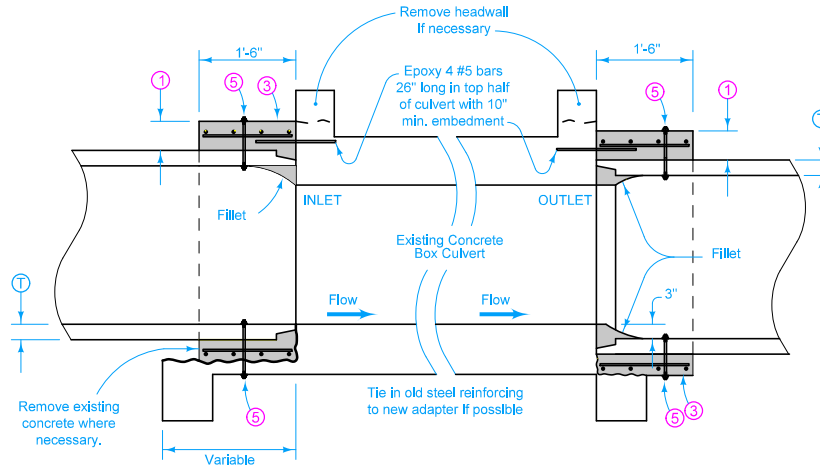
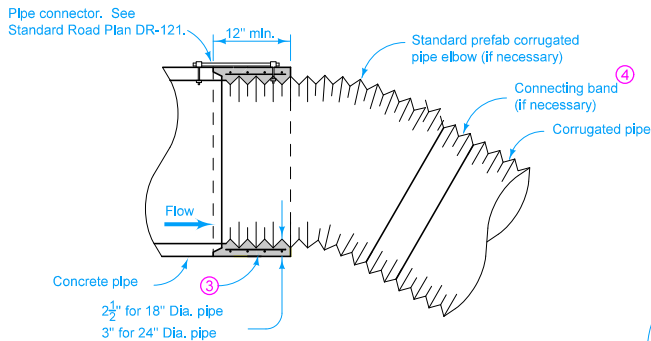


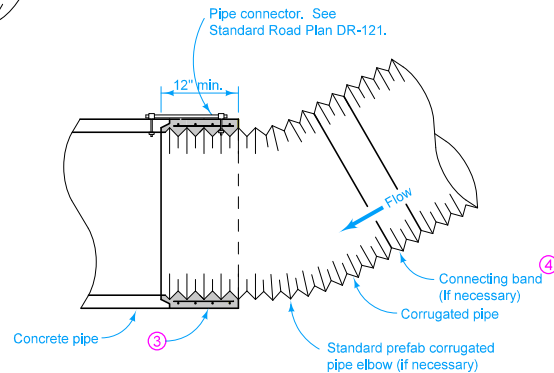
CONCRETE PIPE TO CONCRETE PIPE
TYPE "C-1"



CONCRETE PIPE TO CONCRETE BOX CULVERT
TYPE "C-2"



CONCRETE PIPE TO CORRUGATED PIPE
TYPE "C-3"



CORRUGATED PIPE TO CONCRETE PIPE
TYPE "C-4"

ESTIMATED ENCASEMENT QUANTITIES PER LINEAR FOOT FOR "C-2" ADAPTORS			
Diameter, D inches	Concrete cu. yds.	Wire Mesh lbs.	Concrete for Fillet ("C-2") cu. yds.
15	0.1	2.0	N.A.
18	0.1	2.3	N.A.
21	0.1	2.6	N.A.
24	0.1	2.8	N.A.
30	0.2	3.4	0.1
36	0.2	4.0	0.1
42	0.2	4.5	0.1
48	0.3	5.1	0.1
54	0.3	5.7	0.1
60	0.4	6.2	0.1
66	0.5	6.9	0.1
72	0.6	7.5	0.1
78	0.6	8.1	0.1
84	0.7	8.7	0.1

2000 D (Class III) and 3000 D (Class IV) Pipe

No payment will be made for individual adaptors.

The cost of furnishing all materials and constructing adaptor as indicated is incidental to the pipe culvert.

Removal and disposal of headwall, wingwall, or other concrete, as directed, will be paid for as "Removal of Existing Structures".

Form and construct Type "C-1" and "C-2" adaptors on the job site using methods approved by the Engineer.

Type "C-3" and "C-4" adaptors may be shop fabricated using a method approved by the Engineer for attaching a concrete collar (either tongue or groove end) to a standard section of corrugated pipe. Holes may be field drilled in corrugated pipe to match alignment with concrete pipe.

- ① Thickness same as pipe thickness (T) but not less than 4 inches.
- ② Grout opening between pipes.
- ③ Use minimum reinforcing of wire mesh 6" x 6" - W2 No. 8 wire - 30lbs/100 sq. ft. Lap ends 6 inches.
- ④ Positive type joint coupling required.
- ⑤ 5/8 inch (min.) bolts in 7/8 inch (min.) holes. Four bolts around each connection at equal intervals. Existing pipe connector holes may be used if available. Place remaining two bolts at approximate equal intervals.
- Ⓣ Thickness of wall of concrete pipe. See AASHTO M 170.

IOWA DOT	REVISION	
	1	10-18-16
STANDARD ROAD PLAN		DR-122
		SHEET 1 of 1

REVISIONS: Corrected two typos in general notes.

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

**CONSTRUCTION OF TYPE 'C'
CONCRETE ADAPTORS FOR
PIPE CULVERT CONNECTIONS**