Mainelli Wagner & Associates, Inc.

www.mwaeng.com 6920 Van Dorn Street, Suite A, Lincoln, NE 68506 Phone: (402) 421-1717 Fax: (402) 421-6061

November 29, 2018

RE: C-67(231), Table Rock Northwest
Structure C006713510
Pawnee County Bridge Project

Attached is Addendum No. 1 for the above referenced project. Please make the following changes to the Contract Documents as set forth below.

Sincerely,

MAINELLI WAGNER & ASSOCIATES, INC.

Jeff Wagner, P.E.

November 29, 2018

C-67(231), Table Rock Northwest
Structure No. C006713510
Pawnee County Bridge Project

ADDENDUM NO. 1

This addendum adds Plan Quantities for two items on the Proposal Form. The added items are 1-34 (Rock Riprap, Type "B") and 1-35 (Riprap Filter Fabric). Please replace the affected sheet with the one attached hereto and noted by "Addendum No. 1" on the lower right corner of the page.

These items were also added to Plan sheets 6, 7 and 11 (sheets 1, 2 and 6 of 12 of the bridge plans). Please replace the affected sheets with those attached.

Bid Documents and Specifications Page Affected

- **Page 11 and 12 (Addendum No. 1)**

Plan Sheets Affected

- **Page 6, 7 and 11 (sheets 1, 2 and 6 of 12 of the bridge plans)**

1-12.	782.000	Fabric Silt Fence, Low Porosity	Lin. Ft.	_____	_____
1-13.	90.000	Fabric Silt Fence, High Porosity	Lin. Ft.	_____	_____
1-14.	1.400	Covercrop Seeding	Acres	_____	_____
1-15.	6,776.000	Erosion Control, Class 1D	Sq. Yds.	_____	_____
1-16.	1.000	Access Crossing	Lump Sum	_____	_____
1-17.	300.000	Temporary Silt Fence	Lin. Ft.	_____	_____
1-18.	1.000	Abutment No. 1 Excavation	Lump Sum	_____	_____
1-19.	1.000	Bent No. 1 Excavation	Lump Sum	_____	_____
1-20.	1.000	Bent No. 2 Excavation	Lump Sum	_____	_____
1-21.	1.000	Abutment No. 2 Excavation	Lump Sum	_____	_____
1-22.	261.400	Class 47B-3000 Concrete For Bridge	Cu. Yds.	_____	_____
1-23.	142.500	Class 47BD-4000 Concrete for Bridge	Cu. Yds.	_____	_____
1-24.	1.000	Precast-Prestressed Concrete Superstructure@ Sta. 42+95	Lump Sum	_____	_____
1-25.	39,550.000	Reinforcing Steel for Bridge	Lbs.	_____	_____
1-26.	4,149.000	Structural Steel for Substructure	Lbs.	_____	_____
1-27.	3,540.000	Steel Sheet Piling	Sq. Ft.	_____	_____
1-28.	700.000	HP 10"x42 lbs. Steel Piling	Lin. Ft.	_____	_____
1-29.	410.000	HP 12"x53 Steel Piling	Lin. Ft.	_____	_____
1-30.	100.000	HP 10"x42 lbs. Test Pile	Lin. Ft.	_____	_____
1-31.	90.000	HP 12"x53 lbs. Test pile	Lin. Ft.	_____	_____

1-32.	12.000	HP 10"x42 lbs. Pile Points	Each	_____	_____
1-33.	18.000	HP 12"x53 lbs. Pile Points	Each.	_____	_____
1-34.	98.000	Rock Riprap, Type "B"	Ton	_____	_____
1-35.	165.000	Riprap Filter Fabric	Sq. Yds.	_____	_____

TOTAL FOR PROJECT _____

The Contract will be awarded based on TOTAL FOR PROJECT, in conjunction with the Nebraska County Purchasing Act.

We understand that this will be a lump sum contract and the total contract amount will be obtained by multiplying the Plan Quantities by the associated Unit Prices.

If awarded the contract, we will furnish a surety bond and certificates of insurance as indicated in the Contract Documents.

As specified in the Notice to Bidders, we hereby submit this BID BOND CERTIFIED CHECK in the amount of $ _____ (5% of total bid). This bond will become the property of Pawnee County if an award is offered within thirty days after the bid opening and we, as the successful bidder, fail to enter into a contract with Pawnee County.

Start of Construction Date: _____

End of Construction Date: _____

Sincerely,

_____ (signature)

_____ (printed name)

_____ (title)

_____ (company)

_____ (address)

_____ (telephone)

- TABLE ROCK NORTHWEST -

- NOTES -

This structure is designed in accordance with the AASHTO "LRFD Bridge Design Specifications", 8th Edition and subsequent interims.

The superstructure of this bridge is designed by the LRFD method. The girders and substructure are designed for a future wearing surface of 20 psf.

The prestressed girders have been designed assuming 100% continuity at the interior supports for live load.

All dimensions shown are in horizontal plane only. No allowances have been made for vertical curve or roadway cross slope.

All details are not to scale unless otherwise noted.

The contractor may substitute any one of the alternate designs shown on the plans for the original design. All quantities are based on the original design and no additions or deductions will be allowed for the use of an alternate design.

Concrete for slab, diaphragms, turndowns, and rails shall be Class "47BD", with a 28-day strength of 4000 psi.

All other cast-in-place concrete shall be Class "47B" concrete, with a 28-day strength of 3000 psi.

All reinforcing steel shall conform to the requirements of ASTM A615, Grade 60 steel.

The minimum clearance, measured from the face of the concrete to the surface of any reinforcing bar, shall be 3", except where otherwise noted.

All other structural steel shall conform to the requirements of ASTM A709/A709M, Grade 36.

The item, "STRUCTURAL STEEL FOR SUBSTRUCTURE", shall include: the tie rods and hardware, nose angles at the bents and studs, and end of floor angles and studs.

Tie Rods shall conform to ASTM A709/A709M, Grade 36 Steel. Turnbuckles shall conform to ASTM A668 Class C. After fabrication, both shall be given a 3-mil dry-film thickness of primer in accordance with the specifications for Painting Structural Steel; the vinyl finish coat is not required.

After fabrication, end of floor angles and nose angles at the bents shall be given a 3-mil dry-film thickness of primer in accordance with the specification for Painting Structural Steel: The vinyl finish coat is not required.

As an alternate, after fabrication, tie rods and turnbuckles, nose angles, and end of floor angles may be galvanized according to ASTM A123/A123M, in lieu of painting as per 2017 NDOT Standard Specification 709.03.

Prestressed concrete girders must be at least 9 days old before they can be set on the Bridge substructure. Surveying for shim shots, forming bridge deck, turndowns, or diaphragms and placing construction material on the girders is not allowed until the girders have reached design strength and are at least 30 days old. The shim shots may be taken before or after the turndowns and diaphragms are poured. All girder lines and spans shall be set before the shims are calculated. Shim shots are valid for 60 days. If the deck is not placed within 60 days, shim shots must be retaken, shims may be adjusted, and all costs shall be subsidiary to the Pay Item "CLASS 47BD-4000 CONCRETE FOR BRIDGE".

Girder shims that will be provided to the Contractor account for the dead load deflection due to weight of the slab and rail only. The Contractor is responsible for making the necessary adjustments for the particular forming system used to achieve the slab grades and elevations shown on the plans.

The Contractor must provide any temporary intermediate diaphragms and/or bracing necessary to provide lateral and torsional stability for the girders during construction of the concrete slab. The temporary intermediate diaphragms/bracing shall be removed after the concrete slab has attained 75% of its design strength. The cost for furnishing, installing and removing the temporary intermediate diaphragms and/or bracing shall be subsidiary to the Pay Item "CLASS 47BD-4000 CONCRETE FOR BRIDGE".

All welds and sizes shall be as shown or must meet the provisions of ANSI/AASHTO/AWS D1.5 Bridge Welding Code as a minimum.

SBS Modified Base Sheet shall be modified bitumen roofing material, with a minimum thickness of 0.090 inches and a minimum weight of 60 lbs. per 100 sq. ft.

The number of reinforcing steel splices in these plans are based on a 60'-0" bar length. No adjustments will be made to the quantities shown if the Contractor requires additional splices. Additional splice lengths will be the splice lengths given in these plans for that particular bar size or as approved by the Engineer. Splices must be staggered.

- QUANTITIES -

ABUTMENT NO. 1 EXCAVATION		1	Lump Sum
BENT NO. 1 EXCAVATION		1	Lump Sum
BENT NO. 2 EXCAVATION		1	Lump Sum
ABUTMENT NO. 2 EXCAVATION		1	Lump Sum
CLASS 47B-3000 CONCRETE FOR BRIDGE		261.4	Cu. Yd.
ABUTMENTS	68.1 Cu. Yd.		
BENTS	185.3 Cu. Yd.		
DEADMAN	8.0 Cu. Yd.		
CLASS 47BD-4000 CONCRETE FOR BRIDGE		142.5	Cu. Yd.
SLAB	119.6 Cu. Yd.		
CONCRETE RAILS	22.7 Cu. Yd.		
PRECAST/PRESTRESSED CONCRETE SUPERSTRUCTURE AT STA. 42+95		1	Lump Sum
GIRDERS	125.3 Cu. Yd.		
REINFORCING STEEL FOR BRIDGE		39,550	Lbs.
SLAB	22,519 Lbs.		
CONCRETE RAILS	4,653 Lbs.		
ABUTMENTS	4,417 Lbs.		
BENTS	7,349 Lbs.		
DEADMAN	612 Lbs.		
STRUCTURAL STEEL FOR SUBSTRUCTURE		4,149	Lbs.
STEEL SHEET PILING		3,540	Sq. Ft.
HP 10 in x 42 lbs STEEL PILING		700	Lin. Ft.
HP 12 in x 53 lbs STEEL PILING		410	Lin. Ft.
HP 10 in x 42 lbs TEST PILE		100	Lin. Ft.
HP 12 in x 53 lbs TEST PILE		90	Lin. Ft.
HP 10 in x 42 lbs PILE POINTS		12	Each
HP 12 in x 53 lbs PILE POINTS		18	Each
ROCK RIPRAP, TYPE B		98	Tons
RIPRAP FILTER FABRIC		165	Sq. Yds.

- INDEX -

Shop plans for review:
Prestressed Concrete Superstructure
Substructure Steel
Steel Sheet Piling

PROJECT NUMBER	SHEET NO.
C-67(231)	6

C.N.

STRUCTURE NUMBER
C006713510

160'-0" THREE SPAN PRESTRESSED CONCRETE IT-600 GIRDER BRIDGE
NEW STRUCTURE
GENERAL NOTES, QUANTITIES, & INDEX

LOCATION TABLE ROCK NORTHWEST
SKEW 35° RHB
ROADWAY 28'-0" CLEAR
DESIGN LIVE LOAD HL93
DETAILED BY: AJE **CHECKED BY:** MWM **DATE:** NOVEMBER 21, 2018
DESIGNED BY: JJW

COUNTY PAWNEE
HWY. NO. N/A
REF. POST. N/A
STA. 42+95.00

MAINELLI WAGNER & ASSOC., INC. LINCOLN, NE PH 421-1717 FAX 421-6061

Nebraska

PROFESSIONAL CIVIL ENGINEER MARK W. MAINELLI E-6795 STATE OF NEBRASKA

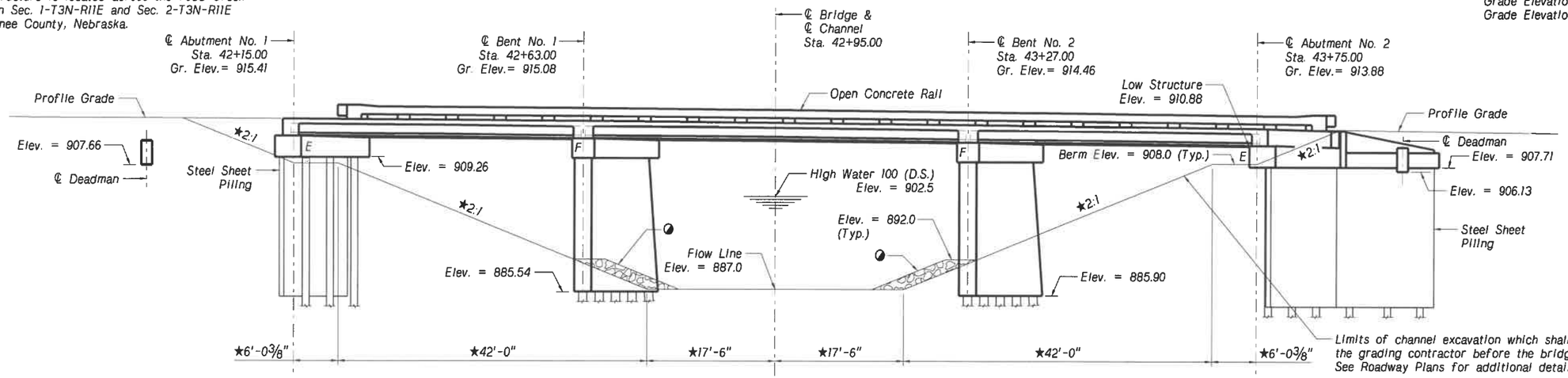
PROFESSIONAL CIVIL ENGINEER JEFFREY J. WAGNER E-7853 STATE OF NEBRASKA

Nov. 29, 2018

SPECIAL PLAN NO.	
1	1/12

NOTE:
This structure is located across the Todd Creek between Sec. 1-T3N-R11E and Sec. 2-T3N-R11E In Pawnee County, Nebraska.

NOTE:
Grade Elevations shown are Profile Grade Elevations at ℄ Roadway.



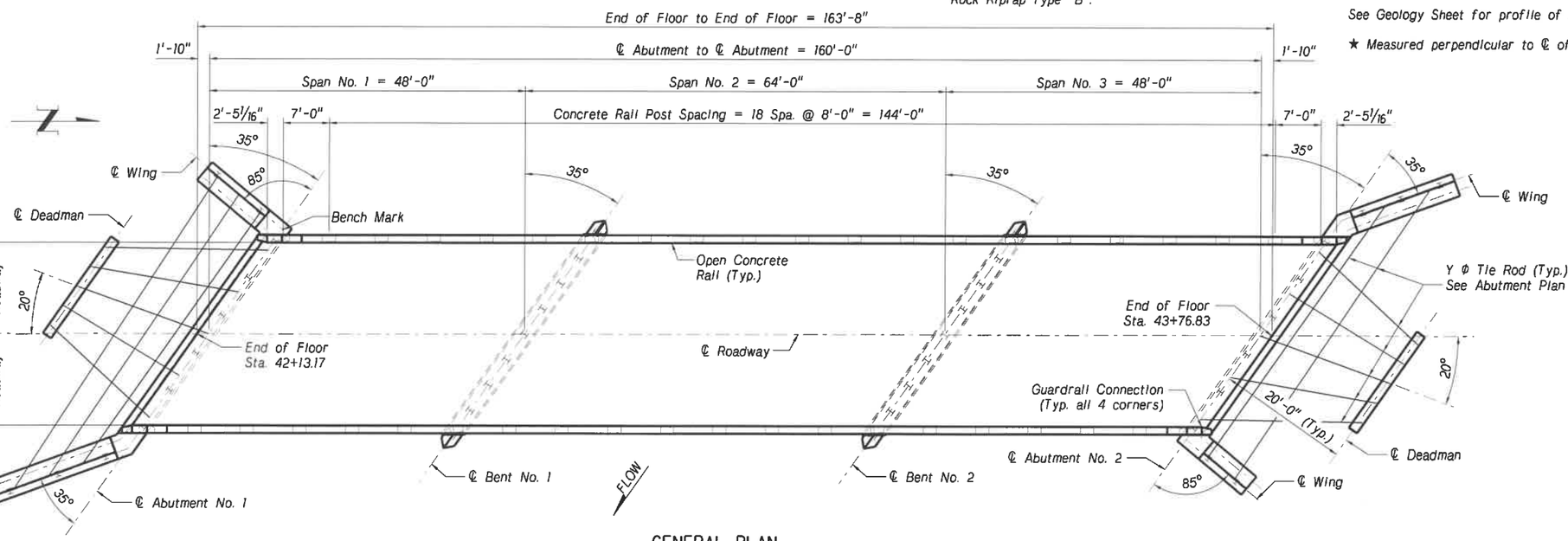
SECTIONAL ELEVATION

❍Type "B" rock riprap, 2'-0" thick, placed on filter fabric. See Sheet 6 of 12 for Plan of Rock Riprap Type "B".

Backfill at Abutments shall be furnished and compacted by the Contractor as prescribed in Subsection 702.03 in the Standard Specifications.

See Geology Sheet for profile of natural ground.

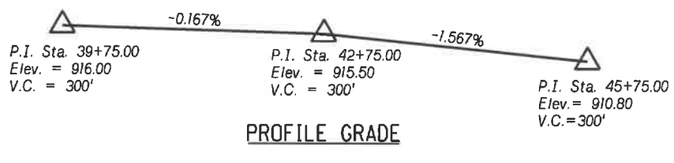
★ Measured perpendicular to ℄ of Supports



GENERAL PLAN

BRIDGE HYDRAULIC INFORMATION

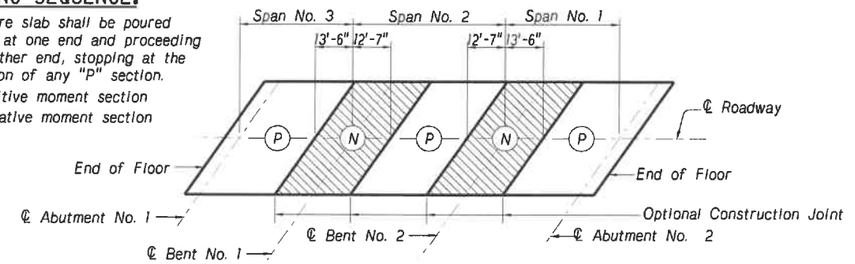
STREAM: TODD CREEK
D.A. = 30.8 SQ. MI.
Q100 = 14,325 CFS (DESIGN FLOOD)
H.W. ELEV. = 902.5 (D. S. SIDE)
W.W.A. BELOW H. W. = 929.4 SQ. FT.
Q100 GENERAL SCOUR = 3 FT.
Q100 LOCAL SCOUR = 8 FT.
Q500 SCOUR ELEVATION = 879.3 FT.



PROFILE GRADE

POURING SEQUENCE:

The entire slab shall be poured starting at one end and proceeding to the other end, stopping at the completion of any "P" section.
(P)=Positive moment section
(N)=Negative moment section



POURING DIAGRAM

PROJECT NUMBER	SHEET NO.
C-67(231)	7

C.N.

STRUCTURE NUMBER C006713510

160'-0" THREE SPAN PRESTRESSED CONCRETE
IT-600 GIRDER BRIDGE
NEW STRUCTURE
GENERAL PLAN & ELEVATION

DATE: NOVEMBER 21, 2018

CHECKED BY: MWM

DETAILED BY: AJE

DESIGNED BY: JJW

LOCATION TABLE ROCK NORTHWEST
SKEW 35° RHB
ROADWAY 28'-0" CLEAR
DESIGN LIVE LOAD HL93

COUNTY PAWNEE
HWY. NO. N/A
REF. POST. N/A
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Nov. 29, 2018

SPECIAL PLAN NO.	
1	2 / 12

ABUTMENT BILL OF BARS

MARK	NO.	LENGTH	TYPE	BAR SIZE	"A"	"B"	"C"	"D"	"E"	"F"	PIN	HOOK	WEIGHT LBS.
A601	26	41'-11"	STR.	6									1637
A602	22	3'-7"	STR.	6									118
A401	80	14'-6"	108	4	2'-1"	3'-1"	2'-1"	1'-0"min.			2"		775
A402	13	21'-0"	Str.	4									182
A403	20	6'-6"avg.	107	4	4'-4"max.	8"	4'-4"max.				2"		87
					1'-6"min.	8"	1'-6"min.				2"		
A404	32	12'-2"	108	4	1'-6"	3'-1"	1'-6"	1'-0"min.			2"		260
A405	14	13'-9"	105	4	3'-1"	1'-9"	3'-5"	3'-3"	1'-6"	3'-0½"	2"	4½"	129
A406	24	5'-5"	Str.	4									87
A407	2	21'-3"	106	4	19'-2"	2'-1"	3⅜"				2"		28
A408	2	14'-11"	Str.	4									20
A409	2	8'-5"	Str.	4									11
A410	13	12'-7"	Str.	4									109
A411	12	6'-5"avg.	107	4	4'-3"max.	8"	4'-3"max.				2"		51
					1'-6"min.	8"	1'-6"min.				2"		
A412	14	13'-0"	104	4	3'-1"	1'-1"	3'-7"	0'-9"	3'-9"	0'-5⅛"	2"	4½"	122
A413	24	5'-3"	Str.	4									84
A414	2	12'-11"	106	4	11'-4"	1'-7"	4½"				2"		17
A415	2	5'-4"	Str.	4									7
A416	2	9'-1"	Str.	4									12
A417	4	15'-6"	108	4	2'-0"	3'-9"	2'-0"	1'-0"min.			2"		41
A422	13	18'-0"	Str.	4									156
A423	17	6'-4"avg.	107	4	4'-2"max.	8"	4'-2"max.				2"		72
					1'-6"min.	8"	1'-6"min.				2"		
A424	26	12'-2"	108	4	1'-6"	3'-1"	1'-6"	1'-0"min.			2"		211
A427	2	18'-3"	106	4	16'-3"	2'-0"	3⅜"				2"		24
A428	2	12'-9"	Str.	4									17
A429	2	7'-3"	Str.	4									10
A430	13	9'-7"	Str.	4									83
A431	9	6'-6"avg.	107	4	4'-4"max.	8"	4'-4"max.				2"		39
					1'-6"min.	8"	1'-6"min.				2"		
A434	2	10'-1"	106	4	8'-6"	1'-7"	4½"				2"		13
A435	2	7'-1"	Str.	4									9
A436	2	4'-4"	Str.	4									6

TOTAL = 4,417 LBS.

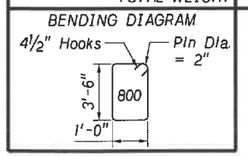
BAR SETS

MARK	MAX. LENGTH	MIN. LENGTH	NO. OF SETS	BARS PER SET
A403	9'-4"	3'-8"	1	20
A411	9'-2"	3'-8"	1	12
A423	9'-0"	3'-8"	1	17
A431	9'-4"	3'-8"	1	9

BILL OF BARS

MARK	NO.	LENGTH	TYPE	WEIGHT LBS.
D401	38	9'-9"	800	247
D501	20	17'-6"	Str.	365
TOTAL WEIGHT				612

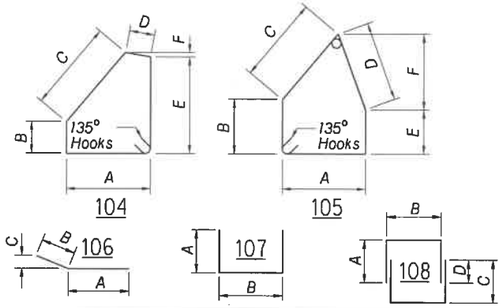
BENDING DIAGRAM

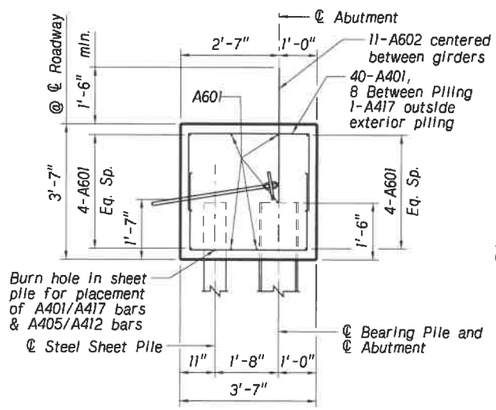


BENDING DIAGRAMS

ALL DIMENSIONS ARE OUT TO OUT & NOT TO SCALE.

SEE SHEET 12 OF 12 FOR PIN DIAMETER AND HOOK LENGTH.





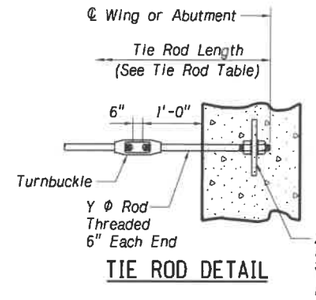
SECTION OF ABUTMENT

NOTE:
Adjust Tie Rod Angle as necessary to match Deadman Tie Rod height.

TIE ROD TABLE

TIE ROD	Y	LENGTH
A	1¼"	47'-5"
B	1¼"	52'-4"
C	1¼"	57'-4"
D	1¼"	24'-9"
E	1¼"	22'-8"
F	1¼"	21'-3"
G	1¼"	20'-7"
H	1¼"	20'-8"
I	1¼"	47'-5"
J	1¼"	53'-10"

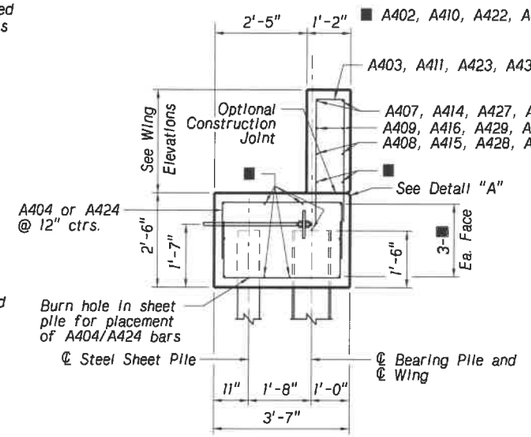
NOTE:
Quantity for Substructure Steel includes a 10 lb. allowance for plates and nuts per end.



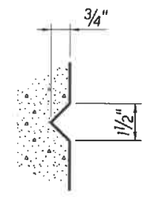
TIE ROD DETAIL

NOTES:
If tie rod elevations differ from plans, Contractor shall ensure there is no conflicts with the Approach Rail Posts.

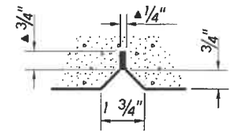
Contractor may notch the Sheet Pile for placement of the A405 or A412 bars if the bar can not be placed in holes. No other notches will be allowed for any other bar, only holes.



SECTION OF WING



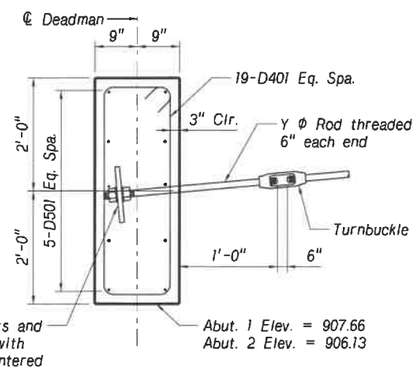
DETAIL "A"



CONTROL JOINT DETAILS

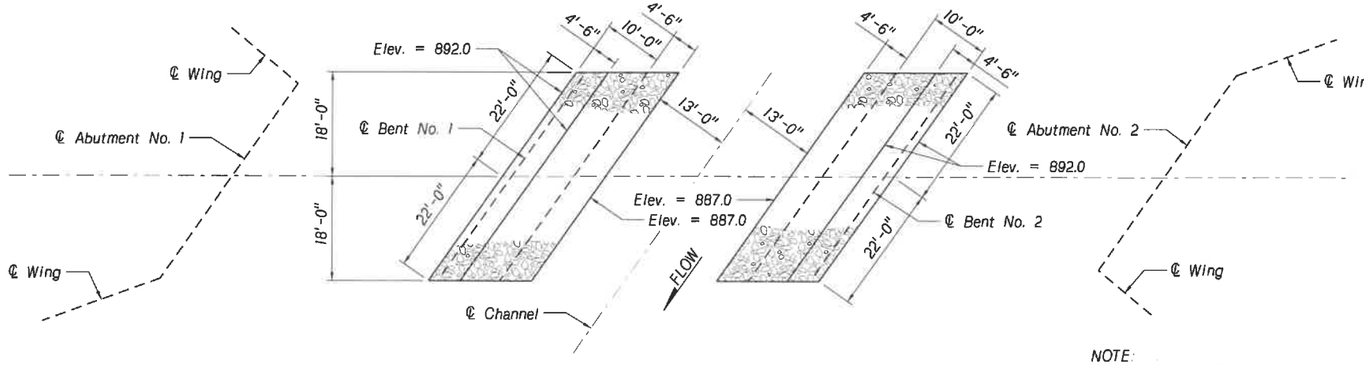
NOT TO SCALE

▲ Fill with an approved type of plastic masonary caulking compound.



DEADMAN SECTION

NOTE:
Adjust Tie Rod Angle as necessary to match Abutment Tie Rod height.



PLAN OF ROCK RIPRAP TYPE "B"

NOTE:
No deduction to Rock Riprap quantity for Bent areas.

PROJECT NUMBER	SHEET NO.
C-67(231)	11

C.N.

STRUCTURE NUMBER C006713510

160'-0" THREE SPAN PRESTRESSED CONCRETE
IT-600 GIRDER BRIDGE
NEW STRUCTURE
ABUTMENT DETAILS

LOCATION TABLE ROCK NORTHWEST
SKEW 35° RHB
ROADWAY 28'-0" CLEAR
DESIGN LIVE LOAD HL93

DETAILED BY: AJE **CHECKED BY:** MWM **DATE:** NOVEMBER 21, 2018

COUNTY PAWNEE
HWY. NO. N/A
REF. POST. N/A
STA. 42+95.00

DESIGNED BY: JJW

MAINELLI WAGNER & ASSOC., INC. LINCOLN, NE PH 421-1717 FAX 421-6061

Nebraska

PROFESSIONAL CIVIL ENGINEER MARK H. MAINELLI E-6795 STATE OF NEBRASKA

PROFESSIONAL CIVIL ENGINEER JEFFREY J. WAGNER E-7853 STATE OF NEBRASKA

Nov 29, 2018

SPECIAL PLAN NO.	
1	6 / 12