Community Outreach Best Practices Guide for Accelerated Construction Projects

Proposal to the Transportation Construction Management Pooled Fund

July 8th, 2013

Objective

The objective of this research is to develop a guide to effectively manage community outreach during the construction of accelerated transportation projects. The guide will include examples of construction management procedures and policies for community outreach and provide templates, flowcharts, checklist, and other resources from successful projects. So that the guide can be concise and user-friendly, the research will document the study in a separate research report.

The ***guide*** will include:

(1) A review and synthesis of recent experiences of state departments of transportation (DOTs) on community outreach programs for accelerated construction projects;

(2) A summary of the current state-of-practice, best practices, and specific challenges facing state DOTs and contractors on community outreach for accelerated projects; and

(3) An appendix of tools and techniques from state DOT best practices to apply on future projects.

The ***research report*** will include:

(1) Documentation of the research process and data collection; and

(2) Documentation of the research results in a concise and comprehensive report.

Background

The Federal Highway Administration (FHWA) and DOTs are responding to demands from the traveling public to shorten construction project durations through a variety of acceleration construction techniques and strategies. Through its Every Day Counts initiatives, the FHWA is actively promoting the use of design-build (DB) and construction manager/general contractor (CMGC) project delivery and the use of alternative technical concepts (ATCs). Although these innovative approaches can potentially reduce schedule, save cost and increase constructability, some DOTs have expressed concerns with the challenges of community outreach with these approaches. Other agencies have found that these accelerated construction projects offer an opportunity to highlight innovative accomplishments and gain trust with the traveling public.

During construction, accelerating projects can contribute to traffic congestion, security access, noise, vibrations, excessive light and other public inconveniences. Accelerating construction projects may also impact activities involving community organizations, business/industry groups, neighborhood councils, and the like. Therefore, community outreach, communication, and participation are all key factors to project success. *NCHRP Synthesis 407: Effective Public Involvement Using Limited Resources* and *NCHRP 413: Techniques for Effective Highway Construction Projects in Congested Urban Areas* summarize the public outreach strategies in a planning phase, but they fall short in providing outreach techniques during the construction phase. *NCHRP Synthesis 407* suggests that transportation staff members and consultants need internal and external training and skill sets to perform community outreach. In particular, there exists a lack of best practices for community outreach during construction for accelerated transportation projects.

Research Plan

The research plan entails the following tasks, which are explained in the sections that follow:

- Task 1 – Literature Review
- Task 2 – Survey and Analysis of State of Practices
- Task 3 – Case Studies
- Task 4 – Final Guide and Research Report

Task 1 – Literature Review

The project will begin with a review of recent experiences of DOTs and other public agencies. It will include the perspectives of constructors, designers and agencies regarding community outreach strategies for CMGC, DB, ATCs, and other types of accelerated project methods. The review will also include public outreach activities related to context sensitive construction. This task will ultimately identify the most fruitful areas of emphasis for Tasks 2 and 3. Sources of literature to be examined include, but not limited to: state DOT websites; transit boards; Transportation Research Information Database (TRID); and academic journals.

The deliverables of Task 1 will be:

a. A written summary of the literature review for inclusion in the final report;
b. An annotated bibliography of the literature; and
c. A technical memorandum and presentation to the Transportation Construction Management (TCM) advisory panel in a teleconference.

Task 2 – Survey and Analysis of State of Practices

Based on the experiences reviewed and synthesized in Task 1, this task will involve a survey of state DOTs and contractors. The American Road and Transportation Builders Association (ARTBA) will be contacted in order to survey their members. The survey will include a combination of closed-ended structured and open-ended semi-structured questions. The purpose of this survey is to: (1) identify the challenges of community outreach faced on accelerated projects; (2) identify the commonly-used resources and references for public involvement strategies during construction on these projects; (3) identify the limitations of current resources; (4) describe the weaknesses in current state-of-practice, (5) identify and document critical success factors; (6) obtain contact information for successful accelerated projects; and (7) to obtain examples of community outreach strategies for these projects including, but not limited to, worksheets, templates, guidelines, and policies. The survey questions will reflect these objectives and will be specifically structured to be consistent with current literature and previous studies

It is expected that, in addition to including open- and closed-ended questions, the survey will also involve the solicitation of both qualitative and quantitative responses. The analyses of the survey data will rely on a combination of frequency and chi-square analyses for the purpose of quantifying: (1) which challenges communities commonly face on accelerated projects; (2) which resources are most commonly used; (3) which limitation of current resources are most commonly encountered; (4) which weaknesses are most commonly encountered; and (5) the most common critical success factors.

The deliverables of Task 2 will be:

a. A written summary of survey results; and
b. A technical memorandum and presentation to the TCM advisory panel in a teleconference.

Task 3 – Case Studies

Following the completion of the exploratory surveys, case studies will be conducted on exemplary projects identified during the survey. The case studies will be identified through the literature review and survey. The research team will develop a rigorous case study protocol to ensure internal and external validity of the case studies. The objectives of the case studies are to supplement and validate the findings from the survey and provide examples of best practices for the guide.

The deliverables of Task 3 include:

a. Common barriers to success for community outreach on accelerated construction projects;
b. Examples of successful practices on these projects;
c. Process examples of best practices including templates, flow charts, and checklists; and
d. A technical memorandum and presentation to the TCM advisory panel in a teleconference.

Task 4 – Final Guide and Research Report

The final task for this project involves the creation of a concise guide and separate research report that summarize the state-of-practice and findings from the research. The guide will include examples of successful templates, guidelines, policies, checklists and other best practice resources obtained in the survey and case studies. The report will clearly show the research methodology, data collection and data analysis processes used to arrive at the current state-of-knowledge for community outreach strategies.

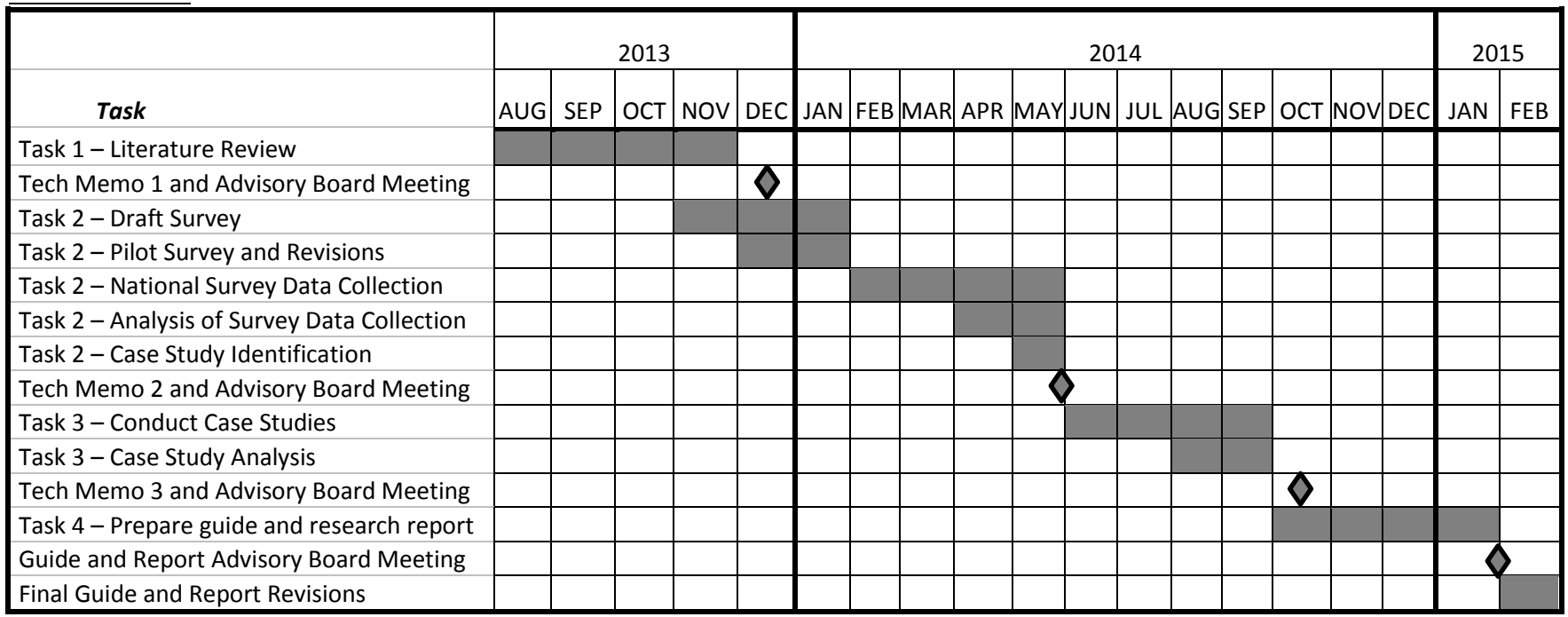
The deliverables of Task 4 include:

a. The guide to be titled "Community Outreach Best Practices Guide for Accelerated Construction Projects"; and
b. The research report to be titled "Research Report on Community Outreach Best Practices for Accelerated Construction Projects."

Potential Information Sources

- State DOTs
- American Society of Civil Engineers (ASCE) and other professional transportation organizations
- Relevant publications by TRB, FHWA, AASHTO
- NCHRP Synthesis 407: Effective Public Involvement Using Limited Resources
- NCHRP 413: Techniques for Effective Highway Construction Projects in Congested Urban Areas
- NCHRP 15-46: Design-Management Guide for Design-Build and Construction Manager/General Contractor Projects

Schedule of Tasks



CU Proposal No.

PROPOSED BUDGET DETAILS

Institution: The Regents of the
University of Colorado
572 UCB
Boulder, CO 80309-0572

Title: Community Outreach Best Practices for Accelerated Construction Projects

Principal Investigator: Keith Molenaar
Co-PI: Paul Goodrum

Duration: 8/15/13 to 2/14/15

	Year 1
A. Salaries and Wages	
PI: Molenaar	
100% time, 0.25 months AY	3,537
Co-PI: Goodrum	
100% time, 0.25 months Summer	3,065
Graduate Research Assistant: TBD	
50% time, 4.5 months (8/14/14 to 2/14/15)	8,951
Graduate Research Assistants: TBD	
50% time, 13.5 months	26,333
Total Salaries and Wages	41,885
B. Fringe Benefits	
PI: 27.5%	973
Co-PI: 27.5%	843
GRA: 7.9%	707
GRA: 7.9%	2,080
Total Fringe Benefits	4,603
C. Permanent Equipment	
None requested	0
Total Permanent Equipment	0
D. Travel	
Domestic Travel	0
Total Travel	0
E. Other Direct Costs	
Supplies	0
Tuition Remission	26,568
Total Other Direct Costs	26,568
F. Total Direct Costs	73,056
G. Indirect Costs	
20% of TDC per agreement	14,611
H. Total Costs	87,668