

TRANSMITTAL OF ADDENDUM

INSTRUCTIONS:

Acknowledge receipt of Addenda in Proposal, on outer envelope of bid, **AND WITH THE FORM BELOW FAXED TO (214) 461-8390 or EMAIL TO: Office@bhcllp.com** upon receipt.

Addendum Acknowledgment FAX to (214) 461-8390 OR Email to: Office@bhcllp.com

I Acknowledge the receipt of Addendum No. 1

City of Lucas, Texas

Project Name: ORCHARD ROAD CHANNEL AND CULVERT IMPROVEMENTS
(RFP # 028-23)

By Facsimile Transmission on this date: January 20, 2023

Contractor's Signature

Company Name

E-Mail Address: _____

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OR
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(Indicate Date Received as verification that you received this Addendum)**

Total Number of Fax Pages: 6

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CITY OF LUCAS, TEXAS
ORCHARD ROAD CHANNEL AND CULVERT IMPROVEMENTS
RFP # 028-23

ADDENDUM NO. 1

Plans and specifications for the Orchard Road Channel and Culvert Improvements project (RFP # 028-33), for the City of Lucas, Texas, on which bids are to be received until **2:30 p.m., Tuesday, January 24, 2022**, are hereby modified as follows:

CLARIFICATION:

The questions that follow were asked during the Pre-Bid Conference for the Rimrock Detention Pond Improvements and the South Orchard Road Channel and Culvert Improvement projects on Tuesday, January 17, 2022.

1. **QUESTIONS & ANSWERS:**

A. (Q) Can Precast Box Culverts be used for the crossing at Orchard Road?

(A) Yes, the City and Engineer do not take exception to using precast box culverts based on TxDOT Standard Details. The following TxDOT Standard Details related to Precast Boxes are issued with this addendum and are hereby made part of the plans and specifications for the Orchard Road Channel and Culvert Improvements project:

- TxDOT Standard SCP-5 – Single Box Culverts Precast
- TxDOT Standard SCP-MD – Miscellaneous Details
- TxDOT Standard ECD – Extended Curb Details (Curbs Over 1'-0" Tall)

B. (Q) What is used between the boxes for precast boxes?

(A) Refer to TxDOT Standard SCP-MD – Miscellaneous Details. The details for treatment of the space between multiple boxes are shown at the top of this sheet.

C. (Q) Can you provide a vendor for the steel fence to be mounted on top of the headwalls?

(A) No vendor will be provided; however, this is pedestrian fence not a traffic rail and the dimensions are fairly common. Submit shop drawings for review as required by the notes included in the plans.

D. (Q) The bid documents say that electronic responses are recommended; however, I don't see on the city website where to submit the bid. Can you offer me some insight?

(A) Delete the statement regarding electronic bids. The City only accepts bids submitted in-person or delivered by mail. Bids shall be in a sealed in a manila envelope with the name of the project, bid number and Linezka Maduro (City Purchasing Coordinator) on the front of the envelope. All bids must be received by the time established for the bid opening.

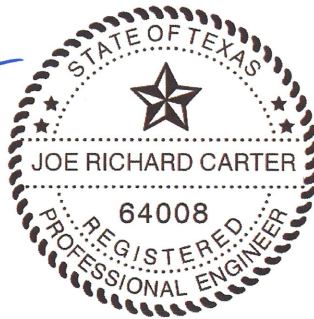
2. Contact the City of Lucas Purchasing Department at (972) 912-1203 if you have any questions regarding this addendum.

3. Acknowledge receipt of this addendum by initialing in the appropriate space on the Bid Endorsement page, following the bid schedule.

4. Bidders shall acknowledge receipt of Addendum No. 1 in the space provided in the Proposal, on the outer envelope of their bid, and by faxing back the "Transmittal of Addendum Acknowledgment Sheet" to Birkhoff, Hendricks & Carter, L.L.P. at (214) 461-8390, or email to Office@bhcllp.com.


Signature

Date: 1/20/2023



BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
11910 GREENVILLE AVE., SUITE 600
DALLAS, TEXAS 75243

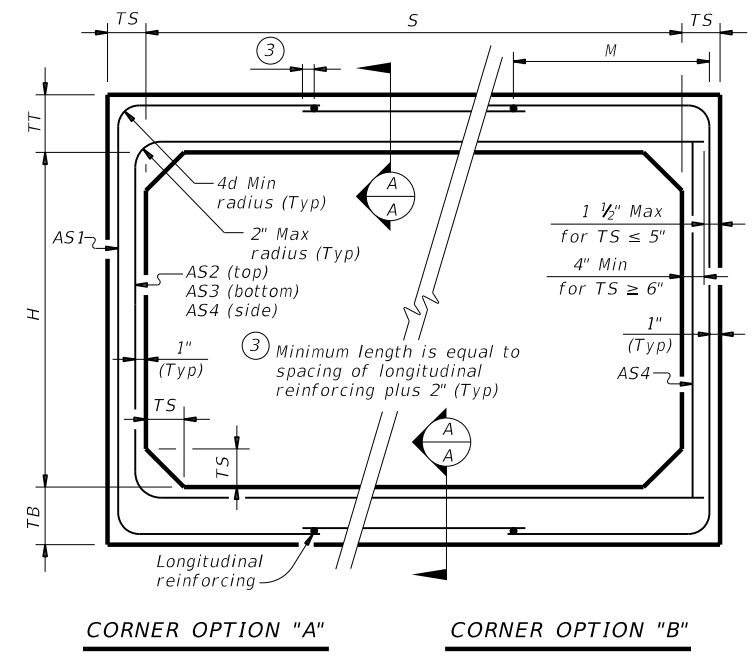
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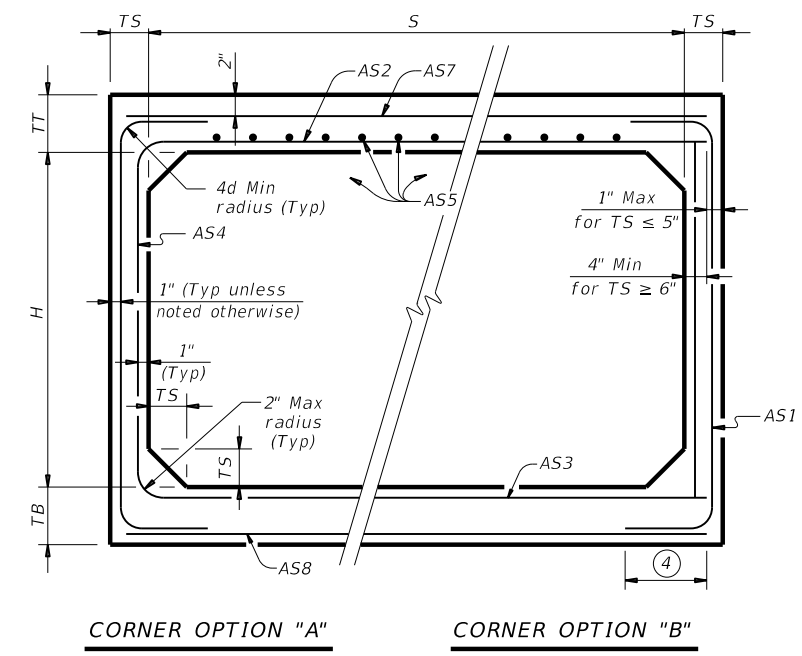
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BOX DATA

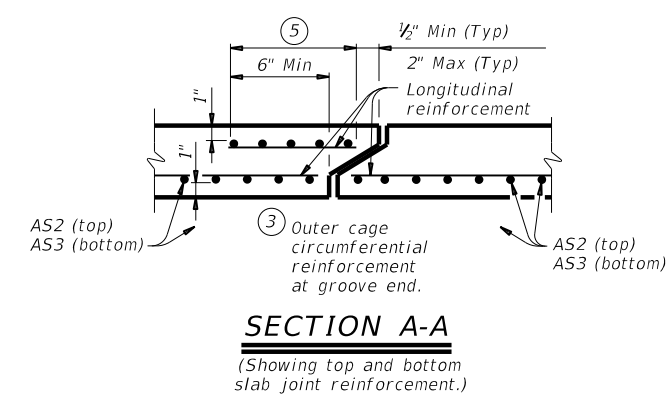
SECTION DIMENSIONS					Fill Height (ft.)	M (Min) (in.)	REINFORCING (sq. in. / ft.) ^②								① Lift Weight (tons)
S (ft.)	H (ft.)	TT (in.)	TB (in.)	TS (in.)			AS1	AS2	AS3	AS4	AS5	AS7	AS8		
5	2	8	7	6	< 2	-	0.19	0.27	0.18	0.14	0.19	0.19	0.17	6.0	
5	2	6	6	6	2 < 3	44	0.22	0.20	0.16	0.14	-	-	-	5.1	
5	2	6	6	6	3 - 5	44	0.16	0.14	0.14	0.14	-	-	-	5.1	
5	2	6	6	6	10	36	0.15	0.14	0.14	0.14	-	-	-	5.1	
5	2	6	6	6	15	36	0.20	0.18	0.18	0.14	-	-	-	5.1	
5	2	6	6	6	20	36	0.26	0.23	0.24	0.14	-	-	-	5.1	
5	2	6	6	6	25	36	0.33	0.29	0.29	0.14	-	-	-	5.1	
5	2	6	6	6	30	36	0.39	0.34	0.35	0.14	-	-	-	5.1	
5	3	8	7	6	< 2	-	0.19	0.31	0.21	0.14	0.19	0.19	0.17	6.6	
5	3	6	6	6	2 < 3	45	0.18	0.24	0.19	0.14	-	-	-	5.7	
5	3	6	6	6	3 - 5	36	0.14	0.17	0.16	0.14	-	-	-	5.7	
5	3	6	6	6	10	36	0.14	0.16	0.17	0.14	-	-	-	5.7	
5	3	6	6	6	15	35	0.16	0.21	0.22	0.14	-	-	-	5.7	
5	3	6	6	6	20	35	0.21	0.27	0.28	0.14	-	-	-	5.7	
5	3	6	6	6	25	35	0.26	0.34	0.34	0.14	-	-	-	5.7	
5	3	6	6	6	30	35	0.31	0.41	0.41	0.14	-	-	-	5.7	
5	4	8	7	6	< 2	-	0.19	0.33	0.24	0.14	0.19	0.19	0.17	7.2	
5	4	6	6	6	2 < 3	45	0.16	0.27	0.22	0.14	-	-	-	6.3	
5	4	6	6	6	3 - 5	45	0.14	0.19	0.18	0.14	-	-	-	6.3	
5	4	6	6	6	10	36	0.14	0.18	0.18	0.14	-	-	-	6.3	
5	4	6	6	6	15	35	0.14	0.23	0.24	0.14	-	-	-	6.3	
5	4	6	6	6	20	35	0.17	0.30	0.31	0.14	-	-	-	6.3	
5	4	6	6	6	25	35	0.21	0.37	0.38	0.14	-	-	-	6.3	
5	4	6	6	6	30	35	0.25	0.44	0.45	0.14	-	-	-	6.3	
5	5	8	7	6	< 2	-	0.19	0.35	0.26	0.14	0.19	0.19	0.17	7.8	
5	5	6	6	6	2 < 3	45	0.14	0.29	0.24	0.14	-	-	-	6.9	
5	5	6	6	6	3 - 5	45	0.14	0.21	0.20	0.14	-	-	-	6.9	
5	5	6	6	6	10	45	0.14	0.19	0.20	0.14	-	-	-	6.9	
5	5	6	6	6	15	36	0.14	0.24	0.25	0.14	-	-	-	6.9	
5	5	6	6	6	20	35	0.15	0.31	0.32	0.14	-	-	-	6.9	
5	5	6	6	6	25	35	0.18	0.38	0.39	0.14	-	-	-	6.9	
5	5	6	6	6	30	35	0.21	0.46	0.47	0.14	-	-	-	6.9	



FILL HEIGHT 2 FT AND GREATER



FILL HEIGHT LESS THAN 2 FT



SECTION A-A
(Showing top and bottom slab joint reinforcement.)

MATERIAL NOTES:
 Provide 0.03 sq. in./ft. minimum longitudinal reinforcement at each face in slabs and walls. This minimum requirement may be met by the transverse wires when wire mesh reinforcement is used.
 Provide Class H concrete ($f'c = 5,000$ psi).

GENERAL NOTES:
 Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
 See Box Culverts Precast Miscellaneous Details (SCP-MD) standard sheet for details and notes not shown.
 In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Submit shop plans for alternate designs in accordance with Item "Precast Concrete Structural Members (Fabrication)".

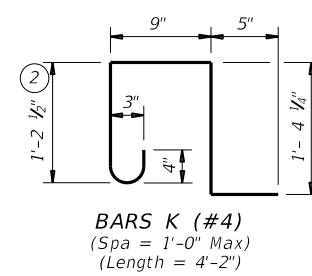
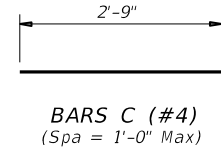
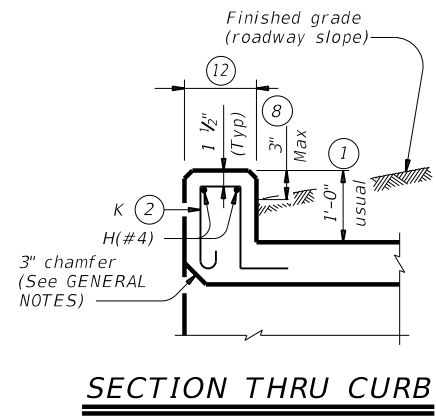
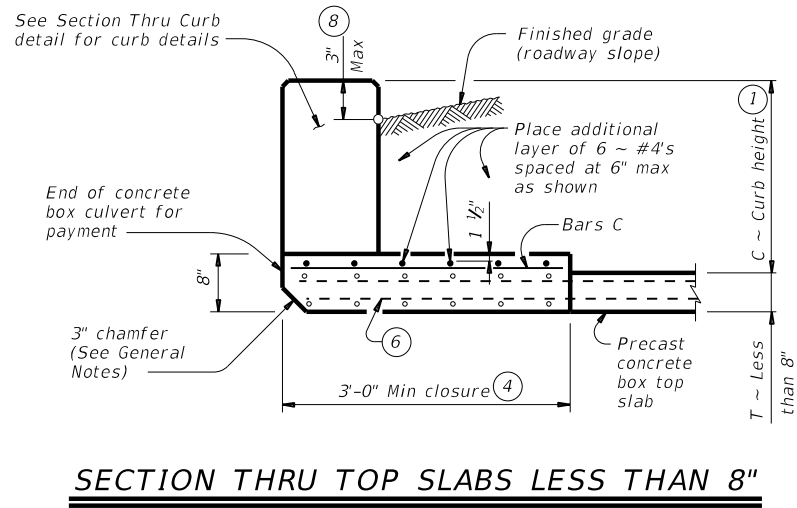
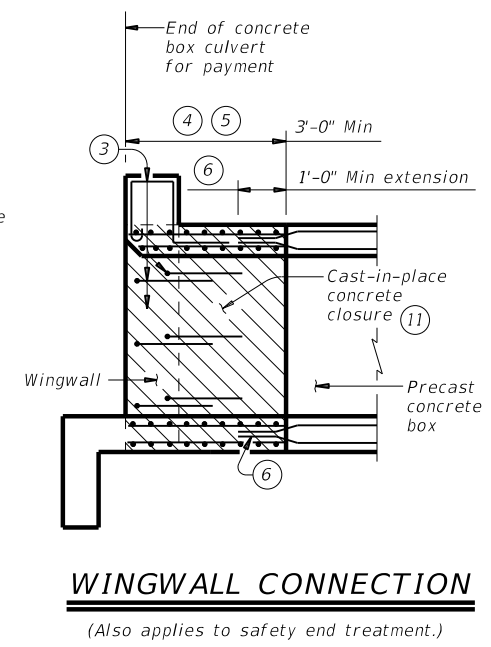
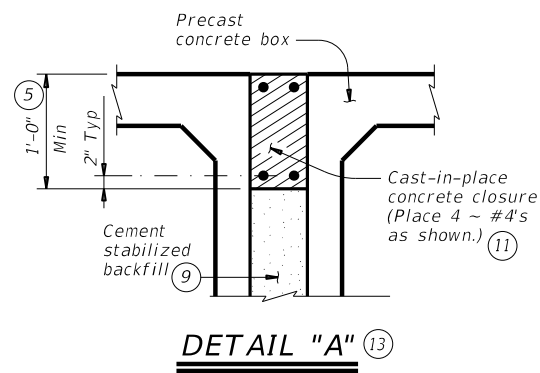
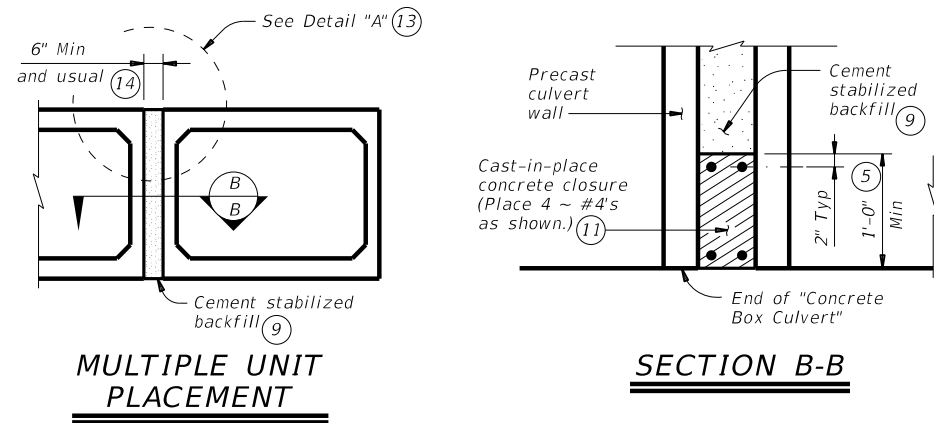
① For box length = 8'-0"
 ② AS1 thru AS4, AS7 and AS8 are minimum required areas of reinforcing per linear foot of box length. AS5 is minimum required area of reinforcing per linear foot of box width.

HL93 LOADING

		Bridge Division Standard	
<h2 style="margin: 0;">SINGLE BOX CULVERTS PRECAST</h2> <h3 style="margin: 0;">5'-0" SPAN</h3>			
<h2 style="margin: 0;">SCP-5</h2>			
FILE: scp05sts-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT
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REVISIONS			HIGHWAY
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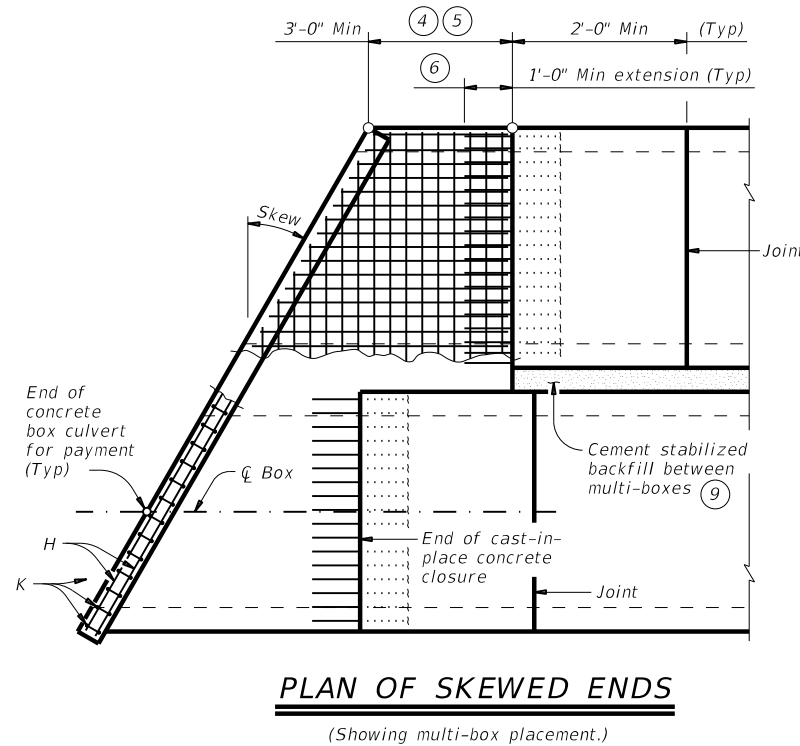
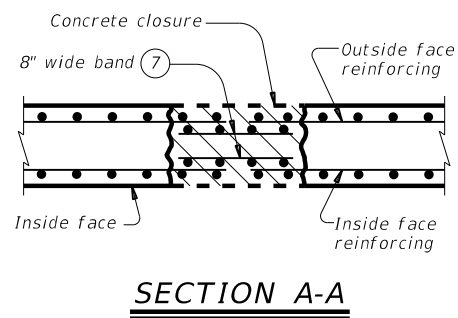
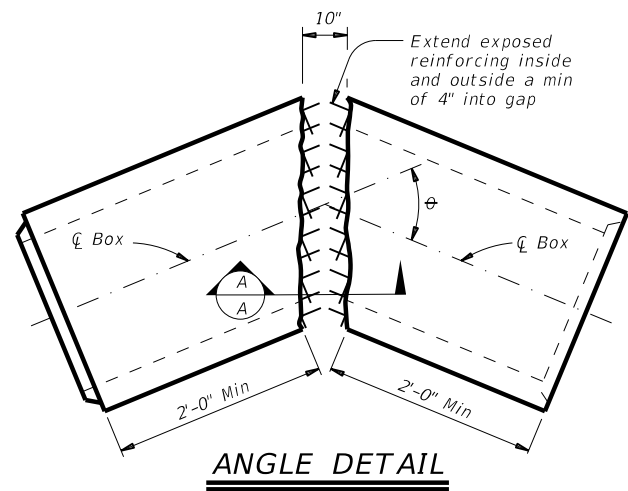


- 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail, or curbs taller than 1'-0", refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-CM) standard sheet. Refer to the Box Culvert Rail Mounting Details (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.
- For curbs less than 1'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3" high, Bars K may be omitted.
- Extend curb, wingwall, or safety end treatment reinforcing into concrete closure. Bend or trim, as necessary, any reinforcing that does not fit into closure area.
- Provide a 3'-0" Min cast-in-place concrete closure. Break back boxes in the field or cast boxes short. Provide bands of reinforcing in the closure that are the same size and spacing as in the precast box section. Provide #4 longitudinal reinforcement spaced at 12 inches Max within the closure. Except where shown otherwise, construct the cast-in-place closure flush with the inside and outside faces of the precast box section.
- For multiple unit placements, adjust the length of the closure for the interior walls as necessary. Provide a 3'-0" Min cast-in-place closure in the top slab, bottom slab, and exterior wall. See Section B-B detail when interior walls are cast full length.
- Extend precast box reinforcing a minimum of 1'-0" into concrete closure (Typ).
- Place bands of reinforcing matching the inside and outside face reinforcing in the gaps of the top and bottom slabs. Place a band matching the outside face reinforcing of the wall in the gaps of the walls (placed in the outside face only). Tack weld the bands to the exposed reinforcing at each point of contact.
- For vehicle safety, the following requirements must be met:
 - For structures without bridge rail, construct curbs no more than 3" above finished grade.
 - For structures with bridge rail, construct curbs flush with finished grade. Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- Cement stabilized backfill between boxes is considered part of the box culvert for payment.
- All curb concrete and reinforcing is considered part of the box culvert for payment.
- Any additional concrete and reinforcing required for the closures will be considered subsidiary to the box culvert for payment.
- 1'-0" typical. 2'-3" when the Box Culvert Rail Mounting Details (RAC) standard sheet is referred to elsewhere in the plans.
- For multiple unit placement with overlay, with 1 to 2 course surface treatment, or with the top slab as the final riding surface, provide wall closure as shown in Detail "A".
- This dimension may be increased with approval of the Engineer to allow the precast boxes to be tunneled or jacked in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box". No payment will be made for any additional material in the gap between adjacent boxes.

MATERIAL NOTES:
 Provide Grade 60 reinforcing steel.
 Provide ASTM A1064 welded wire reinforcement.
 Provide Class C concrete (f_c = 3,600 psi) for the closures.
 Provide cement stabilized backfill meeting the requirements of Item 400, "Excavation and Backfill for Structures."
 Any additional concrete required for the closures will be considered subsidiary to the box culvert.

GENERAL NOTES:
 Designed according to AASHTO LRFD Bridge Design Specifications.
 Refer to the Single Box Culverts Precast (SCP) standard sheets for details and notes not shown.
 Chamfer the bottom edge of the top slab closure 3 inches at culvert closure ends.

Cover dimensions are clear dimensions, unless noted otherwise.
 Reinforcing bars dimensions are out-to-out of bars.

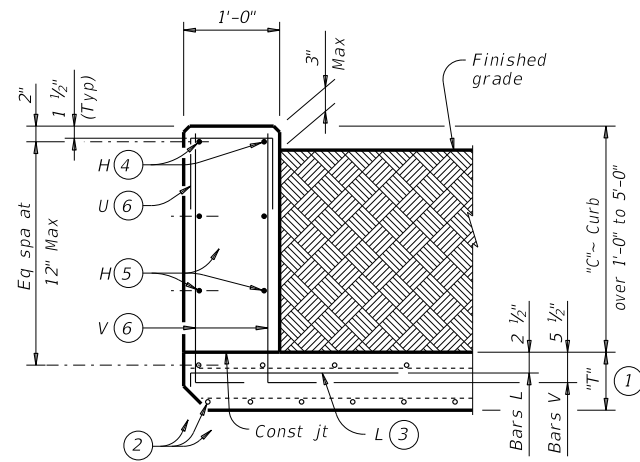


HL93 LOADING

		Bridge Division Standard	
BOX CULVERTS PRECAST MISCELLANEOUS DETAILS			
SCP-MD			
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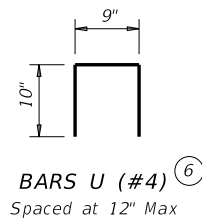
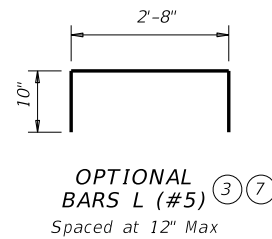
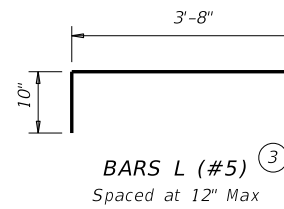
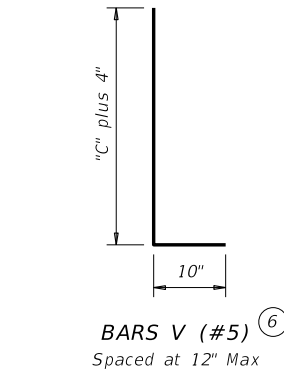
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TYPICAL SECTION

Used for curbs over 1'-0" to 5'-0"



- ① "T" is equal to the culvert top slab thickness. For precast boxes with slabs less than 8" thick, see SCP-MD standard for additional details.
- ② Adjust normal culvert slab bars as necessary to clear obstructions.
- ③ Place bars L as shown. Tilt hook as necessary to maintain cover.
- ④ Place normal culvert curb bars H(#4) as shown. Adjust as necessary to clear obstructions.
- ⑤ Additional bars H(#4) as required to maintain 12" Max spacing.
- ⑥ Replace normal culvert curb bars K with one bar U and two bars V as shown spaced at 12" Max. Adjust length of bars V as necessary to maintain clear cover.
- ⑦ Optional bars L are to be used only for precast box culverts with 3'-0" closure pour.
- ⑧ Quantities shown are for Contractor's information only. Quantities are per linear foot of curb length. The value in table can be interpolated for intermediate values of curb height, "C". Quantity includes bars K (when applicable).

TABLE OF ESTIMATED CURB QUANTITIES ⑧		
Curb Height "C"	Conc (CY/LF)	Reinf Steel (Lb/LF)
1'-0"	0.037	10.4
1'-6"	0.056	14.5
2'-0"	0.074	15.6
2'-6"	0.093	18.0
3'-0"	0.111	19.0
3'-6"	0.130	21.3
4'-0"	0.148	22.4
4'-6"	0.167	24.8
5'-0"	0.185	25.9

CONSTRUCTION NOTES:
Adjust reinforcing steel as necessary to provide 1 1/4" cover.
For vehicle safety, top of the curb must not project more than 3" above the finished grade.

MATERIAL NOTES:
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.
Provide Class "C" concrete (f'c = 3,600 psi) minimum for curbs.
Provide bar laps, where required, as follows:
• Uncoated or galvanized ~ #4 = 1'-8" Min

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
These extended curb details have sufficient strength to allow for future retrofit of Type T631 or T631LS railing. These details are suitable for use with PR11, PR22 and PR3 type rails. These details are not suitable for the mounting of other rail types. For new construction using T631 or T631LS railing, use the T631-CM standard.
This Curb is considered as part of the Box Culvert for payment.

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.



EXTENDED CURB DETAILS
FOR BOX CULVERTS WITH CURBS OVER 1'-0" TO 5'-0" TALL

ECD

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