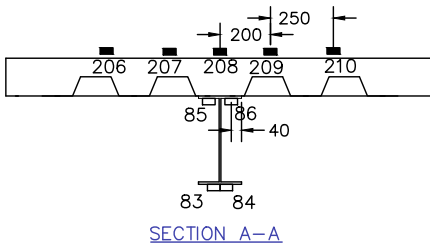
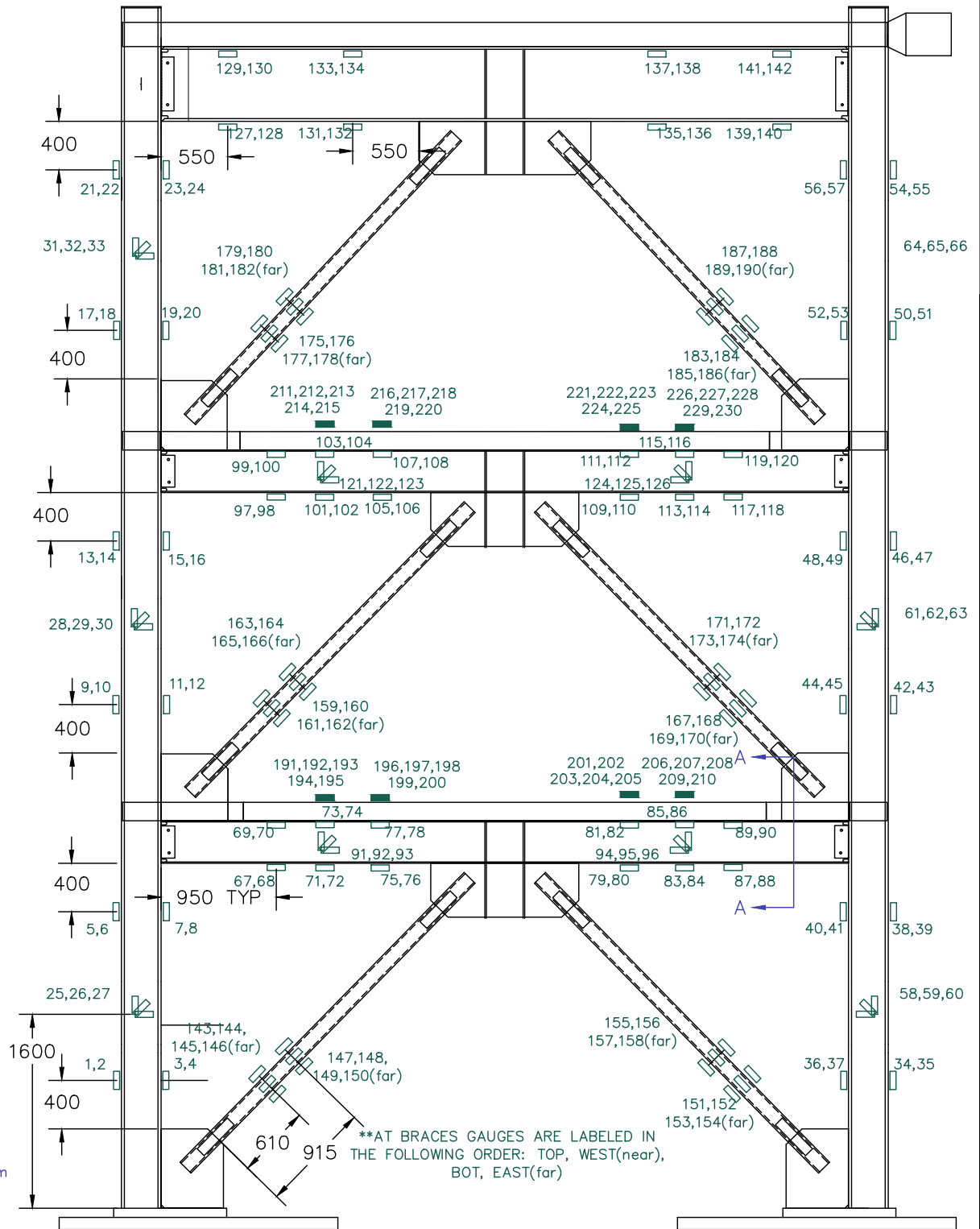


NORTH

SOUTH



## STRAIN GAUGE LAYOUT

MULTI STORY SCBF WITH YIELDING BEAMS

DWG:

DRAWN BY: SMI  
DESIGNED BY: SMI  
DATE: 1/30/2018  
CONTACT: SMIBARRA@UW.EDU

IN-1

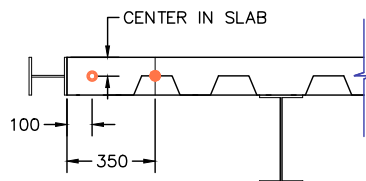
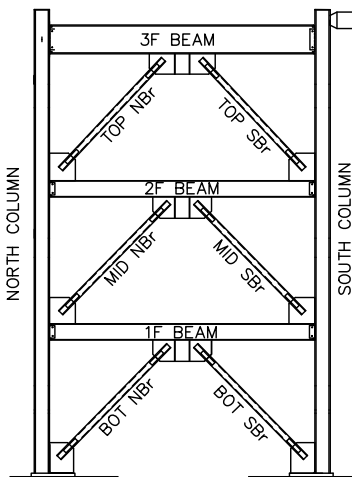


●	DESCRIPTION	TYPE	RANGE +/-	FREEDOM
D1	N ANCHOR PL SLIP	DIAL	25mm	
D2	N ANCHOR PL UPLIFT	DIAL	25mm	
D3	N BASE PL SLIP	DIAL	25mm	
D4	N BASE PL UPLIFT	DIAL	25mm	
D5	S ANCHOR PL SLIP	DIAL	25mm	
D6	S ANCHOR PL UPLIFT	DIAL	25mm	
D7	S BASE PL SLIP	DIAL	25mm	
D8	S BASE PL UPLIFT	DIAL	25mm	
D9	ACTUATOR BASE PL SLIP	DIAL	25mm	
D10	ACTUATOR BASE PL UPLIFT	DIAL	25mm	

●	DESCRIPTION	TYPE	RANGE +/-	FREEDOM
SP1	N BOT BRACE DIAG	STRING	250mm	HORIZ
SP2	N BOT BRACE ELONGATION	STRING	250mm	HORIZ
SP3	S BOT BRACE DIAG	STRING	250mm	HORIZ
SP4	S BOT BRACE ELONGATION	STRING	250mm	HORIZ
SP5	N BOT BRACE MID PT	STRING	500mm	HORIZ
SP6	S BOT BRACE MID PT	STRING	500mm	HORIZ
SP7	N MID BRACE DIAG	STRING	250mm	HORIZ
SP8	N MID BRACE ELONGATION	STRING	250mm	HORIZ
SP9	S MID BRACE DIAG	STRING	250mm	HORIZ
SP10	S MID BRACE ELONGATION	STRING	250mm	HORIZ
SP11	N TOP BRACE DIAG	STRING	250mm	HORIZ
SP12	N TOP BRACE ELONGATION	STRING	250mm	HORIZ
SP13	S TOP BRACE DIAG	STRING	250mm	HORIZ
SP14	S TOP BRACE ELONGATION	STRING	250mm	HORIZ
SP15	N TOP BRACE MID PT	STRING	500mm	HORIZ
SP16	S TOP BRACE MID PT	STRING	500mm	HORIZ
SP17	N 3F GP OOP BOT EDGE	STRING	250mm	HORIZ
SP18	MID 3F GP OOP	STRING	250mm	HORIZ
SP19	S 3F GP OOP BOT EDGE	STRING	250mm	HORIZ
SP20	N 3F GP OOP N EDGE	STRING	250mm	HORIZ
SP21	S 3F GP OOP S EDGE	STRING	250mm	HORIZ
SP22	N 3F GP OOP CENTER	STRING	250mm	HORIZ
SP23	S 3F GP OOP CENTER	STRING	250mm	HORIZ
SP24	3F BEAM N OOP ROT	STRING	250mm	HORIZ
SP25	3F BEAM MID OOP	STRING	250mm	HORIZ
SP26	3F BEAM S OOP ROT	STRING	250mm	HORIZ
SP27	N 1F BEAM DRIFT E SIDE	STRING	500mm	
SP28	N 1F BEAM DRIFT W SIDE	STRING	500mm	
SP29	N 2F BEAM DRIFT E SIDE	STRING	500mm	
SP30	N 2F BEAM DRIFT W SIDE	STRING	500mm	
SP31	S 1F BEAM DRIFT E SIDE	STRING	500mm	
SP32	S 1F BEAM DRIFT W SIDE	STRING	500mm	
SP33	S 2F BEAM DRIFT E SIDE	STRING	500mm	
SP34	S 2F BEAM DRIFT W SIDE	STRING	500mm	

#### ABBREVIATIONS

N NORTH  
 S SOUTH  
 E EAST  
 W WEST  
 C CENTER  
 BOT BOTTOM  
 MID MIDDLE  
 COL COLUMN  
 COR CORNER  
 BR BRACE  
 PL PLATE  
 OOP OUT OF PLANE  
 DIAG DIAGONAL  
 DISP DISPLACEMENT  
 ROT ROTATION  
 PT POINT  
 WP WORK POINT



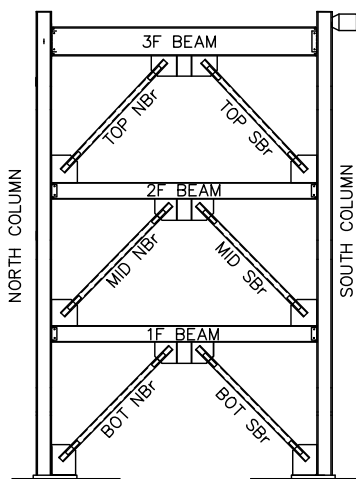
NOTE: LOCATE TILTMETERS ON  
OUTSIDE EDGE OF EACH SLAB

TYPICAL SLAB END  
INSTRUMENTATION DETAIL

INSTRUMENTATION DETAILS	
MULTI STORY SCBF WITH YIELDING BEAMS	DWG:
DRAWN BY: SMI DESIGNED BY: SMI DATE: 1/30/2018 CONTACT: SMIBARRA@UW.EDU	IN-3

●	DESCRIPTION	TYPE	RANGE+ / -	FREEDOM
L1	N BASE GP OOP BOT	TML	100mm	
L2	N BASE GP OOP TOP	TML	100mm	
L3	N BASE GP OOP CENTER	TML	50mm	
L4	1F BEAM GP OOP BOT	TML	100mm	HORIZ
L5	1F BEAM GP OOP TOP	TML	100mm	HORIZ
L6	1F BEAM GP OOP CENER	TML	50mm	HORIZ
L7	2F BEAM GP OPP BOT	TML	100mm	HORIZ
L8	2F BEAM GP OOP TOP	TML	100mm	HORIZ
L9	2F BEAM GP OOP CENER	TML	50mm	HORIZ
L10	S BASE GP OOP BOT	TML	100mm	
L11	S BASE GP OOP TOP	TML	100mm	
L12	S BASE GP OOP CENTER	TML	50mm	
L13	2F BEAM GP OOP BOT	TML	100mm	HORIZ
L14	2F BEAM GP OOP TOP	TML	100mm	HORIZ
L15	2F BEAM GP OOP CENER	TML	50mm	HORIZ
L16	3F BEAM GP OPP BOT	TML	100mm	HORIZ
L17	3F BEAM GP OOP TOP	TML	100mm	HORIZ
L18	3F BEAM GP OOP CENER	TML	50mm	HORIZ
L19	1F BEAM VERT DISP	TML	150mm	HORIZ
L20	2F BEAM VERT DISP	TML	150mm	HORIZ
L21	3F BEAM VERT DISP	TML	150mm	HORIZ
L22	TOP ALUMINUM PL OOP N	TML	25mm	
L23	TOP ALUMINUM PL OOP S	TML	25mm	
L24	TOP BEAM DRIFT E SIDE	TEMPO	500mm	
L25	TOP BEAM DRIFT W SIDE	TEMPO	500mm	

●	DESCRIPTION	RANGE + / -	●	DESCRIPTION	RANGE + / -
T1	N COL BASE ROT	5°	T26	2F N SIDE CENTER BEAM ROT	15°
T2	N COL BASE ROT	10°	T27	2F N SIDE CENTER BEAM ROT	15°
T3	N COL 1F ROT	15°	T28	2F S SIDE CENTER BEAM ROT	15°
T4	N COL 1F ROT	15°	T29	2F S SIDE CENTER BEAM ROT	15°
T5	N COL 2F ROT	10°	T30	2F S SIDE BEAM ROT	10°
T6	N COL 2F ROT	15°	T31	2F S SIDE BEAM ROT	5°
T7	S COL BASE ROT	5°	T32	S COL FLANGE AT 2F BEAM	10°
T8	S COL BASE ROT	10°	T33	3F N SIDE CENTER BEAM ROT	3°
T9	S COL 1F ROT	15°	T34	3F N SIDE CENTER BEAM ROT	3°
T10	S COL 1F ROT	15°	T35	3F S SIDE CENTER BEAM ROT	3°
T11	S COL 2F ROT	10°	T36	3F S SIDE CENTER BEAM ROT	3°
T12	S COL 2F ROT	15°	T37	1F N SIDE SLAB ROTATION E	5°
T13	N COL FLANGE AT 1F BEAM	10°	T38	1F N SIDE SLAB ROTATION W	5°
T14	1F N SIDE BEAM ROT	5°	T39	2F N SIDE SLAB ROTATION E	5°
T15	1F N SIDE BEAM ROT	10°	T40	2F N SIDE SLAB ROTATION W	5°
T16	1F N SIDE CENTER BEAM ROT	15°	T41	3F N SIDE SLAB ROTATION E	5°
T17	1F N SIDE CENTER BEAM ROT	15°	T42	3F N SIDE SLAB ROTATION W	5°
T18	1F S SIDE CENTER BEAM ROT	15°	T43	1F S SIDE SLAB ROTATION E	5°
T19	1F S SIDE CENTER BEAM ROT	15°	T44	1F S SIDE SLAB ROTATION W	5°
T20	1F S SIDE BEAM ROT	10°	T45	2F S SIDE SLAB ROTATION E	5°
T21	1F S SIDE BEAM ROT	5°	T46	2F S SIDE SLAB ROTATION W	5°
T22	N COL FLANGE AT 1F BEAM	10°	T47	1F SLAB ROT MID E	15°
T23	S COL FLANGE AT 2F BEAM	10°	T48	1F SLAB ROT MID W	15°
T24	2F N SIDE BEAM ROT	5°	T49	2F SLAB ROT MID E	15°
T25	2F N SIDE BEAM ROT	10°	T50	2F SLAB ROT MID W	15°



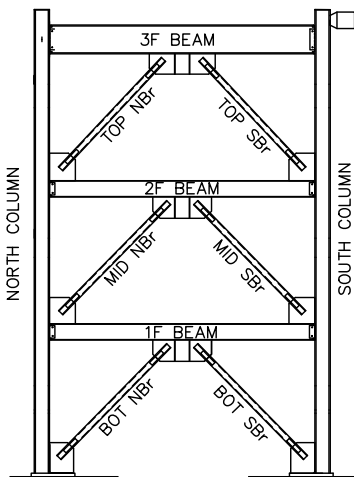
INSTRUMENTATION DETAILS	
MULTI STORY SCBF WITH YIELDING BEAMS	DWG:
DRAWN BY: SMI DESIGNED BY: SMI DATE: 1/30/2018 CONTACT: SMIBARRA@UW.EDU	IN-4

KEY

- STEEL UNIAXIAL STRAIN GAUGE
- CONCRETE UNIAXIAL STRAIN GAUGE
- ▧ TRIAXIAL STRAIN GAUGE

□	LABEL	LOCATION	□	LABEL	LOCATION
1	SG 1	N COLUMN BOT	34	SG 34	S COLUMN BOT
2	SG 2	N COLUMN BOT	35	SG 35	S COLUMN BOT
3	SG 3	N COLUMN BOT	36	SG 36	S COLUMN BOT
4	SG 4	N COLUMN BOT	37	SG 37	S COLUMN BOT
5	SG 5	N COLUMN BOT	38	SG 38	S COLUMN BOT
6	SG 6	N COLUMN BOT	39	SG 39	S COLUMN BOT
7	SG 7	N COLUMN BOT	40	SG 40	S COLUMN BOT
8	SG 8	N COLUMN BOT	41	SG 41	S COLUMN BOT
9	SG 9	N COLUMN MID	42	SG 42	S COLUMN MID
10	SG 10	N COLUMN MID	43	SG 43	S COLUMN MID
11	SG 11	N COLUMN MID	44	SG 44	S COLUMN MID
12	SG 12	N COLUMN MID	45	SG 45	S COLUMN MID
13	SG 13	N COLUMN MID	46	SG 46	S COLUMN MID
14	SG 14	N COLUMN MID	47	SG 47	S COLUMN MID
15	SG 15	N COLUMN MID	48	SG 48	S COLUMN MID
16	SG 16	N COLUMN MID	49	SG 49	S COLUMN MID
17	SG 17	N COLUMN TOP	50	SG 50	S COLUMN TOP
18	SG 18	N COLUMN TOP	51	SG 51	S COLUMN TOP
19	SG 19	N COLUMN TOP	52	SG 52	S COLUMN TOP
20	SG 20	N COLUMN TOP	53	SG 53	S COLUMN TOP
21	SG 21	N COLUMN TOP	54	SG 54	S COLUMN TOP
22	SG 22	N COLUMN TOP	55	SG 55	S COLUMN TOP
23	SG 23	N COLUMN TOP	56	SG 56	S COLUMN TOP
24	SG 24	N COLUMN TOP	57	SG 57	S COLUMN TOP
▧			▧		
25	SG 25	N COLUMN BOT WEB 0°	58	SG 58	S COLUMN BOT WEB 0°
26	SG 26	N COLUMN BOT WEB 45°	59	SG 59	S COLUMN BOT WEB 45°
27	SG 27	N COLUMN BOT WEB 90°	60	SG 60	S COLUMN BOT WEB 90°
28	SG 28	N COLUMN MID WEB 0°	61	SG 61	S COLUMN MID WEB 0°
29	SG 29	N COLUMN MID WEB 45°	62	SG 62	S COLUMN MID WEB 45°
30	SG 30	N COLUMN MID WEB 90°	63	SG 63	S COLUMN MID WEB 90°
31	SG 31	N COLUMN TOP WEB 0°	64	SG 64	S COLUMN TOP WEB 0°
32	SG 32	N COLUMN TOP WEB 45°	65	SG 65	S COLUMN TOP WEB 45°
33	SG 33	N COLUMN TOP WEB 90°	66	SG 66	S COLUMN TOP WEB 90°
□			□		
67	SG 67	N 1F BEAM	97	SG 97	N 2F BEAM
68	SG 68	N 1F BEAM	98	SG 98	N 2F BEAM
69	SG 69	N 1F BEAM*	99	SG 99	N 2F BEAM*
70	SG 70	N 1F BEAM*	100	SG 100	N 2F BEAM*
71	SG 71	N 1F BEAM	101	SG 101	N 2F BEAM
72	SG 72	N 1F BEAM	102	SG 102	N 2F BEAM
73	SG 73	N 1F BEAM*	103	SG 103	N 2F BEAM*
74	SG 74	N 1F BEAM*	104	SG 104	N 2F BEAM*
75	SG 75	N 1F BEAM	105	SG 105	N 2F BEAM
76	SG 76	N 1F BEAM	106	SG 106	N 2F BEAM
77	SG 77	N 1F BEAM*	107	SG 107	N 2F BEAM*
78	SG 78	N 1F BEAM*	108	SG 108	N 2F BEAM*
79	SG 79	S 1F BEAM	109	SG 109	N 2F BEAM
80	SG 80	S 1F BEAM	110	SG 110	N 2F BEAM
81	SG 81	S 1F BEAM*	111	SG 111	N 2F BEAM*
82	SG 82	S 1F BEAM*	112	SG 112	N 2F BEAM*
83	SG 83	S 1F BEAM	113	SG 113	N 2F BEAM
84	SG 84	S 1F BEAM	114	SG 114	N 2F BEAM
85	SG 85	S 1F BEAM*	115	SG 115	N 2F BEAM*
86	SG 86	S 1F BEAM*	116	SG 116	N 2F BEAM*
87	SG 87	S 1F BEAM	117	SG 117	N 2F BEAM
88	SG 88	S 1F BEAM	118	SG 118	N 2F BEAM
89	SG 89	S 1F BEAM*	119	SG 119	N 2F BEAM*
90	SG 90	S 1F BEAM*	120	SG 120	N 2F BEAM*
▧			▧		
91	SG 91	N SIDE 1F BEAM WEB 0°	121	SG 121	N SIDE 2F BEAM WEB 0°
92	SG 92	N SIDE 1F BEAM WEB 45°	122	SG 122	N SIDE 2F BEAM WEB 45°
93	SG 93	N SIDE 1F BEAM WEB 90°	123	SG 123	N SIDE 2F BEAM WEB 90°
94	SG 94	S SIDE 1F BEAM WEB 0°	124	SG 124	S SIDE 2F BEAM WEB 0°
95	SG 95	S SIDE 1F BEAM WEB 45°	125	SG 125	S SIDE 2F BEAM WEB 45°
96	SG 96	S SIDE 1F BEAM WEB 90°	126	SG 126	S SIDE 2F BEAM WEB 90°

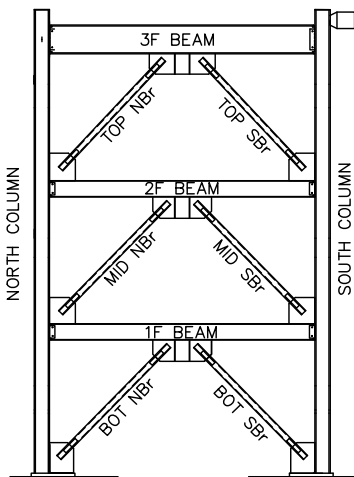
\* LOCATE STRAIN GAUGE AT UNDERSIDE OF BEAM FLANGE



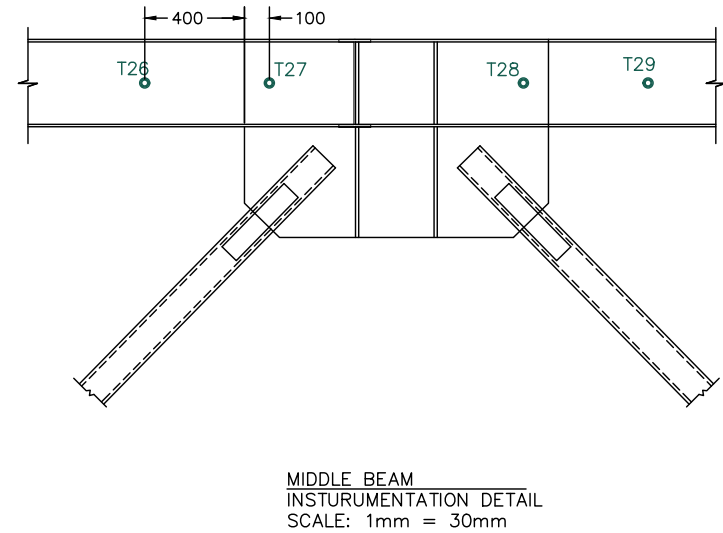
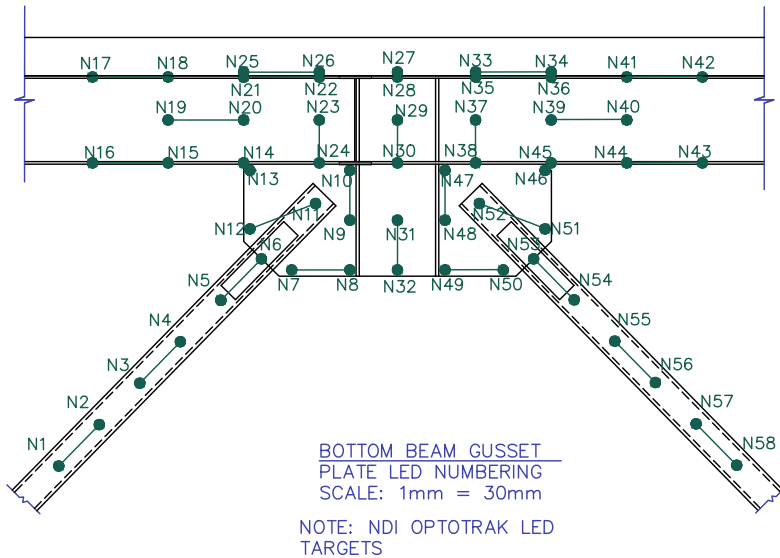
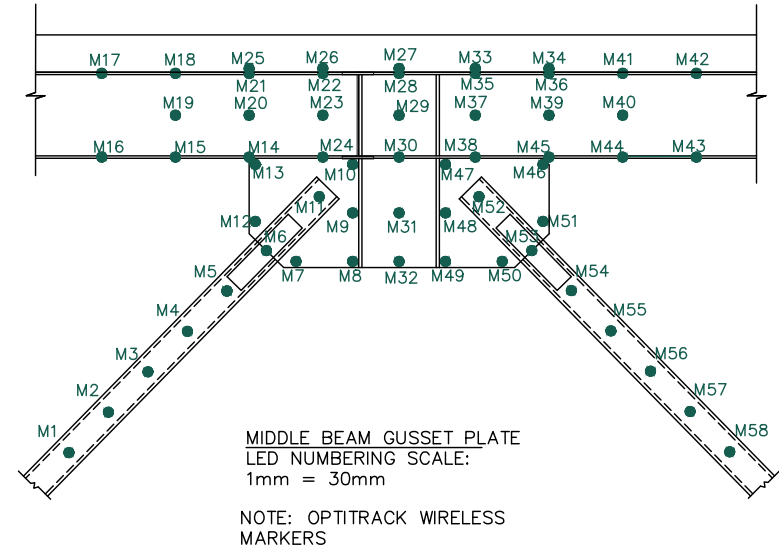
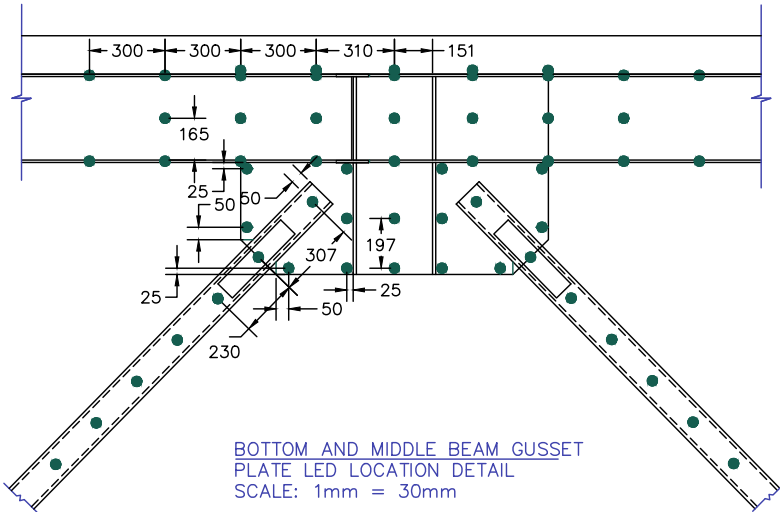
STRAIN GAUGE DETAILS	
MULTI STORY SCBF WITH YIELDING BEAMS	DWG:
DRAWN BY: SMI DESIGNED BY: SMI DATE: 1/30/2018 CONTACT: SMIBARRA@UW.EDU	IN-5

☐	LABEL	LOCATION	☐	LABEL	LOCATION
127	SG 127	N 3F BEAM	135	SG 135	S 3F BEAM
128	SG 128	N 3F BEAM	136	SG 136	S 3F BEAM
129	SG 129	N 3F BEAM*	137	SG 137	S 3F BEAM*
130	SG 130	N 3F BEAM*	138	SG 138	S 3F BEAM*
131	SG 131	N 3F BEAM	139	SG 139	S 3F BEAM
132	SG 132	N 3F BEAM	140	SG 140	S 3F BEAM
133	SG 133	N 3F BEAM*	141	SG 141	S 3F BEAM*
134	SG 134	N 3F BEAM*	142	SG 142	S 3F BEAM*
143	SG 143	BOT NBr	167	SG 167	MID SBr
144	SG 144	BOT NBr	168	SG 168	MID SBr
145	SG 145	BOT NBr	169	SG 169	MID SBr
146	SG 146	BOT NBr	170	SG 170	MID SBr
147	SG 147	BOT NBr	171	SG 171	MID SBr
148	SG 148	BOT NBr	172	SG 172	MID SBr
149	SG 149	BOT NBr	173	SG 173	MID SBr
150	SG 150	BOT NBr	174	SG 174	MID SBr
151	SG 151	BOT SBr	175	SG 175	TOP NBr
152	SG 152	BOT SBr	176	SG 176	TOP NBr
153	SG 153	BOT SBr	177	SG 177	TOP NBr
154	SG 154	BOT SBr	178	SG 178	TOP NBr
155	SG 155	BOT SBr	179	SG 179	TOP NBr
156	SG 156	BOT SBr	180	SG 180	TOP NBr
157	SG 157	BOT SBr	181	SG 181	TOP NBr
158	SG 158	BOT SBr	182	SG 182	TOP NBr
159	SG 159	MID NBr	183	SG 183	TOP SBr
160	SG 160	MID NBr	184	SG 184	TOP SBr
161	SG 161	MID NBr	185	SG 185	TOP SBr
162	SG 162	MID NBr	186	SG 186	TOP SBr
163	SG 163	MID NBr	187	SG 187	TOP SBr
164	SG 164	MID NBr	188	SG 188	TOP SBr
165	SG 165	MID NBr	189	SG 189	TOP SBr
166	SG 166	MID NBr	190	SG 190	TOP SBr
191	SG 191	1F FN SLAB SURFACE	211	SG 211	2F FN SLAB SURFACE
192	SG 192	1F FN SLAB SURFACE	212	SG 212	2F FN SLAB SURFACE
193	SG 193	1F FN SLAB SURFACE	213	SG 213	2F FN SLAB SURFACE
194	SG 194	1F FN SLAB SURFACE	214	SG 214	2F FN SLAB SURFACE
195	SG 195	1F FN SLAB SURFACE	215	SG 215	2F FN SLAB SURFACE
196	SG 196	1F MN SLAB SURFACE	216	SG 216	2F MN SLAB SURFACE
197	SG 197	1F MN SLAB SURFACE	217	SG 217	2F MN SLAB SURFACE
198	SG 198	1F MN SLAB SURFACE	218	SG 218	2F MN SLAB SURFACE
199	SG 199	1F MN SLAB SURFACE	219	SG 219	2F MN SLAB SURFACE
200	SG 200	1F MN SLAB SURFACE	220	SG 220	2F MN SLAB SURFACE
201	SG 201	1F MS SLAB SURFACE	221	SG 221	2F MS SLAB SURFACE
202	SG 202	1F MS SLAB SURFACE	222	SG 222	2F MS SLAB SURFACE
203	SG 203	1F MS SLAB SURFACE	223	SG 223	2F MS SLAB SURFACE
204	SG 204	1F MS SLAB SURFACE	224	SG 224	2F MS SLAB SURFACE
205	SG 205	1F MS SLAB SURFACE	225	SG 225	2F MS SLAB SURFACE
206	SG 206	1F FS SLAB SURFACE	226	SG 226	2F FS SLAB SURFACE
207	SG 207	1F FS SLAB SURFACE	227	SG 227	2F FS SLAB SURFACE
208	SG 208	1F FS SLAB SURFACE	228	SG 228	2F FS SLAB SURFACE
209	SG 209	1F FS SLAB SURFACE	229	SG 229	2F FS SLAB SURFACE
210	SG 210	1F FS SLAB SURFACE	230	SG 230	2F FS SLAB SURFACE

\* LOCATE STRAIN GAUGE AT UNDERSIDE OF BEAM FLANGE



STRAIN GAUGE DETAILS	
MULTI STORY SCBF WITH YIELDING BEAMS	DWG:
DRAWN BY: SMI DESIGNED BY: SMI DATE: 1/30/2018 CONTACT: SMIBARRA@UW.EDU	IN-6



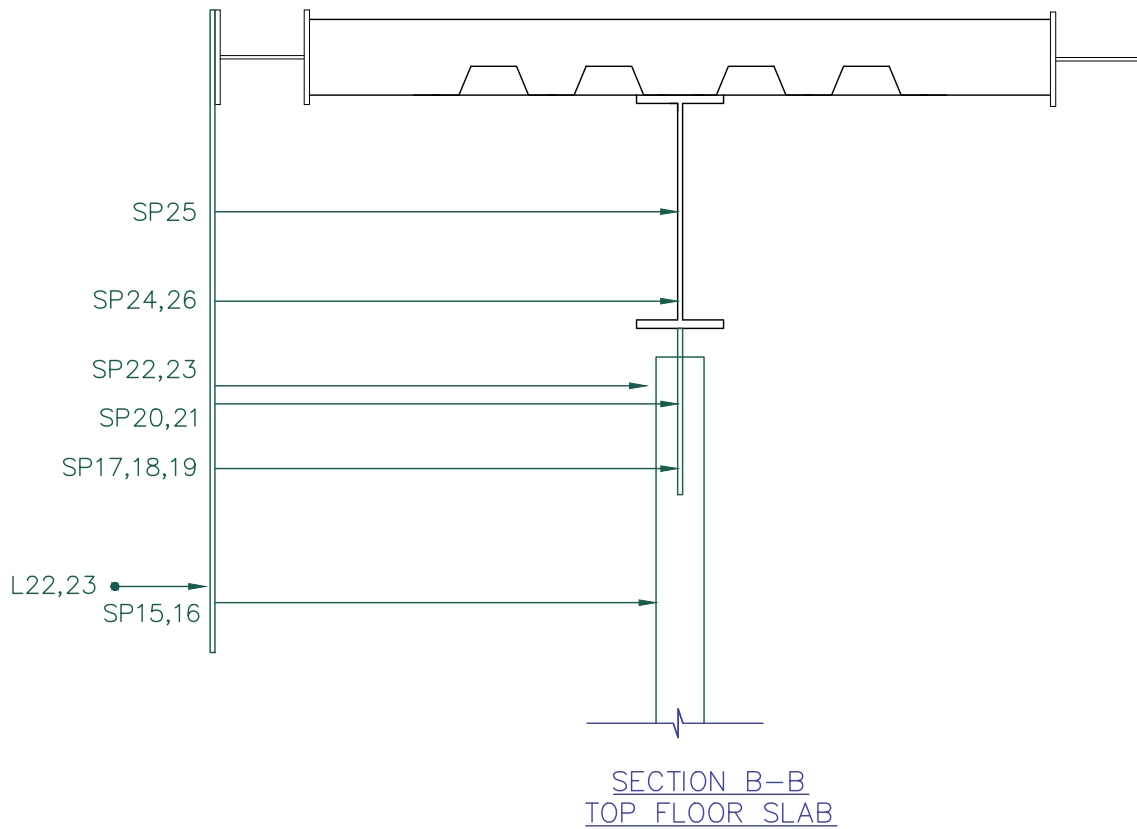
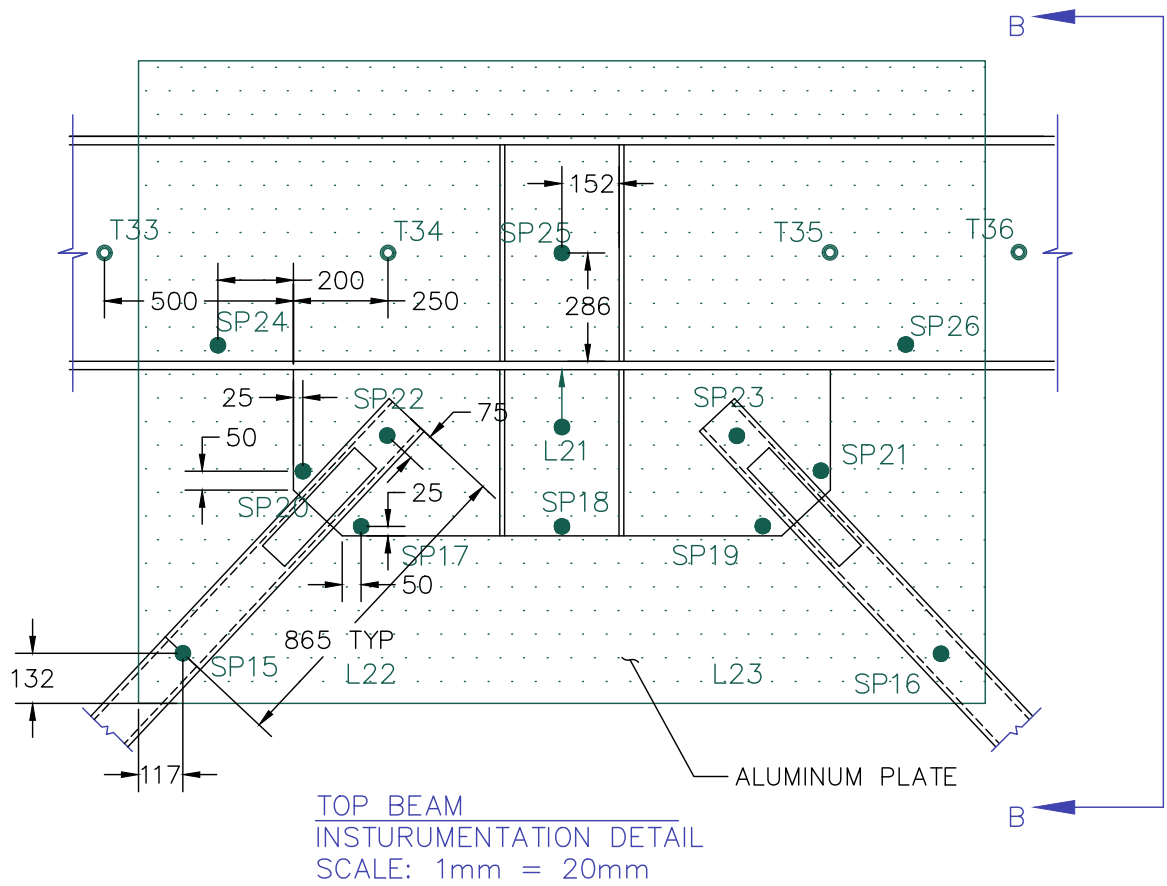
MID BEAM INSTRUMENTATION DETAILS	
MULTI STORY SCBF WITH YIELDING BEAMS	DWG:
DRAWN BY: SMI DESIGNED BY: SMI DATE: 1/30/2018 CONTACT: SMIBARRA@UW.EDU	IN-7



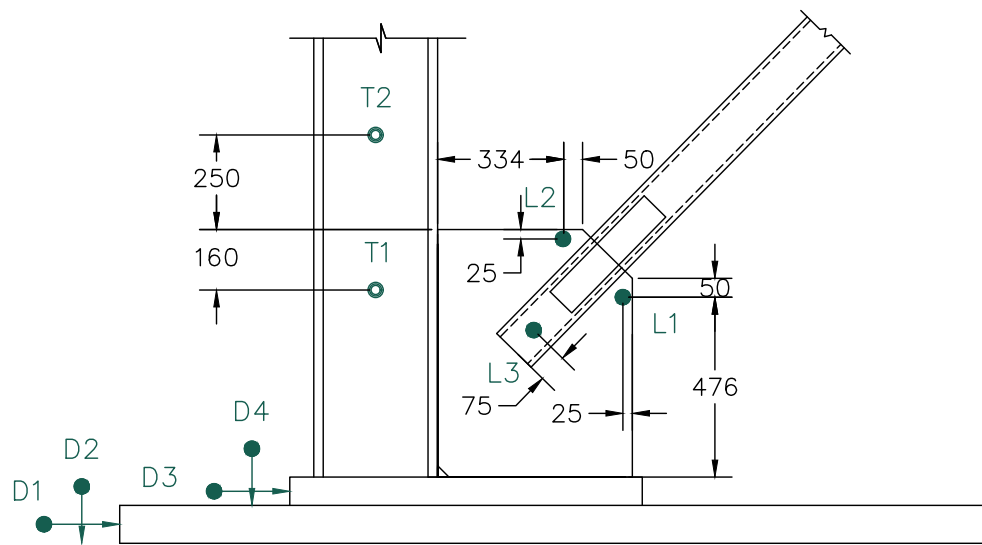
●	DESCRIPTION	●	DESCRIPTION
N1	BOT NBr MID	N30	F1 BEAM BOT FLANGE GRID
N2	BOT NBr OOP	N31	F1 BEAM MID GP GRID
N3	BOT NBr OOP	N32	F1 BEAM MID GP GRID
N4	BOT NBr OOP	N33	F1 BEAM SLAB GRID
N5	BOT NBr OOP	N34	F1 BEAM SLAB GRID
N6	BOT NBr OOP	N35	F1 BEAM TOP FLANGE GRID
N7	F1 BEAM MID GP GRID	N36	F1 BEAM TOP FLANGE GRID
N8	F1 BEAM MID GP GRID	N37	F1 BEAM WEB GRID
N9	F1 BEAM MID GP GRID	N38	F1 BEAM BOT FLANGE GRID
N10	F1 BEAM MID GP GRID	N39	F1 BEAM WEB GRID
N11	BOT NBr OOP	N40	F1 BEAM WEB GRID
N12	F1 BEAM MID GP GRID	N41	F1 BEAM TOP FLANGE GRID
N13	F1 BEAM MID GP GRID	N42	F1 BEAM TOP FLANGE GRID
N14	F1 BEAM BOT FLANGE GRID	N43	F1 BEAM BOT FLANGE GRID
N15	F1 BEAM BOT FLANGE GRID	N44	F1 BEAM BOT FLANGE GRID
N16	F1 BEAM BOT FLANGE GRID	N45	F1 BEAM BOT FLANGE GRID
N17	F1 BEAM TOP FLANGE GRID	N46	F1 BEAM MID GP GRID
N18	F1 BEAM TOP FLANGE GRID	N47	F1 BEAM MID GP GRID
N19	F1 BEAM WEB GRID	N48	F1 BEAM MID GP GRID
N20	F1 BEAM WEB GRID	N49	F1 BEAM MID GP GRID
N21	F1 BEAM TOP FLANGE GRID	N50	F1 BEAM MID GP GRID
N22	F1 BEAM TOP FLANGE GRID	N51	F1 BEAM MID GP GRID
N23	F1 BEAM WEB GRID	N52	BOT SBr OOP
N24	F1 BEAM BOT FLANGE GRID	N53	BOT SBr OOP
N25	F1 BEAM SLAB GRID	N54	BOT SBr OOP
N26	F1 BEAM SLAB GRID	N55	BOT SBr OOP
N27	F1 BEAM SLAB GRID	N56	BOT SBr OOP
N28	F1 BEAM TOP FLANGE GRID	N57	BOT SBr OOP
N29	F1 BEAM WEB GRID (CENTER)	N58	BOT SBr OOP
●	DESCRIPTION	●	DESCRIPTION
M1	MID NBr MID	M30	F2 BEAM BOT FLANGE GRID
M2	MID NBr OOP	M31	F2 BEAM MID GP GRID
M3	MID NBr OOP	M32	F2 BEAM MID GP GRID
M4	MID NBr OOP	M33	F2 BEAM SLAB GRID
M5	MID NBr OOP	M34	F2 BEAM SLAB GRID
M6	MID NBr OOP	M35	F2 BEAM TOP FLANGE GRID
M7	F2 BEAM MID GP GRID	M36	F2 BEAM TOP FLANGE GRID
M8	F2 BEAM MID GP GRID	M37	F2 BEAM WEB GRID
M9	F2 BEAM MID GP GRID	M38	F2 BEAM BOT FLANGE GRID
M10	F2 BEAM MID GP GRID	M39	F2 BEAM WEB GRID
M11	MID NBr OOP	M40	F2 BEAM WEB GRID
M12	F2 BEAM MID GP GRID	M41	F2 BEAM TOP FLANGE GRID
M13	F2 BEAM MID GP GRID	M42	F2 BEAM TOP FLANGE GRID
M14	F2 BEAM BOT FLANGE GRID	M43	F2 BEAM BOT FLANGE GRID
M15	F2 BEAM BOT FLANGE GRID	M44	F2 BEAM BOT FLANGE GRID
M16	F2 BEAM BOT FLANGE GRID	M45	F2 BEAM BOT FLANGE GRID
M17	F2 BEAM TOP FLANGE GRID	M46	F2 BEAM MID GP GRID
M18	F2 BEAM TOP FLANGE GRID	M47	F2 BEAM MID GP GRID
M19	F2 BEAM WEB GRID	M48	F2 BEAM MID GP GRID
M20	F2 BEAM WEB GRID	M49	F2 BEAM MID GP GRID
M21	F2 BEAM TOP FLANGE GRID	M50	F2 BEAM MID GP GRID
M22	F2 BEAM TOP FLANGE GRID	M51	F2 BEAM MID GP GRID
M23	F2 BEAM WEB GRID	M52	MID SBr OOP
M24	F2 BEAM BOT FLANGE GRID	M53	MID SBr OOP
M25	F2 BEAM SLAB GRID	M54	MID SBr OOP
M26	F2 BEAM SLAB GRID	M55	MID SBr OOP
M27	F2 BEAM SLAB GRID	M56	MID SBr OOP
M28	F2 BEAM TOP FLANGE GRID	M57	MID SBr OOP
M29	F2 BEAM WEB GRID(CENTER)	M58	MID SBr OOP

OPTICAL SYSTEM MARKER DESIGNATION	
MULTI STORY SCBF WITH YIELDING BEAMS	DWG:
DRAWN BY: SMI DESIGNED BY: SMI DATE: 1/30/2018 CONTACT: SMIBARRA@UW.EDU	IN-8

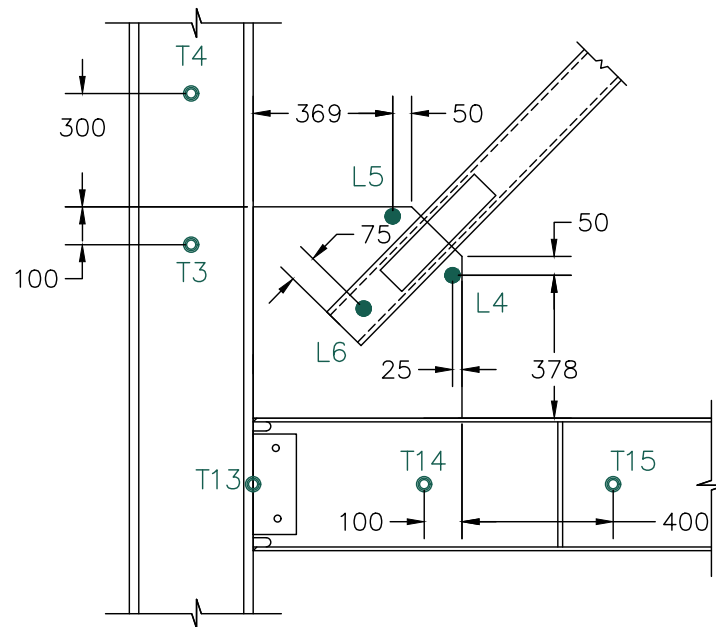




TOP BEAM INSTRUMENTATION	
MULTI STORY SCBF WITH YIELDING BEAMS	
DRAWN BY: SMI DESIGNED BY: SMI DATE: 1/30/2018 CONTACT: SMIBARRA@UW.EDU	DWG: <b>IN-9</b>



TYPICAL BASE GUSSET PLATE  
INSTRUMENTATION DETAIL



TYPICAL BEAM/COLUMN  
INSTRUMENTATION DETAIL

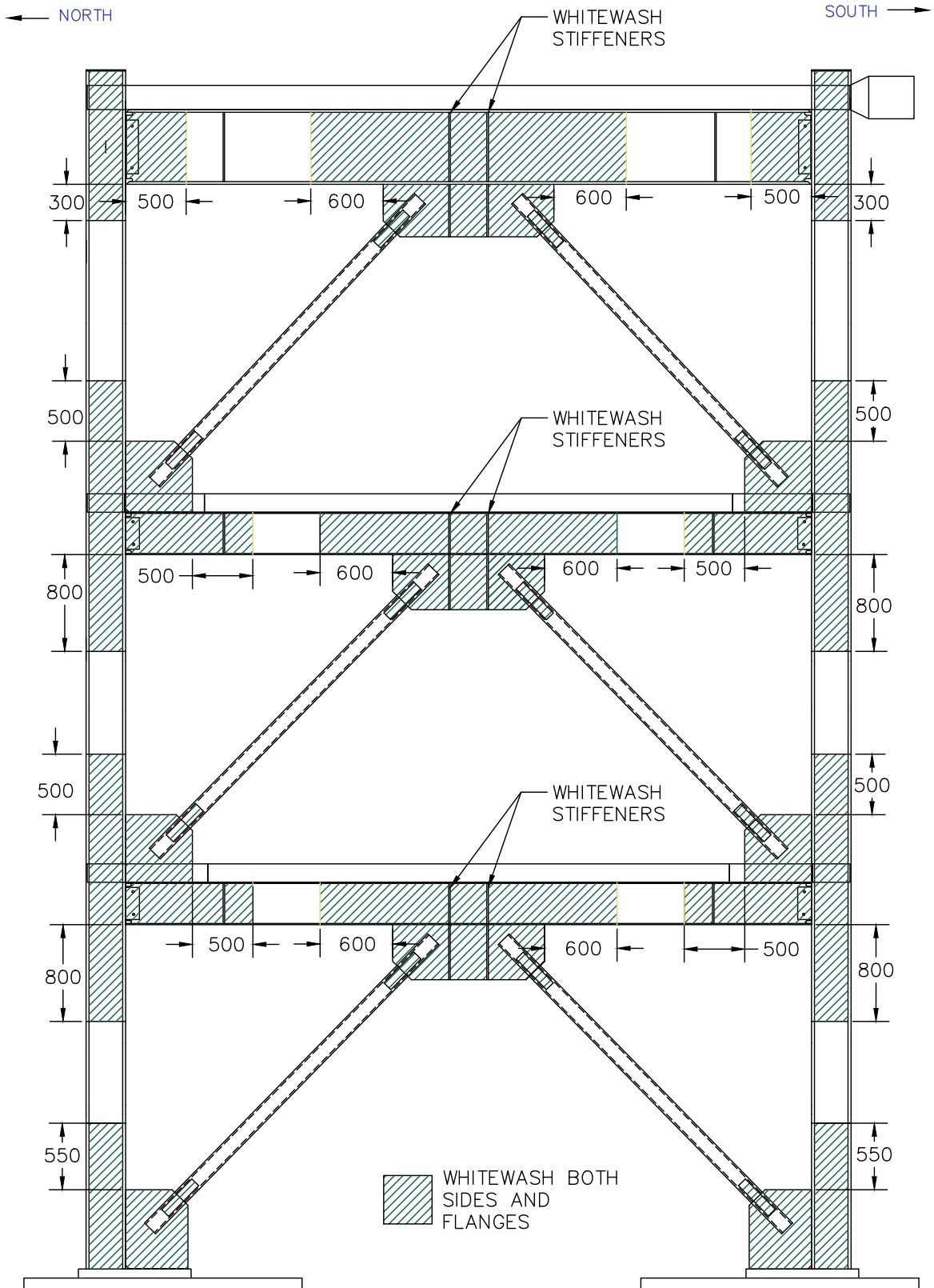
### CORNER GUSSET PLATE INSTRUMENTATION DETAILS

MULTI STORY SCBF WITH YIELDING BEAMS

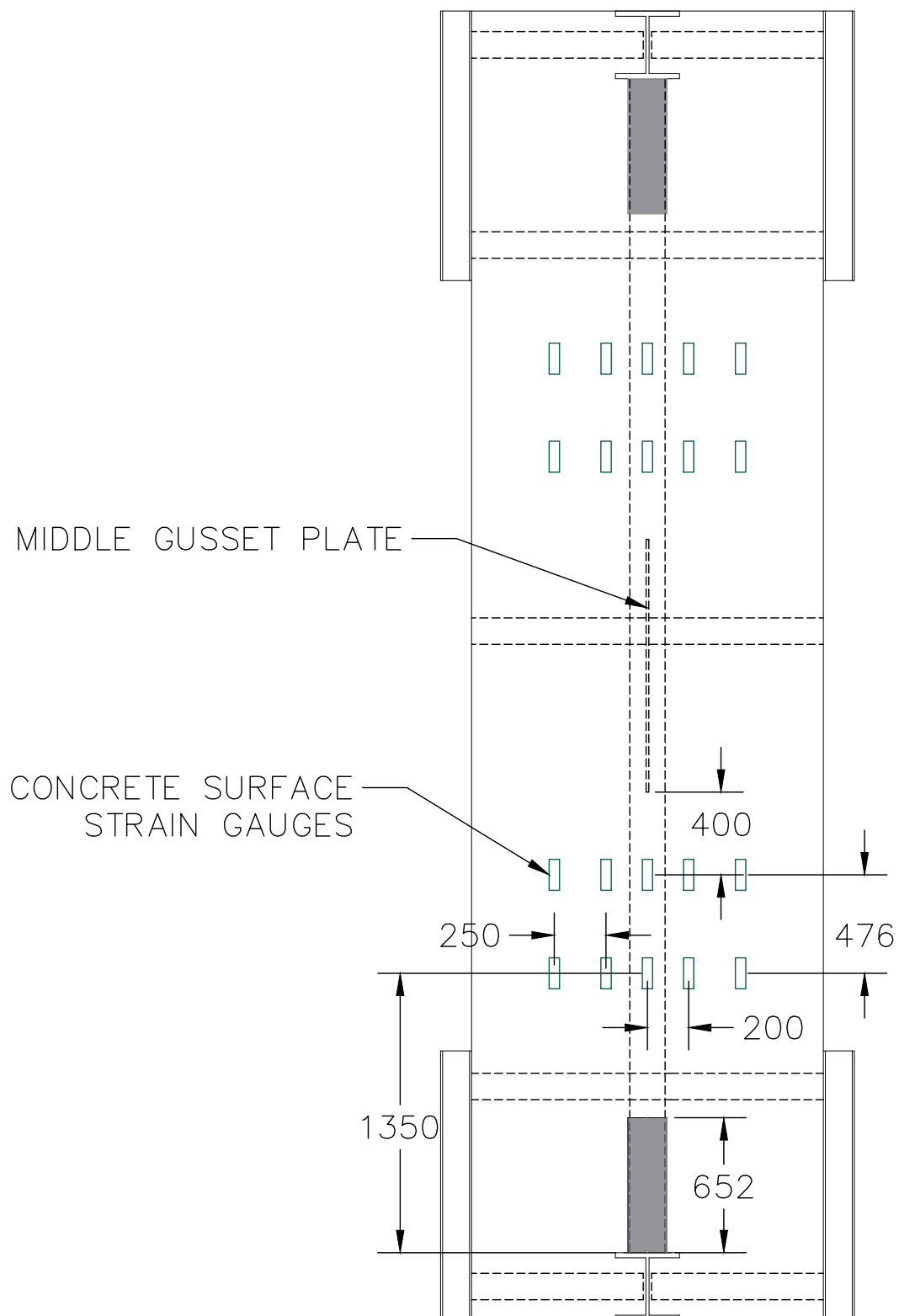
DWG:

DRAWN BY: SMI  
DESIGNED BY: SMI  
DATE: 1/30/2018  
CONTACT: SMIBARRA@UW.EDU

IN-10



WHITEWASH PLAN	
MULTI STORY SCBF WITH YIELDING BEAMS	DWG:
DRAWN BY: SMI DESIGNED BY: SMI DATE: 1/30/2018 CONTACT: SMIBARRA@UW.EDU	IN-11



FIRST/SECOND LEVEL SLAB	
MULTI STORY SCBF WITH YIELDING BEAMS	DWG:
DRAWN BY: SMI DESIGNED BY: SMI DATE: 1/30/2018 CONTACT: SMIBARRA@UW.EDU	IN-12