GENERAL NOTES

① LIST OF DRAWINGS

DIAGRAMS

E1A- } Elevation of Bridge & Anchor bolt plan
E1- }
E2 to E9 - Truss erection diagrams
E10 - Expansion & Contraction joints
E11 - Cross Section - Miscl. sketches.
E12 - General Erection Notes
E13 - Platforms & Ladders for river Gauge at Pier #2
E51 - Elevation of Approach Spans & Anchor bolt plan
E52 - Erect. diag. approach spans - simple spans
E53 - " " - cantilever spans.

CONTRACT CC35931

TRUSS MEMBERS
DIVISION-A - PANELS 12 TO 38 INC.
Bottom Chords - 1 to 13 Inc. - 36, 37
Top Chords - 14 to 22 Inc. - 38, 39, 40
Diagonals - 23 to 31 Inc. - 35
Verticals - 32 to 34 Inc.

TRUSS MEMBERS
DIVISION-B - PANELS 38 TO 63
Bottom Chords 57 to 71 Inc.
Top Chords - 41 to 44 Inc. 44A, 45 to 49 Inc. 51 to 56 Inc.
Diagonals - 72 to 81 Inc. 83.
Verticals - 82, 84 to 87 Inc., 50.

TRUSS MEMBERS
DIVISION-C - PANELS 0 TO 12
Bottom Chords - 98 to 103 Inc.
Top Chords - 91 to 97 Inc.
Diagonals - 104, 105, 106
Verticals - 107, 108, 109

TRUSS MEMBERS
DIVISION-D - PANELS 63 to 88
Bottom Chords - 125 to 140 Inc.
Top Chords - 111 to 124 Inc.
Diagonals - 141 to 151 Inc.
Verticals - 152 to 155 Inc.

CONTRACT CC35932

Truss Bracing
DIVISION-E - PANELS 14 TO 60;
Top chord bracing - 201, 202, 204, 205, 206.
Top chord struts - 203, 207,
Portal struts - 208, 209,
Sway bracing - 211, 212
Sway & Portal bracing - 213
Portal - 214, 215
Struts top of tower - 216
Wind struts - 218, 228
Bottom chord bracing - 219, 220, 221, 223 to 227 Inc., 230, 231

TRUSS BRACING
DIVISION-F - PANELS 0 to 14 & 60 to 88
Top chord bracing - 204, 205, 206
Top chord struts - 207
Portal struts - 208, 209, 210
Sway bracing - 211, 212
Sway & Portal bracing - 213
Portal - 214, 215
Struts top of tower - 217
Wind struts - 218, 228
Bottom chord bracing - 221, 222, 231 to 235 Inc., 229

CONTRACT CC35933

TRUSS FLOOR SYSTEM
DIVISION-E - PANELS 14 to 60
Floor beams - 301 & 303 Inc. 305 to 310 Inc.
Cross beams - 312
Stringers - 313 to 319 Inc.

TRUSS FLOOR SYSTEM
DIVISION-F - PANELS 0 to 14; 60 to 88
Floor beams - 303 to 309 Inc. 311
Cross beams - 312
Stringers - 314, 315, 320 to 327 Inc.

CONTRACT CE3593

DIVISION - E & F (Truss Span)
Curbs - 411 to 416 Inc.
DIVISION G (Approach Spans)
Curbs - 457 & 458

CONTRACT CC35934

DIVISION - E & F (Truss Span)
Railing - 401
Contraction joints - 402 - Ladders, etc. 403
Expansion grating - 431
DIVISION G (Approach Spans)
Brdg. railing, dams, etc., 451 to 456 Incl.

CONTRACT CC35935

Bearings - 501, 502 (Truss Span)
Links, pins, etc., 503, 504 (Truss Span)
Bearings - 551 (Approach Spans)

CONTRACT CC35936

Girders 651 to 658 (Approach Spans)
Floor Beams 659 to 660 (Approach Spans)

CONTRACT CC3593X3

Ladders, platforms, etc., for river gauge at Pier 2; 701, 702 & 703

② ANCHOR BOLTS.

(a) Furnished by Bethlehem Steel Co. and set by others. See notes on sheets E1, E1A and E51 relative to setting same. Note that wind anchorage (shear frame) is to be set by substructure contractor.
(b) Holes are to be drilled in field to suit for swedge bolts anchoring ladders at piers 1, 2 & 3 - see diag. E11.
(c) See note on sheet E1 relative to filling space between anchor bolts and holes with babbit or zinc.

③ ERECTION

By Bethlehem Steel Co. - Pittsburgh District

④ FIELD PAINT

Furnished and applied by Bethlehem Steel Co.
First field coat - one coat of Brown
Second field coat - one coat of Aluminum
(a) A coat of touch up paint (approved shop paint) is to be applied to rivet heads where abrasions occur in shop paint, also to those surfaces (except contact surfaces) where iron oxide paint has been applied in the shop.
(b) Field paint need not be applied to top flanges of cross beams, floor beams, girders, stringers or to inside webs of curb channels, or to surfaces of contraction dams, expansion grating, etc., where concrete abuts.
(c) The first field coat has been applied in the shop to surfaces which will be inaccessible after erection. These surfaces can easily be identified by their color. The second field coat (aluminum) is to be applied shortly before erection of same. In general this condition exists around pin connected joints and expansion connections of curbs, railing, etc.
(d) No field paint is to be applied below the concrete floor until all concrete is in place and steel is cleaned from splash, etc.
(e) Setting drain pipe & tie rods in Pier No 1 Shown on dwg. E1A.

⑤ MISCELLANEOUS MATERIAL & WORK BY OTHERS.

(a) Setting anchor bolts shown on sheets E1, E1A, E13 & E51.
(b) Setting wind anchorage shown on sheets E1 & E1A.
(c) Providing holes, etc. in steelwork for other trades (except those connections shown on design sheet M1 - Lighting diagram and details).
(d) Miscellaneous conduits, junction boxes, navigation lights, roadway lights, etc., shown on design sheet M1.
(e) Setting drain pipe & tie rods in Pier No 1 shown on dwg E1A.

⑥ FIELD CONNECTIONS.

All field connections to be riveted except as listed below. Note that where bolted connections are used that threads are to be burred to prevent loosening of nuts.

(a) Top shoes to trusses at L0 and L88 - 1 5/16" turned bolts, driving fit and flat washers.
(b) Shoes to truss joints at L14, L34, L54 and L74 - 1 5/16" turned bolts, driving fit, thru chord angles, 7/8" rivets thru lateral plates.
(c) Top shoes to girders at Pier 6 - 1 5/16" turned bolts, driving fit and flat washers.
(d) Top shoes to girders at Piers and abutment, except Pier 6, turned bolts and flat washers.
(e) Panels are noted S or F on diagrams E2 to E9 Inc. "S" denotes "Sliding Connection" - "F" denotes "Fixed Connection". For those marked "S" the bottom lateral connection to stringers is to be made by 3/4" machine bolts in 13/16" holes. (for panels L2 to L5 incl., L6 to L9 incl., L10 to L17 incl., L18 to L19, L21 to L23 incl., L24 to L27 incl., L30 to L37 incl., L38 to L40 incl., L41 to L44 incl., L43 to L47 incl., L50 to L57 incl., L58 to L60 incl., L61 to L64 incl., L65 to L67 incl., L71 to L78 incl., L79 to L82 incl., L83 to L86 incl.) Connection in balance of panels, those marked "F", are to be riveted.
(f) Curb channels to curbs at splices - machine bolts, see cross section on sheets E11 and E52.
(g) 18" curb plate to curbs at splices - vertical portion of plate, button head bolts, horizontal portion of plate riveted - see cross section on sheets E11 and E52.
(h) Expansion or contraction dams to floor beams, cross beams, girders, cross frames, etc.; machine bolts, use 1/4" washers where slotted holes occur. See drawing E10 and E52. For contraction dams also see note (o) for welding.
(i) Expansion grating to floor beams, cross beams, girders, etc., machine bolts. Use washers where slotted holes occur. See sketches on sheets E10 and E52.
(j) Railing to posts - button head machine bolts, double nuts and washers - 2" washers for angle rails and 1 1/2" washers for tee rails. Button heads to be on roadway side. Tighten nuts as much as possible, consistant with allowing movement of handrail.
(k) Pins to truss gussets at U19-29-49 & 69. Field welded - see drawing E1 (CC3650).
(l) Ladder connections shown on drawing E13 - Machine Bolts except connections to Truss - Field Riveted

FIELD CONNECTIONS (CONT'D.)

(m) Pin cap plates to pipe sleeves at U19-29-49 & 69. Field welded - see drawing E1 (CC3650)
(n) Mayari-R rivets are to be driven at certain points in bottom chords at L18 and L22. See detail drawings 6 and 8 on CC35931 or Bethlehem Erection Department's drawings ER115 and ER117. Rivet takeoff pages RA1 and 2, Summary MSR401.
(o) Shoes at Piers 1, 2, 3 and 4 to shear frames, 3/8" fillet continuous field weld after shoes are in final position. See drawings E1 and E1A.
(p) Contraction joints to floor beams and cross beams, tack welded after they are aligned, see drawing E10.
(q) Certain bracket connecting stringers to bottom laterals are bolted for shipment to web of stringers while stringers are used as falsework. They are to be field welded, probably before erection in final position. See instructions on drawings 20 and 21, CC36501 and drawings 320, 321, 322, 313, 316, CC35933.

⑦ SPECIAL ERECTION FEATURES.

(a) For erection procedure see drawing ER2. For general plan of erection stages see drawing ER101.
For distribution of steel dead loads see drawings ER102.
For erection stages and loads see drawings ER103 and ER104.
For alterations to members and summary of erection stresses see drawings ER105 and ER106.
For erection deflections see sheets ER107 and ER108.
For division of steel into barge shipments see drawing ER9.
(b) Members should be erected so that marked end is in same relative position as shown on the plan. If on erection diagram the mark is shown at the center of the member the piece is summetrical and can be turned end for end.
(c) Portions of falsework and grillages are to be used as members of permanent structure after they have served their purpose as falsework. Instructions for converting these members into permanent members are given on dwg 5, 6, 7, 10, 12, 13, 20 and 21 on Contract CC36501.
Erector will note that all members of permanent structure used temporarily as falsework, etc., have piece marks with suffix "E" as SD10E, M73 - L74N (E) etc.
For falsework see diagrams E2, E201 & E202 (CC36501) also see Erection Department's drawings ER20, ER21, ER22, ER23, ER25, ER113, ER114, ER115, ER116, ER117, ER118, ER119, ER120, ER126, ER127, ER131, and ER132, ER123, ER135, ER136, ER137, for instructions relative to burning off brackets in field at L18, L20 or other various instructions.
Note that at various points plug rivets will have to be driven after temporary lateral plates, etc. have been removed.
(d) Truss verticals are marked ⊗ at low end on face toward L0.
(e) All diagonals are marked ⊗ at low end on upper face of member.
(f) Stringers have been fabricated with lengths conforming to distance between floor beams with all steel erected and span swung. Connections to floorbeams shall not be riveted until this stage of erection is reached.
(g) Lengths of lateral, portal and sway bracing.
(1) Where dead load stress in bridge member is tension the length of bracing conforms to shop length of bridge member.
(2) Where dead load stress in bridge member is compression the length of bracing conforms to length of bridge member for half the dead load stress.
(3) Connections to bracing should not be riveted until an erection condition is reached that will give fair holes in connections.
(h) Curbs and handrail have been detailed with lengths conforming to dimensions of structure under full dead load. Connections of curbs to crossbeams, floor beams or brackets shall not be riveted until floor slabs are completed and curbs are aligned. Connections of railing posts to curb support brackets shall not be riveted until floor slabs are completed and railing is aligned. Curb channels, however, must be riveted before concrete is poured.
The tops of curbs or tops of handrails may vary from the required grades and elevations by not more than 1/2 in any 10'-0" of length.

SPECIAL ERECTION FEATURES (CONT'D)

(h cont'd) Vertical adjustment of curbs may be obtained by use of shims under curb support brackets. See cross section on dwgs. E11, E52 and E53. One 1/8" shim has been furnished for 10% of the number of connections. If erector requires more he is to advise (shims are detailed on sheets 416 and 458). Vertical adjustment of rail posts may be obtained by reaming holes in connection of post to curb support brackets.
The curbs and top angle of handrail shall be adjusted to lateral alignment in straight lines parallel to center line of roadway, departing there from not more than 1/8" in 10' of length for curbs or not more than 1/8" at any handrail post. Lateral adjustment of curbs may be obtained by reaming holes in connection of curb support to cross beam or floor beams. Lateral adjustment of railing posts may be obtained by reaming holes in connection of post to curb support brackets. See cross section on E11, E52 and E53.
Rivets have been furnished for normal size holes in normal lengths for above connections. If erector desires oversize rivets due to reaming, or longer rivets due to use of shims, he should so advise.
(i) Forward floor beam should be erected before bottom lateral bracing.
(j) Bottom lateral bracing should be erected before stringers.
(k) 12" channels on shear frame must be removed before shoes are placed at Piers 1, 2, 3 and 4. See section on drawing E1.
(l) See drawings ER124, E1A and (E3 - CC3650) for special condition in erecting shoes, etc., at Pier No 1 (panel point L14). Note that shims are to be driven around shoes. Shoe is to be welded to shims and shims welded to shear frame space between rollers filled with grout, etc. after shoes are in final position. Grouting around rollers is to be with such pressures or heads, and forced into the various groups of holes in such order as to insure complete filling of all spaces with grout, all as approved by the engineer. Note anchor bolt detail to be used after shoe is fixed. See sketch on drawing E1A.
(m) Bottom shoe at Piers 1, 2, 3, and 4 are to be partially filled with concrete, class 30 see drawings E1 and E1A.
(n) Portions of truss joints over upper shoe at panel points L14, L34, L54, and L74 are to be filled with concrete up to top of diaphragm on either side of panel point. Top of concrete to be sloped for drainage
(o) See diagram E1 (CC36501). This drawing shows temporary and permanent conditions at panel points U19, U29, U49 and U69.

U19 also shown on erection Dept's drawing	ER112
U29 " " " " "	ER125
U49 " " " " "	ER128-129
U69 " " " " "	ER125

(1) Note welding to be done in field Pins to gussets and cap plates to pipe sleeves)
(2) Note that certain rods are to be used in driving assembly and then used in temporary erected condition.
(3) Note that a total of 2 driving nut DC1 and 3 pilot nuts DN1 are furnished for driving all 10" pins at U19, U29, U49 and U69.
(4) Note that joints at U29 and U49 should probably be riveted to diagonals L8-U29 and L48-U49 respectively before erection of same.
(5) Note that temporary pins, links, etc., at U19 are to be removed after suspended span is swung and then pin hole covers, etc., are to be bolted in permanent position.
(6) Note that temporary links and temporary pins at U29 and U69 are to be removed after they have served their purpose and patch plates bolted in position.
(7) Note that miscellaneous erection links, jacking shoes, shims, etc., are to be removed at U49 after they have served their purpose. For certain field work at this point see Section H-H on E1 (3650). Cover plates CP1, CP2, CP3 are then to be riveted in proper position, see sheet E1, CC3650.
(p) Wind strut W52 must be erected before bottom laterals BL143, Panel L18 - L19.
(q) Holes are to be drilled in the field for connection of certain longitudinal struts at joints U19, U29, U49, U69, L19, L29, L49, and L69 as called for in sketches on diagram E11. Full size holes 13/16" are provided in upper members, four small holes 1/8" are provided in lower piece for bolting pieces together.
(r) Longitudinal strut TS45 at U19, U29, U49 and TS46 at U69 will have to be erected, temporarily, out of position until rivets are driven in connection of longitudinal struts TS43 or TS44 to transverse struts TS47, TS40 or TS41.

SPECIAL ERECTION FEATURES (CONT'D)

(s) Floor beams that occur at splices in bottom chord must be erected before next bottom chord section is erected.
(t) Erector should take care to turn struts in top chord, sway and portal bracing so that drain holes are in proper position for drainage.
(u) Stringers SG3E and SG34E detailed on dwg. 316 and S5BE & S5CE detailed on dwg 313 are furnished 4'-0 longer than required in finished structure, for temporary use in falsework at L60 and later at L70. Erector is to burn off portions of stringer, cut flanges, etc. and weld on brackets, etc., before erecting in final position between panel points L44 to L46. See detail drawings 313 and 316 for instructions.
(v) Refer to drawings 20 and 21 (CC36501). After stringers shown on these drawings have served their purpose as falsework grillages at F20, they shall be converted into permanent stringers for use in structure at L0 to 6, 72 to 80, 86 to 88, plugging certain holes with rivets, welding bottom lateral connections, etc., as shown on detail drawings 320 and 321, CC35933.
(w) Refer to drawing 322. Double length stringers have been furnished for use as grillage at F18. After they have served their purpose erector will convert same into permanent stringers, welding bottom lateral connections, etc in place. See instructions on detail drawings 322, CC35933.
(x) Gussets at U14, U54, U74 and U12 have been bolted for shipment at request of erection department.
(y) Holes have been provided in top chord for B, C, D and E derricks, panel points U20 to U54 incl. at locations indicated on drawings ER5 and ER6. Plug rivets shall be driven after traveler has been removed. Holes also have been provided in certain lateral plates for rod tie down. In certain cases these holes have been located on a slight stagger so that bottom strut of tie down will clear gusset plate at vertical. In certain cases the bottom strut of tie down will rest against a sloping edge of gusset plate. In these cases this strut will probably have to be lashed with cable to prevent slipping.
(z) Sheet ER10 and diagram E3 (CC3650) shows the high level floor in truss over Piers 2 & 3. After members of same have served their purpose and have been removed, plug rivets are to be driven in verticals where connections have been provided.
(aa) Special conditions exist at L19, L29, L49 and L69. See special notes to erector on erection department's drawings ER118 and ER130. Various members cut in field, certain splice plates to be removed, etc. General arrangement of jacks, etc. at L49 is shown, etc. Note especially instructions on drawing ER118 before cutting chord at L19. See note at L29 relative to bolting up floor beam connections above chord before moving traveler. Also note especially instructions on sheet ER130 relative to jacking at U49 and L49.
The note relative to jacking at U49 and L49 is also shown on erection diagram E5. It has been copied from that shown on drawing ER130.
Erector to also note that a loose diaphragm is shipped in position at L49A. It will have to be removed before entering jack at this point.
(ab) See drawings E3 and ER134 showing information for temporary erection ties in trusses. Note that certain members are interchangeable and are used over again in various positions. Note that portion of certain gussets will have to be burned off and others removed after they have served their purpose as connections for these ties.
(ac) Erector should investigate each joint when driving to discover if certain web rivets should be driven before flange rivets or if certain flange rivets should be driven before web rivets. Also, note that certain rivets in web of both top and bottom chords will have to be driven from inside of chords due to interference of top or bottom laterals.
(ad) Top lateral plates in general are shop riveted to chords. Certain beveled fills on top chord struts are left loose to allow struts to be entered between lateral plates.
(ae) Reinforcing trusses and bars in roadway slab may have to be moved slightly to avoid fouling connections for contraction dams.
(af) Expansion castings at L29, L49 & L69 shall be so adjusted vertically that under normal conditions (full dead load at 60°F) the top of the casting on the suspended span will be 1/8" lower than the top of the casting on the cantilever span, and due allowance shall be made for any variation from the normal condition at time of setting and adjusting the castings. Also, transversely, the castings shall be so set that side clearance between mating teeth will not be less than 3/8 for 1/2 longitudinal tooth clearance.

SPECIAL ERECTION FEATURES (CONT'D)

(ag) Field rivets in top flg. of girder splice for span #6 must be flattened to 3/8 high on top side. See note on sheet #E53.
(ah) Holes have been provided in certain top chords & diagonals for hitch angles. Erector shall drive plug rivets after hitch angles have served their purpose.
(ai) Portion of backwall at east abutment and west abutment is to be poured by Beth. Steel Co. See diagram E10 and E52.
(aj) Erector should burr threads on Pins at links, etc.
(ak) Continuous girders for approach spans have been shop assembled and match marked. See diagram E53.
(al) Certain holes at panel point U87 in connection of flange splice plates of end post U87-L88 to top chord member U85-U87 are to be reamed in the field by erector. Holes in member have been subpunched 11/16" in shop and are to be reamed to 15/16" by erector after members are assembled. See detail dwgs 123 & 124.
(am) See Erection Dept dwgs ER136 and ER137 for lower falsework at L7, L60, L64, L70 & L82. Note that certain permanent stringers are used as grillages.

For Information Only

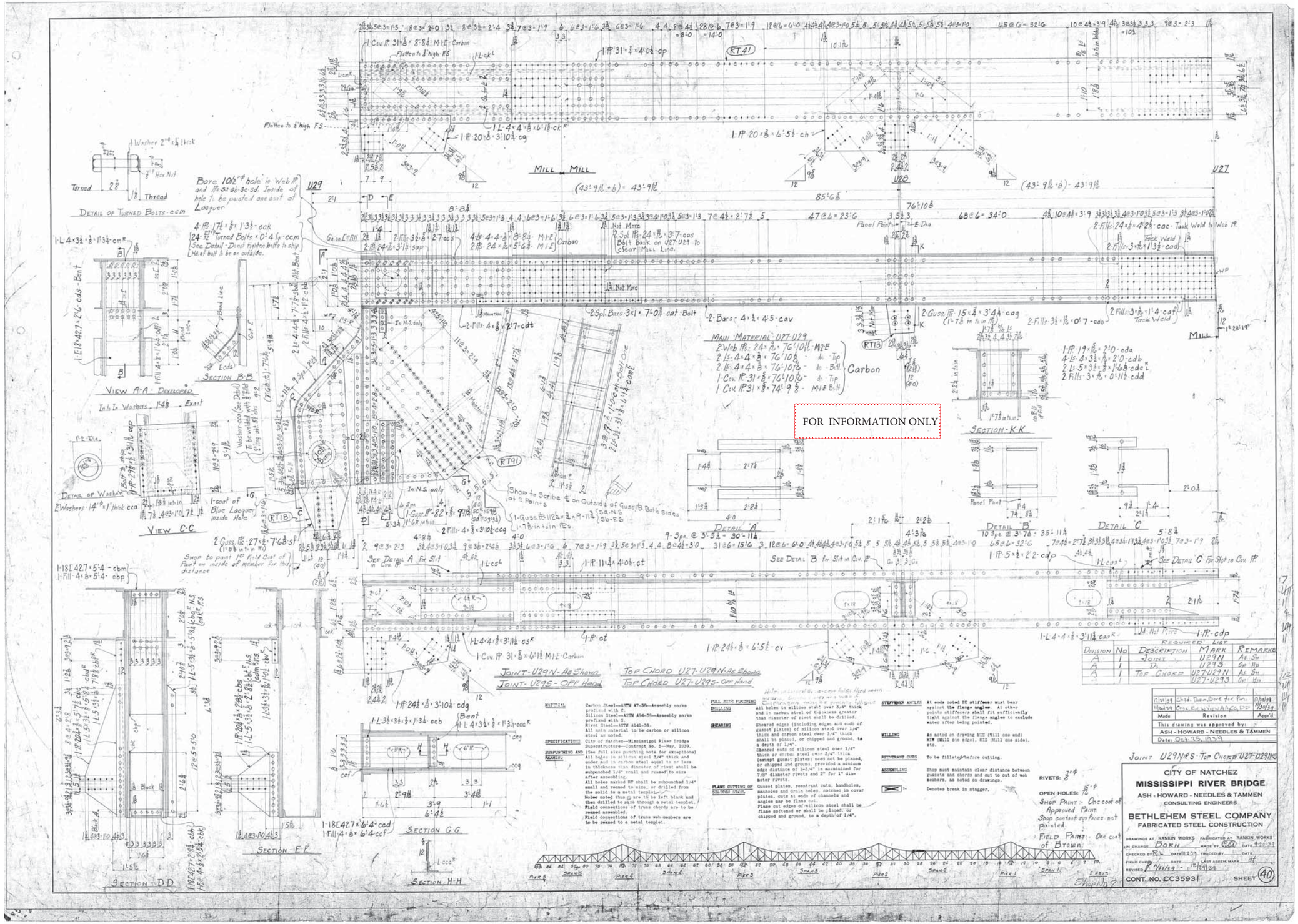
1/9/40	(l) added under field connections	
MADE	REVISION	APPRD.
THIS DRAWING WAS APPROVED BY:		
ASH-HOWARD-NEEDLES & TAMMEN		
DATE NOV. 28, 1939		

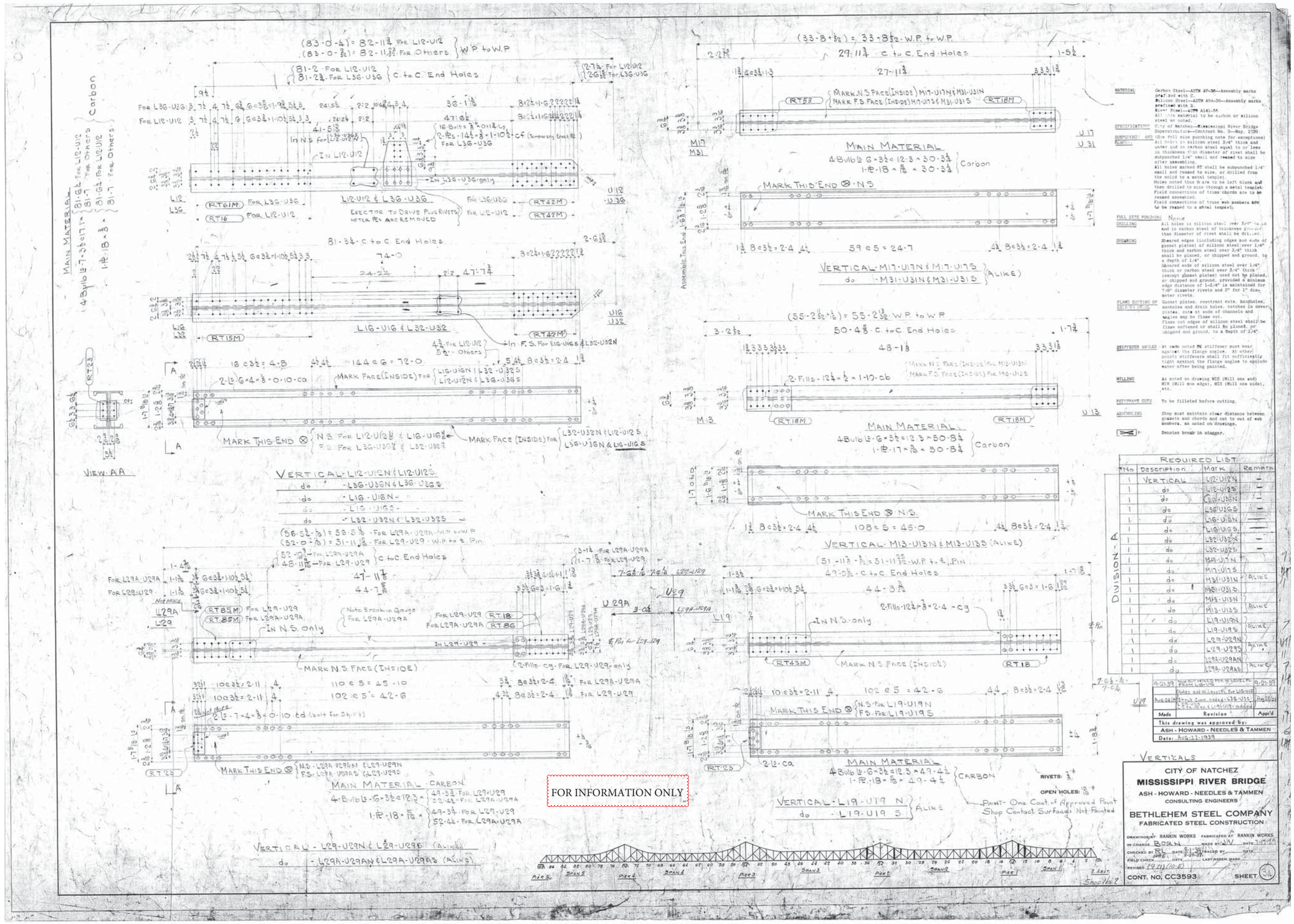
GENERAL ERECTION NOTES

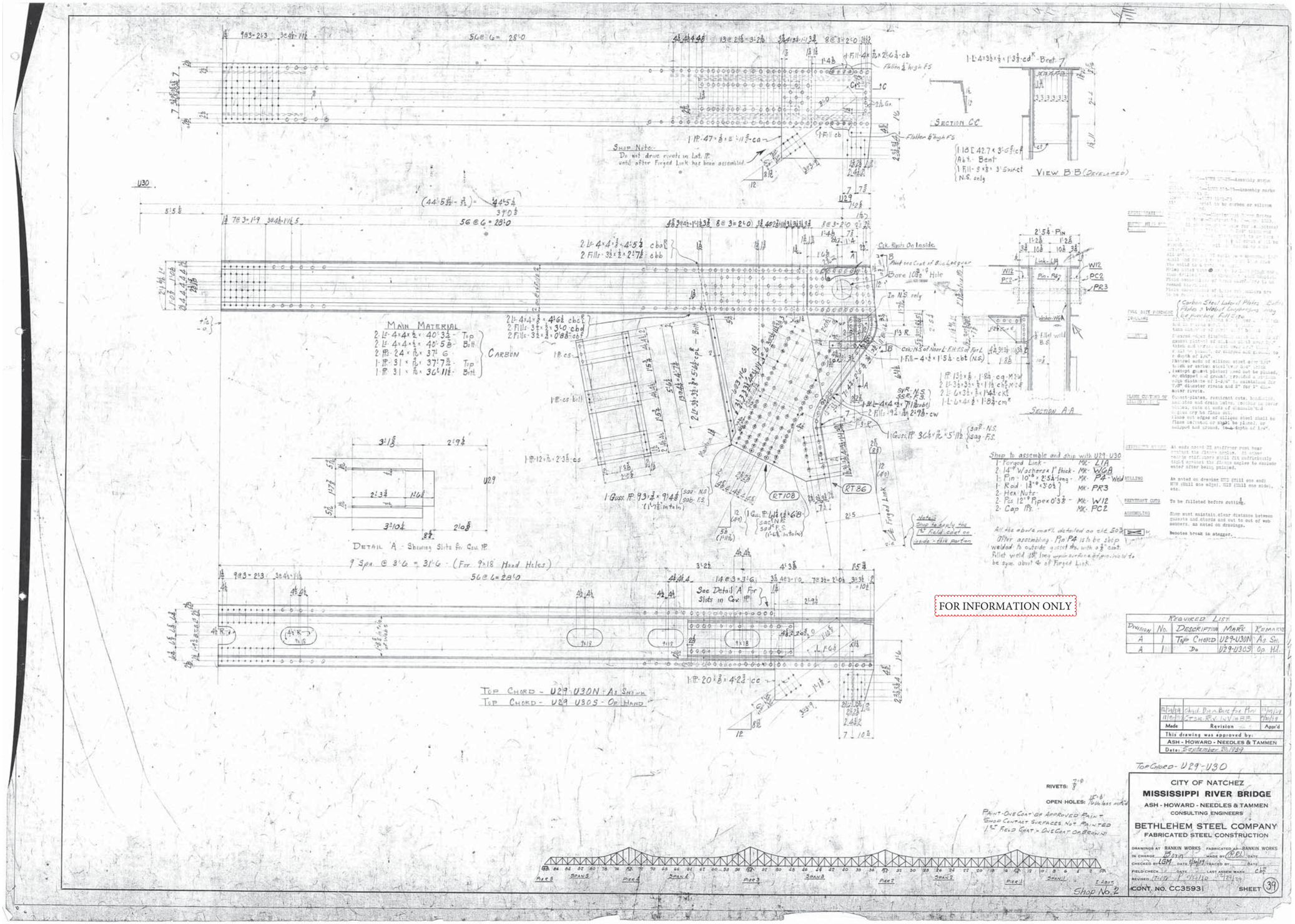
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH-HOWARD-NEEDLES & TAMMEN
CONSULTING ENGINEERS

BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION

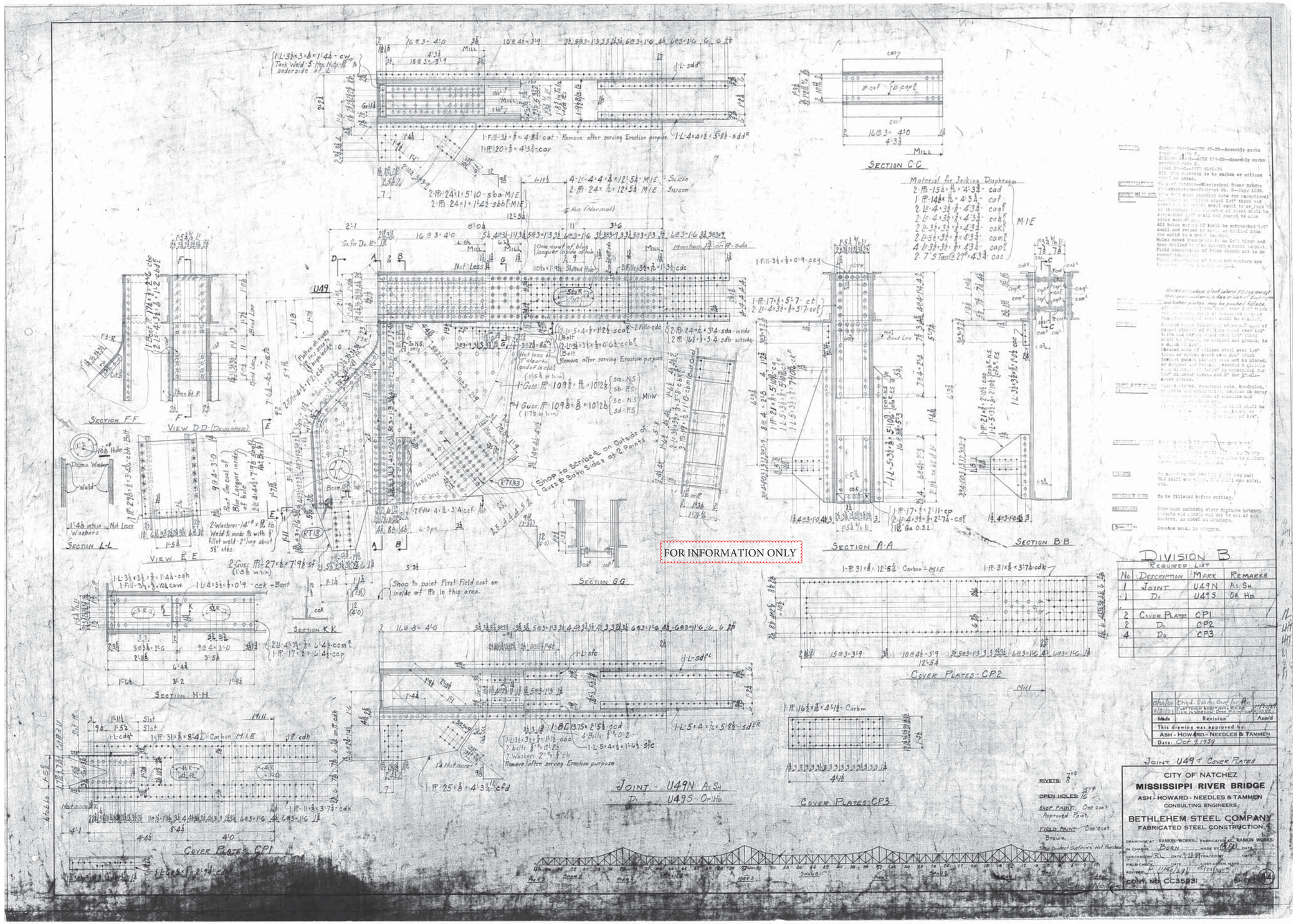
DRAWINGS AT RANKIN WORKS | FABRICATED AT RANKIN WORKS
IN CHARGE BORN | MADE BY V.R.B. DATE 10/7/39
CHECKED BY [illegible] DATE 11/14 | TRACED BY J.P.O. 10/13/39
FIELD CHECK | DATE | LAST ASSEM. MARK
REVISED J.R. 1-9-40 3-7-40 / 8 1-24-40
CONT. NO. CC3593 | SHEET E12

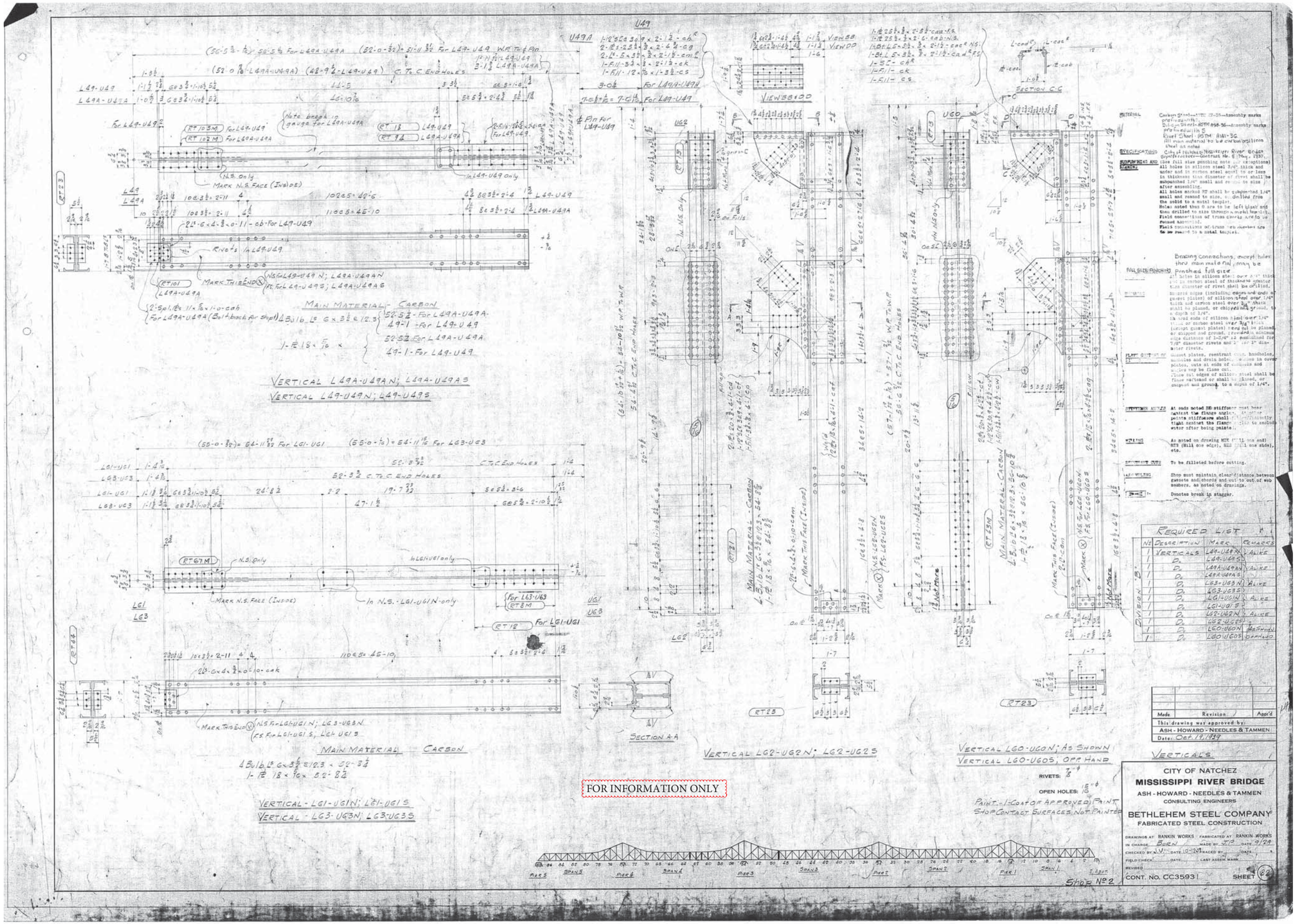

FOR INFORMATION ONLY
MILL
MILL
U29
U28
U27
MAIN MATERIAL U27-U29
Carbon
DETAIL OF TURNED BOLTS - ccm
VIEW A-A - DEVELOPED
SECTION B-B
VIEW C-C
DETAIL OF WASHER
SECTION - K-K
DETAIL A
DETAIL B
DETAIL C
SECTION - D-D
SECTION E-E
SECTION G-G
SECTION H-H
JOINT - U29N - As Shown
JOINT - U29S - OPP Hand
TOP CHORD U27-U29N - As Shown
TOP CHORD U27-U29S - Opp Hand
REQUIRED LIST
DIVISION | NO | DESCRIPTION | MARK | REMARKS
A | 1 | JOINT | U29N | As Sh
A | 1 | D. | U29S | Op Hp
A | 1 | TOP CHORD | U27-U29N | As Sh
A | 1 | | U27-U29S | Op Hp
MATERIAL
Carbon Steel—ASTM A7-36—Assembly marks prefixed with C.
Silicon Steel—ASTM A94-36—Assembly marks prefixed with S.
Rivet Steel—ASTM A141-36.
All main material to be carbon or silicon steel as noted.
SPECIFICATIONS City of Natchez—Mississippi River Bridge Superstructure—Contract No. 5—May, 1939.
SUBPUNCHING AND REAMING (See full size punching note for exceptions)
All holes in silicon steel 3/4" thick and under and in carbon steel equal to or less in thickness than diameter of rivet shall be subpunched 1/4" small and reamed to size after assembling.
All holes marked RT shall be subpunched 1/4" small and reamed to size, or drilled from the solid to a metal templet.
Holes noted thus ⊙ are to be left blank and then drilled to size through a metal templet.
Field connections of truss chords are to be reamed assembled.
Field connections of truss web members are to be reamed to a metal templet.
FULL SIZE PUNCHING
DRILLING
All holes in silicon steel over 3/4" thick and in carbon steel of thickness greater than diameter of rivet shall be drilled.
SHEARING
Sheared edges (including edges and ends of gusset plates) of silicon steel over 1/4" thick and carbon steel over 3/4" thick shall be planed, or chipped and ground, to a depth of 1/4".
Sheared ends of silicon steel over 1/4" thick or carbon steel over 3/4" thick (except gusset plates) need not be planed, or chipped and ground, provided a minimum edge distance of 1-3/4" is maintained for 7/8" diameter rivets and 2" for 1" diameter rivets.
FLAME CUTTING OF SILICON STEEL
Gusset plates, reentrant cuts, handholes, manholes and drain holes, notches in cover plates, cuts at ends of channels and angles may be flame cut.
Flame cut edges of silicon steel shall be flame softened or shall be planed, or chipped and ground, to a depth of 1/4".
STIFFENER ANGLES
At ends noted SE stiffener must bear against the flange angles. At other points stiffeners shall fit sufficiently tight against the flange angles to exclude water after being painted.
MILLING
As noted on drawing MIE (Mill one end) MIW (Mill one edge), MIS (Mill one side), etc.
REENTRANT CUTS
To be filleted before cutting.
ASSEMBLING
Shop must maintain clear distance between gussets and chords and cut to out of web members, as noted on drawings.
Denotes break in stagger.
RIVETS: 7/8"φ
OPEN HOLES: 15/16"φ
SHOP PAINT - One coat of Approved Paint. Shop contact surfaces not painted.
FIELD PAINT - One coat of Brown.
Made | Revision | App'd
This drawing was approved by:
ASH - HOWARD - NEEDLES & TAMMEN
Date: Oct. 25, 1939
JOINT U29N & S - TOP CHORD U27-U29N & S
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
DRAWINGS AT RANKIN WORKS FABRICATED AT RANKIN WORKS
IN CHARGE BORN MADE BY RCD DATE 9-20-39
CHECKED BY RL DATE 10-2-39 TRACED BY DATE
FIELD CHECK DATE LAST ASSEM. MARK
REVISED 11/30/39 - 12/29/39
CONT. NO. CC35931
SHEET 40


MAIN MATERIAL
VIEW AA
VERTICAL L12-U12N & L12-U12S
MAIN MATERIAL CARBON
VERTICAL L29-U29N & L29-U29S (ALIKE)
MAIN MATERIAL
VERTICAL M17-U17N & M17-U17S
MAIN MATERIAL
VERTICAL M13-U13N & M13-U13S (ALIKE)
MAIN MATERIAL
VERTICAL L19-U19 N
VERTICAL L19-U19 S
ALIKE
FOR INFORMATION ONLY
REQUIRED LIST
DIVISION A
VERTICALS
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
CONT. NO. CC3593
SHEET 34

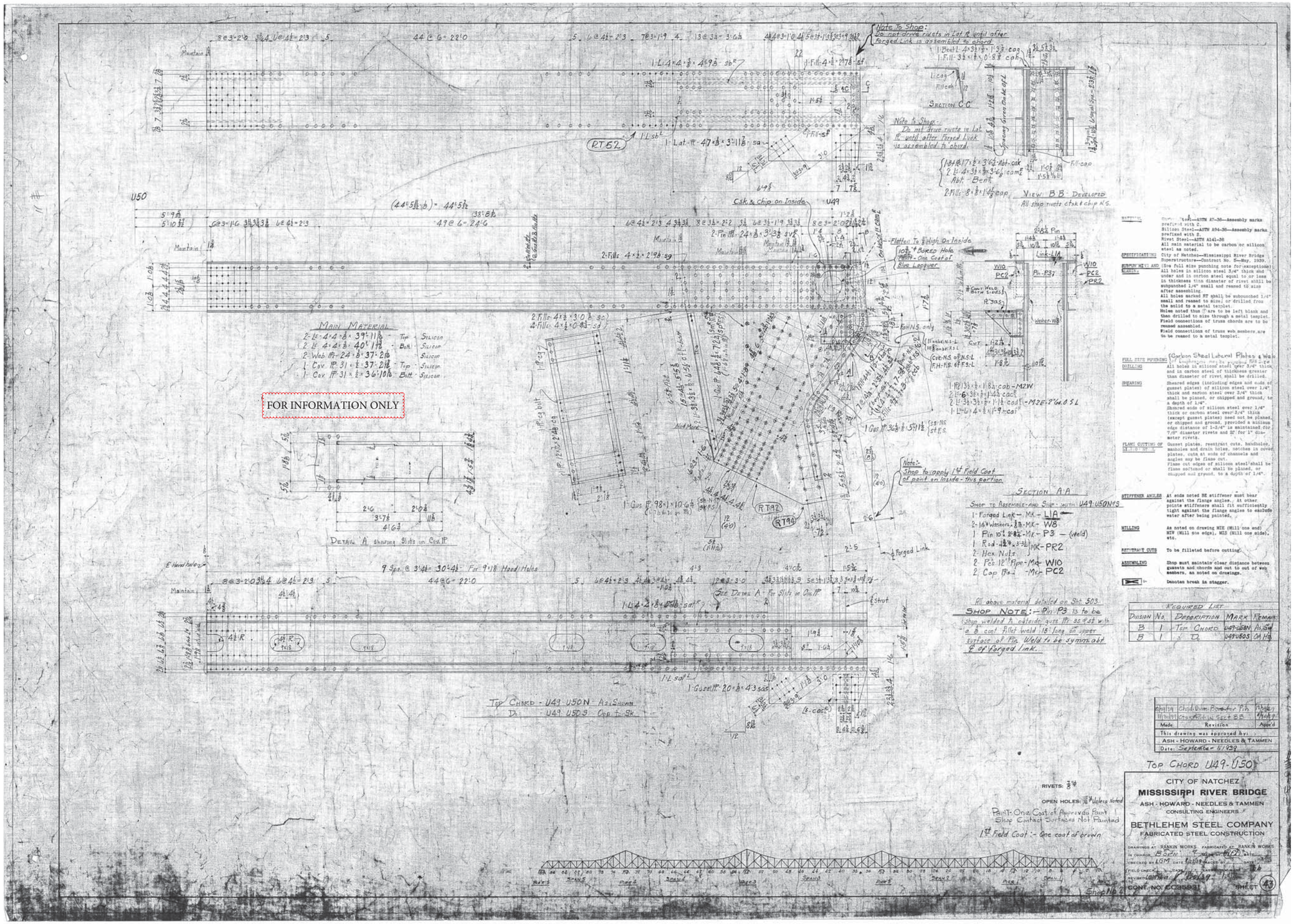


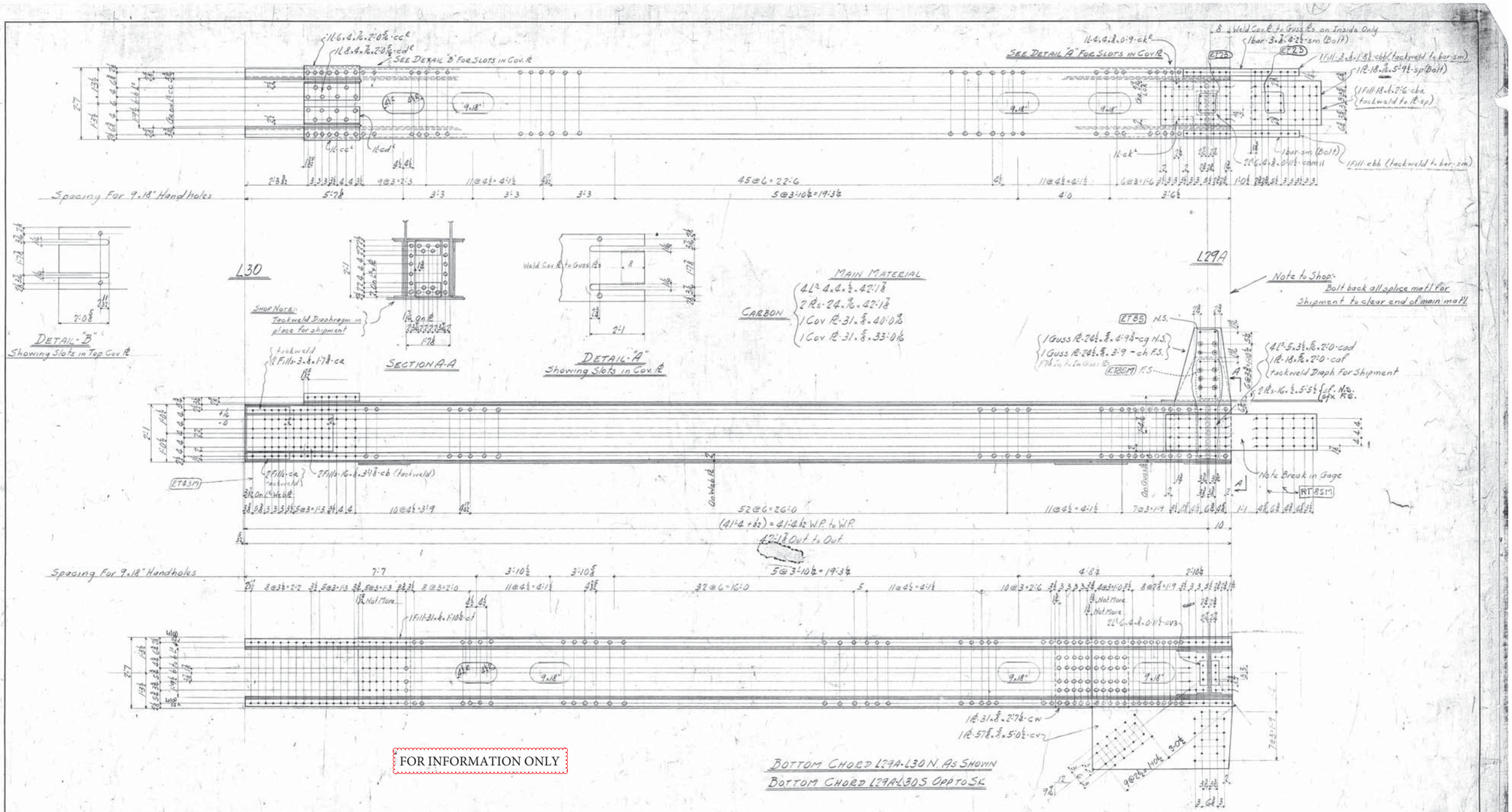
FOR INFORMATION ONLY


FOR INFORMATION ONLY
SECTION C-C
SECTION F-F
VIEW D-D (DEVELOPED)
SECTION L-L
VIEW E-E
SECTION G-G
SECTION A-A
SECTION B-B
SECTION K-K
SECTION H-H
COVER PLATES CP1
COVER PLATES CP2
COVER PLATES CP3
JOINT U49N As Sh
Do U49S Op Hd
DIVISION B
REQUIRED LIST
No | DESCRIPTION | MARK | REMARKS
1 | JOINT | U49N | As Sh
1 | Do | U49S | Op Hd
2 | COVER PLATES | CP1
2 | Do | CP2
4 | Do | CP3
JOINT U49 & COVER PLATES
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
CONT. NO. CC35931



FOR INFORMATION ONLY


FOR INFORMATION ONLY
Note To Shop:
Do not drive rivets in Lat. PL until after Forged Link is assembled to chord
Section C-C
View B-B Developed
All shop rivets ctsk & chip N.S.
Main Material
Detail A showing Slots in Cov. PL
Section A-A
Shop to Assemble and Ship with U49-U50N & S
1-Forged Link - MK - L1A
2-14" Washers - MK - W8
1 Pin 10" x 2'-8½" - MK - P3 - (weld)
1 Rod - MK - PR2
2 Hex Nuts
2 Pcs. 12" Pipe - MK - W10
2 Cap Pls. - MK - PC2
All above material detailed on Sht. 503
Shop Note:- Pin P3 is to be shop welded to outside guss. Pls. as set with a ⅜" cont. fillet weld 15" long on upper surface of Pin. Weld to be symm. abt. ℄ of forged link.
Top Chord - U49-U50N - As Shown
Do. - U49-U50S - Opp. to Sk.
Required List
Division No. Description Mark Remarks
B 1 Top Chord U49-U50N As Shown
B 1 Do. U49-U50S Opp. to Sk.
This drawing was approved by:
ASH - HOWARD - NEEDLES & TAMMEN
Date: September 1, 1939
Top Chord U49-U50
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
CONT. NO. CC35931
SHEET 43



FOR INFORMATION ONLY

MATERIAL: Carbon Steel—ASTM A7-36—Assembly marks prefixed with C.
Silicon Steel—ASTM A94-36—Assembly marks prefixed with S.
Rivet Steel—ASTM A141-36
All main material to be carbon or silicon steel as noted.

SPECIFICATIONS: City of Natchez—Mississippi River Bridge Superstructure—Contract No. 5—May, 1939.

SUBPUNCHING AND REAMING: (See full size punching note for exceptions)
All holes in silicon steel 3/4" thick and under and in carbon steel equal to or less in thickness than diameter of rivet shall be subpunched 1/16" small and reamed to size after assembling.
All holes marked RT shall be subpunched 1/4" small and reamed to size, or drilled from the solid to a metal template.
Holes noted thus ❶ are to be left blank and then drilled to size through a metal template.
Field connections of truss chords are to be reamed assembled.
Field connections of truss web members are to be reamed to a template.

FULL SIZE PUNCHING: Carbon Steel Lateral Plates & Webs of Diaphragms, Ends for Bearing Stiffeners

SUBPUNCHING: All holes in silicon Steel over 3/4" thick and in carbon steel of thickness greater than diameter of rivet shall be drilled.

SHEARING: Sheared edges (including edges and ends of gusset plates) of silicon steel over 1/4" thick and carbon steel over 3/4" thick shall be planed, or chipped and ground, to a depth of 1/4".
Sheared ends of silicon steel over 1/2" thick or carbon steel over 3/4" thick (except gusset plates) need not be planed, or chipped and ground, provided a minimum edge distance of 1-3/4" is maintained for 7/8" diameter rivets and 2" for 1" diameter rivets.

FLAME CUTTING OF SILICON STEEL: Gusset plates, rectangular cuts, handholes, manholes and drain holes, notches in cover plates, cuts at ends of channels and angles may be flame cut.
Flame cut edges of silicon steel shall be flame softened or shall be planed, or chipped and ground, to a depth of 1/4".

STIFFENER ANGLES: At ends noted BE stiffener must bear against the flange angles. At other points stiffeners shall fit sufficiently tight against the flange angles to exclude water after being painted.

MILLING: As noted on drawing MIE (Mill one end) MIW (Mill one edge), MID (Mill one side), etc.

REENTRANT CUTS: To be filleted before cutting.

ASSEMBLING: Shop must maintain clear distance between gussets and chords and out to out of web members, as noted on drawings.

Denotes break in stagger.

Required List				
Symbol	No.	Description	Mark	Remark
A	1	Bott. Chord	L29A-L30N	As Sh.
A	1	do	L29A-L30S	Opp. Hd.

RIVETS: 7/8"
OPEN HOLES: 15/16"

Paint: One Coat of Approved Paint
Ship Contact Surfaces Not Painted

Made	Revision	App'd

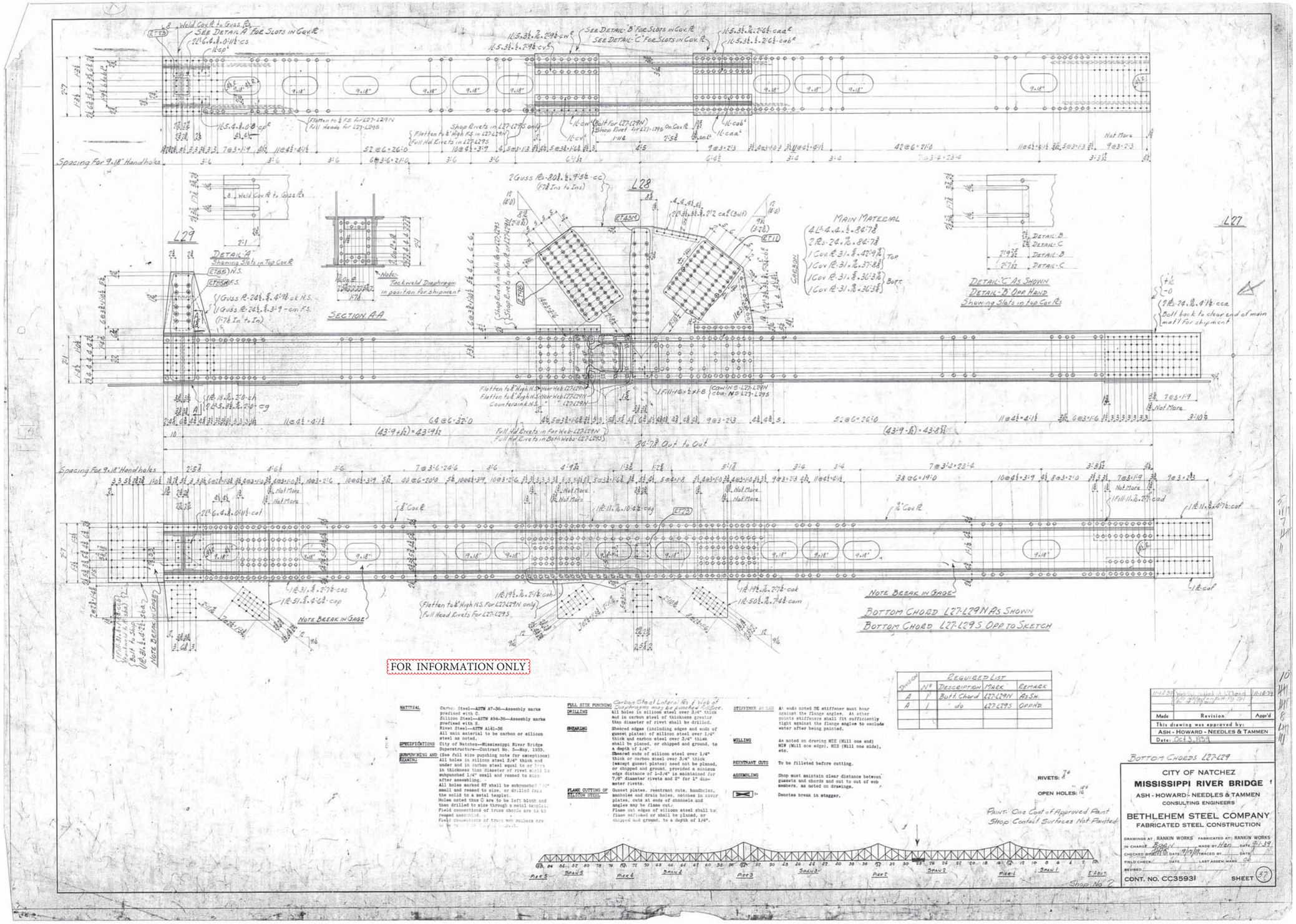
This drawing was approved by:
ASH - HOWARD - NEEDLES & TAMMEN
Date: September 27, 1939

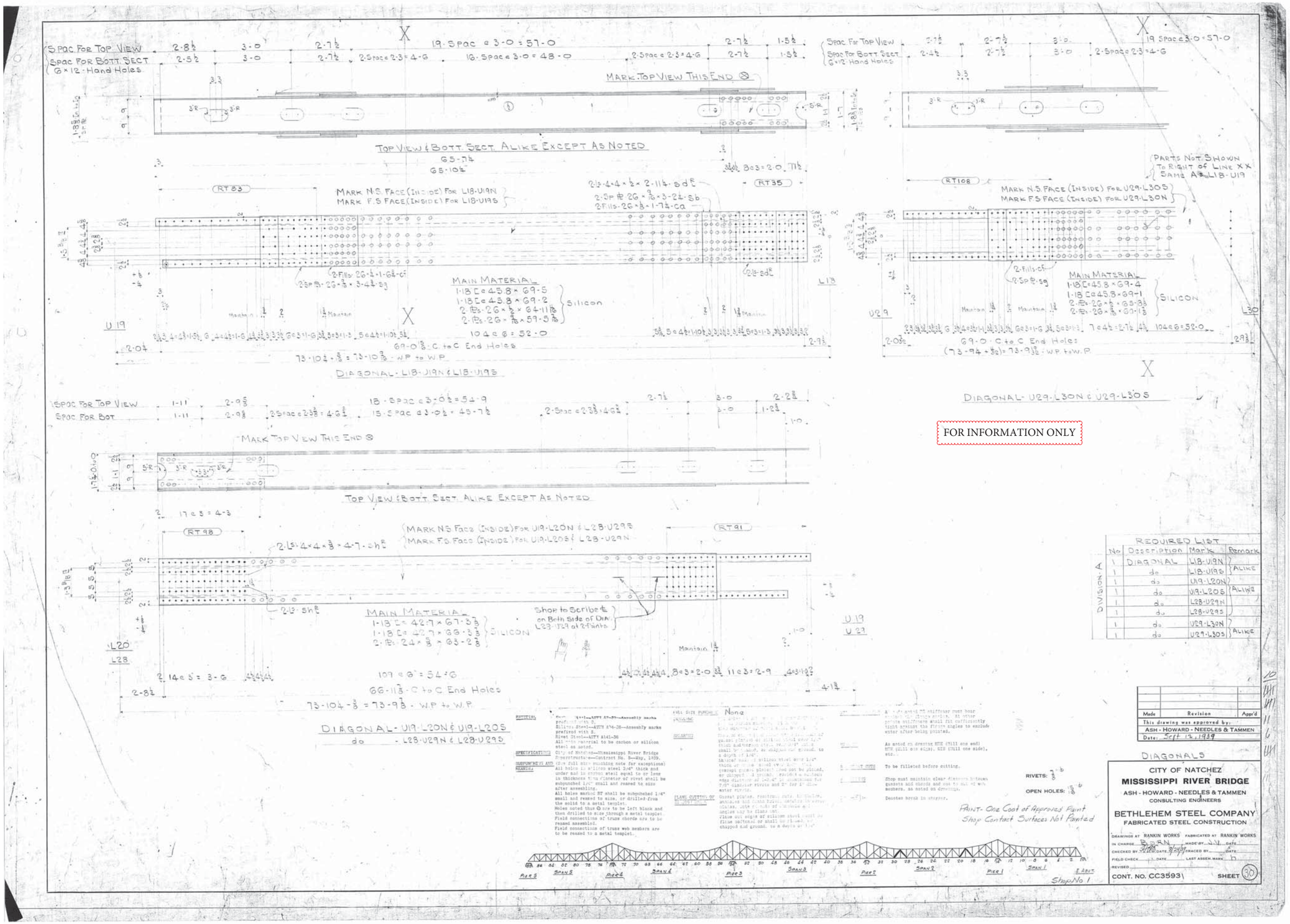
BOTTOM CHORDS L29A-L30

CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION

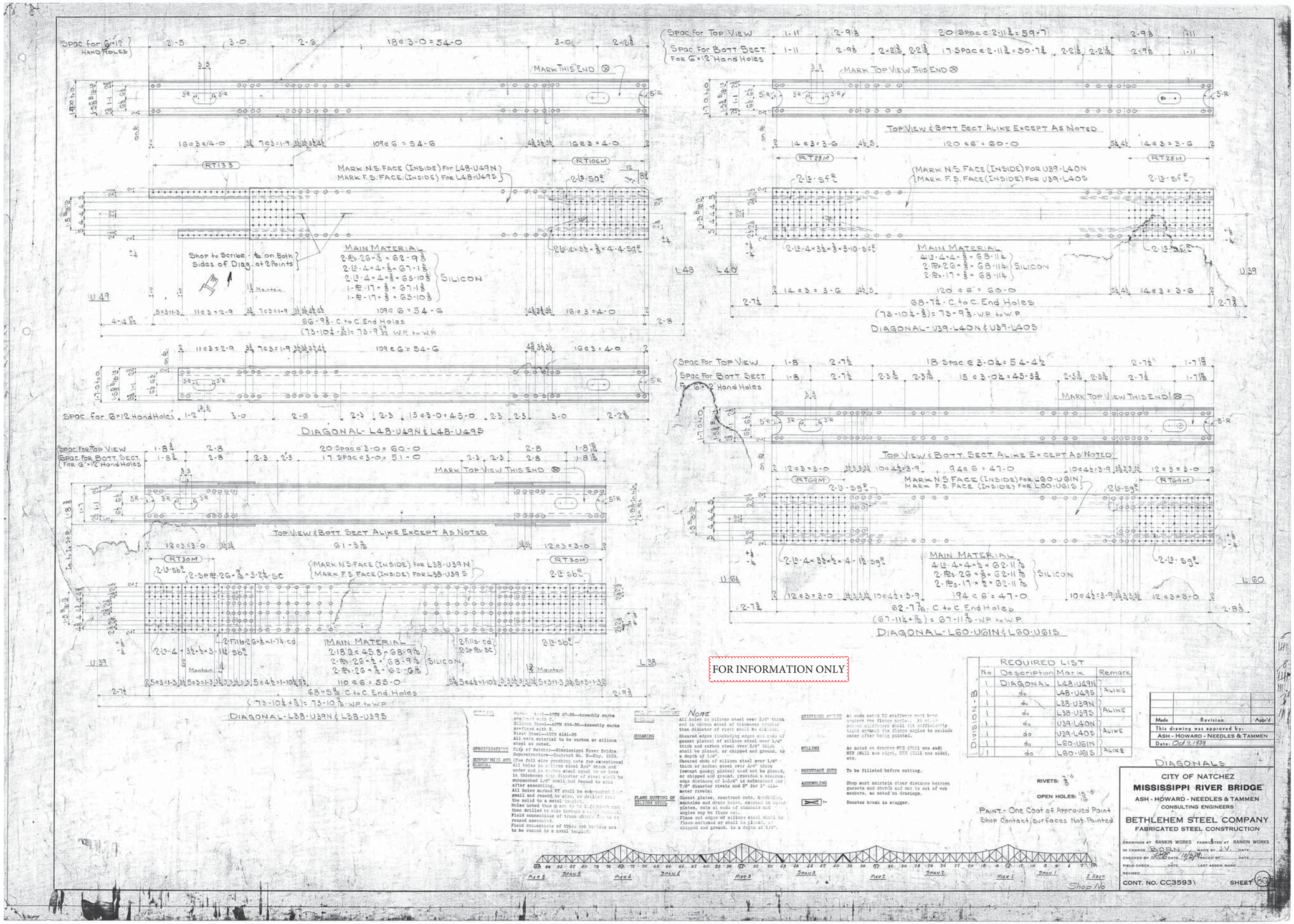
DRAWING AT RANKIN WORKS FABRICATED AT RANKIN WORKS
IN CHARGE Bailey MADE BY Hoch DATE 8-26-39
CHECKED BY [illegible] DATE [illegible] PLACED BY [illegible] DATE
FIELD CHECK DATE LAST ASSEM. MARK 66
REVISED

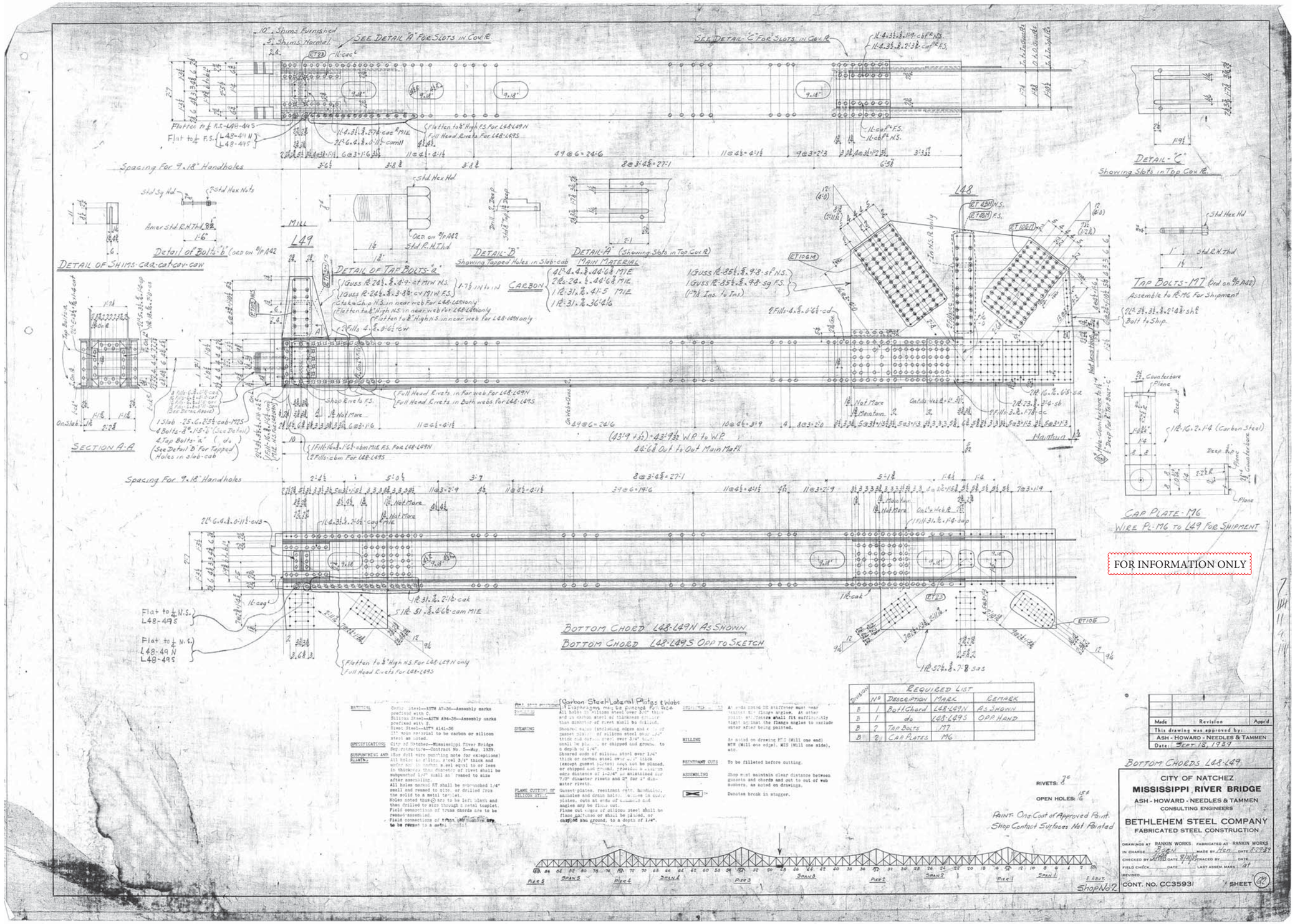
CONT. NO. CC3593 SHEET 7

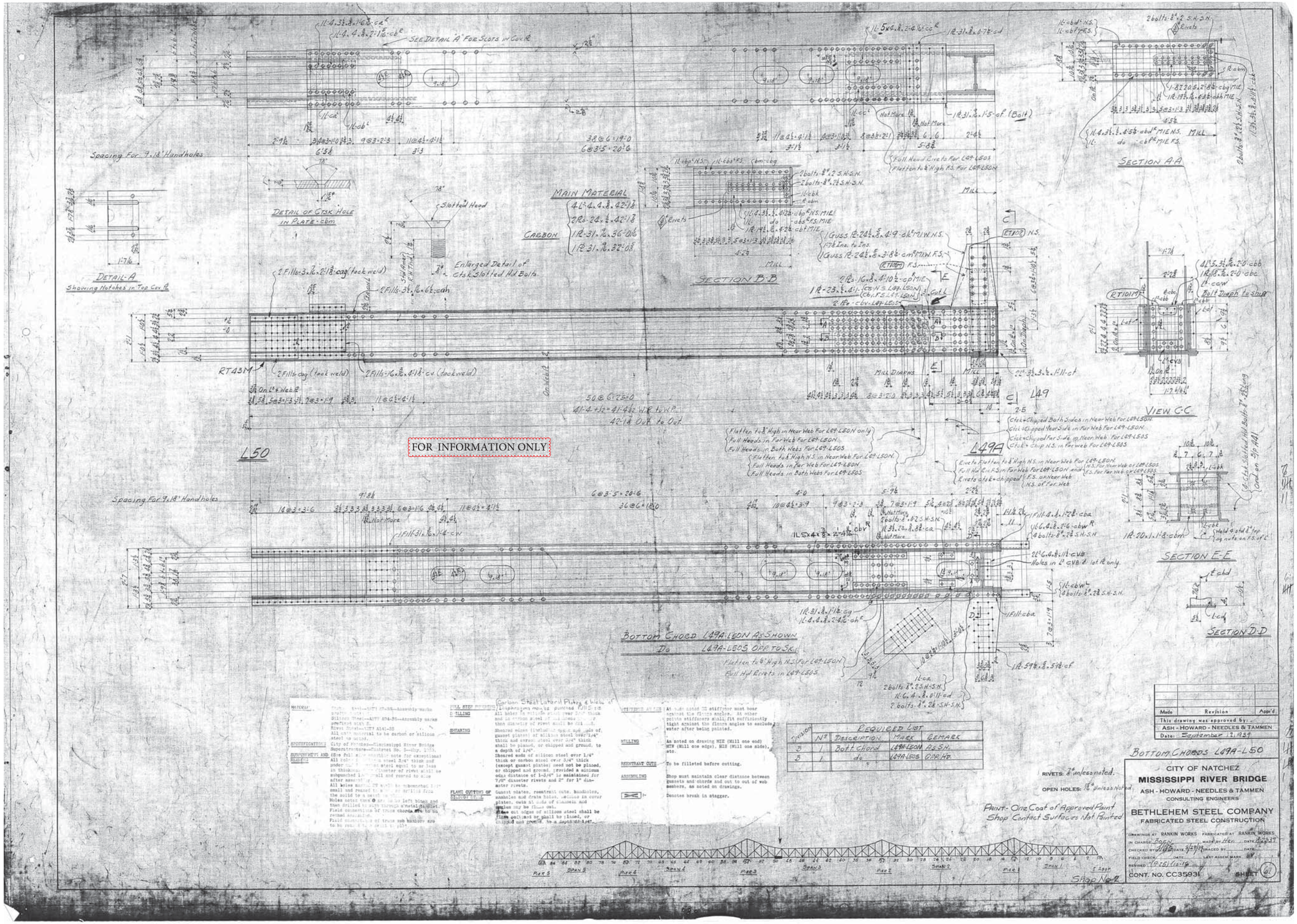

Weld Cov. Pl. to Guss. Pls.
SEE DETAIL A FOR SLOTS IN COV. PL.
SEE DETAIL-B FOR SLOTS IN COV. PL.
SEE DETAIL-C FOR SLOTS IN COV. PL.
Spacing For 9.18" Hand holes
Flatten to 1/8" FS for L27-L29N
Full Hd Rivets in L27-L29S
Shop Rivets in L27-L29S only
Flatten to 1/8" High FS in L27-L29N
Full Hd Rivets in L27-L29S
Bolt for L27-L29N
Shop Rivet for L27-L29S
On Cov. Pl.
Not More
L29
L28
L27
DETAIL-A
Showing Slots in Top Cov. Pl.
N.S.
F.S.
Guss. Pl.-24 1/2 x 3/8 x 4'-9 1/2 - ck N.S.
Guss. Pl.-24 1/2 x 3/8 x 3'-9 - cm F.S.
(Pl. 7 1/8 Ins to Ins)
SECTION A-A
Tackweld Diaphragm in position for shipment
2 Guss. Pls.-80 1/2 x 9'-5 1/2 - cc
(Pl. 7 1/8 Ins to Ins)
MAIN MATERIAL
4 Ls-4 x 4 x 1/2 x 84'-7 3/8
2 Pls-24 x 7/8 x 84'-7 3/8
1 Cov. Pl.-31 x 3/8 x 42'-9 7/8 } TOP
1 Cov. Pl.-31 x 7/8 x 37'-8 3/8
1 Cov. Pl.-31 x 3/8 x 36'-3 7/8 } BOTT.
1 Cov. Pl.-31 x 7/8 x 36'-3 3/8
CARBON
DETAIL-B
DETAIL-C
DETAIL-B
DETAIL-C
DETAIL-C AS SHOWN
DETAIL-B OPP HAND
Showing Slots in top Cov. Pls.
Bolt back to clear end of main mat'l for shipment
Flatten to 1/8" High N.S. Shear Web L27-L29N
Flatten to 1/8" High N.S. Shear Web L27-L29N
Countersink N.S.
Full Hd Rivets in Far Web L27-L29N
Full Hd Rivets in Both Webs L27-L29S
(43'-9 1/2) = 43'-9 1/2
(43'-9 1/2) = 43'-9 1/2
84'-7 3/8 Out to Out
Spacing For 9.18" Hand holes
8" Cov. Pl.
Flatten to 1/8" High N.S. for L27-L29N only
Full Head Rivets for L27-L29S
NOTE BREAK IN GAGE
NOTE BREAK IN GAGE
BOTTOM CHORD L27-L29N AS SHOWN
BOTTOM CHORD L27-L29S OPP TO SKETCH
FOR INFORMATION ONLY
MATERIAL
Carbon Steel—ASTM A7-36—Assembly marks prefixed with C.
Silicon Steel—ASTM A94-36—Assembly marks prefixed with S.
Rivet Steel—ASTM A141-36
All main material to be carbon or silicon steel as noted.
SPECIFICATIONS
City of Natchez—Mississippi River Bridge Superstructure—Contract No. 5—May, 1939.
PUNCHING AND REAMING
(See full size punching note for exceptions)
All holes in silicon steel 3/4" thick and under and in carbon steel equal to or less in thickness than diameter of rivet shall be punched 1/16" small and reamed to size after assembling.
All holes marked RT shall be subpunched 1/16" small and reamed to size, or drilled from the solid to a metal templet.
Holes noted thus ○ are to be left blank and then drilled to size through a metal templet.
Field connections of truss chords are to be reamed assembled.
Field connections of truss web members are to be [illegible]
FULL SIZE PUNCHING
Carbon Steel Lateral Rod Vlgs of Compressors may be punched Full Size.
DRILLING
All holes in silicon steel over 3/4" thick and in carbon steel of thickness greater than diameter of rivet shall be drilled.
SHEARING
Sheared edges (including edges and ends of gusset plates) of silicon steel over 1/4" thick and carbon steel over 3/4" thick shall be planed, or chipped and ground, to a depth of 1/4".
Sheared ends of silicon steel over 1/4" thick or carbon steel over 3/4" thick (except gusset plates) need not be planed, or chipped and ground, provided a minimum edge distance of 1-3/4" is maintained for 7/8" diameter rivets and 2" for 1" diameter rivets.
FLAME CUTTING OF SILICON STEEL
Gusset plates, reentrant cuts, handholes, manholes and drain holes, notches in cover plates, cuts at ends of channels and angles may be flame cut.
Flame cut edges of silicon steel shall be flame softened or shall be planed, or chipped and ground, to a depth of 1/4".
STIFFENER AT L.G.S.
At ends noted DE stiffener must bear against the flange angles. At other points stiffeners shall fit sufficiently tight against the flange angles to exclude water after being painted.
MILLING
As noted on drawing MIE (Mill one end) MIW (Mill one edge), MIS (Mill one side), etc.
REENTRANT CUTS
To be filleted before cutting.
ASSEMBLING
Shop must maintain clear distance between gussets and chords and out to out of web members, as noted on drawings.
Denotes break in stagger.
REQUIRED LIST
Diagram
No.
Description
Mark
Remark
A 1 Bott. Chord L27-L29N As Sh.
A 1 do L27-L29S Opp'd
RIVETS: 7/8"
OPEN HOLES: 15/16"
PAINT: One Coat of Approved Paint
Shop Contact Surfaces Not Painted
Made
Revision
Appr'd
This drawing was approved by:
ASH - HOWARD - NEEDLES & TAMMEN
Date: Oct 3, 1939
BOTTOM CHORDS L27-L29
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
DRAWINGS AT RANKIN WORKS FABRICATED AT: RANKIN WORKS
IN CHARGE
MADE BY
DATE
CHECKED BY
DATE
TRACED BY
DATE
FIELD CHECK
DATE
LAST ASSEM. MARK
REVISED
CONT. NO. CC35931
SHEET 37
Pier 8
Span 6
Pier 6
Span 4
Pier 3
Span 2
Pier 2
Span 1
Pier 1
E. Abut.
Shop No. 6

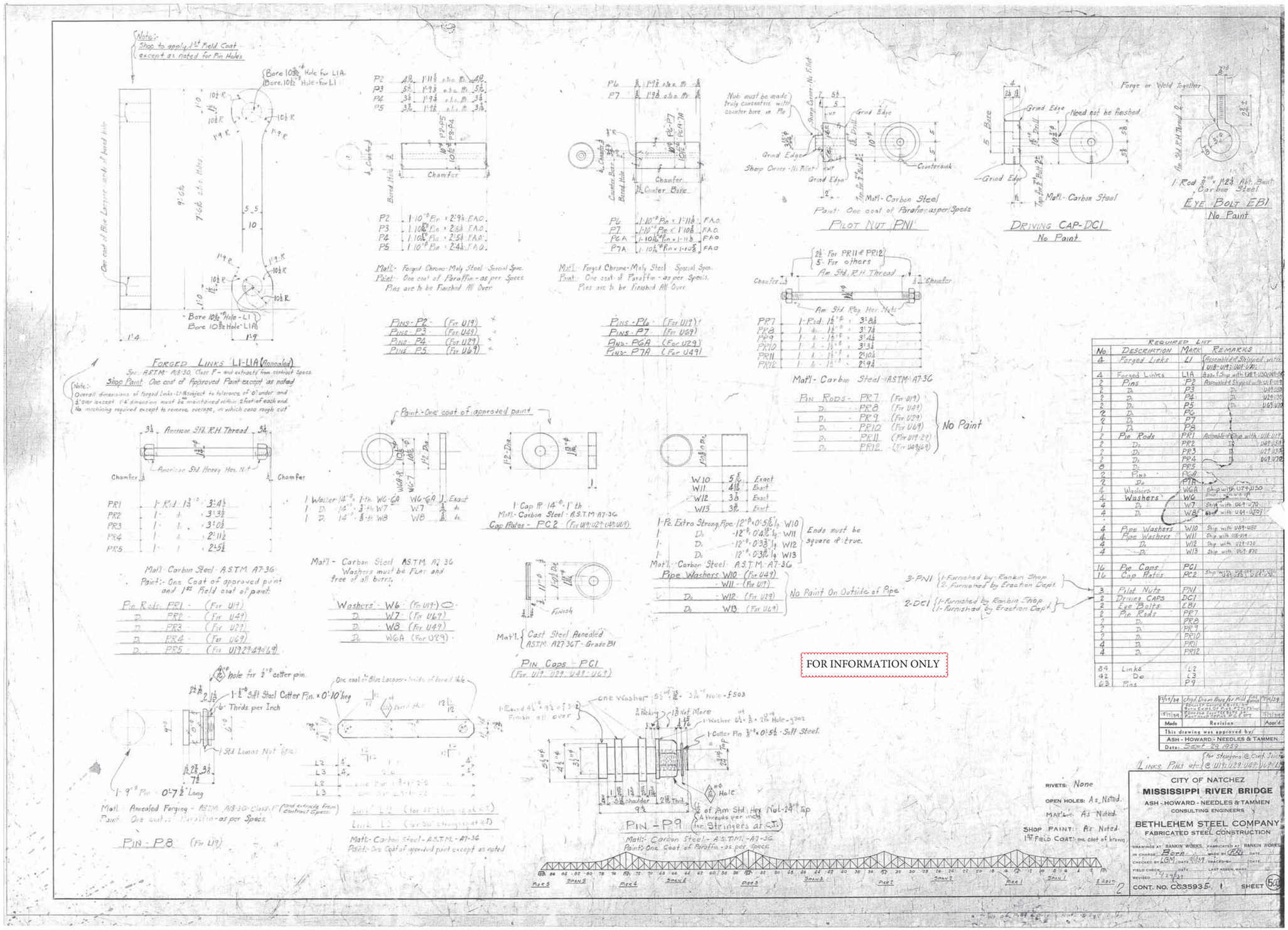


FOR INFORMATION ONLY


DIAGONAL-L48-U49N & L48-U49S
DIAGONAL-L38-U39N & L38-U39S
DIAGONAL-U39-L40N & U39-L40S
DIAGONAL-L60-U61N & L60-U61S
MAIN MATERIAL
SILICON
TOP VIEW & BOTT SECT ALIKE EXCEPT AS NOTED
MARK THIS END
MARK TOP VIEW THIS END
FOR INFORMATION ONLY
REQUIRED LIST
DIVISION-B
DIAGONALS
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
CONT. NO. CC35931
SHEET 80

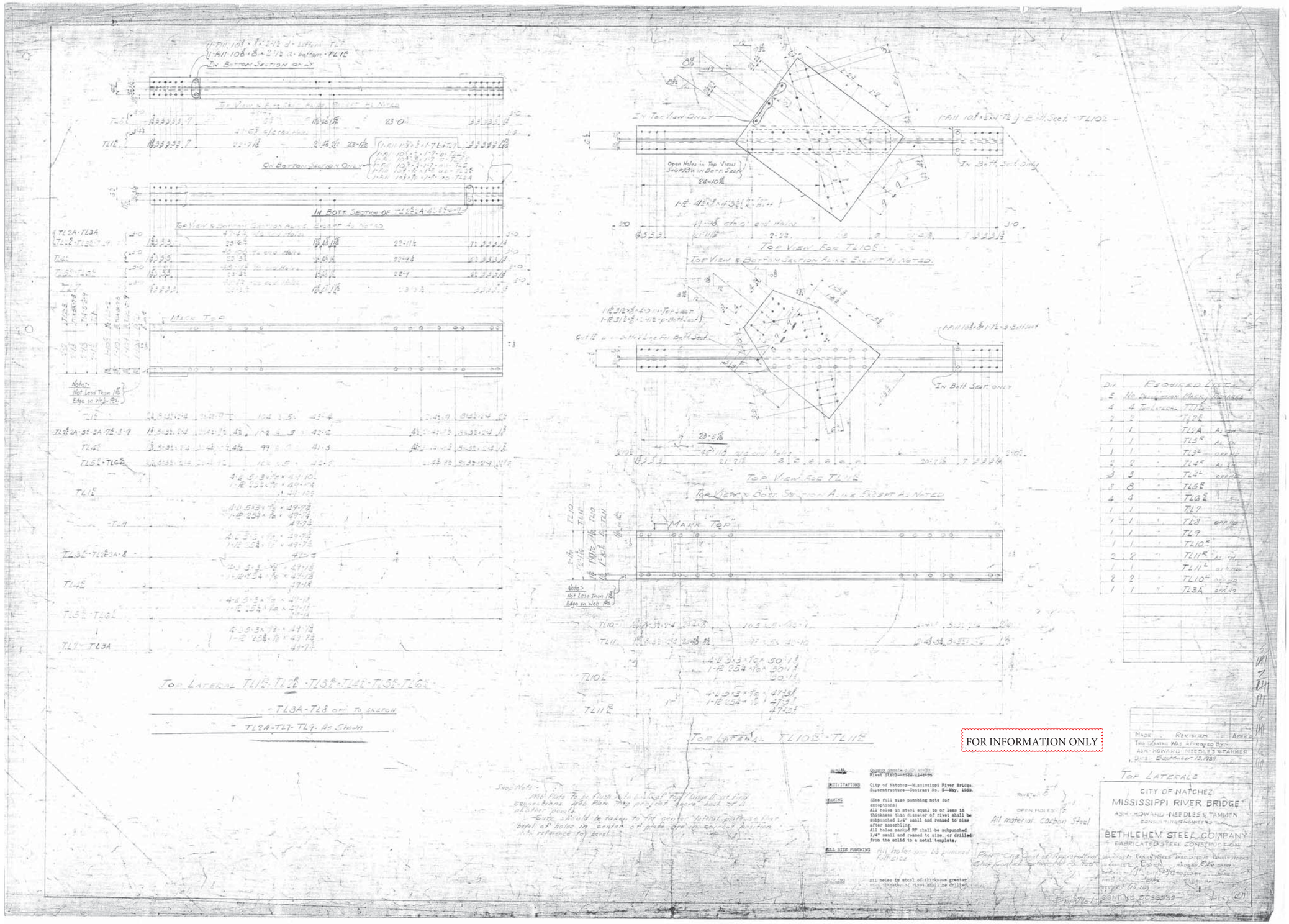

SEE DETAIL "A" FOR SLOTS IN COV PL
SEE DETAIL "C" FOR SLOTS IN COV PL
Spacing For 9"x18" Handholes
DETAIL OF SHIMS-caa-cat-cav-caw
Detail of Bolts-"b"
DETAIL OF TAP BOLTS-"a"
DETAIL-"B"
Showing Tapped Holes in Slab-cab
DETAIL-"A" (Showing Slots in Top Cov PL)
MAIN MATERIAL
CARBON
DETAIL-"C"
Showing Slots in Top Cov PL
TAP BOLTS-M7 (End on 8/P.A42)
Assemble to PL-M6 For Shipment
SECTION A-A
(43'9 + 1/32) = 43'9 1/32 W.P. to W.P.
44'6 3/8 Out to Out Main Mat'l
CAP PLATE-M6
WIRE PL-M6 TO L49 FOR SHIPMENT
BOTTOM CHORD L48-L49N AS SHOWN
BOTTOM CHORD L48-L49S OPP TO SKETCH
FOR INFORMATION ONLY
REQUIRED LIST
DIVISION | Nº | DESCRIPTION | MARK | REMARK
B | 1 | Bott Chord | L48-L49N | AS SHOWN
B | 1 | do | L48-L49S | OPP HAND
B | 2 | Tap Bolts | M7 |
B | 2 | CAP PLATES | M6 |
Carbon Steel-Lateral Plates & Webs
RIVETS: 7/8"
OPEN HOLES: 15/16"
PAINT: One Coat of Approved Paint. Shop Contact Surfaces Not Painted
Made | Revision | Appd
This drawing was approved by:
ASH - HOWARD - NEEDLES & TAMMEN
Date: Sept. 18, 1939
BOTTOM CHORDS L48-L49
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
CONT. NO. CC3593
SHEET 92

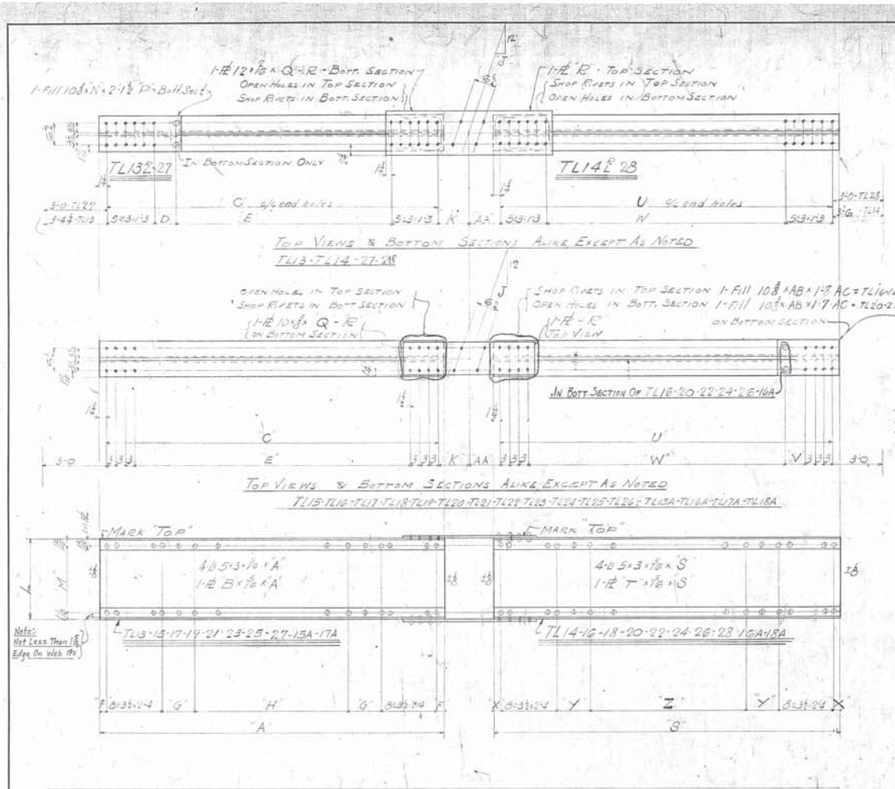

FOR INFORMATION ONLY
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
SECTION E-E
DETAIL-A
Showing Notches in Top Cov. Pl.
DETAIL OF CTSK HOLE IN PLATE-cbm
Enlarged Detail of Ctsk Slotted Hd Bolts
MAIN MATERIAL
CARBON
Spacing For 9.18" Handholes
L50
L49
L49A
BOTTOM CHORD L49A-L50N AS SHOWN
Do L49A-L50S OPP. TO SK.
REQUIRED LIST
Bott. Chord
BOTTOM CHORDS L49A-L50
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
CONT. NO. CC35931
SHEET 61
Shop No. 2

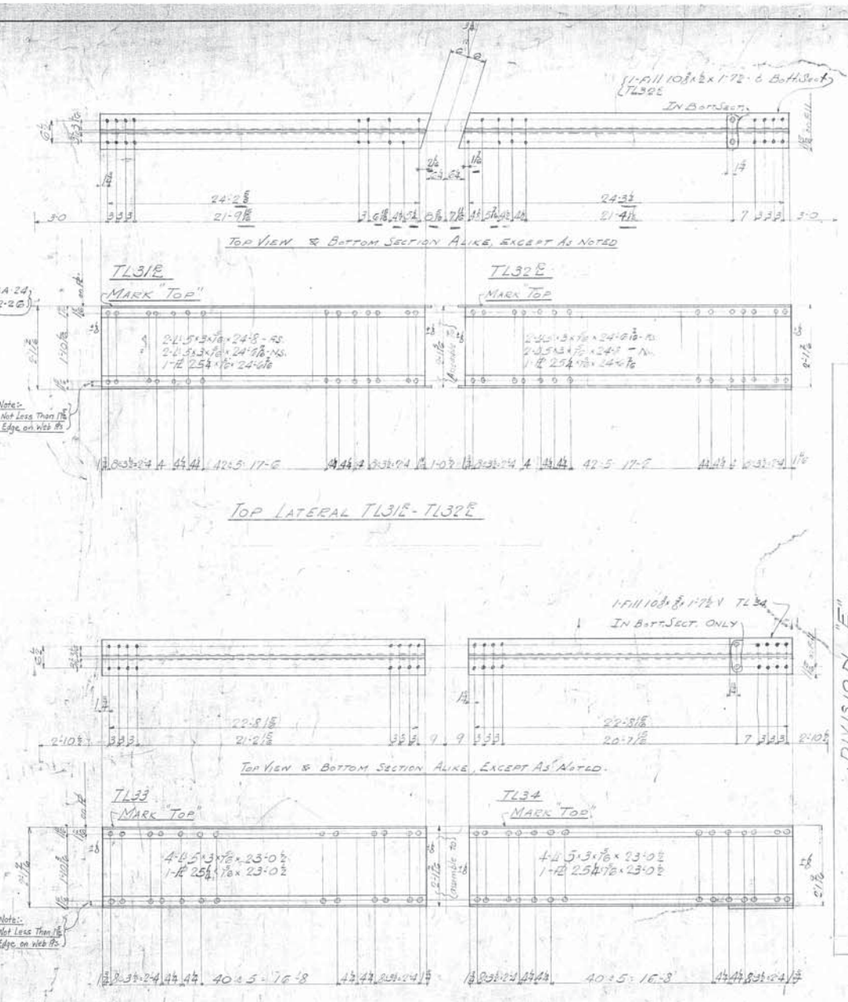


No.	Description	Mark	Remarks
4	Forged Links	L1	Assembled & Shipped with U18-U49-U69-U29
4	Forged Links	L1A	Assembled & Shipped with U29-U49-U69
2	Pins	P2	Assembled & Shipped with U19
2	Do	P3	Do U49-U29
2	Do	P4	Do U29-U69
2	Do	P5	Do U69-U19
2	Do	P6	
2	Do	P7	
1	Do	P8	
2	Pin Rods	PR1	Assembled & Shipped with U19-U29
2	Do	PR2	Do U49-U29
2	Do	PR3	Do U29-U69
2	Do	PR4	Do U69-U19
8	Do	PR5	
2	Pins	P6A	
2	Do	P7A	
4	Washers	W6A	Ship with U29-U50
4	Washers	W6	Ship with U19-U50
4	Do	W7	Ship with U69-U70
4	Do	W8	Ship with U49-U50
4	Pipe Washers	W10	Ship with U49-U50
4	Pipe Washers	W11	Ship with U18-U19
4	Do	W12	Ship with U29-U30
4	Do	W13	Ship with U69-U70
16	Pin Caps	PC1	
16	Cap Plates	PC2	Ship with U19, U29, U49, U69
3	Pilot Nuts	PN1	
2	Driving Caps	DC1	
2	Eye Bolts	EB1	
2	Pin Rods	PR7	
2	Do	PR8	
2	Do	PR9	
2	Do	PR10	
4	Do	PR11	
4	Do	PR12	
84	Links	L2	
42	Do	L3	
63	Pins	P9	

Links Pins at - {For Stringers @ Cont. Joints; @ U19, U29, U49, U69 L1}


Top View For TL10E
Top View & Bottom Section Alike Except As Noted
Mark Top
Top Lateral TL10E-TL11E
Top Lateral TL1E-TL2E-TL3E-TL4E-TL5E-TL6E
TL3A-TL8 opp to sketch
TL2A-TL7-TL9- As Shown
Required List
Top Lateral
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH-HOWARD-NEEDLES & TAMMEN
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
All material Carbon Steel
FOR INFORMATION ONLY





Required List			
No.	Description	Mark	Remarks
4	Top Lateral	TL13E	
4	"	TL14E	
1	"	TL15R	As SH
1	"	TL15L	OPP HD
1	"	TL16R	As SH
1	"	TL16L	OPP HD.
1	"	TL17R	As SH
1	"	TL17L	OPP HD
1	"	TL18R	As SH
1	"	TL18L	OPP HD
2	"	TL19R	As SH
3	"	TL19L	OPP HD
2	"	TL20R	As SH
3	"	TL20L	OPP HD
8	"	TL21E	
8	"	TL22E	
1	"	TL23	
1	"	TL24	
4	"	TL25E	
4	"	TL26E	
1	"	TL27	OPP HD
1	"	TL28	OPP HD
1	"	TL31R	As SH
2	"	TL31L	OPP HD
1	"	TL32R	
3	"	TL33	
3	"	TL34	
2	"	TL32L	OPP HD
1	"	TL15A	As SH
1	"	TL16A	As SH
1	"	TL17A	OPP HD
1	"	TL18A	OPP HD

DIVISION "E"

Mark	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
TL13E	24-3⅛	25¾	24-0⅜	7	20-1⅛	1⅞	2-4¾	12-10⅞	4½	9 15/16	2-1⅞	1/10⅜	4	a	4-5⅞	b									9 15/16		
TL14E									4½	9 15/16	2-1⅞	1/10⅜			4-5⅞	b	24-1⅞	25¾	23-10⅜		21-4¾	1⅞	3-4¾	41-10⅜	41-5	17-1	9 15/16	
TL15E	24-1⅞	25¾	23-10⅜		22-4¾	1⅞	3-4¾	41-10⅜	3⅝	9¾	2-2	1/10⅜			3-5	d									9¾		
TL16E									3⅝	9¾	2-2	1/10⅜			3-5	d	24-1⅞	25¾	23-10⅜	7½	21-4¾	1⅞	3-4¾	41-10⅜	41-5	17-1	9¾	9/16	C
TL17E	24-1⅞	25¾	23-10⅜		22-4¾	1⅞	3-4¾	41-10⅜	3⅝	9¾	2-2	1/10⅜			3-5	d									9¾		
TL18E									3⅝	9¾	2-2	1/10⅜			3-5	d	24-1⅞	25¾	23-10⅜		22-4¾	1⅞	3-4¾	41-10⅜	41-5	17-1	9¾		
TL19E	23-10⅜	25¾	23-7⅞		22-1⅞	1⅞	3-4¾	41-10⅜	3 7/16	9¾	2-1⅞	1/9¾			3-5	j									9¾		
TL20E									3 7/16	9¾	2-1⅞	1/10⅜			3-5	j	23-10⅜	25¾	23-7⅞	6½	21-3⅞	1⅞	3-4¾	41-10⅜	41-5	17-1	9¾	½	f
TL21E	23-10⅜	25¾	23-7⅞		22-1⅞	1⅞	3-4¾	41-10⅜	3 7/16	9¾	2-1⅞	1/10⅜			3-5	j									9¾		
TL22E									3 7/16	9¾	2-1⅞	1/10⅜			3-5	j	23-10⅜	25¾	23-7⅞	6½	21-3⅞	1⅞	3-4¾	41-10⅜	41-5	17-1	9¾	⅜	h
TL23	24-1⅞	25¾	23-10⅜		22-4¾	1⅞	3-4¾	41-10⅜	3⅝	9¾	2-1⅞	1/10⅜			3-5	m									9¾		
TL24									3⅝	9¾	2-1⅞	1/10⅜			3-5	m	24-1⅞	25¾	23-10⅜	7½	21-4¾	1⅞	3-4¾	41-10⅜	41-5	17-1	9¾	5/8	k
TL25E	23-10⅜	25¾	23-7⅞		22-1⅞	1⅞	3-4¾	41-10⅜	3 7/16	9¾	2-1⅞	1/10⅜			3-5	j									9¾		
TL26E									3 7/16	9¾	2-1⅞	1/10⅜			3-5	j	23-10⅜	25¾	23-7⅞	6½	21-3⅞	1⅞	3-4¾	41-10⅜	41-5	17-1	9¾	⅜	p
TL27	24-1⅞	25¾	23-10⅜	7	20-1⅞	1⅞	3-4¾	41-5	17-1	3⅝	9¾	2-1⅞	1/10⅜	3/4	s	4-5	n								9¾		
TL28										3⅝	9¾	2-1⅞	1/10⅜			4-5	n	24-1⅞	25¾	23-10⅜		21-4¾	1⅞	3-4¾	41-10⅜	41-5	17-1	9¾		
TL15A	24-1⅞	25¾	23-10⅜		22-4¾	1⅞	3-4¾	41-10⅜	3⅝	9¾	2-1⅞	1/10⅜			3-5	d									9¾		
TL16A									3⅝	9¾	2-1⅞	1/10⅜			3-5	d	24-1⅞	25¾	23-10⅜	7½	21-4¾	1⅞	3-4¾	41-10⅜	41-5	17-1	9¾	⅜	cg
TL17A	24-1⅞	25¾	23-10⅜		22-4¾	1⅞	3-4¾	41-10⅜	3⅝	9¾	2-1⅞	1/10⅜			3-5	d									9¾		
TL18A									3⅝	9¾	2-1⅞	1/10⅜			3-5	d	24-1⅞	25¾	23-10⅜		22-4¾	1⅞	3-4¾	41-10⅜	41-5	17-1	9¾		

Top Lateral TL13E-TL14E-TL15E-TL16E-TL17E-TL18E-TL19E-TL20E-TL21E-TL22E TL25E-TL26E

" " TL27-TL23-TL17A-TL18A - Same to sketch

" " TL23-TL24-TL16A-TL16A - As shown

Shop Note:
Web Plate to be flush with back of flange L at field connections. Web Plate may project above back of L at other points.
Care should be taken to fit center lateral plates so that bevel of holes in center of plate are in correct position with reference to bevel.

MATERIAL: Carbon Steel—ASTM A7-36
Rivet Steel—ASTM A141-36

SPECIFICATIONS: City of Natchez—Mississippi River Bridge.
Superstructure—Contract No. 5—May, 1939.

PUNCHING: (See full size punching note for exceptions)
All holes in steel equal to or less in thickness than diameter of rivet shall be subpunched 1/4" small and reamed to size after assembling.
All holes sixteen FT shall be subpunched 1/4" small and reamed to size, or drilled from the solid to a metal template.

FULL SIZE PUNCHING: All holes may be punched full size

DRILLING: All holes in steel of thickness greater than diameter of rivet shall be drilled.

RIVETS: 7/8
OPEN HOLES: 1⅛
All Mat'l. Carbon Steel
Paint: One Coat of Approved Paint
Shop Contact Surfaces Not Painted

FOR INFORMATION ONLY

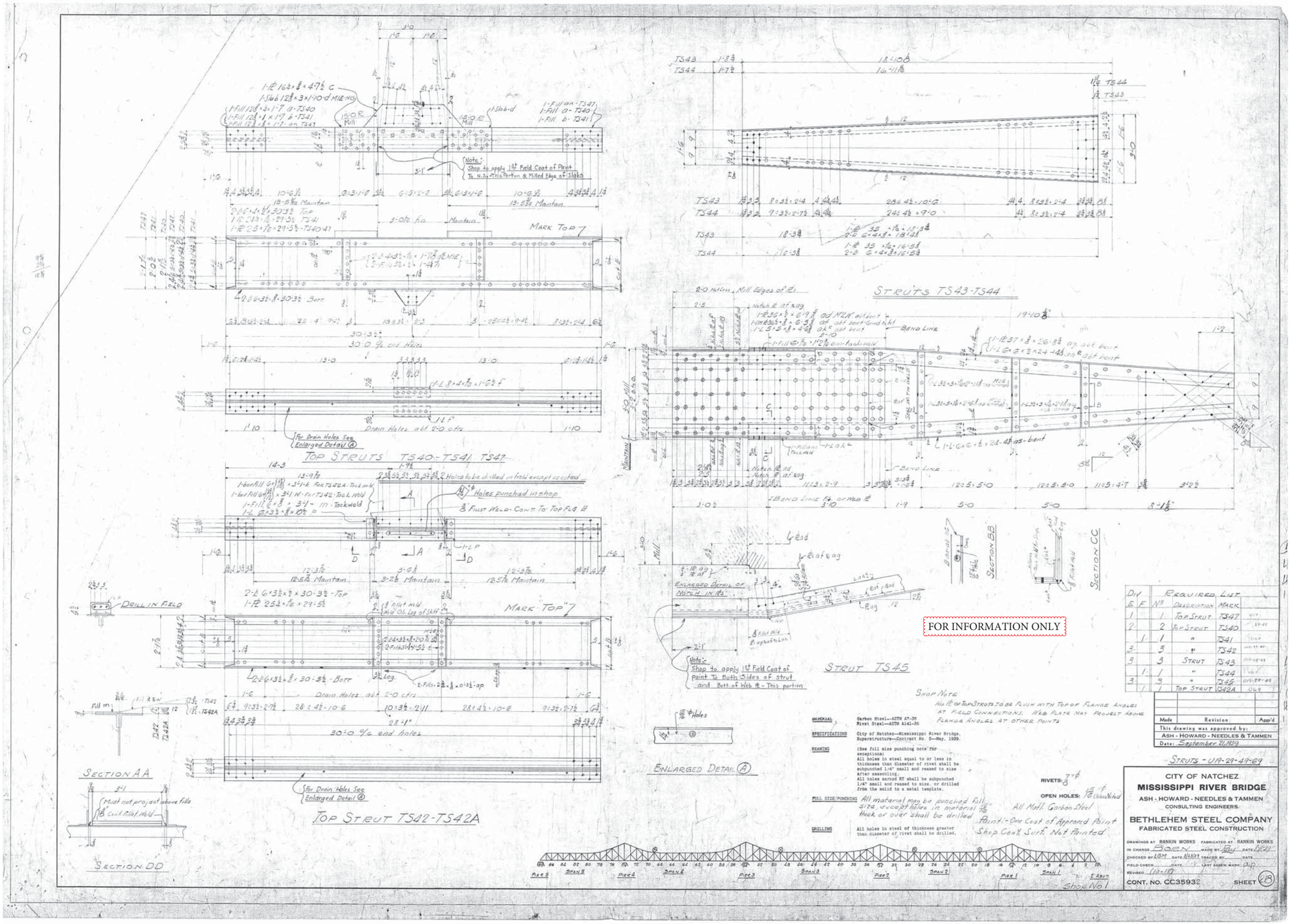
Mark	Revision	App'd

This drawing was approved by:
ASH - HOWARD - NEEDLES & TAMMEN
Date: September 12, 1939

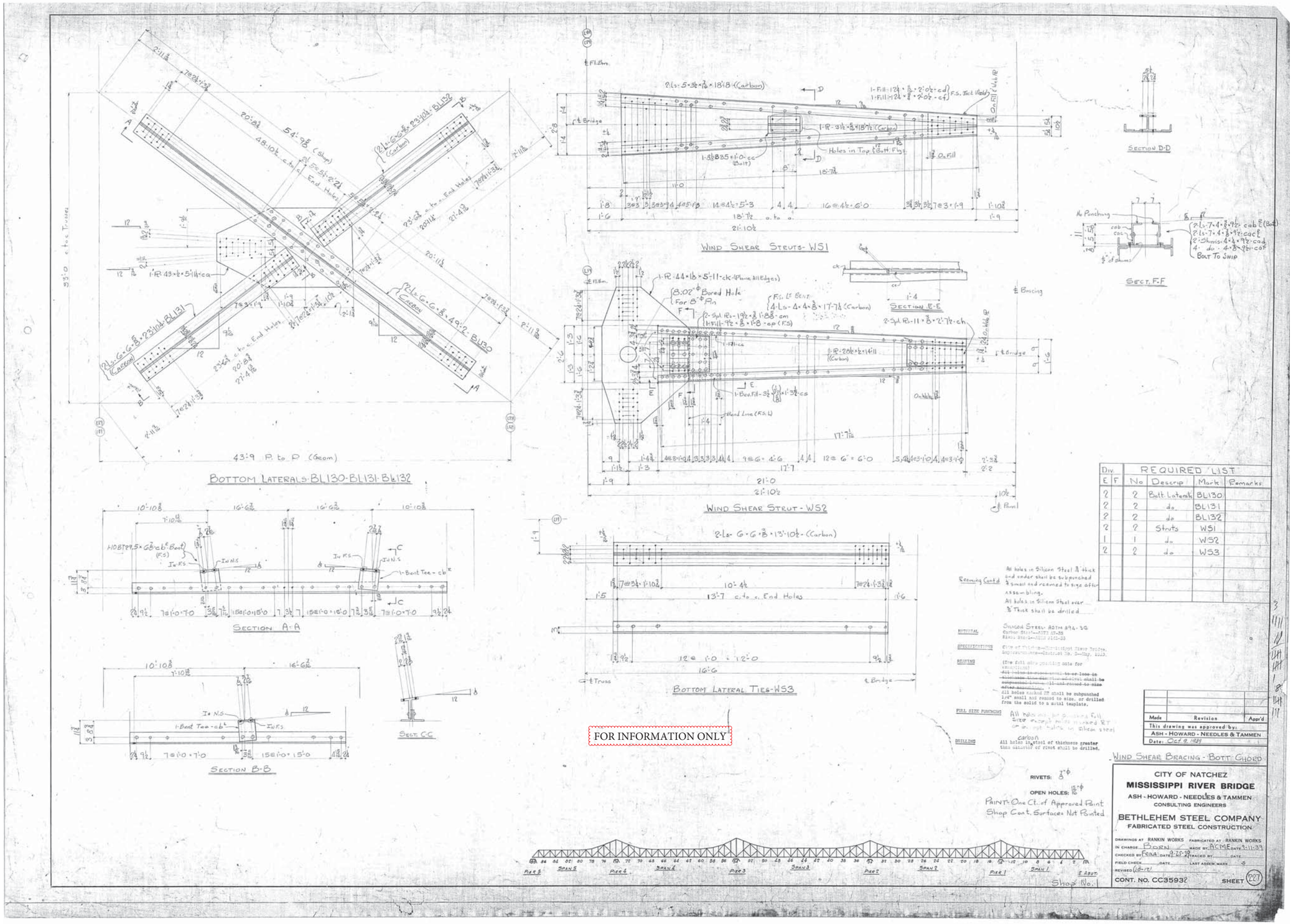
Top Laterals

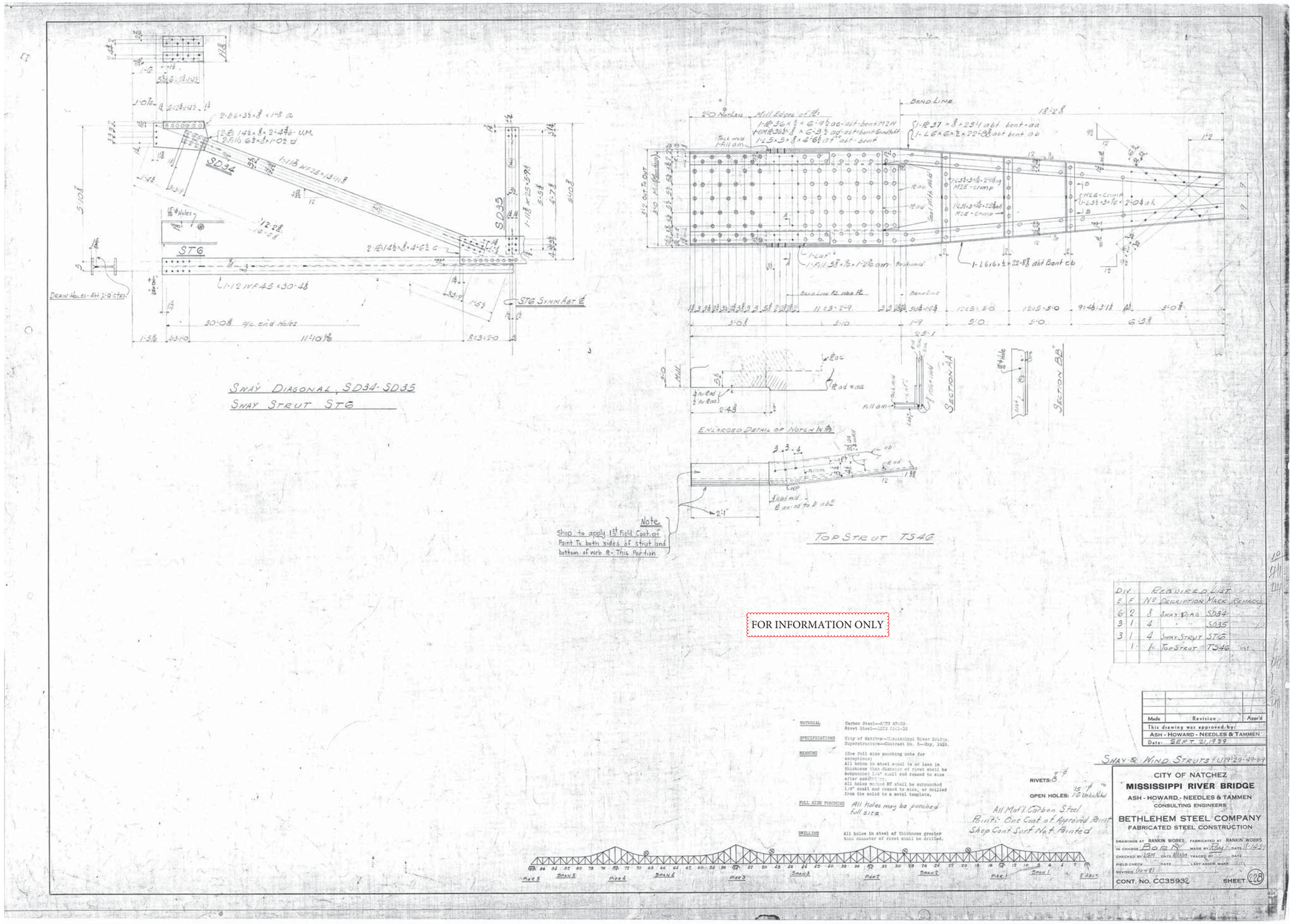
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION

DRAWINGS AT RANKIN WORKS FABRICATED AT RANKIN WORKS
IN CHARGE Bowen MADE BY Lilly DATE 6-30-39
CHECKED BY D DATE 9-12-39 TRACED BY DATE
FIELD CHECK DATE LAST ASSEM. MARK
REVISED
CONT. NO. CC35932 SHEET 200



FOR INFORMATION ONLY


BOTTOM LATERALS-BL130-BL131-BL132
43'-9 P. to P. (Geom)
WIND SHEAR STRUTS-WS1
WIND SHEAR STRUT-WS2
BOTTOM LATERAL TIES-WS3
SECTION A-A
SECTION B-B
SECT. C-C
SECTION D-D
SECT. F-F
SECTION E-E
FOR INFORMATION ONLY
REQUIRED LIST
Div. E F | No | Descrip | Mark | Remarks
2 2 Bott. Laterals BL130
2 2 do. BL131
2 2 do. BL132
2 2 Struts WS1
1 1 do. WS2
2 2 do. WS3
Revision
This drawing was approved by:
ASH - HOWARD - NEEDLES & TAMMEN
WIND SHEAR BRACING - BOTT. CHORD
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
CONT. NO. CC35932
SHEET 227
Shop No.


SWAY DIAGONAL SD34-SD35
SWAY STRUT ST6
SD34
SD35
ST6
ST6 SYMM ABT ℄
DRAIN HOLES - ABT 2'-0" CTRS
30'-0⅜ c/c end holes
11'-10 13/16
BEND LINE
18'-2⅜
SECTION "AA"
SECTION "BB"
ENLARGED DETAIL OF NOTCH IN PL
TOP STRUT TS46
Note
Shop to apply 1st Field Coat of Paint To both sides of strut and bottom of web PL - This Portion
FOR INFORMATION ONLY
REQUIRED LIST
DIV E F | No | DESCRIPTION | MARK | REMARKS
6 2 | 8 | SWAY DIAG | SD34
3 1 | 4 | " " | SD35
3 1 | 4 | SWAY STRUT | ST6
1 | 1 | TOP STRUT | TS46 | VAR
MATERIAL Carbon Steel—ASTM A7-33
Rivet Steel—ASTM A141-33
SPECIFICATIONS City of Natchez—Mississippi River Bridge. Superstructure—Contract No. 5—May, 1939.
REAMING (See full size punching note for exceptions) All holes in steel equal to or less in thickness than diameter of rivet shall be subpunched 1/4" small and reamed to size after assembling. All holes marked RT shall be subpunched 1/4" small and reamed to size, or drilled from the solid to a metal template.
FULL SIZE PUNCHING All holes may be punched full size.
DRILLING All holes in steel of thickness greater than diameter of rivet shall be drilled.
RIVETS: 8"
OPEN HOLES: 15"
All Mat'l Carbon Steel
Paint: One Coat of Approved Paint
Shop Cont. Surf. Not Painted
Made | Revision | Appr'd
This drawing was approved by:
ASH - HOWARD - NEEDLES & TAMMEN
Date: SEPT. 21, 1939
SWAY & WIND STRUTS
CITY OF NATCHEZ
MISSISSIPPI RIVER BRIDGE
ASH - HOWARD - NEEDLES & TAMMEN
CONSULTING ENGINEERS
BETHLEHEM STEEL COMPANY
FABRICATED STEEL CONSTRUCTION
DRAWINGS AT RANKIN WORKS FABRICATED AT RANKIN WORKS
IN CHARGE BOB R. MADE BY RDW DATE 8-14-39
CHECKED BY LGM DATE 8/23/39 TRACED BY DATE
FIELD CHECK DATE LAST ASSEM. MARK
REVISED (10-49)
CONT. NO. CC35932
SHEET 228