Mr. Timothy Tierney
Vice President/Chief Engineer - CONRAIL

National Docks
Clearance Project

February 2012
36’ FEET OF EXISTING TUNNEL ROOF TO BE REMOVED AND SOUTH PORTAL RECONSTRUCTED
NEW JERSEY TRANSIT
BERGEN TUNNEL
NORTH PORTAL

NEW JERSEY TRANSIT
<table>
<thead>
<tr>
<th>Depth (Feet)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3120</td>
<td>Rock Ceiling</td>
</tr>
<tr>
<td>1925</td>
<td>Minimal Removal, Scale &amp; Stabilize</td>
</tr>
<tr>
<td>610</td>
<td>1” to 6” Removal</td>
</tr>
<tr>
<td>325</td>
<td>6” to 12” Removal</td>
</tr>
<tr>
<td>260</td>
<td>12” Removal - Blasting</td>
</tr>
</tbody>
</table>

Bergen Tunnel – 4161’
Bergen Hill Tunnel Liner Modification Quantities

Bergen Tunnel – 4161’
1041’ – Lined Ceiling
All of brick-lined ceiling was removed
Bergen Hill Tunnel Liner Modification Quantities

Bergen Tunnel – 4161’
1041’ – Lined Ceiling
All of brick-lined ceiling was removed
Air Shaft Support Spider

Channel Ring Beam for Temporary Support

Soil/Rock Anchor

Lattice Girder

Lattice Girder Ring Beam