

VICINITY MAP SCALE: NONE **BRAZOS COUNTY**

TEMPORARY BENCHMARKS:

CENTRAL ZONE GRID

TBM "A" - CUT BOX IN A TYPE C-INLET LOCATED ON THE WEST SIDE OF TOWN SQUARE AVE. APPROXIMATELY 435 FEET SOUTH OF THE INTERSECTION OF BOONVILLE ROAD WITH TOWN SQUARE AVE.

ELEV = 316.19 FEET NAVD DATUM 1988. 2001 ADJUSTED. COORDINATES SHOWN HEREON ARE TEXAS STATE PLANE

FLOOD PLAIN: THIS PROJECT DOES NOT LIE WITHIN THE 100 YEAR FLOOD PLAIN ACCORDING TO FEMA MAP PANEL NO. 48041C0215F, BRAZOS COUNTY, TEXAS. EFFECTIVE DATE APRIL

IMMEDIATELY REPORTED TO THE ENGINEER.

2, 2014. LOCATION AND ELEVATION OF EXISTING IMPROVEMENTS SHOWN HEREIN ARE PROVIDED BY OTHERS. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES AT ALL CROSSINGS AND CONNECTION POINTS PRIOR TO ANY TRENCHING OR EXCAVATION OPERATIONS. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE

E WILLIAM JOEL BRYAN PKWY BRYAN PKWY BOONVILLE RD	
6 TEXAS PROJECT LOCATION BRUNCHEST DR	
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COVER THIS DRAWING WAS PREPARED UNDER THE DIRECTION OF IT IS NOT TO BE USED FOR CONSTRUCTION AND IS RELEASED SOLELY FOR THE PURPOSE OF REVIEW

3/11/2025

DESIGN: BDB CAD: BDB RVW: TOW PROJECT NO: 13478 SHEET: 1 OF:15

— Bleyl Engineering —

Revised February 2019

- 1. THIS WATER DISTRIBUTION SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT REQUIREMENT SHALL BE APPLIED. AT A MINIMUM, CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS."
- 2. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)/NSF INTERNATIONAL STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI
- 3. PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NSF INTERNATIONAL SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 PSI OR A STANDARD DIMENSION RATIO OF 26 OR LESS [\$290.44(A)(2)].
- 4. NO PIPE WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY [\$290.44(A)(3)].
- 5. ALL WATER LINE CROSSINGS OF WASTEWATER MAINS SHALL BE PERPENDICULAR [§290.44(E)(4)(B)].
- 6. WATER TRANSMISSION AND DISTRIBUTION LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. HOWEVER, THE TOP OF THE WATER LINE MUST BE LOCATED BELOW THE FROST LINE AND IN NO CASE SHALL THE TOP OF THE WATER LINE BE LESS THAN 24 INCHES BELOW GROUND SURFACE [\$290.44(A)(4)].
- 7. THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES IS 0.25 PERCENT [\$290.44(B)].
- 8. THE CONTRACTOR SHALL INSTALL APPROPRIATE AIR RELEASE DEVICES WITH VENT OPENINGS TO THE ATMOSPHERE COVERED WITH 16-MESH OR FINER, CORROSION RESISTANT SCREENING MATERIAL OR AN ACCEPTABLE EQUIVALENT
- 9. THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION [§290.44(F)(1)].
- 10. WHEN WATERLINES ARE LAID UNDER ANY FLOWING OR INTERMITTENT STREAM OR SEMI-PERMANENT BODY OF WATER THE WATERLINE SHALL BE INSTALLED IN A SEPARATE WATERTIGHT PIPE ENCASEMENT. VALVES MUST BE PROVIDED ON EACH SIDE OF THE CROSSING WITH FACILITIES TO ALLOW THE UNDERWATER PORTION OF THE SYSTEM TO BE ISOLATED AND TESTED [\$290.44(F)(2)].
- 11. PURSUANT TO 30 TAC \$290.44(A)(5), THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY THE MOST CURRENT AWWA FORMULAS FOR PVC PIPE, CAST IRON AND DUCTILE IRON PIPE. INCLUDE THE FORMULAS IN THE NOTES ON THE PLANS.

*THE HYDROSTATIC LEAKAGE RATE FOR POLYVINYL CHLORIDE (PVC) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-605 AS REQUIRED IN 30 TAC \$290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;

$$Q = \frac{LD\sqrt{P}}{148.000}$$

- Q = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR, • L = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
- D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND
- P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI).

*THE HYDROSTATIC LEAKAGE RATE FOR DUCTILE IRON (DI) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-600 AS REQUIRED IN 30 TAC §290.44(A)(5). PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;

$$L = \frac{SD\sqrt{P}}{148,000}$$

- L = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR.
- S = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
- D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND
- P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI).
- 12. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTIONS OF NINE FEET BETWEEN THE PROPOSED WATERLINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES. IF THIS DISTANCE CANNOT BE MAINTAINED. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET \$290.44(E)(1)-(4).
- 13. THE SEPARATION DISTANCE FROM A POTABLE WATERLINE TO A WASTEWATER MAIN OR LATERAL MANHOLE OR CLEANOUT SHALL BE A MINIMUM OF NINE FEET. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT [§290.44(E)(5)]
- 14. FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF ANY WASTEWATER LINE. WASTEWATER LATERAL. OR WASTEWATER SERVICE LINE REGARDLESS OF CONSTRUCTION [\$290.44(E)(6)].
- 15. SUCTION MAINS TO PUMPING EQUIPMENT SHALL NOT CROSS WASTEWATER MAINS. WASTEWATER LATERALS, OR WASTEWATER SERVICE LINES. RAW WATER SUPPLY LINES SHALL NOT BE INSTALLED WITHIN FIVE FEET OF ANY TILE OR CONCRETE WASTEWATER MAIN, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE [§290.44(E)(7)].
- 16. WATERLINES SHALL NOT BE INSTALLED CLOSER THAN TEN FEET TO SEPTIC TANK DRAINFIELDS [§290.44(E)(8)].
- 17. THE CONTRACTOR SHALL DISINFECT THE NEW WATERLINES IN ACCORDANCE WITH AWWA STANDARD C651-14 OR MOST RECENT, THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK THE EFFECTIVENESS OF THE DISINFECTION PROCEDURE WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS. A MINIMUM OF ONE SAMPLE FOR EACH 1,000 FEET OF COMPLETED WATERLINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE DESIGN ENGINEER [\$290.44(F)(3)].
- 18. DECHLORINATION OF DISINFECTING WATER SHALL BE IN STRICT ACCORDANCE

WITH CURRENT AWWA STANDARD C655-09 OR MOST RECENT.

STANDARD NOTES

- 1. TOPOGRAPHIC SURVEY WAS PERFORMED BY ATKINSON ENGINEERS IN JUNE 2024. ELEVATIONS FOR TEMPORARY BENCHMARKS (TBMS) SHOWN ON THESE PLANS SHALL BE VERIFIED FOR CONSISTENCY AND PRECISION BETWEEN TBMS FOR EACH SITE.
- 63, LLC IN JULY 2024.

2. GEOTECHNICAL INVESTIGATION WAS PERFORMED BY UES PROFESSIONAL SOLUTIONS

- 3. SOME WORK MAY BE LOCATED WITHIN A FEMA-DESIGNATED FLOODWAY AND/OR 100-YEAR FLOODPLAIN. ANY REQUIRED FLOODPLAIN DEVELOPMENT PERMITS, NO-RISE CERTIFICATIONS OR LETTERS OF MAP CHANGE SHALL BE PROVIDED BY
- 4. THE CONTRACTOR SHALL ADHERE TO ALL APPLICABLE STANDARD DETAILS AND
- SPECIFICATIONS FOR PROPOSED IMPROVEMENTS. 5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE BIDSET PLANS AND SPECS.
- 6. REVISIONS TO THESE ENGINEERING PLANS MUST BE AUTHORIZED BY BLEYL ENGINEERING PRIOR TO CONSTRUCTION. BLEYL ENGINEERING - (979) 268-1125
- a. NOTIFY BLEYL ENGINEERING (979)-268-1125 AND ALL OTHER PERTINENT AGENCIES 48 HRS BEFORE STARTING WORK.

7. THE CONTRACTOR SHALL:

COMMENCING WORK.

- b. THE CONTRACTOR SHALL NOTIFY THE OWNER AT LEAST 72 HOURS PRIOR TO
- c. NOTIFY ALL APPROPRIATE UTILITY COMPANIES 48 HOURS PRIOR TO ANY EXCAVATION.
- d. NOTIFY THE ENGINEER AND ALL PERTINENT AGENCIES OF ALL DESIRED FIELD CHANGES. THE ENGINEER'S APPROVAL MAY BE REQUIRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY AND SAFETY PROVISIONS REQUIRED TO PROTECT INDIVIDUALS, EQUIPMENT, MATERIALS AND WORKMANSHIP NECESSARY FOR THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STORAGE OF MATERIALS IN SAFE AND WORKMANLIKE MANNER TO PREVENT INJURIES DURING AND AFTER WORKING HOURS UNTIL PROJECT
- 9. THE CONTRACTOR SHALL ADVISE THE ENGINEER OF ANY APPARENT OR SPECIAL NEEDS TO COMPLETE THE SCOPE OF WORK INCLUDED IN THIS PROJECT. THESE MAY INCLUDE THE NEED FOR OWNER PROVIDED SERVICES SUCH AS WATER, STAFF
- 10. ACCURATE RECORDS SHOWING THE INSTALLED LOCATIONS OF ALL IMPROVEMENTS SHALL BE MAINTAINED DURING CONSTRUCTION.
- 11. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MAINTAIN ACCESS DURING THE CONSTRUCTION PERIOD. SCHEDULING OF ACTIVITIES SHOULD EMPHASIZE ACCESSIBILITY TO THE PROJECT SITE. EXTENDED PERIODS OF RESTRICTED ACCESS MUST BE LIMITED.
- 12. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND ALL UTILITY COMPANY REGULATIONS CONCERNING SAFETY AND HEALTH PRACTICES.
- 13. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OSHA RULES AND REGULATIONS.
- 14. THE CONTRACTOR SHALL PROTECT EXISTING MONUMENTS, YARDS, PRIVATE UTILITIES, DRIVES, CURBS, MAIL BOXES, SIGNS, IMPROVEMENTS, CULVERTS, AND OWNER'S FACILITIES FROM DAMAGE DURING CONSTRUCTION. DAMAGE DONE TO THESE ITEMS SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE, THE CONTRACTOR SHALL MOVE AND REPLACE SUCH MOVABLE ITEMS AS MAIL BOXES, TRAFFIC CONTROL, BUSINESS SIGNS, AND STREET SIGNS AS NECESSARY FOR CONSTRUCTION. FENCES OR STRUCTURES WHICH REQUIRE DISMANTLING OR REMOVAL SHALL BE RECONSTRUCTED OR REPLACED TO EQUAL OR BETTER THAN ORIGINAL CONDITION.
- 15. AT THE END OF ALL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL RESTORE EXISTING FACILITY (I.E. PROPERTY) EQUAL TO OR BETTER THAN EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. CLEAN-UP ACTIVITIES SHALL BE MAINTAINED THROUGHOUT THE CONTRACT PERIOD.
- 16. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO ENSURE THAT SURFACE DRAINAGE IS NOT IMPEDED BY CONSTRUCTION WORK.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PROTECTION OF CONSTRUCTION ACTIVITIES DURING THE CONTRACT PERIOD. THIS SHALL INCLUDE ANY EROSION CONTROL MEASURES AND RE-GRADING NECESSARY TO ACHIEVE THE LINES AND GRADES SET FORTH BY THESE PLANS
- 18. CONTRACTOR SHALL PROVIDE AND INSTALL CONSTRUCTION FENCING AROUND SITE TO PREVENT NON-WORKERS FROM ACCESSING THE CONSTRUCTION AREA. EXISTING WOODEN FENCES MAY BE USED IN LIEU OF CONSTRUCTION FENCING WHERE THEY EXIST AND CAN PREVENT ACCESS TO THE CONSTRUCTION AREA.
- 19. CONTRACTOR SHALL COMPLY WITH STATE AND LOCAL REGULATIONS REGARDING STORM WATER POLLUTION PREVENTION. IT IS THE CONTRACTORS RESPONSIBILITY TO FVELOP AND ENSURE THAT AN ADEQUATE STORM WATER POLITITION PREVENTION PLAN IS IMPLEMENTED AND MAINTAINED. ALL SILT FROM THE CONSTRUCTION OF THE PROPOSED UTILITIES IS TO BE RETAINED ON SITE AND PREVENTED FROM BEING TRANSPORTED TO THE NATURAL DRAINAGE PATHWAYS. ALL SWPP DEVICES WILL BE PAID FOR BY THE CONTRACTOR AND WILL BE CONSIDERED INCIDENTAL TO THE PROPOSED UTILITY WORK. CONFORMANCE TO THESE REGULATORY REQUIREMENTS IS
- 20. ALL TESTING PROCEDURES USED ON THIS PROJECT SHALL CONFORM TO THE TCEQ, AWWA. NSF OR APPLICABLE STANDARDS. THE TESTING EXPENSE SHALL BE BORNE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
- 21. THE CONTRACTOR SHOULD BE AWARE THAT THERE ARE OVERHEAD AND UNDERGROUND ELECTRICAL, TELEPHONE, ETC. LINES WITHIN THE PROJECT SITE. THE CONTRACTOR AND HIS PERSONNEL SHALL EXERCISE CARE AROUND THESE LINES TO PREVENT DAMAGE TO LINES AND INJURY TO THE PERSONNEL. ANY DAMAGE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE
- 22. ALL UNDERGROUND UTILITY LINES, SIZES, AND MATERIAL TYPES SHOWN ON THE PLANS ARE FOR THE PURPOSE OF MAKING THE CONTRACTOR AWARE THAT THEY EXIST. NEITHER THE OWNER. NOR THE ENGINEER GUARANTEES THE ACCURACY THEREOF, ALSO, THE LOCATIONS OF SOME EXISTING UTILITY LINES ARE NOT KNOWN AND THE CONTRACTOR SHALL VERIFY THE LOCATION. SIZE AND MATERIAL TYPES OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE FINAL ALIGNMENT OF THE PROPOSED MAIN LINES ARE SUBJECT TO MODIFICATION PENDING THE ESTABLISHMENT OF EXISTING UTILITY LOCATIONS.
- 23. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT ALL "POINTS OF CROSSING" TO DETERMINE IF CONFLICTS EXIST BEFORE COMMENCING ANY CONSTRUCTION, NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS.
- 24. THE LATEST TCEQ REGULATIONS MUST BE FOLLOWED FOR CROSSINGS OF SANITARY SEWER MAINS AND WATER MAINS. IT IS THE INTENT THAT THE MOST ECONOMICALLY ACCEPTABLE ALTERNATIVE BE ELECTED. ACCORDINGLY, FIELD VERIFICATION OF EXISTING UTILITY GRADES IS IMPERATIVE.
- 25. FINAL COVER OF INSTALLED LINES SHALL NOT BEGIN PRIOR TO OBSERVATION AND ACCEPTANCE BY THE OWNER OR ENGINEER. THE CONTRACTOR SHALL CONTACT THE OWNER BY 4:00 P.M. REGARDING THE SCHEDULING OF THESE MONITORING VISITS.
- 26. CONNECTIONS TO EXISTING LINES SHALL INCLUDE ALL REQUIRED FITTINGS, MATERIALS REQUIRED TO MAKE A SUCCESSFUL TIE IN MEETING ALL APPLICABLE
- 27. THE LOADING AND UNLOADING OF ALL MATERIALS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PRACTICES AND SHALL AT ALL TIMES BE PERFORMED WITH CARE TO AVOID ANY DAMAGE TO THE MATERIAL. THE CONTRACTOR SHALL LOCATE AND PROVIDE THE NECESSARY STORAGE AREAS FOR MATERIALS AND EQUIPMENT.
- 28. ALL MATERIALS AND EQUIPMENT SHALL BE BOTH FURNISHED AND INSTALLED UNLESS
- 29. CONTRACTOR SHALL PROVIDE SHEETING, SHORING AND BRACING AS NECESSARY TO PROTECT WORKMEN AND EXISTING UTILITIES DURING ALL PHASES OF CONSTRUCTION AS PER OSHA REQUIREMENTS.
- 30. TRENCH SAFETY REQUIREMENTS SHALL BE IN ACCORDANCE WITH OSHA STANDARD 29 CFR PART 1926 P. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING TRENCH SAFETY. COST FOR ANY TRENCH SAFETY SYSTEMS THAT REQUIRE AN ENGINEER'S SEAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE PROJECT.
- 31. IF AND WHERE DEWATERING IS NECESSARY, CONTRACTOR SHALL SUBMIT A DEWATERING PLAN TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION.

- 32. CONTRACTOR SHALL INSTALL ALL EROSION/SEDIMENT CONTROL FEATURES SHOWN ON THE EROSION CONTROL WORKMAP PRIOR TO GRADING OR OTHER CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL ADHERE TO ALL TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM REQUIREMENTS FOR CONSTRUCTION SITES. INCLUDING INSTALLATION MAINTENANCE AND REMOVAL OF ALL NECESSARY STORMWATER POLLUTION PROTECTION MEASURES AND NOTICES. CONTRACTOR SHALL NOTIFY THE TCEQ. MS4. AND PUBLIC AS REQUIRED AND CREATE, UPDATE, AND MAINTAIN A STORMWATER POLLUTION PREVENTION PLAN AS REQUIRED, INCLUDING REQUIRED
- 33. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER SUCH THAT TRUCKS AND OTHER VEHICLES DO NOT CREATE A DIRT NUISANCE OR SAFETY HAZARD IN ANY STREETS, PUBLIC OR PRIVATE. CLEAN UP OF STREETS SHALL BE DONE DAILY AT NO ADDITIONAL COST TO THE PROJECT.
- 34. ALL PIPES AND STRUCTURES SHALL BE INSTALLED TO MANUFACTURER SPECIFICATIONS, INCLUDING MAXIMUM BENDING RADIUS, JOINT DEFLECTION, FITTINGS, SEALANTS, ETC.
- 35. NO EXCAVATIONS SHALL BE LEFT OPEN OVERNIGHT. ALL EXCAVATIONS WHICH CANNOT BE BACKFILLED OVERNIGHT SHALL BE COVERED WITH STEEL SHEETING WHEN IN PAVED AREAS. FOR NON-PAVED AREAS STEEL SHEETING, WOOD PLANKING OR OTHER MATERIAL WHICH IS APPROVED BY THE CITY MAY BE USED. COMPLETELY CORDON OFF THE EXCAVATION AREA WITH PLASTIC CONSTRUCTION FENCING APPROVED BY THE CITY. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SAFETY OF EXCAVATION AREAS.
- 36. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND DETERMINE THE DEPTH. LOCATION. ELEVATION. ALIGNMENT AND EXISTENCE OF ALL SURFACE OR UNDERGROUND UTILITIES AND STRUCTURES IN AND AROUND THE VICINITY OF THE WORK TO BE PERFORMED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY CONFLICTS FOUND PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL ALLOW AMPLE TIME TO THE OWNER TO DETERMINE A RESOLUTION TO THE CONFLICT. NO ADDITIONAL PAYMENT SHALL BE MADE FOR DELAYS DUE TO SUCH CONFLICTS OR WORK DONE WITHOUT DETERMINING THE ACTUAL LOCATION OF UTILITIES OR OBJECTS.
- 37. EXISTING PAVEMENT, CURB, SIDEWALK, DRIVEWAY, AND LANDSCAPED AREAS DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE ALL AREAS WHERE EXISTING VEGETATION AND GRASS HAS BEEN REMOVED OR SIGNIFICANTLY REDUCED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL ADEQUATELY APPLY REVEGETATIVE COVERINGS OVER THE AREA WITHIN 14 CALENDAR DAYS AFTER LAST DISTURBANCE AND THEN WATER THE AREAS UNTIL GROWTH IS WELL ESTABLISHED. AND THE SITE IS PROVISIONALLY ACCEPTED BY THE CITY'S PROJECT MANAGER. REVEGETATIVE COVERINGS FOR DISTURBED AREAS SHALL BE:
- a. FOR LANDSCAPED YARDS, APPLY BLOCK SOD; b. FOR NATURAL VEGETATION AND OTHER GRASSY AREAS APPLY HYDROMULCH. 38. ALL CONSTRUCTION STAKING FOR THE IMPROVEMENTS REQUIRED ON THIS PROJECT WILL BE PROVIDED BY CONTRACTOR. CONTRACTOR SHALL USE A TEXAS REGISTERED PROFESSIONAL LAND SURVEYOR TO PERFORM THE CONSTRUCTION STAKING AND TO VERIFY THE LOCATIONS OF ALL POTENTIAL ALIGNMENT CONFLICTS SPECIFICALLY CALLED FOR ON THE PLANS. CONSTRUCTION STAKING SHALL BE CONSIDERED INCIDENTAL AND CONTRACTOR SHALL INCLUDE COSTS IN RELATED ITEMS OF WORK. CONTRACTOR SHALL USE GRADE CONTROL TO ENSURE FLOW LINES AND
- 39. ALL TRENCHING AND BACKFILLING SHALL BE PERFORMED PER THE SPECIFICATIONS. TESTING WILL BE PERFORMED BY A CERTIFIED LABORATORY AT THE OWNER'S EXPENSE, TO VERIFY PROPER BEDDING AND BACKFILL. ANY WORK THAT DOES NOT PASS TESTING SHALL BE REPLACED AND RETESTED AT CONTRACTOR'S EXPENSE. STRUCTURAL AREAS SHALL INCLUDE ALL SIDEWALKS AND SHALL EXTEND 5' BEYOND THE CURB LINES OF ALL STREETS, ALLEYS AND PARKING AREAS.

INVERTS ARE INSTALLED AT GRADES AND ELEVATIONS SHOWN.

- 40. UNLESS OTHERWISE NOTED, ALL WATER, GAS AND SEWER LINE TIE-INS AND CONNECTIONS SHALL BE CONSIDERED SUBSIDIARY TO THEIR REQUIRED COMPONENTS AS LISTED IN THE BID TABS. NO SEPARATE PAYMENT WILL BE MADE FOR APPURTENANCES NECESSARY TO INSTALL SEWER LINE ITEMS ACCORDING TO
- 41. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL ONLY BE COMPENSATED FOR THE PIPE, FITTINGS, CLEANOUTS, MANHOLES, AND OTHER APPURTENANCES THAT ARE ACTUALLY INSTALLED FOR THE UTILITY LINES AND OTHER IMPROVEMENTS REQUIRED FOR THIS PROJECT. REFER TO APPLICABLE TECHNICAL SPECIFICATION SECTIONS FOR SPECIFIC INFORMATION ON MEASUREMENT AND PAYMENT, ELIMINATION/ADDITION OF FITTINGS AND RELATED RESTRAINED JOINT PIPE LENGTHS, LAYING SCHEDULES, AND OTHER IMPORTANT REQUIREMENTS ON THE SEWER LINES AND OTHER IMPROVEMENTS ON THIS PROJECT.
- 42. UNLESS SPECIFICALLY STATED, AND OTHERWISE PROVIDED FOR ON THE BID FORM, ALL WORK DESCRIBED IN THESE STANDARD NOTES SHALL BE CONSIDERED INCIDENTAL TO THE ITEMS OF WORK LISTED ON THE BID PROPOSAL FORM AND NO SEPARATE PAYMENT WILL BE MADE TO THE CONTRACTOR FOR SUCH WORK.
- 43. ANY REQUIRED CHANGES TO THE DRAWINGS RESULTING FROM THE ACCEPTANCE OF ALTERNATES AND/OR SUBSTITUTIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

GRADING NOTES

- 1. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
- 2. BEFORE STARTING CONSTRUCTION, CONTRACTOR SHALL VERIFY BENCHMARK ELEVATION AND NOTIFY ENGINEER IF ANY DISCREPANCY AND/OR CONFLICT IS
- 3. CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS AND NO PONDING IN PAVED AREAS, AND SHALL NOTIFY ENGINEER IF ANY GRADING DISCREPANCIES ARE FOUND IN THE EXISTING AND PROPOSED GRADES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES.
- 4. CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.
- 5. ALL EXISTING CONCRETE PAVING, SIDEWALK, AND CURB DEMOLITION SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR. DISPOSAL SHALL BE AT AN APPROVED OFF-SITE, LAWFUL LOCATION, UNLESS DIRECTED OTHERWISE BY THE
- 6. FILL AREAS ON PLANS SHALL BE FILLED IN LAYERS NOT EXCEEDING 8" IN DEPTH AND EACH COMPACTED TO NOT LESS THAN 95% MAXIMUM DRY DENSITY (PER ASTM D-698) AND WITHIN +-2% OF THE OPTIMUM MOISTURE CONTENT.

STREET NOTES

1. THE CONSTRUCTION TRAFFIC CONTROL SIGNS, DEVICES AND BARRICADES ON THESE DRAWINGS CONSTITUTE MINIMUM REQUIREMENTS AND ARE NOT INTENDED TO COVER SPECIAL CIRCUMSTANCES OR OTHER CONDITIONS THAT MAY ARISE DUE TO UNFORESEEN FIELD CONDITIONS. THE CONTRACTOR SHALL PLACE AND MAINTAIN SUFFICIENT ADDITIONAL SIGNS, BARRICADES, AND WARNING DEVICES TO WARN THE PUBLIC AND PROVIDE FOR THE SAFE MOVEMENT OF TRAFFIC AND THE CONSTRUCTION ZONE SAFETY. WHERE PROJECT REQUIREMENTS ARE NOT FULLY SATISFIED BY THE STANDARDS SHOWN HEREON, THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" SHALL GOVERN. ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL DEVICES MARKINGS, STRIPING AND SIGNAGE REQUIRED FOR THIS PROJECT SHALL BE INCLUDED IN THE APPROPRIATE LUMP SUM BID ITEM. ANY CHANGES TO TRAFFIC CONTROL DEEMED NECESSARY DUE TO FIELD CONDITIONS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE PROJECT.

WATER NOTES

- WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF BRYAN CONSTRUCTION STANDARDS, STANDARD SPECIFICATION, AND CONSTRUCTION
- 2. ALL MAIN LINE FITTINGS SHALL BE DI.
- 3. ALL EIGHT INCH (8") AND LARGER PVC PIPE SHALL CONFORM TO AWWA SPECIFICATION C-900, ASTM D2241 OR LATEST REVISION SDR18, PRESSURE CLASS 235. PVC FITTINGS SHALL NOT BE USED WITH PIPE OF FOUR INCH (4") DIAMETER OR LARGER. PVC PIPE FOR POTABLE WATER LINES SHALL BE BLUE IN COLOR TO DIFFERENTIATE IT FROM WASTEWATER PVC PIPE.
- 4. NOT MORE THAN 300 FEET OF TRENCH SHALL BE OPENED IN ADVANCE OF THE PIPE INSTALLATION AND THE PIPE SHALL BE LAID IN ALL OPENED DITCH BE THE END OF THE WORK DAY. A TEST TYPE PLUG SHALL BE INSTALLED IN THE OPEN ENDS OF ALL PIPES AT THE END OF EACH DAY.
- 5. 12" WIDE INDUCTIVELY AND CONDUCTIVELY DETECTABLE MARKING TAPE SHALL BE INSTALLED 18" TO 24" FROM THE SURFACE ABOVE ALL MAINS OR SERVICE LINES.
- 6. 4" THRU 12" WATER LINES SHALL BE P.V.C. CLASS 150, DR-14, AWWA C-900 AND 1" THRU 3" WATER LINES SHALL BE PVC SCHEDULE 40. 4" THRU 54" D.I.P. WATER LINES SHALL BE AWWA C151 (ANSI A21.51) AND DOUBLE WRAPPED IN 8-MIL POLYETHYLENE. PIPE SHALL BE LINED IN ACCORDANCE WITH AWWA C104
- 7. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AS NECESSARY TO PREVENT PIPE MOVEMENT. USE RESTRAINED JOINTS WHERE PREVENTING MOVEMENT OF 16" OR GREATER PIPE IS NECESSARY DUE TO THRUST.
- 8. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER
- 9. ALL WATER VALVES SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT
- 10. ALL WATER LINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651 AND THE TEXAS STATE DEPARTMENT OF HEALTH AT LEAST ONE BACTERIOLOGICAL SAMPLE SHALL BE COLLECTED FOR EVERY 1,000 LINEAR FEET OF WATER LINE AND SHALL BE REPEATED IF CONTAMINATION PERSISTS.
- 11. ALL BELOW GRADE VALVES SHALL BE CASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.
- 12. 4" THRU 12" FITTINGS SHALL BE CEMENT MORTAR LINED COMPACT DUCTILE IRON PRESSURE FITTINGS PER ANSI A21.53, OR PUSH ON FITTINGS PER ANSI A21.10 PRESSURE RATED AT 250 PSIG.
- 13. HYDROSTATIC TESTING: ALL WATER PIPE SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LATEST CITY OF BRYAN STANDARD CONSTRUCTION SPECIFICATIONS. TESTS ARE TO BE PERFORMED ON THE ENTIRE FOOTAGE OF WATER PIPE LINE INCLUDED IN THE PROJECT.
- 14. ALL WATER LINES TO HAVE 4' MINIMUM COVER TO FINISHED GRADE AND MINIMUM 12" CLEARANCE TO OTHER UTILITIES AT CROSSING UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINE INSTALLED OVER 8' DEEP SHALL UTILIZE RESTRAINED
- 15. CONTRACTOR SHALL KEEP WATER PIPE CLEAN AND CAPPED (OR OTHERWISE EFFECTIVELY COVERED) OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED PIPE LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.

10. 33 1700 JTH FLOI 01 MI

THIS DRAWING WAS PREPARED UNDER THE DIRECTION OF TIM WOLFF, PE NO. 100110 IT IS NOT TO BE USED FOR CONSTRUCTION AND IS RELEASED

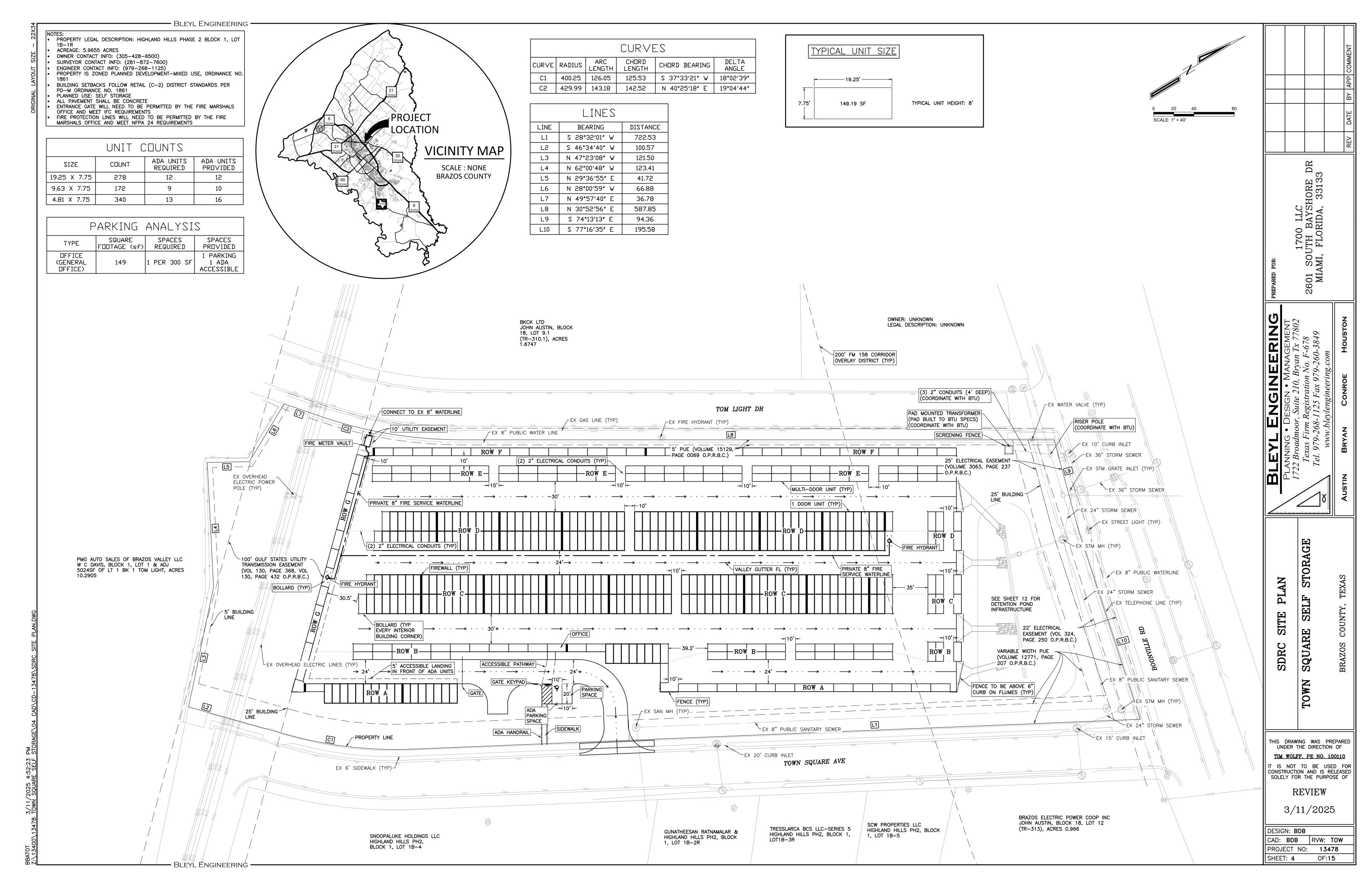
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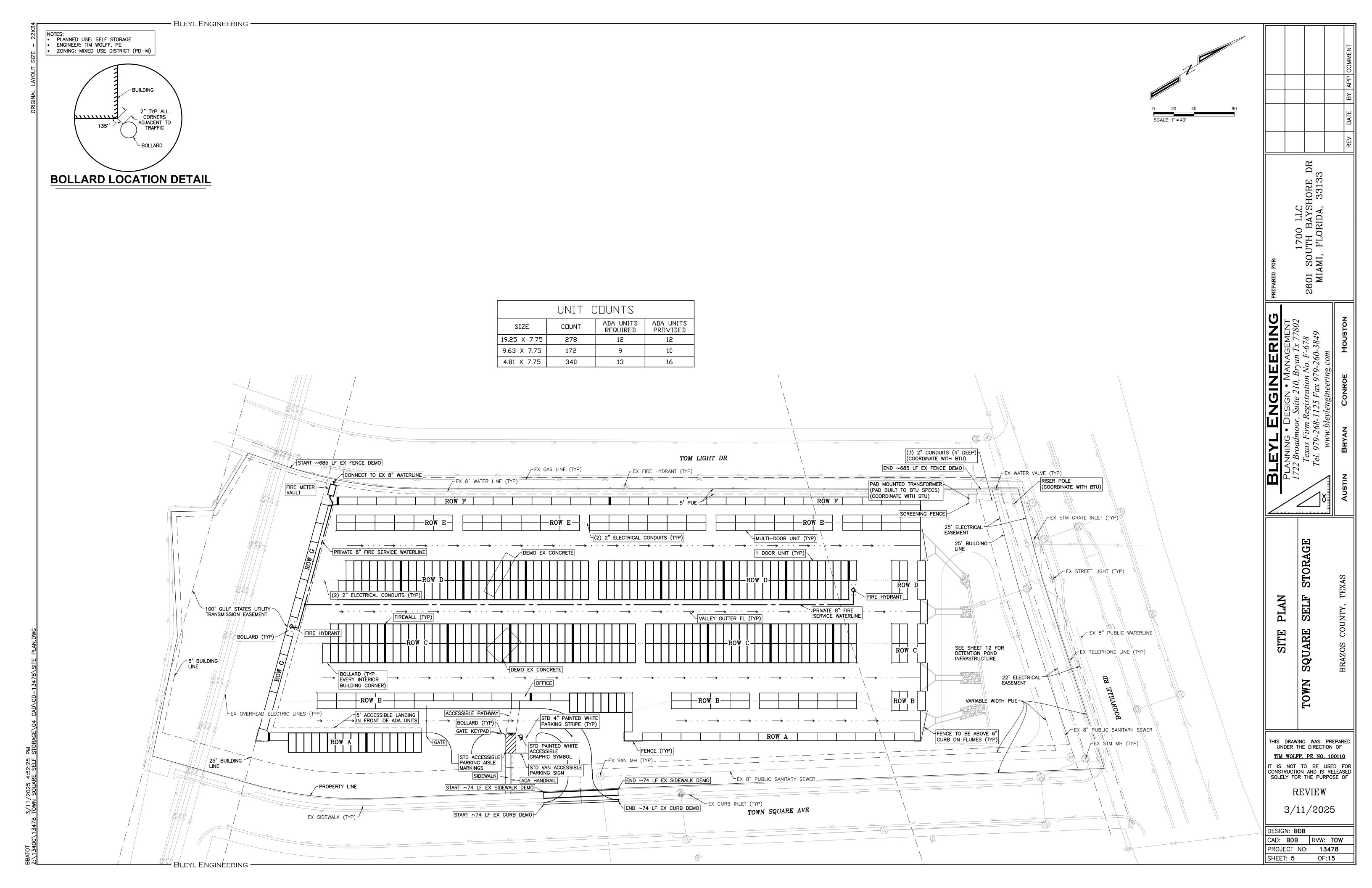
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TREE NOTES

BLEYL ENGINEERING -

TREES TO BE PLANTED SHALL BE EIGHT FEET OR MORE IN HEIGHT AND MEASURE A MINIMUM OF TWO AND ONE-HALF ON CALIPER WHEN MEASURED 12 INCHES FROM THE BASE OF THE TRUNK OR TOP OF THE BALL.

GENERAL LANDSCAPE NOTES

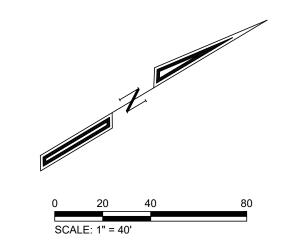
- PREPARE SITE BY REMOVING ALL UNDESIRED MATERIALS, SUCH AS ROCKS AND DEBRIS.
- PERFORM SLIGHT TRIMMING OF ANY EXISTING TREES TO REMAIN. SPREAD ORGANIC SOIL MIX AS REQUIRED TO FACILITATE PLANTER SETTING - PLANTER BEDS AND
- 4. LAYOUT ALL PLANTER BEDS WITH SPRAY PAINT, ADJUSTING AS REQUIRED DUE TO SITE
- CONDITIONS ALTHOUGH TRY AS MUCH AS POSSIBLE TO FOLLOW PLAN. INSTALL A DESIGN BUILD IRRIGATION SYSTEM ENSURING PROPER HEAD SELECTION, COVERAGE, AND FLOWS BASE ON FINAL BED AND TO EXISTING SYSTEM TURF LAYOUT. ENSURE ADEQUATE
- 6. CONTRACTOR TO PROVIDE ALL PLANT MATERIAL FOR THE PROJECT. CONTRACTOR WILL ENSURE ALL PLANT MATERIAL BROUGHT TO THE JOB SITE IS FRESH, VIABLE, AND THE CORRECTLY SPECIFIED GENUS SPECIES, AND TREES ADHERE TO SPECIFIED CALIPER REQUIREMENTS. INSTALLATION CONTRACTOR MUST ENSURE CREW IS AVAILABLE TO OFF-LOAD PLANT MATERIAL
- 7. PLANT ALL PLANT MATERIAL, PER PLAN, ALLOWING SLIGHT MODIFICATIONS BASED ON ACTUAL SITE
- 8. ENSURE ENTIRE JOB SITE IS POLICED, SWEPT, ALL LITTER AND DEBRIS IS REMOVED EVERYDAY BEFORE LEAVING. ENSURE ALL PLANTERS AND TURF ARE WATERED IN, ANY SETTLING OF MULCH AND PLANTERS IS REPAIRED, IRRIGATION HEADS ARE ADJUSTED AND OPERATIONAL, IRRIGATION SYSTEM TIMER IS ADJUSTED AND SET TO ENSURE ADEQUATE ESTABLISHMENT WATERING PERIOD IS
- 9. 100% COVERAGE OF GROUNDCOVER, DECORATIVE PAVING, DECORATIVE ROCK, OR A PERENNIAL GRASS IS REQUIRED IN PARKING LOT ISLANDS, SWALES AND DRAINAGE AREAS, THE PARKING LOT SETBACK, RIGHTS-OF-WAY, AND ADJACENT PROPERTY DISTURBED DURING CONSTRUCTION.
- 10. ALL LANDSCAPE/STREETSCAPING, INCLUDING IRRIGATION SYSTEM, SHALL BE PERFORMED, PLANTED, AND, INSTALLED ACCORDING TO THE RULES AND GUIDELINES IN THE CITY OF BRYAN CODE OF
- 11. ALL IRRIGATION SYSTEMS MUST BE PROTECTED BY EITHER A PRESSURE VACUUM BREAKER, A REDUCED PRESSURE PRINCIPAL BACKFLOW DEVICE, OR A DBL-CHECK BACKFLOW DEVICE. ALL BACK FLOW DEVICES MUST BE INSTALLED AND TESTED UPON INSTALLATION.

BLEYL ENGINEERING

LANDSCAPING LEGEND AND REQUIREMENTS

	NI A NA E			
SIZE	NAME AND TYPE	QUANTITY	SF VALUE	TOTAL (SF)
2.5"—3" Cal. or larger	CHINESE PISTACHE (<i>Pistacia Chinensis)</i> Canopy Tree	14	200	2,800
2.5"—3" Cal. or larger	EASTERN RED CEDAR (Juniper Virginiana) Canopy Tree	19	200	3,800
2.5"—3" Cal. or larger	TEXAS MOUNTAIN LAUREL (Sophora Secundiflora) Non—Canopy Tree	37	100	3,700
2.5"-3" Cal. or larger	HOLLY YAUPON (<i>Ilex Vomitoria)</i> Non—Canopy Tree	28	100	2,800
15 Gallon or larger	JUNIPER SPECIES, UPRIGHT (Juniperus species) Shrub/Hedge Row for Parking Screening (must be 3' tall minimum)	10	15	150
	LANDSCAPE ROCK	13,000	1	13,000
	GRASS			
	AREA OF DISTURBANCE			
<u> </u>	5"-3" Cal. or larger 5"-3" Cal. or larger 5"-3" Cal. or larger 5"-3" Cal. or larger	5"-3" Cal. (Pistacia Chinensis) Canopy Tree 5"-3" Cal. or larger 5"-3" Cal. or larger 5"-3" Cal. or larger TEXAS MOUNTAIN LAUREL (Sophora Secundiflora) Non-Canopy Tree HOLLY YAUPON (Ilex Vomitoria) Non-Canopy Tree JUNIPER SPECIES, UPRIGHT (Juniperus species) Shrub/Hedge Row for Parking Screening (must be 3' tall minimum) LANDSCAPE ROCK	5"-3" Cal. or larger EASTERN RED CEDAR (Juniper Virginiana) Canopy Tree 5"-3" Cal. or larger 5"-3" Cal. or larger HOLLY YAUPON (Ilex Vomitoria) Non-Canopy Tree JUNIPER SPECIES, UPRIGHT (Juniperus species) Shrub/Hedge Row for Parking Screening (must be 3' tall minimum) LANDSCAPE ROCK 13,000	5"-3" Cal. (Pistacia Chinensis) or larger EASTERN RED CEDAR (Juniper Virginiana) Canopy Tree 19 200 5"-3" Cal. (Juniper Virginiana) Canopy Tree 5"-3" Cal. (Sophara Secundiflora) Non-Canopy Tree 5"-3" Cal. (Sophara Secundiflora) Non-Canopy Tree 5"-3" Cal. (Ilex Vomitoria) Non-Canopy Tree 5"-3" Cal. (Ilex Vomitoria) Non-Canopy Tree 15 Gallon or larger JUNIPER SPECIES, UPRIGHT (Juniperus species) Shrub/Hedge Row for Parking Screening (must be 3' tall minimum) LANDSCAPE ROCK 13,000 1

LANDSCAPING REQUIREMENTS:			
REQUIRED:	PROVIDED:		
75% MAX COVERAGE OF THE PROPERTY	60% COVERAGE		
17% OF DEVELOPED AREA 0.60 ACRES (26,150 SF)	17% OF DEVELOPED AREA 0.60 ACRES (26,250 SF)		
>50% OF REQUIRED AREA SHALL BE TREES (13,075 SF)	13,100 SF		
>50% OF TREES PLANTED SHALL BE CANOPY (6,537.5 SF)	6,600 SF		
>75% HAVING YEAR-ROUND FOLIAGE	79% HAVING YEAR-ROUND FOLIAGE		
ALL PARKING ISLANDS MUST HAVE A CANOPY TREE	ALL PARKING ISLANDS HAVE A CANOPY TREE		
IRRIGATION SYSTEM	IRRIGATION PLAN TO BE PROVIDED BY LANDSCAPE CONTRACTOR		



1700 LLC UTH BAYSHORE DR FLORIDA, 33133

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