

# Land Surveying / Subsurface Utility Engineering (S.U.E.) Division Profile

## ROBERT PECCIA & ASSOCIATES

Our survey team can complete horizontal, topographic, cadastral, and vertical control surveys for all your needs. From utility location, designation, and mapping to vacuum extraction and depth surveys, S.U.E. offers planners, designers, and contractors the benefits of safety, cost control, and accuracy.



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### 1) FAA & NGS Instrument Approach Procedure Surveys

RPA has been on the leading edge of the newly created and continuously updated FAA Advisory Circular instrument approach procedure surveying requirements for county and regional airports in Montana. RPA has completed and has approval of the survey for Glasgow Airport, and are in the final stages of the Lewistown Airport survey. RPA has recently been requested to perform the same survey for Shelby Airport. We are the first firm nationwide to gain approval of this type of survey from the NGS and FAA.



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### 3) Stevens Canyon Road - Mount Rainier National Park, WA

RPA completed the necessary ground survey and prepared plans to rehabilitate a ten-mile segment of the main route through the scenic Mount Rainier National Park. Survey crews established project control and provided topographic mapping utilizing GPS, robotics, and conventional survey while minimizing impacts to the vegetation.



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### 2) RPA's S.U.E. Truck

S.U.E. capabilities include using tone locators to identify underground utilities (phase I) and the ability to use non-destructive means to physically locate and survey utilities (phase II). The Vacmaster "VAC-N-DIG" multipurpose vacuum excavator, utilizes vacuum excavation technology as a means of nondestructive potholing to accurately locate utilities.



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### 4) Golfito, Costa Rica

RPA's survey team traveled to the rainforest for a resort development project planned by a California developer. RPA surveyed over 2.3 kilometers (1.5 miles) of potential roads in primary and secondary rainforest, along with mapping larger areas for potential development of a new exclusive resort in the area. GPS and Robotic Total Stations were used to perform the survey work. The data was used to prepare a base map for the client for future development of the project.



### 5) USFS

RPA has a IDIQ contract with the United States Forest Service in the Kootenai, Flathead, and Lewis and Clark National Forests to provide Professional Land Survey work. This includes boundary retracement, section retracements, line marking and posting, and determination of private and public land boundaries between the USFS and private land owners.

# Land Surveying / Subsurface Utility Excavation (S.U.E.) Division Profile

ROBERT PECCIA & ASSOCIATES

Our team can complete horizontal, topographic, cadastral, and vertical control surveys for all your needs. From mountaintops to river bottoms, we survey it all!

If you have any questions regarding services we can provide, please contact the following individuals:

Tom Stark, PLS, CFedS  
SURVEY/SUE DIVISION  
MANAGER

Keith Jensen, PE  
PRESIDENT

RPA's Land Surveying Division members are experienced in completing topographic maps, horizontal surveys, cadastral surveys, boundary retracement, construction surveys, and vertical control. They are responsible for collecting survey data and reducing the information for mapping purposes. They are efficient and accurate, and have many different control checks built into their field procedures to monitor the quality of the data being presented.

Field data collection methods are streamlined to create an accurate and timely collection process, which also aids in the quick and straightforward data download and mapping back in the office. This procedure begins with having well-trained individuals in the field collecting data in the proper manner.

Upon collection of the field data, RPA has surveying software capable of many types of adjustment procedures, which are also able to pinpoint possible errors and aid in corrections. The software that RPA uses to map the collected points has automated

linework capabilities that reduce unnecessary and costly drafting time.

To aid in this task, RPA has a Robotic Total Station and two Trimble GPS Systems to better serve our clients. Other valuable and specialized equipment includes the following:

- Trimble R8 / GNSS System
- Trimble 5700 GPS System
- Trimble 5602 Robotic Total Station
- Geodimeter 610 Robotic Total Station
- AutoDesk Land Desktop Software
- AutoCAD Civil 3D 2009 Software

RPA stresses continuing education and the upgrading of software and equipment to assure the quickest, most accurate and highest quality of survey data for the projects and clients.

S.U.E. accurately maps underground utilities and structures in the development stage of construction. From utility location, designation, and mapping to vacuum excavation and depth surveys, S.U.E. offers public officials, designers, and contractors the benefits of safety, cost-control, and accuracy.

## REPRESENTATIVE PROJECTS - SURVEY

South Helena Interchange  
Morrell Creek East of Seeley Lake  
Musselshell County Line NW  
US Highway 93 North  
Canyon Ferry Road  
4-Corners North  
St. Regis Right-of-Way  
California Trails Visitor Center  
Sully's Hill Northwest Region  
Strand Union Building at Montana State University  
Lacy Lane  
Edgewood Place  
Columbia Avenue  
Beartooth Highway  
Lewis and Clark County GIS Control  
Whitefish Stage Road  
Fort Harrison Infrastructure Improvements  
Wisconsin Avenue Bike/Pedestrian Path

## LOCATION

Helena, MT  
Seeley Lake, MT  
Musselshell, MT  
Ravalli, MT  
Helena, MT  
Bozeman, MT  
St. Regis, MT  
Elko, NV  
Devils Lake, ND  
Bozeman, MT  
Whitefish, MT  
Whitefish, MT  
Whitefish, MT  
Cooke City, MT  
Helena, MT  
Whitefish, MT  
Helena, MT  
Whitefish, MT

## CLIENT

Montana Department of Transportation  
Montana Department of Transportation  
Montana Department of Transportation  
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Montana Department of Transportation  
Montana Department of Transportation  
EDAW for Bureau of Land Management  
EDAW for Bureau of Land Management  
Montana State University  
City of Whitefish, MT  
City of Whitefish, MT  
City of Whitefish, MT  
Western Federal Lands Highway Division  
Lewis and Clark County, MT  
Montana Department of Transportation  
Department of Military Affairs  
Montana Department of Transportation

## REPRESENTATIVE PROJECTS - S.U.E.

Lewistown West  
Great Falls 10th Avenue South and 39th Street  
30 KM Northeast of Glendive  
Highway 93 North  
Exxon Gas Company Dig  
Two Medicine River Bridge  
Bozeman 19th and Main Street  
Helena Regional Airport Gas Location  
Green Meadow/Lincoln Road  
Belt North and South  
Musselshell County Line Northwest  
MDT Bridge Inspection

## LOCATION

Lewistown, MT  
Great Falls, MT  
Glendive, MT  
Highway 93, MT  
Helena, MT  
East Glacier, MT  
Bozeman, MT  
Helena, MT  
Helena, MT  
Belt, MT  
Musselshell County, MT  
Montana Statewide

## CLIENT

Montana Department of Transportation  
Montana Department of Transportation  
Montana Department of Transportation  
Entranco  
Montana Signworks  
Sverdrup Civil, Inc.  
Montana Department of Transportation  
Morrison-Maierle, Inc.  
Montana Department of Transportation  
Jacobs Civil, Inc.  
Montana Department of Transportation  
Montana Department of Transportation

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