SUMMARY OF QUANTITIES

PAY CODE	PAY ITEM	UNIT	TOTAL QUANTITY
50901050	STEEL RAILING, TYPE SM	FOOT	433
50901720	BICYCLE RAILING	FOOT	480
51201800	FURNISHING STEEL PILES HP14X73	FOOT	1778
51202305	DRIVING PILES	FOOT	1778
51203800	TEST PILE STEEL HP14X73	EACH	4
51204650	PILE SHOES	EACH	48
51500100	NAME PLATES	EACH	1
~~52200700~~	~~PRECAST MODULAR RETAINING WALL~~	SQ FT	112
52200800	SEGMENTAL CONCRETE BLOCK WALL		
58100210	FULL LANE SEALANT WATERPROOFING SYSTEM	SQ YD	879
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	107
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	80
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	2
60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	840
* 60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	146
60218300	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	1
60255500	MANHOLES TO BE ADJUSTED	EACH	3
60500040	REMOVING MANHOLES	EACH	1

+ INDICATES SPECIALTY ITEM

PAY CODE	PAY ITEM	UNIT	TOTAL QUANTITY
60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	201
60608562	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.12	FOOT	113
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	1
+ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1
+ 63200310	GUARDRAIL REMOVAL	FOOT	130
63400105	GUARD POSTS	EACH	6
67100100	MOBILIZATION	L SUM	1
72500300	OBJECT MARKER - TYPE 3	EACH	3
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	1
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1452
Z0013798	CONSTRUCTION LAYOUT	L SUM	1
+ Z0056610	STORM SEWER (WATER MAIN REQUIREMENTS) 15 INCH	FOOT	64
* X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	883
+ X2500920	SEEDING, CLASS 1A (SPECIAL)	ACRE	0.34
+ X2810108	STONE RIPRAP, CLASS A4 (SPECIAL)	SQ YD	1252
X5030301	CONCRETE WEARING SURFACE (VARIABLE DEPTH)	SQ YD	158
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

+ INDICATES SPECIALTY ITEM

REVISION	DATE	BY	REMARKS
1	3/26/26	ATK	RETAINING WALL MATERIAL CLARIFICATION

DESIGNED	ATK
DRAWN	DAL
REVIEWED	XXX
APPROVED	XXX

GRUNDY COUNTY HIGHWAY DEPARTMENT
F.A.S. 293 (RICE RD.) OVER E. FORK MAZON RIVER
2026

WILLETT HOFMANN & ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-000918

SUMMARY OF QUANTITIES

SHEET 2 OF 2 SHEETS

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
293	24-00202-00-BR	GRUNDY	91	4
CONTRACT# 87893		WHA# 1464024		
ILLINOIS				

DESIGN SPECIFICATIONS

2024 AASHTO LRFD Bridge Design Specifications, 10th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (½" Ø Low Lax Strands)
fpbt = 201,960 psi (½" Ø Low Lax Strands)

HIGHWAY CLASSIFICATION

F.A.S. 293 - Rice Road
Functional Class: Major Collector
ADT: 1465 (2025 - Current); 1465 (2025 - Design)
ADTT: 88 (2025 - Current); 88 (2025 - Design)
DHV: 147
Design Speed: 30 m.p.h.
Posted Speed: 30 m.p.h.
Two-Way Traffic
Directional Distribution: 50:50

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

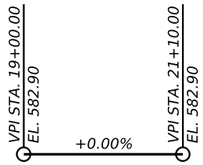
SEISMIC DATA

2023 AASHTO Seismic Hazard
Seismic Design Category (SDC) = A
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.145g
Soil Site Class = C
Performance Level = Operational
Latitude = 41.1721°N Longitude = 88.2696° W

E. FORK MAZON RIVER
BUILT 2026 BY
GRUNDY COUNTY
SECTION 24-00202-00-BR
RICE ROAD STA. 20+00
STR. NO. 032-3336 LOADING HL-93

NAME PLATE LETTERING

Refer To Std. 515001



PROFILE GRADE

(along ℄ roadway)

BILL OF MATERIAL - BRIDGE

	ITEM	UNIT	SUPER	SUB	TOTAL
	CHANNEL EXCAVATION	CU YD	----------	466	466
	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N50	TON	75	----------	75
	REMOVAL OF EXISTING STRUCTURES	EACH	----------	1	1
	STRUCTURE EXCAVATION	CU YD	----------	133	133
	COFFERDAM EXCAVATION	CU YD	----------	114	114
	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	----------	1	1
	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	----------	1	1
	CONCRETE STRUCTURES	CU YD	----------	269.9	269.9
	CONCRETE ENCASEMENT	CU YD	----------	8.8	8.8
	PROTECTIVE COAT	SQ YD	159	----------	159
	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	86.2	----------	86.2
	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	7437	----------	7437
	REINFORCEMENT BARS, EPOXY COATED	POUND	41810	20680	62490
	STEEL RAILING, TYPE SM	FOOT	433	----------	433
	BICYCLE RAILING	FOOT	480	----------	480
	FURNISHING STEEL PILES HP14X73	FOOT	----------	1778	1778
	DRIVING PILES	FOOT	----------	1778	1778
	TEST PILE STEEL HP14X73	EACH	----------	4	4
	PILE SHOES	EACH	----------	48	48
	~~NAME PLATES~~	~~EACH~~	----------	~~1~~	~~1~~
	~~PRECAST MODULAR RETAINING WALL~~	~~SQ FT~~	----------	~~112~~	~~112~~
1	SEGMENTAL CONCRETE BLOCK WALL	SQ FT	----------	112	112
*	~~FULL LANE SEALANT WATERPROOFING SYSTEM~~	SQ YD	879	----------	879
	GRANULAR BACKFILL FOR STRUCTURES	CU YD	----------	107	107
	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	----------	2	2
	GEOCOMPOSITE WALL DRAIN	SQ YD	----------	80	80
	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	----------	146	146
*	STONE RIPRAP, CLASS A4 (SPECIAL)	SQ YD	----------	1252	1252
*	CONCRETE WEARING SURFACE (VARIABLE DEPTH)	SQ YD	----------	158	158

1

GENERAL NOTES:

* *See Special Provisions*

Reinforcement bars designated (E) shall be epoxy coated.

The channel shall be transitioned to fit the proposed structure inside the right of way. Cost shall be included in the Price per Cubic Yard for Channel Excavation.

Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

If the Contractor's procedure for the existing beam removal involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and the procedure will not overstress the existing beams. To distribute load to multiple beams and protect the existing surface, in all cases a double layer mat of heavy timbers shall always be used under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams.

GENERAL DATA
F.A.S. 293 (RICE ROAD)
OVER E. FORK MAZON RIVER
SECTION 24-00202-00-BR
EXISTING S.N. 032-3335
PROPOSED S.N. 032-3336
GRUNDY COUNTY
STATION 20+00

REVISION	DATE	BY	REMARKS
1	3/26/26	ATK	RETAINING WALL MATERIAL CLARIFICATION

DESIGNED ATK
DRAWN DAL
REVIEWED MRL
APPROVED ATK

GRUNDY COUNTY HIGHWAY DEPARTMENT
F.A.S. 293 (RICE RD.) OVER E. FORK MAZON RIVER
2026

WILLETT HOFMANN & ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
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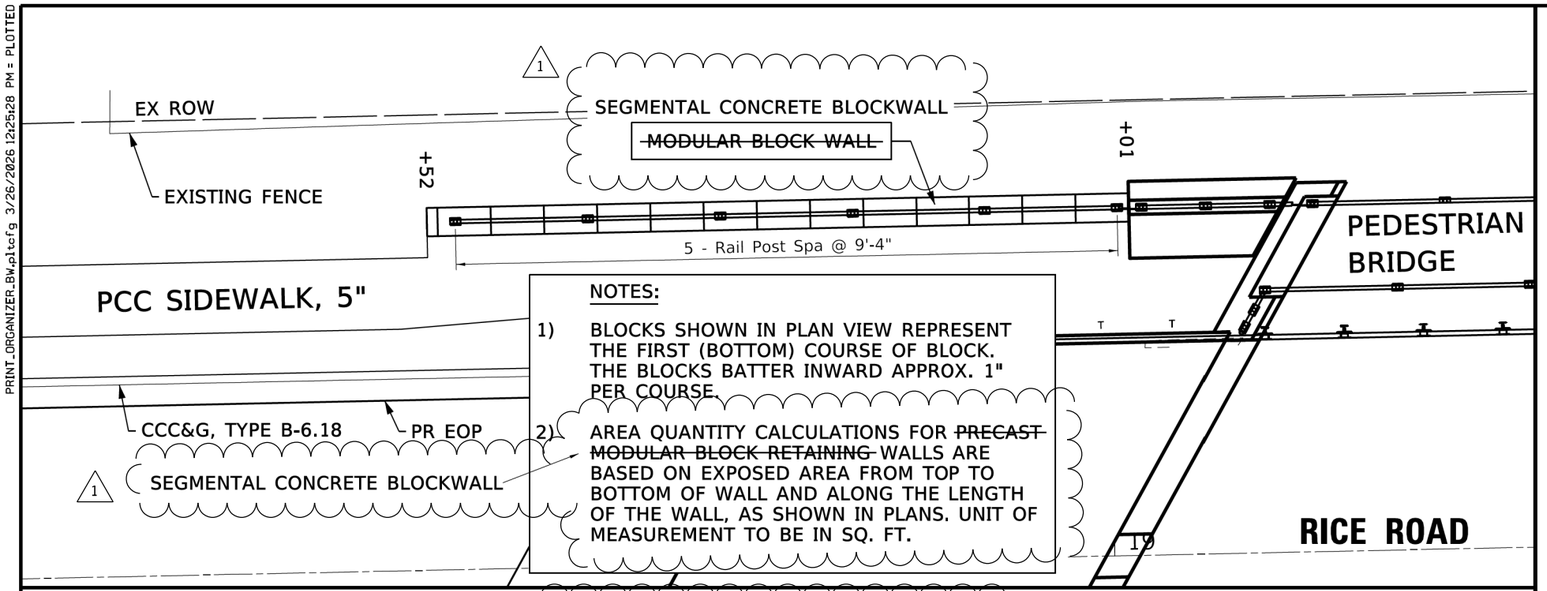
GENERAL DATA

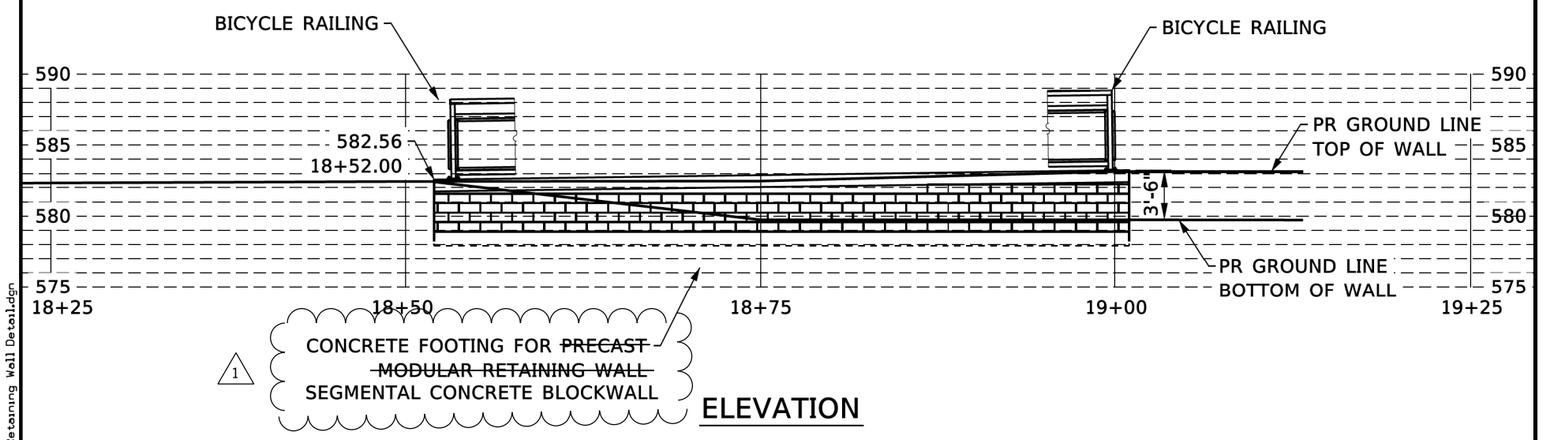
STRUCTURAL SHEET 2 OF 46 SHEETS

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
293	24-00202-00-BR	GRUNDY	91	35
CONTRACT# 87893		WHA# 1464D24		
ILLINOIS				

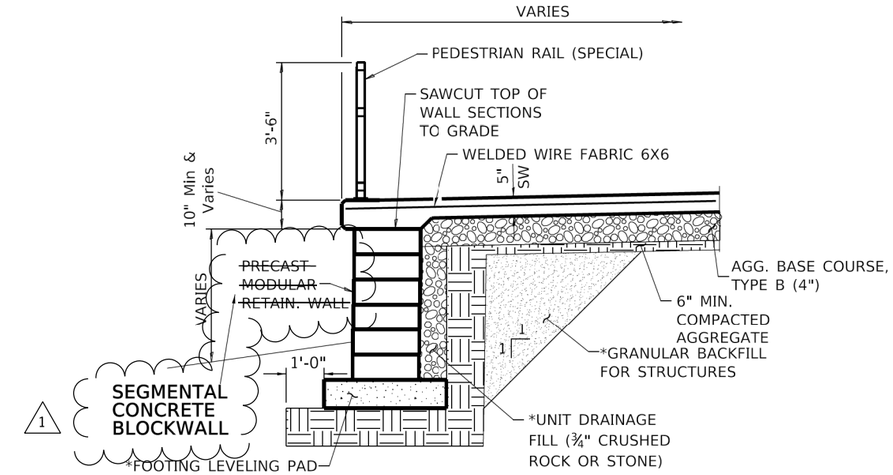


NW QUADRANT ~~PRECAST MODULAR RETAINING~~ WALL ELEVATION

(LOOKING NORTH)



ELEVATION



TYPICAL SECTION THRU PATH

*COST INCLUDED IN ~~PRECAST MODULAR RETAINING WALL~~ SEGMENTAL CONCRETE BLOCKWALL

1

BILL OF MATERIAL

1 SEGMENTAL CONCRETE BLOCKWALL

ITEM	UNIT	TOTAL
~~PRECAST MODULAR RETAINING WALL~~	SQ. FT.	112
BICYCLE RAIL	FOOT	48

REVISION	DATE	BY	REMARKS
1	3/26/26	ATK	RETAINING WALL MATERIAL CLARIFICATION

DESIGNED CJI
DRAWN CJI
REVIEWED GBC
APPROVED ATK

GRUNDY COUNTY HIGHWAY DEPARTMENT
F.A.S. 293 (RICE RD.) OVER E. FORK MAZON RIVER
2026

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ENGINEERING ARCHITECTURE LAND SURVEYING
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PRECAST MODULAR RETAINING WALL DETAILS
STRUCTURE NO. 032-3336
STRUCTURAL SHEET 28 OF 46 SHEETS

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
293	24-00202-00-BR	GRUNDY	91	61
CONTRACT# 87893		WHA# 1464D24		
ILLINOIS				