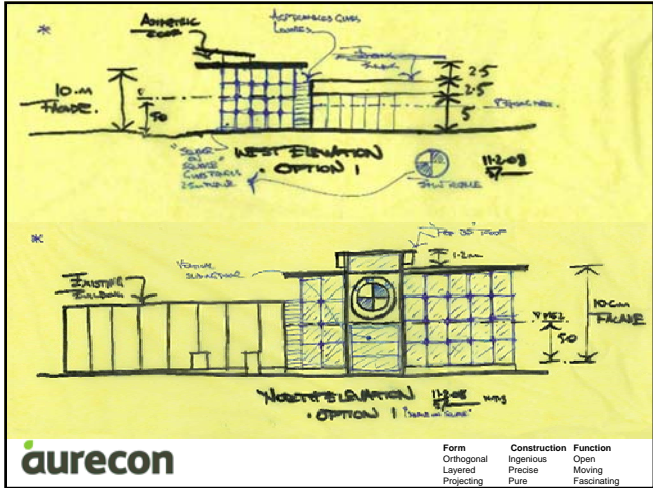


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Form	Construction	Function
Orthogonal	Ingenious	Open
Layered	Precise	Moving
Projecting	Pure	Fascinating



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Form	Construction	Function
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Form	Construction	Function
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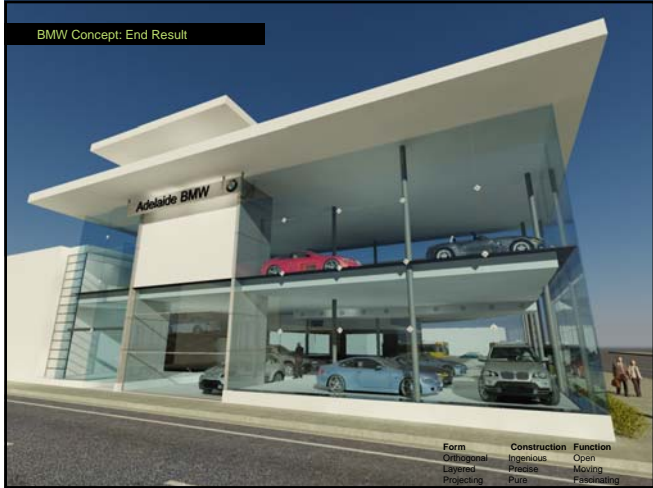
BMW Concept: End Result

Form	Construction	Function
Orthogonal	Ingenious	Open
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Projecting	Pure	Fascinating



BMW Concept: End Result

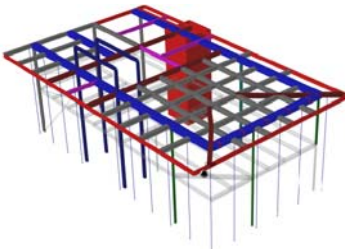
Form	Construction	Function
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BMW Concept: End Result

Form	Construction	Function
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System - Total



- Grillage of Steel Roof
- Double cantilevered corner
- Piles and cap
- A/C under



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System – Roof + Footings







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Design Challenges

- **Balancing Act**
 - Glass Thickness vs aesthetics vs cost effectiveness vs thermal
 - Glass Thickness vs planar fixing size vs rod spacing
 - Tension in Rods vs stiffness of roof vs all of the above
 - Tolerances





Section J

- 14% less energy
- 37 tonnes of greenhouse gas
- \$6,600 per annum power

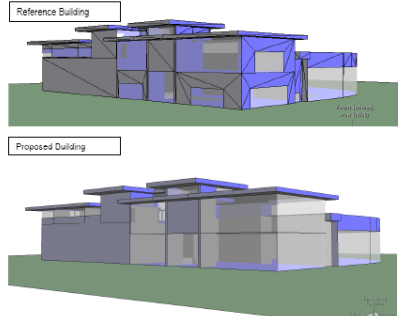



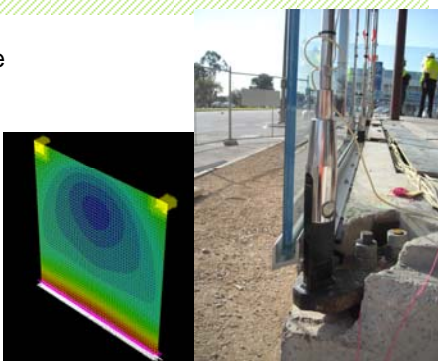
Figure 2 - IES 3D model for energy simulations




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Glass Makeup


- Fine Balance
 - Mech
 - Struc
 - Geometry
- Tough. Lam
 - ITO
 - Low Iron






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System - Rods



- Ronstan ARS1
 - Highest 0.2% proof
 - Prestress
 - Galling



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System – Fittings Typical Planar

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Form	Construction	Function
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System - Fittings Coupler

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Form	Construction	Function
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System Fittings Corner

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Form	Construction	Function
Orthogonal	Ingenious	Open
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System – Fittings (base)

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Form	Construction	Function
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System – Fittings (head)

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Form	Construction	Function
Orthogonal	Ingenious	Open
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Construction

- Pre-order
- 2 Parameters critical
 - Stress
 - Location of Patch

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Form	Construction	Function
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Construction

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Form	Orthogonal	Layered	Projecting
Construction	Ingenious	Precise	Pure
Function	Open	Moving	Fascinating

Other Features - VSLD

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Form	Orthogonal	Layered	Projecting
Construction	Ingenious	Precise	Pure
Function	Open	Moving	Fascinating

Other Features - CH Doors

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Form	Orthogonal	Layered	Projecting
Construction	Ingenious	Precise	Pure
Function	Open	Moving	Fascinating

Maybe Next Time

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Finally

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Form	Orthogonal	Layered	Projecting
Construction	Ingenious	Precise	Pure
Function	Open	Moving	Fascinating