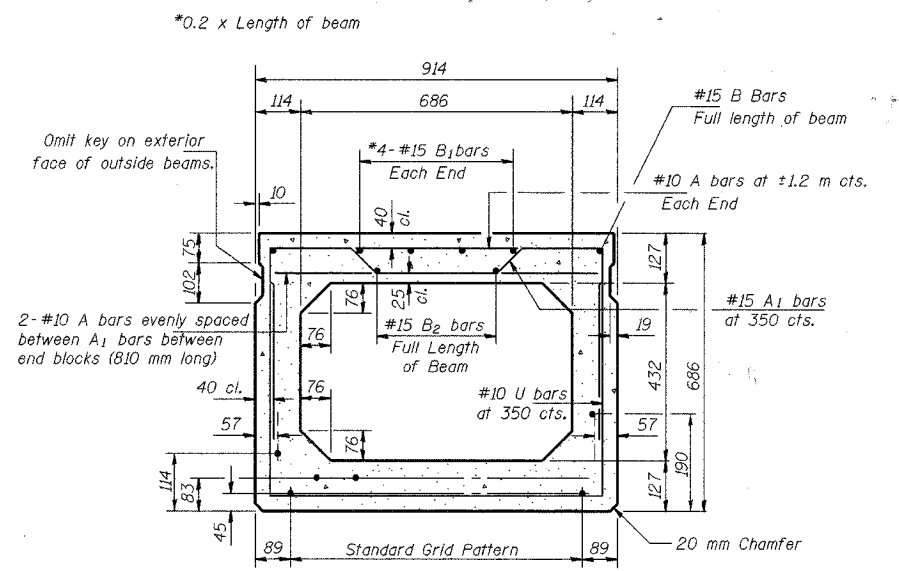
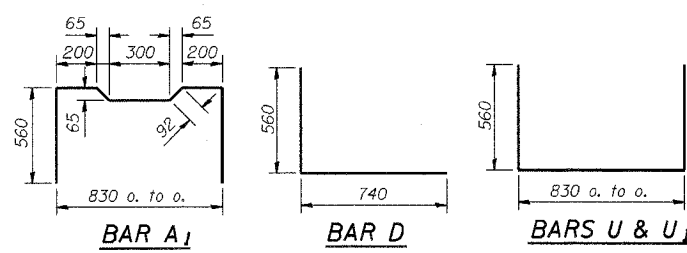
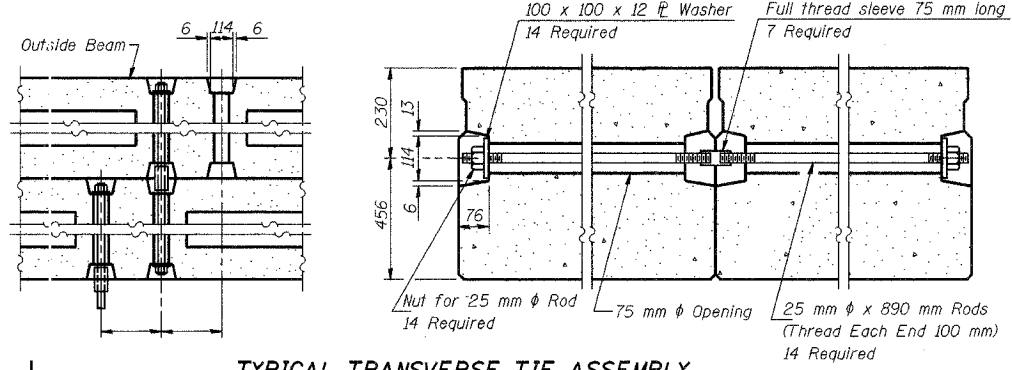
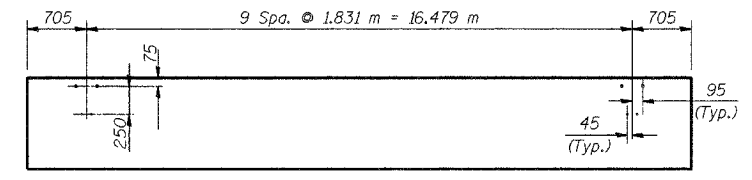
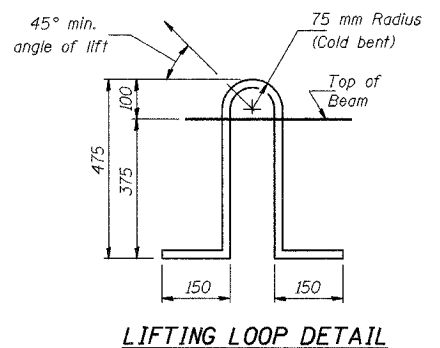
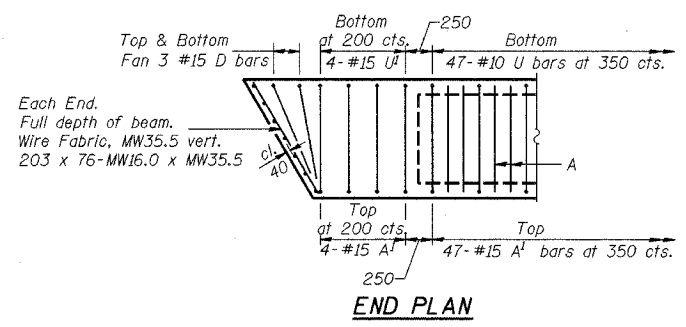
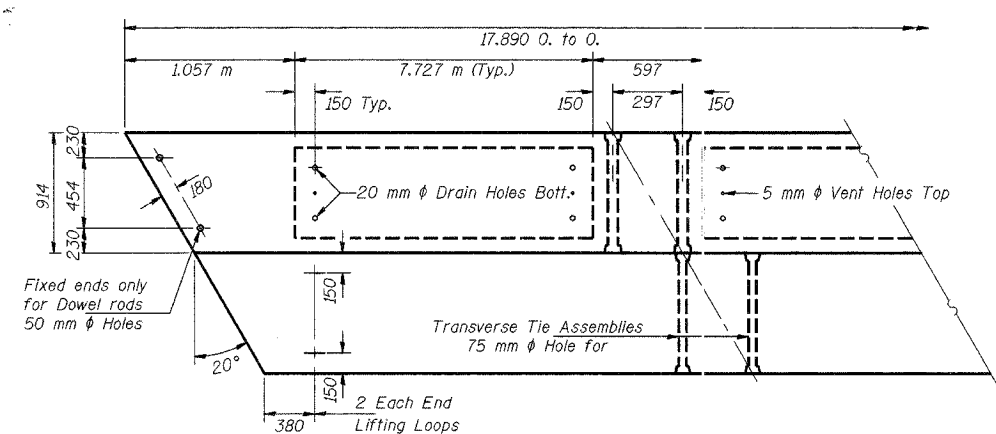
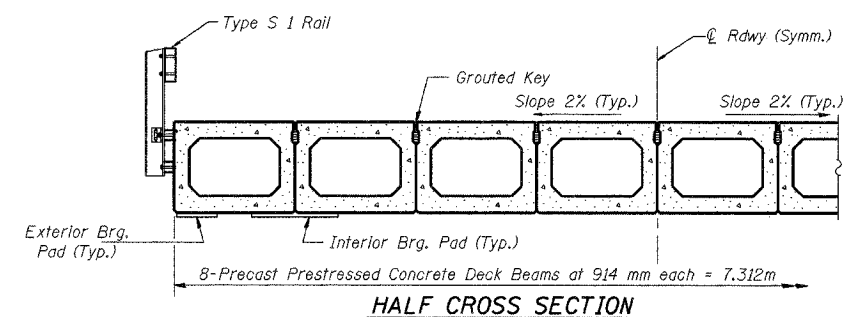


FIXED



Note: Place strands symmetrically about \bar{c} of beam.
 12.7 mm ϕ Strands Each Strand Stressed to 128,500 N.
 6-Strands 45 mm up, 7-Strands 83 mm up, and 2-Strands 114 mm up



NOTES

Prestressing steel shall be uncoated high strength, stress-relieved 7-wire strand ($F_u=1860$ MPa). The nominal diameter shall be 12.7 mm and the nominal cross-sectional area shall be 98.71 mm². Lifting loops shall be 2 - 12.7 mm strands ($F_u=1860$ MPa) as shown.

The 25 mm ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to the requirements of AASHTO M-31M, M-42M or M-53M Grade 400. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 3 mm fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'_{ci} , shall be 28 MPa.

An equal substitution of the low-relaxation strands for the stress-relieved strands will be permitted. All dimensions are in millimeters (mm) except as noted.

BILL OF MATERIAL ONE BEAM

Bar	No.	Size	Length (m)	Shape
A	8	#10	.400	—
A ₁	55	#15	2.004	—
B	2	#15	17.81	—
B ₁	8	#15	3.60	—
B ₂	2	#15	17.81	—
D	12	#15	1.30	L
U	47	#10	1.950	L
U ₁	8	#15	1.950	L
Precast Prestressed Conc. Deck Bms. (686 Depth) (8 Beams)			m ²	130.8

PRESTRESSED BEAM DETAILS
T.R. 408
SHELBY COUNTY
SECTION 97-21117-00-BR
STA. 10+000.000

RC ENGINEERS, LTD.
CONSULTING ENGINEERS
 DESIGNED: G.R. DRAWN: D.J.R.
 CHECKED: J.W.G. CHECKED: J.W.G.

October 11, 2000
 g:\r\jobs\97-21117\p\beam.dwg