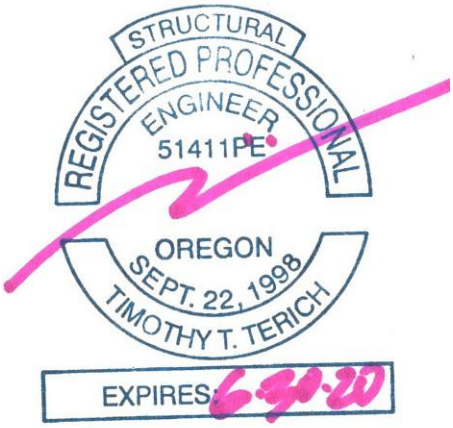
Structural Calculations
For
18s
Permit Revision

Portland, Oregon
Sera Architects

December 11, 2019
Job Number – 18-T066



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MAIN OFFICE
17700 SW Upper Boones Ferry RD.
Suite 115
Portland, Oregon 97224
503-624-7005/503-624-9770 FAX

CENTRAL OREGON
745 N.W. Mt. Washington Drive, Suite 204
Bend, Oregon 97701
541-383-1828

DENVER OFFICE
940 Kimbark St, Suite 3
Longmont, Colorado 80501
720-799-1001

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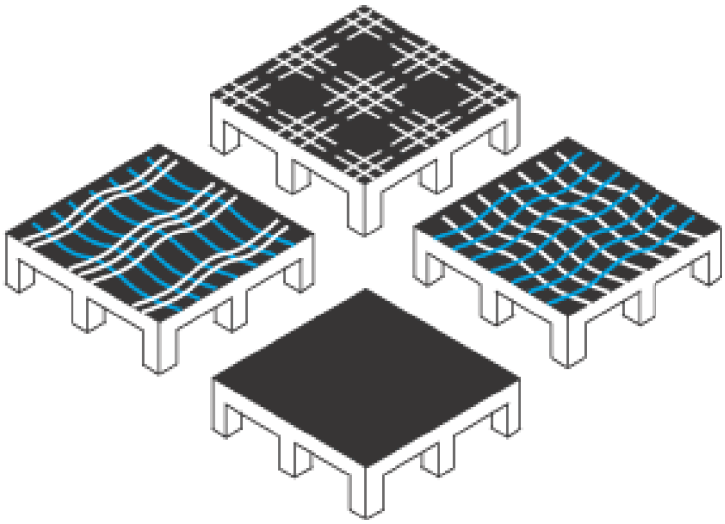
ENGINEERS

Client: SERA
Project: 18S
Project Number: 18-T066
Date: December 11, 2019
By: SPD

Structural Narrative:

Revisions include:
-Shifted south elevator wall.
-The 1st floor concrete slab on grade and 2nd level PT slab step modifications due to owner changes.
-Revised PT plans after coordination with PT supplier
-Additional minor revision though out are to keep the permit drawings up today to reflect RFI changes since the permit was issued.



Level 2.23.cpt
12/11/2019

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Units

Geometry Units

Plan Dimensions: feet
Angles: degrees

Slab Thickness: inches
Elevations: inches

Support Dimensions: inches
Support Height: feet

Loading and Reaction Units

Point Force: Kips
- Report As Zero: 0 Kips

Point Moment: kip-ft
- Report As Zero: 0 kip-ft

Line Force: kips/ft
- Report As Zero: 0 kips/ft

Line Moment: Kips
- Report As Zero: 0 Kips

Area Force: psf
- Report As Zero: 0 psf

Area Moment: #/foot
- Report As Zero: 0 #/foot

Spring and Stiffness Units

Point Force Spring: kips/in
Point Moment Spring: k-ft/°

Line Force Spring: ksi
Line Moment Spring: k/°

Area Force Spring: pci
Area Moment Spring: k/ft°

Slab Analysis Units

Force: Kips
- Report As Zero: 0 Kips

Force Per Width: kips/ft
- Report As Zero: 0 kips/ft

Moment: kip-ft
- Report As Zero: 0 kip-ft

Moment Per Width: Kips
- Report As Zero: 0 Kips

Concrete Stress: psi
- Report As Zero: 0 psi

Deflection: inches
- Report As Zero: 0 inches

Materials Units

Concrete Volume: yd^3
Reinforcement Weight: tons
PT Weight: pounds

Reinforcing Area: in^2
Tendon Profile: inches
Cover: inches

PT Force: Kips
Reinforcing Stress: ksi

Miscellaneous Units

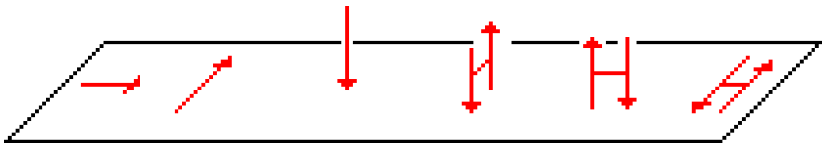
Floor Area: ft^2
Tendon Angles (for friction): radians

Density: pcf

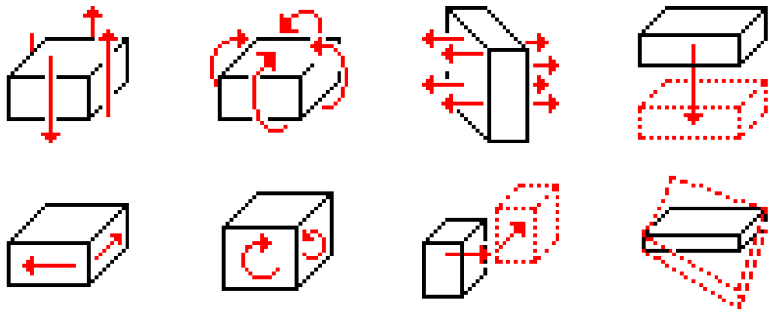
Elongations: inches

Signs

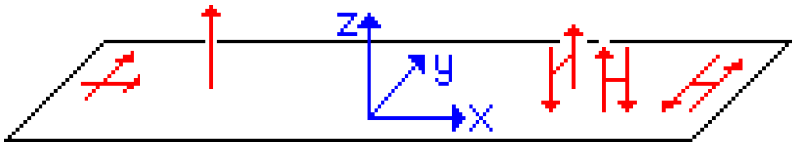
Positive Loads



Positive Analysis



Positive Reactions



Materials

Concrete Mix

Mix Name	Density (pcf)	Density For Loads (pcf)	f'ci (psi)	f'c (psi)	fcui (psi)	fcu (psi)	Poissons Ratio	Ec Calc	User Eci (psi)	User Ec (psi)
3000 psi	150	150	3000	3000	3725	3725	0.2	Code	2500000	3000000
4000 psi	150	150	3000	4000	3725	4975	0.2	Code	2500000	3000000
5000 psi	150	150	3000	5000	3725	6399	0.2	Code	2500000	3000000
6000 psi	150	150	3000	6000	3725	7450	0.2	Code	2500000	3000000

PT Systems

System Name	Type	Aps (in²)	Eps (ksi)	fse (ksi)	fpy (ksi)	fpu (ksi)	Duct Width (inches)	Strands Per Duct	Min Radius (feet)
½" Unbonded	unbonded	0.153	28000	175	243	270	0.5	1	6
½" Bonded	bonded	0.153	28000	160	243	270	3	4	6
0.6" Unbonded	unbonded	0.217	28000	175	243	270	0.6	1	8
0.6" Bonded	bonded	0.217	28000	160	243	270	4	4	8

PT Stressing Parameters

System Name	Jacking Stress (ksi)	Seating Loss (inches)	Anchor Friction	Wobble Friction (1/feet)	Angular Friction (1/radians)	Long-Term Losses (ksi)
½" Unbonded	216	0.25	0	0.0014	0.07	22
½" Bonded	216	0.25	0.02	0.001	0.2	22
0.6" Unbonded	216	0.25	0	0.0014	0.07	22
0.6" Bonded	216	0.25	0.02	0.001	0.2	22

Reinforcing Bars

Bar Name	As (in²)	Es (ksi)	Fy (ksi)	Coating	Straight Ld/Db	90 Hook Ld/Db	180 Hook Ld/Db
#3	0.11	29000	60	None	Code	Code	Code
#4	0.2	29000	60	None	Code	Code	Code
#5	0.31	29000	60	None	Code	Code	Code
#6	0.44	29000	60	None	Code	Code	Code
#7	0.6	29000	60	None	Code	Code	Code
#8	0.79	29000	60	None	Code	Code	Code
#9	1	29000	60	None	Code	Code	Code
#10	1.27	29000	60	None	Code	Code	Code
#11	1.56	29000	60	None	Code	Code	Code

Materials (2)

SSR Systems

SSR System Name	*Stud Area (in²)*	*Head Area (in²)*	*Min Clear Head Spacing (inches)*	*Specified Stud Spacing (inches)*	*Fy (ksi)*	*Stud Spacing Rounding Increment (inches)*	*Min Studs Per Rail*	*System Type*
3/8" SSR	0.11	1.11	0.5	None	50	0.25	2	Rail
1/2" SSR	0.196	1.96	0.5	None	50	0.25	2	Rail
5/8" SSR	0.307	3.07	0.5	None	50	0.25	2	Rail
3/4" SSR	0.442	4.42	0.5	None	50	0.25	2	Rail
Ancon Shearfix Auto-Size	0.1217	1.096	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 10 mm	0.1217	1.096	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 12 mm	0.1753	1.578	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 14 mm	0.2386	2.147	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 16 mm	0.3116	2.805	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 20 mm	0.4869	4.383	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 24 mm	0.7012	6.311	0.5906	None	72.52	0.03937	2	Rail

Loadings

Loading Name	*Type*	*Analysis*	*On-Pattern Factor*	*Off-Pattern Factor*
Self-Dead Loading	Self-Weight	Normal	1	1
Balance Loading	Balance	Normal	1	1
Hyperstatic Loading	Hyperstatic	Hyperstatic	1	1
Temporary Construction (At Stressing) Loading	Stressing Dead	Normal	1	1
Other Dead Loading	Dead	Normal	1	1
Live (Reducible) Loading	Live (Reducible)	Normal	1	0
Live (Unreducible) Loading	Live (Unreducible)	Normal	1	0
Live (Storage) Loading	Live (Storage)	Normal	1	0
Live (Parking) Loading	Live (Parking)	Normal	1	0
Live (Roof) Loading	Live (Roof)	Normal	1	0
Snow Loading	Snow	Normal	1	1
Seismic E/W	Ultimate Seismic 1 (transfer)	Normal	1	0
Seismic N/S	Ultimate Seismic 1 (transfer)	Normal	1	0

Load Combinations

All Dead LC

Active Design Criteria: <none>
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Other Dead Loading	1	1

Dead + Balance LC

Active Design Criteria: <none>
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1

Initial Service LC

Active Design Criteria: Initial Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1.13	1.13
Temporary Construction (At Stressing) Loading	1	1

Service LC: D + L

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	1	0
Live (Unreducible) Loading	1	0
Live (Storage) Loading	1	0
Live (Parking) Loading	1	0

Service LC: D + Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Roof) Loading	1	0

Load Combinations (2)

Service LC: D + S

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Snow Loading	1	0

Service LC: D + 0.75L + 0.75Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	0.75	0
Live (Unreducible) Loading	0.75	0
Live (Storage) Loading	0.75	0
Live (Parking) Loading	0.75	0
Live (Roof) Loading	0.75	0

Service LC: D + 0.75L + 0.75S

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	0.75	0
Live (Unreducible) Loading	0.75	0
Live (Storage) Loading	0.75	0
Live (Parking) Loading	0.75	0
Snow Loading	0.75	0

Sustained Service LC

Active Design Criteria: Sustained Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	0.5	0.5
Live (Unreducible) Loading	0.5	0.5
Live (Storage) Loading	1	1
Live (Parking) Loading	0.5	0.5
Live (Roof) Loading	0.5	0.5

Load Combinations (3)

Factored LC: 1.4D

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.4	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.4	0.9

Factored LC: 1.2D + 1.6L + 0.5Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	1.6	0
Live (Unreducible) Loading	1.6	0
Live (Storage) Loading	1.6	0
Live (Parking) Loading	1.6	0
Live (Roof) Loading	0.5	0

Factored LC: 1.2D + f1L + 1.6Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	0.5	0
Live (Unreducible) Loading	1	0
Live (Storage) Loading	1	0
Live (Parking) Loading	1	0
Live (Roof) Loading	1.6	0

Factored LC: 1.2D + 1.6L + 0.5S

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	1.6	0
Live (Unreducible) Loading	1.6	0
Live (Storage) Loading	1.6	0
Live (Parking) Loading	1.6	0
Snow Loading	0.5	0

Load Combinations (4)

Factored LC: 1.2D + f1L + 1.6S

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	0.5	0
Live (Unreducible) Loading	1	0
Live (Storage) Loading	1	0
Live (Parking) Loading	1	0
Snow Loading	1.6	0

Long Term deflection

Active Design Criteria: <none>
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	3.35	3.35
Balance Loading	3.35	3.35
Other Dead Loading	3.35	3.35
Live (Unreducible) Loading	2	2
Snow Loading	1	1

Earthquake N-S: (1.2+.2*Sds)D + 2.5E + 0.5L+0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic N/S	2.5	2.5

Earthquake N-S: (0.9-0.2*Sds)D + 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic N/S	2.5	2.5

Load Combinations (5)

Earthquake E-W: (1.2+0.2*Sds)D + 2.5E + 0.5L+0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic E/W	2.5	2.5

Earthquake E-W: (0.9-0.2*Sds)D + 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic E/W	2.5	2.5

Earthquake N-S: (1.0+0.14*Sds)D + 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.101	1.101
Balance Loading	1	1
Other Dead Loading	1.101	1.101
Seismic N/S	1.75	1.75

Earthquake N-S: (1.0+0.105*Sds)D + 1.3125E + 0.75L + 0.75S

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.076	1.076
Balance Loading	1	1
Other Dead Loading	1.076	1.076
Live (Unreducible) Loading	0.75	0.75
Snow Loading	0.75	0.75
Seismic N/S	1.313	1.313

Load Combinations (6)

Earthquake N-S: (0.6-0.14*Sds)D + 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.499	0.499
Balance Loading	1	1
Other Dead Loading	0.899	0.899
Seismic N/S	1.75	1.75

Earthquake E-W: (1.0+0.14*Sds)D + 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.101	1.101
Balance Loading	1	1
Other Dead Loading	1.101	1.101
Seismic E/W	1.75	1.75

Earthquake E-W: (1.0+0.105*Sds)D + 1.3125E + 0.75L+0.75S

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.076	1.076
Balance Loading	1	1
Other Dead Loading	1.076	1.076
Live (Unreducible) Loading	0.75	0.75
Snow Loading	0.75	0.75
Seismic E/W	1.313	1.313

Earthquake N-S: (1.2+0.2*Sds)D - 2.5E + .5L + 0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic N/S	-2.5	-2.5

Load Combinations (7)

Earthquake N-S: (0.9-0.2*Sds)D - 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic N/S	-2.5	-2.5

Earthquake E-W: (1.2+0.2*Sds)D - 2.5E + .5L + 0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic E/W	-2.5	-2.5

Earthquake E-W: (0.9-0.2*Sds)D - 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic E/W	-2.5	-2.5

Earthquake N-S: (1.0+0.14*Sds)D - 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.101	1.101
Balance Loading	1	1
Other Dead Loading	1.101	1.101
Seismic N/S	-1.75	-1.75

Load Combinations (8)

Earthquake N-S: (1.0+0.105*Sds)D - 1.3125E + 0.75L+.75S

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.076	1.076
Balance Loading	1	1
Other Dead Loading	1.076	1.076
Live (Unreducible) Loading	0.75	0.75
Snow Loading	0.75	0.75
Seismic N/S	-1.313	-1.313

Earthquake N-S: (0.6-0.14*Sds)D - 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.499	0.499
Balance Loading	1	1
Other Dead Loading	0.899	0.899
Seismic N/S	-1.75	-1.75

Earthquake E-W: (1.0+0.14*Sds)D - 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.101	1.101
Balance Loading	1	1
Other Dead Loading	1.101	1.101
Seismic E/W	-1.75	-1.75

Earthquake E-W: (0.6-0.14*Sds)D + 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.499	0.499
Balance Loading	1	1
Other Dead Loading	0.899	0.899
Seismic E/W	1.75	1.75

Earthquake E-W: (0.6-0.14*Sds)D - 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.499	0.499
Balance Loading	1	1
Other Dead Loading	0.899	0.899
Seismic E/W	-1.75	-1.75

Load Combinations (9)

Earthquake E-W: (1.0+0.105*Sds)D - 1.3125E + 0.75L + 0.75S

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.076	1.076
Balance Loading	1	1
Other Dead Loading	1.076	1.076
Live (Unreducible) Loading	0.75	0.75
Snow Loading	0.75	0.75
Seismic E/W	-1.313	-1.313

Design Rules

Code Minimum Desig

318-11 Min. Reinforcement

User Minimum Desig

Specified Min. Reinforcement

Initial Service Desig

318-11 Initial Service Design

Service Design

318-11 Service Design
Include detailed section analysis

Sustained Service Desig

318-11 Sustained Service Design

Strength Design

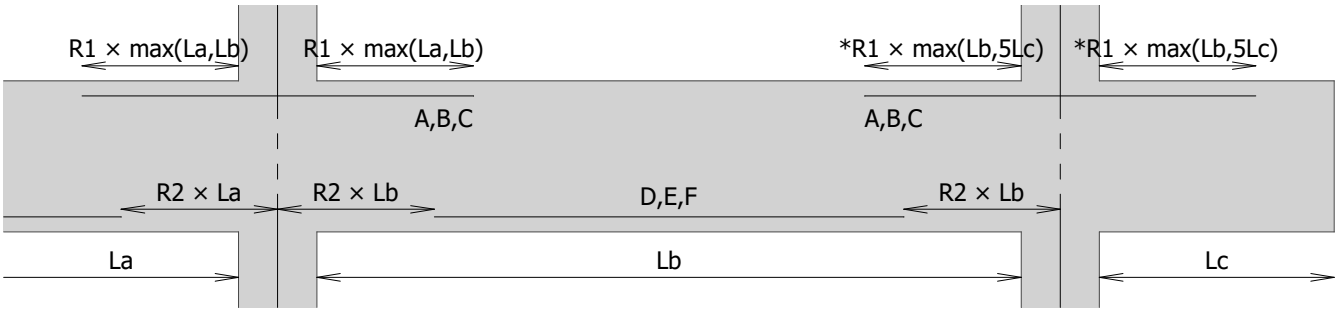
318-11 Strength Design
Punching Shear Design

Ductility Desig

318-11 Ductility Design

Detailing Rules

Custom Span Detailing Rules



Rule Name	*A Fraction*	*A R1*	*B Fraction*	*B R1*	*C Fraction*	*C R1*	*D Fraction*	*D R2*	*E Fraction*	*E R2*	*F Fraction*	*F R2*
None	0	0	0	0	0	0	0	0	0	0	0	0

"A", "B" and "C", are support reinforcement sets, based on the peak reinforcement in the support zone.
"D", "E" and "F", are span reinforcement sets, based on the peak reinforcement in the span zone.
"*R1" is never taken as greater than 0.2 when multiplied by Lc (or Lcc).
"Fraction" is the ratio of set reinforcement to peak reinforcement. It is always in the 0.0 to 1.0 range.

Load History

Load History Step Name	*Load Combination*	*Duration (days)*	*Total Age (days)*
Maximum Short Term Load	Service LC: D + L	30	33
Sustained Load	Sustained Service LC	5000	5033
Final Instantaneous Load	Service LC: D + L	0	5033

Mesh Input: Walls Below Table

Number	*Location feet*	*Mix*	*Fixed Near*	*Fixed Far*	*Comp.*	*Height feet*	*Thickness inches*
1	(-163.8,-2)(-192.2,-2.005)	5000 psi	false	false	true	11.5	4
2	(-161.7,-94.62)(-161.7,-52.04)	5000 psi	false	false	true	11	16
3	(-158.1,-74.12)(-158.1,-52.01)	5000 psi	false	false	true	11	16
4	(-139.7,-83.12)(-162.3,-53.03)	5000 psi	false	false	true	11	12
5	(-139.7,-94.11)(-162.3,-54.03)	5000 psi	false	false	true	11	12
6	(-136.1,-62.61)(-158.8,-52.07)	5000 psi	false	false	true	11	12
7	(-140.3,-94.58)(-140.3,-52.06)	5000 psi	false	false	true	11	16
8	(-136.8,-74.05)(-136.8,-52.02)	5000 psi	false	false	true	11	16
9	(-56.8,-65.35)(-56.84,-75.04)	5000 psi	false	false	true	11	16
10	(-27.39,-1.995)(-27.39,-5.104)	5000 psi	false	false	true	11.5	16
11	(-0.6634,-1.994)(-28.145,-1.995)	5000 psi	false	false	true	11.5	4

Mesh Input: Walls Below Table (2)

ess

Shear Wall	*Use Spec LLR Params*	*Spec. LLR Levels*	*Spec. Trib. Area ft²*	*Spec. Infl. Area ft²*	*Max LLR %*
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40

Mesh Input: Columns Below Table

Number	*Location feet*	*Mix*	*Fixed Near*	*Fixed Far*	*Comp.*	*Height feet*	*B inches*	*D inches*
1	(-200.6,-89.05)	5000 psi	true	true	true	11.5	24	18
2	(-198,-65.18)	5000 psi	true	true	true	11.5	24	18
3	(-195.5,-41.31)	5000 psi	true	true	true	11.5	24	18
4	(-193,-17.44)	5000 psi	true	true	true	11.5	24	18
5	(-181.4,-44.55)	5000 psi	true	true	true	11.5	24	18
6	(-177,-67.39)	5000 psi	true	true	true	11.5	24	18
7	(-176.8,-92.28)	5000 psi	true	true	true	11.5	24	18
8	(-164.9,-47.89)	5000 psi	true	true	true	11.5	24	18
9	(-164.6,-22.53)	5000 psi	true	true	true	11.5	24	18
10	(-145.3,-22.83)	5000 psi	true	true	true	11.5	24	18
11	(-138.3,-51.38)	5000 psi	true	true	true	11.5	24	18
12	(-120.6,-101.9)	5000 psi	true	true	true	11.5	24	18
13	(-118.9,-75.16)	5000 psi	true	true	true	11.5	24	18
14	(-118.4,-52.35)	5000 psi	true	true	true	11.5	18	24
15	(-118.3,-22.84)	5000 psi	true	true	true	11.5	24	18
16	(-109.7,-60.83)	5000 psi	true	true	true	11.5	24	18
17	(-99.8,-22.83)	5000 psi	true	true	true	11.5	24	18
18	(-94.99,-75.16)	5000 psi	true	true	true	11.5	24	18
19	(-94.55,-101.9)	5000 psi	true	true	true	11.5	24	18
20	(-87.38,-47.22)	5000 psi	true	true	true	11.5	24	18
21	(-85.98,-66.03)	5000 psi	true	true	true	11.5	24	18
22	(-72.8,-22.83)	5000 psi	true	true	true	11.5	24	18
23	(-71.38,-109.1)	5000 psi	true	true	true	11.5	18	24
24	(-70.75,-75.58)	5000 psi	true	true	true	11.5	24	18
25	(-67.92,-66.08)	5000 psi	true	true	true	11.5	24	18
26	(-65.26,-94)	5000 psi	true	true	true	11.5	24	18
27	(-60.2,-44.83)	5000 psi	true	true	true	11.5	24	18
28	(-45.78,-22.84)	5000 psi	true	true	true	11.5	24	18
29	(-41.7,-44.83)	5000 psi	true	true	true	11.5	24	18
30	(-19.85,-17.33)	5000 psi	true	true	true	11.5	24	18
31	(-14.45,-46.55)	5000 psi	true	true	true	11.5	24	18
32	(-5.378,-16.83)	5000 psi	true	true	true	11.5	24	18

Mesh Input: Columns Below Table (2)

Angle degrees	*Roller*	*I Factor*	*Use Spec LLR Params*	*Spec. LLR Levels*	*Spec. Trib. Area ft²*	*Spec. Infl. Area ft²*
84	false	1	false	1	0	0
84	false	1	false	1	0	0
84	false	1	false	1	0	0
84	false	1	false	1	0	0
-6	false	1	false	1	0	0
84	false	1	false	1	0	0
-6	false	1	false	1	0	0
84	false	1	false	1	0	0
90	false	1	false	1	0	0
90	false	1	false	1	0	0
90	false	1	false	1	0	0
90	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
90	false	1	false	1	0	0
90	false	1	false	1	0	0
90	false	1	false	1	0	0
0	false	1	false	1	0	0
90	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
90	false	1	false	1	0	0
22	false	1	false	1	0	0
90	false	1	false	1	0	0
0	false	1	false	1	0	0
90	false	1	false	1	0	0
90	false	1	false	1	0	0
90	false	1	false	1	0	0
90	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0

Mesh Input: Columns Below Table (3)

Infl. Area	*Max LLR* *%*
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40

Mesh Input: Slab Areas Table

Number	*Location feet*	*Mix*	*Thickness inches*	*TOC inches*	*Priority*	*Behavior*	*R-Axis degrees*
1	(-136.4,-53.48)(-136.4,-50.49)(-140.4,-49.49)(-140.4,-53.48)	5000 psi	10	0	2	two-way slab	0
2	(-192.6,-1.5)(-163.8,-1.501)(-163.8,-21.83)(-28.14,-21.83)(-28.14,-1.253)(-0.2917,-1.253)(-0.2917,-5.644)(-2.458,-5.644)(-2.458	5000 psi	18	0	2	two-way slab	0
3	(-116.5,-54.46)(-116.5,-50.47)(-120.5,-50.47)(-120.5,-54.46)	5000 psi	10	0	2	two-way slab	0
4	(-76.04,-102.9)(-84.79,-101.9)(-139.7,-88.1)(-139.7,-94.58)(-139.7,-95.23)(-136.5,-102.9)(-130.2,-102.9)	5000 psi	13	0	2	two-way slab	0
5	(-86.31,-49.22)(-86.31,-50.23)(-90.29,-45.23)(-90.29,-49.22)	5000 psi	10	0	2	two-way slab	0

Mesh Input: Slab Areas Table (2)

s	KMr	KMs	KMrs	KFr	KFs
	1	1	1	1	1
	1	1	1	1	1
	1	1	1	1	1
	1	1	1	1	1
	1	1	1	1	1

Mesh Input: Slab Areas Table (3)

KVrs
1
1
1
1
1

Mesh Input: Beams Table

Number	*Location feet*	*Mix*	*Thickness inches*	*TOC inches*	*Priority*	*Mesh As Slab*	*Width inches*
1	(-141.7,-82.62)(-141.7,-77.09)(-143.7,-82.62)(-143.7,-77.09)	5000 psi	11	3	3	false	48
2	(-139.7,-79.1)(-81.13,-79.1)(-139.7,-77.1)(-81.13,-77.1)(-139.7,-81.1)(-81.13,-81.1)	5000 psi	11	5	5	false	48
3	(-74.18,-102.2)(-83,-80.2)(-76.04,-102.9)(-84.86,-80.96)(-72.33,-101.54)(-81.15,-79.46)	5000 psi	19	4	4	false	48
4	(-100.6,-22.83)(-45.03,-22.84)(-100.6,-23.83)(-45.03,-23.84)	5000 psi	28	4	4	true	24
5	(-45.05,-22.84)(-28.1,-22.84)(-45.05,-22.84)(-28.1,-21.84)(-45.05,-23.84)(-28.1,-23.84)	5000 psi	26	4	4	true	24
6	(-14.45,-47.3)(-14.45,-20.01)(-15.45,-47.3)(-15.45,-20.01)	5000 psi	37	28	28	false	24
7	(-14.45,-20.01)(-14.45,-16.01)(-15.45,-20.01)(-15.45,-16.01)	5000 psi	20	28	28	true	24
8	(-28.14,-18.02)(0,-18)(-28.14,-16.02)(-0.0001312,-16)(-28.14,-20.02)(0.0001312,-20)	5000 psi	12	6	6	true	48

Mesh Input: Beams Table (2)

Width inches	Behavior	KMr	KMs	KMrs	KFr	KFs
	no-torsion two-way slab	1	1	0.001	1	1
	no-torsion two-way slab	1	1	0.001	1	1
	no-torsion two-way slab	1	1	0.001	1	1
	no-torsion two-way slab	1	1	0.001	1	1
	no-torsion two-way slab	1	1	0.001	1	1
	no-torsion two-way slab	1	1	0.001	1	1
	no-torsion two-way slab	1	1	0.001	1	1
	no-torsion two-way slab	1	1	0.001	1	1

Mesh Input: Beams Table (3)

KVrs
1
1
1
1
1
1
1
1

Mesh Input: Standard Plan

Mesh Input: Beams; Beam Dimensions; Beam Priorities; Slab Areas; Slab AreaT hicknesses; Slab Area Elevations; Slab Openings; Point Supports; Point Support Icons; Line Supports; Line Support Icons; Walls Above; Walls Below; Wall Thicknesses; Columns Above; Columns Bel
Drawing Import: User Notes; User Lines; User Dimensions; S-BEAM; S-FNDN; S-DETL-CONC; S-ANNO-SYMB; A-GENM; S-GRID; S-COLS; S-GRID-IDEN; A-DETL; S-ANNO-CUTL; 0; A-DETL-MBND; G-ANNO-SYMB; S-COLS-SYMB; 1803002_A_18S_VE_UPDATE_R17_rvt-1-PT Floor P
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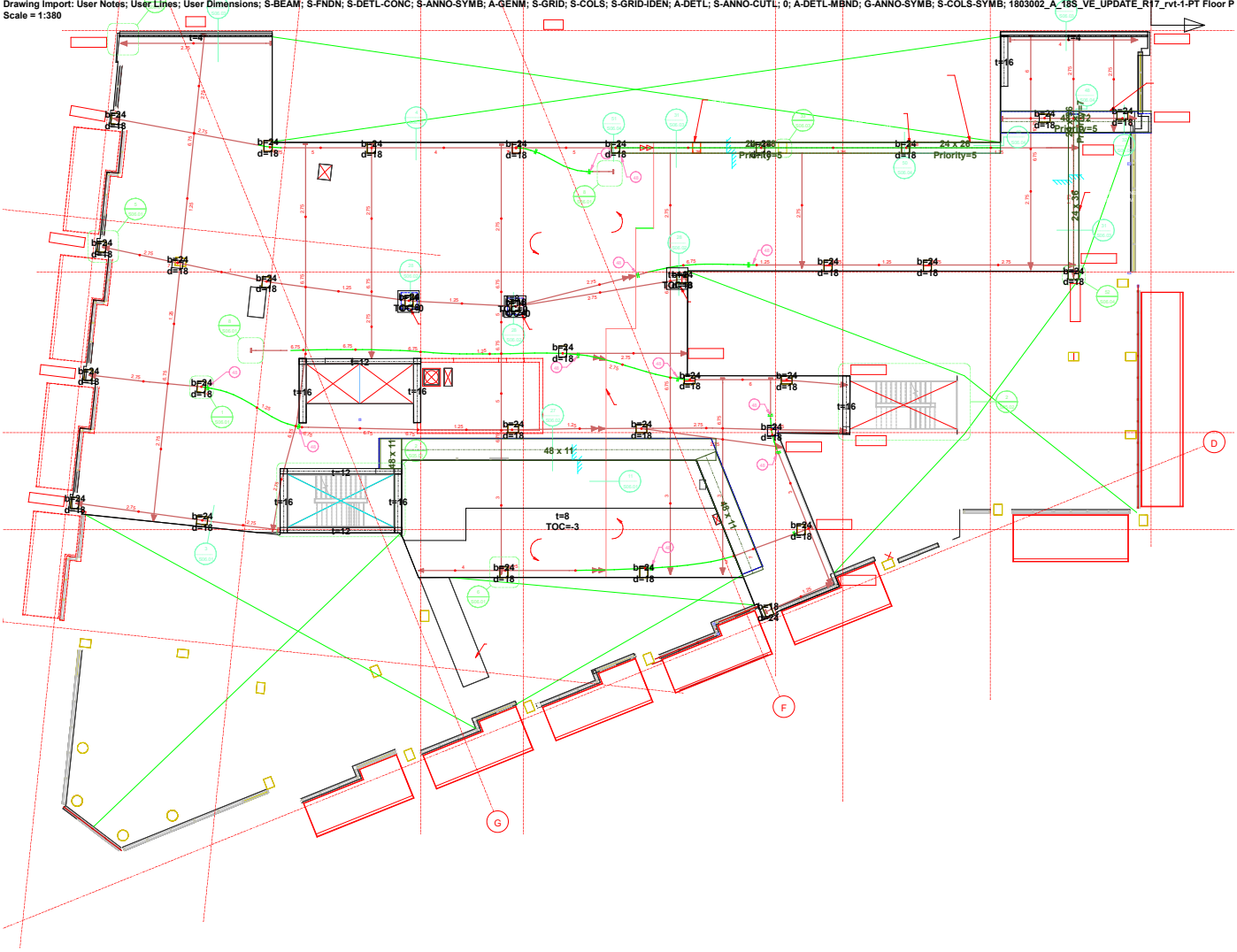

Other Dead Loading: Point Loads Plan

Other Dead Loading: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
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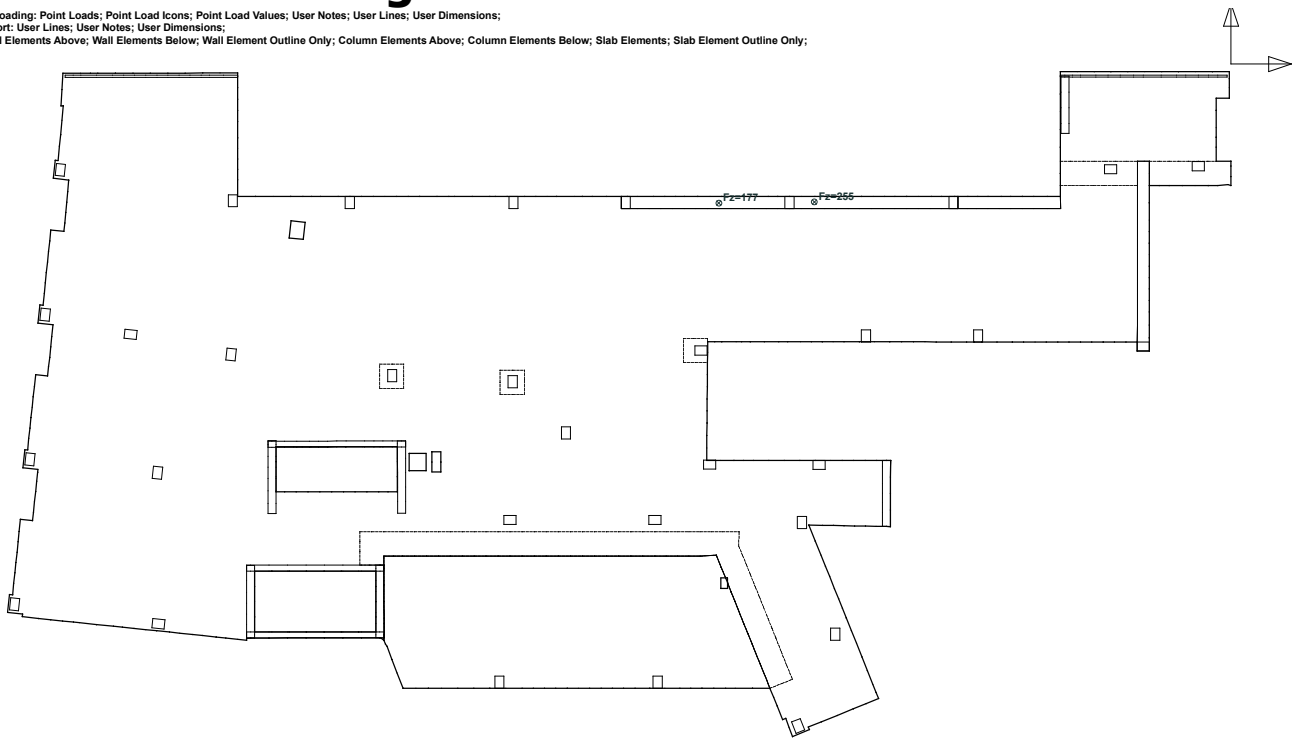
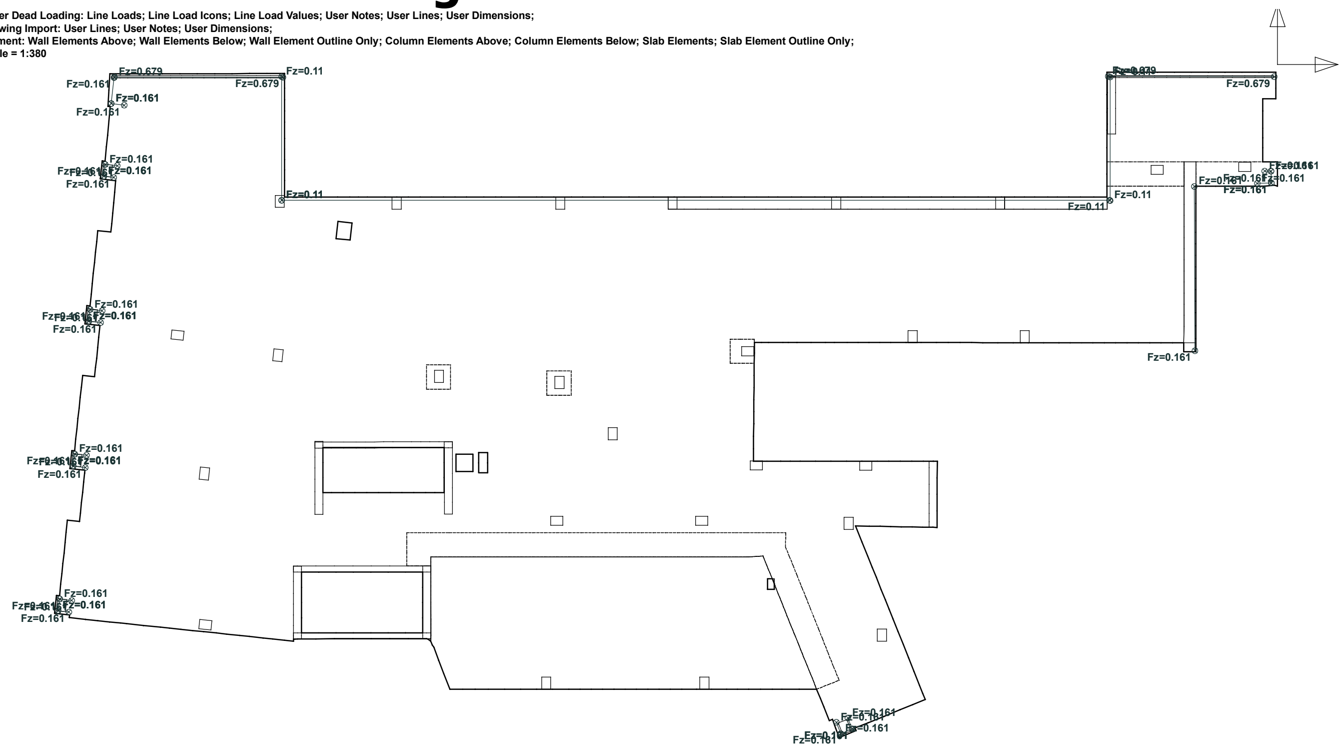


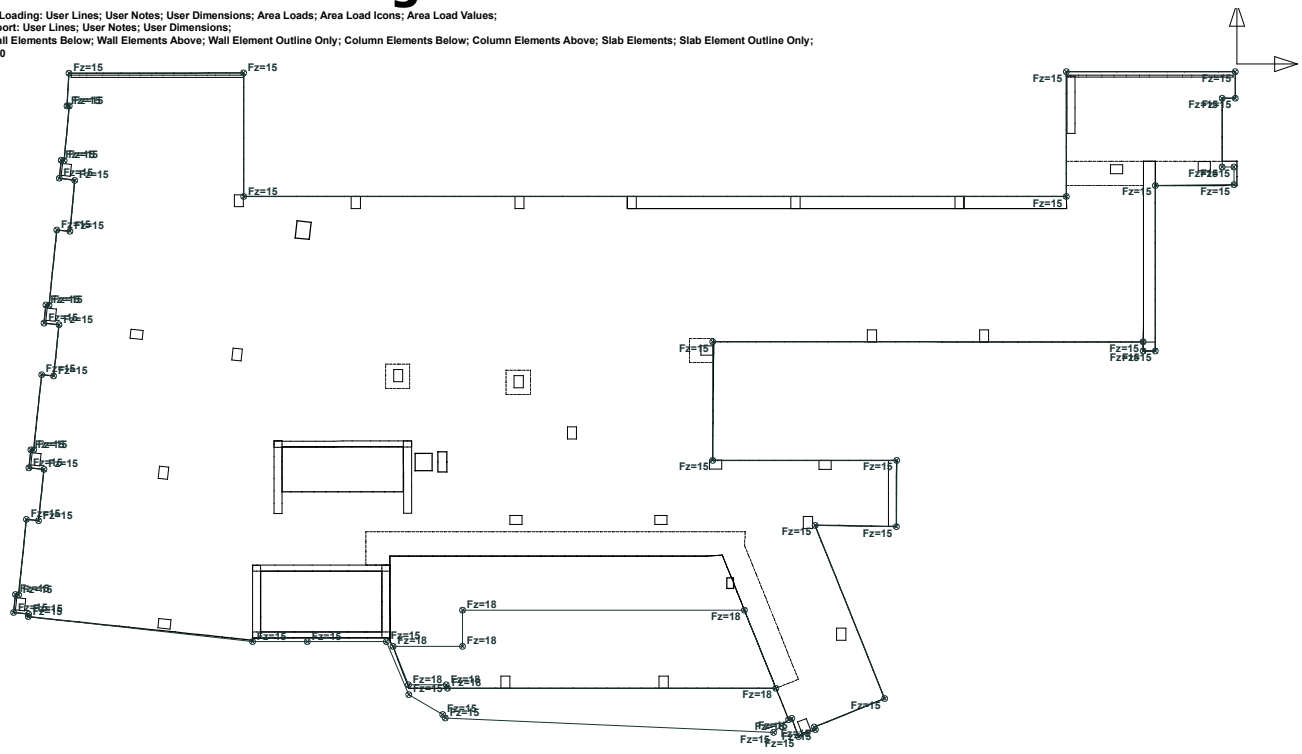
Other Dead Loading: Line Loads Plan

Other Dead Loading: Line Loads; Line Load Icons; Line Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



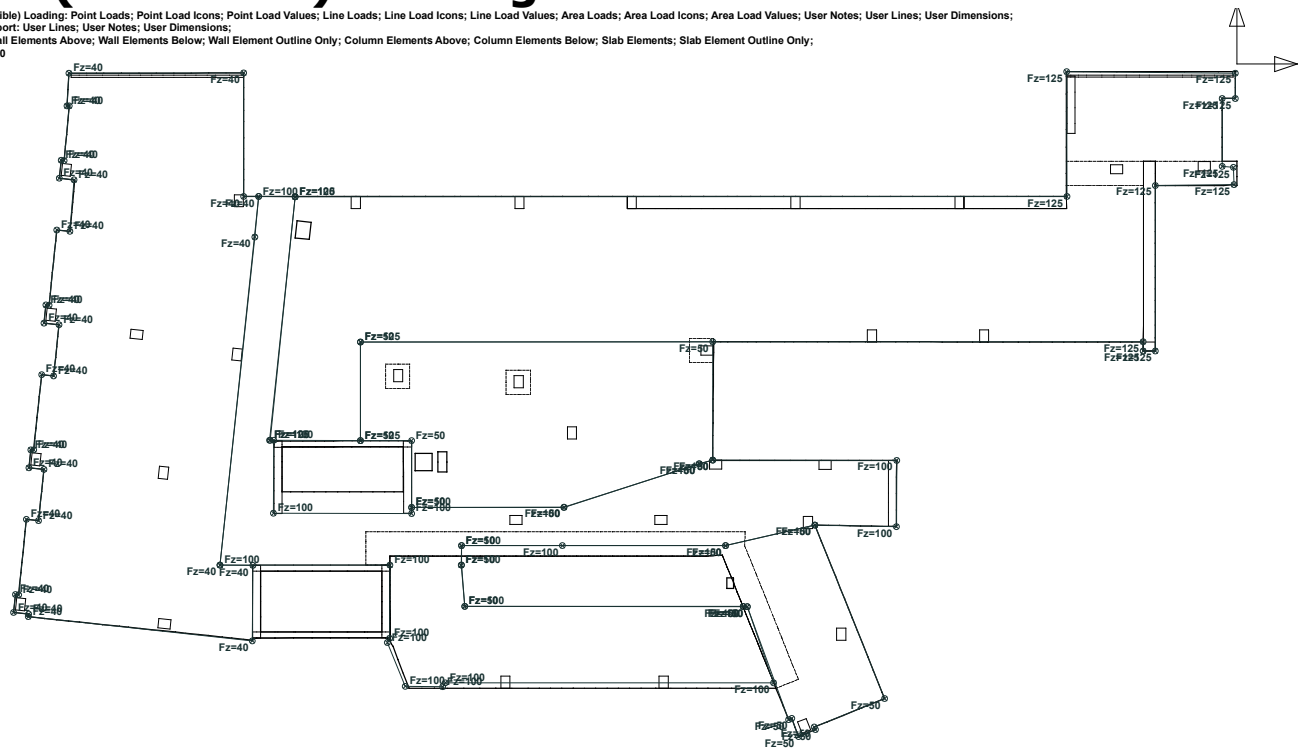
Other Dead Loading: Area Loads Plan

Other Dead Loading: User Lines; User Notes; User Dimensions; Area Loads; Area Load Icons; Area Load Values;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



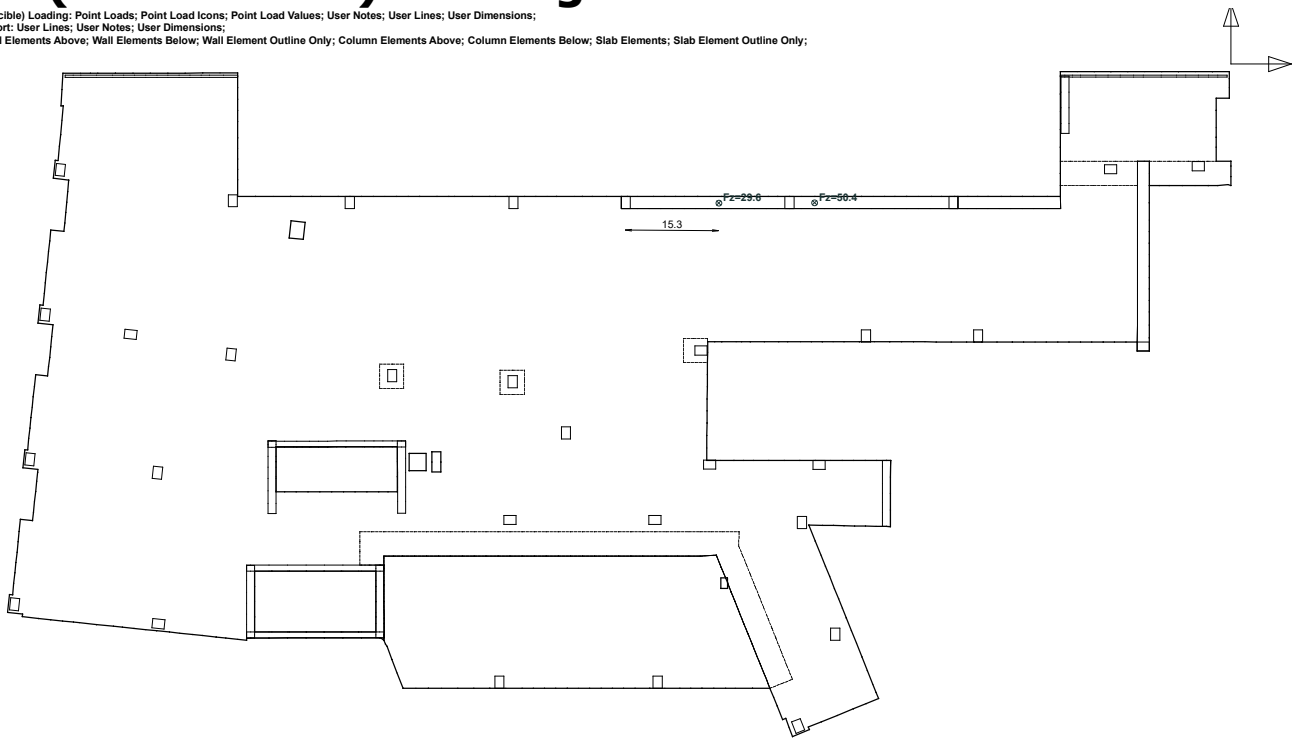
Live (Reducible) Loading: All Loads Plan

Live (Reducible) Loading: Point Loads; Point Load Icons; Point Load Values; Line Loads; Line Load Icons; Line Load Values; Area Loads; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



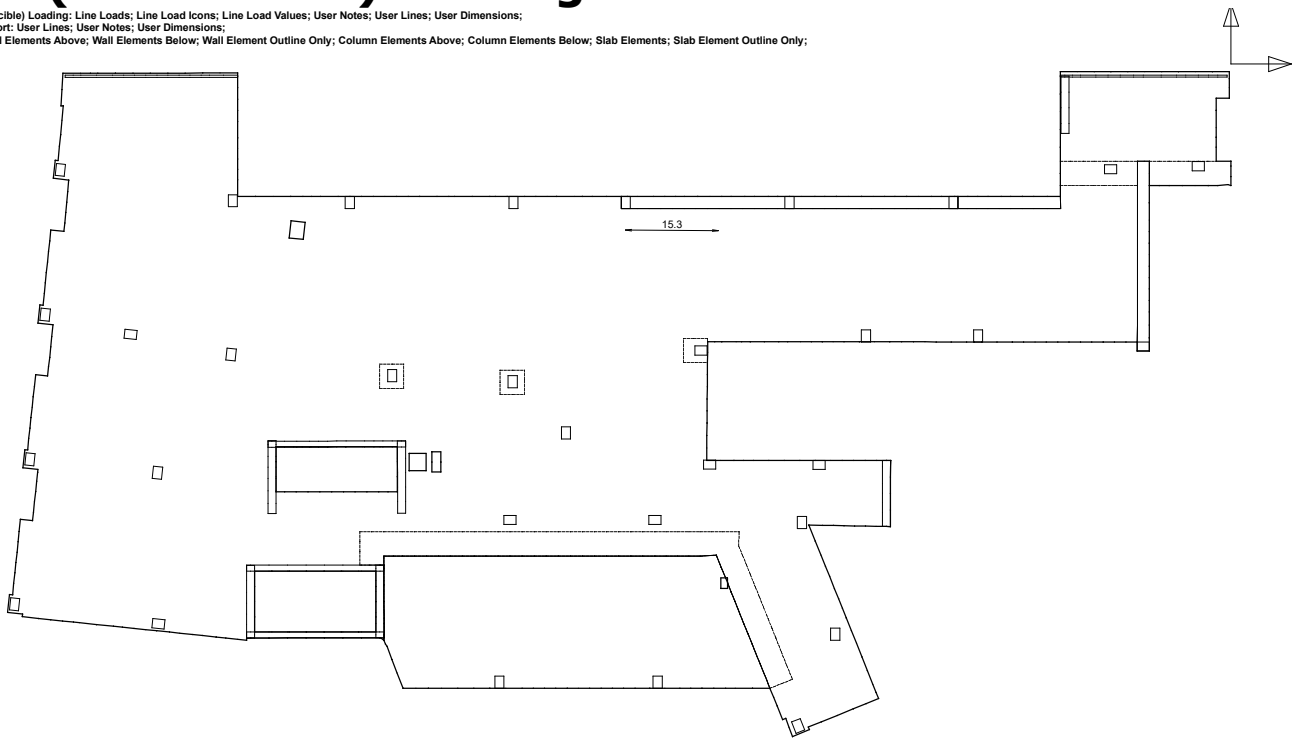
Live (Unreducible) Loading: Point Loads Plan

Live (Unreducible) Loading: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Live (Unreducible) Loading: Line Loads Plan

Live (Unreducible) Loading: Line Loads; Line Load Icons; Line Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Live (Unreducible) Loading: Area Loads Plan

Live (Unreducible) Loading: User Lines; User Notes; User Dimensions; Area Loads; Area Load Icons; Area Load Values;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
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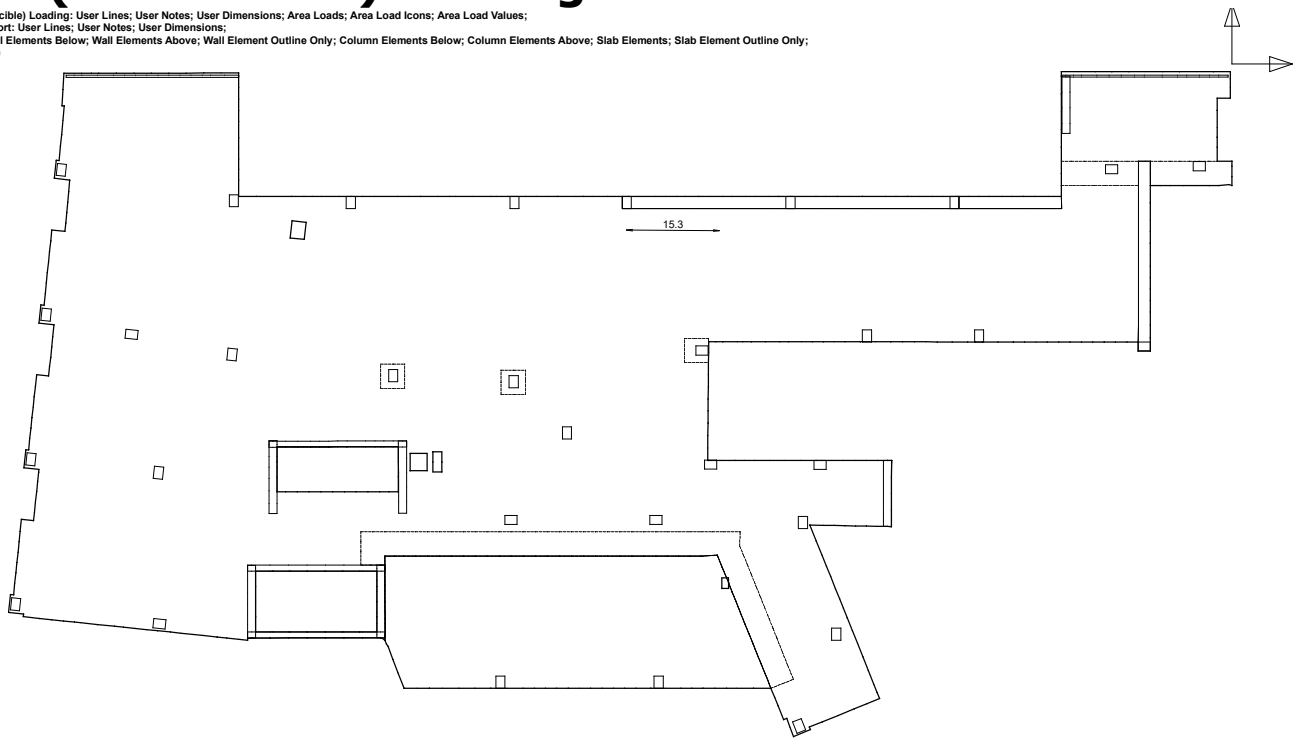

Live (Unreducible) Loading: Std Reactions Plan

Live (Unreducible) Loading: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
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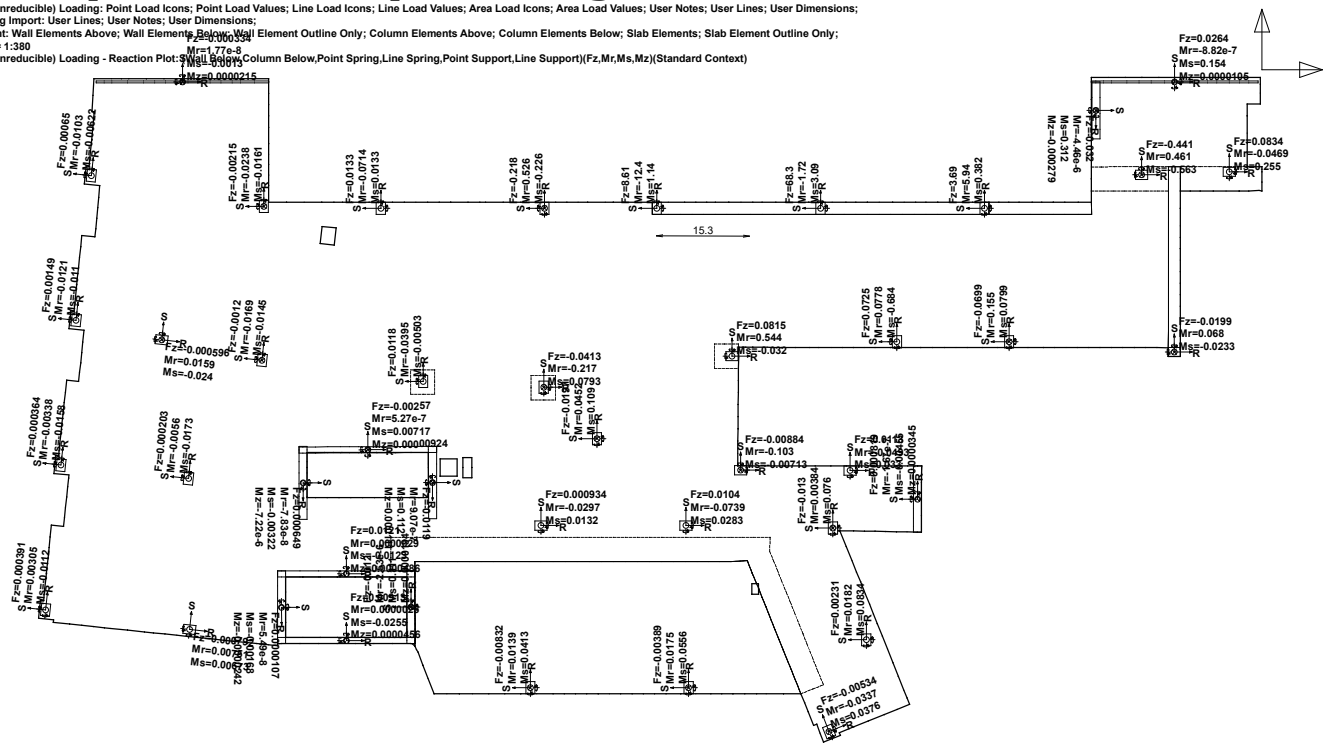
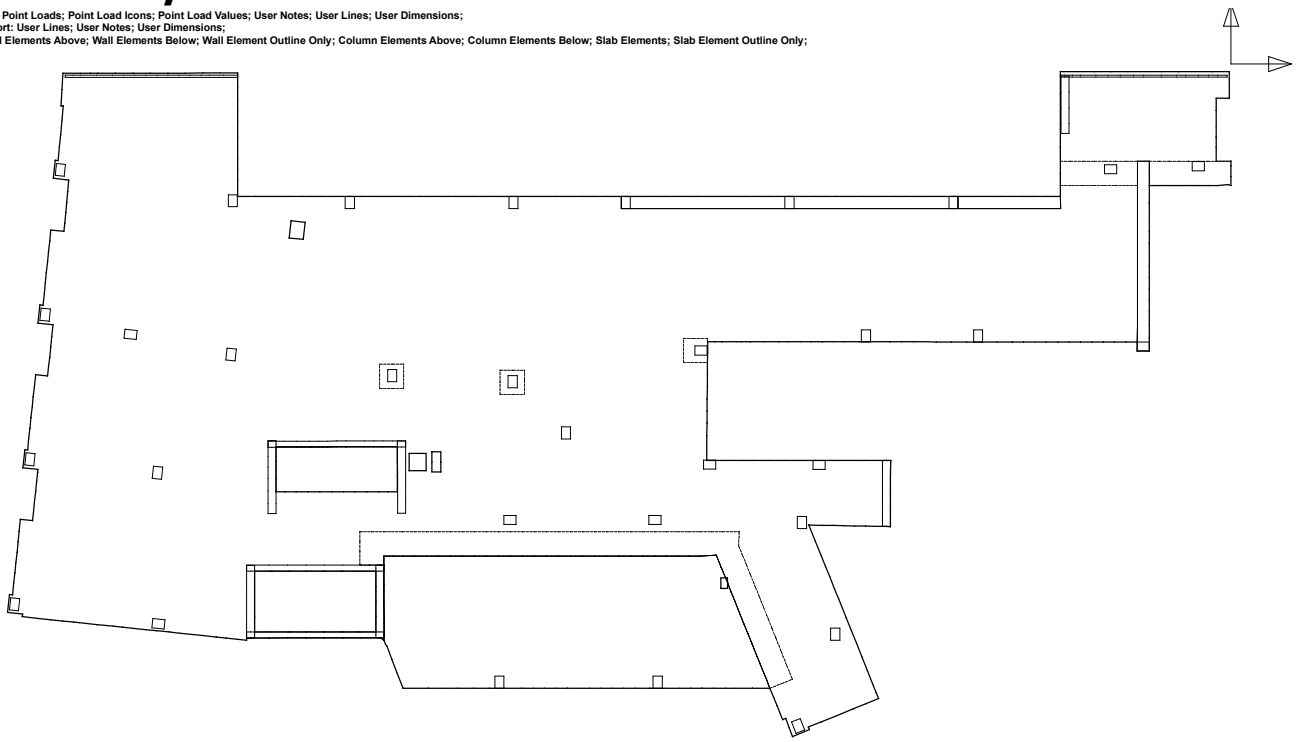
Live (Unreducible) Loading - Reaction Plot:Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support)(Fz,Mr,Ms,Mz)(Standard Context)



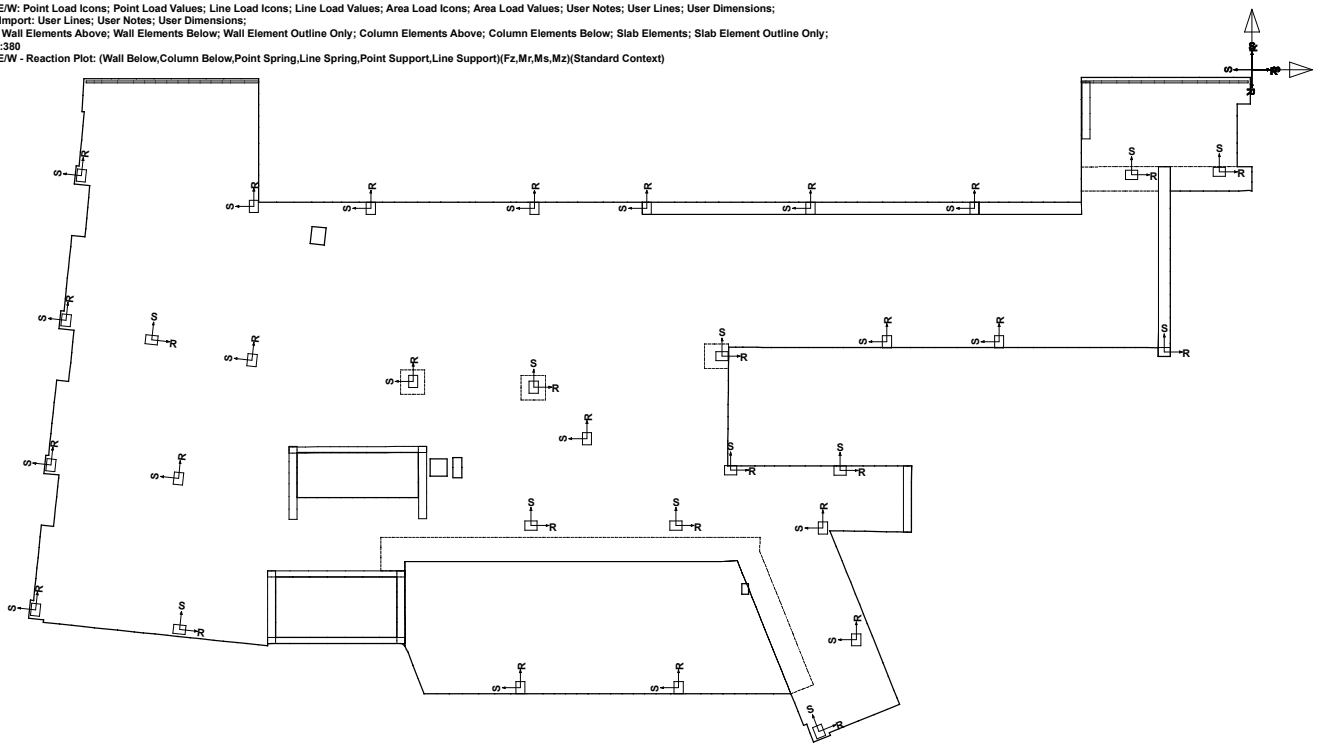
Seismic E/W: Point Loads Plan

Seismic E/W: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



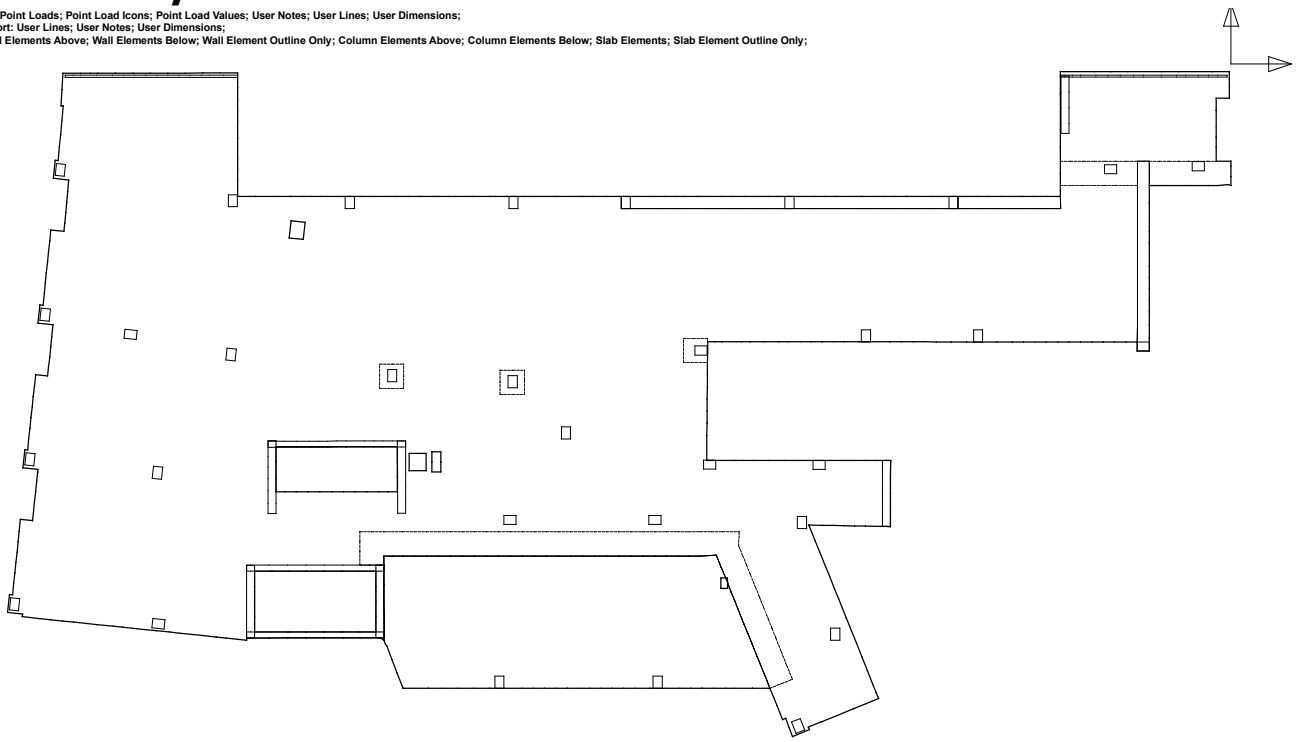
Seismic E/W: Std Reactions Plan

Seismic E/W: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Seismic E/W - Reaction Plot: (Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support)(Fz,Mr,Ms,Mz)(Standard Context)



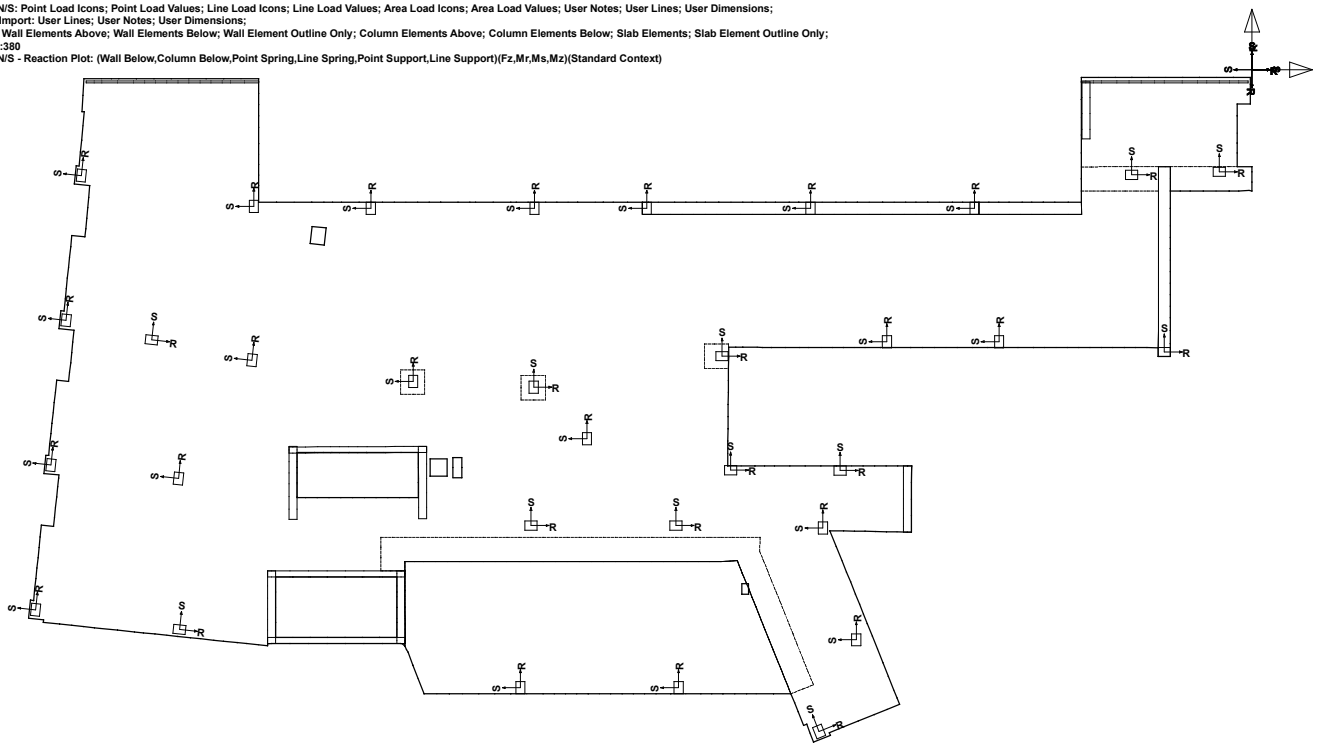
Seismic N/S: Point Loads Plan

Seismic N/S: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Seismic N/S: Std Reactions Plan

Seismic N/S: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Seismic N/S - Reaction Plot: (Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support)(Fz,Mr,Ms,Mz)(Standard Context)

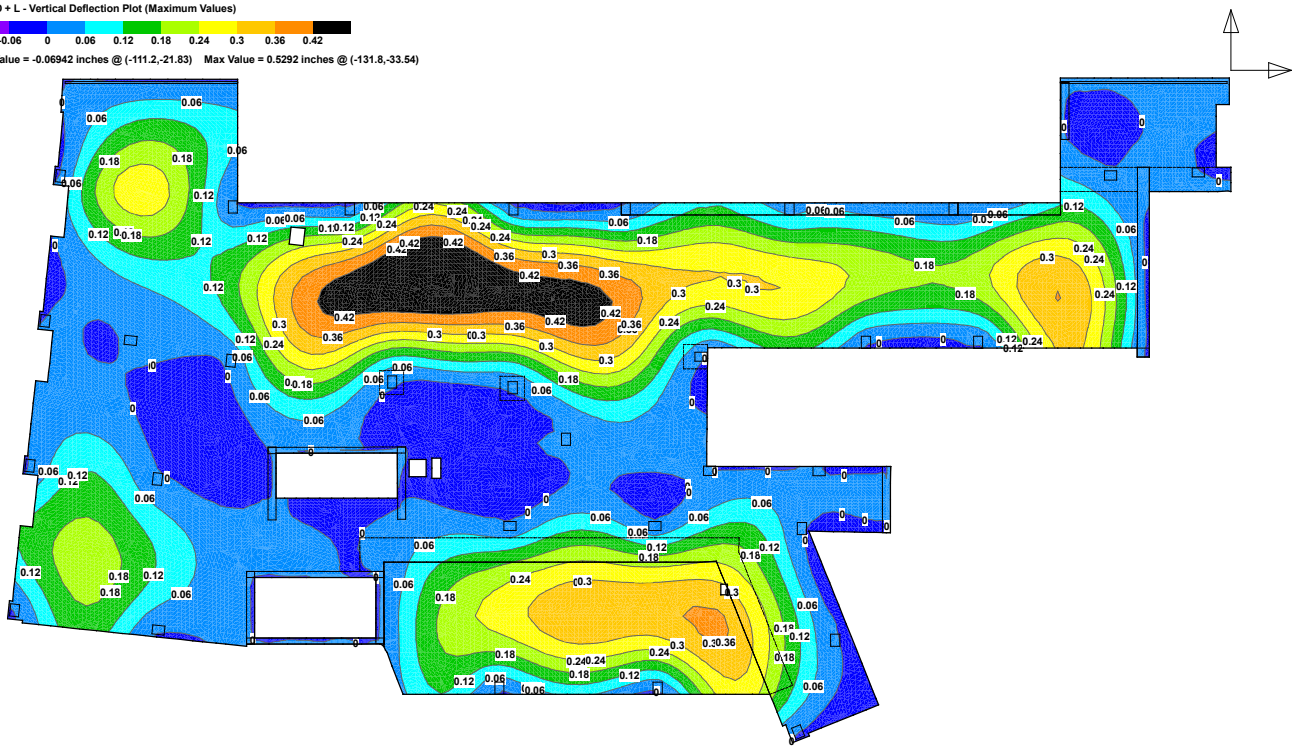


Service LC: D + L: Max Deflection Plan

Service LC: D + L: User Lines; User Notes; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service LC: D + L - Vertical Deflection Plot (Maximum Values)

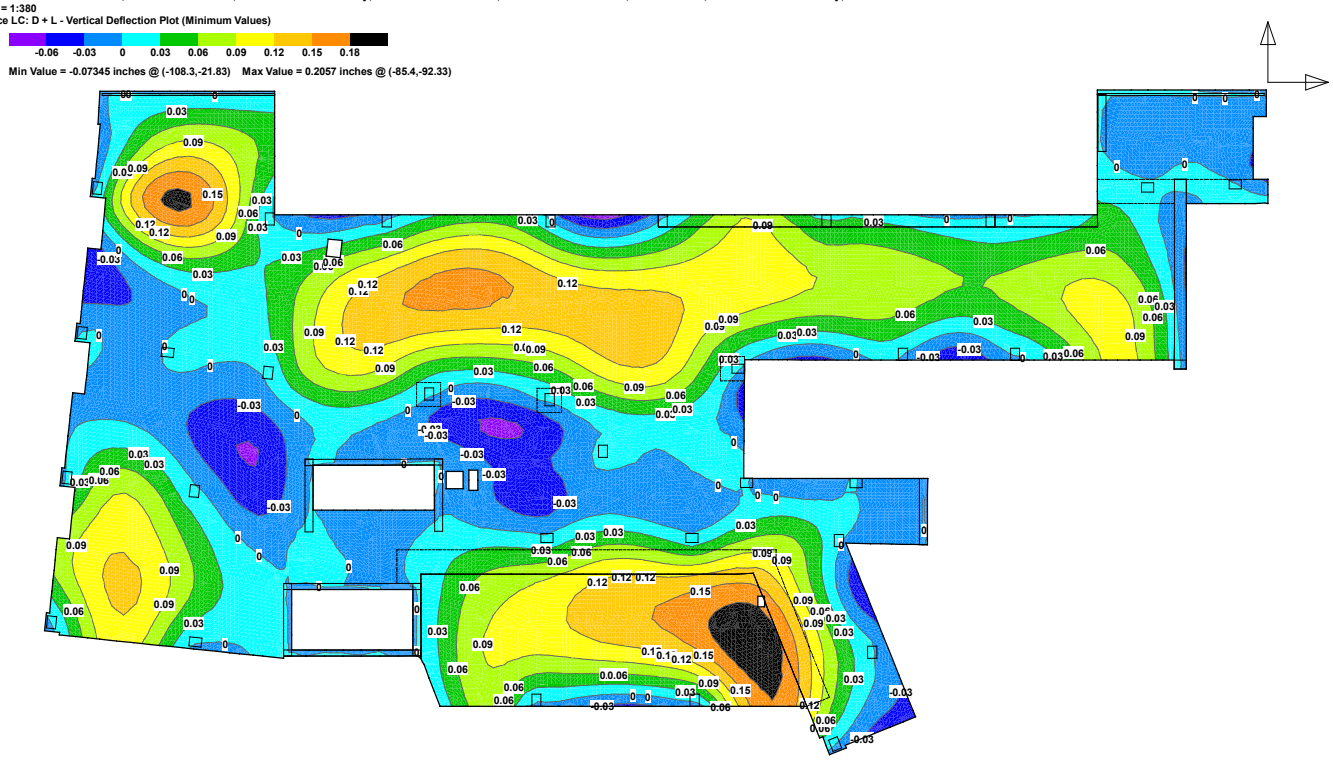
-0.06 0 0.06 0.12 0.18 0.24 0.3 0.36 0.42

Min Value = -0.06942 inches @ (-111.2,-21.83) Max Value = 0.5292 inches @ (-131.8,-33.54)



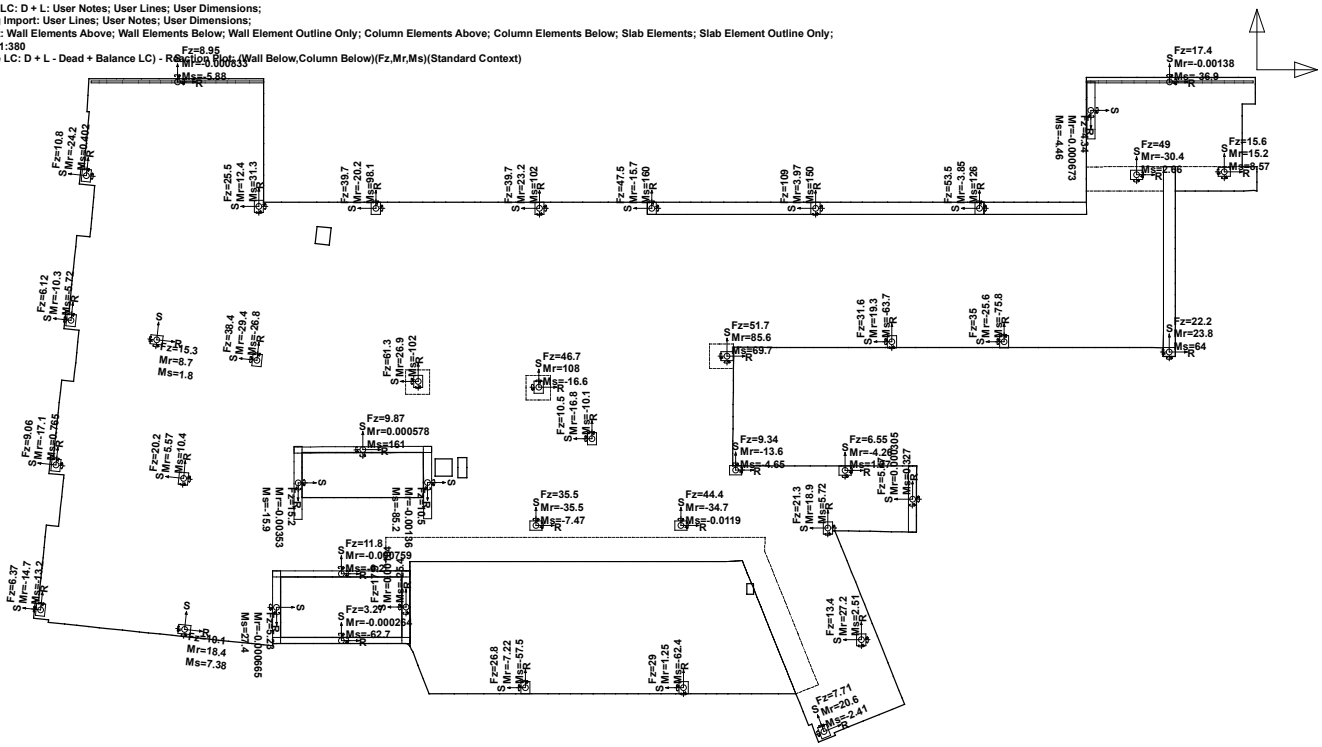
Service LC: D + L: Min Deflection Plan

Service LC: D + L: User Lines; User Notes; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service LC: D + L - Vertical Deflection Plot (Minimum Values)



Service LC: D + L: Reaction Plan

Service LC: D + L: User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
(Service LC: D + L - Dead + Balance LC) - Reaction Rpt: (Wall Below,Column Below)(Fz,Mr,Ms)(Standard Context)

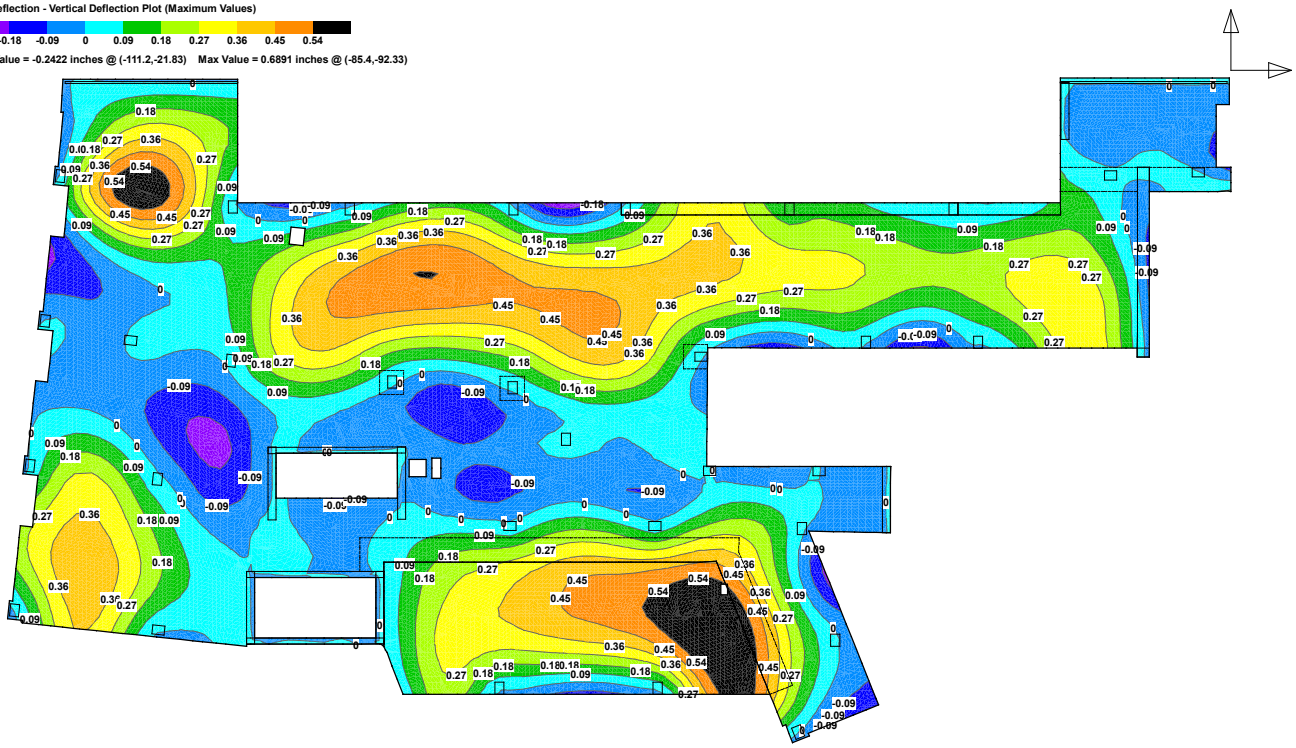


Long Term deflection: Max Deflection Plan

Long Term deflection: User Lines; User Notes; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Long Term deflection - Vertical Deflection Plot (Maximum Values)

-0.18 -0.09 0 0.09 0.18 0.27 0.36 0.45 0.54

Min Value = -0.2422 inches @ (-111.2,-21.83) Max Value = 0.6891 inches @ (-85.4,-92.33)



Design Strip: Latitude SSs Table

Name	*Set*	*Location feet*	*Skew degrees*	*At Support 1*	*At Support 2*	*Support Width 1 inches*
1-1	latitude	(-200.6,-89.05)(-176.8,-92.28)	-7.528	true	true	18.17
1-2	latitude	(-176.8,-92.28)(-161.5,-94.12)	-4.317	true	true	24.16
2-1	latitude	(-195.5,-41.31)(-181.4,-44.55)	-12.55	true	true	18.29
2-2	latitude	(-181.4,-44.55)(-164.9,-47.89)	-17.49	true	true	24.27
2-3	latitude	(-164.9,-47.89)(-138.3,-51.38)	-7.178	true	true	18.16
2-4	latitude	(-138.3,-51.38)(-118.4,-52.35)	-2.835	true	true	18.18
2-5	latitude	(-118.4,-52.35)(-87.38,-47.32)	9.332	true	true	18.4
3-1	latitude	(-198,-65.18)(-177,-67.39)		true	true	18.16
3-2	latitude	(-177,-67.39)(-158,-73.74)	18.47	true	true	18.6
3-3	latitude	(-158,-73.74)(-136.6,-73.68)		true	true	13.52
3-4	latitude	(-136.6,-73.68)(-118.9,-75.16)	-7.46	true	true	13.05
3-5	latitude	(-118.9,-75.16)(-94.99,-74.76)	-0.947	true	true	24.16
3-6	latitude	(-94.99,-74.76)(-70.83,-75.36)	-1.36	true	true	24.16
3-7	latitude	(-70.83,-75.36)(-56.75,-75.57)	-0.517	true	true	20.02
4-1	latitude	(-193,-17.44)(-164.6,-22.53)	10.31	true	true	18.2
4-2	latitude	(-164.6,-22.53)(-145.3,-22.83)	-0.893	true	true	18.16
4-3	latitude	(-145.3,-22.83)(-118.3,-22.84)	-0.0395578	true	true	18.16
4-4	latitude	(-118.3,-22.84)(-99.8,-22.83)	0.0508123	true	true	18.16
4-5	latitude	(-99.8,-22.83)(-72.79,-22.83)	0.0003478	true	true	18.16
4-6	latitude	(-72.79,-22.83)(-45.78,-22.84)	-0.0076555	true	true	17.83
4-7	latitude	(-45.78,-22.84)(-15.45,-23.22)	-0.725	true	false	18.16
5-1	latitude	(-140.1,-94.03)(-120.6,-101.9)	-22.12	true	true	12.35
5-2	latitude	(-120.6,-101.9)(-94.55,-101.9)	-1.019e-6	true	true	18.16
5-3	latitude	(-94.55,-101.9)(-65.26,-94)	15.11	true	true	18.8
5-4	latitude	(-65.26,-94)(-62.99,-93.09)	21.9	true	false	19.56
6-1	latitude	(-85.98,-66.03)(-67.92,-66.08)	0.0683	true	true	24.16
6-2	latitude	(-67.92,-66.08)(-56.52,-65.99)	0.499	true	true	24.16
7-1	latitude	(-87.36,-45.48)(-60.2,-44.83)	1.365	false	true	0
7-2	latitude	(-60.2,-44.83)(-41.7,-44.83)	5.309e-6	true	true	18.16
7-3	latitude	(-41.7,-44.83)(-15.45,-44.26)	0.2547	true	false	18.16
8-1	latitude	(-71.38,-109.1)(-59.03,-110)	-0.467	true	false	18.15
9-1	latitude	(-27.98,-17.62)(-19.02,-17.34)	-17.34	false	true	0.3702
9-2	latitude	(-19.02,-17.34)(-15.45,-17.36)	0.3262	true	false	4.158
9-2(2)	latitude	(-15.45,-17.36)(-13.45,-17.4)	1.241	false	false	0
9-2(3)	latitude	(-13.45,-17.4)(-5.378,-16.83)	-6.891	false	true	0
9-3	latitude	(-5.378,-16.83)(-0.5896,-17.11)	-3.718	true	false	24.2

Design Strip: Latitude SSs Table (2)

t Width 1	Support Width 2 inches	Support Trans. Width 1 inches	Support Trans. Width 2 inches	Auto-Support	Min Divisions	Max Division Spacing feet
	24.17	24.01	18.01	true	4	2.5
	19.99	18	55.24	true	4	2.5
	24.33	24.17	18.13	true	4	2.5
	18.24	18.08	24.11	true	4	2.5
	18.31	24.01	24.21	true	4	2.5
	18.18	24.03	24.03	true	4	2.5
	24.48	24.32	18.24	true	4	2.5
	18.16	24	24	true	4	2.5
	19.82	24.58	25.7	true	4	2.5
	19.31	144.2	143.3	true	4	2.5
	24.24	80.15	18.06	true	4	2.5
	24.16	18	18	true	4	2.5
	16.3	18.01	24.01	true	4	2.5
	18.06	24	130.8	true	4	2.5
	18.44	24.06	24.38	true	4	2.5
	18.16	24	24	true	4	2.5
	18.16	24	24	true	4	2.5
	18.16	24	24	true	4	2.5
	18.49	24	24	true	4	2.5
	18.16	24	24	true	4	2.5
	0	24	0	true	4	2.5
	19.57	21.47	25.89	true	4	2.5
	18.16	24	24	true	4	2.5
	18.8	24.86	24.86	true	4	2.5
	0	25.87	0	true	4	2.5
	24.16	18	18	true	4	2.5
	22.84	18	130.8	true	4	2.5
	18.16	0	24.01	true	4	2.5
	18.16	24	24	true	4	2.5
	0	24	0	true	4	2.5
	0	24	0	true	4	2.5
	44.18	0	18.01	true	4	2.5
	0	18	0	true	4	2.5
	0	0	0	true	4	2.5
	24.22	0	18.04	true	4	2.5
	0	18.03	0	true	4	2.5

Design Strip: Latitude SSs Table (3)

n Spacing	Design For Axial	Environment	Design As PT	Maximize Integrated V	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0

Design Strip: Latitude SSs Table (4)

Spec. Infl. Area ft²	Max LLR %	Span Width	Col Strip Width	Lock Strips	Design CS for CS	-CS Auto Trim	CS Section Slope
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	inverted T or L	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	T or L	0.25

Design Strip: Latitude SSs Table (5)

Section Slope Strip	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		beam
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		beam
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		beam
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		beam
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		beam
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		beam
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		beam
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		beam

Design Strip: Latitude SSs Table (6)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4

Design Strip: Latitude SSs Table (7)

S Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Latitude SSs Table (8)

S Min B.Bar	*MS Shear Legs*
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
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	2
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	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2

Design Strip: Longitude SSs Table

Name	*Set*	*Location feet*	*Skew degrees*	*At Support 1*	*At Support 2*	*Support Width 1 inches*
10-1	longitude	(-200.6,-89.05)(-198,-65.18)	5.081	true	true	24.16
10-2	longitude	(-198,-65.18)(-195.5,-41.31)	6.31	true	true	24.16
10-3	longitude	(-195.5,-41.31)(-193,-17.44)	7.44	true	true	24.16
10-4	longitude	(-193,-17.44)(-191.6,-2.565)	5.268	true	true	24.16
11-1	longitude	(-176.8,-92.28)(-177,-67.39)	0.39905	true	true	18.27
11-2	longitude	(-177,-67.39)(-164.9,-47.89)	7.289	true	true	26.83
11-3	longitude	(-164.9,-47.89)(-164.6,-22.53)	0.2796	true	true	24.26
11-4	longitude	(-164.6,-22.53)(-164.6,-2.036)	0	true	true	24.16
12-1	longitude	(-145.3,-22.83)(-138.3,-51.38)	13.37	true	true	24.87
12-2	longitude	(-138.3,-51.38)(-136.7,-62.94)	6.394	true	true	24.42
13-1	longitude	(-120.6,-101.9)(-119.9,-90.02)	3.752	true	false	24.21
13-1(2)	longitude	(-119.9,-90.02)(-118.9,-75.16)	7.558	false	true	0
13-2	longitude	(-118.9,-75.16)(-118.4,-52.35)	12.05	true	true	18.16
13-3	longitude	(-118.4,-52.35)(-118.3,-22.83)	0.2843	true	true	24.16
14-1	longitude	(-109.7,-60.83)(-94.99,-34.24)	29.74	true	true	24.97
15-1	longitude	(-94.99,-74.76)(-94.55,-109.16)	10.167	true	true	27.64
16-1	longitude	(-99.8,-22.83)(-88.59,-44.03)	22.93	true	false	27.07
17-1	longitude	(-87.38,-47.22)(-86.87,-66.53)	6.535	true	true	18.16
18-1	longitude	(-67.92,-66.08)(-70.83,-75.46)	7.46	true	true	19.02
18-2	longitude	(-70.83,-75.36)(-65.26,-94)	19.63	true	true	30.69
18-3	longitude	(-65.26,-94)(-71.38,-109.1)	21.03	true	true	26.05
19-1	longitude	(-72.79,-22.83)(-60.2,-44.37)	29.378	true	true	27.85
20-1	longitude	(-45.78,-22.84)(-41.7,-44.83)	11.83	true	true	24.57
21-1	longitude	(-19.91,-15.87)(-19.56,-2.4)	2.427	false	true	0
22-1	longitude	(-14.48,-20.06)(-14.45,-46.57)	46.578	false	true	0
23-1	longitude	(-5.47,-2.005)(-5.33,-16.93)	9.5377	true	true	3.906
23-2	longitude	(-5.33,-16.93)(-5.308,-19.83)	1.8311	true	false	15.8

Design Strip: Longitude SSs Table (2)

t Width 1	Support Width 2 inches	Support Trans. Width 1 inches	Support Trans. Width 2 inches	Auto-Support	Min Divisions	Max Division Spacing feet
	24.16	18	18	true	4	2.5
	24.16	18	18	true	4	2.5
	24.16	18	18	true	4	2.5
	3.629	18	26.04	true	4	2.5
	24.31	24.15	18.11	true	4	2.5
	26.83	20.01	20.01	true	4	2.5
	24.16	18.08	18	true	4	2.5
	3.299	18	341	true	4	2.5
	24.87	18.53	18.53	true	4	2.5
	10.49	18.19	55.16	true	4	2.5
	0	18.04	0	true	4	2.5
	18.2	0	24.05	true	4	2.5
	24.16	24	18	true	4	2.5
	24.16	18	18	true	4	2.5
	12.53	26.15	23.31	true	4	2.5
	24.16	24	18	true	4	2.5
	0	20.18	0	true	4	2.5
	19.76	24.01	24.01	true	4	2.5
	19.81	25.15	18.86	true	4	2.5
	25.2	18.79	18.79	true	4	2.5
	26.06	19.42	25.03	true	4	2.5
	27.81	20.74	20.74	true	4	2.5
	24.57	18.31	18.31	true	4	2.5
	4.033	0	160.4	true	4	2.5
	18.16	0	24	true	4	2.5
	20.51	258.7	24	true	4	2.5
	0	24	0	true	4	2.5

Design Strip: Longitude SSs Table (3)

n Spacing	Design For Axial	Environment	Design As PT	Maximize Integrated V	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	false	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	false	false	false	1	0
	true	normal	false	false	false	1	0

Design Strip: Longitude SSs Table (4)

Spec. Infl. Area ft²	Max LLR %	Span Width	Col Strip Width	Lock Strips	Design CS for CS	-CS Auto Trim	CS Section Slop
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	code-beam	false	false	inverted T or L	100
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25

Design Strip: Longitude SSs Table (5)

Section Slope Tip	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1	1	Maximize Effective Depth		beam
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab

Design Strip: Longitude SSs Table (6)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
bottom	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4

Design Strip: Longitude SSs Table (7)

S Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Longitude SSs Table (8)

Min B.Bar	MS Shear Legs
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2

Design Strip: Latitude SSSs Table

Name	*Strip Type*	*Calc. Trib. Area ft²*	*Calc. Infl. Area ft²*	*Top Bar*	*Bottom Bar*	*Shear Bar*	*Top Cover inches*
1C-1	center	279	0	#5	#4	#4	1.5
1C-2	center	151.7	0	#5	#4	#4	1.5
2C-1	center	319	0	#5	#4	#4	1.5
2C-2	center	371.7	0	#5	#4	#4	1.5
2C-3	center	526.3	0	#5	#4	#4	1.5
2C-4	center	499.7	0	#5	#4	#4	1.5
2C-5	center	569.5	0	#5	#4	#4	1.5
3C-1	center	454.8	0	#5	#4	#4	1.5
3C-2	center	330.7	0	#5	#4	#4	1.5
3C-3	center	73.06	0	#5	#4	#4	1.5
3C-4	center	370.8	0	#5	#4	#4	1.5
3C-5	center	507.8	0	#5	#4	#4	1.5
3C-6	center	419.7	0	#5	#4	#4	1.5
3C-7	center	41.44	0	#5	#4	#4	1.5
4C-1	center	524.3	0	#5	#4	#4	1.5
4C-2	center	250.6	0	#5	#4	#4	1.5
4C-3	center	330.8	0	#5	#4	#4	1.5
4C-4	center	258.1	0	#5	#4	#4	1.5
4C-5	center	321.9	0	#5	#4	#4	1.5
4C-6	center	311	0	#5	#4	#4	1.5
4C-7	center	251.3	0	#5	#4	#4	1.5
5C-1	center	250.7	0	#5	#4	#4	1.5
5C-2	center	320.5	0	#5	#4	#4	1.5
5C-3	center	347.6	0	#5	#4	#4	1.5
5C-4	center	4.711	0	#5	#4	#4	1.5
6C-1	center	67.14	0	#5	#4	#4	1.5
6C-2	center	49.85	0	#5	#4	#4	1.5
7C-1	center	298.1	0	#5	#4	#4	1.5
7C-2	center	199.3	0	#5	#4	#4	1.5
7C-3	center	283.2	0	#5	#4	#4	1.5
8C-1	center	70.17	0	#5	#4	#4	1.5
9C-1	center	128.7	0	#5	#4	#4	1.5
9C-2	center	55.2	0	#5	#4	#4	1.5
9C-2(2)	center	53.18	0	#5	#4	#4	1.5
9C-2(3)	center	77.26	0	#5	#4	#4	1.5
9C-3	center	27.32	0	#5	#4	#4	1.5

Design Strip: Latitude SSSs Table (2)

Top Cover inches	Bot. Cover inches	Torsion Design	System	Min Bar Loc.	Min T. Bar	Min B. Bar	Shear Legs
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	4
	0.75	none	two-way slab	elevated	0	0	4
	0.75	none	two-way slab	elevated	0	0	4
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	beam	stress	0	0	4
	0.75	none	beam	stress	0	0	4
	0.75	none	beam	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	beam	elevated	0	0	4
	0.75	none	beam	elevated	0	0	4
	0.75	none	beam	elevated	0	0	4
	0.75	none	beam	elevated	0	0	4
	0.75	none	beam	elevated	0	0	4

Design Strip: Longitude SSSs Table

Name	*Strip Type*	*Calc. Trib. Area ft²*	*Calc. Infl. Area ft²*	*Top Bar*	*Bottom Bar*	*Shear Bar*	*Top Cover inches*
10C-1	center	257	0	#5	#4	#4	1.5
10C-2	center	53.87	0	#5	#4	#4	1.5
10C-3	center	330.2	0	#5	#4	#4	1.5
10C-4	center	260.5	0	#5	#4	#4	1.5
11C-1	center	443.6	0	#5	#4	#4	1.5
11C-2	center	445.3	0	#5	#4	#4	1.5
11C-3	center	451.4	0	#5	#4	#4	1.5
11C-4	center	267.9	0	#5	#4	#4	1.5
12C-1	center	629.3	0	#5	#4	#4	1.5
12C-2	center	215.1	0	#5	#4	#4	1.5
13C-1	center	227.3	0	#5	#4	#4	1.5
13C-1(2)	center	317.9	0	#5	#4	#4	1.5
13C-2	center	316.7	0	#5	#4	#4	1.5
13C-3	center	635.5	0	#5	#4	#4	1.5
14C-1	center	287.7	0	#5	#4	#4	1.5
15C-1	center	649.9	0	#5	#4	#4	1.5
16C-1	center	558.2	0	#5	#4	#4	1.5
17C-1	center	196.3	0	#5	#4	#4	1.5
18C-1	center	134.2	0	#5	#4	#4	1.5
18C-2	center	270.2	0	#5	#4	#4	1.5
18C-3	center	225.9	0	#5	#4	#4	1.5
19C-1	center	480.5	0	#5	#4	#4	1.5
20C-1	center	491.8	0	#5	#4	#4	1.5
21C-1	center	159.6	0	#5	#4	#4	1.5
22C-1	center	275.6	0	#5	#4	#4	1
22R-1	right	71.51	0	#5	#4	#4	1.5
23C-1	center	111.7	0	#5	#4	#4	1.5
23C-2	center	39.77	0	#5	#4	#4	1.5

Design Strip: Longitude SSSs Table (2)

Top Cover inches	Bot. Cover inches	Torsion Design	System	Min Bar Loc.	Min T. Bar	Min B. Bar	Shear Legs
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	4
	0.75	none	two-way slab	elevated	0	0	4
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	elevated	0	0	4
	0.75	none	two-way slab	elevated	0	0	4
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	1	none	beam	bottom	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2

Design Strip: Punching Checks Table

Number	*Location feet*	*Radius feet*	*Cover To CGS inches*	*Angle degrees*	*Edge*	*Connection*
1	(-200.6,-89.05)	10	1.625	84	failure planes	auto
2	(-198,-65.18)	10	1.625	84	failure planes	auto
3	(-195.5,-41.31)	10	1.625	84	failure planes	auto
4	(-193,-17.44)	10	1.625	84	failure planes	auto
5	(-181.4,-44.55)	10	1.625	-6	failure planes	auto
6	(-177,-67.39)	10	1.625	84	failure planes	auto
7	(-176.8,-92.28)	10	1.625	-6	failure planes	auto
8	(-164.9,-47.89)	10	1.625	84	failure planes	auto
9	(-164.6,-22.53)	10	1.625	90	failure planes	auto
10	(-145.3,-22.83)	13	1.625	90	failure planes	auto
11	(-138.3,-51.38)	10	1.625	90	failure planes	auto
12	(-120.6,-101.9)	10	1.625	90	failure planes	auto
13	(-118.9,-75.16)	10	1.625	0	failure planes	auto
14	(-118.4,-52.35)	10	1.625	0	failure planes	auto
15	(-118.3,-22.84)	15	1.625	90	failure planes	auto
16	(-109.7,-60.83)	10	1.625	90	failure planes	auto
17	(-94.99,-75.16)	10	1.625	0	failure planes	auto
18	(-94.55,-101.9)	10	1.625	90	failure planes	auto
19	(-87.38,-47.22)	10	1.625	0	failure planes	auto
20	(-85.98,-66.03)	10	1.625	0	failure planes	auto
21	(-71.38,-109.1)	10	1.625	22	failure planes	auto
22	(-70.75,-75.58)	10	1.625	90	failure planes	auto
23	(-67.92,-66.08)	10	1.625	0	failure planes	auto
24	(-65.26,-94)	10	1.625	90	failure planes	auto
25	(-60.2,-44.83)	10	1.625	90	failure planes	auto
26	(-41.7,-44.83)	10	1.625	90	failure planes	auto
27	(-19.85,-17.33)	6	1.625	0	failure planes	auto
28	(-5.378,-16.83)	6	1.625	0	failure planes	auto

Design Strip: Punching Checks Table (2)

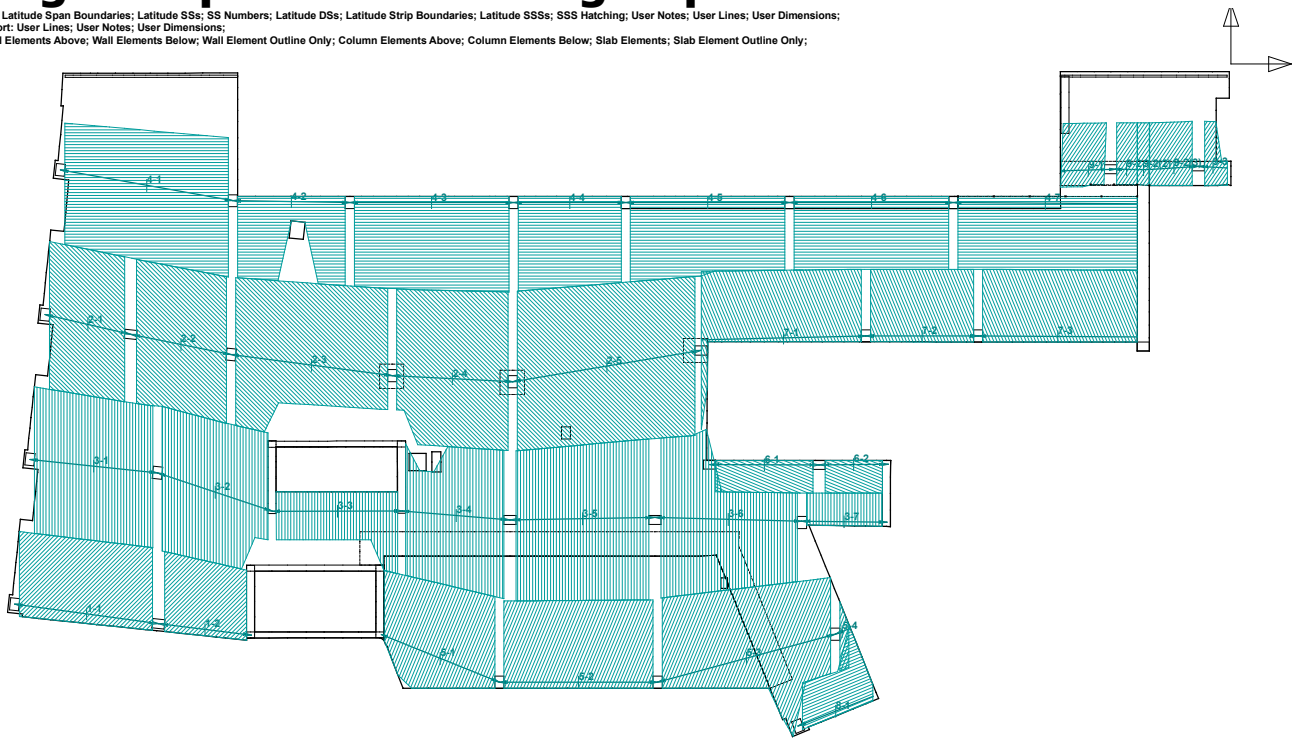
nnection	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²	Spec. Infl. Area ft²	Calc. Trib. Area ft²	Calc. Infl. Area ft²
	false	1	0	0	159.6	0
	false	1	0	0	227.7	0
	false	1	0	0	151.7	0
	false	1	0	0	279	0
	false	1	0	0	432.8	0
	false	1	0	0	489.7	0
	false	1	0	0	247.7	0
	false	1	0	0	465.4	0
	false	1	0	0	479.5	0
	false	1	0	0	312.2	0
	false	1	0	0	602	0
	false	1	0	0	309.7	0
	false	1	0	0	493.5	0
	false	1	0	0	550.4	0
	false	1	0	0	322.8	0
	false	1	0	0	249.3	0
	false	1	0	0	588.9	0
	false	1	0	0	359.7	0
	false	1	0	0	517.8	0
	false	1	0	0	136.1	0
	false	1	0	0	135.7	0
	false	1	0	0	279.5	0
	false	1	0	0	54.29	0
	false	1	0	0	252.6	0
	false	1	0	0	249.8	0
	false	1	0	0	281.3	0
	false	1	0	0	394.4	0
	false	1	0	0	129.5	0

Design Strip: Punching Checks Table (3)

nfl. Area	Max LLR %	Red. Red. %	Stor. Red. %	Park. Red. %
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0

Design Strip: Latitude Design Spans Plan

Design Strip: Latitude Span Boundaries; Latitude SSs; SS Numbers; Latitude DSs; Latitude Strip Boundaries; Latitude SSSs; SSS Hatching; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Design Strip: Longitude Design Spans Plan

Design Strip: Longitude Span Boundaries; Longitude SSs; Longitude DSs; Longitude Strip Boundaries; Longitude SSSs; SSS Hatching; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
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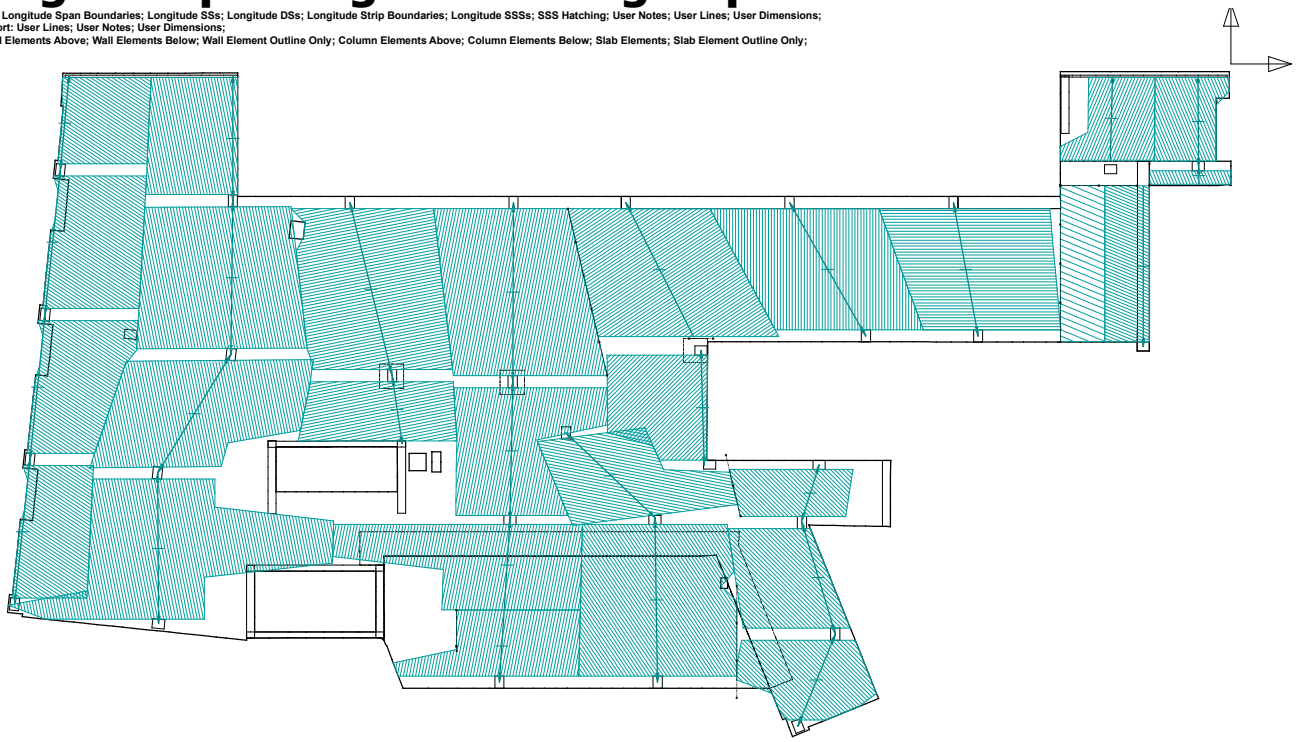
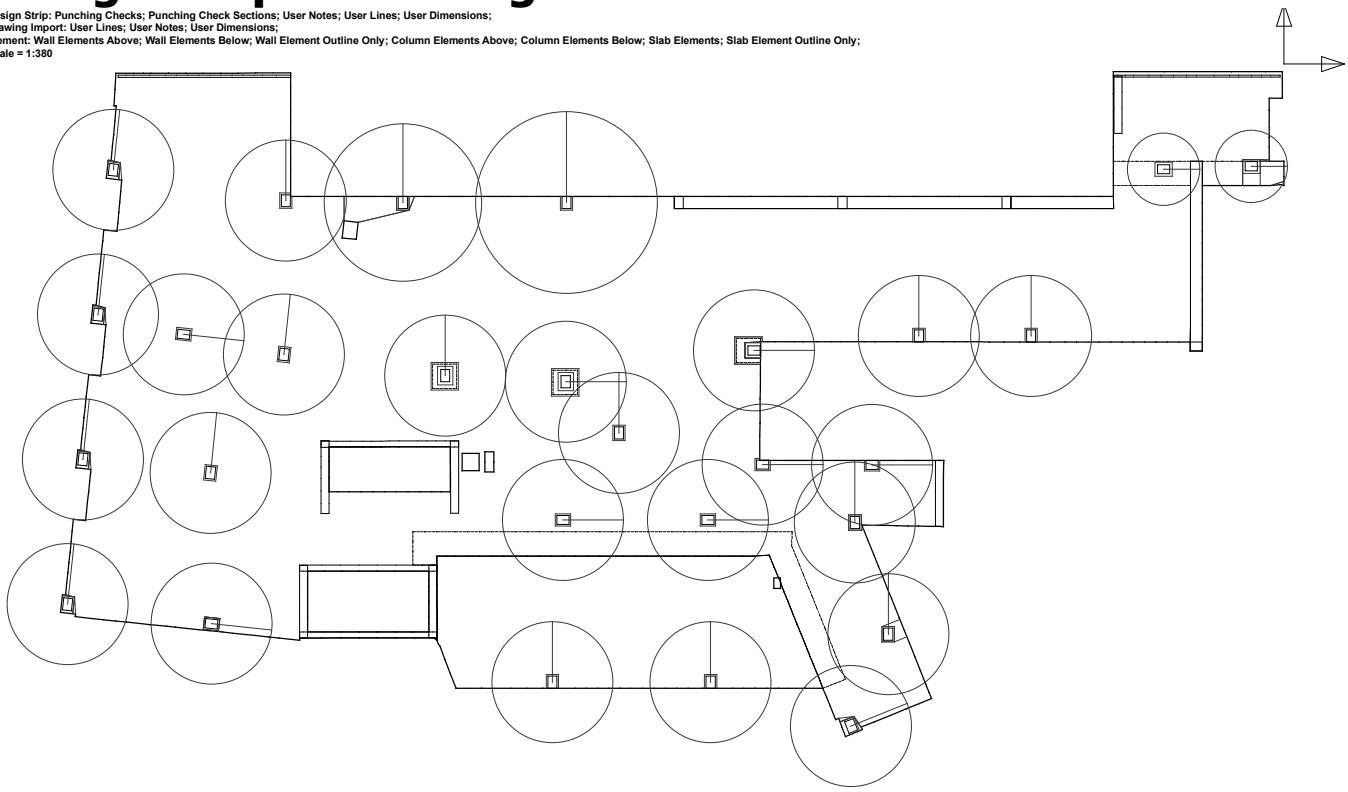


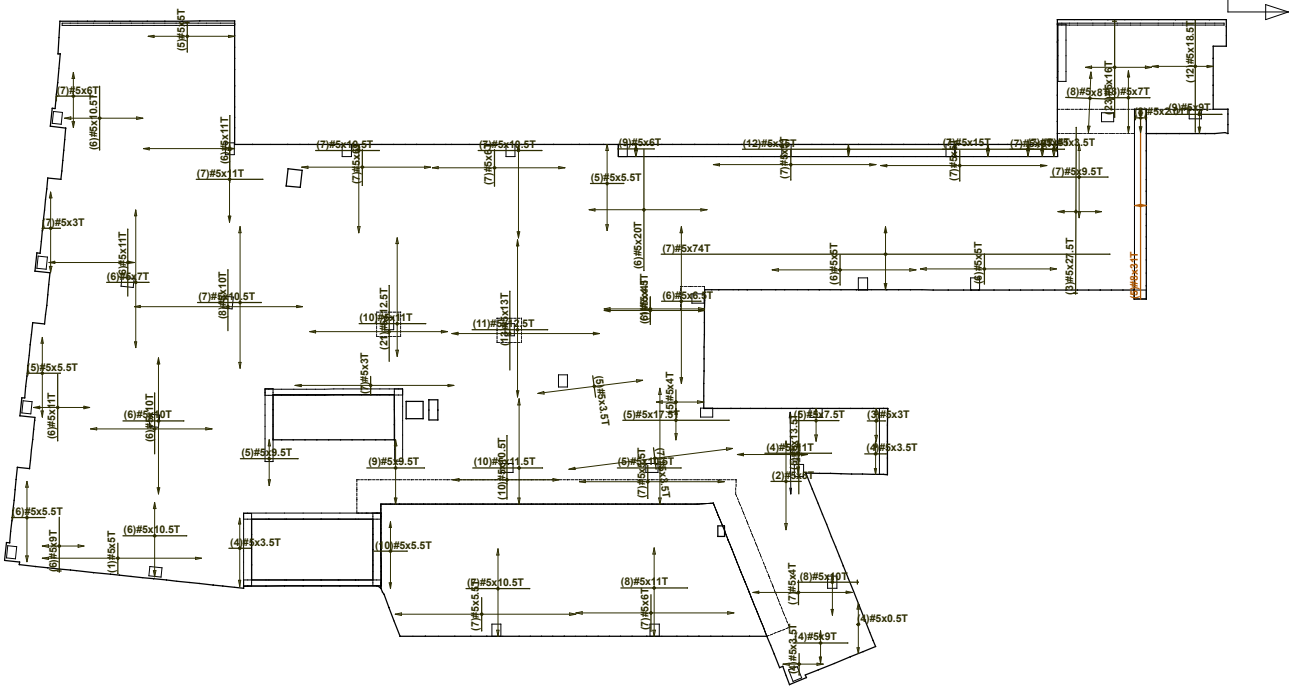
Design Strip: Punching Checks Plan

Design Strip: Punching Checks; Punching Check Sections; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



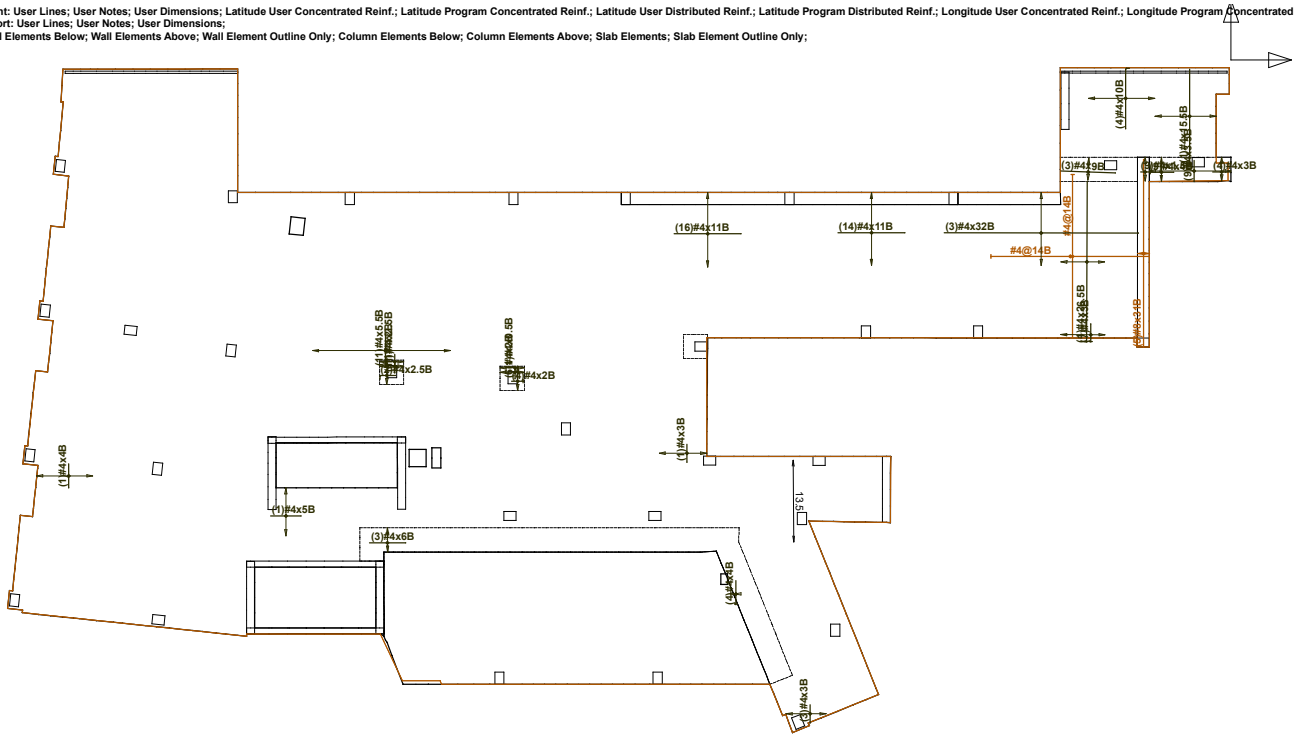
Reinforcement: Top Bars Plan

Reinforcement: User Lines; User Notes; User Dimensions; Latitude User Concentrated Reinf.; Latitude Program Concentrated Reinf.; Latitude User Distributed Reinf.; Latitude Program Distributed Reinf.; Longitude User Concentrated Reinf.; Longitude Program Concentrated Reinf.
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



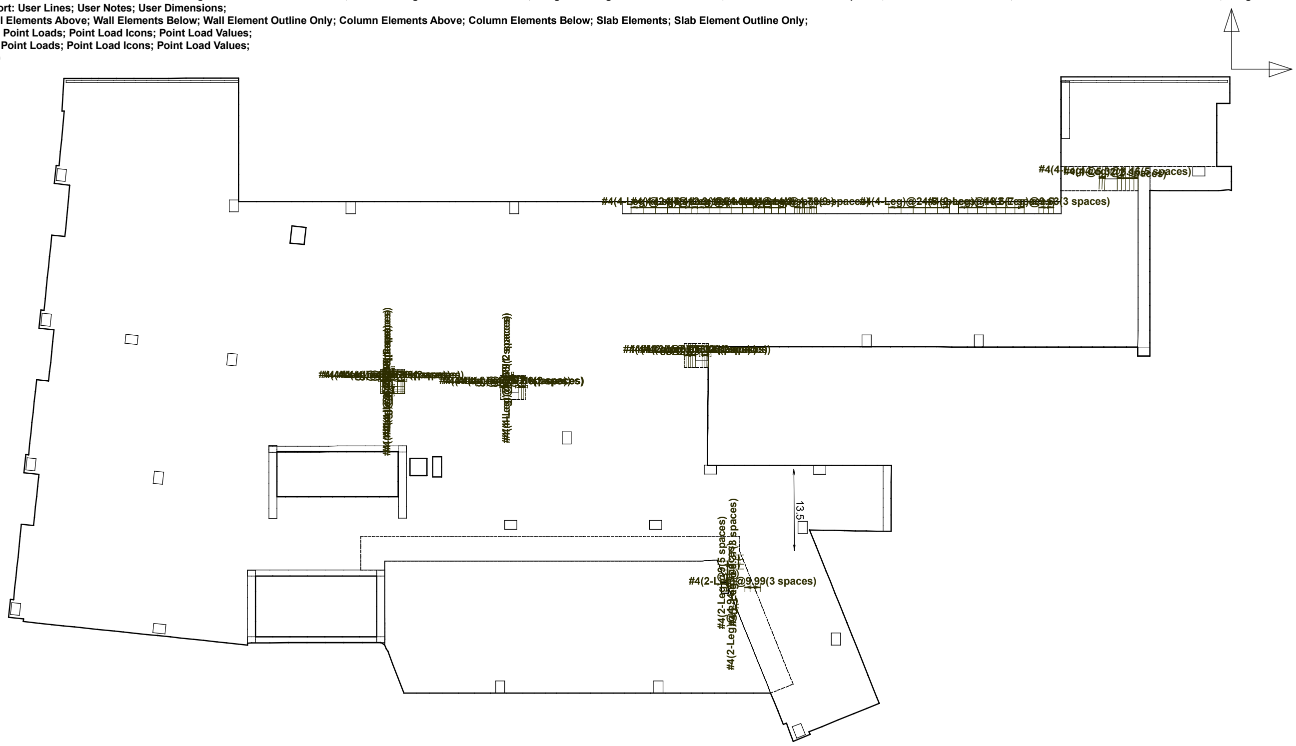
Reinforcement: Bottom Bars Plan

Reinforcement: User Lines; User Notes; User Dimensions; Latitude User Concentrated Reinf.; Latitude Program Concentrated Reinf.; Latitude User Distributed Reinf.; Latitude Program Distributed Reinf.; Longitude User Concentrated Reinf.; Longitude Program Concentrated Reinf.
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



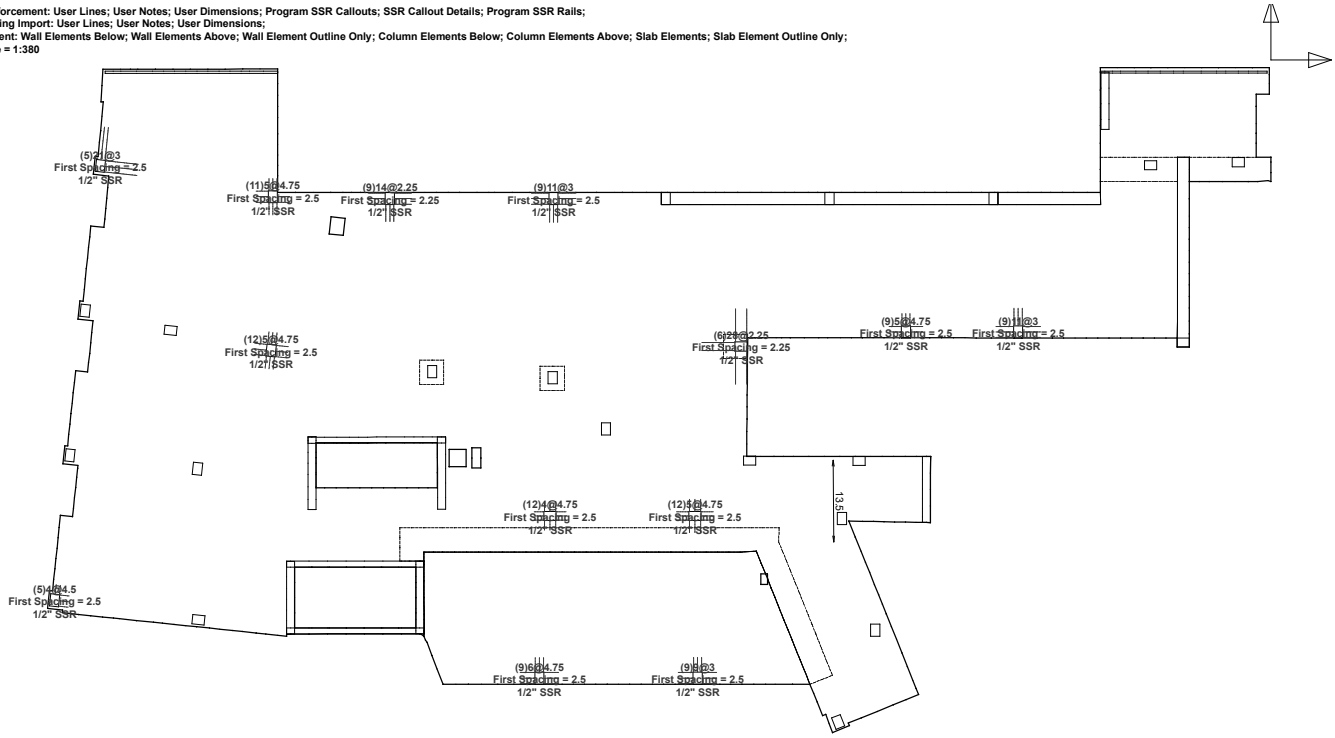
Reinforcement: Shear Bars Plan

Reinforcement: Latitude User Transverse Reinf.; Longitude User Transverse Reinf.; Latitude Program Transverse Reinf.; Longitude Program Transverse Reinf.; Transverse Reinf. Descriptions; Transverse Reinf. Extent; Latitude User Individual Transverse Bars; Longitude User Indiv
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Seismic E/W: Point Loads; Point Load Icons; Point Load Values;
Seismic N/S: Point Loads; Point Load Icons; Point Load Values;
Scale = 1:380



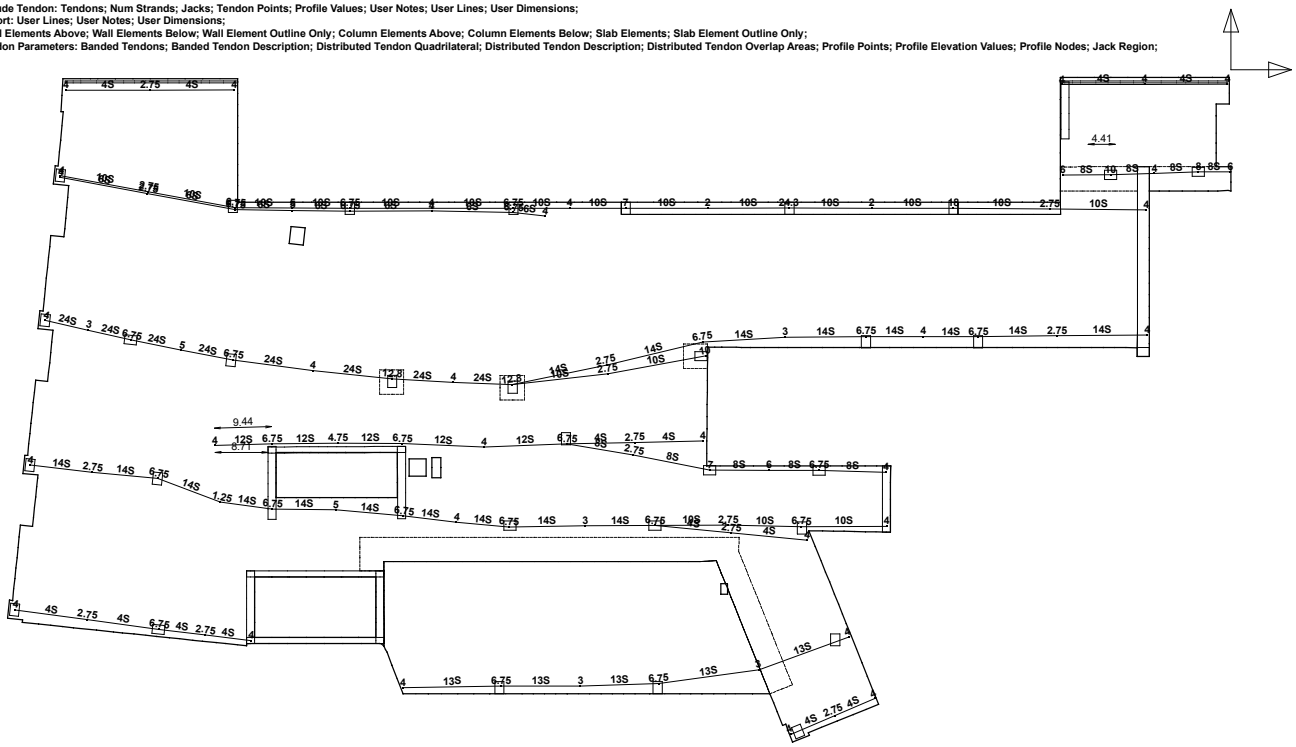
Reinforcement: SSR Plan

Reinforcement: User Lines; User Notes; User Dimensions; Program SSR Callouts; SSR Callout Details; Program SSR Rails;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



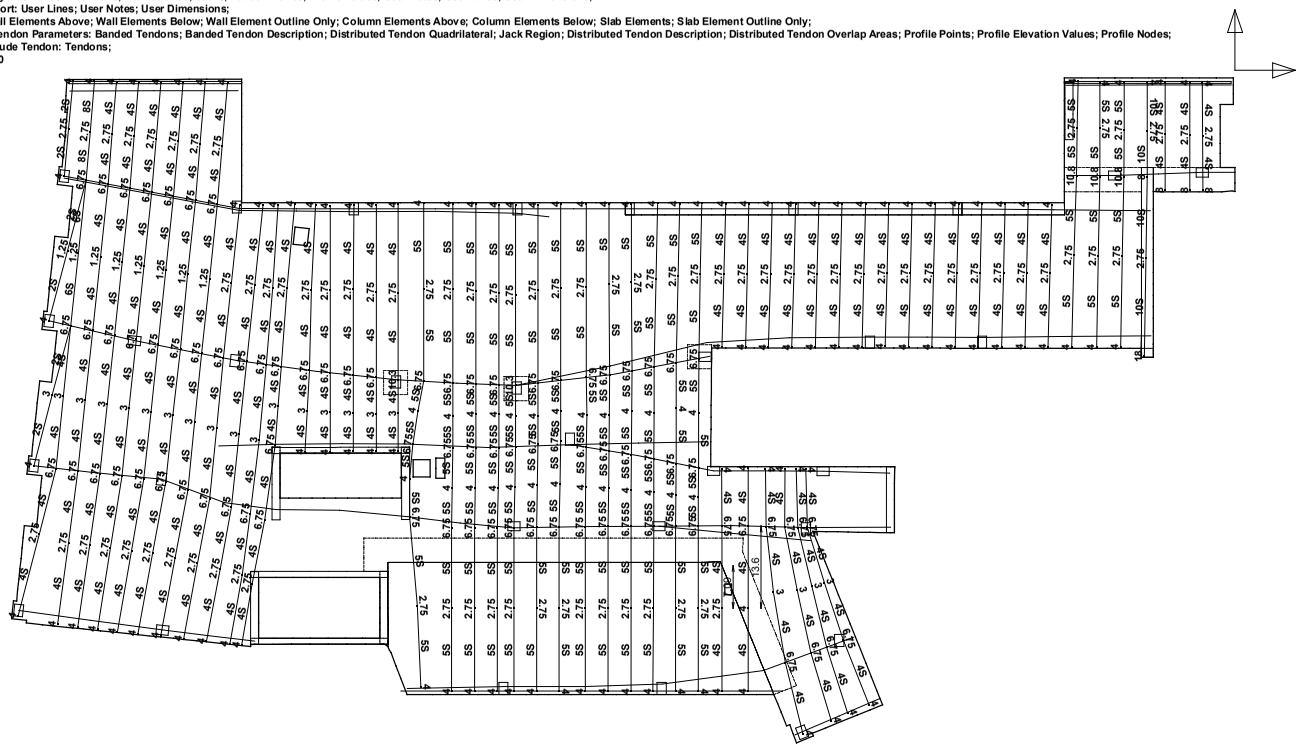
Manual Latitude Tendon: Standard Plan

Manual Latitude Tendon: Tendons; Num Strands; Jacks; Tendon Points; Profile Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Latitude Tendon Parameters: Banded Tendons; Banded Tendon Description; Distributed Tendon Quadrilateral; Distributed Tendon Description; Distributed Tendon Overlap Areas; Profile Points; Profile Elevation Values; Profile Nodes; Jack Region;
Scale = 1:380



Manual Longitude Tendon: Standard Plan

Manual Longitude Tendon: Tendons; Num Strands; Jacks; Tendon Points; Profile Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Longitude Tendon Parameters: Banded Tendons; Banded Tendon Description; Distributed Tendon Quadrilateral; Jack Region; Distributed Tendon Description; Distributed Tendon Overlap Areas; Profile Points; Profile Elevation Values; Profile Nodes;
Manual Latitude Tendon: Tendons;
Scale = 1:380



Service Design: Top Stress Plan

Service Design: Latitude Span Designs; Longitude Span Designs; Latitude DS Designs; Longitude DS Designs; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
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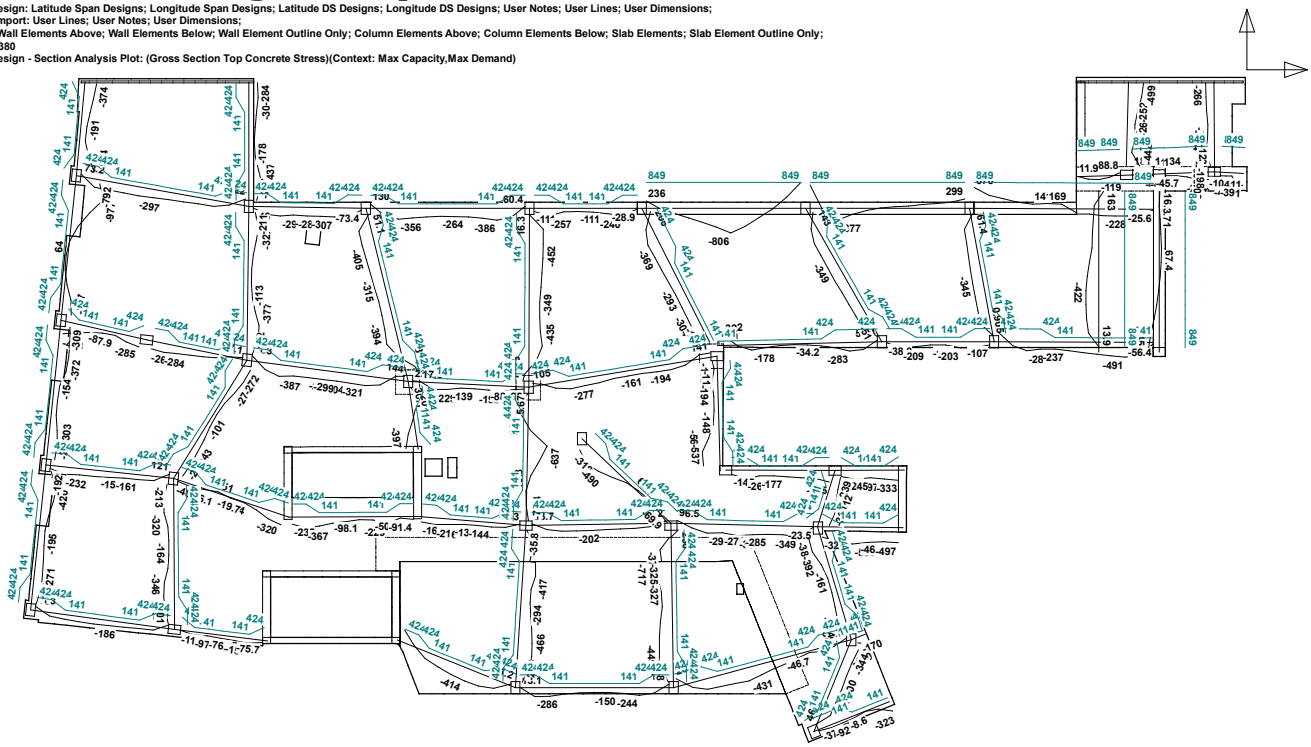
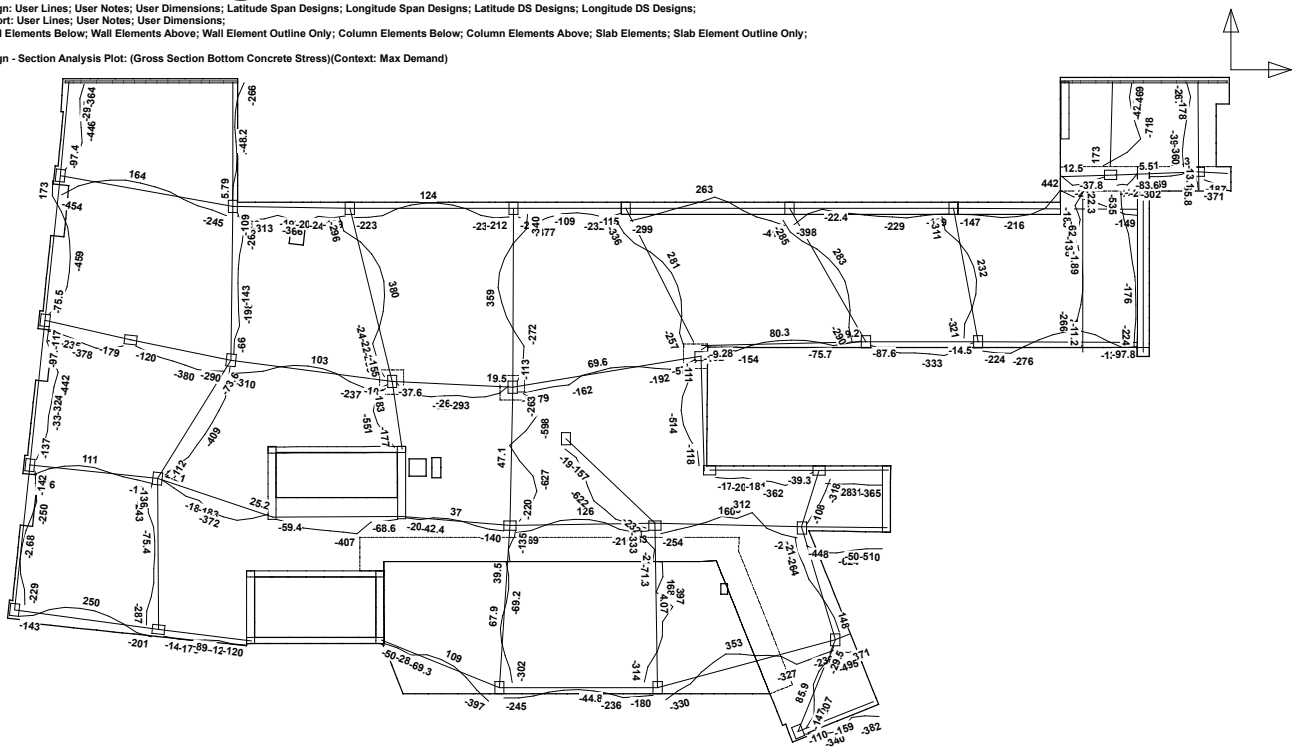
Service Design - Section Analysis Plot: (Gross Section Top Concrete Stress)(Context: Max Capacity,Max Demand)



Service Design: Bottom Stress Plan

Service Design: User Lines; User Notes; User Dimensions; Latitude Span Designs; Longitude Span Designs; Latitude DS Designs; Longitude DS Designs;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service Design - Section Analysis Plot: (Gross Section Bottom Concrete Stress)(Context: Max Demand)



Strength Design: Punching Shear Status Plan

Strength Design: User Lines; User Notes; User Dimensions; PC Designs; PC Design Numbers; PC Design Status; PC Design Stress Ratios; PC Design Sections;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
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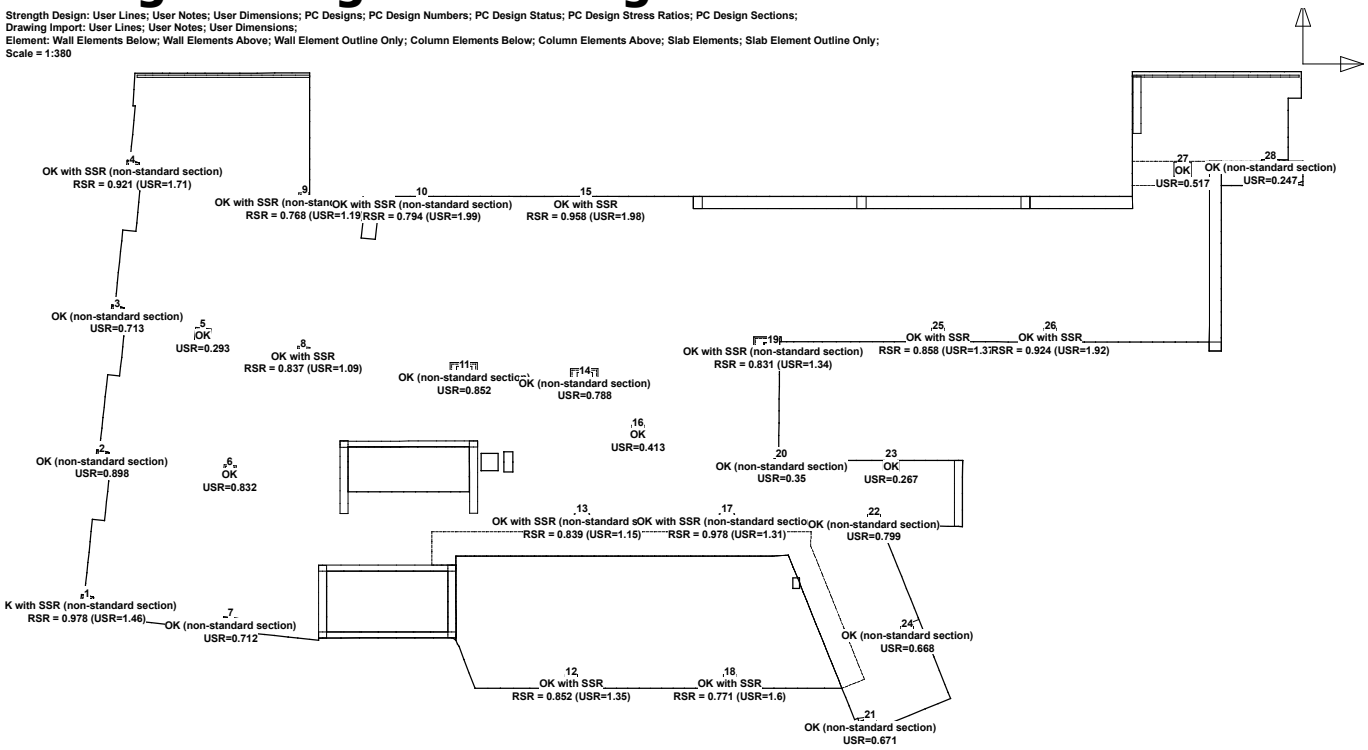
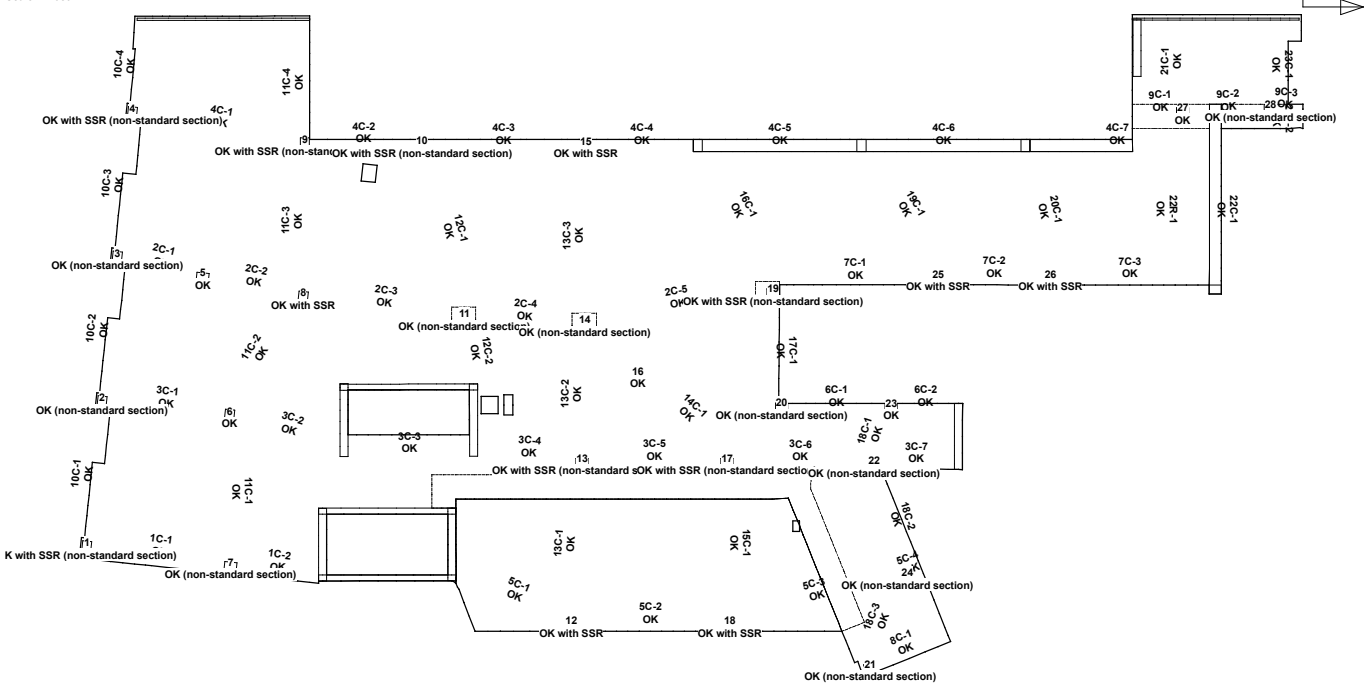
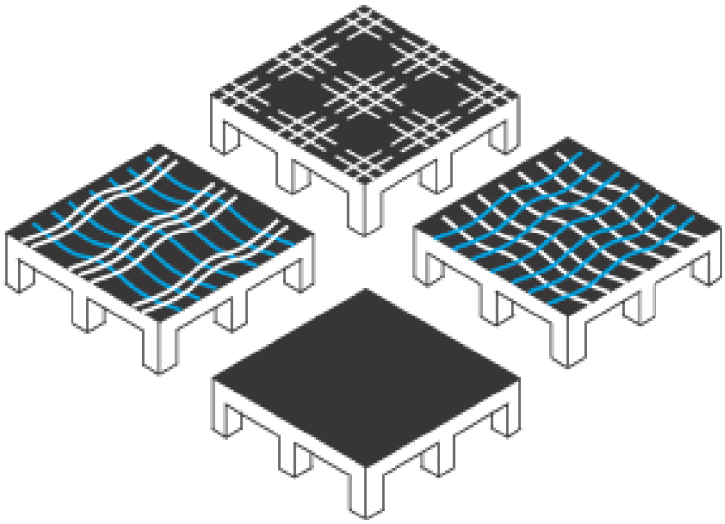


Design Status: Status Plan

Design Status: Latitude Span Designs; Longitude Span Designs; Span Design Numbers; Span Design Status; Latitude DS Designs; Longitude DS Designs; DS Design Numbers; DS Design Status; PC Designs; PC Design Numbers; PC Design Status; User Notes; User Lines; User Di
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380





Level 3.30.cpt
12/12/2019

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Units

Geometry Units

Plan Dimensions: feet
Angles: degrees

Slab Thickness: inches
Elevations: inches

Support Dimensions: inches
Support Height: feet

Loading and Reaction Units

Point Force: Kips
- Report As Zero: 0 Kips

Point Moment: kip-ft
- Report As Zero: 0 kip-ft

Line Force: kips/ft
- Report As Zero: 0 kips/ft

Line Moment: Kips
- Report As Zero: 0 Kips

Area Force: psf
- Report As Zero: 0 psf

Area Moment: #/foot
- Report As Zero: 0 #/foot

Spring and Stiffness Units

Point Force Spring: kips/in
Point Moment Spring: k-ft/°

Line Force Spring: ksi
Line Moment Spring: k/°

Area Force Spring: pci
Area Moment Spring: k/ft°

Slab Analysis Units

Force: Kips
- Report As Zero: 0 Kips

Force Per Width: kips/ft
- Report As Zero: 0 kips/ft

Moment: kip-ft
- Report As Zero: 0 kip-ft

Moment Per Width: Kips
- Report As Zero: 0 Kips

Concrete Stress: psi
- Report As Zero: 0 psi

Deflection: inches
- Report As Zero: 0 inches

Materials Units

Concrete Volume: yd^3
Reinforcement Weight: tons
PT Weight: pounds

Reinforcing Area: in^2
Tendon Profile: inches
Cover: inches

PT Force: Kips
Reinforcing Stress: ksi

Miscellaneous Units

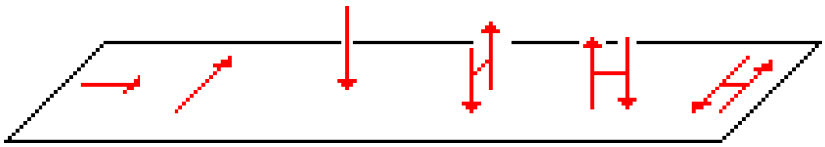
Floor Area: ft^2
Tendon Angles (for friction): radians

Density: pcf

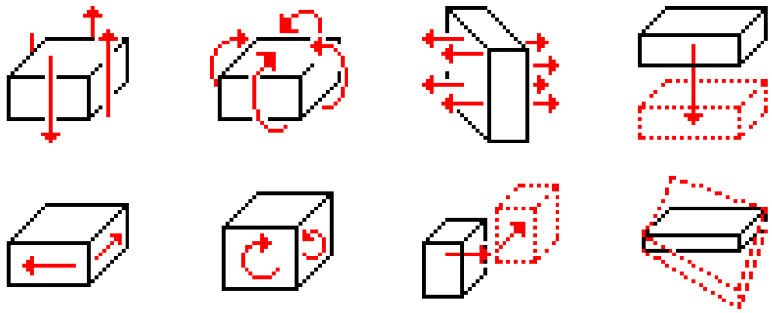
Elongations: inches

Signs

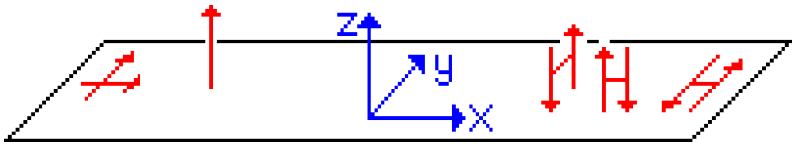
Positive Loads



Positive Analysis



Positive Reactions



Materials

Concrete Mix

Mix Name	Density (pcf)	Density For Loads (pcf)	f'ci (psi)	f'c (psi)	fcui (psi)	fcu (psi)	Poissons Ratio	Ec Calc	User Eci (psi)	User Ec (psi)
3000 psi	150	150	3000	3000	3725	3725	0.2	Code	2500000	3000000
4000 psi	150	150	3000	4000	3725	4975	0.2	Code	2500000	3000000
5000 psi	150	150	3000	5000	3725	6399	0.2	Code	2500000	3000000
6000 psi	150	150	3000	6000	3725	7450	0.2	Code	2500000	3000000

PT Systems

System Name	Type	Aps (in^2)	Eps (ksi)	fse (ksi)	fpy (ksi)	fpu (ksi)	Duct Width (inches)	Strands Per Duct	Min Radius (feet)
½" Unbonded	unbonded	0.153	28000	175	243	270	0.5	1	6
½" Bonded	bonded	0.153	28000	160	243	270	3	4	6
0.6" Unbonded	unbonded	0.217	28000	175	243	270	0.6	1	8
0.6" Bonded	bonded	0.217	28000	160	243	270	4	4	8

PT Stressing Parameters

System Name	Jacking Stress (ksi)	Seating Loss (inches)	Anchor Friction	Wobble Friction (1/feet)	Angular Friction (1/radians)	Long-Term Losses (ksi)
½" Unbonded	216	0.25	0	0.0014	0.07	22
½" Bonded	216	0.25	0.02	0.001	0.2	22
0.6" Unbonded	216	0.25	0	0.0014	0.07	22
0.6" Bonded	216	0.25	0.02	0.001	0.2	22

Reinforcing Bars

Bar Name	As (in^2)	Es (ksi)	Fy (ksi)	Coating	Straight Ld/Db	90 Hook Ld/Db	180 Hook Ld/Db
#3	0.11	29000	60	None	Code	Code	Code
#4	0.2	29000	60	None	Code	Code	Code
#5	0.31	29000	60	None	Code	Code	Code
#6	0.44	29000	60	None	Code	Code	Code
#7	0.6	29000	60	None	Code	Code	Code
#8	0.79	29000	60	None	Code	Code	Code
#9	1	29000	60	None	Code	Code	Code
#10	1.27	29000	60	None	Code	Code	Code
#11	1.56	29000	60	None	Code	Code	Code

Materials (2)

SSR Systems

SSR System Name	*Stud Area (in²)*	*Head Area (in²)*	*Min Clear Head Spacing (inches)*	*Specified Stud Spacing (inches)*	*Fy (ksi)*	*Stud Spacing Rounding Increment (inches)*	*Min Studs Per Rail*	*System Type*
3/8" SSR	0.11	1.11	0.5	None	50	0.25	2	Rail
1/2" SSR	0.196	1.96	0.5	None	50	0.25	2	Rail
5/8" SSR	0.307	3.07	0.5	None	50	0.25	2	Rail
3/4" SSR	0.442	4.42	0.5	None	50	0.25	2	Rail
Ancon Shearfix Auto-Size	0.1217	1.096	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 10 mm	0.1217	1.096	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 12 mm	0.1753	1.578	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 14 mm	0.2386	2.147	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 16 mm	0.3116	2.805	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 20 mm	0.4869	4.383	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 24 mm	0.7012	6.311	0.5906	None	72.52	0.03937	2	Rail

Loadings

Loading Name	*Type*	*Analysis*	*On-Pattern Factor*	*Off-Pattern Factor*
Self-Dead Loading	Self-Weight	Normal	1	1
Balance Loading	Balance	Normal	1	1
Hyperstatic Loading	Hyperstatic	Hyperstatic	1	1
Temporary Construction (At Stressing) Loading	Stressing Dead	Normal	1	1
Other Dead Loading	Dead	Normal	1	1
Live (Reducible) Loading	Live (Reducible)	Normal	1	0
Live (Unreducible) Loading	Live (Unreducible)	Normal	1	0
Live (Storage) Loading	Live (Storage)	Normal	1	0
Live (Parking) Loading	Live (Parking)	Normal	1	0
Live (Roof) Loading	Live (Roof)	Normal	1	0
Snow Loading	Snow	Normal	1	1
Seismic E/W	Ultimate Seismic 1 (transfer)	Normal	1	0
Seismic N/S	Ultimate Seismic 1 (transfer)	Normal	1	0

Load Combinations

All Dead LC

Active Design Criteria: <none>
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Other Dead Loading	1	1

Dead + Balance LC

Active Design Criteria: <none>
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1

Initial Service LC

Active Design Criteria: Initial Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1.13	1.13
Temporary Construction (At Stressing) Loading	1	1

Service LC: D + L

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	1	0
Live (Unreducible) Loading	1	0
Live (Storage) Loading	1	0
Live (Parking) Loading	1	0

Service LC: D + Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Roof) Loading	1	0

Load Combinations (2)

Service LC: D + S

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Snow Loading	1	0

Service LC: D + 0.75L + 0.75Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	0.75	0
Live (Unreducible) Loading	0.75	0
Live (Storage) Loading	0.75	0
Live (Parking) Loading	0.75	0
Live (Roof) Loading	0.75	0

Service LC: D + 0.75L + 0.75S

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	0.75	0
Live (Unreducible) Loading	0.75	0
Live (Storage) Loading	0.75	0
Live (Parking) Loading	0.75	0
Snow Loading	0.75	0

Sustained Service LC

Active Design Criteria: Sustained Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	0.5	0.5
Live (Unreducible) Loading	0.5	0.5
Live (Storage) Loading	1	1
Live (Parking) Loading	0.5	0.5
Live (Roof) Loading	0.5	0.5

Load Combinations (3)

Factored LC: 1.4D

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.4	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.4	0.9

Factored LC: 1.2D + 1.6L + 0.5Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	1.6	0
Live (Unreducible) Loading	1.6	0
Live (Storage) Loading	1.6	0
Live (Parking) Loading	1.6	0
Live (Roof) Loading	0.5	0

Factored LC: 1.2D + f1L + 1.6Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	0.5	0
Live (Unreducible) Loading	1	0
Live (Storage) Loading	1	0
Live (Parking) Loading	1	0
Live (Roof) Loading	1.6	0

Factored LC: 1.2D + 1.6L + 0.5S

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	1.6	0
Live (Unreducible) Loading	1.6	0
Live (Storage) Loading	1.6	0
Live (Parking) Loading	1.6	0
Snow Loading	0.5	0

Load Combinations (4)

Factored LC: 1.2D + f1L + 1.6S

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	0.5	0
Live (Unreducible) Loading	1	0
Live (Storage) Loading	1	0
Live (Parking) Loading	1	0
Snow Loading	1.6	0

Long Term deflection

Active Design Criteria: <none>
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	3.35	3.35
Balance Loading	3.35	3.35
Other Dead Loading	3.35	3.35
Live (Unreducible) Loading	2	2
Snow Loading	1	1

Earthquake N-S: (1.2+.2*Sds)D + 2.5E + 0.5L+0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic N/S	2.5	2.5

Earthquake N-S: (0.9-0.2*Sds)D + 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic N/S	2.5	2.5

Load Combinations (5)

Earthquake E-W: (1.2+0.2*Sds)D + 2.5E + 0.5L+0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic E/W	2.5	2.5

Earthquake E-W: (0.9-0.2*Sds)D + 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic E/W	2.5	2.5

Earthquake N-S: (1.0+0.14*Sds)D + 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.101	1.101
Balance Loading	1	1
Other Dead Loading	1.101	1.101
Seismic N/S	1.75	1.75

Earthquake N-S: (1.0+0.105*Sds)D + 1.3125E + 0.75L + 0.75S

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.076	1.076
Balance Loading	1	1
Other Dead Loading	1.076	1.076
Live (Unreducible) Loading	0.75	0.75
Snow Loading	0.75	0.75
Seismic N/S	1.313	1.313

Load Combinations (6)

Earthquake N-S: (0.6-0.14*Sds)D + 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.499	0.499
Balance Loading	1	1
Other Dead Loading	0.899	0.899
Seismic N/S	1.75	1.75

Earthquake E-W: (1.0+0.14*Sds)D + 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.101	1.101
Balance Loading	1	1
Other Dead Loading	1.101	1.101
Seismic E/W	1.75	1.75

Earthquake E-W: (1.0+0.105*Sds)D + 1.3125E + 0.75L+0.75S

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.076	1.076
Balance Loading	1	1
Other Dead Loading	1.076	1.076
Live (Unreducible) Loading	0.75	0.75
Snow Loading	0.75	0.75
Seismic E/W	1.313	1.313

Earthquake N-S: (1.2+0.2*Sds)D - 2.5E + .5L + 0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic N/S	-2.5	-2.5

Load Combinations (7)

Earthquake N-S: (0.9-0.2*Sds)D - 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic N/S	-2.5	-2.5

Earthquake E-W: (1.2+0.2*Sds)D - 2.5E + .5L + 0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic E/W	-2.5	-2.5

Earthquake E-W: (0.9-0.2*Sds)D - 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic E/W	-2.5	-2.5

Earthquake N-S: (1.0+0.14*Sds)D - 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.101	1.101
Balance Loading	1	1
Other Dead Loading	1.101	1.101
Seismic N/S	-1.75	-1.75

Load Combinations (8)

Earthquake N-S: (1.0+0.105*Sds)D - 1.3125E + 0.75L+.75S

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.076	1.076
Balance Loading	1	1
Other Dead Loading	1.076	1.076
Live (Unreducible) Loading	0.75	0.75
Snow Loading	0.75	0.75
Seismic N/S	-1.313	-1.313

Earthquake N-S: (0.6-0.14*Sds)D - 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.499	0.499
Balance Loading	1	1
Other Dead Loading	0.899	0.899
Seismic N/S	-1.75	-1.75

Earthquake E-W: (1.0+0.14*Sds)D - 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.101	1.101
Balance Loading	1	1
Other Dead Loading	1.101	1.101
Seismic E/W	-1.75	-1.75

Earthquake E-W: (0.6-0.14*Sds)D + 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.499	0.499
Balance Loading	1	1
Other Dead Loading	0.899	0.899
Seismic E/W	1.75	1.75

Earthquake E-W: (0.6-0.14*Sds)D - 1.75E

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.499	0.499
Balance Loading	1	1
Other Dead Loading	0.899	0.899
Seismic E/W	-1.75	-1.75

Load Combinations (9)

Earthquake E-W: (1.0+0.105*Sds)D - 1.3125E + 0.75L + 0.75S

Active Design Criteria: Service Design, Code Minimum Design, User Minimum Design

Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.076	1.076
Balance Loading	1	1
Other Dead Loading	1.076	1.076
Live (Unreducible) Loading	0.75	0.75
Snow Loading	0.75	0.75
Seismic E/W	-1.313	-1.313

Design Rules

Code Minimum Desig

318-11 Min. Reinforcement

User Minimum Desig

Specified Min. Reinforcement

Initial Service Desig

318-11 Initial Service Design

Service Design

318-11 Service Design
Include detailed section analysis

Sustained Service Desig

318-11 Sustained Service Design

Strength Design

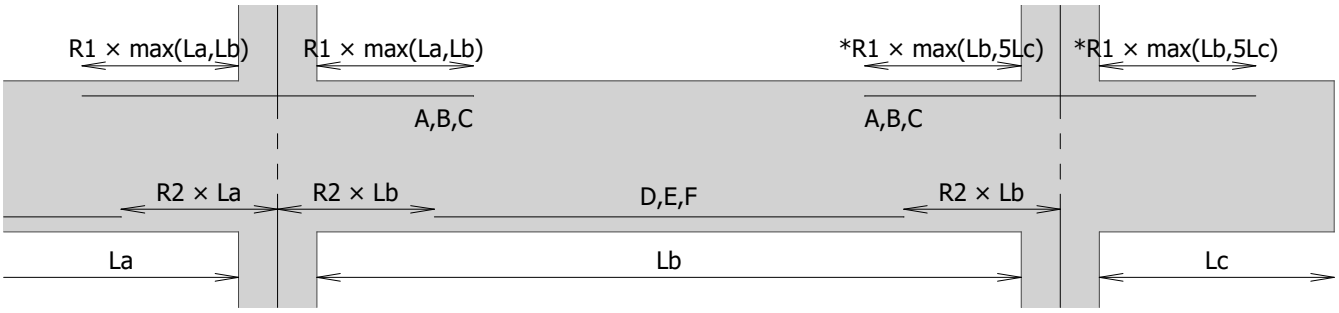
318-11 Strength Design
Punching Shear Design

Ductility Desig

318-11 Ductility Design

Detailing Rules

Custom Span Detailing Rules



Rule Name	*A Fraction*	*A R1*	*B Fraction*	*B R1*	*C Fraction*	*C R1*	*D Fraction*	*D R2*	*E Fraction*	*E R2*	*F Fraction*	*F R2*
None	0	0	0	0	0	0	0	0	0	0	0	0

"A", "B" and "C", are support reinforcement sets, based on the peak reinforcement in the support zone.
"D", "E" and "F", are span reinforcement sets, based on the peak reinforcement in the span zone.
"*R1" is never taken as greater than 0.2 when multiplied by Lc (or Lcc).
"Fraction" is the ratio of set reinforcement to peak reinforcement. It is always in the 0.0 to 1.0 range.

Load History

Load History Step Name	*Load Combination*	*Duration (days)*	*Total Age (days)*
Maximum Short Term Load	Service LC: D + L	30	33
Sustained Load	Sustained Service LC	5000	5033
Final Instantaneous Load	Service LC: D + L	0	5033

Mesh Input: Walls Below Table

Number	Location feet	Mix	Fixed Near	Fixed Far	Comp.	Height feet	Thickness inches
1	(-163.6,-1.647)(-192,-1.576)	5760 psi	false	false	true	10	12
2	(-161.7,-82.62)(-161.7,-59.09)	5096 psi	false	false	true	10	16
3	(-158.1,-62.08)(-158.2,-74.02)	5102 psi	false	false	true	10	16
4	(-139.7,-94.13)(-162.3,-94.03)	5103 psi	false	false	true	10	12
5	(-139.7,-83.13)(-162.3,-83.05)	5105 psi	false	false	true	10	12
6	(-136.1,-62.6)(-158.8,-62.59)	5109 psi	false	false	true	10	12
7	(-161,-1.721)(-123.1,-1.720)	5210 psi	false	false	true	10	12
8	(-140.4,-82.62)(-140.3,-94.62)	5462 psi	false	false	true	10	16
9	(-136.8,-62.11)(-136.7,-74.01)	5401 psi	false	false	true	10	16
10	(-119.9,-1.567)(-67.86,-1.567)	5567 psi	false	false	true	10	12
11	(-56.84,-76.25)(-56.83,-55.03)	5503 psi	false	false	true	10	16
12	(-57.52,-65.84)(-41.13,-55.81)	5581 psi	false	false	true	10	12
13	(-66.17,-1.72)(-29.51,-1.720)	5720 psi	false	false	true	10	12
14	(-34.82,-75.75)(-57.5,-75.74)	5774 psi	false	false	true	10	12
15	(-36.33,-88.13)(-36.33,-55.08)	5508 psi	false	false	true	11	16
16	(-35.54,-65.33)(-35.5,-76.25)	5725 psi	false	false	true	10	16
17	(-27.41,-1.659)(-27.39,-1.104)	5104 psi	false	false	true	11	16
18	(-28.05,-1.658)(-1.22,-1.671)	5671 psi	false	false	true	10	12

Mesh Input: Walls Below Table (2)

ess

Shear Wall	*Use Spec LLR Params*	*Spec. LLR Levels*	*Spec. Trib. Area ft²*	*Spec. Infl. Area ft²*	*Max LLR %*
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40
true	false	1	0	0	40

Mesh Input: Columns Below Table

Number	Location feet	Mix	Fixed Near	Fixed Far	Comp.	Height feet	B inches	D inches
1	(-200.6,-89.05)	5000 psi	true	true	true	10	18	24
2	(-200.1,-144.6)	5000 psi	true	true	true	10	0	24
3	(-199.1,-134.7)	5000 psi	true	true	true	10	0	24
4	(-198.6,-115.2)	5000 psi	true	true	true	10	24	18
5	(-198,-65.18)	5000 psi	true	true	true	10	18	24
6	(-195.5,-41.31)	5000 psi	true	true	true	10	18	24
7	(-193,-17.44)	5000 psi	true	true	true	10	18	24
8	(-191.6,-151)	5000 psi	true	true	true	10	0	24
9	(-182.2,-147.7)	5000 psi	true	true	true	10	0	24
10	(-180.8,-44.12)	5000 psi	true	true	true	10	24	18
11	(-180.5,-117.1)	5000 psi	true	true	true	10	24	18
12	(-177,-67.39)	5000 psi	true	true	true	10	18	24
13	(-176.8,-92.28)	5000 psi	true	true	true	10	18	24
14	(-166,-123.6)	5000 psi	true	true	true	10	18	24
15	(-164.9,-47.89)	5000 psi	true	true	true	10	18	24
16	(-164.6,-22.53)	5000 psi	true	true	true	10	24	18
17	(-164.2,-141.7)	5000 psi	true	true	true	10	18	24
18	(-145.3,-22.83)	5000 psi	true	true	true	10	18	24
19	(-144.5,-120.4)	5000 psi	true	true	true	10	18	24
20	(-138.3,-51.35)	5000 psi	true	true	true	10	18	24
21	(-138.2,-136)	5000 psi	true	true	true	10	18	24
22	(-135.3,-110.1)	5000 psi	true	true	true	10	18	24
23	(-120.6,-101.9)	5000 psi	true	true	true	10	18	24
24	(-118.9,-75.16)	5000 psi	true	true	true	10	24	18
25	(-118.4,-52.35)	5000 psi	true	true	true	10	18	24
26	(-118.3,-22.83)	5000 psi	true	true	true	10	18	24
27	(-115.9,-127)	5000 psi	true	true	true	10	18	24
28	(-109.7,-60.83)	5000 psi	true	true	true	10	18	24
29	(-99.8,-22.83)	5000 psi	true	true	true	10	18	24
30	(-94.99,-75.16)	5000 psi	true	true	true	10	18	24
31	(-94.55,-101.9)	5000 psi	true	true	true	10	18	24
32	(-93.65,-118.1)	5000 psi	true	true	true	10	18	24
33	(-87.45,-47.25)	5000 psi	true	true	true	10	24	18
34	(-86.02,-66.08)	5000 psi	true	true	true	10	24	18
35	(-84.69,-22.81)	5000 psi	true	true	true	10	18	24
36	(-71.38,-109.1)	5000 psi	true	true	true	10	18	24
37	(-68.7,-22.67)	5000 psi	false	true	true	10	18	24
38	(-67.92,-66.08)	5000 psi	true	true	true	10	24	18
39	(-65.26,-94)	5000 psi	true	true	true	10	18	24
40	(-60.2,-44.83)	5000 psi	true	true	true	10	18	24
41	(-49,-100.5)	5000 psi	true	true	true	10	18	24
42	(-45.8,-22.83)	5000 psi	true	true	true	10	18	24
43	(-41.7,-44.83)	5000 psi	true	true	true	10	18	24
44	(-28.53,-90.28)	5000 psi	true	true	true	10	18	24
45	(-19.02,-17.34)	5000 psi	true	true	true	10	24	18
46	(-14.45,-61.73)	5000 psi	true	true	true	10	24	18

Mesh Input: Columns Below Table (2)

Angle degrees	*Roller*	*I Factor*	*Use Spec LLR Params*	*Spec. LLR Levels*	*Spec. Trib. Area ft²*	*Spec. Infl. Area ft²*
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
84	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
90	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
90	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
112	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0

Mesh Input: Columns Below Table (3)

nfl. Area	Max LLR %
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
	40
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	40
	40
	40
	40
	40
	40

Mesh Input: Columns Below Table (4)

Number	*Location feet*	*Mix*	*Fixed Near*	*Fixed Far*	*Comp.*	*Height feet*	*B inches*	*D inches*
47	(-14.45,-46.58)	5000 psi	true	true	true	10	24	18
48	(-5.364,-16.83)	5000 psi	true	true	true	10	24	18
49	(-5.313,-48.07)	5000 psi	true	true	true	10	24	18
50	(-3.839,-76.3)	5000 psi	true	true	true	10	24	18
51	(-3.5,-61.73)	5000 psi	true	true	true	10	24	18
52	(-1.469,-92.28)	5000 psi	true	true	true	10	18	24

Mesh Input: Columns Below Table (5)

Angle degrees	*Roller*	*I Factor*	*Use Spec LLR Params*	*Spec. LLR Levels*	*Spec. Trib. Area ft²*	*Spec. Infl. Area ft²*
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0

Mesh Input: Columns Below Table (6)

nfl. Area	*Max LLR %*
	40
	40
	40
	40
	40
	40

Mesh Input: Slab Areas Table

Number	*Location feet*	*Mix*	*Thickness inches*	*TOC inches*	*Priority*	*Behavior*	*R-Axis degrees*
1	(-163.1,-142.3)(-165.7,-1	3508 psi	195.2,-24	07.1)(-192.1,-115.1	0)(-199.5,-12	24.3)(-199.7,-115.8)	(-199.3,-115.8)(-200	0,-121.8)(-204.9,-1
2	(-192.3,-1)(-119.5,-1.00	5000 psi	119.5,-52.53	8(-108.2,-52.48)(-107	7.6,-48.52)(-1	79.08,-48.6)(-78.66,-52.53)	(-67.49,-52	059)(-67.54,-1.012)
3	(-69.54,-1.067)(-69.54,-5	5000 psi	77.54,-50	0.46)(-77.54,-46.46)(-1	09.5,-46	6.46)(-109.5,-50.46)	(-117.5,-50.46)(-110	7.5,-1.067)

Mesh Input: Slab Areas Table (2)

s	KMr	KMs	KMrs	KFr	KFs	KVrs
	1	1	1	1	1	1
	1	1	1	1	1	1
	1	1	1	1	1	1

Mesh Input: Beams Table

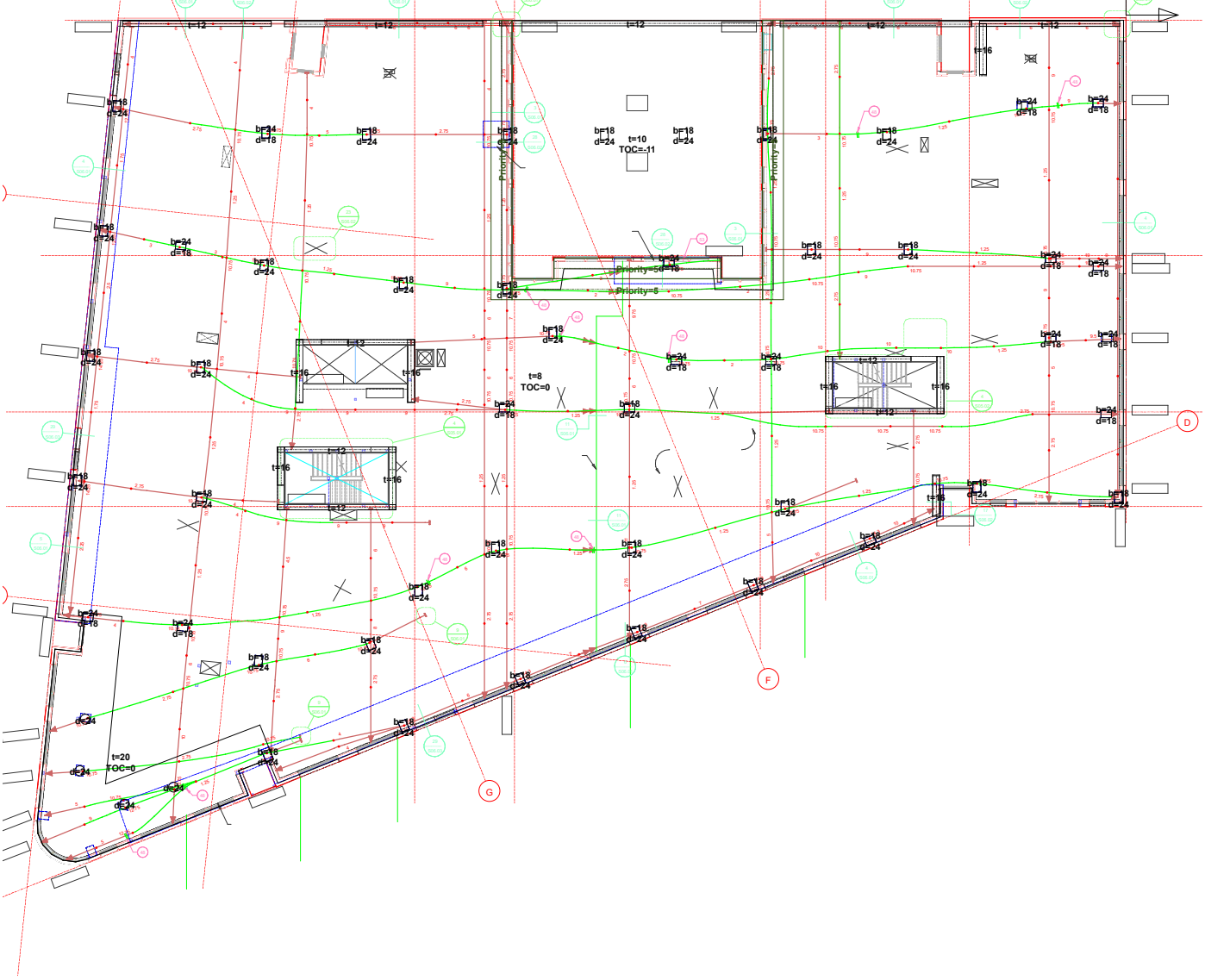
Number	Location feet	Mix	Thickness inches	TOC inches	Priority	Mesh As Slab	Width inches
1	(-119.5,-1.007)(-119.5,-54.46)(-117.5,-1.007)(-117.5,-54.46)	5000 psi	12	0	(-121.5,-1.007)(-121.5,-54.46)	true	48
2	(-109.5,-48.46)(-77.54,-48.46)(-109.5,-46.46)(-77.54,-46.46)	5000 psi	12	0	(-109.5,-50.46)(-77.54,-50.46)	true	48
3	(-117.5,-52.46)(-69.53,-52.46)(-117.5,-50.46)(-69.53,-50.46)	5000 psi	12	0	(-117.5,-54.46)(-69.53,-54.46)	true	48
4	(-67.54,-1.012)(-67.54,-54.46)(-65.54,-1.012)(-65.54,-54.46)	5000 psi	12	0	(-69.54,-1.012)(-69.54,-54.46)	true	48

Mesh Input: Beams Table (2)

Width inches	Behavior	KMr	KMs	KMrs	KFr	KFs	KVrs
	no-torsion two-way slab	1	1	0.001	1	1	1
	no-torsion two-way slab	1	1	0.001	1	1	1
	no-torsion two-way slab	1	1	0.001	1	1	1
	no-torsion two-way slab	1	1	0.001	1	1	1

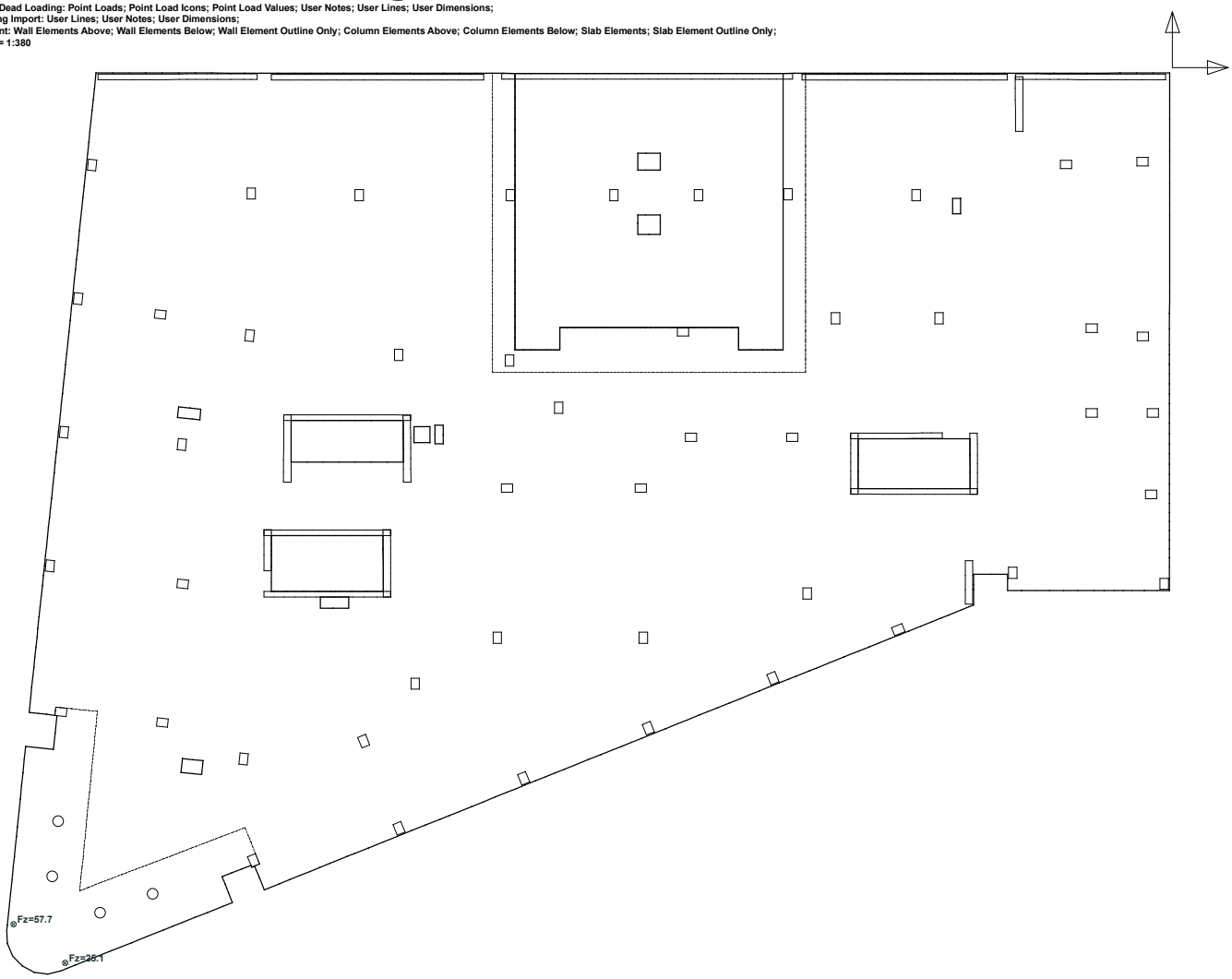
Mesh Input: Standard Plan

Mesh Input: Beams; Beam Priorities; Slab Areas; Slab AreaT hicknesses; Slab Area Elevations; Slab Openings; Point Supports; Point Support Icons; Line Supports; Line Support Icons; Walls Above; Walls Below; Wall Thicknesses; Columns Above; Columns Below; Column Dimens
Drawing Import: User Notes; User Lines; User Dimensions; S-BEAM; S-COLS; S-COLS-SYMB; A-GENM; A-DETL; 0; 1803002_A_18S_VE_UPDATE_R17_rvt-1-PT Floor Plan - LEVEL 4|S-COLS; S-ANNO-SYMB; 1803002_A_18S_VE_UPDATE_R17_rvt-1-PT Floor Plan - LEVEL 4|S-STRS
Scale = 1:380



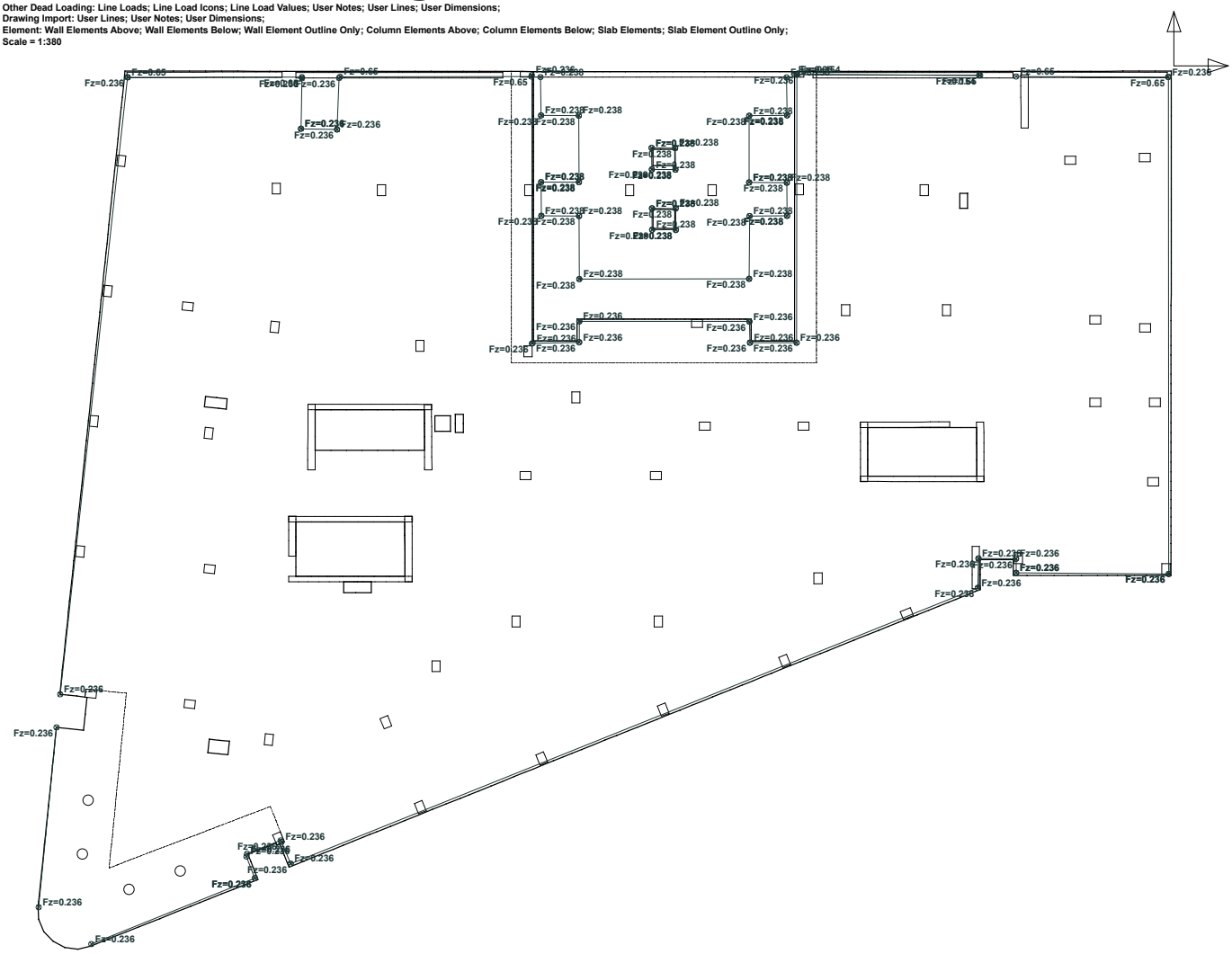
Other Dead Loading: Point Loads Plan

Other Dead Loading: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



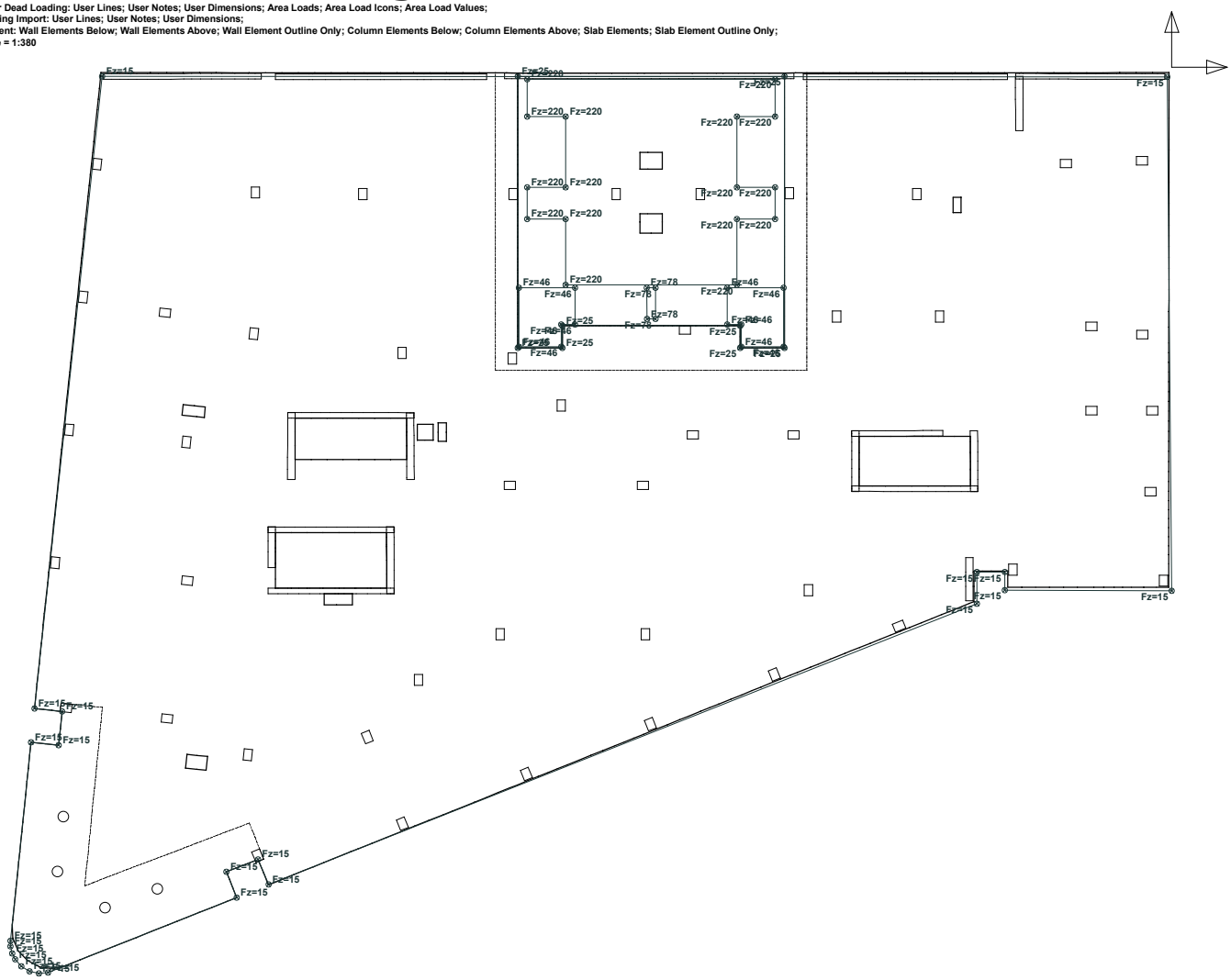
Other Dead Loading: Line Loads Plan

Other Dead Loading: Line Loads; Line Load Icons; Line Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



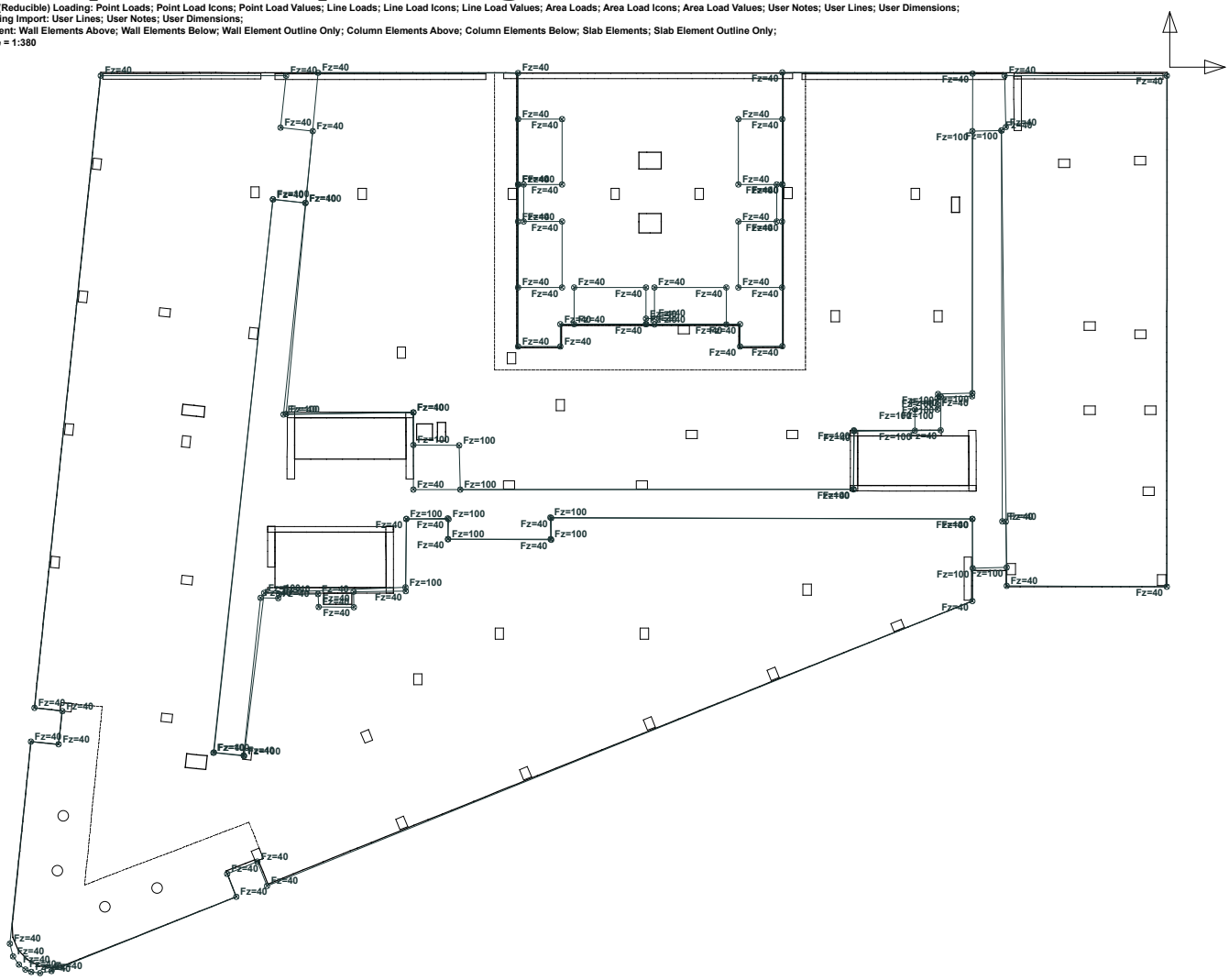
Other Dead Loading: Area Loads Plan

Other Dead Loading: User Lines; User Notes; User Dimensions; Area Loads; Area Load Icons; Area Load Values;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



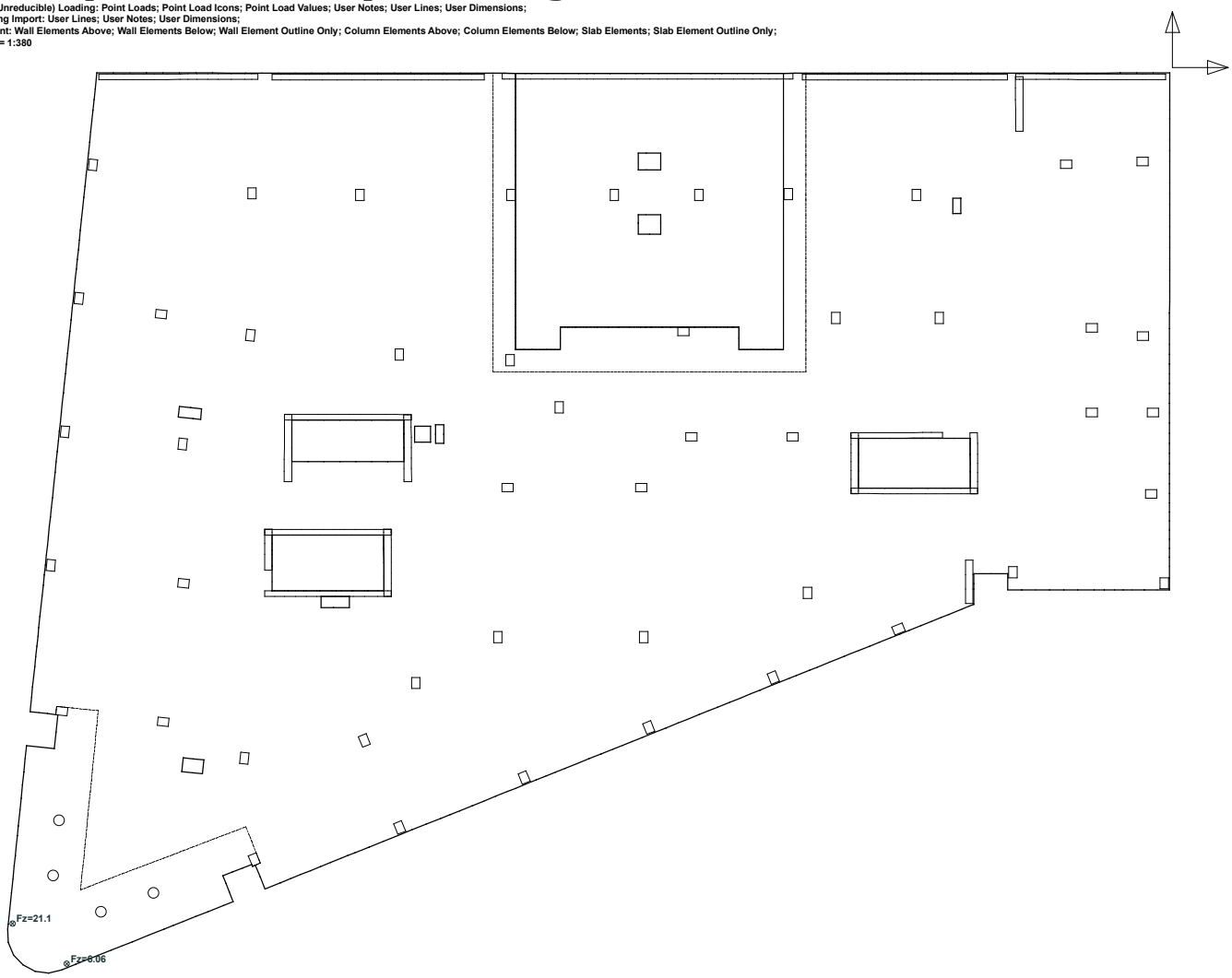
Live (Reducible) Loading: All Loads Plan

Live (Reducible) Loading: Point Loads; Point Load Icons; Point Load Values; Line Loads; Line Load Icons; Line Load Values; Area Loads; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



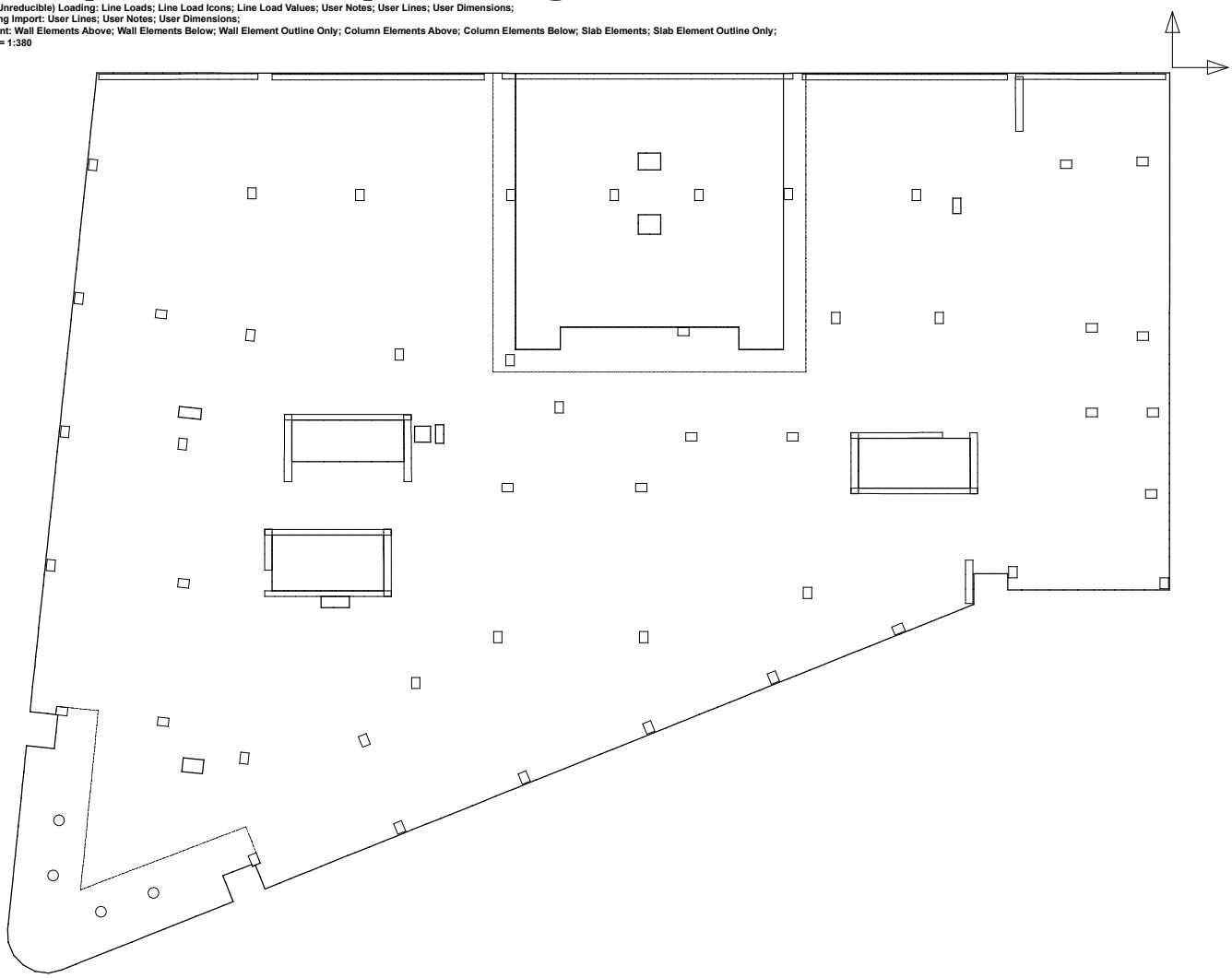
Live (Unreducible) Loading: Point Loads Plan

Live (Unreducible) Loading: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



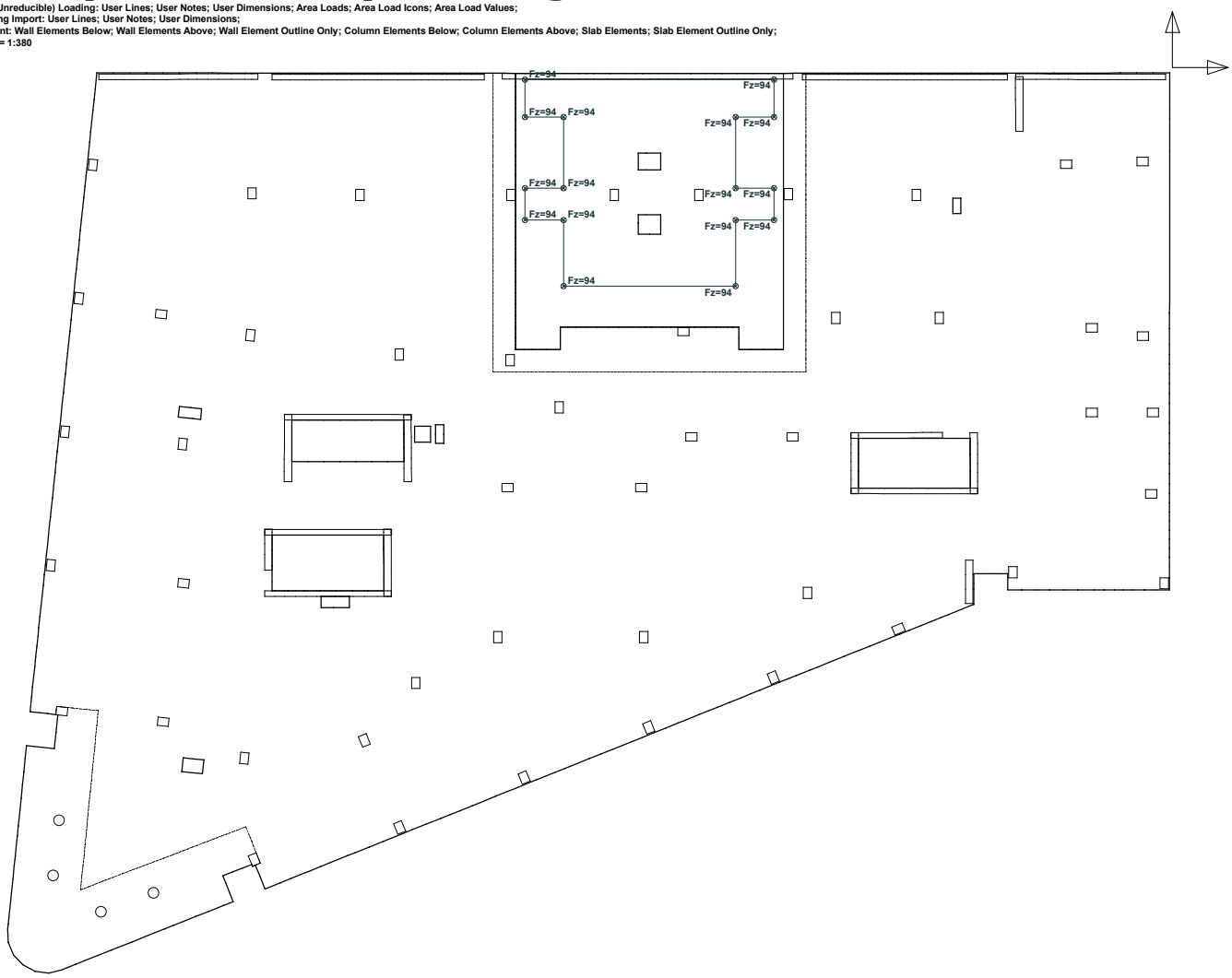
Live (Unreducible) Loading: Line Loads Plan

Live (Unreducible) Loading: Line Loads; Line Load Icons; Line Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



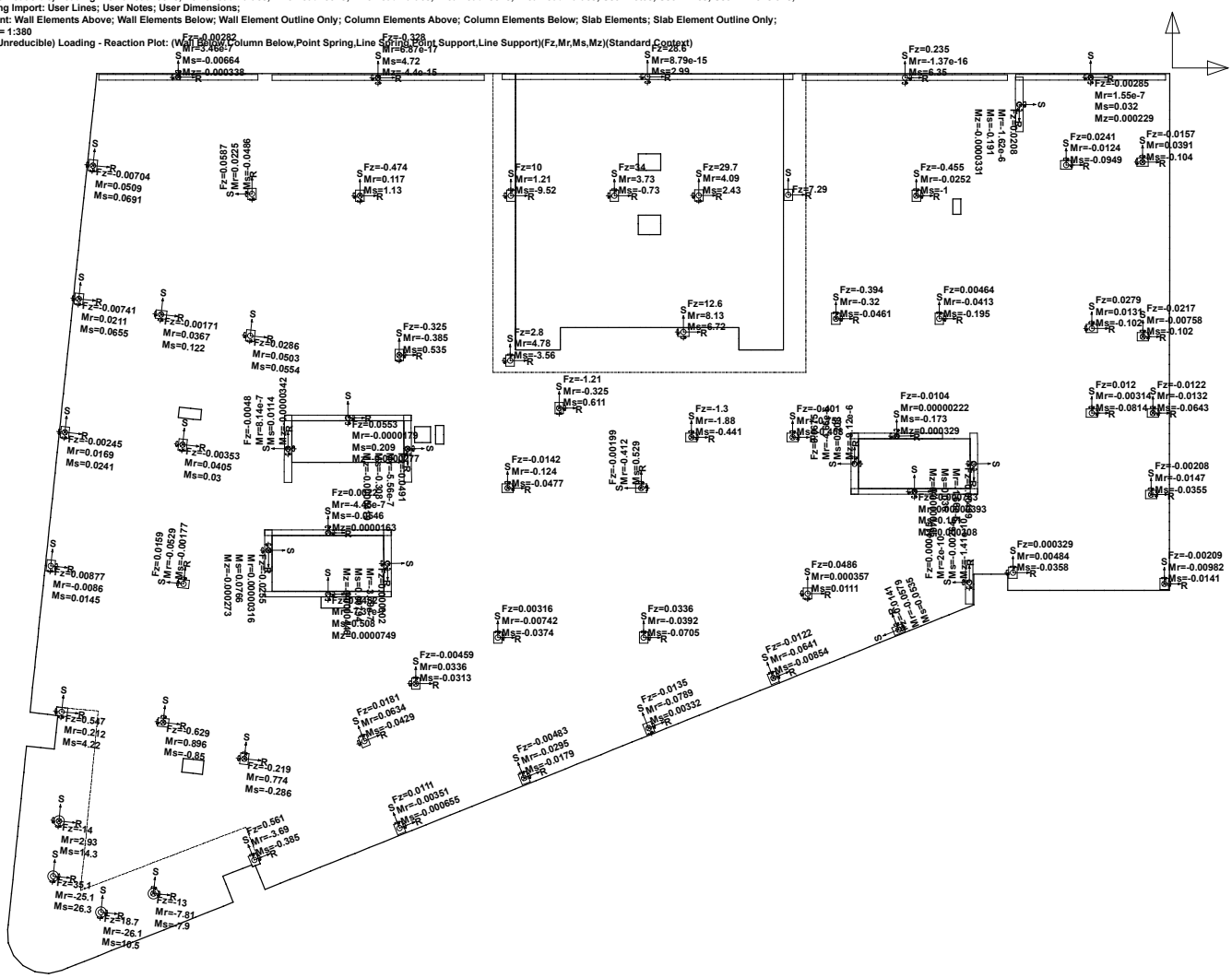
Live (Unreducible) Loading: Area Loads Plan

Live (Unreducible) Loading: User Lines; User Notes; User Dimensions; Area Loads; Area Load Icons; Area Load Values;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



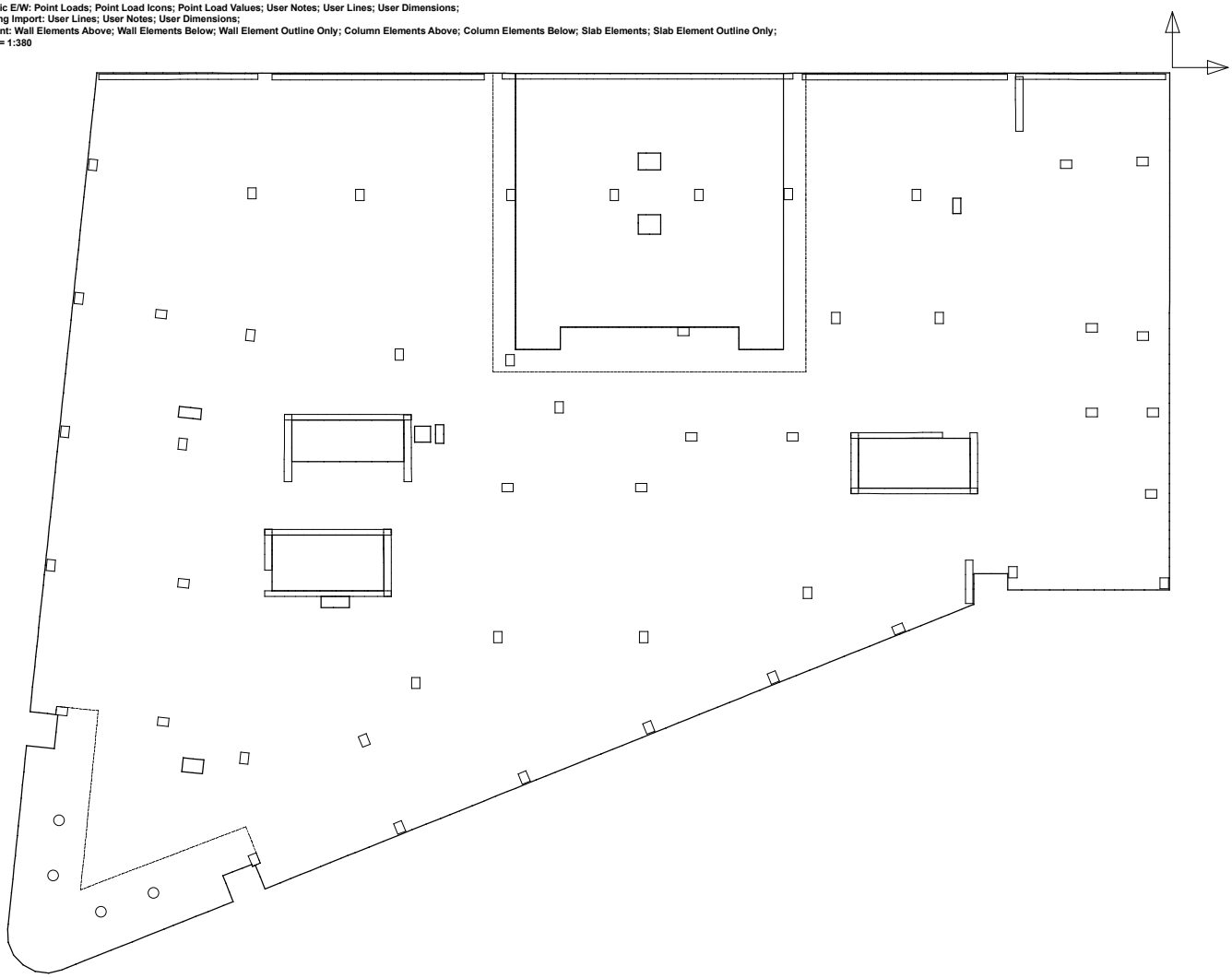
Live (Unreducible) Loading: Std Reactions Plan

Live (Unreducible) Loading: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Live (Unreducible) Loading - Reaction Plot: (Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support)(Fz,Mr,Ms,Mz)(Standard Context)



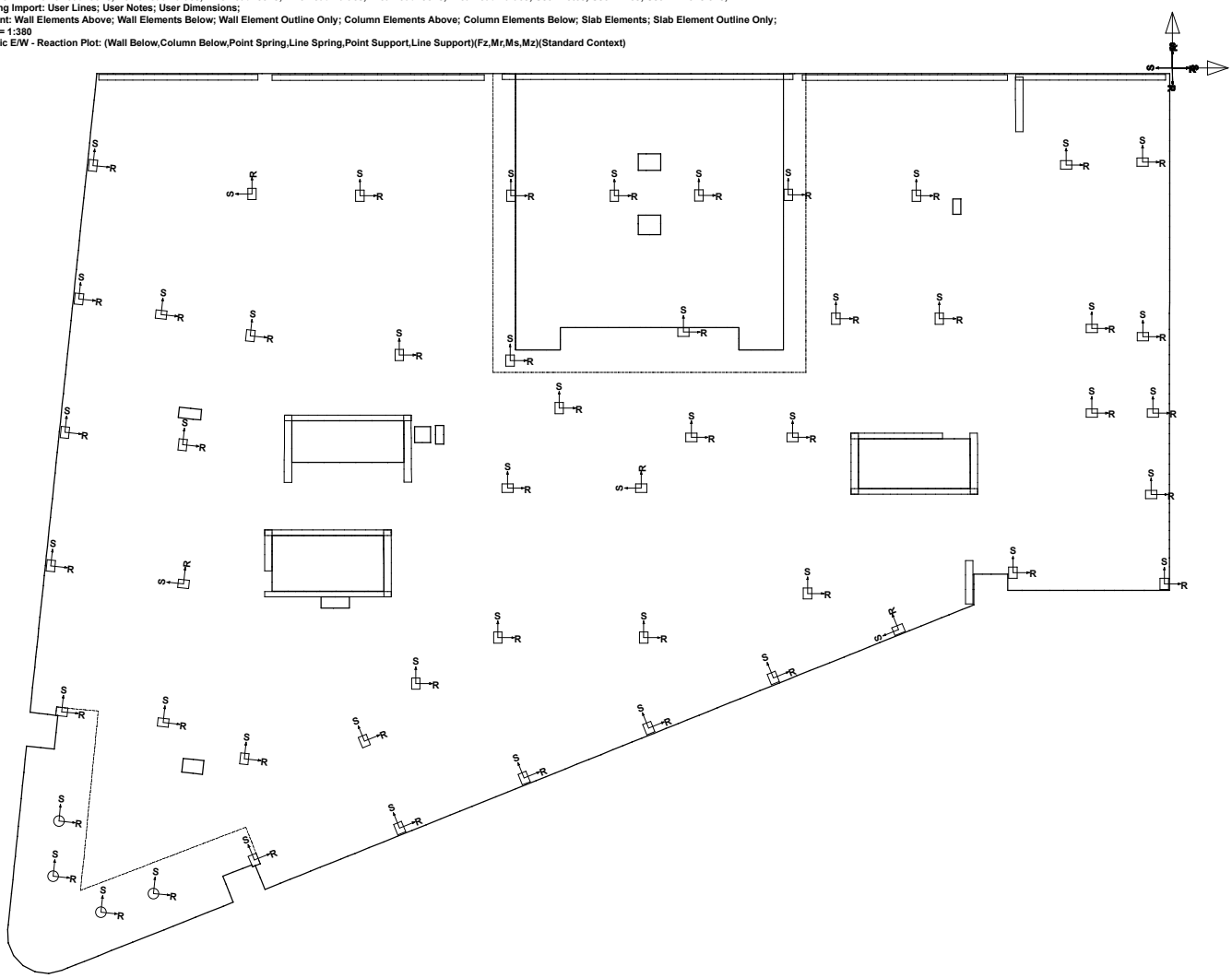
Seismic E/W: Point Loads Plan

Seismic E/W: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



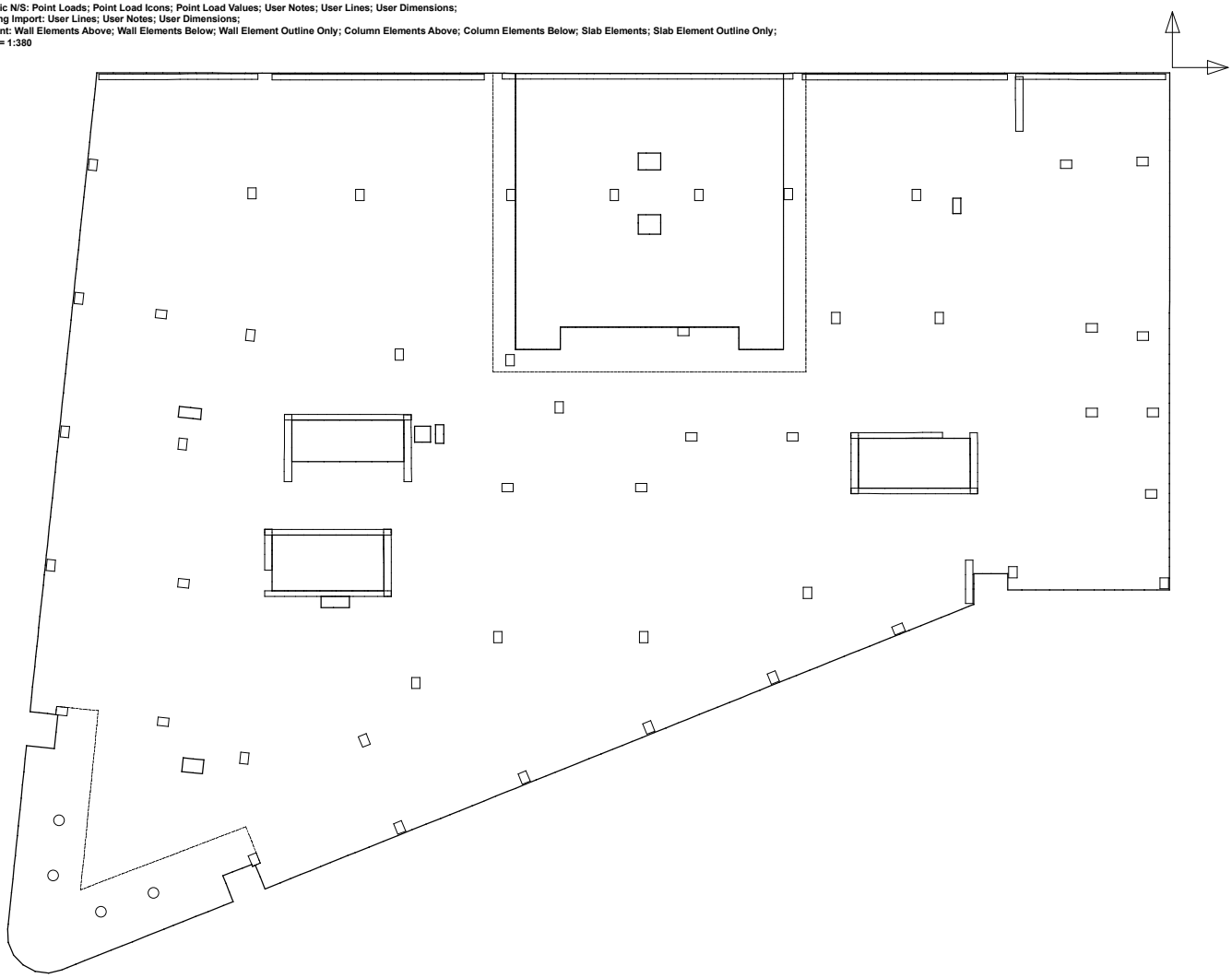
Seismic E/W: Std Reactions Plan

Seismic E/W: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Seismic E/W - Reaction Plot: (Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support)(Fz,Mr,Ms,Mz)(Standard Context)



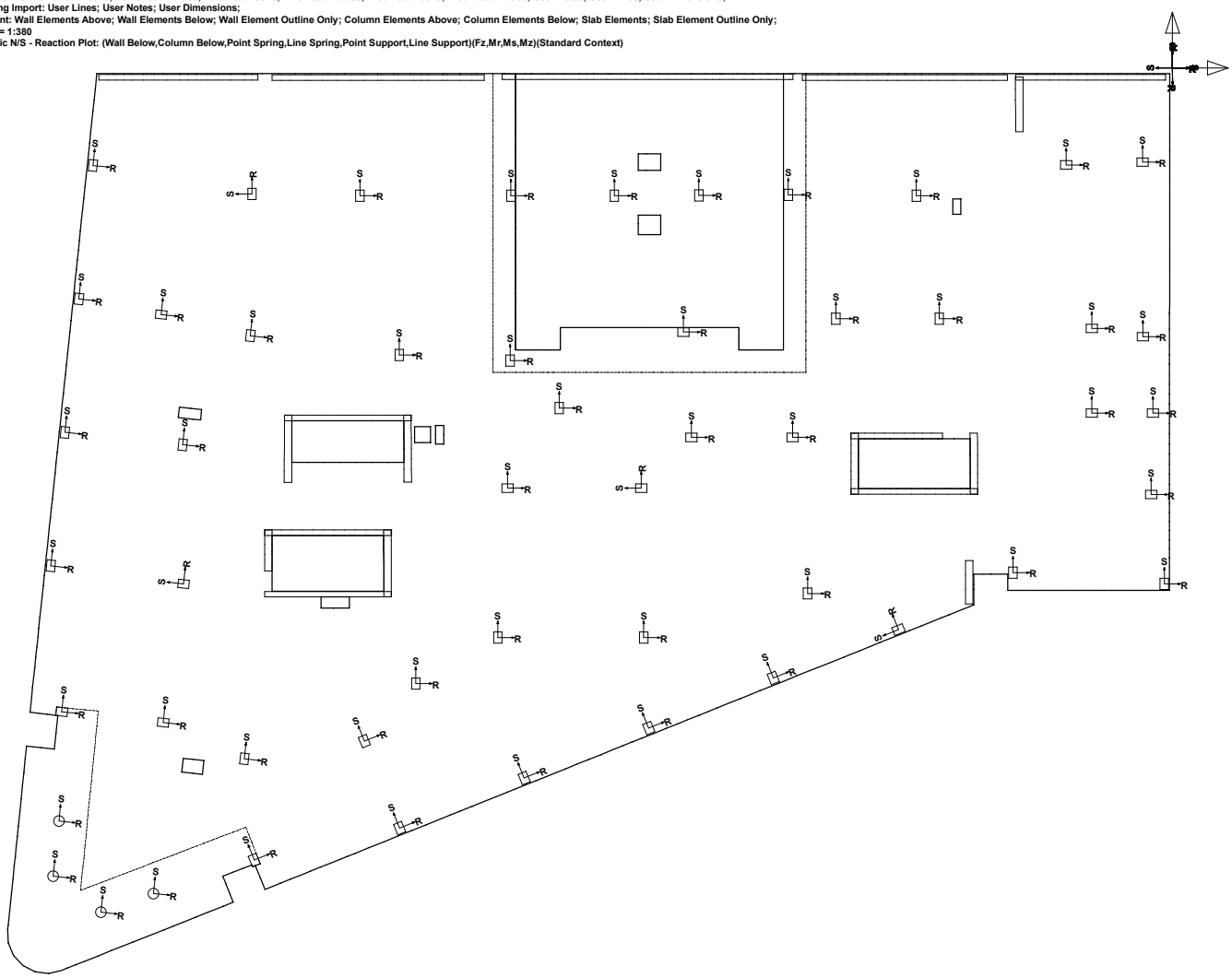
Seismic N/S: Point Loads Plan

Seismic N/S: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Seismic N/S: Std Reactions Plan

Seismic N/S: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Seismic N/S - Reaction Plot: (Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support)(Fz,Mr,Ms,Mz)(Standard Context)

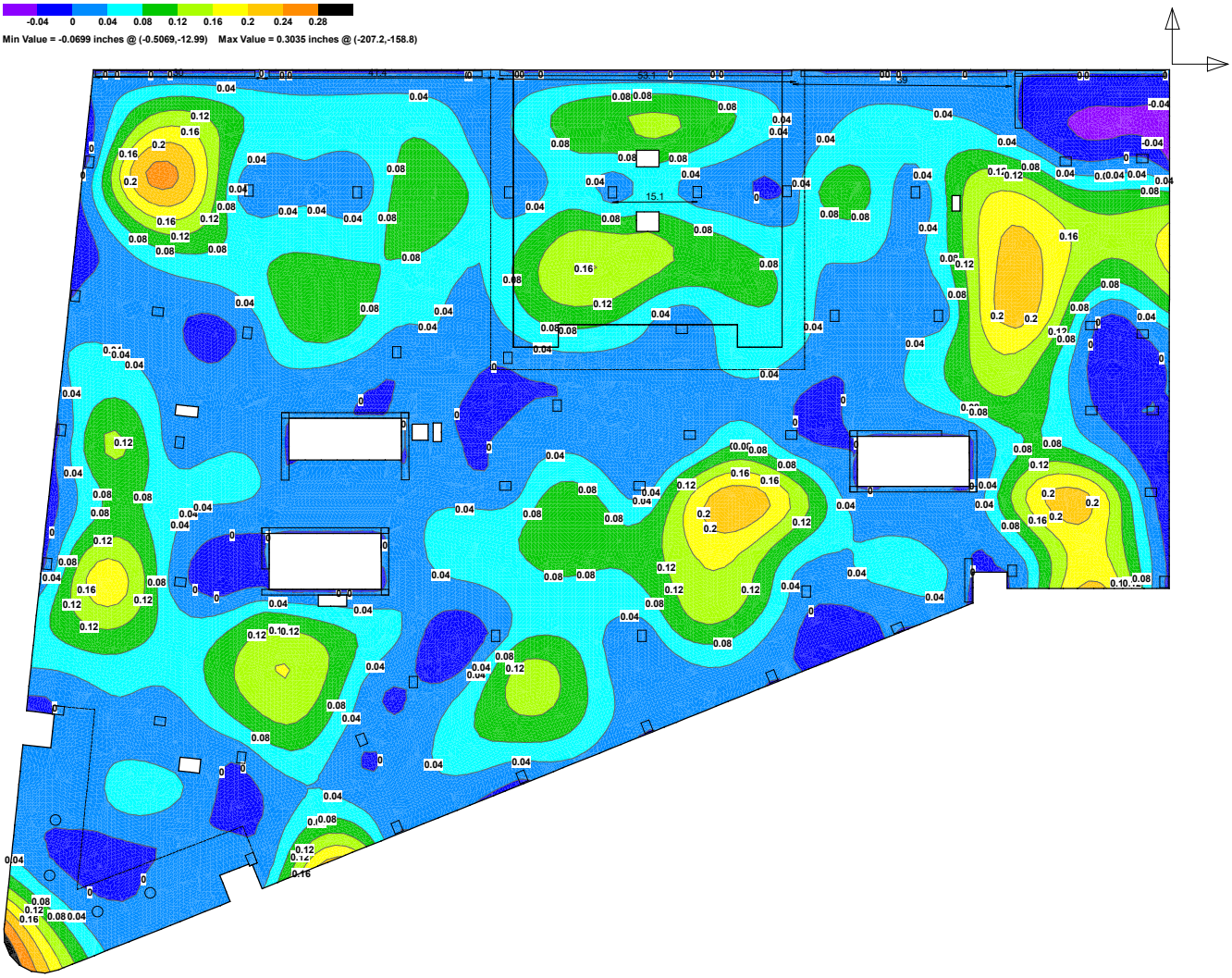


Service LC: D + L: Max Deflection Plan

Service LC: D + L: User Lines; User Notes; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service LC: D + L - Vertical Deflection Plot (Maximum Values)

-0.04 0 0.04 0.08 0.12 0.16 0.2 0.24 0.28

Min Value = -0.0699 inches @ (-0.5069,-12.99) Max Value = 0.3035 inches @ (-207.2,-158.8)

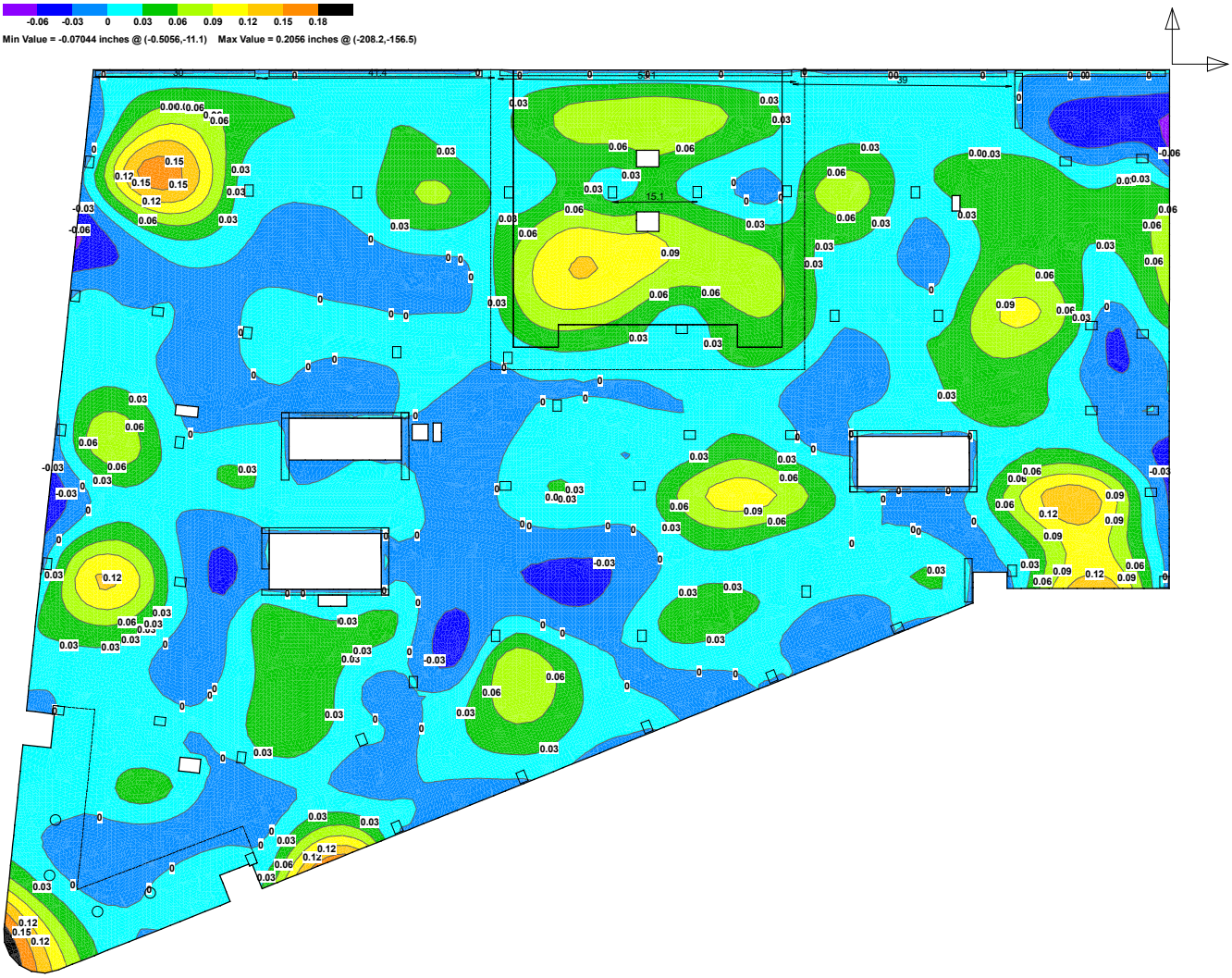


Service LC: D + L: Min Deflection Plan

Service LC: D + L: User Lines; User Notes; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service LC: D + L - Vertical Deflection Plot (Minimum Values)

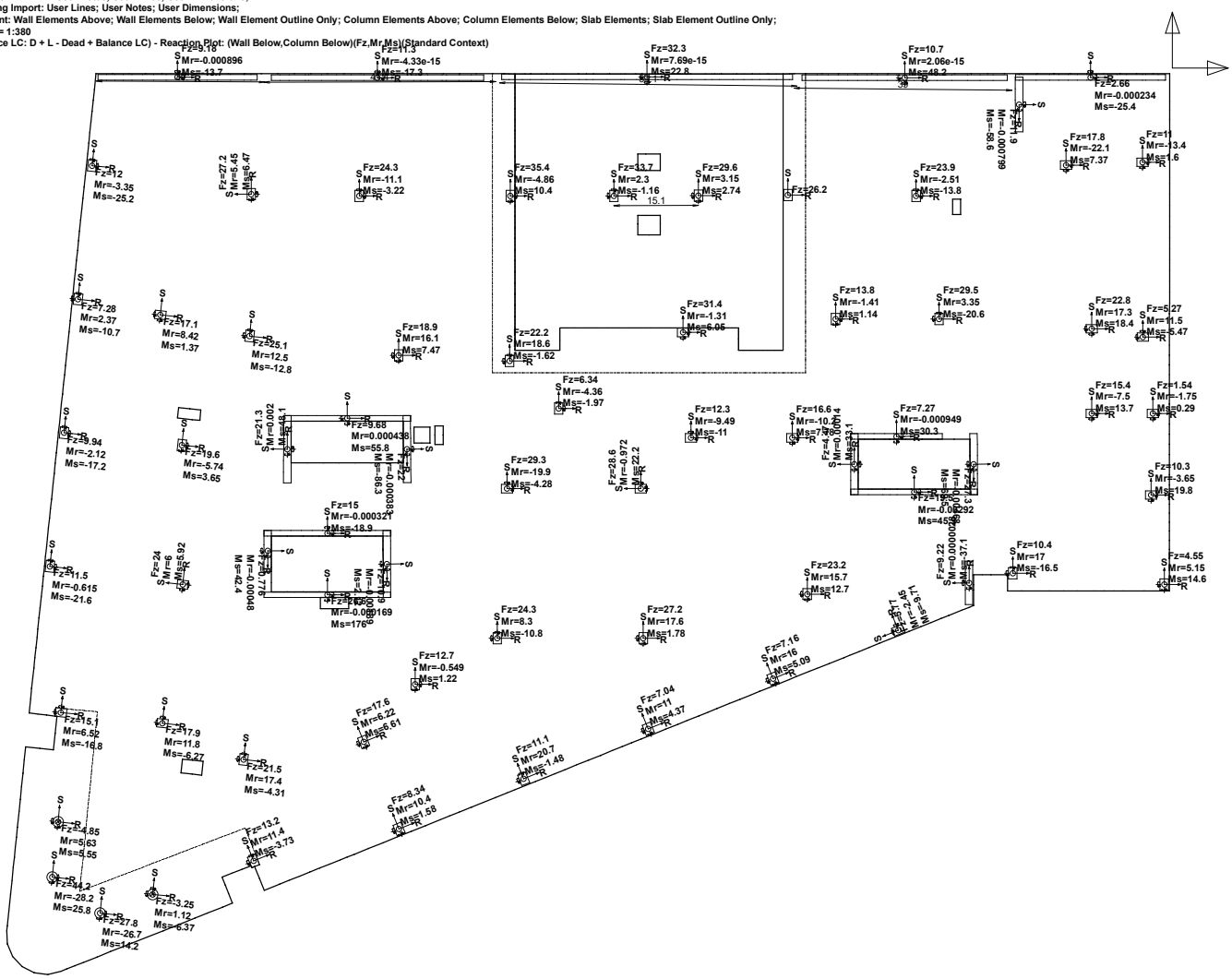
-0.06 -0.03 0 0.03 0.06 0.09 0.12 0.15 0.18

Min Value = -0.07044 inches @ (-0.5056,-11.1) Max Value = 0.2056 inches @ (-208.2,-156.5)



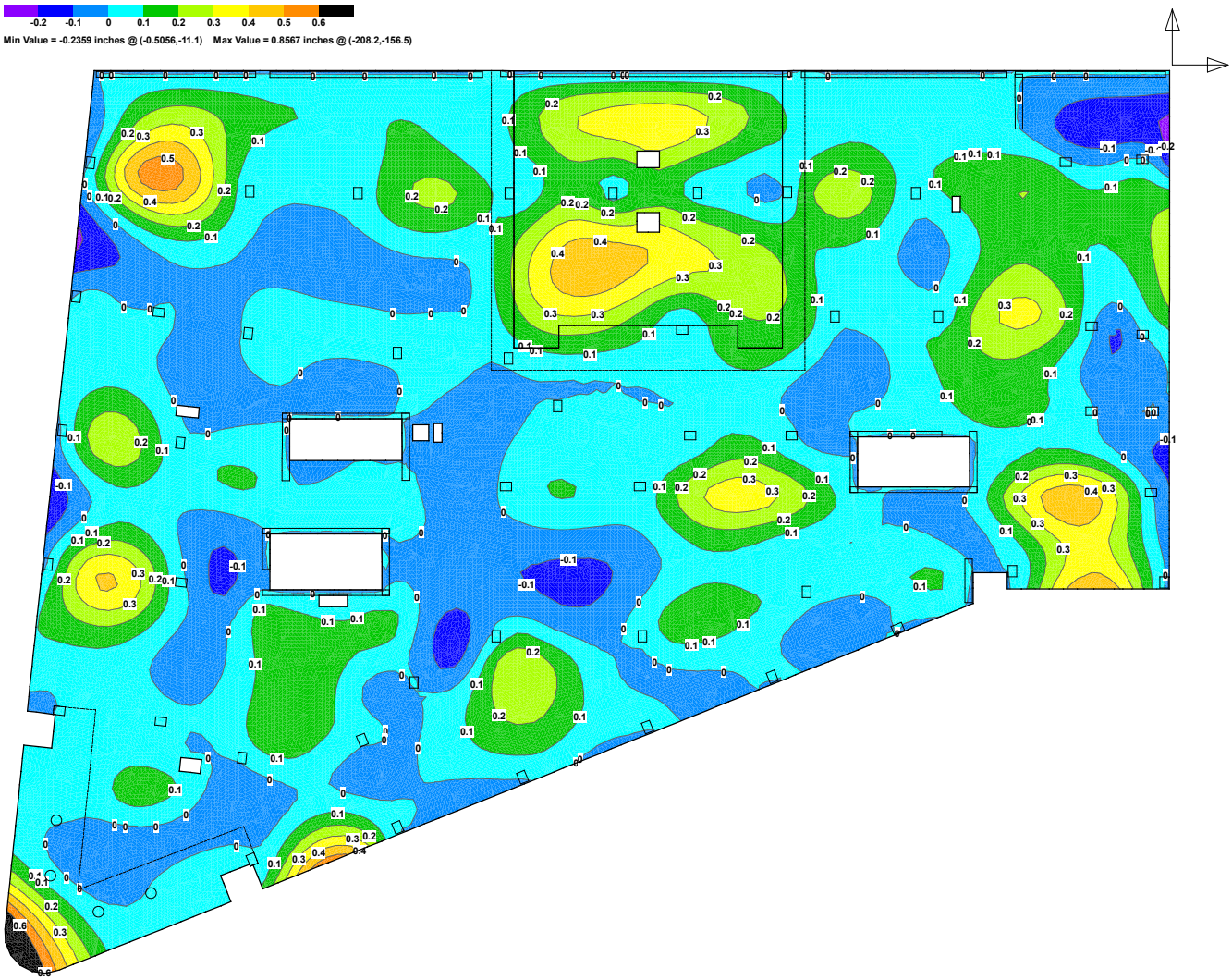
Service LC: D + L: Reaction Plan

Service LC: D + L: User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
(Service LC: D + L - Dead + Balance LC) - Reaction Plot: (Wall Below,Column Below)(Fz,Mr,Ms)(Standard Context)



Long Term deflection: Max Deflection Plan

Long Term deflection: User Lines; User Notes; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Long Term deflection - Vertical Deflection Plot (Maximum Values)



Min Value = -0.2359 inches @ (-0.5056,-11.1) Max Value = 0.8567 inches @ (-208.2,-156.5)

Design Strip: Latitude SSs Table

Name	Set	Location feet	Skew degrees	At Support 1	At Support 2	Support Width 1 inches
1-1	latitude	(-207.2,-144.6)(-200.1,-144.6)	0	false	true	3.087
2-1	latitude	(-206,-133.9)(-199.1,-133.9)	0.427	false	true	0
3-1	latitude	(-203.9,-114.5)(-199.6,-115)	0	false	true	0
4-1	latitude	(-208.4,-158)(-191.6,-152)	22.46	false	true	23.41
4-2	latitude	(-191.6,-151)(-182.2,-147.7)	19.51	true	true	21.1
4-3	latitude	(-182.2,-147.7)(-164.4,-148.4)	18.34	true	true	21.03
4-4	latitude	(-164.4,-141.7)(-138.2,-136)	0	true	true	22.97
4-5	latitude	(-138.2,-136)(-115.9,-127)	0	true	true	18.16
4-6	latitude	(-115.9,-127)(-93.65,-118.1)	0	true	true	18.16
4-7	latitude	(-93.65,-118.1)(-71.38,-109.1)	0	true	true	18.16
4-8	latitude	(-71.38,-109.1)(-49.11,-100.2)	0	true	true	18.16
4-9	latitude	(-49.11,-100.2)(-36.21,-95.17)	0	true	true	24.16
5-1	latitude	(-198.6,-115.2)(-180.5,-117.1)	0	true	true	24.16
5-2	latitude	(-180.5,-117.1)(-166,-123.6)	24.61	true	true	25.41
5-3	latitude	(-166,-123.6)(-144.5,-120.4)	8.448	true	true	18.75
5-4	latitude	(-144.5,-120.4)(-135.3,-110.1)	25.67	true	true	20.22
5-5	latitude	(-135.3,-110.1)(-120.6,-101.9)	30.23	true	true	20.78
5-6	latitude	(-120.6,-101.9)(-94.55,-101.9)	0.009e-6	true	true	18.16
5-7	latitude	(-94.55,-101.9)(-65.26,-94)	15.11	true	true	18.8
5-8	latitude	(-65.26,-94)(-36.27,-89.19)	0	true	true	18.4
5-9	latitude	(-36.27,-89.19)(-28.53,-90.28)	0	true	true	14.77
5-10	latitude	(-28.53,-90.28)(-1.302,-92.45)	0	true	true	18.21
6-1	latitude	(-200.8,-89.04)(-176.8,-92.28)	7.284	true	true	24.84
6-2	latitude	(-176.8,-92.28)(-161.7,-94.39)	7.419	true	true	24.16
7-1	latitude	(-195.5,-41.31)(-180.7,-44.59)	14.52	true	true	18.27
7-2	latitude	(-180.7,-44.59)(-164.9,-47.89)	17.83	true	true	18.49
7-3	latitude	(-164.9,-47.89)(-138.3,-51.35)	5.145	true	true	18.17
7-4	latitude	(-138.3,-51.35)(-118.4,-52.35)	0	true	true	18.18
7-5	latitude	(-118.4,-52.35)(-87.45,-47.25)	17.25	true	true	18.4
7-6	latitude	(-87.45,-47.25)(-60.2,-44.83)	6.83	true	true	24.25
7-7	latitude	(-60.2,-44.83)(-41.7,-44.83)	0	true	true	18.16
7-8	latitude	(-41.7,-44.83)(-14.45,-46.58)	6.58	true	true	18.19
7-9	latitude	(-14.45,-46.58)(-5.313,-47.92)	8.204	true	true	24.41
7-10	latitude	(-5.313,-47.92)(-0.7549,-47.92)	0	true	false	24.17
8-1	latitude	(-198,-65.18)(-177,-67.39)	0	true	true	18.16
8-2	latitude	(-177,-67.39)(-158.2,-73.79)	17.91	true	true	18.55
9-1	latitude	(-193,-17.44)(-164.2,-22.76)	0	true	true	18.21
9-2	latitude	(-164.2,-22.76)(-145.3,-22.83)	0	true	true	9.142
9-3	latitude	(-145.3,-22.83)(-121.5,-22.85)	0	true	false	18.16
10-1	latitude	(-140.2,-94.08)(-120.6,-101.9)	10.79	true	true	14.97
11-1	latitude	(-136.6,-73.6)(-118.9,-75.16)	0	true	true	13.58
11-2	latitude	(-118.9,-75.16)(-94.99,-75.16)	0	true	true	24.16
11-3	latitude	(-94.99,-75.16)(-56.84,-75.28)	0	true	true	24.16
12-1	latitude	(-136.7,-62.49)(-109.7,-60.83)	3.56	true	true	13.4
12-2	latitude	(-109.7,-60.83)(-86.02,-66.08)	12.52	true	true	18.6
12-3	latitude	(-86.02,-66.08)(-67.92,-66.08)	0.009e-6	true	true	24.16

Design Strip: Latitude SSs Table (2)

t Width 1	Support Width 2 inches	Support Trans. Width 1 inches	Support Trans. Width 2 inches	Auto-Support	Min Divisions	Max Division Spacing feet
	21.28	0	21.12	true	4	2.5
	20.95	0	20.79	true	4	2.5
	0	0	0	true	4	2.5
	21.28	0	21.12	true	4	2.5
	21.1	20.94	20.94	true	4	2.5
	13.69	20.87	24.05	true	4	2.5
	18.41	24.34	24.34	true	4	2.5
	18.16	24	24	true	4	2.5
	18.16	24	24	true	4	2.5
	18.16	24	24	true	4	2.5
	24.15	24	18	true	4	2.5
	20.49	18	35.28	true	4	2.5
	24.16	18	18	true	4	2.5
	19.1	18.94	25.26	true	4	2.5
	18.67	24.78	24.68	true	4	2.5
	27.17	26.75	24.14	true	4	2.5
	20.78	27.5	27.5	true	4	2.5
	18.16	24	24	true	4	2.5
	18.8	24.86	24.86	true	4	2.5
	17.92	24.33	57.18	true	4	2.5
	18.33	75.88	24.24	true	4	2.5
	22.23	24.08	24.08	true	4	2.5
	24.17	24.01	18	true	4	2.5
	16.08	18.01	12.09	true	4	2.5
	30.1	24.15	18.11	true	4	2.5
	18.25	18.09	24.12	true	4	2.5
	18.31	24	24.2	true	4	2.5
	18.18	24.03	24.03	true	4	2.5
	24.48	24.32	18.24	true	4	2.5
	18.23	18.07	24.09	true	4	2.5
	18.16	24	24	true	4	2.5
	24.21	24.05	18.04	true	4	2.5
	24.41	18.19	18.19	true	4	2.5
	0	18.01	0	true	4	2.5
	18.16	24	24	true	4	2.5
	16.66	24.53	34.68	true	4	2.5
	27.63	24.07	24.41	true	4	2.5
	18.16	24	24	true	4	2.5
	0	24	0	true	4	2.5
	19.54	25.27	25.84	true	4	2.5
	24.25	77.59	18.07	true	4	2.5
	24.16	18	18	true	4	2.5
	16.17	18	130.9	true	4	2.5
	18.19	118	24.05	true	4	2.5
	24.74	24.58	18.44	true	4	2.5
	24.16	18	18	true	4	2.5

Design Strip: Latitude SSs Table (3)

n Spacing	Design For Axial	Environment	Design As PT	Maximize Integrated V	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0

Design Strip: Latitude SSs Table (4)

Spec. Infl. Area ft²	Max LLR %	Span Width	Col Strip Width	Lock Strips	Design CS for CS	-CS Auto Trim	CS Section Slop
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	manual	manual	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25

Design Strip: Latitude SSs Table (5)

Section	Slope	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
		#5	#4	#4	1.5	0.75	Maximize Effective Depth	none	two-way slab
		#5	#4	#4	1.5	0.75	Maximize Effective Depth	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	Maximize Effective Depth	none	two-way slab
		#5	#4	#4	1.5	0.75	Maximize Effective Depth	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	Maximize Effective Depth	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#5	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
		#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab

Design Strip: Latitude SSs Table (6)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4

Design Strip: Latitude SSs Table (7)

S Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Latitude SSs Table (8)

S Min B.Bar	MS Shear Legs
	2
	2
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Design Strip: Latitude SSs Table (9)

Name	*Set*	*Location feet*	*Skew degrees*	*At Support 1*	*At Support 2*	*Support Width 1 inches*
12-4	latitude	(-67.92,-66.08)(-56.72,-65.52)	0	true	true	24.17
13-1	latitude	(-117.5,-22.85)(-99.8,-22.83)	0	true	true	0
13-2	latitude	(-99.8,-22.83)(-84.69,-22.81)	0.0167	true	true	18.16
13-3	latitude	(-84.69,-22.81)(-68.7,-22.67)	0	true	true	18.16
13-4	latitude	(-68.7,-22.67)(-65.54,-22.69)	0	true	false	18.16
13-4(2)	latitude	(-65.54,-22.69)(-45.8,-22.83)	0	false	true	0
13-5	latitude	(-45.8,-22.83)(-19.02,-17.34)	1.148	true	true	18.53
13-6	latitude	(-19.02,-17.34)(-5.366,-16.83)	1.831	true	true	24.17
13-7	latitude	(-5.366,-16.83)(-0.7621,-16.76)	0	true	false	24.22
14-1	latitude	(-35.54,-65.89)(-14.45,-61.73)	0	true	true	16.35
14-2	latitude	(-14.45,-61.73)(-3.5,-61.73)	0	true	true	24.16
14-3	latitude	(-3.5,-61.73)(-0.8442,-61.81)	0	true	false	24.17
15-1	latitude	(-35.53,-75.78)(-3.5,-76.3)	1.218	true	true	17.16
15-2	latitude	(-3.5,-76.3)(-0.9865,-76.2)	2.165	true	false	16.03

Design Strip: Latitude SSs Table (10)

t Width 1	Support Width 2 inches	Support Trans. Width 1 inches	Support Trans. Width 2 inches	Auto-Support	Min Divisions	Max Division Spacing feet
	19.15	18.01	131	true	4	2.5
	18.16	0	24	true	4	2.5
	18.16	24	24	true	4	2.5
	18.16	24	24	true	4	2.5
	0	24	0	true	4	2.5
	18.16	0	24	true	4	2.5
	24.66	24.5	18.37	true	4	2.5
	24.12	18.01	18.01	true	4	2.5
	0	18	0	true	4	2.5
	24.62	48.78	18.35	true	4	2.5
	24.16	18	18	true	4	2.5
	0	18.01	0	true	4	2.5
	32.29	131	18	true	4	2.5
	0	18	0	true	4	2.5

Design Strip: Latitude SSs Table (11)

n Spacing	Design For Axial	Environment	Design As PT	Maximize Integrated V	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0

Design Strip: Latitude SSs Table (12)

Spec. Infl. Area ft²	*Max LLR %*	*Span Width*	*Col Strip Width*	*Lock Strips*	*Design CS for CS*	*-CS Auto Trim*	*CS Section Slope*
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	manual	manual	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	manual	manual	false	false	none	0.25
0	40	manual	manual	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25

Design Strip: Latitude SSs Table (13)

Section Slope Sin	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#5	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#5	#4	1.5	1	All Tension Reinforcement	none	two-way slab
	#5	#5	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#5	#4	1.5	1	All Tension Reinforcement	none	two-way slab
	#4	#4	#4	1.5	1	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab

Design Strip: Latitude SSs Table (14)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4

Design Strip: Latitude SSs Table (15)

S Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Latitude SSs Table (16)

Min B.Bar	MS Shear Legs
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2

Design Strip: Longitude SSs Table

Name	Set	Location feet	Skew degrees	At Support 1	At Support 2	Support Width 1 inches
16-1	longitude	(-201.7,-162)(-200.1,-144.6)	5.081	false	true	6.268
16-2	longitude	(-200.1,-144.6)(-199.1,-134.7)	-1.342	true	true	20.96
16-3	longitude	(-199.1,-134.7)(-198.6,-115.2)	-1.452	true	true	21.17
16-4	longitude	(-198.6,-115.2)(-200.6,-89.05)	-8.266	true	true	18.45
16-5	longitude	(-200.6,-89.05)(-198,-65.18)	5.18	true	true	24.16
16-6	longitude	(-198,-65.18)(-195.5,-41.31)	5.31	true	true	24.16
16-7	longitude	(-195.5,-41.31)(-193,-17.44)	5.44	true	true	24.16
16-8	longitude	(-193,-17.44)(-191.7,-2.507)	3.078	true	true	24.16
17-1	longitude	(-195.3,-159.9)(-191.6,-125.6)	15.66	false	true	0
17-2	longitude	(-191.6,-151)(-180.5,-117.1)	18.19	true	true	21.03
17-3	longitude	(-180.5,-117.1)(-176.8,-92.28)	9.228	true	true	18.17
17-4	longitude	(-176.8,-92.28)(-177,-67.39)	0.399	true	true	18.27
17-5	longitude	(-177,-67.39)(-164.9,-47.89)	23.92	true	true	26.82
17-6	longitude	(-164.9,-47.89)(-164.6,-22.53)	-0.675	true	true	24.26
17-7	longitude	(-164.6,-22.53)(-164.9,-1.878)	-0.478	true	true	24.16
18-1	longitude	(-164.2,-141.7)(-166,-123.6)	5.604	true	true	25.17
18-2	longitude	(-166,-123.6)(-161.6,-94.26)	8.362	true	true	24.17
19-1	longitude	(-148.6,-94.26)(-144.5,-120.4)	-6.874	true	true	9.262
19-2	longitude	(-144.5,-120.4)(-138.2,-23.69)	23.69	true	true	24.15
20-1	longitude	(-141.5,-1.583)(-145.3,-22.83)	-22.83	true	true	15.72
20-2	longitude	(-145.3,-22.83)(-138.3,-51.35)	-51.35	true	true	24.88
20-3	longitude	(-138.3,-51.35)(-136.9,-73.22)	-72.62	true	true	24.34
21-1	longitude	(-140.5,-83.22)(-136.7,-94.09)	-73.59	true	true	15.62
22-1	longitude	(-140.5,-94.09)(-135.3,-110.1)	-117.09	true	true	13.76
22-2	longitude	(-135.3,-110.1)(-138.2,-136.3)	-136.3	true	true	24.31
23-1	longitude	(-118.6,-1.583)(-118.3,-22.85)	-22.85	true	true	11.77
23-2	longitude	(-118.3,-22.85)(-118.4,-52.35)	-52.35	true	true	23.66
23-3	longitude	(-118.4,-52.35)(-118.5,-54.47)		true	false	24.16
23-3(2)	longitude	(-118.5,-54.47)(-118.9,-75.16)	-75.16	false	true	0
23-4	longitude	(-118.9,-75.16)(-120.6,-101.9)	-101.9	true	true	18.2
23-5	longitude	(-120.6,-101.9)(-115.9,-127.5)	-127.54	true	true	24.58
24-1	longitude	(-99.8,-1.583)(-99.8,-22.83)	22.83	true	true	11.77
24-2	longitude	(-99.8,-22.83)(-87.59,-46.44)	-46.44	true	true	27.17
25-1	longitude	(-94.99,-74.76)(-94.55,-101.9)	-101.91	true	true	27.64
25-2	longitude	(-94.55,-101.9)(-93.65,-128.1)	-128.1	true	true	24.19
26-1	longitude	(-87.45,-47.25)(-86.87,-54.61)		true	false	18.21
26-1(2)	longitude	(-86.87,-54.61)(-86.02,-66.38)	-66.38	false	true	0
27-1	longitude	(-87.61,-46.44)(-84.69,-22.81)	-22.81	true	true	0
27-2	longitude	(-84.69,-22.81)(-84.68,-1.565)	-1.565	true	true	24.16
28-1	longitude	(-68.45,-1.609)(-68.7,-22.67)	-22.67	true	true	11.15
28-2	longitude	(-68.7,-22.67)(-60.2,-44.83)	-43.98	true	true	25.86
28-3	longitude	(-60.2,-44.83)(-56.64,-65.84)	-65.84	true	true	24.5
29-1	longitude	(-71.38,-109.1)(-65.26,-94)	-94.03	true	true	26.06
29-2	longitude	(-65.26,-94)(-67.92,-66.08)	-68.434	true	true	24.27
30-1	longitude	(-56.76,-75.73)(-49.11,-101.6)	-101.36	true	true	13.09
31-1	longitude	(-47.52,-1.583)(-45.8,-22.62)	-22.62	true	true	15.5

Design Strip: Longitude SSs Table (2)

t Width 1	Support Width 2 inches	Support Trans. Width 1 inches	Support Trans. Width 2 inches	Auto-Support	Min Divisions	Max Division Spacing feet
	20.99	0	20.83	true	4	2.5
	20.96	20.8	20.8	true	4	2.5
	18.21	21.02	24.07	true	4	2.5
	24.55	24.39	18.29	true	4	2.5
	24.16	18	18	true	4	2.5
	24.16	18	18	true	4	2.5
	24.16	18	18	true	4	2.5
	4.355	18	27.26	true	4	2.5
	21.26	0	21.1	true	4	2.5
	18.57	20.87	24.55	true	4	2.5
	18.17	24.02	24.02	true	4	2.5
	24.31	24.15	18.11	true	4	2.5
	26.82	20.01	20.01	true	4	2.5
	24.16	18.08	18	true	4	2.5
	0.1654	18	16.18	true	4	2.5
	24.65	18.76	18.38	true	4	2.5
	14.12	18.02	55.98	true	4	2.5
	24.78	76.73	18.47	true	4	2.5
	24.15	18	18	true	4	2.5
	24.55	67.4	18.29	true	4	2.5
	24.88	18.54	18.54	true	4	2.5
	12.76	18.14	56.07	true	4	2.5
	10.87	29.95	17.29	true	4	2.5
	25.38	31.43	18.92	true	4	2.5
	27.42	18.11	20.45	true	4	2.5
	24.66	542.7	18	true	4	2.5
	24.16	18	18	true	4	2.5
	0	18	0	true	4	2.5
	18.16	0	24	true	4	2.5
	24.21	24.05	18.04	true	4	2.5
	24.63	18.31	18.36	true	4	2.5
	24.16	624.1	18	true	4	2.5
	0	20.26	0	true	4	2.5
	24.16	24	18	true	4	2.5
	25.51	18.03	19.01	true	4	2.5
	0	24.07	0	true	4	2.5
	18.21	0	24.07	true	4	2.5
	24.34	0	18.14	true	4	2.5
	12.43	18	624.1	true	4	2.5
	24.16	554.9	18	true	4	2.5
	25.86	19.28	19.28	true	4	2.5
	11.16	18.26	43.11	true	4	2.5
	26.05	25.03	19.42	true	4	2.5
	18.24	18.08	24.11	true	4	2.5
	10.92	28.99	24.08	true	4	2.5
	24.24	148.8	18.06	true	4	2.5

Design Strip: Longitude SSs Table (3)

n Spacing	Design For Axial	Environment	Design As PT	Maximize Integrated V	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0

Design Strip: Longitude SSs Table (4)

Spec. Infl. Area ft²	Max LLR %	Span Width	Col Strip Width	Lock Strips	Design CS for CS	-CS Auto Trim	CS Section Slop
0	40	auto	full	false	false	T or L	100
0	40	auto	full	false	false	T or L	100
0	40	auto	full	false	false	T or L	100
0	40	auto	full	false	false	T or L	100
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	T or L	100
0	40	auto	full	false	false	T or L	100
0	40	auto	full	false	false	T or L	100
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25

Design Strip: Longitude SSs Table (5)

Section Slope Strip	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#5	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#5	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#5	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#5	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#5	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#5	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#5	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#5	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	Maximize Effective Depth		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement		two-way slab

Design Strip: Longitude SSs Table (6)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4

Design Strip: Longitude SSs Table (7)

S Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Longitude SSs Table (8)

S Min B.Bar	MS Shear Legs
	2
	2
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	2

Design Strip: Longitude SSs Table (9)

Name	*Set*	*Location feet*	*Skew degrees*	*At Support 1*	*At Support 2*	*Support Width 1 inches*
31-2	longitude	(-45.8,-22.83)(-41.7,-44.83)	83.57	true	true	24.57
31-3	longitude	(-41.7,-44.83)(-35.45,-65.25)	51.921	true	true	25.19
32-1	longitude	(-36.1,-88.79)(-35.48,-75.2)	5.72	true	true	16.07
33-1	longitude	(-28.53,-90.28)(-14.45,-61.73)	26.76	true	true	26.92
33-2	longitude	(-14.45,-61.73)(-14.45,-46.58)	0	true	true	18.16
33-3	longitude	(-14.45,-46.58)(-19.02,-17.34)	17.884	true	true	18.38
33-4	longitude	(-19.02,-17.34)(-22,-1.885)	15.89	true	true	18.49
34-1	longitude	(-5.387,-2.098)(-5.364,-17.54)	17.543	true	true	1.85
34-2	longitude	(-5.364,-17.54)(-5.313,-47.92)	47.927	true	true	1.157
34-3	longitude	(-5.313,-47.92)(-3.5,-61.73)	13.74	true	true	22.09
34-4	longitude	(-3.5,-61.73)(-3.5,-76.3)	0	true	true	18.16
34-5	longitude	(-3.5,-76.3)(-1.302,-92.45)	45.093	true	true	18.32

Design Strip: Longitude SSs Table (10)

t Width 1	Support Width 2 inches	Support Trans. Width 1 inches	Support Trans. Width 2 inches	Auto-Support	Min Divisions	Max Division Spacing feet
	24.57	18.31	18.31	true	4	2.5
	14.73	18.77	16.67	true	4	2.5
	8.553	16.02	173.8	true	4	2.5
	20.23	20.07	26.76	true	4	2.5
	18.16	24	24	true	4	2.5
	18.38	24.29	24.29	true	4	2.5
	6.901	24.44	63.37	true	4	2.5
	35.16	322	24	true	4	2.5
	14.41	24	24	true	4	2.5
	18.31	24.21	24.21	true	4	2.5
	18.16	24	24	true	4	2.5
	28.42	24.22	18.17	true	4	2.5

Design Strip: Longitude SSs Table (11)

n Spacing	Design For Axial	Environment	Design As PT	Maximize Integrated V	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0

Design Strip: Longitude SSs Table (12)

Spec. Infl. Area *ft²*	*Max LLR* *%*	*Span Width*	*Col Strip Width*	*Lock Strips*	*Design CS for CS*	*-CS Auto Trim*	*CS Section Slope*
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25

Design Strip: Longitude SSs Table (13)

Section Slope Sin	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab
	#5	#4	#4	1.5	0.75	All Tension Reinforcement	none	two-way slab

Design Strip: Longitude SSs Table (14)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4

Design Strip: Longitude SSs Table (15)

MS Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Longitude SSs Table (16)

S Min B.Bar	MS Shear Legs
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2

Design Strip: Latitude SSSs Table

Name	Strip Type	Calc. Trib. Area ft²	Calc. Infl. Area ft²	Top Bar	Bottom Bar	Shear Bar	Top Cover inches
1C-1	center	76.63	0	#5	#4	#4	1.5
2C-1	center	55.07	0	#5	#4	#4	1.5
3C-1	center	46.72	0	#5	#4	#4	1.5
4C-1	center	59.99	0	#5	#4	#4	1.5
4C-2	center	184.1	0	#5	#4	#4	1.5
4C-3	center	283.9	0	#5	#4	#4	1.5
4C-4	center	266.8	0	#5	#4	#4	1.5
4C-5	center	217.5	0	#5	#4	#4	1.5
4C-6	center	243	0	#5	#4	#4	1.5
4C-7	center	162.2	0	#5	#4	#4	1.5
4C-8	center	116	0	#5	#4	#4	1.5
4C-9	center	81.81	0	#5	#4	#4	1.5
5C-1	center	374.9	0	#5	#4	#4	1.5
5C-2	center	324.3	0	#5	#4	#4	1.5
5C-3	center	490.2	0	#5	#4	#4	1.5
5C-4	center	281	0	#5	#4	#4	1.5
5C-5	center	261.4	0	#5	#4	#4	1.5
5C-6	center	603.8	0	#5	#4	#4	1.5
5C-7	center	557.9	0	#5	#4	#4	1.5
5C-8	center	304.6	0	#5	#4	#4	1.5
5C-9	center	78.87	0	#5	#4	#4	1.5
5C-10	center	263.4	0	#5	#4	#4	1.5
6C-1	center	527.9	0	#5	#4	#4	1.5
6C-2	center	317.4	0	#5	#4	#4	1.5
7C-1	center	356.4	0	#5	#4	#4	1.5
7C-2	center	349.6	0	#5	#4	#4	1.5
7C-3	center	460.5	0	#5	#4	#4	1.5
7C-4	center	424.9	0	#5	#4	#4	1.5
7C-5	center	650.9	0	#5	#5	#4	1.5
7C-6	center	526.1	0	#5	#4	#4	1.5
7C-7	center	381.8	0	#5	#4	#4	1.5
7C-8	center	558.1	0	#5	#4	#4	1.5
7C-9	center	180.6	0	#5	#4	#4	1.5
7C-10	center	75.57	0	#5	#4	#4	1.5
8C-1	center	446.7	0	#5	#4	#4	1.5
8C-2	center	323	0	#5	#4	#4	1.5
9C-1	center	562.8	0	#5	#4	#4	1.5
9C-2	center	492.3	0	#5	#4	#4	1.5
9C-3	center	573	0	#5	#4	#4	1.5
10C-1	center	230.7	0	#5	#4	#4	1.5
11C-1	center	324.4	0	#5	#4	#4	1.5
11C-2	center	472.3	0	#5	#4	#4	1.5
11C-3	center	344.7	0	#5	#4	#4	1.5
12C-1	center	112.2	0	#5	#4	#4	1.5
12C-2	center	182.1	0	#5	#4	#4	1.5
12C-3	center	313.2	0	#5	#4	#4	1.5

Design Strip: Latitude SSSs Table (2)

Top Cover inches	Bot. Cover inches	Torsion Design	System	Min Bar Loc.	Min T. Bar	Min B. Bar	Shear Legs
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	4
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2

Design Strip: Latitude SSSs Table (3)

Name	*Strip Type*	*Calc. Trib. Area ft²*	*Calc. Infl. Area ft²*	*Top Bar*	*Bottom Bar*	*Shear Bar*	*Top Cover inches*
12C-4	center	175.6	0	#5	#4	#4	1.5
13C-1	center	433	0	#5	#5	#4	1.5
13C-2	center	229.5	0	#5	#5	#4	1.5
13C-3	center	340.2	0	#5	#5	#4	1.5
13C-4	center	83.57	0	#5	#5	#4	1.5
13C-4(2)	center	433.2	0	#4	#4	#4	1.5
13C-5	center	431.5	0	#5	#4	#4	1.5
13C-6	center	296.7	0	#5	#4	#4	1.5
13C-7	center	75.41	0	#5	#4	#4	1.5
14C-1	center	331.1	0	#5	#4	#4	1.5
14C-2	center	124.5	0	#5	#4	#4	1.5
14C-3	center	16.99	0	#5	#4	#4	1.5
15C-1	center	305.2	0	#5	#4	#4	1.5
15C-2	center	11.21	0	#5	#4	#4	1.5

Design Strip: Latitude SSSs Table (4)

Top Cover inches	*Bot. Cover inches*	*Torsion Design*	*System*	*Min Bar Loc.*	*Min T. Bar*	*Min B. Bar*	*Shear Legs*
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2

Design Strip: Longitude SSSs Table

Name	Strip Type	Calc. Trib. Area ft²	Calc. Infl. Area ft²	Top Bar	Bottom Bar	Shear Bar	Top Cover inches
16C-1	center	118.3	0	#5	#4	#4	1.5
16C-2	center	138.8	0	#5	#4	#4	1.5
16C-3	center	275.2	0	#5	#4	#4	1.5
16C-4	center	340.5	0	#5	#4	#4	1.5
16C-5	center	247.4	0	#5	#4	#4	1.5
16C-6	center	59.09	0	#5	#4	#4	1.5
16C-7	center	335.4	0	#5	#4	#4	1.5
16C-8	center	202.4	0	#5	#4	#4	1.5
17C-1	center	128.9	0	#5	#4	#4	1.5
17C-2	center	197.8	0	#5	#4	#4	1.5
17C-3	center	460.9	0	#5	#4	#4	1.5
17C-4	center	603.6	0	#5	#4	#4	1.5
17C-5	center	429.7	0	#5	#4	#4	1.5
17C-6	center	463.3	0	#5	#4	#4	1.5
17C-7	center	463	0	#5	#4	#4	1.5
18C-1	center	385.1	0	#5	#4	#4	1.5
18C-2	center	383.5	0	#5	#4	#4	1.5
19C-1	center	249.6	0	#5	#4	#4	1.5
19C-2	center	260.2	0	#5	#4	#4	1.5
20C-1	center	411.7	0	#5	#4	#4	1.5
20C-2	center	547.5	0	#5	#4	#4	1.5
20C-3	center	206	0	#5	#4	#4	1.5
21C-1	center	173.7	0	#5	#4	#4	1.5
22C-1	center	237	0	#5	#4	#4	1.5
22C-2	center	205.2	0	#5	#4	#4	1.5
23C-1	center	498.1	0	#5	#5	#4	1.5
23C-2	center	757	0	#5	#5	#4	1.5
23C-3	center	35.93	0	#5	#4	#4	1.5
23C-3(2)	center	446	0	#5	#4	#4	1.5
23C-4	center	537.9	0	#5	#4	#4	1.5
23C-5	center	452.6	0	#5	#4	#4	1.5
24C-1	center	285.3	0	#5	#5	#4	1.5
24C-2	center	360.6	0	#5	#5	#4	1.5
25C-1	center	674	0	#5	#4	#4	1.5
25C-2	center	382.8	0	#5	#4	#4	1.5
26C-1	center	207.4	0	#5	#4	#4	1.5
26C-1(2)	center	258.5	0	#5	#4	#4	1.5
27C-1	center	293.4	0	#5	#5	#4	1.5
27C-2	center	258.1	0	#5	#5	#4	1.5
28C-1	center	440	0	#5	#5	#4	1.5
28C-2	center	453	0	#5	#4	#4	1.5
28C-3	center	440.9	0	#5	#4	#4	1.5
29C-1	center	303.4	0	#5	#4	#4	1.5
29C-2	center	576.4	0	#5	#4	#4	1.5
30C-1	center	293.2	0	#5	#4	#4	1.5
31C-1	center	348.6	0	#5	#4	#4	1.5

Design Strip: Longitude SSSs Table (2)

Top Cover inches	Bot. Cover inches	Torsion Design	System	Min Bar Loc.	Min T. Bar	Min B. Bar	Shear Legs
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	4
	0.75	none	two-way slab	stress	0	0	4
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	elevated	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	elevated	0	0	4
	0.75	none	two-way slab	elevated	0	0	4
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2

Design Strip: Longitude SSSs Table (3)

Name	*Strip Type*	*Calc. Trib. Area ft²*	*Calc. Infl. Area ft²*	*Top Bar*	*Bottom Bar*	*Shear Bar*	*Top Cover inches*
31C-2	center	497	0	#5	#4	#4	1.5
31C-3	center	427.2	0	#5	#4	#4	1.5
32C-1	center	212.1	0	#5	#4	#4	1.5
33C-1	center	343.2	0	#5	#4	#4	1.5
33C-2	center	295	0	#5	#4	#4	1.5
33C-3	center	548.3	0	#5	#4	#4	1.5
33C-4	center	93.58	0	#5	#4	#4	1.5
34C-1	center	152.5	0	#5	#4	#4	1.5
34C-2	center	250.8	0	#5	#4	#4	1.5
34C-3	center	73.5	0	#5	#4	#4	1.5
34C-4	center	125.5	0	#5	#4	#4	1.5
34C-5	center	220.5	0	#5	#4	#4	1.5

Design Strip: Longitude SSSs Table (4)

Top Cover inches	*Bot. Cover inches*	*Torsion Design*	*System*	*Min Bar Loc.*	*Min T. Bar*	*Min B. Bar*	*Shear Legs*
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2
	0.75	none	two-way slab	stress	0	0	2

Design Strip: Punching Checks Table

Number	Location feet	Radius feet	Cover To CGS inches	Angle degrees	Edge	Connection
1	(-200.6,-89.05)	10	1	-6	failure planes	auto
2	(-200.1,-144.6)	10	1	0	failure planes	auto
3	(-199.1,-134.7)	10	1	0	failure planes	auto
4	(-198.6,-115.2)	10	1	-6	failure planes	auto
5	(-198,-65.18)	10	1	-6	failure planes	auto
6	(-195.5,-41.31)	10	1	-6	failure planes	auto
7	(-193,-17.44)	10	1	-6	failure planes	auto
8	(-191.6,-151)	10	1	0	failure planes	auto
9	(-182.2,-147.7)	10	1	0	failure planes	auto
10	(-180.8,-44.12)	10	1	-6	failure planes	auto
11	(-180.5,-117.1)	10	1	-6	failure planes	auto
12	(-177,-67.39)	10	1	-6	failure planes	auto
13	(-176.8,-92.28)	10	1	84	failure planes	auto
14	(-166,-123.6)	10	1	-6	failure planes	auto
15	(-164.9,-47.89)	10	1	-6	failure planes	auto
16	(-164.6,-22.53)	10	1	90	failure planes	auto
17	(-164.2,-141.7)	10	1	22	failure planes	auto
18	(-145.3,-22.83)	10	1	0	failure planes	auto
19	(-144.5,-120.4)	10	1	22	failure planes	auto
20	(-138.3,-51.35)	10	1	0	failure planes	auto
21	(-138.2,-136)	10	1	22	failure planes	auto
22	(-135.3,-110.1)	10	1	0	failure planes	auto
23	(-120.6,-101.9)	10	1	0	failure planes	auto
24	(-118.9,-75.16)	10	1	0	failure planes	auto
25	(-118.4,-52.35)	10	1	0	failure planes	auto
26	(-118.3,-22.83)	10	1	0	failure planes	auto
27	(-115.9,-127)	10	1	22	failure planes	auto
28	(-109.7,-60.83)	10	1	0	failure planes	auto
29	(-99.8,-22.83)	10	1	0	failure planes	auto
30	(-94.99,-75.16)	10	1	90	failure planes	auto
31	(-94.55,-101.9)	10	1	0	failure planes	auto
32	(-93.65,-118.1)	10	1	22	failure planes	auto
33	(-87.45,-47.25)	10	1	0	failure planes	auto
34	(-86.02,-66.08)	10	1	0	failure planes	auto
35	(-84.69,-22.81)	10	1	0	failure planes	auto
36	(-71.38,-109.1)	10	1	22	failure planes	auto
37	(-68.7,-22.67)	10	1	0	failure planes	auto
38	(-67.92,-66.08)	10	1	0	failure planes	auto
39	(-65.26,-94)	10	1	0	failure planes	auto
40	(-60.2,-44.83)	10	1	0	failure planes	auto
41	(-49,-100.5)	10	1	112	failure planes	auto
42	(-45.8,-22.83)	10	1	0	failure planes	auto
43	(-41.7,-44.83)	10	1	0	failure planes	auto
44	(-28.53,-90.28)	10	1	0	failure planes	auto
45	(-19.02,-17.34)	10	1	0	failure planes	auto
46	(-14.45,-61.73)	10	1	0	failure planes	auto

Design Strip: Punching Checks Table (2)

nnection	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²	Spec. Infl. Area ft²	Calc. Trib. Area ft²	Calc. Infl. Area ft²
	false	1	0	0	291.4	0
	false	1	0	0	225	0
	false	1	0	0	234.7	0
	false	1	0	0	372.1	0
	false	1	0	0	252	0
	false	1	0	0	183.6	0
	false	1	0	0	302.4	0
	false	1	0	0	226.4	0
	false	1	0	0	246.8	0
	false	1	0	0	431.8	0
	false	1	0	0	403.2	0
	false	1	0	0	461.2	0
	false	1	0	0	533.7	0
	false	1	0	0	434.5	0
	false	1	0	0	451.2	0
	false	1	0	0	613.1	0
	false	1	0	0	329	0
	false	1	0	0	582.9	0
	false	1	0	0	429	0
	false	1	0	0	452.8	0
	false	1	0	0	211.2	0
	false	1	0	0	323.6	0
	false	1	0	0	569.1	0
	false	1	0	0	476.3	0
	false	1	0	0	589.2	0
	false	1	0	0	782.4	0
	false	1	0	0	280.3	0
	false	1	0	0	180.2	0
	false	1	0	0	366.6	0
	false	1	0	0	530.7	0
	false	1	0	0	643.2	0
	false	1	0	0	184.1	0
	false	1	0	0	714.2	0
	false	1	0	0	290	0
	false	1	0	0	323.3	0
	false	1	0	0	187.2	0
	false	1	0	0	595.4	0
	false	1	0	0	358.5	0
	false	1	0	0	510.6	0
	false	1	0	0	404.4	0
	false	1	0	0	148.8	0
	false	1	0	0	525.4	0
	false	1	0	0	556.7	0
	false	1	0	0	227.3	0
	false	1	0	0	389.6	0
	false	1	0	0	347.4	0

Design Strip: Punching Checks Table (3)

nfl. Area	Max LLR %	Red. Red. %	Stor. Red. %	Park. Red. %
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
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	40	0	0	0
	40	0	0	0
	40	0	0	0
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	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0

Design Strip: Punching Checks Table (4)

Number	*Location feet*	*Radius feet*	*Cover To CGS inches*	*Angle degrees*	*Edge*	*Connection*
47	(-14.45,-46.58)	10	1	0	failure planes	auto
48	(-5.364,-16.83)	10	1	0	failure planes	auto
49	(-5.313,-48.07)	10	1	0	failure planes	auto
50	(-3.839,-76.3)	10	1	0	failure planes	auto
51	(-3.5,-61.73)	10	1	0	failure planes	auto
52	(-1.469,-92.28)	10	1	0	failure planes	auto

Design Strip: Punching Checks Table (5)

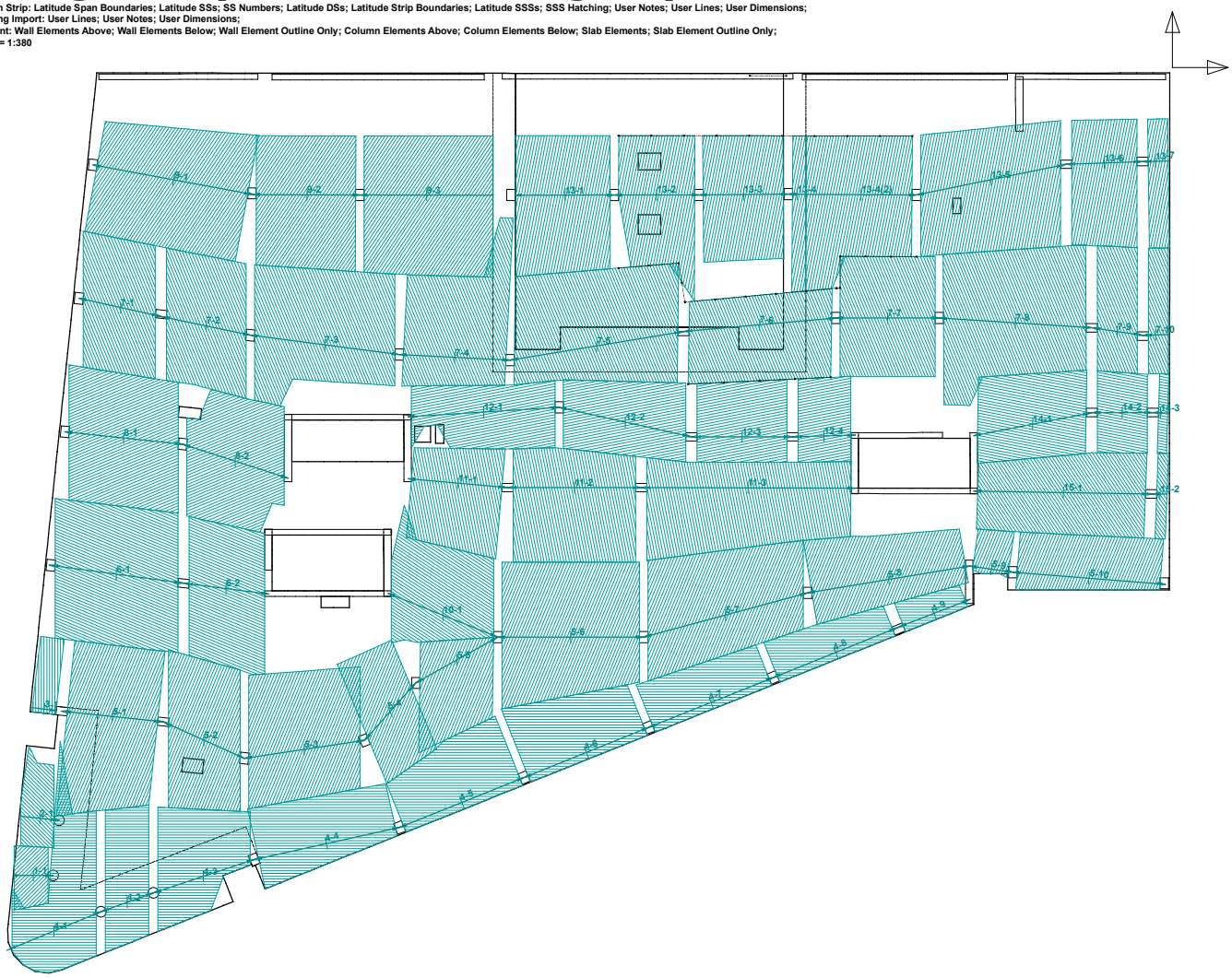
nnection	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²	Spec. Infl. Area ft²	Calc. Trib. Area ft²	Calc. Infl. Area ft²
	false	1	0	0	483.1	0
	false	1	0	0	286.5	0
	false	1	0	0	158.3	0
	false	1	0	0	257.1	0
	false	1	0	0	48.61	0
	false	1	0	0	115.4	0

Design Strip: Punching Checks Table (6)

nfl. Area	Max LLR %	Red. Red. %	Stor. Red. %	Park. Red. %
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0

Design Strip: Latitude Design Spans Plan

Design Strip: Latitude Span Boundaries; Latitude SSs; SS Numbers; Latitude DSs; Latitude Strip Boundaries; Latitude SSSs; SSS Hatching; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Design Strip: Longitude Design Spans Plan

Design Strip: Longitude Span Boundaries; Longitude SSs; Longitude DSs; Longitude Strip Boundaries; Longitude SSSs; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
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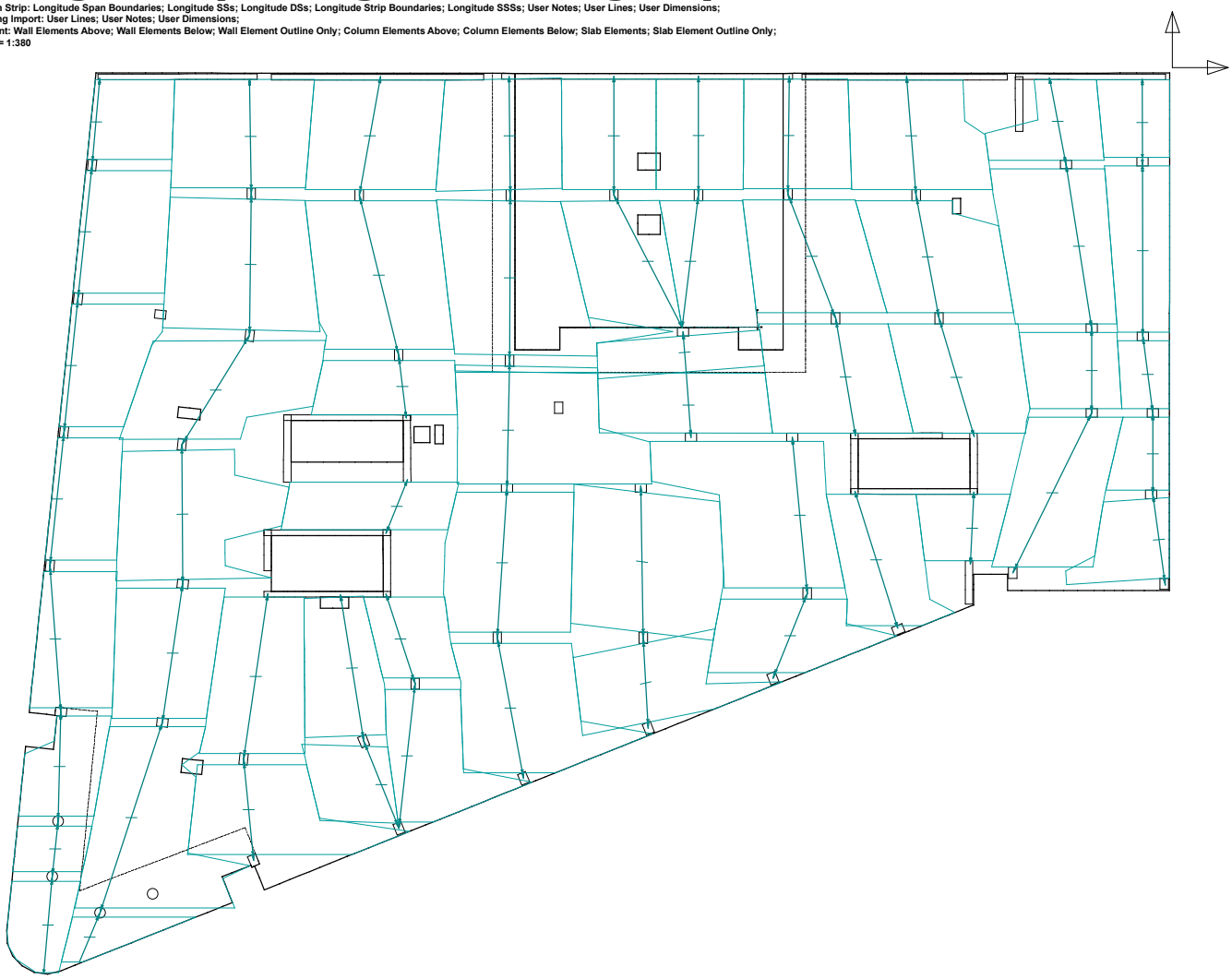

Design Strip: Punching Checks Plan

Design Strip: User Lines; User Notes; User Dimensions; Punching Checks; Punching Check Sections;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
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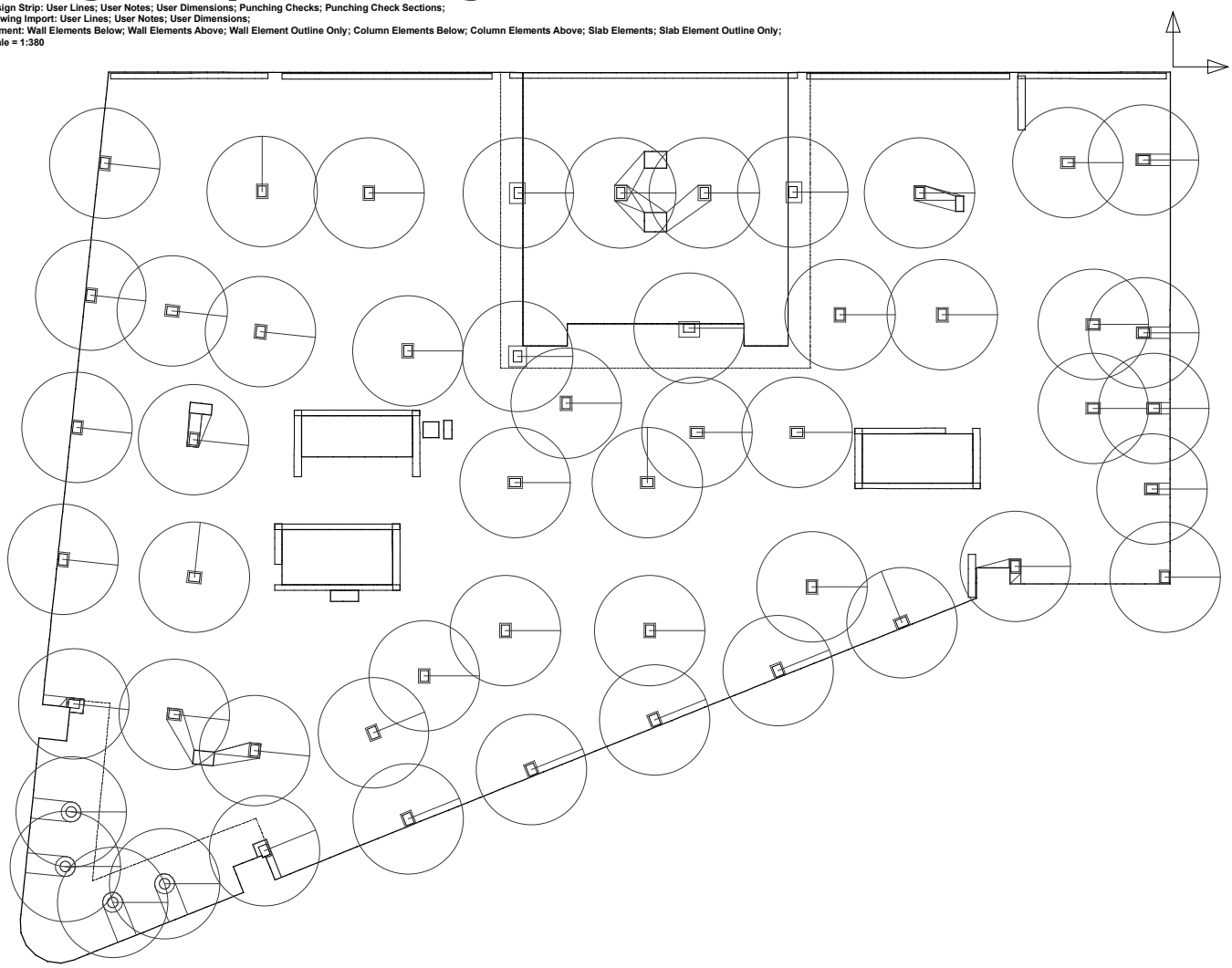
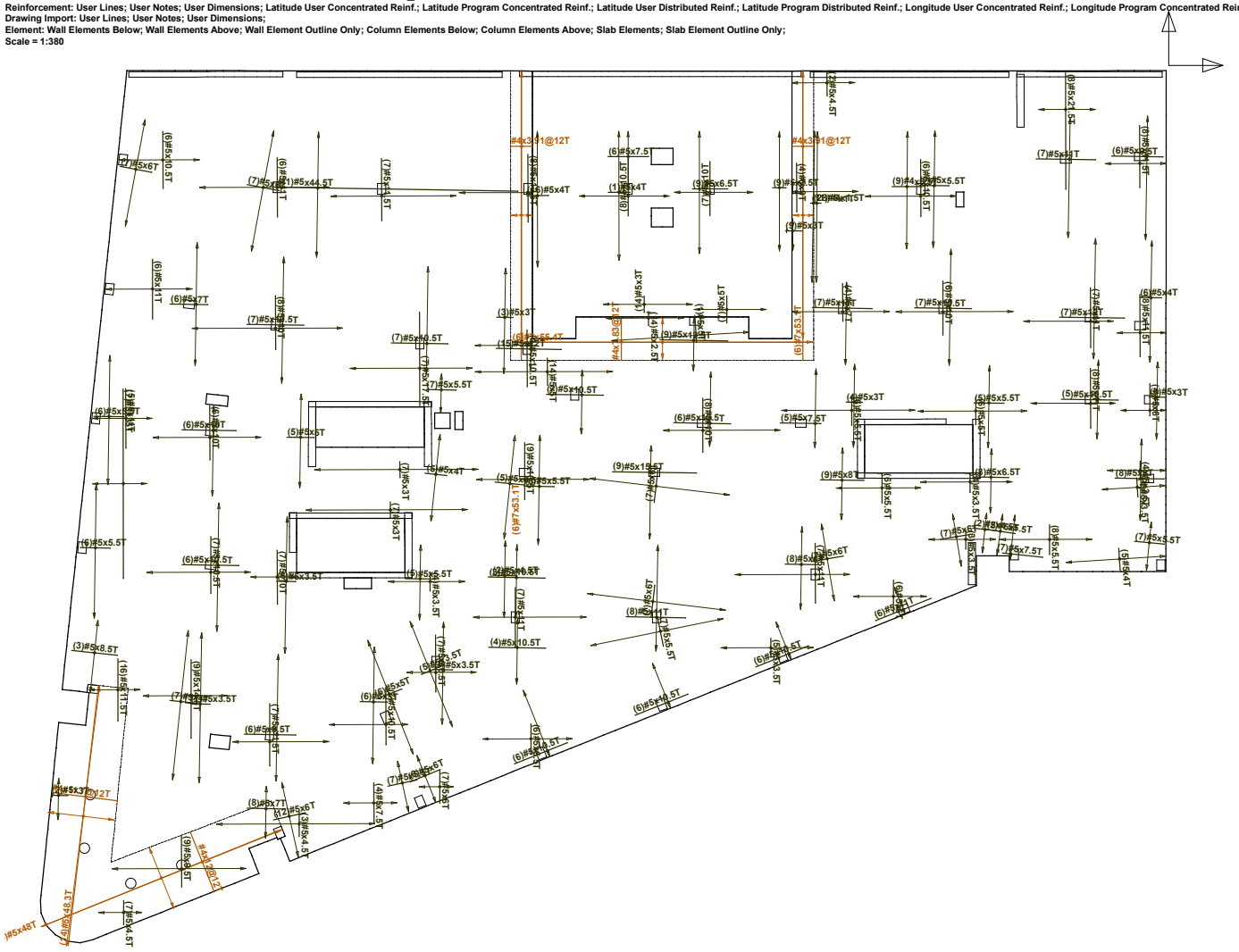


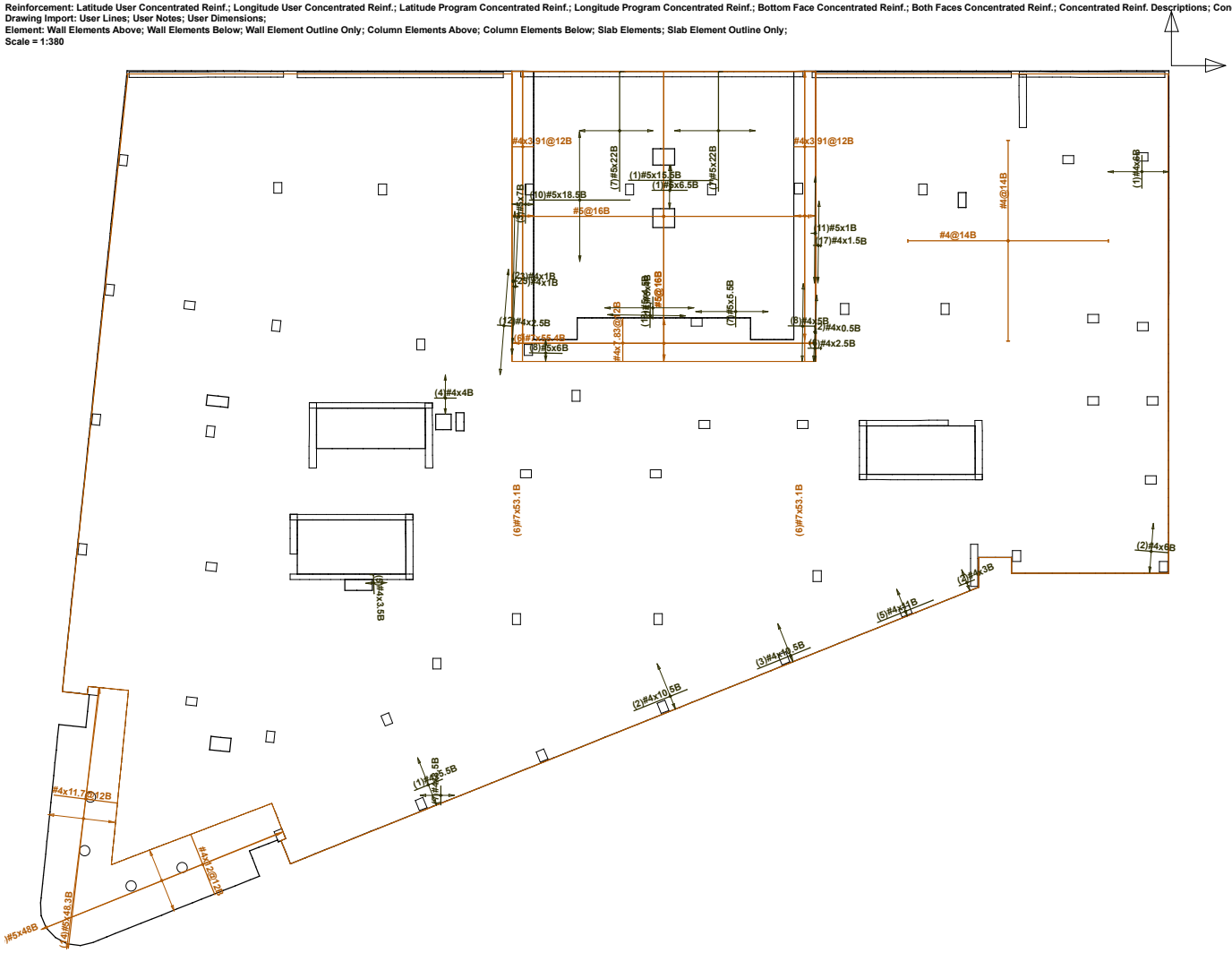
Reinforcement: Top Bars Plan

Reinforcement: User Lines; User Notes; User Dimensions; Latitude User Concentrated Reinf.; Latitude Program Concentrated Reinf.; Latitude User Distributed Reinf.; Latitude Program Distributed Reinf.; Longitude User Concentrated Reinf.; Longitude Program Concentrated Reinf.
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



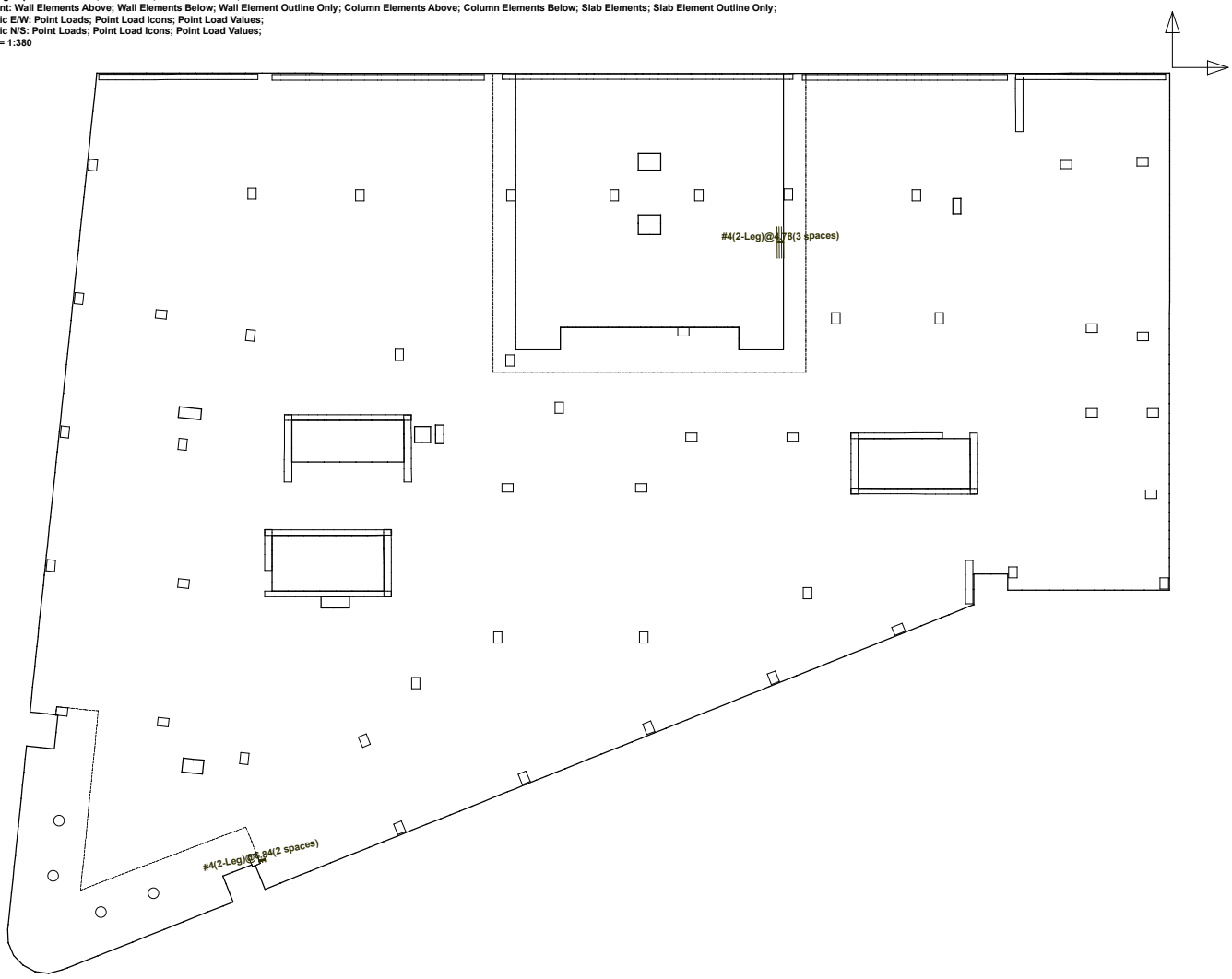
Reinforcement: Bottom Bars Plan

Reinforcement: Latitude User Concentrated Reinf.; Longitude User Concentrated Reinf.; Latitude Program Concentrated Reinf.; Longitude Program Concentrated Reinf.; Bottom Face Concentrated Reinf.; Both Faces Concentrated Reinf.; Concentrated Reinf. Descriptions; Concent
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



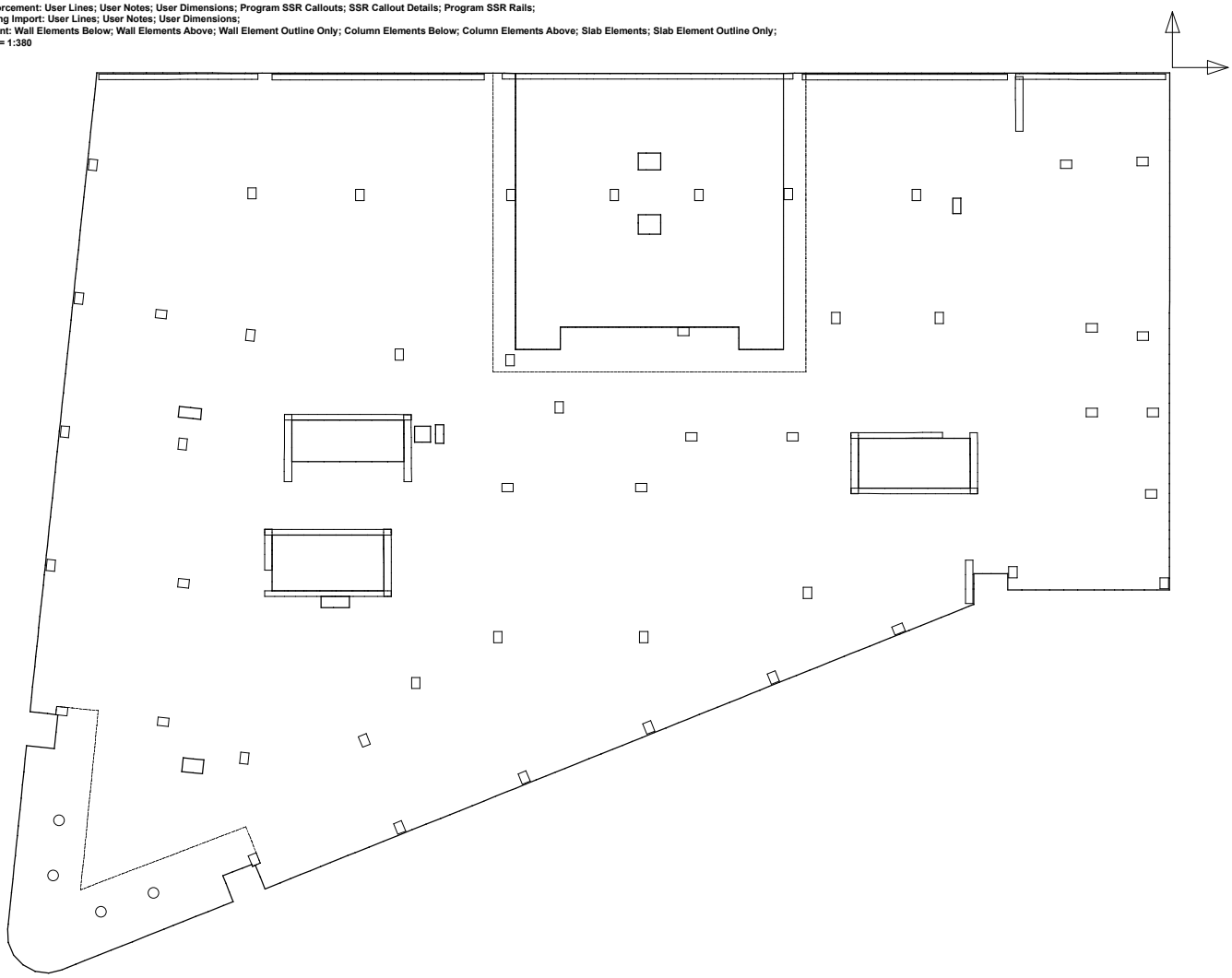
Reinforcement: Shear Bars Plan

Reinforcement: Latitude User Transverse Reinf.; Longitude User Transverse Reinf.; Latitude Program Transverse Reinf.; Longitude Program Transverse Reinf.; Transverse Reinf. Descriptions; Transverse Reinf. Extent; Latitude User Individual Transverse Bars; Longitude User Indi
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Seismic E/W: Point Loads; Point Load Icons; Point Load Values;
Seismic N/S: Point Loads; Point Load Icons; Point Load Values;
Scale = 1:380



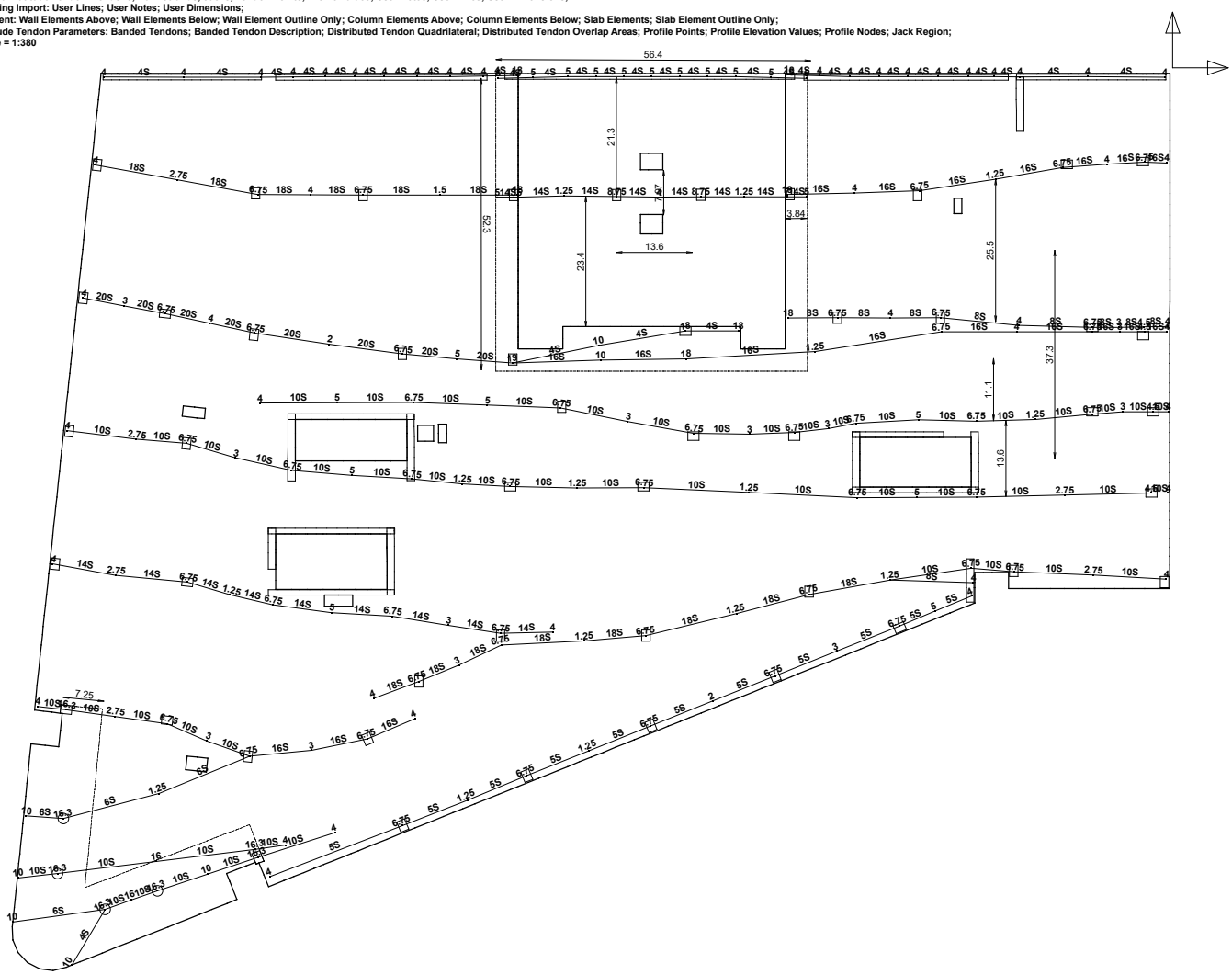
Reinforcement: SSR Plan

Reinforcement: User Lines; User Notes; User Dimensions; Program SSR Callouts; SSR Callout Details; Program SSR Rails;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



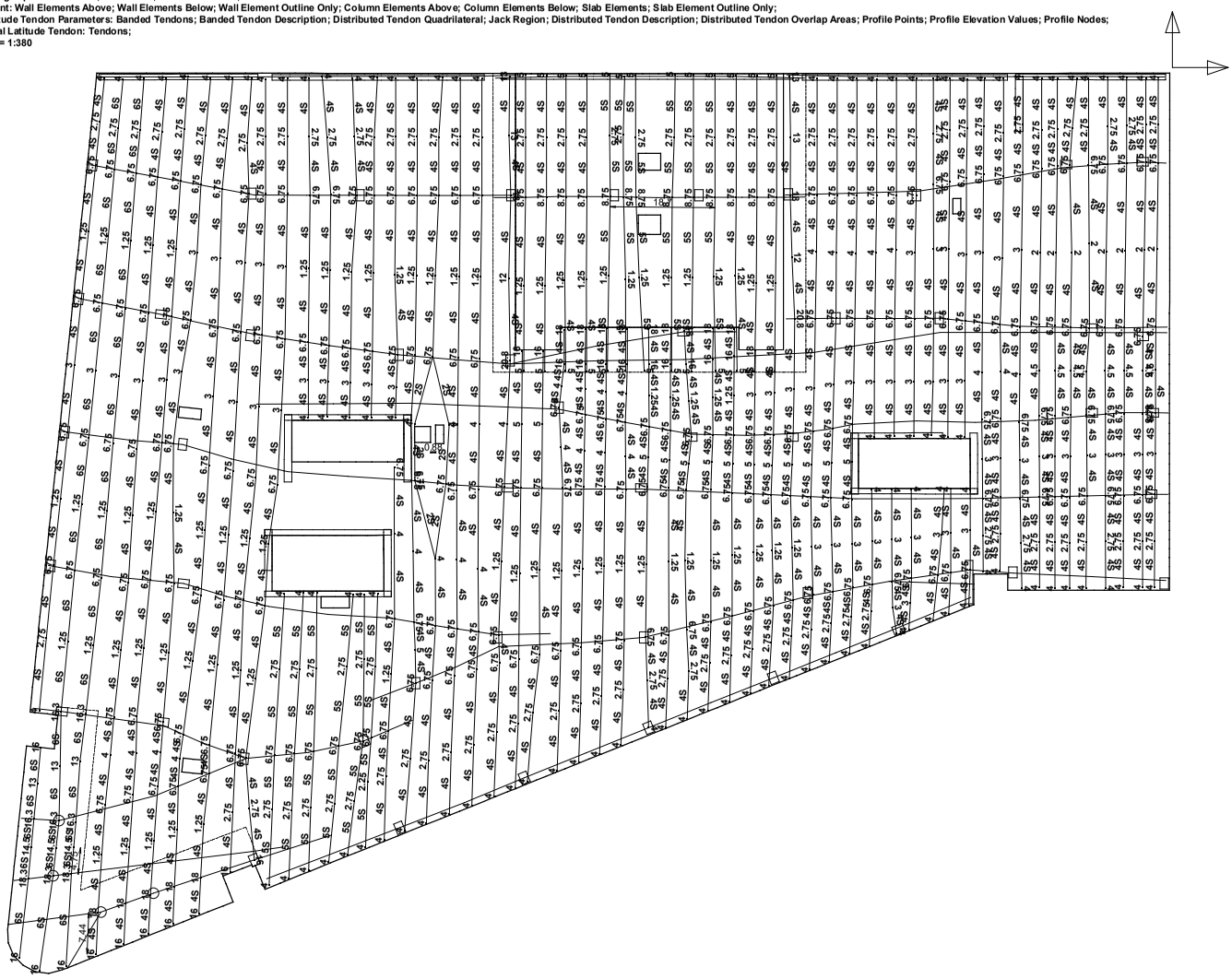
Manual Latitude Tendon: Standard Plan

Manual Latitude Tendon: Tendons; Num Strands; Jacks; Tendon Points; Profile Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Latitude Tendon Parameters: Banded Tendons; Banded Tendon Description; Distributed Tendon Quadrilateral; Distributed Tendon Overlap Areas; Profile Points; Profile Elevation Values; Profile Nodes; Jack Region;
Scale = 1:380



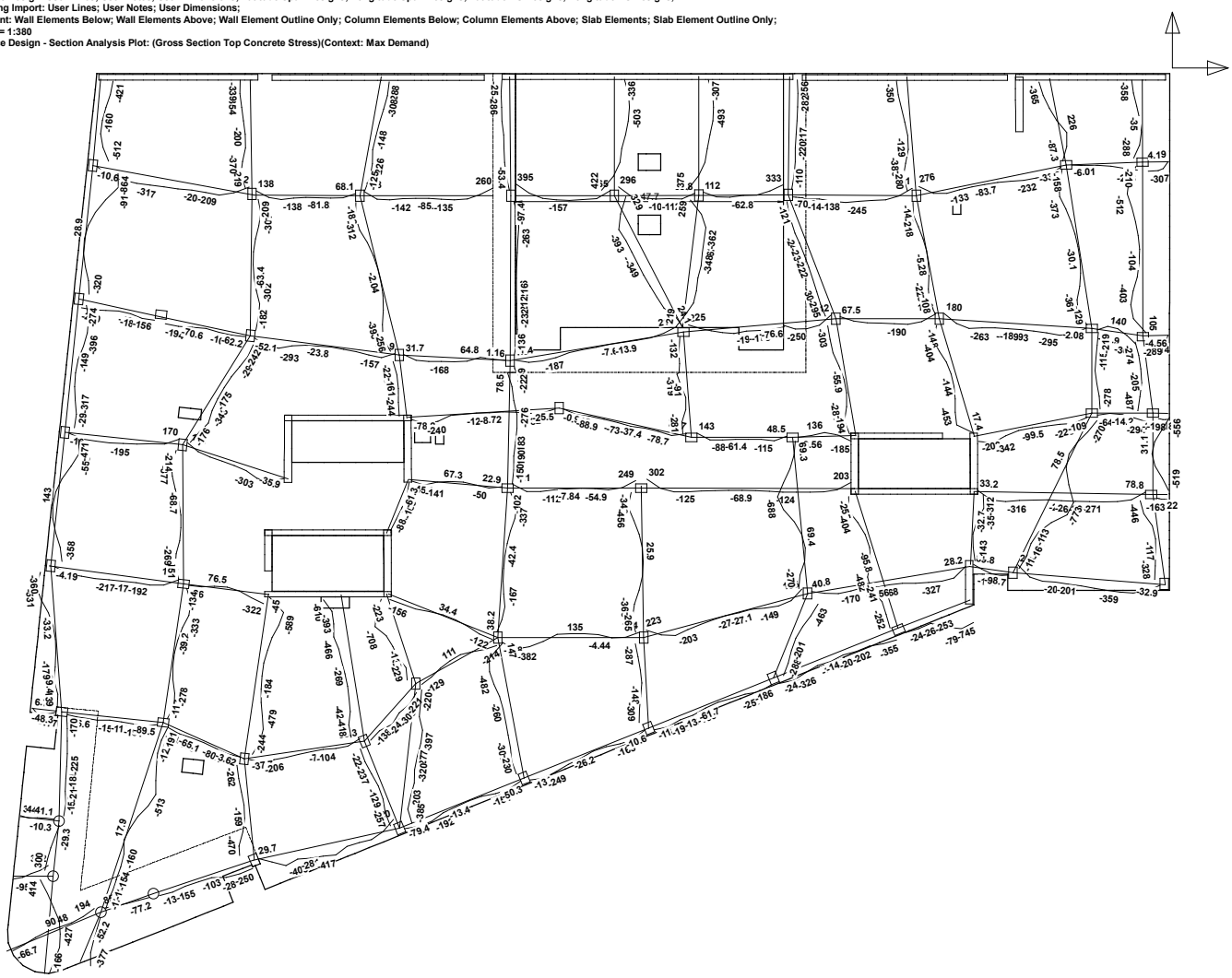
Manual Longitude Tendon: Standard Plan

Manual Longitude Tendon: Tendons; Num Strands; Jacks; Tendon Points; Profile Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Longitude Tendon Parameters: Banded Tendons; Banded Tendon Description; Distributed Tendon Quadrilateral; Jack Region; Distributed Tendon Description; Distributed Tendon Overlap Areas; Profile Points; Profile Elevation Values; Profile Nodes;
Manual Latitude Tendon: Tendons;
Scale = 1:380



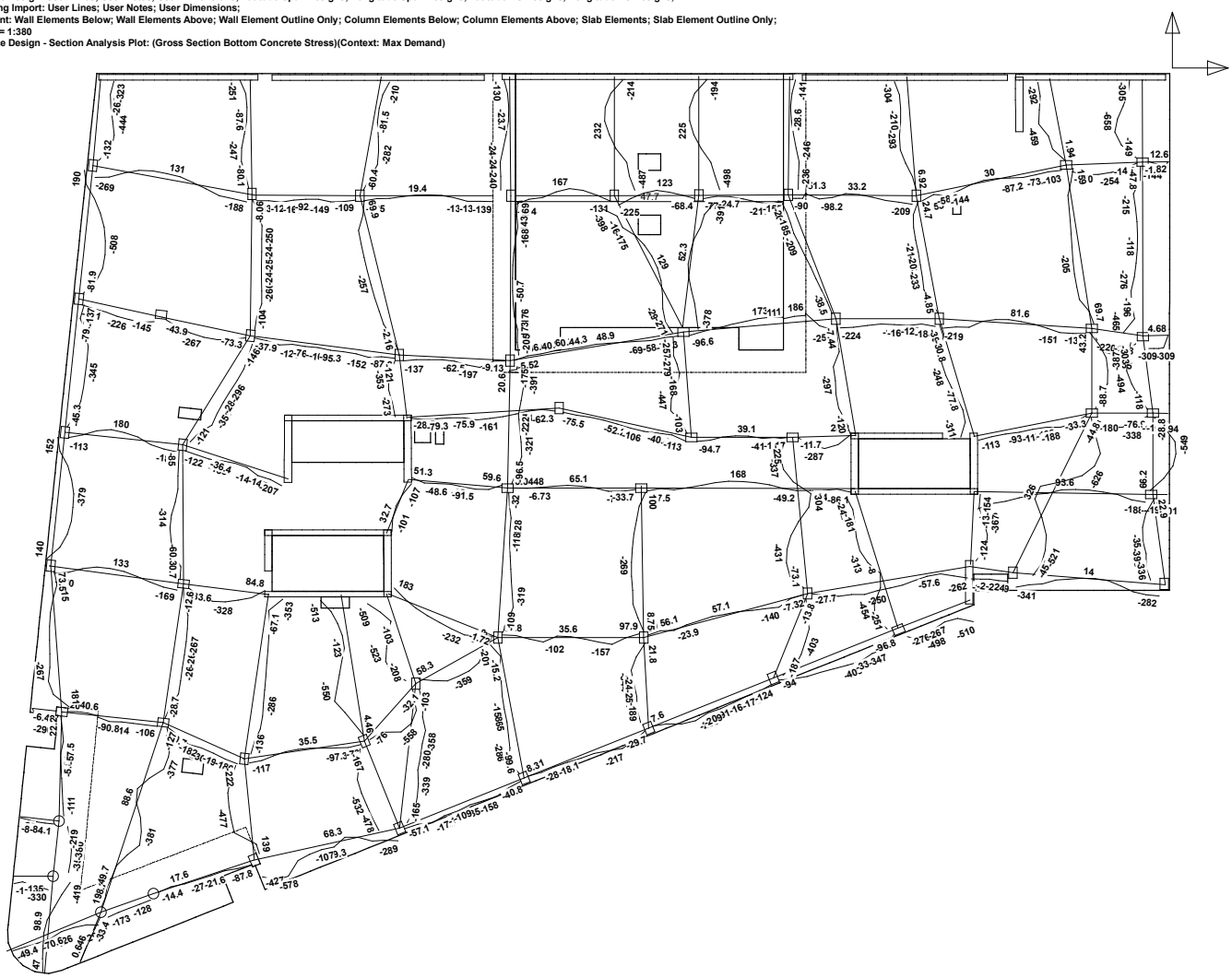
Service Design: Top Stress Plan

Service Design: User Lines; User Notes; User Dimensions; Latitude Span Designs; Longitude Span Designs; Latitude DS Designs; Longitude DS Designs;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service Design - Section Analysis Plot: (Gross Section Top Concrete Stress)(Context: Max Demand)



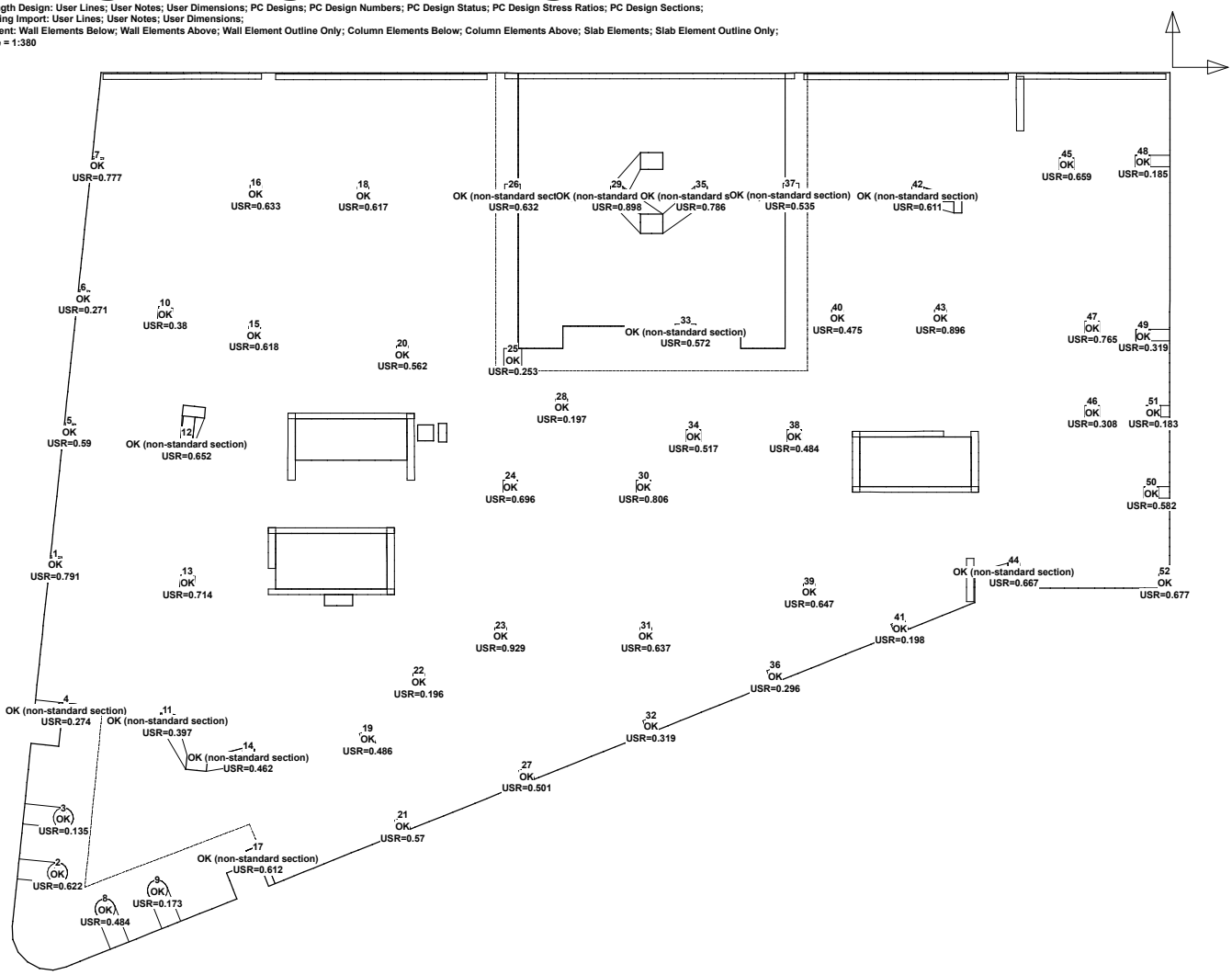
Service Design: Bottom Stress Plan

Service Design: User Lines; User Notes; User Dimensions; Latitude Span Designs; Longitude Span Designs; Latitude DS Designs; Longitude DS Designs;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service Design - Section Analysis Plot: (Gross Section Bottom Concrete Stress)(Context: Max Demand)



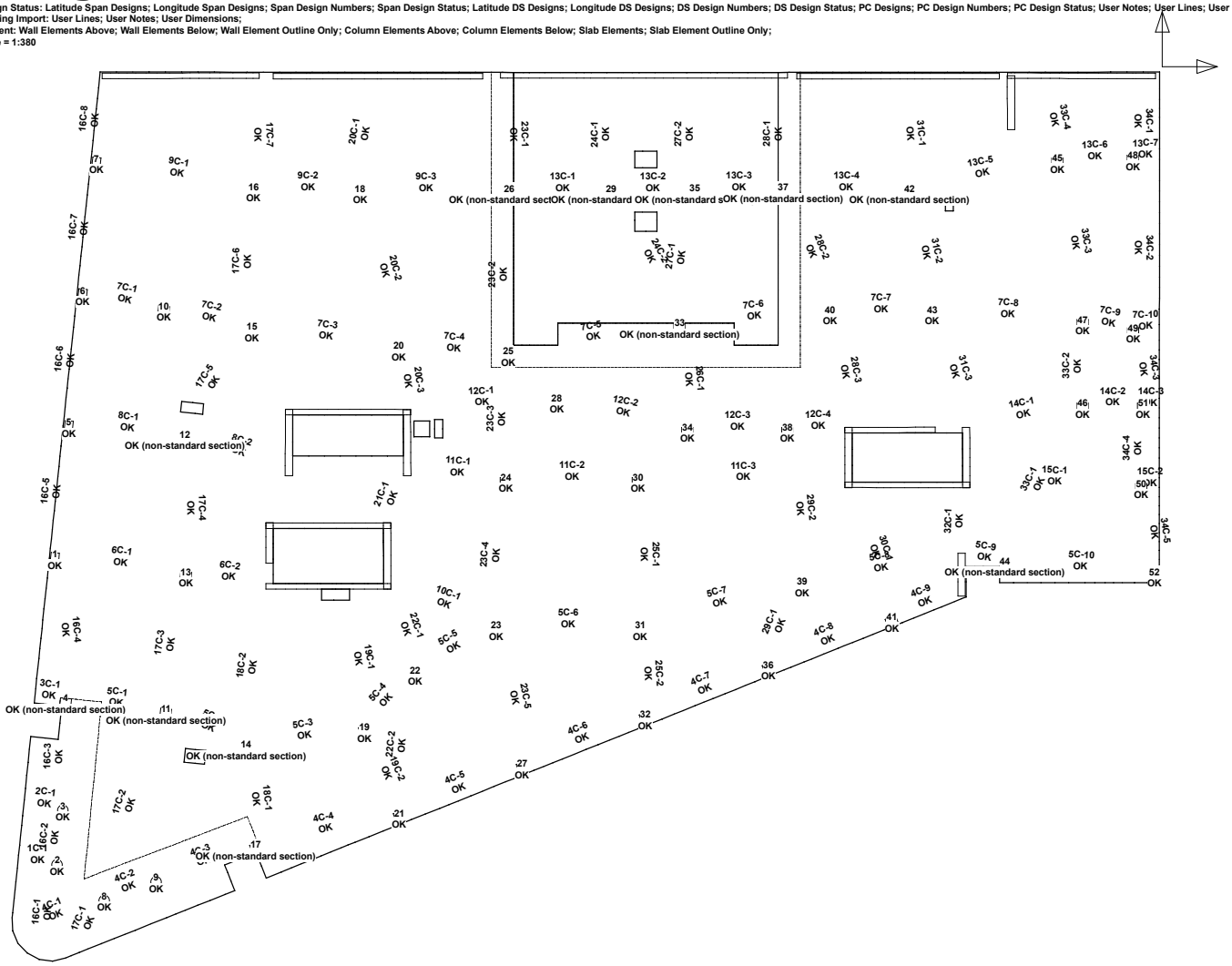
Strength Design: Punching Shear Status Plan

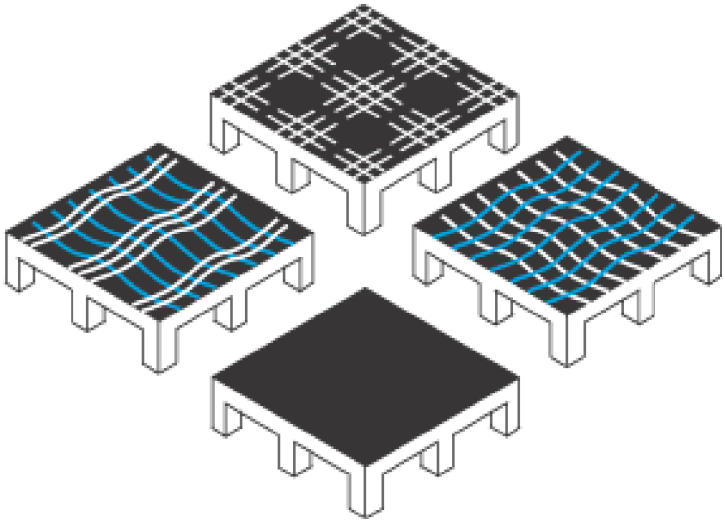
Strength Design: User Lines; User Notes; User Dimensions; PC Designs; PC Design Numbers; PC Design Status; PC Design Stress Ratios; PC Design Sections;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Design Status: Status Plan

Design Status: Latitude Span Designs; Longitude Span Designs; Span Design Numbers; Span Design Status; Latitude DS Designs; Longitude DS Designs; DS Design Numbers; DS Design Status; PC Designs; PC Design Numbers; PC Design Status; User Notes; User Lines; User Di
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380





Level 4.50.cpt
12/11/2019

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Units

Geometry Units

Plan Dimensions: feet
Angles: degrees

Slab Thickness: inches
Elevations: inches

Support Dimensions: inches
Support Height: feet

Loading and Reaction Units

Point Force: Kips
- Report As Zero: 0 Kips

Point Moment: kip-ft
- Report As Zero: 0 kip-ft

Line Force: kips/ft
- Report As Zero: 0 kips/ft

Line Moment: Kips
- Report As Zero: 0 Kips

Area Force: psf
- Report As Zero: 0 psf

Area Moment: #/foot
- Report As Zero: 0 #/foot

Spring and Stiffness Units

Point Force Spring: kips/in
Point Moment Spring: k-ft/°

Line Force Spring: ksi
Line Moment Spring: k/°

Area Force Spring: pci
Area Moment Spring: k/ft°

Slab Analysis Units

Force: Kips
- Report As Zero: 0 Kips

Force Per Width: kips/ft
- Report As Zero: 0 kips/ft

Moment: kip-ft
- Report As Zero: 0 kip-ft

Moment Per Width: Kips
- Report As Zero: 0 Kips

Concrete Stress: psi
- Report As Zero: 0 psi

Deflection: inches
- Report As Zero: 0 inches

Materials Units

Concrete Volume: yd^3
Reinforcement Weight: tons
PT Weight: pounds

Reinforcing Area: in^2
Tendon Profile: inches
Cover: inches

PT Force: Kips
Reinforcing Stress: ksi

Miscellaneous Units

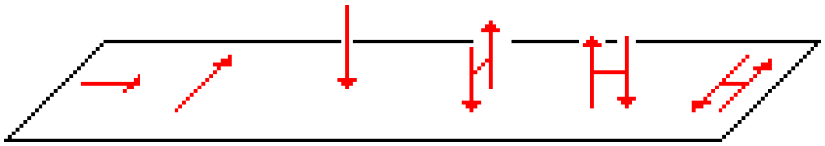
Floor Area: ft^2
Tendon Angles (for friction): radians

Density: pcf

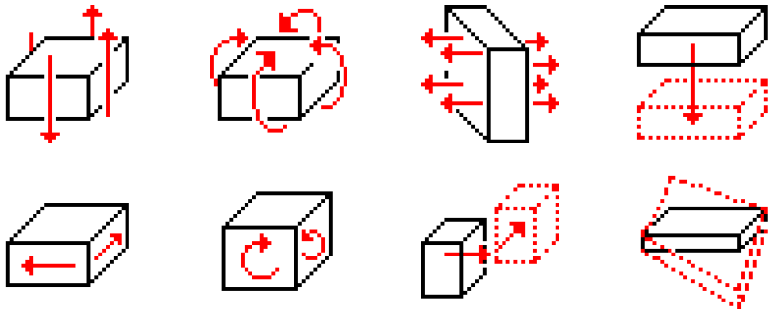
Elongations: inches

Signs

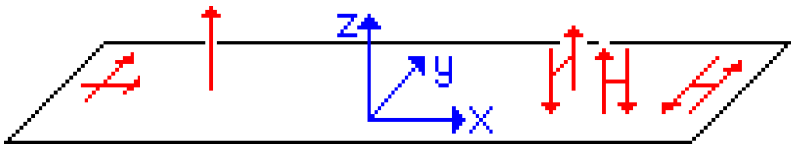
Positive Loads



Positive Analysis



Positive Reactions



Materials

Concrete Mix

Mix Name	Density (pcf)	Density For Loads (pcf)	f'ci (psi)	f'c (psi)	fcui (psi)	fcu (psi)	Poissons Ratio	Ec Calc	User Eci (psi)	User Ec (psi)
3000 psi	150	150	3000	3000	3725	3725	0.2	Code	2500000	3000000
4000 psi	150	150	3000	4000	3725	4975	0.2	Code	2500000	3000000
5000 psi	150	150	3000	5000	3725	6399	0.2	Code	2500000	3000000
6000 psi	150	150	3000	6000	3725	7450	0.2	Code	2500000	3000000

PT Systems

System Name	Type	Aps (in²)	Eps (ksi)	fse (ksi)	fpy (ksi)	fpu (ksi)	Duct Width (inches)	Strands Per Duct	Min Radius (feet)
½" Unbonded	unbonded	0.153	28000	175	243	270	0.5	1	6
½" Bonded	bonded	0.153	28000	160	243	270	3	4	6
0.6" Unbonded	unbonded	0.217	28000	175	243	270	0.6	1	8
0.6" Bonded	bonded	0.217	28000	160	243	270	4	4	8

PT Stressing Parameters

System Name	Jacking Stress (ksi)	Seating Loss (inches)	Anchor Friction	Wobble Friction (1/feet)	Angular Friction (1/radians)	Long-Term Losses (ksi)
½" Unbonded	216	0.25	0	0.0014	0.07	22
½" Bonded	216	0.25	0.02	0.001	0.2	22
0.6" Unbonded	216	0.25	0	0.0014	0.07	22
0.6" Bonded	216	0.25	0.02	0.001	0.2	22

Reinforcing Bars

Bar Name	As (in²)	Es (ksi)	Fy (ksi)	Coating	Straight Ld/Db	90 Hook Ld/Db	180 Hook Ld/Db
#3	0.11	29000	60	None	Code	Code	Code
#4	0.2	29000	60	None	Code	Code	Code
#5	0.31	29000	60	None	Code	Code	Code
#6	0.44	29000	60	None	Code	Code	Code
#7	0.6	29000	60	None	Code	Code	Code
#8	0.79	29000	60	None	Code	Code	Code
#9	1	29000	60	None	Code	Code	Code
#10	1.27	29000	60	None	Code	Code	Code
#11	1.56	29000	60	None	Code	Code	Code

Materials (2)

SSR Systems

SSR System Name	Stud Area (in²)	Head Area (in²)	Min Clear Head Spacing (inches)	Specified Stud Spacing (inches)	Fy (ksi)	Stud Spacing Rounding Increment (inches)	Min Studs Per Rail	System Type
3/8" SSR	0.11	1.11	0.5	None	50	0.25	2	Rail
1/2" SSR	0.196	1.96	0.5	None	50	0.25	2	Rail
5/8" SSR	0.307	3.07	0.5	None	50	0.25	2	Rail
3/4" SSR	0.442	4.42	0.5	None	50	0.25	2	Rail
Ancon Shearfix Auto-Size	0.1217	1.096	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 10 mm	0.1217	1.096	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 12 mm	0.1753	1.578	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 14 mm	0.2386	2.147	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 16 mm	0.3116	2.805	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 20 mm	0.4869	4.383	0.5906	None	72.52	0.03937	2	Rail
Ancon Shearfix 24 mm	0.7012	6.311	0.5906	None	72.52	0.03937	2	Rail

Loadings

Loading Name	*Type*	*Analysis*	*On-Pattern Factor*	*Off-Pattern Factor*
Self-Dead Loading	Self-Weight	Normal	1	1
Balance Loading	Balance	Normal	1	1
Hyperstatic Loading	Hyperstatic	Hyperstatic	1	1
Temporary Construction (At Stressing) Loading	Stressing Dead	Normal	1	1
Other Dead Loading	Dead	Normal	1	1
Live (Reducible) Loading	Live (Reducible)	Normal	1	0
Live (Unreducible) Loading	Live (Unreducible)	Normal	1	0
Live (Storage) Loading	Live (Storage)	Normal	1	0
Live (Parking) Loading	Live (Parking)	Normal	1	0
Live (Roof) Loading	Live (Roof)	Normal	1	0
Snow Loading	Snow	Normal	1	1
Seismic E/W	Ultimate Seismic 1 (transfer)	Normal	1	0
Seismic N/S	Ultimate Seismic 1 (transfer)	Normal	1	0

Load Combinations

All Dead LC

Active Design Criteria: <none>
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Other Dead Loading	1	1

Dead + Balance LC

Active Design Criteria: <none>
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1

Initial Service LC

Active Design Criteria: Initial Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1.13	1.13
Temporary Construction (At Stressing) Loading	1	1

Service LC: D + L

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	1	0
Live (Unreducible) Loading	1	0
Live (Storage) Loading	1	0
Live (Parking) Loading	1	0

Service LC: D + Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Roof) Loading	1	0

Load Combinations (2)

Service LC: D + S

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Snow Loading	1	0

Service LC: D + 0.75L + 0.75Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	0.75	0
Live (Unreducible) Loading	0.75	0
Live (Storage) Loading	0.75	0
Live (Parking) Loading	0.75	0
Live (Roof) Loading	0.75	0

Service LC: D + 0.75L + 0.75S

Active Design Criteria: User Minimum Design, Code Minimum Design, Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	0.75	0
Live (Unreducible) Loading	0.75	0
Live (Storage) Loading	0.75	0
Live (Parking) Loading	0.75	0
Snow Loading	0.75	0

Sustained Service LC

Active Design Criteria: Sustained Service Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1	1
Balance Loading	1	1
Other Dead Loading	1	1
Live (Reducible) Loading	0.5	0.5
Live (Unreducible) Loading	0.5	0.5
Live (Storage) Loading	1	1
Live (Parking) Loading	0.5	0.5
Live (Roof) Loading	0.5	0.5

Load Combinations (3)

Factored LC: 1.4D

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.4	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.4	0.9

Factored LC: 1.2D + 1.6L + 0.5Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	1.6	0
Live (Unreducible) Loading	1.6	0
Live (Storage) Loading	1.6	0
Live (Parking) Loading	1.6	0
Live (Roof) Loading	0.5	0

Factored LC: 1.2D + f1L + 1.6Lr

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	0.5	0
Live (Unreducible) Loading	1	0
Live (Storage) Loading	1	0
Live (Parking) Loading	1	0
Live (Roof) Loading	1.6	0

Factored LC: 1.2D + 1.6L + 0.5S

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	1.6	0
Live (Unreducible) Loading	1.6	0
Live (Storage) Loading	1.6	0
Live (Parking) Loading	1.6	0
Snow Loading	0.5	0

Load Combinations (4)

Factored LC: 1.2D + f1L + 1.6S

Active Design Criteria: User Minimum Design, Code Minimum Design, Strength Design, Ductility Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.2	0.9
Hyperstatic Loading	1	1
Other Dead Loading	1.2	0.9
Live (Reducible) Loading	0.5	0
Live (Unreducible) Loading	1	0
Live (Storage) Loading	1	0
Live (Parking) Loading	1	0
Snow Loading	1.6	0

Long Term deflection

Active Design Criteria: <none>
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	3.35	3.35
Balance Loading	3.35	3.35
Other Dead Loading	3.35	3.35
Live (Unreducible) Loading	2	2
Snow Loading	1	1

Earthquake N-S: (1.2+.2*Sds)D + 2.5E + 0.5L+0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic N/S	2.5	2.5

Earthquake N-S: (0.9-0.2*Sds)D + 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic N/S	2.5	2.5

Load Combinations (5)

Earthquake E-W: (1.2+0.2*Sds)D + 2.5E + 0.5L+0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic E/W	2.5	2.5

Earthquake E-W: (0.9-0.2*Sds)D + 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic E/W	2.5	2.5

Earthquake N-S: (1.2+0.2*Sds)D - 2.5E + .5L + 0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic N/S	-2.5	-2.5

Earthquake N-S: (0.9-0.2*Sds)D - 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic N/S	-2.5	-2.5

Load Combinations (6)

Earthquake E-W: (1.2+0.2*Sds)D - 2.5E + .5L + 0.2S

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	1.344	1.344
Hyperstatic Loading	1	1
Other Dead Loading	1.344	1.344
Live (Unreducible) Loading	0.5	0.5
Snow Loading	0.2	0.2
Seismic E/W	-2.5	-2.5

Earthquake E-W: (0.9-0.2*Sds)D - 2.5E

Active Design Criteria: Strength Design, Code Minimum Design, User Minimum Design
Analysis: Linear

Loading	*Standard Factor*	*Alt. Envelope Factor*
Self-Dead Loading	0.756	0.756
Hyperstatic Loading	1	1
Other Dead Loading	0.756	0.756
Seismic E/W	-2.5	-2.5

Design Rules

Code Minimum Desig

318-11 Min. Reinforcement

User Minimum Desig

Specified Min. Reinforcement

Initial Service Desig

318-11 Initial Service Design

Service Design

318-11 Service Design
Include detailed section analysis

Sustained Service Design

318-11 Sustained Service Design

Strength Design

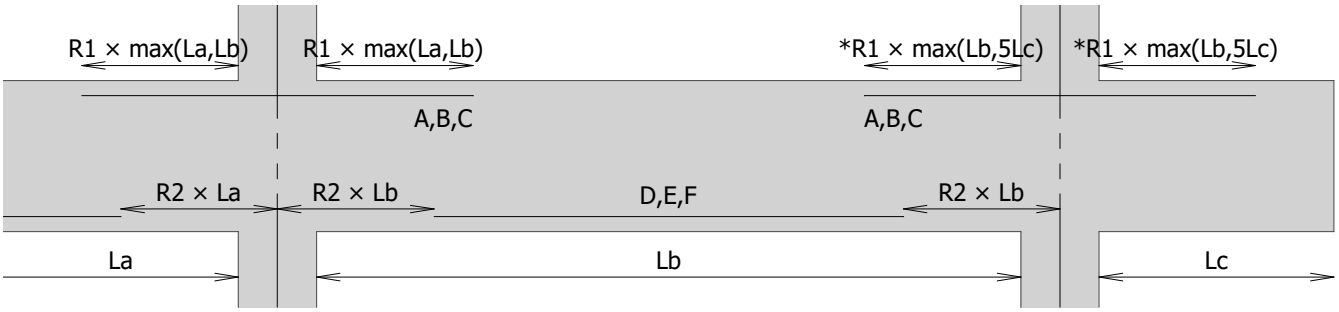
318-11 Strength Design
Punching Shear Design

Ductility Design

318-11 Ductility Design

Detailing Rules

Custom Span Detailing Rules



Rule Name	*A Fraction*	*A R1*	*B Fraction*	*B R1*	*C Fraction*	*C R1*	*D Fraction*	*D R2*	*E Fraction*	*E R2*	*F Fraction*	*F R2*
None	0	0	0	0	0	0	0	0	0	0	0	0

"A", "B" and "C", are support reinforcement sets, based on the peak reinforcement in the support zone.
"D", "E" and "F", are span reinforcement sets, based on the peak reinforcement in the span zone.
"*R1" is never taken as greater than 0.2 when multiplied by Lc (or Lcc).
"Fraction" is the ratio of set reinforcement to peak reinforcement. It is always in the 0.0 to 1.0 range.

Load History

Load History Step Name	*Load Combination*	*Duration (days)*	*Total Age (days)*
Maximum Short Term Load	Service LC: D + L	30	33
Sustained Load	Sustained Service LC	5000	5033
Final Instantaneous Load	Service LC: D + L	0	5033

Mesh Input: Walls Below Table

Number	Location feet	Mix	Fixed Near	Fixed Far	Comp.	Height feet	Thickness inches
1	(-192.2,-1.583)(-159.3,-1.583)	4000 psi	false	false	true	10	10
2	(-161.6,-82.57)(-161.6,-69.08)	4000 psi	false	false	true	10	12
3	(-158,-74.05)(-158,-62.65)	6500 psi	false	false	true	10	12
4	(-140.5,-94.13)(-161.6,-94.03)	4000 psi	false	false	true	10	12
5	(-140.5,-83.15)(-161.6,-83.02)	4000 psi	false	false	true	10	12
6	(-158,-62.55)(-136.2,-62.55)	6500 psi	false	false	true	10	12
7	(-140.5,-82.57)(-140.5,-94.07)	4000 psi	false	false	true	10	12
8	(-136.7,-62.55)(-136.7,-74.05)	4000 psi	false	false	true	10	12
9	(-152,-1.583)(-117.8,-1.552)	4500 psi	false	false	true	10	10
10	(-56.72,-65.28)(-56.72,-76.02)	4000 psi	false	false	true	10	12
11	(-69.5,-1.552)(-35.53,-1.552)	4500 psi	false	false	true	10	8
12	(-56.72,-65.78)(-41.18,-65.78)	4000 psi	false	false	true	10	12
13	(-56.72,-75.7)(-35.72,-75.70)	6500 psi	false	false	true	10	12
14	(-36.55,-88.08)(-36.55,-65.04)	4000 psi	false	false	true	10	12
15	(-35.72,-65.28)(-35.72,-76.02)	4000 psi	false	false	true	10	12
16	(-27.39,-11.56)(-27.39,-1.583)	4000 psi	false	false	true	10	16
17	(-29.33,-1.583)(-0.6667,-1.583)	4000 psi	false	false	true	10	10

Mesh Input: Walls Below Table (2)

ckness nes	Shear Wall	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²	Spec. Infl. Area ft²	Max LLR %
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40
	true	false	1	0	0	40

Mesh Input: Columns Below Table

Number	Location feet	Mix	Fixed Near	Fixed Far	Comp.	Height feet	B inches	D inches
1	(-207,-153.1)	5000 psi	true	true	true	10	24	18
2	(-200.6,-89.05)	5000 psi	true	true	true	10	18	24
3	(-199.7,-144.9)	5000 psi	true	true	true	10	18	24
4	(-198.6,-115.2)	5000 psi	true	true	true	10	24	18
5	(-198.6,-134.5)	5000 psi	true	true	true	10	24	18
6	(-198,-65.18)	5000 psi	true	true	true	10	18	24
7	(-197.9,-160)	5000 psi	true	true	true	10	18	24
8	(-195.5,-41.31)	5000 psi	true	true	true	10	18	24
9	(-193,-17.44)	5000 psi	true	true	true	10	18	24
10	(-191.4,-151.5)	5000 psi	true	true	true	10	18	24
11	(-180.8,-44.12)	5000 psi	true	true	true	10	18	24
12	(-180.5,-117.1)	5000 psi	true	true	true	10	24	18
13	(-177,-67.39)	5000 psi	true	true	true	10	18	24
14	(-176.8,-92.28)	5000 psi	true	true	true	10	18	24
15	(-165.9,-123.5)	5000 psi	true	true	true	10	18	24
16	(-164.9,-47.89)	5000 psi	true	true	true	10	18	24
17	(-164.6,-22.53)	5000 psi	true	true	true	10	24	18
18	(-164.4,-141.2)	5000 psi	true	true	true	10	18	24
19	(-145.3,-22.83)	5000 psi	true	true	true	10	18	24
20	(-144.5,-120.4)	5000 psi	true	true	true	10	18	24
21	(-138.3,-51.35)	5000 psi	true	true	true	10	18	24
22	(-138.2,-136)	5000 psi	true	true	true	10	18	24
23	(-135.3,-110.1)	5000 psi	true	true	true	10	18	24
24	(-120.6,-101.9)	5000 psi	true	true	true	10	18	24
25	(-118.9,-75.16)	5000 psi	true	true	true	10	24	18
26	(-118.8,-22.8)	5000 psi	true	true	true	10	18	24
27	(-118.4,-52.35)	5000 psi	true	true	true	10	18	24
28	(-115.9,-127)	5000 psi	true	true	true	10	18	24
29	(-109.7,-60.83)	5000 psi	true	true	true	10	18	24
30	(-95,-75.17)	5000 psi	true	true	true	10	18	24
31	(-94.55,-101.9)	5000 psi	true	true	true	10	18	24
32	(-93.65,-118.1)	5000 psi	true	true	true	10	18	24
33	(-87.45,-47.3)	5000 psi	true	true	true	10	24	18
34	(-86.02,-66.08)	5000 psi	true	true	true	10	24	18
35	(-71.38,-109.1)	5000 psi	true	true	true	10	18	24
36	(-68.7,-22.83)	5000 psi	true	true	true	10	18	24
37	(-67.92,-66.08)	5000 psi	true	true	true	10	24	18
38	(-65.26,-94)	5000 psi	true	true	true	10	18	24
39	(-60.2,-44.83)	5000 psi	true	true	true	10	18	24
40	(-48.99,-100.5)	5000 psi	true	true	true	10	18	24
41	(-45.8,-22.83)	5000 psi	true	true	true	10	18	24
42	(-41.7,-44.83)	5000 psi	true	true	true	10	18	24
43	(-28.53,-90.28)	5000 psi	true	true	true	10	18	24
44	(-19.02,-17.34)	5000 psi	true	true	true	10	24	18
45	(-14.46,-46.58)	5000 psi	true	true	true	10	24	18
46	(-14.45,-61.73)	5000 psi	true	true	true	10	24	18

Mesh Input: Columns Below Table (2)

Angle degrees	*Roller*	*I Factor*	*Use Spec LLR Params*	*Spec. LLR Levels*	*Spec. Trib. Area ft²*	*Spec. Infl. Area ft²*
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
22	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
84	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
84	false	1	false	1	0	0
-6	false	1	false	1	0	0
-6	false	1	false	1	0	0
90	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
90	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
22	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
112	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0

Mesh Input: Columns Below Table (3)

c. Infl. Area	*Max LLR* *%*
	40
	40
	40
	40
	40
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	40
	40
	40
	40
	40
	40
	40
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Mesh Input: Columns Below Table (4)

Number	*Location feet*	*Mix*	*Fixed Near*	*Fixed Far*	*Comp.*	*Height feet*	*B inches*	*D inches*
47	(-5.364,-16.83)	5000 psi	true	true	true	10	24	18
48	(-5.313,-48.08)	5000 psi	true	true	true	10	24	18
49	(-3.839,-76.29)	5000 psi	true	true	true	10	24	18
50	(-3.615,-61.75)	5000 psi	true	true	true	10	24	18
51	(-1.469,-92.28)	5000 psi	true	true	true	10	18	24

Mesh Input: Columns Below Table (5)

Angle degrees	*Roller*	*I Factor*	*Use Spec LLR Params*	*Spec. LLR Levels*	*Spec. Trib. Area ft²*	*Spec. Infl. Area ft²*
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0
0	false	1	false	1	0	0

Mesh Input: Columns Below Table (6)

c. Infl. Area	*Max LLR %*
	40
	40
	40
	40
	40

Mesh Input: Slab Areas Table

Number	*Location feet*	*Mix*	*Thickness inches*	*TOC inches*	*Priority*	*Behavior*	*R-Axis degrees*
1	(-190.7,-158.2)(-168.1,-169.8,-145)(-163.9,-142.7)(-164.8,-140.3)(-193,-150.8)	5000 psi	14	0	5	two-way slab	0
2	(-164.8,-140.3)(-165.4,-164.5,-162.9)(-163.9,-142.7)	5000 psi	14	0	5	two-way slab	0
3	(-123,-25.33)(-118,-25.33)(-118,-20.33)(-123,-20.33)	5000 psi	14	0	5	two-way slab	0
4	(-192.3,-0.7966)(-159,-0.7966)(-159.9,-12.16)(-154.2,-10.67)(-153.2,-0.7966)(-117.5,-0.7966)(-117.5,-50.35)(-109.4,-50.35)(-109	5000 psi	12	0	5	two-way slab	0

Mesh Input: Slab Areas Table (2)

xis
rees

KMr	*KMs*	*KMrs*	*KFr*	*KFs*	*KVrs*
1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1

Mesh Input: Beams Table

Number	Location feet	Mix	Thickness inches	TOC inches	Priority	Mesh As Slab	Width inches
1	(-200.8,-115.5)(-195.6,-64.65)(-204.1,-115.2)(-198.9,-64.31)	5000 psi	14	0	1	true	80
2	(-190.3,-1)(-196.9,-64.55)(-0.0188,-0.9974)(-194.9,-64.76)(-192.3,-0.9984)(-198.9,-64.34)	5000 psi	14	0	1	true	48
3	(-36.79,-92.65)(-163.5,-140.6)(-35.54,-95.92)(-162.2,-146.8)(-38.1,-89.54)(-164.8,-140.3)	5000 psi	15	0	1	true	84
4	(-97.9,-48.85)(-77.42,-45.85)(-97.9,-46.35)(-77.42,-46.35)(-97.9,-51.35)(-77.42,-51.35)	5000 psi	15	0	1	true	60

Mesh Input: Beams Table (2)

Width inches	Behavior	KMr	KMs	KMrs	KFr	KFs	KVrs
	no-torsion two-way slab	1	1	0.001	1	1	1
	no-torsion two-way slab	1	1	0.001	1	1	1
	no-torsion two-way slab	1	1	0.001	1	1	1
	no-torsion two-way slab	1	1	0.001	1	1	1

Mesh Input: Standard Plan

Mesh Input: Beams; Beam Priorities; Slab Areas; Slab AreaT hicknesses; Slab Area Elevations; Slab Openings; Point Supports; Point Support Icons; Line Supports; Line Support Icons; Walls Above; Walls Below; Wall Thicknesses; Columns Above; Columns Below; Column Dimens
Drawing Import: User Notes; User Lines; User Dimensions; 0; S-BEAM; S-COLS; A-GENM; A-DETL; S-COLS-SYMB; S-ANNO-SYMB; S-GRID-IDEN; S-ANNO-NOTE; 1803002_A_18S_VE_UPDATE_R17_rvt-1-PT Floor Plan - LEVEL 4|S-STRS; 1803002_A_18S_VE_UPDATE_R17_rvt-1-PT
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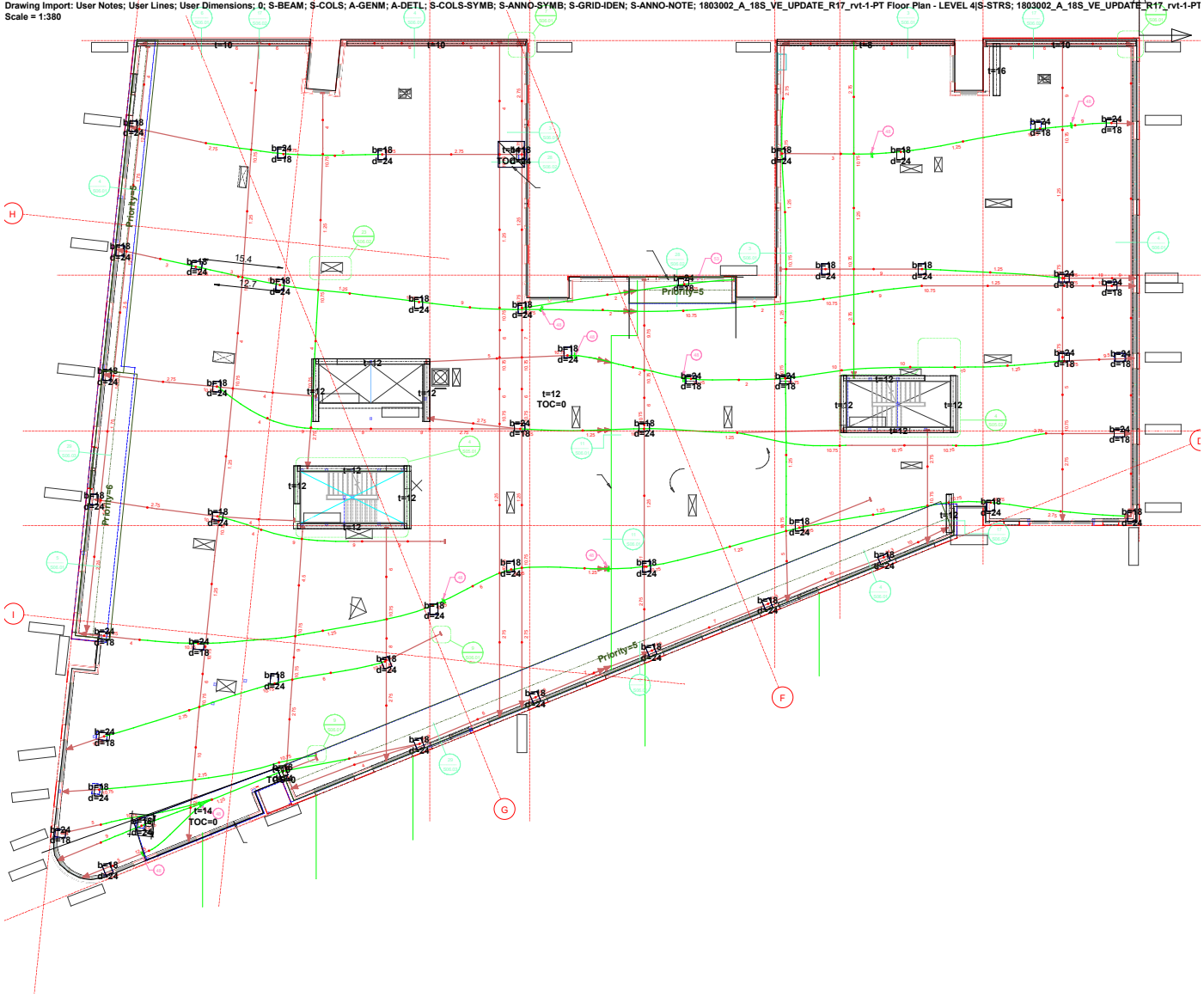

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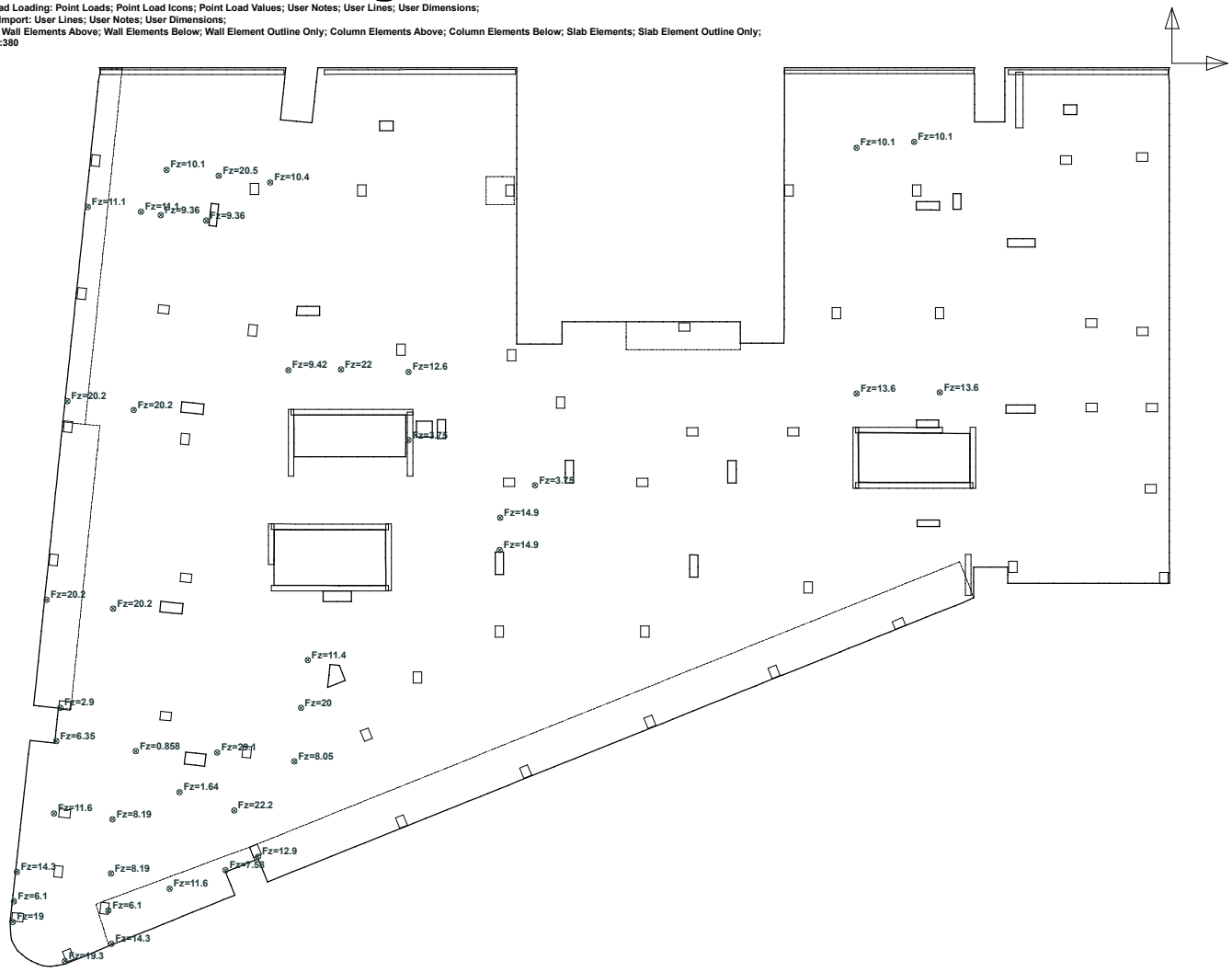
Other Dead Loading: Point Loads Plan

Other Dead Loading: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



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Other Dead Loading: Line Loads Plan

Other Dead Loading: Line Loads; Line Load Icons; Line Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
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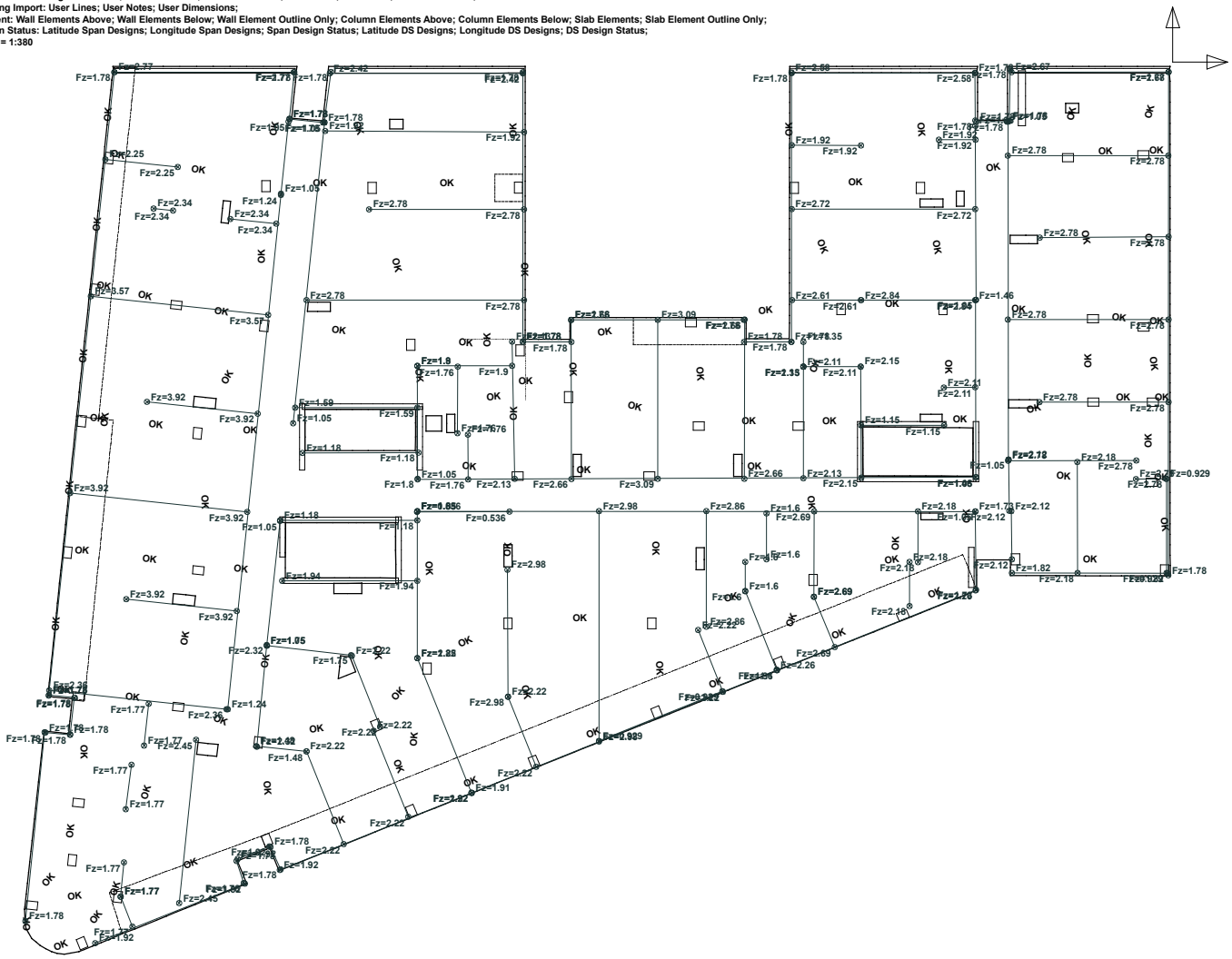

Level 4.50.cpt - 12/11/2019

Other Dead Loading: Area Loads Plan

Other Dead Loading: Area Loads; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
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Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
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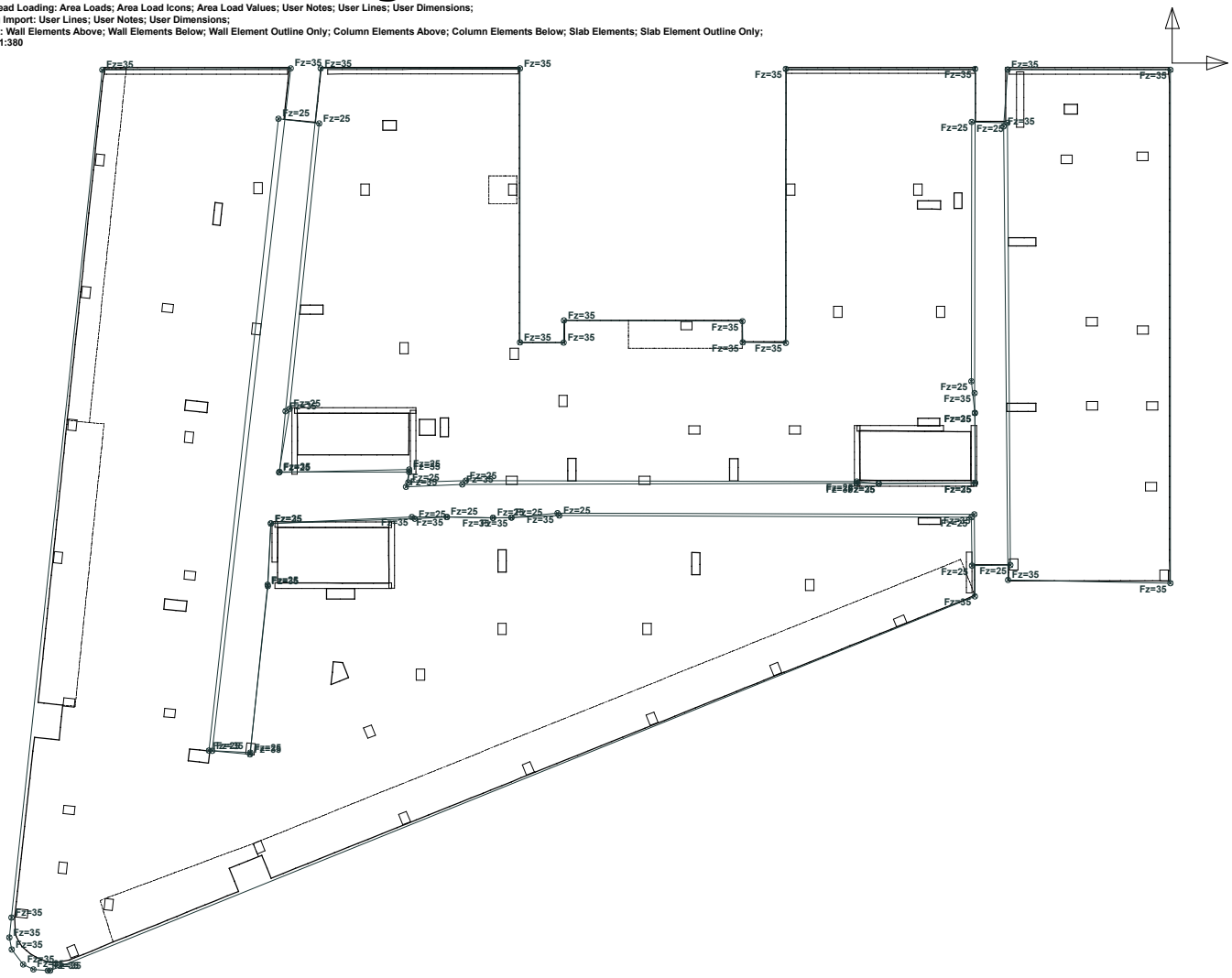

Level 4.50.cpt - 12/11/2019

Live (Unreducible) Loading: Point Loads Plan

Live (Unreducible) Loading: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
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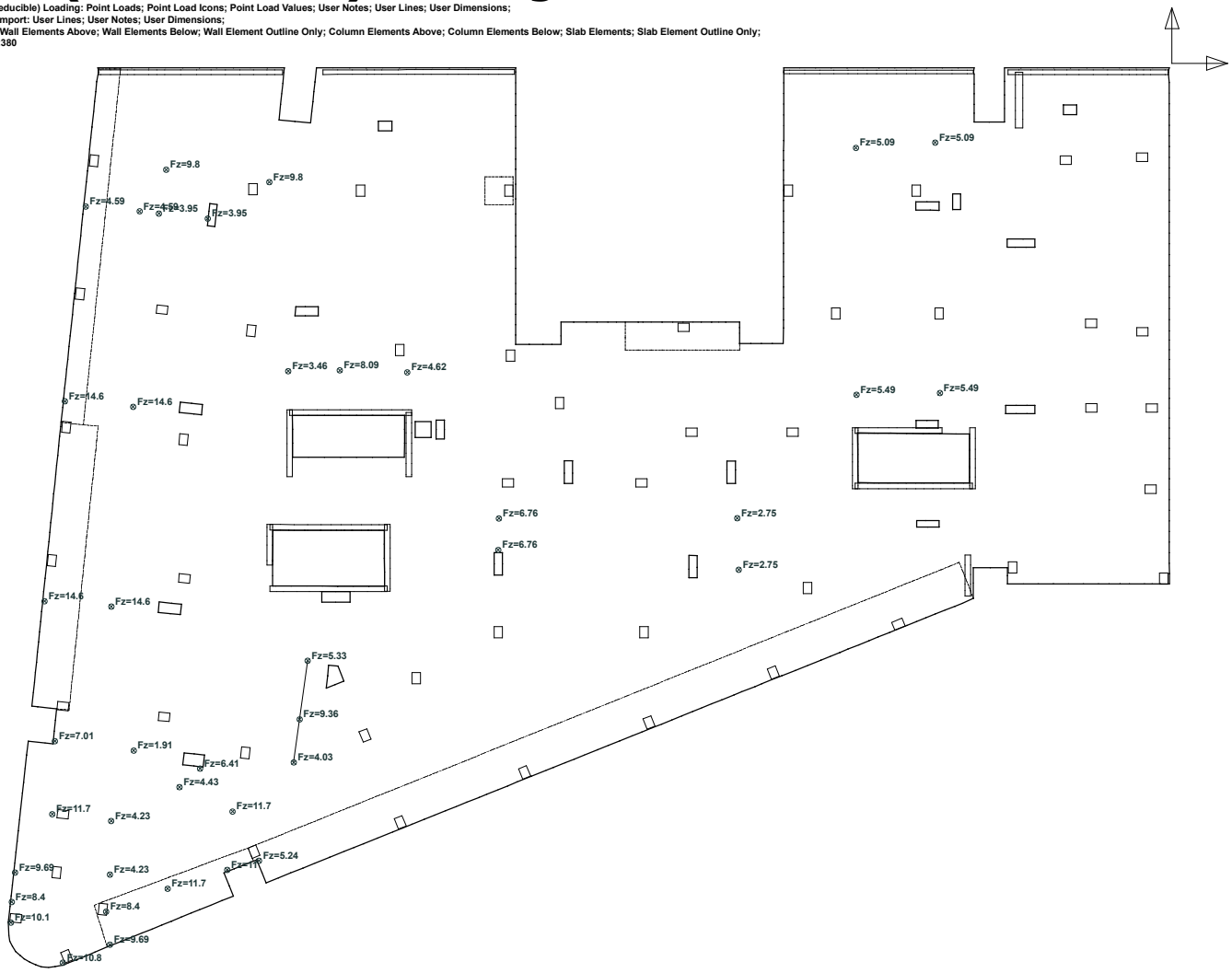
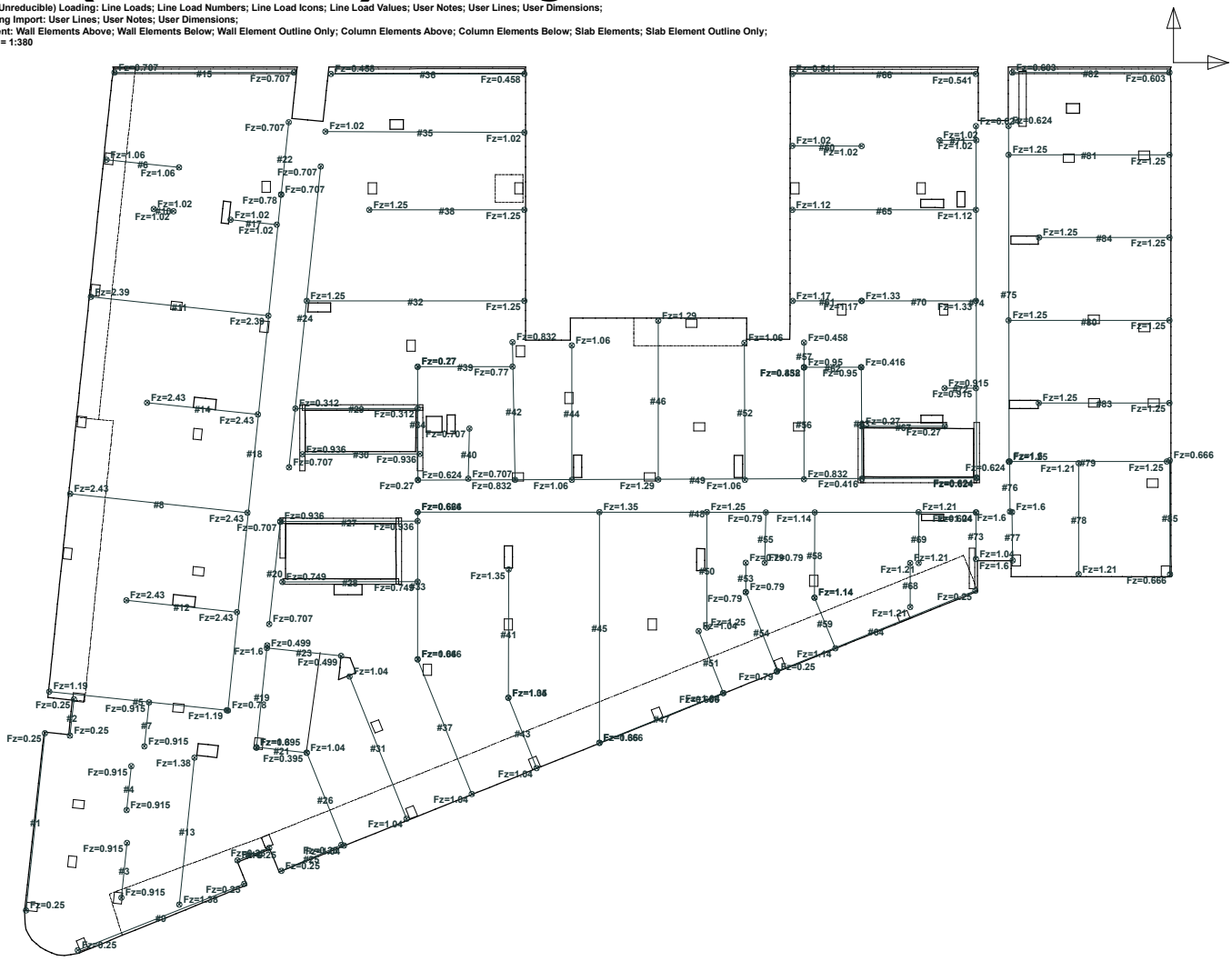


Level 4.50.cpt - 12/11/2019

Live (Unreducible) Loading: Line Loads Plan

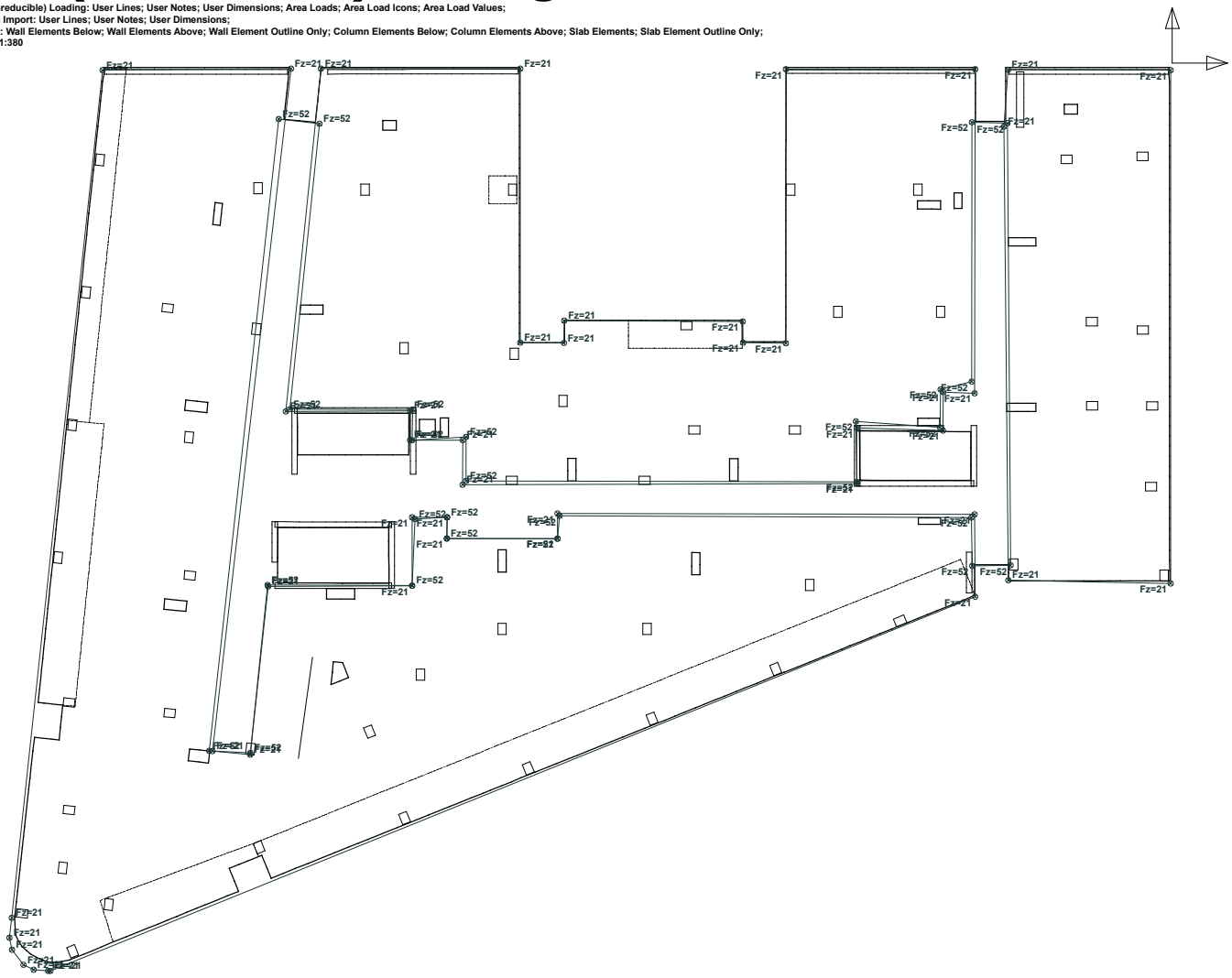
Live (Unreducible) Loading: Line Loads; Line Load Numbers; Line Load Icons; Line Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Level 4.50.cpt - 12/11/2019

Live (Unreducible) Loading: Area Loads Plan

Live (Unreducible) Loading: User Lines; User Notes; User Dimensions; Area Loads; Area Load Icons; Area Load Values;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



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Live (Unreducible) Loading: Std Reactions Plan

Live (Unreducible) Loading: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
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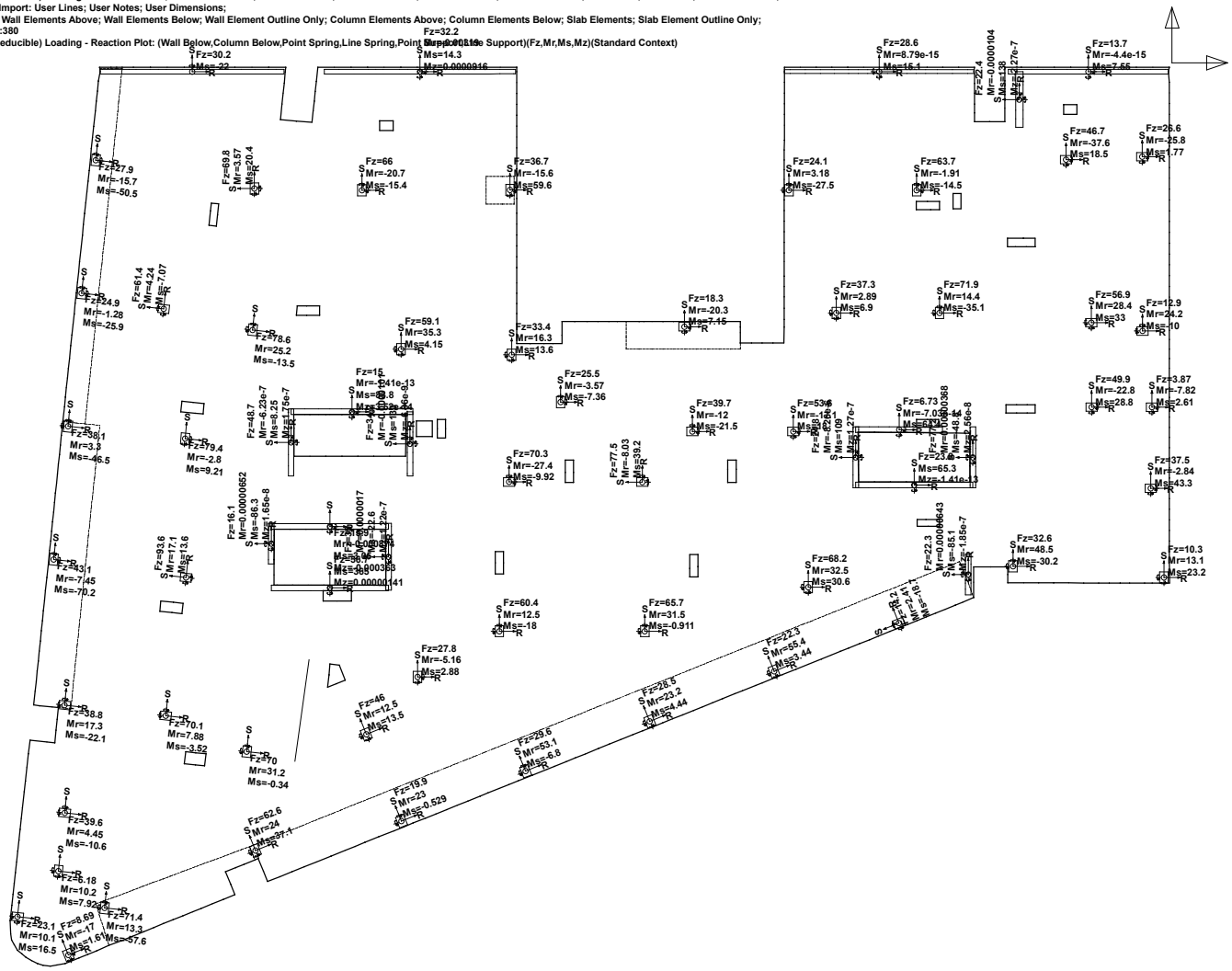
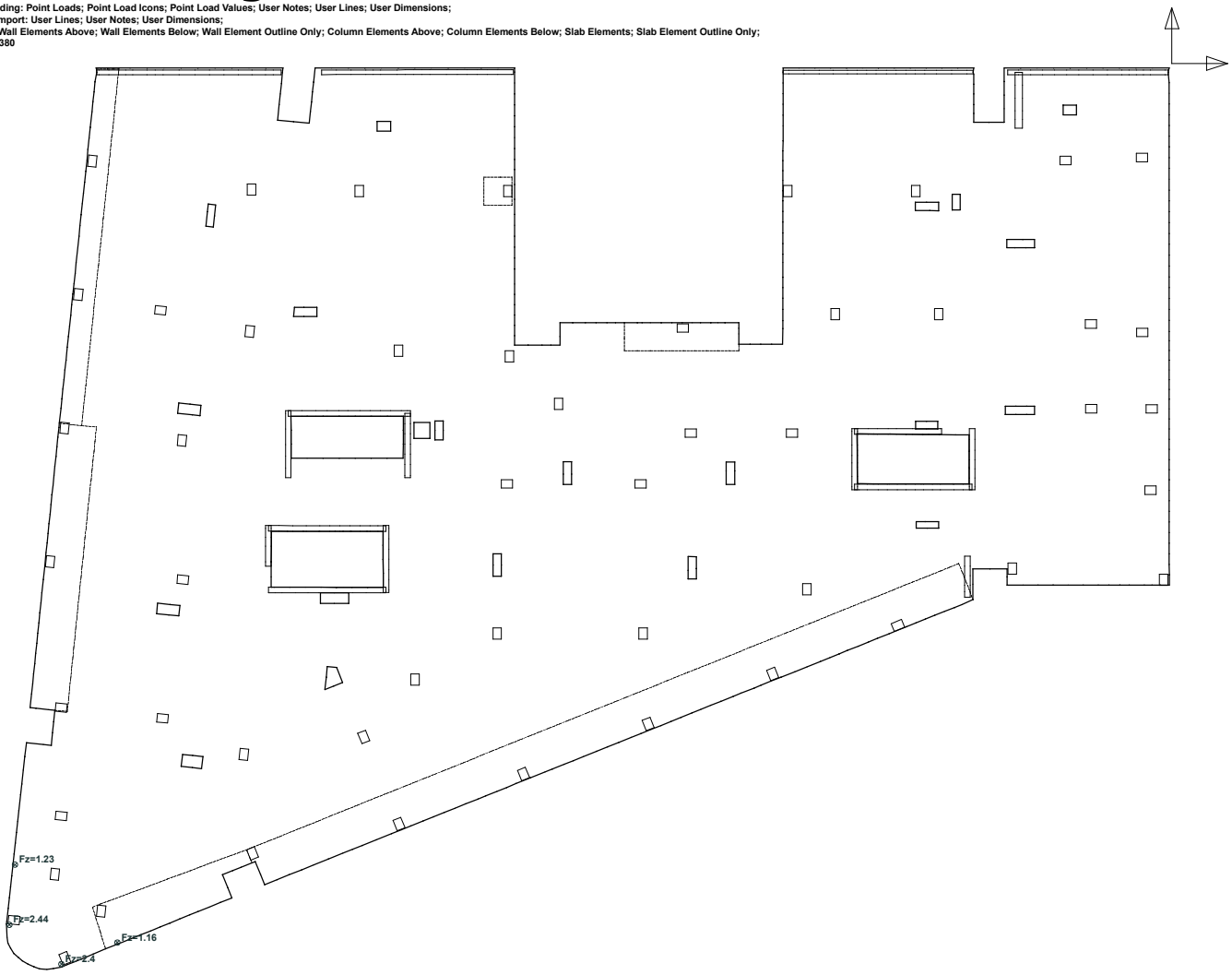
Live (Unreducible) Loading - Reaction Plot: (Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support)(Fz,Mr,Ms,Mz)(Standard Context)



Snow Loading: Point Loads Plan

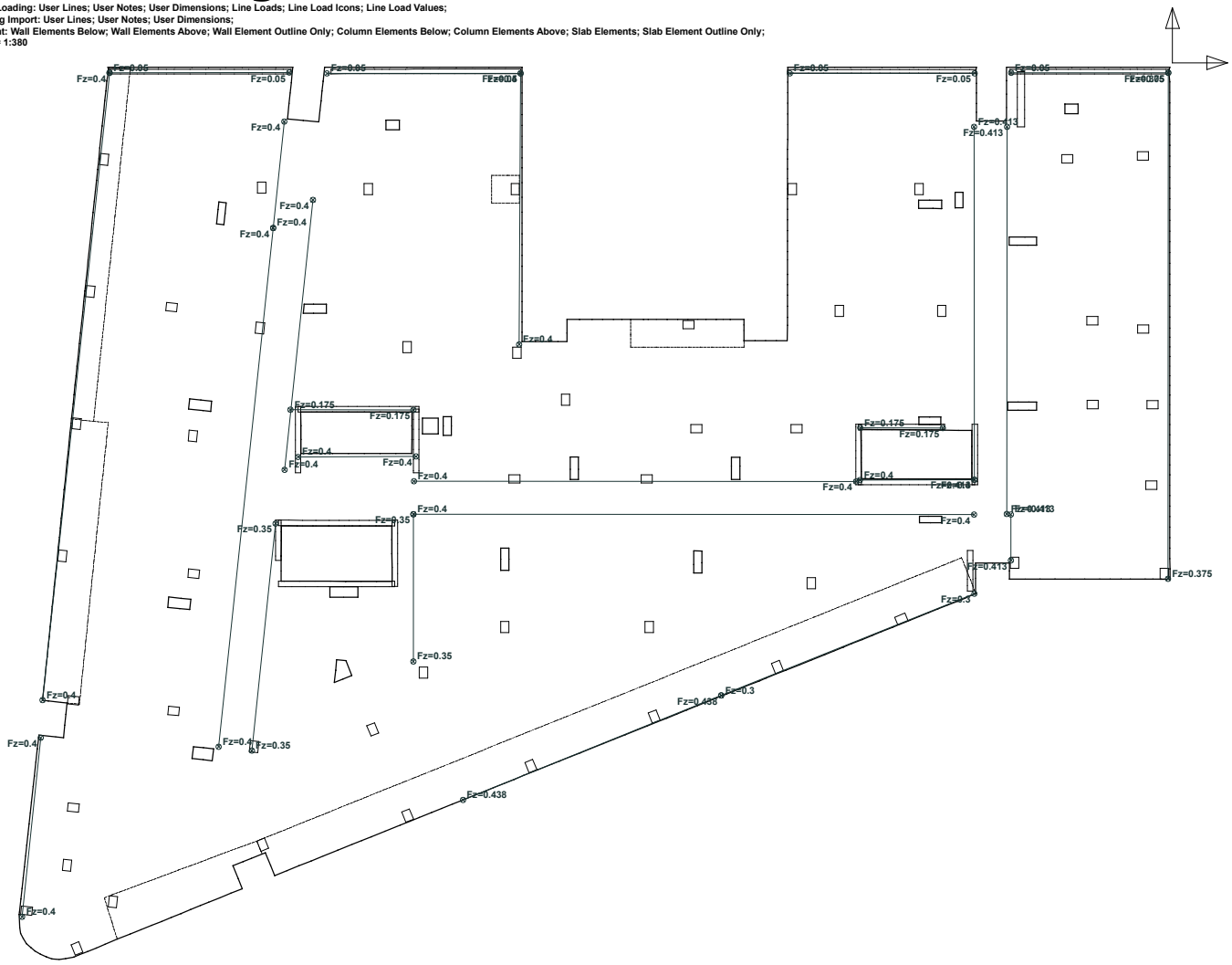
Snow Loading: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Level 4.50.cpt - 12/11/2019

Snow Loading: Line Loads Plan

Snow Loading: User Lines; User Notes; User Dimensions; Line Loads; Line Load Icons; Line Load Values;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



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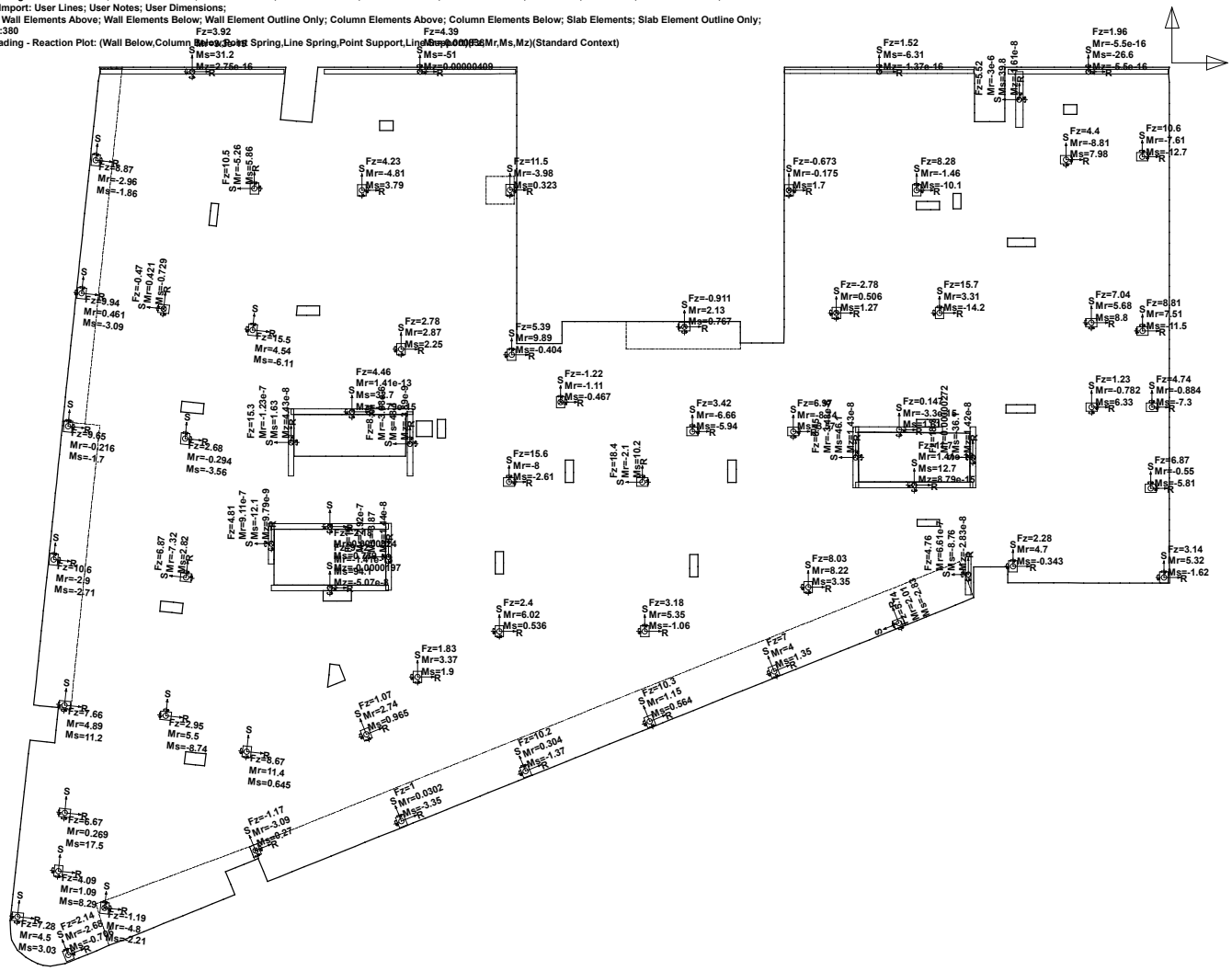
Snow Loading: Std Reactions Plan

Snow Loading: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Snow Loading - Reaction Plot: (Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support)(Fz,Mr,Ms,Mz)(Standard Context)



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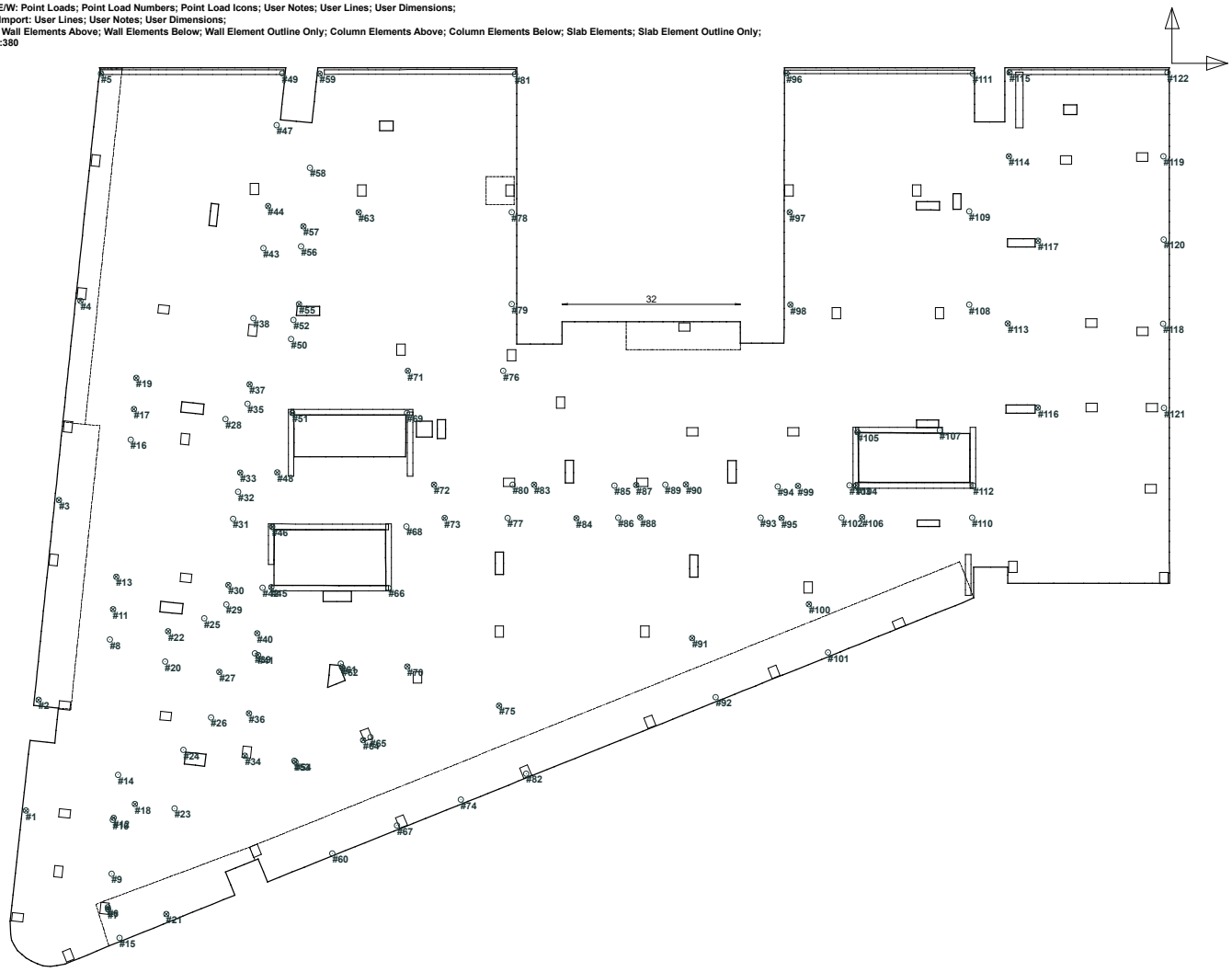
Seismic E/W: Point Loads Plan

Seismic E/W: Point Loads; Point Load Numbers; Point Load Icons; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



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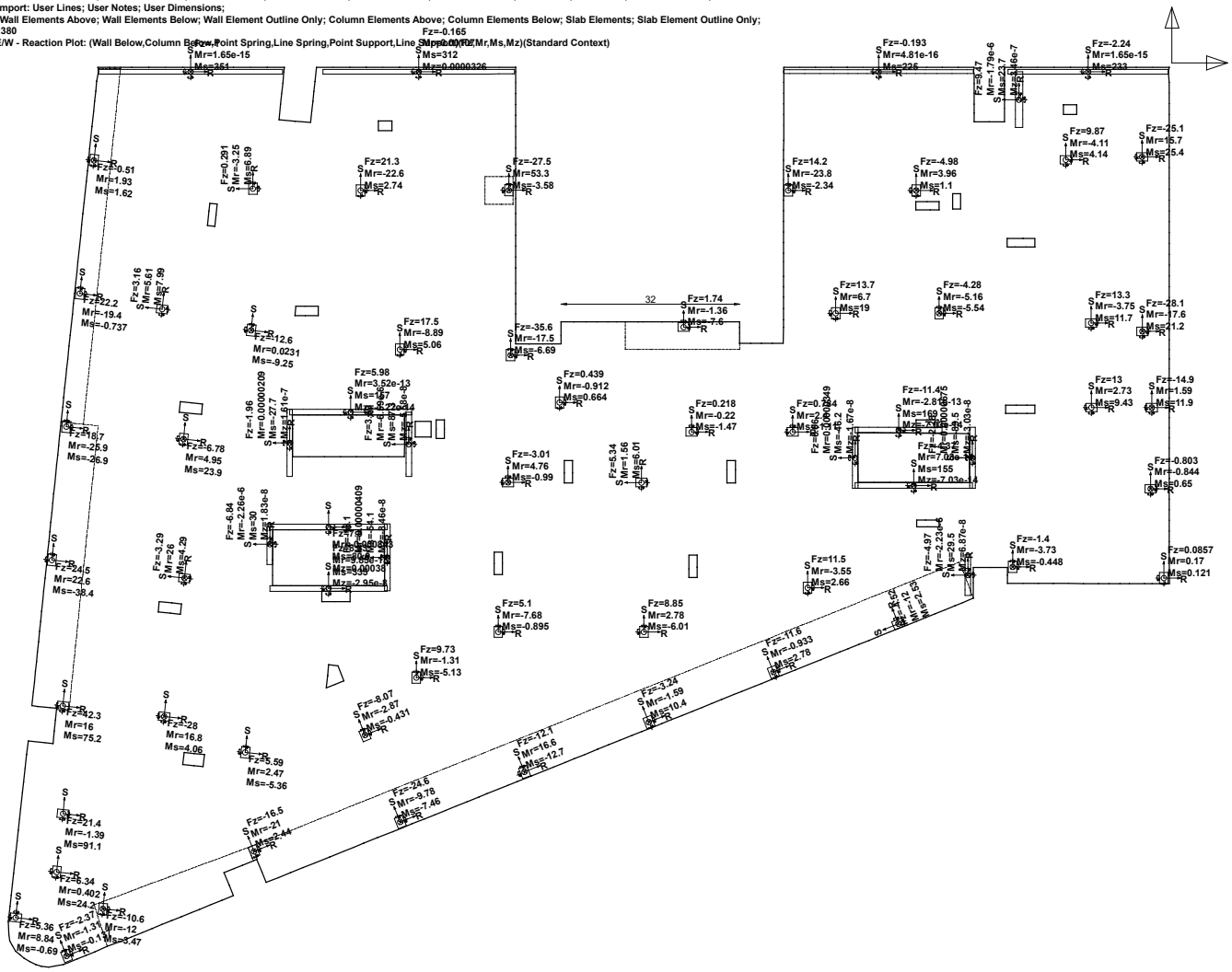
Seismic E/W: Std Reactions Plan

Seismic E/W: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Seismic E/W - Reaction Plot: (Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support)(Fz,Mr,Ms,Mz)(Standard Context)



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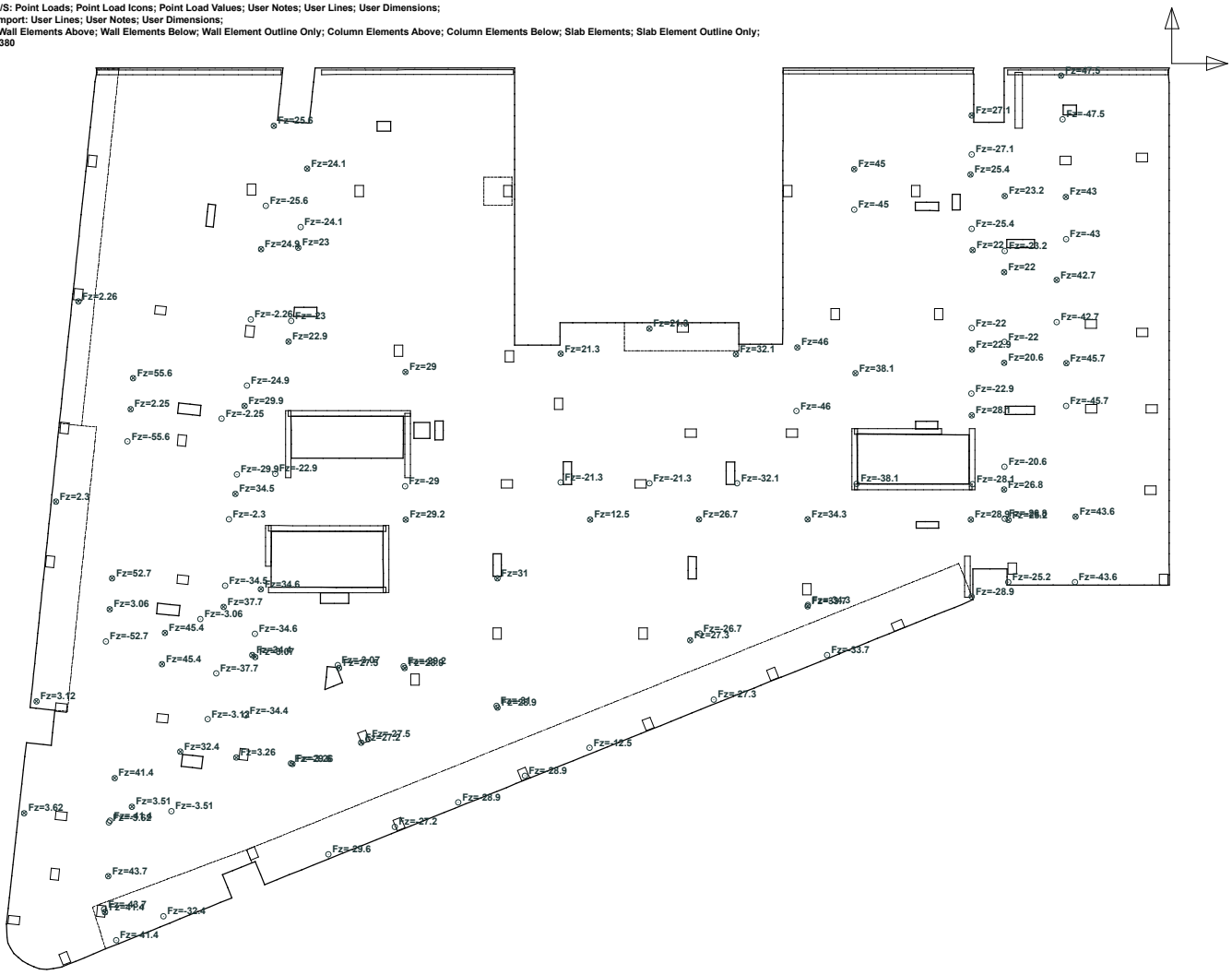
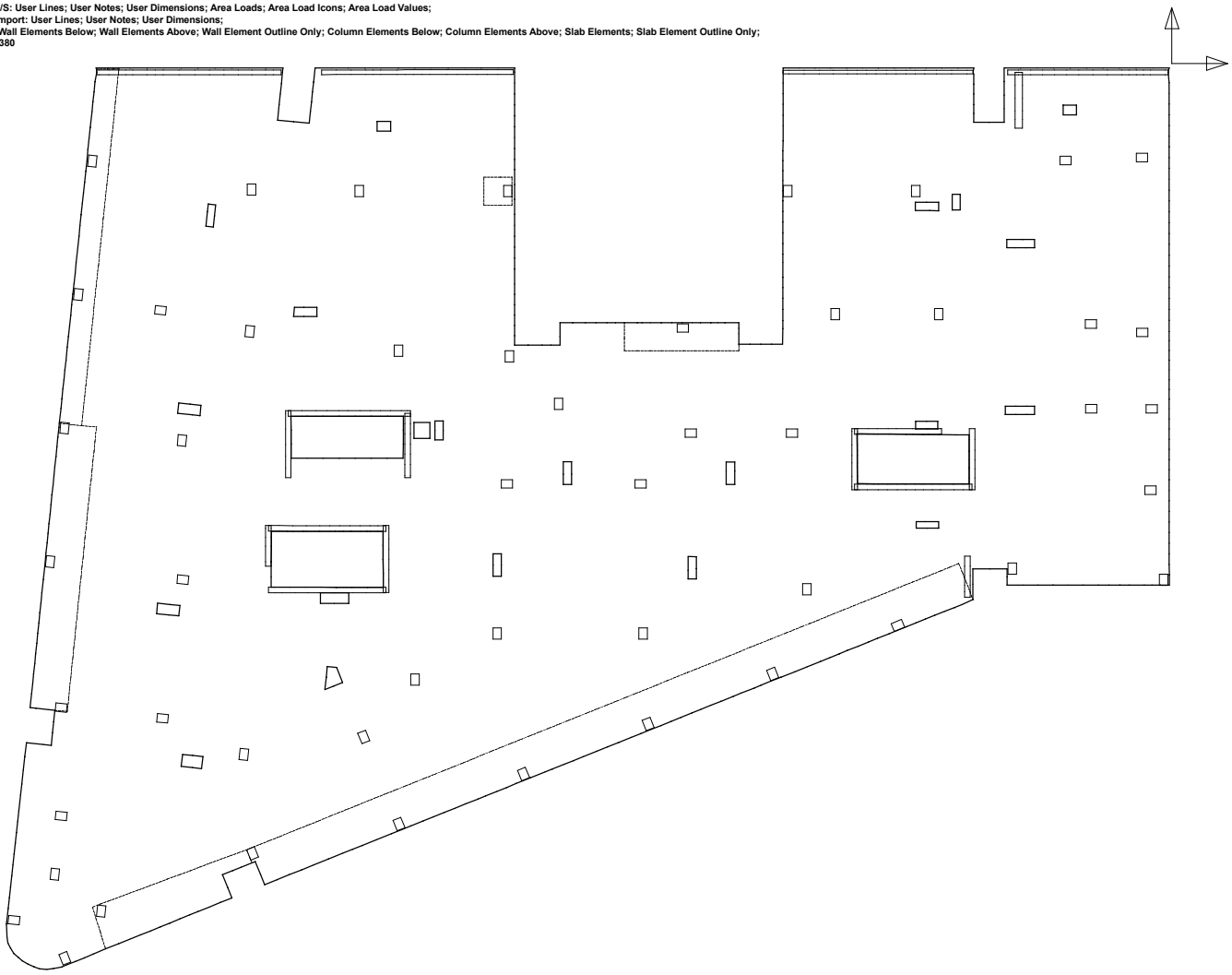
Seismic N/S: Point Loads Plan

Seismic N/S: Point Loads; Point Load Icons; Point Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Seismic N/S: Area Loads Plan

Seismic N/S: User Lines; User Notes; User Dimensions; Area Loads; Area Load Icons; Area Load Values;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



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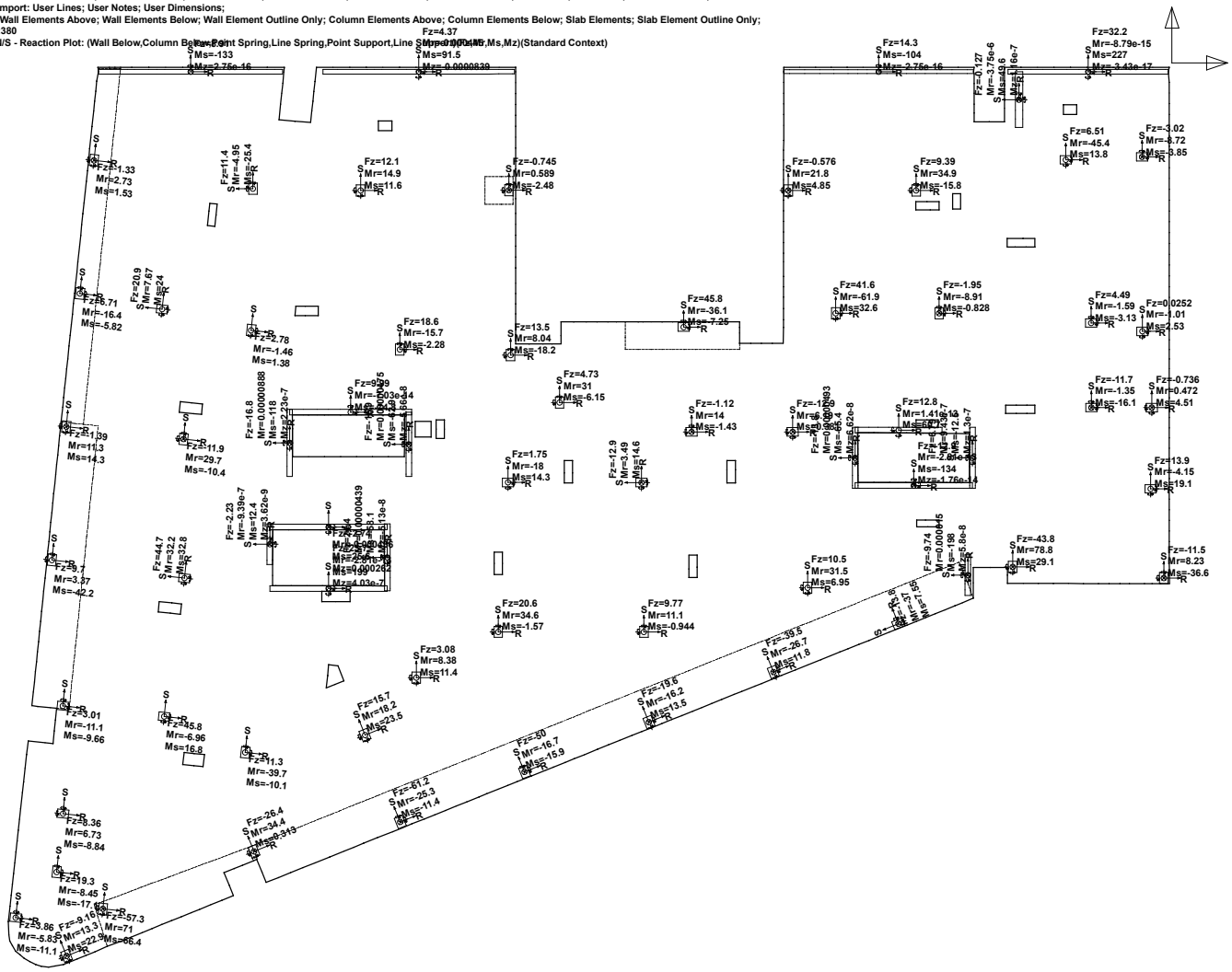
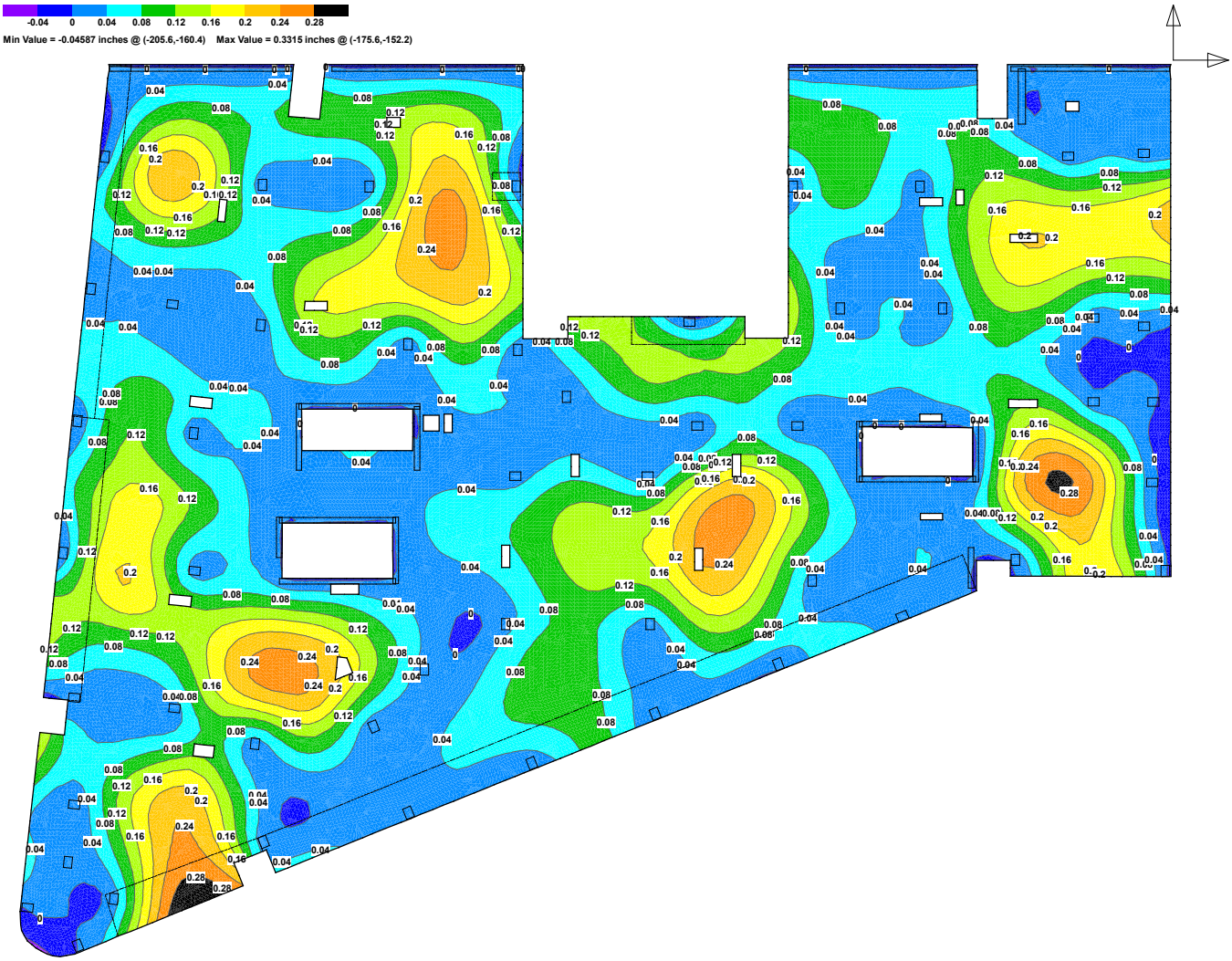
Seismic N/S: Std Reactions Plan

Seismic N/S: Point Load Icons; Point Load Values; Line Load Icons; Line Load Values; Area Load Icons; Area Load Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Seismic N/S - Reaction Plot: (Wall Below,Column Below,Point Spring,Line Spring,Point Support,Line Support,Fz,Mr,Ms,Mz)(Standard Context)



Service LC: D + L: Max Deflection Plan

Service LC: D + L: User Lines; User Notes; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service LC: D + L - Vertical Deflection Plot (Maximum Values)



Min Value = -0.04587 inches @ (-205.6,-160.4) Max Value = 0.3315 inches @ (-175.6,-152.2)

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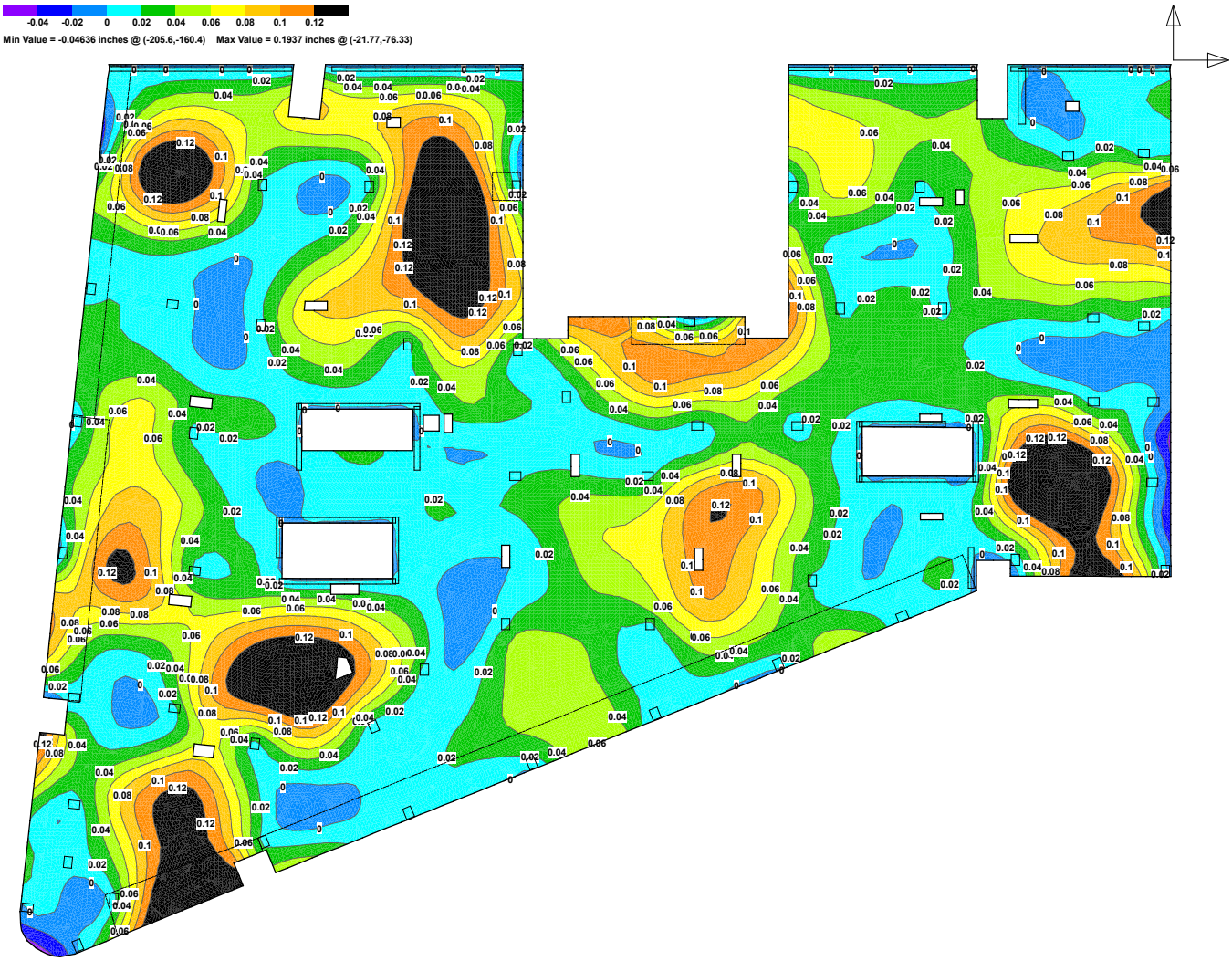
Service LC: D + L: Min Deflection Plan

Service LC: D + L: User Lines; User Notes; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service LC: D + L - Vertical Deflection Plot (Minimum Values)

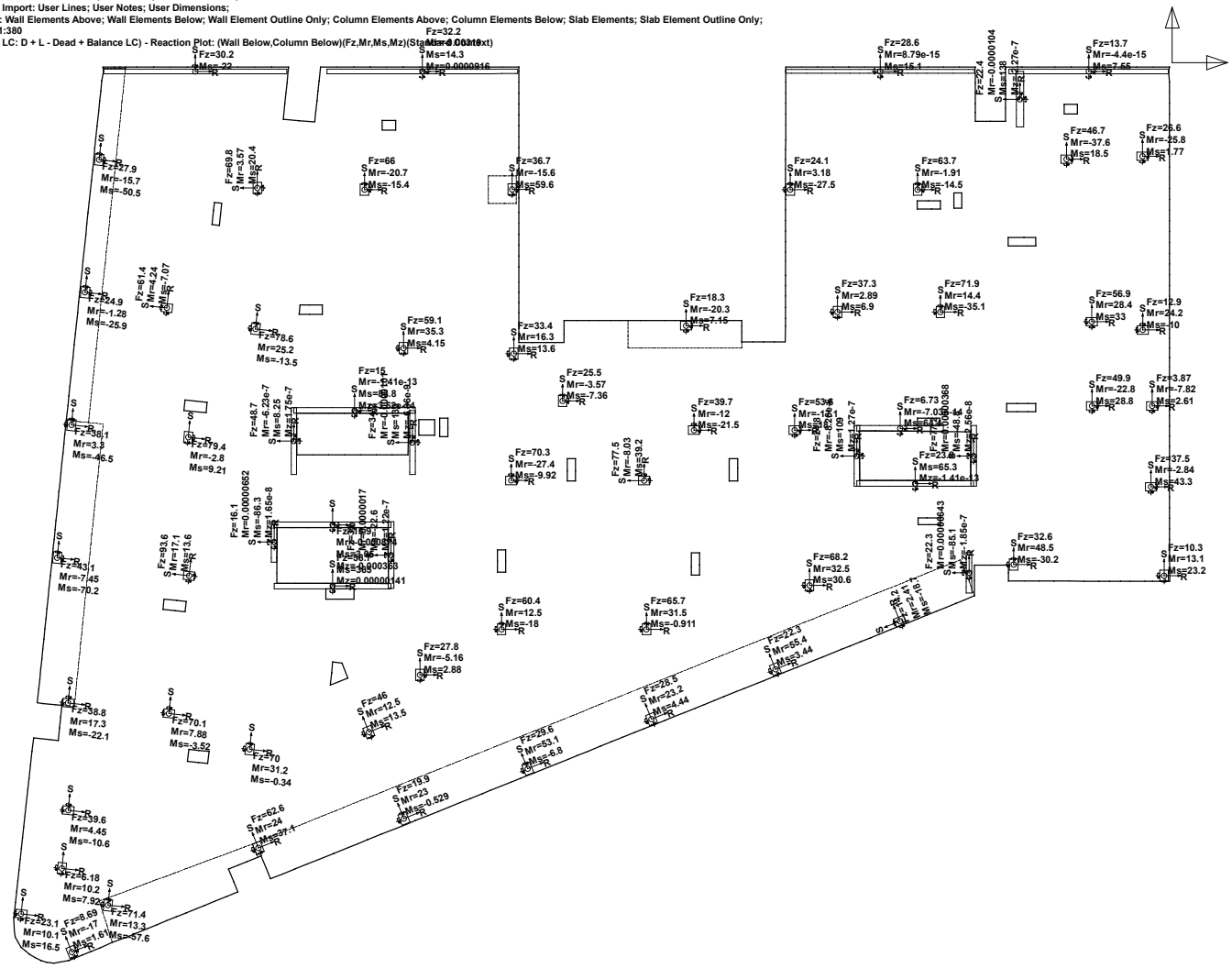
-0.04 -0.02 0 0.02 0.04 0.06 0.08 0.1 0.12

Min Value = -0.04636 inches @ (-205.6,-160.4) Max Value = 0.1937 inches @ (-21.77,-76.33)



Service LC: D + L: Reaction Plan

Service LC: D + L: User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
(Service LC: D + L - Dead + Balance LC) - Reaction Plot: (Wall Below,Column Below)(Fz,Mr,Ms,Mz)(Stamp Text)



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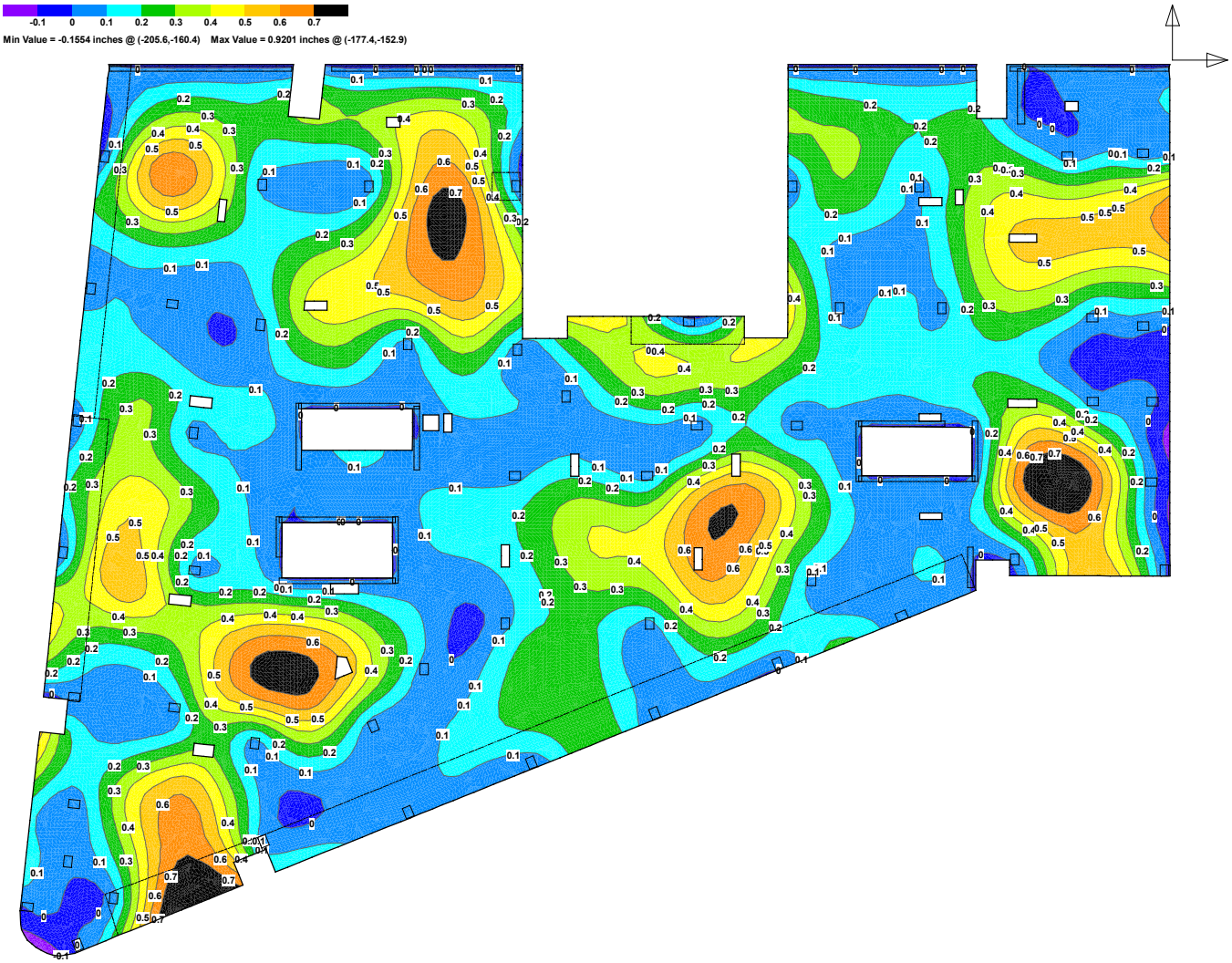
Long Term deflection: Max Deflection Plan

Long Term deflection: User Lines; User Notes; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Long Term deflection - Vertical Deflection Plot (Maximum Values)

-0.1 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7

Min Value = -0.1554 inches @ (-205.6,-160.4) Max Value = 0.9201 inches @ (-177.4,-152.9)



Design Strip: Latitude SSs Table

Name	*Set*	*Location feet*	*Skew degrees*	*At Support 1*	*At Support 2*	*Support Width 1 inches*
1-1	latitude	(-205,-162.6)(-197.9,-160.)	0.282	false	true	0
2-1	latitude	(-204,-114.5)(-198.6,-110.5)	0.024	false	true	1.39
3-1	latitude	(-207,-153.1)(-195.2,-151.9)	1.981	true	false	24.68
3-1(2)	latitude	(-195.2,-151.9)(-191.4,-151.8)	1.1	false	true	0
3-2	latitude	(-191.4,-151.5)(-164.4,-146.5)	6.86	true	true	20.33
3-3	latitude	(-164.4,-141.2)(-138.2,-136.)	3.64	true	true	18.47
3-4	latitude	(-138.2,-136)(-115.9,-127)	7)	true	true	18.55
3-5	latitude	(-115.9,-127)(-93.67,-118.1)	8.1)	true	true	18.55
3-6	latitude	(-93.67,-118.1)(-71.4,-109.1)	9.1)	true	true	18.55
3-7	latitude	(-71.4,-109.1)(-49.13,-100.2)	0.2)	true	true	18.55
3-8	latitude	(-49.13,-100.2)(-36.47,-94.24)	4.24)	true	true	24.74
4-1	latitude	(-201.3,-89.19)(-195,-89.93)	1.93)	true	false	34.4
5-1	latitude	(-198,-65.18)(-192.6,-65.83)	5.83)	true	false	18.16
6-1	latitude	(-195.5,-41.31)(-192.7,-41.76)	1.76)	true	false	18.18
7-1	latitude	(-193,-17.44)(-190.2,-17.89)	7.89)	true	false	18.19
8-1	latitude	(-197.3,-115.3)(-180.5,-117.)	2.174	false	true	0
8-2	latitude	(-180.5,-117.1)(-166,-124.6)	4.17	true	true	25.41
8-3	latitude	(-166,-123.6)(-144.5,-128.4)	8.17	true	true	19.56
8-4	latitude	(-144.5,-120.4)(-135.3,-114.)	1.15	true	true	20.23
8-5	latitude	(-135.3,-110.1)(-120.6,-102.)	2.69	true	true	20.78
8-6	latitude	(-120.6,-101.9)(-94.55,-101.9)	5.09e-6	true	true	18.16
8-7	latitude	(-94.55,-101.9)(-65.26,-94.)	9.81	true	true	18.8
8-8	latitude	(-65.26,-94)(-36.46,-88.51)	0.79	true	true	18.48
9-1	latitude	(-192.4,-41.91)(-181,-44.5)	1.37	false	true	0
9-2	latitude	(-181,-44.5)(-164.6,-47.85)	5.82	true	true	27.53
9-3	latitude	(-164.6,-47.85)(-138.3,-51.35)	7.35	true	true	11.73
9-4	latitude	(-138.3,-51.35)(-118.4,-52.35)	2.86	true	true	18.18
9-5	latitude	(-118.4,-52.35)(-87.45,-47.25)	7.25	true	true	18.4
9-6	latitude	(-87.45,-47.25)(-60.2,-44.83)	4.83e-6	true	true	24.25
9-7	latitude	(-60.2,-44.83)(-41.7,-44.83)	3.09e-6	true	true	18.16
9-8	latitude	(-41.7,-44.83)(-14.46,-46.58)	6.58	true	true	18.19
9-9	latitude	(-14.46,-46.58)(-5.313,-47.92)	4.92	true	true	24.41
9-10	latitude	(-5.313,-47.92)(-0.5036,-47.92)	0.0498	true	false	24.16
10-1	latitude	(-194.8,-89.98)(-176.8,-92.28)	2.28	false	true	0
10-2	latitude	(-176.8,-92.28)(-161.6,-93.52)	3.52	true	true	24.16
11-1	latitude	(-192.3,-65.88)(-177,-67.39)	7.39	false	true	0
11-2	latitude	(-177,-67.39)(-157.9,-68.2)	2.2	true	true	18.19
12-1	latitude	(-189.8,-18.04)(-164.2,-22.4)	2.45	false	true	0
12-2	latitude	(-164.2,-22.76)(-145.3,-22.83)	2.83	true	true	9.307
12-3	latitude	(-145.3,-22.83)(-118.2,-22.46)	2.46	true	true	18.16
13-1	latitude	(-136.6,-73.5)(-118.9,-75.16)	5.16	true	true	11.03
13-2	latitude	(-118.9,-75.16)(-94.99,-74.76)	4.76	true	true	24.16
13-3	latitude	(-94.99,-74.76)(-56.81,-73.36)	3.36	true	true	23.87
14-1	latitude	(-136.8,-62.55)(-109.7,-60.83)	0.83	true	true	14.6
14-2	latitude	(-109.7,-60.83)(-86.02,-62.52)	2.52	true	true	18.6
14-3	latitude	(-86.02,-66.08)(-67.92,-66.08)	6.08e-6	true	true	24.16

Design Strip: Latitude SSs Table (2)

port Width 1 nes	*Support Width 2 inches*	*Support Trans. Width 1 inches*	*Support Trans. Width 2 inches*	*Auto-Support*	*Min Divisions*	*Max Division Spacing feet*
	18.16	0	24.01	true	4	2.5
	24.15	0	18	true	4	2.5
	0	18.39	0	true	4	2.5
	18.54	0	24.52	true	4	2.5
	18.16	26.9	24.01	true	4	2.5
	18.07	24.42	24.42	true	4	2.5
	17.76	24	24	true	4	2.5
	17.76	24	24	true	4	2.5
	17.76	24	24	true	4	2.5
	23.6	24	18	true	4	2.5
	15.5	18.03	28.21	true	4	2.5
	0	24	0	true	4	2.5
	0	24	0	true	4	2.5
	0	24.04	0	true	4	2.5
	0	24.04	0	true	4	2.5
	24.16	0	18	true	4	2.5
	18.27	18.94	25.26	true	4	2.5
	18.67	24.78	24.69	true	4	2.5
	27.18	26.75	24.14	true	4	2.5
	20.78	27.5	27.5	true	4	2.5
	18.16	24	24	true	4	2.5
	18.8	24.86	24.86	true	4	2.5
	14.58	24.43	31.43	true	4	2.5
	21.06	0	18.13	true	4	2.5
	24.7	18.08	24.11	true	4	2.5
	18.32	24	24.21	true	4	2.5
	18.18	24.03	24.03	true	4	2.5
	24.48	24.32	18.24	true	4	2.5
	18.23	18.07	24.09	true	4	2.5
	18.16	24	24	true	4	2.5
	24.21	24.05	18.04	true	4	2.5
	24.41	18.19	18.19	true	4	2.5
	3.804	18	0	true	4	2.5
	24.16	0	18.01	true	4	2.5
	0	18	0	true	4	2.5
	18.16	0	24	true	4	2.5
	13.8	24.05	144.1	true	4	2.5
	27.46	0	24.41	true	4	2.5
	18.16	24	24	true	4	2.5
	31.77	24	24	true	4	2.5
	24.26	64.9	18.08	true	4	2.5
	24.45	18	18	true	4	2.5
	10.01	18.01	131	true	4	2.5
	18.19	113.9	24.05	true	4	2.5
	24.74	24.58	18.44	true	4	2.5
	24.16	18	18	true	4	2.5

Design Strip: Latitude SSs Table (3)

ision Spacing	Design For Axial	Environment	Design As PT	Maximize Integrated V	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
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	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0

Design Strip: Latitude SSs Table (4)

Spec. Infl. Area ft²	Max LLR %	Span Width	Col Strip Width	Lock Strips	Design CS for CS	CS Auto Trim	CS Section Slope
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	T or L	10
0	40	auto	full	false	false	max shear core	10
0	40	auto	full	false	false	T or L	10
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	T or L	10
0	40	auto	full	false	false	T or L	10
0	40	auto	full	false	false	T or L	10
0	40	auto	full	false	false	T or L	10
0	40	auto	full	false	false	T or L	10
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	T or L	10
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	T or L	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25

Design Strip: Latitude SSs Table (5)

CS Section Slope Simp	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		beam
	#7	#7	#4	1	1	Maximize Effective Depth		beam
	#7	#7	#4	1	1	Maximize Effective Depth		beam
	#7	#7	#4	1	1	Maximize Effective Depth		beam
	#7	#7	#4	1	1	Maximize Effective Depth		beam
	#7	#7	#4	1	1	Maximize Effective Depth		beam
	#7	#7	#4	1	1	Maximize Effective Depth		beam
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab

Design Strip: Latitude SSs Table (6)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
elevated	0	0	4	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	false	none	0.25	#5	#4
elevated	0	0	4	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	2	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4

Design Strip: Latitude SSs Table (7)

MS Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Latitude SSs Table (8)

MS Min B.Bar	*MS Shear Legs*
	2
	2
	2
	2
	2
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	2
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	2
	2

Design Strip: Latitude SSs Table (9)

Name	*Set*	*Location feet*	*Skew degrees*	*At Support 1*	*At Support 2*	*Support Width 1 inches*
14-4	latitude	(-67.92,-66.08)(-56.72,-66.08)	0.128	true	true	24.16
15-1	latitude	(-69.33,-22.67)(-45.8,-22.67)	2.609e-6	true	true	33.31
15-2	latitude	(-45.8,-22.67)(-19.02,-17.34)	1.324	true	true	18.51
15-3	latitude	(-19.02,-17.34)(-5.364,-16.83)	0.188	true	true	24.17
15-4	latitude	(-5.364,-16.83)(-0.5351,-16.83)	0.0007	true	false	24.16
16-1	latitude	(-41.75,-65.72)(-35.58,-65.81)	0.836	true	true	13.94
16-2	latitude	(-35.58,-65.81)(-14.45,-61.73)	0.791	true	true	8.971
16-3	latitude	(-14.45,-61.73)(-3.5,-61.73)	7.309e-6	true	true	24.16
16-4	latitude	(-3.5,-61.73)(-0.4875,-61.73)	1.709e-6	true	false	21.41
17-1	latitude	(-36.22,-75.7)(-3.5,-76.3)	1.058	true	true	24.16
17-2	latitude	(-3.5,-76.3)(-0.6594,-76.25)	0.492	true	false	16.03
18-1	latitude	(-28.53,-90.28)(-1.634,-92.34)	3.734	true	true	18.2

Design Strip: Latitude SSs Table (10)

port Width 1 nes	*Support Width 2 inches*	*Support Trans. Width 1 inches*	*Support Trans. Width 2 inches*	*Auto-Support*	*Min Divisions*	*Max Division Spacing feet*
	12.16	18	131	true	4	2.5
	18.16	24	24	true	4	2.5
	24.63	24.47	18.35	true	4	2.5
	24.17	18.01	18.01	true	4	2.5
	3.417	18	0	true	4	2.5
	15.51	12	131	true	4	2.5
	24.6	29.29	18.33	true	4	2.5
	26.91	18	18	true	4	2.5
	4.016	18	0	true	4	2.5
	32.29	125	18	true	4	2.5
	0	18	0	true	4	2.5
	14.23	24.05	24.05	true	4	2.5

Design Strip: Latitude SSs Table (11)

ision Spacing	Design For Axial	Environment	Design As PT	Maximize Integrated V.	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0

Design Strip: Latitude SSs Table (12)

Spec. Infl. Area ft²	*Max LLR %*	*Span Width*	*Col Strip Width*	*Lock Strips*	*Design CS for CS*	*CS Auto Trim*	*CS Section Slope*
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25

Design Strip: Latitude SSs Table (13)

CS Section Slope Simp	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab

Design Strip: Latitude SSs Table (14)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4

Design Strip: Latitude SSs Table (15)

MS Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Latitude SSs Table (16)

MS Min B.Bar	*MS Shear Legs*
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2

Design Strip: Longitude SSs Table

Name	*Set*	*Location feet*	*Skew degrees*	*At Support 1*	*At Support 2*	*Support Width 1 inches*
19-1	longitude	(-207,-159.8)(-207,-153.1)	0	false	true	21.45
19-2	longitude	(-207,-153.1)(-199.7,-144.9)	41.7	true	true	22.33
19-3	longitude	(-199.7,-144.9)(-198.6,-134.5)	6.242E-5	true	true	24.16
19-4	longitude	(-198.6,-134.5)(-198.6,-116)	0.04872	true	true	18.26
20-1	longitude	(-203,-115)(-200.6,-89.18)	8.266	false	true	0
20-2	longitude	(-200.6,-89.18)(-198.1,-65.31)	6	true	true	27.21
20-3	longitude	(-198.1,-65.31)(-195.5,-41.31)	7.131	true	true	27.31
20-4	longitude	(-195.5,-41.31)(-193,-17.57)	7.578	true	true	24.16
20-5	longitude	(-193,-17.57)(-191.6,-1.897)	5.897	true	true	27.22
21-1	longitude	(-197.9,-160)(-191.4,-151.5)	37.56	true	true	21.01
21-2	longitude	(-191.4,-151.5)(-190.7,-148.5)	14.92	true	false	24.63
22-1	longitude	(-190.5,-148.5)(-180.5,-117.1)	16.34	false	true	0
22-2	longitude	(-180.5,-117.1)(-176.2,-92.34)	9.539	true	true	18.2
22-3	longitude	(-176.2,-92.34)(-177,-67.39)	1.391	true	true	18.14
22-4	longitude	(-177,-67.39)(-164.6,-47.85)	24.57	true	true	26.95
22-5	longitude	(-164.6,-47.85)(-164.2,-22.76)	0.2796	true	true	22.66
22-6	longitude	(-164.2,-22.76)(-160.1,-1.583)	11.58	true	true	30.23
23-1	longitude	(-164.7,-140.2)(-165.9,-123.6)	42.33	true	true	0
23-2	longitude	(-165.9,-123.6)(-161.6,-94.78)	9.478	true	true	25.34
24-1	longitude	(-152.1,-1.583)(-145.3,-22.83)	22.83	true	true	10.65
24-2	longitude	(-145.3,-22.83)(-138.3,-51.35)	51.35	true	true	24.88
24-3	longitude	(-138.3,-51.35)(-137.2,-62.65)	62.65	true	true	24.28
25-1	longitude	(-145.9,-94.21)(-144.5,-120.4)	12.02	true	true	10.33
25-2	longitude	(-144.5,-120.4)(-138.2,-136)	23.06	true	true	24.16
26-1	longitude	(-138.2,-136)(-135.3,-160.3)	6.038	true	true	27.42
26-2	longitude	(-135.3,-110.1)(-136.5,-73.96)	13.96	true	true	24.17
27-1	longitude	(-118.8,-1.583)(-118.8,-22.85)	0	true	true	9.433
27-2	longitude	(-118.8,-22.85)(-118.4,-52.35)	52.358	true	true	22.87
27-3	longitude	(-118.4,-52.35)(-118.9,-75.16)	75.16	true	true	24.16
27-4	longitude	(-118.9,-75.16)(-120.6,-101.9)	107.8	true	true	18.2
27-5	longitude	(-120.6,-101.9)(-115.9,-127.5)	127.54	true	true	24.58
28-1	longitude	(-110,-50.87)(-109.6,-60.35)	60.353	false	true	0
29-1	longitude	(-94.99,-74.76)(-94.55,-109.6)	109.67	true	true	27.89
29-2	longitude	(-94.55,-101.9)(-93.65,-131.8)	31.86	true	true	24.19
30-1	longitude	(-87.45,-47.25)(-86.02,-66.38)	66.38	true	true	19.46
31-1	longitude	(-68.66,-1.577)(-68.7,-22.67)	22.67	true	true	7.567
31-2	longitude	(-68.7,-22.67)(-60.2,-44.83)	23.98	true	true	30.15
31-3	longitude	(-60.2,-44.83)(-67.92,-66.08)	66.08	true	true	25.69
31-4	longitude	(-67.92,-66.08)(-65.26,-94)	24.221	true	true	18.24
31-5	longitude	(-65.26,-94)(-71.38,-109.2)	22.03	true	true	26.05
32-1	longitude	(-49.6,-98.98)(-49.11,-75.58)	75.58	false	true	0
33-1	longitude	(-47.52,-1.583)(-45.8,-22.83)	24.624	true	true	7.433
33-2	longitude	(-45.8,-22.83)(-41.7,-44.83)	23.57	true	true	24.57
33-3	longitude	(-41.7,-44.83)(-41.7,-65.74)	0.001793	true	true	24.16
34-1	longitude	(-36.48,-88.8)(-36.48,-75.85)	5.551e-6	true	true	17.24
35-1	longitude	(-15.77,-1.583)(-19.02,-17.03)	17.34	true	true	10.38

Design Strip: Longitude SSs Table (2)

port Width 1 nes	Support Width 2 inches	Support Trans. Width 1 inches	Support Trans. Width 2 inches	Auto-Support	Min Divisions	Max Division Spacing feet
	18.26	0	24.13	true	4	2.5
	29.71	29.55	22.17	true	4	2.5
	18.16	18	24	true	4	2.5
	0	24.13	0	true	4	2.5
	21.1	0	18	true	4	2.5
	21	18	18	true	4	2.5
	24.15	18	18	true	4	2.5
	21.1	18	18	true	4	2.5
	10.05	18	63.15	true	4	2.5
	28.36	27.81	21.15	true	4	2.5
	0	18.36	0	true	4	2.5
	18.54	0	24.5	true	4	2.5
	18.39	24.05	24.05	true	4	2.5
	24.39	24.23	18.18	true	4	2.5
	28.72	20.09	20.1	true	4	2.5
	18.64	18.07	18	true	4	2.5
	10.35	18.34	36.02	true	4	2.5
	23.36	0	18.28	true	4	2.5
	0	18.02	44.82	true	4	2.5
	25.34	0	18.89	true	4	2.5
	24.88	18.54	18.54	true	4	2.5
	12.22	18.09	72.62	true	4	2.5
	25.53	160.9	19.03	true	4	2.5
	24.16	17.99	17.99	true	4	2.5
	24.31	20.45	18.11	true	4	2.5
	9.596	18.01	12.01	true	4	2.5
	25.45	411.3	18	true	4	2.5
	24.16	18	18	true	4	2.5
	18.16	18	24	true	4	2.5
	24.21	24.05	18.04	true	4	2.5
	24.63	18.31	18.36	true	4	2.5
	24.17	0	18.01	true	4	2.5
	24.16	24	18	true	4	2.5
	25.51	18.03	19.01	true	4	2.5
	18.21	24.07	24.07	true	4	2.5
	20.16	407.7	18	true	4	2.5
	25.86	19.28	19.28	true	4	2.5
	19.31	19.15	25.53	true	4	2.5
	24.27	24.11	18.08	true	4	2.5
	26.06	19.42	25.03	true	4	2.5
	13.54	0	252.1	true	4	2.5
	24.24	99.23	18.06	true	4	2.5
	24.57	18.31	18.31	true	4	2.5
	11.22	18	186.5	true	4	2.5
	8.748	12	252	true	4	2.5
	18.54	49.45	24.51	true	4	2.5

Design Strip: Longitude SSs Table (3)

ision Spacing	Design For Axial	Environment	Design As PT	Maximize Integrated V	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	true	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0

Design Strip: Longitude SSs Table (4)

Spec. Infl. Area ft²	Max LLR %	Span Width	Col Strip Width	Lock Strips	Design CS for CS	CS Auto Trim	CS Section Slope
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25

Design Strip: Longitude SSs Table (5)

CS Section Slope	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#7	#7	#4	1	1	All Tension Reinforcement		beam
	#7	#7	#4	1	1	All Tension Reinforcement		beam
	#7	#7	#4	1	1	All Tension Reinforcement		beam
	#7	#7	#4	1	1	All Tension Reinforcement		beam
	#7	#7	#4	1	1	All Tension Reinforcement		beam
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	Maximize Effective Depth		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab

Design Strip: Longitude SSs Table (6)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
elevated	0	0	4	true	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	4	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4

Design Strip: Longitude SSs Table (7)

MS Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Longitude SSs Table (8)

MS Min B.Bar	*MS Shear Legs*
	2
	2
	2
	2
	2
	2
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	2
	2

Design Strip: Longitude SSs Table (9)

Name	*Set*	*Location feet*	*Skew degrees*	*At Support 1*	*At Support 2*	*Support Width 1 inches*
35-2	longitude	(-19.02,-17.34)(-14.45,-46.58)	0	true	true	18.38
35-3	longitude	(-14.45,-46.58)(-14.45,-61.73)	0	true	true	18.17
36-1	longitude	(-1.248,-1.54)(-5.364,-16.83)	65.836	true	true	11.6
36-2	longitude	(-5.364,-16.83)(-5.313,-47.92)	0.092217	true	true	18.16
36-3	longitude	(-5.313,-47.92)(-3.5,-61.73)	1.734	true	true	22.35
36-4	longitude	(-3.5,-61.73)(-3.5,-75.6)	0	true	true	18.54
36-5	longitude	(-3.5,-75.6)(-1.302,-92.43)	7.433	true	true	35.04

Design Strip: Longitude SSs Table (10)

port Width 1 nes	*Support Width 2 inches*	*Support Trans. Width 1 inches*	*Support Trans. Width 2 inches*	*Auto-Support*	*Min Divisions*	*Max Division Spacing feet*
	18.36	24.29	24.29	true	4	2.5
	18.16	24	24	true	4	2.5
	18.8	24.45	24.85	true	4	2.5
	14.16	24	24	true	4	2.5
	17.93	24.21	24.21	true	4	2.5
	1.567	24	24	true	4	2.5
	28.39	21.65	18.15	true	4	2.5

Design Strip: Longitude SSs Table (11)

ision Spacing	*Design For Axial*	*Environment*	*Design As PT*	*Maximize Integrated V*	*Use Spec LLR Params*	*Spec. LLR Levels*	*Spec. Trib. Area ft²*
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	false	false	1	0
	true	normal	true	true	false	1	0

Design Strip: Longitude SSs Table (12)

Spec. Infl. Area *ft²*	*Max LLR* *%*	*Span Width*	*Col Strip Width*	*Lock Strips*	*Design CS for CS*	*CS Auto Trim*	*CS Section Slope*
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25
0	40	auto	full	false	false	none	0.25

Design Strip: Longitude SSs Table (13)

CS Section Slope Simp	CS Top Bar	CS Bot Bar	CS Shear Bar	CS Top Cover inches	CS Bot Cover inches	CS Shear d calc	CS Torsion Design	CS System
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab
	#5	#5	#4	1	1	All Tension Reinforcement		two-way slab

Design Strip: Longitude SSs Table (14)

CS Min. Bar Loc.	CS Min T.Bar	CS Min B.Bar	CS Shear Legs	MS Same As CS	MS Auto Trim	MS Section Slope	MS Top Bar	MS Bot Bar
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4
stress	0	0	2	false	none	0.25	#5	#4

Design Strip: Longitude SSs Table (15)

MS Bot Bar	MS Shear Bar	MS Top Cover inches	MS Bot Cover inches	MS Shear d calc	MS Torsion Design	MS System	MS Min. Bar Loc.	MS Min T.Bar	MS Min B.Bar
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0
	#4	1.5	0.75	All Tension Reinforcement		two-way slab	stress	0	0

Design Strip: Longitude SSs Table (16)

MS Min B.Bar	*MS Shear Legs*
	2
	2
	2
	2
	2
	2
	2

Design Strip: Latitude SSSs Table

Name	Strip Type	Calc. Trib. Area ft²	Calc. Infl. Area ft²	Top Bar	Bottom Bar	Shear Bar	Top Cover inches
1C-1	center	18.09	0	#5	#5	#4	1
2C-1	center	83.59	0	#5	#5	#4	1
3C-1	center	20.28	0	#5	#5	#4	1
3C-1(2)	center	67.73	0	#5	#5	#4	1
3C-2	center	453.7	0	#5	#5	#4	1
3C-3	center	267.7	0	#7	#7	#4	1
3C-4	center	216.7	0	#7	#7	#4	1
3C-5	center	240.8	0	#7	#7	#4	1
3C-6	center	158.9	0	#7	#7	#4	1
3C-7	center	113.2	0	#7	#7	#4	1
3C-8	center	88.14	0	#7	#7	#4	1
4C-1	center	128.1	0	#5	#5	#4	1
5C-1	center	92.91	0	#5	#5	#4	1
6C-1	center	43.19	0	#5	#5	#4	1
7C-1	center	38	0	#5	#5	#4	1
8C-1	center	388.8	0	#5	#5	#4	1
8C-2	center	352.5	0	#5	#5	#4	1
8C-3	center	480.1	0	#5	#5	#4	1
8C-4	center	131.8	0	#5	#5	#4	1
8C-5	center	459.2	0	#5	#5	#4	1
8C-6	center	599.9	0	#5	#5	#4	1
8C-7	center	547.2	0	#5	#5	#4	1
8C-8	center	299.4	0	#5	#5	#4	1
9C-1	center	279.7	0	#5	#5	#4	1
9C-2	center	357.3	0	#5	#5	#4	1
9C-3	center	468.3	0	#5	#5	#4	1
9C-4	center	440.6	0	#5	#5	#4	1
9C-5	center	274.2	0	#5	#5	#4	1
9C-6	center	281	0	#5	#5	#4	1
9C-7	center	391.8	0	#5	#5	#4	1
9C-8	center	565.8	0	#5	#5	#4	1
9C-9	center	178.8	0	#5	#5	#4	1
9C-10	center	74.69	0	#5	#5	#4	1
10C-1	center	351.8	0	#5	#5	#4	1
10C-2	center	378.1	0	#5	#5	#4	1
11C-1	center	325	0	#5	#5	#4	1
11C-2	center	340.9	0	#5	#5	#4	1
12C-1	center	502.3	0	#5	#5	#4	1
12C-2	center	480.4	0	#5	#5	#4	1
12C-3	center	644.9	0	#5	#5	#4	1
13C-1	center	359.5	0	#5	#5	#4	1
13C-2	center	467.2	0	#5	#5	#4	1
13C-3	center	320.7	0	#5	#5	#4	1
14C-1	center	145.4	0	#5	#5	#4	1
14C-2	center	276.2	0	#5	#5	#4	1
14C-3	center	358.3	0	#5	#5	#4	1

Design Strip: Latitude SSSs Table (2)

Top Cover inches	*Bot. Cover inches*	*Torsion Design*	*System*	*Min Bar Loc.*	*Min T. Bar*	*Min B. Bar*	*Shear Legs*
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	elevated	0	0	2
	1	none	beam	elevated	0	0	2
	1	none	beam	elevated	0	0	4
	1	none	beam	elevated	0	0	4
	1	none	beam	elevated	0	0	4
	1	none	beam	elevated	0	0	4
	1	none	beam	elevated	0	0	4
	1	none	beam	elevated	0	0	4
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	elevated	0	0	4
	1	none	two-way slab	elevated	0	0	4
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	elevated	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	elevated	0	0	4
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	elevated	0	0	4
	1	none	two-way slab	elevated	0	0	4
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	4
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2

Design Strip: Latitude SSSs Table (3)

Name	*Strip Type*	*Calc. Trib. Area ft²*	*Calc. Infl. Area ft²*	*Top Bar*	*Bottom Bar*	*Shear Bar*	*Top Cover inches*
14C-4	center	182.4	0	#5	#5	#4	1
15C-1	center	470.1	0	#5	#5	#4	1
15C-2	center	397.4	0	#5	#5	#4	1
15C-3	center	300.5	0	#5	#5	#4	1
15C-4	center	76.18	0	#5	#5	#4	1
16C-1	center	33.1	0	#5	#5	#4	1
16C-2	center	335	0	#5	#5	#4	1
16C-3	center	129.1	0	#5	#5	#4	1
16C-4	center	13.82	0	#5	#5	#4	1
17C-1	center	308.6	0	#5	#5	#4	1
17C-2	center	22.85	0	#5	#5	#4	1
18C-1	center	254.3	0	#5	#5	#4	1

Design Strip: Latitude SSSs Table (4)

Top Cover inches	*Bot. Cover inches*	*Torsion Design*	*System*	*Min Bar Loc.*	*Min T. Bar*	*Min B. Bar*	*Shear Legs*
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2

Design Strip: Longitude SSSs Table

Name	Strip Type	Calc. Trib. Area ft²	Calc. Infl. Area ft²	Top Bar	Bottom Bar	Shear Bar	Top Cover inches
19C-1	center	25.83	0	#5	#5	#4	1
19C-2	center	47.73	0	#5	#5	#4	1
19C-3	center	182	0	#5	#5	#4	1
19C-4	center	270	0	#5	#5	#4	1
20C-1	center	79.41	0	#7	#7	#4	1
20C-2	center	240.9	0	#7	#7	#4	1
20C-3	center	144.3	0	#7	#7	#4	1
20C-4	center	181.5	0	#7	#7	#4	1
20C-5	center	129.5	0	#7	#7	#4	1
21C-1	center	130.6	0	#5	#5	#4	1
21C-2	center	33	0	#5	#5	#4	1
22C-1	center	339.1	0	#5	#5	#4	1
22C-2	center	507.5	0	#5	#5	#4	1
22C-3	center	491.6	0	#5	#5	#4	1
22C-4	center	440.9	0	#5	#5	#4	1
22C-5	center	432.8	0	#5	#5	#4	1
22C-6	center	402.9	0	#5	#5	#4	1
23C-1	center	393.1	0	#5	#5	#4	1
23C-2	center	120.3	0	#5	#5	#4	1
24C-1	center	420.2	0	#5	#5	#4	1
24C-2	center	634.9	0	#5	#5	#4	1
24C-3	center	223.6	0	#5	#5	#4	1
25C-1	center	271.4	0	#5	#5	#4	1
25C-2	center	236.5	0	#5	#5	#4	1
26C-1	center	224.9	0	#5	#5	#4	1
26C-2	center	253.4	0	#5	#5	#4	1
27C-1	center	290.5	0	#5	#5	#4	1
27C-2	center	328.2	0	#5	#5	#4	1
27C-3	center	306.5	0	#5	#5	#4	1
27C-4	center	539.5	0	#5	#5	#4	1
27C-5	center	447.1	0	#5	#5	#4	1
28C-1	center	103.2	0	#5	#5	#4	1
29C-1	center	679.7	0	#5	#5	#4	1
29C-2	center	366.3	0	#5	#5	#4	1
30C-1	center	422.4	0	#5	#5	#4	1
31C-1	center	221.7	0	#5	#5	#4	1
31C-2	center	295.5	0	#5	#5	#4	1
31C-3	center	318.6	0	#5	#5	#4	1
31C-4	center	581	0	#5	#5	#4	1
31C-5	center	305.8	0	#5	#5	#4	1
32C-1	center	236.6	0	#5	#5	#4	1
33C-1	center	418.1	0	#5	#5	#4	1
33C-2	center	507.8	0	#5	#5	#4	1
33C-3	center	430.8	0	#5	#5	#4	1
34C-1	center	332.1	0	#5	#5	#4	1
35C-1	center	125.8	0	#5	#5	#4	1

Design Strip: Longitude SSSs Table (2)

Top Cover inches	*Bot. Cover inches*	*Torsion Design*	*System*	*Min Bar Loc.*	*Min T. Bar*	*Min B. Bar*	*Shear Legs*
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	beam	stress	0	0	4
	1	none	beam	stress	0	0	4
	1	none	beam	stress	0	0	4
	1	none	beam	stress	0	0	4
	1	none	beam	stress	0	0	4
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	4
	1	none	two-way slab	elevated	0	0	4
	1	none	two-way slab	elevated	0	0	4
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	elevated	0	0	4
	1	none	two-way slab	elevated	0	0	4
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	4
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2

Design Strip: Longitude SSSs Table (3)

Name	*Strip Type*	*Calc. Trib. Area ft²*	*Calc. Infl. Area ft²*	*Top Bar*	*Bottom Bar*	*Shear Bar*	*Top Cover inches*
35C-2	center	547.9	0	#5	#5	#4	1
35C-3	center	309	0	#5	#5	#4	1
36C-1	center	138.9	0	#5	#5	#4	1
36C-2	center	257.9	0	#5	#5	#4	1
36C-3	center	69.46	0	#5	#5	#4	1
36C-4	center	288.4	0	#5	#5	#4	1
36C-5	center	221.3	0	#5	#5	#4	1

Design Strip: Longitude SSSs Table (4)

Top Cover inches	*Bot. Cover inches*	*Torsion Design*	*System*	*Min Bar Loc.*	*Min T. Bar*	*Min B. Bar*	*Shear Legs*
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2
	1	none	two-way slab	stress	0	0	2

Design Strip: Punching Checks Table

Number	Location feet	Radius feet	Cover To CGS inches	Angle degrees	Edge	Connection
1	(-207,-153.1)	8	1.5	-6	failure planes	auto
2	(-200.6,-89.05)	10	1.5	-6	failure planes	auto
3	(-199.7,-144.9)	8	1.5	-6	failure planes	auto
4	(-198.6,-115.2)	10	1.5	-6	failure planes	auto
5	(-198.6,-134.5)	8	1.5	-6	failure planes	auto
6	(-198,-65.18)	8	1.5	-6	failure planes	auto
7	(-197.9,-160)	8	1.5	22	failure planes	auto
8	(-195.5,-41.31)	10	1.5	-6	failure planes	auto
9	(-193,-17.44)	8	1.5	-6	failure planes	auto
10	(-191.4,-151.5)	6.5	1.5	-6	failure planes	auto
11	(-180.8,-44.12)	8	1.5	84	failure planes	auto
12	(-180.5,-117.1)	8	1.5	-6	failure planes	auto
13	(-177,-67.39)	8	1.5	-6	failure planes	auto
14	(-176.8,-92.28)	8	1.5	84	failure planes	auto
15	(-165.9,-123.5)	8	1.5	-6	failure planes	auto
16	(-164.9,-47.89)	8	1.5	-6	failure planes	auto
17	(-164.6,-22.53)	8	1.5	90	failure planes	auto
18	(-164.4,-141.2)	15	1.5	22	failure planes	auto
19	(-145.3,-22.83)	8	1.5	0	failure planes	auto
20	(-144.5,-120.4)	8	1.5	22	failure planes	auto
21	(-138.3,-51.35)	8	1.5	0	failure planes	auto
22	(-138.2,-136)	12	1.5	22	failure planes	auto
23	(-135.3,-110.1)	8	1.5	0	failure planes	auto
24	(-120.6,-101.9)	8	1.5	0	failure planes	auto
25	(-118.9,-75.16)	8	1.5	0	failure planes	auto
26	(-118.8,-22.8)	15	1.5	0	failure planes	auto
27	(-118.4,-52.35)	8	1.5	0	failure planes	auto
28	(-115.9,-127)	8	1.5	22	failure planes	auto
29	(-109.7,-60.83)	8	1.5	0	failure planes	auto
30	(-95,-75.17)	8	1.5	90	failure planes	auto
31	(-94.55,-101.9)	8	1.5	0	failure planes	auto
32	(-93.65,-118.1)	8	1.5	22	failure planes	auto
33	(-87.45,-47.3)	10	1.5	0	failure planes	auto
34	(-86.02,-66.08)	8	1.5	0	failure planes	auto
35	(-71.38,-109.1)	8	1.5	22	failure planes	auto
36	(-68.7,-22.83)	12	1.5	0	failure planes	auto
37	(-67.92,-66.08)	8	1.5	0	failure planes	auto
38	(-65.26,-94)	8	1.5	0	failure planes	auto
39	(-60.2,-44.83)	8	1.5	0	failure planes	auto
40	(-48.99,-100.5)	8	1.5	112	failure planes	auto
41	(-45.8,-22.83)	10	1.5	0	failure planes	auto
42	(-41.7,-44.83)	8	1.5	0	failure planes	auto
43	(-28.53,-90.28)	15	1.5	0	failure planes	auto
44	(-19.02,-17.34)	8	1.5	0	failure planes	auto
45	(-14.46,-46.58)	8	1.5	0	failure planes	auto
46	(-14.45,-61.73)	8	1.5	0	failure planes	auto

Design Strip: Punching Checks Table (2)

Connection	Use Spec LLR Params	Spec. LLR Levels	Spec. Trib. Area ft²	Spec. Infl. Area ft²	Calc. Trib. Area ft²	Calc. Infl. Area ft²
	false	1	0	0	60.16	0
	false	1	0	0	292.1	0
	false	1	0	0	97.23	0
	false	1	0	0	298.4	0
	false	1	0	0	312.7	0
	false	1	0	0	247	0
	false	1	0	0	27.83	0
	false	1	0	0	186.9	0
	false	1	0	0	284.9	0
	false	1	0	0	357.9	0
	false	1	0	0	430.5	0
	false	1	0	0	484	0
	false	1	0	0	464.4	0
	false	1	0	0	555.9	0
	false	1	0	0	455.9	0
	false	1	0	0	449.6	0
	false	1	0	0	597.8	0
	false	1	0	0	385	0
	false	1	0	0	659.9	0
	false	1	0	0	416.5	0
	false	1	0	0	547.2	0
	false	1	0	0	210.9	0
	false	1	0	0	328.5	0
	false	1	0	0	578.7	0
	false	1	0	0	467.2	0
	false	1	0	0	374.9	0
	false	1	0	0	331	0
	false	1	0	0	268.3	0
	false	1	0	0	271.6	0
	false	1	0	0	524.7	0
	false	1	0	0	638.1	0
	false	1	0	0	190.9	0
	false	1	0	0	242.3	0
	false	1	0	0	354.4	0
	false	1	0	0	174	0
	false	1	0	0	259.8	0
	false	1	0	0	396.6	0
	false	1	0	0	518.2	0
	false	1	0	0	405.2	0
	false	1	0	0	135.9	0
	false	1	0	0	574.2	0
	false	1	0	0	556.8	0
	false	1	0	0	241.3	0
	false	1	0	0	401.3	0
	false	1	0	0	486	0
	false	1	0	0	356.2	0

Design Strip: Punching Checks Table (3)

c. Infl. Area	Max LLR %	Red. Red. %	Stor. Red. %	Park. Red. %
	40	0	0	0
	40	0	0	0
	40	0	0	0

Design Strip: Punching Checks Table (4)

Number	*Location feet*	*Radius feet*	*Cover To CGS inches*	*Angle degrees*	*Edge*	*Connection*
47	(-5.364,-16.83)	8	1.5	0	failure planes	auto
48	(-5.313,-48.08)	8	1.5	0	failure planes	auto
49	(-3.839,-76.29)	8	1.5	0	failure planes	auto
50	(-3.615,-61.75)	8	1.5	0	failure planes	auto
51	(-1.469,-92.28)	15	1.5	0	failure planes	auto

Design Strip: Punching Checks Table (5)

Connection	*Use Spec LLR Params*	*Spec. LLR Levels*	*Spec. Trib. Area ft²*	*Spec. Infl. Area ft²*	*Calc. Trib. Area ft²*	*Calc. Infl. Area ft²*
	false	1	0	0	288.6	0
	false	1	0	0	162	0
	false	1	0	0	262.5	0
	false	1	0	0	33.47	0
	false	1	0	0	110.3	0

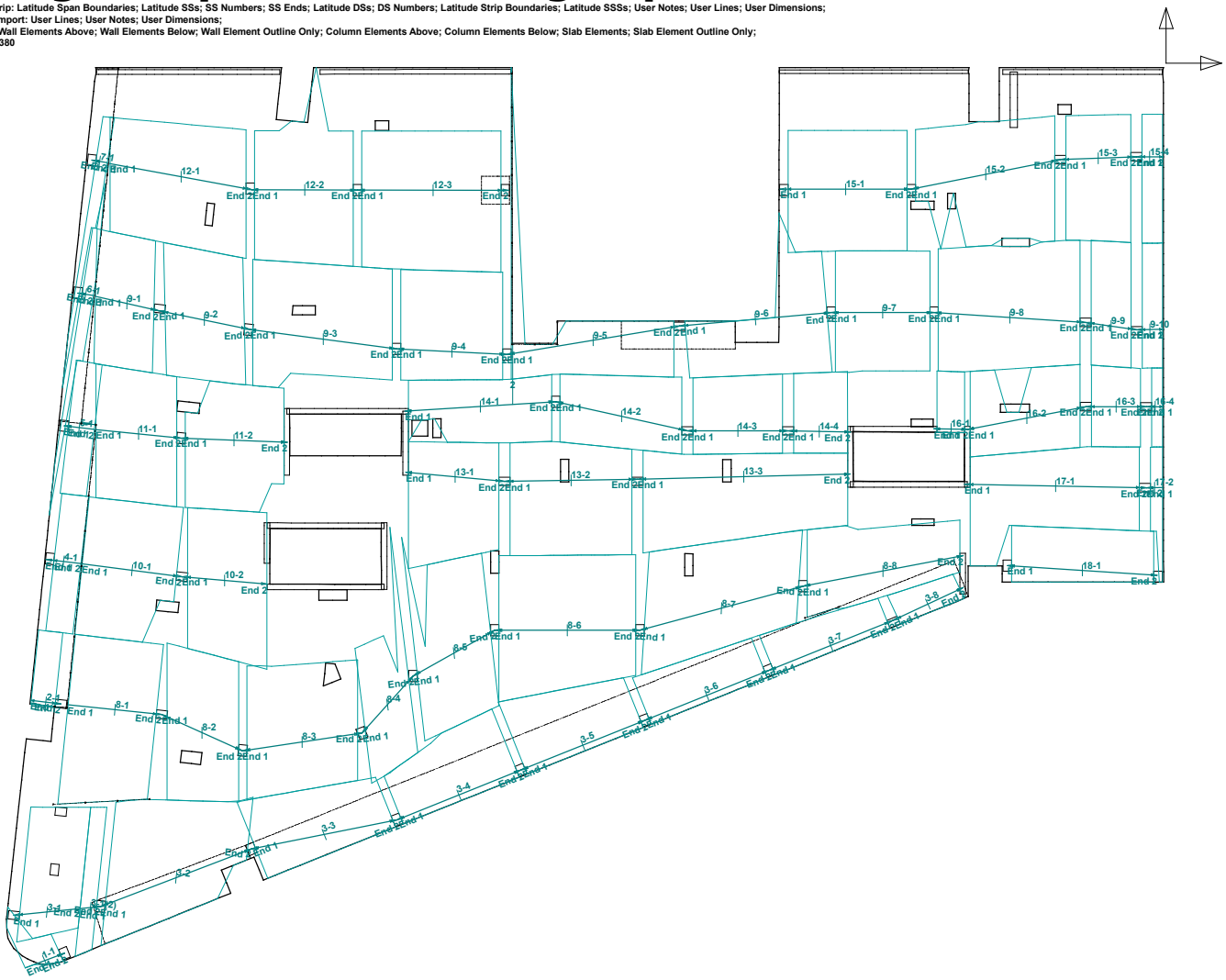
Design Strip: Punching Checks Table (6)

c. Infl. Area	Max LLR %	Red. Red. %	Stor. Red. %	Park. Red. %
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0
	40	0	0	0

Level 4.50.cpt - 12/11/2019

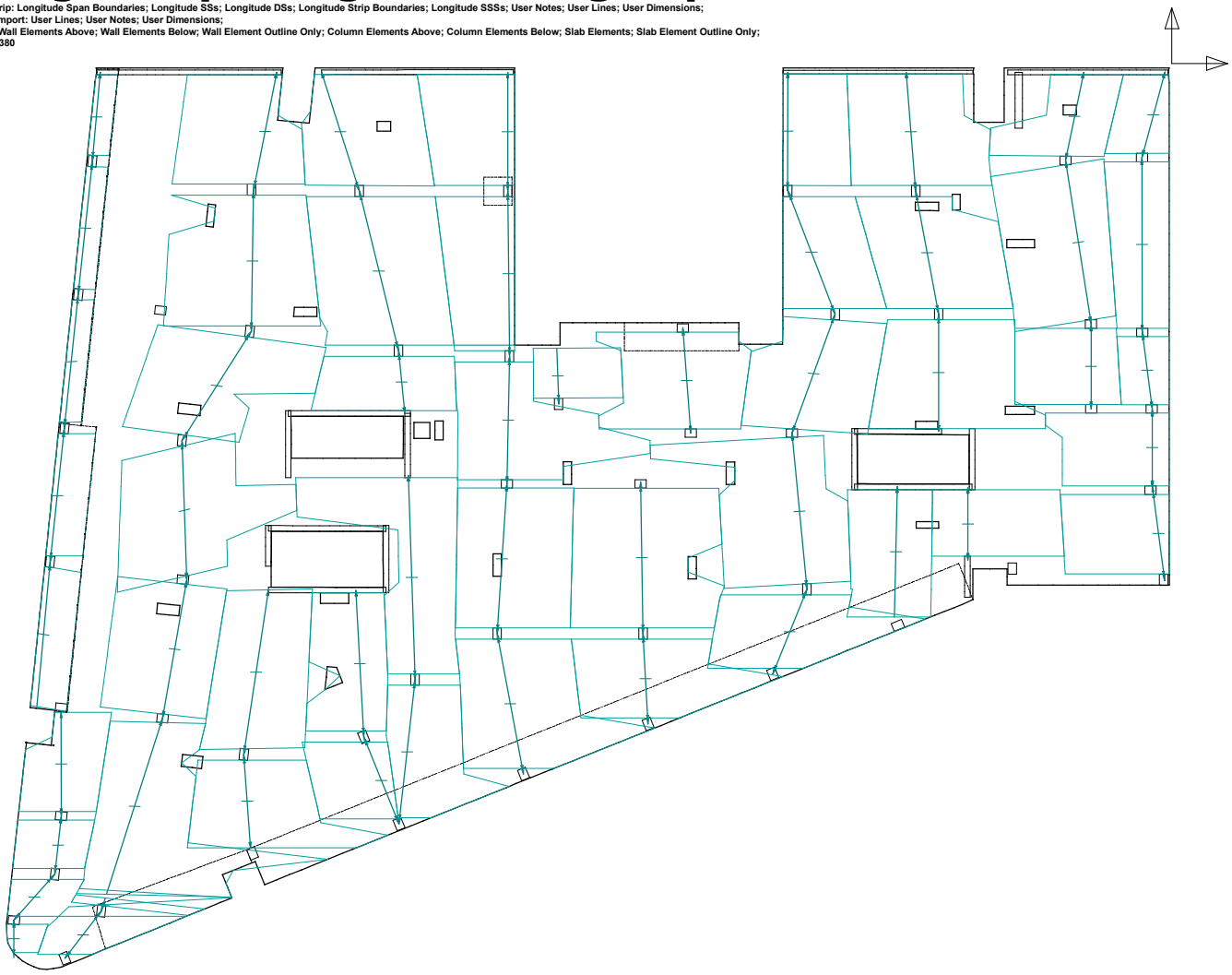
Design Strip: Latitude Design Spans Plan

Design Strip: Latitude Span Boundaries; Latitude SSs; SS Numbers; SS Ends; Latitude DSs; DS Numbers; Latitude Strip Boundaries; Latitude SSSs; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Design Strip: Longitude Design Spans Plan

Design Strip: Longitude Span Boundaries; Longitude SSs; Longitude DSs; Longitude Strip Boundaries; Longitude SSSs; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Design Strip: Punching Checks Plan

Design Strip: User Lines; User Notes; User Dimensions; Punching Checks; Punching Check Sections;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
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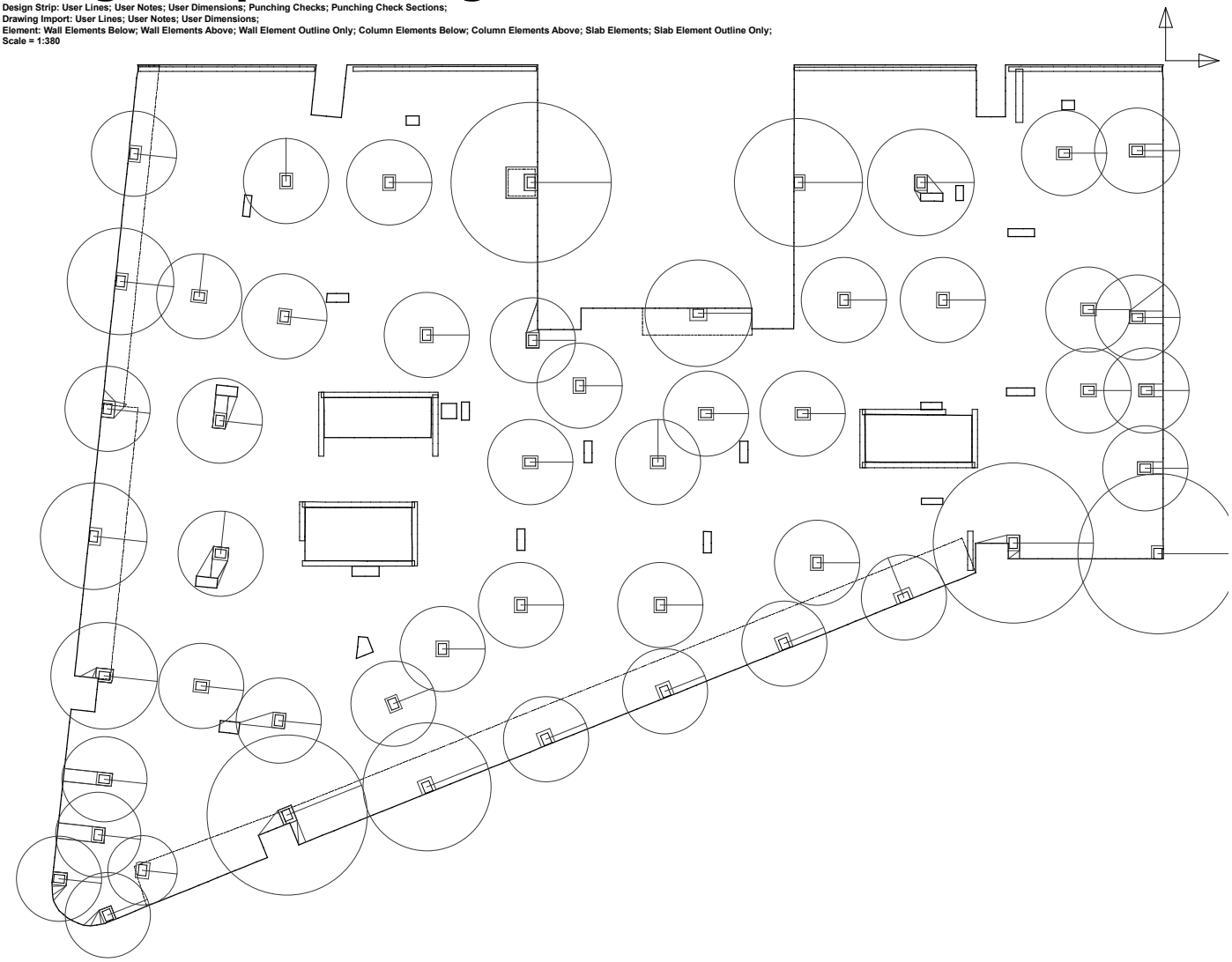
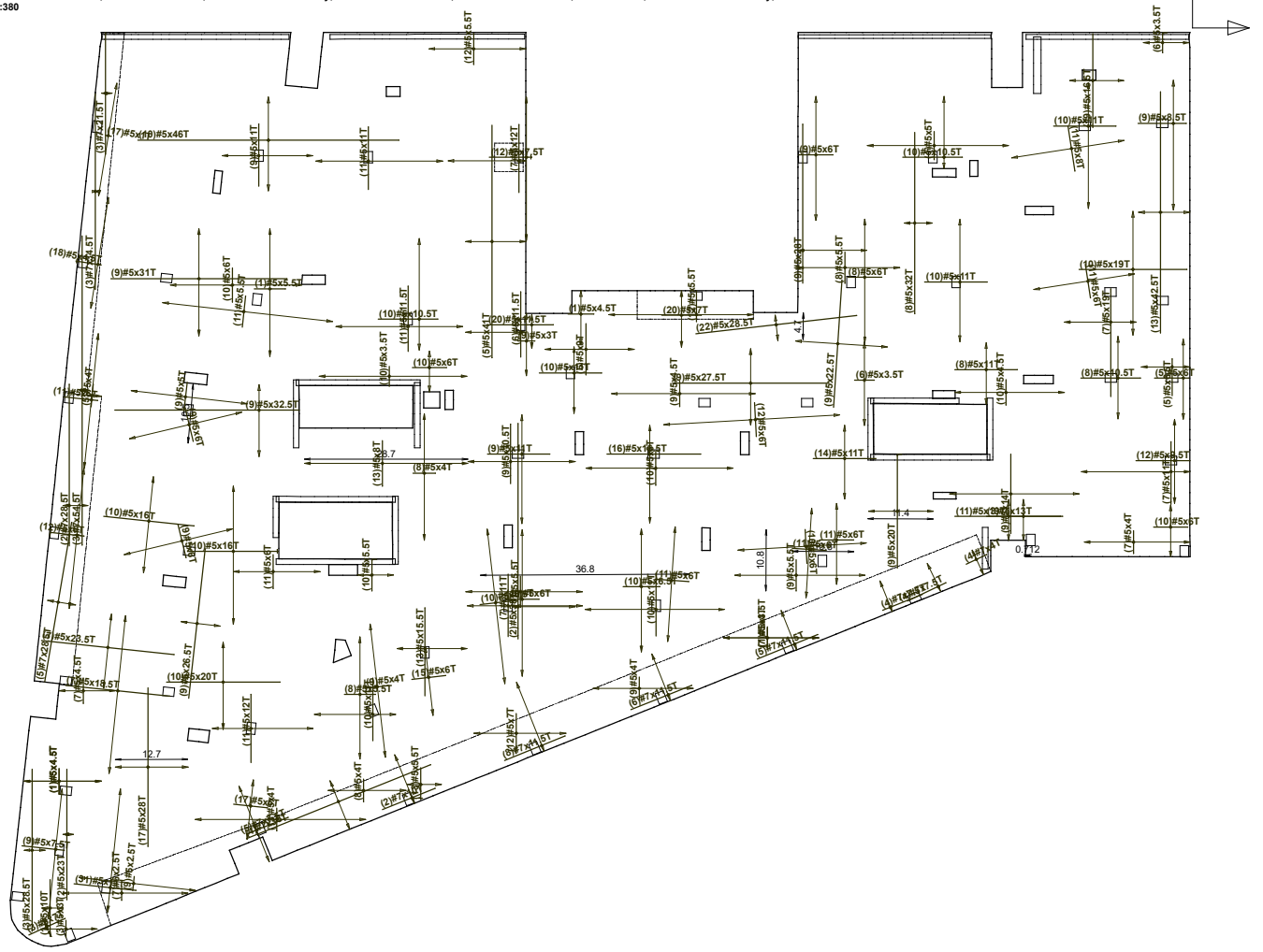


Level 4.50.cpt - 12/11/2019

Reinforcement: Top Bars Plan

Reinforcement: Latitude User Concentrated Reinf.; Longitude User Concentrated Reinf.; Latitude Program Concentrated Reinf.; Longitude Program Concentrated Reinf.; Top Face Concentrated Reinf.; Both Faces Concentrated Reinf.; Concentrated Reinf. Descriptions; Concentrate
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



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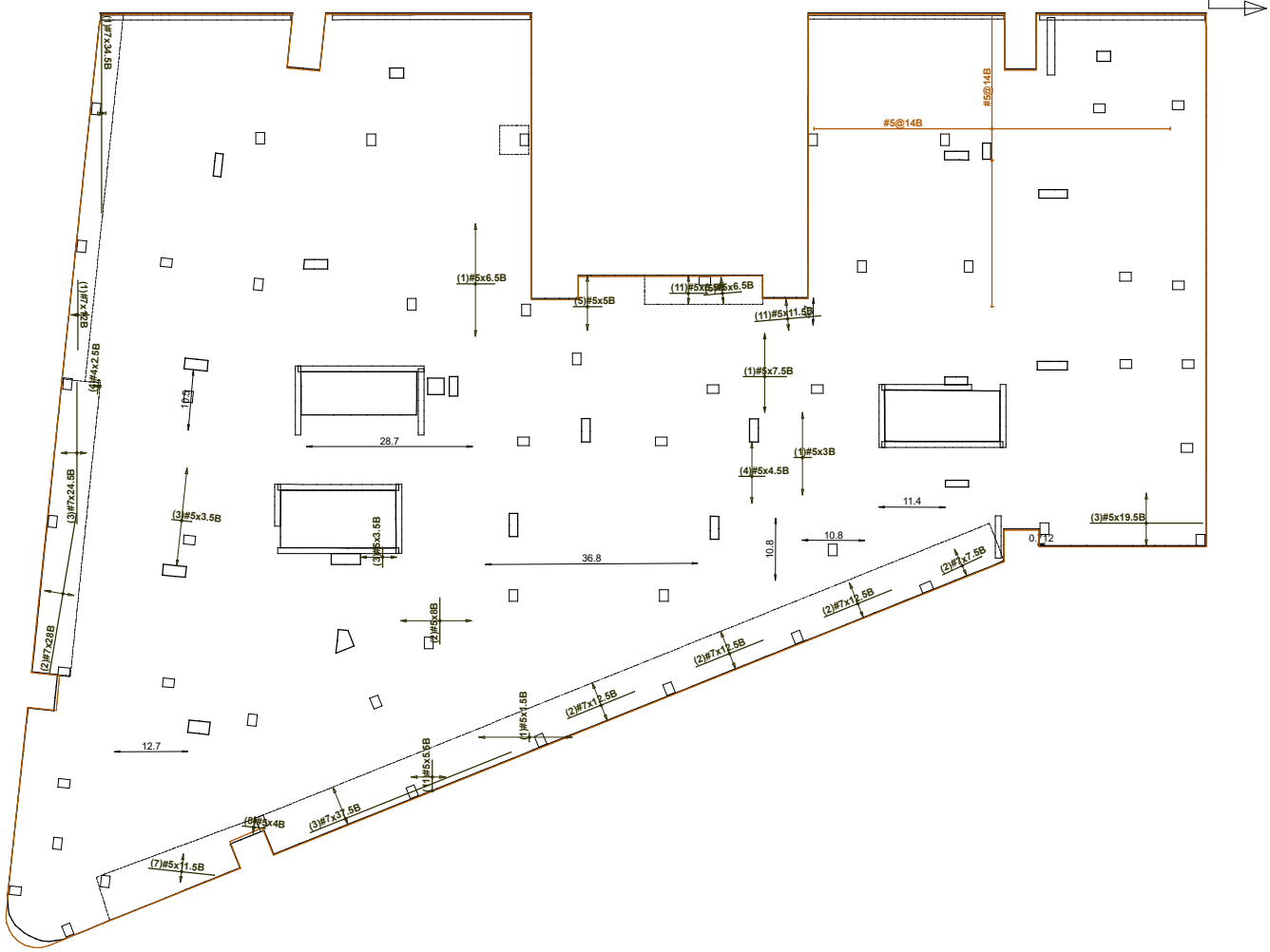
Reinforcement: Bottom Bars Plan

Reinforcement: User Lines; User Notes; User Dimensions; Latitude User Concentrated Reinf.; Latitude Program Concentrated Reinf.; Latitude User Distributed Reinf.; Latitude Program Distributed Reinf.; Longitude User Concentrated Reinf.; Longitude Program Concentrated Reinf.
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



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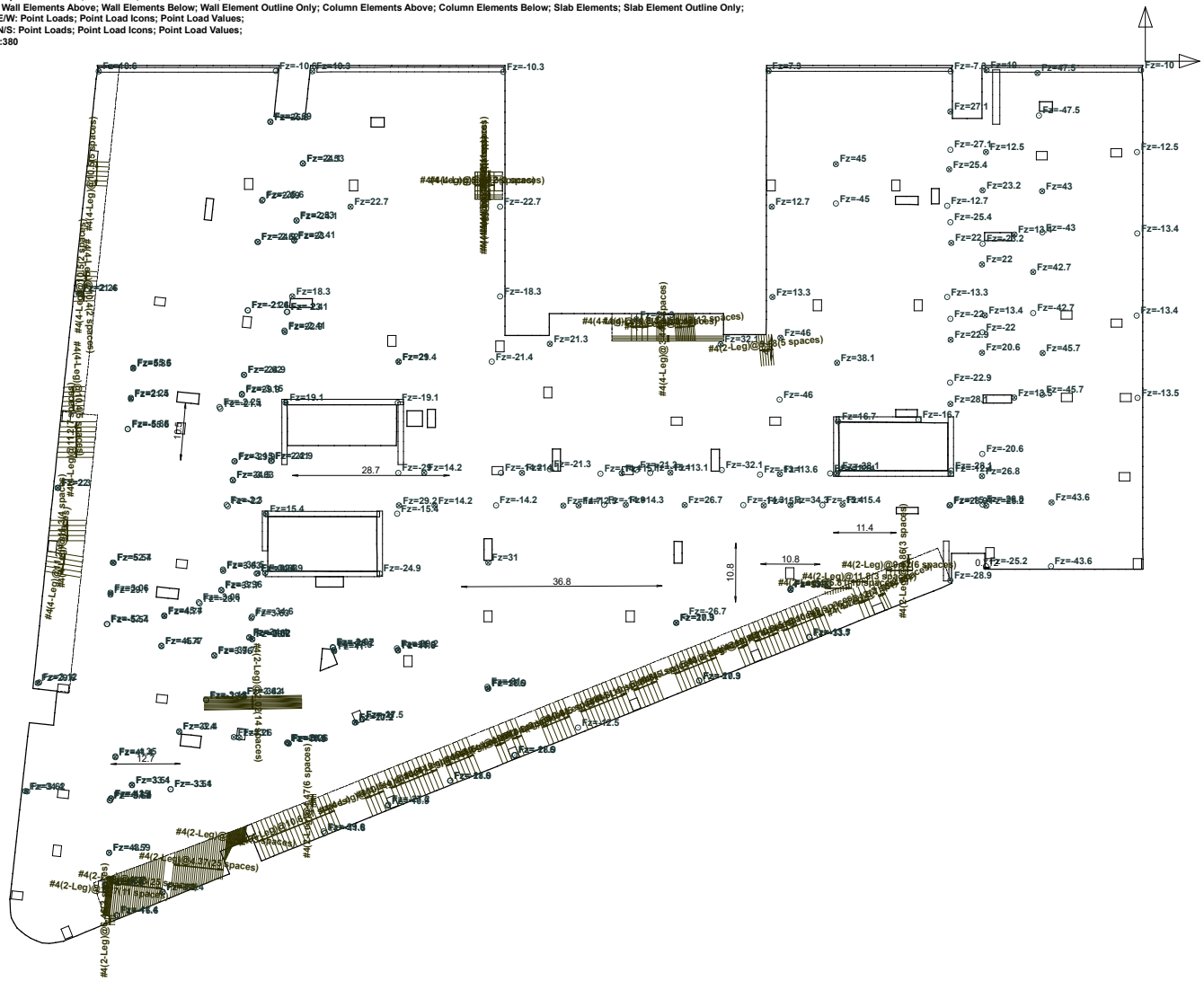
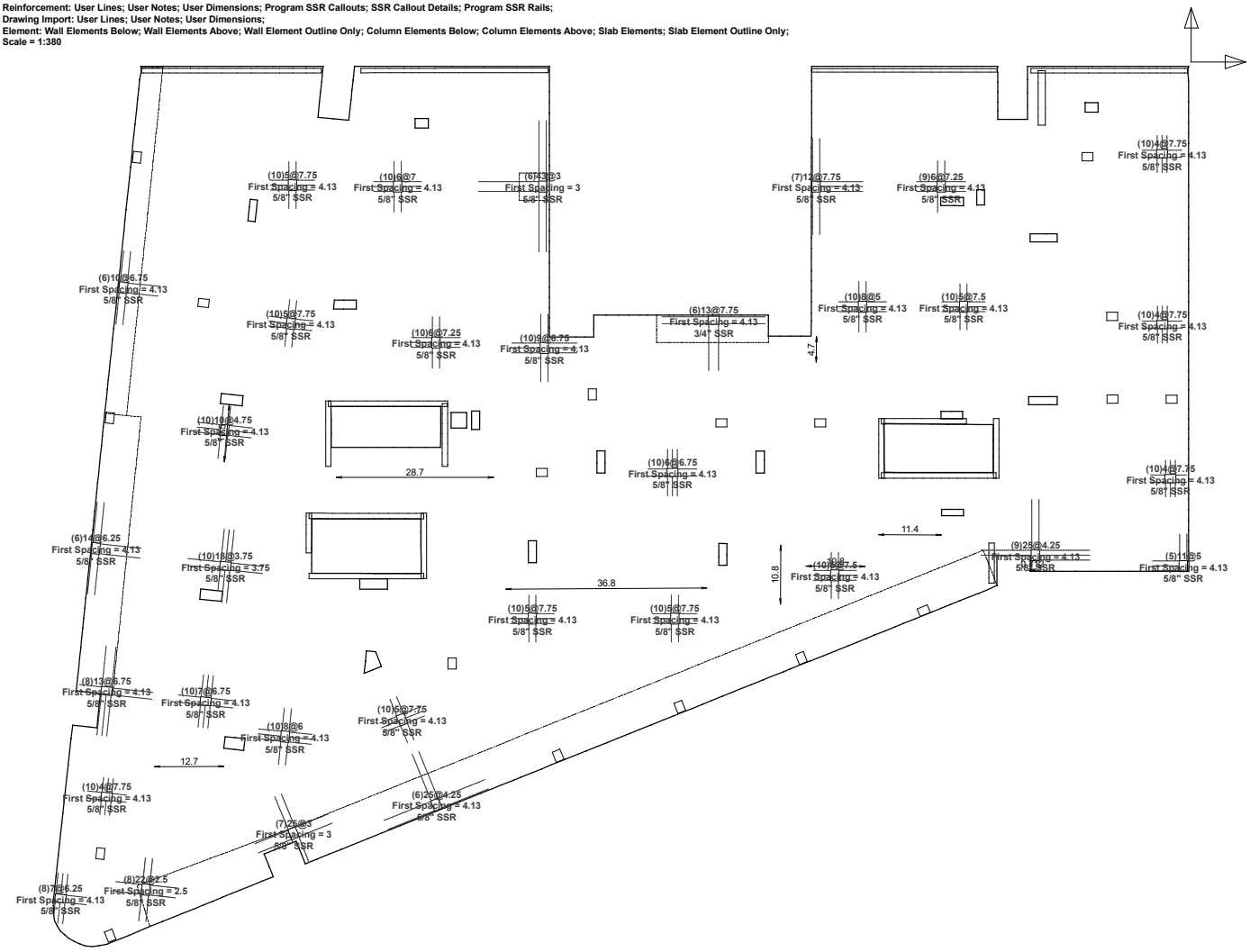
Reinforcement: Shear Bars Plan

Reinforcement: Latitude User Transverse Reinf.; Longitude User Transverse Reinf.; Latitude Program Transverse Reinf.; Longitude Program Transverse Reinf.; Transverse Reinf. Descriptions; Transverse Reinf. Extent; Latitude User Individual Transverse Bars; Longitude User Indi
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Seismic E/W: Point Loads; Point Load Icons; Point Load Values;
Seismic N/S: Point Loads; Point Load Icons; Point Load Values;
Scale = 1:380



Reinforcement: SSR Plan

Reinforcement: User Lines; User Notes; User Dimensions; Program SSR Callouts; SSR Callout Details; Program SSR Rails;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



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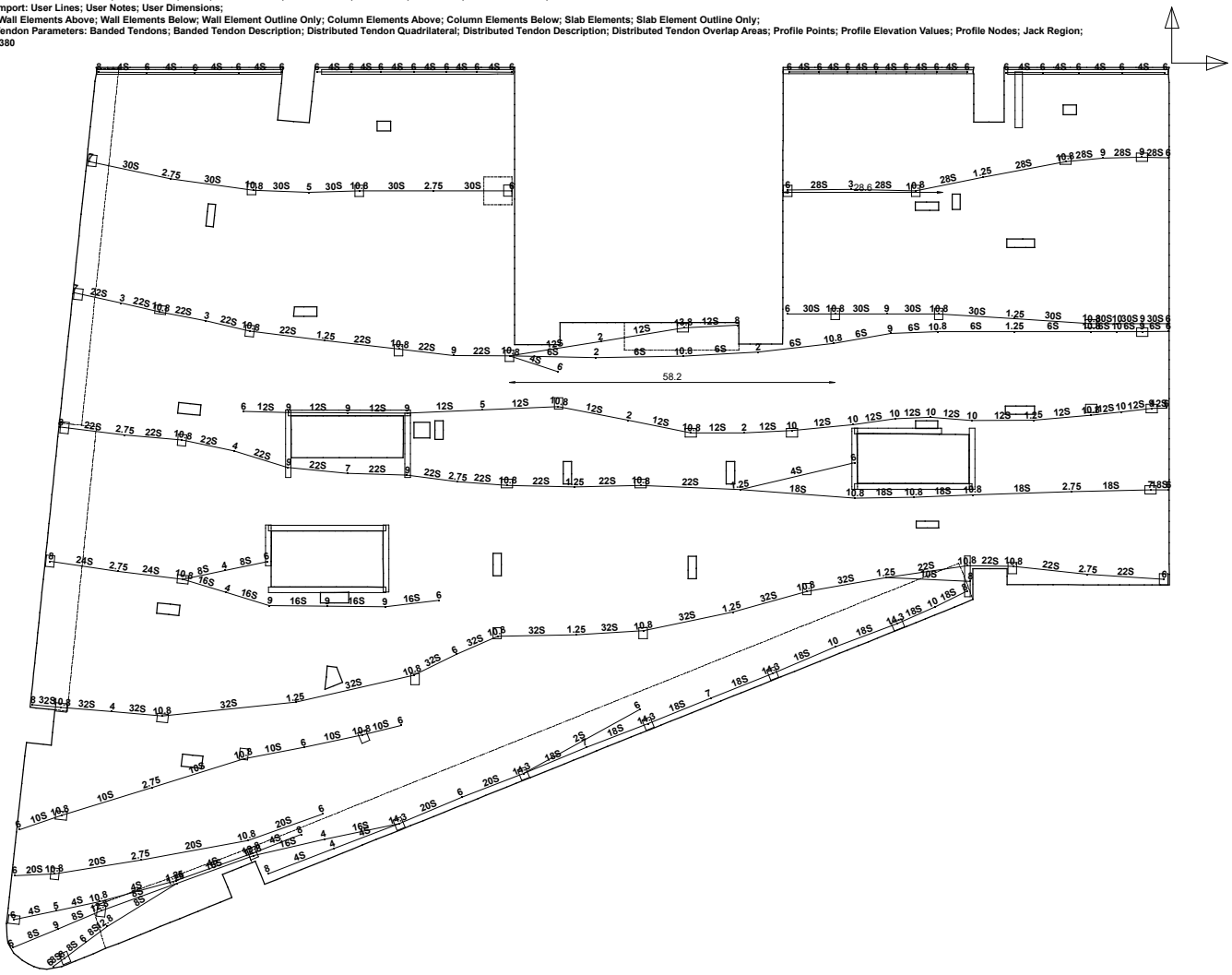
Manual Latitude Tendon: Standard Plan

Manual Latitude Tendon: Tendons; Num Strands; Jacks; Tendon Points; Profile Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Latitude Tendon Parameters: Banded Tendons; Banded Tendon Description; Distributed Tendon Quadrilateral; Distributed Tendon Description; Distributed Tendon Overlap Areas; Profile Points; Profile Elevation Values; Profile Nodes; Jack Region;
Scale = 1:380



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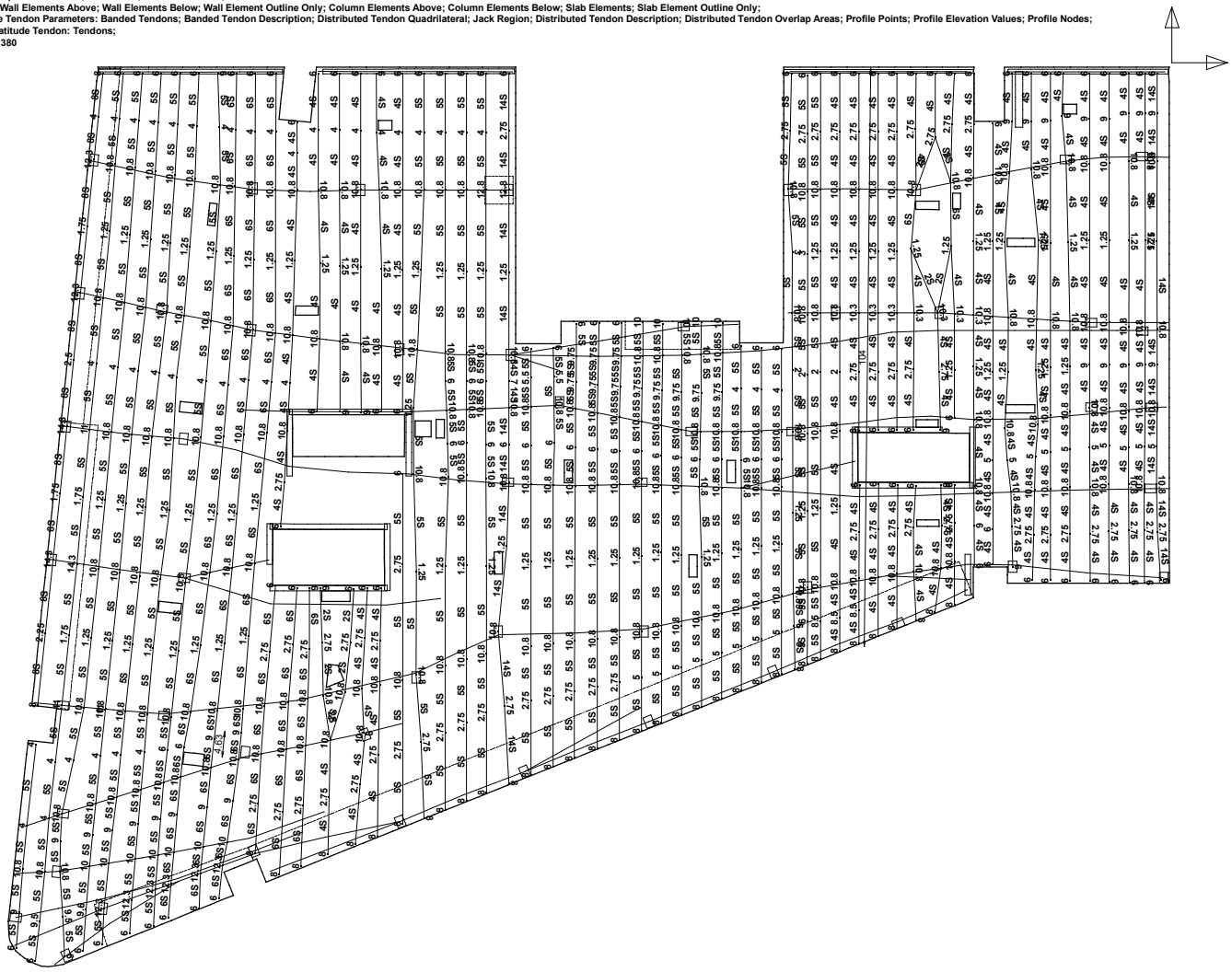
Manual Longitude Tendon: Standard Plan

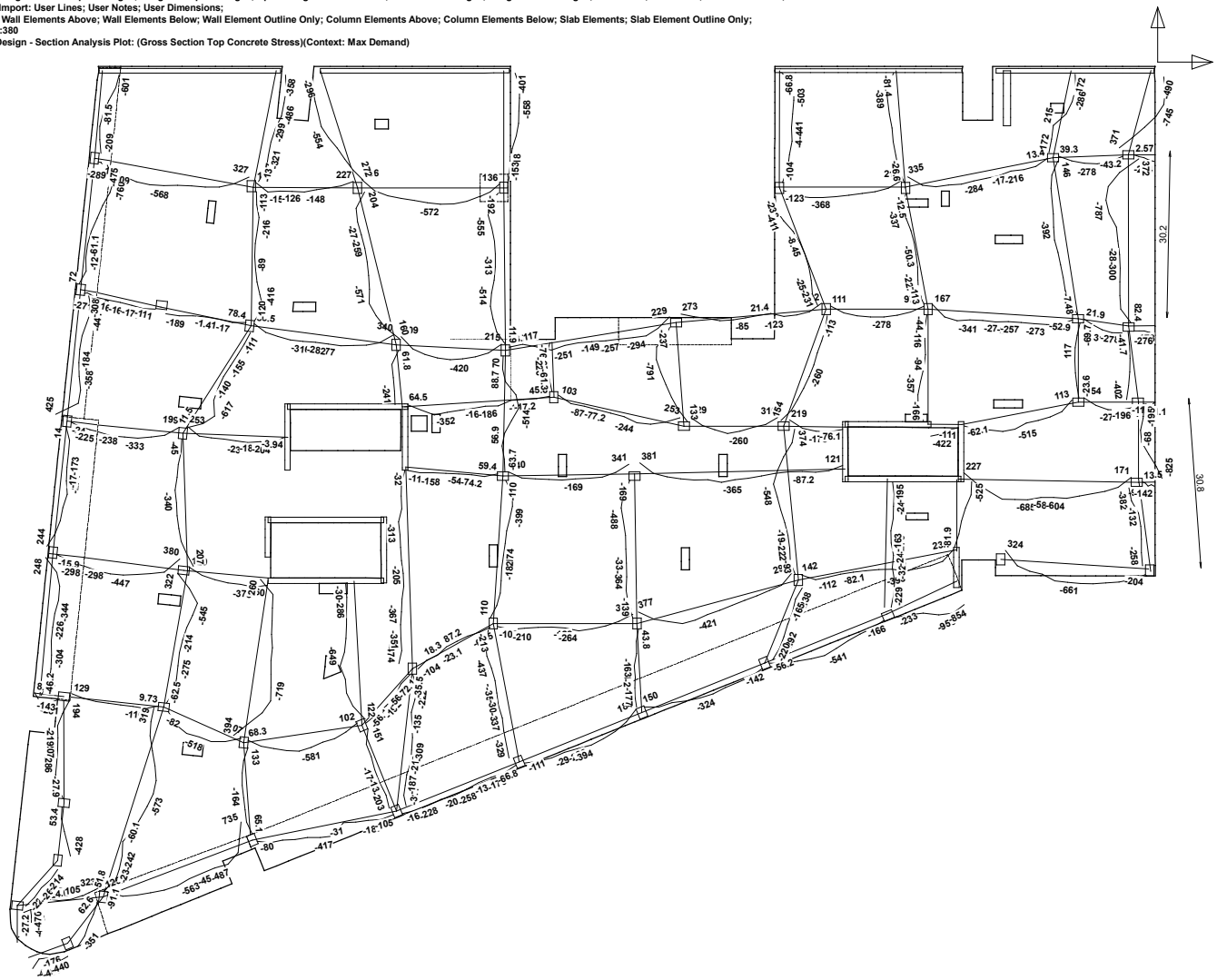
Manual Longitude Tendon: Tendons; Num Strands; Jacks; Tendon Points; Profile Values; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Longitude Tendon Parameters: Banded Tendons; Banded Tendon Description; Distributed Tendon Quadrilateral; Jack Region; Distributed Tendon Description; Distributed Tendon Overlap Areas; Profile Points; Profile Elevation Values; Profile Nodes;
Manual Latitude Tendon: Tendons;
Scale = 1:380



Level 4.50.cpt - 12/11/2019

Service Design: Top Stress Plan

Service Design: Latitude Span Designs; Longitude Span Designs; Span Design Detailed Status; Latitude DS Designs; Longitude DS Designs; User Notes; User Lines; User Dimensions;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service Design - Section Analysis Plot: (Gross Section Top Concrete Stress)(Context: Max Demand)



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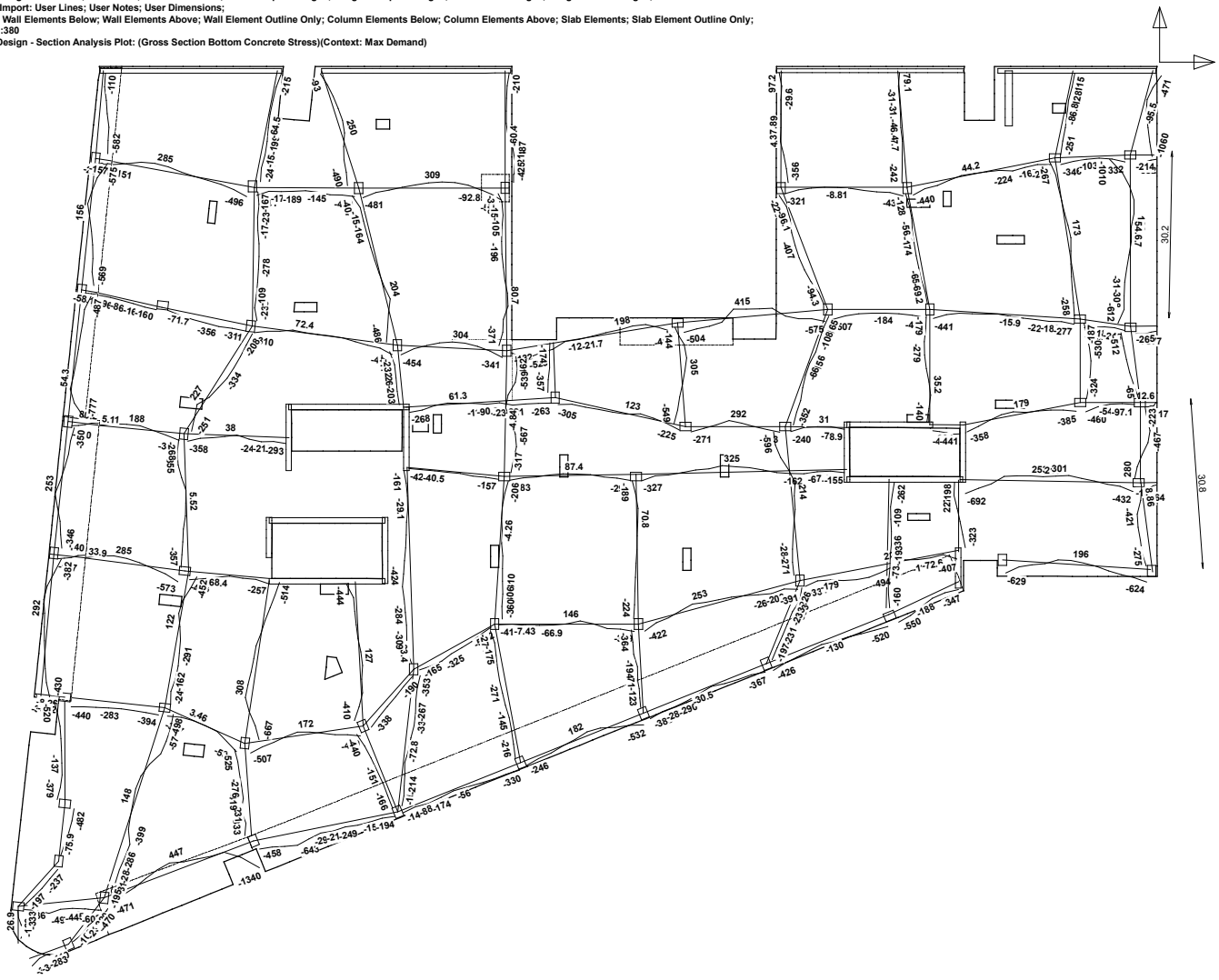
Service Design: Bottom Stress Plan

Service Design: User Lines; User Notes; User Dimensions; Latitude Span Designs; Longitude Span Designs; Latitude DS Designs; Longitude DS Designs;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380
Service Design - Section Analysis Plot: (Gross Section Bottom Concrete Stress)(Context: Max Demand)



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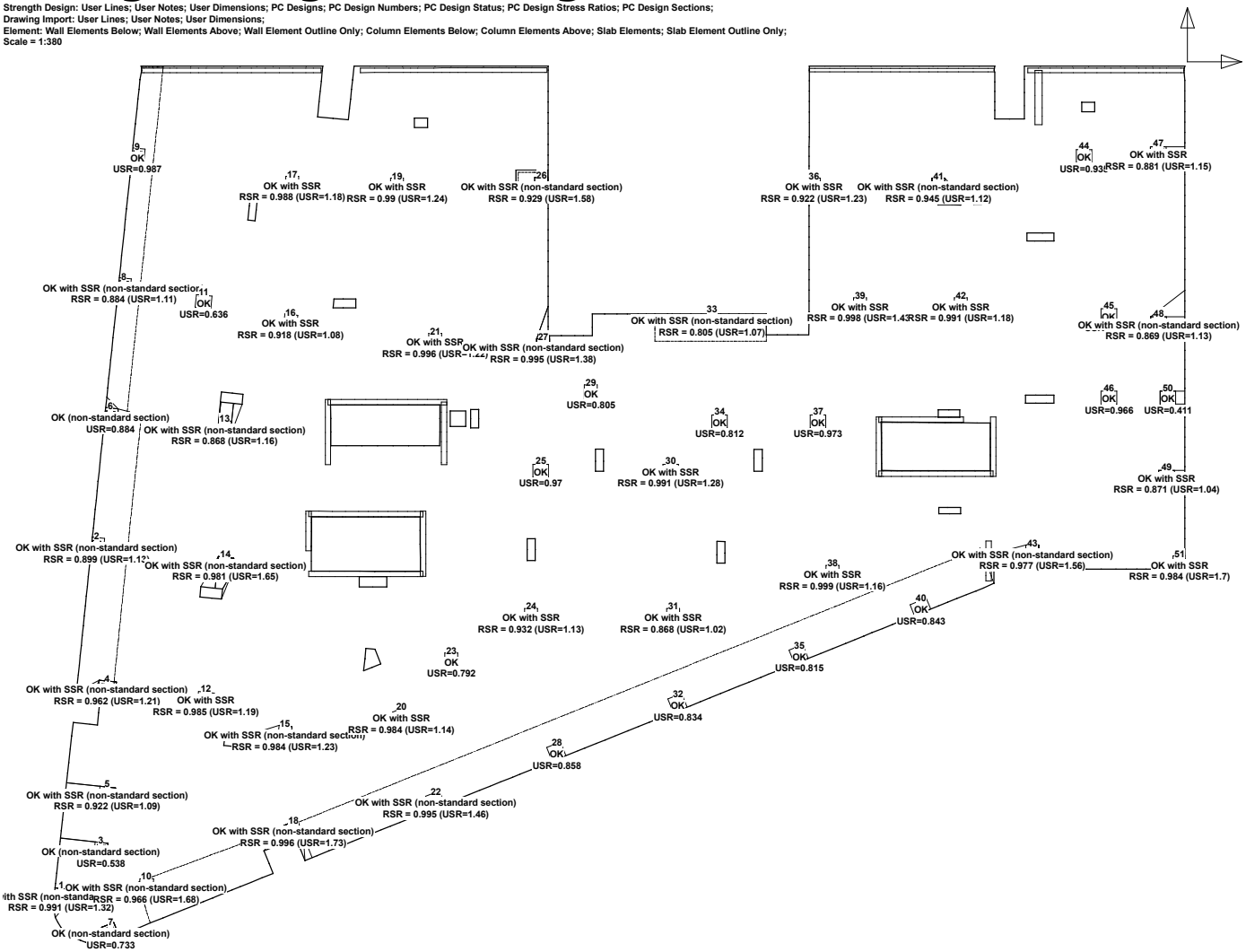
Strength Design: Punching Shear Status Plan

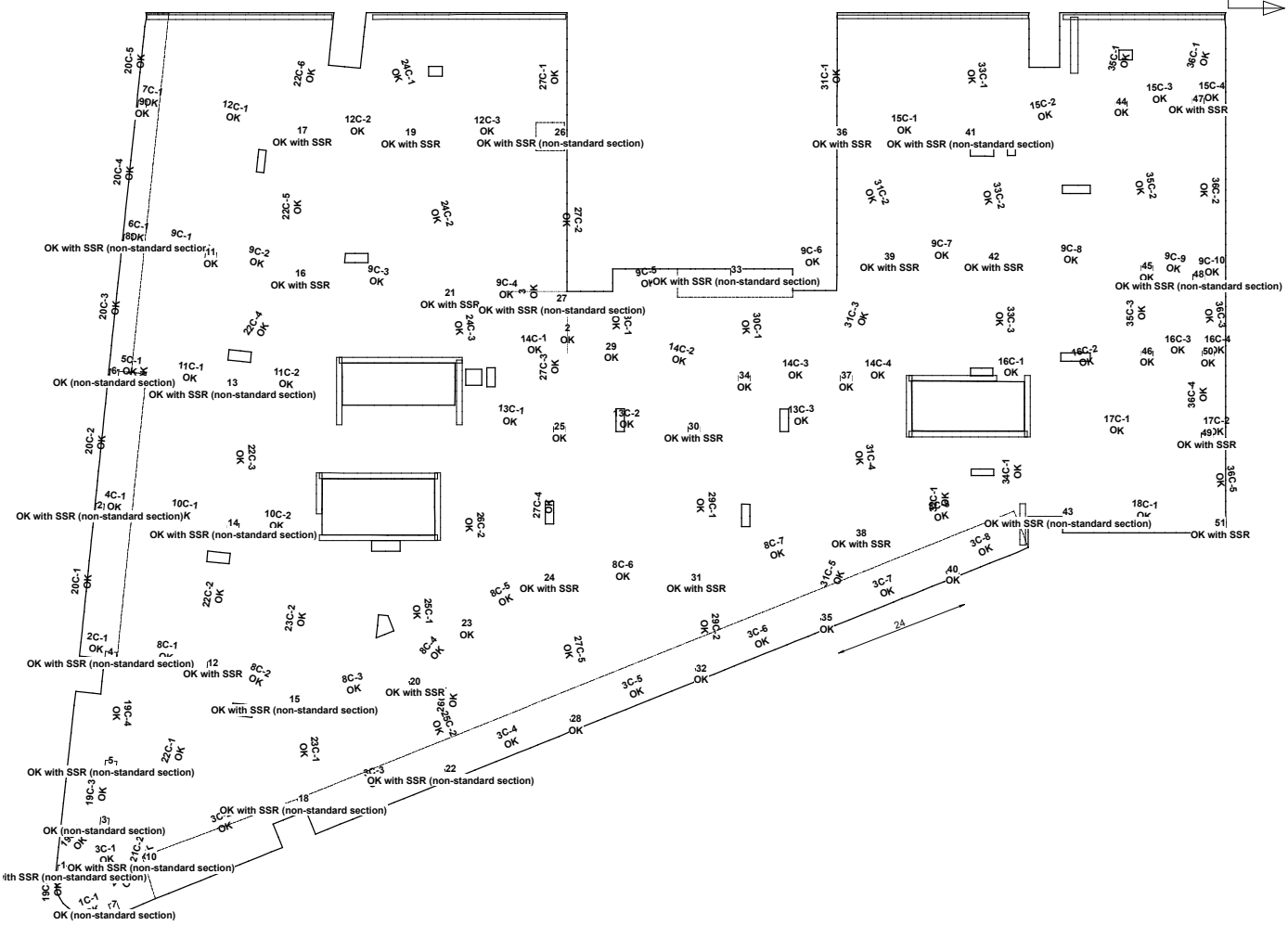
Strength Design: User Lines; User Notes; User Dimensions; PC Designs; PC Design Numbers; PC Design Status; PC Design Stress Ratios; PC Design Sections;
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Below; Wall Elements Above; Wall Element Outline Only; Column Elements Below; Column Elements Above; Slab Elements; Slab Element Outline Only;
Scale = 1:380



Level 4.50.cpt - 12/11/2019

Design Status: Status Plan

Design Status: Latitude Span Designs; Longitude Span Designs; Span Design Numbers; Span Design Status; Latitude DS Designs; Longitude DS Designs; DS Design Numbers; DS Design Status; PC Designs; PC Design Numbers; PC Design Status; User Notes; User Lines; User Di
Drawing Import: User Lines; User Notes; User Dimensions;
Element: Wall Elements Above; Wall Elements Below; Wall Element Outline Only; Column Elements Above; Column Elements Below; Slab Elements; Slab Element Outline Only;
Scale = 1:380



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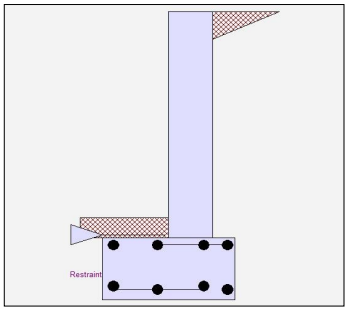
Cantilevered Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Criteria

Retained Height	=	5.50 ft
Wall height above soil	=	0.00 ft
Slope Behind Wall	=	0.00
Height of Soil over Toe	=	6.00 in
Water height over heel	=	0.0 ft



Load Factors

Building Code	IBC 2015,ACI
Dead Load	1.200
Live Load	1.600
Earth, H	1.600
Wind, W	1.000
Seismic, E	1.000

Soil Data and Lateral Earth Pressure

Allow Soil Bearing	=	2,000.0 psf	Soil Density, Heel	=	110.00	pcf
Equivalent Fluid Pressure Method			Soil Density, Toe	=	0.00	pcf
At-Rest Heel Pressure	=	32.0 psf/ft	Footing||Soil Friction	=	0.400	
	=		Soil height to ignore for passive pressure	=	12.00	in
Passive Pressure	=	250.0 psf/ft				

Surcharge Loads

Surcharge Over Heel	=	100.0 psf	Surcharge Over Toe	=	0.0
Used To Resist Sliding & Overturning			Used for Sliding & Overturning		

Axial Load Applied to Stem

Axial Dead Load	=	100.0 lbs	Axial Load Eccentricity	=	0.0	in
Axial Live Load	=	0.0 lbs				

Lateral Load Applied to Stem

Lateral Load	=	0.0 #/ft
...Height to Top	=	2.50 ft
...Height to Bottom	=	1.50 ft
Load Type	=	Seismic (E) (Service Level)

Wind on Exposed Stem

Wind on Exposed Stem (Service Level)	=	0.0 psf

Adjacent Footing Load

Adjacent Footing Load	=	0.0 lbs	Footing Type		Line Load
Footing Width	=	0.00 ft	Base Above/Below Soil		
Eccentricity	=	0.00 in	at Back of Wall	=	0.0 ft
Wall to Ftg CL Dist	=	0.00 ft	Poisson's Ratio	=	0.300

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Cantilevered Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Wall Design Summary

Stability Ratios

Overturning	=	1.61	OK
Slab Resists All Sliding !			

Soil Bearing

Total Bearing Load	=	1,953 lbs	
...resultant ecc.	=	9.04 in	
Soil Pressure @ Toe	=	1,743 psf	OK
Soil Pressure @ Heel	=	0 psf	OK
Allowable	=	2,000 psf	
Soil Pressure Less Than Allowable			
ACI Factored @ Toe	=	2,440 psf	
ACI Factored @ Heel	=	0 psf	
Footing Shear @ Toe	=	2.9 psi	OK
Footing Shear @ Heel	=	3.0 psi	OK
Allowable	=	94.9 psi	

Sliding

Resisting Forces

Vertical Forces	Force	
Soil Over Heel	302.5	lbs
Sloped Soil Over Heel	0.0	
Surcharge Over Heel	50.0	
Adjacent Footing Load	0.0	
Axial Dead Load on Stem	100.0	
Axial Live Load on Stem *	Omit	
Soil Over Toe	0.0	
Surcharge Over Toe	0.0	
Stem Weight(s)	825.0	
Earth @ Stem Transitions	0.0	
Footing Weight	675.0	
Key Weight	0.0	
Vert. Component **	0.0	
Total Vertical Loads	1,952.5	lbs

Sliding Forces

Lateral Forces	Force	
* Heel Active Pressure	784.0	lbs
Surcharge over Heel	155.6	
Adjacent Footing	0.0	
Surcharge Over Toe	0.0	
Load @ Stem Above Soil	0.0	
Added Lateral Load	0.0	
Seismic Load	0.0	
Seismic-Self-weight	0.0	
Lateral on Key	0.0	
Totals =	939.6	lbs

*Includes water table effect

* Axial live load NOT included in total displayed , or used for overturning
or sliding resistance, but is included for soil pressure calculations.

Sliding Calcs

Lateral Sliding Force = 939.6 lbs

Vertical component of active lateral soil pressure IS NOT considered in
the calculation of soil bearing pressures.

Overturning

Resisting Moments

Resisting Moments	Force		Distance		Moment	
Soil Over Heel	302.5	lbs	2.75	ft	831.9	ft-#
Sloped Soil Over Heel	0.0					
Surcharge Over Heel	50.0		2.75		137.5	
Adjacent Footing Load	0.0					
Axial Dead Load on Stem	100.0		2.00		200.0	
Axial Live Load on Stem *	0.0					
Soil Over Toe	0.0		0.75			
Surcharge Over Toe	0.0					
Stem Weight(s)	825.0		2.00		1,650.0	
Earth @ Stem Transitions	0.0					
Footing Weight	675.0		1.50		1,012.5	
Key Weight	0.0		0.50			
Vert. Component	0.0					
Total Vertical Loads	1,952.5	lbs				
Resisting Moment					**3,831.9**	ft-#
Eccentricity					**9.0**	in

* Axial live load NOT included in total displayed, or used for overturning or sliding resistance, but is included for soil pressure calculations.

Overturning

Overturning Moments

Overturning Moments	Force		Distance		Moment	
Heel Active Pressure	784.0	lbs	2.33	ft	1,829.3	ft-#
Surcharge over Heel	155.6		3.50		544.4	
Adjacent Footing	0.0					
Surcharge Over Toe	0.0					
Load @ Stem Above Soil	0.0					
Added Lateral Load	0.0					
Seismic Load	0.0					
Seismic-Self-weight	0.0					
Totals =	939.6	lbs				
Overturning Moment					2,373.8	ft-#

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Cantilevered Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Stem Design Summary

			Bottom
			Stem OK
Design Height Above Ftg	ft	=	0.00
Wall Material Above "Ht"		=	Concrete
Design Method		=	LRFD
Thickness		=	12.00
Rebar Size		=	# 7
Rebar Spacing		=	12.00
Rebar Placed at		=	Edge
Design Data			
fb/FB + fa/Fa		=	**0.085**
Total Force @ Section			
Service Level	lbs	=	
Strength Level	lbs	=	1,030.4
Moment....Actual			
Service Level	ft-#	=	
Strength Level	ft-#	=	2,123.7
Moment.....Allowable		=	24,863.0
Shear.....Actual			
Service Level	psi	=	
Strength Leve	psi	=	9.0
Shear.....Allowable	psi	=	106.1
Anet	in2	=	
Rebar Depth 'd'	in	=	9.56
Masonry Data			
f'm	psi	=	
Fs	psi	=	
Solid Grouting		=	
Modular Ratio 'n'		=	
Wall Weight	psf	=	150.0
Short Term Factor		=	
Equiv. Solid Thick.		=	
Masonry Block Type		=	Medium Weight
Masonry Design Method		=	ASD
Concrete Data			
f'c	psi	=	5,000.0
Fy	psi	=	60,000.0

Concrete Stem Rebar Area Details

Bottom Stem	Vertical Reinforcing	Horizontal Reinforcing	
As (based on applied moment) :	0.051 in2/ft		
(4/3) * As :	0.0679 in2/ft	Min Stem T&S Reinf Area 1.584 in2	
3sqrt(f'c)bd/fy : 3sqrt(5000)(12)(9.5625)/60000 :	0.4057 in2/ft	Min Stem T&S Reinf Area per ft of stem Height : 0.288 in2/ft	
0.0018bh : 0.0018(12)(12) :	0.2592 in2/ft	Horizontal Reinforcing Options :	
	==========	One layer of :	Two layers of :
Required Area :	0.2592 in2/ft	#4@ 8.33 in	#4@ 16.67 in
Provided Area :	0.6 in2/ft	#5@ 12.92 in	#5@ 25.83 in
Maximum Area :	2.4384 in2/ft	#6@ 18.33 in	#6@ 36.67 in

Footing Design Results

		Toe	Heel	
Factored Pressure	=	2,440	0	psf
Mu' : Upward	=	2,133	0	ft-#
Mu' : Downward	=	378	145	ft-#
Mu: Design	=	1,755	145	ft-#
Actual 1-Way Shear	=	2.92	3.01	psi
Allow 1-Way Shear	=	50.60	50.60	psi

Toe Reinforcing	=	# 8 @ 12.00 in
Heel Reinforcing	=	# 6 @ 16.00 in
Key Reinforcing	=	None Spec'd

Other Acceptable Sizes & Spacings

Toe: Not req'd: Mu < phi*5*lambda*sqrt(f'c)*Sm

Heel: Not req'd: Mu < phi*5*lambda*sqrt(f'c)*Sm

Key: Slab Resists Sliding - No Force on Key

Min footing T&S reinf Area	1.17	in2
Min footing T&S reinf Area per fc	0.39	in2 /ft

If one layer of horizontal bars:	If two layers of horizontal bars:
#4@ 6.17 in	#4@ 12.35 in
#5@ 9.57 in	#5@ 19.14 in
#6@ 13.58 in	#6@ 27.16 in

Tilt

Horizontal Deflection at Top of Wall due to settlement of soil

(Deflection due to wall bending not considered)

Soil Spring Reaction Modulus	250.0	pci
Horizontal Defl @ Top of Wall (approximate only)	0.089	in

The above calculation is not valid if the heel soil bearing pressure exceeds that of the toe,
because the wall would then tend to rotate into the retained soil.

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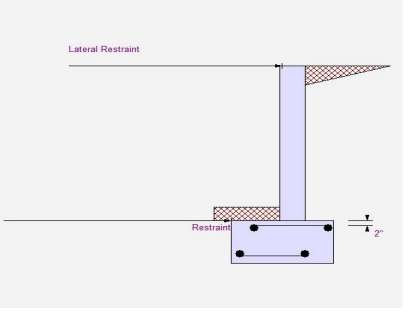
Restrained Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Criteria

Retained Height	=	5.50	ft
Wall height above soil	=	0.00	ft
Total Wall Height	=	5.50	ft
Top Support Height	=	5.50	ft
Slope Behind Wall	=	0.00	
Height of Soil over Toe	=	6.00	in



Load Factors

Building Code	IBC 2015,ACI 318-14,ACI 530-13
Dead Load	1.200
Live Load	1.600
Earth, H	1.600
Wind, W	1.000
Seismic, E	1.000

Soil Data

Allow Soil Bearing	=	2,000.0	psf
Equivalent Fluid Pressure Method			
At-rest Heel Pressure	=	32.0	psf/ft
	=		
Passive Pressure	=	250.0	psf/ft
Soil Density	=	110.00	pcf
Footing||Soil Frictior	=	0.400	
Soil height to ignore for passive pressure	=	12.00	in

Surcharge Loads

Surcharge Over Heel	=	250.0	psf
>>>Used To Resist Sliding & Overturning			
Surcharge Over Toe	=	0.0	psf
Used for Sliding & Overturning			

Axial Load Applied to Stem

Axial Dead Load	=	100.0	lbs
Axial Live Load	=	0.0	lbs
Axial Load Eccentricity	=	0.0	in

Uniform Lateral Load Applied to Stem

Lateral Load	=	44.0	#/ft
...Height to Top	=	3.80	ft
...Height to Bottom	=	2.80	ft
Load Type	=	Seismic (E) (Strength Level)	
Wind on Exposed Stem	=	0.0	psf

Adjacent Footing Load

Adjacent Footing Load	=	0.0	lbs
Footing Width	=	0.00	ft
Eccentricity	=	0.00	in
Wall to Ftg CL Dist	=	0.00	ft
Footing Type	Line Load		
Base Above/Below Soil at Back of Wall	=	0.0	ft
Poisson's Ratio	=	0.300	

Earth Pressure Seismic Load

K_h Soil Density Multiplier	=	1.980	g
Added seismic per unit area	=	0.0	psf

Stem Weight Seismic Load

F_p / W_p Weight Multiplier	=	0.000	g
Added seismic per unit area	=	0.0	psf

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Restrained Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Design Summary

Total Bearing Load	=	2,120	lbs
...resultant ecc.	=	5.25	in
Soil Pressure @ Toe	=	707	psf OK
Soil Pressure @ Heel	=	707	psf OK
Allowable	=	2,000	psf
Soil Pressure Less Than Allowable			
ACI Factored @ Toe	=	106	psf
ACI Factored @ Heel	=	1,590	psf
Footing Shear @ Toe	=	0.3	psi OK
Footing Shear @ Heel	=	0.1	psi OK
Allowable	=	94.9	psi
Reaction at Top	=	386.7	lbs
Reaction at Bottom	=	949.4	lbs

Sliding Calcs

Lateral Sliding Force	=	949.4	lbs

Vertical component of active lateral soil pressure IS NOT considered in the calculation of Sliding Resistance.

Concrete Stem Construction

Thickness	=	8.00	in	Fy	=	60,000 psi
Wall Weight	=	100.0	psf	f'c	=	4,000 psi

Stem is FREE to rotate at top of footing

		@ Top Support	Mmax Between Top & Base	@ Base of Wall
		Stem OK	Stem OK	Stem OK
Design Height Above Ftg	=	5.50 ft	2.58 ft	0.00 ft
Rebar Size	=	# 5	# 5	# 5
Rebar Spacing	=	12.00 in	12.00 in	12.00 in
Rebar Placed at	=	Center	Center	Center
Rebar Depth 'd'	=	4.00 in	4.00 in	4.00 in
Design Data				
fb/FB + fa/Fa	=	0.000	0.194	0.000
Mu....Actual	=	0.0 ft-#	1,018.5 ft-#	0.0 ft-#
Mn * Phi.....Allowable	=	5,261.1 ft-#	5,261.1 ft-#	5,261.1 ft-#
Shear Force @ this height	=	607.1 lbs		853.9 lbs
Shear.....Actual	=	12.65 psi		17.79 psi
Shear.....Allowable	=	94.87 psi		94.87 psi

Other Acceptable Sizes & Spacings:

Toe: # 8 @ 18.00 in	-or-	Not req'd: Mu < phi*5*lambda*sqrt(f'c)*Sm
Heel: # 6 @ 16.00 in	-or-	Not req'd: Mu < phi*5*lambda*sqrt(f'c)*Sm
Key: Slab Resists Sliding	-or-	Slab Resists Sliding - No Force on

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Restrained Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Concrete Stem Rebar Area Details

Top Support	Vertical Reinforcing	Horizontal Reinforcing	
As (based on applied moment) :	0 in2/ft		
(4/3) * As :	0 in2/ft	Min Stem T&S Reinf Area 1.056 in2	
200bd/fy : 200(12)(4)/60000 :	0.16 in2/ft	Min Stem T&S Reinf Area per ft of stem Height : 0.192 in2/ft	
0.0018bh : 0.0018(12)(8) :	0.1728 in2/ft	Horizontal Reinforcing Options :	
	==========	One layer of :	Two layers of :
Required Area :	0.1728 in2/ft	#4@ 12.50 in	#4@ 25.00 in
Provided Area :	0.31 in2/ft	#5@ 19.38 in	#5@ 38.75 in
Maximum Area :	0.867 in2/ft	#6@ 27.50 in	#6@ 55.00 in

Mmax Between Ends	Vertical Reinforcing	Horizontal Reinforcing	
As (based on applied moment) :	0.0615 in2/ft		
(4/3) * As :	0.082 in2/ft	Min Stem T&S Reinf Area 0.560 in2	
200bd/fy : 200(12)(4)/60000 :	0.16 in2/ft	Min Stem T&S Reinf Area per ft of stem Height : 0.192 in2/ft	
0.0018bh : 0.0018(12)(8) :	0.1728 in2/ft	Horizontal Reinforcing Options :	
	==========	One layer of :	Two layers of :
Required Area :	0.1728 in2/ft	#4@ 12.50 in	#4@ 25.00 in
Provided Area :	0.31 in2/ft	#5@ 19.38 in	#5@ 38.75 in
Maximum Area :	0.867 in2/ft	#6@ 27.50 in	#6@ 55.00 in

Base Support	Vertical Reinforcing	Horizontal Reinforcing	
As (based on applied moment) :	0 in2/ft		
(4/3) * As :	0 in2/ft	Min Stem T&S Reinf Area 0.496 in2	
200bd/fy : 200(12)(4)/60000 :	0.16 in2/ft	Min Stem T&S Reinf Area per ft of stem Height : 0.192 in2/ft	
0.0018bh : 0.0018(12)(8) :	0.1728 in2/ft	Horizontal Reinforcing Options :	
	==========	One layer of :	Two layers of :
Required Area :	0.1728 in2/ft	#4@ 12.50 in	#4@ 25.00 in
Provided Area :	0.31 in2/ft	#5@ 19.38 in	#5@ 38.75 in
Maximum Area :	0.867 in2/ft	#6@ 27.50 in	#6@ 55.00 in

Footing Strengths & Dimensions

Toe Width	=	1.50	ft
Heel Width	=	1.50	
Total Footing Width	=	3.00	
Footing Thickness	=	18.00	in
Key Width	=	12.00	in
Key Depth	=	0.00	in
Key Distance from Toe	=	2.00	ft
f'c	=	4,000	psi
Fy	=	60,000	psi
Footing Concrete Density	=	150.00	pcf
Min. As %	=	0.0018	

Cover @ Top = 2.00 in @ Btm.= 3.00 in

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Restrained Retaining Wall

Code: IBC 2015,ACI 318-14,ACI 530-13

Footing Design Results

		Toe	Heel
Factored Pressure	=	106	1,590 psf
Mu' : Upward	=	398	581 ft-#
Mu' : Downward	=	378	485 ft-#
Mu: Design	=	20	-96 ft-#
Actual 1-Way Shear	=	0.26	0.06 psi
Allow 1-Way Shear	=	94.87	94.87 psi

Min footing T&S reinf Area 1.17 in2
Min footing T&S reinf Area per fc 0.39 in2 /ft

If one layer of horizontal bars: If two layers of horizontal bars:
#4@ 6.17 in
#5@ 9.57 in
#6@ 13.58 in

Summary of Forces on Footing : Slab RESISTS sliding, stem is PINNED at footing

Forces acting on footing soil pressure

(taking moments about front of footing to find eccentricity)

Surcharge Over Heel	=	208.3	lbs	2.58	ft	538.2	ft-#
Axial Dead Load on Stem	=	100.0	lbs	1.83	ft	183.3	ft-#
Soil Over Toe	=	82.5	lbs	0.75	ft	61.9	ft-#
Adjacent Footing Load	=		lbs		ft		ft-#
Surcharge Over Toe	=		lbs		ft		ft-#
Stem Weight	=	550.0	lbs	1.83	ft	1,008.3	ft-#
Soil Over Heel	=	504.2	lbs	2.58	ft	1,302.4	ft-#
Footing Weight	=	675.0	lbs	1.50	ft	1,013.0	ft-#
Total Vertical Force	=	2,120.0	lbs	Moment	=	4,107.2	ft-#

Net Mom. at Stem/Ftg Interface =	**-927.2**	**ft-#**
Allow. Mom. @ Stem/Ftg Interface =	**3,288.2**	**ft-#**
Allow. Mom. Exceeds Applied Mom.?	**Yes**	

Vertical component of active lateral soil pressure IS NOT considered in the calculation of soil bearing pressures.

Concrete Beam

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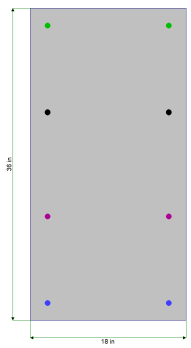
DESCRIPTION: Grade Beam Under Retaining Wall

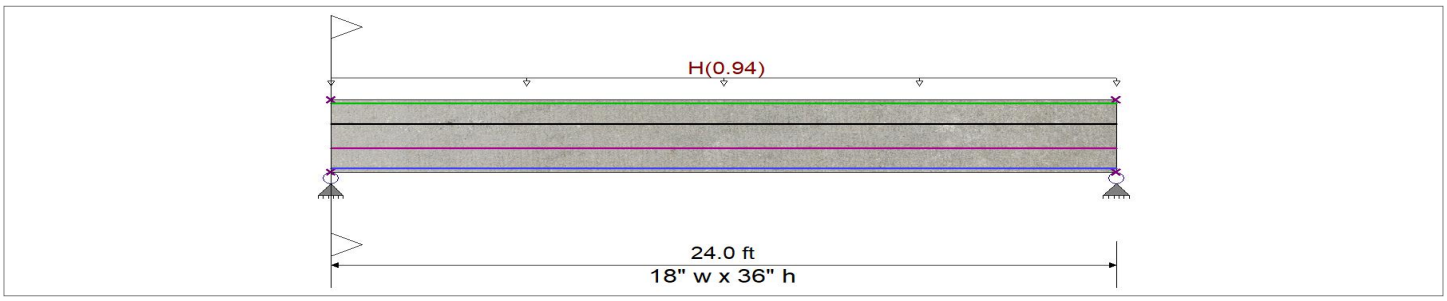
CODE REFERENCES

Calculations per ACI 318-11, IBC 2012, CBC 2013, ASCE 7-10
Load Combination Set : ASCE 7-16

Material Properties

f'c	=	4.0 ksi	ϕ Phi Values	Flexure :	0.90
fr = f'c$^{1/2}$ * 7.50	=	474.342 psi		Shear :	0.750
ψ Density	=	145.0 pcf	β_1	=	0.850
λ LtWt Factor	=	1.0			
Elastic Modulus	=	3,122.0 ksi	Fy - Stirrups		40.0 ksi
fy - Main Rebar	=	60.0 ksi	E - Stirrups	=	29,000.0 ksi
E - Main Rebar	=	29,000.0 ksi	Stirrup Bar Size #		3
			Number of Resisting Legs Per Stirrup =		2





Cross Section & Reinforcing Details

Rectangular Section, Width = 18.0 in, Height = 36.0 in
Span #1 Reinforcing....
2-#5 at 2.0 in from Bottom, from 0.0 to 24.0 ft in this span
2-#5 at 12.0 in from Bottom, from 0.0 to 24.0 ft in this span
2-#5 at 2.0 in from Top, from 0.0 to 24.0 ft in this span
2-#5 at 12.0 in from Top, from 0.0 to 24.0 ft in this span

Load for Span Number 1
Uniform Load : H = 0.940 k/ft, Tributary Width = 1.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio = **0.685** : 1
Section used for this span **Typical Section**
Mu : Applied 128.592 k-ft
Mn * Phi : Allowable 187.632 k-ft
Location of maximum on span 12.022 ft
Span # where maximum occurs Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.032 in	Ratio =	8970	>=360.
Max Upward Transient Deflection	0.000 in	Ratio =	0	<360.0
Max Downward Total Deflection	0.032 in	Ratio =	8970	>=180.
Max Upward Total Deflection	0.000 in	Ratio =	0	<180.0

Vertical Reactions

Support notation : Far left is #1

Load Combination	Support 1	Support 2
Overall MAXimum	11.280	11.280
Overall MINimum	6.768	6.768
+D+H	11.280	11.280
+D+L+H	11.280	11.280
+D+Lr+H	11.280	11.280
+D+S+H	11.280	11.280
+D+0.750Lr+0.750L+H	11.280	11.280
+D+0.750L+0.750S+H	11.280	11.280
+D+0.60W+H	11.280	11.280
+D+0.750Lr+0.750L+0.450W+H	11.280	11.280
+D+0.750L+0.750S+0.450W+H	11.280	11.280
+0.60D+0.60W+0.60H	6.768	6.768
+D+0.70E+0.60H	6.768	6.768

Concrete Beam

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DESCRIPTION: Grade Beam Under Retaining Wall

Vertical Reactions

Support notation : Far left is #1

Load Combination	Support 1	Support 2
+D+0.750L+0.750S+0.5250E+H	11.280	11.280
+0.60D+0.70E+H	11.280	11.280
D Only		
Lr Only		
L Only		
S Only		
W Only		
E Only		
H Only	11.280	11.280

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd	Spacing (in) Suggest
+1.20D+L+0.20S+E+1.90H	1	0.00	34.00	21.43	21.43	0.00	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	0.26	34.00	20.96	20.96	5.56	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	0.52	34.00	20.50	20.50	11.00	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	0.79	34.00	20.03	20.03	16.31	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	1.05	34.00	19.56	19.56	21.50	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	1.31	34.00	19.09	19.09	26.57	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	1.57	34.00	18.62	18.62	31.52	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	1.84	34.00	18.15	18.15	36.34	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	2.10	34.00	17.68	17.68	41.04	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	2.36	34.00	17.22	17.22	45.62	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	2.62	34.00	16.75	16.75	50.07	0.95	57.36	Vu < PhiVc/2	lot Reqd 11.4	57.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	2.89	34.00	16.28	16.28	54.40	0.85	57.13	Vu < PhiVc/2	lot Reqd 11.4	57.1	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	3.15	34.00	15.81	15.81	58.61	0.76	56.93	Vu < PhiVc/2	lot Reqd 11.4	56.9	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	3.41	34.00	15.34	15.34	62.70	0.69	56.77	Vu < PhiVc/2	lot Reqd 11.4	56.8	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	3.67	34.00	14.87	14.87	66.66	0.63	56.63	Vu < PhiVc/2	lot Reqd 11.4	56.6	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	3.93	34.00	14.41	14.41	70.50	0.58	56.50	Vu < PhiVc/2	lot Reqd 11.4	56.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	4.20	34.00	13.94	13.94	74.22	0.53	56.39	Vu < PhiVc/2	lot Reqd 11.4	56.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	4.46	34.00	13.47	13.47	77.81	0.49	56.30	Vu < PhiVc/2	lot Reqd 11.4	56.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	4.72	34.00	13.00	13.00	81.28	0.45	56.21	Vu < PhiVc/2	lot Reqd 11.4	56.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	4.98	34.00	12.53	12.53	84.63	0.42	56.13	Vu < PhiVc/2	lot Reqd 11.4	56.1	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	5.25	34.00	12.06	12.06	87.86	0.39	56.06	Vu < PhiVc/2	lot Reqd 11.4	56.1	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	5.51	34.00	11.59	11.59	90.96	0.36	56.00	Vu < PhiVc/2	lot Reqd 11.4	56.0	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	5.77	34.00	11.13	11.13	93.94	0.34	55.94	Vu < PhiVc/2	lot Reqd 11.4	55.9	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	6.03	34.00	10.66	10.66	96.79	0.31	55.88	Vu < PhiVc/2	lot Reqd 11.4	55.9	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	6.30	34.00	10.19	10.19	99.53	0.29	55.83	Vu < PhiVc/2	lot Reqd 11.4	55.8	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	6.56	34.00	9.72	9.72	102.14	0.27	55.78	Vu < PhiVc/2	lot Reqd 11.4	55.8	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	6.82	34.00	9.25	9.25	104.63	0.25	55.74	Vu < PhiVc/2	lot Reqd 11.4	55.7	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	7.08	34.00	8.78	8.78	106.99	0.23	55.70	Vu < PhiVc/2	lot Reqd 11.4	55.7	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	7.34	34.00	8.32	8.32	109.24	0.22	55.66	Vu < PhiVc/2	lot Reqd 11.4	55.7	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	7.61	34.00	7.85	7.85	111.36	0.20	55.62	Vu < PhiVc/2	lot Reqd 11.4	55.6	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	7.87	34.00	7.38	7.38	113.35	0.18	55.59	Vu < PhiVc/2	lot Reqd 11.4	55.6	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	8.13	34.00	6.91	6.91	115.23	0.17	55.55	Vu < PhiVc/2	lot Reqd 11.4	55.6	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	8.39	34.00	6.44	6.44	116.98	0.16	55.52	Vu < PhiVc/2	lot Reqd 11.4	55.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	8.66	34.00	5.97	5.97	118.60	0.14	55.49	Vu < PhiVc/2	lot Reqd 11.4	55.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	8.92	34.00	5.50	5.50	120.11	0.13	55.46	Vu < PhiVc/2	lot Reqd 11.4	55.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	9.18	34.00	5.04	5.04	121.49	0.12	55.43	Vu < PhiVc/2	lot Reqd 11.4	55.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	9.44	34.00	4.57	4.57	122.75	0.11	55.40	Vu < PhiVc/2	lot Reqd 11.4	55.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	9.70	34.00	4.10	4.10	123.89	0.09	55.37	Vu < PhiVc/2	lot Reqd 11.4	55.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	9.97	34.00	3.63	3.63	124.90	0.08	55.35	Vu < PhiVc/2	lot Reqd 11.4	55.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	10.23	34.00	3.16	3.16	125.79	0.07	55.32	Vu < PhiVc/2	lot Reqd 11.4	55.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	10.49	34.00	2.69	2.69	126.56	0.06	55.30	Vu < PhiVc/2	lot Reqd 11.4	55.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	10.75	34.00	2.23	2.23	127.21	0.05	55.27	Vu < PhiVc/2	lot Reqd 11.4	55.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	11.02	34.00	1.76	1.76	127.73	0.04	55.25	Vu < PhiVc/2	lot Reqd 11.4	55.2	0.0	0.0

Concrete Beam

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DESCRIPTION: Grade Beam Under Retaining Wall

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd	Spacing (in) Suggest
+1.20D+L+0.20S+E+1.90H	1	11.28	34.00	1.29	1.29	128.13	0.03	55.22	Vu < PhiVc/2	lot Reqd 11.4	55.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	11.54	34.00	0.82	0.82	128.40	0.02	55.20	Vu < PhiVc/2	lot Reqd 11.4	55.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	11.80	34.00	0.35	0.35	128.56	0.01	55.17	Vu < PhiVc/2	lot Reqd 11.4	55.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	12.07	34.00	-0.12	0.12	128.59	0.00	55.16	Vu < PhiVc/2	lot Reqd 11.4	55.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	12.33	34.00	-0.59	0.59	128.50	0.01	55.19	Vu < PhiVc/2	lot Reqd 11.4	55.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	12.59	34.00	-1.05	1.05	128.28	0.02	55.21	Vu < PhiVc/2	lot Reqd 11.4	55.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	12.85	34.00	-1.52	1.52	127.94	0.03	55.23	Vu < PhiVc/2	lot Reqd 11.4	55.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	13.11	34.00	-1.99	1.99	127.48	0.04	55.26	Vu < PhiVc/2	lot Reqd 11.4	55.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	13.38	34.00	-2.46	2.46	126.90	0.05	55.28	Vu < PhiVc/2	lot Reqd 11.4	55.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	13.64	34.00	-2.93	2.93	126.19	0.07	55.31	Vu < PhiVc/2	lot Reqd 11.4	55.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	13.90	34.00	-3.40	3.40	125.36	0.08	55.33	Vu < PhiVc/2	lot Reqd 11.4	55.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	14.16	34.00	-3.86	3.86	124.41	0.09	55.36	Vu < PhiVc/2	lot Reqd 11.4	55.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	14.43	34.00	-4.33	4.33	123.34	0.10	55.39	Vu < PhiVc/2	lot Reqd 11.4	55.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	14.69	34.00	-4.80	4.80	122.14	0.11	55.42	Vu < PhiVc/2	lot Reqd 11.4	55.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	14.95	34.00	-5.27	5.27	120.82	0.12	55.44	Vu < PhiVc/2	lot Reqd 11.4	55.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	15.21	34.00	-5.74	5.74	119.37	0.14	55.47	Vu < PhiVc/2	lot Reqd 11.4	55.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	15.48	34.00	-6.21	6.21	117.81	0.15	55.50	Vu < PhiVc/2	lot Reqd 11.4	55.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	15.74	34.00	-6.68	6.68	116.12	0.16	55.54	Vu < PhiVc/2	lot Reqd 11.4	55.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	16.00	34.00	-7.14	7.14	114.30	0.18	55.57	Vu < PhiVc/2	lot Reqd 11.4	55.6	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	16.26	34.00	-7.61	7.61	112.37	0.19	55.60	Vu < PhiVc/2	lot Reqd 11.4	55.6	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	16.52	34.00	-8.08	8.08	110.31	0.21	55.64	Vu < PhiVc/2	lot Reqd 11.4	55.6	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	16.79	34.00	-8.55	8.55	108.13	0.22	55.68	Vu < PhiVc/2	lot Reqd 11.4	55.7	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	17.05	34.00	-9.02	9.02	105.83	0.24	55.72	Vu < PhiVc/2	lot Reqd 11.4	55.7	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	17.31	34.00	-9.49	9.49	103.40	0.26	55.76	Vu < PhiVc/2	lot Reqd 11.4	55.8	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	17.57	34.00	-9.95	9.95	100.85	0.28	55.81	Vu < PhiVc/2	lot Reqd 11.4	55.8	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	17.84	34.00	-10.42	10.42	98.18	0.30	55.86	Vu < PhiVc/2	lot Reqd 11.4	55.9	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	18.10	34.00	-10.89	10.89	95.38	0.32	55.91	Vu < PhiVc/2	lot Reqd 11.4	55.9	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	18.36	34.00	-11.36	11.36	92.46	0.35	55.97	Vu < PhiVc/2	lot Reqd 11.4	56.0	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	18.62	34.00	-11.83	11.83	89.42	0.37	56.03	Vu < PhiVc/2	lot Reqd 11.4	56.0	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	18.89	34.00	-12.30	12.30	86.26	0.40	56.10	Vu < PhiVc/2	lot Reqd 11.4	56.1	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	19.15	34.00	-12.77	12.77	82.97	0.44	56.17	Vu < PhiVc/2	lot Reqd 11.4	56.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	19.41	34.00	-13.23	13.23	79.56	0.47	56.25	Vu < PhiVc/2	lot Reqd 11.4	56.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	19.67	34.00	-13.70	13.70	76.03	0.51	56.34	Vu < PhiVc/2	lot Reqd 11.4	56.3	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	19.93	34.00	-14.17	14.17	72.37	0.55	56.45	Vu < PhiVc/2	lot Reqd 11.4	56.4	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	20.20	34.00	-14.64	14.64	68.59	0.60	56.56	Vu < PhiVc/2	lot Reqd 11.4	56.6	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	20.46	34.00	-15.11	15.11	64.69	0.66	56.69	Vu < PhiVc/2	lot Reqd 11.4	56.7	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	20.72	34.00	-15.58	15.58	60.67	0.73	56.85	Vu < PhiVc/2	lot Reqd 11.4	56.8	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	20.98	34.00	-16.04	16.04	56.52	0.80	57.03	Vu < PhiVc/2	lot Reqd 11.4	57.0	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	21.25	34.00	-16.51	16.51	52.25	0.90	57.24	Vu < PhiVc/2	lot Reqd 11.4	57.2	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	21.51	34.00	-16.98	16.98	47.86	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	21.77	34.00	-17.45	17.45	43.34	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	22.03	34.00	-17.92	17.92	38.71	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	22.30	34.00	-18.39	18.39	33.94	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	22.56	34.00	-18.86	18.86	29.06	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	22.82	34.00	-19.32	19.32	24.05	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	23.08	34.00	-19.79	19.79	18.92	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	23.34	34.00	-20.26	20.26	13.67	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	23.61	34.00	-20.73	20.73	8.29	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0
+1.20D+L+0.20S+E+1.90H	1	23.87	34.00	-21.20	21.20	2.80	1.00	57.48	Vu < PhiVc/2	lot Reqd 11.4	57.5	0.0	0.0

Maximum Forces & Stresses for Load Combinations

Load Combination Segment	Span #	Location (ft) along Beam	Bending Stress Results (k-ft) Mu : Max	Phi*Mnx	Stress Ratio
MAXimum BENDING Envelope					
Span # 1	1	24.000	128.59	187.63	0.69

Concrete Beam

File = P:\2018\1LXLCE~P\EHTEC6~Q\C7A4YC~F\Models\FNHN3S~U\lateral distribution to piles.ec6 .
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FROELICH CONSULTING ENGINEERS

DESCRIPTION: Grade Beam Under Retaining Wall

Load Combination Segment	Span #	Location (ft) along Beam	Bending Stress Results (k-ft) Mu : Max	Phi*Mnx	Stress Ratio
+1.40D+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+1.20D+0.50Lr+1.60L+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+1.20D+1.60L+0.50S+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+1.20D+1.60Lr+L+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+1.20D+1.60Lr+0.50W+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+1.20D+L+1.60S+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+1.20D+1.60S+0.50W+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+1.20D+0.50Lr+L+W+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+1.20D+L+0.50S+W+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+0.90D+W+1.60H					
Span # 1	1	24.000	108.29	187.63	0.58
+1.20D+L+0.20S+E+1.90H					
Span # 1	1	24.000	128.59	187.63	0.69
+0.90D+E+0.90H					
Span # 1	1	24.000	60.91	187.63	0.32

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl (in)	Location in Span (ft)	Load Combination	Max. "+" Defl (in)	Location in Span (ft)
H Only	1	0.0321	12.000		0.0000	0.000

FROELICH ENGINEERS
www.froelich-engineers.com

Main Office
17700 SW Upper Boones Ferry Rd. #115
Portland, Oregon 97224
503-624-7005

Central Oregon
745 NW Mt. Washington Dr. #204
Bend, Oregon 97703
541-383-1828

Denver Office
940 Kimbark St. Suite 3
Longmont, Colorado 80501
720-799-1001

CLIENT:

PROJECT:

NUMBER:

DATE:

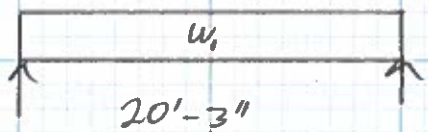
BY:

ELEVATOR LOBBY BEAM

DL = 33 − 12 = 21 PSF
(NO. PARTITIONS)

DL = (11.75/2)(21) = 123 PLF

LL = (11.75/2)(100) = 588 PLF



20'-3"

R_A = 1,160#
DL = 1,468#
LL = 6005#

POSTS SUPPORTING BEAM

A = 119 FT²

ROOF LEVEL
DL = 1.5K
LL = 6.0K
6X6 DF #1

8TH FLOOR
DL = 3.0K
LL = 12K
6X6 DF #1

$0.25 + \frac{15}{\sqrt{K_L A_L}}$

$= 0.25 + \frac{15}{\sqrt{(2)(1)}}$

7TH FLOOR
DL = 4.5K
LL = 18K
6X8 DF #1

6TH FLOOR
DL = 6K
LL = 24K (.74) = 17.8K
6X8 DF #1

$0.25 + \frac{15}{\sqrt{(2)(4)}}$ 119

= 0.74

5TH FLOOR
DL = 7.5K
LL = 30K (0.68) = 20.5K
6X8 DF #1

$0.25 + \frac{15}{\sqrt{(2)(5)}}$ 119

=

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
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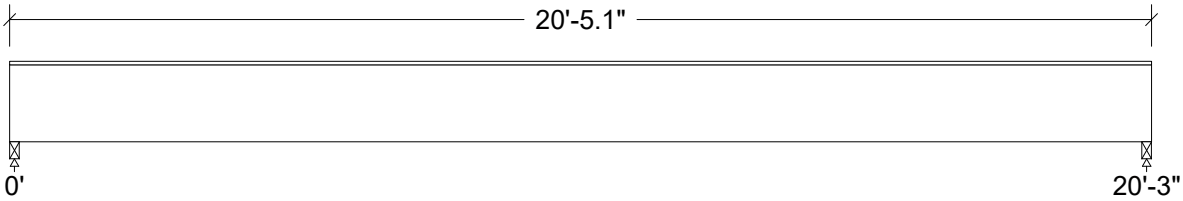
Design Check Calculation Sheet

WoodWorks Sizer 10.45

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
Load1	Dead	Full UDL				123.0		plf
Load2	Live	Full UDL				588.0		plf
Self-weight	Dead	Full UDL				20.9		plf

Maximum Reactions (lbs), Bearing Capacities (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	1468		1468
Live	6005		6005
Factored:			
Total	7472		7472
Bearing:			
Capacity			
Beam	7472		7472
Support	7675		7675
Anal/Des			
Beam	1.00		1.00
Support	0.97		0.97
Load comb	#2		#2
Length	2.09		2.09
Min req'd	2.09		2.09
Cb	1.00		1.00
Cb min	1.00		1.00
Cb support	1.07		1.07
Fcp sup	625		625

Glulam-Unbal., West Species, 24F-1.8E WS, 5-1/2"x16-1/2"

11 laminations, 5-1/2" maximum width,
Supports: All - Timber-soft Beam, D.Fir-L No.2
Total length: 20'-5.1"; volume = 12.9 cu.ft.;
Lateral support: top= full, bottom= at supports;

Analysis vs. Allowable Stress and Deflection using NDS 2012 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 105	Fv' = 265	psi	fv/Fv' = 0.40
Bending(+)	fb = 1804	Fb' = 2317	psi	fb/Fb' = 0.78
Live Defl'n	0.60 = L/404	0.68 = L/360	in	0.89
Total Defl'n	0.82 = L/296	1.01 = L/240	in	0.81

Additional Data:

```
FACTORS:   F/E(psi)CD    CM    Ct    CL     CV    Cfu    Cr   Cfrt Notes Cn*Cvr LC#
 Fv'       265    1.00  1.00  1.00    -      -     -     -    1.00  1.00  1.00   2
 Fb'+     2400    1.00  1.00  1.00  1.000  0.965  1.00  1.00  1.00  1.00   -     2
 Fcp'      650     -    1.00  1.00    -      -     -     -    1.00   -     -     -
 E'        1.8 million  1.00  1.00    -      -     -     -    1.00   -     -     2
 Eminy'   0.85 million  1.00  1.00    -      -     -     -    1.00   -     -     2
CRITICAL LOAD COMBINATIONS:
 Shear     : LC #2  = D+L, V =   7410, V design =   6340 lbs
 Bending(+): LC #2  = D+L, M =  37515 lbs-ft
 Deflection: LC #2  = D+L  (live)
             LC #2  = D+L  (total)
 D=dead L=live S=snow W=wind I=impact Lr=roof live Lc=concentrated E=earthquake
 All LC's are listed in the Analysis output
 Load combinations: ASCE 7-10 / IBC 2012
CALCULATIONS:
 Deflection:  EI =   3706e06 lb-in2
 "Live" deflection = Deflection from all non-dead loads (live, wind, snow…)
 Total Deflection = 1.50(Dead Load Deflection) + Live Load Deflection.
```

Design Notes:

1. WoodWorks analysis and design are in accordance with the ICC International Building Code (IBC 2012), the National Design Specification (NDS 2012), and NDS Design Supplement.
2. Please verify that the default deflection limits are appropriate for your application.
3. Glulam design values are for materials conforming to ANSI 117-2010 and manufactured in accordance with ANSI A190.1-2007
4. GLULAM: bxd = actual breadth x actual depth.
5. Glulam Beams shall be laterally supported according to the provisions of NDS Clause 3.3.3.
6. GLULAM: bearing length based on smaller of Fcp(tension), Fcp(comp'n).

WoodWorks® SOFTWARE FOR WOOD DESIGN	COMPANY	PROJECT
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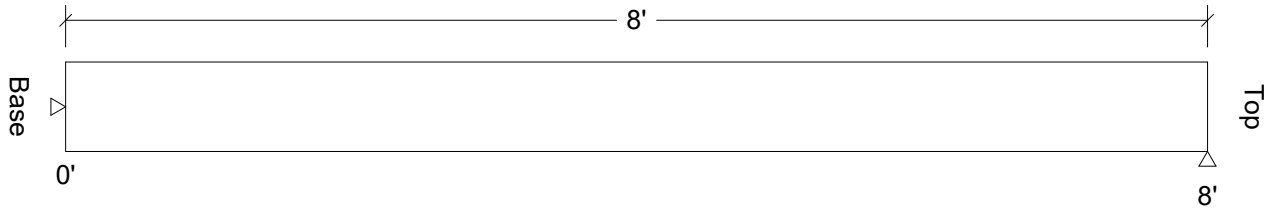
Design Check Calculation Sheet

WoodWorks Sizer 10.45

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
Load1	Dead	Axial		(Ecc. = 0.50")		7500		lbs
Load2	Live	Axial		(Ecc. = 0.50")		20500		lbs
Self-weight	Dead	Axial				78		lbs

Lateral Reactions (lbs):



Unfactored:			
Dead	39		-39
Live	107		-107
Factored:			
R->L			146
Load comb			#2
L->R	146		
Load comb	#2		#1

Timber-soft, D.Fir-L, No.1, 6x8 (5-1/2"x7-1/2")

Support: Non-wood

Total length: 8'; volume = 2.3 cu.ft.; Post and timber;

Pinned base; Load face = width(b); Ke x Lb: 1.0 x 0.0 = 0.0 [ft]; Ke x Ld: 1.0 x 8.0 = 8.0 [ft];

Analysis vs. Allowable Stress and Deflection using NDS 2012 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 5	Fv' = 170	psi	fv/Fv' = 0.03
Bending(+)	fb = 272	Fb' = 1200	psi	fb/Fb' = 0.23
Axial	fc = 681	Fc' = 916	psi	fc/Fc' = 0.74
Combined (axial + eccentric moment)				Eq.15.4-3 = 0.86
Axial Bearing	fc = 681	Fc* = 1000	psi	fc/Fc* = 0.68
Live Defl'n	0.02 = <L/999	0.53 = L/180	in	0.04
Total Defl'n	0.03 = <L/999	0.53 = L/180	in	0.06

Additional Data:

```
FACTORS:   F/E(psi)CD    CM    Ct   CL/CP   CF    Cfu    Cr   Cfrt   Ci    LC#
 Fv'        170    1.00  1.00  1.00    -      -     -     -    1.00  1.00    2
 Fb'+      1200    1.00  1.00  1.00  1.000  1.000  1.00  1.00  1.00  1.00    2
 Fc'       1000    1.00  1.00  1.00  0.916  1.000   -     -    1.00  1.00    2
 E'         1.6 million  1.00  1.00    -      -     -     -    1.00  1.00    2
 Emin'     0.58 million  1.00  1.00    -      -     -     -    1.00  1.00    2
 Fc*       1000    1.00  1.00  1.00    -    1.000   -     -    1.00  1.00    2
```

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D+L, V =    146, V design =    146 lbs
 Bending(+): LC #2  = D+L, M =   1167 lbs-ft
 Deflection: LC #2  = D+L  (live)
             LC #2  = D+L  (total)
 Axial     : LC #2  = D+L,  P = 28078 lbs
 Eq.15.4-3 : LC #2  = D+L   Fb'= 1200
             FcE= 2910     Pxe/S=fc(6xe/d)=  272
 D=dead L=live S=snow W=wind I=impact Lr=roof live Lc=concentrated E=earthquake
 All LC's are listed in the Analysis output
 Load combinations: ASCE 7-10 / IBC 2012
```

CALCULATIONS:

```
 Deflection:  EI =    309e06 lb-in2
 "Live" deflection = Deflection from all non-dead loads (live, wind, snow…)
 Total Deflection = 1.50(Dead Load Deflection) + Live Load Deflection.
```

Design Notes:

1. WoodWorks analysis and design are in accordance with the ICC International Building Code (IBC 2012), the National Design Specification (NDS 2012), and NDS Design Supplement.
2. Please verify that the default deflection limits are appropriate for your application.

	COMPANY	PROJECT
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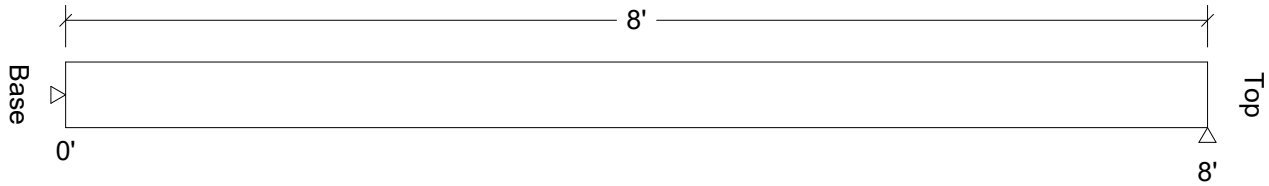
Design Check Calculation Sheet

WoodWorks Sizer 10.45

Loads:

Load	Type	Distribution	Pat-tern	Location [ft] Start	End	Magnitude Start	End	Unit
Load1	Dead	Axial		(Ecc. = 0.50")		3000		lbs
Load2	Live	Axial		(Ecc. = 0.50")		12000		lbs
Self-weight	Dead	Axial				57		lbs

Lateral Reactions (lbs):



Unfactored:			
Dead	16		-16
Live	63		-63
Factored:			
R->L			78
Load comb			#2
L->R	78		
Load comb	#2		#1

Timber-soft, D.Fir-L, No.1, 6x6 (5-1/2"x5-1/2")

Support: Non-wood

Total length: 8'; volume = 1.7 cu.ft.; Post and timber;

Pinned base; Load face = width(b); Ke x Lb: 1.0 x 0.0 = 0.0 [ft]; Ke x Ld: 1.0 x 8.0 = 8.0 [ft];

Analysis vs. Allowable Stress and Deflection using NDS 2012 :

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	fv = 4	Fv' = 170	psi	fv/Fv' = 0.02
Bending(+)	fb = 270	Fb' = 1200	psi	fb/Fb' = 0.23
Axial	fc = 498	Fc' = 820	psi	fc/Fc' = 0.61
Combined	(axial + eccentric moment)			Eq.15.4-3 = 0.72
Axial Bearing	fc = 498	Fc* = 1000	psi	fc/Fc* = 0.50
Live Defl'n	0.03 = <L/999	0.53 = L/180	in	0.05
Total Defl'n	0.04 = <L/999	0.53 = L/180	in	0.07

Additional Data:

```
FACTORS:   F/E(psi)CD    CM    Ct   CL/CP   CF    Cfu    Cr   Cfrt   Ci    LC#
 Fv'        170    1.00  1.00  1.00    -      -     -     -    1.00  1.00    2
 Fb'+      1200    1.00  1.00  1.00  1.000  1.000  1.00  1.00  1.00  1.00    2
 Fc'       1000    1.00  1.00  1.00  0.820  1.000   -     -    1.00  1.00    2
 E'         1.6 million  1.00  1.00    -      -     -     -    1.00  1.00    2
 Emin'     0.58 million  1.00  1.00    -      -     -     -    1.00  1.00    2
 Fc*       1000    1.00  1.00  1.00    -    1.000   -     -    1.00  1.00    2
```

CRITICAL LOAD COMBINATIONS:

```
 Shear     : LC #2  = D+L, V =     78, V design =     78 lbs
 Bending(+): LC #2  = D+L, M =    625 lbs-ft
 Deflection: LC #2  = D+L  (live)
             LC #2  = D+L  (total)
 Axial     : LC #2  = D+L,  P = 15057 lbs
 Eq.15.4-3 : LC #2  = D+L   Fb'= 1200
             FcE= 1565     Pxe/S=fc(6xe/d)=  270
 D=dead L=live S=snow W=wind I=impact Lr=roof live Lc=concentrated E=earthquake
 All LC's are listed in the Analysis output
 Load combinations: ASCE 7-10 / IBC 2012
```

CALCULATIONS:

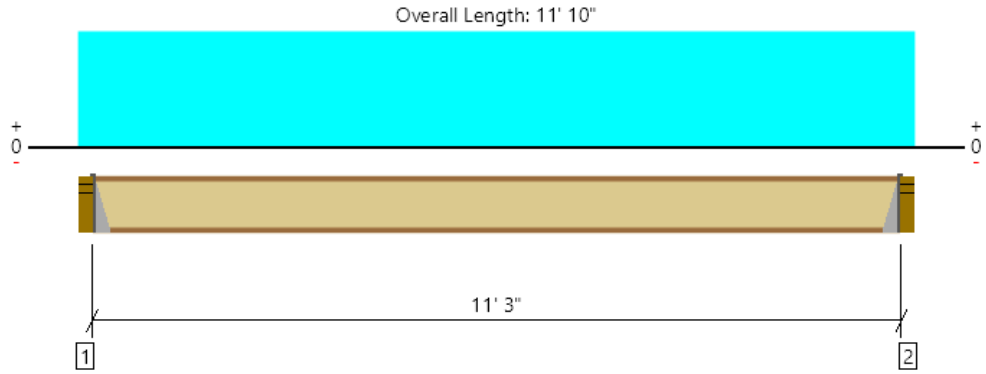
```
 Deflection:  EI =    122e06 lb-in2
 "Live" deflection = Deflection from all non-dead loads (live, wind, snow…)
 Total Deflection = 1.50(Dead Load Deflection) + Live Load Deflection.
```

Design Notes:

1. WoodWorks analysis and design are in accordance with the ICC International Building Code (IBC 2012), the National Design Specification (NDS 2012), and NDS Design Supplement.
2. Please verify that the default deflection limits are appropriate for your application.

Level, Floor: Joist

1 piece(s) 11 7/8" TJI® 560D @ 24" OC



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	686 @ 3 1/2"	1400 (1.75")	Passed (49%)	1.00	1.0 D + 1.0 L (All Spans)
Shear (lbs)	686 @ 3 1/2"	2255	Passed (30%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	1930 @ 5' 11"	9605	Passed (20%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.057 @ 5' 11"	0.375	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.088 @ 5' 11"	0.563	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
TJ-Pro™ Rating	56	40	Passed	--	--

System : Floor
Member Type : Joist
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Top Edge Bracing (Lu): Top compression edge must be braced at 11' 3" o/c unless detailed otherwise.
- Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 11' 3" o/c unless detailed otherwise.
- A structural analysis of the deck has not been performed.
- Deflection analysis is based on composite action with a single layer of 23/32" Weyerhaeuser Edge™ Panel (24" Span Rating) that is glued and nailed down.
- Additional considerations for the TJ-Pro™ Rating include: Pour Flooring Overlay.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on DF studWall	3.50"	Hanger[1]	1.75" / 1.75" [2]	249	473	722	See note [1]
2 - Hanger on DF studWall	3.50"	Hanger[1]	1.75" / 1.75" [2]	249	473	722	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.
- [2] Required Bearing Length / Required Bearing Length with Web Stiffeners

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Top Mount Hanger	ITS3.56/11.88	2.00"	4-10d	2-10d	2-Strong-Grip	
2 - Top Mount Hanger	ITS3.56/11.88	2.00"	4-10d	2-10d	2-Strong-Grip	

Vertical Loads	Location (Side)	Spacing	Dead (0.90)	Floor Live (1.00)	Comments
1 - Uniform (PSF)	0 to 11' 10"	24"	21.0	40.0	Default Load
2 - Point (lb)	0	N/A	-	-	
3 - Point (lb)	0	N/A	-	-	
4 - Point (lb)	0	N/A	-	-	
5 - Point (lb)	0	N/A	-	-	
6 - Point (lb)	0	N/A	-	-	
7 - Point (lb)	0	N/A	-	-	

ForteWEB Software Operator	Job Notes
Seth Davis Froelich Engineers (503) 924-6314 sdavis@froelich-engineers.com	

Weyerhaeuser Notes

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

Weyerhaeuser

SUSTAINABLE FORESTRY INITIATIVE

ForteWEB Software Operator	Job Notes
Seth Davis Froelich Engineers (503) 924-6314 sdavis@froelich-engineers.com	

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