Current Experiments at NCREE Lab

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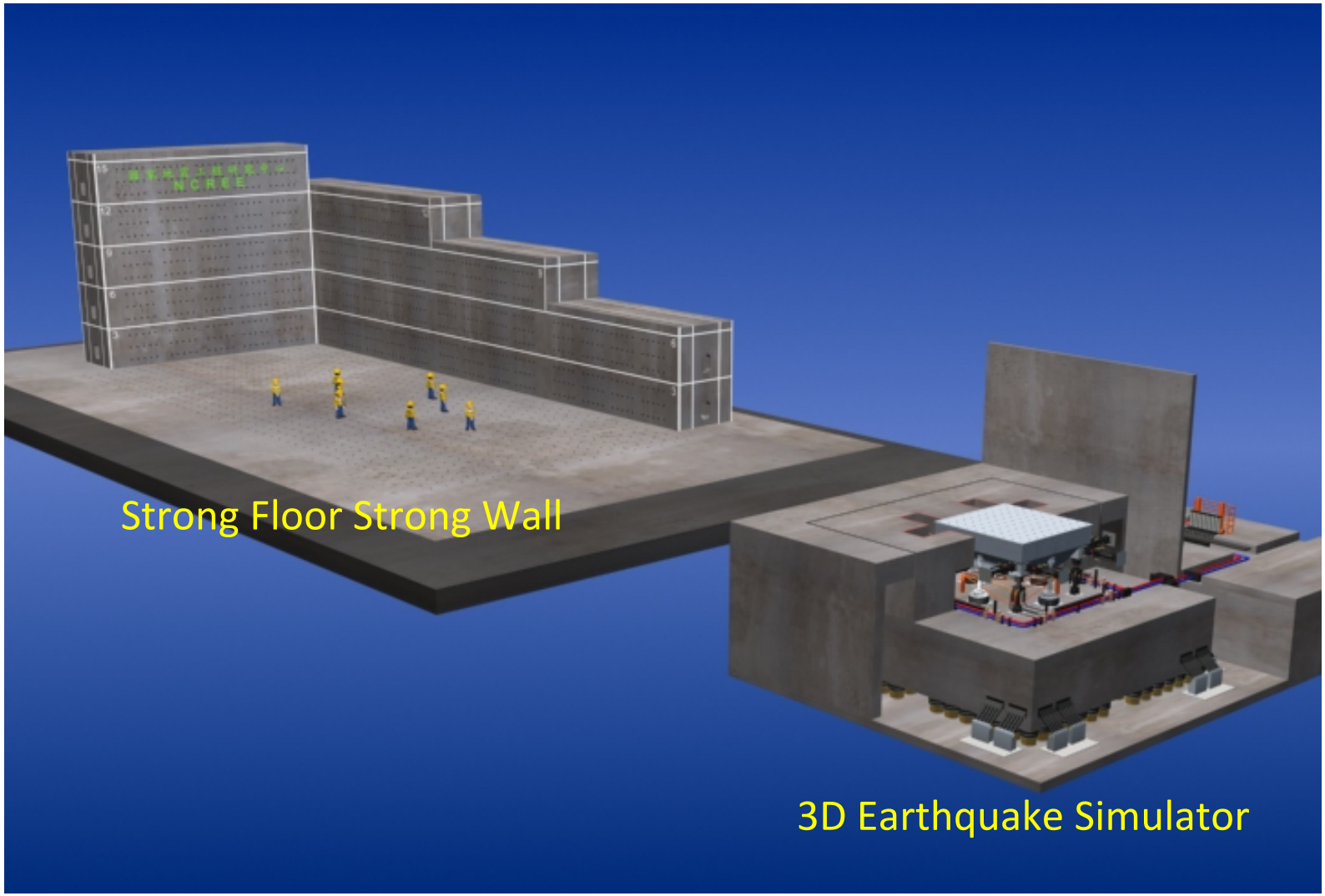
國家地震工程研究中心
National Center for Research on Earthquake Engineering

Laboratory Layout



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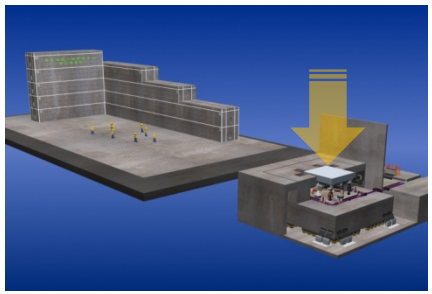
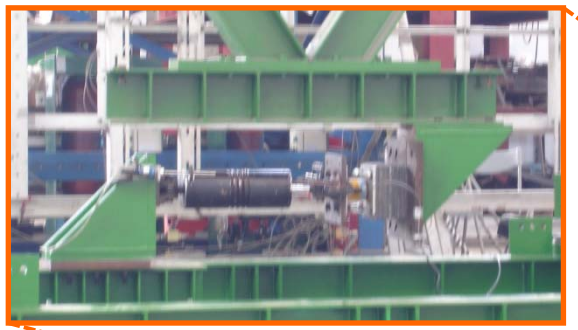
Response Modification Devices



- Will test a variety of response modification devices, such as dampers, etc.



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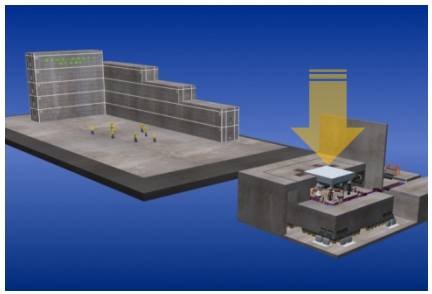
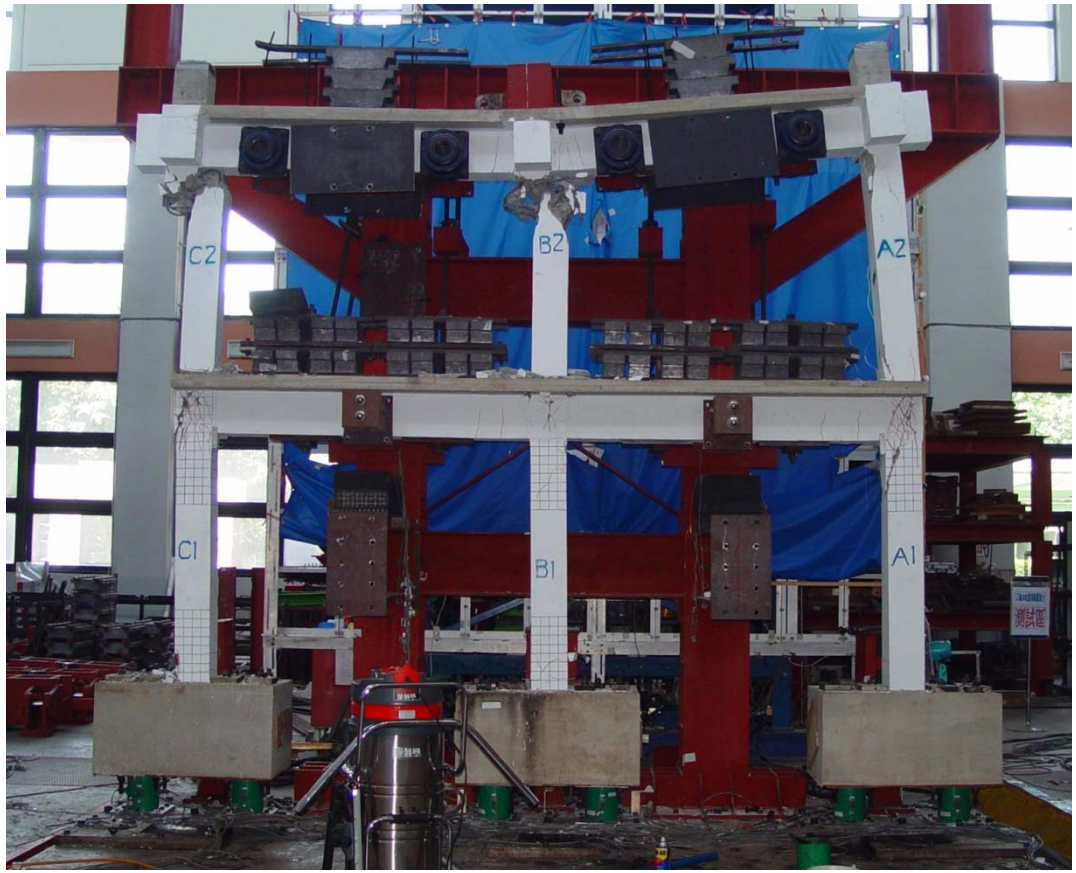
RC Building Collapse



- Will investigate the structural behavior of dynamic building collapse.
- Experimental and numerical simulation.



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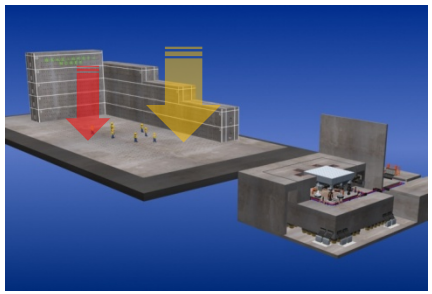
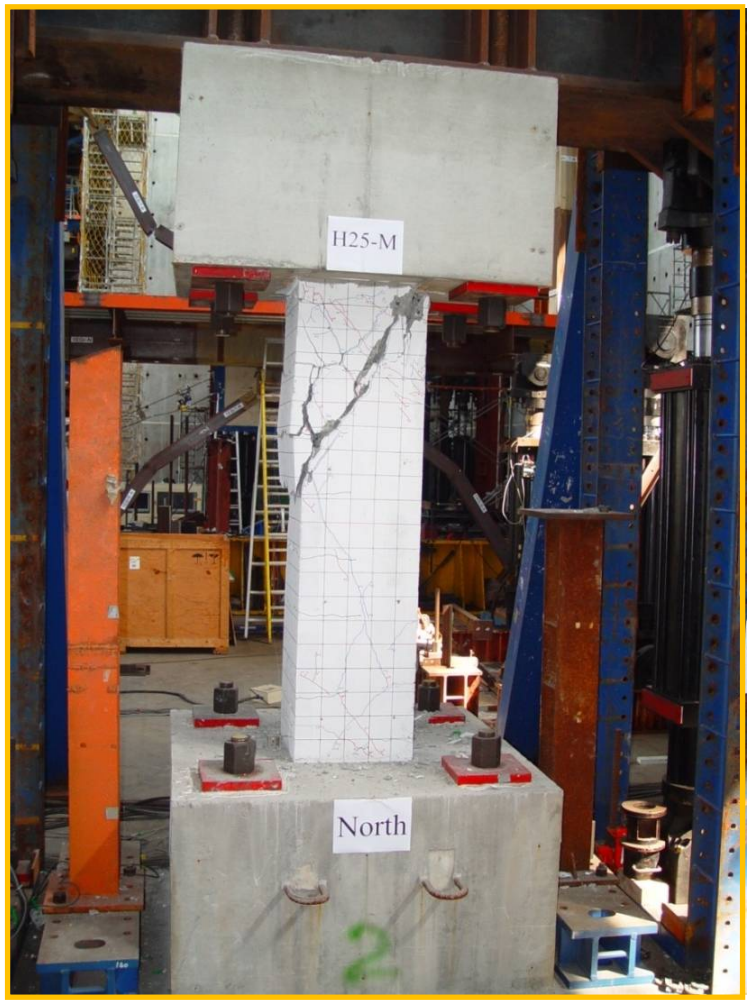
RC Column Collapse



- To investigate the structural behavior of column collapse.
- Help determine key parameters for hysteretic models in numerical simulation.



Insufficient lateral hoops widely spaced at 25-35cm

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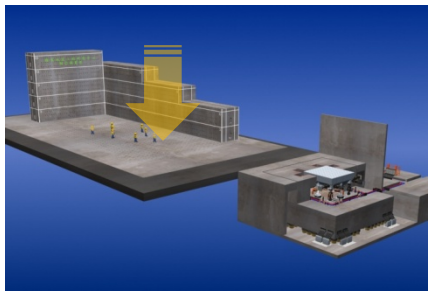
Next Generation Steel CBFs



- Will investigate next generation design of steel Concentrically Braced Frames for areas with high seismicity.
- Help establish the standard design procedure.

In-plane brace buckling

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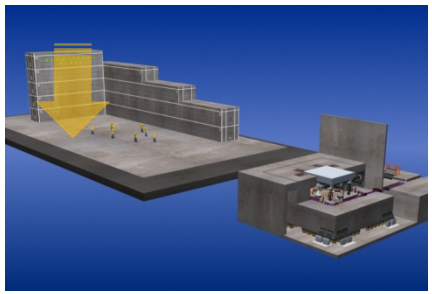
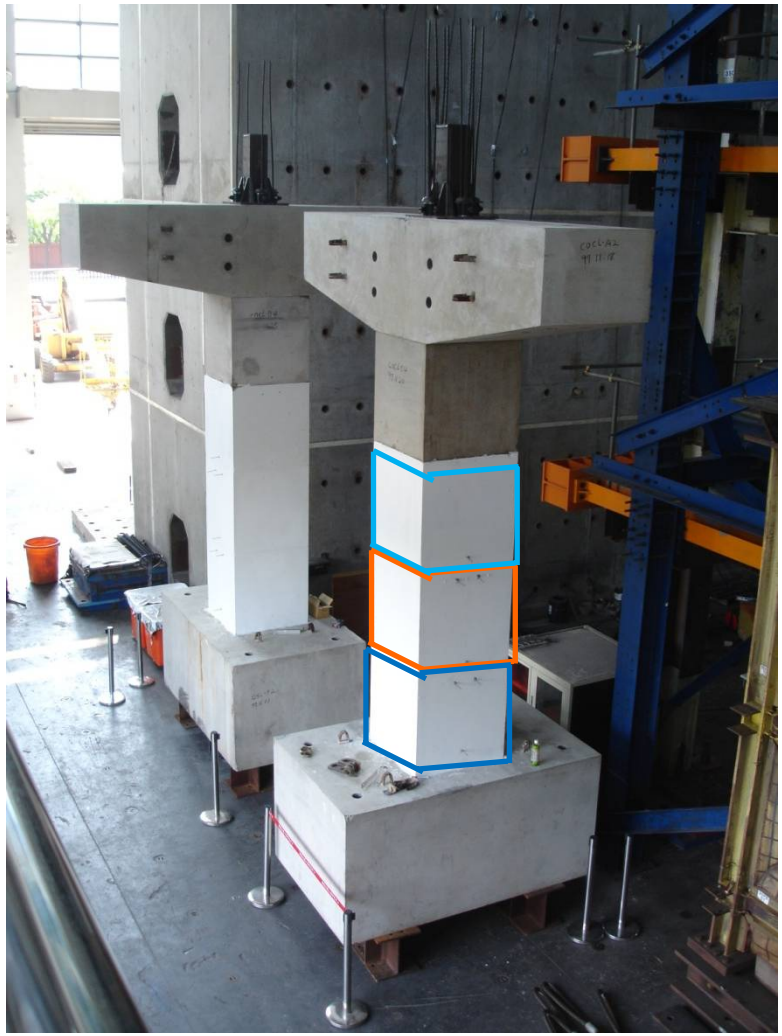
Next-Generation Bridge Construction



- Innovative response modification mechanism.
- Post-tensioned pre-cast segmental bridge piers for heavy-traffic & high-seismicity regions.



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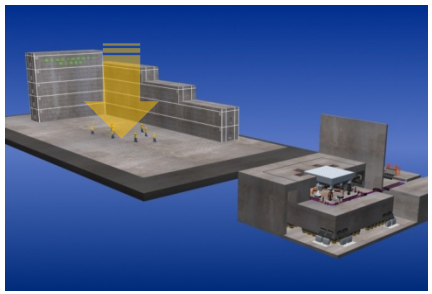
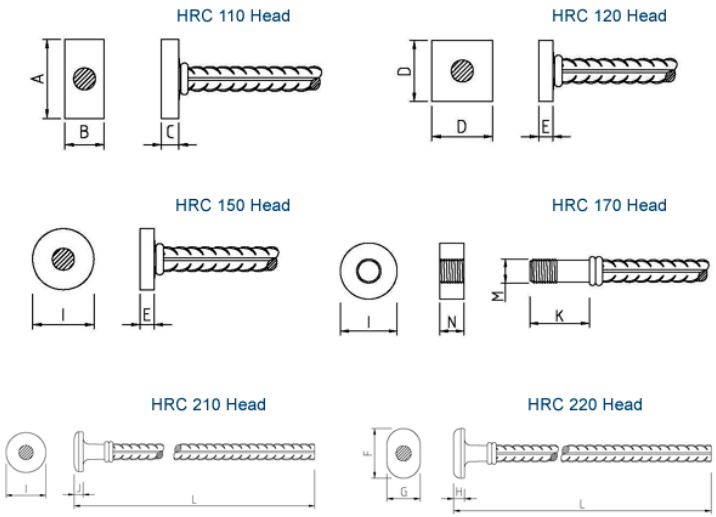
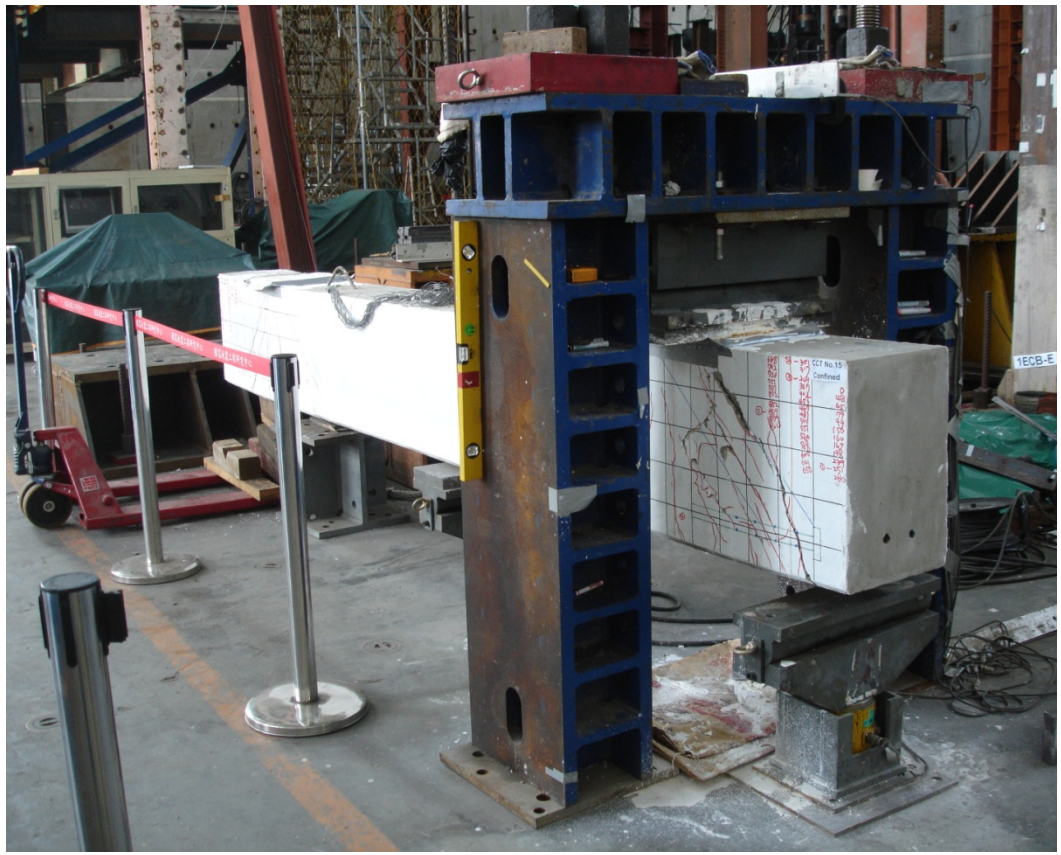
Next-Generation RC Construction

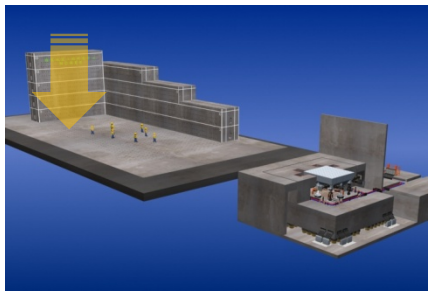


- High-strength concrete (42MPa+) and steel (420MPa+) to lessen the use of materials and to ease the impact on environment.
- To investigate anchorage of using T-headed rebars.





Next Generation Steel CBFs



- Will investigate next generation design of steel Concentrically Braced Frames for areas with high seismicity.
- Help establish the standard design procedure.

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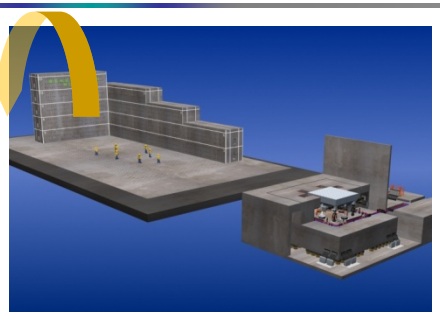
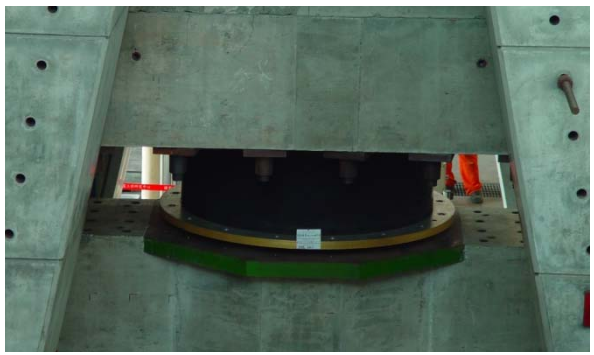
MATS Facility



- Multi-Axial Testing Facility for earthquake isolators and columns of high-rise buildings, etc.
- Capacity - axial force 6000 metric tons, lateral force 8000 metric tons & lateral stroke +-1.2m.
- Facilitate R&D of prototype earthquake isolators.
- Provide proof tests of products for domestic and foreign makers.



Lead-rubber earthquake isolator

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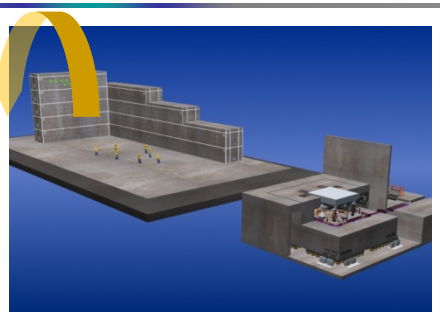
MATS Facility



- Multi-Axial Testing Facility for earthquake isolators and columns of high-rise buildings, etc.
- Capacity - axial force 4000 metric tons, lateral force 8000 metric tons & lateral stroke 1.2m.
- Facilitate R&D of prototype earthquake isolators.
- Provide proof tests of products for domestic and foreign makers.

Steel shear wall

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