



PUBLIC WORKSHOP

Agenda

Agenda

**November 6, 2023
6:00 PM**

****VIRTUAL PUBLIC INFORMATION WORKSHOP - DRAFT STORMWATER MASTER PLAN****

JOIN ZOOM MEETING (COPY/PASTE INTO BROWSER): [HTTPS://ZOOM.US/](https://zoom.us)

**MEETING ID: 865 2207 9020
PASSCODE: 420165**

ONE TAP MOBILE: +1-305-224-1968 // 86522079020#

PLEASE TURN OFF ALL CELL PHONES AND PAGERS

PLEASE NOTE: IN ACCORDANCE WITH F.S. 286.26: Person with disabilities needing assistance to participate in any such proceedings should contact the Office of the Clerk at least 48 hours beforehand at (407) 876-2563.

Pursuant to Resolution No. 2005-12 adopted on December 13, 2005, the following Civility Code shall govern all proceedings before the Town of Windermere Public Workshop:

1. All electronic devices, including cell phones and pagers, shall be either turned off or otherwise silenced.
2. Prolonged conversation shall be conducted outside Council meeting hall.
3. Whistling, heckling, gesturing, loud conversations, or other disruptive behavior is prohibited.
4. Only those individuals who have signed the speaker list and/or/who have been recognized by the Mayor (or Chair) may address comments to the Council.
5. Comments at public hearings shall be limited to the subject being considered by the Council
6. Comments at Open Forums shall be directed to Town issues.
7. All public comments shall avoid personal attacks and abusive language
8. No person attending a Public Workshop meeting is to harass, annoy, or otherwise disturb any other person in the room.

Any member of the public whose behavior is disruptive and violates the Town of Windermere Civility Code is subject to removal from the Public Workshop meeting by an officer and such other actions as may be appropriate. PLEASE NOTE: IN ACCORDANCE WITH F.S. 286.0105: Any person who desires to appeal any decision at this meeting will need a record of this proceeding. For this, such person may need to ensure that a verbatim record of such proceeding is made which includes the

AGENDA

1. THE MEETING IS CALLED TO ORDER

2. NEW BUSINESS

a. Presentation – Draft Stormwater Master Plan (Attachment)

b. Public Comment / Q&A

3. ADJOURN

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**STORMWATER
MANAGEMENT MASTER
PLAN**

OCTOBER 2023

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Presentation Outline

- **Introduction**
- **Goals and Objectives**
- **Data Collection**
- **Stormwater Management and Drainage Infrastructure**
- **Capital Improvement Program**
- **Capital Improvement Program Funding**
- **Questions and Answers**

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Introduction

- **Small Town feel, rural setting.**
- **Set within the Butler Chain-of-Lakes, an Outstanding Florida Water (OFW)**
- **Challenges in stormwater management, particularly in the dirt road sections of the Town**
- **Coordination with Federal and State agencies on providing the protection of the area lakes**
- **Develop a stormwater and drainage infrastructure inventory to identify and maintain the Town's facilities.**
- **Develop a roadmap to address deficiencies to address flooding, water quality and maintenance related activities**
- **Develop a fiscal plan to implement stormwater and drainage improvements**

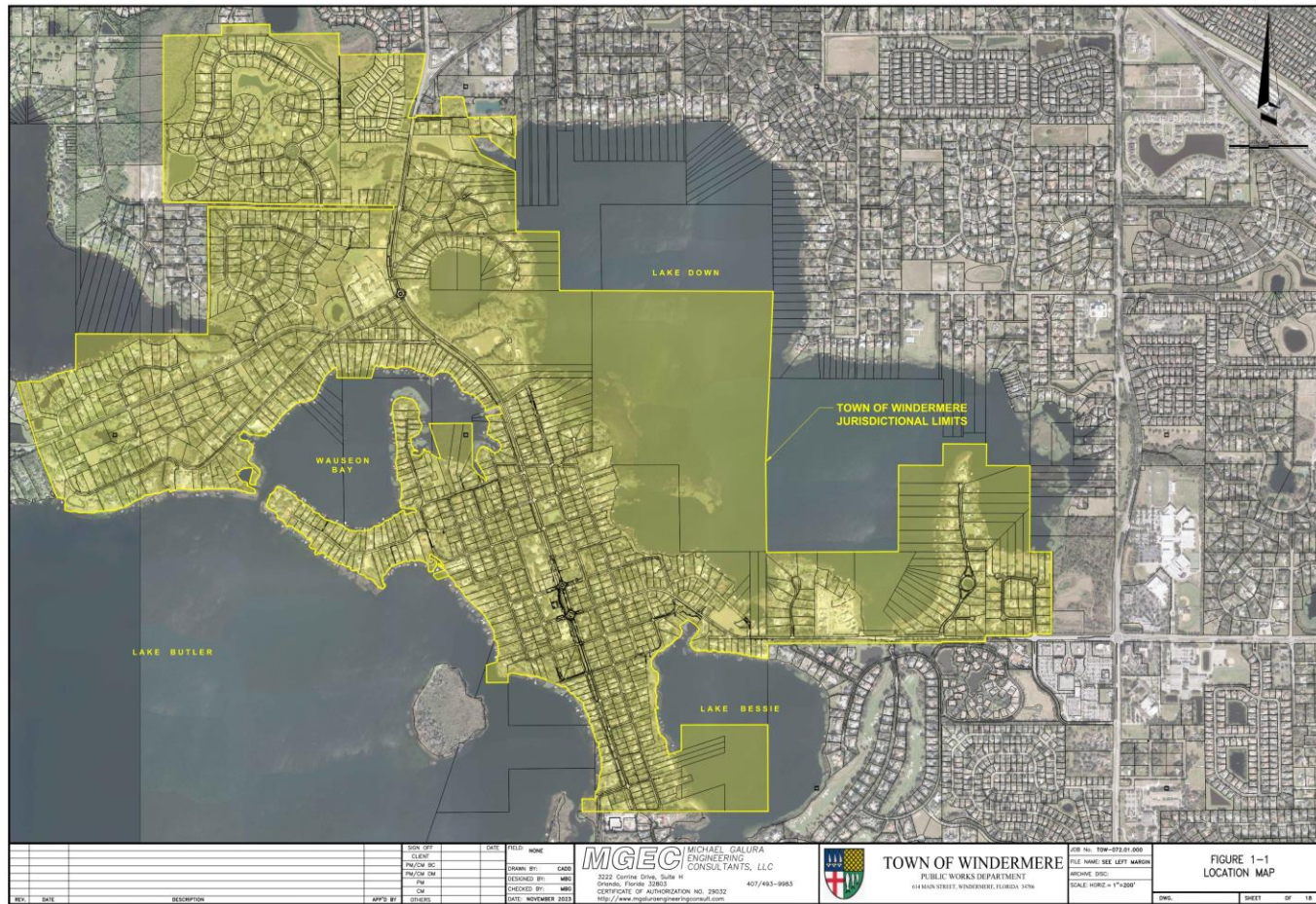
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Introduction



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Introduction

Town is subdivided into four (4) Major Drainage Basins

- **Lake Bessie**
- **Lake Butler**
- **Lake Crescent**
- **Lake Down**

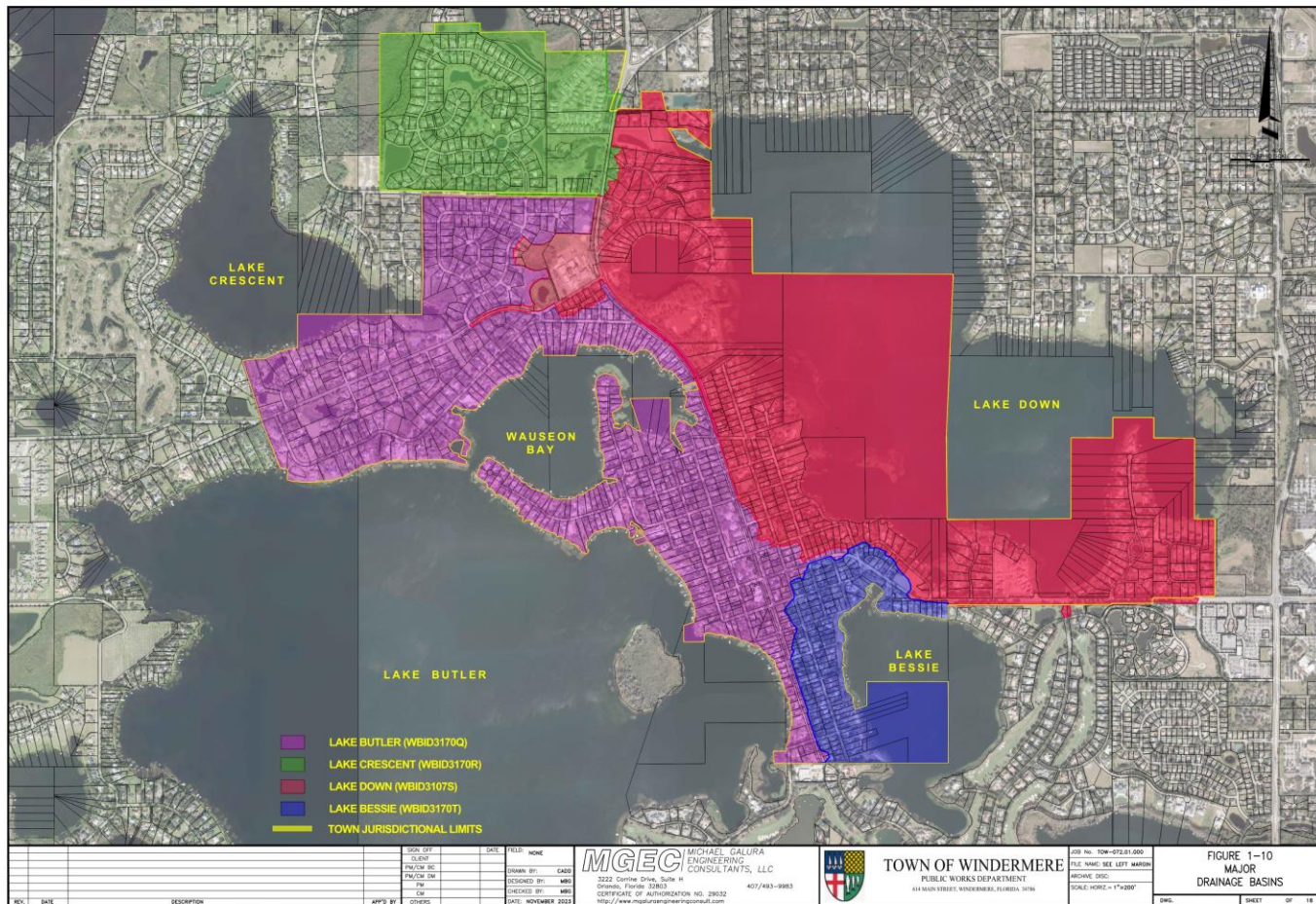
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Introduction



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Goals and Objectives

- **Gain a full understanding of how stormwater affects the Town.**
- **Utilize data and technology to develop a roadmap on how the Town can manage stormwater runoff.**
- **Develop a stormwater management and drainage infrastructure inventory and utilize GIS-based data base to manage and maintain the inventory.**
- **Be in full compliance with the Town's NPDES Phase II MS4 program.**
- **Develop a Short-Term (5-year) and Long Term (20-year) Capital Improvement Program.**
- **Develop a priority list on the implementation of the Capital Improvement Program.**
- **Assess the fiscal requirements to implement the Capital Improvement Program.**

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Data Collection

- **Identify known structures, pipes and other drainage features with the Town limits (i.e., ponds, swales, etc.).**
- **Apply Geographical Information System (GIS) technology to inventory stormwater management and drainage infrastructure.**
- **GIS provides the Town staff with instant access to drainage features and all the information associated with the feature.**
- **Allows the Town to quickly collect data such as debris removal and create a database for reporting for the Town NPDES MS4 Phase II biennial permit renewal.**

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Data Collection

- **Meets State and Federal agency requirements for inventorying stormwater management and drainage infrastructure.**
- **GIS allows Town to quickly update their inventory for newly completed improvements.**
- **GIS provides Staff with a mapping feature that best illustrates the location of the Town's stormwater management and drainage infrastructure.**
- **GIS allows real-time entry of data on tablet by Staff using ArcGIS Online Services.**

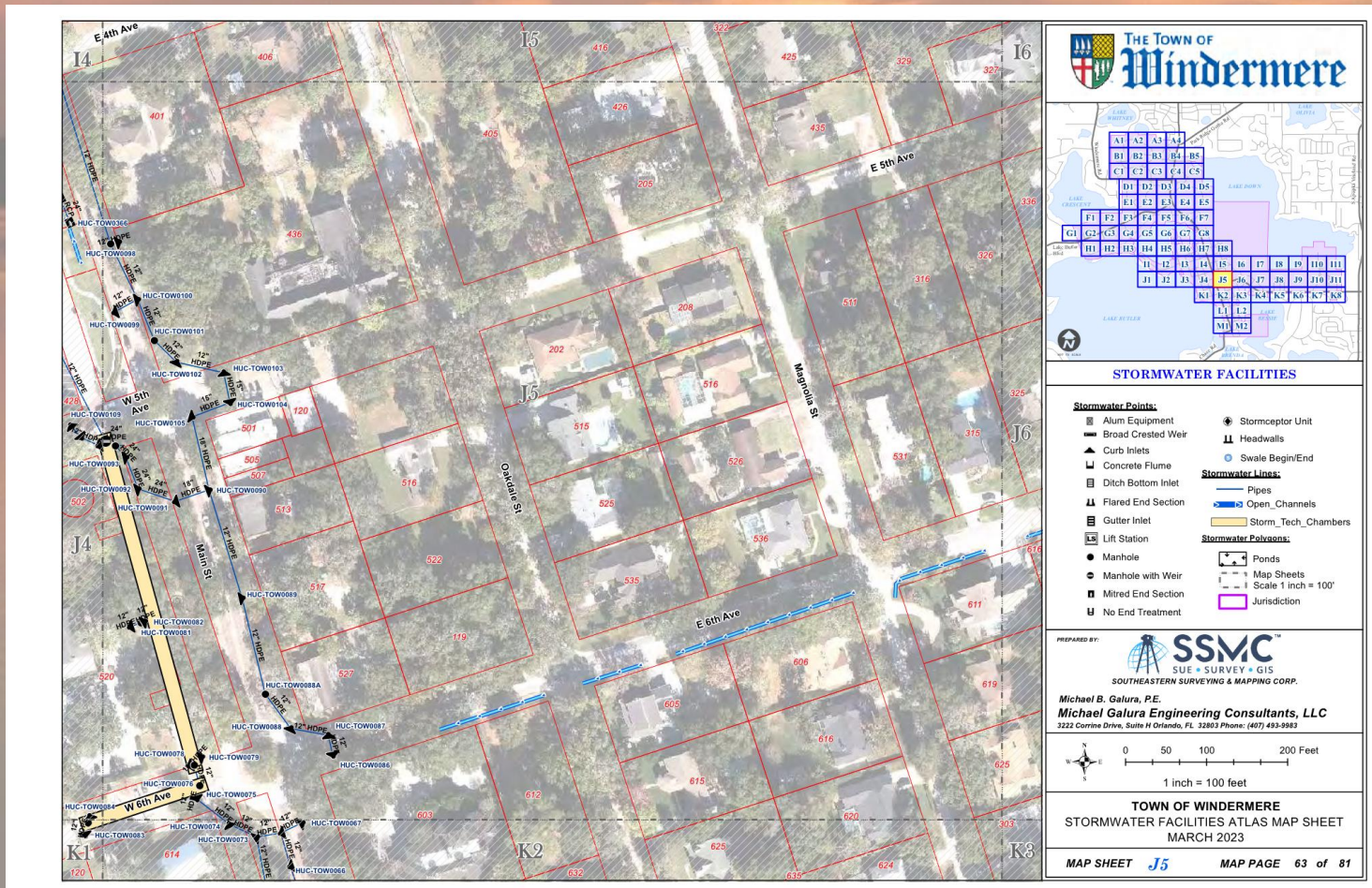
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Data Collection



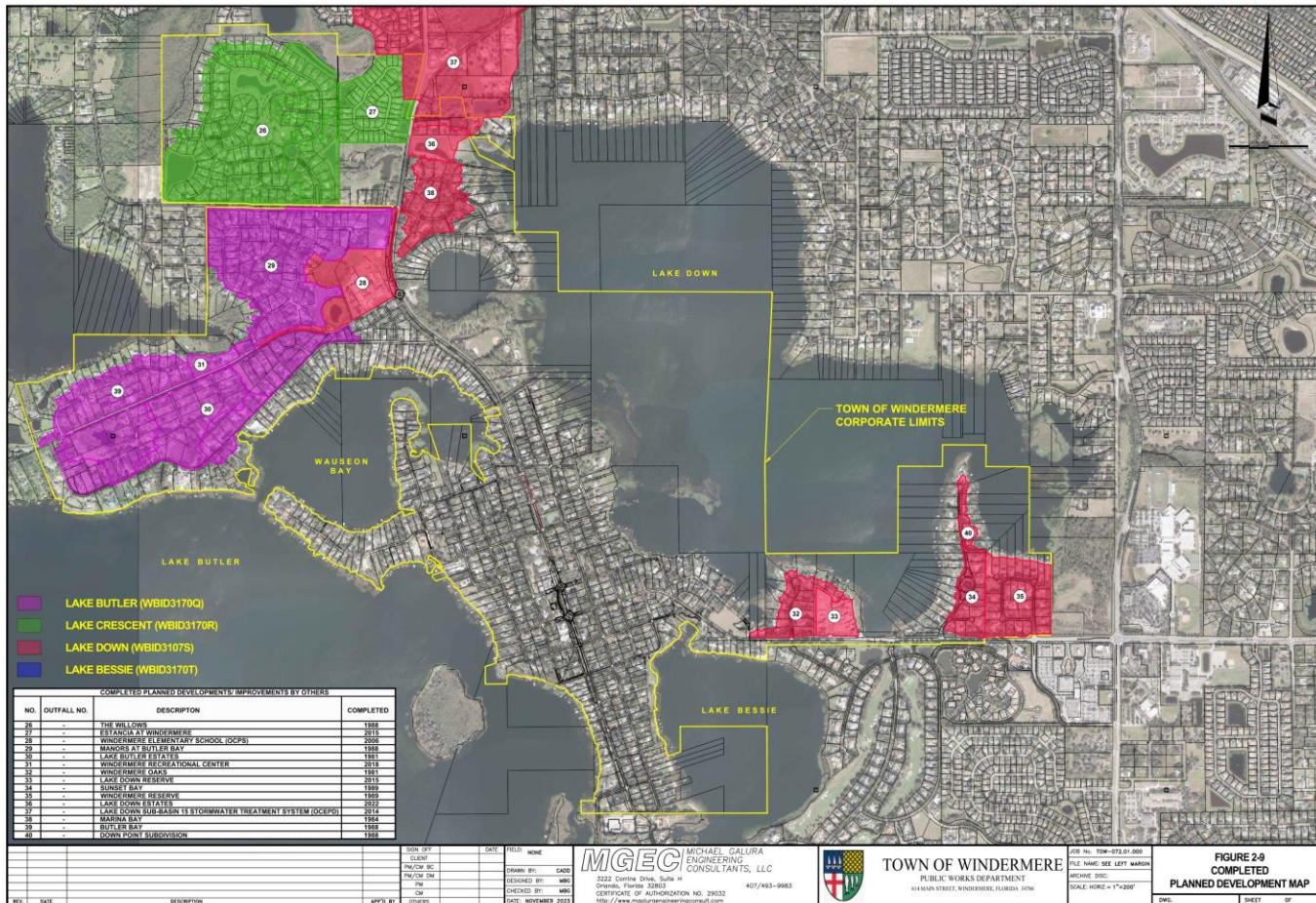
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Data Collection



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Stormwater Management and Drainage Infrastructure

- **Identification and mapping of all known Town maintained stormwater management and drainage features.**
- **Identification and mapping of known Planned Development stormwater management and drainage features.**
- **Identification and mapping of know Orange County stormwater management and drainage features within the Town limits.**
- **Various sources of Information including permitted Town projects, permitted Planned Developments, and Orange County projects.**

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LEGEND
 ● INVENTORIED DRAINAGE STRUCTURE

REV.	DATE	DESCRIPTION	APP'D BY	OTHERS

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 614 MAIN STREET, WINDERMERE, FLORIDA 34786

JOB No. TW-072.01.000
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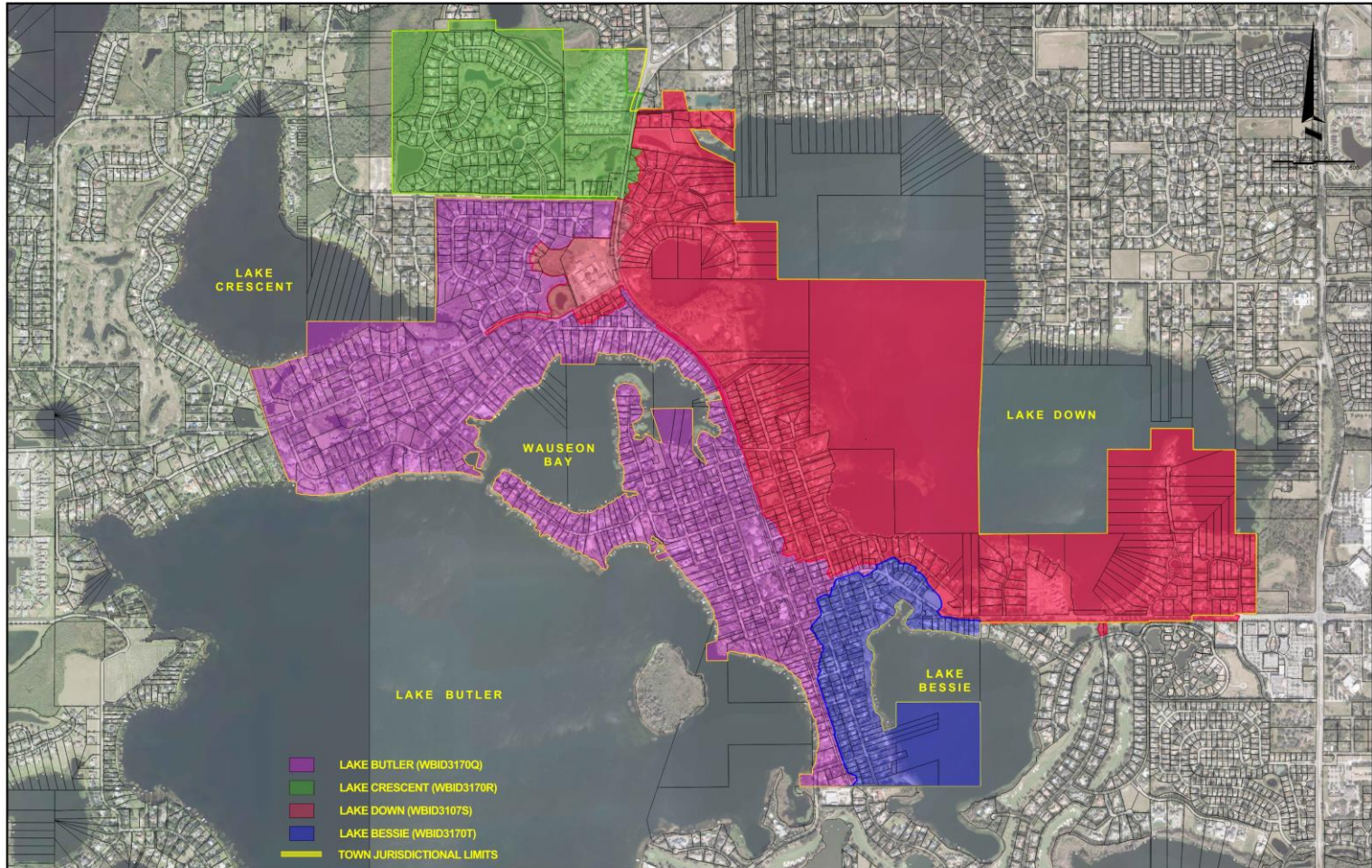
**FIGURE 3-1
 DRAINAGE STRUCTURE
 INVENTORY (3 OF 5)**

DWG. SHEET OF

Town of Windermere

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- LAKE BUTLER (WBID3170Q)
- LAKE CRESCENT (WBID3170R)
- LAKE DOWN (WBID3107S)
- LAKE BESSIE (WBID3170T)
- TOWN JURISDICTIONAL LIMITS

REV.	DATE	DESCRIPTION	APP'D BY	OTHERS

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FIGURE 1-10
 MAJOR
 DRAINAGE BASINS
 DWG. SHEET OF 18

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Capital Improvement Program

- **Capital Improvement Categories**
 1. **Flood Protection**
 2. **Water Quality**
 3. **Maintenance Related Structural Improvements**

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Capital Improvement Program

- **Flood Protection**: Addresses the flood protection of structures (i.e., homes, businesses, etc.); flood protection of roadways and streets; and flood protection of properties.
- **Water Quality**: Addresses the reduction of pollutants being discharged to downstream receiving water bodies.
- **Maintenance Related Structural Improvements**: Addresses minor structural improvements (i.e., pipe replacement, drainage structure repair, etc.).

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Capital Improvement Program

TOWN OF WINDERMERE STORMWATER MANAGEMENT MASTER PLAN

Prioritization of Capital Improvement Program

Rank	CIP No.	Description	Basin	CIP Type	Costs
1	TW-001	W. 2nd Avenue Roadway and Drainage Improvements	Butler	FP*	\$ 2,624,780.00
2	TW-002	7th Avenue and Butler Street Drainage Improvements	Butler	FP*	\$ 693,974.00
3	TW-003A	8th Avenue and Bessie St/East Blvd Drainage Improvements	Bessie	FP*	\$ 720,781.00
4	TW-003B	3rd Avenue and Magnolia Street Drainage Improvements	Down	FP*	
5	TW-004	6th Avenue and Lake Down Retaining Wall Improvements	Down	FP**	\$ 1,434,710.00
6	TW-005	5th Avenue and Lake Street Retaining Wall Improvements	Down	FP**	\$ 729,591.00
7	TW-006	4th Avenue and Magnolia Street Drainage Improvements	Down	FP**	\$ 446,500.00
8	TW-007	Lake Butler Boulevard and Main Street Drainage Improvements	Butler	FP	\$ 212,702.00
9	TW-008	Town Dirt Road Maintenance Plan	Butler/Bessie	MRS	\$ 2,500,000.00
10	TW-009	Town Swale Improvement Plan	Butler/Bessie	WQ	\$ 3,750,000.00
11	TW-010	Bayshore Drive Water Quality and Culvert Improvements	Down	WQ	\$ 252,052.00
12	TW-011	Chase Road Water Quality Improvements	Butler	WQ	\$ 79,751.00
13	TW-012	Stormwater Pond Maintenance Plan (1st Ave and Oakdale St)	Down	MRS	\$ 66,688.00
14	TW-013	Stormwater Pond Maintenance Plan (Ballfields)	Down	MRS	\$ 87,682.00
15	TW-014	Stormwater Pond Maintenance Plan (Ridgewood Drive)	Down	MRS	\$ 53,665.00
16	TW-015	Lake Butler Boulevard Culvert Improvements	Butler	MRS	\$ 175,386.00
17	TW-016	Old Dirt Main Paving and Drainage Improvements	Butler	FP	\$ 904,919.00
18	TW-017	Old Dirt Main Realignment Improvements	Butler	MRS	\$ 248,555.00
19	TW-018	Town Dirt Road Improvement Plan	Butler/Bessie	MRS	\$ 8,776,678.00
20	TW-019	Main Street Culvert Improvements (north of Lake Butler canal)	Down	MRS	\$ 95,064.00
21	TW-020	2nd Avenue and Oakdale Street Culvert Improvements	Down	MRS	\$ 102,685.00
22	TW-021	Park Avenue Ancillary Road Drainage Improvements	Butler	WQ	\$ 440,000.00
23	TW-022	Roadway and Drainage Maintenance Plan	ALL	MRS	\$ 110,000.00
TOTAL					\$ 24,506,163.00

Notes:

(1) FP - Flood Protection

FP* - Flood Protection – Awaiting Phase II HMGP Construction Funding from FEMA (Hurricane Irma)

FP** - Flood Protection – Scheduled for HMGP application submittal under Hurricane Ian (2022)

WQ - Water Quality

MRS - Maintenance Related Structural Improvements

(2) Cost rounded off to nearest thousand dollar, and includes mobilization, contingencies, surveying/engineering/permitting/construction administration costs

(3) Constr

(4) Phase I design completed, awaiting Phase II construction funding

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Capital Improvement Program

TOWN OF WINDERMERE STORMWATER MANAGEMENT MASTER PLAN

Prioritization of Capital Improvement Program

Rank	CIP No.	Description	Basin	CIP Type	Costs	CIP Duration Years	
Lake Bessie Basin Projects							
3	TW-003A	8th Avenue and Bessie St/East Blvd Drainage Improvements	Bessie	FP*	\$ 720,781	5	
Lake Butler Basin Projects							
1	TW-001	W. 2nd Avenue Roadway and Drainage Improvements	Butler	FP*	\$ 2,624,780	5	
2	TW-002	7th Avenue and Butler Street Drainage Improvements	Butler	FP*	\$ 693,974	5	
8	TW-007	Lake Butler Boulevard and Main Street Drainage Improvements	Butler	FP	\$ 212,702	5	
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16	TW-015	Lake Butler Boulevard Culvert Improvements	Down	MRS	\$ 175,386	5	
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18	TW-017	Old Dirt Main Realignment Improvements	Butler	MRS	\$ 248,555	5	
22	TW-021	Park Avenue Ancillary Road Drainage Improvements	Butler	WQ	\$ 440,000	20	
Lake Down Basin Projects							
4	TW-003B	3rd Avenue and Magnolia Street Drainage Improvements	Down	FP*		5	
5	TW-004	6th Avenue and Lake Down Retaining Wall Improvements	Down	FP**	\$ 1,434,710	5	
6	TW-005	5th Avenue and Lake Street Retaining Wall Improvements	Down	FP**	\$ 729,591	5	
7	TW-006	4th Avenue and Magnolia Street Drainage Improvements	Down	FP**	\$ 446,500	5	
11	TW-010	Bayshore Drive Water Quality and Culvert Improvements	Down	WQ	\$ 252,052	5	
13	TW-012	Stormwater Pond Maintenance Plan (1st Ave and Oakdale St)	Down	MRS	\$ 66,688	5	
14	TW-013	Stormwater Pond Maintenance Plan (Ballfields)	Down	MRS	\$ 87,682	5	
15	TW-014	Stormwater Pond Maintenance Plan (Ridgewood Drive)	Down	MRS	\$ 53,665	5	
20	TW-019	Main Street Culvert Improvements (north of Lake Butler canal)	Butler	MRS	\$ 95,064	5	
21	TW-020	2nd Avenue and Oakdale Street Culvert Improvements	Down	MRS	\$ 102,685	5	
All Basin Projects							
23	TW-022	Roadway and Drainage Maintenance Plan	ALL	MRS	\$ 110,000	20	
Lake Butler/Bessie Basin Projects							
9	TW-008	Town Dirt Road Maintenance Plan	Butler/Bessie	MRS	\$ 2,500,000.00	20	
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FP** - Flood Protection – Scheduled for HMGP application submittal under Hurricane Ian (2022)

WQ - Water Quality

MRS - Maintenance Related Structural Improvements

(2) Cost rounded off to nearest thousand dollar, and includes mobilization, contingencies, surveying/engineering/permitting/construction administration costs.

(3) Construction completed by the Town of Windermere (shaded). Construction cost provided by Tonya Elliott-Moore, Public Works Director

(4) Phase I design completed, awaiting Phase II construction funding

(5) Phase I design completed, awaiting Phase II construction funding

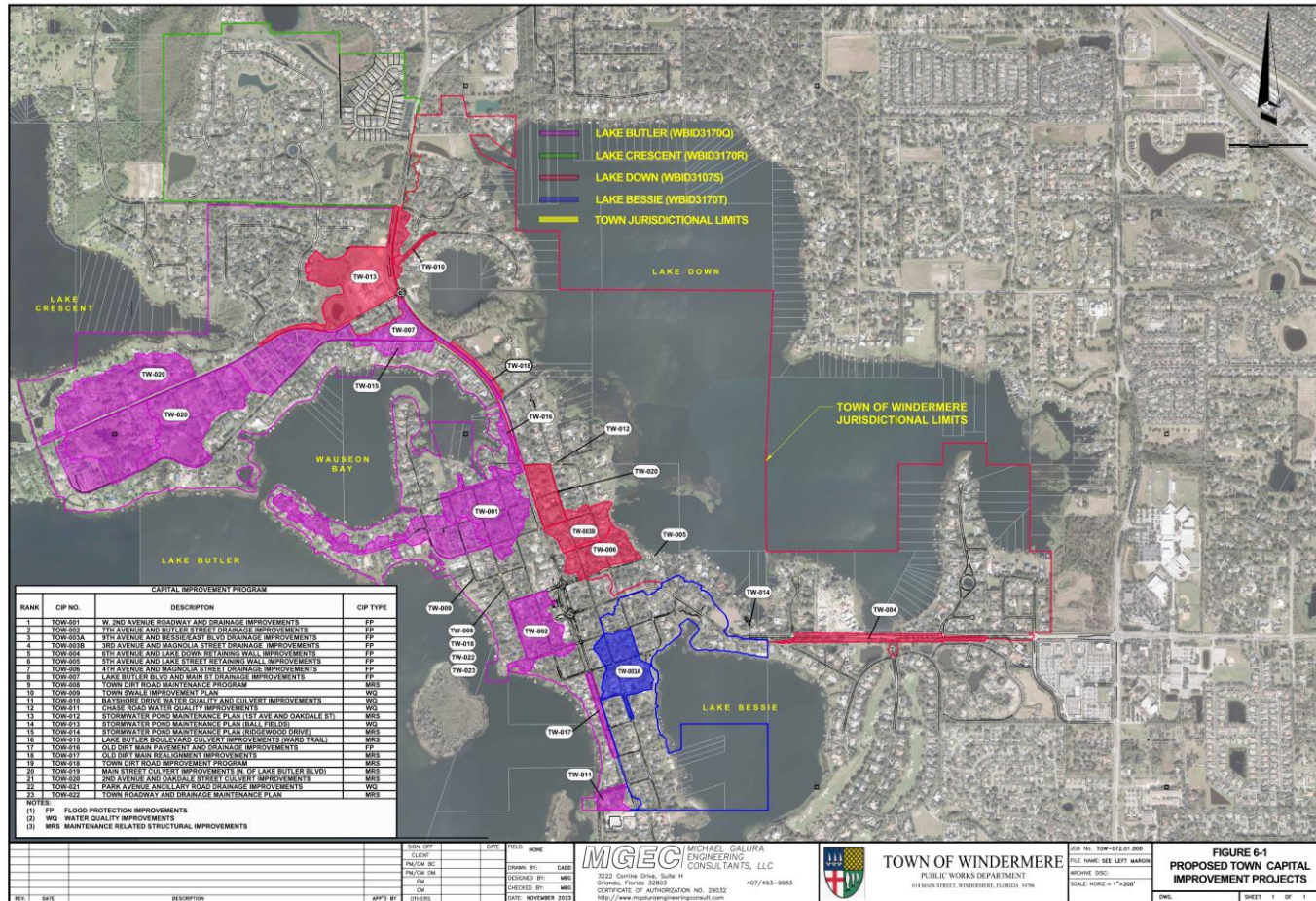
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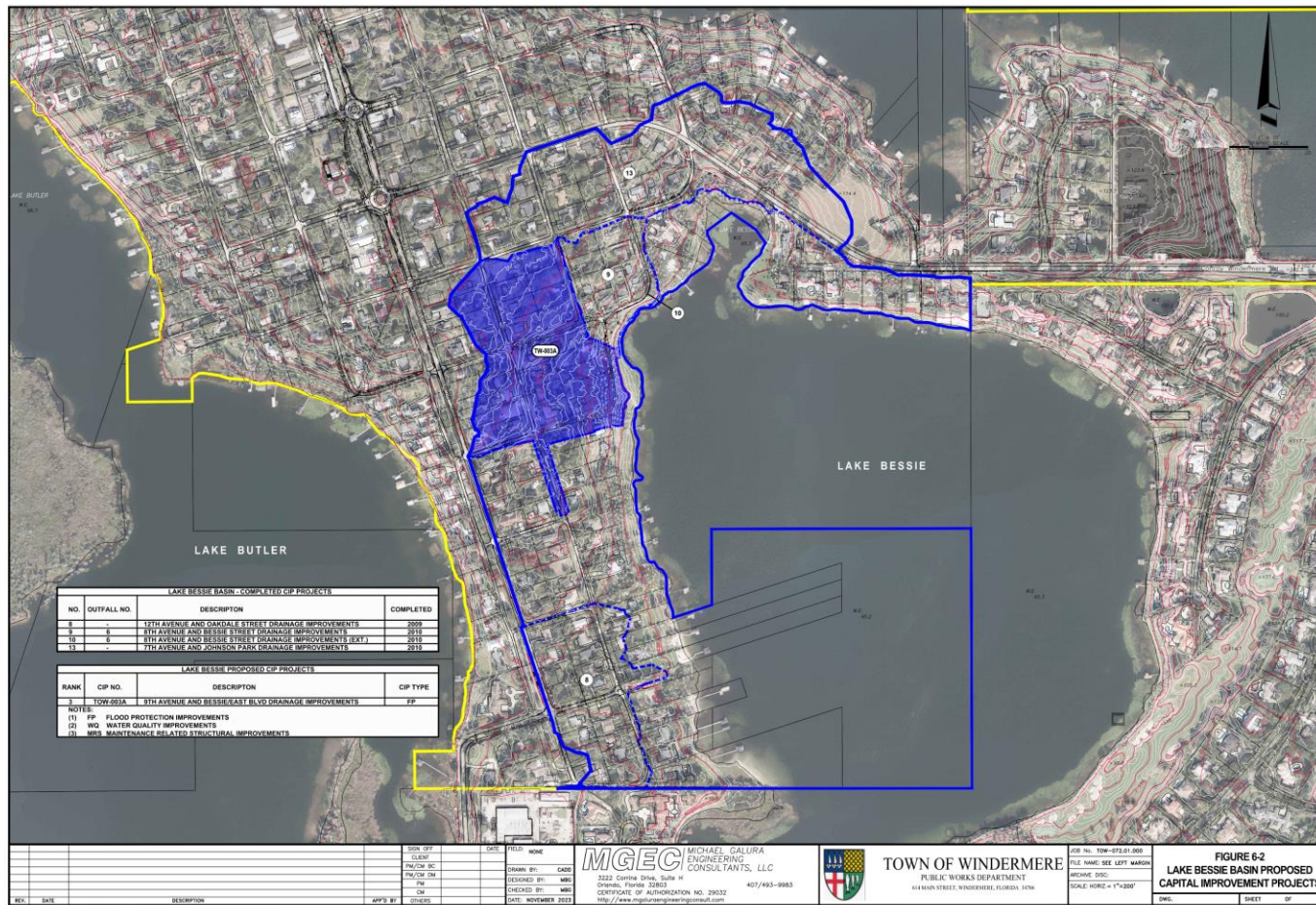
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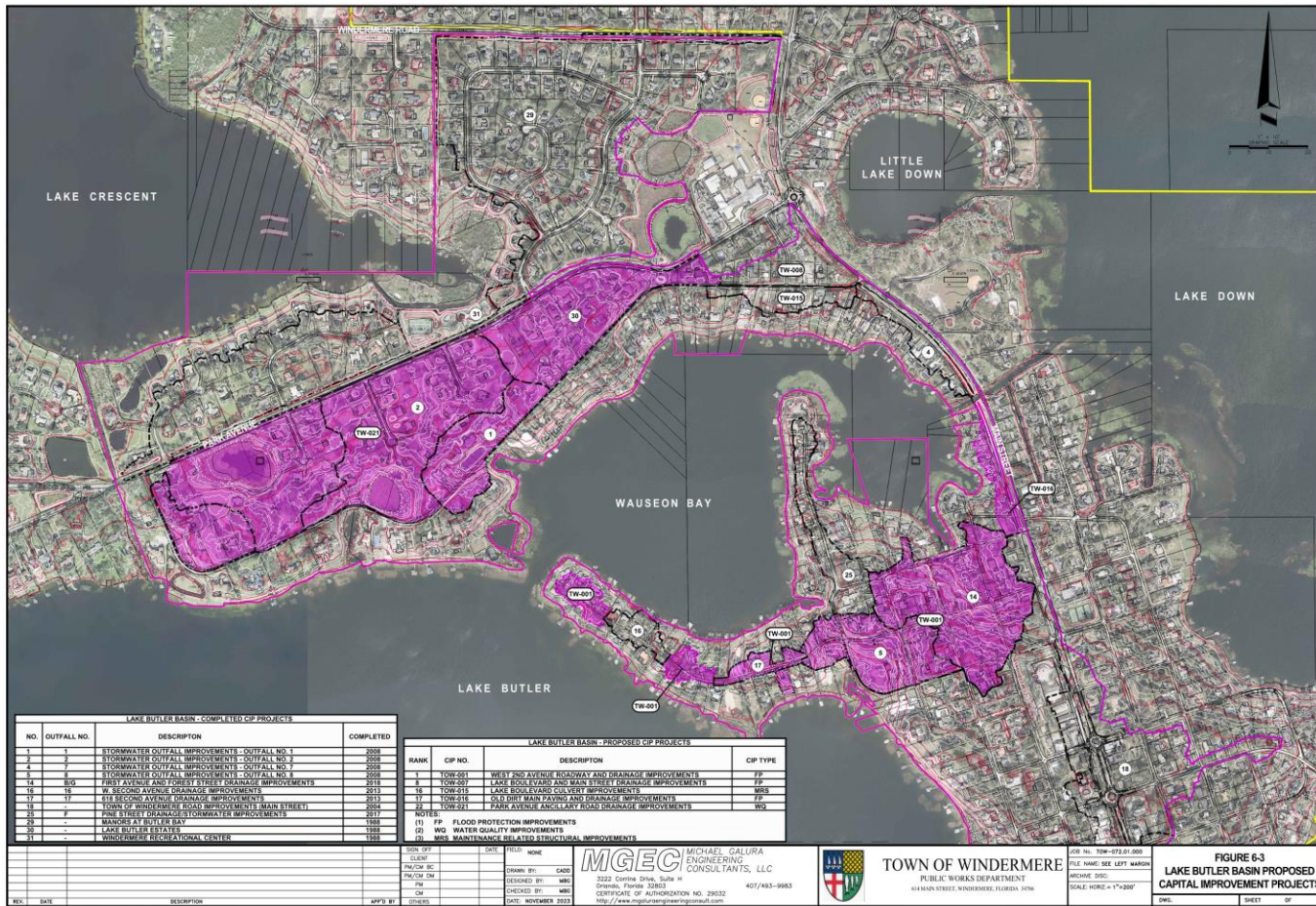
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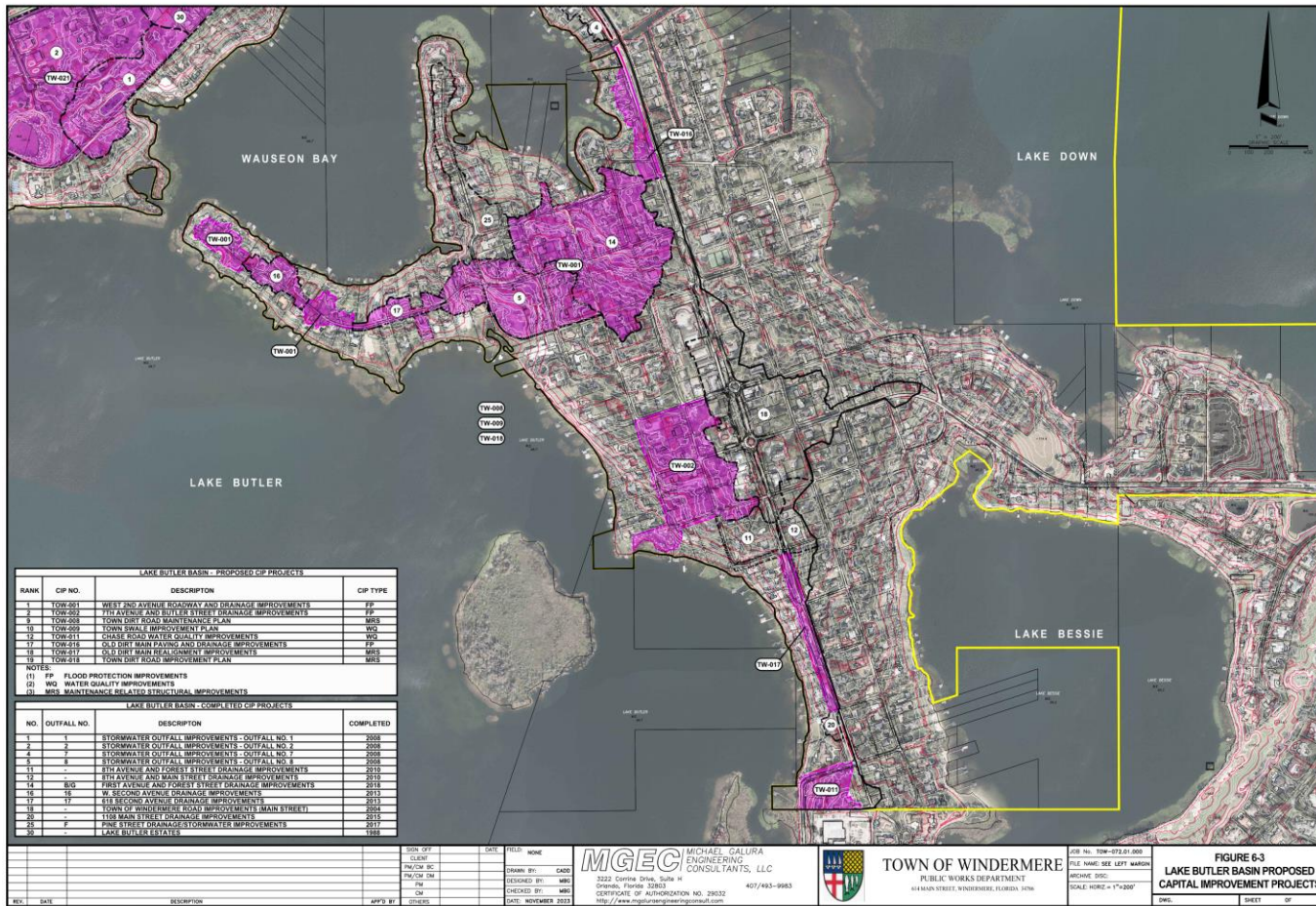
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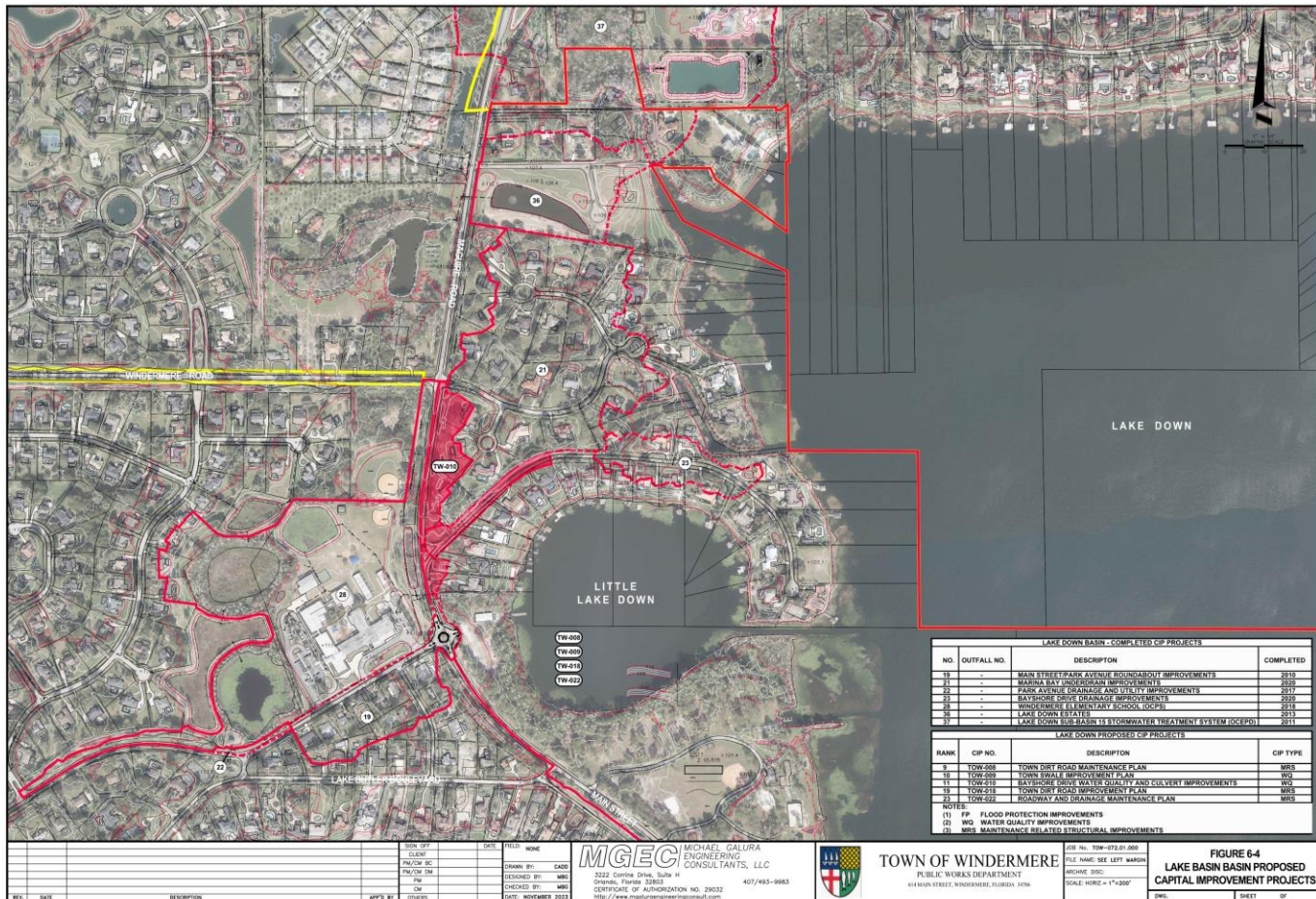
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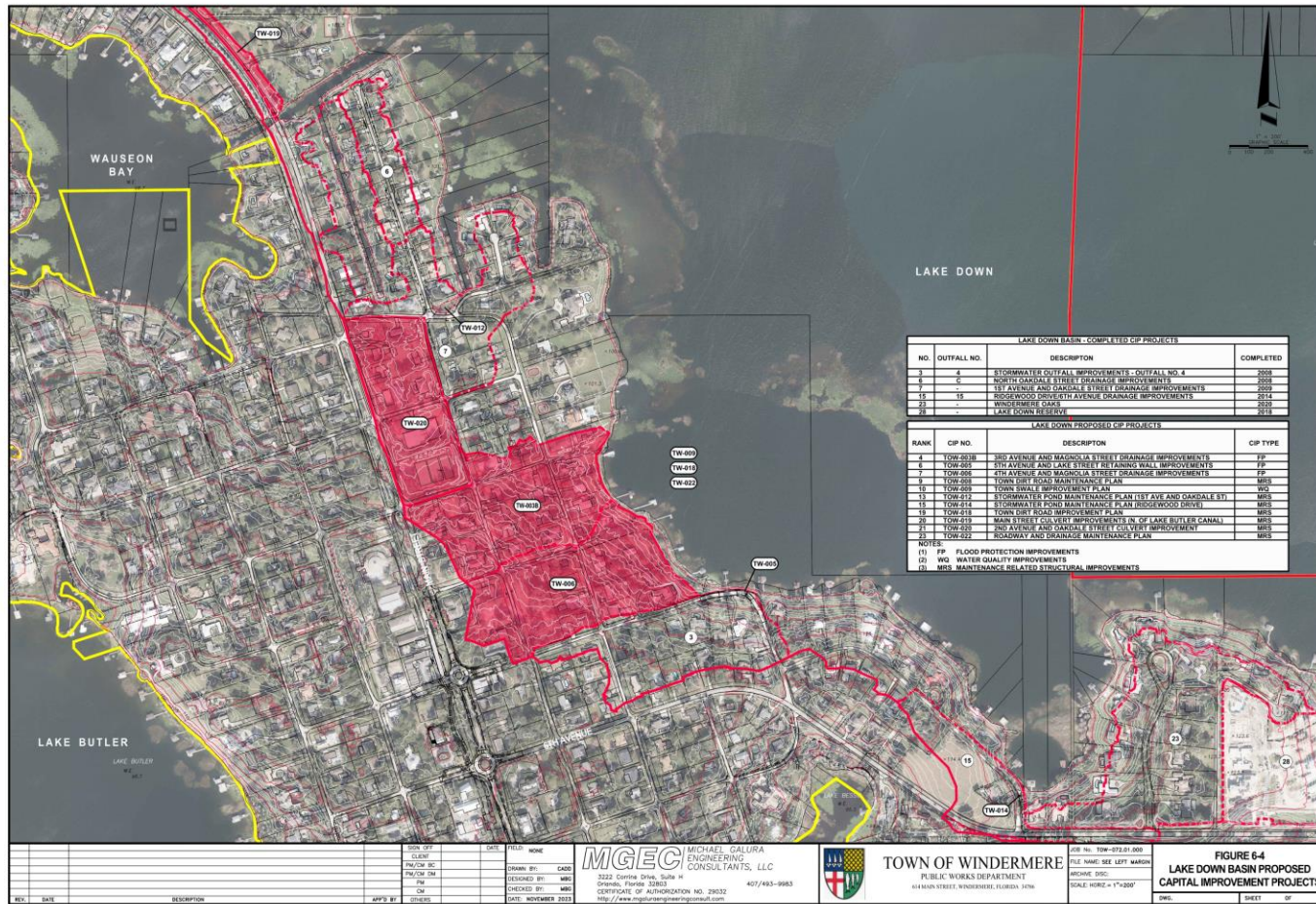
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LAKE DOWN BASIN - COMPLETED CIP PROJECTS			
NO.	OUTFALL NO.	DESCRIPTION	COMPLETED
3	8	STORMWATER OUTFALL IMPROVEMENTS - OUTFALL NO. 4	2020
4	-C	NORTH OAKDALE STREET DRAINAGE IMPROVEMENTS	2020
7	-C	1ST AVENUE AND OAKDALE STREET DRAINAGE IMPROVEMENTS	2020
15	15	BOGGS WOOD DRIVE 5TH AVENUE DRAINAGE IMPROVEMENTS	2014
21	-	WOODFINGER DRIVE	2018
22	-	LAKE DOWN RETRIEVE	2018

LAKE DOWN PROPOSED CIP PROJECTS			
RANK	CIP NO.	DESCRIPTION	CIP TYPE
1	TOW-078	3RD AVENUE AND MADONNA STREET DRAINAGE IMPROVEMENTS	FP
2	TOW-085	5TH AVENUE AND LAKE STREET RETAINING WALL IMPROVEMENTS	FP
3	TOW-085	4TH AVENUE AND MADONNA STREET DRAINAGE IMPROVEMENTS	FP
4	TOW-085	TOWN CDP BOARD MAINTENANCE PLAN	MBS
5	TOW-085	TOWN SHALL IMPROVEMENT PLAN	WG
6	TOW-092	STORMWATER POND MAINTENANCE PLAN (1ST AVE AND OAKDALE ST)	MBS
7	TOW-092	STORMWATER POND MAINTENANCE PLAN (BRIDGEWOOD DRIVE)	MBS
8	TOW-092	TOWN CDP BOARD IMPROVEMENT PLAN	MBS
9	TOW-092	TOWN SHALL IMPROVEMENT PLAN	WG
10	TOW-092	LAKE BUTLER COLLECTOR IMPROVEMENTS IN LAKE BUTLER CANAL	MBS
11	TOW-092	2ND AVENUE AND OAKDALE STREET COLLECTOR IMPROVEMENT	MBS
12	TOW-092	ROADWAY AND DRAINAGE MAINTENANCE PLAN	MBS

- NOTES:
 (1) FP FLOOD PROTECTION IMPROVEMENTS
 (2) WG WATER QUALITY IMPROVEMENTS
 (3) MBS MAINTENANCE RELATED STRUCTURAL IMPROVEMENTS

REV.	DATE	DESCRIPTION	APP'D BY

REV.	DATE	FIELD	VALUE

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FIGURE 6-4
LAKE DOWN BASIN PROPOSED
CAPITAL IMPROVEMENT PROJECTS
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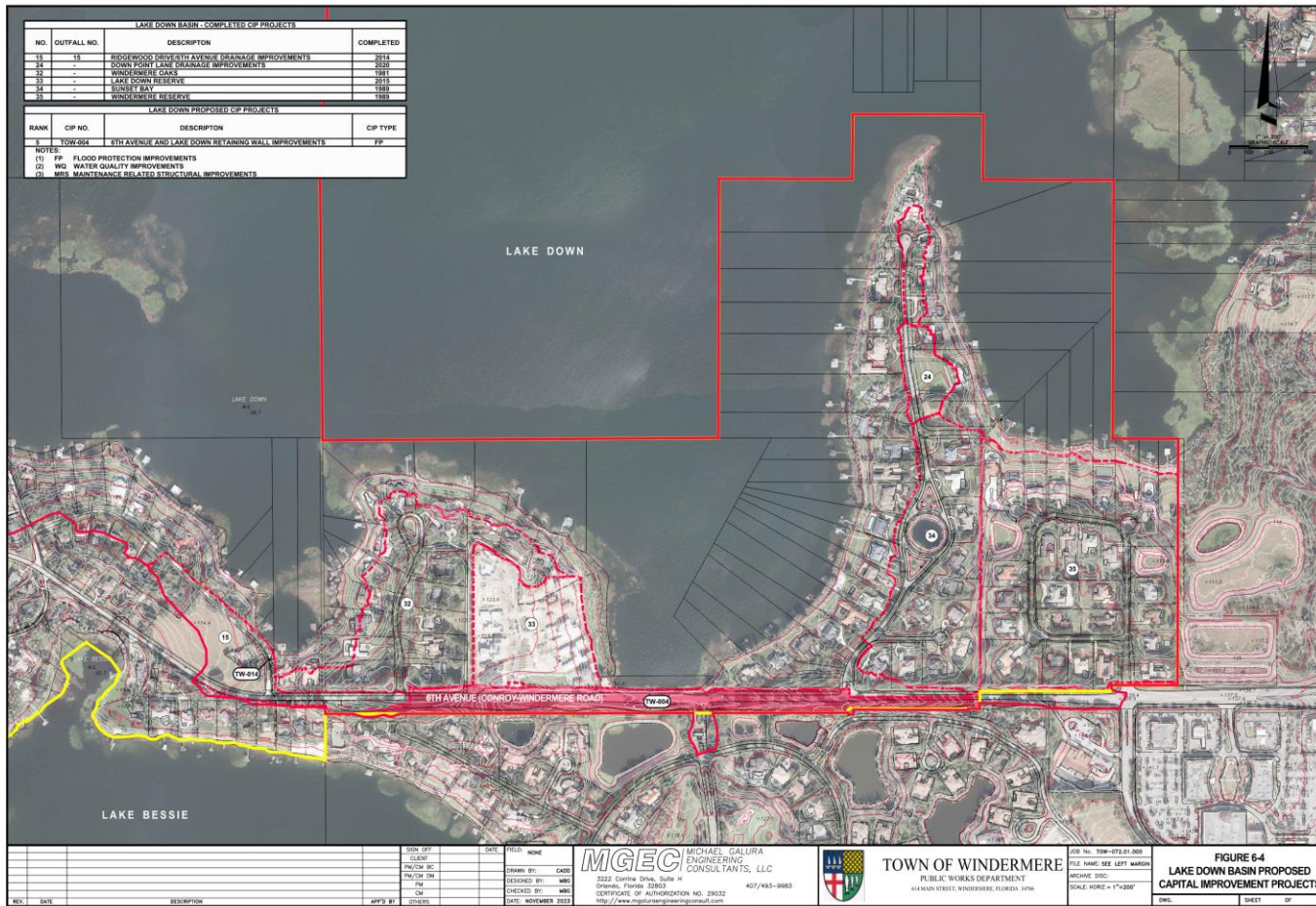
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Capital Improvement Program



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Capital Improvement Program Funding

- **Stormwater Utility (Town of Windermere)**
- **Hazard Mitigation Grant Program (FEMA - Federal Disaster Declaration)**
- **State and Tribal Assistance Grant (USEPA - STAG)**
- **Section 319 Non-Point Source Grant (USEPA/FDEP)**
- **TMDL Water Quality Restoration Program (FDEP)**
- **Clean Water Revolving Fund Loan Program (FDEP)**
- **Cooperative Funding Program (SFWMD)**
- **Butler Chain-of-Lakes Advisory Board (Orange County)**

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QUESTIONS?