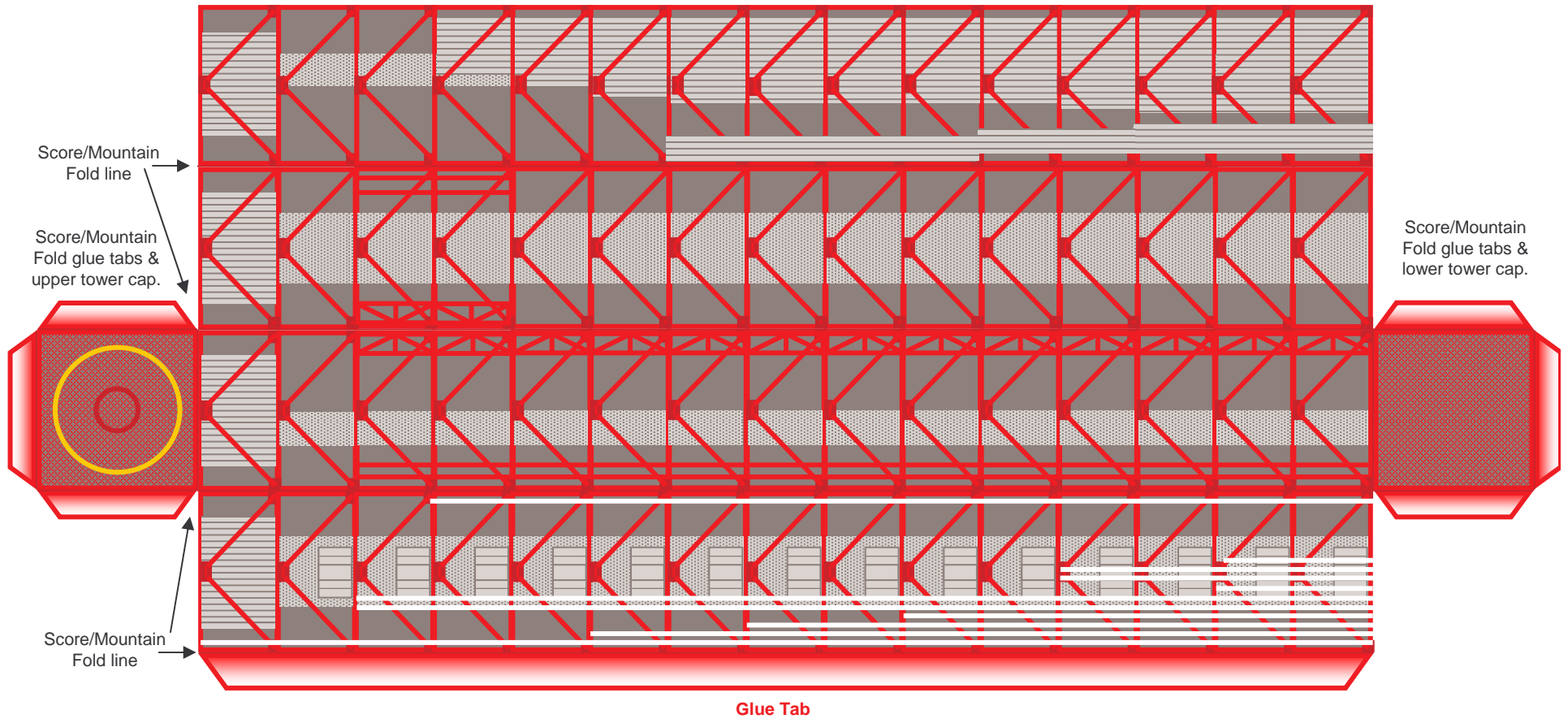


Launch Umbilical Tower

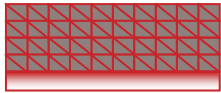
PRINT ON CARDSTOCK



As the Crane is designed to rotate, the builder may wish to build it from cardstock for extra strength. You need build only one crane – these are alternate parts

Lightning Rod

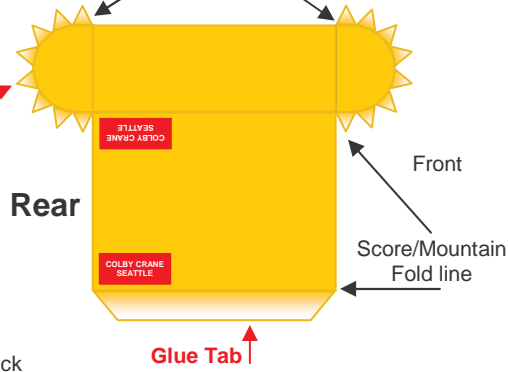
Roll into tube



Mountain fold all triangular glue tabs on both ends

Machinery House

Mountain Fold/Score lines



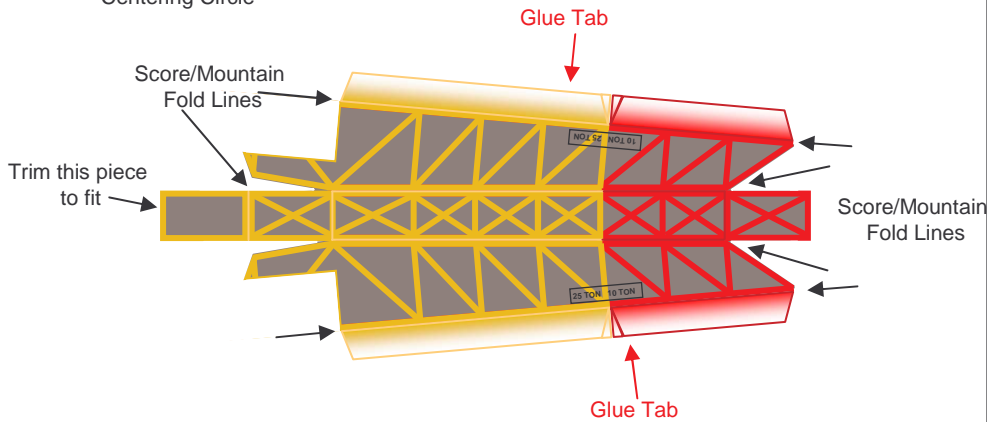
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Crane Keel

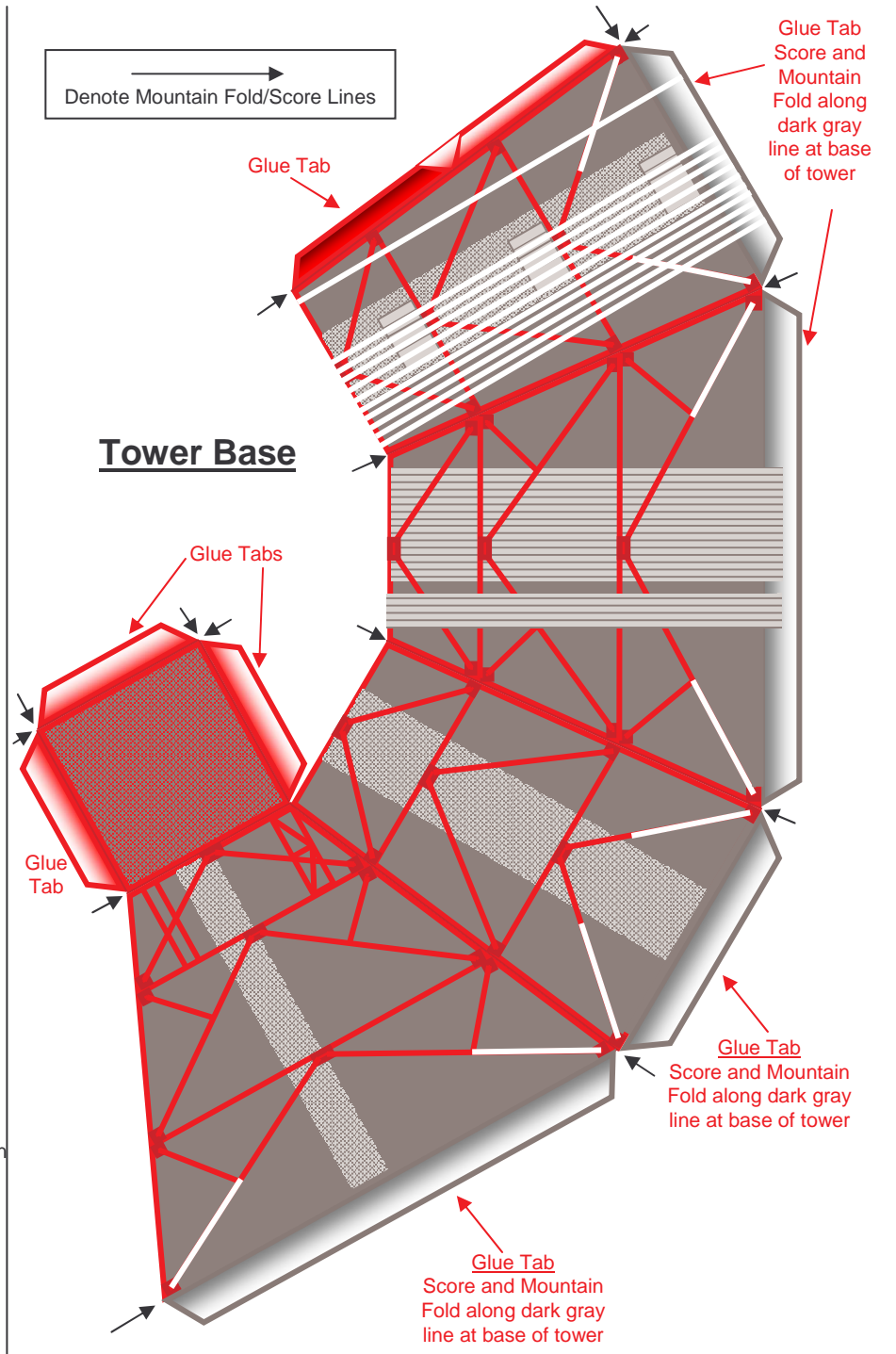
Sandwich and glue both halves around cardstock



Print on Cardstock

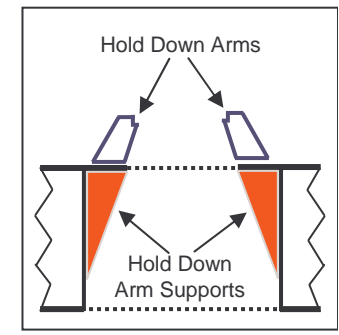
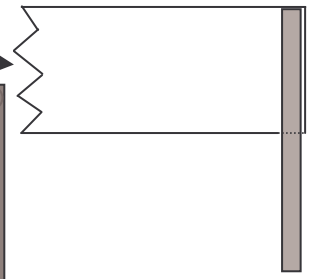
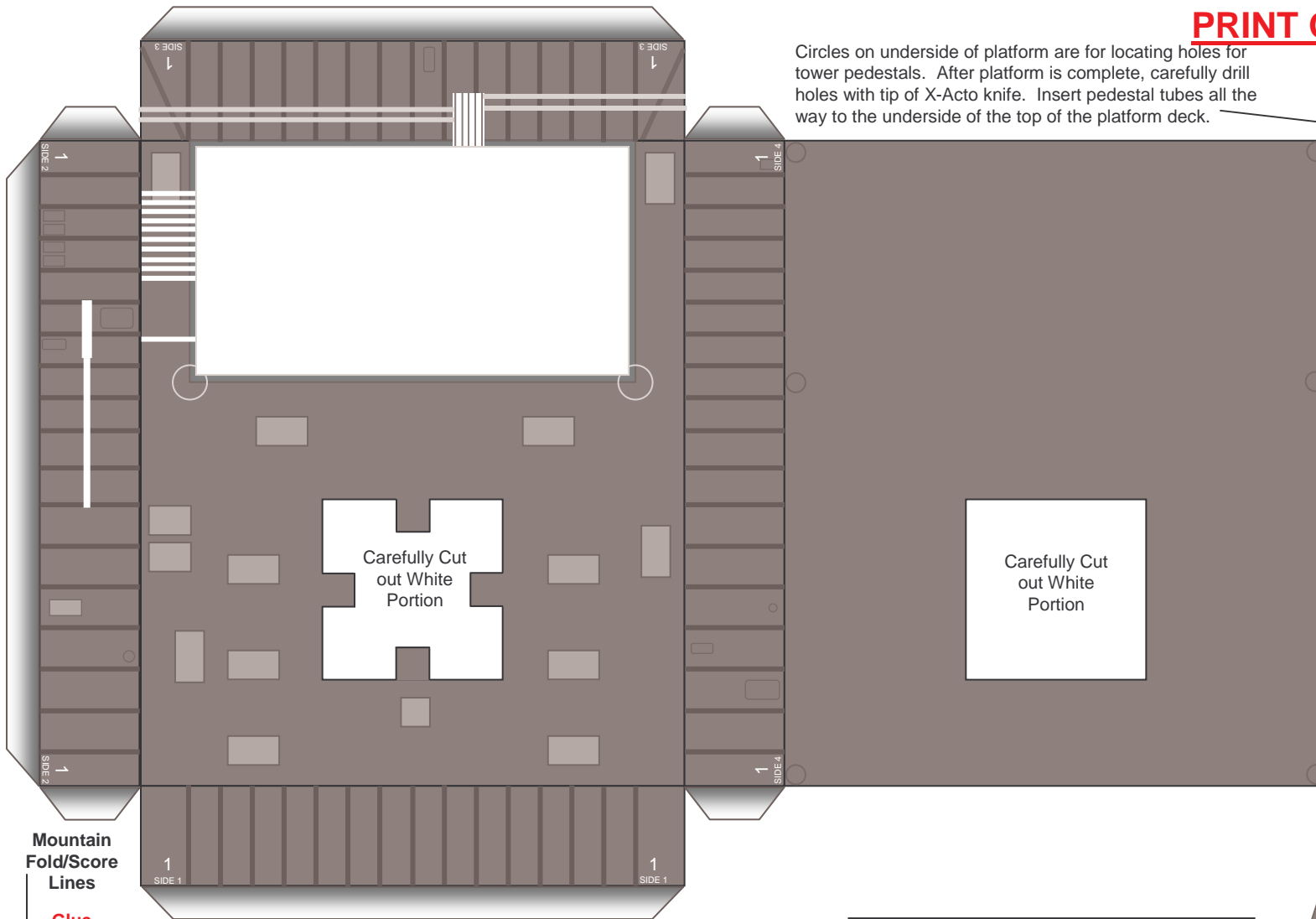


Denote Mountain Fold/Score Lines



PRINT ON CARDSTOCK

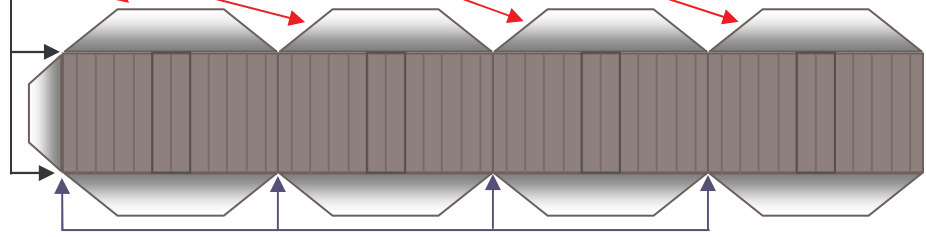
Circles on underside of platform are for locating holes for tower pedestals. After platform is complete, carefully drill holes with tip of X-Acto knife. Insert pedestal tubes all the way to the underside of the top of the platform deck.



Hold-Down Arm Supports
These are wedge-shaped pieces that are glued to the underside of the square protrusions in the top opening of the thrust chamber and to the face of the thrust chamber liner.

Mountain Fold/Score Lines

Glue Tabs

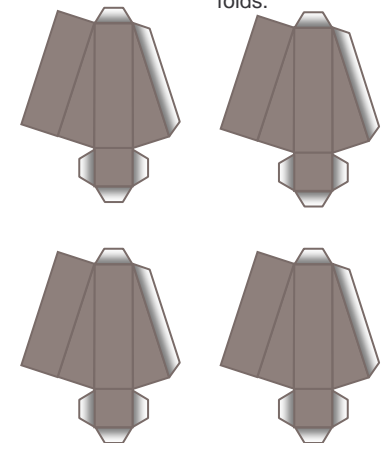


Valley Fold/Score Lines Center in holes cut out of launcher platform, between upper and lower decks.

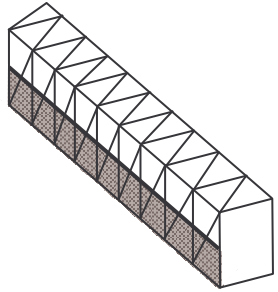
See Crane Parts Page for Hold Down Arms and Launcher Pedestals

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All folds are Mountain folds.



Service Arms



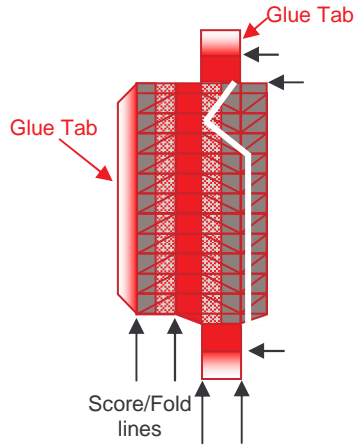
Solid red sections are the walkway (bottom) of the arm – gray section with diagonal cross members are the tops. Sides have diagonal cross members with "mesh" on bottom half.

Both ends are "capped" for rigidity and for mounting to the tower.

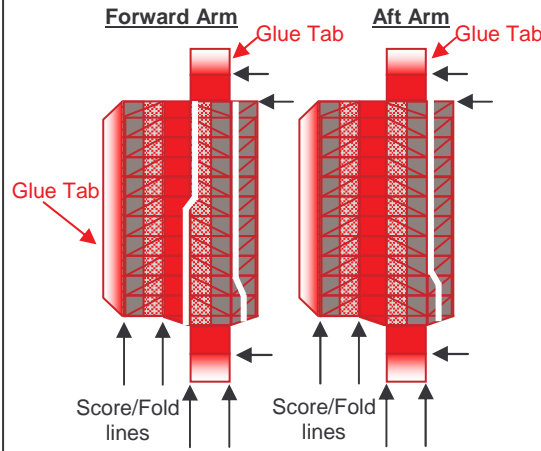
All folds are "mountain" folds.

Recommend printing on bond paper.

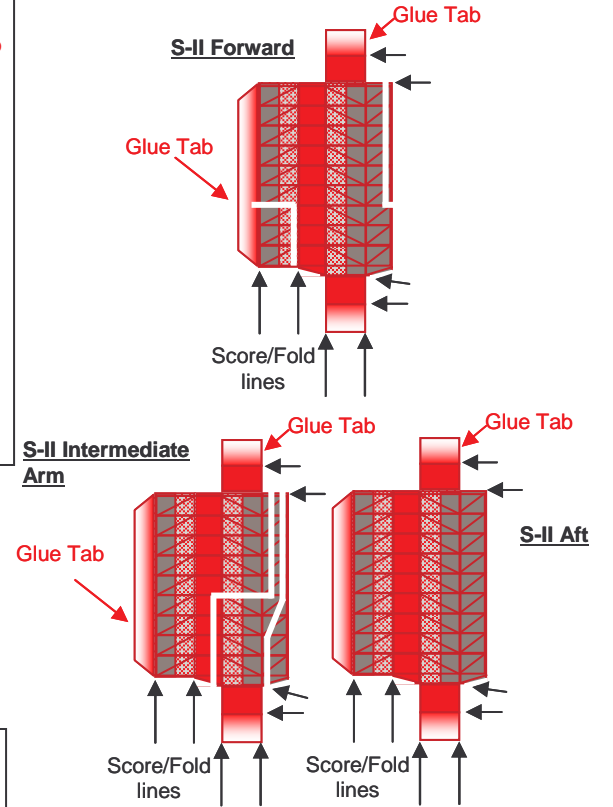
SM Arm



S-IVB Arms

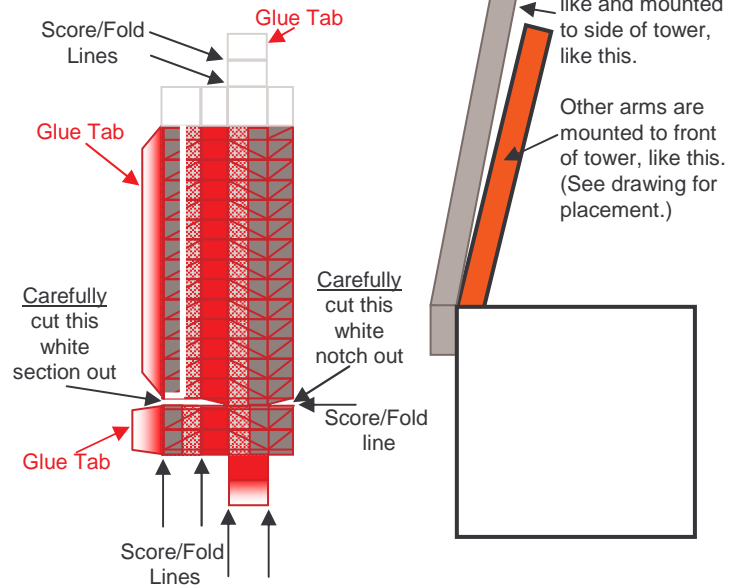


S-I & S-II Arms

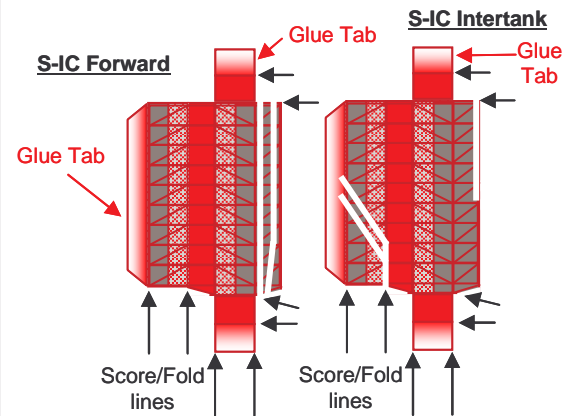
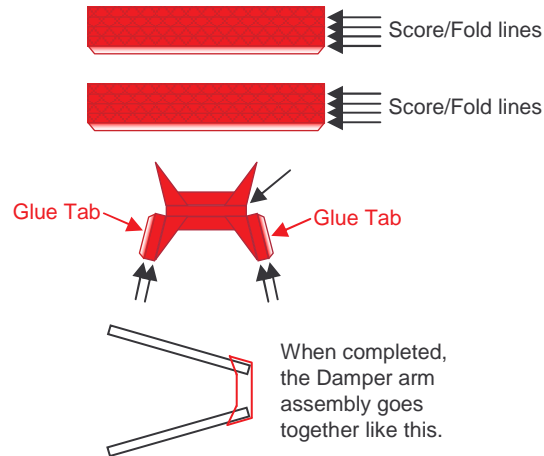


PRINT TO BOND PAPER

CM Access Arm



Damper Arm

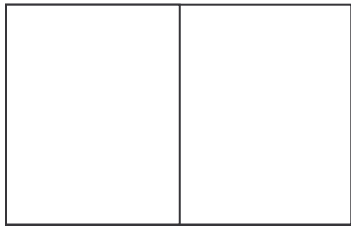


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PRINT TO BOND BAPER

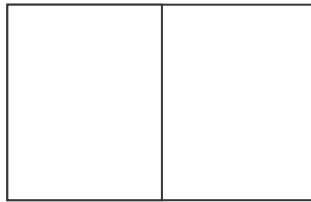
Launcher Base Pedestals

Roll into double layered tubes – Glue edge to centerline



Outer Sleeve – Inside top of Tower

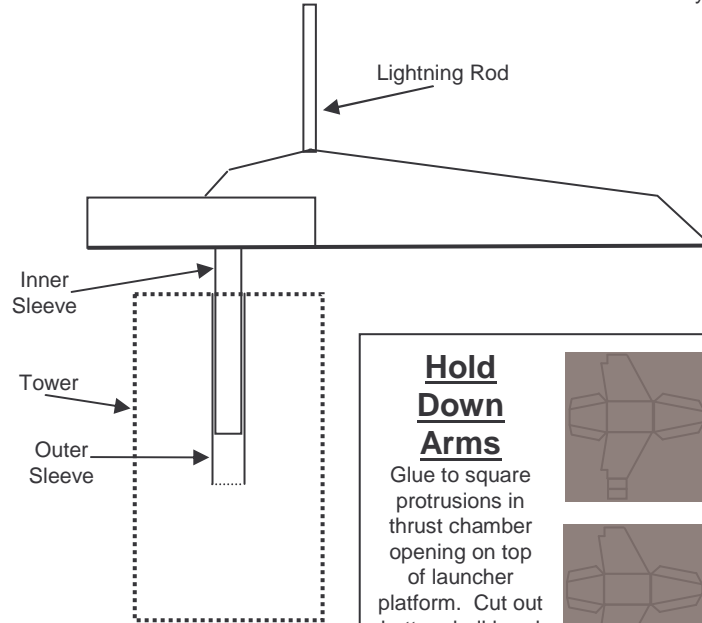
Roll into double layered tube – Glue edge to centerline.
Cut out small circle on top of tower, glue tube in line with hole in order to stabilize crane and allow it to rotate.



Inner Sleeve – on bottom of crane

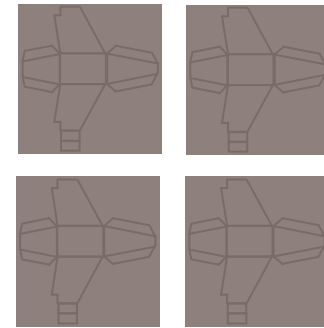
Roll into double layered tube – Glue edge to centerline
Glue tube to bottom of Crane Keel, centered in small circle. Inner Sleeve should fit snugly enough inside Outer Sleeve that Crane doesn't wobble, but loosely enough to allow rotation.

As the Crane is designed to rotate, the builder may wish to build it from cardstock for extra strength. You need build only one crane – either these parts or those on the Tower Base page



Hold Down Arms

Glue to square protrusions in thrust chamber opening on top of launcher platform. Cut out bottom bulkhead of Saturn V, glue to cardstock, and use to align Hold Down Arms such that they are centered and support the rocket model.

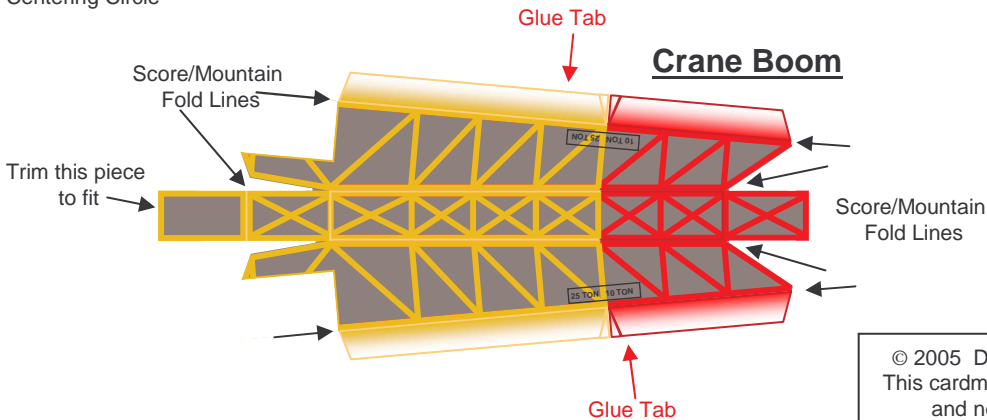
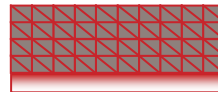


All lines are Score/Mountain Fold Lines



Lightning Rod

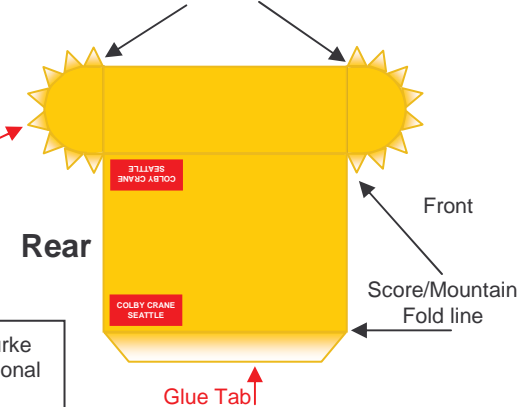
Roll into tube



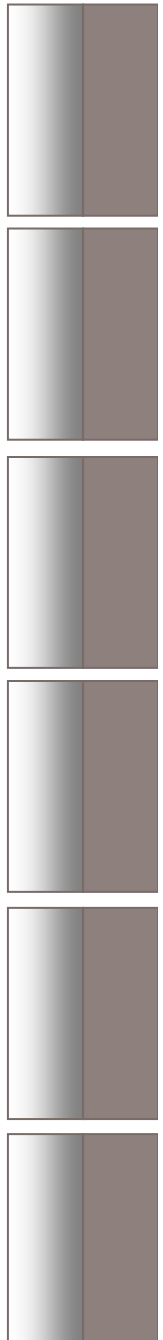
Machinery House

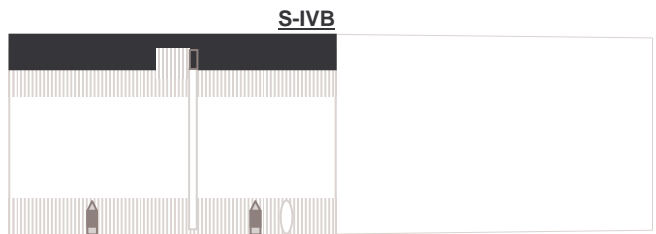
Mountain Fold/Score lines

Mountain fold all triangular glue tabs on both ends



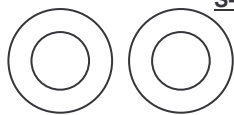
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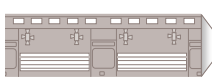
S-IVB

Roll Into double-layered tubes



S-IVB Centering Rings

Glue Rings to Cardstock and glue one in front and one in back of S-IVB



Service Module

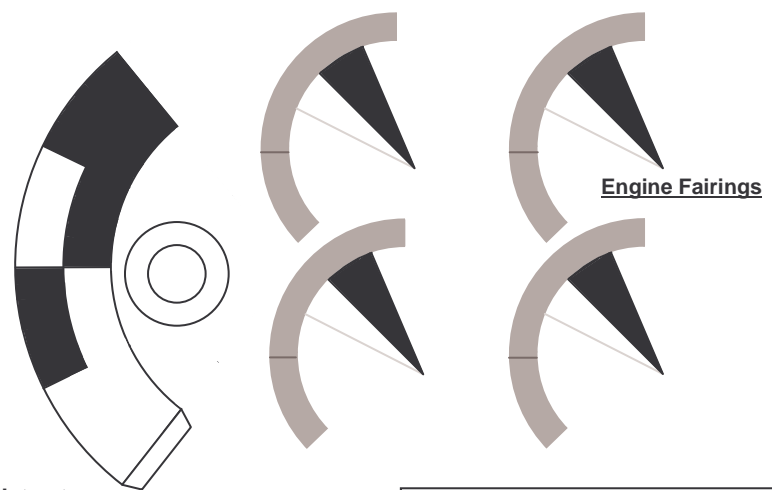
Command Module



This wedge is a glue tab

Launch Escape Tower

Roll Into Cylinder

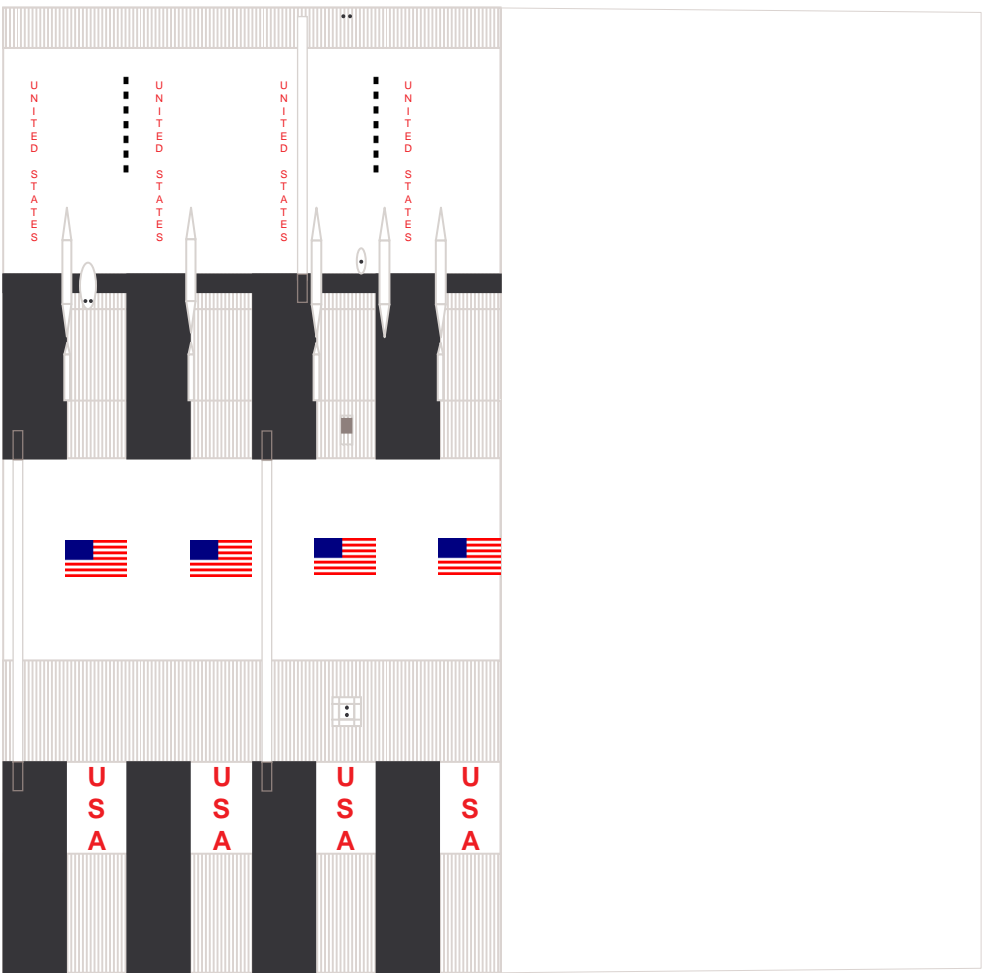


Interstage

Engine Fairings

S-IC, Interstage, & S-II

PRINT TO BOND PAPER

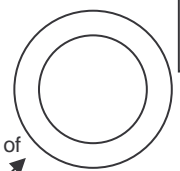


Interstage

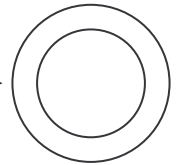
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Centering Rings

Glue one in front and back of S-1C/S-II Tube

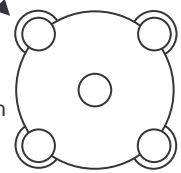


Glue to Cardstock

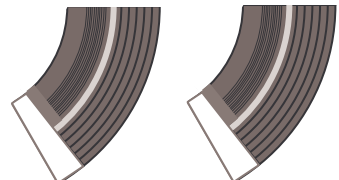
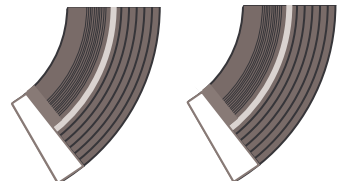
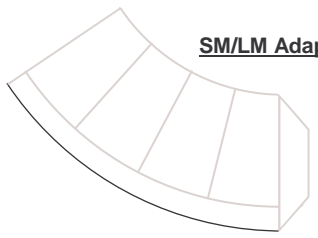


Saturn V Rear Bulkhead

Glue to cardstock and use to align and center Hold Down Arms on Launcher Base.

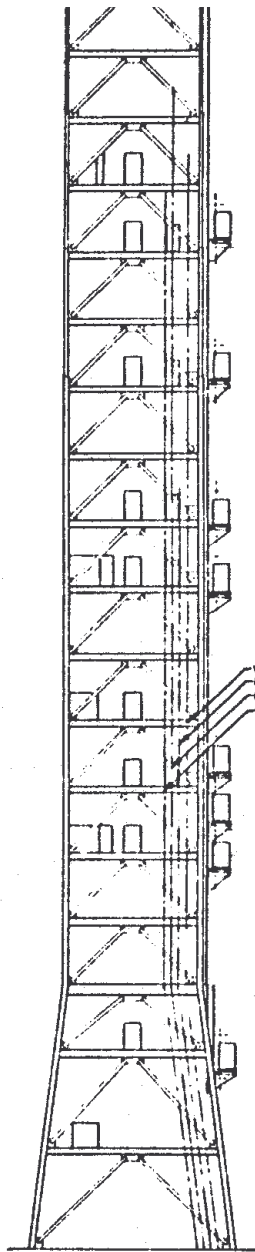


SM/LM Adapter



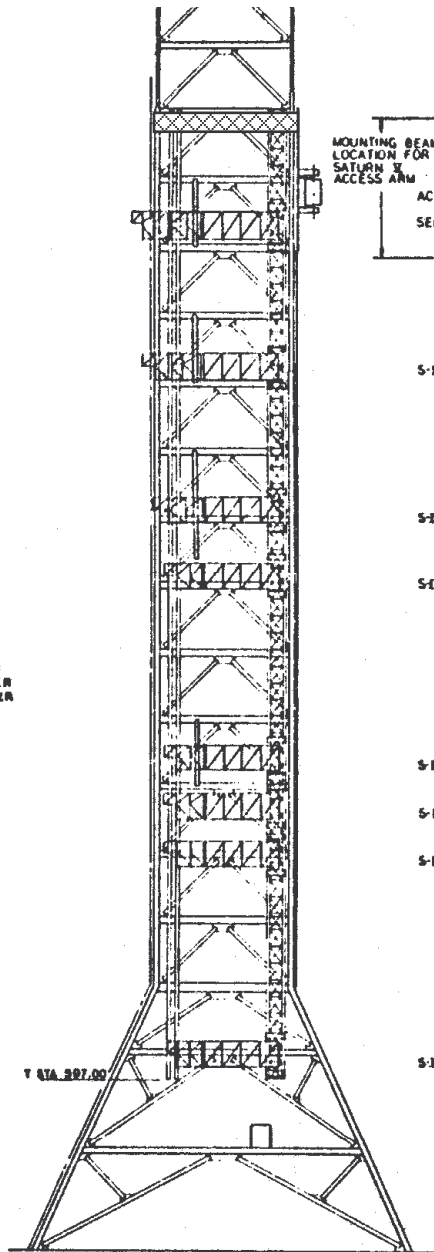
F-1 Engines

Fins - Trim off Root Tabs



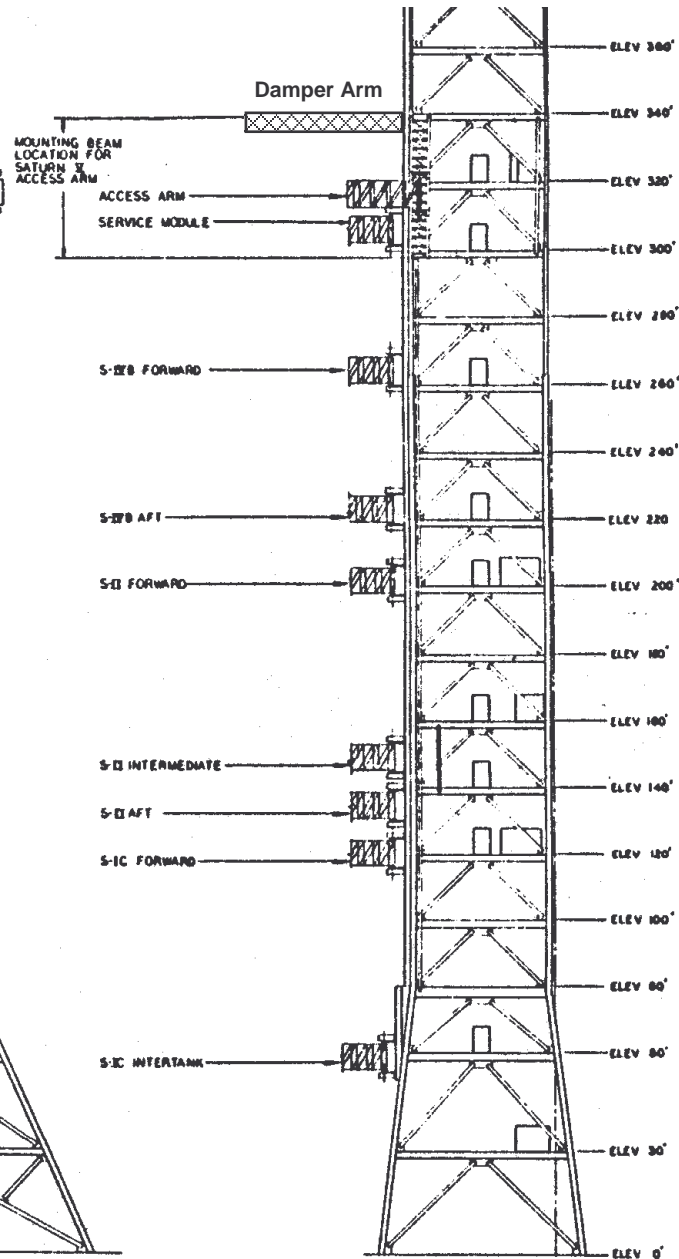
WEST ELEVATION
SIDE (2)
SCALE: 1/200

WATER QUENCH RISER
FOGGING NOZZLE RISER
DOMESTIC WATER RISER
SAFE WATER RISER



SOUTH ELEVATION
SIDE (1)
SCALE: 1/200

T STA 307.00



EAST ELEVATION
SIDE (4)
SCALE: 1/200
ARMS SHOWN IN EXTENDED POSITION

Damper Arm

MOUNTING BEAM LOCATION FOR SATURN & ACCESS ARM

ACCESS ARM

SERVICE MODULE

S-208 FORWARD

S-208 AFT

S-211 FORWARD

S-211 INTERMEDIATE

S-211 AFT

S-211 FORWARD

S-211 INTERTANK

ELEV 360'

ELEV 340'

ELEV 320'

ELEV 300'

ELEV 280'

ELEV 260'

ELEV 240'

ELEV 220'

ELEV 200'

ELEV 180'

ELEV 160'

ELEV 140'

ELEV 120'

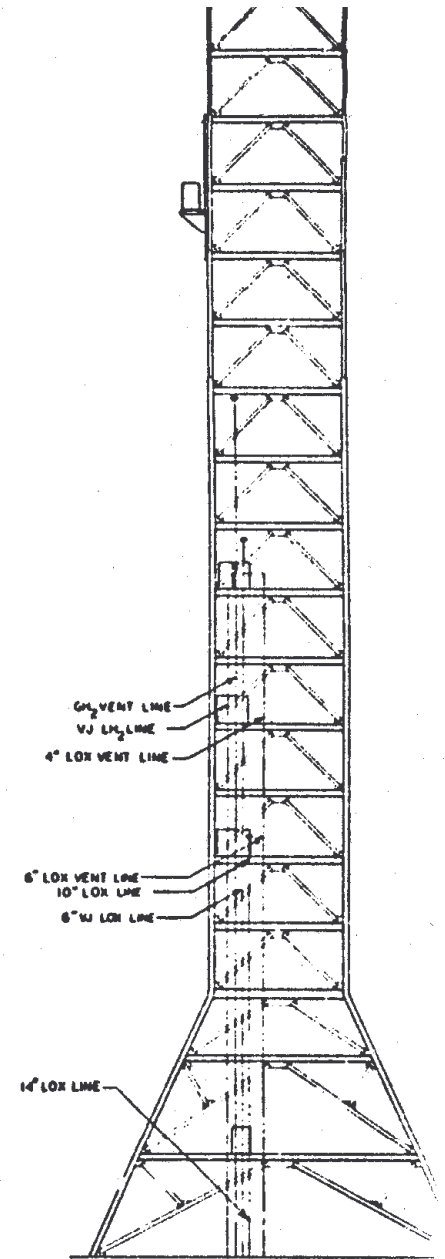
ELEV 100'

ELEV 80'

ELEV 60'

ELEV 30'

ELEV 0'



NORTH ELEVATION
SIDE (3)
SCALE: 1/200

CH₂ VENT LINE

VJ LN LINE

4" LOX VENT LINE

6" LOX VENT LINE

10" LOX LINE

6" WJ LN LINE

14" LOX LINE