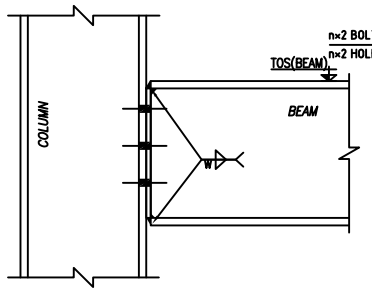
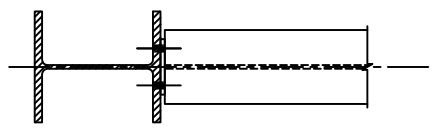
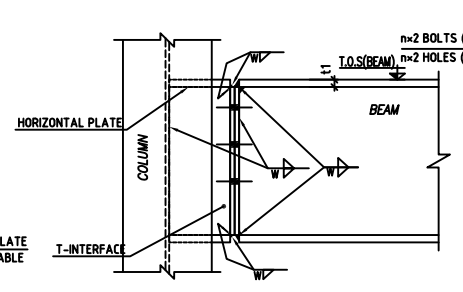
BEAM TO COLUMN FLANGE AND WEB HINGE CONNECTION



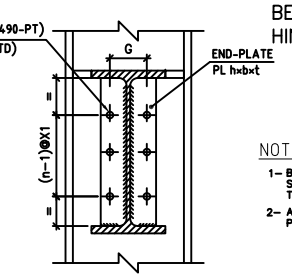
CONNECTION VIEW
Sc: N.T.S.



TOP VIEW
Sc: N.T.S.



CONNECTION VIEW
Sc: N.T.S.



FRONT VIEW
Sc: N.T.S.

NOTES:
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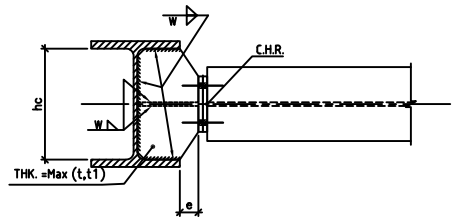
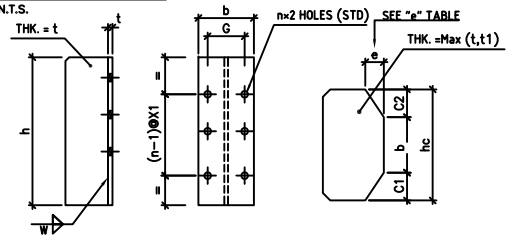


TOP VIEW
Sc: N.T.S.



T-INTERFACE
Sc: N.T.S.

HORIZONTAL PL
Sc: N.T.S.

TABLE OF PARAMETERS

Beam Name in Drawings	Bolt n	Bolt Size	Bolt X1	Weld W	End Plate b	End Plate h	End Plate t	End Plate G
	–	–	mm	mm	mm	mm	mm	mm
H220-8-10×200	2	M20	90	6	200	*	12	100
H224-8-12×200	2	M20	90	6	200	*	12	100
H230-8-15×200	2	M24	90	6	200	*	15	100
H240-10-20×200	2	M24	90	8	200	*	15	100
H264-8-12×240	2	M24	120	6	200	*	15	100
H280-10-20×200	2	M27	120	8	220	*	20	110
H330-8-15×200	4	M16	60	6	200	*	10	100
H330-8-15×300	4	M20	75	6	240	*	12	120
H340-10-20×200	4	M20	75	8	200	*	12	100

* End-Plate Height is Equal to Clear Distance Between Beams Top and Bot. Flanges.

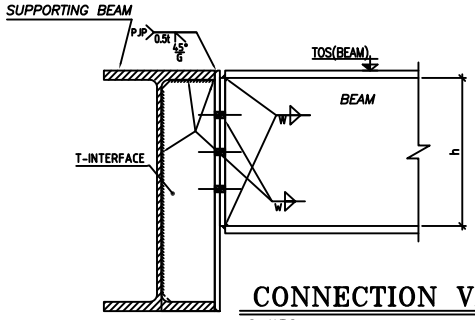
TABLE OF PARAMETERS

Beam Name in Drawings	Bolt n	Bolt Size	Bolt X1	Weld W	End Plate b	End Plate h	End Plate t	End Plate G
	–	–	mm	mm	mm	mm	mm	mm
H340-10-20×240	4	M24	75	8	200	*	15	100
H350-12-25×300	3	M30	90	10	240	*	25	120
H360-12-30×300	3	M30	90	10	240	*	25	120
H370-15-35×300	3	M30	90	12	240	*	25	120
H430-8-15×200	4	M20	100	6	200	*	12	100
H440-10-20×240	4	M24	100	8	200	*	15	100
H440-10-20×300	4	M30	100	8	240	*	25	120
IPE180	2	M16	75	3	150	*	10	100
IPE200	2	M16	75	3	150	*	10	100
IPE220	2	M16	75	3	150	*	10	100
IPE240	2	M16	75	4	150	*	10	100

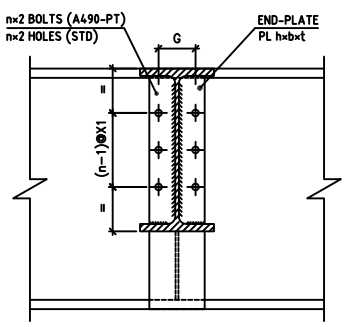
"e" TABLE

C=Min (C1,C2)	e*
mm	mm
C≤50	75
50<C≤75	50
C75>	0

I-BEAM TO I-BEAM SIMPLE CONNECTION



CONNECTION VIEW
Sc: N.T.S.



FRONT VIEW
Sc: N.T.S.

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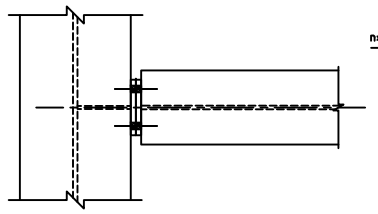
2- FOR THE BRACING PROFILES WHICH ARE NOT LISTED HEREIN REFER TO OTHER RELEVANT SHEETS.
3- ALL BOLTS IN THIS CONNECTION MUST BE PRETENSIONED.



TOP VIEW
Sc: N.T.S.

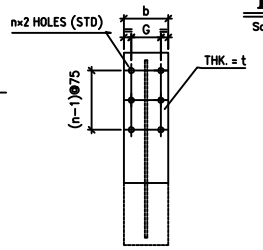
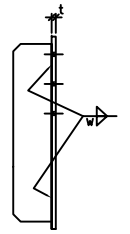


TABLE OF PARAMETERS

Beam Name in Drawings	Bolt n	Bolt Size	Bolt X1	Weld W	Parameters b	Parameters h	Parameters t	Parameters G
	–	–	mm	mm	mm	mm	mm	mm
H180-8-15×150	2	M20	60	6	175	*	12	100
H220-8-10×200	2	M20	90	6	200	*	12	100
H224-8-12×200	2	M20	90	5	200	*	12	100
H230-8-15×200	2	M24	90	6	200	*	15	100
H430-8-15×200	4	M20	100	6	200	*	12	100
H440-10-20×200	4	M20	100	8	200	*	12	100
H440-10-20×240	4	M20	100	8	200	*	12	100
IPE140	1	M16	100	3	150	*	10	100
IPE160	1	M16	100	3	150	*	10	100
IPE180	1	M16	100	3	150	*	10	100
IPE200	2	M16	100	3	150	*	10	100
IPE220	2	M16	100	3	150	*	10	100
IPE240	2	M16	100	4	150	*	10	100
IPE270	2	M16	100	4	150	*	10	100

* End-Plate Height is Equal to Clear Distance Between Beams Top and Bot. Flanges.

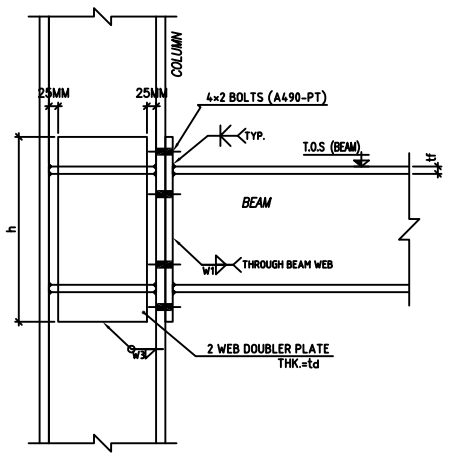


T-INTERFACE
Sc: N.T.S.

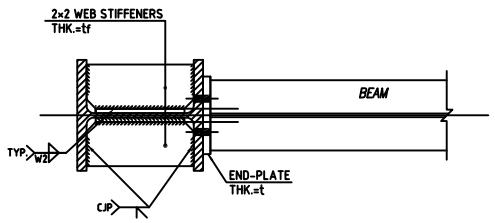
TABLE OF PARAMETERS FOR "UNP" SECTIONS

Beam Name in Drawings	Bolt n	Bolt Size	End-Plate t	Welds W
	–	–	mm	mm
UNP120	1	M16	8	4
UNP140	1	M16	8	4
UNP160	1	M16	8	5
UNP180	2	M16	8	5
UNP200	2	M16	8	5
UNP220	2	M16	8	6
UNP240	2	M16	8	6

BEAM TO COLUMN FLANGE MOMENT CONNECTION 8 BOLTS (PLATE GIRDERS)



CONNECTION VIEW
Sc: N.T.S.



TOP VIEW
Sc: N.T.S.

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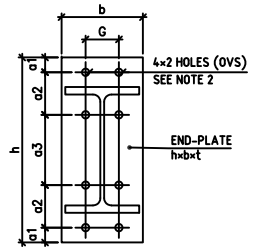
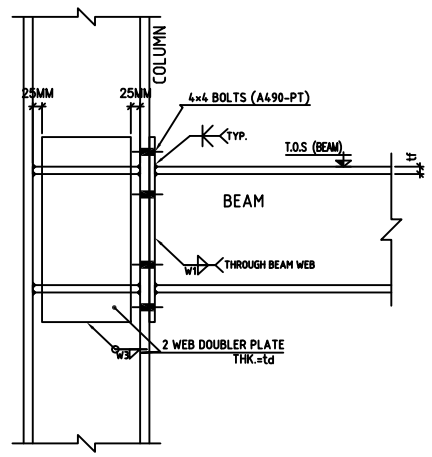
TABLE OF PARAMETERS

Beam Profile (Name in Drawings)	End-Plate h	End-Plate b	End-Plate t	DOUBLER PLATE td	Bolts & Arrangement Size	G	a_1	a_2	a_3	Welds W_1	W_2	W_3
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
H264-8-12×200	460	200	25	10	M24	100	50	110	140	6	10	6
H324-8-12×200	530	200	25	10	M24	100	50	110	210	6	10	6
H424-8-12×200	630	240	25	10	M24	100	50	110	310	6	11	6

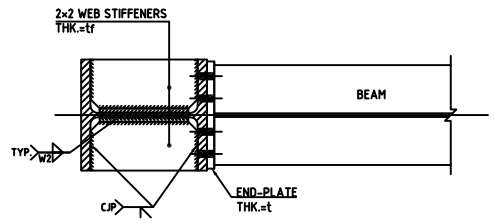


END PLATE DETAIL
Sc: N.T.S.

BEAM TO COLUMN FLANGE MOMENT CONNECTION 16 BOLTS



CONNECTION VIEW
Sc: N.T.S.



TOP VIEW
Sc: N.T.S.

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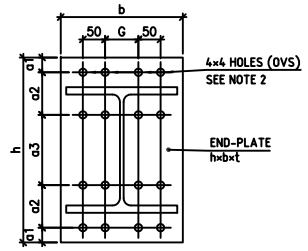

END PLATE DETAIL
Sc: N.T.S.

TABLE OF PARAMETERS

Beam Profile (Name in Drawings)	End-Plate h	End-Plate b	End-Plate t	DOUBLER PLATE td	Bolts & Arrangement Size	G	a_1	a_2	a_3	Welds W_1	W_2	W_3
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
H330-8-15×240	500	300	25	15	M20	90	40	100	220	8	12	12
H330-8-15×300	540	300	30	20	M24	100	50	120	200	8	12	15
H340-10-20×240	540	300	30	20	M24	100	50	120	200	8	12	15
H340-10-20×300	530	300	30	25	M24	100	50	115	200	8	12	15
H430-8-15×300	630	300	30	20	M24	100	50	115	300	8	12	15
H440-10-20×300	640	300	30	25	M24	100	50	120	300	8	15	15

REV.	DATE	DESCRIPTION	PURPOSE OF ISSUE	PREPARE	CHECK	APPROVE
02	OCT.2015	ISSUED FOR CONSTRUCTION	IFC	H.JAFARI	M.HASANZADEH	S.ARNAVAZ
01	SEP.2015	ISSUED FOR APPROVAL	IFA	H.JAFARI	M.HASANZADEH	S.ARNAVAZ

Project: KOWSAR GISD MEGA MODULE PROJECT

Client: شرکت توسعه آهن و فولاد گل گهر G.I.S.D.Co.

Contractor: شرکت مهندسی فن آوران معادن و فلزات MMTE MINES & METALS TECHNOLOGICAL ENGINEERING CO.

Client's Project	Project Code	Main Contractor	Area Code	Plant Group	Equipment Code	Document Type	Eng. Discipline	Serial No.
GISD	7-2	119	1003	7	AA	04	S	118

	SIGNATURE	DATE
DESIGNED	A.BANIASADI	SEP.2015
PREPARED	H.JAFARI	SEP.2015
CHECKED	M.HASANZADEH	SEP.2015
APPROVED	S.ARNAVAZ	SEP.2015

designation: AREA 350 / PIPE RACK AREA
BEAM TO BEAM AND BEAM TO COLUMN CONNECTION

drawing-No.: KGMM SF 13 C3 118

repl. for: ----- repl. by: -----

SCALE: AS SHOWN REV.: 02 SIZE: A1 SHEET: -/- CONT. & PROJ. NO: -----

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