

Assembly Plan

Stage 1

Modular carrier with the 32ft and 22ft modules loaded will be maneuvered so 32ft module is above its specified location on site.

Stage 2

Four trolley jacks will be placed under the 32ft module angle irons on top of cribs between the modular carrier outriggers. Module to carrier tie downs (shown in S-302) will be removed, and module will be raised to approximately 48 – 60 inches above ground level. Cribs will then be placed under the modules as temporary support for the removal of the trolley jacks.

Stage 3

With the module resting on cribs, two W-sections will be placed under the module in the transverse direction, extending approximately 18 inches from each side of the module. Trolley jacks on top of cribs will be placed approximately 2 inches from ends of W-sections to support module, allowing for the removal of the crib supports.

Stage 4

Modular carrier, with the 22' module still loaded will pull out from under the 32' module, and be maneuvered so that the 22' and 32' module connectors are in line, but with a 24 – 30 inches space between the two modules.

Stage 5

32' module will then be lowered by retracting the trolley jacks onto shorter cribs. The retracted trolley jacks will then be placed on shorter cribs, extended to support the house, and retracted again to lower the module onto shorter cribs. This continues until the module can be lowered onto pier foundations specified in accordance with S-201 Pier Foundation Plan, and secured. Trolley jacks will then be removed.

Stage 6

Four trolley jacks will be placed under the 22ft module angle irons on top of cribs between the modular carrier outriggers. Module to carrier tie downs will be removed, and module will be raised to approximately 48 – 60 inches above ground level. Cribs will then be placed under the modules as temporary support for the removal of the trolley jacks.

Stage 7

With the module resting on cribs, two W-sections will be placed under the module in the transverse direction, extending approximately 18 inches from each side of the module. Trolley jacks on top of cribs will be placed approximately 2 inches from ends of W-sections to support module, allowing for the removal of the crib supports.

Stage 8

Unloaded Modular Carrier will pull out from under the raised 22ft module.

Stage 9

22' module will then be lowered by retracting the trolley jacks onto shorter cribs. The retracted trolley jacks will then be placed on shorter cribs, extended to support the house, and retracted again to lower the module onto shorter cribs. This continues until the trolley jacks are able to support the module while resting on the ground.

Stage 10

A minimum of four chain come alongs will be secured to the corners of the 22ft module, and module will be hauled into position while secured to trolley jacks.

Stage 11

22' Module will be leveled to rest on pier foundations.

Stage 12

The two modules will be bolted together. Seams will be made watertight by flashing and caulking.

Stage 13

The PV and solar thermal panels support structure will then be lifted to the north roof using a reach fork-lift with either a truss boom or the forks, depending on the module.

Stage 14

The support structure will then be assembled and the panels moved to the north roof and into place on the structure with the forklift. The SPR-215 panels will be lifted in units of 3 modules while the Solarsa solar thermal collectors will be moved individually.

Stage 15

The unircac support structure for the SPR-215 will then be installed on the south roof. The components will be lifted in bundles using the fork-lift and staged in the center of the roof for assembly.

Stage 16

The SPR-215 panels will then be lifted to the roof in lots of 8 and installed.

Stage 17

Final wiring and circuit testing of PV system.

Stage 18

Batteries will be installed in the mechanical room with the use of a truss boom attached to a fork lift. The batteries will be lifted in their steel containers using the provided lift points and will be set on the battery rack, starting at the bottom.

Stage 19

Final wiring and circuit testing of the battery system.

Stage 20

Inverters and other electrical components will be installed in the mechanical room. All voltage sources will be check for polarity and continuity before being landed in the equipment.



Step 21

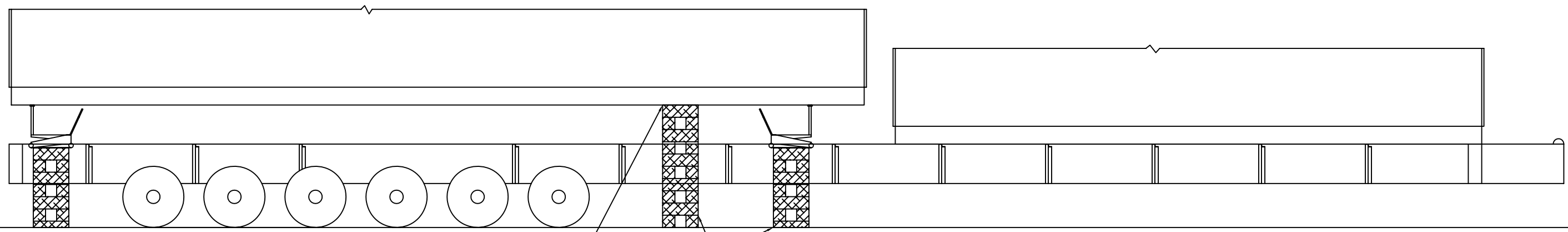
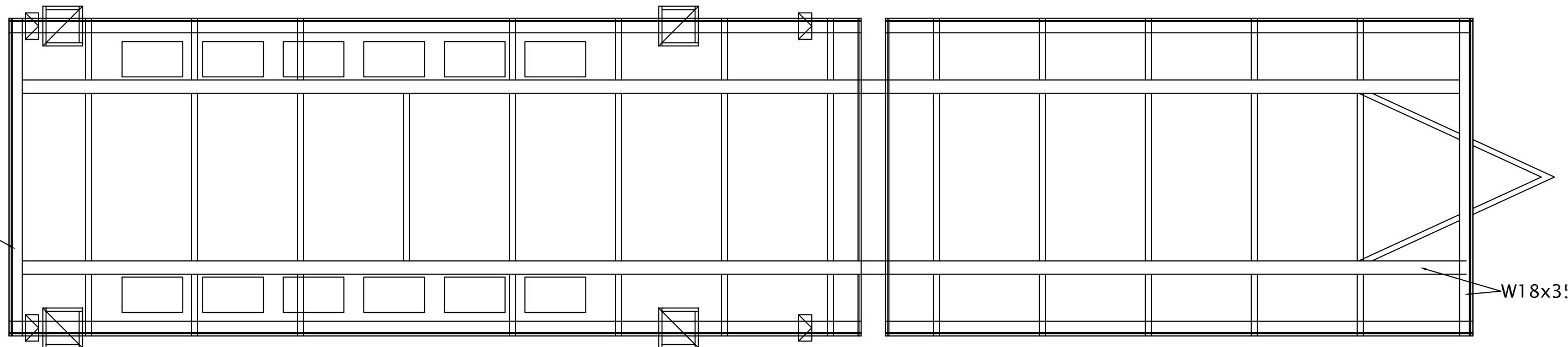
Final system startup of all electrical components.





NORTH

-  Stage 2 Trolley Jack Stand Locations
-  18x18" Crib Stand Locations



Stage 2: Module raised to this level

16x16" Cribs

SCALE: $\frac{1}{4}'' = 1'-0''$

Date: July 31, 2007
 Drawn by: Raymond Lam

TITLE: **ASSEMBLY PLAN**

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 500 El Camino Real, Santa Clara, CA 95053

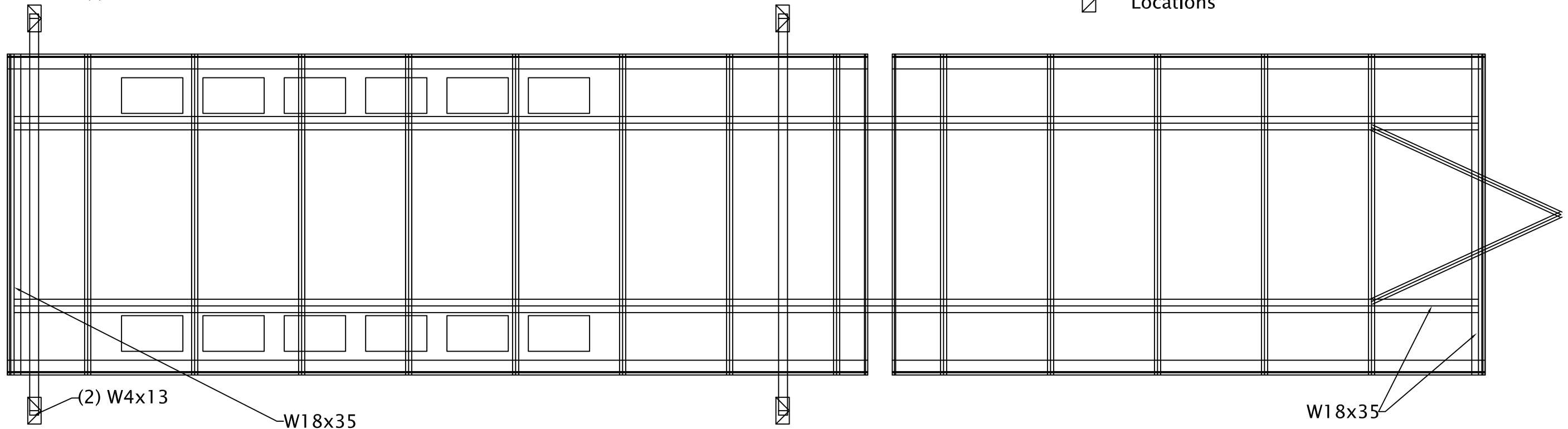
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DRAWING
S-302
 SHEET 2 OF 7

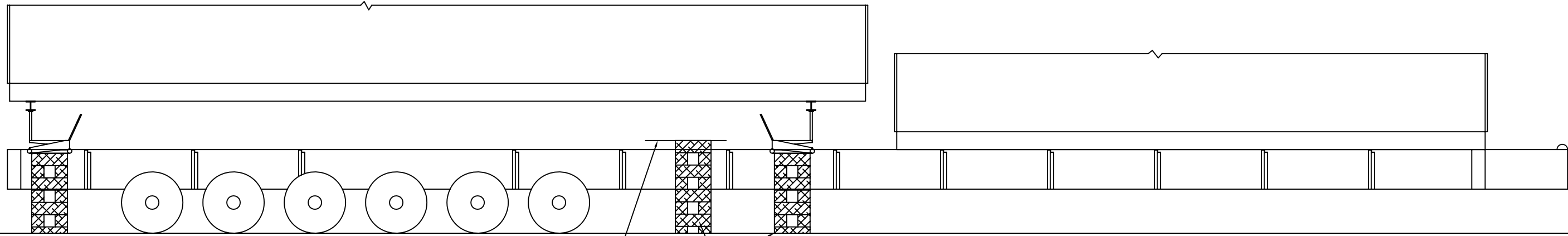


NORTH

Stage 3 Trolley Jack Stand Locations



Stage 4: Modular Carrier Pulls out from under raised 32' module



Stage 5: Module lowered to shorter crib

SCALE: $\frac{1}{4}'' = 1'-0''$

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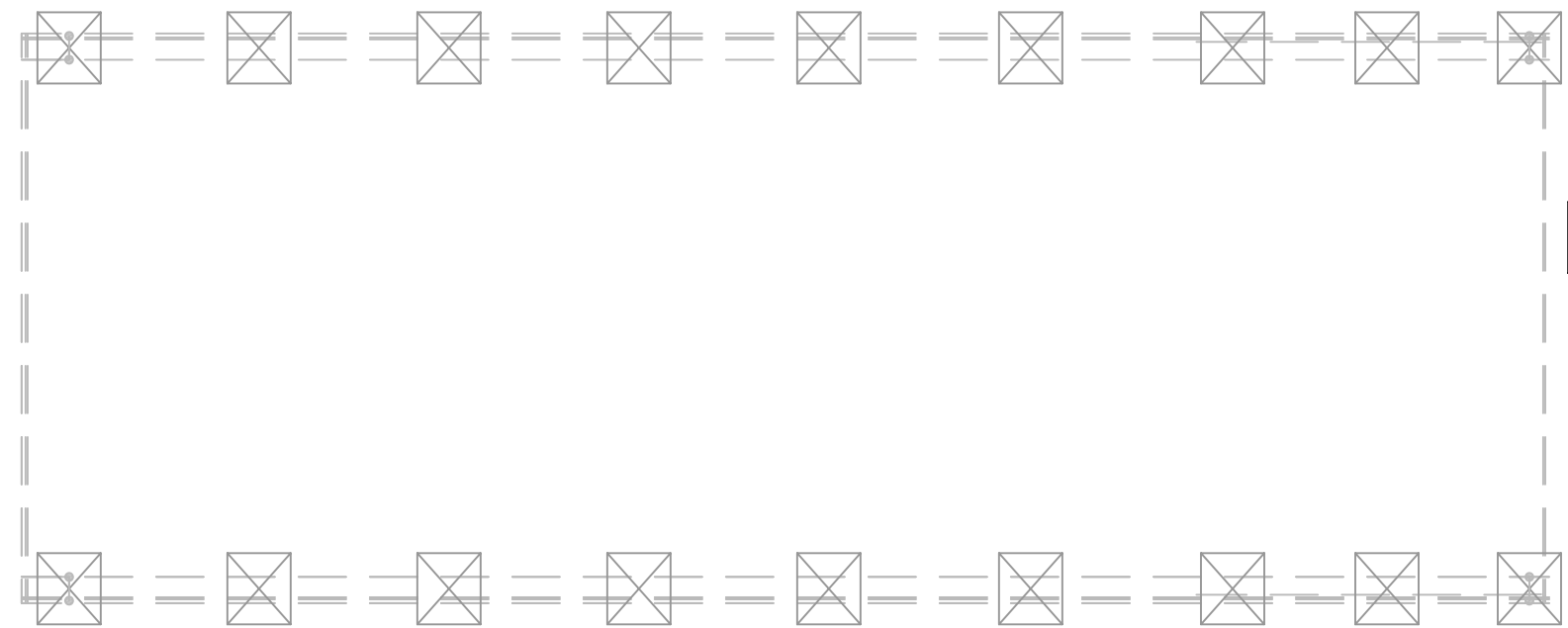
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DRAWING S-303

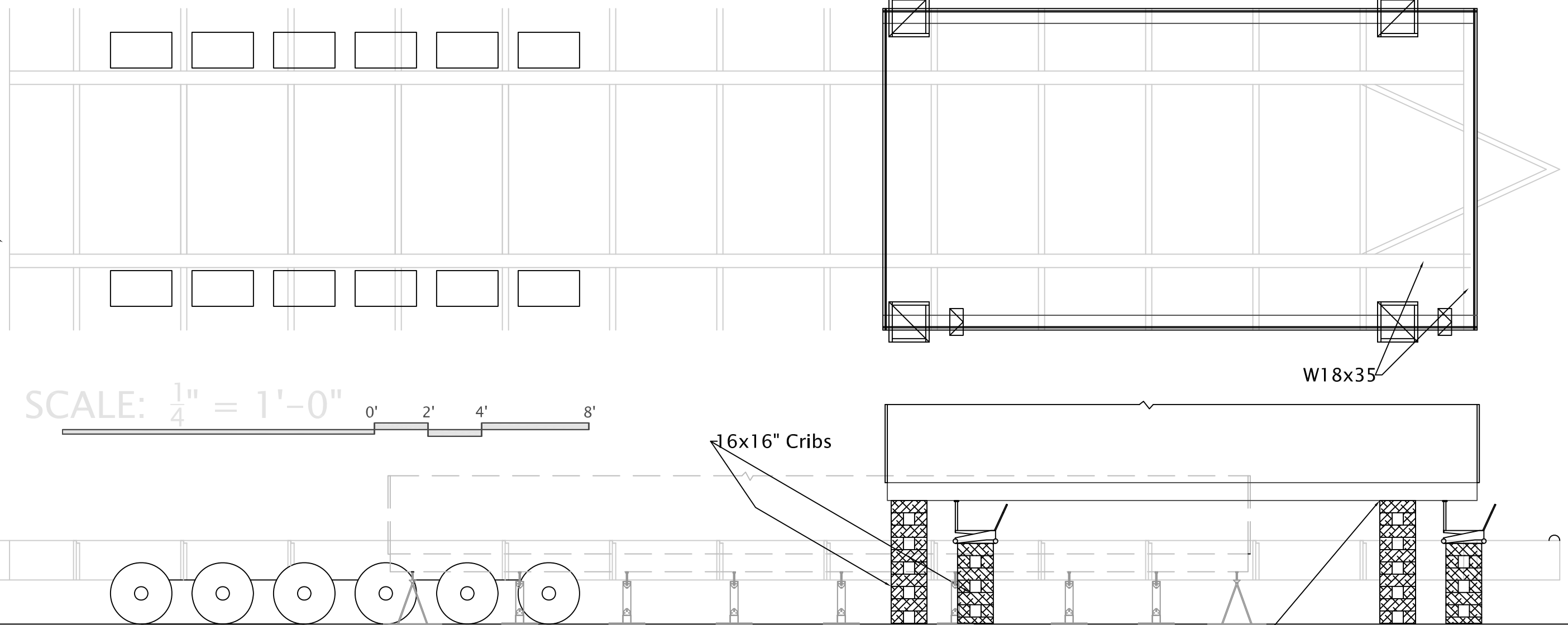
SHEET 3 OF 7



NORTH



Stage 6 Trolley Jack Stand Locations
18x18" Crib Stand Locations



16x16" Cribs

W18x35

Stage 6: Module raised to this level

Date: July 31, 2007
Drawn by: Raymond Lam

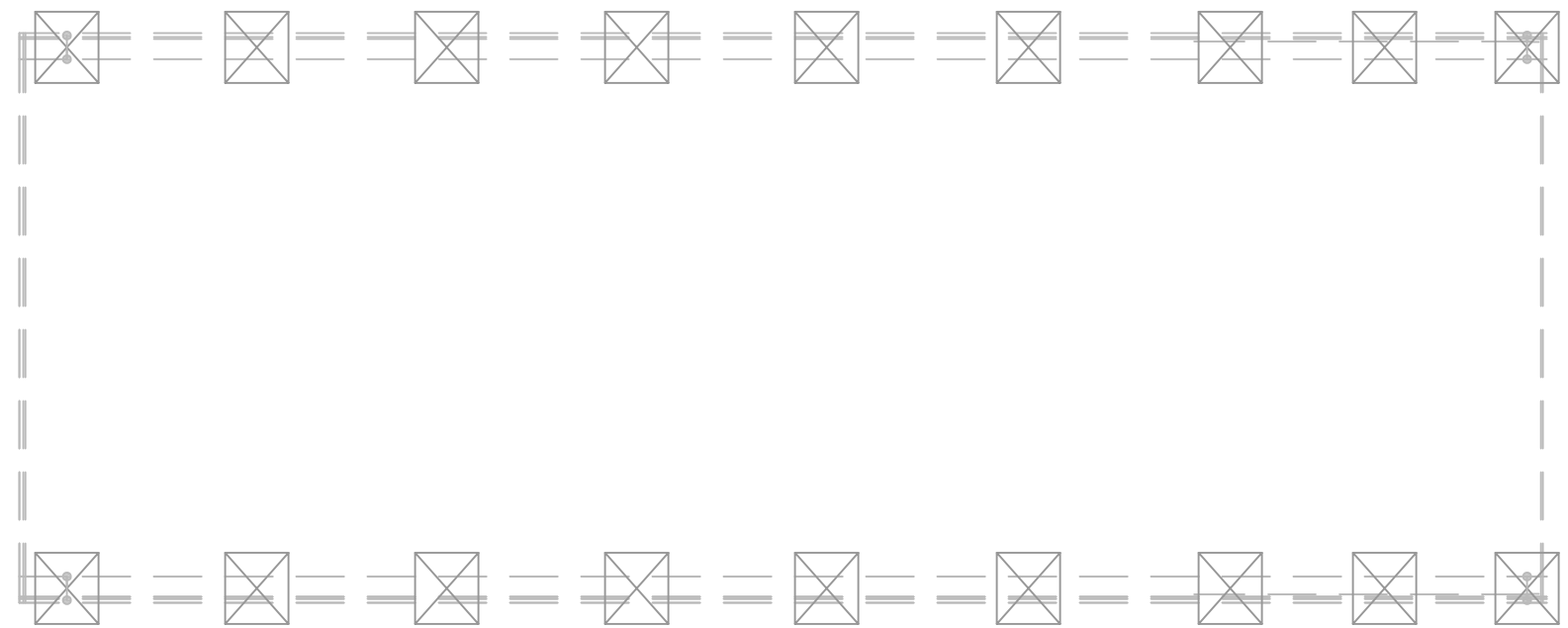
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



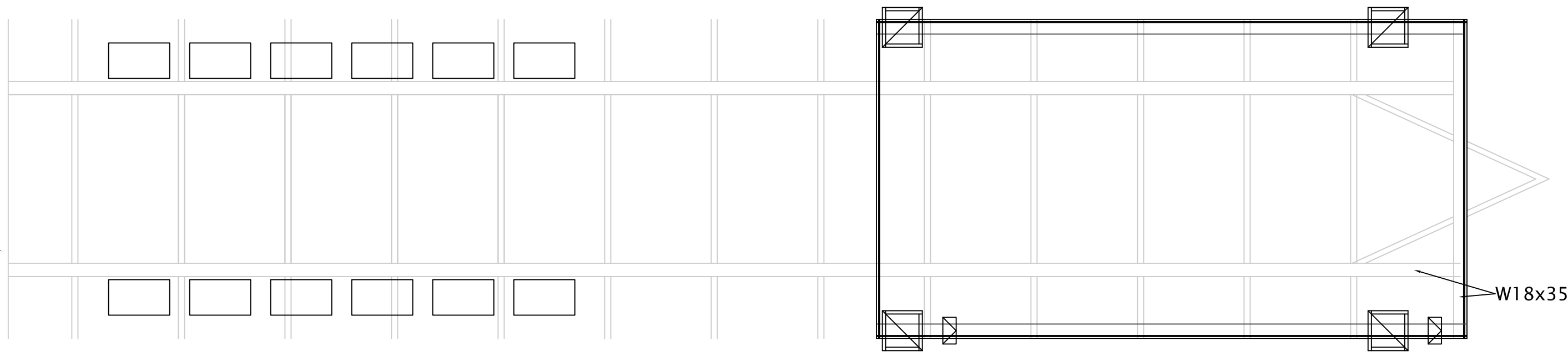
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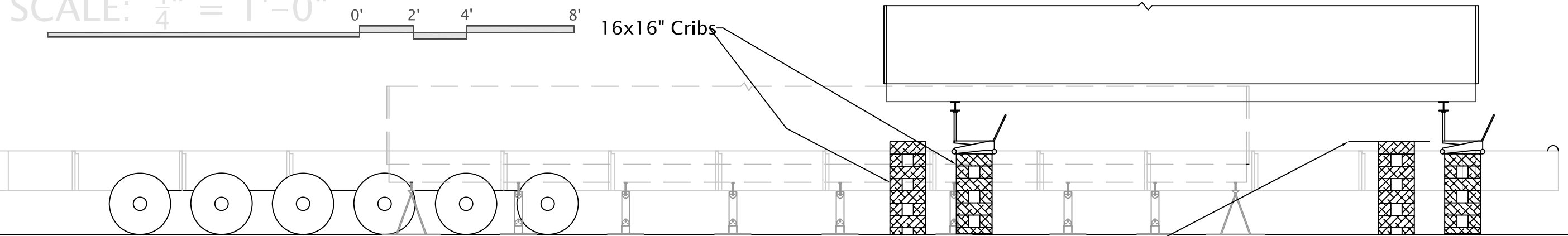
DRAWING
S-304
SHEET 4 OF 7



-  Stage 7 Trolley Jack Stand Locations
-  18x18" Crib Stand Locations



Stage 8: Modular carrier pulls out from under raised 22' module



Stage 9: 22' Module lowered to shorter crib