Lessons Learned - Drone Procurement

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Drone Procurement Timeline

- May 2017: Initial steps
- September 2017: Scope of Work Development
- March 2018: Pre-bid meeting
- May 2018: Bid opening
- July 2018: Drone Policy and Procedure development
- July 2018: Drone Contracts awarded
Bureau of Utility Operations
24-Hour Emergency Water Services: (410) 222-8400
Billing Inquiries: (410) 222-1144

Bureau of Waste Management Services
Bulk Trash Service/Curbside Collections: (410) 222-6100

Bureau of Highways
Northern District: (410) 222-6120
Central District: (410) 222-7940
Southern District: (410) 222-1933
Traffic Lights/Signs: (410) 222-1940

Bureau of Engineering
General Inquiries: (410) 222-7500

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Initial Steps

• Develop list of uses for drone services
  • CIP progress
  • Asset location mapping
  • As built verification
  • Inspections
  • Training videos
  • Leak detection/SSO

• Included other County agency uses
Scope of Work Development

• Variety of uses led to complex SOW issues
  • Categories for procurement/bidding
    • Photo/Video projects
    • Thermal projects
    • Topographic projects
    • Planimetric projects
    • PEG-TV projects
Scope of Work Development

- Variety of uses led to complex SOW issues
  - Scheduling
    - Standard Planned Schedule
    - Emergency Unplanned Projects - 24 hour notice
    - Critical Unplanned Projects - 2 hour notice
  - Hours of Service
    - Office Hours
    - OT
    - Weekend/Holiday
Scope of Work Development

- Variety of uses led to complex SOW issues
  - Focus of procurement
    - Level of detail
    - Equipment
      - Sensor requirements
      - Quality of deliverables
    - Licensing and Waivers
Pre-Bid Meeting

- 15+ firms in attendance
- More than 50 questions from firms
  - Licensing/Restrictions/Waivers
  - Equipment Specifications
  - Subcontracting of specialists
    - Surveyors
    - Engineers
Pre-Bid Meeting

- More than 50 questions from firms (Cont)
  - Community notification
  - Data Concerns
    - Privacy
    - Storage
    - Delivery
  - Experience Verification
  - Basis of Awards
Pre-Bid Meeting

- More than 50 questions from firms (Cont)
  - Insurance Requirements
  - Pricing Structure
    - Processing and flight time included in hourly rate
  - Emergency Management/OSHA
  - Specific project questions
Bid Opening

- 13 bids received
  - Buyer reviews for responsiveness
  - Responsive bids forwarded to DPW for review of responsible
- DPW committee reviewed 6 bids
  - Lowest 3 bids per type of work
Bid Opening

• Committee Findings
  • Firms bid on all types of work
    • Not what we were expecting
  • References listed were primarily for photo and video work
  • Large variation in prices across firms
Drone Contracts awarded

- Contracts awarded to 2 firms
  - Photo/Video and PEG-TV work
  - Other work types not awarded
    - Quality of thermal and LiDar data not addressed in proposals
    - Specific capabilities not addressed in proposals
- Drone Services vs. Projects that could be completed by drone
  - County’s best interest
Policy and Procedure Development

• Concerns
  • Usage of drone contract across DPW-subject matter experts
    • Understanding requirements/limitations of contract
  • Privacy Concerns
  • Capital Projects vs. Drone Services contracts
  • Documentation
  • Public Notification of drone use
  • Emergency usage
  • Changing and Lack of legislation