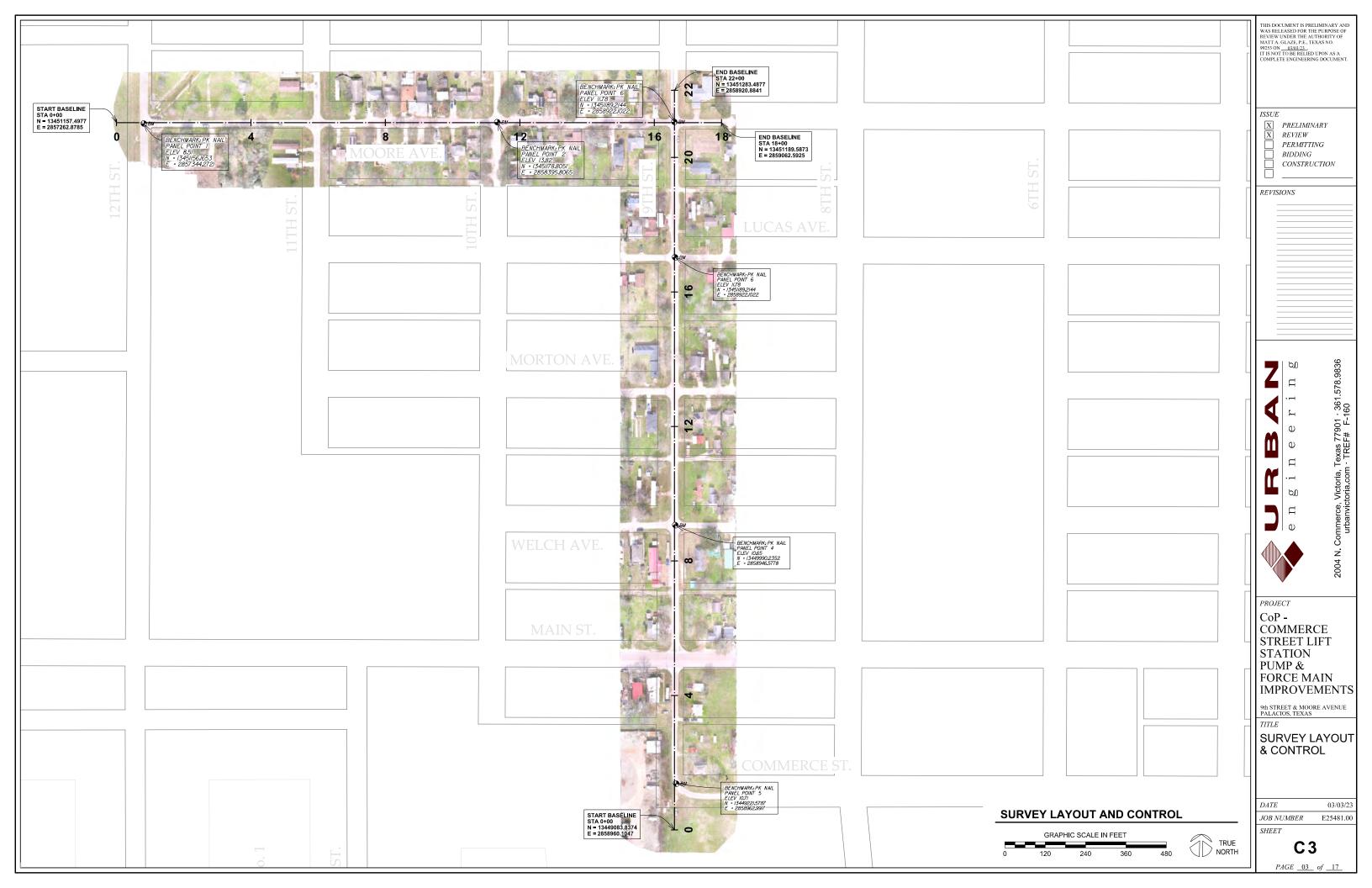
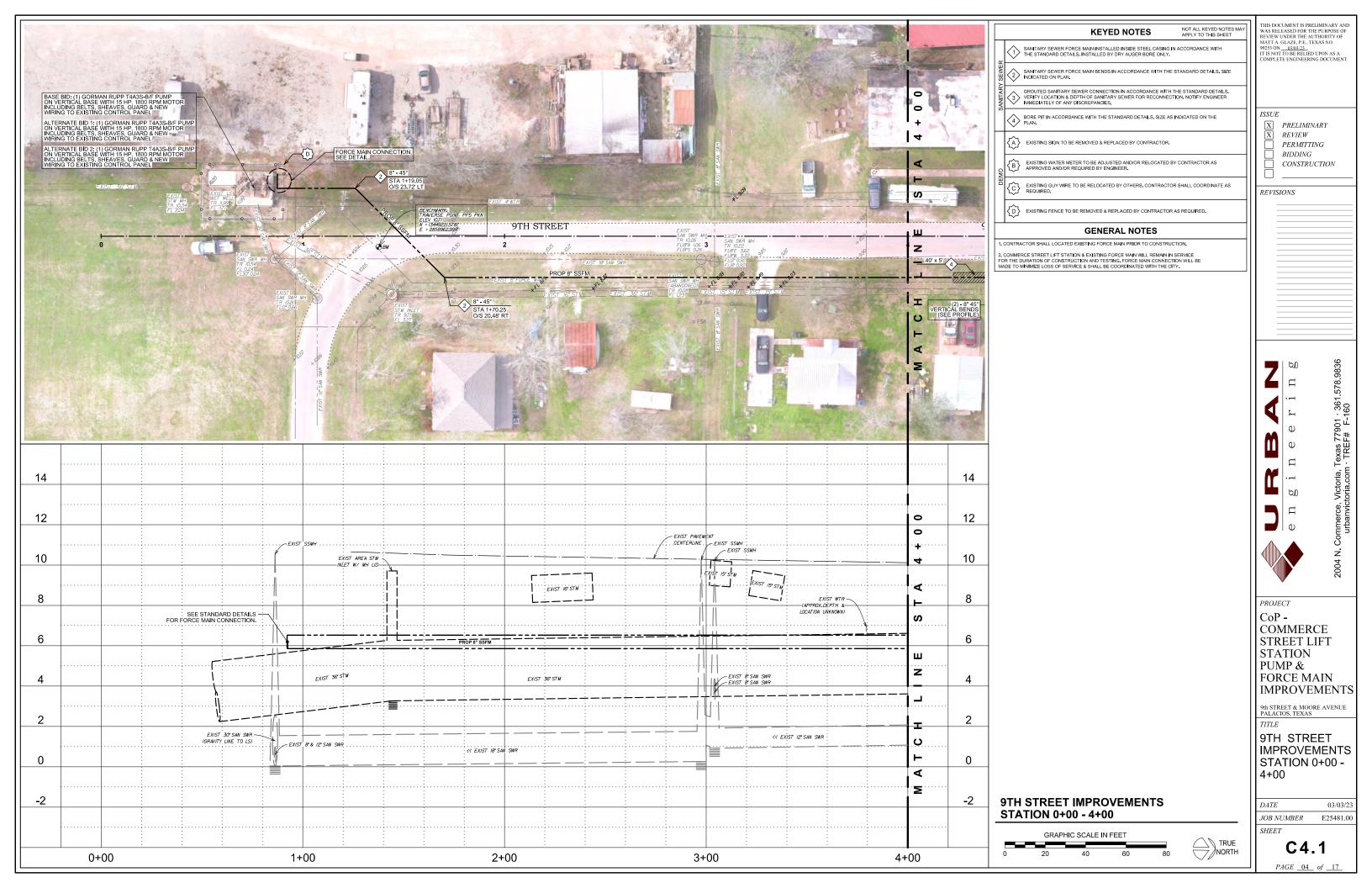
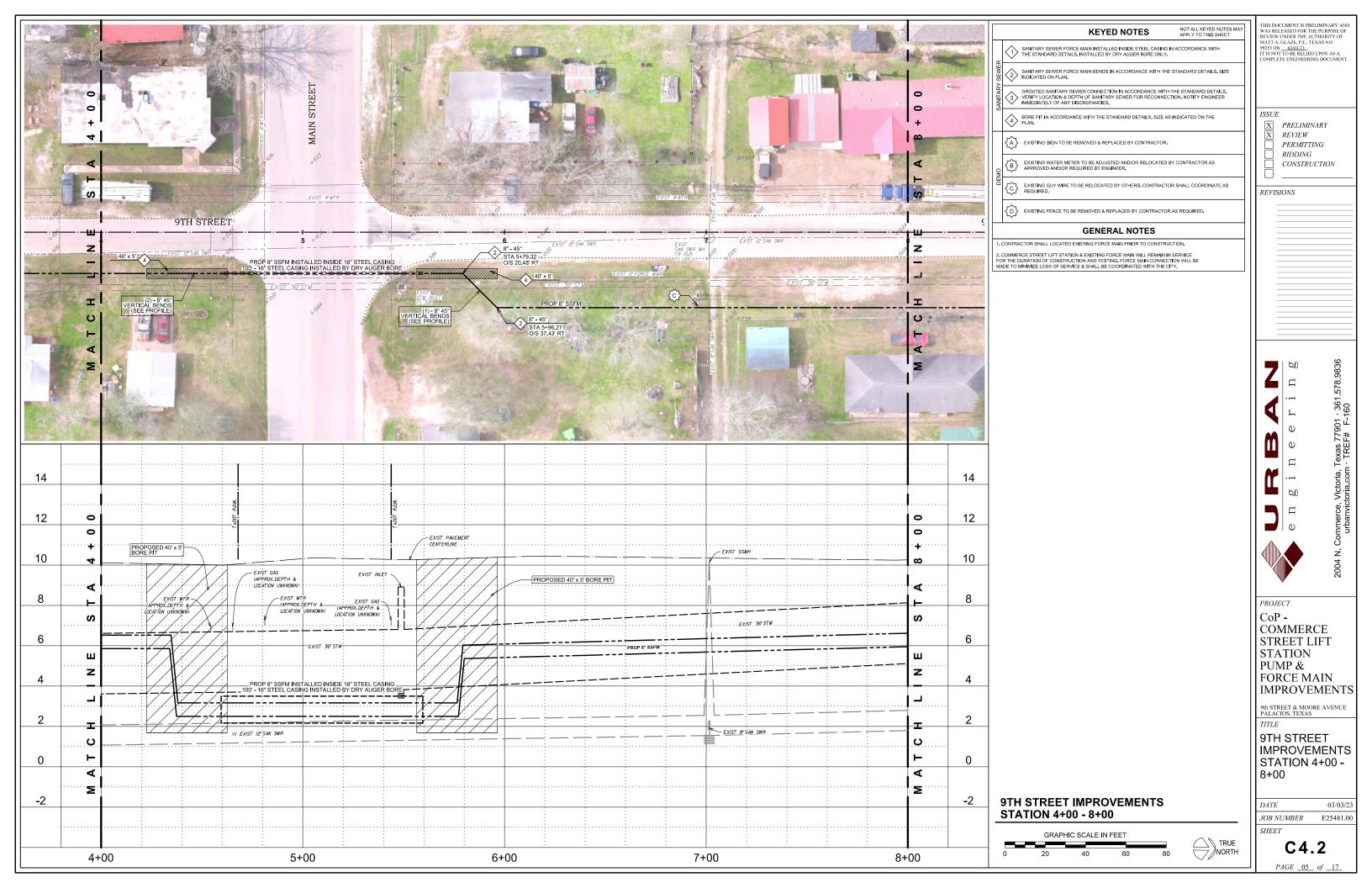
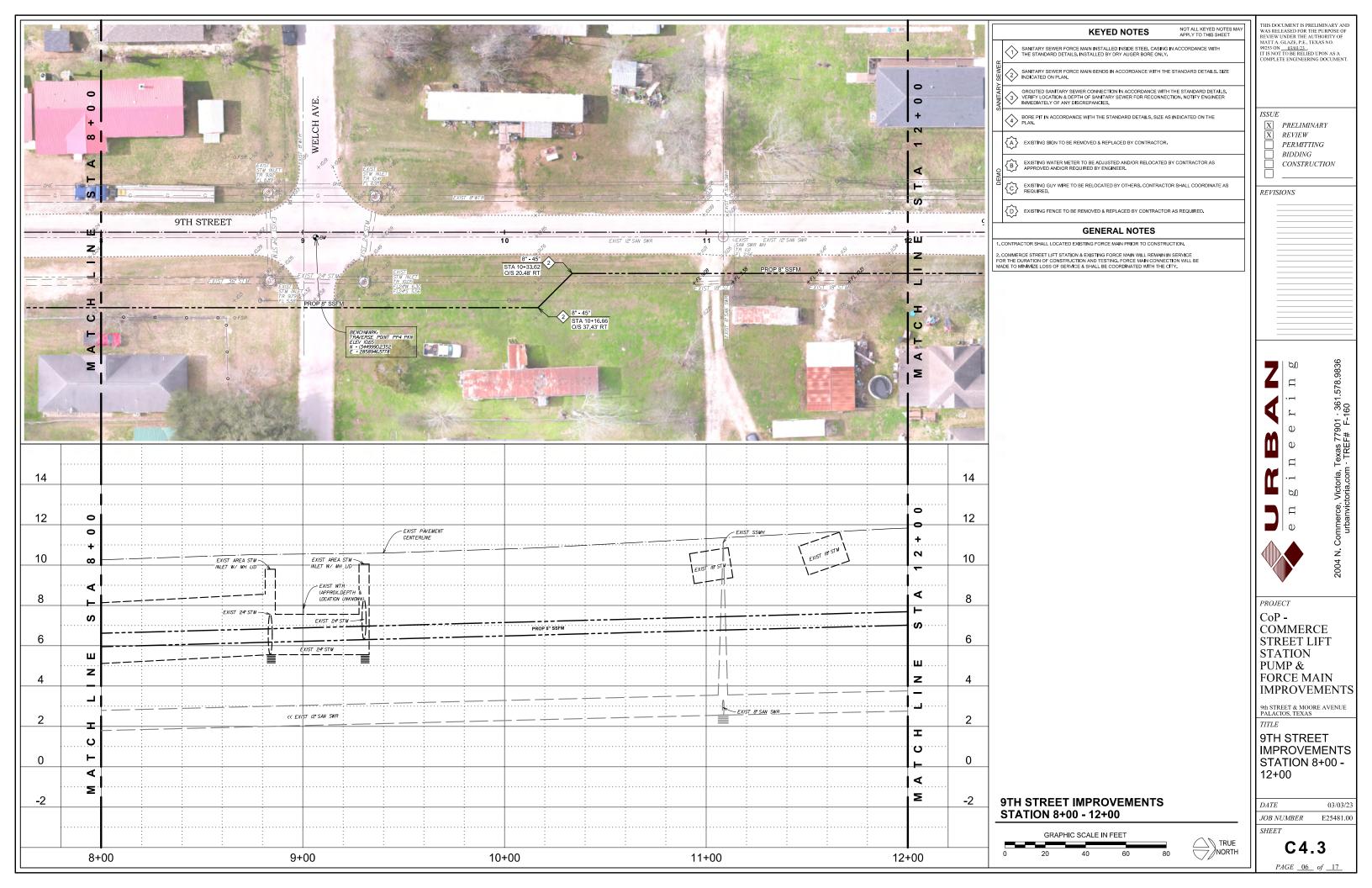


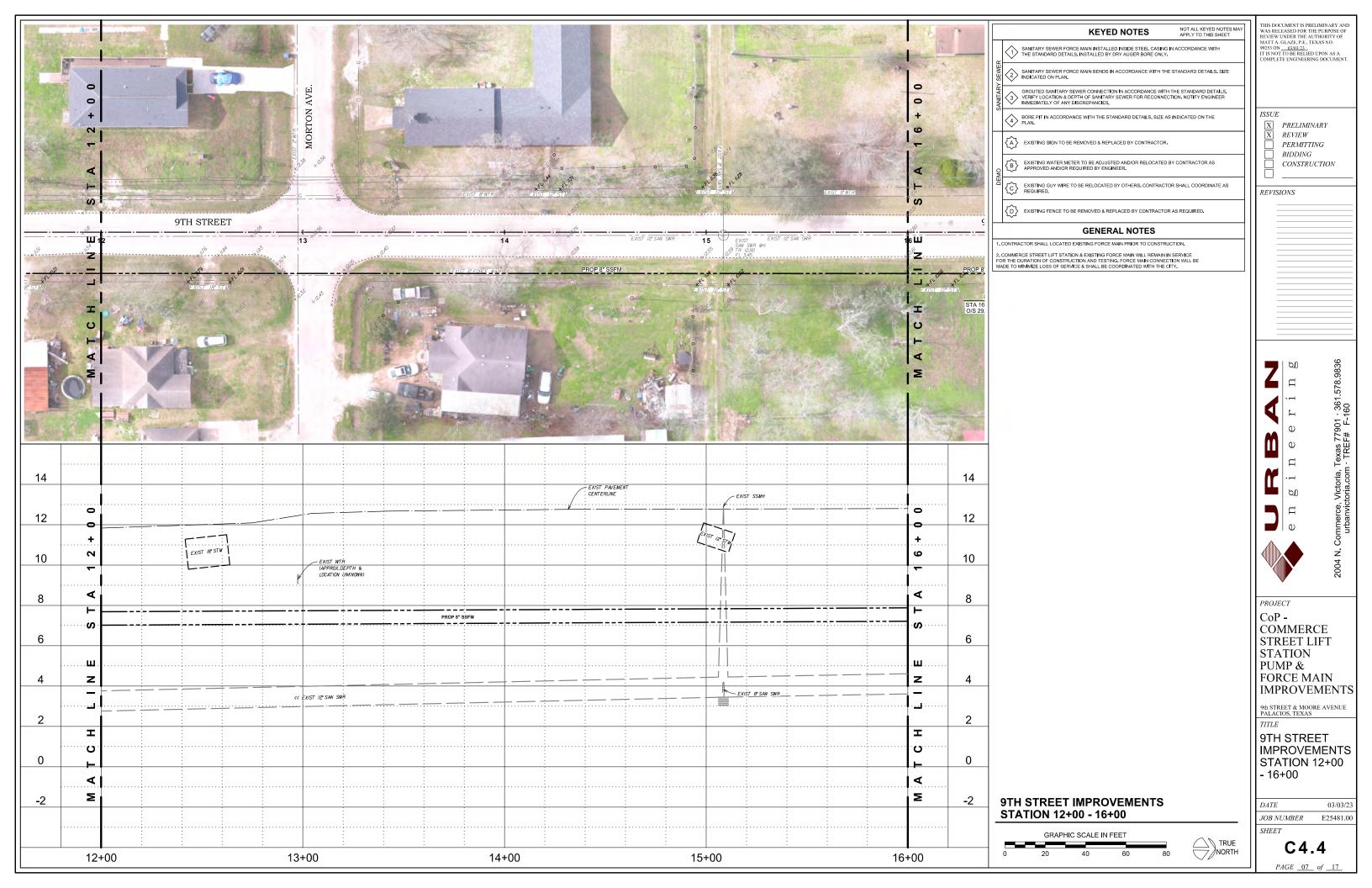
OFNEDAL NOTES	OFNEDAL NOTES	DIDE MATERIAL O	1.16	T OF OONTA OTO		
GENERAL NOTES	GENERAL NOTES	PIPE MATERIALS		ST OF CONTACTS		THIS DOCUMENT IS PRELIMINARY AND WAS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF
PRELIMINARY MATTERS	CONTRACTOR'S RESPONSIBILITIES (CONT.)	PUBLIC UTILITIES	COMPANY URBAN ENGINEERING	CONTACT MATT GLAZE	(361) 578-9836	MATT A. GLAZE, P.E., TEXAS NO. 99253 ON03/03/23
THE INSTRUCTIONS GIVEN BY THE NOTES ON THIS SHEET DO NOT CONSTITUTE SEPARATE PAY ITEMS UNLESS SPECIFICALLY INCLUDED IN THE PROPOSAL FORM.	10. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF ALL EXCESS CONSTRUCTION & WASTE MATERIALS. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, & FEDERAL REQUIREMENTS REGARDING	1. FORCE MAIN PIPING & FITTINGS FROM THE LIMITS OF THE WET WELL TO THE LIMITS OF THE YARD SHALL BE DUCTILE IRON WITH P-401 LINER IN ACCORDANCE WITH SPECIFICATION SECTION 02610.	CITY OF PALACIOS, PUBLIC WORKS DIRE		(361) 972-3605	IT IS NOT TO BE RELIED UPON AS A COMPLETE ENGINEERING DOCUMENT.
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS LISTED IN THE	HANDLING & DISPOSAL OF EXCESS & WASTE MATERIAL. THE CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO AREAS AROUND CONCRETE PAVEMENT & STRUCTURES TO ENSURE THAT CONSTRUCTION DEBRIS IS REMOVED &	2. FORCE MAIN PIPING FROM THE LIMITS OF THE YARD TO THE LIMITS OF THE PROJECT SHALL BE GREEN	TEXAS ONE CALL	- RYAN ADAMS	(800) 245-4545	1
CONTRACT DOCUMENTS & THE STANDARD DETAILS INCLUDED OR REFERENCED IN THE PLANS.	PROPERLY DISPOSED OF PRIOR TO BACKFILLING & THE APPLICATION OF TOPSOIL. EXCESS SOIL, ROCK OR SPOIL MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE & DISPOSED OF BY THE CONTRACTOR AT HIS	C900 PVC IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 02620, FITTINGS SHALL BE DUCTILE IRON WITH P-401 LINER IN ACCORDANCE WITH SPECIFICATION SECTION 02610, PIPE BEDDING AND BACKFILL SHALL	DIG TESS, ONE-CALL NOTIFICATION		(800) DIG-TESS	-
3. ANY CHANGES OR REVISIONS TO THESE PLANS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW &	EXPENSE.	BE IN ACCORDANCE WITH STANDARD DETAILS.	LIST	OF ABBREVIATION		
APPROVAL PRIOR TO IMPLEMENTATION.	11. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS		ABBREVIATIONS B-B	DESCF BACK TO BACK	RIPTION	ISSUE
4. THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE & WERE OBTAINED FROM EXISTING RECORDS & VISIBLE EVIDENCE ON THE GROUND. IT IS EXPECTED THAT THERE MAY BE SOME	OF THE U.S. OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION. COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION & RELATED REFERENCE MATERIALS		BC BM	BACK OF CURB SURVEY BENCHMARK		X PRELIMINARY
DISCREPANCIES & OMISSIONS IN THE LOCATIONS & QUANTITIES OF EXISTING UTILITIES & STRUCTURES SHOWN.	MAY BE OBTAINED FROM OSHA, 903 SAN JACINTO, AUSTIN, TEXAS.		CI	CURB INLET		X REVIEW PERMITTING
THE CONTRACTOR SHALL VERIFY THE LOCATION & DEPTH OF ALL KNOWN EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION SO THAT CONFLICTS CAN BE AVOIDED. WHEN AN EXISTING UTILITY OR	12. DESIGN INSTALLATION, MAINTENANCE, & INSPECTION OF TRENCH SAFETY SYSTEMS SHALL BE IN		DCO CJ	CONTRACTION JOINT DOUBLE CLEAN OUT		BIDDING
UNDERGROUND PIPELINE IS ENCOUNTERED, THAT WAS PREVIOUSLY NOT LOCATED OR INCORRECTLY LOCATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER & THE APPROPRIATE UTILITY COMPANY TO OBTAIN	ACCORDANCE WITH THE PROVISIONS OF EXCAVATIONS, TRENCHING & SHORING, FEDERAL OCCUPATION SAFETY & HEALTH ADMINISTRATION (OSHA) STANDARDS, 29CFR, PART 1926, SUBPART P, AS AMENDED, INCLUDING FINAL		EOA EOC	EDGE OF ASPHALT EDGE OF CONCRETE		CONSTRUCTION
PROCEDURAL INSTRUCTIONS. THE CONTRACTOR SHALL COOPERATE WITH THE APPROPRIATE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.	RULE, PUBLISHED IN THE FEDERAL REGISTER VOL. 209 ON TUESDAY, OCTOBER 31, 1989. TRENCH SAFETY SYSTEMS SHALL ALSO BE IN ACCORDANCE WITH TEXAS HEALTH & SAFETY CODE ANN., 756,021 (VERNON 1991).		EXIST	EXISTING		
			EJ FDC	EXPANSION JOINT FIRE DEPARTMENT CONNECTION	N	REVISIONS
5. EXISTING PAVING, BUILDINGS & OTHER ITEMS SHOWN ON PLANS, BUT NOT SPECIFICALLY RELATED TO THE WORK OF THE CONTRACTOR, ARE FOR INFORMATIONAL PURPOSES ONLY & MAY BE SHOWN TO A LESSER ACCURACY	13. THE CONTRACTOR SHALL TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES (INCLUDING BUILDINGS, STRUCTURES, ROADWAYS, PARKING AREAS, DRIVEWAYS, UTILITIES, ETC.) FROM DAMAGE. ANY		F-F FG	FACE TO FACE FINISHED GRADE		
OR TO A LESSER DEGREE OF DETAIL THAN THE REMAINDER OF THE PLANS.	DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF THE CONSTRUCTION OPERATIONS ARE TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING BEFORE		FF	FINISHED FLOOR		
6. ELEVATIONS SHOWN ON THE PLAN & FOLLOWED BY A "±" SYMBOL, INDICATE THAT THE ENGINEER'S	THE DAMAGE WAS DONE. REPAIRS SHALL BE MADE TO THE SATISFACTION OF THE FACILITY OWNER & THE		FIRE HYD, FH FL	FIRE HYDRANT FLOW LINE		
INTENTION IS TO MATCH THE EXISTING GRADE OF THE TIE-IN PAVEMENT OR STRUCTURE. THE CONTRACTOR SHALL VERIFY THE ELEVATION AT THESE LOCATIONS & NOTIFY THE ENGINEER IMMEDIATELY, IF THE PLAN	ENGINEER AT THE CONTRACTOR'S EXPENSE.		FC, FOC FSR	FACE OF CURB FOUND STEEL ROD		
ELEVATION VARIES SIGNIFICANTLY.	14. THE CONTRACTOR SHALL LOCATE, PROTECT & MAINTAIN BENCHMARKS, MONUMENTS & CONTROL POINTS. THE CONTRACTOR SHALL RE-ESTABLISH DISTURBED OR DESTROYED ITEMS AT HIS EXPENSE. THE RE-ESTABLISHMENT		GI HDPE	GRATE INLET HIGH DENSITY POLYETHYLENE		
7. WHERE ELEVATIONS ARE SHOWN ON THE PLAN AS "TBD", IT INDICATES THAT THE ELEVATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THIS NOTATION IS TYPICALLY USED FOR BURIED	SHALL BE PERFORMED UNDER THE DIRECTION OF A TEXAS REGISTERED PROFESSIONAL LAND SURVEYOR.		НВ	HOSE BIB		
UTILITIES WHO'S ELEVATION COULD NOT BE DETERMINED BY AS-BUILT PLANS, OR PROBING DURING THE	15. WATER NECESSARY FOR CONSTRUCTION SHALL BE PROVIDED & PAID FOR BY THE CONTRACTOR. THE		LP L&C	LIGHT POLE LOCATE & CONNECT		
DESIGN PHASE OF THE PROJECT. THE CONTRACTOR SHALL EXCAVATE THE UTILITY, DETERMINE THE ELEVATION, AND NOTIFY THE ENGINEER IMMEDIATELY, SO THAT ADJUSTMENTS MAY BE MADE TO THE	CONTRACTOR SHALL ARRANGE FOR A METERED CONNECTION(S) & SHALL PROVIDE THE PROPER EQUIPMENT TO PREVENT CROSS-CONNECTION.		MH NG	MANHOLE NATURAL GRADE		
DESIGN PRIOR TO ORDERING MATERIALS OR SCHEDULING THE WORK.	16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHARGES ASSOCIATED WITH TEMPORARILY SECURING OR		NV	NOT VERIFIED		
8. THE OWNER/ENGINEER RESERVE THE RIGHT TO MAKE REASONABLE ADJUSTMENTS IN LINE AND/OR GRADE IN	TEMPORARILY RELOCATING POWER POLES THAT INTERFERE WITH THE CONSTRUCTION OPERATIONS. THIS DOES		PL PP	PROPERTY LINE POWER POLE		
ORDER TO AVOID CONFLICTS WITH OTHER STRUCTURES OR UTILITIES. THE CONTRACTOR AGREES TO MAKE SUCH REASONABLE ADJUSTMENTS AT NO COST TO OWNER OR ENGINEER.	NOT APPLY TO THE PERMANENT RELOCATION OF POWER POLES THAT ARE PHYSICALLY IN CONFLICT WITH THE PROPOSED IMPROVEMENTS.		PROP RCP	PROPOSED REINFORCED CONCRETE PIPE		
9. EXISTING ELECTRICAL LINES ARE LOCATED CLOSE TO THE PROJECT. THE ATTENTION OF THE CONTRACTOR	17. THE CONTRACTOR SHALL CLEAR STREETS, SIDEWALKS, DRIVEWAYS, & PARKING LOTS OF ALL CONSTRUCTION		S.E.T SP	SLOPED END TREATMENT or SAF SAMPLE PORT	ETY END TREATMENT	■ 120 88
IS DIRECTED TO THE STATE LAW (VERNON'S ANNOTATED TEXAS STATUTES, ARTICLE 1436(C)) CONCERNING OPERATIONS IN THE VICINITY OF ELECTRICAL LINES & THE NEED FOR EFFECTIVE PRECAUTIONARY MEASURES.	MATERIALS, EQUIPMENT, TRAFFIC CONTROL DEVICES, DIRT, & DEBRIS CAUSED BY CONSTRUCTION AT THE END OF EACH CONSTRUCTION PERIOD. ALL OPEN EXCAVATIONS & PITS MUST BE BARRICADED, FENCED, OR PLATED		SAN SWR, SS	SANITARY SEWER		Z 2 88. 1
	OVER WHEN NOT IN USE.		SS CLEANOUT SS MH	SANITARY SEWER CLEAN OUT SANITARY SEWER MANHOLE		I 375.
10. THE MUNICIPALITY SHALL PERFORM ALL OPERATION INVOLVING OPENING & CLOSING OF VALVES ON EXISTING PUBLIC WATER MAINS. THE CONTRACTOR SHALL VERIFY MAINS ARE DEAD BEFORE PERFORMING WORK ON	18. GRAVITY MAINS SHALL BE INSTALLED IN THE UPSTREAM DIRECTION, BEGINNING AT THE LOWEST POINT IN		SSR SWR SERVICE, SWR SER	SET STEEL ROD SEWER SERVICE		361
EXISTING MAINS.	THE SYSTEM. THE CONTRACTOR IS REQUIRED TO VERIFY THE LOCATION, ELEVATION & CONDITION OF THE ALL CONNECTION POINTS (I.E. UPSTREAM AND DOWNSTREAM) & INVESTIGATE ALL POTENTIAL CONFLICTS WITH		STM	STORM SEWER		01 - 3 - 10 - 1 - 10 - 1 - 10 - 1
NOTIFICATION REQUIREMENTS	EXISTING UNDERGROUND UTILITIES, PRIOR TO BEGINNING THE NEW UTILITY INSTALLATION.		TBD	TOP OF SIDEWALK TO BE DETERMINED (SEE NOTE	7 OF PRELIMINARY MATTERS)	- G 27300 E# 1
THE CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE TO THE OWNER, ENGINEER & PERSONS IN CHARGE OF PRIVATE & PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK.	19. UTILITY MAINS MUST BE INSTALLED WITH ADEQUATE COVER TO PREVENT FLOATATION & TO SUPPORT		TC TEL	TOP OF CURB TELEPHONE		e M
2. AT LEAST 48 HOURS PRIOR TO COMMENCING ANY ACTIVITY FOR A TCEQ REGULATED SANITARY SEWER AND/OR	CONSTRUCTION LOADS. THE CONTRACTOR SHALL ENSURE THAT ADEQUATE COVER IS MAINTAINED OVER THE UTILITY DURING CONSTRUCTION. IF ADEQUATE COVER CANNOT BE MAINTAINED, THE CONTRACTOR SHALL		TG TP	TOP OF GRATE TOP OF PAVEMENT		
WATER COLLECTION SYSTEM(S), THE CONTRACTOR SHALL NOTIFY THE LOCAL TCEQ'S REGIONAL OFFICE, IN	UTILIZE CEMENT STABILIZED BACKFILL AND/OR ADDITIONAL TEMPORARY OVERBURDEN TO ACHIEVE THE SAME GOALS.		TR	TOP OF RIM		ia, ia,
WRITING, OF THE DATE ON WHICH CONSTRUCTION WILL BEGIN.			UC UE	UNDER CONSTRUCTION UTILITY EASEMENT		
3. AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR IS REQUIRED TO NOTIFY TEXAS ONE CALL AT 1-800-245-4545.	20. THE CONTRACTOR SHALL PLACE & COMPACT BACKFILL AS PROMPTLY AS PRACTICAL AFTER COMPLETION OF EACH STRUCTURE OR PORTION OF A STRUCTURE. DO NOT, HOWEVER, PLACE BACKFILL AGAINST NEWLY		WTR WV	WATER WATER VALVE		- - - - - - - - - -
4. THE CONTRACTOR SHALL NOTIFY LOCAL EMERGENCY SERVICES (I.E. FIRE, E.M.S. & POLICE) OF ANY	CONSTRUCTED CONCRETE WALLS OR SIMILAR STRUCTURES UNTIL CONCRETE HAS CURED AT LEAST 7-DAYS.		± 55	INDICATES CONTRACTOR SHALL INDICATES DIRECTION OF FLOW		I I I
CONSTRUCTION ACTIVITIES THAT WOULD AFFECT THE NORMAL FLOW OF TRAFFIC.	21. UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS, THE CONTRACTOR SHALL PLACE & COMPACT BACKFILL AROUND UTILITY STRUCTURES IN ACCORDANCE WITH APPLICABLE TRENCH ZONE BACKFILL DETAIL FOR			INDIGATES BINESTION OF FEOW		urb — — — — — — — — — — — — — — — — — — —
5. THE CONTRACTOR SHALL GIVE A MINIMUM OF 48 HOURS NOTICE TO THE ENGINEER & AUTHORIZED TESTING	UTILITY LINE.					8
LABORATORY PRIOR TO REQUIRED TESTS.	22. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION PRIOR TO ACCEPTANCE OF					4 Z
6. THE CONTRACTOR SHALL GIVE A MINIMUM OF 48 HOURS NOTICE TO THE ENGINEER & THE OWNER PRIOR TO TESTING OF SANITARY SEWER & WATER LINES. INSPECTION BY THE MUNICIPALITY IS REQUIRED FOR ALL	THE PROJECT.					200
TESTING OF SANITARY SEWER & WATER LINES. INSPECTION OF THE MICHIGIPALITY IS REQUIRED FOR ALL TESTING OF SANITARY SEWER & WATER LINES.	STORM WATER POLLUTION PREVENTION PLAN					•
CONTRACTOR'S RESPONSIBILITIES	CONTRACTOR SHALL EMPLOY MEASURES AND CONSTRUCTION PRACTICES TO PREVENT EROSION AT OR					PROJECT
1. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER & THE ENGINEER OF ANY DISCREPANCIES,	ADJACENT TO THE PROJECT SITE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING SW3P MEASURES TO COMPLY WITH THE STORM WATER POLLUTION PREVENTION REQUIREMENTS OF LOCAL,					CoP -
ERRORS, OR OMISSIONS, DISCOVERED IN THE FIELD OR ON THE PLANS.	STATE, AND FEDERAL REGULATORY AGENCIES INCLUDING, BUT NOT LIMITED TO, THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) AND THE UNITED STATES ENVIRONMENTAL PROTECTION	N				COMMERCE
2. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER & THE ENGINEER, VERBALLY & IN WRITING, OF ANY FUEL OR TOXIC MATERIAL SPILLS ONTO THE PROJECT/CONSTRUCTION AREA. THE CONTRACTOR SHALL BE	AGENCY (EPA). EROSION CONTROL SHALL BEGIN AT THE ONSET OF THE PROJECT (PRIOR TO MOBILIZATION) AND BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK UNTIL FINAL					STREET LIFT
RESPONSIBLE FOR DISPOSING OF FUELS, WASTE MATERIALS & CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.	MOBILIZATION) AND BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK UNTIL FINAL ACCEPTANCE.					STATION
	ALL PROJECTS FALL UNDER ONE OF THREE CATEGORIES OF SITE DISTURBANCE DEPENDING UPON THE					PUMP & FORCE MAIN
3. THE CONTRACTOR SHALL COORDINATE INTERRUPTIONS OF ALL UTILITIES & SERVICES WITH APPLICABLE UTILITY COMPANY, OWNER & TENANT. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE	TOTAL AREA BEING DISTURBED. THE FOLLOWING IS ONLY A BRIEF OVERVIEW OF THE REQUIREMENTS. THE CONTRACTOR SHALL REVIEW TCEQ GENERAL PERMIT NUMBER TXR150000 RELATING TO DISCHARGES					IMPROVEMENTS
APPLICABLE UTILITY COMPANY OR AGENCY INVOLVED.	FROM CONSTRUCTION ACTIVITIES AND IMPLEMENT ALL REQUIRED MEASURES.					
4. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING INGRESS & EGRESS FOR ALL PUBLIC & PRIVATE	LESS THAN 1 ACRE:					9th STREET & MOORE AVENUE PALACIOS, TEXAS
FACILITIES AT ALL TIMES & FOR ALL WEATHER CONDITIONS, UNLESS OTHERWISE INDICATED ON THE PLANS OR APPROVED BY THE ENGINEER.	IF THE PROJECT DISTURBS LESS THAN 1 ACRE AND IS NOT PART OF A LARGER COMMON PLAN OF DEVELOPMENT, COVERAGE UNDER GENERAL PERMIT (TXR150000) IS NOT REQUIRED.					TITLE
5. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE & MAINTAIN ALL NECESSARY WARNING & SAFETY DEVICES	DEVELOPMENT, COVERAGE UNDER GENERAL PERMIT (TXR150000) IS NOT REQUIRED.					GENERAL NOTES
(FLASHING LIGHTS, FLAG MEN, BARRICADES, SIGNS, ETC.) TO PROTECT THE PUBLIC SAFETY & HEALTH UNTIL THE WORK HAS BEEN COMPLETED & ACCEPTED BY THE ENGINEER & OWNER. ALL BARRICADING SHALL BE DONE IN						
COMPLIANCE WITH THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.						
6. THE CONTRACTOR SHALL MAINTAIN ALL REGULATORY SIGNS DURING THE CONSTRUCTION PERIOD.						
7. THE CONTRACTOR SHALL ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO						D. (200
COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN ONLY BE ISSUED TO CONTRACTOR ARE TO BE OBTAINED AT THE CONTRACTORS EXPENSE.						DATE 03/03/23
						JOB NUMBER E25481.00
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING & MAINTAINING SANITARY FACILITIES ON THIS PROJECT FOR EMPLOYEES.						SHEET
9. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE FLOW IN DITCHES & STORM SEWERS AT ALL TIMES.						C 2
and a second sec						PAGE <u>02</u> of <u>17</u>

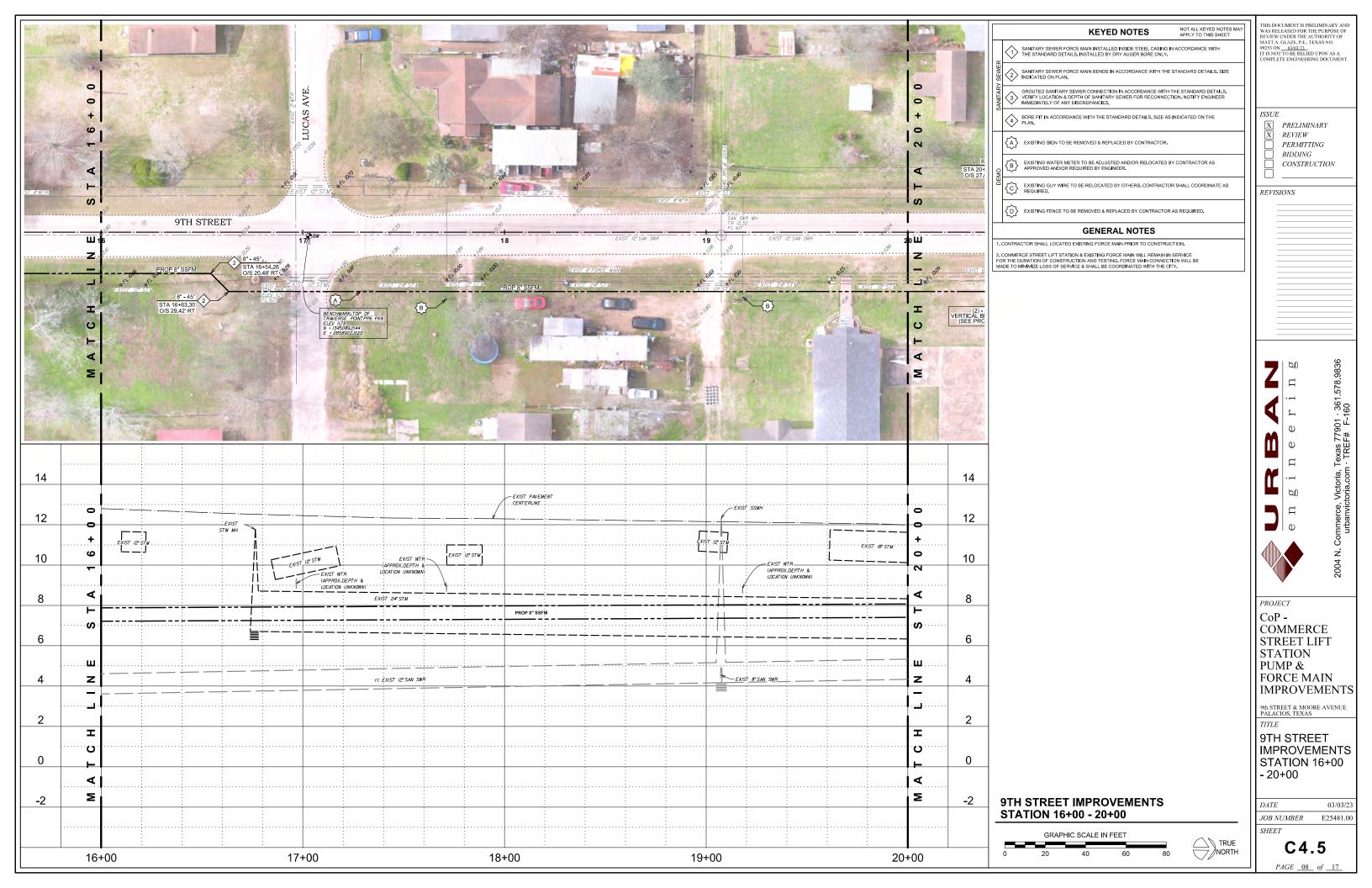


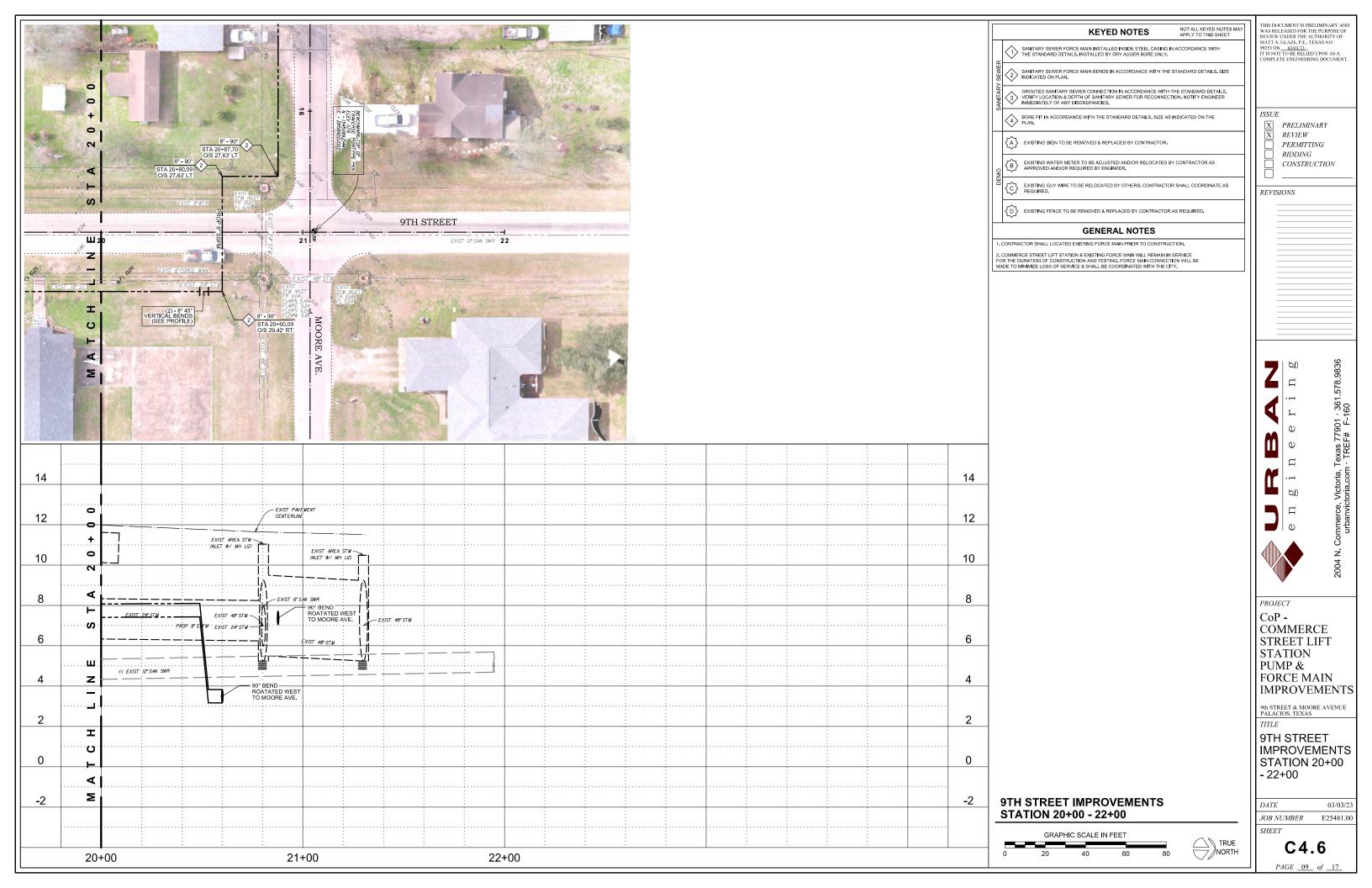


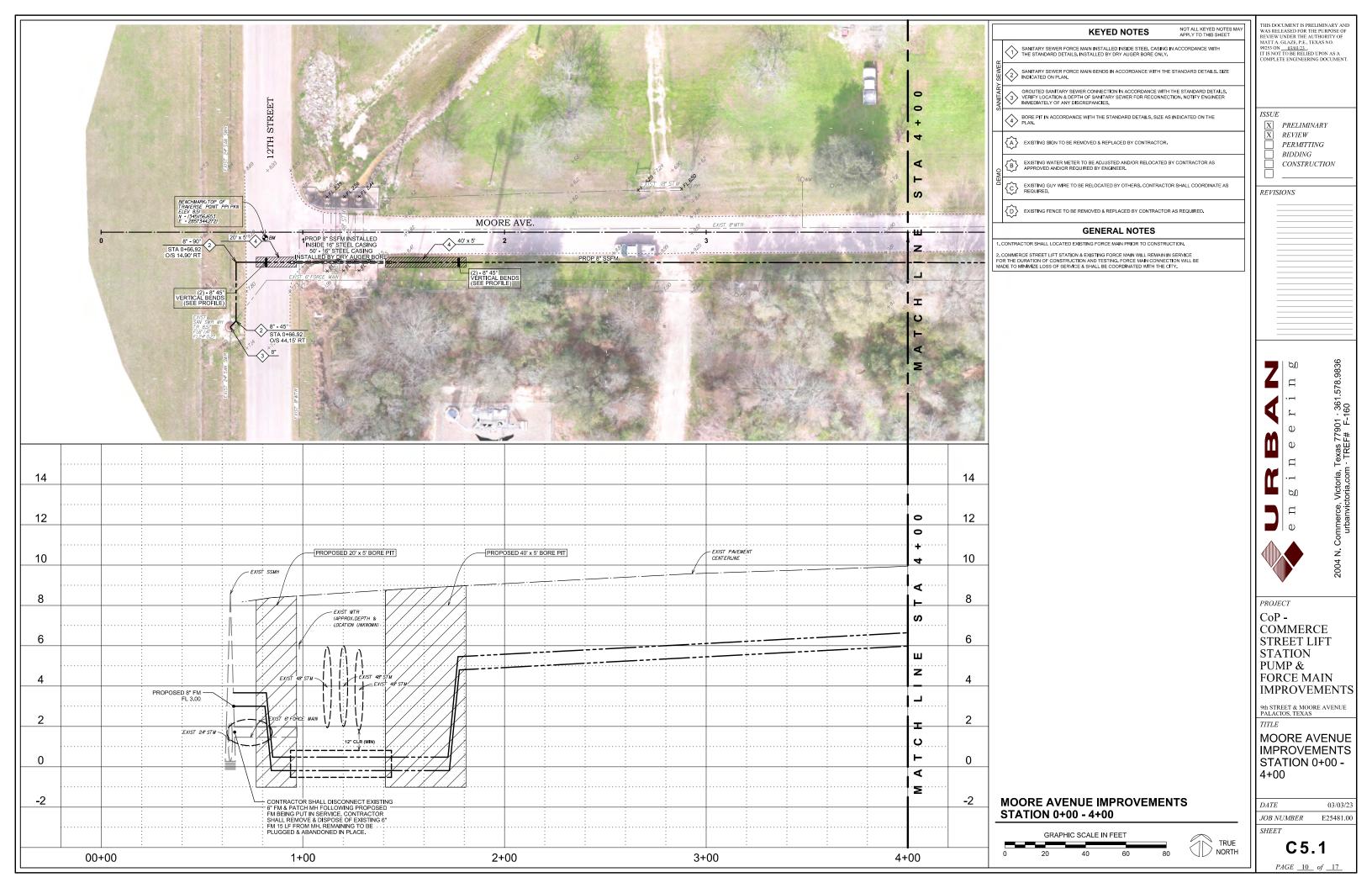


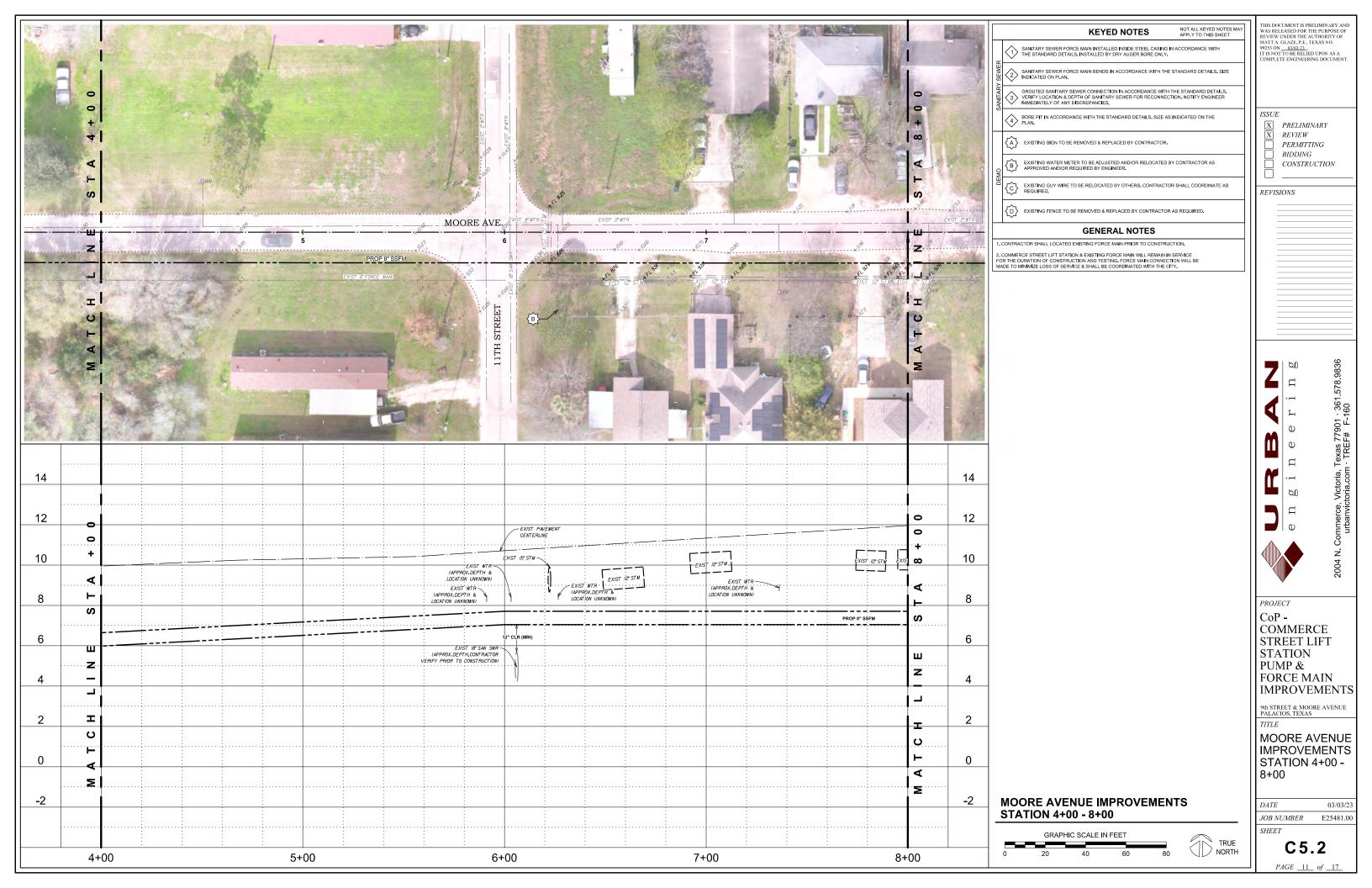


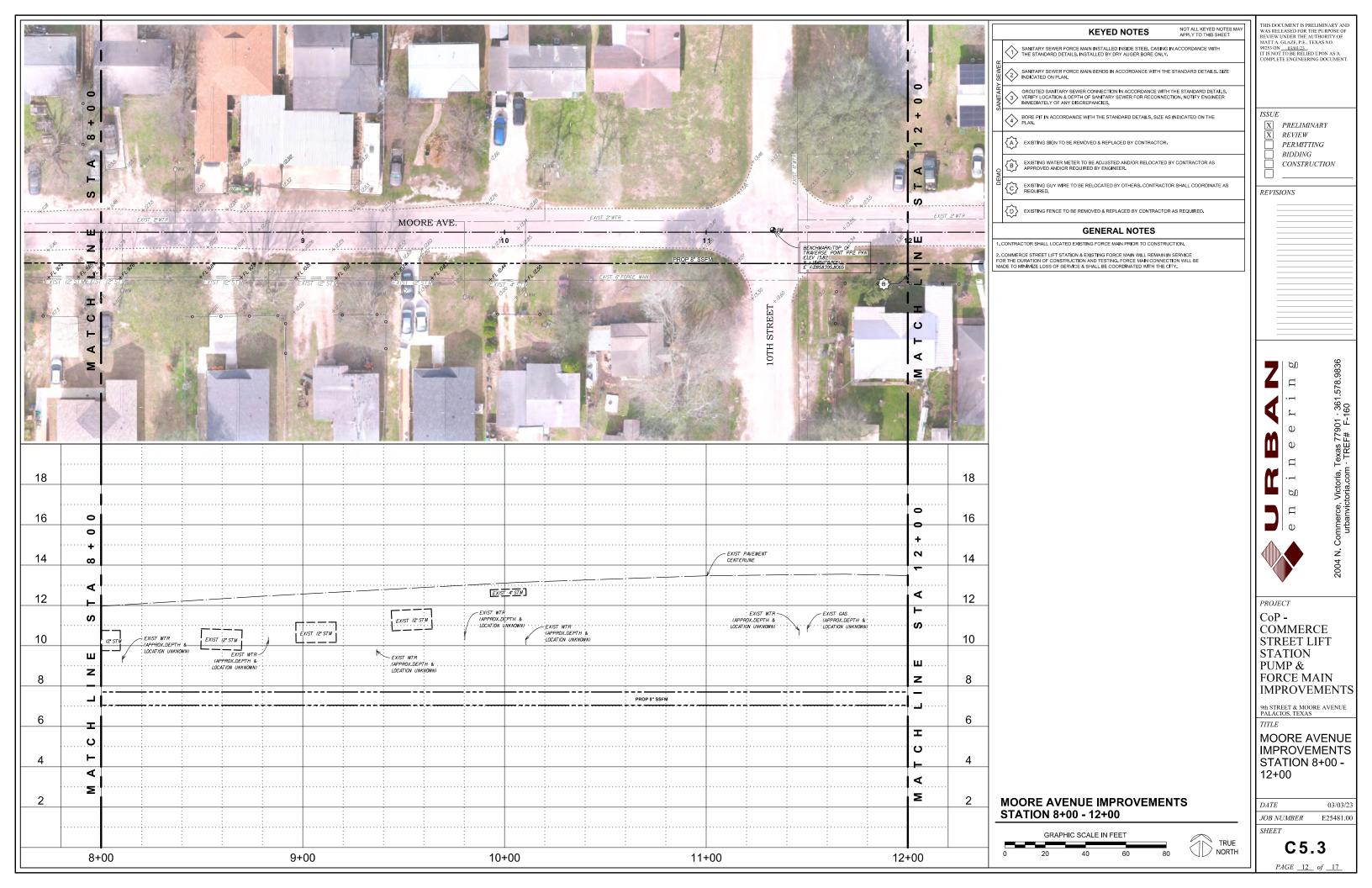


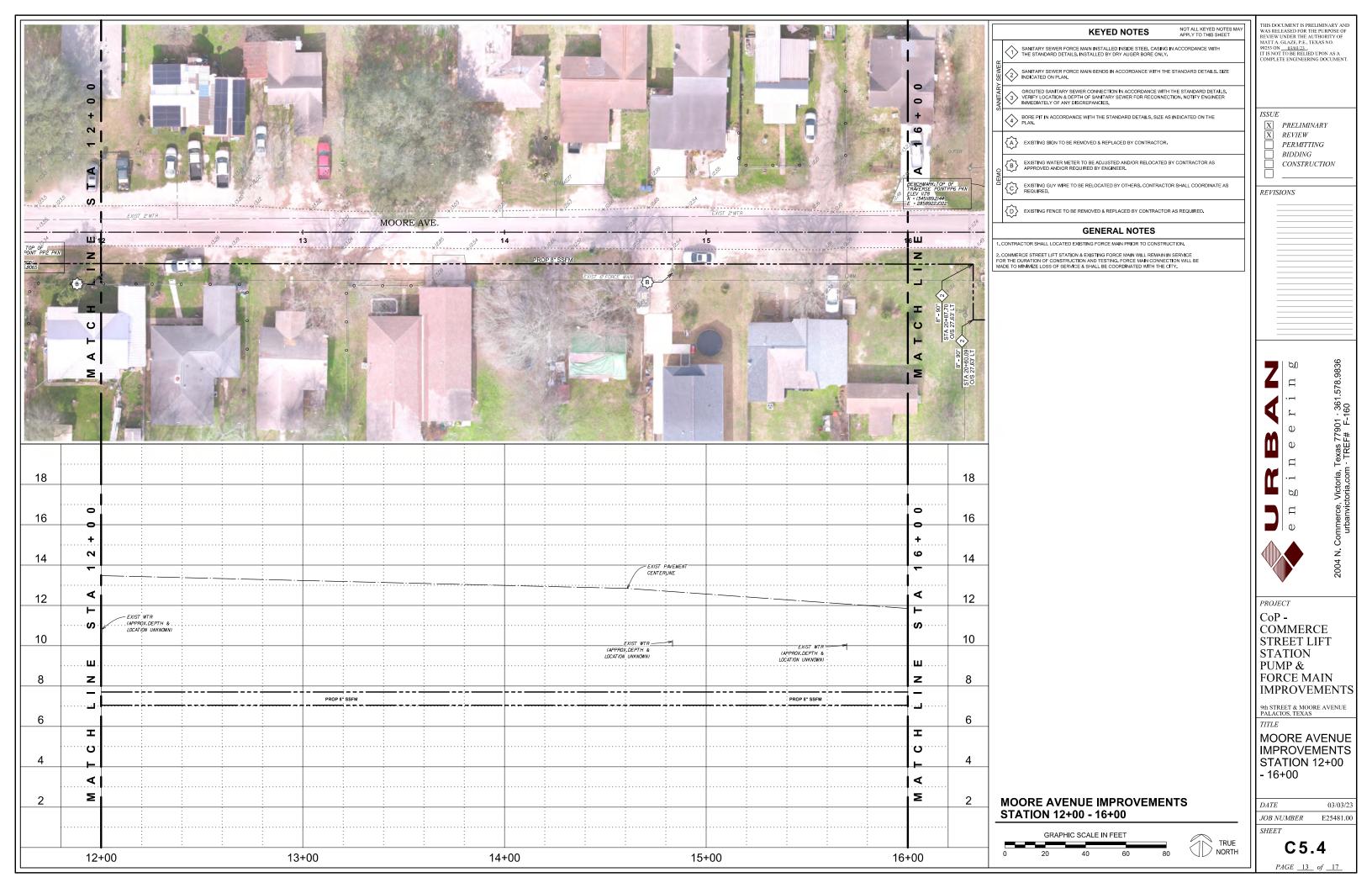


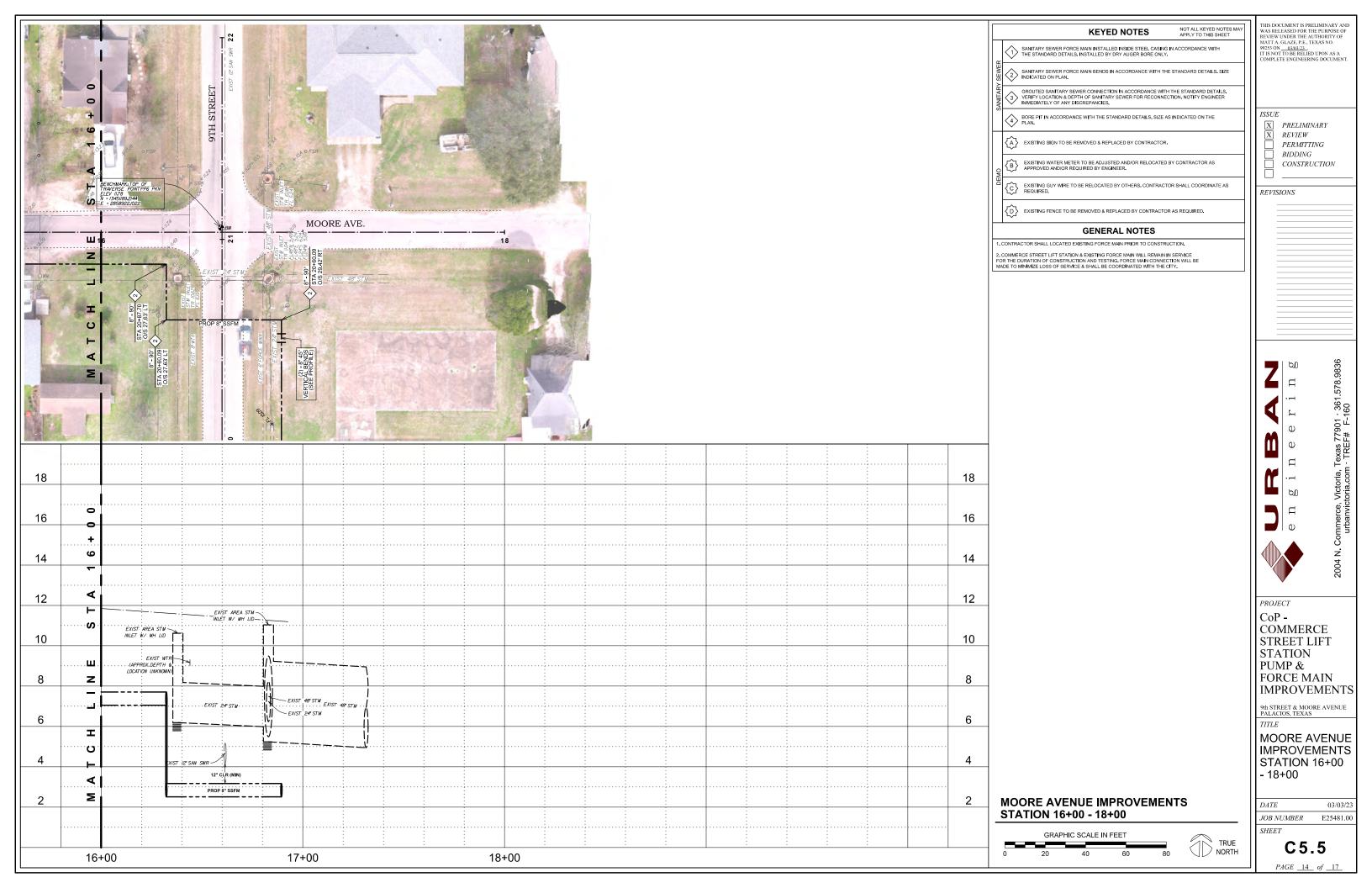


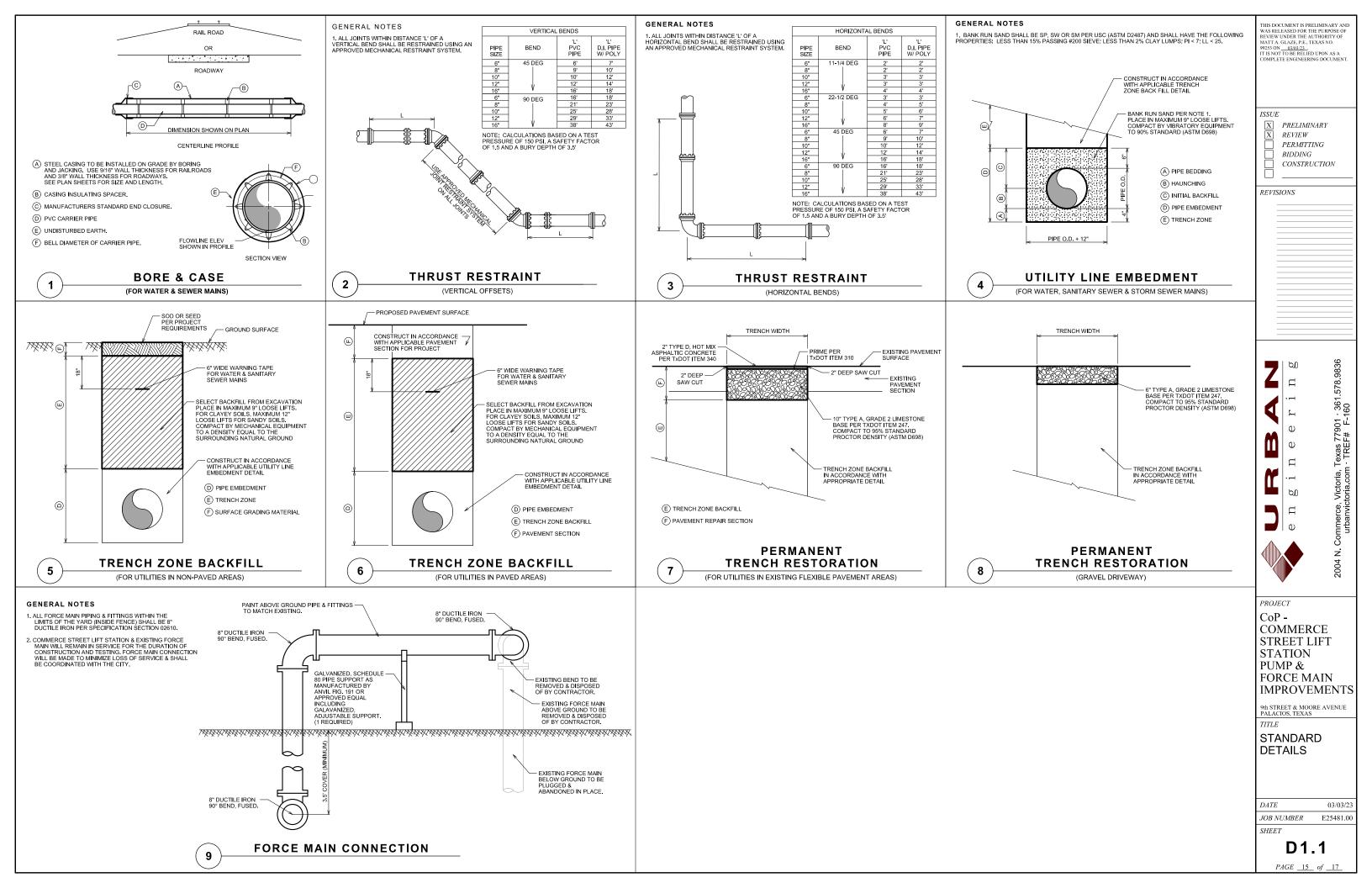


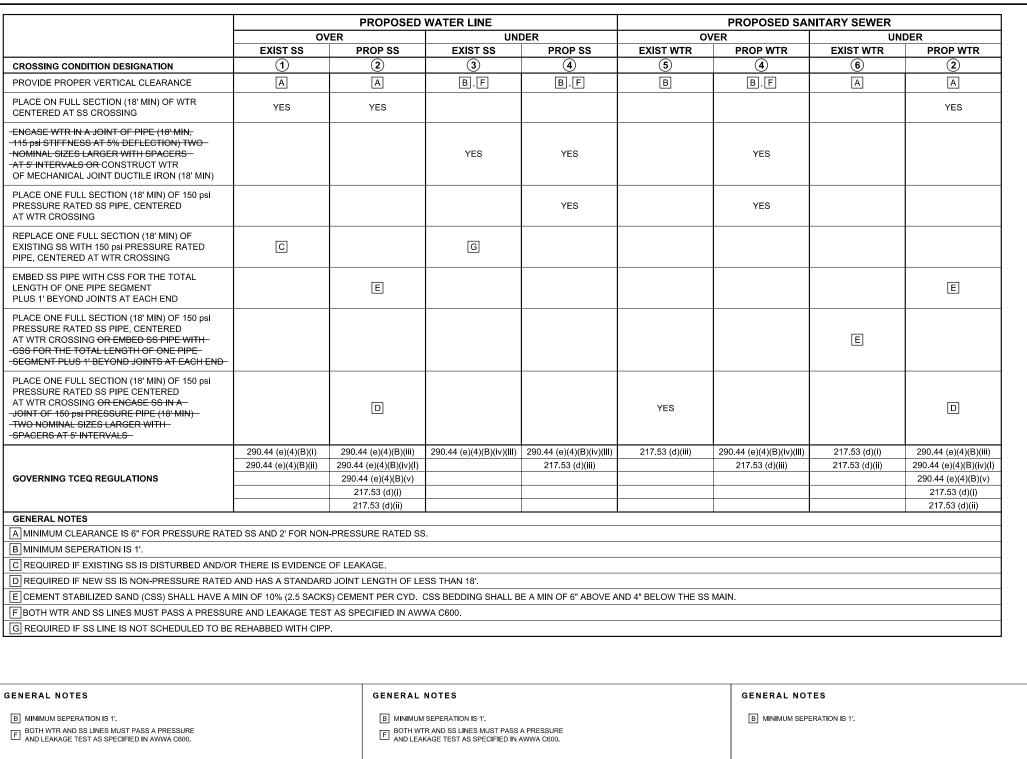












WTR WATER/SEWER CONFLICT 1 (PROPOSED WATER OVER EXISTING SEWER) **GENERAL NOTES** AMNIMUM CLEARANCE IS 6" FOR PRESSURE RATED SS AND 2' FOR NON-PRESSURE RATED SS. REQUIRED IF NEW SS IS NON-PRESSURE RATED AND HAS A STANDARD JOINT LENGTH OF LESS THAN 18'. CEMENT STABILIZED SAND (CSS) SHALL HAVE A MIN OF E 10% (2.5 SACKS) CEMENT PER CYD. CSS BEDDING SHALL BE A MIN OF 6" ABOVE AND 4" BELOW THE SS MAIN. WTR

GENERAL NOTES

MINIMUM CLEARANCE IS 6" FOR PRESSURE RATED SS AND 2' FOR NON-PRESSURE RATED SS.

REQUIRED IF EXISTING SS IS DISTURBED AND/OR THERE IS EVIDENCE OF LEAKAGE.

⋖

- PLACE ONE FULL SECTION (18' MIN) OF WTR

WTR

EXISTING SANITARY SEWER MAIN

PLACE ONE FULL SECTION (18' MIN) OF WTR

CENTER 18' JOINT OF NEW SANITARY SEWER MAIN. EMBED SS PIPE WITH

CSS FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 1' BEYOND JOINTS AT EACH END.

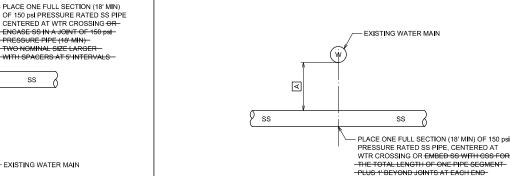
CENTERED AT SS CROSSING

WTR

WATER/SEWER CONFLICT 2 (PROPOSED WATER OVER PROPOSED SEWER)

⋖

GENERAL NOTES AMNIMUM CLEARANCE IS 6" FOR PRESSURE RATED SS AND 2" FOR NON-PRESSURE RATED SS.



WATER/SEWER CONFLICT

Φ 0,0 \Box PROJECT CoP -

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MAS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF MATT A. GLAZE, P.E., TEXAS NO.

PRELIMINARY

PERMITTING

CONSTRUCTION

REVIEW

BIDDING

ISSUE

REVISIONS

COMMERCE STREET LIFT **STATION** PUMP & FORCE MAIN **IMPROVEMENTS** 9th STREET & MOORE AVENUE PALACIOS, TEXAS TITLE

STANDARD **DETAILS**

IOB NUMBER E25481.00

SHEET

WATER/SEWER CONFLICT

SS В

EXISTING WATER MAIN

WATER/SEWER CONFLICT

(PROPOSED WATER UNDER PROPOSED SEWER)

AT 5' INTERVALS OR CONSTRUCT WTR OF

MECHANICAL JOINT DUCTILE IRON (18' MIN)

5 (PROPOSED SEWER OVER EXISTING WATER)

(PROPOSED SEWER UNDER EXISTING WATER)

D1.2 PAGE _16 of _17

m WTR WTR ENCASE WTR IN A JOINT OF PIPE (18' MIN. -115 psi STIFFNESS AT 5% DEFLECTION)-TWO NOMINAL SIZES LARGER WITH SPACES -AT 5'INTERVALS OR CONSTRUCT WTR OF MECHANICAL JOINT DUCTILE IRON (18' MIN)

3

WATER/SEWER CONFLICT (PROPOSED WATER UNDER EXISTING SEWER)

REPLACE ONE FULL SECTION (18' MIN)

OF 150 psi PRESSURE RATES SS PIPE.

CENTERED AT WTR CROSSING

PLACE ONE FULL SECTION (18' MIN) OF 150 psl PRESSURE RATED SS PIPE. CENTERED AT WTR CROSSING В WTR WTR - ENCASE WTR IN A JOINT OF PIPE (18' MIN. -115 psi STIFFNESS AT 5% DEFLECTION)
-TWO NOMINAL SIZES LARGER WITH SPACES

PARALLEL CONFLICTS LESS THAN 9' CLEARANCE										
		PROPOSED WATER LINE PROPOSED SANITARY SEWER							PROPOSER	PROPOSER
	OVER		UNDER		OVER		UNDER		PROPOSED FIRE HYDRANT	PROPOSED MANHOLE
	EXIST SS	PROP SS	EXIST SS	PROP SS	EXIST WTR	PROP WTR	EXIST/PROP WTR	EXIST/PROP WTR	TIKETITOKAN	MARTIOLL
CROSSING CONDITION DESIGNATION	1	2	3	5	⑤	5	6	7	4	8
REQUIRED HORIZONTAL SEPERATION	4'	4'	NA	NA	NA	NA	4'	NA	9'	NA
REQUIRED VERTICAL SEPERATION	2'	2'	NA	NA	NA	NA	2'	NA	9'	NA
CONSTRUCT SS OF 150 PSI PRESSURE RATED SS PIPE		YES					YES			
REPLACE SS WITH NON- PRESSURE RATED PIPE			YES							
ENCASE SS IN A 150 PSI PRESSURE PIPE (18' MIN) TWO NOMINAL SIZES LARGER WITH SPACERS AT 5' INTERVALS			YES	YES	YES	YES		YES		
	290.44 (e)(4)(A)(i)	290.44 (e)(4)(A)(iii)	217.53 (d)(4)(A)	217.53 (d)(4)(A)	217.53 (d)(4)(A)	217.53 (d)(4)(A)	217.53 (d)(6)(A)	217.53 (d)(6)(B)	290.44 (e)(6)	217.53 (d)(8)(A)
	290.44 (e)(4)(A)(ii)		217.53 (d)(4)(B)	217.53 (d)(4)(B)	217.53 (d)(4)(B)	217.53 (d)(4)(B)				217.53 (d)(8)(B)
GOVERNING TCEQ REGULATIONS			217.53 (d)(4)(C)	217.53 (d)(4)(C)	217.53 (d)(4)(C)	217.53 (d)(4)(C)				
			217.53 (d)(4)(D)	217.53 (d)(4)(D)	217.53 (d)(4)(D)	217.53 (d)(4)(D)				

GENERAL NOTES

- 1. NA = NOT APPLICABLE, DENOTES THAT THE TCEQ RULES AND REGULATIONS DO NOT SPECIFY A MINIMUM SPACING WHEN THE WASTEWATER MAIN, LATERAL, OR SERVICE IS ENCASED IN A 150 PSI PRESSURE RATED CASING. HOWEVER, THE SPACING BETWEEN THE POTABLE WATER SUPPLY PIPE AND THE WASTEWATER COLLECTION PIPE SHALL BE MAXIMIZED DURING THESE CIRCUMSTANCES.
- 2. POTABLE WATER DISTRIBUTION LINES AND WASTEWATER MAINS OR LATERALS THAT FORM UTILITY LINES SHALL BE INSTALLED IN SEPERATE TRENCHES.
- 3. NO PHYSICAL CONNECTION SHALL BE MADE BETWEEN A DRINKING WATER SUPPLY AND A SEWER LINE. ANY APPURTENANCE SHALL BE DESIGNED AND CONSTRUCTED SO AS TO PREVENT ANY POSSIBILITY OF SEWAGE ENTERING THE DRINKING SYSTEM.

1. FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF

ANY WASTEWATER MAIN, LATERAL, OR SERVICE REGARDLESS OF CONSTRUCTION.

9' MIN

MAS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF MATT A. GLAZE, P.E., TEXAS NO. 99253 ON <u>03/03/23</u>. T IS NOT TO BE RELIED UPON AS A COMPLETE ENGINEERING DOCUMEN

HIS DOCUMENT IS PRELIMINARY AND

ISSUE

PRELIMINARY REVIEW PERMITTING BIDDING

CONSTRUCTION

REVISIONS

PROJECT CoP -

COMMERCE STREET LIFT **STATION** PUMP & FORCE MAIN **IMPROVEMENTS**

9th STREET & MOORE AVENUE PALACIOS, TEXAS

TITLE STANDARD

DETAILS

JOB NUMBER

SHEET

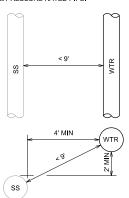
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PAGE _17_ of _17_

1. WHERE A NEW POTABLE WATERLINE PARALLELS AN EXISTING, NON-PRESSURE OR PRESSURE RATED NON-LEAKING WASTEWATER MAIN OR LATERAL AND IS WITHIN 9', THE NEW POTABLE WATERLINE SHALL BE LOCATED AT LEAST 2' ABOVE (VERTICAL) THE WASTEWATER MAIN OR LATERAL AND AT LEAST 4' AWAY (HORIZONTAL) FROM THE EXISTING WASTEWATER PIPE.

2. WHEN A NEW POTABLE WATERLINE PARALLELS AN EXISTING PRESSURE-RATED WASTEWATER MAIN OR LATERAL AND IT CANNOT BE DETERMINED BY THE LICENSED PROFESSIONAL ENGINEER IF THE EXISTING LINE IS LEAKING, THE EXISTING WASTEWATER MAIN OR LATERAL SHALL BE REPLACED WITH AT LEAST 150 PSI PRESSURE RATED PIPE.



PARALLEL WATER SEWER

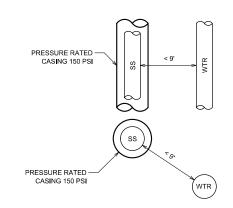
(PROPOSED WATER OVER EXISTING SEWER)

5

1. PARALLEL PIPES WITHIN 9' WHERE THE COLLECTION SYSTEM PIPE IS ABOVE THE WATER SUPPLY PIPE, THE SEWER COLLECTION PIPE SHALL BE ENCASED IN 150 PSI PRESSURE RATED

2, CASING SHALL BE SEALED AT BOTH ENDS WITH CEMENT GROUT OR A MANUFACTURED SEAL,

3. CASING SHALL BE AT LEAST TWO NOMINAL SIZES LARGER THAN THE SEWER COLLECTION PIPE AND SUPPORTED BY SPACERS AT A MAXIMUM OF 5' INTERVALS.

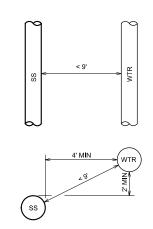


PARALLEL WATER SEWER

(PROPOSED SEWER OVER EXISTING/PROPOSED WATER)

GENERAL NOTES

1. WHERE A NEW POTABLE WATERLINE PARALLELS AN NEW WASTEWATER MAIN AND IS WITHIN 9', THE WASTEWATER MAIN OR LATERAL SHALL BE CONSTRUCTED OF AT LEAST 150 PSI PRESSURE-RATED PIPE. THE NEW POTABLE WATERLINE SHALL BE LOCATED AT LEAST 2' ABOVE (VERTICAL) AND AT LEAST 4' AWAY (HORIZONTAL) FROM THE WASTWATER PIPE.



2

PARALLEL WATER SEWER

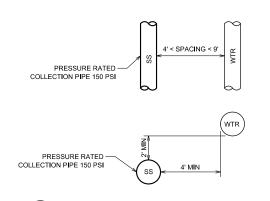
(PROPOSED WATER OVER PROPOSED SEWER)

GENERAL NOTES

1. PARALLEL PIPES WITHIN 9' WHERE THE COLLECTION SYSTEM PIPE IS BELOW THE WATER SUPPLY PIPE. THE SEWER COLLECTION PIPE SHALL BE CONSTRUCTED OF 150 PSI PRESSURE RATED PIPE IF

2. COLLECTION PIPE IS LOCATED AT LEAST TWO VERTICAL FEET BELOW AND AT LEAST FOUR

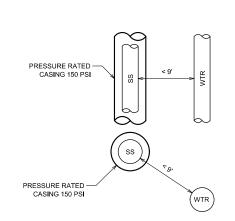
3. INCLUDES JOINTS THAT ARE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE.



PARALLEL WATER SEWER

(PROPOSED SEWER UNDER EXISTING/PROPOSED WATER)

1. WHEN A NEW WATERLINE IS WITHIN 9' AND UNDER AN EXISTING WASTEWATER MAIN OR LATERAL, THE WASTEWATER PIPE SHALL BE REPLACED AND ENCASED IN 150 PSI PRESSURE RATED PIPE. SEALED AT BOTH ENDS, AND SUPPORTED AT 5' INTERVALS WITH SPACERS.



3

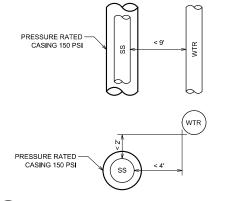
PARALLEL WATER SEWER

(PROPOSED WATER UNDER EXISTING SEWER)

1. PARALLEL PIPES WHERE THE COLLECTION SYSTEM PIPE IS BELOW THE WATER SUPPLY PIPE AND THE 4' HORIZONTAL AND 2' VERTICAL REQUIREMENT CANNOT BE MET SHALL ENCASE THE COLLECTION PIPE IN 150 PSI PRESSURE RATED PIPE.

2. CASING SHALL BE SEALED AT BOTH ENDS WITH CEMENT GROUT OR A MANUFACTURED SEAL.

3. CASING SHALL BE AT LEAST TWO NOMINAL SIZES LARGER THAN THE SEWER COLLECTION PIPE AND SUPPORTED BY SPACERS AT A MAXIMUM OF 5' INTERVALS.



PARALLEL WATER SEWER

(PROPOSED SEWER UNDER EXISTING/PROPOSED WATER)

GENERAL NOTES

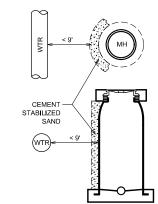
SS

- 1. IF A 9' SEPERATION DISTANCE BETWEEN A MANHOLE AND A WATER SUPPLY PIPE CANNOT BE ACHIEVED, THE MANHOLE MUST EITHER:
- 2. HAVE NO MEASUREABLE LEAKAGE DURING A LEAKAGE TEST CONDUCTED ACCORDING TO THE REQUIREMENTS IN TCEQ SECTION 217.58; OR

PARALLEL WATER SEWER

(PROPOSED FIRE HYDRANT ALONG PROPOSED/EXISTING SEWER)

3. HAVE ALL PORTIONS OF THE MANHOLE WITHIN 9' OF A WATER SUPPLY ENCASED IN AT LEAST 1' OF CEMENT STABILIZED SAND THAT MEETS THE REQUIREMENTS OF TCEQ SECTION 217.53(7)(D)(i) AND (ii).



PARALLEL WATER SEWER

(PROPOSED MANHOLE ALONG EXISTING/PROPOSED WATER)