

CONDITIONS OF USE

- 12 FT. MAXIMUM FREE SPAN
- 12 FT. MAXIMUM SPACING BETWEEN BEAMS
- BEAMS MUST NOT BE TIED TO ANY OTHER MEMBERS

CONCRETE: (WCS - 4)

- 4,500 PSI COMPRESSIVE STRENGTH
- MAXIMUM WATER/CEMENT RATIO = 0.45

REINFORCING BAR: (WCS - 4)

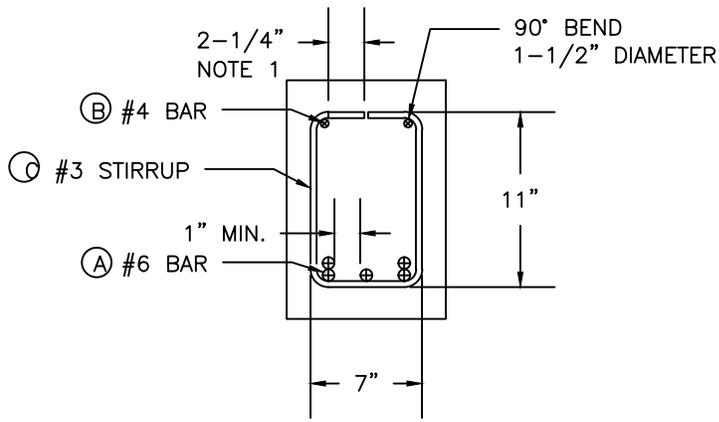
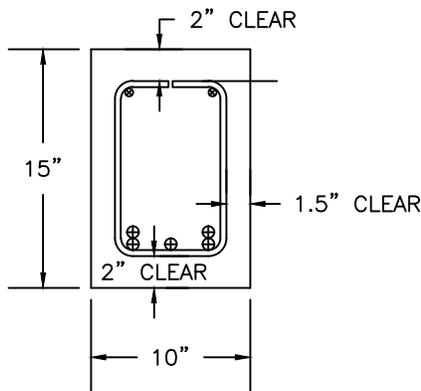
- GRADE 60
- UNCOATED, DEFORMED BAR
- SPLICING OF BARS IS NOT ALLOWED

CONSTRUCTION DETAILS

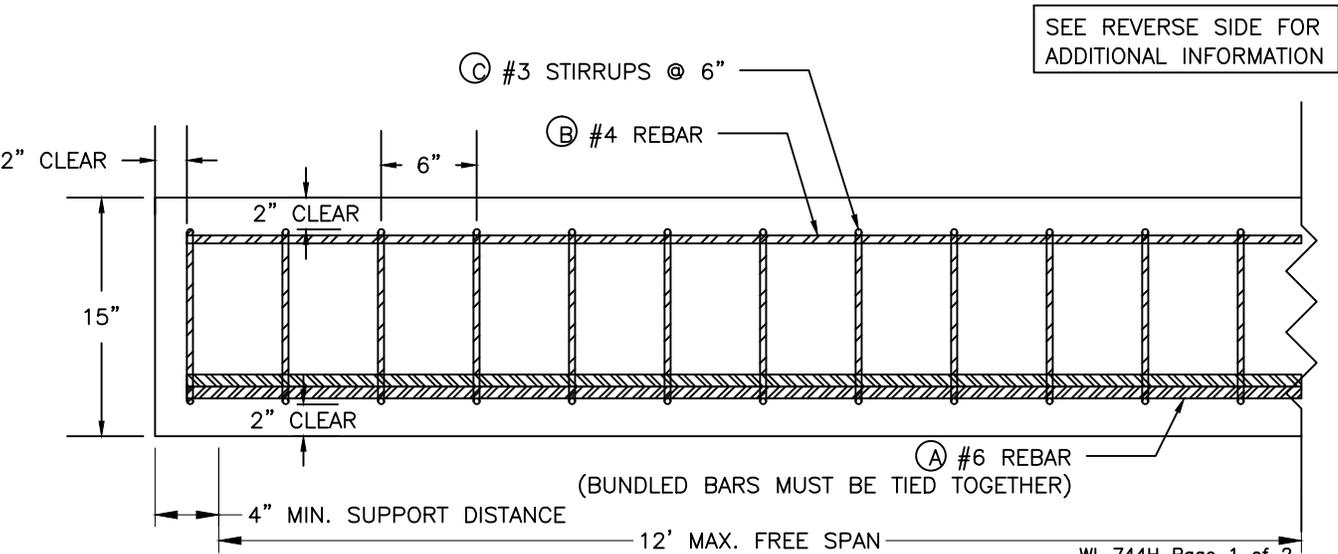
BEAM MUST BE BUILT EXACTLY AS SHOWN ON THE PLANS. BEAMS MUST NOT BE MOVED OR LOADED FOR A MINIMUM OF 7 DAYS DURING CURING. BEAMS MUST BE CARRIED SIX INCHES FROM EACH END, NOT IN THE CENTER. LONGITUDINAL REINFORCEMENT (#6 BARS) MUST REMAIN ON THE BOTTOM OF THE BEAMS AND THE TOP OF THE BEAM MUST BE CLEARLY LABELED PRIOR TO STRIPPING FORMS. BEAMS SHALL NOT BE PLACED ON THEIR SIDES OR UPSIDE DOWN.

IF BEAMS ARE TRANSPORTED BY TRUCK, THEY SHALL BE SUPPORTED BY ADEQUATE TIMBER SUPPORTS LOCATED SIX INCHES FROM EACH END WITH NO OTHER CONTACT BETWEEN THE BEAM AND TRUCK BED.

FAILURE TO COMPLY WITH ANY REQUIREMENT ABOVE WILL RESULT IN AUTOMATIC REJECTION OF BEAM.



NOTE 1: 2-1/4" DIMENSION OF STIRRUP MAY BE LONGER AND OVERLAP.



DESIGN VALUES

SIMPLY SUPPORTED BEAM

MACHINERY LOADING: 24,000 LB AXLE (AASHTO H-15) WITH SIX FOOT WHEEL SPACING

DEAD LOAD: 150 PCF CONCRETE BEAM AND 8" THICK LID

ULTIMATE STRENGTH DESIGN: ACI 318-08

DESIGN FLEXURE STRENGTH: 87.3 FT-KIPS

REQUIRED FLEXURE: 87.0 FT-KIPS

DESIGN SHEAR STRENGTH: 32.3 KIPS

REQUIRED SHEAR STRENGTH: 29.0 KIPS

DEAD LOAD FACTOR = 1.2

LIVE LOAD FACTOR = 1.6

d = 11-15/16"

NOT DESIGNED TO SUPPORT BUILDINGS OR POST

TOTAL NUMBER OF BEAMS _____

BEAM TOTAL LENGTH _____

BEAM FREE SPAN LENGTH _____

CONCRETE (0.0386 CY/FT of BEAM) _____ CU.YDS.

STEEL SCHEDULE (GRADE 60)

MARK	SIZE	QUANTITY	TYPE	LENGTH	TOTAL LENGTH
A	#6	5	STR		
B	#4	2	STR		
C	#3		STIRRUP	2'-9"	

MARK A & B LENGTH = BEAM LENGTH MINUS 4"