

**Minutes from Sea Level Rise Meeting with URS**  
**Monday, May 20, 2013 at 10:00 a.m.**  
**Location: South Bethany Town Hall**

George Junkin called the meeting to order at about 10:05. Present were

- Melvin Cusick – Town Manager
- Debbie Pfeil and Andy Wishart – Representing URS
- George Junkin, Dave Wilson, Frank McNeice and Al Rae from the SLR & SS Committee

The first order of business was to approve the modification of the grant proposal to incorporate making elevation measurements for the Town, storm water catch basins. What follows is what was approved.

**Original Proposed SOW**

**Scope of Work:**

In order to establish an accurate elevation base for this model, URS Corporation is prepared to perform a centerline profile survey along the forty-six (46) road corridors in South Bethany, west of Route 1, as well as the associated bulkheads. The field data will be collected in Delaware State Plane Coordinates (NAD '83 & NAVD '88). URS will assure that all safety protocols will be followed and all the proper safety training for the field personal will be completed as a part of this project. The field survey work and office work will be directly overseen by a Professional Land Surveyor. If any plans or reports are required to be signed, this will be done by a Delaware Professional Land Surveyor.

**Project Tasks:**

- 1) Perform a centerline profile survey of forty-six (46) road corridors in South Bethany totaling approximately 7.3 miles. This work will be limited to the area west of the Route 1 corridor. This shall consist of GPS survey methods at every 100 foot station along each road, at a minimum.
- 2) Perform a GPS survey of the existing bulkheads associated with the roads described in Item 1. This will consist of a shot on each corner of the bulkheads, and at every 100-foot interval between corners. The total length of bulkhead is approximately 11.0 miles.
- 3) Download field information and develop a GIS based map.
- 4) Educate the community on Sea Level Rise and the Town's efforts to formally evaluate vulnerability, as well as the potential planning and engineering steps that may be required.

**Suggested Modifications to the Original Proposed SOW:**

Add to Project Task 1) Additionally any low spots in the road will be identified and surveyed.

Add to Project Task 2) At the locations of approximately 100 +/- 10 catch basins, that exist along the South Bethany roads, the catch basin top of grate elevation will be surveyed. A commensurate number of interval shots along the bulkheads will be eliminated from the scope of the overall survey.

### **Original Proposed Time Schedule and Deliverables**

#### **Time Schedule and Deliverables:**

The project scope will consist of the tasks listed above with deliverables and milestone dates as follows:

1. Provide property owners with project summary information and notification of the proposed survey field work schedule.

**Work on Item 1 will begin immediately after the Notice-to-Proceed, and will be required prior to beginning the Field Survey.**

2. Prepare Sea Level Rise flyer specific to the needs of the Town.

**Work on Item 2 will begin immediately after the Notice-to-Proceed, and will be mailed to property owners prior to the “Project Summary” presentation for community leaders and the general public.**

3. Perform a centerline profile survey of forty-six (46) road corridors in South Bethany, totaling approximately 7.3 miles.
4. Perform a GPS survey of the existing bulkheads associated with the roads described in Item 3.

**Items 3 and 4 will be completed within 6 months of the Notice-to-Proceed.**

5. Deliver a GIS based map of field survey information.

**Item 5 will be completed within 2 months of the completion of Items 3 and 4, approximately 8 months after the notice to proceed.**

6. Present “Project Summary” information to community leaders and the general public.

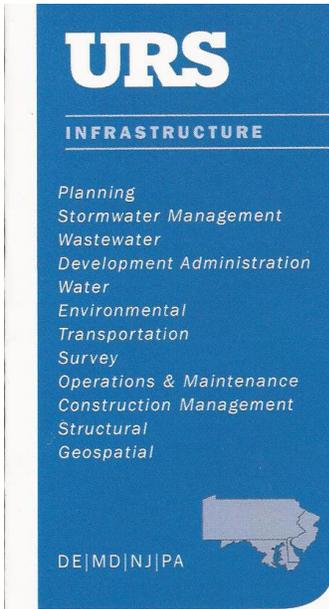
**Item 6 will occur after all other items have been completed.**

It is anticipated that the Survey Project will be completed within nine months from the date of notice to proceed.

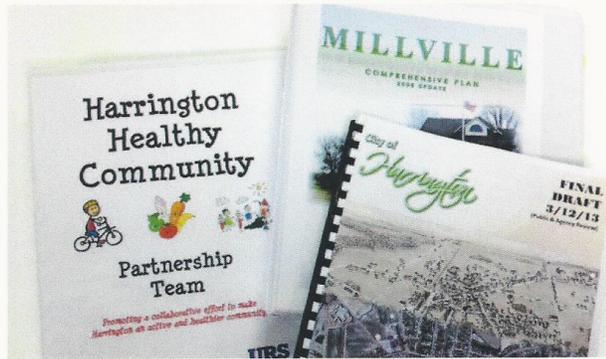
### **Suggested Modifications to the Original Proposed Time Schedule and Deliverables**

Change to 4. Perform a GPS survey of the existing bulkheads (approximately 11 miles) and existing catch basins (100 +/- 10) associated with the roads described in item 3.

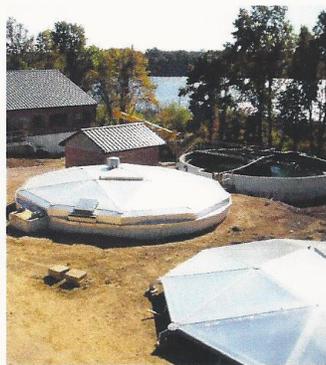
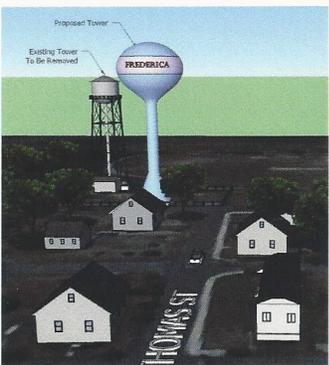
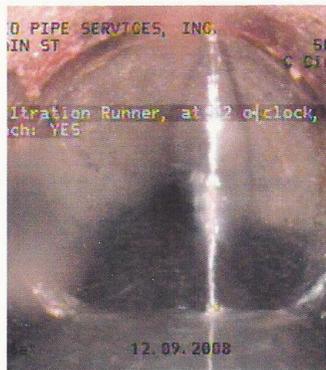
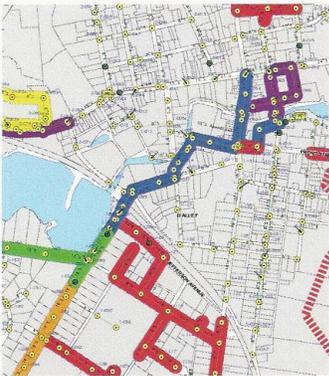
Next on the agenda was a presentation from URS relative to the Professional services that URS could provide to the Town of South Bethany. This was presented by Debbie who has a background in planning and Andy who has a background in Civil Engineering. Below is a copy of a brochure summarizing their capabilities.



## Government Services



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## PLANNING

- Comprehensive Plans
- Design Standards
- Capital Improvement Plans
- Community Involvement
- Healthy Community Assessments & Action Plans
- Downtown, Revitalization & Master Planning
- Parks, Recreation & Open Space Planning
- Bicycle & Pedestrian Inventory & Planning
- Zoning Code Reviews & Updates
- Ordinance Preparation
- Site Plan, Subdivision & Annexation Reviews

## STORMWATER MANAGEMENT

- Planning & Design
- Permitting
- Retrofits
- Watershed Analysis
- Stream Restoration

## WASTEWATER

- Commercial Food Establishment (CFE) Inspections
- Pilot Studies & Cost /Benefit Analysis
- Pump Station & Conveyance Design
- Sewer System Evaluation Studies (SSES)
- Treatment Design
- Inflow & Infiltration (I&I) Studies

## DEVELOPMENT ADMINISTRATION

- Annexation, Subdivision & Public Works Agreements
- Building Permit Review
- Developer Coordination
- Fee Analysis
- Inter-agency Coordination
- Code Enforcement Services
- Rental housing Inspections

## WATER

- Hydraulic Modeling
- System Modeling & Design
- Treatment Design

## ENVIRONMENTAL

- Environmental Assessments
- Erosion Control
- Hazardous Waste Remediation Studies & Design

## TRANSPORTATION

- Roadway Design & Rehabilitation
- Roadway Lighting
- Traffic Control & Engineering
- Streetscape Design

## SURVEY

- Property, Title & Right-of-Way Surveys
- Topographic Surveys
- Utility & Drainage
- As-Built Surveys
- Foundation As-Built Certifications
- Forensic Surveying
- FEMA & Floodplain Elevation/Certificates

## OPERATIONS & MAINTENANCE

- Asset Management & Assessment
- Plant Operations
- Technical Reports

## CONSTRUCTION REVIEW & MANAGEMENT

- Construction Inspection
- Construction Oversight & Administration
- Emergency Construction Design
- Client Representation

## STRUCTURAL

- Commercial & Residential Inspections
- Structural Design Review
- Structural engineering Analysis
- Retaining Wall Design
- Bulkhead & Seawall Design & Analysis

## GEOSPATIAL | MAPPING

- Geographic Information Systems (GIS)
- GIS User Needs Assessment
- Spatial Data Analysis & Management
- Asset & Facility Management
- Web-based GIS Integration
- 3D Rendering & Modeling

## OTHER SERVICES

- Grant Writing & Administration
- Project Bidding
- Agency Coordination & Permitting
- Build Out & Capacity Analysis
- Design | Review of Best Management Practices (BMP)
- Public Meeting | Workshop Facilitation
- Decommissioning, Dismantling & Demolition

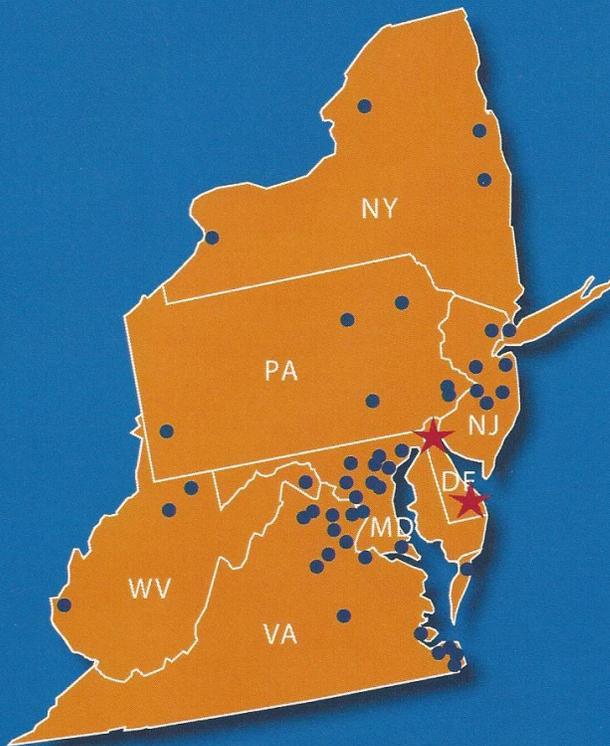


# Government Services

## INFRASTRUCTURE

"Close to the client" is more than a slogan at URS. With offices throughout the region, we can maintain day-to-day client contact on a cost-effective basis. We offer the ideal combination of a local firm with 35 years of experience in the region backed by the resources that can only be provided by one of the largest consulting firms in the United States. With a regional staff of over 2,000 employees and approximately 56,000 worldwide, we possess a depth of expertise matched by few firms. By networking internally among other technological specialists, we are able to quickly mobilize our most experienced professionals to meet any special needs.

The local offices of URS focus on one area; providing civil engineering and municipal planning services to public sector clients. A large portion of our revenue each year is derived from government work. This inclination allows us to better represent our public sector clients since we have so few in the private sector and assures that conflict of interest issues are highly unlikely. In addition, many members of our management team were employed by government agencies prior to joining URS. This experience enables URS to fully understand the issues that public sector employees face daily.



### For more information contact:

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### Local Offices:

Newark, DE  
Millsboro, DE



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URS Corporation is a leading provider of engineering, construction and technical services for public agencies and private sector companies worldwide. We offer a full range of program management; planning, design and engineering; systems engineering and technical assistance; construction and construction management; operations and maintenance; and decommissioning and closure services for power, infrastructure, industrial and commercial, and federal projects and programs.

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George Junkin then presented some of the water quality and SLR & SS needs that the Town of South Bethany could use some help with. These included;

- The water quality topic of “CIB CCMP Objective 5 Action D. Examine dead-end canals to determine if any could benefit from low-cost solutions to increase flushing.”
- The SLR & SS Brainstorming Topics of
  - Raise roads
  - Raise bulkheads
  - Raise lots
  - Raise houses
  - Build raised walkways
  - Build dykes
  - Build canal flood gates
  - Protect underground power cables and transformers
  - Protect storm sewer system, pumps?
  - Protect sanitary sewer system
  - Protect cable infrastructure
  - Protect wetlands
  - Survey homeowners
  - Evaluate elevation data
  - Review/update building code
  - Review/update Town Comprehensive Plan
  - Understand FEMA maps, insurance, rules
  - Understand participation in Community Rating System (CRS)

URS was also presented with the Mission statement and plan for the SLR & SS Committee as follows:

#### **Mission Statement**

Given the increasing information about future concerns that coastal communities like South Bethany may face from Sea Level Rise and Storm Surge, as demonstrated by Hurricane Sandy in October 2013, the SLR & SS Adaptation Committee will:

- Conduct a SLR & SS Vulnerability Assessment that will identify homes, infrastructure and community spaces that may be at risk for SRL & SS.
- Gather relevant data and expertise to understand the possible hazards and costs associated with SLR & SS;
- Identify potential adaptation options;
- Evaluate adaptation options;
- Recommend adaptation options;
- Develop a proactive reasonable response based on information and research;

with the overall goal being the future protection of both the property owners’ and the Town’s assets.

#### **Plan**

- Survey homeowners to determine the cost of damages sustained during Hurricane Sandy.

- Use elevation data for roads, catch basins and bulkheads, national and state SLR studies to assess risks due to SLR & SS.
- Review building and zoning code looking for opportunities to adapt to SLR & SS.
- Identify potential adaptation options.
- Evaluate potential adaptation options (Cost Benefit Analyses).
- Develop outreach and educational material particularly focused on cultural acceptance for changes related to home building and retrofits required to adapt to SLR & SS concerns.
- Survey homeowners to obtain opinions relative to adaptation options.
- Select adaptation options for submission to Town Council.
- Develop information for the Planning Commission so that the PC and Town Council may incorporate planning issues related to SLR & SS concerns into the Town's comprehensive plan.
- Develop information for the Charter & Code Committee so that the CCC and Town Council may incorporate changes related to SLR & SS issues into the building and zoning codes.
- Develop information to improve the Town's level of participation in the Community Rating System (CRS).

The final items on the agenda were;

- Discuss where the Town's needs match up to the professional services that URS could provide and
- Discuss potential funding options

Both the Town and URS will look further into the above two topics based on the inputs exchanged by both parties during the meeting.

The meeting was adjourned at about 11:30.