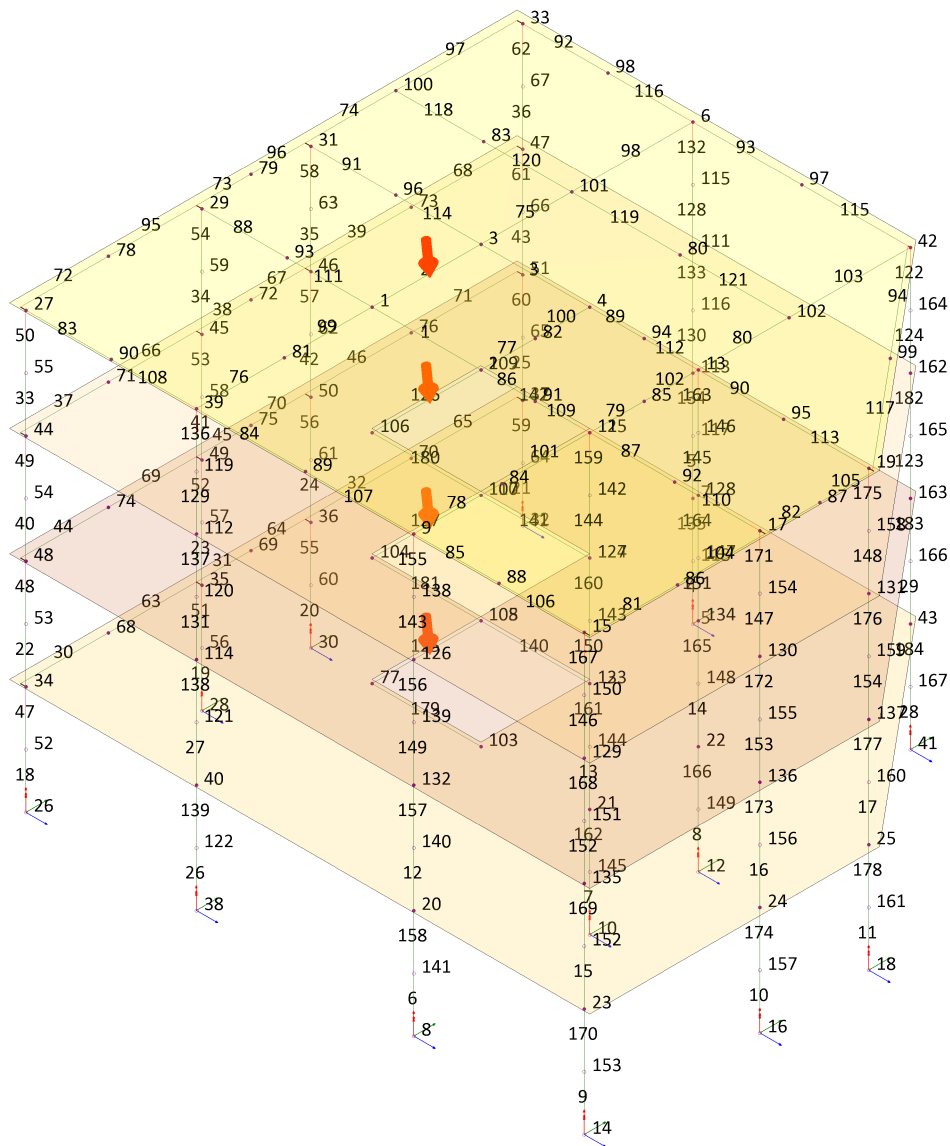


|                  |                     |                    |          |                    |           |                    |
|------------------|---------------------|--------------------|----------|--------------------|-----------|--------------------|
| Image not found: | Project             |                    |          |                    | Job Ref.  |                    |
|                  | Structure           |                    |          |                    | Sheet no. |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by  | Date<br>17/08/2015 |



Structure

Analysis  
Nodes

|                  |                     |                    |          |                    |                     |                    |
|------------------|---------------------|--------------------|----------|--------------------|---------------------|--------------------|
| Image not found: | Project             |                    |          |                    | Job Ref.            |                    |
|                  | Structure           |                    |          |                    | Sheet no. Page 2/15 |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by            | Date<br>17/08/2015 |

| No. | Coordinates [m] |        |        | F <sub>x</sub> | F <sub>y</sub> | F <sub>z</sub> | M <sub>x</sub> | M <sub>y</sub> | M <sub>z</sub> |
|-----|-----------------|--------|--------|----------------|----------------|----------------|----------------|----------------|----------------|
|     | X               | Y      | Z      | DOF            | DOF            | DOF            | DOF            | DOF            | DOF            |
| 1   | 5.000           | 5.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 2   | 8.000           | 5.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 3   | 5.000           | 8.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 4   | 8.000           | 8.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 5   | 5.000           | 13.850 | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 6   | 5.000           | 13.850 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 7   | 5.000           | 13.850 | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 8   | 11.000          | 0.150  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 9   | 11.000          | 0.150  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 10  | 11.000          | 5.000  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 11  | 11.000          | 5.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 12  | 11.000          | 8.000  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 13  | 11.000          | 8.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 14  | 15.700          | 0.150  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 15  | 15.700          | 0.150  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 16  | 15.700          | 5.000  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 17  | 15.700          | 5.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 18  | 15.700          | 8.000  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 19  | 15.700          | 8.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 20  | 11.000          | 0.150  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 21  | 11.000          | 5.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 22  | 11.000          | 8.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 23  | 15.700          | 0.150  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 24  | 15.700          | 5.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 25  | 15.700          | 8.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 26  | 0.300           | 0.150  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 27  | 0.300           | 0.150  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 28  | 0.300           | 5.000  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 29  | 0.300           | 5.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 30  | 0.300           | 8.000  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 31  | 0.300           | 8.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 32  | 0.300           | 13.850 | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 33  | 0.300           | 13.850 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 34  | 0.300           | 0.150  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 35  | 0.300           | 5.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 36  | 0.300           | 8.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 37  | 0.300           | 13.850 | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 38  | 5.000           | 0.150  | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 39  | 5.000           | 0.150  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 40  | 5.000           | 0.150  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 41  | 11.000          | 13.850 | 0.000  | Fixed          | Fixed          | Fixed          | Free           | Free           | Fixed          |
| 42  | 11.000          | 13.850 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 43  | 11.000          | 13.850 | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 44  | 0.300           | 0.150  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 45  | 0.300           | 5.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 46  | 0.300           | 8.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 47  | 0.300           | 13.850 | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 48  | 0.300           | 0.150  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |

|                  |                     |                    |          |                    |           |                    |
|------------------|---------------------|--------------------|----------|--------------------|-----------|--------------------|
| Image not found: | Project             |                    |          |                    | Job Ref.  |                    |
|                  | Structure           |                    |          |                    | Sheet no. |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by  | Date<br>17/08/2015 |

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| No. | Coordinates [m] |        |        | F <sub>x</sub> | F <sub>y</sub> | F <sub>z</sub> | M <sub>x</sub> | M <sub>y</sub> | M <sub>z</sub> |
|-----|-----------------|--------|--------|----------------|----------------|----------------|----------------|----------------|----------------|
|     | X               | Y      | Z      | DOF            | DOF            | DOF            | DOF            | DOF            | DOF            |
| 49  | 0.300           | 5.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 50  | 0.300           | 8.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 51  | 0.300           | 13.850 | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 52  | 0.300           | 0.150  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 53  | 0.300           | 0.150  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 54  | 0.300           | 0.150  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 55  | 0.300           | 0.150  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 56  | 0.300           | 5.000  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 57  | 0.300           | 5.000  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 58  | 0.300           | 5.000  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 59  | 0.300           | 5.000  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 60  | 0.300           | 8.000  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 61  | 0.300           | 8.000  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 62  | 0.300           | 8.000  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 63  | 0.300           | 8.000  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 64  | 0.300           | 13.850 | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 65  | 0.300           | 13.850 | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 66  | 0.300           | 13.850 | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 67  | 0.300           | 13.850 | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 68  | 0.150           | 2.575  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 69  | 0.150           | 6.500  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 70  | 0.150           | 10.925 | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 71  | 0.150           | 2.575  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 72  | 0.150           | 6.500  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 73  | 0.150           | 10.925 | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 74  | 0.150           | 2.575  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 75  | 0.150           | 6.500  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 76  | 0.150           | 10.925 | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 77  | 5.000           | 5.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 78  | 0.150           | 2.575  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 79  | 0.150           | 6.500  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 80  | 8.000           | 10.500 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 81  | 5.000           | 2.575  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 82  | 8.000           | 6.500  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 83  | 2.575           | 10.500 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 84  | 11.000          | 2.575  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 85  | 11.000          | 6.500  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 86  | 15.850          | 2.575  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 87  | 15.850          | 6.500  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 88  | 13.350          | 0.150  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 89  | 8.000           | 0.150  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 90  | 2.650           | 0.150  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 91  | 9.500           | 5.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 92  | 13.350          | 5.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 93  | 2.650           | 5.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 94  | 9.500           | 8.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 95  | 13.350          | 8.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 96  | 2.650           | 8.000  | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |

|                  |                     |                    |          |                    |                     |                    |
|------------------|---------------------|--------------------|----------|--------------------|---------------------|--------------------|
| Image not found: | Project             |                    |          |                    | Job Ref.            |                    |
|                  | Structure           |                    |          |                    | Sheet no. Page 4/15 |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by            | Date<br>17/08/2015 |

| No. | Coordinates [m] |        |        | F <sub>x</sub> | F <sub>y</sub> | F <sub>z</sub> | M <sub>x</sub> | M <sub>y</sub> | M <sub>z</sub> |
|-----|-----------------|--------|--------|----------------|----------------|----------------|----------------|----------------|----------------|
|     | X               | Y      | Z      | DOF            | DOF            | DOF            | DOF            | DOF            | DOF            |
| 97  | 8.000           | 13.850 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 98  | 2.650           | 13.850 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 99  | 13.367          | 10.925 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 100 | 0.150           | 10.500 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 101 | 5.000           | 10.500 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 102 | 11.000          | 10.500 | 12.000 | Free           | Free           | Free           | Free           | Free           | Free           |
| 103 | 8.000           | 5.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 104 | 5.000           | 5.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 105 | 8.000           | 5.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 106 | 5.000           | 5.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 107 | 8.000           | 5.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 108 | 5.000           | 8.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 109 | 5.000           | 8.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 110 | 5.000           | 8.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 111 | 5.000           | 13.850 | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 112 | 5.000           | 0.150  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 113 | 5.000           | 13.850 | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 114 | 5.000           | 0.150  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 115 | 5.000           | 13.850 | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 116 | 5.000           | 13.850 | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 117 | 5.000           | 13.850 | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 118 | 5.000           | 13.850 | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 119 | 5.000           | 0.150  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 120 | 5.000           | 0.150  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 121 | 5.000           | 0.150  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 122 | 5.000           | 0.150  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 123 | 8.000           | 8.000  | 3.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 124 | 8.000           | 8.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 125 | 8.000           | 8.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 126 | 11.000          | 0.150  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 127 | 11.000          | 5.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 128 | 11.000          | 8.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 129 | 15.700          | 0.150  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 130 | 15.700          | 5.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 131 | 15.700          | 8.000  | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 132 | 11.000          | 0.150  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 133 | 11.000          | 5.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 134 | 11.000          | 8.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 135 | 15.700          | 0.150  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 136 | 15.700          | 5.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 137 | 15.700          | 8.000  | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 138 | 11.000          | 0.150  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 139 | 11.000          | 0.150  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 140 | 11.000          | 0.150  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 141 | 11.000          | 0.150  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 142 | 11.000          | 5.000  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 143 | 11.000          | 5.000  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 144 | 11.000          | 5.000  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |

|                  |                     |                    |          |                    |                     |                    |
|------------------|---------------------|--------------------|----------|--------------------|---------------------|--------------------|
| Image not found: | Project             |                    |          |                    | Job Ref.            |                    |
|                  | Structure           |                    |          |                    | Sheet no. Page 5/15 |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by            | Date<br>17/08/2015 |

| No. | Coordinates [m] |        |        | F <sub>x</sub> | F <sub>y</sub> | F <sub>z</sub> | M <sub>x</sub> | M <sub>y</sub> | M <sub>z</sub> |
|-----|-----------------|--------|--------|----------------|----------------|----------------|----------------|----------------|----------------|
|     | X               | Y      | Z      | DOF            | DOF            | DOF            | DOF            | DOF            | DOF            |
| 145 | 11.000          | 5.000  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 146 | 11.000          | 8.000  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 147 | 11.000          | 8.000  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 148 | 11.000          | 8.000  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 149 | 11.000          | 8.000  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 150 | 15.700          | 0.150  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 151 | 15.700          | 0.150  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 152 | 15.700          | 0.150  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 153 | 15.700          | 0.150  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 154 | 15.700          | 5.000  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 155 | 15.700          | 5.000  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 156 | 15.700          | 5.000  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 157 | 15.700          | 5.000  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 158 | 15.700          | 8.000  | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 159 | 15.700          | 8.000  | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 160 | 15.700          | 8.000  | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 161 | 15.700          | 8.000  | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 162 | 11.000          | 13.850 | 9.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 163 | 11.000          | 13.850 | 6.000  | Free           | Free           | Free           | Free           | Free           | Free           |
| 164 | 11.000          | 13.850 | 10.500 | Free           | Free           | Free           | Free           | Free           | Free           |
| 165 | 11.000          | 13.850 | 7.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 166 | 11.000          | 13.850 | 4.500  | Free           | Free           | Free           | Free           | Free           | Free           |
| 167 | 11.000          | 13.850 | 1.500  | Free           | Free           | Free           | Free           | Free           | Free           |

#### Node Support Details

| No. | Direction      | Type    |
|-----|----------------|---------|
| 5   | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 8   | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 10  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |

|                  |                     |                    |          |                    |                     |                    |
|------------------|---------------------|--------------------|----------|--------------------|---------------------|--------------------|
| Image not found: | Project             |                    |          |                    | Job Ref.            |                    |
|                  | Structure           |                    |          |                    | Sheet no. Page 6/15 |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by            | Date<br>17/08/2015 |

| No. | Direction      | Type    |
|-----|----------------|---------|
| 12  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 14  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 16  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 18  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 26  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 28  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 30  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 32  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |

|                  |                     |                    |          |                    |                     |                    |
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|                  | Structure           |                    |          |                    | Sheet no. Page 7/15 |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by            | Date<br>17/08/2015 |

| No. | Direction      | Type    |
|-----|----------------|---------|
| 38  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |
| 41  | Trans. Major X | Fixed   |
|     | Trans. Minor Y | Fixed   |
|     | Axial Z        | Fixed   |
|     | Rot. Major     | Release |
|     | Rot. Minor     | Release |
|     | Rot. Torsional | Fixed   |

#### Elements

| No. | Node 1 | Node 2 | Section | Grade | F <sub>x</sub><br>DOF | M <sup>1</sup> <sub>x</sub><br>DOF | M <sup>1</sup> <sub>y</sub><br>DOF | M <sup>1</sup> <sub>z</sub><br>DOF | F <sub>y</sub><br>DOF | M <sup>2</sup> <sub>x</sub><br>DOF | M <sup>2</sup> <sub>y</sub><br>DOF | M <sup>2</sup> <sub>z</sub><br>DOF |
|-----|--------|--------|---------|-------|-----------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------|------------------------------------|------------------------------------|------------------------------------|
| 1   | 1      | 2      |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 2   | 1      | 3      |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 3   | 3      | 4      |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 4   | 5      | 118    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 5   | 7      | 117    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 6   | 8      | 141    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 7   | 10     | 145    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 8   | 12     | 149    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 9   | 14     | 153    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 10  | 16     | 157    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 11  | 18     | 161    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 12  | 20     | 140    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 13  | 21     | 144    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 14  | 22     | 148    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 15  | 23     | 152    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 16  | 24     | 156    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 17  | 25     | 160    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 18  | 26     | 52     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 19  | 28     | 56     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 20  | 30     | 60     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 21  | 32     | 64     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 22  | 34     | 53     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 23  | 35     | 57     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 24  | 36     | 61     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 25  | 37     | 65     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 26  | 38     | 122    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 27  | 40     | 121    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 28  | 41     | 167    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 29  | 43     | 166    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 30  | 34     | 68     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 31  | 35     | 69     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 32  | 36     | 70     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 33  | 44     | 55     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 34  | 45     | 59     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |

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|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by            | Date<br>17/08/2015 |

| No. | Node 1 | Node 2 | Section | Grade | F <sub>x</sub><br>DOF | M <sup>1</sup> <sub>x</sub><br>DOF | M <sup>1</sup> <sub>y</sub><br>DOF | M <sup>1</sup> <sub>z</sub><br>DOF | F <sub>y</sub><br>DOF | M <sup>2</sup> <sub>x</sub><br>DOF | M <sup>2</sup> <sub>y</sub><br>DOF | M <sup>2</sup> <sub>z</sub><br>DOF |
|-----|--------|--------|---------|-------|-----------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------|------------------------------------|------------------------------------|------------------------------------|
| 35  | 46     | 63     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 36  | 47     | 67     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 37  | 44     | 71     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 38  | 45     | 72     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 39  | 46     | 73     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 40  | 48     | 54     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 41  | 49     | 58     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 42  | 50     | 62     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 43  | 51     | 66     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 44  | 48     | 74     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 45  | 49     | 75     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 46  | 50     | 76     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 47  | 52     | 34     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 48  | 53     | 48     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 49  | 54     | 44     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 50  | 55     | 27     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 51  | 56     | 35     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 52  | 57     | 49     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 53  | 58     | 45     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 54  | 59     | 29     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 55  | 60     | 36     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 56  | 61     | 50     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 57  | 62     | 46     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 58  | 63     | 31     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 59  | 64     | 37     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 60  | 65     | 51     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 61  | 66     | 47     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 62  | 67     | 33     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 63  | 68     | 35     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 64  | 69     | 36     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 65  | 70     | 37     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 66  | 71     | 45     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 67  | 72     | 46     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 68  | 73     | 47     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 69  | 74     | 49     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 70  | 75     | 50     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 71  | 76     | 51     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 72  | 27     | 78     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 73  | 29     | 79     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 74  | 31     | 100    | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 75  | 3      | 101    | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 76  | 39     | 81     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 77  | 2      | 82     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 78  | 9      | 84     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 79  | 11     | 85     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 80  | 13     | 102    | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 81  | 15     | 86     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 82  | 17     | 87     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |



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|                  | Structure           |                    |          |                    | Sheet no. Page 9/15 |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by            | Date<br>17/08/2015 |

| No. | Node 1 | Node 2 | Section | Grade | F <sub>x</sub><br>DOF | M <sub>x</sub> <sup>1</sup><br>DOF | M <sub>y</sub> <sup>1</sup><br>DOF | M <sub>z</sub> <sup>1</sup><br>DOF | F <sub>x</sub><br>DOF | M <sub>x</sub> <sup>2</sup><br>DOF | M <sub>y</sub> <sup>2</sup><br>DOF | M <sub>z</sub> <sup>2</sup><br>DOF |
|-----|--------|--------|---------|-------|-----------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------|------------------------------------|------------------------------------|------------------------------------|
| 83  | 27     | 90     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 84  | 39     | 89     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 85  | 9      | 88     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 86  | 2      | 91     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 87  | 11     | 92     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 88  | 29     | 93     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 89  | 4      | 94     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 90  | 13     | 95     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 91  | 31     | 96     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 92  | 33     | 98     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 93  | 6      | 97     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 94  | 42     | 99     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 95  | 78     | 29     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 96  | 79     | 31     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 97  | 100    | 33     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 98  | 101    | 6      | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 99  | 81     | 1      | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 100 | 82     | 4      | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 101 | 84     | 11     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 102 | 85     | 13     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 103 | 102    | 42     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 104 | 86     | 17     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 105 | 87     | 19     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 106 | 88     | 15     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 107 | 89     | 9      | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 108 | 90     | 39     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 109 | 91     | 11     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 110 | 92     | 17     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 111 | 93     | 1      | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 112 | 94     | 13     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 113 | 95     | 19     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 114 | 96     | 3      | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 115 | 97     | 42     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 116 | 98     | 6      | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 117 | 99     | 19     | 300x600 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 118 | 100    | 83     | 300x400 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 119 | 101    | 80     | 300x400 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 120 | 83     | 101    | 300x400 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 121 | 80     | 102    | 300x400 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 122 | 164    | 42     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 123 | 163    | 165    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 124 | 162    | 164    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 125 | 77     | 108    |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 126 | 106    | 109    |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 127 | 104    | 110    |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 128 | 111    | 115    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 129 | 112    | 119    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 130 | 113    | 116    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |

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|                  | Structure           |                    |          |                    | Sheet no. Page 10/15 |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by             | Date<br>17/08/2015 |

| No. | Node 1 | Node 2 | Section | Grade | F <sub>x</sub><br>DOF | M <sub>x</sub> <sup>1</sup><br>DOF | M <sub>y</sub> <sup>1</sup><br>DOF | M <sub>z</sub> <sup>1</sup><br>DOF | F <sub>x</sub><br>DOF | M <sub>x</sub> <sup>2</sup><br>DOF | M <sub>y</sub> <sup>2</sup><br>DOF | M <sub>z</sub> <sup>2</sup><br>DOF |
|-----|--------|--------|---------|-------|-----------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------|------------------------------------|------------------------------------|------------------------------------|
| 131 | 114    | 120    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 132 | 115    | 6      | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 133 | 116    | 111    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 134 | 117    | 113    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 135 | 118    | 7      | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 136 | 119    | 39     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 137 | 120    | 112    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 138 | 121    | 114    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 139 | 122    | 40     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 140 | 108    | 123    |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 141 | 110    | 124    |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 142 | 109    | 125    |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 143 | 126    | 138    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 144 | 127    | 142    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 145 | 128    | 146    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 146 | 129    | 150    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 147 | 130    | 154    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 148 | 131    | 158    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 149 | 132    | 139    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 150 | 133    | 143    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 151 | 134    | 147    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 152 | 135    | 151    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 153 | 136    | 155    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 154 | 137    | 159    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 155 | 138    | 9      | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 156 | 139    | 126    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 157 | 140    | 132    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 158 | 141    | 20     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 159 | 142    | 11     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 160 | 143    | 127    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 161 | 144    | 133    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 162 | 145    | 21     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 163 | 146    | 13     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 164 | 147    | 128    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 165 | 148    | 134    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 166 | 149    | 22     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 167 | 150    | 15     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 168 | 151    | 129    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 169 | 152    | 135    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 170 | 153    | 23     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 171 | 154    | 17     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 172 | 155    | 130    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 173 | 156    | 136    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 174 | 157    | 24     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 175 | 158    | 19     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 176 | 159    | 131    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 177 | 160    | 137    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |
| 178 | 161    | 25     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                 | Fixed                              | Fixed                              | Fixed                              |

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|                  | Structure           |                    |          |                    | Sheet no. Page 11/15 |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by             | Date<br>17/08/2015 |

| No. | Node 1 | Node 2 | Section | Grade | F <sub>x</sub><br>DOF | M <sub>x</sub> <sup>1</sup><br>DOF | M <sub>y</sub> <sup>1</sup><br>DOF | M <sub>z</sub> <sup>1</sup><br>DOF | F <sub>x</sub> <sup>2</sup><br>DOF | M <sub>x</sub> <sup>2</sup><br>DOF | M <sub>y</sub> <sup>2</sup><br>DOF | M <sub>z</sub> <sup>2</sup><br>DOF |
|-----|--------|--------|---------|-------|-----------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| 179 | 103    | 77     |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              |
| 180 | 107    | 106    |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              |
| 181 | 105    | 104    |         | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              |
| 182 | 165    | 162    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              |
| 183 | 166    | 163    | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              |
| 184 | 167    | 43     | 600x300 | C35   | Fixed                 | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              | Fixed                              |

#### Element-Member

| No. | Node 1 | Node 2 | Member                  | Construction            | Material | Section | Grade |
|-----|--------|--------|-------------------------|-------------------------|----------|---------|-------|
| 1   | 1      | 2      | ELM FRM 2/2/B-FRM 2/2/C | Concrete wall mesh beam | Concrete |         | C35   |
| 2   | 1      | 3      | ELM FRM B/B/2-FRM B/B/3 | Concrete wall mesh beam | Concrete |         | C35   |
| 3   | 3      | 4      | ELM FRM 3/3/B-FRM 3/3/C | Concrete wall mesh beam | Concrete |         | C35   |
| 4   | 5      | 118    | C1                      | Concrete column         | Concrete | 600x300 | C35   |
| 5   | 7      | 117    | C1                      | Concrete column         | Concrete | 600x300 | C35   |
| 6   | 8      | 141    | C2                      | Concrete column         | Concrete | 600x300 | C35   |
| 7   | 10     | 145    | C3                      | Concrete column         | Concrete | 600x300 | C35   |
| 8   | 12     | 149    | C4                      | Concrete column         | Concrete | 600x300 | C35   |
| 9   | 14     | 153    | C5                      | Concrete column         | Concrete | 600x300 | C35   |
| 10  | 16     | 157    | C6                      | Concrete column         | Concrete | 600x300 | C35   |
| 11  | 18     | 161    | C7                      | Concrete column         | Concrete | 600x300 | C35   |
| 12  | 20     | 140    | C2                      | Concrete column         | Concrete | 600x300 | C35   |
| 13  | 21     | 144    | C3                      | Concrete column         | Concrete | 600x300 | C35   |
| 14  | 22     | 148    | C4                      | Concrete column         | Concrete | 600x300 | C35   |
| 15  | 23     | 152    | C5                      | Concrete column         | Concrete | 600x300 | C35   |
| 16  | 24     | 156    | C6                      | Concrete column         | Concrete | 600x300 | C35   |
| 17  | 25     | 160    | C7                      | Concrete column         | Concrete | 600x300 | C35   |
| 18  | 26     | 52     | C8                      | Concrete column         | Concrete | 600x300 | C35   |
| 19  | 28     | 56     | C9                      | Concrete column         | Concrete | 600x300 | C35   |
| 20  | 30     | 60     | C10                     | Concrete column         | Concrete | 600x300 | C35   |
| 21  | 32     | 64     | C11                     | Concrete column         | Concrete | 600x300 | C35   |
| 22  | 34     | 53     | C8                      | Concrete column         | Concrete | 600x300 | C35   |
| 23  | 35     | 57     | C9                      | Concrete column         | Concrete | 600x300 | C35   |
| 24  | 36     | 61     | C10                     | Concrete column         | Concrete | 600x300 | C35   |
| 25  | 37     | 65     | C11                     | Concrete column         | Concrete | 600x300 | C35   |
| 26  | 38     | 122    | C12                     | Concrete column         | Concrete | 600x300 | C35   |
| 27  | 40     | 121    | C12                     | Concrete column         | Concrete | 600x300 | C35   |
| 28  | 41     | 167    | C13                     | Concrete column         | Concrete | 600x300 | C35   |
| 29  | 43     | 166    | C13                     | Concrete column         | Concrete | 600x300 | C35   |
| 30  | 34     | 68     | 1B1                     | Concrete beam           | Concrete | 300x600 | C35   |
| 31  | 35     | 69     | 1B1                     | Concrete beam           | Concrete | 300x600 | C35   |
| 32  | 36     | 70     | 1B1                     | Concrete beam           | Concrete | 300x600 | C35   |
| 33  | 44     | 55     | C8                      | Concrete column         | Concrete | 600x300 | C35   |
| 34  | 45     | 59     | C9                      | Concrete column         | Concrete | 600x300 | C35   |
| 35  | 46     | 63     | C10                     | Concrete column         | Concrete | 600x300 | C35   |
| 36  | 47     | 67     | C11                     | Concrete column         | Concrete | 600x300 | C35   |
| 37  | 44     | 71     | 3B1                     | Concrete beam           | Concrete | 300x600 | C35   |
| 38  | 45     | 72     | 3B1                     | Concrete beam           | Concrete | 300x600 | C35   |
| 39  | 46     | 73     | 3B1                     | Concrete beam           | Concrete | 300x600 | C35   |
| 40  | 48     | 54     | C8                      | Concrete column         | Concrete | 600x300 | C35   |

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|                  | Structure           |                    |          |                    | Sheet no. |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by  | Date<br>17/08/2015 |

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| No. | Node 1 | Node 2 | Member | Construction    | Material | Section | Grade |
|-----|--------|--------|--------|-----------------|----------|---------|-------|
| 41  | 49     | 58     | C9     | Concrete column | Concrete | 600x300 | C35   |
| 42  | 50     | 62     | C10    | Concrete column | Concrete | 600x300 | C35   |
| 43  | 51     | 66     | C11    | Concrete column | Concrete | 600x300 | C35   |
| 44  | 48     | 74     | 2B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 45  | 49     | 75     | 2B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 46  | 50     | 76     | 2B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 47  | 52     | 34     | C8     | Concrete column | Concrete | 600x300 | C35   |
| 48  | 53     | 48     | C8     | Concrete column | Concrete | 600x300 | C35   |
| 49  | 54     | 44     | C8     | Concrete column | Concrete | 600x300 | C35   |
| 50  | 55     | 27     | C8     | Concrete column | Concrete | 600x300 | C35   |
| 51  | 56     | 35     | C9     | Concrete column | Concrete | 600x300 | C35   |
| 52  | 57     | 49     | C9     | Concrete column | Concrete | 600x300 | C35   |
| 53  | 58     | 45     | C9     | Concrete column | Concrete | 600x300 | C35   |
| 54  | 59     | 29     | C9     | Concrete column | Concrete | 600x300 | C35   |
| 55  | 60     | 36     | C10    | Concrete column | Concrete | 600x300 | C35   |
| 56  | 61     | 50     | C10    | Concrete column | Concrete | 600x300 | C35   |
| 57  | 62     | 46     | C10    | Concrete column | Concrete | 600x300 | C35   |
| 58  | 63     | 31     | C10    | Concrete column | Concrete | 600x300 | C35   |
| 59  | 64     | 37     | C11    | Concrete column | Concrete | 600x300 | C35   |
| 60  | 65     | 51     | C11    | Concrete column | Concrete | 600x300 | C35   |
| 61  | 66     | 47     | C11    | Concrete column | Concrete | 600x300 | C35   |
| 62  | 67     | 33     | C11    | Concrete column | Concrete | 600x300 | C35   |
| 63  | 68     | 35     | 1B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 64  | 69     | 36     | 1B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 65  | 70     | 37     | 1B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 66  | 71     | 45     | 3B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 67  | 72     | 46     | 3B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 68  | 73     | 47     | 3B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 69  | 74     | 49     | 2B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 70  | 75     | 50     | 2B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 71  | 76     | 51     | 2B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 72  | 27     | 78     | 4B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 73  | 29     | 79     | 4B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 74  | 31     | 100    | 4B1    | Concrete beam   | Concrete | 300x600 | C35   |
| 75  | 3      | 101    | 4B2    | Concrete beam   | Concrete | 300x600 | C35   |
| 76  | 39     | 81     | 4B3    | Concrete beam   | Concrete | 300x600 | C35   |
| 77  | 2      | 82     | 4B4    | Concrete beam   | Concrete | 300x600 | C35   |
| 78  | 9      | 84     | 4B5    | Concrete beam   | Concrete | 300x600 | C35   |
| 79  | 11     | 85     | 4B5    | Concrete beam   | Concrete | 300x600 | C35   |
| 80  | 13     | 102    | 4B5    | Concrete beam   | Concrete | 300x600 | C35   |
| 81  | 15     | 86     | 4B6    | Concrete beam   | Concrete | 300x600 | C35   |
| 82  | 17     | 87     | 4B6    | Concrete beam   | Concrete | 300x600 | C35   |
| 83  | 27     | 90     | 4B7    | Concrete beam   | Concrete | 300x600 | C35   |
| 84  | 39     | 89     | 4B7    | Concrete beam   | Concrete | 300x600 | C35   |
| 85  | 9      | 88     | 4B7    | Concrete beam   | Concrete | 300x600 | C35   |
| 86  | 2      | 91     | 4B8    | Concrete beam   | Concrete | 300x600 | C35   |
| 87  | 11     | 92     | 4B8    | Concrete beam   | Concrete | 300x600 | C35   |
| 88  | 29     | 93     | 4B9    | Concrete beam   | Concrete | 300x600 | C35   |
| 89  | 4      | 94     | 4B10   | Concrete beam   | Concrete | 300x600 | C35   |

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|                  | Structure           |                    |          |                    | Sheet no. |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by  | Date<br>17/08/2015 |

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| No. | Node 1 | Node 2 | Member                  | Construction            | Material | Section | Grade |
|-----|--------|--------|-------------------------|-------------------------|----------|---------|-------|
| 90  | 13     | 95     | 4B10                    | Concrete beam           | Concrete | 300x600 | C35   |
| 91  | 31     | 96     | 4B11                    | Concrete beam           | Concrete | 300x600 | C35   |
| 92  | 33     | 98     | 4B12                    | Concrete beam           | Concrete | 300x600 | C35   |
| 93  | 6      | 97     | 4B12                    | Concrete beam           | Concrete | 300x600 | C35   |
| 94  | 42     | 99     | 4B13                    | Concrete beam           | Concrete | 300x600 | C35   |
| 95  | 78     | 29     | 4B1                     | Concrete beam           | Concrete | 300x600 | C35   |
| 96  | 79     | 31     | 4B1                     | Concrete beam           | Concrete | 300x600 | C35   |
| 97  | 100    | 33     | 4B1                     | Concrete beam           | Concrete | 300x600 | C35   |
| 98  | 101    | 6      | 4B2                     | Concrete beam           | Concrete | 300x600 | C35   |
| 99  | 81     | 1      | 4B3                     | Concrete beam           | Concrete | 300x600 | C35   |
| 100 | 82     | 4      | 4B4                     | Concrete beam           | Concrete | 300x600 | C35   |
| 101 | 84     | 11     | 4B5                     | Concrete beam           | Concrete | 300x600 | C35   |
| 102 | 85     | 13     | 4B5                     | Concrete beam           | Concrete | 300x600 | C35   |
| 103 | 102    | 42     | 4B5                     | Concrete beam           | Concrete | 300x600 | C35   |
| 104 | 86     | 17     | 4B6                     | Concrete beam           | Concrete | 300x600 | C35   |
| 105 | 87     | 19     | 4B6                     | Concrete beam           | Concrete | 300x600 | C35   |
| 106 | 88     | 15     | 4B7                     | Concrete beam           | Concrete | 300x600 | C35   |
| 107 | 89     | 9      | 4B7                     | Concrete beam           | Concrete | 300x600 | C35   |
| 108 | 90     | 39     | 4B7                     | Concrete beam           | Concrete | 300x600 | C35   |
| 109 | 91     | 11     | 4B8                     | Concrete beam           | Concrete | 300x600 | C35   |
| 110 | 92     | 17     | 4B8                     | Concrete beam           | Concrete | 300x600 | C35   |
| 111 | 93     | 1      | 4B9                     | Concrete beam           | Concrete | 300x600 | C35   |
| 112 | 94     | 13     | 4B10                    | Concrete beam           | Concrete | 300x600 | C35   |
| 113 | 95     | 19     | 4B10                    | Concrete beam           | Concrete | 300x600 | C35   |
| 114 | 96     | 3      | 4B11                    | Concrete beam           | Concrete | 300x600 | C35   |
| 115 | 97     | 42     | 4B12                    | Concrete beam           | Concrete | 300x600 | C35   |
| 116 | 98     | 6      | 4B12                    | Concrete beam           | Concrete | 300x600 | C35   |
| 117 | 99     | 19     | 4B13                    | Concrete beam           | Concrete | 300x600 | C35   |
| 118 | 100    | 83     | 4B14                    | Concrete beam           | Concrete | 300x400 | C35   |
| 119 | 101    | 80     | 4B14                    | Concrete beam           | Concrete | 300x400 | C35   |
| 120 | 83     | 101    | 4B14                    | Concrete beam           | Concrete | 300x400 | C35   |
| 121 | 80     | 102    | 4B14                    | Concrete beam           | Concrete | 300x400 | C35   |
| 122 | 164    | 42     | C13                     | Concrete column         | Concrete | 600x300 | C35   |
| 123 | 163    | 165    | C13                     | Concrete column         | Concrete | 600x300 | C35   |
| 124 | 162    | 164    | C13                     | Concrete column         | Concrete | 600x300 | C35   |
| 125 | 77     | 108    | ELM FRM B/B/2-FRM B/B/3 | Concrete wall mesh beam | Concrete |         | C35   |
| 126 | 106    | 109    | ELM FRM B/B/2-FRM B/B/3 | Concrete wall mesh beam | Concrete |         | C35   |
| 127 | 104    | 110    | ELM FRM B/B/2-FRM B/B/3 | Concrete wall mesh beam | Concrete |         | C35   |
| 128 | 111    | 115    | C1                      | Concrete column         | Concrete | 600x300 | C35   |
| 129 | 112    | 119    | C12                     | Concrete column         | Concrete | 600x300 | C35   |
| 130 | 113    | 116    | C1                      | Concrete column         | Concrete | 600x300 | C35   |
| 131 | 114    | 120    | C12                     | Concrete column         | Concrete | 600x300 | C35   |
| 132 | 115    | 6      | C1                      | Concrete column         | Concrete | 600x300 | C35   |
| 133 | 116    | 111    | C1                      | Concrete column         | Concrete | 600x300 | C35   |
| 134 | 117    | 113    | C1                      | Concrete column         | Concrete | 600x300 | C35   |
| 135 | 118    | 7      | C1                      | Concrete column         | Concrete | 600x300 | C35   |
| 136 | 119    | 39     | C12                     | Concrete column         | Concrete | 600x300 | C35   |
| 137 | 120    | 112    | C12                     | Concrete column         | Concrete | 600x300 | C35   |
| 138 | 121    | 114    | C12                     | Concrete column         | Concrete | 600x300 | C35   |

|                  |                     |                    |          |                    |           |                    |
|------------------|---------------------|--------------------|----------|--------------------|-----------|--------------------|
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|                  | Structure           |                    |          |                    | Sheet no. |                    |
|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by  | Date<br>17/08/2015 |

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| No. | Node 1 | Node 2 | Member                  | Construction            | Material | Section | Grade |
|-----|--------|--------|-------------------------|-------------------------|----------|---------|-------|
| 139 | 122    | 40     | C12                     | Concrete column         | Concrete | 600x300 | C35   |
| 140 | 108    | 123    | ELM FRM 3/3/B-FRM 3/3/C | Concrete wall mesh beam | Concrete |         | C35   |
| 141 | 110    | 124    | ELM FRM 3/3/B-FRM 3/3/C | Concrete wall mesh beam | Concrete |         | C35   |
| 142 | 109    | 125    | ELM FRM 3/3/B-FRM 3/3/C | Concrete wall mesh beam | Concrete |         | C35   |
| 143 | 126    | 138    | C2                      | Concrete column         | Concrete | 600x300 | C35   |
| 144 | 127    | 142    | C3                      | Concrete column         | Concrete | 600x300 | C35   |
| 145 | 128    | 146    | C4                      | Concrete column         | Concrete | 600x300 | C35   |
| 146 | 129    | 150    | C5                      | Concrete column         | Concrete | 600x300 | C35   |
| 147 | 130    | 154    | C6                      | Concrete column         | Concrete | 600x300 | C35   |
| 148 | 131    | 158    | C7                      | Concrete column         | Concrete | 600x300 | C35   |
| 149 | 132    | 139    | C2                      | Concrete column         | Concrete | 600x300 | C35   |
| 150 | 133    | 143    | C3                      | Concrete column         | Concrete | 600x300 | C35   |
| 151 | 134    | 147    | C4                      | Concrete column         | Concrete | 600x300 | C35   |
| 152 | 135    | 151    | C5                      | Concrete column         | Concrete | 600x300 | C35   |
| 153 | 136    | 155    | C6                      | Concrete column         | Concrete | 600x300 | C35   |
| 154 | 137    | 159    | C7                      | Concrete column         | Concrete | 600x300 | C35   |
| 155 | 138    | 9      | C2                      | Concrete column         | Concrete | 600x300 | C35   |
| 156 | 139    | 126    | C2                      | Concrete column         | Concrete | 600x300 | C35   |
| 157 | 140    | 132    | C2                      | Concrete column         | Concrete | 600x300 | C35   |
| 158 | 141    | 20     | C2                      | Concrete column         | Concrete | 600x300 | C35   |
| 159 | 142    | 11     | C3                      | Concrete column         | Concrete | 600x300 | C35   |
| 160 | 143    | 127    | C3                      | Concrete column         | Concrete | 600x300 | C35   |
| 161 | 144    | 133    | C3                      | Concrete column         | Concrete | 600x300 | C35   |
| 162 | 145    | 21     | C3                      | Concrete column         | Concrete | 600x300 | C35   |
| 163 | 146    | 13     | C4                      | Concrete column         | Concrete | 600x300 | C35   |
| 164 | 147    | 128    | C4                      | Concrete column         | Concrete | 600x300 | C35   |
| 165 | 148    | 134    | C4                      | Concrete column         | Concrete | 600x300 | C35   |
| 166 | 149    | 22     | C4                      | Concrete column         | Concrete | 600x300 | C35   |
| 167 | 150    | 15     | C5                      | Concrete column         | Concrete | 600x300 | C35   |
| 168 | 151    | 129    | C5                      | Concrete column         | Concrete | 600x300 | C35   |
| 169 | 152    | 135    | C5                      | Concrete column         | Concrete | 600x300 | C35   |
| 170 | 153    | 23     | C5                      | Concrete column         | Concrete | 600x300 | C35   |
| 171 | 154    | 17     | C6                      | Concrete column         | Concrete | 600x300 | C35   |
| 172 | 155    | 130    | C6                      | Concrete column         | Concrete | 600x300 | C35   |
| 173 | 156    | 136    | C6                      | Concrete column         | Concrete | 600x300 | C35   |
| 174 | 157    | 24     | C6                      | Concrete column         | Concrete | 600x300 | C35   |
| 175 | 158    | 19     | C7                      | Concrete column         | Concrete | 600x300 | C35   |
| 176 | 159    | 131    | C7                      | Concrete column         | Concrete | 600x300 | C35   |
| 177 | 160    | 137    | C7                      | Concrete column         | Concrete | 600x300 | C35   |
| 178 | 161    | 25     | C7                      | Concrete column         | Concrete | 600x300 | C35   |
| 179 | 103    | 77     | ELM FRM 2/2/C-FRM 2/2/B | Concrete wall mesh beam | Concrete |         | C35   |
| 180 | 107    | 106    | ELM FRM 2/2/C-FRM 2/2/B | Concrete wall mesh beam | Concrete |         | C35   |
| 181 | 105    | 104    | ELM FRM 2/2/C-FRM 2/2/B | Concrete wall mesh beam | Concrete |         | C35   |
| 182 | 165    | 162    | C13                     | Concrete column         | Concrete | 600x300 | C35   |
| 183 | 166    | 163    | C13                     | Concrete column         | Concrete | 600x300 | C35   |
| 184 | 167    | 43     | C13                     | Concrete column         | Concrete | 600x300 | C35   |

#### Element Properties

#### Section Properties

|                  |                     |                    |          |                    |                      |                    |
|------------------|---------------------|--------------------|----------|--------------------|----------------------|--------------------|
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|                  | Calc. by<br>53PWF2S | Date<br>17/08/2015 | Chk'd by | Date<br>17/08/2015 | App'd by             | Date<br>17/08/2015 |

| Section                 | Material | $I_t$<br>[cm <sup>4</sup> ] | $I_{major}$<br>[cm <sup>4</sup> ] | $I_{minor}$<br>[cm <sup>4</sup> ] | $A$<br>[mm <sup>2</sup> ] | $A_{eq\ major}$<br>[mm <sup>2</sup> ] | $A_{eq\ minor}$<br>[mm <sup>2</sup> ] |
|-------------------------|----------|-----------------------------|-----------------------------------|-----------------------------------|---------------------------|---------------------------------------|---------------------------------------|
| 300x400                 | C35      | 194385.059                  | 160000.0                          | 90000.0                           | 120000                    | 100000                                | 100000                                |
| 300x600                 | C35      | 370785.938                  | 540000.0                          | 135000.0                          | 180000                    | 150000                                | 150000                                |
| 600x300                 | C35      | 370785.938                  | 135000.0                          | 540000.0                          | 180000                    | 150000                                | 150000                                |
| Concrete wall mesh beam | C35      | 116535.573                  | 2.25E+07                          | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 116535.573                  | 2.25E+07                          | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 116535.573                  | 2.25E+07                          | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |
| Concrete wall mesh beam | C35      | 233071.147                  | 4.5E+07                           | 100.0                             | 1                         | 1                                     | 0                                     |

#### Modification Factors

| Material | Type                | E     | G     | $I_t$ | $I_{major}$ | $I_{minor}$ | $A$   | $A_{eq\ major}$ | $A_{eq\ minor}$ | t     |
|----------|---------------------|-------|-------|-------|-------------|-------------|-------|-----------------|-----------------|-------|
| Concrete | Meshed Wall Cracked | 0.200 | 0.200 | -     | -           | -           | -     | -               | -               | 1.000 |
|          | Column Cracked      | 1.000 | 1.000 | 0.200 | 0.200       | 0.200       | 1.000 | 1.000           | 1.000           | -     |
|          | Beam Cracked        | 1.000 | 1.000 | 0.010 | 0.200       | 0.200       | 1.000 | 1.000           | 1.000           | -     |