

# 2017 NCHRP BRIDGE AND STRUCTURE RESEARCH UPDATES

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2017 AASHTO SCOBS ANNUAL MEETING

Spokane, WA

June, 12-15 2017

# OUTLINE

- FY 2018 NCHRP Program Funding
- NCHRP Bridge and Structure Projects
  - Funded (FY 2018)
  - Completed/Published/In progress

NATIONAL  
COOPERATIVE  
HIGHWAY  
RESEARCH  
PROGRAM

# FY 2018 NCHRP Program Funding

# FY 2018 NCHRP PROGRAMMING

Projects	Submitted (Million)		Programmed (Million)	
Continuations	24	(\$15.927)	22	(\$15.142)
New	90	(\$40.619)	36	(\$17.575)
<b>Total</b>	<b>114</b>	<b>(\$56.546)</b>	<b>58</b>	<b>(\$32.717)</b>

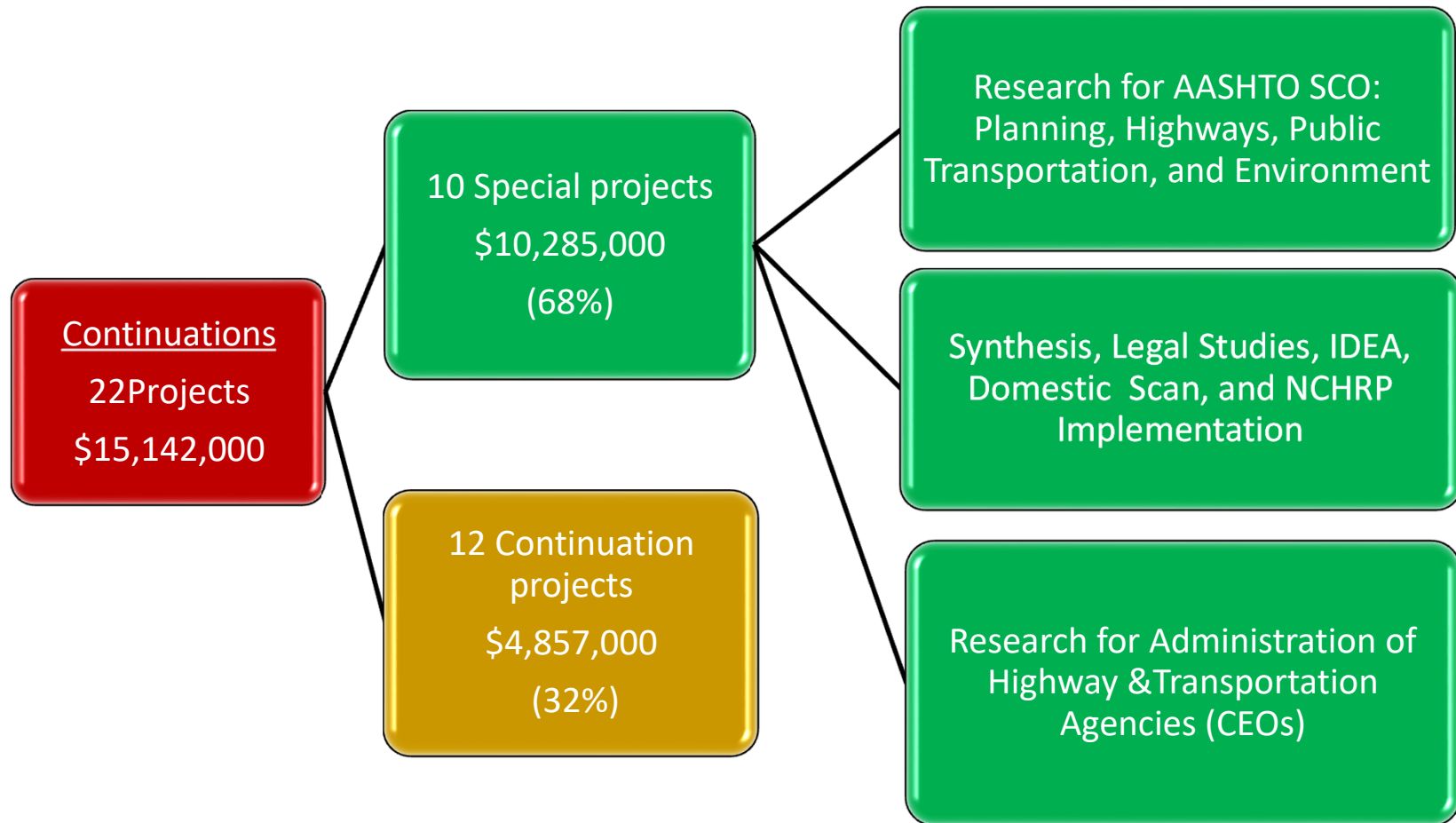
## New Projects Submitted by:

AASHTO Committees	46	(\$24.410)	24	(\$12.775)
Member Departments	41	(\$18.660)	12	(\$4.800)
FHWA	3	(\$1.200)		

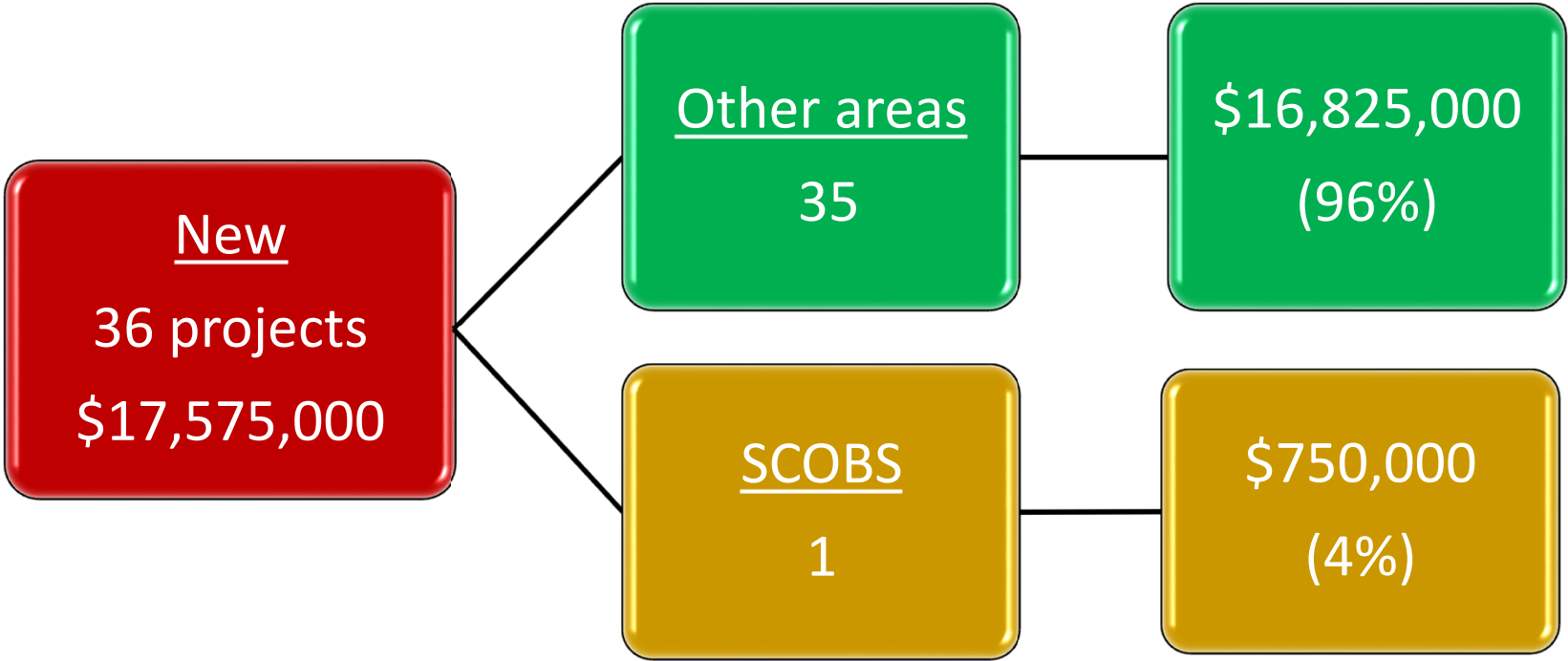
AASHTO Committee\Subcommittee	# of Problems Submitted	# of Problems Programmed
Bridges (HSCOBS)	7	1
Construction (HSOC)	1	1
Design - Non Motorized Transp. (HSOD - TCNMT)	1	1
Design - Roadside Safety (HSOD - TCRS)	5	4
Environment - Noise (AASHTO - SCOE)	4	3
Highway Traffic Safety (SCOHTS)	7	3
Maintenance (SOMn)	4	2
Materials (SOMt)	3	
Pavement (JTCP)	3	3
Planning - Asset Management (SCOP - SCOAM)	1	1
Traffic Engineering (SCOTE)	5	1
Trans. Security and Emergency Mgmt. (SCOTSEM)	3	2
Trans. Systems Management and Operations (STSM&O)	2	2
Total	46	24

# FY 2018 NCHRP PROGRAM

## CONTINUATION PROJECTS



# FY 2018 NCHRP NEW PROJECTS



NATIONAL  
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HIGHWAY  
RESEARCH  
PROGRAM

# NCHRP Bridge and Structure Projects



# FY 2018 FUNDED PROJECTS

Project	Title	Funds
12-114	Benchmarking Study of Software for One-Dimensional, Nonlinear Seismic Site Response Analysis with Pore Water Pressure Generation	\$750K
F-07	<b>Project Contingent on the Availability of Funds</b> Improving the Guidelines for Inspection and Strength Evaluation of Suspension Bridge Cables <b>(NYDOT)</b>	\$750K

# FY 2018 FUNDED PROJECTS

Project	Title	Funds
15-67	Improved Methodology to Accurately Determine Wind Drag Coefficients for Highway Signs and Their Support Structures <i>(Iowa DOT)</i>	\$300K
22-35	Bridge Rail Testing Program to Confirm MASH Compliance Design <i>(HSOD - Roadside Safety)</i>	\$500K
22-36	Development of the Next Generation, MASH, Portable Concrete Barrier <i>(HSOD - Design - Roadside Safety)</i>	\$400K

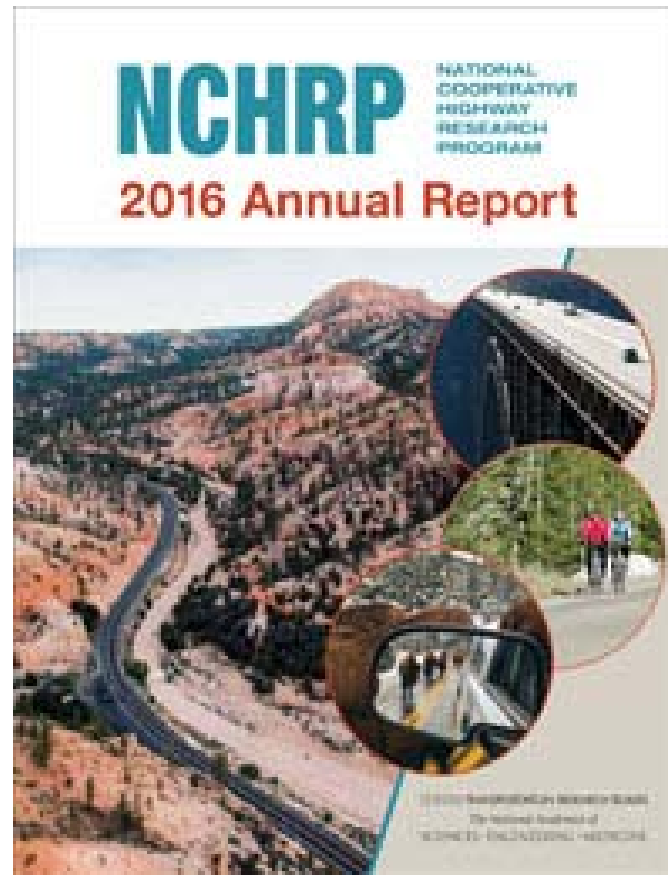
# FY 2017 FUNDED PROJECTS

Project	Title	Funds
20-07/Task 396	Updating the AASHTO Seismic Hazard Maps and Site Coefficients <b>(on hold)</b>	\$80K
20-07/Task 397	Characteristics of Decommissioned Bridges <b>(Active)</b>	\$100K
20-07 /Task 399	Identifying Bridge Maintenance and Preservation Activities which Minimize Environmental Impact <b>(Active)</b>	\$75K

# FY 2017/2018 FUNDED PROJECTS

Project	Title	Funds
20-07/Task 402	Improved Reinforced Concrete Interface Shear Design and Detailing for LRFD Specifications	\$95K
20-07/Task 403	Develop Detailed Elements for Movable Bridge Inspection and Management	\$100K
20-07 /Task 410	<b>Calibration of Load Factors for the FAST Act Emergency Vehicles EV-2 and EV-3 for Load Rating</b>	<b>\$100K</b>

# NCHRP Bridge and Structure Projects Completed/Published/In progress



<http://www.trb.org/Main/Blurbs/175481.aspx>

# NCHRP BRIDGE AND STRUCTURE PROJECT HIGHLIGHTS

Project	Title
12-87A	Fracture-Critical System Analysis for Steel Bridges <i>(SCOBS, T14 Denver, CO in August)</i>
12-91	Strand Debonding for Pretensioned Girders <i>NCHRP Research Report 849</i>
12-92	Proposed LRFD Bridge Design Specifications for Light Rail Transit Loads <i>NCHRP Research Report 851 (July 2017)</i>
12-100	Guidelines for Maintaining Small Movement Bridge Expansion Joints <b>(SOMn)</b>

# NCHRP BRIDGE AND STRUCTURE PROJECT HIGHLIGHTS

Project	Title
12-101	Seismic Design of Bridge Columns with Improved Energy Dissipating Mechanisms <i>NCHRP Research Report (8xx)</i>
12-98	Recommended Guidelines for Prefabricated Bridge Elements and Systems Tolerances and Dynamic Effects of Bridge Moves

# NCHRP BRIDGE AND STRUCTURE PROJECT HIGHLIGHTS

Project	Title
12-102	Recommended AASHTO Guide Specification for ABC Design and Construction (Ballot Item)
14-28	Inspection Guidelines for Bridge Post-Tensioning and Stay Cable Systems Using NDE Methods <i>NCHRP Research Report 849</i>



# NCHRP BRIDGE AND STRUCTURE PROJECT HIGHLIGHTS

Project	Title
20-07/Task 377	Standardized Format for Bridge and Structure Information Models (SCOBS, T19)
20-07/Task 378	Assessing Risk for Bridge Management (SCOBS, T1)
20-07/Task 387	Maintenance Actions for Fatigue Cracking in Steel Bridge Structures (SCOBS, T14)

# NCHRP BRIDGE AND STRUCTURE PROJECT HIGHLIGHTS

Project	Title	Funds
20-07/Task 388	Guidelines for Design and Construction of Temporary Bridges	\$100K
20-07 /Task 390	Parametric Study & Cost Effects for the USDOT Truck Size & Weight Study Vehicles	\$75K
20-07/Task 395	MASH Equivalency of NCHRP 350- Approved Bridge Railing	\$150K

# NEED HELP?

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