City Council Special Worksession
Meeting Minutes – Council Chambers – 2nd Floor

May 8, 2024

I. CALL TO ORDER 6:00 PM

Philip Cromer, Mayor


Absent - Michael McFee.

II. PRESENTATION

A. Presentation from Davis and Floyd regarding the King Street Project.

JJ Sauve, Assistant City Manager, stated that this is an update on where we are to date. This project is based on the study that was completed in 2022 on the entire Downtown/The Point area stormwater system. There have been many discussions to determine what is needed to correct certain issues. Community engagement has also been ongoing.

Mike Horton, Engineer with Davis and Floyd, then went over his presentation. He presented maps of the area that showed priority maintenance locations and listed the goals of the project. He listed the top 5 priority project areas. King Street was at the top. He spoke about stormwater collection and conveyance, pump station and outfall, power and control facilities, overall design development, and downstream impacts.

Council gave their feedback and asked questions of Mr. Horton.

The following addressed Council:

Heather Winch, 309 Federal Street.
Rob Cahill, 608 Waters Street.
Dave Russell, 411 Craven Street.
Tommy Brooks, 411 Port Republic Street.
Dustin Spurlock, 710 Mystic Drive.
Nancy Russell, 411 Craven Street.
Howell Beach, 311 Federal Street.

A copy of the presentation is attached to these minutes.

III. ADJOURN 8:02 PM

Disclaimer: This document is a summary. All City Council Worksessions and Regular Meetings are recorded. Live stream can be found on the City’s website at www.cityofbeaufort.org (Agenda section). Any questions, please contact the City Clerk, Traci Guldner at 843-525-7024 or by email at tgdlder@cityofbeaufort.org.
In accordance with the South Carolina Code of Laws, 1976, Section 30-4-80 (a)(d)(e), as amended, notification of regular meetings was given at the beginning of the calendar year. A copy of the agenda was posted on the City's bulletin board and website www.cityofbeaufort.org twenty-four hours prior to the meeting. A copy of the agenda was given to the local news media and requested public on file.
DISCUSSION + QA

OPPORTUNITIES FORWARD

SCHEDULE STATUS

RESPONSES TO QUESTIONS & CONCERNS

DESIGN DEVELOPMENT

PUBLIC ENGAGEMENT

KING STREET DRAINAGE IMPROVEMENTS

SCIRP GRANT

POINT DRAINAGE OVERVIEW

CONTENT
Map showing the study area and ground surface elevation.

Background:

- Aging Infrastructure
- Topographic Depressions
- Historic Area
- 200 Acres

Point Drainage Overview
Influence
- Beaufort River Tidal
- Storm Surges
- High Tides
- Heavy Rains
- Flooding from

Challenges:

POINT DRAINAGE OVERVIEW
<table>
<thead>
<tr>
<th>Recurrence Interval (Inches)</th>
<th>Current</th>
<th>Future (50-year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>3.62</td>
<td>2.90</td>
</tr>
<tr>
<td>Intermediate High</td>
<td>2.18</td>
<td>2.18</td>
</tr>
<tr>
<td>Intermediate</td>
<td>1.72</td>
<td>1.72</td>
</tr>
<tr>
<td>Low</td>
<td>1.39</td>
<td>1.39</td>
</tr>
</tbody>
</table>

\textbf{Challenge: Vulnerable to Climate} (cont.)

\textbf{Funding} •

\textbf{Limited Right-of-Way} •

\textbf{Existing Utilities} •

\textbf{Point Drainage Overview}
Project Goals:

- Reduce Economic Impacts
- Improve Water Quality
- Reduce Damages
- Improve Safety

Point Drainage Overview
Five Priority Projects:

Point Drainage Overview

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<table>
<thead>
<tr>
<th>Rank</th>
<th>Project Grouping</th>
<th>Included Projects</th>
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<tbody>
<tr>
<td>1</td>
<td></td>
<td>King St. / 13, 14, 17, 18</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Charles St. / Craven SL</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Port Republic St. /</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Bayard St. / 26</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Washington St. / 27, 28</td>
</tr>
</tbody>
</table>
PROJECT - King Street
City of Bentonville, AR
Point/Drainage Overview Study

DAVIS & FLOYD
Jul. 2022 - Point/Downtown Drainage Study Public Briefing

Feb. 2022 - Point/Downtown Drainage Study Update

Dec. 2021 - On-Line Survey and Web Mapping

Nov. 2021 - Point Association Briefing

Public Engagement:

POINT DRAINAGE OVERVIEW
<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
<th>Funding Project</th>
<th>Priority</th>
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<tbody>
<tr>
<td>$800,000</td>
<td>EPAC/STAG</td>
<td>Bayard Street</td>
<td>5</td>
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<tr>
<td>$77,527.35</td>
<td>SCOR/ASIP</td>
<td>Port Republic / Carteret Street</td>
<td>4</td>
</tr>
<tr>
<td>$460,299</td>
<td>RIA/SCIPP</td>
<td>Charles Street / Craven Street</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>King Street</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**Grant Sources:**

**Grant Awards**
May 31, 2023 - RIA workshop on project execution
May 10, 2023 - Grant accepted
April 24, 2023 - Grant Award
01 2023 - Notice of Award received
03 2022 - Application submitted

Award:
SCIPP Grant
$1,669,464 Local Funds (15%)

$9,460,299 SCIPP Grant Award Amount

-available funds

Improvements to be scoped and designed to meet the

Funding: SCIPP Grant
June 2026 – Construction Complete

October 2024 – Award Construction Contract

July 2024 – Bidding

April 2024 – Permit Applications

August 2023 – Procurement of Engineer

Schedule:

SCIPP Grant
KING STREET DRAINAGE IMPROVEMENTS

SOUTHERN PORTION

CONTENTS
POWER & CONTROLS FACILITIES
PUMP STATION & OUTFALL
STORMWATER COLLECTION & CONVEYANCE
KING STREET DRAINAGE IMPROVEMENTS
<table>
<thead>
<tr>
<th>Minimum Elevation NAVD88</th>
<th>1.5</th>
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<tr>
<td>Median Elevation</td>
<td>7.8</td>
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<tr>
<td>Maximum Elevation</td>
<td>18.1</td>
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<table>
<thead>
<tr>
<th>Ground Elevation</th>
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<td>26</td>
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Basin Information:

STORMWATER COLLECTION & CONVEYANCE
Existing Land Use:

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (ac)</th>
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<tr>
<td>Total</td>
<td>40.96</td>
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<tr>
<td>Water</td>
<td>0.8</td>
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<tr>
<td>Imperious</td>
<td>53.7</td>
</tr>
<tr>
<td>Perious</td>
<td>18.62</td>
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<tr>
<td>Basin Information:</td>
<td></td>
</tr>
<tr>
<td>Stormwater Collection &amp; Conveyance</td>
<td></td>
</tr>
</tbody>
</table>
Existing System

Basin Information:

Stormwater Collection & Conveyance
<30 structures
25.6% of watershed
10.48 acres
Lower than Federal Street
40.96 acres
Watershed

Basin Information:

STORMWATER COLLECTION & CONVEYANCE
Inlets
Storm Sewer Piping
Components

Design capacity ~ 110 cfs (10-year)
Existing capacity ~ 35 cfs

derized by SC DOT Standards
Restore & Improve Functionality

Purpose:

STORMWATER COLLECTION & CONVEYANCE
10% chance of occurring in a year
10-year 24-hour SCS Type III storm

Basis of Design:

STORMWATER COLLECTION & CONVEYANCE
Limits of Work:

STORMWATER COLLECTION & CONVEYANCE

Legend:

- Proposed Storm Sewer
- Proposed Inlets
- Knot Park
- Parcels

Directions:

- N
- S
- E
- W

Plan by

DAVIES & FLOYD

(Pratt Creek Drainage Improvement District)
PUMP STATION & OUTFALL

KING STREET DRAINAGE IMPROVEMENTS
Pump Station & Outlet

- Rainfall
- Stages
- Tidal Pond & Creek

Monitoring:

1/4/2022 - current
Pump Station & Outlet

Purpose & Need:

Key Elevations
- Federal Street Start of 6.6 ft (NAVD88)
- King Street Start of 4.9 ft (NAVD88)
- Hooding of King Street
- Reduce Frequency

1.97" Rain
March 9, 2023

2.78" Rain
December 27, 2022

1.29" Rain

NO Rain

September 5, 2022

July 13, 2022

Rainfall [inches, millimeters]
Elevation [feet, NAVD 88]
<table>
<thead>
<tr>
<th>Time (hr.)</th>
<th>Min.</th>
<th>Max.</th>
<th>Tls.</th>
<th>Date</th>
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<tr>
<td>1:55</td>
<td>6.2</td>
<td>5.19</td>
<td>1.97</td>
<td>3/9/2024</td>
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<tr>
<td>3:35</td>
<td>8.98</td>
<td>6.10</td>
<td>2.78</td>
<td>12/17/2023</td>
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<tr>
<td>1:51</td>
<td>6.20</td>
<td>5.95</td>
<td>1.29</td>
<td>9/6/2022</td>
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<tr>
<td>1:25</td>
<td>5.03</td>
<td>5.09</td>
<td>NONE</td>
<td>7/11/2022</td>
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<table>
<thead>
<tr>
<th>Parameter</th>
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<tbody>
<tr>
<td>Duration Exceeding 4.5 Feet (NAVD88)</td>
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<tr>
<td>Stage [in] Feet, NAVD88</td>
</tr>
<tr>
<td>Maximum Pond Elevation [ft]</td>
</tr>
<tr>
<td>Peak Tide Elevation [ft]</td>
</tr>
<tr>
<td>Rainfall Attaching</td>
</tr>
</tbody>
</table>

Purpose & Need:
PUMP STATION & OUTLET
37

Pump Station & Outlet

Existing Conditions:

- 1:45 hours:
  - King Street for
  - Flooding along
    the
    - 1.29 inches of
    - 2.93-total

Rainfall [5-minute, inches]

Elevation [feet, NAVD 88]

Date

September 9, 2022
Exisiting Conditions: September 9, 2022 Event

PUMP STATION & OUTLET
Proosed Conditions:

- No flooding
- 0 engagements of 1 pump
- Tide rain over rising inches of rain
- Total inches of rain 9.32

PUMP STATION & OUTFALL
Street along King tide.

Some increases in flooding.

- tide rain over rising
  - 1.29 inches of rain
  - 2.93 total

Ex. Piping only: Condition: Alternative Pump Station & Outfall
Location: Pump Station & Outfall
Location:

PUMP STATION & OUTFALL
Preliminary Design to Conceptual

Pump Station & Outlet
Structure:

1. Wet Well / Pond
2. Dry Well
3. Head Box
4. Outlet Cylinders
5. Energy Dissipation
6. Outlet Apron / Creek

PUMP STATION & OUTFALL
POWER & CONTROLS FACILITIES

PUMP STATION & OUTLET

STORMWATER COLLECTION & CONTROL

KING STREET DRAINAGE IMPROVEMENTS
Conceptual Design:

POWER & CONTROLS FACILITIES
Power & Controls Facilities

DFE = 13.00 NAVD-88
Natural Gas-Fueled
400 kW
Standby Generator

Facilities (continued)
May 8, 2024 – Public Engagement Meeting (Pump Station & Outfall Ind.)

May 8, 2024 – HRB

April 26, 2024 – Point Projects Public Meeting (Collection & Conveyance Only)

April 10, 2024 – HRB
tabled

March 13, 2024 – HTCC

March 13, 2024 – On-Site W/ Point District Owners (esp. downstream owners)

Feb 26, 2024 – On-Site W/ Point District Owners

Opportunities:

PUBLIC ENGAGEMENT
Public Notices for Permitting:

Issues - April 8th (+15 days)
SCDHCEC / OCRM - April 8th (+15 days)

Public Notices for Permitting:

Ongoing (to date) - Questions Received by City (Responses Through City's FAPS)

SCDHCEC / OCRM - April 5, 2024 - Point Association Organized Survey / Responses

March 10, 2024 - Community Concerns / Questions Through City

Concerns / Questions:

PUBLIC ENGAGEMENT
DESIGN DEVELOPMENT

PUBLIC ENGAGEMENT

SCHEDULE STATUS

RESPONSES TO QUESTIONS & CONCERNS

PROJECT DRAINAGE OUTFLOW SITE

CONTENTS
Location of Gravity & Pump Discharge

Design Development
May 02, 2024

February 21, 2024

Modified Outfall to Avoid Property Encroachment

DESIGN DEVELOPMENT
Deter Public Access to Pump Station

DESIGN DEVELOPMENT
Selection of Concept 'C' for Power & Controls Facilities

DESIGN DEVELOPMENT
Addition of Grotto

DESIGN DEVELOPMENT
Passive Dry Floodproofing of Generator / Structure

DESIGN DEVELOPMENT
Passive Dry Floodproofing of Generator Structure

DESIGN DEVELOPMENT
RESPONSES TO QUESTIONS & CONCERNS
1. System Modeling & Design
2. Downstream Impacts
3. Operations
4. Environmental Impacts
5. Alternatives
6. Miscellaneous

RESPONSES TO QUESTIONS & CONCERNS
Inlets
Pipe Network
Pump Operation & Flow
Boundary Conditions
Hydraulics
Pond Storage
Runoff
Rainfall
Hydrology
Design Criteria (performance requirements)
Standard Engineering Practices (over-designed)
Reference FAQ responses to date
SYSTEM MODELING & DESIGN
**Note:** All reported increases in wetted area are below dry weather King Tide stages.

<table>
<thead>
<tr>
<th>New Wet Area</th>
<th>Total New Wet Area:</th>
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<tbody>
<tr>
<td>20 SF</td>
<td>Beach Nancy R</td>
</tr>
<tr>
<td>2 SF</td>
<td>King Lyn M</td>
</tr>
<tr>
<td>18 SF</td>
<td>Property Address</td>
</tr>
<tr>
<td>Owner</td>
<td></td>
</tr>
</tbody>
</table>

Impacts East of Tidal Basin based on GIS Parcels (2 Pumps on Design Tide, 3'91' NAVD88)

<table>
<thead>
<tr>
<th>New Wet Area</th>
<th>Total New Wet Area:</th>
</tr>
</thead>
<tbody>
<tr>
<td>69 SF</td>
<td>Esther Shaver Hammet Family Trust</td>
</tr>
<tr>
<td>2 SF</td>
<td>401 Port Republic Street</td>
</tr>
<tr>
<td>1 SF</td>
<td>305 East Street</td>
</tr>
<tr>
<td>18 SF</td>
<td>Russell David M and Nancy A</td>
</tr>
<tr>
<td>4 SF</td>
<td>Mocerly Suzanne C Trustee</td>
</tr>
<tr>
<td>44 SF</td>
<td>Russell David M and Nancy A</td>
</tr>
<tr>
<td>Owner</td>
<td>Property Address</td>
</tr>
</tbody>
</table>

Impacts West of Tidal Basin based on GIS Parcels (2 Pumps on Design Tide, 3'91' NAVD88)

**Stage:**

**Downstream Impacts**
### Tidal Creek Cross Section at 316 Federal Street

**Stage:** 316 Federal

**Downstream Impacts**
Proposed Conditions

Existing Conditions

Velocity: Peak Discharge @ Critical Boundary Condition (Low Tide)

Downstream Impacts
During exercise cycle (scheduled during daylight hours)

- During power outage and need for pumping
  - During extended power outage
  - Generator = $77\, \text{dB(A)}$ at 23 ft. (comparable to a lawn mower)
  - Pumps = quieter than water moving

- Noise
- Gravity vs. Pump Operation
- Reference FAQ responses to date

OPERATIONS
Environmental Impacts

- Habitat
- Water Quality
- Water Quantity (volume)
- Reference FAQ Responses to date
Collection & Conveyance (Piping) + Outfall (deferring pump station and associated facilities)

Collection & Conveyance (Piping) Only

Partial Project Improvements (without Pump Station)

Pipe Outfall to River

Dredging Tidal Pond

Cleaning Out Existing System

No Action

Reference FAQ Responses to date

ALTERNATIVES
Existing Conditions (High Tide)
Existing Conditions (Low Tide vs. High Tide)

ALTERNATIVES
Proposed Conditions vs. Existing Conditions (High Tide)

ALTERNATIVES
Alternatives
Collection & Conveyance Only (High Tide) & Existing Conditions (High Tide) VS. ALTERNATIVES
Collection & Conveyance + Outfall (Low Tide) vs. Existing Conditions (High Tide) ALTERNATIVES
Collection & Conveyance + Overtall (High Tide) VS. Existing Conditions (High Tide)

ALTERNATIVES
Charleston
Mount Pleasant
Georgetown

Similar Projects (done elsewhere?)

Combined with Future Improvements (ex. seawall)

Trees

Reference FAQ Responses to date

MISCELLANEOUS
Reference SCIPP Grant Agreement / Requirements

Final Design = In Progress

OCRW + USACE Permitting = Applied for Agency Review

City Permitting (HTRC / HRB) = In Progress

Preliminary Design for Wetland Permitting = Completed

Conceptual Design / Basis of Design Report = Completed

Data Collection = Completed

**SCHEDULE STATUS**
OpporTunitiES FORwArD
DISCUSSION + QA

1. Point Drainage Overview
2. SCIP Grant
3. King Street Drainage Improvements
4. Public Engagement
5. Design Development
6. Responses to Questions & Concerns
7. Schedule Status
8. Opportunities Forward