BILTMORE SUBDIVISION

HELIOS WAY & BILTMORE AVE
PFLUGERVILLE, TEXAS 78660

PRELIMINARY PLAN ONLY- NOT FOR RECORDATION

Notes:
1. This plan lies within the full purpose jurisdiction of the City of Pflugerville.
2. Water and wastewater shall be provided by The City of Pflugerville. No lot in this subdivision shall be occupied until connected to water and wastewater facilities.
3. A 10-ft PUE shall be dedicated along all street frontage(s).
4. Easements dedicated to the public shall also be subject to the terms and conditions of the Engineering Design Manual, as amended. The Grantor [property owner(s)], heirs, successors and assigns shall retain the obligation to maintain the surface of the easement property, including the obligation to regularly mow or cut back vegetation and to keep the surface of the easement property free of litter, debris, and trash.
5. No improvements including but not limited to structures, fences, or landscaping shall be allowed in a public easement, except as approved by the City.
6. The property owner shall provide access to drainage and utility easements as may be necessary and shall not prohibit access for the placement, construction, installation, replacement, repair, maintenance, relocation, removal, operation and inspection of such drainage and utility facilities, and related appurtenances.
7. A six (6) foot wide sidewalk shall be provided on both sides of Biltmore Avenue and on the north side of Helios Way. A ten (10) foot wide sidewalk shall be provided on the south side of Helios Way. Any construction associated with Helios Way and Biltmore Avenue will be required with the adjacent site development.
8. This subdivision is subject to all City of Pflugerville ordinances or technical manuals related to Tree Preservation per City Ordinance # 1203-15-02-24 and City Resolution # 1224-09-08-25-8A, both as amended.
9. The Community Impact Fee rate for water and wastewater will be assessed at the time of final plat.
10. On-site storm water facilities shall be provided to mitigate post-development peak runoff rates for the 2 year, 25 year and 100 year storm events.
11. All electric utility infrastructure including but not limited to telephone, cable television, electric utility lateral and service lines shall be installed underground and in accordance with the City of Pflugerville Engineering Design Manual, as amended.
12. The owner of this subdivision, and his or her successors and assigns, assumes responsibility for plans for construction of subdivision improvements which comply with applicable codes and requirements of the City of Pflugerville, as amended.
13. Construction plans and specifications for all subdivision improvements shall be reviewed and approved by the City of Pflugerville prior to any construction within the subdivision.
14. Site development construction plans shall be reviewed and approved by the City of Pflugerville prior to any construction.
15. On-site storm water facilities shall be provided to mitigate post-development peak runoff rates for the 2 year, 25 year and 100 year storm events.
16. No portion of this tract is within a flood hazard area as shown on the FEMA Flood Insurance Rate Map Panel #48453C0290J for Travis County, effective 8/14/2014.
17. All proposed fences, walls and landscaping adjacent to intersecting public roadway right-of-way or adjacent to private access drives shall be in compliance with the sight distance requirements of the City of Pflugerville Engineering Design Manual, as amended.
18. Wastewater and water systems shall conform to TCEQ (Texas Commission on Environmental Quality) and State Board of Insurance requirements. The owner understands and acknowledges that plat vacation or re-platting may be required at the owner's sole expense if plans to develop this subdivision do not comply with such codes and requirements.
19. All responsibility for the adequacy of these plans remains with the engineer who prepared them. In Reviewing these plans, the City of Pflugerville must rely on the adequacy of the work of the design engineer.
20. Driveways are anticipated to be located within the joint access easements, however remain subject to the cities driveway spacing requirements.
21. All proposed wastewater easements, public utility easements, and the drainage easement shown on this plan will be publicly owned and maintained. All joint access easements will be privately owned and maintained by the respective property owners.
22. Water for the site will be provided per engineering drawings associated with the Helios Way CIP Project. Wastewater will be provided by the City of Pflugerville. A new line will be constructed along Sunlinght Near Way which will connect to an existing 36" wastewater main that extends to the City of Pflugerville Wastewater Treatment Facility from the north.
23. Access to all lots associated with this plan is limited to Helios Way and Biltmore Avenue. Helios Way is the only access drive provided off of Sunlight Near Way. Biltmore Avenue is the only access drive provided off of E. Pecan Street.
24. A restrictive covenant shall be prepared by the developer and approved by the city prior to final plat approval and recordation of any lot within this preliminary plan which will require access through a joint use driveway.
25. The water utility plan is provided as part of the CIP Helios Way Extension Plan.
26. Where a residential use is proposed in this subdivision, the public parkland dedication and park development fee shall be calculated at a rate required by city ordinance #1203-15-02-24.
27. A multi-family land use is proposed for Lot 3/Block A and fee in lieu of parkland and the development fee will be provided with the final plat as approved by the parks and recreation commission on November 17, 2016. If additional residential is proposed in the future, additional parkland dedication and development fee will be required in accordance with the ordinance at that time.
28. All road improvements and pro-rata share shall be provided in accordance with the TIA associated with this plan. If it is determined that additional right of way may be needed, that shall be provided with the applicable final plat.
29. An update to the TIA has been waived for this submittal as the initial assumptions for the TIA have not changed. However, an update to the TIA will be required depending on cumulative land use in the subdivision. A TIA will be required at the time for Final Plat of Lots 2 and 3 of Block C to address the proposed joint access easement and potential 4-leg intersection at Biltmore Avenue and Helios Way.
30. Lot 2/Block A and Lot 3/Block A are intended to be commercial land use. A pass through sidewalk that traverses the site will be provided to meet UDC Section 15.16.6.C.
31. Roadway impact fee will be collected at the time of permitting in accordance with Chapter 152 of the City of Pflugerville Subdivision Ordinance.

Basis of bearings is the Texas Coordinate System of 1983, Central Zone 4203 (NAD83/2011).
All distances shown hereon are surface distances. The grid to surface adjustment scale factor is 1.00010. All units are U.S. Survey Feet.

Benchmark Notes

1) BM 10002
On inlet on East Pecan Street
N: 10129087.37
E: 3160328.11
Elv: 658.69

2) BM 10003
On Power Pole of Sunlight Nearway and East Pecan Street
N:10128860.06
E:3160754.71
Elv: 655.62

3) BM 10004
On Corner of North Corner of Sunlight Nearway on Helios Way.
N:10127545448
E:3160045.91
Elv: 660.60

SUBMITTAL DATE:

FIRST SUBMITTAL: JULY 17, 2023

STUDIES

STUDY	AUTHOR	DATE
ENGINEER'S REPORT (INCLUDING DRAINAGE REPORT AND WASTEWATER ANALYSIS)	MATTHEW K SUTHERLAND PE	5/23/2016
TRAFFIC IMPACT ANALYSIS (TIMMERMAN 75 ACRE & SH 130 COMMERCE CENTER)	VIVEK DESHPANDE PE	11/7/2016

STREET SUMMARY

STREET	ACREAGE	LENGTH (FT)	WIDTH (FT)
HELIOS WAY	1.03	936.48	48
BILTMORE AVENUE	1.69	1497.82	48, 59

DIMENSIONS MEASURED FROM FACE OF CURB TO FACE OF CURB.

LOT SUMMARY
AREA TABLE

BLOCK	ACREAGE	# LOTS
BLOCK A	20.31	6 LOTS
BLOCK B	9.22	5 LOTS
BLOCK C	39.65	3 LOTS
EXISTING STREETS (ROW)	4.17	0 LOT
TOTAL	73.35	14 LOTS

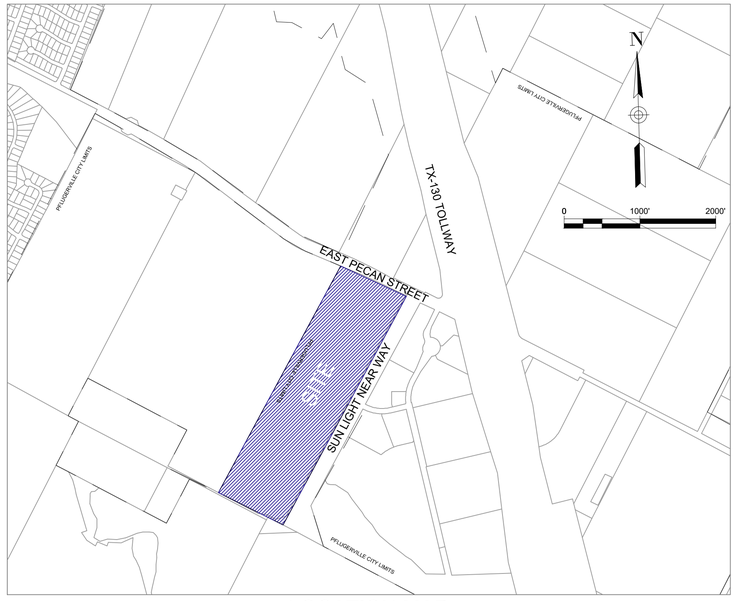
OWNER/SUBDIVIDER:
COMMERCE TEXAS PROPERTIES INC.
2490 FM 685, HUTTO, TX 78634

SURVEYOR:
HALFF ASSOCIATES, INC.
13620 BRIARWICK DR.
BUILDING C, SUITE 100
AUSTIN, TX 78729
(512)-777-4600
TBPLES FIRM #F-10029607

ENGINEER:
HALFF ASSOCIATES, INC.
13620 BRIARWICK DR.
BUILDING C, SUITE 100
AUSTIN, TX 78729
(512)-777-4600

CITY APPROVED REVISIONS & CORRECTIONS

NO.	DESCRIPTION	REVISE (R) ADD (A) VOID (V) SHEET NO.'S	DESIGN ENGINEER SIGNATURE	CITY OF PFLUGERVILLE APPROVAL	APPROVAL DATE



LOCATION MAP
1" = 1000'

SHEET LIST	
SHEET NO.	SHEET TITLE
1	COVER SHEET
2	GENERAL NOTES
3	PRELIMINARY PLAN
4	EXISTING CONDITIONS AND DRAINAGE AREA MAP
5	PROPOSED DRAINAGE AREA MAP
6	DETENTION POND CALCULATIONS
7	EXISTING CONDITIONS AND PROPOSED GRADING PLAN
8	OVERALL UTILITY PLAN
9	EXISTING WASTEWATER PLAN AND PROFILE (1 OF 9)
10	EXISTING WASTEWATER PLAN AND PROFILE (2 OF 9)
11	EXISTING WASTEWATER PLAN AND PROFILE (3 OF 9)
12	EXISTING WASTEWATER PLAN AND PROFILE (4 OF 9)
13	EXISTING WASTEWATER PLAN AND PROFILE (5 OF 9)
14	EXISTING WASTEWATER PLAN AND PROFILE (6 OF 9)
15	EXISTING WASTEWATER PLAN AND PROFILE (7 OF 9)
16	EXISTING WASTEWATER PLAN AND PROFILE (8 OF 9)
17	EXISTING WASTEWATER PLAN AND PROFILE (9 OF 9)
18	TREE SURVEY

SURVEYOR'S CERTIFICATION
STATE OF TEXAS:
KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF TRAVIS:

THAT I, ROBERT J. EGGERS, REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT I PREPARED THIS PLAN FROM AN ACTUAL AND ACCURATE ON-THE-GROUND SURVEY OF THE LAND, AND THAT THE CORNER MONUMENTS SHOWN THEREON MARKING THE BOUNDARY OF THE PROPOSED SUBDIVISION, BUT NOT INTERIOR LOT LINES, WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH ALL CITY OF PFLUGERVILLE, TEXAS CODES AND ORDINANCES AND THAT ALL KNOWN EASEMENTS WITHIN THE BOUNDARY OF THE PLAT ARE SHOWN HEREON.

Robert J. Eggers

ROBERT J. EGGERS
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 7006
09/09/2024

BASIS OF BEARINGS IS THE TEXAS COORDINATE SYSTEM OF 1983, CENTRAL ZONE 4203(NAD83/2011). ALL DISTANCES SHOWN HEREON ARE SURFACE AND MAY BE CONVERTED TO GRID BY USING THE SURFACE ADJUSTMENT FACTOR OF 1.00010. UNITS: U.S. SURVEY FEET.

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT OR REPORT. THE SURVEYOR HAS NOT ABSTRACTED THE SUBJECT PROPERTY, NOR MADE ANY INDEPENDENT INVESTIGATION OR SEARCH FOR EASEMENTS OF RECORD, RESTRICTIVE COVENANTS OR ANY OTHER ENCUMBRANCES.

CIVIL ENGINEER
halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL. (512) 777-4600

APPROVED BY:

DEVELOPMENT ENGINEERING, CITY OF PFLUGERVILLE — DATE

PLANNING AND DEVELOPMENT SERVICES DIRECTOR, CITY OF PFLUGERVILLE — DATE

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, THE CITY OF PFLUGERVILLE MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER

LEGAL DESCRIPTION: 73.35 ACRES SITUATED IN THE TS BARNES SURVEY ABSTRACT NO. 67.

BILTMORE SUBDIVISION
HELIOS WAY & BILTMORE AVE
PFLUGERVILLE, TEXAS 78660

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL. (512) 777-4600

Revision No.	Date	Description

STATE OF TEXAS
JAIME H. URQUIDI
106361
LICENSED
PROFESSIONAL ENGINEER
09/09/2024
F-312

STATE OF TEXAS
REGISTERED
Robert J. Eggers
7006
PROFESSIONAL
LAND SURVEYOR
09/09/2024

Robert J. Eggers

Project No.:	31018
Issued:	09/09/2024
Drawn By:	IMS
Checked By:	JU

Sheet Title

COVER SHEET

1 OF 18

Sheet Number

CASE NUMBER: PP2023-000051

CITY OF PFLUGERVILLE GENERAL CONSTRUCTION NOTES

EFFECTIVE OCTOBER 18, 2016

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PFLUGERVILLE STANDARD SPECIFICATIONS.
2. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF PFLUGERVILLE MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
3. DESIGN PROCEDURES SHALL BE IN COMPLIANCE WITH THE CITY OF PFLUGERVILLE ENGINEERING DESIGN GUIDELINES AND UNIFIED DEVELOPMENT CODE. ALL WAIVERS OR VARIANCES ARE LISTED BELOW:
4. AFTER THE CONSTRUCTION PERMIT HAS BEEN ISSUED AND PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS REPRESENTATIVE SHALL SCHEDULE A PRE-CONSTRUCTION CONFERENCE BETWEEN THE CITY OF PFLUGERVILLE, DESIGN ENGINEER, CONTRACTOR(S), TRAVIS COUNTY(IF IN THE ETJ), OTHER UTILITY COMPANIES, AND ANY OTHER AFFECTED PARTIES. THE CITY OF PFLUGERVILLE SHALL BE CONTACTED TO SET UP THE MEETING AT LEAST 3 BUSINESS DAYS PRIOR TO THE PROPOSED MEETING TIME (512-990-6300) AND AFTER RECEIVING BOTH THE REQUIRED NUMBER OF SIGNED PLANS AND THE SWP3.
5. THE CONTRACTOR SHALL GIVE THE CITY OF PFLUGERVILLE CONSTRUCTION INSPECTOR AT LEAST 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
6. ANY CHANGES OR REVISIONS TO THESE APPROVED PLANS MUST BE SUBMITTED BY THE DESIGN ENGINEER AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO CONSTRUCTION OF THE REVISION.
7. ANY EXISTING UTILITIES, PAVEMENT, CURBS, SIDEWALKS, STRUCTURES, TREES, ETC., NOT PLANNED FOR DESTRUCTION OR REMOVAL OR OTHER PUBLIC INFRASTRUCTURE DAMAGED OR REMOVED WILL BE BY THE CONTRACTOR AT HIS EXPENSE BEFORE ACCEPTANCE OF THE SUBDIVISION.
8. BENCHMARKS (TWO REQUIRED):
   SURFACE COORDINATES
   CP/BM#10002 ON INLET ON EAST PECAN STREET
   N: 10129087.37, E: 3160328.11, ELEV: 658.69
   CP/BM#10003 ON POWER POLE OF SUNLIGHT NEARWAY AND EAST PECAN STREET
   N: 10128860.06, E: 3160754.71, ELEV: 655.62
   CP/BM#10004 ON CORNER OF NORTH CORNER OF SUNLIGHT NEARWAY ON HELIOS WAY
   N: 101275454.48, E: 3170507.96, ELEV: 594.37
9. BLASTING OR BURNING SHALL NOT BE PERMITTED ON THIS PROJECT.
10. THE CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ANY DISCREPANCIES WITH THE CONSTRUCTION PLANS FOUND IN THE FIELD SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER IMMEDIATELY. THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR REVISING THE PLANS AS APPROPRIATE AND SUBMITTING A REVISION TO THE CITY. USE ONE CALL UTILITY SYSTEM: DIAL 1-800-344-8377, 48 HOURS BEFORE YOU DIG. FOR CITY OF PFLUGERVILLE WATER AND WASTEWATER UTILITY LOCATES, CALL 512-990-6400.
11. THE SUBGRADE MATERIAL IN KUEMPEL ESTATES WAS TESTED BY ALPHA TESTING ON DECEMBER 10, 2021 AND THE PAVING SECTIONS DESIGNED IN ACCORDANCE WITH GENERALLY ACCEPTED CRITERIA. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISION OF THE CONSTRUCTION PLANS. 3. MANHOLE FRAMES, COVERS, VALVES, CLEANOUTS, ETC. SHALL BE RAISED TO FINISHED GRADE PRIOR TO FINAL PAVING.
12. PRIOR TO FINAL ACCEPTANCE OF A STREET OUTSIDE THE CITY LIMITS, STREET NAME SIGNS CONFORMING TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES STANDARDS SHALL BE INSTALLED BY THE DEVELOPER.
13. THE CITY OF PFLUGERVILLE HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISLATION RELATED TO ACCESSIBILITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS.
14. EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF PFLUGERVILLE IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.
15. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE REVEGETATED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. REVEGETATION OF ALL DISTURBED AREAS OR EXPOSED AREAS SHALL CONSIST OF SODDING OR SEEDING; AT THE CONTRACTOR'S OPTION.
16. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT TEMPORARY EROSION CONTROLS ON A DAILY BASIS. ADJUST THE CONTROLS AND/OR REMOVE ANY SEDIMENT BUILDUP AS NECESSARY.
17. CONTRACTOR WILL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR VEHICLE BY MEANS OF WATER, ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE.
18. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL APPLY FOR AND SECURE ALL PROPER PERMITS FROM THE APPROPRIATE AUTHORITIES.
19. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTIONS(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.
20. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS SHALL BE SITE SPECIFIC AND BE SEALED BY A REGISTERED TEXAS PROFESSIONAL ENGINEER.
21. PRIOR TO SUBDIVISION CONSTRUCTION ACCEPTANCE, THE ENGINEER/DEVELOPER-OWNER SHALL SUBMIT TO THE CITY OF PFLUGERVILLE DOCUMENTATION THAT THE SUBDIVISION WAS INSPECTED BY TDLR OR A REGISTERED ACCESSIBILITY SPECIALIST (RAS) AND THE SUBDIVISION IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE TABA.
22. AN ENGINEER'S CONCURRENCE LETTER, RECORD DRAWINGS (ONE 22" X 34" FULL SIZE, TWO 11" X 17" HALF SIZE AND ONE DIGITAL COPY IN PDF FORMAT), WARRANTY BOND FOR 35% OF THE PUBLIC IMPROVEMENTS AND FINAL ASPHALT TEST REPORT SHALL BE SUBMITTED TO THE CITY OF PFLUGERVILLE ENGINEERING DEPARTMENT PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR SUBDIVISION ACCEPTANCE.

CITY OF PFLUGERVILLE STREET AND DRAINAGE NOTES:

1. ALL TESTING SHALL BE DONE BY AN INDEPENDENT LABORATORY AT THE EXPENSE OF THE CONTRACTOR OR OWNER. ANY TESTING SHALL BE PAID FOR BY THE CONTRACTOR. A CITY INSPECTOR SHALL BE PRESENT DURING ALL TESTS. TESTING SHALL BE COORDINATED WITH THE CITY INSPECTOR AND HE SHALL BE GIVEN A MINIMUM OF 24 HOURS NOTICE PRIOR TO ANY TESTING.
2. ALL MANHOLE LIDS SHALL BE 32" OR LARGER, UNLESS EXPRESSLY APPROVED IN WRITING BY THE CITY ENGINEER. ALL MANHOLE LIDS SHALL READ "CITY OF PFLUGERVILLE".
3. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000 PSI ~ 28 DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615-60.
4. WHERE PI'S ARE OVER 20, SUBGRADES MUST BE STABILIZED UTILIZING A METHOD ACCEPTABLE TO THE CITY ENGINEER. THE GEOTECHNICAL ENGINEER SHALL RECOMMEND AN APPROPRIATE SUBGRADE STABILIZATION IF SULFATES ARE DETERMINED TO BE PRESENT.
5. BARRICADES BUILT TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES STANDARDS SHALL BE CONSTRUCTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB AND PUBLIC SAFETY.
6. TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND INSTALLED AS DIRECTED BY THE CITY OF PFLUGERVILLE PRIOR TO CITY ACCEPTANCE OF THE SUBDIVISION.
7. BLUE REFLECTOR MARKERS SHALL BE LOCATED ON THE CENTERLINE OF THE PAVEMENT ACROSS FROM ALL FIRE HYDRANTS. PAVEMENT MARKERS AT INTERSECTIONS SHALL BE FOUR-SIDED.
8. ALL STORM SEWER SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED.
9. PROJECTS USING LIME STABILIZATION SHALL BE REQUIRED TO PLACE LIME IN SLURRY FORM.
10. REQUIRED MATERIAL TESTING:

    UTILITY TESTING REQUIREMENTS

    LABORATORY TESTING OF SOILS

    - MOISTURE DENSITY RELATIONSHIP (PROCTOR) (CITY OF PFLUGERVILLE SPECIFICATIONS G4.05(B) (TEX-114E))
    - ATTERBERG LIMITS (ASTM D4318)
    - FIELD SOIL GRADATIONS (CITY OF PFLUGERVILLE SPECIFICATIONS G4.04(B)(1))

    MOISTURE DENSITY FIELD TESTING

    - DENSITIES- WET UTILITIES (CITY OF PFLUGERVILLE SPECIFICATION G4.05(B))
    - DENSITIES- DRY UTILITIES (CITY OF PFLUGERVILLE SPECIFICATION G4.05(B))

    CONCRETE TESTING

    - CONCRETE CYLINDERS (CITY OF PFLUGERVILLE SPECIFICATIONS G4.04(C))

    STREETS TESTING REQUIREMENTS

    LABORATORY TESTING OF SOILS

    - MOISTURE DENSITY RELATIONSHIP (PROCTOR) (CITY OF PFLUGERVILLE SPECIFICATIONS SD3.06B (TEX-114E), SD4.04(B)(1) (TEX-113E))
    - ATTERBERG LIMITS (ASTM D4318)
    - FIELD SOIL GRADATIONS
    - LIME SERIES (CITY OF PFLUGERVILLE SPECIFICATIONS SD2.03(C), SD3.06(B))
    - SULFATE TESTING (CITY OF PFLUGERVILLE ENGINEERING DESIGN GUIDELINES SECTION DG2.3D- TABLE 2.2)

    MOISTURE DENSITY FIELD TESTING

    - LIME GRADATIONS (CITY OF PFLUGERVILLE SPECIFICATIONS SD2.03(C), SD3.06(B))
    - DENSITIES- SUBGRADE (CITY OF PFLUGERVILLE SPECIFICATION SD2.03(C), SD3.06(B))
    - DENSITIES- ROAD BASE (CITY OF PFLUGERVILLE SPECIFICATION SD4.06(B)(3)(A))

    HOT MIX ASPHALTIC CONCRETE TESTING

    - EXTRACTIONS/ GRADATIONS (CITY OF PFLUGERVILLE SPECIFICATION SD1.08(E)(2))
    - SPECIFIC GRAVITY OF MIX (CITY OF PFLUGERVILLE SPECIFICATION SD1.06(B), SD1.08(E)(2))
    - HVEEM STABILIES (SET OF 3) (CITY OF PFLUGERVILLE SPECIFICATION SD1.08(E)(2))
    - MOLDING SPECIMEN (SET OF 3) (CITY OF PFLUGERVILLE SPECIFICATION SD1.08(E)(2))
    - CORES FOR DENSITY (CITY OF PFLUGERVILLE SPECIFICATION SD1.08(E)(2))

    CONCRETE TESTING

    - CONCRETE CYLINDERS (ASTM C31, C39)

    MISCELLANEOUS CONCRETE TESTING REQUIREMENTS (CITY OF PFLUGERVILLE SPECIFICATION C2.05)

CITY OF PFLUGERVILLE WATER AND WASTEWATER NOTES:

1. PIPE MATERIAL FOR WATER MAINS SHALL BE PVD (AWWA C-900, MIN CLASS 150), OR DUCTILE IRON (AWWA C-100, MIN 150). WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (200 PSI, DR9).
2. PIPE MATERIAL FOR PRESSURE WASTEWATER MAINS SHALL BE PVC (AWWA C-900, MIN. CLASS 150) OR DUCTILE IRON (AWWA C-100, MIN. CLASS 150). PIPE MATERIAL FOR GRAVITY WASTEWATER MAINS SHALL BE PVC (SDR 26). SDR-35 WASTEWATER IS NOT ALLOWED IN THE RIGHT OF WAY OR PUBLIC EASEMENT.
3. ALL WASTEWATER MAIN, EXCLUDING SERVICE LINES, SHALL BE MANDREL TESTED PER TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) CRITERIA. A MANDREL TEST WILL NOT BE PERFORMED UNTIL BACKFILL HAS BEEN IN PLACE FOR A MINIMUM 30 DAYS.
4. WATER LINES SHALL HAVE A MINIMUM FORTY-EIGHT 48 INCHES OF COVER MEASURED FROM EITHER THE TOP OF THE PIPE OR VALVE ACTUATING NUT (WHICHEVER IS APPLICABLE) TO THE FINISHED GROUND SURFACE. WASTEWATER LINES SHALL HAVE A MINIMUM OF 48 INCHES OF COVER BELOW THE ACTUAL SUBGRADE. THE SEPARATION BETWEEN WASTEWATER MAINS AND OTHER UTILITIES SHALL BE IN ACCORDANCE WITH THE RULES ADOPTED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.
5. WHERE A WATER OR WASTEWATER LINE CROSSES BELOW A STORM SEWER STRUCTURE AND THE TOP OF THE PIPE IS WITHIN 18" OF THE BOTTOM OF THE UTILITY STRUCTURE, THE PIPE SHALL BE ENCASED WITH CONCRETE FOR A DISTANCE OF AT LEAST 1' ON EITHER SIDE OF THE DITCH LINE OF THE UTILITY STRUCTURE OR THE STORM SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED FOR DUCTILE IRON PIPE WITH SIZES LARGER THAN 12". CONCRETE ENCASEMENT SHALL CONFORM TO THE CITY OF PFLUGERVILLE STANDARD DETAIL.
6. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON RING AND COVER. ALL MANHOLES LOCATED OUTSIDE OF THE PAVEMENT SHALL BE BOLTED COVERS. TAPPING OF FIBERGLASS MANHOLES SHALL NOT BE ALLOWED. ALL MANHOLES SHALL BE COATED WITH 10 MIL OF RAVEN LINING SYSTEM OR APPROVED EQUAL.
7. ALL PIPE BEDDING MATERIAL SHALL CONFORM TO THE CITY OF PFLUGERVILLE STANDARD DETAIL.
8. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C-100, MIN. CLASS 150).
9. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH A MINIMUM 8-MIL POLYETHYLENE FILM PRIOR TO PLACING CONCRETE.
10. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR TO COORDINATE UTILITY TIE-INS AND NOTIFY HIM AT LEAST 48 HOURS PRIOR TO CONNECTION TO EXISTING LINES.
11. THE CONTRACTOR, AT HIS EXPENSE, SHALL PERFORM QUALITY TESTING FOR ALL WASTEWATER PIPE INSTALLED AND PRESSURE PIPE HYDROSTATIC TESTING OF ALL WATER LINES CONSTRUCTED AND SHALL PROVIDE EQUIPMENT INCLUDED PUMPS, GAUGES, SUPPLIES, AND LABOR NECESSARY TO PERFORM THE TESTS. QUALITY AND PRESSURE TESTING SHALL BE MONITORED BY CITY OF PFLUGERVILLE PERSONNEL. WATER SAMPLES WILL BE COLLECTED BY THE CITY OF PFLUGERVILLE TO VERIFY EACH TREATED LINE HAS ATTAINED AN INITIAL CHLORINE CONCENTRATION OF 50 PPM.
12. THE CONTRACTOR SHALL COORDINATE TESTING WITH THE CITY OF PFLUGERVILLE AND PROVIDE NO LESS THAN 24 HOURS NOTICE PRIOR TO PERFORMING STERILIZATION, QUALITY TESTING OR PRESSURE TESTING.
13. THE CONTRACTOR SHALL NOT OPEN OR CLOSE ANY VALVES UNLESS AUTHORIZED BY THE CITY OF PFLUGERVILLE.
14. ALL VALVE BOXES AND COVERS SHALL BE CAST IRON.
15. A DOUBLE CHECK BACKFLOW DEVICE IN A VAULT SHALL BE INSTALLED ADJACENT THE RIGHT OF WAY OR PUBLIC EASEMENT ON PRIVATE PROPERTY ON ALL PRIVATE FIRE LINES.
16. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY MARKED AS FOLLOWS:

WATER SERVICE	"W" ON TOP OF CURB
WASTEWATER SERVICE	"S" ON TOP OF CURB
VALVE	"V" ON FACE OF CURB

17. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 A.M. AND 6 A.M.
18. ALL FIRE HYDRANTS SHALL BE NATIONAL STANDARD HOSE THREAD.
19. ALL MATERIAL TESTS, INCLUDING SOIL DENSITY TESTS AND RELATED SOIL ANALYSIS, SHALL BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY FUNDED BY THE DEVELOPER IN ACCORDANCE WITH THE SPECIFICATIONS.
20. THE CITY ONLY PROVIDES UP TO A 2" DISPLACEMENT METER. LARGER METERS MUST BE SUPPLIED BY THE CONTRACTOR AND MUST INCLUDE THE NEPTUNE E-CODER R900I READER SYSTEM. TURBINE METERS SHALL NOT BE USED EXCEPT FOR NEPTUNE PROTECTUS III OR NEPTUNE TRUFLOW. THE LOW FLOW SIDE OF THE PROTECTUS III MUST BE A T-10 POSITIVE DISPLACEMENT METER. FOR QUESTIONS CONCERNING METER SELECTION, PLEASE CONTACT THE CITY'S DEVELOPMENT ENGINEERING DEPARTMENT AT 512-990-6300.

CITY OF PFLUGERVILLE STANDARD UNDERGROUND UTILITY NOTES

1. ALL NEW TELECOMMUNICATION UTILITY LINES AND ALL NEW ELECTRIC UTILITY LATERAL AND SERVICES LINES AND WIRES SHALL BE PLACED UNDERGROUND, EXCEPT AS OTHERWISE PERMITTED BY THE CITY. ALL SUCH UTILITIES SHALL BE INSTALLED OUTSIDE CITY OF PFLUGERVILLE RIGHT-OF-WAY IN A PUBLIC UTILITY EASEMENT (P.U.E.) OR SPECIFIC USE PERMIT.
2. WHERE ELECTRICAL SERVICE IS TO BE PLACED UNDERGROUND, ELECTRIC UTILITY SERVICES LINES FOR STREET OR SITE LIGHTING SHALL ALSO BE PLACED UNDERGROUND.
3. ALL ELECTRICAL, CABLE TELEVISION, AND TELEPHONE SUPPORT EQUIPMENT (TRANSFORMERS, AMPLIFIERS, SWITCHING DEVICES, ETC.) NECESSARY FOR UNDERGROUND INSTALLATIONS IN SUBDIVISIONS SHALL BE PAD MOUNTED OR PLACED UNDERGROUND IN A PUBLIC UTILITY EASEMENT RATHER THAN A RIGHT-OF-WAY.
4. NOTHING HEREIN SET FORTH SHALL PROHIBIT OR RESTRICT ANY UTILITY COMPANY FROM RECOVERING THE DIFFERENCE BETWEEN THE COST OF OVERHEAD FACILITIES AND UNDERGROUND FACILITIES. THE SUBDIVIDER SHALL BE REQUIRED TO REIMBURSE THE UTILITY COMPANY FOR SUCH COST DIFFERENTIAL.
5. EACH UTILITY COMPANY WHOSE FACILITIES ARE SUBJECT TO THE PROVISIONS OF THE CITY'S ENGINEERING DESIGN MANUAL SHALL DEVELOP POLICIES AND COST REIMBURSEMENT PROCEDURES WITH RESPECT TO THE INSTALLATION AND EXTENSION OF UNDERGROUND SERVICE.
6. TELEPHONE AND CABLE TELEVISION LINES MAY BE CONSTRUCTED OVERHEAD WHEN OVERHEAD ELECTRIC UTILITY LINES ARE PERMITTED PER THE ENGINEERING DESIGN MANUAL, MISCELLANEOUS DESIGN (REVISED 02/24/15) GUIDELINES DG9-2.
7. NOTWITHSTANDING THE PROVISIONS OF THE ENGINEERING DESIGN MANUAL, TEMPORARY CONSTRUCTION SERVICE MAY BE PROVIDED BY OVERHEAD UTILITY LINES AND FACILITIES WITHOUT OBTAINING A VARIANCE OR EXCEPTION FROM THE PROVISIONS OF THE ENGINEERING DESIGN MANUAL.
8. ALL UTILITY INSTALLATIONS REGULATED BY THE PROVISION OF THE ENGINEERING DESIGN MANUAL, AS AMENDED, SHALL CONFIRM TO ALL CITY OF PFLUGERVILLE ORDINANCES AND REGULATIONS, AS WELL AS THE REGULATIONS AND SPECIFICATIONS OF THE APPLICABLE UTILITY COMPANIES.

THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING SIZE, TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT THE PFLUGERVILLE AREA "ONE CALL" SYSTEM AT 1-800-344-8377 (DIG TESS) 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION FOR EXISTING UTILITY LOCATIONS. THE CONTRACTOR SHALL ALSO BE FULLY RESPONSIBLE FOR FIELD VERIFYING LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES. AND SHALL IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR- DAMAGED UTILITIES TO THE UTILITY COMPANY'S APPROVAL AT THE EXPENSE OF THE CONTRACTOR.

BILTMORE SUBDIVISION
HELIOS WAY & BILTMORE AVE
PFLUGERVILLE, TEXAS 78660

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL. (512) 777-4600

Revision No.	Date	Description

STATE OF TEXAS
JAIME H. URQUIDI
106361
LICENSED
PROFESSIONAL ENGINEER
09/09/2024
F-312

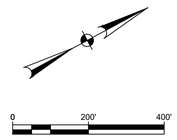
Project No.:	31018
Issued:	09/09/2024
Drawn By:	IMS
Checked By:	JU

Sheet Title

GENERAL NOTES

2 OF 18
Sheet Number

CASE NUMBER: PP2023-000051



LEGEND

- PROP. PROPERTY LINE
- PROP. LOT LINE
- EX. PROPERTY LINE
- PROP. RIGHT OF WAY
- PROP. EASEMENT LINE
- EX. WATER LINE
- EX. WASTEWATER LINE
- EX. FORCE MAIN
- EX. FENCE LINE
- EX. OVERHEAD ELECTRIC
- EX. POWER POLE
- EX. SIGN
- EX. STORM SEWER
- 1/2" IRON ROD FOUND OR OTHERWISE NOTED
- SET 1/2" IRON ROD W/ HALFF CAP OR OTHERWISE NOTED
- BENCHMARK
- CALCULATED POINT
- SIDE WALK EDGE (MIN. 6') (ADJACENT SITE DEVELOPMENT)
- 275' LOT BOUNDARY LENGTH DIMENSION
- 275' EASEMENT LENGTH DIMENSION
- ( ) RECORD INFORMATION

NOTE:

1. DETENTION POND AND WASTEWATER LINE A WERE CONSTRUCTED AND APPROVED BY THE CITY OF PFLUGERVILLE ON MARCH 23, 2017. PERMIT NUMBER: CON1606-02
2. FUTURE WASTEWATER LINE TO BE CONSTRUCTED WITH FUTURE DEVELOPMENT MUST BE SUBMITTED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO FINAL PLAT RECORDATION.

LOT DESCRIPTION

Block	LOT #	ACRES
A	1	1.85
A	2	1.95
A	3	12.28
A	4	1.73
A	5	1.50
A	6	1.00
B	1	2.07
B	2	1.73
B	3	1.82
B	4	1.86
B	5	1.74
C	1	1.96
C	2	13.29
C	3	24.40

LOT SUMMARY

AREA TABLE

BLOCK	ACREAGE	# LOTS	LAND USE
BLOCK A	20.31	6 LOTS	MIXED-DENSITY NEIGHBORHOOD
BLOCK B	9.22	5 LOTS	MIXED-DENSITY NEIGHBORHOOD
BLOCK C	39.65	3 LOTS	EMPLOYMENT
EXISTING STREETS (ROW)	4.17	0 LOT	
TOTAL	73.35	14 LOTS	

STUDIES

STUDY	AUTHOR	DATE
ENGINEER'S REPORT (INCLUDING DRAINAGE REPORT AND WASTEWATER ANALYSIS)	MATTHEW K SUTHERLAND PE	5/23/2016
TRAFFIC IMPACT ANALYSIS (TIMMERMAN 75 ACRE & SH 130 COMMERCE CENTER)	VIVEK DESHPANDE PE	11/7/2016

OWNER/SUBDIVIDER:
COMMERCE TEXAS PROPERTIES INC.
2490 FM 685, HUTTO, TX 78634

SURVEYOR:
HALFF ASSOCIATES, INC.
13620 BRIARWICK DR.
BUILDING C, SUITE 100
AUSTIN, TX 78729
(512)-777-4600
TBPLES FIRM #F-10029607

ENGINEER:
HALFF ASSOCIATES, INC.
13620 BRIARWICK DR.
BUILDING C, SUITE 100
AUSTIN, TX 78729
(512)-777-4600

NOTE:
No portion of this tract is within a flood hazard area as shown on the FEMA Flood Insurance Rate Map Panel #48453C0290J for Travis County, effective 8/14/2014.

THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING SIZE, TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT THE PFLUGERVILLE AREA "ONE CALL" SYSTEM AT 1-800-344-8377 (DIG TESS) 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION FOR EXISTING UTILITY LOCATIONS. THE CONTRACTOR SHALL ALSO BE FULLY RESPONSIBLE FOR FIELD VERIFYING LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES, AND SHALL IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR- DAMAGED UTILITIES TO THE UTILITY COMPANY'S APPROVAL AT THE EXPENSE OF THE CONTRACTOR.

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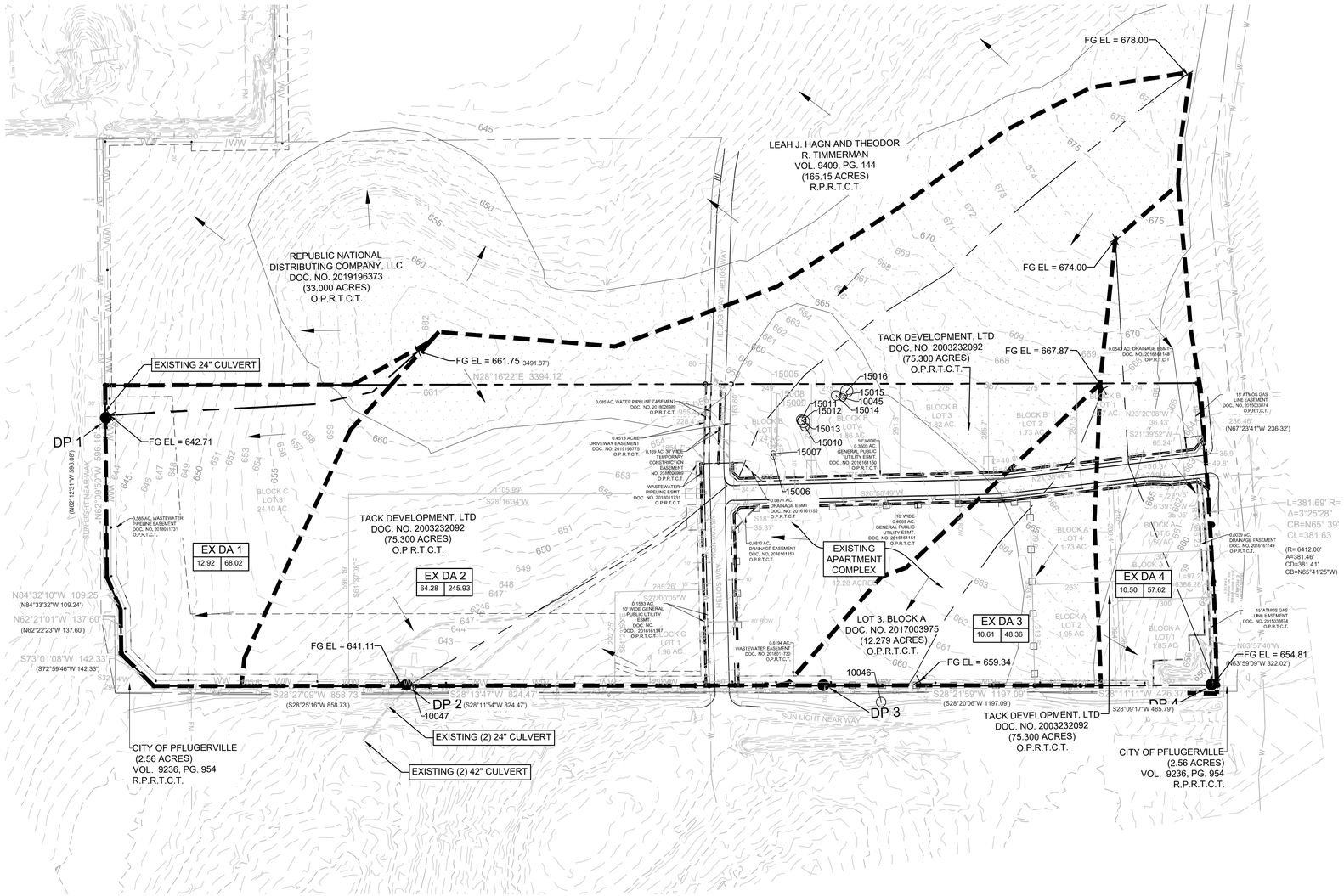
Sheet Title

PRELIMINARY PLAN

3 OF 18

Sheet Number

CASE NUMBER: PP2023-000051



0 200' 400'

LEGEND

- XXX — XXX — EXISTING CONTOUR
- FLOW ARROW
- DRAINAGE BOUNDARY
- TIME OF CONCENTRATION
- EASEMENT
- WW — WW — EX. WASTEWATER LINE
- WW FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- OE — OE — EX. OVERHEAD ELECTRIC
- FM — FM — EX. FORCE WATER MAIN
- DP X DESIGN POINT
- TYPE C SOIL

DRAINAGE AREA (ACRES) — DRAINAGE BASIN NO.

EX DA X | XX.XX | XX.XX

25 YEAR Q(CFS)

NOTE:

1. DETENTION POND AND WASTEWATER LINE A WERE CONSTRUCTED AND APPROVED BY THE CITY OF PFLUGERVILLE ON MARCH 23, 2017. PERMIT NUMBER: CON1606-02
2. FUTURE WASTEWATER LINE TO BE CONSTRUCTED WITH FUTURE DEVELOPMENT MUST BE SUBMITTED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO FINAL PLAT RECORDATION.

NOTE:

THERE WILL BE NO DEMOLITION ON THE SITE.

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Sheet Title
EXISTING CONDITIONS AND DRAINAGE AREA MAP

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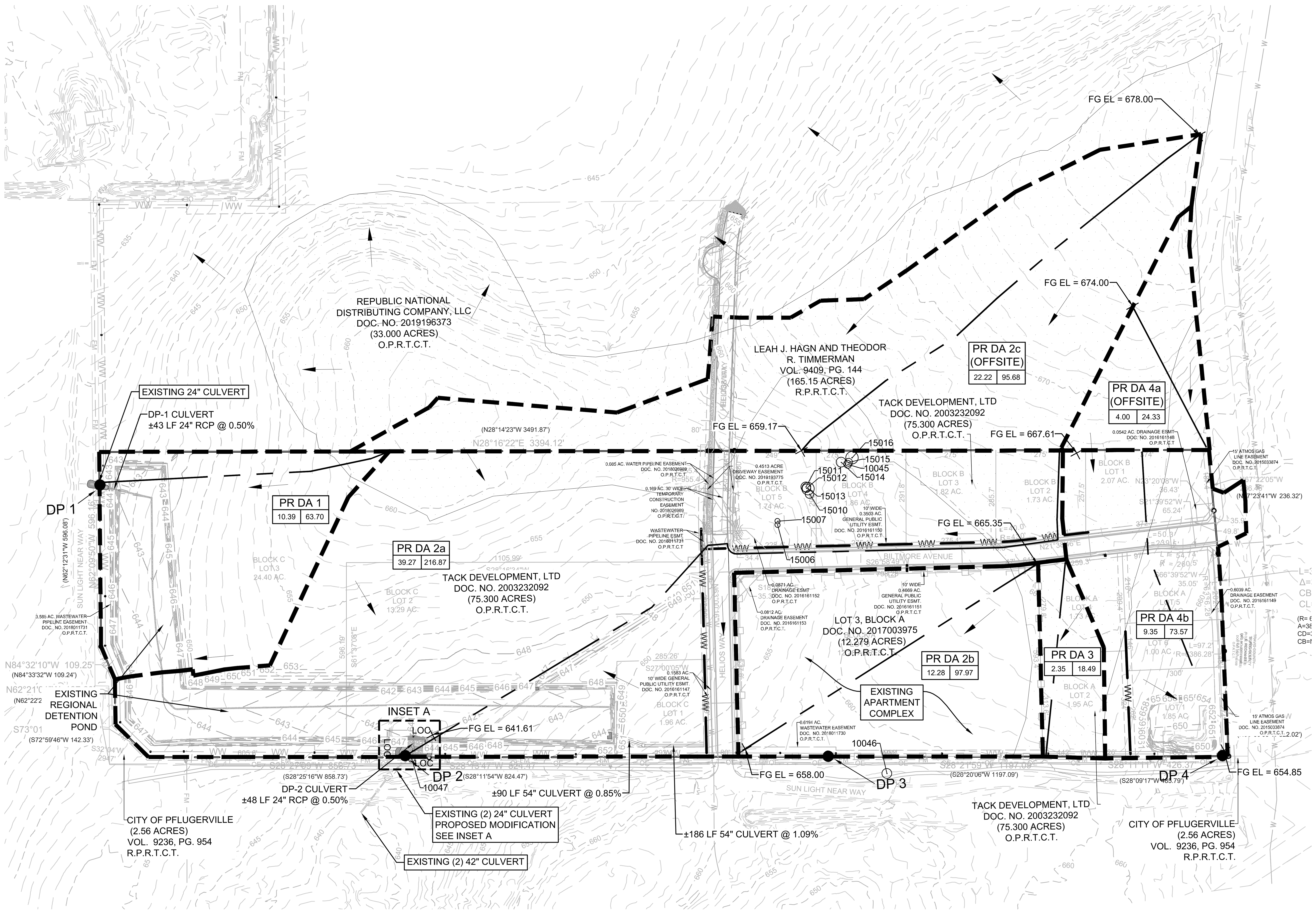
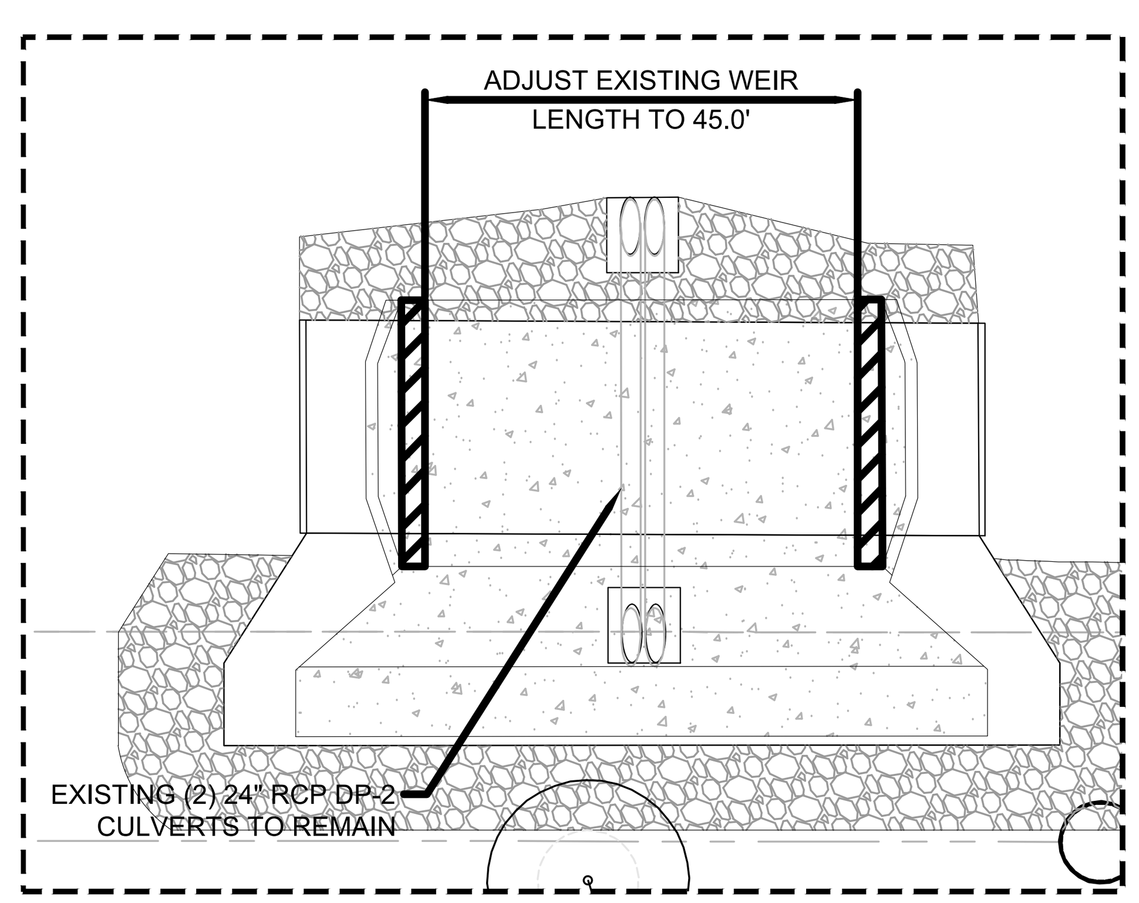
Sheet Number

CASE NUMBER: PP2023-000051





INSET A
POND DP -2 PROPOSED OUTFALL STRUCTURE
WEIR MODIFICATION

N.T.S.

LEGEND

- EXISTING CONTOUR
- FLOW ARROW
- DRAINAGE BOUNDARY
- TIME OF CONCENTRATION
- EASEMENT
- EX. WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- EX. OVERHEAD ELECTRIC
- EX. FORCE WATER MAIN
- DP X — DESIGN POINT
- TYPE C SOIL
- PR DA X / XX.XX / XX.XX — DRAINAGE BASIN NO.; DRAINAGE AREA (ACRES); 25 YEAR Q(CFS)

NOTE:

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2. FUTURE WASTEWATER LINE TO BE CONSTRUCTED WITH FUTURE DEVELOPMENT MUST BE SUBMITTED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO FINAL PLAT RECORDATION.

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Sheet Title
PROPOSED DRAINAGE AREA MAP

CASE NUMBER: PP2023-000051

2 - YEAR STORM

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	26.41	2	732	116,954	-------	-------	-------	EX DA 1
2	SCS Runoff	93.19	2	746	559,530	-------	-------	-------	EX DA 2
3	SCS Runoff	18.33	2	738	90,261	-------	-------	-------	EX DA 3
4	SCS Runoff	21.97	2	730	89,433	-------	-------	-------	EX DA 4
5	SCS Runoff	29.63	2	730	129,180	-------	-------	-------	PR DA 1
6	Reservoir	7.721	2	744	129,179	5	643.50	39,489	POND DP 1 OUT
7	SCS Runoff	100.61	2	734	508,131	-------	-------	-------	PR DA 2a
8	SCS Runoff	46.76	2	724	159,430	-------	-------	-------	PR DA 2b
9	SCS Runoff	35.47	2	740	185,183	-------	-------	-------	PR DA 2c (OFFSITE)
10	Combine	149.70	2	734	841,255	7, 8, 9	-------	-------	TO POND DP 2
11	Reservoir	46.48	2	766	841,254	10	644.03	278,223	POND DP 2 OUT
12	SCS Runoff	8.523	2	724	27,318	-------	-------	-------	PR DA 3
13	SCS Runoff	9.103	2	728	34,883	-------	-------	-------	PR DA 4a
14	SCS Runoff	33.91	2	724	108,692	-------	-------	-------	PR DA 4b
15	Combine	41.50	2	724	143,575	13, 14	-------	-------	TO POND DP 4
16	Reservoir	15.20	2	742	143,568	15	651.47	32,318	POND DP 4 OUT

10 - YEAR STORM

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	50.26	2	732	226,149	-------	-------	-------	EX DA 1
2	SCS Runoff	180.51	2	746	1,096,960	-------	-------	-------	EX DA 2
3	SCS Runoff	35.46	2	738	177,405	-------	-------	-------	EX DA 3
4	SCS Runoff	42.37	2	730	175,113	-------	-------	-------	EX DA 4
5	SCS Runoff	49.22	2	730	220,753	-------	-------	-------	PR DA 1
6	Reservoir	14.59	2	754	220,752	5	644.09	69,273	POND DP 1 OUT
7	SCS Runoff	167.48	2	734	869,336	-------	-------	-------	PR DA 2a
8	SCS Runoff	76.14	2	724	264,169	-------	-------	-------	PR DA 2b
9	SCS Runoff	69.83	2	740	368,637	-------	-------	-------	PR DA 2c (OFFSITE)
10	Combine	259.12	2	734	1,481,059	7, 8, 9	-------	-------	TO POND DP 2
11	Reservoir	117.13	2	758	1,481,057	10	645.04	494,984	POND DP 2 OUT
12	SCS Runoff	14.26	2	724	47,170	-------	-------	-------	PR DA 3
13	SCS Runoff	17.81	2	728	69,087	-------	-------	-------	PR DA 4a
14	SCS Runoff	56.73	2	724	187,675	-------	-------	-------	PR DA 4b
15	Combine	71.87	2	724	256,762	13, 14	-------	-------	TO POND DP 4
16	Reservoir	20.86	2	746	256,755	15	652.82	67,496	POND DP 4 OUT

25 - YEAR STORM

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	68.02	2	732	310,324	-------	-------	-------	EX DA 1
2	SCS Runoff	245.93	2	746	1,513,137	-------	-------	-------	EX DA 2
3	SCS Runoff	48.36	2	736	244,945	-------	-------	-------	EX DA 3
4	SCS Runoff	57.62	2	730	241,434	-------	-------	-------	EX DA 4
5	SCS Runoff	63.70	2	730	289,245	-------	-------	-------	PR DA 1
6	Reservoir	17.36	2	756	289,245	5	644.37	93,664	POND DP 1 OUT
7	SCS Runoff	216.87	2	734	1,139,542	-------	-------	-------	PR DA 2a
8	SCS Runoff	97.97	2	724	342,261	-------	-------	-------	PR DA 2b
9	SCS Runoff	95.68	2	740	511,444	-------	-------	-------	PR DA 2c (OFFSITE)
10	Combine	340.60	2	734	1,964,938	7, 8, 9	-------	-------	TO POND DP 2
11	Reservoir	202.32	2	752	1,964,936	10	645.45	596,205	POND DP 2 OUT
12	SCS Runoff	18.49	2	724	62,041	-------	-------	-------	PR DA 3
13	SCS Runoff	24.33	2	728	95,665	-------	-------	-------	PR DA 4a
14	SCS Runoff	73.57	2	724	246,843	-------	-------	-------	PR DA 4b
15	Combine	94.40	2	724	342,507	13, 14	-------	-------	TO POND DP 4
16	Reservoir	31.16	2	744	342,500	15	653.73	93,392	POND DP 4 OUT

RAINFALL PRECIPITATION TABLE (IN)				
	2-YR	10-YR	25-YR	100-YR
SCS 24-HOUR	4.05	6.56	8.43	11.90

100 - YEAR STORM

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	100.67	2	732	469,144	-------	-------	-------	EX DA 1
2	SCS Runoff	366.43	2	746	2,300,254	-------	-------	-------	EX DA 2
3	SCS Runoff	72.15	2	736	372,742	-------	-------	-------	EX DA 3
4	SCS Runoff	85.66	2	730	366,840	-------	-------	-------	EX DA 4
5	SCS Runoff	90.44	2	730	416,561	-------	-------	-------	PR DA 1
6	Reservoir	21.90	2	758	416,560	5	644.94	142,674	POND DP 1 OUT
7	SCS Runoff	308.06	2	734	1,641,845	-------	-------	-------	PR DA 2a
8	SCS Runoff	138.44	2	724	487,215	-------	-------	-------	PR DA 2b
9	SCS Runoff	143.35	2	740	782,291	-------	-------	-------	PR DA 2c (OFFSITE)
10	Combine	491.18	2	734	2,869,584	7, 8, 9	-------	-------	TO POND DP 2
11	Reservoir	362.36	2	748	2,869,585	10	646.07	745,226	POND DP 2 OUT
12	SCS Runoff	26.30	2	724	89,703	-------	-------	-------	PR DA 3
13	SCS Runoff	36.36	2	728	146,024	-------	-------	-------	PR DA 4a
14	SCS Runoff	104.63	2	724	356,903	-------	-------	-------	PR DA 4b
15	Combine	135.97	2	724	502,927	13, 14	-------	-------	TO POND DP 4
16	Reservoir	79.48	2	732	502,920	15	654.36	112,628	POND DP 4 OUT

Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Monday, 01 / 13 / 2020

Pond No. 2 - POND DP 1

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 641.60 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	641.60	00	0	0
0.40	642.00	651	87	87
1.40	643.00	29,764	11,604	11,691
2.40	644.00	72,848	49,721	61,412
3.40	645.00	100,290	86,196	147,607
4.40	646.00	104,843	102,548	250,155
5.40	647.00	109,119	106,963	357,118
5.90	647.50	111,271	55,091	412,210

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	0.00	0.00	0.00
Span (in)	= 24.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 641.60	0.00	0.00	0.00
Length (ft)	= 43.00	0.00	0.00	0.00
Slope (%)	= 0.44	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 1.00	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	641.60	0.00	---	---	---	---	---	---	---	---	---	0.000
0.40	87	642.00	0.92 oc	---	---	---	---	---	---	---	---	---	0.921
1.40	11,691	643.00	5.91 oc	---	---	---	---	---	---	---	---	---	5.913
2.40	61,412	644.00	13.58 oc	---	---	---	---	---	---	---	---	---	13.58
3.40	147,607	645.00	22.30 oc	---	---	---	---	---	---	---	---	---	22.30
4.40	250,155	646.00	28.47 oc	---	---	---	---	---	---	---	---	---	28.47
5.40	357,118	647.00	33.52 oc	---	---	---	---	---	---	---	---	---	33.52
5.90	412,210	647.50	35.78 oc	---	---	---	---	---	---	---	---	---	35.78

Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Monday, 01 / 13 / 2020

Pond No. 3 - POND DP 2

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 640.53 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	640.53	00	0	0
0.47	641.00	1,429	336	336
1.47	642.00	48,544	24,986	25,322
2.47	643.00	124,036	86,290	111,612
3.47	644.00	194,442	159,239	270,851
4.47	645.00	236,330	215,386	486,237
5.47	646.00	247,018	241,674	727,911
6.47	647.00	262,552	254,785	982,696
6.97	647.50	280,020	135,643	1,118,339

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	0.00	0.00	0.00
Span (in)	= 24.00	0.00	0.00	0.00
No. Barrels	= 2	0	0	0
Invert El. (ft)	= 640.53	0.00	0.00	0.00
Length (ft)	= 48.00	0.00	0.00	0.00
Slope (%)	= 0.57	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 1.00	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 45.00	0.00	0.00	0.00
Crest El. (ft)	= 644.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	640.53	0.00	---	---	---	0.00	---	---	---	---	---	0.000
0.47	336	641.00	2.84 oc	---	---	---	0.00	---	---	---	---	---	2.836
1.47	25,322	642.00	14.84 oc	---	---	---	0.00	---	---	---	---	---	14.84
2.47	111,612	643.00	30.06 oc	---	---	---	0.00	---	---	---	---	---	30.06
3.47	270,851	644.00	46.03 oc	---	---	---	0.00	---	---	---	---	---	46.03
4.47	486,237	645.00	57.74 oc	---	---	---	52.98	---	---	---	---	---	110.72
5.47	727,911	646.00	67.45 oc	---	---	---	275.29	---	---	---	---	---	342.74
6.47	982,696	647.00	75.93 oc	---	---	---	592.33	---	---	---	---	---	668.26
6.97	1,118,339	647.50	79.83 oc	---	---	---	778.64	---	---	---	---	---	858.47

Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Tuesday, 01 / 14 / 2020

Pond No. 4 - POND DP 4

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 649.26 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	649.26	00	0	0
0.74	650.00	10,120	3,744	3,744
1.74	651.00	23,912	17,016	20,760
2.74	652.00	25,733	24,822	45,583
3.74	653.00	27,901	26,817	72,400
4.74	654.00	29,953	28,927	101,327
5.74	655.00	32,005	30,979	132,306
6.04	655.30	32,606	9,692	141,997

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 18.00	12.00	0.00	0.00
Span (in)	= 18.00	12.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 649.26	649.26	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 20.00	0.00	0.00	0.00
Crest El. (ft)	= 653.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	649.26	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.74	3,744	650.00	2.55 ic	1.83 ic	---	---	0.00	---	---	---	---	---	4.372
1.74	20,760	651.00	8.47 ic	4.21 ic	---	---	0.00	---	---	---	---	---	12.68
2.74	45,583	652.00	12.00 ic	5.66 ic	---	---	0.00	---	---	---	---	---	17.66
3.74	72,400	653.00	14.71 ic	6.81 ic	---	---	0.00	---	---	---	---	---	21.52
4.74	101,327	654.00	16.99 ic	7.79 ic	---	---	23.55	---	---	---	---	---	48.33
5.74	132,306	655.00	19.00 ic	8.66 ic	---	---	122.35	---	---	---	---	---	150.01
6.04	141,997	655.30	19.57 ic	8.90 ic	---	---	160.83	---	---	---	---	---	189.30

HYDROGRAPH INPUT CONDITIONS			
	AREA	T_C	CN
EX DA 1	12.92	18.50	84.9
EX DA 2	64.28	37.80	83.8
EX DA 3	10.61	25.70	83.6
EX DA 4	10.50	15.30	83.9
PR DA 1	10.39	16.40	95.3
PR DA 2a	39.27	21.10	95.2
PR DA 2b	12.28	5.00	98.0
PR DA 2c (OFFSITE)	22.22	28.20	82.6
PR DA 3	2.35	5.00	94.4
PR DA 4a (OFFSITE)	4.00	12.73	83.0
PR DA 4b	9.35	5.00	94.4

DP 1 STORMWATER RUNOFF SUMMARY				
	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)
EXISTING DISCHARGE	26.41	50.26	68.02	100.67
TOTAL PROPOSED DISCHARGE	7.72	14.59	17.36	21.90
ΔQ	-18.69	-35.67	-50.66	-78.77

DP 2 STORMWATER RUNOFF SUMMARY				
	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)
EXISTING DISCHARGE	93.19	180.51	245.93	366.43
TOTAL PROPOSED DISCHARGE	46.48	117.13	202.32	362.36
ΔQ	-46.71	-63.38	-43.61	-4.07

DP 3 STORMWATER RUNOFF SUMMARY				
	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)
EXISTING DISCHARGE	18.33	35.46	48.36	72.15
TOTAL PROPOSED DISCHARGE	8.52	14.26	18.49	26.30
ΔQ	-9.81	-21.20	-29.87	-45.85

DP 4 STORMWATER RUNOFF SUMMARY				
	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)
EXISTING DISCHARGE	21.97	42.37	57.62	85.66
TOTAL PROPOSED DISCHARGE	15.20	20.86	31.16	79.48
ΔQ	-6.77	-21.51	-26.46	-6.18

POND SUMMARY			
	TOP OF POND	100-YR WSEL	FREEBOARD
POND DP 1	647.50	644.94	2.56
POND DP 2	647.50	646.07	1.43
POND DP 4	655.30	654.36	0.94

STORMWATER DESIGN METHODOLOGIES:

1. STORMWATER RUNOFF RATES FOR THE PRE AND POST DEVELOPMENT CONDITIONS WERE COMPUTED USING THE SOIL CONSERVATION SERVICES (SCS) UNIT HYDROGRAPH WITHIN THE AUTOCAD CIVIL 3D HYDROGRAPHS EXTENSION.
2. A STANDARD UNIT HYDROGRAPH (SHAPE FACTOR 484) WAS USED.
3. THE SCS 24-HOUR STORM WAS UTILIZED USING PRECIPITATION VALUES FROM NOAA ATLAS 14. THE SCS STORM WAS OF TYPE III DISTRIBUTION WITH A TIME INTERVAL OF TWO MINUTES.
4. COMPOSITE RUNOFF CURVE NUMBERS (RCNs) WERE COMPUTED USING THE AREA WEIGHTING FORMULA.
   - 4.1. UNDEVELOPED TYPE D SOILS - 85
   - 4.2. UNDEVELOPED TYPE C SOILS - 82
   - 4.3. DEVELOPED 85% IMPERVIOUS TYPE D SOILS - 95.3
   - 4.4. DEVELOPED 85% IMPERVIOUS TYPE C SOILS - 94.4
5. TIME OF CONCENTRATIONS WERE DERIVED USING THE TR-55 METHOD.

NOTE:

1. DETENTION POND AND WASTEWATER LINE A WERE CONSTRUCTED AND APPROVED BY THE CITY OF PFLUGERVILLE ON MARCH 23, 2017. PERMIT NUMBER: CON1606-02
2. FUTURE WASTEWATER LINE TO BE CONSTRUCTED WITH FUTURE DEVELOPMENT MUST BE SUBMITTED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO FINAL PLAT RECORDATION.

BILTMORE SUBDIVISION
HELIOS WAY & BILTMORE AVE
PFLUGERVILLE, TEXAS 78660

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL. (512) 777-4600

Revision No.	Date	Description

STATE OF TEXAS
JAIME H. URQUIDI
106361
LICENSED
PROFESSIONAL ENGINEER
09/09/2024
F-312

Project No.:	31018
Issued:	09/09/2024
Drawn By:	IMS
Checked By:	JU

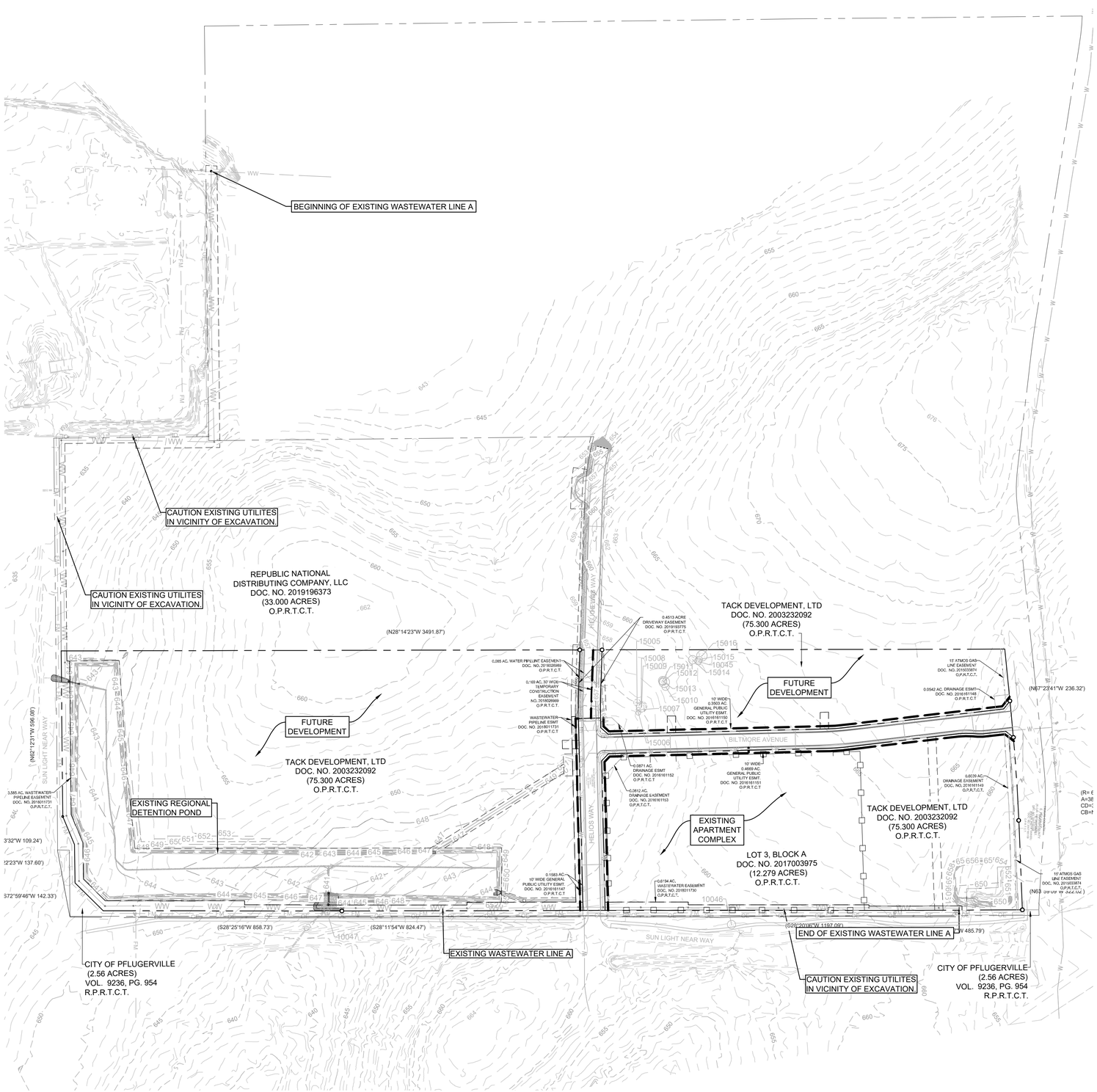
Sheet Title

DETENTION POND CALCULATIONS

6 OF 18

Sheet Number

CASE NUMBER: PP2023-000051



0 200' 400'

LEGEND

- XXX EXISTING CONTOUR
- EASEMENT
- WW EX. WASTEWATER LINE
- WW FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- OE EX. OVERHEAD ELECTRIC
- FM EX. FORCE WATER MAIN
- SS EX. STORM SEWER
- EX. TREE
- EX. POWER POLE
- EX. SIGN

NOTE:

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Project No.:	31018
Issued:	09/09/2024
Drawn By:	IMS
Checked By:	JU

Sheet Title
EXISTING CONDITIONS AND PROPOSED GRADING PLAN

7 OF 18

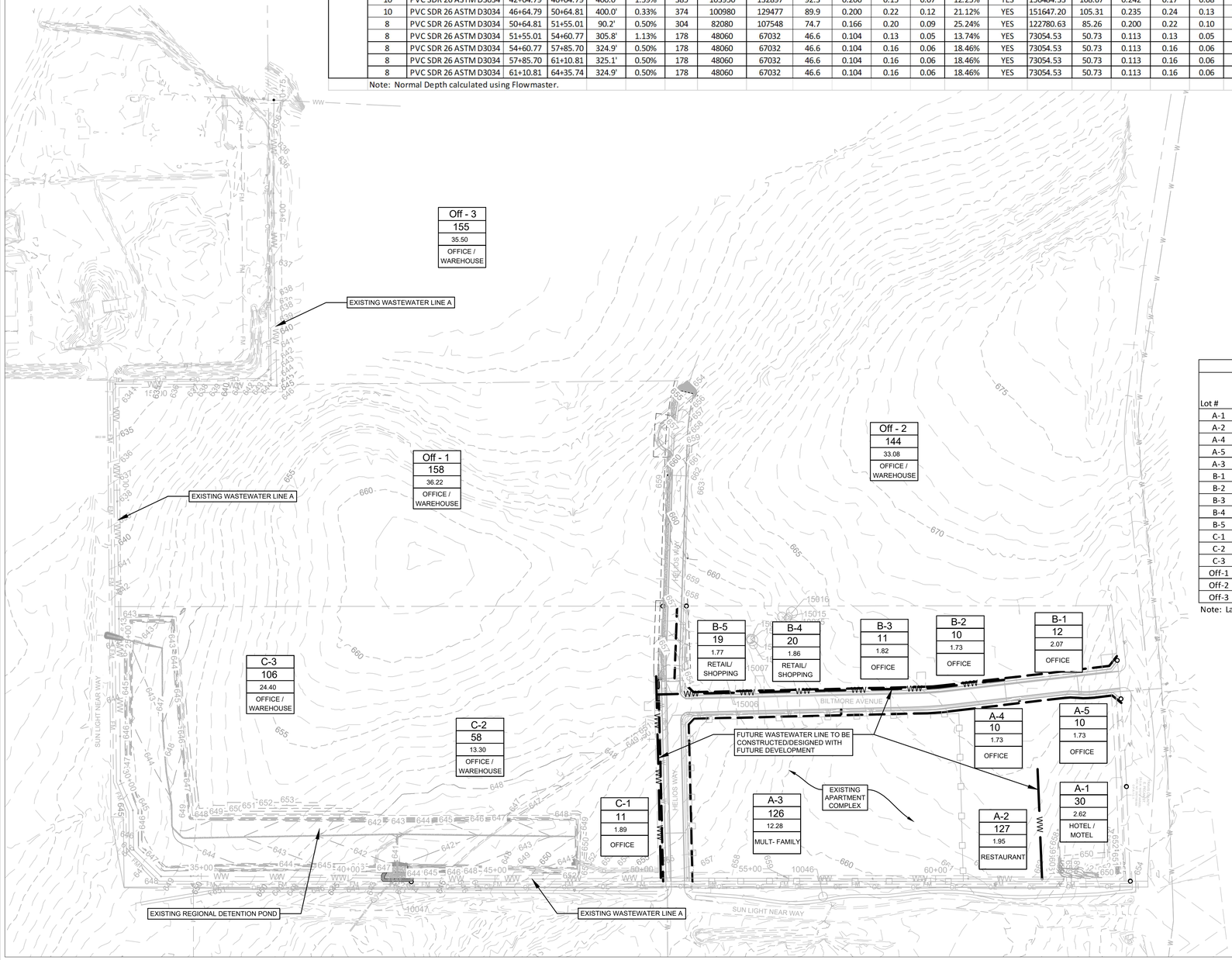
Sheet Number

CASE NUMBER: PP2023-000051

WASTEWATER PIPE CALCULATIONS

WW Line	Pipe Size	Material	Beginning Station	Ending Station	Length	Slope	LUE's	ADWF (Gal/Day)	PDWF (Gal/Day)	PDWF (GPM)	PDWF (CFS)	NORMAL DEPTH (FT)	Area (FT^2)	% PIPE CAPACITY	PDWF UNDER 50%	PWWF (Gal/Day)	PWWF (GPM)	PWWF (CFS)	NORMAL DEPTH (FT)	Area (FT^2)	% PIPE CAPACITY	PWWF UNDER 75%	VELOCITY AT PEAK PWWF (FT/S)	Full Flow Velocity (FT/S)
A	10	PVC SDR 26 ASTM D3034	1+15.13	4+33.08	318.0'	1.70%	1006	271620	319876	222.1	0.495	0.23	0.12	22.48%	YES	448486.00	311.45	0.694	0.28	0.16	29.51%	YES	2.73	5.25
	10	PVC SDR 26 ASTM D3034	4+33.08	7+54.70	321.6'	0.33%	851	229770	273957	190.2	0.424	0.33	0.20	36.87%	YES	375942.32	261.07	0.582	0.40	0.26	47.48%	YES	1.43	2.31
	10	PVC SDR 26 ASTM D3034	7+54.70	10+88.86	334.2'	0.33%	851	229770	273957	190.2	0.424	0.33	0.20	36.87%	YES	375942.32	261.07	0.582	0.40	0.26	47.48%	YES	1.43	2.31
	10	PVC SDR 26 ASTM D3034	10+88.86	13+70.42	281.6'	0.33%	707	190890	230952	160.4	0.357	0.30	0.18	32.43%	YES	308126.87	213.98	0.477	0.36	0.23	41.39%	YES	1.37	2.31
	10	PVC SDR 26 ASTM D3034	13+70.42	16+39.01	268.6'	0.33%	707	190890	230952	160.4	0.357	0.30	0.18	32.43%	YES	308126.87	213.98	0.477	0.36	0.23	41.39%	YES	1.37	2.32
	10	PVC SDR 26 ASTM D3034	16+39.01	20+38.53	399.5'	0.33%	549	148230	183250	127.3	0.284	0.27	0.15	28.08%	YES	235112.09	163.27	0.364	0.31	0.18	33.90%	YES	1.27	2.32
	10	PVC SDR 26 ASTM D3034	20+38.53	24+38.53	400.0'	0.33%	549	148230	183250	127.3	0.284	0.27	0.15	28.08%	YES	235112.09	163.27	0.364	0.31	0.18	33.90%	YES	1.27	2.31
	10	PVC SDR 26 ASTM D3034	24+38.53	28+38.54	400.0'	0.33%	443	119610	150829	104.7	0.233	0.24	0.13	23.85%	YES	184391.58	128.05	0.285	0.27	0.15	28.08%	YES	1.18	2.31
	10	PVC SDR 26 ASTM D3034	28+38.54	29+89.77	151.2'	0.33%	443	119610	150829	104.7	0.233	0.24	0.13	23.85%	YES	184391.58	128.05	0.285	0.27	0.15	28.08%	YES	1.18	2.32
	10	PVC SDR 26 ASTM D3034	29+89.77	30+99.09	109.3'	0.33%	443	119610	150829	104.7	0.233	0.24	0.13	23.85%	YES	184391.58	128.05	0.285	0.27	0.15	28.08%	YES	1.18	2.31
	10	PVC SDR 26 ASTM D3034	30+99.09	32+33.28	134.2'	0.34%	443	119610	150829	104.7	0.233	0.24	0.13	23.85%	YES	184391.58	128.05	0.285	0.27	0.15	28.08%	YES	1.19	2.33
	10	PVC SDR 26 ASTM D3034	32+33.28	33+62.89	129.6'	0.35%	443	119610	150829	104.7	0.233	0.24	0.13	23.85%	YES	184391.58	128.05	0.285	0.27	0.15	28.08%	YES	1.21	2.37
	10	PVC SDR 26 ASTM D3034	33+62.89	34+64.75	101.9'	0.33%	443	119610	150829	104.7	0.233	0.24	0.13	23.85%	YES	184391.58	128.05	0.285	0.27	0.15	28.08%	YES	1.19	2.33
	10	PVC SDR 26 ASTM D3034	34+64.75	38+64.76	400.0'	0.33%	443	119610	150829	104.7	0.233	0.24	0.13	23.85%	YES	184391.58	128.05	0.285	0.27	0.15	28.08%	YES	1.18	2.31
	10	PVC SDR 26 ASTM D3034	38+64.76	42+64.79	400.0'	0.33%	385	103950	132897	92.3	0.206	0.23	0.12	22.48%	YES	156484.33	108.67	0.242	0.25	0.14	25.24%	YES	1.13	2.31
	10	PVC SDR 26 ASTM D3034	42+64.79	46+64.79	400.0'	1.59%	385	103950	132897	92.3	0.206	0.15	0.07	12.25%	YES	156484.33	108.67	0.242	0.17	0.08	14.65%	YES	1.99	5.07
	10	PVC SDR 26 ASTM D3034	46+64.79	50+64.81	400.0'	0.33%	374	100980	129477	89.9	0.200	0.22	0.12	21.12%	YES	151647.20	105.31	0.235	0.24	0.13	23.85%	YES	1.11	2.31
	8	PVC SDR 26 ASTM D3034	50+64.81	51+55.01	90.2'	0.50%	304	82080	107548	74.7	0.166	0.20	0.09	25.24%	YES	122780.63	85.26	0.200	0.22	0.10	28.79%	YES	1.26	2.45
	8	PVC SDR 26 ASTM D3034	51+55.01	54+60.77	305.8'	1.13%	178	48060	67032	46.6	0.104	0.13	0.05	13.74%	YES	73054.53	50.73	0.113	0.13	0.05	13.74%	YES	1.41	3.68
	8	PVC SDR 26 ASTM D3034	54+60.77	57+85.70	324.9'	0.50%	178	48060	67032	46.6	0.104	0.16	0.06	18.46%	YES	73054.53	50.73	0.113	0.16	0.06	18.46%	YES	1.06	2.45
	8	PVC SDR 26 ASTM D3034	57+85.70	61+10.81	325.1'	0.50%	178	48060	67032	46.6	0.104	0.16	0.06	18.46%	YES	73054.53	50.73	0.113	0.16	0.06	18.46%	YES	1.06	2.46
	8	PVC SDR 26 ASTM D3034	61+10.81	64+35.74	324.9'	0.50%	178	48060	67032	46.6	0.104	0.16	0.06	18.46%	YES	73054.53	50.73	0.113	0.16	0.06	18.46%	YES	1.06	2.45

Note: Normal Depth calculated using Flowmaster.



LEGEND

- EXISTING CONTOUR
- PROPERTY BOUNDARY
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EXISTING FORCEMAIN
- OVERHEAD ELECTRIC
- EX. WASTEWATER MANHOLE

XXXX	LOT #
XX.XX	NUMBER OF LUE
XX.XX	AREA (ACRES)
AA	USE

NOTE:
1. ALL WASTEWATER LINE CONSTRUCTION AND INSTALLATION SHALL CONFORM TO THE CITY OF PFLUGERVILLE TECHNICAL SPECIFICATIONS.
2. DETENTION POND AND WASTEWATER LINE A WERE CONSTRUCTED AND APPROVED BY THE CITY OF PFLUGERVILLE ON MARCH 23, 2017. PERMIT NUMBER: CON1606-02
3. FUTURE WASTEWATER LINE TO BE CONSTRUCTED WITH FUTURE DEVELOPMENT MUST BE SUBMITTED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO FINAL PLAT RECORDATION.

Timmerman Wastewater LUE Calculations

Lot #	Use	Lot Area (Acre)	# of Units or Rooms	Building Area (sf)	LUE Demand	LUE Required	Station	LUE Accumulative
A-1	Hotel/Motel	2.62	60		.5/room	30	62+36.45	30
A-2	Restaurant	1.95		25,483	1/200 sf	127	62+36.45	157
A-4	Office	1.73		30,144	1/3,000 sf	10	62+36.45	167
A-5	Office	1.73		30,144	1/3,000 sf	10	62+36.45	178
A-3	Multi-Family	12.28	252		.5/Unit	126	51+55.01	304
B-1	Office	2.07		36,068	1/3,000 sf	12	50+64.81	316
B-2	Office	1.73		30,144	1/3,000 sf	10	50+64.81	326
B-3	Office	1.82		31,712	1/3,000 sf	11	50+64.81	336
B-4	Retail/Shopping	1.86		32,409	1/1660 sf	20	50+64.81	356
B-5	Retail/Shopping	1.77		30,840	1/1660 sf	19	50+64.81	374
C-1	Office	1.89		32,931	1/3,000 sf	11	46+64.79	385
C-2	Office/Warehouse	13.3		231,739	1/4,000 sf	58	38+64.76	443
C-3	Office/Warehouse	24.4		425,146	1/4,000 sf	106	24+38.53	549
Off-1	Office/Warehouse	36.22		631,146	1/4,000 sf	158	16+39.01	707
Off-2	Office/Warehouse	33.08		576,452	1/4,000 sf	144	10+88.86	851
Off-3	Office/Warehouse	35.50		618,535	1/4,000 sf	155	4+33.08	1006

Note: Land use for all lots (excluding A-3) are assumed based on current zoning and using a FAR of 0.4.

BILTMORE SUBDIVISION
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13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL. (512) 777-4600

Revision No.	Date	Description

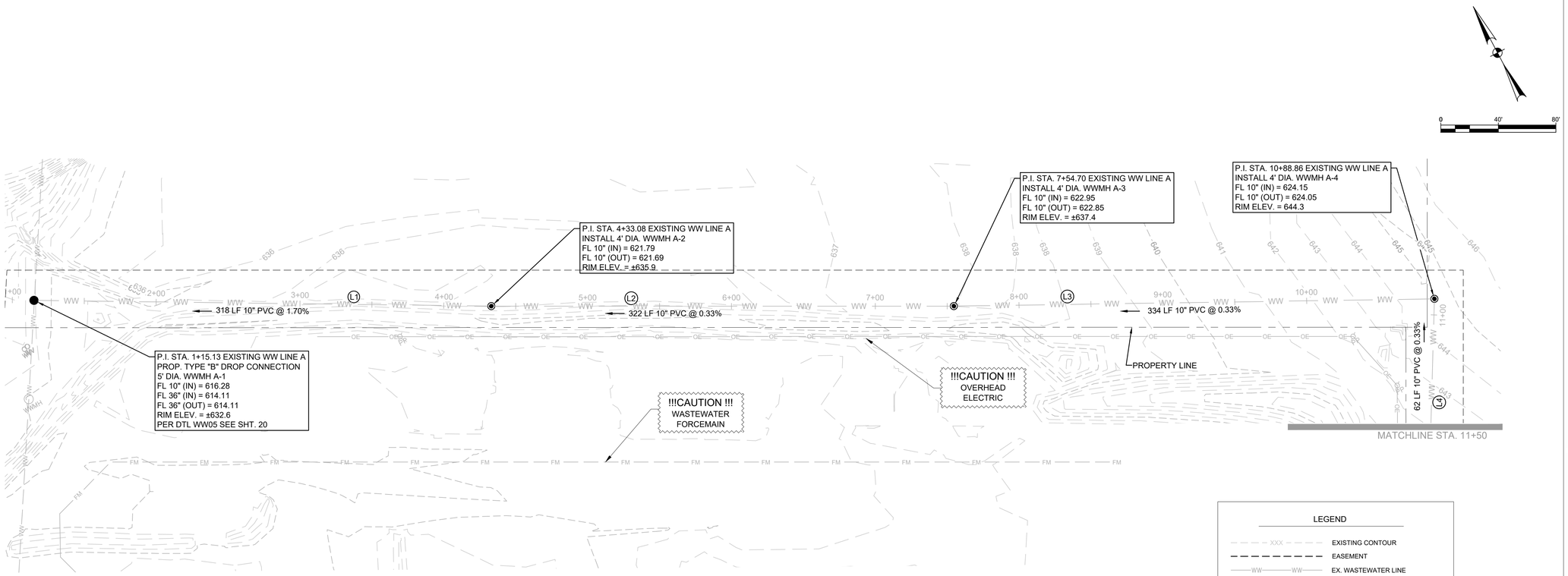
STATE OF TEXAS
JAIME H. URQUIDI
106361
LICENSED
PROFESSIONAL ENGINEER
09/09/2024
F-312

Project No.:	31018
Issued:	09/09/2024
Drawn By:	IMS
Checked By:	JU

Sheet Title
OVERALL UTILITY PLAN

8 OF 18
Sheet Number

CASE NUMBER: PP2023-000051



NOTES:
1. ALL WASTEWATER LINES MUST HAVE A MINIMUM COVERAGE OF 48" BELOW SUBGRADE.
2. WASTEWATER LINE A HAS ALREADY BEEN CONSTRUCTED. THE PLAN AND PROFILE SHOWN HEREIN IS FOR INFORMATIONAL PURPOSES.
3. DETENTION POND AND WASTEWATER LINE A WERE CONSTRUCTED AND APPROVED BY THE CITY OF PFLUGERVILLE ON MARCH 23, 2017. PERMIT NUMBER: CON1606-02
4. FUTURE WASTEWATER LINE TO BE CONSTRUCTED WITH FUTURE DEVELOPMENT MUST BE SUBMITTED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO FINAL PLAT RECORDATION.

WASTEWATER LINE DATA

LINE #	DIRECTION	LENGTH	START	END	ALIGNMENT	START STA.	END STA.
L1	S61°29'05"E	317.94'	N 10128573.71 E 3157329.95	N 10128421.93 E 3157609.32	EXISTING WW LINE A	1+15.14	4+33.08
L2	S62°12'25"E	321.62'	N 10128421.93 E 3157609.32	N 10128271.97 E 3157893.84	EXISTING WW LINE A	4+33.08	7+54.70
L3	S63°03'52"E	334.16'	N 10128271.97 E 3157893.84	N 10128120.60 E 3158191.74	EXISTING WW LINE A	7+54.70	10+88.86
L4	S29°24'19"W	281.56'	N 10128120.60 E 3158191.74	N 10127875.31 E 3158053.50	EXISTING WW LINE A	10+88.86	13+70.42

LEGEND

- EXISTING CONTOUR
- EASEMENT
- EX. WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- EX. OVERHEAD ELECTRIC
- EX. FORCE WATER MAIN
- EX. STORM SEWER
- EX. TREE
- EX. POWER POLE
- EX. SIGN
- EX. WASTEWATER MANHOLE
- EX. FORCE MAIN CLEANOUT
- EX. FORCE MAIN MANHOLE
- EX. BENCHMARK
- EX. CONTROL POINT

SEE PROFILE VIEW ON SHEET 10

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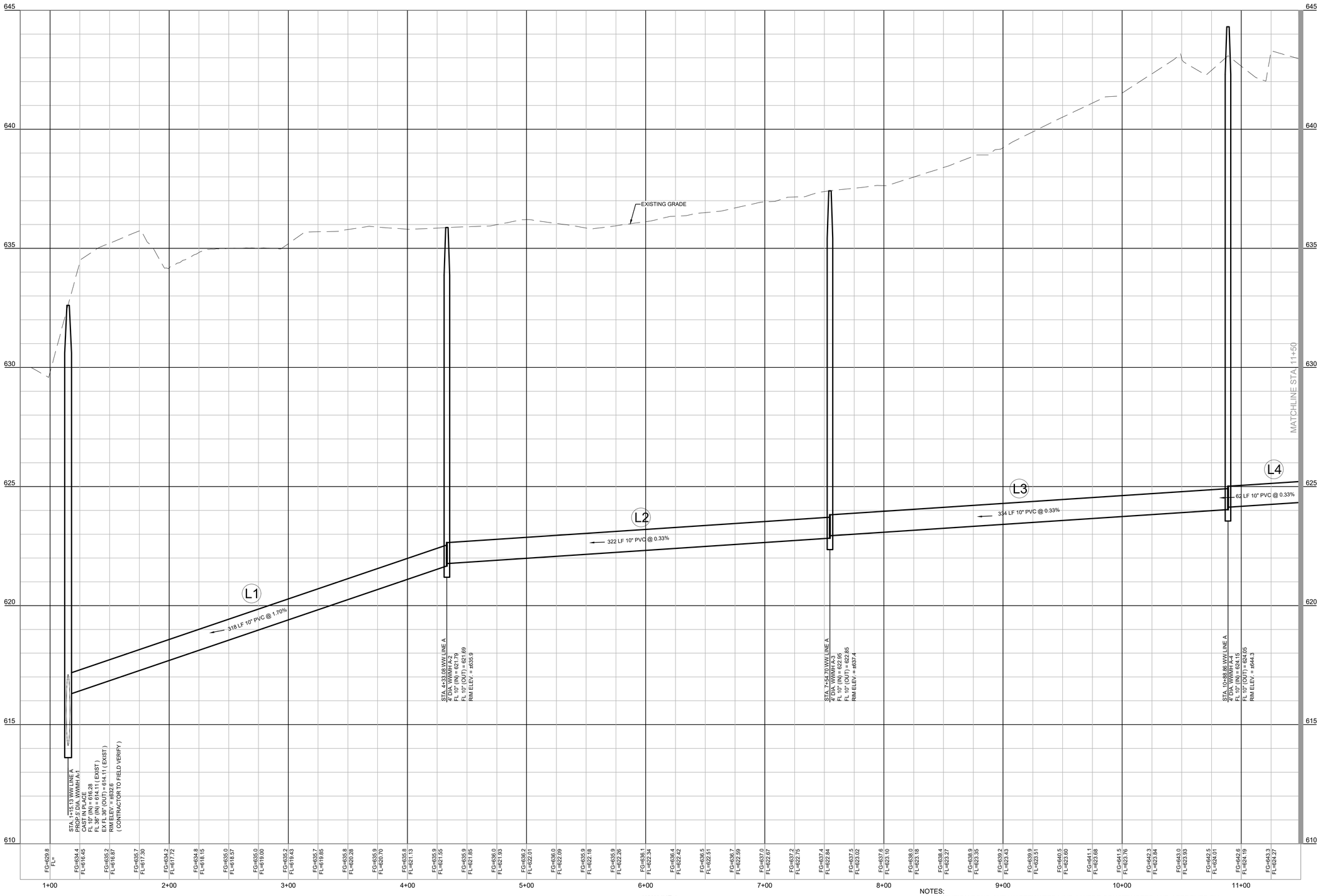
Sheet Title
EXISTING WASTEWATER PLAN AND PROFILE (1 OF 9)

9 OF 18
Sheet Number

CASE NUMBER: PP2023-000051

SEE PLAN VIEW ON SHEET 9



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WW LINE A
STA. 0+75.00 - STA. 11+50.00
SCALE:
1" = 40' (HOR.)
1" = 2' (VERT.)

NOTES:
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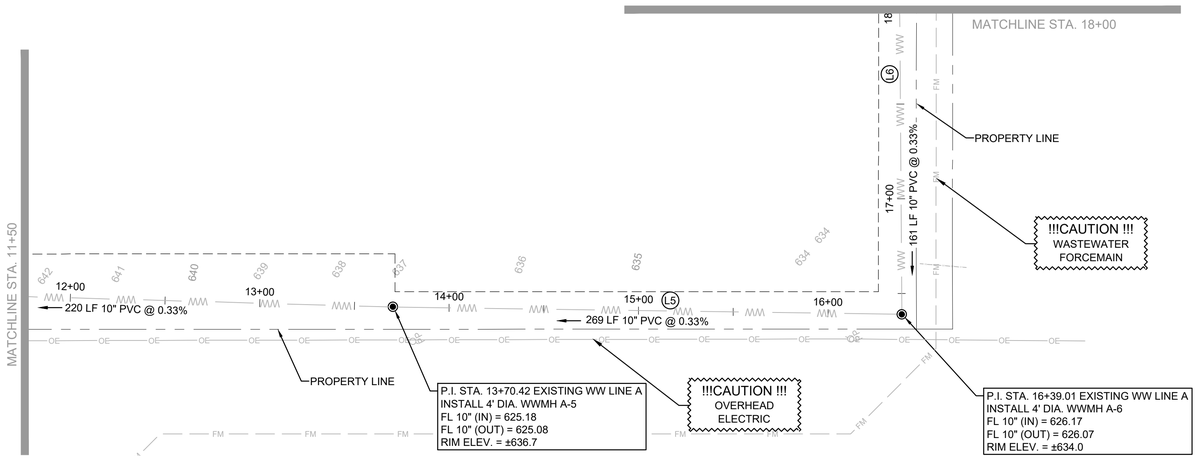
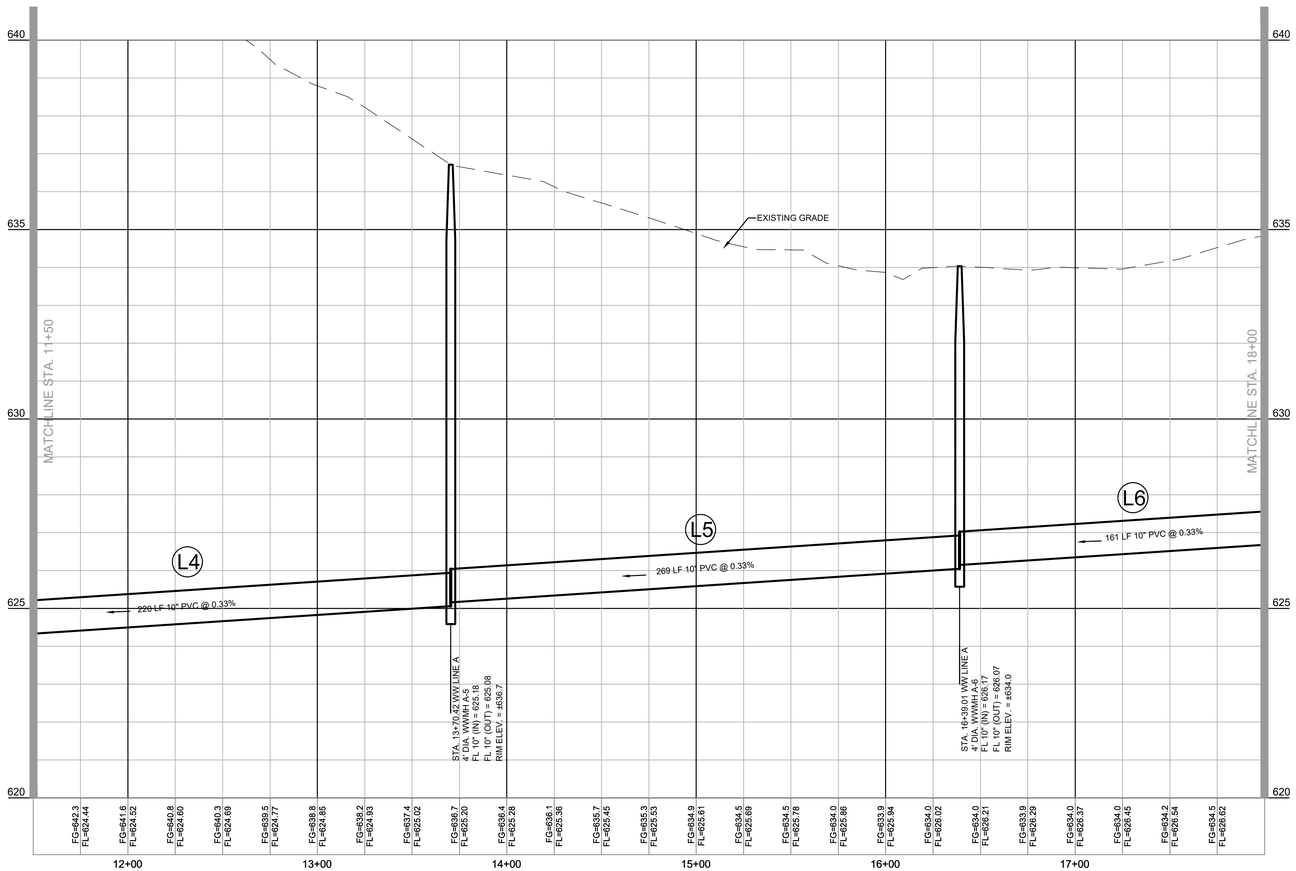
Sheet Title
EXISTING WASTEWATER PLAN AND PROFILE (2 OF 9)

10 OF 18
Sheet Number

CASE NUMBER: PP2023-000051





WW LINE A
STA. 11+50.00 - STA. 18+00.00
SCALE:
1" = 40' (HOR.)
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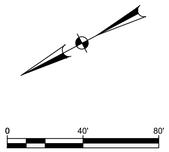

WASTEWATER LINE DATA							
LINE #	DIRECTION	LENGTH	START	END	ALIGNMENT	START STA.	END STA.
L4	S29°24'19"W	281.56'	N 10128120.60 E 3158191.74	N 10127875.31 E 3158053.50	EXISTING WW LINE A	10+88.86	13+70.42
L5	S28°37'50"W	268.59'	N 10127875.31 E 3158053.50	N 10127639.56 E 3157924.81	EXISTING WW LINE A	13+70.42	16+39.01
L6	S62°37'07"E	399.52'	N 10127639.56 E 3157924.81	N 10127455.82 E 3158279.57	EXISTING WW LINE A	16+39.01	20+38.53

LEGEND

- EXISTING CONTOUR
- EASEMENT
- EX. WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- EX. OVERHEAD ELECTRIC
- EX. FORCE WATER MAIN
- EX. STORM SEWER
- EX. TREE
- EX. POWER POLE
- EX. SIGN
- EX. WASTEWATER MANHOLE
- EX. FORCE MAIN CLEANOUT
- EX. FORCE MAIN MANHOLE
- EX. BENCHMARK
- EX. CONTROL POINT

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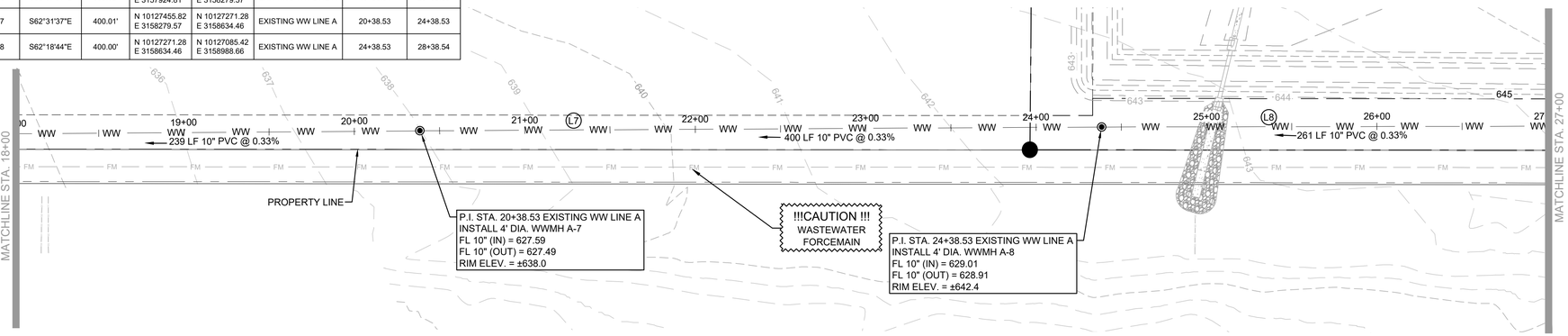
Sheet Title
EXISTING WASTEWATER PLAN AND PROFILE (3 OF 9)

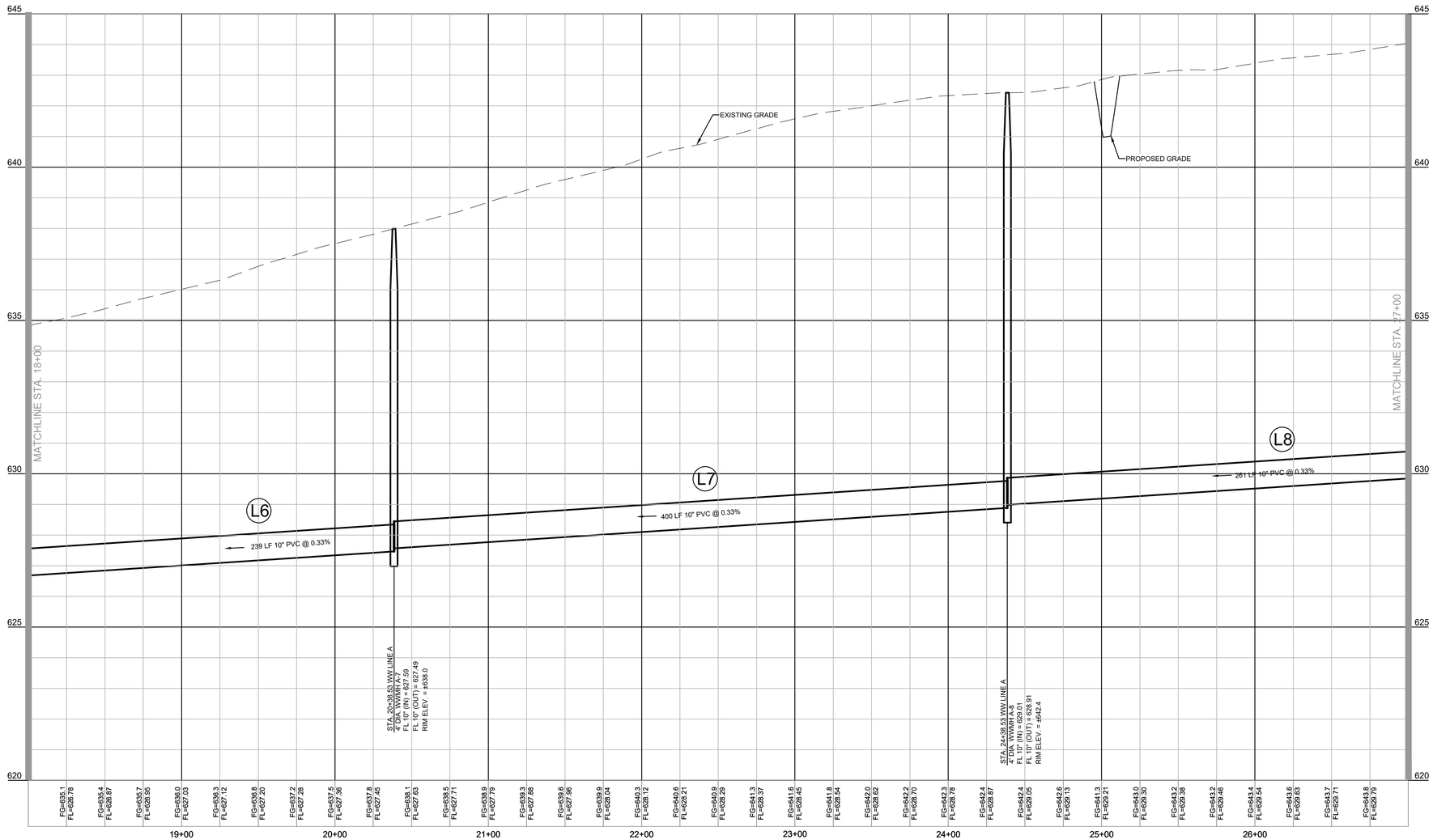
11 OF 18
Sheet Number

CASE NUMBER: PP2023-000051

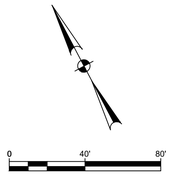
WASTEWATER LINE DATA

LINE #	DIRECTION	LENGTH	START	END	ALIGNMENT	START STA.	END STA.
L6	S62°37'07"E	399.52'	N 10127639.56 E 3157924.81	N 10127455.82 E 3158279.57	EXISTING WW LINE A	16+39.01	20+38.53
L7	S62°31'37"E	400.01'	N 10127455.82 E 3158279.57	N 10127271.28 E 3158634.46	EXISTING WW LINE A	20+38.53	24+38.53
L8	S62°18'44"E	400.00'	N 10127271.28 E 3158634.46	N 10127085.42 E 3158988.66	EXISTING WW LINE A	24+38.53	28+38.54





WW LINE A
STA. 18+00.00 - STA. 27+00.00
SCALE:
1" = 40' (HOR.)
1" = 2' (VERT.)



LEGEND

- EXISTING CONTOUR
- EASEMENT
- EX. WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- EX. OVERHEAD ELECTRIC
- EX. FORCE WATER MAIN
- EX. STORM SEWER
- EX. TREE
- EX. POWER POLE
- EX. SIGN
- EX. WASTEWATER MANHOLE
- EX. FORCE MAIN CLEANOUT
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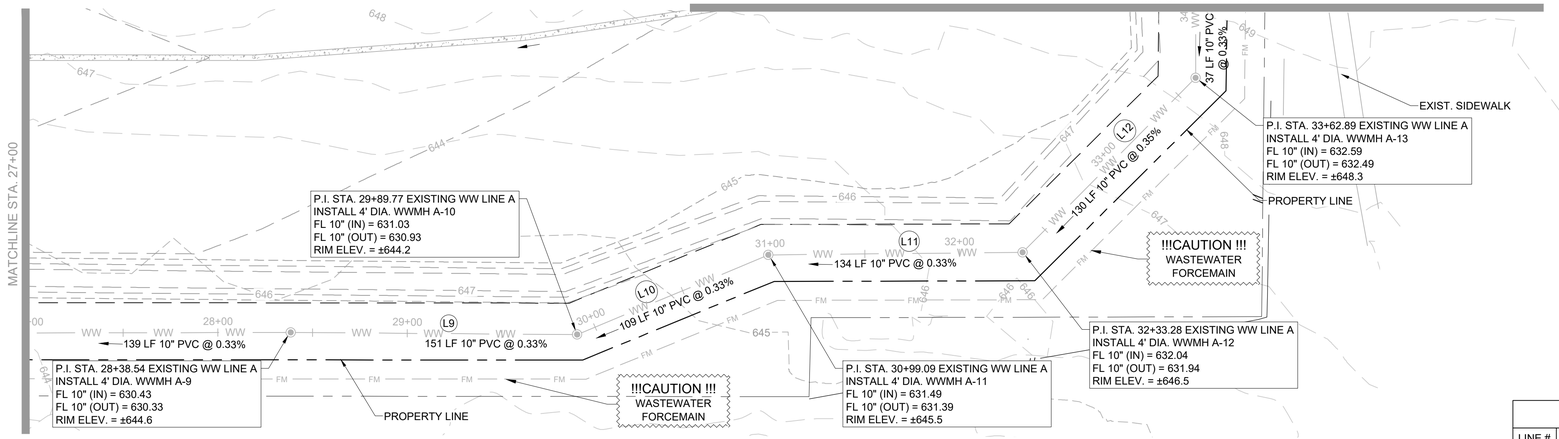
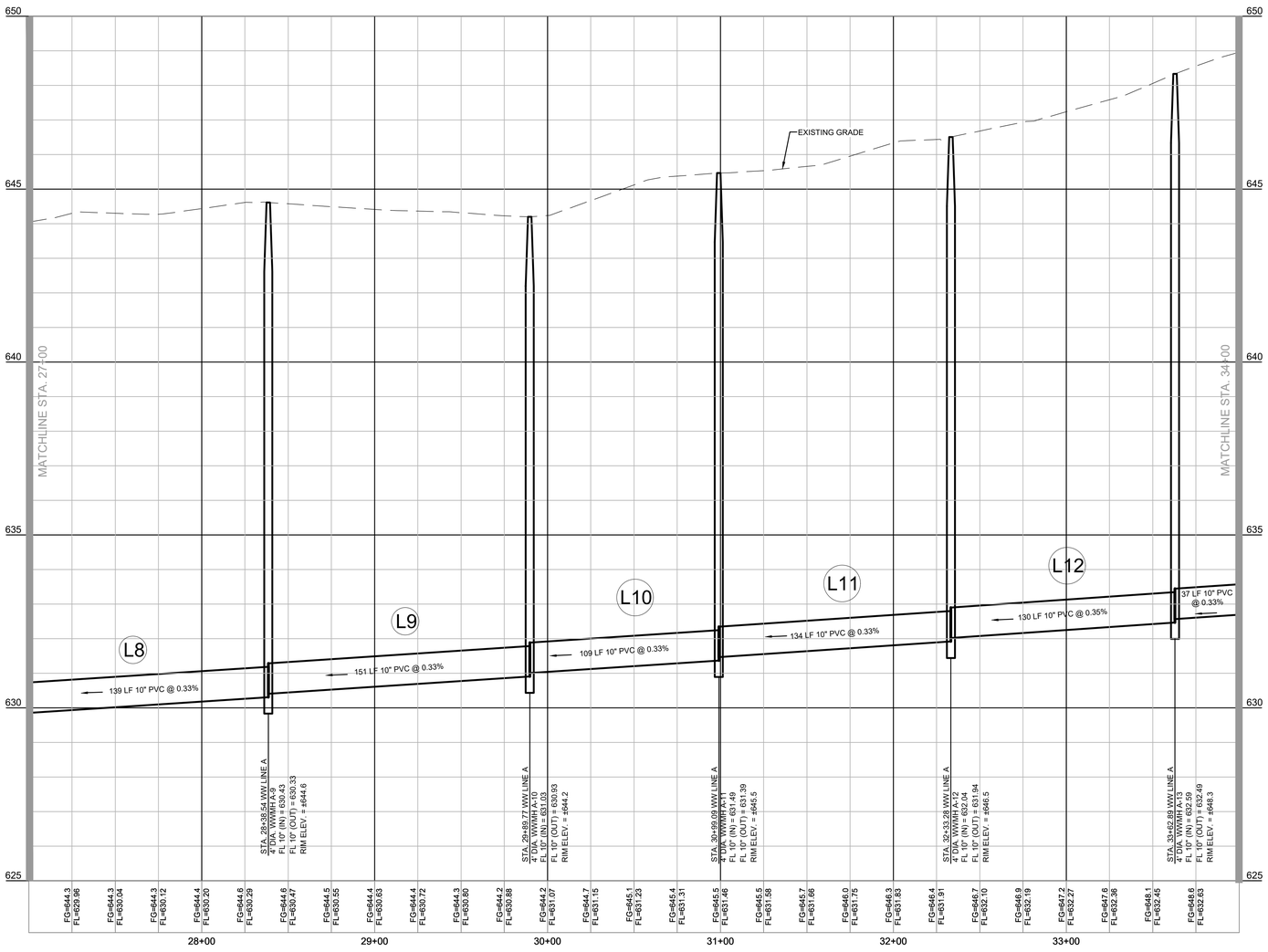
Sheet Title
EXISTING WASTEWATER PLAN AND PROFILE (4 OF 9)

12 OF 18
Sheet Number

CASE NUMBER: PP2023-000051





WW LINE A
STA. 27+00.00 - STA. 34+00.00
SCALE:
1" = 40' (HOR.)
1" = 2' (VERT.)

WASTEWATER LINE DATA							
LINE #	DIRECTION	LENGTH	START	END	ALIGNMENT	START STA.	END STA.
L8	S62°18'44"E	400.00'	N 10127271.28 E 3158634.46	N 10127085.42 E 3158988.66	EXISTING WW LINE A	24+38.53	28+38.54
L9	S61°47'24"E	151.24'	N 10127085.42 E 3158988.66	N 10127013.93 E 3159121.93	EXISTING WW LINE A	28+38.54	29+89.77
L10	S84°48'18"E	109.32'	N 10127013.93 E 3159121.93	N 10127004.03 E 3159230.80	EXISTING WW LINE A	29+89.77	30+99.09
L11	S62°47'02"E	134.19'	N 10127004.03 E 3159230.80	N 10126942.66 E 3159350.14	EXISTING WW LINE A	30+99.09	32+33.28
L12	N72°34'12"E	129.61'	N 10126942.66 E 3159350.14	N 10126981.49 E 3159473.80	EXISTING WW LINE A	32+33.28	33+62.89
L13	N27°49'07"E	101.86'	N 10126981.49 E 3159473.80	N 10127071.57 E 3159521.33	EXISTING WW LINE A	33+62.89	34+64.75

LEGEND

- EXISTING CONTOUR
- EASEMENT
- EX. WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- EX. OVERHEAD ELECTRIC
- EX. FORCE WATER MAIN
- EX. STORM SEWER
- EX. TREE
- EX. POWER POLE
- EX. SIGN
- EX. WASTEWATER MANHOLE
- EX. FORCE MAIN CLEANOUT
- EX. FORCE MAIN MANHOLE
- EX. BENCHMARK
- EX. CONTROL POINT

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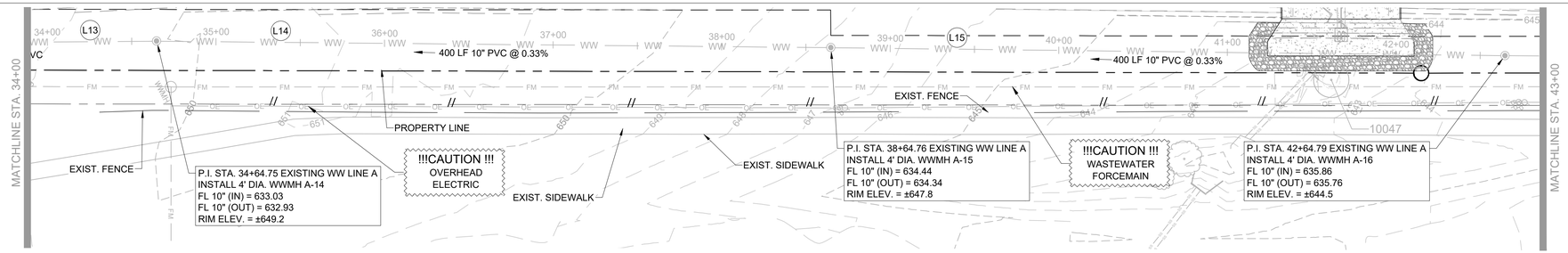
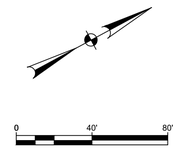
Sheet Title
EXISTING WASTEWATER PLAN AND PROFILE (5 OF 9)

13 OF 18
Sheet Number

CASE NUMBER: PP2023-000051



WASTEWATER LINE DATA							
LINE #	DIRECTION	LENGTH	START	END	ALIGNMENT	START STA.	END STA.
L13	N27°49'07"E	101.86'	N 10126981.49 E 3159473.80	N 10127071.57 E 3159521.33	EXISTING WW LINE A	33+62.89	34+64.75
L14	N28°52'57"E	400.02'	N 10127071.57 E 3159521.33	N 10127421.83 E 3159714.54	EXISTING WW LINE A	34+64.75	38+64.76
L15	N29°00'42"E	400.02'	N 10127421.83 E 3159714.54	N 10127771.66 E 3159908.55	EXISTING WW LINE A	38+64.76	42+64.79
L16	N28°29'14"E	400.00'	N 10127771.66 E 3159908.55	N 10128123.23 E 3160099.34	EXISTING WW LINE A	42+64.79	46+64.79



LEGEND

- EXISTING CONTOUR
- EASEMENT
- EX. WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- EX. OVERHEAD ELECTRIC
- EX. FORCE WATER MAIN
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- EX. FORCE MAIN MANHOLE
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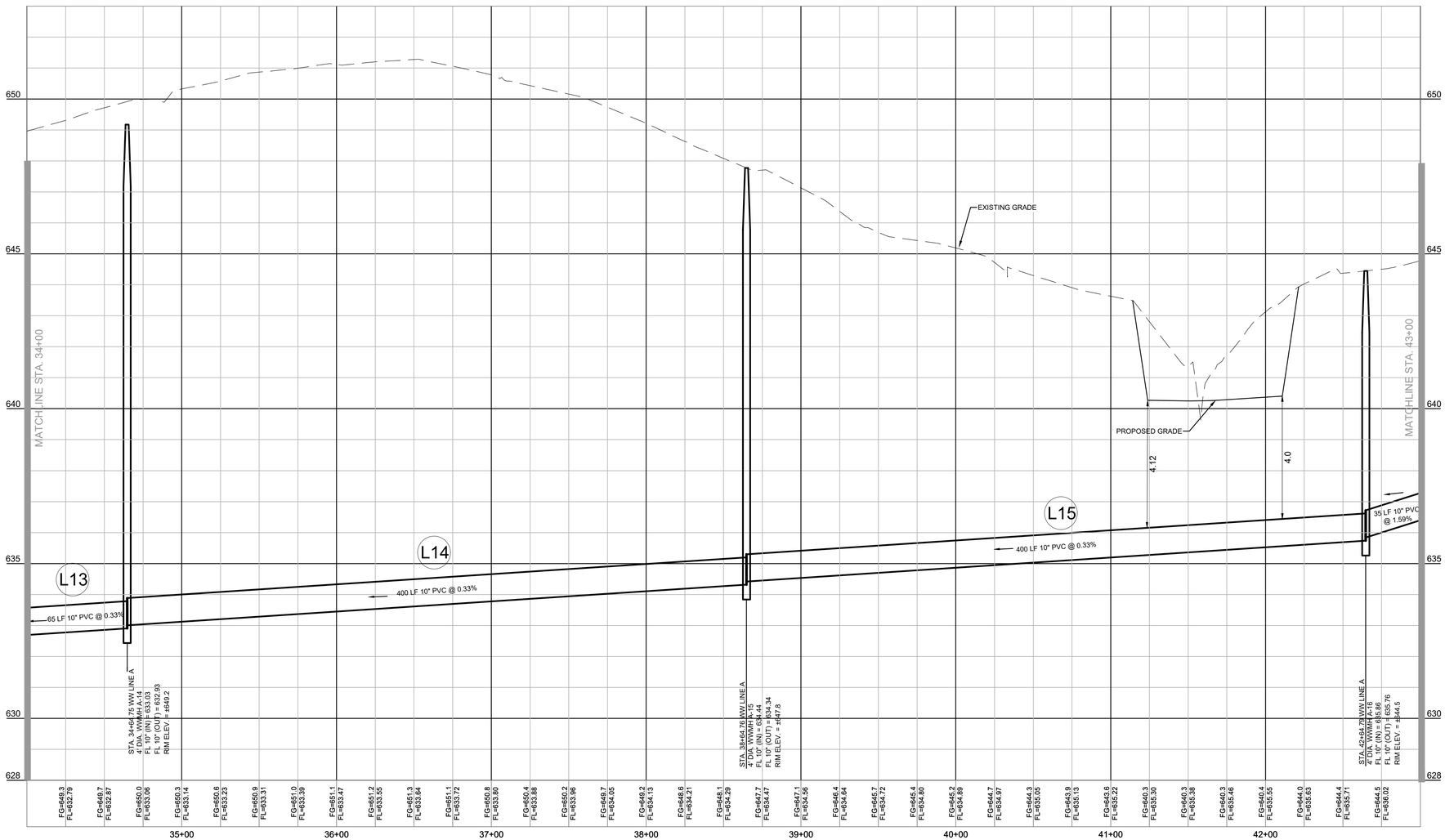
- EX. CONTROL POINT



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WW LINE A
STA. 34+00.00 - STA. 43+00.00
SCALE:
1" = 40' (HOR.)
1" = 2' (VERT.)

NOTES:
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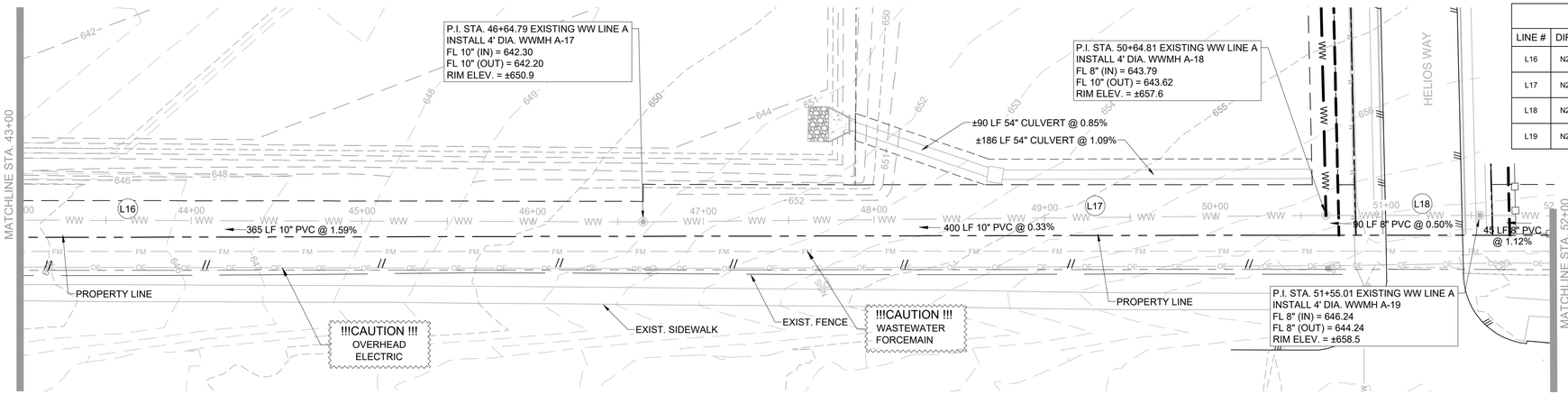
Sheet Title
EXISTING WASTEWATER PLAN AND PROFILE (6 OF 9)

14 OF 18
Sheet Number

CASE NUMBER: PP2023-000051

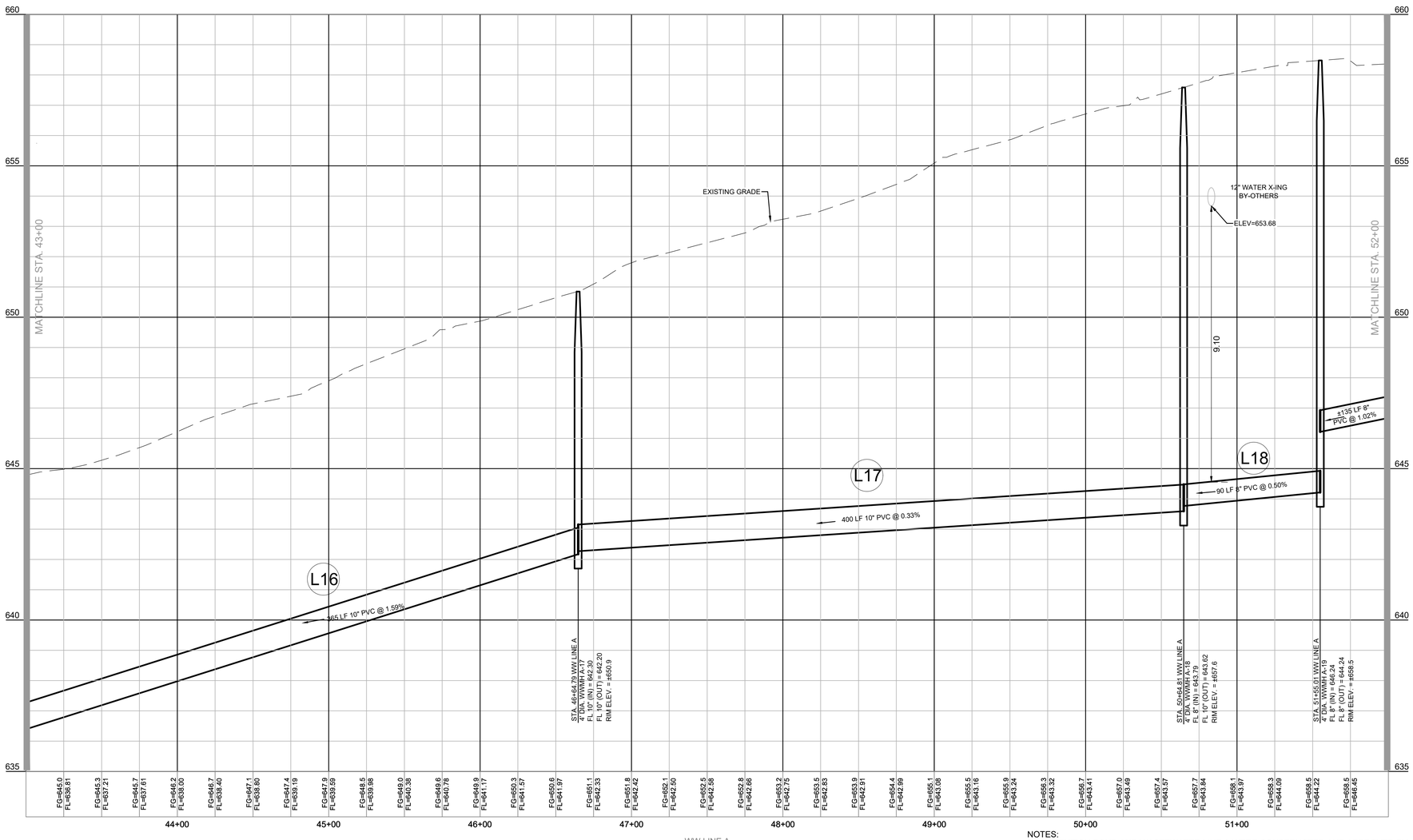


WASTEWATER LINE DATA							
LINE #	DIRECTION	LENGTH	START	END	ALIGNMENT	START STA.	END STA.
L16	N28°29'14"E	400.00'	N 10127771.66 E 3159908.55	N 10128123.23 E 3160099.34	EXISTING WW LINE A	42+64.79	46+64.79
L17	N27°46'46"E	400.02'	N 10128123.23 E 3160099.34	N 10128477.15 E 3160285.77	EXISTING WW LINE A	46+64.79	50+64.81
L18	N28°23'33"E	90.20'	N 10128477.15 E 3160285.77	N 10128556.50 E 3160328.66	EXISTING WW LINE A	50+64.81	51+55.01
L19	N28°39'29"E	305.76'	N 10128556.50 E 3160328.66	N 10128824.80 E 3160475.30	EXISTING WW LINE A	51+55.01	54+60.77

0 40' 80'

LEGEND

- EXISTING CONTOUR
- EASEMENT
- EX. WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- EX. OVERHEAD ELECTRIC
- EX. FORCE WATER MAIN
- EX. STORM SEWER
- EX. TREE
- EX. POWER POLE
- EX. SIGN
- EX. WASTEWATER MANHOLE
- EX. FORCE MAIN CLEANOUT
- EX. FORCE MAIN MANHOLE
- BM #1 EX. BENCHMARK
- EX. CONTROL POINT



WW LINE A
STA. 43+00.00 - STA. 52+00.00
SCALE:
1" = 40' (HOR.)
1" = 2' (VERT.)

NOTES:
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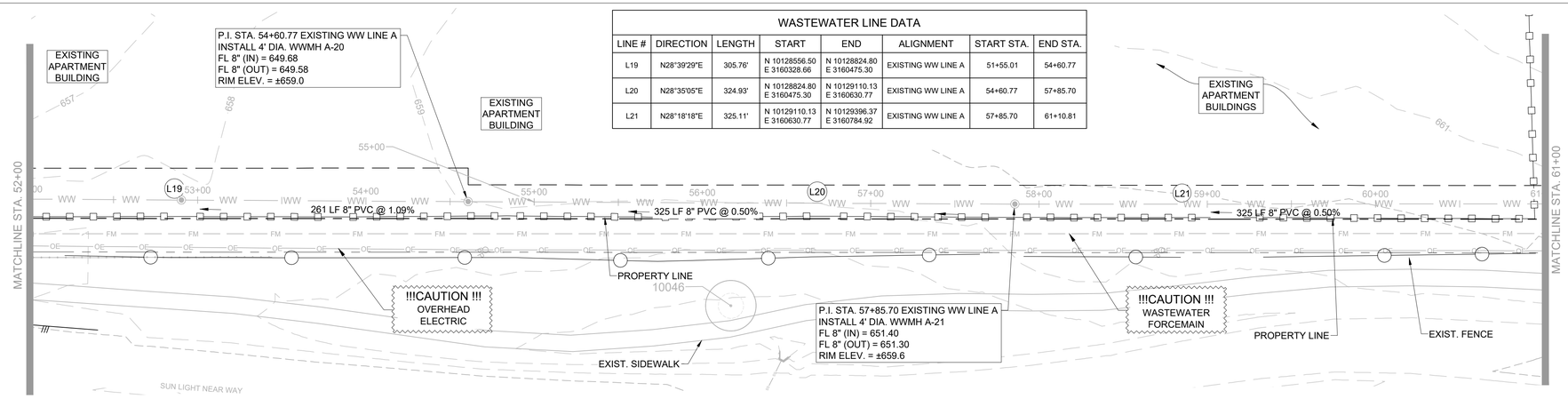
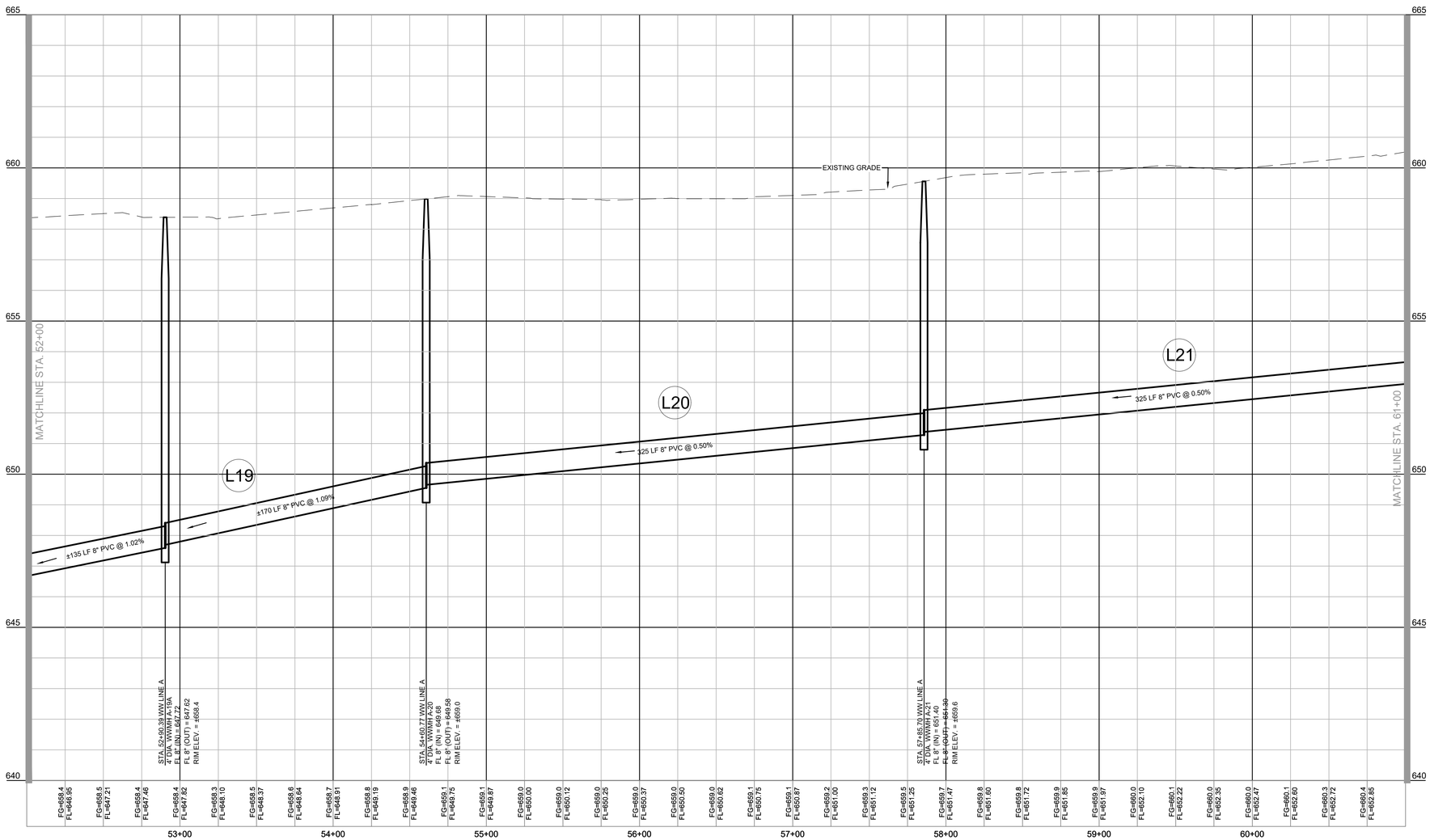
Sheet Title
EXISTING WASTEWATER PLAN AND PROFILE (7 OF 9)

15 OF 18
Sheet Number

CASE NUMBER: PP2023-000051

WASTEWATER LINE DATA							
LINE #	DIRECTION	LENGTH	START	END	ALIGNMENT	START STA.	END STA.
L19	N28°39'29"E	305.76'	N 10128556.50 E 3160328.66	N 10128824.80 E 3160475.30	EXISTING WW LINE A	51+55.01	54+60.77
L20	N28°35'05"E	324.93'	N 10128824.80 E 3160475.30	N 10129110.13 E 3160630.77	EXISTING WW LINE A	54+60.77	57+85.70
L21	N28°18'18"E	325.11'	N 10129110.13 E 3160630.77	N 10129396.37 E 3160784.92	EXISTING WW LINE A	57+85.70	61+10.81





NOTES:
1. ALL WASTEWATER LINES MUST HAVE A MINIMUM COVERAGE OF 48" BELOW SUBGRADE.
2. WASTEWATER LINE A HAS ALREADY BEEN CONSTRUCTED. THE PLAN AND PROFILE SHOWN HEREIN IS FOR INFORMATIONAL PURPOSES.

WW LINE A
STA. 52+00.00 - STA. 61+00.00
SCALE:
1" = 40' (HOR.)
1" = 2' (VERT.)

NOTES:
3. DETENTION POND AND WASTEWATER LINE A WERE CONSTRUCTED AND APPROVED BY THE CITY OF PFLUGERVILLE ON MARCH 23, 2017. PERMIT NUMBER: CON1606-02
4. FUTURE WASTEWATER LINE TO BE CONSTRUCTED WITH FUTURE DEVELOPMENT MUST BE SUBMITTED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO FINAL PLAT RECORDATION.

0 40' 80'

LEGEND

- EXISTING CONTOUR
- EASEMENT
- EX. WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- EX. OVERHEAD ELECTRIC
- EX. FORCE WATER MAIN
- EX. STORM SEWER
- EX. TREE
- EX. POWER POLE
- EX. SIGN
- EX. WASTEWATER MANHOLE
- EX. FORCE MAIN CLEANOUT
- EX. FORCE MAIN MANHOLE
- BM #1 EX. BENCHMARK
- EX. CONTROL POINT

BILTMORE SUBDIVISION
HELIOS WAY & BILTMORE AVE
PFLUGERVILLE, TEXAS 78660

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL. (512) 777-4600

Revision No.	Date	Description

STATE OF TEXAS
JAIME H. URQUIDI
106361
LICENSED
PROFESSIONAL ENGINEER
09/09/2024
F-312

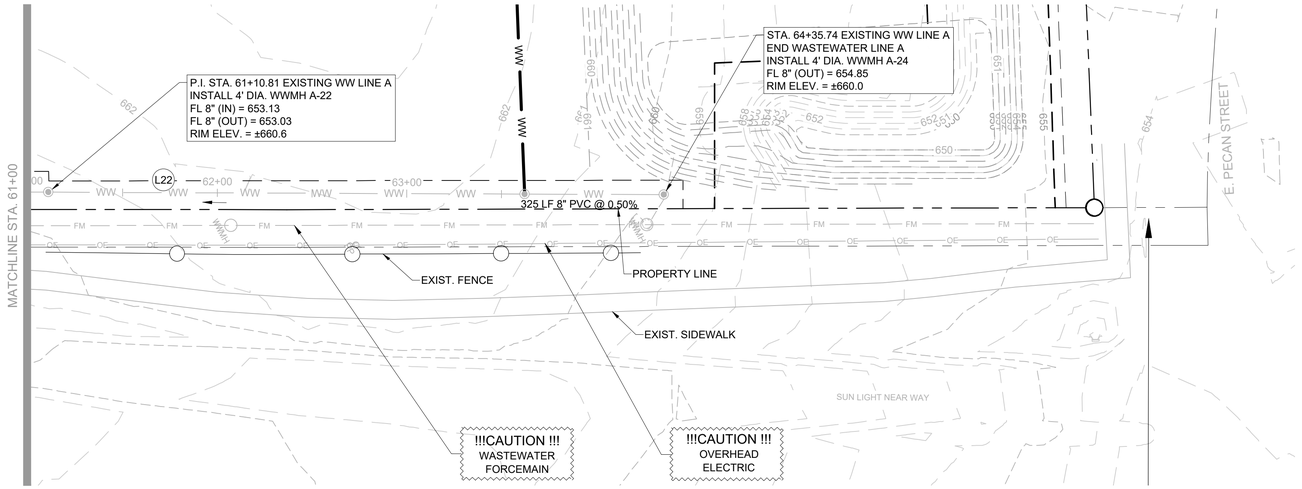
Project No.:	31018
Issued:	09/09/2024
Drawn By:	IMS
Checked By:	JU

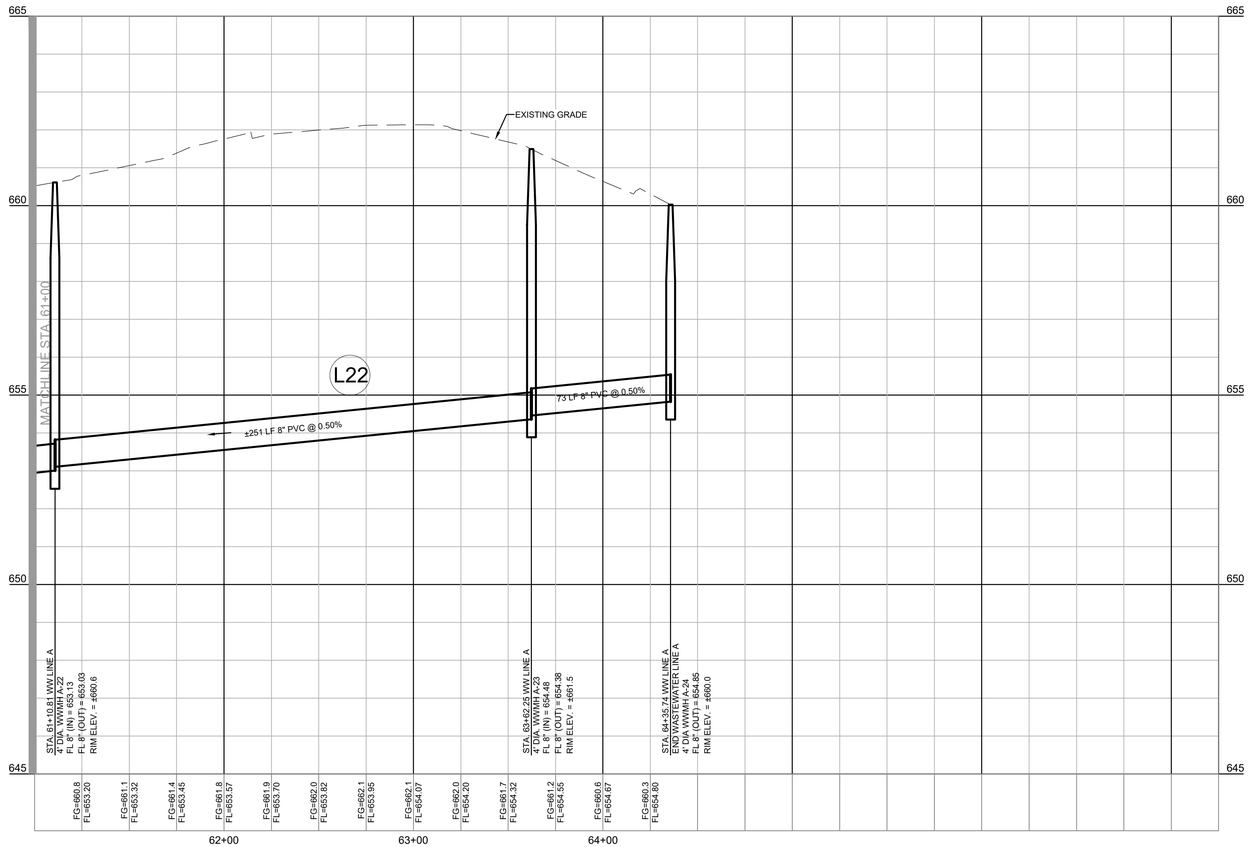
Sheet Title
EXISTING WASTEWATER PLAN AND PROFILE (8 OF 9)

16 OF 18
Sheet Number

CASE NUMBER: PP2023-000051

WASTEWATER LINE DATA							
LINE #	DIRECTION	LENGTH	START	END	ALIGNMENT	START STA.	END STA.
L22	N28°33'41"E	324.93'	N 10129396.37 E 3160784.92	N 10129681.76 E 3160940.27	EXISTING WW LINE A	61+10.81	64+35.74





WW LINE A
STA. 61+00.00 - STA. 67+25.00
SCALE:
1" = 40' (HOR.)
1" = 2' (VERT.)

LEGEND

- EXISTING CONTOUR
- EASEMENT
- EX. WASTEWATER LINE
- FUTURE PROP. WASTEWATER LINE
- EX. METAL FENCE
- EX. OVERHEAD ELECTRIC
- EX. FORCE WATER MAIN
- EX. STORM SEWER
- EX. TREE
- EX. POWER POLE
- EX. SIGN
- EX. WASTEWATER MANHOLE
- EX. FORCE MAIN CLEANOUT
- EX. FORCE MAIN MANHOLE
- EX. BENCHMARK
- EX. CONTROL POINT

NOTES:
1. ALL WASTEWATER LINES MUST HAVE A MINIMUM COVERAGE OF 48" BELOW SUBGRADE.
2. WASTEWATER LINE A HAS ALREADY BEEN CONSTRUCTED. THE PLAN AND PROFILE SHOWN HEREIN IS FOR INFORMATIONAL PURPOSES.
3. DETENTION POND AND WASTEWATER LINE A WERE CONSTRUCTED AND APPROVED BY THE CITY OF PFLUGERVILLE ON MARCH 23, 2017. PERMIT NUMBER: CON1606-02
4. FUTURE WASTEWATER LINE TO BE CONSTRUCTED WITH FUTURE DEVELOPMENT MUST BE SUBMITTED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO FINAL PLAT RECORDATION.

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Revision No.	Date	Description

STATE OF TEXAS
JAIME H. URQUIDI
106361
LICENSED
PROFESSIONAL ENGINEER
09/09/2024
F-312

Project No.:	31018
Issued:	09/09/2024
Drawn By:	IMS
Checked By:	JU

Sheet Title
EXISTING WASTEWATER PLAN AND PROFILE (9 OF 9)

17 OF 18
Sheet Number

CASE NUMBER: PP2023-000051

1. All trees not located within the limits of construction and outside of disturbed areas shall be preserved. (*)(**)

2. All trees shown on this plan to be retained shall be protected during construction with fencing.(*)(**)

3. Tree protection fences shall be erected according to city standards for tree 2-3 protection, including types of fencing and signage.

4. Tree protection fences shall be installed prior to the commencement of any site preparation work (clearing, grubbing, or grading) and shall be maintained throughout all phases of the construction project.

5. Erosion and sedimentation control barriers shall be installed or maintained in a manner which does not result in trenching or soil build-up within tree CRZ's or driplines.

6. Tree protection fences shall completely surround the tree or clusters of trees and be placed at the outermost limits of the tree branches (dripline) or CRZ, whichever is greater; and shall be maintained throughout the construction project in order to prevent the following:

   a. Soil compaction in root zone area resulting from vehicular traffic or storage of equipment or material.

   b. Root zone disturbances due to grade changes (greater than 6 inches cut or fill) or trenching not reviewed and authorized by the City Arborist or Administrator.

   c. Wounds to exposed roots, trunk, or limbs by mechanical equipment

   d. Other activities detrimental to trees, such as chemical storage, concrete truck cleaning and fires.

7. Exceptions to installing tree fences at the tree driplines or CRZ, whichever is greater, may be permitted in the following cases:

   a. Where there is to be an approved grade change, impermeable paving surface, or tree well.

   b. Where permeable paving is to be installed, erect the fence at the outer limits of the permeable paving area.

   c. Where trees are close to proposed buildings, erect the fence no closer than 6 feet to the building.

   d. Where there are severe space constraints due to tract size, or other special requirements, contact the City Arborist to discuss alternatives.

8. Where any of the above exceptions result in a fence that is closer than 5 feet to a tree trunk, protect the trunk with strapped-on planking to a height of 8 feet (or to the limits of lower branching) in addition to the reduced fencing provided.

9. Where any of the above exceptions result in areas of unprotected root zones under the dripline or CRZ, whichever is greater, those areas should be covered with 6 inches of organic mulch to minimize soil compaction.

10. Where any of the above exceptions result in damage to the fine, water absorbing roots, supplemental watering shall be required:

    a. Trees shall be watered once every two weeks during periods of hot, dry weather.

    b. Tree crowns are to be sprayed with water periodically to reduce dust accumulation on leaves.

    c. A signed watering contract shall be required.

11. Prior to excavation or grade cutting within tree driplines, a clean cut shall be made between the disturbed and undisturbed root zones with a rock saw or similar equipment to minimize damage to remaining roots.

12. All grading within protected root zone areas shall be done by hand or with small equipment to minimize root damage. Prior to grading, relocate protective fencing to 2 feet behind the grade change area.

13. Any roots exposed by construction activity shall be pruned flush with the soil. Backfill root areas with good quality top soil. If exposed root areas are not backfilled within 2 days, cover them with organic material in a manner which reduces soil temperature and minimizes water loss due to evaporation.

14. When installing concrete adjacent to the root zone of a tree, use a plastic vapor barrier behind the concrete to prohibit leaching of lime into the root zone.

15. Any trenching shall be as far from existing tree trunks as possible. Trench lines shall not run within the CRZ. Boring, tunneling or other techniques may be approved by the City Arborist or Administrator if there is no alternative available.

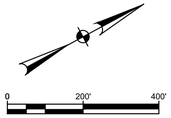
16. No landscape topsoil dressing greater than four (4) inches shall be permitted within 2-4 the dripline or CRZ, whichever is greater, of trees. No topsoil is permitted on root flares or within 6 inches of tree trunks.

17. Pruning to provide clearance for structures, vehicular traffic and construction equipment shall take place before construction begins. All pruning must be done according to City standards and as outlined in literature provided by the International Society of Arboriculture (ISA pruning techniques).

18. All oak tree cuts, intentional or unintentional, shall be painted immediately (within 10 minutes). Tree paint must be kept on site at all times. All pruning or cutting tools must be sterilized between trees to prevent the spread of disease.

19. Trees approved for removal shall be removed in a manner which does not impact trees to be preserved. Refer to the City of Pflugerville *Tree Technical Manual* for appropriate removal methods.

20. Deviations from the above notes may be considered ordinance violations if there is substantial noncompliance or if a tree sustains damage as a result.



LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SF — SILT FENCE
- LOC — LIMITS OF CONSTRUCTION
- IP — INLET PROTECTION
- TPF — PROPOSED TREE PROTECTION
- PROPERTY LINE

TREE LIST

TAG #	SPECIES	DBH	STATUS
10045	MULBERRY	12"	SAVE
10046	ASH	15"	SAVE
10047	WILLOW	10.5"	SAVE
15005*	AMERICAN ELM	12"	REMOVE
15006	CEDAR ELM	8"	SAVE
15007	CEDAR ELM	8"	SAVE
15008**	AMERICAN ELM	17"	REMOVE
15009**	AMERICAN ELM	19"	REMOVE
15010	HACKBERRY	13"	SAVE
15011	HACKBERRY	15"	SAVE
15012	HACKBERRY	13"	SAVE
15013	HACKBERRY	19"	SAVE
15014	PECAN	15"	SAVE
15015	HACKBERRY	12"	SAVE
15016	HACKBERRY	19"	SAVE

* Tree stump covered in poison ivy identified and measured by David Madden (Urban Pforester with City of Pflugerville)
Tree stump approximately located by Aaron Kotwal (Landscape Architect with Halff - signed and sealed this sheet)

** Tree stump identified and measured by Vincent Uherek (Certified Arborist with Advance Landscape Designs - ref. letter this sheet)
Tree stump located by Halff survey crew

FEE-IN-LIEU FOR TREE REMOVAL

Protected Trees (8 - 17.99")

DIAMETER INCHES REMOVED

12" + 17" = 29"

FEE PER INCH REMOVED ($150)

29" X $150 = $4,350.00

Protected Trees (18 - 24.99")

DIAMETER INCHES REMOVED 19"

FEE PER INCH REMOVED ($300)

19" X $300 = $5,700.00

TOTAL FEE-IN-LIEU = **$10,050.00**

Payment into the Tree Fund, or account for use by the City, for the planting, pruning, irrigation, and other activities associated with trees in City parks or on other City-owned property.

Advance Landscape Designs

Audit Report: Investigation of Tree Removal

Date: 5-16-2024

I was contracted by Timmerman Capitol to investigate the removal of trees located north of the corner at Biltmore Avenue and Helios Way. On May 13, 2024 I inspected the stand of trees. During my inspection two large elm stumps were located. The two elm stumps are joined at ground level. One elm stump indicates the tree was leaning towards the south at approximately a 45-degree angle. The other stump indicates the tree was growing nearly upright. Both trees appear to have been alive when cut. Two measurements were taken of both stumps at ground level. To determine the estimated DBH of each tree Meyer's Formula was used. At ground level the leaning elm's diameter is 17.5" and the elm's standing upright its diameter is 19.5". The estimated DBH of the elm leaning to the south is 16.92" and the estimated DBH of the tree standing upright is 18.85".

During the inspection several hackberry stumps were located. The hackberry tree is an unprotected tree and was not considered during the review.

In summary, the investigation revealed two elm stumps, one leaning and the other upright, with calculated Diameters at Breast Height (DBH). The presence of hackberry stumps was also noted. These findings provide valuable insights for future tree management and conservation efforts.

Sincerely,
Vincent W. Uherek
Advance Landscape Designs
Certified Arborist
TX-3656A

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Revision No.	Date	Description

REGISTERED LANDSCAPE ARCHITECT
AARON S. KOTWAL
3794
STATE OF TEXAS
08/19/2024

Project No.:	31018
Issued:	08/19/2024
Drawn By:	AK
Checked By:	JU

Sheet Title

TREE SURVEY

CASE NUMBER: 2023-14-PP