



# **Alauddin.net**

## **My Projects**

**Note: I used the words “My Projects” to refer to those projects in which I was a member of the design team in my professional career. The name of the structural consulting company and the project name are included in all pages, as necessary.**

**M Alauddin Biswas**  
**Structural Engineer**  
**Read Jones Christoffersen (RJC)**

# My Projects

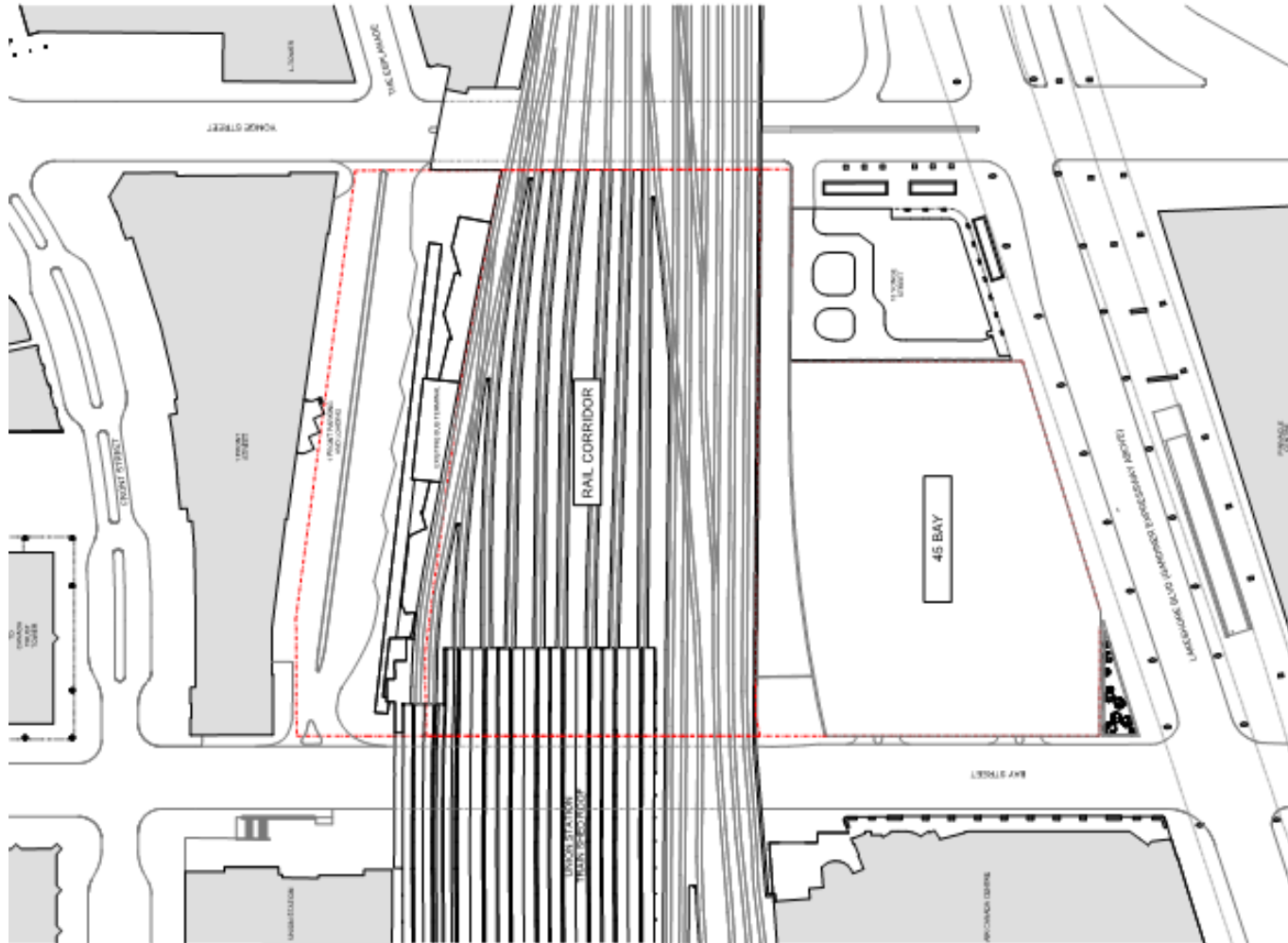
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**45/81 Bay, Toronto**

**Read Jones Christoffersen**

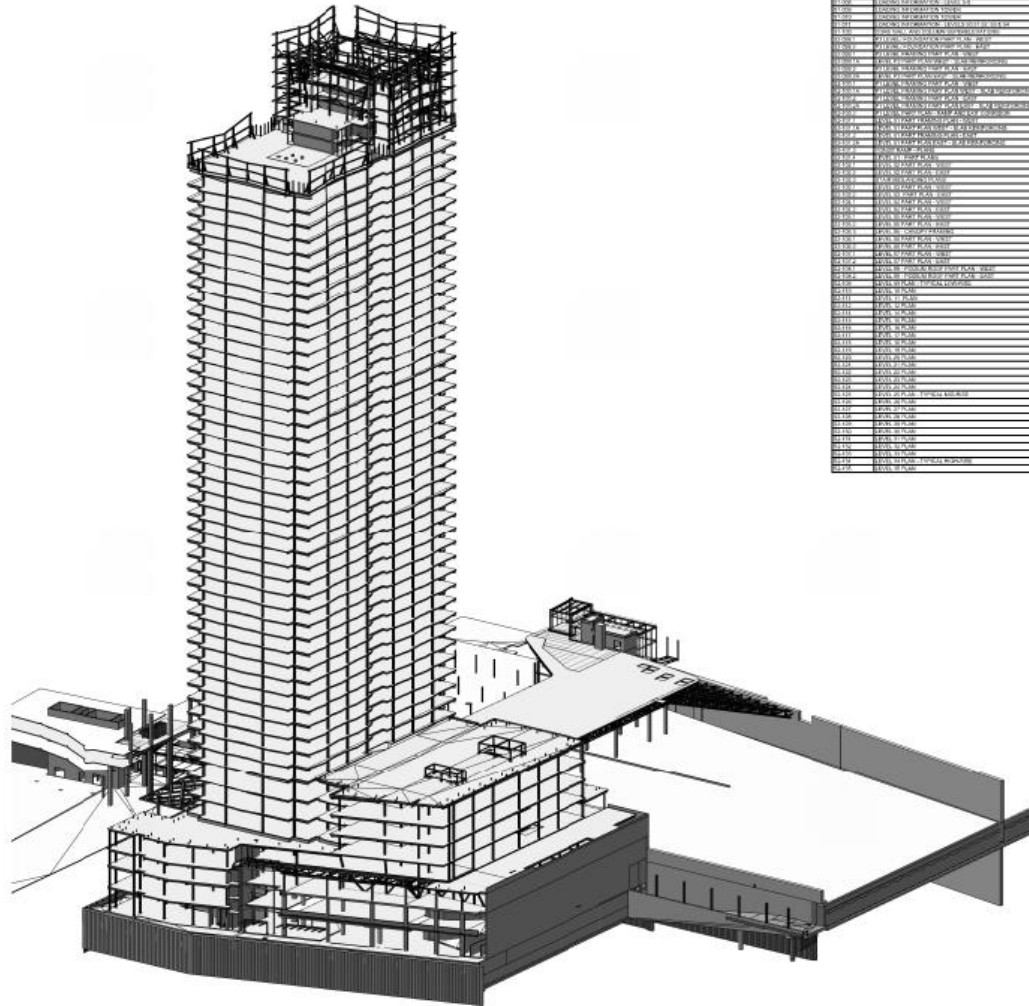
# My Projects



**45/81 Bay, Toronto**

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# My Projects



**45/81 Bay, Toronto**

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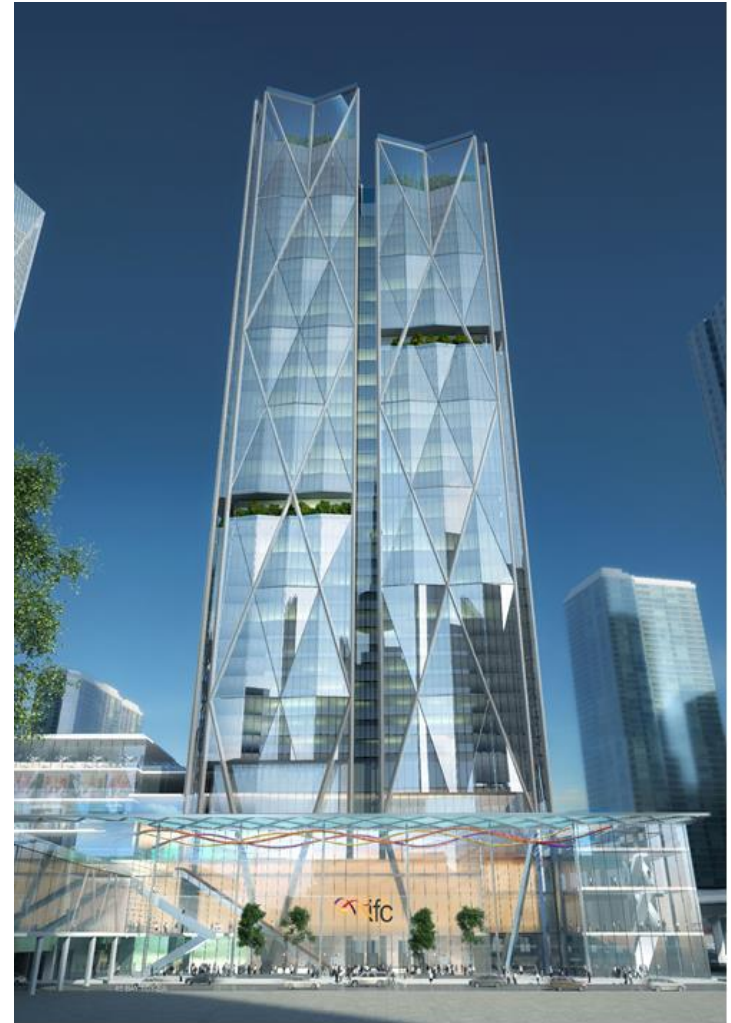
# My Projects

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# My Projects

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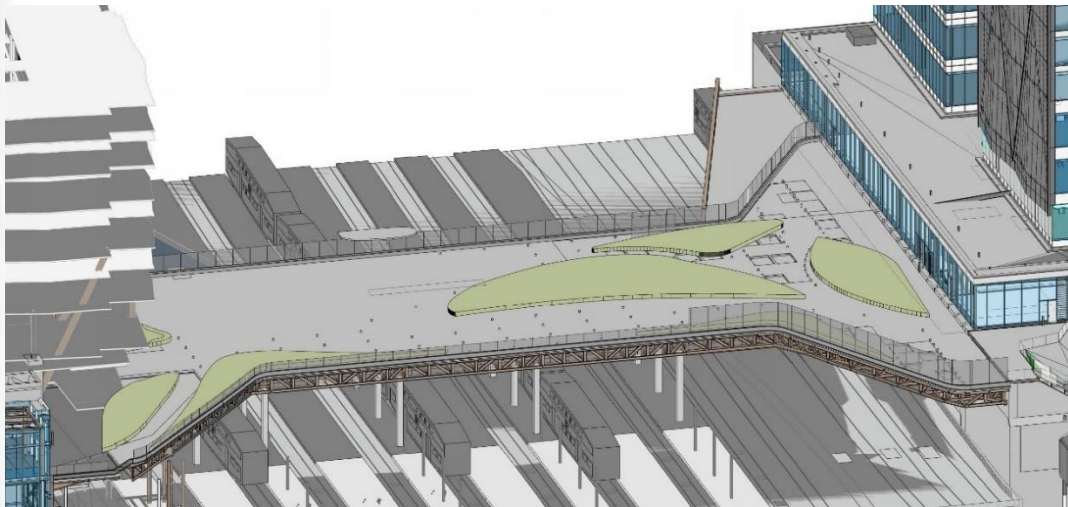
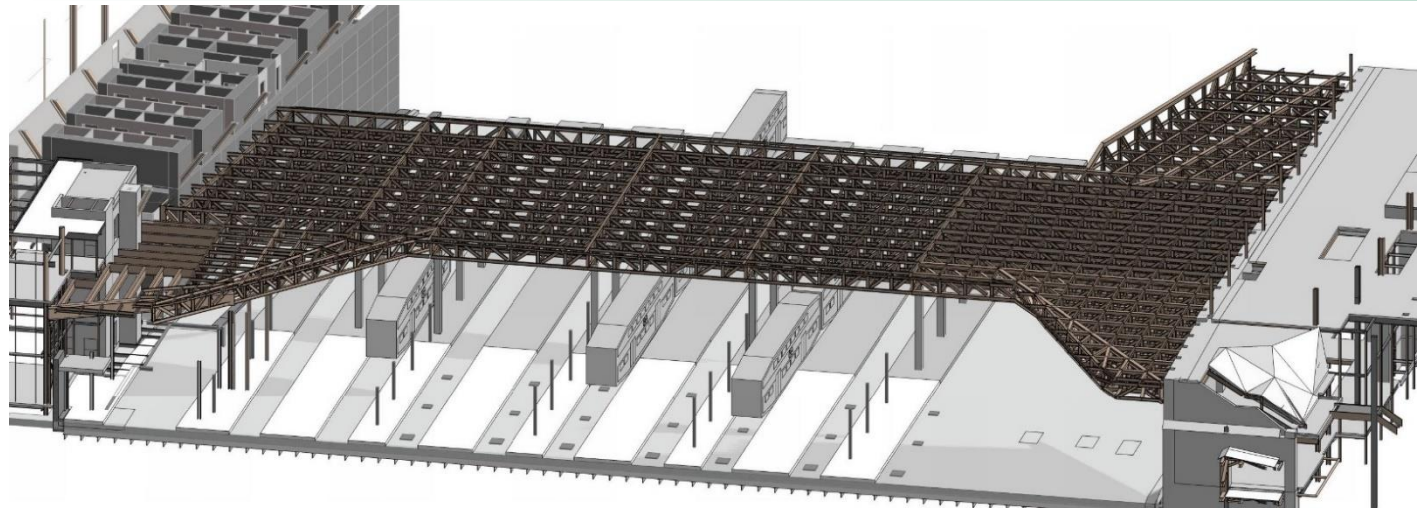
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**45/81 Bay, Toronto**

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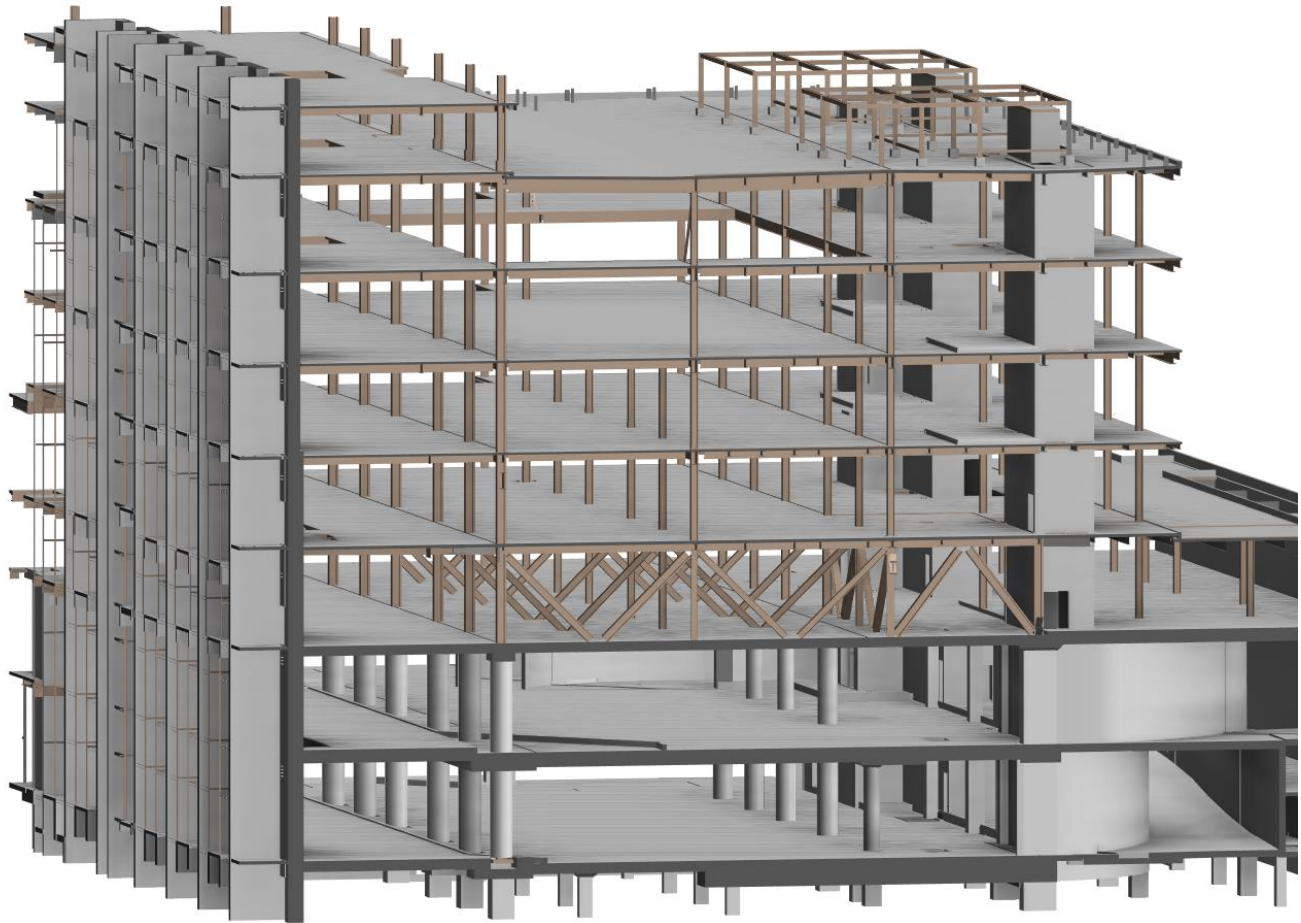
**45/81 Bay, Toronto**



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# My Projects

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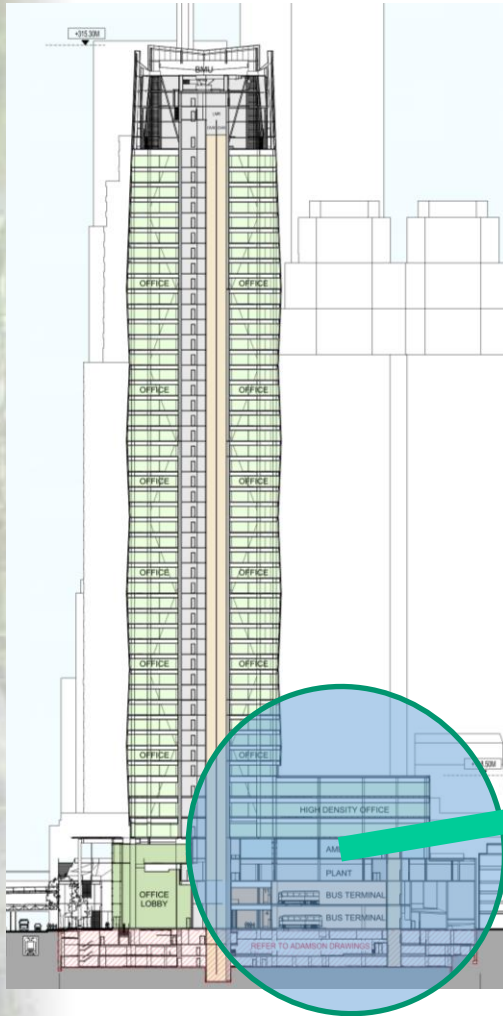
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**Read Jones Christoffersen**

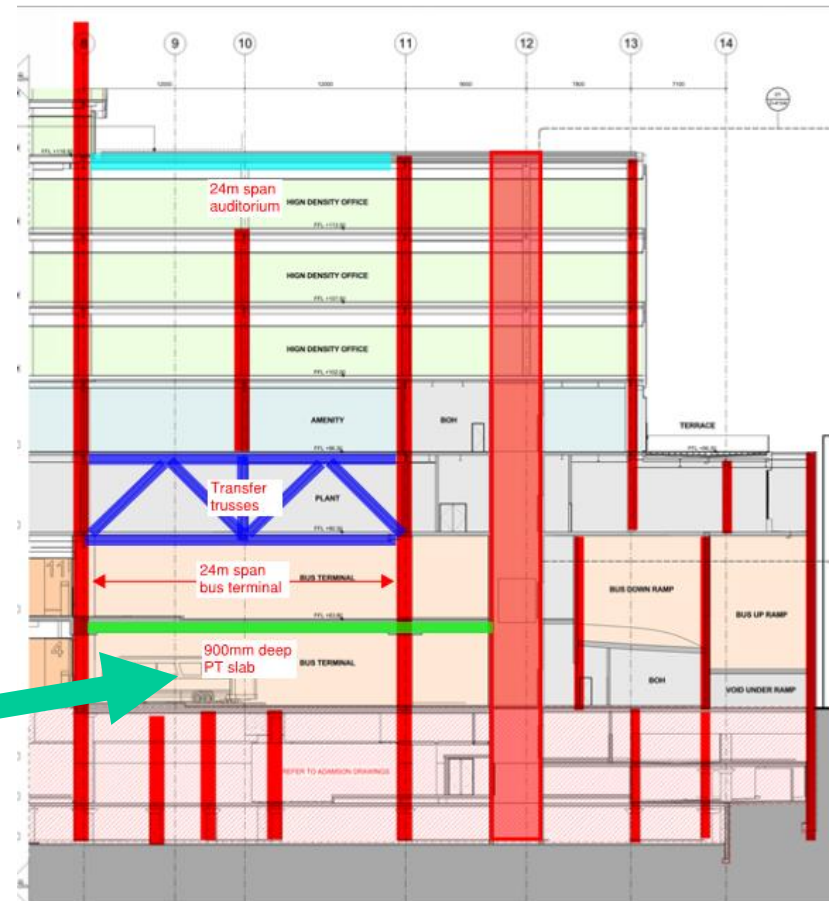
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**S-AlgoL Consulting & Software**

# My Projects



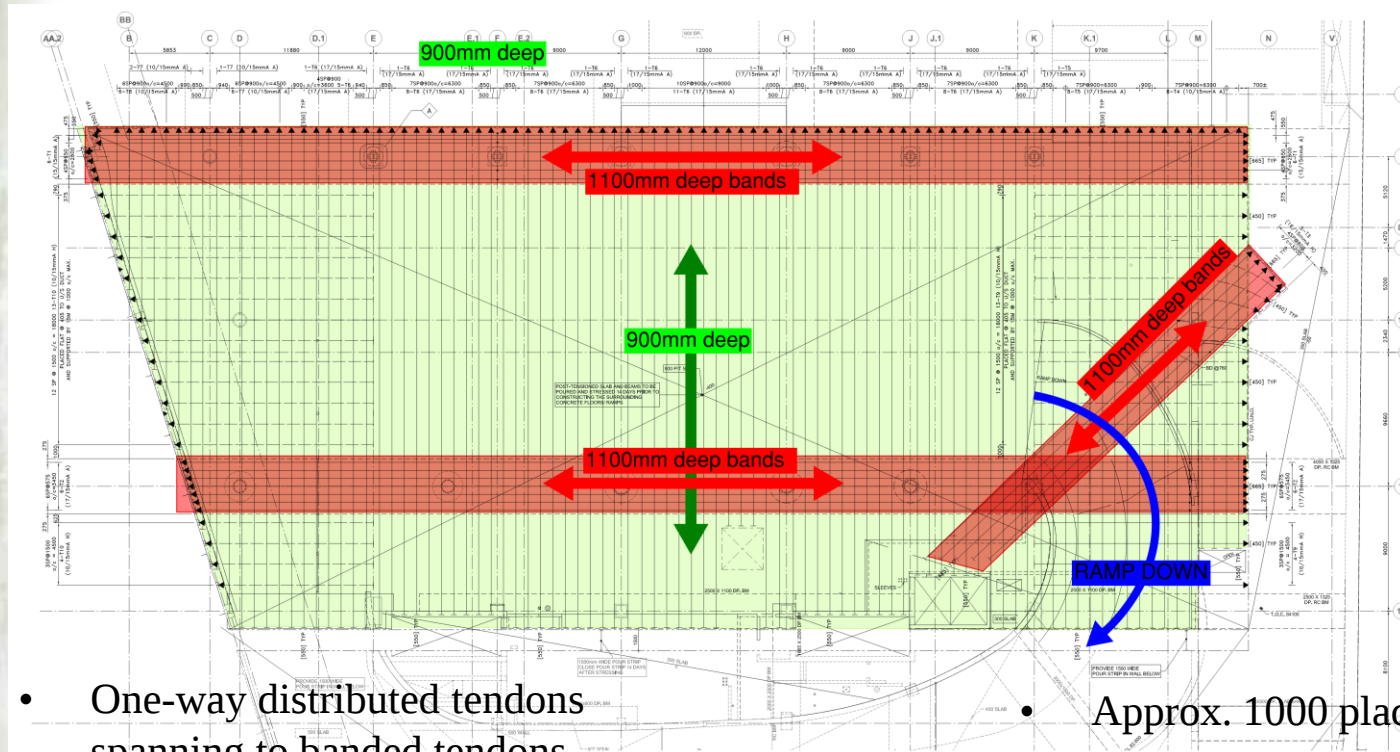
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# My Projects

## BUS STATION – LEVEL 2 PT SLAB



- One-way distributed tendons spanning to banded tendons
- Main span → 24m
- 90 tons of PT in 167 ducts
- 7 rounds of shop drawings
- Approx. 1000 placing hours
- Approx. 500 stressing hours
- Approx. 140 grouting hours
- 2\*18 hour pours

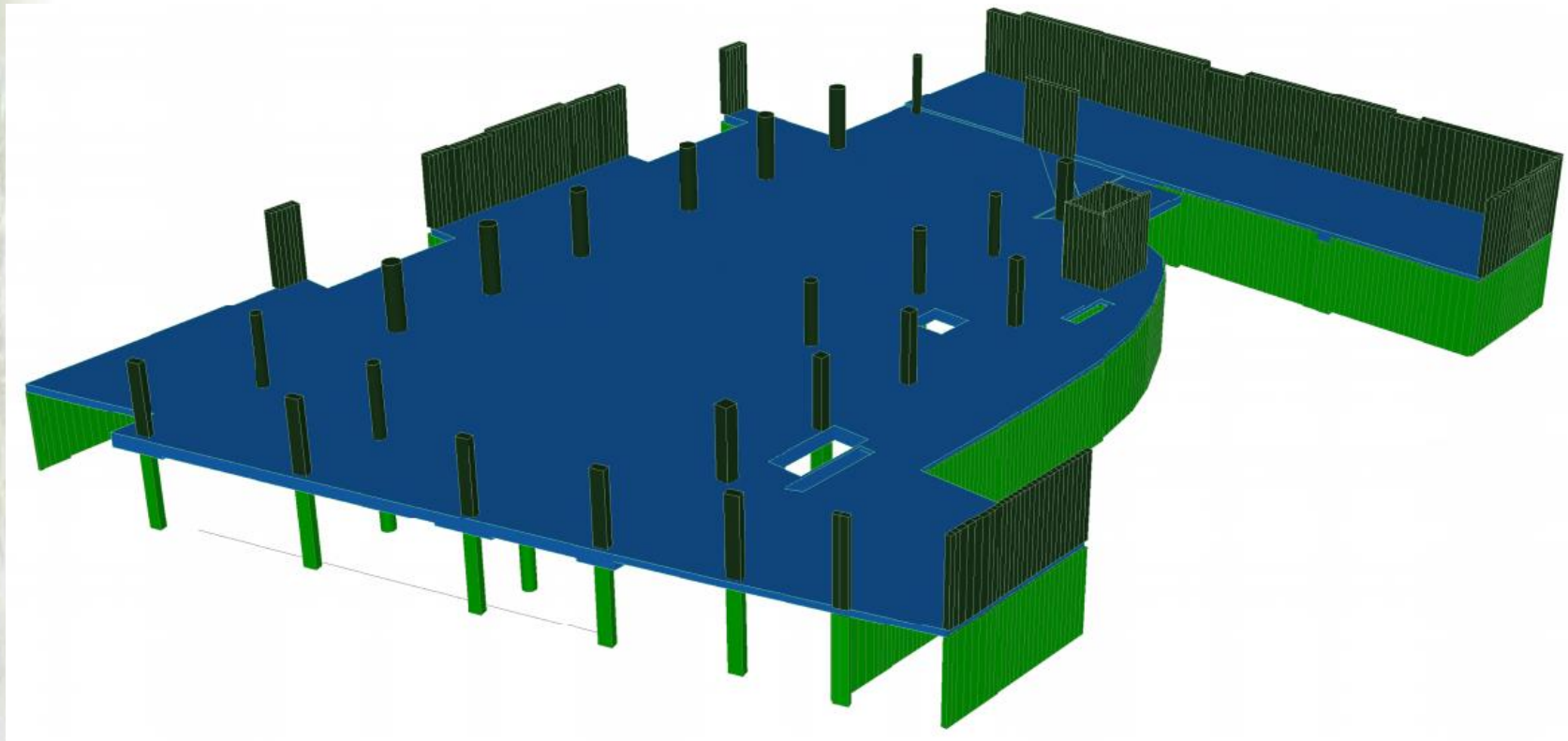
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# My Projects

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## 3D PT Model in RAM Concept



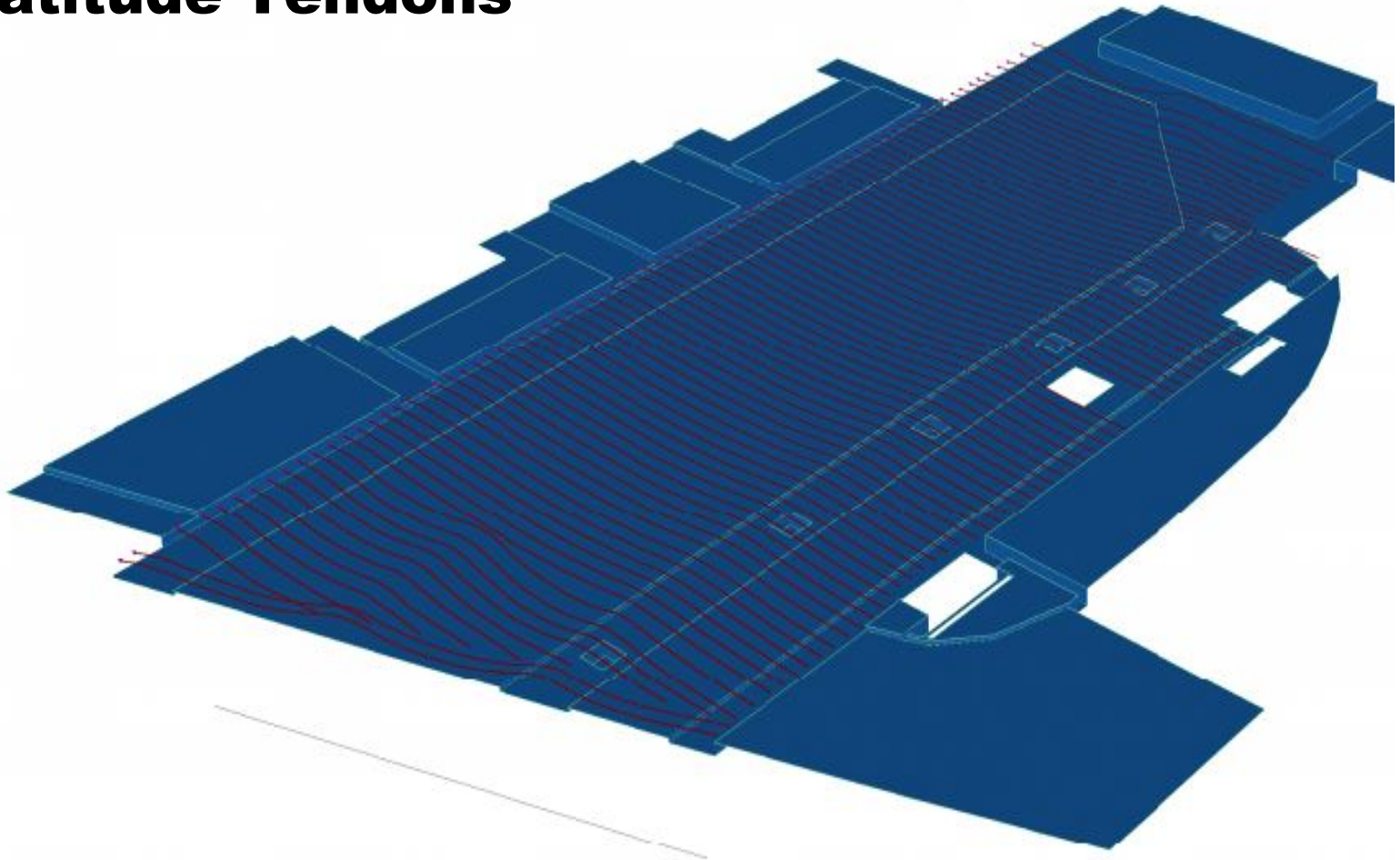
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## Latitude Tendons



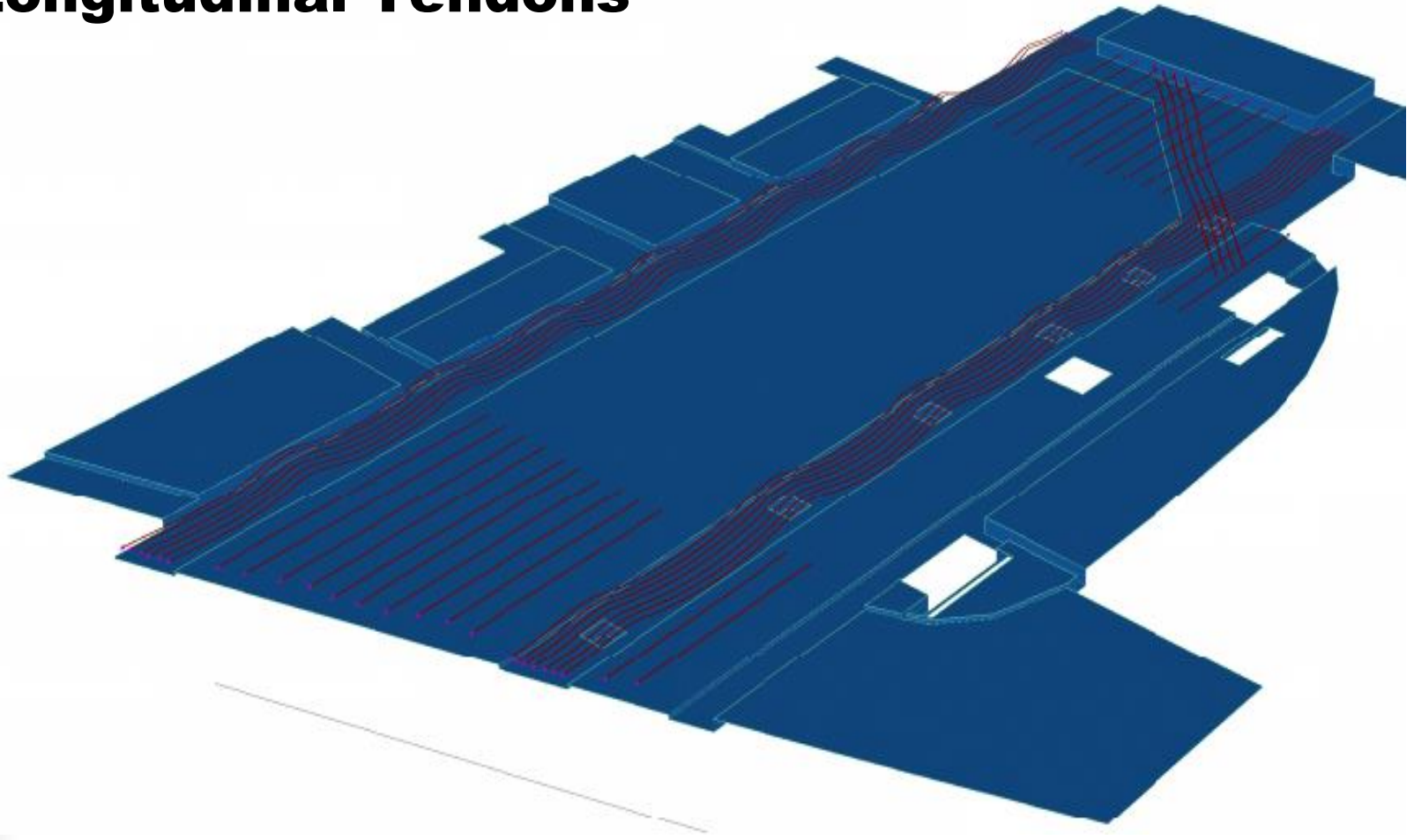
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# My Projects

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## Longitudinal Tendons



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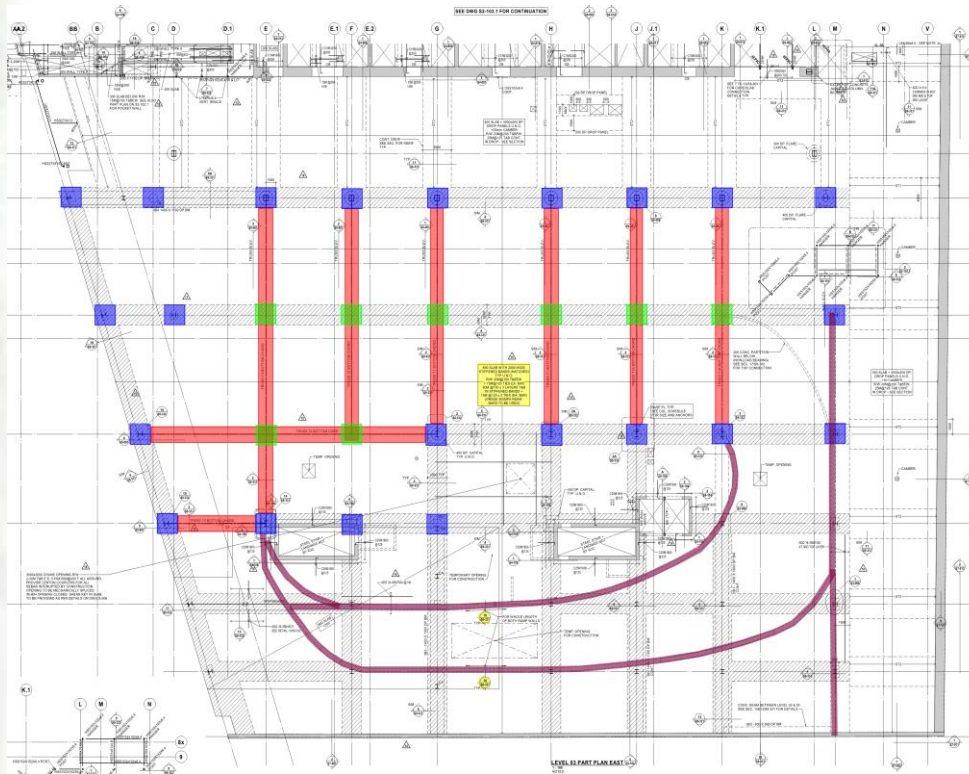
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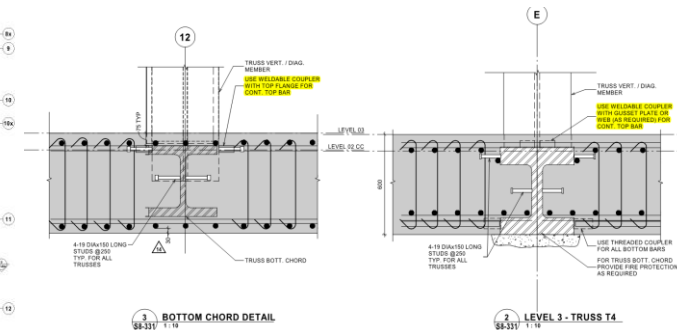
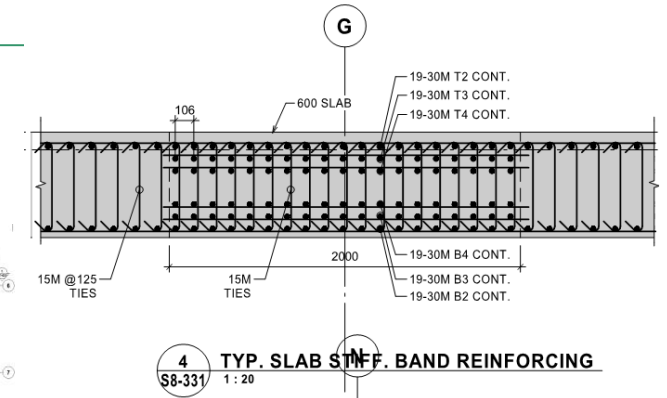
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# My Projects

## L3 Slab



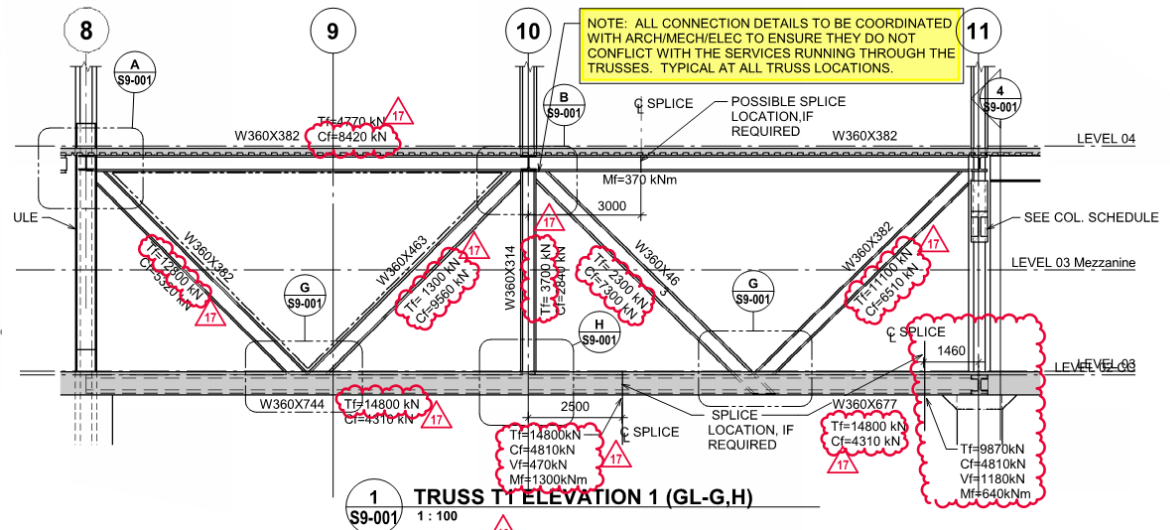
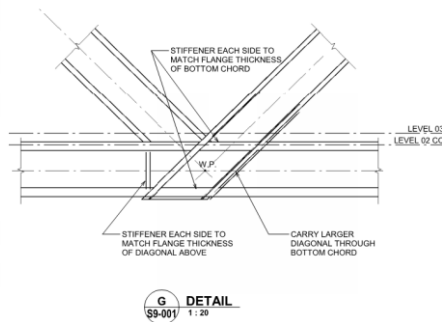
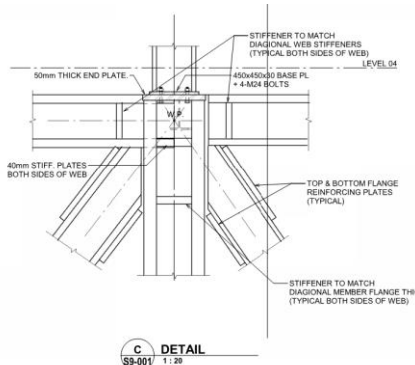
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600 SLAB WITH 2000 WIDE  
STIFFENED BANDS (HATCHED)  
TYP U.N.O.  
R/W 30M@150 T&BEW  
+ 15M@125 TIES EA. BAR  
30M @ 130 x 3 LAYERS T&B  
IN STIFFENED BANDS +  
15M @ 125 x 2 TIES (EA. BAR)  
(GRADE 500MPA REINF.  
BARS TO BE USED)

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# My Projects



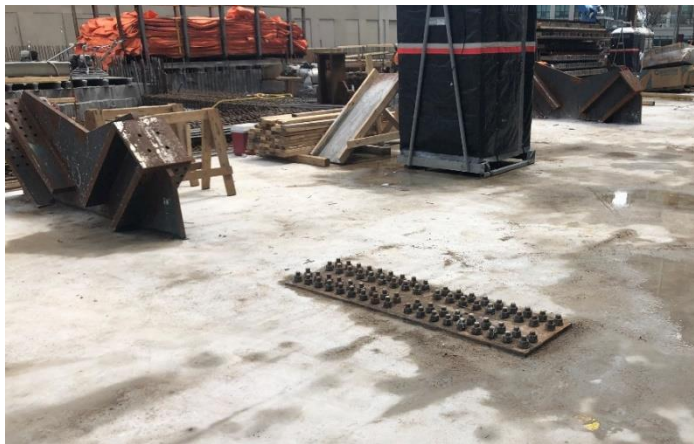
- 600 mm THICK RC SLAB WITH 600 mm THICK STIFFENED BANDS
- 12X12 m PANELS
- LONGITUDINAL: 30M@125 T&B EW CONT.
- STIRRUPS: 10M@125 @EACH LONGITUDINAL BAR
- STIFFENED BANDS: 30M@80 PER LAYER - 2 LAYERS T&B EW CONT.
- STIRRUPS IN STIFFENED BANDS: 2-10M@125 @EACH LONGITUDINAL BAR
- 2000 mm WIDE STIFFENED BAND ALONG ALL MAJOR GRIDLINES THAT
- ARE NOT SUPPORTED BY TRUSS OR WALLS UNDERNEATH

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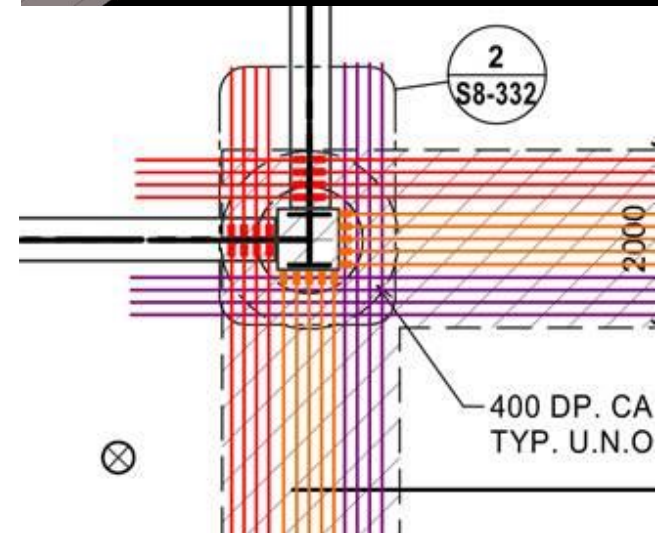
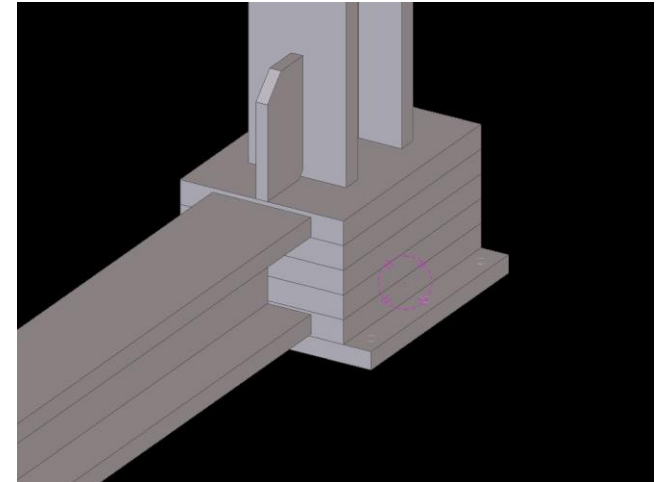
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# My Projects

- Over 3,000 tons of rebar
- 240,000 stirrup legs
- 7,500 welded couplers (30M)
- Rebar mock-up!
- Endless coordination
- 12 weeks of rebar placement

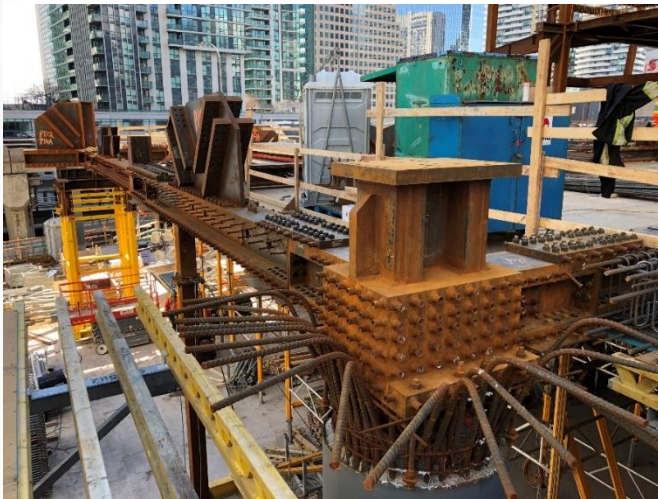
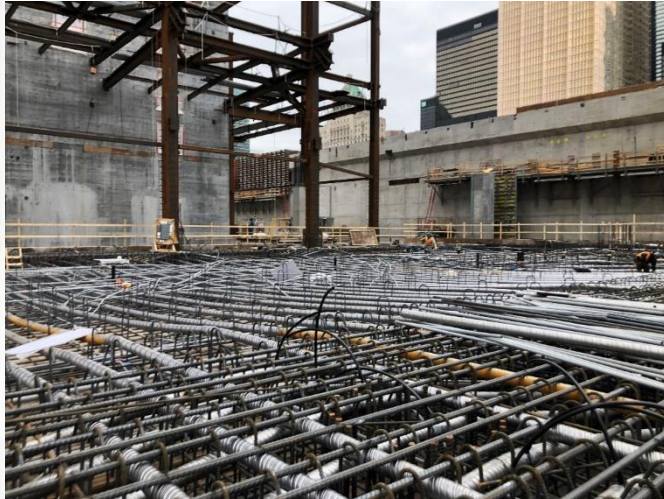


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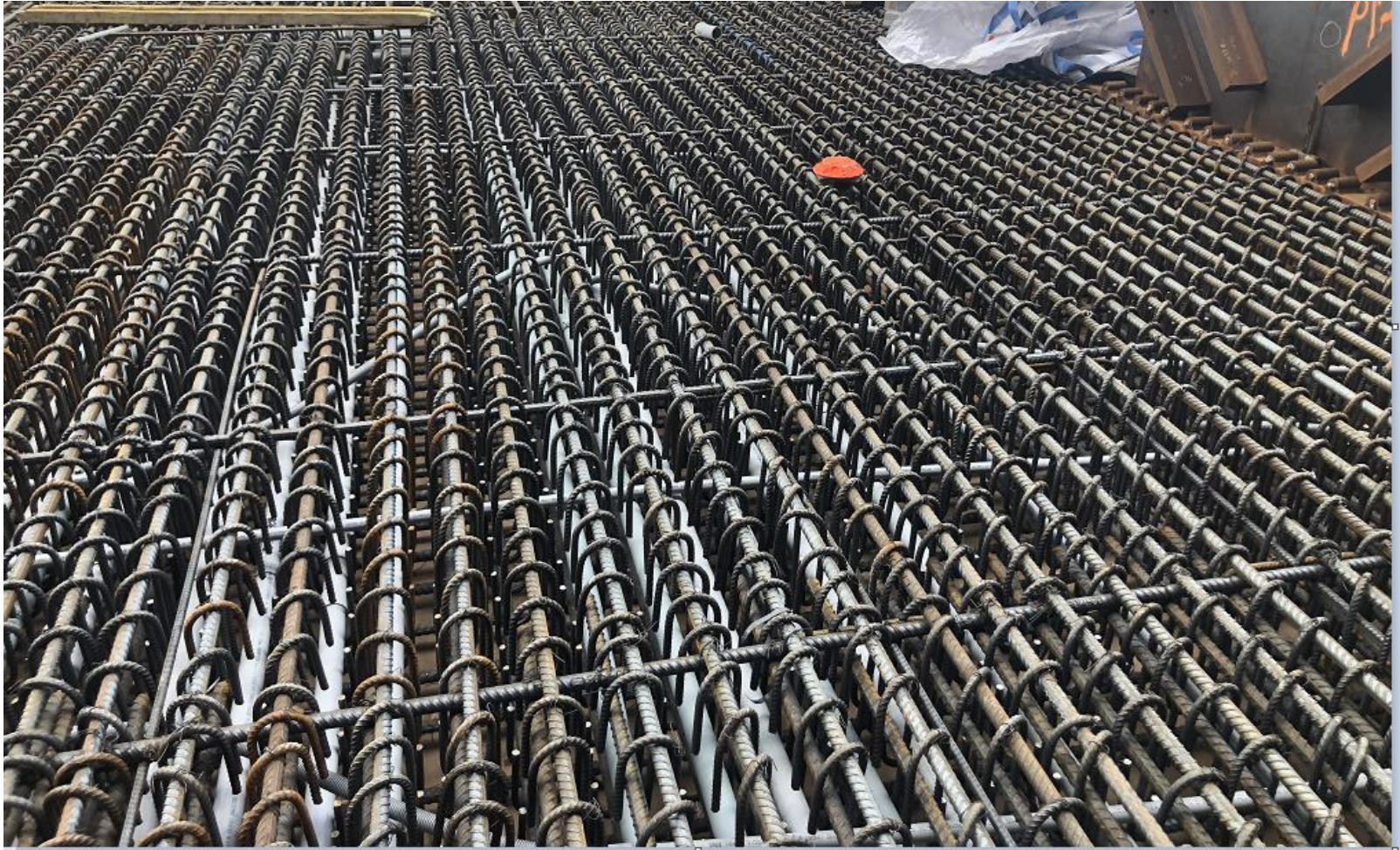
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# My Projects

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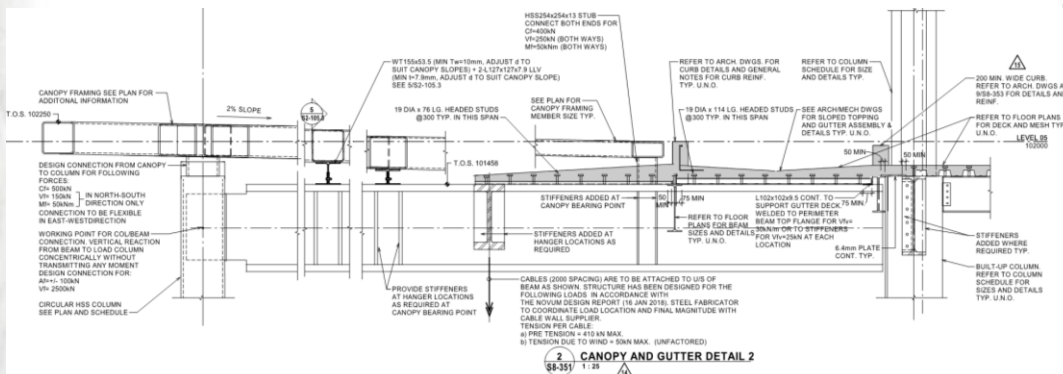
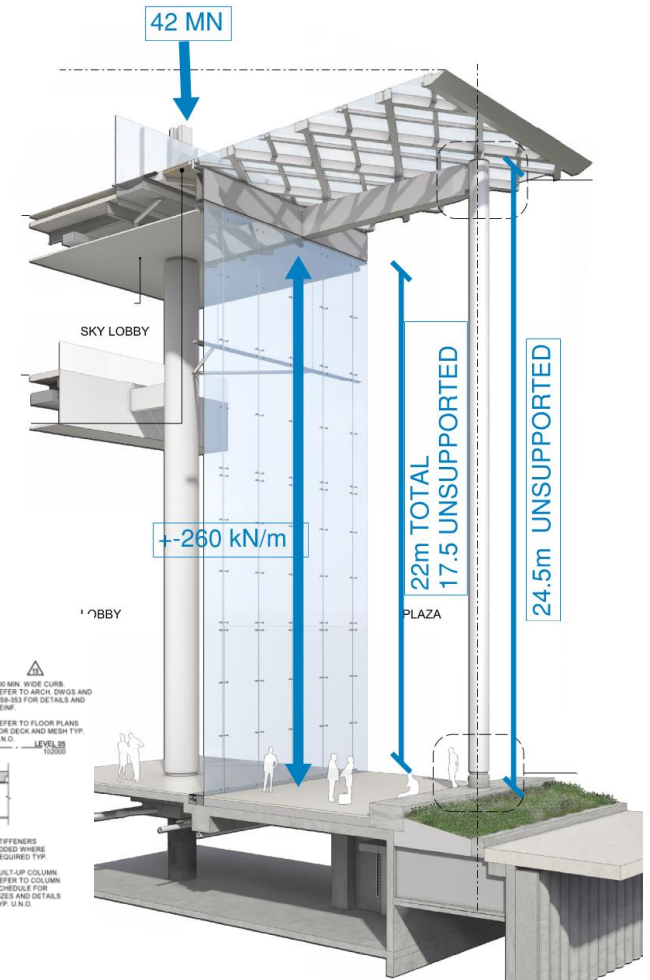
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# My Projects

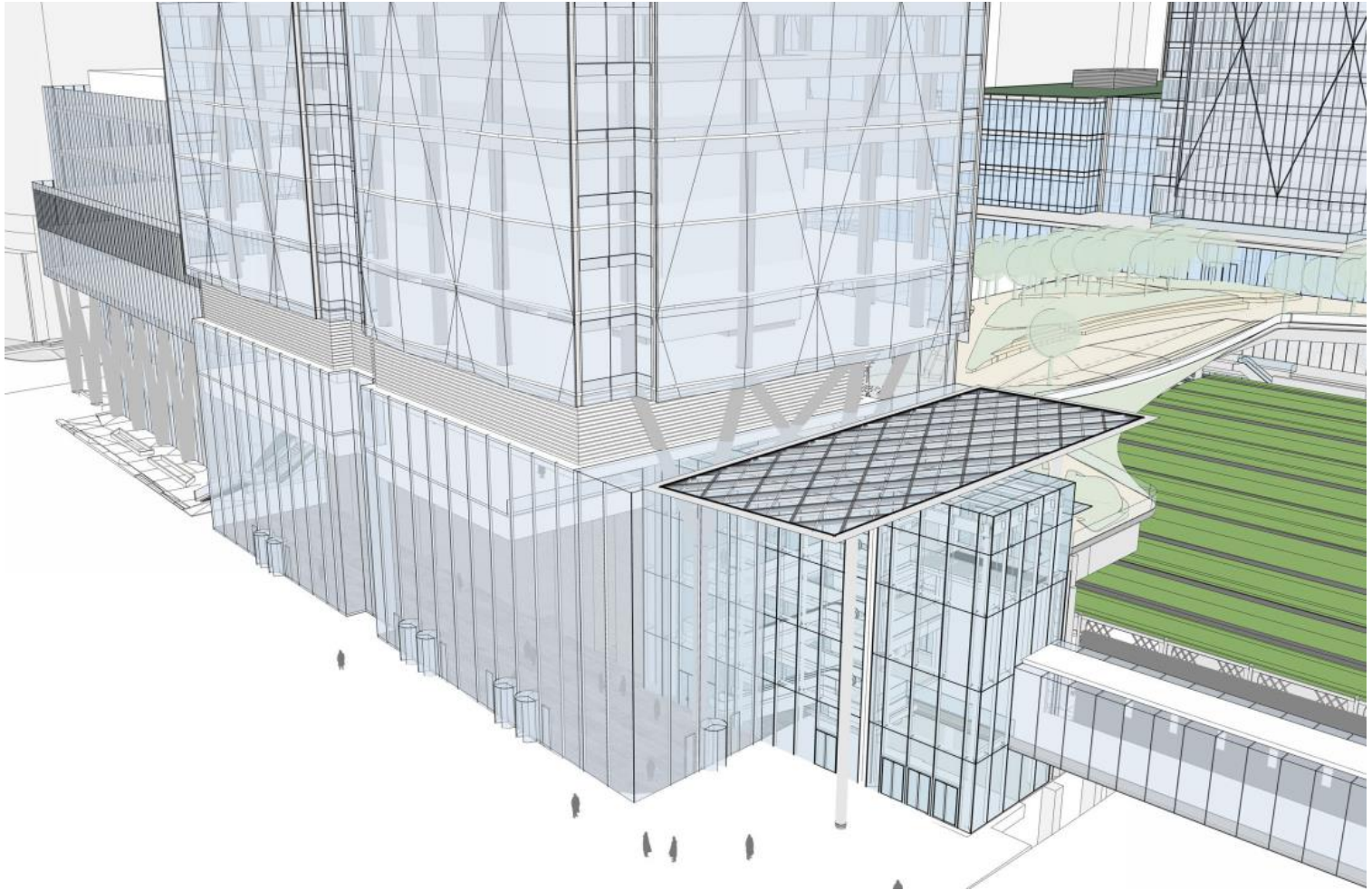


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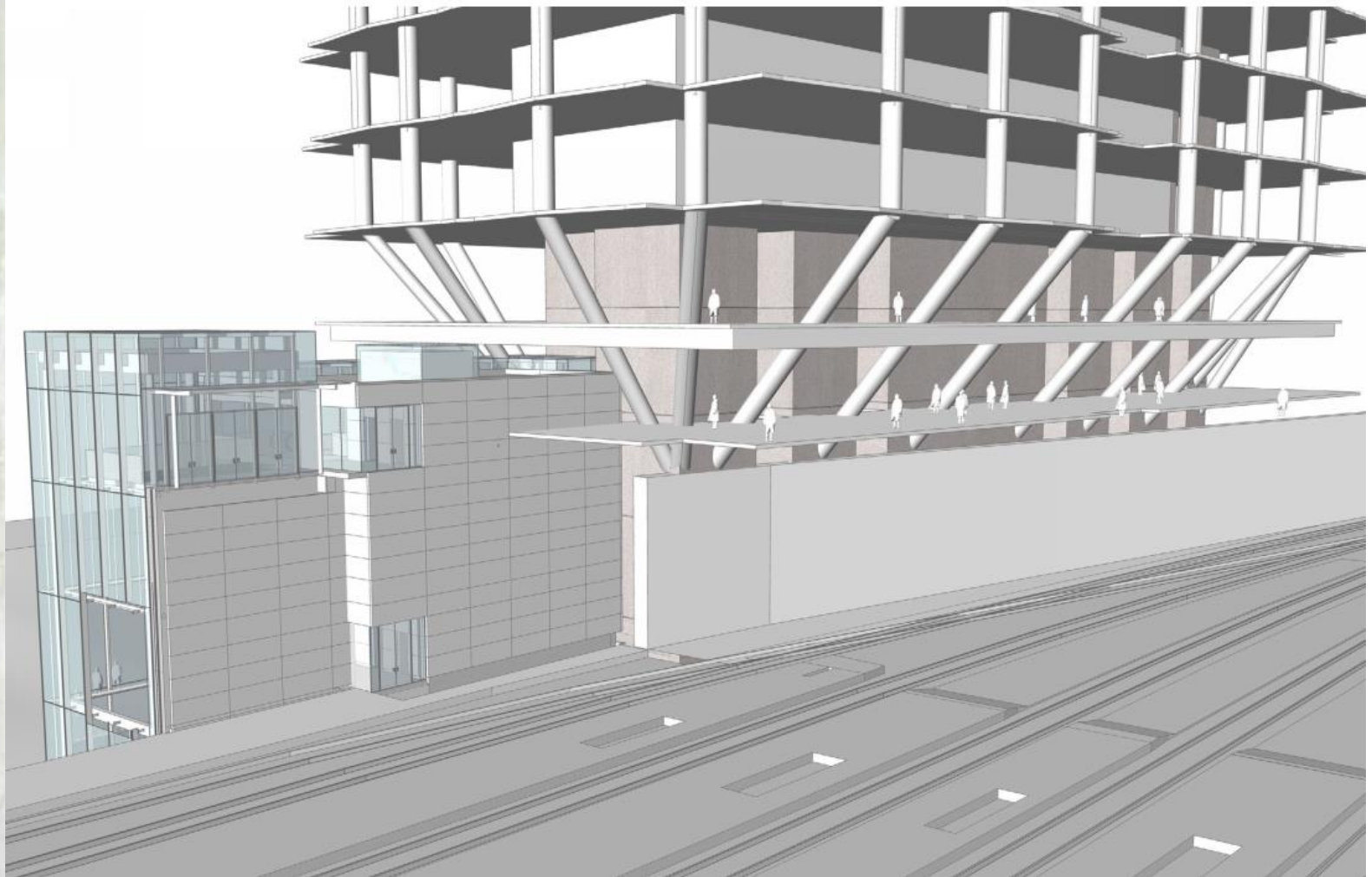


**141 Bay, Toronto**

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# My Projects

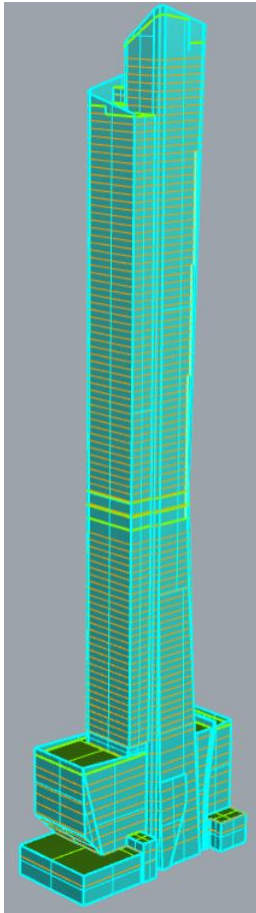
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**141 Bay, Toronto**

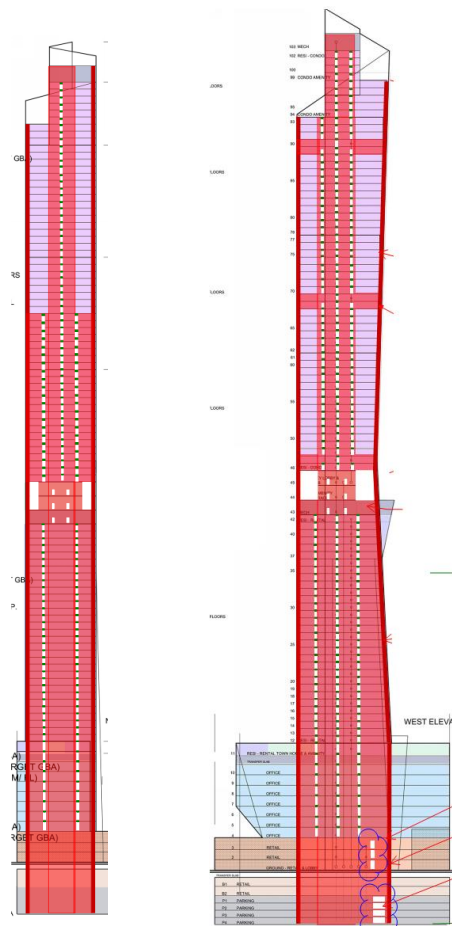
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# My Projects



**The Rose**

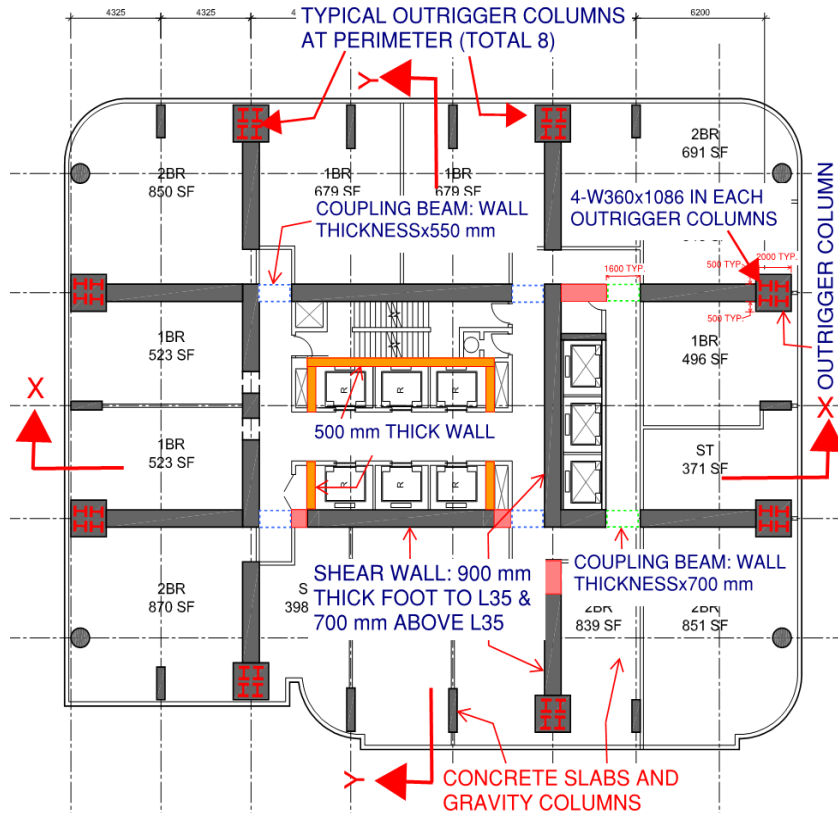
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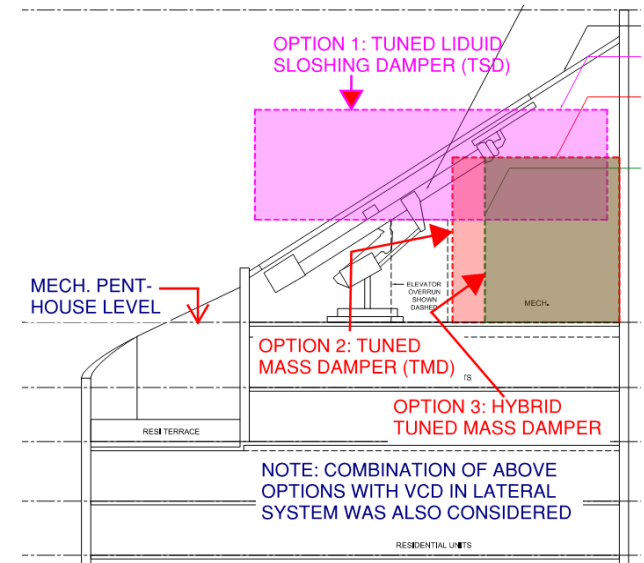
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# My Projects



The Rose

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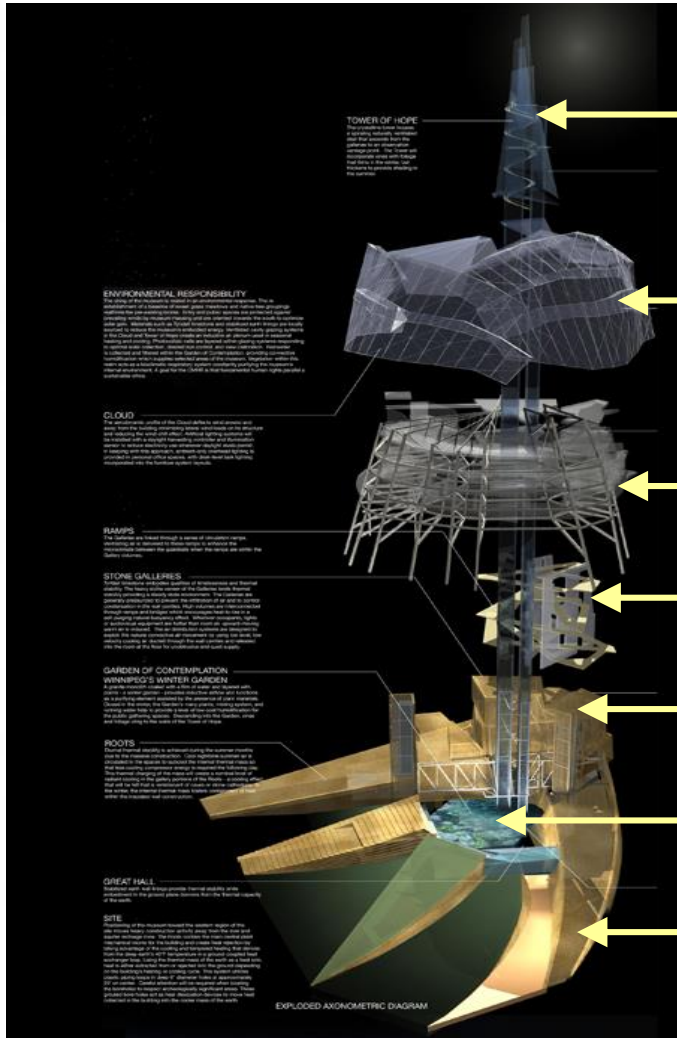
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**Canadian Museum for Human Rights (CMHR)**

**Halcrow Yolles**

# My Projects



## Canadian Museum for Human Rights (CMHR)

Tower of Hope

Cloud

Administration

Ramp Canyon

Mountain Galleries

Great Hall/Garden

Roots

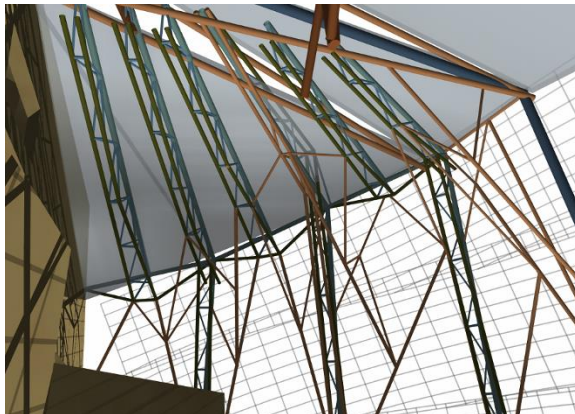
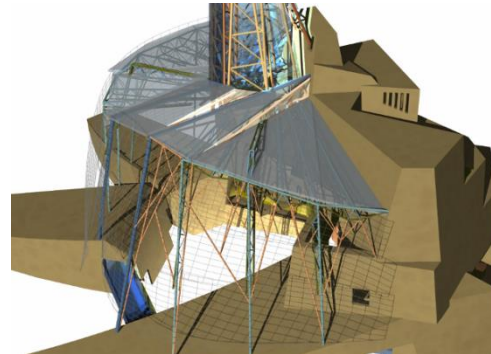
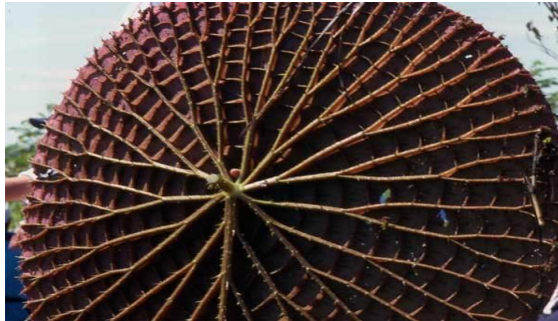
Halcrow Yolles

# My Projects

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- Roots - Concrete
- Cloud – structural steel
- Façade – structural steel and glass

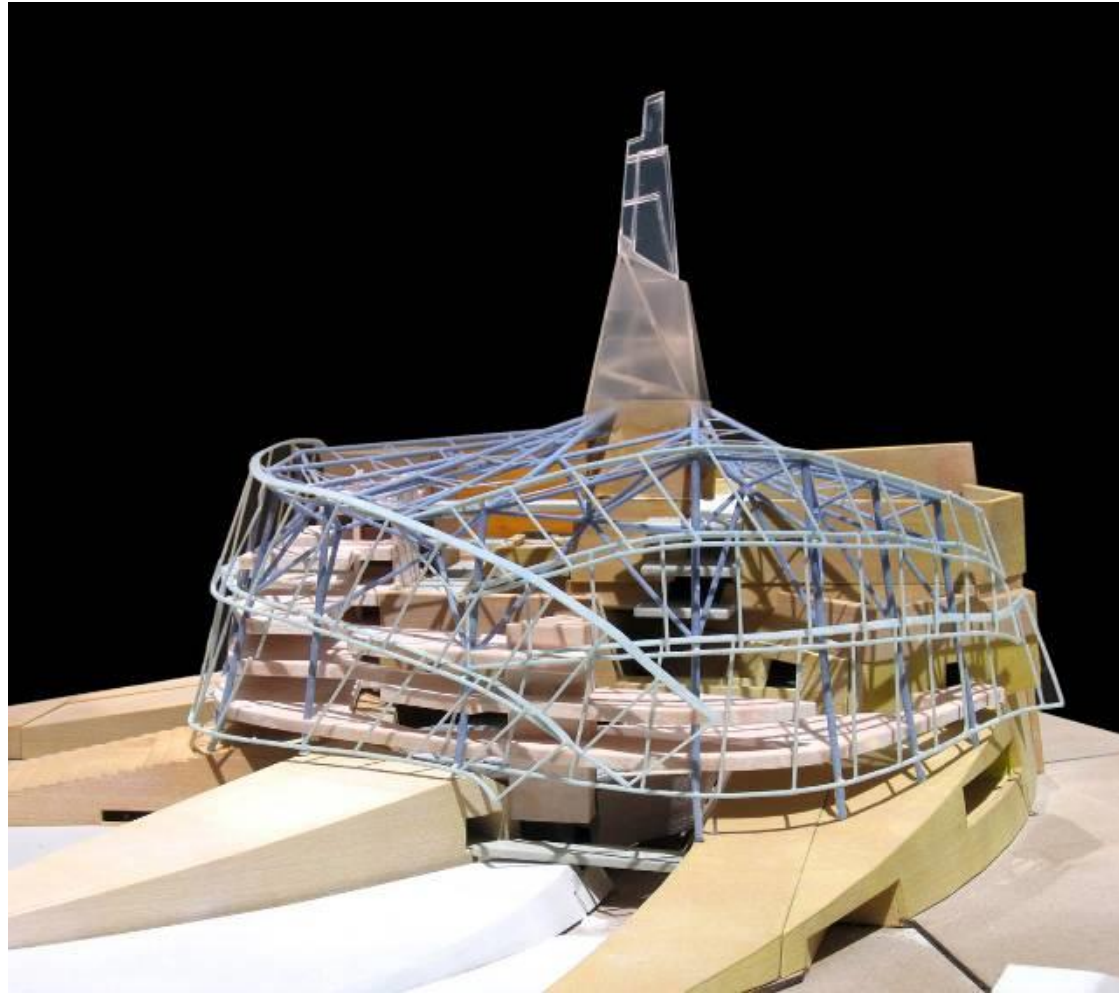
## Canadian Museum for Human Rights (CMHR)



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# My Projects

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**Canadian Museum for Human Rights (CMHR)**

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# My Projects

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**Canadian Museum for Human Rights (CMHR)**

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**Canadian Museum for Human Rights (CMHR)**

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# My Projects

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**Canadian Museum for Human Rights (CMHR)**

**Halcrow Yolles**

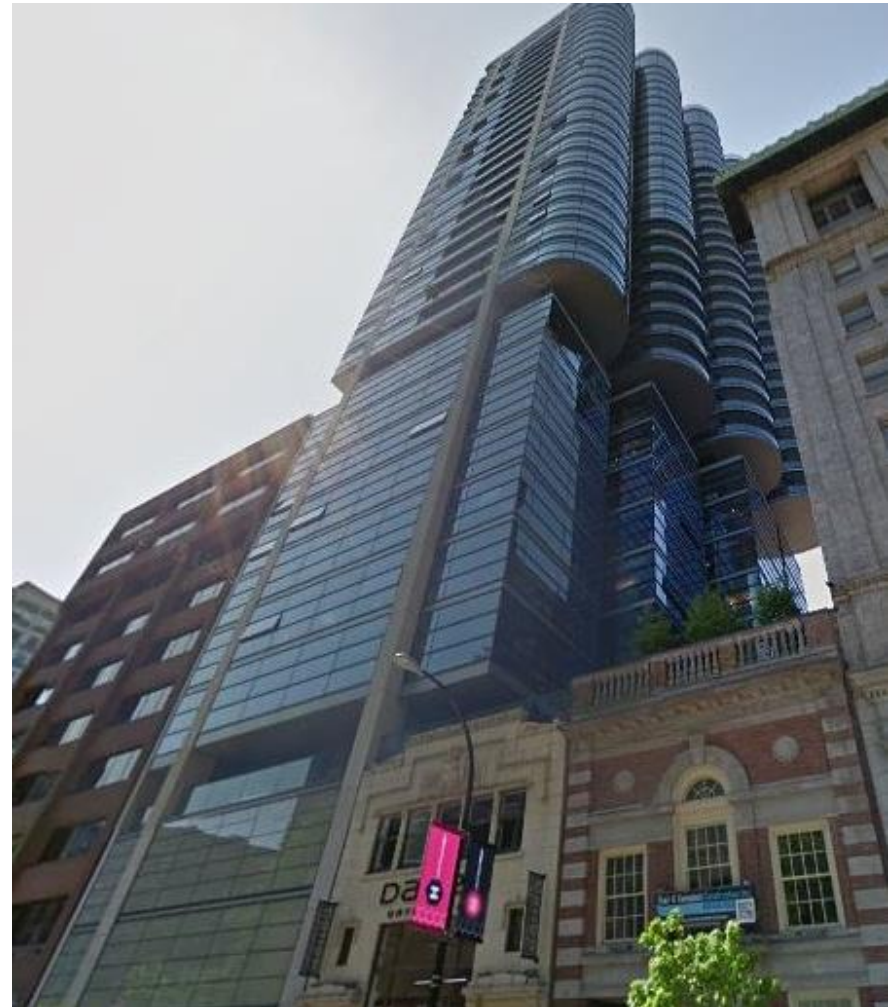
# My Projects

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**Jameson House, Vancouver**

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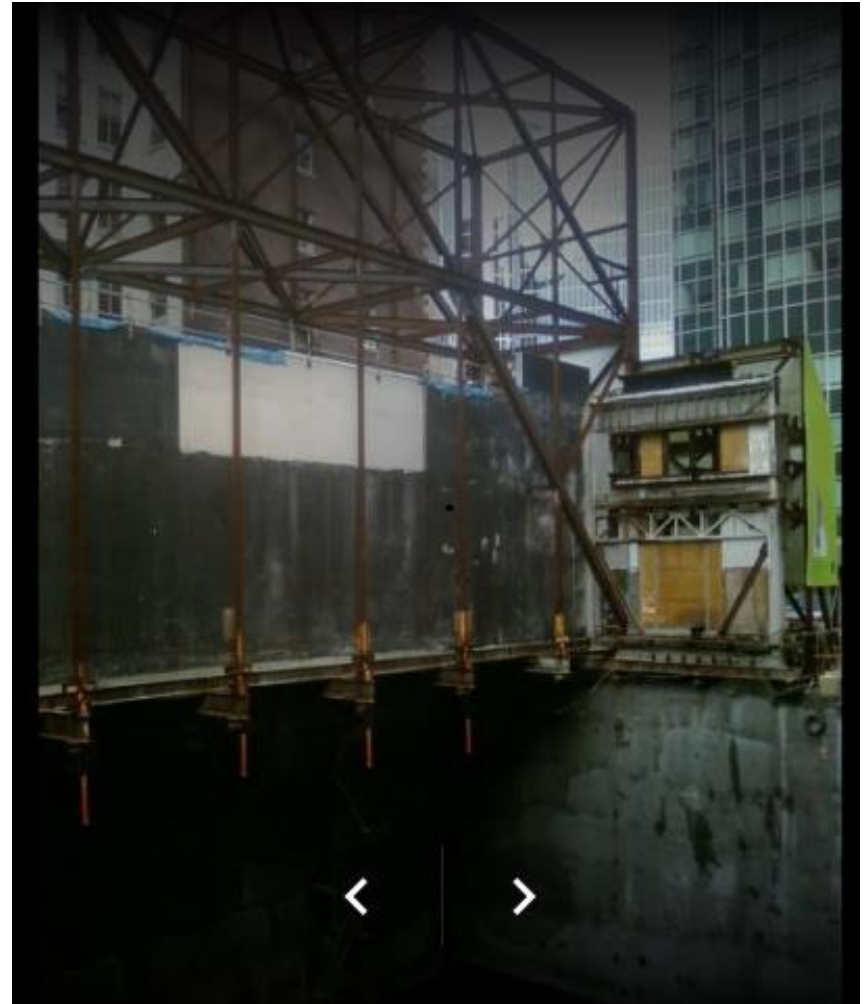


**Halcrow Yolles**

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**Jameson House, Vancouver**

**Halcrow Yolles**

# My Projects

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**Jameson House, Vancouver**

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**Jameson House, Vancouver**

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**The Bow, Calgary**

**Halcrow Yolles**

# My Projects

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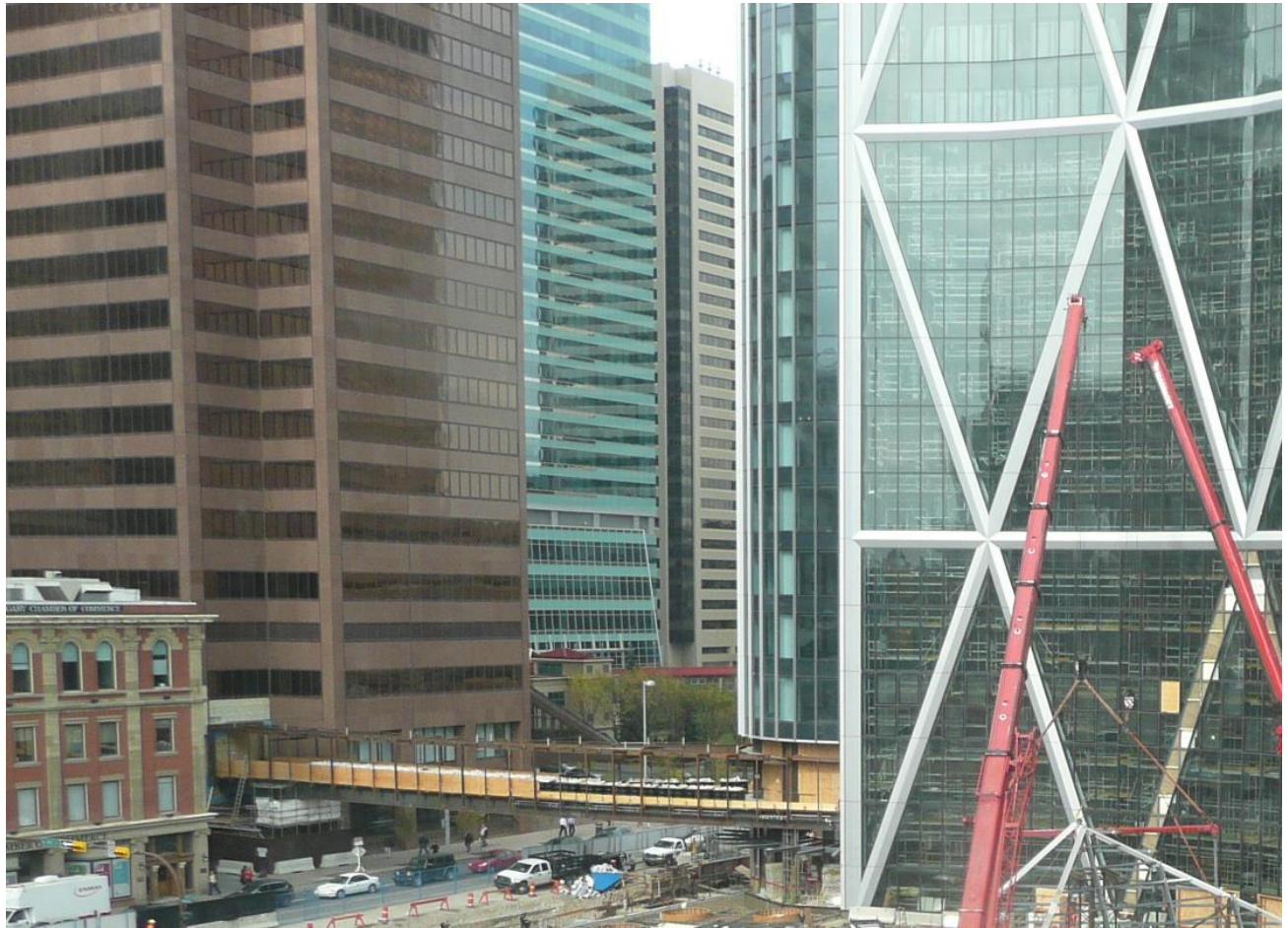


**The Bow – Pedestrian Bridge, Calgary**

**Halcrow Yolles**

# My Projects

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**The Bow – Pedestrian Bridge, Calgary**

**Halcrow Yolles**

# My Projects



**The Bow – Pedestrian Bridge, Calgary**

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**The Bow – Pedestrian Bridge, Calgary**

**Halcrow Yolles**

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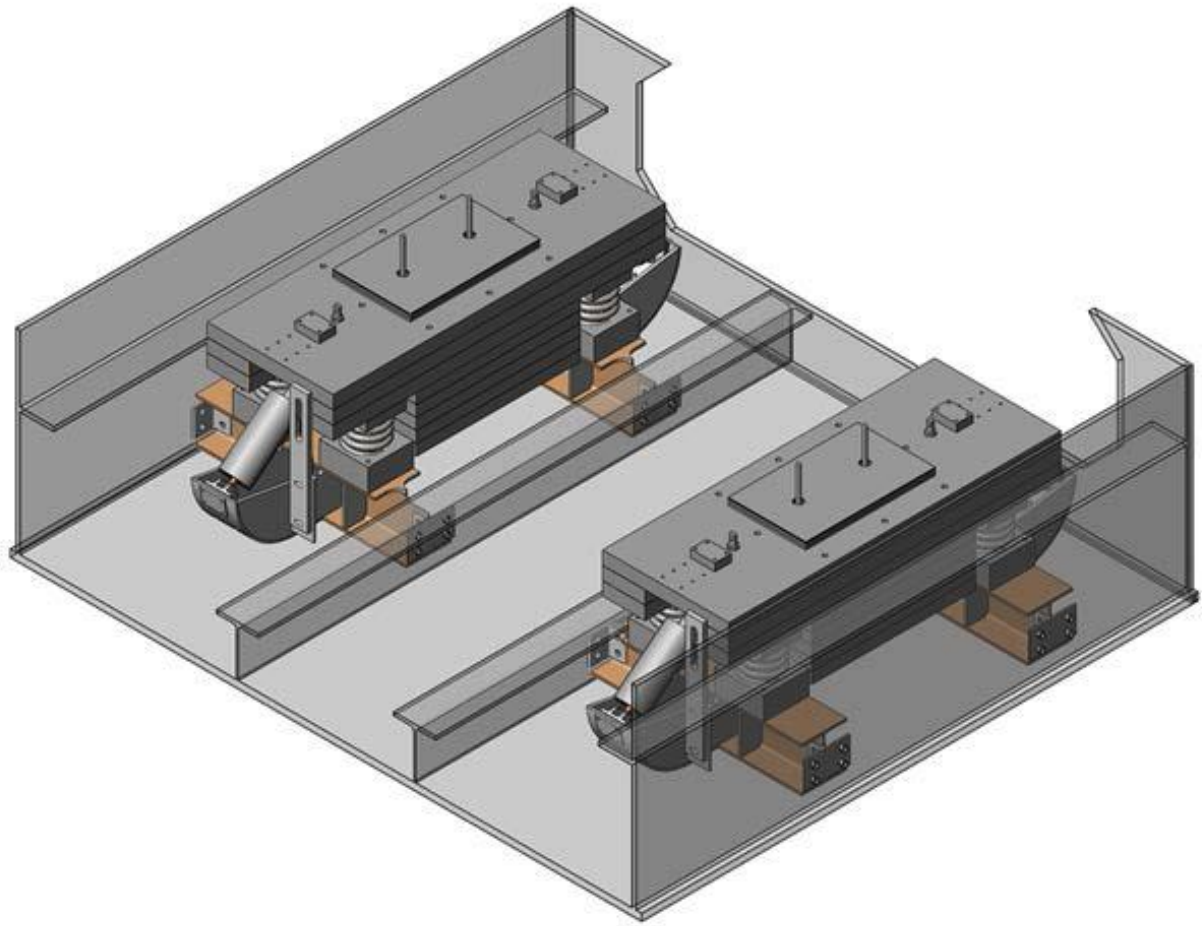


**The Bow – Pedestrian Bridge, Calgary**

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**The Bow – TMD in Pedestrian Bridge, Calgary**

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**The Bow – TMD in Pedestrian Bridge, Calgary**

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# My Projects

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**Bahai Temple, Santiago, Chile**

**Carruthers & Wallace Ltd.**

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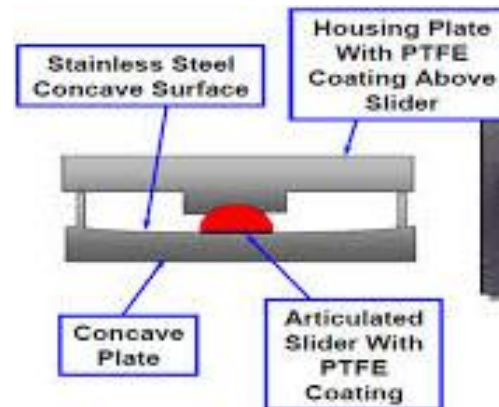
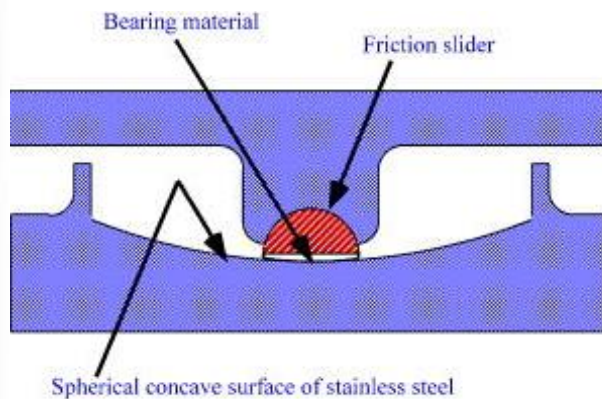
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**Bahai Temple, Santiago, Chile**

**Carruthers & Wallace Ltd.**

# My Projects

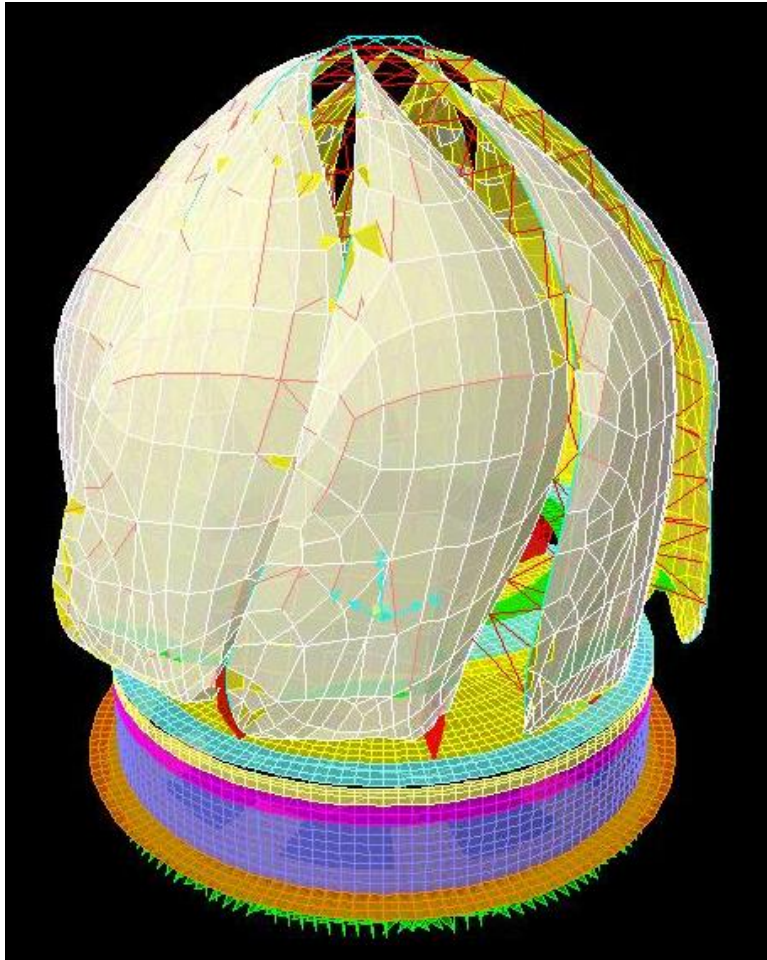


**Concave Plate and Slider for FPS Bridge Bearing**  
- Seismic retrofit of Benicia-Martinez Bridge, San Francisco, CA  
- 7.5 to 13 ft diameters  
- Displ. Capacity of 13 ft bearings = +/- 4.3 ft

**Bahai Temple – Base Isolator, Santiago, Chile**

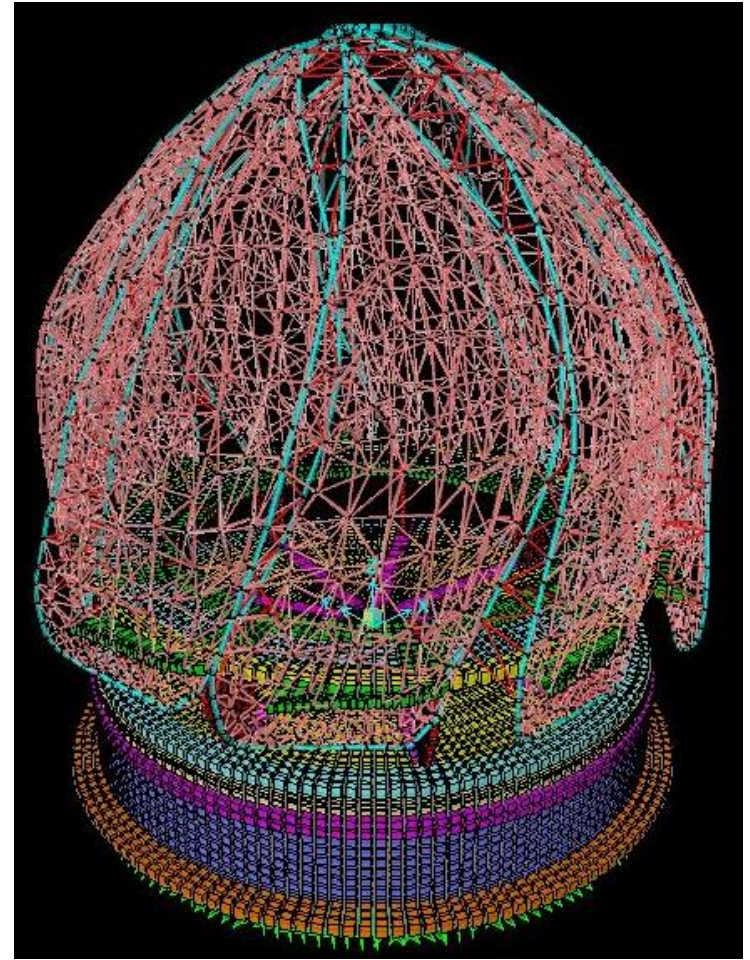
**Carruthers & Wallace Ltd.**

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**Bahai Temple, Santiago, Chile**

**Alauddin.net**

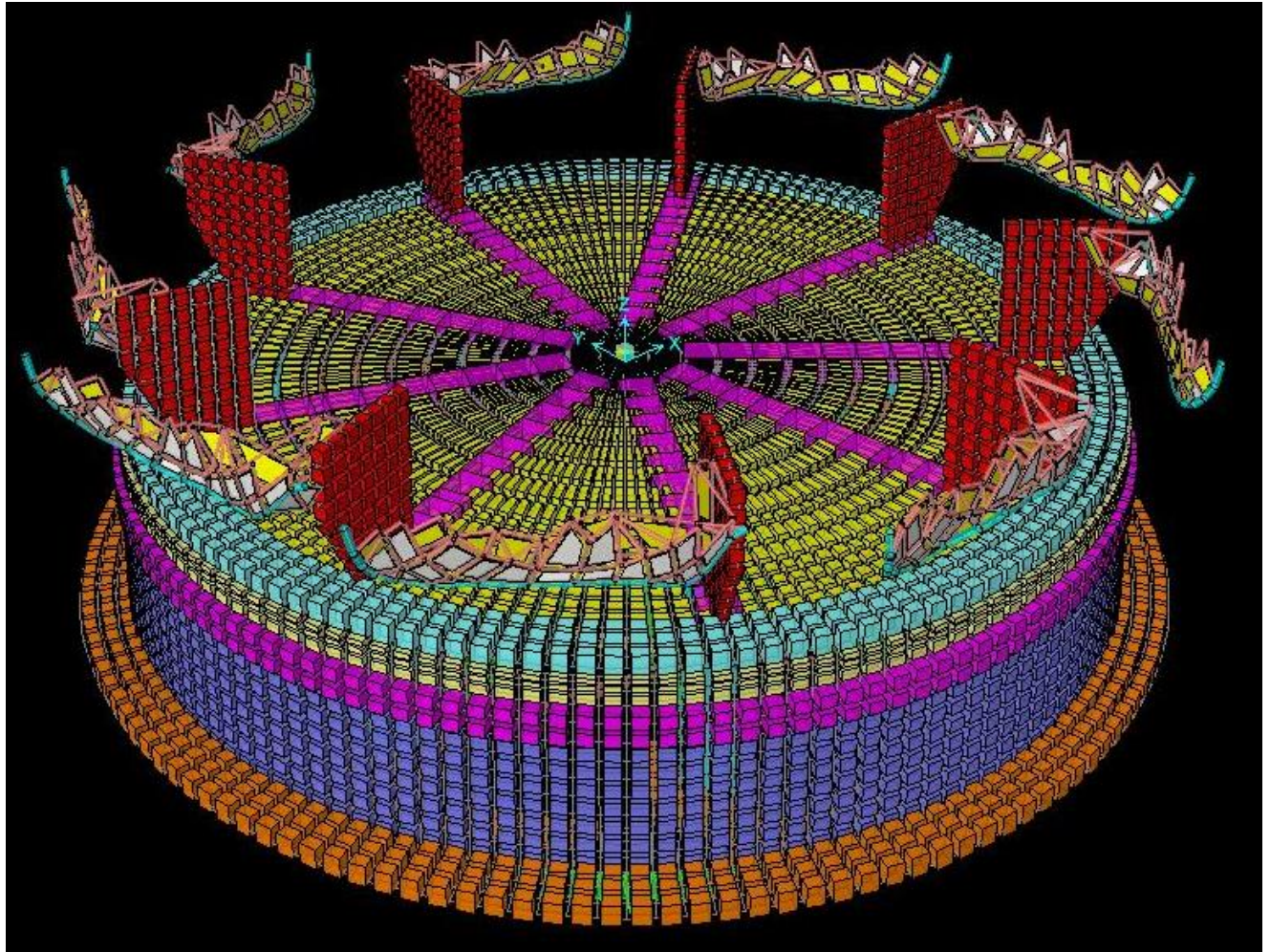


**Carruthers & Wallace Ltd.**

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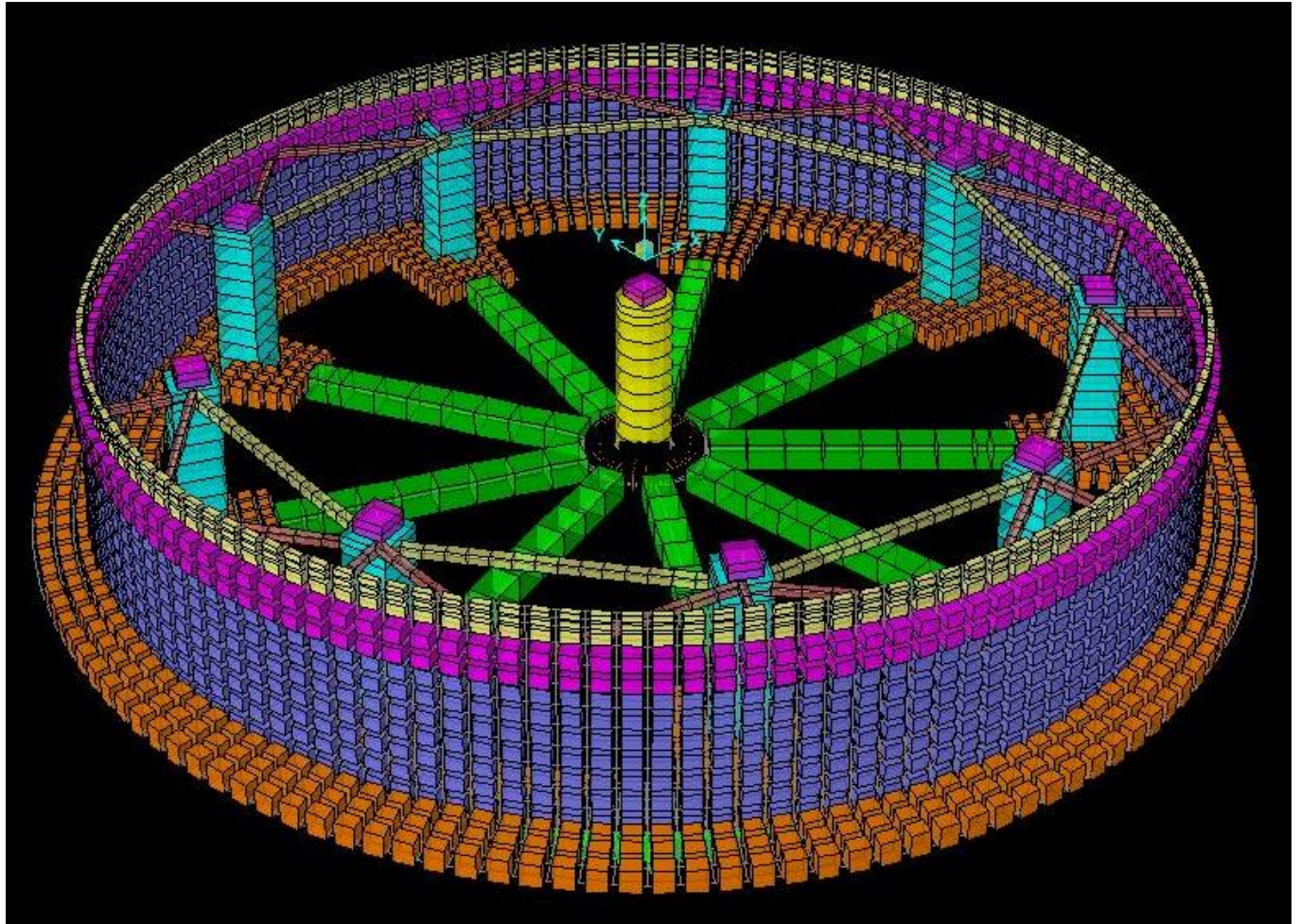


**Bahai Temple, Santiago, Chile**

**Carruthers & Wallace Ltd.**

# My Projects

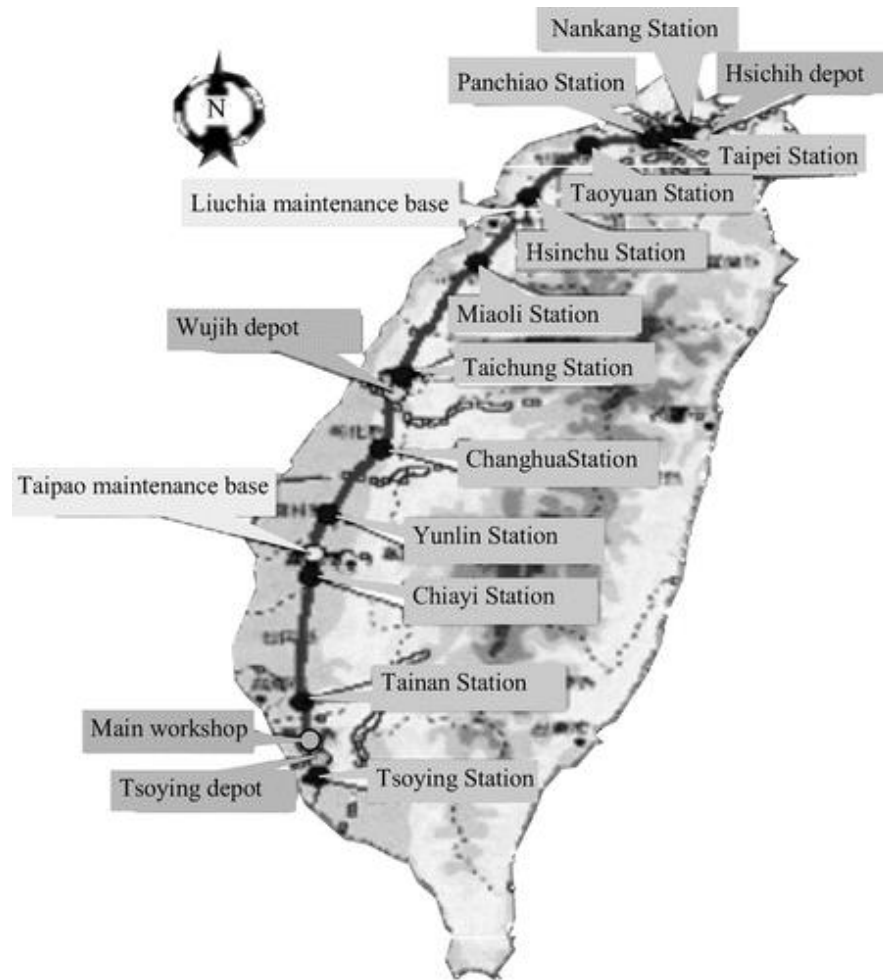
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**Bahai Temple, Santiago, Chile**

**Carruthers & Wallace Ltd.**

# My Projects



**Taiwan High Speed Tunnel**

**Hyder Consulting, Australia**

# My Projects

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**Taiwan High Speed Tunnel**

**Hyder Consulting, Australia**

# My Projects

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**Taiwan High Speed Tunnel**

**Hyder Consulting, Australia**

# My Projects

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**King Street Wharf, Australia**

**Robert Bird & Partners, Australia**

# My Projects

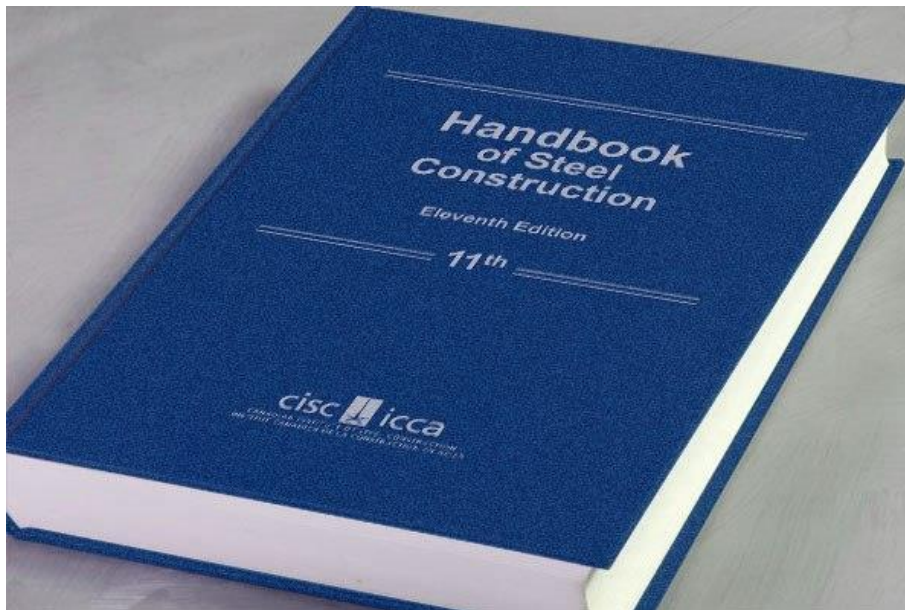
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**King Street Wharf, Australia**

**Robert Bird & Partners, Australia**

# My Software



SteelMatrix

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●●●● Fido 11:41 AM 73%

cisc icca CANADIAN INSTITUTE OF STEEL CONSTRUCTION  
INSTITUT CANADIEN DE LA CONSTRUCTION EN ACIER

| q. HSS<br>G40 | Re. HSS<br>G40 | Re. HSS<br>G40 | Sq. HSS<br>A500 | Re. HSS<br>A500 | Re. HSS<br>A500 |
|---------------|----------------|----------------|-----------------|-----------------|-----------------|
|---------------|----------------|----------------|-----------------|-----------------|-----------------|

Rectangular Hollow Structural Sections - ASTM A500

| d x b x t<br>in x in x in | d<br>in | b<br>in | t <sub>des</sub><br>in | Wgt<br>lb/ft |
|---------------------------|---------|---------|------------------------|--------------|
| HSS12x8x0.625             | 12      | 8       | 0.563                  | 76.3         |
| HSS12x8x0.500             | 12      | 8       | 0.45                   | 62.5         |
| HSS12x8x0.375             | 12      | 8       | 0.338                  | 47.9         |
| HSS12x8x0.313             | 12      | 8       | 0.282                  | 40.4         |
| HSS12x8x0.250             | 12      | 8       | 0.225                  | 32.6         |
| HSS12x6x0.625             | 12      | 6       | 0.563                  | 67.8         |
| HSS12x6x0.500             | 12      | 6       | 0.45                   | 55.7         |
| HSS12x6x0.375             | 12      | 6       | 0.338                  | 42.8         |
| HSS12x6x0.313             | 12      | 6       | 0.282                  | 36.2         |
| HSS12x6x0.250             | 12      | 6       | 0.225                  | 29.2         |
| HSS10x8x0.625             | 10      | 8       | 0.563                  | 67.8         |
| HSS10x8x0.500             | 10      | 8       | 0.45                   | 55.7         |
| HSS10x8x0.375             | 10      | 8       | 0.338                  | 42.8         |

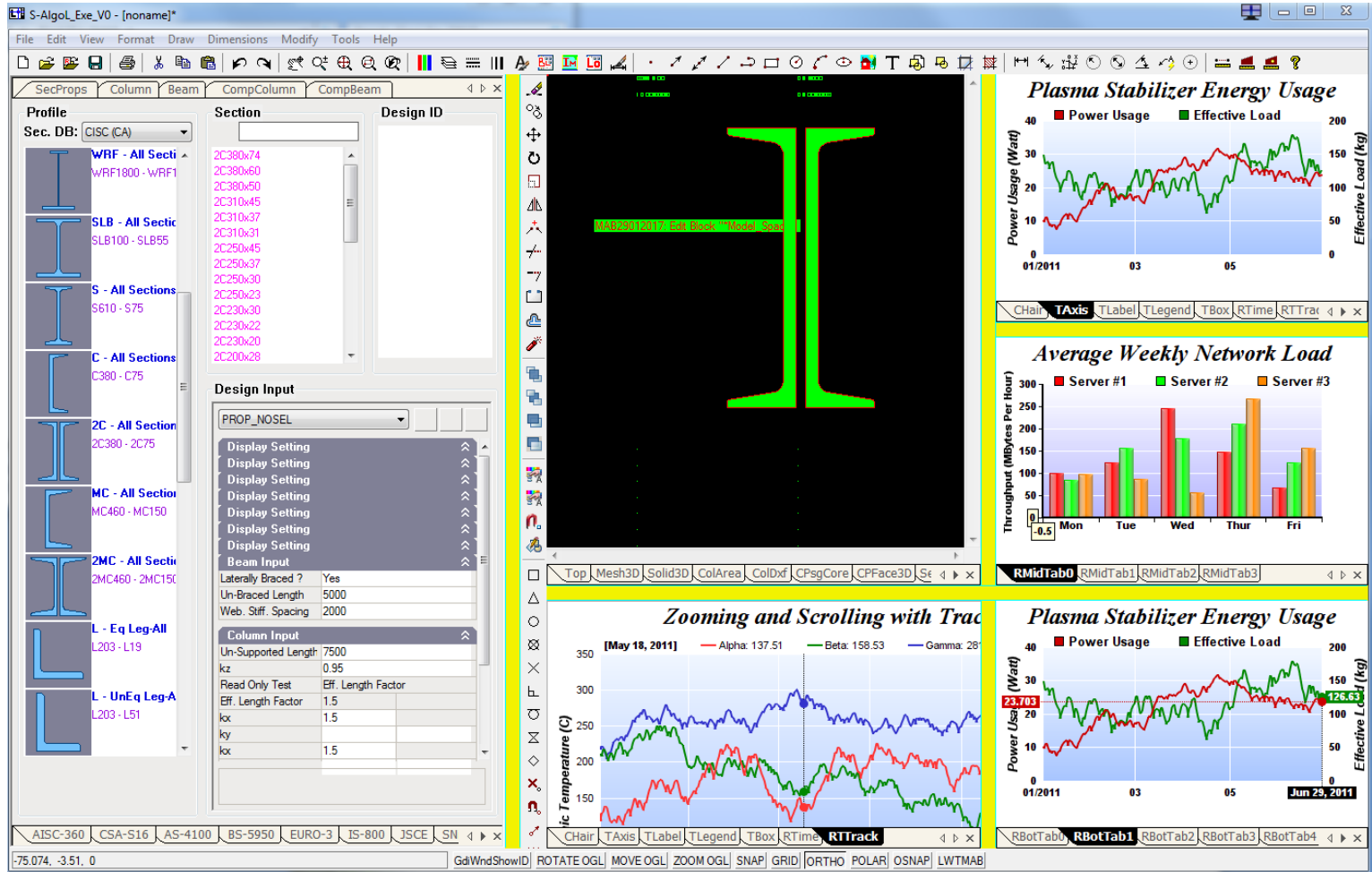
| HSS<br>12x8 | HSS<br>12x6 | HSS<br>10x8 | HSS<br>10x6 | HSS<br>8x6 |
|-------------|-------------|-------------|-------------|------------|
|-------------|-------------|-------------|-------------|------------|

Metric (mm) Highlight Imperial (in.) Info

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# My Software



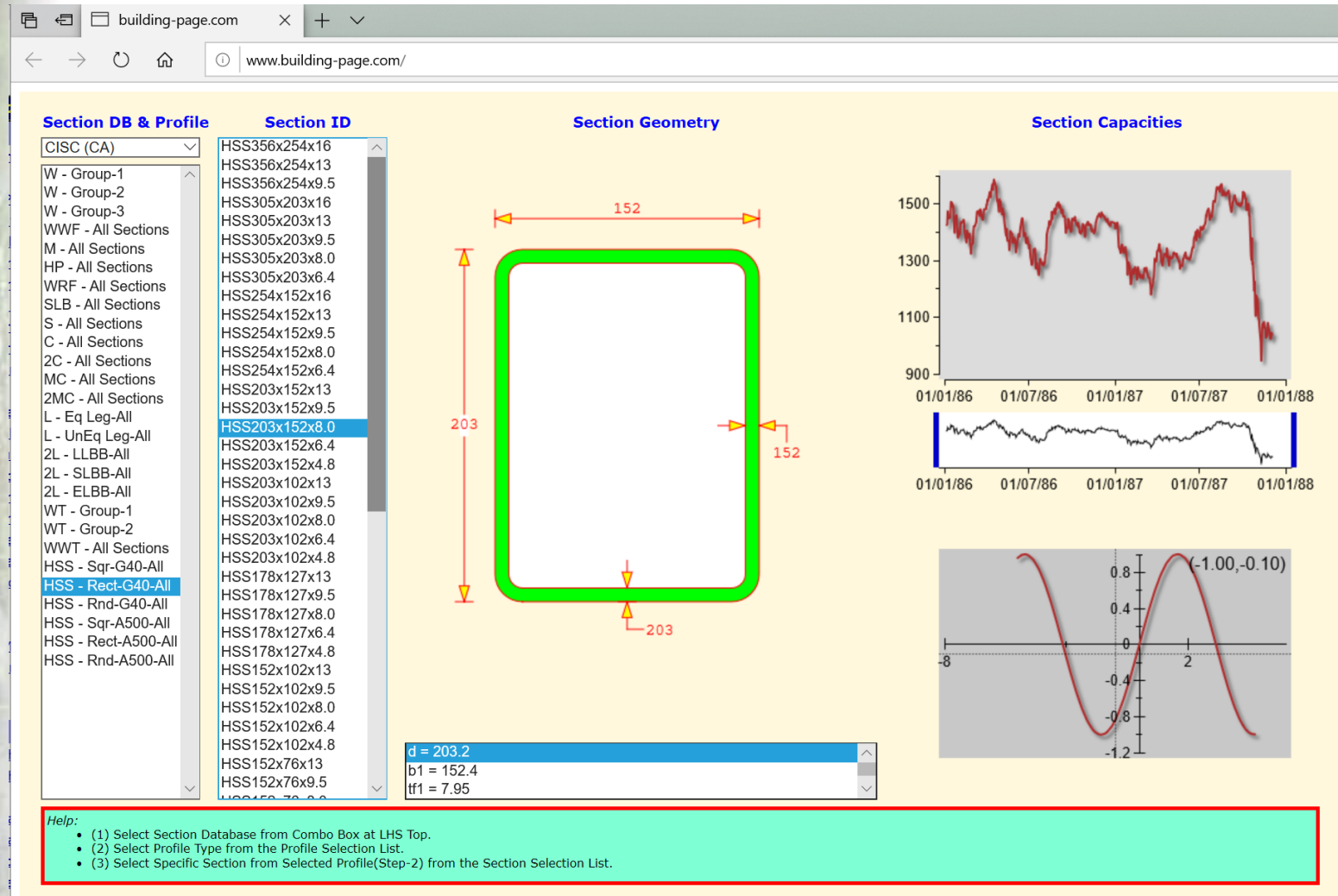
SteelMatrix

S-AlgoL Consulting & Software

Alauddin.net

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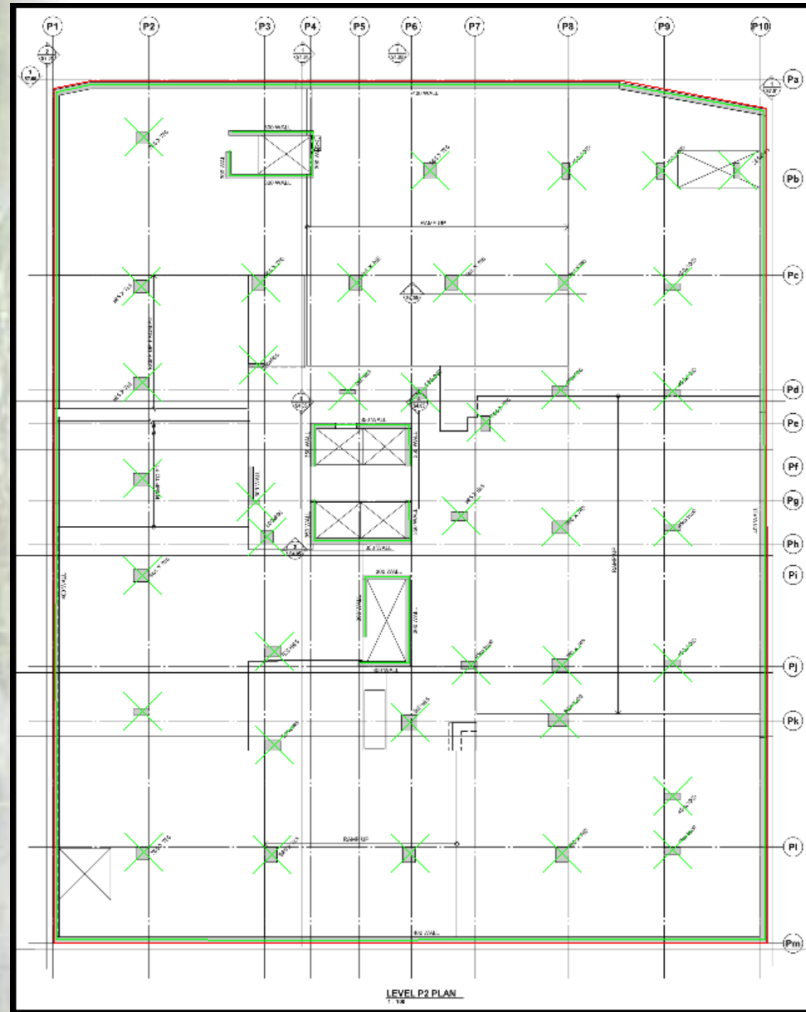
# My Software



SteelMatrix

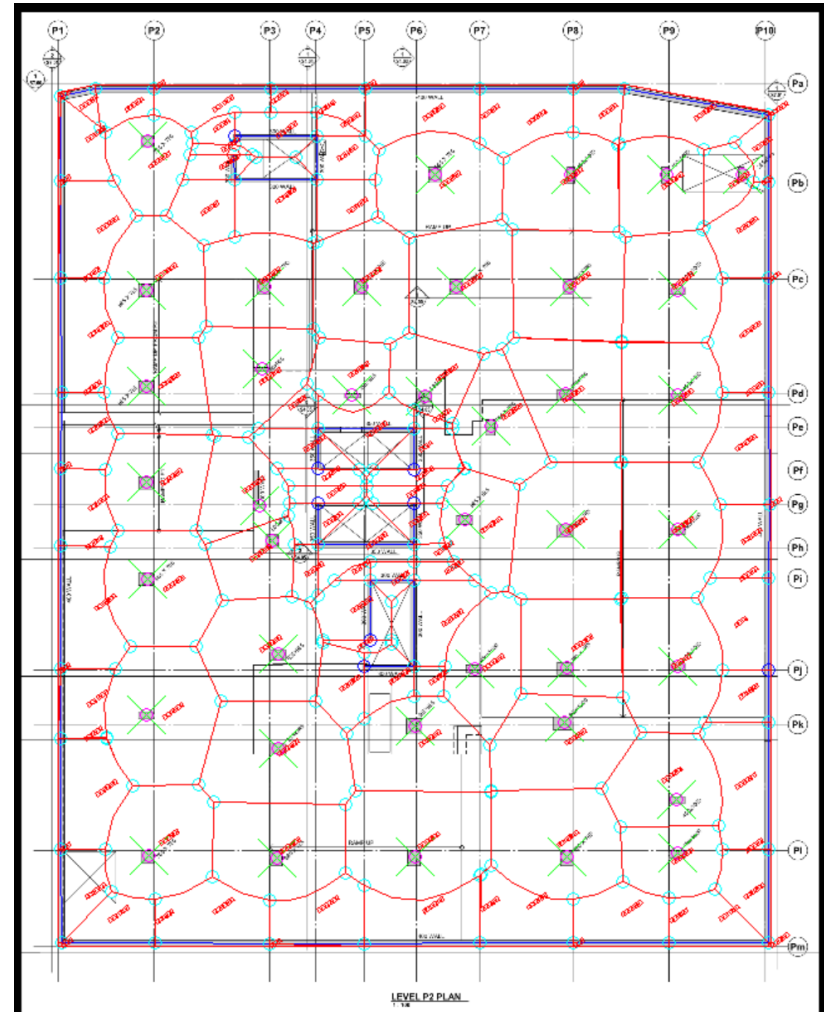
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# My Software



**EasyColumn**

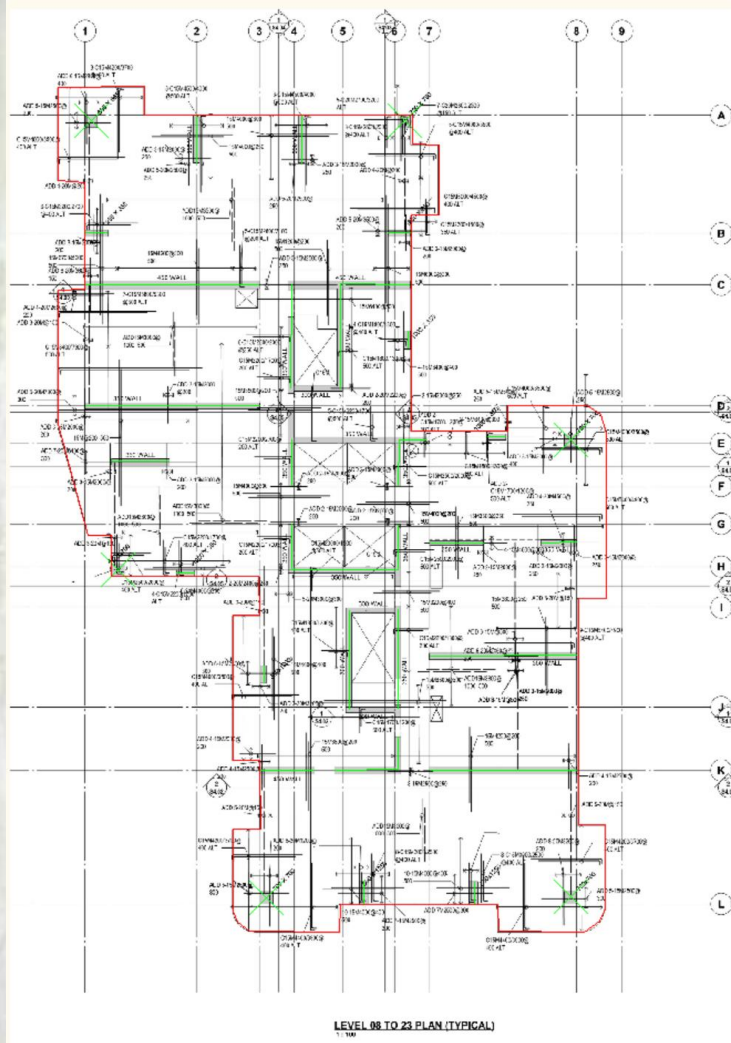
**Alauddin.net**



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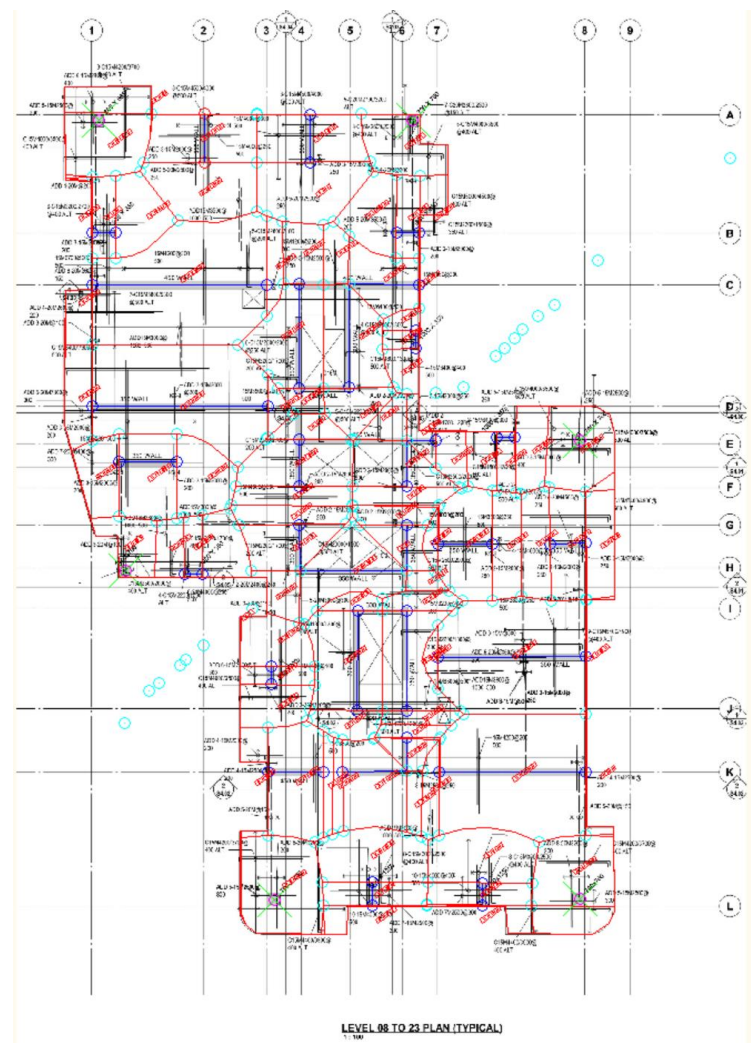
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EasyColumn

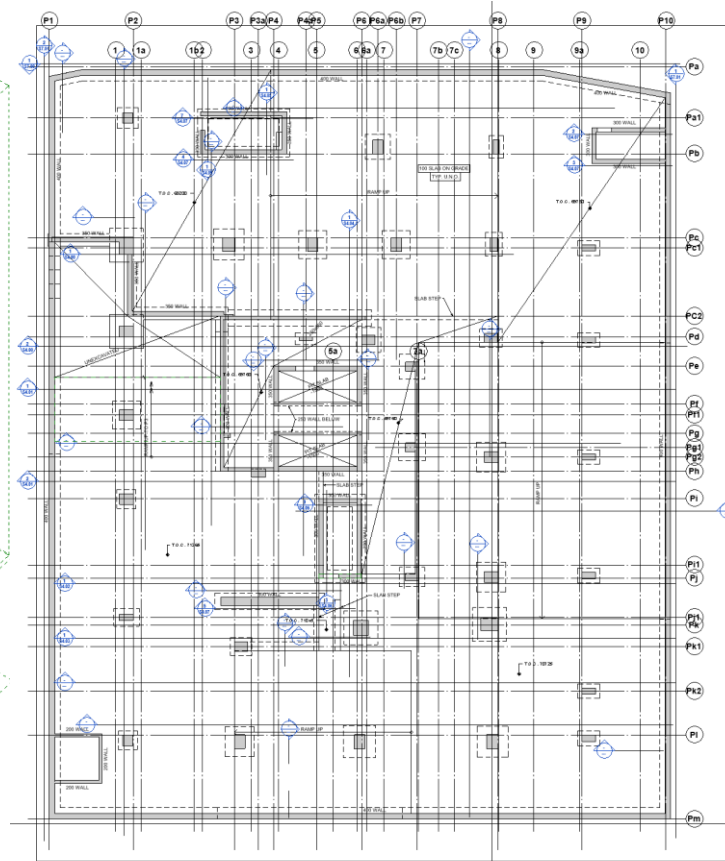
Alauddin.net



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# My Software

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**SteelMatrix**

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# My Software

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<https://www.S-AlgoL.com>

<http://www.Steel-Page.com>

<http://www.Building-Page.com>