40 Inch Telescope Primary Mirror Removal
(Old Way Using Crane)

Nickel Aluminizing Checklist

1.) All mirror removal tools in round room (see photos)
2.) Locking bar for upper truss to yoke (weight cabinet in dome)
3.) Service hoist in dome, check belt
4.) Have custodian clean 40" dome floor, round room and R.O.R.

TOOLS $ EQUIPMENT needed for 40" mirror removal:

1.) Crane truck
2.) Pickup truck
3.) Mirror fixture with hanger
4.) Large shackle for mirror hanger to crane truck hook
5.) Ladder to remove panel over door
6.) Three 4 X 4 wood blocks
7.) Two large slings (for lifting mirror removal tools from round room
8.) One small hydraulic jack
9.) Three 1/2" eye bolts with nuts
10.) Three equal length 1" wide slings

REMOVAL NOTES (use photos)

1.) Be sure to install dec and R/A tie bars
2.) Remove TUB encoder from bottom of cell, leave belt hooked to TUB
3.) Remove all stops and pointers for TUB
4.) When handling mirror try recabling hoist with snatch block and hook at mirror to slow speed to one half
5.) Check bottom mirror supports after replacing mirror
6.) Put earthquake clips back before reinstalling cell on telescope

Approximate man hours for removal of mirror and delivery to 120", not including preparation prior to removal.

<table>
<thead>
<tr>
<th>Name</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Mike</td>
<td>4</td>
</tr>
<tr>
<td>Darrell</td>
<td>4</td>
</tr>
<tr>
<td>Barry</td>
<td>3</td>
</tr>
<tr>
<td>Bill Brown</td>
<td>2</td>
</tr>
<tr>
<td>Crane driver</td>
<td>1</td>
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Two-handed signals...
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Mirror covers off.

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Use a Better Fixture
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FIXTURE

REMOVE SECONDARY FIRST!

DEC. TIEROD
install after secondary is removed if it is going to be Alum.
3 - 1/2" eye bolts with nuts & washers to lift tub.
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EAST TUB ROLLER COMES OFF NOW.

Remove inside & outside bolts on mirror cell. Note match marks.
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BACK OFF 6 BLACK HOUSINGS FOR SIDE SUPPORTS

EARTHQUAKE CLIPS. DON'T FORGET TO RE-INSTALL AT THIS STEP!
When mirror goes back in check bottom supports
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[Images of telescope components being lifted and moved with a crane, labeled with notes: "Edge to edge of tire on Truck 6.5 feet"]
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