Westfield Mobile Crane Lift Plan

Revised: January 6, 2023 **Effective Date:** February 1, 2023
Revision #: 6

NOTE: COMPLETION OF THIS DOCUMENT REQUIRES THE INVOLVEMENT OF THE GENERAL CONTRACTOR, CRANE CONTRACTOR, AND LIFT CONTRACTOR. THIS DOCUMENT IS NOT ALL THE RESPONSIBILITY OF THE CRANE CONTRACTOR.

THIS IS AN EXCEL DOCUMENT. IF YOU RECEIVED IT IN ANY OTHER FORM, IT CANNOT BE COMPLETED ELECTRONICALLY.

You are encouraged to submit this Excel file instead of a printed and scanned copy - we often have trouble reading them. To help in doing so, after you open the file, click "File", then "Save As" and give the file a new name that reflects the lifts covered by the plan.
You can also save this file as a PDF and submit the PDF if you would like to lock the file.
You can print any page by itself, a group of pages, or the entire workbook by selecting the appropriate option by clicking File/Print/Settings.

Mobile Cranes must comply with ANSI B30.5 requirements in effect on their date of manufacture.
Articulating boom cranes must comply with ANSI B30.22 requirements in effect on their date of manufacture.

1.0	**General Lift Information**				
1.01	Project				
1.02	Westfield Center				
1.03	Tenant (if applicable)				
1.04	**General Contractor**				
1.05	Contact				
1.06	Phone				
1.07	Email				
1.08	Describe the lifts and what's being lifted and any specific notes here. For example, "not rotating", "limited swing as shown", etc.				
1.09	**Crane Contractor**				
1.10	Prepared by				
1.11	Phone				
1.12	Email				
1.13	Date				
1.14	**Was the site Physically Inspected by Crane Contractor?**	**Yes / Date**		**No**	
1.15	**Lift Contractor (who the lifts are for)**				
1.16	Prepared by				
1.17	Phone				
1.18	Email				
1.19	Date				
1.20	Start Date of Crane Assembly				
1.21	Start Time		End Time		
1.22	Assist Crane required for assembly?				
1.23	If "Yes", submit a separate Mobile Crane Lift Plan for the Assist Crane				
1.24	Finish Date of Crane Assembly				
1.25	Start Time		End Time		
1.25	Start Date of Lifts				
1.26	Start Time		End Time		
1.27	End Date of Lifts				
1.28	Start Time		End Time		
1.29	Start Date of Disassembly				
1.30	Start Time		End Time		
1.31	Finish Date of Disassembly				
1.32	Start Time		End Time		
1.33	**SUBMITTAL INSTRUCTIONS:**				
1.34	DO NOT SUBMIT LIFT PLANS DIRECTLY TO CONSTRUCTION SAFETY OR RISK MANAGEMENT.				
1.35	Construction Projects: Submit Lift Plans to your Superintendent where Westfield is the General Contractor.				
1.36	Construction Projects: Submit Lift Plans to your Project Manager when there is an external General Contractor.				
1.37	Development Tenants: Submit Lift Plans to your Tenant Coordinator				
1.38	Operating Tenants: Submit Lift Plans to your Tenant Coordinator. If none, submit to the Facilties Director / Manager.				
1.39	Center Lifts: Submit Lift Plans to the Facilties Director / Manager.				
1.40					
1.41					
1.42					
1.43	**Questions?** click here to submit your questions for Construction and Development Tenant lifts				
1.44					
1.45	click here to submit your questions for Operating Tenants and Center lifts				

2. Crane Information

2.00	**Crane Information**		
2.01	Make		
2.02	Model		
2.03	Serial #		
2.04	Rated Capacity		
2.05	**Crane Configuration***		**SEE ATTACHED***
2.06	Crane Counterweight		
2.07	Carrier Counterweight		
2.08	For truck, AT/RT cranes and boom trucks:		
2.09	outrigger spread L x W		
2.10	maximum tailswing from center pin		
2.11	For crawler cranes **:		
2.12	crawler spread L x W		
2.13	maximum tailswing from center pin		
2.14	crawlers extended?		
2.15	crawlers retracted?		
2.16	Total weight of crane		
2.17	Boom Type		
2.18	Main Boom Length		
2.19	Boom Sections		
2.20	Parts of Line		
2.21	Main Hoist Line Pull		
2.22	Line pull as reeved		
2.23	Jib Used? (Y or N)		
2.24	Jib stowed on Main?		
2.25	If Y, Fixed or Luffing?		
2.26	Jib Length		
2.27	Parts of Line		
2.28	Aux. Hoist Line Pull		
2.29	Line pull as reeved		
2.30	Jib Offset (if fixed)		
2.31	Jib Capacity		
2.32	Luffing Jib? (Y or N)		
2.33	If Yes -		
2.34	Main Boom Length		
2.35	Main Boom Angle		
2.36	Max. Allowable Boom Angle as configured		
2.37	Min. Allowable Boom Angle as configured		
2.38	Max. Allowable Wind Speed as configured		
2.39	Date of last Annual Inspection		
2.40	Date of last Quadrennial		

If the information required in tan cells in Sections 2 through 7 of the Mobile Crane Lift Plan is contained in the attachments you are providing, enter "SA" in the cell, and that item does not need to be completed.

Suitable attachments include: specifications / technical data sheets, load charts excerpts, 3DLiftPlan printouts, LICCON printouts, Grove / National Outrigger Pad Load Queries, Link Belt Pontoon Loading Program results, etc.

** It is understood that Sections 5, 6 and 7 cannot be completed as they exist for crawler cranes.
Provide equivalent calculations and backup documents.

3. Site Conditions

3.01	Site Conditions - Underground	Known	None Known	Notes
3.02	Basements** [1]			
3.03	Culverts**			
3.04	Excavations / Trenches [1]			
3.05	Grease Interceptors**			
3.06	Main Feeders (gas, electric, etc.)			
3.07	Manholes			
3.08	Pervious Pavement			Lifting from previous pavement is prohibited
3.09	Retention devices*			
3.10	Sewer lines (storm, sanitary)			
3.11	Soil Retention Systems*			
3.12	Subgrade Retail or Storage level*			
3.13	SUSUMP installations**			
3.14	Tunnels / Passageways*			
3.15	Underground Parking*			
3.16	Underground Tanks*			
3.17	Utility Vaults**			
3.18	Water lines			
3.19				

3.20	Site Conditions - Above Ground	Known	None Known	Notes
3.21	Embankment** [1]			
3.22	Power lines within 45' of boom sweep [2]			
3.23	Retaining Wall** [1]			
3.24	Signage (permanent)			
3.25	Structures			
3.26	Trees / landscaping			
3.27				
3.28				

3.30	Site Conditions - Other (describe)	Known	None Known	Notes
3.31				
3.32				
3.33				
3.34				
3.35				
3.36				

3.40	Surface crane will operate on (check all that apply):		Notes
3.41	Combination (check all that apply)		
3.42	Earth Surface		
3.43	Loading Dock at grade		
3.44	Loading Dock - elevated* (such as JCP at GSP)		
3.45	Other (describe)		
3.46	Parking Field		
3.47	Parking Structure* (GSP, Trumbull, Village, etc.)		
3.48	Prepared Crane Pad* (documentation required)		
3.49	Ring Road		
3.50	Sidewalk		
3.51			
3.52			

* Condition requires P.E. involvement - see Section 14, Note 1
** Condition may require P.E. involvement - see Section 14, Note 1

Notes called out by numbers in brackets such as [1] are explained in Section 14

SITE PLANS	Site Plans that may be used to comply with Section 3 and Section 11 can be dowloaded by clicking this link: Site Plans for Crane and Helicopter Lifts *Note: May require registering for Box if you do not already have an account.*

4. LIFT INFORMATION

This form is set up to provide for the planning of one or more lifts with the crane set up at one location and in the same configuration. If the configuration changes, a new Lift Plan must be completed. Location changes will be addressed on an individual basis, and may require a new Lift Plan to be completed.

4.01	Source for basic Load Weight (attach documentation):	
4.02	Capacity reduced due to Duty Cycle application? (Y or N)	
4.03	If yes, by how much? (show as % of chart capacity)	

	Items 4.04 to 4.17 are components of the load in accordance with manufacturer's instructions.	Quantity	Capacity As Configured	Closest Lift / Pick Point / Single Lift	Farthest Lift / Set Point	Heaviest Lift By Weight	Heaviest Lift By % of Chart
4.04	Load Weight (basic load)						
4.05	Main Load Block						
4.06	Aux. Hook						
4.07	Aux. Boom Point						
4.08	Slings						
4.09	Shackles						
4.10	Spreader Bar						
4.11	Lifting Beam						
4.12	Jib (Erected)						
4.13	Jib (Stowed)						
4.14	Load Line (parts x line pull)						
4.15	Other:						
4.16	Other:						
4.17	Other:						
4.18	**TOTAL LOAD WEIGHT**			0	0	0	0
4.19	**Lifting on Main or Jib?**						
4.20	Maximum Load Radius						
4.21	Boom Angle at Max. Radius						
4.22	Capacity at Maximum Radius						
4.23	**% of Capacity at Max. Radius**			0.00%	0.00%	0.00%	0.00%
4.24	Pick Point Radius						
4.25	Pick Point Boom Angle						
4.26	Capacity at Pick Point						
4.27	**% of Capacity at Pick Point**			0.00%	0.00%	0.00%	0.00%
4.28	Set Point Radius						
4.29	Set Point Boom Angle						
4.30	Capacity at Set Point						
4.31	**% of Capacity at Set Point**			0.00%	0.00%	0.00%	0.00%
4.31	Tip Height (maximum)						
4.33	Minimum Clearance - Boom to Load						
4.34	Minimum Clearance - Boom to Spreader / Beam						
4.35	Minimum Clearance - Boom to Structure /Obstruction						
4.36	Minimum Clearance - Load to Structure /Obstruction						
4.37	**IN ALL CASES, % OF CAPACITY MUST BE LESS THAN 100% FOR THE LIFT TO TAKE PLACE**						
4.38	SOME CONTRACTORS AND CRANE COMPANIES HAVE INTERNAL LOAD LIMITS THAT ARE LESS THAN 100%.						
4.39	*ALTERNATIVE TO COMPLETING THIS TABLE: Provide printouts for each scenario using 3DLiftPlan or similar engineering software. Any information not addressed by the printouts must be provided in this table.*						

NOTE: Many submissions are rejected because information is only provided for one of the above scenarios. This information is requested as unless there is only one lift, the information is different for each scenario.

5.A. MAXIMUM OUTRIGGER LOADS

Outrigger loads to be used in the Section 6 Summary Table are to be the worst-case for each scenario, and must be based on 360-degree operations.

Outrigger loads may be determined using one of the following methods:

1. Software (third-party or manufacturer)
2. Information from the crane manufacturer or a Professional Engineer
3. Default calculation if neither software nor the manufacturer can provide the information.

5.01 Outrigger loads for this Lift Plan have been determined by Method #: [ ]

5.02 If Method #1 was used, indicate the name of the software program: [ ]

5.03 If Method #2 was used, provide supporting documentation:

ATTACH PRINTOUTS FOR METHOD #1 or METHOD #2

DEFAULT CALCULATION FOR USE WHEN OUTRIGGER LOADS CANNOT BE FOUND

If you are unable to obtain maximum outrigger loads from an appropriate software solution, Professional Engineer, or the crane's manufacturer, use the following equation to determine the maximum outrigger reaction. Use of this equation should be your final choice, not your first choice.

5.04	weight of crane as configured, with full fuel load		
5.05	weight of rigging (maximum)		
5.06	weight of heaviest load to be lifted		
		subtotal	0
	multiplier		0.65
5.07	Outrigger loading to be used in 6.1 (All scenarios)		0

Source: Worksafe Victoria (AU)

5.B. OUTRIGGER FLOAT SIZES

5.11	Front outrigger floats (dimensions in inches)	length		width		area in sq. ft.	0
		diameter				area in sq. ft.	0

Are the front and rear floats the same size? [ ]
If "Yes", do not complete 5.12

5.12	Rear outrigger floats (dimensions in inches)	length		width		area in sq. ft.	0
		diameter				area in sq. ft.	0

5.13 <u>For cranes equipped with a front (a.k.a. bumper or nose) outrigger</u>

Outrigger float (dimensions in inches)	length		width		area in sq. ft.	0
	diameter				area in sq. ft.	0

Ground Bearing Pressure is limited to a maximum of 2000 lbs. / sq. ft. including the weight of the blocking.

Exception #1: A registered Professional Engineer provides stamped and signed documentation and detail/instruction that allows for a higher loading.
Exception #2: Conditions are known / identified that require GBP to be less than 2000 lbs. / sq. ft.
Exception #3: The Crane Company's Qualified Person determines that a lower GBP is required.

6. GROUND BEARING PRESSURE SUMMARY TABLE - complete this section or provide documentation per Section 7.C

THIS TABLE IS NOT THE GBP CALCULATION! See Section 7.C.

		[A] Front OR	[B] Main OR, Closest Lift / Pick Point	[C] Main OR Farthest Lift / Set Point	[D] Main OR Heaviest Lift by Weight	[E] Main OR Heaviest Lift by % of Chart
6.01	Maximum outrigger load					
6.02	Weight of Transition Blocking [3]					
6.03	Weight of Primary and Intermediate Blocking					
6.04	Total load	0.00	0.00	0.00	0.00	0.00
6.05	Size of Primary Blocking (Sq. Ft.) - Actual					
6.06	Ground Bearing Pressure in lbs / sq. ft.	NaN	NaN	NaN	NaN	NaN
6.07	Allowable GBP in lbs / sq. ft.	2,000	2,000	2,000	2,000	2,000
6.08	**% of Allowable GBP loading**	0.00%	0.00%	0.00%	0.00%	0.00%

ALLOWABLE GBP LOADING MUST BE LESS THAN 100% FOR THE LIFTS TO TAKE PLACE

6.09	**MINIMUM REQUIRED AREA OF EFFECTIVE PRIMARY BLOCKING IN SQUARE FEET TO BE AT 2000PSF OR LESS**	0.00	0.00	0.00	0.00	0.00

7.A MAIN OUTRIGGER BLOCKING DETAILS - complete this section or provide printouts per Section 7.C (See 7.41)

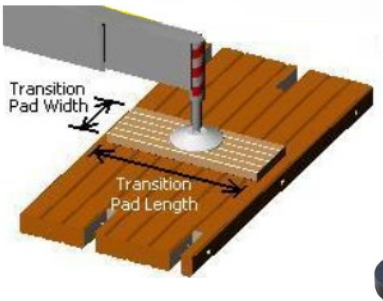
7.10	**Transition Blocking**						
7.11	length (ft.)		width (ft.)				
7.12	if round:		diameter (in.)		thickness		inches
7.13	material						
7.14	if timbers, each timber is:				high (in.)		wide (in.)
7.15	if steel plate or box mat, the height is				inches		
7.20	**Intermediate Blocking (use this section for the middle blocking if three layers of blocking are used)**						
7.21	length (ft.)		width (ft.)				
7.22	if round:		diameter (in.)		thickness		inches
7.23	material						
7.24	if timbers, each timber is:				high (in.)		wide (in.)
7.25	if steel plate or box mat, the height is				inches		
7.30	**Primary Blocking**						
7.31	length (ft.)		width (ft.)				
7.32	if round:		diameter (in.)		thickness		inches
7.33	material						
7.34	if timbers, each timber is:				high (in.)		wide (in.)
7.35	if steel plate or box mat, the height is				inches		

* If the above information is provided on the printouts for Section 7, this section does not need to be completed.

7.40 Outrigger blocking must be a minumum of 3'x3' square or 9 square feet or 42" round, and 4" (nominal) thick or equal.
7.41 Main outrigger blocking must be equally sized, and provided for the worst-case scenario for 360-degree operations.
7.42 Supporting documentation for manufactured pads / mats may be required to be submitted.

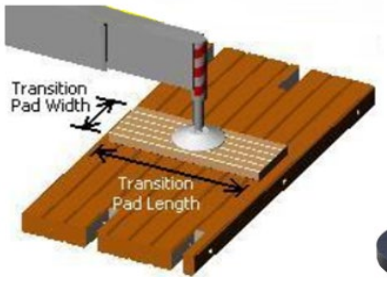
The diagrams below are to assist in verifying that the main outrigger blocking is set up properly per 7.10 to 7.35 and 6[B] to 6[E].

Main Outriggers - Transition (Top) Blocking



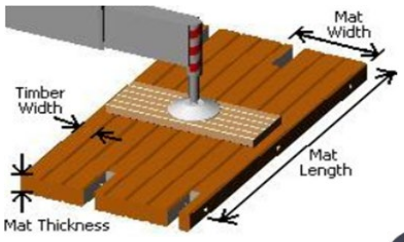
	Overall width		feet
	Overall length		feet
Timbers	Timber height		inches
Timbers	Timber width		inches
Steel Plate/Mat	Thickness		inches
	Area	0.00	square feet
Round Plastic	Diameter		inches
or Poly Pads	Thickness		inches
	Area	0.00	square feet

Main Outriggers - Intermediate (Middle) Blocking



	Overall mat width		feet
	Overall mat length		feet
Timbers	Timber thickness		inches
Timbers	Timber width		inches
Steel Plate/Mat	Thickness		inches
	Area	0.00	square feet
Round Plastic	Diameter		inches
or Poly Pads	Thickness		inches
	Area	0.00	square feet

Main Outriggers - Primary (Bottom) Blocking



	Overall mat width		feet
	Overall mat length		feet
Timbers	Timber thickness		inches
Timbers	Timber width		inches
Steel Plate/Mat	Thickness		inches
	Area	0.00	square feet
Round Plastic	Diameter		inches
or Poly Pads	Thickness		inches
	Area	0.00	square feet

SEE SECTION 19 FOR A PARTIAL LIST OF CRANES WITH FRONT OUTRIGGERS / STABILIZERS

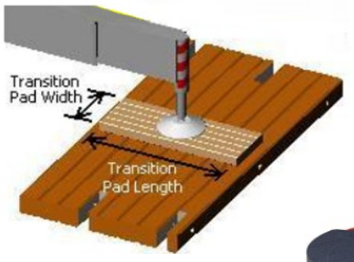
If outrigger / stabilzer loads cannot be obtained, Item 7.40 applies.

7.B FRONT OUTRIGGER BLOCKING DETAILS - complete this section or provide printouts per Section 7.C (See 7.40)

7.50	**Transition Blocking**						
7.51		length (ft.)		width (ft.)			
7.52		if round:		diameter (in.)		thickness	inches
7.53		material					
7.54		if timbers, each timber is:			high (in.)	wide (in.)	
7.55		if steel plate or box mat, the height is			inches		
7.60	**Primary Blocking**						
7.61		length (ft.)		width (ft.)			
7.62		if round:		diameter (in.)		thickness	inches
7.63		material					
7.64		if timbers, each timber is:			high (in.)	wide (in.)	
7.65		if steel plate or box mat, the height is			inches		

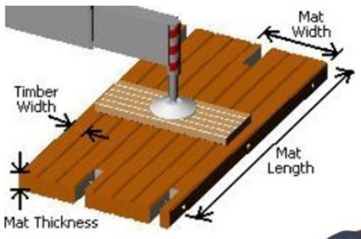
The diagrams below are to assist in verifying that the front outrigger blocking is set up properly per 7.50 to 7.65 and Section 6[A].

Front / Nose Outrigger Transition (Top) Blocking



	Overall mat width		feet
	Overall mat length		feet
Timbers	Timber thickness		inches
Timbers	Timber width		inches
Steel Plate/Mat	Thickness		inches
	Area	0	square feet
Round Plastic or Poly Pads	Diameter		inches
	Thickness		inches
	Area	0	square feet

Front / Nose Outrigger Primary Blocking



	Overall mat width		feet
	Overall mat length		feet
Timbers	Timber thickness		inches
Timbers	Timber width		inches
Steel Plate/Mat	Thickness		inches
	Area	0	square feet
Round Plastic or Poly Pads	Diameter		inches
	Thickness		inches
	Area	0	square feet

7.C ATTACH VALIDATION FOR THE GBP AND EFFECTIVE BLOCKING USING ONE OF THE FOLLOWING

7.51	☐	3DLiftPlan
7.52	☐	LiftQuote
7.53	☐	Crane and Rigger - up to 72,000# load only, not valid for crawler cranes (include input and output screen shots)
7.54	☐	Professional Engineer's calculations (with backup)
7.55	☐	Appropriate crane engineering software that takes into account material properties and effective mat sizes

NOTE: Many submissions are rejected because information is only provided for one of the above scenarios. Outrigger loads can vary significantly. Not completing Section 7 properly and/or not provding validation will cause your submission to be rejected.

When timber mats are used, tie rods are not assumed to transfer the load to all timbers. Only those timbers in direct contact with the outrigger float or transition blocking are considered to be load bearing.

When loose timbers are used, only those timbers in direct contact with the outrigger float or transition blocking are considered to be load bearing.

The full area of the primary blocking is not always effective in distributing the load imposed upon it.

8. PERSONNEL & COMMUNICATIONS

8.01	Lift Director		Employer	
			Cell #	
8.02	Lead Person for the Crane Contractor		Name	
			Cell #	
8.03	Responsible Party for the Lift Contractor		Name	
			Cell #	
8.04	Responsible Party for the General Contractor		Name	
			Cell #	
8.05	Responsible Party for the Center / Tenant Coordination (as required)		Name	
			Cell #	
8.06	Responsible Party for the Tenant (as required)		Name	
			Cell #	
8.07	Operator		Employer	
8.08	Oiler / Alt. Operator		Employer	
8.09	A / D Supervisor		Employer	
8.10	Qualified Rigger		Employer	
8.10	Qualified Rigger		Employer	
8.10	Qualified Rigger		Employer	
8.10	Qualified Rigger		Employer	
8.11	Qualified Signalperson		Employer	
8.11	Qualified Signalperson		Employer	
8.11	Qualified Signalperson		Employer	
8.11	Qualified Signalperson		Employer	
8.12	Signalperson communication to Operator will be via:			

8.13 Person responsible for inspection of all rigging/accessories

Name

Employer

Cell #

8.14 Person responsible for fall protection/access for employees rigging loads:

Name

Employer

Cell #

8.15 Person responsible for fall protection/access for employees landing load:

Name

Employer

Cell #

8.16 Person responsible for fall protection and access for Signalpersons:

Name

Employer

Cell #

8.17 Person responsible for traffic control:

Name

Employer

Cell #

8.18 Person responsible for public control / pedestrian control:

Name

Employer

Cell #

8.19 Person responsible for public / tenant area evacuations:

Name

Employer

Cell #

9. PRE-LIFT AUTHORIZATION CHECKLIST		Yes	No	N/A
9.01	Mobile Crane Lift Plan completed, all required persons have a copy?			
9.02	Crane operating properly?			
9.03	Crane set up per plan and submissions?			
9.04	Swing radius protection in place?			
9.05	Crane inspected by Operator prior to operation / shift?			
9.06	Rigging and accessories inspected prior to use?			
9.07	Proper blocking in place per Section 7?			
9.08	Weather conditions acceptable? (descibe current weather below)			
9.09	Wind conditions suitable for operations? (describe current wind conditions below)			
9.10	Access & Egress paths for workers involved with the lifting checked?			
9.11	All public / tenant areas cleared under the boom sweep?			
9.12	Provisions for power lines met?			
9.13	Other (describe)			
9.14	Other (describe)			
9.15	Other (describe)			
9.15	Current weather			
9.15	Current winds			

10. LIFT AUTHORIZATIONS		Print name	Sign Name	Date
10.01	Lift Coordinator			
10.02	Responsible Party, Lift Contractor			
10.03	Operator			
10.04	Center Representative (for Center lifts & Tenants w/o T.C.)			
10.05	Tenant Coordinator (for Tenant Lifts)			
10.06	Controlling Entity / GC			

11. Attachments to be provided with the Lift Plan submittal (label and number each item accordingly):		Check Off
11.01	Applicable excerpt(s) from the crane's charts.	
11.02	Copy of current Annual Inspection	
11.03	Copy of current Quadrennial Inspection (CA and where also required)	
11.04	A legible copy of Operator's Certification (and License where required). Refer to NCCCO website.	
11.05	Site Plan showing:	
	a. How crane will access and exit the work location.	
	b. Where support trucks will be staged.	
	c. Where the assist crane (if required) will be located.	
	d. Crane assembly and disasembly area, including staging.	
	i. Assembly and disassembly at the crane's work location is preferred.	
	ii. Lift Contractor is responsible for damages to roadways and parking fields.	
	iii. Westfield may prohibit movement of a fully/partially dressed crane.	
	e. The crane's work location.	
	f. Excavations, trenches, embankments, basements and retaining walls near the crane.	
	Include the depth and the top/bottom of slope/wall in a plan view sketch/drawing.	
	g. Known subsurface installations or existing conditions	
	h. Known surface obstructions (trees, islands, curbs, structures, light poles, etc.)	
	i. Above-ground power lines [1] [2]	
	j. Material staging area.	
	k. Boom sweep area, to include:	
	i. Road closures. NO LIFTING OVER ACTIVE MALL ROADS.	
	ii. Parking Field closures. NO LIFTING OVER ACTIVE PARKING FIELDS.	
	iii. Store closures. NO LIFTING OVER OCCUPIED STORES.	
	iv. Mall Common Area closures. NO LIFTING OVER OCCUPIED AREAS.	
	v. Loading Docks. NO LIFTING OVER ACTIVE LOADING DOCKS.	
	l. Traffic control provisions, including Flagger locations.	
	m. Public control provisions.	
11.06	Lift Diagrams	
	a. 3-D Lift Plans for Closest Lift, Farthest Lift, Heaviest Lift (by weight)	
	and Heaviest Lift (by % of chart capacity) showing the lifts, structures, load clearances, etc.	
	b. If the crane is not supported by 3-D Lift Plan, provide for each scenario in 11.06.a.	
	(i) Plan views, (ii) section views, and (iii) working range diagram(s).	
11.07	Load information, potentially including but not limited to:	
	a. Cut sheet or other information documenting the weight	
	b. Cut sheet or other information showing the rigging points and/or rigging instructions	
	c. Other information pertinent to the operation	
11.08	Outrigger loading per Section 5.	
11.09	Ground Bearing Pressure per Section 7.5.	
11.10	Federal Aviation Administration OE/AAA - FAA Obstruction Evaluation / Airport Airspace Analysis [4]	
	a. Using the Notice Criteria Tool link provided in Section 14, provide a copy of the	
	Obstruction Analysis.	
	i. Use maximum possible tip height for the structure evaluation.	
	ii. Use Google Earth or a similar source to determine crane latitude, longitude, and base elevation.	
	b. If FAA notification is required, provide a copy of the determination and corresponding	
	instructions. Note that a response may take 45 working days or more.	
11.11	Safe Work Plan if there are above-ground power lines within 45' of the boom sweep.	
11.12	Fall Protection: explain fall protection provisions to be utilized for:	
	a. Assembly and disassembly of the crane	
	b. Rigging and receiving the load(s)	
	c. Signalperson(s)	
11.13	Engineer's instructions for subsurface installations/conditions (as required).	
11.14	Hold Harmless Agreements as may be required by the Center	
11.15	Certificates of Insurance as may be required by the Center	

12. General Instructions

12.010 The Lift Plan is to be provided to Westfield at least one week (7 calendar days) prior to the start date of the planned lift activities (this includes crane setup). The earliest lift date that will be considered will be 7 days after receipt by Westfield. Any relief from the 7 day requirement is at Westfield's sole discretion. Emergency lifts, such as for repairs or replacement of rooftop items, will not be subject to this provision.

12.020 All information is to presume 360° operations (or that allowed by Boom Trucks).

12.030 When equipped, outriggers are to be fully and equally deployed.

12.031 Operations with less than fully deployed outriggers require Westfield's authorization. Such operations must be in accordance with manufacturer's instructions.

12.040 On Rubber lifts require Westfield's authorization.

12.050 Pick-and-Carry lifts require Westfield's authorization.

12.060 For outrigger cranes, all tires must be free and clear of the ground and all weight must be carried on the outriggers. If the Operating Manual states differently, the Operating Manual is to be followed.

12.070 Units of measure are U.S. (feet, pounds, etc.)

12.080 The term "blocking" as used in this document refers to structurally competent members placed under the outrigger floats to distribute the crane's weight.

12.090 Manufactured outrigger mats/pads may be used if supporting documentation is provided.

12.100 The Lift Plan Worksheet is not for use on multi-crane lifts.

12.101 Multi-crane lifts require Westfield's authorization, as well as additional planning and documentation.

12.110 Personnel lifts require Westfield's authorization.

12.111 Lift Contractor must demonstrate that there are no alternatives to performing personnel lifts.

12.120 If there are power lines within 45' of the boom sweep, then the voltages must be determined, and a meeting held with Westfield and the G.C. to discuss and plan for site conditions.

12.130 An Activity Hazard Analysis or the equivalent is required for each phase of crane activities - assembly, operation, movement, and disassembly. This is the responsibility of the Lift Contractor.

EXCEPTION:

12.140 The Mobile Crane Lift Plan does not apply to deliveries where the load is moved from the delivery vehicle and placed on the ground for future movement. However, GBP requirements must still be met.

12.150 **THE LIFT CONTRACTOR HAS OVERALL RESPONSIBILITY FOR ALL ASPECTS OF THE LIFTING OPERATIONS.**

12.160 Westfield reserves the right to require additional information and work plans beyond the scope of this document.

12.170 Acceptance of the information provided on this worksheet by Westfield does not relieve the Controlling Entity, General Contractor, Crane Contractor, Lift Contractor or Tenant from any Federal, State or Local regulatory compliance obligations.

12.180 The Lift Contractor is responsible for the accuracy of the information submitted on this document. Westfield is not responsible for errors due to file corruption or other modification of this document. Notify Westfield of any errors or functional issues with this document.

13. Abbreviations & Definitions

3-D Lift Plan - planning software provided by www.3dliftplan.com

A / D SUPERVISOR - the individual in charge of the assembly and disassembly of the crane

BOOM SWEEP AREA - that area underneat the operating radius of the crane boom

CRANE CONTRACTOR - firm supplying and operating the crane

FAA - Federal Aviation Administration

G.C.- General Contractor / Controlling Employer

GBP = Ground Bearing Pressure, in pounds per square foot

LIFT COORDINATOR - Lift or Crane Contractor employee with overall responsibility for the covered operations

LIFT CONTRACTOR - firm for which the crane is being operated for

NCCCO - National Commission for the Certification of Crane Operators

Notice Criteria Tool - FAA planning software that identifies crane notification requirements

OE/AAA - FAA Obstruction Evaluation / Airport Airspace Analysis

P.E. - a registered Professional Civil/Structural Engineer in the state in which the lifts will take place

SUSUMP - Standard Urban Stormwater Plan

14. Notes As Called Out By [#]

[1] At minimum, the nearest crawler, outrigger or blocking must be at least 1.5 times the depth of the excavation / trench / basement / embankment away from the toe/bottom of the excavation / trench / basement / embankment. As an example, for a 6' (72") deep excavation, the horizontal distance of the crawler, outrigger, or blocking must be at least 9' (108") away from the toe of slope / bottom of the side. Restriction also applies to underground installations.

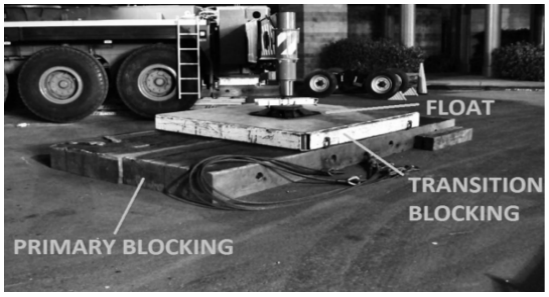
[2] Power line voltages must be identified on the site map.

[3] TRANSITION BLOCKING:

(a) Transition Blocking is required in many cases to avoid point-loading the Primary Blocking.

(b) Transition blocking is also required when individual timbers or timber mats are used for primary blocking and the outrigger float does not bear upon all timbers.

(c) The validations required by Section 7.5 are to resolve any blocking issues prior to submission.



[4] Be reminded that the FAA can take up to 45 days to issue a determination for an obstruction.

The upper portion of the Safety Meeting report form may also be completed electronically (it is not shaded).

15. Comments / Additional Notes / Additional Requirements

SAFETY MEETING MINUTES (SFT-06ME)				Mobile Crane Lift Plan	
Center					
Project					
Date					
Page		of			
General Contractor					
Lift Contractor				Crane Contractor	
Subjects discussed:					
Attendee comments					

Attendee Acknowledgements:

	Print Name	Sign Name	Company
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
Meeting Conducted By:			

ATTACH ADDITIONAL SHEETS AND DOCUMENTS AS REQUIRED

ACTIVITY HAZARD ANALYSIS 11/17/2014 **SFT-08mclp**

Complete an AHA at the work location each shift prior to the start of the task and/or when conditions change.

Company Name	Project (Lead) Supervisor	Crew Leader	Project

Activity / Task	Work Location	Date	Time

1. Review the activity/task with the crew at the work area, along with the items below that apply to the work. Check each item that applies to the work. Keep this form available for review at the work location. (Copy to Westfield or GC)

Activity Hazards	Work Area / Access / Egress Hazards	Environmental Hazards
☐ welding ☐ grinding ☐ cutting ☐ heating	☐ open hole(s) ☐ unprotected/leading edge(s)	☐ flying / blowing particles
☐ burns ☐ hot surfaces ☐ heat sources	☐ slip / trip hazards	☐ dusts ☐ mists ☐ vapors ☐ gases
☐ compressed gasses	☐ excavations	☐ weather ☐rain ☐wind ☐ice ☐snow
☐ working on or near energized equipment	☐ walkways ☐ sidewalks ☐ roadways	☐ exposure to ☐ heat ☐cold
☐ electrical cords & tools - condition	☐ control of hazardous energy	☐ MSDS / SDS reviewed for materials used
☐ equipment & tools inspected before use	☐ traffic control devices	☐ ventilation required ☐ lighting required
☐ control of hazardous energy	☐ confined space	☐ housekeeping / combustible materials
☐ welding arc shielded from view	☐ traffic ☐ vehicle ☐ equipment traffic	☐ noise – ☐ exposed to ☐ exposing others
☐ flammable ☐ combustible ☐ liquid ☐ gas	☐ hazards to the ☐ public or ☐ other trades	☐ spill / leak / storm water / erosion control
☐ fire hazard	☐ struck by ☐ struck against	People – Personal Limitations & Hazards
PPE Requirements	☐ caught in ☐ caught between	☐ trained to use tools / equipment
☒ safety glasses, hard hat, hi-visibility vest	☐ power lines ☐ underground utilities	☐ trained to perform the task(s)
☐ goggles ☐ particulates ☐ chemical / splash	**Fall Protection - Work at Height Hazards**	☐ distractions in work area
☐ face shield	☐ scaffold inspected by Competent Person	☐ working alone or away from others
☐ gloves ☐ chemical ☐ leather ☐ other	☐ barricades/tape/signs in place where needed	☐ physical limitations
☐ hearing protection ☐in ear ☐over ear ☐both	☐ hole/opening covers in place and secured	Ergonomic & Material Handling Hazards
☐ respirator ☐ paper ☐ half-face	☐ protection from falling items	☐ lifting – item(s) too heavy / awkward position
☐ harness and ☐lanyard ☐retractable ☐other	☐ aerial lifts inspected before use	☐ working in a tight/confined area
☐ foot protection ☐ leg protection	☐ fall arrest systems inspected before use	☐ body parts in line of fire
☐ coveralls ☐ FR gear	☐ fall arrest / restraint / guardrail systems	☐ working over your head
Cranes	☐ ladders ☐no metal, Type II or III ☐ inspected	☐ working below your feet
☐ Mobile Crane Lift Plan approved (No=STOP)	☐ others working above or below	☐ pinch points & crush zones identified
☐ Crane and Operator paperwork verified	Hoisting & Rigging	☐ repetitive motion ☐ vibration
	☐ capacity verified throughout range of lift	☐ items to be lifted properly secured/packaged
	☐ rigging inspected before use	☐ fall protection – unloading trucks / trailers

2. Job Safety Analysis: Identify the activity/task steps and hazards, and then how to eliminate or control the hazards.

A. Activity / Task Steps	B. Hazard(s)	C. Controls

3. Crew Acknowledgements

Name (print)	Name (sign)	Name (print)	Name (sign)

4. Crew Leader	*print*		*sign*	

17. Regulatory References:

California OSHA, Construction Safety Orders Article 15, 8CCR1610 et al:
Cranes and Derricks in Construction (Cal/OSHA)

Federal OSHA 1926.1400 et al:
Cranes and Derricks in Construction (Federal OSHA)

Washington Department of Labor and Industry, Chapter 296-155 Construction Work, Part L
Construction Cranes (Washington L&I)

Maryland Occupational Safety and Health
MOSH Crane Safety 09.12.26.00 (PDF)
MOSH Crane Safety (live page with links to regulations)
Maryland's New Crane Regulation, DLLR 2011

18. Links:

3-D Lift Plan
FAA Notice Criteria Tool
FAA Obstruction Evaluation / Airport Airspace Analysis Home Page (O
LiftQuote
NCCCO

Outrigger Loading / Ground Bearing Pressure Resources
Grove Cranes
Kobelco Cranes
Link Belt Cranes
Manitowoc Cranes
National Cranes
Hitachi - Sumitomo Cranes
Terex Cranes

19. Cranes known to have Front (a.k.a. Nose or Bumper) Outriggers or Stabilizers:

Grove	Elliott	Link Belt	National	Manitex	Terex
TM 9120	1056	ATC 3210	500E2	4077	BT 4792
TM 9150	1870	ATC 3275	600E2	20102	RS 70100
TMS 500 series	2695	HC 238	1300A	40100	T300 series
TMS 540	18125	HC 278	1400A	40124	T560
TMS 640	26105	HTC 3140	1400H	TC20155	
TMS 700B	36142	HTC 86100	800D	TC450	
TMS 700E	40105	HTC 86110	900A	TC50110	
TMS 760	50105	HTC 8630	NBT30H	TC50128	
TMS 800E	1881TM	HTC 8635	NBT36	TC5096	
TMS 870	30105F	HTC 8640	NBT40		
TMS 875	3095F	HTC 8660	NBT45		
TMS 9000E	32117R	HTC 8670			
TMS 900E	36127 F & R	HTC 8675			
TMS 9100	E120 E-Line	HTC 8690			
	G85F	HTT 86100			
	H105F	HTT 86110			
	H110F	HTT 8675			
	H70F				

Blocking must be a minumum of 3'x3' square or 9 square feet or 42" round, and 4" (nominal) thick or equal.

This list is not intended to be nor warranted to be a list of all cranes with front outriggers or stabilizers.
It is intended to ensure that the front outrigger / stabilizer is identified and properly accounted for in the Lift Plan.