



TRI-COUNTY REGIONAL PLANNING COMMISSION

456 FULTON STREET, SUITE 401

PEORIA, IL 61602

Phone: 309-673-9330 FAX: 309-673-9802

www.tricountyrpc.org

September 5, 2014

Dear Sir or Madam:

The Tri-County Regional Planning Commission, on behalf of our local government partners (consisting of the City of Peoria, Peoria County, Tazewell County, Woodford County, and the Greater Peoria Sanitary District) hereby requests proposals for a contractual commitment to a digital orthophotography acquisition project. Attached please find the technical specifications of the project and associated map.

If your firm is interested in being considered for this project, please submit seven copies of your proposal by September 26, 2014 (4:30PM). The proposal will represent the consultant's understanding of the proposed work to be performed. The RFP must address each of the evaluation criteria carefully and thoroughly, as all the submittals will be ranked on a point system. The evaluation will be based upon a head-to-head comparison with other proposals received.

The selection will be done by ranking all of the proposals received. Each criteria will be ranked on a scale of 1 to 10. Each numerical ranking will be multiplied by a weighted value. The following is a list of the Criteria for Evaluation and the relative weighting for each.

1. Proposed Scope of Services: (30) Provide a scope of proposed services consistent with the scope of the project provided. Include any subconsultants to be used.
2. Proposed Project Staff: (20) Provide resumes of the staff to be involved in the project and identify the role each would play in the project. Please limit resumes to information within the last five years.
3. Quality of Work: (15) Provide examples of similar projects to the project under consideration. Please limit information to the last five years. Provide a current contact person with knowledge of the project.
4. Schedule: (15) Provide a detailed schedule including information about work tasks and duration of time.
5. Fee Structure: (15) Provide an itemized estimate for each task including hours and costs. The final scope and cost will be a subject of negotiation with selected consultant.
6. Proposal Content: (5) The proposal will be evaluated for brevity, professional accuracy and content. There is no need for elaborate special presentation brochures.



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Depending upon the numbers of responses received from this solicitation, the top 2 to 4 firms based on the evaluation point system may be selected for an interview. The final selection will be based on any interviews and the ranking received on the Request for Proposals. Tri-County intends to enter into negotiation with the highest ranked firm. We reserve the right to reject any or all respondents.

The RFP will be due by September 26th. The last day for questions will be September 22nd and Tri-County will answer all questions by no later than September 24th. After evaluating the submitted responses, a short list will be developed for potential interviews.

Please feel free to contact me if you have questions or need any additional information.

Sincerely,

Greg Sachau
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Tri-County Regional Planning Commission
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**TRI-COUNTY (PEORIA, TAZEWELL, WOODFORD)
DIGITAL ORTHOPHOTOGRAPHY SPECIFICATIONS
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DIGITAL ORTHOPHOTOGRAPHY SPECIFICATIONS

1.01 **General:**

The Tri-County Regional Planning Commission, on behalf of our local government partners (consisting of the City of Peoria, Peoria County, Tazewell County, Woodford County, and the Greater Peoria Sanitary District) hereby requests proposals for a contractual commitment to a digital orthophotography acquisition project. The Consultant shall acquire natural color imagery to support production of digital ortho-rectified images to a ground pixel resolution of 0.5 feet covering approximately 1832 square miles of the state of Illinois.

In 2011, Tazewell and Woodford County participated in a state-wide project managed by the Illinois Department of Transportation (IDOT) and the United States Geological Survey (USGS) to acquire 6 inch color imagery for all of Tazewell County and for a portion of western Woodford County. Peoria County acquired 12 inch imagery from the same project.

The purpose of this section is to provide Partners and Respondent with a set of guidelines for digital orthophoto delivery. This section also provides descriptions of data structure and accuracy. All deliverables included in this project must be delivered in the Illinois State Plane West Coordinate System referenced to the North American Datum 1983 (NAD83) with 1986 adjustment and the North American Vertical Datum 1988 (NAVD88) with units expressed in U.S. survey feet. A Contract Map of the project area has been prepared and is included as Appendix A.

1.02 **Project Deliverables:**

- Color Digital Orthophotography (1"=100' / 0.5 foot resolution)
 - County-wide (Peoria, Tazewell, and Woodford Counties)

1.03 **Compilation Guidelines:**

The Respondent shall use the following as a guideline when creating deliverables. When responding, the Respondent shall outline manual and automated processes used to support these requirements. Respondents shall propose and clearly describe a strategy that produces color digital orthophotography that meets the requirements as defined in this section. If the vendor determines that alternative methods or requirements might better meet the needs of the Partners, they shall clearly compare and contrast the benefits of the proposed alternative methods.

- A. **Resolution and Accuracy:** Imagery shall be natural color and shall be of sufficient resolution to support production of digital ortho-rectified images to a ground pixel resolution 0.5 feet.
- B. **Acquisition Window:** Acquisition window shall be during the spring acquisition season prior to the 2015 leaf-on season. Sufficient acquisition resources shall be allocated for this task such that 100% of acquisition shall be completed during this window

- C. **Ground Sample Density (Resolution):** The required ground sample distance for shall be 0.15m (6 inch).
- D. **Project Coverage:** Imagery shall be collected which covers the project area as defined above AND includes a buffer around the project area of 2600 feet. The tiling scheme shall approximate a Public Land Survey System (PLSS) section. The Respondent is encouraged to propose alternative tiling schemes if so desired. The final delivery shall occur in a tiling scheme that has been mutually agreed upon by Partners and the Respondent. The Respondent shall also deliver seamless polygons representing the geographic extent of each individual tile image in ESRI Geodatabase format. In addition to the uncompressed tile imagery, the Respondent shall also provide cost estimates for the following: MrSid format compressed files for each township in Peoria, Tazewell, and Woodford Counties and one MrSid format file that for each of the three counties.
- E. **Orthorectification** Digital orthophotos shall be orthorectified such that they are free of distortion and are spatially correct. There shall be no bends, breaks, “waves”, or discontinuities on and near bridges, nor shall there be any “ghosting” or distortion of buildings, bridges, or other structures. The Respondent shall describe in detail the proposed processes, procedures, and equipment used to perform orthorectification with an emphasis on quality control and other steps taken to minimize distortion and ensure accuracy of the final product
- F. **Data Voids:** Image collection voids are unacceptable and shall be sufficient reason for rejection of a portion of, or the entire data delivery lot or if deemed necessary, the entire project.
- Image gaps between adjacent flight lines are not acceptable.
 - Image voids due to system malfunctions are not acceptable.
 - Consultant shall ensure that all parts of the project are fully covered.
 - No portion shall be omitted from collection unless specified.
- G. **Flight Diagram:** The Consultant shall produce a Flight Diagram which illustrates the project area outline, flight lines, image identification, and approximate location of image centers.
- H. **Acquisition Conditions:** Imagery shall be acquired under these conditions
- **Leaf-off:** Acquisitions for leaf-off shall be collected during the defined acquisition window.

- **Flood Conditions:** Imagery shall be collected during non-flood conditions. Non-Flood conditions are defined as the rivers remaining within their channels at, or below normal levels.
 - **Time of Day:** Imagery shall be obtained during the period of the day when the sun angle is no less than 30-degrees and flight times shall be made to minimize shadows.
 - **Acquisition Conditions:** Imagery shall be acquired only under conditions free from clouds and cloud shadows, smoke, haze, light streaks, snow, and excessive soil moisture.
- I. **Non-image data:** Orthoimagery tiles shall not contain any non-image data. Non-image data includes photographic frame borders, fiducial marks, artifacts, and titling.
- J. **Building Lean:** Imagery shall be acquired at a density in the “high-rise” areas of the urban area such that all road networks are clearly visible and that buildings show no signs of excessive tilt or lean.
- K. **Calibration:** Aerial Sensors/Camera(s) used to acquire project imagery shall have current United States Geological Survey (USGS) certification, or in the case of digital sensors a current Product Characterization Report.
- L. **Image Radiometry:** Digital orthophoto images should be free of material defects, smears, blemishes, scratches, and foreign objects or artifacts introduced during the production process. Color, brightness, and contrast shall be consistent throughout the project area. Sharp contrasts should not be apparent at photo seams when viewing the countywide MrSID image or when viewing multiple individual tile TIFF images. Image tone and balance shall be consistent in neighboring photos at their common edge. Radiometry shall be consistent in and between flight lines. Visible seams at the edges of orthophotos that create an obvious edge or “feathering” effect shall be grounds for rejection of the orthophotos in question. Some radiometric differences due to sun reflections from different angles are acceptable for bodies of water, although the Respondent shall make every reasonable effort to minimize such occurrences. Proposals shall address the Respondent’s proposed radiometric adjustment procedures as well as other processes and procedures. Respondent proposes to undertake to ensure consistent tone balance and image quality throughout the project area.
- M. **Horizontal Accuracy:** All orthoimagery shall have 95% (NSSDA Confidence Interval) of all well-defined points tested fall within the specified distance listed below of true ground (ASPRS Class1). All inputs and processes such as aerial triangulation, control, methodology, scanner calibration, and sensor calibration used in digital orthophoto production shall be sufficiently accurate to ensure that all final digital orthophotography meets the defined project accuracy standards.
- N. **Elevation data:** Elevation data created for use in the orthorectification process shall be submitted, with associated documentation, in a common or non-proprietary format.

- O. **Pre-Production Reviews:** Prior to initiating final production, the Respondent and the Partners shall review samples of the Respondent's files of the orthophotos. Partners and the Respondent shall mutually agree on the image quality that is to be the standard to which all subsequent orthophotos will be compared for acceptance or rejection.
- P. **Quality Assurance:** Unacceptable aerial photography shall be corrected by the Respondent at no additional cost to Partners. Overlapping photographs in each flight line shall provide full stereoscopic coverage of the area to be mapped.

1.04 Delivery Schedule:

The Partners and the selected Respondent shall develop a delivery schedule for all deliverable products of the project. Prior to preparation of the Contract the dates will be determined and included in the contract delivery schedule. The Partners desire final delivery of the product within 4 months of the completion of acquisition.

1.05 Deliverable Summary:

- **Calibration Reports:** Camera Calibration Report(s) for Aerial Camera(s), or in the case of digital sensors, a current Product Characterization Report of the instrument used shall be included as a deliverable.
- **Aerotriangulation Report:** If Aerotriangulation is performed, the data provider shall provide a comprehensive AT report.
- **Flight Diagram:** A Flight Diagram that illustrates the project area outline, the location of the flight lines and the approximate location of image centers, if relevant, shall be included as a deliverable. This diagram shall be provided in softcopy and hardcopy.
- **Digital Orthorectified Image Format:** Tiff and MrSid
 - Break out costs on MrSid deliverables based on the following geographic areas:
 - County (Peoria, Tazewell, Woodford)
 - Townships (For each of the three counties)
- **Metadata** shall be FGDC compliant and shall be project and tile (file) level.
- When identifying costs, Respondents are requested to break the costs down by each of the counties involved in the project (Peoria, Tazewell, and Woodford)

