



**Preliminary Engineering Master Plan
For**

Tiber Creek Stormwater Management Improvements

This Preliminary Master Plan is to Assist the City in:

- 1. Maintaining its Stormwater Management Utility Infrastructure.*
- 2. Enhancing Its Ability to Develop or Redevelop its Downtown Waterfront Assets*
- 3. Implementing Its NPDES PH 2 Permit Requirements*

This Plan has been developed by :

- 1. Reviewing Existing Documents Relating to Stormwater Management Facilities in the Tiber Creek Basin.*



**DOWN
TOWN
E. CITY**

**MAP
DATED
1894**

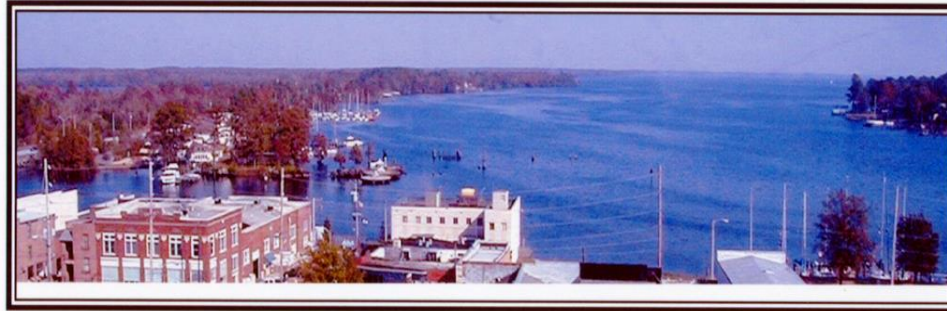
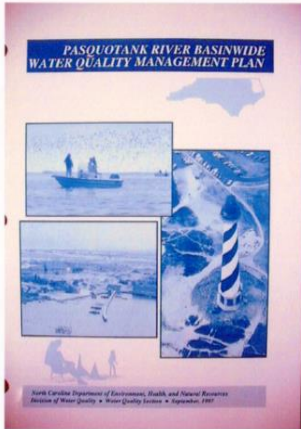
ELIZABETH CITY STORMWATER MANAGEMENT PLAN



TIBER
CREEK
WATER ST



MCDOWELL & ASSOCIATES, PA
ELIZABETH CITY, N.C.
SEPTEMBER 28, 2000
REVISED NOVEMBER 20, 2001



TIBER
CREEK-
CITY
PARKING
LOT



• **This Plan has been developed
by :**

*2. Performing Extensive Field Surveys to
Inventory, Locate and Assess Existing
Stormwater Management Facilities
Conditions.*



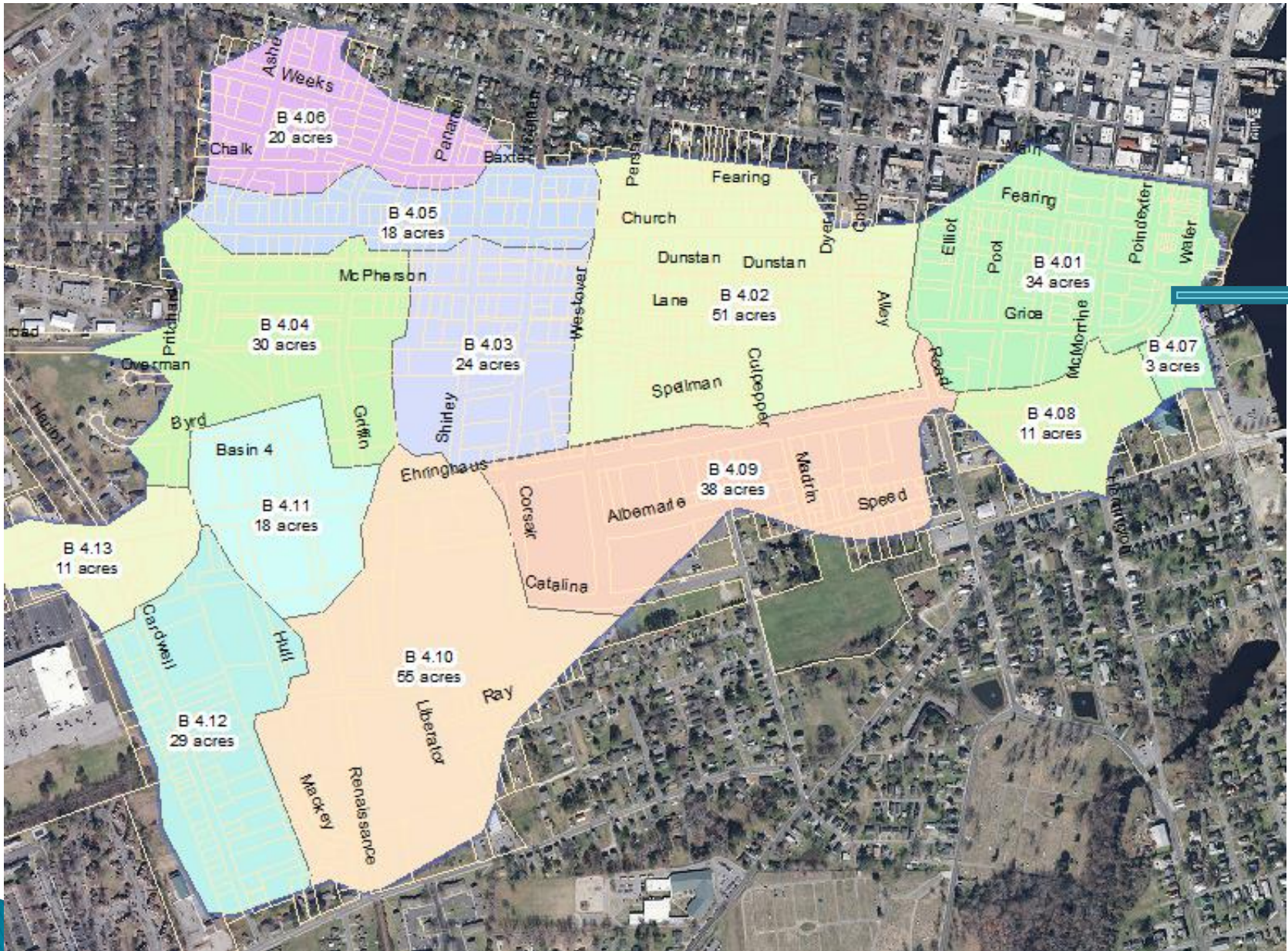
STORMWATER FACILITIES INVENTORY FOR GIS

STORMWATER FACILITIES INVENTORY FOR GIS



• **This Plan has been developed
by :**

*3. Assisting the Integration of this
Information into the City's GIS Database.*

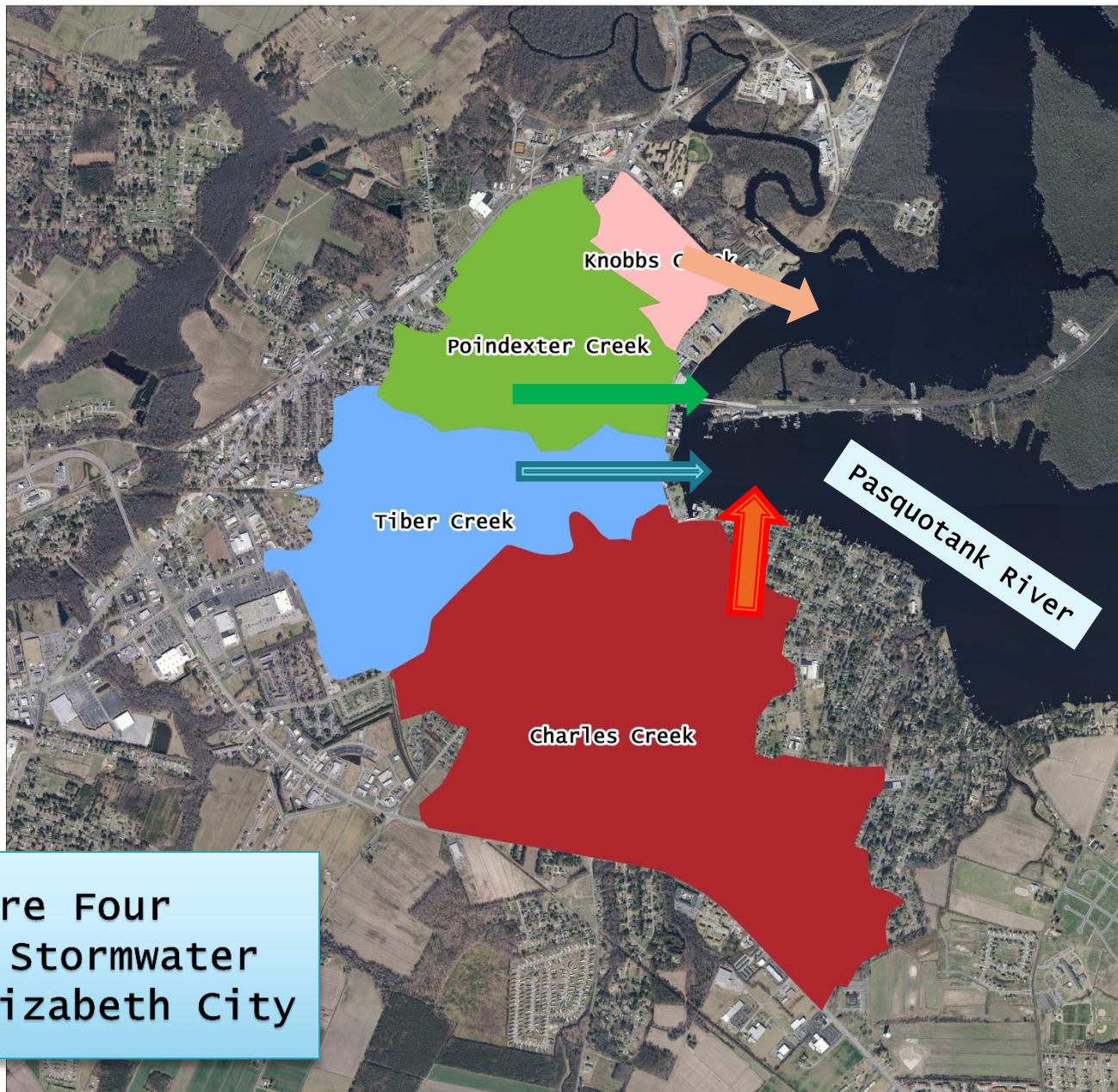


TIBER CREEK STORMWATER
 MANAGEMENT IMPROVEMENTS
 9/23/13

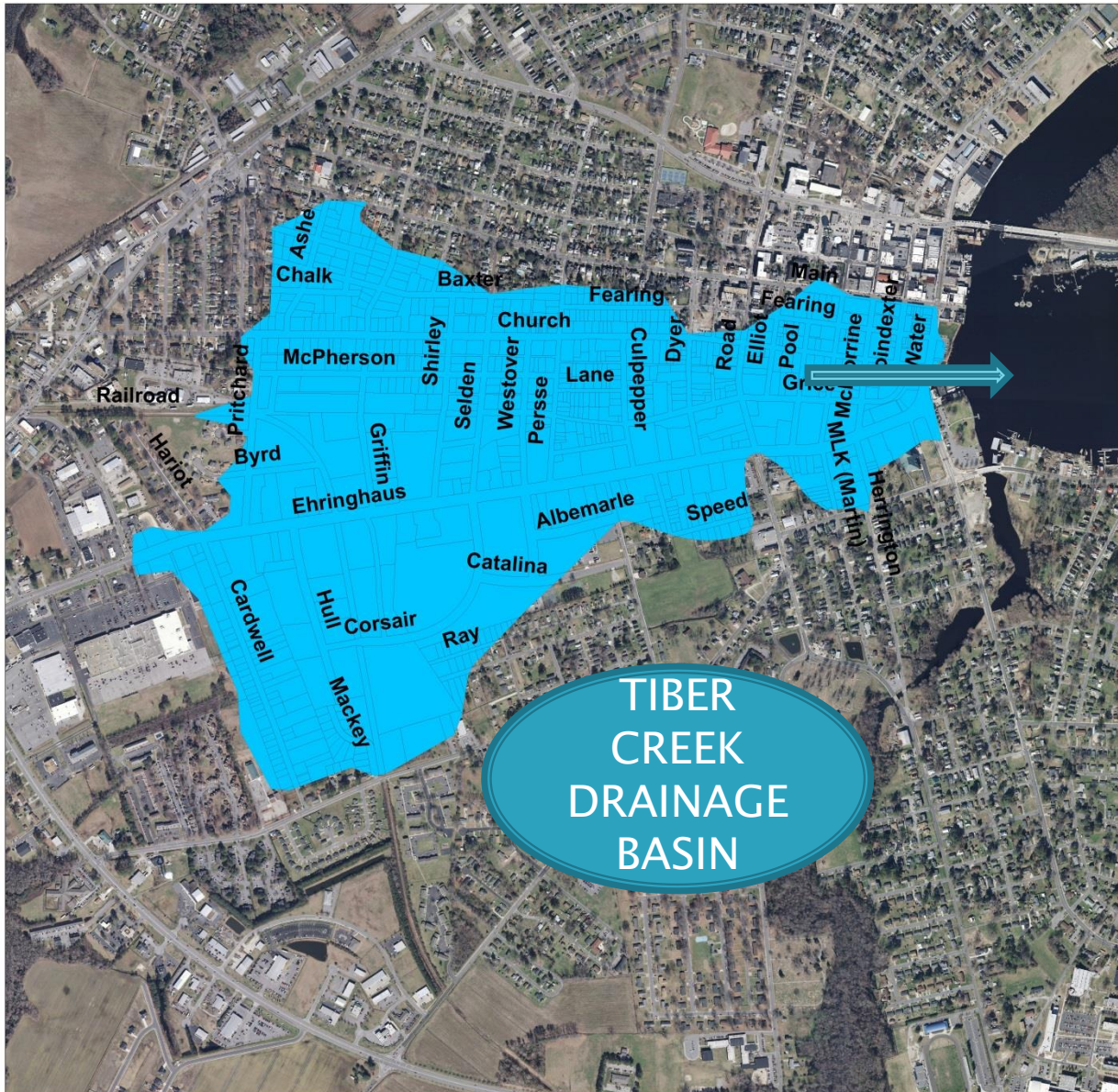
***THIS RESEARCH HAS
GENERATED THE FOLLOWING
INFORMATION***

The City Has Four Major Drainage Basins Flowing into the Pasquotank River which Are Designated in its NPDES PH 2 Permit Responsibilities:

- 1. Knobbs Creek*
- 2. Poindexter Creek*
- 3. Tiber Creek*
- 4. Charles Creek*



There are Four
NPDES PH.2 Stormwater
Basins in Elizabeth City



INFORMATION CONCERNING MAINTENANCE ISSUES FOUND IN THE STORMWATER MANAGEMENT UTILITIES

STORMWATER PIPES AND BASINS NEED CLEANING AND REPAIRS



STORMWATER PIPES AND BASINS NEED CLEANING AND REPAIRS



Along Grice St.
1500'+ OF 112" X 75" ARCH CMP
FROM ROAD ST TO PUMP STATION
2-3FT SEDIMENT; 40% FULL



TIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
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**AT PUMP ST LOOKING INTO
WET WELL AND UPSTREAM
INTO SEDIMENT LOADED
112" X 75" ARCH CMP**



FIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
9/23/13

**Along Grice St.
1500'+ OF 112" X 75" ARCH CMP
FROM ROAD ST TO PUMP STATION
2-3FT SEDIMENT; 40% FULL**



**Along Grice St.
1500'+ OF 112" X 75" ARCH CMP
FROM ROAD ST TO PUMP STATION
2-3FT SEDIMENT; 40% FULL**

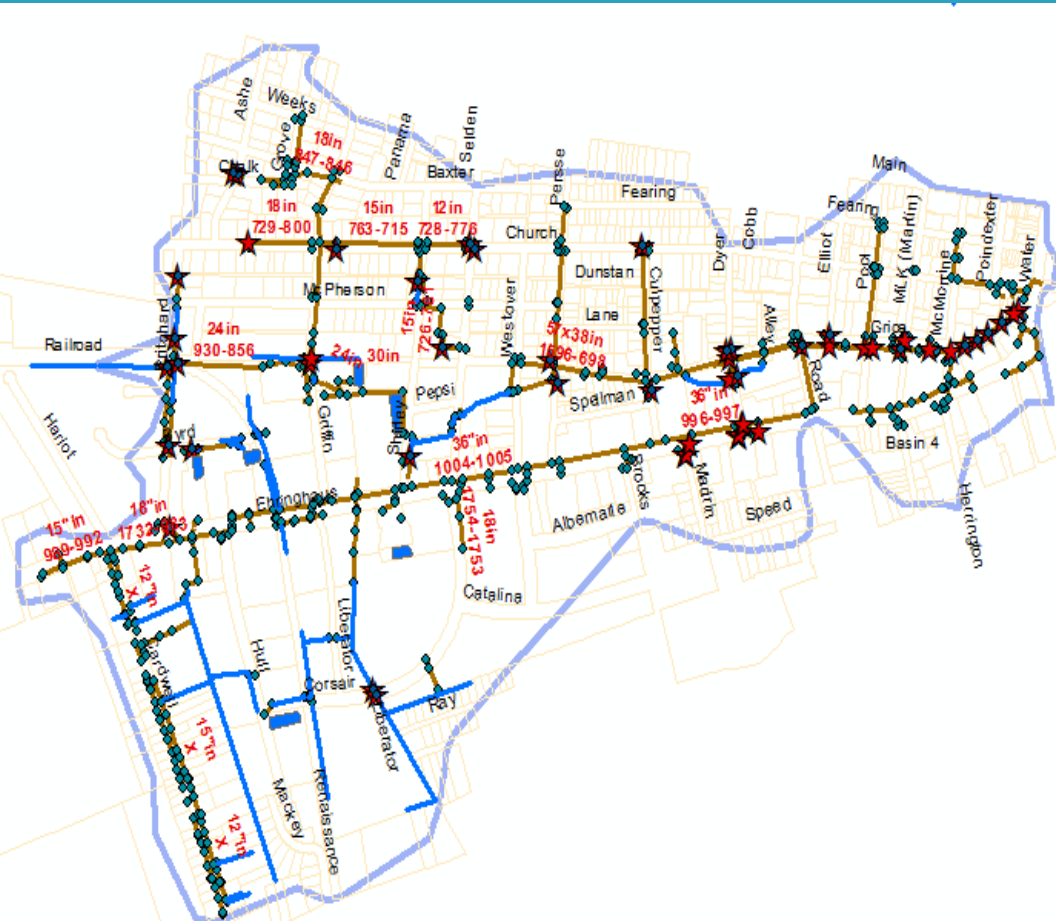


Along Grice St.
1500'+ OF 112" (9.3') X 75" (6.3') ARCH CMP
FROM ROAD ST TO PUMP STATION
2-3FT SEDIMENT; 40% FULL



There are approximately 539 structures in the system with approximately 55 having problems as sediment, deterioration, and conflicts. Of the 55 at least 32 have serious sediment problems.

See the GIS map in the next slide



PROB_STRUCT

| Notes | Struct_ID | FID | Shape * | OBJECTID | Struct |
|----------------------------------|-----------|-----|---------|----------|-----------|
| EMERG PUMP SUCT | 5000 | 0 | Point | 1860 | MH |
| BY EMERGENCY PUMP TRAILOR | 4999 | 1 | Point | 1974 | Drop Inl |
| 50% Obstructed | 1760 | 2 | Point | 672 | Outfall |
| 50% Obstructed | 1759 | 3 | Point | 673 | Inlet Pip |
| 100% Obstructed | 1587 | 4 | Point | 189 | Drop Inl |
| 100% Obstructed | 1580 | 5 | Point | 764 | Drop Inl |
| Blind Box - Grade Interpolated | 1533 | 6 | Point | 192 | Junctor |
| * Blind Box - Grade Interpolated | 1529 | 7 | Point | 194 | Junctor |
| 1.6' of sediment | 1527 | 8 | Point | 736 | Manhole |
| Pipe collapsed | 1524 | 9 | Point | 796 | Inlet Pip |
| 3' of sediment | 1513 | 10 | Point | 808 | Manhole |
| Conflict | 1512 | 11 | Point | 809 | Manhole |
| 2.3' of sediment | 1504 | 12 | Point | 826 | Drop Inl |
| 2.5' of sediment | 1503 | 13 | Point | 827 | Drop Inl |
| 1.8' of sediment | 1502 | 14 | Point | 828 | Drop Inl |
| 2.8' of sediment | 1501 | 15 | Point | 829 | Drop Inl |
| Blind Box - Held Grade @ 0% | 1489 | 16 | Point | 817 | Junctor |
| Blind Box - Held Grade @ 0% | 1487 | 17 | Point | 813 | Junctor |
| NEW JCT,SED 3.2' | 1482 | 18 | Point | 197 | Junctor |
| 50% obstructed | 1323 | 19 | Point | 1903 | Curb Inl |
| Conflict - SS - Paved Over | 939 | 20 | Point | 523 | Manhole |
| Conflict Water - Paved Over | 938 | 21 | Point | 524 | Manhole |
| Conflict - SS - Paved Over | 937 | 22 | Point | 525 | Manhole |
| Conflict - SS - Paved Over | 936 | 23 | Point | 526 | Manhole |

(0 out of 54 Selected)

DATA INTERGRATED INTO CITY GIS DATA BASE

LACK OF STORMWATER POND MAINTENANCE



TIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
9/23/13

PROPER STORMWATER POND MAINTENANCE



TIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
9/23/13

DITCH MAINTENANCE ISSUES



TIBER CREEK STORMWATER
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DITCH MAINTENANCE ISSUES



TIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
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DUMPSTER AREAS CLEANING ISSUES



08 18 2013

DUMPSTER AREAS CLEANING ISSUES



08 18 2013

DUMPSTER AREAS CLEANING ISSUES



DUMPSTER AREAS CLEANING ISSUES AREA HAS BEEN CLEANED UP



**FOLLOW UP
9/23/13**

YARD CLEANING AND STREET CLEANING ISSUES



POLICY FOR FLEET VEHICLE MAINTENANCE YARD PREVENTIVE MEASURES



MANAGEMENT IMPROVEMENTS
9/23/13

REVIEWING POSSIBLE UPSCALE DEVELOPMENT/REDEVELOPMENT SKETCHES/CONCEPTS IN THE DOWNTOWN AREA

LOOKING ALONG GRICE ST FROM ROAD ST. TO WATER ST.



LOOKING ALONG GRICE ST FROM TWIFORDS TO WATER ST.





TIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
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TIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
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TIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
9/23/13



Elizabeth City
Waterfront

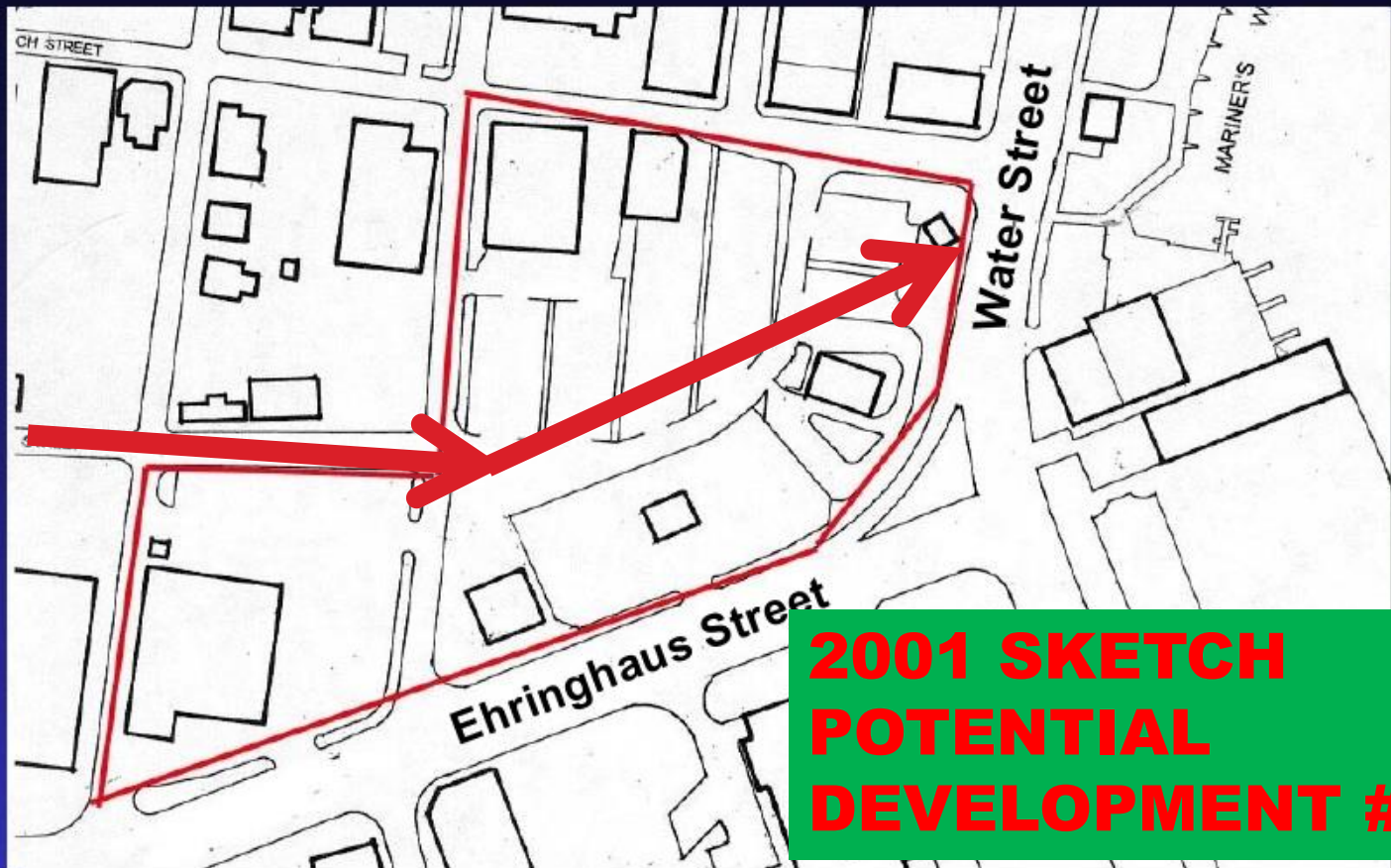
Elizabeth City Waterfront Master Plan

April 24-26, 2001

City of Elizabeth City
Allison Platt & Associates

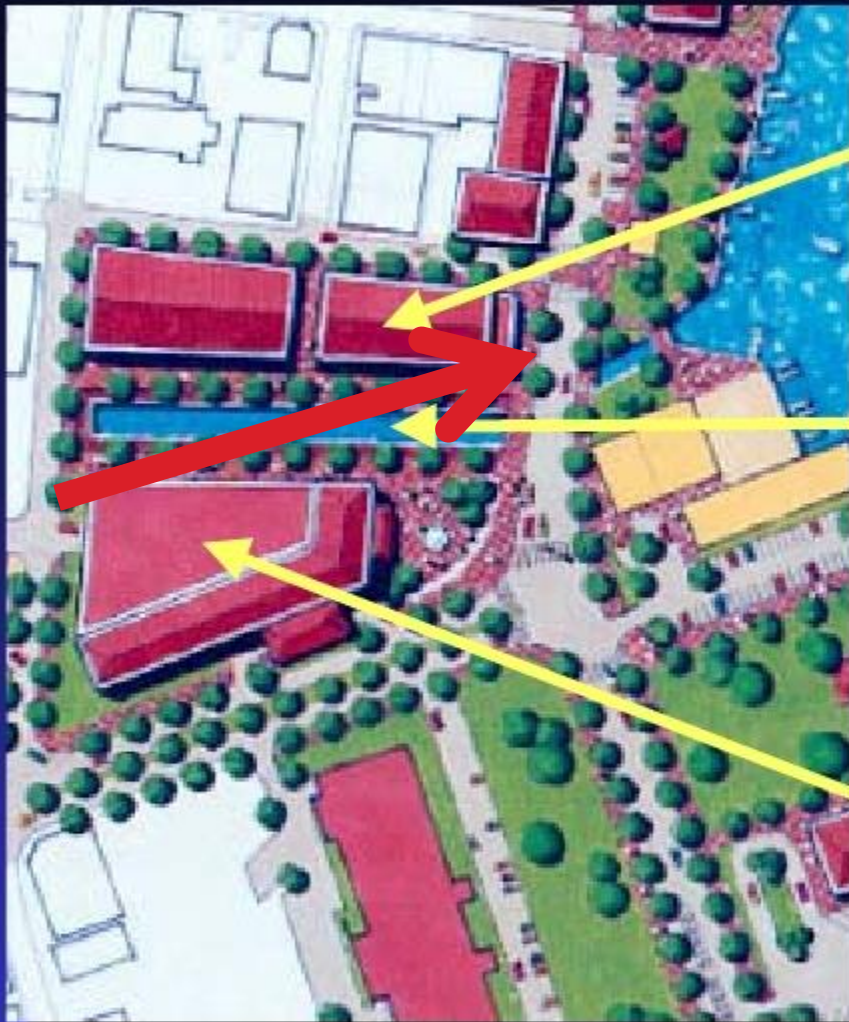
**2001 SKETCH
POTENTIAL
DEVELOPMENT #1**

Existing Conditions



**2001 SKETCH
POTENTIAL
DEVELOPMENT #1**

Canal Park and Development

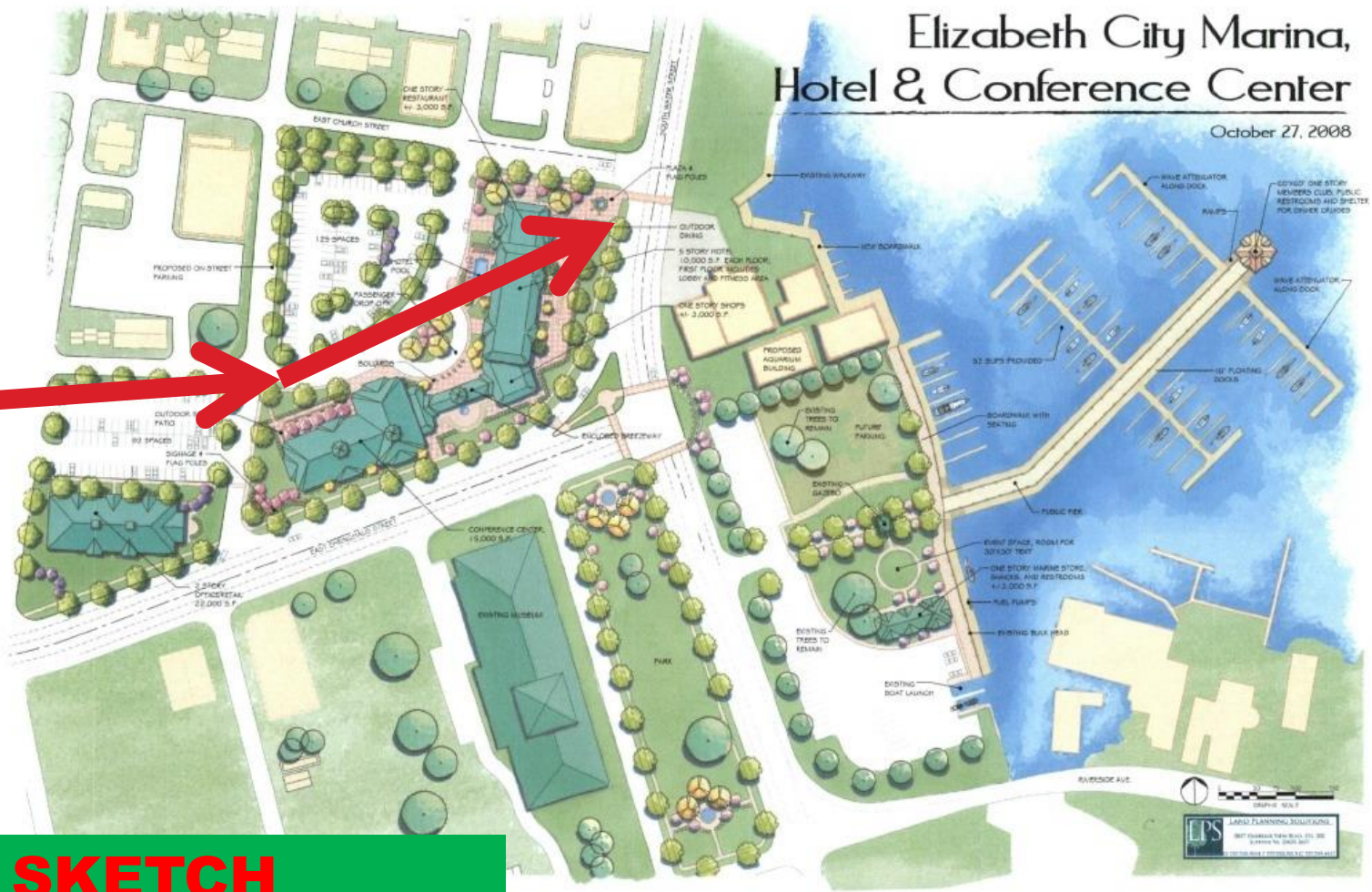


- Retail and office or residential to north (could use for interim parking in early years)
- Create “Canal Park” to correct flooding problem, create open space and setting for development
- Site for new conference center hotel to south
- Parking to west of hotel

**2001 SKETCH
POTENTIAL
DEVELOPMENT #1**

Elizabeth City Marina, Hotel & Conference Center

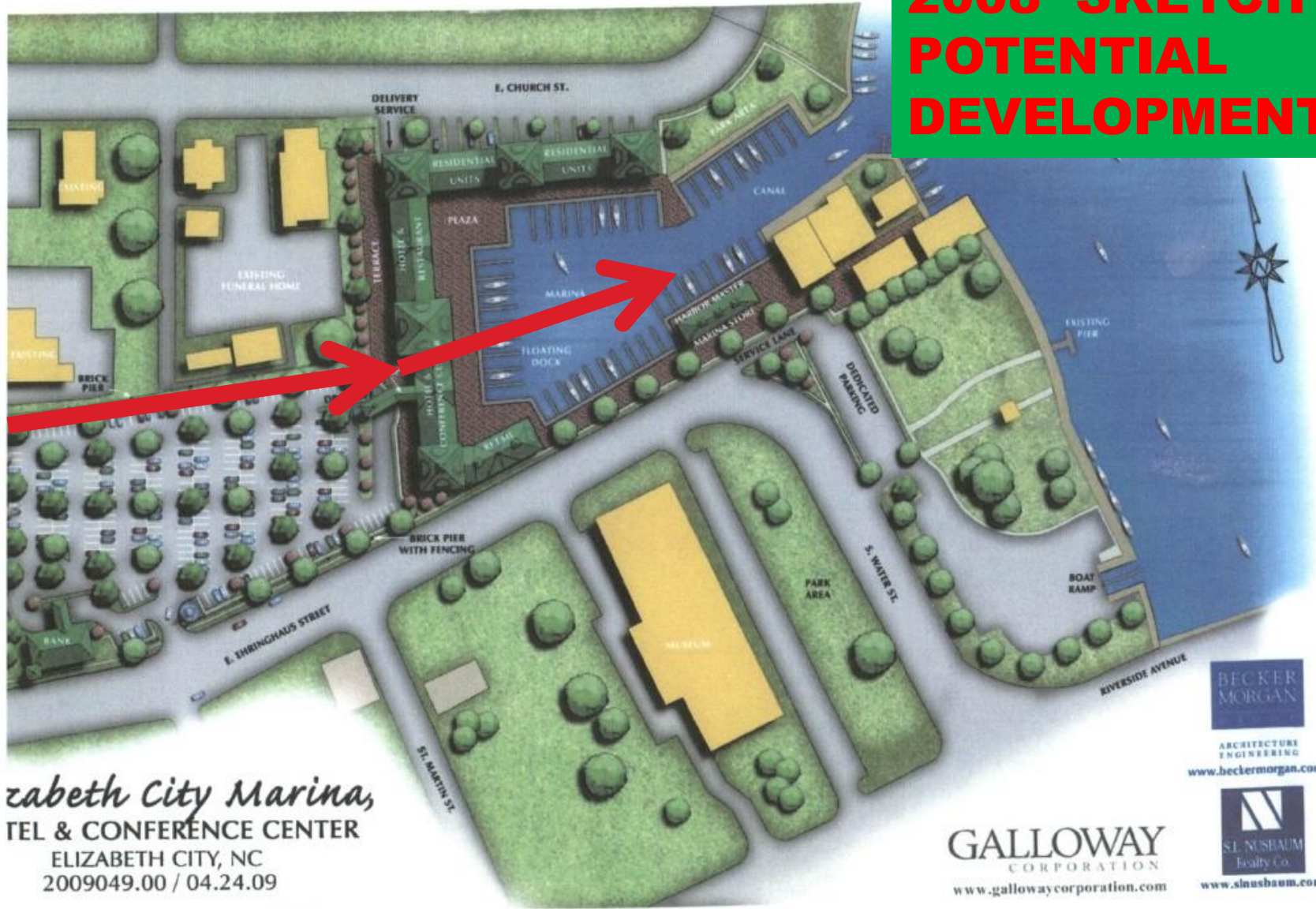
October 27, 2008



**2008 SKETCH
POTENTIAL
DEVELOPMENT #2 A**

TIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
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2008 SKETCH POTENTIAL DEVELOPMENT #2B



Elizabeth City Marina,
TEL & CONFERENCE CENTER
ELIZABETH CITY, NC
2009049.00 / 04.24.09



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TIBER CREEK STORMWATER
MANAGEMENT IMPROVEMENTS
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SUMMARY:

1. The Tiber Creek basin has approximately 341 acres with 13 drainage subbasins. Approx. 80% of the rainfall will attempt to runoff to the Pasquotank River.
2. There are over 3 miles of collection system conveying the stormwater to the existing pumping station at the corner of Church St and Water St.

SUMMARY CONT'D:

3. There are approximately 539 structures in the system with approximately 55 having problems as sediment, deterioration, and conflicts. Of the 55 at least 32 have serious sediment problems.

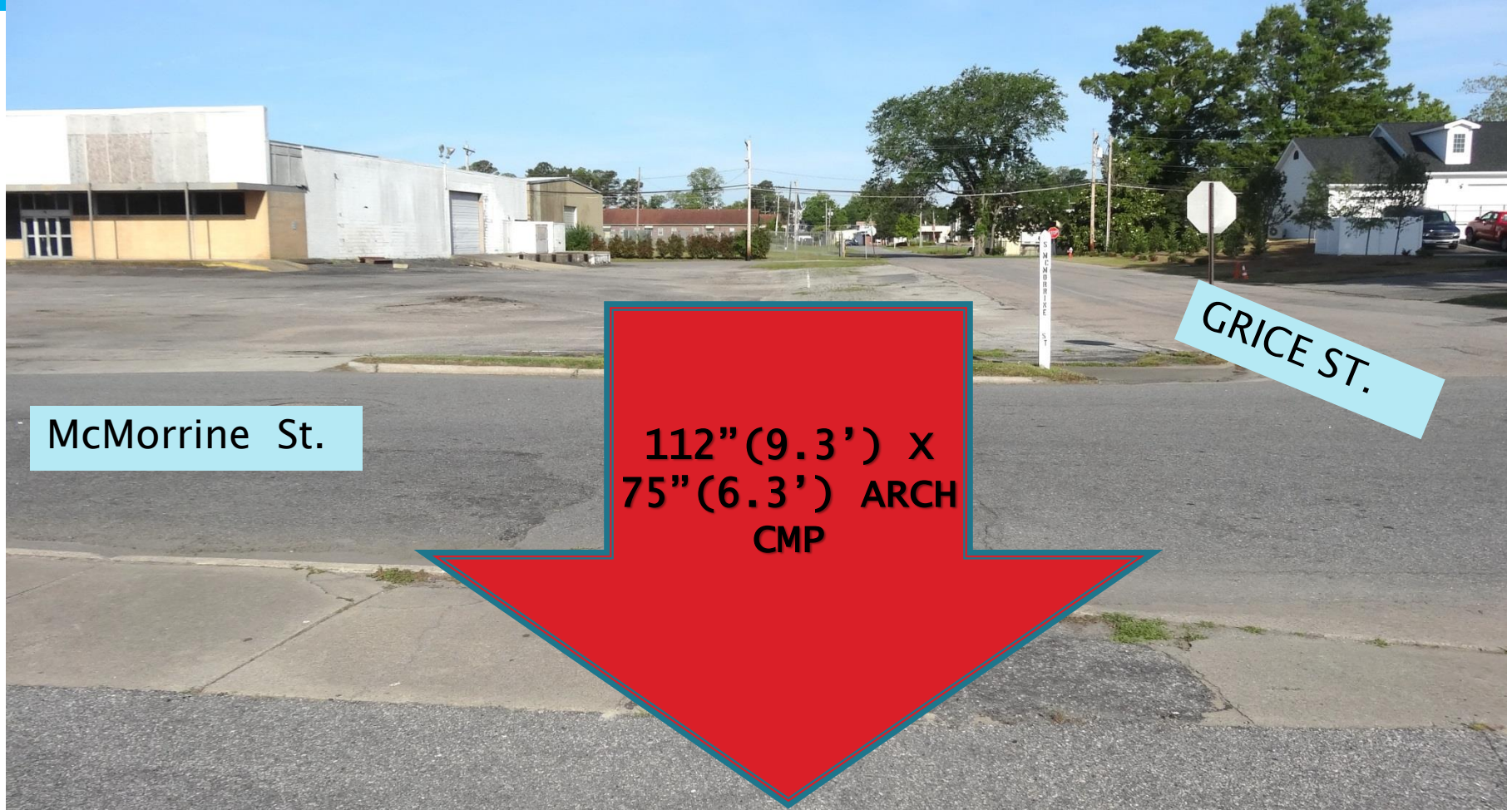
4. The final 1500 feet of the collection system from Road St to the pump station is a 112" (9.3') x 75" (6.3') arch cmp which is over 40% full with sediment and debris.

SUMMARY CONT'D:

5. Difficulty in accessing the pipe to remove the sediment is a challenge.

6. Consideration of opening back up a part of this 1500' corridor (subject to future development goals) may be an option to provide easier long term sediment removal capabilities.

**Along Grice St.
1500'+ OF 112" X 75" ARCH CMP
FROM ROAD ST TO PUMP STATION
2-3FT SEDIMENT; 40% FULL**



SUMMARY CONT'D:

7. There are also ongoing issues with stormwater pond management, yard and street cleanup and vehicle storage area management.

8. Policy decisions need to be made concerning the development or redevelopment corridor along Grice Street relative to the potential for Downtown Waterfront Development.



*THE
END*