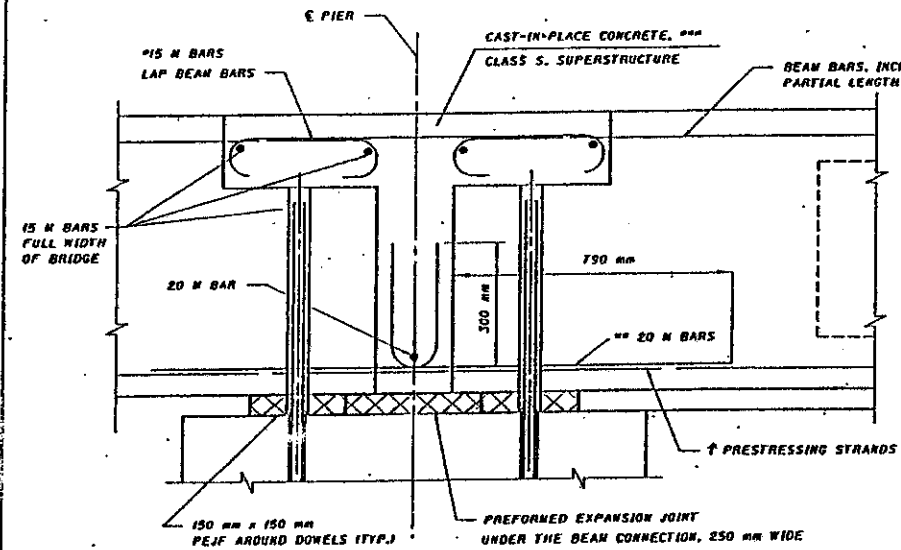


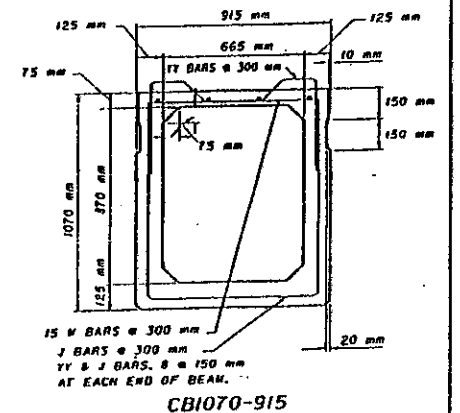
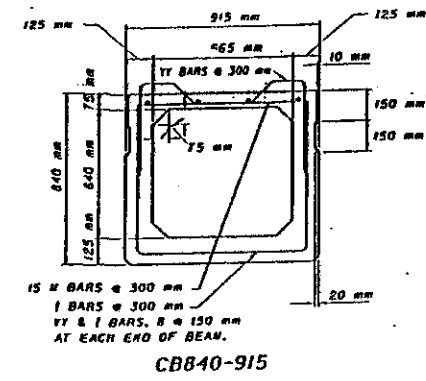
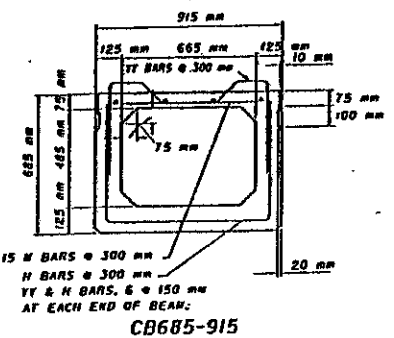
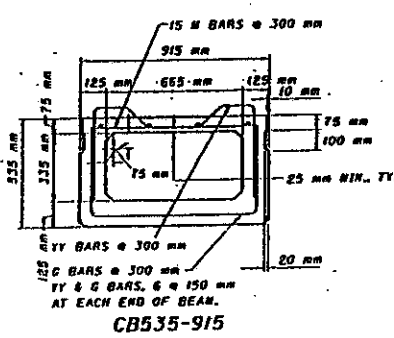
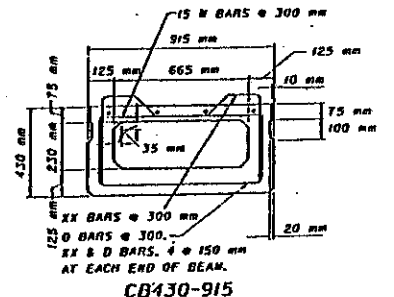
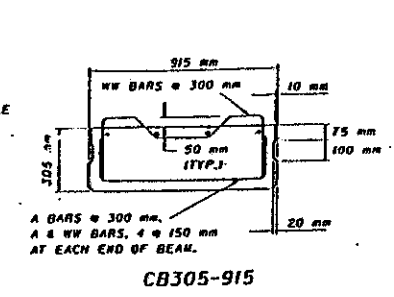
PARTIAL PLAN OF BEAM CONNECTION OVER PIER



SECTION A-A

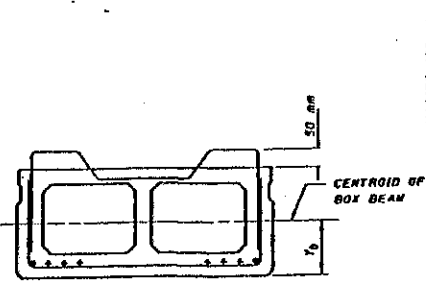
\*\*\* IN LIEU OF CLASS S CONCRETE, THE CONTRACTOR AT HIS OPTION MAY USE OTHER CONCRETE MIXTURES IN ACCORDANCE WITH CNS 499.03 FOR ACHIEVING THE REQUIRED STRENGTH EARLIER.

NOTE: THE PRESTRESSING STRANDS WHICH ARE BENT UP SHALL BE STAGGERED IN ADJUTING BEAM ENDS TO AVOID INTERFERENCE.

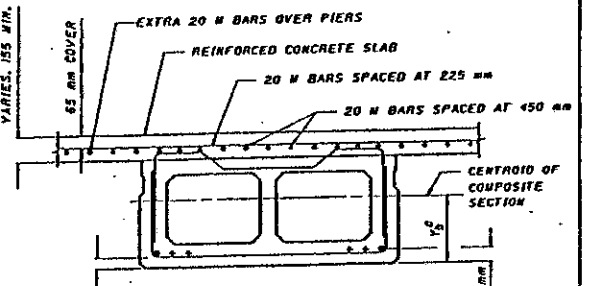


915 mm WIDE COMPOSITE BEAMS

		SECTION PROPERTIES					
		1220 mm WIDE COMPOSITE BOX BEAM					
		CB305-1220	CB430-1220	CB535-1220	CB685-1220	CB840-1220	CB1070-1220
BEAM ONLY SECTION	A $\times 10^3$	366.3	312.5	346.1	376.7	411.9	470.1
	I $\times 10^6$	2844.1	6971.5	12183.9	23231.5	38515.6	70515.9
	Y <sub>b</sub>	151.3	201.7	248.2	309.4	377.4	483.1
	Z <sub>t</sub> $\times 10^6$	18.6	30.3	42.7	61.7	83.6	120.8
	Z <sub>b</sub> $\times 10^6$	18.7	34.6	49.1	75.1	102.0	146.0
COMPOSITE SECTION	I <sub>c</sub> $\times 10^6$	7777.3	15497.5	24498.1	43179.0	67429.9	115899.2
	Y <sub>c</sub>	211.8	292.6	348.7	428.5	510.5	631.7
	Z <sub>t</sub> $\times 10^6$	83.6	111.3	132.6	167.9	205.7	266.4
	Z <sub>b</sub> $\times 10^6$	36.7	53.0	70.3	100.7	132.1	183.9



915 mm OR 1220 mm WIDE COMPOSITE BEAM



915 mm OR 1220 mm WIDE COMPOSITE BEAM WITH SLAB

		SECTION PROPERTIES					
		915 mm WIDE COMPOSITE BOX BEAM					
		CB305-915	CB430-915	CB535-915	CB685-915	CB840-915	CB1070-915
BEAM ONLY SECTION	A $\times 10^3$	273.5	241.5	276.1	314.8	350.2	408.1
	I $\times 10^6$	2124.9	5242.8	9377.3	18145.6	30467.7	56691.5
	Y <sub>b</sub>	151.6	198.4	245.1	314.7	384.0	491.7
	Z <sub>t</sub> $\times 10^6$	13.9	22.4	32.5	48.9	67.1	98.6
	Z <sub>b</sub> $\times 10^6$	14.0	26.4	38.3	57.6	79.3	115.3
COMPOSITE SECTION	I <sub>c</sub> $\times 10^6$	5828.5	11849.3	18934.8	33162.0	52259.1	90895.8
	Y <sub>c</sub>	211.8	288.3	342.1	423.4	503.4	622.6
	Z <sub>t</sub> $\times 10^6$	62.6	82.5	99.0	126.4	156.2	204.6
	Z <sub>b</sub> $\times 10^6$	27.5	41.1	55.4	78.3	103.8	146.0

NOTE: REINFORCING BAR DATA AND NOTES ARE SHOWN ON SHEET 3 OF 4.

SECTION PROPERTIES FOR COMPOSITE SECTIONS ARE COMPUTED WITH A SLAB THICKNESS OF 125 mm. TOTAL THICKNESS OF SLAB IS 150 mm WHICH INCLUDES 25 mm MONOLITHIC WEARING SURFACE.

SLAB CONCRETE IS CLASS S CONCRETE +  $f'_c = 31.0 \text{ MPa}$   
 MINIMUM BEAM CONCRETE STRENGTH AT 28 DAYS +  $f'_c = 38.0 \text{ MPa}$

ALL REINFORCING STEEL IN THE COMPOSITE DECK SLAB AND BARS PROJECTING FROM THE PRESTRESSED BOX BEAMS SHALL BE GRADE 400 EPOXY COATED BARS.

$E_{slab} = 0.90$   
 $E_{beam}$

ALL DIMENSIONS ARE IN mm

STATE OF OHIO  
 DEPARTMENT OF TRANSPORTATION  
 BUREAU OF BRIDGES AND STRUCTURAL DESIGN

STANDARD  
**PRESTRESSED CONCRETE  
 BOX BEAM BRIDGE  
 DETAILS**

APPROVED: *Richard P. Engel*  
 ENGINEER OF BRIDGES  
 DATE: 12/19/91  
 DRAWING NO. PSBD-1-93W

PREPARED	DRAWN	CHECKED	REVIEWED	SHEET NO. 4
HRC	REF	WLF	LHW	OF 4 SHEETS