VICINITY MAP



3013 AVENUE M 1/2, GALVESTON, TX 77550



FOR REVIEW ONLY THIS DOCUMENT IS FOR **REVIEW PURPOSE ONLY** AND NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DR. HANI TOHME, P.E. TEXAS P.E. 90326

> 03 / 08 / 2023 DATE





CALL 1-800-344-8377 FOR LOCATES PRIOR TO ANY EXCAVATION

To the best of our knowledge these plans are drawn to comply with owner's and/ or builder's specifications and any changes made on them after prints are made will be done at the owner's and / or builder's expense and responsibility. The contractor shall verify all dimensions and enclosed drawing. GTCE is not liable for errors once construction has begun. While every effort has been made in the preparation of this plan to avoid mistakes, the maker can not guarantee against human error. The contractor of the job must check all dimensions and other details prior to construction and be solely responsible thereafter.

SITE LOCATION



SHEET INDEX

CIVIL DRAWINGS

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- C-8.0 WATER SEWER DETAIL

RESIDENTIAL APPARTMENTS 3013 AVENUE M 1/2, GALVESTON, TX 77550



PROJECT DESCRIPTION:

- 1. PROPOSED ONE STORY RESIDENTIAL BUILDING.
- 2. THE TYPE OF CONSTRUCTION IS WOOD FRAME BUILDING.

NOTE:

- THE FIRE SPRINKLER SYSTEM DESIGN WILL BE SUBMITTED BY THE FIRE SPRINKLER COMPANY.
- THE FIRE ALARM SYSTEM WILL BE DESIGN WILL BE SUBMITTED BY THE FIRE ALARM COMPANY.

GENERAL CONSTRUCTION NOTES

THE TEXAS STANDARD SPECIFICATIONS 2014 WILL GOVERN ALL SPECIFICATIONS NOT DIRECTLY ADDRESSED IN THIS DOCUMENT. THE CONTRACTOR WILL ESTABLISH THE PROJECT CONTROL POINT, POINTS OF TANGENCY, PI'S (POINTS OF INTERSECTIONS), POINT OF CURVATURE (PC'S AND PT'S), AND BENCHMARK ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION. ASSUME OWNERSHIP FOR ALL DESIGNATED WASTE MATERIAL AND DISPOSE OF IT AT A PLACE OFF OF THE RIGHT OF WAY, AS APPROVED BY THE ENGINEER. ALL QUANTITIES SHOWN ON PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. THESE QUANTITIES ARE IN PLACE AND CONSIDERED PAY QUANTITIES. CONTRACTOR IS TO VERIFY ALL QUANTITIES PRIOR TO ORDERING ANY MATERIAL. IF ANY DISCREPANCIES ARE FOUND, CONTRACTOR IS TO NOTIFY ENGINEER IN A TIMELY FASHION SO THAT ADJUSTMENTS MAY BE MADE (IF NECESSARY). DIRECT ATTENTION TO COMPLY WITH ALL ORDINANCES AND REGULATIONS OF LOCAL MUNICIPAL AND COUNTY GOVERNMENTS AND THE TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY), WHICH MAY BE APPLICABLE ON THIS PROJECT. THIS WILL NOT BE PAID FOR DIRECTLY AND WILL BE CONSIDERED SUBSIDIARY TO VARIOUS BID ITEMS. PROCURE ALL THE NECESSARY CITY AND/OR COUNTY AND DRAINAGE DISTRICT 6 PERMITS AND LICENSES BEFORE THE START OF THIS PROJECT. THIS WILL NOT BE PAID FOR DIRECTLY AND WILL BE CONSIDERED SUBSIDIARY TO VARIOUS BID ITEMS. THE APPROXIMATE LOCATION OF THE KNOWN UNDERGROUND UTILITY INSTALLATIONS IS AS SHOWN ON THE PLANS. CONFIRM THE LOCATION OF THESE UTILITY LINES AND THE EXACT LOCATION OF ANY OTHERS WHICH MAY EXIST. ASSUME FULL RESPONSIBILITY FOR NOTIFYING THE UTILITY INVOLVED IN CASE OF CONFLICT OR DAMAGE AND HE/SHE SHALL BE RESPONSIBLE FOR DAMAGE THAT OCCURS DUE TO HIS/HER NEGLIGENCE. REMOVE AND DISPOSE OF ABANDONED LINES ENCOUNTERED THAT INTERFERE WITH THE CONSTRUCTION OF THIS PROJECT. CONSIDER THIS WORK TO BE SUBSIDIARY TO THE VARIOUS BID ITEMS OF THE CONTRACT. BEFORE EXCAVATING, CONTRACTOR TO CONTACT UTILITY COMPANIES WITH EXISTING FACILITIES IN THE AREA OF CONSTRUCTION AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION. WHEN UTILITY POLES NEED TO BE RELOCATED, TO FACILITATE CONSTRUCTION, THE CONTRACTOR IS TO NOTIFY THE PROPER UTILITY COMPANIES AT LEAST TWO (2) WEEKS BEFORE BEGINNING CONSTRUCTION

GENERAL NOTES FOR PAVING OPERATIONS

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE INDEPENDENT TESTING LABORATORY TO TAKE ALL SAMPLES OF AND TEST CONCRETE, MAKE AND TEST ALL BEAMS AND CYLINDERS IN ACCORDANCE WITH THE APPROVED TEST METHODS AND THE APPROPRIATE STANDARD SPECIFICATIONS FOR THE VARIOUS ITEMS.
- 2. ALL DOWELS USED FOR EXPANSION AND CONSTRUCTION JOINTS MUST BE SUPPORTED ADEQUATELY TO INSURE THEIR POSITION WILL BE MAINTAINED DURING CONSTRUCTION OPERATIONS.
- ALL JOINTS SHALL BE SEALED WITH A TXDOT 2004 DMS-6310, CLASS 5 SEALANT. 3.
- 4. ALL SUBGRADE SHALL BE PROOF ROLLED PRIOR TO PLACING AND FILL. ANY SOFT AREAS SHALL BE EXCAVATED AND BACKFILLED WITH AN APPROVED MATERIAL AND COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY.
- 5. T.O.C. AND T.O.P. INDICATE TOP OF CURB AND TOP OF PAVEMENT ELEVATIONS.

GENERAL NOTES FOR SANITARY SEWER INSTALLATION

- 1. ALL SANITARY SEWER LINES SHALL BE POLYVINYL CHLORIDE (PVC) SDR 26 OR CL 150 PVC 160 PSI PIPE AND SHALL CONFORM TO ASTM D1784, ALL SANITARY SEWER LINES SHALL BE BEDDED AND BACKFILLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS
- 2. ALL SANITARY SEWER LINES UNDER THE PAVEMENT OR WITHIN FIVE (5) FEET OF THE BACK OF CURBS ARE TO BE BACKFILLED WITH (1 1/2 SACKS/CY) OF CEMENT STABILIZED SAND TO THE BOTTOM OF THE PAVEMENT SUBGRADE. ALL OTHER LINES SHALL BE BACKFILLED TO ONE (1) FOOT ABOVE THE FLOWLINE. ALL BACKFILLING AND BEDDING MATERIALS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.
- 3. DURING CONSTRUCTION A FIVE (5') LONG 2"X4" STAKE, PAINTED RED, SHALL BE DRIVEN INTO THE GROUND ADJACENT TO ALL SERVICE WYES AND SANITARY CLEANOUTS FOR PROTECTION DURING CONSTRUCTION.
- 4. WATER UTILIZED FOR TESTING PURPOSES OR INFILTRATED THE SEWER LINES SHALL BE PUMPED OUT AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL INSPECTION AT THE CONTRACTOR'S COST.
- 5. ALL SANITARY MANHOLES WHOSE EXCAVATION COMES WITHIN FIVE (5) FEET OF EXISTING, PROPOSED, OR FUTURE PAVEMENT WILL BE BACKFILLED WITH CEMENT STABILIZED SAND FOR THE ENTIRE AREA OF EXCAVATION TO A POINT ONE (1') FOOT BELOW TOP OF PAVEMENT SUBGRADE OR ONE (1') BELOW NATURAL GROUND OR FINISHED GRADE WHICHEVER IS LOWER WHEN OUTSIDE OF PAVEMENT. THE CEMENT STABILIZED SAND, CONSISTING OF (1 1/2 SACKS/CY), IS TO BE THOROUGHLY COMPACTED. THE REMAINING BACKFILL ABOVE THIS LEVEL IS TO BE COMPACTED SELECT MATERIAL.
- 6. ALL SANITARY SEWER MANHOLE OPENINGS, STUBS AND PLUGS SHALL BE INCLUDED IN THE COST OF INSTALLING MANHOLE.
- CONNECTING ALL PROPOSED SANITARY SEWER LINES TO EXISTING OR PROPOSED MANHOLES OR JUNCTION BOXES WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCIDENTALS NECESSARY TO COMPLETE THE WORK.
- THE CONTRACTOR SHALL INSTALL SANITARY SEWER SERVICES LINES USING PVC SCHEDULE 40(AS TM D1785) IN 8. ACCORDANCE WITH THE DETAILS IN THIS CONTRACT.
- CONTRACTOR SHALL CONTACT CITY INSPECTION OFFICE 5 DAYS PRIOR TO BEGINNING CONSTRUCTION. SEE NOTE FOR CITY NOTIFICATION ON THIS SHEET.
- 10. CONTRACTOR SHALL CONTACT CITY INSPECTION OFFICE 5 DAYS PRIOR TO BEGINNING CONSTRUCTION.

GENERAL NOTES FOR WATER INSTALLATION

- 1. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING WATERLINES LOCATED WITHIN THE PROJECT LIMITS.
- 2. ALL UTILITIES SHOWN ARE FOR INFORMATIONAL PURPOSES AND THEIR EXACT LOCATION MUST BE DETERMINED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION.
- 3. CONTRACTOR TO EXPOSE AND VERIFY LOCATION, SIZE, AND DEPTH OF ALL EXISTING WATER LINES AT PROPOSED CONNECTION LOCATIONS PRIOR TO ANY CONSTRUCTION.
- 4. FITTINGS WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE UNIT BID PRICE PER LINEAR FOOT OF PIPE.
- 5. PROPOSED WATER LINES SHALL BE A MINIMUM OF 3' COVER BELOW FINISHED GRADES. VARY FLOW LINES UNIFORMLY TO DEPTHS AND LOCATIONS AS SHOWN ON THE PLANS.
- 6. CONTRACTOR TO PROVIDE VALVE BOX EXTENSIONS WHERE REQUIRED TO CONSTRUCT VALVE BOXES FLUSH WITH PROPOSED FINISHED GRADE. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK. CONSIDER THIS WORK TO BE SUBSIDIARY TO THE VARIOUS BID ITEMS
- 7. CONTRACTOR TO PROVIDE ADEQUATE CONCRETE THRUST BLOCKING TO WITHSTAND TEST PRESSURES OR TO PROVIDE FITTINGS WITH RESTRAINED JOINTS.
- 8. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO THE AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.
- 9. ALL PLASTIC PIPE USED IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL AND HAVE AN ASTM PRESSURE RATING OF AT LEAST 150 PSI.
- 10. WATERLINES SHALL BE INSTALLED AS DETAILED ON THE PLAN SHEETS. FIELD ADJUSTMENTS MAY BE NECESSARY TO AVOID UNFORESEEN OBSTRUCTIONS.
- 11. CONTRACTOR IS MADE AWARE THAT THE OWNER MAY NOT HAVE THE ABILITY TO ISOLATE EXISTING WATER LINES FOR TIE-INS. CONNECTIONS TO THE CITY WATER MAINS SHALL BE PERFORMED BY THE WATER UTILITIES DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST FOR THIS WORK AND SHALL COORDINATE HIS WORK WITH THE CITY. COST OF THE TIE-INS SHALL BE INCLUDED IN THE UNIT BID PRICE PER LINEAR FOR TO WATERLINES.
- 12. ALL WATER METERS SHALL BE INSTALLED WITHIN THE PROPOSED UTILITY EASEMENT.
- 13. ALL WATER MAINS (AND FIRE HYDRANT LEADS, IF PROPOSED) WILL BE HYDROSTATICALLY TESTED PRIOR TO ACCEPTANCE BY THE CITY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT FOR TESTING AND THE COST FOR TESTING SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS ON THE CONTRACT. ALL TESTING SHALL BE WITNESSED BY THE INSPECTOR; ANY SEGMENTS OF LINE NOT PASSING THE REQUIRED TESTS SHALL BE PROMPTLY CORRECTED.
- 14. BACTERIOLOGICAL AND PRESSURE TESTING TO BE WITNESSED BY THE WATER UTILITIES CONSTRUCTION INSPECTOR. NOTIFY THE UTILITY DEPARTMENT 48 HOURS PRIOR TO TESTING.

DEVIATION FROM THE DRAWINGS

ANY DEVIATION FROM THE ORIGINAL DESIGN MUST BE APPROVED BY THE ENGINEER FIRST.

CONTRACTOR'S RESPONSIBILITY

- SAFETY IS THE CONTRACTOR'S RESPONSIBILITY. GOLDEN TRIANGLE CONSULTING ENGINEERS IS NOT RESPONSIBLE FOR OR HAVE THE ABILITY TO CHANGE OR DIRECT THE PROCEDURES. METHODS, MEANS, TECHNIQUES AND WORK SEQUENCE USED BY THE CONTRACTOR.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE SURE THE WORK IS COMPLETED AS PER THE PLANS PROVIDED BY GOLDEN TRIANGLE CONSULTING ENGINEERS AND ANY CHANGES/ADDITIONS RECOMMENDED BY GOLDEN TRIANGLE CONSULTING ENGINEERS DURING THE CONSTRUCTION PHASE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE CIVIL AND ARCHITECTURAL DRAWINGS COINCIDES WITH THE STRUCTURAL DRAWINGS PRIOR TO COMMENCING THE CONSTRUCTION. ANY DISCREPANCIES MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE ARCHITECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ANY TESTING THAT MIGHT BE REQUIRED BY THE AUTHORITIES AND AGENCIES (CITY, COUNTY, ETC.) THAT HAVE JURISDICTION IN THE AREA WHERE THE STRUCTURE IS BEING BUILT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL THE DIMENSIONS TO ENSURE THEY MATCH WITH THE DRAWINGS PROVIDED BY THE ENGINEER AND THE ARCHITECT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY GOLDEN TRIANGLE CONSULTING ENGINEERS OF ANY CHANGES DURING THE CONSTRUCTION THAT WILL REQUIRE A DESIGN BY THE ENGINEER. CHANGES NOT APPROVED BY THE ENGINEER MAY NOT BE ACCEPTED.

IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ELEVATION.

GENERAL NOTES FOR CITY OF GALVESTON WATER AND SEWER INSTALLATION

TECHNICAL SPECIFICATIONS AND STANDARD DRAWINGS CAN BE FOUND ON THE CITY'S WEBSITE: HTTPS://WWW.GALVESTONTX.GOV/

CONTRACTOR IS TO USE TECHNICAL SPECIFICATIONS AND DRAWING STANDARDS UNLESS OTHERWISE NOTED ON THE PLANS.

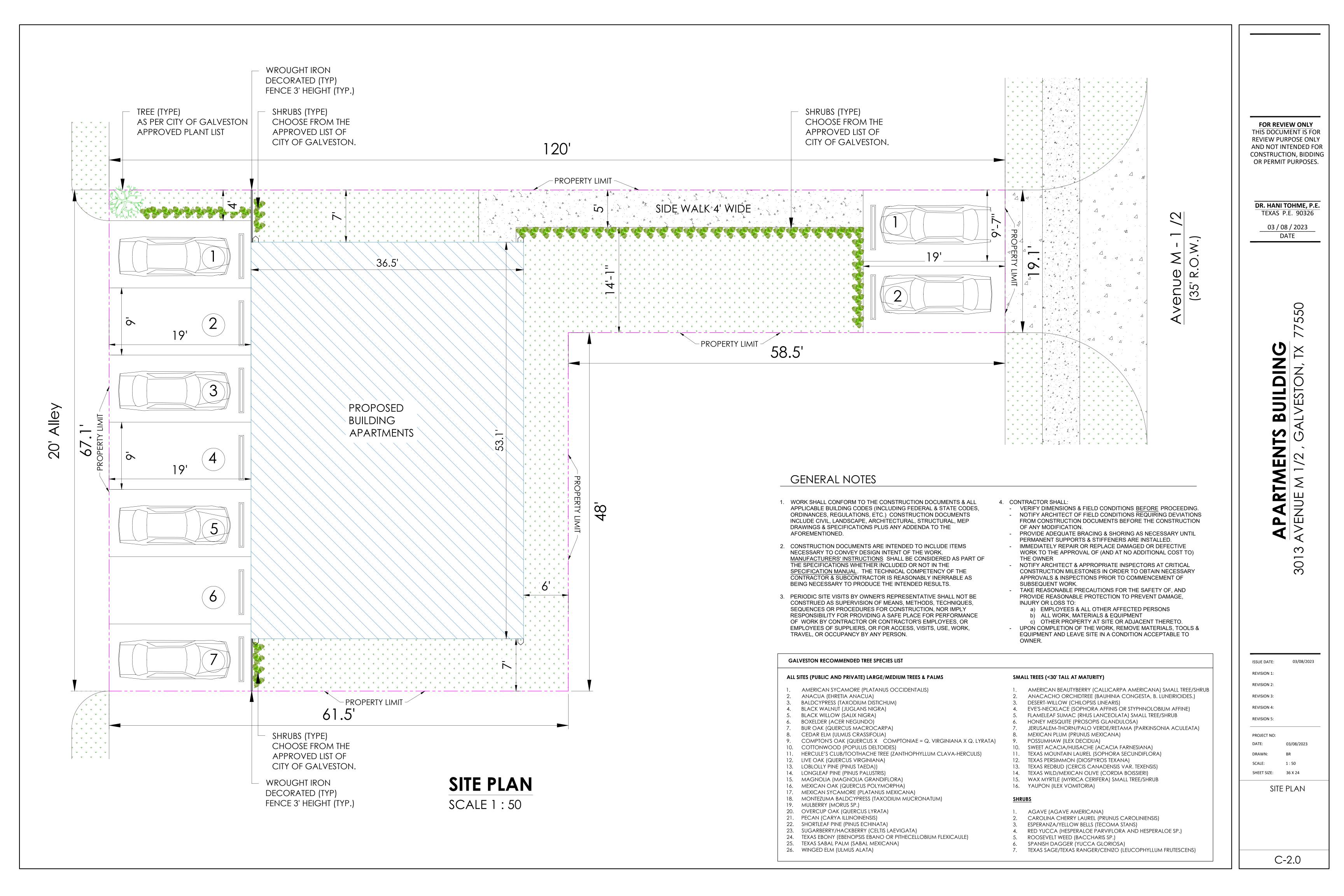
FURNISH AND INSTALL FIRE HYDRANT ASSEMBLY COMPLETE IN PLACE, OF THE TYPE DARLING B-84-B OR APPROVED EQUAL IN ACCORDANCE WITH PLANS, SPECIFICATIONS.

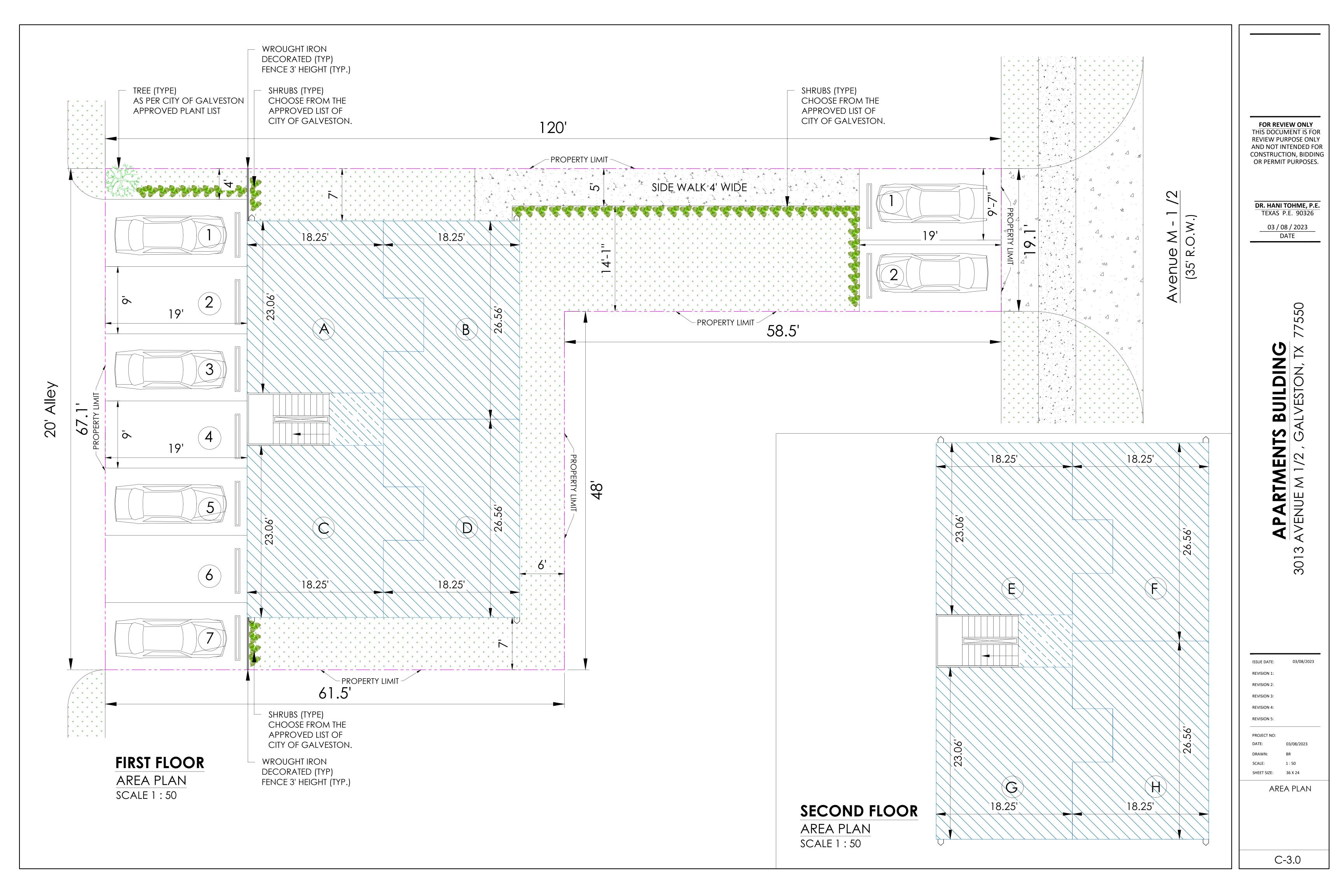
ALL WATER AND SANITARY SEWER LINES WILL BE TESTED PRIOR TO CITY ACCEPTANCE. PLUMBING CONTRACTOR TO MAKES SEWER TAPS AND/OR INSTALL SANITARY SEWER MANHOLE TO CITY SPECIFICATIONS AND BE INSPECTED BY THE WATER UTILITIES CONSTRUCTION PROJECT MANAGER. ALL WATER MAINS AND FIRE LINES TO BE INSTALLED TO CITY SPECIFICATIONS.

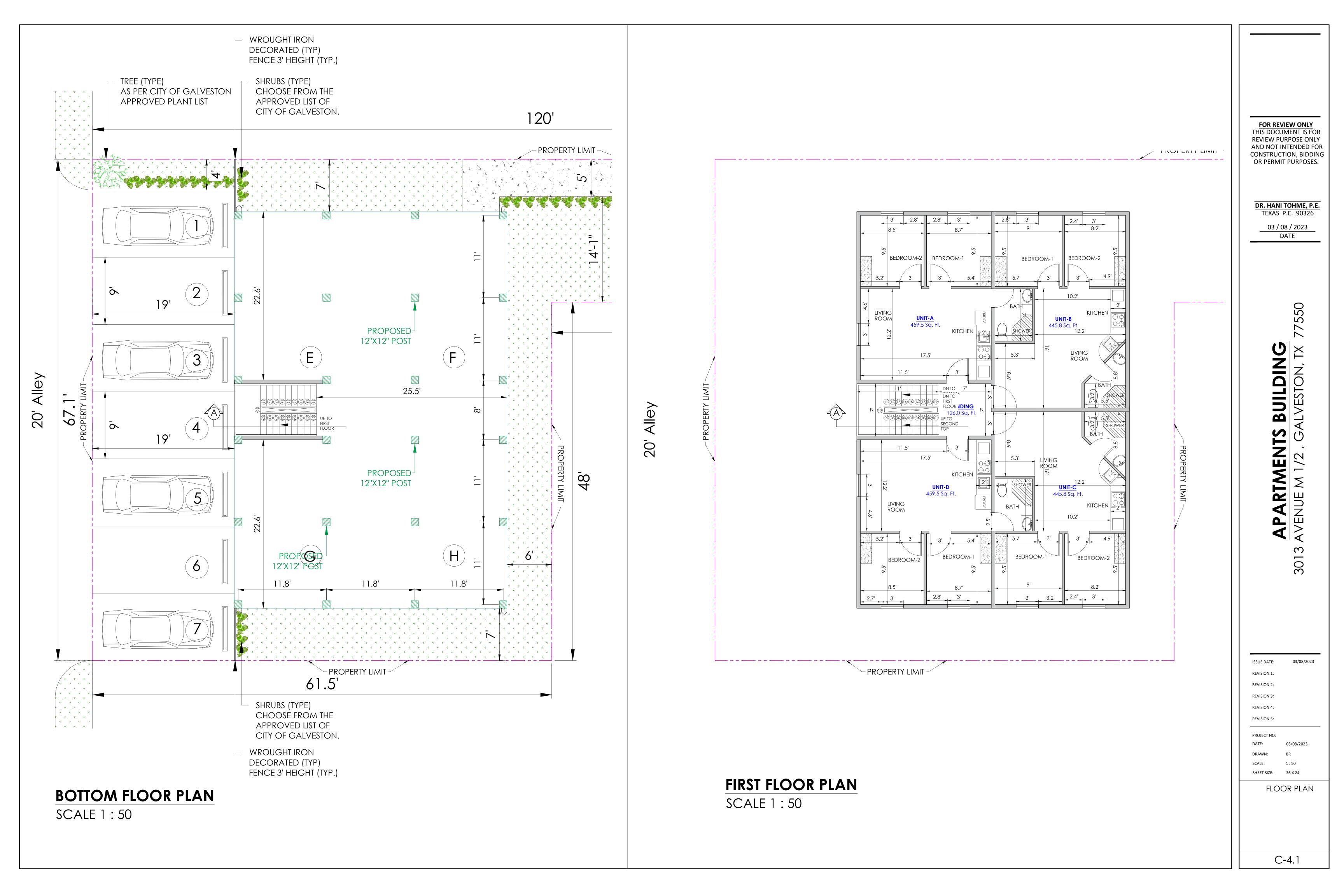
INSTALL A CLEAN OUT AT THE PROPERTY LINE PER CITY SPECIFICATIONS. THE CITY FORCES WILL MAKE TAP, INSTALL VALVE, AND/OR SET WATER METERS AT THE EXPENSE OF THE CONTRACTOR.

NO STRUCTURES OR APPURTENANCES SHALL BE PLACED WITHIN EASEMENT PROPERTY. THE CITY WILL NOT BE RESPONSIBLE FOR ANY SURFACE RESTORATION WHEN WATER AND/OR SANITARY SEWER REPAIRS ARE NECESSARY WITHIN THE CITY OF GALVESTON WATER LINE OR SANITARY SEWER EASEMENT. PLUMBING CONTRACTOR TO MAKE ALL FINAL TIE-IN TO THE WATER METER.

LDING STON, TX 77550
APARTMENTS BUILDIN 3013 AVENUE M 1/2, GALVESTON, 1
ISSUE DATE: 03/08/2023 REVISION 1: REVISION 2: REVISION 3: REVISION 4: REVISION 4: REVISION 5: PROJECT NO: DATE: 03/08/2023 DRAWN: BR SCALE: N.T.S SHEET SIZE: 36 X 24



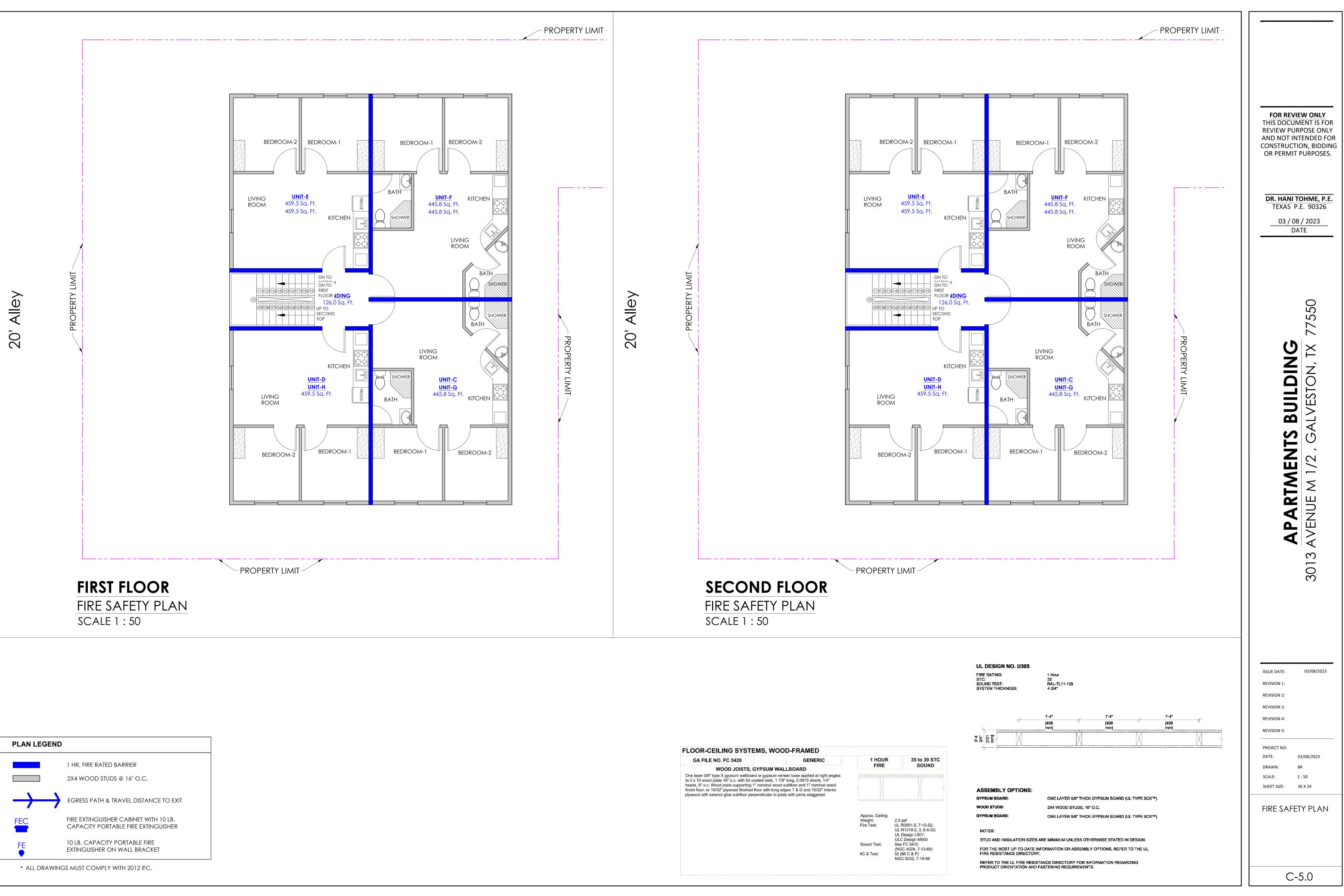


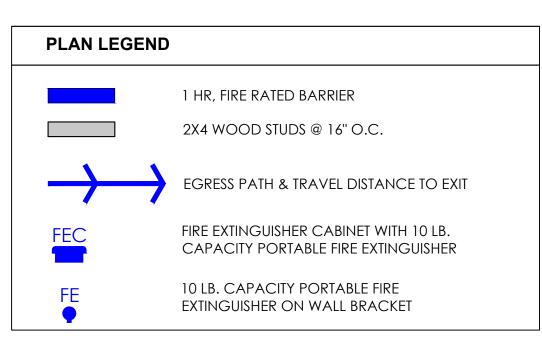




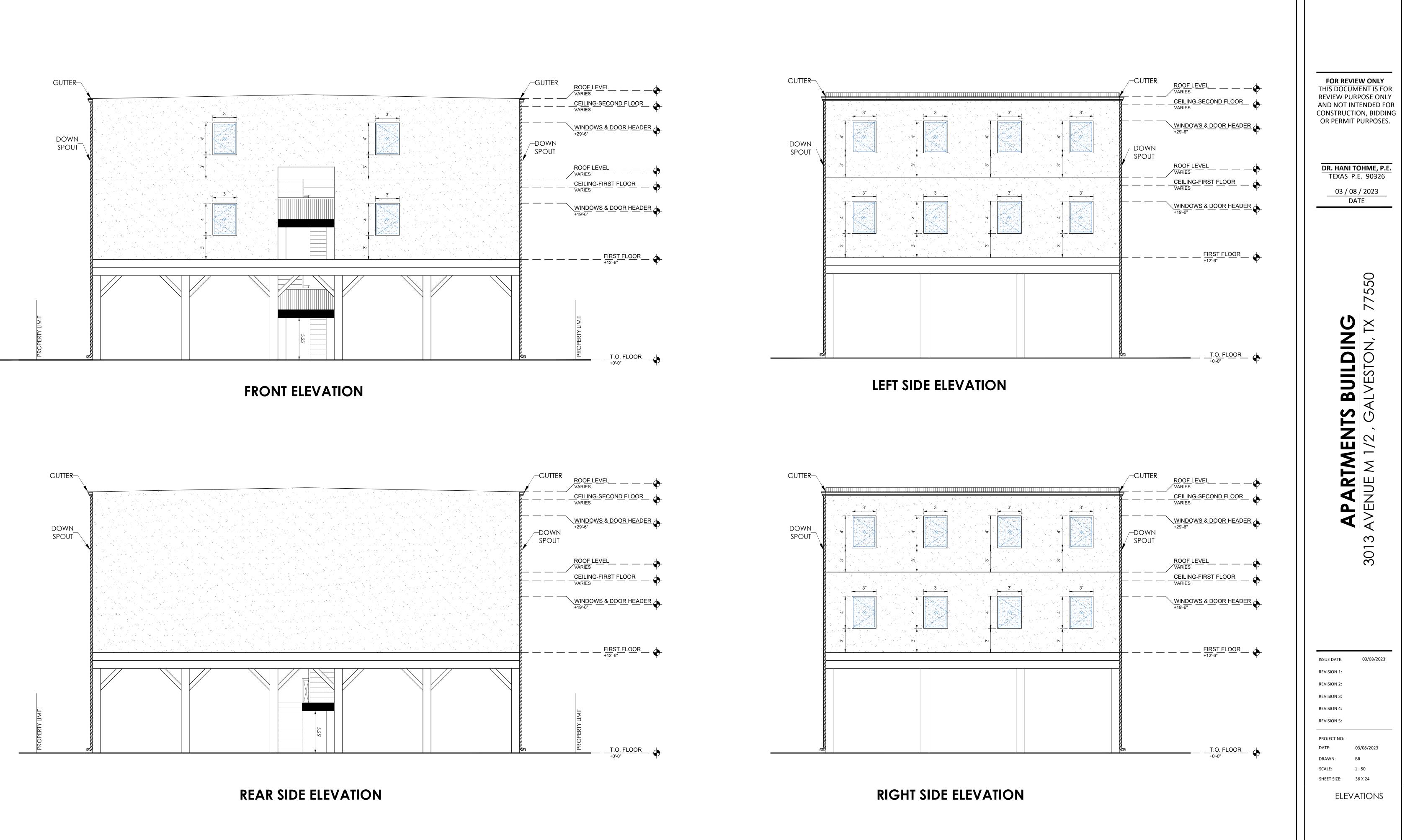
Alley

20'

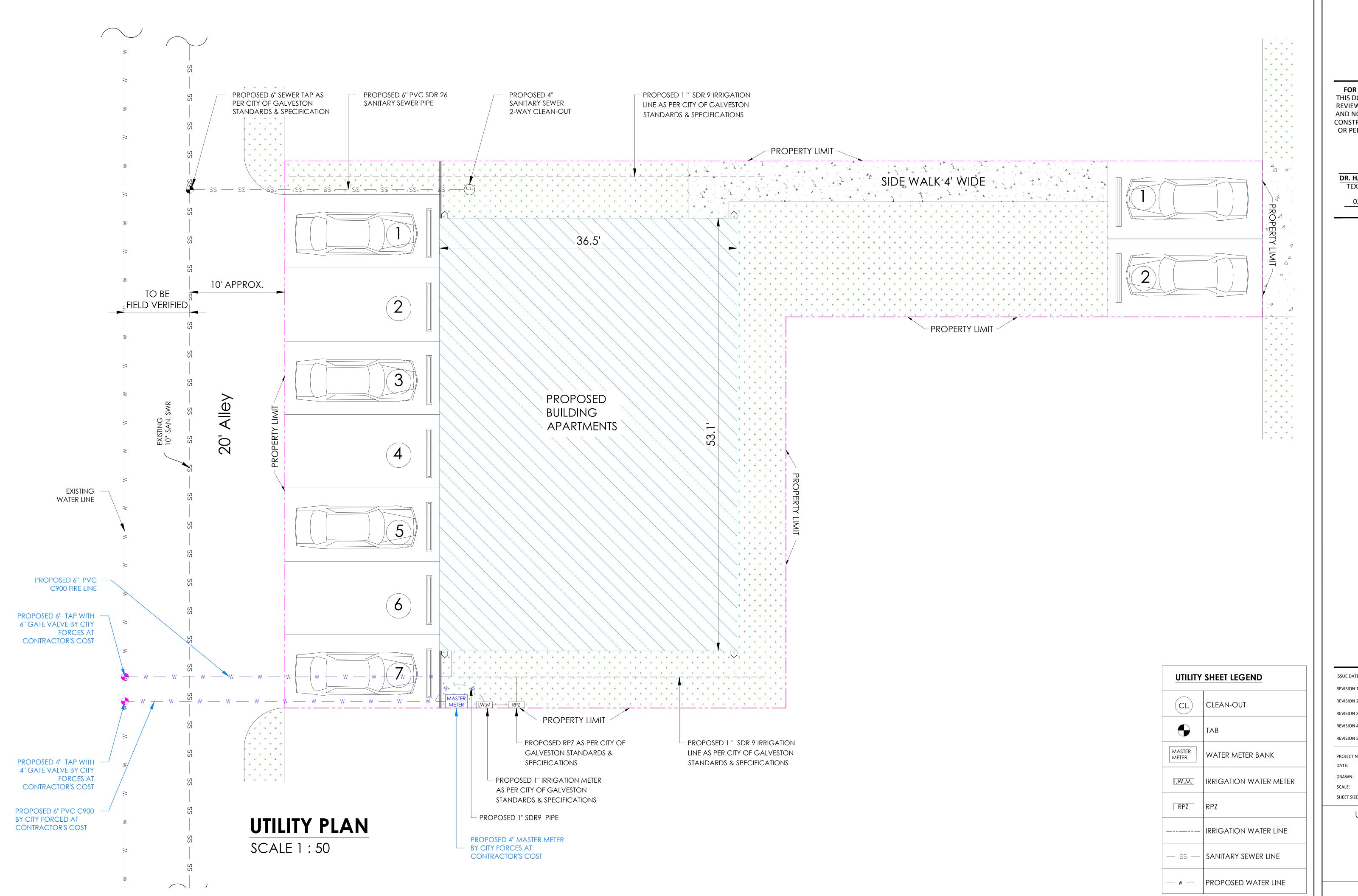




GA FILE NO. FC 5420	GENERIC	1 HOU
WOOD JOISTS, GYPSU	M WALLBOARD	FIRE
One layer 5/8" type X gypsum wallboard or gyp to 2 x 10 wood joists 16" o.c. with 6d coated na reads, 6" o.c. Wood joists supporting 1" nomin finish floor, or 19/32" plywood finished floor with olywood with exterior glue subfloor perpendicul	ills, 1 7/8" long, 0.0915 shank, 1/4" al wood subfloor and 1" nominal wood h long edges T & G and 15/32" interior	Approx. Ceilin Weight: Fire Test:



C-6.0



UTILITY	SHEET LEGEND
CL.	CLEAN-OUT
	ТАВ
MASTER METER	WATER METER BANK
I.W.M.	IRRIGATION WATER METER
RPZ	RPZ
	IRRIGATION WATER LINE
— ss —	SANITARY SEWER LINE
— w —	PROPOSED WATER LINE

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DR. HANI TO TEXAS P.E 03 / 08 DA	. 90326 / 2023	
APARTMENTS BUILDING	3013 AVENUE M 1/2 , GALVESTON, TX 77550	
DRAWN: BF SCALE: 1	03/08/2023 8/08/2023 8 50 5 X 24	

C-8.0

