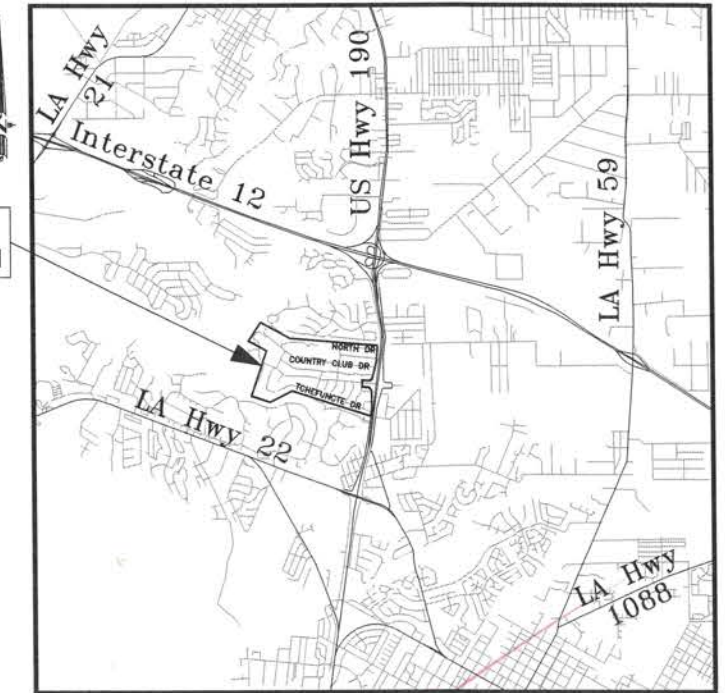


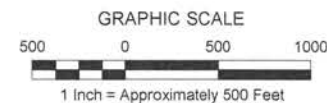
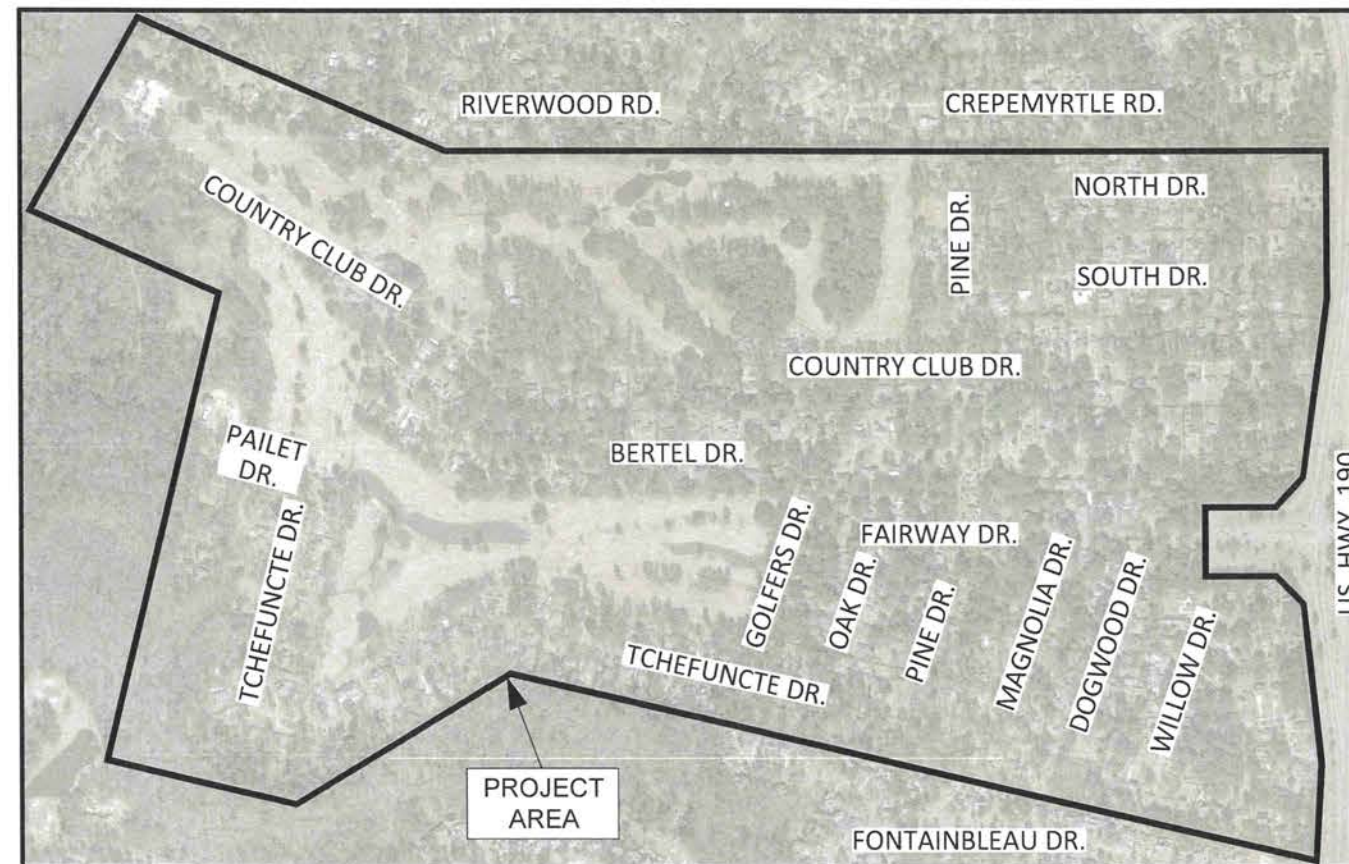
# SAINT TAMMANY PARISH SEWERAGE DISTRICT NO. 1 SEWERAGE SYSTEM REHABILITATION PROJECT

## CWSRF PROJECT NO. CS221925-01

PROJECT LOCATION



VICINITY MAP



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**As Built**

Date: \_\_\_\_\_

RECOMMENDED FOR APPROVAL



BY: \_\_\_\_\_

Michael M. Hattaway, P.E.  
License No. 18672

STATE PERMIT NO. - LPDES LA 0080403



JULY 2019

GEC PROJECT NO. 0051.2246101.000

SHEET NO. 1

G:\DWGS\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\01-03 St. Tam Sew Dist 1 Cover Sheet and Notes.dwg Aug 13, 2019 -- 9:58am

GENERAL NOTES:

1. MINIMIZING THE CONSTRUCTION IMPACTS TO AREA RESIDENTS AND BUSINESSES IS A PRIMARY CONCERN OF THE OWNER. THE CONTRACTOR SHALL PLAN HIS WORK SUCH THAT HE CAUSES THE LEAST DISTURBANCE AS WELL AS BEING PREPARED TO RESPOND TO RESIDENTS' CONCERNS IN A PROFESSIONAL AND TIMELY MANNER.
2. THE CONTRACTOR MUST VERIFY ELEVATIONS OF ALL EXISTING UTILITIES AND INVERTS THAT ARE WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THAT ANY UTILITIES CROSSING A PROPOSED UTILITY WILL NOT CONFLICT, PRIOR TO INSTALLING THE NEW UTILITY. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER IN A TIMELY MANNER TO AVOID ANY DELAYS CAUSED BY THE UTILITY ADJUSTMENT.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS INCLUDING EMPLOYEES AND PROPERTY. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THIS WORK.
4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURING THE PROJECT SITE FROM THE GENERAL PUBLIC BOTH DURING AND AFTER WORKING HOURS. THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN ALL LIGHTS, SIGNS, FENCES, OR ANY OTHER SAFETY DEVICES TO PROTECT UNAUTHORIZED PERSONNEL FROM HAZARDOUS OR DANGEROUS CONDITIONS ON THE PROJECT SITE. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE VARIOUS ITEMS BID FOR FURNISHING AND INSTALLING MATERIALS ON THE PROJECT.
5. THE CONTRACTOR SHALL RE-GRADE ALL AREAS AFFECTED BY CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER ACCEPTABLE TO THE OWNER. THE GUTTER LINE OR ROADWAYS SHALL BE ADJUSTED FOR SMOOTH FLOW OF SURFACE RUN-OFF TO THE NEAREST DRAINAGE INLET.
6. THE CONTRACTOR SHALL PROTECT PROPERTY AND IMPROVEMENTS ADJACENT TO THE PROJECT WORK FROM ANY DAMAGE. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE PROPERTY DAMAGED AS A RESULT OF HIS CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE. ALL REPAIR WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE OWNER.
7. THE CONTRACTOR SHALL REPAIR OR REPLACE IN KIND ALL FENCING ALTERED, REMOVED, DAMAGED, OR RELOCATED DURING CONSTRUCTION. FENCING SHALL BE REPLACED OR RESTORED AT THE END OF EACH WORK DAY.
8. THE CONTRACTOR SHALL REMOVE ALL DEBRIS, RUBBLE, SPOIL, AND CONSTRUCTION MATERIALS FROM THE ADJACENT STREETS, ALLEYS, AND/OR DRIVES AND LEAVE THE SITES IN A NEAT AND ORDERLY MANNER. MUD SHALL NOT BE ALLOWED TO ACCUMULATE IN THE STREETS. AFFECTED STREETS, ALLEYS, AND/OR DRIVES SHALL BE SWEEPED ON A REGULAR BASIS EITHER WITH THE USE OF EQUIPMENT OR BY HAND. THE ACCUMULATED DEBRIS SHALL BE DISPOSED OF IN A PROPER AND LEGAL MANNER.
9. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO ALL PROPERTIES AND DRIVEWAYS, AND TRAFFIC FLOW IN ROADWAYS AT ALL TIMES.
10. ALL GRASS AREAS DISTURBED OR AFFECTED BY CONSTRUCTION SHALL BE SODDED, FERTILIZED, WATERED, AND MAINTAINED FOR 30 CALENDAR DAYS OR UNTIL FINAL ACCEPTANCE, WHICHEVER IS LONGER.
11. THE CONTRACTOR SHALL PROTECT ALL TREES, SHRUBBERY, AND PLANTS FROM DAMAGE. THE CONTRACTOR SHALL NOT BREAK OR DAMAGE ROOTS BY PULLING THEM WITH DIGGING MACHINES. THE CONTRACTOR SHALL REPLACE ANY DAMAGED TREES, SHRUBBERY, AND PLANTS AT HIS OWN COST.
12. THE CONTRACTOR SHALL BRACE ALL POLES ADJACENT TO EXCAVATION. ALL BRACES SHALL REMAIN IN PLACE AFTER BACKFILLING UNTIL COMPACTION REQUIREMENTS FOR BACKFILL ARE MET. ALL WORK ADJACENT TO POLES SHALL BE COMPLETED PROMPTLY.
13. THE CONTRACTOR SHALL PROVIDE DESIGN SERVICES, MATERIALS, AND LABOR NECESSARY FOR SHEETING, SHORING, AND BRACING OF SUPPORTS AS REQUIRED FOR TRENCHES IN A SAFE WORKING CONDITION.
14. THE CONTRACTOR SHALL PROVIDE PROTECTION AND SUPPORT OF UTILITIES, ROADWAYS, BUILDINGS, AND STRUCTURES WHEN PERFORMING PROJECT WORK.
15. PAVEMENT, CURBING, DRAINAGE STRUCTURES, AND SIDEWALK SHALL BE REPLACED IN KIND TO MATCH EXISTING, UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS.
16. THE CONTRACTOR IS REQUIRED TO SAW CUT (FULL DEPTH) SIDEWALKS, DRIVEWAYS, CONCRETE, ASPHALTIC CONCRETE, CONCRETE WITH ASPHALTIC OVERLAY, OR OTHER PAVEMENTS TO ENSURE A UNIFORM INTERFACE BETWEEN OLD AND NEW WORK. ANY SIDEWALK, DRIVEWAY, OR OTHER PAVED SURFACE (CONCRETE, BRICK, SLATE, STONE, ETC.) THAT IS DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION AND IS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY EQUIPMENT, MATERIAL, LABOR, AND SUPERVISION FOR THE PLUGGING, BLOCKING, PUMPING, AND BY-PASSING OF SEWAGE FLOW WHEN REQUIRED TO PERFORM THE MANHOLE AND SEWER LINE CCTV INSPECTION AND REPAIR WORK. CONTRACTOR SHALL NOTE THAT PORTIONS OF THE SEWERAGE SYSTEM MAY BE SURCHARGED IN RAINY WEATHER. CONTRACTOR MUST PUMP-DOWN THE SYSTEM AS NECESSARY WITH HIS OWN FORCES AND EQUIPMENT. A PLAN FOR FLOW BY-PASS OPERATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL AT LEAST FIVE WORKING DAYS PRIOR TO PLANNED BY-PASSING. THE COSTS FOR THESE ITEMS SHALL BE INCIDENTAL TO THE ASSOCIATED BID ITEMS.
18. NO UTILITIES, OTHER THAN THE SANITARY GRAVITY SEWER LINES AND MANHOLES ARE SHOWN ON THESE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND TO CONTACT THE RESPECTIVE UTILITY ENTITIES IN WRITING AT LEAST THREE WORKING DAYS PRIOR TO BEGINNING ANY CONSTRUCTION THAT MAY INTERFERE WITH THEIR PROPERTY.

19. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIRECTLY WITH THE APPROPRIATE UTILITY COMPANIES AND, IF NECESSARY, HAVE THE UTILITIES LOCATED FOR THE INSTALLATION OF THE NEW SEWER LINES.
20. IN THE EVENT OF A PLANNED UTILITY OUTAGE, THE CONTRACTOR SHALL NOTIFY IN WRITING THOSE AFFECTED AT LEAST 48 HOURS PRIOR TO DISRUPTION OF THE UTILITY SERVICE.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO EXISTING UTILITIES THAT OCCURS DURING CONSTRUCTION AND SHALL IMMEDIATELY REPORT ANY DAMAGE TO THE AFFECTED UTILITY ENTITIES AND THE ENGINEER. ALL REPAIRS OF THE DAMAGED UTILITIES SHALL BE PERFORMED BY THE RESPECTIVE UTILITY ENTITY. ANY DAMAGED UTILITY SHALL BE PROMPTLY REPAIRED AND SHALL NOT REMAIN OUT OF SERVICE OVERNIGHT. ALL UTILITY REPAIR COSTS SHALL BE BORNE BY THE CONTRACTOR.
22. THE CONTRACTOR SHALL MAINTAIN A SAFE DISTANCE FROM ALL ENERGIZED POWER LINES IN ACCORDANCE WITH OSHA AND NEC REQUIREMENTS.
23. IF THE SAFE CLEARANCE WILL BE VIOLATED, PRIOR TO BEGINNING ANY OPERATIONS IN THE AREA, THE CONTRACTOR SHALL COORDINATE WITH THE ENERGY PROVIDER TO DE-ENERGIZE THE LINE.
24. THE CONTRACTOR IS HEREBY NOTIFIED THAT IT IS HIS RESPONSIBILITY TO CONTACT THE LOCAL WATER AUTHORITY TO MAKE ARRANGEMENTS TO TAKE WATER FROM THE FIRE HYDRANTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO THE FIRE HYDRANT CAUSED BY HIS OR HIS EMPLOYEES' ACTIONS.
25. THE CONTRACTOR WILL KEEP ONE LANE OF TRAFFIC OPEN AT ALL TIMES, UNLESS WRITTEN APPROVAL FROM THE PARISH HAS BEEN ACQUIRED.
26. ALL DRAWINGS/DETAILS/FIGURES INCLUDED IN THESE DOCUMENTS ARE STANDARD AND SUBJECT TO ADJUSTMENT DICTATED BY THE ENGINEER OR EXISTING FIELD CONDITIONS.
27. NO MANHOLE OR SEWER REPAIR OR REPLACEMENT WORK SHALL BE INITIATED WITHOUT A WRITTEN TASK ORDER FROM THE OWNER OR THE ENGINEER.
28. ALL CLEANING AND CCTV ACTIVITIES SHALL CONFORM TO THE BEST PRACTICES AND ESTABLISHED NORMS OR THE INDUSTRY.
29. SELECTION OF CLEANING EQUIPMENT AND THE METHOD OF CLEANING SHALL BE BASED ON SITE CONDITIONS AND THE CONDITION OF THE SANITARY SEWER LINES AT THE TIME THE WORK COMMENCES. MANHOLES AND SANITARY SEWER LINES MAY BE CLEANED USING MECHANICAL, HYDRAULICALLY PROPELLED, AND/OR HIGH VELOCITY HYDROFLUSHING SEWER CLEANING EQUIPMENT. THE DETERMINATION OF THE EQUIPMENT BEST SUITED TO THE LOCATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
30. MANHOLES AND SANITARY SEWER SEGMENT INSPECTIONS BY CCTV SHALL PROCEED IMMEDIATELY FOLLOWING CLEANING TO AVOID RECONTAMINATION OF THE STRUCTURES AND PIPELINE. THE COST FOR REPEAT CLEANING DUE TO DELAY IN MONITORING WILL BE BORNE BY THE CONTRACTOR.
31. THE REPAIR STRATEGY SHALL BE DRIVEN BY THE NEED TO RESTORE THE INTEGRITY OF THE SEWER SYSTEM. DEFECTS IDENTIFIED BY INSPECTION AND OTHER MEANS SHALL BE ANALYZED BY THE ENGINEER TO DETERMINE IF LINE SEGMENTS OR MANHOLES REQUIRE REPAIR.
32. ALL ACTIVE SERVICE LATERALS THAT FALL WITHIN POINT REPAIRS SHALL BE REPLACED TO THE PROPERTY LINE. THIS SHALL INCLUDE THE REPLACEMENT OF THE WYE OR TEE FITTINGS AND CLEANOUT.
33. POINT REPAIRS WHOSE REPAIR ENDS ARE WITHIN 12 FEET OF EACH OTHER SHOULD BE COMBINED INTO ONE EXCAVATED MAINLINE REPAIR.
34. REPLACEMENT OF LINE SEGMENTS WILL INCLUDE THE REPLACEMENT OF ALL ASSOCIATED SERVICE LATERALS TO THE PROPERTY LINE AND NEW CLEANOUTS.
35. SERVICE LATERALS ON LINE SEGMENTS REHABILITATED BY LINING SHALL BE REINSTATED INTERNALLY UNLESS A DEFECTIVE CONNECTION IS INDICATED (AND EXCAVATION IS NECESSARY).
36. ALL REPAIR METHODS SHALL BE ACCORDING TO NORMAL AND WIDELY ACCEPTED INDUSTRY STANDARDS. COSTS AND SITE SPECIFIC CHARACTERISTICS WILL AFFECT THE METHOD SELECTION.

DRIVEWAY AND SIDEWALK NOTES:

1. ALL DRIVEWAYS REMOVED SHALL BE REPLACED IN KIND UNLESS OTHERWISE NOTED.
2. THE EXACT LIMITS OF REMOVAL AND REPLACEMENT OF DRIVEWAYS (CONCRETE, ASPHALT, BRICK, STONE, SLATE, ETC.) SHALL BE DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL NOT REMOVE ANY DRIVEWAY WITHOUT PRIOR APPROVAL OF THE ENGINEER.
3. THE CONTRACTOR IS REQUIRED TO SAW CUT SIDEWALKS, DRIVEWAYS, CONCRETE AND ASPHALT PAVEMENT OR OTHER CONSTRUCTION AREAS TO INSURE A STRAIGHT LINE BETWEEN OLD AND NEW WORK.
4. ALL SIDEWALK AND DRIVEWAYS (CONCRETE, BRICK, STONE, SLATE, ETC.) DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION, WHICH IN THE OPINION OF THE ENGINEER ARE OUTSIDE THE LIMITS OF CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
5. THE CONTRACTOR SHALL ADJUST THE ELEVATIONS OF THE NEW SIDEWALKS SO AS TO ALLOW DRAINAGE AWAY FROM THE PROPERTY AT ALL TIMES. SIDEWALK ELEVATIONS MAY BE ADJUSTED TO ALLOW DRAINAGE THROUGH DRIVEWAYS WITH DEPRESSED CURBS.

**As Built**



CONTRACTOR TO CALL "LOUISIANA ONE CALL" 72 HOURS PRIOR TO ANY DIGGING. 1-800-272-3020



3445 N. CAUSEWAY BLVD., STE. 401, METAIRE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

PROJECT NOTES

MARK	DATE	BY



SCALE:

DATE: JULY 2019

DRAWN: CHECKED:

GEC PROJECT NO. 0051.2246101.000

SHEET 2

C:\DWG51\2246101\_000 ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1\Design\Drawings\01-03 St. Tam Sew. Dist. 1 Cover Sheet and Notes.dwg Aug 13, 2019 -- 9:58am

GRAVITY SEWER NOTES:

- GRAVITY SEWER PIPE AND FITTINGS SHALL BE PVC MEETING ASTM D3034, SDR 35 SPECIFICATIONS, WITH BELL AND SPIGOT RUBBER GASKET JOINTS.
- SHIELDED COUPLINGS, FERNCO OR APPROVED EQUAL, SHALL BE USED TO CONNECT NEW PVC PIPE TO EXISTING GRAVITY SEWER PIPE. CLAMPS AND SHIELDS SHALL BE STAINLESS STEEL.
- PIPE BEDDING SHALL BE CRUSHED LIMESTONE. BACKFILL UNDER PAVEMENT SHALL BE GRANULAR MATERIAL, PUMPED RIVER SAND, OR APPROVED EQUAL, MEETING AASHTO A3 SPECIFICATIONS. SUITABLE NATIVE MATERIAL MAY BE USED FOR BACKFILL NOT UNDER PAVEMENT.
- NEW SEWER MANHOLES SHALL BE PRE-CAST CONCRETE MEETING ASTM C478 SPECIFICATIONS. MANHOLES SHALL BE SEALED WATERTIGHT.
- NEW SEWER PIPE AND MANHOLES SHALL HAVE ZERO INFILTRATION.

SEWER FORCE MAIN NOTES:

- PIPE SHALL BE PVC PIPE MEETING AWWA C900, CLASS 165, WITH BELL AND SPIGOT RUBBER GASKET JOINTS, OR HDPE PIPE, MEETING AWWA C906, DR11 SPECIFICATIONS, WITH CAST IRON O.D. AND FUSION-WELDED JOINTS.
- PIPE INSTALLED BY HORIZONTAL DIRECTION DRILLING (HDD) SHALL BE HDPE WITH FUSION WELDED JOINTS.
- PVC PIPE BORED UNDER ROADS AND DRIVEWAYS SHALL HAVE RESTRAINED JOINTS, CERTAINTEED'S "CERTA-LOK" OR APPROVED EQUAL.
- SEWER FORCE MAIN CROSSING UNDER PAVED ROADS AND DRIVEWAYS SHALL BE BORED UNLESS NOTED OTHERWISE.
- PIPE FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT MEETING AWWA C110 SPECIFICATIONS. PROVIDE POLYETHYLENE ENCASEMENT FOR IRON PIPE AND FITTINGS. PROVIDE RESTRAINED JOINTS AT ALL BENDS, TEES, AND VALVES.
- FORCE MAIN BEDDING, WHEN INSTALLED BY OPEN CUT, SHALL BE GRANULAR MATERIAL, PUMPED RIVER SAND, OR APPROVED EQUAL.
- GATE VALVES SHALL BE RESILIENT-SEATED TYPE MEETING AWWA C509 SPECIFICATIONS.
- SEWER FORCE MAINS SHALL HAVE 3'-6" MINIMUM COVER. PROVIDE MINIMUM 6' HORIZONTAL AND 1'-6" CLEAR VERTICAL SEPARATION BETWEEN BURIED WATER AND SEWER LINES. WHEN CROSSING, THE SEWER LINE SHALL BE BELOW THE WATER LINE.
- PROVIDE COPPER TRACER WIRE TAPED TO FORCE MAIN. BRING WIRE LOOP TO GRADE AT ENDS OF FORCE MAIN SECTIONS.
- COMPLETED FORCE MAIN SHALL BE PRESSURE AND LEAK TESTED AT 80 PSI FOR TWO HOURS.

SEWER LIFT STATION NOTES:

- CONCRETE SHALL BE 4,000 PSI AT 28 DAYS WITH 4" MAXIMUM SLUMP. REINFORCING BARS SHALL BE ASTM A615, GRADE 60.
- PROVIDE 3/4" CHAMFER ON EXPOSED EDGES AND RUBBED FINISH ON EXPOSED SURFACES OF TOP SLABS.
- CONCRETE PIPE FOR WET WELL SHALL BE ASTM C76, CLASS II, WALL B WITH TONGUE AND GROOVE JOINTS. SEAL WET WELL JOINTS AND WALL PENETRATIONS WITH SUITABLE EPOXY GROUT.
- COAT ALL WET WELL INTERIOR SURFACES WITH COAL TAR EPOXY, 20 MILS MIN. DRY FILM THICKNESS.
- COMPLETED WET WELL SHALL BE COMPLETELY WATERTIGHT.
- WET WELL HATCH COVER SHALL BE ALUMINUM CHECKERED PLATE AS MANUFACTURED BY HALLIDAY PRODUCTS OR APPROVED EQUAL. HATCHES SHALL HAVE 300 PSF DESIGN LIVE LOAD AND PADLOCK HASP FOR LOCKING.
- ALL INTERNAL PIPING SHALL BE FLANGED DUCTILE IRON. DUCTILE IRON PIPING OUTSIDE THE WET WELL SHALL HAVE MECHANICAL JOINTS WITH RESTRAINER GLANDS.
- ALL FASTENERS, BRACKETS, PLATES, HANGERS, ETC. (INCLUDING FLANGE BOLTS), IN THE WET WELL SHALL BE STAINLESS STEEL. ALL FASTENERS BELOW GROUND, INCLUDING VALVE BONNET BOLTS, SHALL BE STAINLESS STEEL.
- GATE VALVES SHALL BE RESILIENT SEATED TYPE WITH NON-RISING STEM AND 2 INCH OPERATING NUT.
- CONTRACTOR SHALL FURNISH AND INSTALL A FACTORY-BUILT ABOVE GROUND PUMP STATION WITH DUPLEX SELF-PRIMING PUMPS. FACTORY-BUILT LIFT STATION SHALL BE A 6' X 6' ABOVE GROUND STATION AS MANUFACTURED BY THE GORMAN-RUPP COMPANY, OR APPROVED EQUAL.
- PUMPS SHALL BE 4" HORIZONTAL, SELF-PRIMING CENTRIFUGAL PUMPS, GORMAN-RUPP MODEL T4A-B, OR APPROVED EQUAL. EACH PUMP SHALL MEET THE FOLLOWING OPERATING CONDITIONS:
 

CAPACITY (GPM)	260 @ 47 FT. TDH
TOTAL DYNAMIC SUCTION LIFT (FT.)	18
MAXIMUM RE-PRIMING LIFT (FT.)	25
PUMP SPEED (RPM)	1300
- MOTORS SHALL BE 10 HP, 1,800 RPM HORIZONTAL, OPEN DRIP-PROOF WITH CAST IRON FRAME AND COPPER WINDINGS, WITH 1.15 SERVICE FACTOR. MOTORS SHALL BE NON-OVERLOADING ANYWHERE ON THE PUMP OPERATING CURVE.
- CONTROLS SHALL AUTOMATICALLY OPERATE ONE OR BOTH PUMPS AS REQUIRED BY THE LIQUID LEVEL IN THE WET WELL AND SHALL AUTOMATICALLY ALTERNATE LEAD AND LAG PUMPS EACH CYCLE. LEVEL CONTROLS SHALL BE MERCURY FLOAT SWITCHES. ALL EQUIPMENT SHALL BE NEMA RATED. CONTROL ENCLOSURE SHALL BE WELDED STAINLESS STEEL, WITH SWING-OUT DEAD FRONT PANEL.
- CONTROLS SHALL INCLUDE H.O.A. SWITCHES, FLASHING ALARM LIGHT, PHASE MONITOR RELAY, LIGHTNING ARRESTOR, CONTROL TRANSFORMER, PUMP HOUR METERS, AND 120 VOLT CONVENIENCE OUTLET.
- ELECTRICAL WORK SHALL COMPLY WITH NATIONAL ELECTRICAL CODE, LATEST REVISION, AND CLECO SERVICE STANDARDS. ELECTRICAL SERVICE SHALL BE 120/208 VOLTS, THREE PHASE, 60 HZ., 4 WIRE. CONTRACTOR SHALL VERIFY VOLTAGE PHASE AND SERVICE DETAILS WITH POWER COMPANY PRIOR TO ORDERING EQUIPMENT.
- CONTRACTOR SHALL BACKFILL EXCAVATIONS WITH PUMPED RIVER SAND.

*W. All*  
**As Built**  
 Date: \_\_\_\_\_



CONTRACTOR TO CALL "LOUISIANA ONE CALL" 72 HOURS PRIOR TO ANY DIGGING. 1-800-272-3020



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
 SEWERAGE SYSTEM REHABILITATION PROJECT

PROJECT NOTES

MARK	DATE	BY



SCALE:	
DATE:	JULY 2019
DRAWN:	CHECKED:
GEC PROJECT NO.	0051.2246101.000
SHEET	3

G:\DWGS\51\2246101\_000 St. Tammany Parish Sewerage District. No. 1\Design\Drawings\04\_06-08 EXHIBITS.DWG Aug 13, 2019 - 10:08am



**LEGEND:**

- ⊙ MANHOLE NUMBER
- SEWER FLOW DIRECTION
- SEGMENT TO BE CLEANED AND VIDEOED
- **Cleaned and Videoed**



**\* SEE CCTV REPORTS**

**As Built**



SCALE:  
1" = 300'-0"  
DATE:  
JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO.  
0051.2246101.000  
SHEET  
4

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

CCTV PLAN

MARK	DESCRIPTION	DATE	BY

GEC  
Gulf Engineers & Consultants  
3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

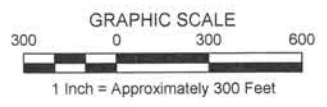
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**LEGEND:**

- ⑨ MANHOLE NUMBER
- SEWER FLOW DIRECTION
- CIPP-BASE BID SEGMENT TO RECEIVE MAINLINE CIPP LINING (BASE BID)
- CIPP-ALT 1 SEGMENT TO RECEIVE MAINLINE CIPP LINING (ALTERNATE NO. 1)
- CIPP-ALT 2 SEGMENT TO RECEIVE MAINLINE CIPP LINING (ALTERNATE NO. 2)

CIPP Lined



**As Built**

**ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT**

MARK	DESCRIPTION	DATE	BY



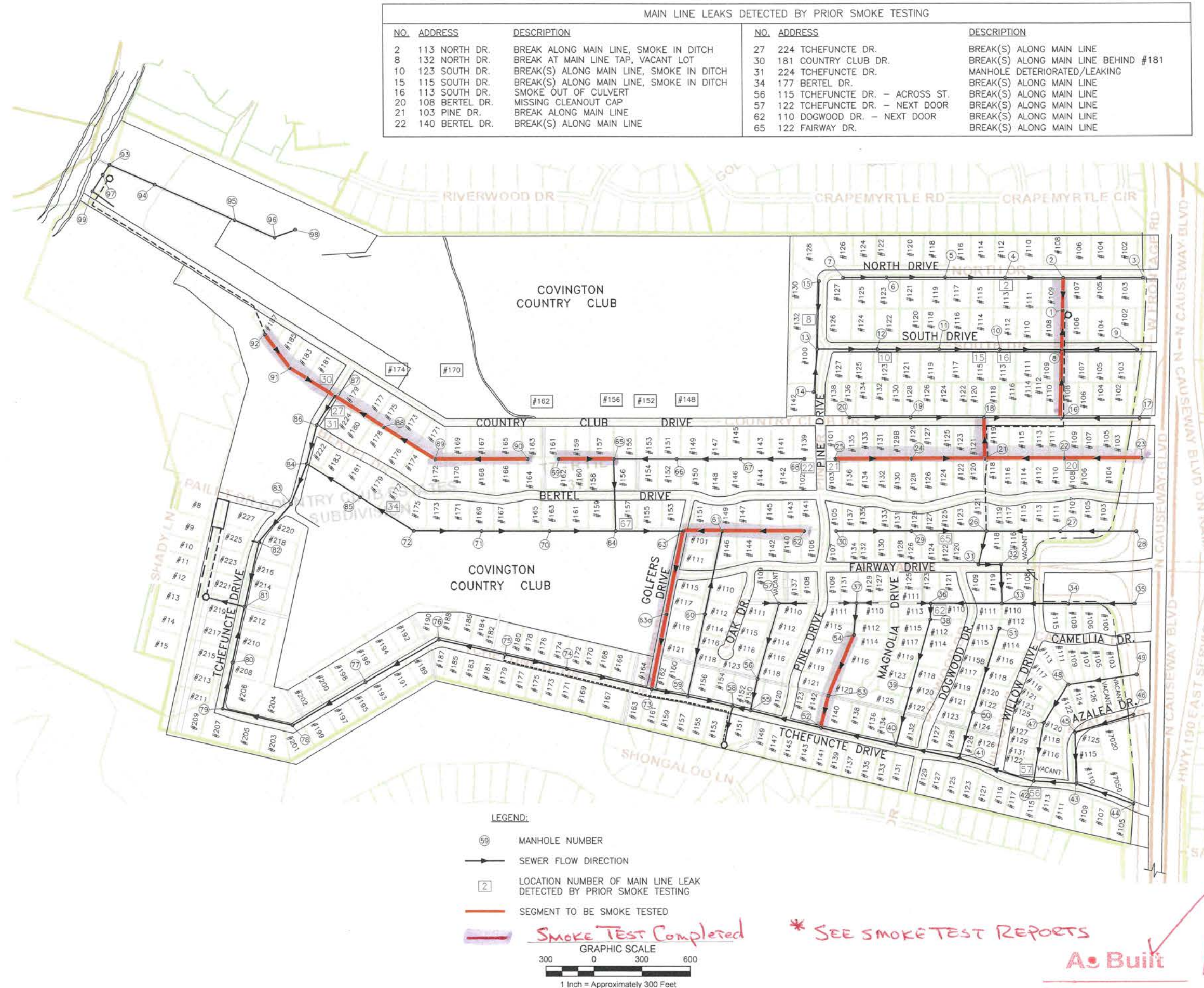
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1" = 300'-0"  
DATE:  
JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO.  
0051.2246101.000  
SHEET  
5



CIPP PLAN

3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

G:\DWGSS\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\04\_06-08 EXHIBITS.DWG Aug 13, 2019 - 10:12am



MAIN LINE LEAKS DETECTED BY PRIOR SMOKE TESTING					
NO.	ADDRESS	DESCRIPTION	NO.	ADDRESS	DESCRIPTION
2	113 NORTH DR.	BREAK ALONG MAIN LINE, SMOKE IN DITCH	27	224 TCHEFUNCTE DR.	BREAK(S) ALONG MAIN LINE
8	132 NORTH DR.	BREAK AT MAIN LINE TAP, VACANT LOT	30	181 COUNTRY CLUB DR.	BREAK(S) ALONG MAIN LINE BEHIND #181
10	123 SOUTH DR.	BREAK(S) ALONG MAIN LINE, SMOKE IN DITCH	31	224 TCHEFUNCTE DR.	MANHOLE DETERIORATED/LEAKING
15	115 SOUTH DR.	BREAK(S) ALONG MAIN LINE, SMOKE IN DITCH	34	177 BERTEL DR.	BREAK(S) ALONG MAIN LINE
16	113 SOUTH DR.	SMOKE OUT OF CULVERT	56	115 TCHEFUNCTE DR. - ACROSS ST.	BREAK(S) ALONG MAIN LINE
20	108 BERTEL DR.	MISSING CLEANOUT CAP	57	122 TCHEFUNCTE DR. - NEXT DOOR	BREAK(S) ALONG MAIN LINE
21	103 PINE DR.	BREAK ALONG MAIN LINE	62	110 DOGWOOD DR. - NEXT DOOR	BREAK(S) ALONG MAIN LINE
22	140 BERTEL DR.	BREAK(S) ALONG MAIN LINE	65	122 FAIRWAY DR.	BREAK(S) ALONG MAIN LINE



LEGEND:

- ⊙ MANHOLE NUMBER
  - SEWER FLOW DIRECTION
  - LOCATION NUMBER OF MAIN LINE LEAK DETECTED BY PRIOR SMOKE TESTING
  - SEGMENT TO BE SMOKE TESTED
  - SMOKE TEST COMPLETED
- GRAPHIC SCALE  
 300 0 300 600  
 1 Inch = Approximately 300 Feet

\* SEE SMOKE TEST REPORTS

**As Built**

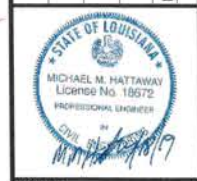


3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
 SEWERAGE SYSTEM REHABILITATION PROJECT

SMOKE TESTING PLAN

MARK	DESCRIPTION	DATE	BY
	REVISION RECORD		



SCALE: 1" = 300'-0"  
 DATE: JULY 2019  
 DRAWN: CHECKED:  
 GEC PROJECT NO. 0051.2246101.000  
 SHEET 6

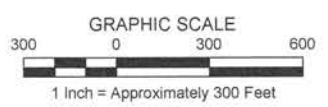
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- LEGEND:**
- ⑤9 MANHOLE NUMBER
  - SEWER FLOW DIRECTION
  - 51' 75' SEGMENT WITH DATA GAP TO BE REPAIRED AND REINSPECTED, WITH APPROXIMATE DISTANCES FROM UPSTREAM END
  - POINT REPAIR LOCATION FROM BLD REPORT
  - U44' POINT REPAIR DISTANCE FROM UPSTREAM END
  - D170' POINT REPAIR DISTANCE FROM DOWNSTREAM END

**Cleaned and Videoed**

**Cleaned, Videoed & CIPPLined**

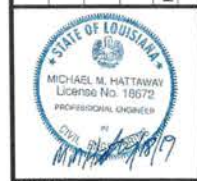


**As Built**



ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

MARK	DESCRIPTION	DATE	BY



SCALE: 1" = 300'-0"  
DATE: JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO. 0051.2246101.000  
SHEET 7



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

DATA GAP AND POINT REPAIR PLAN

G:\DWG5\51\2246101.000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\04\_06-08\_EXHIBITS.DWG Aug 13, 2019 - 10:13am



LEGEND:

- 59 MANHOLE NUMBER
- SEWER FLOW DIRECTION
- 57 NEEDS MANHOLE INSPECTION AND CLEANING ✓
- 57 ~~NEEDS MANHOLE INSPECTION, CLEANING, AND INSERT~~
- 63 ~~NEEDS MANHOLE STRUCTURAL REHAB~~



See Manhole Reports

As Built



ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
 SEWERAGE SYSTEM REHABILITATION PROJECT

MANHOLE INSPECTION AND REPAIR PLAN

MARK	DESCRIPTION	DATE	BY

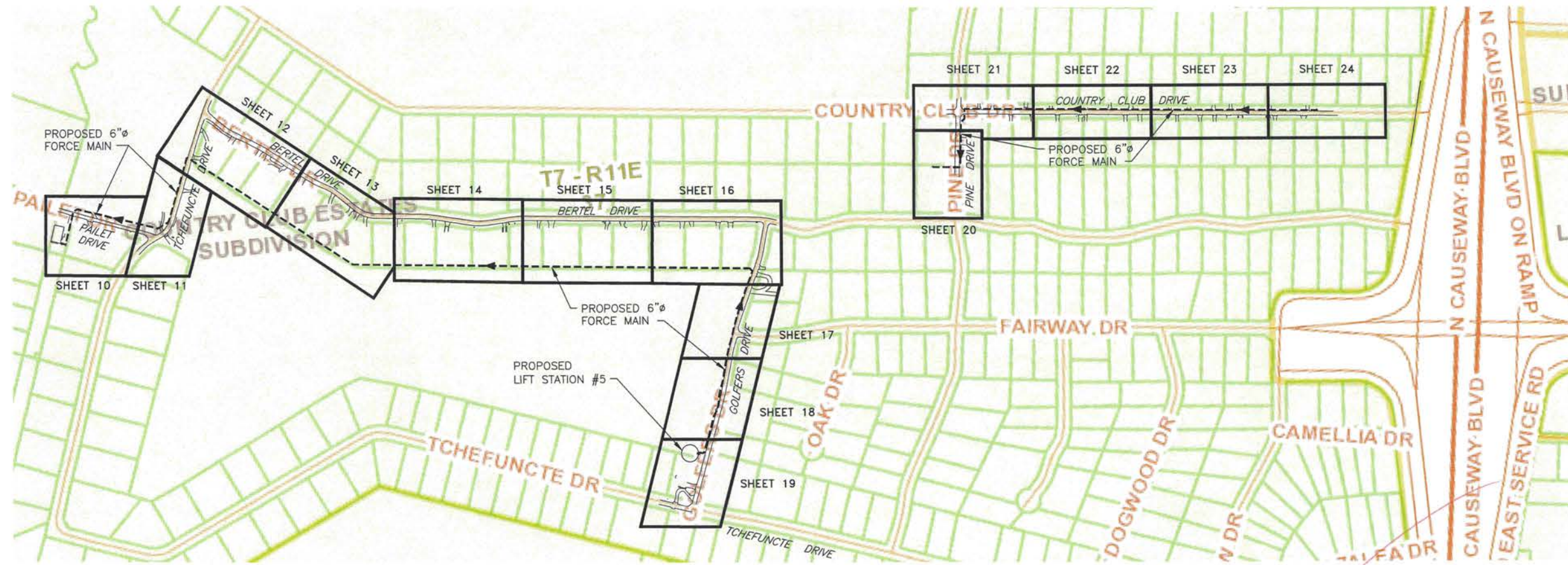


SCALE: 1" = 300'-0"  
 DATE: JULY 2019  
 DRAWN: CHECKED:  
 GEC PROJECT NO. 0051.2246101.000  
 SHEET 8

3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002



G:\DWG5\51\2246101\_000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:24am



KEY MAP

*Handwritten signature in red ink.*

**As Built**

Date: \_\_\_\_\_



SCALE: NOT TO SCALE  
 DATE: JULY 2019  
 DRAWN: \_\_\_\_\_ CHECKED: \_\_\_\_\_

GEC PROJECT NO. 0051.2246101.000  
 SHEET 9

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
 SEWERAGE SYSTEM REHABILITATION PROJECT

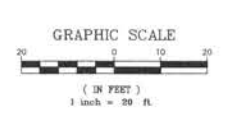
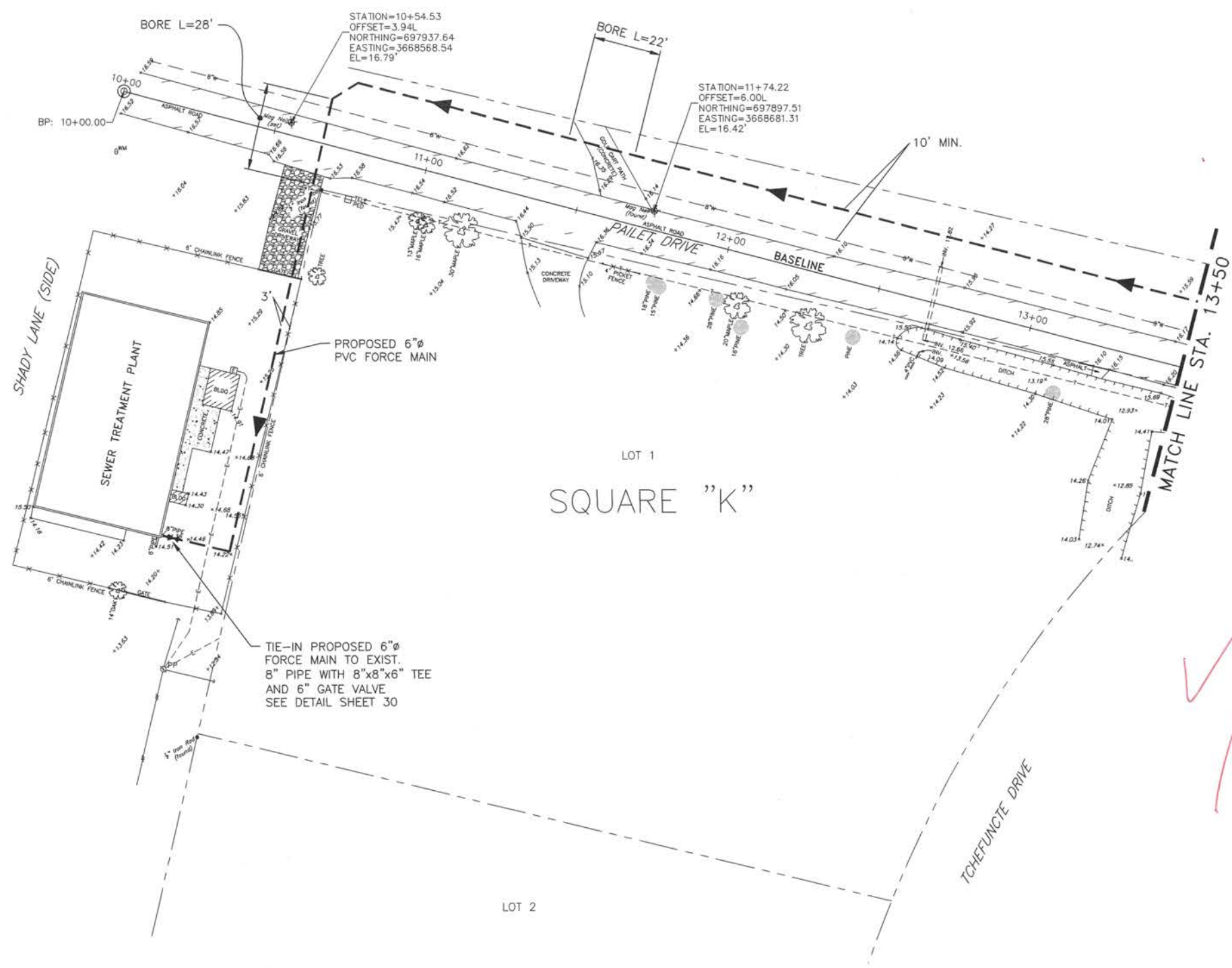
NEW SEWER FORCE MAIN  
 KEY MAP

MARK	DESCRIPTION	DATE	BY



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

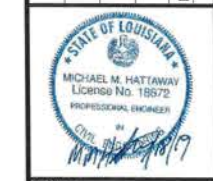
G:\DWGS\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:25am

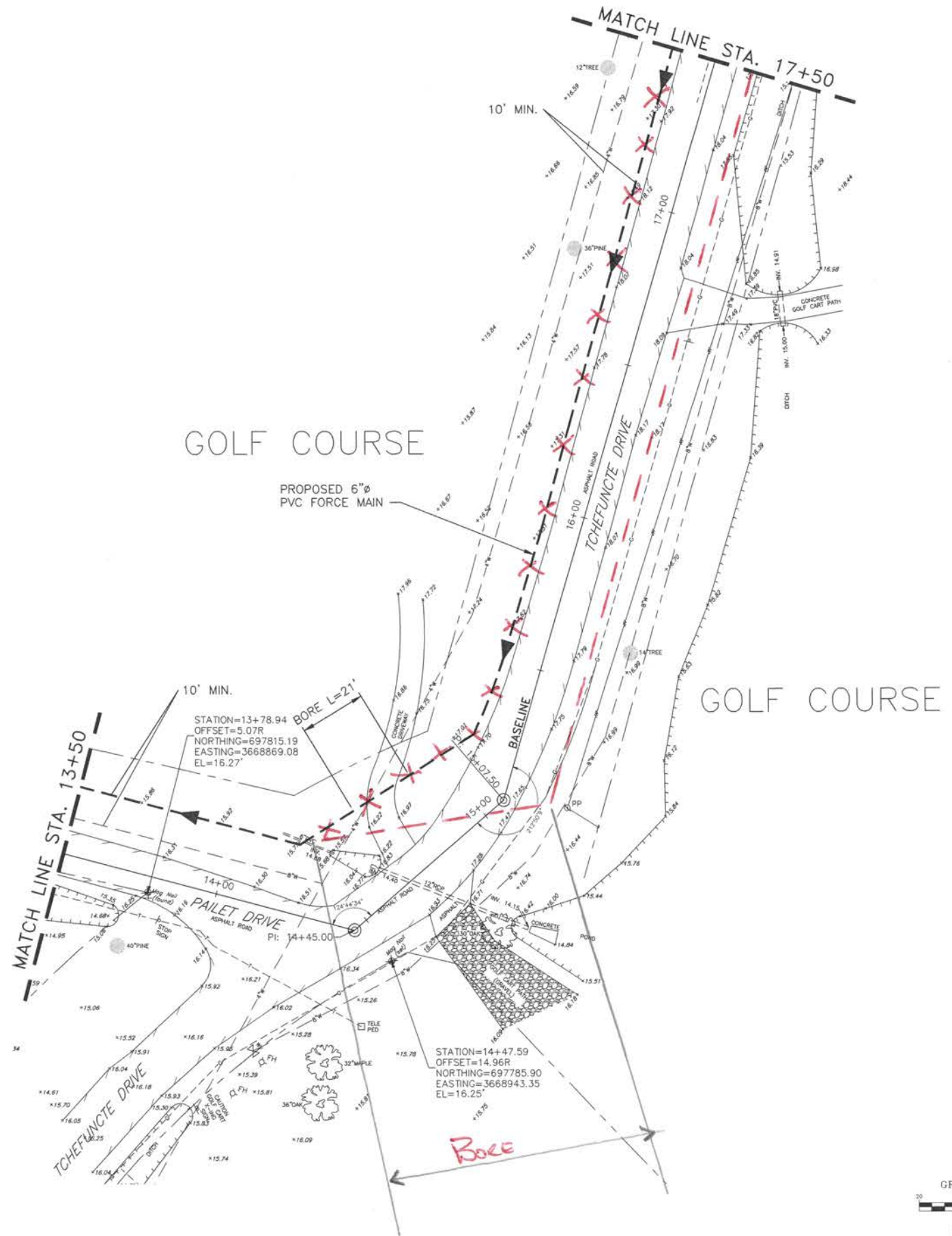


*Handwritten signature in red ink.*

**A Built**

MARK	DESCRIPTION	DATE	BY
	REVISION RECORD		





*Handwritten signature in red ink.*

**As Built**



ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

NEW SEWER FORCE MAIN  
PLAN

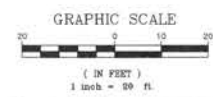
3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

MARK	DESCRIPTION	DATE	BY



SCALE: 1" = 20'-0"  
DATE: JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO. 0051.2246101.000  
SHEET 11

G:\DWGS\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SFM PLAN SHEETS.dwg, Aug 13, 2019 - 10:26am



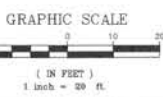
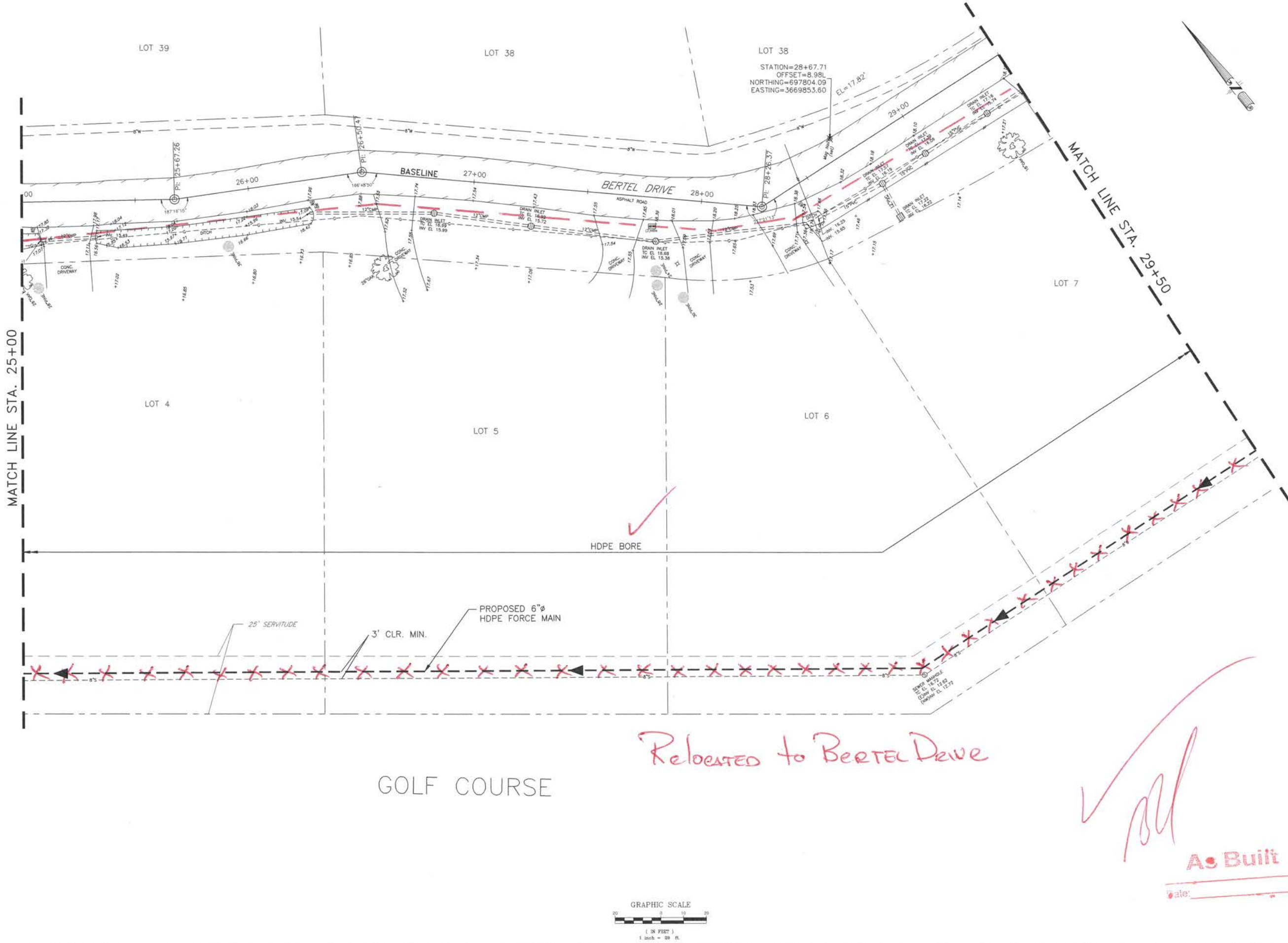
**A Built**

*Relocated to Bertel Dr*  
*BD*

MARK	DESCRIPTION	DATE	BY
	REVISION RECORD		



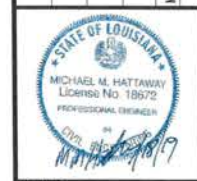
G:\DWGS\51\2246101\_000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09--24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:26am



*Relocated to Bertel Drive*

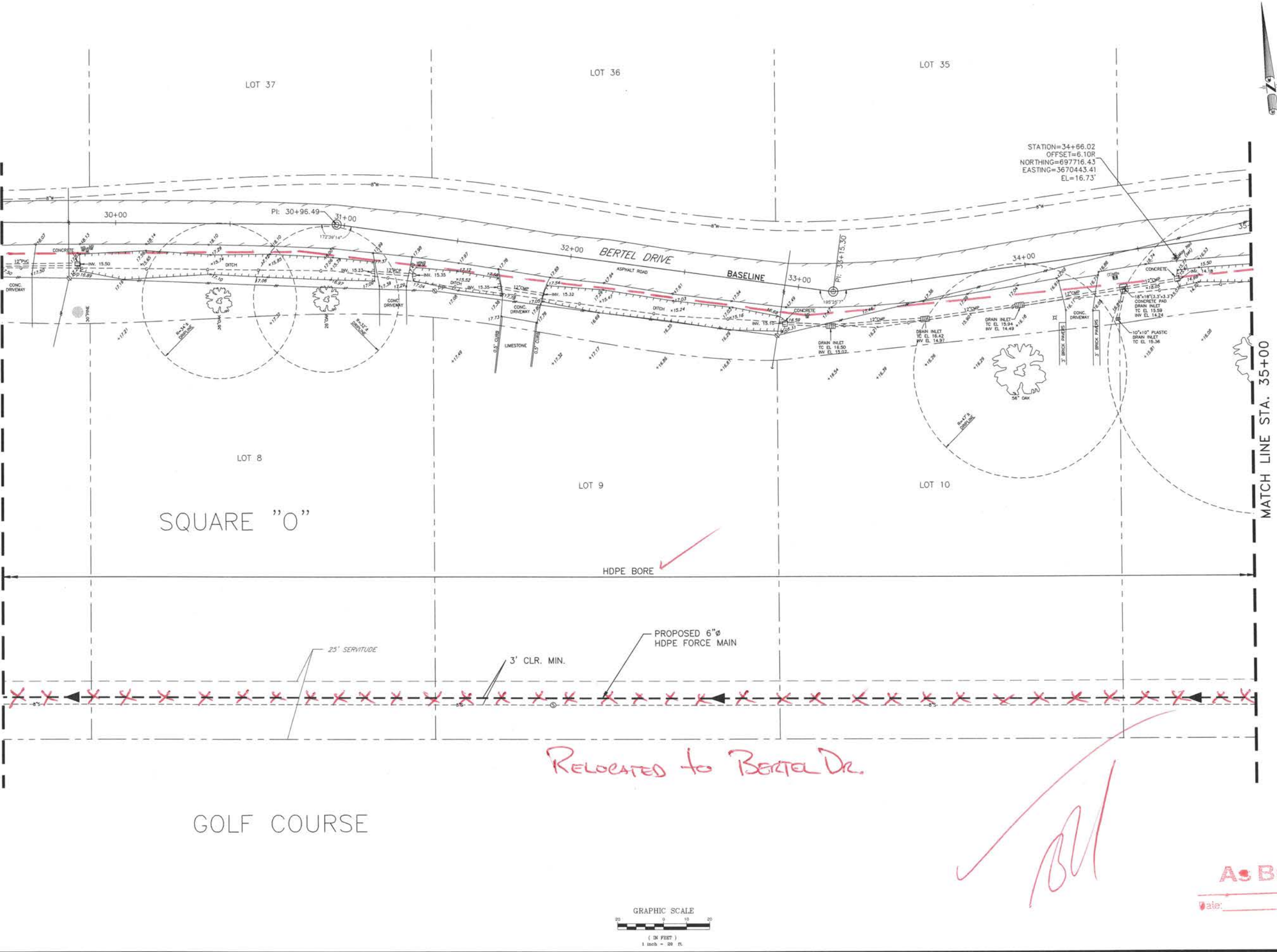
*As Built*

MARK	DESCRIPTION	DATE	BY
	REVISION RECORD		



G:\DWG\51\2246101.000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09--24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:27am

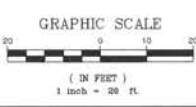
MATCH LINE STA. 29+50



Relocated to Bertel Dr.

*Handwritten signature/initials*

**As Built**



ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

NEW SEWER FORCE MAIN  
PLAN

MARK	DESCRIPTION	DATE	BY
	REVISION RECORD		

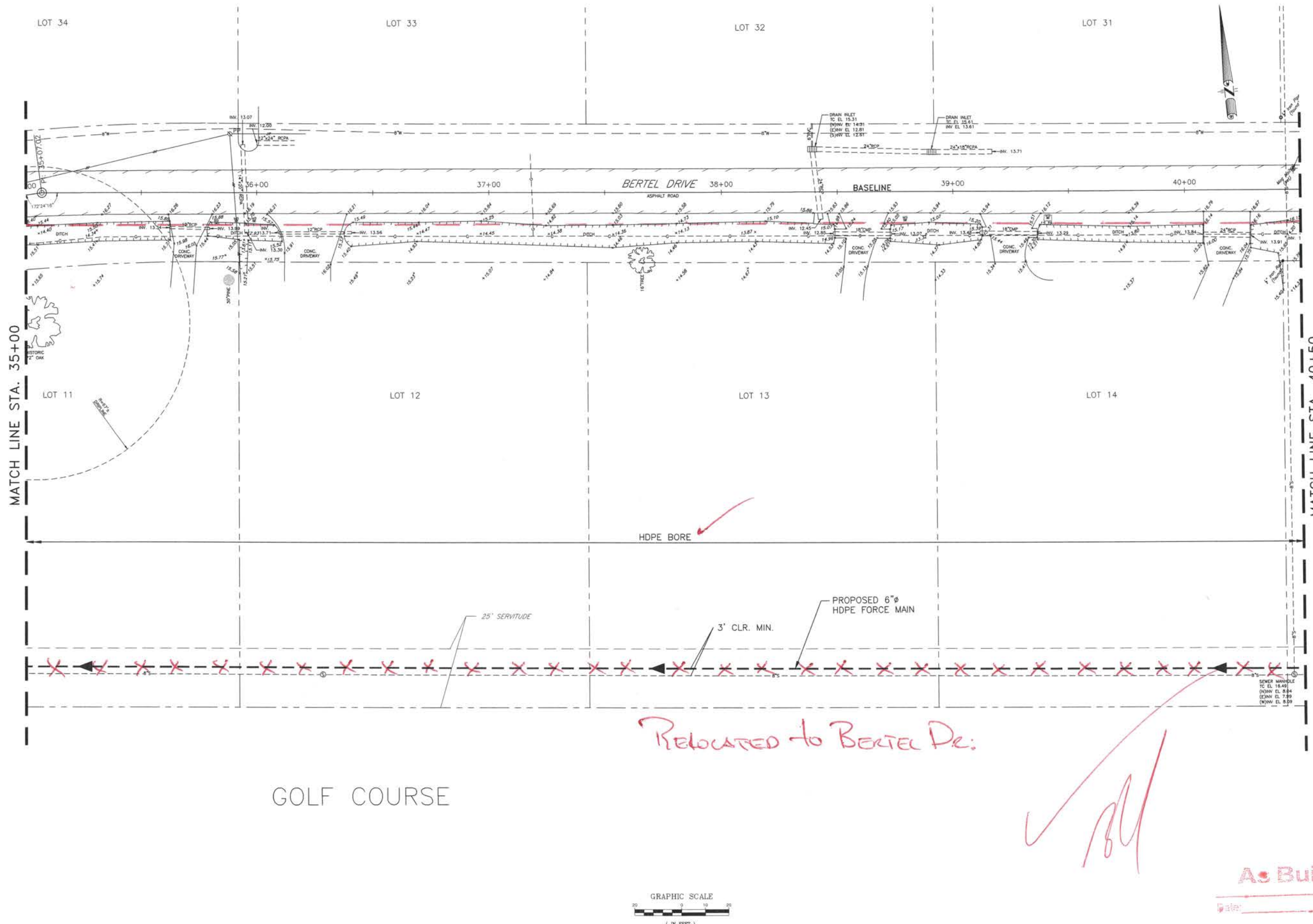


SCALE: 1" = 20'-0"  
DATE: JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO. 0051.2246101.000  
SHEET 14



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

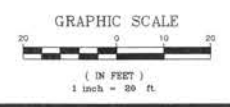
G:\DWGS\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:27am



MATCH LINE STA. 35+00

MATCH LINE STA. 40+50


GOLF COURSE



**As Built**

*Relocated to Bertel Dr.*

*BL*




3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

NEW SEWER FORCE MAIN  
PLAN

MARK	DESCRIPTION	DATE	BY



SCALE: 1" = 20'-0"

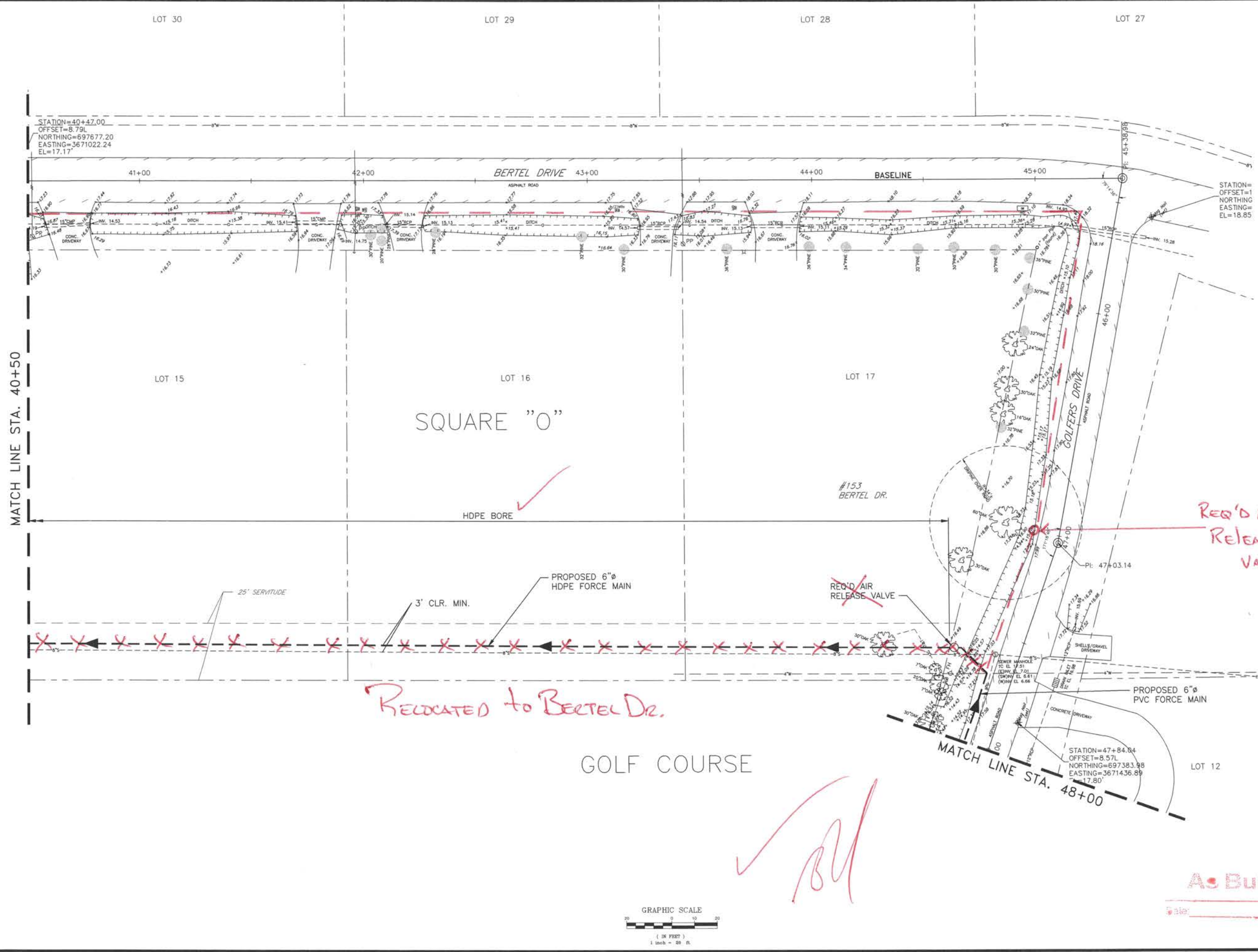
DATE: JULY 2019

DRAWN: CHECKED:

GEC PROJECT NO. 0051.2246101.000

SHEET 15

G:\DWG5\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:28am



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

NEW SEWER FORCE MAIN  
PLAN

MARK	DESCRIPTION	DATE	BY



SCALE:  
1" = 20'-0"

DATE:  
JULY 2019

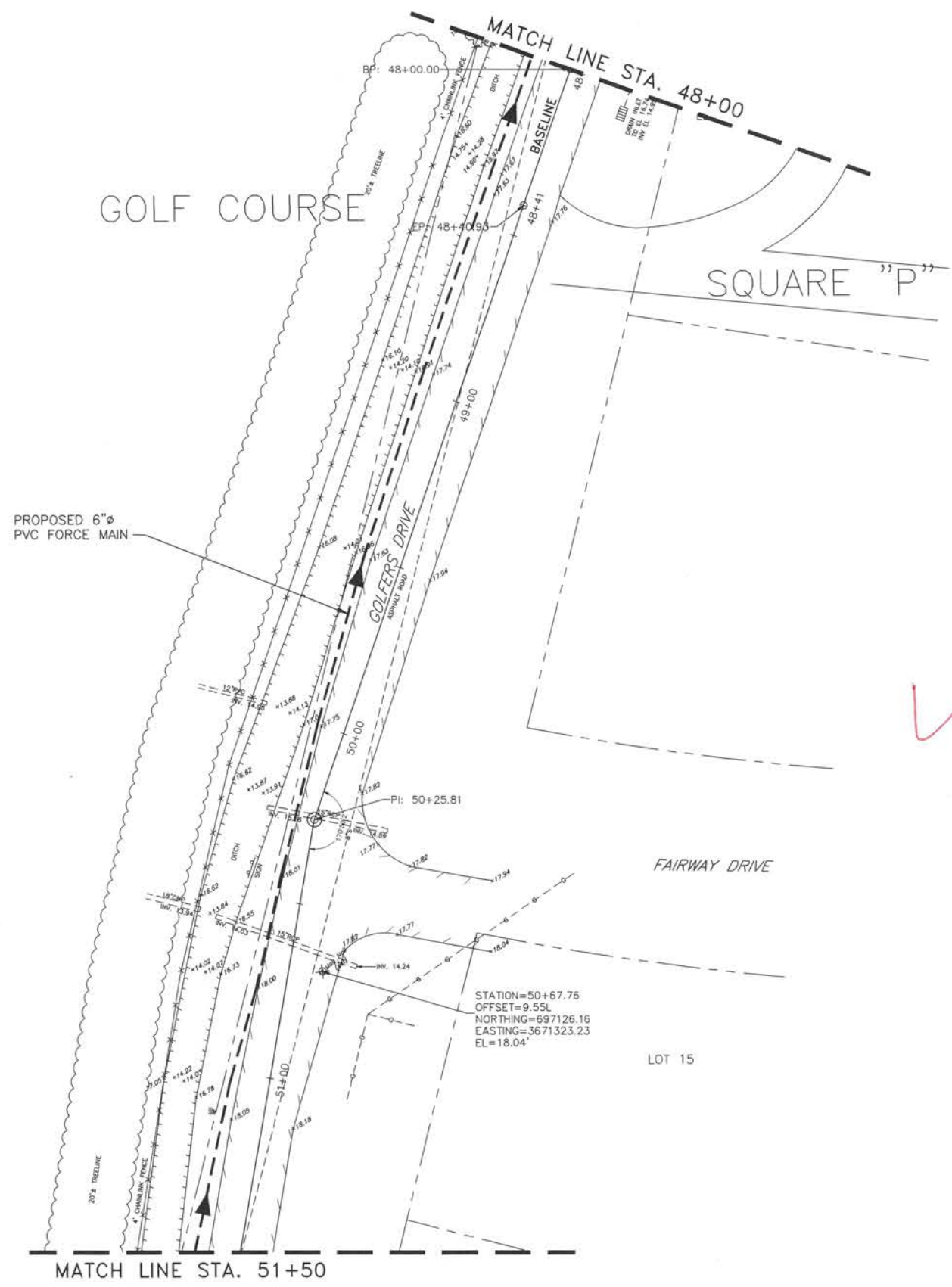
DRAWN:      CHECKED:

GEC PROJECT NO.  
0051.2246101.000

SHEET  
16



G:\DWGS\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:28am



*Handwritten signature and a large red checkmark.*

**A Built**



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

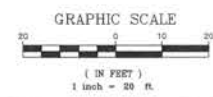
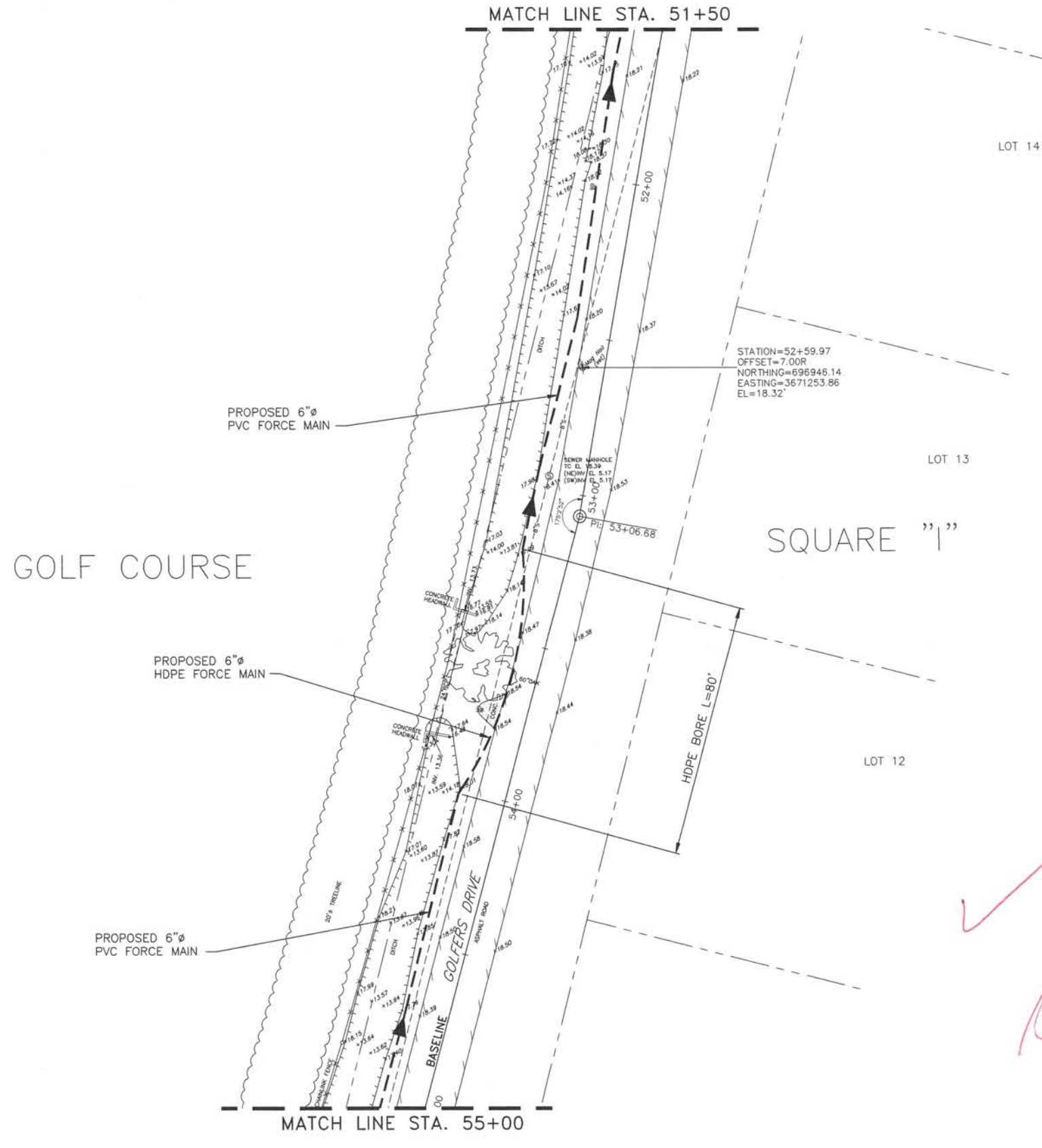
NEW SEWER FORCE MAIN  
PLAN

MARK	DESCRIPTION	DATE	BY



SCALE: 1" = 20'-0"  
DATE: JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO. 0051.2246101.000  
SHEET 17

G:\DWG\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09--24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:28am

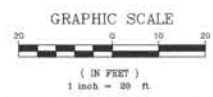
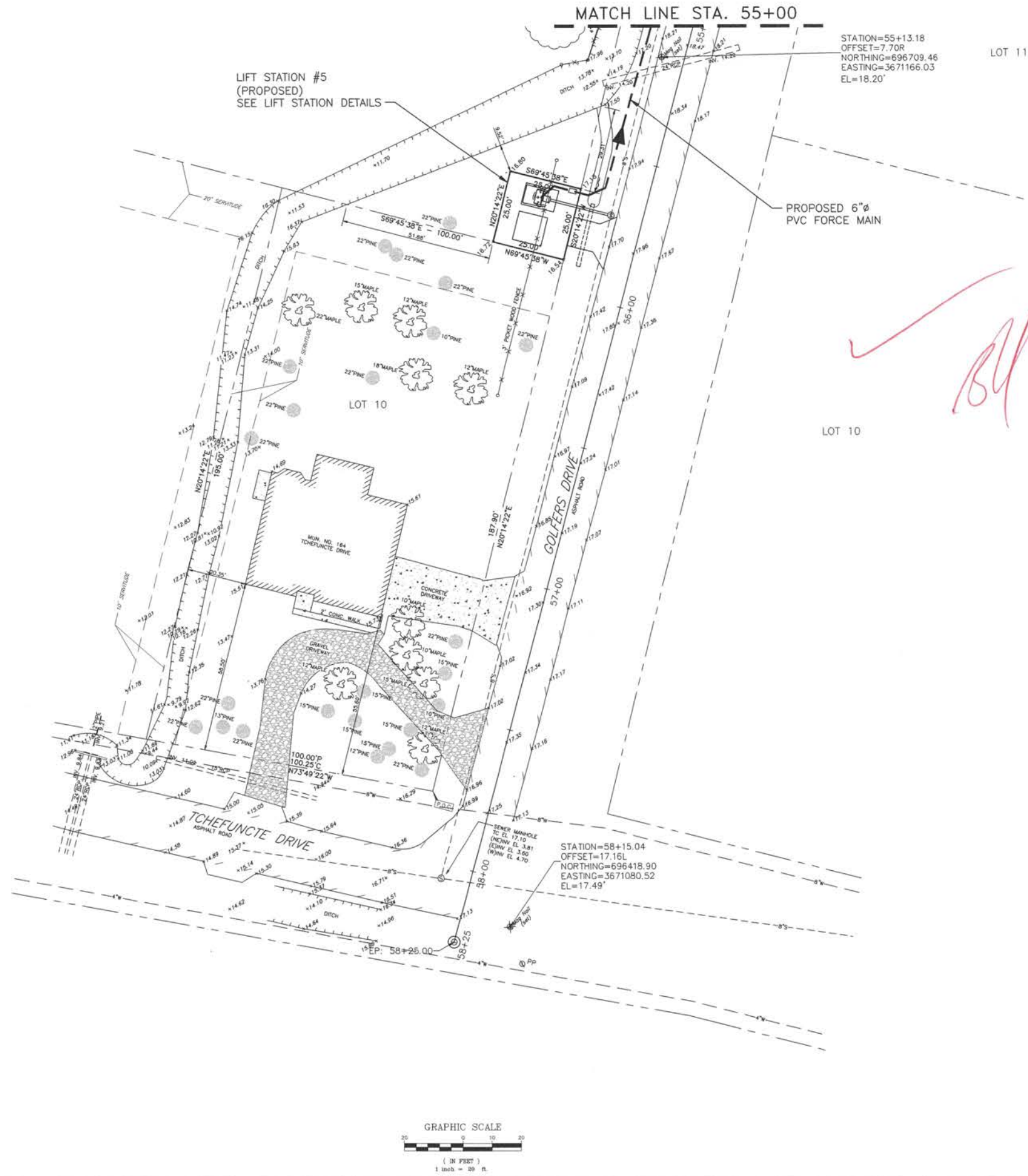


*AS BUILT*

MARK	DESCRIPTION	DATE	BY
	REVISION RECORD		



G:\DWG\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SPM PLAN SHEETS.dwg Aug 13, 2019 - 10:29am



**As Built**  
Date: \_\_\_\_\_

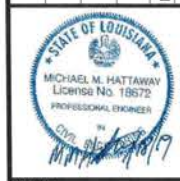


3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

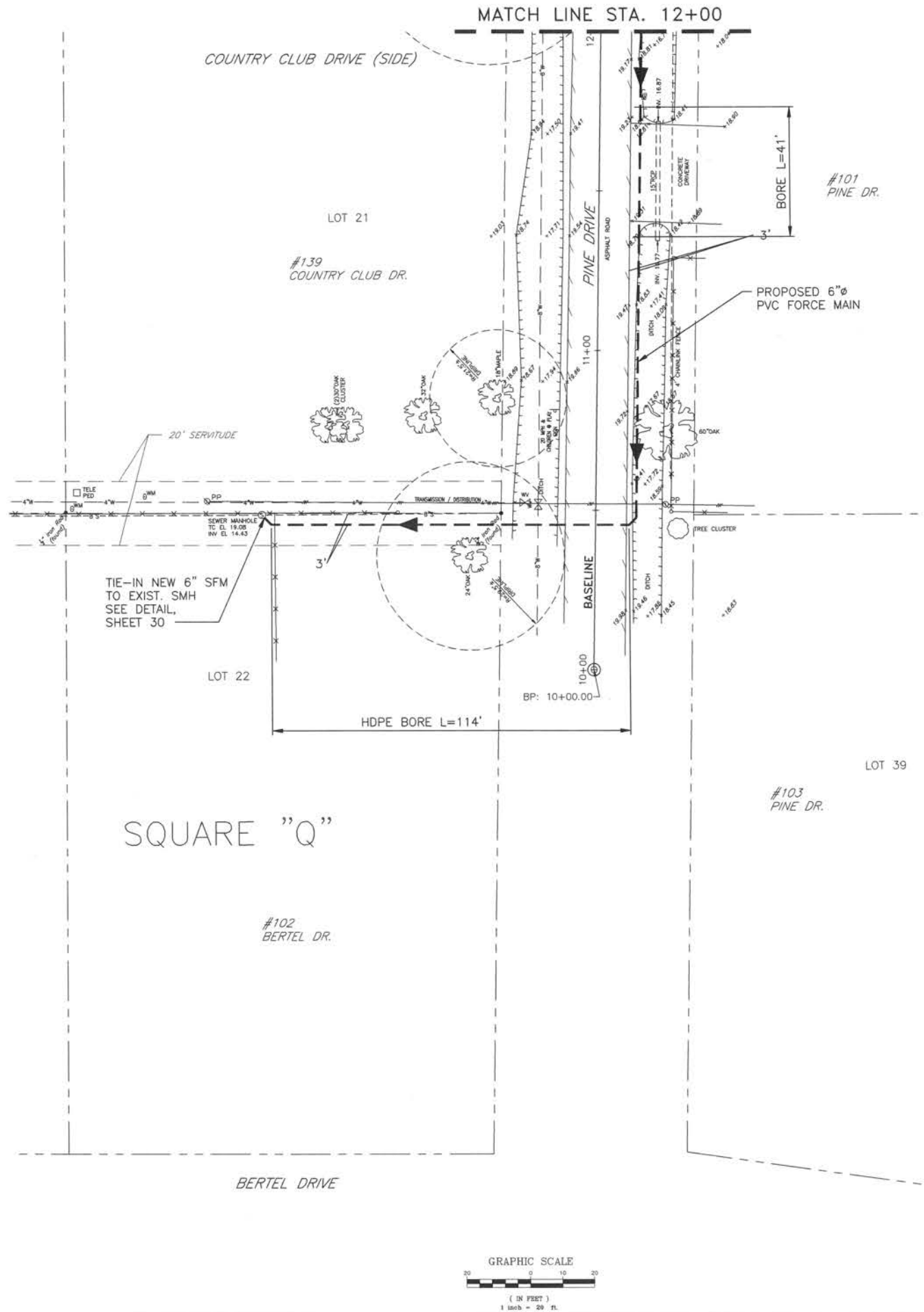
NEW SEWER FORCE MAIN  
PLAN

MARK	DESCRIPTION	DATE	BY



SCALE: 1" = 20'-0"  
DATE: JULY 2019  
DRAWN: \_\_\_\_\_ CHECKED: \_\_\_\_\_  
GEC PROJECT NO. 0051.2246101.000  
SHEET 19

G:\DWGS\51\2246101.000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:29am



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BU

**As Built**

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT  
NEW SEWER FORCE MAIN  
PLAN

MARK	DESCRIPTION	DATE	BY



SCALE:  
1" = 20'-0"

DATE:  
JULY 2019

DRAWN:      CHECKED:

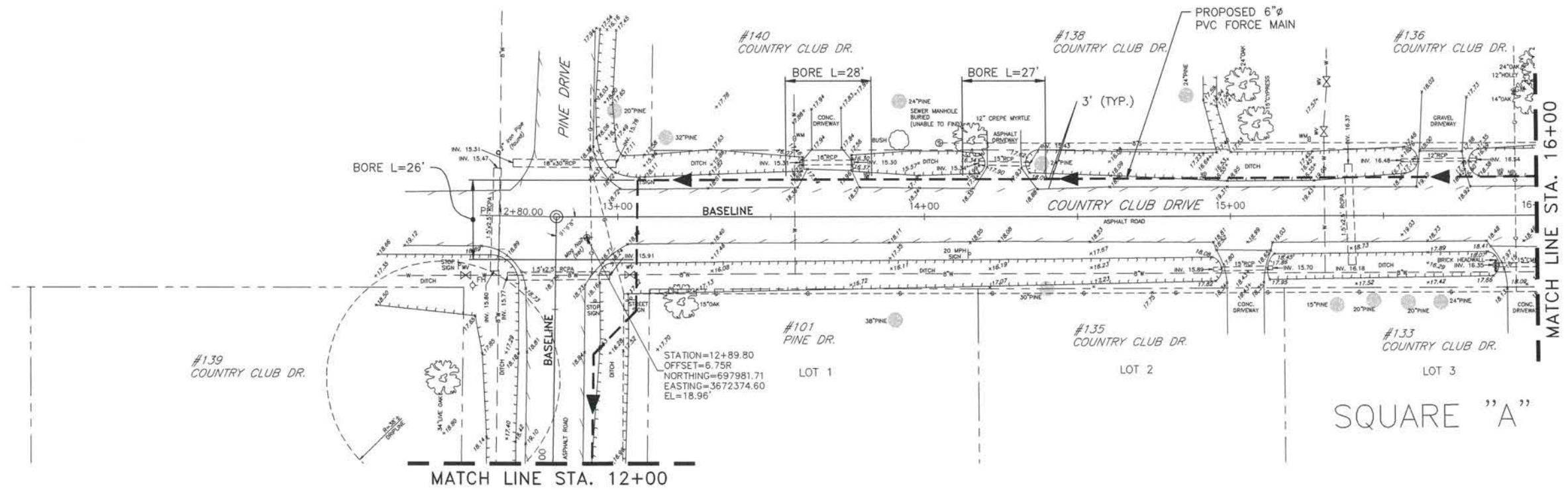
GEC PROJECT NO.  
0051.2246101.000

SHEET  
20



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

G:\DWGS\51\2246101.000 St. Tammany Parish Sewerage District, No. 1\Design\Drawings\09--24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:29am



*[Handwritten signature in red ink]*

**As Built**



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

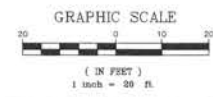
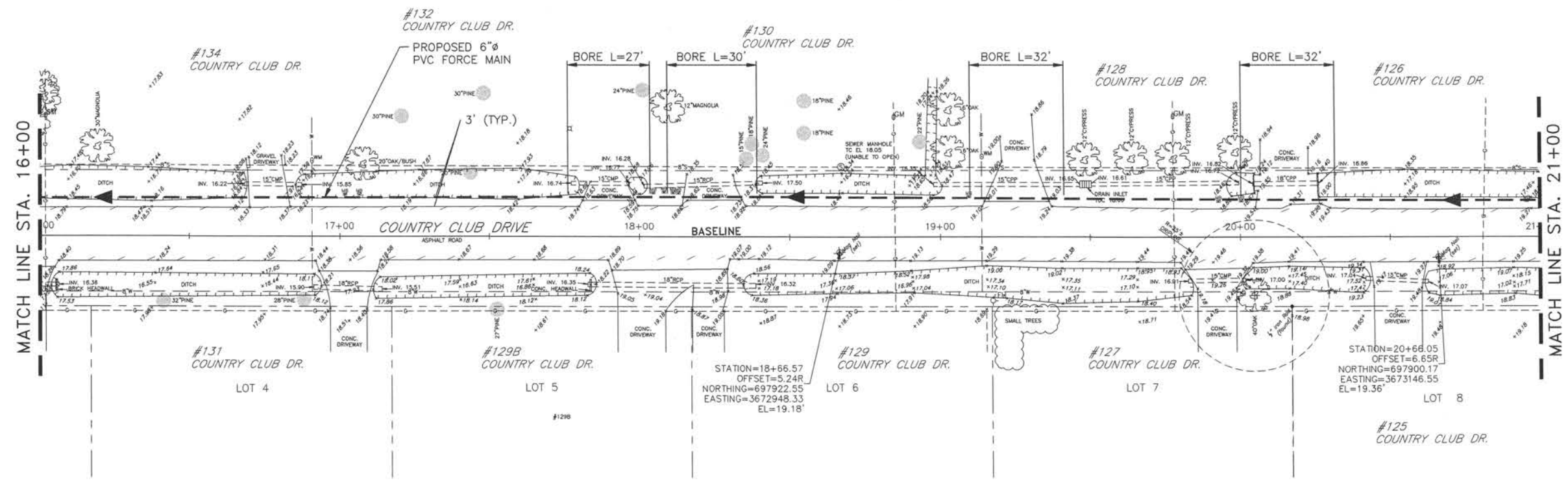
ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

NEW SEWER FORCE MAIN  
PLAN

MARK	DESCRIPTION	DATE	BY



SCALE: 1" = 20'-0"  
DATE: JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO. 0051.2246101.000  
SHEET 21



*[Handwritten signature in red ink]*

**A\* Built**

G:\DWGS\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:30am



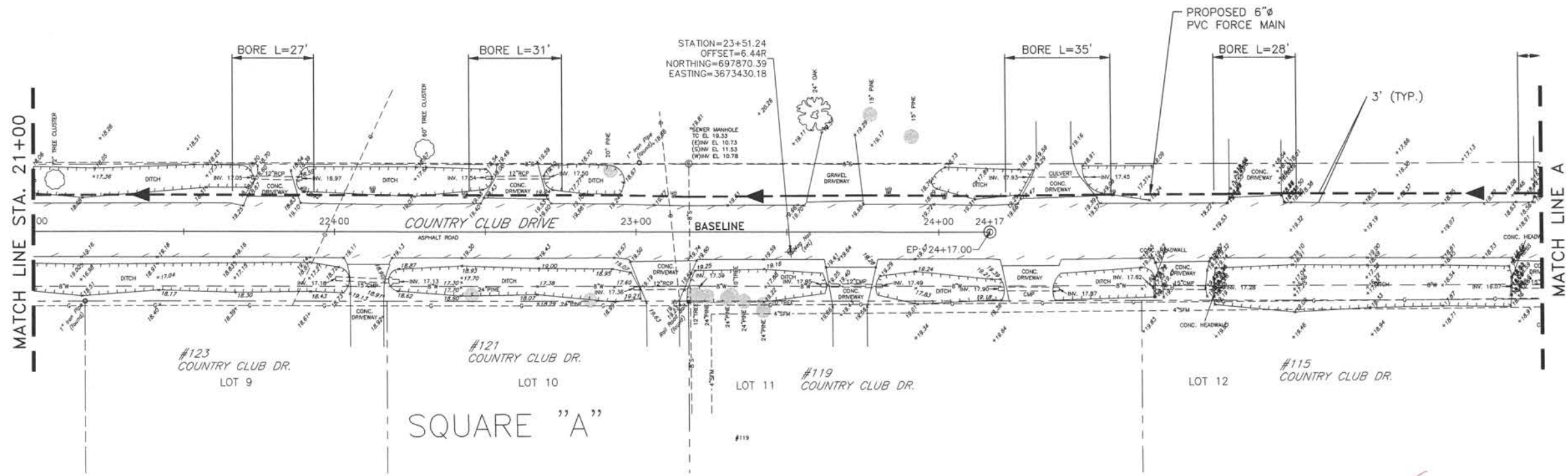
SCALE:  
1" = 20'-0"  
DATE:  
JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO.  
0051.2246101.000  
SHEET  
22

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT  
NEW SEWER FORCE MAIN  
PLAN



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

G:\DWG5\31\2246101.000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09-24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:30am



*Handwritten signature in red ink.*

**As Built**

3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT  
NEW SEWER FORCE MAIN  
PLAN

MARK	DESCRIPTION	DATE	BY



SCALE:  
1" = 20'-0"

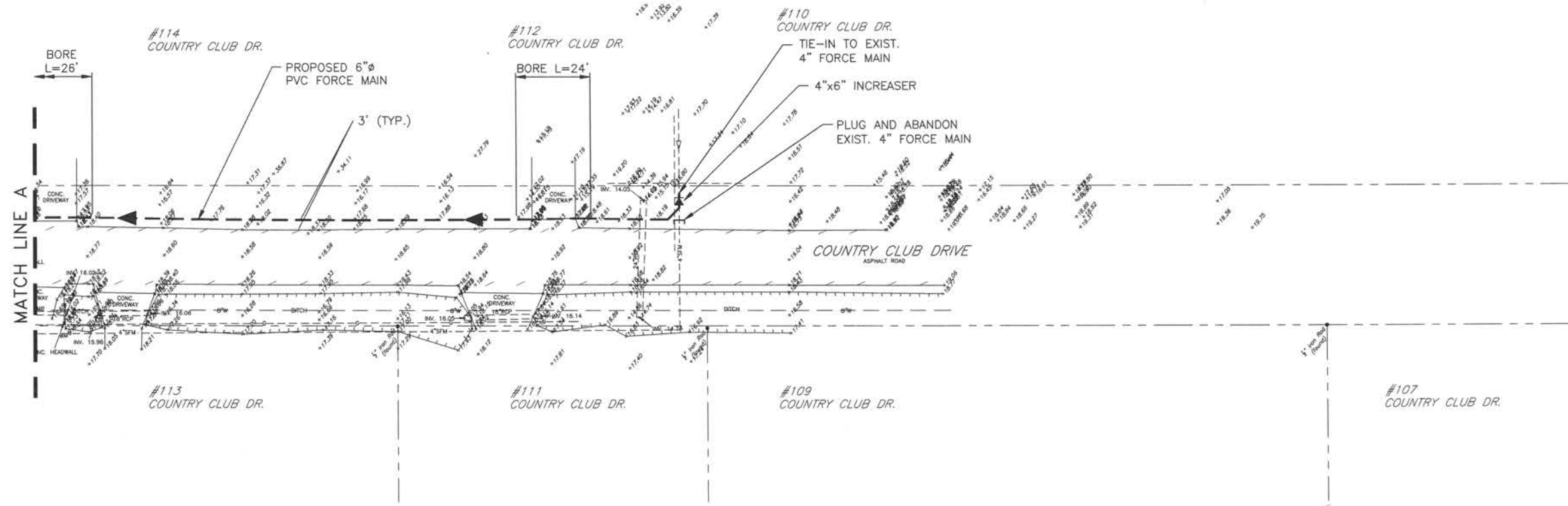
DATE:  
JULY 2019

DRAWN:      CHECKED:

GEC PROJECT NO.  
0051.2246101.000

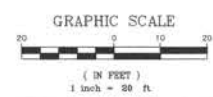
SHEET  
23

G:\DWG5\51\2246101\_000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\09--24 SFM PLAN SHEETS.dwg Aug 13, 2019 - 10:30am



*BL*

**As Built**



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

NEW SEWER FORCE MAIN  
PLAN

MARK	DESCRIPTION	DATE	BY



SCALE:  
1" = 20'-0"

DATE:  
JULY 2019

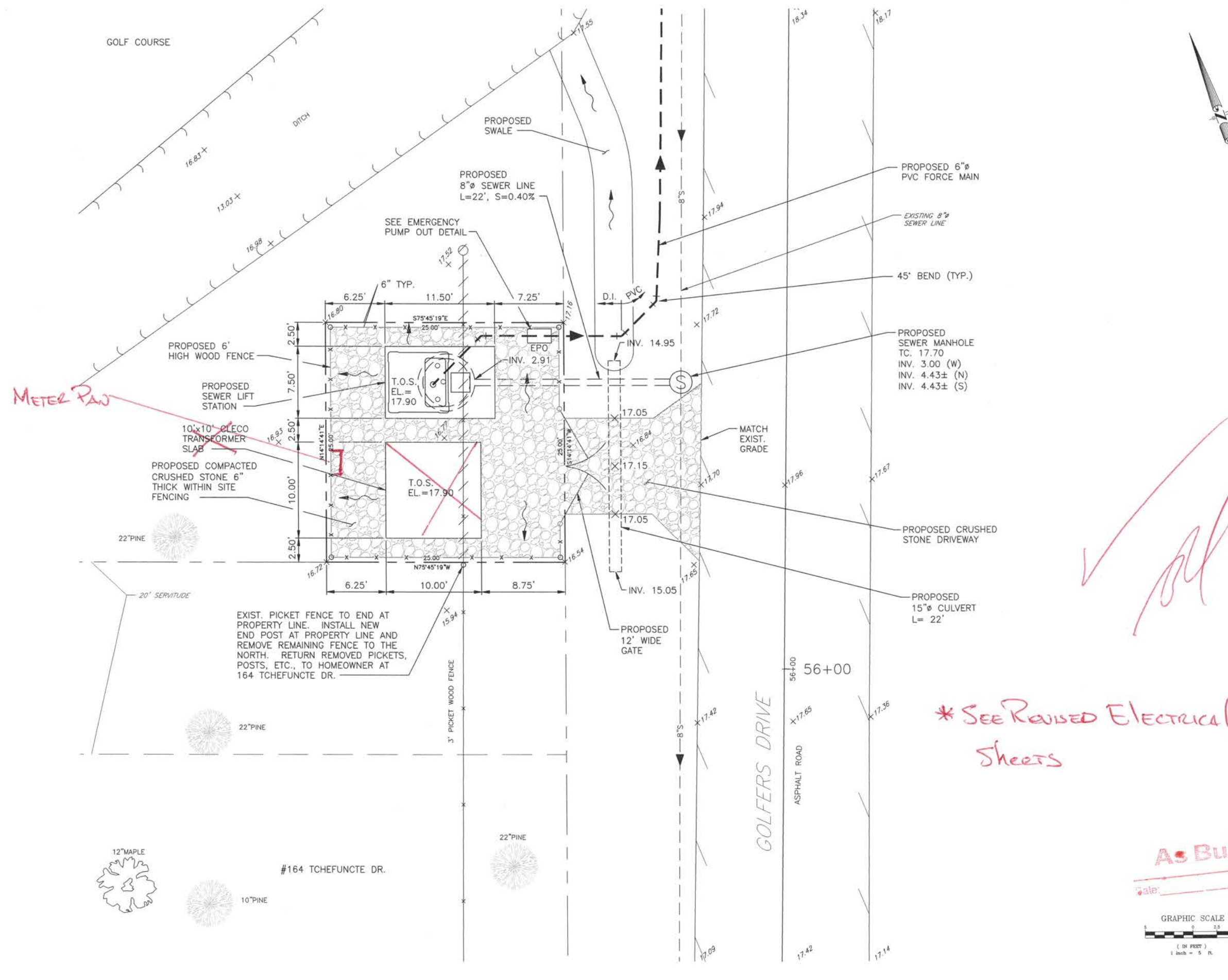
DRAWN: \_\_\_\_\_ CHECKED: \_\_\_\_\_

GEC PROJECT NO.  
0051.2246101.000

SHEET  
24



G:\DWG5\51\2246101.000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\25 LS SITE PLAN.dwg Aug 13, 2019 - 10:33am



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

NEW LIFT STATION #5 SITE PLAN

MARK	DESCRIPTION	DATE	BY



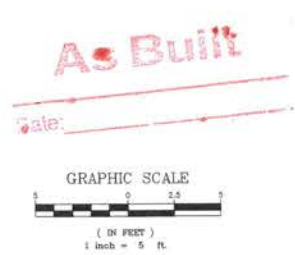
SCALE: 1" = 5'-0"

DATE: JULY 2019

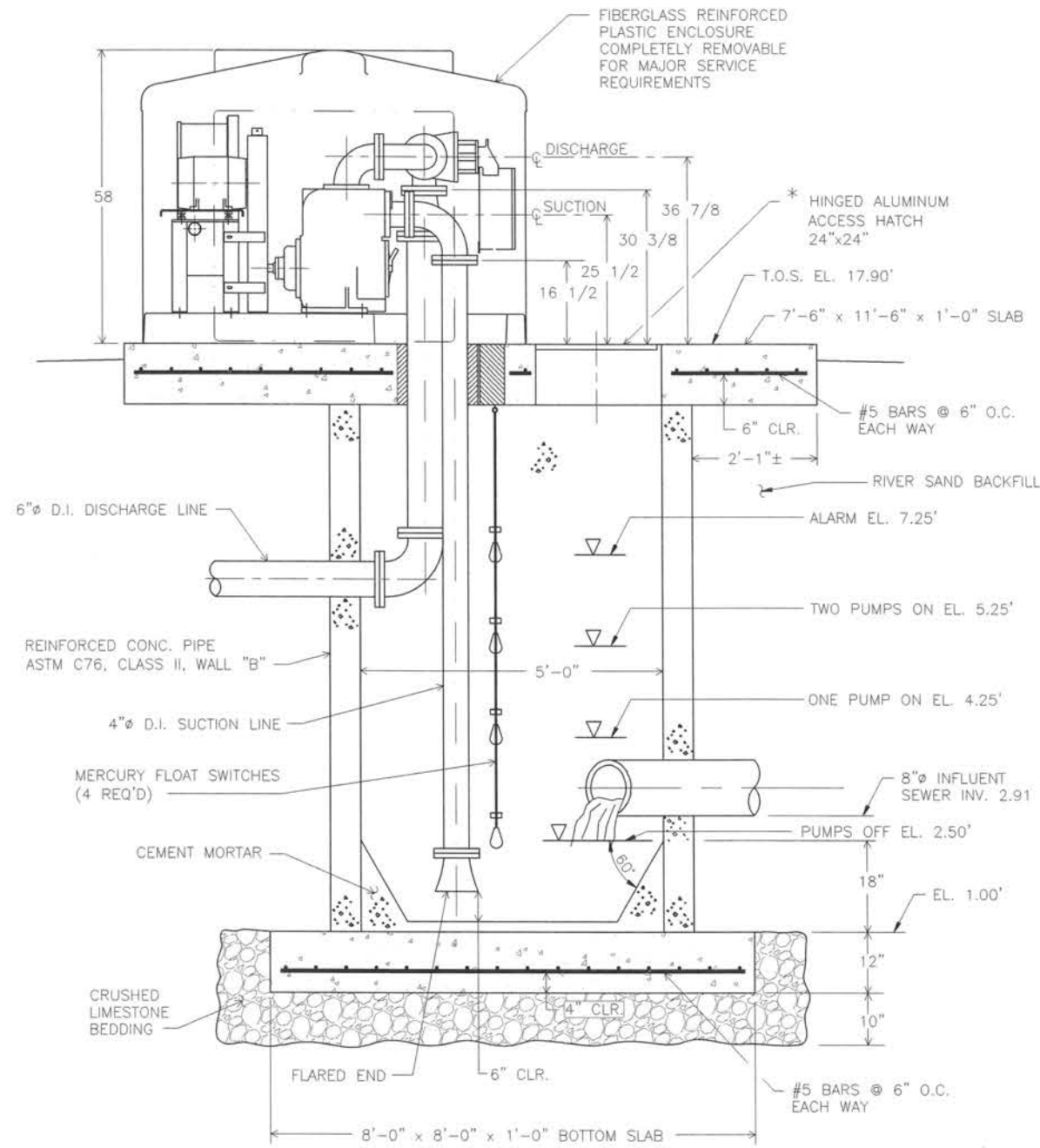
DRAWN: CHECKED:

GEC PROJECT NO. 0051.2246101.000

SHEET 25



G:\DWGS\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\26-27-30 LIFT STATION DETAILS.DWG Aug 13, 2019 - 10:34am

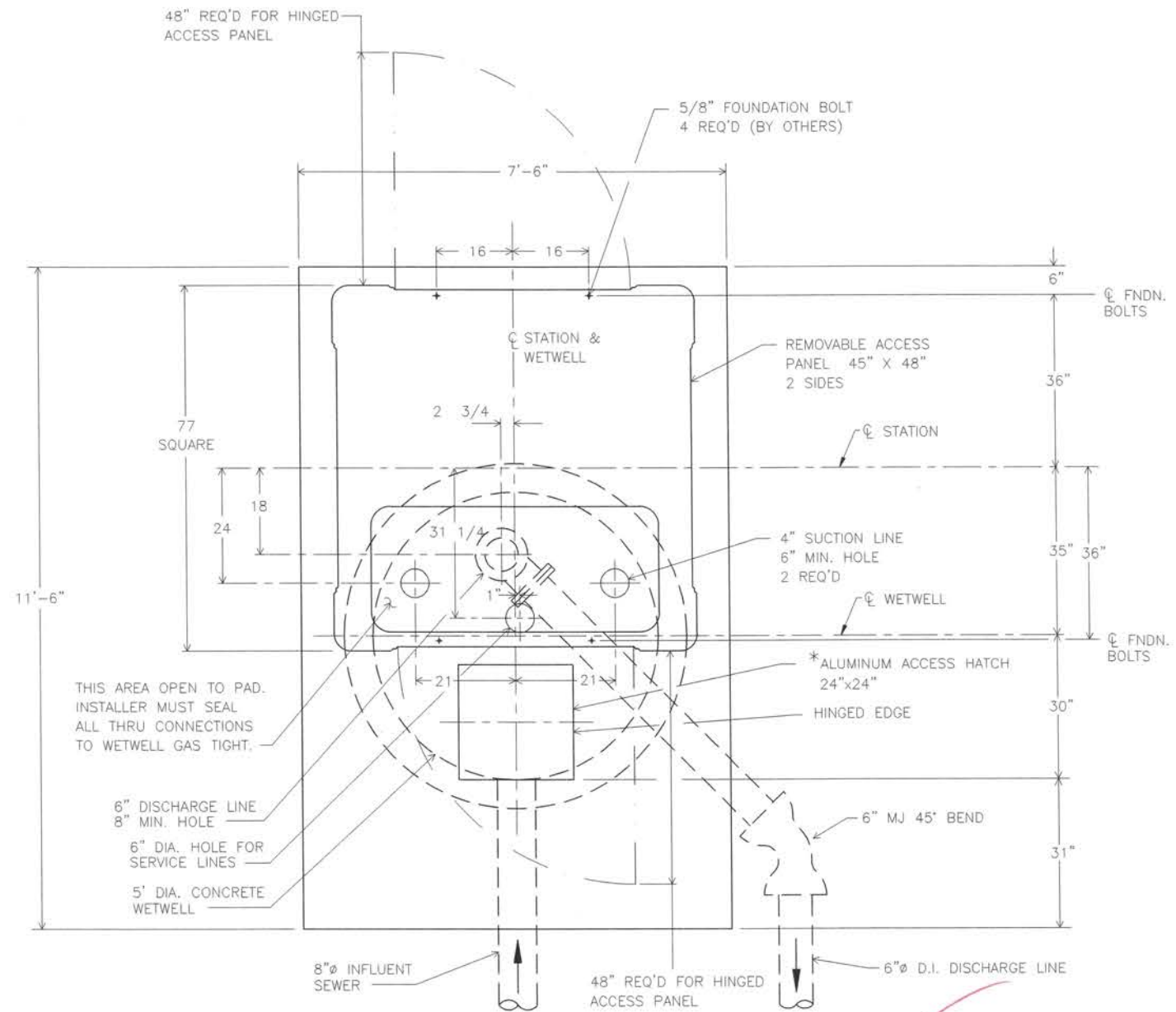


**ELEVATION VIEW**  
(NOT TO SCALE)

NOTE: SOME ITEMS ROTATED FOR CLARITY.

\*VERIFY DIMENSIONS  
W/EQUIP. SHOP DRAWINGS

NOTE:  
SEE SHEET 3 FOR SEWER LIFT STATION NOTES.



**PLAN VIEW**  
(NOT TO SCALE)

*Handwritten signature*

**As Built**



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

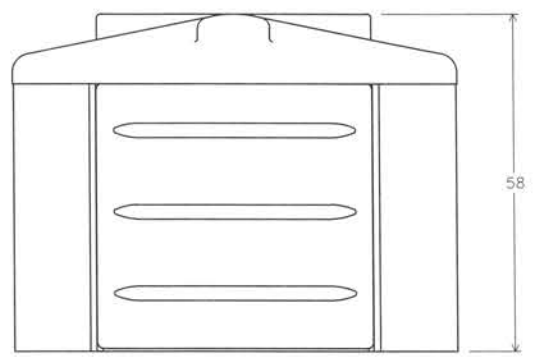
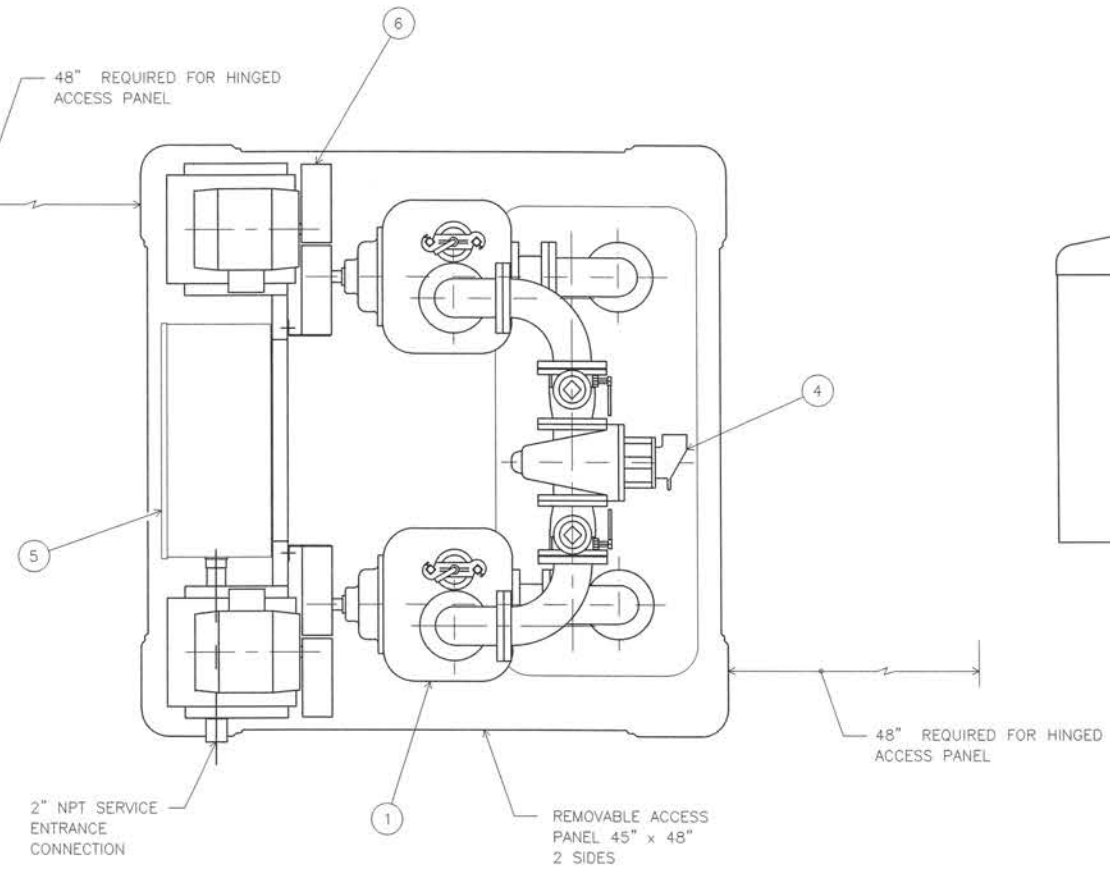
NEW LIFT STATION #5  
DETAILS

MARK	DESCRIPTION	DATE	BY



SCALE: N.T.S.  
DATE: JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO. 0051.2246101.000  
SHEET 26

G:\DWG\51.2246101.000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\26--27--30 LIFT STATION DETAILS.DWG Aug 13, 2019 -- 10:34am

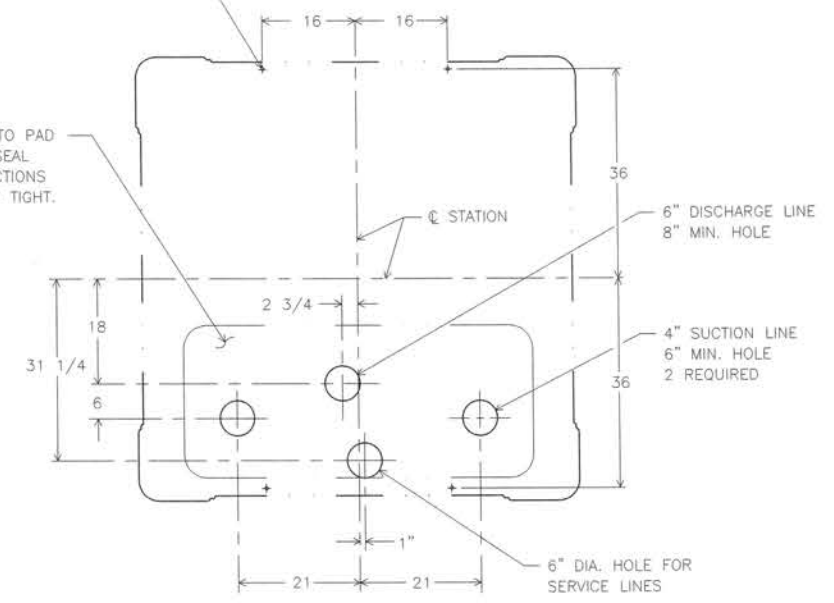


**ELEVATION VIEW**  
(NOT TO SCALE)

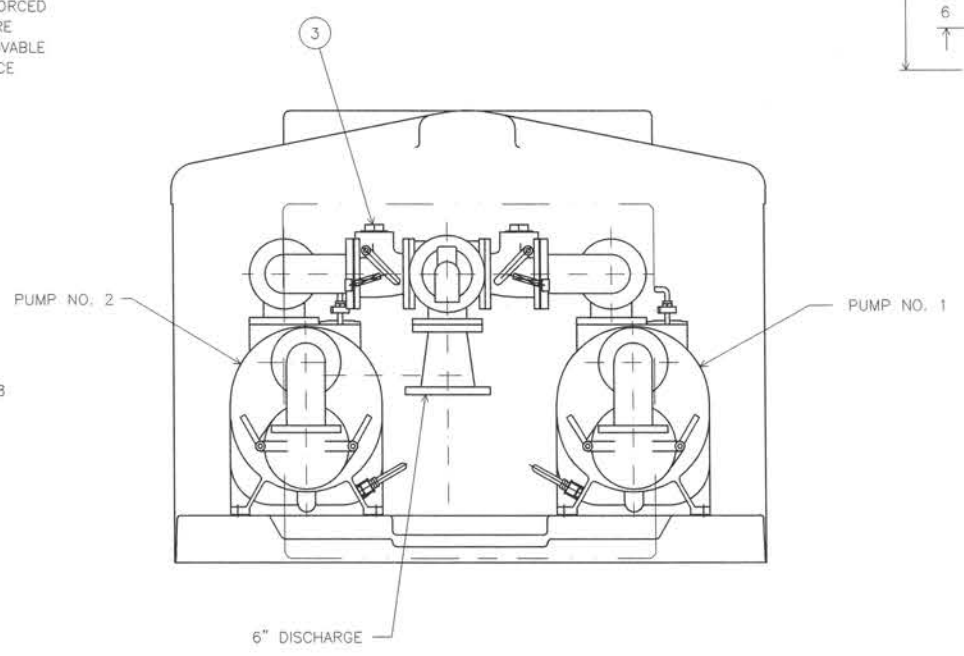
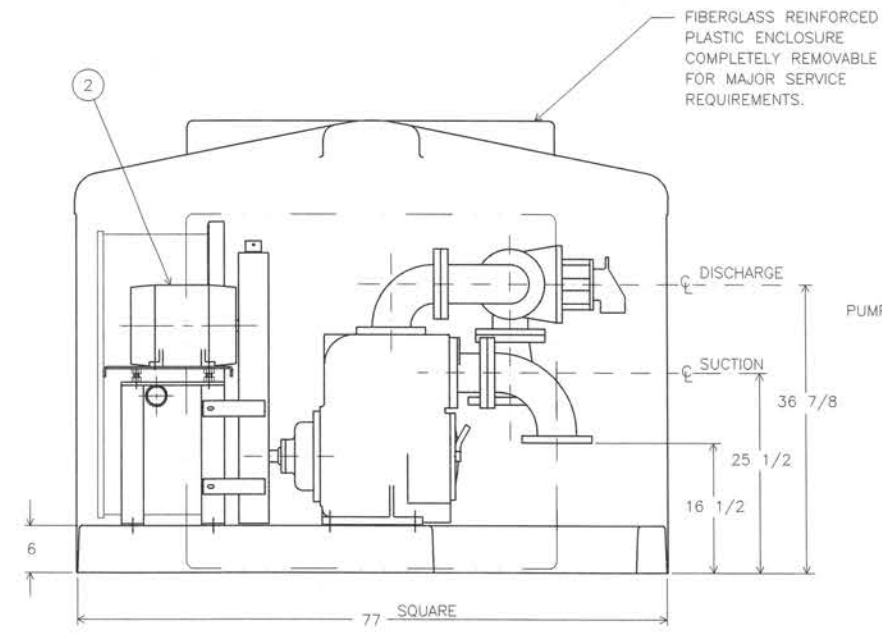
ITEM	DESCRIPTION	MAT'L & SIZE
1	PUMP	CAST IRON T4A-B
2	MOTOR	CAST IRON
3	CHECK VALVE	CAST IRON 4"
4	PLUG VALVE	CAST IRON 4"
5	MOTOR CONTROL PANEL	STEEL
6	BELTGUARD	STEEL

5/8" FOUNDATION BOLTS  
4 REQ'D (BY OTHERS)  
4" BOLT PROJECTION  
FROM PAD

THIS AREA OPEN TO PAD  
INSTALLER MUST SEAL  
ALL THRU CONNECTIONS  
TO WET WELL GAS TIGHT.



**PLAN VIEW**  
(NOT TO SCALE)



*[Handwritten signature]*

**As Built**



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

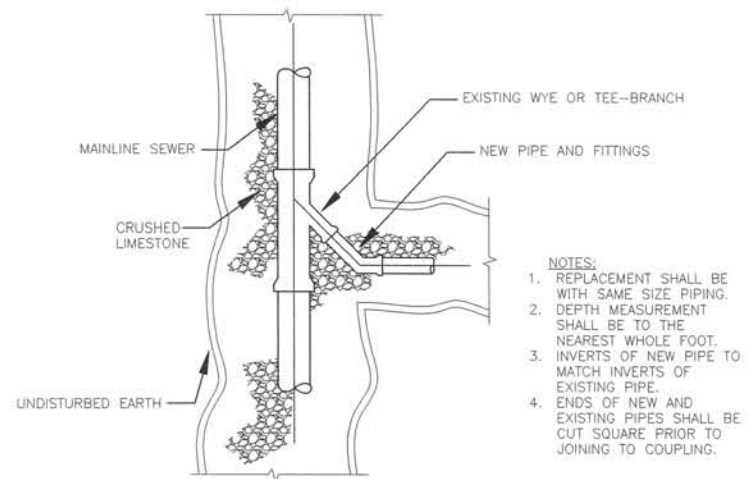
ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

NEW LIFT STATION #5  
DETAILS

MARK	DESCRIPTION	DATE	BY
	REVISION		
	RECORD		

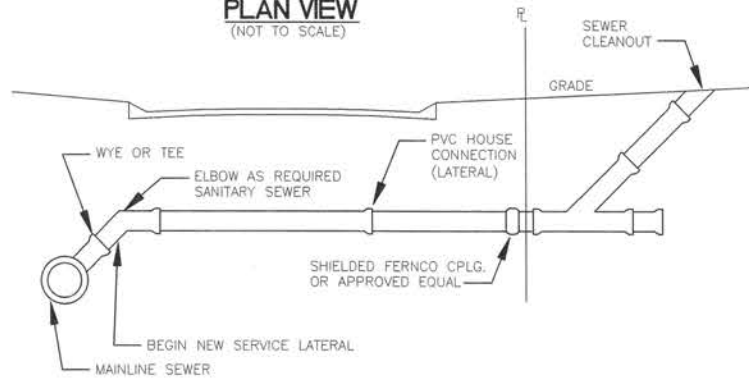


SCALE: N.T.S.  
DATE: JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO. 0051.2246101.000  
SHEET 27

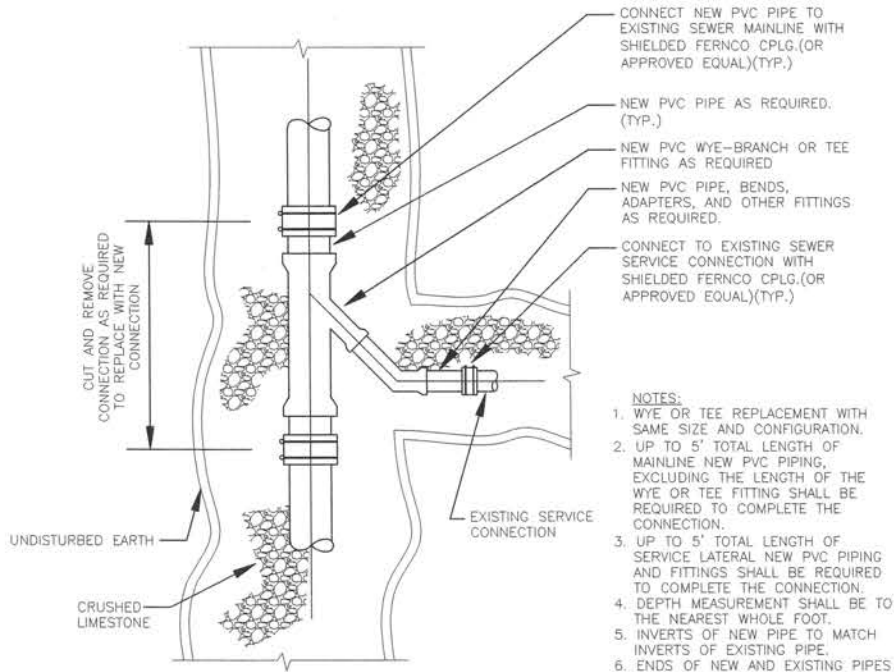


**PLAN VIEW**  
(NOT TO SCALE)

- NOTES:
1. REPLACEMENT SHALL BE WITH SAME SIZE PIPING.
  2. DEPTH MEASUREMENT SHALL BE TO THE NEAREST WHOLE FOOT.
  3. INVERTS OF NEW PIPE TO MATCH INVERTS OF EXISTING PIPE.
  4. ENDS OF NEW AND EXISTING PIPES SHALL BE CUT SQUARE PRIOR TO JOINING TO COUPLING.



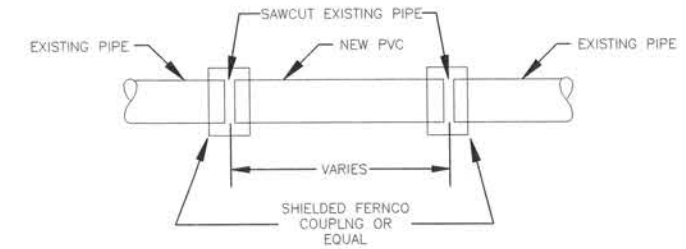
**PROFILE VIEW**  
**SERVICE LATERAL REPLACEMENT DETAILS**  
(NOT TO SCALE)



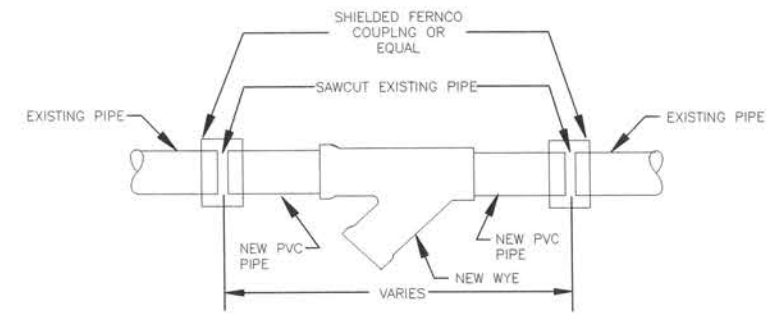
**PLAN VIEW**  
**MAINLINE WYE OR TEE REPLACEMENT DETAIL**  
(NOT TO SCALE)

- CONNECT NEW PVC PIPE TO EXISTING SEWER MAINLINE WITH SHIELDED FERRO CPLG.(OR APPROVED EQUAL)(TYP.)
- NEW PVC PIPE AS REQUIRED. (TYP.)
- NEW PVC WYE-BRANCH OR TEE FITTING AS REQUIRED
- NEW PVC PIPE, BENDS, ADAPTERS, AND OTHER FITTINGS AS REQUIRED.
- CONNECT TO EXISTING SEWER SERVICE CONNECTION WITH SHIELDED FERRO CPLG.(OR APPROVED EQUAL)(TYP.)

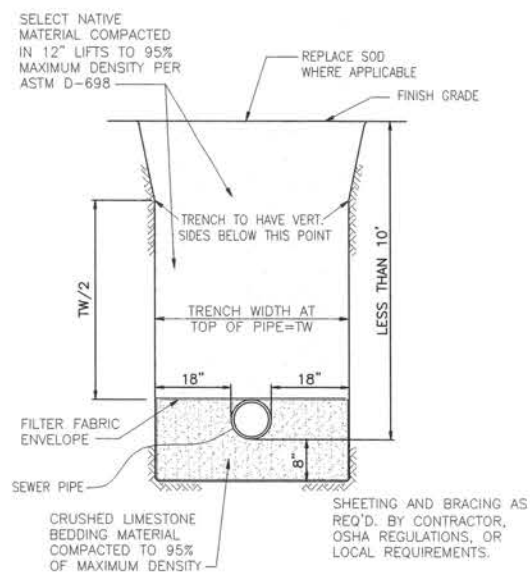
- NOTES:
1. WYE OR TEE REPLACEMENT WITH SAME SIZE AND CONFIGURATION.
  2. UP TO 5' TOTAL LENGTH OF MAINLINE NEW PVC PIPING, EXCLUDING THE LENGTH OF THE WYE OR TEE FITTING SHALL BE REQUIRED TO COMPLETE THE CONNECTION.
  3. UP TO 5' TOTAL LENGTH OF SERVICE LATERAL NEW PVC PIPING AND FITTINGS SHALL BE REQUIRED TO COMPLETE THE CONNECTION.
  4. DEPTH MEASUREMENT SHALL BE TO THE NEAREST WHOLE FOOT.
  5. INVERTS OF NEW PIPE TO MATCH INVERTS OF EXISTING PIPE.
  6. ENDS OF NEW AND EXISTING PIPES SHALL BE CUT SQUARE PRIOR TO JOINING TO COUPLING.



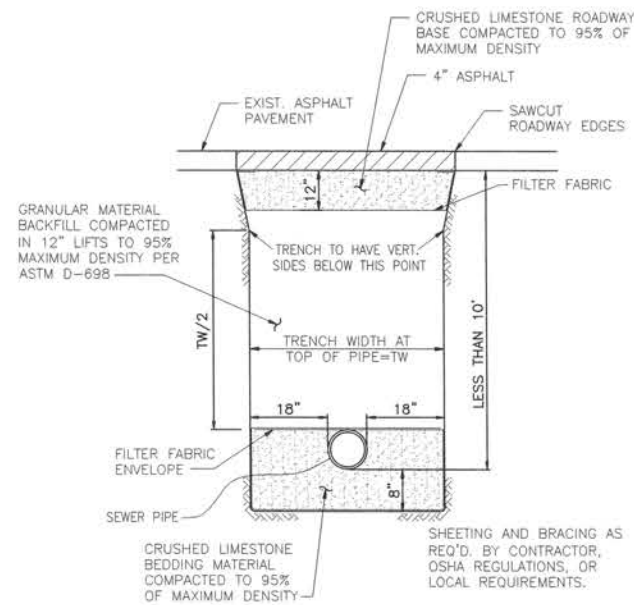
**DETAIL OF POINT REPAIR**  
(NOT TO SCALE)



**DETAIL OF SPECIAL POINT REPAIR INCLUDING WYE**  
(NOT TO SCALE)



**TYPICAL TRENCH DETAIL**  
**IN UNPAVED AREA**  
(NOT TO SCALE)



**TYPICAL TRENCH DETAIL**  
**IN ROADWAY AREA**  
(NOT TO SCALE)

*Handwritten signature in red ink.*

**As Built**  
Gate

G:\DWG5\51\2246101\_000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\28-29\_MISC\_DETAILS.DWG Aug 13, 2019 - 10:35am



3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

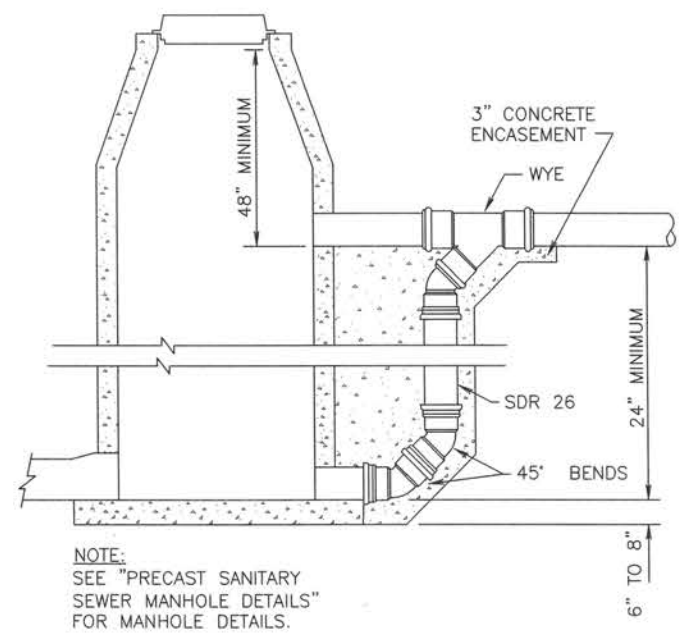
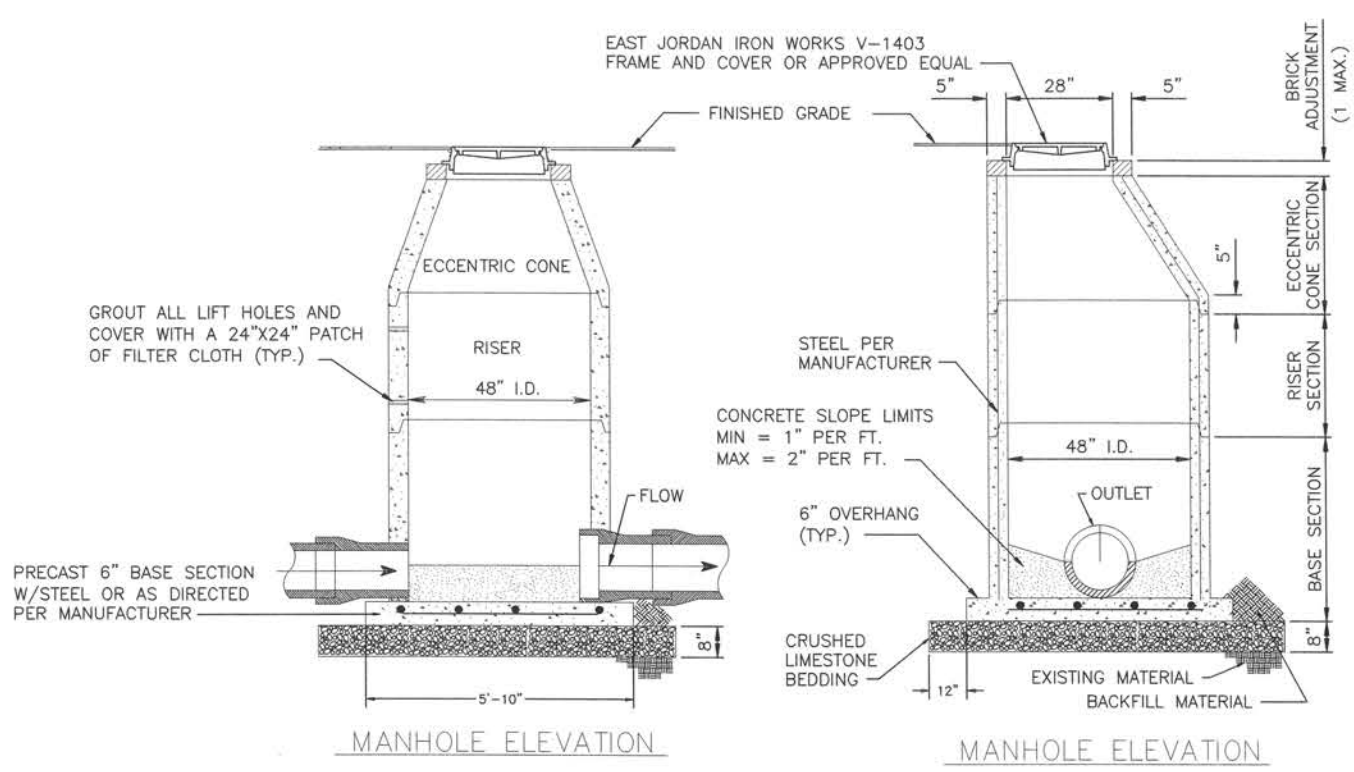
ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

MISCELLANEOUS DETAILS

MARK	DESCRIPTION	DATE	BY
	REVISION RECORD		



SCALE: SEE DRAWING  
DATE: JULY 2019  
DRAWN: CHECKED:  
GEC PROJECT NO. 0051.2246101.000  
SHEET 28



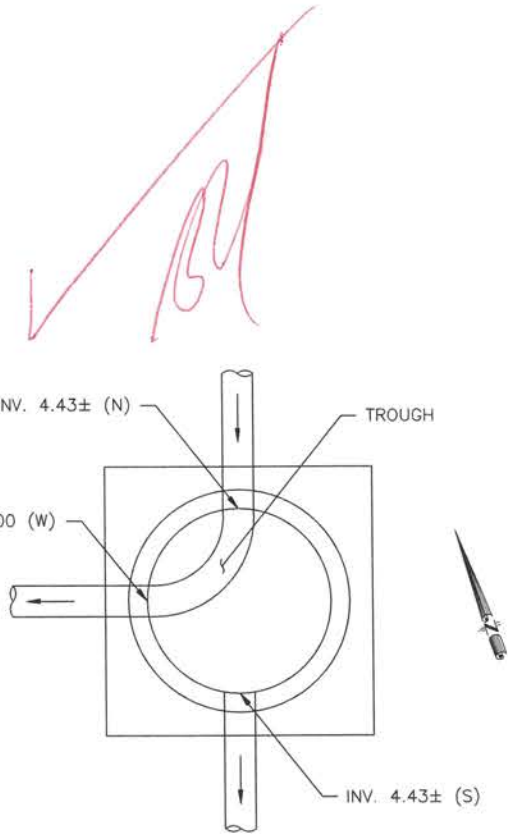
NOTE:  
SEE "PRECAST SANITARY SEWER MANHOLE DETAILS" FOR MANHOLE DETAILS.

**SANITARY SEWER DROP MANHOLE ELEVATION**  
(NOT TO SCALE)

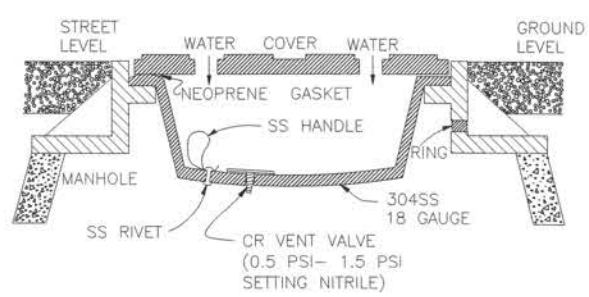
**SEWER MANHOLE NOTES:**

1. REFER TO OTHER DETAILS FOR DROP SEWER MANHOLES, MANHOLE CASTINGS, MANHOLE ADJUSTING RINGS, AND ROAD REPAIR DETAILS.
2. BEDDING MATERIAL, BACKFILL MATERIAL, AND EXISTING GRANULAR MATERIAL SHALL BE COMPACTED TO 95% PROCTER PER ASTM D1557.
3. BEDDING MATERIAL SHALL BE 8" THICK, BUT SHALL BE DEEPER IF DIRECTED BY THE ENGINEER.
4. CONCRETE TO CONTAIN XYPEX ADMIX AS PER MANUFACTURER RECOMMENDATIONS. XYPEX ADMIX SHALL INCLUDE A DYE SO IT CAN BE DISTINGUISHED FROM CONCRETE WITHOUT XYPEX.
5. XYPEX ADMIX C-1000 SHALL BE INCORPORATED INTO ALL MORTAR MIXES USED IN SANITARY SEWER MANHOLES.
6. IN PAVED AND NON-PAVED AREAS, MANHOLES SHALL BE FLUSH WITH THE FINISHED GRADE UNLESS INDICATED OR DIRECTED OTHERWISE.

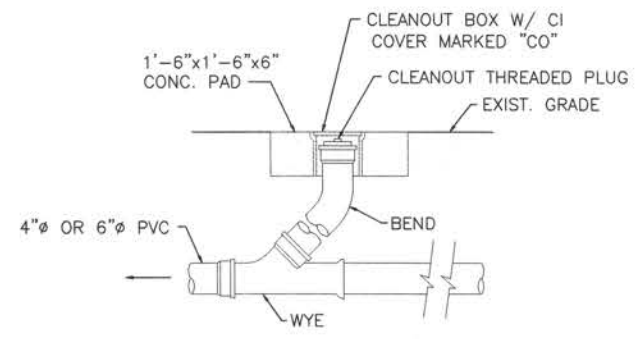
**PRECAST SANITARY SEWER MANHOLE DETAILS**  
(NOT TO SCALE)



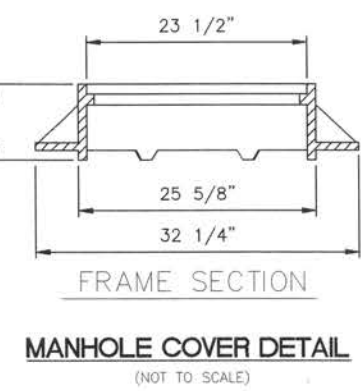
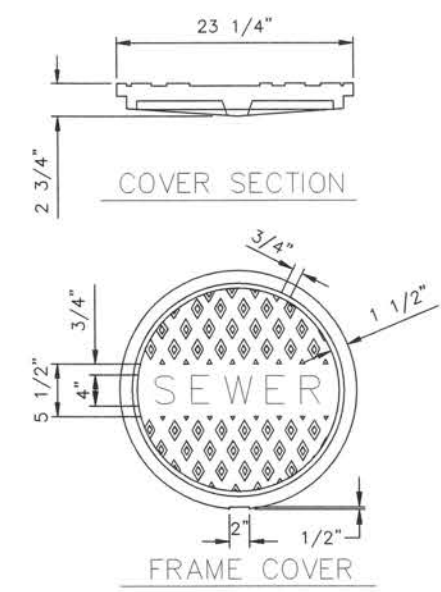
**PLAN OF MANHOLE TROUGH SPECIAL MANHOLE AT NEW LIFT STATION**  
(NOT TO SCALE)



**RAIN STOPPER MANHOLE INSERT**  
(NOT TO SCALE)



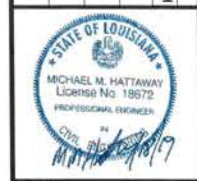
**GRAVITY SEWER CLEANOUT DETAIL**  
(NOT TO SCALE)



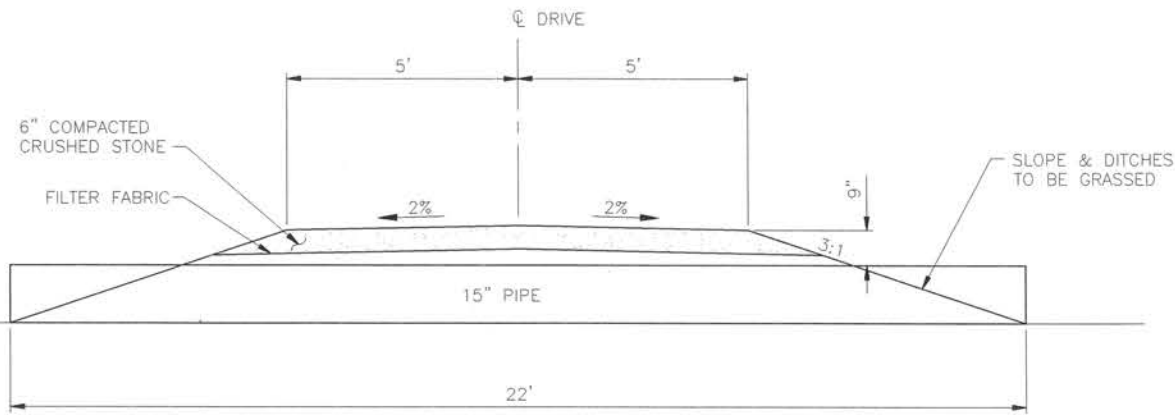
**MANHOLE COVER DETAIL**  
(NOT TO SCALE)

**As Built**  
Date: \_\_\_\_\_

NO.	DESCRIPTION	DATE	BY



G:\DWGS\51\2246101 000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\28-29 MISC DETAILS.DWG Aug 13, 2019 - 10:36am



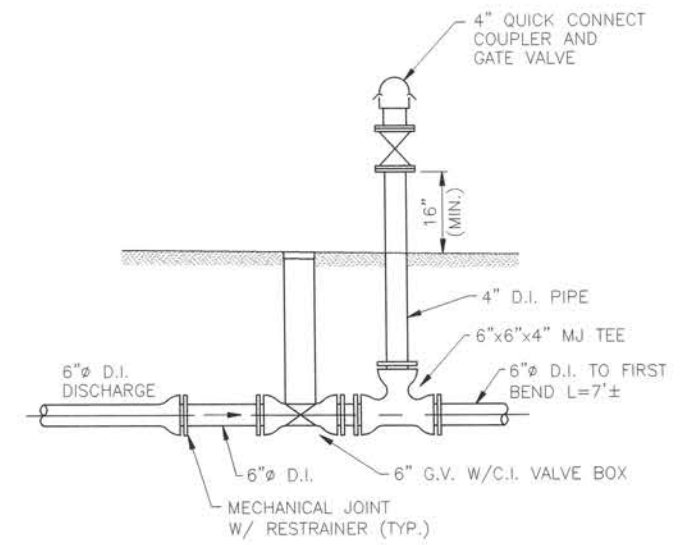
**AGGREGATE DRIVE  
TYPICAL SECTION**  
(NOT TO SCALE)

PIPE DIAMETER	"L" FOR 22 1/2° BEND	"L" FOR 45° BEND	"L" FOR 90° BEND
4"	10'	14'	18'
6"	12'	16'	24'
8"	16'	22'	30'
10"/12"	24'	30'	40'

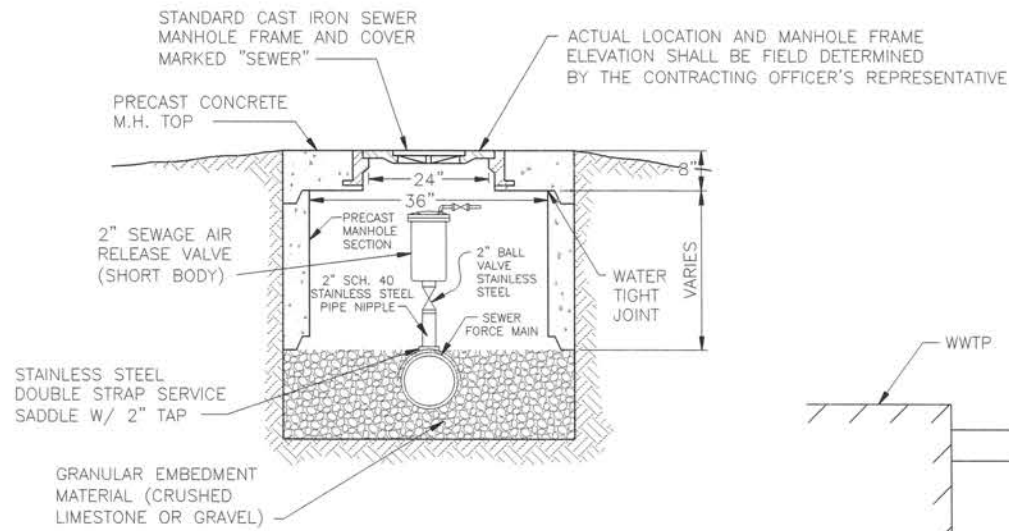
**NOTES:**

1. RESTRAINED JOINT PIPE SHALL BE USED AT ALL FITTINGS.
2. THE LENGTH OF RESTRAINED PIPE ON EACH SIDE OF THE BEND SHALL NOT BE LESS THAN THE "L" DISTANCES GIVEN ABOVE.
3. THE FIRST JOINT OF THE PIPE BEYOND THE "L" DISTANCE SHALL BE RESTRAINED ALONG WITH ALL JOINTS WITHIN THE DISTANCE "L".

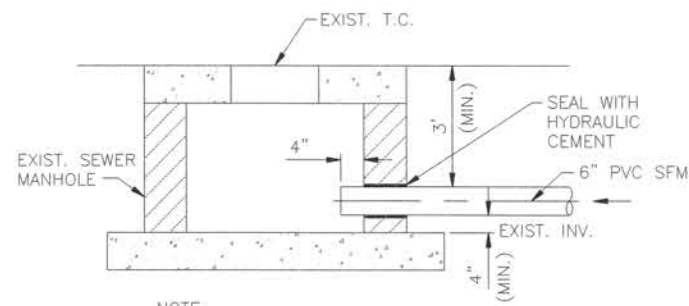
**RESTRAINED JOINTS AT FORCE MAIN BENDS**  
(NOT TO SCALE)



**EMERGENCY PUMP OUT**  
(NOT TO SCALE)

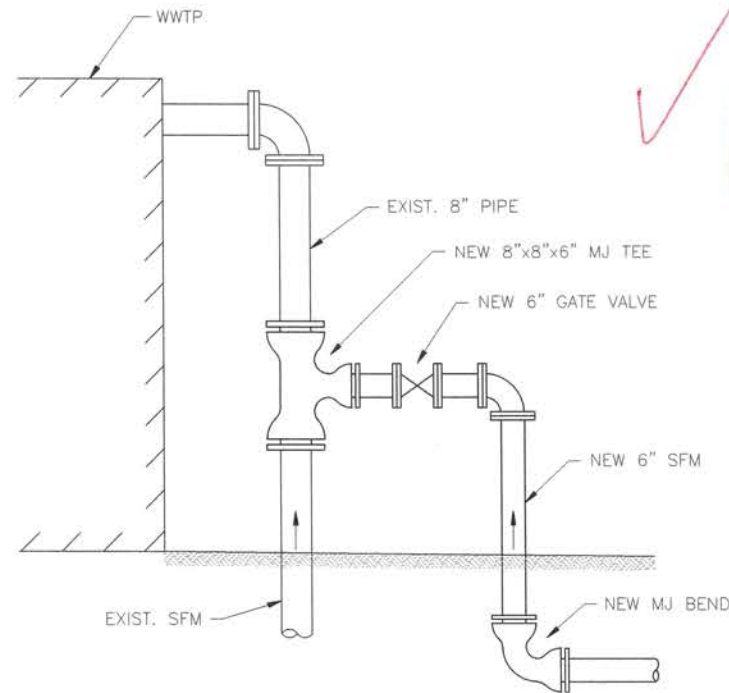


**FORCE MAIN AIR RELEASE VALVE**  
(NOT TO SCALE)



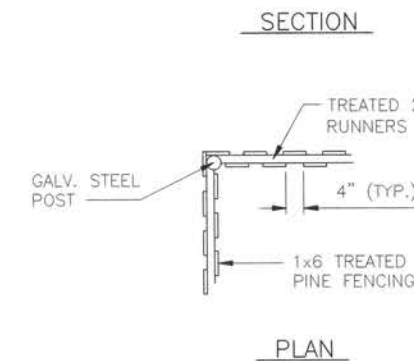
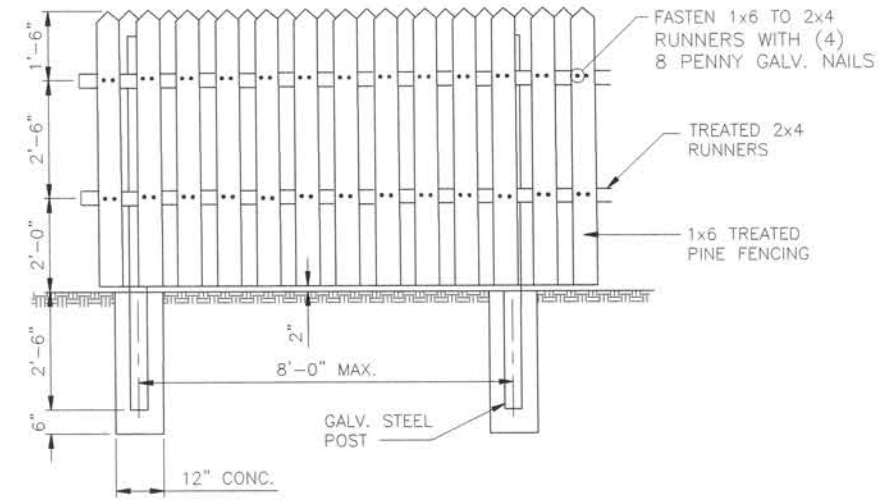
**FORCE MAIN TIE-IN TO  
EXISTING SEWER MANHOLE**  
(NOT TO SCALE)

NOTE:  
AFTER CEMENT CURES, COAT IT  
WITH CIELCOTE INSIDE AND OUTSIDE  
OF MANHOLE



**FORCE MAIN TIE-IN TO  
SEWER TREATMENT PLANT**  
(NOT TO SCALE)

NOTE:  
ALL RESTRAINED JOINTS



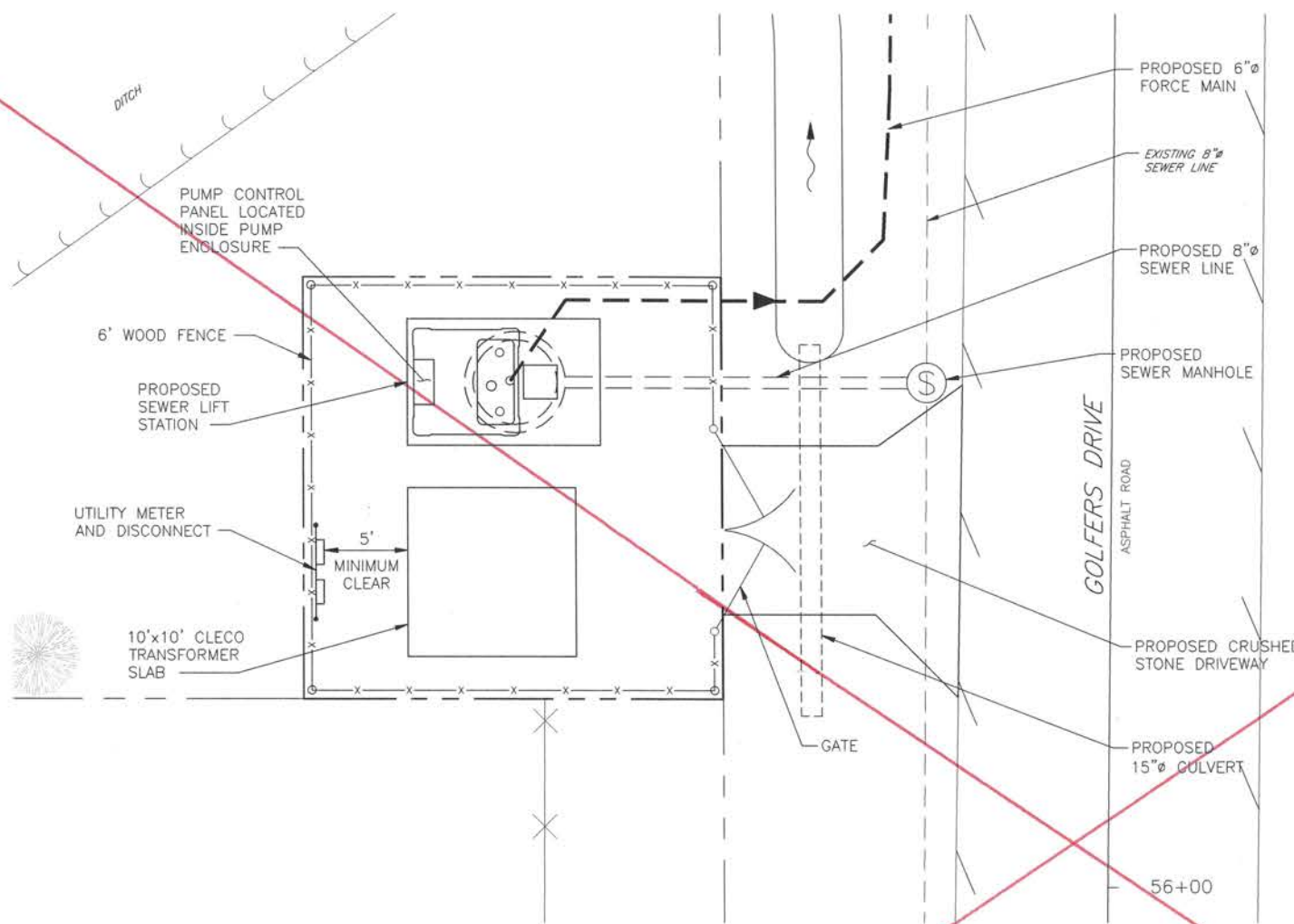
**WOOD FENCE**  
(NOT TO SCALE)

**NOTES:**

1. PROVIDE WELDED, GALVANIZED STEEL PIPE FRAME FOR GATES.
2. ALL HARDWARE SHALL BE HOT-DIPPED GALVANIZED.
3. PROVIDE MEANS TO PAD LOCK GATE.

**As Built**

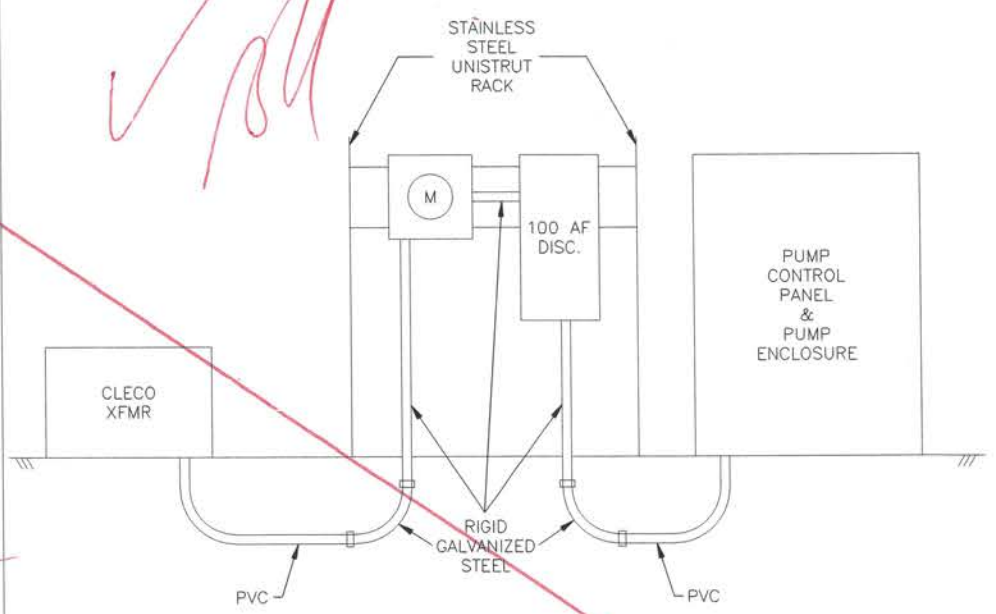
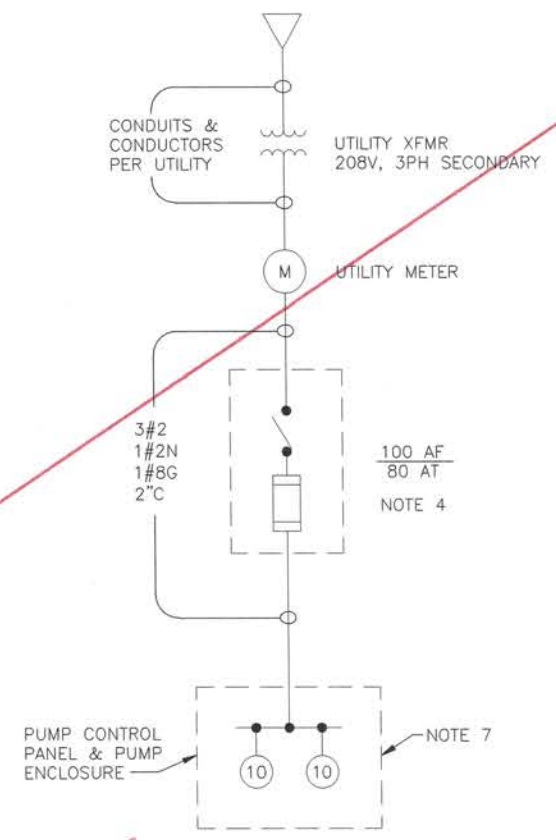
G:\DWGS\51\_2246101\_000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\31 SITE PLAN ELECTRICAL.dwg Aug. 13, 2019 - 10:37am



**NOTES:**

- ALL EQUIPMENT, ENCLOSURES, CONDUITS, AND CONDUCTORS SHALL BE NEW AND LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY, I.E. UL, ETC. INSTALL AS PER ALL REGULATIONS, CODES, AND MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL ADHERE TO ALL UTILITY COMPANY INSTALLATION STANDARDS, NATIONAL ELECTRICAL CODE REQUIREMENTS, AND APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS. CONTRACTOR SHALL OBTAIN ALL APPLICABLE LICENSES AND PERMITS, AS REQUIRED.
- CONTRACTOR SHALL INSTALL ALL NECESSARY PUMP CONTROL AND POWER CONNECTIONS, AS REQUIRED, FOR A COMPLETE OPERATIONAL SYSTEM.
- CONTRACTOR SHALL FURNISH AND INSTALL HEAVY DUTY, 100A FRAME, 3 PHASE, FUSED, NEMA 3R, STAINLESS STEEL, LOCKABLE DISCONNECT SWITCH. COORDINATE FUSE SIZE REQUIREMENT (UP TO 100A) WITH PUMP CONTROL PANEL VENDOR.
- ALL RIGID METAL CONDUIT SHALL HAVE THREADED TYPE FITTINGS AND SHALL TERMINATE WITH INSULATED THROAT, GROUNDING TYPE BUSHINGS.
- ALL CONDUCTORS SHALL BE 600V, STRANDED, TYPE XHHW. IDENTIFY ALL POWER CONDUCTORS AS FOLLOWS:  
 CONDUCTOR IDENTIFICATION  
 120/240V  
 ØA BLACK  
 ØB RED  
 ØC BLUE  
 NEUTRAL WHITE  
 GROUND GREEN
- SEE LIFT STATION ENCLOSURE DETAIL REGARDING SERVICE ENTRANCE CONNECTION.

*VOID*



10 HP @ 125%	38.5 A
10 HP @ 100%	30.8 A
MISC.	10.0 A
	79.3 A

**As Built**



ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1  
SEWERAGE SYSTEM REHABILITATION PROJECT

ELECTRICAL SITE PLAN, NOTES, & DETAILS

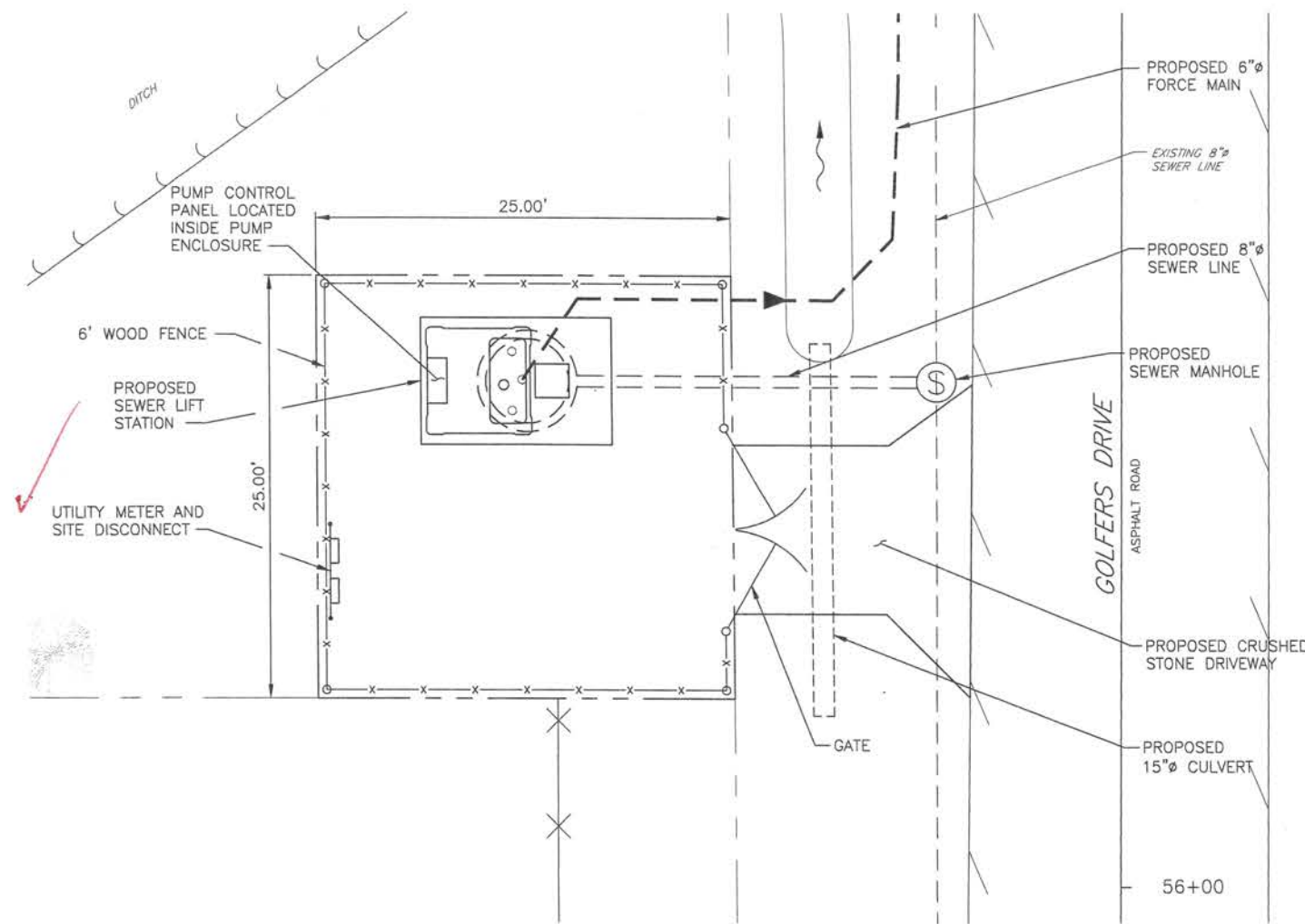
MARK	DESCRIPTION	REVISION	RECORD	DATE	BY

SCALE:	N.T.S.
DATE:	JULY 2019
DRAWN:	CHECKED:
GEC PROJECT NO.	0051.2246101.000
SHEET	31



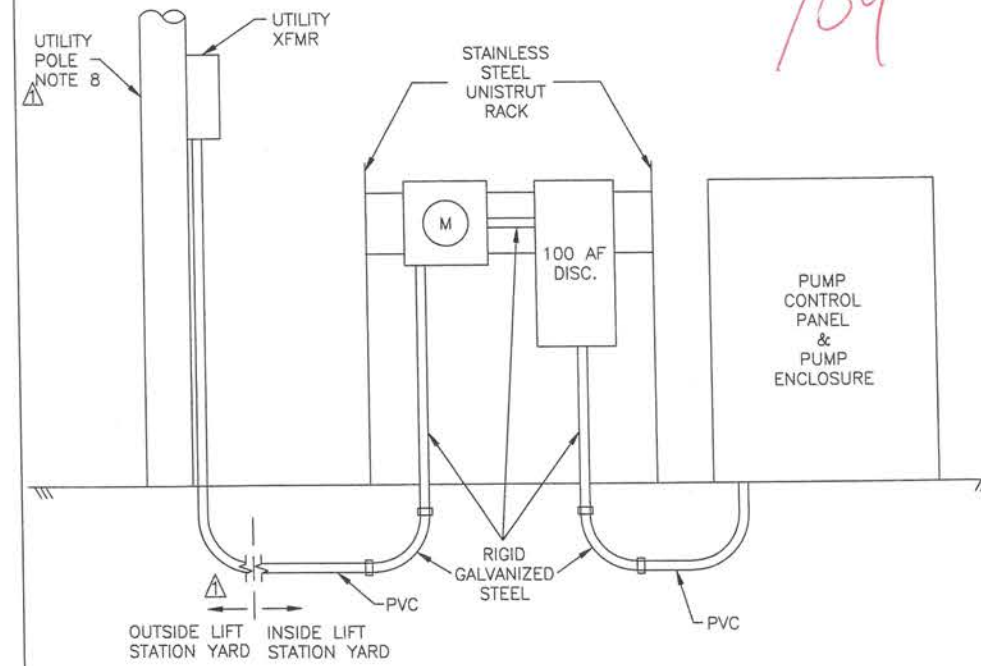
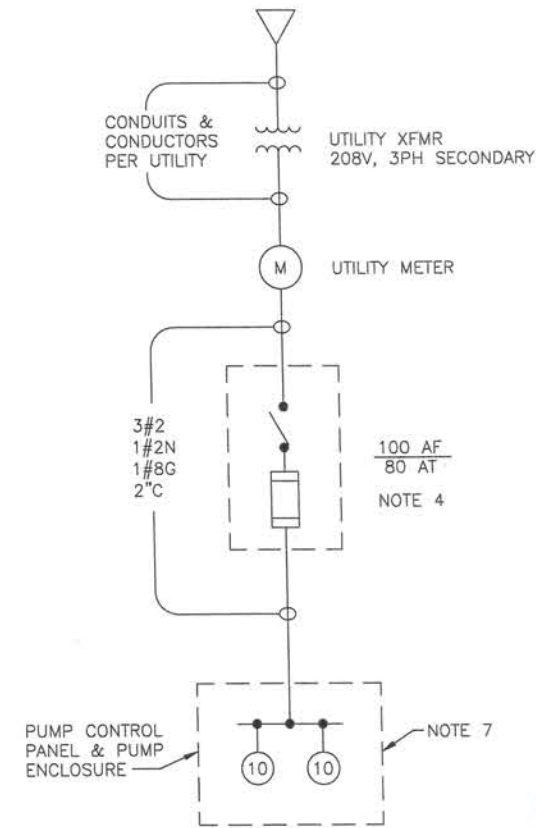
3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002

G:\DWG\51\2246101\_000 St. Tammany Parish Sewerage District No. 1\Design\Drawings\31 SITE PLAN ELECTRICAL R1.dwg, Feb 04, 2020 -- 1:32pm



**NOTES:**

- ALL EQUIPMENT, ENCLOSURES, CONDUITS, AND CONDUCTORS SHALL BE NEW AND LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY, I.E. UL, ETC. INSTALL AS PER ALL REGULATIONS, CODES, AND MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL ADHERE TO ALL UTILITY COMPANY INSTALLATION STANDARDS, NATIONAL ELECTRICAL CODE REQUIREMENTS, AND APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS. CONTRACTOR SHALL OBTAIN ALL APPLICABLE LICENSES AND PERMITS, AS REQUIRED.
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- ALL RIGID METAL CONDUIT SHALL HAVE THREADED TYPE FITTINGS AND SHALL TERMINATE WITH INSULATED THROAT, GROUNDING TYPE BUSHINGS.
- ALL CONDUCTORS SHALL BE 600V, STRANDED, TYPE XHHW. IDENTIFY ALL POWER CONDUCTORS AS FOLLOWS:  
 CONDUCTOR IDENTIFICATION  
 120/240V  
 ØA BLACK  
 ØB RED  
 ØC BLUE  
 NEUTRAL WHITE  
 GROUND GREEN
- SEE LIFT STATION ENCLOSURE DETAIL REGARDING SERVICE ENTRANCE CONNECTION.
- CLECO SHALL INSTALL NEW UTILITY POLE APPROXIMATELY 100' SOUTH OF LIFT STATION ALONG GOLFER'S DRIVE. CONTRACTOR SHALL COORDINATE LIFT STATION SERVICE SCOPE REQUIREMENTS WITH CLECO FOR A COMPLETE AND OPERATIONAL SYSTEM. CLECO CONTACT FOR THIS SITE IS ALEX MARQUARDT, ALEX.MARQUARDT@CLECO.COM.



10 HP @ 125%	38.5 A
10 HP @ 100%	30.8 A
MISC.	10.0 A
	79.3 A

**As Built**



ST. TAMMANY PARISH SEWERAGE DISTRICT NO. 1	
SEWERAGE SYSTEM REHABILITATION PROJECT	
ELECTRICAL SITE PLAN, NOTES, & DETAILS	
3445 N. CAUSEWAY BLVD., STE. 401, METAIRIE, LA 70002	
GEC Gulf Engineers & Consultants	
INCOMING SERVICE UPDATE	DATE
2/3/20	MCP
MARK	BY
DESCRIPTION	REVISION RECORD
SCALE: N.T.S.	
DATE: JULY 2019	
DRAWN:	CHECKED:
GEC PROJECT NO. 0051.2246101.000	
SHEET 31a	