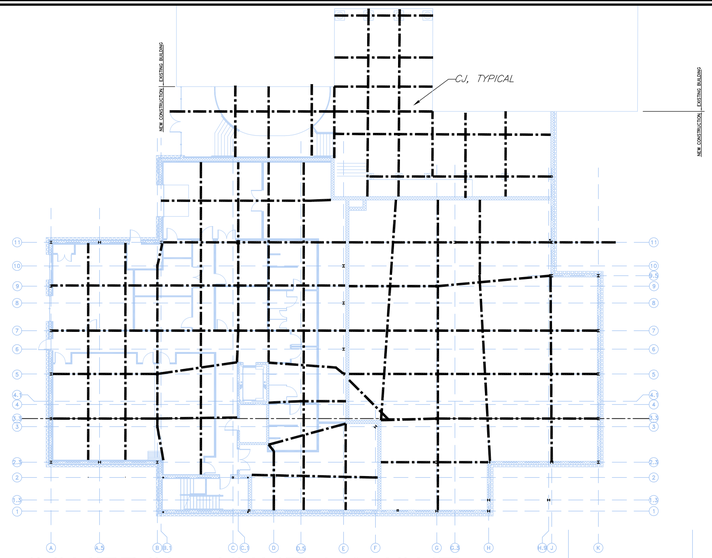


CONTROL JOINT LAYOUT

CONTROL JOINTS TO BE SPACED AT 13'-0" MAX.
SEE TYPICAL DETAIL ON S4.0
SEVER EVERY OTHER PIECE OF WELDED WIRE FABRIC AT JOINT LOCATION

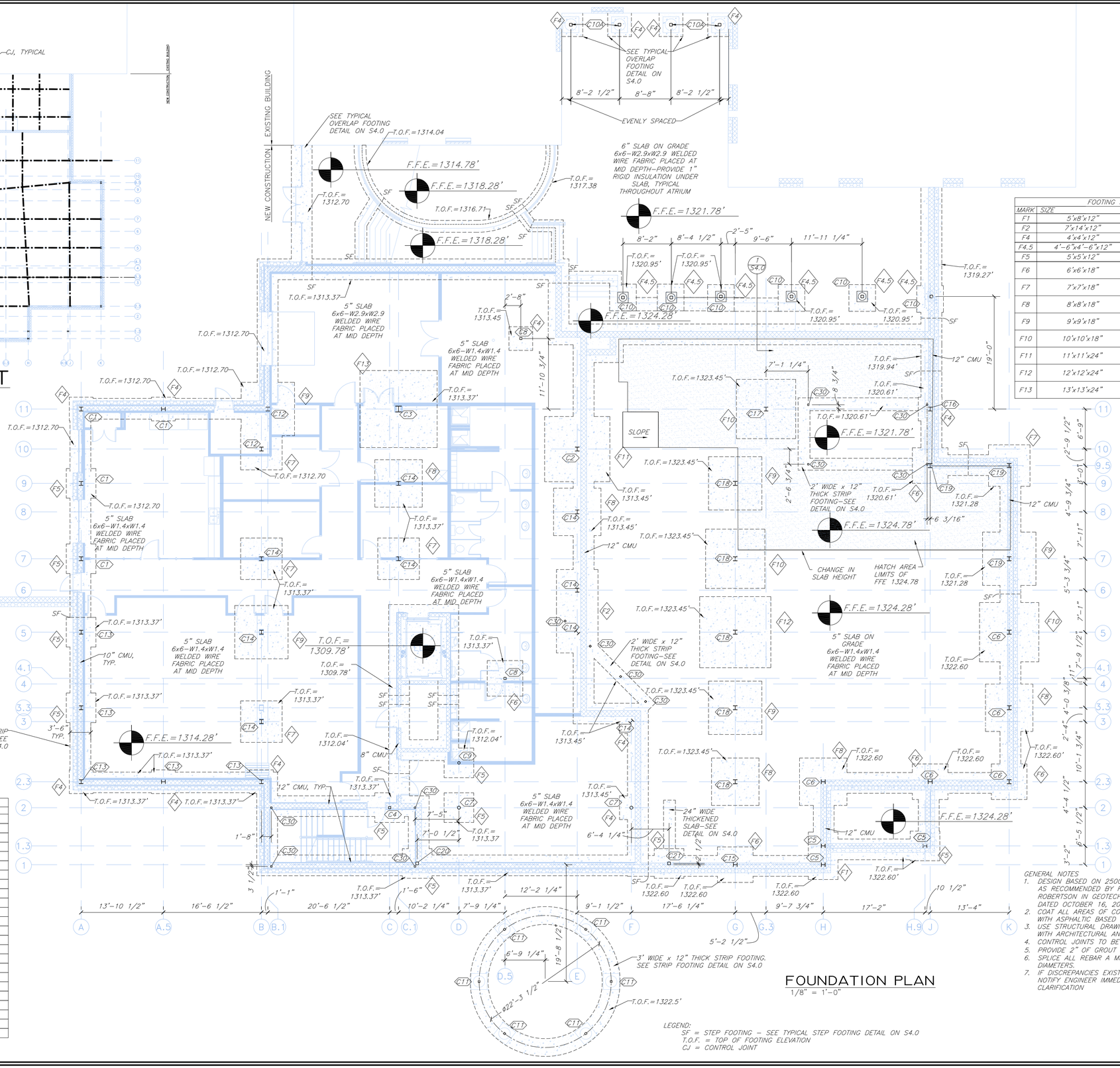
STRUCTURAL DESIGN LOADS PER ASCE 7 (CURRENT EDITION):

OFFICE LIVE LOADS	
LOBBIES AND FIRST FLOOR CORRIDORS	100 PSF
OFFICES	50 PSF
CORRIDORS ABOVE FIRST FLOOR	80 PSF
SERVER AND FILE ROOM	125 PSF
CONCENTRATED LOAD	2000 POUNDS
SNOW LOAD	30 PSF (NON-REDUCIBLE)
WIND	
90 MPH, EXPOSURE B	
SEISMIC	
S D1 = 0.15, S DS = 0.13, I = 1.5	
OCCUPANCY CATEGORY IV	
SEISMIC DESIGN CATEGORY D	

COLUMN SCHEDULE

MARK	DESIGN	BASE PLATE ELEVATION	BASE PLATE SIZE	ANCHOR RODS
C1	W8x40	1312.87'	1'x15"x12"	(4) 1"ø
C2	W8x58	1313.54'	1'x16"x13" *	(4) 1 ¼"ø
C3	W12x72	1313.54'	1'x21"x19" *	(4) 1 ¼"ø
C4	HSS 5x5x5/16	1313.54'	1'x12"x12"	(4) 1"ø
C5	W8x40	1322.77'	1'x15"x12"	(4) 1"ø
C6	W8x67	1322.77'	1'x18"x16" *	(4) 1 ¼"ø
C7	6" SCH 80 PIPE	1312.21'	1'x12"x12"	(4) 1"ø
C8	HSS 5x5x5/16	1313.54'	1'x8"x8"	(4) 1"ø
C9	5" SCH 80 PIPE	1313.54'	1'x12"x12"	(4) 1"ø
C10	HSS 6x6x3/8	1321.12'	1'x12"x12"	(4) 1"ø
C10A	HSS 6x6x3/8	FIELD VERIFY	1'x12"x12"	(4) 1"ø
C11	HSS 4x4x5/16	1322.67'	1'x10"x10"	(4) 1"ø
C12	W8x40	1312.87'	1'x15"x12"	(4) 1"ø
C13	W8x40	1313.54'	1'x15"x12"	(4) 1"ø
C14	W8x40	1313.54'	1'x15"x12"	(4) 1"ø
C15	W8x40	1322.77'	1'x15"x12"	(4) 1"ø
C16	W8x40	1321.45'	1'x15"x12"	(4) 1"ø
C17	W8x40	1323.62'	1'x15"x12"	(4) 1"ø
C18	W8x67	1323.62'	1'x18"x18"*	(4) 1"ø
C19	W8x67	1321.45'	1'x18"x18"*	(4) 1"ø
C20	HSS 5 1/2x5 1/2x3/8	1313.54'	1'x12"x12"	(4) 1"ø
C21	HSS 5 1/2x5 1/2x3/8	1322.77'	1'x12"x12"	(4) 1"ø
C30	HSS 3 1/2 x3 1/2 x1/4"	VARIES	1'x12"x12"	(4) 3/4"ø
C31	HSS 6"x6"x5/8"	VARIES	1'x12"x12"	N/A

* INDICATES STIFFENED BASE PLATE. SEE DETAIL ON S4.1



FOUNDATION PLAN
1/8" = 1'-0"

LEGEND:
SF = STEP FOOTING - SEE TYPICAL STEP FOOTING DETAIL ON S4.0
T.O.F. = TOP OF FOOTING ELEVATION
CJ = CONTROL JOINT

FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F1	5'x8'x12"	#4 @ 12" O.C. EACH WAY
F2	7'x14'x12"	#4 @ 12" O.C. EACH WAY
F4	4'x4'x12"	#4 @ 12" O.C. EACH WAY
F4.5	4'-6"x4'-6"x12"	#4 @ 12" O.C. EACH WAY
F5	5'x5'x12"	#4 @ 12" O.C. EACH WAY
F6	6'x6'x18"	(2) LAYERS OF #4 @ 12" O.C. EACH WAY
F7	7'x7'x18"	(2) LAYERS OF #4 @ 12" O.C. EACH WAY
F8	8'x8'x18"	(2) LAYERS OF #4 @ 12" O.C. EACH WAY
F9	9'x9'x18"	(2) LAYERS OF #4 @ 12" O.C. EACH WAY
F10	10'x10'x18"	(2) LAYERS OF #4 @ 12" O.C. EACH WAY
F11	11'x11'x24"	(2) LAYERS OF #4 @ 12" O.C. EACH WAY
F12	12'x12'x24"	(2) LAYERS OF #4 @ 12" O.C. EACH WAY
F13	13'x13'x24"	(2) LAYERS OF #4 @ 12" O.C. EACH WAY

GENERAL NOTES
1. DESIGN BASED ON 2500 PSF BEARING CAPACITY AS RECOMMENDED BY FROEHLING AND ROBERTSON IN GEOTECH REPORT #71R3003 DATED OCTOBER 16, 2013.
2. COAT ALL AREAS OF COLUMNS BELOW GRADE WITH ASPHALTIC BASED PAINT.
3. USE STRUCTURAL DRAWINGS IN COORDINATION WITH ARCHITECTURAL AND MEP DRAWINGS.
4. CONTROL JOINTS TO BE SPACED AT 13'-0" MAX.
5. PROVIDE 2" OF GROUT UNDER ALL BASE PLATES
6. SPLICE ALL REBAR A MINIMUM OF 48 BAR DIAMETERS.
7. IF DISCREPANCIES EXIST BETWEEN DRAWINGS, NOTIFY ENGINEER IMMEDIATELY FOR CLARIFICATION

MATHER ARCHITECTS, P.C.
373 Neff Ave, Harrisonburg, VA 22801
Phone Number: (540) 442-1400

ENGINEERING SOLUTIONS & CONSTRUCTION MANAGEMENT PLC
1010 NORTH MAIN STREET
HARRISONBURG, VIRGINIA 22802
PHONE 540.442.8787
FAX 540.442.9090
DESIGNING FOR TOMORROW...TODAY!

FOUNDATION PLAN
Scale: 1/8" = 1'-0"

Proposed New Municipal Building
Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
BRIAN D. KOERNER
31 march 14
No. 038694
PROFESSIONAL ENGINEER

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MATHER ARCHITECTS, P.C.

Date: 03/31/14
Project: 013007
ESCM: 0713-0140
Drawn By: JC

S1.0

COLUMN SCHEDULE	
MARK	DESIGN
C1	W8x40
C2	W8x58
C3	W12x72
C4	HSS 5x5x5/16
C5	W8x40
C6	W8x67
C7	6" SCH 80 PIPE
C8	HSS 5x5x5/16
C9	5" SCH 80 PIPE
C10	HSS 6x6x1/8
C10A	HSS 6x6x1/8
C11	HSS 4x4x5/16
C12	W8x40
C13	W8x40
C14	W8x40
C15	W8x40
C16	W8x40
C17	W8x40
C18	W8x67
C19	W8x67
C20	HSS 5 1/2x5 1/2x1/8
C21	HSS 5 1/2x5 1/2x1/8
C30	HSS 3 1/2"x3 1/2"x1/4"
C31	HSS 6"x6"x1/2"

LINTEL SCHEDULE		
MARK	DESIGN	REINFORCING
L1	8x8 PRECAST	(2) #5 TOP/BOTTOM
L2	W8x31*	NONE

* SEE TYPICAL BEAM LINTEL DETAIL ON S4.1

NEW CONSTRUCTION | EXISTING BUILDING

NEW CONSTRUCTION | EXISTING BUILDING

PROVIDE W6x15 @ 3' O.C. ON TOP OF W10x54 TO SUPPORT 4" SLAB WITH 6x6-W1.4xW1.4 WWF ON 0.6C24 METAL DECKING. POCKET BEAMS AS NEEDED. COORDINATE LOCATIONS WITH MECHANICAL DRAWINGS

PROVIDE CONTROL HERE AT WALL ABOVE

F.F.E.=1324.78' TYP.

SLAB ON GRADE-SEE S1.0

TOP OF WALL=1323.28'

F.F.E.=1324.28' TYP.

LIMITS OF 10HP-2T PLANKS

LIMITS OF 10HP-2T PLANKS

LIMITS OF 10HP-2T PLANKS

OPEN

CANTILEVER BEAM

SEE NOTE 4

F.F.E.=1324.28'

13'-10 1/2" | 16'-6 1/2" | 1'-1" | 20'-6 1/2" | 1'-6" | 10'-2 1/4" | 7'-9 1/4" | 12'-2 1/4" | 9'-1 1/2" | 17'-6 1/4" | 5'-2 1/2" | 9'-7 3/4" | 17'-2" | 10 1/2" | 13'-4"

A | A.5 | B | B.1 | C | C.1 | D | D.5 | E | F | G | G.3 | H | H.9 | J | K

2'-4" | 4'-0 3/8" | 10'-1 3/4" | 4'-4 1/2" | 6'-5 1/2" | 3'-2" | 4'-9 3/4" | 7'-11" | 5'-3 3/4" | 7'-1" | 7'-9 1/2" | 11" | 6'-9" | (2'-9 1/2")

10HP-2T = 10"x4' HOLLOW CORE PLANK WITH 2" TOPPING

PLANK SPAN DIRECTION

REACTIONS SHOWN AT END OF BEAM ARE BASED ON FACTORED LOADS

GENERAL NOTES
1. * INDICATES WIDE FLANGE BEAM WITH ½" BOTTOM PLATE, STIFFENERS, AND #4 REBAR @ 24" O.C. THROUGH WEB. SEE DETAIL 1 ON S4.1.
2. PROVIDE 8" MINIMUM BEARING EACH SIDE FOR ALL LINTELS
3. MOVEABLE PARTITION TO BE SUPPORTED BY PRECAST PLANKS. SEE DETAIL 3 ON S4.1. PRECAST SUPPLIER TO ALLOW FOR 200 PLF UNIFORM LOAD
4. TOP OF STEEL FOR 1ST FLOOR FRAMING TO BE 1324.12' U.N.O.

ALL EXTERIOR STUDS TO BE 550S162-43 UNLESS NOTED OTHERWISE
ALL INTERIOR STUDS TO BE 362S162-43 UNLESS NOTED OTHERWISE

1ST FLOOR FRAMING PLAN
1/8" = 1'-0"

ENGINEERING SOLUTIONS & CONSTRUCTION MANAGEMENT, PLC
101 NORTH MAIN STREET
HARRISONBURG, VIRGINIA 22802
PHONE 540.442.8787
FAX 540.442.9090
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MATHER ARCHITECTS, P.C.
373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540) 442-1400

1ST FLOOR FRAMING
Scale: 1/8" = 1'-0"

Proposed New Municipal Building
Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
BRIAN D. KORBNER
31 march 14
No. 038984
PROFESSIONAL ENGINEER

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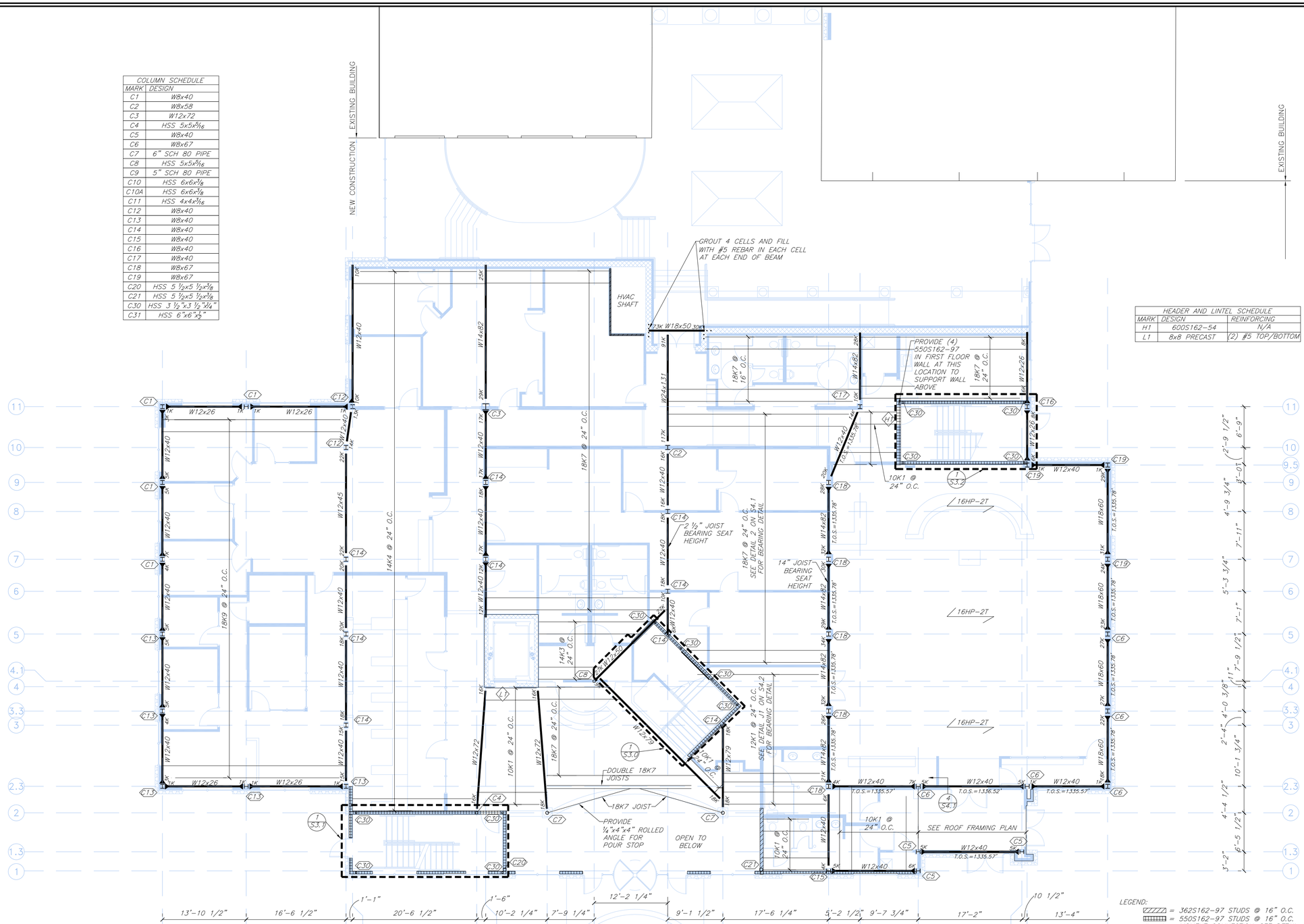
MATHER ARCHITECTS, P.C.

Date:	03/31/14
Project:	013007
ESCM	0713-0140
Drawn By:	JC

S2.1

COLUMN SCHEDULE	
MARK	DESIGN
C1	W8x40
C2	W8x58
C3	W12x72
C4	HSS 5x5x5/16
C5	W8x40
C6	W8x67
C7	6" SCH 80 PIPE
C8	HSS 5x5x5/16
C9	5" SCH 80 PIPE
C10	HSS 6x6x1/8
C10A	HSS 6x6x1/8
C11	HSS 4x4x5/16
C12	W8x40
C13	W8x40
C14	W8x40
C15	W8x40
C16	W8x40
C17	W8x40
C18	W8x67
C19	W8x67
C20	HSS 5 1/2x5 1/2x1/8
C21	HSS 5 1/2x5 1/2x1/8
C30	HSS 3 1/2 x3 1/2 x1/4"
C31	HSS 6"x6"x5/8"

HEADER AND LINTEL SCHEDULE		
MARK	DESIGN	REINFORCING
H1	600S162-54	N/A
L1	8x8 PRECAST	(2) #5 TOP/BOTTOM



GENERAL NOTES

1. STEEL DECKING OVER JOISTS TO BE 0.6C24 DECK WITH 6x6-W2.9xW2.9WWF PLACED AT MID DEPTH-4" TOTAL SLAB THICKNESS-2 SPAN MINIMUM
2. TOP OF STEEL FOR 2ND FLOOR FRAMING TO BE 1336.74' U.N.O.
3. GENERAL CONTRACTOR AND FABRICATOR TO COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE SPACE BETWEEN BAR JOISTS FOR HVAC UNITS AS WELL AS ALIGN WEB MEMBERS IN BAR JOISTS TO ALLOW FOR STRAIGHT RUNS OF DUCTWORK. DO NOT SUBMIT BAR JOIST SHOP DRAWING OR STEEL SHOP DRAWINGS UNTIL MECHANICAL CONTRACTOR HAS PROVIDED THEIR DESIGN FOR COORDINATION
4. DECK BEARING ANGLE TO BE +2 1/2" HIGHER THAN T.O.S.
5. INTERIOR PARTITIONS TO BE INSTALLED WITH DEFLECTION TRACK AT TOP
6. ALIGN JOISTS AT COLUMNS. SEE DETAIL ON S4.2
7. JOIST TO BE 2 1/2" BEARING HEIGHT UNLESS NOTED OTHERWISE
8. ALL EXTERIOR STUDS TO BE 550S162-54 STUDS @ 16" O.C.

2ND FLOOR FRAMING PLAN

1/8" = 1'-0"

LEGEND:

= 362S162-97 STUDS @ 16" O.C.
= 550S162-97 STUDS @ 16" O.C.
= MOMENT CONNECTION-SEE DETAIL ON S4.1
ALL EXTERIOR STUDS TO BE 550S162-43 UNLESS NOTED OTHERWISE
ALL INTERIOR STUDS TO BE 362S162-43 UNLESS NOTED OTHERWISE

16HP-2T = 16"x4' HOLLOW CORE PLANK WITH 2" TOPPING

PLANK SPAN DIRECTION

REACTIONS SHOWN AT END OF BEAM ARE BASED ON FACTORED LOADS

MATHER ARCHITECTS, P.C.
373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540) 442-1400

ENGINEERING SOLUTIONS & CONSTRUCTION MANAGEMENT, PLC
101 CNORTH MAIN STREET
HARRISONBURG, VIRGINIA 22802
PHONE 540.442.8787
FAX 540.442.9090
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2ND FLOOR FRAMING

Scale: 1/8" = 1'-0"

Proposed New Municipal Building
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BRIAN D. KOERNER
31 march 14
No. 036384
PROFESSIONAL ENGINEER

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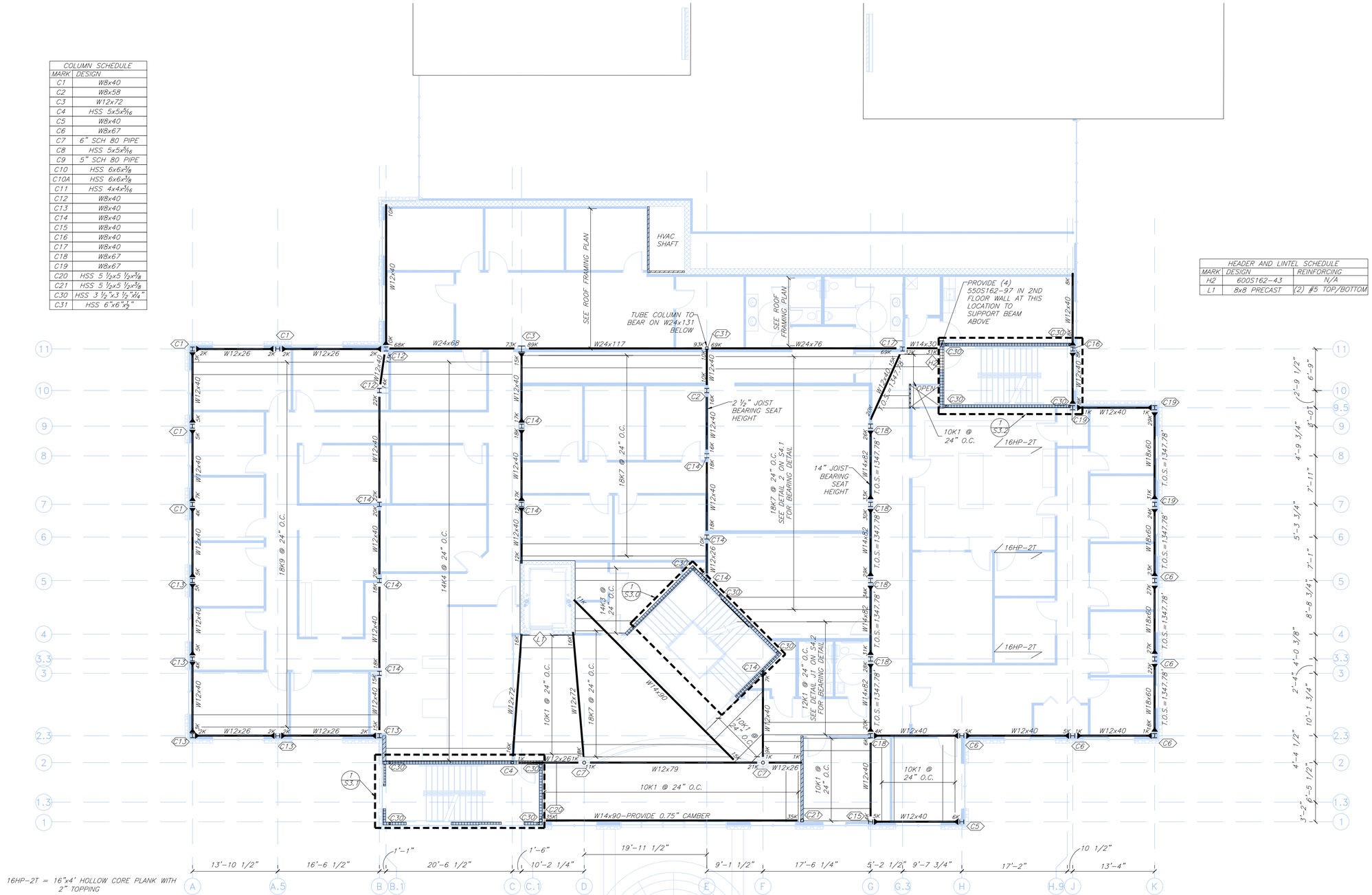
Date:	03/31/14
Project:	013007
ESCM	0713-0140
Drawn By:	JC

S2.2

COLUMN SCHEDULE	
MARK	DESIGN
C1	W8x40
C2	W8x58
C3	W12x72
C4	HSS 5x5x5/16
C5	W8x40
C6	W8x67
C7	6" SCH 80 PIPE
C8	HSS 5x5x5/16
C9	5" SCH 80 PIPE
C10	HSS 6x6x1/8
C10A	HSS 6x6x1/8
C11	HSS 4x4x5/16
C12	W8x40
C13	W8x40
C14	W8x40
C15	W8x40
C16	W8x40
C17	W8x40
C18	W8x67
C19	W8x67
C20	HSS 5 1/2x5 1/2x1/8
C21	HSS 5 1/2x5 1/2x1/8
C30	HSS 3 1/2"x3 1/2"x1/4"
C31	HSS 6"x6"x1/2"

HEADER AND LINTEL SCHEDULE		
MARK	DESIGN	REINFORCING
H2	600S162-43	N/A
L1	8x8 PRECAST	(2) #5 TOP/BOTTOM



16HP-2T = 16"x4' HOLLOW CORE PLANK WITH 2" TOPPING

PLANK SPAN DIRECTION

GENERAL NOTES
1. STEEL DECKING OVER JOISTS TO BE 0.6C24 DECK WITH 6x6-W2.9xW2.9WWF PLACED AT MID DEPTH-4" TOTAL SLAB THICKNESS-2 SPAN MINIMUM
2. TOP OF STEEL FOR 3RD FLOOR FRAMING TO BE 1348.74' U.N.O.
3. GENERAL CONTRACTOR AND FABRICATOR TO COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE SPACE BETWEEN BAR JOISTS FOR HVAC UNITS AS WELL AS ALIGN WEB MEMBERS IN BAR JOISTS TO ALLOW FOR STRAIGHT RUNS OF DUCTWORK. DO NOT SUBMIT BAR JOIST SHOP DRAWING OR STEEL SHOP DRAWINGS UNTIL MECHANICAL CONTRACTOR HAS PROVIDED THEIR DESIGN FOR COORDINATION
4. DECK BEARING ANGLE TO BE +2 1/2" HIGHER THAN T.O.S.
5. INTERIOR PARTITIONS TO BE INSTALLED WITH DEFLECTION TRACK AT TOP
6. ALIGN JOISTS AT COLUMNS. SEE DETAIL ON S4.2
7. JOISTS TO BE 2 1/2" BEARING HEIGHT UNLESS NOTED OTHERWISE
8. ALL EXTERIOR STUDS TO BE 550S162-54 STUDS @ 16" O.C.

3RD FLOOR FRAMING PLAN
1/8" = 1'-0"

LEGEND:
- = 362S162-97 STUDS @ 16" O.C.
- = 550S162-97 STUDS @ 16" O.C.
- = MOMENT CONNECTION-SEE DETAIL ON S4.1

ALL EXTERIOR STUDS TO BE 550S162-43 UNLESS NOTED OTHERWISE
ALL INTERIOR STUDS TO BE 362S162-43 UNLESS NOTED OTHERWISE

REACTIONS SHOWN AT END OF BEAM ARE BASED ON FACTORED LOADS

ENGINEERING SOLUTIONS & CONSTRUCTION MANAGEMENT, PLC
101 ONE NORTH MAIN STREET
HARRISONBURG, VIRGINIA 22802
PHONE 540.442.8787
FAX 540.442.9090
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373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540) 442-1400

3RD FLOOR FRAMING
Scale: 1/8" = 1'-0"

Proposed New Municipal Building
Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
BRIAN D. KORBNER
31 march 14
No. 038384
PROFESSIONAL ENGINEER

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Date:	03/31/14
Project:	013007
ESCM	0713-0140
Drawn By:	JC

S2.3

COLUMN SCHEDULE	
MARK	DESIGN
C1	W8x40
C2	W8x58
C3	W12x72
C4	HSS 5x5x5/16
C5	W8x40
C6	W8x67
C7	6" SCH 80 PIPE
C8	HSS 5x5x5/16
C9	5" SCH 80 PIPE
C10	HSS 6x6x1/8
C10A	HSS 6x6x1/8
C11	HSS 4x4x5/16
C12	W8x40
C13	W8x40
C14	W8x40
C15	W8x40
C16	W8x40
C17	W8x40
C18	W8x67
C19	W8x67
C20	HSS 5 1/2x5 1/2x3/8
C21	HSS 5 1/2x5 1/2x3/8
C30	HSS 3 1/2"x3 1/2"x3/4"
C31	HSS 6"x6"x1/2"

HEADER AND LINTEL SCHEDULE		
MARK	DESIGN	REINFORCING
H3	600S162-43	N/A
H4	1000S162-97	N/A
L1	8x8 PRECAST	(2) #5 TOP/BOTTOM

T.O.S.=1344.32'
APPLIES FOR ATRIUM FRAMING U.N.O.

SEE ARCHITECTURAL PLANS FOR CONNECTION OF ATRIUM TO EXISTING BLUESTONE. PROVIDE A CONTINUOUS L6x6x1/2 WITH 1/2"ø EPOXY ANCHORS @ 24" O.C. AND USE ROTARY DRILLS. NO IMPACT DRILLS SHOULD BE USED ON ANY EXISTING STONE.

POCKET BEAM INTO EXISTING BRICK WALL, TYP.

W10x39 BELOW AT T.O.S.=1334.78'-INSTALL BEAM WITH FLANGES VERTICAL

POCKET BEAM INTO NEW CMU WALL, TYP.

PROVIDE (2) JOISTS BELOW BOTH SIDES OF RTU

W6x15 RTU SUPPORT-SEE DETAIL SHEET S4.3-T.O.S. 36" ABOVE FINISHED ROOF

HVAC SHAFT

DESIGN BY OTHERS

16K6 24" O.C.
J.B.E.=1348.53'

10K1 24" O.C.
J.B.E.=1344.53'

14K3 24" O.C.
J.B.E.=1348.53'

PRE-MANUFACTURED FRT WOOD TRUSSES WITH 5/8" SHEATHING

ATTIC TRUSSES THIS REGION

FLAT ROOF THIS REGION

SEE NOTE 5 FOR ELEVATOR CAP SLAB

OVER BUILD BARREL ROOF

W14x90-PROVIDE 0.75" CAMBER

C6 LOW ROOF
10K1 @ 24" O.C.
J.B.E.=1335.57'
W12x40
T.O.S.=1335.57'

TRUSS NOTES
1. WOOD TRUSS DESIGN BY OTHERS TRUSSES TO BE 24" O.C. (TYP)
2. COORDINATE TRUSS BEARING ELEVATION WITH ARCHITECTURAL DRAWINGS
3. WOOD TRUSSES, SHEATHING AND PLATES TO BE F.R.T.

STRUCTURAL DESIGN LOADS PER ASCE 7 (CURRENT EDITION):

OFFICE LIVE LOADS	
LOBBIES AND FIRST FLOOR CORRIDORS	100 PSF
OFFICES	50 PSF
CORRIDORS ABOVE FIRST FLOOR	80 PSF
SERVER AND FILE ROOM	125 PSF
CONCENTRATED LOAD	2000 POUNDS
SNOW LOAD	30 PSF (NON-REDUCIBLE)
WIND	
90 MPH, EXPOSURE B	
SEISMIC	
S_D1 = 0.15, S_DS = 0.13, I = 1.5	
OCCUPANCY CATEGORY IV	
SEISMIC DESIGN CATEGORY D	

GENERAL NOTES
1. TOP OF LIGHT GAUGE STEEL FRAMED BEARING WALL TO BE AT T.O.S.
2. TOP OF STEEL FOR ROOF FRAMING TO BE 1360.15' U.N.O.
3. SEE SHEETS S4.0, S4.1 AND S4.2 FOR DETAILS
4. INTERIOR PARTITIONS TO BE INSTALLED WITH DEFLECTION TRACK AT TOP
5. ALL EXTERIOR STUDS TO BE 550S162-54 STUDS @ 16" O.C.
6. SLAB CAP FOR ELEVATOR TO BEAR ON HOIST BEAM AND CMU SHAFT. SLAB TO BE 3 1/2" THICK WITH 6x6-W1.4xW1.4 WWF PLACED AT MID DEPTH. SLAB TO BE SUPPORTED BY 1.0C24 METAL DECKING SPANNING SHORTEST DIRECTION.

ROOF FRAMING PLAN
1/8" = 1'-0"

LEGEND:
= MOMENT CONNECTION-SEE DETAIL ON S4.1
= 1.5B22 FIRE TREATED METAL ROOF DECK WITH TAPERED INSULATION

REACTIONS SHOWN AT END OF BEAM ARE BASED ON FACTORED LOADS

ENGINEERING SOLUTIONS & CONSTRUCTION MANAGEMENT, PLC
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Proposed New Municipal Building
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COMMONWEALTH OF VIRGINIA
BRIAN D. KOERNER
31 march 14
No. 038388
PROFESSIONAL ENGINEER

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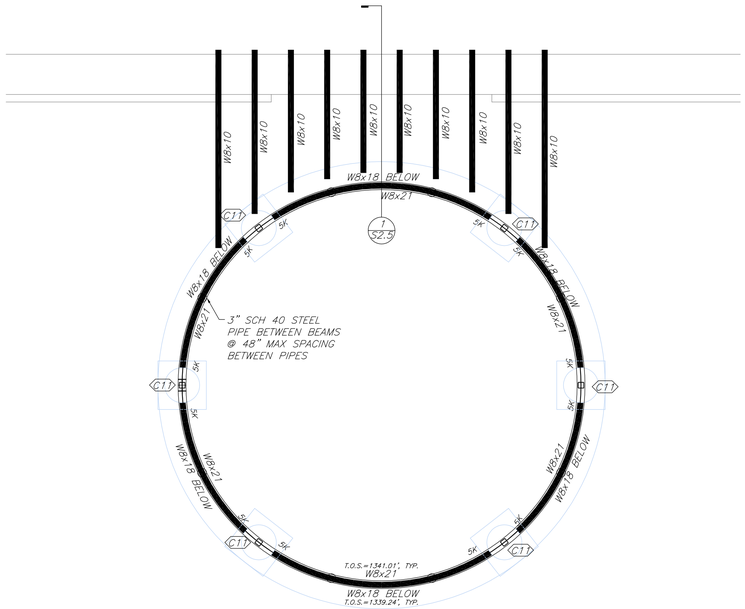
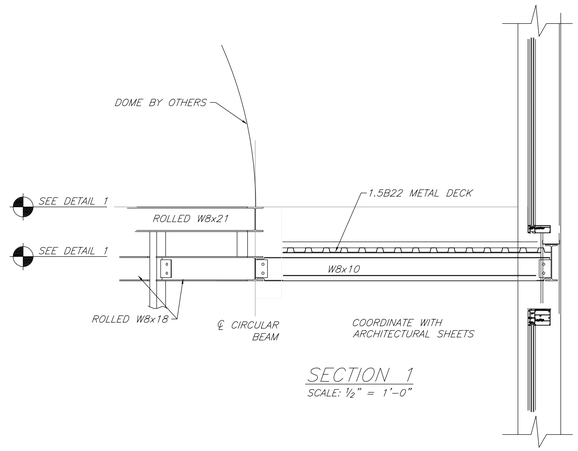
Date:	03/31/14
Project:	013007
ESCM	0713-0140
Drawn By:	JC

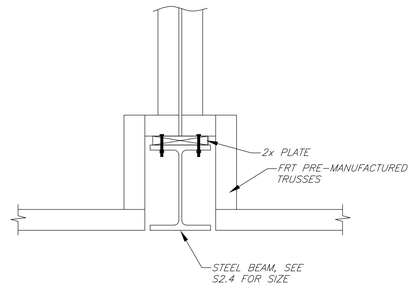
S2.4



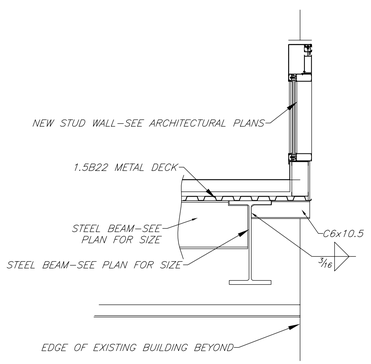
DETAIL 1
DOME ROOF FRAMING
SCALE: ¼" = 1'-0"



SECTION 1
SCALE: ½" = 1'-0"



SECTION 2
SCALE: 1" = 1'-0"



SECTION 3
NOT TO SCALE

MATHER ARCHITECTS, P.C.
373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540) 442-1400

ENGINEERING SOLUTIONS & CONSTRUCTION MANAGEMENT, PLC
1010 NORTH MAIN STREET
HARRISONBURG, VIRGINIA 22802
PHONE 540.442.8787
FAX 540.442.9090
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ROOF DETAILS

Scale: AS NOTED

Proposed New Municipal Building
Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
BRIAN D. KOERNER
31 March 14
No. 038384
PROFESSIONAL ENGINEER

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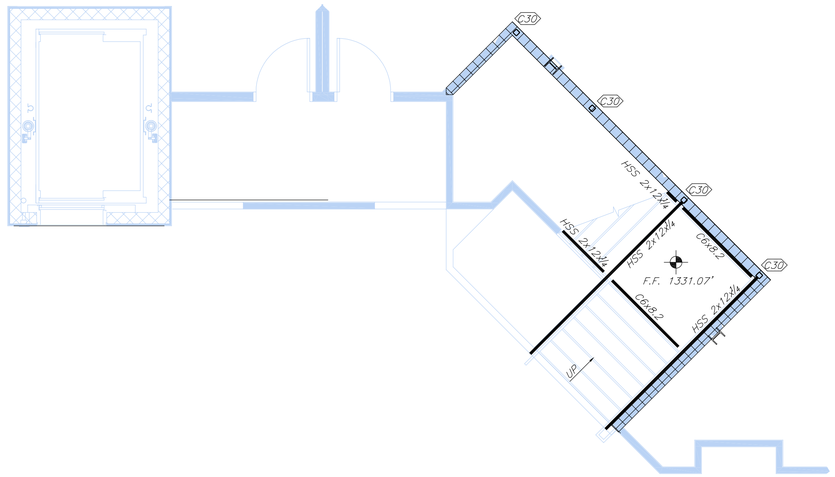
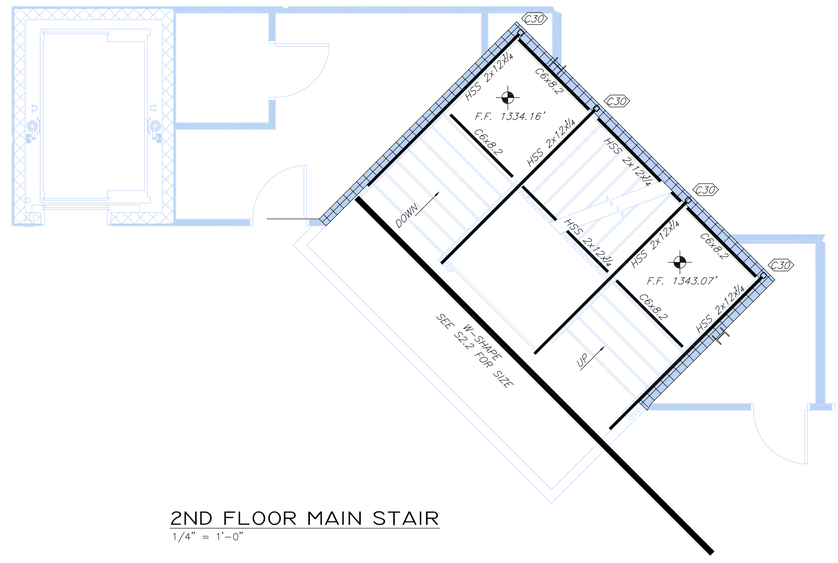
Date:	03/31/14
Project:	013007
ESCM	0713-0140
Drawn By:	JC

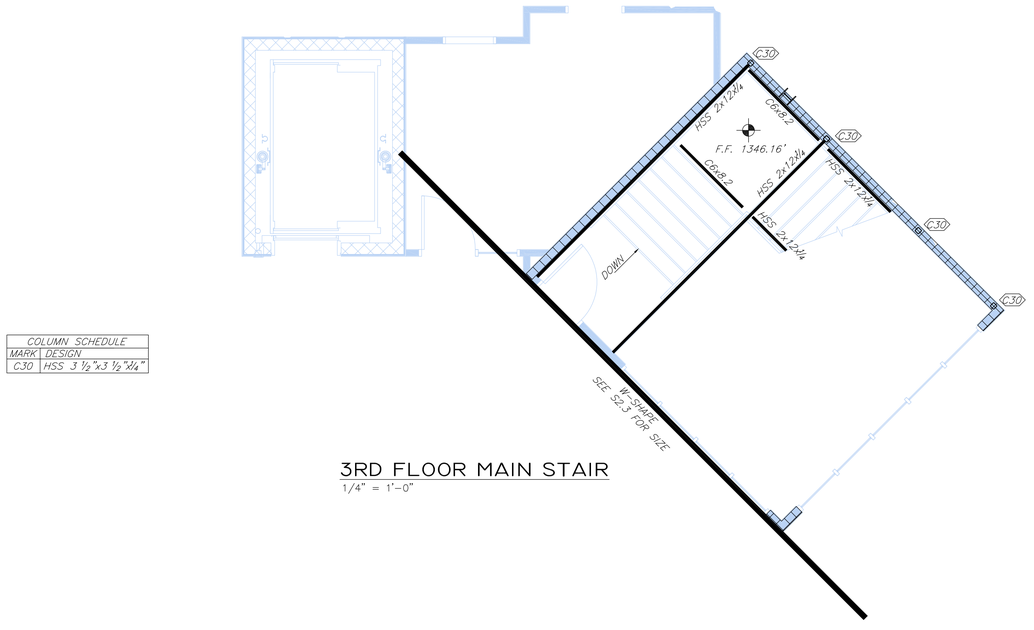
S2.5



IST FLOOR MAIN STAIR
1/4" = 1'-0"



2ND FLOOR MAIN STAIR
1/4" = 1'-0"



3RD FLOOR MAIN STAIR
1/4" = 1'-0"

COLUMN SCHEDULE	
MARK	DESIGN
C30	HSS 3 ½"x3 ½"x¼"

GENERAL NOTES:
1. COORDINATE WITH ARCHITECTURAL SHEETS FOR STAIR MATERIALS
2. STAIR MANUFACTURER TO PROVIDE SHOP DRAWINGS AND CALCULATION PACKAGE SEALED BY A PROFESSIONAL ENGINEER TO ENGINEER OF RECORD

DETAIL 1 -MAIN STAIR FRAMING
1/4" = 1'-0"

MATHER ARCHITECTS, P.C.
373 Neff Ave, Harrisonburg, VA 22801
Phone Number: (540) 442-1400

ENGINEERING SOLUTIONS & CONSTRUCTION MANAGEMENT, PLC
1010 NORTH MAIN STREET
HARRISONBURG, VIRGINIA 22802
PHONE 540.442.8787
FAX 540.442.9090
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MAIN STAIR DETAILS

Scale: 1/4" = 1'-0"

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31 March 14
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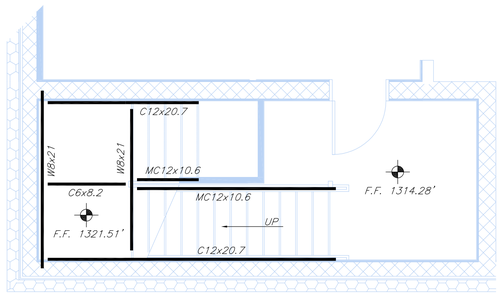
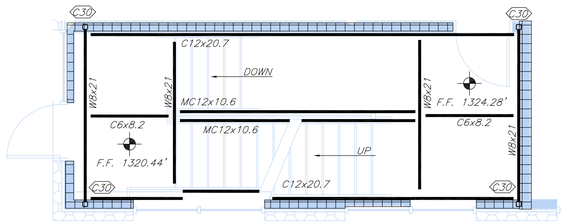
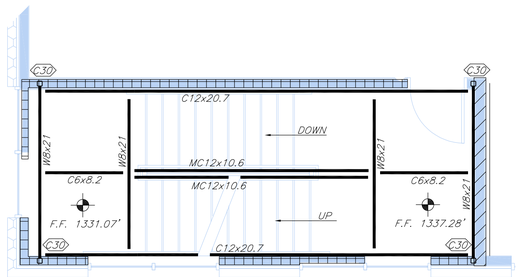
S3.0



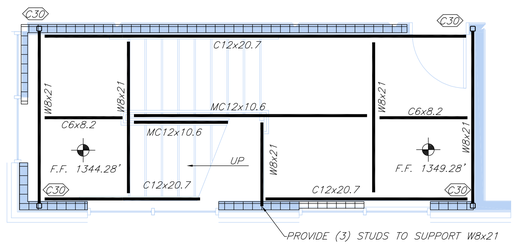
BASEMENT STAIR #1
1/4" = 1'-0"



IST FLOOR STAIR #1
1/4" = 1'-0"



2ND FLOOR STAIR #1
1/4" = 1'-0"



3RD FLOOR STAIR #1
1/4" = 1'-0"

COLUMN SCHEDULE	
MARK	DESIGN
C30	HSS 3 ½"x3 ½"x¼"

DETAIL 1 -STAIR #1 FRAMING
1/4" = 1'-0"

GENERAL NOTES:
1. LANDINGS IN STAIR TOWER ONE ARE TO BE 3" TOTAL SLAB THICKNESS ON 1.0C24 METAL DECKING WITH 6x6 W1.4xW1.4 REINFORCING MESH AT MID-DEPTH. FASTEN METAL DECK TO STRUCTURAL STEEL WITH ⅝" PUDDLE WELDS 12" O.C.
2. USE 1 1/2" DIA., SCHEDULE 40 PIPE FOR GUARDRAIL, 1 1/4" DIA., SCHEDULE 40 PIPE FOR HANDRAIL, AND MAX 4" CLEAR SPACING ON PICKETS – REFER TO ARCHITECTURAL DRAWINGS FOR SIZE OF PICKETS
3. STAIR MANUFACTURER TO PROVIDE SHOP DRAWINGS AND CALCULATION PACKAGE SEALED BY A PROFESSIONAL ENGINEER TO ENGINEER OF RECORD
4. ANCHORS FOR C30 COLUMN TO FIT WITHIN 12" CMU.

ENGINEERING SOLUTIONS & CONSTRUCTION MANAGEMENT, PLC
1010 NORTH MAIN STREET
HARRISONBURG, VIRGINIA 22802
PHONE 540.442.8787
FAX 540.442.9090
DESIGNING FOR TOMORROW...TODAY

MATHER ARCHITECTS, P.C.
373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540) 442-1400

STAIR #1 DETAILS

Scale: 1/4" = 1'-0"

Proposed New Municipal Building
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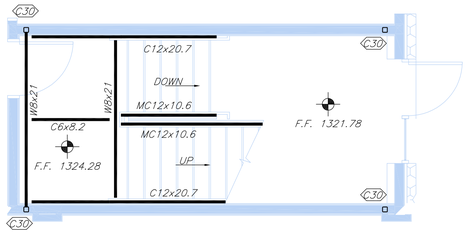
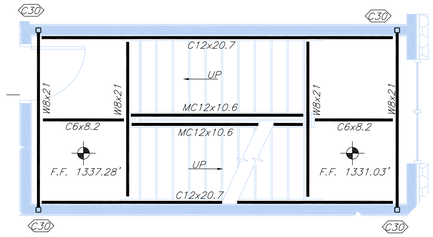
S3.1



IST FLOOR STAIR #2

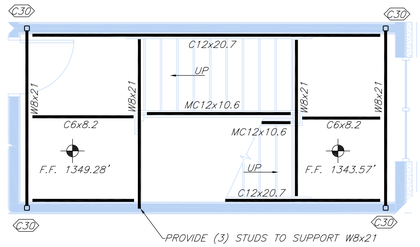
1/4" = 1'-0"



2ND FLOOR STAIR #2

1/4" = 1'-0"

COLUMN SCHEDULE	
MARK	DESIGN
C30	HSS 3 1/2"x3 1/2"x1/4"



3RD FLOOR STAIR #2

1/4" = 1'-0"

GENERAL NOTES:

1. LANDINGS IN STAIR TOWER TWO ARE TO BE 3" TOTAL SLAB THICKNESS ON 1.0C24 METAL DECKING WITH 6x6 W1.4xW1.4 REINFORCING MESH AT MID-DEPTH. FASTEN METAL DECK TO STRUCTURAL STEEL WITH 5/8" PUDDLE WELDS 12" O.C.
2. USE 1 1/2" DIA., SCHEDULE 40 PIPE FOR GUARDRAIL, 1 1/4" DIA., SCHEDULE 40 PIPE FOR HANDRAIL, AND MAX 4" CLEAR SPACING ON PICKETS - REFER TO ARCHITECTURAL DRAWINGS FOR SIZE OF PICKETS
3. STAIR MANUFACTURER TO PROVIDE SHOP DRAWINGS AND CALCULATION PACKAGE SEALED BY A PROFESSIONAL ENGINEER TO ENGINEER OF RECORD

DETAIL 1 -STAIR #2 FRAMING

1/4" = 1'-0"

ENGINEERING SOLUTIONS & CONSTRUCTION MANAGEMENT, PLC
101 NORTH MAIN STREET
HARRISONBURG, VIRGINIA 22802
PHONE 540.442.8787
FAX 540.442.9090
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MATHER ARCHITECTS, P.C.
373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540) 442-1400

STAIR #2 DETAILS

Scale: 1/4" = 1'-0"

Proposed New Municipal Building
Harrisonburg, Virginia

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BRIAN D. KORNER
31 march 14
No. 038384
PROFESSIONAL ENGINEER

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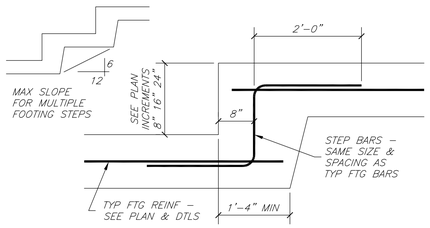
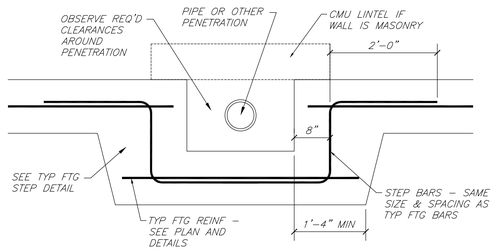
S3.2



TYPICAL FOOTING STEP DETAIL

SCALE: NTS

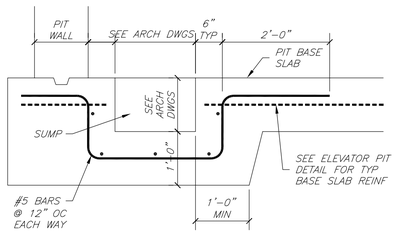
DETAIL APPLIES TO TYPICAL CHANGES IN ELEVATION IN WALL FOOTINGS



FOOTING STEP AT PENETRATIONS

SCALE: NTS

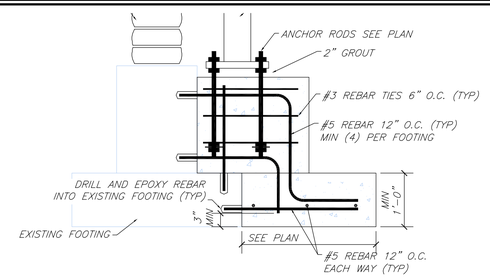
DETAIL APPLIES WHERE PENETRATIONS FOR PIPES, CONDUITS, ETC OCCUR AT THE FOOTING ELEVATION



SUMP PIT DETAIL

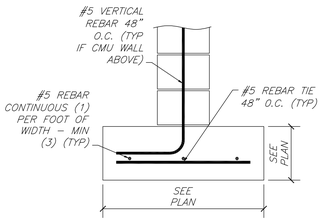
SCALE: NTS

REFER TO ELEVATOR PIT DETAIL



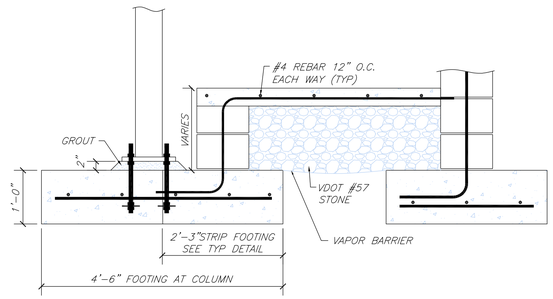
TYPICAL OVERLAP FOOTING

SCALE: NTS



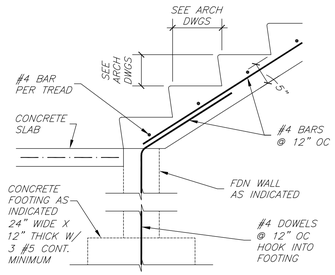
TYPICAL STRIP FOOTING

SCALE: NTS



1 / S1.0 RAMP SECTION

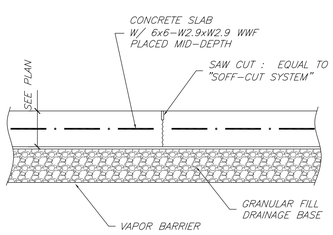
SCALE: NTS



TYPICAL CONCRETE STAIRS

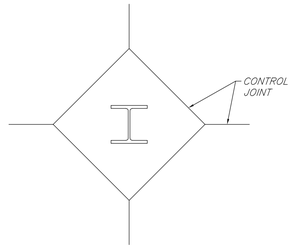
SCALE: ¾" = 1'-0"

REFER TO ARCH DWGS FOR COMPLETE LAYOUT & DIMS



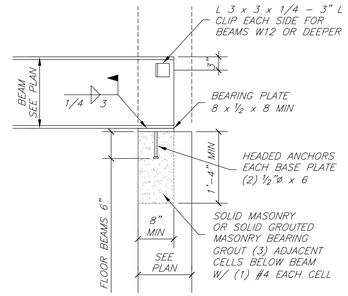
TYPICAL SLAB CONTROL JOINT

SCALE: NOT TO SCALE



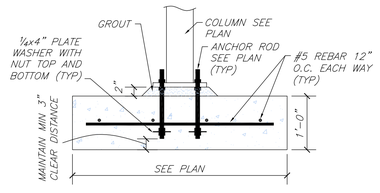
TYPICAL CONTROL JOINT AT COLUMN

SCALE: NOT TO SCALE



TYPICAL BEAM BEARING ON MASONRY

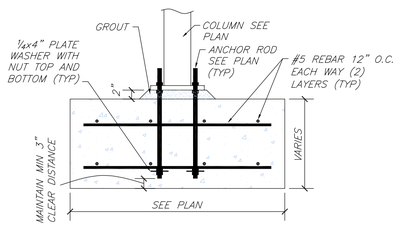
SCALE: NOT TO SCALE



TYPICAL FOOTING SECTION

SCALE: NTS

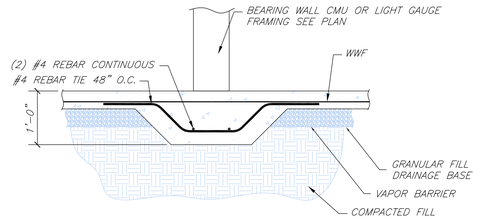
APPLIES TO FOOTINGS 12" OR LESS IN DEPTH



TYPICAL FOOTING SECTION

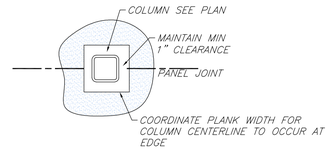
SCALE: NTS

APPLIES TO FOOTINGS GREATER THAN 12" IN DEPTH



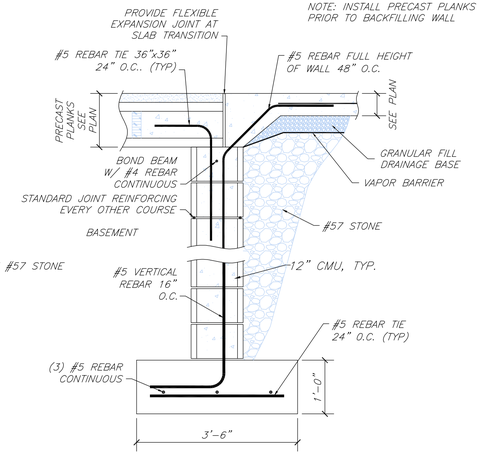
TYPICAL THICKENED SLAB

SCALE: NTS



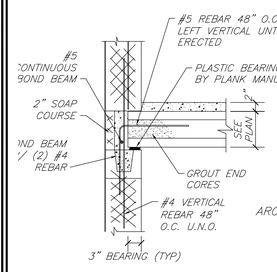
3 / S2.1 PRECAST PLANK OPENING

SCALE: NTS



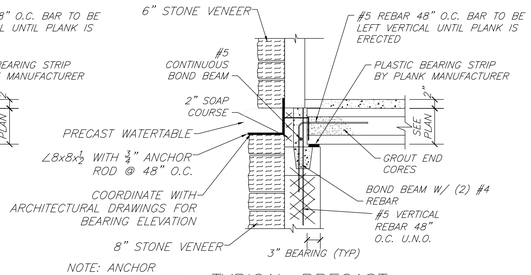
2 / S2.1 TYPICAL PLANK AT BASEMENT RETAINING WALL

SCALE: NOT TO SCALE



TYPICAL PRECAST PLANK AT ELEVATOR WALL

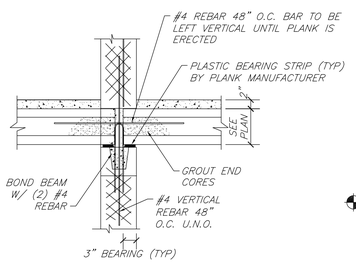
SCALE: NTS



NOTE: ANCHOR VENEER PER ACI 530 CHAPTER 6

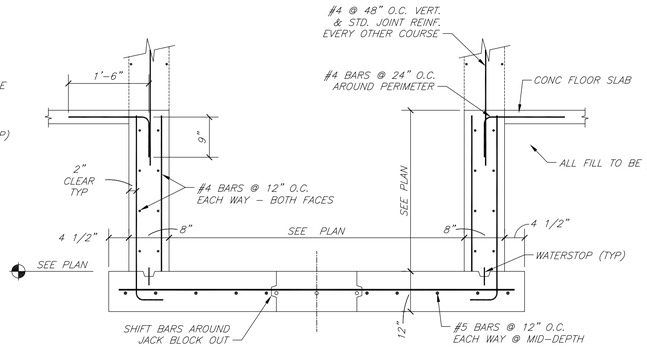
TYPICAL PRECAST PLANK AT EXTERIOR WALL

SCALE: NTS



TYPICAL PRECAST PLANK AT INTERIOR WALL

SCALE: NTS



ELEVATOR PIT DETAIL

SCALE: NTS

MATHER ARCHITECTS, P.C.
373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540)-442-1400

ENGINEERING SOLUTIONS
1010 NORTH MAIN STREET
HARRISONBURG, VA 22802

MASONRY DETAILS

Scale: AS NOTED

Proposed New Municipal Building

Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
BRIAN D. KOERNER
31 march 14
No. 038384
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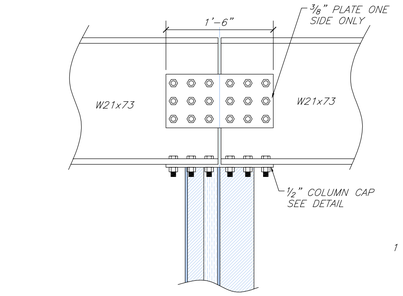
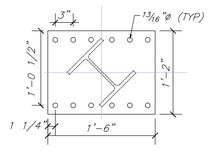
ESCM	0713–0140
Drawn By:	JC

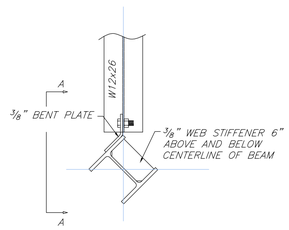
S4.0

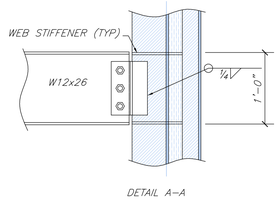




COLUMN CAP DETAIL AS VIEWED FROM ABOVE

COLUMN AT ROOF BEAM CONNECTION





DETAIL A–A

SHEAR TAB AT 2ND & 3RD FLOOR LEVEL

E–5 & F–3 COLUMN DETAIL

SCALE: 1" = 1'-0"

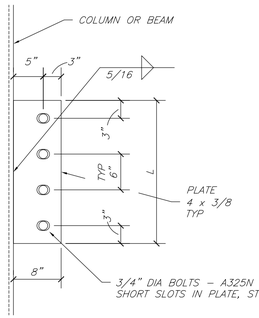
CONNECTION NOTES:

A. THE CONNECTION CONFIGURATION AND LOAD TABLE SHOWN ARE FOR TYPICAL CONNECTIONS, UNLESS DETAILED OTHERWISE OR IF THE LOAD TABLE IS EXCEEDED.

B. INCREASE PLATE WIDTH, LENGTH, THICKNESS, BOLT COUNT, & WELD SIZE IF GREATER LOADS ARE REQUIRED, OR IF REQUIRED BY DESIGN CONDITIONS. COMPLY W/ AISC.

C. CHECK BOLTED BEAMS FOR WEB SHEAR AND BEARING.

D. FABRICATOR MAY USE DOUBLE CLIP ANGLES INSTEAD OF SHEAR TAB IF DESIRED. PROVIDE SHOP DRAWINGS FOR REVIEW

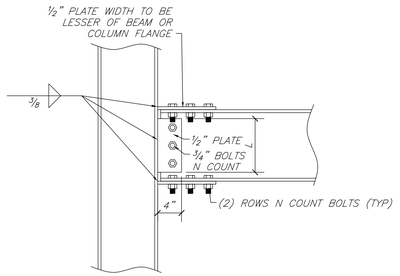


LOAD TABLE		
N	L	BEAM SIZE
2	6"	<W10
3	9"	W10–W12
4	12"	W14–W16
5	15"	W18–W20
6	18"	W21–W23
7	21"	W24–W25
8	24"	W26 & UP

(SEE NOTES A, B & C)

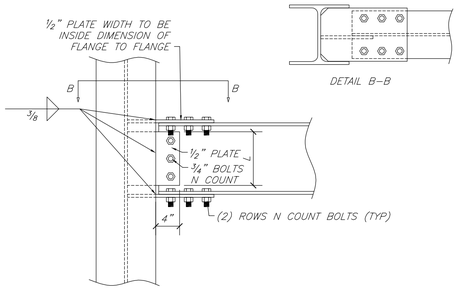
SINGLE PLATE CONNECTION (SHEAR TAB) DETAIL

SCALE: NOT TO SCALE



FLANGE MOMENT CONNECTION DETAIL

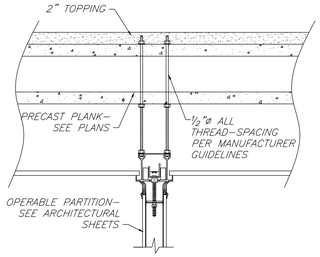
SCALE: NOT TO SCALE



DETAIL B–B

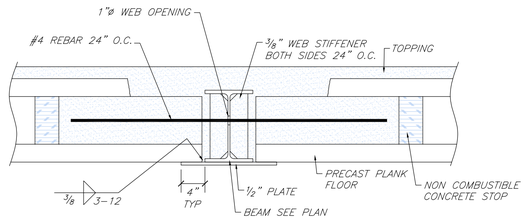
WEB MOMENT CONNECTION DETAIL

SCALE: NOT TO SCALE



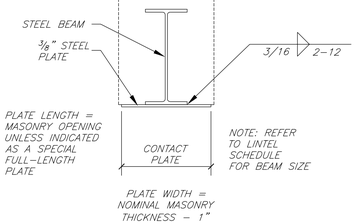
3 S2.1 MOVABLE PARTITION SUPPORT

SCALE: NOT TO SCALE



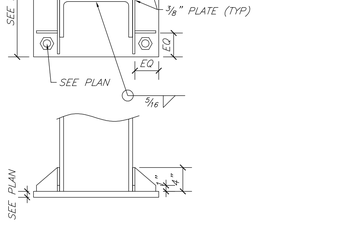
1 S2.1 PRECAST PLANK ON STEEL BEAM

SCALE: NOT TO SCALE



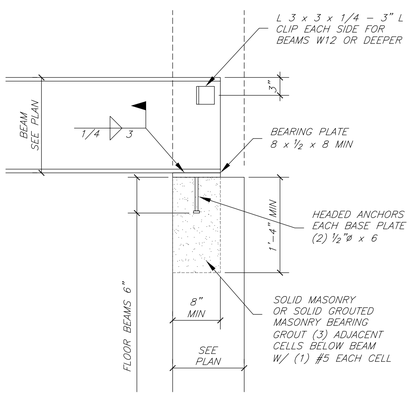
BEAM LINTEL DETAIL

SCALE: NOT TO SCALE



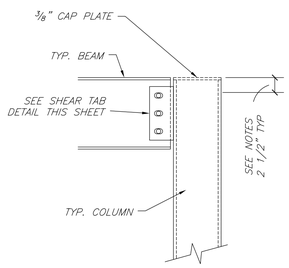
TYPICAL STIFFENED COLUMN BASE DETAIL

SCALE: NOT TO SCALE



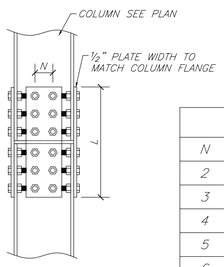
TYPICAL BEAM BEARING ON MASONRY

SCALE: NOT TO SCALE



TYPICAL BEAM–COLUMN CONNECTION

SCALE: NOT TO SCALE

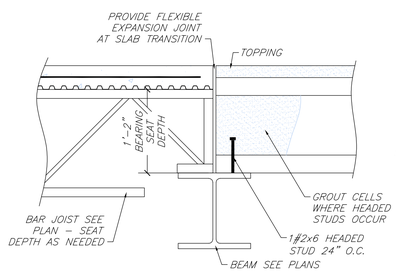


LOAD TABLE		
N	L	COLUMN SIZE
2	18.5"	<W10
3	24.5"	W10–W12
4	30.5	W14–W16
5	36.5	W18–W20
6	42.5	W21 & UP

(SEE NOTES A, B & C)

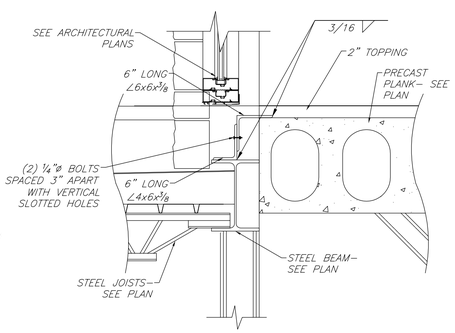
TYPICAL COLUMN SPLICE

SCALE: NOT TO SCALE



2 S2.* PRECAST PLANK/JOIST DETAIL

SCALE: NOT TO SCALE



4 S2.2 PRECAST PLANK/JOIST DETAIL

SCALE: NOT TO SCALE

MATHER ARCHITECTS, P.C.
373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540)442-1400

ENGINEERING SOLUTIONS
1010 NORTH MAIN STREET
HARRISONBURG, VA 22802

STEEL DETAILS

Scale: AS NOTED

Proposed New Municipal Building
Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
BRIAN D. KORNER
31 march 14
No. 038384
PROFESSIONAL ENGINEER

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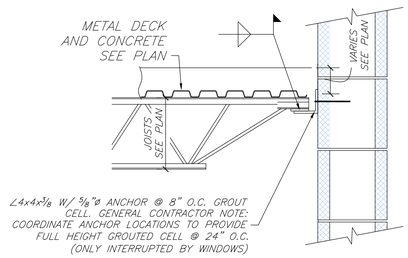
MATHER ARCHITECTS, P.C.

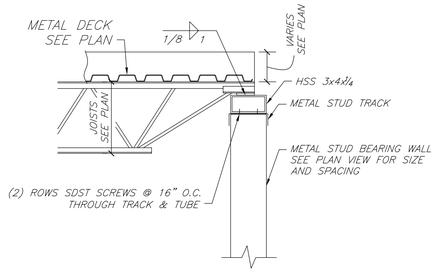
Date:	3/31/2014
Project:	013007
ESCM	0713–0140
Drawn By:	JC

S4.1



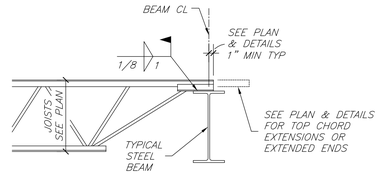
JOIST BEARING ANGLE

SCALE: NOT TO SCALE



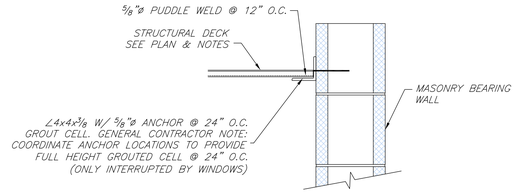
TYP JOIST BEARING METAL STUD WALL

SCALE: NOT TO SCALE



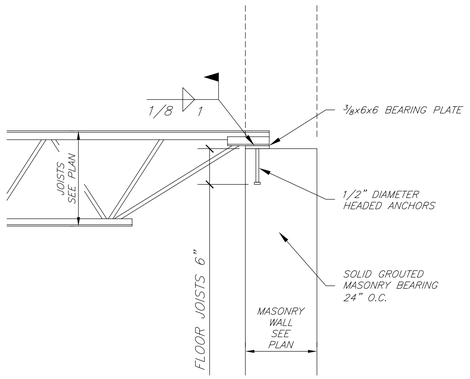
TYP JOIST BEARING ON STEEL

SCALE: NOT TO SCALE



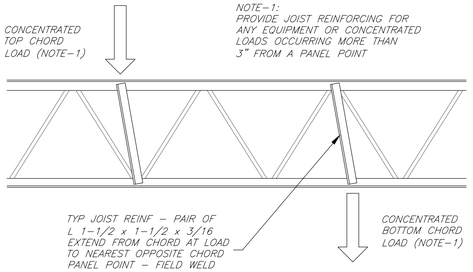
DETAIL B2
DECK BEARING ANGLE

SCALE: NOT TO SCALE



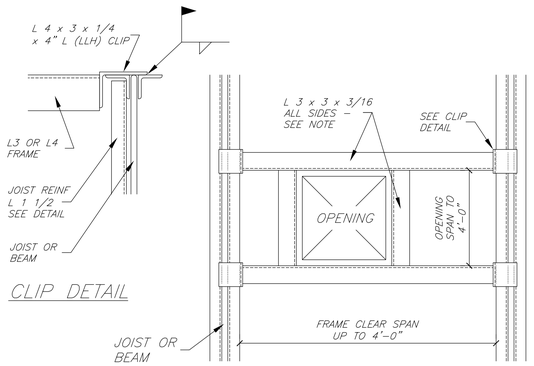
TYP JOIST BEARING ON MASONRY

NO SCALE



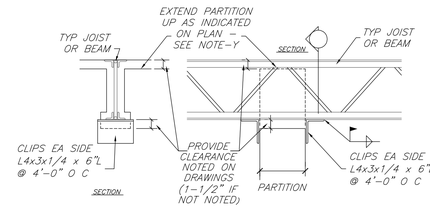
JOIST REINFORCING AT CONCENTRATED LOADS

SCALE: NOT TO SCALE
REQUIRED WHERE LOADS OCCURS OFF PANEL POINTS



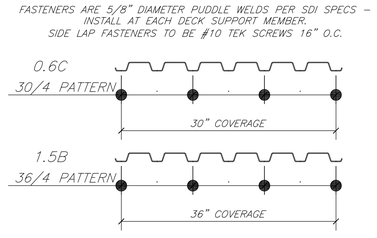
TYPICAL OPENING SUPPORT FRAME

SCALE: NOT TO SCALE



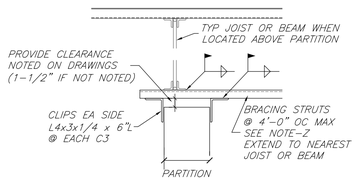
PARTITION BRACING DETAIL

SCALE: NOT TO SCALE
NOTE - Y: PACK GAPS BETWEEN PARTITION AND MEMBER
ABOVE W/ SAFING - SEE DETAILS OF FIRE RATED



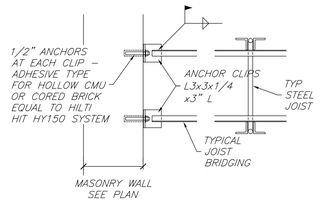
TYPICAL DECK FASTENER LAYOUT

SCALE: NOT TO SCALE



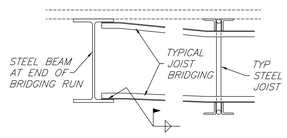
TYPICAL PARTITION BRACING DETAIL

SCALE: NOT TO SCALE
NOTE - Z: STRUT SIZE - C3x4.1 U.N.O.



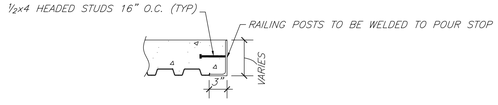
TYPICAL JOIST BRIDGING ANCHOR DETAIL

SCALE: NOT TO SCALE
APPLIES AT MASONRY WALL



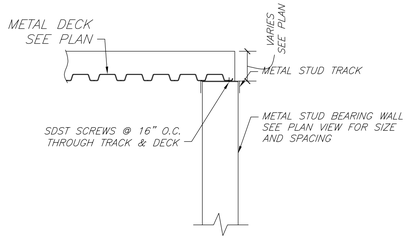
TYPICAL JOIST BRIDGING ANCHOR DETAIL

SCALE: NOT TO SCALE
APPLIES AT BEAM



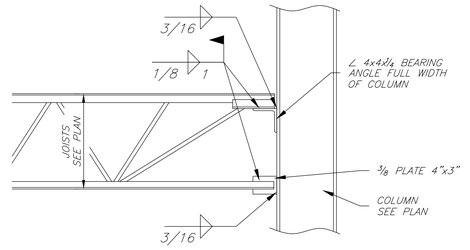
TYPICAL POUR STOP AT RAILING LOCATIONS

SCALE: NOT TO SCALE



TYP DECK ON BEARING METAL STUD WALL

SCALE: NOT TO SCALE



TYP JOIST AT COLUMN

SCALE: NOT TO SCALE

MATHER ARCHITECTS, P.C.
373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540) 442-1400

ENGINEERING SOLUTIONS
1010 NORTH MAIN STREET
HARRISONBURG, VA 22802

JOIST DETAILS

Scale: AS NOTED

Proposed New Municipal Building
Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
BRIAN D. KOERNER
31 march 14
No. 038084
PROFESSIONAL ENGINEER

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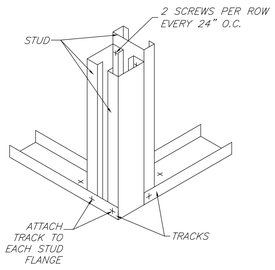
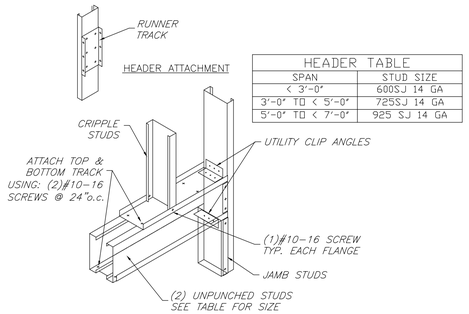
Date:	3/31/2014
Project:	013007
ESCM	0713-0140
Drawn By:	JC

S4.2

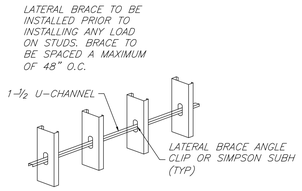


TYPICAL THREE STUD CORNER
SCALE: NOT TO SCALE

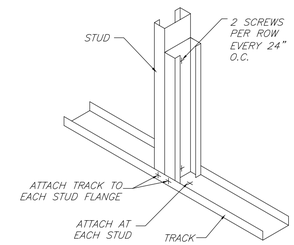


HEADER TABLE	
SPAN	STUD SIZE
< 3'-0"	600SJ 14 GA
3'-0" TO < 5'-0"	725SJ 14 GA
5'-0" TO < 7'-0"	925 SJ 14 GA

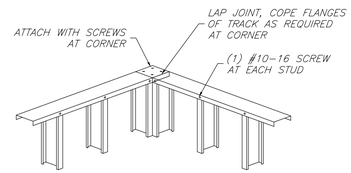
TYPICAL BOXED HEADER CONNECTION
SCALE: NOT TO SCALE



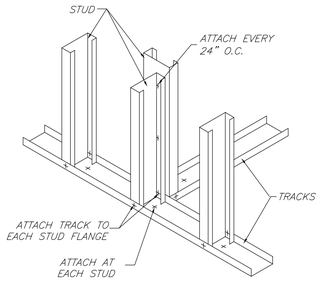
TYPICAL WALL LATERAL BRACE
SCALE: NOT TO SCALE



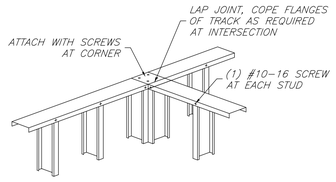
TYPICAL BACK-TO-BACK STUDS
SCALE: NOT TO SCALE



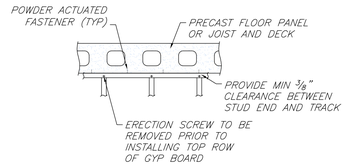
TYPICAL EXTERIOR CORNER TIE
SCALE: NOT TO SCALE



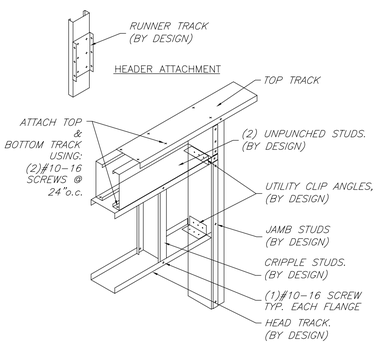
TYPICAL PARTITION INTERSECTION
SCALE: NOT TO SCALE



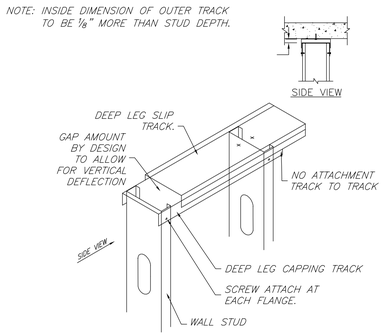
TYPICAL INTERIOR CORNER TIE
SCALE: NOT TO SCALE



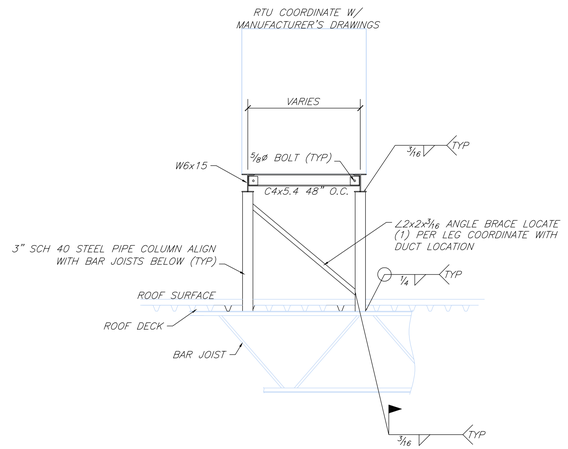
TYPICAL NON LOAD BEARING PARTITION WALL
SCALE: NOT TO SCALE



BOXED HEADER CONNECTION
SCALE: NOT TO SCALE
LOAD BEARING WALL- TWO MEMBER BOXED



TYPICAL SLIP TRACK ASSEMBLY
SCALE: NOT TO SCALE



RTU FRAME DETAIL
SCALE: NTS

MATHER ARCHITECTS, P.C.
373 Neff Ave. Harrisonburg, VA 22801
Phone Number: (540) 442-1400

ENGINEERING SOLUTIONS
1010 NORTH MAIN STREET
HARRISONBURG, VA 22802

COLD FORMED STEEL

Scale: AS NOTED

Proposed New Municipal Building
Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
BRIAN D. KORBNER
31 march 14
No. 036384
PROFESSIONAL ENGINEER

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Date:	3/31/2014
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ESCM	0713-0140
Drawn By:	JC

S4.3