

GENERAL NOTES

- 1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. THE CONTRACTOR IS TO CONTACT THE TEXAS ONE CALL CENTER AT 472-2822 FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.
3. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION OF THE CITY'S ONE STOP SHOP (OSS) AT 974-6360 AT LEAST 24 HOURS PRIOR TO INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET R.O.W. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S R.O.W. MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.
4. FOR SLOPES OR TRENCHES GREATER THAN FIVE (5) FEET IN DEPTH, ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE, INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN, TEXAS.)
5. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
6. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE WFPRD, THE ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE, FILTRATION, AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS.
7. DEVELOPER INFORMATION
A. OWNER:
THREE HILLS LAND LLC
PHONE NO: (512) 374-2920
B. OWNERS REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
CONSULTING ENGINEER, JONES | CARTER INC.
PHONE NO: (512) 441-9483
C. PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL:
CONTRACTOR
D. PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA CONTROL:
CONTRACTOR
8. ALL CONSTRUCTION SHALL COMPLY WITH THE "CITY OF AUSTIN STANDARD SPECIFICATIONS," AS AMENDED BY SPECIAL PROVISION, CURRENT AT THE TIME OF BIDDING.
9. CONTRACTOR TO TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF THESE CONSTRUCTION OPERATIONS TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR, AT NO ADDITIONAL COST TO OWNER.
10. CONTRACTOR TO GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION PERMITS THAT CAN ONLY BE ISSUED TO THE CONTRACTOR HAVE BEEN OBTAINED BY THE CONTRACTOR AT HIS EXPENSE PRIOR TO COMMENCEMENT OF WORK.
11. CONTRACTOR TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING AND DISPOSAL.
12. CONTRACTOR TO COORDINATE INTERRUPTIONS OF ALL UTILITIES AND SERVICES. ALL WORK TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY COMPANY OR AGENCY INVOLVED.
13. WHEN UNLOCATED OR INCORRECTLY LOCATED UNDERGROUND PIPING, OR A BREAK LOCATED IN THE LINE, OR OTHER UTILITIES AND SERVICES ARE ENCOUNTERED DURING SITE WORK OPERATIONS, NOTIFY THE APPLICABLE UTILITY COMPANY IMMEDIATELY TO OBTAIN PROCEDURE DIRECTIONS. COOPERATE WITH THE APPLICABLE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.
14. CONTRACTOR TO CONTROL DUST CAUSED BY THE WORK AND COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES. (NO SEPARATE PAY.)
15. THESE PLANS, PREPARED BY JONES AND CARTER INC., DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF JONES AND CARTER INC.'S REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR TO PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY HOUSE BILLS 662 AND 665 ENACTED BY THE TEXAS LEGISLATURE IN THE 70TH LEGISLATURE - REGULAR SESSION.
16. CONTRACTOR TO EXERCISE CAUTION DURING CONSTRUCTION NEAR AND AROUND GAS LINES. NOTIFY GAS COMPANY 72 HOURS PRIOR TO CONSTRUCTION.
17. BURNING IS NOT ALLOWED ON THIS PROJECT.
18. CONTRACTOR TO INSTALL 1/2 INCH DIAMETER BY 12 INCH LONG REBAR VERTICALLY, WITH TWO (2) FEET OF SURVEYOR'S RIBBON ATTACHED, AT END OF ALL PIPE STUBS. TOP OF BAR TO BE NOT LESS THAN 12 INCHES BELOW THE FINISHED GRADE.
A. BLUE RIBBON - WATER LINE
B. RED RIBBON - WASTEWATER LINE
C. WHITE RIBBON - GAS LINE
D. YELLOW RIBBON - TELECOM DUCT BANK
E. ORANGE RIBBON - ELECTRICAL DUCT BANK
19. MAKE CONNECTION BETWEEN NEW AND EXISTING ASPHALT BY REMOVING EXISTING ASPHALT, UNTIL FULL DEPTH BASE AND HMAC ARE ENCOUNTERED AND HMAC APPEARS TO BE IN SOUND CONDITION. PROVIDE EXPANSION JOINT AND DOWELS WHERE CONNECTING EXISTING CURB TO NEW.
20. A CURB LAYDOWN IS REQUIRED AT ALL POINTS WHERE THE PROPOSED SIDEWALK INTERSECTS THE CURB.
21. UNLESS OCCURRING AT AN EXPANSION JOINT, MAKE CONNECTION BETWEEN NEW AND EXISTING SIDEWALK BY EXPOSING AND CLEANING A ONE-FOOT LENGTH OF WELDED WIRE REINFORCEMENT AND LAPPING NEW REINFORCEMENT ONTO THIS LENGTH.
22. CONCRETE FOR SITE WORK TO BE CLASS "A" (5 SACK, 3000 PSI @ 28-DAYS) AND ALL REINFORCING STEEL TO BE ASTM A615 60, UNLESS OTHERWISE NOTED.
23. CONTRACTOR SHALL REFER TO THE TECHNICAL INVESTIGATION REPORT FOR THIS SITE FOR SUBSURFACE INFORMATION REGARDING THIS PROJECT. AT ITS EXPENSE THE CONTRACTOR IS ENCOURAGED TO MAKE ADDITIONAL SUBSURFACE INVESTIGATIONS.
24. ALL PRIVATE DRIVEWAYS WILL NOT EXCEED A GRADE OF 14% FOR THE FIRST 25' FROM EDGE OF RIGHT-OF-WAY AND WILL NOT REQUIRE CUT OR FILL OVER 8".
25. SCREENING MATERIALS FOR SOLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE SAME AS, OR OF EQUAL QUALITY TO, THE MATERIALS USED FOR THE PRINCIPLE BUILDING.
26. SITE LIGHTING SHALL COMPLY WITH SECTION 2.5 SUBCHAPTER E OF THE LAND DEVELOPMENT CODE: LITHONIA LIGHTING MODEL KSZ OR EQUAL.
27. DESIGN PROCEDURES ARE IN COMPLETE COMPLIANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL, OR DESIGN PROCEDURES ARE IN GENERAL COMPLIANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL AND ALL VARIANCES TO THE MANUAL ARE NOTED.
28. PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONVENE A PRE-CONSTRUCTION CONFERENCE BETWEEN THE CITY OF AUSTIN, CONSULTING ENGINEER, CONTRACTOR, AND ANY OTHER AFFECTED PARTIES. NOTIFY DPWT, CONSTRUCTION INSPECTION DIVISION, 974-0170 X 7161, AND WATER AND WASTEWATER DEPARTMENT, 477-5761, AT LEAST 48 HOURS PRIOR TO THE TIME OF THE CONFERENCE AND 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
29. THE CONTRACTOR SHALL GIVE THE CITY A MINIMUM OF 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION, CALL CONSTRUCTION INSPECTION DIVISION, 974-0170 X 7161.
30. BARRICADES, BUILT TO CITY OF AUSTIN STANDARD SPECIFICATIONS, SHALL BE CONSTRUCTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY. (STREETS, ETC. MAY BE LISTED IN ADDITION TO OR INSTEAD OF NOTE.)
31. IF BLASTING IS PLANNED BY THE CONTRACTOR, A BLASTING PERMIT MUST BE SECURED PRIOR TO COMMENCEMENT OF ANY BLASTING.
32. ANY EXISTING PAVEMENT, CURBS, AND / OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE BEFORE ACCEPTANCE OF THE SUBDIVISION.
33. THE LOCATION OF ANY WATER AND / OR WASTEWATER LINES SHOWN ON THE PLANS MUST BE VERIFIED BY THE WATER AND WASTEWATER DEPARTMENT.
34. USE ONE CALL UTILITY SYSTEM: DIAL 472-2822, 48 HOURS BEFORE YOU DIG.
35. DO NOT DIG OR GRADE WITHIN 15 FEET OF THE TRANSMISSION STRUCTURES. GRADING NEAR ELECTRIC TRANSMISSION FACILITIES MUST BE COORDINATED WITH AUSTIN ENERGY PRIOR TO COMMENCEMENT OF GRADING, CALL DOUG WEISE AT 512-905-7023 TO SCHEDULE A MEETING.
36. WHEN THE CONSTRUCTION OF BUILDINGS AND THE USE OF SCAFFOLDING OCCURS WITHIN THE VICINITY OF TREES TO BE PRESERVED, THE CONTRACTOR IS LIMITED TO A MAXIMUM PRUNING OF 25% OF THE TREE CROWN/CANOPY.

SITE CLEARING

CONDUCT SITE CLEARING OPERATIONS TO THE EXTENT SHOWN ON THE DRAWINGS, INCLUDING BUT NOT LIMITED TO: REMOVAL OF TREES AND OTHER VEGETATION, TOPSOIL STRIPPING, CLEARING AND GRUBBING, AND REMOVAL ALL IMPROVEMENTS ABOVE OR BELOW GRADE. REFER TO THE GEOTECHNICAL REPORT FOR THIS PROJECT FOR ADDITIONAL SITE PREPARATION REQUIREMENTS.

EXECUTION

- 1. SITE CLEARING OPERATIONS SHALL NOT DAMAGE OR INTERFERE WITH THE PUBLIC USE OF ROADS, WALKS, ADJACENT LAND OR FACILITIES AND EXISTING IMPROVEMENTS INTENDED TO REMAIN.
2. EXISTING TREES TO REMAIN SHALL BE PROTECTED IN COMPLIANCE WITH - LANDSCAPE PLANS.
3. CONTRACTOR SHALL REMOVE TREES, SHRUBS, GRASS AND OTHER VEGETATION, IMPROVEMENTS OR OBSTRUCTIONS INTERFERING WITH THE INSTALLATION OF NEW CONSTRUCTION OR AS SHOWN ON PLANS. CLEARING OPERATIONS SHALL INCLUDE REMOVAL OF STUMPS AND ROOTS.
4. CONTRACTOR SHALL STRIP TOPSOIL IN A MANNER APPROPRIATE TO SEGREGATE FROM UNDERLYING SUBSOIL. TOPSOIL STRIPPING NEAR TREES INTENDED TO REMAIN SHALL BE COMPLETED IN COMPLIANCE LANDSCAPE PLANS.
5. CONTRACTOR SHALL STRIP TOPSOIL IN A MANNER APPROPRIATE TO SEGREGATE FROM UNDERLYING SUBSOIL. TOPSOIL STRIPPING NEAR TREES INTENDED TO REMAIN SHALL BE COMPLETED IN COMPLIANCE LANDSCAPE PLANS.
6. SPOIL SHALL BE STORED ONLY IN AREAS SHOWN ON THE PLANS AND SHALL BE MAINTAINED IN ACCORDANCE WITH APPLICABLE POLLUTION PREVENTION PLANS OR PERMITS.
7. WASTE MATERIAL OR EXCESS TOPSOIL GENERATED AS A RESULT OF CLEARING AND GRADING OPERATIONS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. APPROPRIATE DISPOSAL OF ALL SPOIL MATERIAL SHALL BE AT THE CONTRACTOR'S EXPENSE. BURNING ON THE OWNER'S PROPERTY IS NOT PERMITTED.

Table with 2 columns: No., Date. Header: REVISIONS. App.

JONES | CARTER logo and contact information. Includes Texas Board of Professional Engineers Registration No. F-439, 3100 Alton Parkway Boulevard, Suite 150 - Austin, Texas 78741 • 512.441.9483. Scale: AS SHOWN, Date: SEPTEMBER 16, 2019, Job No.: 0A836-0006-214.



THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
GENERAL CONSTRUCTION NOTES

GENERAL NOTES

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN DOES NOT REMOVE THESE RESPONSIBILITIES.
 REVIEWED BY AUSTIN WATER APPLIES ONLY TO FACILITIES WITHIN PUBLIC STREETS OR PUBLIC UTILITY EASEMENTS. ALL OTHER WATER AND WASTEWATER FACILITIES INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICTION OF BUILDING INSPECTIONS.

Use of Electronic Files General Disclaimer: Use of the attached files in any manner indicates your acceptance and conditions as set forth below. If you do not agree to all terms and conditions, please contact Austin Water pipeline engineering project coordinator prior to use of information. Please be advised that the attached files are in a format that can be used by the user. Due to this fact, any reuse of the data will be the user's sole risk without liability or legal exposure to The City of Austin and user shall indemnify and hold harmless The City of Austin from damages, losses and expenses including attorney's fees or of resulting from the digital file. In addition, it is the responsibility of the user to compare all PDF version of this drawing. In the event there is a conflict to 7

FIRE FLOW TEST DATA



AUSTIN FIRE DEPARTMENT - FIRE PREVENTION DIVISION
 Engineering Services Section
 One Texas Center, Ste 200 - 505 Barton Springs Road
 Austin, Texas 78704
 Telephone (512) 974-0160 - Facsimile (512) 974-0162



Austin Fire Department Hydrant Flow Test Report

TEST DATE: 5/8/19 COMPANY: PREV
 TIME: 1430 HRS OFFICER: GARC/DECU

RESIDUAL HYDRANT

MAP GRID #	HYDRANT #	PIPE INTERSECTION #	MAIN SIZE	AED BOX #
G12	243179		12	4903

BLK # 10000 DIRECTION S STREET NAME IH 35 TYPE SVRD NB

STATIC PRESSURE (PSI): 106 RESIDUAL PRESSURE (PSI): 104

FLOW HYDRANT

MAP GRID #	HYDRANT #	PIPE INTERSECTION #	MAIN SIZE	AED BOX #
G12	243176		12	4903

BLK # 10000 DIRECTION S STREET NAME IH 35 TYPE SVRD NB

STATIC PRESSURE (PSI): 110 VELOCITY PRESSURE (PSI): 98

dc = discharge coefficient
 straight 2 1/2" hose = .9
 w/45' elbow = .75

diffuser = N/A

FLOW RATE (GPM) = 1661

NOTE: This information represents the water supply characteristics in the immediate area on the date and time tested. The City of Austin does not guarantee this data will be representative of the water supply characteristics at any time in the future. It is the requesting party's responsibility to ensure that this test information is appropriate to the location of the project in question and that any differences in elevation between the test location and project are accounted for and included in the hydraulic calculations.

INSPECTION NOTES

Please contact Development Services Department, Site and Subdivision Inspection at sitesubintake@austintexas.gov for arrangements for payment of inspection fees and job assignment for inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.

SERVICE EXTENSION REQUESTS

WATER SER NO. 4357

WATER AND WASTEWATER SERVICE EXTENSION REQUEST FOR CONSIDERATION

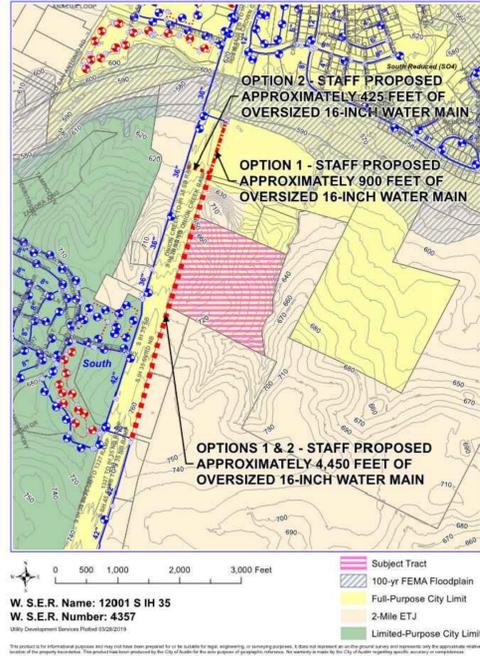
Name: 12001 S IH 35
 Service Request Number: 4357
 Date Received: 05/23/19

Customer: 12001 S IH 35 (SVRD NB) BOX 4903
 Date: 05/19/19
 Email: AP@AUSTIN.TX
 Phone: 512

Utility Service: R.E.A. Number: City of Austin Water Ser. 4357
 Quantity: 10000
 Estimated Pressure Zone: 300
 Proposed (Estimated) Peak Demand: 1661 GPM
 Estimated Average Daily Demand: 1000 GPM

Project Description: 1. Applicant shall construct approximately 425 feet of oversized 16-inch water main from the proposed location of the hydrant to the subject property. 2. Applicant shall construct approximately 900 feet of oversized 16-inch water main from the proposed location of the hydrant to the subject property. 3. Applicant shall construct approximately 4,450 feet of oversized 16-inch water main from the proposed location of the hydrant to the subject property. 4. Applicant shall construct approximately 16-inch water main from the proposed location of the hydrant to the subject property. 5. Applicant shall construct approximately 16-inch water main from the proposed location of the hydrant to the subject property. 6. Applicant shall construct approximately 16-inch water main from the proposed location of the hydrant to the subject property. 7. Applicant shall construct approximately 16-inch water main from the proposed location of the hydrant to the subject property. 8. Applicant shall construct approximately 16-inch water main from the proposed location of the hydrant to the subject property. 9. Applicant shall construct approximately 16-inch water main from the proposed location of the hydrant to the subject property. 10. Applicant shall construct approximately 16-inch water main from the proposed location of the hydrant to the subject property.

Approved by: [Signatures]
 Date: 5/23/19



FIRE, DOMESTIC AND IRRIGATION DEMAND DATA

GRID NUMBER:	L18
MAPSCO NUMBER:	646A
AW INTERSECTION NUMBER:	#4539
BUILDING SIZE IN SQUARE FEET:	N/A
BUILDING TYPE PER IFC:	N/A
BUILDING HEIGHT:	N/A
AVAILABLE FIRE FLOW CALCS AT 20 PSI:	N/A
REQUIRED BUILDING FIRE FLOW PER IFC:	N/A
REDUCED FIRE FLOW PER % FIRE SPRINKLER REDUCTION:	N/A
* MINIMUM FIRE FLOW:	N/A
DOMESTIC WATER DEMAND IN GPM:	246
WATER SUPPLY FIXTURE UNITS (WSFU) FLUSH TANKS OR FLOUSHMETERS:	N/A
AUSTIN WATER PRESSURE ZONE:	CENTRAL SOUTHEAST
STATIC WATER PRESSURE IN PSI:	N/A
STATIC PRESSURE AT THE HIGHEST LOT SERVED IN PSI:	N/A
STATIC PRESSURE AT THE LOWEST LOT SERVED IN PSI:	N/A
IRRIGATION DEMAND:	N/A
8" FIRE LINE VELOCITY:	N/A
4" DOMESTIC LINE VELOCITY:	N/A

NOTE: LOTS WITH 65 PSI OR GREATER REQUIRE A PRV TO BE INSTALLED ON THE PROPERTY OWNERS SIDE OF THE DOMESTIC WATER METER.
 *ON MINIMUM FIRE FLOW, FOR COMMERCIAL DEVELOPMENT, DESIGN ENGINEER MUST INCLUDE 1500 GALLONS PER MINUTE OR REDUCED FIRE FLOW AMOUNT, WHICHEVER IS GREATER AND 1000 GALLONS PER MINUTE ON RESIDENTIAL DEVELOPMENT/SUBDIVISION

STANDARD CONSTRUCTION NOTES

NOVEMBER 23, 2017

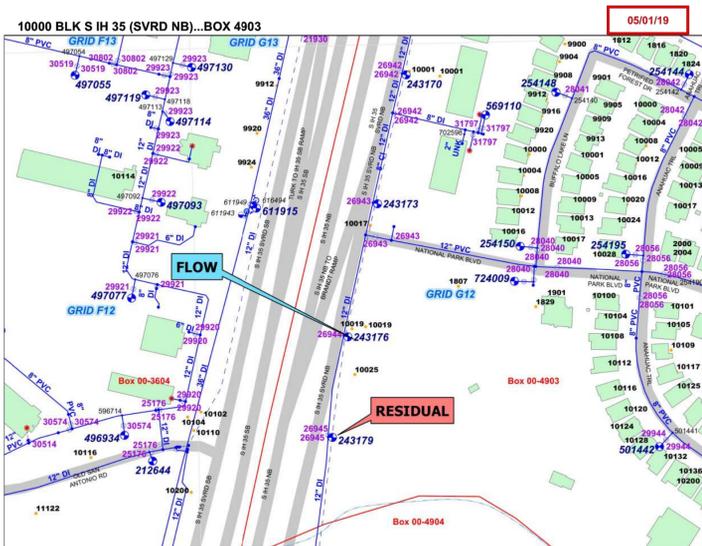
- THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK.
- CONTRACTOR MUST OBTAIN A STREET CUT PERMIT FROM AUSTIN TRANSPORTATION DEPARTMENT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.
- AT LEAST 48 HOURS BEFORE BEGINNING ANY WATER AND WASTEWATER CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY AUSTIN TRANSPORTATION INSPECTION OR DEVELOPMENT SERVICES DEPARTMENT (DSD) INSPECTIONS AT THE NUMBER INDICATED ON THE PLANS BY THE AW PLAN REVIEWER.
- THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA V-V-#0 SYSTEM AT 1-800-344-8377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT LINES.
- NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND WASTEWATER SERVICES.
- THE CITY SPECIFICATION ITEM 5095 WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE.
- ALL MATERIALS TESTS ORDERED BY THE OWNER FOR QUALITY ASSURANCE PURPOSES, SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY AND FUNDED BY THE OWNER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 18045.04.
- PRESSURE TAPS SHALL BE ALLOWED ON A CASE BY CASE BASIS, AS DETERMINED BY THE DIRECTOR'S DESIGNEE. NORMALLY PRESSURE TAPS 4 INCHES AND LARGER SHALL BE ALLOWED IN THE FOLLOWING CASES: A) A TEST SHUT OUT INDICATES AN ADEQUATE SHUT OUT TO PERFORM THE WORK IS NOT FEASIBLE B) MORE THAN 30 CUSTOMERS OR A SINGLE CRITICAL CUSTOMER (AS DEFINED BY AUSTIN WATER) WOULD BE IMPACTED BY THE SHUT OUT OR C) THE EXISTING WATER LINE WARRANTS IT.
- THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 510.3(22) AND SPL WW 27-A and WW 27-F.
- FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 511S.4 AND SHALL BE PAINTED FLUYN ALUMINUM OR EQUAL. FIRE HYDRANTS AND ASSOCIATED VALVES, TEN (10) YEARS AND OLDER WILL BE REQUIRED TO BE REPLACED WITH A NEW FIRE HYDRANT AND APPURTENANCES.
- WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS 510.3 (27)-(29). FORCE MAIN PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS AS WATER LINES (PRESSURE PIPE) OR AT THE PRESSURES SHOWN ON THE APPROVED PLANS.
- ALL MATERIAL USED ON THIS PROJECT MUST BE LISTED ON THE STANDARD PRODUCTS LISTING. ANY MATERIAL NOT LISTED HAS TO GO THROUGH THE REVIEW OF THE STANDARDS COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO START OF PROJECT. TESTING AND EVALUATION OF PRODUCTS ARE REQUIRED BEFORE APPROVAL WILL BE GIVEN ANY CONSIDERATION.
- WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS PE, THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD OR REPLACED THE FULL LENGTH WITH TYPE K COPPER MATERIAL. ANY TIME PB IS DAMAGED OR TAMPERED WITH IN ANY WAY, THE SERVICE LINE SHALL BE REPLACED FULL LENGTH WITH TYPE K COPPER MATERIAL. NOTE: FULL LENGTH IS FROM CORPORATION STOP TO METER.
- WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR WHO WILL THEN NOTIFY AUSTIN WATER DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE.
- THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR SO THAT HE CAN NOTIFY THE AUSTIN WATER AT 972-0000 AT A MINIMUM OF 72 HOURS PRIOR TO RELOCATING ANY DOMESTIC OR FIRE DEMAND WATER METERS. THE CONTRACTOR SHALL CAREFULLY REMOVE ALL METERS AND METERS BOXES THAT ARE INDICATED TO BE RELOCATED OR SALVAGED. THE CONTRACTOR SHALL INSTALL THE REMOVED METER OR CITY PROVIDED METER AT THE NEW LOCATION INDICATED ON THE CONSTRUCTION PLANS.
- WATER AND WASTE WATER SERVICES WILL NEED TO BE REPLACED UP TO THE MAIN. REPAIR COUPLINGS ARE NOT ALLOWED ON NEW INSTALLATIONS.
- ALL MANHOLES IN UNPAVED AREAS PROVIDING DIRECT ACCESS TO A WASTEWATER LINE SHALL BE WATERTIGHT AND BEAR THE WORDING AND INSIGNIA FOR THE CITY OF AUSTIN.
- THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES, BELOW GROUND AND OVERHEAD, PRIOR TO STARTING ONSITE UTILITY WORK.
- ALL WATER AND WASTEWATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE SEPARATION DISTANCES INDICATED IN CHAPTER 290 - DRINKING WATER STANDARDS, CHAPTER 217 - DESIGN CRITERIA FOR SEWERAGE SYSTEMS AND CHAPTER 210 - DESIGN CRITERIA FOR RECLAIMED SYSTEMS OF TCEQ RULES.
- CONTRACTOR'S PERSONNEL THAT PERFORM BUTT FUSION AND ELECTROFUSION ON OR TO HDPE PIPE AND FITTINGS MUST HAVE CURRENT QUALIFICATION TRAINING CERTIFICATE ISSUED BY MCELROY OR COMPARABLE TRAINING PROGRAM.
- SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER, REGISTERED IN THE STATE OF TEXAS, SHALL BE SUBMITTED FOR AUSTIN WATER APPROVAL FOR LARGE DIAMETER PRE-CAST MANHOLES, JUNCTION BOXES, WET WELLS, AND SIMILAR STRUCTURES. THE SHOP DRAWINGS SHALL INCLUDE FLOWLINE ELEVATIONS OF ALL INCOMING AND OUTGOING PIPES, ELEVATION OF TRANSITION FROM LARGE DIAMETER SECTIONS TO 48" ID SECTION, TOP OF MANHOLE ELEVATION, SURROUNDING GROUND ELEVATION, AS WELL AS SPECIAL CONSTRUCTION CONSIDERATIONS THAT ARE SPECIFIED IN THE CONTRACT DRAWINGS.
- VALVE STEM EXTENSIONS SHALL CONSIST OF A SINGLE PIECE OF IRON ROD OF THE REQUIRED LENGTH WITH A SOCKET ON ONE END AND NUT ON THE OTHER.
- ALL POTABLE WATER SYSTEM COMPONENTS INSTALLED AFTER JANUARY 4, 2014, SHALL BE ESSENTIALLY O'-'- ACCORDING TO THE US SAFE DRINKING WATER ACT. EXAMPLES ARE VALVES (CORPORATION STOP, CURB STOP, AND PRESSURE REDUCING), NIPPLES, BUSHINGS, PIPE, FITTINGS, BACKFLOW PREVENTERS AND FIRE HYDRANTS, TAPPING SADDLES AND 2 INCH AND LARGER GATE VALVES ARE THE ONLY COMPONENTS EXEMPT FROM THIS REQUIREMENT. COMPONENTS THAT ARE NOT CLEARLY IDENTIFIED BY THE MANUFACTURER AS MEETING THIS REQUIREMENT EITHER BY MARKINGS ON THE COMPONENT OR ON THE PACKAGING SHALL NOT BE INSTALLED.
- ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED, SALVAGED AND RETURNED TO AUSTIN WATER. NOTICE SHOULD BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINTENANCE, VALVES AND HYDRANT SERVICES, SUPERVISING AW PIPELINE TECHNICIAN AT 512-972-1133
- ALL EXISTING WATER METERS IDENTIFIED TO BE RELOCATED OR ABANDONED AT THE DEVELOPMENT, SHALL BE REMOVED FROM THE METER BOX PRIOR TO CONSTRUCTION AND GIVEN IMMEDIATELY TO THE DSD INSPECTOR.
- THE ENGINEER SHALL CALL OUT THE SIZE, TYPE AND USE (DOMESTIC OR IRRIGATION) OF ALL EXISTING WATER METERS TO BE RELOCATED OR REPURPOSED. WATER METER NUMBERS WILL NOT BE REQUIRED TO BE PLACED ON THE PLAN SHEET. A SEPARATE AUSTIN WATER TAPS OFFICE FORM WILL BE USED TO PROVIDE RELEVANT INFORMATION FOR THE EXISTING INFORMATION ON EXISTING METERS TO RECEIVE APPROPRIATE CREDITS. THIS FORM SHALL BE DIRECTLY SUBMITTED TO AUSTIN WATER TAPS OFFICE FOR REVIEW AND PROCESSING.
- NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED.
- ALL GRAVITY LINES SHALL BE INSTALLED DOWNSTREAM TO UPSTREAM.
- METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS.
- PROTECTED STREET STATUS IS SUBJECT TO CHANGE OVER TIME. IT IS THE OWNER'S RESPONSIBILITY TO CONFIRM THE STREET STATUS PRIOR TO CONSTRUCTION AS PROTECTED STREET STATUS WILL DIRECTLY IMPACT THE CONSTRUCTION COSTS. IF PROTECTED STREETS ARE PROPOSED TO BE DISTURBED, APPROVAL FROM THE STREET AND BRIDGE DIVISION OF THE TRANSPORTATION DEPARTMENT IS REQUIRED.

OFFSITE UTILITY LETTER

NOT APPLICABLE

NO WASTEWATER SERVICE EXTENSIONS REQUIRED

FIRE FLOW MAP



AW INFRASTRUCTURE INFORMATION

PROPOSED PRODUCT TYPE (TO BE INSTALLED)	LENGTH OF PIPE (L.F.)	SIZE OF PIPE (INCH)	NO. OF SERVICES
WATER MAIN	5345	16	NA
WASTEWATER MAIN	N/A	N/A	NA
RECLAIMED WATER MAIN	N/A	N/A	NA
WATER SERVICE	NA	NA	0
WASTEWATER SERVICE	NA	NA	0
RECLAIMED WATER SERVICE	NA	NA	0

EXPAND OR REDUCE TABLE AS NEEDED. THE INFORMATION INCLUDED IN THIS TABLE ARE APPROXIMATE VALUES ESTIMATED BASED ON GENERAL ENGINEERING GUIDELINES

DOES THIS PROJECT INVOLVE NEED AULCC REVIEW?

YES NO

IF YES, PLEASE PROVIDE UCC# _____

NOTE: IF THE PROJECT IS LOCATED WITHIN FULL PURPOSE JURISDICTION, A RIGHT-OF-WAY REVIEW, THROUGH THE AULCC PERMIT PROCESS WILL BE REQUIRED.

DOES THIS PROJECT INVOLVE A DEVELOPMENT AGREEMENT THAT IMPACTS AUSTIN WATER INFRASTRUCTURE?

YES NO



AW EXPIRATION STAMP
 THREE YEARS FROM THE DATE OF SIGN-OFF

SITE PLAN APPROVAL SHEET _____ OF _____
 FILE NUMBER: SP-2019-XXXX APPLICATION DATE: _____
 APPROVED BY COMMISSION ON _____ UNDER SECTION _____ OF CHAPTER _____ OF THE CITY OF AUSTIN CODE
 EXPIRATION DATE (25--8--81, LDC) _____ CASE MANAGER _____
 PROJECT EXPIRATION DATE (ORD #970905-A) _____ DWPZ _____ DDZ _____

Director, Development Services Department
 RELEASED FOR GENERAL COMPLIANCE: _____ ZONING: _____
 Rev. 1 _____ Connection 1 _____
 Rev. 2 _____ Connection 2 _____
 Rev. 3 _____ Connection 3 _____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

AUSTIN WATER GENERAL INFORMATION AND CONSTRUCTION NOTES FOR COMMERCIAL SITES AND SUBDIVISION PLANS

CITY OF AUSTIN
 AUSTIN WATER
 MARCH 2019

VERSION 1.2
 STANDARD NO. 1 OF 1

JONES CARTER
 Texas Board of Professional Engineers Registration No. F-439
 3100 Alton Avenue, Houston, Texas 77011 • 512.441.1905

THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN

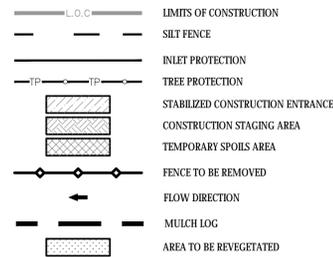
Tree Information	
Total Appendix F Tree Inches Surveyed	1117"
Total Appendix F Tree Inches Removed	637"
Total Non-Appendix F Tree Inches Removed	67"
Total Invasive Tree Inches Removed	0"
Total Mitigation Tree Inches Planted	0"
Total Dead Tree Inches Removed	0"
Total Non-Mitigation Tree Inches Planted	0"

Mitigation Table			
	Inches Removed	Mitigation Rate	Mitigation Inches
Total Appendix F Tree Inches Removed (>19")	194.0"	100%	194"
Total Appendix F Tree Inches Removed (8"-18.9")	443.0"	50%	222"
Total Non-Appendix F Tree Inches Removed (>19")	21.0"	50%	11"
Total Non-Appendix F Tree Inches Removed (8"-18.9")	46.0"	25%	12"
Total Mitigation Inches	437.5"		
Total Mitigation Cost (\$200/in)			\$ 87,500.00

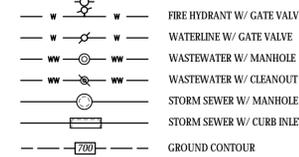
EROSION CONTROL NOTES:

- ALL SPOILS ARE TO BE PLACED BACK IN TRENCH EVERY NIGHT; OR IF SPOIL PILES ARE TO REMAIN OVERNIGHT, SPOILS MUST BE PLACED ON THE UPHILL SIDE OF TRENCH WITHIN THE LIMITS OF CONSTRUCTION.
- IF DISTURBED AREA IS NOT WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING. [ECM 1.4.4.B.3, SECTION 5, I]
- ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS. [LDC 25-8-183]
- CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
- THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4]
- NO MORE THAN 2,000 FEET OF CONSTRUCTION ZONE SHALL BE OPEN AT ANY TIME WITH CLEAN UP AND RESTORATION WORK OCCURRING BEFORE PROCEEDING TO THE NEXT SECTION. THE CONTRACTOR IS REQUIRED TO RESTORE ALL DISTRIBUTED AREAS AS THE WORK PROGRESSES. [ECM 1.4.1.2.(E), ECM 1.4.1.2.(C)(2)]
- EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PERPENDICULARLY EVERY 30 FEET AS THE TRENCH IS BACKFILLED. [ECM 1.4.4.G]
- ALL AREAS THAT EXCEED A FINAL GRADE OF 2:1 ARE TO BE REVEGETATED. 18" MULCH SOCK WILL BE PROVIDED AT THE TOP AND BASE OF EACH SLOPE TO PREVENT RUNOFF AND SEDIMENT TRANSPORT UNTIL PERMANENT VEGETATIVE STABILIZATION HAS GROWN TO A MINIMUM OF 1.5 INCHES AND THERE ARE NO BARE SPOTS GREATER THAN 10 SQUARE FEET. [ECM 1.4.4.B.1, 1.4.5.F, 1.4.7.B, ECM APPENDIX P-1]
- STORMWATER ACCUMULATED IN THE TRENCH WILL BE FILTERED USING PUMP AND FILTER PRESS SYSTEMS PRIOR TO DISCHARGING INTO SURFACE WATER OR STORM DRAIN. [ECM 1.4.4.G.4]

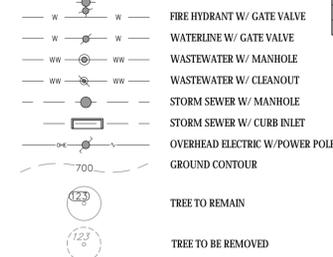
ESC LEGEND



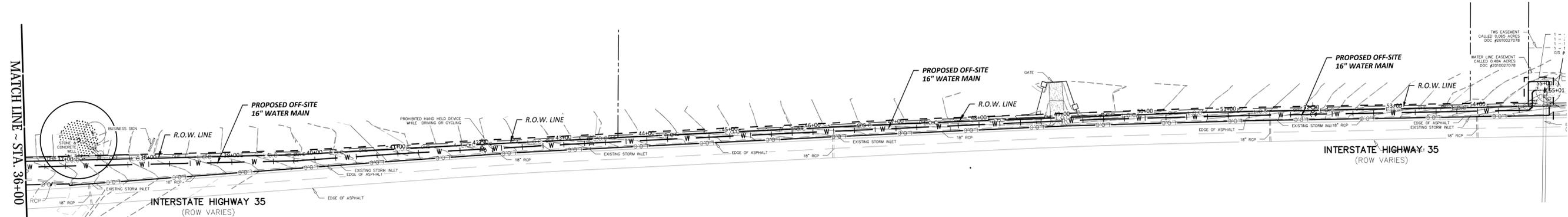
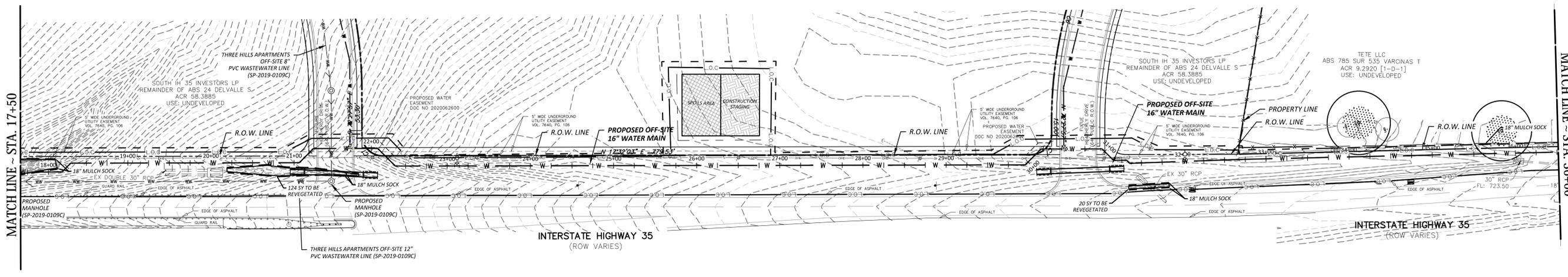
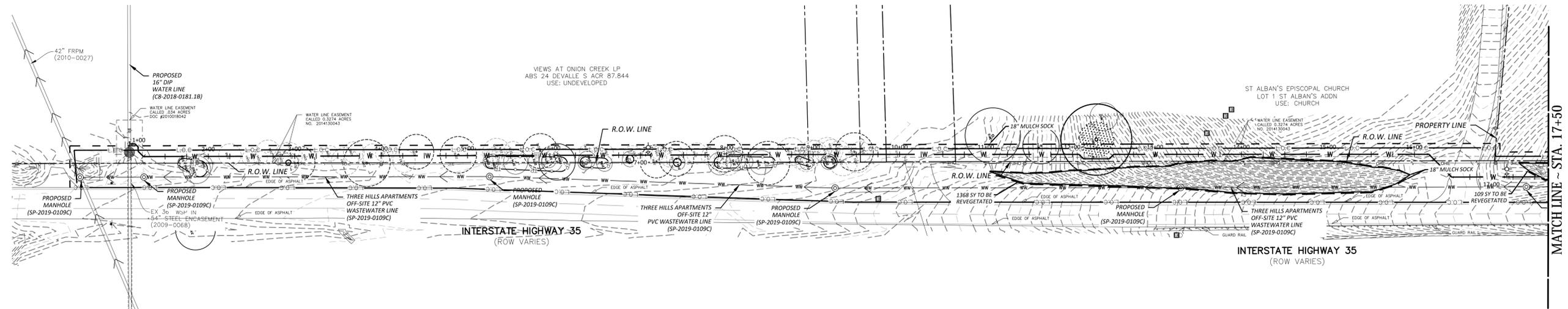
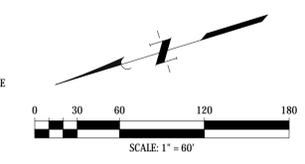
PROPOSED LEGEND



EXISTING LEGEND



THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



No.	Date	REVISIONS

JONES CARTER
 Texas Board of Professional Engineers Registration No. F-439
 3100 Alton Parkway Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.8493

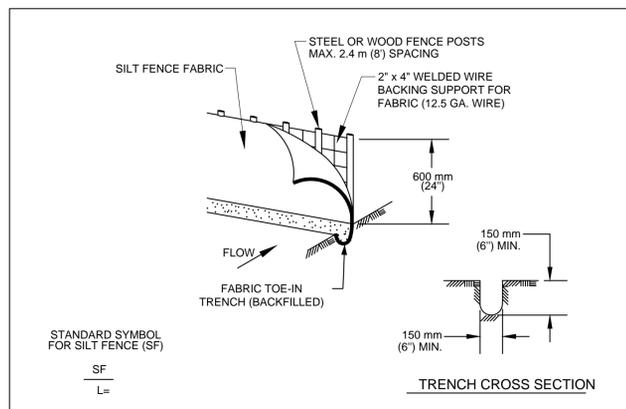
SCALE: AS SHOWN DESIGNED BY: JER
 DATE: SEPTEMBER 16, 2019 CHECKED BY: GNR
 JOB NO.: 0A836-0006-214 DRAWN BY: JER



THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
 TREE, TOPO, AND PRE-CONSTRUCTION
 ESC PLAN

SHEET NO. **4**
 OF 15

SP-2019-0410D

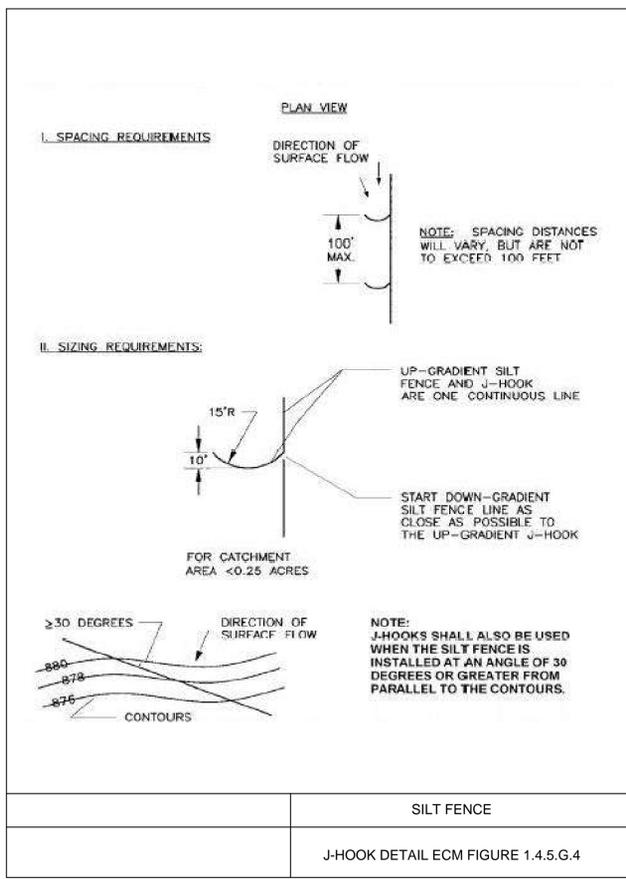


STANDARD SYMBOL FOR SILT FENCE (SF)
SF
L=

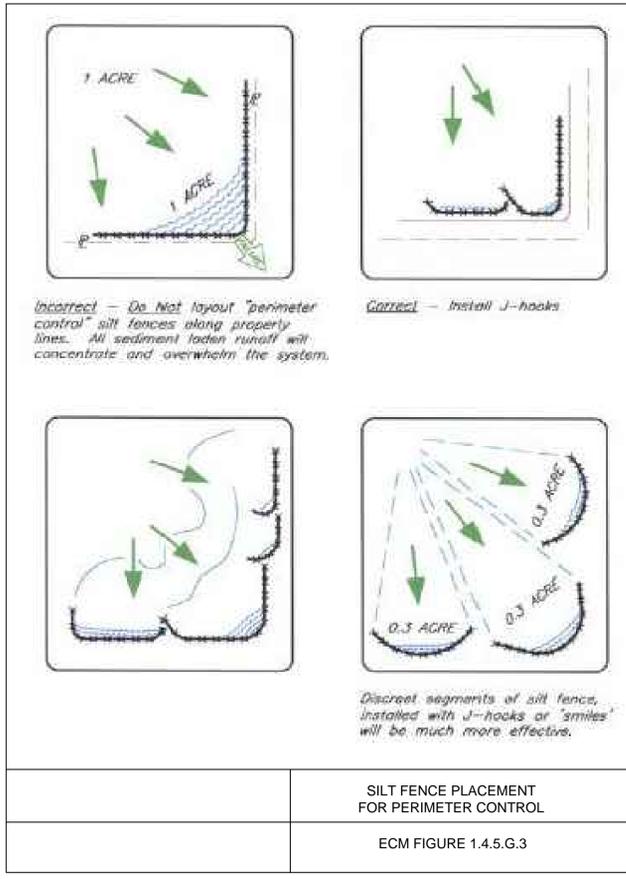
TRENCH CROSS SECTION

- STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	STANDARD NO. 642S-1
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



	SILT FENCE	
	J-HOOK DETAIL ECM FIGURE 1.4.5.G.4	



	SILT FENCE PLACEMENT FOR PERIMETER CONTROL	
	ECM FIGURE 1.4.5.G.3	

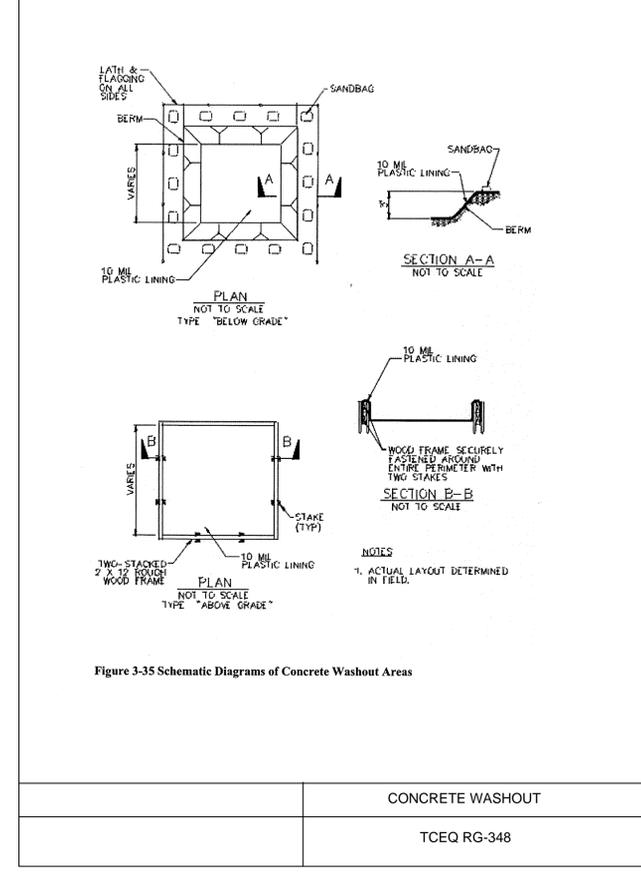
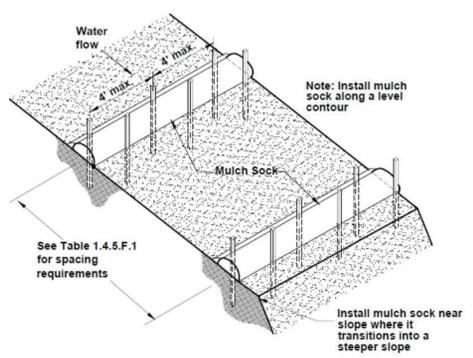
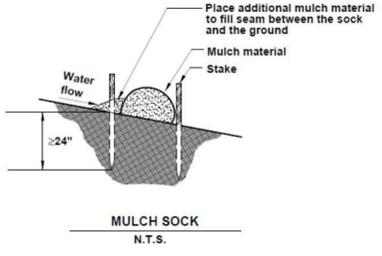


Figure 3-35 Schematic Diagrams of Concrete Washout Areas

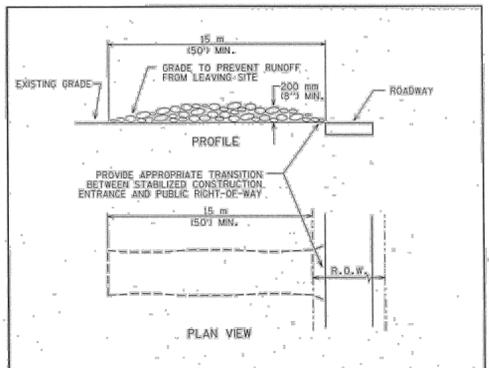
	CONCRETE WASHOUT	
	TCEQ RG-348	



TYPICAL MULCH SOCK INSTALLATION
N.T.S.

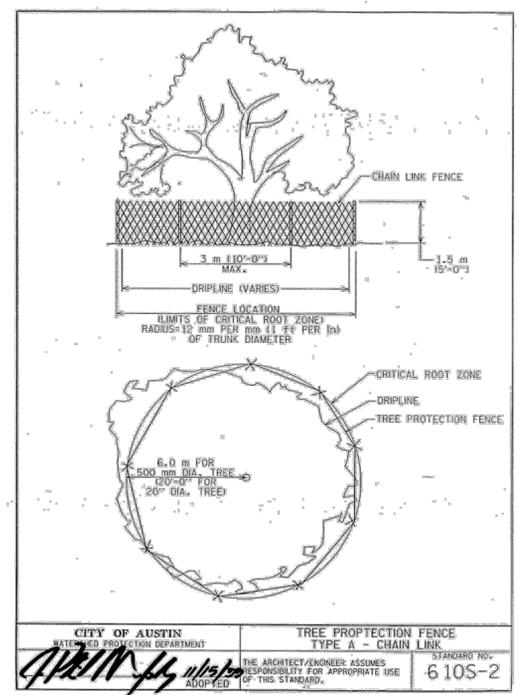


MULCH SOCK
N.T.S.



- NOTES:
- STONE SIZES 75-125 mm (3-5") OPEN GRADED ROCK.
 - LENGTH AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
 - THICKNESS NOT LESS THAN 200 mm (8").
 - WIDTH NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
 - WASHING WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
 - MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
 - DRAINAGE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	STANDARD NO. 641S-1
Dim Santa 05/23/20	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE TYPE A - CHAIN LINK	STANDARD NO. 610S-2
APR 11 11 15/20	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

No.	Date	REVISIONS

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
3100 Alan Dames Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.8493

SCALE: AS SHOWN
DATE: SEPTEMBER 16, 2019
JOB NO.: 0A836-0006-214

DESIGNED BY: JER
CHECKED BY: GNR
DRAWN BY: JER



THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN

EROSION CONTROL DETAILS

SHEET NO. **6**

OF 15

APP. SF-2019-0410D

APPENDIX P-1:
EROSION CONTROL NOTES

- The contractor shall install erosion/sedimentation controls and tree/natural area protective fencing prior to any site preparation work (clearing, grubbing or excavation).
- The placement of erosion/sedimentation controls shall be in accordance with the Environmental Criteria Manual and the approved Erosion and Sedimentation Control Plan. The COA ESC Plan shall be used as the basis for a TPDES required SWPPP. If a SWPPP is required, it shall be available for review by the City of Austin Environmental Inspector at all times during construction, including at the Pre-Construction meeting. The checklist below contains the basic elements that shall be reviewed for permit approval by COA EV Plan Reviewers as well as COA EV Inspectors.

Plan sheets submitted to the City of Austin MUST show the following:

- Direction of flow during grading operations.
- Location, description, and calculations for off-site flow diversion structures.
- Areas that will not be disturbed; natural features to be preserved.
- Delineation of contributing drainage area to each proposed BMP (e.g., silt fence, sediment basin, etc.)
- Location and type of e&s bmps for each phase of disturbance.
- Calculations for BMPs as required.
- Location and description of temporary stabilization measures.
- Location of on-site spoils, description of handling and disposal of borrow materials, and description of on-site permanent spoils disposal areas, including size, depth of fill and revegetation procedures.

- Describe sequence of construction as it pertains to ESC including the following elements:

1. Installation sequence of controls (e.g. perimeter controls, then sediment basins, then temporary stabilization, then permanent, etc.)
2. Project phasing if required (LOC greater than 25 acres)
3. Sequence of grading operations and notation of temporary stabilization measures to be used
4. Schedule for converting temporary basins to permanent WQ controls
5. Schedule for removal of temporary controls
6. Anticipated maintenance schedule for temporary controls

- Categorize each BMP under one of the following areas of BMP activity as described below:

- 3.1 Minimize disturbed area and protect natural features and soil
- 3.2 Control Stormwater flowing onto and through the project
- 3.3 Stabilize Soils
- 3.4 Protect Slopes
- 3.5 Protect Storm Drain Inlets
- 3.6 Establish Perimeter Controls and Sediment Barriers
- 3.7 Retain Sediment On-Site and Control Dewatering Practices
- 3.8 Establish Stabilized Construction Exits
- 3.9 Any Additional BMPs

- Note the location of each BMP on your site map(s).

- For any structural BMPs, you should provide design specifications and details and refer to them.

- For more information, see City of Austin Environmental Criteria Manual 1.4.

- The Placement of tree/natural area protective fencing shall be in accordance with the City of Austin standard Notes for Tree and Natural Area Protection and the approved Grading/Tree and Natural Area Plan.
- A pre-construction conference shall be held on-site with the contractor, design Engineer/permit applicant and Environmental Inspector after installation of the erosion/sedimentation controls and tree/natural area protection measures and prior to beginning any site preparation work. The owner or owner's representative shall notify the Planning and Development Review Department, 974-2278, at least three days prior to the meeting date. COA approved ESC Plan and TPDES SWPPP (if required) should be reviewed by COA EV Inspector at this time.
- Any major variation in materials or locations of controls or fences from those shown on the approved plans will require a revision and must be approved by the reviewing Engineer, Environmental Specialist or City Arborist as appropriate. Major revisions must be approved by authorized COA staff. Minor changes to be made as field revisions to the Erosion and Sedimentation Control Plan may be required by the Environmental Inspector during the course of construction to correct control inadequacies.
- The contractor is required to provide a certified inspector with either a Certified Professional in Erosion and Sediment Control (CPESC), Certified Erosion, Sediment and Stormwater- Inspector (CESSW) or Certified Inspector of Sedimentation and Erosion Controls (CISEC) certification to inspect the controls and fences at weekly intervals and after significant rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches.
- Prior to final acceptance by the City, haul roads and waterway crossings constructed for temporary contractor access must be removed, accumulated sediment removed from the waterway and the area restored to the original grade and revegetated. All land clearing debris shall be disposed of in approved spoil disposal sites.
- All work must stop if a void in the rock substrate is discovered which is: one square foot in total area; blows air from within the substrate and/or consistently receives water during any rain event. At this time it is the responsibility of the Project Manager to immediately contact a City of Austin Environmental Inspector for further investigation.
- Temporary and Permanent Erosion Control: All disturbed areas shall be restored as noted below:

- All disturbed areas to be revegetated are required to place a minimum of six (6) inches of topsoil [see Standard Specification Item No. 601S.3(A)]. Do not add topsoil within the critical root zone of existing trees.

Topsoil salvaged from the existing site is encouraged for use, but it should meet the standards set forth in 601S. An owner/engineer may propose use of onsite salvaged topsoil which does not meet the criteria of Standard Specification 601S by providing a soil analysis and a written statement from a qualified professional in soils, landscape architecture, or agronomy indicating the onsite topsoil will provide an equivalent growth media and specifying what, if any, soil amendments are required. Soil amendments shall be worked into the existing onsite topsoil with a disc or tiller to create a well-blended material. The vegetative stabilization of areas disturbed by construction shall be as follows:

TEMPORARY VEGETATIVE STABILIZATION:

- From September 15 to March 1, seeding shall be with or include a cool season cover crop: (Western Wheatgrass (*Pascopyrum smithii*) at 5.0 pounds per acre, Oats (*Avena sativa*) at 4.0 pounds per acre, Cereal Rye Grain (*Secale cereale*) at 45 pounds per acre. Contractor must ensure that any seed application requiring a cool season cover crop does not utilize annual ryegrass (*Lolium multiflorum*) or perennial ryegrass (*Lolium perenne*). Cool season cover crops are not permanent erosion control.
- From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 45 pounds per acre or a native plant seed mix conforming to Items 604S or 609S.

- Fertilizer shall be applied only if warranted by a soil test and shall conform to Item No. 606S, Fertilizer. Fertilization should not occur when rainfall is expected or during slow plant growth or dormancy. Chemical fertilizer may not be applied in the Critical Water Quality Zone.

- Hydromulch shall comply with Table 1, below.

- Temporary erosion control shall be acceptable when the grass has grown at least 11/2 inches high with a minimum of 95% total coverage so that all areas of a site that rely on vegetation for temporary stabilization are uniformly vegetated, and provided there are no bare spots larger than 10 square feet.

- When required, native plant seeding shall comply with requirements of the City of Austin Environmental Criteria Manual, and Standard Specifications 604S or 609S.

Table 1: Hydromulching for Temporary Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
100% or any blend of wood, cellulose, straw, and/or cotton plant material (except no mulch shall exceed 30% paper)	0% or greater Wood/Straw 30% or less Paper or Natural Fibers	0-3 months	Moderate slopes; from flat to 3:1	1,500 to 2,000 lbs per acre

PERMANENT VEGETATIVE STABILIZATION:

- From September 15 to March 1, seeding is considered to be temporary stabilization only. If cool season cover crops exist where permanent vegetative stabilization is desired, the grasses shall be mowed to a height of less than one-half (1/2) inch and the area shall be re-seeded in accordance with Table 2 below. Alternatively, the cool season cover crop can be mixed with Bermudagrass or native seed and installed together, understanding that germination of warm-season seed typically requires soil temperatures of 60 to 70 degrees.
- From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 45 pounds per acre with a purity of 95% and a minimum pure live seed (PLS) of 0.83. Bermuda grass is a warm season grass and is considered permanent erosion control. Permanent vegetative stabilization can also be accomplished with a native plant seed mix conforming to Items 604S or 609S.

- Fertilizer use shall follow the recommendation of a soil test. See Item 606S, Fertilizer. Applications of fertilizer (and pesticide) on City-owned and managed property requires the yearly submittal of a Pesticide and Fertilizer Application Record, along with a current copy of the applicator's license. For current copy of the record template contact the City of Austin's IPM Coordinator.

- Hydromulch shall comply with Table 2, below.

- Water the seeded areas immediately after installation to achieve germination and a healthy stand of plants that can ultimately survive without supplemental water. Apply the water uniformly to the planted areas without causing displacement or erosion of the materials or soil. Maintain the seedbed in a moist condition favorable for plant growth. All watering shall comply with City Code Chapter 6-4 (Water Conservation), at rates and frequencies determined by a licensed irrigator or other qualified professional, and as allowed by the Austin Water Utility and current water restrictions and water conservation initiatives.

- Permanent erosion control shall be acceptable when the grass has grown at least 11/2 inches high with a minimum of 95 percent for the non-native mix, and 95 percent coverage for the native mix so that all areas of a site that rely on vegetation for stability must be uniformly vegetated, and provided there are no bare spots larger than 16 square feet.

- When required, native plant seeding shall comply with requirements of the City of Austin Environmental Criteria Manual, Items 604S and 609S.

Table 2: Hydromulching for Permanent Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
Bonded Fiber Matrix (BFM)	80% Organic defibrated fibers 10% Tackifier	6 months	On slopes up to 2:1 and erosive soil conditions	2,500 to 4,000 lbs per acre (see manufacturers recommendations)
Fiber Reinforced Matrix (FRM)	65% Organic defibrated fibers 25% Reinforcing Fibers or less 10% Tackifier	Up to 12 months	On slopes up to 1:1 and erosive soil conditions	3,000 to 4,500 lbs per acre (see manufacturers recommendations)

10. Developer Information:

Developer: Texas Department of Transportation
 Developer's representative responsible for plan alterations: Jones | Carter
 Phone # (512) 441-9493
 Person or firm responsible for erosion/sedimentation control maintenance: Contractor
 Phone # _____
 Person or firm responsible for tree/natural area protection Maintenance: Contractor
 Phone # _____

- The contractor shall not dispose of surplus excavated material from the site without notifying the Planning and Development Review Department at 974-2278 at least 48 hours prior with the location and a copy of the permit issued to receive the material.

Source: Rule No. R161-15.13, 1-4-2016.

APPENDIX P-4:
STANDARD SEQUENCE OF CONSTRUCTION

The following sequence of construction shall be used for all development. The applicant is encouraged to provide any additional details appropriate for the particular development.

- Temporary erosion and sedimentation controls are to be installed as indicated on the approved site plan or subdivision construction plan and in accordance with the Stormwater Pollution Prevention Plan (SWPPP) that is required to be posted on the site. Install tree protection and initiate tree mitigation measures.
- The Environmental Project Manager or Site Supervisor must contact the Watershed Protection Department, Environmental Inspection, at 512-974-2278, 72 hours prior to the scheduled date of the required on-site preconstruction meeting.
- The Environmental Project Manager, and/or Site Supervisor, and/or Designated Responsible Party, and the General Contractor will follow the Storm Water Pollution Prevention Plan (SWPPP) posted on the site. Temporary erosion and sedimentation controls will be revised, if needed, to comply with City Inspectors' directives, and revised construction schedule relative to the water quality plan requirements and the erosion plan.
- Rough grade the pond(s) at 100% proposed capacity. Either the permanent outlet structure or a temporary outlet must be constructed prior to development of embankment or excavation that leads to ponding conditions. The outlet system must consist of a sump pit outlet and an emergency spillway meeting the requirements of the Drainage Criteria Manual and/or the Environmental Criteria Manual, as required. The outlet system shall be protected from erosion and shall be maintained/throughout the course of construction until installation of the permanent water quality pond(s).
- Temporary erosion and sedimentation controls will be inspected and maintained in accordance with the Storm Water Pollution Prevention Plan (SWPPP) posted on the site.
- Begin site clearing/construction (or demolition) activities.
- In the Barton Springs Zone, the Environmental Project Manager or Site Supervisor will schedule a mid-construction conference to coordinate changes in the construction schedule and evaluate effectiveness of the erosion control plan after possible construction alterations to the site. Participants shall include the City Inspector, Project Engineer, General Contractor and Environmental Project Manager or Site Supervisor. The anticipated completion date and final construction sequence and inspection schedule will be coordinated with the appropriate City Inspector.
- Permanent water quality ponds or controls will be cleaned out and filter media will be installed prior to/concurrently with revegetation of site.
- Complete construction and start revegetation of the site and installation of landscaping.
- Upon completion of the site construction and revegetation of a project site, the design engineer shall submit an engineer's letter of concurrence to the Watershed Protection and Development Review Department indicating that construction, including revegetation, is complete and in substantial conformity with the approved plans. After receiving this letter, a final inspection will be scheduled by the appropriate City Inspector.
- Upon completion of landscape installation of a project site, the Landscape Architect shall submit a letter of concurrence to the Watershed Protection and Development Review Department indicating that the required landscaping is complete and in substantial conformity with the approved plans. After receiving this letter, a final inspection will be scheduled by the appropriate City Inspector.
- After a final inspection has been conducted by the City Inspector and with approval from the City Inspector, remove the temporary erosion and sedimentation controls and complete any necessary final revegetation resulting from removal of the controls. Conduct any maintenance and rehabilitation of the water quality ponds or controls.

APPENDIX P-2:
CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION

- All trees and natural areas shown on plan to be preserved shall be protected during construction with temporary fencing.
- Protective fences shall be erected according to City of Austin Standards for Tree Protection.
- Protective fences shall be installed prior to the start of any site preparation work (clearing, grubbing or grading), and shall be maintained throughout all phases of the construction project.
- Erosion and sedimentation control barriers shall be installed or maintained in a manner which does not result in soil build-up within tree drip lines.
- Protective fences shall surround the trees or group of trees, and will be located at the outermost limit of branches (drip line) , for natural areas, protective fences shall follow the Limit of Construction line, in order to prevent the following
 - Soil compaction in the root zone area resulting from vehicular traffic or storage of equipment or materials;
 - Root zone disturbances due to grade changes (greater than 6 inches cut or fill), or trenching not reviewed and authorized by the City Arborist;
 - Wounds to exposed roots, trunk or limbs by mechanical equipment;
 - Other activities detrimental to trees such as chemical storage, cement truck cleaning, and fires.
- Exceptions to installing fences at tree drip lines may be permitted in the following cases:
 - Where there is to be an approved grade change, impermeable paving surface, tree well, or other such site development, erect the fence approximately 2 to 4 feet beyond the area disturbed;
 - Where permeable paving is to be installed within a tree's drip line, erect the fence at the outer limits of the permeable paving area (prior to site grading so that this area is graded separately prior to paving installation to minimized root damage);
 - Where trees are close to proposed buildings, erect the fence to allow 6 to 10 feet of work space between the fence and the building;
 - Where there are severe space constraints due to tract size, or other special requirements, contact the City Arborist at 974-1876 to discuss alternatives.

Special Note: For the protection of natural areas, no exceptions to installing fences at the Limit of Construction line will be permitted

- Where any of the above exceptions result in a fence being closer than 4 feet to a tree trunk, protect the trunk with strapped-on planking to a height of 8 ft. (or to the limits of lower branching) in addition to the reduced fencing provided.
- Trees approved for removal shall be removed in a manner which does not impact trees to be preserved.
- Any roots exposed by construction activity shall be pruned flush with the soil. Backfill root areas with good quality top soil as soon as possible. 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.
- Any trenching required for the installation of landscape irrigation shall be placed as far from existing tree trunks as possible.
- No landscape topsoil dressing greater than 4 inches shall be permitted within the drip line of trees. No soil is permitted on the root flare of any tree.
- Pruning to provide clearance for structures, vehicular traffic and equipment shall take place before damage occurs (ripping of branches, etc.).
- All finished pruning shall be done according to recognized, approved standards of the industry (Reference the National Arborist Association Pruning Standards for Shade Trees available on request from the City Arborist).
- Deviations from the above notes may be considered ordinance violations if there is substantial non-compliance or if a tree sustains damage as a result.

APPENDIX P-6:
REMEDIAL TREE CARE NOTES

- As a component of an effective remedial tree care program per Environmental Criteria Manual section 35.4, preserved trees within the limits of construction may require soil aeration and supplemental nutrients. Soil and/or foliar analysis should be used to determine the need for supplemental nutrients. The City Arborist may require these analyses as part of a comprehensive tree care plan. Soil pH shall be considered when determining the fertilization composition as soil pH influences the tree's ability to uptake nutrients from the soil. If analyses indicate the need for supplemental nutrients, then humate/nutrient solutions with mycorrhizae components are highly recommended. In addition, soil analysis may be needed to determine if organic material or beneficial microorganisms are needed to improve soil health. Materials and methods are to be approved by the City Arborist (512-974-1876) prior to application. The owner or general contractor shall select a fertilization contractor and insure coordination with the City Arborist.
- Pre-construction treatment should be applied in the appropriate season, ideally the season preceding the proposed construction. Minimally, areas to be treated include the entire critical root zone of trees as depicted on the City approved plans. Treatment should include, but not limited to, fertilization, soil treatment, mulching, and proper pruning.
- Post-construction treatment should occur during final revegetation or as determined by a qualified arborist after construction. Construction activities often result in a reduction in soil macro and micro pores and an increase in soil bulk density. To ameliorate the degraded soil conditions, aeration via water and/or air injected into the soil is needed or by other methods as approved by the City Arborist. The proposed nutrient mix specifications and soil and/or foliar analysis results need to be provided to and approved by the City Arborist prior to application (Fax # 512-974-3010). Construction which will be completed in less than 90 days may use materials at 1/2 recommended rates. Alternative organic fertilizer materials are acceptable when approved by the City Arborist. Within 7 days after fertilization is performed, the contractor shall provide documentation of the work performed to the City Arborist, Planning and Development Review Department, P.O. Box 1088, Austin, TX 78767. This note should be referenced as item #1 in the Sequence of Construction.

App. _____
 No. _____ Date _____
 REVISIONS

JONES CARTER
 Texas Board of Professional Engineers Registration No. P-439
 3100 Alan Dumas Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.9493

SCALE: AS SHOWN
 DATE: SEPTEMBER 16, 2019
 JOB NO.: 0A836-0006-214

DESIGNED BY: JER
 CHECKED BY: GNR
 DRAWN BY: JER



THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
 EROSION CONTROL NOTES

SHEET NO. 7
 OF 15

© 2019 Jones | Carter

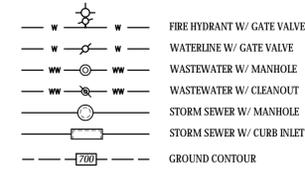
SF-2019-0410D

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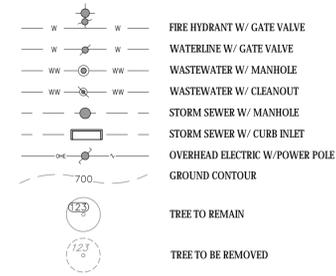
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PI Station	Northing	Easting	Distance	Direction
1+00.00	10,021,481.1300'	3,098,046.8240'	875.745'	S17° 38' 22.53"W
9+75.75	10,020,646.5608'	3,097,781.4482'	627.990'	S17° 38' 06.59"W
16+03.74	10,020,048.0832'	3,097,591.1956'	24.894'	S62° 38' 06.59"W
16+28.63	10,020,036.6407'	3,097,569.0876'	1,585.719'	S17° 32' 03.42"W
32+14.35	10,018,524.5993'	3,097,091.3478'	710.770'	S16° 04' 40.12"W
39+25.12	10,017,841.6304'	3,096,894.5055'	356.482'	S14° 20' 40.01"W
42+81.60	10,017,496.2621'	3,096,806.1869'	538.464'	S14° 48' 13.81"W
48+20.06	10,016,975.6721'	3,096,668.6037'	596.698'	S16° 23' 11.16"W
54+16.76	10,016,403.2114'	3,096,500.2667'	11,437'	S27° 59' 13.15"E
54+28.20	10,016,393.1122'	3,096,505.6336'	16.464'	S72° 21' 37.47"E
54+44.66	10,016,388.1230'	3,096,521.3238'		

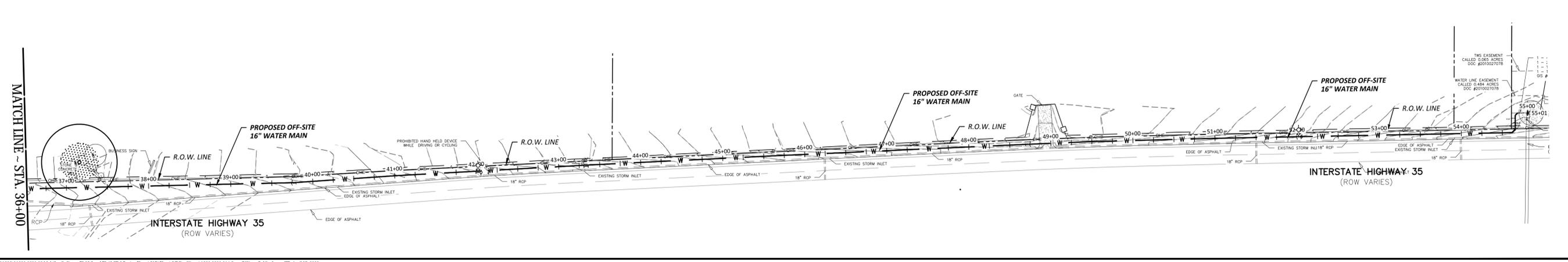
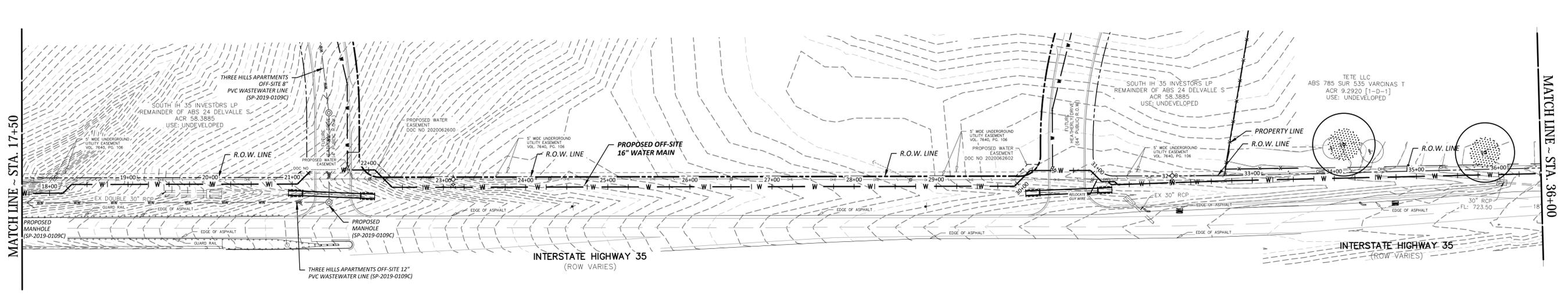
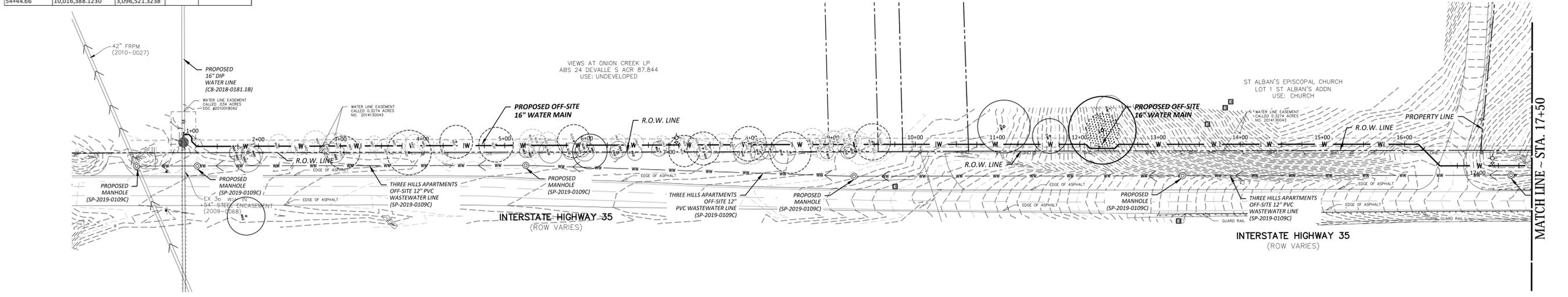
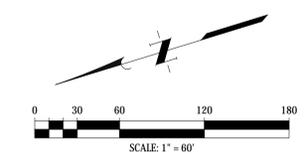
PROPOSED LEGEND



EXISTING LEGEND



THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



REVISIONS

No.	Date

JONES CARTER
 Texas Board of Professional Engineers Registration No. F-439
 3100 Alan Dumas Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.8493

DESIGNED BY: JER
 CHECKED BY: GNR
 DATE: SEPTEMBER 16, 2019
 JOB NO.: 0A836-0006-214

SCALE: AS SHOWN
 DRAWN BY: JER

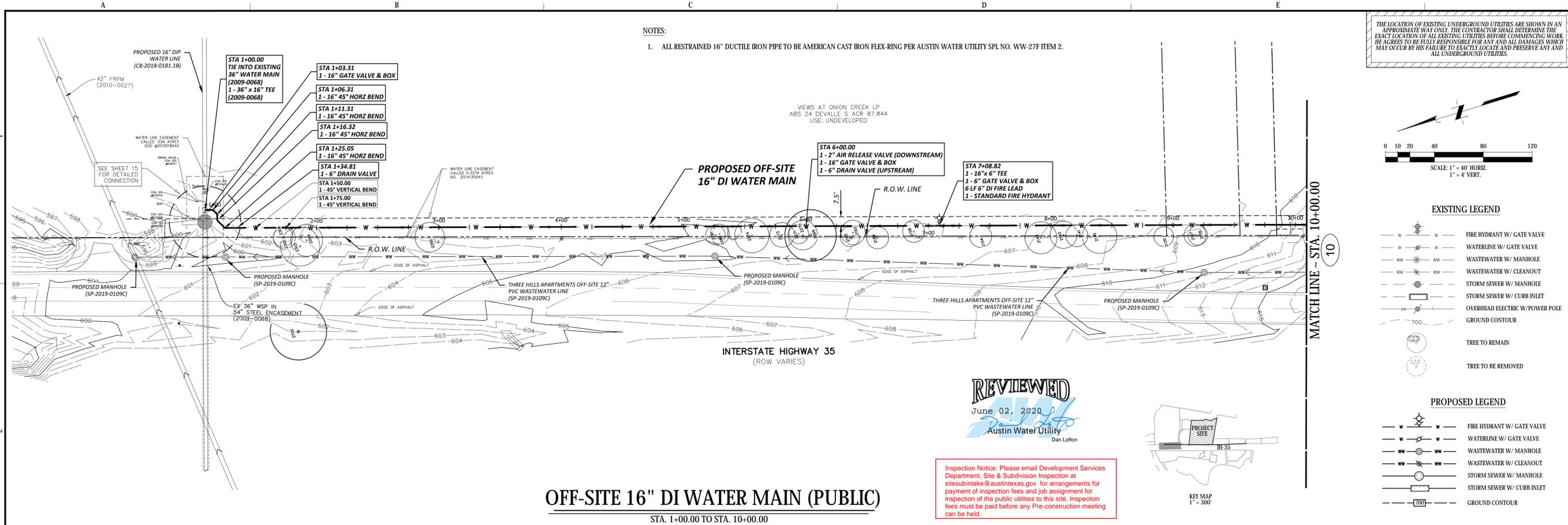


THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN

PROJECT LAYOUT WITH HORIZONTAL AND VERTICAL CONTROL

SHEET NO. 8 OF 15

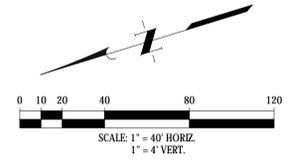
SP-2019-0410D



OFF-SITE 16" DI WATER MAIN (PUBLIC)
STA. 1+00.00 TO STA. 10+00.00

NOTES:
1. ALL RESTRAINED 16" DUCTILE IRON PIPE TO BE AMERICAN CAST IRON FLEX-RING PER AUSTIN WATER UTILITY SPL. NO. WW-27F ITEM 2.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

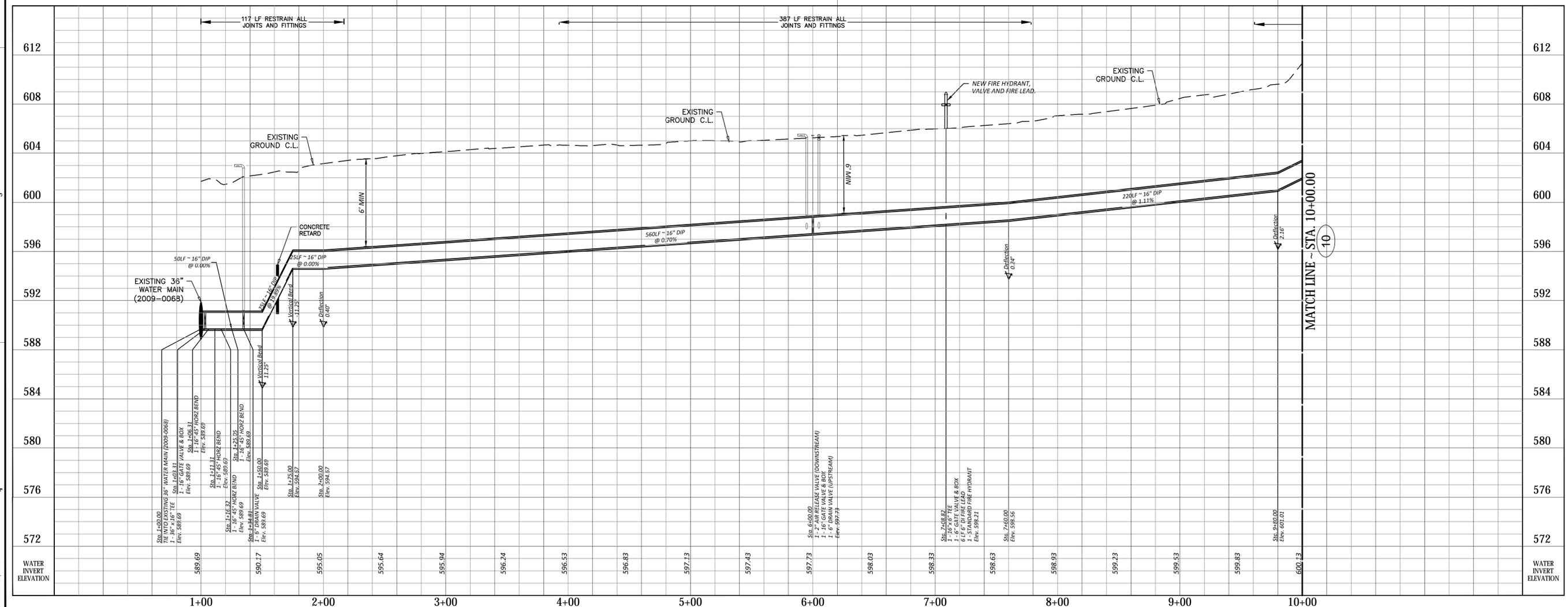
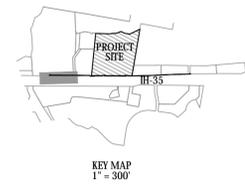


- EXISTING LEGEND**
- FIRE HYDRANT W/ GATE VALVE
 - WATERLINE W/ GATE VALVE
 - WASTEWATER W/ MANHOLE
 - WASTEWATER W/ CLEANOUT
 - STORM SEWER W/ MANHOLE
 - STORM SEWER W/ CURB INLET
 - OVERHEAD ELECTRIC W/ POWER POLE
 - GROUND CONTOUR
 - TREE TO REMAIN
 - TREE TO BE REMOVED

- PROPOSED LEGEND**
- FIRE HYDRANT W/ GATE VALVE
 - WATERLINE W/ GATE VALVE
 - WASTEWATER W/ MANHOLE
 - WASTEWATER W/ CLEANOUT
 - STORM SEWER W/ MANHOLE
 - STORM SEWER W/ CURB INLET
 - GROUND CONTOUR



Inspection Notice: Please email Development Services Department, Site & Subdivision Inspection at sitesubintake@AustinTexas.gov for arrangements for payment of inspection fees and job assignment for inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.



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JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
3100 Alan Dumas Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.8493

SCALE: AS SHOWN
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DESIGNED BY: JER
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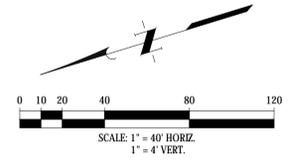
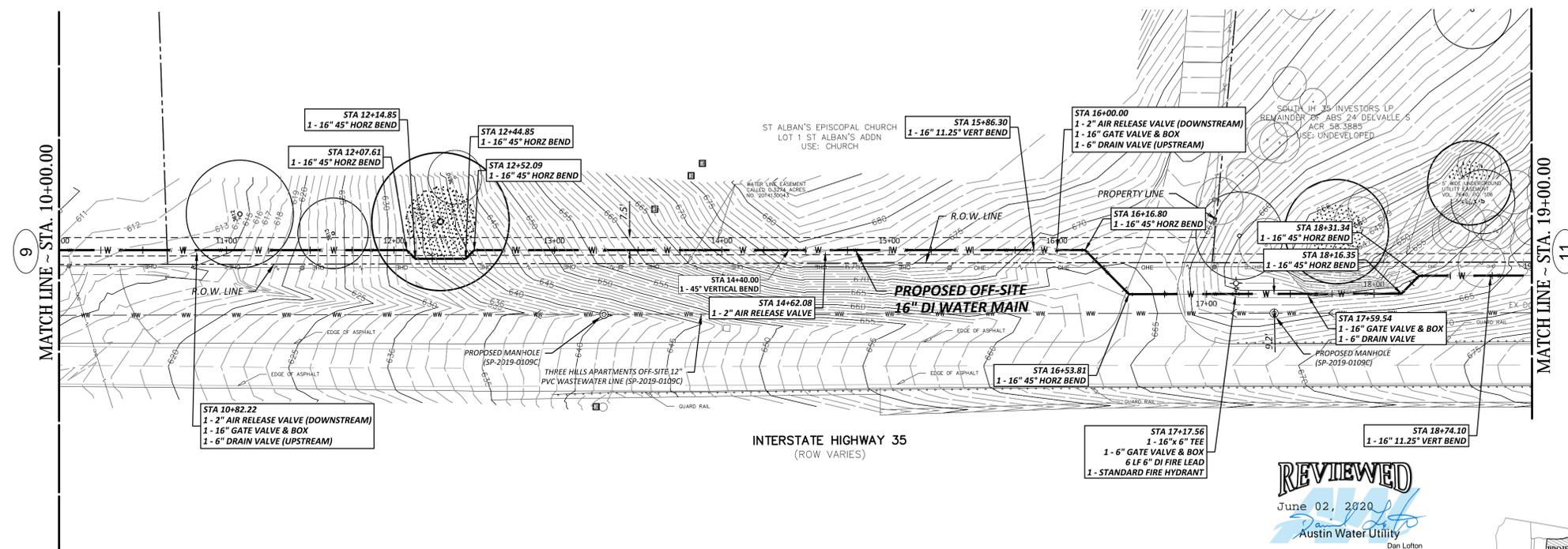


THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
WATER MAIN PLAN AND PROFILE
OFF-SITE 16" DI WATER MAIN (PUBLIC)
STA. 1+00.00 TO STA. 10+00.00

SHEET NO. **9** OF 15
SF-2019-0410D

NOTES:
 1. ALL RESTRAINED 16" DUCTILE IRON PIPE TO BE AMERICAN CAST IRON FLEX-RING PER AUSTIN WATER UTILITY SPL NO. WW-27F ITEM 2.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



- EXISTING LEGEND**
- w-w- FIRE HYDRANT W/ GATE VALVE
 - w-w- WATERLINE W/ GATE VALVE
 - ww- WASTEWATER W/ MANHOLE
 - ww- WASTEWATER W/ CLEANOUT
 - ww- STORM SEWER W/ MANHOLE
 - ww- STORM SEWER W/ CURB INLET
 - o-o- OVERHEAD ELECTRIC W/ POWER POLE
 - 700- GROUND CONTOUR
 - (123) TREE TO REMAIN
 - (123) TREE TO BE REMOVED

- PROPOSED LEGEND**
- w-w- FIRE HYDRANT W/ GATE VALVE
 - w-w- WATERLINE W/ GATE VALVE
 - ww- WASTEWATER W/ MANHOLE
 - ww- WASTEWATER W/ CLEANOUT
 - ww- STORM SEWER W/ MANHOLE
 - ww- STORM SEWER W/ CURB INLET
 - 700- GROUND CONTOUR

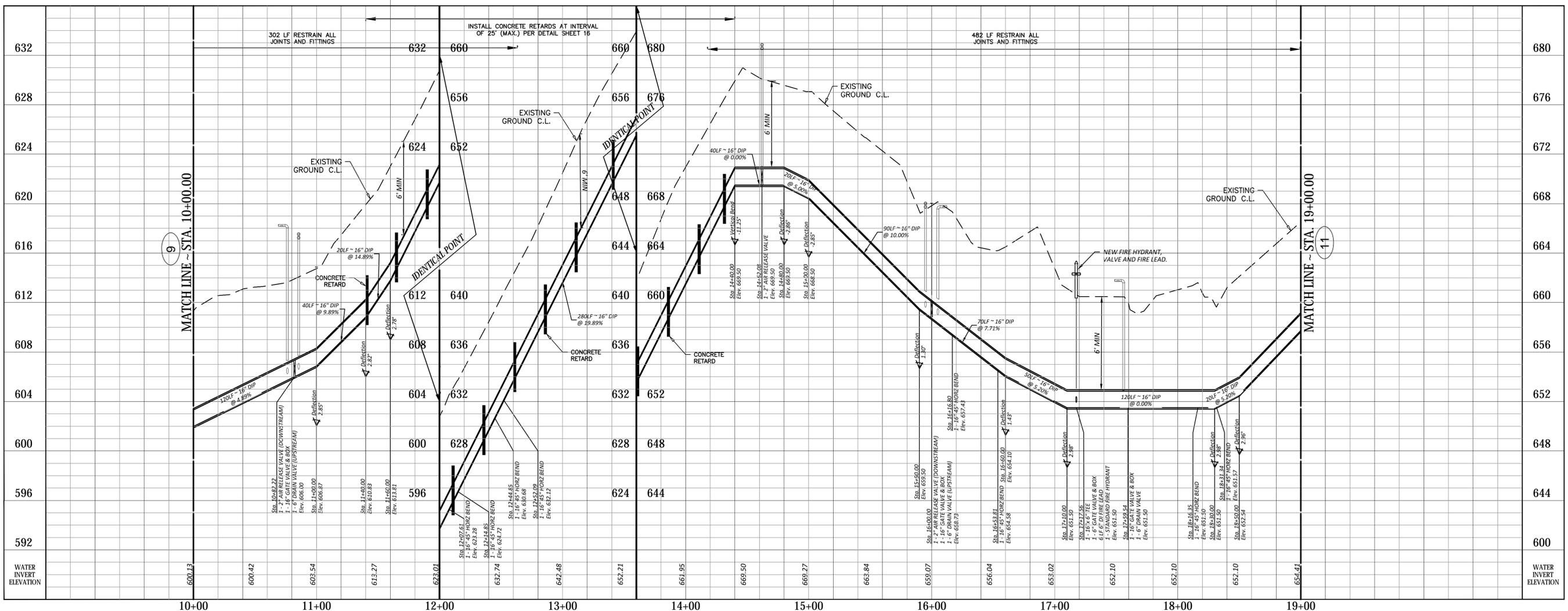
REVIEWED
 June 02, 2020
 Austin Water Utility
 Dan Lofton

Inspection Notice: Please email Development Services Department, Site & Subdivision Inspection at sitesubintake@austintexas.gov for arrangements for payment of inspection fees and job assignment for inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.



OFF-SITE 16" DI WATER MAIN (PUBLIC)

STA. 10+00.00 TO STA. 19+00.00



REVISIONS

No.	Date	Description

DESIGNED BY: JER
 CHECKED BY: GNR
 DRAWN BY: JER

DATE: SEPTEMBER 16, 2019
 JOB NO.: 0A836-0006-214

SCALE: AS SHOWN
 DATE: SEPTEMBER 16, 2019
 JOB NO.: 0A836-0006-214



THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
 WATER MAIN PLAN AND PROFILE

OFF-SITE 16" DI WATER MAIN (PUBLIC)

STA. 10+00.00 TO STA. 19+00.00

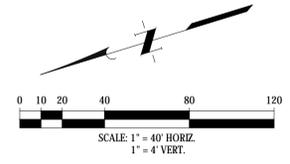
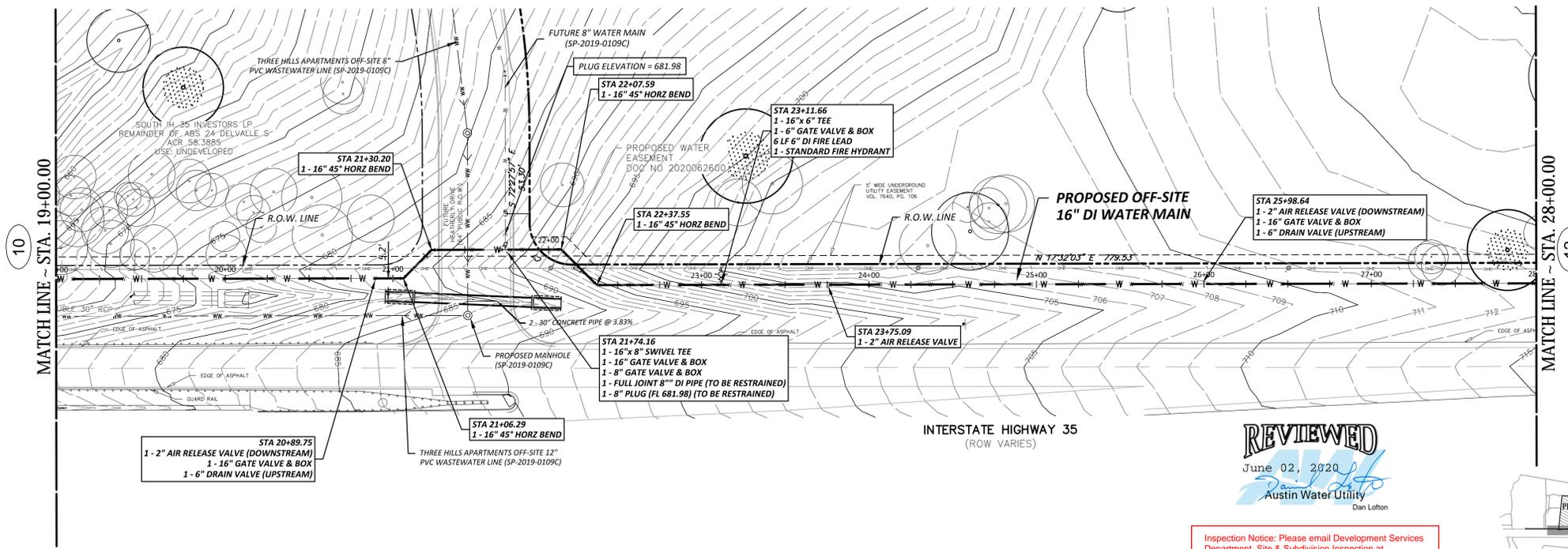
SHEET NO. **10**
 OF 15

SP-2019-0410D

NOTES:

- ALL RESTRAINED 16" DUCTILE IRON PIPE TO BE AMERICAN CAST IRON FLEX-RING PER AUSTIN WATER UTILITY SPL NO. WW-27F ITEM 2.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



- EXISTING LEGEND**
- w — FIRE HYDRANT W/ GATE VALVE
 - w — WATERLINE W/ GATE VALVE
 - ww — WASTEWATER W/ MANHOLE
 - ww — WASTEWATER W/ CLEANOUT
 - ss — STORM SEWER W/ MANHOLE
 - ss — STORM SEWER W/ CURB INLET
 - ee — OVERHEAD ELECTRIC W/ POWER POLE
 - 700 — GROUND CONTOUR
 - — TREE TO REMAIN
 - — TREE TO BE REMOVED

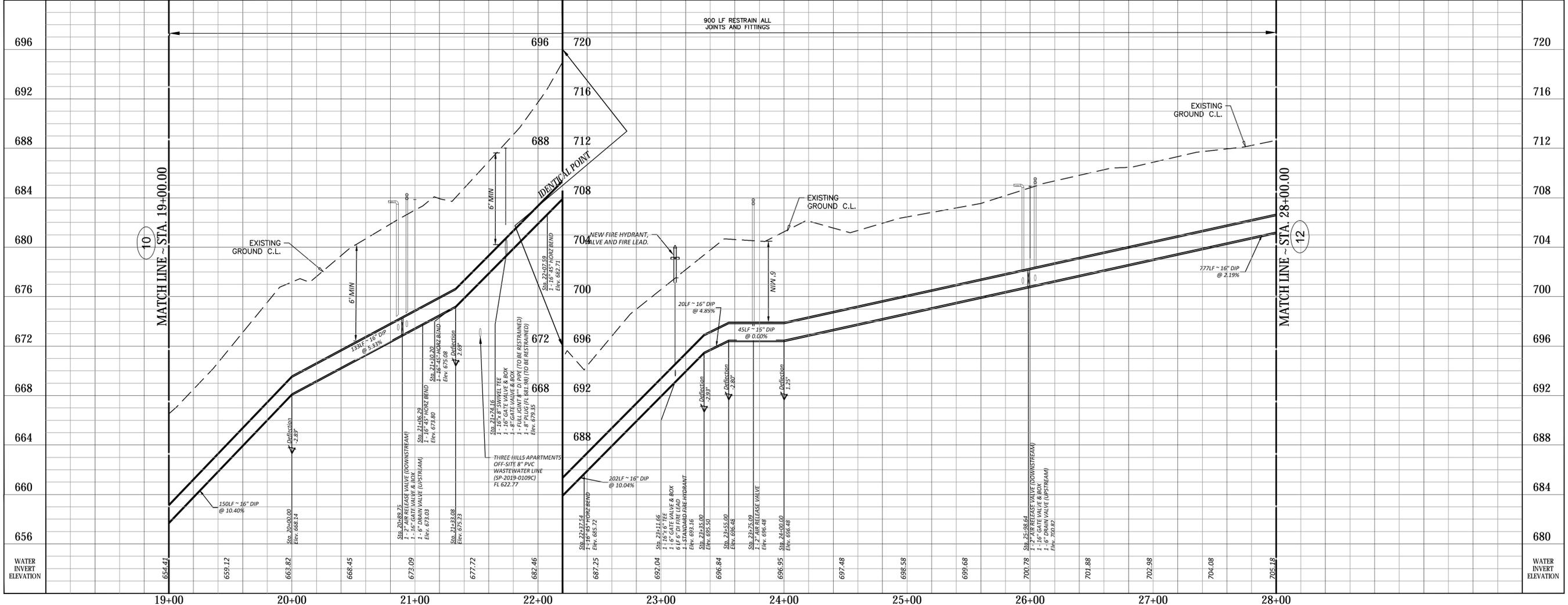
- PROPOSED LEGEND**
- w — FIRE HYDRANT W/ GATE VALVE
 - w — WATERLINE W/ GATE VALVE
 - ww — WASTEWATER W/ MANHOLE
 - ww — WASTEWATER W/ CLEANOUT
 - ss — STORM SEWER W/ MANHOLE
 - ss — STORM SEWER W/ CURB INLET
 - 700 — GROUND CONTOUR

REVIEWED
June 02, 2020
Austin Water Utility
Dan Lofton

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OFF-SITE 16" DI WATER MAIN (PUBLIC)

STA. 19+00.00 TO STA. 28+00.00



REVISIONS

No.	Date	Description

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
3100 Alan Dames Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.8493

SCALE: AS SHOWN
DATE: SEPTEMBER 16, 2019
JOB NO.: 0A836-0006-214

DESIGNED BY: JER
CHECKED BY: GNR
DRAWN BY: JER



THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
WATER MAIN PLAN AND PROFILE

OFF-SITE 16" DI WATER MAIN (PUBLIC)

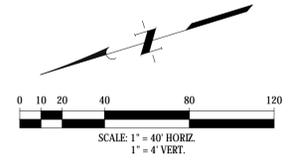
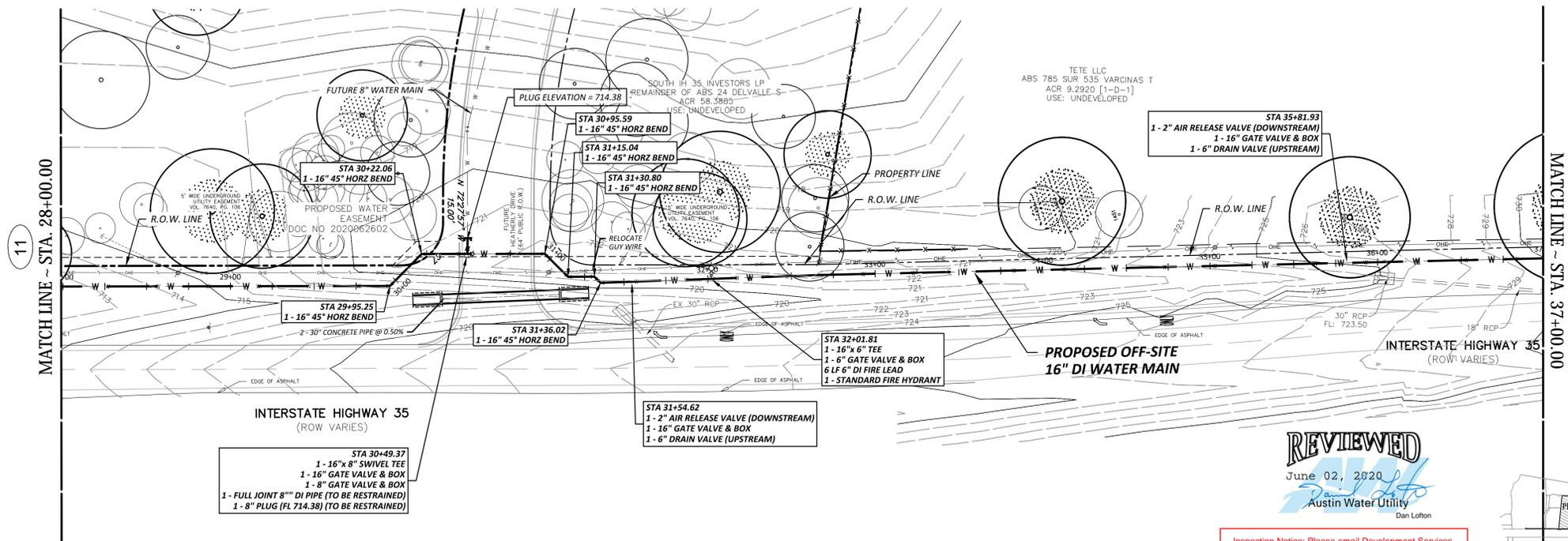
STA. 19+00.00 TO STA. 28+00.00

SHEET NO. **11**
OF 15

SP-2019-0410D

- NOTES:
- ALL RESTRAINED 16" DUCTILE IRON PIPE TO BE AMERICAN CAST IRON FLEX-RING PER AUSTIN WATER UTILITY SPL. NO. WW-27F ITEM 2.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



- EXISTING LEGEND**
- FIRE HYDRANT W/ GATE VALVE
 - WATERLINE W/ GATE VALVE
 - WASTEWATER W/ MANHOLE
 - WASTEWATER W/ CLEANOUT
 - STORM SEWER W/ MANHOLE
 - STORM SEWER W/ CURB INLET
 - OVERHEAD ELECTRIC W/ POWER POLE
 - GROUND CONTOUR
 - TREE TO REMAIN
 - TREE TO BE REMOVED

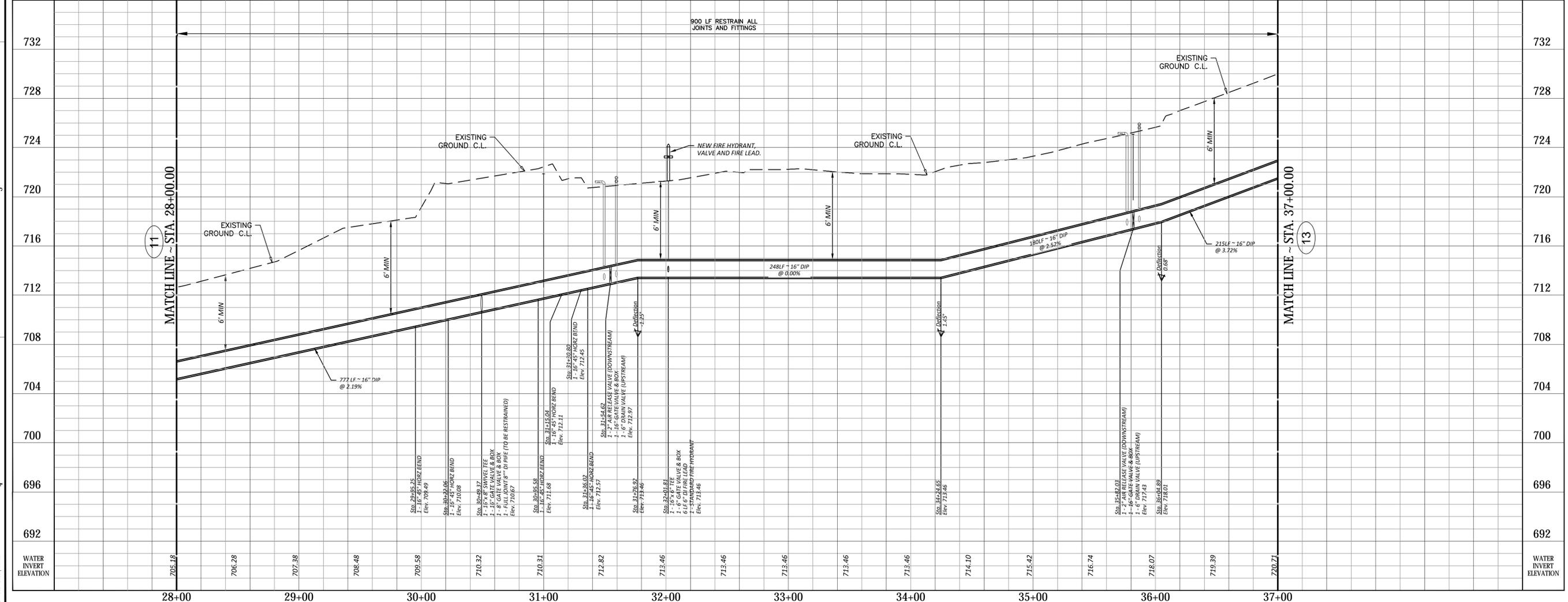
- PROPOSED LEGEND**
- FIRE HYDRANT W/ GATE VALVE
 - WATERLINE W/ GATE VALVE
 - WASTEWATER W/ MANHOLE
 - WASTEWATER W/ CLEANOUT
 - STORM SEWER W/ MANHOLE
 - STORM SEWER W/ CURB INLET
 - GROUND CONTOUR

REVIEWED
 June 02, 2020
 Austin Water Utility
 Dan Lofton

Inspection Notice: Please email Development Services Department, Site & Subdivision Inspection at sitesubintake@austintexas.gov for arrangements for payment of inspection fees and job assignment for inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.

OFF-SITE 16" DI WATER MAIN (PUBLIC)

STA. 28+00.00 TO STA. 37+00.00



REVISIONS

No.	Date	Description

JONES CARTER
 Texas Board of Professional Engineers Registration No. F-439
 3100 Alan Dames Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.8493

SCALE: AS SHOWN
 DATE: SEPTEMBER 16, 2019
 JOB NO.: 0A836-0006-214

DESIGNED BY: JER
 CHECKED BY: GNR
 DRAWN BY: JER



THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
 WATER MAIN PLAN AND PROFILE
OFF-SITE 16" DI WATER MAIN (PUBLIC)
 STA. 28+00.00 TO STA. 37+00.00

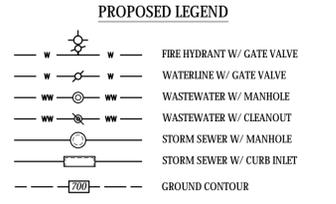
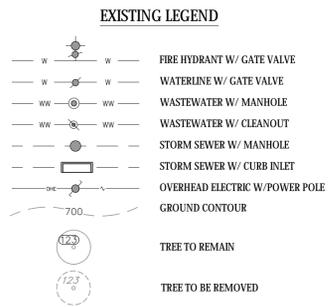
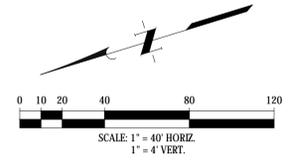
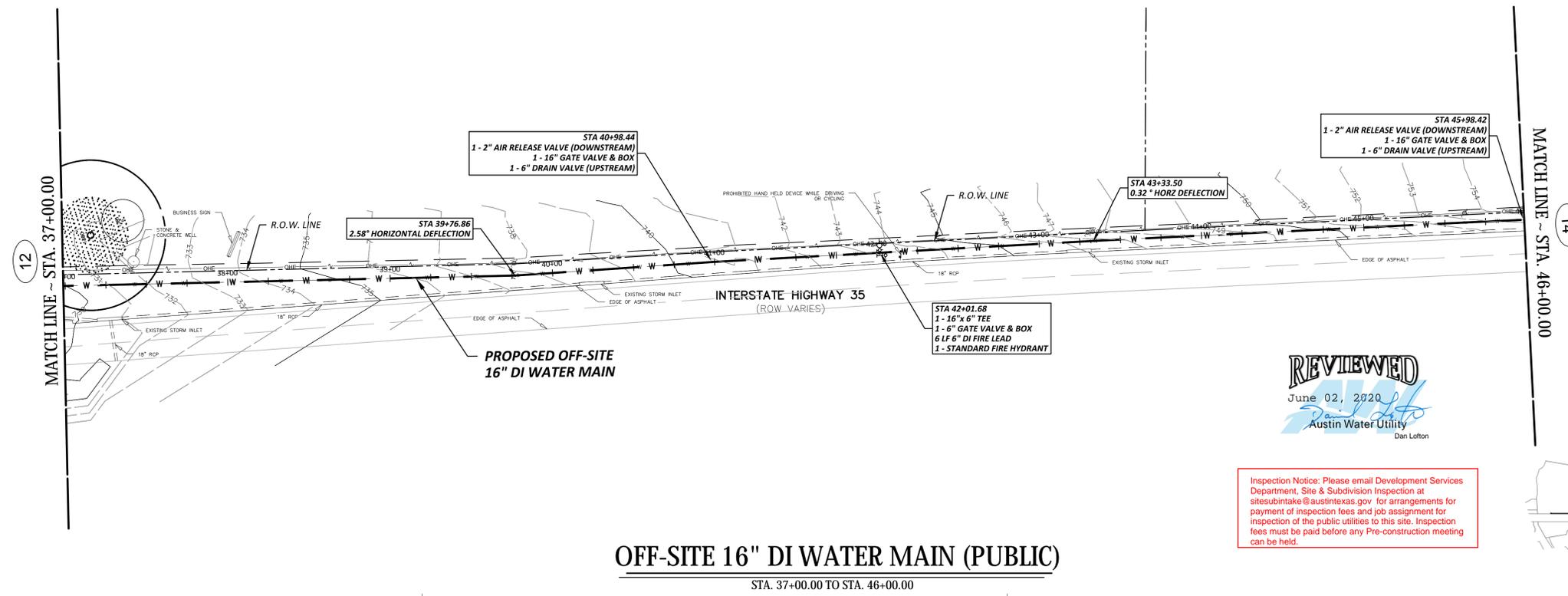
SHEET NO. **12**
 OF 15

SF-2019-0410D

NOTES:

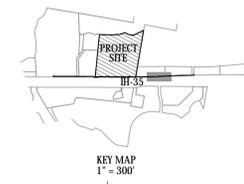
1. ALL RESTRAINED 16" DUCTILE IRON PIPE TO BE AMERICAN CAST IRON FLEX-RING PER AUSTIN WATER UTILITY SPL NO. WW-27F ITEM 2.

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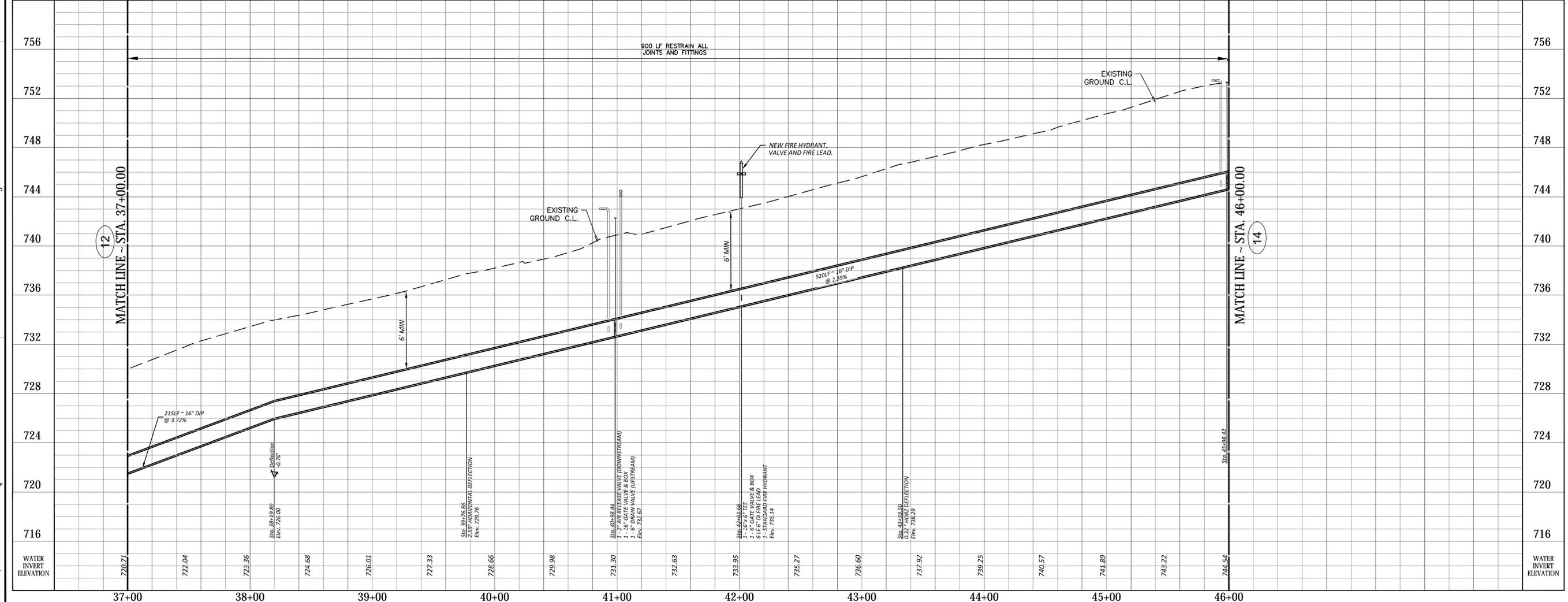
REVIEWED
June 02, 2020
Austin Water Utility
Dan Lofton

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OFF-SITE 16" DI WATER MAIN (PUBLIC)

STA. 37+00.00 TO STA. 46+00.00



REVISIONS

No.	Date	Description

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
3100 Alan Dames Boulevard, Suite 150 - Austin, Texas 78741 • 512.441.8493

SCALE: AS SHOWN
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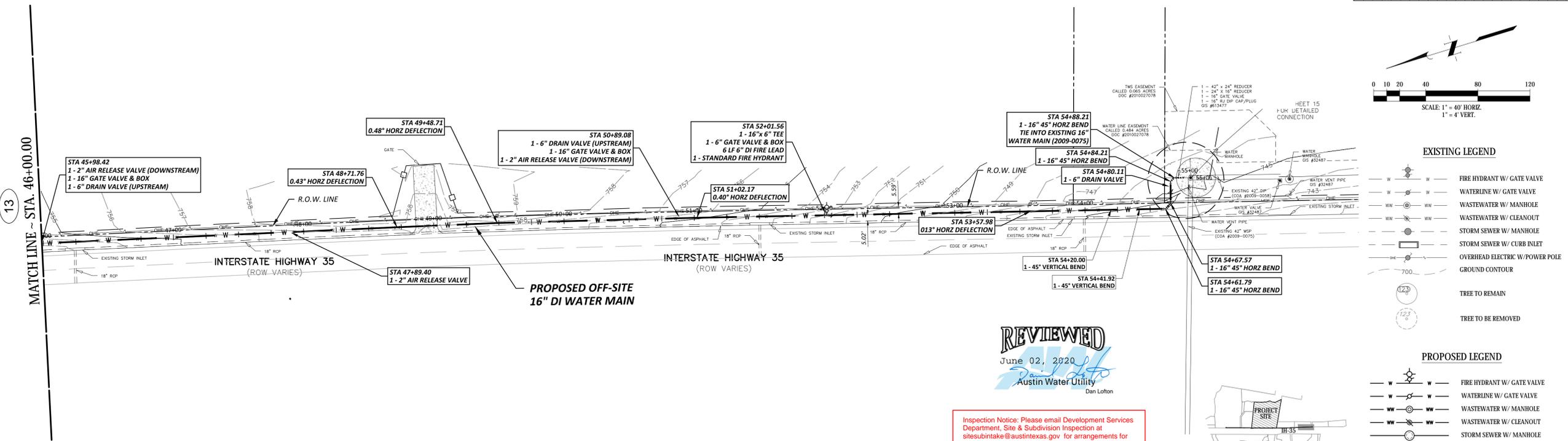


THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
WATER MAIN PLAN AND PROFILE
OFF-SITE 16" DI WATER MAIN (PUBLIC)
STA. 37+00.00 TO STA. 46+00.00

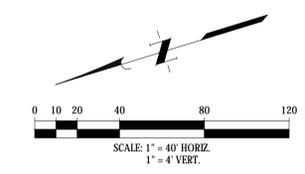
SHEET NO. **13**
OF 15

SF-2019-0410D

- NOTES:
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- EXISTING LEGEND**
- W W FIRE HYDRANT W/ GATE VALVE
 - W W WATERLINE W/ GATE VALVE
 - W W WASTEWATER W/ MANHOLE
 - W W WASTEWATER W/ CLEANOUT
 - W W STORM SEWER W/ MANHOLE
 - W W STORM SEWER W/ CURB INLET
 - W W OVERHEAD ELECTRIC W/ POWER POLE
 - 700 GROUND CONTOUR
 - 123 TREE TO REMAIN
 - 123 TREE TO BE REMOVED

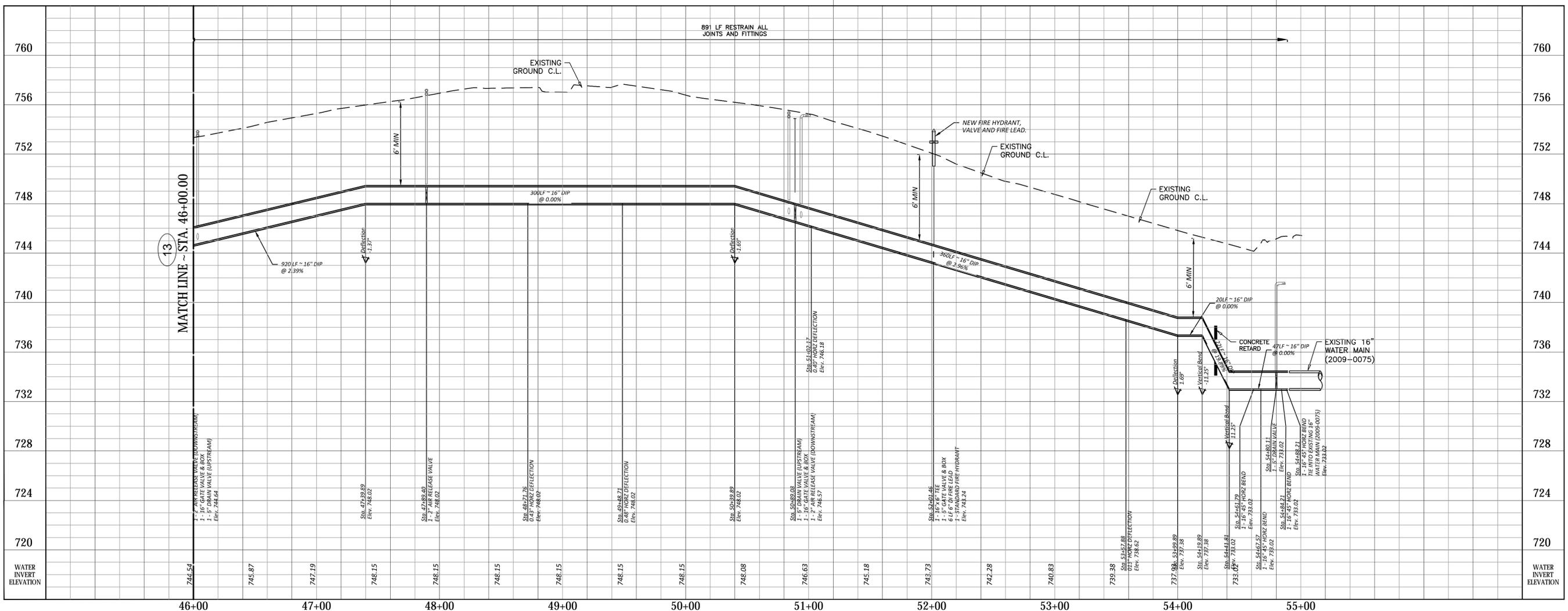
- PROPOSED LEGEND**
- W W FIRE HYDRANT W/ GATE VALVE
 - W W WATERLINE W/ GATE VALVE
 - W W WASTEWATER W/ MANHOLE
 - W W WASTEWATER W/ CLEANOUT
 - W W STORM SEWER W/ MANHOLE
 - W W STORM SEWER W/ CURB INLET
 - 700 GROUND CONTOUR

REVIEWED
June 02, 2020
Austin Water Utility
Dan Lofton

Inspection Notice: Please email Development Services Department, Site & Subdivision Inspection at sitesubintake@austintexas.gov for arrangements for payment of inspection fees and job assignment for inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.

OFF-SITE 16" DI WATER MAIN (PUBLIC)

STA. 46+00.00 TO STA. 54+90.68



REVISIONS

No.	Date	Description

DESIGNED BY: JER
CHECKED BY: CNE
DRAWN BY: JER

SCALE: AS SHOWN
DATE: SEPTEMBER 16, 2019
JOB NO.: 0A836-0006-214

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
3100 Alan Dames Boulevard, Suite 150 • Austin, Texas 78741 • 512.441.8893

JC



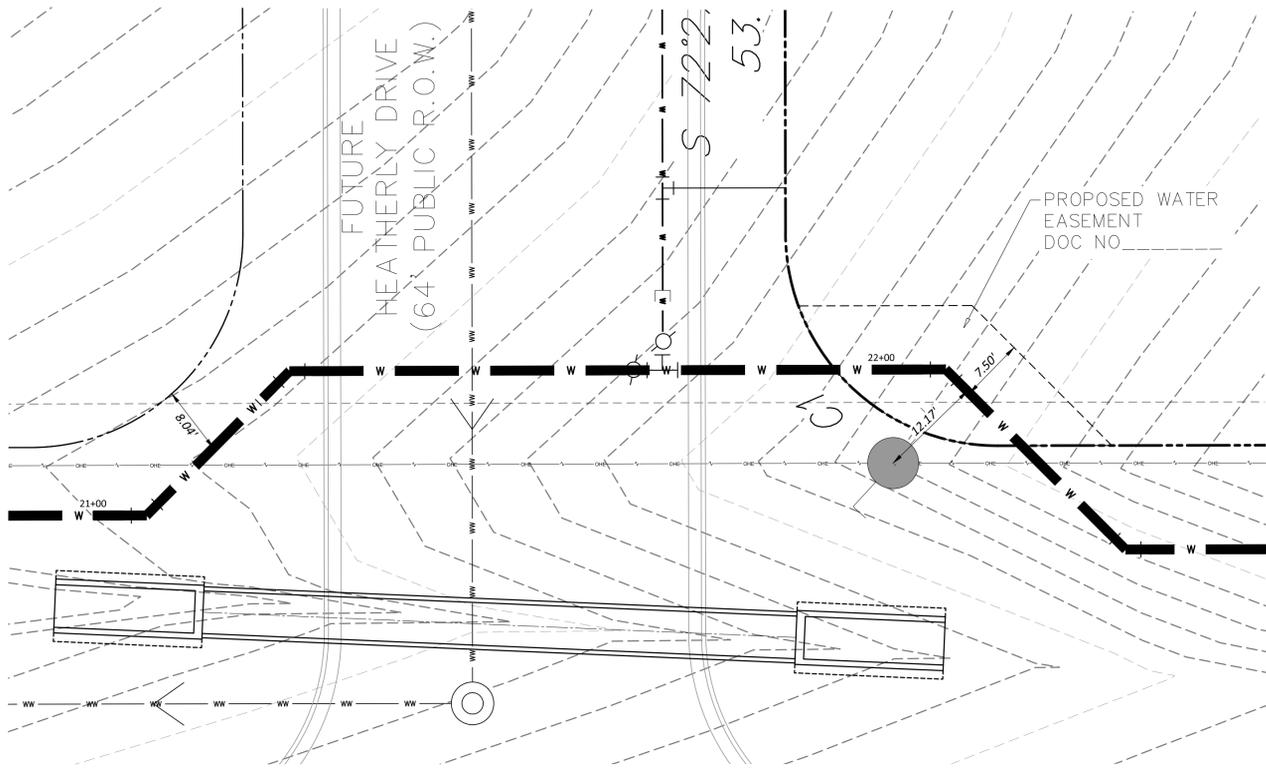
THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
WATER MAIN PLAN AND PROFILE

OFF-SITE 16" DI WATER MAIN (PUBLIC)
STA. 46+00.00 TO STA. 54+44.66

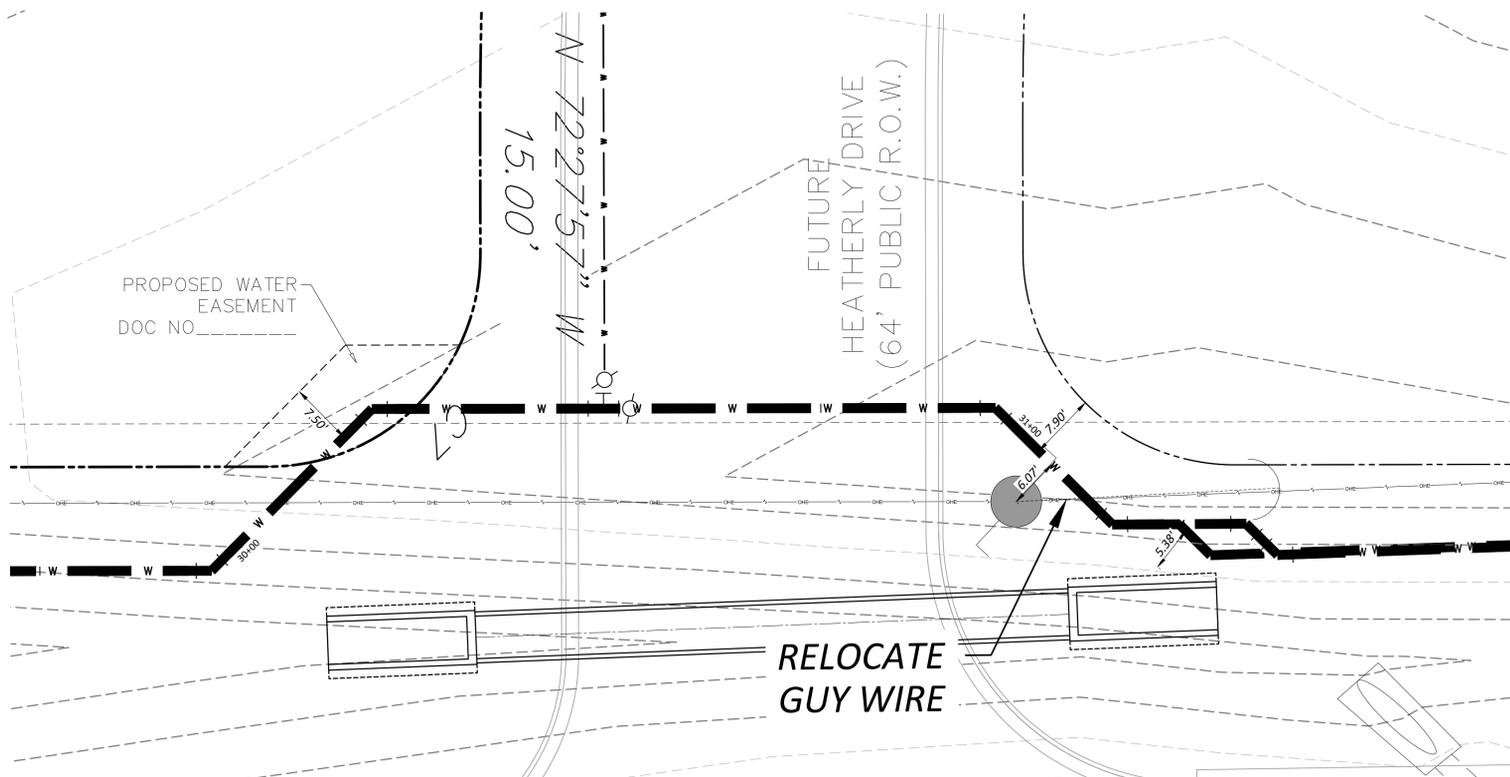
SHEET NO. **14**
OF 15

SP-2019-0410D

THREE HILLS APARTMENTS WATER CONNECTION - NORTHERN ENTRANCE



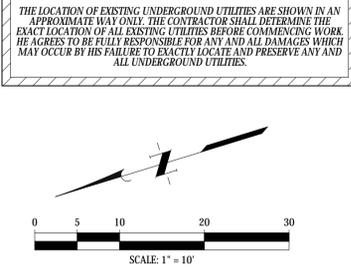
THREE HILLS APARTMENTS WATER CONNECTION - SOUTHERN ENTRANCE



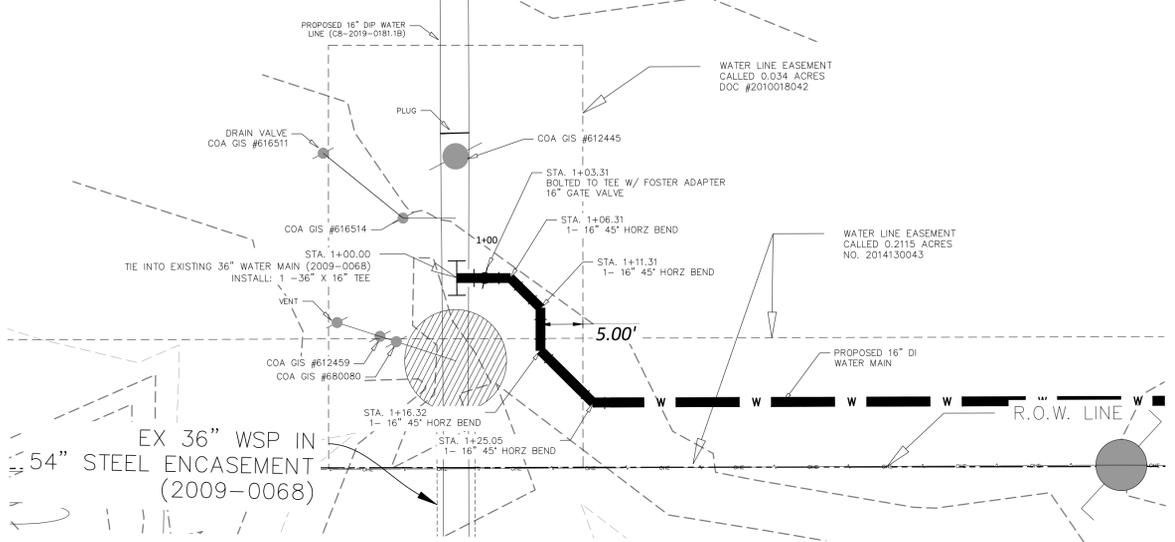
- | PROPOSED LEGEND | | EXISTING LEGEND | |
|-----------------|----------------------------|-----------------|---------------------------------|
| | FIRE HYDRANT W/ GATE VALVE | | WATERLINE W/ GATE VALVE |
| | WATERLINE W/ MANHOLE | | WASTEWATER W/ MANHOLE |
| | WASTEWATER W/ CLEANOUT | | STORM SEWER W/ MANHOLE |
| | STORM SEWER W/ CURB INLET | | OVERHEAD ELECTRIC W/ POWER POLE |
| | GROUND CONTOUR | | TREE TO REMAIN |
| | | | TREE TO BE REMOVED |

REVIEWED
June 02, 2020
Austin Water Utility
Dan Lofton

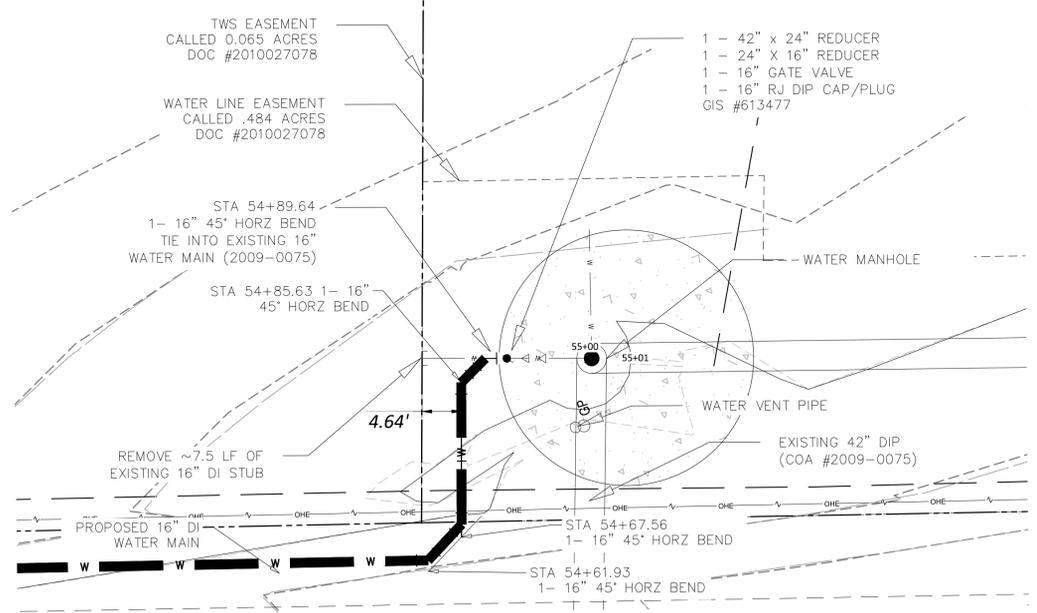
Inspection Notice: Please email Development Services Department, Site & Subdivision Inspection at sitesubintake@austintexas.gov for arrangements for payment of inspection fees and job assignment for inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.



NORTHERN CONNECTION TO EXISTING



SOUTHERN CONNECTION TO EXISTING



No.	Date	REVISIONS

JONES CARTER	DESIGNED BY: JER	CHECKED BY: CNE	DRAWN BY: JER
Texas Board of Professional Engineers Registration No. F-439 3100 Alan Dumas Boulevard, Suite 150 - Austin, Texas 78741 • 512.441.8493	SCALE: AS SHOWN	DATE: SEPTEMBER 16, 2019	JOB NO.: 0A836-0006-214



THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN

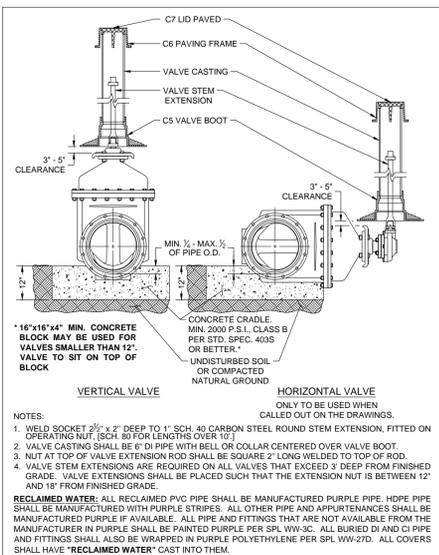
CONNECTION DETAILS

SHEET NO. **15**

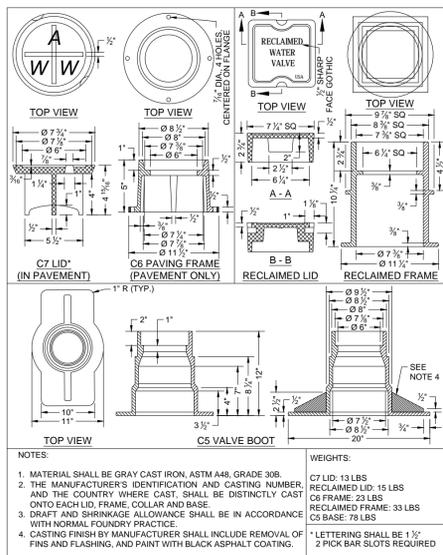
OF 15

APP.

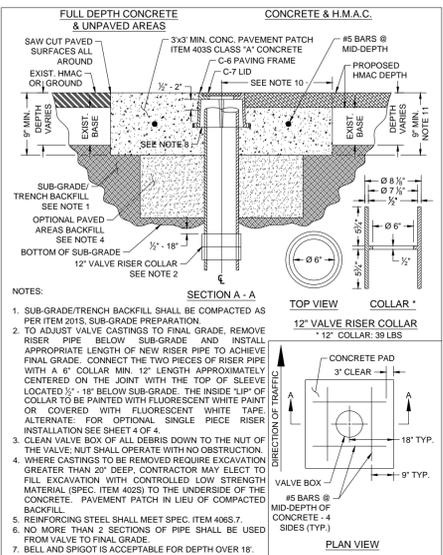
SF-2019-0410D



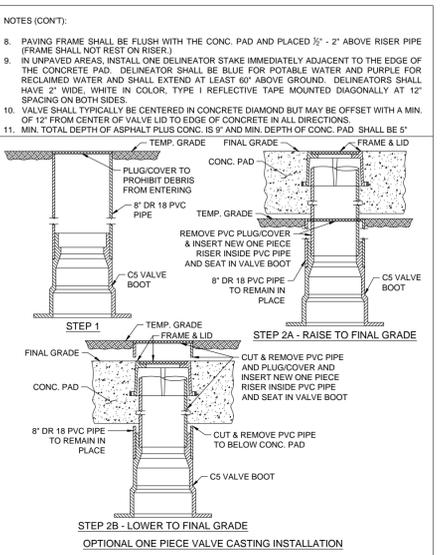
CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	STANDARD NO. 511-AW-01
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



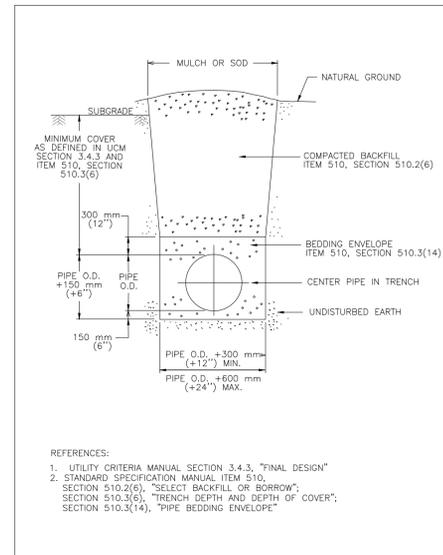
CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	STANDARD NO. 511-AW-01
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	STANDARD NO. 511-AW-01
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	STANDARD NO. 511-AW-01
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE	STANDARD NO. 510S-5
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

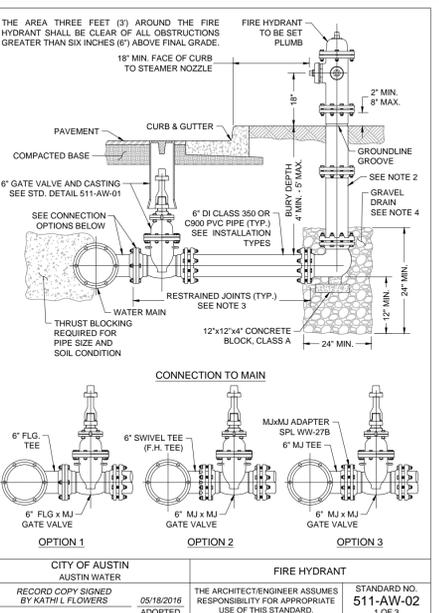
A2 TYPICAL GATE VALVE 4" - 16"
511-AW-01 (1 OF 4) CITY OF AUSTIN

B2 TYPICAL GATE VALVE 4" - 16"
511-AW-01 (2 OF 4) CITY OF AUSTIN

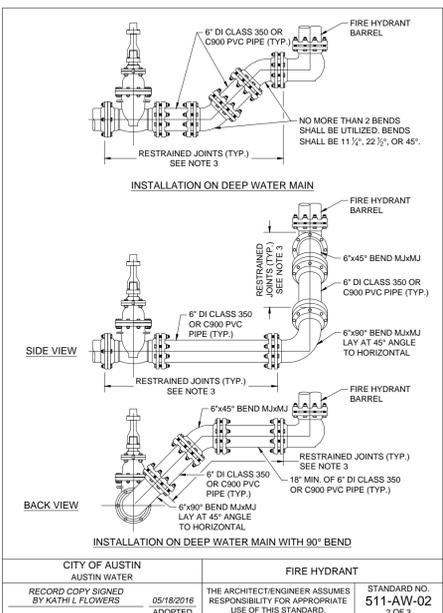
C2 TYPICAL GATE VALVE 4" - 16"
511-AW-01 (3 OF 4) CITY OF AUSTIN

D2 TYPICAL GATE VALVE 4" - 16"
511-AW-01 (4 OF 4) CITY OF AUSTIN

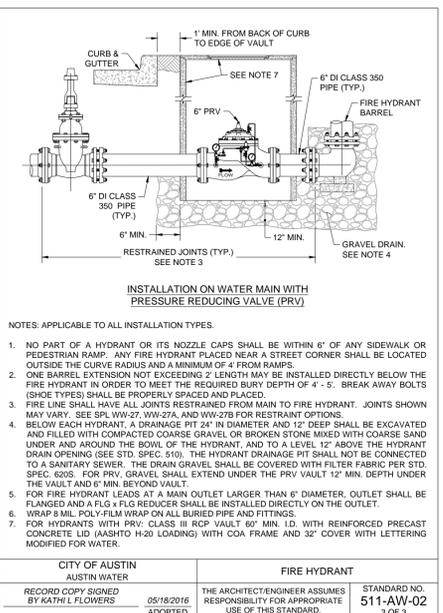
E2 TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE
510S-5 CITY OF AUSTIN



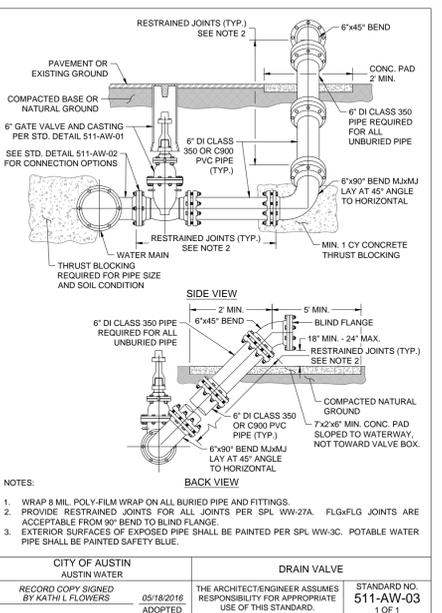
CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	STANDARD NO. 511-AW-02
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



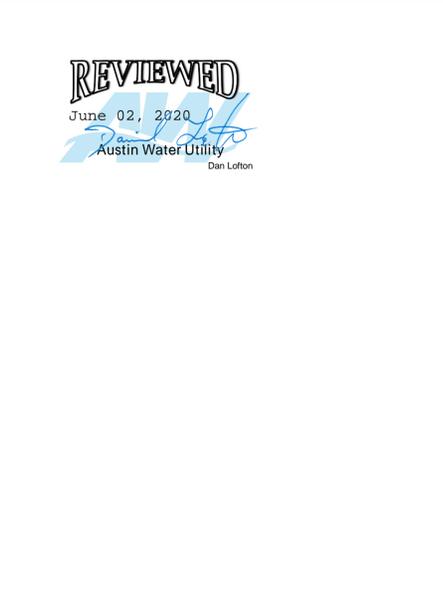
CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	STANDARD NO. 511-AW-02
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	STANDARD NO. 511-AW-02
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN AUSTIN WATER	DRAIN VALVE	STANDARD NO. 511-AW-03
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN AUSTIN WATER	CONCRETE RETARD	STANDARD NO. 593S-1
RECORD COPY SIGNED BY KATHI L. FLOWERS	2/21/01 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

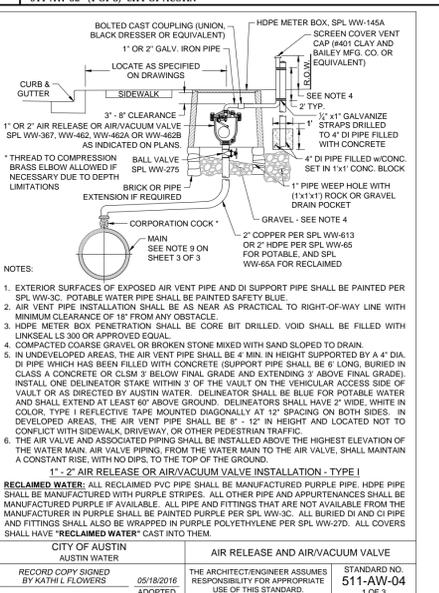
A3 FIRE HYDRANT
511-AW-02 (1 OF 3) CITY OF AUSTIN

B3 FIRE HYDRANT
511-AW-02 (2 OF 3) CITY OF AUSTIN

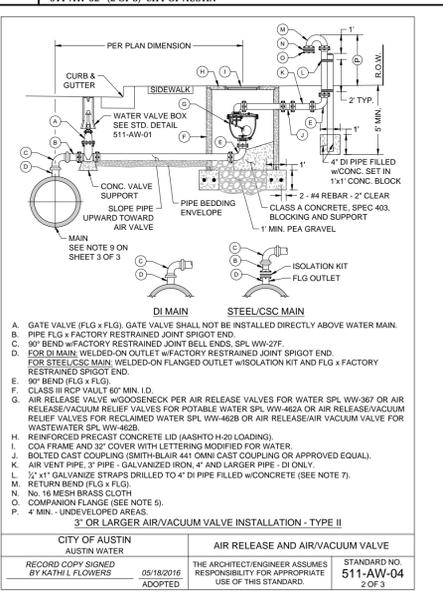
C3 FIRE HYDRANT
511-AW-02 (3 OF 3) CITY OF AUSTIN

D3 DRAIN VALVE
511-AW-03 (1 OF 1) CITY OF AUSTIN

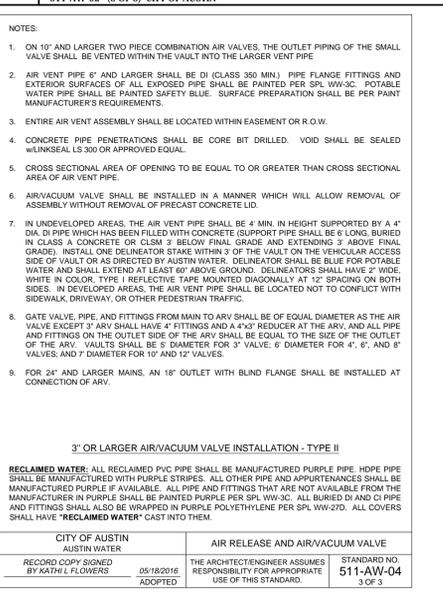
E3 NOT USED
NOT USED



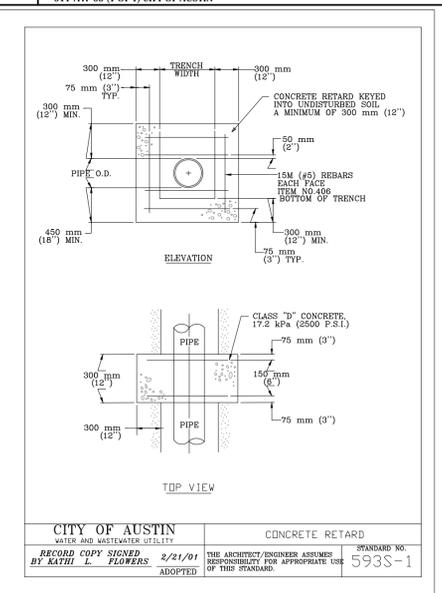
CITY OF AUSTIN AUSTIN WATER	AIR RELEASE AND AIR/VACUUM VALVE	STANDARD NO. 511-AW-04
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN AUSTIN WATER	AIR RELEASE AND AIR/VACUUM VALVE	STANDARD NO. 511-AW-04
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN AUSTIN WATER	AIR RELEASE AND AIR/VACUUM VALVE	STANDARD NO. 511-AW-04
RECORD COPY SIGNED BY KATHI L. FLOWERS	05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN AUSTIN WATER	CONCRETE RETARD	STANDARD NO. 593S-1
RECORD COPY SIGNED BY KATHI L. FLOWERS	2/21/01 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN AUSTIN WATER	CONCRETE RETARD	STANDARD NO. 593S-1
RECORD COPY SIGNED BY KATHI L. FLOWERS	2/21/01 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

A4 AIR RELEASE VALVE
511-AW-04 (1 OF 3) CITY OF AUSTIN

B4 AIR RELEASE VALVE
511-AW-04 (2 OF 3) CITY OF AUSTIN

C4 AIR RELEASE VALVE
511-AW-04 (3 OF 3) CITY OF AUSTIN

D4 CONCRETE RETARD
593S-1 (1 OF 1) CITY OF AUSTIN

E4 NOT USED
NOT USED

App. No. Date REVISIONS

JONES CARTER
Texas Board of Professional Engineers Registration No. F-439
3100 Alan Dames Boulevard, Suite 150 - Austin, Texas 78741 • 512.441.8493



THREE HILLS APARTMENTS - OFFSITE 16" WATER MAIN
WATER DETAILS
SHEET NO. 16
OF 15
SP-2019-0410D

