TOWN OF LAUDERDALE-BY-THE-SEA

Palm Club

Septic to Sewer Conversion

DRAFT 75% Design Public Outreach Meeting

July 2020

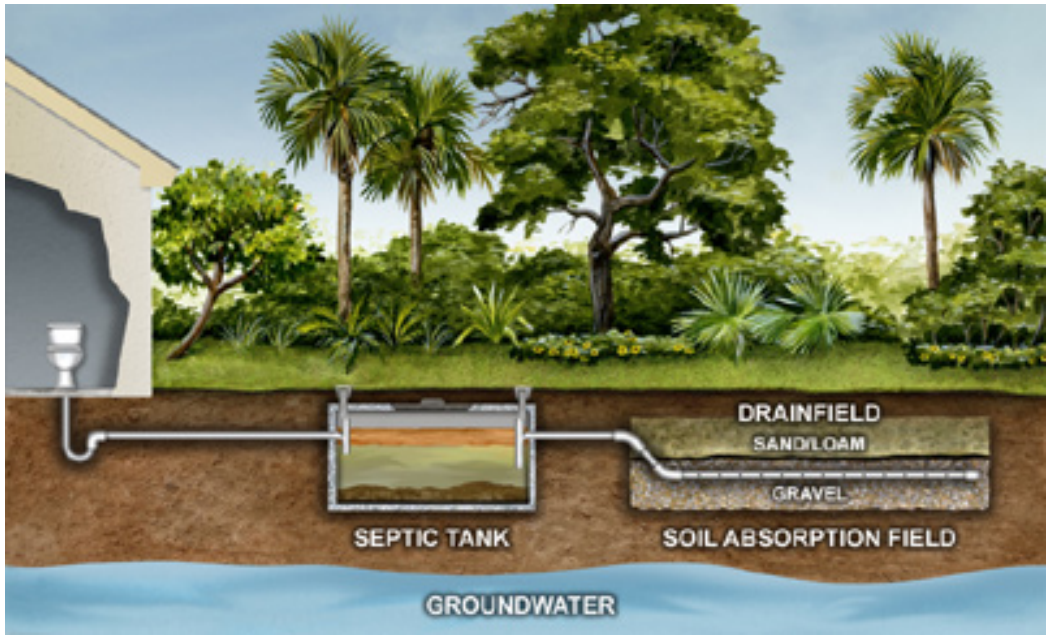
BAXTER & WOODMAN Consulting Engineers

History

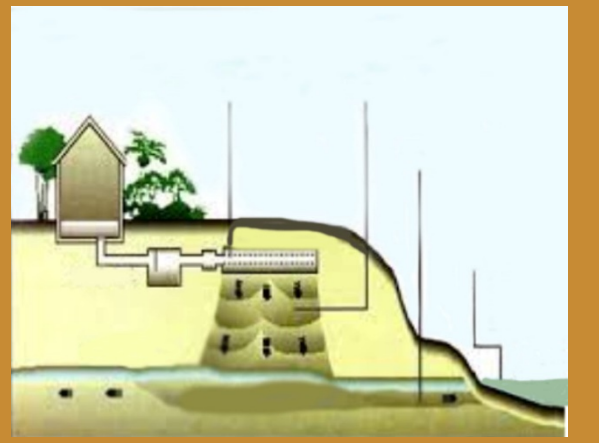
- Palm Club community septic to sewer conversion
- Privately owned community
- One-hundred (100) residential units
- Located adjacent to the northern limits of the Town
- Reduce potential adverse environmental impacts associated with septic systems

Septic Tanks

- Underground wastewater collection and treatment systems
- Household wastewater is collected via floor or sink drains
- Provide retention to allow for solids settling
- Promote biological decomposition
- Fats, oils and grease provide a good source of energy
- Wastewater discharges to a drainfield and percolates into the surrounding soils
- Solids must be pumped out and properly disposed of at periodic intervals



Environmental Impacts of Septic Tanks



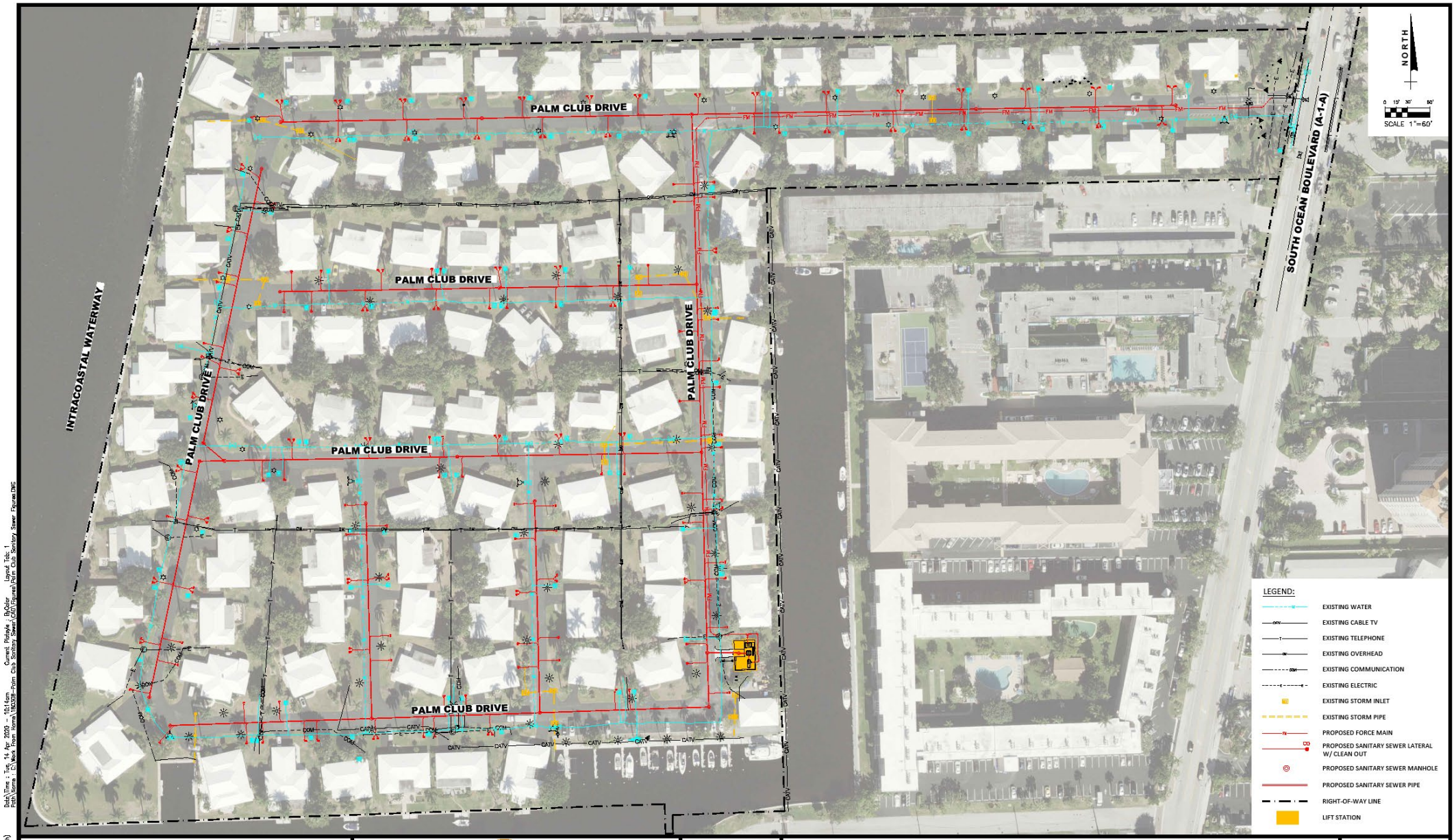
- Septic tanks discharge contains significant concentrations of nutrients and bacteria
- Potential to detrimentally impact drinking water sources
- Adverse environmental impacts to sensitive water bodies
- Degraded water quality
- Potential for algae blooms
- More significant in coastal communities
- Promote more rapid transport of contaminants through the groundwater and adjacent water bodies

Basis of Design

- Gravity sewer system will collect and convey domestic wastewater generated from the community to the City of Pompano Beach
- Collected wastewater flows treated at the Broward County North Regional Wastewater Treatment Plant
- Closed systems
- Wastewater is conveyed “by gravity” using downward sloping pipe to a lift station
- 8-inch diameter polyvinyl chloride (PVC) gravity sewer mains located within the center of the roadway
- Manholes are located at a maximum interval of 400-feet
- Lift station located north of the maintenance facility will discharge wastewater to City of Pompano Beach system
- Many residences have 2 septic tanks and will have 2 service lateral connections
- Residents will have to contract a plumber to connect the house plumbing to the sewer lateral and perform the abandonment of their septic system

LAUDERDALE BY·THE·SEA

BAXTER & WOODMAN Consulting Engineers



LAUDERDALE BY-THE-SEA

TOWN OF LAUDERDALE-BY-THE SEA
4501 NORTH OCEAN DRIVE
LAUDERDALE-BY-THE-SEA, FL 33308
TEL. 954-640-4200

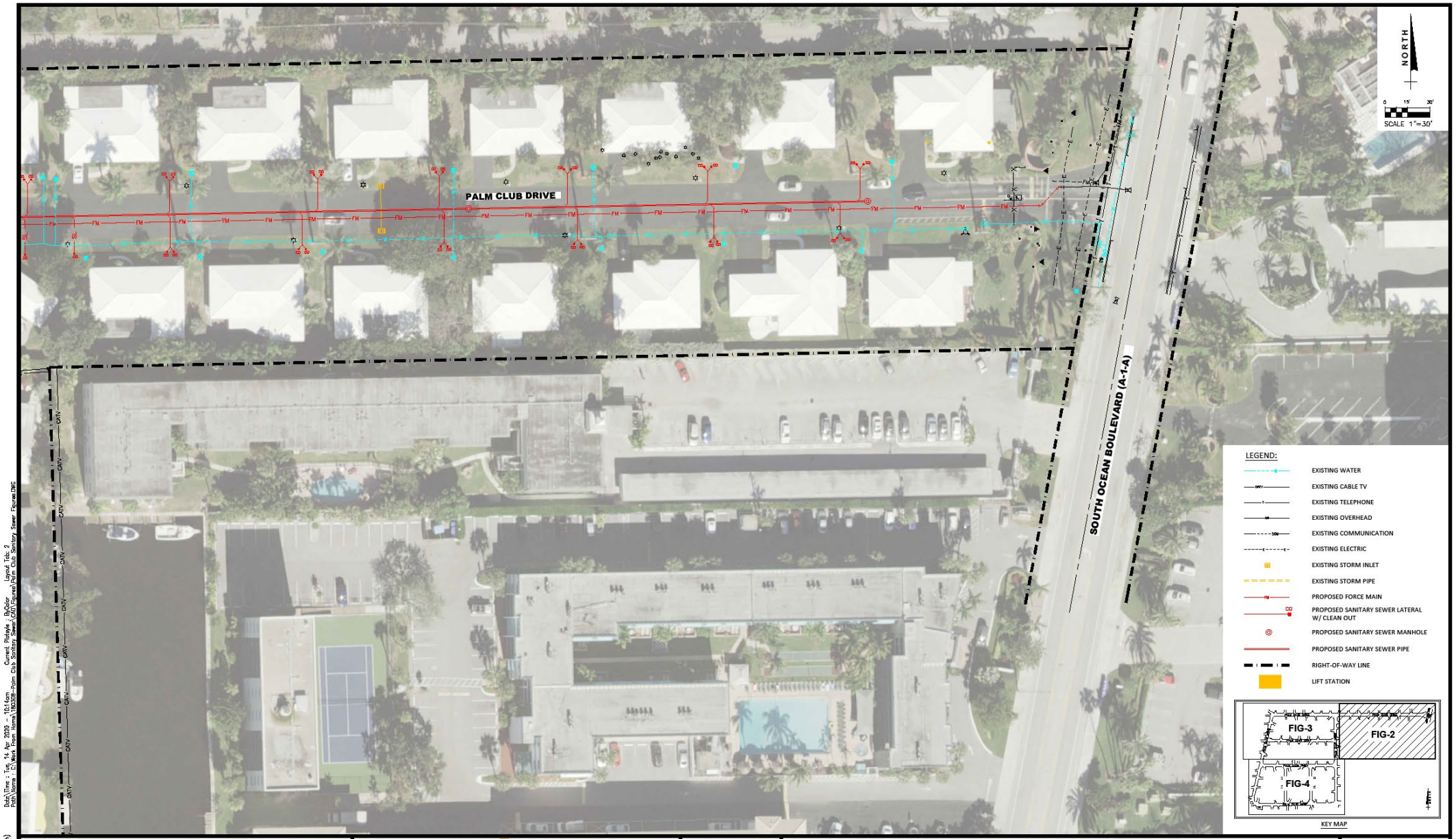
BAXTER & WOODMAN
Consulting Engineers
477 S. Rosemary Avenue, Suite 330, West Palm Beach, Florida 33401
Phone: 561-655-6175 • Fax: 561-655-8179
www.baxterwoodman.com EB-31795

VERIFY SCALE
1"
BAR IS ONE INCH ON FULL SIZE (22x34) ORIGINAL DRAWING. ADJUST SCALES AS NECESSARY.

TOWN OF LAUDERDALE-BY-THE-SEA

PALM CLUB SANITARY SEWER

FIGURE:
1



TOWN OF LAUDERDALE-BY-THE SEA
4501 NORTH OCEAN DRIVE
LAUDERDALE-BY-THE-SEA, FL 33308
TEL. 954-640-4200

BAXTER & WOODMAN
Consulting Engineers
477 S. Rosemary Avenue, Suite 330, West Palm Beach, Florida 33401
Phone: 561-655-6175 • Fax: 561-655-8179
www.baxterwoodman.com EB-31795

VERIFY SCALE
1"
BAR IS ONE INCH ON FULL SIZE (22x34) ORIGINAL DRAWING. ADJUST SCALES AS NECESSARY.

TOWN OF LAUDERDALE-BY-THE-SEA

PALM CLUB SANITARY SEWER

FIGURE:
2

LAUDERDALE BY-THE-SEA

TOWN OF LAUDERDALE-BY-THE SEA
4501 NORTH OCEAN DRIVE
LAUDERDALE-BY-THE-SEA, FL 33308
TEL. 954-640-4200

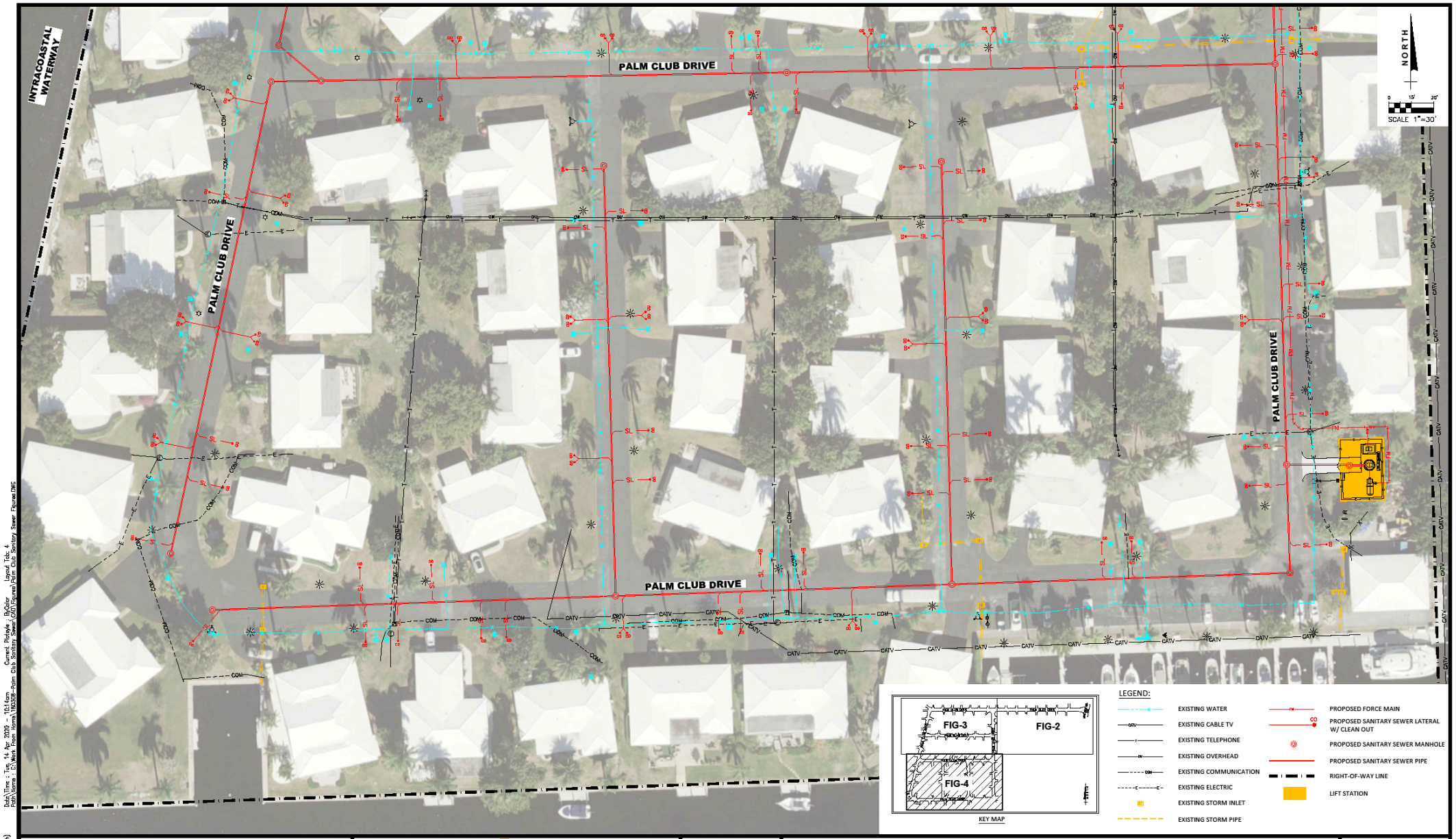
BAXTER & WOODMAN
Consulting Engineers
477 S. Rosemary Avenue, Suite 330, West Palm Beach, Florida 33401
Phone: 561-655-6175 • Fax: 561-655-8179
www.baxterwoodman.com EB-31795

VERIFY SCALE
1"
BAR IS ONE INCH ON FULL SIZE (22x34) ORIGINAL DRAWING. ADJUST SCALES AS NECESSARY.

TOWN OF LAUDERDALE-BY-THE-SEA

PALM CLUB SANITARY SEWER

FIGURE:
3



TOWN OF LAUDERDALE-BY-THE SEA
4501 NORTH OCEAN DRIVE
LAUDERDALE-BY-THE-SEA, FL 33308
TEL. 954-640-4200

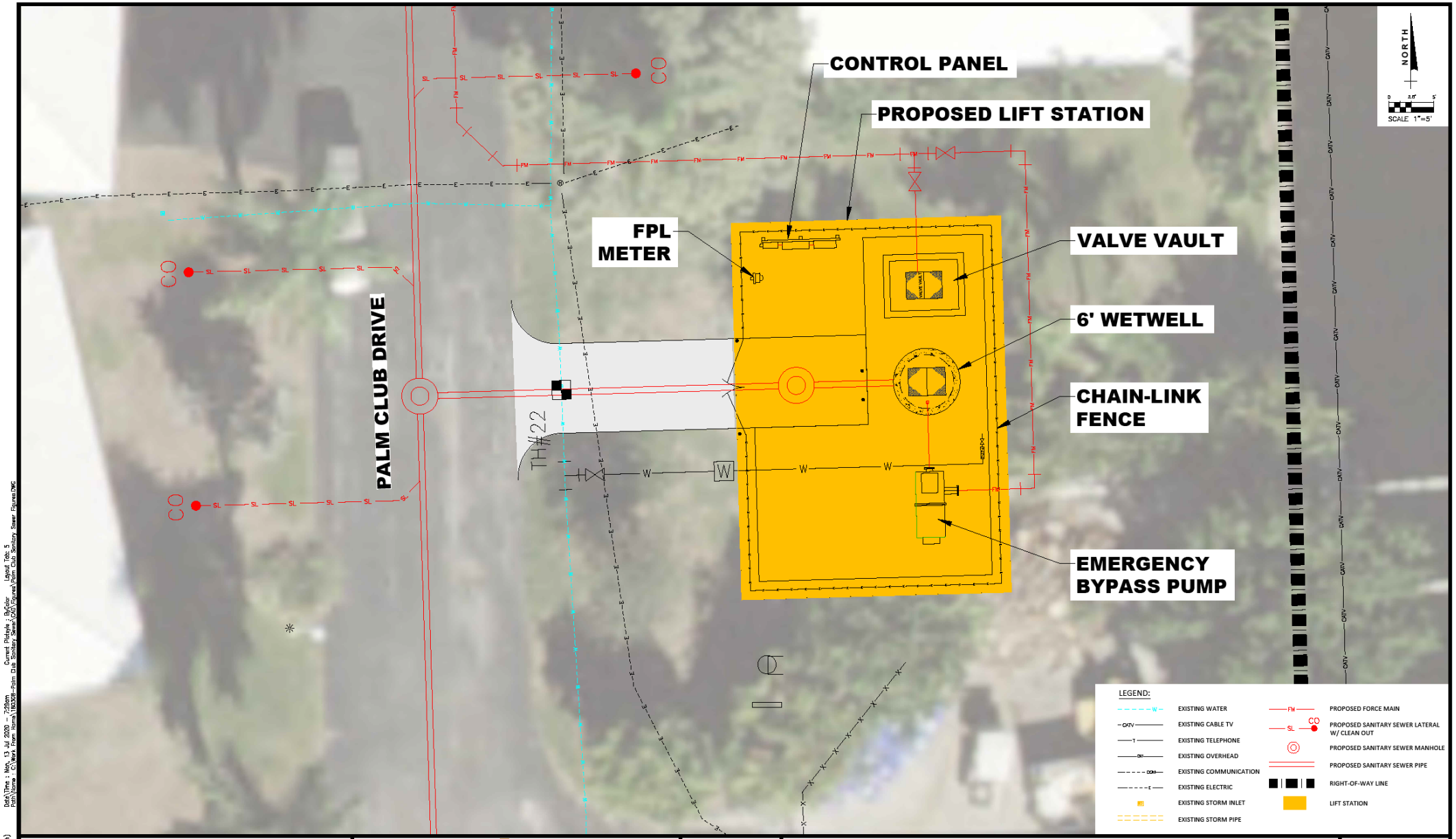
BAXTER & WOODMAN
Consulting Engineers
477 S. Rosemary Avenue, Suite 330, West Palm Beach, Florida 33401
Phone: 561-655-6175 • Fax: 561-655-8179
www.baxterwoodman.com EB-31795

VERIFY SCALE
1"
BAR IS ONE INCH ON FULL SIZE (22x34) ORIGINAL DRAWING. ADJUST SCALES AS NECESSARY.

TOWN OF LAUDERDALE-BY-THE-SEA

PALM CLUB SANITARY SEWER

FIGURE:
4



TOWN OF LAUDERDALE-BY-THE SEA
4501 NORTH OCEAN DRIVE
LAUDERDALE-BY-THE-SEA, FL 33308
TEL. 954-640-4200

BAXTER & WOODMAN
Consulting Engineers
477 S. Rosemary Avenue, Suite 330, West Palm Beach, Florida 33401
Phone: 561-655-6175 • Fax: 561-655-8179
www.baxterwoodman.com EB-21795

VERIFY SCALE
1"
BAR IS ONE INCH ON FULL SIZE (22x34) ORIGINAL DRAWING. ADJUST SCALES AS NECESSARY.

TOWN OF LAUDERDALE-BY-THE-SEA

PALM CLUB SANITARY SEWER

FIGURE:
5

Lift Station Installation – Wetwell

Installation via Caisson Method

Removal of Material within Wet Well

Rebar Floor Construction

Concrete for Ballast Seal and Floor

Wet Well Slab Setting

LAUDERDALE BY·THE·SEA

BAXTER & WOODMAN Consulting Engineers

Lift Station Installation – Valve Vault

Valve Vault Setting

Piping within Valve Vault

BAXTER & WOODMAN
Consulting Engineers

Lift Station Photos

Lift Station Example

Proposed Lift Station Location

Electric Control Panel

Bypass Pumping Unit

LAUDERDALE BY·THE·SEA

BAXTER & WOODMAN Consulting Engineers

Sewer System Construction

LAUDERDALE BY·THE·SEA

BAXTER & WOODMAN
Consulting Engineers

Other Construction Photos

Site Dewatering

Sewer Main and Service Lateral Installation

Excavation

Compaction of Backfill around Pipe

LAUDERDALE BY·THE·SEA

BAXTER & WOODMAN Consulting Engineers

Roadway Reconstruction

Trench Compaction

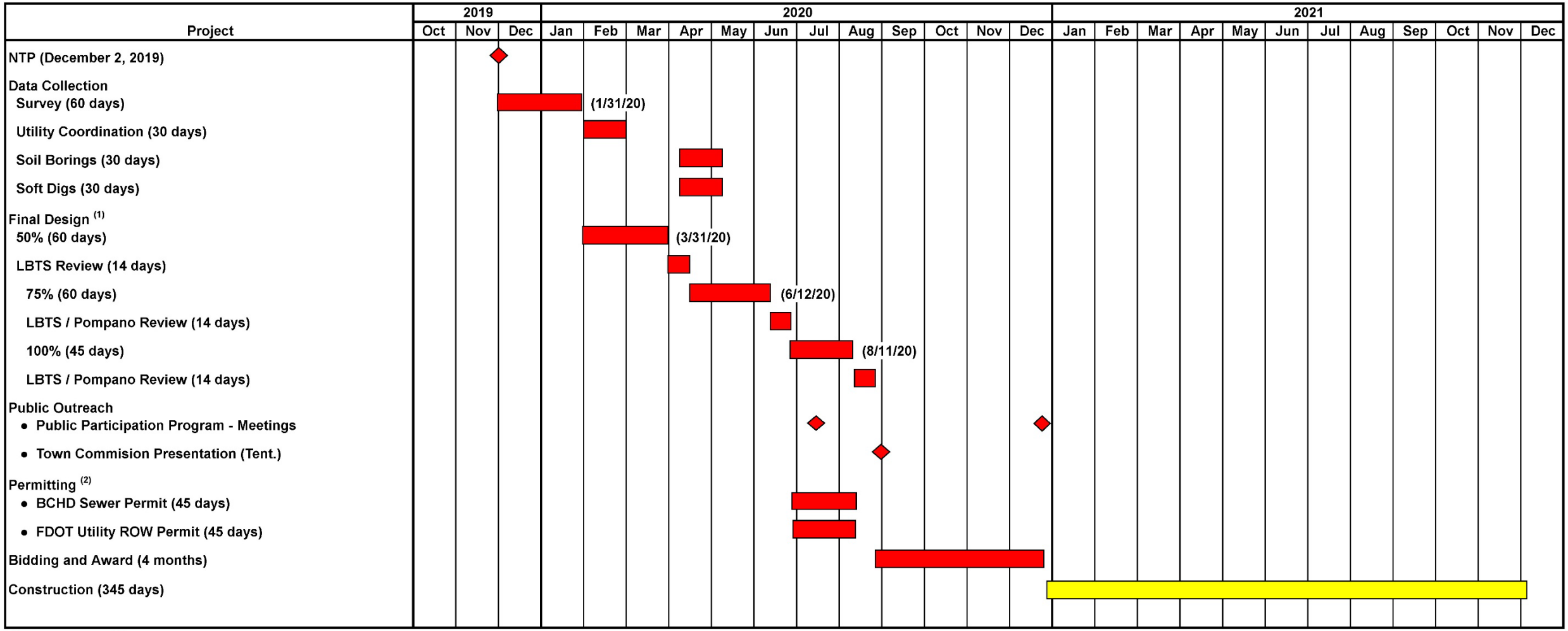
Laying Asphalt

Rolling Asphalt

LAUDERDALE BY·THE·SEA

BAXTER & WOODMAN Consulting Engineers

Palm Club Gravity Sewer System - Project Schedule



Notes:
(1) The design schedule is based upon conducting a review meeting within 14 calendar days after LBTS receives the submittal. All review comments shall be provided to MC within 14 calendar days after LBTS receives the submittal. An adjustment to the overall schedule will be required in case the review meeting takes longer to be conducted and/or obtaining comments takes longer to receive.

(2) Estimated based upon typical regulatory agency review period.

LAUDERDALE BY·THE·SEA

BAXTER & WOODMAN Consulting Engineers

Making a positive difference through innovative engineering solutions.

Questions & Answers

LAUDERDALE BY·THE·SEA

BAXTER & WOODMAN Consulting Engineers