

# Project S03: Roadway Measurement System Evaluation



# Project S04: Roadway Information Database

## S03/ S04 ETG

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# Project S04

## Roadway Information Database

- Split into 2 projects :
- S04A: GIS Developer; Technical Coordination & QC/QA
- S04B: Mobile Data Collection-prequalified in SHRP 2 rodeo (conducted under project S03)
- Total available funds: \$4.5 million for both

# Project S04

## Roadway Information Database

- S04A RFP
- Funds: TBD
- Released: ~~7/28/2009~~ by 8/7/2009
- Pre-bid webinar 8/12/2009 1-3:30PM
- Proposals due September 2009
- ETG meets October 2009 to review proposals
- Anticipated contract February/March 2010

Project S04  
Roadway Information Database

## Draft Tasks for S04A

- Data discovery & collection
- S04B data collection plan
  - data elements & specifications
  - crash history/ ADT to rank road segments
  - S07 GPS – specific roads
  - technical coordination for data collection
  - data collection field manual/ workshop
  - QA on data delivered by S04B

# Project S04

## Roadway Information Database

### Draft Tasks for S04A (cont)

- Database schema & Interoperability model
- Data repository
- QC/QA
- Support to S08\*

# Project S04

## Roadway Information Database

Sources /potential sources of information:

Existing data (public, private)

S04B

On site crash investigation

DAS

# Project S03

- Rodeo to pre-qualify vendors for bid on Project S04B
- 10 vendors participated (9/16 - 9/20/2008)
- S03 contracting team:

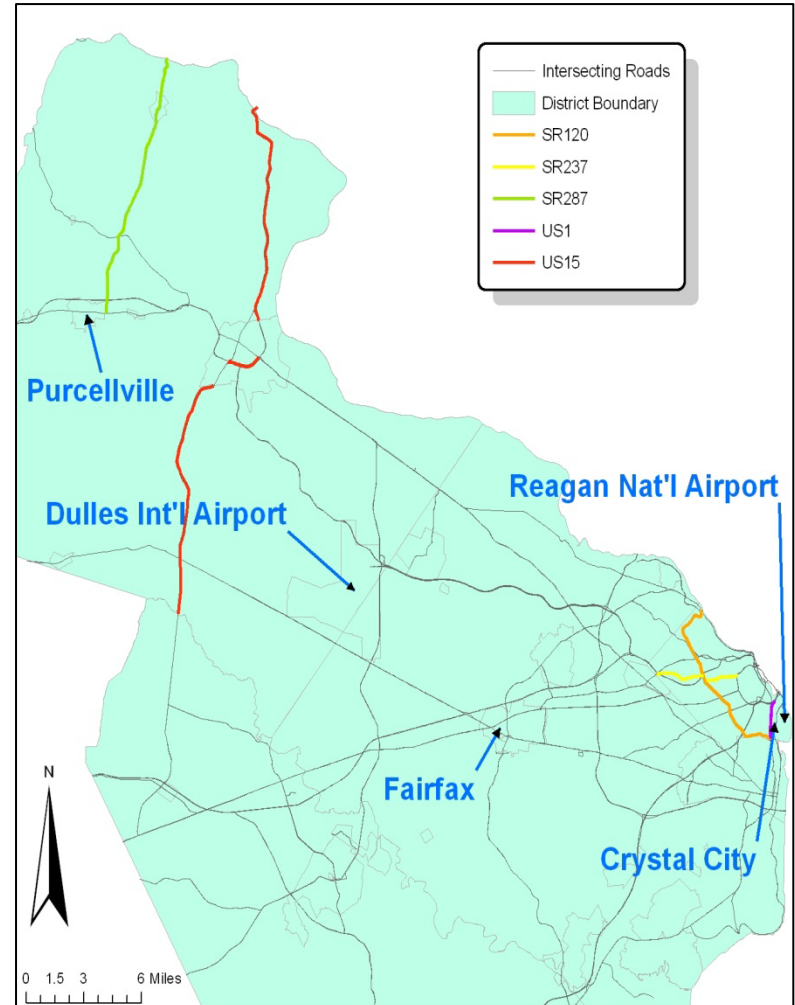


# Participants

- Data Transfer Solutions
- Enterprise Info Solutions
- Fugro/Roadware
- Geospan
- Mandli Communications
- Michael Baker
- Pathways Services
- Sanborn
- Teleatlas
- Yotta
- FHWA DHMS\*\*

# Rodeo Location

- Northern Virginia
- Two Survey Loops
  - Arlington area, ~ 11 miles each direction
  - Leesburg area, ~ 41 miles each direction
  - 3 passes each direction



# Rodeo Test Site Criteria

- Physical Characteristics
  - Terrain
  - Urban/ rural
  - Cover
  - Roadway type
- Six 2500-ft test sections - manually surveyed, contained data elements
- Vendors provided these locations after data collection

## Rodeo Data Elements

Input from:

- Safety TCC
  - SHRP Researchers
  - MMIRE Data Elements
  - 25 roadway features with a total of 113 attributes, or data elements
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- ✓ Positional Accuracy/ Precision
  - ✓ Identification: e.g., sign type

## Rodeo preliminary results

- GPS data – good for all sites (urban/rural, canopy, highway)
- Sub 30 cm consistently - that's the good news
- No vendors provided all the data elements
- Vendors were inconsistent in following procedures and data delivery requirements - resulting in some data not evaluated
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## Rodeo preliminary results

- Some vendors focused on a few data elements and did very well; some provided more data elements-but not as precise –why? Resources/\$ allocated?
- Data reporting in general was inconsistent and some data reported in NC DOT evaluation - not reported to SHRP 2
- NC DOT had a 90 mile route to survey with no ID of specific test sections; SHRP 2 ID sites for vendors - - so why ?
- SHRP 2 8.5 total survey miles for detailed analysis—so what does this indicate for ~ 30K miles?

## Rodeo preliminary results

- Taken together the vendors provided most of the data elements - so they can be collected to varying degree of accuracy/precision
- With the technologies used in the rodeo – much of this involves lots of manual processing (~ 500 images/mile); geometrics automated however.
- Technologies used in rodeo not necessarily technologies used today, and not in late 2010/2011 when S04B will start collecting data (LiDAR merged with imagery)

## Shauna Hallmark/ CTRE

<b>Data element</b>	<b>Desired</b>	<b>Vendors**</b>
Curve radius	25 feet (7.62 m)	+/- 5-10%
Cross-slope	0.1%	No
Grade	0.5%	Yes
Lane width	0.328 feet (0.1 m)	Yes
Shoulder width	0.5 feet (0.152 m)	Yes
Signs/objects	6.6 ft (2 m)	Yes
Sign type	Evaluation not complete	?; maybe for some types

## Rodeo preliminary results

- Similar conclusion as NCDOT – can't be clear enough in specifications
- S03 contractor – “most of the issues can be resolved through improved communications”
- S04A Data Dictionary & Data Collection Field Manual/ Work shop

## Next steps

- ETG has not eliminated any vendors at this point
- Need to determine reasons for data not being reported
- Vendor post-evaluation survey and possibly sample data sets will be requested
- ETG will determine vendors able to bid
- S04B RFQ/ RFP anticipated first quarter 2010

# Questions