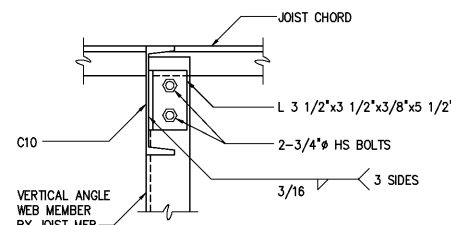
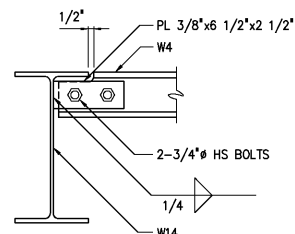


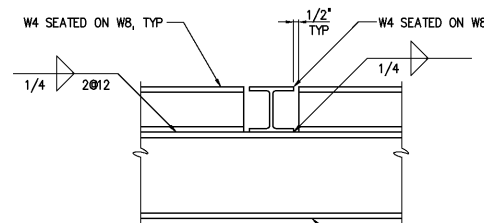
DETAIL 24
1 1/2"=1'-0"



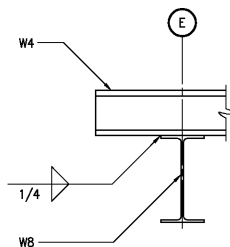
DETAIL 21
1 1/2"=1'-0"



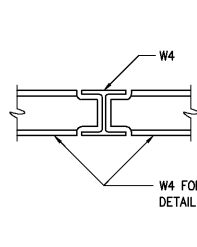
DETAIL 22
1 1/2"=1'-0"



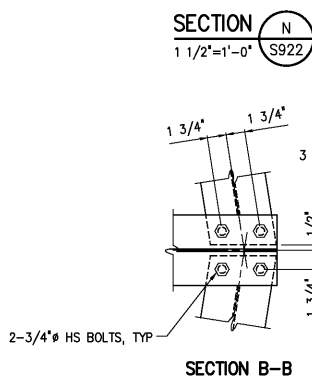
DETAIL 23
1 1/2"=1'-0"



DETAIL 20
3/4"=1'-0"

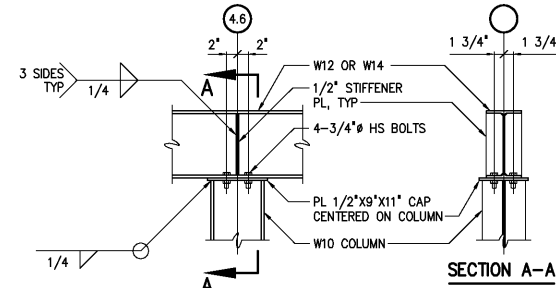
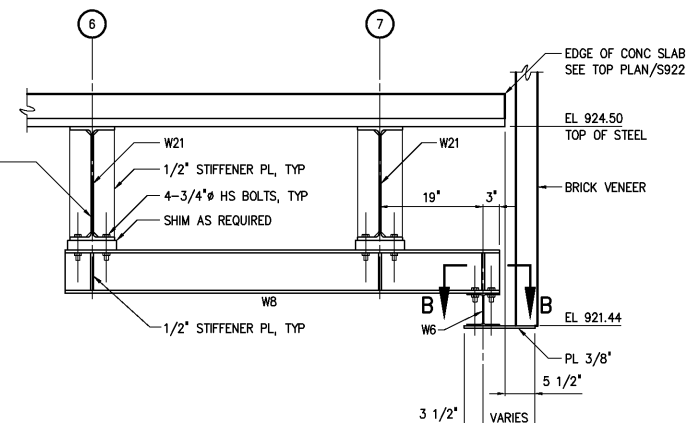


SECTION N
1 1/2"=1'-0"

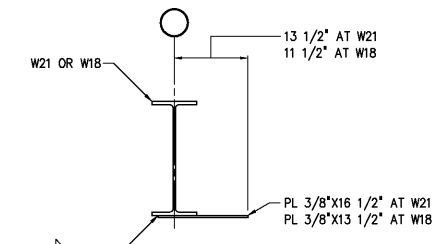


SECTION B-B

SECTION L
3/4"=1'-0"

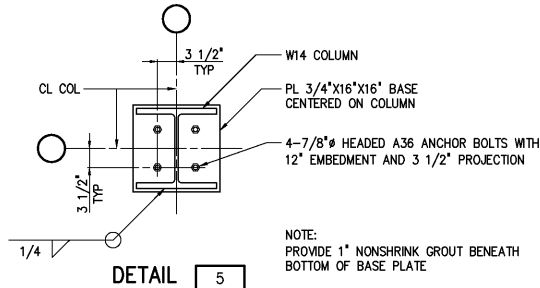
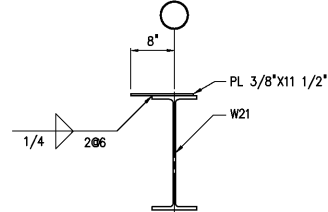


DETAIL 17
3/4"=1'-0"

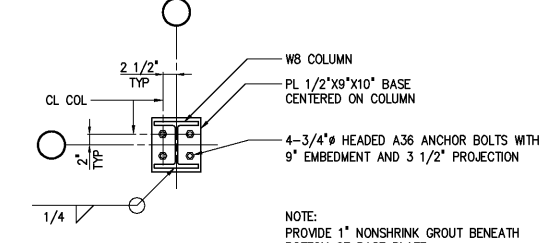


TYPICAL BRICK VENEER SUPPORT PLATE

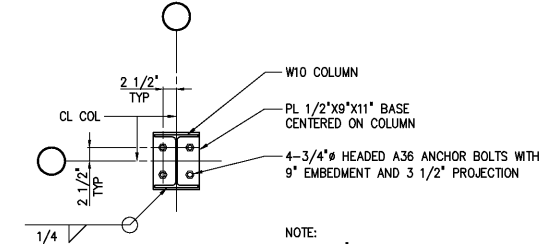
SECTION J
3/4"=1'-0"



DETAIL 5
3/4"=1'-0"

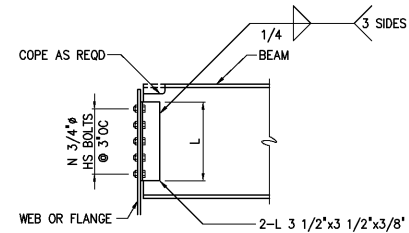


DETAIL 12
3/4"=1'-0"



DETAIL 4
3/4"=1'-0"

COLUMN SCHEDULE				
COLUMN	SECTION	BASE PLATE DETAIL	TOP OF COL	BOT OF BASE PL
1-C, 1-F	W8x48	12	924.58	913.08
2-C, 2-F	W8x48	12	924.58	913.08
4-A, 4-H, 5-A, 5-H	W10x33	4	924.42	913.08
3-B, 3-G, 6-B, 6-G	W10x33	4	938.58	913.08
3-C, 3-F, 6-C, 6-F	W14x132	5	938.58	913.08
7-D, 7-E	W10x33	4	934.17	913.08
4.6-B, 4.6-D, 4.6-G	W10x33	4	923.26	913.08
4.6-C, 4.6-F	W10x33	4	923.11	913.08



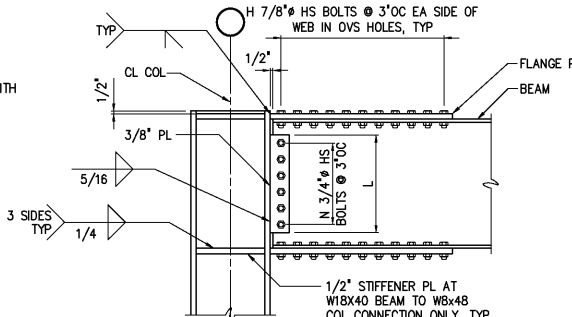
BEAM	L (in)	N
W8x13	6	2
W12x22/30	6	2
W14x22	6	2
W18x35	9	3
W14x30	9	3

SIMPLE CONNECTION

DETAIL 8
3/4"=1'-0"

GENERAL STEEL NOTES:

- ALL STEEL STRUCTURES AND MISCELLANEOUS IRON SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH A. I. S. C. SPECIFICATION FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND THE SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490.
- ALL STRUCTURAL STEEL DESIGNED IN ACCORDANCE WITH ABOVE A. I. S. C. SPECIFICATIONS, TYPE I AND TYPE II CONSTRUCTION.
- SHOP CONNECTIONS - SHOP WELDING.
- FIELD CONNECTIONS - SHALL BE HIGH STRENGTH (H. S.) STEEL BOLTS
 - A - CONNECTIONS OF BEAMS AND GIRDERS TO COLUMNS.
 - B - CONNECTIONS OF ALL MEMBERS FORMING PART OF THE BRACING SYSTEM OF THE STRUCTURE, INCLUDING MAIN MEMBERS USED AS STRUTS OR TIES IN THE BRACING SYSTEM.
 - C - SPICES AND MONORAIL BEAM CONNECTIONS.
 - D - OTHER CONNECTIONS SPECIFICALLY INDICATED ON THE DRAWINGS.
- WHERE BRACING MEMBERS OR HANGERS ARE RIVETED OR BOLTED TO THE BOTTOM FLANGES OF BEAMS, BOLTS OR RIVETS SHALL BE PLACED SO THAT ONLY ONE HOLE OCCURS IN ANY CROSS SECTION OF THE BEAM, UNLESS OTHERWISE SHOWN.
- GUSSET PLATES SHALL HAVE A MINIMUM THICKNESS OF 5/16".

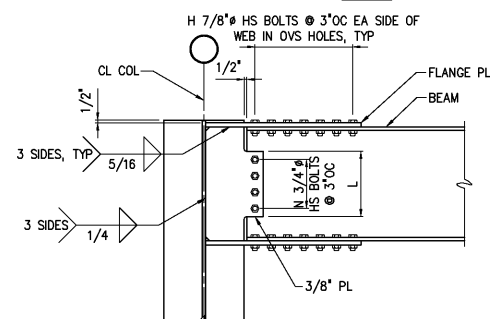


BEAM	N	L	H	FLANGE PL
W12x22	3	9"	3	1/2"x5 1/4"
W14x74	3*	9"	9	7/8"x8 1/2"
W18x40	4	12"	6	7/8"x6 1/2"
W21x62	4	12"	6	3/4"x7 7/8"

NOTE:
* INDICATES 7/8" BOLTS IN PLACE OF 3/4" BOLTS.

MOMENT CONNECTION

DETAIL 6
3/4"=1'-0"

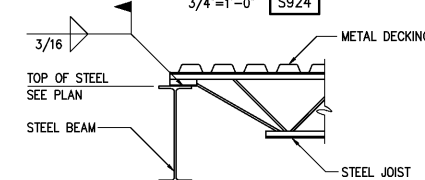


BEAM	N	L	H	FLANGE PL	
				W8 COL	W14 COL
W12x22	3	9"	3	1/2"x7 1/16"	1/2"x12 9/16"
W14x22	4	12"	4	1/2"x7 1/16"	12"x12 9/16"
W14x74	3*	9"	9	-	3/4"x12 9/16"
W21x62	4	12"	5	-	3/4"x12 9/16"

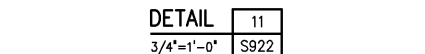
NOTE:
* INDICATES 7/8" BOLTS IN PLACE OF 3/4" BOLTS.

MOMENT CONNECTION

DETAIL 7
3/4"=1'-0"



DETAIL 11
3/4"=1'-0"



DESIGNED: BGS DRAWN: SMH/BGS CHECKED: PROJ. ENGR.: DAN APPROVED:				RECORD DRAWING THIS DRAWING HAS BEEN MODIFIED TO REFLECT FIELD CHANGES REPORTED BY THE CONTRACTOR OR ANOTHER PARTY, BUT NOT VERIFIED BY THE CERTIFYING ENGINEER. THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY CHRISTOPHER T. PHILLIPS, 033796. THIS MEDIA SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.		HAZEN AND SAWYER Environmental Engineers & Scientists 4011 WestChase Blvd, Raleigh, North Carolina 27607		CITY OF ROANOKE VIRGINIA REGIONAL WATER POLLUTION CONTROL PLANT PROCESS TRAIN IMPROVEMENTS		ADMINISTRATION BUILDING STRUCTURAL SECTIONS AND DETAILS		THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING. DATE: JANUARY 2004 H & S JOB NUMBER: 30788C CONTRACT NUMBER: C DRAWING NUMBER: S928	
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