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1. Introduction

To whom it may concern,

This document is to state that Concrete Scanning and cover testing was undertaken by UNITED SCANNING SERVICES PTY LTD on the 19th to 20th March 2015 at “Site Location”.

All twenty locations were scanned and marked in crayon. An additional cover test was taken at Location 19.

Included in this report is a site plan showing the location of the scans, a photo of the scanned area (showing North orientation) and a cross section drawing of the scanning results.

If you require any more information, please let us know.

Matthew Hill
## 2. Scan Results

<table>
<thead>
<tr>
<th>Location</th>
<th>Cover (Top)</th>
<th>Cover (Bottom)</th>
<th>Size of Bars (Top)</th>
<th>Size of Bars (Bottom)</th>
<th>Size of Scanned Area</th>
<th>Spacings (mm) (Top)</th>
<th>Spacings (mm) (Bottom)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red 25mm, Yellow 30mm</td>
<td>Blue 70mm</td>
<td>10mm (est.)</td>
<td>Unknown</td>
<td>NS 1.2m x EW 1.15m</td>
<td>NS: 75, 90, 85, 90, 120, 65, 100, 95, 110, 85 Red: 260, 280, 300 EW: 275, 360, 315, 275</td>
<td>NS: 260, 250, 260, 250 EW: Nothing detected</td>
</tr>
<tr>
<td>2</td>
<td>Red 25mm, Yellow 30mm</td>
<td>Blue: 90-100mm</td>
<td>10mm (bar exposed)</td>
<td>6mm (est.)</td>
<td>NS 1.2m x EW 1.2m</td>
<td>NS: 350, 340, 320 EW: 300, 300, 300</td>
<td>NS: 200, 190, 200, 190 EW: Nothing detected</td>
</tr>
<tr>
<td>3</td>
<td>Red 20mm, Yellow 30mm</td>
<td>Blue 80mm</td>
<td>10mm (bar exposed)</td>
<td>6mm (est.)</td>
<td>NS 1m x EW 1.2m</td>
<td>NS: 270, 300, 360, 300 EW: 290, 300, 300</td>
<td>NS: 150-160mm mesh EW: 150-160mm mesh</td>
</tr>
<tr>
<td>4</td>
<td>Blue 20mm, Yellow 35mm</td>
<td>Red 50mm (starter bar)</td>
<td>10mm (est.)</td>
<td>Red = starter bar. No mesh detected</td>
<td>NS 1m x EW 1.1m</td>
<td>NS: 120, 110, 100, 120, 100, 110, 100, 110, 100 EW: 300, 320, 310</td>
<td>NS: starter bar is 150mm from the Yellow reo mark on the right hand side</td>
</tr>
<tr>
<td>5</td>
<td>Yellow 25mm, Red 50mm</td>
<td>Blue 90mm</td>
<td>10mm (est.)</td>
<td>Unknown</td>
<td>NS 0.85m x EW 0.7m</td>
<td>NS: 110, 100, 110, 110, 110, 80, 80 EW: 300, 290, 260</td>
<td>NS: 100, 100, 100, 110 EW: Nothing detected</td>
</tr>
<tr>
<td>6</td>
<td>Yellow 30mm, Red 40mm</td>
<td>Blue 50mm (starter bar)</td>
<td>10mm (est.)</td>
<td>Red = starter bar. No mesh detected</td>
<td>NS 0.9m x EW 0.9m</td>
<td>NS: 180, 75, 75, 80, 90, 90, 90, 100 EW: 300, 300, 300</td>
<td>NS: Nothing detected EW: Running SN the first starter bar is 160mm from Red reo mark and the second starter bar is 150mm before the last Red reo mark</td>
</tr>
<tr>
<td>7</td>
<td>Yellow 25mm, Red 30mm</td>
<td>Blue 90mm</td>
<td>10mm (bar exposed)</td>
<td>6mm (est.)</td>
<td>NS 1.16m x EW 1m</td>
<td>NS: 300, 350, 290 EW: 280, 300, 280, 300</td>
<td>NS: 150mm mesh EW: 150mm mesh</td>
</tr>
<tr>
<td>8</td>
<td>Yellow 15mm (NS) &amp; 20mm (EW)</td>
<td>Red 50mm (starter bar), Blue 90mm</td>
<td>10mm (est.)</td>
<td>unknown</td>
<td>NS 0.85m x EW 0.9m</td>
<td>NS: 310, 300, 280 EW: 140, 110, 90, 80</td>
<td>NS: 200, 210, 200, 210 EW: Nothing detected</td>
</tr>
<tr>
<td>9</td>
<td>Yellow 20mm, Red 30mm</td>
<td>Blue 40mm (starter bar), Black 80mm</td>
<td>10mm (est.)</td>
<td>6mm (est.)</td>
<td>NS 0.87m x EW 1.1m</td>
<td>NS: 280, 330, 290 EW: 280, 300, 300</td>
<td>NS: 100, 240, 250, 240 EW: 60, 80, 120, 100, 270</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Location</th>
<th>Cover (Top)</th>
<th>Cover (Bottom)</th>
<th>Size of Bars (Top)</th>
<th>Size of Bars (Bottom)</th>
<th>Size of Scanned Area</th>
<th>Spacings (mm) (Top)</th>
<th>Spacings (mm) (Bottom)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Yellow 15mm, Red 25mm</td>
<td>Blue 80mm</td>
<td>10mm (est.)</td>
<td>unknown</td>
<td>NS 0.65m x EW 0.9m</td>
<td>NS: 130, 110, 120, 130, 100, 100, 110, 110, 110, 110&lt;br&gt;EW: 140, 140, 160, 150</td>
<td>NS: 110, 120, 120, 110, 110, 110&lt;br&gt;EW: Nothing detected</td>
</tr>
<tr>
<td>11</td>
<td>Red 25mm, Blue 65mm</td>
<td>Nothing detected</td>
<td>12mm (cover test)</td>
<td>Nothing detected</td>
<td>NS 1m x EW 0.95</td>
<td>NS: 120, 180, 150, 160, 160&lt;br&gt;EW: 200, 110, 310, 150, 190</td>
<td>Nothing detected</td>
</tr>
<tr>
<td>12</td>
<td>Yellow 30mm, Blue 45mm</td>
<td>Red 45-50mm (starter bar), Black 85mm</td>
<td>12mm (cover test)</td>
<td>6mm (cover test)</td>
<td>NS 1m x EW 1.1m</td>
<td>NS: 320, 320, 300&lt;br&gt;EW: 300, 300, 280</td>
<td>NS: 250mm mesh&lt;br&gt;EW: 150mm mesh</td>
</tr>
<tr>
<td>13</td>
<td>Blue 25mm, Yellow 30mm</td>
<td>Black 80mm</td>
<td>12mm (cover test)</td>
<td>6mm (cover test)</td>
<td>NS 1m x EW 1m</td>
<td>NS: 300, 280, 300&lt;br&gt;EW: 290, 320, 300</td>
<td>NS: 150-160mm mesh&lt;br&gt;EW: 150-160mm mesh</td>
</tr>
<tr>
<td>14</td>
<td>Yellow 30mm, Red 50mm</td>
<td>Black 100mm</td>
<td>12mm (est.)</td>
<td>6mm (est.)</td>
<td>NS 1m x EW 1m</td>
<td>NS: 280, 300, 280&lt;br&gt;EW: 280, 320, 290</td>
<td>NS: 130mm mesh&lt;br&gt;EW: 250mm mesh</td>
</tr>
<tr>
<td>15</td>
<td>Blue 30mm, Yellow 40mm</td>
<td>Black 100mm</td>
<td>12mm (est.)</td>
<td>6mm (est.)</td>
<td>NS 1m x EW 950mm</td>
<td>NS: 130, 160, 150, 150, 140, 120 / 300, 310, 260&lt;br&gt;EW: 280, 310, 320</td>
<td>NS: 150mm mesh / 300mm mesh&lt;br&gt;EW: 150mm mesh / 150mm mesh</td>
</tr>
<tr>
<td>16</td>
<td>Yellow 35mm, Red 60mm</td>
<td>Blue 90mm, Black 110mm</td>
<td>12mm (est.)</td>
<td>6mm (est.)</td>
<td>NS 1.3m x EW 1m</td>
<td>NS: 280, 310, 310&lt;br&gt;EW: 300,300,290,310</td>
<td>NS: 150mm mesh&lt;br&gt;EW: 220-250mm mesh</td>
</tr>
<tr>
<td>17</td>
<td>Yellow 45mm, Blue 50-55mm</td>
<td>Black 100mm</td>
<td>12mm (est.)</td>
<td>6mm (est.)</td>
<td>NS 1.3m x EW 1m</td>
<td>NS: 280, 330, 310&lt;br&gt;EW: 280, 340, 310, 280</td>
<td>NS: 300mm mesh&lt;br&gt;EW: 150mm mesh</td>
</tr>
<tr>
<td>18</td>
<td>Red 30mm, Yellow 40mm</td>
<td>N/A</td>
<td>12mm (bar exposed)</td>
<td>N/A</td>
<td>NS 1.1m x EW 850mm</td>
<td>NS: 130, 120, 130&lt;br&gt;EW: 350, 290, 300</td>
<td>N/A</td>
</tr>
<tr>
<td>19</td>
<td>Red 25mm, Yellow 30mm</td>
<td>Blue 70mm (starter bar), Black 110mm</td>
<td>12mm (cover test)</td>
<td>6mm (cover test)</td>
<td>NS 1.1m x EW 1.1m</td>
<td>NS: 300, 370, 295&lt;br&gt;EW: 285, 320, 320</td>
<td>NS: 280, 140, 200, 230&lt;br&gt;EW: 90mm mesh (with overlay)</td>
</tr>
<tr>
<td>20</td>
<td>Yellow 25mm (EW) &amp; 5-25mm (NS)</td>
<td>Blue 60mm</td>
<td>12mm (cover test)</td>
<td>6mm (cover test)</td>
<td>NS 1.1m x EW 1.2m</td>
<td>NS: 310, 290, 300, 315&lt;br&gt;EW: 330, 310, 275</td>
<td>NS: 160, 130, 165, 170, 130, 155&lt;br&gt;EW: 315, 250, 150, 155</td>
</tr>
</tbody>
</table>

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3. Scan Locations
4. Photos, Section Drawings and Comments

4.1. Location 1

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Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The red marks running North-South are assumed 10mm re bars with 25mm cover. Halfway through the scanned area the spacings between the bars increases. The yellow marks running East-West are assumed 10mm re bars with 30mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running North-South have a cover of 70mm. It is unknown whether this is mesh or re bar as we could not locate any bars/mesh running East-West at a similar depth. This is not to say that no mesh is laid in the concrete bed, but that it could not be located conclusively.
4.2. Location 2

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The red marks running North-South are assumed 10mm re bars with 25mm cover. The yellow marks running East-West are assumed 10mm re bars with 30mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running North-South and East-West have a cover of 90-100mm. It is laid in a mesh pattern that we have estimated at 200mm spacings (NS) and 80-100mm spacings (EW). Due to the cover tests on the West side of the building confirming 6mm mesh has been used, we assume the mesh at Location 2 has a 6mm DIA.
4.3. Location 3
Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The red marks running North-South are assumed 10mm re bars with 20mm cover. The yellow marks running East-West are assumed 10mm re bars with 30mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running North-South and East-West have a cover of 80mm. It is laid in a mesh pattern that we have estimated at 150mm spacings (NS) and 150mm spacings (EW). Due to the cover tests on the West side of the building confirming 6mm mesh has been used, we assume the mesh at Location 2 has a 6mm DIA.
4.4. **Location 4**

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Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The blue marks running North-South are assumed 10mm re bars with 20mm cover. The yellow marks running East-West are assumed 10mm re bars with 35mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The red mark running East-West is at a different depth to the others, with a cover of 50mm. This presumably is a starter bar. No mesh was located. This is not to say that no mesh is laid in the concrete bed, but that it could not be located conclusively.
4.5. Location 5

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The yellow marks running North-South are assumed 10mm re bars with 25mm cover. The yellow marks running East-West are assumed 10mm re bars with 50mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running North-South have a cover of 90mm. It is unknown whether this is mesh or re bar as we could not locate any bars/mesh running East-West at a similar depth. This is not to say that no mesh is laid in the concrete bed, but that it could not be located conclusively.

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
4.6. Location 6

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Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The yellow marks running North-South are assumed 10mm re bars with 30mm cover. The red marks running East-West are assumed 10mm re bars with 40mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running East-West are at a different depth to the others, with a cover of 50mm. These presumably are starter bars. No mesh was located. This is not to say that no mesh is laid in the concrete bed, but that it could not be located conclusively.
4.7. Location 7

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The yellow marks running North-South are assumed 10mm re bars with 25mm cover. The red marks running East-West are assumed 10mm re bars with 30mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running North-South and East-West have a cover of 90mm. It is laid in a mesh pattern that we have estimated at 150mm spacings (NS) and 150mm spacings (EW). Due to the cover tests on the West side of the building confirming 6mm mesh has been used, we assume the mesh at Location 2 has a 6mm DIA.
4.8. **Location 8**

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The yellow marks running North-South are assumed 10mm re bars with 15mm cover. The yellow marks running East-West are assumed 10mm re bars with 20mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The red marks running East-West have a cover of 50mm. These presumably are starter bars.

The blue marks running North-South have a cover of 90mm. It is unknown whether this is mesh or re bar as we could not locate any bars/mesh running East-West at a similar depth. This is not to say that no mesh is laid in the concrete bed, but that it could not be located conclusively.
4.9. Location 9

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The yellow marks running North-South are assumed 10mm re bars with 20mm cover. The red marks running East-West are assumed 10mm re bars with 30mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running East-West have a cover of 40mm. These presumably are starter bars.

The black marks running North-South and East-West have a cover of 80mm. It is unknown whether this is mesh or re bar as it does not obviously have a mesh layout, however this could indicate a mesh overlay. The outcome of the black marks is inconclusive.
4.10. Location 10

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

No cover tests were undertaken on the East side of the building. 10mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 10mm. On the West side of the building 10mm and 12mm bars have been used.

The yellow marks running North-South are assumed 10mm re bars with 15mm cover. The red marks running East-West are assumed 10mm re bars with 25mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running North-South have a cover of 80mm. It is unknown whether this is mesh or re bar as we could not locate any bars/mesh running East-West at a similar depth. This is not to say that no mesh is laid in the concrete bed, but that it could not be located conclusively.
4.11. Location 11

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
**Comments**

A cover test was taken at this location. See section 5 for close-up image. The results of the cover test were 10mm bars running North-South and East-West.

The red marks running North-South are 10mm re bars with 25mm cover. The blue marks running East-West are 10mm re bars with 65mm cover. The re bars running North-South are laid above the re bars running East-West.

No mesh was located. This is not to say that no mesh is laid in the concrete bed, but that it could not be located conclusively.
4.12. Location 12

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

A cover test was taken at this location. No high-res image of the cover test is available. The results of the cover test were 12mm starter bars running East-West and 6mm mesh running North-South.

The yellow marks running North-South are assumed 12mm re bars with 30mm cover. The blue marks running East-West are assumed 12mm re bars with approximately 45mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The red marks running East-West are 12mm starter bars with a cover of approximately 40mm.

The black marks running North-South and East-West have a cover of 85mm. It is laid in a mesh pattern that we have estimated at 250mm spacings (NS) and 150mm spacings (EW). This mesh has a 6mm DIA.
4.13. Location 13

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

A cover test was taken at this location. See Section 5 for high res images of this cover test. The results of the cover test are 12mm re bars running North-South and 6mm mesh running North-South and East-West.

The blue marks running North-South are 12mm re bars with 25mm cover. The yellow marks running East-West are assumed 12mm re bars with 30mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The black marks running North-South and East-West have a cover of 80mm. It is laid in a mesh pattern that we have estimated at 150-160mm spacings (NS) and 150-160mm spacings (EW). This mesh has a 6mm DIA.
4.14. Location 14

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

No cover test was taken at this location. On the West side of the building 10mm and 12mm bars have been used. The red marks running North-South are assumed 10-12mm re bars with 50mm cover. The yellow marks running East-West are assumed 10-12mm re bars with 30mm cover. This indicates that the re bars running East-West are laid above the re bars running North-South.

The black marks running North-South and East-West have a cover of 100mm. It is laid in a mesh pattern that we have estimated at 130mm spacings (NS) and 250mm spacings (EW). Due to the cover tests on the West side of the building confirming 6mm mesh has been used, we assume the mesh at Location 14 has a 6mm DIA.
4.15. Location 15

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

No cover test was taken at this location. On the West side of the building 10mm and 12mm bars have been used.

The yellow marks running North-South are assumed 10-12mm re bars with 40mm cover. Halfway through the scanned area the spacings between the bars increases. The blue marks running East-West are assumed 10-12mm re bars with 30mm cover. This indicates that the re bars running East-West are laid above the re bars running North-South.

The black marks running North-South and East-West have a cover of 100mm. It is laid in a mesh pattern with an overlay we have estimated at 150mm spacings (NS) and 150mm spacings (EW) and where the spacings increase 300mm spacings (NS) and 150mm spacings (EW). Due to the cover tests on the West side of the building confirming 6mm mesh has been used, we assume the mesh at Location 15 has a 6mm DIA.

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
4.16. Location 16

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

No cover test was taken at this location. On the West side of the building 10mm and 12mm bars have been used.

The red marks running North-South are assumed 10-12mm re bars with 60mm cover. The yellow marks running East-West are assumed 10-12mm re bars with 35mm cover. This indicates that the re bars running East-West are laid above the re bars running North-South.

The blue mark running East-West has a cover of 90mm. It is unknown whether this is part of mesh or a re bar or starter bar.

The black marks running North-South and East-West have a cover of 110mm. It is laid in a mesh pattern that we have estimated at 150mm spacings (NS) and 220-250mm spacings (EW). Due to the cover tests on the West side of the building confirming 6mm mesh has been used, we assume the mesh at Location 16 has a 6mm DIA.

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4.17. Location 17

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Comments

No cover test was taken at this location. On the West side of the building 10mm and 12mm bars have been used.

The blue marks running North-South are assumed 10-12mm re bars with 50-55mm cover. The yellow marks running East-West are assumed 10-12mm re bars with 45mm cover. This indicates that the re bars running East-West are laid above the re bars running North-South.

The black marks running North-South and East-West have a cover of 100mm. It is laid in a mesh pattern that we have estimated at 300mm spacings (NS) and 215mm spacings (EW). Due to the cover tests on the West side of the building confirming 6mm mesh has been used, we assume the mesh at Location 17 has a 6mm DIA.

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4.18. Location 18
Comments

No cover test was taken at this location. 12mm bars are seen exposed on the edge of the slab, so we have estimated the size of the re bars at 12mm. On the West side of the building 10mm and 12mm bars have been used.

The red marks running North-South are assumed 12mm re bars with 30mm cover. The yellow marks running East-West are assumed 12mm re bars with 40mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

No mesh was located. This is not to say that no mesh is laid in the concrete bed, but that it could not be located conclusively.
4.19. Location 19
Comments

A cover test was taken at this location. See Section 5 for high-res image of this cover test. The results of the cover test are 12mm re bars running North-South with a cover of 25mm, 12mm re bars running East-West with a cover of 30mm and 12mm starter bars running East-West with a cover of 70mm. 6mm mesh was also located with a cover of 110mm.

The red marks running North-South are 12mm re bars with 25mm cover. The yellow marks running East-West are 12mm re bars with 30mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running East-West have a cover of 70mm. These presumably are starter bars.

The black marks running North-South and East-West have a cover of 110mm. It is laid in a mesh pattern and we have estimated the spacings at 90mm (EW) The NS spacings are not consistent, so this indicates a mesh overlay.

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4.20. Location 20

While every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
Comments

A cover test was taken at this location. No high-res image is available for the location. The results of this cover test are 12mm re bars running East-West with a cover of 25mm, and 6mm mesh running North-South with a cover of 60mm.

The yellow marks running North-South are assumed 12mm re bars with 5-25mm cover, starting at 5mm cover on the East side of the image progressively getting deeper to 25mm cover on the West side of the image. The yellow marks running East-West are 12mm re bars with 25mm cover. This indicates that the re bars running North-South are laid above the re bars running East-West.

The blue marks running North-South and East-West have a cover of 60mm. It is laid in a mesh pattern, however the spacings are not consistent, so this indicates a mesh overlay.

Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.
5. Cover Tests

5.1. Location 11

5.2. Location 13

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5.3. Location 19

![Image of a location](image)

5.4. Locations 12 and 20

High resolution images are not available for these locations.

*Whilst every effort is taken to accurately record and interpret the images located by the Ground Penetrating Radar, United Scanning Services cannot be held responsible for inaccurate or false interpretation of data, images or reports relating to target service locations. Design and structural interpretations or opinions expressed by the company or its technicians must be verified by a suitably qualified professional engineer.*
6. Conclusion

At all locations, except for Location 14, 15, 16 and 17, the re bars running North-South are laid above the re-bars running East West.

We have assumed that the 10-12mm re bars and 6mm mesh that has been exposed from cover tests at Locations 11, 12, 13, 19 and 20 are consistent throughout the entire slab. Also in all the locations that had cover tests, the re bar was laid above the mesh, and we have assumed that this is consistent throughout the entire slab. If this needs to be confirmed, than cover tests will be required at each location.