

Structural Calculations

for

Beau McDonald Res.

6230 South 2125 East,
Uintah, Utah 84403

submitted to:

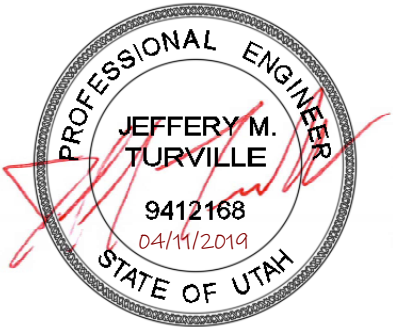
Larry's Pools and Spas
2984 S. Midland Drive
Ogden, Utah 84401
801-392-1127



Solutions you can build on

contact:

Jeff Turville, PE
5160 South 1500 West
Riverdale, UT 84405
801.621.3100
Jturville@reeve-assoc.com



Notice

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Project #

2304-H16

Design Criteria

Governing Building Code: 2015 International Building Code
Type of Construction: CMU Reinforced Pool Walls

Construction Materials

Concrete 28-Day Compressive Strength

Footings: $f'_c = 4500$ psi (2500 psi Design)
Slabs on Grade: $f'_c = 4500$ psi (2500 psi Design)
Reinforcing Grade: ASTM A615 Grade 60

Masonry $f'_c = 1500$ psi

Soil Criteria

Geotechnical Consultant: None
Report Number: None
Bearing Pressure: 1500 psf (Assumed)
(Owner/Contractor to verify proper bearing conditions are provided)

Reeve & Associates, Inc.
Solutions You Can Build On
5160 South 1500 West • Riverdale, Utah 84405
Tel: 801-621-3100
Fax: 801-621-2666
Email: jturville@reeve-assoc.com
Website: www.reeve-assoc.com





Reeve
 & Associates, Inc.

5160 SOUTH 1500 WEST, RIVERDALE, UTAH 84405
 TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-assoc.com
 LAND PLANNERS * CIVIL ENGINEERS * LAND SURVEYORS
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LARRY'S POOLS & SPAS
40'-0" SPAN

ENGINEER: J.M.T.

DRAFTER: A.W.B.

Sheet	S3
S1	Sheets

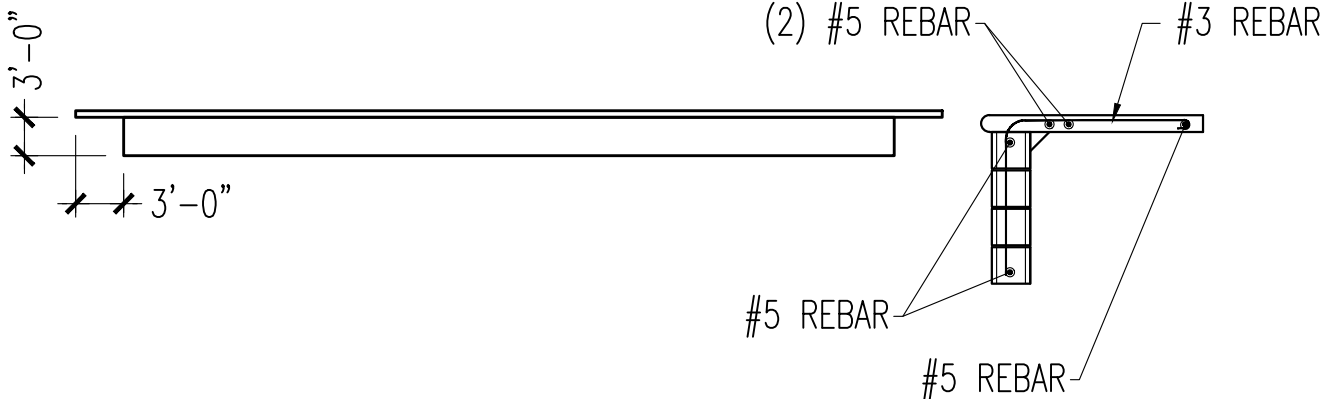
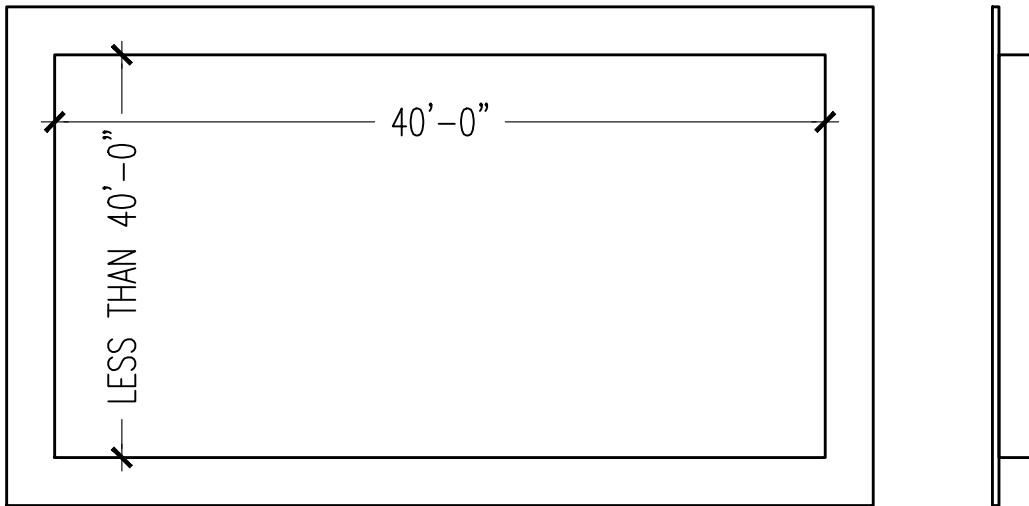
APRON WALL DESIGN

MASONRY WALL HEIGHT 32"

POOL PERIMETER

3-1/2" x 3'-0" CONCRETE SLAB AROUND PERIMETER

8" x 8" x 16" CONCRETE BLOCK WITH #5 REBAR HORIZ. & #3 REBAR VERT.





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LARRY'S POOLS & SPAS 40'-0" SPAN

ENGINEER: J.M.T.

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Sheet	S3
S2	Sheets

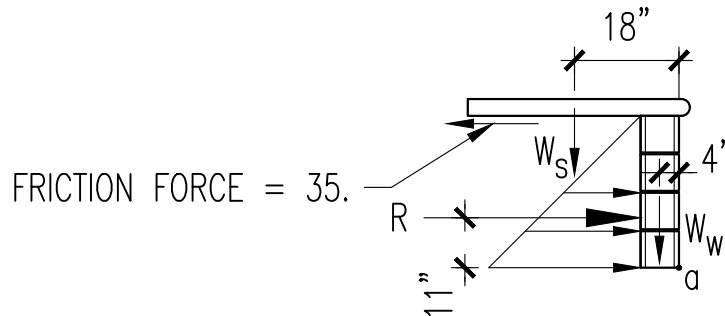
CHECK FORCES WHEN POOL IS DRAINED.

LOOK @ 1'-0" SECTION OF WALL

$$W_s = (3 - 1/2") (1' / 12") (150 \text{ PCF}) (1') (3') = 131 \text{ PLF @ } 18"$$

$$W_w = (8") (1' / 12") (150 \text{ PCF}) (1') (32") (1' / 12") = 266 \text{ PLF @ } 4"$$

$$R = (1/2) (100) (32 / 12) = 356 \text{ PLF @ } (1/3) (32 / 12)^2 = 0.89' \text{ (11" FROM BOTTOM)}$$



FRICION FORCE = 35.

$$\sum M_a = 0$$

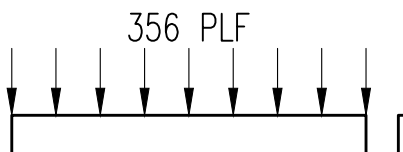
$$O.M. = (356)(11) = 3916 \text{ LB-IN}$$

$$R.M. = (131)(18) + (266)(4) + (35)(32) = 4542 \text{ LB-IN}$$

ASSUME: DRAINED FOR VERY SHORT PERIODS OF TIME
& NEVER DRAINED UNDER SATURATED SOIL CONDITIONS.

ENDWALLS BRACE 40' WALL Laterally

3'-0" CONCRETE PAD AND MASONRY WALL ACT COMPOSITELY AS A BEAM





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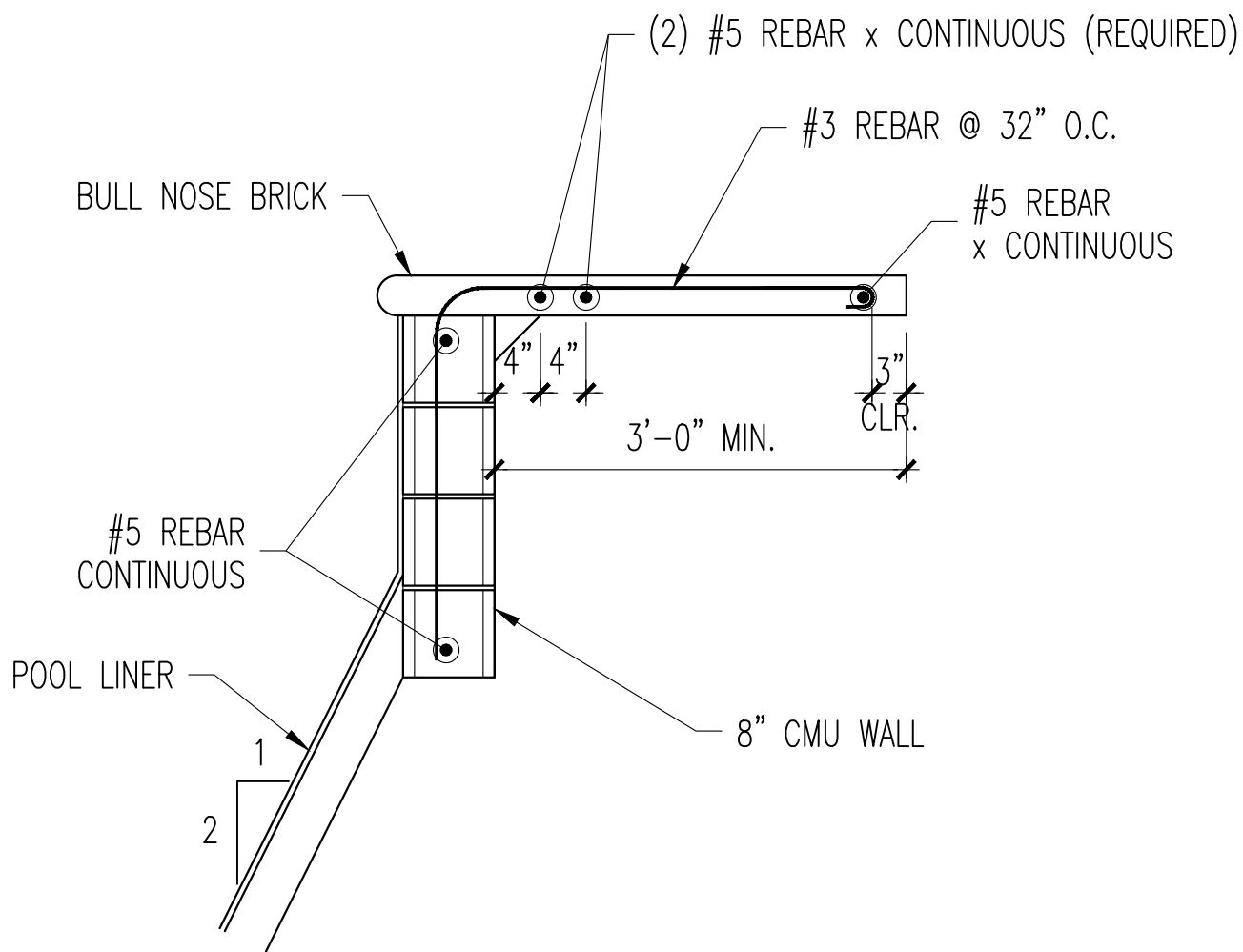
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LARRY'S POOLS & SPAS 40'-0" SPAN

ENGINEER: J.M.T.

DRAFTER: A.W.B.

Sheet	S3
S3	Sheets



Concrete Beam

File = c:\Users\lear\DOCUME~1\ENERCA~1\TYPICA~1.EC6
ENERCALC, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

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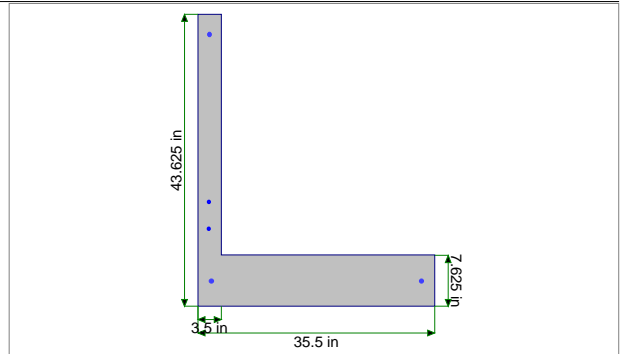
Description: Pool Composite Section - 40 Foot

CODE REFERENCES

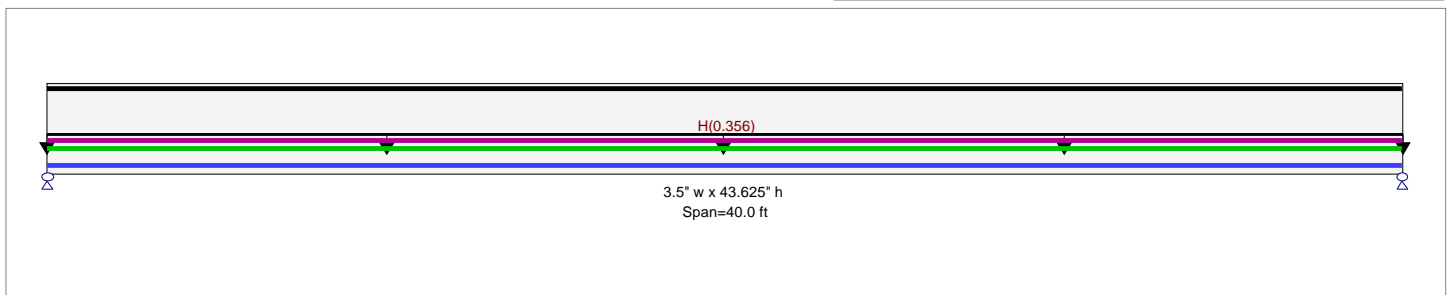
Calculations per ACI 318-11, IBC 2015 ASCE 7-10
Load Combination Set: IBC 2015

Material Properties

f'_c	=	4.0 ksi	ϕ Phi Values	Flexure :	0.90
$f_r = f'_c^{1/2} * 7.50$	=	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	=	1.0



Load Combination IBC 2012



Cross Section & Reinforcing Details

L Section, Stem Width = 3.50 in, Total Height = 43.625 in, Bottom Flange Width = 35.50 in, Flange Thickness = 7.625 in

Span #1 Reinforcing....

2-#5 at 3.813 in from Bottom, from 0.0 to 44.0 ft in this span

1-#5 at 16.0 in from Bottom, from 0.0 to 44.0 ft in this span

1-#5 at 12.0 in from Bottom, from 0.0 to 44.0 ft in this span

1-#5 at 3.0 in from Top, from 0.0 to 44.0 ft in this span

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Load for Span Number 1

Uniform Load : H = 0.3560 k/ft, Tributary Width = 1.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio =	0.637 : 1	Maximum Deflection	
Section used for this span	Typical Section	Max Downward Transient Deflection	0.126 in Ratio = 3803
Mu : Applied	113.920 k-ft	Max Upward Transient Deflection	0.000 in Ratio = 0 < 360
Mn * Phi : Allowable	178.908 k-ft	Max Downward Total Deflection	0.126 in Ratio = 3803
Load Combination	+1.40D+1.60H	Max Upward Total Deflection	0.000 in Ratio = 999 < 180
Location of maximum on span	20.000ft		
Span # where maximum occurs	Span # 1		

Vertical Reactions

Support notation : Far left is #1

Load Combination	Support 1	Support 2
Overall MAXimum	7.120	7.120
Overall MINimum	4.272	4.272
+D+H	7.120	7.120
+D+L+H	7.120	7.120
+D+Lr+H	7.120	7.120
+D+S+H	7.120	7.120
+D+0.750Lr+0.750L+H	7.120	7.120
+D+0.750L+0.750S+H	7.120	7.120
+D+0.60W+H	7.120	7.120
+D+0.70E+H	7.120	7.120
+D+0.750Lr+0.750L+0.450W+H	7.120	7.120
+D+0.750L+0.750S+0.450W+H	7.120	7.120
+D+0.750L+0.750S+0.5250E+H	7.120	7.120
+0.60D+0.60W+0.60H	4.272	4.272

Concrete Beam

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Description: Pool Composite Section - 40 Foot

Vertical Reactions

Support notation: Far left is #1

Load Combination	Support 1	Support 2
+0.60D+0.70E+0.60H	4.272	4.272
D Only		
Lr Only		
L Only		
S Only		
W Only		
E Only		
H Only	7.120	7.120

Shear Stirrup Requirements

Entire Beam Span Length: $\Phi V_c/2 < V_u \leq \Phi V_c$, Req'd Vs = Not Req'd, use stirrups spaced at 0.000 in

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Location (ft) in Span	Bending Stress Results (k-ft)		
				Mu: Max	Phi*Mnx	Stress Ratio
MAXimum BENDING Envelope						
Span # 1		1	40.000	113.92	178.91	0.64
+1.40D+1.60H		1	40.000	113.92	178.91	0.64
+1.20D+0.50Lr+1.60L+1.60H		1	40.000	113.92	178.91	0.64
+1.20D+1.60L+0.50S+1.60H		1	40.000	113.92	178.91	0.64
+1.20D+1.60Lr+0.50L+1.60H		1	40.000	113.92	178.91	0.64
+1.20D+1.60Lr+0.50W+1.60H		1	40.000	113.92	178.91	0.64
+1.20D+0.50L+1.60S+1.60H		1	40.000	113.92	178.91	0.64
+1.20D+1.60S+0.50W+1.60H		1	40.000	113.92	178.91	0.64
+1.20D+0.50Lr+0.50L+W+1.60H		1	40.000	113.92	178.91	0.64
+1.20D+0.50L+0.50S+W+1.60H		1	40.000	113.92	178.91	0.64
+1.20D+0.50L+0.70S+E+1.60H		1	40.000	113.92	178.91	0.64
+0.90D+W+0.90H		1	40.000	64.08	178.91	0.36
+0.90D+E+0.90H		1	40.000	64.08	178.91	0.36

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
H Only	1	0.1262	20.400		0.0000	0.000

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+0.50L+0.70S+E+1.60I	1	0.00	39.81	11.39	11.39	0.00	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.09	39.81	11.34	11.34	1.01	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.18	39.81	11.29	11.29	2.02	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.27	39.81	11.24	11.24	3.02	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.36	39.81	11.19	11.19	4.01	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.44	39.81	11.14	11.14	5.01	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.53	39.81	11.09	11.09	5.99	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.62	39.81	11.04	11.04	6.98	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.71	39.81	10.99	10.99	7.96	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.80	39.81	10.94	10.94	8.93	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.89	39.81	10.89	10.89	9.90	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	0.98	39.81	10.84	10.84	10.87	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.07	39.81	10.78	10.78	11.83	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.16	39.81	10.73	10.73	12.78	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.24	39.81	10.68	10.68	13.74	1.00	14.88	PhiVc/2 < Vu <=	Not Req'd	14.9	0.0	0.0

Concrete Beam

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ENERCALC, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

Lic. #: KW-06010158

Licensee: REEVE & ASSOCIATES

Description: Pool Composite Section - 40 Foot

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k)		Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in)	
				Actual	Design							Req'd	Suggest
+1.20D+0.50L+0.70S+E+1.60I	1	1.33	39.81	10.63	10.63	14.68	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.42	39.81	10.58	10.58	15.63	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.51	39.81	10.53	10.53	16.56	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.60	39.81	10.48	10.48	17.50	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.69	39.81	10.43	10.43	18.43	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.78	39.81	10.38	10.38	19.35	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.87	39.81	10.33	10.33	20.27	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	1.96	39.81	10.28	10.28	21.19	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.04	39.81	10.23	10.23	22.10	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.13	39.81	10.18	10.18	23.01	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.22	39.81	10.13	10.13	23.91	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.31	39.81	10.08	10.08	24.81	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.40	39.81	10.02	10.02	25.70	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.49	39.81	9.97	9.97	26.59	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.58	39.81	9.92	9.92	27.47	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.67	39.81	9.87	9.87	28.35	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.76	39.81	9.82	9.82	29.23	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.84	39.81	9.77	9.77	30.10	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	2.93	39.81	9.72	9.72	30.97	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.02	39.81	9.67	9.67	31.83	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.11	39.81	9.62	9.62	32.69	0.98	14.83	PhiVc/2 < Vu <=	Not Reqd	14.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.20	39.81	9.57	9.57	33.54	0.95	14.76	PhiVc/2 < Vu <=	Not Reqd	14.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.29	39.81	9.52	9.52	34.39	0.92	14.69	PhiVc/2 < Vu <=	Not Reqd	14.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.38	39.81	9.47	9.47	35.23	0.89	14.63	PhiVc/2 < Vu <=	Not Reqd	14.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.47	39.81	9.42	9.42	36.07	0.87	14.57	PhiVc/2 < Vu <=	Not Reqd	14.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.56	39.81	9.37	9.37	36.90	0.84	14.52	PhiVc/2 < Vu <=	Not Reqd	14.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.64	39.81	9.32	9.32	37.73	0.82	14.46	PhiVc/2 < Vu <=	Not Reqd	14.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.73	39.81	9.27	9.27	38.56	0.80	14.41	PhiVc/2 < Vu <=	Not Reqd	14.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.82	39.81	9.21	9.21	39.38	0.78	14.36	PhiVc/2 < Vu <=	Not Reqd	14.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	3.91	39.81	9.16	9.16	40.20	0.76	14.32	PhiVc/2 < Vu <=	Not Reqd	14.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.00	39.81	9.11	9.11	41.01	0.74	14.27	PhiVc/2 < Vu <=	Not Reqd	14.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.09	39.81	9.06	9.06	41.82	0.72	14.23	PhiVc/2 < Vu <=	Not Reqd	14.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.18	39.81	9.01	9.01	42.62	0.70	14.19	PhiVc/2 < Vu <=	Not Reqd	14.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.27	39.81	8.96	8.96	43.42	0.68	14.15	PhiVc/2 < Vu <=	Not Reqd	14.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.36	39.81	8.91	8.91	44.22	0.67	14.11	PhiVc/2 < Vu <=	Not Reqd	14.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.44	39.81	8.86	8.86	45.01	0.65	14.08	PhiVc/2 < Vu <=	Not Reqd	14.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.53	39.81	8.81	8.81	45.79	0.64	14.04	PhiVc/2 < Vu <=	Not Reqd	14.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.62	39.81	8.76	8.76	46.57	0.62	14.01	PhiVc/2 < Vu <=	Not Reqd	14.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.71	39.81	8.71	8.71	47.35	0.61	13.98	PhiVc/2 < Vu <=	Not Reqd	14.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.80	39.81	8.66	8.66	48.12	0.60	13.95	PhiVc/2 < Vu <=	Not Reqd	13.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.89	39.81	8.61	8.61	48.89	0.58	13.92	PhiVc/2 < Vu <=	Not Reqd	13.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	4.98	39.81	8.56	8.56	49.65	0.57	13.89	PhiVc/2 < Vu <=	Not Reqd	13.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.07	39.81	8.51	8.51	50.41	0.56	13.86	PhiVc/2 < Vu <=	Not Reqd	13.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.16	39.81	8.46	8.46	51.16	0.55	13.83	PhiVc/2 < Vu <=	Not Reqd	13.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.24	39.81	8.40	8.40	51.91	0.54	13.81	PhiVc/2 < Vu <=	Not Reqd	13.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.33	39.81	8.35	8.35	52.66	0.53	13.78	PhiVc/2 < Vu <=	Not Reqd	13.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.42	39.81	8.30	8.30	53.40	0.52	13.76	PhiVc/2 < Vu <=	Not Reqd	13.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.51	39.81	8.25	8.25	54.13	0.51	13.73	PhiVc/2 < Vu <=	Not Reqd	13.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.60	39.81	8.20	8.20	54.86	0.50	13.71	PhiVc/2 < Vu <=	Not Reqd	13.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.69	39.81	8.15	8.15	55.59	0.49	13.69	PhiVc/2 < Vu <=	Not Reqd	13.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.78	39.81	8.10	8.10	56.31	0.48	13.67	PhiVc/2 < Vu <=	Not Reqd	13.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.87	39.81	8.05	8.05	57.03	0.47	13.65	PhiVc/2 < Vu <=	Not Reqd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	5.96	39.81	8.00	8.00	57.74	0.46	13.63	PhiVc/2 < Vu <=	Not Reqd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.04	39.81	7.95	7.95	58.45	0.45	13.61	PhiVc/2 < Vu <=	Not Reqd	13.6	0.0	0.0

Concrete Beam

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ENERCALC, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

Lic. #: KW-06010158

Licensee: REEVE & ASSOCIATES

Description: Pool Composite Section - 40 Foot

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k)		Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in)	
				Actual	Design							Req'd	Suggest
+1.20D+0.50L+0.70S+E+1.60I	1	6.13	39.81	7.90	7.90	59.16	0.44	13.59	PhiVc/2 < Vu <=	Not Req'd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.22	39.81	7.85	7.85	59.86	0.43	13.57	PhiVc/2 < Vu <=	Not Req'd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.31	39.81	7.80	7.80	60.55	0.43	13.55	PhiVc/2 < Vu <=	Not Req'd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.40	39.81	7.75	7.75	61.24	0.42	13.53	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.49	39.81	7.70	7.70	61.93	0.41	13.52	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.58	39.81	7.65	7.65	62.61	0.41	13.50	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.67	39.81	7.59	7.59	63.29	0.40	13.48	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.76	39.81	7.54	7.54	63.96	0.39	13.47	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.84	39.81	7.49	7.49	64.63	0.38	13.45	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	6.93	39.81	7.44	7.44	65.29	0.38	13.44	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.02	39.81	7.39	7.39	65.95	0.37	13.42	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.11	39.81	7.34	7.34	66.61	0.37	13.41	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.20	39.81	7.29	7.29	67.26	0.36	13.39	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.29	39.81	7.24	7.24	67.90	0.35	13.38	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.38	39.81	7.19	7.19	68.55	0.35	13.37	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.47	39.81	7.14	7.14	69.18	0.34	13.35	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.56	39.81	7.09	7.09	69.81	0.34	13.34	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.64	39.81	7.04	7.04	70.44	0.33	13.33	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.73	39.81	6.99	6.99	71.07	0.33	13.32	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.82	39.81	6.94	6.94	71.68	0.32	13.30	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	7.91	39.81	6.89	6.89	72.30	0.32	13.29	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.00	39.81	6.84	6.84	72.91	0.31	13.28	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.09	39.81	6.78	6.78	73.51	0.31	13.27	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.18	39.81	6.73	6.73	74.11	0.30	13.26	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.27	39.81	6.68	6.68	74.71	0.30	13.25	PhiVc/2 < Vu <=	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.36	39.81	6.63	6.63	75.30	0.29	13.24	PhiVc/2 < Vu <=	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.44	39.81	6.58	6.58	75.89	0.29	13.23	Vu < PhiVc/2	Not Req'd 1	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.53	39.81	6.53	6.53	76.47	0.28	13.22	Vu < PhiVc/2	Not Req'd 1	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.62	39.81	6.48	6.48	77.05	0.28	13.21	Vu < PhiVc/2	Not Req'd 1	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.71	39.81	6.43	6.43	77.63	0.27	13.20	Vu < PhiVc/2	Not Req'd 1	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.80	39.81	6.38	6.38	78.19	0.27	13.19	Vu < PhiVc/2	Not Req'd 1	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.89	39.81	6.33	6.33	78.76	0.27	13.18	Vu < PhiVc/2	Not Req'd 1	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	8.98	39.81	6.28	6.28	79.32	0.26	13.17	Vu < PhiVc/2	Not Req'd 1	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.07	39.81	6.23	6.23	79.88	0.26	13.16	Vu < PhiVc/2	Not Req'd 1	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.16	39.81	6.18	6.18	80.43	0.25	13.15	Vu < PhiVc/2	Not Req'd 1	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.24	39.81	6.13	6.13	80.97	0.25	13.14	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.33	39.81	6.08	6.08	81.52	0.25	13.13	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.42	39.81	6.03	6.03	82.05	0.24	13.12	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.51	39.81	5.97	5.97	82.59	0.24	13.12	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.60	39.81	5.92	5.92	83.12	0.24	13.11	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.69	39.81	5.87	5.87	83.64	0.23	13.10	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.78	39.81	5.82	5.82	84.16	0.23	13.09	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.87	39.81	5.77	5.77	84.68	0.23	13.08	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	9.96	39.81	5.72	5.72	85.19	0.22	13.08	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.04	39.81	5.67	5.67	85.69	0.22	13.07	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.13	39.81	5.62	5.62	86.19	0.22	13.06	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.22	39.81	5.57	5.57	86.69	0.21	13.05	Vu < PhiVc/2	Not Req'd 1	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.31	39.81	5.52	5.52	87.18	0.21	13.05	Vu < PhiVc/2	Not Req'd 1	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.40	39.81	5.47	5.47	87.67	0.21	13.04	Vu < PhiVc/2	Not Req'd 1	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.49	39.81	5.42	5.42	88.16	0.20	13.03	Vu < PhiVc/2	Not Req'd 1	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.58	39.81	5.37	5.37	88.64	0.20	13.03	Vu < PhiVc/2	Not Req'd 1	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.67	39.81	5.32	5.32	89.11	0.20	13.02	Vu < PhiVc/2	Not Req'd 1	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.76	39.81	5.27	5.27	89.58	0.20	13.01	Vu < PhiVc/2	Not Req'd 1	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	10.84	39.81	5.22	5.22	90.05	0.19	13.01	Vu < PhiVc/2	Not Req'd 1	13.0	0.0	0.0

Concrete Beam

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ENERCALC, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

Lic. #: KW-06010158

Licensee: REEVE & ASSOCIATES

Description: Pool Composite Section - 40 Foot

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k)		Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in)	
				Actual	Design							Req'd	Suggest
+1.20D+0.50L+0.70S+E+1.60I	1	10.93	39.81	5.16	5.16	90.51	0.19	13.00	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.02	39.81	5.11	5.11	90.96	0.19	12.99	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.11	39.81	5.06	5.06	91.42	0.18	12.99	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.20	39.81	5.01	5.01	91.87	0.18	12.98	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.29	39.81	4.96	4.96	92.31	0.18	12.97	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.38	39.81	4.91	4.91	92.75	0.18	12.97	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.47	39.81	4.86	4.86	93.18	0.17	12.96	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.56	39.81	4.81	4.81	93.61	0.17	12.95	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.64	39.81	4.76	4.76	94.04	0.17	12.95	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.73	39.81	4.71	4.71	94.46	0.17	12.94	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.82	39.81	4.66	4.66	94.87	0.16	12.94	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	11.91	39.81	4.61	4.61	95.29	0.16	12.93	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.00	39.81	4.56	4.56	95.69	0.16	12.93	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.09	39.81	4.51	4.51	96.10	0.16	12.92	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.18	39.81	4.46	4.46	96.49	0.15	12.91	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.27	39.81	4.40	4.40	96.89	0.15	12.91	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.36	39.81	4.35	4.35	97.28	0.15	12.90	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.44	39.81	4.30	4.30	97.66	0.15	12.90	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.53	39.81	4.25	4.25	98.04	0.14	12.89	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.62	39.81	4.20	4.20	98.42	0.14	12.89	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.71	39.81	4.15	4.15	98.79	0.14	12.88	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.80	39.81	4.10	4.10	99.16	0.14	12.88	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.89	39.81	4.05	4.05	99.52	0.14	12.87	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	12.98	39.81	4.00	4.00	99.88	0.13	12.87	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.07	39.81	3.95	3.95	100.23	0.13	12.86	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.16	39.81	3.90	3.90	100.58	0.13	12.86	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.24	39.81	3.85	3.85	100.92	0.13	12.85	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.33	39.81	3.80	3.80	101.26	0.12	12.85	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.42	39.81	3.75	3.75	101.60	0.12	12.84	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.51	39.81	3.70	3.70	101.93	0.12	12.84	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.60	39.81	3.65	3.65	102.25	0.12	12.83	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.69	39.81	3.59	3.59	102.58	0.12	12.83	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.78	39.81	3.54	3.54	102.89	0.11	12.82	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.87	39.81	3.49	3.49	103.21	0.11	12.82	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	13.96	39.81	3.44	3.44	103.51	0.11	12.81	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.04	39.81	3.39	3.39	103.82	0.11	12.81	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.13	39.81	3.34	3.34	104.12	0.11	12.81	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.22	39.81	3.29	3.29	104.41	0.10	12.80	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.31	39.81	3.24	3.24	104.70	0.10	12.80	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.40	39.81	3.19	3.19	104.99	0.10	12.79	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.49	39.81	3.14	3.14	105.27	0.10	12.79	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.58	39.81	3.09	3.09	105.55	0.10	12.78	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.67	39.81	3.04	3.04	105.82	0.10	12.78	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.76	39.81	2.99	2.99	106.09	0.09	12.78	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.84	39.81	2.94	2.94	106.35	0.09	12.77	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	14.93	39.81	2.89	2.89	106.61	0.09	12.77	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.02	39.81	2.84	2.84	106.86	0.09	12.76	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.11	39.81	2.78	2.78	107.11	0.09	12.76	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.20	39.81	2.73	2.73	107.36	0.08	12.75	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.29	39.81	2.68	2.68	107.60	0.08	12.75	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.38	39.81	2.63	2.63	107.84	0.08	12.75	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.47	39.81	2.58	2.58	108.07	0.08	12.74	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.56	39.81	2.53	2.53	108.29	0.08	12.74	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.64	39.81	2.48	2.48	108.52	0.08	12.73	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0

Concrete Beam

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ENERCALC, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

Lic. #: KW-06010158

Licensee: REEVE & ASSOCIATES

Description: Pool Composite Section - 40 Foot

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k)		Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in)	
				Actual	Design							Req'd	Suggest
+1.20D+0.50L+0.70S+E+1.60I	1	15.73	39.81	2.43	2.43	108.74	0.07	12.73	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.82	39.81	2.38	2.38	108.95	0.07	12.73	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	15.91	39.81	2.33	2.33	109.16	0.07	12.72	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.00	39.81	2.28	2.28	109.36	0.07	12.72	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.09	39.81	2.23	2.23	109.56	0.07	12.72	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.18	39.81	2.18	2.18	109.76	0.07	12.71	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.27	39.81	2.13	2.13	109.95	0.06	12.71	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.36	39.81	2.08	2.08	110.14	0.06	12.70	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.44	39.81	2.03	2.03	110.32	0.06	12.70	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.53	39.81	1.97	1.97	110.50	0.06	12.70	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.62	39.81	1.92	1.92	110.67	0.06	12.69	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.71	39.81	1.87	1.87	110.84	0.06	12.69	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.80	39.81	1.82	1.82	111.00	0.05	12.69	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.89	39.81	1.77	1.77	111.16	0.05	12.68	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	16.98	39.81	1.72	1.72	111.32	0.05	12.68	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.07	39.81	1.67	1.67	111.47	0.05	12.67	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.16	39.81	1.62	1.62	111.62	0.05	12.67	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.24	39.81	1.57	1.57	111.76	0.05	12.67	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.33	39.81	1.52	1.52	111.89	0.05	12.66	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.42	39.81	1.47	1.47	112.03	0.04	12.66	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.51	39.81	1.42	1.42	112.16	0.04	12.66	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.60	39.81	1.37	1.37	112.28	0.04	12.65	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.69	39.81	1.32	1.32	112.40	0.04	12.65	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.78	39.81	1.27	1.27	112.51	0.04	12.65	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.87	39.81	1.22	1.22	112.62	0.04	12.64	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	17.96	39.81	1.16	1.16	112.73	0.03	12.64	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.04	39.81	1.11	1.11	112.83	0.03	12.63	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.13	39.81	1.06	1.06	112.93	0.03	12.63	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.22	39.81	1.01	1.01	113.02	0.03	12.63	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.31	39.81	0.96	0.96	113.11	0.03	12.62	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.40	39.81	0.91	0.91	113.19	0.03	12.62	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.49	39.81	0.86	0.86	113.27	0.03	12.62	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.58	39.81	0.81	0.81	113.34	0.02	12.61	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.67	39.81	0.76	0.76	113.41	0.02	12.61	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.76	39.81	0.71	0.71	113.48	0.02	12.61	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.84	39.81	0.66	0.66	113.54	0.02	12.60	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	18.93	39.81	0.61	0.61	113.60	0.02	12.60	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.02	39.81	0.56	0.56	113.65	0.02	12.60	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.11	39.81	0.51	0.51	113.69	0.01	12.59	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.20	39.81	0.46	0.46	113.74	0.01	12.59	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.29	39.81	0.41	0.41	113.78	0.01	12.59	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.38	39.81	0.35	0.35	113.81	0.01	12.58	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.47	39.81	0.30	0.30	113.84	0.01	12.58	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.56	39.81	0.25	0.25	113.86	0.01	12.58	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.64	39.81	0.20	0.20	113.88	0.01	12.57	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.73	39.81	0.15	0.15	113.90	0.00	12.57	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.82	39.81	0.10	0.10	113.91	0.00	12.57	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	19.91	39.81	0.05	0.05	113.92	0.00	12.56	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.00	39.81	0.00	0.00	113.92	0.00	12.56	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.09	39.81	-0.05	0.05	113.92	0.00	12.56	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.18	39.81	-0.10	0.10	113.91	0.00	12.57	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.27	39.81	-0.15	0.15	113.90	0.00	12.57	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.36	39.81	-0.20	0.20	113.88	0.01	12.57	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.44	39.81	-0.25	0.25	113.86	0.01	12.58	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0

Concrete Beam

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ENERCALC, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

Lic. #: KW-06010158

Licensee: REEVE & ASSOCIATES

Description: Pool Composite Section - 40 Foot

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k)		Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in)	
				Actual	Design							Req'd	Suggest
+1.20D+0.50L+0.70S+E+1.60I	1	20.53	39.81	-0.30	0.30	113.84	0.01	12.58	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.62	39.81	-0.35	0.35	113.81	0.01	12.58	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.71	39.81	-0.41	0.41	113.78	0.01	12.59	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.80	39.81	-0.46	0.46	113.74	0.01	12.59	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.89	39.81	-0.51	0.51	113.69	0.01	12.59	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	20.98	39.81	-0.56	0.56	113.65	0.02	12.60	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.07	39.81	-0.61	0.61	113.60	0.02	12.60	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.16	39.81	-0.66	0.66	113.54	0.02	12.60	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.24	39.81	-0.71	0.71	113.48	0.02	12.61	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.33	39.81	-0.76	0.76	113.41	0.02	12.61	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.42	39.81	-0.81	0.81	113.34	0.02	12.61	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.51	39.81	-0.86	0.86	113.27	0.03	12.62	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.60	39.81	-0.91	0.91	113.19	0.03	12.62	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.69	39.81	-0.96	0.96	113.11	0.03	12.62	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.78	39.81	-1.01	1.01	113.02	0.03	12.63	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.87	39.81	-1.06	1.06	112.93	0.03	12.63	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	21.96	39.81	-1.11	1.11	112.83	0.03	12.63	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.04	39.81	-1.16	1.16	112.73	0.03	12.64	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.13	39.81	-1.22	1.22	112.62	0.04	12.64	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.22	39.81	-1.27	1.27	112.51	0.04	12.65	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.31	39.81	-1.32	1.32	112.40	0.04	12.65	Vu < PhiVc/2	Not Req'd	12.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.40	39.81	-1.37	1.37	112.28	0.04	12.65	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.49	39.81	-1.42	1.42	112.16	0.04	12.66	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.58	39.81	-1.47	1.47	112.03	0.04	12.66	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.67	39.81	-1.52	1.52	111.89	0.05	12.66	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.76	39.81	-1.57	1.57	111.76	0.05	12.67	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.84	39.81	-1.62	1.62	111.62	0.05	12.67	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	22.93	39.81	-1.67	1.67	111.47	0.05	12.67	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.02	39.81	-1.72	1.72	111.32	0.05	12.68	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.11	39.81	-1.77	1.77	111.16	0.05	12.68	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.20	39.81	-1.82	1.82	111.00	0.05	12.69	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.29	39.81	-1.87	1.87	110.84	0.06	12.69	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.38	39.81	-1.92	1.92	110.67	0.06	12.69	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.47	39.81	-1.97	1.97	110.50	0.06	12.70	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.56	39.81	-2.03	2.03	110.32	0.06	12.70	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.64	39.81	-2.08	2.08	110.14	0.06	12.70	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.73	39.81	-2.13	2.13	109.95	0.06	12.71	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.82	39.81	-2.18	2.18	109.76	0.07	12.71	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	23.91	39.81	-2.23	2.23	109.56	0.07	12.72	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.00	39.81	-2.28	2.28	109.36	0.07	12.72	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.09	39.81	-2.33	2.33	109.16	0.07	12.72	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.18	39.81	-2.38	2.38	108.95	0.07	12.73	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.27	39.81	-2.43	2.43	108.74	0.07	12.73	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.36	39.81	-2.48	2.48	108.52	0.08	12.73	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.44	39.81	-2.53	2.53	108.29	0.08	12.74	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.53	39.81	-2.58	2.58	108.07	0.08	12.74	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.62	39.81	-2.63	2.63	107.84	0.08	12.75	Vu < PhiVc/2	Not Req'd	12.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.71	39.81	-2.68	2.68	107.60	0.08	12.75	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.80	39.81	-2.73	2.73	107.36	0.08	12.75	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.89	39.81	-2.78	2.78	107.11	0.09	12.76	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	24.98	39.81	-2.84	2.84	106.86	0.09	12.76	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.07	39.81	-2.89	2.89	106.61	0.09	12.77	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.16	39.81	-2.94	2.94	106.35	0.09	12.77	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.24	39.81	-2.99	2.99	106.09	0.09	12.78	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0

Concrete Beam

File = c:\Users\lear\DOCUME~1\ENERCA~1\TYPICA~1.EC6
ENERCAL, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

Lic. #: KW-06010158

Licensee: REEVE & ASSOCIATES

Description: Pool Composite Section - 40 Foot

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k)		Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in)	
				Actual	Design							Req'd	Suggest
+1.20D+0.50L+0.70S+E+1.60I	1	25.33	39.81	-3.04	3.04	105.82	0.10	12.78	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.42	39.81	-3.09	3.09	105.55	0.10	12.78	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.51	39.81	-3.14	3.14	105.27	0.10	12.79	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.60	39.81	-3.19	3.19	104.99	0.10	12.79	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.69	39.81	-3.24	3.24	104.70	0.10	12.80	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.78	39.81	-3.29	3.29	104.41	0.10	12.80	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.87	39.81	-3.34	3.34	104.12	0.11	12.81	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	25.96	39.81	-3.39	3.39	103.82	0.11	12.81	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.04	39.81	-3.44	3.44	103.51	0.11	12.81	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.13	39.81	-3.49	3.49	103.21	0.11	12.82	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.22	39.81	-3.54	3.54	102.89	0.11	12.82	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.31	39.81	-3.59	3.59	102.58	0.12	12.83	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.40	39.81	-3.65	3.65	102.25	0.12	12.83	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.49	39.81	-3.70	3.70	101.93	0.12	12.84	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.58	39.81	-3.75	3.75	101.60	0.12	12.84	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.67	39.81	-3.80	3.80	101.26	0.12	12.85	Vu < PhiVc/2	Not Req'd	12.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.76	39.81	-3.85	3.85	100.92	0.13	12.85	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.84	39.81	-3.90	3.90	100.58	0.13	12.86	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	26.93	39.81	-3.95	3.95	100.23	0.13	12.86	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.02	39.81	-4.00	4.00	99.88	0.13	12.87	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.11	39.81	-4.05	4.05	99.52	0.14	12.87	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.20	39.81	-4.10	4.10	99.16	0.14	12.88	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.29	39.81	-4.15	4.15	98.79	0.14	12.88	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.38	39.81	-4.20	4.20	98.42	0.14	12.89	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.47	39.81	-4.25	4.25	98.04	0.14	12.89	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.56	39.81	-4.30	4.30	97.66	0.15	12.90	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.64	39.81	-4.35	4.35	97.28	0.15	12.90	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.73	39.81	-4.40	4.40	96.89	0.15	12.91	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.82	39.81	-4.46	4.46	96.49	0.15	12.91	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	27.91	39.81	-4.51	4.51	96.10	0.16	12.92	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.00	39.81	-4.56	4.56	95.69	0.16	12.93	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.09	39.81	-4.61	4.61	95.29	0.16	12.93	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.18	39.81	-4.66	4.66	94.87	0.16	12.94	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.27	39.81	-4.71	4.71	94.46	0.17	12.94	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.36	39.81	-4.76	4.76	94.04	0.17	12.95	Vu < PhiVc/2	Not Req'd	12.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.44	39.81	-4.81	4.81	93.61	0.17	12.95	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.53	39.81	-4.86	4.86	93.18	0.17	12.96	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.62	39.81	-4.91	4.91	92.75	0.18	12.97	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.71	39.81	-4.96	4.96	92.31	0.18	12.97	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.80	39.81	-5.01	5.01	91.87	0.18	12.98	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.89	39.81	-5.06	5.06	91.42	0.18	12.99	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	28.98	39.81	-5.11	5.11	90.96	0.19	12.99	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.07	39.81	-5.16	5.16	90.51	0.19	13.00	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.16	39.81	-5.22	5.22	90.05	0.19	13.01	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.24	39.81	-5.27	5.27	89.58	0.20	13.01	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.33	39.81	-5.32	5.32	89.11	0.20	13.02	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.42	39.81	-5.37	5.37	88.64	0.20	13.03	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.51	39.81	-5.42	5.42	88.16	0.20	13.03	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.60	39.81	-5.47	5.47	87.67	0.21	13.04	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.69	39.81	-5.52	5.52	87.18	0.21	13.05	Vu < PhiVc/2	Not Req'd	13.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.78	39.81	-5.57	5.57	86.69	0.21	13.05	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.87	39.81	-5.62	5.62	86.19	0.22	13.06	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	29.96	39.81	-5.67	5.67	85.69	0.22	13.07	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.04	39.81	-5.72	5.72	85.19	0.22	13.08	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0

Concrete Beam

File = c:\Users\lear\DOCUME~1\ENERCA~1\TYPICA~1.EC6
ENERCALC, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

Lic. #: KW-06010158

Licensee: REEVE & ASSOCIATES

Description: Pool Composite Section - 40 Foot

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k)		Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in)	
				Actual	Design							Req'd	Suggest
+1.20D+0.50L+0.70S+E+1.60I	1	30.13	39.81	-5.77	5.77	84.68	0.23	13.08	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.22	39.81	-5.82	5.82	84.16	0.23	13.09	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.31	39.81	-5.87	5.87	83.64	0.23	13.10	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.40	39.81	-5.92	5.92	83.12	0.24	13.11	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.49	39.81	-5.97	5.97	82.59	0.24	13.12	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.58	39.81	-6.03	6.03	82.05	0.24	13.12	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.67	39.81	-6.08	6.08	81.52	0.25	13.13	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.76	39.81	-6.13	6.13	80.97	0.25	13.14	Vu < PhiVc/2	Not Req'd	13.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.84	39.81	-6.18	6.18	80.43	0.25	13.15	Vu < PhiVc/2	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	30.93	39.81	-6.23	6.23	79.88	0.26	13.16	Vu < PhiVc/2	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.02	39.81	-6.28	6.28	79.32	0.26	13.17	Vu < PhiVc/2	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.11	39.81	-6.33	6.33	78.76	0.27	13.18	Vu < PhiVc/2	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.20	39.81	-6.38	6.38	78.19	0.27	13.19	Vu < PhiVc/2	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.29	39.81	-6.43	6.43	77.63	0.27	13.20	Vu < PhiVc/2	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.38	39.81	-6.48	6.48	77.05	0.28	13.21	Vu < PhiVc/2	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.47	39.81	-6.53	6.53	76.47	0.28	13.22	Vu < PhiVc/2	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.56	39.81	-6.58	6.58	75.89	0.29	13.23	Vu < PhiVc/2	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.64	39.81	-6.63	6.63	75.30	0.29	13.24	PhiVc/2 < Vu <=	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.73	39.81	-6.68	6.68	74.71	0.30	13.25	PhiVc/2 < Vu <=	Not Req'd	13.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.82	39.81	-6.73	6.73	74.11	0.30	13.26	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	31.91	39.81	-6.78	6.78	73.51	0.31	13.27	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.00	39.81	-6.84	6.84	72.91	0.31	13.28	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.09	39.81	-6.89	6.89	72.30	0.32	13.29	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.18	39.81	-6.94	6.94	71.68	0.32	13.30	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.27	39.81	-6.99	6.99	71.07	0.33	13.32	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.36	39.81	-7.04	7.04	70.44	0.33	13.33	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.44	39.81	-7.09	7.09	69.81	0.34	13.34	PhiVc/2 < Vu <=	Not Req'd	13.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.53	39.81	-7.14	7.14	69.18	0.34	13.35	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.62	39.81	-7.19	7.19	68.55	0.35	13.37	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.71	39.81	-7.24	7.24	67.90	0.35	13.38	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.80	39.81	-7.29	7.29	67.26	0.36	13.39	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.89	39.81	-7.34	7.34	66.61	0.37	13.41	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	32.98	39.81	-7.39	7.39	65.95	0.37	13.42	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.07	39.81	-7.44	7.44	65.29	0.38	13.44	PhiVc/2 < Vu <=	Not Req'd	13.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.16	39.81	-7.49	7.49	64.63	0.38	13.45	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.24	39.81	-7.54	7.54	63.96	0.39	13.47	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.33	39.81	-7.59	7.59	63.29	0.40	13.48	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.42	39.81	-7.65	7.65	62.61	0.41	13.50	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.51	39.81	-7.70	7.70	61.93	0.41	13.52	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.60	39.81	-7.75	7.75	61.24	0.42	13.53	PhiVc/2 < Vu <=	Not Req'd	13.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.69	39.81	-7.80	7.80	60.55	0.43	13.55	PhiVc/2 < Vu <=	Not Req'd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.78	39.81	-7.85	7.85	59.86	0.43	13.57	PhiVc/2 < Vu <=	Not Req'd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.87	39.81	-7.90	7.90	59.16	0.44	13.59	PhiVc/2 < Vu <=	Not Req'd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	33.96	39.81	-7.95	7.95	58.45	0.45	13.61	PhiVc/2 < Vu <=	Not Req'd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.04	39.81	-8.00	8.00	57.74	0.46	13.63	PhiVc/2 < Vu <=	Not Req'd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.13	39.81	-8.05	8.05	57.03	0.47	13.65	PhiVc/2 < Vu <=	Not Req'd	13.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.22	39.81	-8.10	8.10	56.31	0.48	13.67	PhiVc/2 < Vu <=	Not Req'd	13.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.31	39.81	-8.15	8.15	55.59	0.49	13.69	PhiVc/2 < Vu <=	Not Req'd	13.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.40	39.81	-8.20	8.20	54.86	0.50	13.71	PhiVc/2 < Vu <=	Not Req'd	13.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.49	39.81	-8.25	8.25	54.13	0.51	13.73	PhiVc/2 < Vu <=	Not Req'd	13.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.58	39.81	-8.30	8.30	53.40	0.52	13.76	PhiVc/2 < Vu <=	Not Req'd	13.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.67	39.81	-8.35	8.35	52.66	0.53	13.78	PhiVc/2 < Vu <=	Not Req'd	13.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.76	39.81	-8.40	8.40	51.91	0.54	13.81	PhiVc/2 < Vu <=	Not Req'd	13.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	34.84	39.81	-8.46	8.46	51.16	0.55	13.83	PhiVc/2 < Vu <=	Not Req'd	13.8	0.0	0.0

Concrete Beam

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 ENERCALC, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

Lic. #: KW-06010158

Licensee: REEVE & ASSOCIATES

Description: Pool Composite Section - 40 Foot

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k)		Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in)	
				Actual	Design							Req'd	Suggest
+1.20D+0.50L+0.70S+E+1.60I	1	34.93	39.81	-8.51	8.51	50.41	0.56	13.86	PhiVc/2 < Vu <=	Not Reqd	13.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.02	39.81	-8.56	8.56	49.65	0.57	13.89	PhiVc/2 < Vu <=	Not Reqd	13.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.11	39.81	-8.61	8.61	48.89	0.58	13.92	PhiVc/2 < Vu <=	Not Reqd	13.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.20	39.81	-8.66	8.66	48.12	0.60	13.95	PhiVc/2 < Vu <=	Not Reqd	13.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.29	39.81	-8.71	8.71	47.35	0.61	13.98	PhiVc/2 < Vu <=	Not Reqd	14.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.38	39.81	-8.76	8.76	46.57	0.62	14.01	PhiVc/2 < Vu <=	Not Reqd	14.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.47	39.81	-8.81	8.81	45.79	0.64	14.04	PhiVc/2 < Vu <=	Not Reqd	14.0	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.56	39.81	-8.86	8.86	45.01	0.65	14.08	PhiVc/2 < Vu <=	Not Reqd	14.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.64	39.81	-8.91	8.91	44.22	0.67	14.11	PhiVc/2 < Vu <=	Not Reqd	14.1	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.73	39.81	-8.96	8.96	43.42	0.68	14.15	PhiVc/2 < Vu <=	Not Reqd	14.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.82	39.81	-9.01	9.01	42.62	0.70	14.19	PhiVc/2 < Vu <=	Not Reqd	14.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	35.91	39.81	-9.06	9.06	41.82	0.72	14.23	PhiVc/2 < Vu <=	Not Reqd	14.2	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.00	39.81	-9.11	9.11	41.01	0.74	14.27	PhiVc/2 < Vu <=	Not Reqd	14.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.09	39.81	-9.16	9.16	40.20	0.76	14.32	PhiVc/2 < Vu <=	Not Reqd	14.3	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.18	39.81	-9.21	9.21	39.38	0.78	14.36	PhiVc/2 < Vu <=	Not Reqd	14.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.27	39.81	-9.27	9.27	38.56	0.80	14.41	PhiVc/2 < Vu <=	Not Reqd	14.4	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.36	39.81	-9.32	9.32	37.73	0.82	14.46	PhiVc/2 < Vu <=	Not Reqd	14.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.44	39.81	-9.37	9.37	36.90	0.84	14.52	PhiVc/2 < Vu <=	Not Reqd	14.5	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.53	39.81	-9.42	9.42	36.07	0.87	14.57	PhiVc/2 < Vu <=	Not Reqd	14.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.62	39.81	-9.47	9.47	35.23	0.89	14.63	PhiVc/2 < Vu <=	Not Reqd	14.6	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.71	39.81	-9.52	9.52	34.39	0.92	14.69	PhiVc/2 < Vu <=	Not Reqd	14.7	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.80	39.81	-9.57	9.57	33.54	0.95	14.76	PhiVc/2 < Vu <=	Not Reqd	14.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.89	39.81	-9.62	9.62	32.69	0.98	14.83	PhiVc/2 < Vu <=	Not Reqd	14.8	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	36.98	39.81	-9.67	9.67	31.83	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.07	39.81	-9.72	9.72	30.97	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.16	39.81	-9.77	9.77	30.10	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.24	39.81	-9.82	9.82	29.23	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.33	39.81	-9.87	9.87	28.35	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.42	39.81	-9.92	9.92	27.47	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.51	39.81	-9.97	9.97	26.59	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.60	39.81	-10.02	10.02	25.70	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.69	39.81	-10.08	10.08	24.81	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.78	39.81	-10.13	10.13	23.91	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.87	39.81	-10.18	10.18	23.01	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	37.96	39.81	-10.23	10.23	22.10	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.04	39.81	-10.28	10.28	21.19	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.13	39.81	-10.33	10.33	20.27	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.22	39.81	-10.38	10.38	19.35	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.31	39.81	-10.43	10.43	18.43	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.40	39.81	-10.48	10.48	17.50	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.49	39.81	-10.53	10.53	16.56	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.58	39.81	-10.58	10.58	15.63	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.67	39.81	-10.63	10.63	14.68	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.76	39.81	-10.68	10.68	13.74	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.84	39.81	-10.73	10.73	12.78	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	38.93	39.81	-10.78	10.78	11.83	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.02	39.81	-10.84	10.84	10.87	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.11	39.81	-10.89	10.89	9.90	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.20	39.81	-10.94	10.94	8.93	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.29	39.81	-10.99	10.99	7.96	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.38	39.81	-11.04	11.04	6.98	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.47	39.81	-11.09	11.09	5.99	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.56	39.81	-11.14	11.14	5.01	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.64	39.81	-11.19	11.19	4.01	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0

Concrete Beam

File = c:\Users\learl\DOCUME~1\ENERCA-1\TYPICA-1.EC6
ENERCALC, INC. 1983-2015, Build:6.15.1.6, Ver:6.14.9.30

Lic. # : KW-06010158

Licensee : REEVE & ASSOCIATES

Description : Pool Composite Section - 40 Foot

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k)		Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in)	
				Actual	Design							Req'd	Suggest
+1.20D+0.50L+0.70S+E+1.60I	1	39.73	39.81	-11.24	11.24	3.02	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.82	39.81	-11.29	11.29	2.02	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	39.91	39.81	-11.34	11.34	1.01	1.00	14.88	PhiVc/2 < Vu <=	Not Reqd	14.9	0.0	0.0
+1.20D+0.50L+0.70S+E+1.60I	1	40.00	40.63	-11.39	11.39	0.00	1.00	13.40	PhiVc/2 < Vu <=	Not Reqd	13.4	0.0	0.0

Solutions you can build on

