



Transportation Vanguard Award Nomination Form

2014

INFORMATION ON NOMINEE:

Last Name: Hjelms	First Name: Becky	Date: September 25, 2014	
Email: bhjelm@utah.gov		Position Title: GIS Manager	
Department: Utah Department of Transportation		Phone: 801-386-4162	
Street Address: 4501 South 2700 West	City: Salt Lake City	State: Utah	Zipcode: 84119
AASHTO Committee Membership (optional) Click here to enter text.			

NOMINATOR INFORMATION:

Last Name: Park	First Name: Randall	Date: September 25, 2014	
Email: rpark@utah.gov		Position Title: Director of Project Development	
Department: Utah Department of Transportation		Phone: 801-965-4022	
Street Address: 4501 South 2700 West	City: Salt Lake City	State: Utah	Zipcode: 84119
Endorsement of Member Department Secretary/Director: Carlos M. Braceras			

INSTRUCTIONS:

Using a maximum of 2 additional single-sided pages, please provide reasoning as to why this individual should be selected as the Transportation Vanguard Award recipient. Please include as much specific information about the candidate as possible, including special projects, personal attributes, dedication, etc.

Send nominations by **Friday, September 26, 2014**, via e-mail to mvitale@ashto.org. Nominations must be submitted as a single file in MS Word format using ***TVA2014_Nomination_Nominee_Name.doc*** as the file name.

Becky has been at UDOT for 2 ½ years and in that short time, she has proven herself to be a visionary with the ability to build effective teams and work strategically to accomplish much more than seems possible. Becky's leadership style along with a very detailed plan of action with everything from setting statewide standard practice to increasing staff available for GIS projects has been key in providing a vision and technical expertise. The majority of her plan is complete, or well on its way to completion. Through her leadership, the Department has embraced GIS and the way we do business is changing rapidly. Our increased reliance on data has created an atmosphere of continual innovation when it comes to GIS and how it can be best utilized to make decisions more efficient in delivering our program.

Becky has been able to positively influence all divisions within UDOT which is not always easy since the department is a decentralized organization. Her ability to engage others and gain buy-in on projects that cross division boundaries is a key to her success. For example, one of her largest successes is the implementation of the asset management data project. UDOT has had Mandli perform LIDAR scanning of every state route in order to collect pavement condition and asset information. The large amount of data would be unmanageable and not very useful to many in the department if it was not possible to utilize GIS. The team involved in this effort includes staff from several divisions (planning, asset management, maintenance, traffic and safety, etc.) and Becky has been able to set the direction and lead the team to complete this project in a timely manner. This has resulted in improved QC of data, access in multiple formats including CADD, and quick coordination of asset management, project, and maintenance efforts using spatial analysis.

One of Becky's main responsibilities in her position is to help set statewide priorities for projects to be completed. She is able to utilize resources from other divisions to accomplish the goals. She is a master at balancing the workload statewide and strategically creates teams to assist in further implementation of GIS tools across the state. An example of this is the effort to create a GIS tool that provides quick and easy access to the relevant Right-of-Way data and documents necessary to respond to routine requests. The tool produced through a highly collaborative effort (staff from 2 regions and the central office), Right of Way personnel can now build a GIS layer representing current UDOT Right of Way or property ownership. The layer may be contributed to by all regions and will provide web access to map for quick reference with links to ProjectWise documents. The desktop version of the tool can be used for building the layer, viewing scanned plans overlaid on a map or image and researching documents. The tool saves a single region's Right of Way area approximately \$160,000 in one year alone. The estimated savings over 5 years to all 4 region right of way departments is near \$1 million. The largest advantage of this GIS Tool is visualization. Overlaying geo-referenced images of our right of way plans, design plans, and other project documents with the CAD data that is generated by consultants and designers brings all available project data together in one place.

There are too many innovative ideas that Becky is working on to list them all, but here are some of the highlights:

Geo-referencing CAD files: Translating project files from project coordinate systems to standard coordinate systems

- New SEED file requirement for use in design, documented geo-referencing process for reproducible result, model/tool for geo-referencing

Result: Project teams are using maps showing design work to help make decisions in project meetings. Strategy that can be repurposed to extract other types of data and may have future use processing digital as-builts.

Outdoor Advertising Control Map: UPlan Map created to support Outdoor Advertising workflows

- Updated NHS, Scenic Byway and Map 21 layers
- Billboard layer updated by Mandli data
- User guide to support implementation

Result: More efficient research method and workflow for the Outdoor Advertising group.

ProjectWise Layers Statewide: Creating links to ProjectWise from map

Result: Fast access to all documents stored for a section of highway. Quick access to previous plan sets, permits, agreements, as-builts, ROW documents, images, etc.

Emergency Management Tool: Working with UDOT Emergency Management and Salt Lake County on a tool that will show all of the major utility nodes, emergency services, state routes, etc.

Result: Fast access to all information necessary to help re-open prioritized routes after an incident.

Becky has impacted the UDOT in many positive ways. She is helping the Department become more efficient and able to use our data more effectively. The excitement about GIS she has created is contagious and success can be identified at every level. We expect the innovation to continue, and see it as a culture change for UDOT. Her outreach effort to other state agencies and local governments is also improving relationships and the collaboration on statewide tools will benefit the State of Utah for years to come. There isn't just one innovative idea that Becky has implemented. She has put in place an entire program that continues to grow.

As an organization we recognize the tremendous benefits of merging technology with our everyday business. Realizing at the same time we are unable to determine every benefit that can be gained. Becky's ability to work with everyone within such a diverse organization as a DOT has been key so that opportunities can be identified and successfully implemented.

Becky is more than deserving of the Transportation Vanguard Award, and truly represents the qualities of an individual that it seeks to recognize.