

Program Delivery Plan

Sanitary Sewer Overflow (SSO) Control and
Wastewater Facilities Program
City of Baton Rouge/East Baton Rouge Parish

Prepared for

City of Baton Rouge/East Baton
Rouge Parish Department of
Environmental Services



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Acronyms and Abbreviations

BOD	biochemical oxygen demand
BPS	Booster Pump Station
BTRSSO	Baton Rouge Sanitary Sewer Overflow
CCTV	closed circuit television
C-P	City of Baton Rouge, East Baton Rouge Parish
CWSRF	Clean Water State Revolving Fund
DES	Department of Environmental Services
DPW	Department of Public Works
FM	Force Main
EPA	United States Environmental Protection Agency
GIPS	Gravity Influent Pump Station
GIS	geographic information system
gpm	gallons per minute
HWY	Highway
IAP	Immediate Action Project
I/I	inflow and infiltration
kW	kilowatt(s)
LSU	Louisiana State University
MG	million gallons
mgd	million gallons per day
MH	manhole
MW	megawatt(s)
NPDES	National Pollution Discharge Elimination System
O&PA	outreach and public awareness
PDP	program delivery plan
PLC	programmable logic controllers
PM	program manager
PS	pump station
PTF	Preliminary Treatment Facility
RDII	rainfall dependent inflow and infiltration

ACRONYMS AND ABBREVIATIONS

RFP	Request for Proposal
RMAP1	Remedial Measures Action Plan 1
RMAP2	Remedial Measures Action Plan 2
SCADA	Supervisory Control and Data Acquisition
SCB	solids contact basin(s)
SEP	supplemental environmental project(s)
SSO	sanitary sewer overflow
SSST	secondary sludge storage tank(s)
STA	Station
STN	Suburban Transportation Network
TF	trickling filter
TSMT	thickened sludge mixing tank
TSS	total suspended solids
VFD	variable frequency drive
WWTP	wastewater treatment plant
ZATNIP	Zachary Area Transmission Network Improvement Project

Executive Summary

Overview

The City of Baton Rouge, Parish of East Baton Rouge (C-P) contracted CH2M HILL in 2006 to prepare a Program Delivery Plan (PDP) that summarizes the Sewer System Overflow (SSO) Control and Wastewater Facilities Program. The original PDP was published in January 2008. This PDP incorporates changes and reflects the extensive design and construction progress made since the onset of the program.

To track the over 115 projects included in the SSO Program, a Program Status Report (PSR) is used to identify projects in one of the following categories:

- In design;
- In construction; or
- Functionally complete.

A project is deemed “Functionally Complete” when a project has been constructed in accordance with the engineering and operation specifications and has been tested to function as required. The definition functionally complete may or may not mean that the asset has been put into service as designed, depending on connectivity to other relying projects, but generally does not cover the completeness of non-wastewater collection, transmission, storage, or treatment components such as restoration, clean-up, and final contract close-out.

As of March 1, 2017, 83 projects have completed construction, 26 projects have begun construction, and 8 projects are in design. The three RMAP1 projects, all of which are completed, are not included in this PDP, since the PDP is a description of the RMAP2.

The Program is divided into the following three wet weather components:

- Comprehensive rehabilitation projects
- Capacity improvement projects
- Wastewater treatment and storage improvements

The estimated total cost of the RMAP2 projects, including design engineering, land acquisition, construction, construction inspection, and construction engineering, is approximately \$1.6 billion. The RMAP2 projects have milestones that are included in the Consent Decree, with all projects required to be constructed and operational by January 1, 2019. An additional eight Supplemental projects have been included in this PDP at an estimated total cost of \$141 million. These Supplemental projects were included as additional projects to the RMAP2 in the Consent Decree modification (Civil Action 01-978-BAJ-SCR) that was signed in June 2013, but these projects do not have milestones associated with them. The combined estimated cost of the RMAP2, Supplemental projects, and program administration, is approximately \$1.641 billion. Figure ES-1 shows the distribution of these costs over time.

The goals of the Sanitary Sewer Overflow (SSO) Program are to:

- Reduce excess wet weather flows that cause SSOs
- Rehabilitate the collection system
- Increase the hydraulic capacity of the collection system

- Accommodate growth in project areas
- Comply with WWTP National Pollutant Discharge Elimination System (NPDES) permits
- Comply with the terms of the Consent Decree

The original Consent Decree (Civil Action 01-978-B-M3 United States of America and State of Louisiana versus City of Baton Rouge, Parish of East Baton Rouge) states that the Collection System Remedial Program projects shall be completed by January 1, 2015. In June 2013, a modified Consent Decree (Civil Action 01-978-BAJ-SCR) was issued and states that the projects shall be completed by January 1, 2019. As part of this time extension, the Supplemental projects were included as additional projects to the RMAP2 though they do not have milestones associated with them.

In preparing this PDP, the locations of known overflows are given highest priority in order to reduce the frequency of these overflows. Areas of the collection system found to have excessive levels of infiltration or inflow are also identified for rehabilitation. Hydraulic capacity improvement projects are sized to accommodate the predicted designed peak wet weather flows and anticipated growth in the project areas. Peak wet weather flows are predicted based on the previously selected 2-year frequency, 12-hour duration design storm. Figure ES-2 shows the 10 hydraulic basins used in the evaluation of the program.

Program Description

Comprehensive Rehabilitation Projects

Sewer system comprehensive rehabilitation projects will be implemented to repair or replace components of the system that are defective and permit excessive infiltration and inflow.

The comprehensive rehabilitation portion of the program consists of 32 construction projects located throughout the C-P. The first projects began in 2008, and the last project's completion is scheduled for mid-2018. Over 6 million feet of gravity sewer will be inspected and cleaned through execution of the 32 rehabilitation projects.

The areas selected for comprehensive rehabilitation are shown on Figure ES-3. The estimated total program cost of the comprehensive rehabilitation projects is approximately **\$206 million**.

Capacity Improvement Projects

Capacity improvement projects have been defined based on three factors:

1. Computer "InfoWorks Model" comparison of existing capacity to predicted peak wet weather flows
2. Physical evidence of inadequate capacity, based on C-P Department of Environmental Services (DES) records
3. Predicted growth in demand for wastewater capacity

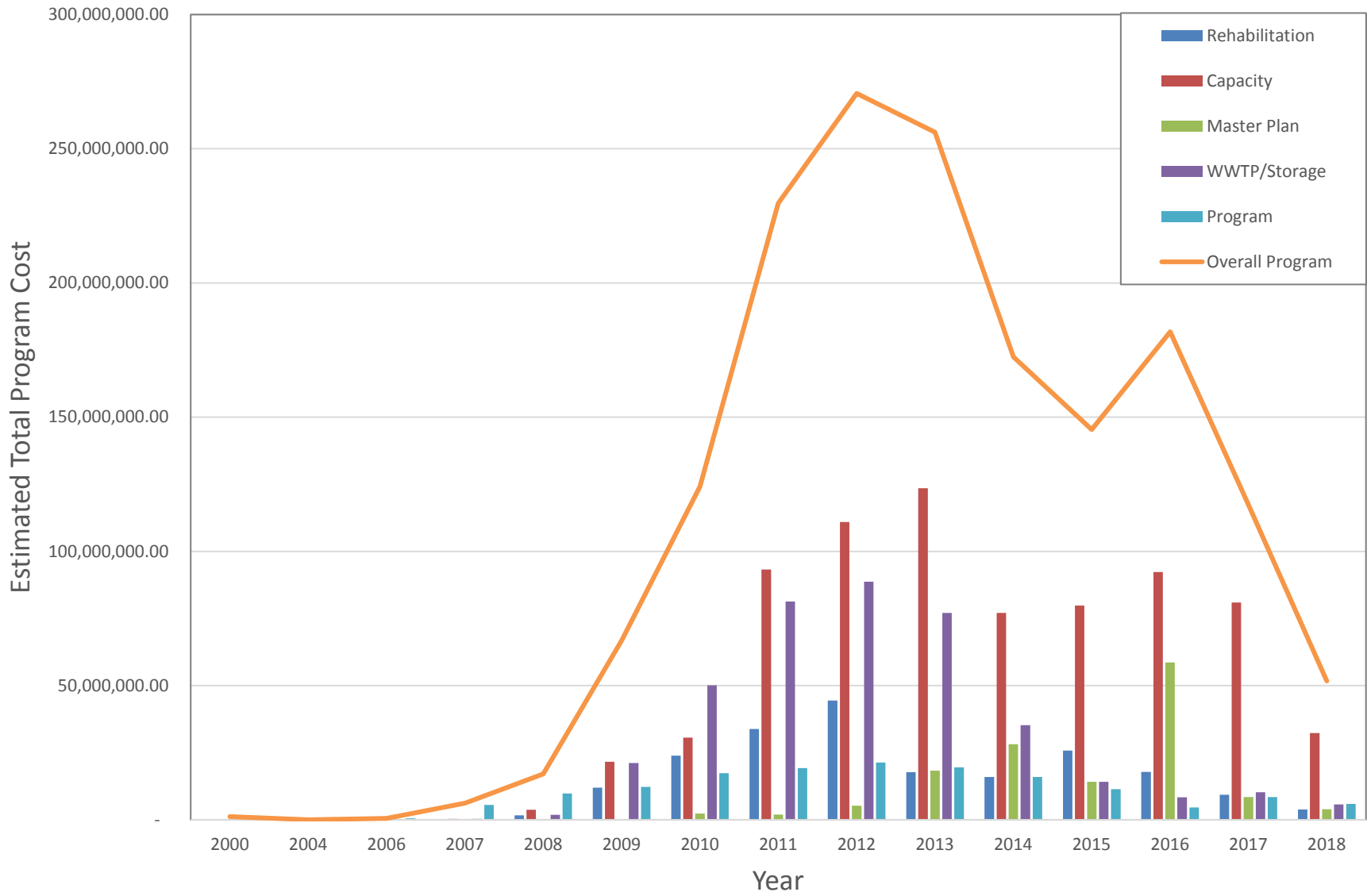
Capacity projects include replacement of inadequately sized gravity sewers and force mains as well as rehabilitation or replacement of pump stations.

Those projects located nearest to the wastewater treatment plants are, in general, scheduled in the earlier years of the program.

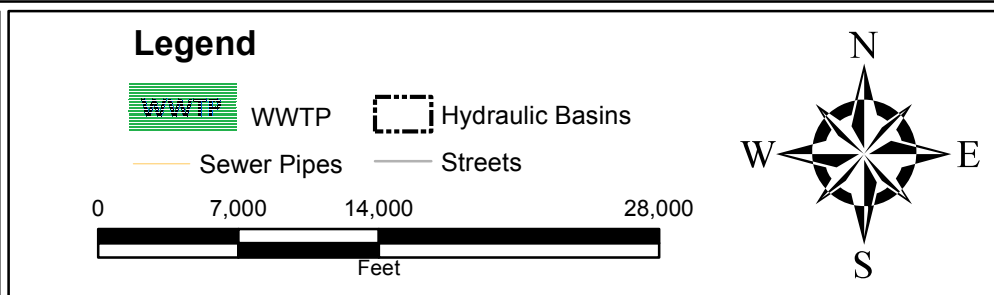
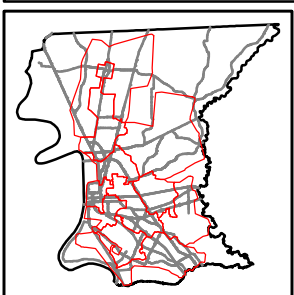
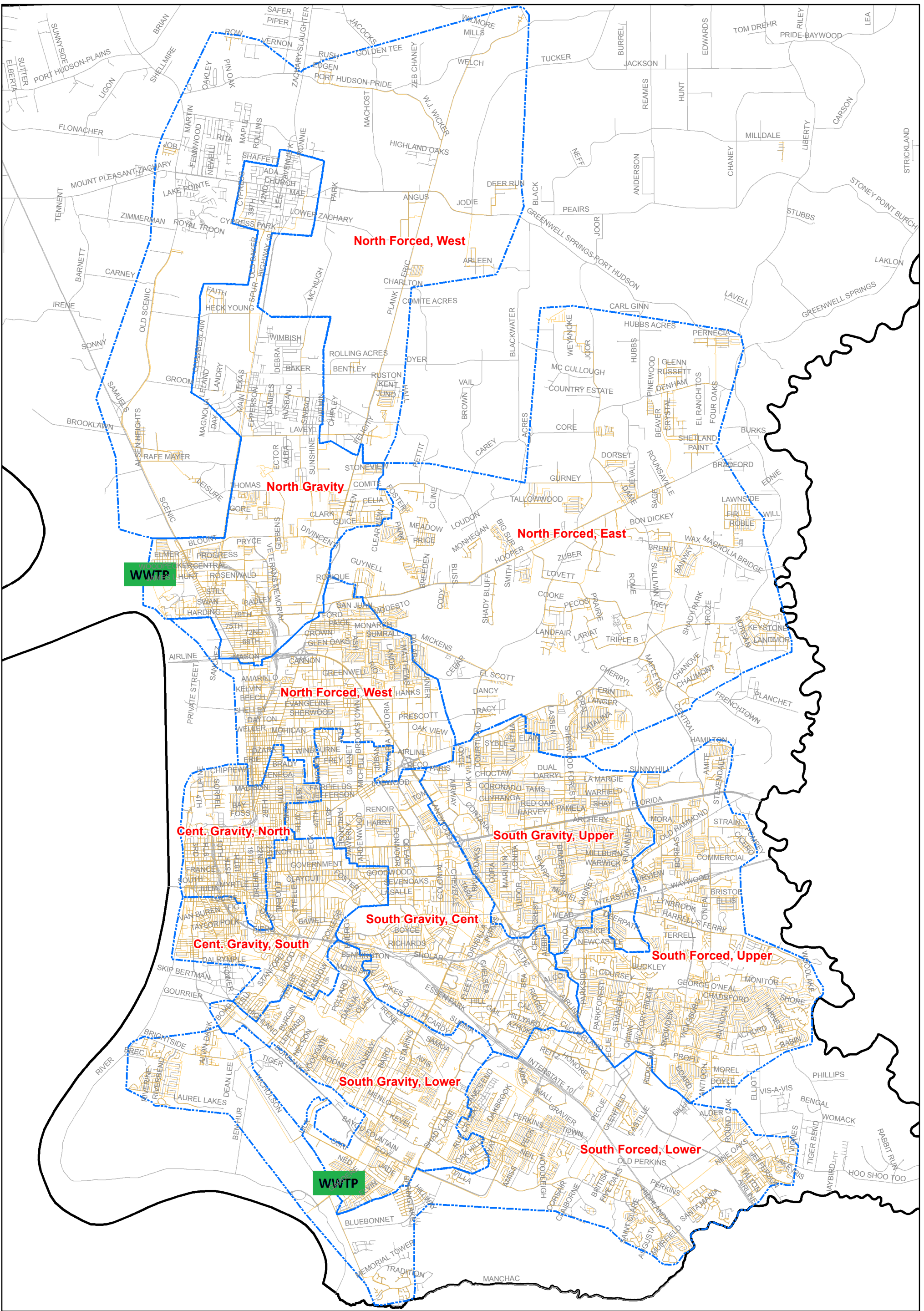
FIGURE ES-1

Program Funding Schedule

Program Delivery Plan



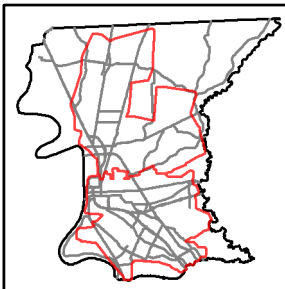
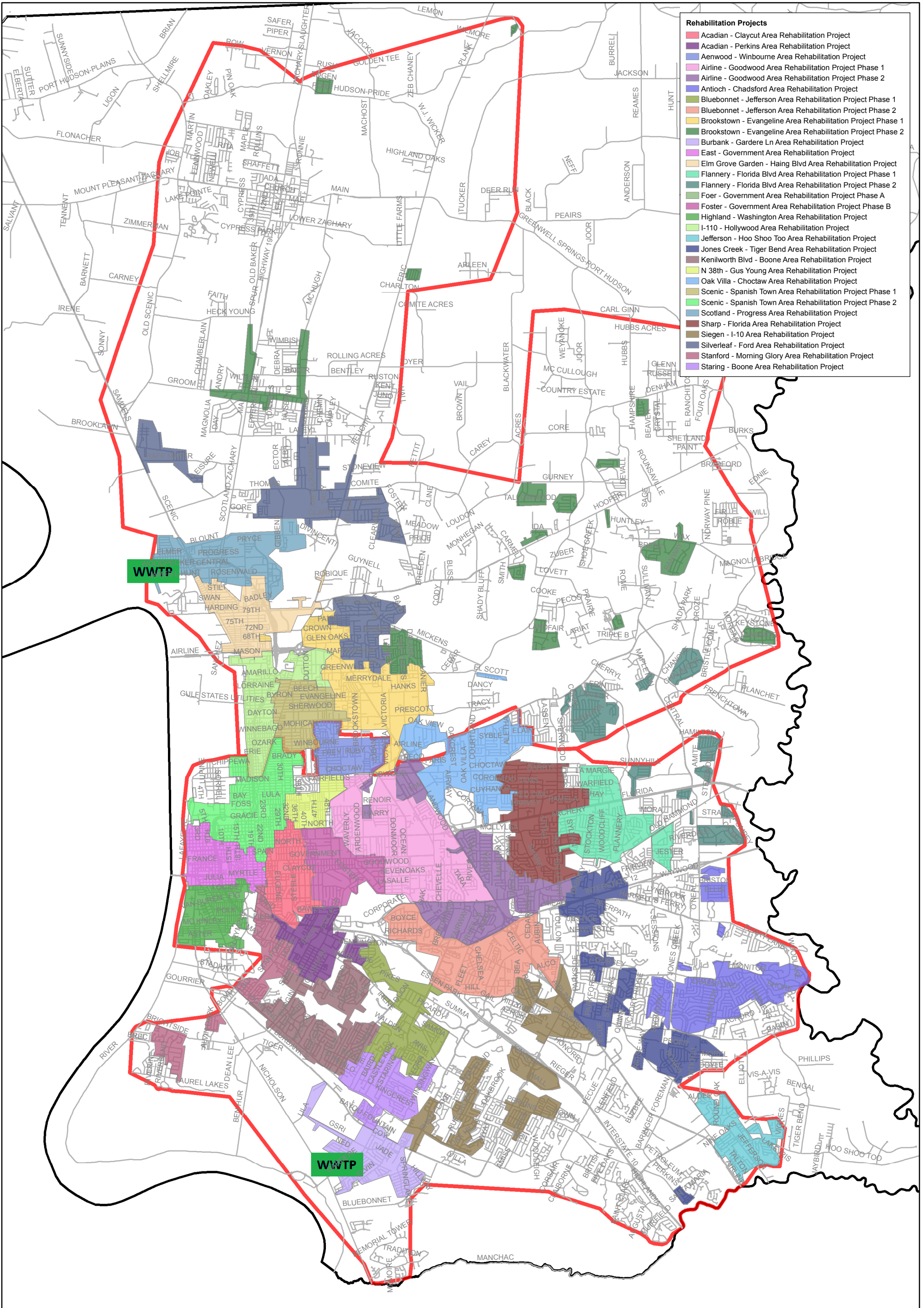
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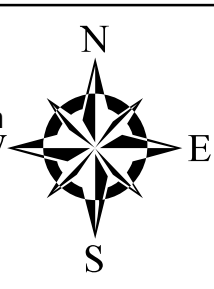
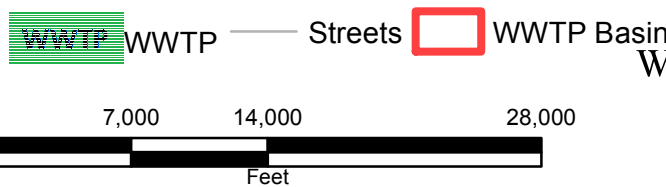
Hydraulic Basins

Figure ES-2

BATON ROUGE **SSO** Program



Legend



Rehabilitation Project Areas

Figure ES-3



The capacity improvements portion of the program consists of 61 projects located throughout the C-P. The first projects were started in 2007, and the last project is scheduled for completion in 2018. Approximately 215,000 linear feet of gravity sewer, 763,000 linear feet of force main, and 142 pump stations are required to be upgraded as part of capacity projects.

Figure ES-4 shows the location of the capacity improvement projects. The estimated total program cost of the capacity improvement projects is approximately **\$746 million**.

Wastewater Treatment Improvements/Storage Projects

The PDP includes four reservoir storage and repumping projects, as noted in Table ES-1. The cost of the Zachary Area Transmission Network Improvements Project (ZATNIP) storage facility at Red Mud Lakes is included in a project that also includes collection system capacity improvements and, therefore, it is included in the aforementioned capacity projects.

TABLE ES-1
Reservoir Storage and Repumping Projects

Location	Storage Volume
Choctaw Drive	26 MG
Hooper Road	10 MG
Red Mud Lakes (ZATNIP)	20 MG ¹
South WWTP	66 MG ²

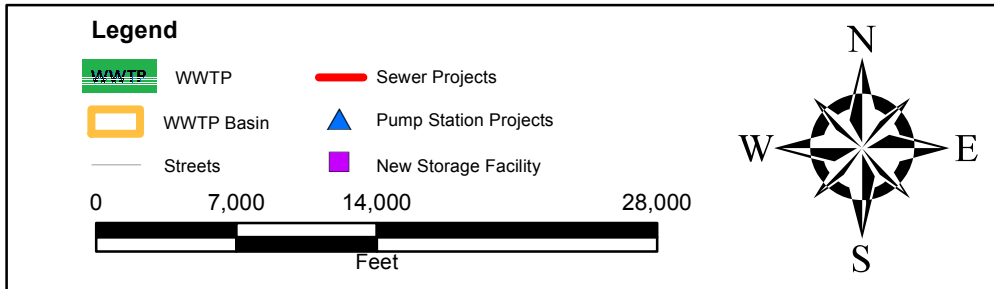
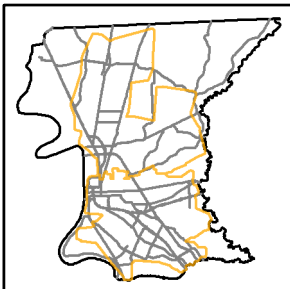
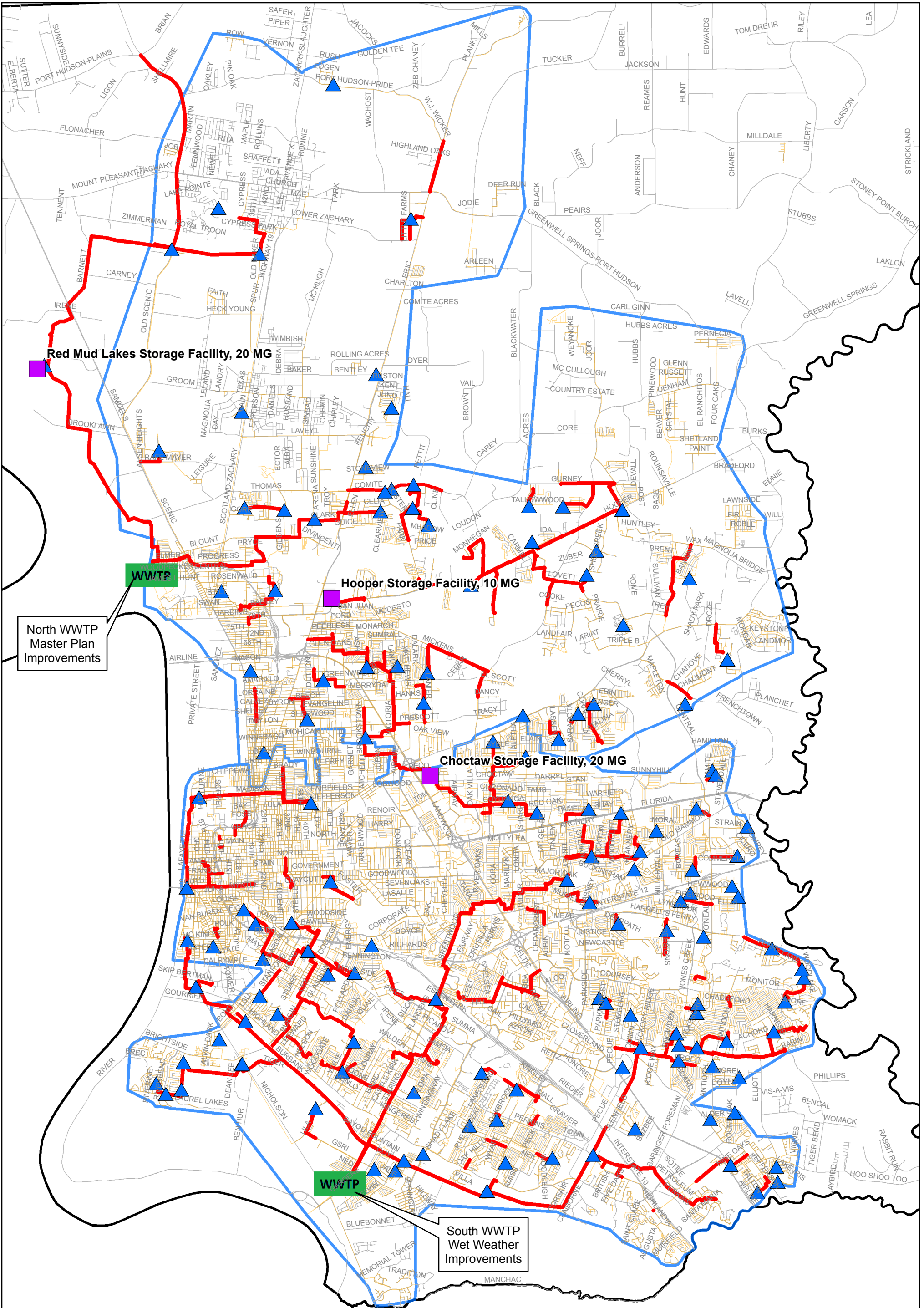
¹Constructed as part of a capacity project

²Constructed as part of South WWTP – Phase 1 Project

The PDP also includes three wastewater treatment capacity and/or compliance projects at the South WWTP. The wet weather treatment capacity of the South WWTP will be expanded to accommodate the predicted peak flow of 200 million gallons per day (mgd) after peak shaving storage and to accommodate wet weather flows from the Central WWTP, which will be consolidated with the South WWTP, per the technical memorandum entitled *Consolidation of South and Central Wastewater Treatment Plants in Baton Rouge* (CH2M HILL, 2008). The wet weather treatment capacity improvements will be accomplished in two projects. The South WWTP Phase 1 project includes wet weather storage, influent pumping, and preliminary treatment. The South WWTP Phase 2 project (PDP portion) includes wet weather improvements within the treatment process. As of February 28, 2017, the South WWTP Phase 1 project and the South WWTP Phase 2 project are functionally completed.

In addition to the wet weather improvement and storage projects, an Immediate Action Plan (IAP) project has been completed at the South WWTP. The purpose of this project is to bring the plant in compliance with current discharge limits. The IAP was originally designed as five projects. Two of these IAPs were either moved into another project (screenings improvements were moved to the South WWTP Phase 1) or completed (Effluent Pumping Station project). The remaining three projects were constructed as one construction project called South WWTP IAP.

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Capacity and Wet Weather Treatment Projects

Figure ES-4

BATON ROUGE SSO Program

A project to add odor control at critical locations at the North WWTP was also included in the Wastewater Treatment and Storage projects.

As of February 2017, the South WWTP IAP project, the South WWTP – Phase 1 project, the North WWTP Odor Control project, the Choctaw Storage and Pump Station Facility project, South WWTP – Phase 2 and the Hooper Storage project are all functionally complete.

Storage and treatment locations are shown on Figure ES-4. The total estimated program cost for the PDP portion of the six wastewater treatment and storage projects (excluding Red Mud Lakes which is included in the Capacity Project costs) is **\$395 million**.

Supplemental Projects

There are several Supplemental projects that the C-P is already executing to continue to enhance performance of their WWTPs and collection systems and also improve compliance. These eight projects are now incorporated into this PDP as part of the modification of the Consent Decree in June 2013.

The *Wastewater Master Plan* (CH2M HILL, 2008) outlined several improvements to the existing South WWTP facilities that are necessary to keep the plant in operation. These improvements were included in the South WWTP Phase 2 project (master plan portion). The South WWTP Landscape Buffer Area project has been added to this PDP update because a buffer area around the WWTP was desired. The C-P obtained funding from the Louisiana Department of Environmental Quality (LDEQ) Clean Water State Revolving Fund (CWSRF) Green Project Reserve program for this project and has since been constructed.

In addition, due to the extended power outages experienced after Hurricane Gustav, the C-P will install emergency generators at each of the collection system pump stations and at each of the WWTPs as part of the Supplemental projects. These generators are being installed as part of the WWTP projects or as part of a separate purchase and installation project in the collection system. Approximately 329 generators have been installed as of March 1, 2017.

The *Wastewater Master Plan* (CH2M HILL, 2008) also outlined the need for a Supervisory Control and Data Acquisition (SCADA) system. The SCADA system is now under construction. SCADA components will ultimately be installed at all pump stations in the collection system as part of the Master SCADA project. A SCADA system has already been constructed for the South WWTP as part of the South WWTP – Phase 2 project. A SCADA system is being constructed for the North WWTP as part of the North WWTP Master Plan Plant Improvements project.

The closure of the Central WWTP has created a need to relocate the field pump maintenance staff and their warehouse, which are currently located at the Central WWTP. Since enough land was available at the Choctaw Storage site, and it is somewhat centrally located in the C-P, the Choctaw site was selected as the new location for this facility. In 2015, the Baton Rouge DPW underwent a reorganization, resulting in Wastewater Collections Engineering and Operations and Maintenance becoming a part of the new Department of Environmental Services. Since enough space is available, the new facility will house all employees of the new department. A new preliminary Supplemental project was added for the Environmental Services Facility. The Central WWTP Decommissioning project was also added to reflect the closure of the Central WWTP.

The North WWTP Master Plan Landscape Buffer Area, North WWTP Master Plan Plant Improvements, and North WWTP Master Plan Sustainability projects are outlined in the North Basin projects chapter. The North WWTP Master Plan Plant Improvements project was divided into 5 projects: NWWTP Odor Control & Sodium Hypochlorite project, NWWTP General Electrical

Rehabilitation project, NWWTP Plantwide & Master SCADA project, NWWTP Pretreatment & Grit Removal Rehabilitation project, NWWTP Standby Generator project. NWWTP Odor Control & Sodium Hypochlorite project, NWWTP General Electrical Rehabilitation project, and the NWWTP Sustainability Improvements project are now all in construction. NWWTP Plantwide & Master SCADA project, NWWTP Pretreatment & Grit Removal Rehabilitation project, NWWTP Standby Generator project, and the NWWTP Master Plan Landscape Buffer Area project are in design. The North WWTP Sustainability project was funded via the LDEQ CWSRF Green Project Reserve program.

Three additional Supplemental projects are not incorporated into the RMAP2 and are, therefore, not included in the budget of the SSO Program. The three projects are: Collection System Electrical, Collection System Pipelines – Master Plan, and Collection System Pump Stations – Master Plan. The projects were first developed in the *Wastewater Master Plan* (CH2M HILL, 2008), but will need to be refined during project definition. These projects are not further described in this document because the project definition and design of the projects will begin after completion of the RMAP2, and construction will follow as funding allows.

The total estimated program cost for the eight preliminary Supplemental projects is **\$141 million**.

List of Completed Projects and Active Projects

Functionally Completed Projects

Table ES-2 shows the list of 83 completed RMAP1, RMAP2, and Supplemental projects as of March 1, 2017. These projects have been completed or functionally completed as of the dates as shown in Table ES-2.

TABLE ES-2
List of Functionally Completed Projects

Project Number/Name	Functionally Complete Date
07-AR-US-0049 (Jefferson Highway - Hoo Shoo Too Road Area Rehabilitation Project)	3 rd Quarter 2009
03-RMP-S14 (RMAP1 – Kleinpeter Area Upgrades)	2 nd Quarter 2009
07-PS-BD-0017 (Gurney Road - Joor Road Sewer Area Upgrade)	4 th Quarter 2009
09-GS-UF-0008 (25TH Street - North Acadian Thruway)	1 st Quarter 2010
06-CS-HC-0030 (Staring Lane Extension - Phase 1 [Burbank Drive - LA 42 to Highland Road])	2 ^d Quarter 2010
99-RMP-S16 (RMAP1 – PS 136 Upgrades)	2 rd Quarter 2010
07-PS-BD-0019 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 1])	2 rd Quarter 2010
08-AR-UF-0004 (Staring Lane - Boone Drive Area Rehabilitation Project)	2 nd Quarter 2010
07-TP-BD-0030 (North Wastewater Treatment Plant Odor Equipment Installation)	4 th Quarter 2010
07-FM-BD-0046 (Foster Road - Hooper Road Sewer Area Upgrades)	4 th Quarter 2010
08-AR-UF-0003 (Burbank Road - Gardere Lane Area Rehabilitation Project)	4 th Quarter 2010
99-RMP-S08 (RMAP1 – Industriplex Area Upgrades)	1 st Quarter 2011
02-CS-HC-0001 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 2])	1 st Quarter 2011
07-PS-BD-0018 (Sullivan Road - Lovett Road - Wax Road Sewer Area Upgrades)	1 st Quarter 2011
08-TP-BD-0031 (South WWTP IAP Combined Projects)	2 nd Quarter 2011
09-AR-BD-0011 (Scotland Avenue - Progress Road Area Rehabilitation Project)	2 nd Quarter 2011

TABLE ES-2
List of Functionally Completed Projects

Project Number/Name	Functionally Complete Date
09-AR-BD-0012 (Elm Grove Garden Road - Harding Boulevard Area Rehabilitation Project)	3 rd Quarter 2011
08-GS-ST-0021 (Highland Road - Buchanan Street Sewer Area Upgrades)	4 th Quarter 2011
08-AR-UF-0005 (Oak Villa Boulevard - Choctaw Street Area Rehabilitation Project)	3 rd Quarter 2011
10-FM-IF-0005 (Zachary Area Transmission Network Improvements Project [Phase 4])	4 th Quarter 2011
06-WC-IF-0014 (Zachary Area Transmission Network Improvements Project general)	4 th Quarter 2011
09-AR-BD-0015 (Foster Drive - Government Street Area Rehabilitation Project [Phase A])	4 th Quarter 2011
09-FM-MS-047A (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase A])	1 st Quarter 2012
07-PS-BD-0048 & 09-GS-UF-0008 (Capitol Lake Drive - Gayosa Street/25th Street – N Acadian Thruway Sewer Area Upgrades)	2 nd Quarter 2012
08-PS-IF-0046 (Old Perkins - Highland Road [Group Project 2] Sewer Area Upgrades)	2 nd Quarter 2012
09-AR-BD-0014 (Kenilworth Boulevard - Boone Drive Area Rehabilitation Project)	3 rd Quarter 2012
08-PS-ST-0056 & 08-PS-ST-0057 (Downtown Area Pump Station Improvements)	3 rd Quarter 2012
08-FM-UF-0024 (Citiplace/Essen Area PS 119 & Force Main Improvements)	3 rd Quarter 2012
08-GS-ST-0018 & 09-GS-UF-008B (South Boulevard - St Joseph Street /25th Street – N Acadian Thruway Sewer Area Upgrades)	3 rd Quarter 2012
09-PS-MS-0046 (Multiple Pump Stations - Jefferson Highway - Park Forest Drive)	3 rd Quarter 2012
09-AR-BD-015A (Foster Drive - Government Street Area Rehabilitation Project [Phase B])	3 rd Quarter 2012
09-AR-BD-0013 (Sharp Road - Florida Boulevard Area Rehabilitation Project)	3 rd Quarter 2012
10-AR-BD-0040 (Brookstown Road - Evangeline Street Area Rehabilitation Project [Phase 2])	4 th Quarter 2012
10-AR-BD-0041 (Silverleaf Road - Ford Street Area Rehabilitation Project)	4 th Quarter 2012
10-AR-BD-0045 (Stanford Road - Morning Glory Road Area Rehabilitation Project)	4 th Quarter 2012
10-AR-BD-0044 (Acadian Thruway - Perkins Road Area Rehabilitation Project)	4 th Quarter 2012
10-AR-UF-0042 (Bluebonnet Boulevard - Jefferson Highway Area Rehabilitation Project [Phase 1])	4 th Quarter 2012
10-AR-BD-0039 (Brookstown Road - Evangeline Street Area Rehabilitation Project [Phase 1])	4 th Quarter 2012
10-FM-IF-0002 (Zachary Area Transmission Network Improvements Project [Phase 1])	1 st Quarter 2013
10-AR-BD-0046 (Acadian Thruway - Claycut Road Area Rehabilitation Project)	1 st Quarter 2013
10-AR-MS-0043 (Bluebonnet Boulevard - Jefferson Highway Area Rehabilitation Project [Phase 2])	1 st Quarter 2013
08-TP-BD-0033 (South WWTP Wet Weather Improvements [Phase 1])	2 nd Quarter 2013
08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades)	2 nd Quarter 2013
09-PS-MS-0034 (Booster PS 514 Replacement)	2 nd Quarter 2013
11-AR-MS-0022 (Highland Road - Washington Street Area Rehabilitation Project)	3 rd Quarter 2013
09-FM-MS-033A (Central Consolidation Force Main Sewer Area Upgrades [Phase I])	3 rd Quarter 2013
06-WC-CP-0036 (Staring Lane Sewer Improvements - Phase 3 [Perkins Road to PS 58])	3 rd Quarter 2013
09-GS-MS-0042 (Bayou Duplantier Sewer Area Upgrades)	3 rd Quarter 2013
09-PS-UF-0009 (Choctaw Storage and Pump Station Facilities)	3 rd Quarter 2013
06-CS-HC-0024 (Staring Lane Roadway Improvements - Phase 2 [Highland Road to Perkins Road])	4 th Quarter 2013

TABLE ES-2
List of Functionally Completed Projects

Project Number/Name	Functionally Complete Date
09-FM-MS-036B (PS 42 Force Main [Phase 2])	2 nd Quarter 2014
11-AR-MS-0027 (Airline Highway - Goodwood Boulevard Area Rehabilitation Project [Phase 1])	3 rd Quarter 2014
09-FM-MS-036A (PS 42 Force Main [Phase 1])	3 rd Quarter 2014
09-FM-MS-033B (Central Consolidation Force Main Sewer Area Upgrades [Phase II])	3 rd Quarter 2014
09-PS-MS-0035 (Central Consolidated PSs)	4 th Quarter 2014
10-FM-IF-0004 (Zachary Area Transmission Network Improvements Project [Phase 3])	4 th Quarter 2014
10-FM-MS-0008 (O'Neal Lane Sewer Area Upgrades [Group A])	4 th Quarter 2014
09-FM-MS-0047 (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B])	1 st Quarter 2015
09-PS-UF-0001 (Pump Station 58 Replacement)	1 st Quarter 2015
08-TP-BD-0055 (South WWTP Wet Weather Improvements [Phase 2])	2 nd Quarter 2015
10-FM-MS-008B (O'Neal Ln Sewer Area Upgrades [Group B])	2 nd Quarter 2015
11-AR-MS-0029 (Antioch Rd – Chadsford Dr Area Rehabilitation Project)	2 nd Quarter 2015
12-AR-MS-0039 (Scenic Hwy – Spanish Town Rd Area Rehabilitation Project [Phase 1])	2 nd Quarter 2015
11-AR-MS-0028 (Airline Hwy – Goodwood Blvd Area Rehabilitation Project [Phase 2])	2 nd Quarter 2015
09-PS-MS-0048 (Multiple Pump Station – Nicholson Dr – Brightside Ln)	2 nd Quarter 2015
11-FM-MS-036B (Plank Rd – Port Hudson Pride Rd Sewer Area Upgrades)	3 rd Quarter 2015
12-AR-MS-0040 (I-110 – Hollywood St Area Rehabilitation Project)	3 rd Quarter 2015
10-GS-MS-007E (Ward Creek Aerial Crossing Replacement Emergency Project)	3 rd Quarter 2015
12-AR-MS-0038 (Jones Creek Rd – Tiger Bend Rd Area Rehabilitation Project)	1 st Quarter 2016
09-GS-MS-0043 (Government St – S Acadian Thwy Sewer Area Upgrades)	1 st Quarter 2016
09-PS-UF-0003 (Pump Station 42 Improvements)	1 st Quarter 2016
08-PS-UF-0054 (Metro Airport (Group1B) Pump Station and Force Main Improvements)	1 st Quarter 2016
09-GS-UF-0028 (Plank Rd – Kleinpeter Rd Sewer Area Upgrades)	1 st Quarter 2016
10-FM-IF-0003 (Zachary Area Transmission Network Improvements Project [Phase 2])	2 nd Quarter 2016
13-TP-MS-0046 (South WWTP Landscape Buffer Area Project)	2 nd Quarter 2016
09-PS-UF-0007 (Hooper Storage Facility)	2 nd Quarter 2016
13-AR-MS-0032 (Scenic Hwy – Spanish Town Rd Area Rehabilitation Project [Phase 2])	3 rd Quarter 2016
11-FM-MS-004A (Highland Rd Sewer Area Upgrades [Group A])	3 rd Quarter 2016
13-AR-MS-0034 (Ardenwood Dr – Winbourne Ave Area Rehabilitation Project)	3 rd Quarter 2016
14-FM-MS-0012 (South Basin Coordination Project)	4 th Quarter 2016
08-FM-ST-0023 (Highland Rd – Burbank Dr Sewer Area Upgrades)	4 th Quarter 2016
06-WC-IF-014E (Zachary Area Transmission Network Improvements Project [Phase 5])	1 st Quarter 2017
11-PS-MS-0024 (Plank Rd Pump Stations Improvements)	1 st Quarter 2017

Active Projects

Table ES-3 shows the list of 32 active RMAP2 and Supplemental projects as of February 28, 2017; this includes projects currently under design and/or construction as shown in the table.

TABLE ES-3
List of Active Projects

Project Number/Name	Status (March 1, 2017)
10-GS-MS-007A (Airline Highway Pipeline Project [Phase A])	Construction
10-GS-MS-007B (Airline Highway Pipeline Project [Phase B])	Construction
10-PS-MS-0009 (Multiple Pump Stations - Highland Road - Kenilworth Parkway)	Construction
12-AR-MS-0041 (East Boulevard - Government Street Area Rehabilitation Project)	Construction
11-PS-MS-0026 (Multiple Pump Stations - Burbank Drive - Siegen Lane)	Construction
10-PS-MS-0051 (O'Neal Ln Pump Stations Improvements [Group B])	Construction
10-PS-MS-0050 (O'Neal Ln Pump Stations Improvements [Group A])	Construction
08-GS-ST-018B & 09-GS-UF-008B (South Blvd – St Joseph St [Phase B])	Construction
09-PS-BD-0037 (Standby Generator Installations for Sewer Lift Stations)	Construction
12-PS-MS-0021 (SCADA Master Plan Project)	Construction
14-AR-MS-0033 (Flannery Road - Florida Boulevard Area Rehabilitation Project [Phase 1])	Construction
14-AR-MS-0034 (Flannery Road - Florida Boulevard Area Rehabilitation Project [Phase 2])	Construction
10-PS-MS-0048 (Hooper Road Pump Stations Improvements)	Construction
13-AR-MS-0032 (Scenic Highway - Spanish Town Road Area Rehabilitation Project [Phase 2])	Construction
10-FM-MS-0049 (Lovett Road - Greenwell Springs Road Sewer Area Upgrades)	Construction
11-FM-MS-0025 (Oak Villa Boulevard - Monterrey Boulevard Sewer Area Upgrades)	Construction
13-AR-MS-0033 (Siegen Lane - I-10 Area Rehabilitation Project)	Construction
11-PS-MS-0003 (Florida Boulevard Pump Stations Improvements)	Construction
11-FM-MS-0005 (Sherwood Forest Boulevard - Goodwood Boulevard Sewer Area Upgrades)	Construction
11-FM-MS-0023 (Joor Road - Greenwell Springs Road Sewer Area Upgrades)	Construction
11-FM-MS-004A (Highland Road Sewer Area Upgrades [Group A])	Construction
11-FM-MS-0036 (Plank Road - Port Hudson Pride Road Sewer Area Upgrades)	Construction
11-FM-MS-004B (Highland Road Sewer Area Upgrades [Group B])	Construction
11-PS-MS-0035 (Multiple Pump Stations - Highway 61 - Plank Road)	Construction
11-PS-MS-0034 (Multiple Pump Stations - Prescott Road - Greenwell Springs Road)	Construction
13-TP-MS-0045 (North WWTP Sustainability Improvements Project)	Construction
13-TP-MS-045B (NWWTP General Electrical Rehabilitation Project)	Construction
13-TP-MS-045A (NWWTP Odor Control & Sodium Hypochlorite Project)	Construction
13-TP-MS-045C (NWWTP Plantwide & Master SCADA Project)	Design
13-TP-MS-0001 (NWWTP Master Plan Landscape Buffer Area Project)	Design
13-TP-MS-045D (NWWTP Pretreatment & Grit Removal Rehabilitation Project)	Design

TABLE ES-3
List of Active Projects

Project Number/Name	Status (March 1, 2017)
13-TP-MS-045E (NWWTP Standby Generator Project)	Design
14-AR-MS-0035 (N 38th Street - Gus Young Avenue Area Rehabilitation Project)	Design
14-TP-MS-0016 (Central WWTP Decommissioning Project)	Design
09-PS-UF-009A (Environmental Services Facility)	Design

Overview

1.1 Background

The purpose of the Baton Rouge Sanitary Sewer Overflow (SSO) Control and Wastewater Facilities Program is to reduce sanitary sewer overflows while also planning for the future. The City of Baton Rouge, East Baton Rouge Parish (C-P) entered into a Consent Decree (Civil Action 01-978-B-M3) with the United States Environmental Protection Agency (EPA) and the State of Louisiana to take remedial actions in the collection system to reduce SSOs, and also to meet National Pollution Discharge Elimination System (NPDES) permit requirements at the wastewater treatment plants (WWTPs) by January 1, 2015. In June 2013, a modified Consent Decree (Civil Action 01-978-BAJ-SCR) was approved, which states that the collection system projects shall all be completed by January 1, 2019. The Consent Decree details requirements for several components, including the following:

- Cross Connections
- Preventive Maintenance (Collection System and WWTPs)
- SSO Responses and Reporting
- Remedial Measures Action Plan 1 (RMAP1)
- Remedial Measures Action Plan 2 (RMAP2)
- Wastewater Treatment Facility Assessment
- Environmental Results Monitoring
- Outreach and Public Awareness (O&PA) Quarterly and Annual Reporting
- Supplemental Environmental Projects (SEPs)
- Recordkeeping

This document constitutes the RMAP2 as well as the Supplemental projects that were added in the June 2013 Consent Decree modification. The remaining portions of the Consent Decree are addressed in other documents. The *Program Delivery Plan* (PDP) was initially published in January 2008. This update includes the schedule for projects that will meet the extension of the Consent Decree approved in June 2013 and value engineering changes made throughout the program.

1.2 Major Program Goals

The major goals of the program are to:

- Reduce excess wet weather flows that cause SSOs
- Rehabilitate the collection system
- Increase the hydraulic capacity of the collection system
- Accommodate growth in project areas
- Comply with the WWTP NPDES permit
- Comply with the terms of the Consent Decree

During preparation of the PDP, consideration was given to locations of known overflows to assure that the projects defined would reduce the frequency of these overflows. Areas of the collection system found to have defects also were identified for rehabilitation.

1.3 Program Description

The three types of projects identified for implementation are designated comprehensive rehabilitation projects, capacity improvement projects, and wastewater treatment improvement/storage projects. The following paragraphs define each project type.

1.3.1 Comprehensive Rehabilitation Projects

Areas targeted for sewer pipe rehabilitation work are those in which flow monitoring has indicated the highest levels of inflow and infiltration (I/I). Comprehensive rehabilitation projects are being implemented using a process developed and implemented by the Program Manager (PM) in association with Department of Environmental Services (DES) technical staff. The I/I reduction plan for these projects has the following goals:

- Identify and reduce stormwater inflow sources into sanitary sewers
- Identify and reduce rainfall dependent infiltration (RDI) sources in sanitary sewers
- Reduce overflow events
- Increase the sewer system useful life
- Minimize public inconvenience

The process chosen for rehabilitation and/or reconstruction is generally referred to as “Find and Fix.” As the process description suggests, there are two phases to this process. The first phase identifies areas that require rehabilitation or reconstruction and the second phase determines the best engineering solution to fix the problem. After the “Find” phase, some portions of the system will have been identified as not requiring rehabilitation. In those portions of the system, the Engineer will recommend “No Action.”

The overall approach to the comprehensive rehabilitation portion of the program is to complete the following tasks:

1. Obtain basin data and perform basin field observations
2. Perform I/I testing and inspection, including:
 - Flow monitoring assessment
 - Smoke testing
 - Manhole inspection
 - Closed circuit television (CCTV) inspection
3. Prepare an I/I reduction plan
4. Prepare plans, specifications, and cost estimates
5. Implement I/I reduction construction
6. Evaluate I/I reduction results and compare to pre-rehabilitation flow monitoring
7. Implement additional I/I reduction if goals are not met

Flow monitoring is an integral part of the overall rehabilitation and reconstruction portion of the program and should be an ongoing process. Pre-construction flow monitoring is required to establish existing conditions. Post-construction flow monitoring will gauge the effectiveness of the rehabilitation and reconstruction efforts. Flow monitoring should continue for the duration of the program in order to calibrate the rehabilitation progress.

1.3.2 Capacity Improvement Projects

Capacity improvement projects will reduce hydraulic bottlenecks in the system and convey wet weather flows to new upstream storage facilities and ultimately to the WWTPs. These projects include the installation of larger pipes or the construction of parallel pipes to increase conveyance capacity, as well as the replacement of pump stations to handle future wet weather peak flows.

1.3.3 Wastewater Treatment Improvement/Storage Projects

Design and construction of WWTP wet weather improvement projects were scheduled to occur early in the program to store and treat wet weather flows. Wastewater treatment projects at the South WWTP include the following:

- Immediate Action Projects (IAPs) for dry weather permit compliance
- Consolidation with the Central WWTP (Refer to the *Consolidation of South and Central Wastewater Treatment Plants in Baton Rouge*™ [CH2M HILL, 2008])
- Wet weather flow capacity increases to 200 million gallons per day (MGD) with hydraulic peak shaving
- Master Plan improvements

The South WWTP IAPs and other South WWTP projects, including Master Plan improvements that were included in the Phase 2 project, are incorporated in this document and are part of the RMAP2 projects. These projects are currently functionally complete. There are no current capacity improvements required at the North WWTP, so there are no wet weather (RMAP2) projects included in this report for that facility. However, there are several improvements needed at the North WWTP due to the age of the treatment plant, and those improvements are now included in the RMAP2. These are described in the Section 4 - North Basin Projects chapter of this report.

Storage projects were designed and constructed early in the program to allow storage of wet weather flows in upstream basins. These flows will be released back into the system after the wet weather event has passed. Storage facilities will be sized to store the peak flow from a 2-year frequency, 12-hour duration storm event, assuming rehabilitation projects are complete.

1.4 Project Delivery Summary

Projects have been scheduled for both design and construction activities based on funding considerations and have been placed into a resource-loaded schedule shown in Table 1-1 and depicted graphically as Figure 1-1. Figure 1-2 presents the schedule for pre-construction and construction activities for all the program projects.

Note: Financial analysis and funding schedules are prepared by the C-P DES and are not a part of this document.

1.5 Report Contents

The content of this report includes the following:

- Section 2, Planning Description – presents the process used to define projects in this document.
- Section 3, South Basin Projects – describes the projects located in the South Basin. Geographic Information System (GIS) maps that show locations of the work included in each project are

located at the end of each project summary. The South Basin is the collection system that collects and conveys flow to the South WWTP. This section includes projects that were previously described as part of the Central Basin, since the flow from those projects has been diverted to the South WWTP.

- Section 4, North Basin Projects – details projects that are located in the North Basin that collect and convey flow to the North WWTP.
- Section 5, Emergency Generators – describes the stand-by engine generators that will be located at each C-P pump station and at the two WWTPs.
- Section 6, Supervisory Control and Data Acquisition (SCADA) – describes the SCADA system that will be implemented in the collection system and at the North WWTP. The SCADA system for the South WWTP was installed as part of the South WWTP – Phase 2 project.

Project ID	Expenses													Total Expenses	Encumbrances	Remaining Project Estimates			Estimated Total
	2000	2004	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016			2016	2017	2018	
Rehabilitation	0.00	0.00	0.00	0.00	1,670,428.79	11,933,454.63	23,932,828.70	33,872,195.67	44,452,755.74	17,718,315.48	15,989,973.79	25,748,328.27	9,773,105.73	185,091,386.80	19,399,058.41	2,260,821.45	-422,094.03	-64,727.43	206,264,445.21
07-AR-US-0049 Jefferson Hwy - Hoo Shoo Too Rd Area Rehabilitation Project																			
Construction					693,123.38	1,076,409.74	0.00							1,769,533.12	0.00				1,769,533.12
Inspection					52,156.52	60,056.81	1,736.87							113,950.20	0.00				113,950.20
07-AR-US-0049 Jefferson Hwy - Hoo Shoo Too Rd Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	745,279.90	1,136,466.55	1,736.87	0.00	0.00	0.00	0.00	0.00	0.00	1,883,483.32	0.00	0.00	0.00	0.00	1,883,483.32
08-AR-UF-0003 Burbank Rd - Gardere Ln Area Rehabilitation Project																			
Engineering							0.00	0.00						0.00					0.00
Construction							3,194,584.10	1,991,113.37						5,185,697.47	0.00				5,185,697.47
Inspection					2,361.23	162,151.58	89,427.41	860.75						254,800.97	0.00				254,800.97
08-AR-UF-0003 Burbank Rd - Gardere Ln Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	2,361.23	3,356,735.68	2,080,540.78	860.75	0.00	0.00	0.00	0.00	0.00	5,440,498.44	0.00	0.00	0.00	0.00	5,440,498.44
08-AR-UF-0004 Staring Ln - Boone Dr Area Rehabilitation Project																			
Construction							4,073,608.41	387,763.25	-0.06					4,461,371.60	0.00				4,461,371.60
Inspection							163,148.02	34,443.83						197,591.85	0.00				197,591.85
08-AR-UF-0004 Staring Ln - Boone Dr Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	4,236,756.43	422,207.08	(0.06)	0.00	0.00	0.00	0.00	0.00	4,658,963.45	0.00	0.00	0.00	0.00	4,658,963.45
08-AR-UF-0005 Oak Villa Blvd - Choctaw St Area Rehabilitation Project																			
Construction							1,129,851.67	5,870,180.70	213,256.55	73,454.14				7,286,743.06	0.00				7,286,743.06
Inspection							57,302.82	315,697.31	17,964.01	228.74				391,192.88	0.00				391,192.88
08-AR-UF-0005 Oak Villa Blvd - Choctaw St Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	1,187,154.49	6,185,878.01	231,220.56	73,682.88	0.00	0.00	0.00	0.00	7,677,935.94	0.00	0.00	0.00	0.00	7,677,935.94
08-AR-UF-0015 SSO Program Rehabilitation and Survey Support Services																			
Engineering					382,274.29	927,218.27	1,116,773.80	1,178,977.76	752,247.85	1,130,367.52	1,377,713.73	1,174,863.52	100,659.95	8,141,096.69	243,172.31				8,384,269.00
08-AR-UF-0015 SSO Program Rehabilitation and Survey Support Services Total	0.00	0.00	0.00	0.00	382,274.29	927,218.27	1,116,773.80	1,178,977.76	752,247.85	1,130,367.52	1,377,713.73	1,174,863.52	100,659.95	8,141,096.69	243,172.31	0.00	0.00	0.00	8,384,269.00
08-PI-BD-0028 RMAP2 Parish Wide Physical Inspections																			
Construction					493,002.10	1,039,114.76	70,083.08							1,602,199.94	0.00				1,602,199.94
Inspection					47,511.27	49,183.45	1,744.81							98,439.53	0.00				98,439.53
08-PI-BD-0028 RMAP2 Parish Wide Physical Inspections Total	0.00	0.00	0.00	0.00	540,513.37	1,088,298.21	71,827.89	0.00	0.00	0.00	0.00	0.00	0.00	1,700,639.47	0.00	0.00	0.00	0.00	1,700,639.47
09-AR-BD-0011 Scotland Ave - Progress Rd Area Rehabilitation Project																			
Engineering							0.00							0.00					0.00
Land						825.00	506.12					1,294.06		2,625.18	0.00				2,625.18
Construction							6,613,389.66	1,428,189.66						8,041,579.32	0.00				8,041,579.32
Inspection							209,182.90	69,390.39						278,573.29	0.00				278,573.29
09-AR-BD-0011 Scotland Ave - Progress Rd Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	825.00	6,823,078.68	1,497,580.05	0.00	0.00	0.00	1,294.06	0.00	8,322,777.79	0.00	0.00	0.00	0.00	8,322,777.79
09-AR-BD-0012 Elm Grove Garden Rd - Harding Blvd Area Rehabilitation Project																			
Engineering							0.00	0.00						0.00					0.00
Construction							5,093,776.53	6,125,830.80	13,481.20					11,233,088.53	0.00				11,233,088.53
Inspection							209,318.19	142,330.48						351,648.67	0.00				351,648.67
09-AR-BD-0012 Elm Grove Garden Rd - Harding Blvd Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	5,303,094.72	6,268,161.28	13,481.20	0.00	0.00	0.00	0.00	11,584,737.20	0.00	0.00	0.00	0.00	11,584,737.20
09-AR-BD-0013 Sharp Rd - Florida Blvd Area Rehabilitation Project																			
Engineering									0.00					0.00					0.00
Land							2,548.89	2,000.00						4,548.89	0.00				4,548.89
Construction							187,877.26	11,068,749.49	4,535,462.23	277,185.77		0.00		16,069,274.75	0.00				16,069,274.75
Inspection							22,365.14	351,886.60	95,051.31					469,303.05	0.00				469,303.05
Misc							786.54							786.54	0.00				786.54
09-AR-BD-0013 Sharp Rd - Florida Blvd Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	213,577.83	11,422,636.09	4,630,513.54	277,185.77	0.00	0.00	0.00	16,543,913.23	0.00	0.00	0.00	0.00	16,543,913.23
09-AR-BD-0014 Kenilworth Blvd - Boone Dr Area Rehabilitation Project																			
Construction								1,764,847.89	2,279,574.91	70,696.50				4,115,119.30	0.00				4,115,119.30
Inspection								88,669.79	63,968.03					152,637.82	0.00				152,637.82
09-AR-BD-0014 Kenilworth Blvd - Boone Dr Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,853,517.68	2,343,542.94	70,696.50	0.00	0.00	0.00	4,267,757.12	0.00	0.00	0.00	0.00	4,267,757.12
09-AR-BD-0015 Foster Dr - Government St Area Rehabilitation Project (Phase A)																			
Construction							1,634,810.07	2,100,851.38	133,378.02					3,869,039.47	0.00				3,869,039.47
Inspection								176.08	12,077.61					12,253.69	0.00				12,253.69
09-AR-BD-0015 Foster Dr - Government St Area Rehabilitation Project (Phase A) Total	0.00	0.00	0.00	0.00	0.00	0.00	1,634,810.07	2,101,027.46	145,455.63	0.00	0.00	0.00	0.00	3,881,293.16	0.00	0.00	0.00	0.00	3,881,293.16
09-AR-BD-015A Foster Dr - Government St Area Rehabilitation Project (Phase B)																			
Construction								2,095,027.00	399,616.50	2,500.00				2,497,143.50	0.00				2,497,143.50
Inspection							79,302.97	219,959.84						299,262.81	0.00				299,262.81
09-AR-BD-015A Foster Dr - Government St Area Rehabilitation Project (Phase B) Total	0.00	0.00	0.00	0.00	0.00	0.00	79,302.97	2,314,986.84	399,616.50	2,500.00	0.00	0.00	0.00	2,796,406.31	0.00	0.00	0.00	0.00	2,796,406.31
10-AR-BD-0039 Brookstown Rd - Evangeline St Area Rehabilitation Project (Phase 1)																			
Construction								4,501,481.83	4,442,020.47	1,459,150.22	770.00			10,403,422.52	0.00				10,403,422.52
Inspection								238,502.12	44,172.58					282,674.70	0.00				282,674.70
10-AR-BD-0039 Brookstown Rd - Evangeline St Area Rehabilitation Project (Phase 1) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,739,983.95	4,486,193.05	1,459,150.22	770.00	0.00	0.00	10,686,097.22	0.00	0.00	0.00	0.00	10,686,097.22
10-AR-BD-0040 Brookstown Rd - Evangeline St Area Rehabilitation Project (Phase 2)																			
Engineering									0.00					0.00					0.00

Project ID	Expenses													Total Expenses	Encumbrances	Remaining Project Estimates			Estimated Total	
	2000	2004	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016			2016	2017	2018		
Inspection									2,576.71	34,842.81					37,419.52	0.00				37,419.52
10-AR-BD-0044 Acadian Thwy - Perkins Rd Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20,075.72	2,110,004.83	538,598.51	43,931.75	0.00	0.00	2,712,610.81	0.00	0.00	0.00	0.00	2,712,610.81
10-AR-BD-0045 Stanford Rd - Morning Glory Rd Area Rehabilitation Project																				
Construction									28,666.80	3,326,257.70	632,363.83	905.28	275,000.00		4,263,193.61	0.00				4,263,193.61
Inspection									26,728.60	49,905.18					76,633.78	0.00				76,633.78
10-AR-BD-0045 Stanford Rd - Morning Glory Rd Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55,395.40	3,376,162.88	632,363.83	905.28	275,000.00	0.00	4,339,827.39	0.00	0.00	0.00	0.00	4,339,827.39
10-AR-BD-0046 Acadian Thwy - Claycut Rd Area Rehabilitation Project																				
Construction									105.00	2,028,999.71	2,821,686.60	34,917.98		4,885,709.29	0.00					4,885,709.29
Inspection										9,841.64				9,841.64	0.00					9,841.64
10-AR-BD-0046 Acadian Thwy - Claycut Rd Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105.00	2,038,841.35	2,821,686.60	34,917.98	0.00	0.00	4,895,550.93	0.00	0.00	0.00	0.00	4,895,550.93
10-AR-MS-0043 Bluebonnet Blvd - Jefferson Hwy Area Rehabilitation Project (Phase 2)																				
Construction									180,946.76	2,746,060.70	1,151,893.39			4,078,900.85	0.00					4,078,900.85
Inspection									15,423.16	50,138.12				65,561.28	0.00					65,561.28
10-AR-MS-0043 Bluebonnet Blvd - Jefferson Hwy Area Rehabilitation Project (Phase 2) Tot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	196,369.92	2,796,198.82	1,151,893.39	0.00	0.00	0.00	4,144,462.13	0.00	0.00	0.00	0.00	4,144,462.13
10-AR-UF-0042 Bluebonnet Blvd - Jefferson Hwy Area Rehabilitation Project (Phase 1)																				
Engineering										0.00				0.00						0.00
Construction									269,025.04	2,654,299.19	1,267,548.09	0.00		4,190,872.32	0.00					4,190,872.32
Inspection									23,509.38	37,310.23				60,819.61	0.00					60,819.61
10-AR-UF-0042 Bluebonnet Blvd - Jefferson Hwy Area Rehabilitation Project (Phase 1) Tot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	292,534.42	2,691,609.42	1,267,548.09	0.00	0.00	0.00	4,251,691.93	0.00	0.00	0.00	0.00	4,251,691.93
11-AR-MS-0022 Highland Rd - Washington St Area Rehabilitation Project																				
Land											3,750.00			3,750.00	0.00					3,750.00
Construction									105.00	6,026,117.53	2,855,214.58	1,041,387.64		9,922,824.75	0.00					9,922,824.75
Inspection										31,204.21				31,204.21	0.00					31,204.21
11-AR-MS-0022 Highland Rd - Washington St Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105.00	6,057,321.74	2,858,964.58	1,041,387.64	0.00	0.00	9,957,778.96	0.00	0.00	0.00	0.00	9,957,778.96
11-AR-MS-0027 Airline Hwy - Goodwood Blvd Area Rehabilitation Project (Phase 1)																				
Construction										953,261.40	5,092,895.01	2,006,812.65	151,629.28		8,204,598.34	0.00				8,204,598.34
11-AR-MS-0027 Airline Hwy - Goodwood Blvd Area Rehabilitation Project (Phase 1) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	953,261.40	5,092,895.01	2,006,812.65	151,629.28	0.00	8,204,598.34	0.00	0.00	0.00	0.00	8,204,598.34
11-AR-MS-0028 Airline Hwy - Goodwood Blvd Area Rehabilitation Project (Phase 2)																				
Construction											394,098.36	4,511,497.86	2,328,417.25	579,539.64	7,813,553.11	2,416,336.91	-1,500,000.00			8,729,890.02
11-AR-MS-0028 Airline Hwy - Goodwood Blvd Area Rehabilitation Project (Phase 2) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	394,098.36	4,511,497.86	2,328,417.25	579,539.64	7,813,553.11	2,416,336.91	(1,500,000.00)	0.00	0.00	8,729,890.02
11-AR-MS-0029 Antioch Rd - Chadsford Dr Area Rehabilitation Project																				
Construction											145.00	3,592,723.90	3,174,967.05	311,975.80	7,079,811.75	1,901,033.40	-500,000.00			8,480,845.15
11-AR-MS-0029 Antioch Rd - Chadsford Dr Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	145.00	3,592,723.90	3,174,967.05	311,975.80	7,079,811.75	1,901,033.40	(500,000.00)	0.00	0.00	8,480,845.15
12-AR-MS-0038 Jones Creek Rd - Tiger Bend Rd Area Rehabilitation Project																				
Construction												1,736,260.58	4,287,956.27	793,057.67	6,817,274.52	1,561,678.85	-1,500,000.00			6,878,953.37
12-AR-MS-0038 Jones Creek Rd - Tiger Bend Rd Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,736,260.58	4,287,956.27	793,057.67	6,817,274.52	1,561,678.85	(1,500,000.00)	0.00	0.00	6,878,953.37
12-AR-MS-0039 Scenic Hwy - Spanish Town Rd Area Rehabilitation Project (Phase 1)																				
Construction												1,228,129.43	4,050,281.88	567,738.98	5,846,150.29	2,708,351.62	-500,000.00			8,054,501.91
12-AR-MS-0039 Scenic Hwy - Spanish Town Rd Area Rehabilitation Project (Phase 1) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,228,129.43	4,050,281.88	567,738.98	5,846,150.29	2,708,351.62	(500,000.00)	0.00	0.00	8,054,501.91
12-AR-MS-0040 I-110 - Hollywood St Area Rehabilitation Project																				
Construction												414,922.99	2,889,640.96	171,674.95	3,476,238.90	0.00				3,476,238.90
12-AR-MS-0040 I-110 - Hollywood St Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	414,922.99	2,889,640.96	171,674.95	3,476,238.90	0.00	0.00	0.00	0.00	3,476,238.90
12-AR-MS-0041 East Blvd - Government St Area Rehabilitation Project																				
Construction														110,118.25	1,954,194.48	2,064,312.73	2,263,765.77	-145,000.00	-71,000.00	4,112,078.50
12-AR-MS-0041 East Blvd - Government St Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	110,118.25	1,954,194.48	2,064,312.73	2,263,765.77	(145,000.00)	(71,000.00)	4,112,078.50
13-AR-MS-0032 Scenic Hwy - Spanish Town Rd Area Rehabilitation Project (Phase 2)																				
Construction														5,220,392.34	1,661,403.81	6,881,796.15	1,896,277.15	0.00	0.00	8,778,073.30
13-AR-MS-0032 Scenic Hwy - Spanish Town Rd Area Rehabilitation Project (Phase 2) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,220,392.34	1,661,403.81	6,881,796.15	1,896,277.15	0.00	0.00	8,778,073.30
13-AR-MS-0033 Siegen Ln - I-10 Area Rehabilitation Project																				
Construction														961,674.20	1,191,046.50	2,152,720.70	2,336,164.05	-824,000.00		3,664,884.75
13-AR-MS-0033 Siegen Ln - I-10 Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	961,674.20	1,191,046.50	2,152,720.70	2,336,164.05	(824,000.00)	0.00	3,664,884.75
13-AR-MS-0034 Ardenwood Dr - Winbourne Ave Area Rehabilitation Project																				
Construction														1,122,093.21	864,693.59	1,986,786.80	973,727.55	-148,000.00		2,812,514.35
13-AR-MS-0034 Ardenwood Dr - Winbourne Ave Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,122,093.21	864,693.59	1,986,786.80	973,727.55	(148,000.00)	0.00	2,812,514.35
14-AR-MS-0033 Flannery Rd - Florida Blvd Area Rehabilitation Project (Phase 1)																				
Construction															1,576,985.36	1,576,985.36	3,098,550.80	-118,636.36	-115,363.64	4,441,536.16
14-AR-MS-0033 Flannery Rd - Florida Blvd Area Rehabilitation Project (Phase 1) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,576,985.36	1,576,985.36	3,098,550.80	(118,636.36)	(115,363.64)	4,441,536.16
14-AR-MS-0034 Flannery Rd - Florida Blvd Area Rehabilitation Project (Phase 2)																				
Construction														135.00	135.00	0.00	4,228,426.64	-125,301.78	-42,124.86	4,061,135.00
14-AR-MS-0034 Flannery Rd - Florida Blvd Area Rehabilitation Project (Phase 2) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	135.00	135.00	0.00	4,228,426.64	(125,301.78)	(42,124.86)	4,061,135.00
14-AR-MS-0035 N 38th St - Gus Young Ave Area Rehabilitation Project																				
Construction															0.00	0.00	3,268,031.17	-110,428.60	-22,602.57	3,135,000.00
14-AR-MS-0035 N 38th St - Gus Young Ave Area Rehabilitation Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,268,031.17	(110,428.60)	(22,602.57)	3,135,000.00
Capacity																				
06-CS-HC-0024 Staring Ln Roadway Improvements - Phase 2 (Highland Road to Perkins Road)	0.00	0.00	0.00	311,404.49	3,743,321.45	21,602,234.51	30,566,391.33	93,219,815.47	110,952,224.36	123,512,298.59	77,079,146.86	79,844,022.86	34,834,090.55	575,664,950.47	160,940,646.11	9,213,045.42	446,422.95	128,318.94	746,393,383.90	
Land								9,038.50	436.00					9,474.50	0.00					9,474.50

Project ID	Expenses													Total Expenses	Encumbrances	Remaining Project Estimates			Estimated Total
	2000	2004	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016			2016	2017	2018	
Construction									1,824,057.50	1,917,666.16	6,150,366.34	483,382.06	85,204.54	10,460,676.60	0.00				10,460,676.60
06-CS-HC-0024 Staring Ln Roadway Improvements - Phase 2 (Highland Road to Perkins R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,038.50	1,824,493.50	1,917,666.16	6,150,366.34	483,382.06	85,204.54	10,470,151.10	0.00	0.00	0.00	0.00	10,470,151.10
06-CS-HC-0030 Staring Ln Extension - Phase 1 (Burbank Drive - LA 42 to Highland Road)																			
Engineering				311,404.49	693,953.01	128,200.53	244,789.78	424,771.69	91,034.52	49,842.91	2,333.37	0.00	1,946,330.30	0.00				1,946,330.30	
Land									1,603,697.72				1,603,697.72	0.00				1,603,697.72	
Construction							1,330,693.24	1,727,467.40	1,624,730.07	671,749.70			5,354,640.41	0.00				5,354,640.41	
06-CS-HC-0030 Staring Ln Extension - Phase 1 (Burbank Drive - LA 42 to Highland Road) T	0.00	0.00	0.00	311,404.49	693,953.01	1,458,893.77	1,972,257.18	2,049,501.76	2,366,481.94	49,842.91	2,333.37	0.00	8,904,668.43	0.00	0.00	0.00	0.00	8,904,668.43	
06-WC-CP-0036 Staring Ln Sewer Improvements - Phase 3 (Perkins Road to Pump Station 58)																			
Land								284,715.48	46,324.00			-36.54	331,002.94	0.00				331,002.94	
Construction								219.00	6,608,344.24	2,033,700.43	95.00	288,101.64	8,930,460.31	100.00				8,930,560.31	
Inspection									5,445.48				5,445.48	0.00				5,445.48	
06-WC-CP-0036 Staring Ln Sewer Improvements - Phase 3 (Perkins Road to Pump Station)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	284,934.48	6,660,113.72	2,033,700.43	58.46	288,101.64	9,266,908.73	100.00	0.00	0.00	0.00	9,267,008.73	
06-WC-IF-0014 Zachary Area Transmission Network Improvements Project general																			
Engineering					416,320.91	2,833,805.98	1,222,558.01	604,203.88	377,511.18	479,246.78	321,730.29	69,257.02	21,868.72	6,346,502.77	125,156.88				6,471,659.65
Land				9,207.00	35,604.80	471,406.65	675,196.35	130,471.66	243,625.36	15,029.56	1,440.70	62,087.53	1,644,069.61	63,199.00				1,707,268.61	
Inspection							149,016.72	66,289.52					215,306.24	0.00				215,306.24	
06-WC-IF-0014 Zachary Area Transmission Network Improvements Project general Total	0.00	0.00	0.00	0.00	425,527.91	2,869,410.78	1,693,964.66	1,428,416.95	574,272.36	722,872.14	336,759.85	70,697.72	8,205,878.62	188,355.88	0.00	0.00	0.00	8,394,234.50	
06-WC-IF-014E Zachary Area Transmission Network Improvements Project Phase 5																			
Construction												170.00	333,750.00	333,920.00	1,263,250.00	8,042.97	5,269.53		1,610,482.50
Misc												35,188.71	0.00	35,188.71	0.00				35,188.71
06-WC-IF-014E Zachary Area Transmission Network Improvements Project Phase 5 Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35,358.71	333,750.00	369,108.71	1,263,250.00	8,042.97	5,269.53	0.00	1,645,671.21
07-FM-BD-0046 Foster Rd - Hooper Rd Sewer Area Upgrades																			
Engineering					355,723.60	7,423.73				5,504.99			368,652.32	0.00				368,652.32	
Construction						4,965,081.95	3,364,188.55		102,549.00				8,431,819.50	0.00				8,431,819.50	
Inspection						16,748.43	68,086.31	2,315.75					87,150.49	0.00				87,150.49	
07-FM-BD-0046 Foster Rd - Hooper Rd Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	355,723.60	4,989,254.11	3,432,274.86	2,315.75	102,549.00	5,504.99	0.00	0.00	8,887,622.31	0.00	0.00	0.00	0.00	8,887,622.31	
07-PS-BD-0017 Gurney Rd - Joor Rd Sewer Area Upgrades																			
Engineering					324,616.13	15,587.73	0.00			1,934.43	1,990.00		344,128.29	0.00				344,128.29	
Land					1,154.00								1,154.00	0.00				1,154.00	
Construction					95.00	1,398,731.61	150,337.18						1,549,163.79	0.00				1,549,163.79	
Inspection						30,681.10	1,202.63						31,883.73	0.00				31,883.73	
Misc									287,845.73				287,845.73	0.00				287,845.73	
07-PS-BD-0017 Gurney Rd - Joor Rd Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	325,865.13	1,445,000.44	151,539.81	0.00	287,845.73	1,934.43	1,990.00	0.00	2,214,175.54	0.00	0.00	0.00	0.00	2,214,175.54	
07-PS-BD-0018 Sullivan Rd - Lovett Rd - Wax Rd Sewer Area Upgrades																			
Engineering					409,888.00	67,635.39	6,462.80	39,081.93					523,068.12	0.00				523,068.12	
Land					2,825.25	31,765.00							34,590.25	0.00				34,590.25	
Construction						872,096.64	1,085,751.49	100,354.13					2,058,202.26	0.00				2,058,202.26	
Inspection						20,008.46	48,887.17	3,287.16					72,182.79	0.00				72,182.79	
07-PS-BD-0018 Sullivan Rd - Lovett Rd - Wax Rd Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	412,713.25	991,505.49	1,141,101.46	142,723.22	0.00	0.00	0.00	0.00	2,688,043.42	0.00	0.00	0.00	0.00	2,688,043.42	
07-PS-BD-0019 Comite Dr - Foster Rd Sewer Area Upgrades (Phase 1)																			
Engineering					401,498.48	45,856.37	21,556.30						468,911.15	0.00				468,911.15	
Land					2,875.25	11,449.00	1,125.00						15,449.25	0.00				15,449.25	
Construction						1,508,053.47	416,889.88						1,924,943.35	0.00				1,924,943.35	
Inspection						42,630.10	15,032.25						57,662.35	0.00				57,662.35	
07-PS-BD-0019 Comite Dr - Foster Rd Sewer Area Upgrades (Phase 1) Total	0.00	0.00	0.00	0.00	404,373.73	1,607,988.94	454,603.43	0.00	0.00	0.00	0.00	0.00	2,466,966.10	0.00	0.00	0.00	0.00	2,466,966.10	
07-PS-BD-0048 & 09-GS-UF-0008 Capitol Lake Dr - Gayosa St / 25th St - N Acadian Thwy Sewer Area Upgrades																			
Engineering					421,873.89	165,331.68	105,874.85	67,453.44	99,153.64	11,990.00	9.99		871,687.49	0.00				871,687.49	
Land						176,845.88	135,079.36			-3,433.32	584.00	706.98	619.82	317,402.72	0.00				317,402.72
Construction							2,085.00	6,709,871.03	2,015,375.50				8,727,331.53	0.00				8,727,331.53	
Inspection						79,224.01	29,578.35						108,802.36	0.00				108,802.36	
07-PS-BD-0048 & 09-GS-UF-0008 Capitol Lake Dr - Gayosa St / 25th St - N Acadian Thwy	0.00	0.00	0.00	0.00	421,873.89	172,331.68	284,805.73	6,991,627.84	2,144,107.49	8,556.68	593.99	706.98	10,025,224.10	0.00	0.00	0.00	0.00	10,025,224.10	
08-FM-ST-0023 Highland Rd - Burbank Dr Sewer Area Upgrades																			
Engineering					236,292.45	1,084,500.16	128,919.80	26,061.05	85,625.09	10,381.54	34,723.02	2,634.62	188.00	1,609,325.73	31,349.78				1,640,675.51
Land						73,379.45	7,689.50	1,041,522.42	-24,064.00	24,435.00	15,411.14		1,138,373.51	0.00				1,138,373.51	
Construction								9,310,840.22	9,543,699.96	2,700,931.19	3,080.00	-540.00	21,558,011.37	936,737.17				22,494,748.54	
Inspection								47,935.28	58,803.85				106,739.13	0.00				106,739.13	
Misc								263,534.95	2,705.00				292,143.70	41,596.25	25,903.75			333,739.95	
08-FM-ST-0023 Highland Rd - Burbank Dr Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	236,292.45	1,157,879.61	136,609.30	10,689,893.92	9,666,769.90	2,735,747.73	53,214.16	2,094.62	24,704,593.44	1,009,683.20	0.00	0.00	0.00	25,714,276.64	
08-FM-UF-0024 Citiplace/Essen Area Pump Station 119 & Force Main Improvements																			
Engineering					120,593.41	147,421.42	199,093.52	25,277.07	1,541.19			100.00	494,026.61	0.00				494,026.61	
Land						29,898.10		6,000.00	13,589.00				49,487.10	0.00				49,487.10	
Construction							357.35	2,341,303.62	443,202.30	24,994.64			2,809,857.91	0.00				2,809,857.91	
Inspection								47,967.21	15,316.12				63,283.33	0.00				63,283.33	
08-FM-UF-0024 Citiplace/Essen Area Pump Station 119 & Force Main Improvements Total	0.00	0.00	0.00	0.00	120,593.41	177,319.52	205,450.87	2,428,136.90	460,059.61	24,994.64	0.00	0.00	3,416,654.95	0.00	0.00	0.00	0.00	3,416,654.95	
08-GS-ST-0018 & 09-GS-UF-008B South Blvd - St Joseph St /25th St - N Acadian Thwy Sewer Area Upgrades																			
Engineering					196,548.65	516,841.05	45,496.30	89,371.73	41,831.87	1,894.96	136,145.61	17,948.77	21,817.18	1,067,896.12	33.87				1,067,929.99
Land							10,721.12	7,000.00					17,721.12	0.00				17,721.12	
Construction							516,979.04	12,818,457.33	4,291,456.74		80,834.40		17,707,727.51	0.00				17,707,727.51	
Inspection							5,978.88	135,505.83	26,865.03				168,349.74	0.00				168,349.74	
Misc							729.18						729.18	0.00				729.18	
08-GS-ST-0018 & 09-GS-UF-008B South Blvd - St Joseph St /25th St - N Acadian Thwy Sew	0.00	0.00																	

Project ID	Expenses													Total Expenses	Encumbrances	Remaining Project Estimates			Estimated Total
	2000	2004	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016			2016	2017	2018	
Engineering					149,856.42	213,563.22	138,236.80	142,357.74						644,014.18	2,710.93				646,725.11
Land							181,903.00	5,921.79	2,475.00	22,905.58	11,074.01			224,279.38	0.00				224,279.38
Construction							1,698,711.73	2,879,174.03	552,164.29					5,130,050.05	0.00				5,130,050.05
Inspection							26,784.94	66,627.19						93,412.13	0.00				93,412.13
Misc											208,414.00			208,414.00	0.00				208,414.00
08-GS-ST-0021 Highland Rd - Buchanan St Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	149,856.42	213,563.22	2,045,636.47	3,094,080.75	554,639.29	22,905.58	219,488.01	0.00	0.00	6,300,169.74	2,710.93	0.00	0.00	0.00	6,302,880.67
08-GS-ST-018B & 09-GS-UF-008B South Blvd - St Joseph St - Phase B Sewer Area Upgrades																			
Construction											1,231,876.95	3,305,882.90	1,629,203.04	6,166,962.89	3,022,373.03	493,141.91	10,202.94		9,692,680.77
08-GS-ST-018B & 09-GS-UF-008B South Blvd - St Joseph St - Phase B Sewer Area Upgrade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,231,876.95	3,305,882.90	1,629,203.04	6,166,962.89	3,022,373.03	493,141.91	10,202.94	0.00	9,692,680.77
08-GS-UF-0053 Metro Airport (Group 1A) Gravity Sewer Area Upgrades																			
Engineering						2,369,659.75	939,041.34	138,142.69	132,802.29	58,082.08	3,180.16			3,640,908.31	36,131.29				3,677,039.60
Land						85,138.00	56,204.50	424,663.23	45,086.28	3,276.94	15,604.85	1,876.00		631,849.80	0.00				631,849.80
Construction								4,486,511.73	13,809,283.39	3,672,665.51	7,555.31	-3,170.31		21,972,845.63	0.00				21,972,845.63
Inspection							61,128.84	48,774.08						109,902.92	0.00				109,902.92
08-GS-UF-0053 Metro Airport (Group 1A) Gravity Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	0.00	2,454,797.75	995,245.84	5,110,446.49	14,035,946.04	3,734,024.53	26,340.32	(1,294.31)	0.00	26,355,506.66	36,131.29	0.00	0.00	0.00	26,391,637.95
08-PS-IF-0046 Old Perkins - Highland Rd (Group Project 2) Sewer Area Upgrades																			
Engineering						499,778.01	86,280.42	27,511.33	43,028.84					656,598.60	0.00				656,598.60
Land							8,713.00							8,713.00	0.00				8,713.00
Construction							620,182.59	2,618,793.92	367,593.01	424,320.91	0.03			4,030,890.46	0.00				4,030,890.46
Inspection							18,156.59	42,085.79	7,695.50					67,937.88	0.00				67,937.88
08-PS-IF-0046 Old Perkins - Highland Rd (Group Project 2) Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	0.00	499,778.01	733,332.60	2,688,391.04	418,317.35	424,320.91	0.03	0.00	0.00	4,764,139.94	0.00	0.00	0.00	0.00	4,764,139.94
08-PS-ST-0056 & 08-PS-ST-0057 Downtown Area Pump Station Improvements																			
Engineering						268,337.07	603,662.92	489,907.30	99,275.90	44,437.52			16.10	1,505,636.81	0.00				1,505,636.81
Construction								4,144,966.00	1,075,688.97	152,092.42	12,090.05			5,384,837.44	0.00				5,384,837.44
Inspection							70,403.64	16,529.62						86,933.26	0.00				86,933.26
08-PS-ST-0056 & 08-PS-ST-0057 Downtown Area Pump Station Improvements Total	0.00	0.00	0.00	0.00	0.00	268,337.07	603,662.92	4,705,276.94	1,191,494.49	196,529.94	12,090.05	16.10	0.00	6,977,407.51	0.00	0.00	0.00	0.00	6,977,407.51
08-PS-UF-0054 Metro Airport (Group 1B) Pump Station and Force Main Improvements																			
Engineering						1,126,169.31	1,123,699.58	236,253.18	235,539.36	306,947.11	91,701.96	14,146.05		3,134,456.55	108,327.84				3,242,784.39
Land							23,062.50	231,770.00	404,550.24	18,590.96	1,460.40	1,263.94		680,698.04	0.00				680,698.04
Construction								1,286.60	1,570,606.94	14,285,086.80	7,249,438.82	538,949.94	278,479.25	23,923,848.35	719,684.19	900,000.00			25,543,532.54
Misc										12,200.00	32,665.00	19,341.44		64,206.44	125,059.88				189,266.32
08-PS-UF-0054 Metro Airport (Group 1B) Pump Station and Force Main Improvements Tot	0.00	0.00	0.00	0.00	0.00	1,126,169.31	1,146,762.08	469,309.78	2,210,696.54	14,610,624.87	7,354,801.18	587,024.93	297,820.69	27,803,209.38	953,071.91	900,000.00	0.00	0.00	29,656,281.29
09-FM-MS-033A Central Consolidation Force Main Sewer Area Upgrades (Phase I)																			
Engineering						365,604.16	1,069,570.50	269,351.75	127,154.53	179,266.51	73,040.30		8,498.11	2,092,485.86	29,193.62				2,121,679.48
Land						10,000.00	20,336.25	169,338.85	9,003.50	8,400.00				217,078.60	0.00				217,078.60
Construction								1,500.00	4,351,545.51	7,514,133.08	379,930.91			12,247,109.50	0.00				12,247,109.50
09-FM-MS-033A Central Consolidation Force Main Sewer Area Upgrades (Phase I) Total	0.00	0.00	0.00	0.00	0.00	375,604.16	1,089,906.75	440,190.60	4,487,703.54	7,701,799.59	452,971.21	0.00	8,498.11	14,556,673.96	29,193.62	0.00	0.00	0.00	14,585,867.58
09-FM-MS-033B Central Consolidation Force Main Sewer Area Upgrades (Phase II)																			
Land								235,704.00	1,035.00	19,359.50				256,098.50	0.00				256,098.50
Construction									3,572.50	6,203,369.39	617,184.88	641,102.40	398,625.52	7,863,854.69	0.00				7,863,854.69
09-FM-MS-033B Central Consolidation Force Main Sewer Area Upgrades (Phase II) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	235,704.00	4,607.50	6,222,728.89	617,184.88	641,102.40	398,625.52	8,119,953.19	0.00	0.00	0.00	0.00	8,119,953.19
09-FM-MS-036A Pump Station 42 Force Main (Phase 1)																			
Engineering						98,209.36	1,723,029.55	338,908.19	159,467.18	112,295.69	44,212.61	89,833.31	21,409.46	2,587,365.35	100.00				2,587,465.35
Land							22,169.50	160,516.80	170,799.70	787.10	4,350.00			358,623.10	0.00				358,623.10
Construction							2,250.00	105.00	6,877,787.45	7,624,900.12	2,396,679.86	345,032.34		17,246,754.77	0.00				17,246,754.77
09-FM-MS-036A Pump Station 42 Force Main (Phase 1) Total	0.00	0.00	0.00	0.00	0.00	98,209.36	1,747,449.05	499,529.99	7,208,054.33	7,737,982.91	2,445,242.47	434,865.65	21,409.46	20,192,743.22	100.00	0.00	0.00	0.00	20,192,843.22
09-FM-MS-036B Pump Station 42 Force Main (Phase 2)																			
Land									424,000.00					424,000.00	0.00				424,000.00
Construction									179,073.00	10,732,924.66	1,516,904.47			12,428,902.13	676,321.22				13,105,223.35
Misc									229,392.80					229,392.80	0.00				229,392.80
09-FM-MS-036B Pump Station 42 Force Main (Phase 2) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	832,465.80	10,732,924.66	1,516,904.47	0.00	0.00	13,082,294.93	676,321.22	0.00	0.00	0.00	13,758,616.15
09-FM-MS-047A Nicholson Dr - Highland Rd - Perkins Rd Sewer Area Upgrades (Phase A)																			
Engineering							1,127,274.82	359,920.85	136,980.10	60,250.62	93,005.84	35,996.68	5,007.23	1,818,436.14	0.00				1,818,436.14
Land							82,258.25	29,892.50	204,852.00	89,431.25	-1,803.00	15,118.44	6,106.50	425,855.94	49,000.00				474,855.94
Construction							2,474,244.64	140,348.18	733,213.81					3,347,806.63	0.00				3,347,806.63
Inspection							64,528.25	9,160.54						73,688.79	0.00				73,688.79
09-FM-MS-047A Nicholson Dr - Highland Rd - Perkins Rd Sewer Area Upgrades (Phase A) Total	0.00	0.00	0.00	0.00	0.00	0.00	1,209,533.07	2,928,586.24	491,340.82	882,895.68	91,202.84	51,115.12	11,113.73	5,665,787.50	49,000.00	0.00	0.00	0.00	5,714,787.50
09-FM-MS-047B Nicholson Dr - Highland Rd - Perkins Rd Sewer Area Upgrades (Phase B)																			
Land									663,140.00	471,598.78	32,496.68	20,307.00	2,126.06	1,189,668.52	0.00				1,189,668.52
Construction								684,597.00	355.00	937,463.52	6,659,261.24	478,661.32	24,968.04	8,785,306.12	5,943.42				8,791,249.54
09-FM-MS-047B Nicholson Dr - Highland Rd - Perkins Rd Sewer Area Upgrades (Phase B) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	684,597.00	663,495.00	1,409,062.30	6,691,757.92	498,968.32	27,094.10	9,974,974.64	5,943.42	0.00	0.00	0.00	9,980,918.06
09-GS-MS-0042 Bayou Duplantier Sewer Area Upgrades																			
Engineering							497,508.56	105,000.61	49,294.20	16,954.12	11,126.36	636.44		680,520.29	12,587.81				693,108.10
Land							16,644.00	309,555.50	292,054.78	4,399.00				622,653.28	0.00				622,653.28
Construction								115.00	554,355.65	3,615,524.84				4,169,995.49	457,202.58				4,627,198.07
Misc											110.00	48,200.00		48,310.00	0.00				48,310.00
09-GS-MS-0042 Bayou Duplantier Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	0.00	0.00	514,152.56	414,671.11	895,704.63	3,636,877.96	11,236.36	48,836.44	0.00	5,521,47					

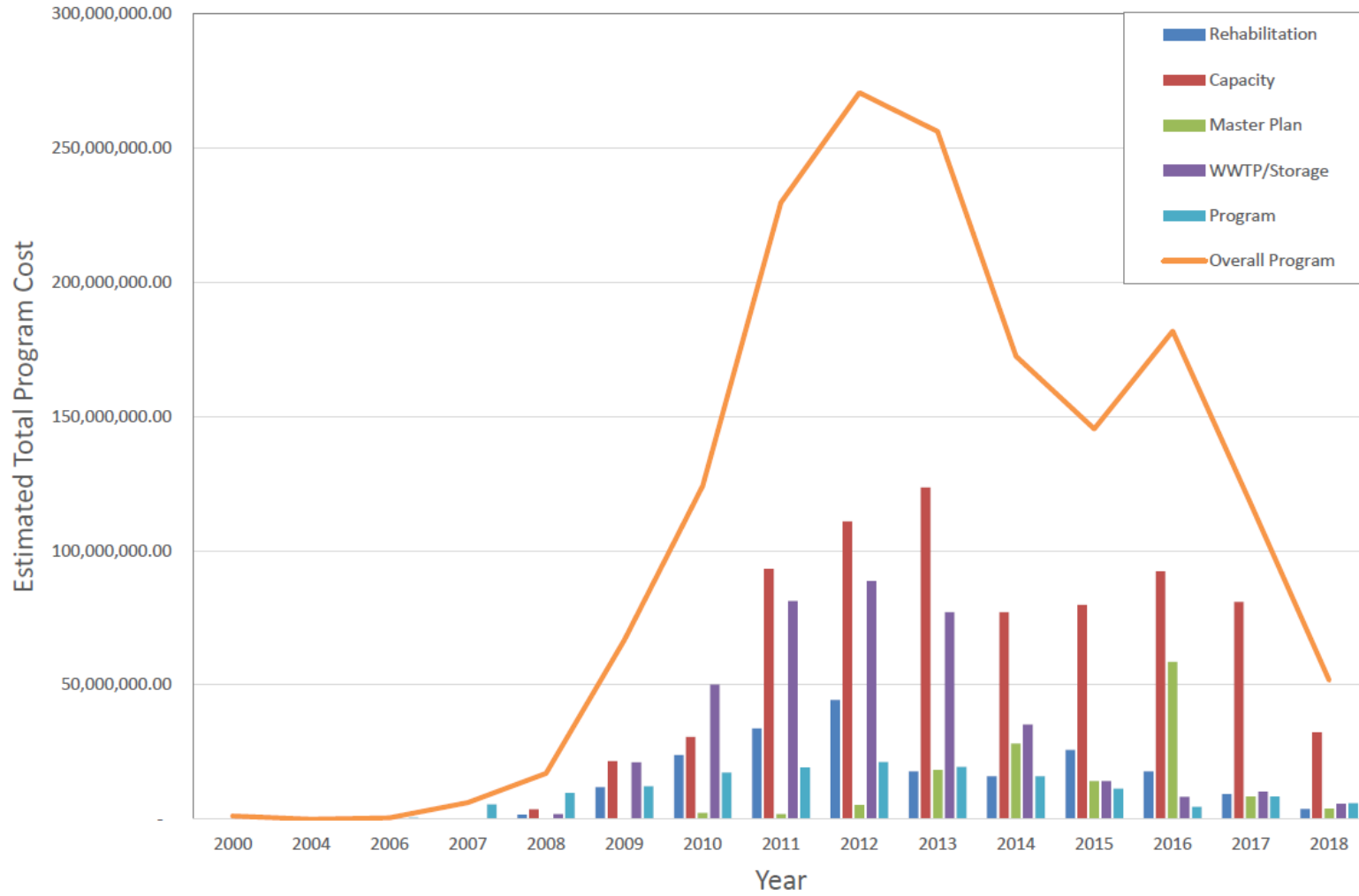
Project ID	Expenses													Total Expenses	Encumbrances	Remaining Project Estimates			Estimated Total
	2000	2004	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016			2016	2017	2018	
09-GS-UF-0008 25TH St - North Acadian Thwy																			
Engineering						448,554.89	123,650.58	71,384.19	29,205.67	19,278.18				692,073.51	0.00			692,073.51	
Construction							750.00							750.00	0.00			750.00	
09-GS-UF-0008 25TH St - North Acadian Thwy Total	0.00	0.00	0.00	0.00	0.00	448,554.89	124,400.58	71,384.19	29,205.67	19,278.18	0.00	0.00	0.00	692,823.51	0.00	0.00	0.00	692,823.51	
09-GS-UF-0028 Plank Rd - Kleinpeter Rd Sewer Area Upgrades																			
Engineering							1,004,448.83	350,696.11	1,226.00	114,902.84	47,531.03	14,766.87	826.88	1,534,398.56	55,002.60			1,589,401.16	
Land						26,165.50	40,488.00	67,511.50	393,219.80	26,011.97	242,172.00		4,840.00	800,408.77	0.00			800,408.77	
Construction										4,126,592.22	4,740,185.52	2,171,752.72	882,140.17	11,920,670.63	235,880.15	154,881.23		12,311,432.01	
09-GS-UF-0028 Plank Rd - Kleinpeter Rd Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	0.00	26,165.50	1,044,936.83	418,207.61	394,445.80	4,267,507.03	5,029,888.55	2,186,519.59	887,807.05	14,255,477.96	290,882.75	154,881.23	0.00	14,701,241.94	
09-PS-MS-0034 Booster Pump Station 514 Replacement																			
Engineering						29,695.31	1,128,943.56	100,114.52	235,858.67			5,025.86		1,499,637.92	90,916.67			1,590,554.59	
Land						9,081.85	3,118.15	221,043.00						233,243.00	0.00			233,243.00	
Construction								1,135,315.00	7,067,394.89	240,735.59	79,366.94			8,522,812.42	0.00			8,522,812.42	
Inspection								3,254.19	24,814.81					28,069.00	0.00			28,069.00	
09-PS-MS-0034 Booster Pump Station 514 Replacement Total	0.00	0.00	0.00	0.00	0.00	38,777.16	1,132,061.71	1,459,726.71	7,328,068.37	240,735.59	79,366.94	5,025.86	0.00	10,283,762.34	90,916.67	0.00	0.00	10,374,679.01	
09-PS-MS-0035 Central Consolidated Pump Stations																			
Engineering						19,205.97	1,544,928.31	349,581.55	350,408.63	154,771.23	85,969.26	77,184.61		2,582,049.56	100.02			2,582,149.58	
Land						10,000.00		399.00	326,642.00	2,800.00		1,850.00		341,691.00	0.00			341,691.00	
Construction								105.00	7,761,517.16	11,977,875.95	2,094,872.92	412,281.10	640.00	22,247,292.13	646,640.79			22,893,932.92	
Inspection									5,617.62					5,617.62	0.00			5,617.62	
Misc									26,782.43	0.00				26,782.43	32,023.47			58,805.90	
09-PS-MS-0035 Central Consolidated Pump Stations Total	0.00	0.00	0.00	0.00	0.00	29,205.97	1,544,928.31	350,085.55	8,470,967.84	12,135,447.18	2,180,842.18	491,315.71	640.00	25,203,432.74	678,764.28	0.00	0.00	25,882,197.02	
09-PS-MS-0046 Multiple Pump Stations - Jefferson Hwy - Park Forest Dr																			
Engineering							405,928.92	42,962.94	34,993.47					483,885.33	0.00			483,885.33	
Land							3,800.50	26,221.00				643.42		30,664.92	0.00			30,664.92	
Construction								929,608.90	1,540,368.48	125,064.10				2,595,041.48	0.00			2,595,041.48	
Inspection								21,916.99	19,946.09					41,863.08	0.00			41,863.08	
09-PS-MS-0046 Multiple Pump Stations - Jefferson Hwy - Park Forest Dr Total	0.00	0.00	0.00	0.00	0.00	0.00	409,729.42	1,020,709.83	1,595,308.04	125,064.10	0.00	643.42	0.00	3,151,454.81	0.00	0.00	0.00	3,151,454.81	
09-PS-MS-0048 Multiple Pump Station - Nicholson Dr - Brightside Ln																			
Engineering							1,183,908.91	314,176.05	130,366.97	160,500.58	24,482.13	30,507.14	14,706.14	1,858,647.92	2,435.58			1,861,083.50	
Land							2,062.00	4,073.00	30,631.00	777.00				37,543.00	0.00			37,543.00	
Construction									135.00	4,475,265.47	5,092,144.87	2,140,614.05		11,708,159.39	737,092.26			12,445,251.65	
Misc														28,286.06	0.00			28,286.06	
09-PS-MS-0048 Multiple Pump Station - Nicholson Dr - Brightside Ln Total	0.00	0.00	0.00	0.00	0.00	0.00	1,185,970.91	318,249.05	161,132.97	4,635,766.05	5,117,404.00	2,199,407.25	14,706.14	13,632,636.37	739,527.84	0.00	0.00	14,372,164.21	
09-PS-UF-0001 Pump Station 58 Replacement																			
Engineering						332,302.91	1,507,186.43	87,305.14	23,195.48	336,283.51	244,206.38	11,345.18		2,541,825.03	5,742.58			2,547,567.61	
Land						10,000.00		15,000.00		29,588.00				54,588.00	0.00			54,588.00	
Construction									979,700.95	6,580,269.41	5,321,258.21	369,411.91		13,250,640.48	47,028.20			13,297,668.68	
Misc												465.00		465.00	62,394.24			62,859.24	
09-PS-UF-0001 Pump Station 58 Replacement Total	0.00	0.00	0.00	0.00	0.00	342,302.91	1,507,186.43	102,305.14	1,032,484.43	6,916,552.92	5,565,464.59	381,222.09	0.00	15,847,518.51	115,165.02	0.00	0.00	15,962,683.53	
09-PS-UF-0003 Pump Station 42 Improvements																			
Engineering						294,343.81	769,773.91	663,185.93	215,667.43	250,108.12	219,410.70	25,624.62		2,438,114.52	0.00			2,438,114.52	
Construction									200,000.00	4,533,755.82	2,378,976.67	4,409,438.60	4,393.78	11,526,564.87	381,797.16			11,908,362.03	
Inspection									115.00					115.00	0.00			115.00	
09-PS-UF-0003 Pump Station 42 Improvements Total	0.00	0.00	0.00	0.00	0.00	294,343.81	769,773.91	663,185.93	415,782.43	4,783,863.94	2,598,387.37	4,435,063.22	4,393.78	13,964,794.39	381,797.16	0.00	0.00	14,346,591.55	
10-FM-IF-0002 Zachary Area Transmission Network Improvements Project Phase 1																			
Construction								9,630,085.36	8,715,488.89	610,525.51	38,299.76	820.00		18,995,219.52	0.00			18,995,219.52	
10-FM-IF-0002 Zachary Area Transmission Network Improvements Project Phase 1 Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,630,085.36	8,715,488.89	610,525.51	38,299.76	820.00	0.00	18,995,219.52	0.00	0.00	0.00	18,995,219.52	
10-FM-IF-0003 Zachary Area Transmission Network Improvements Project Phase 2																			
Construction									1,291,098.66	7,816,530.53	7,294,026.00	5,169,651.77	91,811.55	21,663,118.51	1,615,528.22	429,000.00		23,707,646.73	
10-FM-IF-0003 Zachary Area Transmission Network Improvements Project Phase 2 Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,291,098.66	7,816,530.53	7,294,026.00	5,169,651.77	91,811.55	21,663,118.51	1,615,528.22	429,000.00	0.00	23,707,646.73	
10-FM-IF-0004 Zachary Area Transmission Network Improvements Project Phase 3																			
Construction								705,053.47	7,834,433.00	645,588.23	102,196.49	127,284.62		9,414,555.81	0.00			9,414,555.81	
Inspection								598.06						598.06	0.00			598.06	
10-FM-IF-0004 Zachary Area Transmission Network Improvements Project Phase 3 Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	705,651.53	7,834,433.00	645,588.23	102,196.49	127,284.62	0.00	9,415,153.87	0.00	0.00	0.00	9,415,153.87	
10-FM-IF-0005 Zachary Area Transmission Network Improvements Project Phase 4																			
Construction								6,884,378.47	55,628.10					6,940,006.57	0.00			6,940,006.57	
10-FM-IF-0005 Zachary Area Transmission Network Improvements Project Phase 4 Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6,884,378.47	55,628.10	0.00	0.00	0.00	0.00	6,940,006.57	0.00	0.00	0.00	6,940,006.57	
10-FM-MS-0049 Lovett Rd - Greenwell Springs Rd Sewer Area Upgrades (Group A & B)																			
Engineering									1,253,626.41	1,059,931.71	453,363.81	620,622.25	365,920.80	66,338.45	3,819,803.43	138,463.07	442,700.00	4,400,966.50	
Land							18,107.00	64,836.45	68,159.75		19,478.00		158,720.00	717,102.43	346,495.00			1,063,597.43	
Construction														0.00	17,300,000.00	0.00	0.00	17,300,000.00	
10-FM-MS-0049 Lovett Rd - Greenwell Springs Rd Sewer Area Upgrades (Group A & B) Total	0.00	0.00	0.00	0.00	0.00	0.00	18,107.00	1,318,462.86	1,128,091.46	453,363.81	640,100.25	753,722.03	225,058.45	4,536,905.86	17,784,958.07	442,700.00	0.00	22,764,563.93	
10-FM-MS-008A O'Neal Ln Sewer Area Upgrades (Group A)																			
Engineering							1,398,596.08	2,256,776.54	375,420.37	185,820.41	25,474.55	35,781.82	33,063.91	4,310,933.68	246,610.48			4,557,544.16	
Land							71,023.25	70,362.50	386,852.00	1,135,105.26	128,947.53	-1,020.04		1,791,270.50	28,600.00			1,819,870.50	
Construction										2,487,961.45	11,050,711.35	456,698.71		13,995,371.51	10.09	392,248.37		14,387,629.97	
10-FM-MS-008A O'Neal Ln Sewer Area Upgrades (Group A) Total	0.00	0.00	0.00	0.00	0.00	0.00	1,469,619.33	2,327,139.04	762,272.37	3,808,887.12	11,205,133.43	491,460.49	33,063.91	20,097,575.69	275,220.57	392,248.37	0.00	20,765,044.63	
10-FM-MS-008B O'Neal Ln Sewer Area Upgrades (Group B)																			
Engineering													0.00	0.00	0.00			0.00	

Project ID	Expenses												Total Expenses	Encumbrances	Remaining Project Estimates			Estimated Total			
	2000	2004	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015			2016	2016	2017		2018		
Land											185,000.00	-714.28		184,285.72	0.00				184,285.72		
Construction											372,867.00	3,108,718.70	8,000.00	3,489,585.70	0.00				3,489,585.70		
10-FM-MS-008B O'Neal Ln Sewer Area Upgrades (Group B) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	185,000.00	372,152.72	3,108,718.70	8,000.00	3,673,871.42	0.00	0.00	0.00	3,673,871.42		
10-GS-MS-007A Airline Hwy Pipeline Project Phase A																					
Engineering											638,227.80	2,385,311.70	377,889.58	175,091.64	125,791.41	241,938.53	22,884.93	3,967,135.59	535,793.93	4,502,929.52	
Land											48,211.50	42,269.50	4,950.00	324,676.77	1,457,400.06	658,127.87	27,539.00	2,563,174.70	50,900.00	2,614,074.70	
Construction														140.00	4,821,495.92	4,821,635.92	21,955,357.58	157,627.72	396,787.03	77,183.23	27,408,591.48
10-GS-MS-007A Airline Hwy Pipeline Project Phase A Total	0.00	0.00	0.00	0.00	0.00	0.00	686,439.30	2,427,581.20	382,839.58	499,768.41	1,583,191.47	900,206.40	4,871,919.85	11,351,946.21	22,542,051.51	157,627.72	396,787.03	77,183.23	34,525,595.70		
10-GS-MS-007B Airline Hwy Pipeline Project Phase B																					
Construction													150.00	870,750.37	870,900.37	13,129,480.13	98,862.38	248,860.47	51,135.71	14,399,239.06	
10-GS-MS-007B Airline Hwy Pipeline Project Phase B Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150.00	870,750.37	870,900.37	13,129,480.13	98,862.38	248,860.47	51,135.71	14,399,239.06	
10-GS-MS-007E Ward Creek Aerial Crossing Replacement Emergency Project																					
Construction													1,505,447.74	-7,959.30	1,497,488.44	0.00				1,497,488.44	
10-GS-MS-007E Ward Creek Aerial Crossing Replacement Emergency Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,505,447.74	(7,959.30)	1,497,488.44	0.00	0.00	0.00	0.00	1,497,488.44	
10-PS-MS-0009 Multiple Pump Stations - Highland Rd - Kenilworth Pkwy																					
Engineering											74,175.56	946,987.55	676,228.55	76,182.10	182,803.51	151,791.74	58,089.40	2,166,258.41	115,022.61	2,281,281.02	
Land											2,307.00	4,300.00	36,961.00	283,612.65	283,612.65			327,180.65	6,521.00	333,701.65	
Construction													863,498.00	7,685,119.28	7,936,447.37	16,485,064.65	4,327,525.50	331,273.31	143,932.54	21,287,796.00	
10-PS-MS-0009 Multiple Pump Stations - Highland Rd - Kenilworth Pkwy Total	0.00	0.00	0.00	0.00	0.00	0.00	76,482.56	946,987.55	680,528.55	113,143.10	1,329,914.16	7,836,911.02	7,994,536.77	18,978,503.71	4,449,069.11	331,273.31	143,932.54	0.00	23,902,778.67		
10-PS-MS-0048 Hooper Rd Pump Stations Improvements																					
Engineering												734,892.34	580,500.16	922,563.37	6.26		90.00	2,238,052.13	388,961.19	2,627,013.32	
Land												8,945.30	9,970.35		204,365.00	7,200.88		230,481.53	0.00	230,481.53	
Construction																	10,700,000.00	2,200,000.00	0.00	12,900,000.00	
10-PS-MS-0048 Hooper Rd Pump Stations Improvements Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	743,837.64	590,470.51	922,563.37	204,371.26	7,200.88	90.00	2,468,533.66	11,088,961.19	2,200,000.00	0.00	0.00	15,757,494.85		
10-PS-MS-0050 O'Neal Ln Pump Stations Improvements (Group A)																					
Engineering											923,224.76	1,124,433.55	211,780.22	241,497.81	154,751.36	8,757.50	2,664,445.20	46,966.88		2,711,412.08	
Land											3,221.50	4,322.00	447,776.00	153,828.00	-56,522.00		552,625.50	0.00		552,625.50	
Construction													4,265,298.06	7,552,499.54		1,413,755.35	13,231,552.95	2,140,588.06	638,425.07	16,010,566.08	
Misc																	0.00	365,785.91		365,785.91	
10-PS-MS-0050 O'Neal Ln Pump Stations Improvements (Group A) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	926,446.26	1,128,755.55	659,556.22	4,660,623.87	7,650,728.90	1,422,512.85	16,448,623.65	2,553,340.85	638,425.07	0.00	0.00	19,640,389.57		
10-PS-MS-0051 O'Neal Ln Pump Stations Improvements (Group B)																					
Engineering											824,522.97	711,052.90	608,697.98	149,645.64	125,162.29	6,546.08	2,425,627.86	62,398.14		2,488,026.00	
Land											5,549.50	73,951.38	49,341.00	24,588.00	0.00		153,429.88	0.00		153,429.88	
Construction													1,190,908.83	8,539,889.32	3,798,449.05	13,529,247.20	1,229,526.80	155,926.28		14,914,700.28	
Misc																	0.00	156,011.10		156,011.10	
10-PS-MS-0051 O'Neal Ln Pump Stations Improvements (Group B) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	830,072.47	785,004.28	658,038.98	1,365,142.47	8,665,051.61	3,804,995.13	16,108,304.94	1,447,936.04	155,926.28	0.00	0.00	17,712,167.26		
11-FM-MS-0005 Sherwood Forest Blvd - Goodwood Blvd Sewer Area Upgrades																					
Engineering											132,264.57	489,459.37	585,829.00	350,179.99	6,990.01	34,363.72	1,599,086.66	280,403.93		1,879,490.59	
Land												40,296.35	286,296.00	93,613.60	600.00		420,805.95	0.00		420,805.95	
Construction															100.00	100.00	10,586,000.00	0.00	0.00	10,586,100.00	
11-FM-MS-0005 Sherwood Forest Blvd - Goodwood Blvd Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132,264.57	489,459.37	626,125.35	636,475.99	100,603.61	35,063.72	2,019,992.61	10,866,403.93	0.00	0.00	0.00	12,886,396.54		
11-FM-MS-0023 Joor Rd - Greenwell Springs Rd Sewer Area Upgrades																					
Engineering																	1,280,907.36	16,083.49	112,875.00	1,409,865.85	
Land																	169,980.75	80,977.25		250,958.00	
Construction																0.00	8,000,000.00	0.00	0.00	8,000,000.00	
11-FM-MS-0023 Joor Rd - Greenwell Springs Rd Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	840,740.50	314,778.09	197,501.52	94,756.50	3,111.50	1,450,888.11	8,097,060.74	112,875.00	0.00	0.00	9,660,823.85	
11-FM-MS-0025 Oak Villa Blvd - Monterrey Blvd Sewer Area Upgrades																					
Engineering																	991,957.22	127,783.13		1,119,740.35	
Land																	185,799.00	0.00		185,799.00	
Construction															175.00	175.00	5,166,750.00	0.00	0.00	5,166,925.00	
11-FM-MS-0025 Oak Villa Blvd - Monterrey Blvd Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	456,463.49	165,332.99	187,424.16	340,480.68	28,229.90	1,177,931.22	5,294,533.13	0.00	0.00	0.00	6,472,464.35	
11-FM-MS-004A Highland Rd Sewer Area Upgrades (Group A)																					
Engineering											884,384.01	838,293.58	176,272.61	112,970.17	114,233.89	19,749.59	2,145,903.85	451,788.75		2,597,692.60	
Land												24,027.00	18,123.25	486,968.58	151,376.47	160.00	680,655.30	58,729.00		739,384.30	
Construction														309,395.14	11,066,450.65	3,308,839.07	14,684,684.86	960,673.14	356,051.46	16,001,409.46	
11-FM-MS-004A Highland Rd Sewer Area Upgrades (Group A) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	884,384.01	862,320.58	194,395.86	909,333.89	11,332,061.01	3,328,748.66	17,511,244.01	1,471,190.89	356,051.46	0.00	0.00	0.00	19,338,486.36	
11-FM-MS-004B Highland Rd Sewer Area Upgrades (Group B)																					
Construction															525,237.50	1,877,875.04	2,403,112.54	5,614,187.52	-708,084.67	-205,100.39	7,104,115.00
11-FM-MS-004B Highland Rd Sewer Area Upgrades (Group B) Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	525,237.50	1,877,875.04	2,403,112.54	5,614,187.52	(708,084.67)	(205,100.39)	0.00	7,104,115.00
11-FM-MS-036B Plank Rd - Port Hudson Pride Rd Sewer Area Upgrades																					
Engineering											887,242.25	324,279.31	38,848.67	34,589.61	429.96	1,285,389.80	23,936.39			1,309,326.19	
Land												16,350.00	18,238.00	-513.00		34,075.00	0.00			34,075.00	
Construction														873,024.60		873,024.60	0.00			873,024.60	
11-FM-MS-036B Plank Rd - Port Hudson Pride Rd Sewer Area Upgrades Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	887,242.25	340,629.31	57,086.67	907,101.21	429.96	2,192,489.40	23,936.39	0.00	0.00	0.00	0.00	0.00	2,216,425.79	
11-PS-MS-0003 Florida Blvd Pump Stations Improvements																					
Engineering											680,487.98	1,033,033.24	595,493.26	624,347.42	191,401.00	28,580.00	3,153,342.90	48,227.97	418,250.00	3,619,820.87	
Land											1,930.00	4,658.00	590.50	80,261.00	98,676.00		186,115.50	0.00		186,115.50	
Construction																					

Project ID	Expenses													Total Expenses	Encumbrances	Remaining Project Estimates			Estimated Total	
	2000	2004	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016			2016	2017	2018		
Engineering									852,374.47	760,275.48	46,272.46	92,408.75	43,386.22	1,794,717.38	155,942.17				1,950,659.55	
Land										28,914.00	8,830.28			37,744.28	0.00				37,744.28	
Construction											197,857.26	2,640,903.20	1,315,810.05	4,154,570.51	1,978,849.56	77,750.00			6,211,170.07	
Misc														0.00	95,700.45				95,700.45	
11-PS-MS-0024 Plank Rd Pump Stations Improvements Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	852,374.47	789,189.48	252,960.00	2,733,311.95	1,359,196.27	5,987,032.17	2,230,492.18	77,750.00	0.00	0.00	8,295,274.35	
11-PS-MS-0026 Multiple Pump Stations - Burbank Dr - Siegen Ln																				
Engineering									511,917.01	620,862.04	217,673.03	99,582.77	88,828.01	1,538,862.86	47,716.73				1,586,579.59	
Land										21,675.00	825.00			22,500.00	8,600.00				31,100.00	
Construction										7,389.91	4,920.00	515,927.11	1,026,126.00	1,554,363.02	6,127,789.89	(163,689.18)	(153,529.17)		7,364,934.56	
Misc												294.00		294.00	307,877.99				308,171.99	
11-PS-MS-0026 Multiple Pump Stations - Burbank Dr - Siegen Ln Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	511,917.01	649,926.95	223,418.03	615,803.88	1,114,954.01	3,116,019.88	6,491,984.61	(163,689.18)	(153,529.17)	0.00	9,290,786.14	
11-PS-MS-0034 Multiple Pump Stations - Prescott Rd - Greenwell Springs Rd																				
Engineering									333,289.34	462,938.36	52,018.20	0.00	4,406.55	852,652.45	256,129.61	162,500.00			1,271,282.06	
Land									703.50	0.00	3,300.00	26,090.00		30,093.50	0.00				30,093.50	
Construction														0.00	8,500,000.00	0.00	0.00	0.00	8,500,000.00	
11-PS-MS-0034 Multiple Pump Stations - Prescott Rd - Greenwell Springs Rd Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	333,992.84	462,938.36	55,318.20	26,090.00	4,406.55	882,745.95	8,756,129.61	162,500.00	0.00	0.00	9,801,375.56	
11-PS-MS-0035 Multiple Pump Stations - Hwy 61 - Plank Rd																				
Engineering									266,619.78	692,374.60	192,699.56	23,870.74	6,168.05	1,181,732.73	99,805.96				1,281,538.69	
Land									1,003.00	3,602.50	15,265.00	0.00		19,870.50	0.00				19,870.50	
Construction														0.00	5,600,000.00	0.00	0.00	0.00	5,600,000.00	
Misc														0.00	0.00				0.00	
11-PS-MS-0035 Multiple Pump Stations - Hwy 61 - Plank Rd Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	267,622.78	695,977.10	207,964.56	23,870.74	6,168.05	1,201,603.23	5,699,805.96	0.00	0.00	0.00	6,901,409.19	
14-FM-MS-0012 South Basin Coordination Project																				
Engineering														0.00	0.00				0.00	
Construction													2,559,488.84	2,130,690.96	4,690,179.80	1,202,375.20	2,543,100.00		8,435,655.00	
14-FM-MS-0012 South Basin Coordination Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,559,488.84	2,130,690.96	4,690,179.80	1,202,375.20	2,543,100.00	0.00	0.00	8,435,655.00
10-FM-MS-008C O'Neal Ln Sewer Area Upgrades (Group C)																				
Construction													1,162,543.88	758,879.00	1,921,422.88	2,945,834.12		0.00	4,867,257.00	
SFU CAP. ON'NEAL/JONES CRK/TIGER BEND RD Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,162,543.88	758,879.00	1,921,422.88	2,945,834.12	0.00	0.00	0.00	4,867,257.00
Master Plan	0.00	0.00	0.00	0.00	0.00	0.00	2,274,955.24	1,922,906.61	5,221,011.87	18,277,698.36	28,197,183.45	14,159,132.18	2,790,070.23	72,842,957.94	14,860,319.66	51,408,050.52	1,045,976.91	940,009.04	141,097,314.07	
08-TP-BD-0055 South WWTP Wet Weather Improvements (Phase 2) MP																				
Construction									71,834.25	10,641,508.13	11,464,657.62	0.00		22,178,000.00	0.00				22,178,000.00	
08-TP-BD-0055 South WWTP Wet Weather Improvements (Phase 2) MP Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71,834.25	10,641,508.13	11,464,657.62	0.00	0.00	22,178,000.00	0.00	0.00	0.00	0.00	22,178,000.00	
09-PS-BD-0037 Standby Generator Installations for Sewer Lift Stations																				
Land											38,670.00	8,984.00		47,654.00	0.00				47,654.00	
Construction							2,274,955.24	1,892,157.94	5,132,278.36	7,348,991.13	8,509,234.54	6,833,587.60	320,002.01	32,311,206.82	3,113,941.65		14,000.00		35,439,148.47	
Inspection							30,748.67	16,850.75						47,599.42	0.00				47,599.42	
09-PS-BD-0037 Standby Generator Installations for Sewer Lift Stations Total	0.00	0.00	0.00	0.00	0.00	0.00	2,274,955.24	1,922,906.61	5,149,129.11	7,348,991.13	8,547,904.54	6,842,571.60	320,002.01	32,406,460.24	3,113,941.65	0.00	14,000.00	0.00	35,534,401.89	
09-PS-UF-009A Environmental Services Facility																				
Engineering											161,805.80	37,744.30		199,550.10	15,112.90	300,000.00			514,663.00	
Construction														0.00	0.00	9,521,644.47	185,161.70	93,193.83	9,800,000.00	
09-PS-UF-009A Environmental Services Facility Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	161,805.80	37,744.30	0.00	199,550.10	15,112.90	9,821,644.47	185,161.70	93,193.83	10,314,663.00	
12-PS-MS-0021 SCADA Master Plan Project																				
Construction									48.51		926,419.00	3,691,612.38	1,146,682.38	5,764,762.27	11,396,295.20	147,823.19	372,106.64	372,106.64	18,053,093.94	
12-PS-MS-0021 SCADA Master Plan Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.51	0.00	926,419.00	3,691,612.38	1,146,682.38	5,764,762.27	11,396,295.20	147,823.19	372,106.64	372,106.64	18,053,093.94	
13-TP-MS-0001 North WWTP Master Plan Landscape Buffer Area Project																				
Engineering											12,000.00	24,975.00	0.00	36,975.00	5,500.00	0.00			42,475.00	
Land										287,199.10	4,873,642.42	414,725.04	12,000.00	5,587,566.56	52,150.00				5,639,716.56	
Construction												193,862.50		193,862.50	0.00	0.00	0.00	0.00	193,862.50	
Misc											99,228.14	110,000.00	4,632.16	213,860.30	11,000.00				224,860.30	
13-TP-MS-0001 North WWTP Master Plan Landscape Buffer Area Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	287,199.10	4,984,870.56	743,562.54	16,632.16	6,032,264.36	68,650.00	0.00	0.00	0.00	6,100,914.36	
13-TP-MS-0045 & 13-TP-MS-0047 North WWTP Master Plan & Sustainability Improvements Project																				
Engineering											2,089,580.93	2,494,292.32	942,608.83	5,526,482.08	266,319.91	1,250,000.00			7,042,801.99	
Construction														0.00	0.00	40,188,582.86	474,708.57	474,708.57	41,138,000.00	
13-TP-MS-0045 & 13-TP-MS-0047 North WWTP Master Plan & Sustainability Improvem	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,089,580.93	2,494,292.32	942,608.83	5,526,482.08	266,319.91	41,438,582.86	474,708.57	474,708.57	48,180,801.99	
13-TP-MS-0046 South WWTP Landscape Buffer Area Project																				
Land											21,945.00	4,500.00	20,055.00	46,500.00	0.00				46,500.00	
Construction												184,881.80	504,057.09	688,938.89	0.00	0.00			688,938.89	
13-TP-MS-0046 South WWTP Landscape Buffer Area Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21,945.00	189,381.80	524,112.09	735,438.89	0.00	0.00	0.00	0.00	735,438.89	
14-TP-MS-0016 Central WWTP Decommissioning Project																				
Engineering												159,967.24	-159,967.24	0.00	0.00	0.00			0.00	
Construction														0.00	0.00	0.00			0.00	
14-TP-MS-0016 Central WWTP Decommissioning Project Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159,967.24	(159,967.24)	0.00	0.00	0.00	0.00	0.00	
Waste Water Treatment	1,210,000.00	8,831.82	0.00	303,854.48	1,869,675.79	21,116,048.07	50,099,697.89	81,340,751.20	88,675,411.01	77,043,505.38	35,223,330.25	14,187,811.08	5,732,454.38	376,811,371.35	8,493,734.92	137,859.33	6,000,000.00	4,000,000.00	395,442,965.60	
07-TP-BD-0030 North Wastewater Treatment Plant Odor Equipment Installation																				
Engineering							44,550.00				4,950.00			49,500.00	0.00				49,500.00	
Construction							132,930.00	1,312,785.50	41,211.18					1,486,926.68	0.00				1,486,926.68	
07-TP-BD-0030 North Wastewater Treatment Plant Odor Equipment Installation Total	0.00	0.00	0.00	0.00	0.00	0.00	177,480.00	1,312,785.50	41,211.18 </											

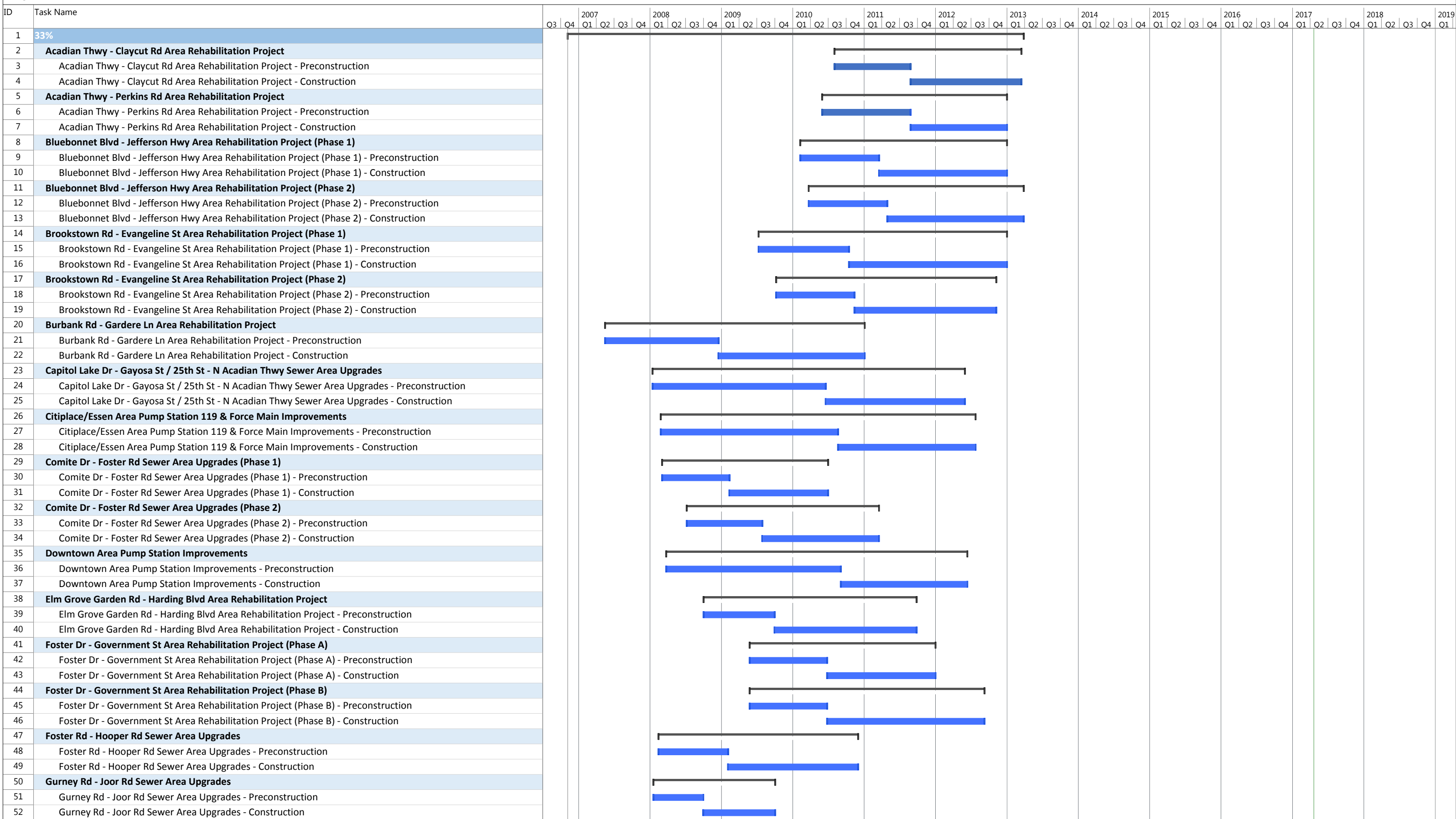
Project ID	Expenses													Total Expenses	Encumbrances	Remaining Project Estimates			Estimated Total	
	2000	2004	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016			2016	2017	2018		
Construction						8,231,967.25	18,404,298.25	742,821.00	59,655.00					27,438,741.50	0.00				27,438,741.50	
Inspection						17,403.10	48,447.19	19,444.12						85,294.41	0.00				85,294.41	
Misc				401.28		1,515.00	3,548.00							5,464.28	0.00				5,464.28	
08-TP-BD-0031 South WWTP Immediate Action Plan (IAP) Combined Projects Total	0.00	0.00	0.00	303,833.82	1,819,067.79	8,514,724.47	18,893,280.32	891,858.57	59,655.00	0.00	0.00	0.00	0.00	30,482,419.97	0.00	0.00	0.00	0.00	30,482,419.97	
08-TP-BD-0033 South WWTP Wet Weather Improvements (Phase 1)																				
Engineering						4,156,848.10	1,477,042.27	917,367.13	419,094.34	265,959.72	27,189.62			7,263,501.18	0.00				7,263,501.18	
Land					50,608.00	3,760,046.36		16,974.49	-8,663.00	6,127.96	819.72			4,061,712.15	0.00				4,061,712.15	
Construction						16,159,835.44	62,145,706.12	28,908,432.65	2,148,872.68	-6.71				109,362,840.18	0.00				109,362,840.18	
Inspection						42,115.74	209,444.95	64,765.86						316,326.55	0.00				316,326.55	
Misc						355,629.31	380,103.12							735,732.43	0.00				735,732.43	
08-TP-BD-0033 South WWTP Wet Weather Improvements (Phase 1) Total	0.00	0.00	0.00	0.00	50,608.00	7,916,894.46	18,270,421.38	63,669,595.81	29,383,629.85	2,420,960.36	28,002.63	0.00	0.00	121,740,112.49	0.00	0.00	0.00	0.00	121,740,112.49	
08-TP-BD-0055 South WWTP Wet Weather Improvements (Phase 2) PDP																				
Engineering						1,942,801.93	7,814,868.01	1,003,597.09	1,256,172.15	1,763,158.81	1,592,435.37	400,501.55	7,013.60	15,780,548.51	52,820.49				15,833,369.00	
Land						508.50	3,442.50	18,133.00	214,523.00	164,300.00				402,103.29	0.00				402,103.29	
Construction								315.00	26,359,705.18	49,100,683.20	12,593,409.32	959,793.07		89,013,905.77	0.00				89,013,905.77	
Misc								50,000.00						105,977.05	0.00				105,977.05	
08-TP-BD-0055 South WWTP Wet Weather Improvements (Phase 2) PDP Total	0.00	0.00	0.00	0.00	0.00	1,943,310.43	7,818,310.51	1,072,045.09	27,830,400.33	51,028,142.01	14,185,844.69	1,417,467.96	7,013.60	105,302,534.62	52,820.49	0.00	0.00	0.00	105,355,355.11	
09-PS-UF-0007 Hooper Storage Facility																				
Engineering						409,782.20	1,314,689.05	1,154,490.03	242,571.08	461,032.73	291,521.86	312,514.57	61,655.78	4,248,257.30	27,890.82				4,276,148.12	
Land						900.00	15,017.85	182,651.00	208.00	185,383.70	9,977.30			394,137.85	0.00				394,137.85	
Construction									30,125.00	3,094,709.83	10,271,272.85	3,039,854.69	622,641.47	17,058,603.84	893,319.53	137,859.33			18,089,782.70	
Misc								50,000.00						105,977.05	0.00				105,977.05	
09-PS-UF-0007 Hooper Storage Facility Total	0.00	0.00	0.00	0.00	0.00	410,682.20	1,329,706.90	1,337,141.03	272,904.08	3,741,126.26	10,572,772.01	3,352,369.26	684,297.25	21,700,998.99	921,210.35	137,859.33	0.00	0.00	22,760,068.67	
09-PS-UF-0009 Choctaw Storage and Pump Station Facilities																				
Engineering	0.00	111.54				2,137,956.51	2,407,206.92	806,725.61	826,080.15	629,108.20	449,260.30	28,872.10		7,285,321.33	181,295.21				7,466,616.54	
Land	1,210,000.00	8,720.28				15,000.00	67,986.36	571,218.66	6,149.05	7,131.00		574.92	498.62	1,887,278.89	0.00				1,887,278.89	
Construction								12,868,213.53	23,002,970.39	8,445,168.22	268,891.44			44,585,243.58	5,500.00				44,590,743.58	
Inspection								82,741.72	69,932.42					152,674.14	0.00				152,674.14	
Misc							20.66							20.66	0.00				20.66	
09-PS-UF-0009 Choctaw Storage and Pump Station Facilities Total	1,210,000.00	8,831.82	0.00	0.00	0.00	2,152,956.51	2,475,193.28	14,328,899.52	23,905,132.01	9,081,407.42	718,151.74	29,447.02	498.62	53,910,538.60	186,795.21	0.00	0.00	0.00	54,097,333.81	
12-CN-MS-0012,13,14 12-CN-MS-0012, 12-CN-MS-0013, 12-CN-MS-0014 Project Inspection Services																				
Inspection										7,218,739.74	10,771,869.33	9,718,559.18	9,388,526.84	5,040,644.91	42,138,340.00	7,332,908.87	0.00	4,000,000.00	4,000,000.00	57,471,248.87
12-CN-MS-0012,13,14 12-CN-MS-0012, 12-CN-MS-0013, 12-CN-MS-0014 Project Inspecti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7,218,739.74	10,771,869.33	9,718,559.18	9,388,526.84	5,040,644.91	42,138,340.00	7,332,908.87	0.00	4,000,000.00	4,000,000.00	57,471,248.87
SEWER MASTER PLAN NWWTP GRN BUFFER ZONE																				
Construction														0.00	0.00			1,000,000.00		1,000,000.00
SEWER MASTER PLAN NWWTP GRN BUFFER ZONE Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,000,000.00	0.00	1,000,000.00
SEWER MASTER PLAN SWWTP GREEN PROJECT																				
Construction														0.00	0.00			1,000,000.00		1,000,000.00
SEWER MASTER PLAN SWWTP GREEN PROJECT Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,000,000.00	0.00	1,000,000.00
Program	0.00	0.00	565,133.29	5,557,769.08	9,816,774.92	12,227,209.32	17,355,601.15	19,286,782.88	21,308,656.83	19,573,962.85	15,941,314.22	11,409,534.32	3,177,899.63	136,220,638.49	4,722,166.46	0.00	6,100,000.00	5,000,000.00		152,042,804.95
06-ES-PW-0014 Program Management																				
Misc						-37.61	5,021.85	72,605.53	183,120.70	153,820.43	141,951.91	162,458.84	168,236.80	64,006.25	951,184.70					951,184.70
Program			565,133.29	5,557,769.08	9,816,812.53	12,222,187.47	17,282,995.62	19,103,662.18	21,154,836.40	19,432,010.94	15,778,855.38	11,241,297.52	3,113,893.38	135,269,453.79	4,722,166.46	0.00	6,100,000.00	5,000,000.00		151,091,620.25
#N/A								0.00	0.00					0.00	0.00					0.00
06-ES-PW-0014 Program Management Total	0.00	0.00	565,133.29	5,557,769.08	9,816,774.92	12,227,209.32	17,355,601.15	19,286,782.88	21,308,656.83	19,573,962.85	15,941,314.22	11,409,534.32	3,177,899.63	136,220,638.49	4,722,166.46	0.00	6,100,000.00	5,000,000.00		152,042,804.95
Grand Total	1,210,000.00	8,831.82	565,133.29	6,173,028.05	17,100,200.95	66,878,946.53	124,229,474.31	229,642,451.83	270,610,059.81	256,125,780.66	172,430,948.57	145,348,828.71	56,307,620.52	1,346,631,305.05	208,415,925.56	63,019,776.72	13,170,305.84	10,003,600.56		1,641,240,913.73

FIGURE 1-1
Program Funding Schedule
Program Delivery Plan



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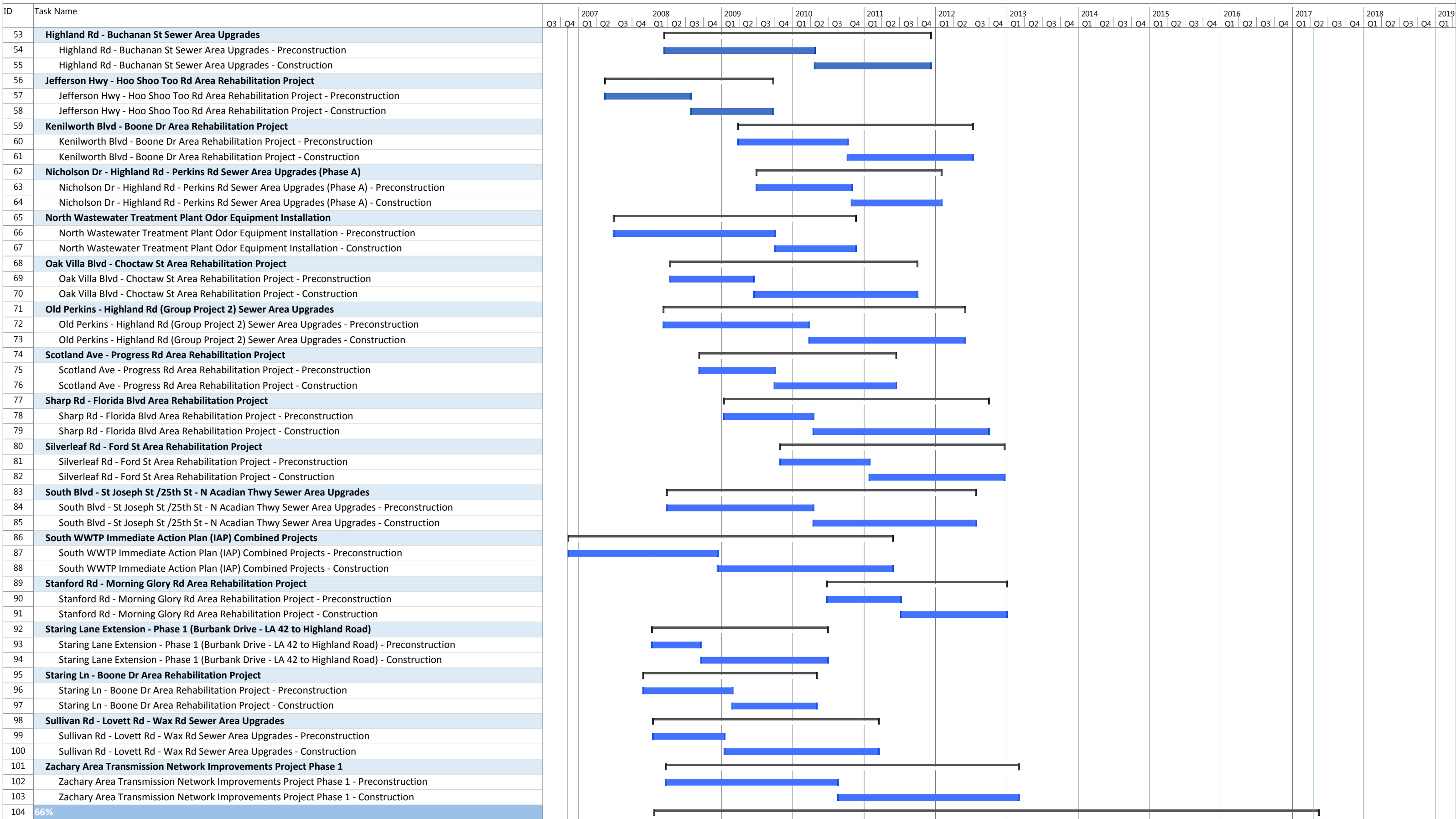
Figure 1-2
Program Schedule



Project: Project1
Date: Thu 4/20/17

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Progress	

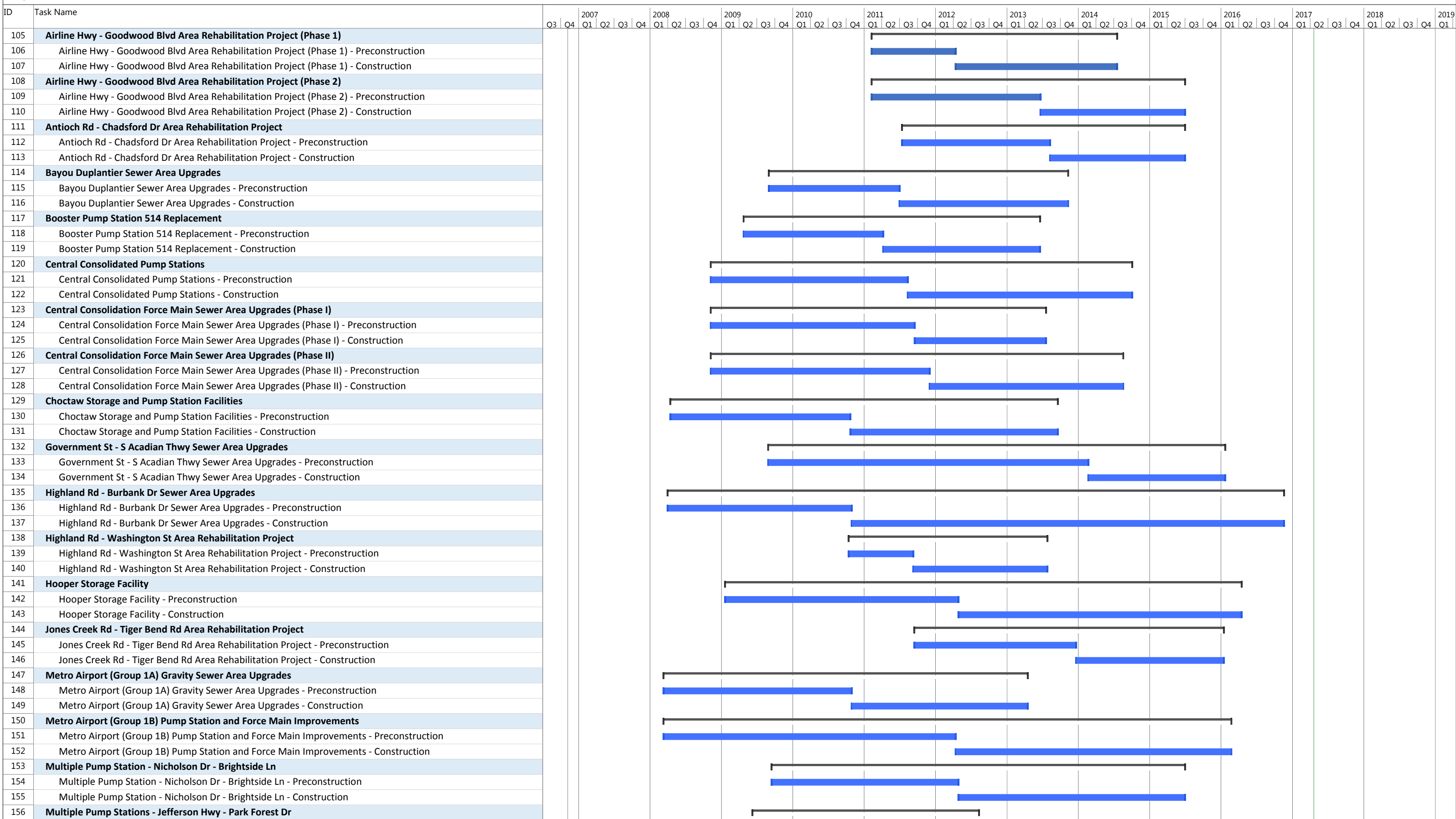
Figure 1-2
Program Schedule



Project: Project1
Date: Thu 4/20/17

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Progress	

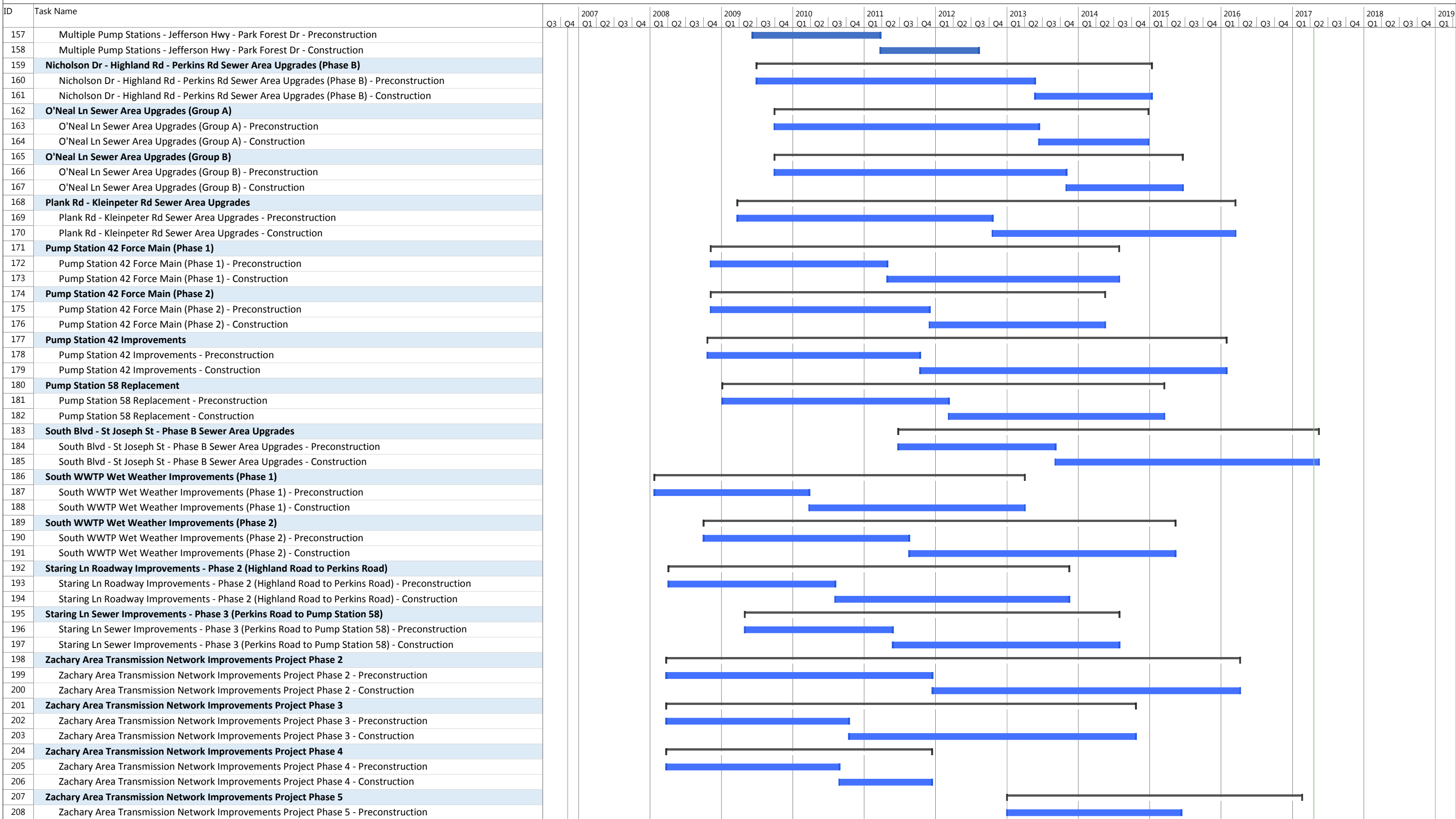
Figure 1-2
Program Schedule



Project: Project1
Date: Thu 4/20/17

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Progress	

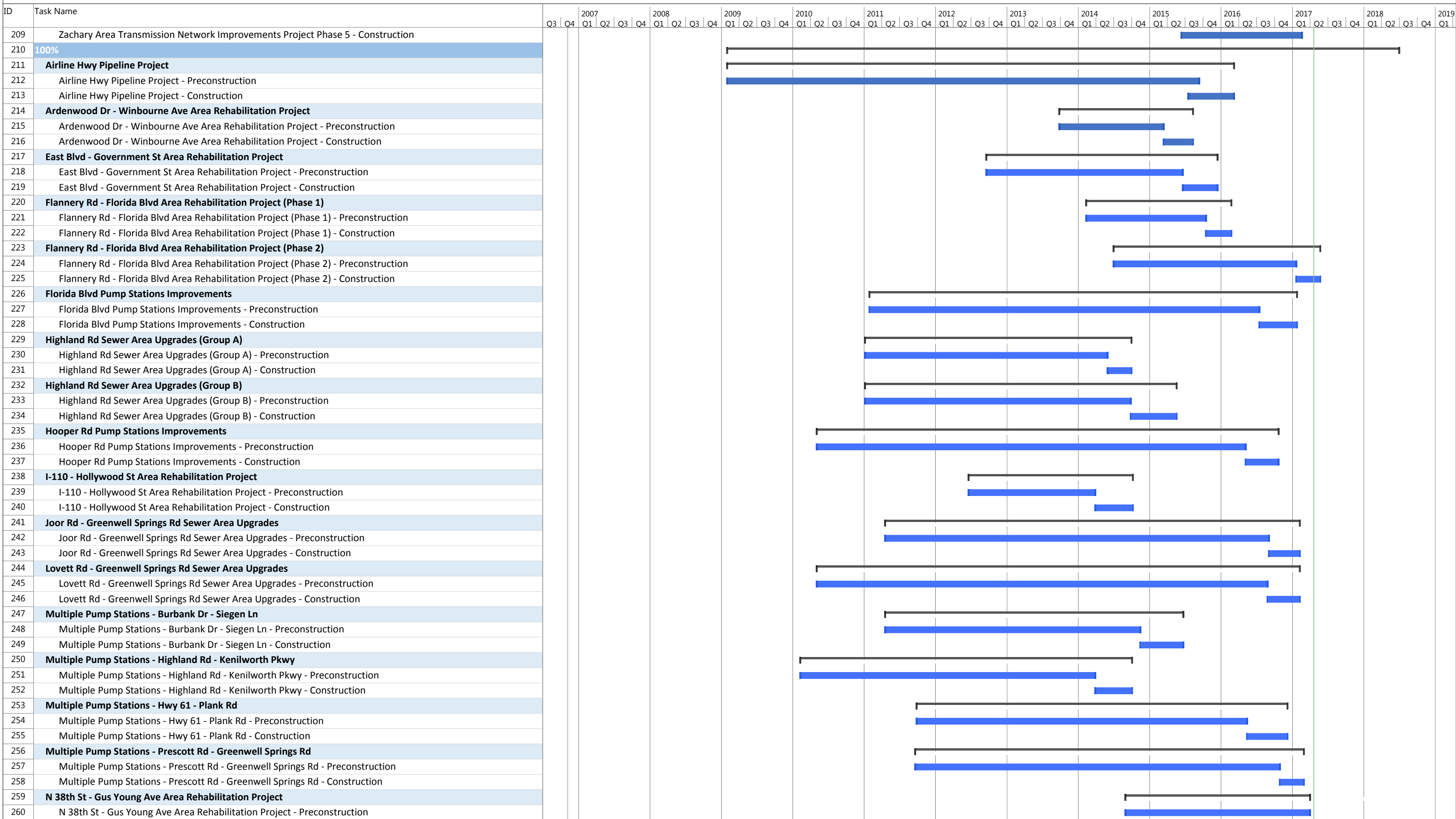
Figure 1-2
Program Schedule



Project: Project1
Date: Thu 4/20/17

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Progress	

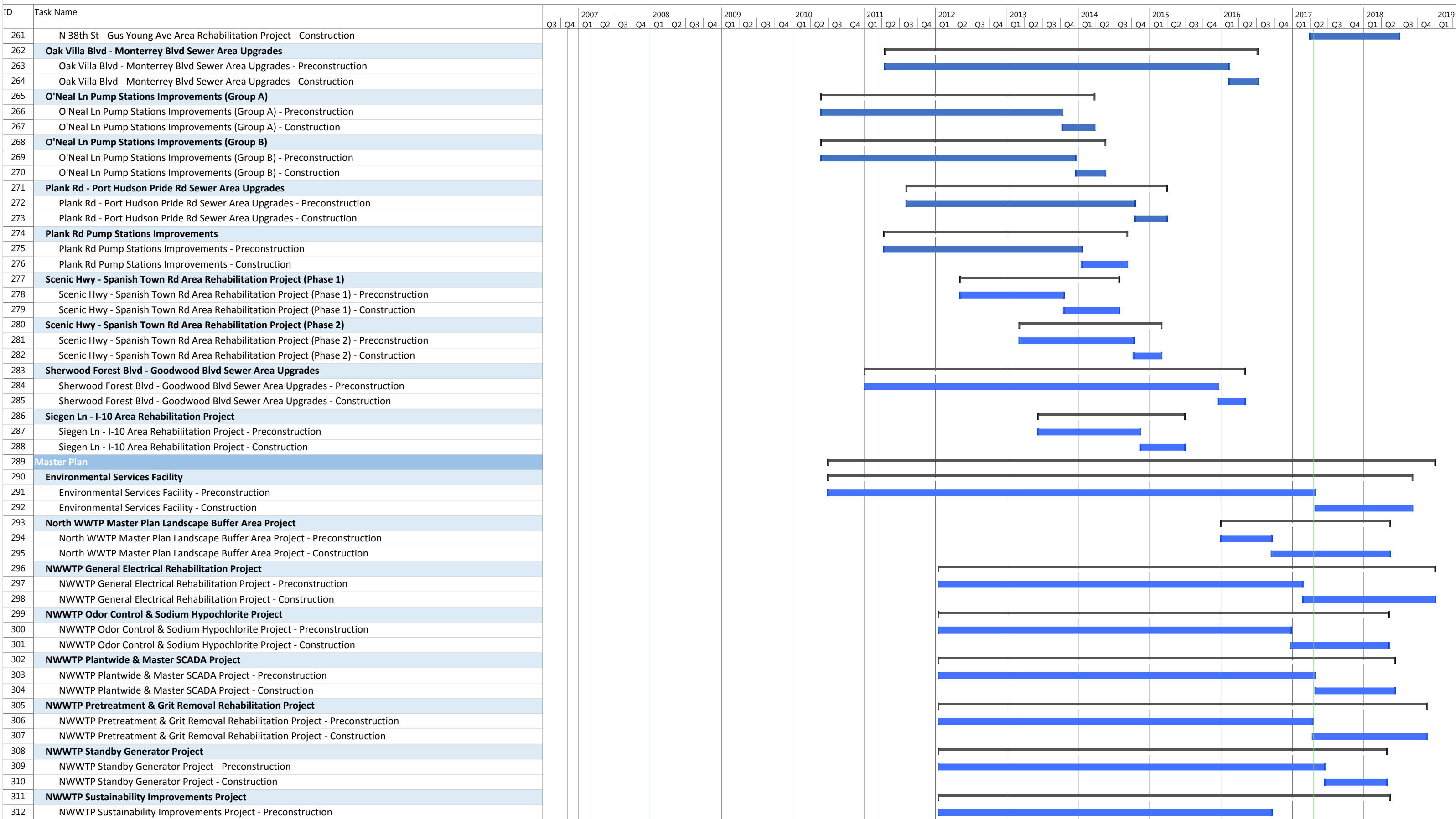
Figure 1-2
Program Schedule



Project: Project1
Date: Thu 4/20/17

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Progress	

Figure 1-2
Program Schedule



Project: Project1
Date: Thu 4/20/17

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Progress	

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Planning Description

2.1 Planning Overview

This section describes the process used to define the projects outlined in this report. This planning was necessary to meet the goals of the C-P for a sewer system rehabilitation and replacement program for SSO reduction.

2.2 Comprehensive Rehabilitation Planning

Rainfall dependent infiltration/inflow (RDII) is the major cause of wet weather related capacity deficiencies. Previously conducted concurrent monitoring of flow and rainfall throughout the wastewater collection system, during several rainfall events of different magnitudes, was used to characterize RDII and predict the system's wet weather response to rainfall.

The collected data then were used to setup and calibrate a computational Baton Rouge Sanitary Sewer Overflow (BTRSSO) hydraulic model of the C-P collection and transmission system. Each sub-catchment or drainage area was evaluated to establish the share of rainfall predicted to enter the sewer system. Sub-catchments in which the RDII was excessive were scheduled for rehabilitation.

The sub-catchments selected for comprehensive rehabilitation were arranged into 32 projects. Sections 3 and 4 of this report describe these comprehensive rehabilitation projects.

The sub-catchments selected for rehabilitation will undergo a review of previous rehabilitation work already completed by the DES. Portions of the sub-catchments that have been previously rehabilitated were deleted from the individual rehabilitation projects.

2.3 Capacity Improvement Planning

Capacity improvement planning for the Program is based on evaluating and replacing those facilities in the collection system where the Program hydraulic modeling and field information indicate that the existing collection or transmission system is inadequate to handle the future peak wet weather flows appropriately. For this analysis, the C-P was divided into 10 hydraulically independent basins in order to separate the collection and transmission systems for analysis. The PM developed a process for evaluating the hydraulic model and analyzing its output, using planning and design criteria as a basis for the process overview.

The PM prepared and used a 12-step hydraulic basin analysis methodology throughout the planning process. This 12-step process included the following components:

1. Dynamic model runs for evaluation of the capacity of existing pipes with predicted post-rehabilitation flows
2. Steady-state calculations for evaluation of required pipe capacity
3. Dynamic model runs for evaluation of existing pipes, with future flows added to post-rehabilitation flows
4. Steady-state calculations for evaluation of required pipe capacity with future flows
5. Testing of the revised model for its ability to handle future wet weather flows
6. Evaluation of the model output for acceptable design criteria and physical evidence of overflows

7. Documentation of the project list
8. Endorsement of DES
9. Prioritization of projects
10. Development of planning level-cost estimates
11. Determination of projects for reduction of existing SSOs
12. Definition of projects

Based on these steps, the capacity projects described in Sections 3 and 4 of this report were developed.

2.4 Wastewater Treatment/Storage Planning

The wastewater treatment planning process began in 2006 and concluded with the development of the *Wastewater Master Plan* (CH2M HILL, 2008). The following documents describe the planning efforts:

- Technical Memorandum entitled *Addressing Existing Noncompliance Issues and Future Wet-weather Flow Management Requirements for the South Wastewater Treatment Plant: Summary of Findings and Recommendations* (CH2M HILL, 2006)
- *South Wastewater Treatment Plant Immediate Action Plan Basis of Design Report* (CH2M HILL, 2007)
- *Wastewater Master Plan* (CH2MHILL, 2008)
- *Consolidation of South and Central Wastewater Treatment Plants in Baton Rouge™* (CH2M HILL, 2008)

This document describes the immediate action projects and wet weather capacity project for the South WWTP. No wet weather capacity projects are required at the North WWTP. North WWTP improvements identified in the *Wastewater Master Plan* (CH2MHILL, May 2008) are now included in this document, since they were added as part of the June 2013 Consent Decree modification.

This document also describes additional improvements that will be necessary at the South WWTP in order to consolidate the Central WWTP with the South WWTP. These improvements include additional influent pumping and storage at the South WWTP to accommodate future wet weather peak flows from the Central WWTP.

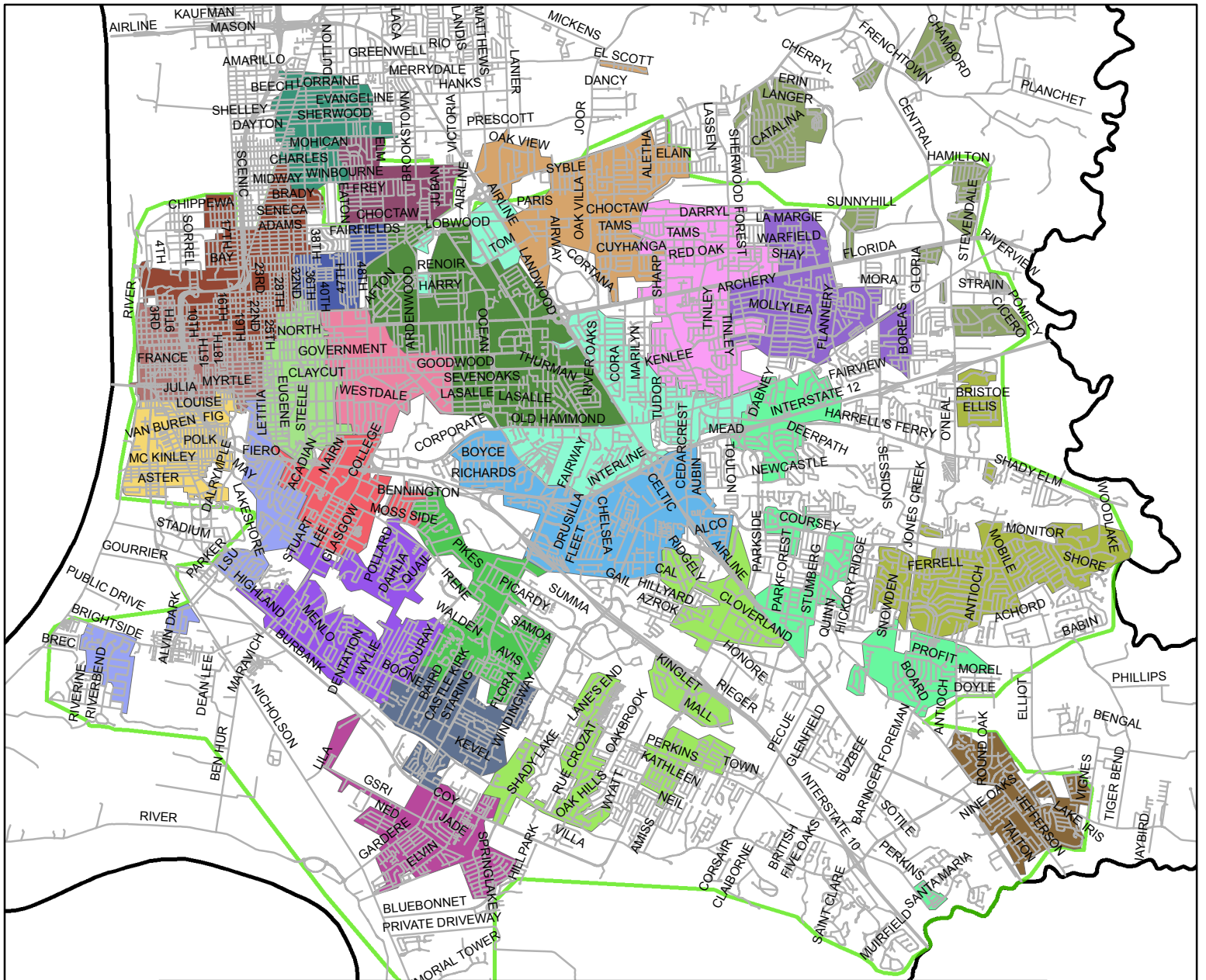
Storage for shaving peak hydraulic flows in the system is employed to reduce the scope and cost of downstream capacity projects and treatment plant capacity. Storage facilities are reservoirs that retain wet weather flows for a short time until the wet weather period is past. At the end of the wet weather period, the flow is returned to the collection system for transport and treatment. Each storage facility is sized for the 2-year frequency, 12-hour duration storm event. The storage facilities will be used during any significant rain event in the future.

South Basin Projects

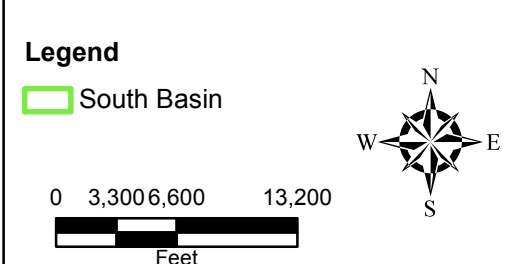
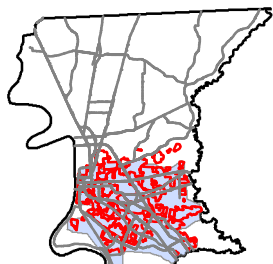
Section 3 presents summaries of the South Basin rehabilitation projects and capacity improvement projects. These projects are all shown on Figures 3-1 and 3-2. As of March 1, 2017, there are 56 projects functionally completed, 15 projects under construction, and 2 projects that have not yet started construction in the South Basin.

The project summaries presented herein represent the information available during this update period. The PDP is revisited on an as-needed basis and revised as necessary, based on the results of additional hydraulic wastewater modeling, immediate needs, DES and public input, and other factors.

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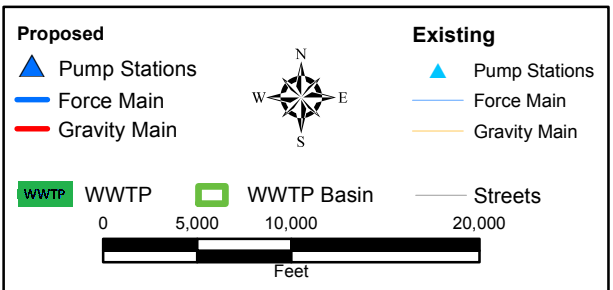
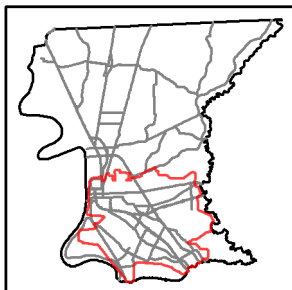
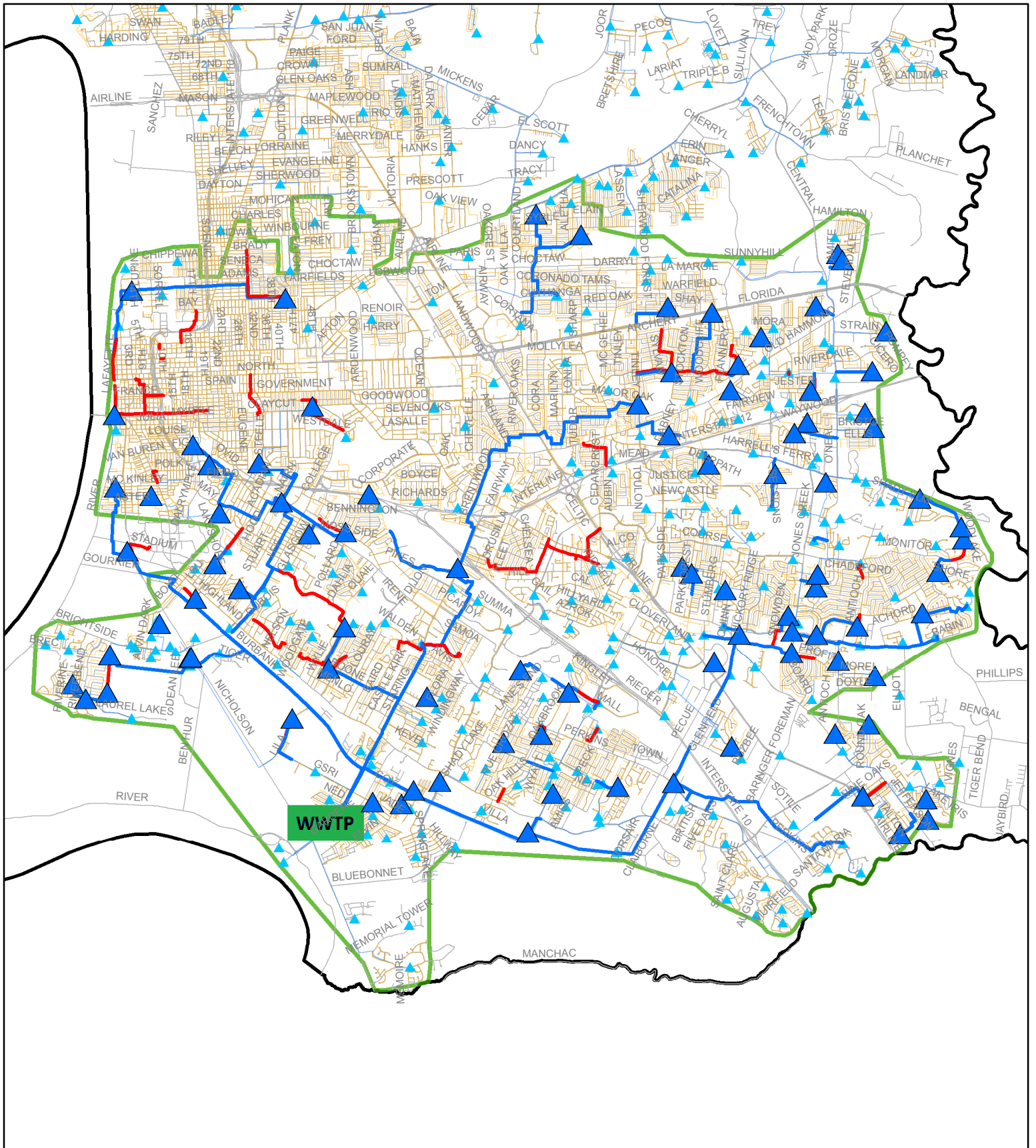
Rehabilitation Projects	
	Acadian Thwy - Claycut Rd Area Rehabilitation Project
	Acadian Thwy - Perkins Rd Area Rehabilitation Project
	Airline Hwy - Goodwood Blvd Area Rehabilitation Project Phase 1
	Airline Hwy - Goodwood Blvd Area Rehabilitation Project Phase 2
	Antioch Rd - Chadsford Dr Area Rehabilitation Project
	Ardenwood Dr - Winbourne Ave Area Rehabilitation Project
	Bluebonnet Blvd - Jefferson Hwy Area Rehabilitation Project Phase 1
	Bluebonnet Blvd - Jefferson Hwy Area Rehabilitation Project Phase 2
	Burbank Rd - Gardere Ln Area Rehabilitation Project
	East Blvd - Government St Area Rehabilitation Project
	Flannery Rd - Florida Blvd Area Rehabilitation Project Phase 1
	Flannery Rd - Florida Blvd Area Rehabilitation Project Phase 2
	Foster Dr - Government St Area Rehabilitation Project Phase A
	Foster Dr - Government St Area Rehabilitation Project Phase B
	Highland Rd - Washington St Area Rehabilitation Project
	Jefferson Hwy - Hoo Shoo Too Rd Area Rehabilitation Project
	Jones Creek Rd - Tiger Bend Rd Area Rehabilitation Project
	Kenilworth Blvd - Boone Dr Area Rehabilitation Project
	N 38th St - Gus Young Ave Area Rehabilitation Project
	Oak Villa Blvd - Choctaw St Area Rehabilitation Project
	Scenic Hwy - Spanish Town Rd Area Rehabilitation Project Phase 1
	Scenic Hwy - Spanish Town Rd Area Rehabilitation Project Phase 2
	Sharp Rd - Florida Blvd Area Rehabilitation Project
	Siegen Ln - I-10 Area Rehabilitation Project
	Stanford Ave - Morning Glory Rd Area Rehabilitation Project
	Staring Ln - Boone Dr Area Rehabilitation Project



South Basin Rehabilitation Projects


Project Vicinity Map
Figure 3-1





South Basin Capacity Improvements Projects

Project Vicinity Map
Figure 3-2



BATON ROUGE
SSO
Program

3.1 South Basin Comprehensive Rehabilitation Projects

Project Description

The sanitary sewer system comprehensive rehabilitation projects consist of improvements to various components of the collection system to reduce the amount of I/I that enters the system.

Purpose

The purpose of comprehensive sewer rehabilitation is to correct defects in the system, such as offset pipe joints, collapsed pipe sections, leaking manholes, and direct inflow sources. The water that enters the system through defects is a major contributor to SSOs. Comprehensive rehabilitation of the collection system will contribute to alleviating SSOs by reducing I/I.

Location

There are 26 projects located primarily within the South Basin. Figures 3-3 through 3-28, which follow this section, show the project locations.

Scope of Project

The first phase of the comprehensive rehabilitation projects was the physical inspection of pipes and manholes, including CCTV inspection of all pipes. Smoke testing was also included in the physical inspection phase.

The data collected by the physical inspection contractor was analyzed and, based on that analysis, a listing of recommended repairs with associated construction costs were generated. An engineering firm then completed preparation of construction documents for project bidding.

The construction of comprehensive rehabilitation projects typically included the following components:

- Replacement of pipes
- Point repair of pipes
- Rehabilitation of pipes by cured-in-place liners
- Rehabilitation or replacement of sewer manholes
- Repair of sewer laterals to the property line

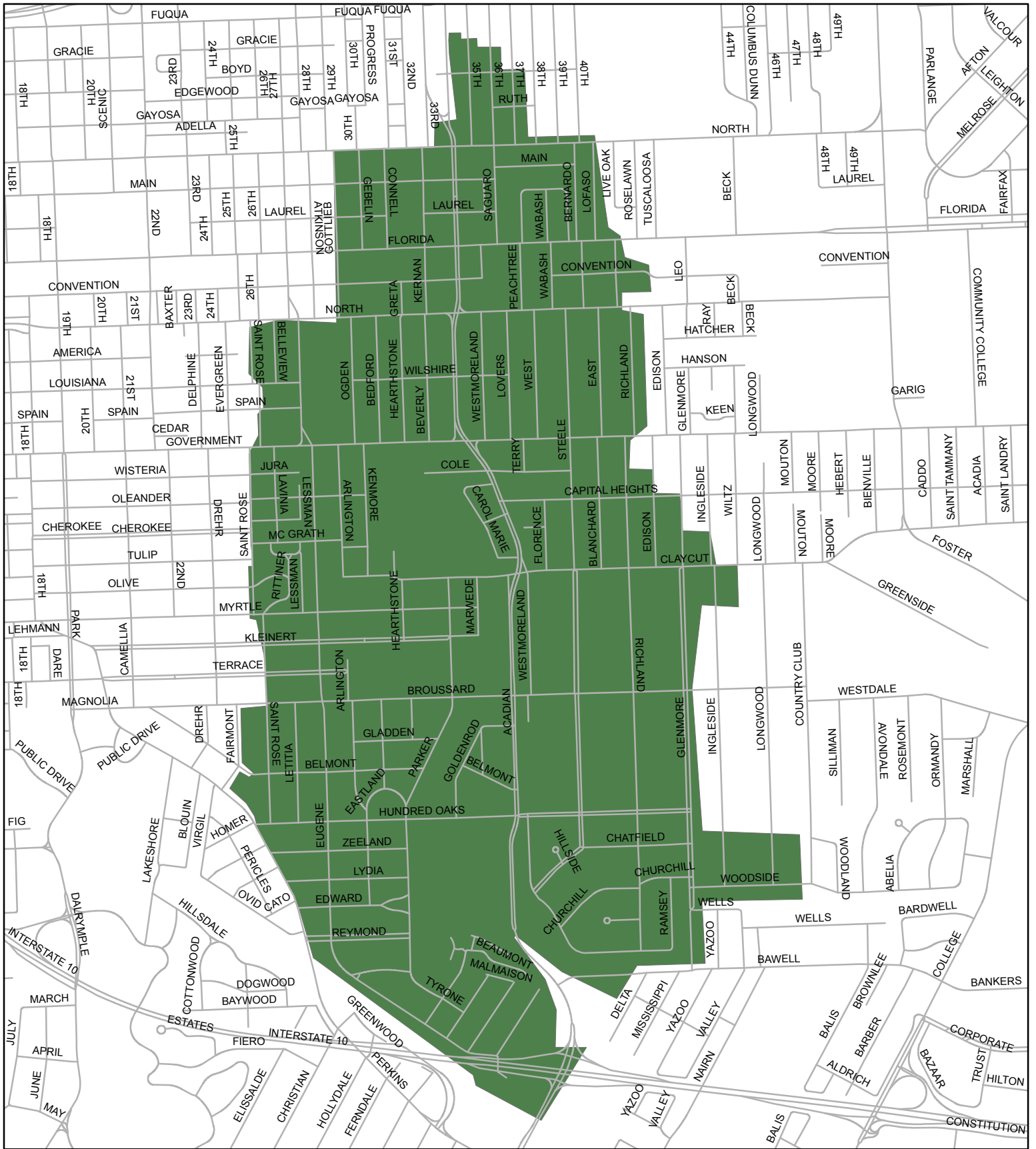
Cost

The estimated construction cost for each project is presented in Table 3-1. These costs are based on preliminary estimates of component system costs that will require repair or replacement. During the physical inspection phase, the actual condition of the components was assessed and appropriate methods recommended. At that time, the cost estimate for each project was revised. For those projects under construction, bid amounts were included as construction costs in Table 3-1.

Table 3-1

Comprehensive Rehabilitation Projects Summary

Old Project Number	New Project Number	Project Name	Construction Cost	Status
CGS-R-0004	10-AR-BD-0046	Acadian Thruway - Claycut Road Area Rehabilitation Project	\$4,879,787	Functionally Complete
CGS-R-0005	10-AR-BD-0044	Acadian Thruway - Perkins Road Area Rehabilitation Project	\$2,672,493	Functionally Complete
SGC-R-0002A	11-AR-MS-0027	Airline Highway - Goodwood Boulevard Area Rehabilitation Project [Phase 1]	\$8,203,717	Functionally Complete
SGC-R-0002B	11-AR-MS-0028	Airline Highway - Goodwood Boulevard Area Rehabilitation Project [Phase 2]	\$7,932,466	Functionally Complete
SFU-R-0001	11-AR-MS-0029	Antioch Road - Chadsford Drive Area Rehabilitation Project	\$7,132,047	Functionally Complete
SGC-R-0003	13-AR-MS-0034	Ardenwood Drive - Winbourne Avenue Area Rehabilitation Project	\$2,121,620	Functionally Complete
SGC-R-0001A	10-AR-UF-0042	Bluebonnet Boulevard - Jefferson Highway Area Rehabilitation Project [Phase 1]	\$4,189,712	Functionally Complete
SGC-R-0001B	10-AR-MS-0043	Bluebonnet Boulevard - Jefferson Highway Area Rehabilitation Project [Phase 2]	\$4,078,281	Functionally Complete
SGL-R-0001	08-AR-UF-0003	Burbank Road - Gardere Lane Area Rehabilitation Project	\$5,185,537	Functionally Complete
CGN-R-0002	12-AR-MS-0041	East Boulevard - Government Street Area Rehabilitation Project	\$4,325,044	Under Construction
SGU-R-0003A	14-AR-MS-0033	Flannery Road - Florida Boulevard Area Rehabilitation Project [Phase 1]	\$4,674,811	Under Construction
SGU-R-0003B	14-AR-MS-0034	Flannery Road - Florida Boulevard Area Rehabilitation Project [Phase 2]	\$4,275,000	Under Construction
CGS-R-0001A	09-AR-BD-0015	Foster Drive - Government Street Area Rehabilitation Project (Phase A)	\$3,868,557	Functionally Complete
CGS-R-0001B	09-AR-BD-015A	Foster Drive - Government Street Area Rehabilitation Project (Phase B)	\$2,497,049	Functionally Complete
CGS-R-0002	11-AR-MS-0022	Highland Road - Washington Street Area Rehabilitation Project	\$9,907,587	Functionally Complete
SFL-R-0001	07-AR-US-0049	Jefferson Highway - Hoo Shoo Too Road Area Rehabilitation Project	\$1,769,438	Functionally Complete
SFL-R-0002	12-AR-MS-0038	Jones Creek Road - Tiger Bend Road Area Rehabilitation Project	\$8,374,428	Functionally Complete
SGL-R-0003	09-AR-BD-0014	Kenilworth Boulevard - Boone Drive Area Rehabilitation Project	\$4,114,739	Functionally Complete
SCG-R-0004	14-AR-MS-0035	N 38th Street - Gus Young Avenue Area Rehabilitation Project	\$3,300,000	Not Started
SGU-R-0001	08-AR-UF-0005	Oak Villa Boulevard - Choctaw Street Area Rehabilitation Project	\$7,281,250	Functionally Complete
CGN-R-0001A	12-AR-MS-0039	Scenic Highway - Spanish Town Road Area Rehabilitation Project (Phase 1)	\$8,547,537	Functionally Complete
CGN-R-0001B	13-AR-MS-0032	Scenic Highway - Spanish Town Road Area Rehabilitation Project (Phase 2)	\$8,774,043	Functionally Complete
SGU-R-0002	09-AR-BD-0013	Sharp Road - Florida Boulevard Area Rehabilitation Project	\$16,069,180	Functionally Complete
SFL-R-0003	13-AR-MS-0033	Siegen Lane - I-10 Area Rehabilitation Project	\$4,487,980	Under Construction
CGS-R-0003	10-AR-BD-0045	Stanford Road - Morning Glory Road Area Rehabilitation Project	\$4,262,124	Functionally Complete
SGL-R-0002	08-AR-UF-0004	Staring Lane - Boone Drive Area Rehabilitation Project	\$4,460,958	Functionally Complete



Legend

- Area Designated for Rehabilitation Project

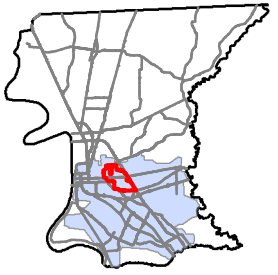
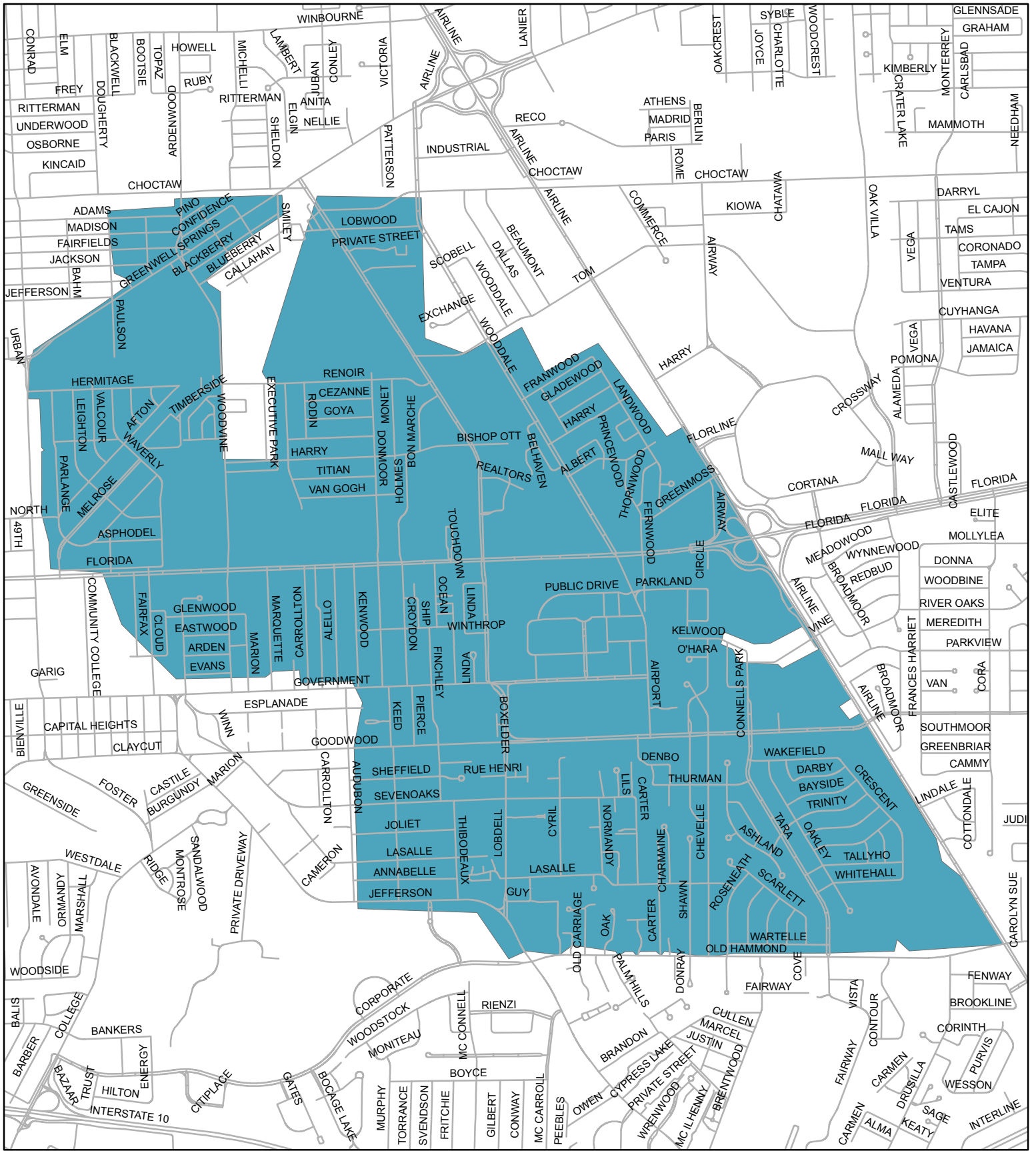
**Acadian Thruway - Claycut Road
Area Rehabilitation Project**

10-AR-BD-0046

Project Vicinity Map

Figure 3-3

BATON ROUGE **SSO**
Program



Legend

Area Designated for Rehabilitation Project

0 750 1,500 3,000

 Feet

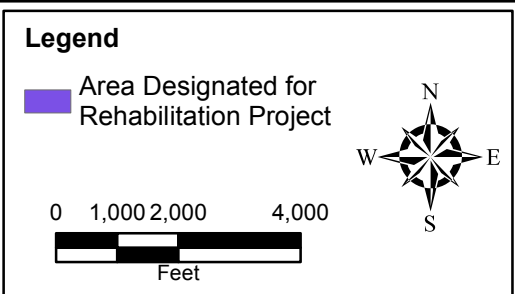
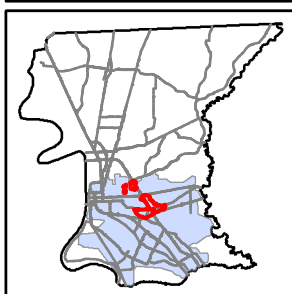
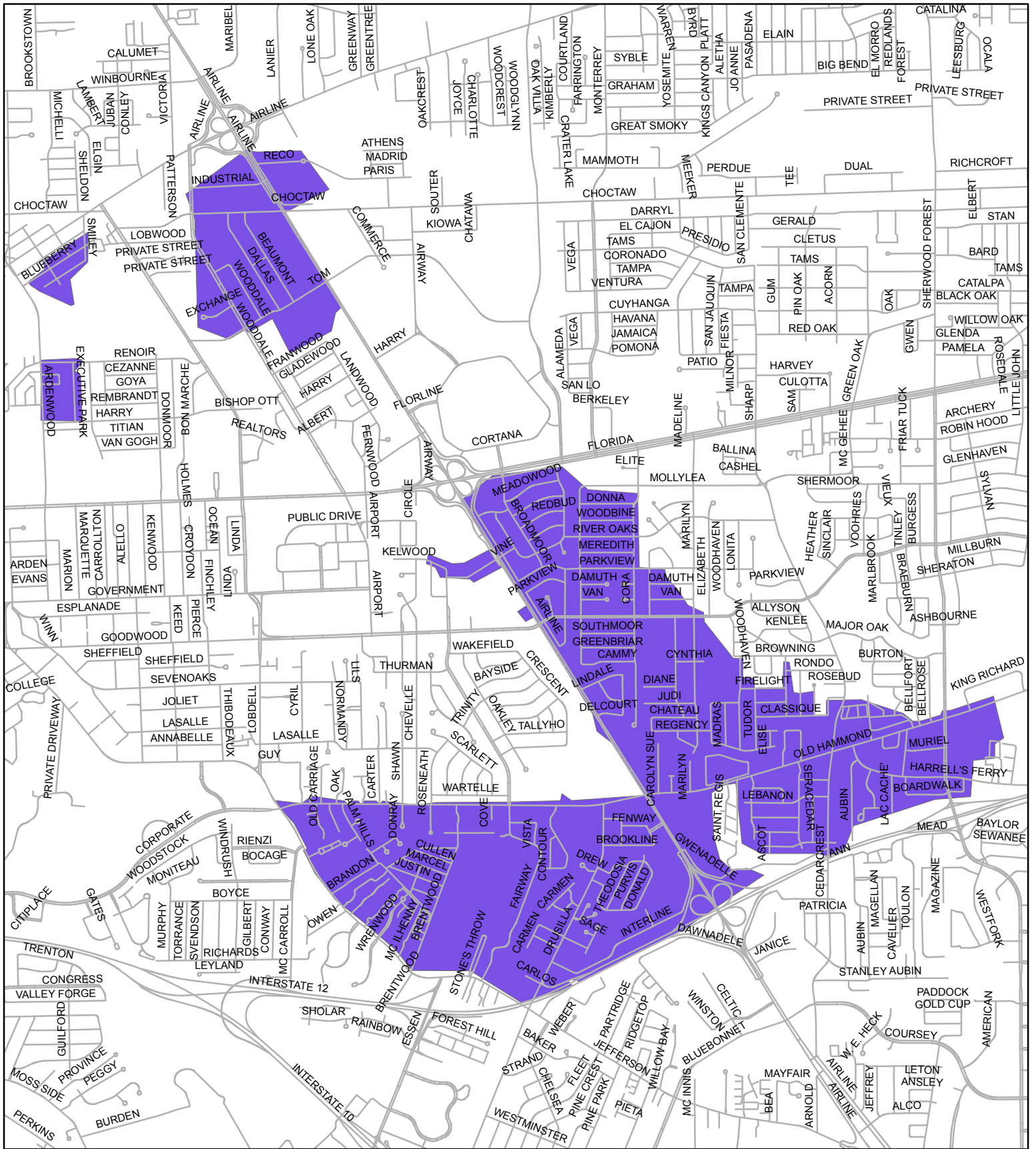
**Airline Highway - Goodwood Boulevard
 Area Rehabilitation Project [Phase 1]**

11-AR-MS-0027

Project Vicinity Map

Figure 3-5

BATON ROUGE **SSO**
Program



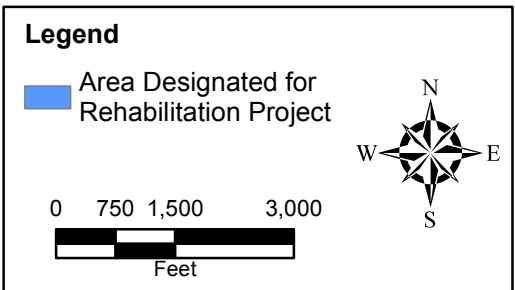
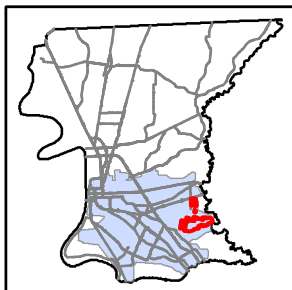
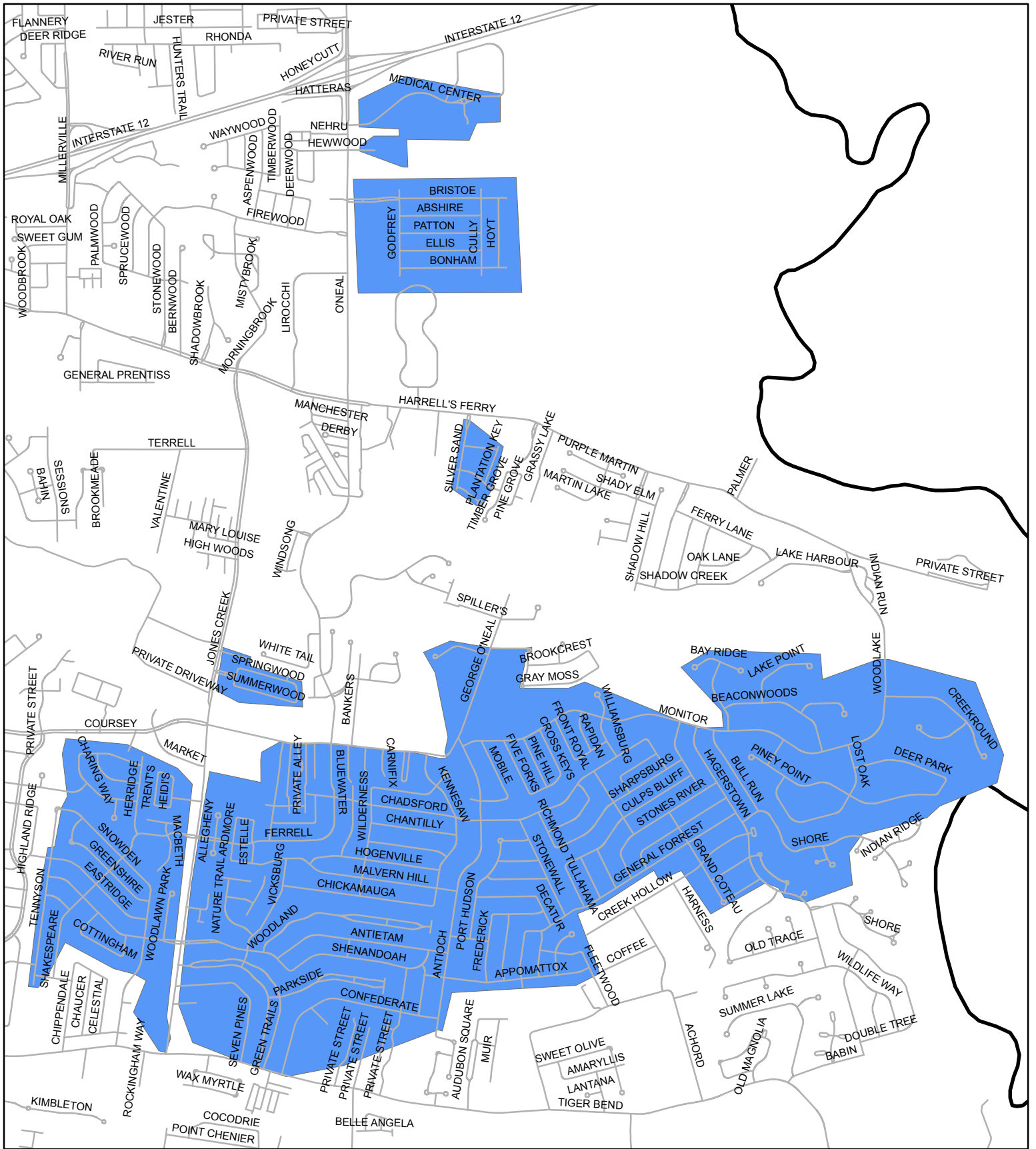
**Airline Highway - Goodwood Boulevard
Area Rehabilitation Project [Phase 2]**

11-AR-MS-0028

Project Vicinity Map

Figure 3-6

BATON ROUGE **SSO**
Program



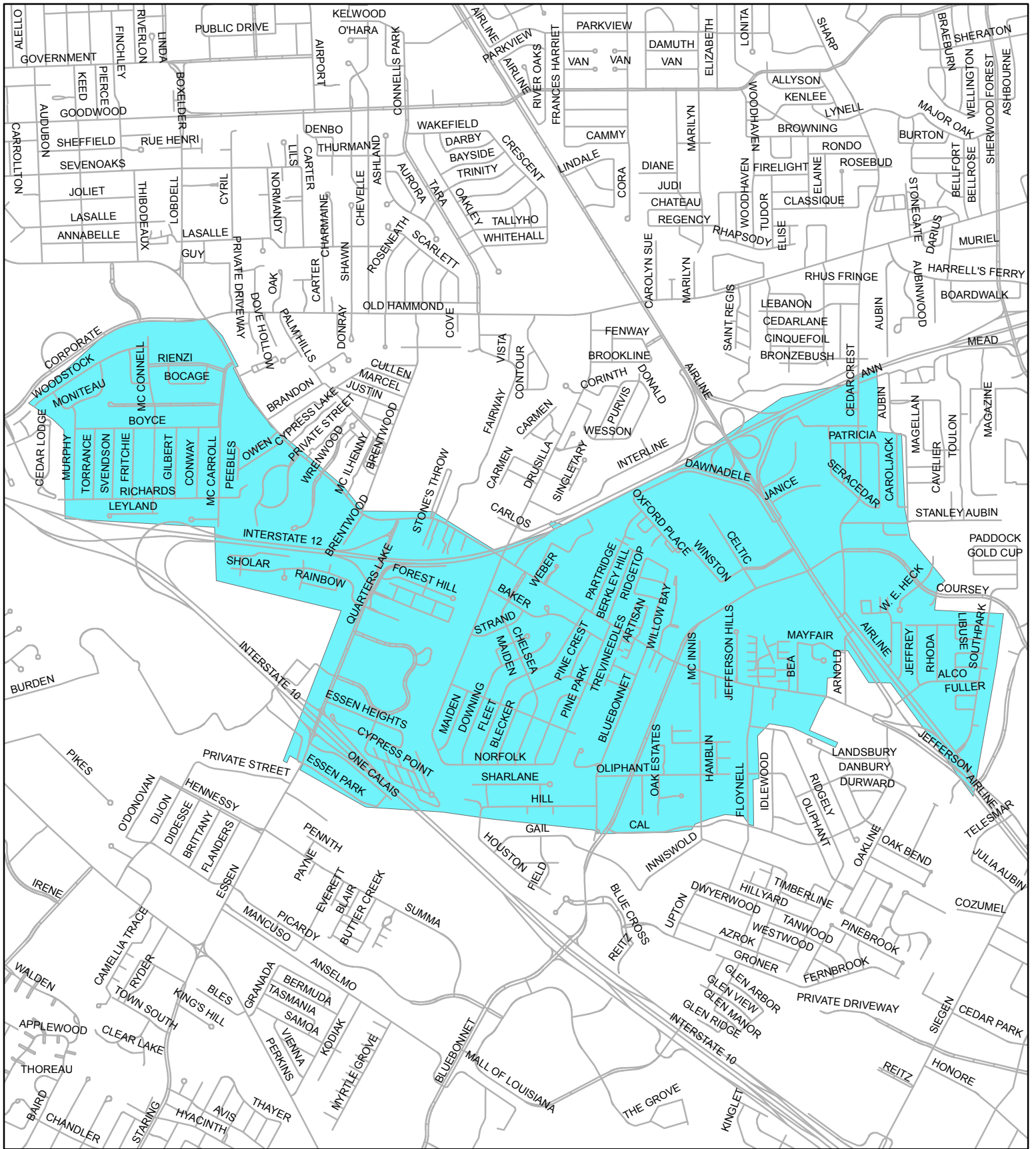
**Antioch Road - Chadsford Drive
Area Rehabilitation Project**

11-AR-MS-0029

Project Vicinity Map

Figure 3-7

BATON ROUGE **SSO**
Program



Legend

Area Designated for Rehabilitation Project

0 850 1,700 3,400
Feet

**Bluebonnet Boulevard - Jefferson Highway
Area Rehabilitation Project [Phase 2]**

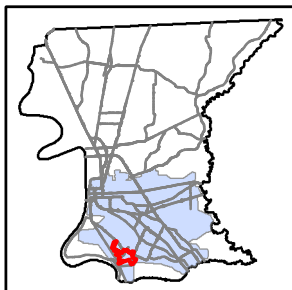
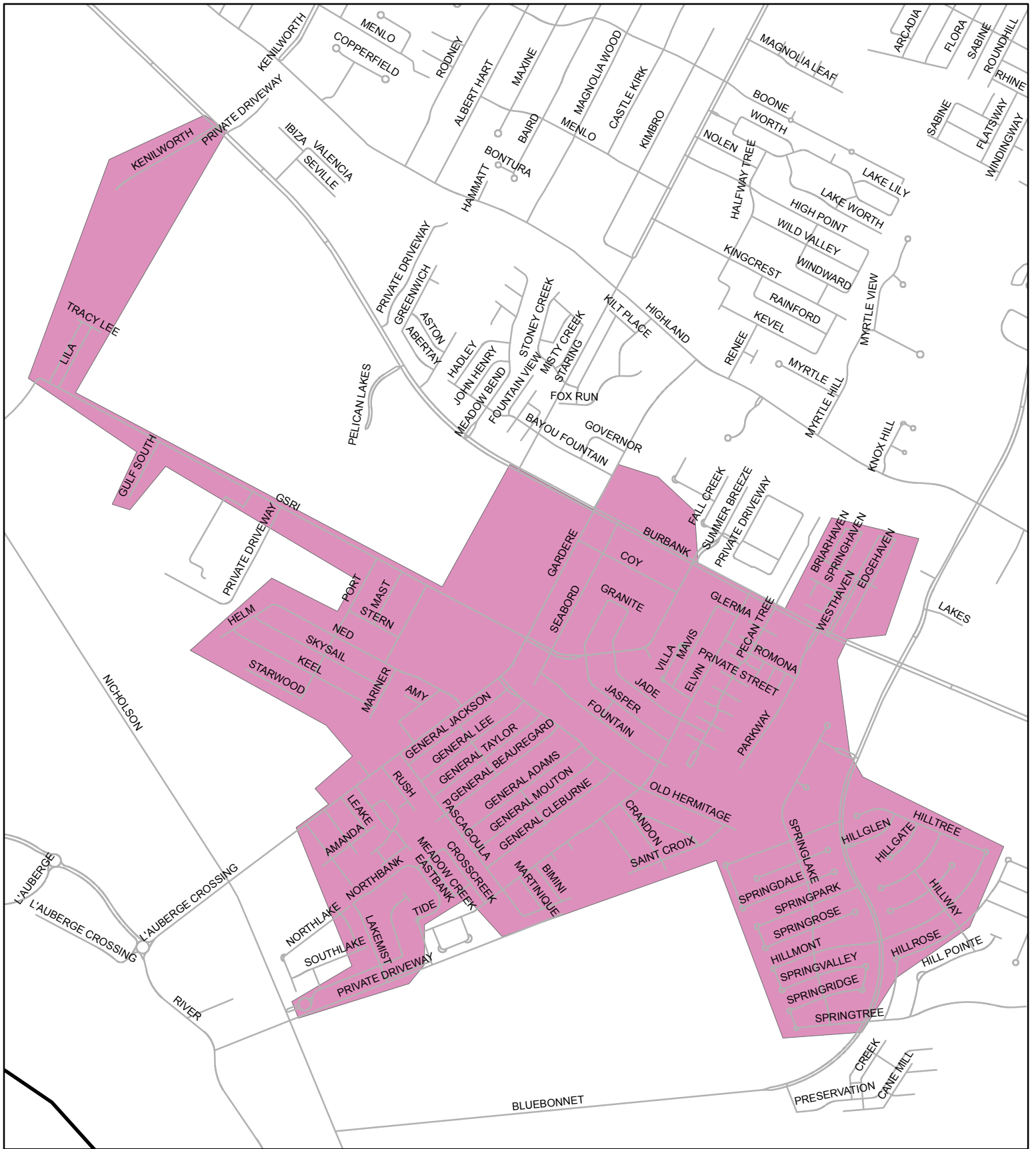
10-AR-MS-0043

Project Vicinity Map

Figure 3-10

DEPARTMENT OF ENVIRONMENTAL SERVICES
BATON ROUGE

BATON ROUGE **SSO**
Program



Legend

Area Designated for Rehabilitation Project

0 550 1,100 2,200

Feet

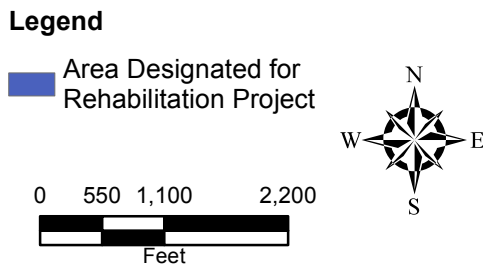
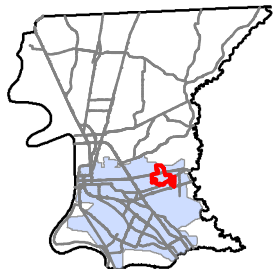
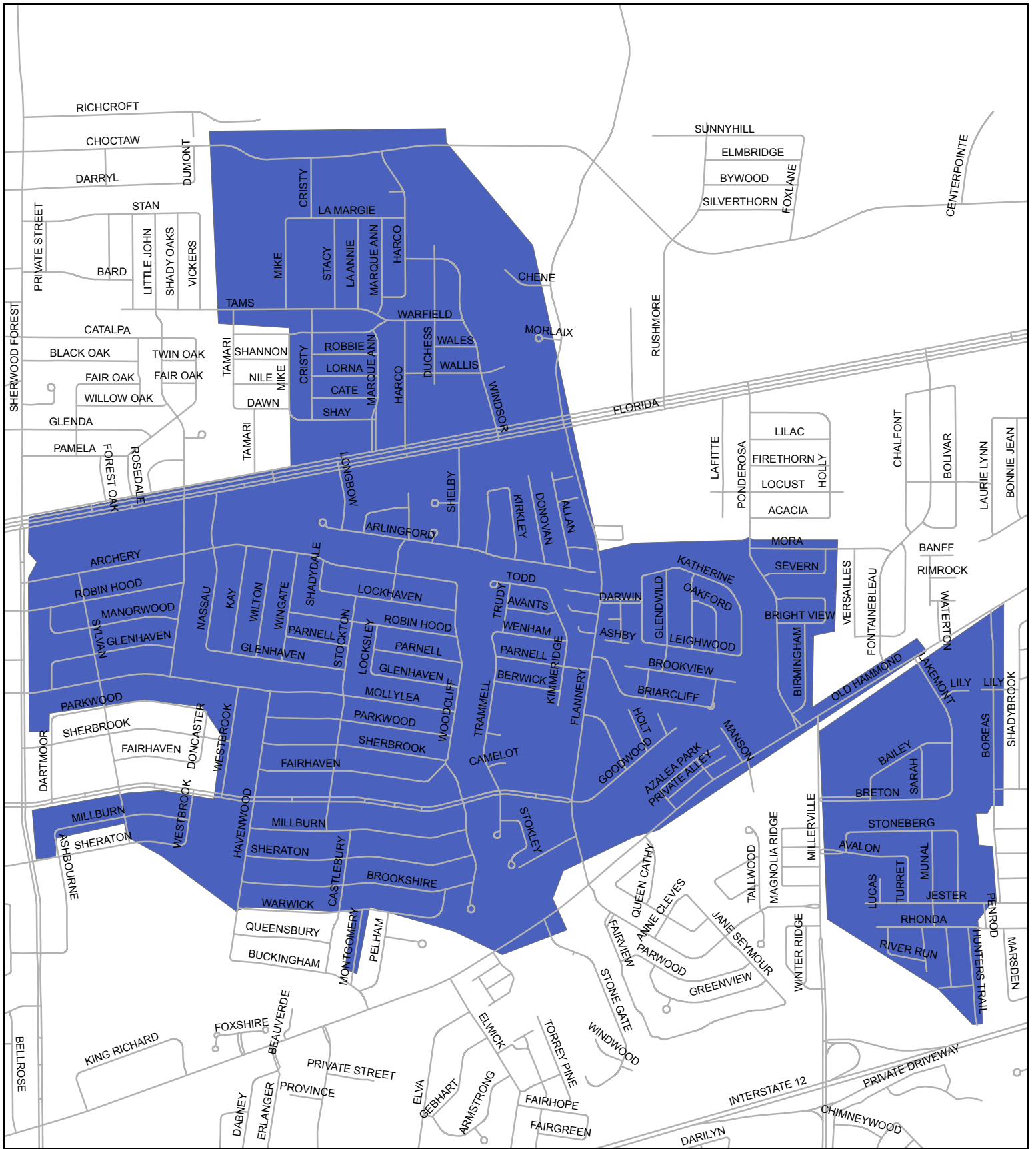
**Burbank Road - Gardere Lane
Area Rehabilitation Project**

08-AR-UF-0003

Project Vicinity Map

Figure 3-11

BATON ROUGE **SSO**
Program



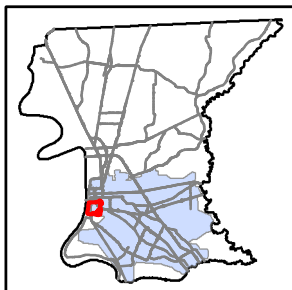
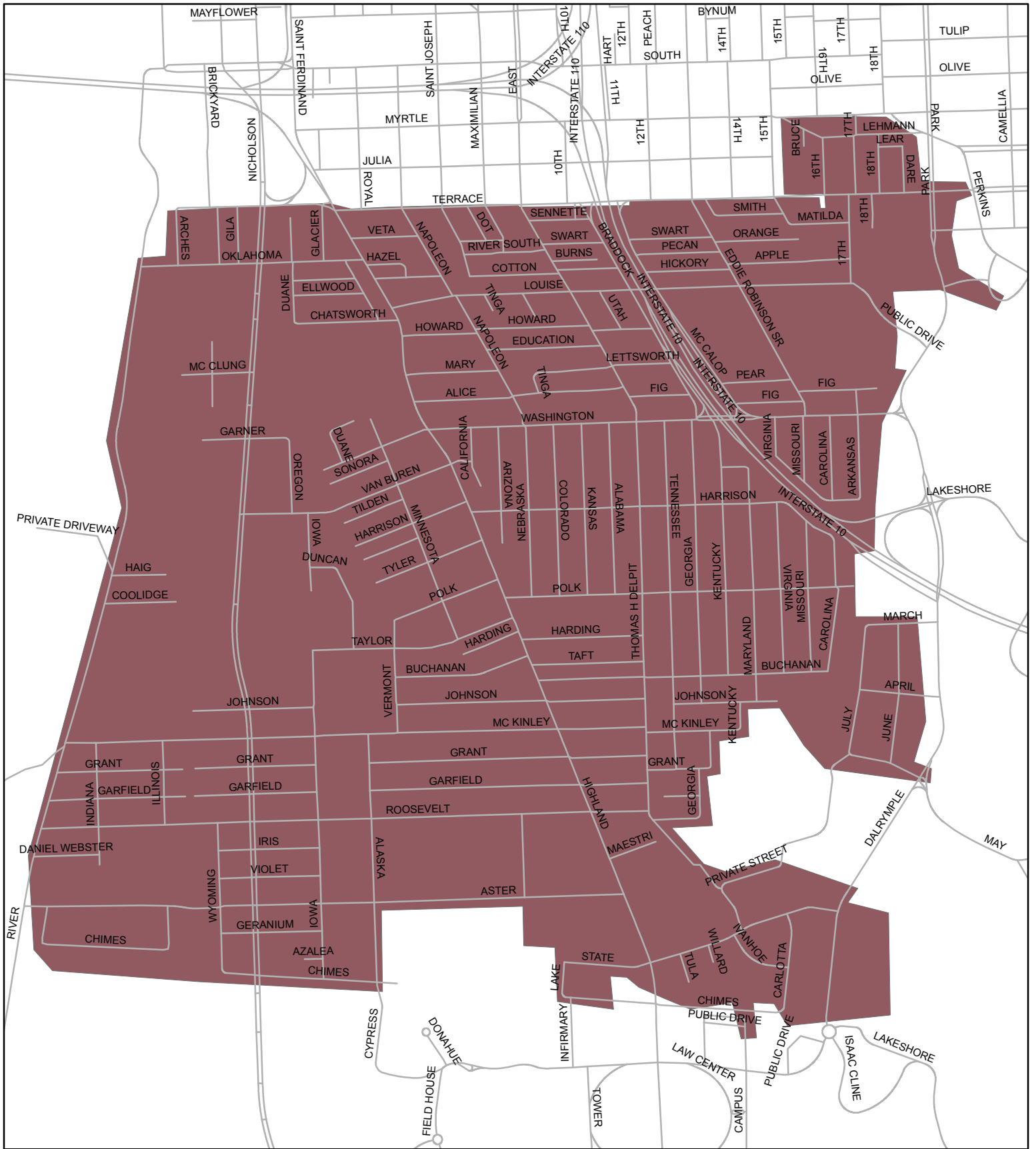
**Flannery Road - Florida Boulevard
Area Rehabilitation Project [Phase 1]**

14-AR-MS-0033

Project Vicinity Map

Figure 3-13

BATON ROUGE **SSO**
Program



Legend

■ Area Designated for Rehabilitation Project

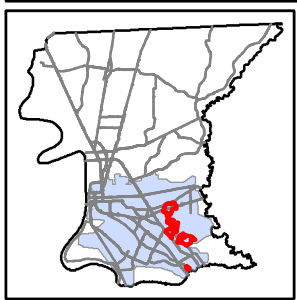
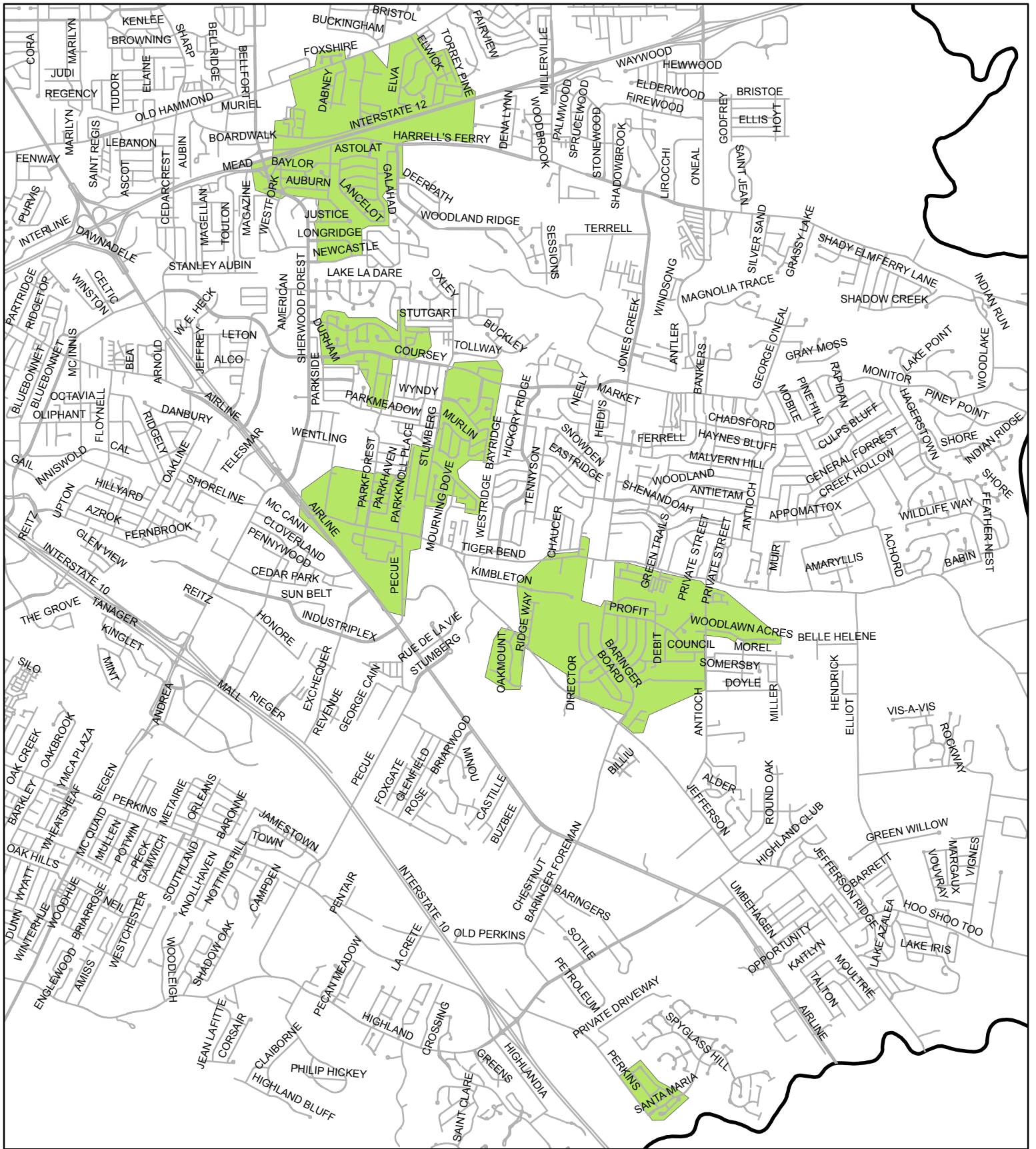
**Highland Road - Washington Street
Area Rehabilitation Project**

11-AR-MS-0022

Project Vicinity Map

Figure 3-17

BATON ROUGE **SSO**
Program



Legend

Area Designated for Rehabilitation Project

0 1,450 2,900 5,800

 Feet

**Jones Creek Road - Tiger Bend Road
 Area Rehabilitation Project**

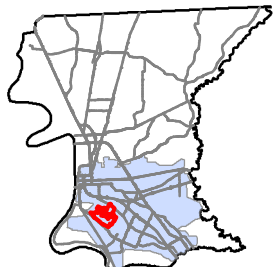
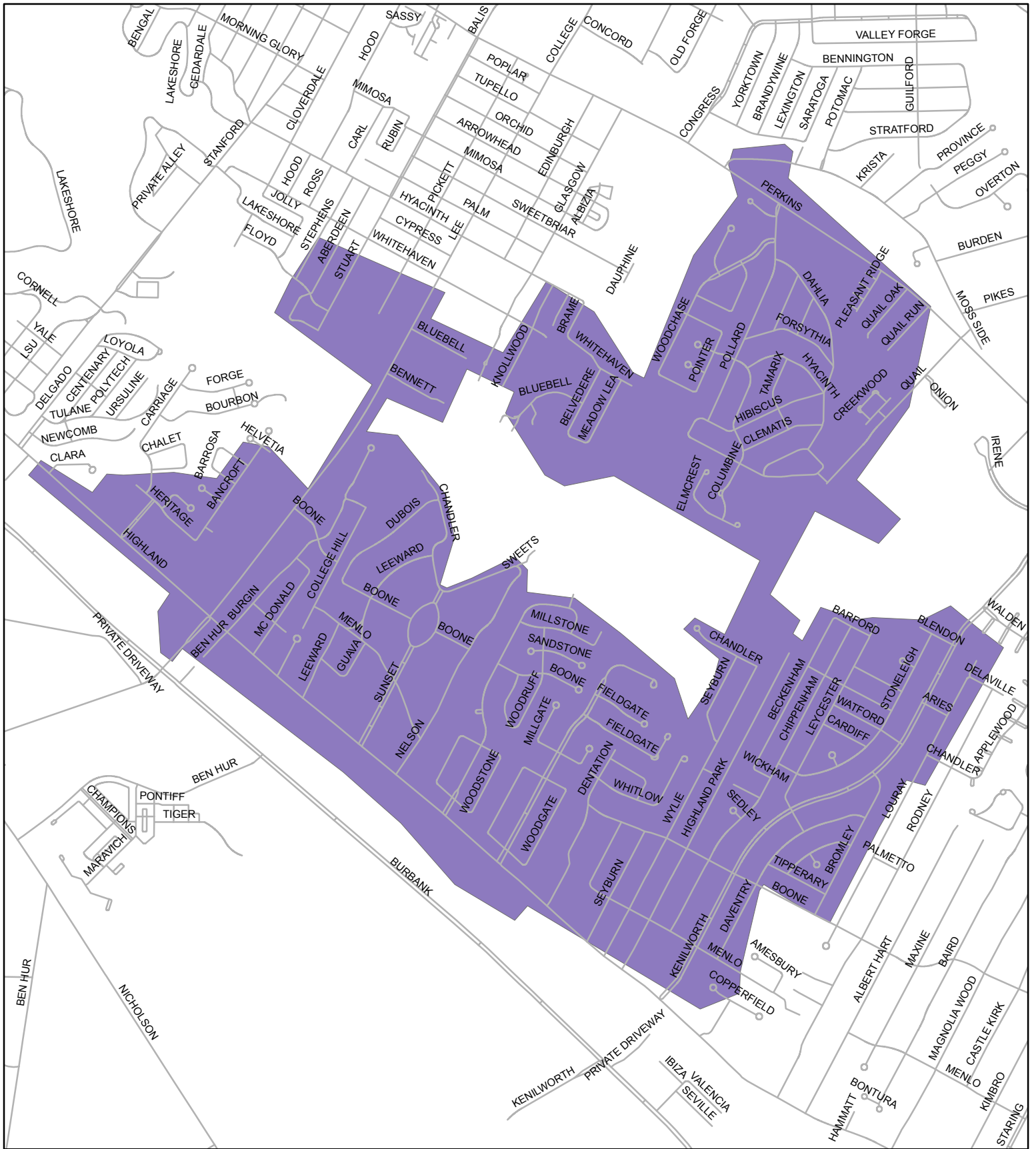
12-AR-MS-0038

Project Vicinity Map

Figure 3-19

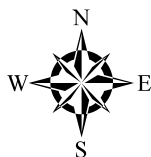
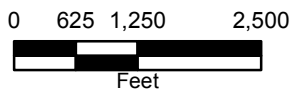
DEPARTMENT OF ENVIRONMENTAL SERVICES
 BATON ROUGE

BATON ROUGE SSO Program



Legend

 Area Designated for Rehabilitation Project



**Kenilworth Boulevard - Boone Drive
Area Rehabilitation Project**

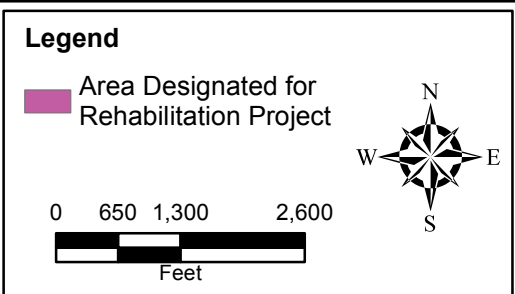
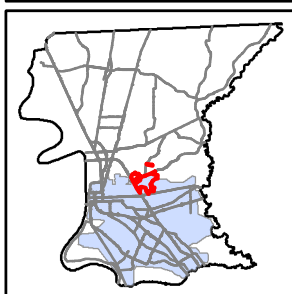
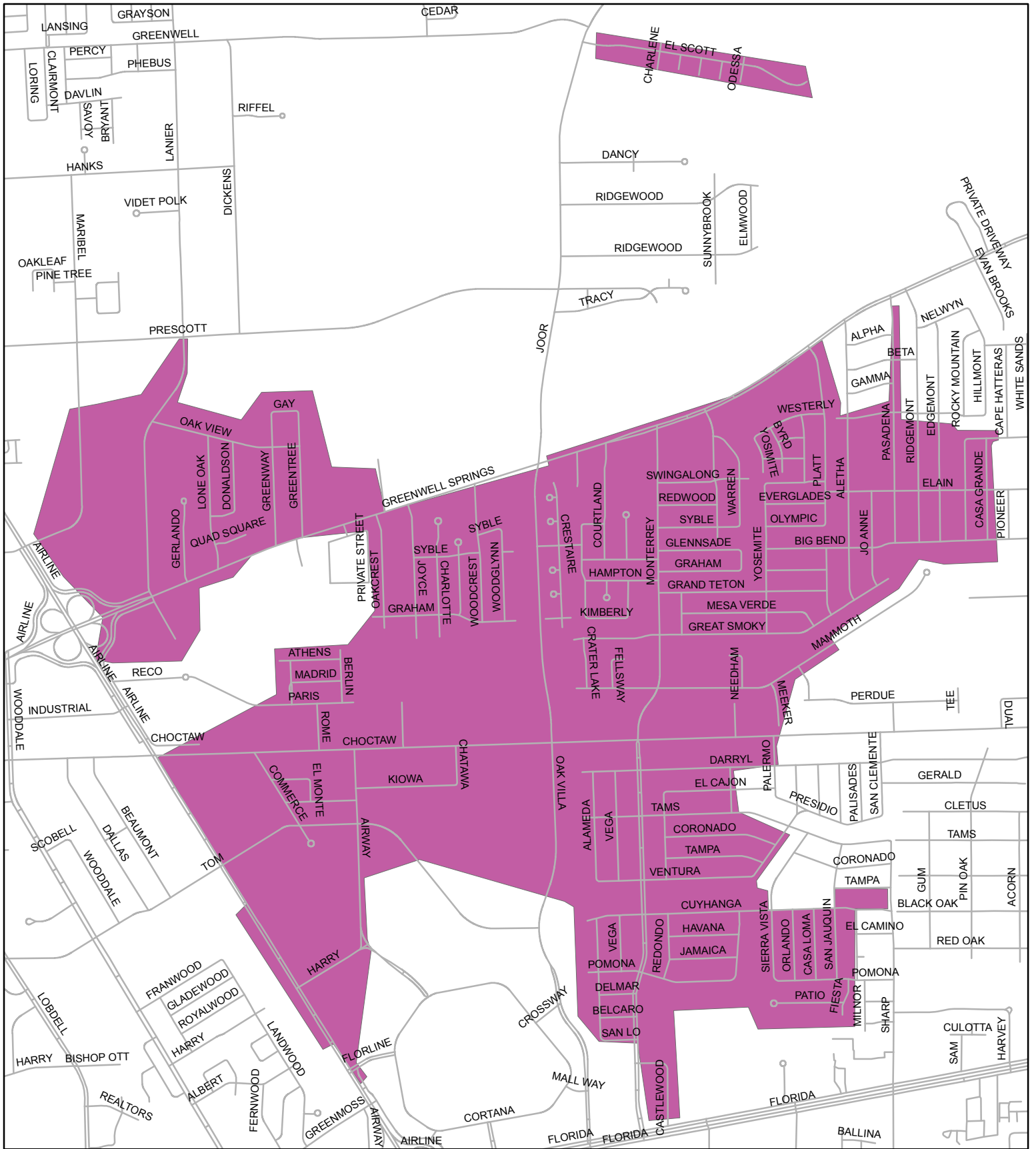
09-AR-BD-0014

Project Vicinity Map

Figure 3-20



BATON ROUGE **SSO**
Program



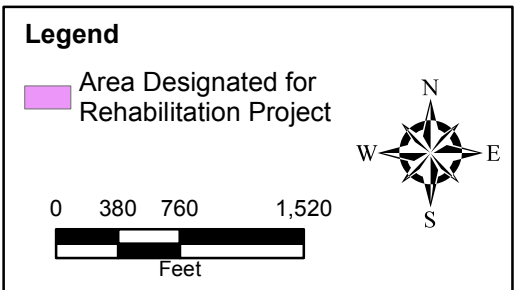
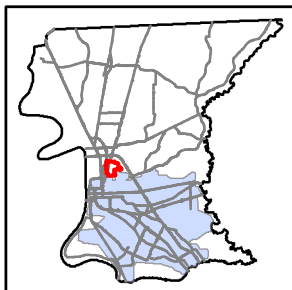
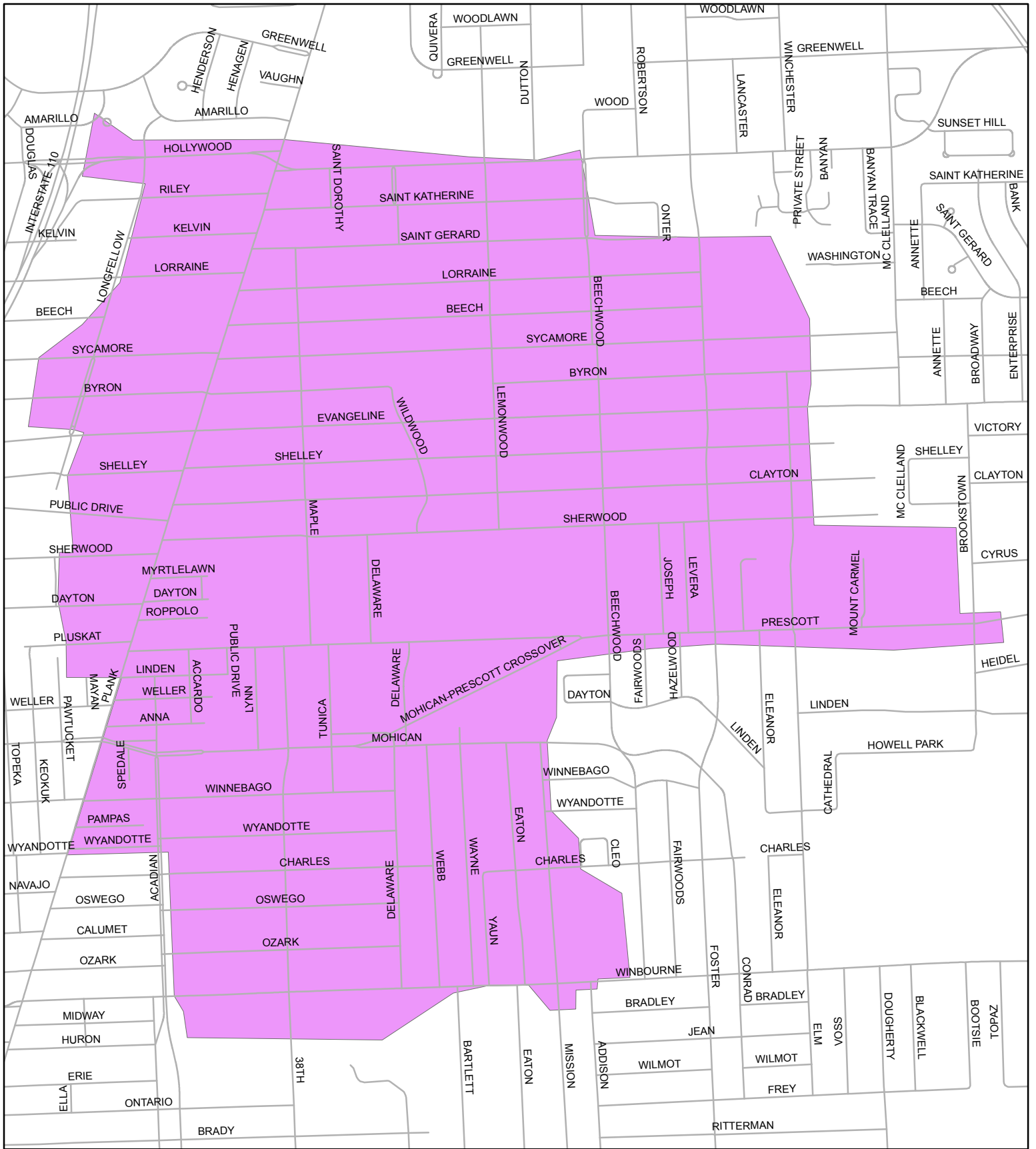
**Oak Villa Boulevard - Choctaw Street
Area Rehabilitation Project**

08-AR-UF-0005

Project Vicinity Map

Figure 3-22

BATON ROUGE **SSO**
Program



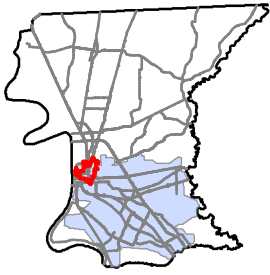
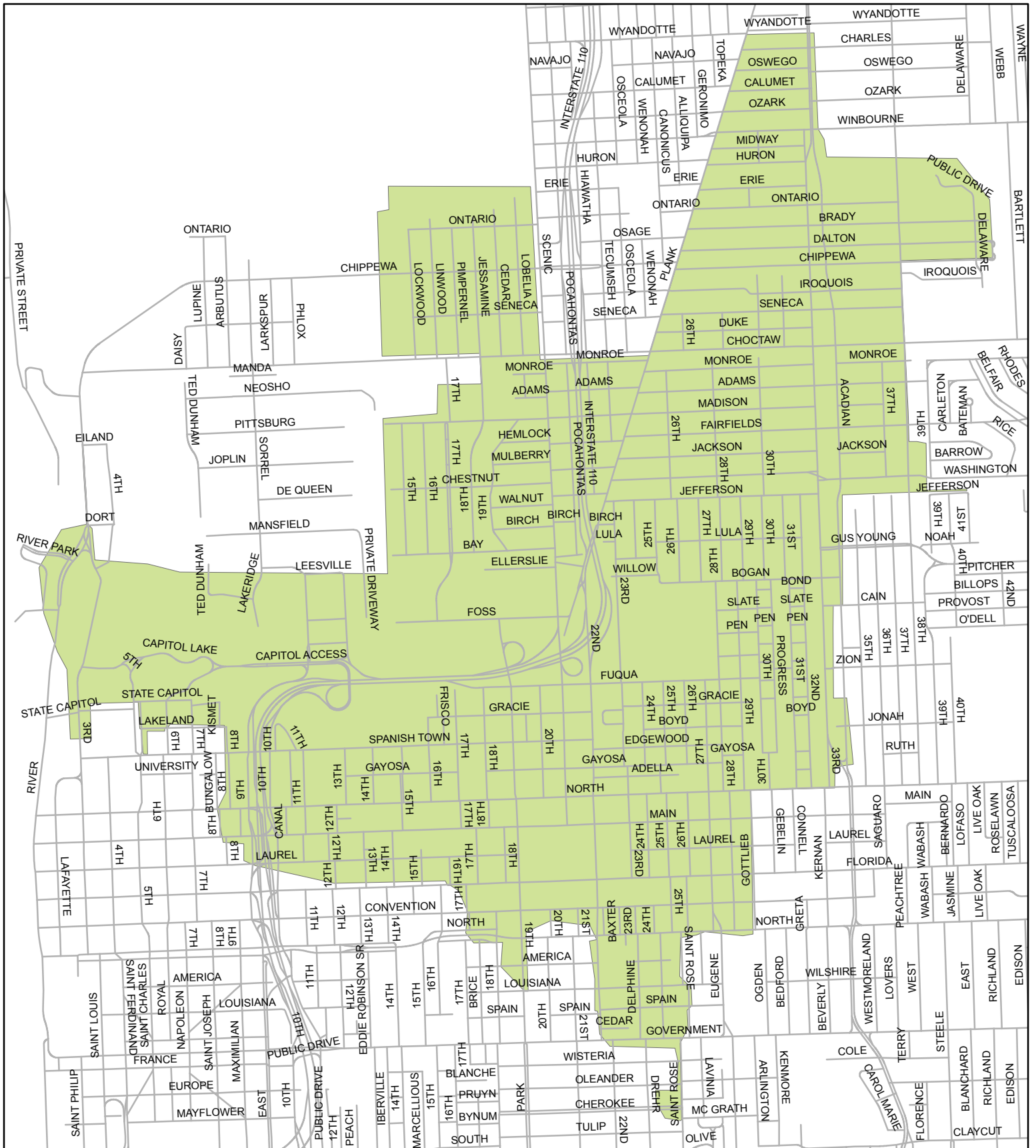
**Scenic Highway - Spanish Town Road
Area Rehabilitation Project [Phase 1]**

12-AR-MS-0039

Project Vicinity Map

Figure 3-23

BATON ROUGE **SSO**
Program



Legend

- Area Designated for Rehabilitation Project

0 550 1,100 2,200
Feet

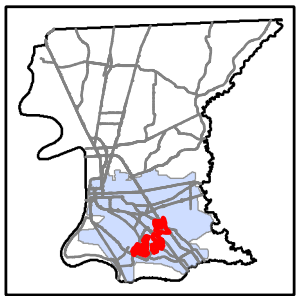
**Scenic Highway - Spanish Town Road
Area Rehabilitation Project [Phase 2]**

13-AR-MS-0032

Project Vicinity Map

Figure 3-24

BATON ROUGE **SSO**
Program



Legend

Area Designated for Rehabilitation Project

0 900 1,800 3,600

 Feet

N
 W E
 S

**Siegen Lane - I-10
 Area Rehabilitation Project**

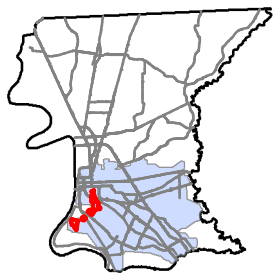
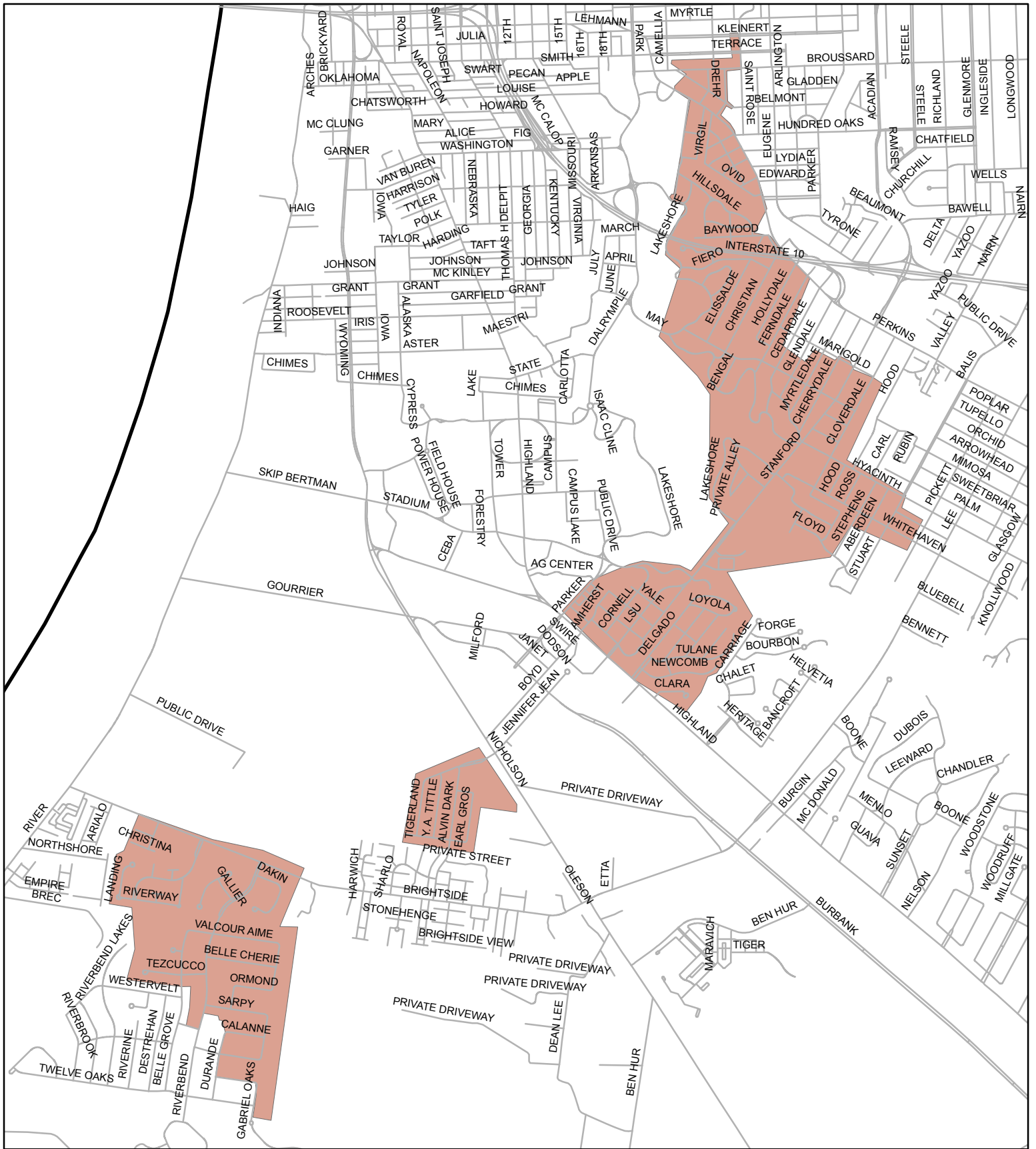
13-AR-MS-0033

Project Vicinity Map

Figure 3-26

DEPARTMENT OF ENVIRONMENTAL SERVICES
 BATON ROUGE

BATON ROUGE SSO Program



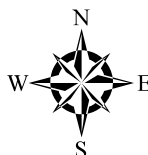
Legend

 Area Designated for Rehabilitation Project

0 850 1,700 3,400



Feet



**Stanford Road - Morning Glory Road
Area Rehabilitation Project**

10-AR-BD-0045

Project Vicinity Map

Figure 3-27



BATON ROUGE **SSO**
Program

3.2 South Basin Capacity Improvements Projects

3.2.1 09-GS-UF-0008 (25th Street – North Acadian Thruway)

Project Description

Purpose of the Project/Background Information

The original purpose of the 09-GS-UF-0008 (25th Street – North Acadian Thruway) project was to increase the capacity of the gravity trunk sewer upstream of PS 60, PS 15, and PS 59 to alleviate SSOs. This project consisted of designing approximately 9,500 linear feet of gravity sanitary sewer pipeline replacement with pipelines ranging in diameter from 15 to 24 inches, and installing approximately 3,000 linear feet of new gravity sanitary sewer pipeline with diameters of 21 to 24 inches.

For constructability and schedule alignment, those segments originating near North Acadian Thruway to PS 15 were constructed as project 07-PS-BD-0048 (Capitol Lake Drive - Gayosa Street), while those segments originating north of I-110 near Memorial Stadium and east of I-110 between Spanish Town Road and Main Street were constructed in the vicinity of project 08-GS-ST-0018 (South Boulevard - St. Joseph Street). The location descriptions and maps of those projects include the scope that was designed under this project.

3.2.2 10-GS-MS-0007A (Airline Highway Pipeline Project [Phase A])

Project Description

Purpose of the Project/Project Background

The 10-GS-MS-0007A (Airline Highway Pipeline Project [Phase A]) project includes those segments previously included in SGC-C-0003 (Essen Lane - Interstate-12) and SGU-C-0002 (Airline Highway - Interstate 12) from the October 2008 PDP. The project includes the following:

- Construction of a new force main from PS 50 to PS 58.

The locations of the segments in 10-GS-MS-0007A (Airline Highway Pipeline project) are shown in Figure 3-29.

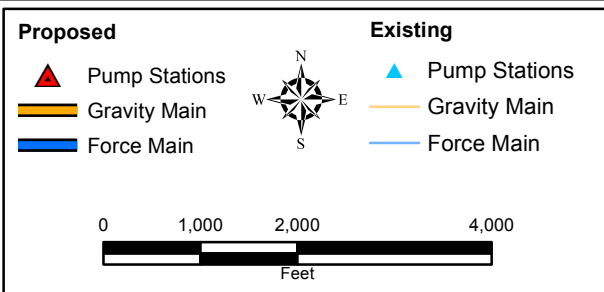
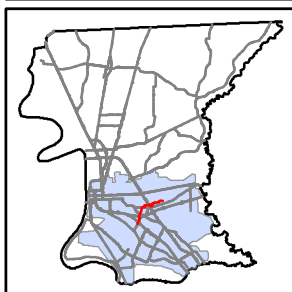
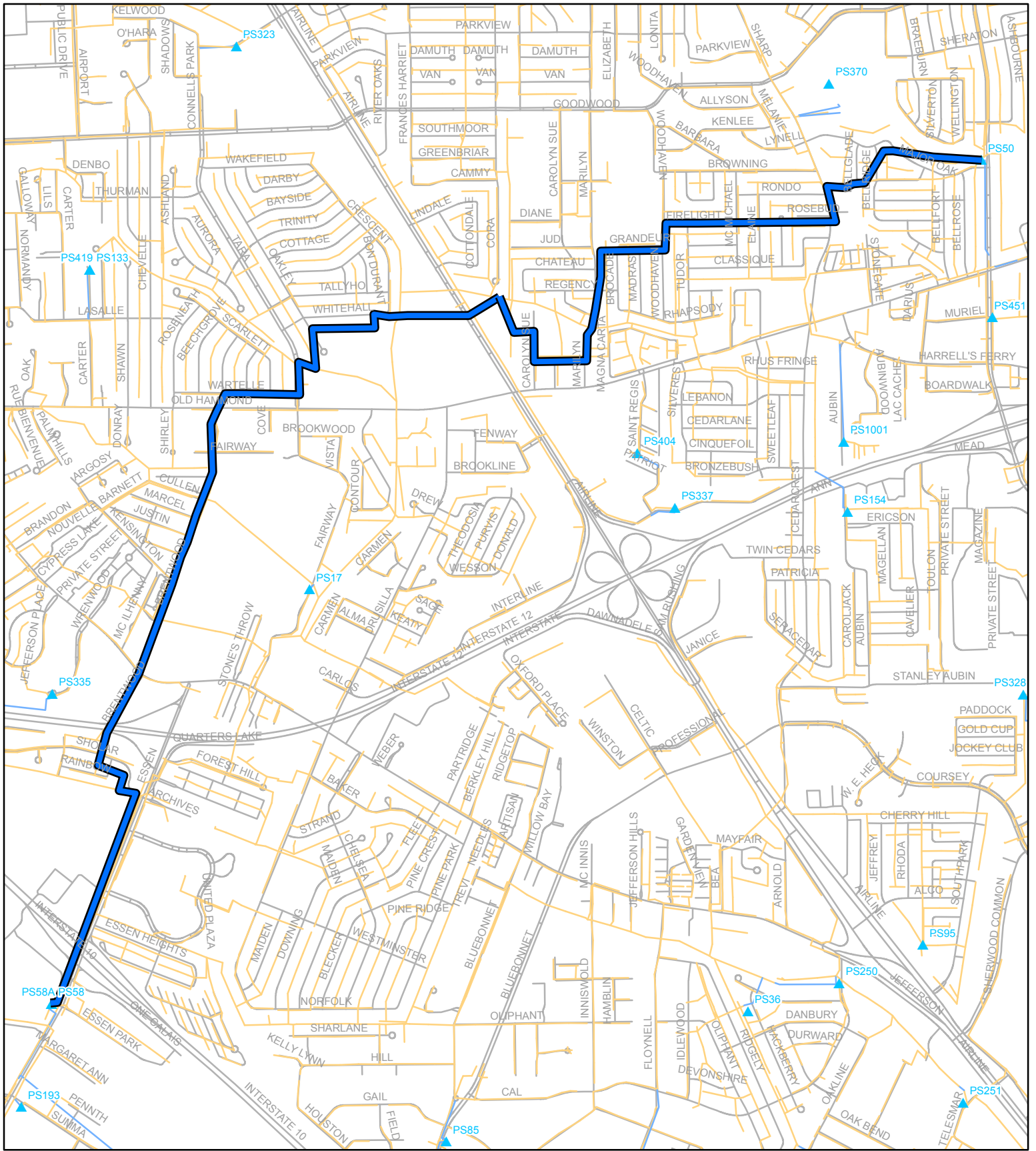
Scope

This project includes construction of approximately 26,000 feet of new 36-inch and 48-inch force main from PS 50 to PS 58. Additional project details are presented in Table 3-2.

TABLE 3-2
10-GS-MS-0007A (Airline Highway Pipeline Project [Phase A]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 50	Manifold at Tee	14,850	36	Force Main
Manifold at Tee	PS 58/PS 58A	11,150	48	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Airline Highway

Pipeline Project
[Phase A]
10-GS-MS-0007A

Project Vicinity Map
Figure 3-29

BATON ROUGE **SSO**
Program

3.2.3 10-GS-MS-007B (Airline Highway Pipeline Project [Phase B])

Project Description

Purpose of the Project/Project Background

The 10-GS-MS-0007B (Airline Highway Pipeline project (Phase B)) project includes those segments previously included in SGC-C-0003 (Essen Lane - Interstate-12) and SGU-C-0002 (Airline Highway - Interstate 12) from the October 2008 PDP. The project includes the following:

- Upsizing of the gravity sewer upstream of PS 58 to alleviate SSOs in the vicinity of the gravity sewer and pump station.
- Construction of a new force main at PS 66 to address upstream SSOs.

The locations of the segments in 10-GS-MS-0007B (Airline Highway Pipeline Project [Phase B]) are shown in Figure 3-30.

Scope

This project includes construction of approximately 19,160 feet of 8-inch through 42-inch gravity sewer upstream of PS 58 and PS 250. This project also involves construction of approximately 3,280 feet of 12-inch force main downstream of PS 66. Additional project details are presented in Table 3-3.

TABLE 3-3
10-GS-MS-007B (Airline Highway Pipeline Project [Phase B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH G1-2	MH G1-1	150	12	Gravity
MH G17-21	MH G17-20	150	15	Gravity
MH G17-20	MH G17-19	70	15	Gravity
MH G17-19	MH G17-18	300	15	Gravity
MH G17-18	MH G17-17	310	15	Gravity
MH G17-17	MH G17-16	60	15	Gravity
MH G17-16	MH G17-15	140	15	Gravity
MH G17-15	MH G17-14	180	15	Gravity
MH G17-14	MH G17-13	200	15	Gravity
MH G17-13	MH G17-12	190	15	Gravity
MH G17-12	MH G17-11	180	15	Gravity
MH G17-11	MH G17-10	180	15	Gravity
MH G17-10	MH G17-9	140	15	Gravity
MH G17-9	MH G17-8	230	15	Gravity
MH G17-8	MH G17-7	160	15	Gravity
MH G17-7	MH G17-6	130	15	Gravity

TABLE 3-3
10-GS-MS-007B (Airline Highway Pipeline Project [Phase B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH G17-6	MH G17-5	190	15	Gravity
MH G17-5	MH G17-4	210	15	Gravity
MH G17-4	MH G17-3	180	15	Gravity
MH G17-3	MH G17-2	30	15	Gravity
MH G17-2	MH G17-1	290	15	Gravity
MH G17-1	Ex. MH 058-01393	90	16	Gravity
MH FM18-1	Ex. MH 058-02653	30	24	Gravity
MH G21-1	MH G20-21	20	42	Gravity
MH G20-21	MH G20-20	440	42	Gravity
MH G20-20	MH G20-19	320	42	Gravity
MH G20-19	MH G20-18	80	42	Gravity
MH G20-18	MH G20-17	40	42	Gravity
MH G20-17	MH G20-16	170	42	Gravity
MH G20-16	MH G20-15	170	42	Gravity
MH G20-15	MH G20-14	100	42	Gravity
MH G20-14	MH G20-13	350	42	Gravity
MH G20-13	MH G20-12	430	42	Gravity
MH G20-12	MH G20-11	350	42	Gravity
MH G20-11	MH G20-10	310	42	Gravity
MH G20-10	MH G20-9	470	42	Gravity
MH G20-9	MH G20-8	120	42	Gravity
MH G20-8	MH G20-7	100	42	Gravity
MH G20-7	MH G20-6	260	42	Gravity
Ex. MH 058-00208	MH G20-7	20	10	Gravity
Ex. MH 058-00213	MH G20-13	20	8	Gravity
Ex. MH 058-00216	MH G20-18	40	8	Gravity
Ex. MH 058-08060	MH G20-19	20	8	Gravity
MH G20A-2	MH G20A-1	230	12	Gravity
MH G20A-1	MH G20-10	10	12	Gravity
Ex. MH 058-00214	MH G20B-2	90	12	Gravity
MH G20B-2	MH G20-14	160	12	Gravity

TABLE 3-3
10-GS-MS-007B (Airline Highway Pipeline Project [Phase B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Ex. MH 058-00497	MH G21-11	130	12	Gravity
MH G21-11	MH G21-10	300	12	Gravity
MH G21-10	MH G21-8	110	12	Gravity
MH G21-8	MH G21-7	350	42	Gravity
MH G21-7	MH G21-6	400	42	Gravity
MH G21-6	MH G21-5	370	42	Gravity
MH G21-5	MH G21-4	430	42	Gravity
MH G21-4	MH G21-3	370	42	Gravity
MH G21-3	MH G21-2	260	42	Gravity
MH G21-2	MH G21-1	140	42	Gravity
Ex. MH 058-00499A	MH G21-7	10	8	Gravity
MH G21-9	MH G21-8	10	21	Gravity
MH G22-19	MH G22-18	160	21	Gravity
MH G22-18	MH G22-17	290	21	Gravity
MH G22-17	MH G22-16	290	36	Gravity
MH G22-16	MH G22-15	170	36	Gravity
MH G22-15	MH G22-14	140	36	Gravity
MH G22-14	MH G22-13	300	36	Gravity
MH G22-13	MH G22-12	70	36	Gravity
MH G22-12	MH G22-11	290	36	Gravity
MH G22-11	MH G22-10	30	36	Gravity
MH G22-10	MH G22-9	210	36	Gravity
MH G22-9	MH G22-8	250	36	Gravity
MH G22-8	MH G22-7	330	36	Gravity
MH G22-7	MH G22-6	290	36	Gravity
MH G22-6	MH G22-5	100	42	Gravity
MH G22-5	MH G22-4	310	42	Gravity
MH G22-4	MH G22-3	260	42	Gravity
MH G22-3	MH G22-2	160	42	Gravity
MH G22-2	MH G22-1	290	42	Gravity
MH G22-1	MH G21-8	300	42	Gravity

TABLE 3-3
10-GS-MS-007B (Airline Highway Pipeline Project [Phase B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Ex. MH 058-00490	MH G22-6	20	8	Gravity
Ex. MH 058-00486A	MH G22-7	20	8	Gravity
Ex. MH 058-00481	MH G22-10B	20	12	Gravity
MH G22-10B	MH G22-10A	160	12	Gravity
MH G22-10A	MH G22-10	160	12	Gravity
MH G23-19	MH G23-18	80	21	Gravity
MH G23-18	MH G23-17	220	21	Gravity
MH G23-17	MH G23-16	100	21	Gravity
MH G23-16	MH G23-15	30	21	Gravity
MH G23-15	MH G23-13	120	27	Gravity
MH G23-13	MH G23-12	120	27	Gravity
MH G23-12	MH G23-11	120	27	Gravity
MH G23-11	MH G23-10	380	27	Gravity
MH G23-10	MH G23-9	150	27	Gravity
MH G23-9	MH G23-8	20	27	Gravity
MH G23-8	MH G23-7	310	27	Gravity
MH G23-7	MH G23-6	330	27	Gravity
MH G23-6	MH G23-5	330	27	Gravity
MH G23-5	MH G23-4	110	27	Gravity
MH G23-4	MH G23-3	280	27	Gravity
MH G23-3	MH G23-2	170	27	Gravity
MH G23-2	MH G23-1	410	27	Gravity
MH G23-1	MH G22-17	170	30	Gravity
MH G23-14	MH G23-13	20	15	Gravity
MH G23-20	MH G23-18	80	10	Gravity
PS 66	MH FM18-1	3,280	12	Force Main

Note: The pipe lengths were obtained from the 100% design drawings.

3.2.4 09-GS-MS-0042 (Bayou Duplantier Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The 09-GS-MS-0042 (Bayou Duplantier Sewer Area Upgrades) project was originally designated SGL-C-0005 (Perkins Road – Dahlia Street) project in the October 2008 PDP. This project included the upsizing of gravity sewer and force main upstream of PS 56 and PS 91 to alleviate upstream SSOs.

The gravity sewer and force main segments for this project are shown in Figure 3-31.

Scope

This project included the construction of approximately 12,280 feet of 12-inch, 15-inch, 18-inch, 21-inch, 24-inch, 30-inch, and 36-inch gravity sewer upstream of PS 56 and PS 91 as well as approximately 650 feet of 8-inch force main downstream of PS 70. Table 3-4 shows the detailed scope of this project.

TABLE 3-4
09-GS-MS-0042 (Bayou Duplantier Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Tie-In to Existing 8-inch Force Main from PS 70	MH S-42	650	8	Force Main
MH S-42	MH S-41	170	18	Gravity
MH S-41	MH S-40	70	21	Gravity
MH S-40	MH S-39	240	21	Gravity
MH S-39	MH S-38	130	21	Gravity
MH S-38	MH S-37	300	21	Gravity
MH S-37	MH S-36	60	21	Gravity
MH S-36	MH S-35	290	21	Gravity
MH S-35	MH S-34	310	21	Gravity
MH S-34	MH S-33	330	21	Gravity
MH S-33	MH S-32	70	21	Gravity
MH S-32	MH S-31	200	21	Gravity
MH S-31	MH S-30	140	21	Gravity
MH S-30	MH S-29	210	21	Gravity
MH S-29	MH S-28	90	21	Gravity
MH S-28	MH S-27	130	21	Gravity
MH S-27	MH S-26	170	21	Gravity
MH S-26	MH S-25A	40	21	Gravity
MH S-25A	MH S-25	320	21	Gravity

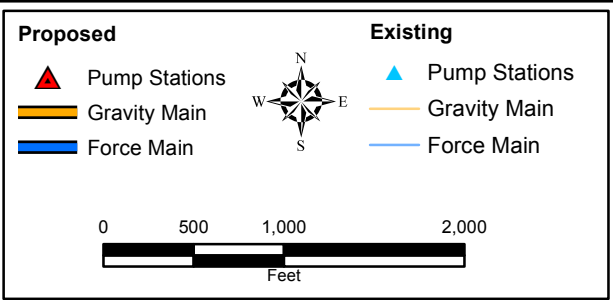
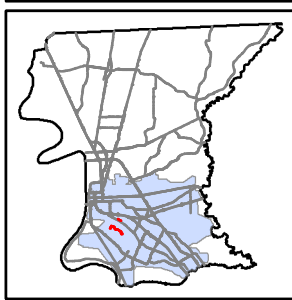
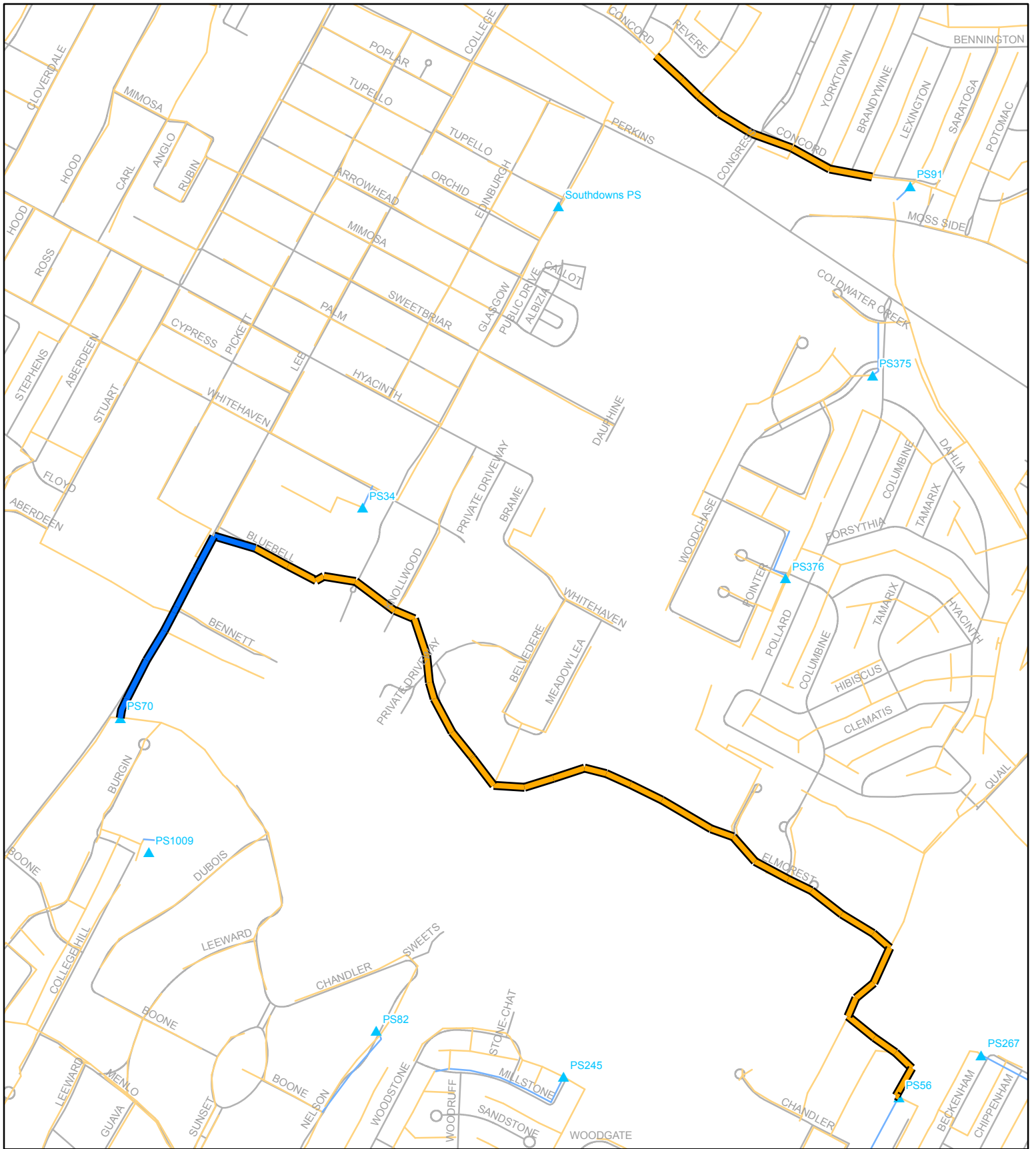
TABLE 3-4
09-GS-MS-0042 (Bayou Duplantier Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH S-25	MH S-24	90	21	Gravity
MH S-24	MH S-23	230	21	Gravity
MH S-23	MH S-22	300	21	Gravity
MH S-22	MH S-21	200	21	Gravity
MH S-21	MH S-20	250	21	Gravity
MH S-20	MH S-19	380	24	Gravity
MH S-19	MH S-18	60	24	Gravity
MH S-18	MH S-17	340	24	Gravity
MH S-17	MH S-16	270	24	Gravity
MH S-16	MH S-15	270	24	Gravity
MH S-15	MH S-14	250	24	Gravity
MH S-14	MH S-13A	350	24	Gravity
MH S-13A	MH S-13	20	24	Gravity
MH S-13	MH S-12	370	24	Gravity
MH S-12	MH S-11	200	24	Gravity
MH S-11	MH S-10	80	24	Gravity
MH S-10	MH S-9	130	24	Gravity
MH S-9	MH S-8	460	24	Gravity
MH S-8	MH S-7	330	24	Gravity
MH S-7	MH S-6	210	24	Gravity
MH S-6	MH S-5	250	30	Gravity
MH S-5	MH S-4	440	30	Gravity
MH S-4	MH S-3	330	36	Gravity
MH S-3	MH S-2	330	36	Gravity
MH S-2	MH S-1	280	36	Gravity
MH S-1	PS 56	50	36	Gravity
MH N-14	MH N-13	370	12	Gravity
MH N-13	MH N-12	200	12	Gravity
MH N-12	MH N-11	190	15	Gravity
MH N-11	MH N-10	280	15	Gravity
MH N-10	MH N-9	10	15	Gravity

TABLE 3-4
09-GS-MS-0042 (Bayou Duplantier Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH N-9	MH N-8	170	15	Gravity
MH N-8	MH N-7	240	15	Gravity
MH N-7	MH N-6	350	18	Gravity
MH N-6	MH N-5	100	18	Gravity
MH N-5	MH N-4	260	18	Gravity
MH N-4	MH N-3	170	18	Gravity
MH N-3	MH N-2	130	18	Gravity
MH N-2	MH N-1	40	18	Gravity
MH N-1	PS 91	30	21	Gravity

Note: The pipe lengths were obtained from the conformed drawings.



Bayou Duplantier

Sewer Area Upgrades

09-GS-MS-0042

Project Vicinity Map
Figure 3-31

BATON ROUGE **SSO**
Program

3.2.5 09-PS-MS-0034 (Booster Pump Station 514 Replacement)

Project Description

Purpose of the Project/Project Background

The purpose of this project was to upgrade BPS 514 to handle revised flow and head requirements. The existing BPS 514 had a capacity that was less than the predicted future peak wet weather flow.

Location

The location of PS 514 is given in Table 3-5 and shown in Figure 3-32.

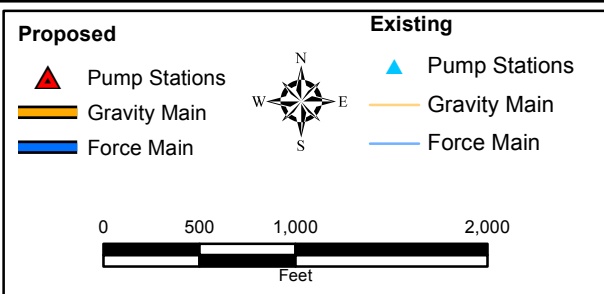
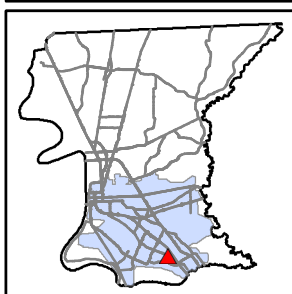
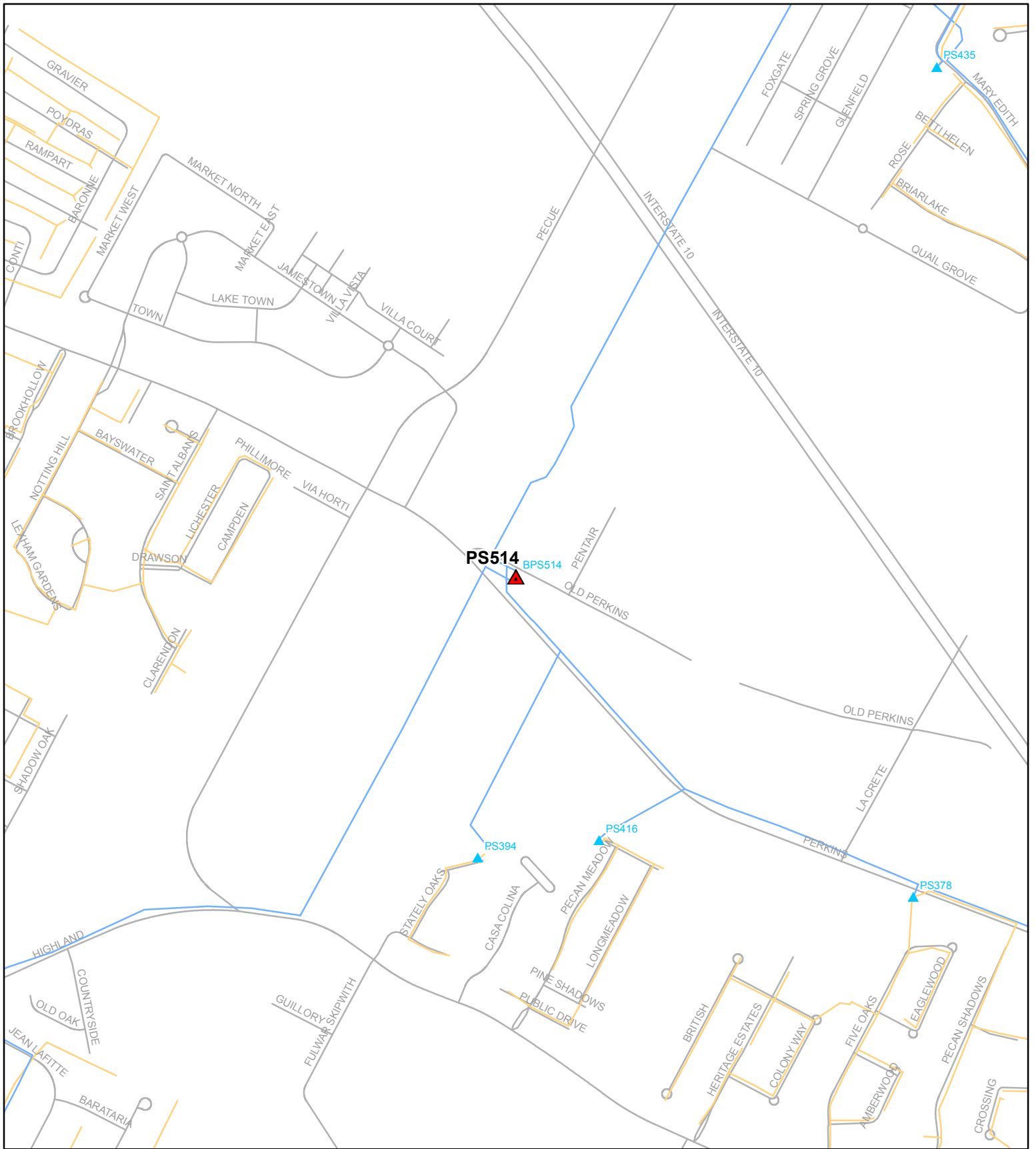
Scope

The scope of the project is noted in Table 3-5. BPS 514, an in-line booster pump station, was replaced with a wet well pump station as part of this project.

TABLE 3-5
09-PS-MS-0034 (Booster Pump Station 514 Replacement) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 514	Intersection of Pecue Lane and Old Perkins Road	24,390	10,420	53,500

Note: The existing maximum capacities for the pump stations were obtained from the DES *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Booster Pump Station 514

Replacement

09-PS-MS-0034

Project Vicinity Map
Figure 3-32

BATON ROUGE **SSO**
Program

3.2.6 07-PS-BD-0048/09-GS-UF-0008 (Capitol Lake Drive - Gayosa Street/25th Street - North Acadian Thruway Sewer Area Upgrades)

Project Description

Purpose of the Project/Background Information

The purpose of this project was to reroute flow from PS 15 and PS 19 so that they directly pump through a common force main and, manifold with the force main from PS 60 to increase the capacity of the system. The force main will then discharge wastewater into the gravity system at the existing manhole (MH# 059-05885) located at the intersection of River Road and Capital Drive. The October 2009 version of the PDP added the construction of these gravity segments originating at the intersection of North Acadian Thruway and Ontario Street, and the intersection of Washington Avenue and West Belfair Drive, both terminating at PS 15, that were originally part of 09-GS-UF-0008 (25th Street-North Acadian Thruway) project to improve constructability and scheduling issues. Information about those segments has been included in this section.

Scope

The entire 07-PS-BD-0048/09-GS-UF-0008 Capitol Lake Drive - Gayosa Street/25th Street – North Acadian Thruway Sewer Area Upgrades project consisted of approximately 7,060 feet of 8-inch, 18-inch, 21-inch, and 24-inch gravity sewer and approximately 18,060 feet of 18-inch, 20-inch, and 30-inch force main, as outlined below in Table 3-6.

The locations of force mains and gravity sewers in this project are shown in Figure 3-33.

TABLE 3-6

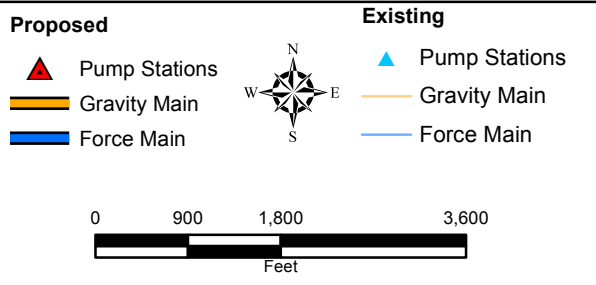
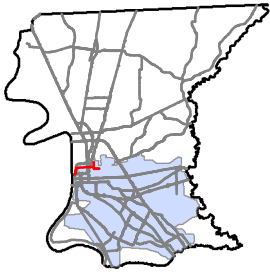
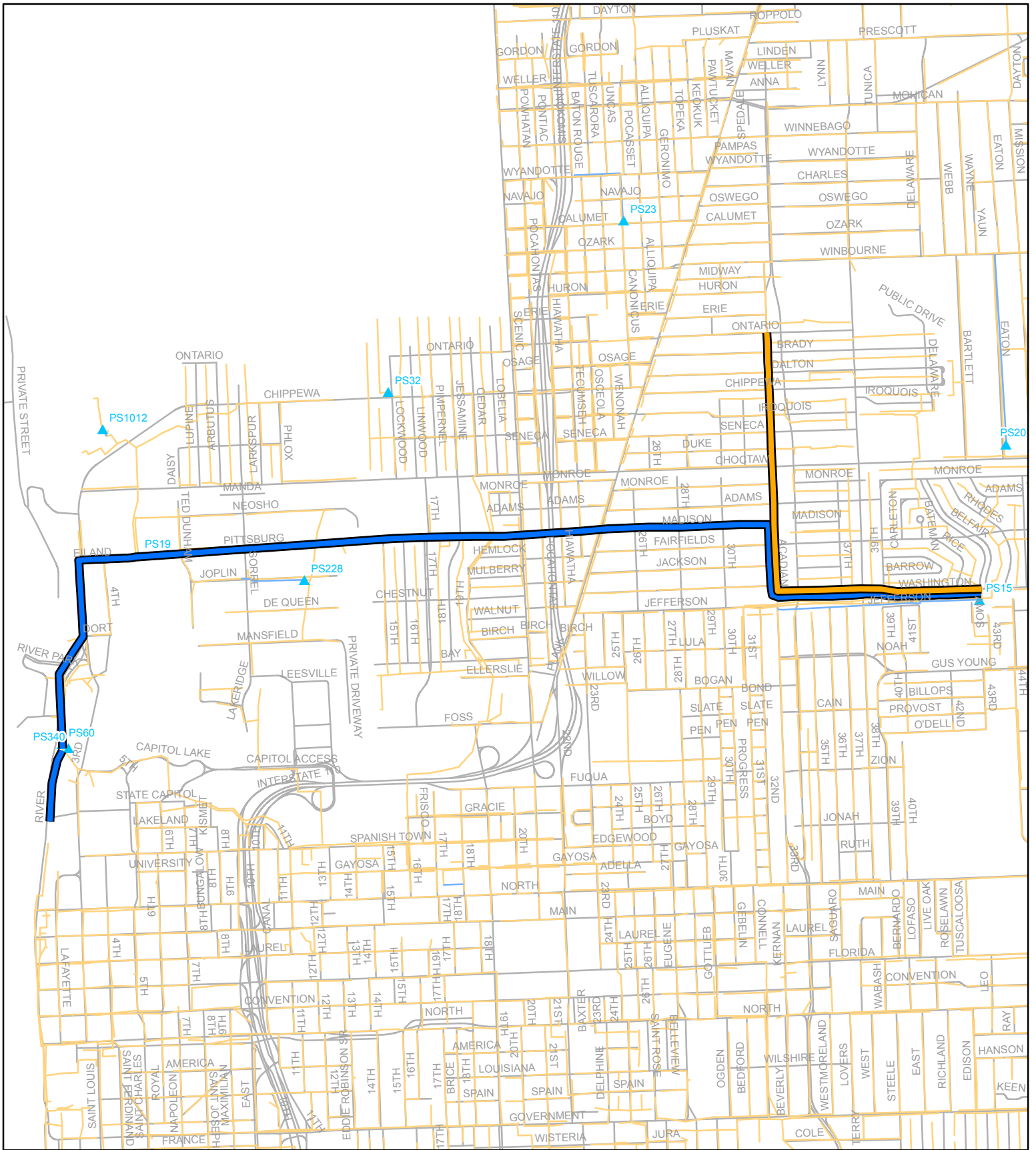
07-PS-BD-0048/09-GS-UF-0008 (Capitol Lake Drive - Gayosa Street 25th Street - North Acadian Thruway Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 15	Tee with PS 19	13,500	18	Force Main
Tee with PS 19	PS 60	3,420	20	Force Main
Connect to Existing PS 60 Force Main	Connect to Existing MH near State Capitol Drive and River Road	1,140	30	Force Main
MH at STA 302+77.02	Connect to MH at STA 203+76.29	280	8	Gravity
MH at STA 267+79.82 near N Acadian Thruway and Ontario Street	MH at STA 266+39.12	140	18	Gravity
MH at STA 266+39.12	MH at STA 264+95.62	140	18	Gravity
MH at STA 264+95.62	MH at STA 263+50.75	150	18	Gravity
MH at STA 263+50.75	MH at STA 262+05.29	150	18	Gravity
MH at STA 262+05.29	MH at STA 260+81.95	120	18	Gravity
MH at STA 260+81.95	MH at STA 259+56.09	130	18	Gravity
MH at STA 259+56.09	MH at STA 258+30.59	130	18	Gravity
MH at STA 258+30.59	MH at STA 255+86.77	240	21	Gravity

TABLE 3-6
07-PS-BD-0048/09-GS-UF-0008 (Capitol Lake Drive - Gayosa Street 25th Street - North Acadian Thruway Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH at STA 255+86.77	MH at STA 253+34+48	250	21	Gravity
MH at STA 253+34+48	MH at STA 250+90.46	240	21	Gravity
MH at STA 250+90.46	MH at STA 248+54.45	240	21	Gravity
MH at STA 248+54.45	MH at STA 247+11.71	140	21	Gravity
MH at STA 247+11.71	MH at STA 245+80.80	130	21	Gravity
MH at STA 245+80.80	MH at STA 242+91.78	290	21	Gravity
MH at STA 242+91.78	MH at STA 240+01.71	290	21	Gravity
MH at STA 240+01.71	MH at STA 236+96.89	310	21	Gravity
MH at STA 236+96.89	MH at STA 233+91.72	310	24	Gravity
MH at STA 233+91.72	MH at STA 231+01.81	290	24	Gravity
MH at STA 231+01.81	MH at STA 229+88.43	110	24	Gravity
MH at STA 229+88.43	MH at STA 226+23.96	360	24	Gravity
MH at STA 226+23.96	MH at STA 222+59.96	360	24	Gravity
MH at STA 222+59.96	MH at STA 219+00.38	360	24	Gravity
MH at STA 219+00.38	MH at STA 215+85.02	320	24	Gravity
MH at STA 215+85.02	MH at STA 213+88.14	200	24	Gravity
MH at STA 213+88.14	MH at STA 212+74.85	110	24	Gravity
MH at STA 212+74.85	MH at STA 210+20.66	250	24	Gravity
MH at STA 210+20.66	MH at STA 206+85.66	340	24	Gravity
MH at STA 206+85.66	MH at STA 203+76.29	310	24	Gravity
MH at STA 203+76.29	MH at STA 200+28.12	350	24	Gravity
MH at STA 200+28.12	MH at STA 200+9.38 at PS 15	20	24	Gravity

Note: The pipe lengths were obtained from the conformed drawings.



**Capitol Lake Drive -
Gayosa Street/25th Street -
North Acadian Thruway
Sewer Area Upgrades**

07-PS-BD-0048 & 09-GS-UF-0008

Project Vicinity Map
Figure 3-33



3.2.7 09-PS-MS-0035 (Central Consolidated Pump Stations)

Project Description

Purpose of the Project/Project Background

The 09-PS-MS-0035 (Central Consolidated Pump Stations) project involved the design and construction of nine pump stations (PS 2, PS 3, PS 4, PS 5, PS 6, PS 7, PS 10, PS 91, and the Southdowns PS). Three pump stations (PS 2, PS 7, and PS 10) were interconnected in a network that discharges into PS 5. PS 5 pumps directly to the South WWTP via a new large force main. PS 3 and PS 91 each pump independently to PS 5 through two separate new force mains. PS 4 pumps to PS 3 through an existing force main. PS 6 pumps through a new 12-inch force main that replaced the existing force main from PS 6 along Stanford Avenue northeast to node PS 6DS (MH 002-01393), located near the intersection of South Lakeshore Drive and Stanford Avenue.

The force mains from PS 2, PS 3, PS 5, PS 7, and PS 10 were constructed as part of the 09-FM-MS-033A (Central Consolidation Force Main Sewer Area Upgrades [Phase I]) and 09-FM-MS-033B (Central Consolidation Force Main Sewer Area Upgrades [Phase II]) projects. The force mains from PS 6 and PS 91 were constructed as part of the 08-GS-ST-0021 (Highland Road - Buchanan Street Sewer Area Upgrades) project. The force main to connect the Southdowns PS into the force main from PS 91 as well as the force main to connect the new PS 6 with the PS 6 force main (both in 08-GS-ST-0021 (Highland Road - Buchanan Street Sewer Area Upgrades) project were included in this consolidated project.

Detailed location descriptions of the required capacity improvements are presented in Table 3-7 and are shown in Figure 3-34.

Scope

The scope of this project is shown in Table 3-7 for pump stations and Table 3-8 for force mains.

TABLE 3-7
09-PS-MS-0035 (Central Consolidated Pump Stations) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 2	Claycut Bayou	12,420	1,480	6,630
PS 3	Acadian Thruway, near Bawell Street	7,920	2,090	17,660
PS 4	Claycut Road near the intersection at Bienville Street	7,700	1,040	8,500
PS 5	Valley Street and Perkins Road	1,740	5,590	31,660
PS 6	Stanford Avenue and Lakeshore Drive	600	350	1,900
PS 7	Dalrymple Drive, near the intersection at E Washington Street	720	140	1,180
PS 10	East Lakeshore Drive, near southeastern corner of City Park	1,000	90	1,470

TABLE 3-7
09-PS-MS-0035 (Central Consolidated Pump Stations) – Pump Station Information

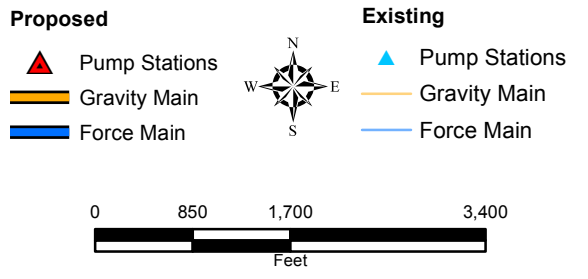
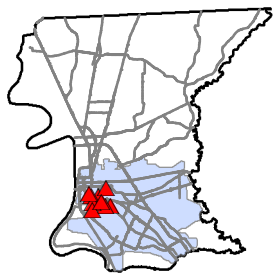
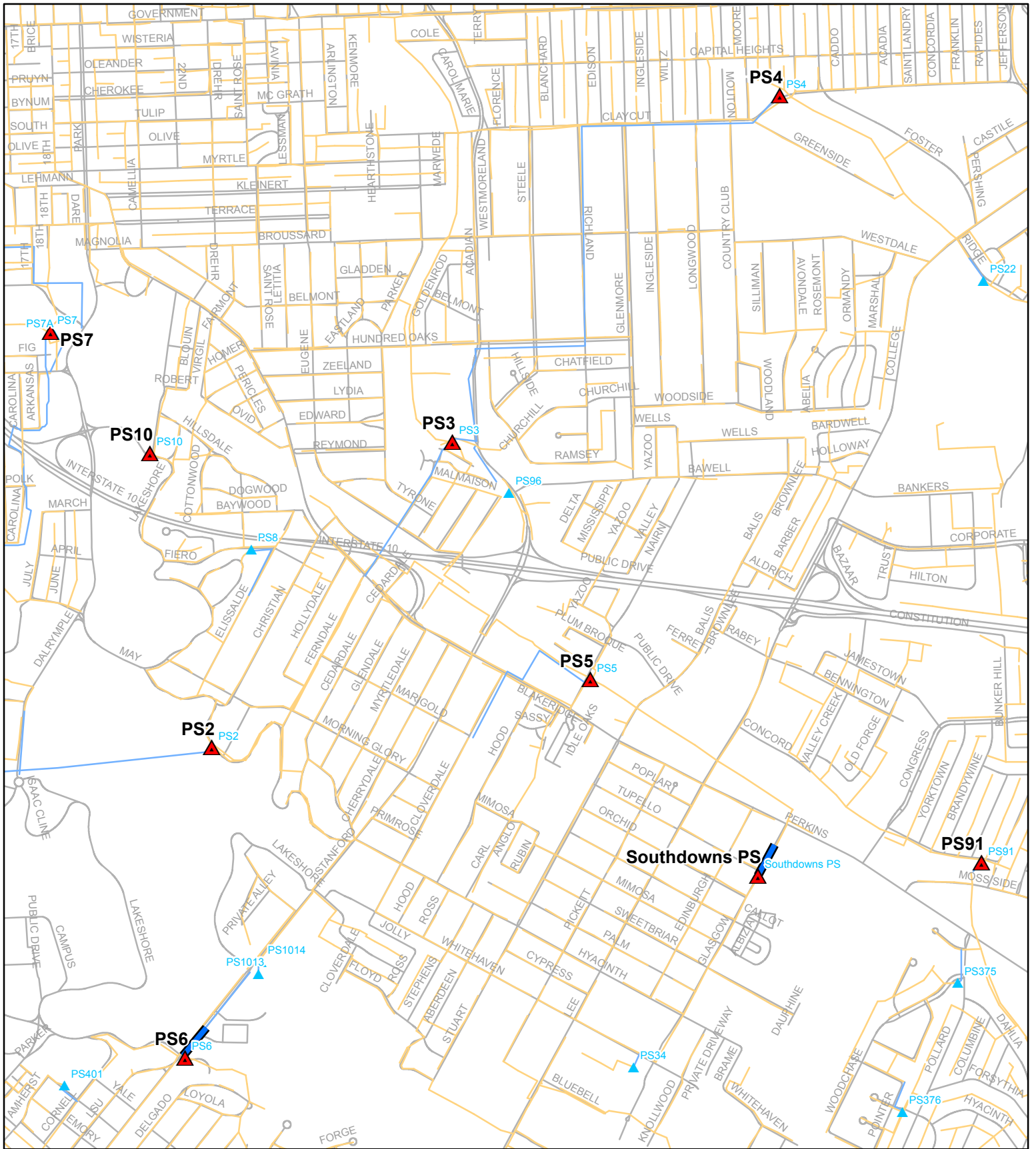
PS No.	Location	Existing Max Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 91	Concord Drive near the intersection with Lexington Drive	1,000	290	1,500
Southdowns Pump Station	Glasgow Avenue near the intersection with Tupelo Drive	New	N/A	1,800

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 3-8
09-PS-MS-0035 (Central Consolidated Pump Stations) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 6	Tie-in to PS 6 Force Main from Highland Road - Buchanan Street	490	12	Force Main
Southdowns PS	Tie-in to 10-inch Southdowns Force Main from Highland Road - Buchanan Street	1,070	10	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Central Consolidated Pump Stations

Pump Stations Improvements

09-PS-MS-0035

Project Vicinity Map
Figure 3-34

BATON ROUGE **SSO**
Program

3.2.8 09-FM-MS-033A (Central Consolidation Force Main Sewer Area Upgrades [Phase I])

Project Description

Purpose of the Project/Project Background

The 09-FM-MS-033A (Central Consolidation Force Main Sewer Area Upgrades [Phase I]) and 09-FM-MS-033B (Central Consolidation Force Main Sewer Area Upgrades [Phase II]) projects worked in conjunction with the 09-PS-MS-0035 (Central Consolidated Pump Stations) project, which included the design and construction of nine new pump stations (PS 2, PS 3, PS 4, PS 5, PS 6, PS 7, PS 10, PS 91, and Southdowns PS). This project included the design and construction of a manifolded force main to convey flow to PS 5 from PS 2, PS 7, and PS 10. The project also included a new individual force main separate from the aforementioned manifolded force main to convey flow from PS 3 directly to PS 5. In addition, a force main was constructed to convey flow from PS 5 to a new manifolded force main that was constructed as part of the 09-FM-MS-036A (Pump Station 42 Force Main [Phase 1]) and 09-FM-MS-036B (Pump Station 42 Force Main [Phase 2]) projects.

The project purpose was to redirect flows within the Central Basin to the South WWTP following completion of construction of the 08-TP-BD-0055 (South WWTP Wet Weather Improvements [Phase 2]) project.

This project was designed as one project, but was constructed as two projects.

Figure 3-35 shows the location of the gravity sewer and force main in Phase I of this project.

Scope – Phase I

This project included construction of approximately 330 feet of 18-inch gravity sewer upstream of PS 10 and approximately 20,890 feet of 8-inch through 36-inch force main downstream of PS 2, PS 3, PS 10, and PS 10. The scope of this project is shown in Table 3-9.

TABLE 3-9
09-FM-MS-033A (Central Consolidation Force Main Sewer Area Upgrades [Phase I]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 7	Tee with PS 10 Force Main	1,840	8	Force Main
Tee with PS 10 Force Main	Tee with PS 2 Force Main	5,530	14	Force Main
Tee with PS 2 Force Main	PS 5	6,320	24	Force Main
PS 10	Tee with PS 7 Force Main	480	12	Force Main
PS 2	Tee with PS 7 and PS 10 Force Main	1,010	16	Force Main
PS 3	PS 5	5,710	36	Force Main
Existing MH 010-04902A	Required MH at STA 10+07	10	18	Gravity
Required MH at STA 10+07	Required MH at STA 11+10	100	18	Gravity
Required MH at STA 11+10	Required MH at STA 13+11	200	18	Gravity
Required MH at STA 13+11	PS 10	20	18	Gravity

Note: The pipe lengths were obtained from the conformed drawings.

3.2.9 09-FM-MS-033B (Central Consolidation Force Main Sewer Area Upgrades [Phase II])

Project Description

Purpose of the Project/Project Background

The 09-FM-MS-033A (Central Consolidation Force Main Sewer Area Upgrades [Phase I]) and 09-FM-MS-033B (Central Consolidation Force Main Sewer Area Upgrades [Phase II]) projects worked in conjunction with the 09-PS-MS-0035 (Central Consolidated Pump Stations) project, which included the design and construction of nine new pump stations (PS 2, PS 3, PS 4, PS 5, PS 6, PS 7, PS 10, PS 91, and Southdowns PS). This project included the design and construction of a manifolded force main to convey flow to PS 5 from PS 2, PS 7, and PS 10. The project also included a new individual force main separate from the aforementioned manifolded force main to convey flow from PS 3 directly to PS 5. In addition, a force main was constructed to convey flow from PS 5 to a new manifolded force main that was constructed as part of the 09-FM-MS-036A (Pump Station 42 Force Main [Phase 1]) and 09-FM-MS-036B (Pump Station 42 Force Main [Phase 2]) projects.

The project purpose was to redirect flows within the Central Basin to the South WWTP following completion of construction of the 08-TP-BD-0055 (South WWTP Wet Weather Improvements [Phase 2]) project.

This project was designed as one project, but was constructed as two projects.

Figure 3-36 shows the location of the gravity sewer and force main in Phase II of this project.

Scope – Phase II

This project included approximately 12,640 feet of 42-inch force main downstream of PS 5. The scope of this project is shown in Table 3-10.

TABLE 3-10
09-FM-MS-033B (Central Consolidation Force Main Sewer Area Upgrades [Phase II]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 5	Connect to Tee with PS 42 Force Main [Phase 1]	12,640	42	Force Main

Note: The pipe lengths were obtained from the conformed drawings.

3.2.10 08-FM-UF-0024 (Citiplace/EsSEN Area Pump Station 119 and Force Main Improvements)

Project Description

Purpose of the Project/Project Background

The 08-FM-UF-0024 (Citiplace/EsSEN Area Pump Station 119 and Force Main Improvements) project included the construction of both 7,360 feet of new 16-inch force main from PS 119 to PS 58 and the upgrade of PS 119 due to the longer force main and the predicted increase in future peak wet weather flow.

Figure 3-37 shows the scope of this project. PS 119 is located on the north side of Highway I-10 on the western side of the creek near the movie theater and Citiplace Drive.

Scope

The scope of the project is shown in Tables 3-11 (pump station information) and 3-12 (pipeline information) and in Figure 3-37.

TABLE 3-11
08-FM-UF-0024 (Citiplace/EsSEN Area Pump Station 119 and Force Main Improvements) – Pump Station Information

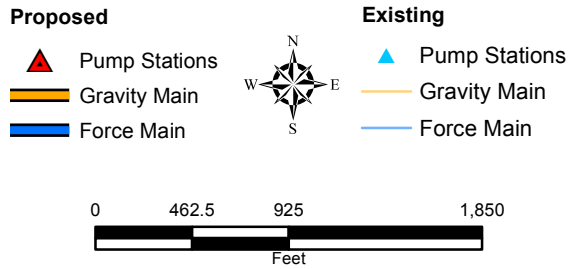
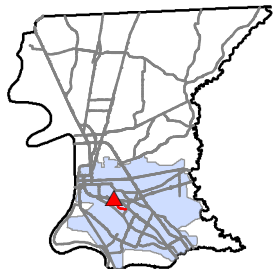
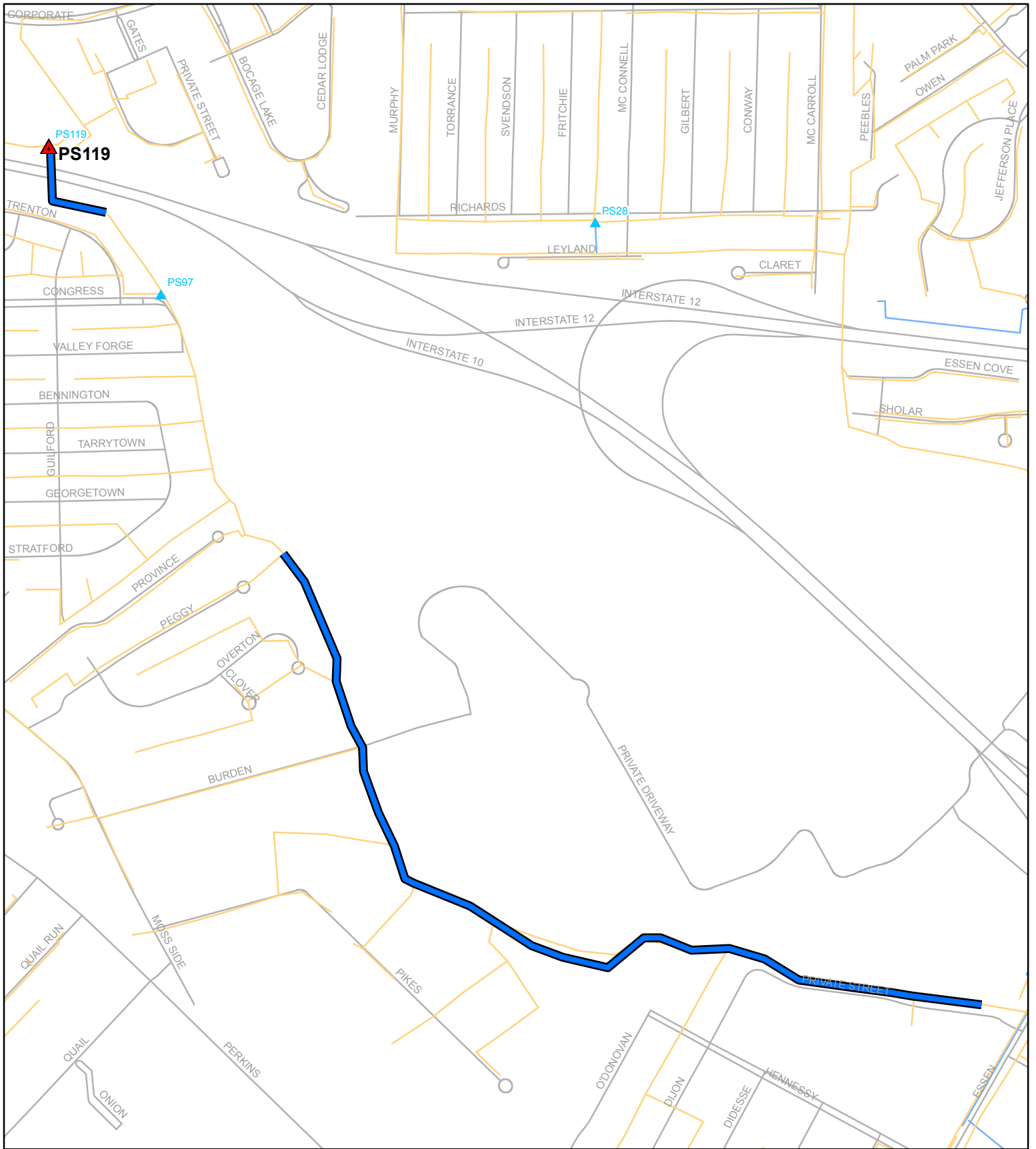
PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 119	Citiplace Drive near the Movie Theater	2,400	590	2,700

Note: The existing maximum capacities for the pump stations were obtained from the DES *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 3-12
08-FM-UF-0024 (Citiplace/EsSEN Area Pump Station 119 and Force Main Improvements) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 119	Tie-In to Existing 16-inch Force Main at I-10	690	16	Force Main
Tie-In to Existing 16-inch Force Main near Overton Street	Tie-in to Existing MH 058-00103	6,670	16	Force Main

Note: The pipe lengths were obtained from the record drawings.



Citiplace/EsSEN Area Pump Station 119

Pump Station and
Force Main Improvements
08-FM-UF-0024

Project Vicinity Map
Figure 3-37



BATON ROUGE **SSO**
Program

3.2.11 08-PS-ST-0056 and 08-PS-ST-0057 (Downtown Area Pump Station Improvements)

Project Description

Purpose of the Project/Project Background

The 08-PS-ST-0056 & 08-PS-ST-0057 (Downtown Area Pump Station Improvements) project included the upgrade of PS 15, PS 19, and PS 59 to alleviate SSOs at and near the pump stations as well as in their respective upstream basins. This project was the combination of CGN-C-0005 (Downtown Area – PS 515, PS 519, and PS 59 Improvements) and CGN-C-0004 (Downtown Area – PS 59 Improvements) from the October 2008 PDP. The combined project was designated 08-PS-ST-0056 & 08-PS-ST-0057 (Downtown Area Pump Station Improvements) and is described in this section.

The BTRSSO hydraulic model also predicts a PS capacity exceedance for the future peak wet weather flow. PS 15, PS 19, and the existing PS 60 utilizes the new force mains outlined in the project 07-PS-BD-0048 Capitol Lake Drive - Gayosa Street. PS 59 was added to this project in 2009 because of the similarity of the project and proximity to the other pump stations included in this project. During design, it was discovered that PS 59 could be rehabilitated by installing new pumps rather than replacing the entire pump station.

The locations of PS 15, PS 19, and PS 59 are given in Table 3-13 and in Figure 3-38.

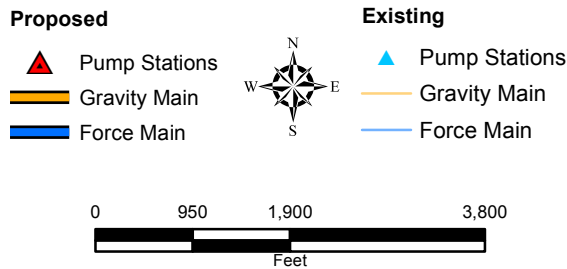
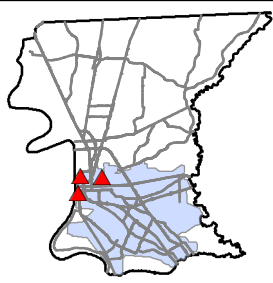
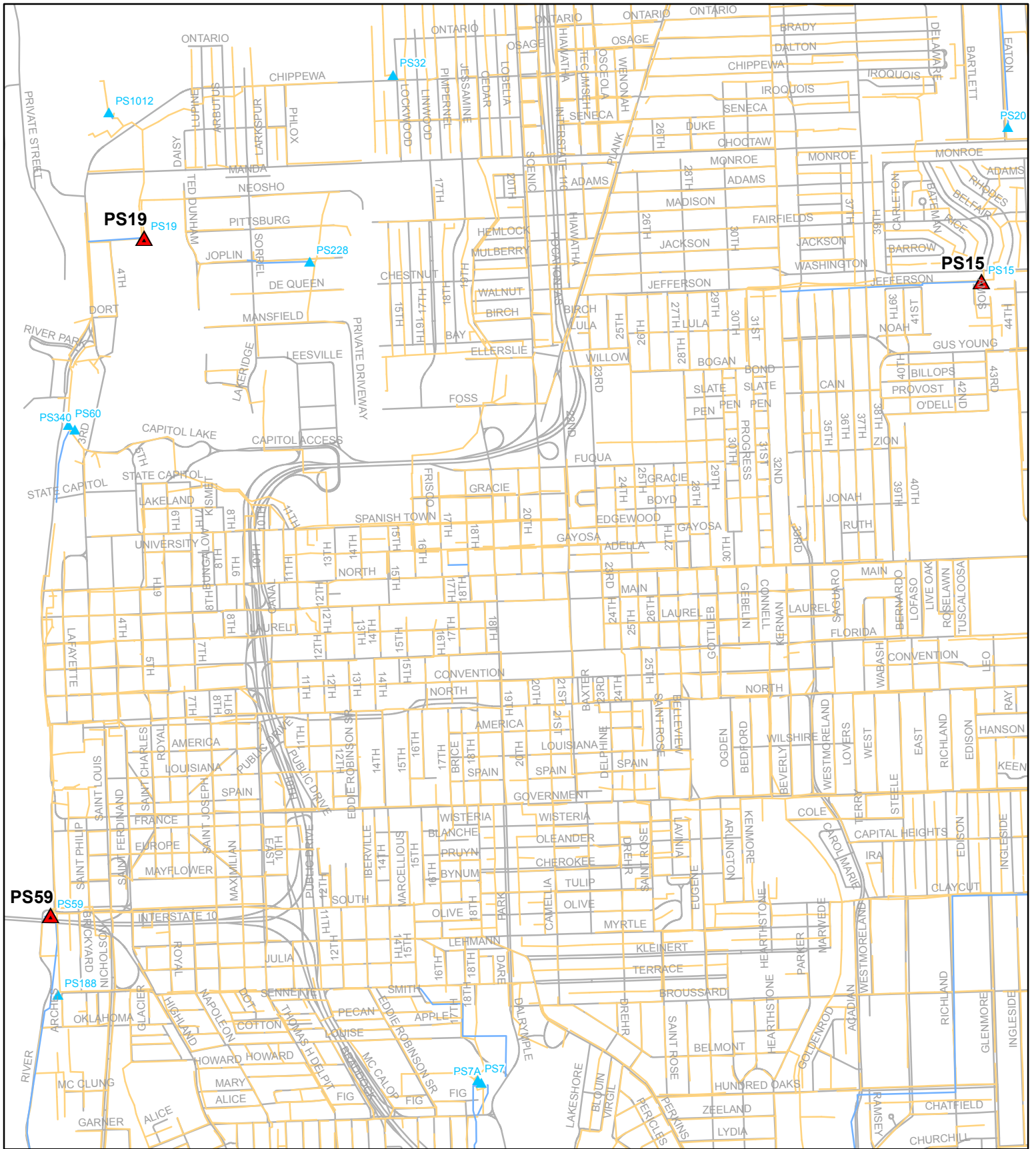
Scope

The scope of this project is shown in Table 3-13.

TABLE 3-13
08-PS-ST-0056 and 08-PS-ST-0057 (Downtown Area Pump Station Improvements) – Pump Station Information

PS No.	Location	Existing Max Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 15	Washington Street, near intersection of West Belfair Drive	1,320	800	4,010
PS 19	Eiland Drive, near intersection of 4 th Street	810	190	1,460
PS 59 (rehab)	Near the intersection of River Road and South Boulevard	15,600	4,570	26,600

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Downtown Area

Pump Stations Improvements
08-PS-ST-0056 &
08-PS-ST-0057

Project Vicinity Map

Figure 3-38



BATON ROUGE **SSO**
Program

3.2.12 11-PS-MS-0003 (Florida Boulevard Pump Stations Improvements)

Project Description

Purpose of the Project/Project Background

The 11-PS-MS-0003 (Florida Boulevard Pump Stations Improvements) project includes those improvements that were previously included in SGU-C-0001 (Multiple Pump Stations - Florida Boulevard - Sherwood Forest Boulevard) and SGC-C-0001 (Airline Highway - Florida Boulevard PS 30 Improvements and new pump station). This combined project includes upgrades of PS 16, PS 18, PS 21, PS 31, PS 50, PS 66, PS 101 and PS 151 to alleviate SSOs in their upstream basins.

PS 51 was originally part of the SGU-C-0001 (Multiple Pump Stations – Florida Boulevard – Sherwood Forest Boulevard) project and was moved to the 09-PS-UF-0009 (Choctaw Storage and Pump Station Facilities) project.

Locations for the pump stations are presented in Table 3-14 and are shown in Figure 3-39.

Scope

The scope of this project is described in Table 3-14. Pump stations PS 16, PS 18, PS 21, PS 31, PS 50, PS 66, PS 101, and PS 151 will be replaced. PS 50 also will convey flow through a new force main directly to PS 58. Both of these pump stations and force mains will alleviate peak wet weather flow exceedances in the downstream gravity system.

TABLE 3-14
11-PS-MS-0003 (Florida Boulevard Pump Stations Improvements) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather Flow	Future Peak Wet Weather Flow (gpm)
PS 16	10122 Great Smokey Avenue	1,000	90	1,170
PS 18	3500 Monterrey Boulevard	600	80	770
PS 21	170 Shelby Drive	1,400	620	2,250
PS 31	12100 Goodwood Boulevard (at McAuliffe School)	700/2,100 ¹	1,340	7,350
PS 50	1480 Sherwood Forest Boulevard (at intersection of Major Oaks Drive)	7,300	4,160	21,240

TABLE 3-14
11-PS-MS-0003 (Florida Boulevard Pump Stations Improvements) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather Flow	Future Peak Wet Weather Flow (gpm)
PS 66	11739 N. Harrell's Ferry Road (Behind FedEx)	840	640	1,980
PS 101	13700 Goodwood	400	80	530
PS 151	11983 Pamela Drive	350	90	1,330

Note: The existing maximum capacity for the existing pump stations was obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the Baton Rouge Sanitary Sewer Overflow (BTRSSO) hydraulic model.

¹Existing PS 31/PS 31A will both be replaced with a new PS 31.

3.2.13 09-GS-MS-0043 (Government Street - South Acadian Thruway Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The 09-GS-MS-0043 (Government Street - South Acadian Thruway Sewer Area Upgrades) project included the upgrade of gravity sewers upstream of PS 3 and PS 4 to alleviate SSOs in the vicinity. Sections of gravity sewer that were to be upgraded, as part of this project in the January 2008 PDP, have been deleted due to hydraulic modeling improvements.

The gravity segments in this project are shown in Figure 3-40.

Scope

The 09-GS-MS-0043 (Government Street - South Acadian Thruway Sewer Area Upgrades) project included approximately 6,940 feet of 8-inch, 18-inch, 21-inch, and 24-inch gravity sewer construction upstream of PS 4 and approximately 5,330 feet of 12-inch, 15-inch, 18-inch, 20-inch, 21-inch, and 24-inch gravity sewer construction upstream of PS 3, as shown in Table 3-15.

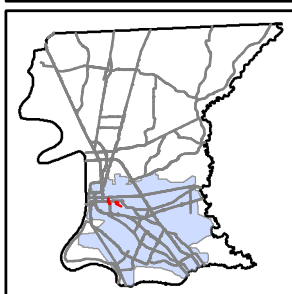
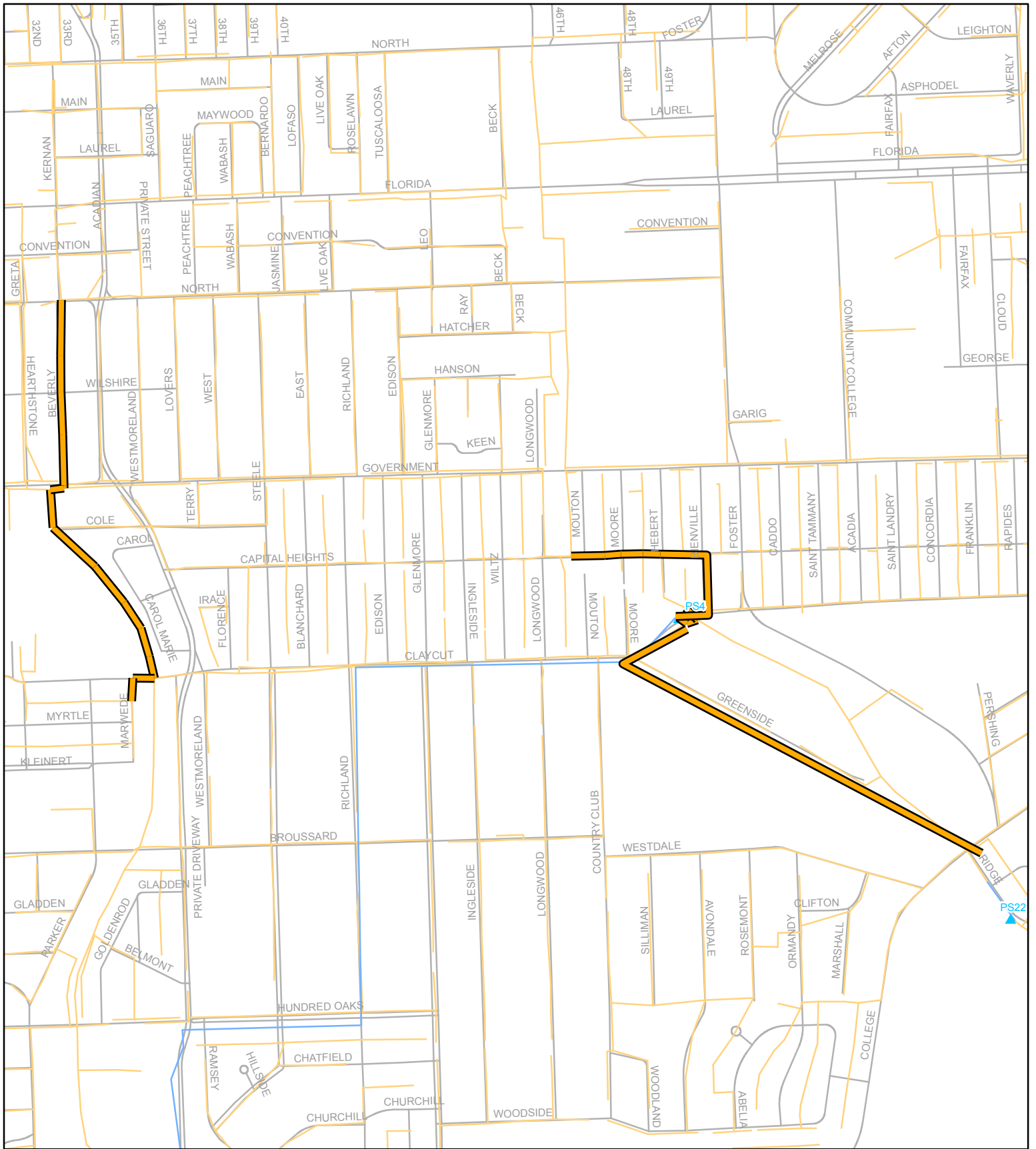
TABLE 3-15
09-GS-MS-0043 (Government Street - South Acadian Thruway Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 004-02967A	MH 004-02967	170	24	Gravity
MH 004-02967	MH 004-02962A	130	24	Gravity
MH 004-02962A	MH 004-02962	180	24	Gravity
MH 004-02962	MH 004-02955	150	24	Gravity
MH 004-02955	MH 004-02956	170	24	Gravity
MH 004-02956	MH 004-02957	140	24	Gravity
MH 004-02957	MH 004-03317A	250	24	Gravity
MH 004-03317A	MH 004-03317B	210	24	Gravity
MH 004-03317B	MH 004-03317C	70	24	Gravity
MH 004-03317C	MH 004-03317D at PS 4	140	24	Gravity
MH 004-03004	MH 004-02967D	30	15	Gravity
MH 004-02954	MH 004-02955	170	8	Gravity
MH 004-02951	MH 004-03315B	50	18	Gravity
MH 004-03315B	MH 004-03317B	30	18	Gravity
Ex. MH 004-02952	MH 004-03317C	90	8	Gravity
MH 004-3200A	MH 004-03272B	360	15	Gravity
MH 004-03272B	MH 004-03272A	410	15	Gravity

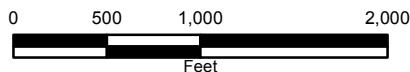
TABLE 3-15
09-GS-MS-0043 (Government Street - South Acadian Thruway Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 004-03272A	MH 004-03272	170	15	Gravity
MH 004-03272	MH 004-03282F	340	15	Gravity
MH 004-03282F	MH 004-03282E	500	15	Gravity
MH 004-03282E	MH 004-03282D	470	15	Gravity
MH 004-03282D	MH 004-03282C	460	15	Gravity
MH 004-03282C	MH 004-03282B	300	15	Gravity
MH 004-03282B	MH 004-03282A	10	15	Gravity
MH 004-03282A	MH 004-03281	40	15	Gravity
MH 004-03281	MH 004-02980A	390	15	Gravity
MH 004-02980A	MH 004-02980B at PS 4	40	15	Gravity
MH 004-03282G	MH 004-03282F	10	8	Gravity
MH 003-02249	MH 003-02248	370	15	Gravity
MH 003-02248	MH 003-02247	360	15	Gravity
MH 003-02247	MH 003-02246	350	15	Gravity
MH 003-02246	MH 003-02235	390	15	Gravity
MH 003-02235	MH 003-02203	40	15	Gravity
MH 003-02203	MH 003-02084A	160	18	Gravity
MH 003-02084A	MH 003-02039A	80	18	Gravity
MH 003-02039A	MH 003-02039	300	21	Gravity
MH 003-02039	MH 003-01927H	80	21	Gravity
MH 003-01927H	MH 003-01927G	110	20	Gravity
MH 003-01927G	MH 003-01927F	310	21	Gravity
MH 003-01927F	MH 003-01927E	100	21	Gravity
MH 003-01927E	MH 003-01927D	230	21	Gravity
MH 003-01927D	MH 003-01927C	480	21	Gravity
MH 003-01927C	MH 003-01927B	110	21	Gravity
MH 003-01927B	MH 003-01927A	90	24	Gravity
MH 003-01929	MH 003-01928A	20	12	Gravity
MH 003-01928A	MH 003-01928	220	12	Gravity
MH 003-01928A	MH 003-01927B	80	12	Gravity

Note: The pipe lengths were obtained from the conformed documents.



- | Proposed | | Existing | |
|----------|---------------|----------|---------------|
| | Pump Stations | | Pump Stations |
| | Gravity Main | | Gravity Main |
| | Force Main | | Force Main |



Government Street - South Acadian Thruway

Sewer Area Upgrades

09-GS-MS-0043

Project Vicinity Map

Figure 3-40



BATON ROUGE **SSO**
Program

3.2.14 08-GS-ST-0021 (Highland Road - Buchanan Street Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The purpose of this project was to upgrade gravity sewers upstream of PS 1, PS 2, and PS 5 to alleviate SSOs in the Central Gravity South Basin. The project also included a new force main from PS 6 and PS 91, which was all constructed as part of the Central Consolidated Pump Stations project. Due to Central Consolidation, several hundred feet of gravity sewer was deleted from the original project delineated in the January 2008 PDP and several hundred feet of force main was added to it. This revised project then was combined with the CGS-C-0005 (Stanford Avenue – Ferndale Avenue) project. The combined project has been designated 08-GS-ST-0021 (Highland Road - Buchanan Street Sewer Area Upgrades) and is described in this section.

The force mains and gravity segments in this project are shown in Figure 3-41.

Scope

Project 08-GS-ST-0021 (Highland Road - Buchanan Street Sewer Area Upgrades) included approximately 1,270 feet of 8-inch, 15-inch, and 18-inch gravity sewer upstream of PS 1, 1,990 feet of 21-inch and 24-inch gravity sewer upstream of PS 2, 1,140 feet of 8-inch, 12-inch, 18-inch, and 42-inch gravity sewer upstream of PS 5, 1,390 feet of 12-inch force main downstream of PS 6, and 6,230 feet of 10-inch, 12-inch, and 16-inch force main downstream of PS 91 and the Glasgow PS, as shown in Table 3-16.

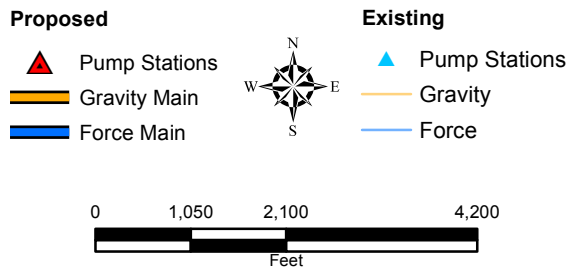
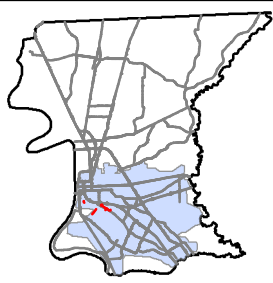
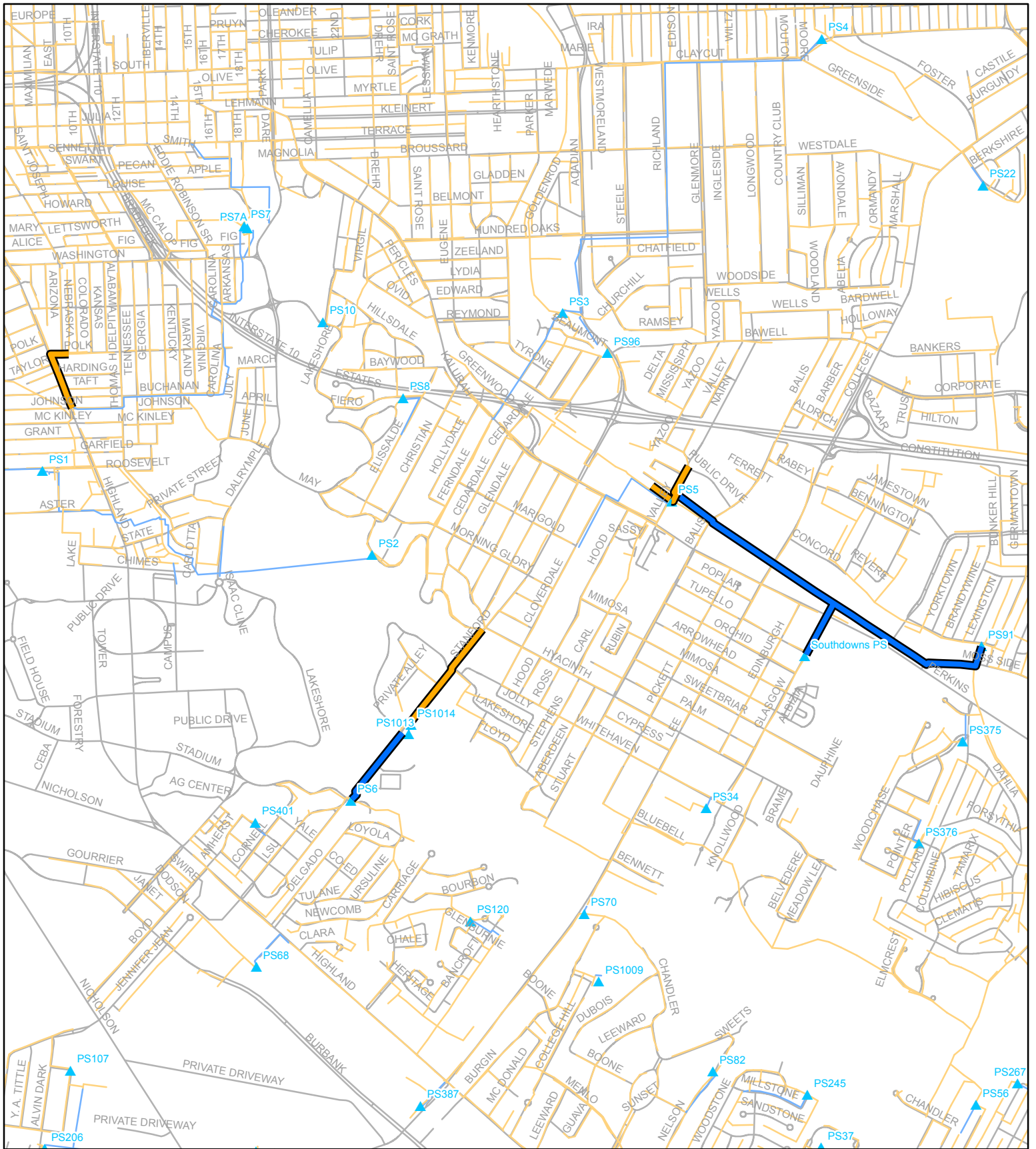
TABLE 3-16
08-GS-ST-0021 (Highland Road - Buchanan Street Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 001-00425A	MH 001-00425	10	15	Gravity
MH 001-00425	MH 001-00422	190	15	Gravity
MH 001-00422A	MH 001-00418A	370	15	Gravity
MH 001-00422	MH 001-00422A	20	15	Gravity
MH 001-00418A	MH 001-00414A	250	15	Gravity
MH 001-00414A	MH 001-00410A	140	15	Gravity
MH 001-00410A	MH 001-00293A	170	15	Gravity
MH 001-00293	MH 001-00293A	30	18	Gravity
MH 001-00293A	MH 001-00292	30	18	Gravity
MH 001-00410	MH 001-00410A	20	8	Gravity
MH 001-00414	MH 001-00414A	20	8	Gravity
MH 001-00418	MH 001-00418A	20	8	Gravity
MH 002-01393	MH 002-01392A	350	21	Gravity

TABLE 3-16
08-GS-ST-0021 (Highland Road - Buchanan Street Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 002-01392A	MH 002-01392	400	21	Gravity
MH 002-01392	MH 002-01391A	410	21	Gravity
MH 002-01391A	MH 002-01390B	40	21	Gravity
MH 002-01390B	MH 002-01389B	290	24	Gravity
MH 002-01389B	MH 002-01389A	90	24	Gravity
MH 002-01389A	MH 002-01361A	210	24	Gravity
MH 002-01361A	Connect to Existing MH 002-01361	200	24	Gravity
MH 005-03808	MH 005-03808A	20	18	Gravity
MH 005-03808A	MH 005-03805A	140	18	Gravity
MH 005-03805A	MH 005-03802A	340	18	Gravity
MH 005-03802A	MH 005-03801	30	18	Gravity
MH 005-03801	MH 005-03801B	20	18	Gravity
MH 005-03801B	PS 5	130	42	Gravity
MH 005-03802	MH 005-03802A	10	8	Gravity
MH 005-03805	MH 005-03805A	10	12	Gravity
MH 005-03915	MH 005-03914	400	12	Gravity
MH 005-03914	PS 5	40	18	Gravity
PS 6	MH 002-01393	1,390	12	Force Main
PS 91	Tee with Southdowns PS Force Main	2,870	10	Force Main
Southdowns PS	Tee with PS 91 Force Main	290	10	Force Main
Southdowns PS/PS 91 Tee	PS 5	3,070	16	Force Main

Note: The pipe lengths were obtained from the record drawings.



Highland Road - Buchanan Street
Sewer Area Upgrades

08-GS-ST-0021

Project Vicinity Map
Figure 3-41



3.2.15 08-FM-ST-0023 (Highland Road - Burbank Drive Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The 08-FM-ST-0023 (Highland Road - Burbank Drive Sewer Area Upgrades) project consisted of force main upgrades in the South Basin. This project included the upsizing of force main in an area that extends north to the intersection of Jefferson Highway and Tiger Bend Road and continues south to the Staring Lane extension and Burbank Drive intersection. The upgrades were designed to alleviate chronic SSOs at the pump stations and increase the force main capacity. The upgrades ranged in size from 48-inches to 60-inches in diameter.

Scope

The 08-FM-ST-0023 (Highland Road - Burbank Drive Sewer Area Upgrades) project included construction of approximately 9,820 feet of 48-inch force main, 23,720 feet of 54-inch force main, and 6,010 feet of 60-inch force main downstream of BPS 507 and BPS 514 and approximately 1,360 feet of 24-inch force main downstream of existing BPS 999. Table 3-17 and Figure 3-42 show the detailed scope of this project.

TABLE 3-17
8-FM-ST-0023 (Highland Road - Burbank Drive Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Tie-In to Existing 36-inch Force Main at Jefferson Highway	Tie-In to Existing 42-inch Force Main at Woodridge Avenue	5,980	48	Force Main
Tie-In to Existing 42-inch Force Main near Ward's Creek	PS 514	3,840	48	Force Main
PS 514	54-inch x 60-inch In increaser at Bluebonnet Boulevard	23,720	54	Force Main
54-inch x 60-inch In increaser at Bluebonnet Boulevard	60-inch Plug for Future Connection to PS 42 Force Main (Phase I) Project	6,010	60	Force Main
Tie-In to 24-inch Force Main at Siegen Lane	Connect 24-inch Force Main to 54-inch Force Main	1,360	24	Force Main

Note: The pipe lengths were obtained from the conformed drawings.

3.2.16 11-FM-MS-004A (Highland Road Sewer Area Upgrades [Group A])

Project Description

Purpose of the Project/Project Background

The 11-FM-MS-004A (Highland Road Sewer Area Upgrades [Group A]) and 11-FM-MS-004B (Highland Road Sewer Area Upgrades [Group B]) projects were originally called the SGL-C-0003 (Essen Lane - Highland Road) project in the October 2008 PDP. This project was combined with segments previously included in the SGL-C-0004 (Highland Road – Lee Drive) project from the October 2008 PDP.

Scope – Group A

The Group A project included construction of the following: approximately 12,320 feet of 12-inch, 18-inch, 21-inch, 24-inch, 30-inch, 36-inch, and 42-inch gravity sewer upstream of PS 53 and PS 68. The Group A project also includes approximately 6,470 feet of new 24-inch force main from PS 53A; approximately 3,540 feet of 18-inch force main from PS 56 to replace the existing force main; approximately 930 feet of 6-inch force main from PS 120 to manifold with PS 5 force main; approximately 470 feet of 8-inch force main from PS 68 to manifold with PS 42 force main.

Table 3-18 and Figure 3-43 show the detailed scope of the Group A project.

TABLE 3-18
11-FM-MS-004A (Highland Road Sewer Area Upgrades [Group A]) - Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH A-9	MH A-8	350	24	Gravity
MH A-8	MH A-7	80	24	Gravity
MH A-7	MH A-6	310	24	Gravity
MH A-6	MH A-5	400	24	Gravity
MH A-5	MH A-4	400	24	Gravity
MH A-4	MH A-3	210	24	Gravity
MH A-3	MH A-2	390	24	Gravity
MH A-2	MH A-1 at LSU PS	160	24	Gravity
MH B-8	MH B-7	480	18	Gravity
MH B-7	MH B-6	60	18	Gravity
MH B-6	MH B-5	20	18	Gravity
MH B-5	MH B-4	260	18	Gravity
MH B-4	MH B-3	20	18	Gravity
MH B-3	MH B-2	120	18	Gravity
MH B-2	MH B-1 at PS 068	150	18	Gravity
MH C-22	MH C-21	280	21	Gravity
MH C-21	MH C-20	440	21	Gravity

TABLE 3-18
11-FM-MS-004A (Highland Road Sewer Area Upgrades [Group A]) - Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH C-20	MH C-19	80	21	Gravity
MH C-19	MH C-18	20	21	Gravity
MH C-18	MH C-17	240	24	Gravity
MH C-17	MH C-16	230	24	Gravity
MH C-16	MH C-15	200	24	Gravity
MH C-15	MH C-14	30	24	Gravity
MH C-14	MH C-13	30	24	Gravity
MH C-13	MH C-12	30	24	Gravity
MH C-12	MH C-11	110	24	Gravity
MH C-11	MH C-10	120	24	Gravity
MH C-10	MH C-9	350	24	Gravity
MH C-9	MH C-8	260	24	Gravity
MH C-8	MH C-7	70	24	Gravity
MH C-7	MH C-6	40	24	Gravity
MH C-6	MH C-5	250	24	Gravity
MH C-5	MH C-4	330	24	Gravity
MH C-4	MH C-3	300	24	Gravity
MH C-3	MH C-2	100	24	Gravity
MH C-2	MH C-1	30	24	Gravity
MH D-19	MH D-18	20	36	Gravity
MH D-18	MH D-17	170	24	Gravity
MH D-17	MH D-16	330	24	Gravity
MH D-16	MH D-15	200	24	Gravity
MH D-15	MH D-14	130	24	Gravity
MH D-14	MH D-13	170	24	Gravity
MH D-13	MH D-12	60	24	Gravity
MH D-12	MH D-11	110	24	Gravity
MH D-11	MH D-10	50	24	Gravity
MH D-10	MH D-9	210	24	Gravity
MH D-9	MH D-8	150	24	Gravity
MH D-8	MH D-7	220	24	Gravity

TABLE 3-18
11-FM-MS-004A (Highland Road Sewer Area Upgrades [Group A]) - Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH D-7	MH D-6	380	24	Gravity
MH D-6	MH D-5	300	24	Gravity
MH D-5	MH D-4	20	24	Gravity
MH D-4	MH D-3	160	36	Gravity
MH D-3	MH D-2	210	36	Gravity
MH D-2	MH D-1 at PS 53/53A	30	36	Gravity
MH E-12	MH E-11	150	12	Gravity
MH E-11	MH E-10	330	12	Gravity
MH E-10	MH E-9	300	12	Gravity
MH E-9	MH E-8	230	12	Gravity
MH E-8	MH E-7	210	12	Gravity
MH E-7	MH E-6	230	12	Gravity
MH E-6	MH E-5	30	21	Gravity
MH E-5	MH E-4	190	21	Gravity
MH E-4	MH E-3	230	21	Gravity
MH E-3	MH E-2	310	21	Gravity
MH E-2	MH E-1	50	42	Gravity
MH F-3	MH F-2	40	12	Gravity
MH F-2	MH F-1	150	12	Gravity
PS 120	New PS 5 Force Main	930	6	Force Main
PS 68	New PS 42 Force Main	470	8	Force Main
PS 56	PS 53/53A (MH E-1)	3,540	18	Force Main
PS 53A	PS 58A Force Main at Staring Lane	6,470	24	Force Main

Note: The pipe lengths were obtained from the conformed documents and value engineering changes.

3.2.17 11-FM-MS-004B (Highland Road Sewer Area Upgrades [Group B])

Project Description

Purpose of the Project/Project Background

The 11-FM-MS-004A (Highland Road Sewer Area Upgrades [Group A]) and 11-FM-MS-004B (Highland Road Sewer Area Upgrades [Group B]) projects were originally called the SGL-C-0003 (Essen Lane - Highland Road) project in the October 2008 PDP. This project was combined with segments previously included in the SGL-C-0004 (Highland Road – Lee Drive) project from the October 2008 PDP.

Project Scope

This Group B project included construction of approximately 9,610 feet of 8-inch, 10-inch, 15-inch, 18-inch, 21-inch, 24-inch, and 42-inch gravity sewer upstream of PS 57, PS 40, PS 329, and PS 302. This project also included approximately 4,570 feet of 10-inch force main from PS 329 to replace the existing force main; approximately 370 feet of 8-inch force main from PS 40.

Table 3-19 and Figure 3-44 show the detailed scope of this project.

TABLE 3-19
11-FM-MS-004B (Highland Road Sewer Area Upgrades [Group B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH B-34	MH B-33	50	10	Gravity
MH B-33	MH B-32	370	10	Gravity
MH B-32	MH B-31	480	10	Gravity
MH B-31	MH B-30	240	10	Gravity
MH C-14	MH C-13	20	18	Gravity
MH C-13	MH C-12	230	18	Gravity
MH C-12	MH C-11	250	21	Gravity
MH C-5	MH C-4	210	21	Gravity
MH C-4	MH C-3	200	21	Gravity
MH C-3	MH C-2	30	42	Gravity
MH C-2	MH C-1 at PS 57	140	42	Gravity
MH D-19	MH D-18	110	15	Gravity
MH D-18	MH D-17	170	15	Gravity
MH D-17	MH D-16	160	15	Gravity
MH D-16	MH D-15	170	15	Gravity
MH D-15	MH D-14	190	15	Gravity
MH D-14	MH D-13	190	15	Gravity
MH D-13	MH D-12	330	15	Gravity
MH D-12	MH D-11	180	15	Gravity
MH D-11	MH D-10	120	15	Gravity
MH D-10	MH D-9	40	21	Gravity
MH D-9	MH D-8	370	21	Gravity
MH D-8	MH D-7	70	21	Gravity
MH D-7	MH D-6	340	24	Gravity
MH D-6	MH D-5	430	24	Gravity
MH D-5	MH D-4	230	24	Gravity
MH D-4	MH D-3	180	24	Gravity
MH D-3	MH D-2	260	24	Gravity
MH D-2	MH D-1	240	24	Gravity
MH D-17-A	MH D-17	80	8	Gravity
MH E-11	MH E-10	210	15	Gravity

TABLE 3-19
11-FM-MS-004B (Highland Road Sewer Area Upgrades [Group B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH E-10	MH E-9	200	15	Gravity
MH E-9	MH E-8	300	15	Gravity
MH E-8	MH E-7	300	15	Gravity
MH E-7	MH E-6	300	15	Gravity
MH E-6	MH E-5	150	15	Gravity
MH E-5	MH E-4	150	15	Gravity
MH E-4	MH E-3	150	15	Gravity
MH E-3	MH E-2	150	18	Gravity
MH E-2	MH E-1 at PS 329	30	18	Gravity
MH F-7 at PS 358	MH F-6	40	10	Gravity
MH F-6	MH F-5	180	10	Gravity
MH F-5	MH F-4	180	10	Gravity
MH F-4	MH F-3	280	10	Gravity
MH F-3	MH F-2	180	10	Gravity
MH F-2	MH F-1 at PS 221	180	10	Gravity
MH G-5 at PS 393	MH G-4	60	10	Gravity
MH G-4	MH G-3	290	10	Gravity
MH G-3	MH G-2	160	10	Gravity
MH G-2	MH G-1 at PS 221	40	10	Gravity
PS 40	New MH 061-00352	370	8	Force Main
PS 329	MH 061-05094	4,570	10	Force Main

Note: The pipe lengths were obtained from the conformed documents and value engineering changes.

3.2.18 11-PS-MS-0026 (Multiple Pump Stations - Burbank Drive - Siegen Lane)

Project Description

Purpose of the Project/Project Background

The following pump stations will be replaced in this project: PS 118, PS 161, PS 221, PS 229, and PS 999. The new pump stations will work in conjunction with force main upgrades in other South Basin projects to alleviate chronic SSOs at and near these pump stations.

The upgrades also will allow the pump stations to handle the future peak wet weather flows predicted by the model to exceed the existing maximum capacities.

The locations of the pump stations are shown in Table 3-20 and in Figure 3-45.

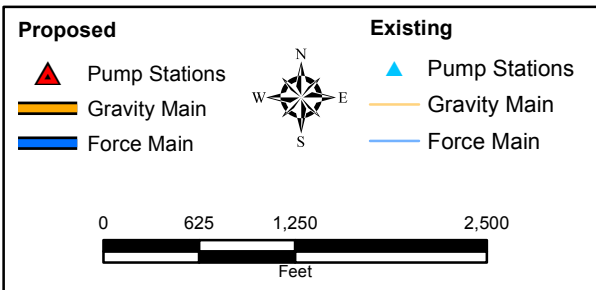
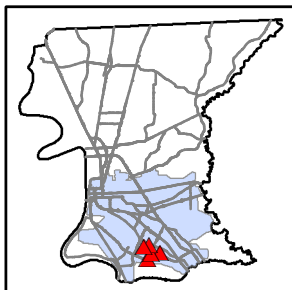
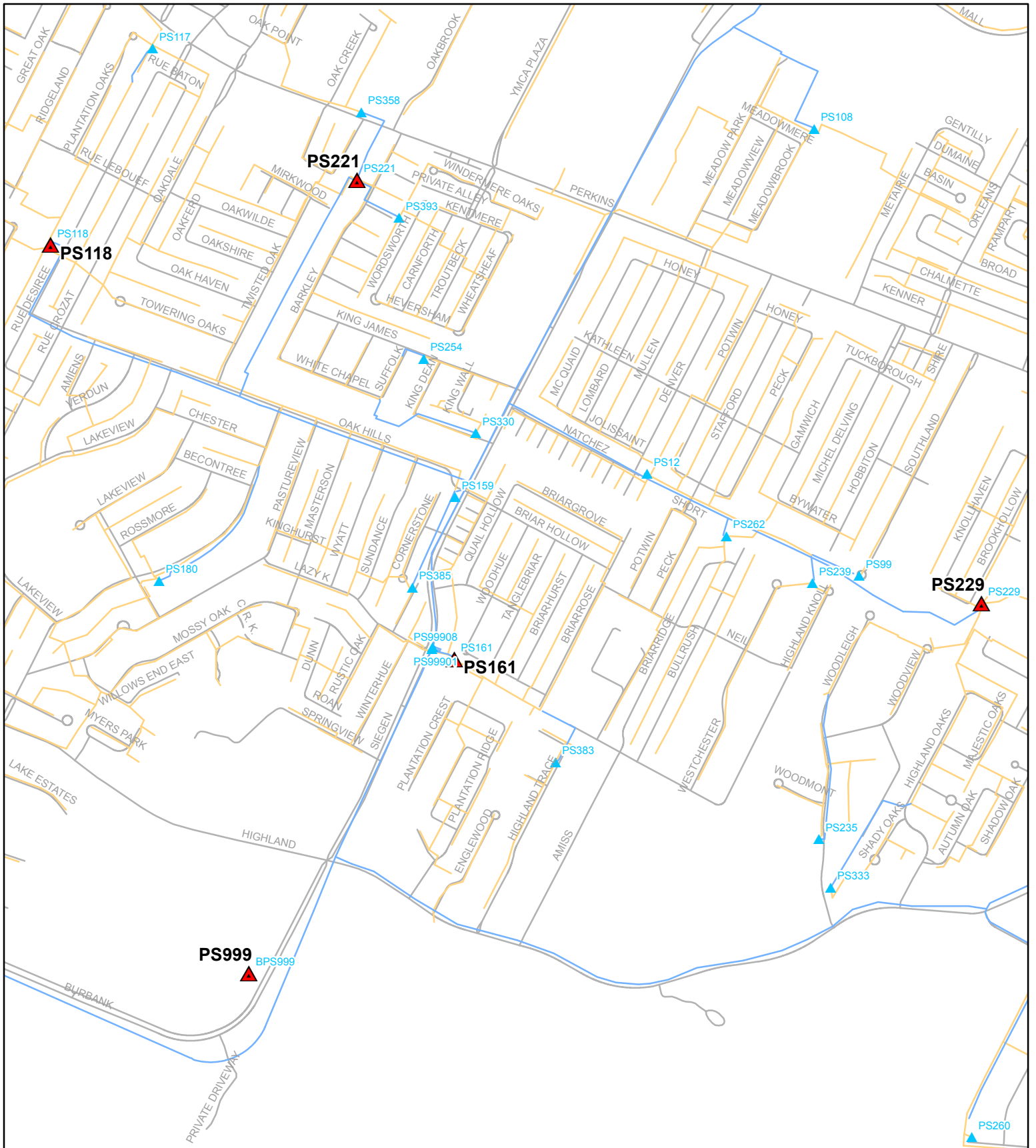
Scope

The scope of the pump station replacements is noted in Table 3-20.

TABLE 3-20
11-PS-MS-0026 (Multiple Pump Stations - Burbank Drive - Siegen Lane) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 118	Near Rue Crozat and Rue Desiree	420	170	910
PS 161	Near Siegen and Quail Ridge	590	200	730
PS 221	Near Barkley and Mirkwood	680	230	1,110
PS 229	Near intersection of Rendale Avenue and Brookhollow Drive	300	200	700
PS 999	Siegen Lane, before Burbank	6,230	1,960	10,140

Note: The existing maximum capacities for the pump stations were obtained from the DES *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Burbank Drive - Siegen Lane

Multiple Pump Stations

11-PS-MS-0026

Project Vicinity Map
Figure 3-45

BATON ROUGE **SSO**
Program

3.2.19 10-PS-MS-0009 (Multiple Pump Stations - Highland Road - Kenilworth Parkway)

Project Description

Purpose of the Project/Project Background

The 10-PS-MS-0009 (Multiple Pump Stations - Highland Road - Kenilworth Parkway) project includes the replacement of PS 1, PS 27, PS 40, PS 53, PS 53A, PS 56, PS 68, PS 74, PS 102, PS 120 PS 302, PS 329, and a new LSU pump station. The new pump stations will work in conjunction with force main upgrades in other south lower basin projects to alleviate SSOs at and near the pump stations and in their respective upstream basins. The Baton Rouge SSO hydraulic model also predicts that these pump stations will exceed their existing capacities at the predicted future peak wet weather flows. PS 102 was originally slated as a master plan pump station but was added to this PDP project. PS 27, PS 74, and PS 302 have been added to this project since the October 2008 PDP.

The locations of the pump stations are shown in Table 3-21 and in Figure 3-46.

Scope

The scope of the project is shown in Table 3-21. All pump stations are replacements of existing pump stations. PS 53/PS 53A is a new pump station that will replace existing PS 53. The new PS 53/PS 53A will have a divided wet well and pump in two directions, with PS 53 piped to the existing force main and PS 53A piped to a new force main, described in the 11-FM-MS-004A (Highland Road Sewer Area Upgrades [Group A]) project, through which it will pump to the manifold with the new force main from PS 58A. PS 58A is described in the 06-CS-HC-0024 (Staring Lane Roadway Improvements - Phase 2 [Highland Road to Perkins Road]) project.

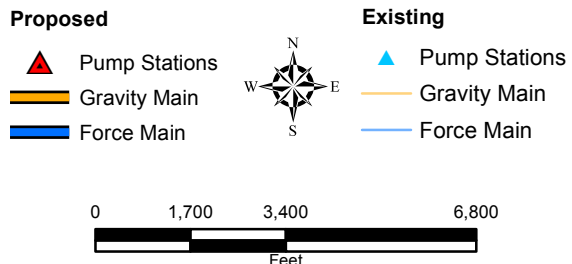
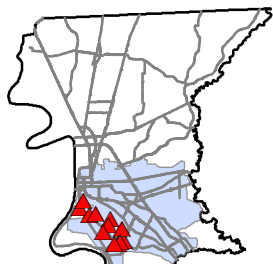
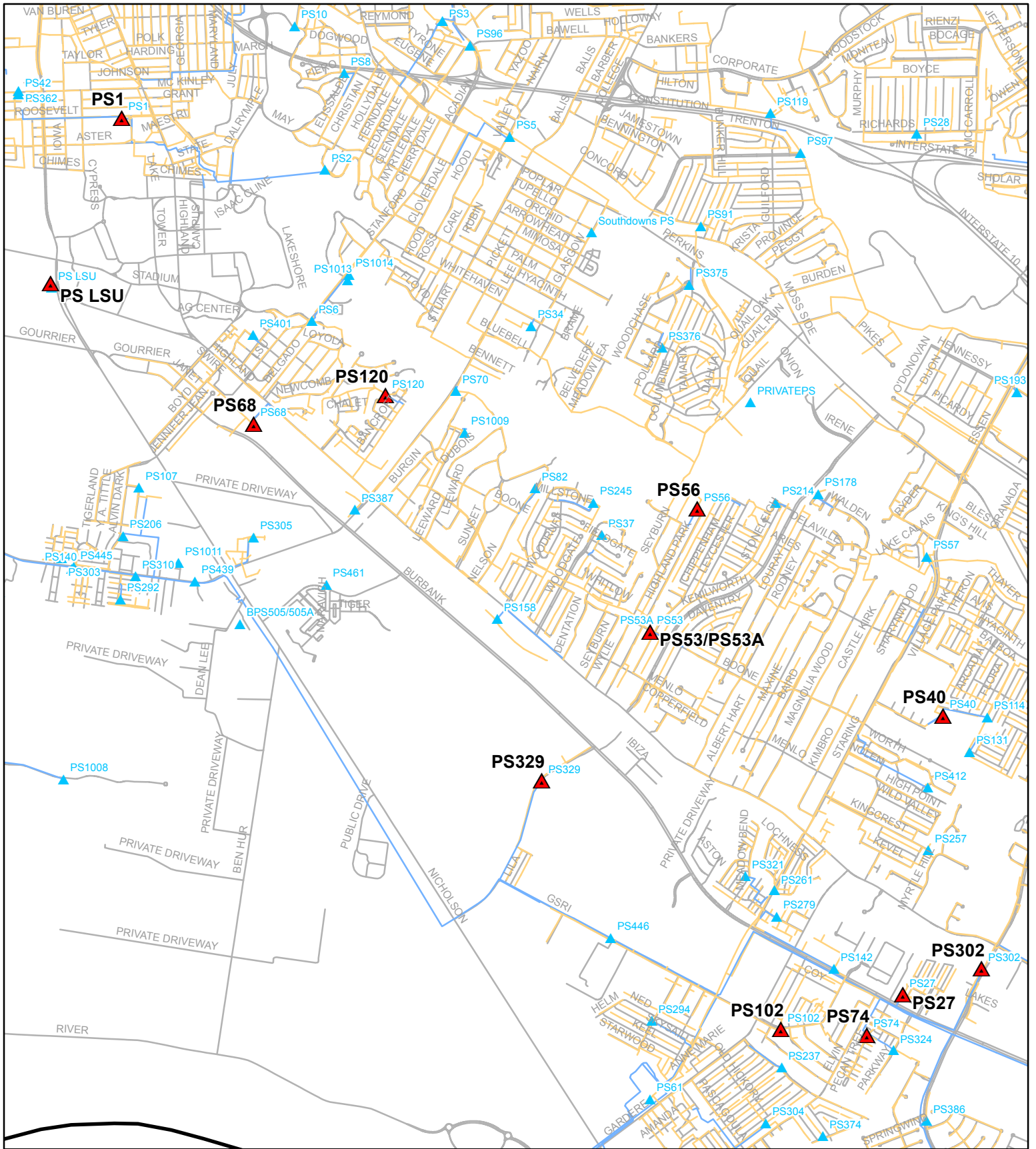
TABLE 3-21
10-PS-MS-0009 (Multiple Pump Stations - Highland Road - Kenilworth Parkway) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 1	355 W. Roosevelt Street	18,200	1,680	6,640
PS 27	Intersection of Ridgehaven Avenue and Burbank Drive	760	80	380
PS 40	Southlawn Drive, near the intersection of Arcadia Drive	800	70	950
PS 53	Boone Avenue, near the intersection of Chippenham Drive	4,000	2,670	6,460
PS 53A	Boone Avenue, near the intersection of Chippenham Drive	New	0	9,720
PS 56	Chandler Drive, near the intersection of Highland Park Drive	1,200	570	4,740
PS 68	Burbank Drive, near the intersection of Jennifer Jean Drive	700	390	1,260

TABLE 3-21
10-PS-MS-0009 (Multiple Pump Stations - Highland Road - Kenilworth Parkway) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 74	Northeast of Pecan Tree Drive and Jade Avenue intersection	1,140	170	580
PS 102	GSRI Avenue, near the intersection of Jasper Avenue	860	390	920
PS 120	Helvetia Drive, near the intersection of Bancroft Way	400	92	511
PS 302	Southwest of Bluebonnet Boulevard and Highland Road intersection	7,730	920	8,020
PS 329	Kenilworth Parkway, near the intersection of Burbank Drive	900	180	1,210
LSU PS	Near the Intersection of Stadium Drive and Nicholson Drive.	New	4,000	6,900

Note: The existing maximum capacities for the pump stations were obtained from the DES *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Highland Road - Kenilworth Parkway
 Multiple Pump Stations
 10-PS-MS-0009
 Project Vicinity Map
Figure 3-46



3.2.20 09-PS-MS-0046 (Multiple Pump Stations - Jefferson Highway - Park Forest Drive)

Project Description

Purpose of the Project/Project Background

The pump stations replaced in this project consist of the following: PS 111, PS 115, PS 201, PS 338 and the Woman's Hospital PS. The upgrade worked in conjunction with force main upgrades in other South Basin projects to alleviate chronic SSOs at and near these pump stations.

The upgrades also allow the pump stations to handle future peak wet weather flows that are predicted by the model to exceed the existing maximum capacities.

The location of each pump station is shown in Table 3-22 and in Figure 3-47.

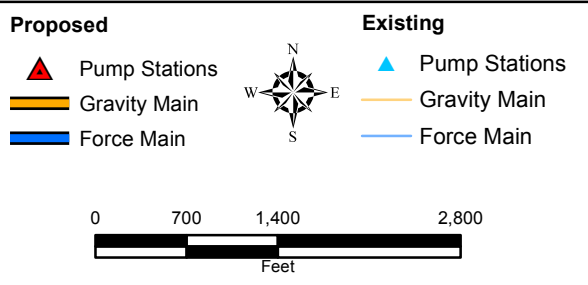
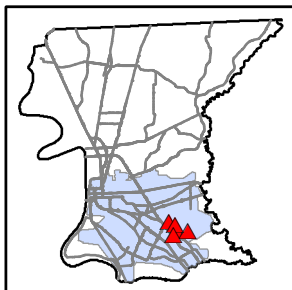
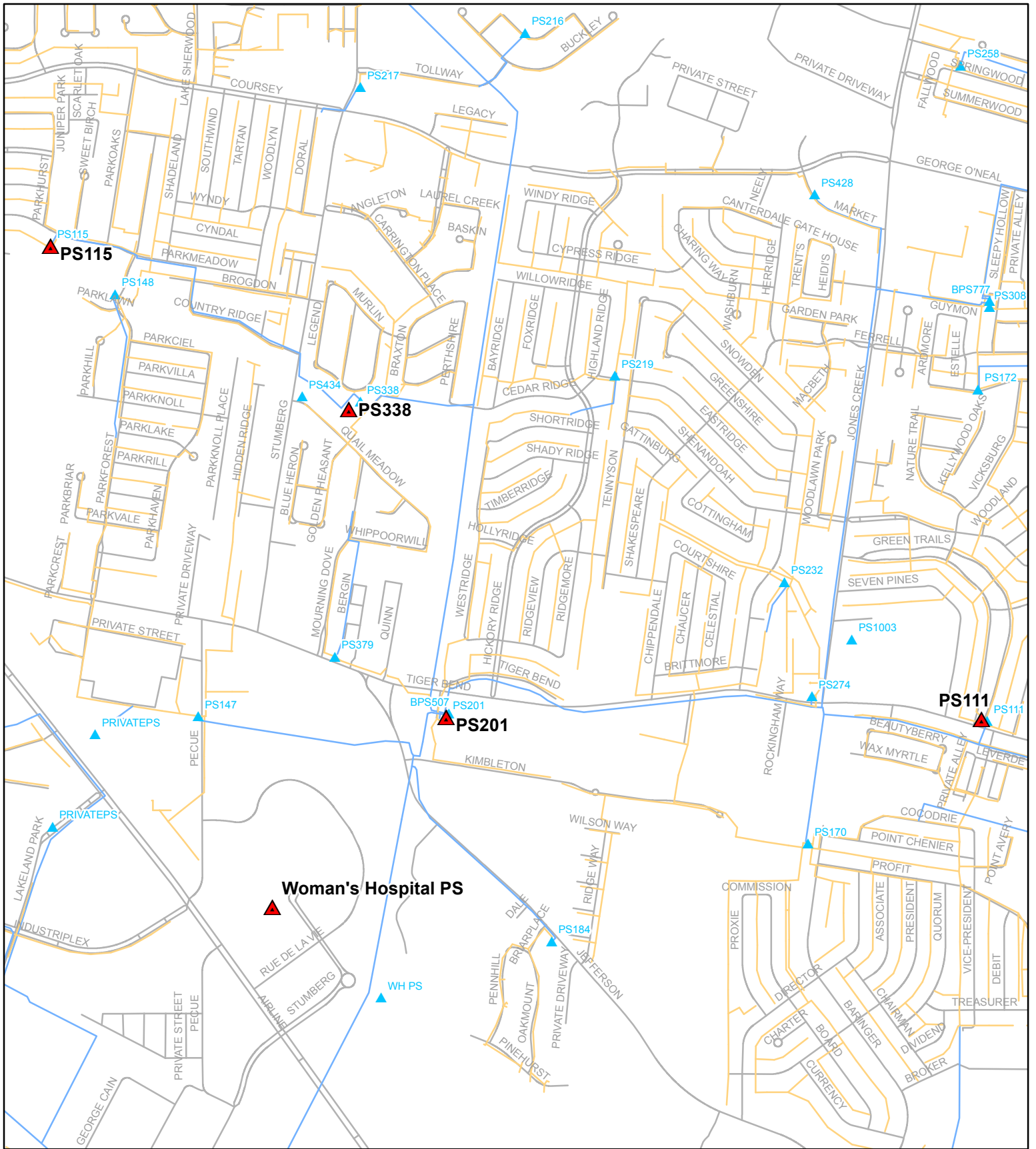
Scope

Table 3-22 shows the detailed scope of this project, which includes the replacement of five pump stations in the South Basin.

TABLE 3-22
09-PS-MS-0046 (Multiple Pump Stations - Jefferson Highway - Park Forest Drive) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 111	Near intersection of Tiger Bend Road and Green Trails Road	1,015	340	2,320
PS 115	Parkmeadow Avenue, near Parkhollow Drive	574	60	560
PS 201	Near the intersection of Tiger Bend and Jefferson Highway	530	250	1,390
PS 338	Near intersection of Quail Meadow Drive and Golden Pheasant Court	786	550	1,320
Woman's Hospital PS	Near intersection of Pecue Lane and Airline Highway	New	Unknown	2,400

Note: The existing maximum capacities for the pump stations were obtained from the DES *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Jefferson Highway - Park Forest Drive
 Multiple Pump Stations
 09-PS-MS-0046
 Project Vicinity Map
Figure 3-47



3.2.21 09-PS-MS-0048 (Multiple Pump Station - Nicholson Drive – Brightside Lane)

Project Description

Purpose of the Project/Project Background

The project included replacement of PS 236, PS 336, PS 311, PS 107, Booster Pump Station (BPS) 505, and construction of new PS 503A and PS 236A. The project also incorporated the pipeline replacements related to these pump stations that were formerly included in the 09-FM-MS-0047 (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B]) project. The new pump stations work in conjunction with force main upgrades in the Central Consolidation projects to alleviate chronic SSOs at and near these pump stations.

The upgrades also allow the pump stations to handle the future peak wet weather flows that are predicted by the model to exceed existing maximum capacities.

The locations of these pump stations are shown in Table 3-23 and in Figure 3-48.

Scope

This project included construction of the pump stations shown in Table 3-23. BPS 505 and PS 505A are related, in that PS 505A is an overflow pump station for BPS 505. BPS 505 is an existing in-line booster pump station that was replaced with a wet well pump station, PS 505. Since BPS 505 was replaced with a wet well pump station, PS 505 and PS 505A now share a divided wet well and pump in two directions, with one piped to the existing force main (BPS 505) and one piped to the new force main that will intersect with the PS 42 force main (PS 505A). The PS 42 force main is described in the 09-FM-MS-036A (Pump Station 42 Force Main [Phase 1]) and 09-FM-MS-036B (Pump Station 42 Force Main [Phase 2]) projects, as described in sections 3.2.30 and 3.2.31 of this plan.

PS 236 and PS 236A also now share a divided wet well and pump in two directions, with one piped to the existing force main from PS 236 (dry weather) and one piped to the new PS 236A (wet weather).

This project also included construction of approximately 2,900 feet of 8-inch, 21-inch, and 24-inch gravity sewer upstream of PS 236 and approximately 12,850 feet of 10-inch to 20-inch force main downstream of PS 311, PS 336, PS 236, PS 505, and PS 505A. Table 3-24 shows the detailed scope of the pipeline improvements in this project.

TABLE 3-23
09-PS-MS-0048 (Multiple Pump Station - Nicholson Drive - Brightside Lane) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 107	Brightside Road, near Earl Gross	850	380	970
PS 236	Brightside Road, near Riverbend Road	630	610	700
PS 236A	Brightside Road near Riverbend Road	New	0	4,360
PS 336	Nicholson Road, near Riverbend Road	520	150	1,140
PS 311	Twelve Oaks Road, near Riverbend Road	400	150	970

TABLE 3-23
09-PS-MS-0048 (Multiple Pump Station - Nicholson Drive - Brightside Lane) – Pump Station Information

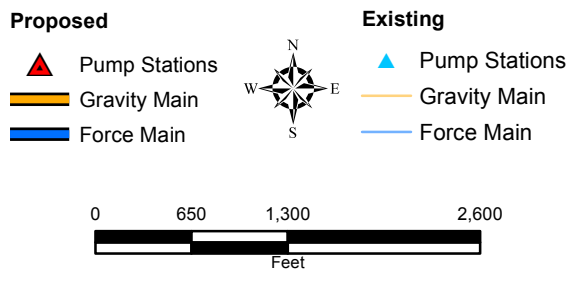
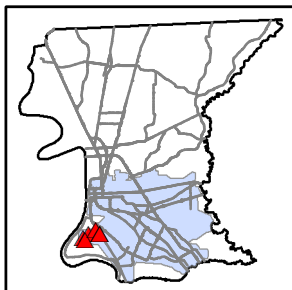
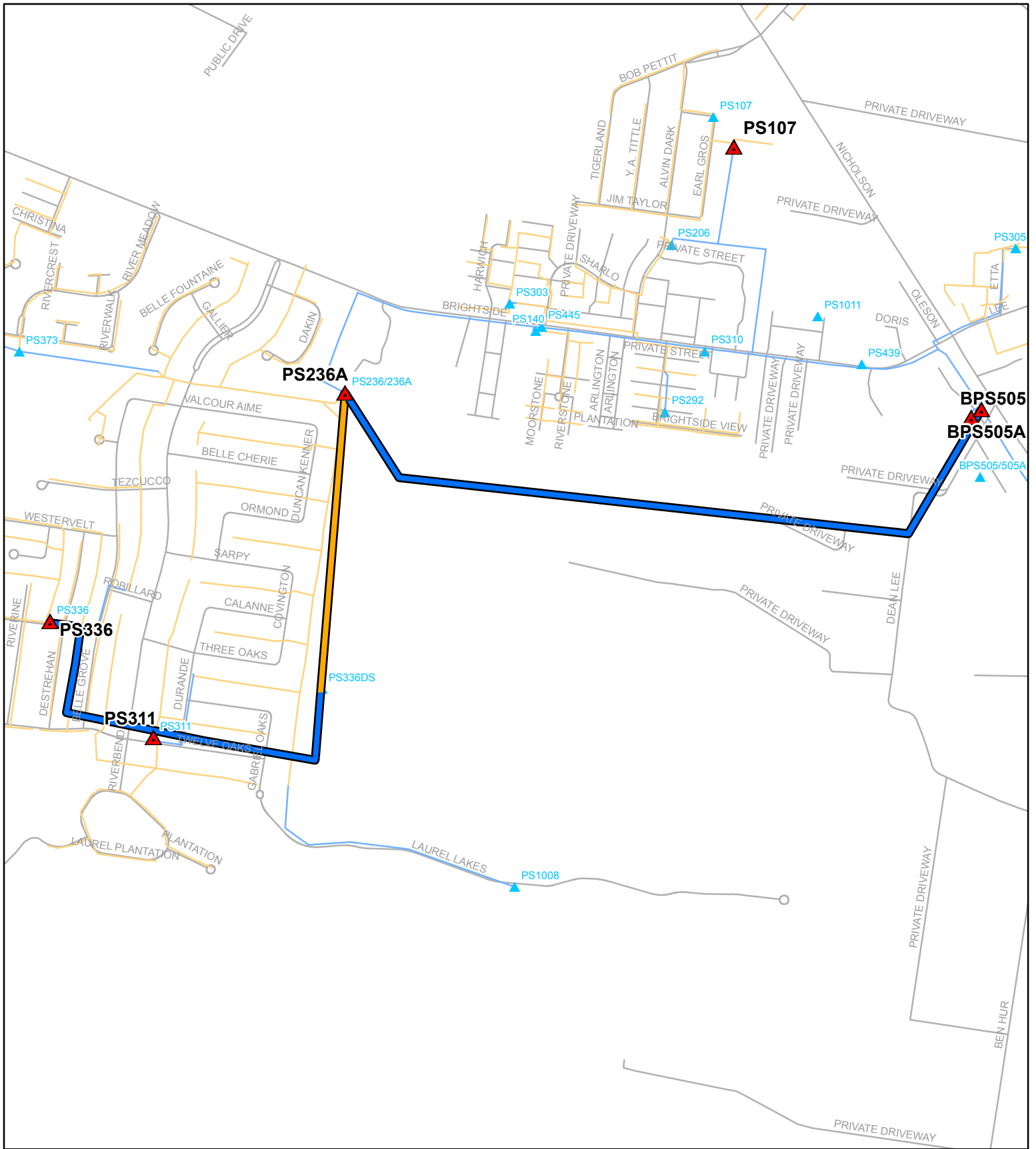
PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 505	Intersection of Oleson Road and Brightside Road	5,020	2,010	5,780
PS 505A	Intersection of Oleson Road and Brightside Road	New	0	2,760

Note: The existing maximum capacities for the pump stations were obtained from the DES *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 3-24
09-PS-MS-0048 (Multiple Pump Station - Nicholson Drive - Brightside Lane) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 1112	MH 1111	510	21	Gravity
MH 1111	MH 1110	440	21	Gravity
MH 1110	MH 1109	50	24	Gravity
MH 1109	MH 1108	60	24	Gravity
MH 1108	MH 1107	420	24	Gravity
MH 1107	MH 1106	500	24	Gravity
MH 1106	MH 1105	80	24	Gravity
MH 1105	MH 1104	240	24	Gravity
MH 1104	MH 1103	200	24	Gravity
MH 1103	PS 236	110	24	Gravity
MH 1107A	MH 1107	60	8	Gravity
MH 1110A	MH 1110	110	8	Gravity
MH 1111A	MH 1111	120	8	Gravity
PS 336	Tee with PS 311 Force Main	2,130	10	Force Main
Tee with PS 311 Force Main	MH 1112	2,720	12	Force Main
PS 236A	MH 1201 at PS 505/PS 505A	7,080	16	Force Main
Tie-In to Existing BPS 505 Influent Force Main	MH 1201 at PS 505/PS 505A	520	20	Force Main
PS 505	Tie-In to Existing BPS 505 Discharge Force Main	400	20	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Nicholson Drive - Brightside Lane

Multiple Pump Stations

09-PS-MS-0048

Project Vicinity Map
Figure 3-48



3.2.22 09-FM-MS-047A (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase A])

Project Description

Purpose of the Project/Project Background

The 09-FM-MS-047A (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase A]) and 09-FM-MS-047B (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B]) projects consisted of force main and gravity upgrades in the South Basin.

The 09-FM-MS-047A (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase A]) project included the upsizing of force main and gravity mains in an area that extends east to the intersection of Siegen Lane and South Mall Drive and south to Perkins Road. The upgrades were designed to alleviate chronic SSOs at the pump stations and increase the gravity main capacity. Please refer to Figures 3-49.

Scope

The 09-FM-MS-047A (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase A]) project included construction of approximately 3,420 feet of 8-inch, 10-inch, and 12-inch gravity sewer. The project also included approximately 8,300 feet of 8-inch to 18-inch force main in the South Basin. Table 3-25 shows the detailed scope of this project.

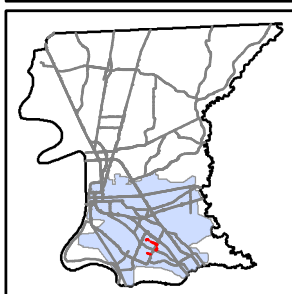
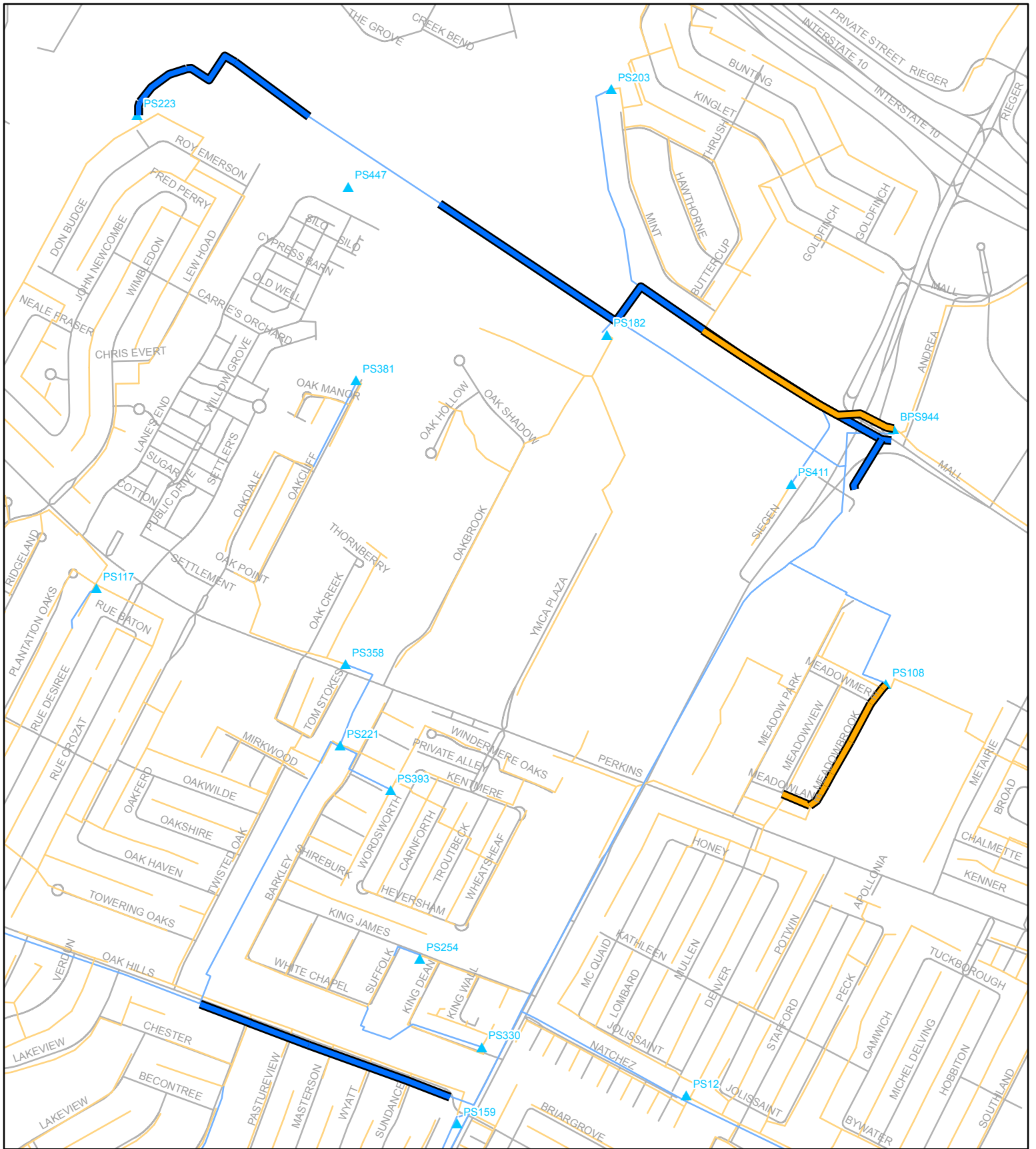
TABLE 3-25
09-FM-MS-047A (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase A]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 210	MH 209	100	10	Gravity
MH 209	MH 208	280	10	Gravity
MH 208	MH 207	300	10	Gravity
MH 207	MH 206	300	10	Gravity
MH 206	MH 205	220	10	Gravity
MH 205	MH 204	90	10	Gravity
MH 204	MH 203	90	10	Gravity
MH 203	MH 202	160	10	Gravity
MH 202	MH 201	270	10	Gravity
MH 201	PS 944	40	10	Gravity
MH 410	MH 409	20	8	Gravity
MH 409	MH 407	130	12	Gravity
MH 407	MH 406	250	12	Gravity
MH 406	MH 405	50	12	Gravity
MH 405	MH 404	270	12	Gravity

TABLE 3-25
09-FM-MS-047A (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase A]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 404	MH 403	300	12	Gravity
MH 403	MH 402	350	12	Gravity
MH 402	MH 401	160	12	Gravity
MH 401	Connect to Existing MH 108-00047 at PS 108	40	12	Gravity
PS 223	Tie-In to Existing 10-inch STN Force Main	1,660	8	Force Main
Tee to Existing 14-inch STN Force Main	Tie-In to Existing 18-inch STN Force Main at Siegen Lane and S. Mall Drive	370	18	Force Main
16-inch x 16-inch x 14-inch Tee for Future Connection	Tee to Existing 14-inch STN Force Main	2,300	16	Force Main
Tee to Existing 4-inch Force Main from PS 182	16-inch x 16-inch x 14-inch Tee for Future Connection	330	14	Force Main
Tee to Existing 8-inch Force Main from PS 447	Tee to Existing 4-inch Force Main from PS 182	1,660	12	Force Main
Tie-In to 10-inch STN Force Main	Tee to Existing 8-inch Force Main from PS 447	30	10	Force Main
Connect to two Existing 8-inch Force Main near Oak Hills Parkway and Twelve Oak	Tie-In to Existing 12-inch STN Force Main at Oak Hills Parkway and Siegen Lane	1,950	12	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Proposed		Existing	
	Pump Stations		Pump Stations
	Gravity Main		Gravity Main
	Force Main		Force Main

0 500 1,000 2,000
Feet

Nicholson Drive - Highland Road - Perkins Road
 Sewer Area Upgrades
 [Phase A]
 09-FM-MS-047A
 Project Vicinity Map
Figure 3-49



3.2.23 09-FM-MS-047B (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B])

Project Description

Purpose of the Project/Project Background

The 09-FM-MS-047B (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B]) projects consisted of force main and gravity upgrades in the South Basin.

The 09-FM-MS-047B (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B]) project included the upsizing of force main and gravity mains in an area that extends north to the intersection of Jefferson Highway and Tiger Bend Road and continues south to the South WWTP on Gardere Lane. The upgrades were designed to alleviate chronic SSOs at the pump stations and increase the gravity main capacity. Please refer to Figures 3-50.

Scope

The 09-FM-MS-047B (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B]) project included construction of approximately 2,050 feet of 24-inch gravity sewer upstream of PS 365. The project also included the construction of approximately 24,200 feet of 3-inch through 24-inch force main in the South Basin. Table 3-26 shows the detailed scope of this project.

TABLE 3-26

09-FM-MS-047B (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 810 (Connect to Existing 10-inch Force Main at Jefferson Highway)	MH 809	30	24	Gravity
MH 809	MH 808	100	24	Gravity
MH 808	MH 807	270	24	Gravity
MH 807	MH 806	300	24	Gravity
MH 806	MH 805	340	24	Gravity
MH 805	MH 804	330	24	Gravity
MH 804	MH 803	330	24	Gravity
MH 803	PS 365	350	24	Gravity
PS 229	Tie-In to Existing 8-inch Force Main near Highland Knoll Court	1,820	8	Force Main
PS 365	Tie-In to Existing 16-inch Force Main near Ward's Creek	5,100	16	Force Main
PS 278	Tie-In to Existing 10-inch Force Main at Jefferson Highway and Lake Iris Avenue	2,070	8	Force Main
PS 398	Tee with Existing 6-inch Force Main from PS 436	20	10	Force Main
Tee with Existing 6-inch Force Main from PS 436	10-inch x 12-inch Increaser	3,000	10	Force Main

TABLE 3-26
09-FM-MS-047B (Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
10-inch x 12-inch Increaser	Tee with Existing 4-inch Force Main	40	12	Force Main
Tee with Existing 4-inch Force Main	Tee with New 24-inch Force Main and Existing 16-inch Force Main	1,980	12	Force Main
Tee with New 12-inch Force Main and Existing 16-inch Force Main	Tee with new 6-inch Force Main from PS 378	4,110	24	Force Main
Tee with new 6-inch Force Main from PS 378	Tee with new 4-inch Force Main from PS 416	1,800	24	Force Main
Tee with New 4-inch Force Main from PS 416	Connect to New 24-inch Force Main at PS 514	1,430	24	Force Main
Tie-In to Existing 4-inch Force Main from PS 378	Tee with New 24-inch Force Main	1,740	6	Force Main
Tie-In to Existing 4-inch Force Main from PS 416	Tee with New 24-inch Force Main	740	4	Force Main
Tie-In to Existing 3-inch Force Main from PS 394	PS 514	370	3	Force Main

Note: The pipe lengths were obtained from the conformed drawings.

3.2.24 11-FM-MS-0025 (Oak Villa Boulevard - Monterrey Boulevard Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The 11-FM-MS-0025 (Oak Villa Boulevard - Monterrey Boulevard Sewer Area Upgrades) project includes extending the force mains from PS 16 and PS 18, which is being upgraded as part of the 11-PS-MS-0003 (Florida Boulevard Pump Stations Improvements) project, to PS 51 to alleviate overflows in the basin

Location

The gravity sewer replacements and force main segments that comprise this project are located northeast of Airline Highway and Florida Boulevard, and along Choctaw Road, south of Goodwood Boulevard and are shown in Figure 3-51.

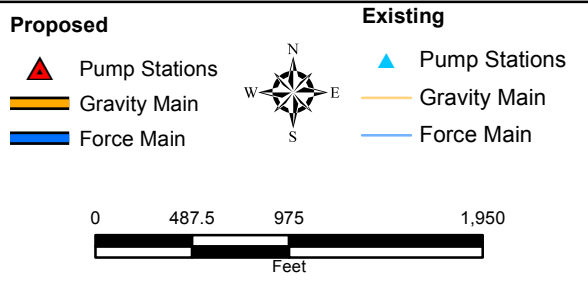
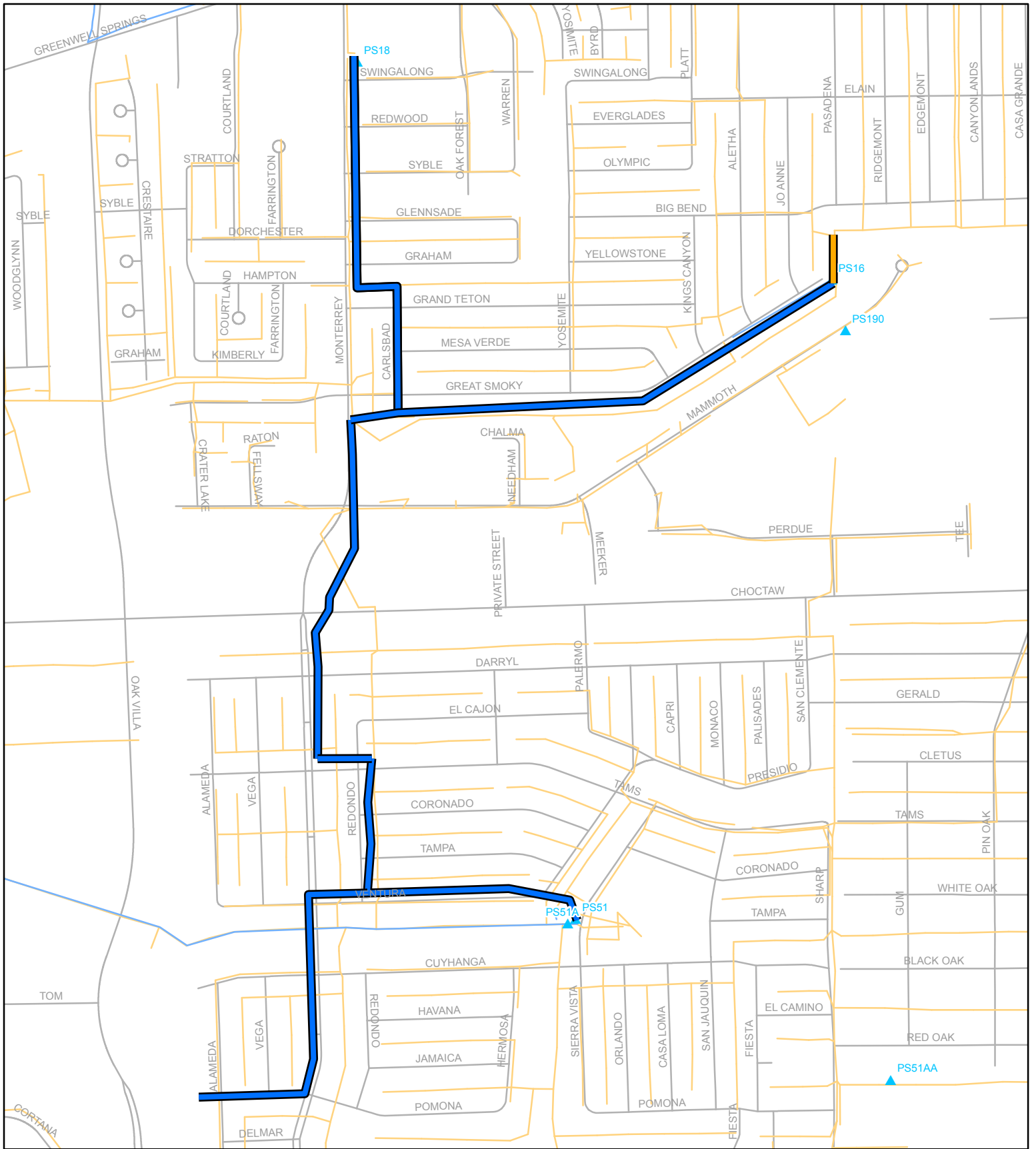
Scope

This project includes construction of approximately 1,710 feet of 8-inch, 18-inch, and 36-inch gravity sewer upstream of PS 51. This project also includes approximately 15,410 feet of 8-inch, 12-inch, and 16-inch force main downstream of PS 16 and PS 18. In addition, rehabilitation of several line segments in the PS 51 basin is required, due to alignment modifications. The scope of the pipeline replacement in this project is shown in Table 3-27.

TABLE 3-27
11-FM-MS-0025 (Oak Villa Boulevard - Monterrey Boulevard Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 16	Tee with 8 inch Force Main from PS 18	3,480	8	Force Main
PS 18	Tee with 8-inch Force Main from PS 16	2,800	8	Force Main
Tee from PS 16 and PS 18	Tee with 8-inch Force Main from PS 98	4,700	12	Force Main
Tee with 8" Force Main from PS 98	MH 051-05034	1,700	16	Force Main
PS 98 FM Connection	Tee from PS 16 / 18 & 98	2,730	8	Force Main
MH 016-00002A	MH 016-00002B	100	18	Gravity
MH 016-00002B	MH 016-00002C	390	18	Gravity
MH 016-00002C	PS 16	80	18	Gravity
MH 051-05034	Overflow Structure at PS 51A	120	36	Gravity
MH 051-00360D	MH 051-00260	1,020	8	Gravity

Note: The pipe lengths were obtained from the 100% design drawings & value engineering changes.



**Oak Villa Boulevard -
Monterrey Boulevard**

Sewer Area Upgrades

11-FM-MS-0025

Project Vicinity Map
Figure 3-51



3.2.25 08-PS-IF-0046 (Old Perkins - Highland Road [Group Project 2] Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The following pump stations were replaced in this project: PS 182, PS 223, PS 278, PS 327, PS 353, PS 365, and PS 372. The new pump stations work in conjunction with force main upgrades in other South Basin projects to alleviate chronic SSOs at and near these pump stations.

The upgrades also allow the pump stations to handle the future peak wet weather flows that are predicted by the model to exceed existing maximum capacities.

Table 3-28 and Figure 3-52 show the locations of the pump stations in this project. These pump stations are generally located in the area of Jefferson Highway and Highland Road.

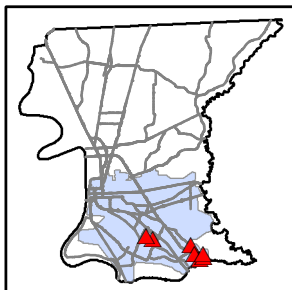
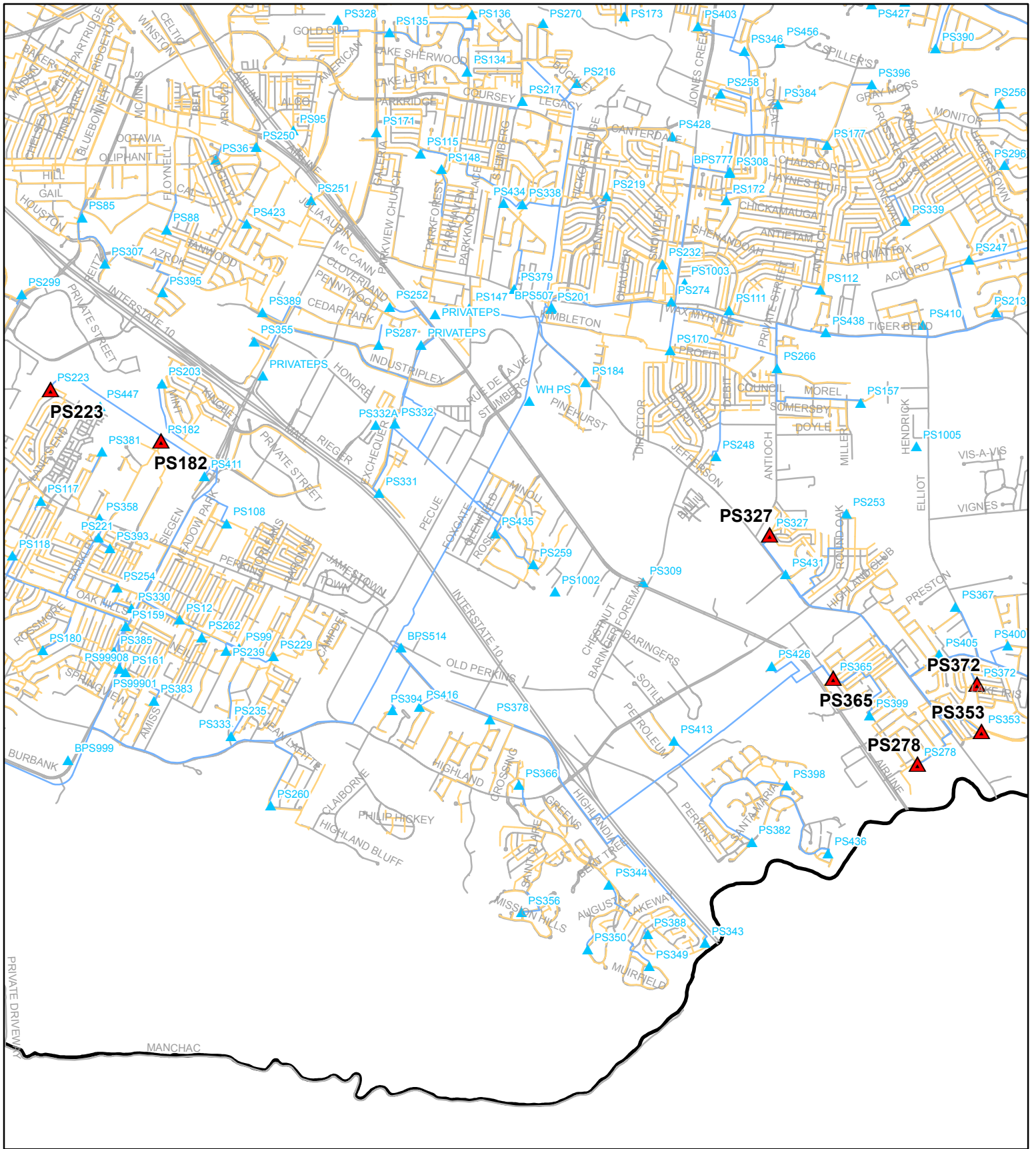
Scope

Table 3-28 shows the detailed scope of this project.

TABLE 3-28
08-PS-IF-0046 (Old Perkins - Highland Road (Group Project 2) Sewer Area Upgrades) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 182	Near YMCA Plaza Drive	190	150	390
PS 223	Intersection of Don Budge Avenue and Backcourt Drive	240	170	800
PS 278	Near Bainbridge Avenue	320	170	760
PS 327	Intersection of Alder Drive and Crepe Myrtle Drive	290	40	370
PS 353	Intersection of Azalea Lakes Avenue and Lake Iris Avenue	580	50	540
PS 365	Intersection of Sugar Mill Avenue and Umbehagen Lane	1,540	760	4,160
PS 372	Intersection of West Lake Terrace Drive and Lake Tulip Avenue	320	310	540

Note: The existing maximum capacities for the pump stations were obtained from the DES *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Proposed	Existing
Pump Stations	Pump Stations
Gravity Main	Gravity Main
Force Main	Force Main

0 2,250 4,500 9,000
Feet

Old Perkins - Highland Road

Sewer Area Upgrades
[Group Project 2]
08-PS-IF-0046

Project Vicinity Map
Figure 3-52



3.2.26 10-PS-MS-0050 (O'Neal Lane Pump Stations Improvements [Group A])

Project Description

Purpose of the Project/Project Background

The 10-PS-MS-0050 (O'Neal Lane Pump Stations Improvements [Group A]) project includes segments previously included in SFU-C-0002 (Multiple Pump Stations - Jones Creek Road - Tiger Bend Road) project, SFU-C-0003 (Multiple Pump Stations - O'Neal Lane) project, and SFU-C-0004 (Multiple Pump Stations - O'Neal - S. Harrell's Ferry) project. The combined project has then been split into two projects, 10-PS-MS-0050 (O'Neal Lane Pump Stations Improvements [Group A]) and 10-PS-MS-0051 (O'Neal Lane Pump Stations Improvements [Group B]), since the November 2009 PDP.

The project involves the upgrade of PS 112, PS 148, PS 157, PS 170, PS 172, PS 211, PS 232, PS 247, PS 253, PS 259, PS 266, PS 274, PS 296, PS 316, PS 391, and BPS 777. The upgrades will work in conjunction with force main upgrades in the 10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group A]) and 10-FM-MS-008B (O'Neal Lane Sewer Area Upgrades [Group B]) projects to alleviate chronic SSOs at and near these pump stations. The upgrades will also allow the pump stations to handle future peak wet weather flows that modeling predicts will exceed the existing maximum capacities.

The locations of the pump stations included in this project are given in Table 3-29 and shown in Figure 3-53.

Scope

Table 3-29 shows the detailed scope of this project, which consists of replacing 16 pump stations; including replacing BPS 777, an in-line booster station, with a wet well pump station.

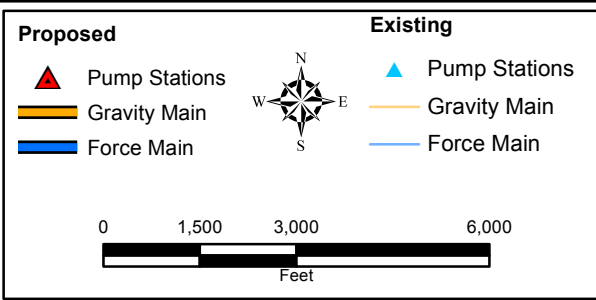
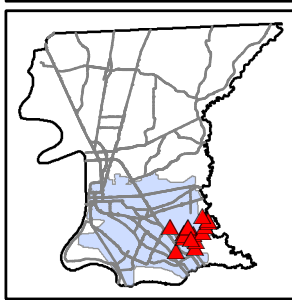
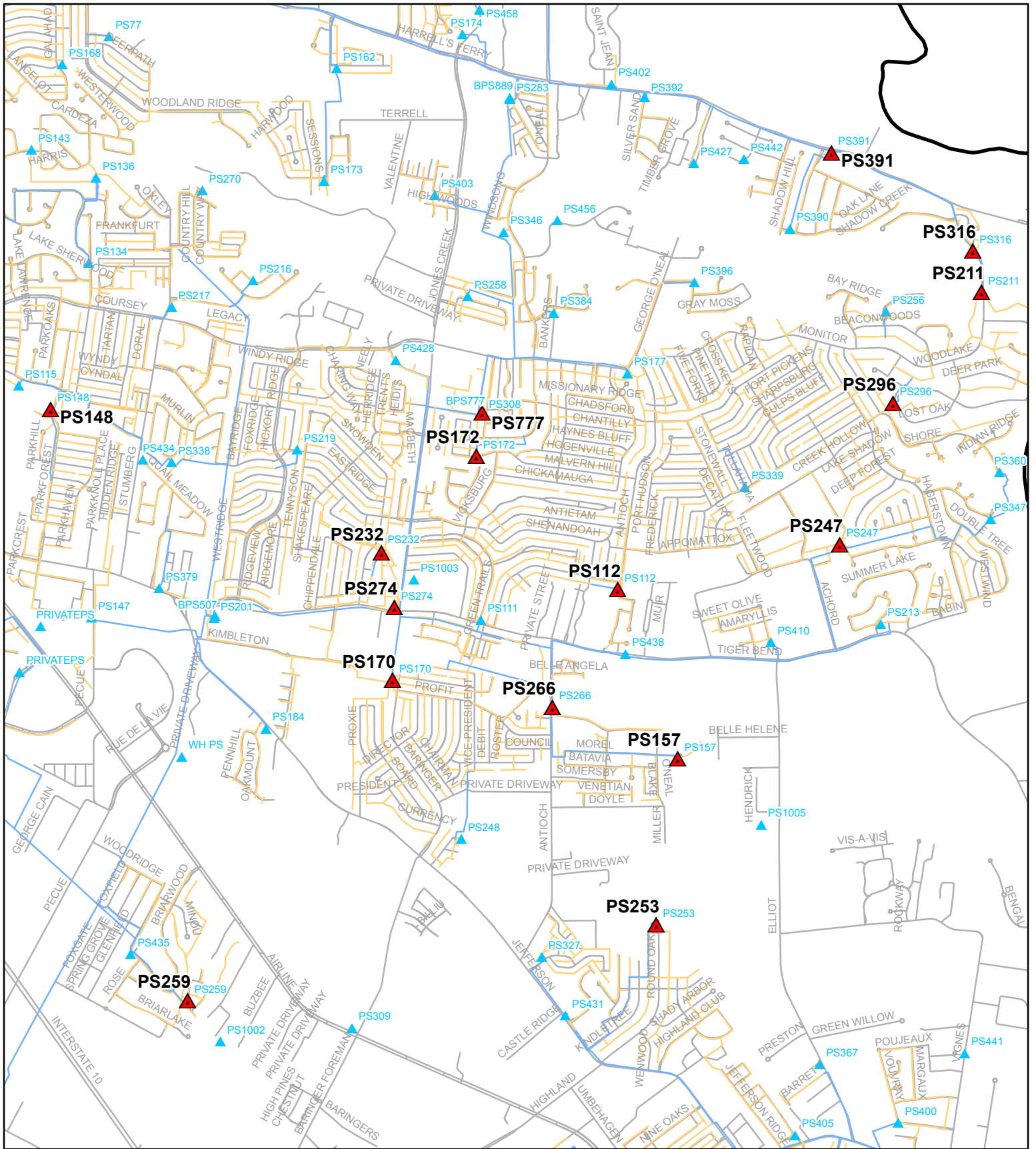
TABLE 3-29
10-PS-MS-0050 (O'Neal Lane Pump Stations Improvements [Group A]) – Pump Station Information

PS ID	Location	Existing Maximum Pump Station Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather (gpm)
PS 112	6300 Antioch Road	700	510	1,470
PS 148	5234 Parkforest Drive	396	310	530
PS 157	16806 Morel Avenue	278	160	540
PS 170	7150 Barringer Road	146	830	4,920
PS 172	15527 Malvern Hill	250	100	390
PS 211	4490 Woodlake Drive	700	420	2,380
PS 232	6245 Snowden Avenue	300	220	1,090
PS 247	6245 Harness Road	407	210	1,510
PS 253	8666 Round Oak Drive	145	70	470
PS 259	13718 Martin Ridge	227	100	580
PS 266	7340 Antioch Road	120	30	130

TABLE 3-29
10-PS-MS-0050 (O'Neal Lane Pump Stations Improvements [Group A]) – Pump Station Information

PS ID	Location	Existing Maximum Pump Station Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather (gpm)
PS 274	14867 Tiger Bend	403	60	1,060
PS 296	5606 Lost Oak	500	220	1,180
PS 316	150 Lakepark Avenue	390	70	300
PS 391	18088 S. Harrell's Ferry	135	60	430
PS 777	5502 Sleepy Hollow	14,616	4,650	21,850

Note: The existing maximum capacities for the pump stations were obtained from the DES *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



O'Neal Lane

Pump Stations Improvements
[Group A]
10-PS-MS-0050

Project Vicinity Map
Figure 3-53

BATON ROUGE **SSO**
Program

3.2.27 10-PS-MS-0051 (O'Neal Lane Pump Stations Improvements [Group B])

Project Description

Purpose of the Project/Project Background

The 10-PS-MS-0051 (O'Neal Lane Pump Stations Improvements [Group B]) project includes segments previously included in the SFU-C-0002 (Multiple Pump Stations - Jones Creek Road - Tiger Bend Road), SFU-C-0003 (Multiple Pump Stations - O'Neal Lane), and SFU-C-0004 (Multiple Pump Stations - O'Neal - S. Harrell's Ferry) projects. This combined project has been split into two projects, 10-PS-MS-0050 (O'Neal Lane Pump Stations Improvements [Group A]) and 10-PS-MS-0051 (O'Neal Lane Pump Stations Improvements [Group B]), since the November 2009 PDP.

The project involves the upgrade of PS 41, PS 77, PS 101A, PS 139, PS 149, PS 153, PS 162, PS 175, PS 189, PS 191, PS 224, PS 227, PS 326, PS 345, and BPS 889. Project upgrades will work in conjunction with force main upgrades in the 10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group B]) project to alleviate chronic SSOs at and near these pump stations. The upgrades also will allow the pump stations to handle future peak wet weather flows that modeling predicts will exceed the existing maximum capacities.

The locations of the pump stations included in this project are given in Table 3-30 and shown in Figure 3-54.

Scope

Table 3-30 shows the detailed scope of this project, which consists of replacing 15 pump stations; including converting BPS 889 from an in-line booster station to a wet well pump station. BPS 100A will be decommissioned after this project and the O'Neal Lane Pipeline project will be completed.

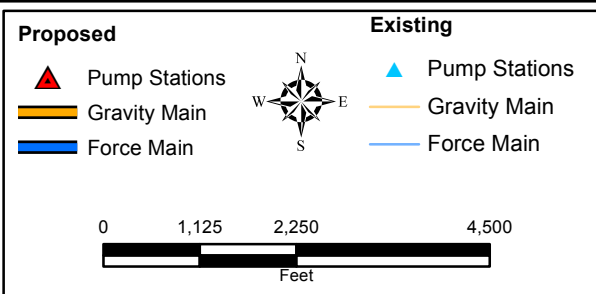
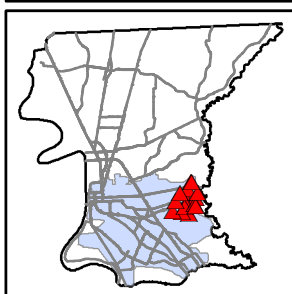
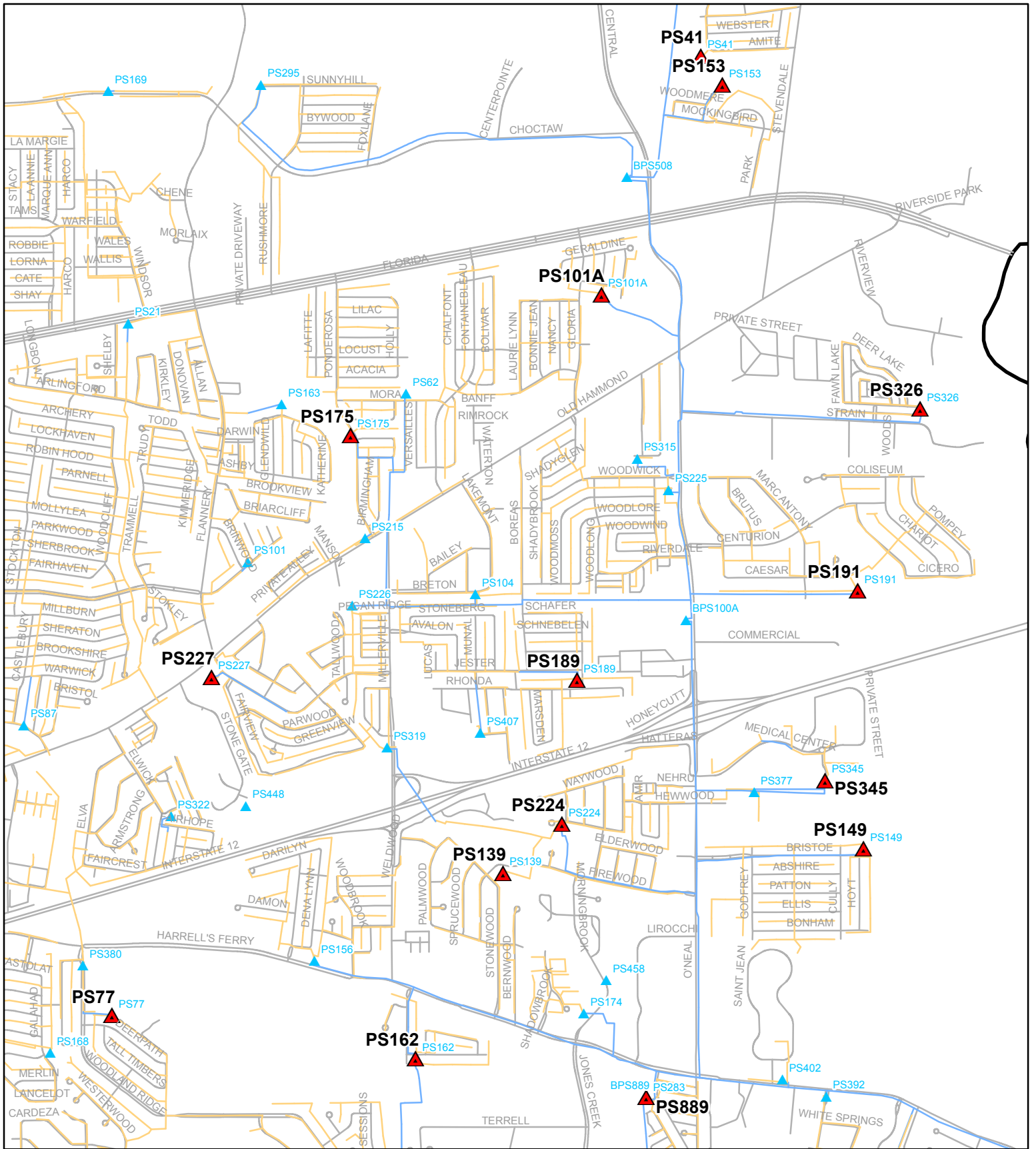
TABLE 3-30
10-PS-MS-0051 (O'Neal Lane Pump Stations Improvements [Group B]) – Pump Station Information

PS ID	Location	Existing Maximum Pump Station Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather (gpm)
PS 41	16400 S. Amite Drive	500	130	530
PS 77	12829 Deerpath Way	700	170	700
PS 101A	334 Bonnie Drive	170	130	470
PS 139	2000 Firewood Drive	210	100	310
PS 149	17011 Bristol Avenue	490	150	720
PS 153	2376 Woodvale Drive	90	120	620
PS 162	14612 Gen. Prentiss	310	330	880
PS 175	626 Ponderosa	240	250	980
PS 189	1712 Outrigger	720	140	1,080
PS 191	16734 Caesar Avenue	370	110	1,310
PS 224	15414 Banyanwood	770	460	1,730
PS 227	1328 South Flannery	330	100	450

TABLE 3-30
10-PS-MS-0051 (O'Neal Lane Pump Stations Improvements [Group B]) – Pump Station Information

PS ID	Location	Existing Maximum Pump Station Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather (gpm)
PS 326	150 Lakepark Avenue	220	120	390
PS 345	17000 Medical Center	390	140	400
PS 889	3482 King Bradford	11,570	3,620	17,840

Note: The existing maximum capacities for the pump stations were obtained from the DES *Field Pump Station Maintenance* reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



O'Neal Lane

Pump Stations Improvements
[Group B]
10-PS-MS-0051

Project Vicinity Map
Figure 3-54

BATON ROUGE **SSO**
Program

3.2.28 10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group A])

Project Description

Purpose of the Project/Project Background

The 10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group A]) and 10-FM-MS-008B (O'Neal Lane Sewer Area Upgrades [Group B]) projects included segments previously included in SFU-C-0005 (O'Neal Lane - Tiger Bend Road) and SFU-C-0006 (O'Neal Lane - Jones Creek Road).

These projects involved upsizing of the gravity main in an area that extends north of Florida Boulevard to the Monticello Subdivision and continues south to include the Shenandoah and Old Jefferson areas of East Baton Rouge Parish. The upgrades were developed to alleviate chronic SSOs at pump stations and increase the gravity main capacity. Force main upgrades are in an area that extends north of Florida Boulevard to the Monticello Subdivision and continues south to include the Shenandoah and Old Jefferson areas of East Baton Rouge Parish. These upgrades were developed to alleviate chronic SSOs at the pump stations and increase the force main capacity.

Refer to Figure 3-55.

Scope

The 10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group A]) project included construction of approximately 11,850 feet of 12-inch through 21-inch gravity sewer upstream of PS 147, PS 148, PS 177, PS 170, PS 112, and PS 211. This project also included construction of approximately 45,610 feet of 6-inch through 36-inch force main in the South Basin.

Table 3-31 shows the detailed scope of this project.

TABLE 3-31
10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group A]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 147-00051A	Connect to Existing MH 147-00051	40	12	Gravity
Connect to Existing MH 148-0038	MH 148-0037	100	12	Gravity
MH 148-0037	MH 148-0037A	130	12	Gravity
MH 148-0037A	MH 148-0037B	90	12	Gravity
MH 148-0037B	MH 148-0037C	170	12	Gravity
MH 148-0037C	MH 148-0037D at PS 148	110	12	Gravity
MH 177-000180	MH 177-000184	180	12	Gravity
MH 177-000184	MH 177-000185	180	12	Gravity
MH 177-000185	MH 177-000186	310	12	Gravity
MH 177-000186	MH 177-000187	110	12	Gravity
MH 177-000187	MH 177-00010C	120	12	Gravity
MH 177-00010C	MH 177-00010B	280	12	Gravity
MH 177-00010B	MH 177-00010A	120	12	Gravity

TABLE 3-31
10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group A]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 170-00020	MH 170-00019	260	12	Gravity
MH 170-00019	MH 170-00018	210	12	Gravity
MH 170-00018	MH 170-00015B	130	15	Gravity
MH 170-00015B	MH 170-00015C	190	15	Gravity
MH 170-00015C	MH 170-00013	190	15	Gravity
MH 170-00013	MH 170-00010	300	15	Gravity
MH 170-00010	MH 170-00010A	130	15	Gravity
MH 170-00010A	MH 170-00010B	30	16	Gravity
MH 170-00010B	MH 170-00010C	150	15	Gravity
MH 170-00010C	MH 170-00010D	240	15	Gravity
MH 170-00010D	MH 170-00010E	290	15	Gravity
MH 170-00010E	MH 170-00010F	260	15	Gravity
MH 170-00010F	MH 170-00010G	120	15	Gravity
MH 170-00010G	MH 170-00006A	80	15	Gravity
MH 170-00006A	MH 170-00006B	90	15	Gravity
MH 170-00006B	MH 170-00006C	200	15	Gravity
MH 170-00006C	MH 170-00004	240	15	Gravity
MH 170-00004	MH 170-00003	240	15	Gravity
MH 170-00003	MH 170-00002	300	15	Gravity
MH 170-00002	MH 170-00167	20	15	Gravity
MH 170-00167	MH 170-00167B	140	18	Gravity
MH 170-00167B	MH 170-00166	380	18	Gravity
MH 170-00166	MH 170-00001	30	18	Gravity
MH 170-00001	MH 170-00001A	60	18	Gravity
MH 170-00001A	PS 170	30	18	Gravity
MH 170-00001B	PS 170	100	21	Gravity
MH 170-00023I	MH 170-00023H	340	12	Gravity
MH 170-00023H	MH 170-00023G	280	12	Gravity
MH 170-00023G	MH 170-00090	50	12	Gravity
MH 170-00090	MH 170-00023F	320	12	Gravity
MH 170-00023F	MH 170-00078	40	12	Gravity
MH 170-00078	MH 170-00023C	440	12	Gravity
MH 170-00023C	MH 170-00023B	160	12	Gravity

TABLE 3-31
10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group A]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 170-00023B	MH 170-00023A	70	12	Gravity
MH 170-00023A	MH 170-00023	190	12	Gravity
MH 170-00023	MH 170-00001B	40	21	Gravity
MH 112-00013	MH 112-00009	410	18	Gravity
MH 112-00009	MH 112-00002	420	18	Gravity
MH 112-00002	MH 112-00001	140	18	Gravity
MH 211-00001N	MH 211-00001M	290	12	Gravity
MH 211-00001M	MH 211-00001L	300	12	Gravity
MH 211-00001L	MH 211-00001K	300	12	Gravity
MH 211-00001K	MH 211-00001J	130	12	Gravity
MH 211-00001J	MH 211-00001I	120	12	Gravity
MH 211-00001I	MH 211-00001H	150	12	Gravity
MH 211-00001H	MH 211-00001G	30	12	Gravity
MH 211-00001G	MH 211-00001F	100	12	Gravity
MH 211-00001F	MH 211-00001E	120	12	Gravity
MH 211-00001E	MH 211-00001D	300	12	Gravity
MH 211-00001D	MH 211-00001C	150	12	Gravity
MH 211-00001C	MH 211-00001B	150	12	Gravity
MH 211-00001B	MH 211-00001A	280	12	Gravity
MH 211-00001A	MH 211-00001	30	12	Gravity
MH 211-00001	MH 211-0000AA	10	18	Gravity
MH 211-0000AA	MH 211-0000BB	120	18	Gravity
MH 211-0000BB	PS 211	20	18	Gravity
PS 148	MH 147-00051A	1,820	6	Force Main
PS 258	Tie-In to Existing 30-inch STN Force Main at Antler Drive	1,110	6	Force Main
PS 172	Tee with 36-inch PS 777 Force Main	520	6	Force Main
PS 379	MH 201-00021A	1,270	6	Force Main
PS 147	Tie-In to Existing 10-inch STN Force Main at Jefferson Highway	2,370	10	Force Main
PS 170	Tie-In to Existing 42-inch STN Force Main at Jefferson Highway	4,760	20	Force Main
PS 232	MH 170-00020	1,400	8	Force Main

TABLE 3-31
10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group A]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 213	Tee with new 12-inch Force Main at Achord Drive	1,330	6	Force Main
Tee with New 12-inch Force Main at Achord Drive	Tee with Existing 4-inch Force Main from PS 410	1,290	12	Force Main
Tee with Existing 4-inch Force Main from PS 410	Tee with Existing 12-inch STN Force Main at Antioch Road	1,920	16	Force Main
Tee with Existing 12-inch STN Force Main at Antioch Road	Tee with Existing 10-inch Force Main from PS 111	1,390	16	Force Main
Tee with Existing 10-inch Force Main from PS 111	Tie-In to Existing 24-inch STN Force Main at Jones Creek Road	1,940	24	Force Main
PS 112	PS 111	4,370	10	Force Main
PS 347	PS 247	4,160	8	Force Main
PS 247	Tee with 6-inch Force Main from PS 213 at Achord Drive	3,000	12	Force Main
PS 211	12-inch to 14-inch Increaser at North end of Woodlake Drive bridge	460	12	Force Main
12-inch to 14-inch Increaser at North end of Woodlake Drive bridge	Tee with Existing Force Main from PS 316	560	14	Force Main
Tee with Existing Force Main from PS 316	Tee with Existing Force Main from PS 391	4,630	14	Force Main
Tee with Existing Force Main from PS 391	Tee with Existing Force Main from PS 390	640	14	Force Main
Tee with Existing Force Main from PS 390	Tee with Existing Force Main from PS 442	1,190	14	Force Main
Tee with Existing Force Main from PS 442	Tee with Existing Force Main from PS 427	1,240	14	Force Main
Tee with Existing Force Main from PS 427	Tie-In to Existing 14-inch STN Force Main at South Harrell's Ferry Road and Autumn Leaf Parkway	300	14	Force Main
PS 296	MH 211-00001N	2,110	8	Force Main
Existing BPS 777	Tee with PS 172 Force Main	950	36	Force Main
Tee with PS 172 Force Main	PS 777	880	36	Force Main

Note: The pipe lengths were obtained from the conformed documents.

3.2.29 10-FM-MS-008B (O'Neal Lane Sewer Area Upgrades [Group B])

Project Description

Purpose of the Project/Project Background

The 10-FM-MS-008A (O'Neal Lane Sewer Area Upgrades [Group A]) and 10-FM-MS-008B (O'Neal Lane Sewer Area Upgrades [Group B]) projects included segments previously included in SFU-C-0005 (O'Neal Lane - Tiger Bend Road) and SFU-C-0006 (O'Neal Lane - Jones Creek Road).

These projects involved upsizing of the gravity main in an area that extends north of Florida Boulevard to the Monticello Subdivision and continues south to include the Shenandoah and Old Jefferson areas of East Baton Rouge Parish. The upgrades were developed to alleviate chronic SSOs at pump stations and increase the gravity main capacity. Force main upgrades are in an area that extends north of Florida Boulevard to the Monticello Subdivision and continues south to include the Shenandoah and Old Jefferson areas of East Baton Rouge Parish. These upgrades were developed to alleviate chronic SSOs at the pump stations and increase the force main capacity.

Refer to Figure 3-56.

Scope

The 10-FM-MS-008B (O'Neal Lane Sewer Area Upgrades [Group B]) project included construction of approximately 16,490 feet of 4-inch through 12-inch force main in the South Basin.

Table 3-32 shows the detailed scope of this project.

TABLE 3-32
10-FM-MS-008B (O'Neal Lane Sewer Area Upgrades [Group B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 101A	8-inch In increaser at PS 101A	10	6	Force Main
8-inch In increaser at PS 101A	Tee with 18-inch/20-inch PS 508 Force Main	1,680	8	Force Main
PS 189	Tee with New 24-inch Force Main	1,480	8	Force Main
PS 224	Tie-In to Existing 12-inch STN Force Main at O'Neal Lane	3,100	12	Force Main
PS 139	PS 224	1,850	4	Force Main
PS 77	Tie-In to Existing 10-inch STN Force Main at South Harrell's Ferry Road	1,360	10	Force Main
PS 162	Tie-In to Existing 8-inch STN Force Main at South Harrell's Ferry Road	1,270	8	Force Main
PS 173	MH 162-0002A	2,860	6	Force Main
PS 191	Tie-In to Existing 16-inch STN Force Main at O'Neal Lane	2,880	10	Force Main

Note: The pipe lengths were obtained from the conformed documents and value engineering changes.

3.2.30 09-FM-MS-036A (Pump Station 42 Force Main [Phase 1])

Project Description

Purpose of the Project/Project Background

The 09-FM-MS-036A (Pump Station 42 Force Main [Phase 1]) and 09-FM-MS-036B (Pump Station 42 Force Main [Phase 2]) projects included the design and construction of the force main to convey flow from PS 42 FM to the South WWTP. In addition, force mains were constructed from the proposed LSU pump station to PS 42 and from PS 505A to the PS 42 Force Main. These projects also included segments of two other separate force mains that were part of the 08-FM-ST-0023 (Highland Road - Burbank Drive Sewer Area Upgrades) project and the 09-PS-UF-0001 (Pump Station 58 Replacement) project.

The project purpose was to redirect flows within the Central Basin to the South WWTP and accommodate upgrades within the South Basin following completion of construction of the 08-TP-BD-0055 (South WWTP Wet Weather Improvements [Phase 2]) project.

This project was designed as one project but was constructed as two projects. The location of the projects is shown in Figure 3-57.

The new PS 505A force main connects with the new PS 505A being constructed in the 09-PS-MS-0048 (Multiple Pump Stations – Nicholson Drive – Brightside Lane) project.

Scope

The scope of this project is shown in Table 3-33.

The project included approximately 38,750 feet of new 14-inch through 64-inch force main as well as approximately 930 feet of 18-inch gravity sewer.

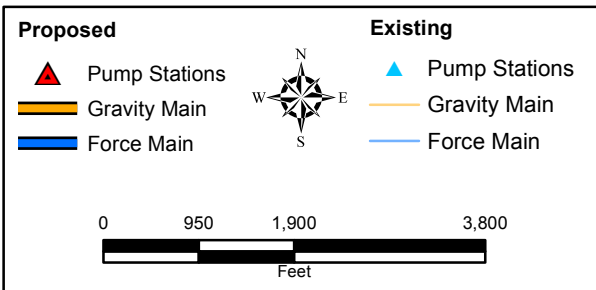
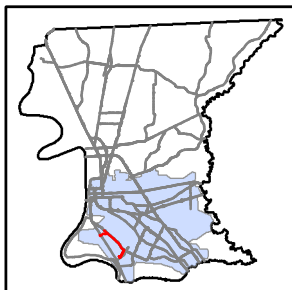
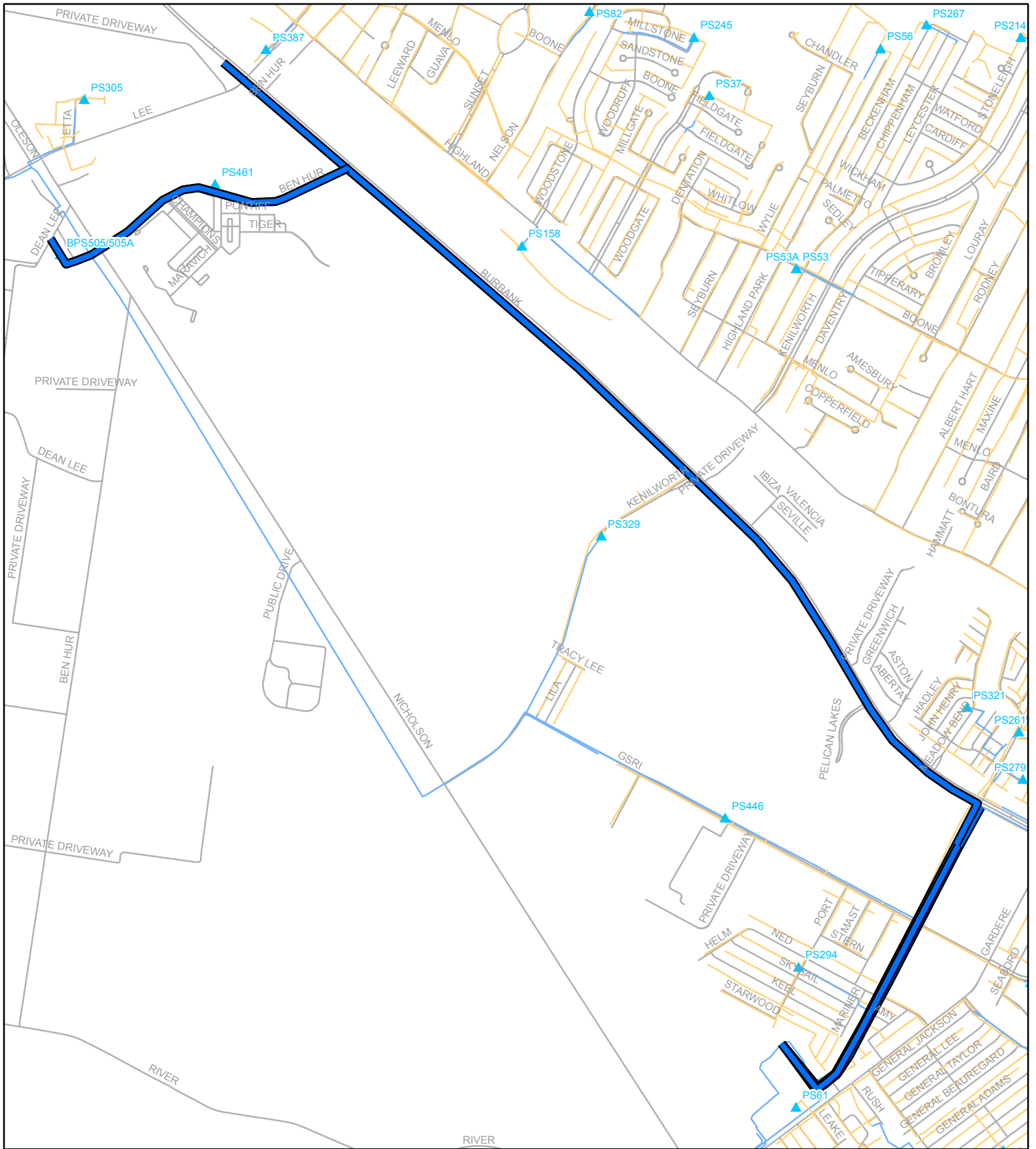
TABLE 3-33
09-FM-MS-036A (Pump Station 42 Force Main [Phase 1]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
48-inch Plug at West of Lee Drive and Burbank Drive to Connect with PS 42 Force Main Phase 2	Tee with PS 5 Force Main from Central Consolidated Force Main Phase II	1,300	48	Force Main
Tee with PS 5 Force Main from Central Consolidated Force Main Phase II	Tee with Existing PS 505 Force Main	22,720	54	Force Main
Tee with Existing PS 505 Force Main	Connect to 60-inch Force Main at South WWTP	2,170	60	Force Main
60-inch Plug from Staring Lane Force Main Phase 1	Connect to 64-inch Force Main at South WWTP	3,700	64	Force Main
60-inch Plug from Highland Road - Burbank Drive	Connect to 60-inch Force Main at South WWTP	4,110	60	Force Main
PS 505A	Tee with PS 42 Force Main at east of Lee Drive and Burbank Drive	4,750	14	Force Main
MH at STA 539+90 (near Existing MH 061-00379)	MH at STA 544+40	450	18	Gravity

TABLE 3-33
09-FM-MS-036A (Pump Station 42 Force Main [Phase 1]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH at STA 544+40	MH at STA 548+70	430	18	Gravity
MH at STA 548+70	MH at STA 548+97	40	18	Gravity
MH at STA 548+97	Existing MH 061-00374	10	18	Gravity

Note: The pipe lengths were obtained from the conformed drawings.



Pump Station 42

Force Main Improvements
[Phase 1]
09-FM-MS-036A

Project Vicinity Map
Figure 3-57

BATON ROUGE **SSO**
Program

3.2.31 09-FM-MS-036B (Pump Station 42 Force Main [Phase 2])

Project Description

Purpose of the Project/Project Background

The 09-FM-MS-036A (Pump Station 42 Force Main [Phase 1]) and 09-FM-MS-036B (Pump Station 42 Force Main [Phase 2]) projects included the design and construction of the force main to convey flow from PS 42 FM to the South WWTP. In addition, force mains were constructed from the proposed LSU pump station to PS 42 and from PS 505A to the PS 42 Force Main. These projects also included segments of two other separate force mains that were part of the 08-FM-ST-0023 (Highland Road - Burbank Drive Sewer Area Upgrades) project and the 09-PS-UF-0001 (Pump Station 58 Replacement) project.

The project purpose was to redirect flows within the Central Basin to the South WWTP and accommodate upgrades within the South Basin following completion of construction of the 08-TP-BD-0055 (South WWTP Wet Weather Improvements [Phase 2]) project.

This project was designed as one project but was be constructed as two projects. The location of the projects is shown in Figure 3-58.

The new LSU force main connects with the new LSU pump station being constructed in the 10-PS-MS-0009 (Multiple Pump Stations - Highland Road - Kenilworth Parkway) project to PS 42. This force main parallels the 48-inch force main alignment.

Scope

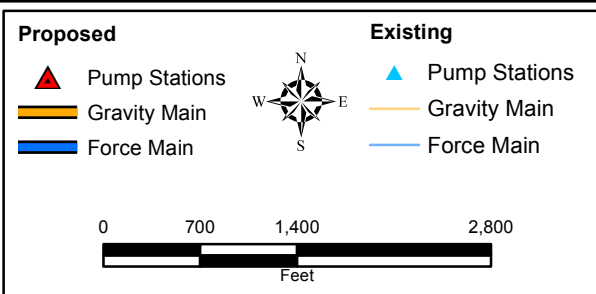
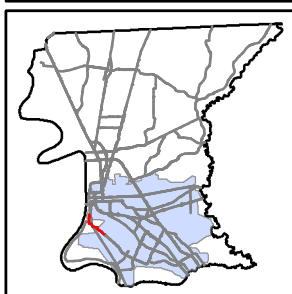
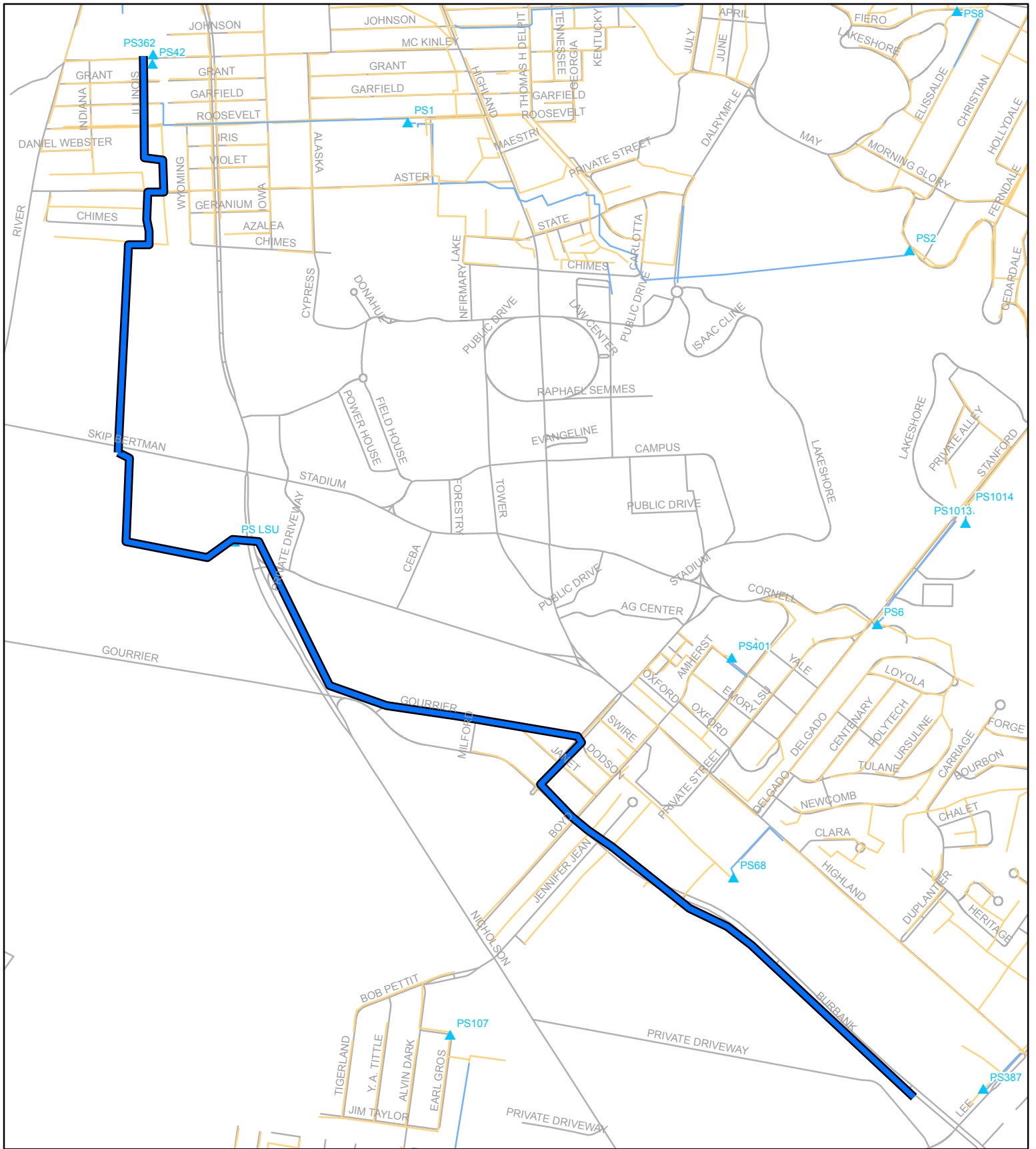
The scope of this project is shown in Table 3-34.

The project included approximately 31,280 feet of new 20-inch through 48-inch force main.

TABLE 3-34
09-FM-MS-036B (Pump Station 42 Force Main [Phase 2]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 42	Connect to 48-inch Force Main from PS 42 Force Main – Phase 1	19,320	48	Force Main
LSU PS	Tee with PS 1 Force Main	8,910	20	Force Main
Tee with PS 1 Force Main	PS 42	460	30	Force Main
Connect to Existing 36-inch Force Main from PS 1 on Roosevelt Street west of Nicholson Drive	Tee with LSU PS Force Main	2,590	20	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Pump Station 42

Force Main Improvements
[Phase 2]
09-FM-MS-036B

Project Vicinity Map
Figure 3-58

BATON ROUGE **SSO**
Program

3.2.32 09-PS-UF-0003 (Pump Station 42 Improvements)

Project Description

Purpose of the Project/Project Background

The 09-PS-UF-0003 (Pump Station 42 Improvements) project included the design and construction of one 57 mgd (40,000 gpm) pump station facility (PS 42), vapor phase biotower-type odor control, and associated piping and valves to pump the flow from PS 1, PS 59, and the LSU pump station to the South WWTP. The project also included piping to bring the flow from PS 59 to the new PS 42 from the existing Central WWTP site. PS 42 pumped through the new force main described in the project entitled 09-FM-MS-036A (Pump Station 42 Force Main [Phase 1]) and 09-FM-MS-036B (Pump Station 42 Force Main [Phase 2]). The Central WWTP was decommissioned and demolished when this project and associated projects were functionally complete.

The Pump Station 42 Improvements project is located adjacent to the existing Central WWTP property at 2443 River Road, south of the downtown Baton Rouge area. The location of the new pump station is on existing property owned by the C-P and is shown in Figure 3-59.

Scope

The scope of this project is shown in Table 3-35 (pump station) and Table 3-36 (force main).

TABLE 3-35
09-PS-UF-0003 (Pump Station 42 Improvements) – Pump Station Information

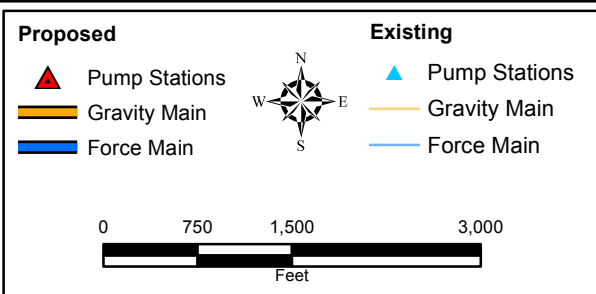
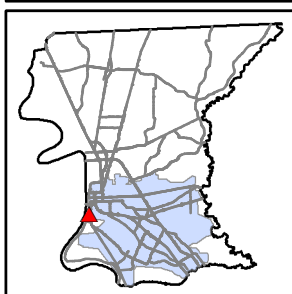
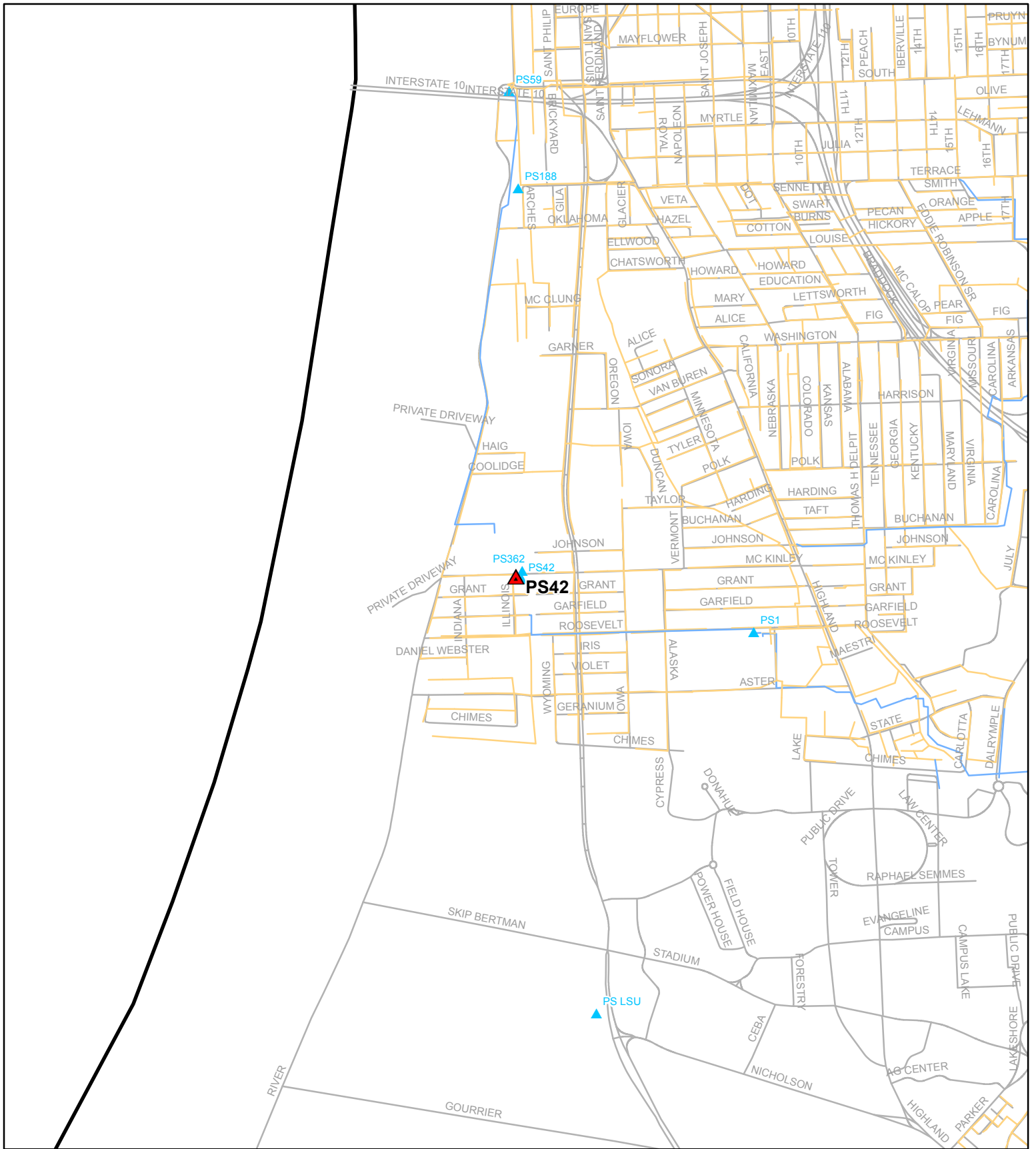
PS No.	Location	Existing Max Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 42	2443 River Bend	29,400	8,000	40,000

Note: The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 3-36
09-PS-UF-0003 (Pump Station 42 Improvements) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Connect to Existing 36-inch PS 59 Force Main at Existing Central WWTP	PS 42	1,870	36	Force Main

Note: The pipe lengths were obtained from the conformed drawings.




Pump Station 42

Pump Station Improvement

09-PS-UF-0003

Project Vicinity Map
Figure 3-59



BATON ROUGE **SSO**
Program

3.2.33 09-PS-UF-0001 (Pump Station 58 Replacement)

Project Description

Purpose of the Project/Project Background

The 09-PS-UF-0001 (Pump Station 58 Replacement) project included the construction of a new overflow pump station (PS 58) that handles the existing flow conditions and the predicted future wet weather peak flow. The design of a single pump station was selected as the best design option to meet the long-term needs of the C-P and the sensitive environmental and aesthetic concerns of the surrounding area.

The purpose of this project was to relieve SSOs at PS 58 and in the respective upstream and downstream basins. This project was related to the following projects: 06-CS-HC-0030 (Staring Lane Extension – Phase 1 [Burbank Drive - LA 42 to Highland Road]), 06-CS-HC-0024 (Staring Lane Roadway Improvements – Phase 2 [Highland Road to Perkins Road]), and 06-WC-CP-0036 (Staring Lane Sewer Improvements – Phase 3 [Perkins Road to Pump Station 58]), which involved the construction of the force main from PS 58 to the South WWTP.

The project site and existing PS 58 are located at the entrance of the Louisiana State University (LSU) Burden Center. The location of PS 58 is shown in Table 3-37 and in Figure 3-60.

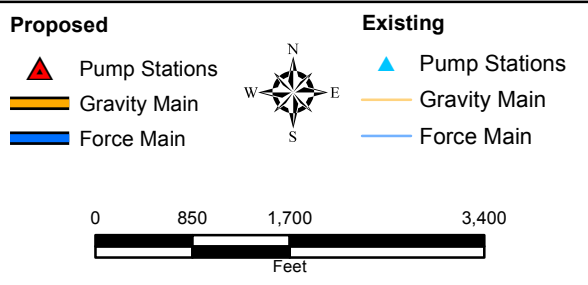
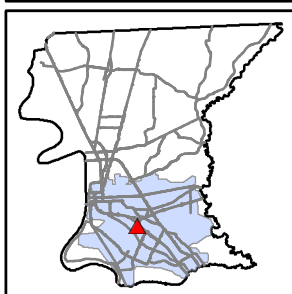
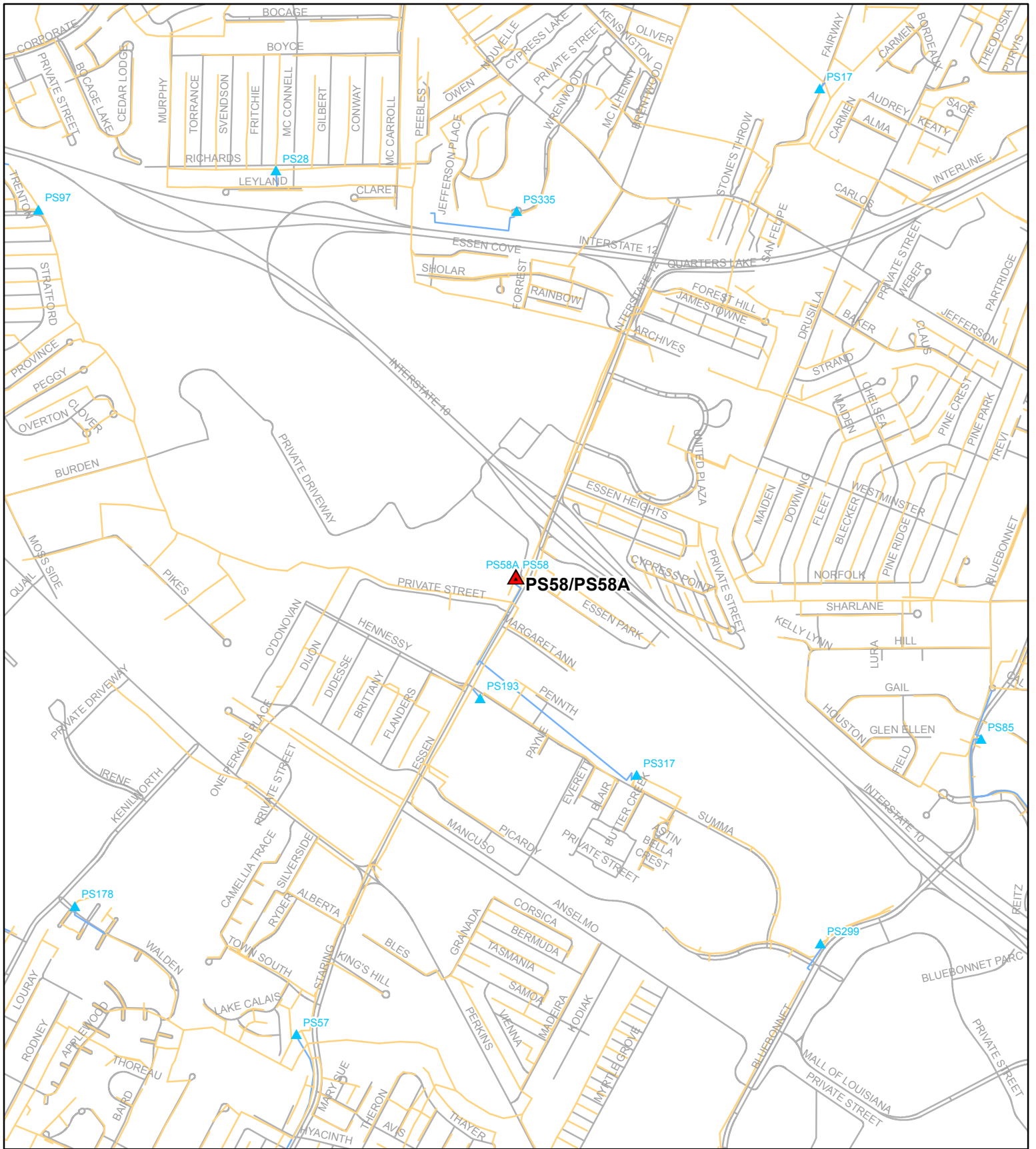
Scope

The current PS 58 did not have enough pumping capacity to handle the predicted future wet weather peak flow. PS 58 was replaced with a pump station that will handle both the existing flow conditions and future wet weather peak flow conditions. The new pump station pumps flow into the downstream gravity system when flows do not exceed 20,870 gpm. When flows exceed 20,870 gpm, the pump station pumps excess flow directly to the South WWTP through PS 58A. The proposed pump station scope is shown in Table 3-37.

TABLE 3-37
09-PS-UF-0001 (Pump Station 58 Replacement) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather Flow (gpm)	Future Peak Wet Weather Flow (gpm)
PS 58A	Intersection of Essen Lane and Essen Park	New	0	62,500
PS 58	Intersection of Essen Lane and Essen Park	24,000	10,600	20,850

Note: The existing maximum capacity for the existing pump stations was obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Pump Station 58

Replacement

09-PS-UF-0001

Project Vicinity Map
Figure 3-60



BATON ROUGE **SSO**
Program

3.2.34 11-FM-MS-0005 (Sherwood Forest Boulevard - Goodwood Boulevard Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The 11-FM-MS-0005 (Sherwood Forest Boulevard – Goodwood Boulevard Sewer Area Upgrades) project includes the upgrade of gravity sewers upstream of PS 13, PS 50, PS 21, PS 31, and PS 101 to alleviate SSOs as well as the addition of force main downstream of PS 151, PS 101, PS 21, and PS 13.

The project includes necessary rehabilitation work in conjunction with alignment reroutes, which were considered to be the least impactful routes. The segments, which will be rehabbed as part of this project, are part of the PS 31 and PS 50 basins.

The gravity sewer and force main segments that comprise this project are shown in Figure 3-61.

Scope

The scope of the pipeline replacement in this project is shown in Table 3-38. This project includes the construction of approximately 13,350 feet of 8-inch, 10-inch, 12-inch, 15-inch, 18-inch, 21-inch, 24-inch, and 36-inch gravity sewer upstream of PS 50, PS 21, PS 101, and PS 31. This project also includes 15,780 feet of 8-inch, 12-inch, and 18-inch force main downstream of PS 21, PS 31, PS 101, and PS 151. In addition, rehabilitation work is required for several segments in the PS 31 and PS 50 basins, with gravity sewer piping ranging in diameter from 8-inches to 18-inches.

TABLE 3-38
11-FM-MS-0005 (Sherwood Forest Boulevard - Goodwood Boulevard Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 013-00049	MH 013-00012A	280	15	Gravity
MH 013-00012A	MH 013-00012	310	15	Gravity
MH 013-00012	MH 013-00001A	30	15	Gravity
MH 013-00001A	MH 013-00001B	160	15	Gravity
MH 013-00001B	MH 013-01009	40	21	Gravity
MH 013-01009	MH 013-01008	140	21	Gravity
MH 013-01008	MH 013-01007	210	21	Gravity
MH 013-01007	MH 013-01006	130	21	Gravity
MH 013-01006	MH 050-01005	250	21	Gravity
MH 050-01005	MH 050-01004	310	21	Gravity
MH 050-01004	MH 050-01003	250	21	Gravity
MH 050-01003	MH 050-01002	250	21	Gravity
MH 050-01002	MH 050-01001	240	21	Gravity
MH 050-01001	MH 050-01000	170	21	Gravity

TABLE 3-38
11-FM-MS-0005 (Sherwood Forest Boulevard - Goodwood Boulevard Sewer Area Upgrades) –
Pipeline Information

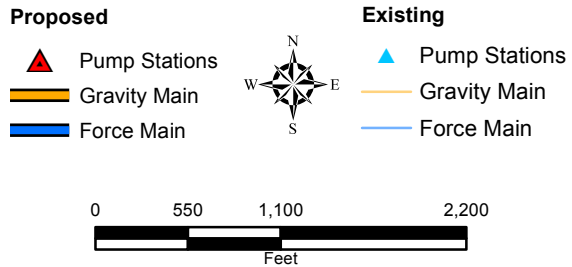
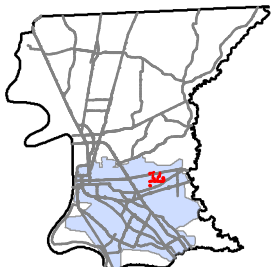
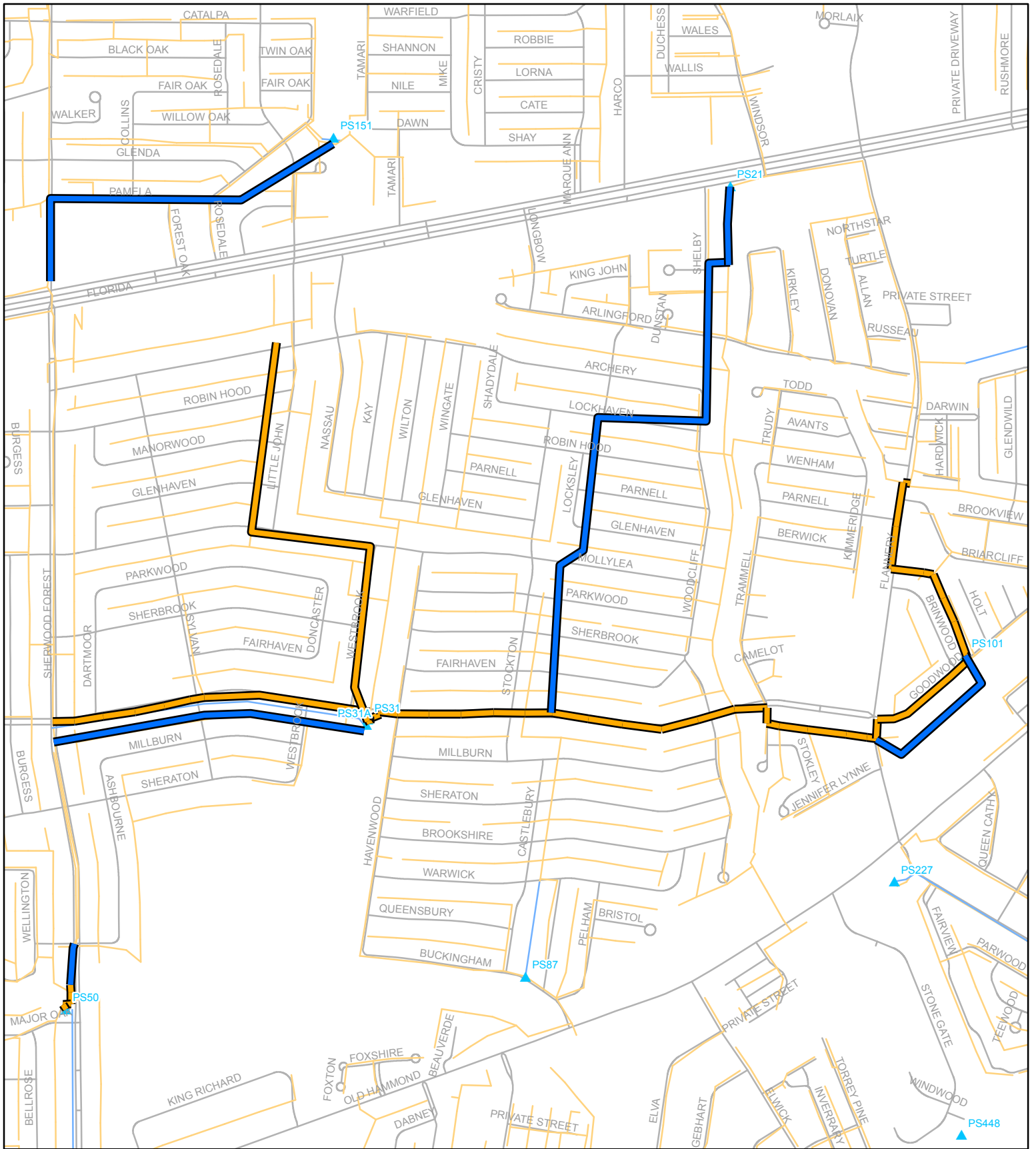
Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 050-00530A	MH 050-00530	60	36	Gravity
MH 050-00530	MH 050-00520	300	36	Gravity
MH 050-00520	MH 050-00520D	30	36	Gravity
MH 050-00520D	MH 050-00300B	160	36	Gravity
Ex. MH 021-00009	MH 021-00018A	160	18	Gravity
MH 021-00018A	MH 021-00008A	140	18	Gravity
MH 021-00008A	MH 021-00008	120	18	Gravity
MH 021-00008	MH 021-00007	180	18	Gravity
MH 021-00007	MH 021-00007A	160	18	Gravity
MH 021-00007A	MH 021-00001	160	18	Gravity
Ex. MH 021-00007A	MH 021-00007A	10	8	Gravity
MH 021-00001	MH 021-00001A	40	18	Gravity
MH 021-00001A	MH 021-00001B	270	18	Gravity
MH 021-00001B	MH 021-00001C	180	18	Gravity
MH 021-00001C	MH 021-00001H	260	18	Gravity
MH 021-00001H	MH 021-00001J	300	18	Gravity
MH 021-00001J	MH 021-00001K	230	18	Gravity
MH 021-00001J	MH 021-00001E	30	18	Gravity
MH 021-00001K	MH 021-00001L	410	18	Gravity
MH 021-00001L	MH 021-00001M	30	18	Gravity
MH 021-00001M	PS 21	10	18	Gravity
MH 031-00072AJ	MH 031-00072AI	290	12	Gravity
MH 031-00072AI	MH 031-00072AH	290	12	Gravity
MH 031-00072AH	MH 031-00072AG	200	12	Gravity
MH 031-00072AG	MH 031-00072AF	60	12	Gravity
MH 031-00072AF	MH 031-00072AE	290	12	Gravity
MH 031-00072AE	MH 031-00072AD	290	12	Gravity
MH 031-00072AD	MH 031-00072AC	290	12	Gravity
MH 031-00072AC	MH 031-00072AB	60	12	Gravity
MH 031-00072AB	MH 031-00072AA	260	24	Gravity
MH 031-00072AA	MH 031-00072A	290	24	Gravity

TABLE 3-38
11-FM-MS-0005 (Sherwood Forest Boulevard - Goodwood Boulevard Sewer Area Upgrades) –
Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 031-00072A	MH 031-00072B	240	24	Gravity
MH 031-00072B	MH 031-00072C	340	24	Gravity
MH 031-00072C	MH 031-00001A	360	24	Gravity
MH 031-00001A	MH 031-00001	140	24	Gravity
MH 031-00036A	MH 031-00036	40	15	Gravity
MH 031-00036	MH 031-00035B	150	15	Gravity
MH 031-00035B	MH 031-00035A	80	15	Gravity
MH 031-00035A	MH 031-00035	150	15	Gravity
MH 031-00035	MH 031-00072AJ	260	12	Gravity
MH 031-00072ABC	MH 031-00072ABB	170	8	Gravity
MH 031-00004	MH 031-00005	280	8	Gravity
MH 031-00005	MH 031-00072ABB	290	8	Gravity
MH 031-00072ABB	MH 031-00072ABA	140	8	Gravity
MH 031-00072ABA	MH 031-00072AB	30	24	Gravity
MH 101-00024A	MH 101-00024B	280	10	Gravity
MH 101-00024B	MH 101-00024C	250	10	Gravity
MH 101-00024C	MH 101-00016A	250	10	Gravity
MH 101-00016A	MH 101-00015	160	10	Gravity
MH 101-00015	MH 101-00014	120	10	Gravity
MH 101-00014	MH 101-00013	90	10	Gravity
MH 101-00013	MH 101-00012	90	10	Gravity
MH 101-00012	MH 101-00001E	290	10	Gravity
MH 101-00001E	MH 101-00001D	240	10	Gravity
MH 101-00001D	MH 101-00001C	120	10	Gravity
MH 101-00001C	MH 101-00001B	140	10	Gravity
MH 101-00001B	MH 101-00001BA	130	10	Gravity
MH 101-00001BA	MH 101-00001BB	190	10	Gravity
PS 151	MH 050-00271	3,700	12	Force Main
PS 21	MH 031-00072ABA	5,700	12	Force Main
PS 31	MH 050-00547	3,400	18	Force Main
PS 101	031-00111	2,980	8	Force Main

Note: The pipe lengths were obtained from the 100% design drawings.

¹MH= manhole



Sherwood Forest Boulevard - Goodwood Boulevard

Sewer Area Upgrades

11-FM-MS-0005

Project Vicinity Map

Figure 3-61



BATON ROUGE **SSO**
Program

3.2.35 08-GS-ST-0018 & 09-GS-UF-0008 (South Boulevard - St. Joseph Street/ 25th Street - North Acadian Thruway Sewer Area Upgrades)

Project Description

Purpose of the Project/Background Information

The purpose of this project was to increase the capacity of the gravity sewers upstream PS 59 and PS 60. Nearly 3,000 feet of gravity sewer and the force main from PS 10 were deleted from this project due to hydraulic modeling updates. The October 2009 version of the PDP also added construction of gravity segments that were part of 09-GS-UF-0008 (25th Street – North Acadian Thruway) to improve constructability and scheduling issues. This section also includes information about those segments. A second, Phase B, project was added in 2012 to address additional issues that were not known during design but discovered during construction of the initial project. The new project was entitled “South Boulevard- St. Joseph Street – Phase B.”

Scope – Initial Project

The project consisted of approximately 18,300 feet of gravity sewer upstream of PS 59 and PS 60. Table 3-39 shows the scope of this project.

The locations of the gravity sewers in this project are shown in Figures 3-62.

TABLE 3-39

08-GS-ST-0018 & 09-GS-UF-008 (South Boulevard - St. Joseph Street/25th Street - North Acadian Thruway Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Tie to Existing MH	MH A-7	10	42	Gravity
MH A-7	MH A-6	280	42	Gravity
MH A-6	MH A-5	350	42	Gravity
MH A-5	MH A-4	310	42	Gravity
MH A-4	MH A-3	210	42	Gravity
MH A-3	MH A-2	190	48	Gravity
MH A-2	MH A-1 near PS 59	140	48	Gravity
MH B-16	MH B-15	20	36	Gravity
MH B-15	MH B-14	240	36	Gravity
MH B-14	MH B-13	50	36	Gravity
MH B-13	MH B-12	200	36	Gravity
MH B-12	MH B-11	200	36	Gravity
MH B-11	MH B-10	200	36	Gravity
MH B-10	MH B-9	170	36	Gravity
MH B-9	MH B-8	190	36	Gravity
MH B-8	MH B-7	140	36	Gravity

TABLE 3-39

08-GS-ST-0018 & 09-GS-UF-008 (South Boulevard - St. Joseph Street/25th Street - North Acadian Thruway Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH B-7	MH B-6	50	36	Gravity
MH B-6	MH B-5	10	36	Gravity
MH B-5	MH B-4	10	36	Gravity
MH B-4	MH B-3	210	36	Gravity
MH B-3	MH B-2	210	36	Gravity
MH B-2	MH B-1	50	36	Gravity
MH C-6	MH C-5	50	36	Gravity
MH C-5	MH C-4	310	36	Gravity
MH C-4	MH C-3	210	36	Gravity
MH C-3	MH C-2	20	48	Gravity
MH C-2	MH C-1 near PS 59	10	48	Gravity
MH D-28	MH D-27	30	21	Gravity
MH D-27	MH D-26	130	21	Gravity
MH D-26	MH D-25	380	21	Gravity
MH D-25	MH D-24	340	21	Gravity
MH D-24	MH D-23	220	21	Gravity
MH D-23	MH D-22	20	21	Gravity
MH D-22	MH D-21	110	21	Gravity
MH D-21	MH D-20	270	21	Gravity
MH D-20	MH D-19	310	21	Gravity
MH D-19	MH D-18	10	21	Gravity
MH D-18	MH D-17	250	21	Gravity
MH D-17	MH D-16	150	21	Gravity
MH D-16	MH D-15	330	24	Gravity
MH D-15	MH D-14	300	24	Gravity
MH D-14	MH D-13	40	24	Gravity
MH D-13	MH D-12	40	24	Gravity
MH D-12	MH D-11	260	24	Gravity
MH D-11	MH D-10	90	24	Gravity
MH D-10	MH D-9	150	24	Gravity
MH D-9	MH D-8	210	24	Gravity
MH D-8	MH D-7	160	24	Gravity

TABLE 3-39
08-GS-ST-0018 & 09-GS-UF-008 (South Boulevard - St. Joseph Street/25th Street - North Acadian
Thruway Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH D-7	MH D-6	210	24	Gravity
MH D-6	MH D-5	60	24	Gravity
MH D-5	MH D-4	320	24	Gravity
MH D-4	MH D-3	340	24	Gravity
MH D-3	MH D-2	30	24	Gravity
MH D-2	MH D-1	380	24	Gravity
MH E-19	MH E-18	90	15	Gravity
MH E-18	MH E-17	250	15	Gravity
MH E-17	MH E-16	190	15	Gravity
MH E-16	MH E-15	190	15	Gravity
MH E-15	MH E-14	200	15	Gravity
MH E-14	MH E-13	180	15	Gravity
MH E-13	MH E-12	10	24	Gravity
MH E-12	MH E-11	330	24	Gravity
MH E-11	MH E-10	50	24	Gravity
MH E-10	MH E-9	290	24	Gravity
MH E-9	MH E-8	280	24	Gravity
MH E-8	MH E-7	180	27	Gravity
MH E-7	MH E-6	380	27	Gravity
MH E-6	MH E-5	40	27	Gravity
MH E-5	MH E-4	280	27	Gravity
MH E-4	MH E-3	50	27	Gravity
MH E-3	MH E-2	390	27	Gravity
MH E-2	MH E-1	20	27	Gravity
Connect to Existing MH at 11 th Street and Government Street	MH STA 25+35.33	10	15	Gravity
MH STA 25+35.33	MH STA 25+21.54	10	15	Gravity
MH STA 25+21.54	MH STA 23+97.89	120	15	Gravity
MH STA 23+97.89	MH STA 21+26.80	270	15	Gravity
MH STA 21+26.80	MH STA 20+40.89	90	15	Gravity
MH STA 20+40.89	MH STA 18+88.45	150	15	Gravity
MH STA 18+88.45	MH STA 17+13.45	180	15	Gravity
MH STA 17+13.45	MH STA 16+97.22	20	15	Gravity

TABLE 3-39
08-GS-ST-0018 & 09-GS-UF-008 (South Boulevard - St. Joseph Street/25th Street - North Acadian Thruway Sewer Area Upgrades) – Pipeline Information

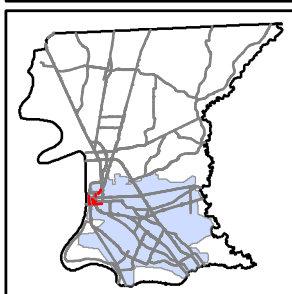
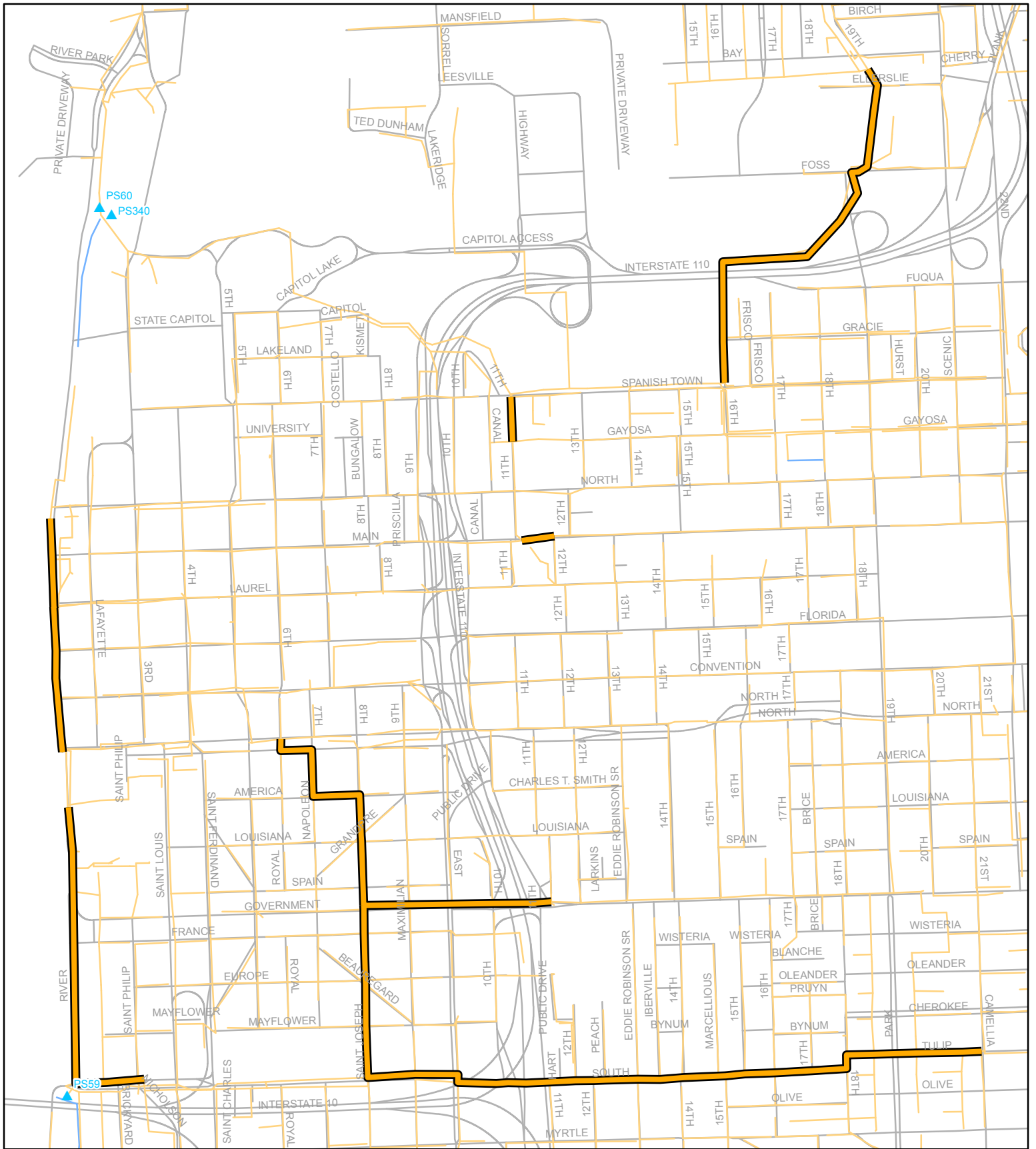
Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH STA 16+97.22	MH STA 13+77.66	300	15	Gravity
MH STA 13+77.66	MH STA 10+21.08	360	15	Gravity
MH STA 10+21.08	Connect to Existing MH at St. Joseph Street and Government Street	20	15	Gravity
MH STA 42+72.66	MH STA 41+37.00	140	24	Gravity
MH STA 41+37.00	MH STA 38+03.34	330	24	Gravity
MH STA 38+03.34	MH STA 36+39.98	160	24	Gravity
MH STA 36+39.98	MH STA 35+80.64	60	24	Gravity
MH STA 35+80.64	MH STA 34+64.27	120	24	Gravity
MH STA 34+64.27	MH STA 33+86.00	80	24	Gravity
MH STA 33+86.00	MH STA 32+12.50	170	24	Gravity
MH STA 32+12.50	MH STA 27+74.70	440	24	Gravity
MH STA 27+74.70	MH STA 24+34.49	340	24	Gravity
MH STA 24+34.49	MH STA 20+13.79	420	24	Gravity
MH STA 20+13.79	MH STA 17+17.29	300	24	Gravity
MH STA 17+17.29	MH STA 14+01.10	320	24	Gravity
MH STA 14+01.10	MH STA 13+53.21	50	24	Gravity
MH STA 13+53.21	MH STA 10+17.04	340	24	Gravity
MH STA 10+17.04	Connect to Existing MH at Spanish Town Road and 16th Street	20	24	Gravity
MH STA 35+63.30	MH STA 33+86.00	110	18	Gravity
Connect Existing MH 060-07038	MH STA 3+72.00	20	24	Gravity
MH STA 3+72.00	MH STA 3+65.00	10	24	Gravity
MH STA 3+65.00	MH STA 0+00 (near Existing MH 060-06962)	370	24	Gravity
MH STA 0+27	MH STA 0+10	10	10	Gravity
MH STA 0+10	MH STA 0+00 (near Existing MH 060-06962)	10	15	Gravity
MH STA 3+90.55	MH STA 3+65.00	20	18	Gravity
MH STA 3+20.23	MH STA 3+07.56	10	10	Gravity
MH STA 3+07.56	MH STA 0+38.53	270	15	Gravity
MH STA 0+38.53	MH STA 0+28.68	10	15	Gravity

TABLE 3-39

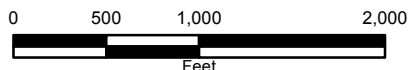
08-GS-ST-0018 & 09-GS-UF-008 (South Boulevard - St. Joseph Street/25th Street - North Acadian Thruway Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH STA 0+28.68	MH STA 0+00 (near Existing MH 060-06933)	30	15	Gravity
MH STA 0+00 (24 feet RT)	MH STA 0+00 (near Existing MH 060-06933)	20	8	Gravity
MH STA 3+07.56 (7 feet LT)	MH STA 3+07.56	10	15	Gravity

Note: The pipe lengths were obtained from the conformed drawings.



- | Proposed | N
W — E
S | Existing |
|---------------|-----------------|---------------|
| Pump Stations | | Pump Stations |
| Gravity Main | | Gravity Main |
| Force Main | | Force Main |



**South Boulevard - St. Joseph
Street/25th Street - North
Acadian Thruway
Sewer Area Upgrades**



08-GS-ST-0018 & 09-GS-UF-0008

Project Vicinity Map

Figure 3-62



3.2.36 08-GS-ST-018B & 09-GS-UF-0008B (South Boulevard - St. Joseph Street – [Phase B])

Project Description

Purpose of the Project/Background Information

The purpose of this project was to increase the capacity of the gravity sewers upstream PS 59 and PS 60. Nearly 3,000 feet of gravity sewer and the force main from PS 10 were deleted from this project due to hydraulic modeling updates. The October 2009 version of the PDP also added construction of gravity segments that were part of 09-GS-UF-0008 (25th Street – North Acadian Thruway) to improve constructability and scheduling issues. This section also includes information about those segments. This second, Phase B, project was added in 2012 to address additional issues that were not known during design but discovered during construction of the initial project.

Scope

The project consisted of approximately 1,760 feet of 8-inch, 10-inch, and 12-inch gravity and approximately 2,520 feet of 36-inch and 60-inch gravity upstream of PS 59. This project also included approximately 1,410 feet of 24-inch and 30-inch force main to extend the PS 60 force main. Table 3-40 shows the scope of this project. The locations of the gravity sewers and force main in this project are shown in Figures 3-63.

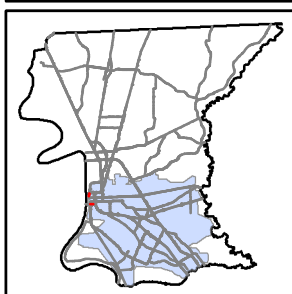
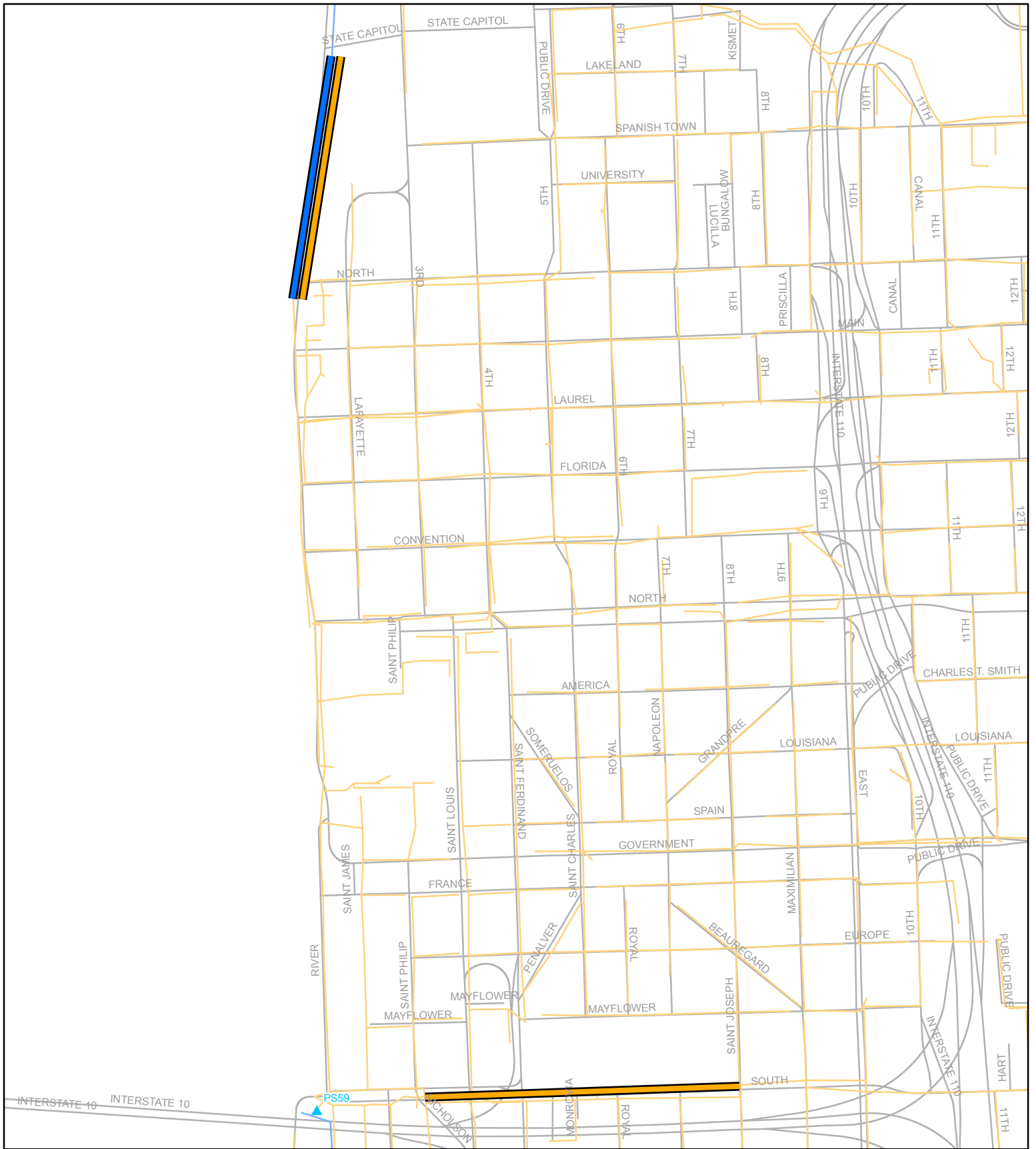
TABLE 3-40
08-GS-ST-018B & 09-GS-UF-008B (South Boulevard - St. Joseph Street – [Phase B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Existing MH E-1 (from South Boulevard - St. Joseph/25 th - North Acadian)	MH C-17	20	36	Gravity
MH C-17	MH C-16	20	36	Gravity
MH C-16	MH C-15	330	36	Gravity
MH C-15	MH C-14	350	36	Gravity
MH C-14	MH C-13	130	36	Gravity
MH C-13	MH C-12	110	36	Gravity
MH C-12	MH C-11	220	36	Gravity
MH C-11	MH C-10	100	36	Gravity
MH C-10	MH C-9	300	36	Gravity
MH C-9	MH C-8	230	36	Gravity
MH C-8	MH C-7	50	36	Gravity
MH C-7	MH C-6	20	36	Gravity
MH C-6	MH C-5	50	36	Gravity
MH C-5	MH C-4	310	36	Gravity
MH C-4	MH C-3	210	36	Gravity

TABLE 3-40
08-GS-ST-018B & 09-GS-UF-008B (South Boulevard - St. Joseph Street – [Phase B]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH C-3	MH C-2	30	60	Gravity
MH C-2	MH C-1	10	60	Gravity
MH C-1	MH C-1-A at PS 59	30	60	Gravity
MH C-4-C	MH C-4-B	120	8	Gravity
MH C-4-B	MH C-4-A	30	8	Gravity
MH C-4-A-1	MH C-4-A	150	8	Gravity
MH C-4-A	MH C-4	50	8	Gravity
Existing MH 059-05885	MH at STA 10+05	10	10	Gravity
MH at STA 10+05	MH at STA 12+45	240	10	Gravity
MH at STA 12+45	MH at STA 15+65	320	10	Gravity
MH at STA 15+65	MH at STA 18+85	320	10	Gravity
MH at STA 18+85	MH at STA 22+05	320	10	Gravity
MH at STA 22+05	MH at STA 22+87	80	10	Gravity
MH at STA 22+87	MH at STA 23+59	70	12	Gravity
MH at STA 23+59	Existing MH B-11 from South Boulevard - St. Joseph/25th - North Acadian	50	12	Gravity
Connect to Existing 30-inch Force Main from Capitol Lake-Gayosa/25th - North Acadian	30-inch x 24-inch Reducer	350	30	Force Main
30-inch x 24-inch Reducer	Existing MH B-11 from South Boulevard - St. Joseph/25th - North Acadian	1,060	24	Force Main

Note: The pipe lengths were obtained from the conformed documents.



Proposed	Existing
Pump Stations	Pump Stations
Gravity Main	Gravity Main
Force Main	Force Main

**South Boulevard -
St. Joseph Street**

Sewer Area Upgrades
[Phase B]
08-GS-ST-018B & 09-GS-UF-008B

Project Vicinity Map
Figure 3-63

BATON ROUGE **SSO**
Program

3.2.37 06-CS-HC-0030 (Staring Lane Extension - Phase 1 [Burbank Drive - LA 42 to Highland Road])

Project Description

Purpose of the Project/Project Background

The 06-CS-HC-0030 (Staring Lane Extension - Phase 1 [Burbank Drive - LA 42 to Highland Road]) project included the construction of a portion of the new force main from the PS 58 overflow pump station to the South WWTP. The purpose of this project was to relieve SSOs at PS 58 and in the respective upstream basins. The construction of the direct force main between PS 58 and the South WWTP alleviated the wet weather flows into the existing downstream gravity pipe and allows the capacity needed for future flows in the Staring Lane area.

This portion of the new force main was constructed as part of the Green Light Program project for the Staring Lane Extension.

This portion of the new force main runs along Staring Lane Extension from Burbank Drive to Highland Road (to the South WWTP), connecting into the Staring Lane force main.

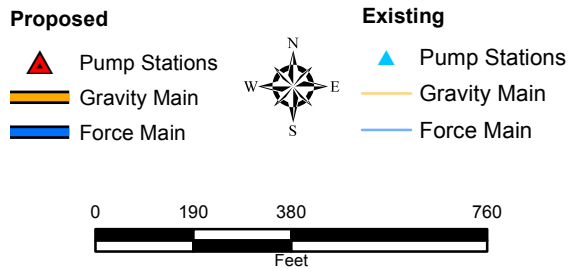
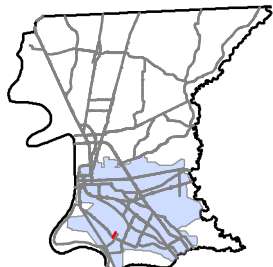
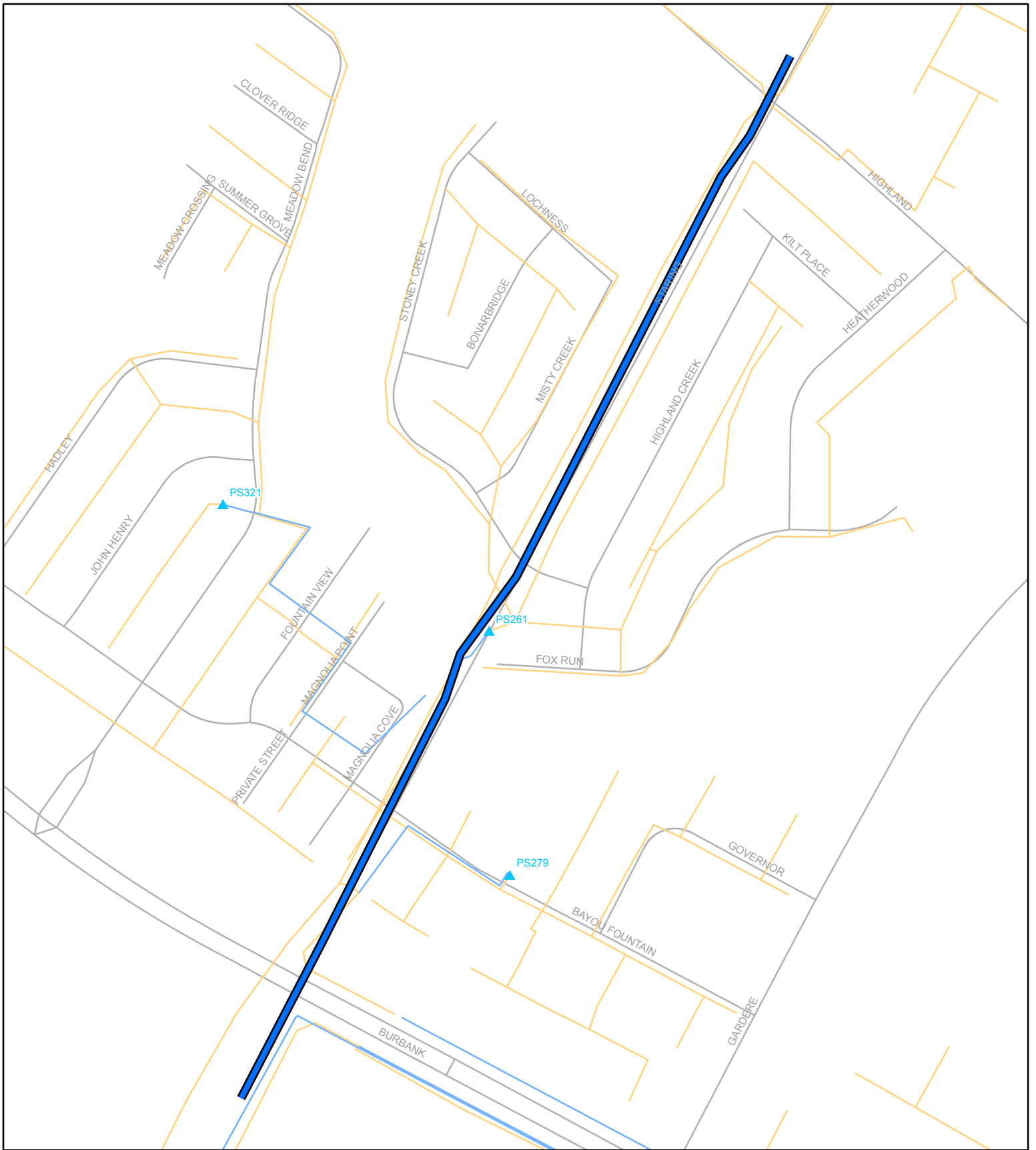
Scope

The scope of this project is shown in Table 3-41 and in Figure 3-64.

TABLE 3-41
06-CS-HC-0030 (Staring Lane Extension - Phase 1 [Burbank Drive - LA 42 to Highland Road]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
64 inch Blind Flange at Highland Road for connection to Staring Lane Phase 2	64 inch Blind Flange for connection with PS 42 Force Main Phase 1	3,620	64	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Staring Lane Extension

(Burbank Drive - LA 42 to Highland Road)
[Phase 1]

06-CS-HC-0030

Project Vicinity Map

Figure 3-64



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Program

3.2.38 06-CS-HC-0024 (Staring Lane Roadway Improvements - Phase 2 [Highland Road to Perkins Road])

Project Description

Purpose of the Project/Project Background

The 06-CS-HC-0024 (Staring Lane Roadway Improvements - Phase 2 [Highland Road to Perkins Road]) project included the construction of a portion of the new force main from PS 58 to the South WWTP. The purpose of this project was to relieve SSOs at PS 58 as well as in the respective upstream and downstream basins. The construction of the direct force main between PS 58 and the South WWTP alleviated wet weather flows into existing downstream gravity pipe and allows the capacity needed for future flows in the Staring Lane area.

This portion of the new force main was constructed as part of the Green Light Program project for improvements to Staring Lane. The project also included the construction of a new 36-inch force main exiting PS 57 at Dawson Creek.

This portion of the new force main from PS 58 to the South WWTP runs along Staring Lane from Dawson Creek to Highland Road. The new 36-inch force main runs along Staring Lane from Dawson Creek to Chandler Drive.

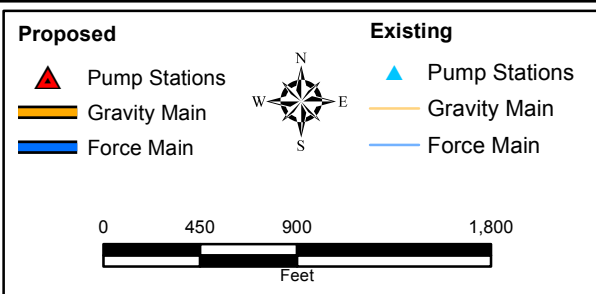
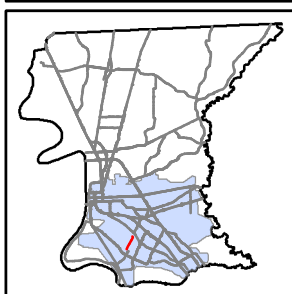
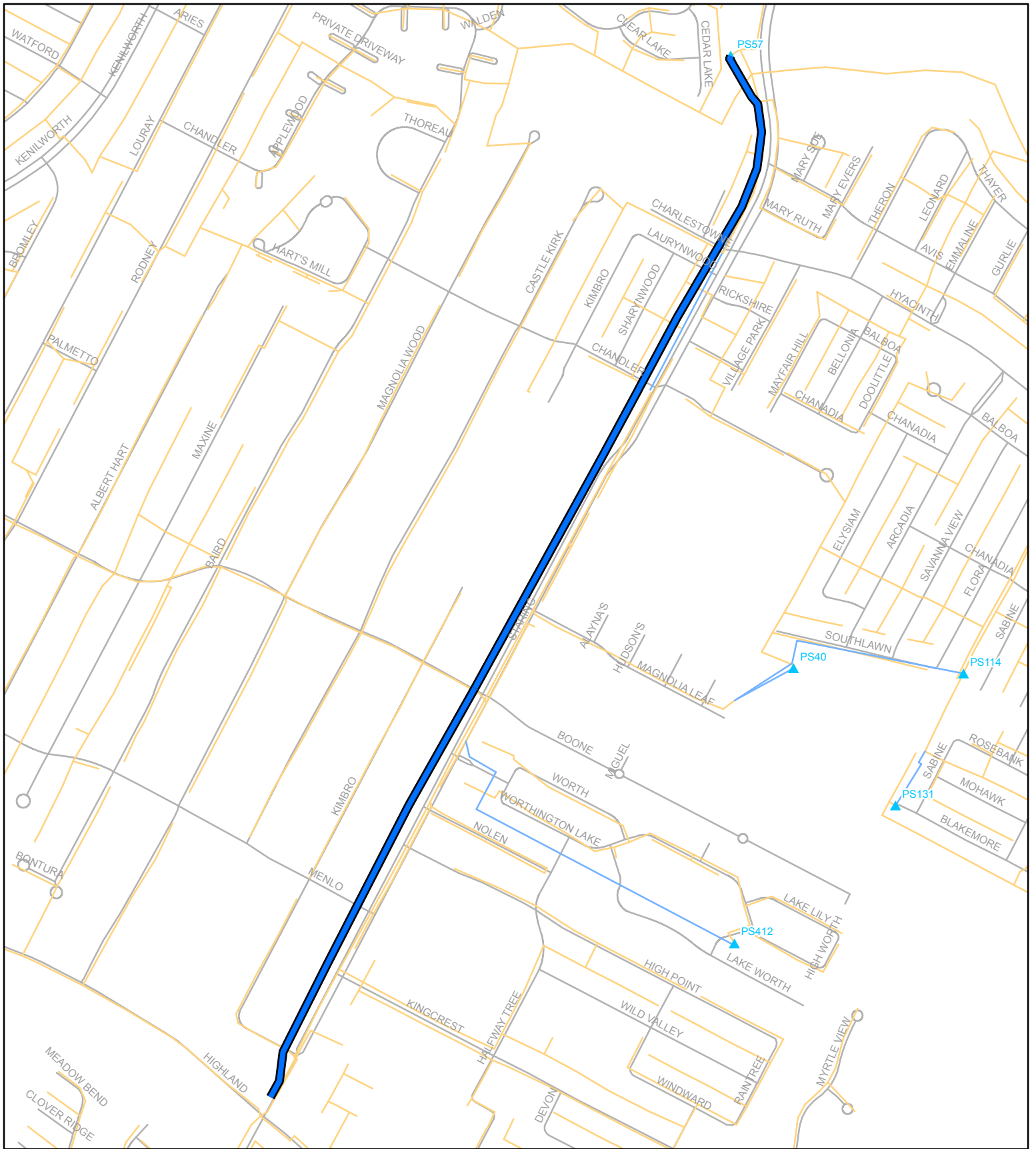
Scope

The scope of the project is shown in Table 3-42 and in Figure 3-65. The force main from PS 58 increase in size at Boone Drive, due to the addition of flow at this point from a new overflow pump station at PS 53. This new pump station is described in the 10-PS-MS-0009 (Multiple Pump Stations - Highland Road - Kenilworth Parkway) project.

TABLE 3-42
06-CS-HC-0024 (Staring Lane Roadway Improvements - Phase 2 [Highland Road to Perkins Road]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
60-inch Blind Flange for Connection to Staring Lane Phase 3	Tee with 24-inch Force Main from PS 53A (Highland Road Pipeline [Group A])	3,970	60	Force Main
Tee with 24-inch Force Main from PS 53A (Highland Road Pipeline [Group A])	Existing 64-inch Force Main Connection at Highland Road from Staring Lane Phase 1	3,170	64	Force Main
PS 57	MH 061-00414	2,220	36	Force Main
Valve for Future Connection from PS 53A (Highland Road Pipeline [Group A])	Tee with 64-inch Force Main	70	24	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Staring Lane Roadway Improvements

(Highland Road to Perkins Road)
[Phase 2]
06-CS-HC-0024

Project Vicinity Map
Figure 3-65

DEPARTMENT OF ENVIRONMENTAL SERVICES
BATON ROUGE, LOUISIANA

BATON ROUGE
SSO Program

3.2.39 06-WC-CP-0036 (Staring Lane Sewer Improvements - Phase 3 [Perkins Road to Pump Station 58])

Project Description

Purpose of the Project/Project Background

The 06-WC-CP-0036 (Staring Lane Sewer Improvements - Phase 3 [Perkins Road to Pump Station 58]) project involved the construction of a portion of the new force main from the PS 58 to the South WWTP. The purpose of this project was to relieve SSOs at PS 58 as well as in the respective upstream and downstream basins. The construction of the direct force main between PS 58 and the South WWTP alleviated the wet weather flows into existing downstream gravity pipe, and increased the capacity needed for future flows in the Staring Lane area.

This project included replacing an existing 36-inch aerial force main at the crossing of Ward's Creek from PS 58. The purpose of this project was to replace the aerial crossing with a subsurface crossing because of the poor condition of the force main in this area.

Scope

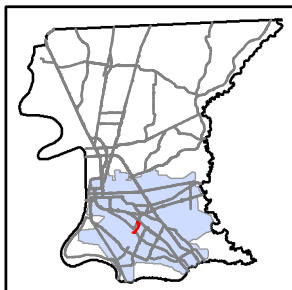
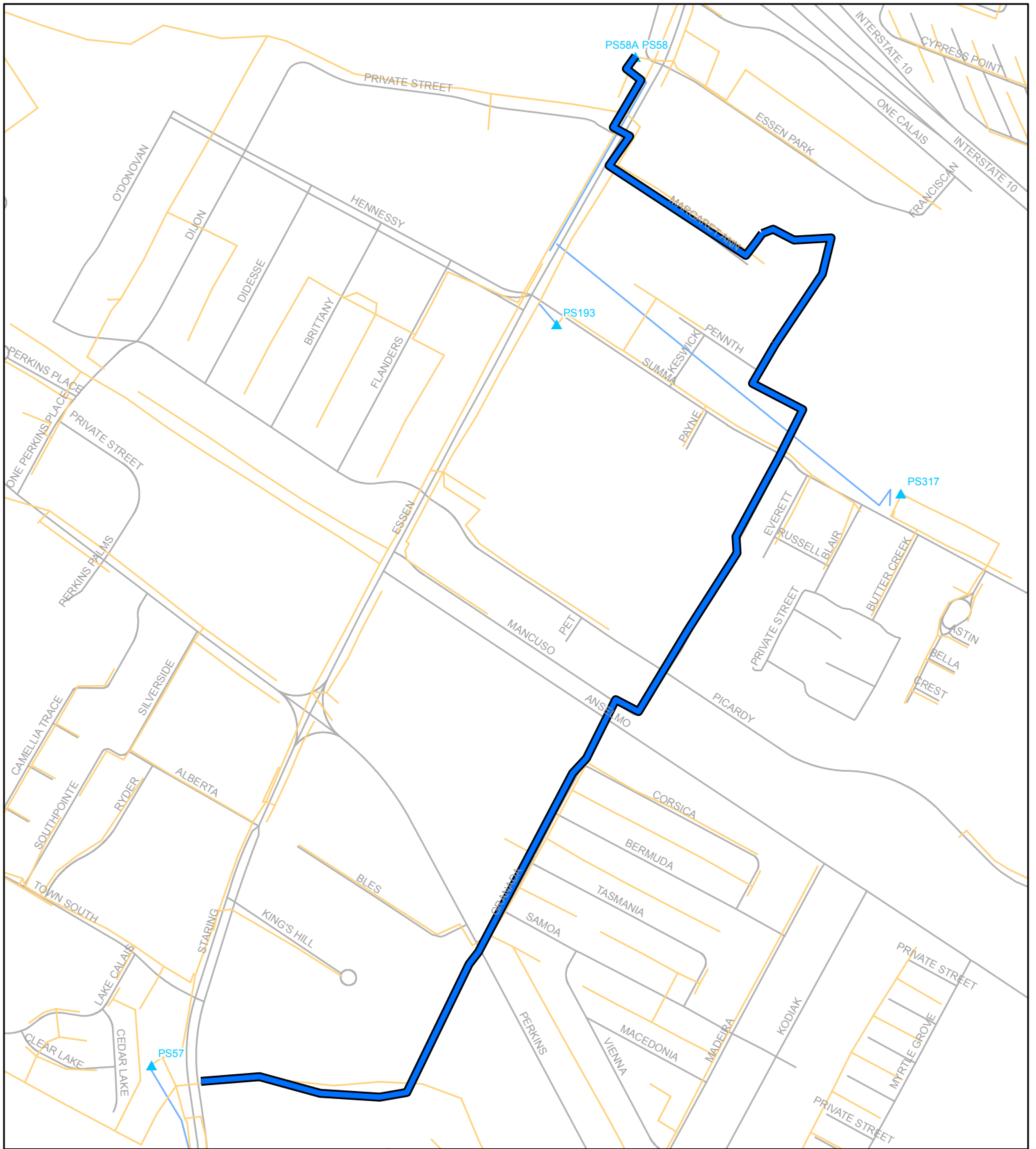
The scope of this project is shown in Table 3-43 and in Figure 3-66.

TABLE 3-43

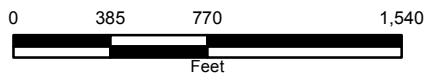
06-WC-CP-0036 (Staring Lane Sewer Improvements - Phase 3 [Perkins Road to Pump Station 58]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 58A	Tie-In to Existing 60-inch Force Main by Staring Lane Phase 2	8,950	60	Force Main
Tie-In to 16-inch Sewer Force Main from Citiplace-Essen	PS 58	520	16	Force Main
PS 58	Tie to Existing 36-inch Force Main on Staring Lane	500	36	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



- | Proposed | | Existing | |
|----------|---------------|----------|---------------|
| | Pump Stations | | Pump Stations |
| | Gravity Main | | Gravity Main |
| | Force Main | | Force Main |



Staring Lane Sewer Improvements

(Perkins Road to Pump Station 58)
[Phase 3]

06-WC-CP-0036

Project Vicinity Map

Figure 3-66



3.2.40 10-GS-MS-0007E (Ward Creek Aerial Crossing Replacement Emergency Project)

Project Description

Purpose of the Project/Project Background

The 10-GS-MS-0007E (Ward Creek Aerial Crossing Replacement Emergency Project) included those segments previously included in SGC-C-0003 (Essen Lane - Interstate-12) and SGU-C-0002 (Airline Highway - Interstate 12) from the October 2008 PDP. The project included the following:

- Upsizing of the gravity sewer upstream of PS 58 across Ward Creek to alleviate SSOs in the vicinity of the gravity sewer and pump station. This work was done on an emergency basis due to the condition of the existing aerial crossing

The locations of the segments in 10-GS-MS-0007 (Airline Highway Pipeline project) are shown in Figure 3-67.

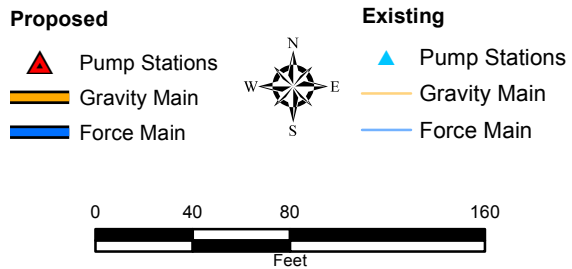
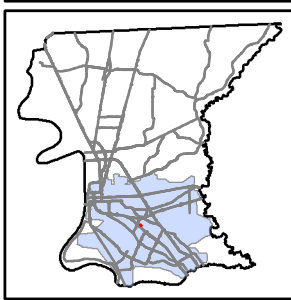
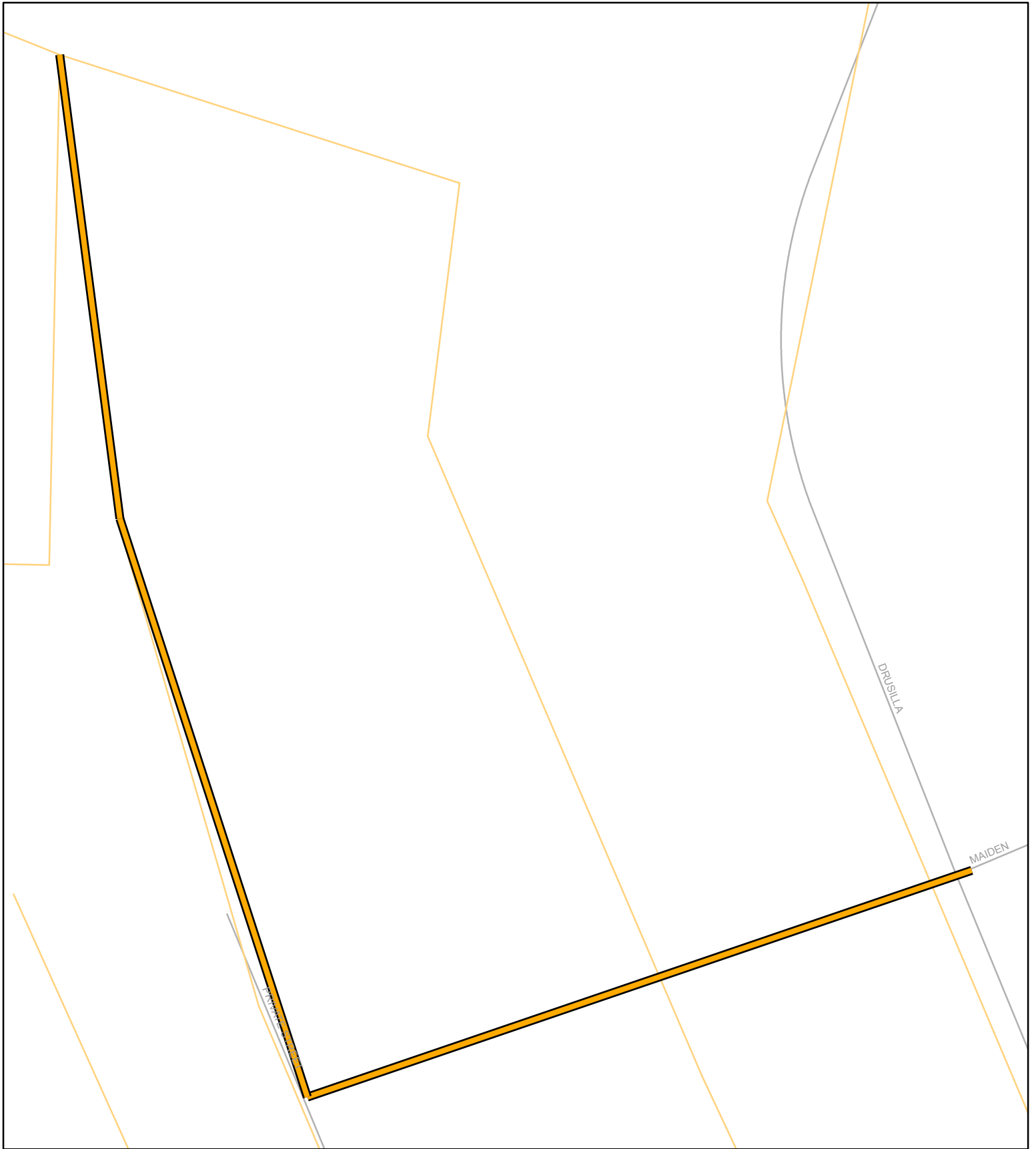
Scope

This project included construction of approximately 40 feet of 10-inch gravity and 1,070 feet of 42-inch gravity sewer. Additional project details are presented in Table 3-44.

TABLE 3-44
10-GS-MS-0007E Ward Creek Aerial Crossing Replacement Emergency Project – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH G20-6	MH G20-5	170	42	Gravity
MH G20-5	MH G20-3	200	42	Gravity
MH G20-3	MH G20-2	480	42	Gravity
MH G20-2	MH G20-1	180	42	Gravity
MH G20-1	MH G20-1A	40	42	Gravity
MH G20-4	MH G20-3	40	10	Gravity

Note: The pipe lengths were obtained from the conformed drawings.



Ward Creek Aerial Crossing

Replacement Emergency Project

10-GS-MS-0007E

Project Vicinity Map

Figure 3-67



Table 3-45
South Basin Capacity Project Summary

Old Project Number(s)	New Project Number	Project Name	Construction Cost	Status
CGN-C-0002	09-GS-UF-0008	25 th Street – North Acadian Thruway	-	Functionally Complete
SGU-C-0002, SGC-C-0002, SGC-C-0003, 10-GS-MS-0007	10-GS-MS-0007A	Airline Highway Pipeline Project Phase A	\$26,774,105	Under Construction
SGU-C-0002, SGC-C-0002, SGC-C-0003, 10-GS-MS-0007	10-GS-MS-0007B	Airline Highway Pipeline Project Phase B	\$13,997,421	Under Construction
SGL-C-0005	09-GS-MS-0042	Bayou Duplantier Sewer Area Upgrades	\$4,622,511	Functionally Complete
SFL-C-0002	09-PS-MS-0034	Booster Pump Station 514 Replacement	\$8,498,188	Functionally Complete
CGN-C-0001	07-PS-BD-0048 & 09-GS-UF-0008	Capitol Lake Drive - Gayosa Street 25 th Street - North Acadian Thruway Sewer Area Upgrades	\$8,718,755	Functionally Complete
CGS-C-0001, CGS-C-0002, CGS-C-0003	09-PS-MS-0035	Central Consolidated Pump Stations	\$22,825,155	Functionally Complete
CC-EAST-PS	09-PS-MS-0035	Central Consolidated Pump Stations	\$22,825,155	Functionally Complete
CC-EAST-FM	09-FM-MS-033A	Central Consolidation Force Main Sewer Area Upgrades (Phase I)	\$12,190,873	Functionally Complete
CC-EAST-FM	09-FM-MS-033B	Central Consolidation Force Main Sewer Area Upgrades (Phase II)	\$7,859,187	Functionally Complete
SGU-C-0001	09-PS-UF-0009	Choctaw Storage and Pump Station Facilities	\$44,476,474	Functionally Complete
SGC-C-PS119	08-FM-UF-0024	Citiplace/Essen Area Pump Station 119 and Force Main Improvements	\$2,806,215	Functionally Complete
CGN-C-0004, CGN-C-0005	08-PS-ST-0056 & 08-PS-ST-0057	Downtown Area Pump Station Improvements	\$5,363,642	Functionally Complete
SGU-C-0001, SGC-C-0001	11-PS-MS-0003	Florida Boulevard Pump Stations Improvements	\$19,497,000	Under Construction
CGS-C-0006	09-GS-MS-0043	Government Street - South Acadian Thruway Sewer Area Upgrades	\$10,590,470	Functionally Complete
CGS-C-0005, 09-PS-MS-0035	08-GS-ST-0021	Highland Road - Buchanan Street Sewer Area Upgrades	\$5,103,661	Functionally Complete
SFL-C-0005	08-FM-ST-0023	Highland Road - Burbank Drive Sewer Area Upgrades	\$22,433,705	Functionally Complete
SGL-C-0003, SGL-C-0004	11-FM-MS-004A	Highland Road Sewer Area Upgrades [Group A]	\$15,633,518	Functionally Complete
SGL-C-0003, SGL-C-0004	11-FM-MS-004B	Highland Road Sewer Area Upgrades [Group B]	\$8,000,945	Under Construction
09-FM-MS-0047	09-PS-MS-0048	Multiple Pump Station - Nicholson Drive - Brightside Lane	\$12,416,062	Functionally Complete
SFL-C-0003	11-PS-MS-0026	Multiple Pump Stations - Burbank Drive - Siegen Lane	\$7,666,468	Under Construction
--	10-PS-MS-0009	Multiple Pump Stations - Highland Road - Kenilworth Parkway	\$21,083,185	Under Construction
SFU-C-0001	09-PS-MS-0046	Multiple Pump Stations - Jefferson Highway - Park Forest Drive	\$2,567,043	Functionally Complete
SFL-C-0006-PHA	09-FM-MS-047A	Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase A]	\$3,345,227	Functionally Complete
SFL-C-0006-PHB1	09-FM-MS-047B	Nicholson Drive - Highland Road - Perkins Road Sewer Area Upgrades [Phase B]	\$8,102,853	Functionally Complete
SGU-C-0005	11-FM-MS-0025	Oak Villa Boulevard - Monterrey Boulevard Sewer Area Upgrades	\$5,166,750	Under Construction
SFL-C-0004	08-PS-IF-0046	Old Perkins - Highland Road [Group Project 2] Sewer Area Upgrades	\$4,023,141	Functionally Complete
SFU-C-0002, SFU-C-0003, SFU-C-0004	10-PS-MS-0050	O'Neal Lane Pump Stations Improvements [Group A]	\$15,345,271	Under Construction
SFU-C-0002, SFU-C-0003, SFU-C-0004	10-PS-MS-0051	O'Neal Lane Pump Stations Improvements [Group B]	\$14,722,184	Under Construction
SFU-C-0006	10-FM-MS-008B	O'Neal Lane Sewer Area Upgrades [Group B]	\$3,450,691	Functionally Complete
SFU-C-0005	10-FM-MS-008A	O'Neal Lane Sewer Area Upgrades [Group A]	\$13,894,002	Functionally Complete
CC-WWTP-FM-PHA	09-FM-MS-036A	Pump Station 42 Force Main (Phase 1)	\$17,229,274	Functionally Complete
CC-WWTP-FM-PHB	09-FM-MS-036B	Pump Station 42 Force Main (Phase 2)	\$13,093,573	Functionally Complete
CC-WWTP-PS	09-PS-UF-0003	Pump Station 42 Improvements	\$11,779,239	Functionally Complete
SGC-C-PS58A	09-PS-UF-0001	Pump Station 58 Replacement	\$13,250,444	Functionally Complete
SGU-C-0003, SGU-C-0004	11-FM-MS-0005	Sherwood Forest Boulevard - Goodwood Boulevard Sewer Area Upgrades	\$10,586,000	Under Construction
CGN-C-0003	08-GS-ST-018B & 09-GS-UF-008B	South Boulevard - St. Joseph Street - Phase B	\$9,756,702	Under Construction
CGN-C-0003	08-GS-ST-0018 & 09-GS-UF-0008	South Boulevard - St. Joseph Street/25 th Street - North Acadian Thruway Sewer Area Upgrades	\$17,667,407	Functionally Complete
SGC-C-PS58FM-A	06-CS-HC-0030	Staring Lane Extension - Phase 1 [Burbank Drive - LA 42 to Highland Road]	\$4,615,500	Functionally Complete
SGC-C-PS58FM-B	06-CS-HC-0024	Staring Lane Roadway Improvements - Phase 2 [Highland Road to Perkins Road]	\$26,964,828	Functionally Complete
SGC-C-PS58FM-C	06-WC-CP-0036	Staring Lane Sewer Improvements - Phase 3 [Perkins Road to Pump Station 58]	\$8,903,821	Functionally Complete
SGU-C-0002, SGC-C-0002, SGC-C-0003, 10-GS-MS-0007	10-GS-MS-0007E	Ward Creek Aerial Crossing Replacement Emergency Project	\$1,496,523	Functionally Complete

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3.3 South Basin WWTP Projects

3.3.1 CWWTP-C-0001 (Central WWTP Decommissioning Project)

Project Description

Purpose of the Project/Project Background

The project purpose was to decommission the Central WWTP following the completion of the Central consolidation projects as well as the 08-TP-BD-0055 (South WWTP Wet Weather Improvements [Phase 2]) project. Once these projects were completed and tested, the Central WWTP was longer needed.

Figure 3-68 shows the location of the Central WWTP, located at 2443 River Road.

Scope

The scope of this project was to fully decommission the Central WWTP. The decommissioning involved environmental hazard assessment and mitigation and demolition of all Mississippi River outfall structures.






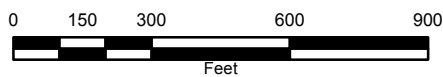
Proposed

 Central WWTP



Existing

-  Pump Stations
-  Gravity Main
-  Force Main



Central WWTP Decommissioning Project

CWWTP-C-0001

Project Vicinity Map
Figure 3-68



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Program

3.3.2 STP-C-0001 South WWTP – (Phase 1)

Project Description

Purpose of the Project/Background Information

The existing unit processes at the South WWTP have been designed and constructed to process a peak hydraulic capacity of 119 mgd. Based on the 2-year, 12-hour design storm, the predicted future peak hydraulic flow to this facility after improvements to collection and conveyance infrastructure is 273 mgd. The C-P is also going to consolidate the Central WWTP and the South WWTP, with all flow being diverted to the South WWTP for treatment. The predicted future peak wet weather flow from the Central WWTP is 93 mgd. Therefore, the total predicted wet weather peak flow to the South WWTP after the Central Consolidation is 366 mgd. To accept and treat this flow, several wet weather improvements were constructed at the South WWTP. These improvements were achieved in two projects, specifically the 08-TP-BD-0033 South WWTP Wet Weather Improvements (Phase 1) project and the 08-TP-BD-0055 South WWTP Wet Weather Improvements (Phase 2) project.

Location

The South WWTP is located at 2850 South Gardere Lane, and its outfall is located at geographical coordinates of latitude 30° 20' 27" north and longitude 91° 08' 52" west.

Scope

The South WWTP was upgraded to process wet-weather flows up to 366 mgd. Influent flows were equalized to allow not more than a 200 mgd maximum flow to the treatment facilities. Sixty-six million gallons (MG) of equalization storage was provided for this purpose.

The existing gravity pump station at the South WWTP was modified as part of this project to pump to a new preliminary treatment facility. An additional new raw wastewater/equalization pump station was also constructed to convey flows from the force main system (existing South Suburban Transportation Network [STN]; new Pump Station 58A; and Central Consolidation). This pump station now has the capability to pump either to the preliminary treatment facility or to the storage facilities. This pump station also accepts flow from the storage facilities when flow is returned after a wet weather storage event. Raw sewage pumped from the modified gravity pump station and the new force main pump station to the process train was directed into a new preliminary treatment facility sized to process 200 mgd. Both of the existing preliminary treatment facilities were demolished and replaced by this single system. The completed preliminary treatment facility screens and degrades the influent wastewater.

This project included odor control facilities for the influent pump stations, storage facilities, and preliminary treatment facility. A new electrical substation was also included in this project. The remainder of the South WWTP improvements are described in STP-C-0002 (South WWTP – Phase 2). All of the Phase 1 improvements are shown on the process flow diagram presented as Figure 3-69. Principal Phase 1 project elements were:

- Modified existing gravity pump station to pump 62 mgd to new headworks
- Constructed a new raw wastewater (138 mgd)/equalization (166 mgd) pump station and force main system:
 - Below-grade concrete dry well/wet well-type structure. No building.
 - Dry-pit submersible pumps with variable frequency drives (VFDs)

- Electrical building to house electrical systems and controls
- Facility includes discharge flow meters
- Facility is covered and includes odor control provisions
- Constructed covered storage for flows in excess of 200 mgd:
 - Circular lined above-ground tanks (3 at 20 MG and 1 at 6 MG)
 - Return line with control valve and flowmeter to convey return flow to force main system raw wastewater pump station
 - Mixers are provided for 6 MG tank that will receive initial flows. Hydrants will be provided for cleaning.
 - Odor control facilities included
- Constructed 200 mgd preliminary treatment facility:
 - Elevated facility, constructed of cast-in-place concrete
 - Facility contains both screening and grit removal equipment
 - Six screening channels
 - Six gravity vortex grit units
 - Odor control facilities included
 - A splitter box is constructed on the end of the facility to split plant flow between the dry-weather and wet-weather process trains during wet-weather events. The splitter box conveys 120 mgd to the dry-weather train, and 80 mgd to the wet-weather train.
- Constructed new electrical substation and electrical building
- Yard piping
- Site work
- Demolition

3.3.3 STP-C-0002 South WWTP – (Phase 2)

Project Description

Purpose of the Project/Background Information

Existing unit processes at the South WWTP have been designed and constructed to process a peak hydraulic capacity of 119 mgd. Based on the 2-year, 12-hour design storm, the predicted future peak hydraulic flow to this facility after improvements to collection and conveyance infrastructure is 273 mgd. The C-P is also going to consolidate the Central WWTP and the South WWTP, with all flow being diverted to the South WWTP for treatment. The predicted future peak wet weather flow from the Central WWTP is 93 mgd. Therefore, the total predicted wet weather peak flow to the South WWTP after the Central consolidation is 366 mgd. To accept and treat and this flow, several wet weather improvements were constructed at the South WWTP. These improvements were achieved in two projects, specifically the 08-TP-BD-0033 South WWTP Wet Weather Improvements (Phase 1) project and the 08-TP-BD-0055 South WWTP Wet Weather Improvements (Phase 2) project.

Location

The South WWTP is located at 2850 South Gardere Lane, and its outfall is located at geographical coordinates of latitude 30° 20' 27" north and longitude 91° 08' 52" west.

Scope

The South WWTP was upgraded to process wet-weather flows up to 366 mgd. The 08-TP-BD-0033 South WWTP Wet Weather Improvements (Phase 1) project included influent pumping, equalization storage, and a preliminary treatment facility. This project began downstream of the preliminary treatment facility and included additional wet weather treatment improvements at the South WWTP. Some of the project improvements were required due to wet weather and some were required from the *Wastewater Master Plan* (CH2M HILL, May 2008).

Wet Weather Improvements

From the preliminary treatment facility, wastewater up to 120 mgd will flow by gravity to the existing primary clarifiers. When the total influent flow exceeds 120 mgd, up to 80 mgd will flow from the preliminary treatment facility to new solids contact basins (SCBs). Under this scenario, up to 120 mgd of preliminary treated wastewater will flow from the preliminary treatment facility through the existing primary clarifiers and the existing trickling filters (TFs). The upgraded secondary treatment process contains both TFs and SCBs. Normally, flows up to 120 mgd will be pumped into the TFs and then be pumped into the SCBs. TF recirculation is part of the ongoing IAP projects at the plant.

Additional final settling tanks were also provided to manage the 200 mgd wet-weather flow condition. The existing disinfection system was converted from gaseous chlorination to hypochlorite disinfection for excess flows above 120 mgd. A new effluent pump station and outfall piping was added. These improvements are shown also on Figure 3-69. Principal project elements included the following:

- Construction of SCBs return secondary and waste secondary sludge pump stations for sludge return from the final settling tanks to the SCBs, and for sludge wasting to the gravity belt thickeners:

- A splitter box is constructed on the end of the SCBs to distribute the flow between the existing and proposed final settling tanks
- Construction of four additional final clarifiers at 134-foot diameter each
- Conversion of chlorine gas disinfection to hypochlorite disinfection and construction of an additional chlorine contact basin
- Construction of a new effluent PS (200 mgd):
 - Existing pump station will be abandoned
 - New pump station will consist of vertical turbine pumps mounted on a concrete slab. Discharge piping and flow metering will be above grade.
- Construction of parallel effluent pipeline and river outfall structure
- Construction of odor control for the primary clarifiers effluent weirs and the existing solids processing building
- Yard piping
- Site work
- Demolition:
 - Methane storage/power conversion facilities
 - Miscellaneous yard piping and electrical

Master Plan Improvements

Several Master Plan improvements were outlined in the *Wastewater Master Plan* (CH2M HILL, May 2008). These improvements were included in the Phase 2 construction project. The following were the principal project elements as modified during the project design:

- Secondary electrical source consisting of on-site engine/generators
- Improvements to the existing solids thickening and dewatering facilities, including new thickened sludge mixing tanks
- Repair and improvements to existing anaerobic digesters, including a new sludge heating system utilizing digester gas and hot water boilers
- Rehabilitation of existing buildings
- Construction of a plant SCADA system
- Construction of new laboratory and administration buildings

3.3.4 South WWTP Immediate Action Projects

Project Description

Purpose of the Project/Project Background

The South WWTP is under consent decree due to NPDES permit violations related to total suspended solids (TSS) and biochemical oxygen demand (BOD). The WWTP is presently required to meet a 30 MG TSS/L and 30 MG BOD/L monthly average and 45 MG TSS/L and 45 MG BOD/L weekly average discharge standard.

A number of improvement projects were implemented to assist the plant in complying with its effluent permit limits. These improvements were implemented early in the program to bring the plant into compliance as soon as possible under dry weather conditions.

The screenings improvements project that was formerly in this project has been moved to 08-TP-BD-0033 South WWTP Wet Weather Improvements (Phase 1). The effluent pumping station stabilization project has been completed.

Location

The South WWTP is located at 2850 South Gardere Lane.

Scope

The improvement projects were grouped together for their implementation. A description of each group of projects follows.

Primary Treatment Improvements

Primary treatment improvements were implemented to improve the reliability of the primary settling tanks and consistently meet BOD and TSS effluent limits.

The first project element included the addition of ferric chloride and polymer injection systems for enhanced BOD/TSS removal. This element included installation of chemical storage and feed systems on both the gravity and force main trains of the plant.

The second project element included various improvements to the primary settling tanks to improve their mechanical reliability. There are six existing tanks. Several of these tanks experienced significant downtime due to issues with mechanical reliability. DES operations staff also experienced difficulty in removing sludge from the clarifiers, which could be associated with issues such as improper collector mechanism speed, pump capacities, pump cycle times, or a combination thereof. The following improvements were identified for enhanced operational reliability:

- **Repair/Replace Clarifier Mechanisms and Components.** Improvements included replacement of boards, wear strips, sprockets, drives, and expansion joints. Some clarifiers required new chains.
- **Replace Existing Sludge Pumps.** The old piston pumps had significant maintenance problems. New pumps were installed to ensure sludge removal design criteria are met.

The third project element included the addition of flow control/flow measurement devices at several splitter boxes. The plant had several structures designed to split the flow between process trains and between discrete basins. These flow splits occurred by gravity flow over weir gates. Previously, there were no means to monitor or control the flow splits, or determine proper

distribution to downstream facilities. To improve this, weir gate electric actuators and level (flow) elements were installed at splitter boxes Numbers 1 and 2.

Trickling Filter Improvements

The secondary treatment process consists of two separate TFs, final settling tank, and effluent pump station trains. An upstream splitter box receives flow from the primary clarifiers, and splits it to the two secondary trains. The following improvements assisted in achieving permit compliance.

- **Construction of a New Trickling Filter Pump Station.** This included two independent sides, the TF Recirculation Pump Station and the TF Effluent Pump Station. The Recirculation Pump Station is needed to maintain proper wetting rates on the TFs.
- **Construction of New Electrical Building.**
- Construction of new flow splitting structure to divide the pump station effluent flow among existing clarifiers.
- Construction of new piping, valves, flow meters, pipe supports, concrete structures, piping tie-ins, and other work to deliver primary effluent flow to the new station pump primary effluent to the existing trickling filter splitter boxes at a controlled rate, deliver return flow from the trickling filters to the new pump station, deliver trickling filter effluent at a controlled rate to the flow splitting structure, and from there to deliver to the existing clarifiers.

Sludge Handling Improvements

Improvements to the sludge handling systems were as follows:

- **Gravity Thickeners and Thickened Sludge Pump Station Rehabilitation.** The gravity thickener complex had not been in service for many years. The complex was rehabilitated so that primary and secondary sludge can be evacuated in a timely manner from process facilities, and allow for thickening prior to anaerobic digestion. The thickened sludge enhances the digestion unit process. Improvements included replacing gravity thickeners and rehabilitating/replacing sludge pump station components.
- **Final Settling Tank Sludge Withdrawal Improvements.** Sludge pumps, from each settling tank complex, discharge through a common header and do not provide adequate withdrawal. A new larger diameter pump discharge manifold was installed to increase pumping capacity.

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3.3.5 South WWTP Landscape Buffer Area Project

Project Description

Purpose of the Project/Project Background

The existing South WWTP had no maintained perimeter buffer landscape system along the property boundaries facing adjacent residential developments. There are randomly placed trees and shrubs existing throughout the facility, but these are insignificant in relation to the scale of the structures. Therefore, this project involved design and construction of a perimeter buffer area. This project had funding from the Clean Water State Revolving Fund (CWSRF) Loan Program, Green Project Reserve.

Location

The South WWTP is located at 2850 South Gardere Lane.

Scope

The buffer included large and small scale native and naturalized tree and shrub species that are both evergreen and deciduous with accents of palm groupings to form a natural upland habitat theme. Tree and shrub groupings were randomly planted, on low gentle sloping berms, around approximately 3,000 linear feet of meandering storm water swales along the length of the buffer.

Table 3-46

South Basin WWTP Project Summary

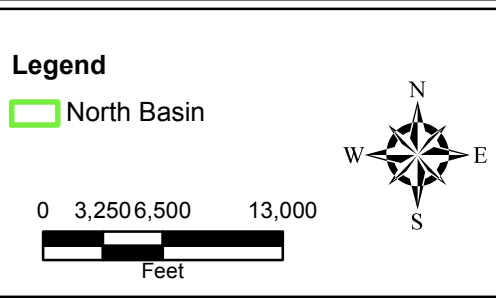
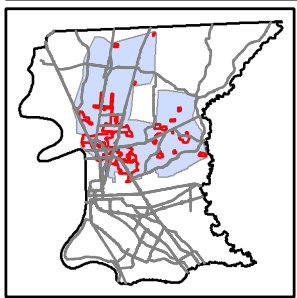
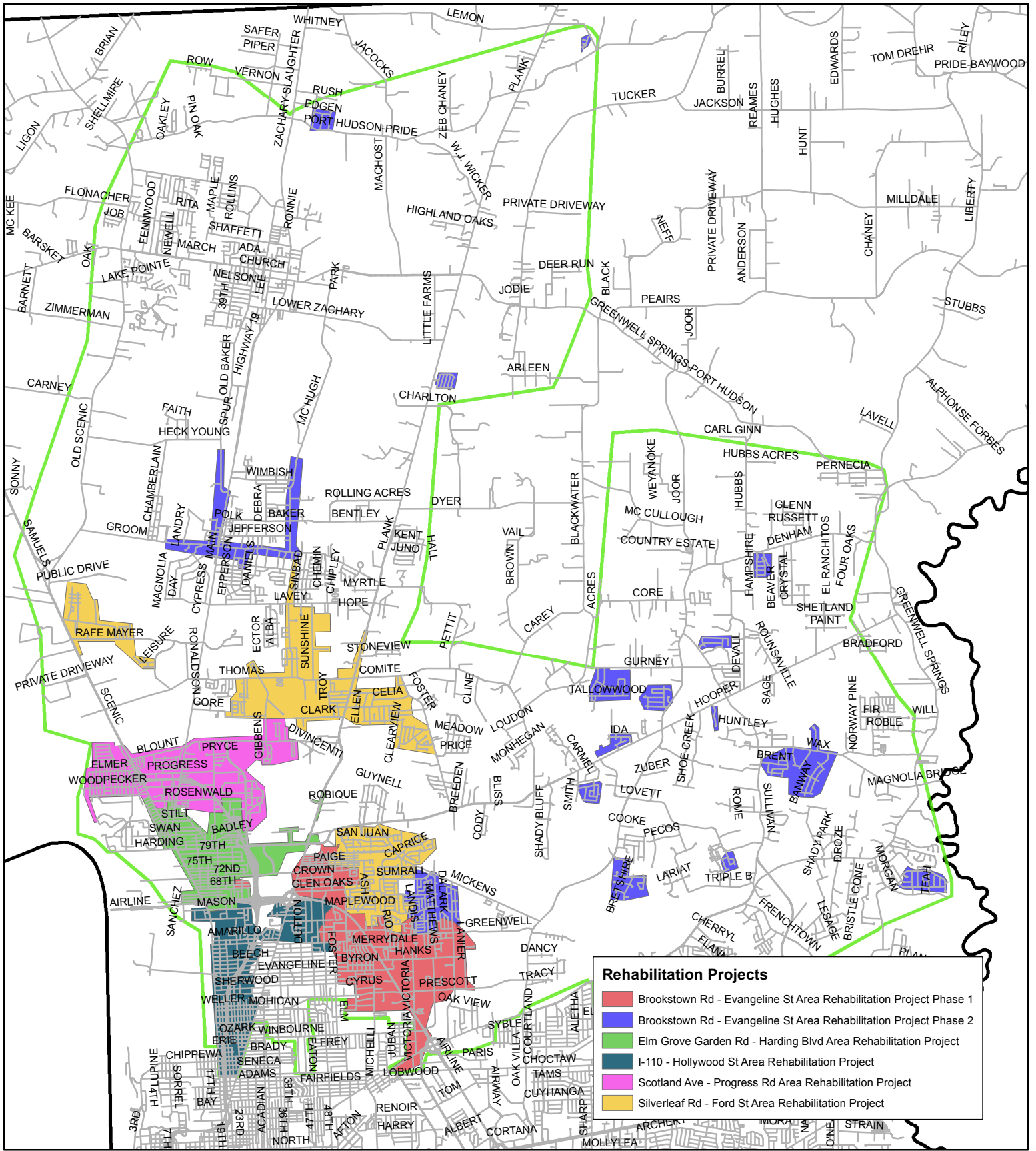
Old Project Number(s)	New Project Number	Project Name	Construction Cost	Status
CWWTP-C-0001	14-TP-MS-0016	Central WWTP Decommissioning Project	\$2,000,000	Not Started
--	08-TP-BD-0031	South WWTP Immediate Action Projects	\$27,633,106	Functionally Complete
--	13-TP-MS-0046	South WWTP Landscape Buffer Area Project	\$688,809	Functionally Complete
STP-C-0001	08-TP-BD-0033	South WWTP Wet Weather Improvements (Phase 1)	\$109,230,523	Functionally Complete
STP-C-0002	08-TP-BD-0055	South WWTP Wet Weather Improvements (Phase 2)	\$112,717,939	Functionally Complete

North Basin Projects

Section 4 presents summaries of the North Basin Comprehensive Rehabilitation projects and the North Basin Capacity Improvements projects. These projects are shown on Figure 4-1 and Figure 4-2. As of March 1, 2017, there are 24 projects functionally completed, 8 projects under construction, and 4 projects in the design phase in the North Basin.

The project summaries presented herein represent the information available during this update period. The PDP is revisited on an as-needed basis and revised as necessary, based on the results of additional hydraulic wastewater modeling, immediate needs, DES and public input, and other factors.

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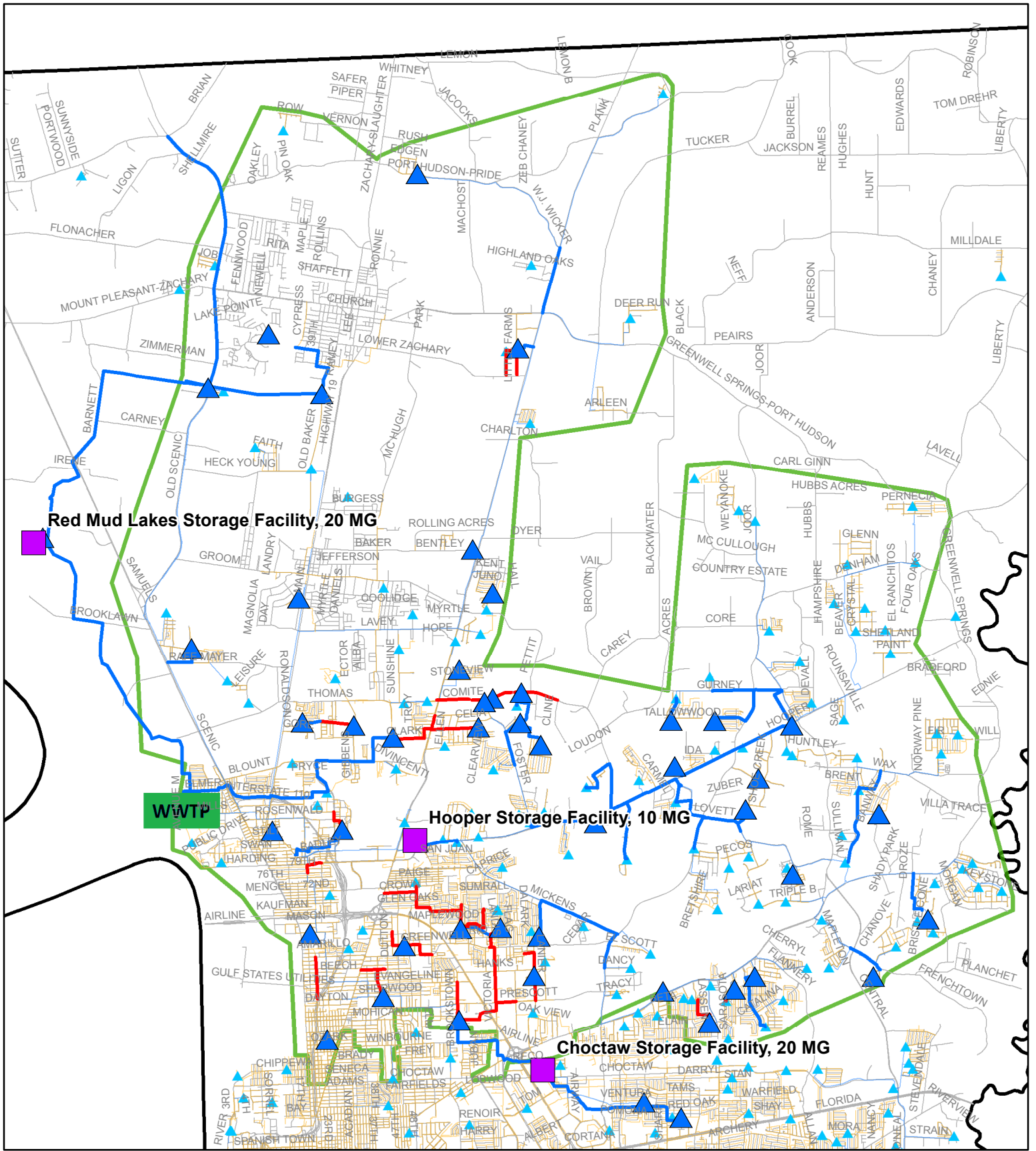


North Basin Rehabilitation Projects

Project Vicinity Map

Figure 4-1

BATON ROUGE SSO Program

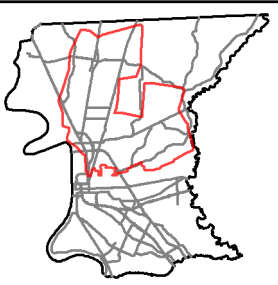


Red Mud Lakes Storage Facility, 20 MG

Hooper Storage Facility, 10 MG

Choctaw Storage Facility, 20 MG

WWTW



Proposed		Existing	
	Pump Stations		Pump Stations
	Force Main		Force Main
	Gravity Main		Gravity Main
	New Storage Facility		Streets
	WWTW		WWTW Basin

0 5,000 10,000 20,000
Feet

North Basin Capacity Improvements Projects

Project Vicinity Map
Figure 4-2



4.1 North Basin Rehabilitation Projects

Project Description

The comprehensive sewer rehabilitation projects consisted of improvements to various components of the sewer collection system to reduce the amount of rainwater and groundwater that leaks into the system.

Purpose

The purpose of the comprehensive sewer rehabilitation projects was to correct defects in the system such as offset pipe joints, collapsed pipe sections, leaking manholes, and direct inflow sources. Water that enters the system through defects is a major contributor to SSOs. Comprehensive rehabilitation of the collection system alleviated SSOs.

Location

There are six rehabilitation projects located within the North Basin. The attached maps show the project locations in Figures 4-3 to 4-8.

Scope of Project

The first phase of comprehensive rehabilitation projects was the physical inspection of the pipes and manholes, including CCTV inspection and smoke testing. The data collected by the physical inspection contractor was analyzed and a listing of recommended repairs with associated construction costs was generated. An engineering firm completed a detailed design and prepared construction documents for project bidding. The construction of rehabilitation projects typically included the following components:

- Replacement of pipes
- Point repair of pipes
- Rehabilitation of pipes by cured-in-place pipe liners
- Rehabilitation or replacement of manholes
- Repair of sewer laterals to the property line

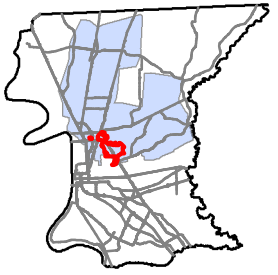
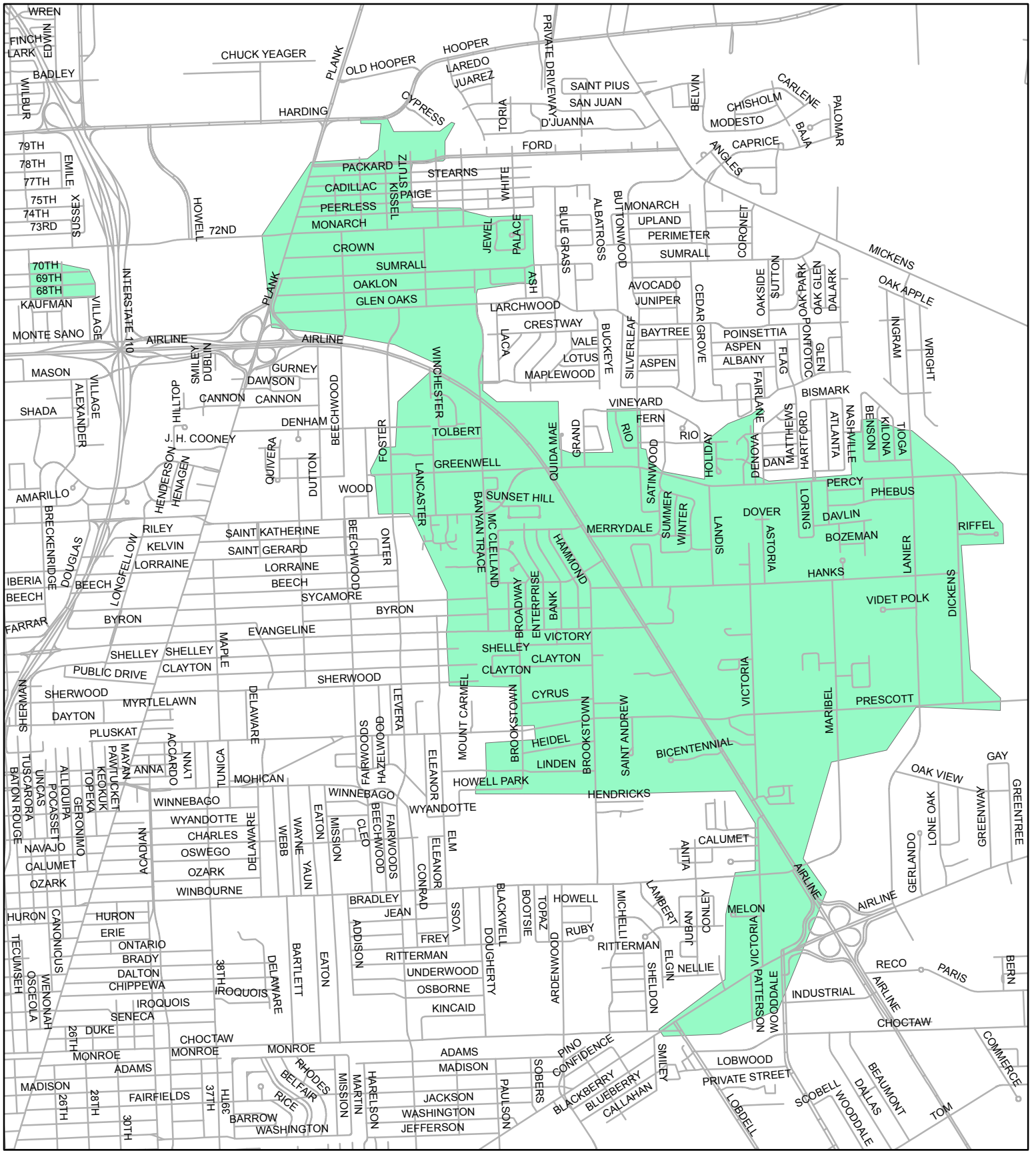
Cost

The bid amounts for each project are presented in Table 4-1.

Table 4-1

North Basin Comprehensive Rehabilitation Project Summary

Old Project Number	Project Number	Project Name	Construction Costs	Status
NFW-R-0001A	10-AR-BD-0039	Brookstown Rd - Evangeline St Area Rehabilitation Project (Phase 1)	\$10,401,938	Functionally Complete
NFW-R-0001B	10-AR-BD-0040	Brookstown Rd - Evangeline St Area Rehabilitation Project (Phase 2)	\$5,446,416	Functionally Complete
NGS-R-0001	09-AR-BD-0012	Elm Grove Garden Rd - Harding Blvd Area Rehabilitation Project	\$11,232,994	Functionally Complete
NFW-R-0002	12-AR-MS-0040	I-110 - Hollywood St Area Rehabilitation Project	\$3,468,454	Functionally Complete
NGS-R-0002	09-AR-BD-0011	Scotland Ave - Progress Rd Area Rehabilitation Project	\$8,040,906	Functionally Complete
NFE-R-0001	10-AR-BD-0041	Silverleaf Rd - Ford St Area Rehabilitation Project	\$7,538,896	Functionally Complete



Legend

Area Designated for Rehabilitation Project

0 800 1,600 3,200
Feet

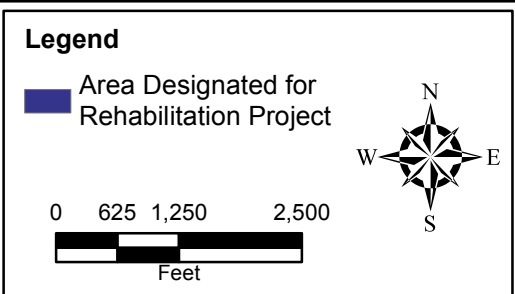
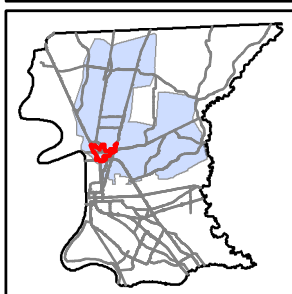
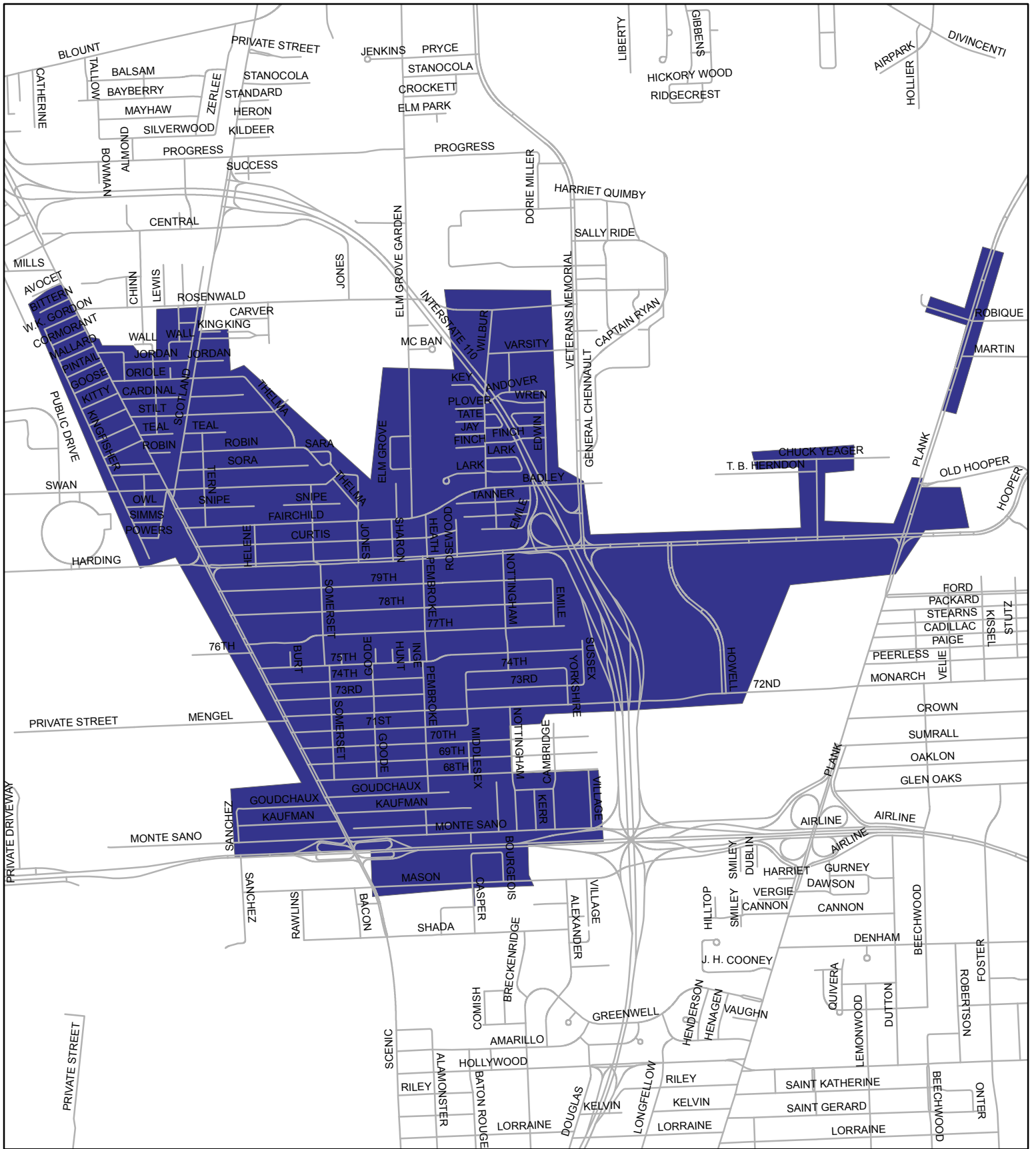
**Brookstown Road - Evangeline Street
Area Rehabilitation Project [Phase 1]**

10-AR-BD-0039

Project Vicinity Map

Figure 4-3

BATON ROUGE **SSO**
Program



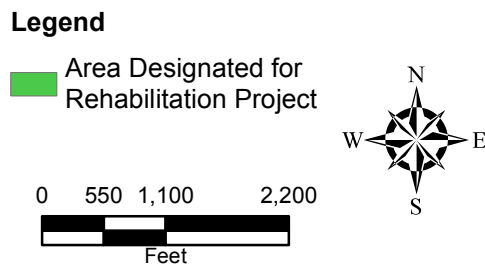
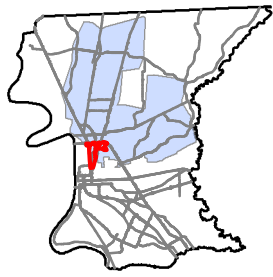
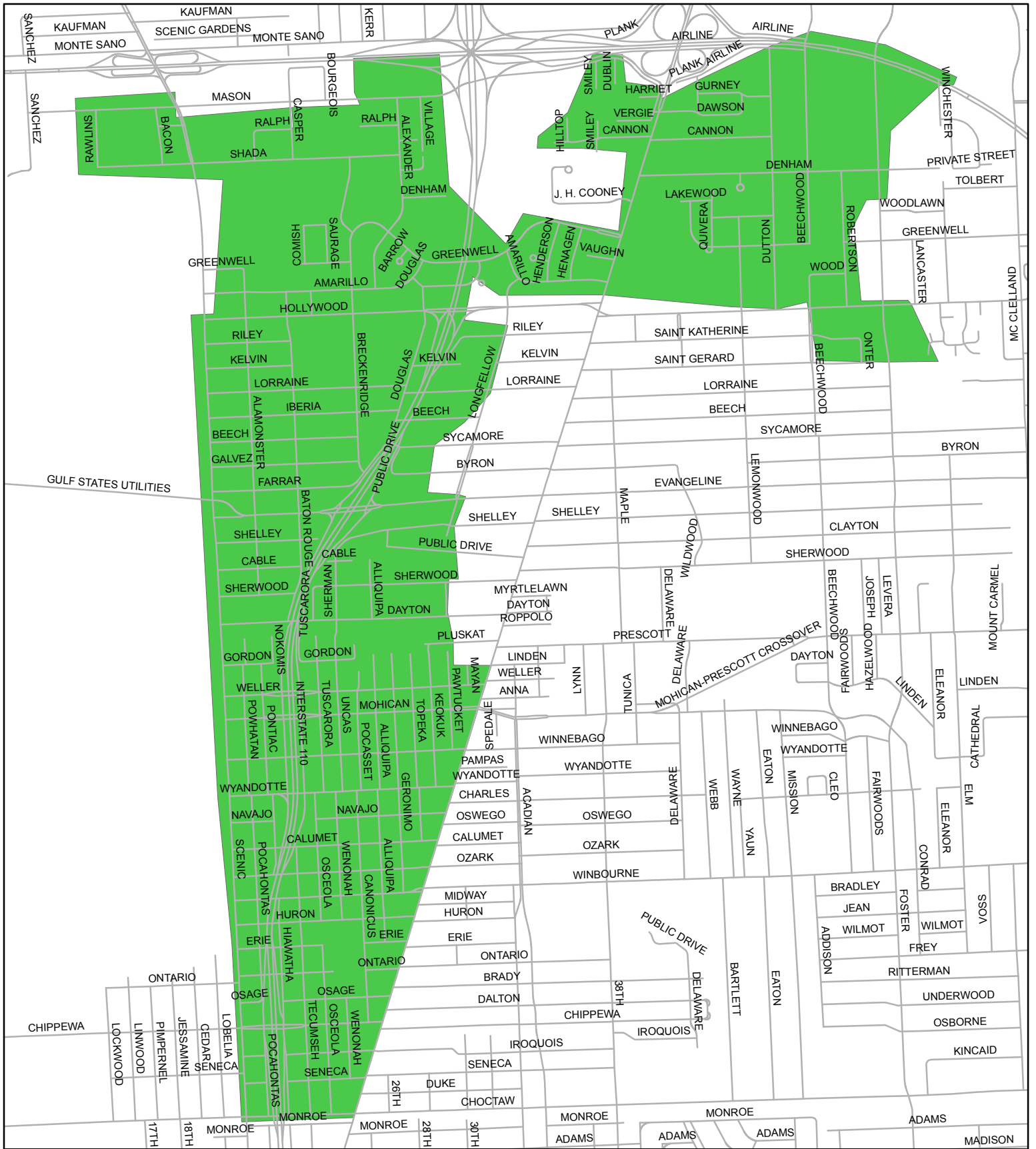
**Elm Grove Garden Road - Harding Boulevard
Area Rehabilitation Project**

09-AR-BD-0012

Project Vicinity Map

Figure 4-5

BATON ROUGE SSO Program



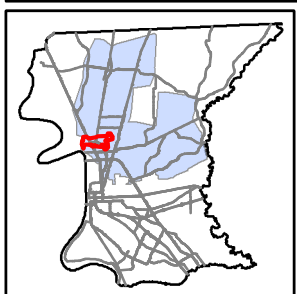
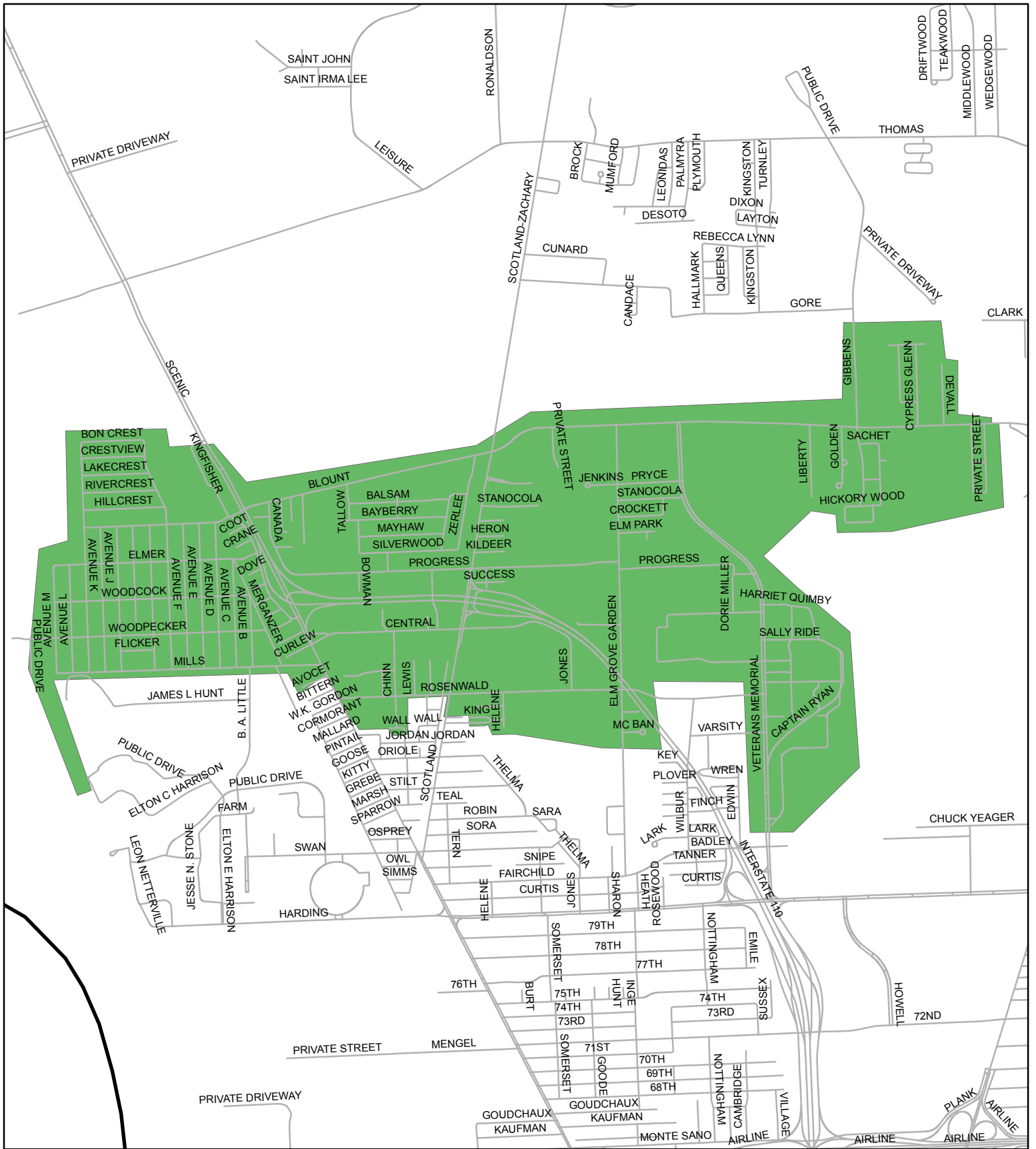
**I-110 - Hollywood Street
Area Rehabilitation Project**

12-AR-MS-0040

Project Vicinity Map

Figure 4-6

BATON ROUGE **SSO**
Program



Legend

Area Designated for Rehabilitation Project

0 700 1,400 2,800

 Feet

N
 W E
 S

**Scotland Avenue - Progress Road
 Area Rehabilitation Project**

09-AR-BD-0011

Project Vicinity Map

Figure 4-7

BATON ROUGE **SSO**
Program



Legend

Area Designated for Rehabilitation Project

0 1,250 2,500 5,000

Feet

**Silverleaf Road - Ford Street
Area Rehabilitation Project**

10-AR-BD-0041

Project Vicinity Map

Figure 4-8

BATON ROUGE **SSO**
Program

4.2 North Basin Capacity Improvements Projects

4.2.1 09-PS-UF-0009 (Choctaw Storage and Pump Station Facilities)

Project Description

Purpose of the Project/Background Information

The 09-PS-UF-0009 (Choctaw Storage and Pump Station Facilities) project was a combination of the NFW-C-0002 (Choctaw Storage, PS52A, PS 51A, PS 51AA, and Force Mains) project and the NFW-C-0003 (Choctaw Storage Pump Station) project from the October 2008 PDP. The combined project has been designated the 09-PS-UF-0009 (Choctaw Storage and Pump Station Facilities) project and is described in this section.

This project involved the design and construction of a 26 MG storage facility (Choctaw Storage Facility) in west-central East Baton Rouge Parish. This project also included the construction of an overflow pump station for PS 52 (PS 52A), an overflow pump station for PS 51 (PS 51A), a gravity trunk line overflow pump station (PS 51AA), and the force mains to convey the flow from the pump stations to the storage facility. One of the force mains also serves as the return line for flow from the Choctaw Storage Facility to PS 52. The purpose of this facility is to detain peak wet weather flows during a storm event, and release them back into the collection system when demand is lower.

Construction of the storage facility eliminated approximately 6.5 miles of pipe replacement, reduced the overall pipe diameter for the remaining sewer projects, and eliminated the need to increase the capacity of the North WWTP.

The location of the 26 MG storage facility is near the northeast corner of the intersection of Airline Highway and South Choctaw Drive.

Scope

This project included the construction of one 20 MG storage tank and one 6 MG storage tank at the Choctaw Storage Facility and their associated piping, valving, controls, and appurtenances. The pump stations and force mains are detailed in Table 4-2 and Table 4-3 and are shown in Figure 4-9.

TABLE 4-2
09-PS-UF-0009 (Choctaw Storage and Pump Station Facilities) – Pump Station Information

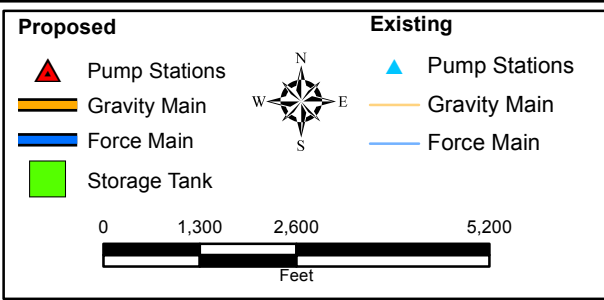
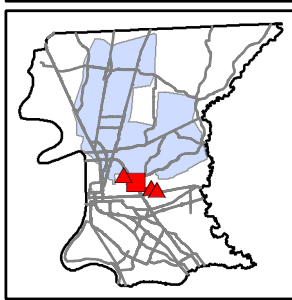
PS No.	Location	Existing Maximum Capacity (gpm)	Future Peak Wet Weather Flow (gpm)	Dry Weather (gpm)
PS 51A	Sierra Vista Drive north of the intersection with Cuyhanga Parkway	New	8,330	0
PS 51AA	Near the intersection of Red Oak Drive and Sharp Lane	New	3,540	0
PS 52A	NE of Brookstown Drive intersection with Winbourne	New	31,940	0

Note: The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 4-3
09-PS-UF-0009 (Choctaw Storage and Pump Station Facilities) – Force Main Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 52A	Equalization Storage Facility	10,050	42	Force Main
PS 51A	30-inch x 30-inch x 30-inch Tee with PS 51AA Force Main	340	30	Force Main
30-inch x 30-inch x 30-inch Tee with PS 51AA Force Main	Equalization Storage Facility	10,160	30	Force Main
PS 51AA	14-inch x 14-inch x 14-inch Tee with PS 51A Force Main to go to PS 51A overflow structure	2,820	14	Force Main
14-inch x 14-inch x 14-inch Tee with PS 51A Force Main to go to PS 51A overflow structure	30-inch x 30-inch x 14-inch Tee with PS 51A Force Main	60	14	Force Main
14-inch x 14-inch x 14-inch Tee with PS 51A Force Main to go to PS 51A overflow structure		320	14	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Choctaw Storage and Pump Station Facilities

09-PS-UF-0009
Project Vicinity Map
Figure 4-9

4.2.2 07-PS-BD-0019 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 1])

Project Description

Purpose of the Project/Project Background

The purpose of the 07-PS-BD-0019 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 1]) project was to replace PS 94, PS 246, and PS 291 to alleviate SSOs at and near the pump station. The force mains exiting these pump stations also were upsized.

Scope – Phase 1

This project included the replacement of three pump stations and the construction of approximately 17,620 feet of 8-inch and 10-inch force main as well as approximately 1,190 feet of 8-inch and 12-inch gravity sewer pipe. The detailed scope of the project is presented in Tables 4-4 and 4-5. Pump station and force main locations are shown in Figure 4-10.

TABLE 4-4
07-PS-BD-0019 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 1]) – Pump Station Information

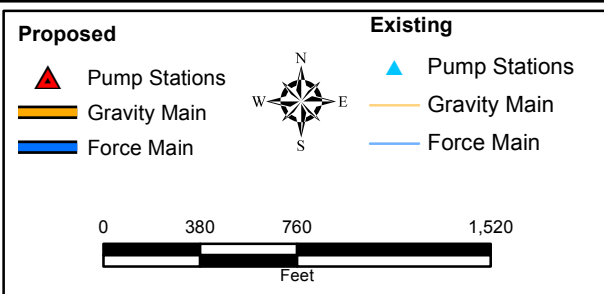
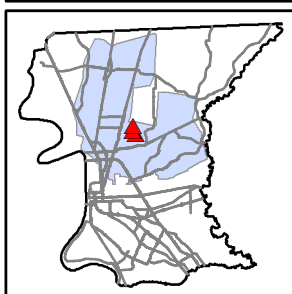
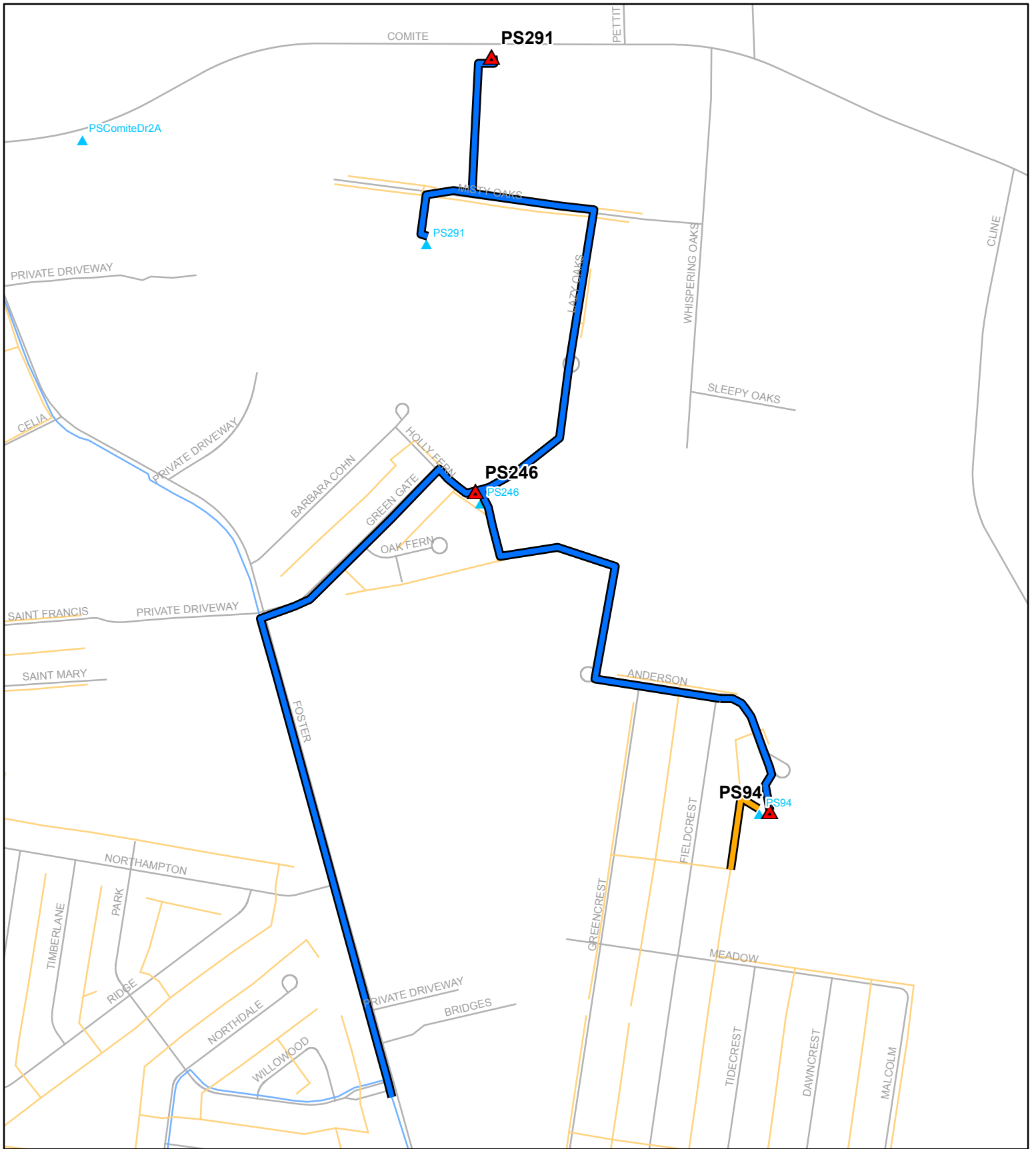
PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 94	Fieldcrest Drive near the intersection of Meadow Avenue	280	60	540
PS 246	Holly Fern Avenue, near the intersection of Green Gate Drive	70	20	140
PS 291	Misty Oaks Avenue, near the intersection of Lazy Oak Drive	90	90	500

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 4-5
07-PS-BD-0019 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 1]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 94	Tee with PS 291 Force Main	10,520	8	Force Main
Tee with PS 291 Force Main	Tee with PS 246 Force Main	40	10	Force Main
Tee with PS 246 Force Main	Tee with Existing PS 150 Force Main	4,430	10	Force Main
Tee with Existing PS 150 Force Main	Tie-In to Existing 10-inch STN Force Main at Foster Road and North Park Avenue	40	10	Force Main
PS 291	Tee with PS 94 Force Main	2,590	8	Force Main
MH S-5	MH S-4	300	8	Gravity
MH S-4	MH S-3	250	8	Gravity
MH S-3	MH S-2	310	8	Gravity
MH S-2	MH S-1	240	8	Gravity
MH S-1	PS 291	90	12	Gravity

Note: The pipe lengths were obtained from the record drawings.



Comite Drive - Foster Road

Sewer Area Upgrades
 [Phase 1]
 07-PS-BD-0019

Project Vicinity Map
Figure 4-10

BATON ROUGE **SSO**
Program

4.2.3 02-CS-HC-001 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 2])

Project Description

Purpose of the Project/Project Background

The purpose of the 07-PS-BD-0019 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 1]) project was to replace PS 94, PS 246, and PS 291 to alleviate SSOs at and near the pump station. The force mains exiting these pump stations were also upsized.

The 02-CS-HC-001 (Comite Drive – Foster Road Sewer Area Upgrades [Phase 2]) project included an upgrade to the existing sewer system that runs along Comite Drive. The previous sewer system in this area included individual septic systems that discharge into an open ditch along the road. A new sewer collection system was installed to eliminate these discharges. The project consisted of new sewers, force mains, and pump stations. This project was completed as part of the Green Light Program.

Scope – Phase 2

This project included the construction of approximately 9,380 feet of 8-inch gravity sewer pipe as well as approximately 300 feet of 3-inch force main. The detailed scope of the project is presented in Table 4-6 (pump stations) and Table 4-7 (pipelines). Pump station and force main locations are shown in Figure 4-11.

TABLE 4-6
02-CS-HC-001 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 2]) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS Comite 1	Intersection of Comite Drive and Foster Road	NA	60	230
PS Comite 2A	Comite Drive, near White Bayou	NA	20	60

Note: The future peak wet weather flows were determined by the design engineer.

TABLE 4-7
02-CS-HC-001 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 2]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH S-8	MH S-7	300	8	Gravity
MH S-7	MH S-6	300	8	Gravity
MH S-6	MH S-5	300	8	Gravity
MH S-5	MH S-4	290	8	Gravity
MH S-4	MH S-3	310	8	Gravity
MH S-3	MH S-2	210	8	Gravity
MH S-2	MH S-1A	250	8	Gravity
MH S-1A	MH S-1	150	8	Gravity

TABLE 4-7
02-CS-HC-001 (Comite Drive - Foster Road Sewer Area Upgrades [Phase 2]) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH S-1	MH S on Existing Gravity Sewer at Plank Road and Comite Drive	30	8	Gravity
MH P1-5	MH P1-4	300	8	Gravity
MH P1-4	MH P1-3	300	8	Gravity
MH P1-3	MH P1-2	300	8	Gravity
MH P1-2	MH P1-1 at PS Comite 1	290	8	Gravity
MH P1-8	MH P1-7	240	8	Gravity
MH P1-7	MH P1-1 at PS Comite1	300	8	Gravity
MH P2A-8	MH P2A-7	290	8	Gravity
MH P2A-7	MH P2A-6	240	8	Gravity
MH P2A-6	MH P2A-5	240	8	Gravity
MH P2A-5	MH P2A-4	130	8	Gravity
MH P2A-4	MH P2A-3	260	8	Gravity
MH P2A-3	MH P2A-2	300	8	Gravity
MH P2A-2	MH P2A-1	260	8	Gravity
MH P2A-1	PS Comite 2A	90	8	Gravity
MH P2B-16	MH P2B-15	110	8	Gravity
MH P2B-15	MH P2B-14	300	8	Gravity
MH P2B-14	MH P2B-1 at PS 291 from Comite - Foster Phase 1	140	8	Gravity
MH P2B-13	MH P2B-12	300	8	Gravity
MH P2B-12	MH P2B-11	290	8	Gravity
MH P2B-11	MH P2B-10	300	8	Gravity
MH P2B-10	MH P2B-9	300	8	Gravity
MH P2B-9	MH P2B-8	300	8	Gravity
MH P2B-8	MH P2B-7	160	8	Gravity
MH P2B-7	MH P2B-6	170	8	Gravity
MH P2B-6	MH P2B-5	270	8	Gravity
MH P2B-5	MH P2B-4	300	8	Gravity
MH P2B-4	MH P2B-3	300	8	Gravity
MH P2B-3	MH P2B-2	300	8	Gravity
MH P2B-2	MH P2B-1 at PS 291 from Comite - Foster Phase 1	160	8	Gravity
PS Comite 2A	MH P1-8	300	3	Force Main
PS Comite 1	Tie-In to Existing 6-inch STN Force Main at Comite Drive and Foster Road	30	6	Force Main

Note: The pipe lengths were obtained from the record drawings.

4.2.4 07-FM-BD-0046 (Foster Road - Hooper Road Sewer Area Upgrades)

Project Description

Purpose of the Project/Background Information

The purpose of the 07-FM-BD-0046 (Foster Road - Hooper Road Sewer Area Upgrades) project was to increase the capacity of the STN force main system and the manifold force mains along Foster Road and Hooper Road to assist in transferring high flows to the main STN force main along Hooper Road.

Scope

This project included the construction of approximately 31,310 feet of 6-inch, 8-inch, 16-inch, 24-inch, and 36-inch force main in the North Basin. The detailed scope of this project is presented in Table 4-8. Force main locations for this project are shown in Figure 4-12.

TABLE 4-8
07-FM-BD-0046 (Foster Road - Hooper Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Tie-In to Existing 12-inch Force Main at Foster Road and Summer Place Avenue	Tee with New 42-inch Force Main at Foster Road and Hooper Road	1,090	16	Force Main
PS 196	Tie-in to Existing 30-inch STN Force Main at Shady Bluff Drive and Hooper Road	5,010	6	Force Main
Existing 30-inch STN discharge Force Main at PS 511	Tee with New 16-inch Force Main at Foster Road and Hooper Road	6,700	36	Force Main
Tee with New 16-inch Force Main at Foster Road and Hooper Road	Tie-In to Existing 36-inch STN Force Main at Foster Road and Hooper Road	20	36	Force Main
PS 255	Tie-In to Existing 36-inch STN Force Main at Blackwater Road and Hooper Road	7,710	8	Force Main
Tie in to Existing 20-inch STN discharge Force Main at PS 509	Tee with Existing PS 86 Force Main	10,100	24	Force Main
Tee with Existing PS 86 Force Main	Tie in to Existing 24-inch STN Force Main at Lovett Road and Hooper Road	680	24	Force Main

Note: The pipe lengths were obtained from the record drawings.

4.2.5 07-PS-BD-0017 (Gurney Road - Joor Road Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The purpose of the 07-PS-BD-0017 (Gurney Road - Joor Road Sewer Area Upgrades) project was to replace PS 176 to alleviate SSOs at and near the pump station. The force mains exiting PS 176 and PS 284 also was upsized. The existing mini-booster pump station 501 was demolished as part of this project, since it was no longer needed.

Scope

This project included replacement of one pump station as well as approximately 13,840 feet of 8-inch, 10-inch, 12-inch, and 14-inch force main. Tables 4-9 and 4-10 show the detailed scope of the project. The location of PS 176 is shown along with the force main locations in Figure 4-13.

TABLE 4-9
07-PS-BD-0017 (Gurney Road - Joor Road Sewer Area Upgrades) – Pump Station Information

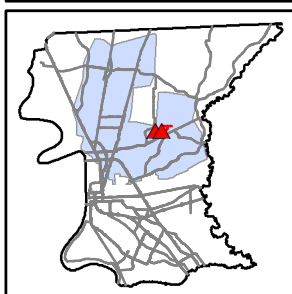
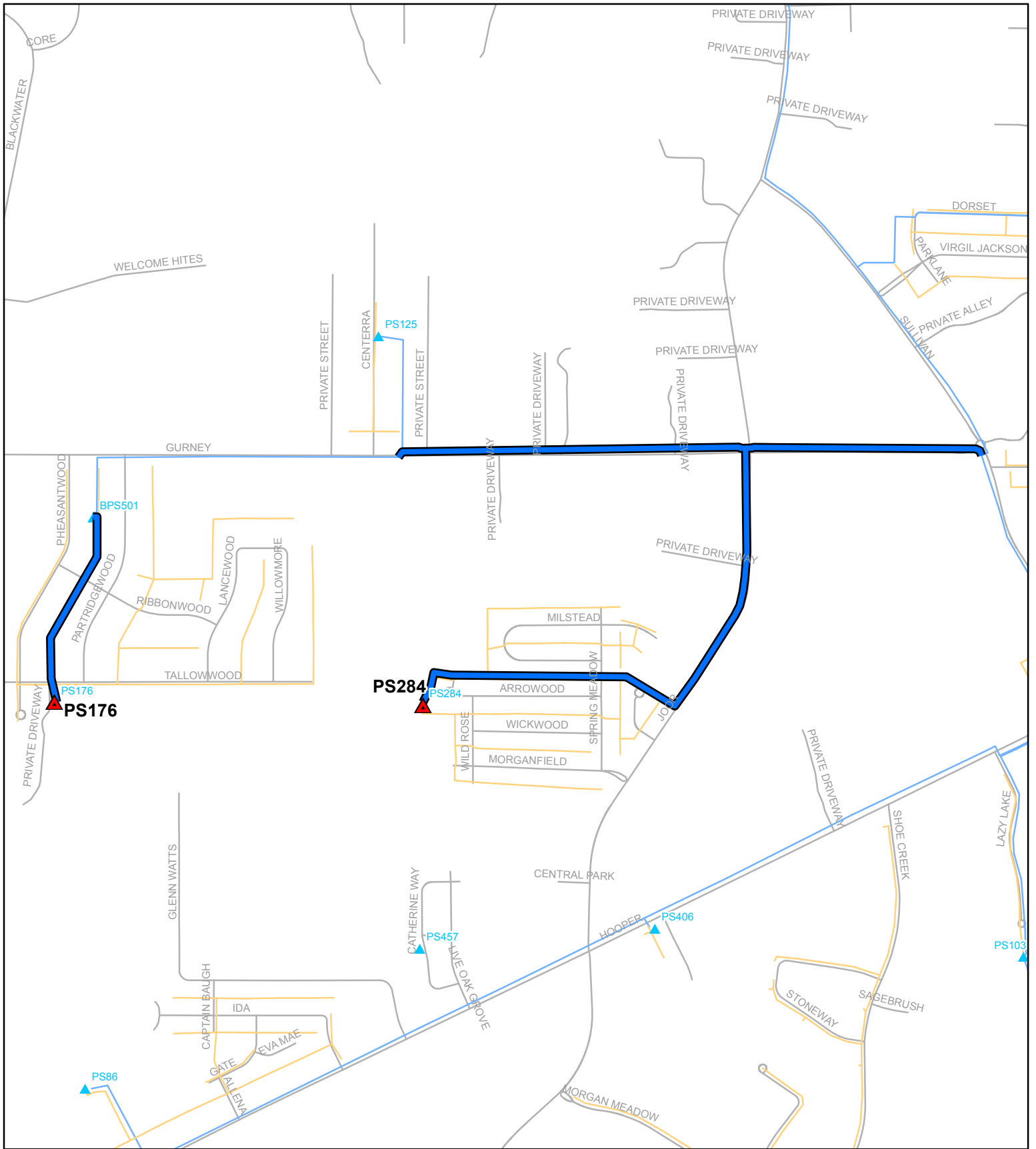
PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 176	Tallowood Avenue, between the intersection of Pheasantwood Drive and Patridgewood Drive	400	80	1,190

Note: The existing maximum capacity for the pump station was obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 4-10
07-PS-BD-0017 (Gurney Road - Joor Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 176	Tie-In to Existing 10-inch Force Main near PS 501 (abandoned)	2,100	10	Force Main
Tie-In to Existing 10-inch Force Main near Gurney Road and Centerra Court	Tee with PS 284 Force Main	3,620	12	Force Main
Tee with PS 284 Force Main	Tie-In to Existing 14-inch STN Force Main at Gurney Road and Sullivan Road	2,500	14	Force Main
PS 284	Tee with PS 176 Force Main	5,620	8	Force Main

Note: The pipe lengths were obtained from the record drawings.



Proposed	Existing
Pump Stations	Pump Stations
Gravity Main	Gravity Main
Force Main	Force Main

0 650 1,300 2,600
Feet

Gurney Road - Joor Road

Sewer Area Upgrades

07-PS-BD-0017

Project Vicinity Map

Figure 4-13

BATON ROUGE

BATON ROUGE

4.2.6 10-PS-MS-0048 (Hooper Road Pump Stations Improvements)

Project Description

Purpose of the Project/Background Information

The 10-PS-MS-0048 (Hooper Road Pump Stations Improvements) project is a combination of NFE-C-0005 (Multiple PS – Hooper Road- Greenwell Springs Road) and NFE-C-0007 (Multiple BPS - Hooper Road - Lovett Road) from the October 2008 PDP. The combined project has been designated 10-PS-MS-0048 (Hooper Road Pump Stations Improvements) project and is described in this section. The purpose of the 10-PS-MS-0048 (Hooper Road Pump Stations Improvements) project is the following:

PS 86, PS 207, PS 285, PS 509, and PS 511 are all being upgraded to alleviate SSOs. BPS 510 will be replaced with a new pump station, PS 510AA, located downstream of the existing BPS 510. The three in-line booster pump stations being replaced in this project will be replaced with wet well pump stations.

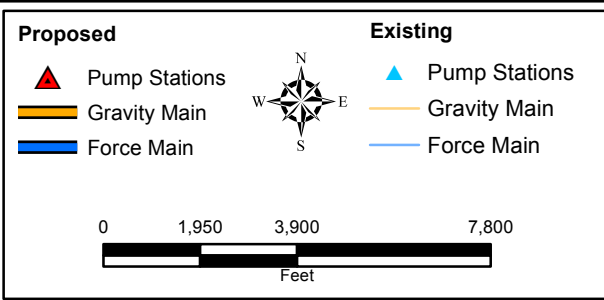
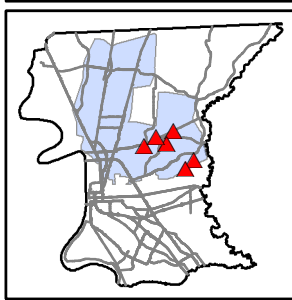
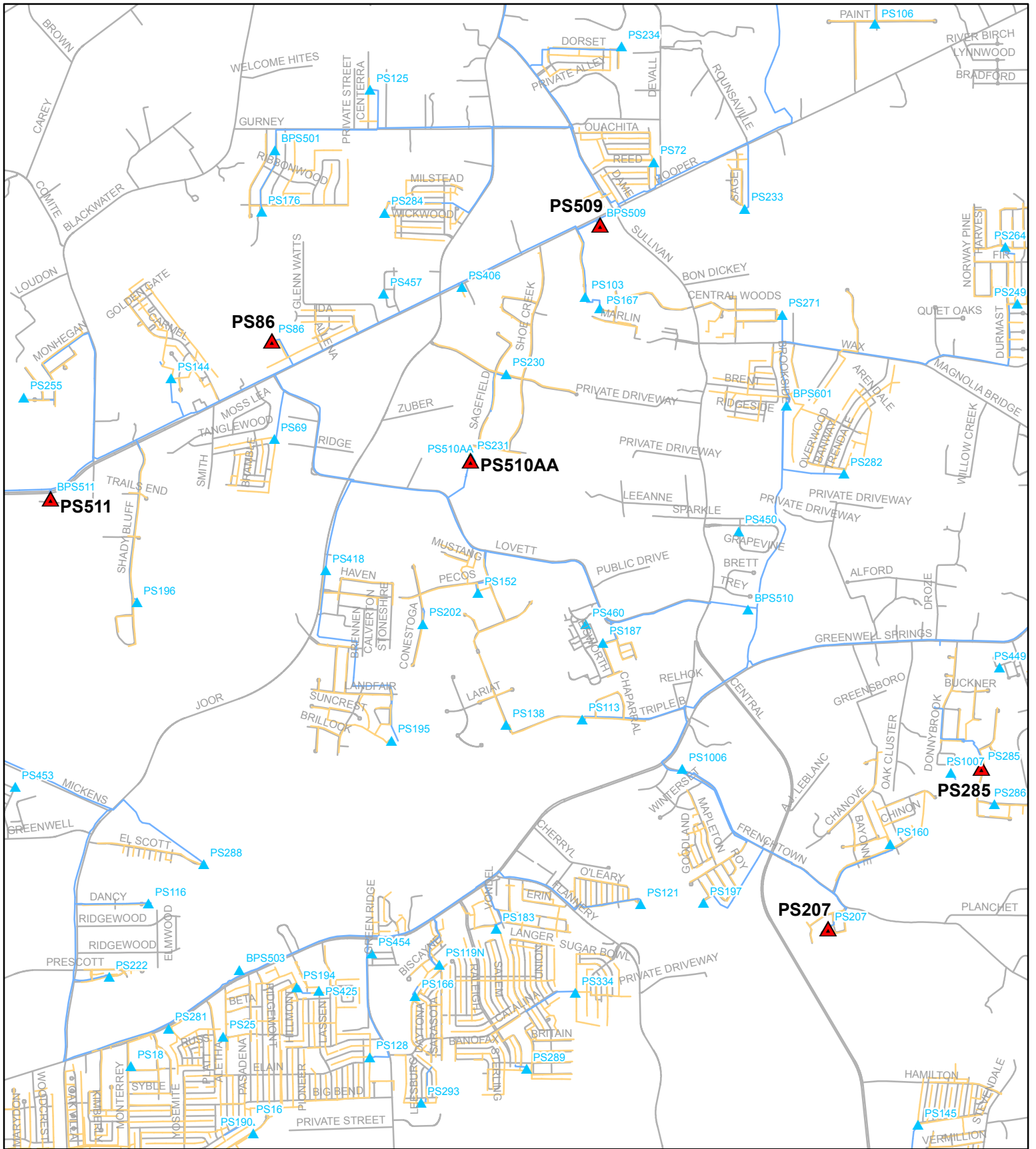
Scope

The detailed scope of this project is given in Table 4-11. Locations of the pump stations are shown in Figure 4-14.

TABLE 4-11
10-PS-MS-0048 (Hooper Road Pump Stations Improvements) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 86	Hooper Road between Lovett Road and Allena Drive	340	110	560
PS 207	Red Maple Drive off West Post Oak Court	100	140	200
PS 285	Bristle Cone Court off Evergreen Hills Avenue	80	50	380
PS 509	Hooper Road between Sullivan Road and Lazy Lake Drive	4,850	950	8,250
PS 510AA	Shoe Creek Drive off Morgan Creek Avenue	3,560	1,190	9,900
PS 511	Hooper Road between Hickcock Drive and Blackwater Road	10,650	2,970	21,400

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Hooper Road

Pump Stations Improvements

10-PS-MS-0048

Project Vicinity Map
Figure 4-14

BATON ROUGE **SSO**
Program

4.2.7 09-PS-UF-0007 (Hooper Storage Facility)

Project Description

Purpose of the Project/Background Information

The 09-PS-UF-0007 (Hooper Storage Facility) project involved the design and construction of a 10 MG storage facility (Hooper Storage Facility) in northwest Baton Rouge Parish as well as the replacement of BPS 897, an in-line booster station, with a wet well pump station. The project also included construction of a new 36-inch force main to bring flow to the new PS 897 from the existing STN force main. The purpose of this facility is to detain peak wet weather flows during a storm event and release them back into the collection system when demand is lower.

Construction of the storage facility eliminated the need for approximately 13,200 feet of pipe replacement, reduced the overall pipe diameter for the remaining sewer projects, and eliminated the need to increase the capacity of the North WWTP.

The location of the storage facility is near the northwest corner of the intersection of Hooper Drive (Highway 408) and Mickens Road and is shown in Figure 4-15.

Scope

The project scope included the design and construction of the storage facility and associated pumping systems to transfer flows in and out of the facility. Two 5 MG storage tanks were constructed. A new PS 897/PS 897A was built on the same site as the storage facility to transfer flows in and out of the facility. Table 4-12 lists the scope of the pump stations, and Table 4-13 lists the scope of the pipelines.

TABLE 4-12
09-PS-UF-0007 (Hooper Storage Facility) – Pump Station Information

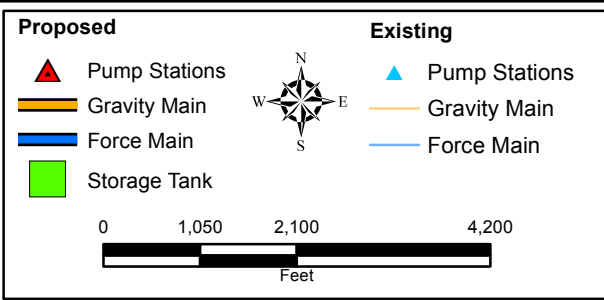
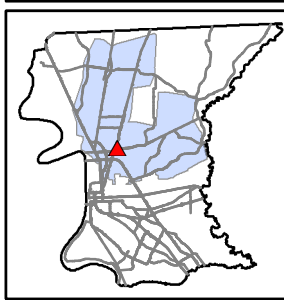
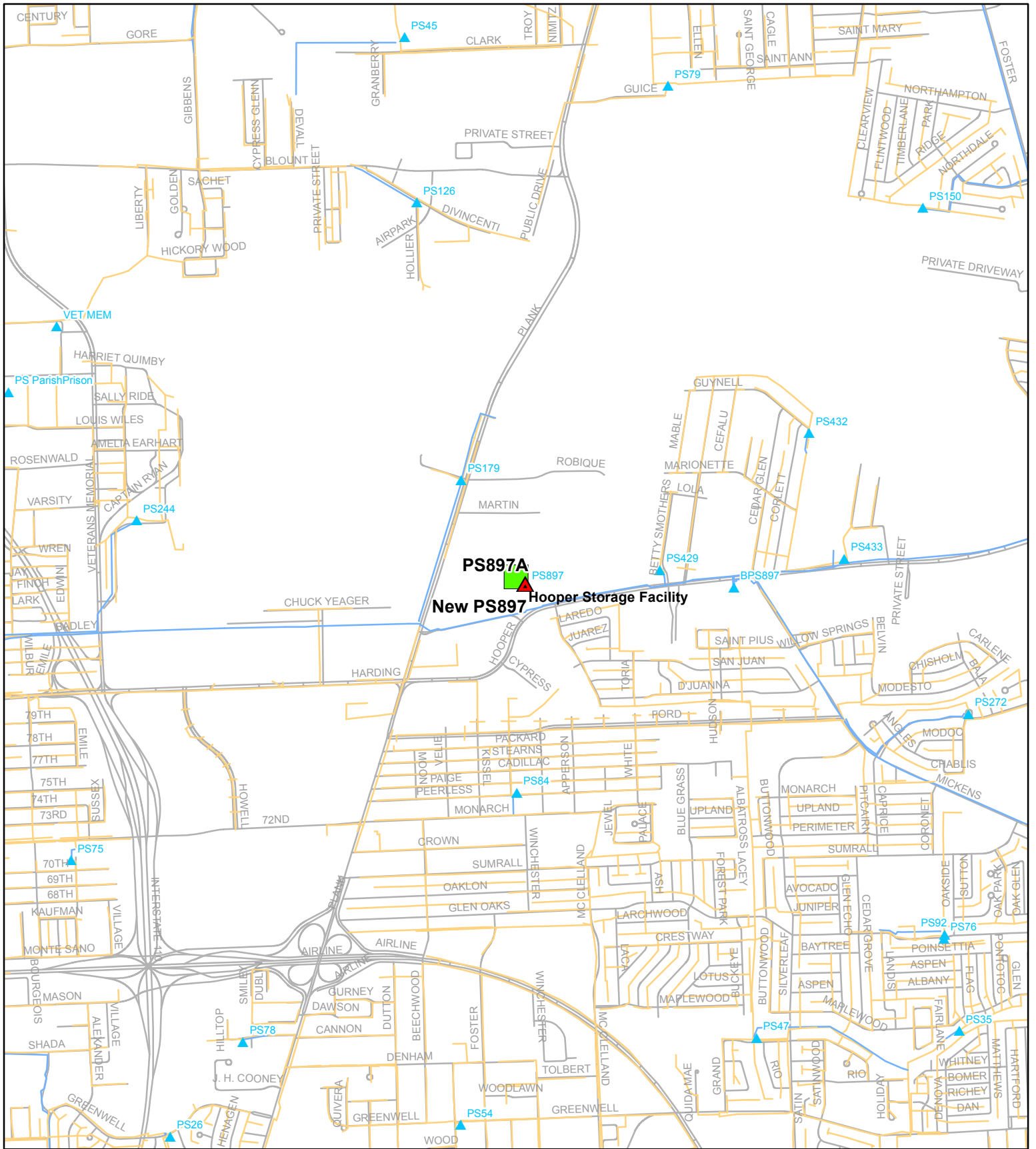
PS No.	Location	Existing Maximum Capacity (gpm)	Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 897	Near intersection of Plank Road and Harding Street	15,430	3,810	18,530
PS 897A	Near intersection of Plank Road and Harding Street	New	0	13,380

Note: The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 4-13
09-PS-UF-0007 (Hooper Storage Facility) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Existing BPS 897 discharge Force Main	PS 897	3,850	42	Force Main
PS 897A	Equalization Storage Facility	400	36	Force Main
Equalization Storage Facility	PS 897	440	36	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Hooper Road

Storage Facility

09-PS-UF-0007

Project Vicinity Map
Figure 4-15

BATON ROUGE **SSO**
Program

4.2.8 11-FM-MS-0023 (Joor Road - Greenwell Springs Road Sewer Area Upgrades)

Project Description

Purpose of the Project/Background Information

The 11-FM-MS-0023 (Joor Road - Greenwell Springs Road Sewer Area Upgrades) project involves the design and construction of force main upgrades in the North Basin. The upgrades are designed to alleviate chronic SSOs at the pump stations and increase the force main capacity.

Scope

The scope of this project includes construction of approximately 4,960 feet of 10-inch and 12-inch gravity sewer. This project also includes construction of 15,830 feet of 8-inch and 24-inch force main in the North Basin. The detailed scope of this project is given in Table 4-14. Gravity sewer and force main locations are shown in Figure 4-16.

TABLE 4-14
11-FM-MS-0023 (Joor Road - Greenwell Springs Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Tee w/ PS 116 FM	Tee w/ PS 288 FM	2,970	24	Force Main
Tee w/ PS 288 FM	Tie-In to Ex. 24" STN FM at blind flange from Group 1B Project (NS 6438)	7,200	24	Force Main
PS 289	PS 183	5,660	8	Force Main
MH 128-01G	MH 128-02G	210	10	Gravity
MH 128-02G	MH 128-03G	270	10	Gravity
MH 128-03G	MH 128-04G	230	10	Gravity
MH 128-04G	MH 128-05G	210	10	Gravity
MH 128-05G	MH 128-06G	300	10	Gravity
MH 128-06G	MH 128-07G	150	10	Gravity
MH 128-07G	MH 128-08G	120	10	Gravity
MH 128-08G	MH 128-09G	120	10	Gravity
MH 128-09G	MH 128-10G	30	10	Gravity
MH 128-10G	MH 128-11G	90	10	Gravity
MH 128-11G	MH 128-12G	300	10	Gravity
MH 128-12G	MH 128-13G	110	10	Gravity
MH 128-13G	MH 128-14G	80	10	Gravity
MH 128-14G	MH 128-15G	120	10	Gravity
MH 128-15G	MH 128-16G	270	10	Gravity
MH 128-16G	MH 128-17G	230	10	Gravity

TABLE 4-14
11-FM-MS-0023 (Joor Road - Greenwell Springs Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 128-17G	MH 128-18G	200	12	Gravity
MH 128-18G	MH 128-19G	70	12	Gravity
MH 128-19G	MH 128-20G	220	12	Gravity
MH 128-20G	PS 128	30	12	Gravity
Ex. MH 128-00041A	MH 128-21G	40	12	Gravity
MH 128-21G	MH 128-17G	160	12	Gravity
Ex. MH 166-00001	MH 166-001G	20	10	Gravity
MH 166-001G	MH 166-002G	290	10	Gravity
MH 166-002G	MH 166-003G	80	10	Gravity
MH 166-003G	MH 166-004G	60	10	Gravity
MH 166-004G	MH 166-005G	300	10	Gravity
MH 166-005G	MH 166-006G	160	10	Gravity
MH 166-006G	MH 166-007G	160	10	Gravity
MH 166-007G	MH 166-008G	260	10	Gravity
MH 166-008G	MH 166-009G at PS 119N	70	10	Gravity

Note: The pipe lengths were obtained from the Conformed Documents.

4.2.9 10-FM-MS-0049 (Lovett Road - Greenwell Springs Road Sewer Area Upgrades)

Project Description

Purpose of the Project/Background Information

The purpose of the 10-FM-MS-0049 (Lovett Road - Greenwell Springs Road Sewer Area Upgrades) project is to increase the capacity of the force main system in the North Basin to assist in transferring peak flows to the main STN sewer along Hooper Road and to increase the capacity of the gravity sewer systems upstream of PS 200. The gravity sewer and force main upgrades will work to alleviate chronic SSOs at the upstream or downstream locations of PSs 144, 160, 164, 195, 196, 200, 207, 231, 249, 285, 510, 510AA, 511.

Scope

This 10-FM-MS-0049 (Lovett Road - Greenwell Springs Road Sewer Area Upgrades) project includes construction of approximately 450 feet of 12-inch gravity sewer. This project also includes construction of approximately 46,550 feet of 8-inch, 10-inch, 16-inch, 30-inch, and 36-inch force main in the North Basin. The detailed scope of the project is shown in Table 4-15. Gravity sewers and force mains are shown in Figure 4-17.

TABLE 4-15

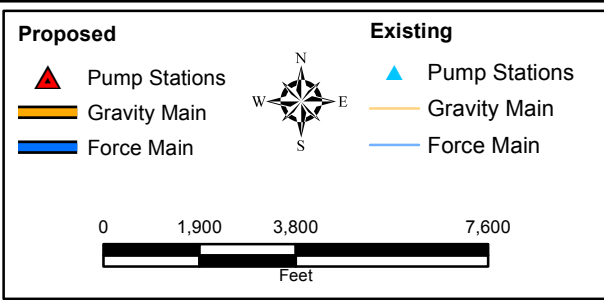
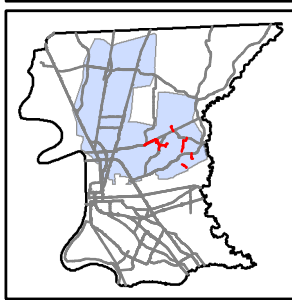
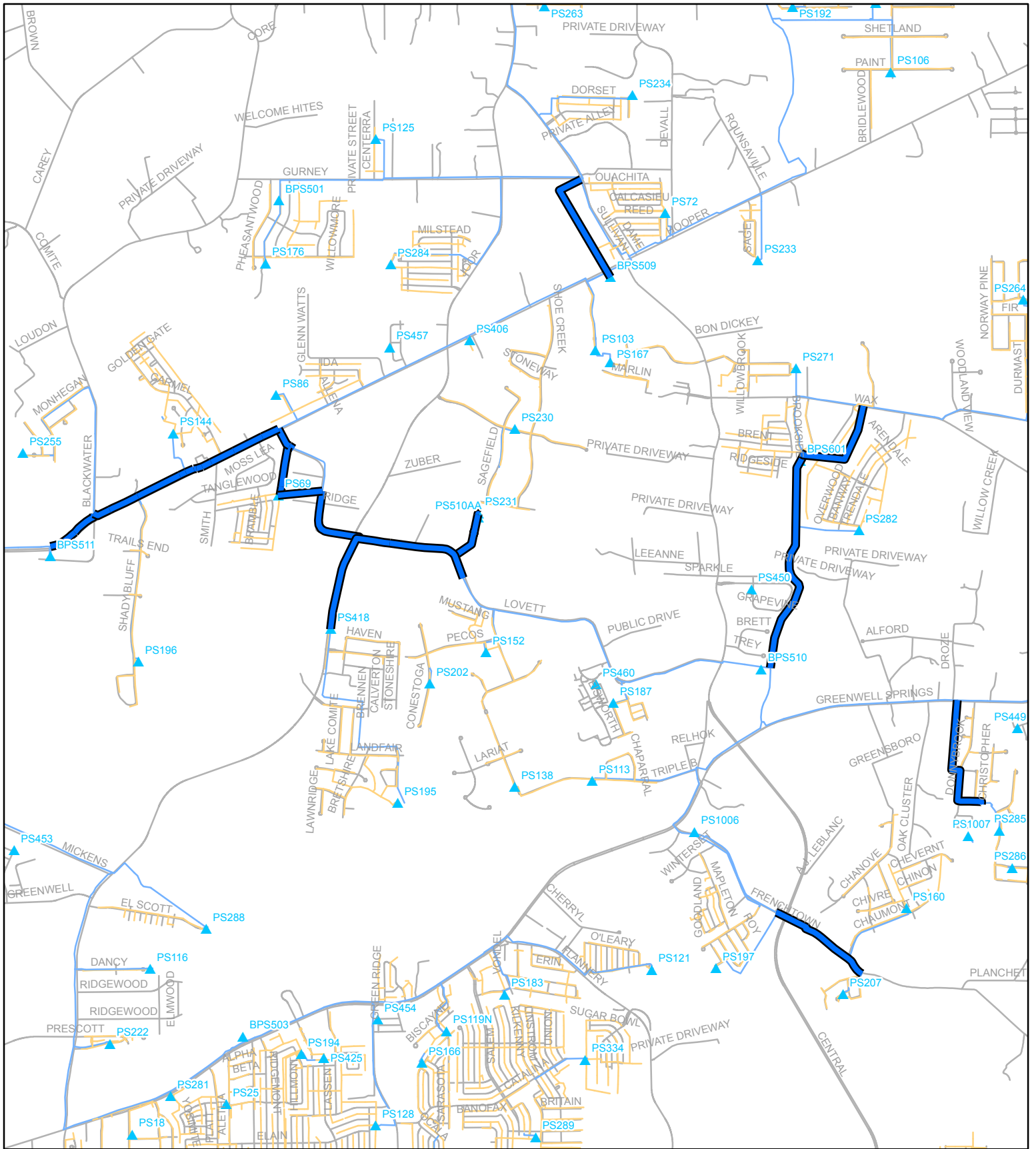
10-FM-MS-0049 (Lovett Road - Greenwell Springs Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Tie-In to New 16" FM at Gurney Rd	Tie-In to Ex. 30" FM at Hooper Rd	3,700	20	Force Main
New 36" Hooper Rd FM Tee with New 30" from PS 510AA	Tee with Ex. FM from PS 144	2,970	36	Force Main
Tee with Ex. FM from PS 144	Tee with Ex. FM from PS 196	1,540	36	Force Main
Tee with Ex. FM from PS 196	Tee with Ex. FM from PS 255	1,490	36	Force Main
Tee with Ex. FM from PS 255	PS 511	1,820	36	Force Main
PS 510AA	Tee with New 10" FM from PS 195	4,640	30	Force Main
Tee with New 10" FM from PS 195	New PS 510AA FM Tee with new 36" on Hooper Rd	5,060	30	Force Main
Increaser from 30" to 36" to PS 510AA	PS 510AA	1,540	36	Force Main
Tie-In to Ex. 8" PS 230 FM from Sullivan Rd - Lovett Rd - Wax Rd	PS 510AA	1,560	8	Force Main
Joor	Tee with New 30" PS 510AA FM	5,000	10	Force Main
Wax Rd	Tie-In to Ex. 10" STN FM	5,500	10	Force Main
16"x16"x4" to connect Ex. 4" from PS 282	New 16" FM Tie-In to new 30" FM from Lovett Rd - Greenwell Springs (Group A)	4,590	16	Force Main
Tee with 8" from PS 207 & 10" from PS 160	12" to 14" Increaser at Frenchtown Rd and Central Thwy	2,150	12	Force Main

TABLE 4-15
10-FM-MS-0049 (Lovett Road - Greenwell Springs Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 285	PS 164	1,120	8	Force Main
PS 164	Tee with 16" from Greenwell Springs	3,870	8	Force Main
MH at STA 504+52	MH at STA 504+28	20	12	Gravity
MH at STA 504+28	MH at STA 501+13	320	12	Gravity
MH at STA 501+13	MH at STA 500+71	40	12	Gravity
MH at STA 500+71	Tie-In at Ex. MH at PS 200	70	12	Gravity

Note: The pipe lengths were obtained from the 90% design drawings and value engineering changes.



Lovett Road - Greenwell Springs Road

Sewer Area Upgrades

10-FM-MS-0049

Project Vicinity Map
Figure 4-17

BATON ROUGE **SSO Program**

4.2.10 08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The 08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades) project involved the design and construction of upgrades to the collection system in the North Basin. This project included upgrading portions of the gravity collection system located in the areas served by PS 46, PS 55, PS 39, PS 52, PS 47, PS 54, PS 24, and PS 43. The upgrades were designed to alleviate chronic SSOs in the collection system and at the pump stations, as well as increase the system capacity. This project included gravity sewers from the following projects in the January 2008 PDP: NGS-C-0001 (Progress Road – Baton Rouge Metro Airport), NFW-C-0005 (Airline Highway – Victoria Drive), and NFW-C-0006 (McClelland Drive). Some line segments, or portions of these projects, from the January 2008 PDP were executed as part of the C-P Green Light Program Ford Street project.

Scope

The detailed scope of this project is shown in Table 4-16. Replacement portions of the gravity collection systems are shown in Figure 4-18.

TABLE 4-16
08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 052-00292C	MH 052-00292A	380	21	Gravity
MH 052-00292A	MH 052-00292	130	24	Gravity
MH 052-00292	MH 052-00286	230	36	Gravity
MH 052-00286	MH 052-00284	230	36	Gravity
MH 052-00284	MH 052-00280	520	36	Gravity
MH 052-00280	MH 052-00283	30	42	Gravity
MH 052-00283	MH 052-00245F	60	42	Gravity
MH 052-00245F	MH 052-00245E	200	42	Gravity
MH 052-00245E	MH 052-00245D	510	42	Gravity
MH 052-00245D	MH 052-00245C	160	42	Gravity
MH 052-00245C	MH 052-00245B	340	42	Gravity
MH 052-00245B	MH 052-00245A	500	42	Gravity
MH 052-00245A	MH 052-00245	500	42	Gravity
MH 052-00245	MH 052-00244	80	48	Gravity
MH 052-00244	MH 052-00243	380	48	Gravity
MH 052-00243	MH 052-00242	500	48	Gravity
MH 052-00242	MH 052-00240	500	48	Gravity

TABLE 4-16
08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 052-00240	MH 052-00239	160	48	Gravity
MH 052-00239	MH 052-00163	520	48	Gravity
MH 052-00163	MH 052-00161	480	48	Gravity
MH 052-00161	MH 052-00105B	40	48	Gravity
MH 052-00105B	MH 052-00105A	220	48	Gravity
MH 052-00105A	MH 052-00105	30	48	Gravity
MH 052-00105	MH 052-00104	50	48	Gravity
MH 052-00104	MH 052-00100	30	48	Gravity
MH 052-00100	MH 052-00004I	340	48	Gravity
MH 052-00004I	MH 052-00009H	370	48	Gravity
MH 052-00009H	MH 052-00009G	70	48	Gravity
MH 052-00009G	MH 052-00009F	190	48	Gravity
MH 052-00009F	MH 052-00009E	30	48	Gravity
MH 052-00009E	MH 052-00009D	50	48	Gravity
MH 052-00009D	MH 052-00009C	170	48	Gravity
MH 052-00009C	MH 052-00009B	310	48	Gravity
MH 052-00009B	MH 052-00009A	220	48	Gravity
MH 052-00009A	MH 052-0004E	120	48	Gravity
MH 052-0004E	MH 052-0004D	60	48	Gravity
MH 052-0004D	MH 052-0004C	140	48	Gravity
MH 052-0004C	MH 052-0004B	50	48	Gravity
MH 052-0004B	MH 052-0004A	230	48	Gravity
MH 052-0004A	MH 052-00004	300	54	Gravity
MH 052-00004	MH 052-00003	500	54	Gravity
MH 052-00003	MH 052-00001B	500	54	Gravity
MH 052-00001B	MH 052-00001A	340	54	Gravity
MH 052-00001A	MH 052-00001 @ PS 52	30	54	Gravity
MH 052-00005	MH 052-0004A	40	36	Gravity
MH 052-00144	MH 052-00143A	40	24	Gravity
MH 052-00143A	MH 052-00143	260	48	Gravity
MH 052-00143	MH 052-00155	310	48	Gravity

TABLE 4-16
08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 052-00155	MH 052-00141	340	48	Gravity
MH 052-00141	MH 052-00142A	330	48	Gravity
MH 052-00142A	MH 052-00134A	130	48	Gravity
MH 052-00134A	MH 052-00132	90	48	Gravity
MH 052-00132	MH 052-00131A	90	48	Gravity
MH 052-00131A	MH 052-00115A	240	48	Gravity
MH 052-00115A	MH 052-00114A	450	48	Gravity
MH 052-00114A	MH 052-00113	240	48	Gravity
MH 052-00113	MH 052-00107	340	48	Gravity
MH 052-00107	MH 052-00106A	250	48	Gravity
MH 052-00106A	MH 052-00400	100	48	Gravity
MH 052-00400	MH 052-00001	100	48	Gravity
MH 052-00600A	MH 052-00143A	70	48	Gravity
MH 052-00583A	MH 052-00556G	240	18	Gravity
MH 052-00556G	MH 052-00556F	280	18	Gravity
MH 052-00556F	MH 052-00556E	120	18	Gravity
MH 052-00556E	MH 052-00556D	310	18	Gravity
MH 052-00556D	MH 052-00556C	290	18	Gravity
MH 052-00556C	MH 052-00556B	310	18	Gravity
MH 052-00556B	MH 052-00556A	300	18	Gravity
MH 052-00556A	MH 052-00556G	200	21	Gravity
MH 052-00556G	MH 052-00556F	180	21	Gravity
MH 052-00556F	MH 052-00556E	310	21	Gravity
MH 052-00556E	MH 052-00556D	310	21	Gravity
MH 052-00556D	MH 052-00555	200	36	Gravity
MH 052-00555	MH 052-00554A	50	36	Gravity
MH 052-00554A	MH 052-00554B	130	36	Gravity
MH 052-00554B	MH 047-000118K	150	30	Gravity
MH 047-000118K	MH 047-000118J	400	30	Gravity
MH 047-000118J	MH 047-000118I	250	30	Gravity
MH 047-000118I	MH 047-000118H	260	30	Gravity

TABLE 4-16
08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 047-000118H	MH 047-000118G	350	30	Gravity
MH 047-000118G	MH 047-000118F	320	30	Gravity
MH 047-000118F	MH 047-000118E	300	30	Gravity
MH 047-000118E	MH 047-000118D	370	30	Gravity
MH 047-000118D	MH 047-000118C	20	30	Gravity
MH 047-000118C	MH 047-000118B	170	30	Gravity
MH 047-000118B	MH 047-000118A	190	30	Gravity
MH 047-000118A	MH 047-000118	70	30	Gravity
MH 052-00700 at PS 54	MH 052-00701	180	30	Gravity
MH 052-00701	MH 052-00702	220	30	Gravity
MH 052-00702	MH 052-00708A	210	30	Gravity
MH 052-00708A	MH 052-00708	220	30	Gravity
MH 052-00708	MH 052-00710A	230	30	Gravity
MH 052-00710A	MH 052-00710	210	30	Gravity
MH 052-00710	MH 052-00716	290	30	Gravity
MH 052-00716	MH 052-00723	290	30	Gravity
MH 052-00723	MH 052-00727	280	30	Gravity
MH 052-00727	MH 052-00745	250	30	Gravity
MH 052-00745	MH 052-00755	250	30	Gravity
MH 052-00755	MH 052-00752	230	30	Gravity
MH 052-00752	MH 052-00521	260	30	Gravity
MH 054-00027	MH 054-00026	260	18	Gravity
MH 054-00026	MH 054-00025	260	21	Gravity
MH 054-00025	MH 054-00024	300	21	Gravity
MH 054-00024	MH 054-00015	300	21	Gravity
MH 054-00015	MH 054-00009	100	21	Gravity
MH 054-00009	MH 054-00008	230	24	Gravity
MH 054-00008	MH 054-00007	230	24	Gravity
MH 054-00007	MH 054-00007A	170	24	Gravity
MH 054-00007A	MH 054-00006	130	24	Gravity
MH 054-00006	MH 054-00006A	180	24	Gravity

TABLE 4-16
08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 054-00006A	MH 054-00006B	50	24	Gravity
MH 054-00006B	PS 54	10	24	Gravity
Existing MH 052-00881	MH 052-00881A	20	12	Gravity
MH 052-00881A	MH 052-00881B	280	12	Gravity
MH 052-00881B	MH 052-00881C	300	12	Gravity
MH 052-00881C	MH 052-00881D	200	12	Gravity
MH 052-00881D	MH 052-00881E	260	12	Gravity
MH 052-00881E	MH 052-00881F	310	12	Gravity
MH 052-00881F	MH 052-00881G	330	12	Gravity
MH 052-00881G	MH 052-00881H	300	12	Gravity
MH 052-00881H	MH 052-00881I	330	12	Gravity
MH 052-00881I	MH 052-00881J	300	12	Gravity
MH 052-00881J	MH 052-005561F	70	12	Gravity
MH 047-00014	MH 047-00012	340	36	Gravity
MH 047-00012	MH 047-00011	240	36	Gravity
MH 047-00011	MH 047-00011A	20	36	Gravity
MH 047-00011A	MH 047-00011B	130	36	Gravity
MH 047-00011B	MH 047-00008	140	36	Gravity
MH 047-00008	MH 047-00008A	400	36	Gravity
MH 047-00008A	MH 047-00006A	470	36	Gravity
MH 047-00006A	MH 047-00006	20	36	Gravity
MH 047-00006	MH 047-00005	30	42	Gravity
MH 047-00005	MH 047-00004	20	42	Gravity
MH 047-00004	MH 047-00003A	390	42	Gravity
MH 047-00003A	MH 047-00003	20	42	Gravity
MH 047-00003	MH 047-00002	170	42	Gravity
MH 047-00002	MH 047-00001	70	42	Gravity
MH 047-00556	MH 047-00557	140	18	Gravity
MH 047-00557	MH 047-00514D	40	18	Gravity
MH 047-00514D	MH 047-00514C	500	18	Gravity
MH 047-00514C	MH 047-00514B	500	18	Gravity

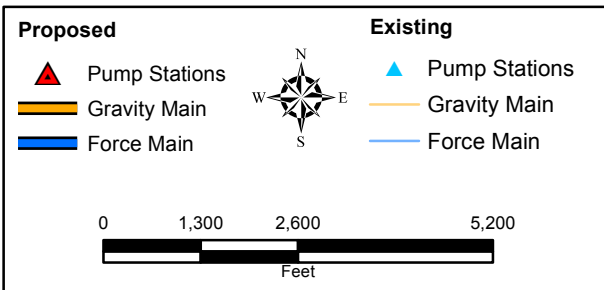
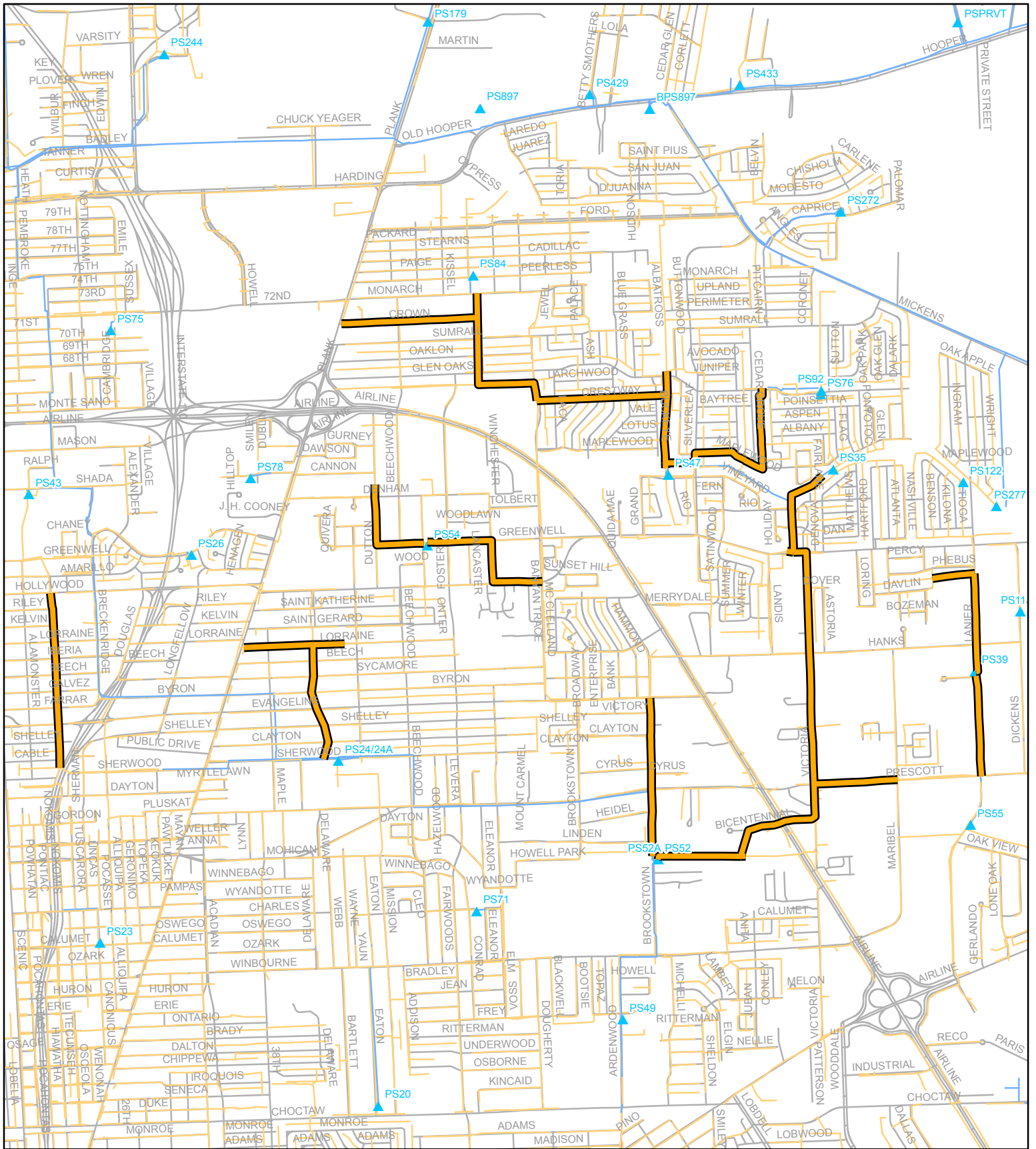
TABLE 4-16
08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 047-00514B	MH 047-00514A	460	18	Gravity
MH 047-00514A	MH 047-00472C	90	18	Gravity
MH 047-00472C	MH 047-00472B	70	18	Gravity
MH 047-00472B	MH 047-00472A	250	18	Gravity
MH 047-00472A	MH 047-00469A	240	18	Gravity
MH 047-00469A	MH 047-00468A	70	18	Gravity
MH 047-00468A	MH 047-00468B	260	18	Gravity
MH 047-00468B	MH 047-00467A	260	18	Gravity
MH 047-00467A	MH 047-00466A	20	18	Gravity
MH 047-00466A	MH 047-00465	140	18	Gravity
MH 047-00465	MH 047-00465A	30	18	Gravity
MH 047-00465A	MH 047-00465B	160	18	Gravity
MH 047-00465B	MH 047-00464A	420	18	Gravity
MH 047-00464A	MH 047-00002	200	18	Gravity
MH 039-00035	MH 039-00034	290	15	Gravity
MH 039-00034	MH 039-00033	280	15	Gravity
MH 039-00033	MH 039-00008	280	15	Gravity
MH 024-00186	MH 024-00185	230	21	Gravity
MH 024-00185	MH 024-00184	350	21	Gravity
MH 024-00184	MH 024-00183	410	21	Gravity
MH 024-00183	MH 024-00182	400	21	Gravity
MH 024-00182	MH 024-00110	320	21	Gravity
MH 024-00110	MH 024-00101	300	21	Gravity
MH 024-00101	MH 024-00068	330	21	Gravity
MH 024-00068	MH 024-00067	350	24	Gravity
MH 024-00067	MH 024-00064	370	27	Gravity
MH 024-00064	MH 024-00030	340	27	Gravity
MH 024-00030	MH 024-00011A	210	27	Gravity
MH 024-00011A	MH 024-00011	140	27	Gravity
MH 024-00193	MH 024-00192	250	21	Gravity
MH 024-00192	MH 024-00191	250	21	Gravity

TABLE 4-16
08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH 024-00191	MH 024-00189	320	21	Gravity
MH 024-00189	MH 024-00182	80	21	Gravity
MH 024-00182	MH 052-00182	10	21	Gravity
MH 052-00168	MH 052-00167	350	42	Gravity
MH 052-00167	MH 052-00166	350	42	Gravity
MH 052-00166	MH 052-00165	500	42	Gravity
MH 052-00165	MH 052-00161	480	42	Gravity
MH 052-00210	MH 052-00209	60	24	Gravity
MH 052-00209	MH 052-00208	400	24	Gravity
MH 052-00208	MH 052-00207	400	24	Gravity
MH 052-00207	MH 052-00206	400	24	Gravity
MH 052-00206	MH 052-00205	400	24	Gravity
MH 052-00205	MH 052-00204	400	24	Gravity
MH 043-00097A	MH 043-00095A	80	24	Gravity
MH 043-00095A	MH 043-00093A	280	24	Gravity
MH 043-00093A	MH 043-00091A	360	24	Gravity
MH 043-00091A	MH 043-00089A	250	24	Gravity
MH 043-00089A	MH 043-00087A	260	24	Gravity
MH 043-00087A	MH 043-00085A	330	24	Gravity
MH 043-00085A	MH 043-00083A	320	24	Gravity
MH 043-00083A	MH 043-00080A	330	24	Gravity
MH 043-00080A	MH 043-00078A	340	24	Gravity
MH 043-00078A	MH 043-00076A	330	24	Gravity
MH 043-00076A	MH 043-00075A	340	24	Gravity
MH 043-00075A	MH 043-00073	320	24	Gravity

Note: The pipe lengths were obtained from the conformed drawings.



Metro Airport Gravity

Sewer Area Upgrades
[Group 1A]
08-GS-UF-0053

Project Vicinity Map
Figure 4-18

BATON ROUGE **SSO**
Program

4.2.11 08-PS-UF-0054 (Metro Airport [Group 1B] Pump Station and Force Main Improvements)

Project Description

Purpose of the Project/Background Information

The 08-PS-UF-0054 (Metro Airport [Group 1B] Pump Station and Force Main Improvements) project was a combination of two individual projects identified in the January 2008 PDP, specifically the NFW-C-0008 (Multiple Pump Stations – Airline Highway – Greenwell Street) and portions of NFW-C-0005 (Airline Highway – Victoria Drive). The combined project was designated 08-PS-UF-0054 (Metro Airport [Group 1B] Pump Station and Force Main Improvements) project and is described in this section.

This project included the upgrades of force main segments and pump stations in the North Basin. The 08-PS-UF-0054 (Metro Airport [Group 1B] Pump Station and Force Main Improvements) project consisted of the replacement of eight pump stations, replacement of 7,000 linear feet of 8-inch to 16-inch sanitary sewer force main pipeline, and 28,000 linear feet of new 30-inch sanitary sewer force main.

The pump station and force main upgrades included in this project work in conjunction with the 08-GS-UF-0053 (Metro Airport [Group 1A] Gravity Sewer Area Upgrades) project gravity sewer upgrades in the North Basin to alleviate chronic SSOs at the pump stations and in the gravity basins upstream of the pump stations.

The locations of the pump stations are given in Table 4-18 and shown in Figure 4-19.

Scope

This project included the replacement of PS 45, PS 47, PS 35, PS 39, PS 54, PS 23, PS 275, and PS 277. This project also included the replacement of the force mains from PS 35, PS 39, PS 47, PS 54, PS 275, PS 277, and an extension of PS 45 force main. Tables 4-17 and 4-18 show the detailed scope of this project.

TABLE 4-17
08-PS-UF-0054 (Metro Airport [Group 1B] Pump Station and Force Main Improvements) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 23	Canonicus Street between Calumet Street and Navajo Street	1,500	420	1,590
PS 35	Maplewood Drive between East Fairlane Court and Flag Street	700	320	1,690
PS 39	Lanier Drive between Hanks Drive and Prescott Drive	600	260	2,080
PS 45	Near Intersection of 72nd Avenue and Yorkshire Street	9,620	1,920	16,560
PS 47	Vineyard Drive between Grand Drive and West Rio Drive	7,140	1,200	13,700

TABLE 4-17
08-PS-UF-0054 (Metro Airport [Group 1B] Pump Station and Force Main Improvements) – Pump Station Information

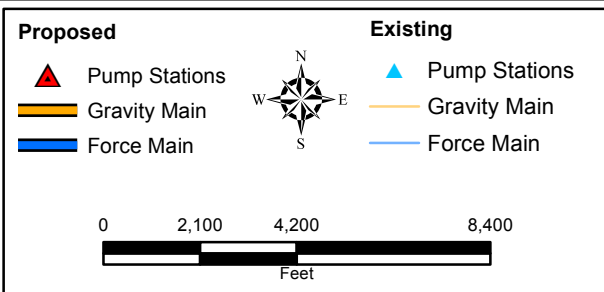
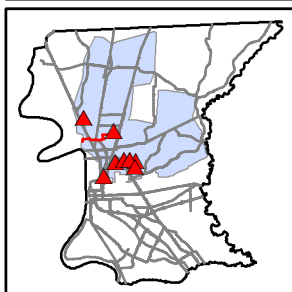
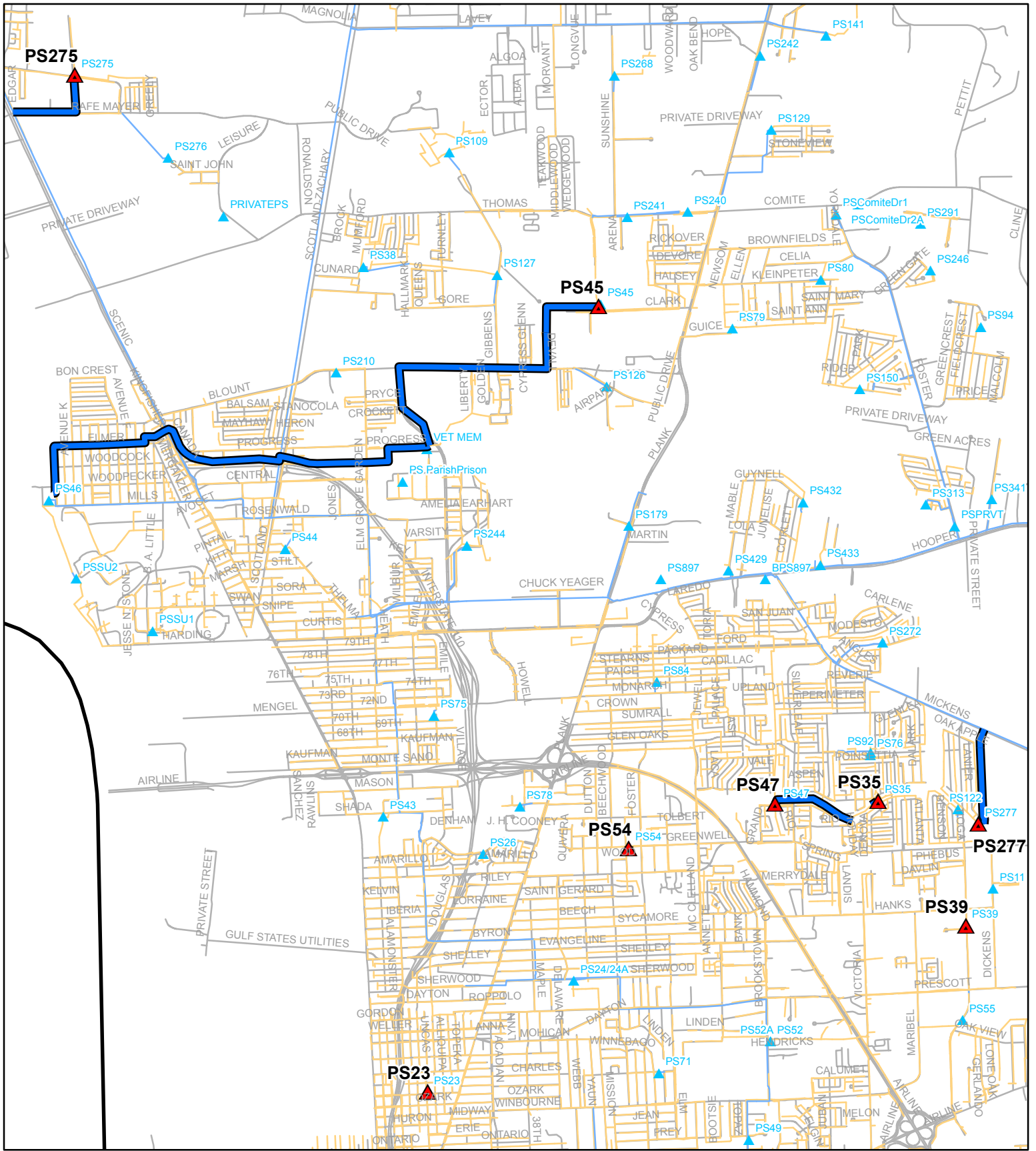
PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 54	Greenwell Street between North Foster Drive and Beechwood Drive	1,050	200	3,720
PS 275	Intersection of Old Rafe Meyer Road and Glynn Road	700	200	1,570
PS 277	End of Wright Drive	200	130	660

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 4-18
08-PS-UF-0054 (Metro Airport [Group 1B] Pump Station and Force Main Improvements) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 35	MH 052-00292C from Group Project 1A	440	10	Force Main
PS 39	MH 052-000214 from Group Project 1A	110	12	Force Main
PS 45	Tie-In to 30-inch Force Main from ZATNIP Phase II at Elmer Avenue and Avenue K	25,350	30	Force Main
PS 47	MH 052-00292 from Group Project 1A	2,830	30	Force Main
PS 54	MH 052-00700A	80	16	Force Main
PS 275	Tie-In to Existing 14-inch Force Main along Scenic Hwy	3,400	12	Force Main
PS 277	Tie-In to Existing 24-inch Force Main along Mickens Road	3,120	8	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Metro Airport
 Pump Station and Force Main Improvements
 [Group 1B]
 08-PS-UF-0054

Project Vicinity Map
Figure 4-19

BATON ROUGE **SSO**
 Program

4.2.12 11-PS-MS-0035 (Multiple Pump Stations - Hwy 61 - Plank Road)

Project Description

Purpose of the Project/Project Background

The 11-PS-MS-0035 (Multiple Pump Stations - Hwy 61 - Plank Road) project includes the upgrade of PS 43, PS 105, PS 124, and PS 513. These upgrades are required to alleviate SSOs at and near the pump stations as well as in their respective upstream basins.

The locations of the pump stations are given in Table 4-19 and are shown in Figure 4-20.

Scope

This project includes the replacement of the pump stations shown in Table 4-19. BPS 513, an in-line booster station, is being replaced with a wet well pump station (PS 513).

TABLE 4-19
11-PS-MS-0035 (Multiple Pump Stations - Hwy 61 - Plank Road Project) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 43	2364 Shada Avenue	7,090	2,090	9,000
PS 105	7428 Jupiter Drive	630	50	320
PS 124	5153 Pride-Port Hudson Road	200	180	1,070
PS 513	6405 Bentley Drive	7,440	250	3,610

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

4.2.13 11-PS-MS-0034 (Multiple Pump Stations - Prescott Road - Greenwell Springs Road)

Project Description

Purpose of the Project/Project Background

The 11-PS-MS-0034 (Multiple Pump Stations - Prescott Road - Greenwell Springs Road) project includes the upgrade of PS 24, PS 24A, PS 119N, PS 128, PS 183, and PS 503. These upgrades are required to alleviate SSOs at and near the pump stations as well as in their respective upstream basins.

The locations of the pump stations are shown in Table 4-20 and in Figure 4-21.

Scope

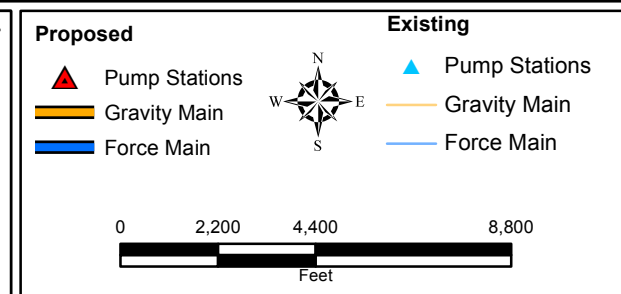
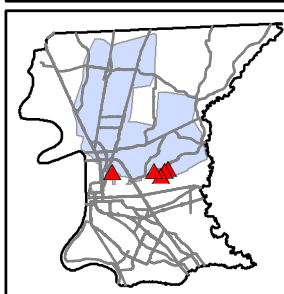
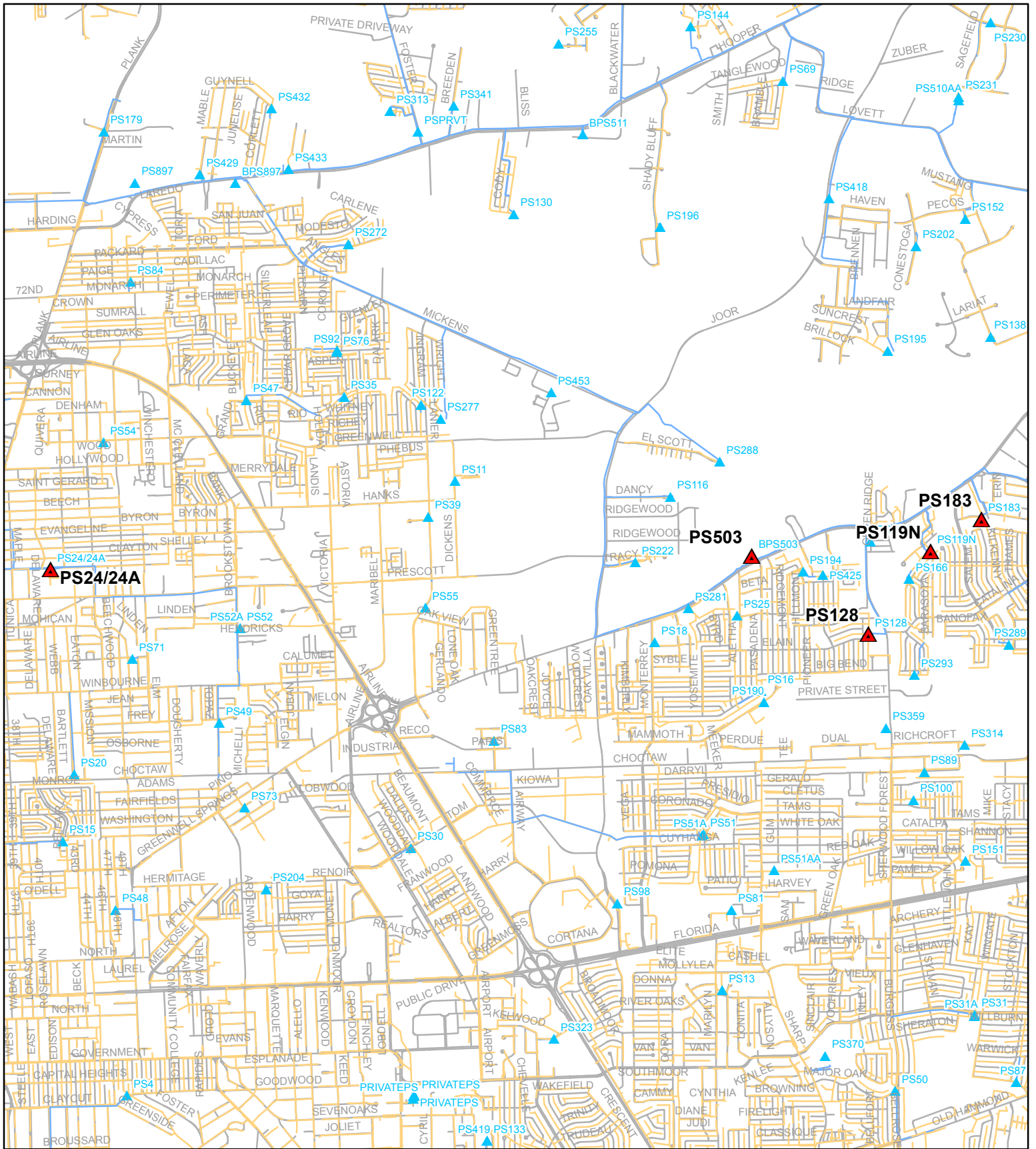
This project includes the replacement of pump stations as outlined in Table 4-20. BPS 503, an in-line booster station, is being replaced with a wet well pump station (PS 503).

TABLE 4-20

11-PS-MS-0034 (Multiple Pump Stations - Prescott Road - Greenwell Springs Road) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 24	Sherwood Street between Wildwood Parkway and Lemonwood Drive	4,050	1,230	3,720
PS 24A	Sherwood Street between Wildwood Parkway and Lemonwood Drive	5,890	0	6,020
PS 119N	Sarasota Drive between Biscayne Drive and Flamingo Drive	430	110	840
PS 128	North Sherwood Forest Drive and Catalina Avenue	630	240	N/A
PS 183	Canterbury Drive between the intersection of Greenforest Drive and Monticello Boulevard	1,550	360	2,230
PS 503	Greenwell Springs Road between the intersection of Aletha Drive and Pasadena Drive	2,850	740	4,180

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Prescott Road - Greenwell Springs Road
Multiple Pump Stations

11-PS-MS-0034
Project Vicinity Map
Figure 4-21

BATON ROUGE **SSO** Program

4.2.14 09-GS-UF-0028 (Plank Road - Kleinpeter Road Sewer Area Upgrades)

Project Description

Purpose of the Project/Background Information

The purpose of the 09-GS-UF-0028 (Plank Road - Kleinpeter Road Sewer Area Upgrades) was to upsize gravity sewers upstream of PS 45, PS 127, PS 44, and PS 244 as well as force mains exiting PS 38, PS 244, and PS 63, which will alleviate chronic SSOs in the gravity system.

Scope

This project included approximately 15,940 feet of 8-inch through 48-inch gravity sewer pipe in the North Basin. This project also included replacement of force mains from PS 38 and PS 244, totaling approximately 7,800 feet of 8-inch and 12-inch force main. Table 4-21 shows the detailed scope of this project. The locations of gravity sewers and force mains in this project are shown in Figure 4-22.

TABLE 4-21

09-GS-UF-0028 (Plank Road - Kleinpeter Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH G3-11 (Ex. MH 127-00020)	MH G3-10	10	8	Gravity
MH G3-10	MH G3-09	230	15	Gravity
MH G3-09	MH G3-08	280	15	Gravity
MH G3-08	MH G3-07	190	15	Gravity
MH G3-07	MH G3-06	300	21	Gravity
MH G3-06	MH G3-05	30	21	Gravity
MH G3-05	MH G3-04	450	21	Gravity
MH G3-04	MH G3-03	440	21	Gravity
MH G3-03	MH G3-02	90	21	Gravity
MH G3-02	MH G3-01	480	21	Gravity
MH G3-01	PS 127	20	21	Gravity
MH G1-19	MH G1-18	90	24	Gravity
MH G1-18	MH G1-17	260	24	Gravity
MH G1-17	MH G1-16	220	24	Gravity
MH G1-16	MH G1-15	50	24	Gravity
MH G1-15	MH G1-14	190	24	Gravity
MH G1-14	MH G1-13	120	27	Gravity
MH G1-13	MH G1-12	310	27	Gravity
MH G1-12	MH G1-11	250	27	Gravity
MH G1-11	MH G1-10	280	27	Gravity
MH G1-10	MH G1-09	240	27	Gravity

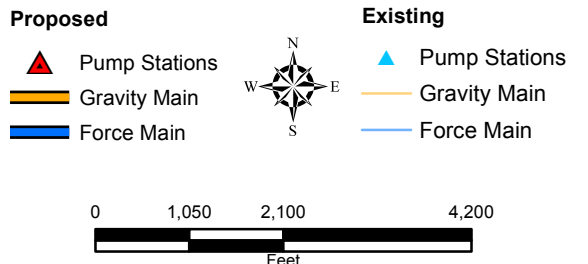
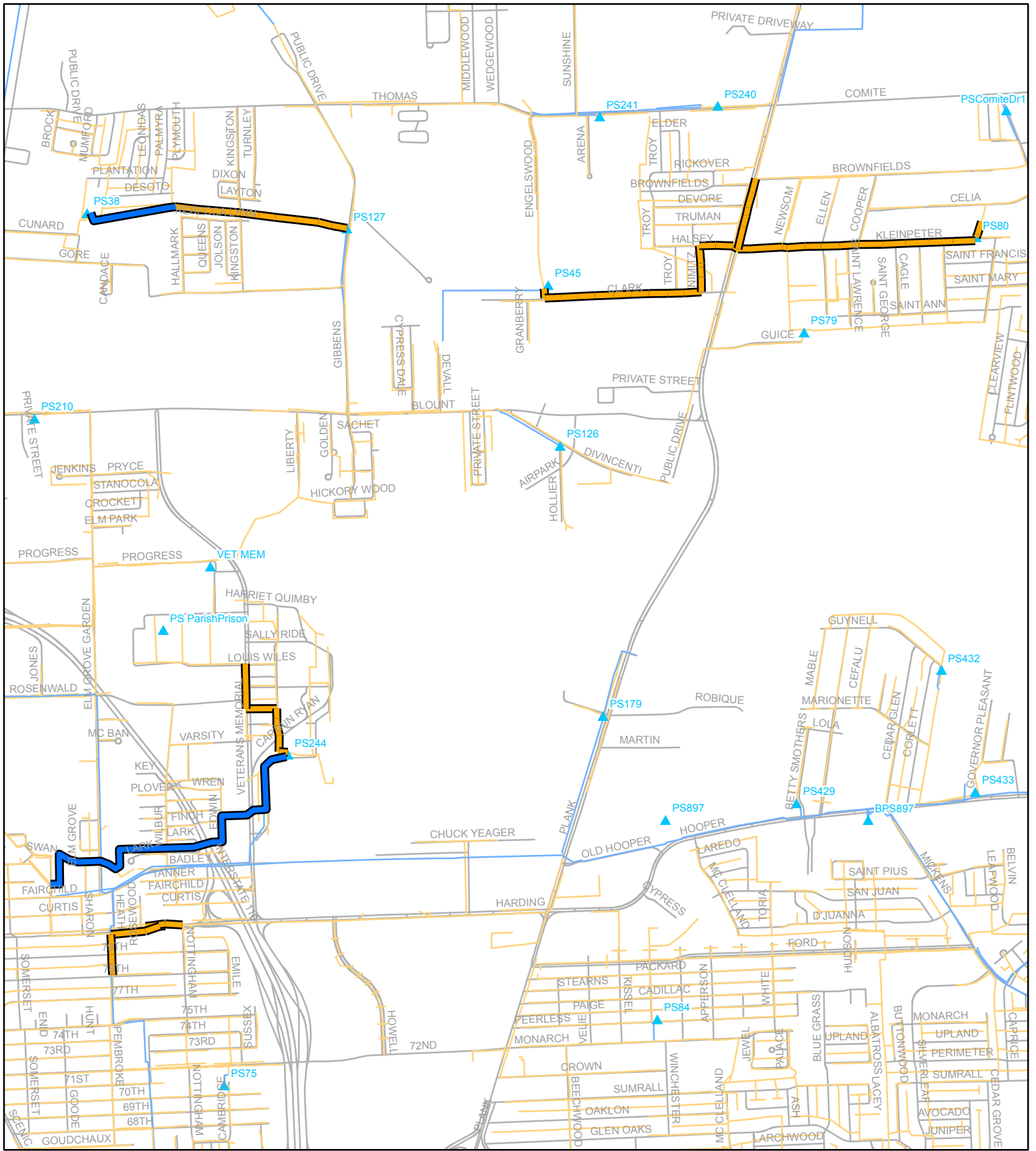
TABLE 4-21
09-GS-UF-0028 (Plank Road - Kleinpeter Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH G1-09	MH G1-08	280	27	Gravity
MH G1-08	MH G1-07	490	27	Gravity
MH G1-07	MH G1-06	380	27	Gravity
MH G1-06	MH G1-05	140	27	Gravity
MH G1-05	MH G1-04	410	30	Gravity
MH G1-04	MH G1-03	410	30	Gravity
MH G1-03	MH G1-02	410	30	Gravity
MH G1-02	MH G1-01	420	30	Gravity
MH G1-01	PS 45	20	42	Gravity
MH G8-09 at PS 80	MH G8-08	370	18	Gravity
MH G8-08	MH G8-07	400	18	Gravity
MH G8-07	MH G8-06	410	18	Gravity
MH G8-06	MH G8-05	380	18	Gravity
MH G8-05	MH G8-04	400	18	Gravity
MH G8-04	MH G8-03	300	18	Gravity
MH G8-03	MH G8-02	370	18	Gravity
MH G8-02	MH G8-01	430	18	Gravity
MH G8-01	MH G1-19	110	18	Gravity
Ex. MH 080-00010	Ex. MH 080-00011	270	15	Gravity
Ex. MH 080-00011	MH 080-00013	220	15	Gravity
Ex. MH 080-00013	PS 80	50	15	Gravity
MH G2-07 (Ex. MH 045-00045)	MH G2-06	300	12	Gravity
MH G2-06	MH G2-05	230	12	Gravity
MH G2-05	MH G2-04	90	12	Gravity
MH G2-04	MH G2-03	120	12	Gravity
MH G2-03	MH G2-02	100	12	Gravity
MH G2-02	MH G1-14	350	12	Gravity
MH G4-07 (Ex. MH 044-00325)	MH G4-06	290	24	Gravity
MH G4-06	MH G4-05	40	24	Gravity
MH G4-05	MH G4-04	320	24	Gravity
MH G4-04	MH G4-03	200	24	Gravity

TABLE 4-21
09-GS-UF-0028 (Plank Road - Kleinpeter Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH G4-03	MH G4-02	380	24	Gravity
MH G4-02	MH G4-01	20	24	Gravity
MH G5-16	MH G5-15	20	12	Gravity
MH G5-15	MH G5-14	120	12	Gravity
MH G5-14	MH G5-13	170	12	Gravity
MH G5-13	MH G5-12	210	12	Gravity
MH G5-12	MH G5-11	60	12	Gravity
MH G5-11	MH G5-10	320	12	Gravity
MH G5-10	MH G5-09	60	12	Gravity
MH G5-09	MH G5-08	60	12	Gravity
MH G5-08	MH G5-07	160	12	Gravity
MH G5-07	MH G5-06	170	12	Gravity
MH G5-06	MH G5-05	210	15	Gravity
MH G5-05	MH G5-04	190	15	Gravity
MH G5-04	MH G5-03	170	15	Gravity
MH G5-03	MH G5-02	130	15	Gravity
MH G5-02 (Ex. MH 244-00002)	MH G5-01 (Ex. MH 244-00001)	170	15	Gravity
MH G5-01 (Ex. MH 244-00001)	PS 244	20	15	Gravity
MH FM5-02	MH FM5-01 (near Ex. MH 044-00118)	60	15	Gravity
PS 244	MH FM5-02	5,790	12	Force Main
PS 38	MH G3-10	2,010	8	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Plank Road - Kleinpeter Road

Sewer Area Upgrades

09-GS-UF-0028

Project Vicinity Map
Figure 4-22

BATON ROUGE **SSO**
Program

4.2.15 11-FM-MS-0036 (Plank Road - Port Hudson Pride Road Sewer Area Upgrades)

Project Description

Purpose of the Project/Background Information

The 11-FM-MS-0036 (Plank Road - Port Hudson Pride Road Sewer Area Upgrades) project involved the design and construction of force main upgrades in the North Basin. The upgrades were designed to alleviate chronic SSOs at the pump stations and increase the force main capacity.

Scope

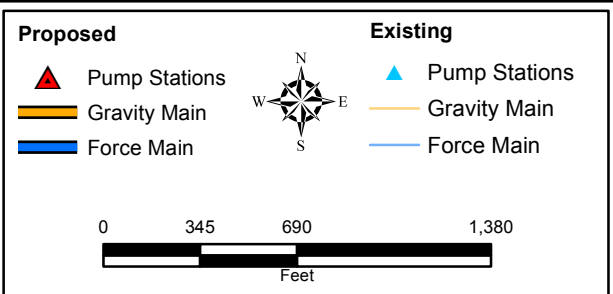
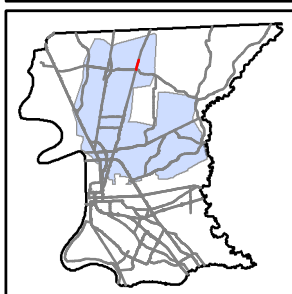
The detailed scope of this project, which includes construction of force mains in the North Basin, is shown in Table 4-22 and in Figure 4-23.

TABLE 4-22

11-FM-MS-0036 (Plank Road - Port Hudson Pride Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
Tee with Ex. 10" FM at W.J. Wicker Rd and Plank Rd	Tie-In to Ex. 18" STN FM at Main St and Plank Rd	5,810	14	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Plank Road - Port Hudson Pride Road

Sewer Area Upgrades

11-FM-MS-036

Project Vicinity Map
Figure 4-23

BATON ROUGE **SSO**
Program

4.2.16 11-PS-MS-0024 (Plank Road Pump Station Improvements)

Project Description

Purpose of the Project/Project Background

The 11-PS-MS-0024 (Plank Road Pump Station Improvements) project includes the replacement of PS 127, PS 129, PS 38, PS 64, PS 244, PS 44, and PS 80. This project is the combination of NGS-C-0003 (Multiple PS – Plank Road – Thomas Road) and NGS-C-0004 (Multiple PS-Plank Road - Harding Boulevard) from the October 2008 PDP. The combined project has been designated 11-PS-MS-0024 (Plank Road Pump Station Improvements) project and is described in this section.

The pump station replacements will work in conjunction with the force main and gravity sewer upgrades in the North Basin projects to alleviate chronic SSOs at the pump stations and in the gravity basins upstream of the pump stations.

The upgrades also will allow the pump stations to handle future peak wet weather flows that modeling predicts will equal or exceed the existing maximum capacities.

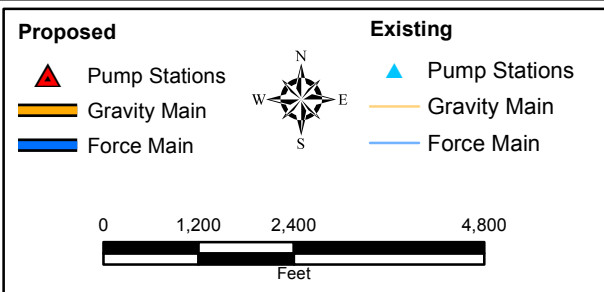
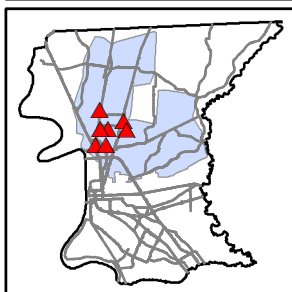
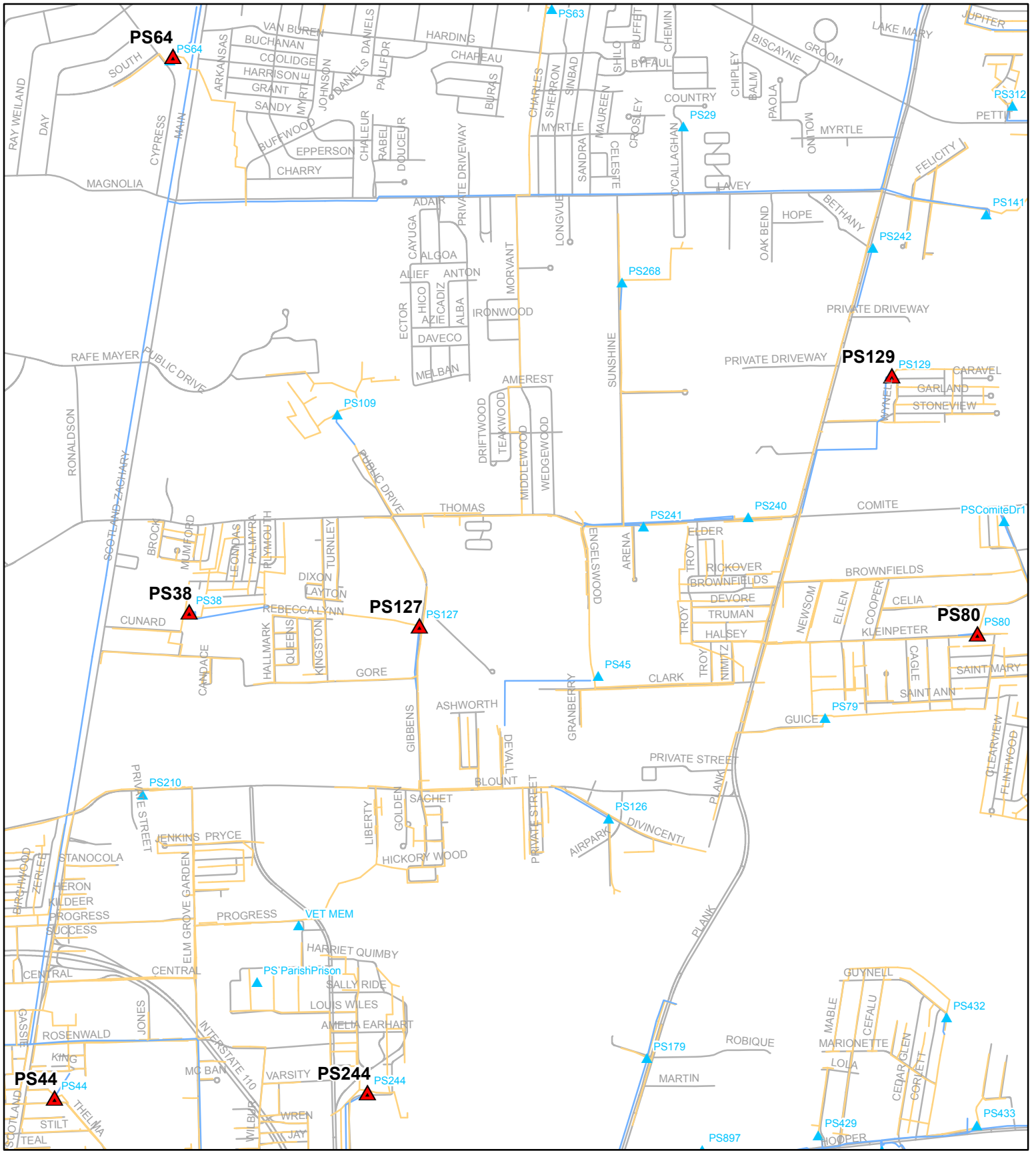
Scope

This project includes the replacement of the seven pump stations shown in Table 4-23. Locations of the pump stations in this project are shown in Figure 4-24.

TABLE 4-23
11-PS-MS-0024 (Plank Road Pump Station Improvements) –Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 38	Desoto Drive, near Clifford Seymour Senior Park	1,400	190	1,390
PS 44	Near the intersection of Oriole Street and Thelma Street	8,400	1,560	11,200
PS 64	Near the intersection of Cypress Street and South Street	1,350	570	1,970
PS 80	Near the intersection of St. Peter Avenue and Kleinpeter Road	400	N/A	810
PS 127	Gibbens Road, near intersection of Gore Road	1,800	310	1,810
PS 129	Near the intersection of Wynell Drive and Lebrent Avenue	400	70	420
PS 244	Near the intersection of Captain Ryan Drive and General Chennault Drive	1,000	180	1,740

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flows were obtained from the BTRSSO hydraulic model.



Plank Road

Pump Stations Improvements

11-PS-MS-0024

Project Vicinity Map
Figure 4-24

BATON ROUGE **SSO**
Program

4.2.17 07-PS-BD-0018 (Sullivan Road - Lovett Road - Wax Road Sewer Area Upgrades)

Project Description

Purpose of the Project/Project Background

The purpose of 07-PS-BD-0018 (Sullivan Road - Lovett Road - Wax Road Sewer Area Upgrades) project was to replace PS 187, PS 230, and PS 282 to alleviate SSOs at and near the pump stations. This project also included the upsizing of the force mains from the three pump stations as well as the gravity sewer that feeds PS 230. This project was originally designated as the NFE-C-0002 (Multiple Pump Stations – Lovett Road Area) project in the October 2008 PDP.

Scope

The scope of this project included three pump station replacements, approximately 4,660 feet of 6-inch and 8-inch force main, and approximately 2,120 feet of 12-inch gravity sewer. The detailed scope is shown in Tables 4-24 and 4-25. Pump station and force main locations are shown in Figure 4-25.

TABLE 4-24

07-PS-BD-0018 (Sullivan Road - Lovett Road - Wax Road Sewer Area Upgrades) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
PS 187	Clear Oak Avenue, near the intersection of Oak Meadow Drive	160	90	380
PS 230	Morgan Meadow Avenue, near the intersection of Shoe Creek Drive	400	150	1,360
PS 282	Regent Avenue, near the intersection of Trendale Drive	130	40	960

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

TABLE 4-25

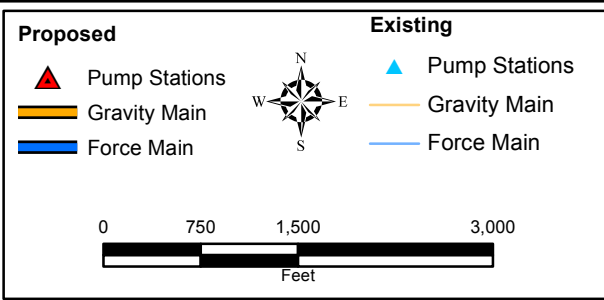
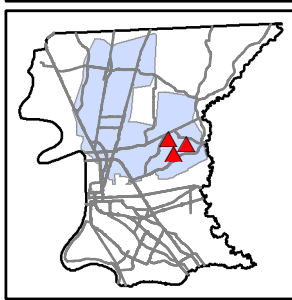
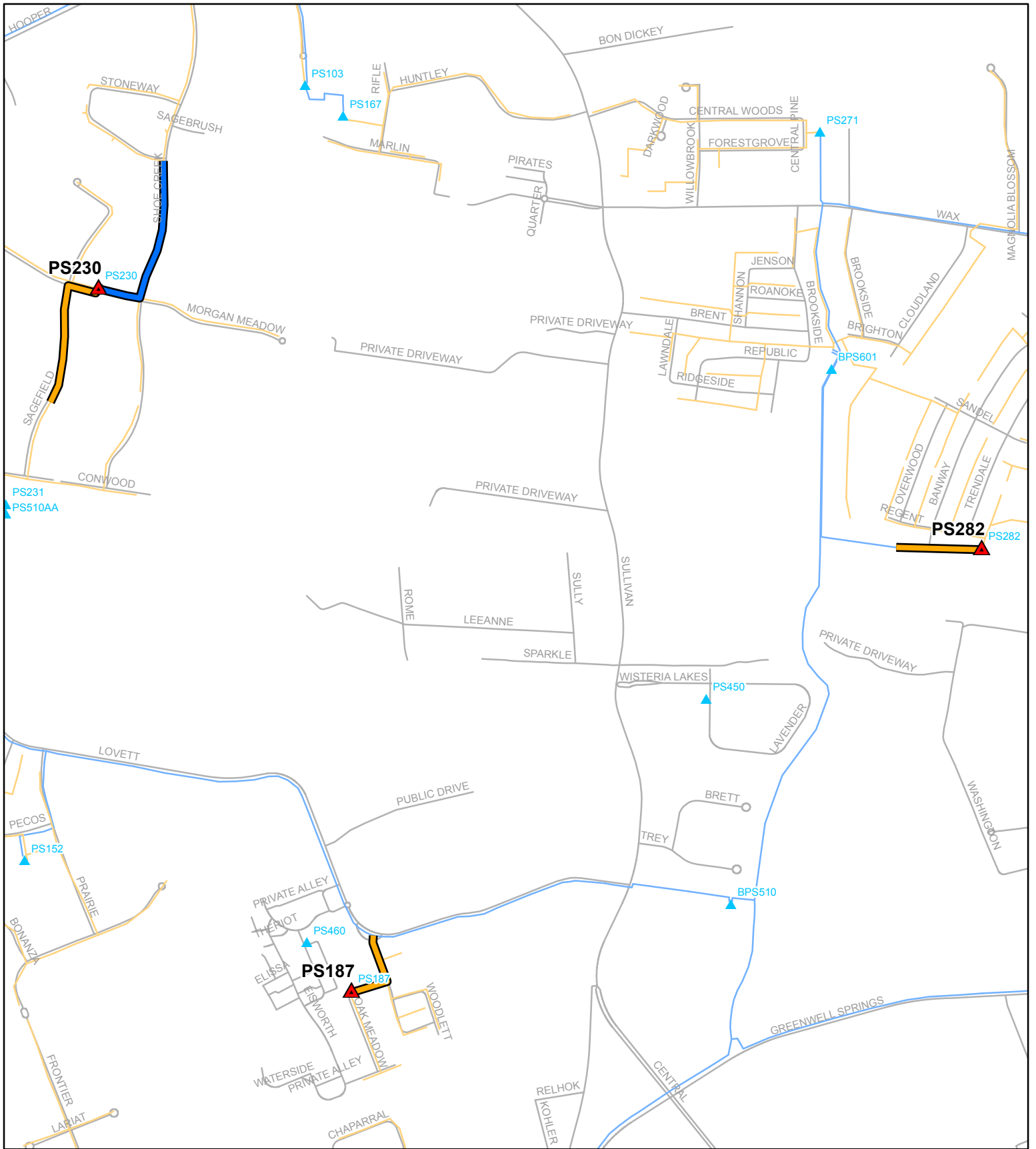
07-PS-BD-0018 (Sullivan Road - Lovett Road - Wax Road Sewer Area Upgrades) – Pipeline Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
PS 187	Tie-In to Existing 20-inch STN Force Main at Lovett Road and Woods Edge Drive	970	6	Force Main
PS 282	Tie-In to Existing 12-inch STN Force Main at Beaver Bayou	1,950	8	Force Main
PS 230	Existing MH 231-00015	1,740	8	Force Main
MH P-230-11	MH P-230-10	370	12	Gravity
MH P-230-10	MH P-230-09	280	12	Gravity
MH P-230-09	MH P-230-08	260	12	Gravity

TABLE 4-25
07-PS-BD-0018 (Sullivan Road - Lovett Road - Wax Road Sewer Area Upgrades) – Pipeline
Information

Upstream Node	Downstream Node	Length (feet)	Diameter (inches)	Line Type
MH P-230-08	MH P-230-07	270	12	Gravity
MH P-230-07	MH P-230-06	250	12	Gravity
MH P-230-06	MH P-230-05	180	12	Gravity
MH P-230-05	MH P-230-04	10	12	Gravity
MH P-230-04	MH P-230-03	270	12	Gravity
MH P-230-03	MH P-230-02	210	12	Gravity
MH P-230-02	MH P-230-01	10	12	Gravity
MH P-230-01	PS 230	10	12	Gravity

Note: The pipe lengths were obtained from the record drawings.



Sullivan Road - Lovett Road - Wax Road

Sewer Area Upgrades

07-PS-BD-0018

Project Vicinity Map

Figure 4-25

BATON ROUGE **SSO** Program

4.2.18 10-FM-IF-0002 (Zachary Area Transmission Network Improvements [Phase 1])

Purpose of the Project/Project Background

The purpose of the Zachary Area Transmission Network Improvements projects (ZATNIP) was to address inadequate capacity in the Baker/Zachary contributing area and to divert flow from the Zachary contributing area around the Comite Diversion Canal to the North WWTP. This project also included conversion of the Red Mud Lakes facility into a 20MG storage facility, which reduced the peak flows to the North WWTP from the Zachary area.

Scope

The ZATNIP (Phase 1) project included the construction of three pump station included in Table 4-26. Old Baker Road PS, located north of the intersection of Old Baker Road with the Entergy right-of-way, captures all sewage from the Old Baker Road gravity main and pump through a 24-inch force main westward to Highway 964. The Hwy 964 PS collects the flow from the 30-inch force main from the north, the existing 16-inch Copper Mill force main, and the new 24-inch Old Baker Road force main. This pump station pumps through a 48-inch force main westward along the Entergy right-of-way. The 20 MG equalization facility was built inside the existing Red Mud Lakes facility that the C-P purchased from Kaiser Aluminum in 2004. The equalization basin is utilized for storage during wet weather, when flows in the force main exceed 20 mgd. A pump station with a capacity of 20 mgd, constructed on the Red Mud Lakes site, pumps the flow from the equalization facility to the North WWTP through a 30-inch force main that travels southeasterly along an existing servitude that is located to the west of Highway 61. Pump Station locations are shown in Figure 4-26.

TABLE 4-26
10-FM-IF-0002 (Zachary Area Transmission Network Improvements Project [Phase 1])

PS No.	Location	Existing Maximum Capacity (gpm)	Future Dry Weather (gpm)	Future Peak Wet Weather Flow (gpm)
Old Baker Road PS	West of the intersection of Plank Road with Entergy Right-of-Way	New	unknown	10,530
Hwy 964 PS	Intersection of Highway 964 and Entergy Right-of-Way	New	unknown	27,070
Red Mud Lakes PS	Red Mud Lakes Equalization Facility, near East Baton Rouge Parish Landfill	New	unknown	13,880

Note: The future peak wet weather flow was obtained from the BTRSSO hydraulic model.

4.2.19 10-FM-IF-0003 (Zachary Area Transmission Network Improvements [Phase 2])

Purpose of the Project/Project Background

The purpose of the Zachary Area Transmission Network Improvements projects (ZATNIP) was to address inadequate capacity in the Baker/Zachary contributing area and to divert flow from the Zachary contributing area around the Comite Diversion Canal to the North WWTP. This project also included conversion of the Red Mud Lakes facility into a 20MG storage facility, which reduced the peak flows to the North WWTP from the Zachary area.

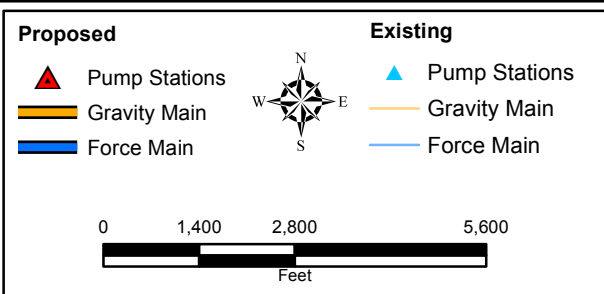
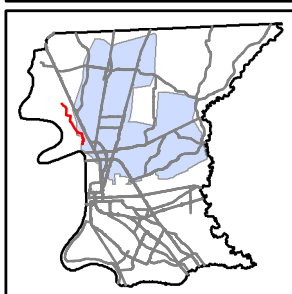
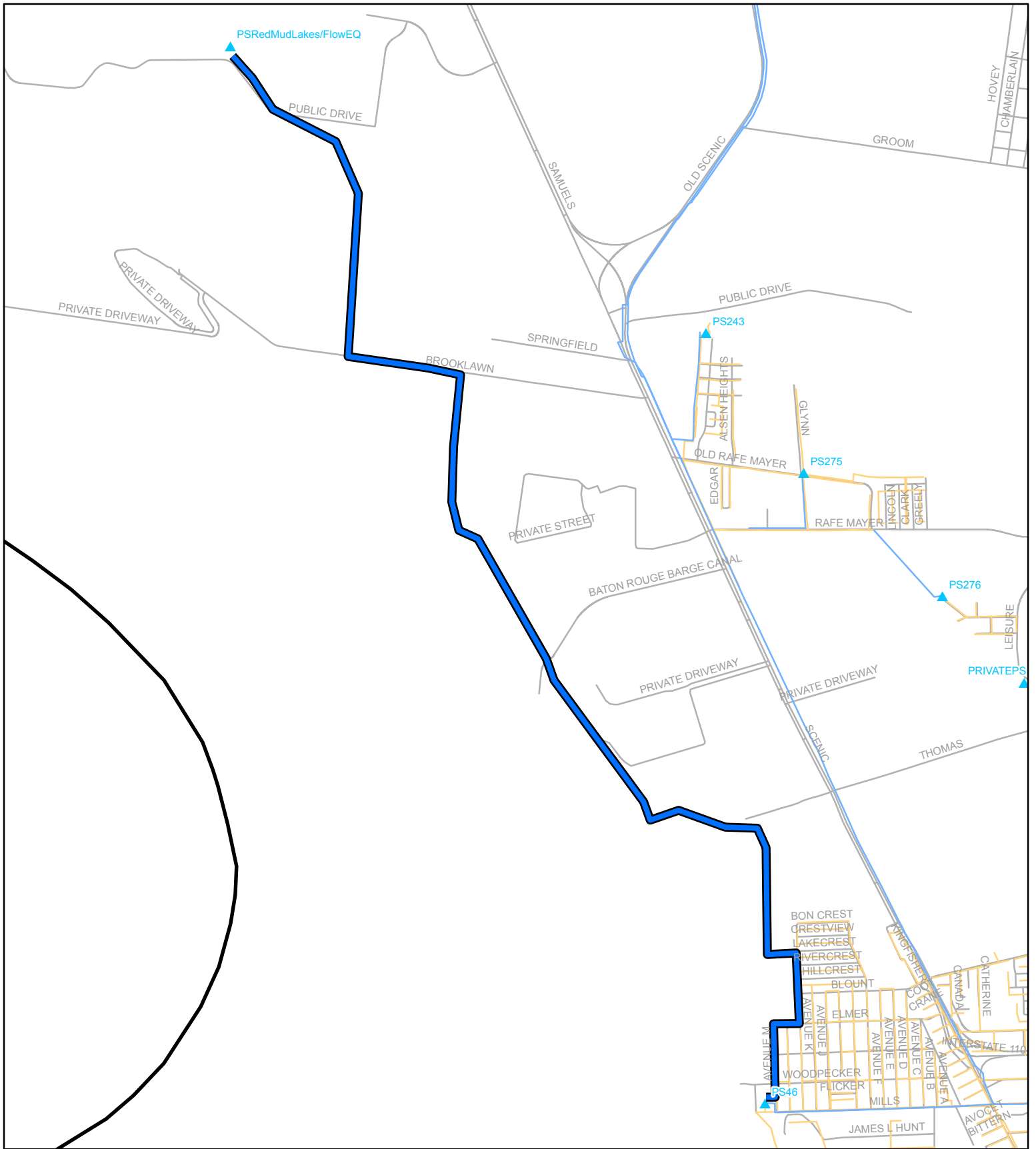
Scope

The ZATNIP (Phase 2) project included construction of a 30-inch force main, approximately 32,750 linear feet in Table 4-27, from the new Red Mud Lakes pump station to the NWWTP. The location of the force main is shown in Figure 4-27.

TABLE 4-27
10-FM-IF-0003 (Zachary Area Transmission Network Improvements Project [Phase 2])

Upstream Node	Downstream Node	Length (ft)	Diameter (in)	Line Type
Red Mud Lakes PS	North WWTP	30,670	30	Force Main
Connect to PS 45 FM (Group 1B) at Elmer Dr and Avenue K	North WWTP	2220	30	Force Main

Note: The pipe lengths were obtained from the conformed drawings.



Zachary Area Transmission Network

Improvements Project [Phase 2]

10-FM-IF-0003

Project Vicinity Map

Figure 4-27

DEPARTMENT OF ENVIRONMENTAL SERVICES
BATON ROUGE

BATON ROUGE

SSO Program

4.2.20 10-FM-IF-0004 (Zachary Area Transmission Network Improvements [Phase 3])

Purpose of the Project/Project Background

The purpose of the Zachary Area Transmission Network Improvements projects (ZATNIP) was to address inadequate capacity in the Baker/Zachary contributing area and to divert flow from the Zachary contributing area around the Comite Diversion Canal to the North WWTP.

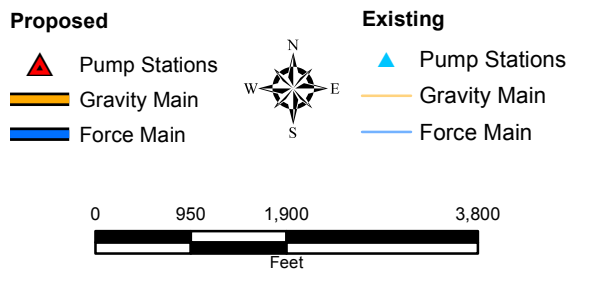
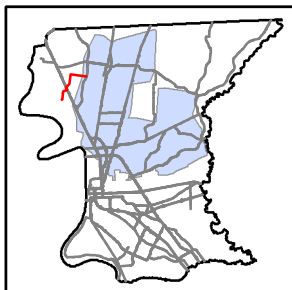
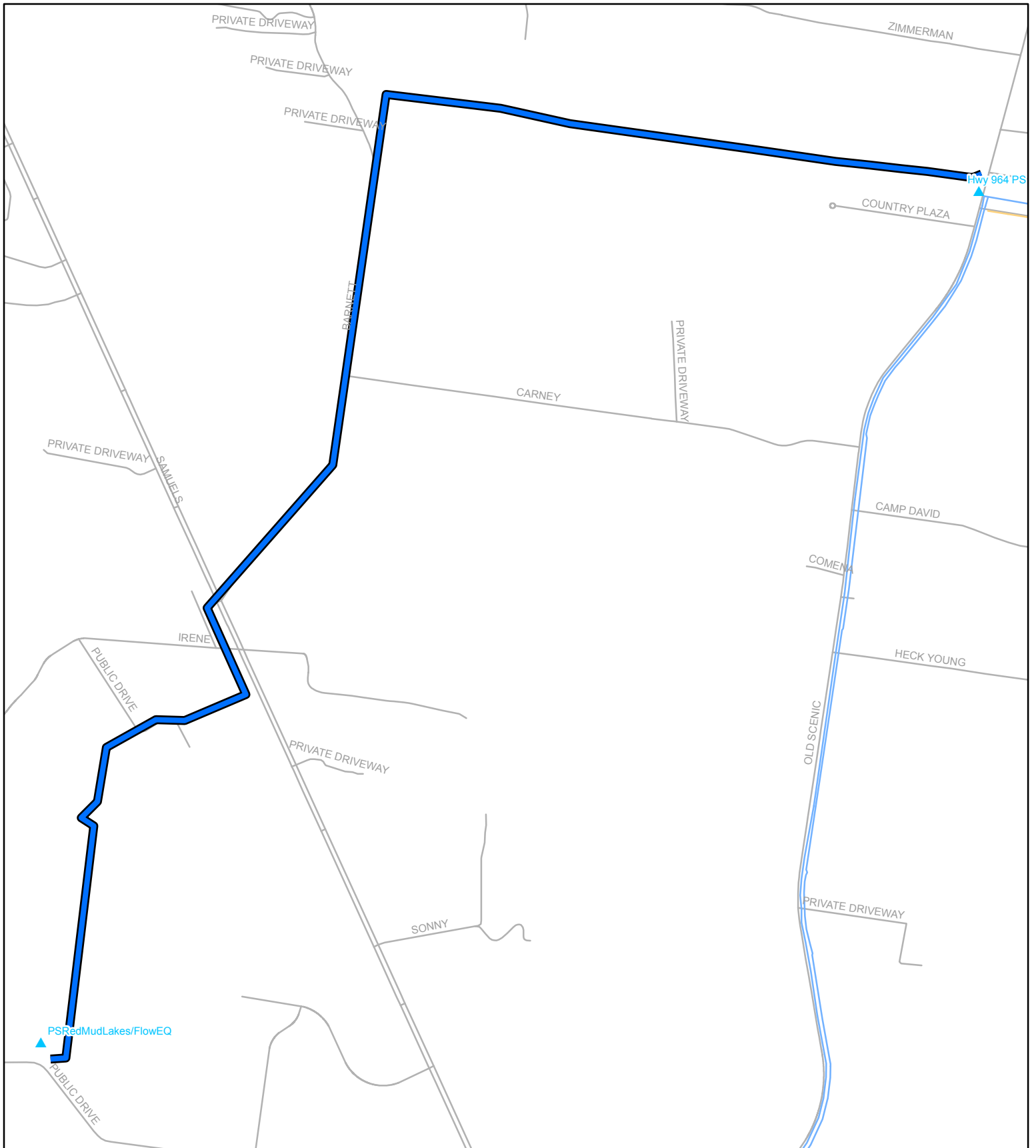
Scope

The ZATNIP (Phase 3) project included construction of the 48-inch force main from the new HWY 964 PS, following Barnett Road and cross Highway 61, to the Red Mud Lakes Equalization Facility. Approximately 33,900 linear feet of force main was constructed shown in Table 4-28 and Figure 4-28.

TABLE 4-28
10-FM-IF-0004 (Zachary Area Transmission Network Improvements Project [Phase 3])

Upstream Node	Downstream Node	Length (ft)	Diameter (in)	Line Type	Note
PS 964	48"x48"x24" Tee for future connection	9,200	48	Force Main	24" Full Port Plug Valve w/ MJ Plug
48"x48"x24" Tee for future connection	48"x48" WYE for future connection	5,660	48	Force Main	
48"x48" WYE for future connection	48"x48" WYE for future connection	7,430	48	Force Main	
48"x48" WYE for future connection	48"x48"x24" Tee for future connection @ US Hwy 61	1,830	48	Force Main	24" Plug Valve; 24 Plug at Outlet of Valve
48"x48"x24" Tee for future connection @ US Hwy 61	PS Red Mud Lakes	7,610	48	Force Main	

Note: The pipe lengths were obtained from the conformed drawings.



Zachary Area Transmission Network

Improvements Project
[Phase 3]
10-FM-IF-0004

Project Vicinity Map
Figure 4-28

Baton Rouge

4.2.21 10-FM-IF-0005 (Zachary Area Transmission Network Improvements [Phase 4])

Purpose of the Project/Project Background

The purpose of the Zachary Area Transmission Network Improvements projects (ZATNIP) was to address inadequate capacity in the Baker/Zachary contributing area and to divert flow from the Zachary contributing area around the Comite Diversion Canal to the North WWTP.

Scope

The ZATNIP (Phase 4) project included construction of force main, 16-inch to 30-inch, beginning at the northern border of East Baton Rouge Parish and follow Highway 964 southward to its intersection with the Entergy transmission main right-of-way. This force main increases in size as it runs southward since it will receive flow from this area as it develops. The location of the force main is shown in Figure 4-29.

TABLE 4-29
10-FM-IF-0005 (Zachary Area Transmission Network Improvements Project [Phase 4])

Upstream Node	Downstream Node	Length (ft)	Diameter (in)	Line Type
16"x16"x12" Tee for future connection	20"x20"x8" Tee for future connection	1,830	16	Force Main
20"x20"x8" Tee for future connection	20"x20"x6" Tee for future connection	390	20	Force Main
20"x20"x6" Tee for future connection	20"x20"x8" Tee for future connection	2,040	20	Force Main
20"x20"x8" Tee for future connection	20"x20"x8" Tee for future connection	130	20	Force Main
20"x20"x8" Tee for future connection	20"x24" Reducer	1,180	20	Force Main
20"x24" Reducer	24"x24"x18" Tee for future connection	1,740	24	Force Main
24"x24"x18" Tee for future connection	30"x30"x18" Tee for future connection	4,110	24	Force Main
30"x30"x18" Tee for future connection	30"x30"x8" Tee for future connection	3,120	30	Force Main
30"x30"x8" Tee for future connection	30"x30"x8" Tee for future connection	3,010	30	Force Main
30"x30"x8" Tee for future connection	30"x30"x8" Tee for future connection	1,690	30	Force Main
30"x30"x8" Tee for future connection	PS 964	2,060	30	Force Main
12"x12"x14" Tee (Zachary System)	24"x16" Wye	3,900	14	Force Main
24"x16" Wye	Old Baker PS	780	24	Force Main

TABLE 4-29
10-FM-IF-0005 (Zachary Area Transmission Network Improvements Project [Phase 4])

Upstream Node	Downstream Node	Length (ft)	Diameter (in)	Line Type
Old Baker PS	24"x24"x6" Tee for future connection to Meadow Glen PS	10,190	24	Force Main
24"x24"x6" Tee for future connection to Meadow Glen PS	PS 964	1,990	24	Force Main

Note: The pipe lengths were obtained from the conformed drawings.

4.2.22 06-WC-IF-014E (Zachary Area Transmission Network Improvements [Phase 5])

Purpose of the Project/Project Background

The purpose of the Zachary Area Transmission Network Improvements projects (ZATNIP) was to address inadequate capacity in the Baker/Zachary contributing area and to divert flow from the Zachary contributing area around the Comite Diversion Canal to the North WWTP.

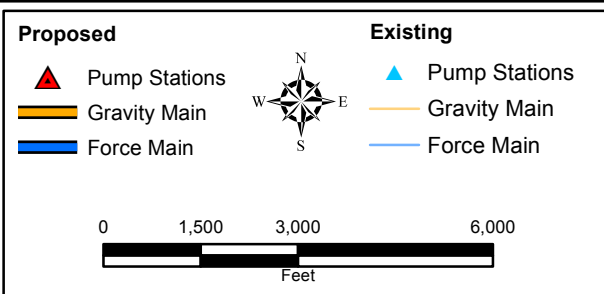
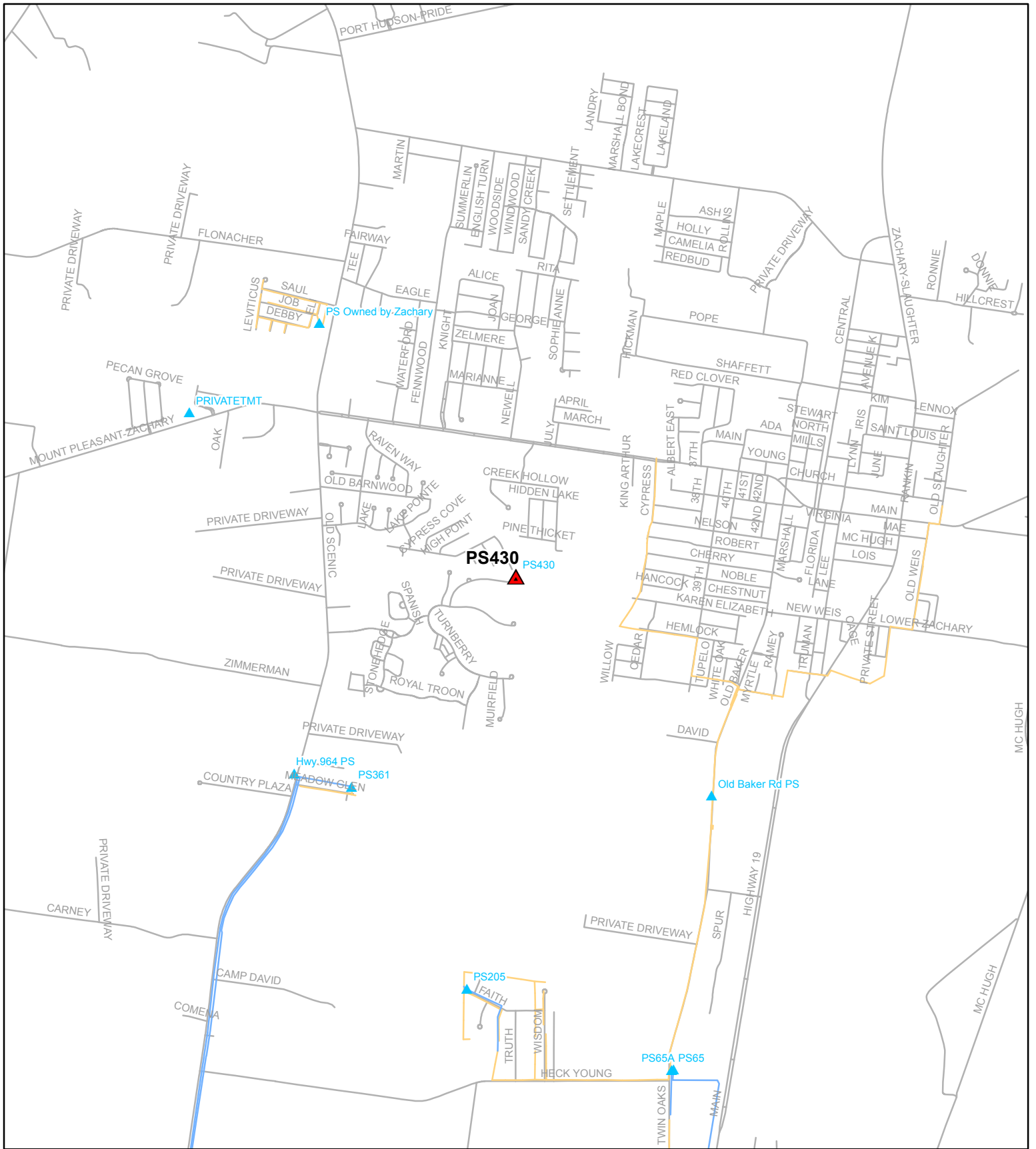
Scope

The ZATNIP included the upgrade of pump station 430 located on the northeast corner of the Copper Mill Golf Community. The new Copper Mill pump station (PS 430) pumps through its existing 16-inch force main to the Hwy 964 PS. Pump station information is shown in Table 4-30 and location depicted in Figure 4-30.

TABLE 4-30
06-WC-IF-014E (Zachary Area Transmission Network Improvements [Phase 5]) – Pump Station Information

PS No.	Location	Existing Maximum Capacity (gpm)	Future Peak Wet Weather Flow (gpm)
PS 430	Northeast Corner of Copper Mill Golf Community	1,500	3,380

Note: The existing maximum capacities for the pump stations were obtained from the DES Field Pump Station Maintenance reference guide. The future peak wet weather flow was obtained from the BTRSSO hydraulic model.



Zachary Area Transmission Network

Improvements Project [Phase 5]

06-WC-IF-014E

Project Vicinity Map
Figure 4-30

BATON ROUGE **SSO**
Program

Table 4-31

North Basin Capacity Project Summary

Old Project Number(s)	New Project Number	Project Name	Construction Cost	Status
NFW-C-0002, NFW-C-0003	09-PS-UF-0009	Choctaw Storage and Pump Station Facilities	\$44,476,474	Functionally Complete
NFE-C-0003-PH1	07-PS-BD-0019	Comite Dr - Foster Rd Sewer Area Upgrades (Phase 1)	\$1,923,522	Functionally Complete
NFE-C-0003-PH2	02-CS-HC-001	Comite Dr - Foster Rd Sewer Area Upgrades (Phase 2)	-	Functionally Complete
NFE-C-0004	07-FM-BD-0046	Foster Rd - Hooper Rd Sewer Area Upgrades	\$8,431,725	Functionally Complete
NFE-C-0001	07-PS-BD-0017	Gurney Rd - Joor Rd Sewer Area Upgrades	\$1,543,734	Functionally Complete
NFE-C-0005, NFE-C-0007	10-PS-MS-0048	Hooper Rd Pump Stations Improvements	\$12,957,610	Under Construction
NFW-C-0004	09-PS-UF-0007	Hooper Storage Facility	\$17,911,744	Functionally Complete
NFW-C-0001	11-FM-MS-0023	Joor Rd - Greenwell Springs Rd Sewer Area Upgrades	\$6,306,801	Under Construction
NFE-C-0006-PHA	10-FM-MS-049	Lovett Rd - Greenwell Springs Rd Sewer Area Upgrades	\$13,755,721	Under Construction
NGS-C-0001, NFW-C-0006, NFW-C-0005, NFW-C-0008	08-GS-UF-0053	Metro Airport (Group 1A) Gravity Sewer Area Upgrades	\$21,309,761	Functionally Complete
NGS-C-0001, NFW-C-0006, NFW-C-0005, NFW-C-0008	08-PS-UF-0054	Metro Airport (Group 1B) Pump Station and Force Main Improvements	\$24,573,219	Functionally Complete
NFW-C-0009	11-PS-MS-0035	Multiple Pump Stations - Hwy 61 - Plank Rd	\$4,791,000	Under Construction
NFW-C-0010	11-PS-MS-0034	Multiple Pump Stations - Prescott Rd - Greenwell Springs Rd	\$7,415,338	Under Construction
NGS-C-0002	09-GS-UF-0028	Plank Rd - Kleinpeter Rd Sewer Area Upgrades	\$12,399,166	Functionally Complete
NFW-C-0007	11-FM-MS-036B	Plank Rd - Port Hudson Pride Rd Sewer Area Upgrades	\$869,875	Functionally Complete
NGS-C-0003, NGS-C-0004	11-PS-MS-0024	Plank Rd Pump Stations Improvements	\$6,126,700	Functionally Complete
NFE-C-0002	07-PS-BD-0018	Sullivan Rd - Lovett Rd - Wax Rd Sewer Area Upgrades	\$2,054,186	Functionally Complete
NFW-C-HWY61-PH1	10-FM-IF-0002	Zachary Area Transmission Network Improvements Project Phase 1	\$18,944,976	Functionally Complete
NFW-C-HWY61-PH2	10-FM-IF-0003	Zachary Area Transmission Network Improvements Project Phase 2	\$23,245,457	Functionally Complete
NFW-C-HWY61-PH3	10-FM-IF-0004	Zachary Area Transmission Network Improvements Project Phase 3	\$9,350,939	Functionally Complete
NFW-C-HWY61-PH4	10-FM-IF-0005	Zachary Area Transmission Network Improvements Project Phase 4	\$6,939,719	Functionally Complete
--	06-WC-IF-014E	Zachary Area Transmission Network Improvements Project Phase 5	\$1,597,000	Functionally Complete

4.3 North WWTP Master Plan Improvements

4.3.1 Background

Capacity improvements are not required at the North WWTP, so there are no wet weather projects at the North WWTP. However, the treatment plant is more than 30 years old, so several improvements are needed to keep the plant up and running. The *Wastewater Master Plan* (CH2M HILL, 2008) outlined the needed improvements as two priorities: Priority One and Priority Two. These improvements have been split into two Supplemental projects: North WWTP Master Plan Plant Improvements project and North WWTP Master Plan Sustainability project. Due to value engineering, that occurred in 2016, the original North WWTP Master Plan Plant improvements project was split into separate projects described below.

In addition to the Priority One and Priority Two improvements, the C-P also is planning to implement the North WWTP Master Plan Landscape Buffer Area project in order to provide a buffer zone to residents in the area of the North WWTP. Once completed, the project will minimize odor and visual impacts from the North WWTP and enhance the beauty of the area surrounding the plant.

4.3.2 13-TP-MS-045B (North WWTP General Electrical Rehabilitation Project)

The project will include a new 4160 and 480 volt electrical distribution system. In addition, it includes relocation of existing transformers, removal and disposal of existing electrical equipment, installation of new electrical equipment/items including cable trays/ductbanks, motor control centers, switchgear, panelboards, wire conduit, and other electrical and ancillary items.

4.3.3 13-TP-MS-0001 (North WWTP Master Plan Landscape Buffer Area Project)

In order to resolve odor control complaints from nearby residents of the North WWTP, the C-P has developed a public project for implementation, which would create a buffer zone between the North WWTP and the adjacent residential neighborhood. This project was added as a Supplemental project as part of the June 2013 Consent Decree modification. The proposed public project presents a logical and reasonable method for determining where to draw a “boundary” or “buffer” line surrounding the North WWTP facilities. The project includes a minimum 300 foot buffer adjacent to the existing North WWTP facility boundary. The justification behind the buffer border of 300 feet, or more, is primarily based on results from the *Wastewater Master Plan - Odor Study* (CH2M HILL, 2008). The plan takes into account the future odor impacts to homeowners in the area, and as such includes properties in the buffer zone that could potentially receive the greatest amount of odor from the WWTP. Only those properties that the study determined would fall in an area with greater potential for increased odor were included. This North WWTP Public project will include the acquisition of several properties in the vicinity of the North WWTP, demolition of buildings, and green space area/neighborhood beautification (tree and shrub plantings).

4.3.4 13-TP-MS-045A (North WWTP Odor Control & Sodium Hypochlorite Project)

The Odor Control and Sodium Hypochlorite Project will include a new Sodium Hypochlorite Disinfection System, rebuild of the existing non-potable Water Pump System, and Odor Control Systems. The Project also includes all Demolition Work and legal Off-Site Disposal of Demolished Items, Yard Piping, Civil/Site Work, Electrical, I&C, HVAC, Structural, Architectural, and other Miscellaneous Items.

4.3.5 07-TP-BD-0030 (North WWTP Odor Equipment Installation)

This project included demolition of the existing odor control equipment and installation of new odor control equipment including biotowers, odor control fans, and ductwork at the North WWTP.

4.3.6 13-TP-MS-045C (North WWTP Plantwide & Master SCADA Project)

North Wastewater Treatment Plant Master Plan – Plant and Master SCADA includes replacing existing hardware and software to upgrade the technology for the North WWTP SCADA and the integration of the North WWTP SCADA with the Master SCADA System. The Project work includes: Controls for systems to connect the previously provided local control/monitoring of that system via local panels and/or PLC's into the North WWTP SCADA system. The work includes connections to the Master SCADA that will allow similar control from the Master SCADA control room. The Project also includes electrical work, demolition work and legal off-site disposal of demolished items and other miscellaneous items.

4.3.7 13-TP-MS-045D (North WWTP Pretreatment & Grit Removal Rehabilitation Project)

Pretreatment and Grit Removal Rehabilitation includes work at both the Force Main Preliminary Treatment Facility (FM PTF) and the Gravity Preliminary Treatment Facility (Gr PTF). The Project work includes: process equipment demolition and replacement; the addition of process equipment; electrical demolition and replacement and upgrade work necessary to support the equipment addition and replacement; removal and replacement of door and windows, upgrade of the FM PTF Odor Control System with associated electrical work, replacement of all slide and sluice gates with motor operated fabricated gates; installation of ventilation systems including associated demolition; making required SCADA system connection to the installed equipment; and, the installation of required life safety related systems.

4.3.8 13-TP-MS-045E (North WWTP Standby Generator Project)

The Standby Generator project provides auxiliary power for all plant operations. While sourcing and placement of standby generators is provided under Louisiana state contract, this project will ensure that all new controls and electrical equipment installed under other phases of the North WWTP Master Plan are sufficiently tied into these generators.

4.3.9 13-TP-MS-0047 (North WWTP Sustainability Improvements Projects)

The North WWTP Master Plan Sustainability project includes the following elements:

- Feasibility analysis for beneficial reuse of biogas
- Feasibility analysis for utilization of lime stabilization of biosolids
- Digester gas utilization, including existing boiler modifications and new boiler, to heat digesters
- New heat exchangers for biosolids
- New digester mixing equipment
- Associated equipment for utilization of digester gas, including a new flare
- Associated electrical and instrumentation and controls systems

This project has funding under the Clean Water State Revolving Fund (CWSRF) Loan Program, Green Reserve.

Table 4-32

North Basin WWTP Projects Summary

Old project number	New Project Number	Project Name	Construction Cost	Status
13-TP-MS-0045	13-TP-MS-045B	North WWTP General Electrical Rehabilitation Project	\$10,000,000	Under Construction
--	13-TP-MS-0001	North WWTP Master Plan Landscape Buffer Area Project	\$600,000	In Design
13-TP-MS-0045	13-TP-MS-045A	North WWTP Odor Control & Sodium Hypochlorite Project	\$8,793,318	Under Construction
--	07-TP-BD-0030	North WWTP Odor Equipment Installation	\$473,185	Functionally Complete
13-TP-MS-0045	13-TP-MS-045C	North WWTP Plantwide & Master SCADA Project	\$4,000,000	In Design
13-TP-MS-0045	13-TP-MS-045D	North WWTP Pretreatment & Grit Removal Rehabilitation Project	\$5,000,000	In Design
13-TP-MS-0045	13-TP-MS-045E	North WWTP Standby Generator Project	\$4,000,000	In Design
--	13-TP-MS-0045 & 13-TP-MS-0047	North WWTP Sustainability Improvements Projects	\$4,568,300	Under Construction

Emergency Generators

5.1 Background

The C-P did not have emergency/standby power generators at the majority of its pump stations in the collection system or at the WWTPs at the beginning of this Program. Hurricane Gustav caused power outages throughout much of the C-P for the majority of a week. During this time, the collection system was not able to convey flows to the WWTPs due to lack of power at the pump stations in the system, and the WWTPs were not able to operate. There were a total of 34 pump stations in the C-P that overflowed during and/or following Hurricane Gustav.

To address this issue, the C-P is installing emergency generators at the combined South WWTP, the North WWTP, and all the pump stations in the collection system. The wastewater projected flows and loads for the combined South and North WWTP were used to determine the projected electrical demands for each plant.

5.2 Collection System Pump Stations

To determine how many and what size generators were needed at each of the collection system pump stations, the stations were first divided into existing (non-PDP impacted) and PDP pump stations. For the PDP stations, each station's pumped flow and head were determined or assumed and the resulting hydraulic horsepower calculated. The horsepower of the motors were then determined and generator units were selected and installed costs determined. Each of the existing pump stations were visited by a field crew, and the horsepower requirement for the pumps were recorded. A generator sizing software program was used to select the appropriate generator sizes.

A list of 296 generator units for existing (non-PDP impacted) operational pump stations was originally developed based on C-P information (see Table 5-1). These stations will not be modified as part of the Program.

TABLE 5-1
Summary of Generator Units Existing Pump Stations (not impacted by the PDP)

Generator Unit Size (kW)	Number of Units
10	56
20	74
40	47
60	48
80	25
100	14
125	8
150	11
200	1
250	4
300	1
400	1
600	1

TABLE 5-1
Summary of Generator Units Existing Pump Stations (not impacted by the PDP)

Generator Unit Size (kW)	Number of Units
800	1
TOTAL	292
Total Estimate: \$7,180,000 Existing Stations (non-PDP impacted)	

Note: For each category, a diesel generator, automatic transfer switch, enclosure equipment pad, and other accessories were sized to estimate an installed construction cost.
 kW = kilowatt

The generator units for the C-P pump stations that are to be added or modified as part of the Program are identified in Table 5-2.

TABLE 5-2
Summary of Generator Units PDP Pump Stations

Generator Unit Size (kW)	Number of Units
10	4
40	11
50	1
60	19
80	15
100	21
125	17
150	7
200	10
250	4
300	3
400	10
500	9
600	6
800	6
1000	15
1250	1
1600	2
3000	1
TOTAL	162

Total Estimate: \$13,400,000 Existing Stations (not expanded)

Note: Some of the large pump stations require more than one installed generator unit and paralleling equipment.

Note: For each category, a diesel generator and other accessories were sized with a resulting estimated installed construction cost.

5.3 Wastewater Treatment Plants

For the North and South WWTPs, the generator capacity needed was estimated based on the future estimated total flows and current loads seen at each of the plants.

The North WWTP estimated generator installed cost is \$1.5 million (including estimated sales tax waiver) for 5 megawatts (MW) of generation capacity. This cost for standby power at the North WWTP is incorporated into the cost estimate of the North WWTP Standby Generator project.

The South WWTP estimated installed cost is \$7.0 million, for 12.5 MW of generation capacity. This cost is included in the final construction cost for the Phase 2 expansion project (08-TP-BD-0055, South WWTP [Phase 2] – Master Plan Portion).

5.4 Generator Project Delivery Plan

In order to install generators in a timely manner at all pump stations and the WWTPs, a project delivery plan was developed. The first step in developing the project delivery plan was to prioritize the pump stations with planned generator installations, using the following criteria:

- 1) Pump stations to be replaced as a part of PDP
- 2) Existing pump stations (not impacted by this PDP) that overflowed during Hurricane Gustav
- 3) Existing pump stations (not impacted by this PDP) that were on DES staff's list of critical pump stations
- 4) Existing pump stations (not impacted by this PDP) that were not on any of the previous lists (with larger pump stations receiving higher priority than smaller pump stations)

The WWTPs were prioritized based on the RMAP2 and Supplemental projects. As mentioned above, the South WWTP generators were installed as part of the South WWTP – (Phase 2) project, with the generators funded as part of the overall project. The North WWTP generators will be installed as part of the North WWTP Standby Generator project. The Central WWTP did not receive emergency generators because it was decommissioned in 2016.

The schedule of the project delivery is based on this prioritization as well as available budget. The available budget for generators is estimated to be \$10.1 million in 2009, \$10 million in 2010, \$8 million in 2013, \$2.7 million in 2014, and \$2.2 million in 2015. Therefore, the first priority was the budget for generators at the PDP pump stations. After that, the second, third, and fourth priorities were considered in the order noted above. The total budget for the generator purchase and installation is \$31 million.

In order to deliver these projects in a timely manner, the following criteria were used to develop the project delivery plan:

- 1) All pump stations will have installed generators (no temporary generators, unless site constraints dictate).
- 2) A 5-year renewable maintenance contract is required for the service of all generators.
- 3) Pump stations will be designed as generator-ready.
- 4) Generators will be provided by a generator vendor and installed by a general contractor. For PDP pump stations and WWTPs, the general contractor will be the general contractor for the entire project.

The generator vendor was selected by a bidding process. A 5-year maintenance contract is part of this contract. The contract is based on the number of generators needed per year, with a unit price given for each type of unit for each year.

The generators will be delivered to a local warehouse and kept by the vendor, to be picked up and installed by the general contractors.

The South WWTP generators were delivered as part of the South WWTP – Phase 2 project, and the North WWTP generators will be delivered as part of the North WWTP Standby Generator project.

The delivery plan includes two contracts, one for purchase and maintenance of the generators and one for installation of the non-PDP units. The purchase and maintenance contract was awarded to Arcco Power Systems in October 2009. A Notice to Proceed was issued to Grady Crawford Construction in May 2011. The installation project will consist of work orders issued over a 3-year period.

As of December 2015, all generators had been purchased and delivered. The generators were either installed at their corresponding pump station sites or stored at the warehouse awaiting installation. During the “Great Flood of August 2016”, 31 generators that were already installed on site of individual pump stations and all 140 generators stored at the warehouse were a complete loss due to severe flooding conditions. This delayed overall delivery however at this point all generators that were lost in the flood have been reordered and delivered to the warehouse awaiting installation.

Under this project delivery plan, each existing pump station and WWTP will have emergency power by the end of the Program (December 31, 2018).

Supervisory Control and Data Acquisition

6.1 Background

The C-P currently has very limited SCADA capability at a few of its pump stations in the collection system and at the WWTPs. Without a comprehensive fully integrated SCADA system, collection system and WWTP operators have to physically change settings and check each pump station or piece of equipment on a daily or weekly basis, depending on the criticality of the piece of equipment. With a comprehensive and integrated SCADA system in-place, operation of the collection system pump stations and the WWTPs will become more automated and streamlined, saving operator time and allowing preventive, rather than reactive, maintenance to be performed. A SCADA system also will allow optimization of collection system pump station operations during wet weather. This will maximize storage and decrease peak flows to the WWTPs. In addition, the SCADA system allows a quick overview of the WWTPs and the collection systems from a central location to provide system-wide efficient operation.

To address this issue, the C-P will install a SCADA system at the South WWTP, the North WWTP, and all the pump stations in the collection system. The SCADA system for the South WWTP was designed and installed as part of the South WWTP – Phase 2 project and is not summarized in this chapter. The SCADA system for the North WWTP will be included in the North WWTP Plant Wide and Master SCADA project and is not summarized in this chapter. The SCADA system for the collection system is described in this chapter and will be installed as a Supplemental project.

6.2 SCADA Operations Data/Control Center

The SCADA Operations Data/Control Center, as outlined in the *SCADA Master Plan* (CH2M HILL, June 2008), is required to provide central collection, storage, and processing of data from WWTPs and the collection system. The Operations Data/Control Center will collect, reduce, and archive measurements, alarms, and status information for use by operators, managers, and engineers. The data center will include centralized information servers that allow managers and engineers to view process graphics and to generate reports using visualization application software installed on their business network workstations.

The centralized information servers provide easy access to data for managers and engineers to support a number of activities, including regulatory reporting, management oversight, collection system and treatment capacity, quality analysis, and improvements planning. In the future, centralized control of the collection system and WWTPs will be accomplished via the centralized information servers.

C-P finalized the location for Temporary SCADA Operations Data/Control Center at 700 Main Street, Baton Rouge, LA 70802. The final location of the SCADA Operations Data/Control Center will be in the soon to be constructed DES facility at the Choctaw Storage site. The Baton Rouge Emergency Operations Center also will house servers and workstations that can monitor and control the WWTPs and collection systems during an emergency. A data monitoring center will be provided at the Choctaw Collection System Maintenance Facility that is currently being planned. This data center will allow monitoring (but not control) of the South and North Collection System pump stations.

The SCADA Operations Data/Control Center is expected to include centralized information servers integrating the data from the South WWTP SCADA server node (located at the South WWTP), the

future North WWTP SCADA server node (located at the North WWTP), and the South and North Collection System pump station programmable logic controllers (PLCs). Note that the South Collection System includes both the Central Basin pump stations and South Basin pump stations, since the Central Basin stations will pump to the South WWTP. The type of data link between the WWTP servers and the centralized information servers at the SCADA Operations Data/Control Center will be fiber optic lines.

6.3 Collection System SCADA System

The collection system SCADA system will be used by collection system operators to monitor and exercise control of collection pump stations in accordance with pump station design criteria. The overall collection system pump stations will be split into two groups, North and South stations. The north collection system pump stations will report to the North Collection System SCADA servers located at the SCADA Operations Data/Control Center; whereas, the south collection system pump stations will report to the South Collection System SCADA servers located at the SCADA Operations Data/Control Center. The North and the South Collection System SCADA servers will then report to the centralized information servers, located at the SCADA Operations Data/Control Center. Each collection system monitoring and control system includes the following major components:

- PLCs at each pump station to provide local automatic control and to communicate with their respective collection system servers.
- The PLCs will communicate with servers located at the SCADA Operations Data/Control Center in an air conditioned environment with security measures that limit access to servers and network components. Redundant servers will be provided for reliability. The process control network collects collection system data and allows mobile collection system operators to monitor and exercise control of collection system pump stations without having to visit each pump station. Additionally, diagnostic information presented to operators can be used to prioritize maintenance activities and to plan preventive maintenance. An example of where control can be used is to pump down certain collection system pump stations in advance of a significant wet weather event to reduce the peak flows that will be experienced at the WWTPs during the event.
- A wireless communications network to provide reliable communications between the local pump station PLCs and the servers located at the SCADA Operations Data/Control Center. It is recommended that wireless communications be accomplished by a digital cellular network. The collection system pump stations presently under design will accommodate a future cellular radio modem to be installed in the local control panel.

6.4 SCADA Project Delivery Plan

In order to install a SCADA system in a timely manner at all pump stations, a project delivery plan was developed. The first step in developing the project delivery plan was to prioritize the pump stations that were to get a SCADA system using the following criteria:

- 1) Pump stations to be replaced as a part of PDP.
- 2) Existing pump stations (not impacted by this PDP) that were on DES staff's list of critical pump stations.

- 3) Existing pump stations (not impacted by this PDP) that were not on any of the previous lists (with larger pump stations receiving higher priority than smaller pump stations).

The WWTPs were prioritized based on the RMAP2 and Supplemental projects. As mentioned above, the South WWTP SCADA system was installed as part of the South WWTP – Phase 2 project, with the system funded as part of the overall project. The North WWTP SCADA system will be designed and installed as part of the North WWTP Plant Wide and Master SCADA project. The existing Central WWTP will not receive a SCADA system, since it has been taken out of service.

In order to deliver these projects in a timely manner, the following criteria were used to develop the project delivery plan.

- A 5-year renewable maintenance contract is required for the service of the entire SCADA system.
- PDP pump stations are being designed SCADA-ready.
- SCADA components (antenna modem, and PLC, where needed) are being provided by a SCADA vendor (systems integrator) and installed by a general contractor. For PDP pump stations and the North WWTP, the general contractor will be the general contractor for the entire project.
- The SCADA vendor, TESCO Controls, was selected and awarded the contract through a Request for Proposal (RFP) process in April 2013. The contract was based on the number of pump stations to receive SCADA per year, with a unit price given for each type of unit for each year. A Notice to Proceed was issued to Tesco Controls on May 2013. The SCADA project implementation will consist of work orders issued over a 5- year period.
- The North WWTP SCADA system will be designed and bid separately from the collection system SCADA.

The South WWTP SCADA system was installed as part of the South WWTP – Phase 2 project. The North WWTP SCADA system will be delivered as part of the North WWTP Plant Wide and Master SCADA project.

With this project delivery plan, the collection system and the South and North WWTPs will have a Master SCADA system by the end of the Program (December 31, 2018).

Total Construction Amount is \$18,053,093.

Construction is On-Going.

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