

BEAM CAMBER

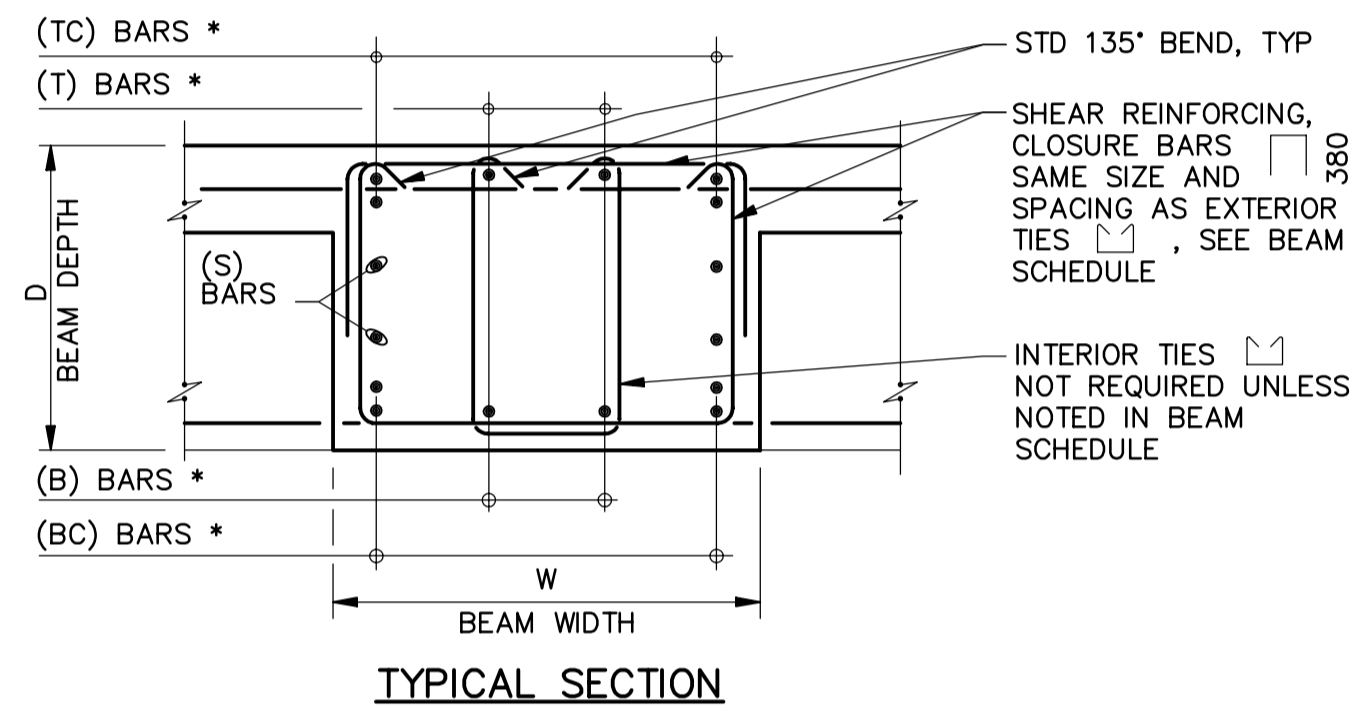
UNLESS SHOWN OTHERWISE IN SCHEDULE MIDSPAN BEAM CAMBER SHALL BE AS FOLLOWS:

BM SPAN	CAMBER
4500mm OR LESS	NONE
4500mm TO 7500mm	13mm
7500mm TO 10500mm	25mm
10500mm TO 13500mm	40mm

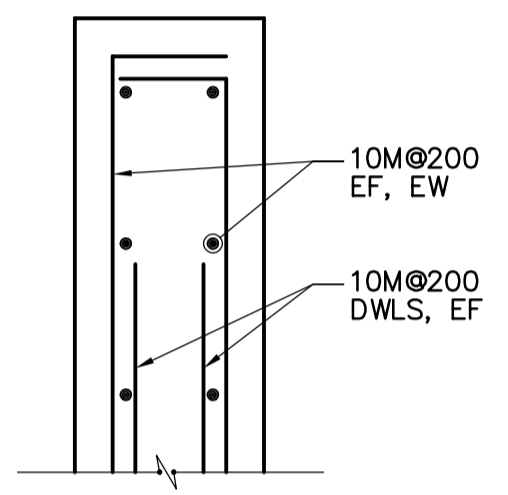
NOTES:

- PROVIDE MINIMUM 1 - 15M x CONT AT EACH CORNER OF ALL TIES, LAP SPLICE WITH LONGITUDINAL REINFORCING.
- * INDICATES LOCATION FOR BARS AT SINGLE ROW. WHERE MORE THAN ONE ROW OF TOP OR BOTTOM BARS OCCUR, PROVIDE 25mm CLEAR BETWEEN ROWS. SEE SCHEDULES FOR MAXIMUM NUMBER OF BARS PER LAYER.

BEAM REINFORCING
N.T.S.



TYPICAL SECTION

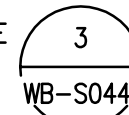


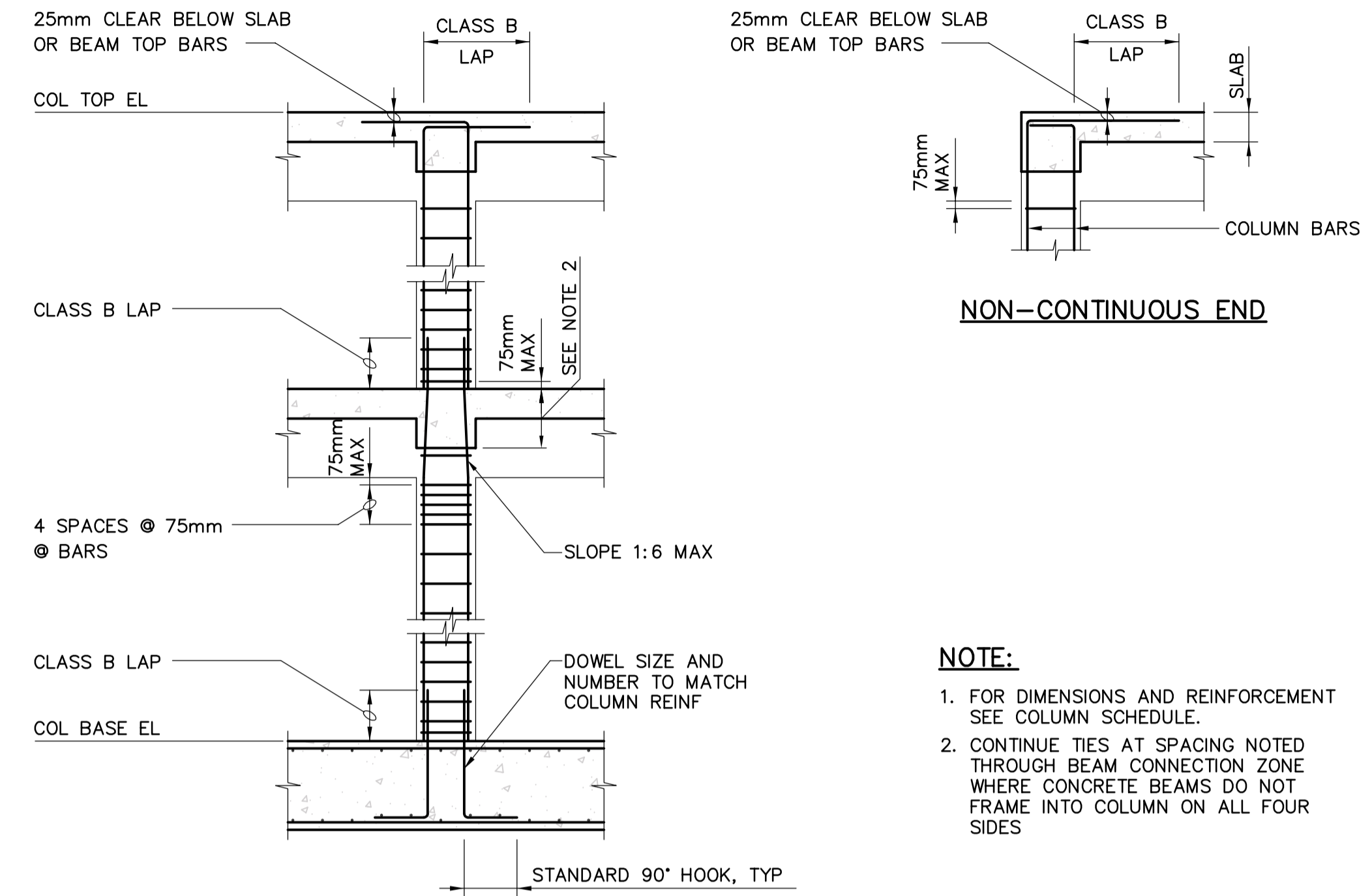
TYPICAL UPSTAND REINFORCING

BEAM NO. (SEE PLANS)	SIZE		TOP REINF AT LEFT SUPPORT		BOTTOM REINF		* TOP REINF AT RIGHT SUPPORT		S BARS	SHEAR REINF (MM)		REMARKS
	W	D	T	TC	B	BC	T	TC		NO. SIZE	SPACING FROM LEFT SUPPORT	
BM1	700	900	-	4-30M	-	12-35M	-	4-30M	4-25M	2-15M	200	SEE NOTE 4
BM2	700	900	-	4-30M	-	8-30M	-	4-30M	2-20M	2-15M	200	BOTTOM BARS, 2 LAYERS
BM3	500	900	-	4-30M	-	4-30M	-	4-30M	2-20M	2-10M	150	-
BM4	450	600	-	4-20M	-	4-25M	-	4-20M	2-20M	15M	150	W/ UPSTAND
BM4A	500	500	-	4-20M	-	4-25M	-	4-20M	2-20M	15M	150	W/ UPSTAND
BM5	600	500	-	4-25M	-	4-25M	-	4-25M	2-15M	15M	150	W/ UPSTAND
BM6	450	500	-	4-20M	-	4-25M	-	4-20M	2-20M	15M	150	W/ UPSTAND
BM7	450	500	-	4-20M	-	4-25M	-	4-20M	2-20M	15M	150	W/ UPSTAND
BM8	450	500	-	4-20M	-	4-20M	-	4-20M	2-15M	10M	150	W/ UPSTAND
BM9	400	600	-	3-20M	-	6-20M	-	3-20M	-	10M	200	BELOW SLAB
BM10	600	600	-	4-20M	-	4-25M	-	4-20M	2-20M	15M	150	W/ UPSTAND
BM11	500	1200	-	4-20M	-	4-20M	-	4-20M	6-15M	10M	200	-

BEAM SCHEDULE
N.T.S.

NOTES:

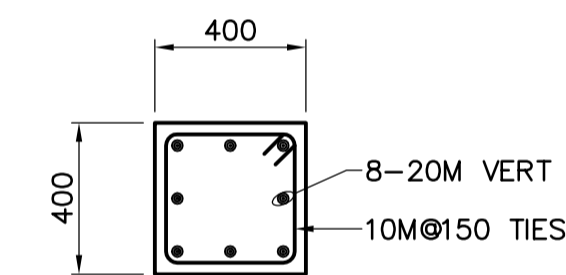
- * TOP REINFORCING MAY BE CALLED-OUT TWICE IN SCHEDULE. (I.E. "TOP REINFORCING AT RIGHT SUPPORT" OF BEAM THAT IS CONTINUOUS OVER THE RIGHT SUPPORT IS CALLED-OUT AS "TOP REINFORCING AT LEFT SUPPORT" OF ADJACENT BEAM.)
- LEFT SUPPORT IS DESIGNATED AS THE SUPPORT CLOSEST TO THE LEFT SIDE OR BOTTOM OF SHEET ON WHICH FRAMING PLAN IS DRAWN, UNLESS NOTED OTHERWISE ON PLAN.
- FOR CONCRETE BEAM END DETAIL SEE 
- BOTTOM BARS, 2 LAYERS, BOTTOM BARS CAN BE RAISED 30mm TO CLEAR BM2 AND BM3 BARS.



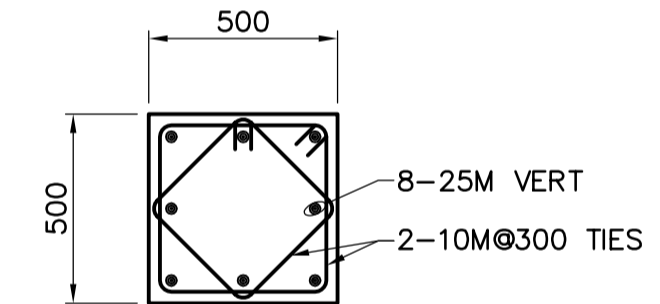
COLUMN REINFORCING
N.T.S.

NOTE:

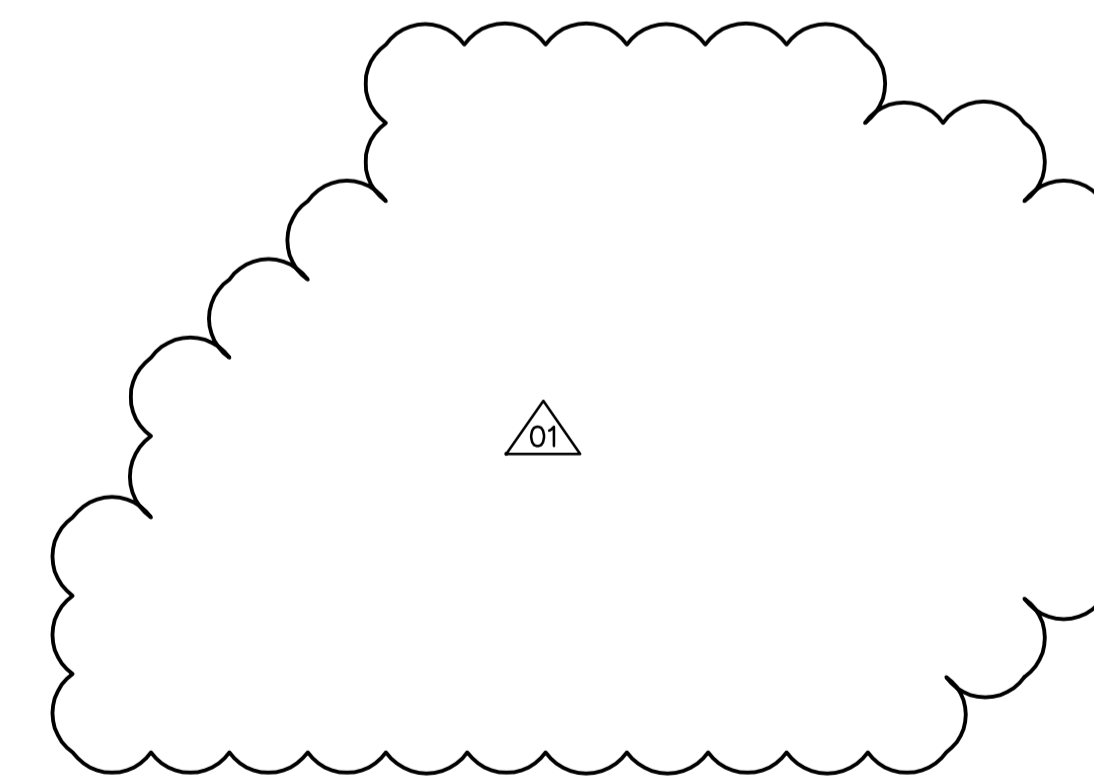
- FOR DIMENSIONS AND REINFORCEMENT SEE COLUMN SCHEDULE.
- CONTINUE TIES AT SPACING NOTED THROUGH BEAM CONNECTION ZONE WHERE CONCRETE BEAMS DO NOT FRAME INTO COLUMN ON ALL FOUR SIDES







COLUMN C1



COLUMN C2



COLUMN SCHEDULE
N.T.S.

 Certificate of Authorization CH2M Hill Canada Limited (ON) No. 1441 Expiry: April 30, 2006	B.M. ELEV.	 Frederickson Cooper ARCHITECTS	 A Tyco International Ltd. Company	ENGINEER'S SEAL ORIGINAL SIGNED BY D. KRUGER 2005/10/28	 THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION WATER TREATMENT PLANT INLET WORKS & RAW WATER PUMPING FOUNDATIONS AND CONCRETE STRUCTURES 1 STRUCTURAL RAW WATER PUMP STATION AREA COLUMN AND BEAM SCHEDULES	CITY FILE NUMBER
	NO. REVISIONS	DATE	BY	DATE		CONSULTANT DRAWING NO. WI-S0515
01 650-2005 ADDENDUM 3 05/11/24 EL	00 ISSUED FOR TENDER 05/10/28 EL	DESIGNED BY EL	CHECKED BY AP	RELEASED FOR CONSTRUCTION BY: R. SOROKOWSKI 2005/10/28	CITY DRAWING NUMBER 1-0601-D-80515-001-01D	