

DESIGN DATA

MATERIAL:
CLASS A CONCRETE
REINFORCING STEEL

f'c = 4 KSI
fy = 60 KSI

LOADING:
HL-93

DESIGN:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION
ASTM C890
ASTM C913

THROAT SECTION (AS REQUIRED)
FOR DETAILS OF THROAT SECTION,
SEE ROADWAY STANDARD PCI-1

JOINT DETAIL AT
MANUFACTURER'S DISCRETION

PRECAST CURB INLET
FOR DETAILS OF PRECAST CURB INLET,
SEE ROADWAY STANDARD PCI-1

PLAN VIEW - DESIGN 2

NOTE: THROAT SECTION MAY ENTER EITHER
OR BOTH SIDES OF PRECAST CURB INLET.

THE DETAILS SHOWN ON THIS SHEET ARE FOR STORM SEWER APPLICATIONS
ONLY; THEY SHOULD NOT BE USED FOR SANITARY SEWER APPLICATIONS.

DETAILS ARE SHOWN FOR DESIGN 2 AND DESIGN 3 ONLY.
DESIGN 1 DETAILS ARE SIMILAR.

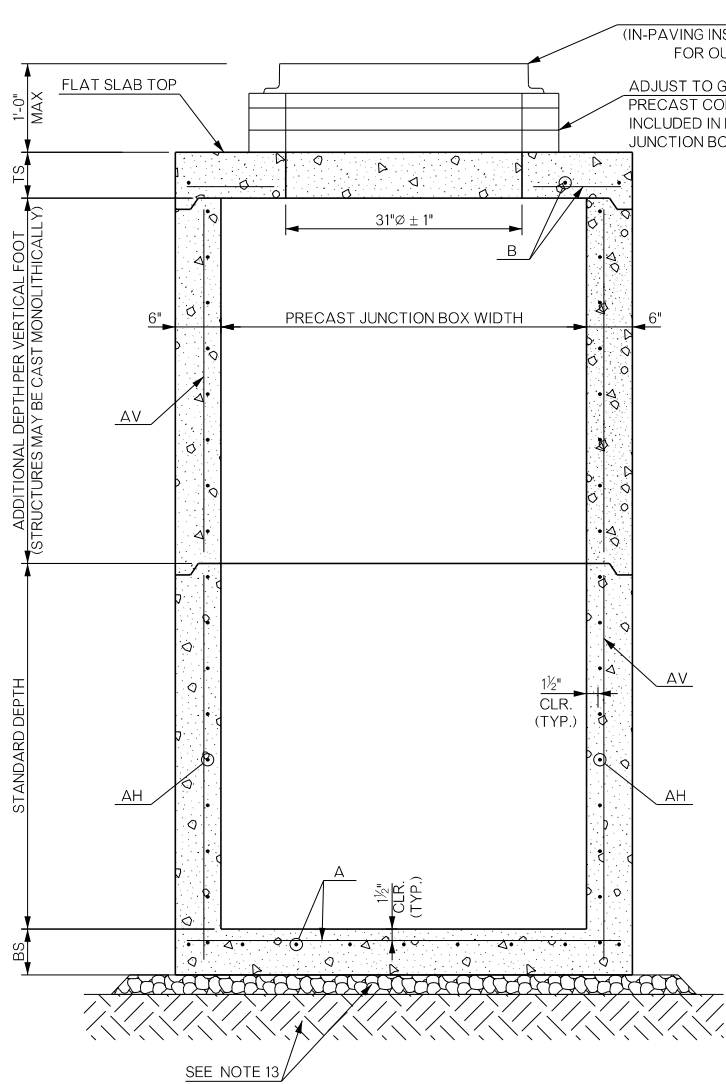
THROAT SECTION (AS REQUIRED)
FOR DETAILS OF THROAT SECTION,
SEE ROADWAY STANDARD PCI-1

JOINT DETAIL AT
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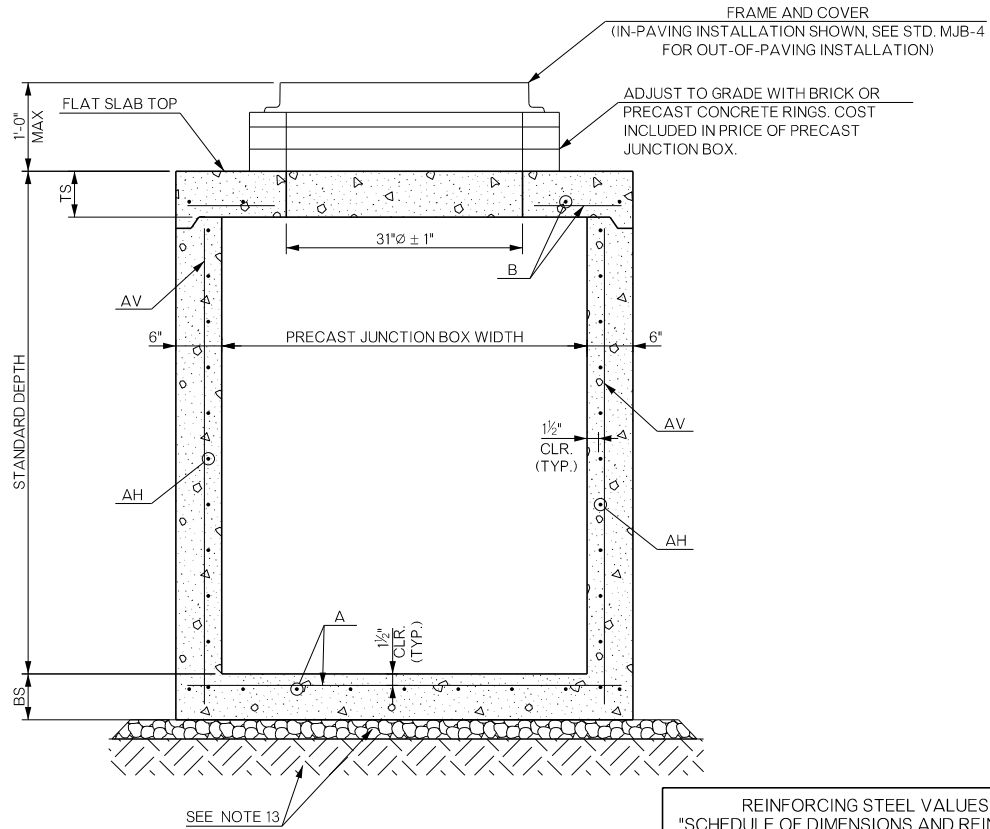
PRECAST CURB INLET
FOR DETAILS OF PRECAST CURB INLET,
SEE ROADWAY STANDARD PCI-1

PLAN VIEW - DESIGN 3

NOTE: THROAT SECTION MAY ENTER EITHER
OR BOTH SIDES OF PRECAST CURB INLET.



SECTION A-A - NON-STANDARD DEPTH



SECTION A-A - STANDARD DEPTH

REINFORCING STEEL VALUES LISTED IN
"SCHEDULE OF DIMENSIONS AND REINFORCING STEEL"
ARE MINIMUM VALUES. STRUCTURES THAT PROVIDE
VALUES LARGER THAN THOSE SHOWN WILL BE
CONSIDERED ACCEPTABLE.

SCHEDULE OF DIMENSIONS AND REINFORCING STEEL										
JUNCTION BOX WIDTH ■	STANDARD DEPTH	A BARS (IN ² /FT)	AH BARS (IN ² /FT)					B BARS (IN ² /FT)	BS	TS
		ALL DEPTHS TO 10 FT	5'-6"	6'-7"	7'-8"	8'-9"	9'-10"	ALL DEPTHS TO 10 FT		
48"	6'-0"	0.29	0.11	0.12	0.13	0.14	0.15	0.29	6"	6"
60"	6'-0"	0.36	0.15	0.17	0.19	0.21	0.23	0.30	6"	8"
72"	6'-0"	0.44	0.21	0.24	0.27	0.30	0.32	0.41	6"	8"

■ JUNCTION BOXES ARE SQUARE, WITH ALL SIDES BEING THE LENGTH SHOWN.

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2019 ODOT STANDARD SPECIFICATIONS.
- FOR DETAILS OF FRAMES, GRATES AND HOODS SEE ROADWAY STANDARDS MFC-5, SSIF-5, CIG-4 AND CI-2. COST OF FRAMES, GRATES AND HOODS SHALL BE INCLUDED IN THE COST OF THE STRUCTURE.
- THE THREE PRECAST JUNCTION BOX DESIGNS SHOWN ARE TO BE MADE TO A DEPTH OF 6 FEET, ANY DEPTH ABOVE 6 FEET TO 10 FEET, SHALL BE PAID FOR AS "ADDITIONAL DEPTH", IN VF.
- THERE SHALL BE A MINIMUM VERTICAL DISTANCE OF 6 INCHES BETWEEN AN OPENING AND ANY EDGE.
- PROVIDE LIFTING DEVICES IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE GRADE 60 REINFORCING STEEL CONFORMING TO ASTM A615 OR EQUIVALENT AREA OF WELDED WIRE REINFORCING CONFORMING TO ASTM A1064.
- PROVIDE A MINIMUM CLEAR COVER OF 1½ INCHES TO REINFORCING STEEL.
- WALLS OR SLABS WITH A THICKNESS OF 8 INCHES OR GREATER REQUIRE A SECONDARY LAYER OF REINFORCING STEEL. PROVIDE AN AREA OF REINFORCING STEEL EQUAL TO 0.11 IN² /FT EACH WAY IN THE SECONDARY LAYER.
- MAXIMUM OPENING DIAMETER SHALL BE 4 INCHES LARGER THAN OUTSIDE DIAMETER OF PIPE.
- DESIGN TONGUE AND GROOVE JOINTS FOR FULL CLOSURE ON BOTH SHOULDERS. MINIMUM SPIGOT DEPTH IS ¾ INCHES.
- SEAL TONGUE AND GROOVE JOINTS WITH PREFORMED OR BULK MASTIC IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. TONGUE AND GROOVE JOINTS MAY BE GROUTED NO MORE THAN 1 INCH BETWEEN EACH SECTION OR HALF THE JOINT DEPTH, WHICHEVER IS GREATER. JOINT SEALING SHALL BE INCLUDED IN COST OF STRUCTURE.
- DO NOT GROUT RUBBER GASKET JOINTS WITHOUT THE MANUFACTURER'S RECOMMENDATIONS.
- THE FOUNDATION SHALL BE STABILIZED OR REMOVED AND REPLACED WITH FIRM AND STABLE FOUNDATION MATERIAL. A MINIMUM 3 INCH THICK LEVELING COURSE SHALL BE PROVIDED BELOW THE BASE AREA OF THE INLET AND EXTEND 6 INCHES BEYOND THE BASE AREA. THE LEVELING COURSE SHALL BE CONSTRUCTED WITH AGGREGATE BASE TYPE A. COSTS ASSOCIATED WITH THE FOUNDATION AND LEVELING COURSE SHALL BE INCLUDED IN THE PRICE BID OF THE STRUCTURE.
- FLEXURAL REINFORCING STEEL SHALL NOT EXCEED SPACING OF 6 INCHES CENTER TO CENTER.
- OPENINGS IN FLAT SLAB TOPS SHALL BE ADDITIONALLY REINFORCED WITH A MINIMUM OF 0.20 SQUARE INCHES OF STEEL AT 90 DEGREES.
- THE ENGINEER MAY SPECIFY THE USE OF STEPS OR LADDERS, WHICH SHALL CONFORM TO ASTM C478.
- THE ORIENTATION OF THE SPIGOT IS FOR INFORMATIONAL PURPOSES ONLY AND IS AT THE DISCRETION OF THE MANUFACTURER.
- PRECAST JUNCTION BOXES CAN BE MADE UP TO A DEPTH OF 10 FEET USING DESIGN SHOWN ON THIS SHEET. DEPTHS GREATER THAN 10 FEET WILL REQUIRE SPECIAL DESIGN.
- ALL MATERIALS AND LABOR INCLUDED IN COST OF PRECAST JUNCTION BOX.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
611(G)	PRECAST INLET PJB 4' WIDE (DES. ▲)	EA.
611(G)	PRECAST INLET PJB 5' WIDE (DES. ▲)	EA.
611(G)	PRECAST INLET PJB 6' WIDE (DES. ▲)	EA.
611(H)	ADD'L DEPTH IN PRECAST INLET PJB 4' WIDE	VF
611(H)	ADD'L DEPTH IN PRECAST INLET PJB 5' WIDE	VF
611(H)	ADD'L DEPTH IN PRECAST INLET PJB 6' WIDE	VF

▲ SPECIFY INLET DESIGN & CURB OPENING DESIGNATION. REFER TO STD. PCI-1.

APPROVED BY
ROADWAY ENGINEER:  DATE: 4/1/2025
ROADWAY DESIGN DIVISION STANDARD



PRECAST JUNCTION BOX
(KEYED WITH PRECAST CURB INLETS)

2019 SPECIFICATIONS

PJB	0
R-43	