NEES Experiment Documenation Data Curation Report

9/24/2009

Award Number: 0421180

NEEScentral ID: NEES-2006-0116

Project: NEESR-II: Highly Damage Tolerant Slab-Column Frame Systems

Curation Status Key
Incomplete: Curation in progress
Current: Curation up-to-date
Complete: Object complete - curation complete

PI: Gustavo Parra-Montesinos

Curation Status: Complete

NEEScentral Viewability: PUBLIC

Experiment Title: MAST Specimen SB1

Keywords:

Fiber_Reinforced_Concrete
Lateral_Displacement
Multi-Axial_Subassemblage_Te
Punching_Shear
Shear_Strength
Slab_Column_Connection
Smart_Structure_Technologies

Experiment Number: Experiment-1

Experiment PI: Gustavo Parra-Montesinos

Research Status: Complete

Curation Date: 8/3/2009

Curation Status: Complete

NEEScentral Viewability: PUBLIC

Description: Test specimen has full scale with one and half story.

Experiment Documentation Files

File Type	File Name	Title	NEEScentral Upload Date

File Type	File Name	Title	NEEScentral Upload Date
Document	Combined Shear Stress (SB1).doc	*Calculation of combined shear stress*	3/14/2009

Desc: The shear stress is calcuated at critical section by using "eccentric model". At each drift cycle, the combined shear stress from direct shear and unbalanced moment is prestented at 12 peak displacements.

Document	Contact Information.doc	*Contact Information*	3/14/2009

Desc: Main reserachers are listed. Please let us know if there is any question regarding this experiment.

Drawing	Specimen SB1 Test Setup.doc	*Test Setup*	3/14/2009

Desc: The figure presents the relative location of test facilities and test specimen.

Experiment Title: MAST Experiment SB2

Keywords:

Deformation
Fiber_Reinforced_Concrete
Multi-Axial_Subassemblage_Te
Punching_Shear
Slab_Column_Connection
Smart_Structure_Technologies

Experiment Number: Experiment-2

Experiment PI: Gustavo Parra-Montesinos

Research Status: Complete

Curation Date: 8/3/2009

Curation Status: Complete

NEEScentral Viewability: PUBLIC

Description: Test specimen has full scale with one and half story. Objective: Evaluate punching shear resistance and deformation capacity of slab-column connection by using high-strength hooked steel fibers.

Experiment Documentation Files

File Type	File Name	Title	NEEScentral Upload Date
Drawing	SB2 Reinforcement And Strain Gauge	*SB2 Reinforcement and Strain Gauge Layout*	4/19/2009

Desc: SpecimenSB2 reinforcement and strain gauge layout for the top and bottom of the column.

Drawing	Spcimen SB2 Experimental Setup.doc	*Spcimen SB2 Experimental Setup*	4/19/2009

Desc: Specimen SB2 experimental setup with top and side views of the slab and column. Includes a drawing of the specimen position relative to the west and north strong walls, and the actuators, in the MAST laboratory.

File Type	File Name	Title	NEEScentral Upload Date
Table	Combined Shear Stress (SB2).doc	*Combined Shear Stress (SB2)*	4/19/2009

Desc: Combined Shear Stress (SB2). Table 5-12 Shear Stress at Critical Section for Specimen SB2 under a 1/2 Gravity Shear Ratio.

Experiment Title: MAST Experiment SB3

Keywords:

Deformation
Fiber_Reinforced_Concrete
Multi-Axial_Subassemblage_Te
Punching_Shear
Shear_Studs
Slab_Column_Connection

Experiment Number: Experiment-3

Experiment PI: Gustavo Parra-Montesinos

Research Status: Complete

Curation Date: 8/4/2009

Curation Status: Complete

NEEScentral Viewability: PUBLIC

Description: Test specimen has full scale with one and half story. Objective: Evaluate punching shear resistance and deformation capacity of slab-column connection by using headed shear studs. Testing done using bi-axial motion. Setup directory includes tables of specimen concrete cylinder strength (slab, column and block strength) and a table on steel strength in terms of yield stress, average yield stress, ultimate stress and average ultimate stress. Setup also has tables of the strain gauge and LVDT locations in the Sensor Location Plan folder. The Models folder contains drawings of the specimen and sensor layout.

Experiment Documentation Files

File Type	File Name	Title	NEEScentral Upload Date
Drawing	SB3 Experimental Setup.doc	*SB3 Experimental Setup*	4/19/2009

Desc: Specimen SB3 experimental setup with top and side views of the slab and column. Includes a drawing of the specimen position relative to the west and north strong walls, and the actuators, in the MAST laboratory.

Drawing	SB3 Reinforcement And Strain Gauge	*SB3 Reinforcement and Strain Gauge Layout*	4/19/2009

Desc: SpecimenSB3 reinforcement and strain gauge layout for the top and bottom of the column.

File Type	File Name	Title	NEEScentral Upload Date
Table	Combined Shear Stress (SB3).doc	*Combined Shear Stress (SB3)*	4/19/2009

Desc: Table 5-13 Shear Stress at Critical Section for Specimen SB3 under a 1/2 Gravity Shear Ratio