8	803.50	803.28	50	N	6.5	1	3.5	2						16		30	
31	28+90		X		10	12	2	Inlet J10	31		1.1	799.50	799.00	50	N	6.5	1	6.8	4						31		32	T.C. = 802.24
32	28+90	X			23	12	2	Inlet M10	49		2.0	798.95	797.95	50	N	6.5	1	16.2	2						49		33	T.C. = 802.42
33	29+41	X			27	12	2	Inlet F4				797.50	793.30	50	N	6.5											33	T.C. = 801.95
Line "S-1-B"																												
34	14+25		X		30	24	2	Inlet G4				799.98	798.00	50	N	6.5												T.C. = 804.65; Connect to Exist Pipe
35	14+48	X			23	24	2	Manhole C8	39		4.0	801.00	798.08	50	N	6.5	1	35.5	2						39	1		T.C. = 805.77; w/ 24" Pipe End Section
36	15+38	X			20	24	2	Manhole C8	18		3.2	804.00	803.50	50	N	6.5	1	13.9	2						18		29	T.C. = 807.87
37	15+47		X		14	15	2	Inlet J10	25		2.0	804.63	804.49	50	N	6.5	1	8.3	2						25		26	T.C. = 808.80
38	15+54	X			26	24	2	Manhole C4	14		5.0	804.50	804.00	50	N	6.5	1	15.5	2						14		36	T.C. = 810.00
39	16+49		X		17	12	2	Ex. Storm Inlet				814.40	814.00	50	N	6.5											38	Adjust Casting to Grade
41	17+55		X		17	12	2	Ex. Storm Inlet				821.45	814.70	50	N	6.5											39	No Work Req'd
42	17+63		X		24	12	2	Ex. Storm Inlet				821.50	821.45	50	N	6.5											41	No Work Req'd
43	17+82		X		23	12	2	Ex. Storm Inlet				821.70	821.50	50	N	6.5											42	No Work Req'd
Line "B"																												
300	24+97		X		1			Ex. Sanitary Manhole				809.60	806.00	50	N	6.5												Adjust Casting to Grade
301	27+09	X			6			Ex. Sanitary Manhole				799.30	792.10	50	N	6.5												Adjust Casting to Grade
302	30+78	X			3			Ex. Sanitary Manhole				794.94	791.60	50	N	6.5												No Work Req'd
303	31+27	X			3			Ex. Sanitary Manhole				791.60	791.40	50	N	6.5												No Work Req'd
Line "S-1-B"																												
304	17+99	X			12			Ex. Sanitary Manhole				818.50	802.40	50	N	6.5												No Work Req'd
305	18+00		X		77			Ex. Sanitary Manhole				823.60	821.21	50	N	6.5												No Work Req'd

Date: Feb 24, 2021, 8:23am User Name: Nick
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PE10708224 STATE OF INDIANA — NICHOLAS A. WILL — REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 02/11/2021 DATE

DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

STRUCTURE DATA TABLE

HORIZONTAL SCALE	BRIDGE FILE
"=_'	N/A
VERTICAL SCALE	DESIGNATION
"=_'	N/A
SURVEY BOOK	SHEET
	28 of 38
CONTRACT	PROJECT
-	-- -- --

	STRUCTURE NUMBER			25	26	27	28	29	30	30	31	32	35	36	37	38	
	PIPE TYPE / SHAPE (CIR or DEF)			2/Cir.	2/Def.	2/Cir.	2/Cir.	2/Def.	2/Cir.	2/Cir.	2/Cir.	2/Cir.	2/Cir.	2/Cir.	2/Cir.	2/Cir.	
INT. DES.	SMOOTH PIPE SIZE			15"	30"x19"	24"	24"	30"x19"	12"	8"	12"	12"	24"	24"	15"	24"	
	CORRUGATED PIPE SIZE			15"	30"x19"	24"	24"	30"x19"	12"	8"	12"	12"	24"	24"	15"	24"	
	SEMI-SMOOTH PIPE SIZE																
CONC.	RCP/RCHEP (S)	CLASS		II	HE-A	II	II	HE-A	II		II	II	II	II	II	II	
		D 0.01 RATING		1000	600	1000	1000	600	1000		1000	1000	1000	1000	1000	1000	
	NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)			OK		OK	OK		OK			OK	OK	OK	OK	OK	
PLASTIC PIPE	CORRUGATED PE PIPE, TYPE S (S)*					OK	OK					OK	OK	OK	OK	OK	
	PROFILE WALL (RIBBED) PE PIPE (S)*					OK	OK						OK	OK		OK	
	PROFILE WALL (CLOSED) PE PIPE (S)*																
	SMOOTH WALL PE PIPE (S)* / MAXIMUM DR					OK/26	OK/26					OK/26	OK/26	OK/26	OK/26	OK/26	
	CORRUGATED PP PIPE (S)																
	PROFILE WALL PVC PIPE (S)					OK	OK			OK		OK	OK	OK	OK	OK	
	SMOOTH WALL PVC PIPE (S)*					OK	OK			OK		OK	OK	OK	OK	OK	
CLAY	VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)			OK		OK	OK		OK			OK	OK	OK	OK	OK	
CORRUGATED STEEL PIPE / PIPE-ARCH	FULLY BIT. PAVED & LINED (S)	CORR.PROFILE		2 2/3" x 1/2"		2 2/3" x 1/2"	2 2/3" x 1/2"		2 2/3" x 1/2"		2 2/3" x 1/2"	2 2/3" x 1/2"	2 2/3" x 1/2"	2 2/3" x 1/2"	2 2/3" x 1/2"	2 2/3" x 1/2"	
		THICKNESS		0.079"		0.079"	0.079"		0.079"		0.079"	0.079"	0.079"	0.079"	0.079"	0.079"	
	ZINC COATED (C)	CORR.PROFILE															
		THICKNESS															
	ZINC COATED W/ BPI (C)	CORR.PROFILE															
		THICKNESS															
	ALUM. COATED TYPE 2 (C)	CORR.PROFILE															
		THICKNESS															
	ALUM. COATED TYPE 2 W/ BPI (C)	CORR.PROFILE															
		THICKNESS															
	POLYMER PRECOATED GALVANIZED (C)	CORR.PROFILE															
		THICKNESS															
	POLYMER PRECOATED GALVANIZED CORRUGATED STEEL PIPE TYPE 1A (S)	CORR.PROFILE															
		THICKNESS															
COR. ALUM. PIPE/ P-ARCH	CORRUGATED ALUM. ALLOY (C)	CORR.PROFILE															
		THICKNESS															
	CORRUGATED ALUM. ALLOY W/ BPI (C)	CORR.PROFILE															
		THICKNESS															
SPIRAL RIB STEEL PIPE	ZINC COATED (SS)	CORR.PROFILE															
		THICKNESS															
	ALUM. COATED TYPE 2 (C)	CORR.PROFILE															
		THICKNESS															
	ALUM. COATED TYPE 2 W/ BPI (C)	CORR.PROFILE															
		THICKNESS															
	POLYMER PRECOATED GALVANIZED (C)	CORR.PROFILE															
		THICKNESS															
STRUCTURAL PLATE PIPE / PIPE-ARCH	STR. PLATE ALUMINUM ALLOY (C)	CORR.PROFILE															
		THICKNESS															
	STR. PLATE ALUMINUM ALLOY W/ CFP (C)	CORR.PROFILE															
		THICKNESS															
	STR. PLATE STEEL (C)	CORR.PROFILE															
		THICKNESS															
	STR. PLATE STEEL W/ CFP (C)	CORR.PROFILE															
		THICKNESS															

LEGEND

PIPE MATERIAL

RCP	Reinforced Concrete Pipe
RCHEP	Reinforced Concrete Horizontal Elliptical Pipe
PE	Polyethylene
DR	Dimension Ratio
PVC	Polyvinyl Chloride
PP	Polypropylene
CORR	Corrugation
ALUM	Aluminum
STR	Structural
(LS)	Lock Seam Pipe Required

PIPE PROTECTION

BPI	Bituminous Paved Invert
CFP	Concrete Field Paving
BIT	Bituminous

SHAPE

CIR	Circular Pipe
DEF	Deformed Pipe

INTERIOR PROTECTION

(S)	Smooth Pipe Material
(C)	Corrugated Pipe Material
(SS)	Semi-Smooth Pipe Material

PIPE SIZE

Circular pipe is shown as diameter in inches
Deformed pipe is shown as area in square feet

* Refer to Standard Drawings 715-PHCL-20 through -22 for nominal diameter appropriate for pay item diameter.

** Tabulated thickness refers to top and side plates. For pipes and pipe-arches with a thickness less than .280 in., bottom plates shall be of next greater available thickness.

Date: Feb 24, 2021, 8:24am User Name: Nick
File: S:_2017\117-0022\Road\CAD\Misc\HW01\Tables\B-Pipe Material Table.dwg

NICHOLAS A. WILL REGISTERED PE10708224 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL Nicholas A. Will 02/11/2021
DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF
CHECKED: JAW CHECKED: NAW

INTERSECTION 17th & DUNN ST.
CONSTRUCTION PLANS
CITY OF BLOOMINGTON, INDIANA

PIPE MATERIAL TABLE

HORIZONTAL SCALE	BRIDGE FILE
No Scale	N/A
VERTICAL SCALE	DESIGNATION
-	N/A
SURVEY BOOK	SHEET
	29 of 38
CONTRACT	PROJECT
-	-- -- --

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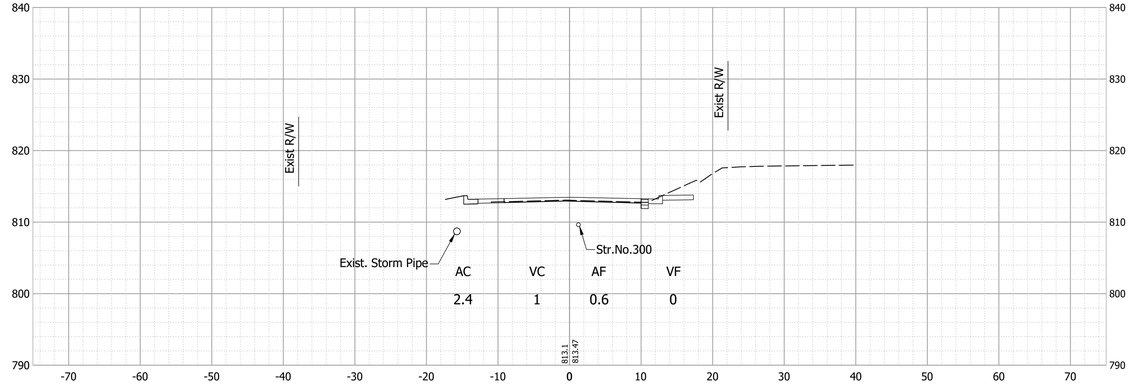

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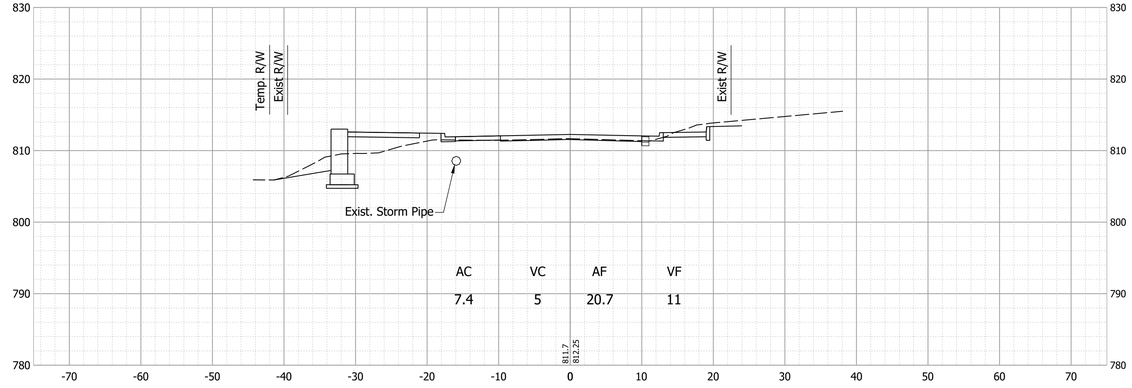

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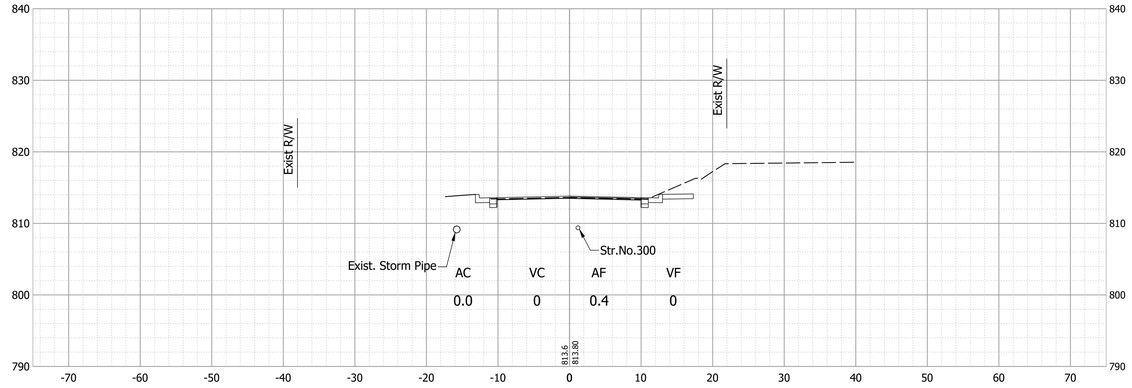

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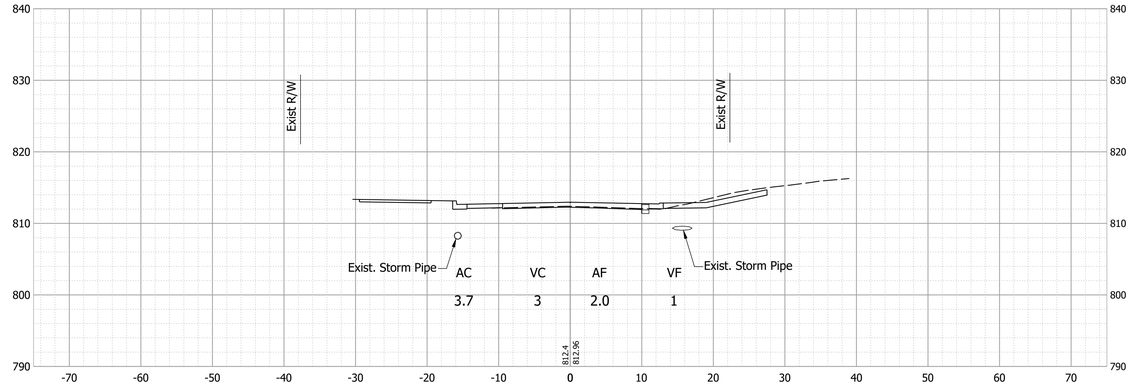

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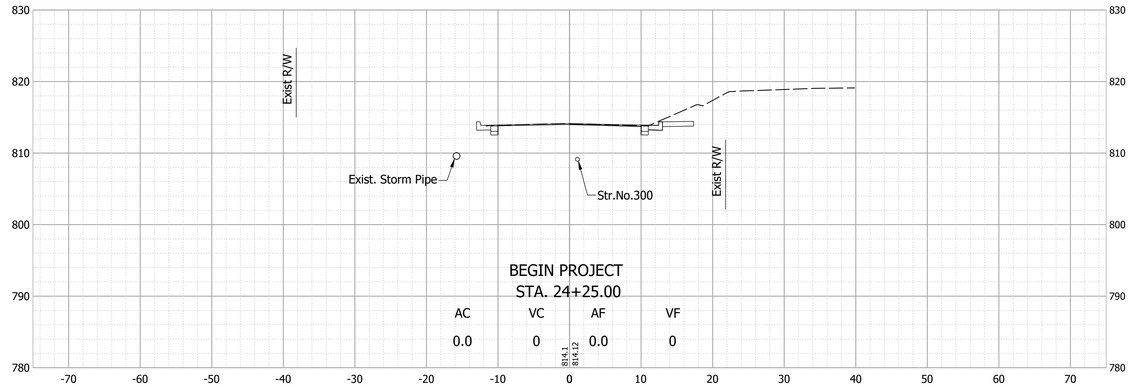

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

CROSS SECTIONS LINE "B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	30 of 38
CONTRACT	PROJECT
-	-- -- --

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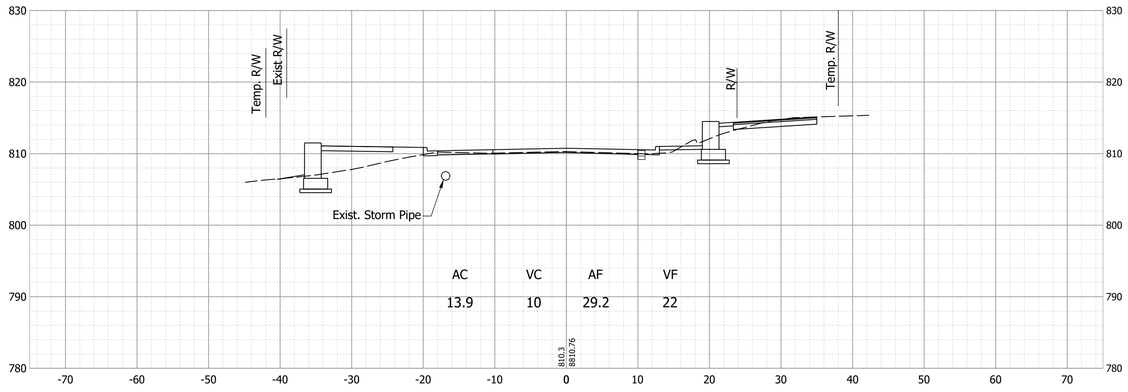

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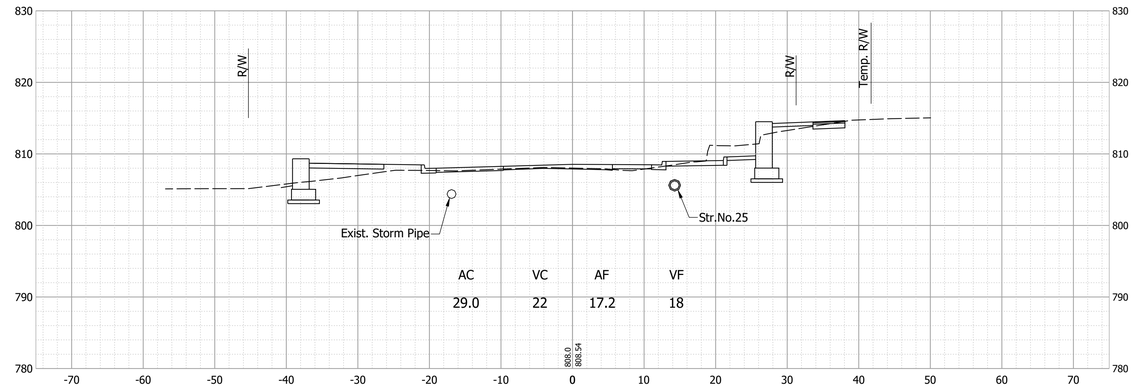

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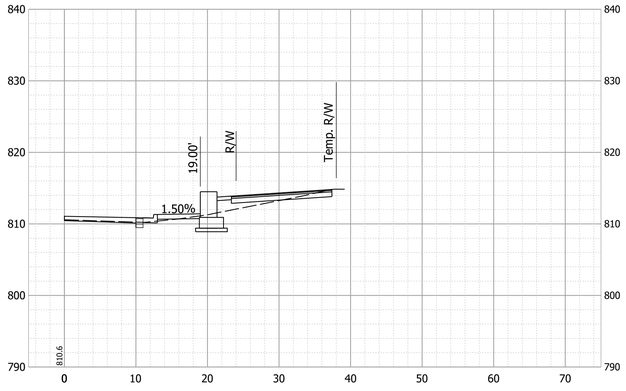

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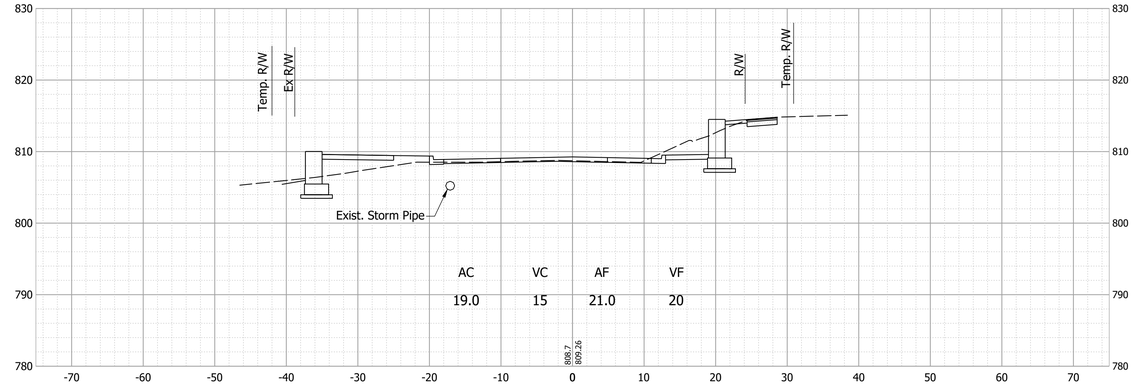

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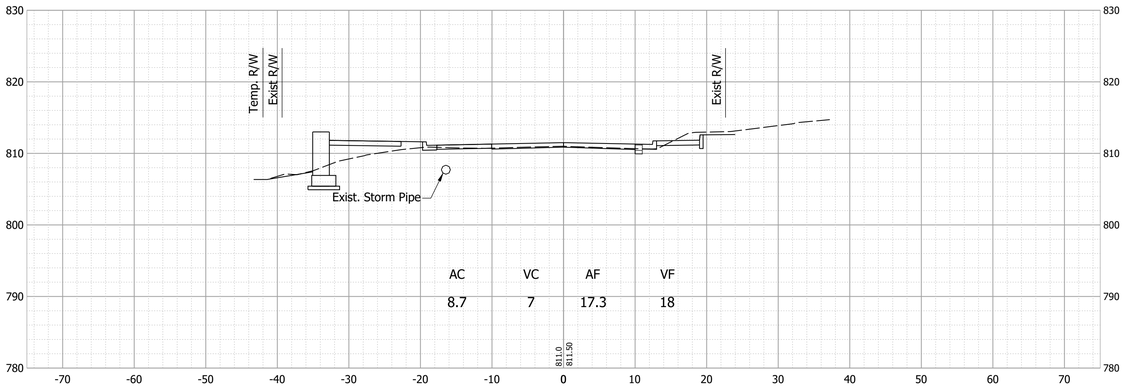

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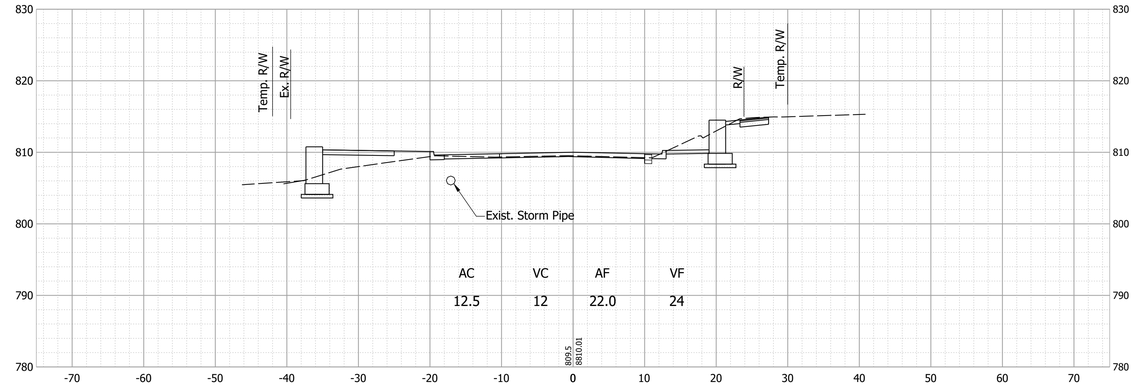

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RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF
CHECKED: JAW CHECKED: NAW

CROSS SECTIONS
LINE "B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	31 of 38
CONTRACT	PROJECT
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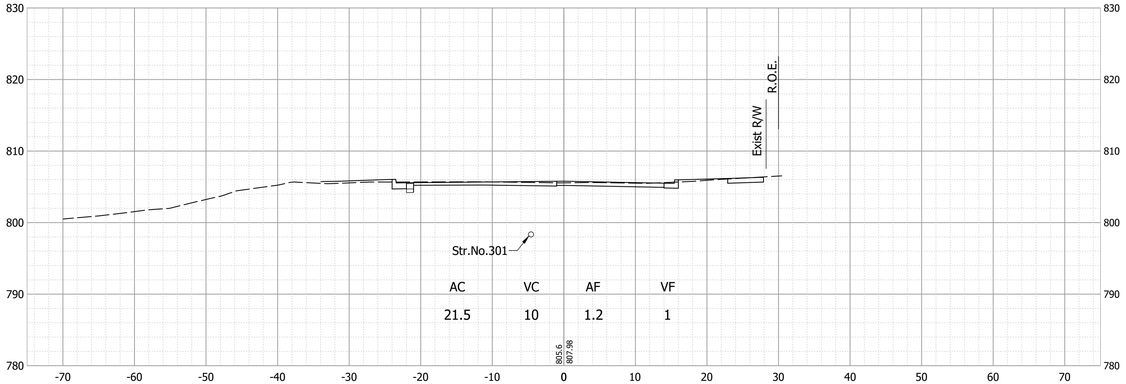

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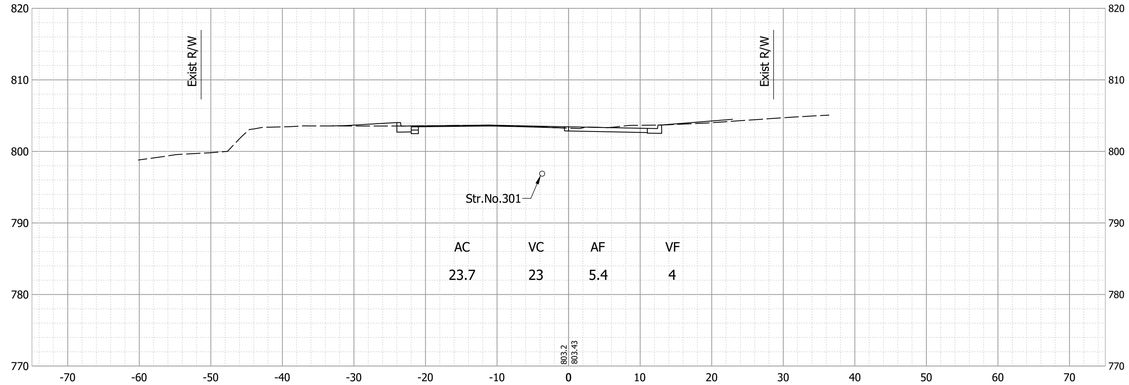

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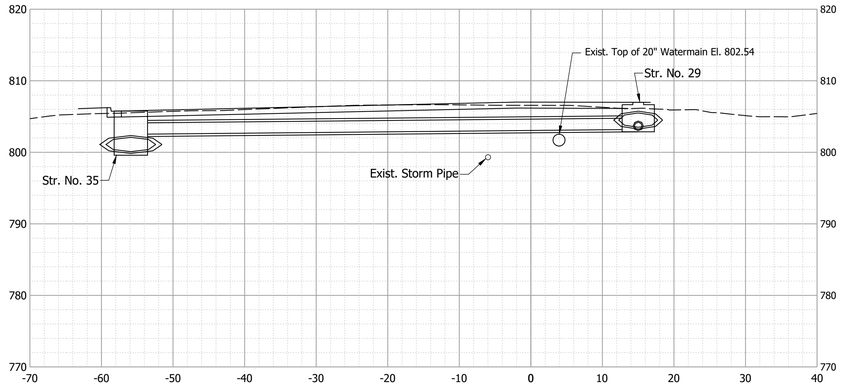

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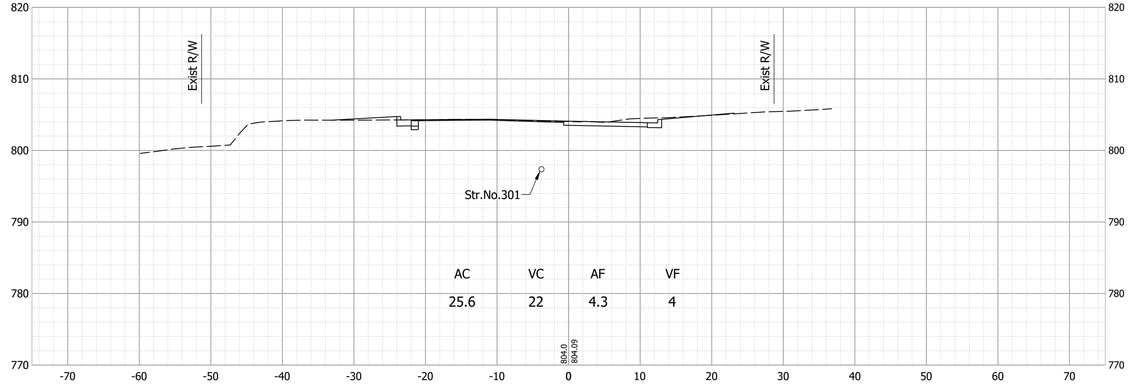

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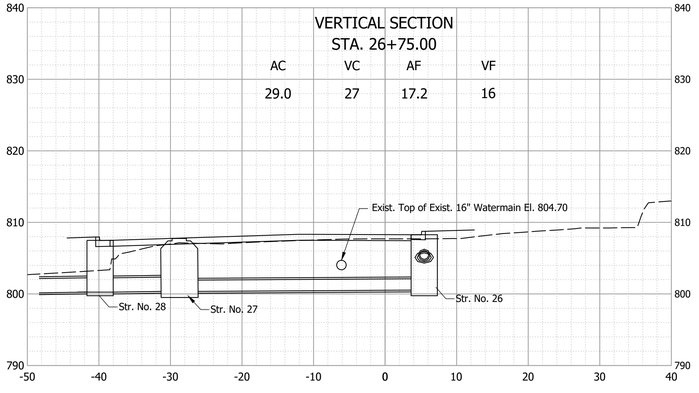

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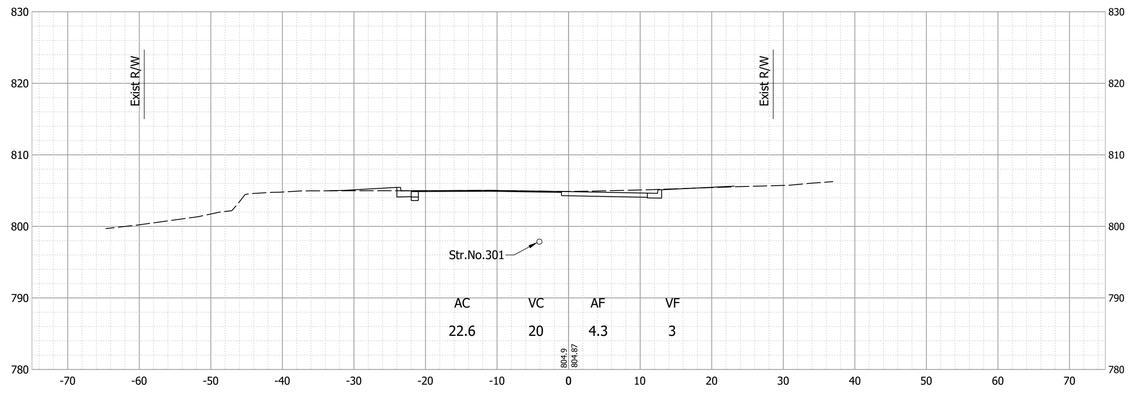

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

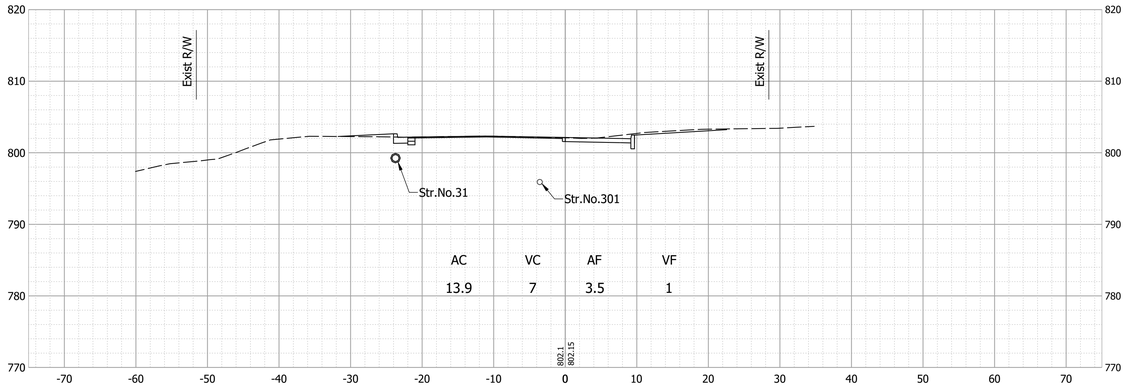
DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

CROSS SECTIONS LINE "B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	32 of 38
CONTRACT	PROJECT
-	-- -- --

29+00



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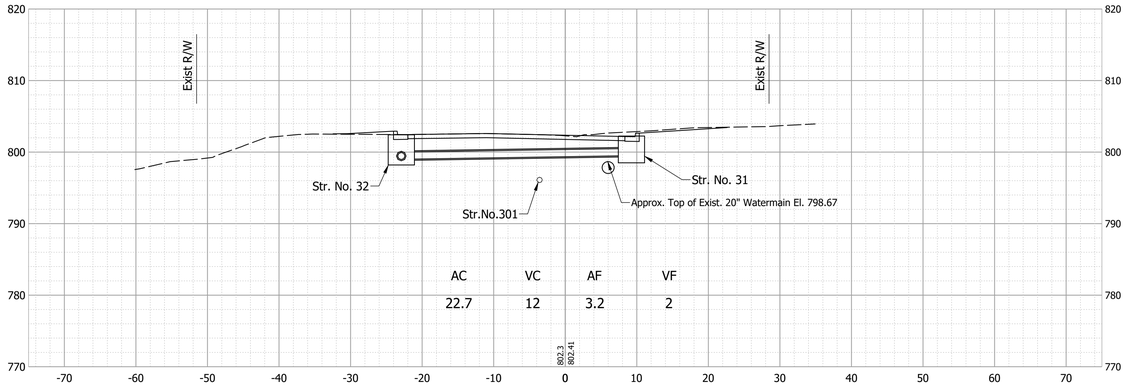

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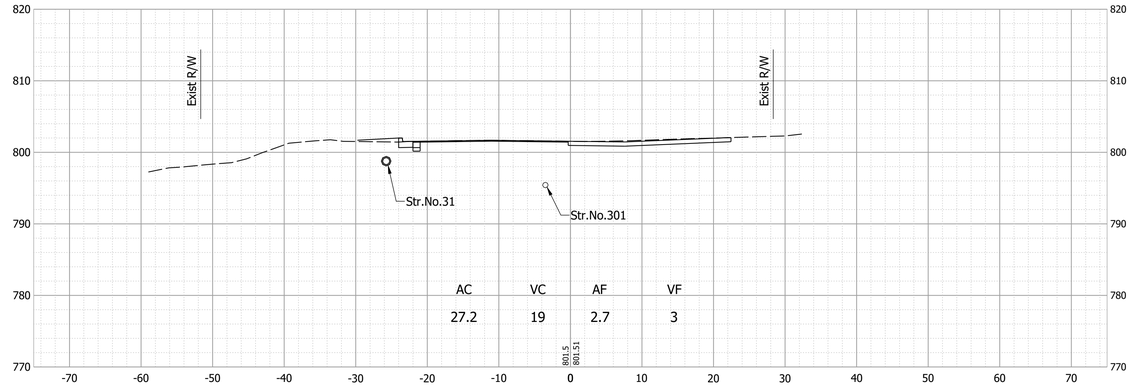

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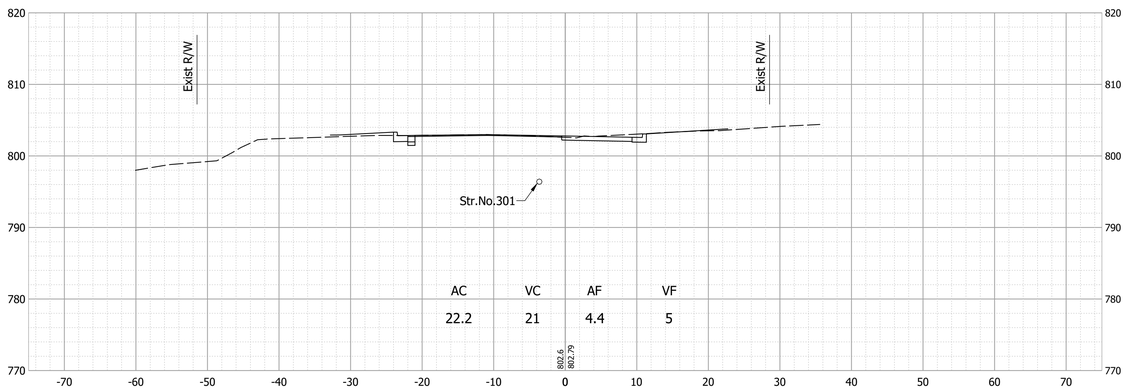

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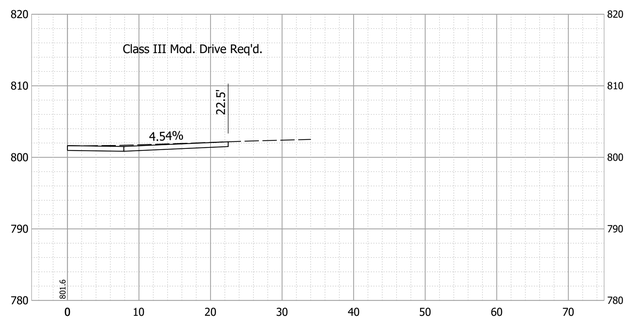

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

CROSS SECTIONS
LINE "B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	33 of 38
CONTRACT	PROJECT
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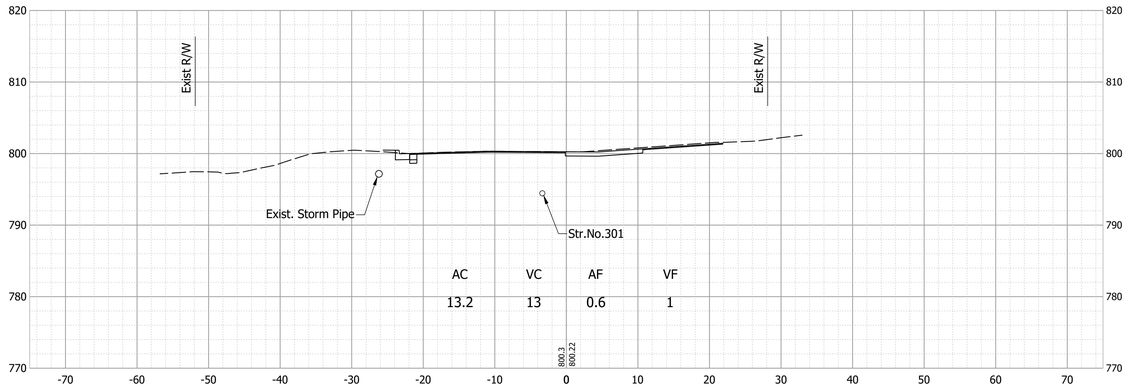

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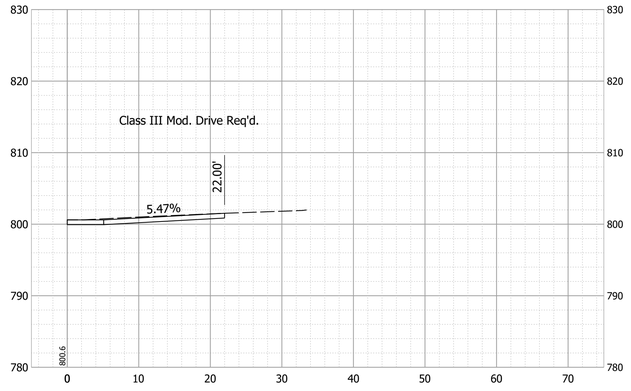

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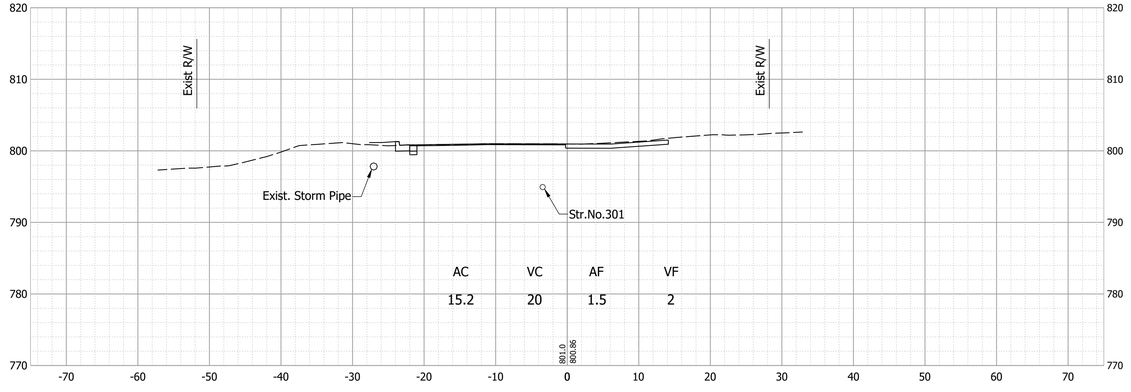

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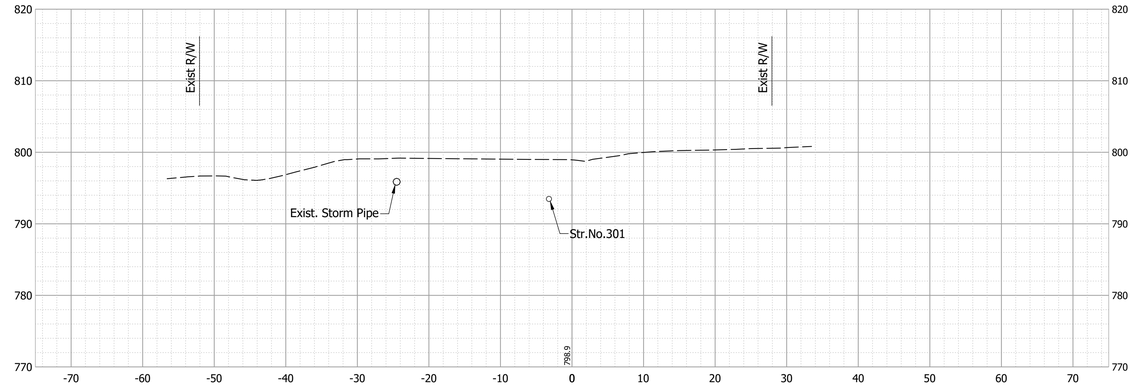

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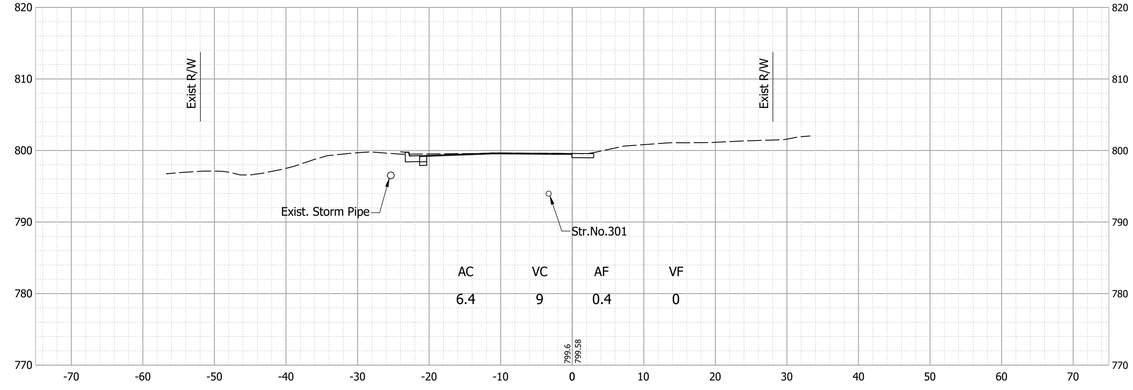
30+00



Date: Feb 11, 2021, 2:46pm User Name: lorrie
File: S:_2017\117-0022\Road\CAD\CrossSect\Xsect B.dwg

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

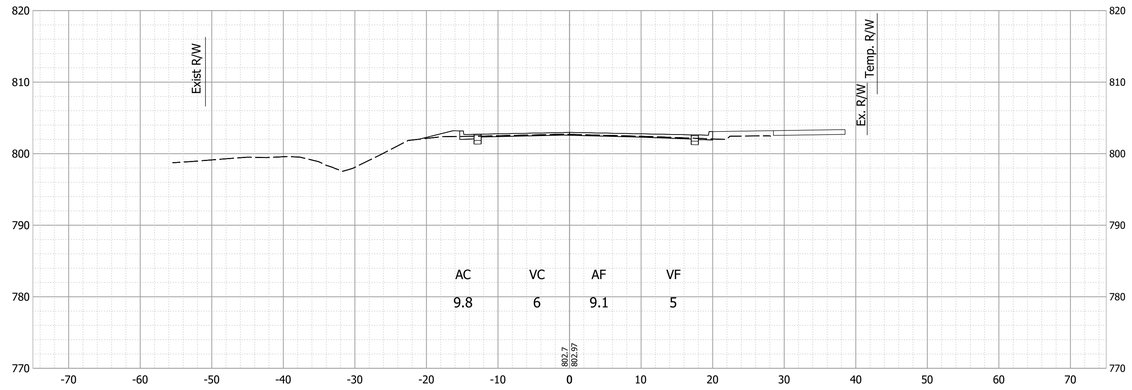
DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

CROSS SECTIONS LINE "B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	34 of 38
CONTRACT	PROJECT
-	-- -- --

14+00



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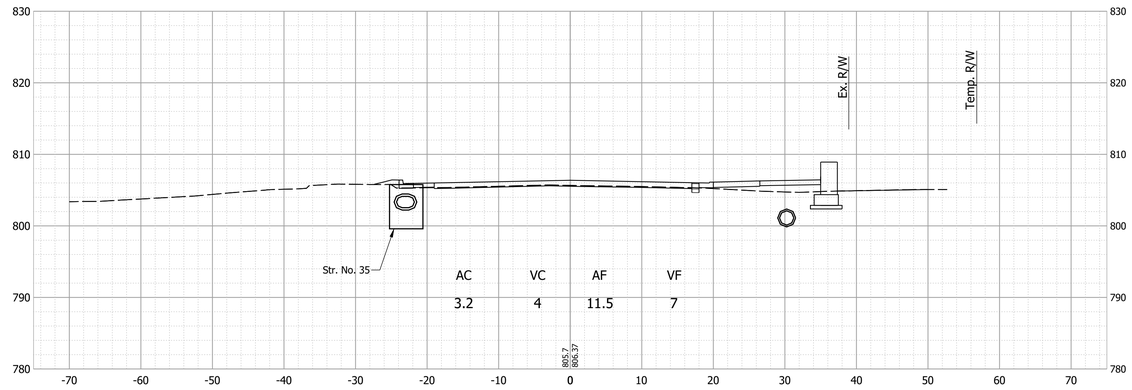

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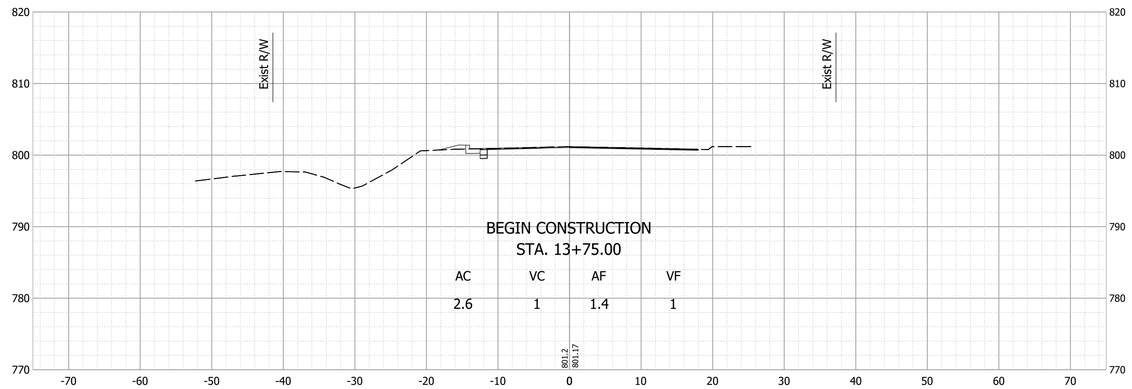

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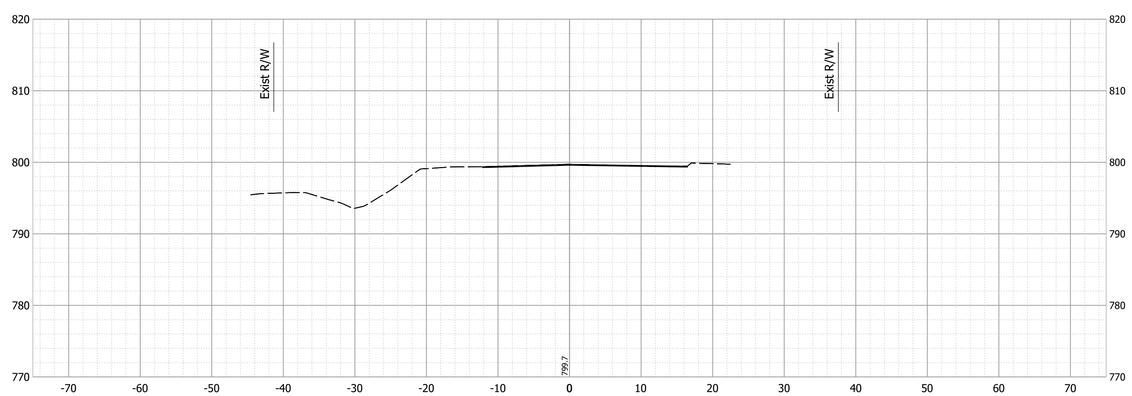

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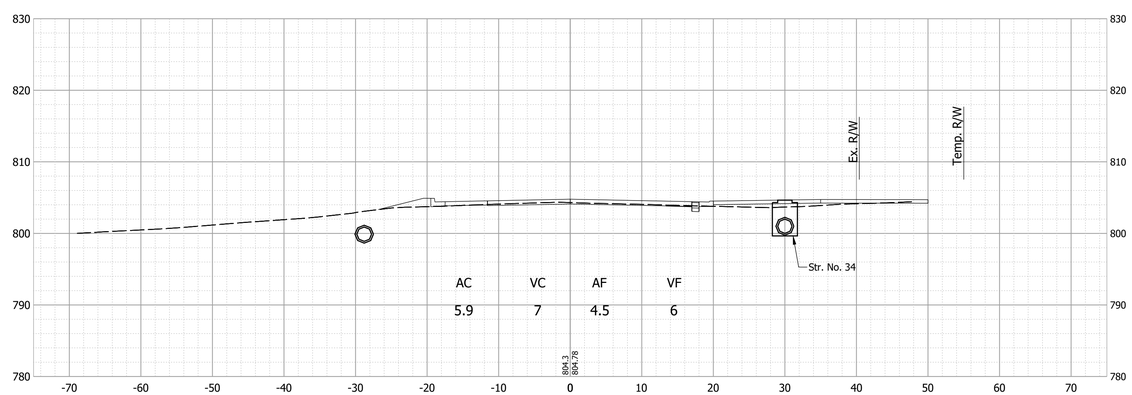

Date: Feb 11, 2021, 2:46pm User Name: lorrie
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

CROSS SECTIONS LINE "S-1-B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	35 of 38
CONTRACT	PROJECT
-	-- -- --

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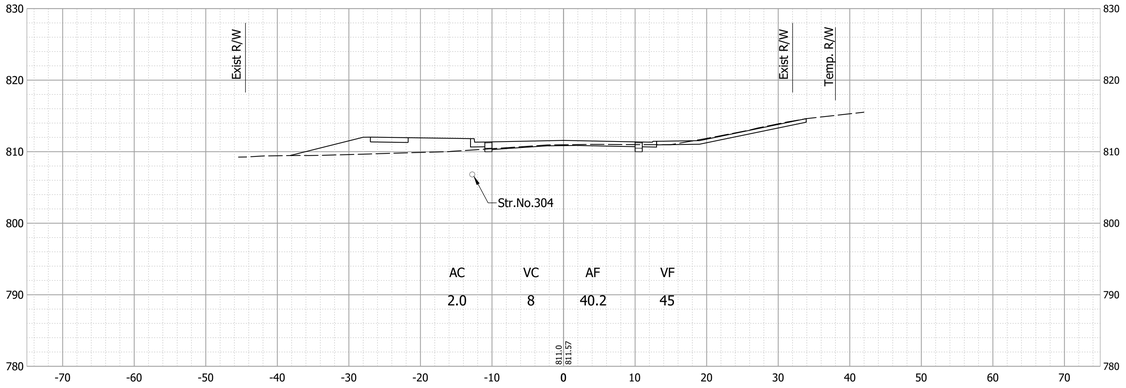

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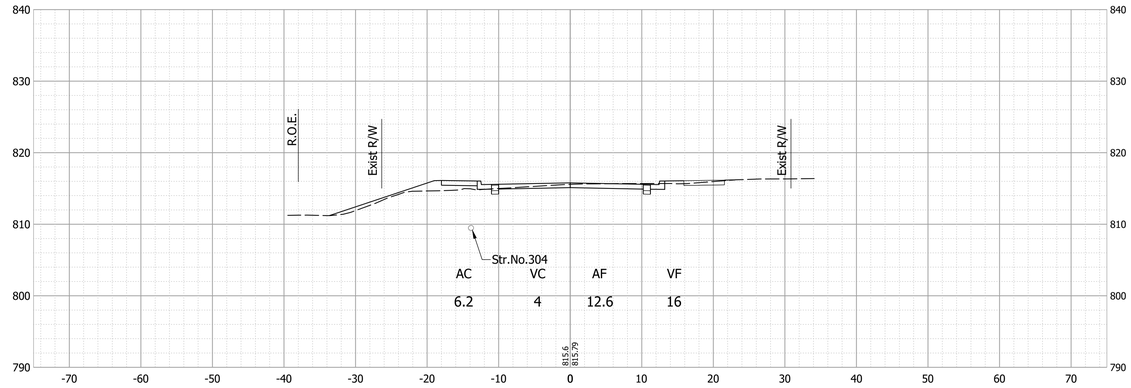

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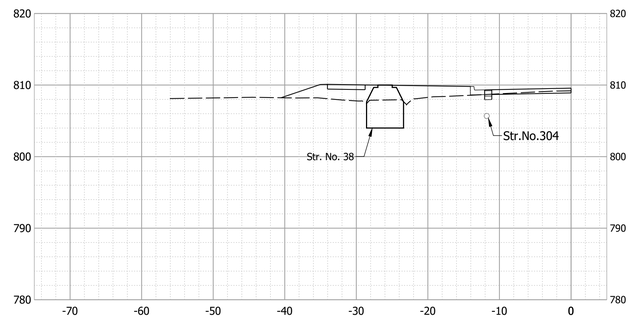

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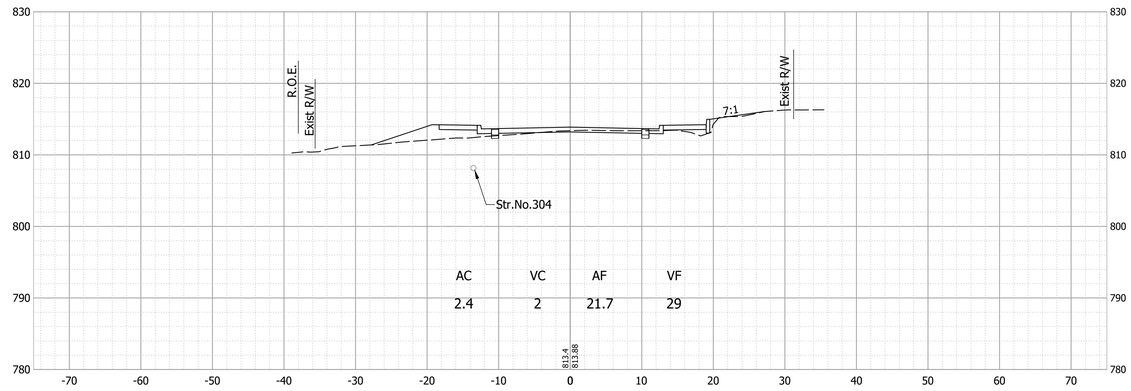

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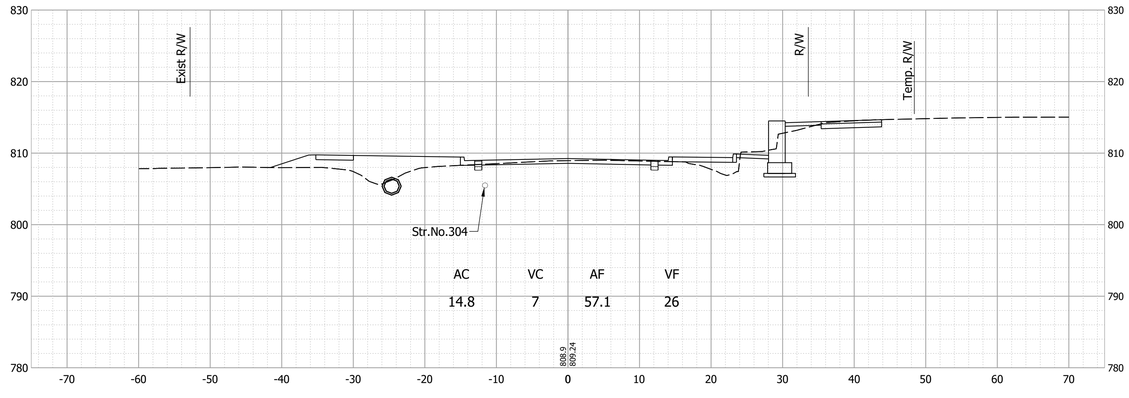

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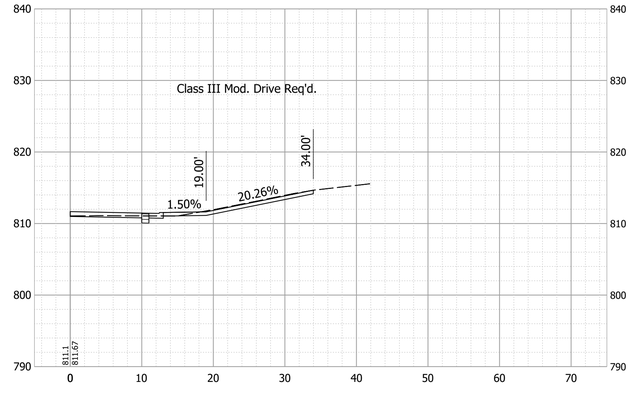

Date: Feb 11, 2021, 2:46pm User Name: lorrie
File: S:\L_2017\117-0022\Road\CAD\CrossSect\Xsects S-1-B.dwg

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

CROSS SECTIONS
LINE "S-1-B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	36 of 38
CONTRACT	PROJECT
-	-- -- --

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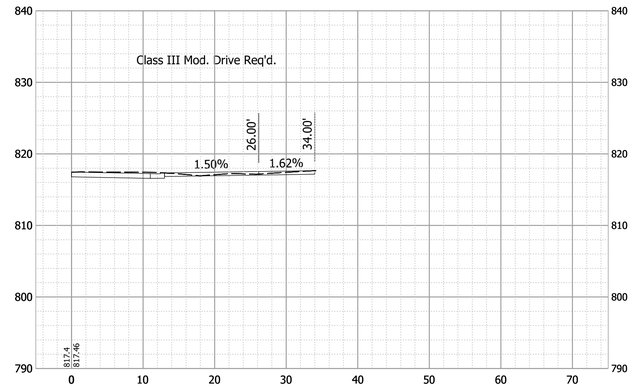

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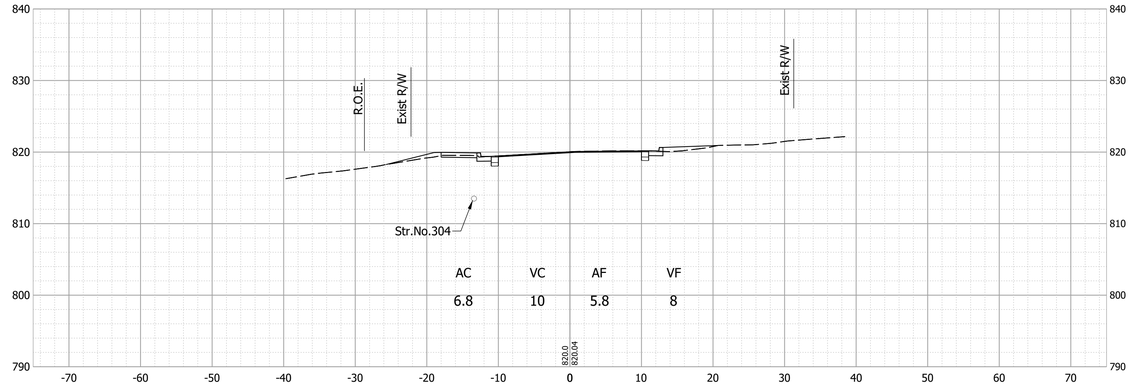

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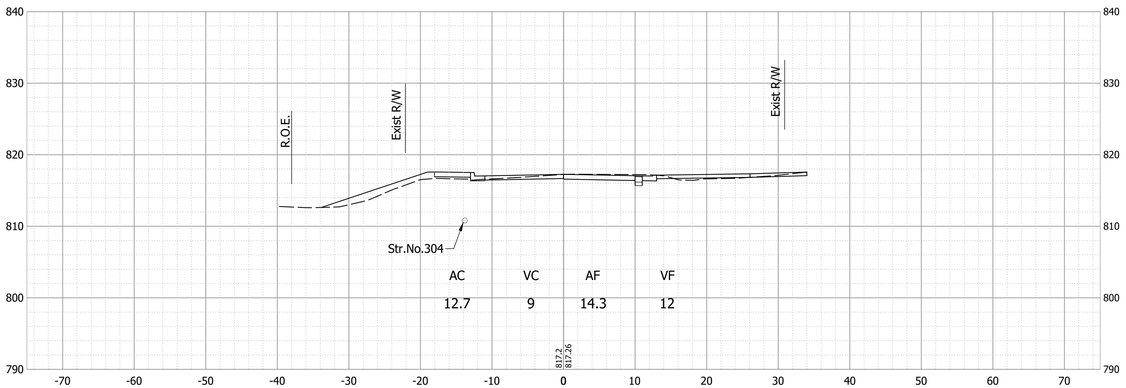

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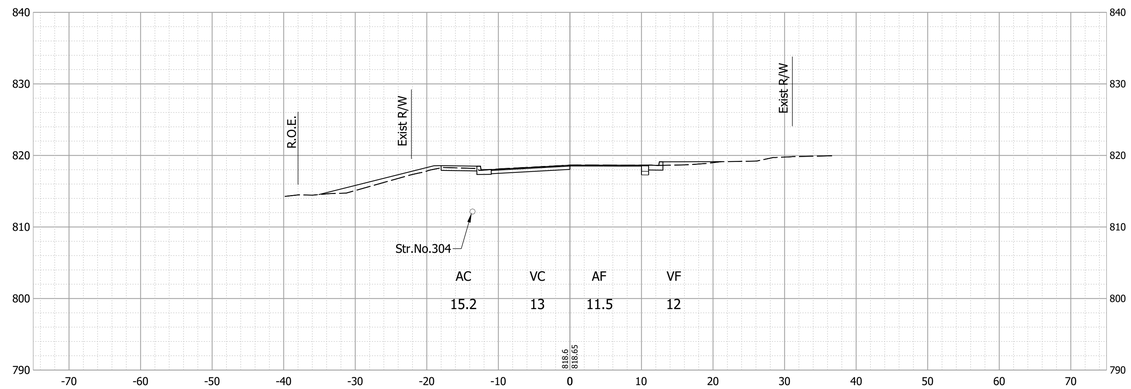

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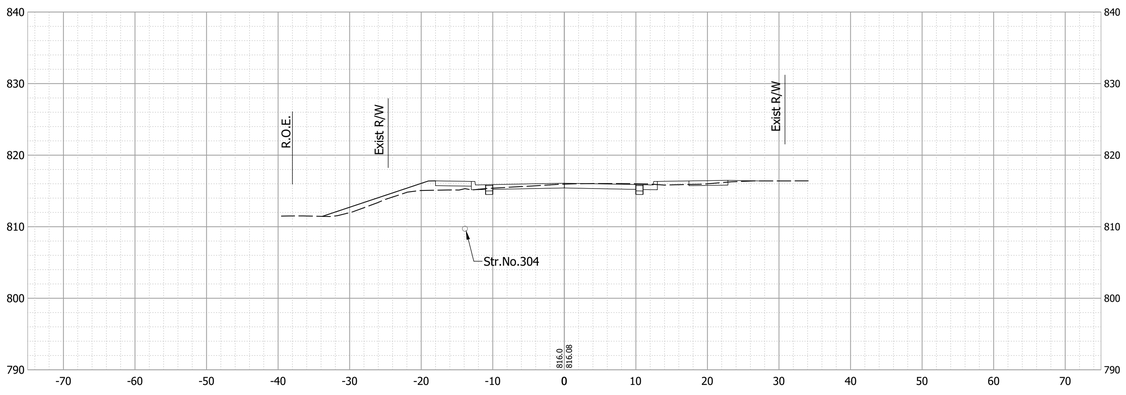

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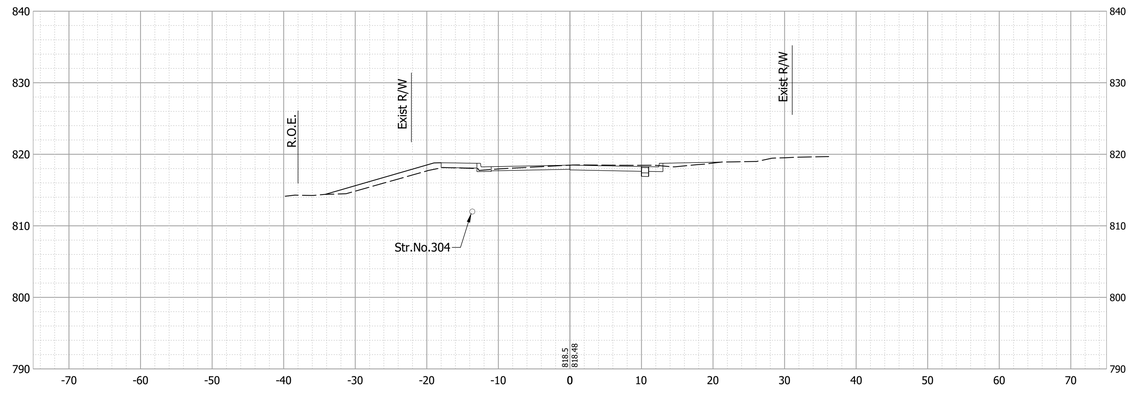


Date: Feb 11, 2021, 2:46pm User Name: tonie
File: S:_2017\117-0022\Road\CAD\Crosssect\Sects S-1-B.dwg

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF

CHECKED: JAW CHECKED: NAW

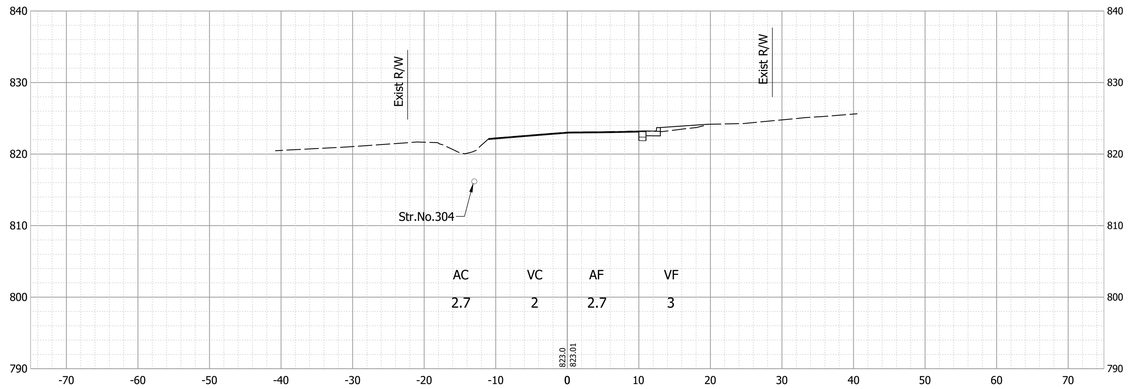
CROSS SECTIONS LINE "S-1-B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	37 of 38
CONTRACT	PROJECT
-	-- -- --

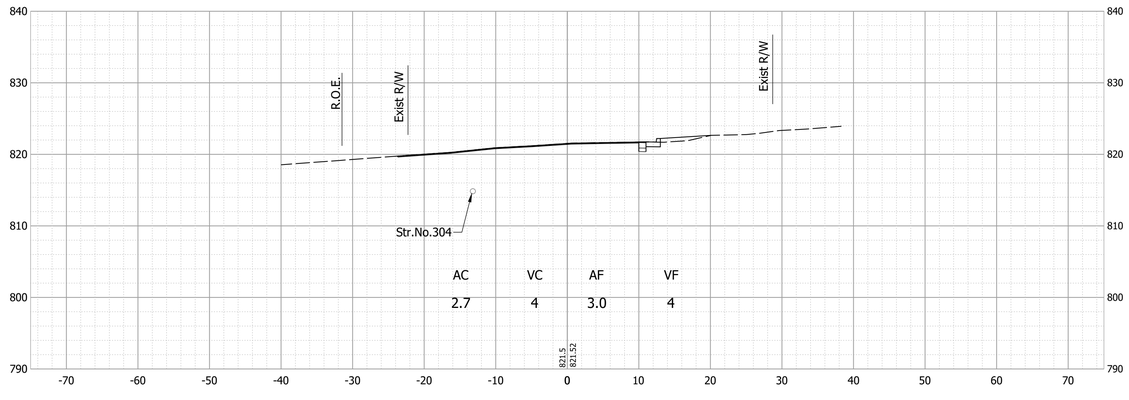
END CONSTRUCTION
STA. 17+65.29

AC	VC	AF	VF
0	1	0	1

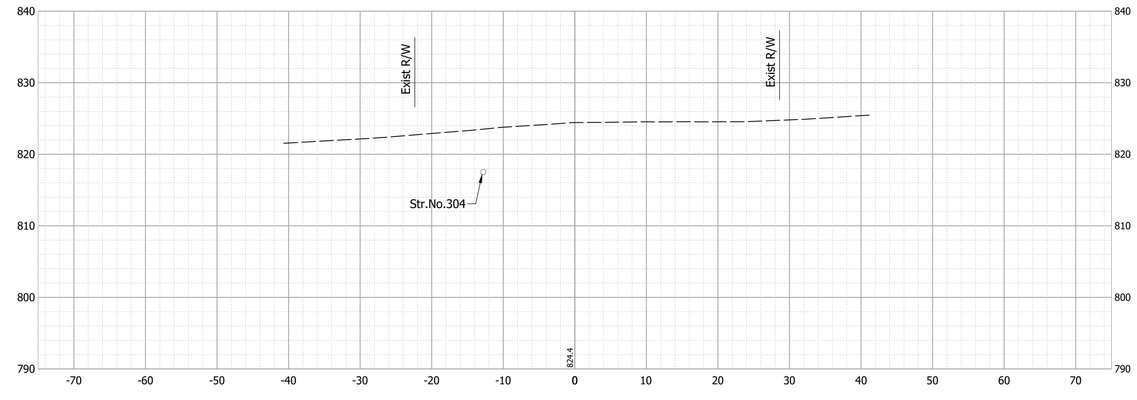
17+50



17+25



17+75



Date: Feb 11, 2021, 2:46pm User Name: lorrie
File: S:_2017\117-0022\Road\CAD\CrossSect\Xsects S-1-B.dwg

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: NAW DRAWN: LLF
CHECKED: JAW CHECKED: NAW

CROSS SECTIONS
LINE "S-1-B"

HORIZONTAL SCALE	BRIDGE FILE
1"=10'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	N/A
SURVEY BOOK	SHEETS
	38 of 38
CONTRACT	PROJECT
-	-- -- --