

# *Great Falls South Arterial Alignment Study*

## **Public Information Meeting October 9, 2007**

### **Meeting Agenda:**

- 6:30 – 7:00 p.m.    **Presentation**
- 7:00 – 8:00 p.m.    **Question and Answers**
- 8:00 – 8:30 p.m.    **Open House**

### **Project Team:**

#### **City of Great Falls:**

Ben Rangel  
Andrew Finch

#### **Cascade County:**

Brian Clifton

#### **Montana Department of Transportation:**

Mick Johnson  
Ed Toavs  
Jerilee Weibel  
Lynn Zanto  
Tom Kahle  
Heidy Bruner  
Dustin Rouse

#### **Federal Highway Administration:**

Bob Burkhardt  
Carl James

#### **HKM Engineering:**

Darryl James  
Jennifer James

### **Status of the Alignment Study:**

As we discussed at the last Public Information Meeting in February, the proposed South Arterial has been the subject of years of discussion and planning studies. The current concept has been most recently supported through the 2003 Great Falls Area Transportation Plan and a Feasibility Study completed in 2004. The current Alignment Study is intended to build on the analysis conducted under the Feasibility Study and provide a more detailed analysis of the opportunities and constraints in the general study area, identify any engineering challenges, and prepare preliminary cost estimates to aid in the identification of an optimal alignment for the South Arterial.

This process will result in the selection of a single, or limited number of alignment options that would be further reviewed under a National Environmental Policy Act (NEPA) process to ensure that the proposed roadway design would minimize impacts to the surrounding built and natural environments. Once a specific alignment is chosen and the impacts are analyzed and disclosed through the NEPA process, the project could move into final design and construction.

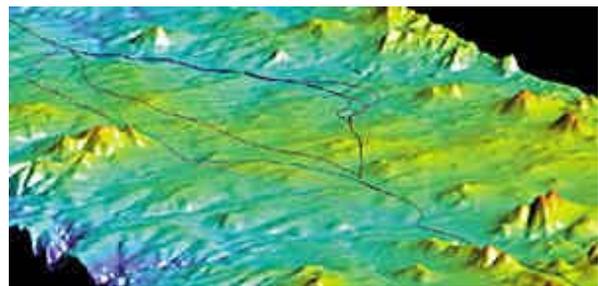
## Project Development Process:



While these planning and environmental phases are being completed, Great Falls area officials and the Montana Department of Transportation will be exploring funding options and identifying responsibilities for the ultimate costs of project design, construction and maintenance of the facility. A meeting was held in Great Falls in September to discuss the current status of state and federal funding for statewide highway maintenance, reconstruction, and new construction projects. Representatives from the Montana Department of Transportation, City of Great Falls, Cascade County, and the Great Falls Development Authority all recognized the challenge of funding such a large but important undertaking as a new highway alignment and major bridge crossing. Each party recognized that successful implementation of any new south arterial will take a cooperative arrangement that includes not only state, local, and federal agency funding support, but also require community support and the cooperation of local residents, business owners, and developers during right-of-way negotiations to ensure the project is viable.

## New Technology:

The Quantm software system was developed by the Australian Government's scientific agency CSIRO over a period of ten years. It is the first technology and methodology (patent pending) to specifically address the complex task of route alignment selection. The technology provides essential support to project teams planning corridors and/or alignments for both road and rail projects. The system has been successfully applied on road and rail projects globally including the USA, Canada, France, Spain, Portugal, Australia, New Zealand, South Africa, Indonesia, and China. Alignment construction savings in excess of 20 percent have been independently documented while reducing social and environmental impacts from new construction. The Quantm system has been designed to provide a holistic approach to alignment analysis and selection that simultaneously considers environmental protection, cultural heritage, community values, terrain, geometric design standards, crossing of features, and minimization of construction costs. This approach has also demonstrated a considerable reduction in project planning time.



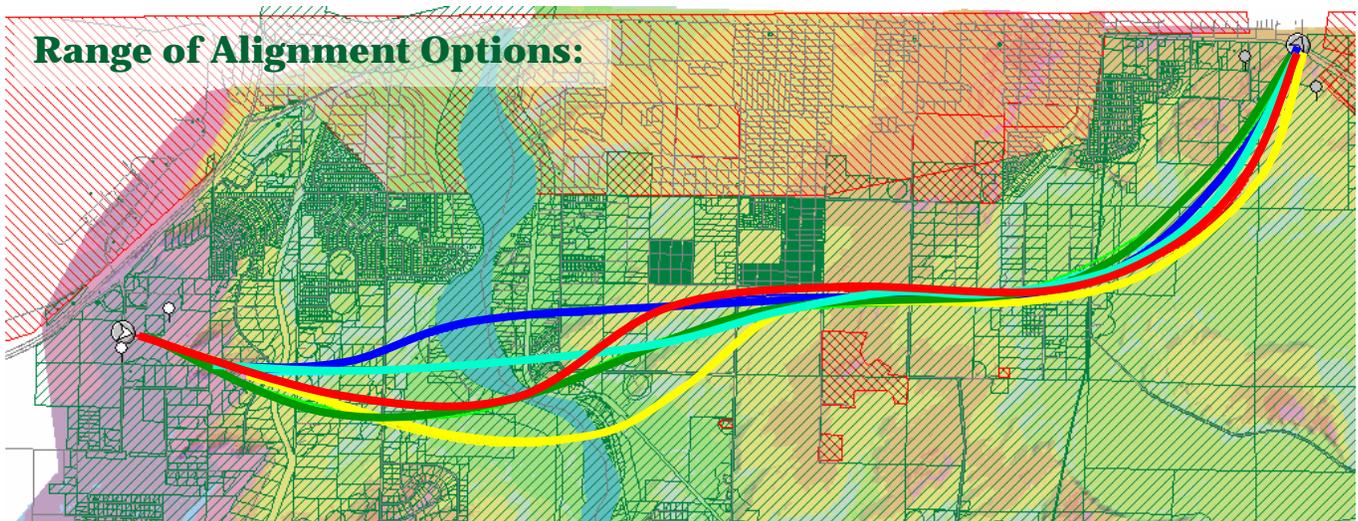
The Quantm software has been used for the Great Falls South Arterial project and has identified thousands of potential alignments along the south side of the City based on identified opportunities and constraints within the study corridor. MDT has been working with the Quantm technicians to refine the alignment options, and based on identified opportunities and constraints within the study corridor, optimize the most promising options developed to date.

## Known Constraints:

At the outset of this project, a number of built and natural constraints were identified that needed to be taken into consideration when developing alignment route layouts. The known constraints include:

- Parks
- Cemeteries
- Cultural Resources
- Developed residential areas
- Wetlands
- Floodplains
- Hazardous materials
- Abandoned mines
- Public water supplies
- Topography

Each of these constraints is assigned a level of importance in avoidance. For instance, an irreplaceable cultural resource would need to be avoided, while avoidance of a hazardous waste site is desirable but not absolutely necessary. The definition of these “avoid zones” around certain resources has helped define the limits of the study area as well as the most desirable routes. Constraints including costs are used as screening criteria to develop the range of alignment options.



Comparison Categories	Alignment Options				
	Red	Yellow	Green	Aqua	Blue
Route Length	40,800 ft	41,700 ft	40,000 ft	39,700 ft	39,700 ft
Bridge Length	1,150 ft	1,270 ft	1,160 ft	2,240 ft	2,350 ft
Residential Relocations	Approx 13 - 16	Approx 13 - 16	Approx 16 - 19	Approx 18 - 21	Approx 13 - 16
Business Relocations	N/A	N/A	N/A	N/A	N/A
Wetland Impacts	13 acres	13 acres	12 acres	14 acres	15 acres
Floodplain Impacts	22 acres	19 acres	21 acres	22 acres	20 acres
Acres of ROW	170 acres	185 acres	190 acres	175 acres	185 acres
Earthwork (cut)	1,504,000 cu. yd.	1,735,000 cu. yd.	2,759,000 cu. yd.	1,904,000 cu. yd.	1,807,000 cu. yd.
Earthwork (fill)	1,794,000 cu. yd.	2,267,000 cu. yd.	2,046,000 cu. yd.	1,821,000 cu. yd.	2,338,000 cu. yd.
Cost (2 lanes)	\$100 million	\$105 million	\$109 million	\$115 million	\$119 million
Cost (4 lanes)	\$132 million	\$137 million	\$138 million	\$156 million	\$162 million
<b>Major Benefits:</b>	Lowest cost option & low ROW required	A lower cost option. Avoids identified subdivisions	Missouri River crossing would be less difficult	Utilizes existing public ROW more than other options	Shortest route length and the closest to the city's infrastructure
<b>Concerns:</b>	Impacts to future subdivision housing along the Missouri River	Difficult Missouri river crossing which includes the RR crossing east of the Missouri River	Highest ROW impact and acquisition	High ROW impact and high cost for a four lane option	Highest cost and difficult Missouri River crossing

## How do I stay involved in this project?

Public participation has been a substantial component of the previous planning efforts and the Feasibility Study. Public participation included formal public meetings, as well as several newspaper articles and presentations to citizen groups and local agencies. The Feasibility Study includes letters of support from the Great Falls Development Authority, Montana Department of Transportation, Great Falls International Airport Authority, Great Falls Area Chamber of Commerce, City of Great Falls, Cascade County, and the former Great Falls City-County Planning Board.

This previous input and support is important, and we continue to request your involvement in the further development of the South Arterial. There will be at least one more opportunity during the Alignment Study to provide input and help refine the alignment options.

You can also obtain information about the Alignment Study by visiting the project website which can be found at [www.mdt.mt.gov/pubinvolve/greatfalls/](http://www.mdt.mt.gov/pubinvolve/greatfalls/).

### Next Steps:

In the next few weeks the project team will evaluate the potential improvement options based on the public input and develop recommendations to be presented to the public.

### For other information, please feel free to contact either:

#### *Montana Department of Transportation*

Ed Toavs  
200 Smelter Avenue NE  
PO Box 1359  
Great Falls, Montana 59403-1359

(406) 454 - 5929  
[etoavs@mt.gov](mailto:etoavs@mt.gov)

#### *HKM Engineering*

Darryl James  
7 West 6<sup>th</sup> Avenue, Suite 3W  
PO Box 1009  
Helena, Montana 59624-1009

(406) 442 - 0370  
[djames@hkminc.com](mailto:djames@hkminc.com)

Please refer to the *Great Falls South Arterial Alignment Study* on your correspondence.

Montana Department of Transportation



*MDT attempts to provide accommodations for any known disability that may interfere with a person's participation in any service, program or activity of our department. Alternative accessible formats of this information will be provided upon request. For further information call (406)454-5929 or TTY (800)355-7592, or by calling Montana Relay at 711. Accommodation requests must be made within 48 hours of the meeting.*