2020 Survey Technical Workshop
March 17 – 19, 2020
Breezy Point Conference Center

From the Committee
The Minnesota Department of Transportation’s Office of Land Management, invites you to attend the 2020 Survey Technical Workshop, to be held March 17 – 19, at Breezy Point Conference Center in Breezy Point, MN. This year marks MnDOT’s 23rd year of sponsoring this workshop and we are proud to once again offer topics with the focus on surveying, mapping, GIS and other related topics of interest to the surveying community.

The event’s focus is on the survey technician and will provide a setting in which they can view current practices, examine prospective trends, consider technical applications and improvements and build relationships within the surveying community. We are pleased to offer this training opportunity to MnDOT employees, students and our professional partners from the private sector and local public agencies.

Audience
- MnDOT personnel involved in survey operations
- Other state agency employees interested in survey technologies
- County and city agency staff performing survey functions
- Private sector consultants
- Students and education professionals

Date, Time and Location

<table>
<thead>
<tr>
<th>Date, time, location</th>
<th>Registration information</th>
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<tbody>
<tr>
<td>March 17 – 19, 2020</td>
<td>Registration begins at 9:00 a.m. on Tuesday, March 17, 2020. The workshop program then commences at 10:00 a.m. The next 2½ days will include educational sessions and exhibits. The workshop concludes on Thursday, March 19 at approximately 12:15 p.m. Please visit the Breezy Point Resort website at <a href="https://breezypointresort.com/">https://breezypointresort.com/</a> for more information about the workshop venue. Please contact Cheryl Hunstock (651-366-3452) to request an ASL interpreter or if you have other special attendance considerations.</td>
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<tr>
<td>Breezy Point Conf. Center 9252 Breezy Point Drive Breezy Point, MN 56472 Phone: (800) 432-3777 Fax: (218) 562-4510</td>
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Registration and Cost
Registration will close on March 6, 2020 or when the total number of registrants reaches 325. There will be early and late fees. The early registration fee is $100 if the registration is postmarked on or before Feb. 17, 2020. The late registration fee is $125 if postmarked after Feb. 18, 2020 and before March 6, 2019. Cancellations must be received by March 1, 2020 for a full workshop registration fee refund. Credit cards are not accepted.
Successful registration for the 2020 Survey Technical Workshop requires the completion of the following Two Steps:

- Step 1: Complete the Workshop Registration Form and send it as specified on the form.
- Step 2: Complete the Breezy Point Lodging Reservation Form and either email or fax it as specified on the form. Note: Skip this step if you do not require lodging or meals. If you are lodging somewhere else, you may still purchase the meal package. Follow instructions below.

Workshop Registration Information

**Step 1: MnDOT Registration:**

Workshop Registration Form – For Non-MnDOT participants. Please print and fill out the workshop registration form and send it with your registration fee (checks made out to the Commissioner of Transportation) to:

Cheryl Hunstock  
395 John Ireland Blvd., MS 630  
St. Paul, MN 55155  
Phone: 651-366-3452  
Fax: 651-366-3450  
cheryl.hunstock@state.mn.us

MnDOT Employee Registration Form – Please submit this form to your district Training Development Specialist and follow the instructions on the form.

The registration fee will cover workshop costs. It is non-negotiable, but is transferable. **Credit cards are not accepted.** Note: the registration fee does not include the cost of meals and lodging at the workshop. Please fill out the Breezy Point Reservation Form (link below) to reserve meals and lodging.

The registration form asks you to provide Not Public data about yourself. You are not legally required to provide any data, however without your data you cannot register for the conference. The data you provide is subject to the Minnesota Government Data Practices Act and in addition to the conference organizers may be accessible to anyone who requests the data.

**Step 2: Breezy Point Reservations**

Reservations for Accommodations at Breezy Point Resort: Please click on the link below to access the lodging and meals reservation information. CAREFULLY REVIEW THE VARIOUS LODGING/MEAL PACKAGE OPTIONS and select accordingly! Details are on the form. To complete Breezy Point Reservation Form, please click onto this link:
**Breezy Point Reservation Form:** Please read the various lodging packages below carefully and select the package that will best meet your needs.

### Three-night Package (for those arriving the DAY PRIOR to the workshop)
- $296.67 Single Occupancy (per person)
- $200.89 Double Occupancy (per person)
- Includes:
  - Monday (3/16): lodging
  - Tuesday (3/17): breakfast, breaks, lunch, dinner & lodging
  - Wednesday (3/18): breakfast, breaks, lunch, dinner and lodging
  - Thursday (3/19): breakfast and breaks

### Two-night Package
- $223.15 Single Occupancy (per person)
- $149.27 Double Occupancy (per person)
- Includes:
  - Tuesday (3/17): lunch, breaks, dinner and lodging
  - Wednesday (3/18): breakfast, lunch, breaks, dinner and lodging
  - Thursday (3/19): breakfast and break

### Tuesday Night Only Package
- $128.14 Single Occupancy (per person)
- $ 96.20 Double Occupancy (per person)
- Includes:
  - Tuesday (3/17): lunch, breaks, dinner and lodging
  - Wednesday (3/18): breakfast, lunch, breaks

### Wednesday Night Only Package
- $112.80 Single Occupancy (per person)
- $ 80.86 Double Occupancy (per person)
- Includes:
  - Wednesday (3/18): breakfast, lunch, breaks, dinner and lodging
  - Thursday (3/19): breakfast and break

Please scan the Breezy Point Registration Form and email it to Mary Morris: mmoris@breezypointresort.com. OR mail the entire form to Breezy Point Resort, 9252 Breezy Point Drive, Breezy Point, MN 56472 OR fax to 218-562-4510. After your reservation has been processed, you will receive an email confirmation from Breezy Point.

**Meals/breaks for workshop commuters**
If you are not planning your lodging at Breezy Point, you may still purchase meals. Below is the breakdown of the meals. These meals/breaks are priced the same as if you were lodging at Breezy Point. Please remember, breaks are included in the meal packages as indicated in the chart below.
### COMMUTER MEAL AND BREAK PRICES

<table>
<thead>
<tr>
<th>Meal</th>
<th>Price</th>
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<tbody>
<tr>
<td>Breakfast &amp; Break</td>
<td>$12.12</td>
</tr>
<tr>
<td>Lunch &amp; Breaks</td>
<td>$17.79</td>
</tr>
<tr>
<td>Dinner</td>
<td>$19.00</td>
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</tbody>
</table>

*Meeting package tickets must be picked up at the Breezy Point Front desk*

### Proposed Workshop Topics

At this time, the completed schedule is still being determined, but the proposed topics are listed below. A complete schedule will be posted in late January of 2020. Please note that there will be sessions in which various vendors will demonstrate their products and services. We will also try to have more repeated sessions this year as a request by past workshop attendees. Topics being considered are:

- Retracing the MN/WI State Line from Fond Du Lac Dam Through Duluth/Superior Harbor
- How Survey Work and Archaeology Work Intersect
- Invasive Species or Roadside Vegetation (1st Closing)
- Ziegler’s Construction Technology Group Presentation
- Comparing Lidar Sensor Data From Aerial, Mobile & Terrestrial Devices to Traditional Sur. Methods
- Trimble Topics
- Leica Topic
- TopoDOT Demonstration of Automatic Feature Extraction from Point Cloud Data
- Ethics
- Carlson Software Topic
- Certainty 3D
- Safety Topic
- 2022 Datum Update
- NGS Update
- Responsibilities for Boundary Evidence Perpetuation on Const. Proj.
- Snow Fence Topic (Living or Structural)
- R/W Platting Modernization
- Surv. Math Refresher
- Lewis & Clark Presentation
- PLSS Short Cut Method
- 3D Visualization
- Coordinating Systems & US Survey Foot
- Drone Case Study
- LDP (Low Distortion Project)
- Stringless Milling & Paving
- Survey Staking: Update of 35W/Crosstown & I-94 Project
- High-Accuracy Drone Surveying
- Role of The County Surveyor
Professional Development Hours

For those submitting Professional Development Hours with the Board of Architecture, Engineering, Land Surveying, Landscaping Architecture, Geoscience and Interior Design, please select those sessions that will meet your personal training needs and satisfy your defined licensing standard requirements. Workshop participants are responsible for submitting for Professional Development Hours with the board. Attendees planning on using this workshop towards earning professional development hours are responsible for retaining registration receipts and the workshop brochure, which provides the agenda and course descriptions. As sponsor of this event, the Office of Land Management will provide workshop participants with a Certificate of Attendance, on Thursday, March 19, after the workshop at the registration table in the Whitebirch Lobby. To receive a certificate of attendance from the Minnesota Department of Transportation, workshop participants are required to have attended the full three days of sessions. A certificate of attendance will be distributed following the last session to keep for your records.

Vendors and Exhibits

Vendor displays and exhibits can be viewed in the Lakeside Dining Room. Vendor displays can be viewed throughout the workshop, beginning the afternoon of March 17 through the PM break on March 19. Exhibitors will be happy to answer specific questions regarding their products and services. If you or your company would like to participate in the vendor display area at the 2020 Survey Technical Workshop, please contact Cheryl Hunstock at 651-366-3452 or email at: cheryl.hunstock@state.mn.us. There is no cost to have a display but space is limited and will be filled on a first come, first serve basis.

Below is a list of the 2019 Vendors

<table>
<thead>
<tr>
<th>Ayres &amp; Associates</th>
<th>MnDOT Recruitment</th>
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<tbody>
<tr>
<td>Bentley Systems, Inc.</td>
<td>National Geographic Survey</td>
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<tr>
<td>Carlson Software</td>
<td>PAAP Drones</td>
</tr>
<tr>
<td>Frontier Precision/Trimble, Inc.</td>
<td>Quantum Spatial, Inc.</td>
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<tr>
<td>Historical Surveys</td>
<td>TopoDOT</td>
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<tr>
<td>Leica GeoSystems, Inc.</td>
<td>U. S. CAD</td>
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<tr>
<td>MnDOT’s CORS Network</td>
<td>Whirrx</td>
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