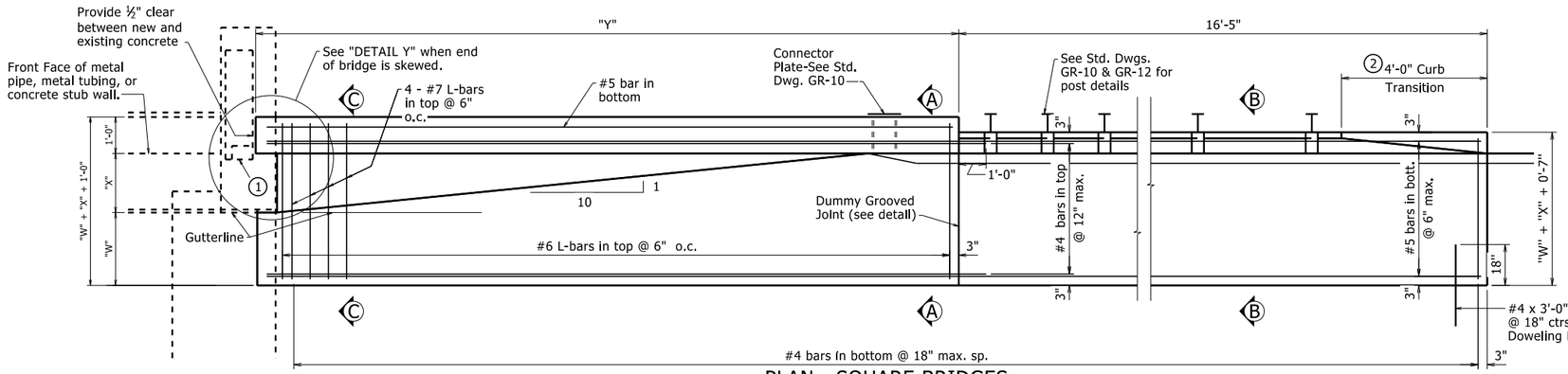
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.				

(1) - TYPE AT2 GUTTERS - 55038



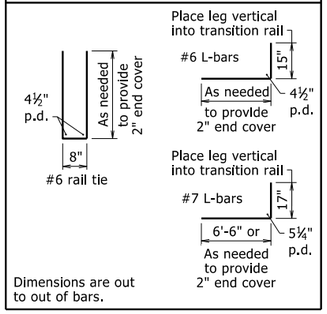
PLAN - SQUARE BRIDGES

½" = 1'-0"

(2) Construct curb with height-transition as shown if drop inlet is not used at end of gutter.

Construct curb full height (no height-transition) if drop inlet is used at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.

BENDING DIAGRAMS



Dimensions are out to out of bars.

APPROX. QUANTITIES FOR ONE SQUARE APPROACH GUTTER

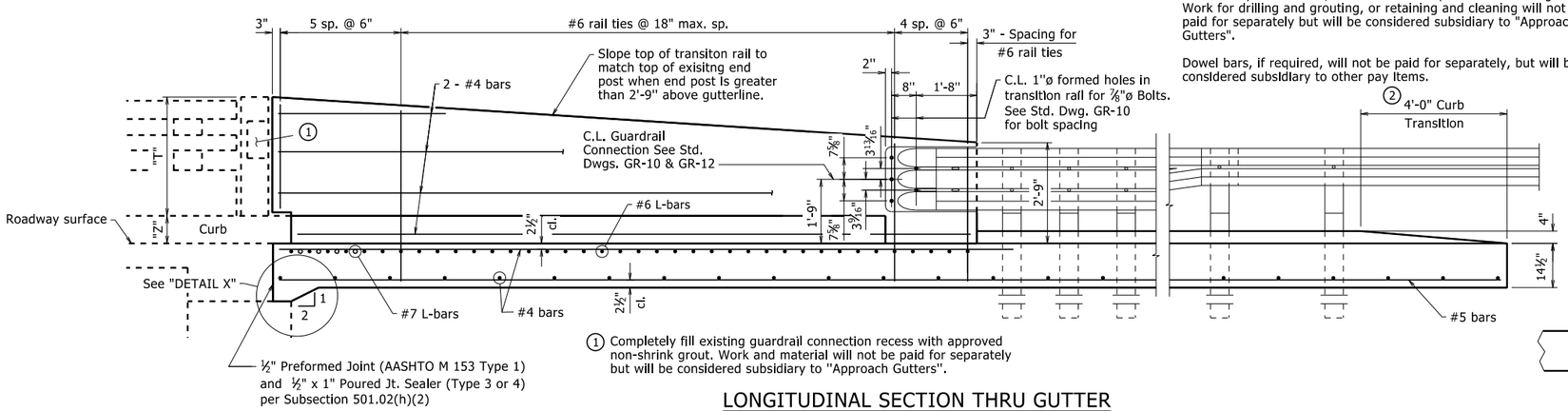
(For Information Only)

Concrete (cu. yd.)	("W" x 0.87) + ("X" x 1.83) + ("W" x "X" x 0.45) + ("Z" x "X" x 0.185) + ("T" x "X" x 0.185) + ("X"^2 x 0.45) + ("Z" x "X"^2 x 0.185) + ("T" x 0.06) + ("Z" x 0.06) + 0.79
Reinforcing Steel (lb.)	("W" x 68.63) + ("X" x 254.82) + ("T" x 14.54) + ("Z" x 14.54) + ("W" x "X" x 62) + ("T" x "X" x 10.06) + ("Z" x "X" x 10.06) + ("X"^2 x 62) + 135.72

VARIABLES: "T" = Height of the end post above the top of curb.
"W" = Distance from gutterline to edge of shoulder or edge of approach slab, if present.
"X" = Distance from gutterline to face of existing end post.
"Y" = "X" x 10 + 3.0
"Z" = Height of bridge curb.

Units for variables are in feet.

"W" + "X" shall not be less than 3'-0" unless approach gutter is doweled into an approach slab or concrete pavement.



(1) Completely fill existing guardrail connection recess with approved non-shrink grout. Work and material will not be paid for separately but will be considered subsidiary to "Approach Gutters".

½" Preformed Joint (AASHTO M 153 Type 1) and ½" x 1" Poured Jt. Sealer (Type 3 or 4) per Subsection 501.02(h)(2)

LONGITUDINAL SECTION THRU GUTTER

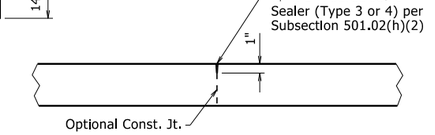
⅜" = 1'-0"

DOWELING NOTES

If new approach slab is used: Place dowels into approach slab using 18" embedment.

If existing approach slab is retained: Dowels shall be drilled and grouted 18" into existing slab. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for separately but will be considered subsidiary to "Approach Gutters".

Dowel bars, if required, will not be paid for separately, but will be considered subsidiary to other pay items.



DUMMY GROOVED JOINT

No Scale

GENERAL NOTES

This drawing shall only be used for thrie-beam retrofit of existing bridge rails.

Concrete shall be Class S or S(AE) or mixture used for Portland Cement Concrete Pavement.

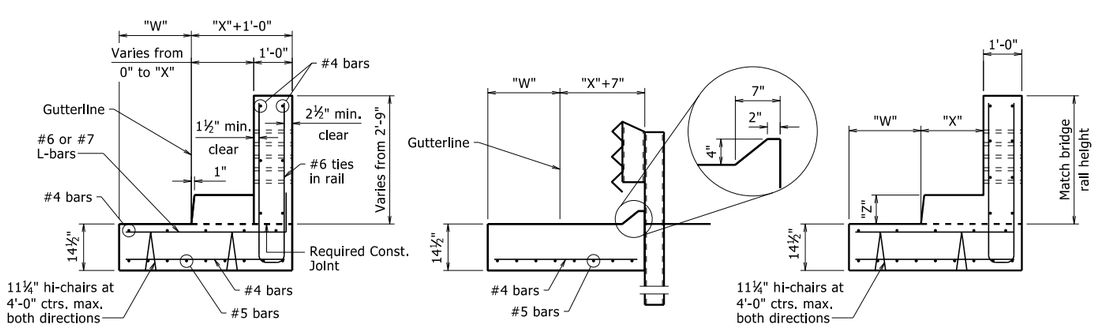
Reinforcing steel shall be Grade 60 (fy = 60,000 psi.) conforming to AASHTO M 31 or M 322, Type A, with mill test reports. Fabricate bar lengths to provide 2" minimum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504.

Preformed Joint and Poured Joint Sealer included in the item "Approach Gutters."

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

If an existing drop inlet is located within the Plan of the approach gutter, adjust the reinforcing as needed to facilitate construction of the approach gutter, unless otherwise noted.



SECTION A-A

½" = 1'-0"

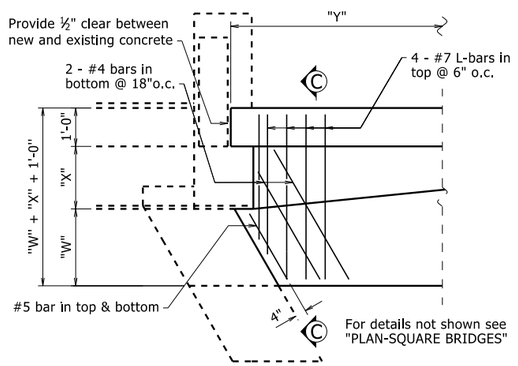
SECTION B-B

½" = 1'-0"

SECTION C-C

At end of Transition Rail
½" = 1'-0"

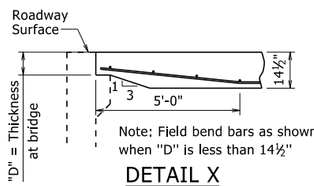
NOTE: Bridge end may vary from that shown. Adjust gutter details as required to provide similar rail transition.



NOTE: Reinforcing Steel is similar as shown for opposite side.

DETAIL Y

½" = 1'-0"



Note: Field bend bars as shown when "D" is less than 14½"

DETAIL X

⅜" = 1'-0"

This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on November 7, 2019. This copy is not a signed and sealed document.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

BRIDGE ENGINEER

STANDARD DETAILS FOR TYPE 'AT2' APPROACH GUTTERS (BRIDGES WITH CURBS & TYPE A, B, C, D, OR E RAILING)

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

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