

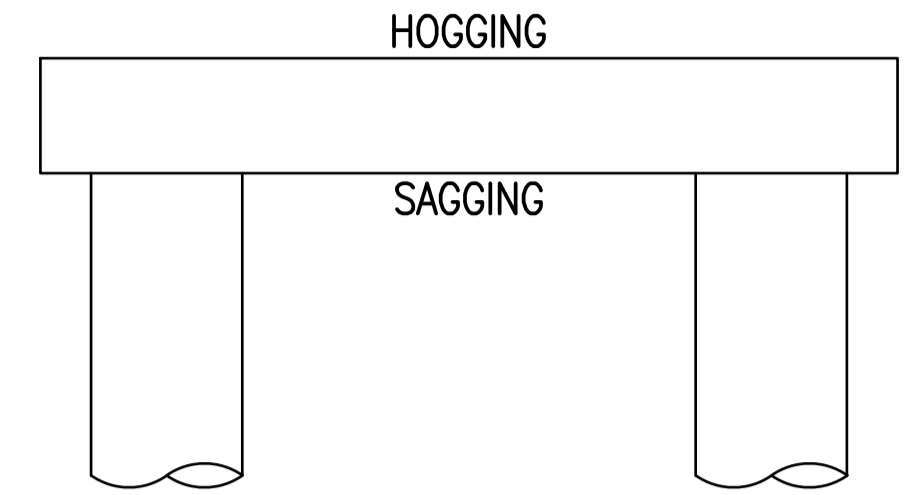
GENERAL

- THESE DRAWINGS shall be read in conjunction with all reference drawings and specifications. All discrepancies shall be referred to the designer for decisions before proceeding with work.
- DESIGN STANDARDS are in accordance with AASHTO LRFD Bridge Design Specification 9th Edition.
- NO FILLING to be placed above the soffit of the abutment headstocks until at least seven days after erection of the end spans and casting of the deck.
- Provide materials and perform work in accordance with Specifications, Publication 408.

- BRIDGE DESIGN requires all concrete elements to have reached the strength as prescribed prior to applying traffic loads.
- ASPHALT shall not be applied until the concrete strength as prescribed is achieved.

- WELDING symbols conform to AWS D1.1
- ALL STEELWORK to be hot dip galvanized to ASTM A123 unless shown otherwise. Prior to galvanising, all weld splatter and welding slag is to be removed.
- ALL BOLTS, NUTS AND COUPLERS to be hot dip galvanized in accordance with their ASTM Specifications. Washers to be hot dip galvanized in accordance with ASTM A153 unless shown otherwise.
- BOLTING category for commercial bolts shall be in accordance with ASTM A325.
- BOLTS shall be in accordance with ASTM A325.
- NUTS shall be in accordance with ASTM A563.
- WASHERS shall be in accordance with ASTM F436.
- DAMAGED GALVANISED SURFACES shall be repaired with a suitable two pack organic rich zinc rich primer.
- STAINLESS STEEL sheet and plate to ASTM A240.
- ALL DISSIMILAR metals must be separated with an approved synthetic insulation.
- STAINLESS STEEL BOLTS to be in accordance with F593 grade 304.
- STAINLESS NUTS to be in accordance with F594 grade 304.
- STAINLESS WASHERS should be in accordance with SS304 or SS316 grade 304.

Note: The flexural and shear effects are dependent upon concurrent forces which may not be captured in the capacity tables above and need to be verified by the site-specific designer.



DESIGN CRITERIA

Bridge Temperature range	+/- 80°F
Concrete unit weight	Reinforced concrete = 150 pcf
Dense graded Asphalt deck wearing surface allowance	30 psf
Standard highway loading	HL-93 consisting of; -Design truck or design tandem -Design lane load
Dynamic load allowance	In accordance with AASHTO LRFD BDS
Bridge traffic barriers	Compatible with - Test Level 3 - Test Level 4
Regional wind	Design Wind Speed 115mph Wind Exposure Category D Drag Coefficient 1.3
Design life	75 years*

COVER TO REINFORCEMENT

THE MINIMUM CLEAR COVER to steel reinforcement to be as follows

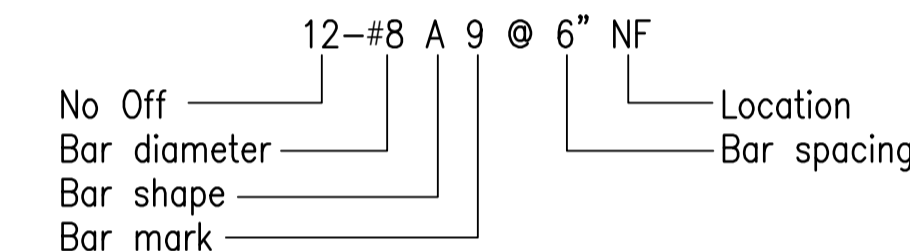
Abutment Headstock and Wingwalls	Cast against earth	3 in
	Other	2 in
Deck Panels	Exposed surfaces	2.5 in
	Other	2 in
Pier Headstock	All surfaces	2 in

Cover to ties and stirrups may be 0.5 in. less than the values specified in table above

REINFORCEMENT

ALL STEEL REINFORCEMENT to be per ASTM A706 Grade 60ksi galvanized or equal.

- LAP SPLICES to be per local State Specifications requirements.
- DESIGNATION OF REINFORCEMENT bars is as follows:



NOTATION

- EF - Denotes 'Each Face'
- BF - Denotes 'Bottom Face'
- TF - Denotes 'Top Face'
- NF - Denotes 'Near Face'
- FF - Denotes 'Far Face'
- ES - Denotes 'Equally Spaced'
- LV - Denotes 'Length Varies'
- ALT- Denotes 'Alternate Bar'
- CJ - Denotes 'Construction Joint'

- ALL HOOKS AND BENDS to be Standard per AASHTO LRFD BDS and State specific Specifications.
- REINFORCEMENT may be displaced slightly to clear pile reinforcement, dowels, anchors bolts, girder starter bars and formed holes where necessary.
- REINFORCING BARS shown on the drawings are represented diagrammatically and not necessarily in true projection. Reinforcing bars to be laid coplanar to maintain specified clear concrete cover.
- WELDING OF REINFORCEMENT shall be in accordance with AWS D1.1 and AWS D1.4 Weld strength to be 80ksi min.
- WELDING OF REINFORCEMENT along bends to be verified and approved by the Engineer of Record and Approving Authority.

BEARINGS

- Bearing to be steel-reinforced elastomeric bearings
- Bearing to have two steel plate 0.075in thick, with elastomer cover of 0.25in top and bottom.
- Shear modulus of elastomer to be 110psi.

SITE SPECIFIC DESIGN

- THE SITE SPECIFIC DESIGNER shall be responsible for determining the design actions and verifying that the calculated actions imposed on the InQuik elements are within the capacities listed in table below.
- CAPACITIES listed based on 5ksi concrete strength for traffic loading. Where higher grade concrete is used site specific designer to demonstrate adequate strength is achieved in reduced time.

DECK PANELS

Span Length (ft-in)	Section Capacity (per beam)	Capacity (kip-ft, kip)
60'-8"	Strength Moment (Hogging)	-1444
	Strength Moment (Sagging)	2592
	Strength Shear	225
52'-10"	Strength Moment (Hogging)	-1429
	Strength Moment (Sagging)	2281
	Strength Shear	223
44'-11"	Strength Moment (Hogging)	-885
	Strength Moment (Sagging)	1470
	Strength Shear	138
39'-8"	Strength Moment (Hogging)	-867
	Strength Moment (Sagging)	1158
	Strength Shear	144
29'-10"	Strength Moment (Hogging)	-881
	Strength Moment (Sagging)	1161
	Strength Shear	153
20'-0"	Strength Moment (Hogging)	-893
	Strength Moment (Sagging)	1164
	Strength Shear	160

ABUTMENTS - SPAN BETWEEN PILES

Location	Section Capacity	Capacity (kip-ft/ft, kip/ft)
Top (Integral Connection)	Strength Moment (Hogging)	-250
	Strength Shear	40
Bottom	Strength Moment (Hogging)	-408
	Strength Moment (Sagging)	183
	Strength Shear	44

DIMENSIONS / HEIGHTS

- DIMENSIONS shall not be scaled from the drawings.

CONCRETE

- ALL CONCRETE work shall be in accordance with state specifications.
- CONCRETE to be used in each element of work shall be in accordance with the table below, unless noted otherwise on the relevant drawings.

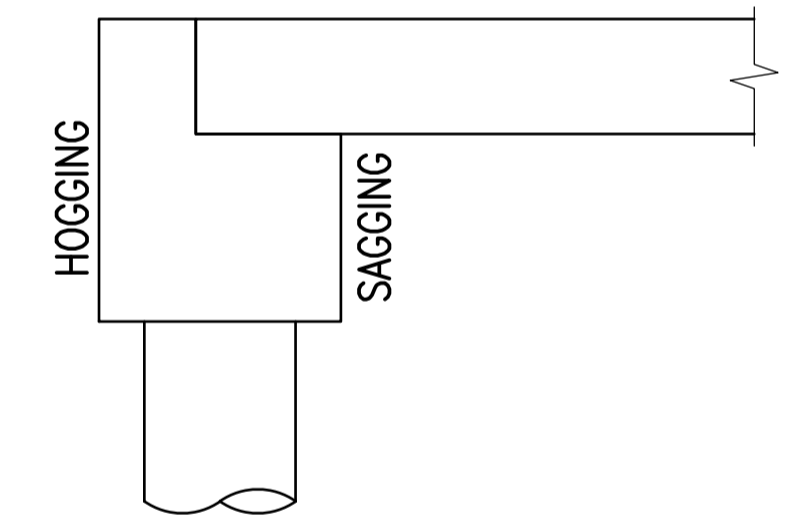
ELEMENTS	STRENGTH
Blinding Concrete	3ksi
Abutment headstock and wingwall	5ksi
Deck Slab and cross girders	5ksi*
Insitu Concrete Barrier	5ksi
Pier Headstock	5ksi

Note: * Unless the concrete strength is specified on detailed drawing

- EXPOSED EDGES shall be chamfered 3/4" x 3/4" & re-entrant angles filleted 8"x8" unless specified otherwise.
- THE PLACING OF CONCRETE shall be carried out in one continuous operation unless specified otherwise.
- CONSTRUCTION JOINTS shall be prepared per project specifications and used only as shown on the drawings.

PIER HEADSTOCKS

Section Capacity	Capacity (kip-ft/ft, kip/ft)
Strength Moment (Hogging)	-1924
Strength Moment (Sagging)	1354
Strength Shear	534



Last Modified: Oct 23, 2024 - 3:32pm XREFS :-

REV	DATE	DESCRIPTION	DRAWN	CHECK	REV	DATE	DESCRIPTION	DRAWN	CHECK
R	04.03	DRAWING UPDTAED	JZ	MW					
Q	02.01	CR370 DECK PANEL UPDATED	JZ	MW					
P	21.08	BEARING CR370 DECK PANEL UPDATED	JZ	MW					
O	19.05	DETAILS OF BEARING CR370 ADDED	JZ	MW	U	23.10	INTEGRAL DETAIL IN ABUTMENT WITH RECESS	JZ	MW
N	11.04	DRAWING UPDATED	JZ	MW	T	31.05	DRAWING UPDATED	JZ	MW
M	05.04	DRAWING UPDATED AS PER MARKUP	JZ	MW	S	06.05	DRAWING UPDATED	JZ	MW

	DRAWING DESCRIPTION	INQUIK BRIDGING SYSTEMS GENERAL NOTES SHEET 1			
	DRAWING NUMBER	BR-0002	DRAWN BY	J.ZHU	
		CHECKED	M.WRIGHT	DIMENSIONS	FT-INCHES
		APPROVED	B.MULLANEY	SCALE	NOT TO SCALE