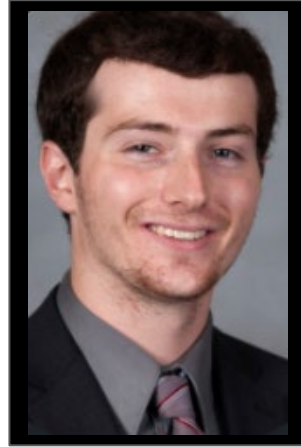




Sawmill Event Center



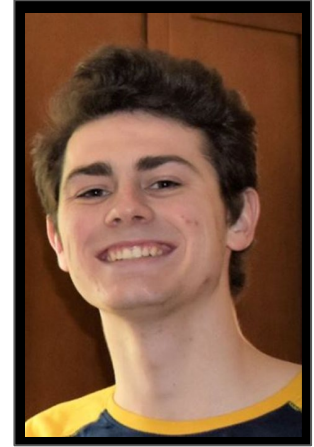
Libby Lorts
Project Manager
Structural member sizing,
ArcGIS, and Civil3D



Cade McNeill
Report Production Team
Structural analysis, member
sizing, AutoCAD, and RISA3D

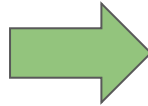
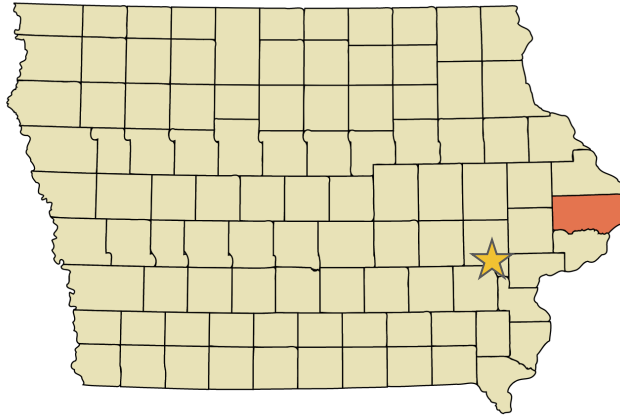


Eric Vidhamali
Technology Service
Expert
Graphic design, AutoCAD,
3DSMax, and part fabrication



Jack Marchiori
Report Production Team
Land development, wet
utilities, surveying, and
drainage

Project Outline

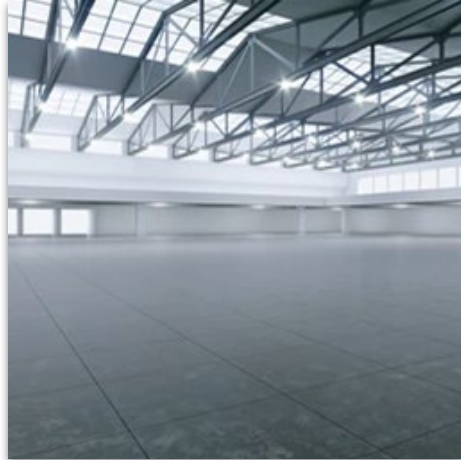


Parking Lot Site							
16632.89	Fire grading, slope, curb, finish grading	SY	2,462.28	\$	2,093.92		
11000	Excavate, strip volume excess, 200 BCY, BCY, socket base	LCY	2,280.00	\$	6,280.00		
	Sidewalks, driveways, and paths, sidewalks, concrete, excludes base,						
1468	6" x 4" thick finish asphalt base, 6000 sq. ft.	SP	1.10	\$	8,214.80		
2162	8" thick curb, 4" thick curb, 2" wide, excludes concrete	LF	22.30	\$	48,212.60		
2000	Sidewalks, driveways, and paths, sidewalks, concrete, cast-in-place with 6 x 6	SP	4.20	\$	8,400.00		
80000	W1.4 x W1.4 mesh, broomcast finish, 3000 psi, 4" thick, excludes base	SP	6.50	\$	520,000.00		
	Two Grid pavers, pro pba						
Bunkies							
	W1.2x1.20	LF	169.54	\$	242,168.66		
	W1.4x1.20	LF	171.73	\$	86,631.61		
	281.2x533.33	LF	171.73	\$	168,831.70		
	W1.4x1.20	LF	95.82	\$	110,280.95		
	W1.4x1.20	LF	96.22	\$	118,448.19		
	W1.2x4.75x1.07	LF	153.42	\$	479,817.83		
	HS4-1.2X4-1.2X1.4	LF	26.04	\$	315,833.21		
	HS4-1.2X4-1.2X1.4	LF	26.04	\$	10,140.68		
	HS4-1.2X4-1.2X1.4	LF	15.45	\$	108,111.58		
	HS4-1.2X4-1.2X1.4	LF	20.90	\$	392,243.80		
	HS4-1.2X4-1.2X1.4	LF	26.04	\$	10,140.68		
	HS4-1.2X4-1.2X1.4	LF	147.00	\$	481,691.87		
	deck, 2x4	SP	1.40	\$	48,761.51		
	deck, 1.0C24	SP	142.40	\$	4,959,766.37		
	Concrete forms, cast, (store length x width), 2 use, includes shoring, erecting, bracing, stripping and cleaning	SP	21.07	\$	15,423.20		
	Excavate	Ea	43,000.00	\$	85,000.00		
	Form Board Insulation, Polystyrene, expanded, 1" thick, R4	SP	59,647.58	\$	8,201.62		
	Cover roof system, flat applied rubber membrane, 215 mil thick, reinforced, includes insulation	SP	147,739.08	\$	247,888.32		
	Multi-layer 15lb membrane on walls, fish 1-lap stopped	SP	38,665.10	\$	44,892.82		
	Chypsum wallboard on ceiling, standard, 1/2" thick, finish excluded	SP	21,246.19	\$	29,257.05		
	1/2" Drywall, 1/2" thick, standard, 100 lb	Ea	3,524,479.94	\$	209,286.84		
	Doors, wood, interior, 2x4, egress	SP	1,761.00	\$	7,881.43		
	Windows, wood, casement, vinyl clad, custom double insulated glass	Ea	51,005,094.00	\$	1,121,572.00		
	88	Carport, 16' x 20' x 10' concrete, average	Ea	1,297.40	\$	1,223.20	
	24	Doors, wood, architectural, flush, exterior, hollow core, 7'6" x 3'6" x 1 1/2"	Ea	9,593.00	\$	11,516.60	
	6	Doors & Frames, aluminum, entrance, custom sash, clear finish, 5'-0"	Ea	10,440.00	\$	12,860.00	
	Subtotal					10,496,629.12	
	Contingency, for estimate at final working drawing stage	Percent	3.00%				
	Engineer's Fees, mechanical (shunting and HVAC)	Contract	7.10%				
	Architect's Fees, design and construction	Contract	7.10%				
	Total					\$ 12,301,344.95	

Project Scope



Multi-use Building



Showroom Space

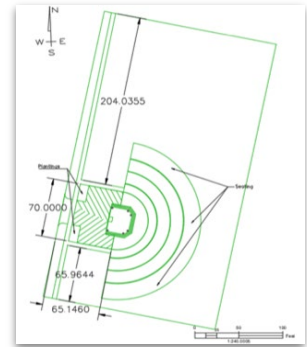


Event Space



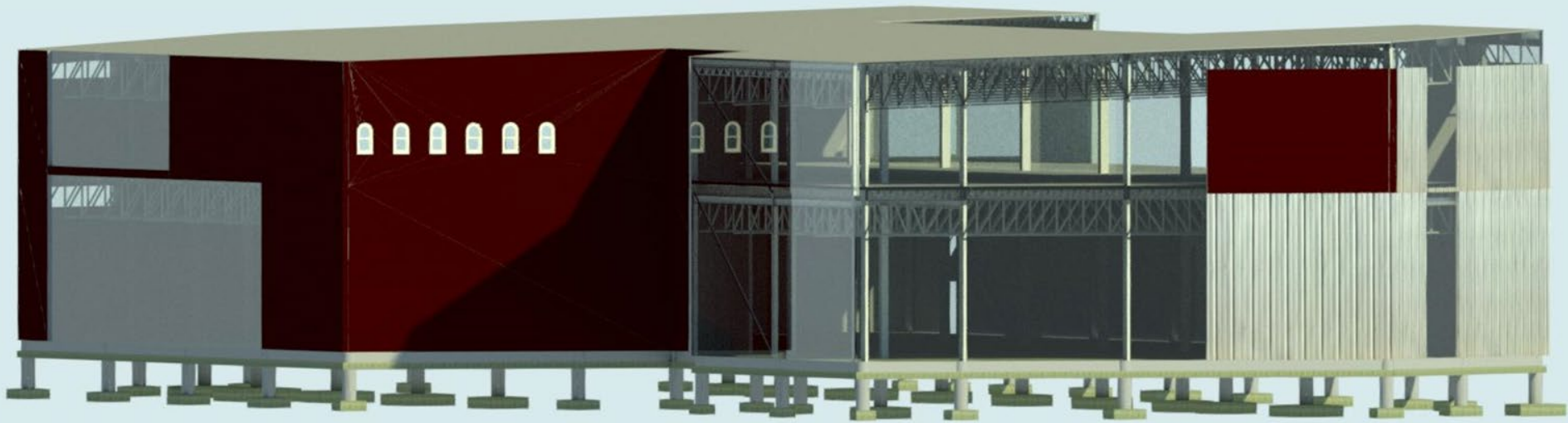
Second Floor Balcony

Existing Site

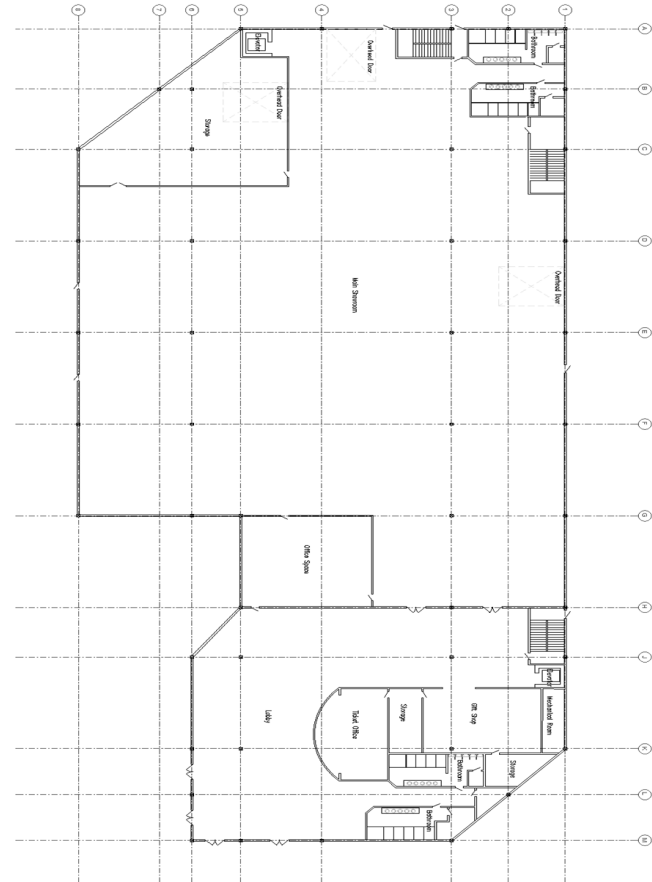
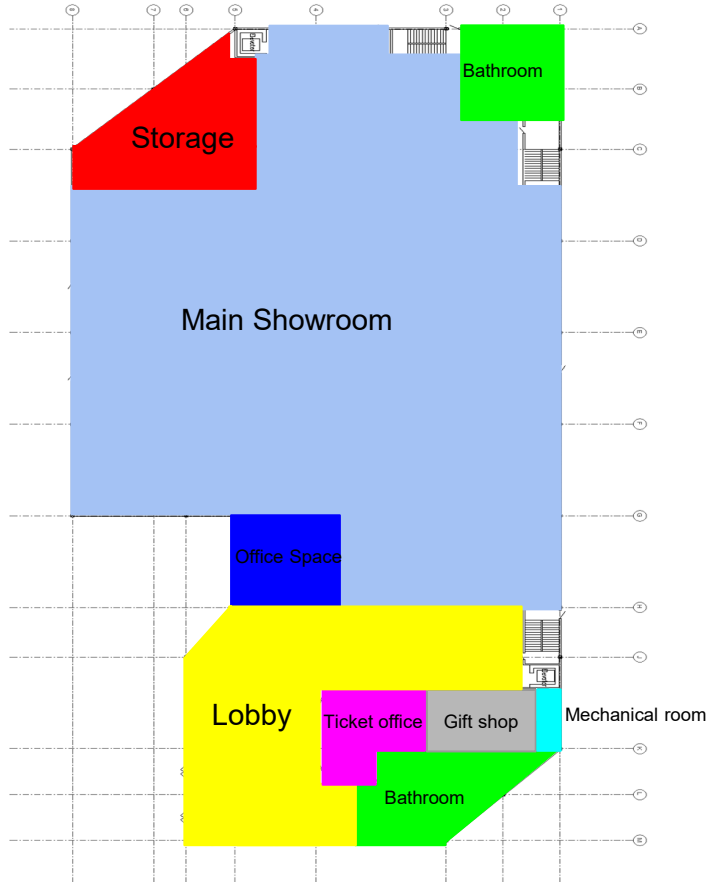


Existing and Future Site

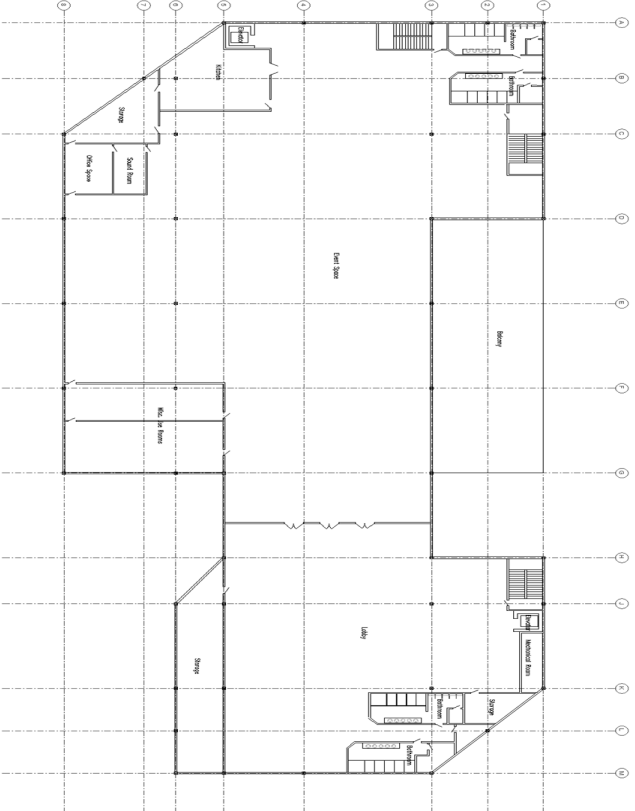
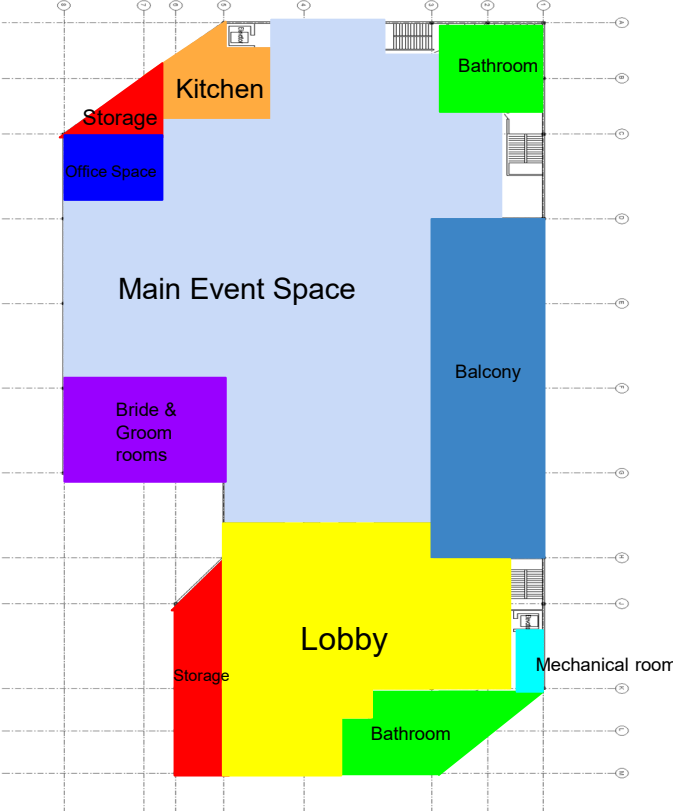




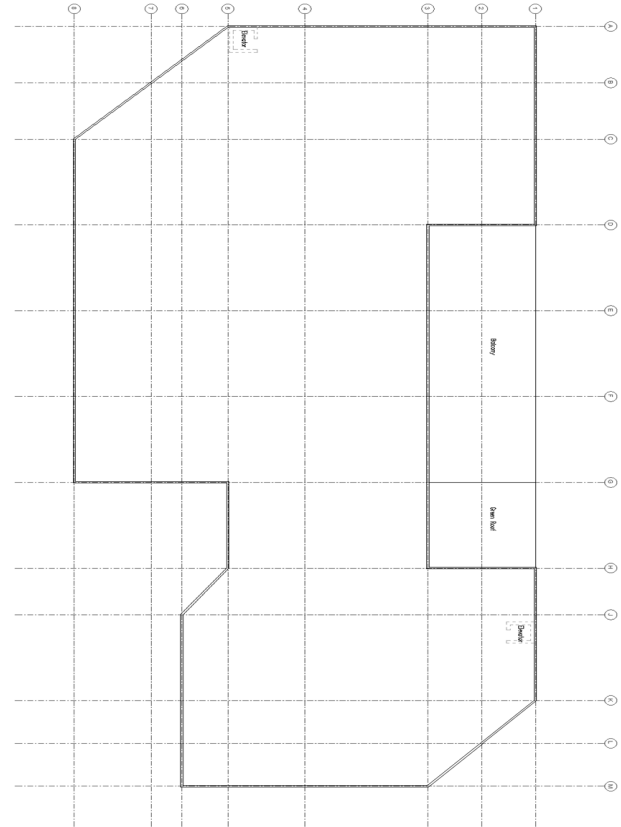
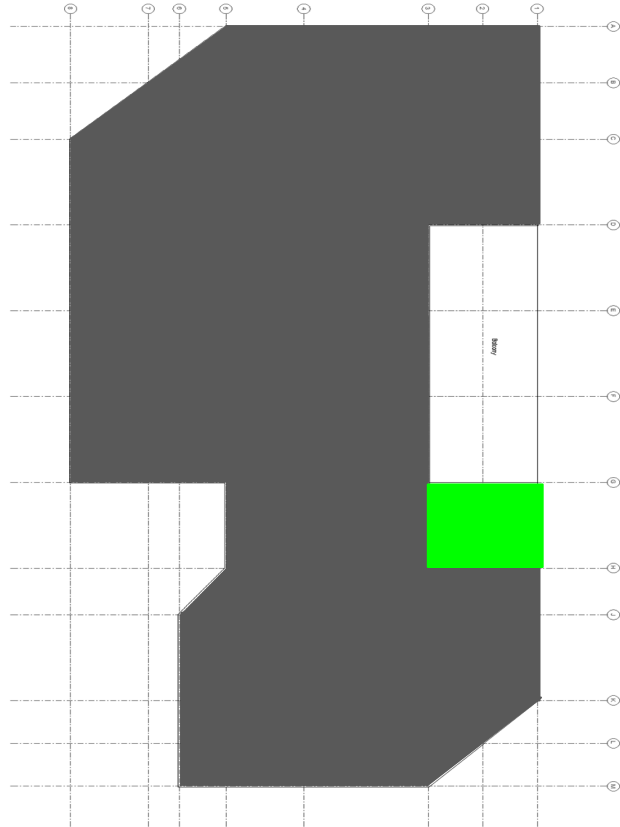
Ground Floor Layout



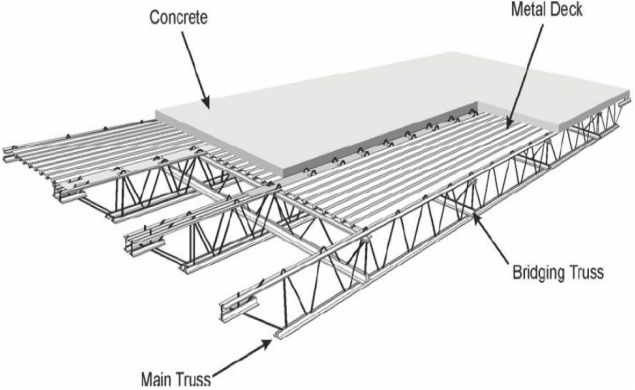
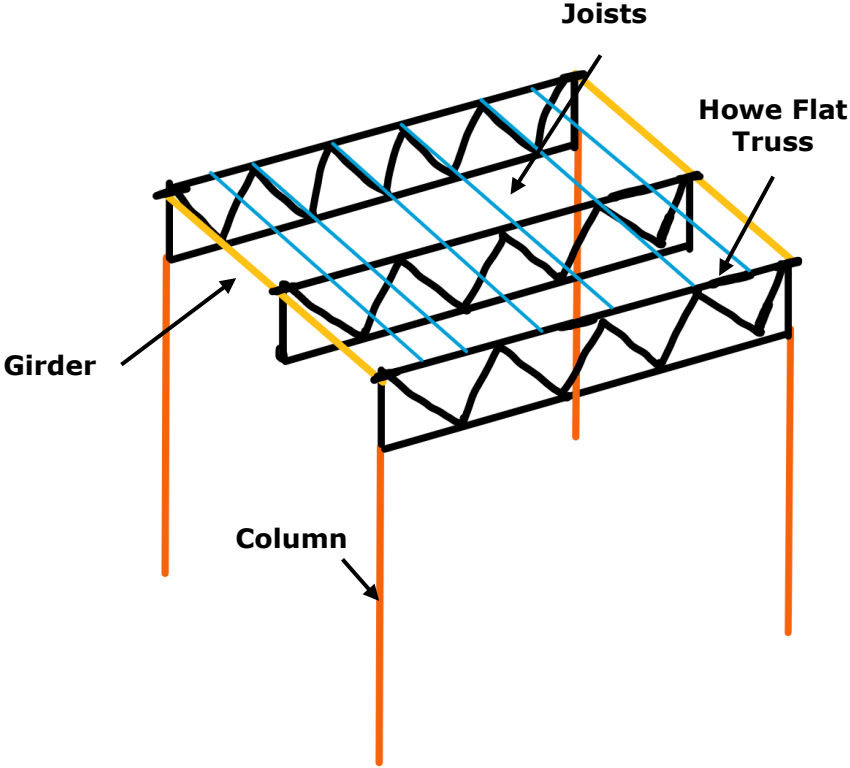
Second Floor Layout









Roof Layout

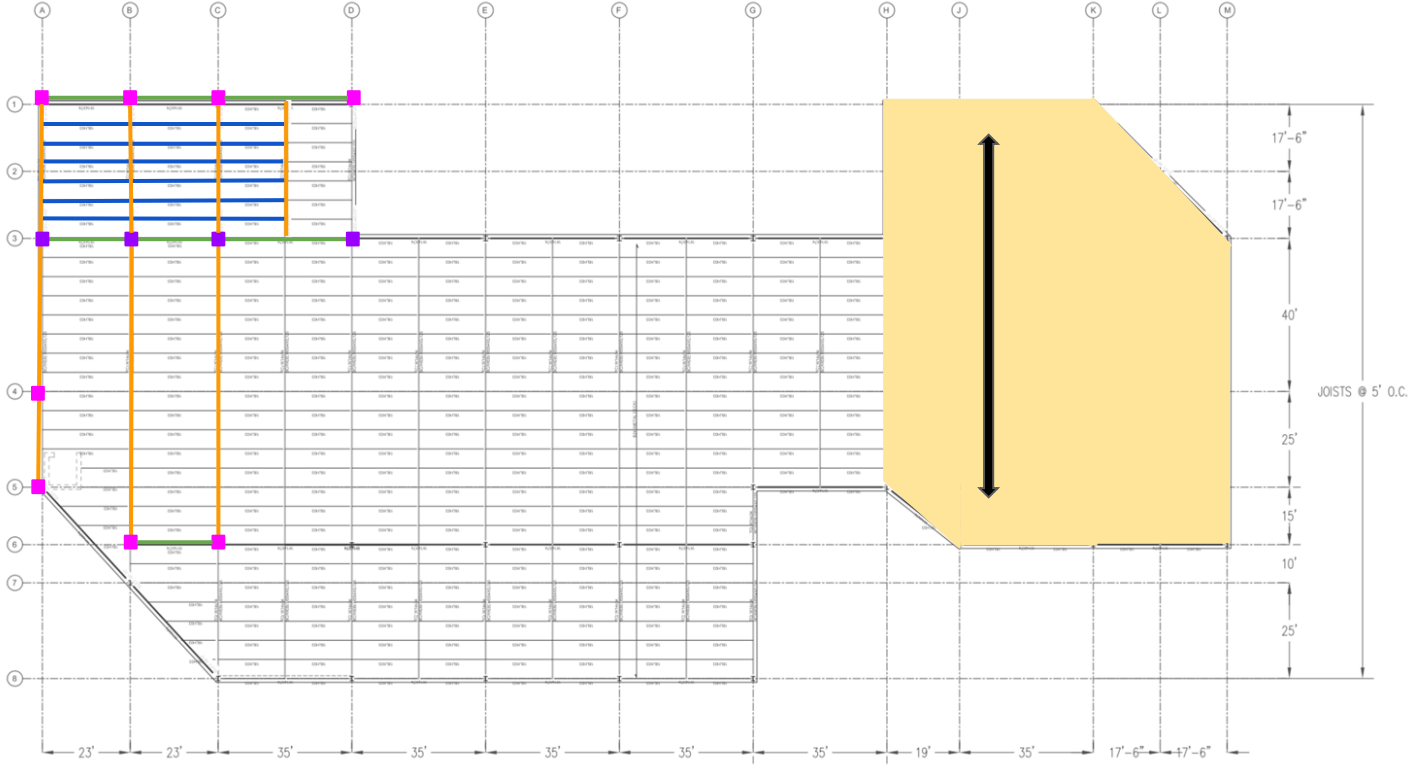


Structural Framing Elements

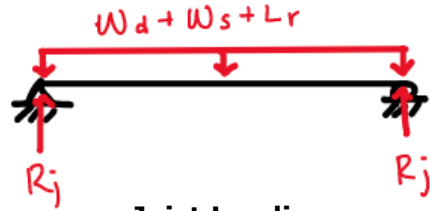


Roof Framing

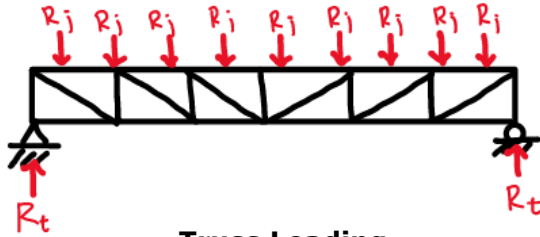
	W12x120 (C1)
	W14x120 (C2)
	TC: W14x34 (T1) BC/WEB: HSS 4x0.25
	W14x74 (G1)
	18LH03 (J1)
	B24 (D1)



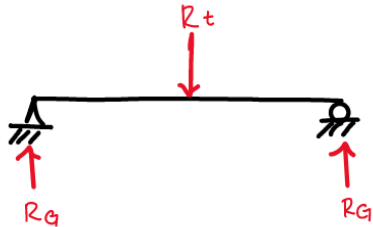
Roof Loading



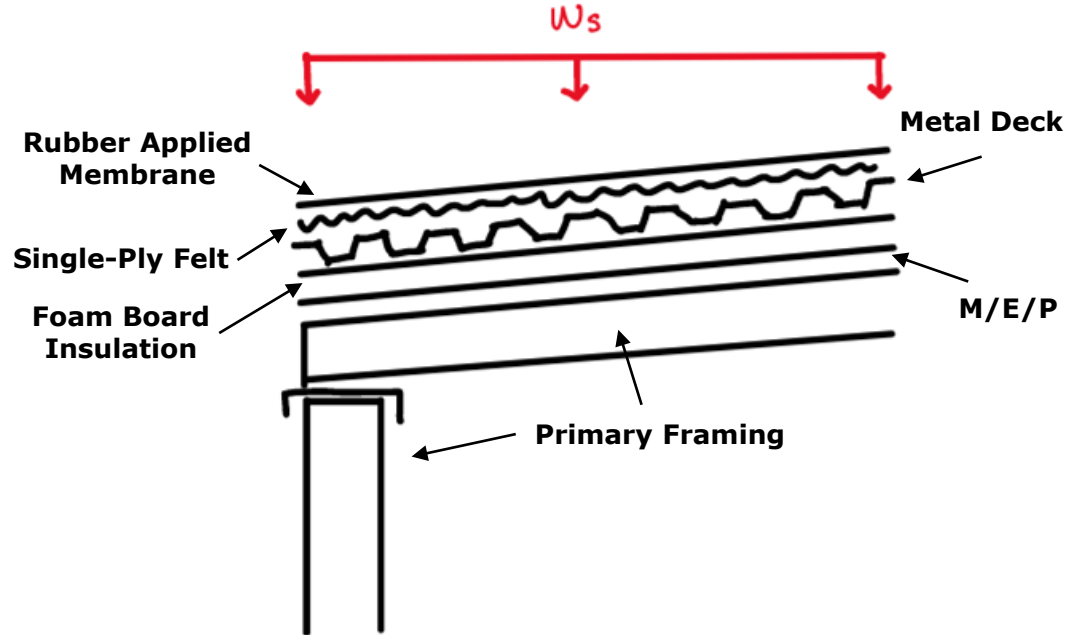
Joist Loading



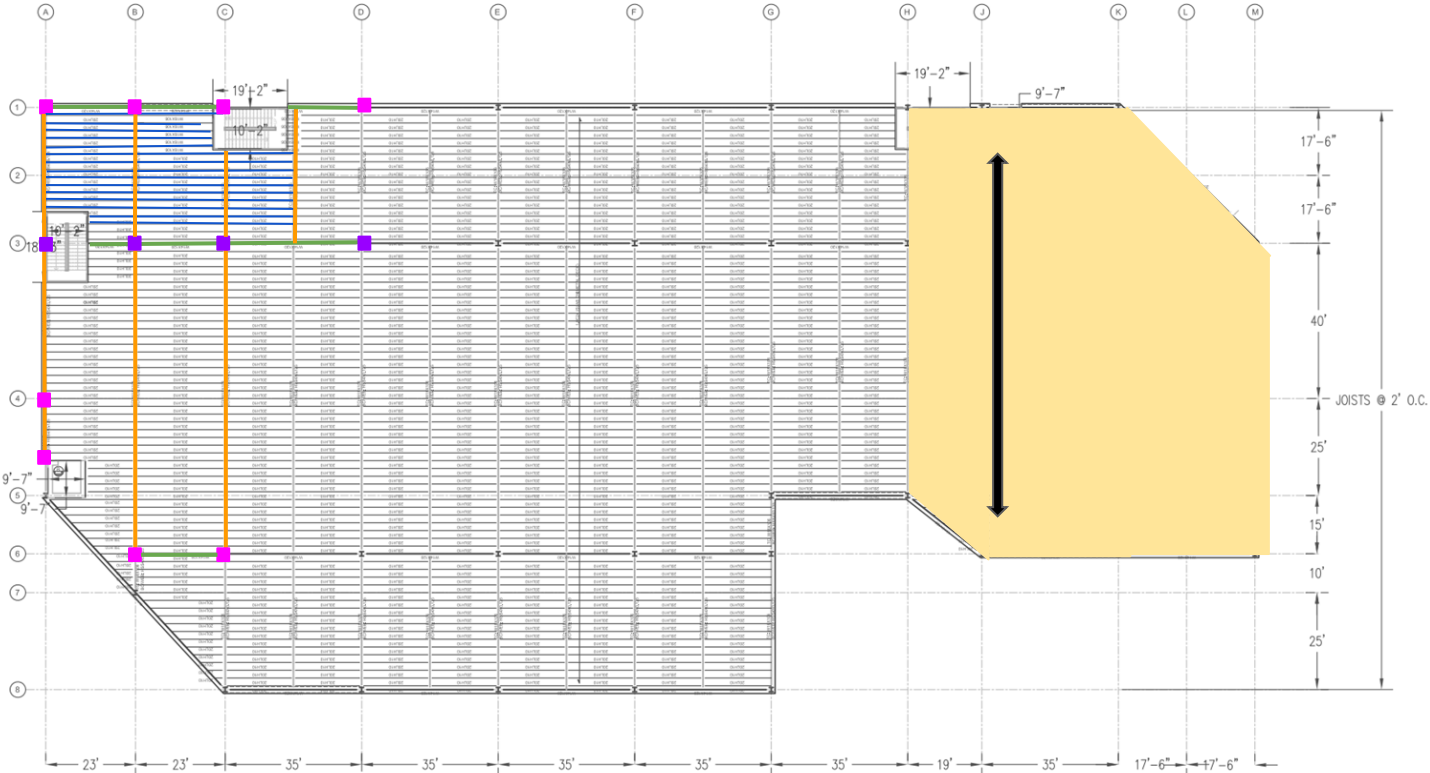
Truss Loading









Girder Loading

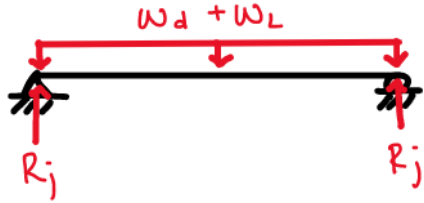


Second Floor Framing

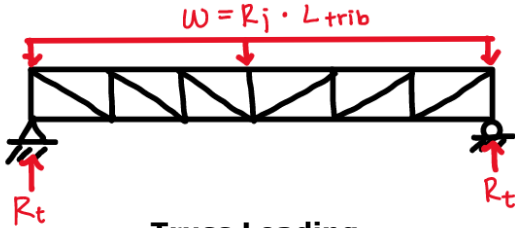


	W12x120 (C1)
	W14x120 (C2)
	TC: W18x106 (T1) BC/WEB: HSS 4x0.25
	W14x120 (G1)
	20LH10 (J1)
	1.0c24 (D1)

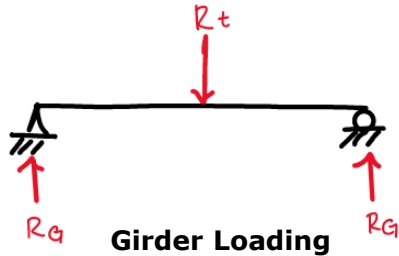
Second Floor Loading



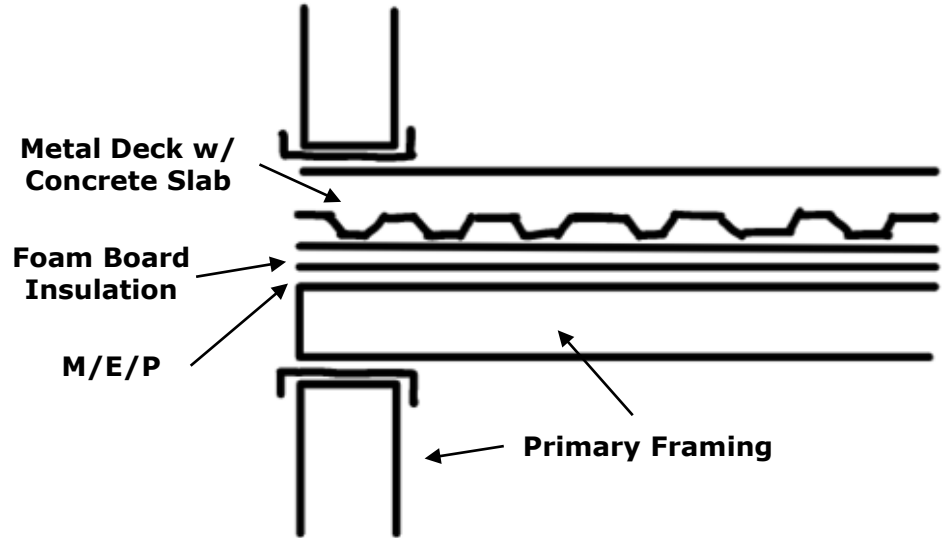
Joist Loading



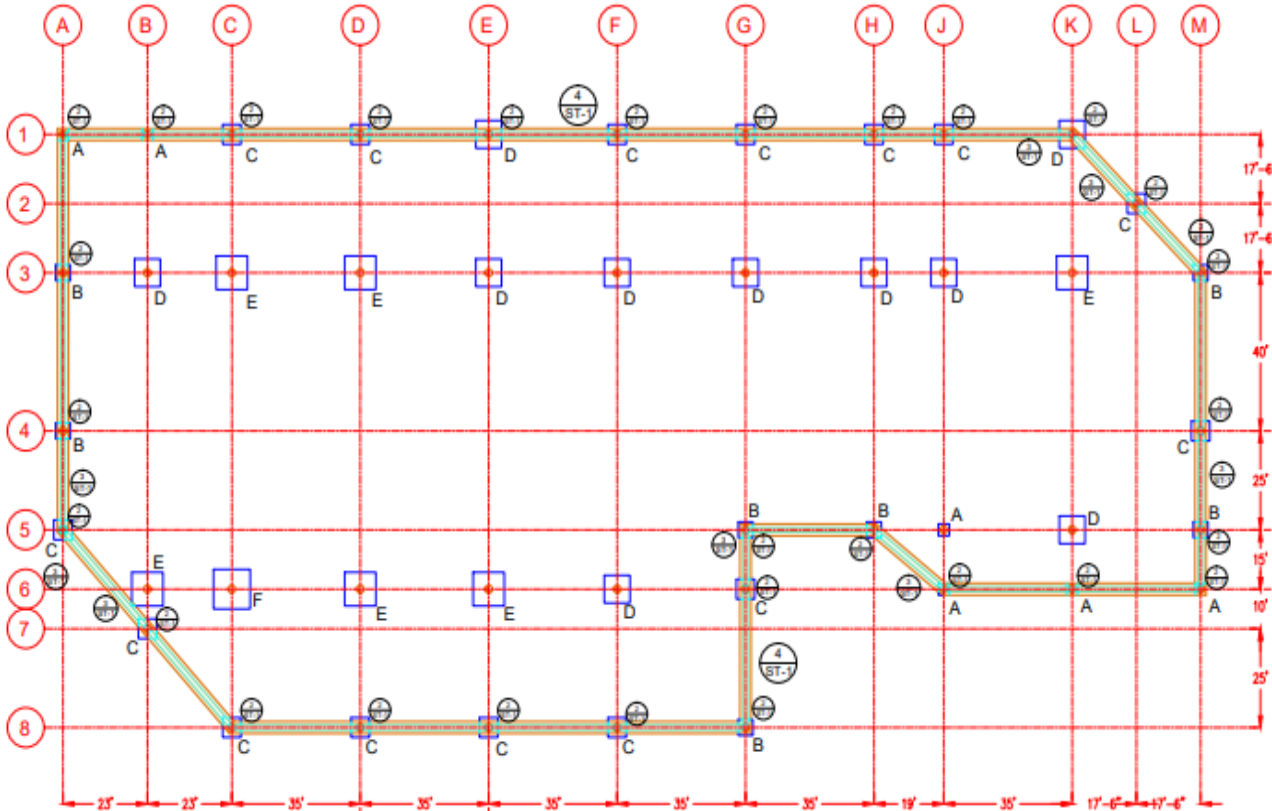
Truss Loading



Girder Loading



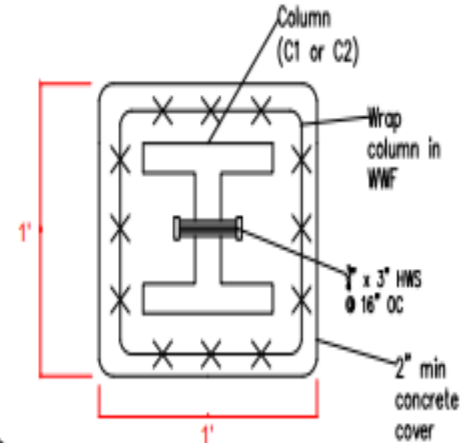
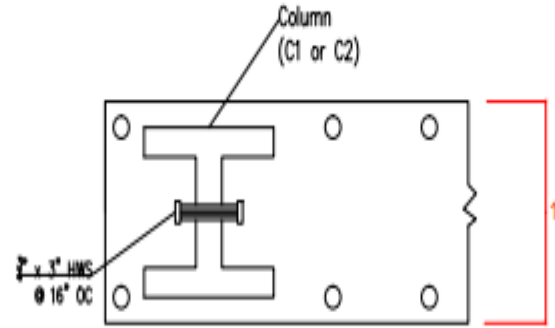
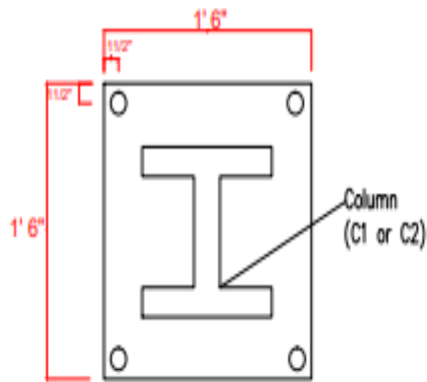
Foundation Design



Footing Schedule

Size	Note	Count
3 x 3	A	6
4 x 4	B	7
5 x 5	C	15
7 x 7	D	10
8.5 x 8.5	E	6
10 x 10	F	1
24" diameter pier		45

Foundation Design Details



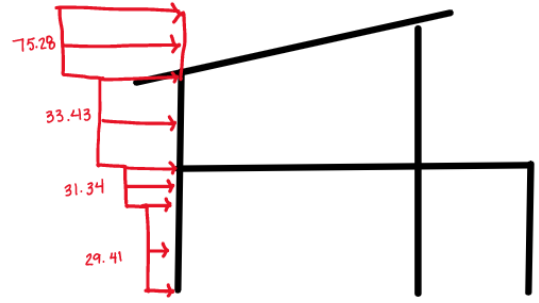
2 Base Plate Detail
ST-1

3 Embedded Column Detail
ST-1

4 Concrete Cover Detail
ST-1

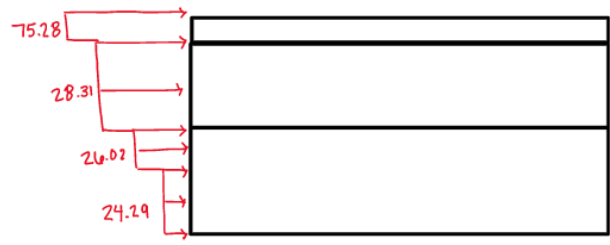
Lateral Force Resisting System

E-W WIND →

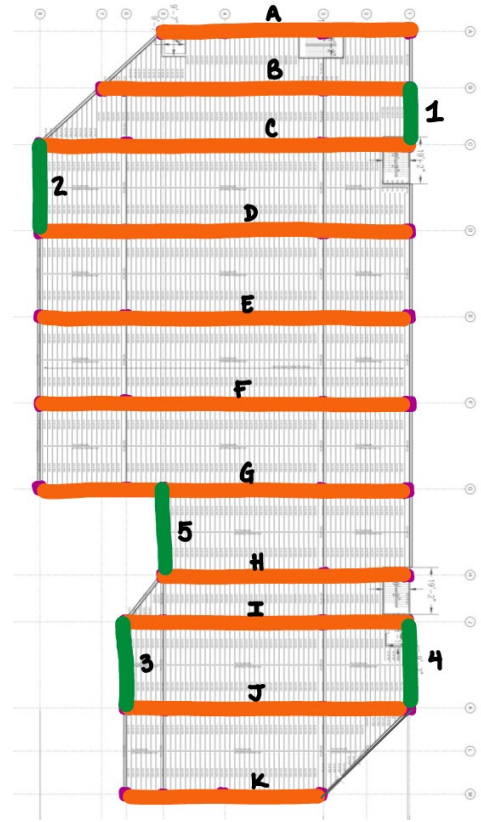


South Elevation

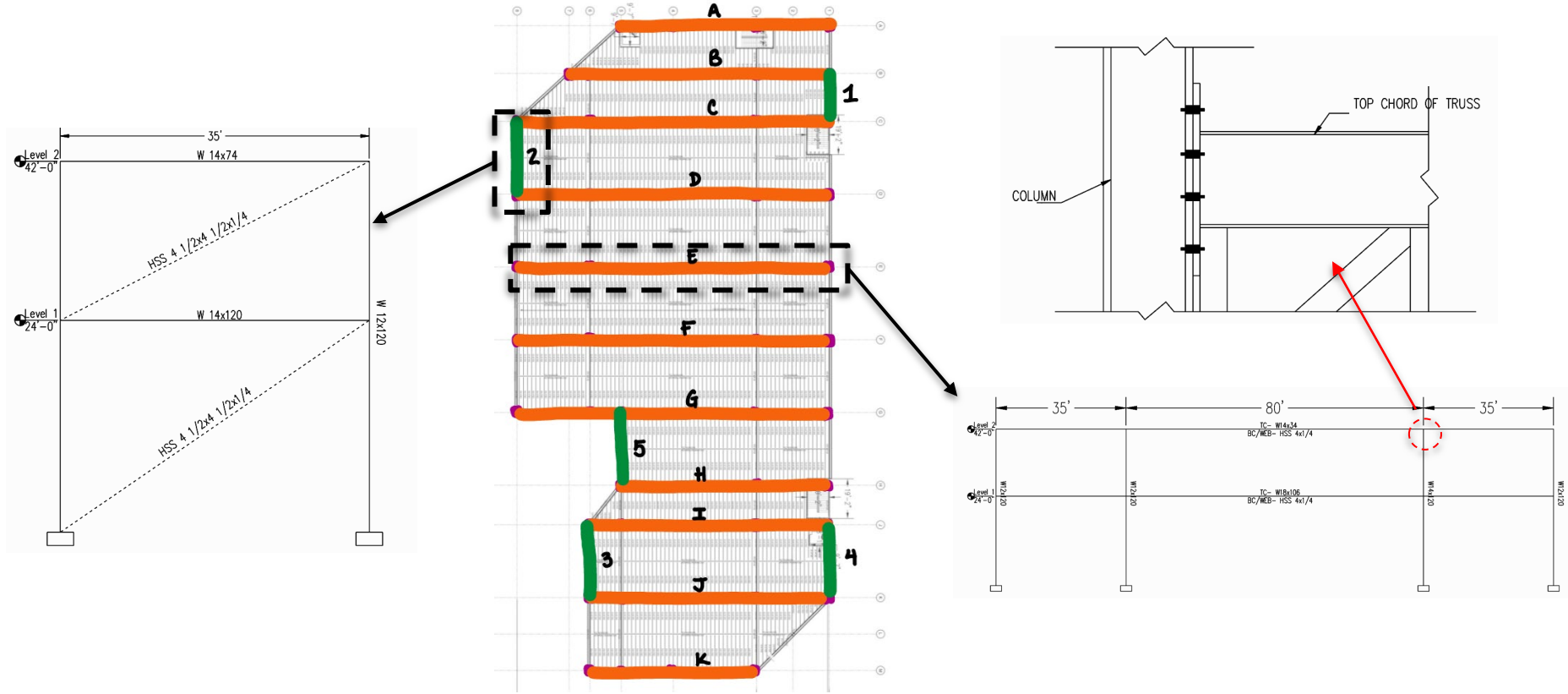
N-S WIND →



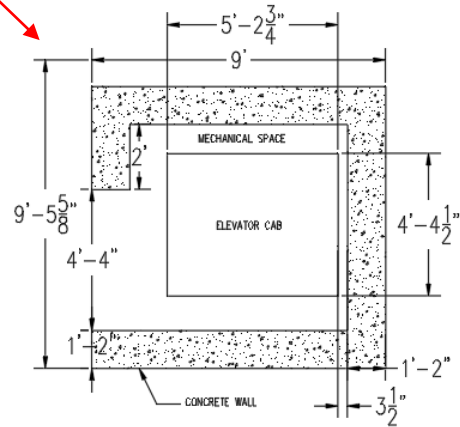
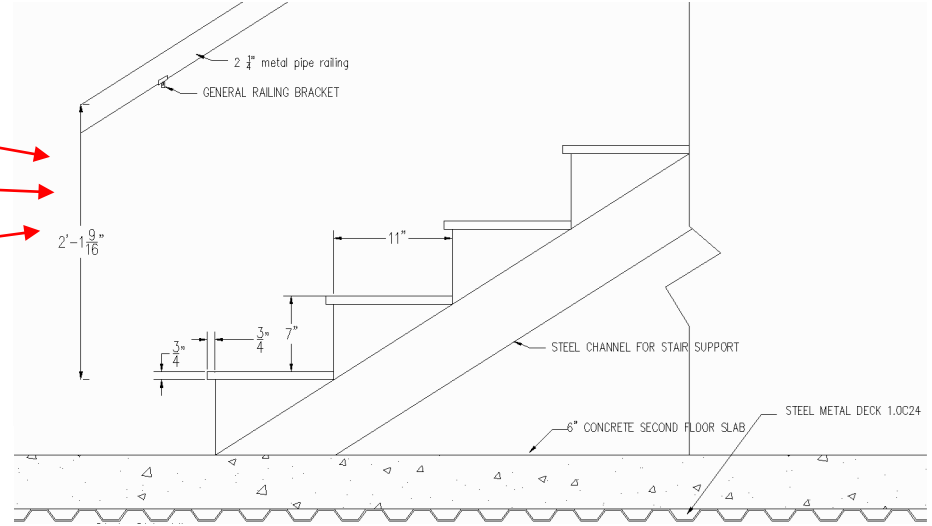
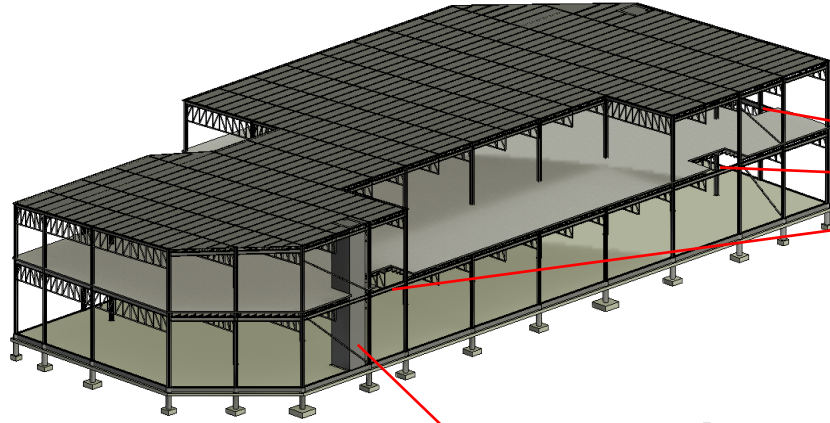
West Elevation



Moment Frames and Bracing

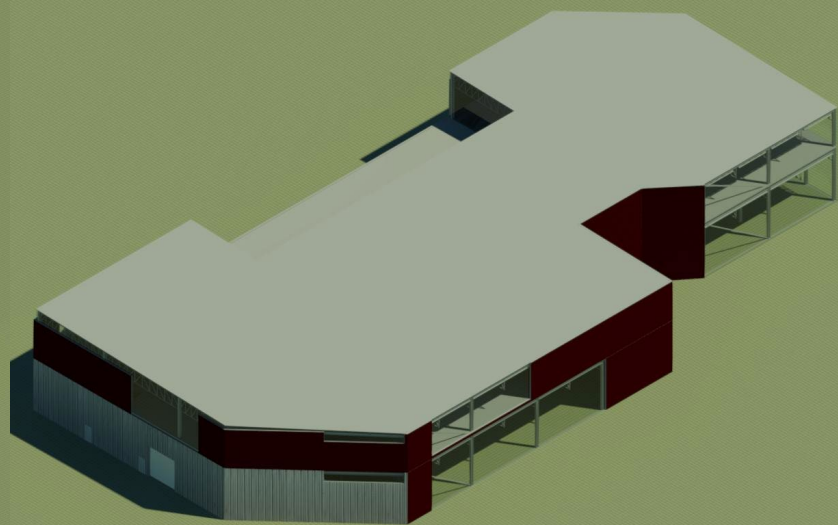
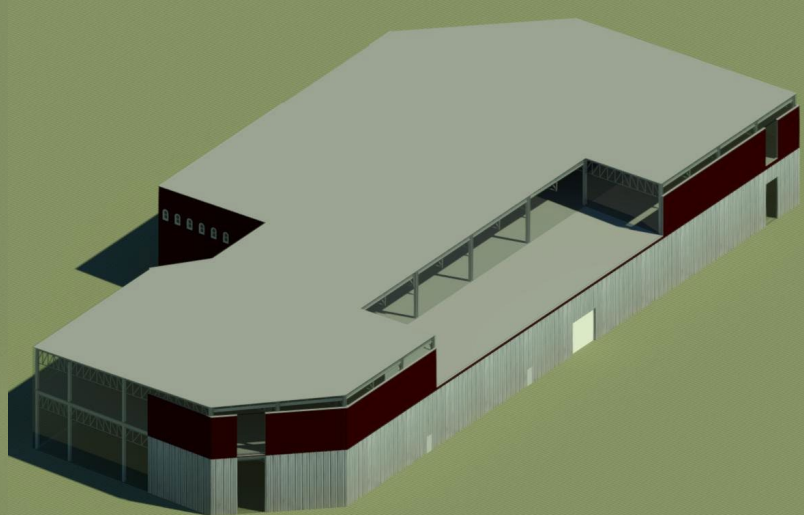
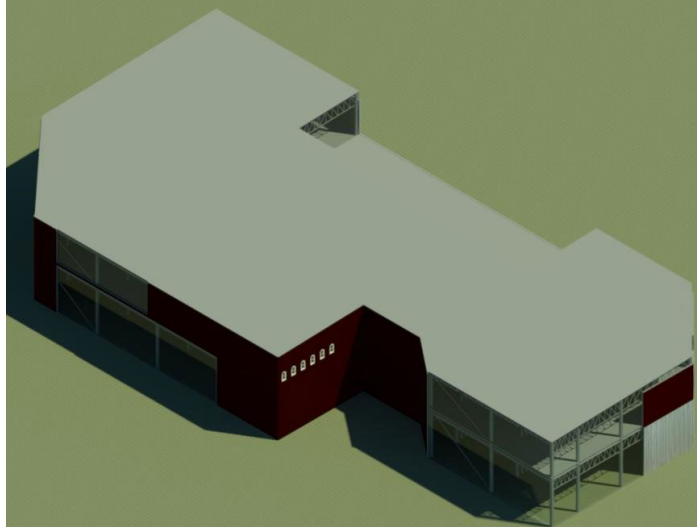


Elevator and Stairs

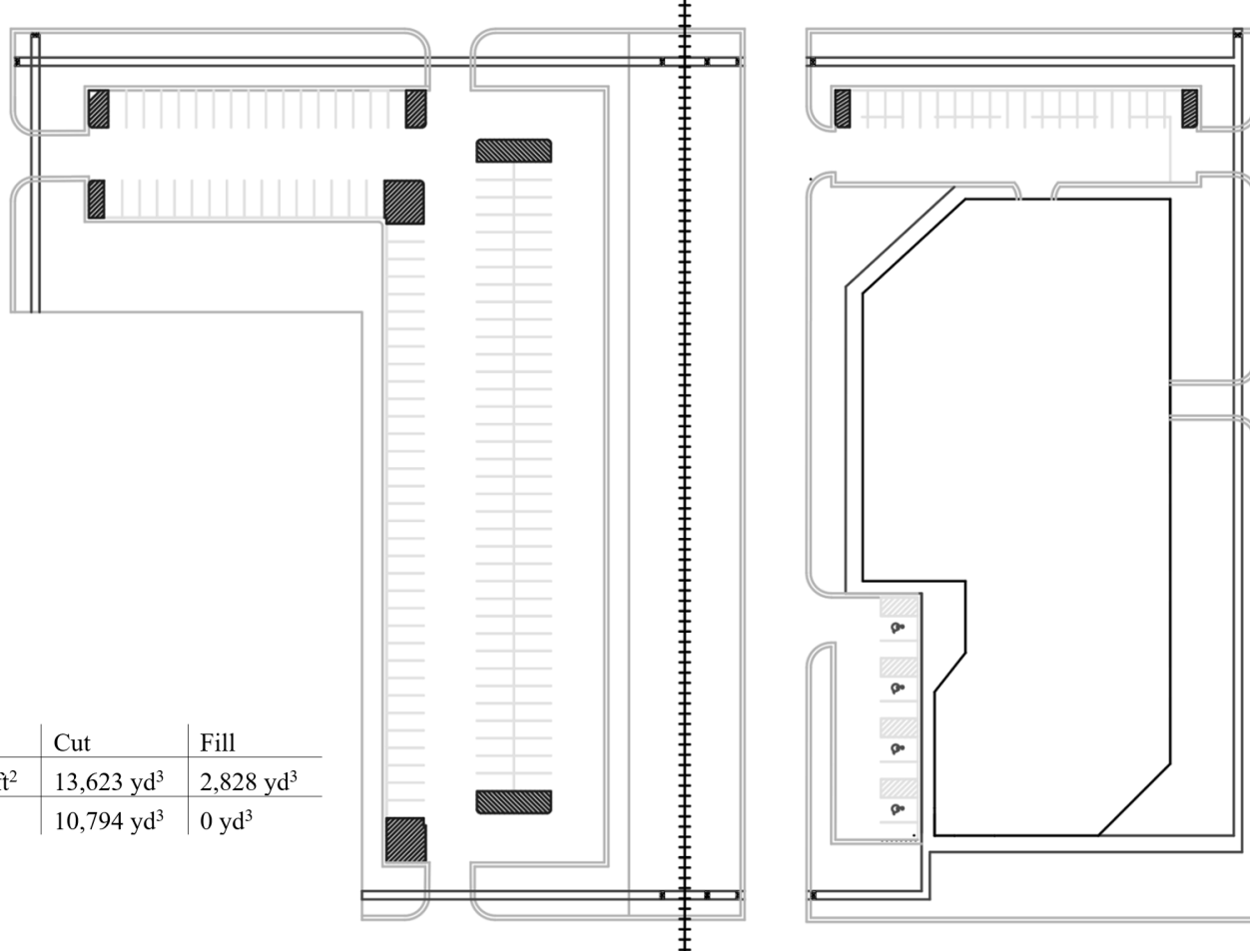


Exterior Architecture



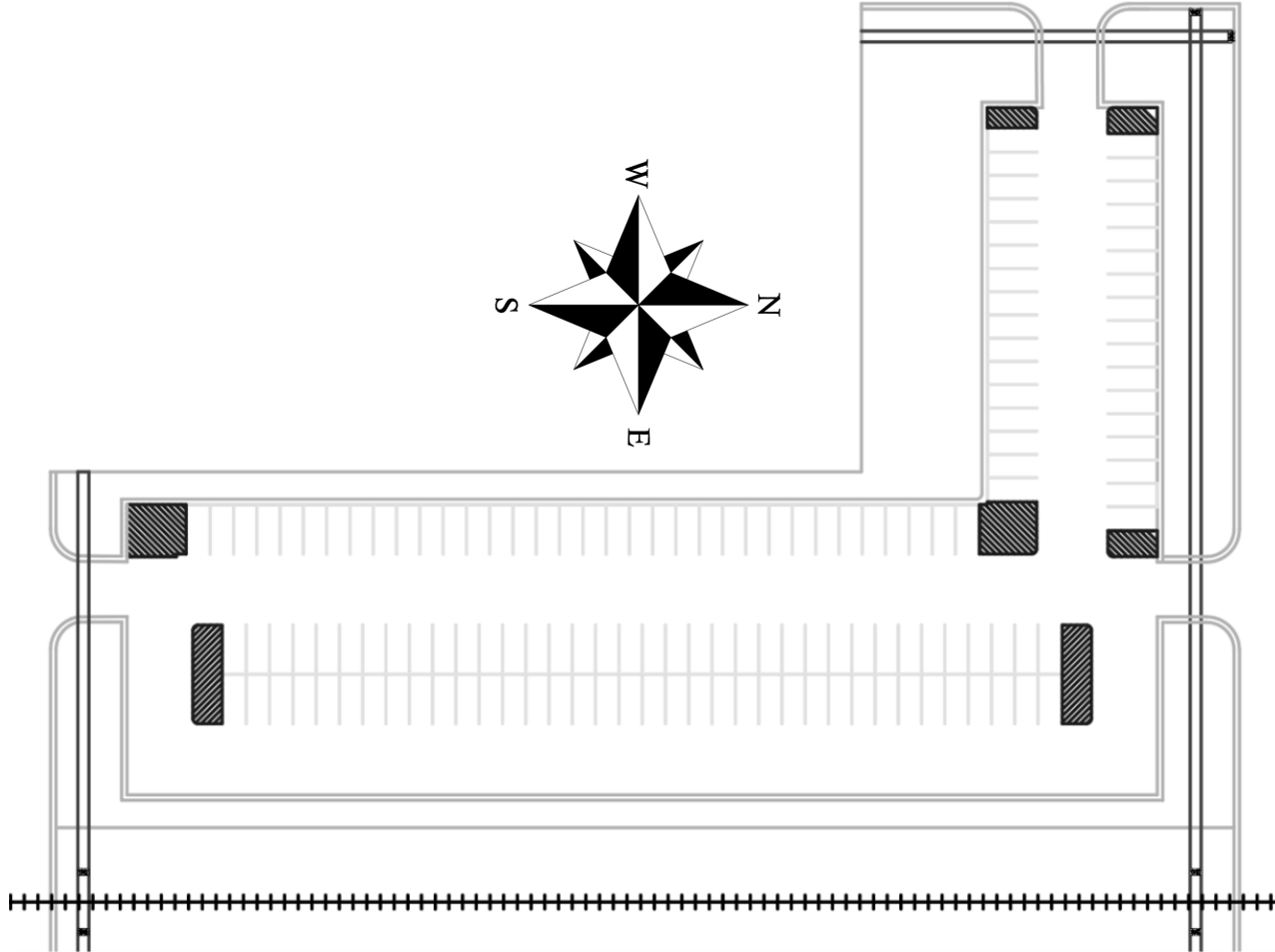


Site Design

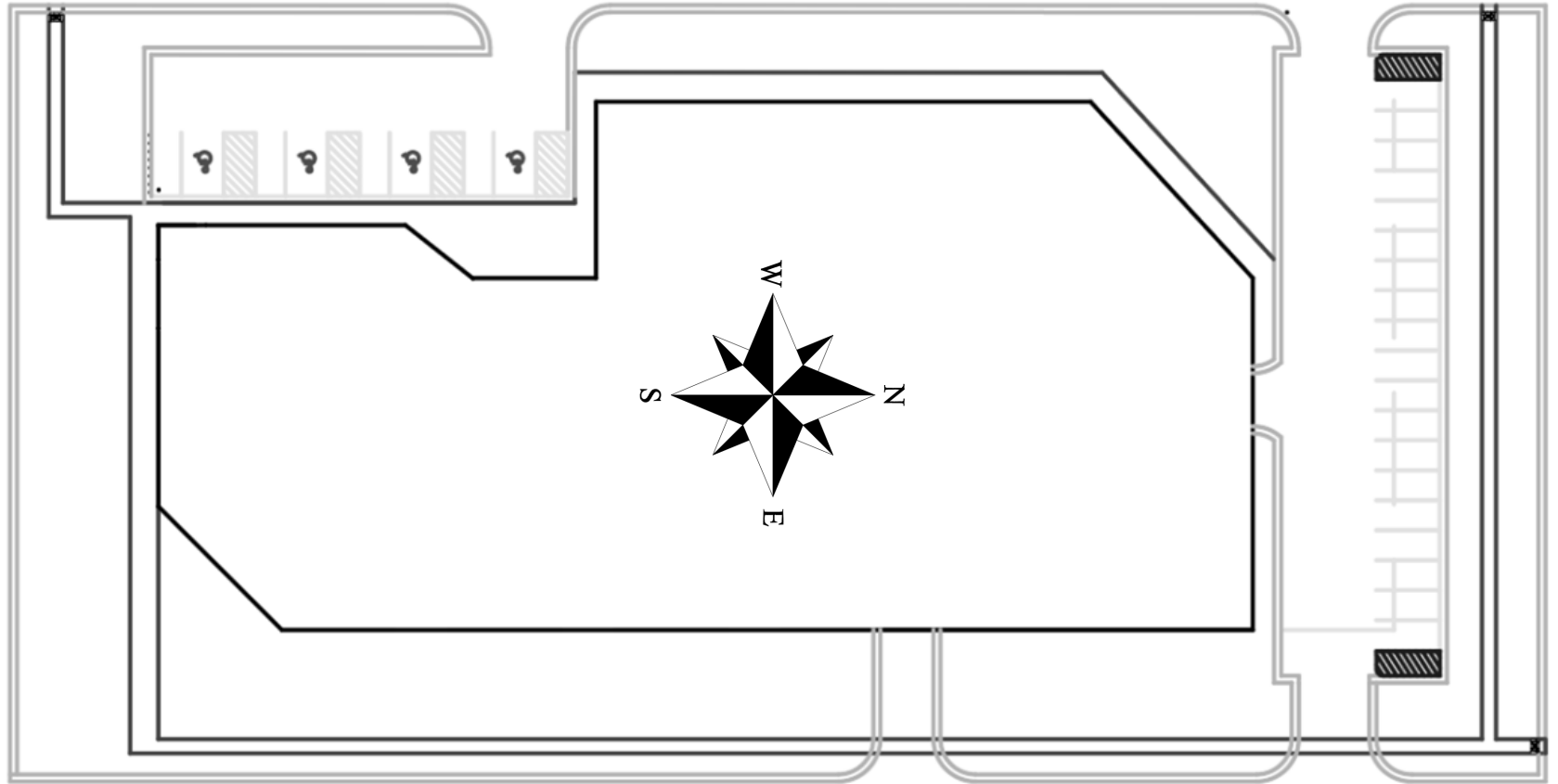


Cut/Fill Report	Area	Cut	Fill
Total	120,890 ft ²	13,623 yd ³	2,828 yd ³
Net		10,794 yd ³	0 yd ³

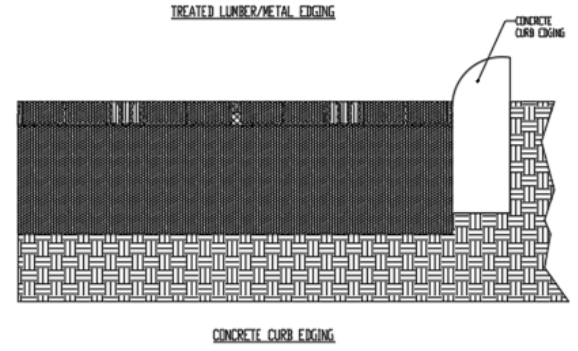
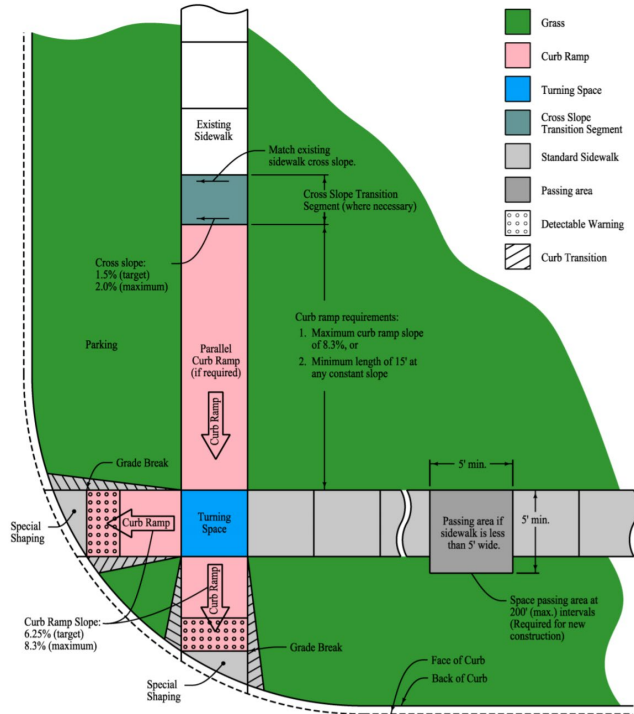
Site Design



Site Design

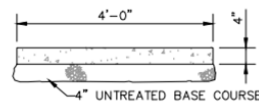


Site Details

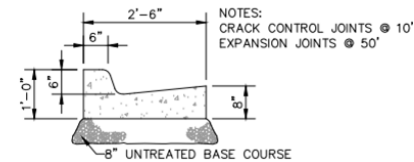


1-855-355-GRID (4743)		CLIENT / PROJECT	
		TRUEGRID USA, INC. 10000 TRUEGRID DRIVE SUITE 100 FARMINGTON, CT 06030 USA	TRUEGRID CANADA, INC. 10000 TRUEGRID DRIVE SUITE 100 FARMINGTON, CT 06030 USA
		J. Dery 4032300	J. Dery 4032300
4/26/2018 WAC	TRUEGRIDPAVER.com	C. Vetter 8602300	10-042-0715

- NOTES:
- 6" THICKNESS IN RESIDENTIAL AND COMMERCIAL DRIVEWAYS
 - CRACK CONTROL JOINTS @ 4' EXPANSION JOINTS @ 32'
 - SIDEWALK MAY BE WIDER WHERE SPECIFIED BY CITY ENGINEERING DEPT.



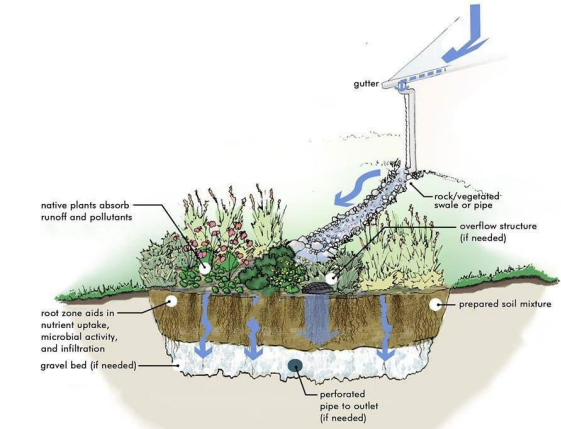
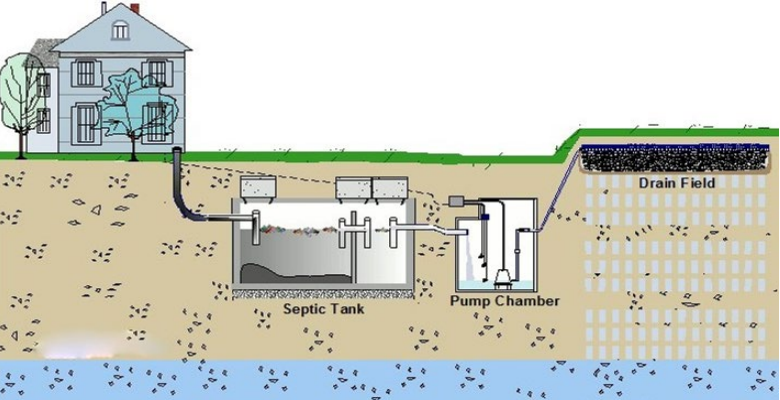
SIDEWALK SECTION



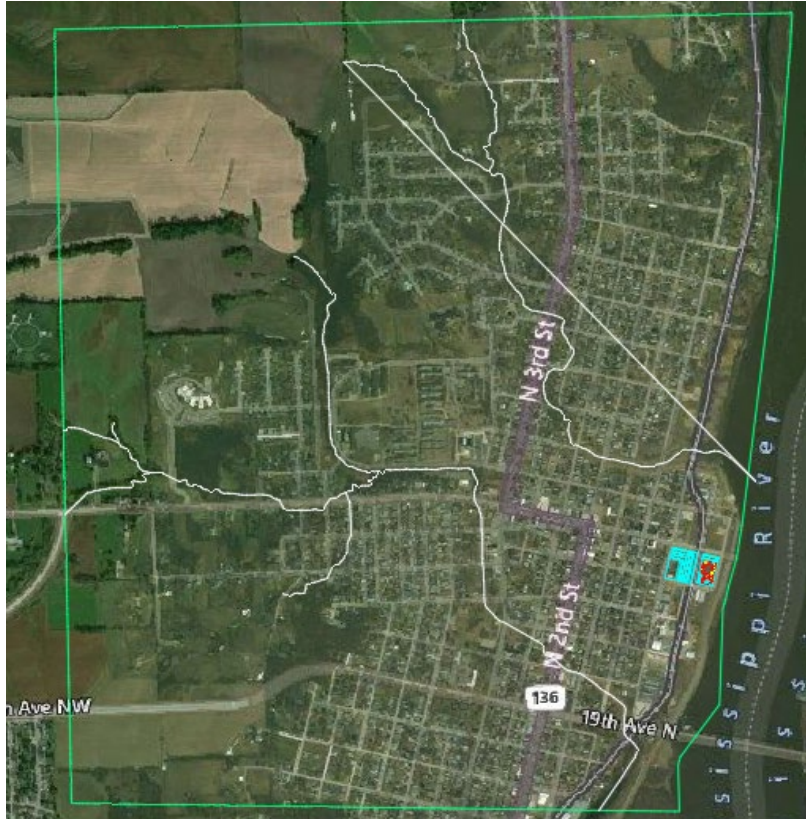
STANDARD CURB & GUTTER SECTION



Utilities



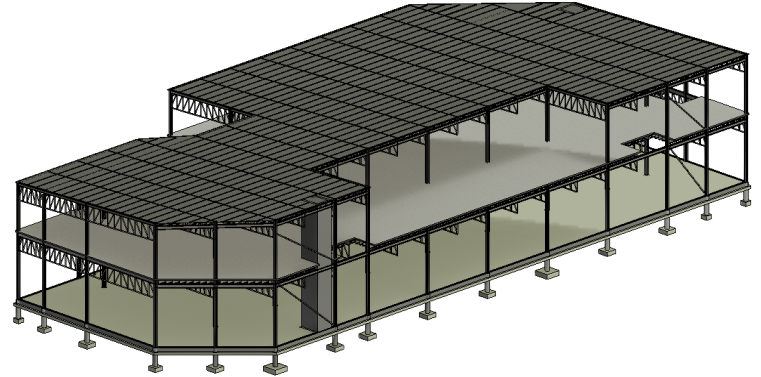
Runoff / Calculations



Parking Lot Option (POST)		
Combined Runoff Coeff. With Soil Group C		
5 yr	10 yr	100 yr
0.84	0.85	0.90
Parking Lot Option (PRE)		
Combined Runoff Coeff. With Soil Group C		
5 yr	10 yr	100 yr
0.64	0.70	0.77
Peak Runoff		
POST-DEVELOPMENT		
Rainfall Duration (hr)	Soil Group C	
	5 yr	100 yr
0.25	7.7988	14.96958
24	0.3015	0.6471
PRE-DEVELOPMENT		
Rainfall Duration (hr)	Soil Group C	
	5 yr	100 yr
0.25	5.9364	12.88758
24	0.2295	0.5571

Construction Cost Estimate

Parking Lot/Site					
QTY					
16632.89	Fine grading, slopes, gentle, finish grading	SY	\$ 2,162.28	\$	2,993.92
11000	Excavating, large volume projects, 200 BCY, 8CY, bucket load	LCY	\$ 5,280.00	\$	6,380.00
7468	Sidewalks, driveways, and patios, concrete, excludes base, for 4" thick bank run gravel base, add	SF	\$ 1.10	\$	8,214.80
2162	Cast-in place concrete curbs & gutters, straight, wood forms, 0.055 C.Y. per L.F., 6" high curb, 6" thick gutter, 24" wide, includes concrete	LF	\$ 22.30	\$	48,212.60
2000	Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	SF	\$ 4.20	\$	8,400.00
80000	True Grid paver, pro plus	SF	\$ 6.50	\$	520,000.00
Building					
QTY					
1428.385417	W12x120	LF	\$ 169.54	\$	242,168.46
503.8229167	W14x120	LF	\$ 171.73	\$	86,521.51
981.9583333	W14x120	LF	\$ 171.73	\$	168,631.70
1153.6875	W14x74	LF	\$ 95.85	\$	110,580.95
2146.510417	W14x34	LF	\$ 54.25	\$	116,448.19
3127.479167	W18x106	LF	\$ 153.42	\$	479,817.85
19810.03125	HSS4x1.4	LF	\$ 26.04	\$	515,853.21
389.4270833	HSS4-1/2X4-1/2X1.4	LF	\$ 26.04	\$	10,140.68
6997.5	18LH03	LF	\$ 15.45	\$	108,111.38
18289.17708	20LH10	LF	\$ 20.90	\$	382,243.80
389.4270833	HSS4-1/2X4-1/2X1.4	LF	\$ 26.04	\$	10,140.68
3792.84937	wall concrete	LF	\$ 127.00	\$	481,691.87
34829.82	deck, B24	SF	\$ 1.40	\$	48,761.75
34829.82	deck, 1.0C24	SF	\$ 142.40	\$	4,959,766.37
732.0024	Concrete forms, stairs, (slant length x width), 2 use, includes shoring, erecting, bracing, stripping and cleaning	SF	\$ 21.07	\$	15,423.29
2	Elevators	Ea	\$ 43,000.00	\$	86,000.00
74559.47	Foam Board Insulation, Polystyrene, expanded, 1" thick, R4	SF	\$ 59,647.58	\$	82,015.42
34829.82	Green roof systems, fluid applied rubber membrane, 215 mil thick, reinforced, not including insulation	SF	\$ 157,779.08	\$	247,988.32
34829.82	Membrane Waterproofing, on walls, felt, 1-ply, mopped	SF	\$ 38,661.10	\$	54,682.82
34829.82	Gypsum wallboard, on ceilings, standard, 1/2" thick, finish excluded	SF	\$ 21,246.19	\$	29,257.05
18639.87	Metal Ductwork, fabricated rectangular, under 100 lb	lb	\$ 352,479.94	\$	509,986.84
1695	Partition walls, interior, 2x4, tapped	SF	\$ 5,763.00	\$	7,983.45
584	Windows, wood, casement, vinyl clad, custom double insulated glass	Ea	\$1,005,064.00	\$	1,121,572.00
68	Ceramic bathroom accessories, average	Ea	\$ 1,227.40	\$	1,523.20
54	Doors, wood, architectural, flush, interior, hollow core, 7 ply, oak face	Ea	\$ 9,558.00	\$	11,556.00
6	Doors & Frames, aluminum, entrance, narrow stile, clear finish, 5'-0"	Ea	\$ 10,440.00	\$	12,960.00
	Subtotal			\$	10,496,028.12
Total O&P	Contingency for estimate at final working drawing stage	Project	3.00%		
Total O&P	Engineering Fees, mechanical (plumbing and HVAC)	Contract	7.10%		
Total O&P	Engineering Fees, electrical	Contract	7.10%		
	Total			\$	12,301,344.95



Questions?

