CITY OF AUSTIN, TEXAS
AUSTIN WATERSHED PROTECTION DEPARTMENT

SHEET INDEX:

SEE SHEET 2

NOTES:

1. CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT 24 HOURS PRIOR TO STARTING CONSTRUCTION OR CLEARING OPERATIONS.
2. CONTRACTOR SHALL CALL "ONE CALL" AT 1-800-344-8377 FOR UTILITY LOCATIONS AT LEAST 48 HOURS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET RIGHT-OF-WAYS.
3. THIS PROJECT IS LOCATED WITHIN THE LAKE AUSTIN WATERSHED WHICH IS CLASSIFIED AS AN WATER SUPPLY SUBURBAN WATERSHED, AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
4. A PORTION OF THIS SITE (AT THE OUTFALL TO LAKE AUSTIN) IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN PER CITY OF AUSTIN AND FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL 48453C0445K, JANUARY 22, 2020.
5. THIS PROJECT IS WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS DEFINED BY THE CITY OF AUSTIN. THIS PROJECT IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). THIS PROJECT IS SUBJECT TO THE VOID AND WATER FLOW MITIGATION RULE (COA ECM 1.12.0 AND COA ITEM NO. 658S OF THE SSM) PROVISION THAT ALL TRENCHING GREATER THAN 5 FEET DEEP MUST BE INSPECTED BY A GEOLOGIST (TEXAS P.G.) OR A GEOLOGIST'S REPRESENTATIVE.
6. THERE ARE TWO CRITICAL ENVIRONMENTAL FEATURE WITHIN 150' OF THE PROJECT. A FIELD INVESTIGATION HAS BEEN PERFORMED AS A PART OF THIS PROJECT; A SUMMARY OF THE INVESTIGATION IS INCLUDED IN ENVIRONMENTAL REPORT BY BAER ENGINEERING DATED 10/11/2017.
7. THE STANDARD SHEETS INCLUDED IN THIS PLAN SET WERE PROVIDED BY THE GENERAL PERMIT PROGRAM OFFICE FOR USE ON GENERAL PERMIT PROJECTS ONLY. IF ANY MODIFICATIONS TO THE SHEETS WERE MADE, THEY ARE CLEARLY INDICATED ON THE SHEET ITSELF AND IN THE COVER SHEET INDEX.
8. ADDITIONAL TRENCH E/S CONTROL: TRIANGULAR SEDIMENT FILTER DIKE WILL BE INSTALLED ACROSS FULL WIDTH OF TRAFFIC CLOSURE AND DOWNSTREAM OF CONSTRUCTION AREA, PERPENDICULAR TO CURB. FILTER DIKE TO FOLLOW ACTIVE CONSTRUCTION. REMOVING AND RE-SETTING FILTER DIKE IS CONSIDERED SUBSIDIARY TO BARRICADES AND TRAFFIC HANDLING.
9. PROJECT SCHEDULE MUST BE APPROVED BY THE GENERAL PERMIT PROGRAM (GPP) COORDINATOR. INSTALLATION AND REMOVAL OF TEMPORARY AND PERMANENT EROSION/SEDIMENTATION CONTROLS MUST BE REFLECTED IN THE SCHEDULE, BY STATION NUMBER. THE ENVIRONMENTAL INSPECTOR MUST BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF TRANSITION BETWEEN PHASES.
10. THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO CHANGE OR MODIFY EROSION/SEDIMENTATION CONTROLS, PER SECTION 25-8-183 OF THE CITY OF AUSTIN'S LAND DEVELOPMENT CODE.
11. APPROPRIATE EASEMENTS/APPROVALS MUST BE SECURED AND DOCUMENTED FOR PROJECT AREAS LOCATED OUTSIDE OF RIGHT OF WAYS. NO WORK SHALL BE PERFORMED WITHIN THESE AREAS UNTIL ASSOCIATED RIGHT OF ENTRY HAS BEEN SECURED. ADDITIONALLY, PROJECT PORTIONS IMPACTED BY LACK OF RECORDED DOCUMENT NUMBERS WILL NOTE BE CONSIDERED FOR FORMAL GPP REVIEW.
12. CONTRACTOR SHALL STAKE ALL PROPOSED SERVICE CONNECTIONS LOCATED WITHIN THE CRITICAL ROOT ZONE OF TREES 8" IN CALIPER AND LARGER AT LEAST 21 CALENDAR DAYS PRIOR TO CONSTRUCTION OF SUCH SERVICES. STAKING SHALL CONSIST OF A LATH WITH NAIL AND PAINT MARKINGS. IN CASES WHERE A STAKE CANNOT BE PLACED WITHOUT DAMAGING PROPERTY, CONTRACTOR MAY USE PAINT ONLY. ONCE STAKING IS COMPLETED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM THE CITY OF AUSTIN'S CONSTRUCTION INSPECTOR WITHIN TWENTY-FOUR HOURS. THE CITY OF AUSTIN'S CONSTRUCTION INSPECTOR WILL THEN COORDINATE A FIELD REVIEW OF THE SERVICE LOCATIONS WITH THE GENERAL PERMIT PROGRAM COORDINATOR AND PROPERTY OWNERS. SERVICE LINE LOCATIONS MAY BE ADJUSTED BASED ON THE REVIEW AND WILL BE RESTAKED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL SERVICE LINE STAKING SHALL BE MAINTAINED UNTIL THE SERVICE IS INSTALLED.

GENERAL PERMIT PROGRAM CORRECTIONS RECORD

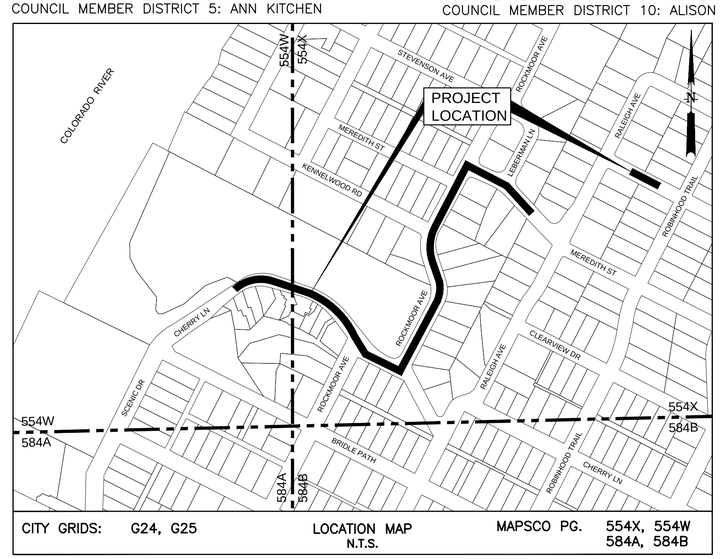
No.	DESCRIPTION	BY	CORRECT (C) ADD (A) VOID (V) SHEET Nos.	TOTAL No. SHEETS IN CORRECTION PLAN SET	CITY OF AUSTIN APPROVAL/DATE	DATE IMAGED

LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
CIP ID 5789.054

MAYOR:
STEVE ADLER

COUNCIL MEMBERS:

COUNCIL MEMBER DISTRICT 1: NATASHA HARPER-MADISON
COUNCIL MEMBER DISTRICT 2: DELIA GARZA
COUNCIL MEMBER DISTRICT 3: SABINO RENTERIA
COUNCIL MEMBER DISTRICT 4: GERGORIO CASAR
COUNCIL MEMBER DISTRICT 5: ANN KITCHEN
COUNCIL MEMBER DISTRICT 6: JIMMY FLANNIGAN
COUNCIL MEMBER DISTRICT 7: LELSIE POOL
COUNCIL MEMBER DISTRICT 8: PAGE ELLIS
COUNCIL MEMBER DISTRICT 9: KATHIE TOVO (MAYOR PRO TEM)
COUNCIL MEMBER DISTRICT 10: ALISON ALTER



CITY GRIDS: G24, G25 | LOCATION MAP N.T.S. | MAPSCO PG. 554X, 554W 584A, 584B

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

ADMINISTRATIVE VARIANCE FROM THE CITY OF AUSTIN'S LAND DEVELOPMENT CODE SECTION 25-8-281(C)(2)(B) WAS GRANTED IN ORDER TO ALLOW CONSTRUCTION WITHIN THE STANDARD CEF BUFFER OF AUSTIN CAVERNS.

DATE _____

100% SUBMITTAL

PROJECT INFORMATION:

STREET ADDRESS:

- 3500 – 3600 MEREDITH STREET
  AUSTIN, TEXAS 78703
- 1800 – 2000 ROCKMOOR AVENUE
  AUSTIN, TEXAS 78703
- 3600 – 3700 CHERRY LANE
  AUSTIN, TEXAS 78703
- 3500 STEVENSON AVENUE
  AUSTIN, TEXAS 78703

OWNER:

RUPALI SABNIS, MS, PE, CFM
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT
ONE TEXAS CENTER
(512) 974-3375

CONTACT:

FREDRICK REZA
CITY OF AUSTIN, PUBLIC WORKS DEPARTMENT
PROJECT MANAGEMENT DIVISION
505 BARTON SPRINGS ROAD, SUITE 900
AUSTIN, TEXAS 78704
(512) 974-7204

SUBMITTAL PREPARED BY:

CONTACT:

JOHN FRIEDMAN, P.E.
RPS TBPE #F-929
4801 SOUTHWEST PARKWAY
PARKWAY 2, SUITE 150
AUSTIN, TEXAS 78735
(512) 326-5659

RELATED CASES: UC TRACKING #: UCC-180201-05-02 AND/OR ROW ID # 11847035

SUBMITTED FOR APPROVAL BY:

11-20-2020
ENGINEER OF RECORD – JOHN FRIEDMAN, P.E. DATE

APPROVED BY GENERAL PERMIT HOLDER:

FOR GENERAL PERMIT HOLDER DATE

GP-19-0000.WPD 10-07-2020
ANNUAL GENERAL PERMIT NUMBER EXP. DATE

APPROVALS:

FOR WATERSHED PROTECTION DEPARTMENT DATE

FOR AUSTIN WATER UTILITY DATE

NOTES:
GENERAL PERMIT PROGRAM APPROVAL DOES NOT CONSTITUTE UTILITY ALIGNMENT/ASSIGNMENT APPROVAL.

RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.

GENERAL PERMIT PROGRAM
STORM DRAIN IMPROVEMENTS

SEQUENCE OF CONSTRUCTION:

(REFER TO FULL PLAN SET FOR PROJECT-SPECIFIC ADDITIONS, IF APPLICABLE)

PRIOR TO CONSTRUCTION:

1. SECURE APPLICABLE COA PERMITS, INCLUDING APPROVAL UNDER GENERAL PERMIT AND UTILITY STREET CUT PERMIT.
2. NOTIFY GENERAL PERMIT PROGRAM REPRESENTATIVE (512-974-6330) PRIOR TO PLACEMENT OF E/S/ CONTROLS AND TREE PROTECTION FENCING. ALL PROPOSED PHASING OF CONTROLS MUST BE SUBMITTED TO AND APPROVED BY THE REPRESENTATIVE PRIOR TO THE FIELD PRE-CONSTRUCTION COORDINATION MEETING.
3. NOTIFY COA TEMPORARY TRAFFIC CONTROL REPRESENTATIVE PRIOR TO PLACEMENT OF TEMPORARY TRAFFIC CONTROLS. ALL PROPOSED PHASING OF CONTROLS MUST BE INDICATED ON THE APPROVED TEMPORARY TRAFFIC CONTROL PAN AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS.
4. PLACE TEMPORARY E/S CONTROLS AND TREE PROTECTION FENCING PRIOR TO BEGINNING ANY EXCAVATION. INSTALL C.I.P SIGNS, AS APPLICABLE.
5. HOLD ENVIRONMENTAL PRE-CONSTRUCTION CONFERENCE ON SITE WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND GENERAL PERMIT PROGRAM REPRESENTATIVE AFTER INSTALLATION OF E/S CONTROLS AND TREE PROTECTION FENCING AND PRIOR TO ANY TRENCHING OPERATIONS. CONTRACTOR TO WALK THE ROUTE OF THE PROJECT AND ADVISE THE CITY OF CLEARANCE NEEDS FOR PLANTED EXCAVATION UNDER THE CANOPIES OF EXISTING TREES.
6. PLACE TRAFFIC CONTROL DEVICES.

PROJECT CONSTRUCTION:

1. BEGIN CONSTRUCTION. NOTIFY GENERAL PERMIT PROGRAM REPRESENTATIVE VIA EMAIL A MINIMUM OF 48 HOURS IN ADVANCE OF TRANSITION BETWEEN PHASES.
2. COMPLETE NECESSARY UTILITY ADJUSTMENTS OR TIE-INS.
3. DEMOLISH EXISTING CURB AND GUTTER, SIDEWALK, CURB RAMP AND OTHER FEATURES TO ACCOMMODATE PROPOSED FEATURES AS NOTED.
4. INSTALL CURB AND GUTTER, SIDEWALK, CURB RAMP AND OTHER PROPOSED FEATURES AS NOTED.
5. MILL AND OVERLAY PAVEMENT WITH 2-INCHES OF TYPE D FROM LIP OF GUTTER TO LIP OF GUTTER PER THE TRAFFIC CONTROL SEQUENCE.
6. CONTACT GENERAL PERMIT OFFICE TO SCHEDULE FIELD INSPECTION PRIOR TO BEGINNING INSTALLATION OF PERMANENT E/S CONTROLS.
7. COMPLETE RESTORATION OF ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES FOR THIS PROJECT (PERMANENT E/S CONTROLS)
8. HOLD ENVIRONMENTAL POST-CONSTRUCTION CONFERENCE ON SITE WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND GENERAL PERMIT PROGRAM REPRESENTATIVE. ALL PERMANENT E/S CONTROLS MUST BE ACCEPTED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE.
9. FOLLOWING FINAL ACCEPTANCE OF PERMANENT E/S CONTROLS BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE, REMOVE TEMPORARY E/S CONTROLS. CLEAN EXISTING STORM DRAINAGE SYSTEMS AS NECESSARY DUE TO CONSTRUCTION OPERATIONS.
10. CLEAN AND RESTORE ALL AREAS DISTURBED BY REMOVAL OF TEMPORARY E/S CONTROLS PLACED FOR THIS PROJECT.
11. REMOVE TRAFFIC CONTROL DEVICES.

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD CONSTRUCTION SPECIFICATIONS.
2. IF BLASTING IS PLANNED BY THE CONTRACTOR, A BLASTING PERMIT MUST BE SECURED FROM THE CITY OF AUSTIN PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. BLASTING WILL NOT BE PERMITTED WITHIN 15-FEET OF ANY EXISTING UTILITY LINES OR STRUCTURES WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER.
3. ANY EXISTING UTILITIES, PAVEMENT, CURBS, SIDEWALKS, STRUCTURES, TREES, ETC., THAT ARE DAMAGED OR REMOVED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
4. THE CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES WITH THE CONSTRUCTION PLANS FOUND IN THE FIELD SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER.
5. MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC., SHALL BE RAISED TO FINISHED GRADE PRIOR TO FINAL PAVING CONSTRUCTION.
6. CONTRACTOR SHALL MAKE THEMSELF AWARE OF AND BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE REGULATIONS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). CONTRACTOR SHALL USE OWNER-APPROVED DISPOSAL FACILITY FOR THE DISPOSAL OF MATERIAL. CONTRACTOR'S CHOICE TO SALVAGE, RECYCLE, RE-USE, OR DISPOSE OF MATERIAL, OR DISPOSAL FACILITY'S DECISION TO REJECT MATERIAL, CHARGE TIPPING OR OTHER FEES, OR REQUIRE ADDITIONAL TESTING, SHALL NOT BE REASON FOR CLAIMS AGAINST THE OWNER.
7. THE CONTRACTOR STAGING AREA SHALL BE CONTAINED WITHIN THE LIMITS OF THE SITE AS INDICATED ON THESE PLANS.
8. PRIOR TO ANY CONSTRUCTION, THE CITY PROJECT MANAGER SHALL CONVENE A PRE-CONSTRUCTION CONFERENCE BETWEEN THE CITY OF AUSTIN, THEMSELF, THE CONTRACTOR, OTHER UTILITY COMPANIES, ANY AFFECTED PARTIES, AND ANY OTHER ENTITY THE CITY MAY REQUIRE.
9. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE THEIR WORK TO WITHIN THE PERMANENT AND ANY TEMPORARY EASEMENTS. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. CLEANUP SHALL BE TO THE SATISFACTION OF THE ENGINEER.
10. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL APPLY FOR AND SECURE ALL PROPER PERMITS FROM THE APPROPRIATE AUTHORITIES.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING STREETS WITHIN AND ADJACENT TO THE PROJECT AREA FREE OF MUD AND DEBRIS FROM CONSTRUCTION AT ALL TIMES.
12. CONTRACTOR SHALL FAMILIARIZE THEMSELF WITH THE SITE AND ALL ITEMS OF WORK. LACK OF UNDERSTANDING OF WORK REQUIREMENTS OR COMPLEXITY SHALL NOT BE CAUSE OF ADDITIONAL COMPENSATION.
13. ALL HOLES, TRENCHES AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, FENCING, LIGHTS AND/OR OTHER PROTECTIVE DEVICES AT ALL TIMES.
14. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SHORING SYSTEM DESIGNED BY A LICENSED PROFESSIONAL ENGINEER THAT PROVIDES FOR WORKER SAFETY AND PROVIDES TRENCH WALL SUPPORT TO PREVENT DAMAGE TO ADJACENT STRUCTURES.

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STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

rps Texas PE Firm Reg. #F-929
4801 Southwest Pkwy, Pkwy 2, Suite 150, Austin, Texas 78735
T +1 512 328 5771 E usInfrastructure@rpsgroup.com

REVISIONS

NO.	BY	DATE	REMARKS

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
SHEET INDEX + GENERAL CONSTRUCTION NOTES

SHEET INFORMATION

DATE Nov 19, 2020

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GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-AS\07.00 CADD\Construction Shts\02-GP_General_Notes-Index Sheet.dwg Layout: 2 SHEET INDEX & GENERAL CONSTRUCTION NOTES Plotted: 11/19/2020 10:13:17 AM

GENERAL NOTES

ALL RESPONSIBILITY FOR THE ADEQUECY 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 JURISDICATION OF BUILDING INSPECTIONS.

Use of Electronic Files General Disclaimer: Use of the attached files in any manner indicates your acceptance of terms and conditions as set forth below. If you do not agree to all of the terms and conditions, please contact Austin Water pipeline engineering, project coordinator prior to use of the referenced information. Please be advised that the attached files are in a format that can be altered by the user. Due to this fact, any reuse of the data will be at 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 all claims, damages, losses and expenses including attorney's fees arising out of or resulting from using the digital file. In addition, it is the responsibility of the user to compare all data with the PDF version of this drawing. In the event there is a conflict between the PDF version drawing and the electronic file, the PDF version drawing shall prevail.

INSPECTION NOTES

Please contact CID Inspections 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.

PROJECT INFORMATION[1]

AW INFRASTRUCTURE INFORMATION			
PROPOSED PRODUCT TYPE (TO BE INSTALLED)	LENGTH OF PIPE (L.F.)	SIZE OF PIPE (INCH)	NO. OF SERVICES
WATER MAIN	1129	12	NA
WATER MAIN	75	8	NA
WATER MAIN	30	6	NA
WASTEWATER MAIN	159	18	NA
WASTEWATER MAIN	760	8	NA
RECLAIMED WATER MAIN	NA	NA	NA
WATER SERVICE	NA	NA	8
WASTEWATER SERVICE	NA	NA	8
RECLAIMED WATER SERVICE	NA	NA	NA

EXPAND OR REDUCE TABLE AS NEEDED[1]
THE INFORMATION INCLUDED IN THIS TABLE ARE APPROXIMATE VALUES ESTIMATED BASED ON GENERAL ENGINEERING GUIDELINES

STANDARD CONSTRUCTION NOTES November 23, 2017

1. THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK.
2. 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.
3. 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.
4. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" 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.
5. 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.
6. THE CITY SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE.
7. ALL MATERIALS TESTS ORDERED BY THE OWNER FOR QUALITY ASSURANCE PURPOSES, SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY AND FUNDED BY THE OWINER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 180AS.04. 8. 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. 9. THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 510.3(22) AND SPL WW 27-A and WW 27-F.
10. FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 511S.4 AND SHALL BE PAINTED FLYNT 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 APPERTENUNANCES.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. WATER AND WASTE WATER SERVICES WILL NEED TO BE REPLACED UP TO THE MAIN. REPAIR COUPLINGS ARE NOT ALLOWED ON NEW INSTALLTIONS.
17. 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.
18. THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES, BELOW GROUND AND OVERHEAD, PRIOR TO STARTING ONSITE UTILITY WORK.
19. 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 AMD CHAPTER 210 - DESIGN CRIERIA FOR RECLAIMED SYSTEMS OF TCEQ RULES.
20. 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.
21. 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. THE SUBMITTAL WILL NEED TO BE INCLUDED IN THE PLAN SET AS THRU A CORRECTION PROCESS.
22. 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.
23. ALL POTABLE WATER SYSTEM COMPONENTS INSTALLED AFTER JANUARY 4, 2014, SHALL BE ESSENTIALLY "LEAD FREE" 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.
24. 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
25. 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.
26. 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.
27. NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED.
28. ALL GRAVITY LINES SHALL BE INSTALLED DOWNSTREAM TO UPSTREAM.
29. METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS.
30. 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.

DOES THIS PROJECT NEED AULCC REVIEW ?

☒YES

☐NO

IF YES, PLEASE PROVIDE UCC# 180201-05-02

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

AW EXPIRATION STAMP

THREE YEARS FROM THE DATE OF SIGN-OFF

UTILITY CRITERIA MANUAL WAIVER SUMMARY NOTES AND EXCEPTION GUIDELINES

1. UTILITY CRITERIA MANUAL WAIVER REGARDING THE WATERLINE 3 CROSSING OF EXISTING WASTEWATER SERIVCES. SERVICES CANNOT GO UNDER THE WATERLINE DUE TO THE EXISTING ELEVATION OF THE WASTWATER MAIN AND THE DEPTH OF THE PROPOSED WATERLINE BELOW THE STREET. WASTEWATER SERVICES TO BE REPLACED AND ENCASED. SEE SHEET 33.
2. UTILITY CRITERIA MANUAL WAIVER REGARDING THE DEPTH OF WASTEWATER LINE 1 STA. 15+50 TO STA. 16+25 ON SHEET 36. SEE DEPTH CALCULATIONS ON SHEET 49.

STATE OF TEXAS
JOHN G. FREDMAN
88486
REGISTERED PROFESSIONAL ENGINEER

11-20-2020

CITY OF AUSTIN APPROVAL BLOCK

NOTE:DO NOT REMOVE THE TITLE BLOCK

CITY OF AUSTIN
AUSTIN WATER
October 2019

VERSION 1.0
STANDARD NO.
1 OF 1

AUSTIN WATER GENERAL INFORMATION AND CONSTRUCTION NOTES FOR CAPITAL IMPROVEMENT PROJECTS

LOG OF BORING

Project: Meredith Street Storm Drain Improvements
Project No.: AG 11 10207
Boring No.: B-1 Date: 4/27/2017 Elevation: 542 feet
Groundwater during drilling: N/A Northing: 10,081,509.0 Station: --
Groundwater after drilling: N/A Easting: 3,102,354.0 Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS / SAMPLER SYMBOLS / AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
		2.25" ASPHALTIC CONCRETE. **7.25" TAN FLEX BASE.** Brown to tan, loose, **CLAYEY GRAVEL (GC),** moist, with limestone fragments. [Fill]		
	4-4-3		34	
	50/4.5" RUN: 5-10' REC: 29% RQD: 21%	White to tan, low hardness, **HIGHLY WEATHERED LIMESTONE,** with limestone fragments, reddish orange silt seams, and lean clay seams. [Edwards Limestone] -9" layer of reddish orange silt at 7'		
	RUN: 10-13' REC: 71% RQD: 18%	Light tan, hard, **LIMESTONE,** moderately to highly weathered, moderately to heavily fractured, with reddish orange clay infill, and chert seams. [Edwards Limestone] -4" chert layer from 10-10.3' -Unconfined compressive strength = 236.9 tsf	150	
	RUN: 13-15' REC: 82% RQD: 0%	-Vertical fractures at 12' -Vuggy at 13-13.5'		
	RUN: 15-19' REC: 70% RQD: 13%			
		-Completely fractured from 17-18'		
	RUN: 19-21' REC: 100% RQD: 0%	-Extensive voids (2-4" thick) at 20-25'		
	RUN: 21-25' REC: 97% RQD: 38%			
		-Unconfined compressive strength = 182 tsf	154	

SHEAR STRENGTH, TSF (0.5, 1.0, 1.5, 2.0); MOISTURE CONTENT, % (PLASTIC LIMIT – LIQUID LIMIT; 10 20 30 40 50 60 70 80 90)

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

LOG OF SOIL BORING, MEREDITH STREET BORINGS.GPJ - HVJ.GDT 6/19/17

HVJ ASSOCIATES

PLATE 4a

LOG OF BORING

Project: Meredith Street Storm Drain Improvements
Project No.: AG 11 10207
Boring No.: B-1 Date: 4/27/2017 Elevation: 542 feet
Groundwater during drilling: N/A Northing: 10,081,509.0 Station: --
Groundwater after drilling: N/A Easting: 3,102,354.0 Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS / SAMPLER SYMBOLS / AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
	RUN: 25-30' REC: 17% RQD: 0%	-4" layer of reddish orange clay at 25'		
		-1.5' void at 28'		
	RUN: 30-35' REC: 40% RQD: 17%	-Extensive chert fragments and vuggy below 30'		
		-Unconfined compressive strength = 233 tsf	141	

SHEAR STRENGTH, TSF (0.5, 1.0, 1.5, 2.0); MOISTURE CONTENT, % (PLASTIC LIMIT – LIQUID LIMIT; 10 20 30 40 50 60 70 80 90)

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

LOG OF SOIL BORING, MEREDITH STREET BORINGS.GPJ - HVJ.GDT 6/19/17

HVJ ASSOCIATES

PLATE 4b

LOG OF BORING

Project: Meredith Street Storm Drain Improvements
Project No.: AG 11 10207
Boring No.: B-2 Date: 4/29/2017 Elevation: 537 feet
Groundwater during drilling: N/A Northing: 10,081,388.0 Station: --
Groundwater after drilling: N/A Easting: 3,102,324.0 Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS / SAMPLER SYMBOLS / AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
		1.75" ASPHALTIC CONCRETE. **6.5" TAN FLEX BASE.**		
	50/3" RUN: 1-5' REC: 94% RQD: 27%	Dark brown and tan, dense, **SANDY LEAN CLAY WITH GRAVEL (CL),** moist, with limestone fragments. [Fill] Tan, moderately hard, **LIMESTONE,** moderately to highly weathered, moderately to heavily fractured, vuggy, with ferrous staining, voids, reddish brown clay infill, and chert seams. [Edwards Limestone] -Unconfined compressive strength = 191.7 tsf	56	
	RUN: 5-10' REC: 90% RQD: 27%	-Unconfined compressive strength = 214.4 tsf -3" chert seam at 6'	140	
		-1.5' of reddish orange silt seams at 8'	144	
	RUN: 10-13' REC: 55% RQD: 0%			
	RUN: 13-15' REC: 75% RQD: 0%			
	RUN: 15-20' REC: 25% RQD: 0%	-Completely fractured zone at 15-16'		
	RUN: 20'-25' REC: 78% RQD: 22%	-6" layer with reddish orange clay		
		-Unconfined compressive strength = 221.7 tsf -6" void at 24'	155	

SHEAR STRENGTH, TSF (0.5, 1.0, 1.5, 2.0); MOISTURE CONTENT, % (PLASTIC LIMIT – LIQUID LIMIT; 10 20 30 40 50 60 70 80 90)

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

LOG OF SOIL BORING, MEREDITH STREET BORINGS.GPJ - HVJ.GDT 6/19/17

HVJ ASSOCIATES

PLATE 5

LOG OF BORING

Project: Meredith Street Storm Drain Improvements
Project No.: AG 11 10207
Boring No.: B-3 Date: 5/31/2017 Elevation: 540 feet
Groundwater during drilling: N/A Northing: 10,081,272.0 Station: --
Groundwater after drilling: N/A Easting: 3,102,151.0 Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS / SAMPLER SYMBOLS / AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
		3" ASPHALTIC CONCRETE. **6" TAN FLEX BASE.** Tan, firm, **SANDY LEAN CLAY (CL),** semi-moist, with trace gravel, and calcareous nodules. [Fill]		
	12-14-10			
	5-7-7	Light brown, medium dense, **POORLY GRADED SAND WITH CLAY (SP-SC),** dry to semi-moist, with calcareous deposits, and lean clay seams. [Alluvium]	8	
	7-13-11			
	12-14-16		7	
	26-33-32	Reddish brown, medium dense to very dense, **POORLY GRADED SAND WITH CLAY AND GRAVEL (SP-SC),** dry, with calcareous deposits. [Alluvium]		
	12-14-14		12	
	14-15-15	Dark reddish brown, medium dense to dense, **SANDY LEAN CLAY WITH GRAVEL (CL),** semi-moist, with calcareous nodules, and ferrous staining. [Alluvium]		
	19-20-20			

SHEAR STRENGTH, TSF (0.5, 1.0, 1.5, 2.0); MOISTURE CONTENT, % (PLASTIC LIMIT – LIQUID LIMIT; 10 20 30 40 50 60 70 80 90)

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

LOG OF SOIL BORING, MEREDITH STREET BORINGS.GPJ - HVJ.GDT 6/19/17

HVJ ASSOCIATES

PLATE 6

LOG OF BORING

Project: Meredith Street Storm Drain Improvements
Project No.: AG 11 10207
Boring No.: B-4 Date: 4/28/2017 Elevation: 535 feet
Groundwater during drilling: N/A Northing: 10,081,497.0 Station: --
Groundwater after drilling: N/A Easting: 3,101,833.0 Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS / SAMPLER SYMBOLS / AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
		4" ASPHALTIC CONCRETE. **5" TAN FLEX BASE.** Tan, firm, **SANDY LEAN CLAY (CL),** moist, with trace gravel. [Fill]		
	7-10-10		58	
	5-9-9	Light reddish brown, loose, **POORLY GRADED SAND WITH CLAY (SP-SC),** semi-moist. [Alluvium]		
	4-5-6		8	
	3-3-4			
	10-14-25	Light brown, firm to stiff, **SANDY LEAN CLAY (CL),** moist, with calcareous deposits. [Alluvium]	53	
	3-2-3	Dark reddish brown, very loose to loose, **POORLY GRADED SAND (SP),** moist, with trace gravel. [Alluvium]		
	1-2-2	- 1' layer of reddish brown silty clay at 15-16'		

SHEAR STRENGTH, TSF (0.5, 1.0, 1.5, 2.0); MOISTURE CONTENT, % (PLASTIC LIMIT – LIQUID LIMIT; 10 20 30 40 50 60 70 80 90)

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

LOG OF SOIL BORING, MEREDITH STREET BORINGS.GPJ - HVJ.GDT 6/19/17

HVJ ASSOCIATES

PLATE 7

LOG OF BORING

Project: Meredith Street Storm Drain Improvements
Project No.: AG 11 10207
Boring No.: B-6 Date: 5/31/2017 Elevation: 557 feet
Groundwater during drilling: N/A Northing: 10,081,817.0 Station: --
Groundwater after drilling: N/A Easting: 3,102,405.0 Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS / SAMPLER SYMBOLS / AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
		2" ASPHALTIC CONCRETE. **4.5" TAN FLEX BASE.** Dark brown, brown and tan, very stiff, **SANDY LEAN CLAY WITH GRAVEL (CL),** moist, with limestone fragments. [Fill]		
	12-13-14			
	29-50/4.5"	Tan, hard, **LEAN CLAY (CL),** with sand, silt, limestone fragments, and trace gravel. [CWLS]	68	
	36-50/5"			
	50/4.5"	Tan, low hardness, **HIGHLY WEATHERED LIMESTONE,** with limestone fragments, reddish orange silt seams, and lean clay seams. [Edwards Limestone]		
	50/3"			
	RUN: 10-15' REC: 42% RQD: 0%	Tan, soft to hard, **LIMESTONE,** moderately to completely weathered, slightly to heavily fractured, with voids, red clay infill, and chert. [Edwards Limestone]		
	RUN: 15-20' REC: 68% RQD: 9%	-Unconfined compressive strength = 242.0 tsf -Completely fractured zone 16-17' -3" thick chert seam at 18'	141	
	RUN: 20-25' REC: 82% RQD: 8%			

SHEAR STRENGTH, TSF (0.5, 1.0, 1.5, 2.0); MOISTURE CONTENT, % (PLASTIC LIMIT – LIQUID LIMIT; 10 20 30 40 50 60 70 80 90)

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

LOG OF SOIL BORING, MEREDITH STREET BORINGS.GPJ - HVJ.GDT 6/19/17

HVJ ASSOCIATES

PLATE 8a

NOTE:
SEE STORM LINE PLAN AND PROFILE SHEETS FOR BORING LOCATIONS.

STATE OF TEXAS
JOHN G. FRIEDMAN
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11-20-2020

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CITY OF AUSTIN
ACT GREEN

GENERAL PERMIT OFFICE
LKA – MEREDITH ST STORM DRAIN IMPROVEMENTS

BORING LOGS (1 OF 2)

NO.	BY	DATE	REVISIONS	REMARKS

SHEET INFORMATION
DATE Nov 19, 2020
SHEET 4 OF 81

GP-19-0000.WPD

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LOG OF BORING

Project: Meredith Street Storm Drain Improvements
Project No.: AG 11 10207
Boring No.: B-6
Date: 5/31/2017
Elevation: 557 feet
Groundwater during drilling: N/A
Northing: 10,081,817.0
Station: --
Groundwater after drilling: N/A
Easting: 3,102,405.0
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF	SHEAR STRENGTH, TSF (0.5, 1.0, 1.5, 2.0) / MOISTURE ○ CONTENT, % (PLASTIC LIMIT — LIQUID LIMIT; 10 20 30 40 50 60 70 80 90)
25	RUN: 25-30' REC: 38% RQD: 0%	Tan, soft to hard, **LIMESTONE,** moderately to completely weathered, sightly to heavily fractured, with voids, red clay infil, and chert. [Edwards Limestone] (Continued...)			
30	RUN: 30-35' REC: 73% RQD: 6%				
		-Unconfined compressive strength = 111.0 tsf		133	○
35	RUN: 35-40' REC: 42% RQD: 0%	-Vuggy 35-36'			
		-Heavily fractured zone 37-39'			
40	RUN: 40-45' REC: 72% RQD: 30%	-Unconfined compressive strength = 97.8 tsf		117	○
		-Completely fractured zone 42.5-44'			
45	RUN: 45-50' REC: 60% RQD: 8%	-Unconfined compressive strength = 106.5 tsf		112	○
		-Chert seams 47.5-48'			
50					

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

PLATE 8b

HVJ ASSOCIATES

LOG OF SOIL BORING MEREDITH STREET BORINGS.GPJ HVJ.GDT 6/19/17

LOG OF BORING

Project: Meredith Street Storm Drain Improvements
Project No.: AG 11 10207
Boring No.: B-6
Date: 5/31/2017
Elevation: 557 feet
Groundwater during drilling: N/A
Northing: 10,081,817.0
Station: --
Groundwater after drilling: N/A
Easting: 3,102,405.0
Offset: --

ELEV. DEPTH, FEET	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	SOIL/ROCK CLASSIFICATION	% PASSING NO. 200 SIEVE	DRY DENSITY PCF	SHEAR STRENGTH, TSF (0.5, 1.0, 1.5, 2.0) / MOISTURE ○ CONTENT, % (PLASTIC LIMIT — LIQUID LIMIT; 10 20 30 40 50 60 70 80 90)
50	RUN: 50-55' REC: 16% RQD: 0%	Tan, soft to hard, **LIMESTONE,** moderately to completely weathered, sightly to heavily fractured, with voids, red clay infil, and chert. [Edwards Limestone] (Continued...)			
		-8" void followed by soft lean clay seams at 52'			
55					
60					
65					
70					
75					

Shear Types: ● = Hand Penet. ■ = Torvane ▲ = Unconf. Comp. ✳ = UU Triaxial

PLATE 8c

HVJ ASSOCIATES

LOG OF SOIL BORING MEREDITH STREET BORINGS.GPJ HVJ.GDT 6/19/17

NOTE:

1. SEE STORM LINE PLAN AND PROFILE SHEETS FOR BORING LOCATIONS.
2. SEE PROJECT MANUAL GEOTECHNICAL REPORTS FOR ADDITIONAL BORE LOGS WITHIN MEREDITH.

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

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CITY OF AUSTIN FOUNDED 1839

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS

BORING LOGS (2 OF 2)

REVISIONS

NO.	BY	DATE	REMARKS

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 5 OF 81

GP-19-0000.WPD

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	TREE TABLE	
	TREE #	DESCRIPTION
	1557	42" Live Oak (34"/16")
	1558	23" Live Oak
	1559	26" Live Oak
	1711	15" Hackberry (12"/6")
	1712	16" Hackberry (12"/8")
	1713	24" Cedar Elm (16"/15")
	1714	19" Juniper (14"/10")
	1715	11" Cedar Elm
	1716	12" Post Oak
	1717	20" Cedar Elm
	1719	34" Live Oak
	1720	13" Cedar Elm
	1721	10" Post Oak
	1722	28" White Mulberry (14"/8"/2-7"/5")
	1728	11" Texas Red Oak
	1729	14" Post Oak
	1734	18" Texas Red Oak
	1747	7" Post Oak
(R)	1750	16" Post Oak
(R)	1753	7" Hackberry

(R) - TREES TO BE REMOVED.

TREE TABLE	
TREE #	DESCRIPTION
1757	9" Cedar Elm
1758	8" Cedar Elm
1774	9" Cedar Elm
1775	11" Cedar Elm (2-7")
1832	8" Hackberry
1834	9" Cedar Elm
1835	16" Ligustrum (3-8")
1881	10" Texas Red Oak
1921	10" Texas Red Oak
1922	10" Post Oak
1923	20" Post Oak
2142	12" Cedar Elm
2143	18" Cedar Elm (12"/11")
2144	13" Hackberry
2145	17" Siberian Elm
2146	8" Hackberry
2147	21" Post Oak
2148	21" Live Oak
2149	28" Live Oak
2161	9" White Mulberry

TREE TABLE	
TREE #	DESCRIPTION
2162	24" Live Oak (DEAD)
2163	16" Siberian Elm
2164	16" Siberian Elm
2165	36" Eastern Cottonwood
2166	16" Siberian Elm
2167	8" Hackberry
2168	9" Live Oak
2169	17" Siberian Elm
2403	14" Live Oak
2445	14" White Mulberry
2511	22" Post Oak
2512	19" Live Oak
2515	9" Live Oak
2516	16" Live Oak
2517	8" Live Oak
2538	11" Cedar Elm
2539	10" Cedar Elm
2542	8" Pecan
2543	12" Cedar Elm
2544	12" Cedar Elm

TREE TABLE	
TREE #	DESCRIPTION
2545	14" Siberian Elm (LEANING)
2547	8" Cedar Elm
2548	16" Live Oak
2549	12" Cedar Elm
2550	14" Juniper
2551	16" Live Oak
2575	19" Live Oak
2576	24" Live Oak
3053	15" Cedar Elm
3054	30" Siberian Elm
(R) 3064	12" Cedar Elm
(R) 3069	14" Cedar Elm
3122	18" Baldcypress
3123	27" Pecan
3128	20" Live Oak
3129	27" Baldcypress
(R) 3135	16" Cedar Elm
5070	24" Juniper
5122	29" Texas Redbud
5131	31" Live Oak (17"/2-14")

TREE TABLE	
TREE #	DESCRIPTION
5132	30" Live Oak (20"/19")
5133	17" Cedar Elm
5172	33" Live Oak (24"/18")
5179	24" Live Oak
5450	8" Hackberry
5451	9" Hackberry
5452	8" Hackberry
5464	38" Live Oak
5482	18" Live Oak
5483	20" Live Oak
5518	9" Southern Magnolia
5519	19" Southern Magnolia
5531	19" Live Oak
5532	20" Live Oak
5533	18" Live Oak
5618	16" Live Oak
5736	19" Live Oak
5737	31" Live Oak
5738	14" Live Oak
5739	14" Live Oak

TREE TABLE	
TREE #	DESCRIPTION
5740	9" Live Oak
5741	15" Live Oak
5742	24" Post Oak
5855	30" Live Oak
5859	8" Pecan
5991	21" White Mulberry (14"/13")
6035	24" Pecan
6041	10" Mountain Laurel
6042	18" Live Oak (LEANING)
6043	14" Live Oak (LEANING)
6045	22" Live Oak
6046	9" Live Oak
6047	32" Live Oak
6090	21" Cedar Elm
6097	14" Hackberry
6098	15" Hackberry (12"/6")
6122	12" Texas Sable Palm
6212	15" Live Oak
6213	16" Chinese Parasol
6417	13" White Mulberry

TREE TABLE	
TREE #	DESCRIPTION
6418	10" Baldcypress
6419	36" Live Oak
6420	38" Live Oak
6421	45" Live Oak (27"/31")
6422	19" Texas Redbud
6423	26" Texas Redbud
6424	9" Pecan
6425	33" Live Oak

NOTE:
SEE LANDSCAPE SHEETS FOR MITIGATION.

STATE OF TEXAS
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11-20-2020

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CITY OF AUSTIN EST. 1839

11/19/2020

GENERAL PERMIT OFFICE

LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS

TREE TABLE

REVISIONS

NO.	BY	DATE	REMARKS

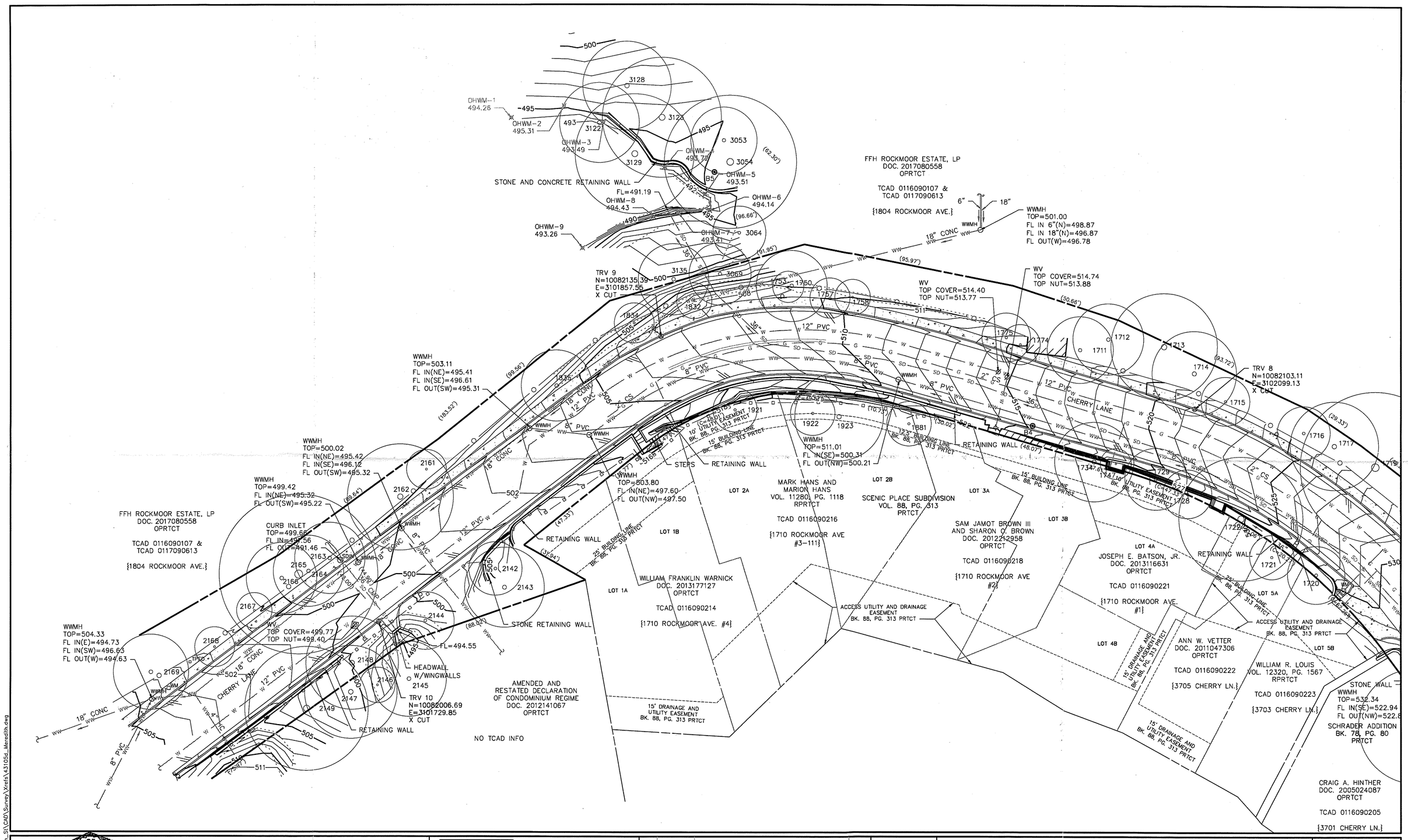
SHEET INFORMATION

DATE Nov 19, 2020

SHEET 6 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A.S\07.00 CADD\Construction Shts\13-GP_Tree List.dwg Layout: 6 TREE TABLE Plotted: 11/19/2020 10:13:46 AM



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TBAE 1452
TBPE F-1416
TBPLS 10065600

NO.	DATE	DESCRIPTION	BY

0

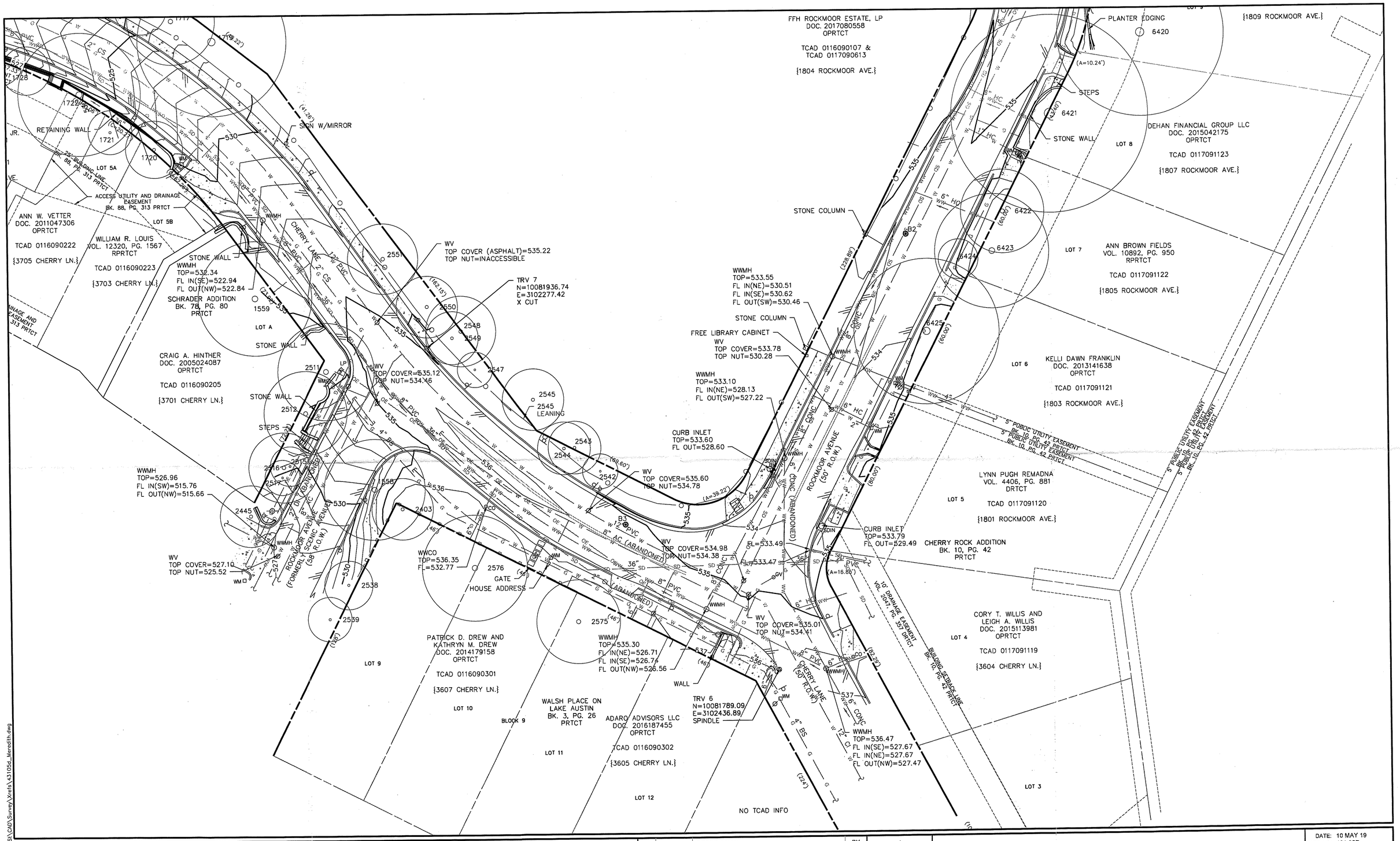
The bar above measures one inch on the original drawing. Adjust scales accordingly.

TOPOGRAPHIC SURVEY

MEREDITH STREET DRAINAGE IMPROVEMENTS
AUSTIN, TEXAS

DATE: 10 MAY 19
JOB NO: 431-05D
FILE: 43105D_MEREDITH

File: Y:\431-05D_Meredith_St\CAD\Survey\Xref's\43105d_Meredith.dwg



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MEREDITH STREET DRAINAGE IMPROVEMENTS
AUSTIN, TEXAS

DATE: 10 MAY 19
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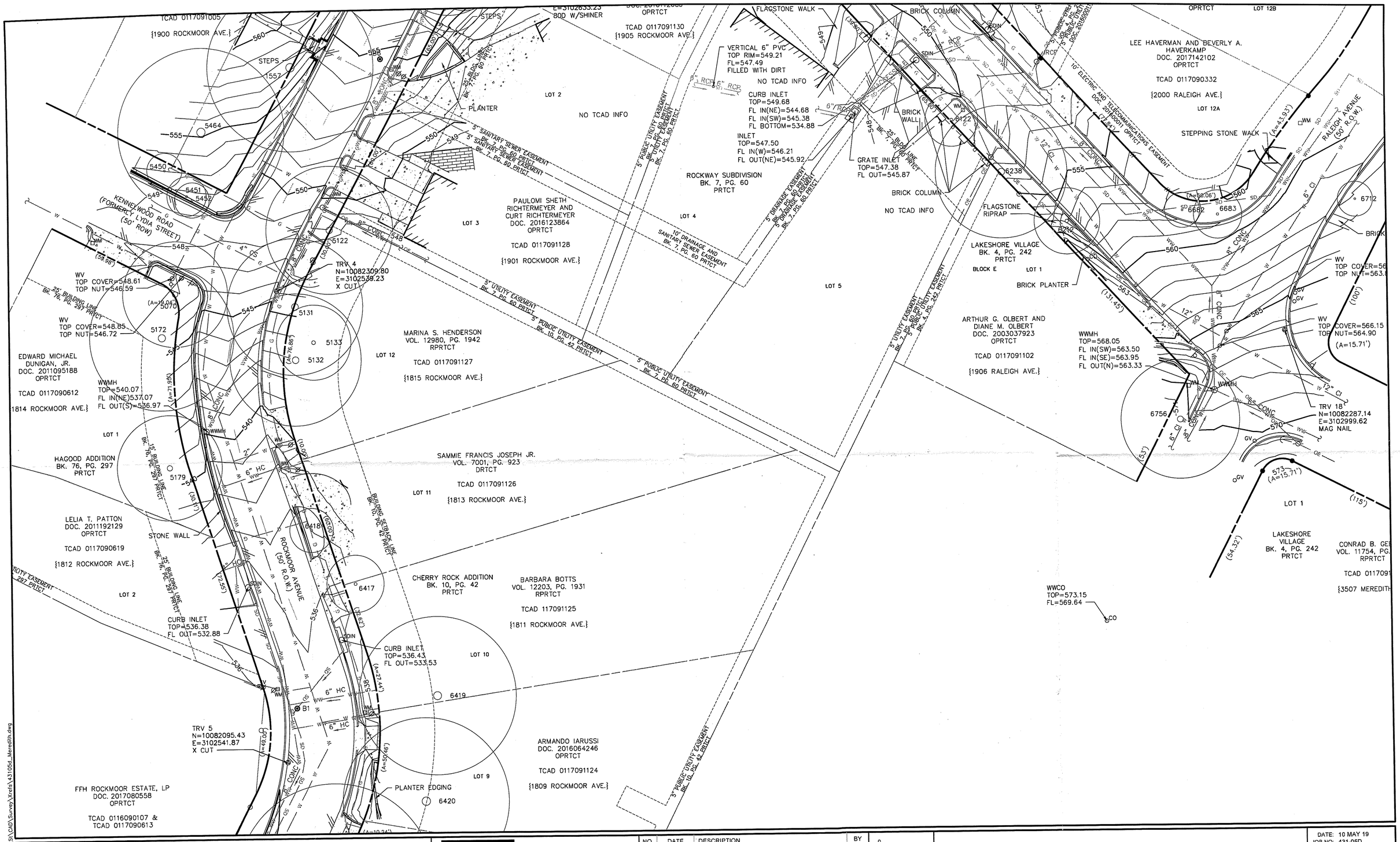

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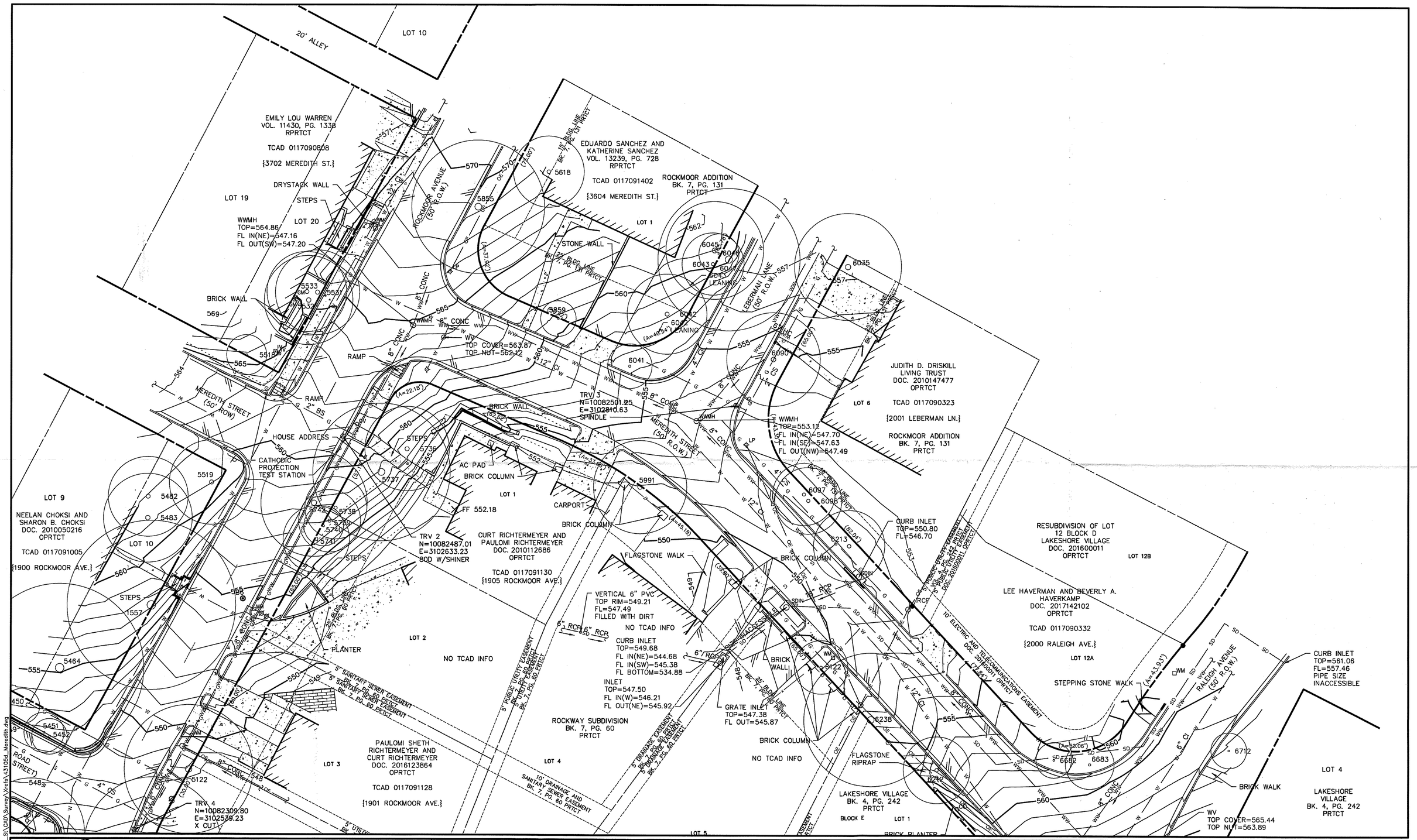

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TOPOGRAPHIC SURVEY

MEREDITH STREET DRAINAGE IMPROVEMENTS
AUSTIN, TEXAS

DATE: 10 MAY 19
JOB NO: 431-05D
FILE: 43105D_MEREDITH

File: Y:\431-05D_Meredith_St\CAD\Survey\Xrefs\43105d_Meredith.dwg

TREE TABLE	
TREE #	DESCRIPTION
1557	42" LIVE OAK (34"/16")
1558	23" LIVE OAK
1559	26" LIVE OAK
1711	15" HACKBERRY (12"/6")
1712	16" HACKBERRY (12"/8")
1713	24" CEDAR ELM (16"/15")
1714	19" JUNIPER (14"/10")
1715	11" CEDAR ELM
1716	12" POST OAK
1717	20" CEDAR ELM
1719	34" LIVE OAK
1720	13" CEDAR ELM
1721	10" POST OAK
1722	28" WHITE MULBERRY (14"/8"/2-7"/5")
1728	11" TEXAS RED OAK
1729	14" POST OAK
1734	18" TEXAS RED OAK
1747	7" POST OAK
1750	16" POST OAK
1753	7" HACKBERRY
1757	9" CEDAR ELM
1758	8" CEDAR ELM
1774	9" CEDAR ELM

TREE TABLE	
TREE #	DESCRIPTION
1775	11" CEDAR ELM (2-7")
1832	8" HACKBERRY
1834	9" CEDAR ELM
1835	16" LIGUSTRUM (3-8")
1881	10" TEXAS RED OAK
1921	10" TEXAS RED OAK
1922	10" POST OAK
1923	20" POST OAK
2142	12" CEDAR ELM
2143	18" CEDAR ELM (12"/11")
2144	13" HACKBERRY
2145	17" SIBERIAN ELM
2146	8" HACKBERRY
2147	21" POST OAK
2148	21" LIVE OAK
2149	28" LIVE OAK
2161	9" WHITE MULBERRY
2162	24" LIVE OAK (DEAD)
2163	16" SIBERIAN ELM
2164	16" SIBERIAN ELM
2165	36" EASTERN COTTONWOOD
2166	16" SIBERIAN ELM
2167	8" HACKBERRY

TREE TABLE	
TREE #	DESCRIPTION
2168	9" LIVE OAK
2169	17" SIBERIAN ELM
2403	14" LIVE OAK
2445	14" WHITE MULBERRY
2511	22" POST OAK
2512	19" LIVE OAK
2515	9" LIVE OAK
2516	16" LIVE OAK
2517	8" LIVE OAK
2538	11" CEDAR ELM
2539	10" CEDAR ELM
2542	8" PECAN
2543	12" CEDAR ELM
2544	12" CEDAR ELM
2545	14" SIBERIAN ELM (LEANING)
2547	8" CEDAR ELM
2548	16" LIVE OAK
2549	12" CEDAR ELM
2550	14" JUNIPER
2551	16" LIVE OAK
2575	19" LIVE OAK
2576	24" LIVE OAK
3053	15" CEDAR ELM

TREE TABLE	
TREE #	DESCRIPTION
3054	30" SIBERIAN ELM
3064	12" CEDAR ELM
3069	14" CEDAR ELM
3122	18" BALDCYPRESS
3123	27" PECAN
3128	20" LIVE OAK
3129	27" BALDCYPRESS
3135	16" CEDAR ELM
5070	24" JUNIPER
5122	29" TEXAS REDBUD
5131	31" LIVE OAK (17"/2-14")
5132	30" LIVE OAK (20"/19")
5133	17" CEDAR ELM
5172	33" LIVE OAK (24"/18")
5179	24" LIVE OAK
5450	8" HACKBERRY
5451	9" HACKBERRY
5452	8" HACKBERRY
5464	38" LIVE OAK
5482	18" LIVE OAK
5483	20" LIVE OAK
5518	9" SOUTHERN MAGNOLIA
5519	19" SOUTHERN MAGNOLIA

TREE TABLE	
TREE #	DESCRIPTION
5531	19" LIVE OAK
5532	20" LIVE OAK
5533	18" LIVE OAK
5618	16" LIVE OAK
5736	19" LIVE OAK
5737	31" LIVE OAK
5738	14" LIVE OAK
5739	14" LIVE OAK
5740	9" LIVE OAK
5741	15" LIVE OAK
5742	24" POST OAK
5855	30" LIVE OAK
5859	8" PECAN
5991	21" WHITE MULBERRY (14"/13")
6035	24" PECAN
6041	10" MOUNTAIN LAUREL
6042	18" LIVE OAK (LEANING)
6043	14" LIVE OAK (LEANING)
6045	22" LIVE OAK
6046	9" LIVE OAK
6047	32" LIVE OAK
6090	21" CEDAR ELM
6097	14" HACKBERRY

TREE TABLE	
TREE #	DESCRIPTION
6098	15" HACKBERRY (12"/6")
6122	12" TEXAS SABLE PALM
6212	15" LIVE OAK
6213	16" CHINESE PARASOL
6238	30" HACKBERRY
6417	13" WHITE MULBERRY
6418	10" BALDCYPRESS
6419	36" LIVE OAK
6420	38" LIVE OAK
6421	45" LIVE OAK (27"/31")
6422	19" TEXAS REDBUD
6423	26" TEXAS REDBUD
6424	9" PECAN
6425	33" LIVE OAK
6682	8" JUNIPER
6683	11" MESQUITE HONEY
6712	8" POST OAK
6756	27" SPANISH OAK

LEGEND	
	CONTROL POINT SET (SIZE/TYPE NOTED)
	BENCHMARK
BORE#	BOREHOLE
	SIGN POST
SDIN	STORM DRAIN INLET
	FIRE HYDRANT
	WATER VALVE
WM	WATER METER
IV	IRRIGATION CONTROL VALVE
WWMH	WASTEWATER MANHOLE
CO	WASTEWATER CLEANOUT
	POWER POLE
	GUY WIRE
LP	LIGHT POLE
TPED	TELEPHONE PEDESTAL
GM	GASLINE METER
GV	GAS VALVE
	EDGE OF ASPHALT
	CURB AND GUTTER
CTV	UNDERGROUND CABLE TV LINE
UC	UNDERGROUND COMMUNICATION LINE
OE	OVERHEAD ELECTRIC LINE
UE	UNDERGROUND ELECTRIC LINE
FO	UNDERGROUND FIBER OPTIC LINE
FU	UNDERGROUND FUEL LINE
G	UNDERGROUND GAS LINE
RCW	UNDERGROUND RECLAIM WATER LINE
PET	UNDERGROUND PETROLEUM LINE
SD	UNDERGROUND STORM LINE
UT	UNDERGROUND TELEPHONE LINE
UTR	UNDERGROUND TRAFFIC CONTROL LINE
W	UNDERGROUND WATER LINE
WW	UNDERGROUND WASTEWATER LINE
	CHAIN LINK FENCE
	IRON FENCE
	WOOD FENCE
X	WIRE FENCE
	BUILDING
	CONCRETE
	GRAVEL
	PAVERS
	TREE

20' 15' 10' 5' 0' 10' 20'
GRAPHIC SCALE

DRTCT	DEED RECORDS, TRAVIS CO., TX.
PRTCT	PLAT RECORDS, TRAVIS CO., TX.
RPRTCT	REAL PROPERTY RECORDS, TRAVIS CO., TX
OPRTCT	OFFICIAL PUBLIC RECORDS, TRAVIS CO., TX.
OHWM	ORDINARY HIGH WATER MARK

NOTES:

COORDINATE BASIS: TEXAS STATE PLANE, CENTRAL ZONE, NAD_83(2011)(EPOCH: 2010.0000), ADJUSTED TO SURFACE BY MULTIPLYING BY THE SURFACE ADJUSTMENT FACTOR OF 1.00005. ALL COORDINATES SHOWN ARE SURFACE VALUES.

VERTICAL BASIS: NAVD88 (COMPUTED USING GEOID 12B)

BM: 1 SQ. CUT IN NORTH END PC BACK OF CURB, AT NORTHEAST CORNER OF ROCKMOOR AVE. AND LEBERMAN LN.
ELEVATION 575.93'

BM: 2 TRIANGLE CUT IN CL STORM DRAIN INLET AT NORTHWEST CORNER OF CHERRY LN. AND ROCKMOOR AVE.
ELEVATION 533.56'

BM: 3 SQ. CUT ON WEST SIDE OF CHERRY LN. AT SOUTH END OF SIDEWALK, APPROX. 20' SOUTH OF BRIDLE PATH.
ELEVATION 517.08'

THIS IS NOT A BOUNDARY SURVEY. BOUNDARY LINES SHOWN ARE AN APPROXIMATE DEPICTION OF RECORD DATA.

THE LOCATIONS AND SIZE OF EXISTING UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE FROM RECORDS WHICH MAY NOT BE ENTIRELY ACCURATE AND FROM SURFACE EVIDENCE AS SURVEYED ON THE GROUND.

ONLY 8" TREES AND LARGER ARE SHOWN ON THIS DRAWING.

STATE OF TEXAS REGISTERED DAVID EDWARD MARTINEZ 5434 PROFESSIONAL LAND SURVEYOR

06/14/19

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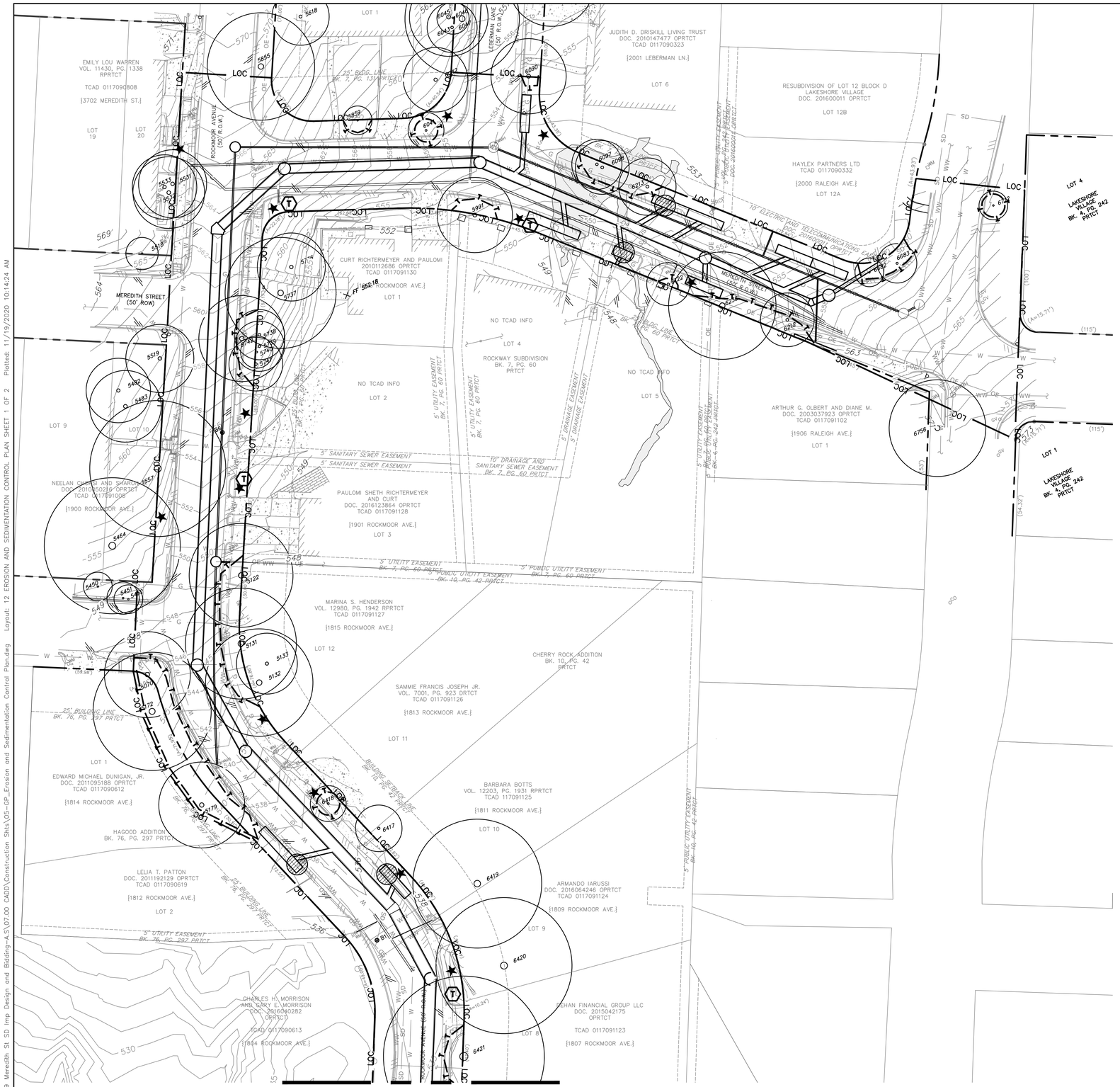
TOPOGRAPHIC SURVEY

MEREDITH STREET DRAINAGE IMPROVEMENTS
AUSTIN, TEXAS

DATE: 10 MAY 19
JOB NO: 431-05D
FILE: 43105D_MEREDITH

File: Y:\431-05D_Meredith_St\CAD\Survey\Xrefs\43105d_Meredith.dwg



N

0 30' 60'
SCALE IN FEET

LEGEND

210	EXISTING CONTOURS
212	PROPOSED CONTOURS
SF	SILT FENCE
T T T T	TREE PROTECTION
LOC	LIMITS OF CONSTRUCTION
	TRIANGULAR FILTER DIKE
RB	ROCK BERM
	INLET PROTECTION
	TREE TO BE REMOVED
	TREE TO REMAIN
	CAVE (APPROX. LOCATION)
	GROUND MONITORING DEVICES
T	TILTMETER

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
EROSION AND SEDIMENTATION CONTROL PLAN
SHEET 1 OF 2

REVISIONS

NO.	BY	DATE	REMARKS

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11-20-2020

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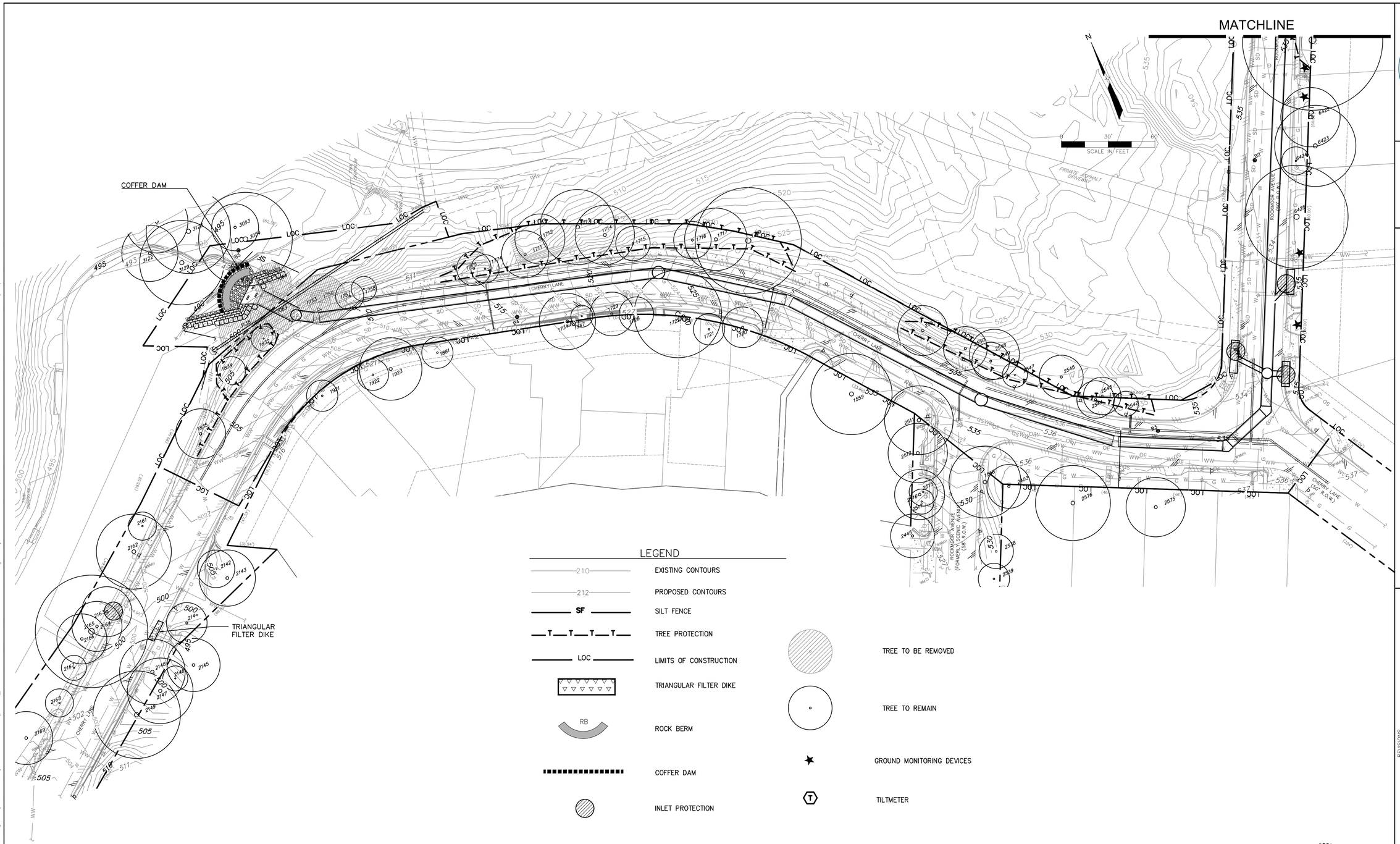
SHEET INFORMATION

DATE Nov 19, 2020

SHEET 12 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A\07.00 CADD\Construction Shts\05-GP_Erosion and Sedimentation Control Plan.dwg Layout: 12 EROSION AND SEDIMENTATION CONTROL PLAN SHEET 1 OF 2 Plotted: 11/19/2020 10:14:24 AM



GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
EROSION AND SEDIMENTATION CONTROL PLAN
SHEET 2 OF 2

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SHEET 13 OF 81

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GENERAL PERMIT PROGRAM (GPP) STANDARD ENVIRONMENTAL NOTES:

ADDITIONAL AREAS:

1. ANY ADDITIONAL AREAS REQUIRED FOR CONSTRUCTION OF THIS PROJECT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR MUST SECURE CITY OF AUSTIN APPROVAL OF PROPOSED ADDITIONAL AREAS PRIOR TO USE. APPROVAL OF "CORRECTION REQUEST" MUST BE SECURED FROM THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.
2. ALL ASSOCIATED PERMITS AND FEES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. IN ORDER TO SECURE APPROVAL FOR USE OF ADDITIONAL AREAS, CONTRACTOR MUST PROVIDE COMPLETE "CORRECTION REQUEST" SUBMITTAL TO GENERAL PERMIT PROGRAM OFFICE AND ALLOW A ONE WEEK COMMENT PERIOD FOR EACH REVIEW. CONTRACTOR SHOULD REQUEST INFORMATION ON THE ELEMENTS REQUIRED TO BE INCLUDED IN THE SUBMITTAL FROM THE OWNER'S REPRESENTATIVE OR THE GENERAL PERMIT PROGRAM OFFICE.
4. CONTRACTOR MUST INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE PROTECTION FOR ALL SUCH AREAS IN ACCORDANCE WITH THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL AND AS INCLUDED IN THE APPROVED SUBMITTAL OR DIRECTED IN THE FIELD BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE.
5. A SIGNED COPY OF THE PLANS PERMITTED THROUGH THE GENERAL PERMIT PROGRAM MUST BE KEPT ON SITE AND ACCESSIBLE AT ALL TIMES DURING PROJECT CONSTRUCTION.

DEWATERING:

CONTRACTOR IS RESPONSIBLE FOR DEWATERING OF WORK AREA. CONTRACTOR MUST SECURE CITY OF AUSTIN APPROVAL OF PROPOSED DEWATERING PROCEDURES PRIOR TO INSTALLATION OR USE. APPROVAL MUST BE SECURED FROM THE GENERAL PERMIT PROGRAM (GPP) OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT. CONTRACTOR MUST PROVIDE COMPLETE SUBMITTAL TO GPP OFFICE AND ALLOW AN ONE WEEK (MIN.) COMMENT PERIOD FOR EACH REVIEW. CONTACT THE GPP OFFICE FOR SUBMITTAL REQUIREMENTS.

FUEL STORAGE:

FUEL STORAGE IS PROHIBITED ON THIS PROJECT. ADDITIONALLY, THE CONTRACTOR IS REQUIRED TO NOTIFY THE GENERAL PERMIT PROGRAM OFFICE IMMEDIATELY FOLLOWING ANY SPILL OF FUEL OR OTHER TOXIC MATERIAL. CONTRACTOR IS REQUIRED TO FOLLOW-UP WITH WRITTEN DOCUMENTATION, INCLUDING A COMPLETE DESCRIPTION OF THE INCIDENT, MATERIAL SPILLED, AND ACTIONS TAKEN TO CONTAIN AND CLEAN-UP MATERIAL.

FUGITIVE DUST CONTROL:

ALL PROJECTS APPROVED THROUGH THE GENERAL PERMIT PROGRAM (GPP) MUST COMPLY WITH THE CODE OF THE CITY OF AUSTIN AND THE ENVIRONMENTAL CRITERIA MANUAL REQUIREMENTS TO CONTROL AIRBORNE DUST. COMPLIANCE IS REQUIRED FOR ENTIRE PROJECT SITE AS WELL AS ASSOCIATED OPERATIONS. CONTACT THE GPP OFFICE FOR RECOMMENDED CONTROL METHODS.

SPOILS STORAGE:

NO SPOILS STORAGE IS ALLOWED WITHIN A CRITICAL WATER QUALITY ZONE, A 100-YEAR FLOODPLAIN, OR ON A SLOPE WITH A GRADIENT OF MORE THAN 15 PERCENT.

E/S CONTROLS FOR BORE / RECEIVING PIT LOCATIONS:

TEMPORARY E/S CONTROLS MUST SURROUND THE ENTIRETY OF BORING OPERATIONS, INCLUDING PIT, EQUIPMENT, ETC. FOR LOCATIONS WITHIN IMPERVIOUS AREAS, TEMPORARY CONTROL WILL BE TRIANGULAR FILTER DIKE (COA STANDARD DETAIL #628S). DIKE FLAP WILL BE CONTINUOUSLY WEIGHTED DOWN THROUGH THE USE OF 1" BY 4" WOOD STRIPS NAILED TO THE PAVEMENT, EXCEPT FOR THE ACCESS POINT. PLACEMENT OF TEMPORARY E/S CONTROLS ACROSS ACCESS POINT WILL BE REQUIRED WHENEVER THE SITE IS NOT ACTIVELY USED. FOR LOCATIONS WITHIN PERVIOUS AREAS, TEMPORARY CONTROL WILL BE SILT FENCE (COA STANDARD DETAIL #642S-1) OR MULCH SOCKS (COA STANDARD DETAIL #648S-1), AS INDICATED ON APPROVED PLANS.

SOIL RETENTION BLANKET:

UNLESS OTHERWISE INDICATED IN THE PROJECT DOCUMENTS, INSTALLATION OF SOIL RETENTION BLANKET WILL BE REQUIRED FOR ALL IMPACTED SLOPES GREATER THAN 3:1 AND ALL IMPACTED AREAS WITHIN DRAINAGE CONVEYANCES. (CITY OF AUSTIN STANDARD SPECIFICATION ITEM 605S) SOIL RETENTION BLANKET SUBMITTAL MUST BE APPROVED BY PROJECT ENGINEER AND GENERAL PERMIT PROGRAM (GPP) REPRESENTATIVE PRIOR TO USE AND MUST INCLUDE PRODUCT AND INSTALLATION DETAILS PROVIDED BY MANUFACTURER. FINISH GRADING MUST BE INSPECTED AND APPROVED BY GPP INSPECTOR PRIOR TO BLANKET INSTALLATION. INSTALLATION MUST BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND MUST BE INSPECTED AND APPROVED BY GPP REPRESENTATIVE PRIOR TO ACCEPTANCE.

SOD INSTALLATION:

REVEGETATION WITHIN MANAGED TURF AREAS MUST BE ACCOMPLISHED THROUGH THE INSTALLATION OF SOLID BLOCK GRASS SOD. SOD TYPE MUST MATCH ADJACENT GRASS TYPE. QUESTIONS REGARDING SOD TYPE WILL BE RESOLVED BY THE GENERAL PROGRAM PERMIT REPRESENTATIVE. REFER TO CITY OF AUSTIN STANDARD SPECIFICATION ITEM NO. 602S: SODDING FOR EROSION CONTROL, UNLESS OTHERWISE NOTED ON THE APPROVED PLANS.

TxDOT RIGHTS-OF-WAY:

TOPSOIL (TxDOT ITEM NO. 160), SOIL RETENTION BLANKET (TxDOT ITEM NO. 169), AND REVEGETATION (TxDOT ITEM NO. 164) INSTALLED WITHIN TEXAS DEPARTMENT OF TRANSPORTATION (TxDOT) RIGHT-OF-WAY SHALL COMPLY WITH "REQUIREMENTS FOR INSTALLATION OF UTILITIES WITHIN THE STATE RIGHT-OF-WAY, AUSTIN DISTRICT".

PROJECT SEQUENCE:
(REFER TO FULL PLAN SET FOR PROJECT-SPECIFIC ADDITIONS, IF APPLICABLE.)

PRIOR TO CONSTRUCTION:

1. SECURE APPLICABLE COA PERMITS, INCLUDING APPROVAL UNDER GENERAL PERMIT PROGRAM AND RIGHT-OF-WAY EXCAVATION PERMIT.
2. NOTIFY GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO PLACEMENT OF E/S CONTROLS AND TREE PROTECTION FENCING. ALL PROPOSED PHASING OF CONTROLS MUST BE SUBMITTED TO AND APPROVED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO THE FIELD PRE-CONSTRUCTION CONFERENCE.
3. NOTIFY COA TEMPORARY TRAFFIC CONTROL REPRESENTATIVE PRIOR TO PLACEMENT OF TEMPORARY TRAFFIC CONTROLS. ALL PROPOSED PHASING OF CONTROLS MUST BE INDICATED ON APPROVED TEMPORARY TRAFFIC CONTROL PLAN AND SEALED BY PROFESSIONAL ENGINEER.
4. PLACE TEMPORARY E/S CONTROLS AND TREE PROTECTION FENCING PRIOR TO BEGINNING ANY EXCAVATION. INSTALL C.I.P. SIGN, IF APPLICABLE.
5. HOLD ENVIRONMENTAL PRE-CONSTRUCTION CONFERENCE ON SITE WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND GENERAL PERMIT PROGRAM REPRESENTATIVE AFTER INSTALLATION OF E/S CONTROLS AND TREE PROTECTION FENCING AND PRIOR TO ANY TRENCHING OPERATIONS.
6. PLACE TEMPORARY TRAFFIC CONTROL DEVICES.

PROJECT CONSTRUCTION:

1. BEGIN CONSTRUCTION. NOTIFY GENERAL PERMIT PROGRAM REPRESENTATIVE A MINIMUM OF 48 HOURS IN ADVANCE OF TRANSITION BETWEEN PHASES.
2. CONTACT GENERAL PERMIT OFFICE TO SCHEDULE FIELD INSPECTION PRIOR TO BEGINNING INSTALLATION OF PERMANENT E/S CONTROLS.
3. COMPLETE RESTORATION OF ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES FOR THIS PROJECT. (PERMANENT E/S CONTROLS)
4. REMOVE TEMPORARY TRAFFIC CONTROL DEVICES RELATED TO WORK AREAS OUTSIDE OF THE STREET.
5. HOLD ENVIRONMENTAL POST-CONSTRUCTION CONFERENCE ON SITE WITH THE CONTRACTOR, OWNER'S REPRESENTATIVE, AND GENERAL PERMIT PROGRAM REPRESENTATIVE. ALL PERMANENT E/S CONTROLS MUST BE ACCEPTED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE. PERMANENT CONTROLS SHALL CONSIST OF REVEGETATION PER DETAILS 602, 604S, AND 609S AS INDICATED ON APPROVED PLANS.
6. FOLLOWING FINAL ACCEPTANCE OF PERMANENT E/S CONTROLS BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE, REMOVE TEMPORARY E/S CONTROLS. CLEAN EXISTING STORM DRAINAGE SYSTEMS AS NECESSARY DUE TO CONSTRUCTION OPERATIONS.
7. DRESS-UP AND RESTORE ANY AREAS DISTURBED BY REMOVAL OF TEMPORARY E/S CONTROLS DESCRIBED ABOVE.

REQUIRED SUBMITTALS:

SUBMITTALS REQUIRED TO BE APPROVED BY GENERAL PERMIT PROGRAM REPRESENTATIVE INCLUDE: SUBMITTALS TRIGGERED BY CITY OF AUSTIN SERIES 600 SPECIFICATIONS AND RELATED SPECIAL PROVISIONS/SPECIFICATIONS, CONSTRUCTION SCHEDULE, TREE PROTECTION, P-6 AND OTHER ROOT ZONE PROTECTION/MITIGATION MEASURES, DEWATERING PLAN, WATERING SCHEDULE FOR REVEGETATION AREAS, AND ANY VEGETATIVE REPLACEMENT PROPOSALS, IF NOT ALREADY PART OF THE PERMITTED PLAN SET.

CITY OF AUSTIN - STANDARD NOTES TREE AND NATURAL AREA PROTECTION (MODIFIED FOR USE ON GENERAL PERMIT PROJECTS)

1. ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY MEASURES.
2. PROTECTIVE MEASURES SHALL BE INSTALLED ACCORDING TO CITY OF AUSTIN STANDARDS FOR TREE PROTECTION.
3. PROTECTIVE MEASURES 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 PROJECT.
4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP, COMPACTION OR CUTTING OF CRITICAL ROOT ZONE WITHIN TREE DRIP LINES.
5. TREE PROTECTION SHALL COMPLETELY SURROUND THE TREES OR GROUP OF TREES AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE). FOR NATURAL AREAS, PROTECTIVE MEASURES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:
   - A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
   - B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL) OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT;
   - C. WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT;
   - D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
6. EXCEPTIONS TO INSTALLING PROTECTIVE FENCES AT CRITICAL ROOT ZONES MAY BE PERMITTED IN THE FOLLOWING CASES:
   - A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 FEET BEYOND THE AREA DISTURBED;
   - B. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA
   - C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN 6 FEET TO THE BUILDING
   - D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE GENERAL PERMIT PROGRAM OFFICE AT 974-6330 TO DISCUSS ALTERNATIVES.

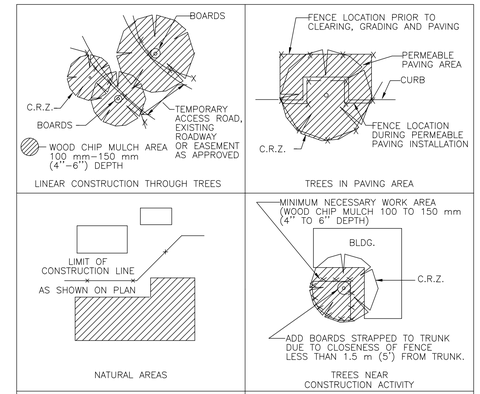
SPECIAL NOTE: FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED.

WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE 5 FEET OR CLOSER TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING.

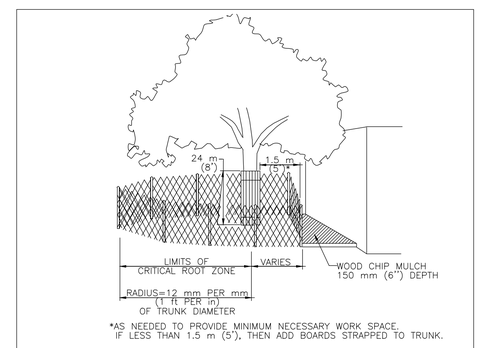
7. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES, THOSE AREAS SHOULD BE COVERED WITH 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION DURING CONSTRUCTION. FILTER FABRIC UNDERLAYMENT MAY BE REQUIRED AT DIRECTION OF GENERAL PERMIT PROGRAM REPRESENTATIVE BASED ON SITE CONDITIONS AND CONSTRUCTION ACTIVITIES. MAXIMUM FOUR (4) INCHES DEPTH MAY BE LEFT IN PLACE AFTER CONSTRUCTION WITH APPROVAL FROM THE GENERAL PERMIT PROGRAM REPRESENTATIVE.
8. ALL GRADING WITHIN PROTECTED ROOT ZONE AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCES TO 2 FEET BEHIND THE GRADE CHANGE AREA.
9. 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.
10. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE DAMAGE TO REMAINING ROOTS.
11. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHOULD BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS SHOULD BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
12. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
13. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
14. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. SEE NOTE THREE (3) OF SUPPLEMENTAL TREE PROTECTION NOTES FOR ADDITIONAL REQUIREMENTS.
15. ALL FINISHED PRUNING MUST 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 GENERAL PERMIT PROGRAM OFFICE).
16. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NONCOMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.
17. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.

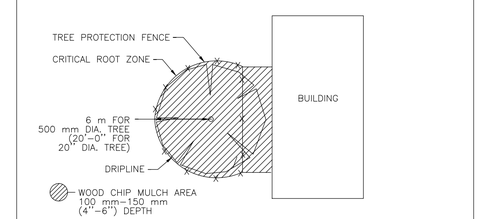
SUPPLEMENTAL TREE PROTECTION NOTES

1. ALL TREE PROTECTION MUST COMPLY WITH CITY OF AUSTIN REQUIREMENTS AS OUTLINED IN THE ENVIRONMENTAL CRITERIA MANUAL AND AS INDICATED BY STANDARD COA NOTES AND DETAILS INCLUDED WITHIN THIS DOCUMENT SET. CONTRACTOR SHALL INSTALL PROTECTION PRIOR TO PRE-CONSTRUCTION CONFERENCE, MAKE ADJUSTMENTS TO PROTECTION AS DIRECTED BY THE GPP REPRESENTATIVE, AND MAINTAIN PROTECTION UNTIL PROJECT IS COMPLETE.
2. TYPE AND LOCATION OF ALL TREE PROTECTION MUST BE APPROVED IN THE FIELD BY THE GENERAL PERMIT PROGRAM (GPP) REPRESENTATIVE PRIOR TO CONSTRUCTION.
3. WALK-THROUGH: CONTRACTOR SHALL CONDUCT WALK-THROUGH MEETING WITH GENERAL PERMIT PROGRAM REPRESENTATIVE PRIOR TO PERFORMING ANY PRUNING ACTIVITIES ON TREES IN PROJECT AREA. PURPOSE OF WALK-THROUGH WILL BE TWOFOLD. ONE PURPOSE WILL BE TO DETERMINE THE MINIMUM AMOUNT OF PRUNING NECESSARY TO ALLOW CONSTRUCTION WORK TO BE COMPLETED. SECOND PURPOSE WILL BE TO DETERMINE AREAS OF PROJECT IN WHICH EXHAUST DIVERTERS WILL BE REQUIRED ON CONSTRUCTION EQUIPMENT TO PREVENT SCORCHING OF EXISTING TREES.
4. ALL PRUNING MUST BE PERFORMED IN ACCORDANCE WITH ANSI A300 (PART 1) - 2001 AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS (PRUNING), OR LATEST APPROVED VERSION. THIS DOCUMENT MAY BE OBTAINED ONLINE FOR A FEE AT WWW.ANSI.ORG.
5. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS. TO PREVENT BARK TEARS, THE WEIGHT OF THE BRANCH SHALL BE REMOVED BEFORE MAKING FINAL PRUNING CUT.
6. ALL PRUNING SHALL PRESERVE THE NATURAL CHARACTER OF THE TREE.
7. ONLY COLLAR CUTS ARE ACCEPTABLE. NO FLUSH CUTS OR STUB CUTS WILL BE ALLOWED.
8. ALL BRANCHES THAT ARE BROKEN OR DAMAGED DURING CONSTRUCTION SHALL BE REMOVED.
9. PRUNING CUTS OR DAMAGED AREAS ON AN OAK TREE SHALL BE PAINTED WITHIN FIVE MINUTES WITH A STANDARD TREE WOUND DRESSING. TREE WOUND DRESSING SHALL BE EITHER TREEKOTE AEROSOL OR TANGLEFOOT PRUNING SEALER (OR APPROVED EQUAL). THIS ALSO APPLIES TO WOUNDS CREATED BY CONSTRUCTION VEHICLES OR EQUIPMENT. ALL PRUNING MUST BE IN ACCORDANCE WITH COA OAK WILT PREVENTION POLICY.
10. ANY TREE ROOTS THAT ARE EXPOSED, CUT, OR TORN DURING CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SURROUNDING SOIL. (REFER ALSO TO NUMBER 9 OF THE TREE AND NATURAL AREA PROTECTION NOTES INCLUDED IN THIS PLAN SET.)
11. ALL TRENCHING WITHIN THE CRITICAL ROOT ZONE OF A TREE TO BE PRESERVED WILL BE SAW CUT OR EXCAVATED BY HAND, AS APPROVED BY THE GENERAL PERMIT PROGRAM ARBORIST.
12. REFER TO ENVIRONMENTAL CRITERIA MANUAL APPENDIX P-6 FOR FURTHER REMEDIAL TREE CARE REQUIREMENTS. P-6 REMEDIAL TREE CARE WILL BE COORDINATED WITH AND APPROVED BY THE GENERAL PERMIT PROGRAM ARBORIST FOR PROJECTS PERMITTED THROUGH THE GENERAL PERMIT PROGRAM.



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE LOCATIONS	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-1





CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE MODIFIED TYPE A - CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-4

13. ALL WORK INSIDE CRITICAL ROOT ZONE (CRZ) OF TREE SHOULD HAVE 12-INCHES OF MULCH ON GROUND TO REDUCE ANY POTENTIAL COMPACTION OF SOIL (NEGATIVE EFFECTS ON ROOTS), BY LARGE EQUIPMENT.
14. ANY CONSTRUCTION WORK INSIDE (OUTER 50%) TREE CRZ SHOULD BE HAND TRENCHED ONLY (NO EQUIPMENT USED).
15. NO STAGING OF MATERIAL / EQUIPMENT ALLOWED ANYWHERE INSIDE TREE CRZ.
16. ANY WORK DONE INSIDE TREE CRZ SHOULD CALL ENVIRONMENTAL INSPECTOR 48 HOURS PRIOR.

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

RPS
Texas PE Firm Reg. #F-929
4801 Southwest Pkwy, Pkwy 2, Suite 150, Austin, Texas 78735
T +1 512 328 5771 E usInfrastructure@rpsgroup.com

CITY OF AUSTIN EST. 1839

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS

TREE PROTECTION AND ENVIROMENTAL NOTES

NO.	BY	DATE	REMARKS
REVISIONS			

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 14 OF 81

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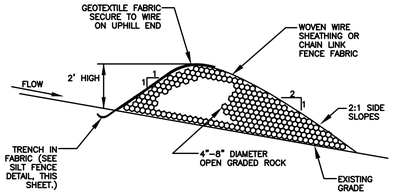
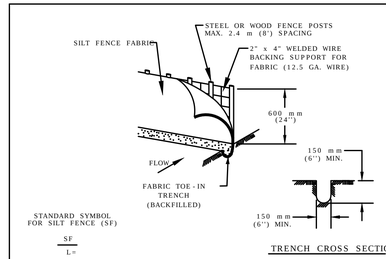


NOTES:

1. USE ONLY OPEN GRADED ROCK, 4-8 INCH DIAMETER, FOR STREAM FLOW CONDITION. USE OPEN GRADED ROCK, 3-5 INCH DIAMETER, FOR OTHER CONDITIONS.
2. ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 1 INCH OPENING AND MINIMUM WIRE DIAMETER OF 20 GAUGE.
3. ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN WIRE SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED SITE AND IN A MANNER AS TO NOT CREATE A SILTATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 6 INCHES.
6. WHEN SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

FABRIC COVERED (SEVERE SERVICE) ROCK BERM



TRENCH CROSS SECTION

1. 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.

2. 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.

3. 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.

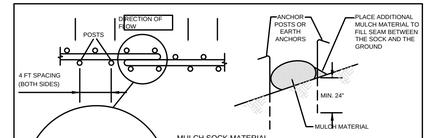
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. 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	
RECORD COPY SIGNED BY MORGAN BYARS	09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



MULCH SOCK MATERIAL

USE UNTREATED WOOD CHIPS PRODUCED FROM A 3 (THREE) INCH MINUS SCREENING PROCESS (EQUIVALENT TO TXDOT ITEM 161, COMPOST, SECTION 1.6.2.B, WOOD CHIP REQUIREMENTS).

MULCH CONSISTS PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, OR COMPOSTED BARK.

LARGE PORTIONS OF SILT, CLAYS, OR FINE SANDS ARE NOT ACCEPTABLE IN THE MULCH.

NOTES:

1. STEEL OR WOOD POSTS WHICH SUPPORT THE MULCH SOCK SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 600mm (24 inches). IF WOOD POSTS CANNOT ACHIEVE 600mm (24 inches) DEPTH, USE STEEL POSTS. EARTH ANCHORS ARE ALSO ACCEPTABLE.

2. THE TOE OF THE MULCH SOCK SHALL BE PLACED SO THAT THE MULCH SOCK IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. IN ORDER TO PREVENT WATER FROM FLOWING BETWEEN THE JOINTS OF ADJACENT ENDS OFMULCH SOCKS, LAP THE ENDS OF ADJACENT MULCH SOCKS A MINIMUM OF 300mm (12 inches).

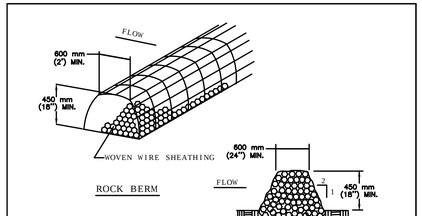
3. MULCH MATERIAL MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH; IT IS NOT ACCEPTABLE FOR THE MULCH MATERIAL TO CONTAIN GROUND CONSTRUCTION DEBRIS, BIOSOLIDS, OR MANURE.

4. SOCK MATERIAL WILL BE 100% BIODEGRADABLE, PHOTODEGRADABLE, OR RECYCLABLE SUCH AS BURLAP, TWINE, UV PHOTOBIODEGRADABLE PLASTIC, POLYESTER, OR ANY OTHER ACCEPTABLE MATERIAL.

5. MULCH SOCKS SHOULD BE USED AT THE BASE OF SLOPES NO STEEPER THAN 2:1 AND SHOULD NOT EXCEED THE MAXIMUM SPACING CRITERIA PROVIDED IN CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL TABLE 1.4.5.F.1 FOR A GIVEN SLOPE CATEGORY.

6. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (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		MULCH SOCK	
RECORD COPY SIGNED BY MORGAN BYARS	08/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 648S-1



NOTES:

1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTION PROBLEM.
5. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		ROCK BERM	
RECORD COPY SIGNED BY MORGAN BYARS	8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1

CITY OF AUSTIN – STANDARD NOTES EROSION AND SEDIMENTATION CONTROL (MODIFIED FOR USE ON GENERAL PERMIT PROJECTS)

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR EXCAVATION).

2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.

3. 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.

4. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER, PERMIT APPLICANT, AND GENERAL PERMIT PROGRAM REPRESENTATIVE AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND THE TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE CONTRACTOR SHALL NOTIFY THE GENERAL PERMIT PROGRAM OFFICE AT 512/974-6330, AT LEAST 3 DAYS PRIOR TO THE MEETING DATE.

5. ANY SIGNIFICANT VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS MUST BE APPROVED BY THE REVIEWING ENGINEER AND THE GENERAL PERMIT PROGRAM REPRESENTATIVE.

6. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT DAILY 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. SILT ACCUMULATION AT INLET DEVICES SHOULD BE REMOVED WHEN THE DEPTH REACHES TWO (2) INCHES.

7. 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.

8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS ONE SQUARE FOOT OR LARGER 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 THE GENERAL PERMIT PROGRAM REPRESENTATIVE FOR FURTHER INVESTIGATION.

9. FIELD REVISIONS TO THE EROSION/SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES. ANY REVISIONS TO THE PERMITTED PLAN MUST BE APPROVED BY THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.

10. PERMANENT EROSION/SEDIMENTATION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WHERE THE CRITERIA MANUAL AND CONTRACT DOCUMENTS DIFFER THE MOST ENVIRONMENTALLY BENEFICIAL MATERIALS/METHOD SHALL BE REQUIRED UNLESS OTHERWISE APPROVED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE.

11. DEVELOPER INFORMATION:

OWNER:
COMPANY: CITY OF AUSTIN
CONTACT: FREDRICK REZA
ADDRESS: CITY OF AUSTIN
505 BARTON SPRINGS RD.
9TH FLOOR
ONE TEXAS CENTER
AUSTIN, TX.
PHONE: (512)-974-7204
E-MAIL: fredrick.reza@austintexas.gov

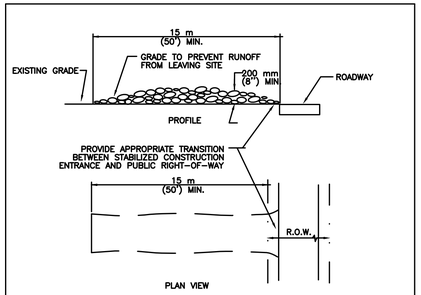
OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
COMPANY: CITY OF AUSTIN
CONTACT: FREDRICK REZA
ADDRESS: CITY OF AUSTIN
505 BARTON SPRINGS RD.
9TH FLOOR
ONE TEXAS CENTER
AUSTIN, TX.
PHONE: (512)-974-7204
E-MAIL: fredrick.reza@austintexas.gov

PARTY RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:
COMPANY: CONTRACTOR

PARTY RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:
COMPANY: CONTRACTOR

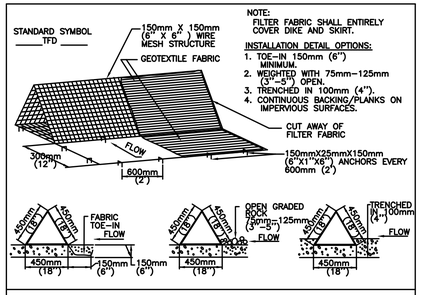
12. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE GENERAL PERMIT PROGRAM REPRESENTATIVE, AT 974-6330, AT LEAST 48 HOURS PRIOR TO THE SPOILS REMOVAL. THIS NOTIFICATION SHALL INCLUDE THE DISPOSAL LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL.

13. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY PRIOR TO STREET WORK, AND WILL BE REMOVED AS SOON AS THE GENERAL PERMIT PROGRAM REPRESENTATIVE AGREES THAT THERE IS NO POTENTIAL FOR SEDIMENTATION.



NOTES:
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. 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.
6. 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.
7. 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	
RECORD COPY SIGNED BY J. PATRICK MURPHY	5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

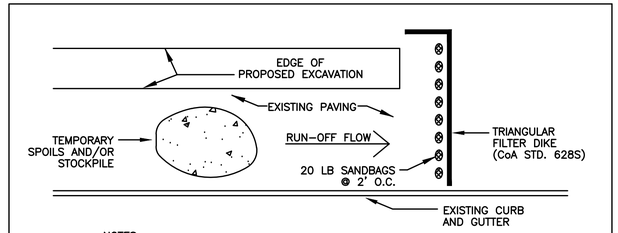


NOTE:
FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

INSTALLATION DETAIL OPTIONS:
1. TOE-IN 150mm (6") MINIMUM.
2. WEIGHTED WITH 75mm-125mm (3"-5") OPEN.
3. TRENCHED IN 100mm (4").
4. CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.

GENERAL NOTES
1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125mm (3-5") OPEN GRADED ROCK OR TOED-IN 150mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100mm (4").
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150mm (6") WIRE STAPLES ON ,600mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (3/8 ") DIAMETER RE-BAR WITH TEE ENDS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE MW40-150mmX150mm (6 GA. 6"X6") WIRE MESH, 450mm (18") ON A SIDE.
7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
9. AFTER THE DEVELOPMENT SITE IS COMPLETLY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TRIANGULAR SEDIMENT FILTER DIKE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S



NOTES:

1. THE TEMPORARY SPOILS/STOCKPILE STORAGE AREA AND STAGING AREA MAY BE LOCATED DIRECTLY ADJACENT TO THE EXCAVATION AND ON THE PAVEMENT.

2. ANY SPOIL NOT INTENDED TO BE REUSED WILL BE HAULED TO AN APPROVED OR PERMITTED DISPOSAL SITE DAILY.

3. INSTALL TRIANGULAR SEDIMENT FILTER DIKE (DETAIL 682S) ACROSS FULL WIDTH OF TRAFFIC CLOSURE AND DOWNSTREAM OF CONSTRUCTION AREA, PERPENDICULAR TO CURB AND PLACED TO EFFECTIVELY CATCH AND CONTAIN SEDIMENT LADEN RUNOFF FROM THE EXCAVATED AREA. FILTER DIKE TO FOLLOW ACTIVE CONSTRUCTION. REMOVING AND RE-SETTING FILTER DIKE IS CONSIDERED SUBSIDIARY TO BARRICADES AND TRAFFIC HANDLING.

ADDITIONAL EROSION/SEDIMENTATION CONTROL FOR WORK IN PAVED AREAS FOR GENERAL PERMIT PROGRAM PROJECTS

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LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
EROSION AND SEDIMENTATION CONTROL DETAILS

NO.	BY	DATE	REVISIONS	REMARKS

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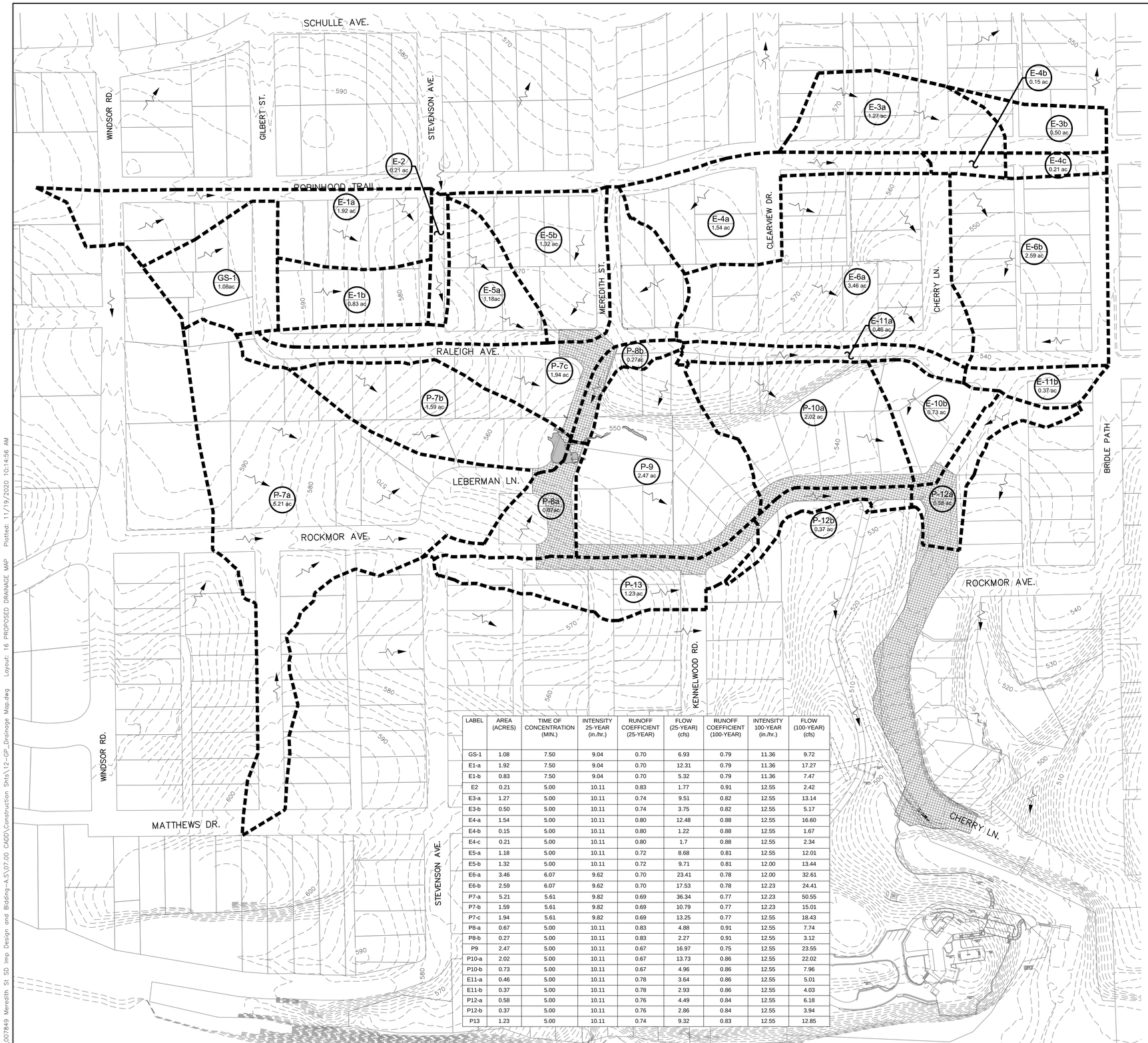
G:\007849 Meredith St SD Imp Design and Bidding-A-S\07.00 CADD\Construction Shts\07-GP_Erosion and Sedimentation Control Details.dwg Layout: 15 EROSION AND SEDIMENTATION CONTROL DETAILS Plotted: 11/19/2020 10:14:44 AM



LABEL	AREA (ACRES)	TIME OF CONCENTRATION (MIN.)	INTENSITY 25-YEAR (in./hr.)	RUNOFF COEFFICIENT (25-YEAR)	FLOW (25-YEAR) (cfs)	RUNOFF COEFFICIENT (100-YEAR)	INTENSITY 100-YEAR (in./hr.)	FLOW (100-YEAR) (cfs)
GS-1	1.08	7.50	9.04	0.70	6.93	0.79	11.36	9.72
E1-a	1.92	7.50	9.04	0.70	12.31	0.79	11.36	17.27
E1-b	0.83	7.50	9.04	0.70	5.32	0.79	11.36	7.47
E2	0.21	5.00	10.11	0.83	1.77	0.91	12.55	2.42
E3-a	1.27	5.00	10.11	0.74	9.51	0.82	12.55	13.14
E3-b	0.50	5.00	10.11	0.74	3.75	0.82	12.55	5.17
E4-a	1.54	5.00	10.11	0.80	12.48	0.88	12.55	16.60
E4-b	0.15	5.00	10.11	0.80	1.22	0.88	12.55	1.67
E4-c	0.21	5.00	10.11	0.80	1.7	0.88	12.55	2.34
E5-a	1.18	5.00	10.11	0.72	8.68	0.81	12.55	12.01
E5-b	1.32	5.00	10.11	0.72	9.71	0.81	12.00	13.44
E6-a	3.46	6.07	9.62	0.70	23.41	0.78	12.00	32.61
E6-b	2.59	6.07	9.62	0.70	17.53	0.78	12.23	24.41
P7-a	5.21	5.61	9.82	0.69	36.34	0.77	12.23	50.55
P7-b	1.59	5.61	9.82	0.69	10.79	0.77	12.23	15.01
P7-c	1.94	5.61	9.82	0.69	13.25	0.77	12.55	18.43
P8-a	0.67	5.00	10.11	0.83	4.88	0.91	12.55	7.74
P8-b	0.27	5.00	10.11	0.83	2.27	0.91	12.55	3.12
P9	2.47	5.00	10.11	0.67	16.97	0.75	12.55	23.55
P10-a	2.02	5.00	10.11	0.67	13.73	0.86	12.55	22.02
P10-b	0.73	5.00	10.11	0.67	4.96	0.86	12.55	7.96
E11-a	0.46	5.00	10.11	0.78	3.64	0.86	12.55	5.01
E11-b	0.37	5.00	10.11	0.78	2.93	0.86	12.55	4.03
P12-a	0.58	5.00	10.11	0.76	4.49	0.84	12.55	6.18
P12-b	0.37	5.00	10.11	0.76	2.86	0.84	12.55	3.94
P13	1.23	5.00	10.11	0.74	9.32	0.83	12.55	12.85

N

0 100' 200'
SCALE IN FEET

LEGEND

- 210 — EXISTING CONTOURS
- DRAINAGE AREA
- PROJECT LIMITS
- CAVE (APPROX. LOCATION)

CITY OF AUSTIN

GENERAL PERMIT OFFICE
LKA – MEREDITH ST STORM DRAIN IMPROVEMENTS

PROPOSED DRAINAGE MAP

REVISIONS

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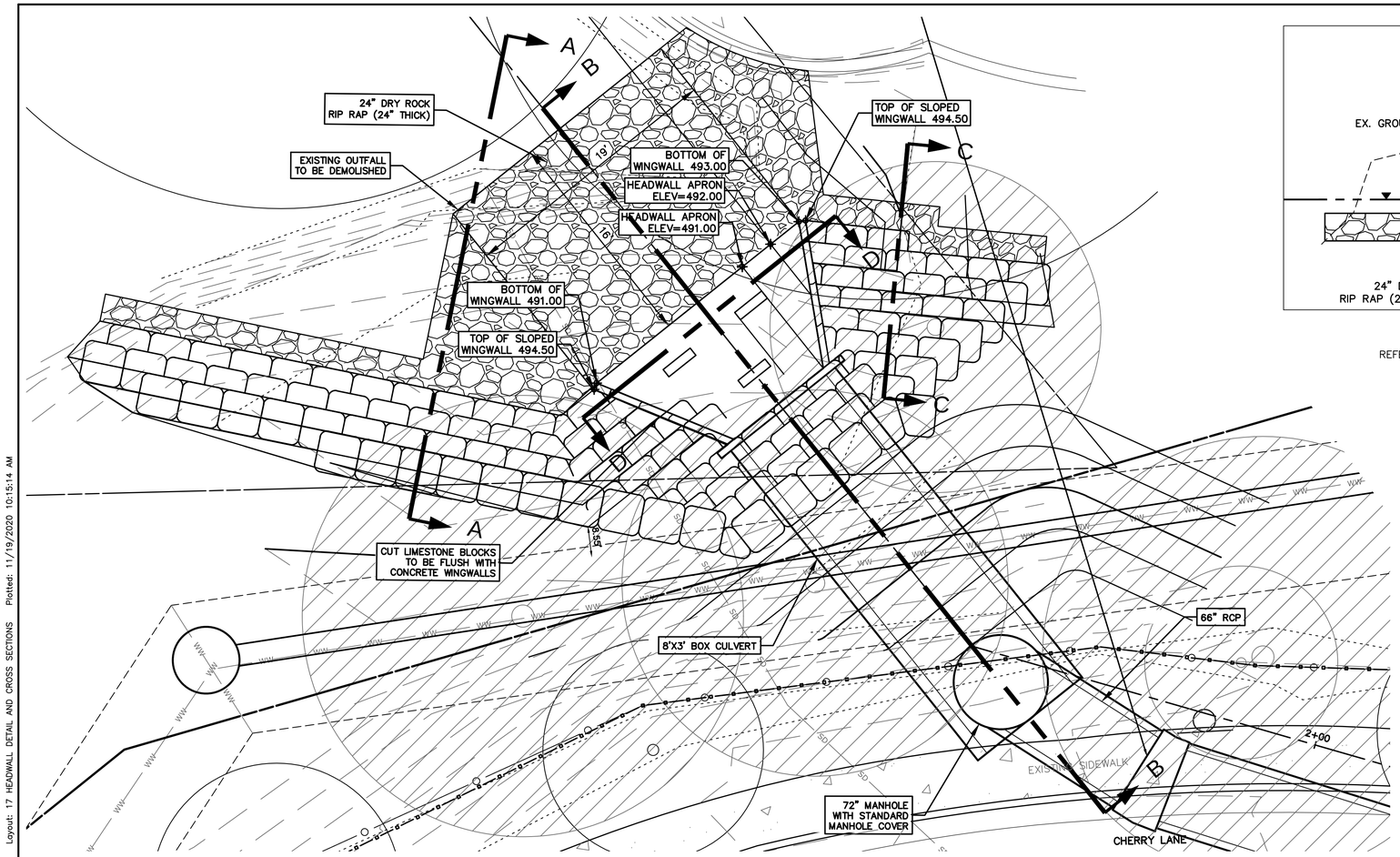
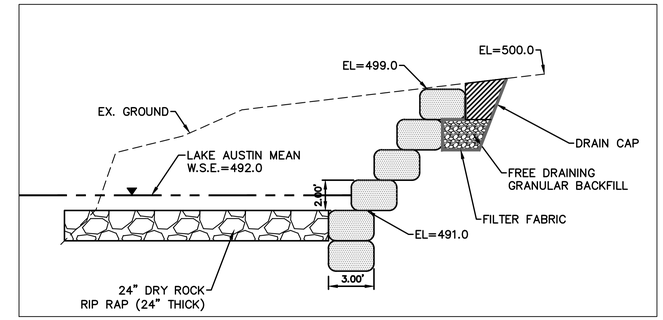
G:\007849 Meredith St SD Imp Design and Bidding-A.S.\07.00 CADD\Construction Shts\12-GP_Drainage Map.dwg Layout: 16 PROPOSED DRAINAGE MAP Plotted: 11/19/2020 10:14:56 AM





OUTFALL SECTION 'A'

REFER TO LIMESTONE BLOCK GRADE CONTROL DETAIL SHEET 45
SCALE: 1" = 5'

N

0 5 10
HORIZ: 1"=5'

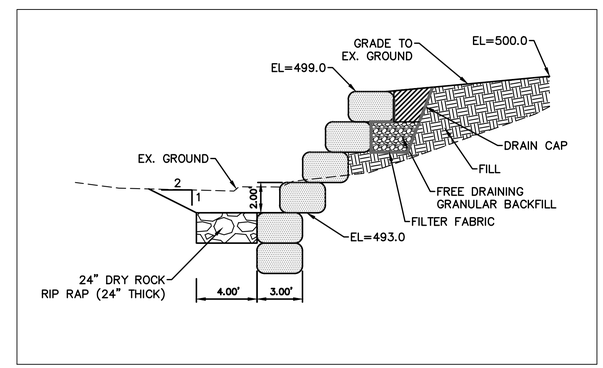
NOTES:

1. CONTRACTOR TO MATCH EXISTING GRADE AS RIP RAP EXTEND BEYOND CUT AREA
2. SEE SIGNED AND SEALED HVJ GEOTECHNICAL DESIGN REPORT FOR LIMESTONE BLOCK GRADE CONTROL REQUIREMENTS REGARDING TEMPORARY SLOPE DURING CUT, REQUIREMENTS FOR BACKFILL, REQUIREMENTS FOR COMPACTION, AND WALL SUBGRADE PREPARATION. THE FOLLOWING DESIGN VALUES WERE DETERMINED FOR THE PROPOSED LIMESTONE BLOCK RETAINING WALL ACCORDING TO THE HVJ DESIGN REPORT REFERENCED ABOVE.

	MIN DESIGN VALUES	ACTUAL
SLIDING:	1.5	2.3
OVERTURNING:	2.0	3.1
BEARING CAPACITY:	2.0	3.1

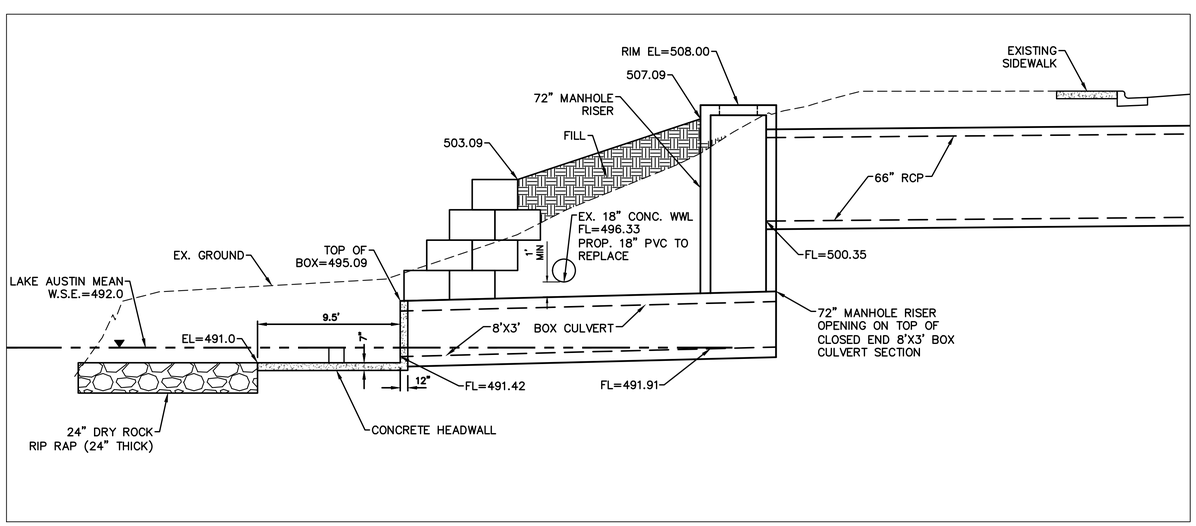
LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM DRAIN LINE
- RIGHT OF WAY
- H.D.A. (HORIZONTAL DEFLECTION ANGLE)
- W.S.E. (WATER SURFACE ELEVATION)



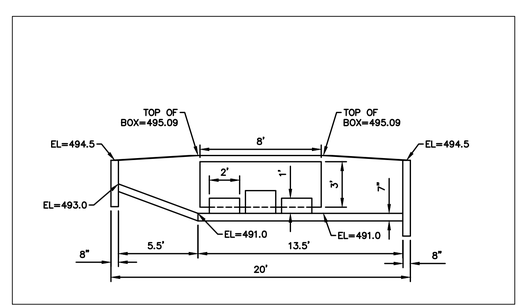
OUTFALL SECTION 'C'

REFER TO LIMESTONE BLOCK GRADE CONTROL DETAIL SHEET 45
SCALE: 1" = 5'



OUTFALL SECTION 'B'

SCALE: 1" = 5'



OUTFALL SECTION 'D'

SCALE: 1" = 5'

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CITY OF AUSTIN

11/19/2020

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LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
HEADWALL DETAIL AND CROSS SECTIONS

NO.	BY	DATE	REMARKS

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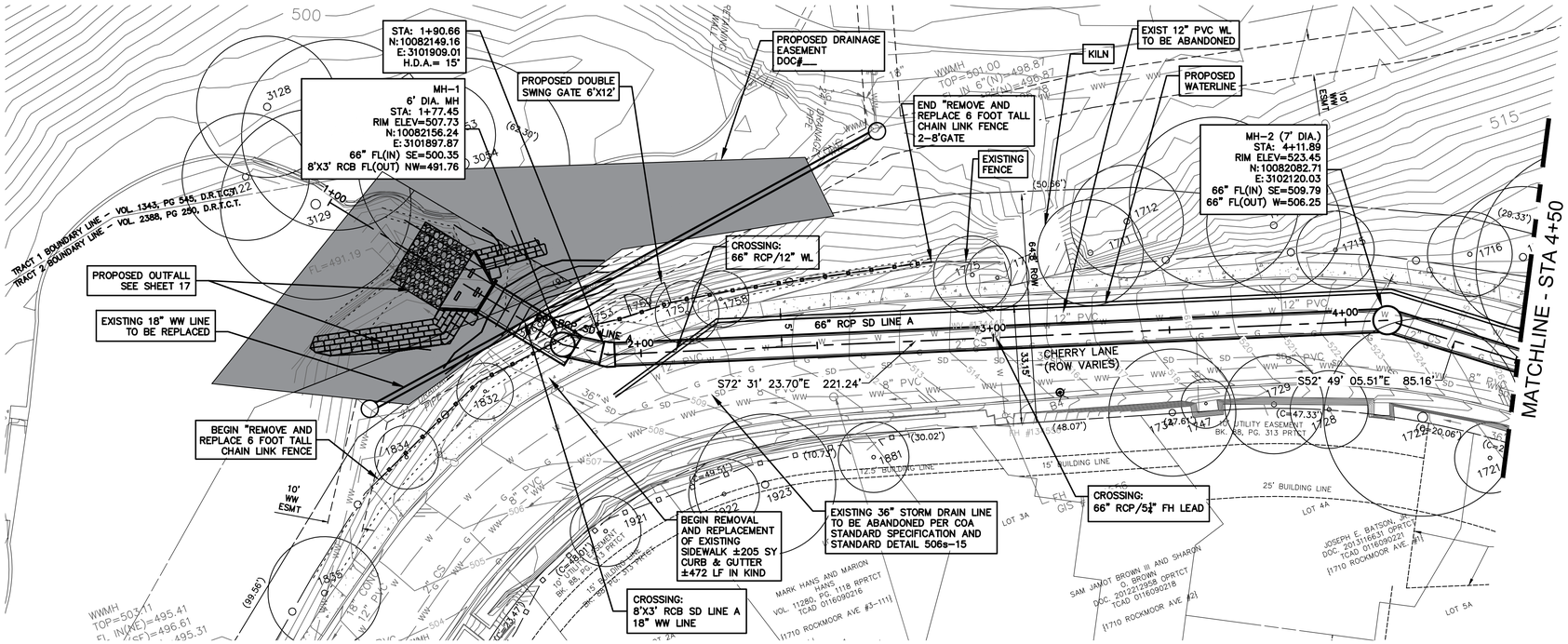
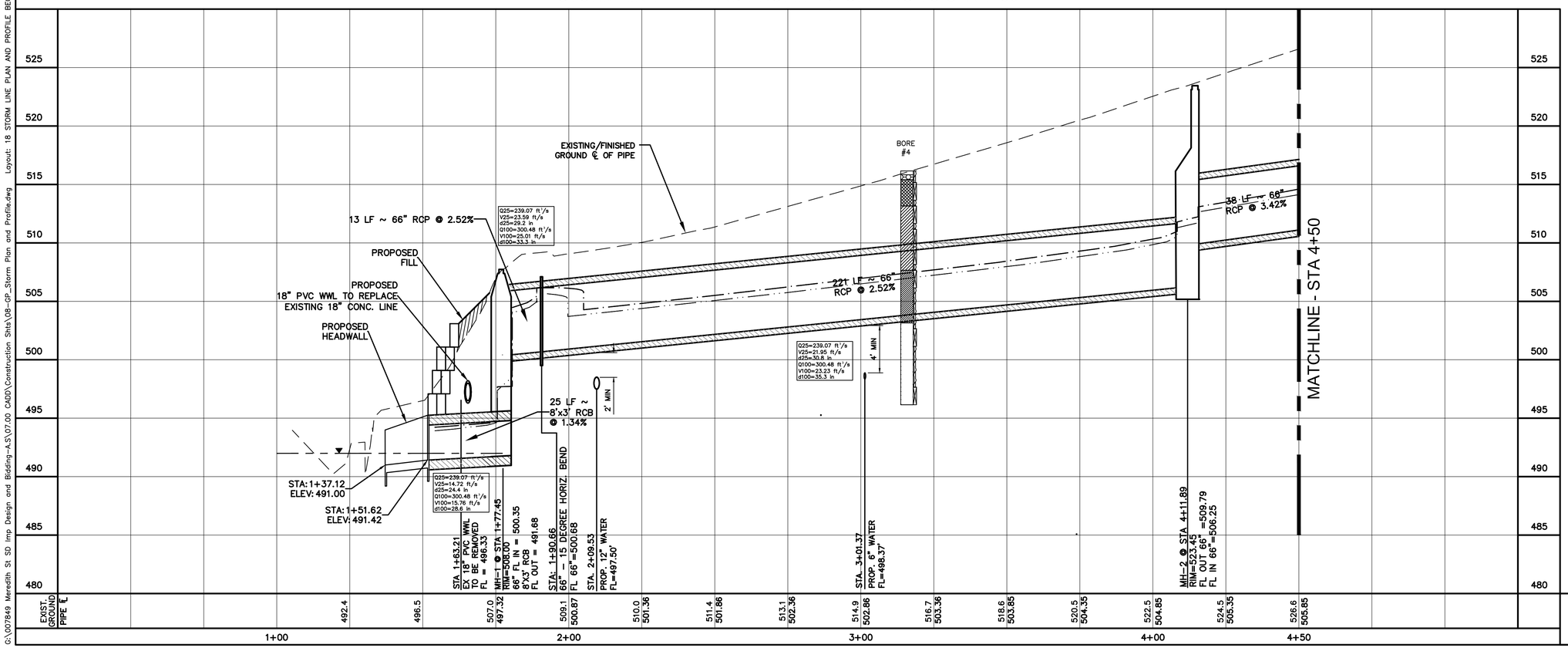
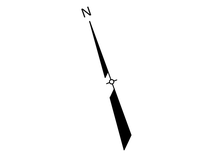
G:\007849 Meredith St SD Imp Design and Bidding-A,S\07.00 CADD\Construction Shts\08-GP_Storm Headwall and X-Sections.dwg Layout: 17 HEADWALL DETAIL AND CROSS SECTIONS Plotted: 11/19/2020 10:15:14 AM



STORM LINE PLAN AND PROFILE BEGINNING TO STA 4+50





LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM DRAIN LINE
- RIGHT OF WAY
- H.D.A. (HORIZONTAL DEFLECTION ANGLE)
- 25-YR WSE
- 100-YR WSE

NOTE

1. CONTRACTOR TO PLACE A CLSM ENVELOPE AROUND THE PROPOSED STORM MANHOLES FOR 2 FEET UPSTREAM AND DOWNSTREAM AND THE FULL WIDTH OF THE TRENCH.
2. CONTRACTOR TO MATCH GRADE OF EXISTING PAVEMENT AT ROAD SURFACE.
3. PRECAST BENDS FOR STORM SEWER ARE SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
4. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

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STORM LINE PLAN AND PROFILE BEGINNING TO STA 4+50

NO.	BY	DATE	REVISIONS	REMARKS

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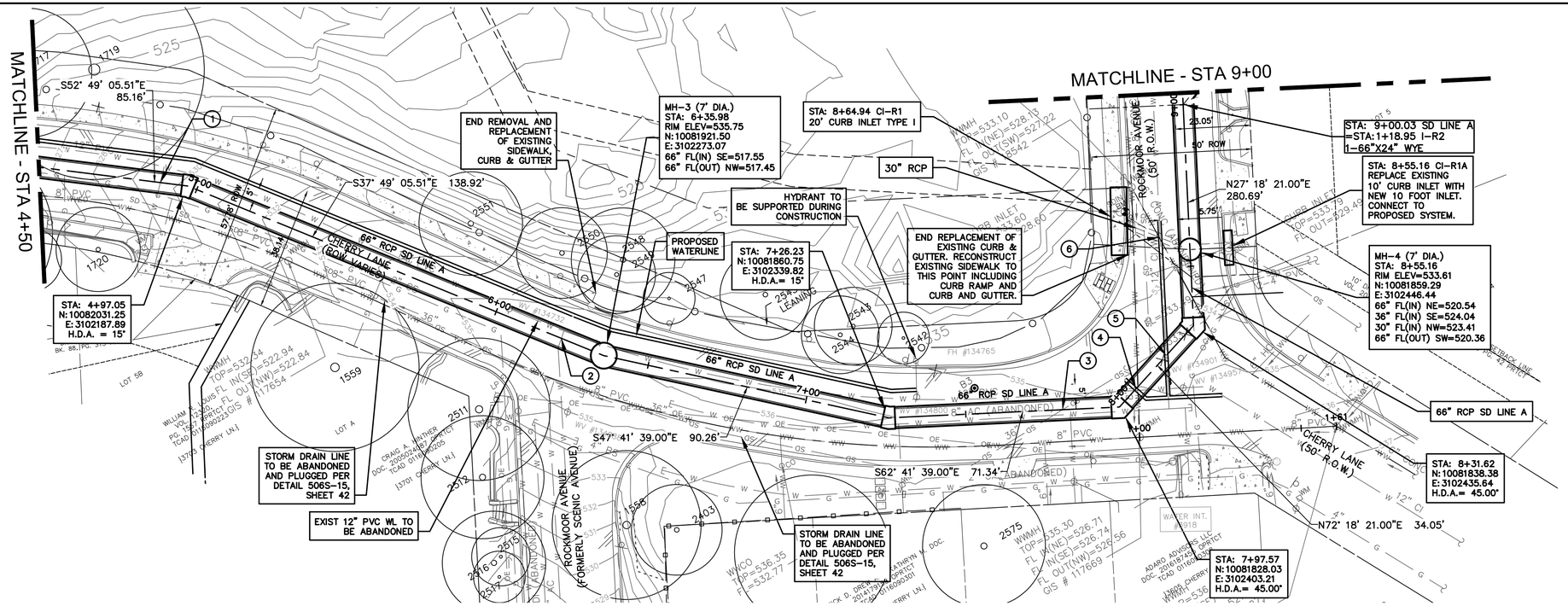
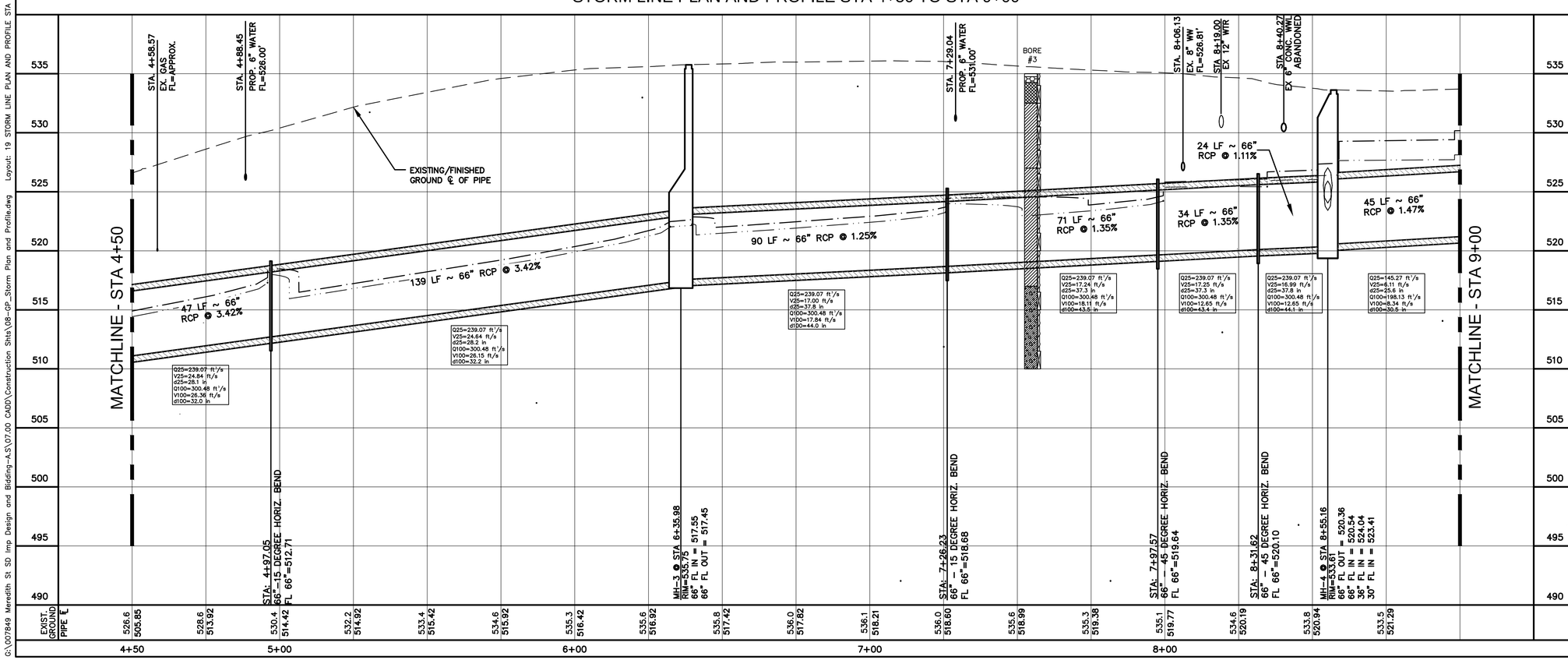
G:\007849 Meredith St SD Imp Design and Bidding-A-S\07.00 CADD\Construction Shts\08-GP_Storm Plan and Profile.dwg Layout: 18 STORM LINE PLAN AND PROFILE BEGINNING TO STA 4+50 Plotted: 11/19/2020 10:15:39 AM



STORM LINE PLAN AND PROFILE STA 4+50 TO STA 9+00



LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM DRAIN LINE
- RIGHT OF WAY
- H.D.A. (HORIZONTAL DEFLECTION ANGLE)
- 25-YR WSE
- 100-YR WSE

NOTE

1. CONTRACTOR TO PLACE A CLSM ENVELOPE AROUND THE PROPOSED STORM MANHOLES FOR 2 FEET UPSTREAM AND DOWNSTREAM AND THE FULL WIDTH OF THE TRENCH.
2. CONTRACTOR TO MATCH GRADE OF EXISTING PAVEMENT AT ROAD SURFACE.
3. PRECAST BENDS FOR STORM SEWER ARE SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
4. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

KEY NOTES

1. CROSSING: 66" RCP/ WATER SERVICE
2. CROSSING: 66" RCP/ 8" WL
3. CROSSING: 66" RCP/ 36" RCP
4. CROSSING: 66" RCP/ 12" WL/ 8" WWL
5. CROSSING: 66" RCP/ 8" WL
6. CROSSING: 30" RCP/12" WL/ ABANDONED 8" WWL

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REVISIONS			
NO.	BY	DATE	REMARKS

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STORM LINE PLAN AND PROFILE STA 4+50 TO STA 9+00

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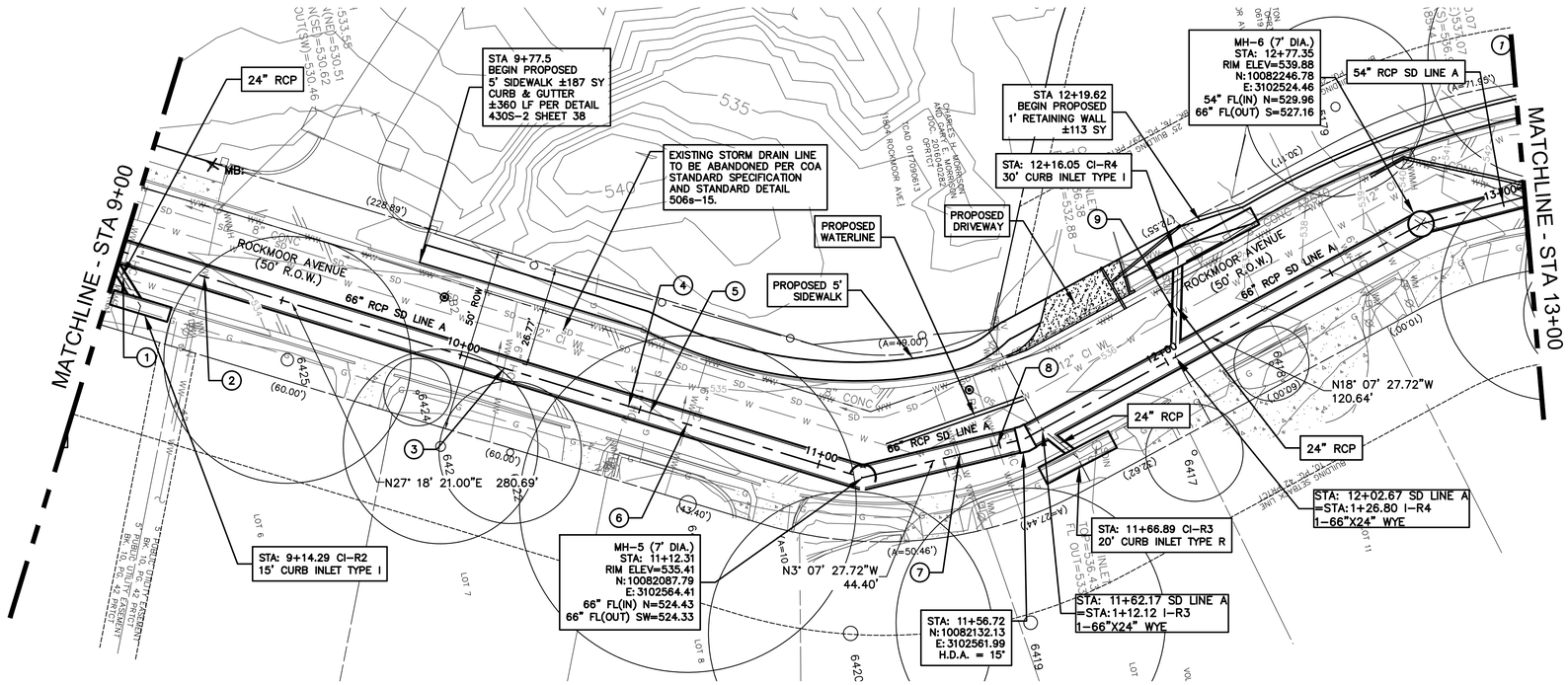


HORIZ: 1"=20'
VERT: 1"=5'

LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE — G —
- EXISTING WATER LINE — W —
- EXISTING WASTEWATER LINE — WW —
- EXISTING STORM DRAIN LINE — SD —
- RIGHT OF WAY
- H.D.A. (HORIZONTAL DEFLECTION ANGLE)
- 25-YR WSE
- 100-YR WSE

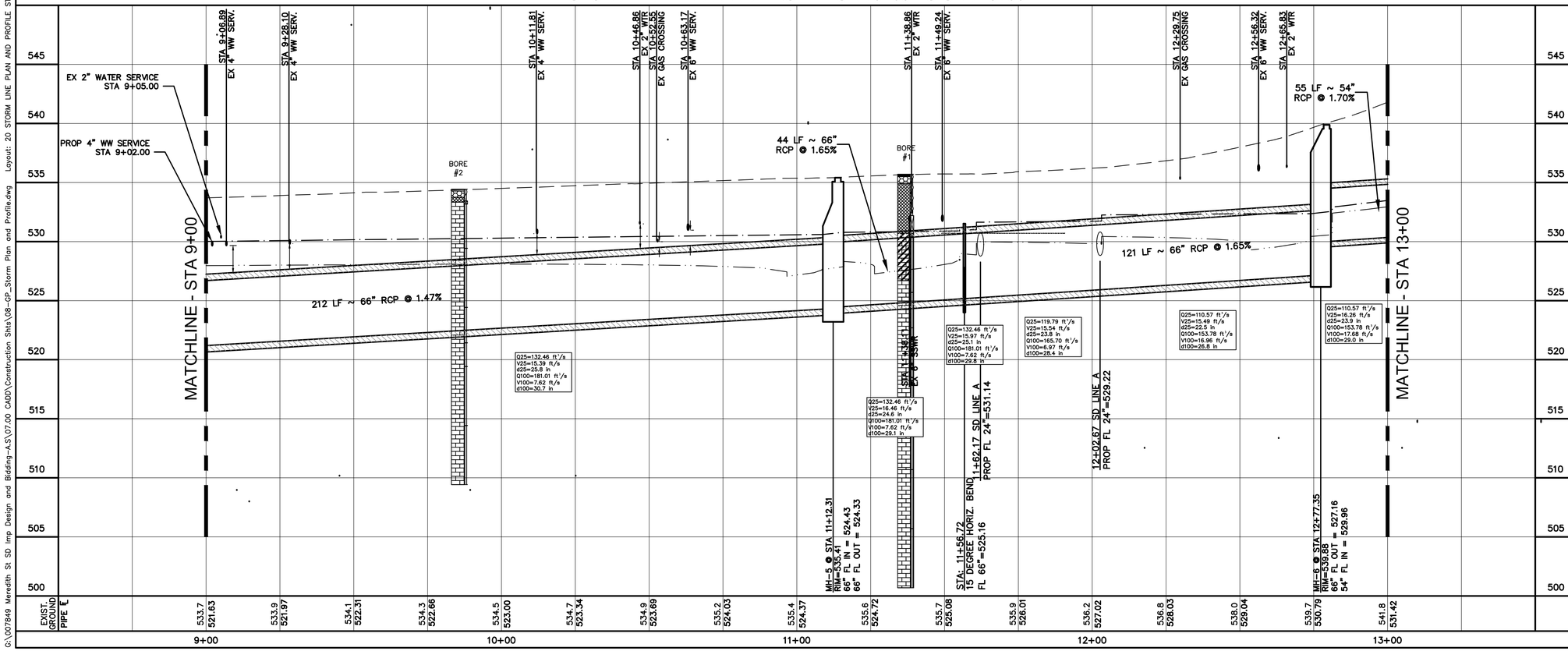
NOTE

1. CONTRACTOR TO PLACE A CLSM ENVELOPE AROUND THE PROPOSED STORM MANHOLES FOR 2 FEET UPSTREAM AND DOWNSTREAM AND THE FULL WIDTH OF THE TRENCH.
2. CONTRACTOR TO MATCH GRADE OF EXISTING PAVEMENT AT ROAD SURFACE.
3. PRECAST BENDS FOR STORM SEWER ARE SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
4. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

KEY NOTES

1. CROSSING: 24" RCP/ 4" WW SERVICE/ 2" WATER SERVICE
2. CROSSING: 66" RCP/ 4" WW SERVICE
3. CROSSING: 66" RCP/ 4" WW SERVICE
4. CROSSING: 66" RCP/ 2" WATER SERVICE
5. CROSSING: 66" RCP/ 6" GAS
6. CROSSING: 66" RCP/ 6" WW SERVICE
7. CROSSING: 66" RCP/ WW SERVICE
8. CROSSING: 66" RCP/ WW SERVICE
9. CROSSING: 24" RCP/ 12" WL

STORM LINE PLAN AND PROFILE STA 9+00 TO STA 13+00



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CITY OF AUSTIN

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
STORM LINE PLAN AND PROFILE STA 9+00 TO STA 13+00

NO.	BY	DATE	REVISIONS	REMARKS

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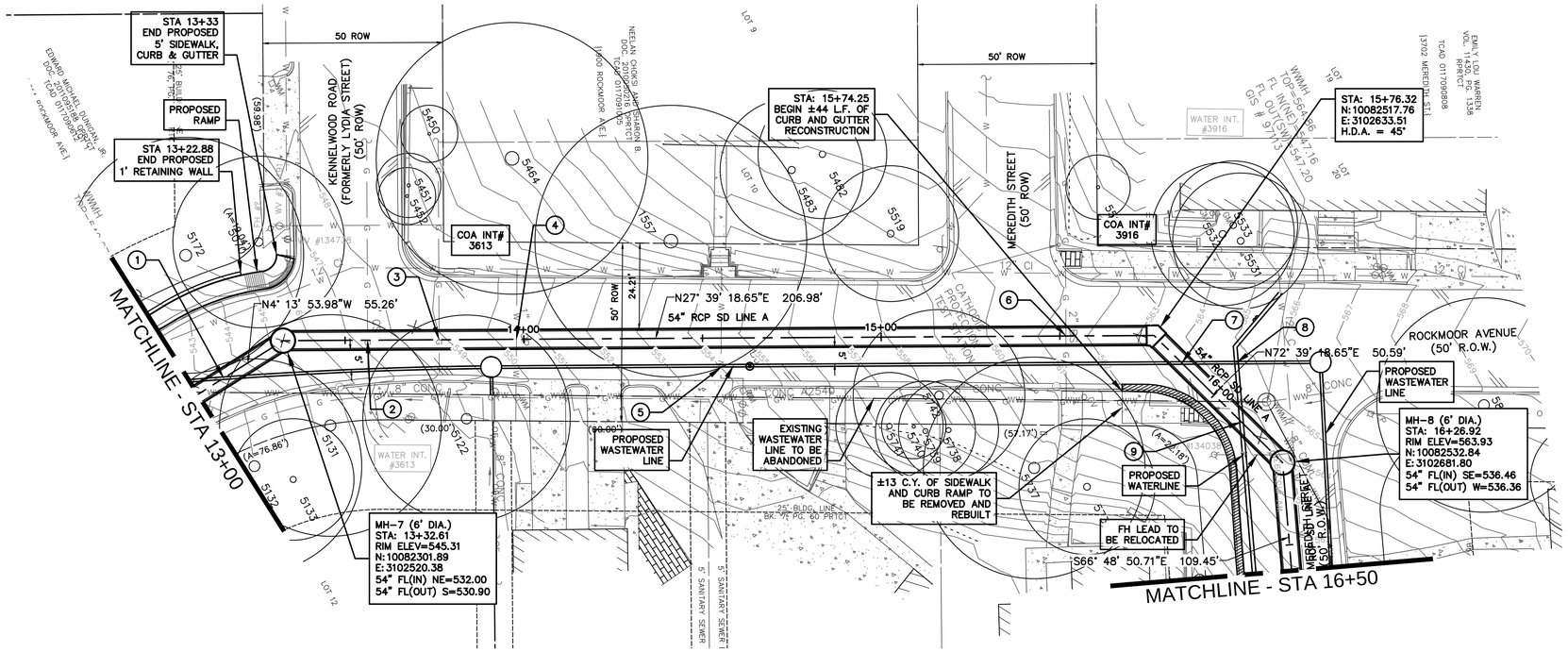
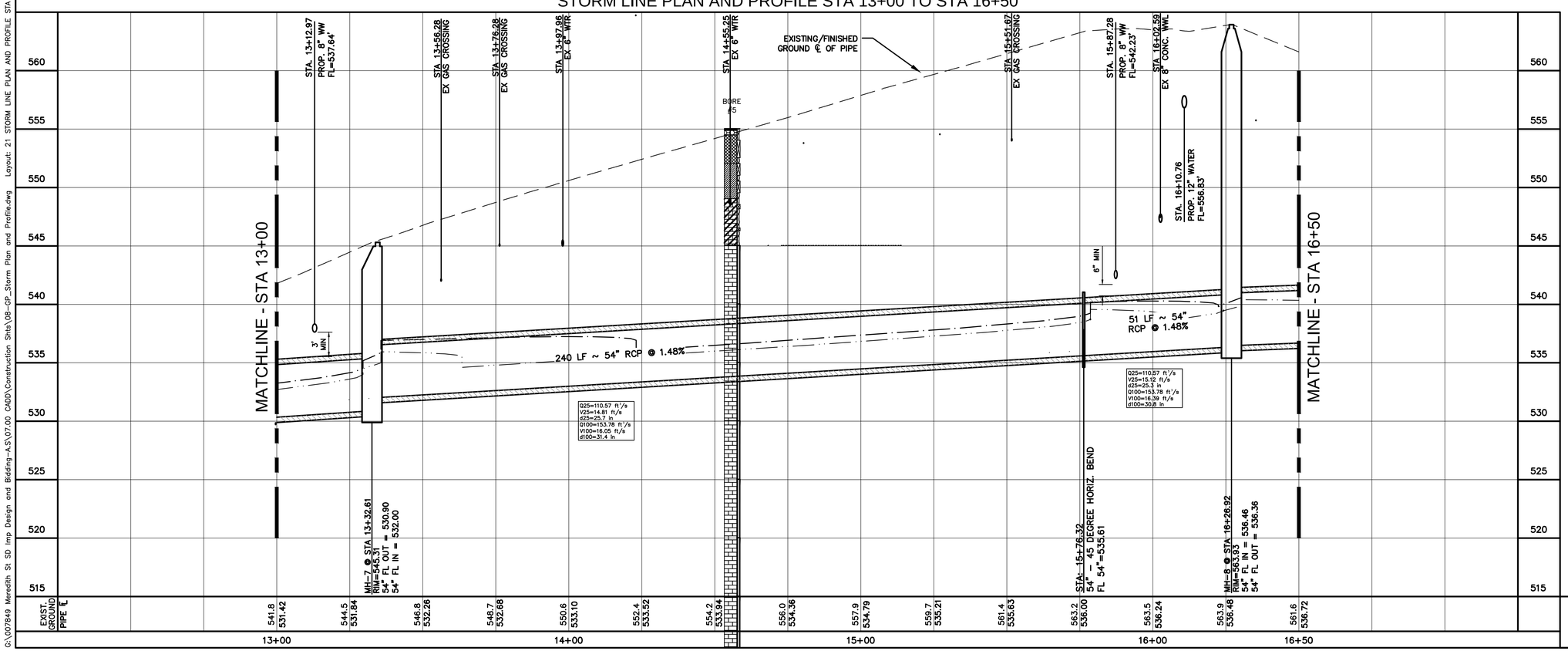
GP-19-0000.WPD

G:\0078\49 Meredith St SD Imp Design and Bidding-A,S\07.00 CADD\Construction Shts\08-GP_Storm Plan and Profile.dwg Layout: 20 STORM LINE PLAN AND PROFILE STA 9+00 TO STA 13+00 Plotted: 11/19/2020 10:16:05 AM



STORM LINE PLAN AND PROFILE STA 13+00 TO STA 16+50



HORIZ: 1"=20'
VERT: 1"=5'

0 20 40

LEGEND

PROPOSED STORM DRAIN LINE	
PROPOSED WASTEWATER LINE	
PROPOSED WATER LINE	
EXISTING GAS LINE	G
EXISTING WATER LINE	W
EXISTING WASTEWATER LINE	WW
EXISTING STORM DRAIN LINE	SD
RIGHT OF WAY	
H.D.A.	(HORIZONTAL DEFLECTION ANGLE)
25-YR WSE	
100-YR WSE	

NOTE

1. CONTRACTOR TO PLACE A CLSM ENVELOPE AROUND THE PROPOSED STORM MANHOLES FOR 2 FEET UPSTREAM AND DOWNSTREAM AND THE FULL WIDTH OF THE TRENCH.
2. CONTRACTOR TO MATCH GRADE OF EXISTING PAVEMENT AT ROAD SURFACE.
3. PRECAST BENDS FOR STORM SEWER ARE SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
4. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

KEY NOTES

1. CROSSING: 54" RCP/ 8" WW
2. CROSSING: 54" RCP/ GAS
3. CROSSING: 54" RCP/ GAS
4. CROSSING: 54" RCP/ 6" WL
5. CROSSING: 54" RCP/ 6" WL
6. CROSSING: 54" RCP/ GAS
7. CROSSING: 54" RCP/ 8" WWL
8. CROSSING: 12" WL/ 8" WWL
9. CROSSING: 54" RCP/ 12" WL

STATE OF TEXAS
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CITY OF AUSTIN
ESTD. OCTOBER 1839

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
STORM LINE PLAN AND PROFILE STA 13+00 TO STA 16+50

NO.	BY	DATE	REVISIONS	REMARKS

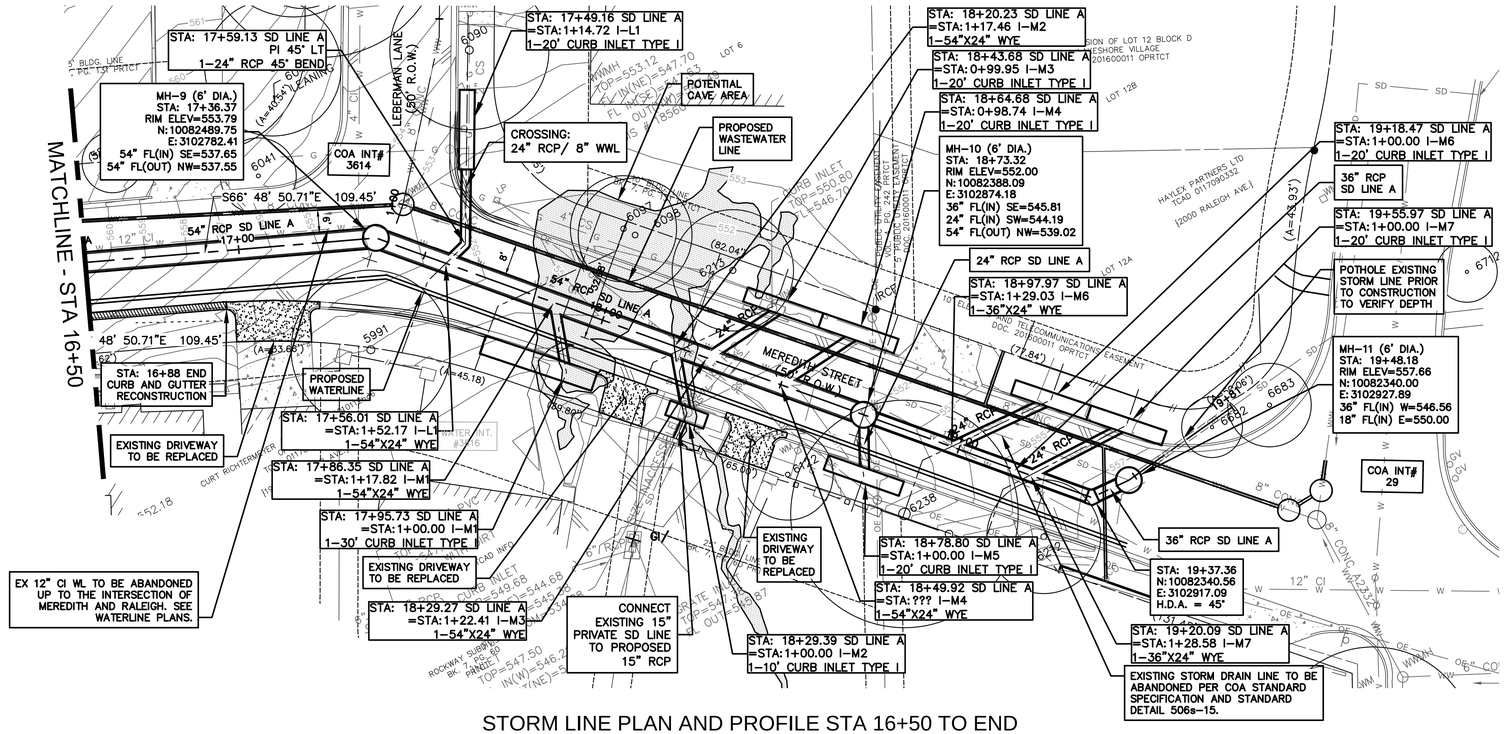
SHEET INFORMATION

DATE Nov 19, 2020

SHEET 21 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A,S\07.00 CADD\Construction Shts\08-GP_Storm Plan and Profile.dwg Layout: 21 STORM LINE PLAN AND PROFILE STA 13+00 TO STA 16+50 Plotted: 11/19/2020 10:16:16 AM



NOTES:

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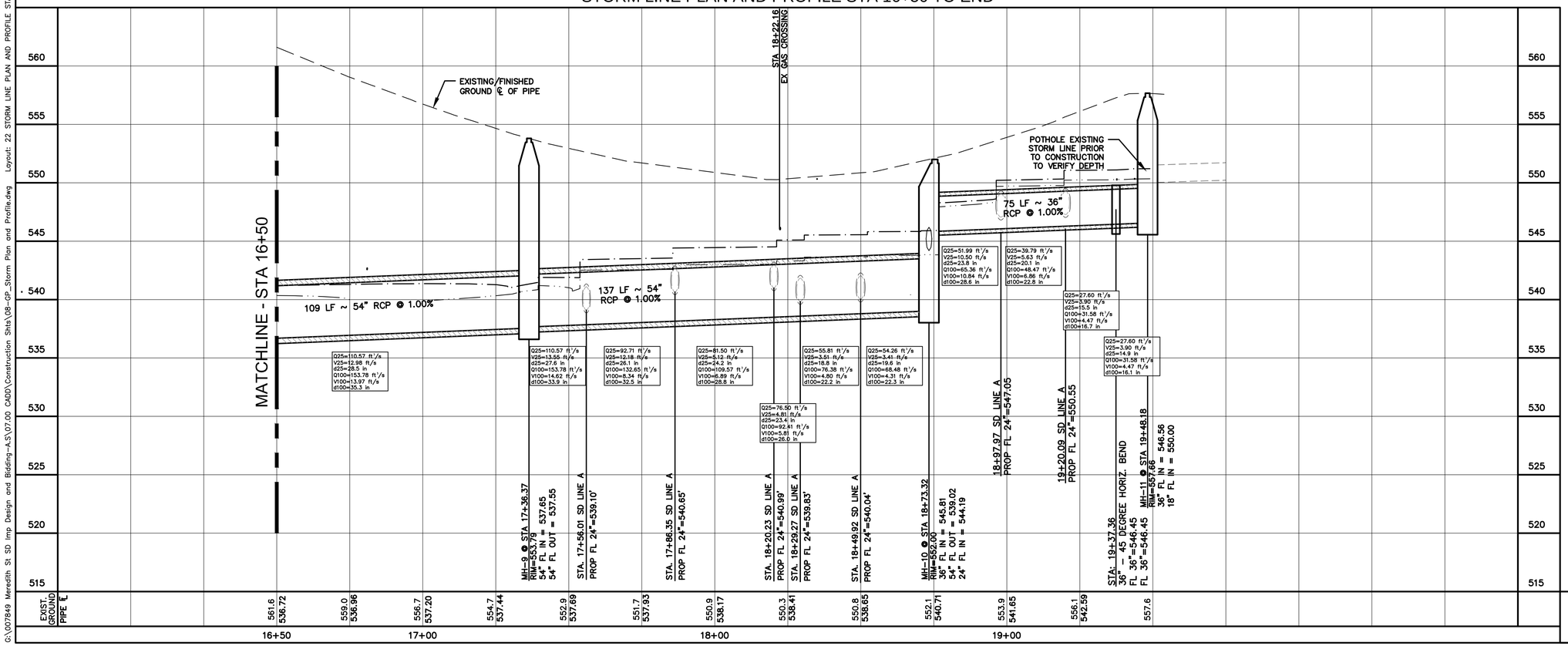
2. CONTRACTOR TO MATCH GRADE OF EXISTING PAVEMENT AT ROAD SURFACE.
3. THE LOCATION AND SIZE OF THE AUSTIN CAVES (CAVE) SHOWN ON THIS DRAWING IS FROM RECORD DATA, WHICH MAY NOT BE ACCURATE.
4. PRECAST BENDS FOR STORM SEWER ARE SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
5. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM DRAIN LINE
- RIGHT OF WAY
- H.D.A. (HORIZONTAL DEFLECTION ANGLE)
- 25-YR WSE
- 100-YR WSE

HORIZ: 1"=20'
VERT: 1"=5'

STORM LINE PLAN AND PROFILE STA 16+50 TO END



CITY OF AUSTIN

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
STORM LINE PLAN AND PROFILE
STA 16+50 TO END

NO.	BY	DATE	REVISIONS	REMARKS

STATE OF TEXAS
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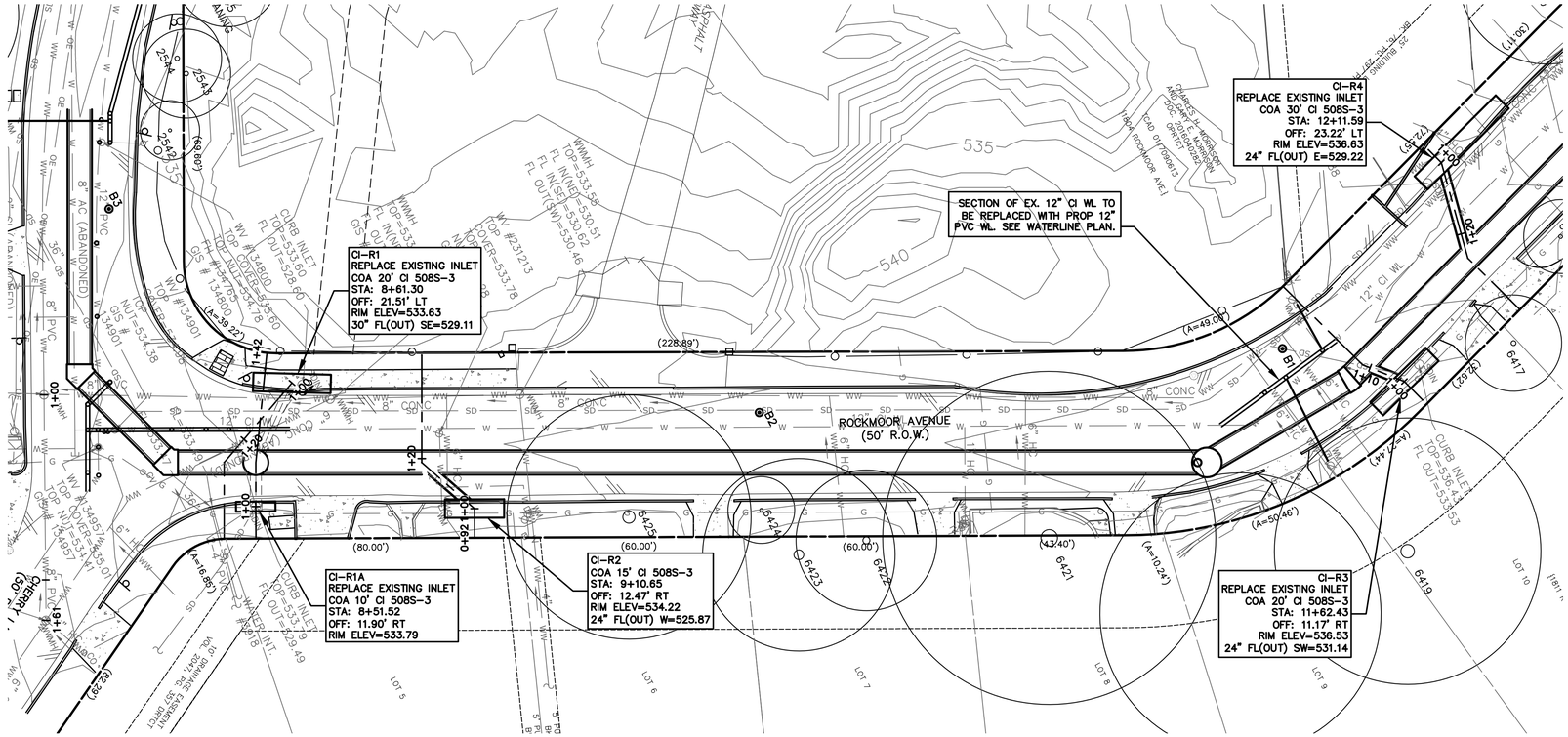
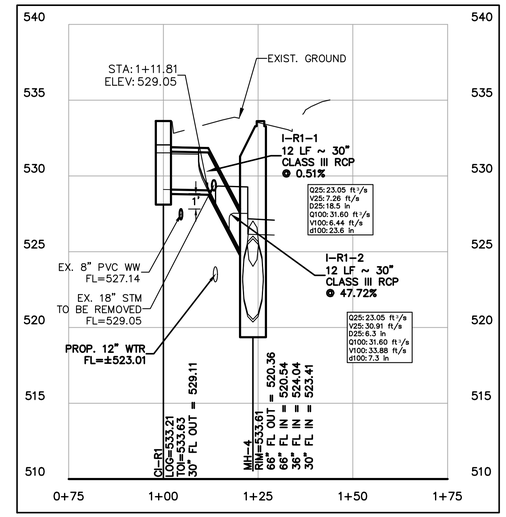
SHEET INFORMATION
DATE Nov 19, 2020
SHEET 22 OF 81

GP-19-0000.WPD

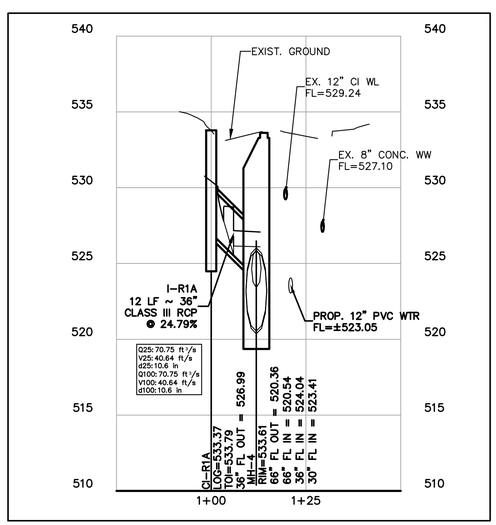
G:\007849 Meredith St SD Imp Design and Bidding-A\S\07.00 CADD\Construction Shts\08-GP_Storm Plan and Profile.dwg Layout: 22 STORM LINE PLAN AND PROFILE STA 16+50 TO END Plotted: 11/19/2020 10:16:30 AM



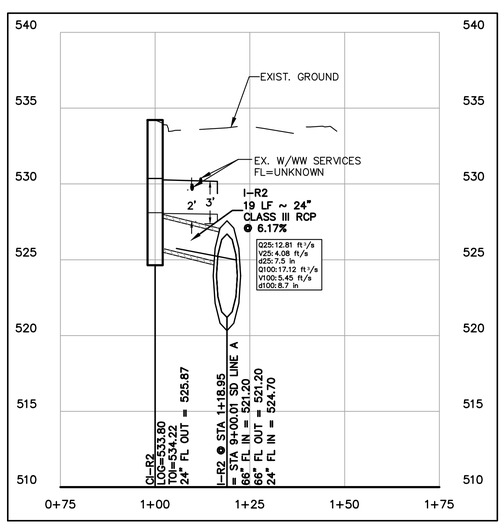
INLET PROFILES 1



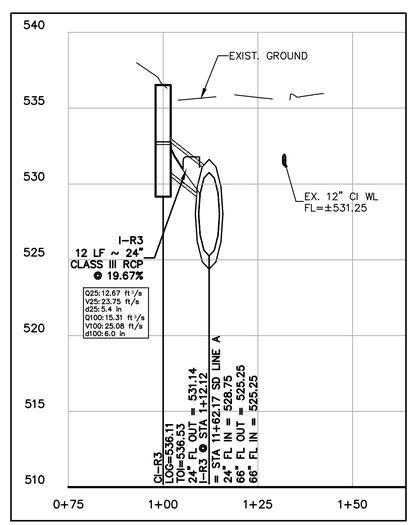
LINE I-R1



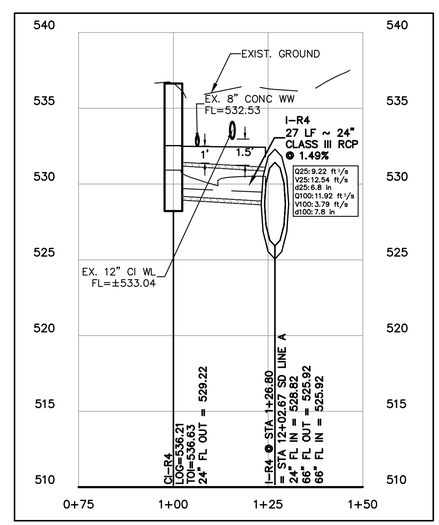
LINE I-R1A



LINE I-R2



LINE I-R3



LINE I-R4

LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE — G —
- EXISTING WATER LINE — W —
- EXISTING WASTEWATER LINE — WW —
- EXISTING STORM DRAIN LINE — SD —
- RIGHT OF WAY

NOTE:

1. CONTRACTOR TO PLACE A CLSM ENVELOPE AROUND THE PROPOSED MANHOLES FOR 2 FEET UPSTREAM AND DOWNSTREAM AND THE FULL WIDTH OF THE TRENCH.
2. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

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NO.	BY	DATE	REVISIONS	REMARKS

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 23 OF 81

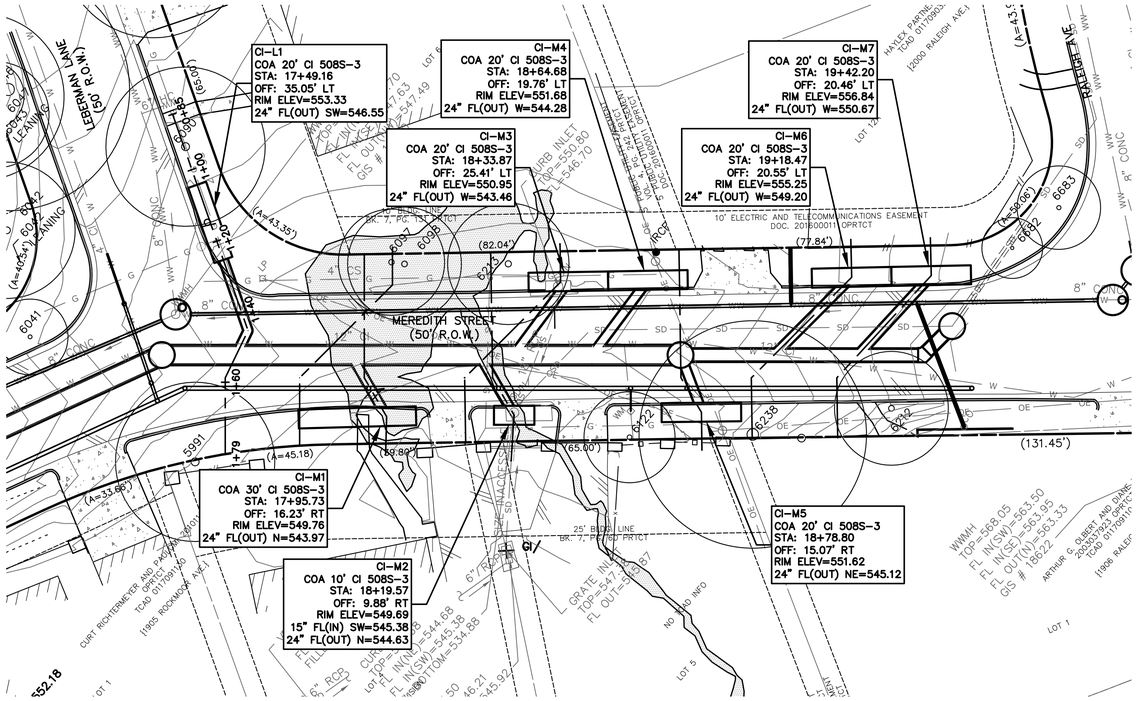
GP-19-0000.WPD

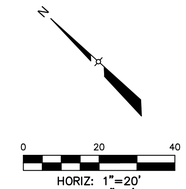
11/19/2020

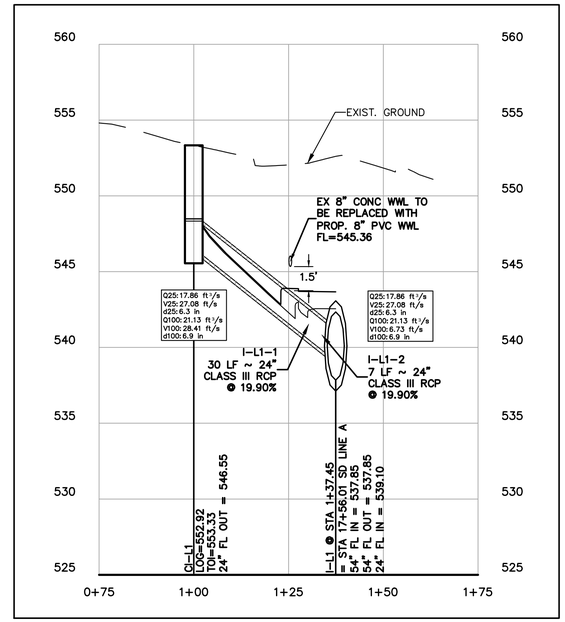
GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS

INLET PROFILES 1

G:\007849 Meredith St SD Imp Design and Bidding-A-S\07.00 CADD\Construction Shts\15-GP_Storm Sewer Laterals.dwg Layout: 23 INLET PROFILES 1 Plotted: 11/19/2020 10:17:05 AM







LINE I-L1

LEGEND

PROPOSED STORM DRAIN LINE	
PROPOSED WASTEWATER LINE	
PROPOSED WATER LINE	
EXISTING GAS LINE	G
EXISTING WATER LINE	W
EXISTING WASTEWATER LINE	WW
EXISTING STORM DRAIN LINE	SD
RIGHT OF WAY	

NOTE:

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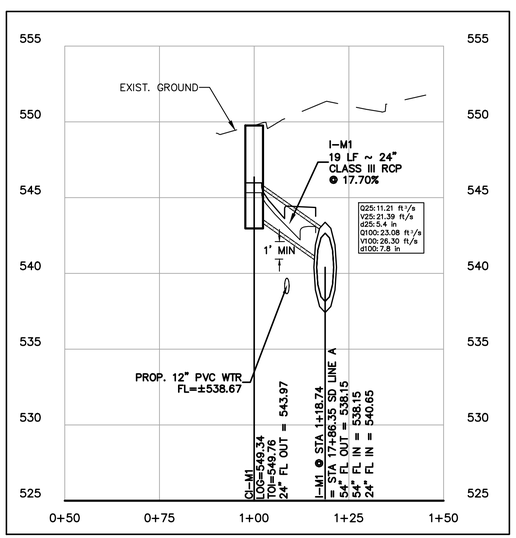
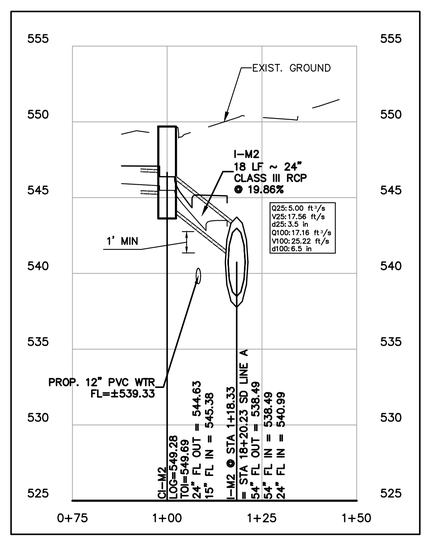
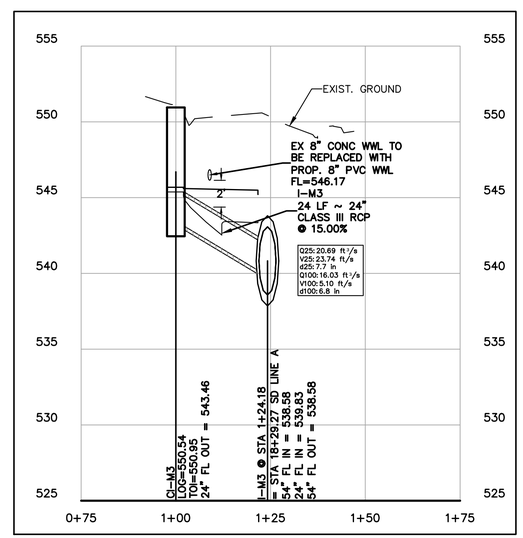


LINE I-M1



LINE I-M2



LINE I-M3

STATE OF TEXAS
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CITY OF AUSTIN
1839 INCORPORATED

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
INLET PROFILES 2

NO.	BY	DATE	REMARKS

REVISIONS

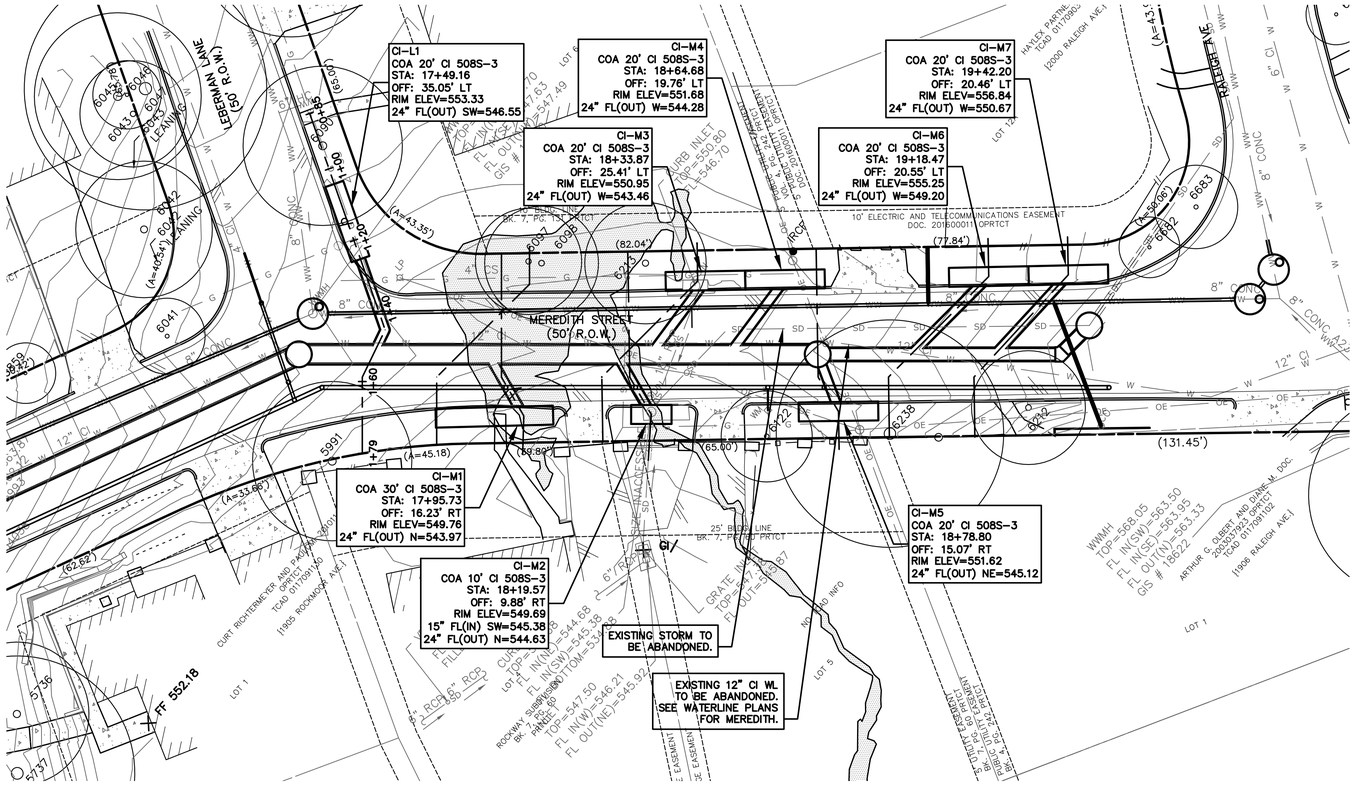
SHEET INFORMATION

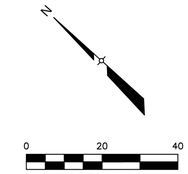
DATE Nov 19, 2020

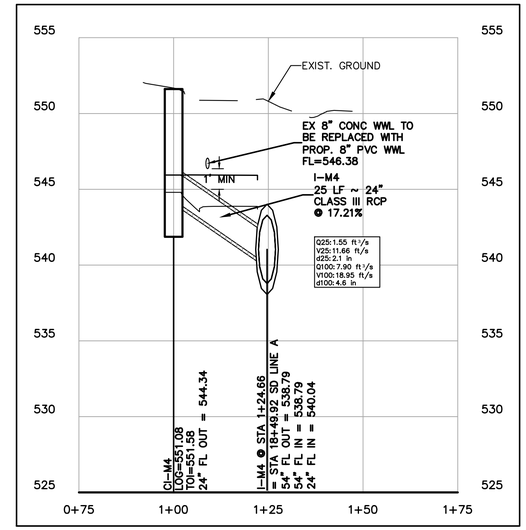
SHEET 24 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A-S\07.00 CADD\Construction Shts\15-GP_Storm Sewer Laterals.dwg Layout: 24 INLET PROFILES 2 Plotted: 11/19/2020 10:17:24 AM







LINE I-M4

LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE — G —
- EXISTING WATER LINE — W —
- EXISTING WASTEWATER LINE — WW —
- EXISTING STORM DRAIN LINE — SD —
- RIGHT OF WAY

NOTE:

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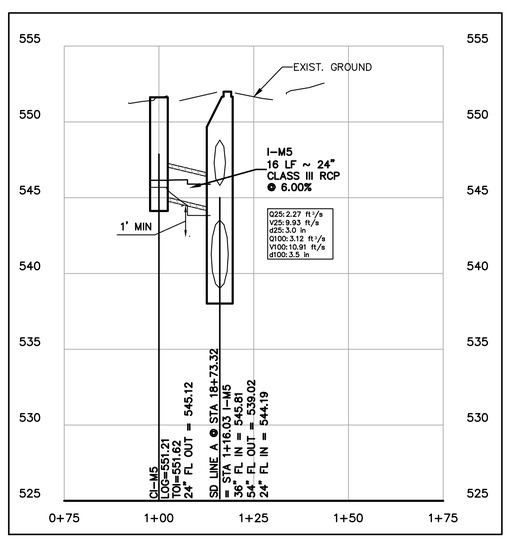
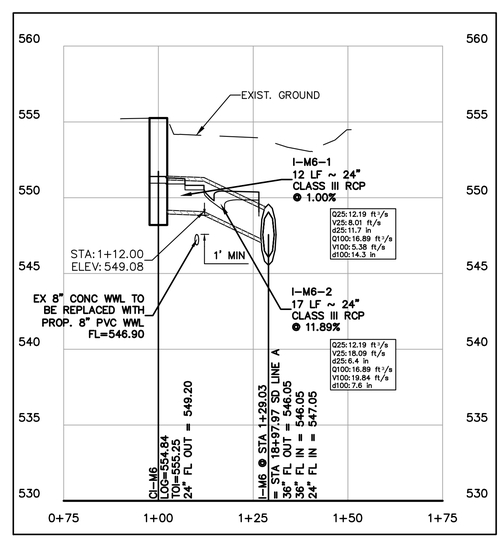
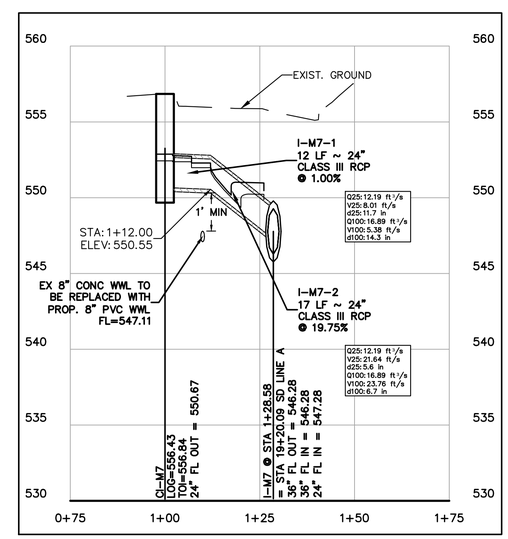


LINE I-M5



LINE I-M6



LINE I-M7

STATE OF TEXAS
JOHN G. FRIEDMAN
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11-20-2020

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CITY OF AUSTIN

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
INLET PROFILES 3

NO.	BY	DATE	REMARKS

REVISIONS

SHEET INFORMATION

DATE Nov 19, 2020

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GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-AS\07.00 CADD\Construction Shts\15-GP_Storm Sewer Laterals.dwg Layout: 25 INLET PROFILES 3 Plotted: 11/19/2020 10:17:40 AM

MANHOLE OR INLET – UPSTREAM	MANHOLE OR INLET – DOWNSTREAM	DISTANCE BETWEEN MANHOLE OR INLET	INLET CAPTURE AREA – NO.	INLET CAPTURE AREA – INCREMENTAL AREA	INLET CAPTURE AREA – TOTAL AREA	RUNOFF COEFFICIENT "C"	INCREMENTAL "CA"	TOTAL "CA"	TIME OF CONCENTRATION – SYSTEM FLOW TIME	TIME OF CONCENTRATION – TIME (PIPE FLOW)	TIME OF CONCENTRATION – TIME TOTAL	DESIGN FREQUENCY	INTENSITY	DISCHARGE	DESIGN SLOPE	CONDUIT SHAPE	SLOPE OF FRICTIONAL GRADE	HYDRAULIC GRADIENT ELEVATIONS – UPSTREAM	HYDRAULIC GRADIENT ELEVATIONS – DOWNSTREAM	UPSTREAM VELOCITY	DOWNSTREAM VELOCITY	DOWNSTREAM VELOCITY HEAD	UPSTREAM VELOCITY HEAD	HEADLOSS COEFFICENT	HYDRAULIC LOSS AT DONSTREAM JUNCTION	HGL AT UPSTREAM DESIGN POINT	CONDUIT INVERT ELEVATIONS – UPSTREAM	CONDUIT INVERT ELEVATIONS – DOWNSTREAM
-	-	FT.	-	ACRES	ACRES	-	ACRES	ACRES	MIN	MIN	MIN	-	IN/HR	CFS	%	-	%	FT MSL	F MSL	FT/S	FT/S	FT	FT	FT	FT	FT MSL	FT MSL	FT MSL
LATERAL R1																												
P12 (I-840) R1	J-218	9.3	P12	0.95	0.95	0.76	1.71	0.722	0.00	0.02	0.02	25 YR	10.11	23.05	0.64%	30" RCP CLASS III	0.390%	531.46	531.44	4.82	4.77	0.35	0.36	0.200	0.07	531.53	529.11	529.05
J-218	MH-664	16.5	-	-	0.95	-	-	-	0.02	0.01	0.03	25 YR	-	23.05	34.29%	30" RCP CLASS III	21.450%	530.68	527.53	6.78	4.70	0.34	0.71	0.342	0.24	530.93	529.05	523.41
LATERAL R1A																												
P10 -B (I-845)	MH-664	9.4	P10-b, E11, E6, E4, E3	11.28	11.28	0.73	8.2344	8.2344	1.14	0.00	1.14	25 YR	10.11	70.75	31.38%	18" RCP CLASS III	32.620%	529.66	526.80	10.65	10.40	1.68	1.76	0.626	1.10	530.76	526.99	524.04
LATERAL R2																												
P10-A (I-841) R2	9+00.03 LAT R2	16.5	P10-a	2.02	2.02	0.67	1.3534	1.3534	0.00	0.01	0.01	25 YR	10.11	12.81	7.11%	24" RCP CLASS III	0.320%	528.06	528.00	4.08	4.08	0.26	0.26	0.200	0.05	528.11	525.87	524.70
LATERAL R3																												
P9 (I-839) R3	11+62.17 LAT R3	9.6	P9	2.47	2.47	0.67	1.6549	1.6549	0.00	0.01	0.01	25 YR	10.11	12.67	24.84%	24" RCP CLASS III	27.340%	532.42	529.40	5.96	14.44	3.24	0.55	0.335	0.19	532.61	531.14	528.75
LATERAL R4																												
P-13 (I-838) R4	J-186	24.3	P13	1.23	1.23	0.74	0.9102	0.9102	0.00	0.03	0.03	25 YR	10.11	9.22	5.35%	24" RCP CLASS III	2.450%	530.80	530.51	5.30	2.93	0.13	0.44	0.253	0.11	530.91	529.72	528.42
LATERAL L1																												
P7-A (I-900) L1	J-203	20.2	P7-a	5.21	5.21	0.69	3.5949	3.5949	0.00	0.01	0.01	25 YR	9.82	17.86	27.19%	24" RCP CLASS III	26.300%	548.07	542.99	6.96	5.73	0.51	0.75	0.353	0.27	548.34	546.55	541.05
J-203	17+56.01 LAT L1	7.2	-	-	5.21	-	-	-	0.01	0.00	0.02	25 YR	-	17.86	27.20%	24" RCP CLASS III	4.080%	542.57	542.53	6.96	5.68	0.50	0.75	0.240	0.18	542.75	541.05	539.10
LATERAL M1																												
P8-A (I-905) M1	17+86.35 LAT M1	16.2	P8-a	0.67	0.67	0.83	0.5561	0.5561	0.00	0.01	0.01	25 YR	10.11	11.21	20.44%	24" RCP CLASS III	14.650%	545.17	543.10	5.69	3.57	0.20	0.50	0.309	0.16	545.33	543.97	540.65
LATERAL M2																												
G-8 (I-846)	P8-C (I-843) M2	38.5	G-8	0.21	0.21	0.78	0.1638	0.1638	0.00	0.13	0.13	25 YR	10.1	1.65	1.27%		1.110%	546.38	545.78	3.51	4.80	0.36	0.19	0.200	0.04	546.42	545.87	545.38
P8-C (I-843) M2	18+20.23 LAT M2	15.8	P8-c	0	0.21	0.83	0	0.1638	0.13	0.02	0.15	25 YR	10.11	5.00	22.99%	24" RCP CLASS III	13.750%	545.42	543.50	4.35	1.59	0.04	0.29	0.229	0.07	545.49	544.63	540.99
LATERAL M3																												
P7-B (I-901) M3	18+29.27 LAT M3	21.7	P7-b	1.59	1.59	0.69	1.0971	1.0971	0.00	0.02	0.02	25 YR	9.82	20.69	16.74%	24" RCP CLASS III	9.030%	545.09	543.34	7.54	6.59	0.67	0.88	0.327	0.29	545.38	543.46	539.83
LATERAL M4																												
P7-E (I-842) M4	18+53.91 LAT M4	22.2	P7-e	0	0	0.69	0	0	0.00	0.03	0.03	25 YR	9.82	1.55	19.40%	24" RCP CLASS III	4.690%	544.77	543.88	3.12	0.49	0.00	0.15	0.200	0.03	544.80	544.34	540.04
LATERAL M5																												
P8-B (I-903) M5	MH-10	10.5	P8-b	0.27	0.27	0.83	0.2241	0.2241	0.00	0.02	0.02	25 YR	10.11	2.27	8.83%	24" RCP CLASS III	3.060%	545.64	544.48	3.46	8.14	1.03	0.19	0.200	0.04	545.68	545.12	544.19
LATERAL M6																												
P7-D (I-904) M6	J-219	9.5	P7-d	0.72	0.72	0.69	0.4968	0.4968	0.00	0.02	0.02	25 YR	9.82	12.19	1.26%	24" RCP CLASS III	0.470%	550.90	550.91	4.28	4.05	0.26	0.28	0.200	0.06	550.96	549.20	549.08
J-219	1897.97 LAT M6	17.0	-	-		-	-	-	0.02	0.02	0.04	25 YR	-	12.19	11.92%	24" RCP CLASS III	4.660%	550.34	549.84	5.88	3.88	0.23	0.54	0.328	0.18	550.51	549.08	547.05
LATERAL M7																												
P7-C (I-902) M7	J-220	9.5	P7-c	0.72	0.72	0.69	0.4968	0.4968	0.00	0.02	0.02	25 YR	9.82	12.19	1.26%	24" RCP CLASS III	0.470%	552.37	552.38	4.28	4.05	0.26	0.28	0.200	0.06	552.43	550.67	550.55
J-220	19+20.09 LAT M7	16.6	-	-		-	-	-	0.02	0.01	0.03	25 YR	-	12.19	19.72%	24" RCP CLASS III	11.360%	551.81	550.22	5.88	3.88	0.23	0.54	0.328	0.18	551.98	550.55	547.28
STORM DRAIN LINE A																												
MH 11		8.3	E1, E2, E5	5.46	5.46	0.71	3.8766	3.8766	0.64	0.01	0.65	25 YR	9.57	27.60	1.32%	36" RCP CLASS III	0.170%	550.32	550.31	3.90	3.90	0.24	0.24	0.050	0.01	550.34	546.56	546.45
19+37.26 BEND 45	19+20.09 LAT M7	17.3	-	-	5.46	-	-	-	0.68	0.03	0.70	25 YR	-	27.60	1.16%	36" RCP CLASS III	0.170%	550.25	550.22	3.90	3.90	0.24	0.24	0.240	0.06	550.31	546.45	546.25
19+20.09 LAT M7	1897.97 LAT M6	22.1	P7-c	0.72	6.18	0.69	0.4968	4.3734	0.75	0.04	0.79	25 YR	9.82	39.79	0.99%	36" RCP CLASS III	0.360%	549.77	549.69	5.63	5.63	0.49	0.49	0.214	0.11	549.87	546.25	546.03
1897.97 LAT M6	MH-10	21.7	P7-d	0.72	6.9	0.69	0.4968	4.8702	0.81	0.03	0.85	25 YR	9.82	51.99	1.02%	36" RCP CLASS III	0.780%	548.37	547.93	8.77	9.72	1.47	1.20	0.346	0.41	548.79	546.03	545.81
MH-10	18+53.91 LAT M4	20.4	P8-b	0.27	7.17	0.83	0.2241	5.0943	0.85	0.03	0.88	25 YR	10.11	54.26	0.95%	54" RCP CLASS III	0.080%	543.79	543.77	3.41	3.41	0.18	0.18	0.267	0.05	543.84	539.02	538.83
18+53.91 LAT M4	18+29.27 LAT M3	20.7	P7-e	0	7.17	0.69	0	5.0943	0.95	0.03	0.97	25 YR	9.82	55.81	1.19%	54" RCP CLASS III	0.080%	543.65	543.63	3.51	3.51	0.19	0.19	0.200	0.04	543.69	538.83	538.58
18+29.27 LAT M3	18+20.23 LAT M2	9.0	P7-b	1.59	8.76	0.69	1.0971	6.1914	1.05	0.01	1.06	25 YR	9.82	76.50	1.00%	54" RCP CLASS III	0.150%	543.32	543.30	4.81	4.81	0.36	0.36	0.200	0.07	543.39	538.58	538.49
18+20.23 LAT M2	17+86.35 LAT M1	33.9	G-8, P8-c	0.21	8.97	0.78	0.1638	6.3552	1.08	0.05	1.12	25 YR	10.1	81.50	1.00%	54" RCP CLASS III	0.170%	543.03	542.97	5.12	5.12	0.41	0.41	0.200	0.08	543.11	538.49	538.15
17+86.35 LAT M1	17+56.01 LAT L1	30.3	P8-a	0.67	9.64	0.83	0.5561	6.9113	1.19	0.04	1.23	25 YR	10.11	92.71	1.00%	54" RCP CLASS III	0.220%	542.58	542.52	5.85	5.83	0.53	0.53	0.200	0.11	542.68	538.15	537.85
17+56.01 LAT L1	MH-9	16.6	P7-a	5.21	14.85	0.69	3.5949	10.5062	1.23	0.02	1.25	25 YR	9.82	110.57	1.18%	54" RCP CLASS III	0.530%	540.94	541.20	9.48	8.21	1.05	1.40	0.353	0.49	541.43	537.85	537.65
MH-9	MH-8	103.5	-	-	14.85	-	-	-	1.25	0.13	1.38	25 YR	-	110.57	1.05%	54" RCP CLASS III	0.750%	540.64	540.40	9.48	7.49	0.87	1.40	0.150	0.21	540.85	537.55	536.46
MH-8	15+76.32 BEND 45	47.6	-	-	14.85	-	-	-	1.38	0.05	1.44	25 YR	-	110.57	1.58%	54" RCP CLASS III	0.880%	539.45	539.57	9.48	7.46	0.86	1.40	0.300	0.42	539.87	536.36	535.61
15+76.32 BEND 45	MH-7	240.7	-	-	14.85	-	-	-	1.44	0.27	1.71	25 YR	-	110.57	1.50%	54" RCP CLASS III	1.410%	538.70	535.94	9.48	7.49	0.87	1.40	0.240	0.34	539.04	535.61	532.00
MH-7	MH-6	48.8	-	-	14.85	-	-	-	1.71	0.05	1.76	25 YR	-	110.57	1.93%	54" RCP CLASS III	0.850%	533.99	532.32	9.48	13.08	2.66	1.40	0.718	1.00	535.00	530.90	529.96
MH-6	J-186	71.2	-	-	14.85	-	-	-	1.76	0.08	1.83	25 YR	-	110.57	1.74%	66" RCP CLASS III	0.680%	530.07	530.35	8.65	5.40	0.45	1.16	0.363	0.42	530.50	527.16	525.92
J-186	11+62.17 LAT R3	40.5	P-13	1.23	16.08	0.74	0.9102	11.4164	1.83	0.04	1.88	25 YR	10.11	119.79	1.65%	66" RCP CLASS III	0.250%	529.72	529.90	6.85	5.59	0.49	0.73	0.200	0.15	529.86	525.92	525.25
11+62.17 LAT R3	11+56.72 BEND 15	5.5	P-9	2.47	18.55	0.67	1.6549	13.0713	1.88	0.01	1.88	25 YR	10.11	132.46	1.65%	66" RCP CLASS III	0.260%	528.78	528.89	8.22	7.72	0.93	1.05	0.317	0.33	529.12	525.25	525.16
11+56.72 BEND 15	MH-5	40.9	-	-	18.55	-	-	-	1.88	0.04	1.92	25 YR	-	132.46	1.79%	66" RCP CLASS III	1.390%	528.37	528.23	9.23	7.57	0.89	1.32	0.100	0.13	528.50	525.16	524.43
MH-5	9+00.03 LAT R2	208.8	-	-	18.55	-	-	-	1.92	0.23	2.15	25 YR	-	132.46	1.49%	66" RCP CLASS III	0.240%	527.53	527.87	9.23	5.58	0.48	1.32	0.200	0.26	527.80	524.33	521.22
9+00.03 LAT R2	MH-664	41.4	P10-a	2.02	20.57	0.67	1.3534	14.4247	2.15	0.04	2.19	25 YR	10.11	145.27	1.83%	66" RCP CLASS III	0.190%	527.46	527.38	6.11	6.11	0.58	0.58	0.200	0.12	527.58	521.22	520.46
MH-664	8-31.62 BEND 45	20.0	P10-b, P-12, E11, E6, E4, E3	12.23	32.8	0.73	8.9279	23.3526	2.26	0.02	2.28	25 YR	10.11	239.07	1.30%	66" RCP CLASS III	0.500%	525.79	525.70	10.09	10.06	1.57	1.58	0.230	0.36	526.15	520.36	520.10
8-31.62 BEND 45	7+97.57 BEND 45	34.1	-	-	32.8	-	-	-	2.28	0.03	2.32	25 YR	-	239.07	1.35%	66" RCP CLASS III	0.460%	525.17	525.13	10.44	10.06	1.57	1.70	0.240	0.41	525.57	520.10	519.64
7+97.57 BEND 45	7+26.23 BEND 15	71.3	-	-	32.8	-	-	-	2.31	0.07	2.38	25 YR	-	239.07	1.35%	66" RCP CLASS III	1.040%	523.96	523.74	11.94	10.46	1.70	2.22	0.240	0.53	524.49	519.64	518.68
7+26.23 BEND 15	MH-3	86.8	-	-	32.8	-	-	-	2.38	0.09	2.47	25 YR	-	239.07	1.30%	66" RCP CLASS III	1.290%	523.00	522.03	11.94	11.54	2.07	2.22	0.100	0.22	523.22	518.68	517.55
MH-3	4+97.05 BEND 15	135.4	-	-	32.8	-	-	-	2.47	0.09	2.56	25 YR	-	239.07	3.50%	66" RCP CLASS III	3.340%	521.77	517.77	11.94	10.46	1.70	2.22	0.050	0.11	521.88	517.45	512.71
4+97.05 BEND 15	MH-2	81.7	-	-	32.8	-	-	-	2.56	0.06	2.62	25 YR	-	239.07	3.58%	66" RCP CLASS III	3.580%	517.03	512.68	11.94	18.91	5.56	2.22	0.100	0.22	517.25	512.71	509.79
MH-2	1+90.66 BEND 15	217.7	-	-	32.8	-	-	-	2.62	0.17	2.78	25 YR	-	239.07	2.56%	66" RCP CLASS III	2.460%	510.57	505.74	11.94	10.46	1.70	2.22	0.533	1.18	511.75	506.25	500.68
1+90.66 BEND 15	MH-1	10.7	-	-	32.8	-	-	-	2.78	0.01	2.79	25 YR	-	239.07	3.11%	66" RCP CLASS III	0.710%	505.00	504.03	11.94	14.16	3.11	2.22	0.100	0.22	505.22	500.68	500.35
MH-1	O-80	23.3	-	-	32.8	-	-	-	2.79	0.03	2.81	25 YR	-	239.07	1.11%	8' x3' SBC	0.500%	494.68	493.97	9.96	11.72	2.14	1.54	2.507	3.87	498.55	491.68	491.42

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
HYDRAULIC TABLES - 25 YEAR

NO.	BY	DATE	REVISIONS	REMARKS

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

RPS
Texas PE Firm Reg. #F-929
4801 Southwest Pkwy, Pkwy 2, Suite 150, Austin, Texas 78735
T +1 512 328 5771 E usinfrastructure@rpsgroup.com

SHEET INFORMATION
DATE Nov 19, 2020
SHEET 26 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A.S\07.00 CADD\Construction Shts\30-GP_Hydraulic_Tables.dwg Layout: 26 HYDRAULIC TABLES - 25 YEAR Plotted: 11/19/2020 10:17:51 AM

MANHOLE OR INLET		DISTANCE BETWEEN MANHOLE OR INLET	INLET CAPTURE AREA			RUNOFF COEFFICIENT "C"	INCREMENTAL "CA"	TOTAL "CA"	TIME OF CONCENTRATION			DESIGN FREQUENCY	INTENSITY	DISCHARGE	DESIGN SLOPE	CONDUIT SHAPE	SLOPE OF FRICTIONAL GRADE	HYDRAULIC GRADIENT ELEVATIONS								HGL AT UPSTREAM DESIGN POINT	CONDUIT INVERT ELEVATIONS	
UPSTREAM	DOWNSTREAM		NO.	INCREMENTAL AREA	TOTAL AREA				SYSTEM FLOW TIME	TIME (PIPE FLOW)	TIME TOTAL							UPSTREAM	DOWNSTREAM	UPSTREAM VELOCITY	DOWNSTREAM VELOCITY	DOWNSTREAM VELOCITY HEAD	UPSTREAM VELOCITY HEAD	HEADLOSS COEFFICENT	HYDRAULIC LOSS AT DONSTREAM JUNCTION		UPSTREAM	DOWNSTREAM
-	-	FT.	-	ACRES	ACRES	-	ACRES	ACRES	MIN	MIN	MIN	-	IN/HR	CFS	%	-	%	FT MSL	F MSL	FT/S	FT/S	FT	FT	FT	FT	FT MSL	FT MSL	FT MSL
LATERAL R1																												
P12 (I-840) R1	J-218	9.3	P12	0.95	0.95	0.84	0.798	0.798	0.00	0.02	0.02	100 YR	12.55	31.60	0.64%	30" RCP CLASS III	0.590%	531.92	531.87	6.44	6.44	0.64	0.64	0.200	0.13	532.05	529.11	529.05
J-218	MH-664	16.5	-	-	0.95	-	-	-	0.02	0.01	0.03	100 YR	-	31.60	34.29%	30" RCP CLASS III	12.180%	530.97	529.27	7.83	6.44	0.64	0.95	0.351	0.33	531.30	529.05	523.41
LATERAL R1A																												
P10 -B (I-845)	MH-664	9.4	P10-b, E11, E6, E4, E3	11.28	11.28	0.81	9.1368	9.1368	1.14	0.00	1.14	100 YR	12.55	70.75	31.38%	18" RCP CLASS III	12.140%	529.66	528.72	10.65	10.01	1.56	1.76	0.626	1.10	530.76	526.99	524.04
LATERAL R2																												
P10-A (I-841) R2	9+00.03 LAT R2	16.5	P10-a	2.02	2.02	0.86	1.7372	1.7372	0.00	0.01	0.01	100 YR	12.55	17.12	7.11%	24" RCP CLASS III	0.570%	530.27	530.17	5.45	5.45	0.46	0.46	0.200	0.09	530.36	525.87	524.70
LATERAL R3																												
P9 (I-839) R3	11+62.17 LAT R3	9.6	P9	2.47	2.47	0.75	1.8525	1.8525	0.00	0.01	0.01	100 YR	12.55	15.31	24.84%	24" RCP CLASS III	10.890%	532.55	531.78	6.46	4.87	0.37	0.65	0.357	0.23	532.78	531.14	528.75
LATERAL R4																												
P-13 (I-838) R4	J-186	24.3	P13	1.23	1.23	0.83	1.0209	1.0209	0.00	0.02	0.02	100 YR	12.55	11.92	5.35%	24" RCP CLASS III	0.280%	532.49	532.42	3.79	3.79	0.22	0.22	0.200	0.04	532.54	529.72	528.42
LATERAL L1																												
P7-A (I-900) L1	J-203	20.2	P7-a	5.21	5.21	0.77	4.0117	4.0117	0.00	0.01	0.01	100 YR	12.23	21.13	27.19%	24" RCP CLASS III	22.360%	548.20	543.88	7.64	6.73	0.70	0.91	0.321	0.29	548.49	546.55	541.05
J-203	17+56.01 LAT L1	7.2	-	-	5.21	-	-	-	0.01	0.00	0.02	100 YR	-	21.13	27.20%	24" RCP CLASS III	0.870%	543.71	543.64	6.73	6.73	0.70	0.70	0.240	0.17	543.87	541.05	539.10
LATERAL M1																												
P8-A (I-905) M1	17+86.35 LAT M1	16.2	P8-a	0.67	0.67	0.91	0.6097	0.6097	0.00	0.01	0.01	100 YR	12.55	23.08	20.44%	24" RCP CLASS III	9.260%	545.68	544.35	8.07	7.35	0.84	1.01	0.291	0.30	545.97	543.97	540.65
LATERAL M2																												
G-8 (I-846)	P8-C (I-843) M2	38.5	G-8	0.21	0.21	0.87	0.1827	0.1827	0.00	0.11	0.11	100 YR	12.5	2.28	1.27%		0.120%	547.13	547.08	1.86	1.86	0.05	0.05	0.200	0.01	547.14	545.87	545.38
P8-C (I-843) M2	18+20.23 LAT M2	15.8	P8-c	0	0.21	0.91	0	0.3738	0.35	0.01	0.36	100 YR	12.55	17.16	22.99%	24" RCP CLASS III	7.970%	546.12	545.12	6.82	5.46	0.46	0.72	0.366	0.26	546.39	544.63	540.99
LATERAL M3																												
P7-B (I-901) M3	18+29.27 LAT M3	21.7	P7-b	1.59	1.59	0.77	1.2243	1.2243	0.00	0.01	0.01	100 YR	12.23	16.03	16.74%	24" RCP CLASS III	0.500%	545.60	545.49	5.10	5.10	0.40	0.40	0.200	0.08	545.68	543.46	539.83
LATERAL M4																												
P7-E (I-842) M4	18+53.91 LAT M4	22.2	P7-e	0	0	0.77	0	0	0.00	0.02	0.02	100 YR	12.23	7.90	19.40%	24" RCP CLASS III	0.120%	545.91	545.92	2.99	2.51	0.10	0.14	0.200	0.03	545.94	544.34	540.04
LATERAL M5																												
P8-B (I-903) M5	MH-10	10.5	P8-b	0.27	0.27	0.91	0.2457	0.2457	0.00	0.02	0.02	100 YR	12.55	3.12	8.83%	24" RCP CLASS III	0.030%	546.14	546.18	1.94	0.99	0.02	0.06	0.200	0.01	546.15	545.12	544.19
LATERAL M6																												
P7-D (I-904) M6	J-219	9.5	P7-d	0.72	0.72	0.77	0.5544	0.5544	0.00	0.02	0.02	100 YR	12.23	16.89	1.26%	24" RCP CLASS III	0.560%	551.31	551.26	5.38	5.38	0.45	0.45	0.200	0.09	551.40	549.20	549.08
J-219	1897.97 LAT M6	17.0	-	-		-	-	-	0.03	0.01	0.04	100 YR	-	16.89	11.92%	24" RCP CLASS III	2.650%	550.56	550.37	6.77	5.38	0.45	0.71	0.357	0.25	550.82	549.08	547.05
LATERAL M7																												
P7-C (I-902) M7	J-220	9.5	P7-c	0.72	0.72	0.77	0.5544	0.5544	0.00	0.02	0.02	100 YR	12.23	16.89	1.26%	24" RCP CLASS III	0.560%	552.78	552.73	5.38	5.38	0.45	0.45	0.200	0.09	552.87	550.67	550.55
J-220	19+20.09 LAT M7	16.6	-	-		-	-	-	0.03	0.01	0.04	100 YR	-	16.89	19.72%	24" RCP CLASS III	7.970%	552.03	550.97	6.77	5.38	0.45	0.71	0.357	0.25	552.29	550.55	547.28
STORM DRAIN LINE A																												
MH 11		8.3	E1, E2, E5	5.46	5.46	0.8	4.368	4.368	0.57	0.01	0.58	100 YR	11.95	31.58	1.32%	36" RCP CLASS III	0.220%	551.19	551.17	4.47	4.47	0.31	0.31	0.050	0.02	551.21	546.56	546.45
19+37.26 BEND 45	19+20.09 LAT M7	17.3	-	-	5.46	-	-	-	0.60	0.03	0.62	100 YR	-	31.58	1.16%	36" RCP CLASS III	0.220%	551.10	551.06	4.47	4.47	0.31	0.31	0.240	0.07	551.17	546.45	546.25
19+20.09 LAT M7	1897.97 LAT M6	22.1	P7-c	0.72	6.18	0.77	0.5544	4.9224	0.66	0.04	0.70	100 YR	12.23	48.47	0.99%	36" RCP CLASS III	0.530%	550.32	550.20	6.86	6.86	0.73	0.73	0.261	0.19	550.51	546.25	546.03
1897.97 LAT M6	MH-10	21.7	P7-d	0.72	6.9	0.77	0.5544	5.4768	0.71	0.03	0.75	100 YR	12.23	65.36	1.02%	36" RCP CLASS III	0.930%	548.62	548.27	10.07	10.53	1.72	1.58	0.283	0.45	549.07	546.03	545.81
MH-10	18+53.91 LAT M4	20.4	P8-b	0.27	7.17	0.91	0.2457	5.7225	0.75	0.03	0.78	100 YR	12.55	68.48	0.95%	54" RCP CLASS III	0.120%	545.83	545.81	4.31	4.31	0.29	0.29	0.236	0.07	545.90	539.02	538.83
18+53.91 LAT M4	18+29.27 LAT M3	20.7	P7-e	0	7.17	0.77	0	5.7225	0.83	0.03	0.85	100 YR	12.23	76.38	1.19%	54" RCP CLASS III	0.150%	545.55	545.52	4.80	4.80	0.36	0.36	0.200	0.07	545.62	538.83	538.58
18+29.27 LAT M3	18+20.23 LAT M2	9.0	P7-b	1.59	8.76	0.77	1.2243	6.9468	0.90	0.01	0.91	100 YR	12.23	92.41	1.00%	54" RCP CLASS III	0.220%	545.10	545.08	5.81	5.81	0.52	0.52	0.200	0.10	545.21	538.58	538.49
18+20.23 LAT M2	17+86.35 LAT M1	33.9	G-8, P8-c	0.21	8.97	0.87	0.1827	7.1295	0.92	0.05	0.97	100 YR	12.5	109.57	1.00%	54" RCP CLASS III	0.310%	544.51	544.41	6.89	6.89	0.74	0.74	0.200	0.15	544.66	538.49	538.15
17+86.35 LAT M1	17+56.01 LAT L1	30.3	P8-a	0.67	9.64	0.91	0.6097	7.7392	1.01	0.04	1.05	100 YR	12.55	132.65	1.00%	54" RCP CLASS III	0.460%	543.55	543.42	8.34	8.34	1.08	1.08	0.200	0.22	543.77	538.15	537.85
17+56.01 LAT L1	MH-9	16.6	P7-a	5.21	14.85	0.77	4.0117	11.751	1.07	0.02	1.09	100 YR	12.23	153.78	1.18%	54" RCP CLASS III	0.530%	541.87	541.89	10.24	9.89	1.52	1.63	0.344	0.56	542.43	537.85	537.65
MH-9	MH-8	103.5	-	-	14.85	-	-	-	1.09	0.12	1.21	100 YR	-	153.78	1.05%	54" RCP CLASS III	0.590%	541.18	541.06	11.17	9.67	1.45	1.94	0.150	0.29	541.48	537.55	536.46
MH-8	15+76.32 BEND 45	47.6	-	-	14.85	-	-	-	1.21	0.05	1.26	100 YR	-	153.78	1.58%	54" RCP CLASS III	0.610%	539.99	540.19	11.17	9.67	1.45	1.94	0.300	0.58	540.58	536.36	535.61
15+76.32 BEND 45	MH-7	240.7	-	-	14.85	-	-	-	1.26	0.25	1.51	100 YR	-	153.78	1.50%	54" RCP CLASS III	1.170%	539.24	536.91	11.17	9.67	1.45	1.94	0.240	0.47	539.71	535.61	532.00
MH-7	MH-6	48.8	-	-	14.85	-	-	-	1.51	0.05	1.55	100 YR	-	153.78	1.93%	54" RCP CLASS III	1.930%	534.53	532.84	11.17	14.31	3.18	1.94	0.675	1.31	535.84	530.90	529.96
MH-6	J-186	71.2	-	-	14.85	-	-	-	1.55	0.07	1.62	100 YR	-	153.78	1.74%	66" RCP CLASS III	0.210%	532.27	532.17	6.68	6.47	0.65	0.69	0.305	0.21	532.48	527.16	525.92
J-186	11+62.17 LAT R3	40.5	P-13	1.23	16.08	0.83	1.0209	12.772	1.62	0.04	1.66	100 YR	12.55	165.70	1.65%	66" RCP CLASS III	0.240%	531.65	531.55	6.97	6.97	0.76	0.76	0.200	0.15	531.80	525.92	525.25
11+62.17 LAT R3	11+56.72 BEND 15	5.5	P-9	2.47	18.55	0.75	1.8525	14.624	1.72	0.01	1.73	100 YR	12.55	181.01	1.65%	66" RCP CLASS III	0.290%	530.92	530.91	7.62	7.62	0.90	0.90	0.200	0.18	531.10	525.25	525.16
11+56.72 BEND 15	MH-5	40.9	-	-	18.55	-	-	-	1.73	0.04	1.77	100 YR	-	181.01	1.79%	66" RCP CLASS III	0.290%	530.82	530.70	7.62	7.62	0.90	0.90	0.100	0.09	530.91	525.16	524.43
MH-5	9+00.03 LAT R2	208.8	-	-	18.55	-	-	-	1.82	0.20	2.02	100 YR	-	181.01	1.49%	66" RCP CLASS III	0.290%	530.52	529.91	7.62	7.62	0.90	0.90	0.200	0.18	530.70	524.33	521.22
9+00.03 LAT R2	MH-664	41.4	P10-a	2.02	20.57	0.86	1.7372	16.362	2.28	0.04	2.32	100 YR	12.55	198.13	1.83%	66" RCP CLASS III	0.350%	529.15	529.01	8.34	8.34	1.08	1.08	0.200	0.22	529.37	521.22	520.46
MH-664	8-31.62 BEND 45	20.0	P10-b, P-12, E11, E6, E4, E3	12.23	32.8	0.82	10.0286	26.39	2.36	0.02	2.38	100 YR	12.55	300.48	1.30%	66" RCP CLASS III	0.800%	526.58	526.42	12.65	12.65	2.49	2.49	0.236	0.59	527.17	520.36	520.10
8-31.62 BEND 45	7+97.57 BEND 45	34.1	-	-	32.8	-	-	-	2.39	0.04	2.42	100 YR	-	300.48	1.35%	66" RCP CLASS III	0.800%	525.83	525.56	12.65	12.65	2.49	2.49	0.240	0.60	526.42	520.10	519.64
7+97.57 BEND 45	7+26.23 BEND 15	71.3	-	-	32.8	-	-	-	2.43	0.07	2.50	100 YR	-	300.48	1.35%	66" RCP CLASS III	0.940%	524.41	524.18	13.73	12.65	2.49	2.93	0.240	0.70	525.11	519.64	518.68
7+26.23 BEND 15	MH-3	86.8	-	-	32.8	-	-	-	2.50	0.08	2.58	100 YR	-	300.48	1.30%	66" RCP CLASS III	1.250%	523.45	522.62	13.73	13.12	2.68	2.93	0.100	0.29	523.74	518.68	517.55
MH-3	4+97.05 BEND 15	135.4	-	-	32.8	-	-	-	2.58	0.09	2.67	100 YR	-	300.48	3.50%	66" RCP CLASS III	3.280%	522.22	518.22	13.73	12.65	2.49	2.93	0.050	0.15	522.37	517.45	512.71
4+97.05 BEND 15	MH-2	81.7	-	-	32.8	-	-	-	2.67	0.05	2.72	100 YR	-	300.48	3.58%	66" RCP CLASS III	5.150%	517.48	513.12	13.73	20.01	6.22	2.93	0.100	0.29	517.77	512.71	509.79
MH-2	1+90.66 BEND 15	217.7	-	-	32.8	-	-	-	2.72	0.16	2.87	100 YR	-	300.48	2.56%	66" RCP CLASS III	2.420%	511.02	506.19	13.73	12.65	2.49	2.93	0.427	1.25	512.27	506.25	500.68
1+90.66 BEND 15	MH-1	10.7	-	-	32.8	-	-	-	2.87	0.01	2.88	100 YR	-	300.48	3.11%	66" RCP CLASS III	0.860%	505.45	504.50	13.73	15.61	3.79	2.93	0.100	0.29	505.74	500.68	500.35
MH-1	O-80	23.3	-	-	32.8	-	-	-	2.88	0.03	2.91	100 YR	-	300.48	1.11%	8' x3' SBC	0.630%	494.68	494.27	12.52	13.18	2.70	2.44	1.265	3.08	497.76	491.68	491.42

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
HYDRAULIC TABLES - 100 YEAR

REVISIONS

NO.	BY	DATE	REMARKS

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DATE Nov 19, 2020
SHEET 27 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A\5\07.00 CADD\Construction Shts\30-GP_Hydraulic_Tables.dwg Layout: 27 HYDRAULIC TABLES - 100 YEAR Plotted: 11/19/2020 10:17:57 AM

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CITY OF AUSTIN
AUSTIN ENERGY

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
STEVENSON INLET

REVISIONS

NO.	BY	DATE	REMARKS

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 28 OF 81

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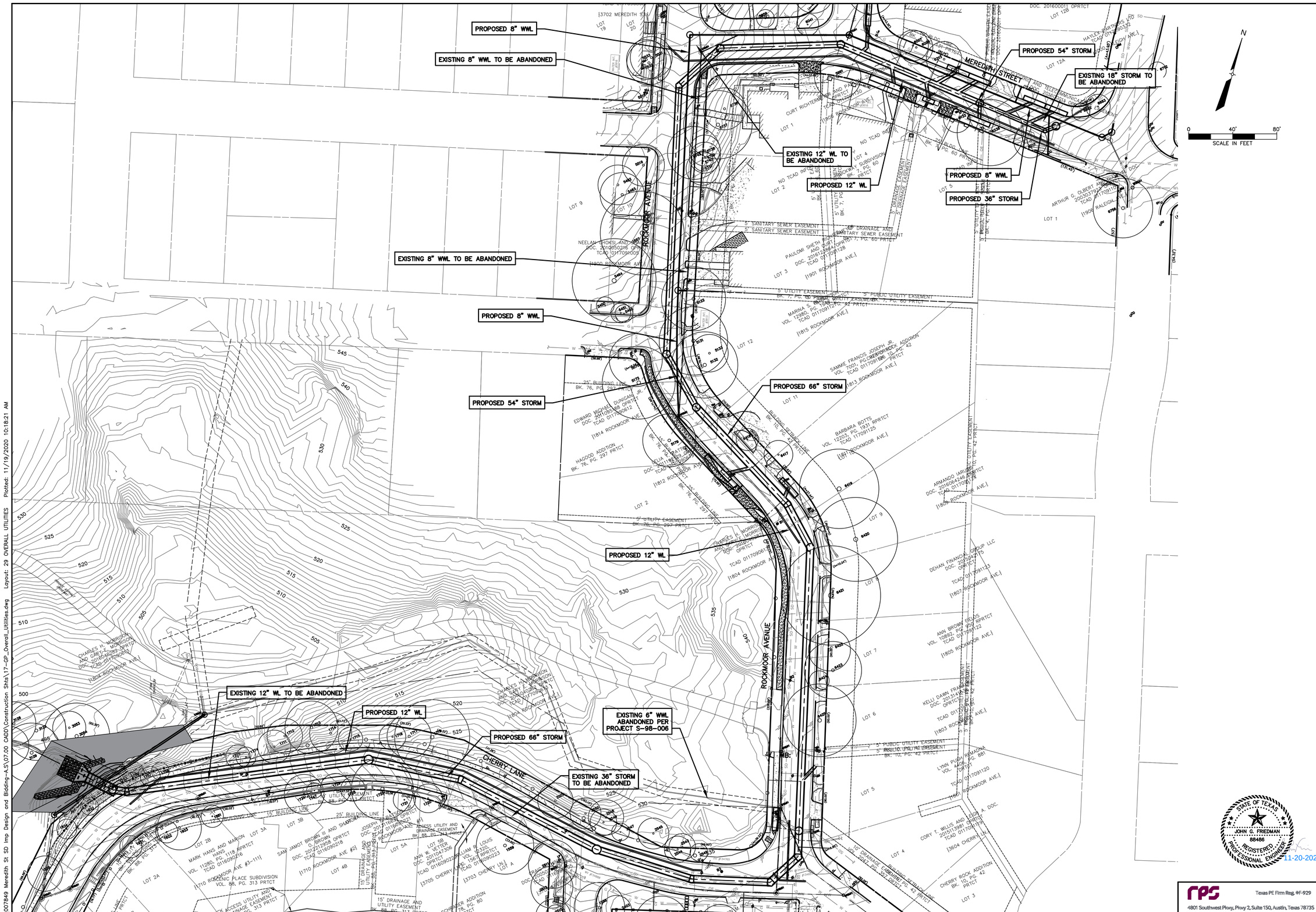

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CITY OF AUSTIN ACCT. EXCELLENCE

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
OVERALL UTILITIES

NO.	BY	DATE	REVISIONS REMARKS

STATE OF TEXAS
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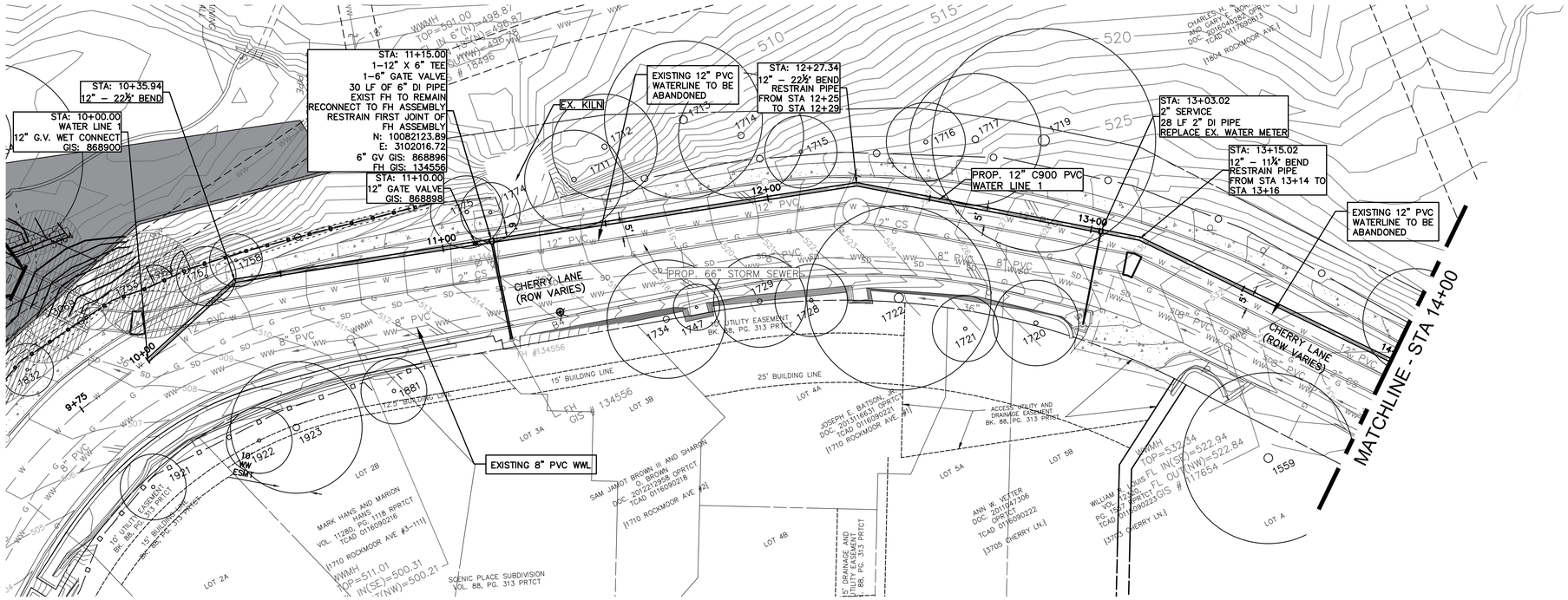
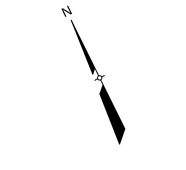


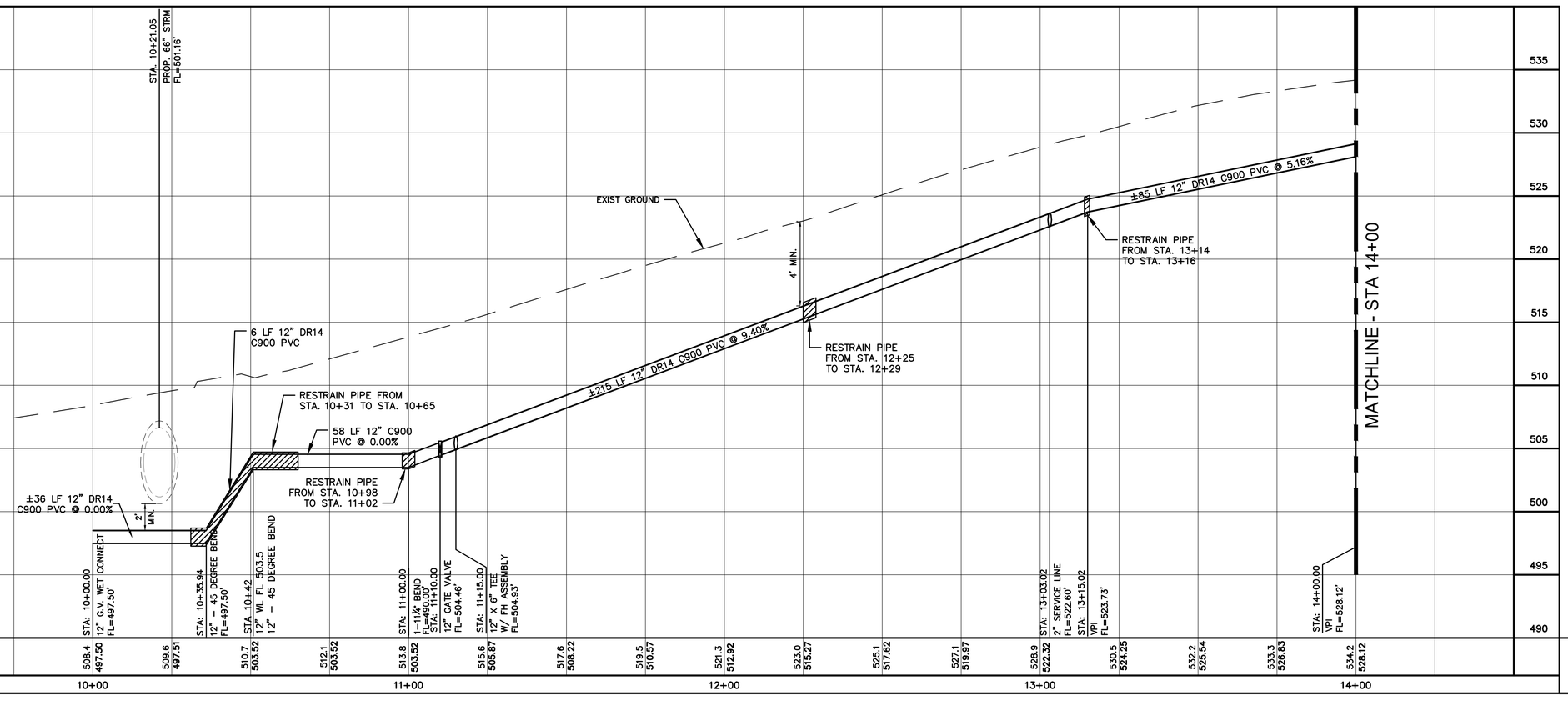
WATER LINE 1 BEG TO STA 14+00



LEGEND

PROPOSED STORM DRAIN LINE	
PROPOSED WASTEWATER LINE	
PROPOSED WATER LINE	
EXISTING GAS LINE	G
EXISTING WATER LINE	W
EXISTING WASTEWATER LINE	WW
EXISTING STORM DRAIN LINE	SD
RIGHT OF WAY	
H.D.A.	(HORIZONTAL DEFLECTION ANGLE)

NOTE:
1. JOINT RESTRAINT IS SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
2. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.



NOTE:
1. JOINT RESTRAINT IS SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
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NO.	BY	DATE	REVISIONS REMARKS

SHEET INFORMATION
DATE Nov 19, 2020
SHEET 30 OF 81

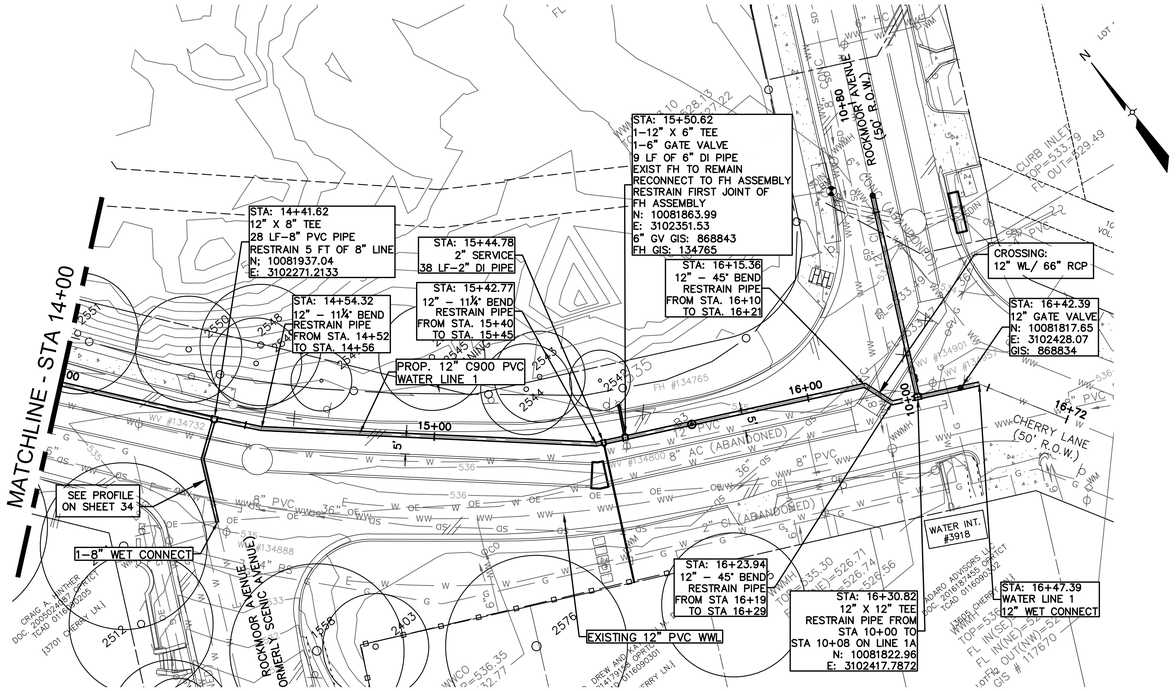
CITY OF AUSTIN
AUSTIN GREEN BUILDING

11/19/2020

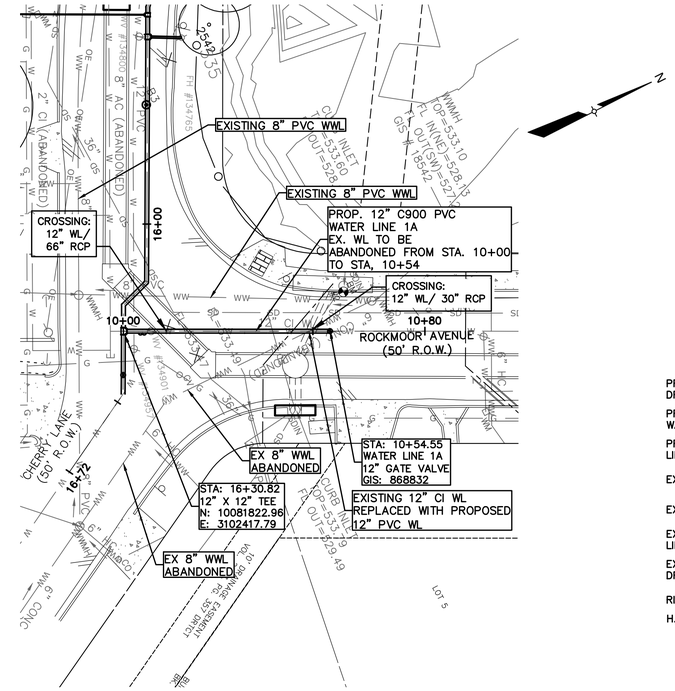
GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
WATER LINE 1 BEG TO STA 14+00

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A-S\07.00 CADD\Construction Sits\08-GP_Water1 Plan and Profile.dwg Layout: 30 WATER LINE 1 BEG TO STA 14+00 Plotted: 11/19/2020 10:18:46 AM



WATER LINE 1 14+00 TO END



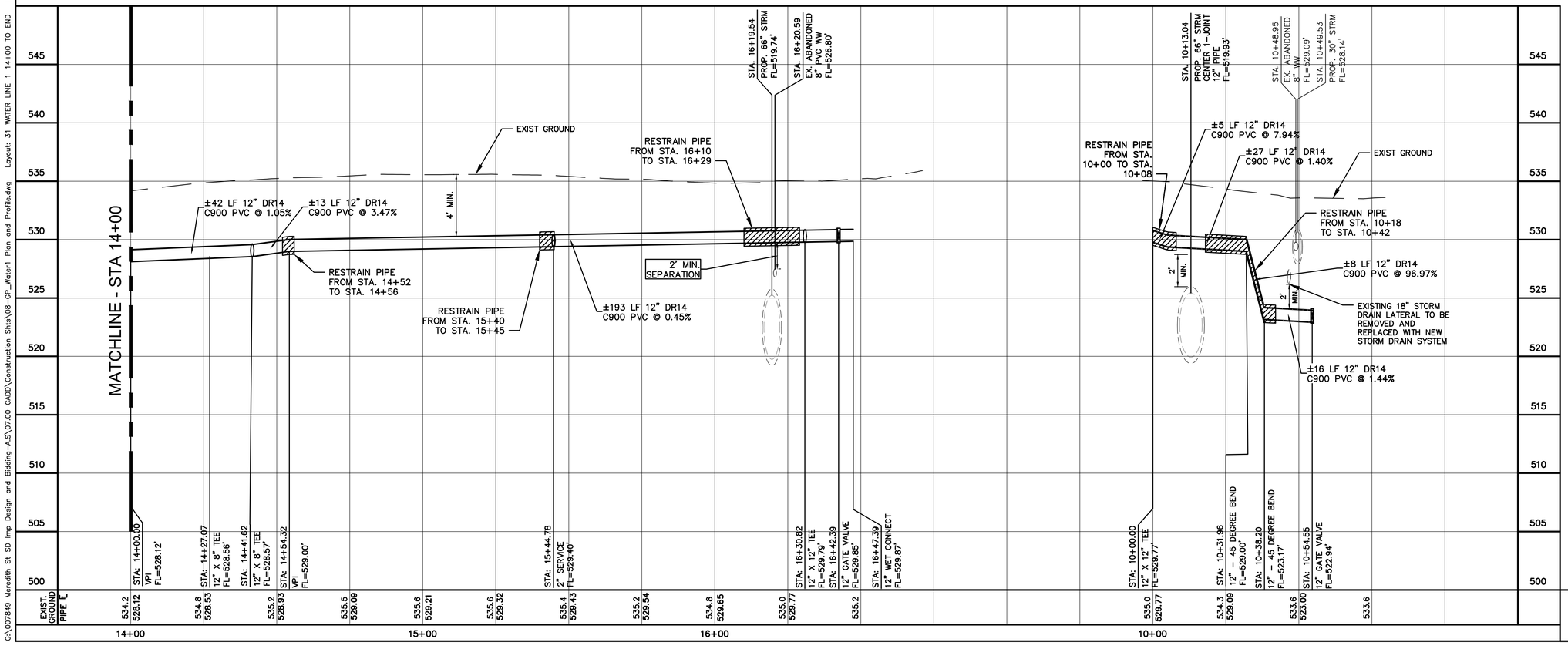
WATER LINE 1A BEG TO END

0 20 40

HORIZ: 1"=20'
VERT: 1"=5'

LEGEND

PROPOSED STORM DRAIN LINE	
PROPOSED WASTEWATER LINE	
PROPOSED WATER LINE	
EXISTING GAS LINE	G
EXISTING WATER LINE	W
EXISTING WASTEWATER LINE	WW
EXISTING STORM DRAIN LINE	SD
RIGHT OF WAY	
H.D.A.	(HORIZONTAL DEFLECTION ANGLE)



NOTE:
1. JOINT RESTRAINT IS SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
2. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

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CITY OF AUSTIN
ESTD 1839

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
WATER LINE 1 14+00 TO END

NO.	BY	DATE	REVISIONS	REMARKS

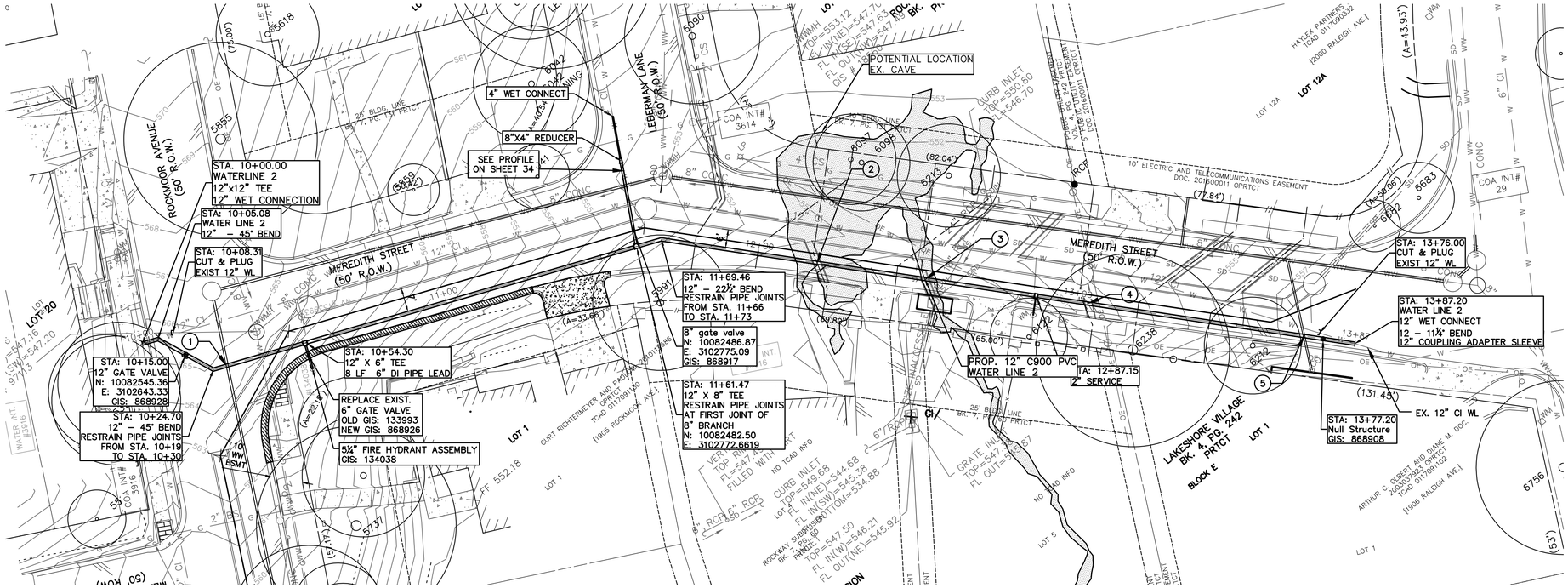
SHEET INFORMATION

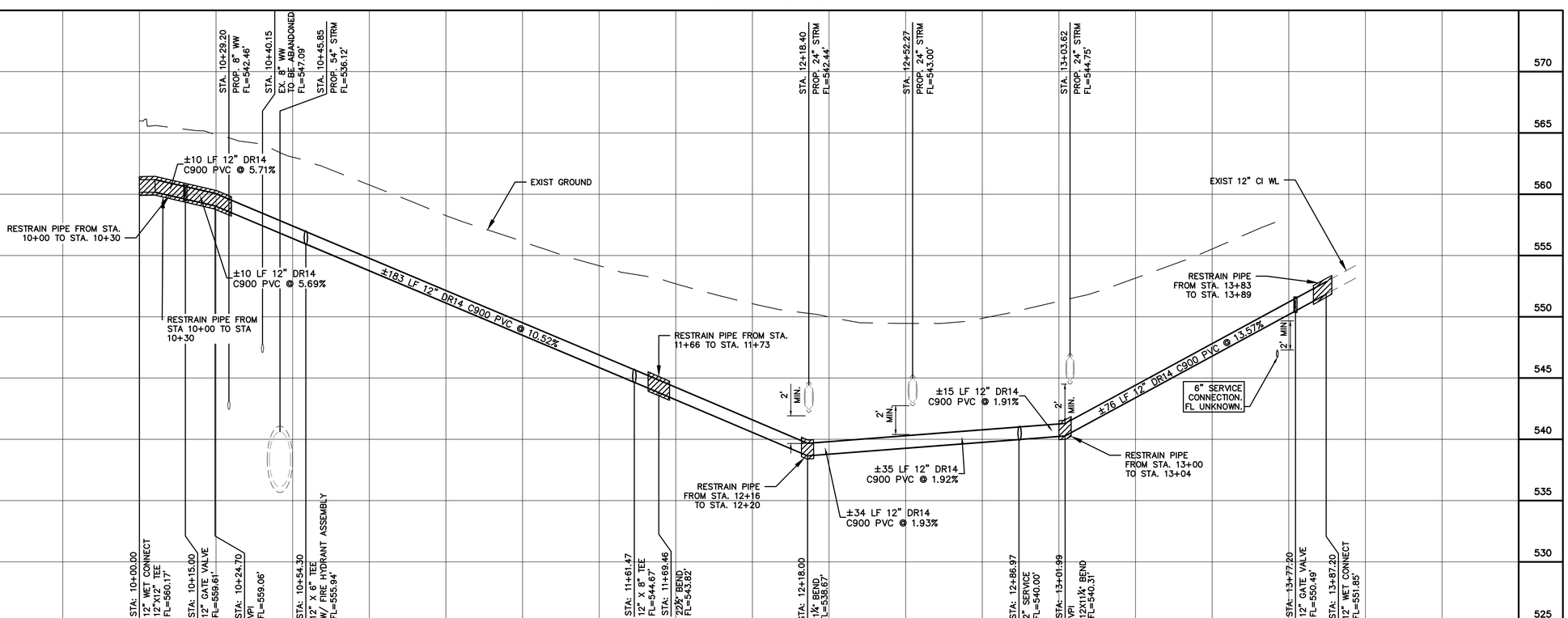
DATE Nov 19, 2020

SHEET 31 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A,S\07.00 CADD\Construction Shts\08-GP_Water1 Plan and Profile.dwg Layout: 31 WATER LINE 1 14+00 TO END Plotted: 11/19/2020 10:19:01 AM





HORIZ: 1"=20'
VERT: 1"=5'

LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM DRAIN LINE
- RIGHT OF WAY
- H.D.A. (HORIZONTAL DEFLECTION ANGLE)

NOTE:
1. JOINT RESTRAINT IS SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
2. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

KEY NOTES

1. CROSSING: 12" WL/ 8" WWL
2. CROSSING: 12" WL/ 24" RCP
3. CROSSING: 12" WL/ 24" RCP
4. CROSSING: 12" WL/ 24" RCP
5. CROSSING: 12" WL/ 6" WWL

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CITY OF AUSTIN

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GENERAL PERMIT OFFICE
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WATER LINE 2 BEG TO END

REVISIONS			
NO.	BY	DATE	REMARKS

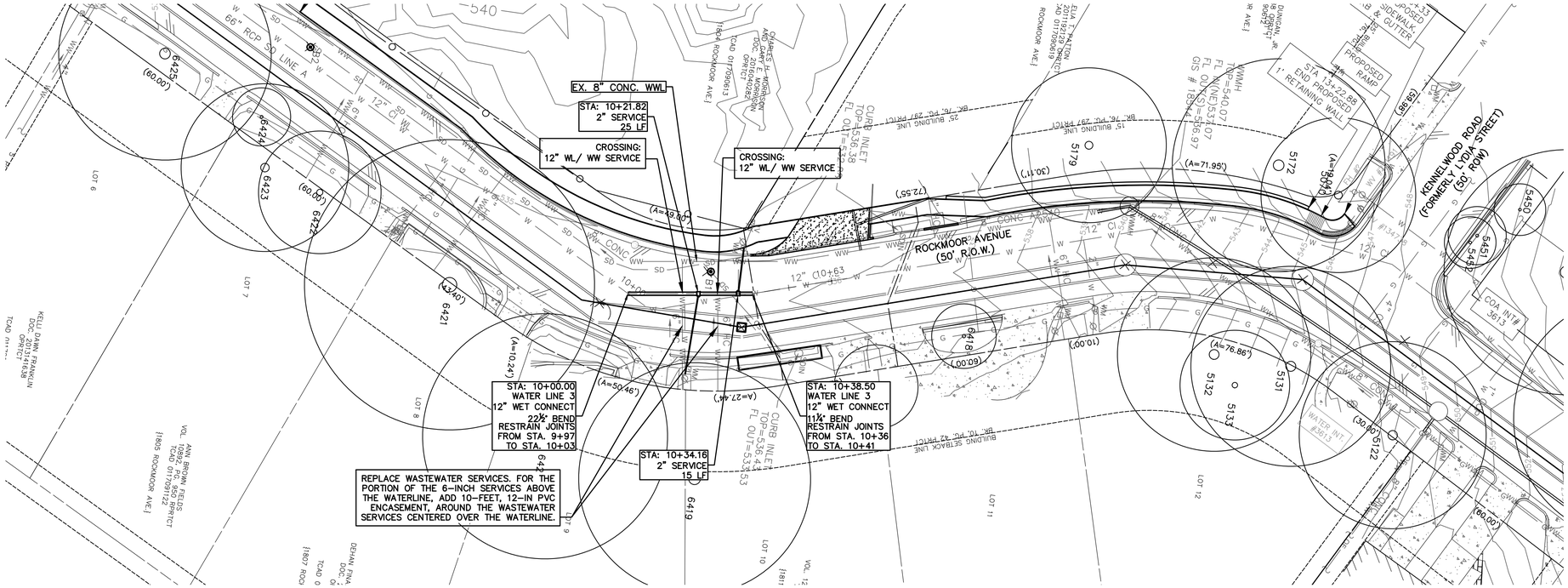
SHEET INFORMATION

DATE Nov 19, 2020

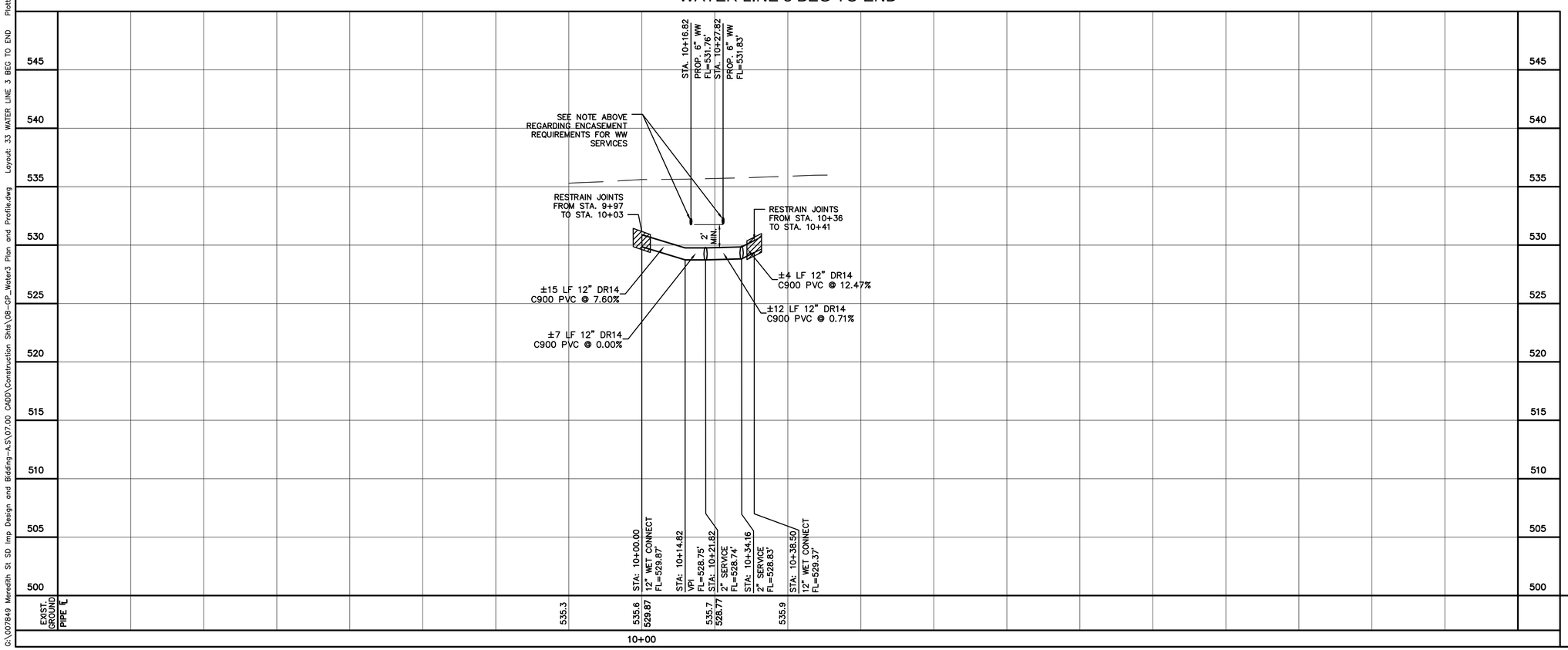
SHEET 32 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A.S\07.00 CADD\Construction Shts\08-GP_Water2 Plan and Profile.dwg Layout: 32 WATER LINE 2 BEG TO END Plotted: 11/19/2020 10:19:21 AM



WATER LINE 3 BEG TO END



HORIZ: 1"=20'
VERT: 1"=5'

LEGEND

PROPOSED STORM DRAIN LINE	
PROPOSED WASTEWATER LINE	
PROPOSED WATER LINE	
EXISTING GAS LINE	G
EXISTING WATER LINE	W
EXISTING WASTEWATER LINE	WW
EXISTING STORM DRAIN LINE	SD
RIGHT OF WAY	
H.D.A.	(HORIZONTAL DEFLECTION ANGLE)

NOTE:
1. JOINT RESTRAINT IS SUBSIDIARY TO PIPE LINEAR FOOT PRICE.
2. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

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CITY OF AUSTIN
FOUNDED 1839

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS

WATER LINE 3 BEG TO END

REVISIONS

NO.	BY	DATE	REMARKS

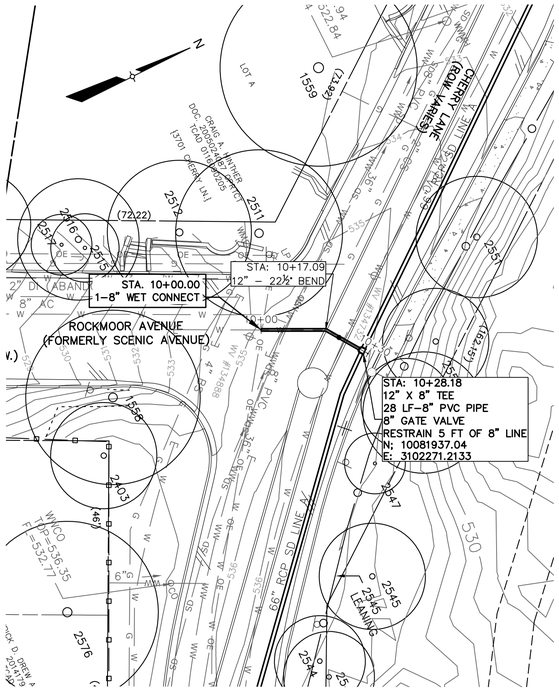
SHEET INFORMATION

DATE Nov 19, 2020

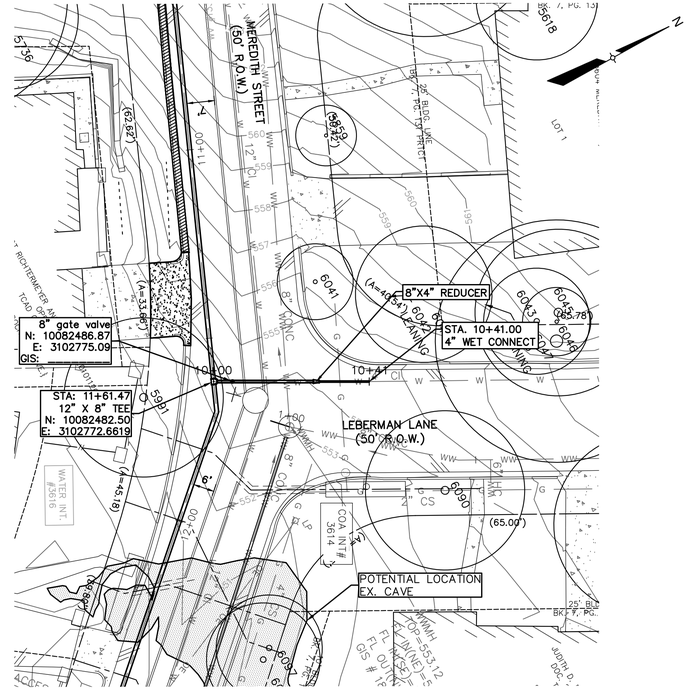
SHEET 33 OF 81

GP-19-0000.WPD

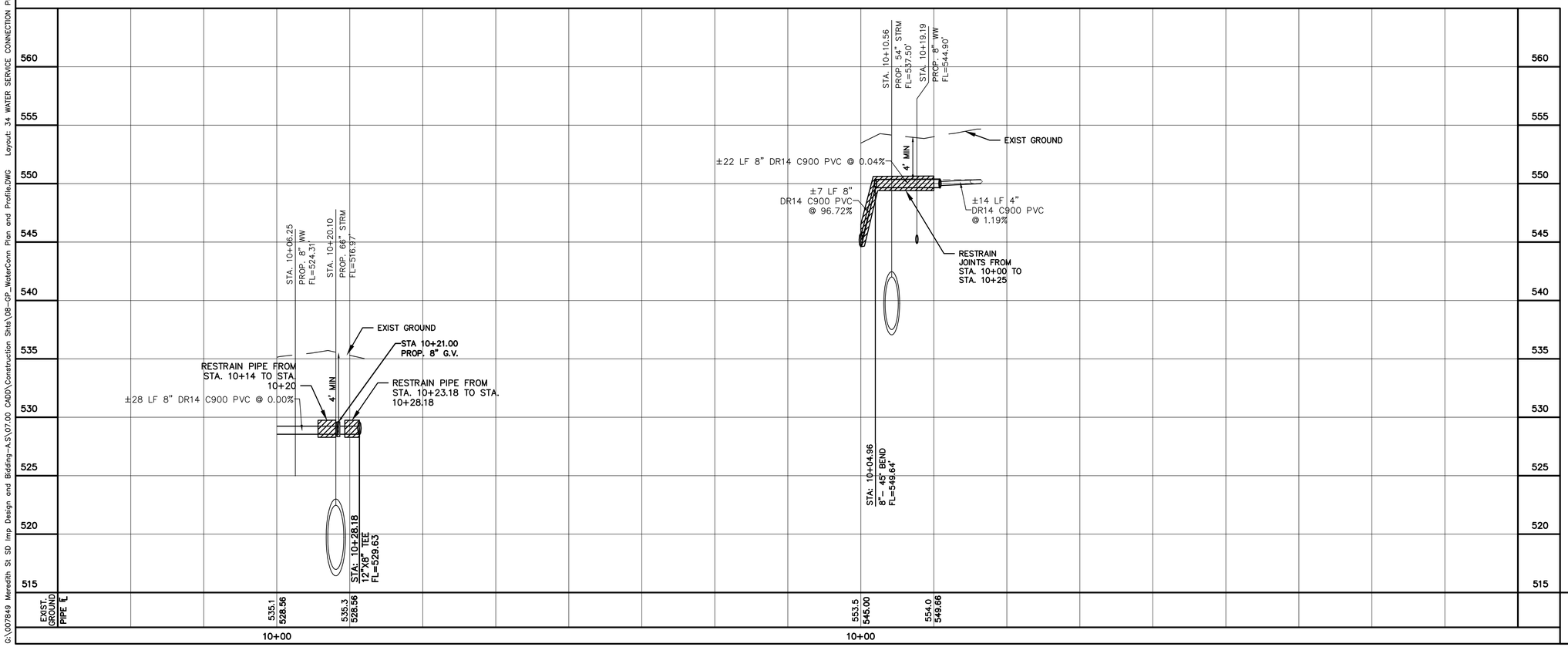
G:\007849 Meredith St SD Imp Design and Bidding-A.S\07.00 CADD\Construction Shts\08-GP_Water3 Plan and Profile.dwg Layout: 33 WATER LINE 3 BEG TO END Plotted: 11/19/2020 10:19:42 AM



ROCKMOOR AVE WATER SERVICE CONNECTION



LEBERMAN AVE WATER SERVICE CONNECTION



0 20 40
HORIZ: 1"=20'
VERT: 1"=5'

LEGEND

PROPOSED STORM DRAIN LINE	
PROPOSED WASTEWATER LINE	
PROPOSED WATER LINE	
EXISTING GAS LINE	G
EXISTING WATER LINE	W
EXISTING WASTEWATER LINE	WW
EXISTING STORM DRAIN LINE	SD
RIGHT OF WAY	
H.D.A.	(HORIZONTAL DEFLECTION ANGLE)

NOTES:
1. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

STATE OF TEXAS
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REGISTERED PROFESSIONAL ENGINEER
11-20-2020

CITY OF AUSTIN

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS

WATER SERVICE CONNECTION PROFILES

REVISIONS

NO.	BY	DATE	REMARKS

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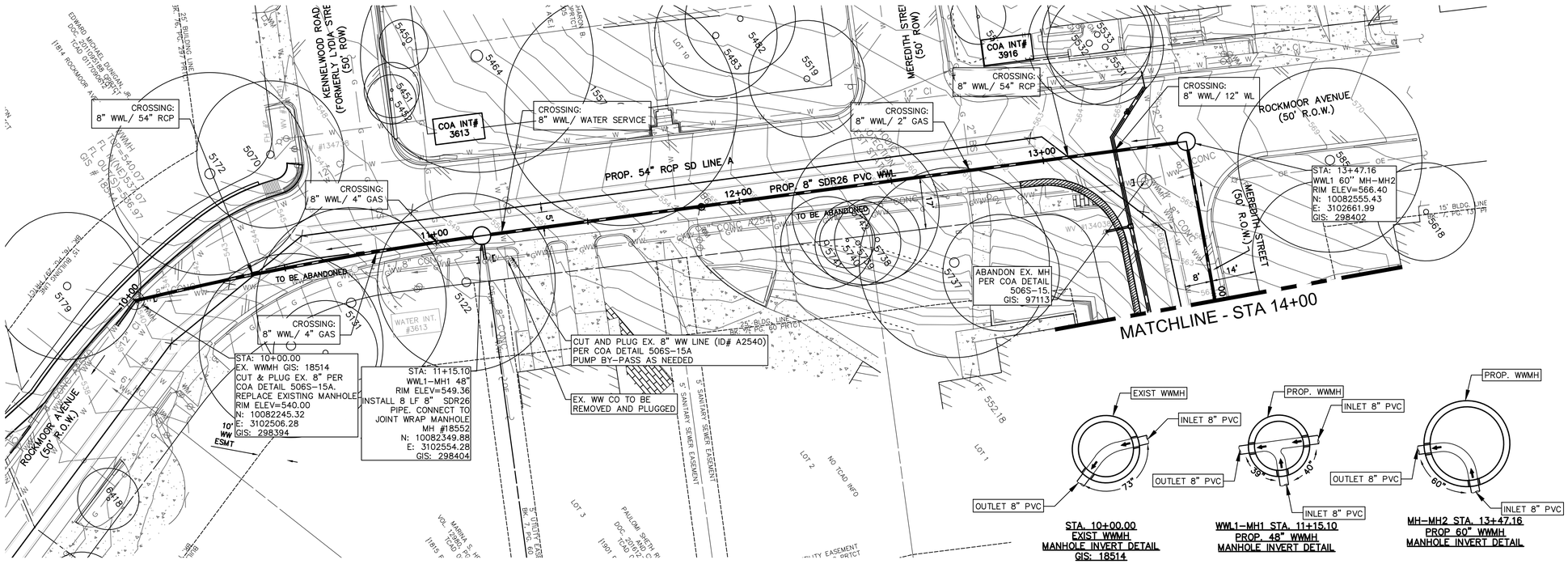
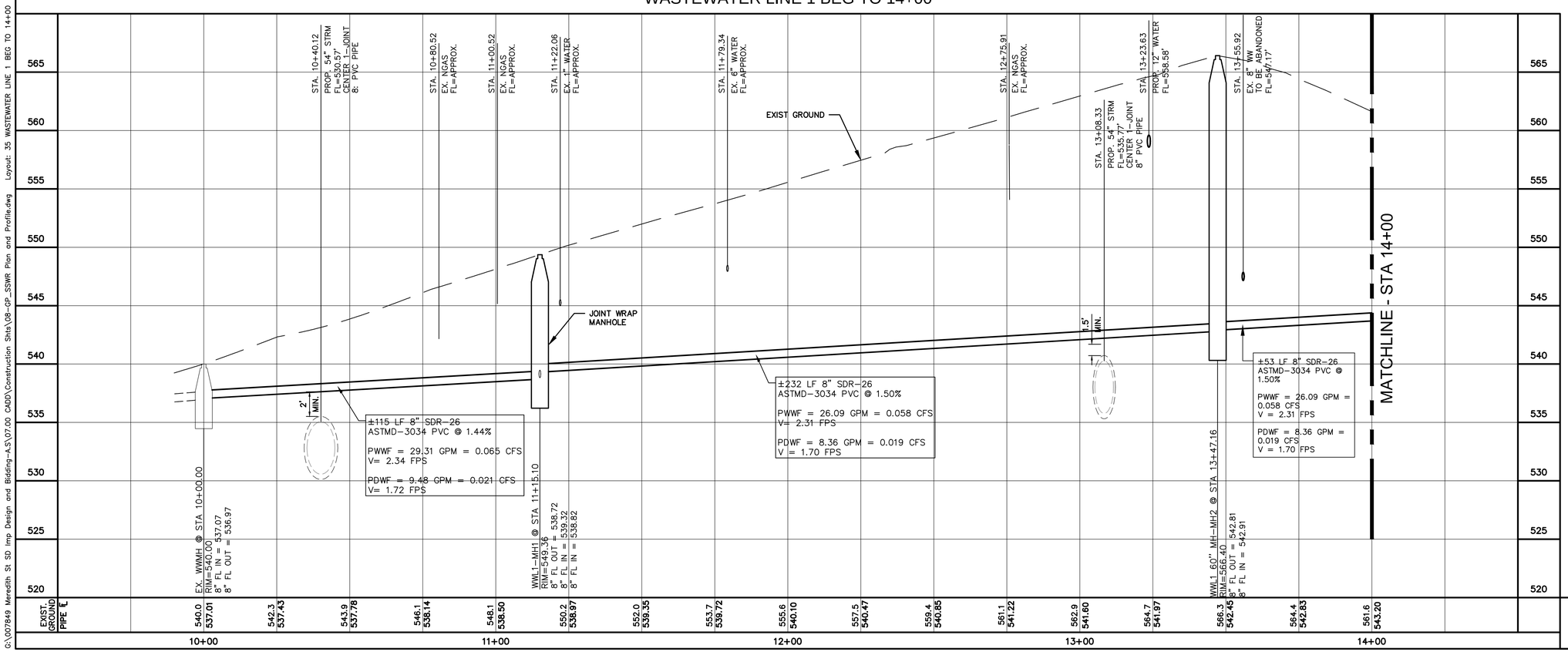


WASTEWATER LINE 1 BEG TO 14+00



NOTE

1. CONTRACTOR TO MATCH GRADE OF EXISTING PAVEMENT AT ROAD SURFACE.
2. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

LEGEND

PROPOSED STORM DRAIN LINE	
PROPOSED WASTEWATER LINE	
PROPOSED WATER LINE	
EXISTING GAS LINE	G
EXISTING WATER LINE	W
EXISTING WASTEWATER LINE	WW
EXISTING STORM DRAIN LINE	SD
RIGHT OF WAY	
H.D.A.	(HORIZONTAL DEFLECTION ANGLE)
←	DIRECTION OF FLOW

STATE OF TEXAS
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CITY OF AUSTIN

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
WASTEWATER LINE 1 BEG TO 14+00

NO.	BY	DATE	REVISIONS REMARKS

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 35 OF 81

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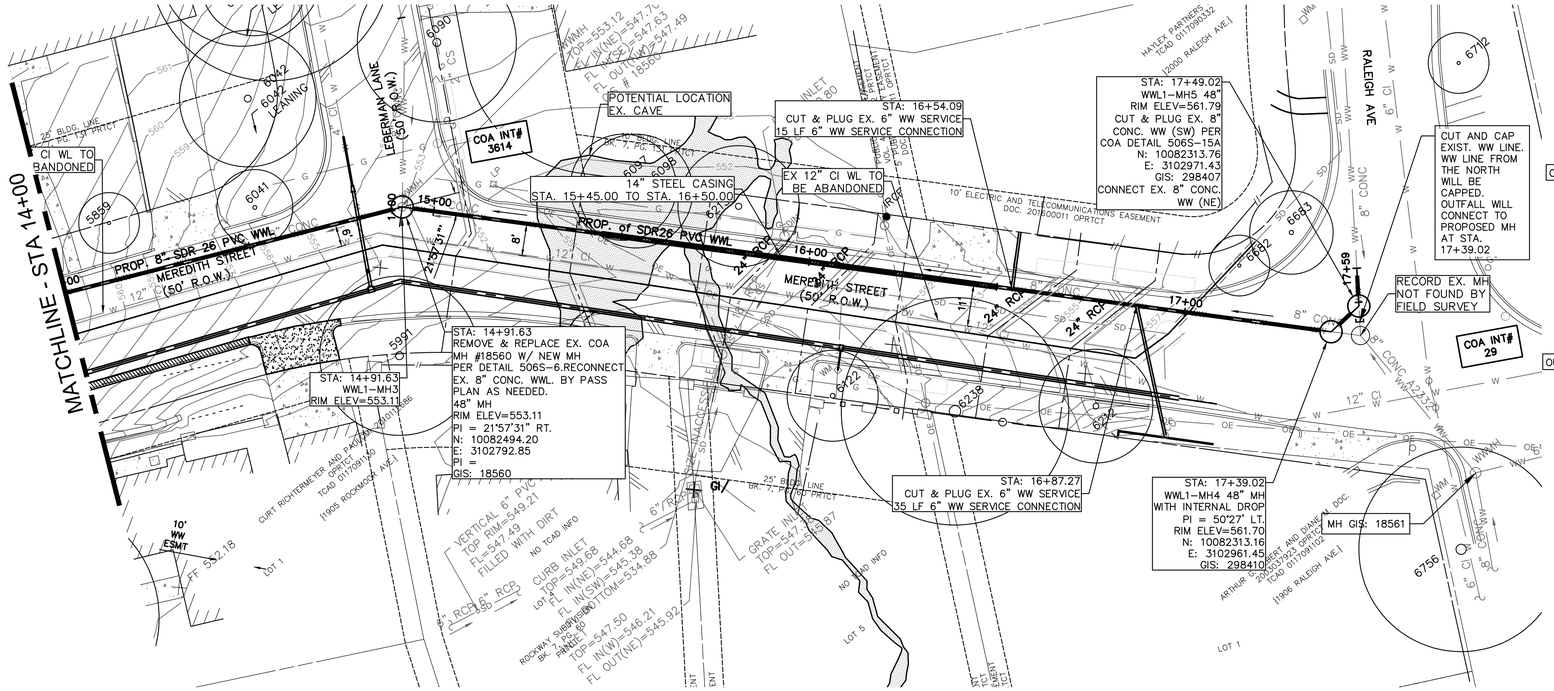
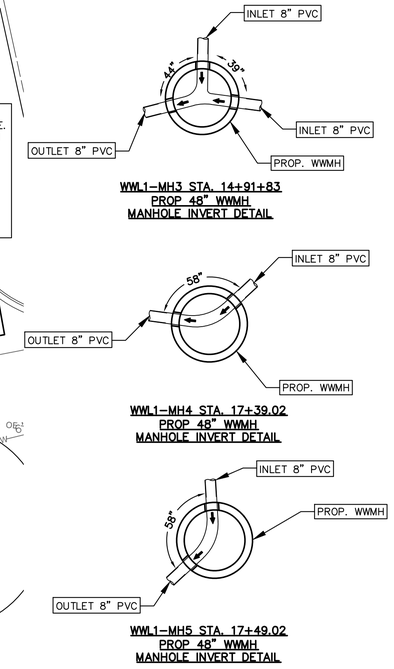
G:\007849 Meredith St SD Imp Design and Bidding-A\S\07.00 CADD\Construction Shts\08-GP_SSWR Plan and Profile.dwg Layout: 35 WASTEWATER LINE 1 BEG TO 14+00 Plotted: 11/19/2020 10:20:30 AM





N

0 20 40

HORIZ: 1"=20'
VERT: 1"=5'

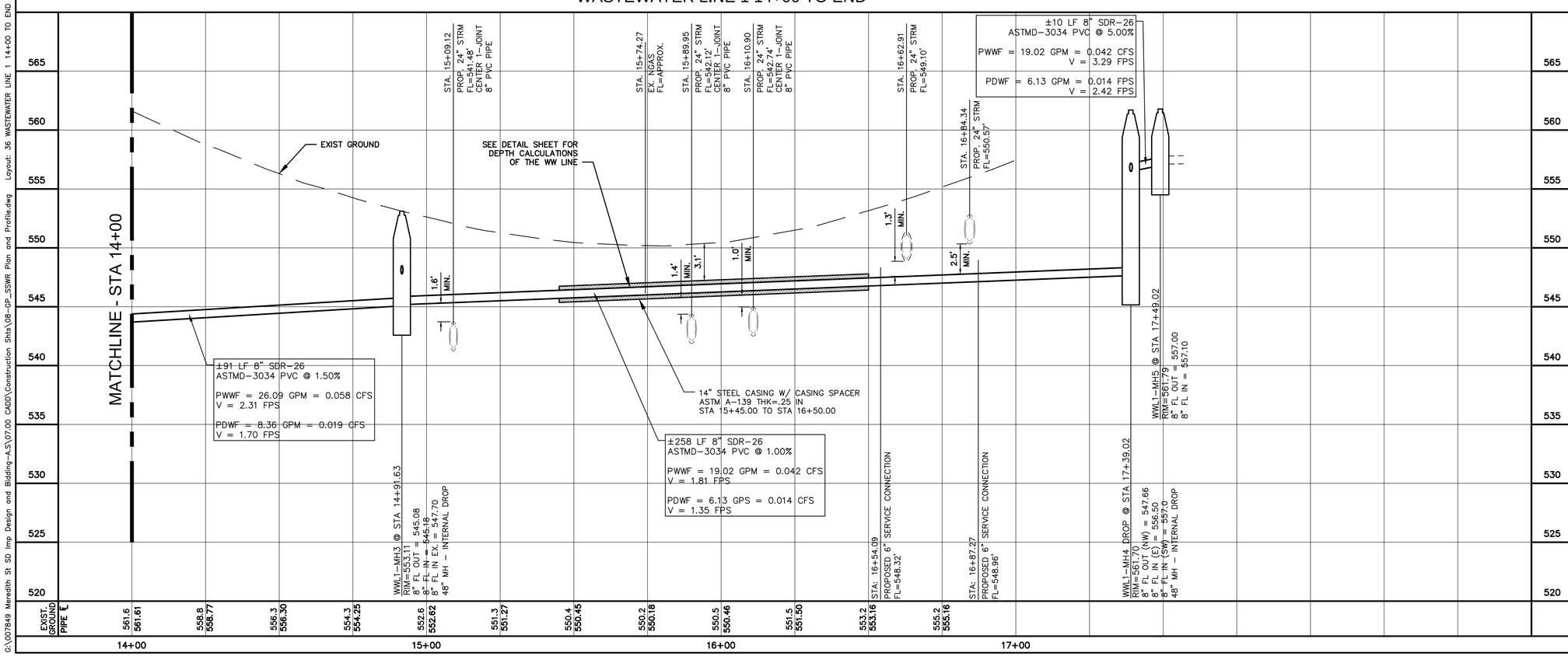
LEGEND

- PROPOSED STORM DRAIN LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE — G —
- EXISTING WATER LINE — W —
- EXISTING WASTEWATER LINE — WW —
- EXISTING STORM DRAIN LINE — SD —
- RIGHT OF WAY
- H.D.A. (HORIZONTAL DEFLECTION ANGLE)
- DIRECTION OF FLOW

NOTE

1. CONTRACTOR TO MATCH GRADE OF EXISTING PAVEMENT AT ROAD SURFACE.
2. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

WASTEWATER LINE 1 14+00 TO END



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STATE OF TEXAS
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CITY OF AUSTIN
AUSTIN GREEN

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
WASTEWATER LINE 1 14+00 TO END

NO.	BY	DATE	REMARKS

REVISIONS

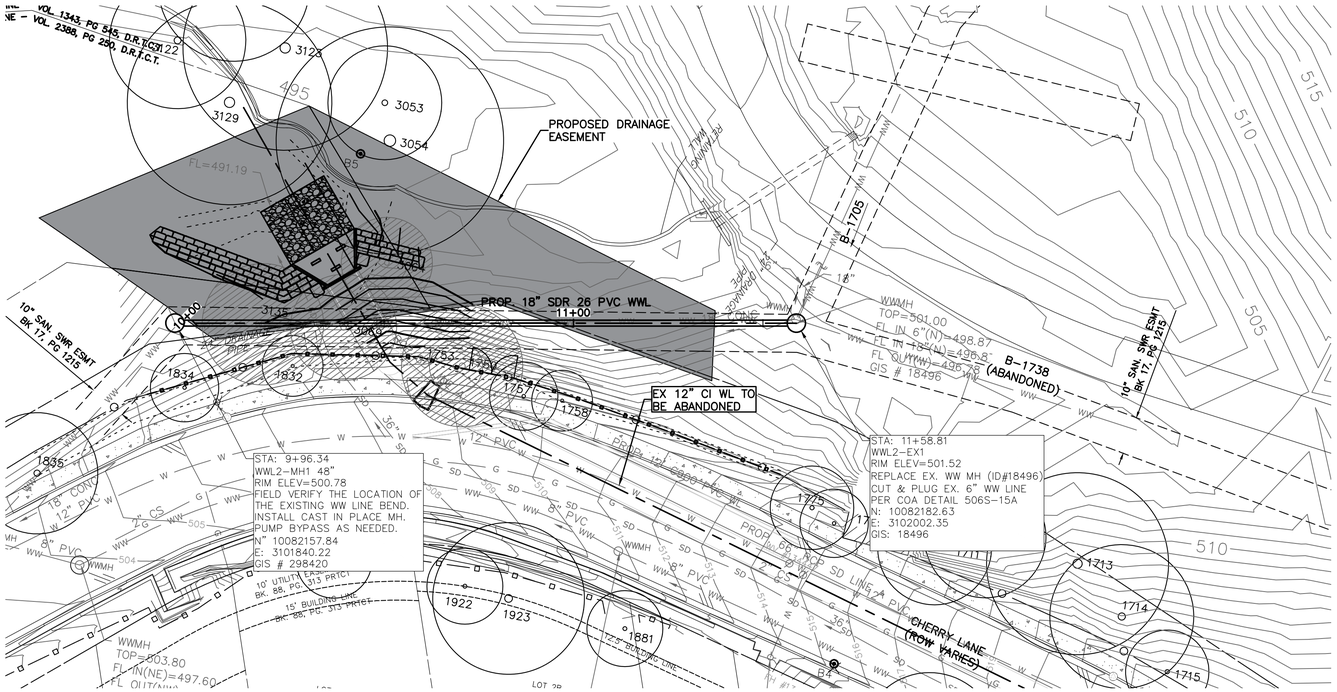
SHEET INFORMATION

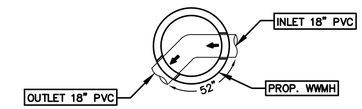
DATE Nov 19, 2020

SHEET 36 OF 81

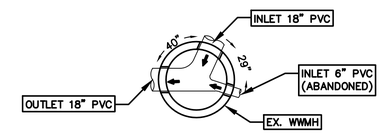
GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A,S\07.00 CADD\Construction Shts\08-GP_SSWR Plan and Profile.dwg Layout: 36 WASTEWATER LINE 1 14+00 TO END Plotted: 11/19/2020 10:20:42 AM





WWL2-MH1 STA. 10+00.00
PROP 48" WWMH
MANHOLE INVERT DETAIL



WWL2-EX1 STA. 11+58.81
EXIST WWMH #18496
MANHOLE INVERT DETAIL

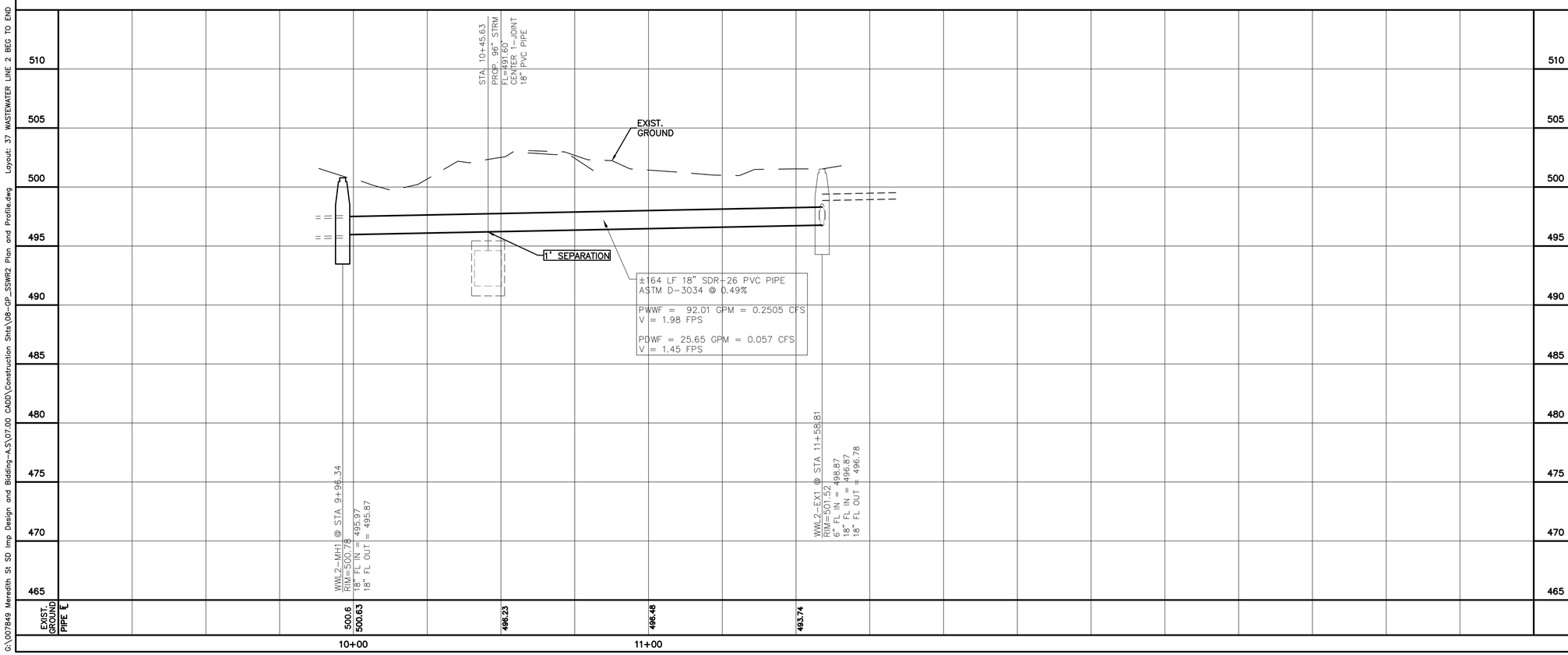
N

0 20 40
HORIZ: 1"=20'
VERT: 1"=5'

LEGEND

PROPOSED STORM DRAIN LINE	
PROPOSED WASTEWATER LINE	
PROPOSED WATER LINE	
EXISTING GAS LINE	G
EXISTING WATER LINE	W
EXISTING WASTEWATER LINE	WW
EXISTING STORM DRAIN LINE	SD
RIGHT OF WAY	
H.D.A.	(HORIZONTAL DEFLECTION ANGLE)
	DIRECTION OF FLOW

WASTEWATER LINE 2 BEG TO END



NOTES:
1. SEE CLSM TRENCH DETAIL FOR BACKFILL REQUIREMENTS.

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CITY OF AUSTIN

11/19/2020

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LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
WASTEWATER LINE 2 BEG TO END

REVISIONS

NO.	BY	DATE	REMARKS

SHEET INFORMATION

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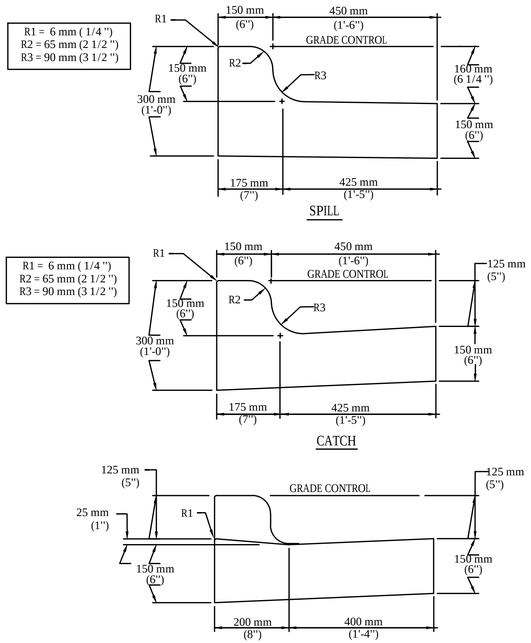
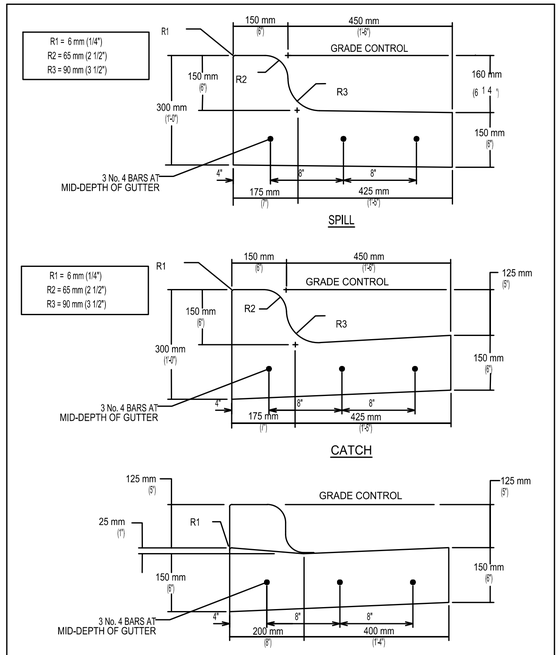
SHEET 37 OF 81

GP-19-0000.WPD

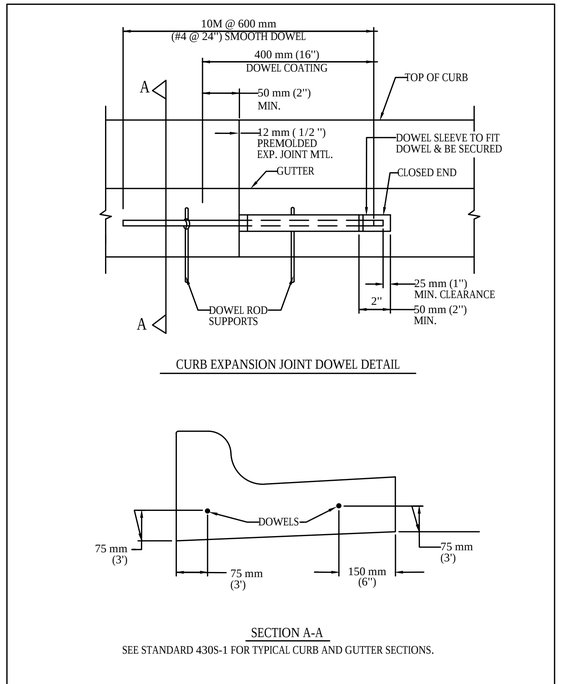
G:\007849 Meredith St SD Imp Design and Bidding-A,S\07.00 CADD\Construction Shts\08-GP_SSWR2 Plan and Profile.dwg Layout: 37 WASTEWATER LINE 2 BEG TO END Plotted: 11/19/2020 10:21:05 AM



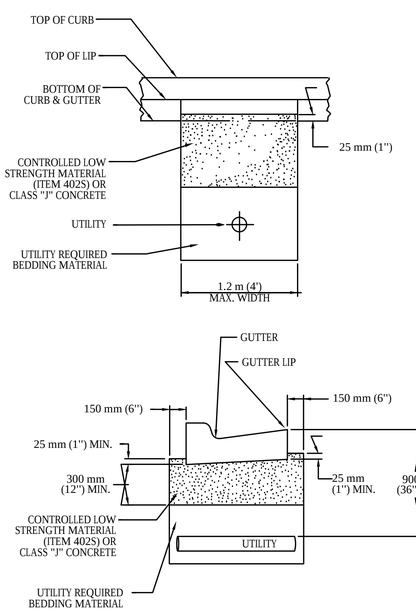
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION		CURB AND GUTTER SECTION	
RECORD COPY SIGNED BY LINO RIVERA	9/29/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-1



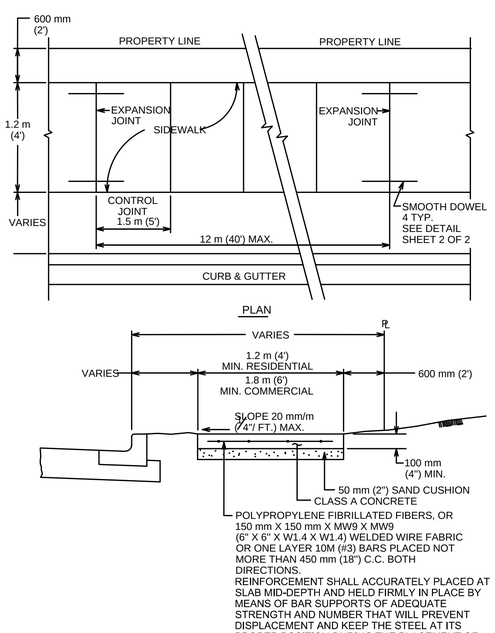
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		REINFORCED CURB AND GUTTER SECTION	
RECORD COPY SIGNED BY SAM ANGOORI	01/04/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-2



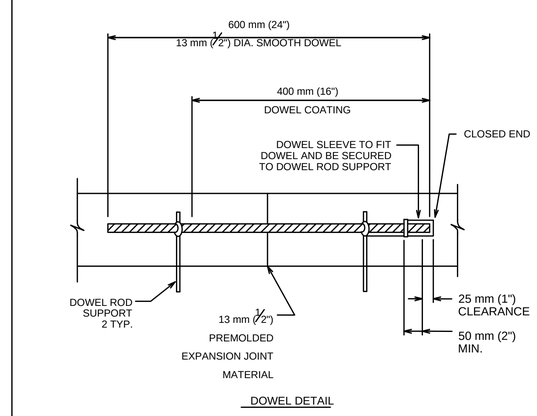
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION		CURB EXPANSION JOINT DOWEL DETAIL	
RECORD COPY SIGNED BY LINO RIVERA	9/29/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-3



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION		CONCRETE BACKFILL UNDER CURB & GUTTER	
RECORD COPY SIGNED BY LINO RIVERA	9/29/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-4



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 1 OF 3



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 2 OF 3

STATE OF TEXAS
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11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
COA STANDARD DETAILS - ROADS (1 OF 4)

NO.	BY	DATE	REVISIONS REMARKS

SHEET INFORMATION

DATE Nov 19, 2020

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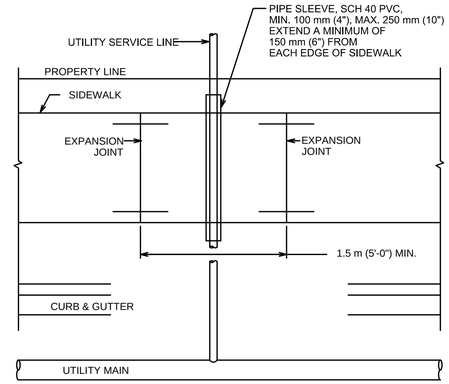
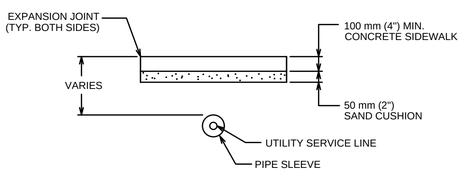
GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A-S\07.00 CADD\Construction Shts\21-23 -GP_Standard Details (Roads).dwg Layout: 38 COA STANDARD DETAILS - ROADS (1 OF 4) Plotted: 11/19/2020 10:21:17 AM



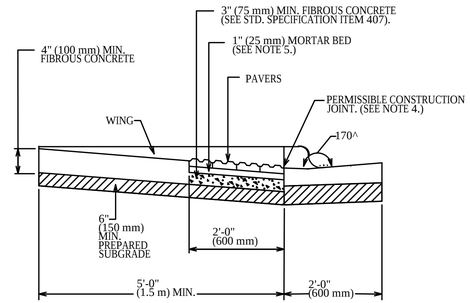
SIDEWALK OVER UTILITY SERVICE LINE PLAN



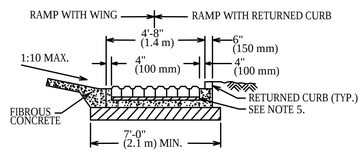
SECTION OF SIDEWALK OVER UTILITY SERVICE LINES

NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 3 OF 3



CROSS SECTION

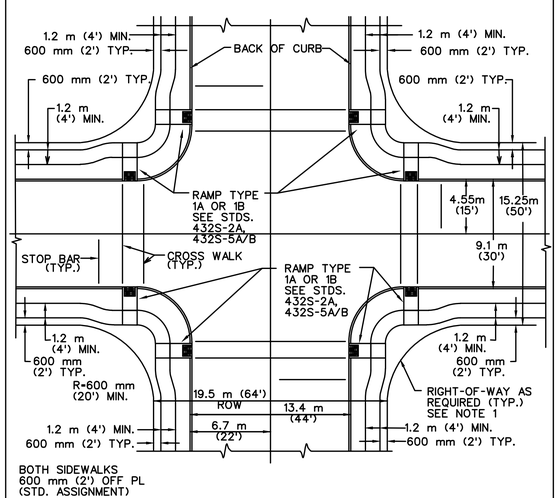


FRONT END VIEW

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		DETECTABLE WARNING-PAVER (CITY PROPERTY/EASEMENTS)	
RECORD COPY SIGNED BY BILL GARDNER	06/21/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-2A 1 OF 2

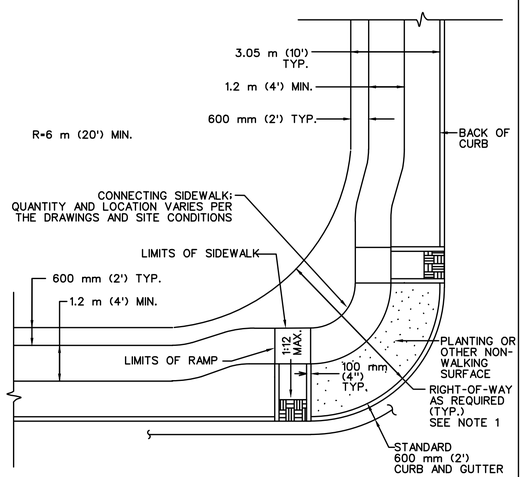
GENERAL NOTES:
1. THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION ON CITY PROPERTY AND EASEMENT AREAS ONLY.
2. PAVERS ARE REQUIRED FOR ALL CURB RAMP INSTALLATIONS.
3. PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED TRUNCATED DOMES WITH A DIAMETER OF 0.9" (23 mm), A NOMINAL HEIGHT OF 0.2" (5 mm) AND A NOMINAL CENTER TO CENTER SPACING OF 2.35" (60 mm) AND SHALL CONSTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT (Re: ADAAG SECTION 4.29.2). MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. PAVER PATTERN SHALL BE BASKET WEAVE UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
4. TYPICAL SIDEWALK WIDTHS AND CURB RADII ARE SHOWN FOR ILLUSTRATION ONLY. REFER TO THE TRANSPORTATION CRITERIA MANUAL FOR SIDEWALK WIDTHS, CURB RADII AND CURB BASIS.
5. THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL BE LIMITED TO ¼" (6 mm) JOINT SIZE. GAPS LARGER THAN ¼" (6 mm) MUST BE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. ALL JOINTS BETWEEN BRICKS AND ADJOINING SURFACE SHALL BE MORTAR FILLED UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
6. MORTAR SHALL CONFORM TO STD. SPECIFICATION ITEM SECTION 403S.3.5. MORTAR AND GROUT. ALL OTHER CONCRETE SHALL CONFORM TO STD. SPECIFICATION ITEM 403S, CONCRETE FOR STRUCTURES, UNLESS OTHERWISE NOTED.
7. CURB RAMPS WITH RETURNED CURB MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		DETECTABLE WARNING-PAVER (CITY PROPERTY/EASMENTS)	
RECORD COPY SIGNED BY BILL GARDNER	06/21/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-2A 2 OF 2



TYPICAL PLAN

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1A/1B CURB RAMPS- FULL INTERSECTION	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3B 1 OF 3



TYPICAL PLAN

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1A/1B CURB RAMPS- FULL INTERSECTION	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3B 2 OF 3

GENERAL NOTES:
1. THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION WITHIN RIGHT-OF-WAY OR EASEMENT ONLY.
2. THIS STANDARD REPRESENTS A TYPICAL CURB RAMP DESIGN FOR A NEWLY CONSTRUCTED INTERSECTION WITH A 6 m (20') RADIUS. LARGER RADII, STREET GRADES, LIMITED SIGHT DISTANCES, STREET CLASSIFICATION, SIGNALIZATION AND OTHER FACTORS MAY REQUIRE THE ENGINEER OR DESIGNATED REPRESENTATIVE TO MODIFY THIS STANDARD. SUFFICIENT RIGHT-OF-WAY SHALL BE DEDICATED SUCH THAT THE ENTIRE CURB RAMP, INCLUDING LANDING, AND THE INTER-CONNECTING SIDEWALK ARE CONTAINED WITHIN THE RIGHT-OF-WAY.
3. THE CURB, GUTTER AND RAMP SYSTEM SHALL BE CONFIGURED TO MAINTAIN ALL RUNOFF FROM A 25 YEAR FREQUENCY STORM WITHIN THE RIGHT-OF-WAY (DRAINAGE CRITERIA MANUAL SECTION 1.2.2.B). WHEN THERE IS AN ELEVATION DIFFERENCE BETWEEN THE BOTTOM OF RAMPS (IE. ELEVATION AT THE GUTTER) WITHIN A QUADRANT OF AN INTERSECTION, THE LOWER ELEVATION RAMP SHALL BE CONSTRUCTED WITH A POSITIVE RAMP SLOPE OF 1:12 IN ACCORDANCE WITH STANDARDS 432S-5, 432S-5A AND 432S-5B.
4. STANDARD ASSIGNMENT OF SIDEWALKS IS 600 mm (2') OFF PROPERTY LINE, EXCEPT AS INDICATED ON THE DRAWINGS.
5. ALTHOUGH CURB RAMPS MAY BE PLACED WITHIN THE RADIUS, PLACING THE RAMP OUTSIDE OF THE RADIUS WILL ALLOW FOR THE GREATEST DIFFERENCE IN ELEVATION BETWEEN THE RAMPS.
6. WINGS ARE REQUIRED ONLY IF PEDESTRIANS WOULD NORMALLY CROSS THE RAMP.
7. LANDINGS SHALL BE FLAT AND MATCH PT, PC OR TOP OF CURB ELEVATION.
8. CURB RAMPS WILL BE PERPENDICULAR TO ROADWAY CENTERLINES AND SHALL ALIGN WITH EACH OTHER.
9. GRADES ON SIDEWALKS LEADING TO OR FROM THE RAMPS SHALL FOLLOW CURB GRADES.
10. THE SLOPE OF THE SIDEWALK WHICH IS LOCATED WITHIN THE RADIUS AND CONNECTS TWO CURB RAMPS SHALL NOT EXCEED 1:20. THE DEVELOPER, AS PART OF THE CURB RAMP INSTALLATION, SHALL CONSTRUCT THIS CONNECTING SIDEWALK.
11. STRIPING AND SIGNAGE NOT REQUIRED IN ALL INSTANCES. STOP BARS, IF REQUIRED, SHALL BE LOCATED 1.2 m (4') FROM CROSSWALK.
12. IF A MEDIAN EXTENDS INTO THE CROSSWALK AREA, AN OPENING SHALL BE PROVIDED IN THE MEDIAN THE SAME WIDTH AS THE CURB RAMP.
13. CURB INLETS SHALL NOT BE LOCATED WITHIN 3.0 m (10') OF A CURB RAMP.
14. GUTTER SHALL PROVIDE SMOOTH TRANSITION TO RAMPS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1A/1B CURB RAMPS- FULL INTERSECTION	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3B 3 OF 3

STATE OF TEXAS
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11/19/2020

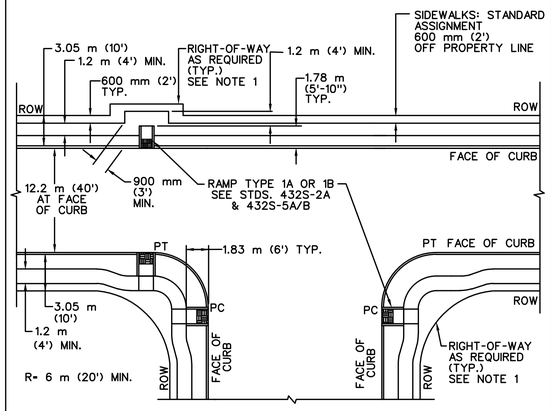
GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
COA STANDARD DETAILS - ROADS (2 OF 4)

NO.	BY	DATE	REVISIONS	REMARKS

SHEET INFORMATION
DATE Nov 19, 2020
SHEET 39 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A-S\07.00 CADD\Construction Shts\21-23 -GP_Standard Details (Roads).dwg Layout: 39 COA STANDARD DETAILS - ROADS (2 OF 4) Plotted: 11/19/2020 10:21:22 AM



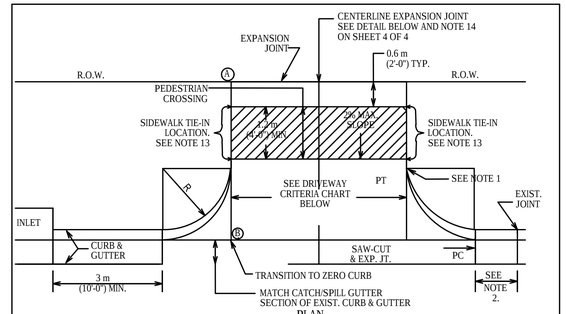
TYPICAL PLAN

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1A/1B CURB RAMPS- "T" INTERSECTION	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3C 1 OF 2

GENERAL NOTES:

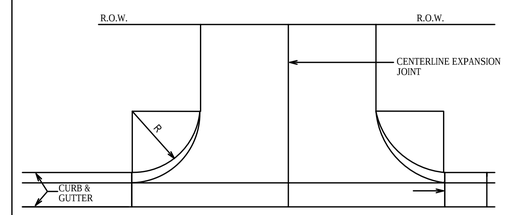
1. THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION WITHIN RIGHT-OF-WAY OR EASEMENT ONLY.
2. THIS STANDARD REPRESENTS A TYPICAL CURB RAMP DESIGN FOR A NEWLY CONSTRUCTED INTERSECTION WITH A 6 m (20') RADIUS. LARGER RADII, STREET GRADES, LIMITED SIGHT DISTANCES, STREET CLASSIFICATION, SIGNALIZATION AND OTHER FACTORS MAY REQUIRE THE ENGINEER OR DESIGNATED REPRESENTATIVE TO MODIFY THIS STANDARD. SUFFICIENT RIGHT-OF-WAY SHALL BE DEDICATED SUCH THAT THE ENTIRE CURB RAMP, INCLUDING LANDING, AND THE INTER-CONNECTING SIDEWALK ARE CONTAINED WITHIN THE RIGHT-OF-WAY.
3. THE CURB, GUTTER AND RAMP SYSTEM SHALL BE CONFIGURED TO MAINTAIN ALL RUNOFF FROM A 25 YEAR FREQUENCY STORM WITHIN THE RIGHT-OF-WAY (DRAINAGE CRITERIA MANUAL SECTION 1.2.2.B). WHEN THERE IS AN ELEVATION DIFFERENCE BETWEEN THE BOTTOM OF RAMPS (IE. ELEVATION AT THE GUTTER) WITHIN A QUADRANT OF AN INTERSECTION, THE LOWER ELEVATION RAMP SHALL BE CONSTRUCTED WITH A POSITIVE RAMP SLOPE OF 1:12 IN ACCORDANCE WITH STANDARDS 432S-5, 432S-5A AND 432S-5B.
4. STANDARD ASSIGNMENT OF SIDEWALKS IS 600 mm (2') OFF PROPERTY LINE, EXCEPT AS INDICATED ON THE DRAWINGS.
5. ALTHOUGH CURB RAMPS MAY BE PLACED WITHIN THE RADIUS, PLACING THE RAMP OUTSIDE OF THE RADIUS WILL ALLOW FOR THE GREATEST DIFFERENCE IN ELEVATION BETWEEN THE RAMPS.
6. WINGS ARE REQUIRED ONLY IF PEDESTRIANS WOULD NORMALLY CROSS THE RAMP.
7. LANDINGS SHALL BE FLAT AND MATCH PT, PC OR TOP OF CURB ELEVATION.
8. CURB RAMPS WILL BE PERPENDICULAR TO ROADWAY CENTERLINES AND SHALL ALIGN WITH EACH OTHER.
9. GRADES ON SIDEWALKS LEADING TO OR FROM THE RAMPS SHALL FOLLOW CURB GRADES.
10. THE SLOPE OF THE SIDEWALK WHICH IS LOCATED WITHIN THE RADIUS AND CONNECTS TWO CURB RAMPS SHALL NOT EXCEED 1:20. THE DEVELOPER, AS PART OF THE CURB RAMP INSTALLATION, SHALL CONSTRUCT THIS CONNECTING SIDEWALK.
11. STRIPING AND SIGNAGE NOT REQUIRED IN ALL INSTANCES. STOP BARS, IF REQUIRED, SHALL BE LOCATED 1.2 m (4') FROM CROSSWALK.
12. IF A MEDIAN EXTENDS INTO THE CROSSWALK AREA, AN OPENING SHALL BE PROVIDED IN THE MEDIAN THE SAME WIDTH AS THE CURB RAMP.
13. CURB INLETS SHALL NOT BE LOCATED WITHIN 3.0 m (10') OF A CURB RAMP.
14. GUTTER SHALL PROVIDE SMOOTH TRANSITION TO RAMPS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1A/1B CURB RAMPS- "T" INTERSECTION	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3C 2 OF 2



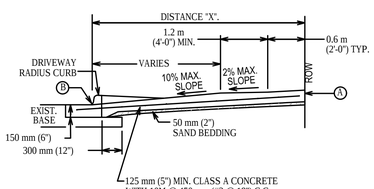
PLAN

NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE: ELEVATION OF POINT (A) ABOVE POINT (B) IS, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm/m (¼" RISE/FOOT) OVER DISTANCE 'X' IN METERS (FEET).



PLAN

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE I DRIVEWAY (1 & 2 FAMILY RESIDENTIAL USE ONLY)	
RECORD COPY SIGNED BY SAM ANGOORI	10/19/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-1 1 OF 4



125 mm (5") MIN. CLASS A CONCRETE WITH 10M @ 450 mm (#3 @ 18") C.C. OR 150 mm X 150 mm X MW10 X MW10 (6" X 6" X W1.5 X W1.5) MINIMUM.

REINFORCEMENT SHALL ACCURATELY PLACED AT SLAB MID-DEPTH AND HELD FIRMLY IN PLACE BY MEANS OF BAR SUPPORTS OF ADEQUATE STRENGTH AND NUMBER THAT WILL PREVENT DISPLACEMENT AND KEEP THE STEEL AT ITS PROPER POSITION DURING THE PLACEMENT OF THE P.C. CONCRETE. IN NO INSTANCE SHALL THE STEEL BE PLACED DIRECTLY ON THE SUBGRADE OR SAND CUSHION LAYER.

CROSS SECTION

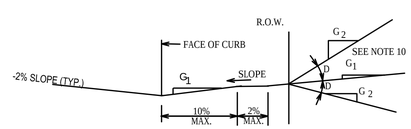
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE I DRIVEWAY (1 & 2 FAMILY RESIDENTIAL USE ONLY)	
RECORD COPY SIGNED BY SAM ANGOORI	10/19/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-1 2 OF 4

DRIVEWAY CRITERIA	WIDTH METERS (FEET)		
USE	MIN.	*OPT.	MAX.
SIN. FAMILY	3.66 (12)	5.50 (18)	11.80 (25)
DUPLEX	4.56 (15)	5.50 (18)	11.80 (25)
TOWN HOME	4.56 (15)	5.50 (18)	11.80 (25)

*OPTIMUM

RADIUS DIMENSION METERS (FEET)			
USE	MIN.	*OPT.	MAX.
SINGLE FAMILY	1.5 (5)	1.5 (5)	3.0 (10)
DUPLEX	1.5 (5)	2.4 (8)	3.0 (10)
TOWN HOME	1.5 (5)	2.4 (8)	3.0 (10)

*OPTIMUM



ALLOWABLE GRADES

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE I DRIVEWAY (1 & 2 FAMILY RESIDENTIAL USE ONLY)	
RECORD COPY SIGNED BY SAM ANGOORI	10/19/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-1 3 OF 4

NOTES:

1. "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST. THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITIONED INTO THE SIDEWALK BEGINNING AT THE RADIUS PC LINE.
2. IF DIMENSION IS LESS THAN 1.5 METERS (5 FEET), REMOVE CURB AND GUTTER TO EXISTING JOINT AND POUR MONOLITHICALLY WITH THE DRIVEWAY.
3. IF THE BASE IS OVER EXCAVATED WHERE THE CURB AND GUTTER WAS REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
4. ALL DRIVEWAYS MUST BE CONSTRUCTED WITHIN THE STREET FRONTAGE OF THE SUBJECT PROPERTY AS DETERMINED BY EXTENDING THE SIDE PROPERTY LINES TO THE CURB.
5. DRIVEWAYS SHALL NOT EXCEED 70% OF A LOTS' STREET FRONTAGE.
6. TYPE I DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHTS-OF-WAY THAN 60% OF PARCEL FRONTAGE OR 15 METERS (50 FEET); WHICHEVER IS LESS.
7. DRIVEWAYS SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
8. SINGLE FAMILY LOTS LIMITED TO ONE DRIVEWAY EXCEPT FOR APPROVED SEMICIRCULAR DRIVES.
9. WHEN TWO DRIVEWAYS ARE USED (0NE PER UNIT; TWO MAXIMUM) FOR DUPLEXES AND TOWN HOMES, SINGLE FAMILY STANDARDS SHALL APPLY.
10. WHILE THE PROPERTY OWNER REMAINS RESPONSIBLE FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHOULD BE CONSULTED WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND "G2" IS GREATER THAN 15%. "G1" PLUS "D" SHOULD NOT EXCEED 15%.
11. SEE TRANSPORTATION MANUAL SECTION 5 FOR OTHER DRIVEWAY REQUIREMENTS.
12. USE 12 mm (½") ASPHALT BOARD, OR OTHER APPROVED MATERIAL, FOR CURB AND GUTTER EXPANSION JOINTS.
13. THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
14. PLACE AN EXPANSION JOINT DOWN THE CENTER OF ALL DRIVEWAYS.
15. WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE I DRIVEWAY (1 & 2 FAMILY RESIDENTIAL USE ONLY)	
RECORD COPY SIGNED BY SAM ANGOORI	10/19/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-1 4 OF 4

STATE OF TEXAS
JOHN G. FRIEDMAN
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REGISTERED PROFESSIONAL ENGINEER
11-20-2020

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CITY OF AUSTIN

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
COA STANDARD DETAILS - ROADS (3 OF 4)

NO.	BY	DATE	REMARKS

REVISIONS

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 40 OF 81

GP-19-0000.WPD

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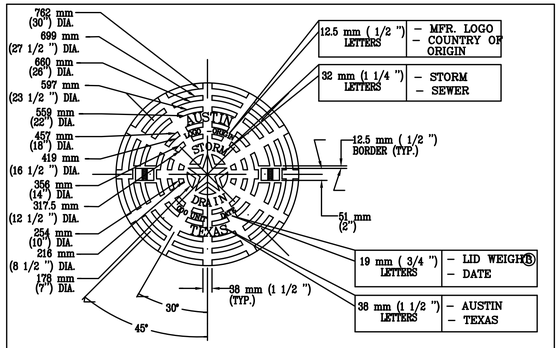
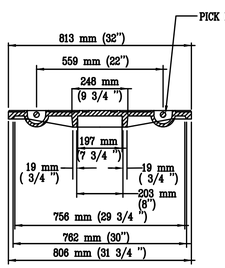
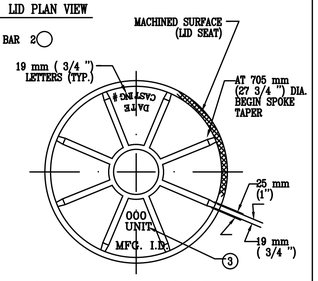


LID PLAN VIEW



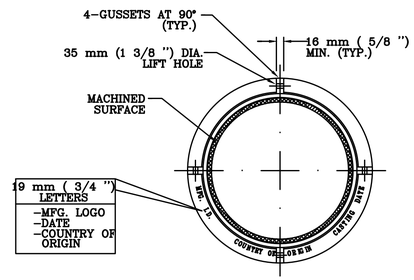
LID SECTION VIEW



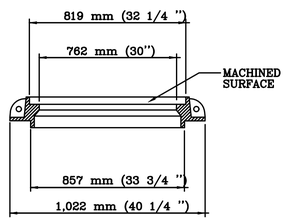
(RELIEVE SPOKE ENDS 3 mm (1/8 ") BEYOND LID FOR SEAT MACHINING PURPOSES)

LID SECTION VIEW

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STORM DRAIN MANHOLE RING AND 813 mm (32") COVER	
RECORD COPY SIGNED BY GEORGE E. OSWALD *2/14/02* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-4S 1 OF 3

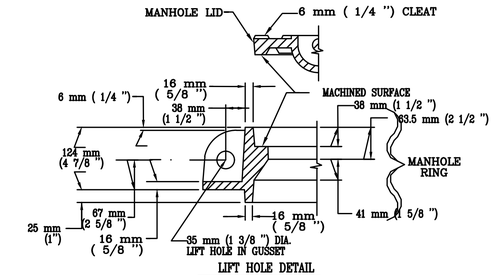


MANHOLE RING

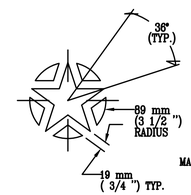


RING SECTION

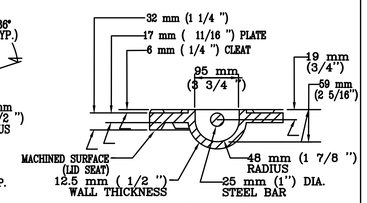
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STORM DRAIN MANHOLE RING AND 813 mm (32") COVER	
RECORD COPY SIGNED BY GEORGE E. OSWALD *2/14/02* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-4S 2 OF 3



LIFT HOLE DETAIL



STAR LAYOUT

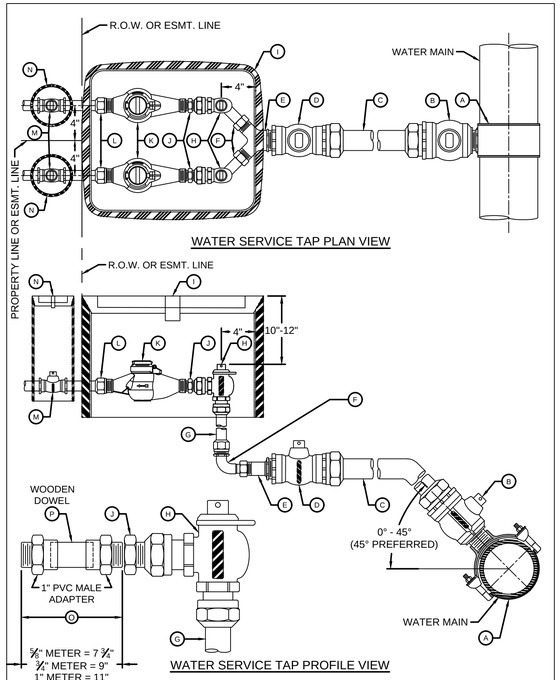


PICK BAR DETAIL

NOTES:

1. ALL CORNERS AND EDGES SHALL HAVE A 1.5 mm (1/16 ") MINIMUM RADIUS.
2. LIDS SHALL BE CAST WITH TWO 25 mm (1") DIA. STEEL PICK BARS.
3. LID WEIGHTS SHALL BE 935 N (210 LBS.) FOR CAST IRON OR 779 N (175 LBS.) FOR DUCTILE IRON. WEIGHT SHALL BE CAST ON BOTH TOP AND BOTTOM OF LID.
4. MANUFACTURER SHALL PROVIDE INDEPENDENT TESTING LABORATORY REPORT ON 25,000 POUND PROOF LOAD TEST CONDUCTED ACCORDING TO AASHTO M-306.
5. FILLETS SHALL BE 6 mm (1/4 ") RADIUS UNLESS OTHERWISE SPECIFIED.
6. MANUFACTURER SHALL REMOVE EXCESS IRON AND MACHINE FINISH SEATING SURFACES TO NOTED DIMENSIONS.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STORM DRAIN MANHOLE RING AND 813 mm (32") COVER	
RECORD COPY SIGNED BY GEORGE E. OSWALD *2/14/02* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-4S 3 OF 3



WATER SERVICE TAP PLAN VIEW

WATER SERVICE TAP PROFILE VIEW

CITY OF AUSTIN AUSTIN WATER	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
JEFF A. KYLE *08/16/2019* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-01B 1 OF 2

MATERIALS LIST:

A. 2" SERVICE CLAMP, SPL WW-264
B. 2" CORPORATION STOP, SPL WW-68
C. 2" HDPE WATER SERVICE TUBING, SPL WW-65
D. 2" BALL VALVE, SPL WW-68
E. SINGLE SERVICE: 2" MIP X 1" COPPER FLARE FITTING, SPL WW-68 OR DOUBLE SERVICE: 2" MIP X 1" COPPER FLARE WYE, SPL WW-68
F. 1" SWIVEL NUT x 1" COMPRESSION 90° BEND, SPL WW-68
G. 1" HDPE WATER SERVICE TUBING, SPL WW-65
H. 1" ANGLE METER STOP, SPL WW-68
I. METER BOX AND LID, SPL WW-145A; FOR DUAL 1" METERS: USE TWO SINGLE METER BOXES

MATERIALS TO BE INSTALLED BY PLUMBER:

J. BRASS METER BUSHING - SIZE AS NEEDED TO CONNECT ANGLE METER STOP TO METER
K. WATER METER PURCHASED FROM AUSTIN WATER
L. BRASS WATER METER COUPLING MALE IPT x SWIVEL COUPLING NUT:
5/8" AND 3/4" METERS: 8 1/2" LONG x 3/4" DIA.
1" METERS: 8 1/2" LONG x 1" DIA.
M. PROPERTY OWNER'S CUT OFF VALVE, SPL WW-276
N. PROPERTY OWNER'S CUT OFF VALVE BOX AND LID
O. TEMPORARY METER SPACER (REQUIRED TO ASSURE METER WILL FIT APPROPRIATELY)
P. 1" WOODEN DOWEL (SHOW ADDRESS ON DOWEL USING WATERPROOF MARKER)

NOTES:

1. SERVICE CLAMP SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM, SPL WW-27D.
2. BRANCH CONNECTIONS AND ALL ANGLE METER STOPS MUST BE INSTALLED PRIOR TO ANY METER INSTALLATION.
3. TOP OF METER BOXES SHOULD BE 4" ABOVE GROUND.
4. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SECTION 510.3 (14) OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS; BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SECTION 510.3 (25).
5. METER BOX MUST BE BEHIND CURB NEXT TO PROPERTY LINE OR EASEMENT AND OUT OF VEHICULAR TRAFFIC AREA AND SIDEWALK.
6. BALL VALVE "D" SHALL NOT BE LOCATED UNDER SIDEWALK, CURB, OR PAVEMENT, AND NOT BE LOCATED MORE THAN 36" BELOW FINAL GRADE.
7. METER SIZES TO BE SHOWN ON PLANS.
8. METER BOX CUT OUTS SHALL NOT EXCEED TWO TIMES THE PIPE DIAMETER.
9. INSTALL METALLIC TRACER TAPE, SPL WW-597, MINIMUM 1' ABOVE TUBING FROM SERVICE CLAMP "A" TO BALL VALVE "D".
10. TUBING SHALL BE PLACED IN A STRAIGHT ALIGNMENT AND ALLOWED TO RELAX AND "SNAKE" LOOSELY IN THE TRENCH. TUBING BEHIND CURB AND GUTTER SHALL BE INSTALLED WITH A MINIMUM 2' DEPTH OF COVER.
11. 1" TUBING, WHEN BENT, SHALL HAVE A RADIUS NO SMALLER THAN 3'. 2" TUBING, WHEN BENT, SHALL HAVE A RADIUS NO SMALLER THAN 5'. BRASS FITTINGS SHALL NOT BE CONNECTED TO A BENT SECTION OF TUBING.
12. SOLID, TUBULAR STAINLESS STEEL INSERT STIFFENERS FOR HDPE TUBING SHALL BE USED AT ALL COMPRESSION FITTINGS. INSERT STIFFENERS SHALL BE FROM THE SAME MANUFACTURER AS THE COMPRESSION FITTING USED.
13. FOR RECLAIMED WATER SERVICES AND METERS, ALL RECLAIMED TUBING SHALL BE MANUFACTURED SOLID PURPLE, SPL WW-65A. ALL APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL METER BOX LIDS SHALL BE PURPLE AND HAVE **"RECLAIMED WATER"** CAST INTO THEM, SPL WW-145A.

CITY OF AUSTIN AUSTIN WATER	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
JEFF A. KYLE *08/16/2019* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-01B 2 OF 2

STATE OF TEXAS
JOHN G. FRIEDMAN
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CITY OF AUSTIN

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
COA STANDARD DETAILS - ROADS (4 OF 4)

NO.	BY	DATE	REVISIONS	REMARKS

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 41 OF 81

GP-19-0000.WPD

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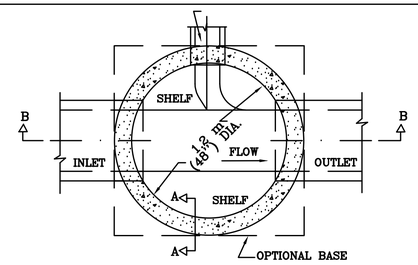
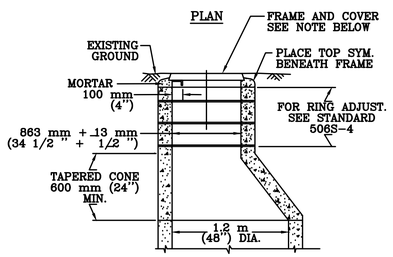


PLAN



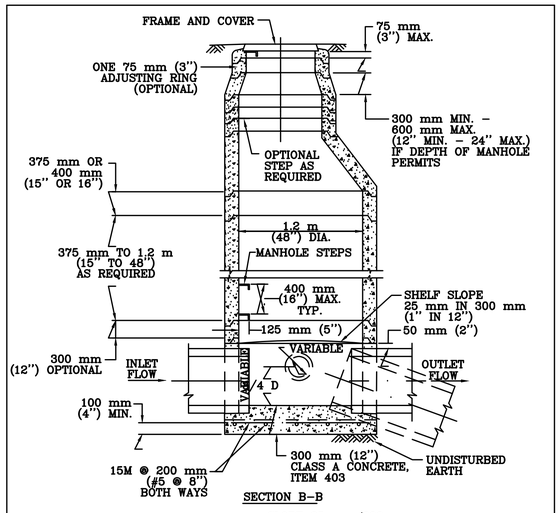
ALTERNATE SECTION
MAY BE SUBMITTED FOR APPROVAL

NOTE:
USE 800 mm (32") FRAME AND COVER.

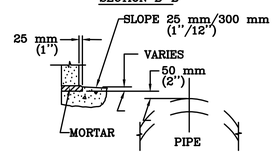
MINIMUM MANHOLE DIA.	MINIMUM PIPE SIZE
1.2 m (4')	450 TO 600 mm (18 TO 24")
1.5 m (5')	750 mm TO 1.1 m (30 TO 42")
1.8 m (6')	1.2 TO 1.4 m (48 TO 54")
2.1 m (7')	1.5 TO 1.7 m (60 TO 66")

SIZE TO BE USED IS DEPENDENT ON DRAIN ANGLES.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	PRE-CAST CONCRETE STORM DRAIN MANHOLE	
RECORD COPY SIGNED BY GEORGE E. OSWALD 2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-3 1 OF 2

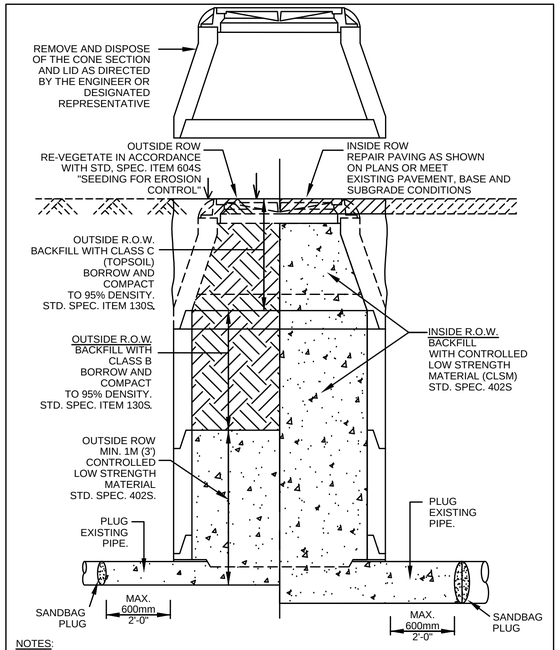


SECTION B–B



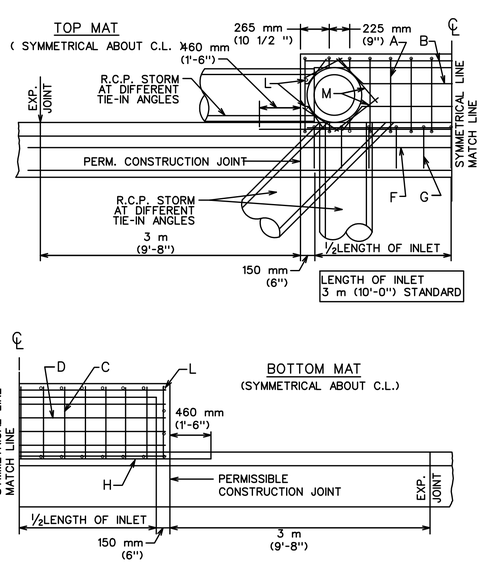
SECTION A–A

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	PRE-CAST CONCRETE STORM DRAIN MANHOLE	
RECORD COPY SIGNED BY GEORGE E. OSWALD 2/14/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-3 2 OF 2

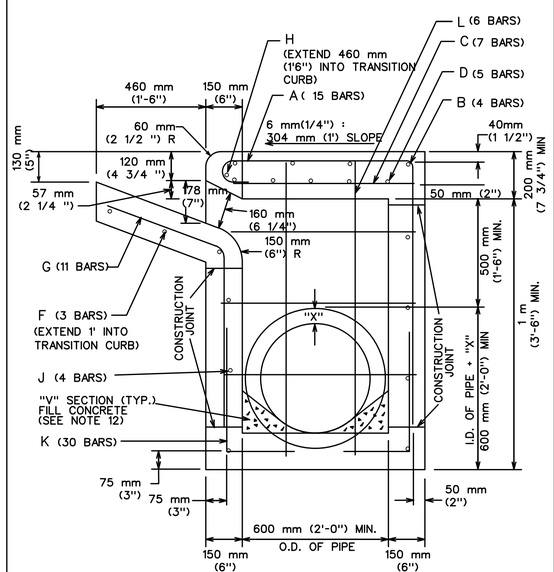


NOTES:
1. THE PLUG SHOULD BE COMPOSED OF A SANDBAG OR SIMILAR TYPE PLUG TO HOLD CLSM UNTIL SET. CLSM IS CONTROLLED LOW STRENGTH MATERIAL, STD. SPEC 402S.
2. CLSM SHALL COMPLETELY FILL VOID TO SANDBAG OR SIMILAR TYPE PLUG.

CITY OF AUSTIN AUSTIN WATER UTILITY	MANHOLE ABANDONMENT	
RECORD COPY SIGNED BY KATHI L FLOWERS 06/01/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-15



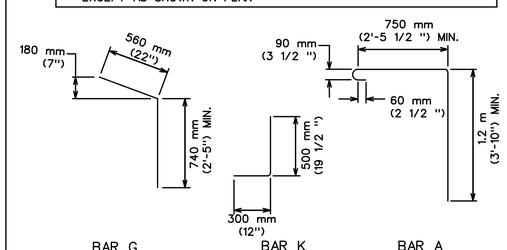
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL DETAILS FOR CURB INLET	
RECORD COPY SIGNED BY BILL GARDNER 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-3 1 OF 4



ELEVATION - SECTION

TABLE OF QUANTITIES
FOR 18" OUTLET PIPE
REINFORCING STEEL QUANTITIES

BARS	SIZE	SPACING	NUMBER	LENGTH	WEIGHT
A	4	230mm (9")*	15	2 m (7'-0")	73
B	4	250 mm (10")	4	3.25 m (10'-8")	29
C	4	460 mm (18")	7	760 mm (2'-6")	12
D	6	150 mm (6")	5	3.25 m (10'-8")	80
E	4	300 mm (12")	6	760 mm (2'-6")	10
F	4	250 mm (10")	3	4 m (13'-0")	35
G	4	300 mm (12")	11	1.25 m (4'-3")	31
H	6	—	1	4.25 m (14'-0")	20
J	4	300 mm (12")	7	3.25 m (10'-8")	50
K	4	230 mm (9")*	30	800 mm (2'-7 1/2")	52
L	4	300 mm (12")*	6	1.3 m (4'-4")	17
M	4	-	4	500 mm (1'-8") AVG	4
TOTAL STEEL, LB.					413
TOTAL CONCRETE, C.Y.					4.06
* EXCEPT AS SHOWN ON PLAN					



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL DETAILS FOR CURB INLET	
RECORD COPY SIGNED BY BILL GARDNER 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-3 2 OF 4

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL DETAILS FOR CURB INLET	
RECORD COPY SIGNED BY BILL GARDNER 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-3 3 OF 4

11-20-2020

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11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
COA STANDARD DETAILS - DRAINAGE (1 OF 4)

NO.	BY	DATE	REMARKS
REVISIONS			

SHEET INFORMATION
DATE Nov 19, 2020
SHEET 42 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A\S\07.00 CADD\Construction Sits\24-26 -GP_Standard Details (Drainage).dwg Layout: 42 COA STANDARD DETAILS - DRAINAGE (1 OF 4) Plotted: 11/19/2020 10:21:41 AM

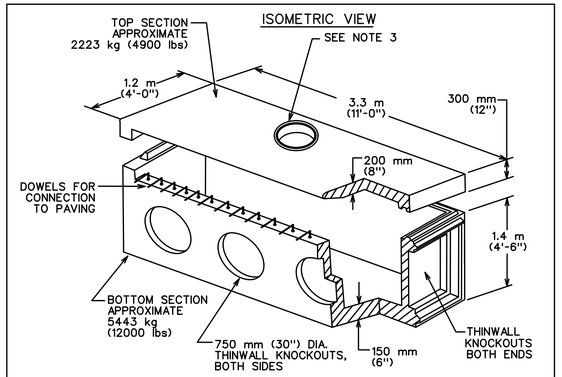
NOTES:
1. ALL CONCRETE SHALL BE CLASS "A"
2. ALL REINFORCING STEEL SHALL BE GRADE 60
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
4. VERTICAL STEEL MAY BE SPLICED (380 mm or 15" MIN. LAP) IN THE LOWER ONE-HALF OF ALL INLET WALLS.5. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
6. QUANTITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S INFORMATION ONLY. PAYMENT WILL BE MADE FOR EACH INLET OF THE TYPE SPECIFIED, COMPLETE IN PLACE INCLUDING MANHOLE FRAME AND OVER.
7. CHAMFER ALL EXPOSED EDGES 20 mm (3/4 ").
8. MANHOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 503S-1.
9. THE CONTRACTOR MAY PROPOSE ALTERNATE PROCEDURES FOR THE CONSTRUCTION OF INLETS, INCLUDING PRECAST UNITS. PLANS FOR SUCH PROPOSED ALTERNATES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION.
10. ALL INLET WALLS SHALL BE FORMED EXCEPT WHERE THE NATURE OF THE SURROUNDING MATERIAL IS SUCH THAT IT CAN BE TRIMMED TO A SMOOTH VERTICAL FACE. WHEN INLET WALLS ARE PLACED TO NEAT EXCAVATION LINES THE WALL THICKNESS SHALL NOT EXCEED 10 INCHES.
11. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB.
12. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FILL CONCRETE, SHAPED AS "V" SECTION
13. NO SPLICING OF REINFORCING STEEL SHALL BE PERMITTED UNLESS OTHERWISE NOTED ON THE PLANS OR PERMITTED IN WRITING BY THE ENGINEER.

REFERENCES:

FOR EXPANSION JOINT DOWEL AND DOWEL LOCATION DETAILS
SEE STD. 430S-3, "CURB EXPANSION JOINT DOWEL DETAIL"

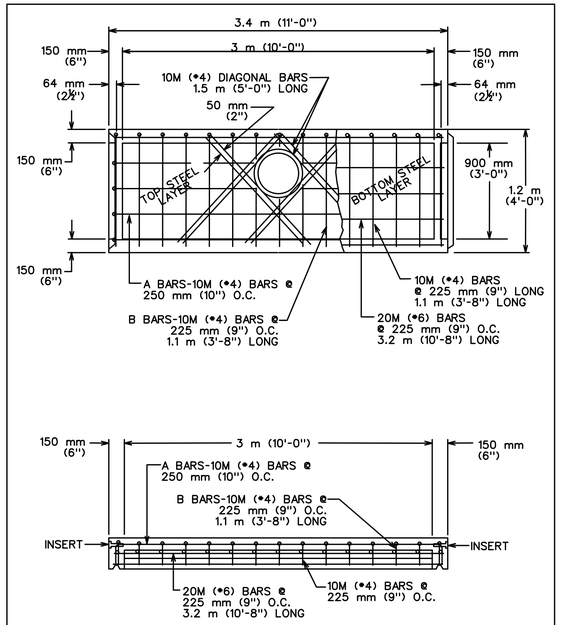
FOR 18" MANHOLE FRAME AND COVER DETAILS
SEE STD. 503S-1, "18" COVER AND FRAME".

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL DETAILS FOR CURB INLET	
RECORD COPY SIGNED BY BILL GARDNER 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-3 4 OF 4

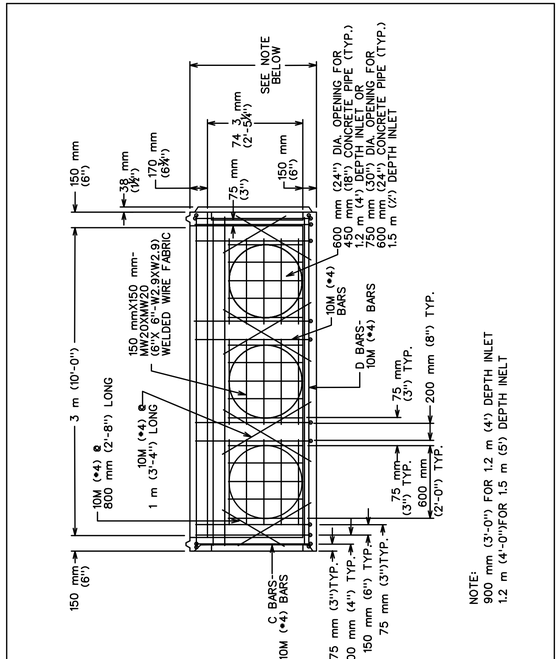


NOTES:
1. ALL CONCRETE SHALL BE CLASS "A" AS PER ITEM 403S.
2. ALL REINFORCING STEEL SHALL BE GRADE 60
3. MANHOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 503S-1.
4. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
5. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
6. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB, IN ACCORDANCE WITH CITY OF AUSTIN STANDARD INLET DESIGN.
7. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FILL CONCRETE BY CONTRACTOR, SHAPED AS "V" SECTION
8. THE INLET AS DESIGNED EXCEEDS THE REQUIREMENTS OF ASTM C478.
9. THIS STANDARD COMPLIES WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO. 508S.
10. FOR INLET CONNECTION VARIATIONS FOR MAKING A 6 m (20'-0") CURB INLET FROM STANDARD 3 m (10'-0") INLETS, SEE DALWORTH CURB INLET CONNECTION DETAIL SHEET DQ-86-103.

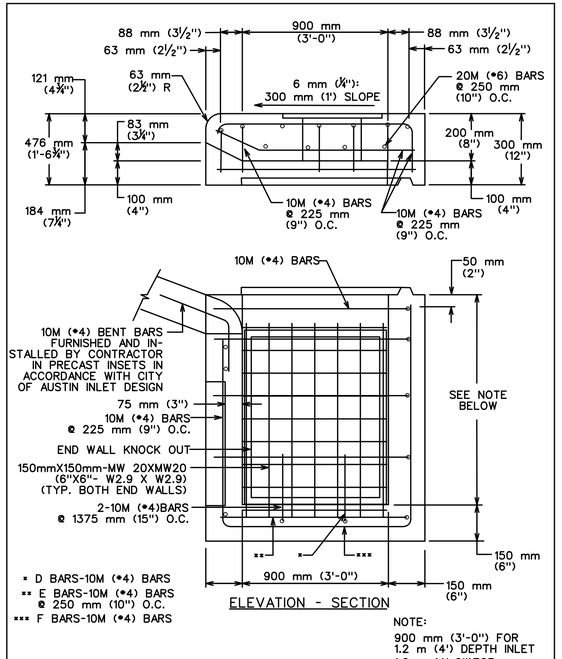
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 1 OF 5



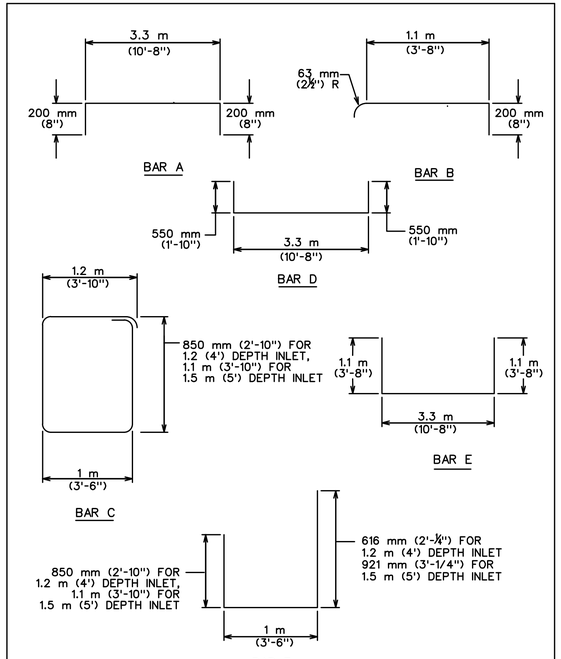
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 2 OF 5



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 3 OF 5



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 4 OF 5



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 5 OF 5

CITY OF AUSTIN

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
COA STANDARD DETAILS - DRAINAGE (2 OF 4)

NO.	BY	DATE	REVISIONS REMARKS

STATE OF TEXAS
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88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

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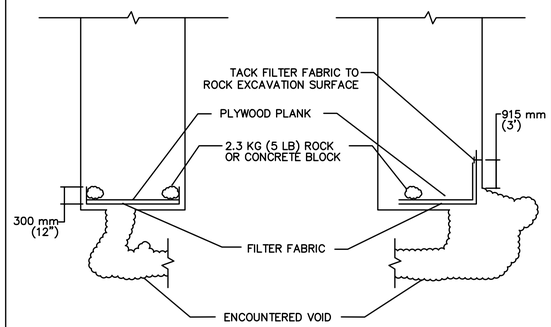
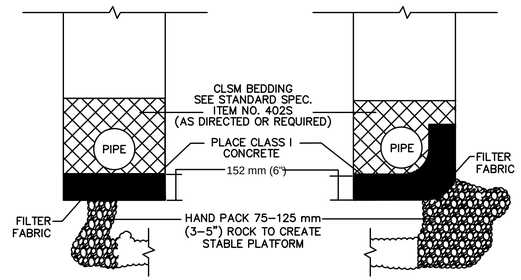
G:\007849 Meredith St SD Imp Design and Bidding-A,S\07.00 CADD\Construction Shts\24-26 -GP_Standard Details (Drainage).dwg Layout: 43 COA STANDARD DETAILS - DRAINAGE (2 OF 4) Plotted: 11/19/2020 10:21:47 AM



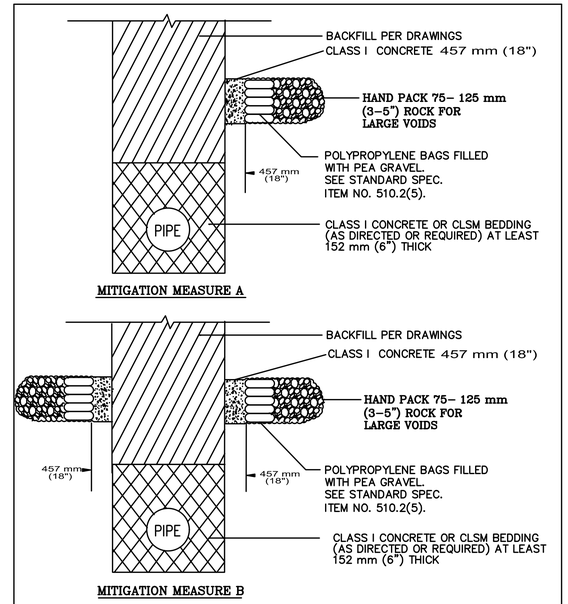
NOTES:
1. PLACE TEMPORARY PROTECTION WITHIN TRENCH TO COVER VOID AS INDICATED. FABRIC SHALL EXTEND A MINIMUM OF 915 mm (3') BEYOND EDGE OF VOID. PLACE A PLYWOOD PLANK (MINIMUM 0.75" (19 mm) THICK) OVER FABRIC. PLANK AND FABRIC SHALL BE WEIGHTED AS REQUIRED BY ROCK 2.3 KG (5 LB) OR CONCRETE BLOCK TO SECURE FILTER FABRIC.
2. TEMPORARY PROTECTION SHALL BE IN PLACE AT ALL TIMES THAT CONSTRUCTION OPERATIONS ARE NOT IN ACTUAL PROGRESS.
3. CONSTRUCTION OPERATIONS WITHIN 7.6 m (25') SHALL NOT PROGRESS DURING OCCURRENCE OF RAIN TO ALLOW FOR PROTECTION OF VOID DURING A RAIN EVENT.
4. LOCALIZED EROSION MEASURES (SILT FENCE OR TRIANGULAR FILTER DIKES) SHALL BE INSTALLED ALONG THE TRENCH TO ENSURE THAT LOOSE SPOILS OR RUNOFF DO NOT ENTER THE TRENCH OR AFFECT PERFORMANCE OF TEMPORARY PROTECTION.
5. SPECIAL CARE SHALL BE TAKENTO ENSURE THAT EROSION CONTROL MEASURES REQUIRED ALONG THE TRENCH ARE MAINTAINED, CLEANED AND FULLY FUNCTIONAL.
6. PROCEDURES AND MATERIAL REQUIREMENTS OUTLINED IN STANDARD SPEC. ITEM NO. 658S SHALL BE FOLLOWED.
7. FILTER FABRIC AND ROCK OR CONCRETE BLOCKS AND PLYWOOD PLANK SHALL BE REMOVED FROM THE TRENCH WHEN PERMANENT VOID MITIGATION MEASURES ARE INSTALLED.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		CLASS I–TEMPORARY PROTECTION OF VOID AT BOTTOM OF TRENCH	STANDARD NO.
RECORD COPY SIGNED BY LEON BARBA, P.E.	03/21/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	658S–1

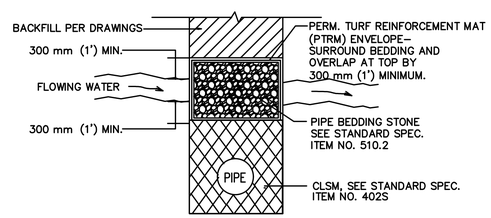


NOTES:
1. PROCEDURES AND MATERIAL REQUIREMENTS OUTLINED IN STANDARD SPEC. ITEM NO. 658S SHALL BE FOLLOWED.
2. VOID OPENING MAY REQUIRE REINFORCEMENT OR SUPPORT IF LARGER THAN 915 mm (3') IN WIDTH OR LENGTH. INSTALL AT DIRECTION OF THE ENGINEER OR DESIGNATED REPRESENTATIVE.
3. CLASS I CONCRETE SHALL CONFORM TO STANDARD SPEC. ITEM NO. 403S.7, TABLE 5. PLACE A FORM TO ENSURE MINIMUM THICKNESS OF 457 mm (18") EXTENDING A MINIMUM OF 150 mm (6") BEYOND THE EDGE OF THE VOID.

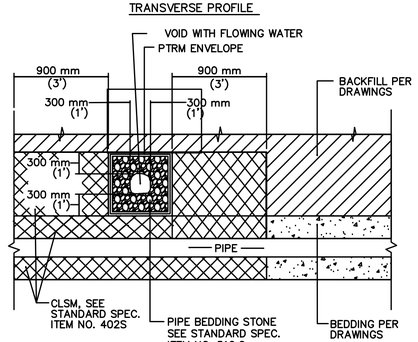
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		CLASS II–PERMANENT VOID MITIGATION MEASURES	STANDARD NO.
RECORD COPY SIGNED BY LEON BARBA, P.E.	03/21/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	658S–2



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		CLASS III–VOID MITIGATION MEASURES	STANDARD NO.
RECORD COPY SIGNED BY LEON BARBA, P.E.	03/21/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	658S–3

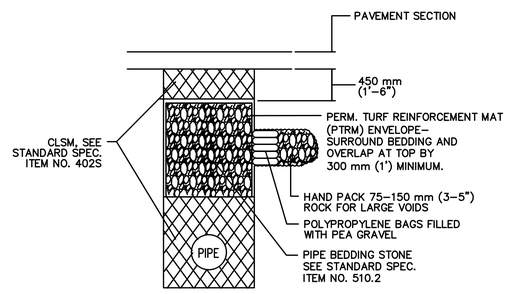


TRANSVERSE PROFILE

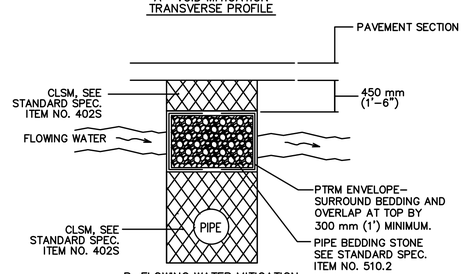


LONGITUDINAL PROFILE

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		CLASS V–WATER FLOW MITIGATION MEASURES GROUNDWATER ABOVE BEDDING MATERIAL DEPTH	STANDARD NO.
RECORD COPY SIGNED BY LEON BARBA, P.E.	03/21/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	658S–5



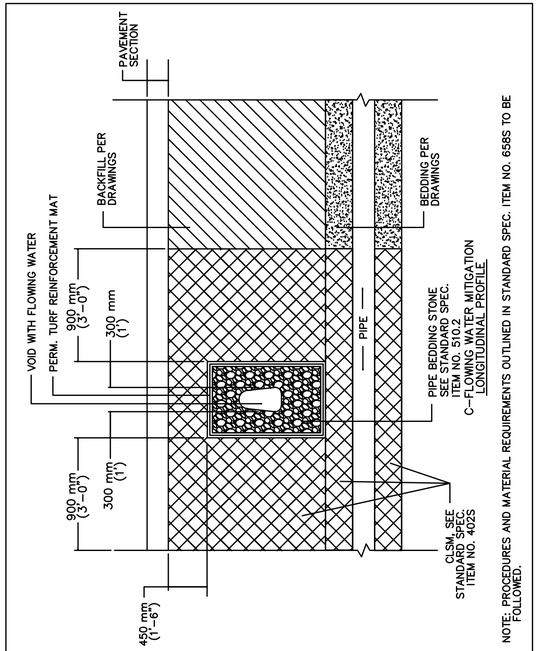
A– VOID MITIGATION TRANSVERSE PROFILE



B–FLOWING WATER MITIGATION TRANSVERSE PROFILE

NOTE: PROCEDURES AND MATERIAL REQUIREMENTS OUTLINED IN STANDARD SPEC. ITEM NO. 658S TO BE FOLLOWED.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		MODIFIED CLASS V– COMBINATION VOID AND POTENTIAL WATER FLOW MITIGATION MEASURES	STANDARD NO.
RECORD COPY SIGNED BY LEON BARBA, P.E.	03/21/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	658S–6 1 OF 2



NOTE: PROCEDURES AND MATERIAL REQUIREMENTS OUTLINED IN STANDARD SPEC. ITEM NO. 658S TO BE FOLLOWED.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		MODIFIED CLASS V– COMBINATION VOID AND POTENTIAL WATER FLOW MITIGATION MEASURES	STANDARD NO.
RECORD COPY SIGNED BY LEON BARBA, P.E.	03/21/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	658S–6 2 OF 2

STATE OF TEXAS
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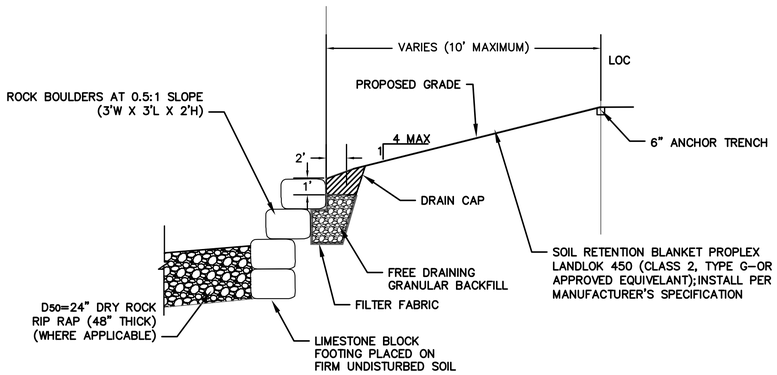
SHEET INFORMATION
DATE Nov 19, 2020
SHEET 44 OF 81

GP-19-0000.WPD

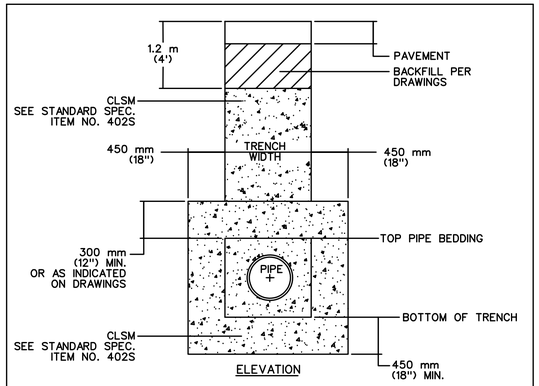
G:\007849 Meredith St SD Imp Design and Bidding-A,S\07.00 CADD\Construction Shts\24-26 -GP_Standard Details (Drainage).dwg Layout: 44 COA STANDARD DETAILS - DRAINAGE (3 OF 4) Plotted: 11/19/2020 10:21:52 AM



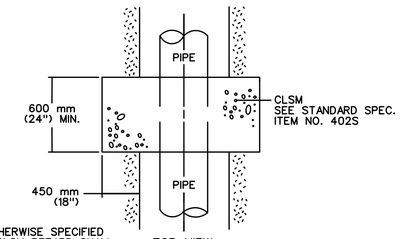
NOTES:

1. WALL HEIGHT/NUMBER OF STACKED BLOCKS VARIES. SEE PLAN VIEW AND OUTFALL SECTIONS.
2. ROCK BOULDERS SHALL BE NATURAL (WEATHERED) LIMESTONE BOULDERS THAT ARE IRREGULAR BUT STACKABLE AND HAVE A NOMINAL DIMENSION OF 3 FEET WIDE BY 3 FEET LONG BY 2 FEET HIGH. ROCKS SHALL BE PLACED IN A SINGLE LAYER WITH CLOSE JOINTS.
3. ROCK BOULDERS SHALL BOTTOM IN FIRM UNDISTURBED SOIL OR WEATHERED ROCK TO THE MINIMUM DEPTH SHOWN HEREIN. CONTACT ENGINEER IMMEDIATELY IF ROCK IS ENCOUNTERED IN THE FIELD WHERE ROCK BOULDERS ARE SHOWN TO BE PLACED.
4. FINAL BOULDER PLACEMENT SHALL BE SUBJECT TO THE DIRECTION OF THE OWNER OR AUTHORIZED REPRESENTATIVE.
5. DRAIN CAP: MOIST SOIL GRADED AND COMPACTED SUFFICIENTLY TO PREVENT SETTLEMENT AND WHEEL ROLLED TO SEAL THE SURFACE. USE EQUIPMENT AND METHODS THAT WILL NOT DAMAGE WALL.
6. FREE DRAINING GRANULAR BACKFILL MATERIAL TO BE CLEAN AND CRUSHED STONE GRAVEL ½" TO 1½" DIAMETER.

LIMESTONE BLOCK GRADE CONTROL DETAIL



ELEVATION

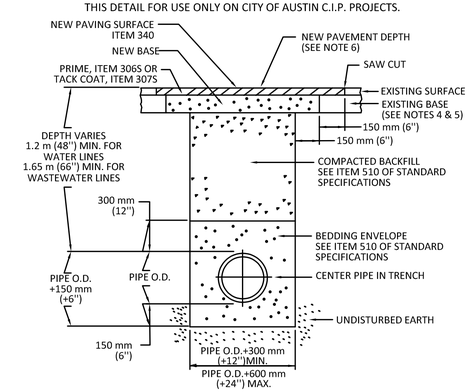


TOP VIEW

NOTE:
UNLESS OTHERWISE SPECIFIED IN PLANS, CLSM RETARD SHALL BE CONSTRUCTED WITH DIMENSIONS AS SHOWN IN THIS STANDARD.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		MODIFIED CONCRETE RETARD	
RECORD COPY SIGNED BY LEON BARBA, P.E.	03/21/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 658S-7

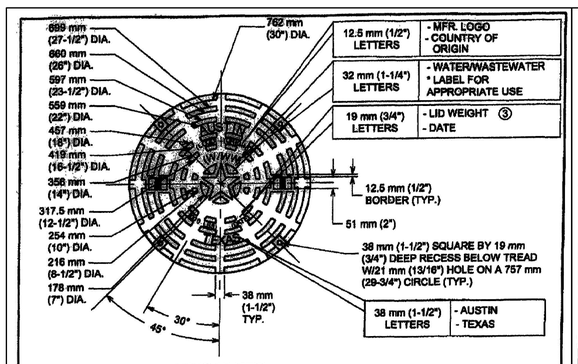
THIS DETAIL FOR USE ONLY ON CITY OF AUSTIN C.I.P. PROJECTS.



NOTES:

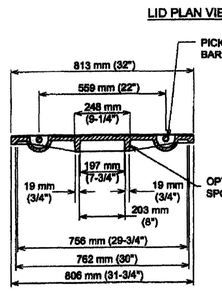
1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MINIMUM OF 300 mm (12") WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. ANY CONCRETE PAVING SHALL BE SAW CUT 150 mm (6") WIDER THAN UNDISTURBED SIDES OF EXCAVATION.
3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX ASPHALTIC CONCRETE.
4. ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND OF EQUAL THICKNESS, OR MINIMUM BASE THICKNESS OF 250 mm (10"), WHICHEVER IS GREATER.
5. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 200 mm (8") OF BASE OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER.
6. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 50 mm (2"), WHICHEVER IS GREATER.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY		TYPICAL TRENCH WITH PAVED SURFACE	
RECORD COPY SIGNED BY KATHI L. FLOWERS	8/19/02 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 510S-3

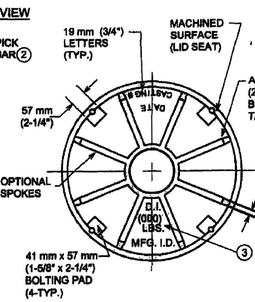


12.5 mm (1/2") LETTERS	- MFR. LOGO - COUNTRY OF ORIGIN
32 mm (1-1/4") LETTERS	- WATER/WASTEWATER • LABEL FOR APPROPRIATE USE
19 mm (3/4") LETTERS	- LID WEIGHT ③ - DATE
38 mm (1-1/2") LETTERS	- AUSTIN - TEXAS

LID PLAN VIEW

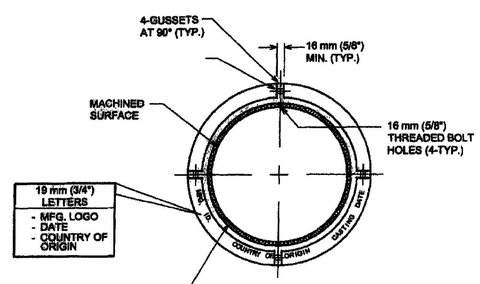


LID SECTION VIEW

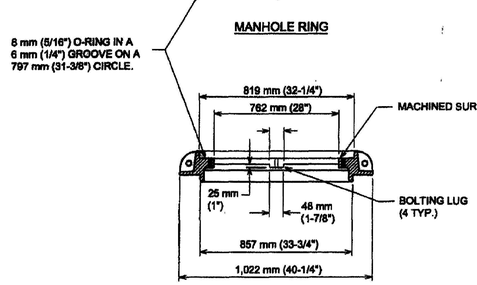


LID SECTION VIEW

CITY OF AUSTIN AUSTIN WATER UTILITY		BOLTED MANHOLE RING AND 813 mm 32" COVER	
Kathi L Flowers	9/23/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-5W 1 OF 3



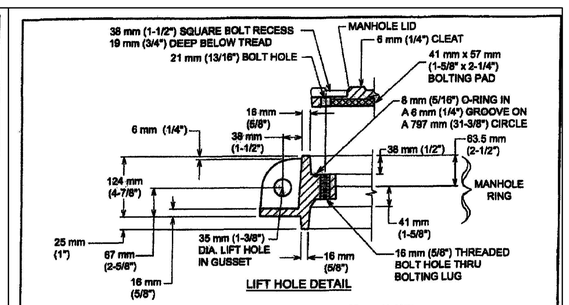
MANHOLE RING



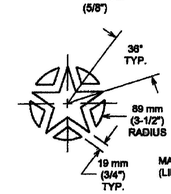
RING SECTION

NOTE: ALL MANHOLES NOT LOCATED IN PAVED AREAS SHALL HAVE BOLTED COVERS AS PER SPEC. 506.

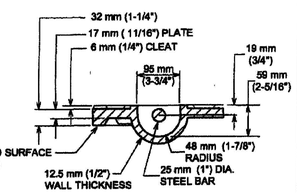
CITY OF AUSTIN AUSTIN WATER UTILITY		BOLTED MANHOLE RING AND 813 mm 32" COVER	
Kathi L Flowers	9/23/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-5W 2 OF 3



LIFT HOLE DETAIL



STAR LAYOUT

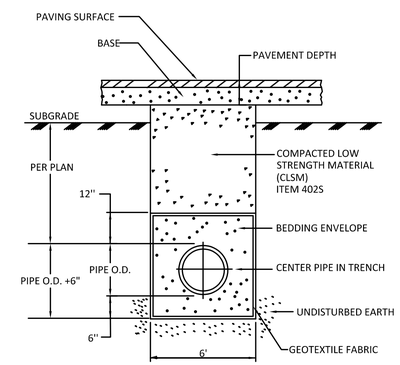


PICK BAR DETAIL

NOTES:

① ALL CORNERS AND EDGES SHALL HAVE A 1.5 mm (1/16") MINIMUM RADIUS.
② LIDS SHALL BE CAST WITH TWO 25 mm (1") DIA. STEEL PICK BARS.
③ LID WEIGHTS SHALL BE 779 N (175 LBS.) FOR DUCTILE IRON WEIGHT SHALL BE CAST ON BOTH TOP AND BOTTOM OF LID.
④ MANUFACTURER SHALL PROVIDE INDEPENDENT TESTING LABORATORY REPORT ON 40,000 POUND PROOF LOAD TEST CONDUCTED ACCORDING TO AASHTO M-306.
⑤ FILLETS SHALL BE 6 mm (1/4") RADIUS UNLESS OTHERWISE SPECIFIED.
⑥ MANUFACTURER SHALL REMOVE EXCESS IRON AND MACHINE FINISH SEATING SURFACES TO NOTED DIMENSIONS.
⑦ BOLTS SHALL BE 16 mm x 44 mm (5/8" x 1-3/4" x 11 N.C.) STAINLESS STEEL HEX HEAD (TYPE 316).

CITY OF AUSTIN AUSTIN WATER UTILITY		BOLTED MANHOLE RING AND 813 mm 32" COVER	
Kathi L Flowers	9/23/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-5W 3 OF 3



TYPICAL TRENCH SECTION
WITH CLSM BACKFILL

NOT TO SCALE

NOTE:
CLSM TRENCH BACKFILL REQUIRED FOR:

1. STORM STA. 2+00 TO STA. 13+32, INCLUDING ALL LATERALS
2. STORM STA 17+36 TO STA. 19+48 INCLUDING ALL LATERALS
3. WATERLINE 1 STA. 10+00 TO STA. 16+47
4. WATERLINE 1A STA. 10+00 TO STA. 10+55
5. WATERLINE CONNECTIONS TO ROCKMOOR AND LEBERMAN
6. WATERLINE 2 STA. 10+00 TO STA. 13+87
7. WATERLINE 3
8. WASTEWATERLINE STA. 14+91 TO STA. 17+49

* CLSM TRENCH BACKFILL SUBSIDIARY TO LINEAR FOOT PIPE COST.

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED
PROFESSIONAL ENGINEER
11-20-2020

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T +1 512 328 5771 E usinfrastructure@rpsgroup.com

NO.	BY	DATE	REVISIONS	REMARKS

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 45 OF 81

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
COA STANDARD DETAILS - DRAINAGE (4 OF 4)

G:\007849 Meredith St SD Imp Design and Bidding-AS\07.00 CADD\Construction Stds\24-26 -GP_Standard Details (Drainage).dwg Layout: 45 COA STANDARD DETAILS - DRAINAGE (4 OF 4) Plotted: 11/19/2020 1:41:25 PM

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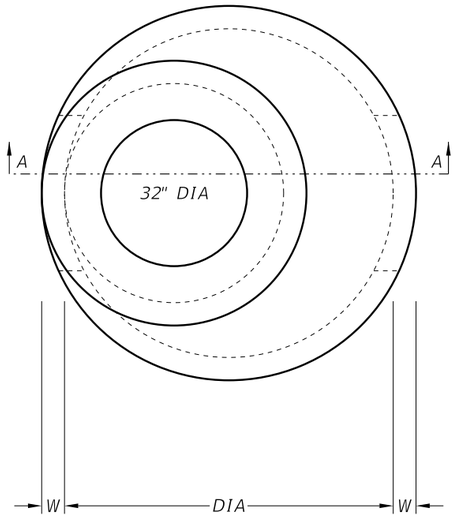
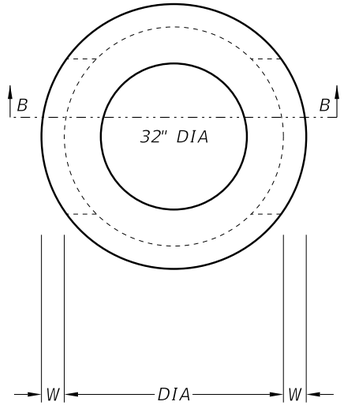
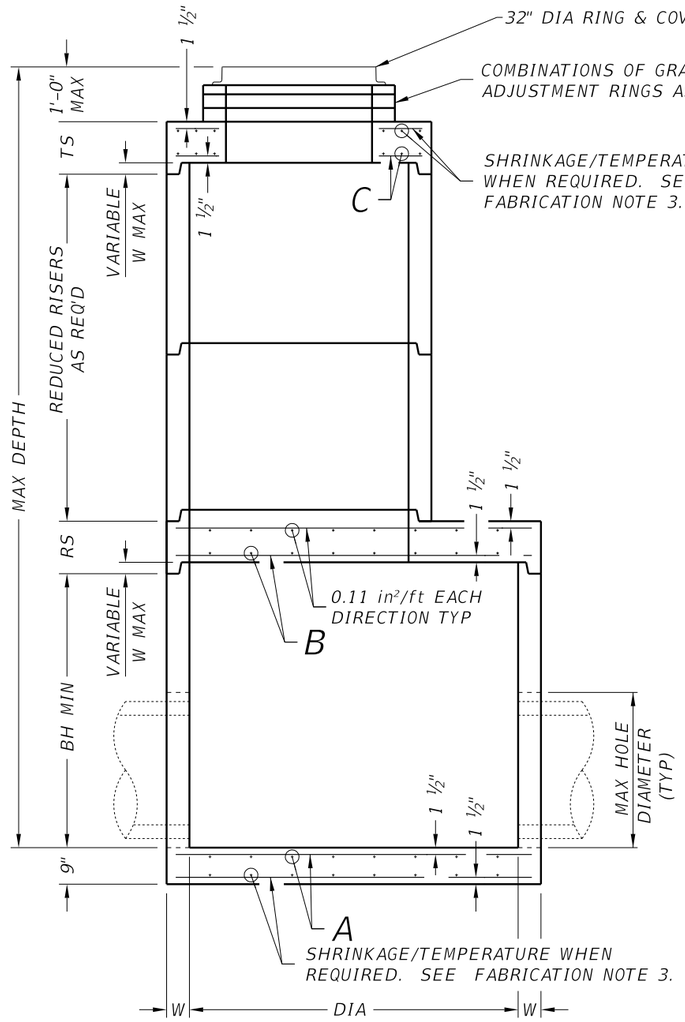


PLAN VIEW "A"

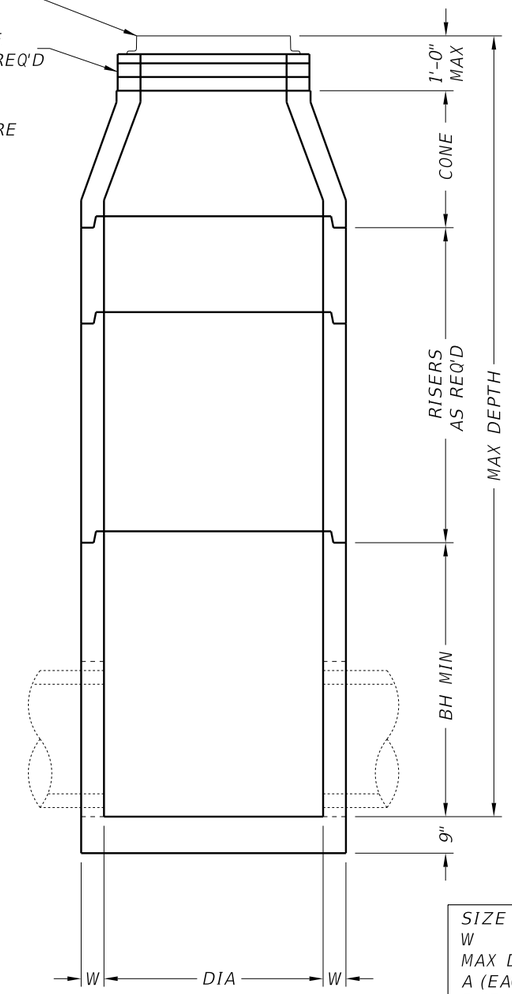


PLAN VIEW "B"



SECTION A-A

ROUND REDUCED RISER OPTION
SHOWING FLAT SLAB TOP



SECTION B-B

ROUND RISER OPTION
SHOWING CONE

FABRICATION NOTES:

1. Provide Class "H" concrete in accordance with Item 421 and having a minimum compressive strength of 5,000 psi.
2. Provide Grade 60 reinforcing steel or equivalent area of WWR. Provide circumferential reinforcing steel in vertical walls of base, riser and cone in accordance with ASTM C478.
3. Slabs with a thickness of 8" or greater require shrinkage and temperature reinforcing steel. Provide steel area = 0.11 in²/ft each way.
4. Manufacture base and risers to nearest 3" increment.
5. Design tongue and groove joints for full closure on both shoulders. Minimum spigot depth is ¾".
6. Provide lifting devices in conformance with Manufacturer's recommendations.
7. Provide cast iron solid cover, unless noted otherwise elsewhere in the plans.

INSTALLATION NOTES:

1. Cones may be concentric or eccentric. Reduction cones are acceptable. See Manufacturer for cone dimensions.
2. Inverts (benching) to be provided by Contractor. Concrete or mortar used for invert is subsidiary to this item.
3. Seal tongue and groove joints with preformed or bulk mastic in conformance with Manufacturer's recommendations. Tongue and groove joints may be grouted no more than 1" between each section, or ½ the joint depth, whichever is greater.
4. Do not grout rubber gasket joints without Manufacturer's recommendation.
5. Initial installation of grade adjustment rings is limited to 1'-0" Max as shown.
6. Grade adjustment rings may be increased to 2'-0" Max when future construction affects final grade of structure. Make adjustments greater than 2'-0" with additional risers. Adjustments may be made up to the Max depth shown. Structure must be evaluated if Max depth will be exceeded.

GENERAL NOTES:

1. Designed according to ASTM C478.
2. Payment for manhole is per Item 465, "Junction Boxes, Manholes, and Inlets" by type and size.
3. Pipe OD + placement tolerance must be equal or less than Max hole diameter. For rigid pipe, placement tolerance is 4" Max, 2" Min. For flexible pipe, consult boot/seal manufacturer's specification for placement tolerance.

Cover dimensions are clear dimensions, unless noted otherwise.

SIZE (DIA)	48 in	60 in	72 in
W	5 in	6 in	7 in
MAX DEPTH	25 ft	25 ft	25 ft
A (EACH WAY)	0.22 in²/ft	0.30 in²/ft	0.45 in²/ft
B (EACH WAY)	N/A	0.37 in²/ft	0.62 in²/ft
C (EACH WAY)	0.24 in²/ft	0.46 in²/ft	0.46 in²/ft
BH MIN	12 in	36 in	36 in
TS	9 in	9 in	9 in
RS	N/A	9 in	12 in
REDUCED RISER DIA	N/A	48 in	48/60 in
MAX HOLE DIA	32 in	40 in	54 in

HL93 LOADING

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

Texas Department of Transportation — Bridge Division Standard

PRECAST ROUND MANHOLE

PRM

FILE: prestd02-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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REVISIONS	DIST: AUS	COUNTY: TRAVIS		SHEET NO.: 46 A

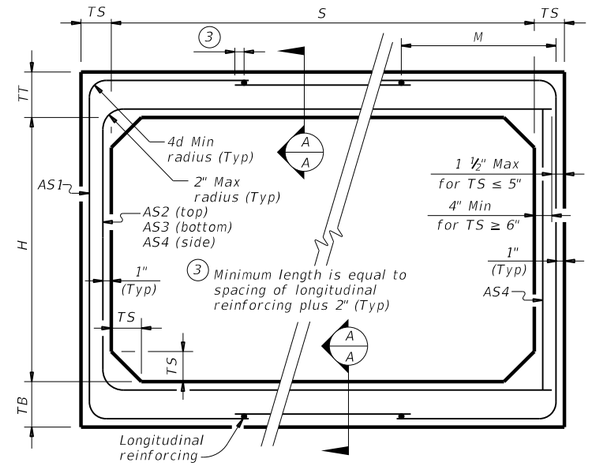
DATE:
FILE:

BOX DATA

SECTION DIMENSIONS					Fill Height	M (Min)	REINFORCING (sq. in. / ft.) (2)							(1) Lift Weight
S (ft.)	H (ft.)	TT (in.)	TB (in.)	TS (in.)	(ft.)	(in.)	AS1	AS2	AS3	AS4	AS5	AS7	AS8	(tons)
8	3	8	8	8	< 2	–	0.31	0.35	0.25	0.19	0.19	0.19	0.19	10.4
8	3	8	8	8	2 < 3	55	0.35	0.29	0.28	0.19	–	–	–	10.4
8	3	8	8	8	3 – 5	50	0.28	0.23	0.24	0.19	–	–	–	10.4
8	3	8	8	8	10	45	0.29	0.25	0.26	0.19	–	–	–	10.4
8	3	8	8	8	15	45	0.39	0.33	0.34	0.19	–	–	–	10.4
8	3	8	8	8	20	45	0.51	0.43	0.44	0.19	–	–	–	10.4
8	3	8	8	8	25	45	0.63	0.53	0.54	0.19	–	–	–	10.4
8	4	8	8	8	< 2	–	0.27	0.38	0.29	0.19	0.19	0.19	0.19	11.2
8	4	8	8	8	2 < 3	50	0.31	0.34	0.32	0.19	–	–	–	11.2
8	4	8	8	8	3 – 5	50	0.25	0.27	0.27	0.19	–	–	–	11.2
8	4	8	8	8	10	45	0.26	0.28	0.29	0.19	–	–	–	11.2
8	4	8	8	8	15	41	0.34	0.37	0.38	0.19	–	–	–	11.2
8	4	8	8	8	20	41	0.44	0.48	0.49	0.19	–	–	–	11.2
8	5	8	8	8	< 2	–	0.24	0.40	0.32	0.19	0.19	0.19	0.19	12.0
8	5	8	8	8	2 < 3	50	0.28	0.37	0.35	0.19	–	–	–	12.0
8	5	8	8	8	3 – 5	45	0.23	0.29	0.30	0.19	–	–	–	12.0
8	5	8	8	8	10	45	0.23	0.31	0.32	0.19	–	–	–	12.0
8	5	8	8	8	15	41	0.30	0.41	0.42	0.19	–	–	–	12.0
8	5	8	8	8	20	41	0.39	0.52	0.54	0.19	–	–	–	12.0
8	6	8	8	8	< 2	–	0.22	0.42	0.35	0.19	0.19	0.19	0.19	12.8
8	6	8	8	8	2 < 3	50	0.25	0.40	0.38	0.19	–	–	–	12.8
8	6	8	8	8	3 – 5	50	0.21	0.32	0.33	0.19	–	–	–	12.8
8	6	8	8	8	10	45	0.22	0.33	0.34	0.19	–	–	–	12.8
8	6	8	8	8	15	41	0.28	0.43	0.45	0.19	–	–	–	12.8
8	6	8	8	8	20	41	0.36	0.55	0.57	0.19	–	–	–	12.8
8	7	8	8	8	< 2	–	0.20	0.44	0.37	0.19	0.19	0.19	0.19	13.6
8	7	8	8	8	2 < 3	55	0.23	0.43	0.41	0.19	–	–	–	13.6
8	7	8	8	8	3 – 5	55	0.19	0.34	0.35	0.19	–	–	–	13.6
8	7	8	8	8	10	50	0.20	0.34	0.36	0.19	–	–	–	13.6
8	7	8	8	8	15	41	0.26	0.45	0.47	0.19	–	–	–	13.6
8	7	8	8	8	20	41	0.33	0.57	0.60	0.19	–	–	–	13.6
8	8	8	8	8	< 2	–	0.20	0.45	0.40	0.19	0.19	0.19	0.19	14.4
8	8	8	8	8	2 < 3	65	0.21	0.45	0.44	0.19	–	–	–	14.4
8	8	8	8	8	3 – 5	65	0.19	0.36	0.38	0.19	–	–	–	14.4
8	8	8	8	8	10	55	0.19	0.35	0.38	0.19	–	–	–	14.4
8	8	8	8	8	15	45	0.24	0.46	0.49	0.19	–	–	–	14.4
8	8	8	8	8	20	45	0.31	0.59	0.62	0.19	–	–	–	14.4

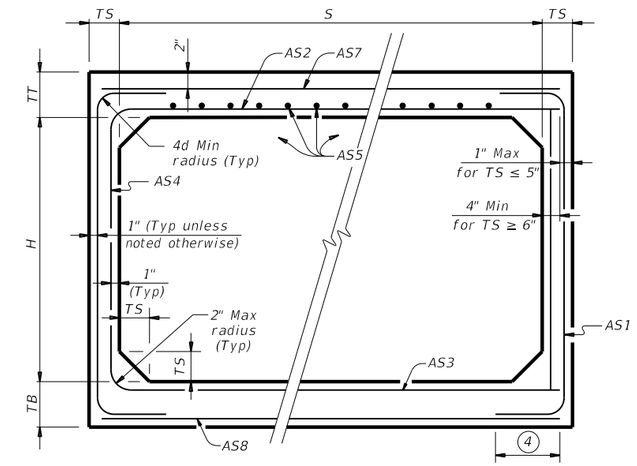
(1) For box length = 8'-0"

(2) AS1 thru AS4, AS7 and AS8 are minimum required areas of reinforcement per linear foot of box length. AS5 is minimum required area of reinforcement per linear foot of box width.



CORNER OPTION "A" CORNER OPTION "B"

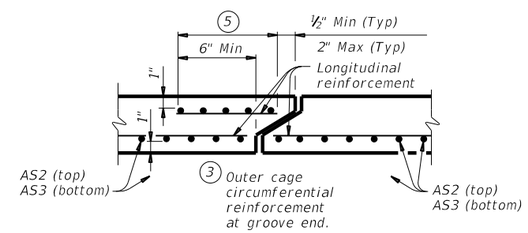
FILL HEIGHT 2 FT AND GREATER



CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT LESS THAN 2 FT

(4) Length is equal to spacing of longitudinal reinforcing plus 2". (10" Min) (Typ)



SECTION A-A

(Showing top and bottom slab joint reinforcement.)

MATERIAL NOTES:

Provide 0.03 sq. in./ft. minimum longitudinal reinforcement at each face in slabs and walls. This minimum requirement may be met by the transverse wires when wire mesh reinforcement is used.

Provide Class H concrete (f`c = 5,000 psi).

GENERAL NOTES:

Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.

See Box Culverts Precast Miscellaneous Details (SCP-MD) standard sheet for details and notes not shown.

In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Submit shop plans for alternate designs in accordance with Item "Precast Concrete Structural Members (Fabrication)".

HL93 LOADING

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

Texas Department of Transportation — Bridge Division Standard

SINGLE BOX CULVERTS PRECAST

8'-0" SPAN

SCP-8

FILE: scp08sts-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.
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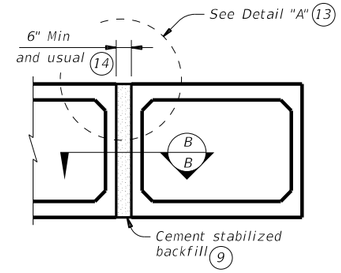
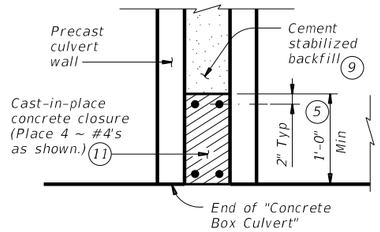
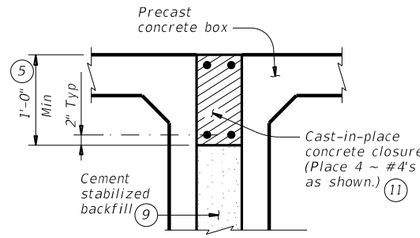


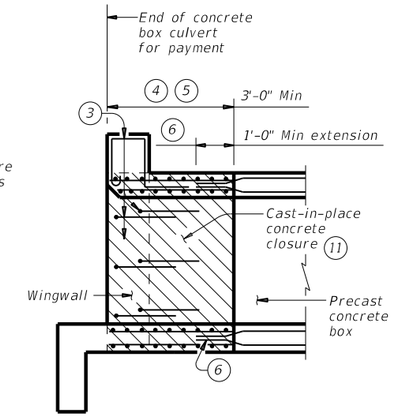
MULTIPLE UNIT PLACEMENT



SECTION B-B

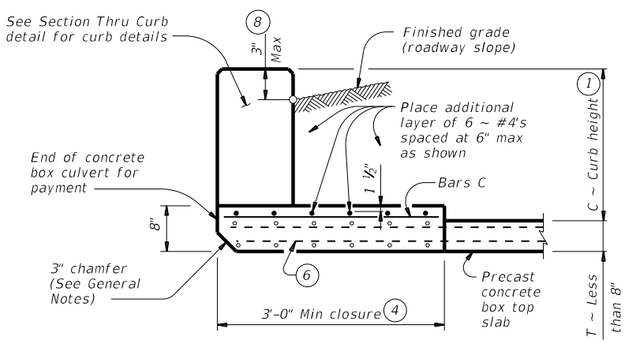


DETAIL "A" (13)

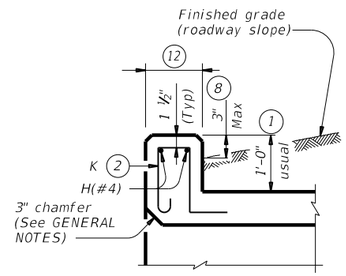


WINGWALL CONNECTION

(Also applies to safety end treatment.)

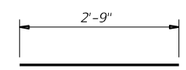


SECTION THRU TOP SLABS LESS THAN 8"

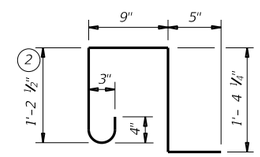


SECTION THRU CURB

QUANTITIES PER FOOT OF CURB (10)	
Reinforcing Steel	4.12 Lb
Concrete	0.037 CY



BARS C (#4)
(Spa = 1'-0" Max)



BARS K (#4)
(Spa = 1'-0" Max)
(Length = 4'-2")

(1) 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail, or curbs taller than 1'-0, refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-CM) standard sheet. Refer to the Box Culvert Rail Mounting Details (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.

(2) For curbs less than 1'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3" high, Bars K may be omitted.

(3) Extend curb, wingwall, or safety end treatment reinforcing into concrete closure. Bend or trim, as necessary, any reinforcing that does not fit into closure area.

(4) Provide a 3'-0" Min cast-in-place concrete closure. Break back boxes in the field or cast boxes short. Provide bands of reinforcing in the closure that are the same size and spacing as in the precast box section. Provide #4 longitudinal reinforcement spaced at 12 inches Max within the closure. Except where shown otherwise, construct the cast-in-place closure flush with the inside and outside faces of the precast box section.

(5) For multiple unit placements, adjust the length of the closure for the interior walls as necessary. Provide a 3'-0" Min cast-in-place closure in the top slab, bottom slab, and exterior wall. See Section B-B detail when interior walls are cast full length.

(6) Extend precast box reinforcing a minimum of 1'-0" into concrete closure (Typ).

(7) Place bands of reinforcing matching the inside and outside face reinforcing in the gaps of the top and bottom slabs. Place a band matching the outside face reinforcing of the wall in the gaps of the walls (placed in the outside face only). Tack weld the bands to the exposed reinforcing at each point of contact.

(8) For vehicle safety, the following requirements must be met:
- For structures without bridge rail, construct curbs no more than 3" above finished grade.
- For structures with bridge rail, construct curbs flush with finished grade.

Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

(9) Cement stabilized backfill between boxes is considered part of the box culvert for payment.

(10) All curb concrete and reinforcing is considered part of the box culvert for payment.

(11) Any additional concrete and reinforcing required for the closures will be considered subsidiary to the box culvert for payment.

(12) 1'-0" typical. 2'-3" when the Box Culvert Rail Mounting Details (RAC) standard sheet is referred to elsewhere in the plans.

(13) For multiple unit placement with overlay, with 1 to 2 course surface treatment, or with the top slab as the final riding surface, provide wall closure as shown in Detail "A".

(14) This dimension may be increased with approval of the Engineer to allow the precast boxes to be tunneled or jacked in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box". No payment will be made for any additional material in the gap between adjacent boxes.

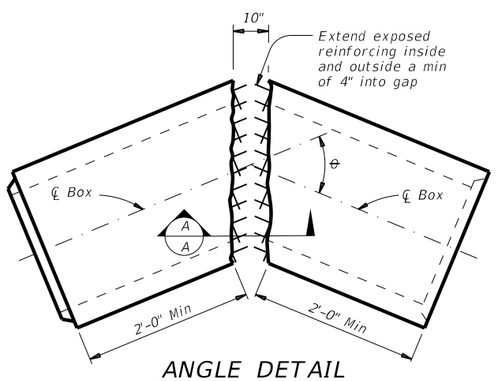
MATERIAL NOTES:

Provide Grade 60 reinforcing steel.
Provide ASTM A1064 welded wire reinforcement.
Provide Class C concrete (f'c = 3,600 psi) for the closures.
Provide cement stabilized backfill meeting the requirements of Item 400, "Excavation and Backfill for Structures."
Any additional concrete required for the closures will be considered subsidiary to the box culvert.

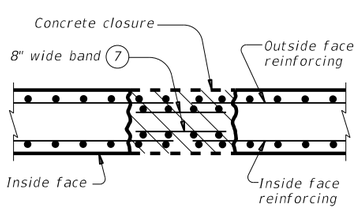
GENERAL NOTES:

Designed according to AASHTO LRFD Bridge Design Specifications.
Refer to the Single Box Culverts Precast (SCP) standard sheets for details and notes not shown.
Chamfer the bottom edge of the top slab closure 3 inches at culvert closure ends.

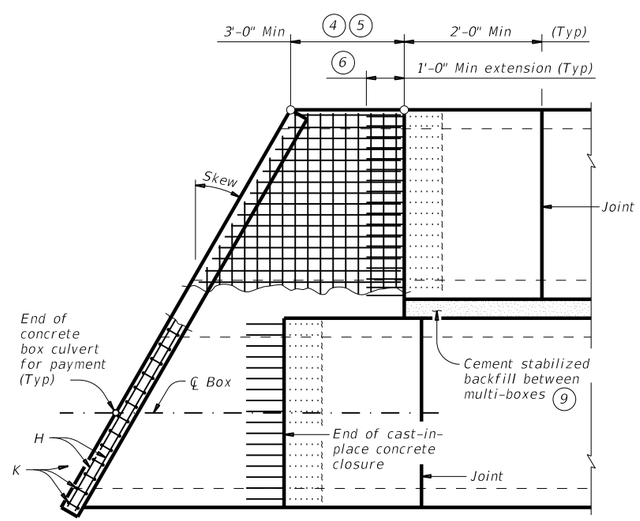
Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bars dimensions are out-to-out of bars.



ANGLE DETAIL



SECTION A-A



PLAN OF SKEWED ENDS

(Showing multi-box placement.)

HL93 LOADING

Texas Department of Transportation — Bridge Division Standard

BOX CULVERTS PRECAST MISCELLANEOUS DETAILS

SCP-MD

STATE OF TEXAS — JOHN G. FRIEDMAN 88486 — REGISTERED PROFESSIONAL ENGINEER

11-20-2020

FILE: scpmdsts-20.dgn	DN: GAF	CK: LMW	DW: BWH/TxDOT	CK: GAF
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST		COUNTY	SHEET NO.
	AUS		TRAVIS	46 C

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DATE:
FILE:

TABLE OF DIMENSIONS AND REINFORCING STEEL
(Wings for one structure end)

Dimensions					Variable Reinforcing				Estimated Quantities per ft of wing length (2~wings) (3)	
					Bars J1		Bars J2			
Maximum Wingwall Height Hw	W	X	Y	Z	Size	Spa	Size	Spa	Reinf (Lb/Ft)	Conc (CY/Ft)
2'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	33.73	0.248
3'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.07	0.261
3'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.74	0.273
4'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	38.41	0.285
4'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	41.75	0.330
5'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.09	0.343
5'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.75	0.355
6'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	46.42	0.367
7'-0"	3'-8"	1'-9"	1'-3"	7"	#4	1'-0"	#4	1'-0"	52.77	0.414
8'-0"	4'-2"	2'-0"	1'-6"	8"	#5	1'-0"	#4	1'-0"	60.19	0.486
9'-0"	4'-8"	2'-3"	1'-9"	8"	#4	6"	#4	6"	81.49	0.535
10'-0"	5'-2"	2'-6"	2'-0"	8"	#5	6"	#4	6"	97.25	0.584
11'-0"	5'-8"	2'-9"	2'-3"	8"	#6	6"	#5	6"	133.65	0.634
12'-0"	6'-2"	3'-0"	2'-6"	9"	#7	6"	#5	6"	162.29	0.721
13'-0"	6'-8"	3'-3"	2'-9"	11"	#7	6"	#5	6"	178.80	0.856
14'-0"	7'-2"	3'-6"	3'-0"	1'-0"	#8	6"	#5	6"	216.78	0.959
15'-0"	7'-8"	4'-0"	3'-0"	1'-1"	#9	6"	#6	6"	283.06	1.068
16'-0"	8'-2"	4'-6"	3'-0"	1'-3"	#9	6"	#6	6"	297.02	1.234

TABLE OF WINGWALL REINFORCING
(2~wings)

Bar	Size	No.	Spa
D	#5	~	1'-0"
E	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	4	~
M	#4	4	~
P	#4	~	1'-0"
R	#5	6	~
V	#4	~	1'-0"

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

Bar	Size	No.	Spa
L	#4	~	1'-6"
Q	#4	1	~
Reinf (Lb/Ft)			2.45
Conc (CY/Ft)			0.037

WING DIMENSION FORMULAS:

(All values are in feet.)

Hw = H + T + C - 0.250'
A = (Hw - 0.333') (SL)
B = (A) tangent (30°)
Lw = (A) ÷ cosine (30°)

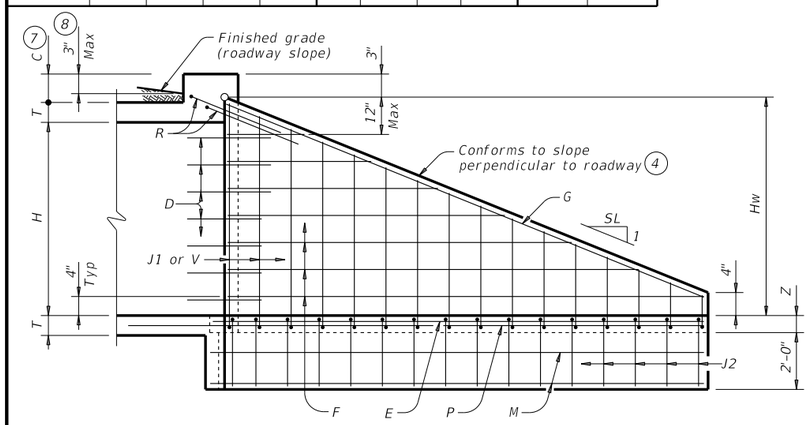
For cast-in-place culverts:
Ltw = (N) (S) + (N + 1) (U)

For precast culverts:
Ltw = (N) (2U + S) + (N - 1) (0.5')

Total wingwall area (two wings ~ SF) = (Hw + 0.333') (Lw)

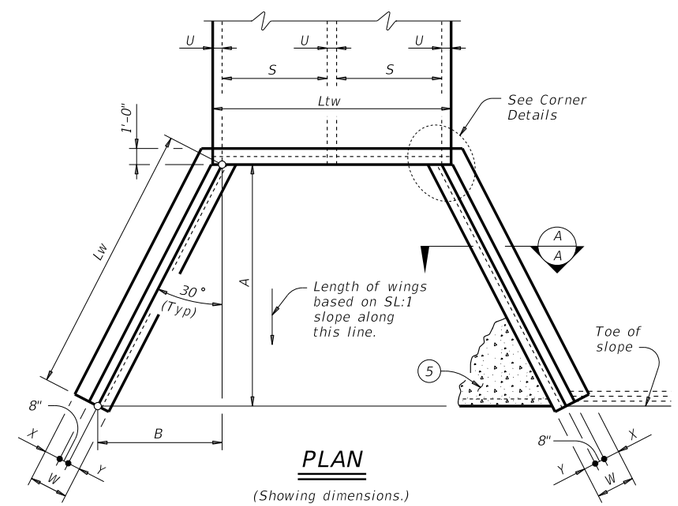
Hw = Height of wingwall
SL:1 = Side slope ratio (horizontal:1 vertical)
Lw = Length of wingwall
Ltw = Culvert toewall length
N = Number of culvert spans

See applicable box culvert standard sheet for H, S, T, and U values.



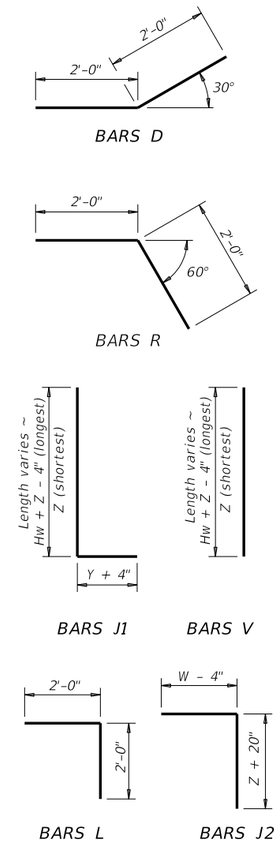
INSIDE ELEVATION

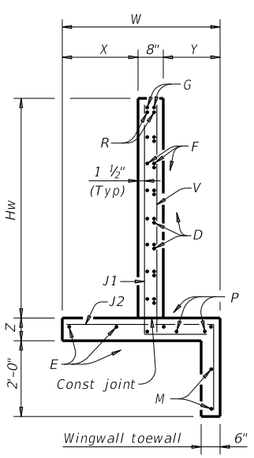
(Showing reinforcing. Culvert and culvert toewall reinforcing not shown for clarity.)



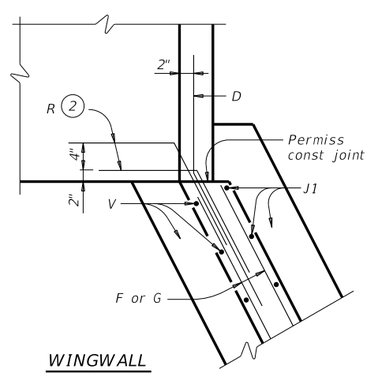
PLAN

(Showing dimensions.)

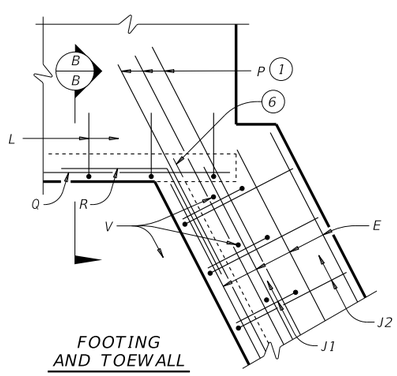




SECTION A-A



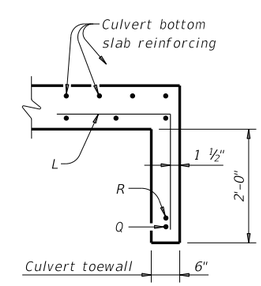
WINGWALL



FOOTING AND TOEWALL

CORNER DETAILS

(Culvert and culvert toewall reinforcing not shown for clarity.)



SECTION B-B (5)

(1) Extend Bars P 3'-0" minimum into bottom slab of box culvert.

(2) Adjust as necessary to maintain 1 1#2" clear cover and 4" minimum between bars.

(3) Quantities shown are based on an average wing height for two wings (one structure end). To determine total quantities for two wings, multiply the tabulated values by Lw.

(4) Recommended values of side slope are: 2:1, 3:1, 4:1, and 6:1.

(5) When shown elsewhere on the plans, construct 5" deep concrete riprap. Payment for riprap is as required by Item 432, "Riprap". Unless otherwise shown on the plans or directed by the Engineer, provide a 6" wide by 1'-6" deep reinforced concrete toewall along all edges of the riprap adjacent to natural ground; reinforce the toewall by extending typical riprap reinforcing into the toewall; and extend construction joints or grooved joints oriented in the direction of flow across the full distance of the riprap at intervals of approximately 20'. When such riprap is provided, the culvert toewall shown in SECTION B-B will not be required.

(6) At Contractor's option, culvert toewall may be ended flush with wingwall toewall. Adjust reinforcing as needed.

(7) 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 1'-0, refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-CM) standard sheet. Refer to the Box Culvert Rail Mounting Details (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.

(8) For vehicle safety, the following requirements must be met:
- For structures without bridge rail, construct curbs no more than 3" above finished grade.
- For structures with bridge rail, construct curbs flush with finished grade.

Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

MATERIAL NOTES:

Provide Class C concrete (f'c=3,600 psi).
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.
In riprap concrete synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing unless noted otherwise.

GENERAL NOTES:

Designed according to AASHTO LRFD Bridge Design Specifications.
When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer.
See Box Culvert Supplement (BCS) standard sheet for additional dimensions and information.
The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out-to-out of bars.

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STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

Texas Department of Transportation — Bridge Division Standard

CONCRETE WINGWALLS WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS

FW-0

FILE: fw-0stde-20.dgn	DN: GAF	CK: CAT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.
	AUS	TRAVIS		46 D

DATE:
FILE:

Culvert Station and/or Creek Name followed by applicable end (Lt, Rt or Both)	Description of Box Culvert No. Spans ~ Span X Height	Max Fill Height (Ft)	Applicable Box Culvert Standard (4)	Applicable Wingwall or End Treatment Standard	Skew Angle (0°,15°, 30° or 45°)	Side Slope or Channel Slope Ratio (SL:1)	T Culvert Top Slab Thickness (In)	U Culvert Wall Thickness (In)	C Estimated Curb Height (Ft)	Hw (1) Height of Wingwall (Ft)	A Curb to End of Wingwall (Ft)	B Offset of End of Wingwall (Ft)	Lw Length of Longest Wingwall (Ft)	Ltw Culvert Toewall Length (Ft)	Atw Anchor Toewall Length (Ft)	Riprap Apron (CY)	Class (2) "C" Conc (Curb) (CY)	Class (3) "C" Conc (Wingwall) (CY)	Total Wingwall Area (SF)
Sta. 1+37 to Sta. 1+76	8'X3'	17	SCP-8	FW-0	0°	3:1	8	8	0	3.42	9.5	5.5	11	0	0	2.77	0	4.2	51.33

(1) Round the wall heights shown to the nearest foot for bidding purposes.

(2) Concrete volume shown is for box culvert curb only. For curbs using the Box Culvert Rail Mounting Details (RAC) standard sheet quantities shown must be increased by a factor of 2.25. If Class S concrete is required for the top slab of the culvert, also provide Class S concrete for the curb. Curb concrete is considered part of the Box Culvert for payment.

(3) Concrete volume shown is total of wings, footings, culvert toewall (if any), anchor toewalls (if any) and wingwall toewalls. Riprap aprons, culverts, and curb quantities are not included.

(4) Regardless of the type of culvert shown on this sheet, the Contractor has the option of furnishing cast-in-place or precast culverts unless otherwise shown elsewhere on the plans. If the Contractor elects to provide culverts of a different type than those shown on this sheet, it is the Contractor's responsibility to make the necessary adjustments to the dimensions and quantities shown.

NOTES:
Skew = 0° on SW-0, FW-0, SETB-CD, SETB-SW-0, and SETB-FW-0 standard sheets;
30° maximum for safety end treatment

SL:1 = Horizontal : 1 Vertical
- Side slope at culvert for flared or straight wingwalls.
- Channel slope for parallel wingwalls.
- Slope must be 3:1 or flatter for safety end treatments.

T = Box culvert top slab thickness. Dimension can be found on the applicable box culvert standard sheet.

U = Box culvert wall thickness. Dimension can be found on the applicable box culvert standard sheet.

C = Curb height

See applicable wing or end treatment standard sheets for calculations of Hw, A, B, Lw, Ltw, Atw, and Total Wingwall Area.

Hw = Height of wingwall

A = Distance from face of curb to end of wingwall (not applicable to parallel or straight wingwalls)

B = Offset of end of wingwall (not applicable to parallel or straight wingwalls)

Lw = Length of longest wingwall.

Ltw = Length of culvert toewall (not applicable when using riprap apron)

Atw = Length of anchor toewall (applicable to safety end treatment only)
Total Wingwall Area = Wingwall area in sq. ft. for two wingwalls (one structure end) if Lt or Rt.
Area for four wingwalls (two structure ends) if Both.

SPECIAL NOTE:

This sheet is a supplement to the box culvert standards. It is to be filled out by the culvert specifier and provides dimensions for the construction of the box culvert wingwalls and safety end treatments.

An Excel 2010 spreadsheet to assist in completing this table can be downloaded from the Bridge Standards (English) web page on the TxDOT web site. The completed sheet must be signed, sealed, and dated by a licensed Professional Engineer.

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

Texas Department of Transportation

Bridge Division Standard

BOX CULVERT SUPPLEMENT
WINGS AND END TREATMENTS

BCS

FILE: bcsstde1-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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REVISIONS	DIST		COUNTY	SHEET NO.
	AUS		TRAVIS	46 E

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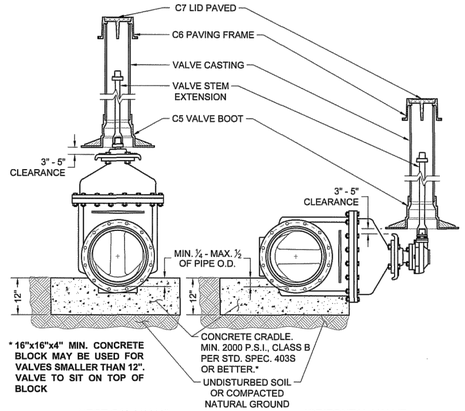


VERTICAL VALVE

HORIZONTAL VALVE

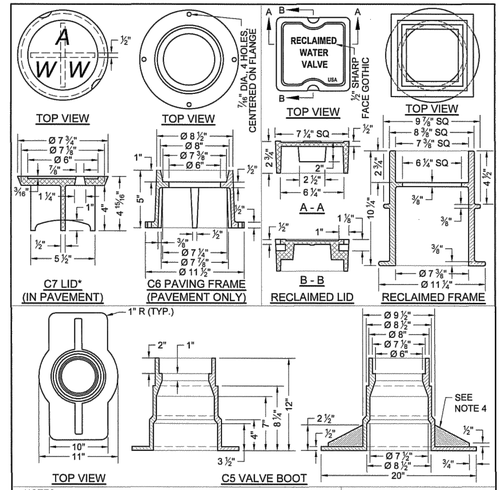
ONLY TO BE USED WHEN CALLED OUT ON THE DRAWINGS.

NOTES:

1. WELD SOCKET 2½" x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT. [SCH. 80 FOR LENGTHS OVER 10'.]
2. VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE "RECLAIMED WATER" CAST INTO THEM.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
Kathi L. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 1 OF 4



NOTES:

1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.

WEIGHTS:

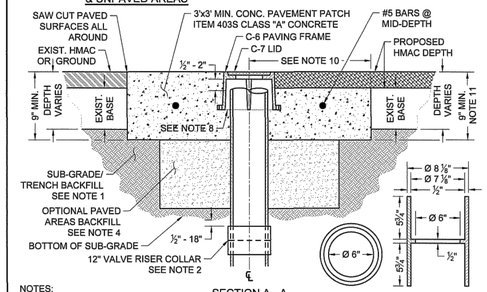
C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 78 LBS

* LETTERING SHALL BE 1 ½" 2 PICK BAR SLOTS REQUIRED

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
Kathi L. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 2 OF 4

FULL DEPTH CONCRETE & UNPAVED AREAS

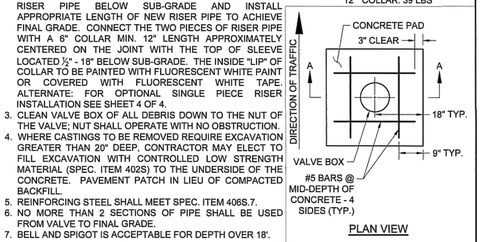
CONCRETE & H.M.A.C.



NOTES:

1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED ½" - 18" BELOW SUB-GRADE. THE INSIDE "LIP" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE. ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE; NUT SHALL OPERATE WITH NO OBSTRUCTION.
4. WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
5. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.7.
6. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
7. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18'.

SECTION A - A

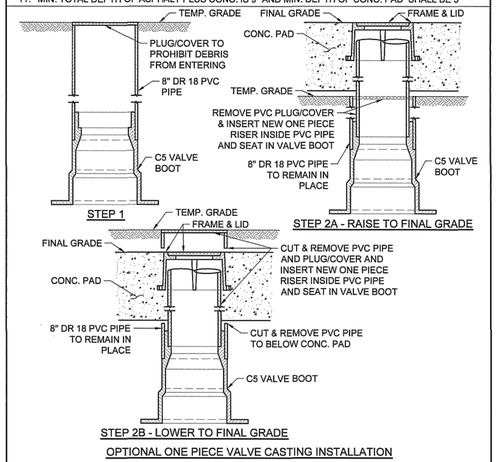


PLAN VIEW

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
Kathi L. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 3 OF 4

NOTES (CON'T):

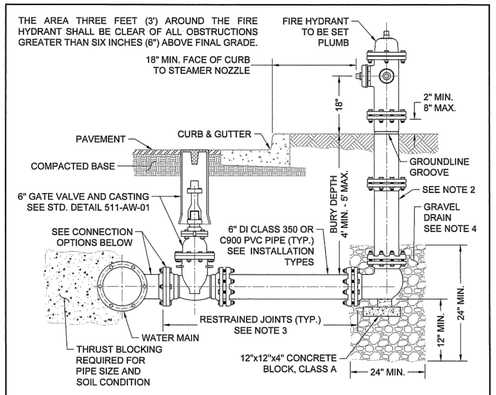
8. PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED ½" - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
9. IN UNPAVED AREAS, INSTALL ONE DELINEATOR STAKE IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE PAD. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES.
10. VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
11. MIN. TOTAL DEPTH OF ASPHALT PLUS CONC. IS 9" AND MIN. DEPTH OF CONC. PAD SHALL BE 5"



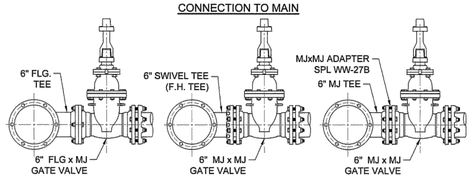
OPTIONAL ONE PIECE VALVE CASTING INSTALLATION

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

THE AREA THREE FEET (3') AROUND THE FIRE HYDRANT SHALL BE CLEAR OF ALL OBSTRUCTIONS GREATER THAN SIX INCHES (6") ABOVE FINAL GRADE.

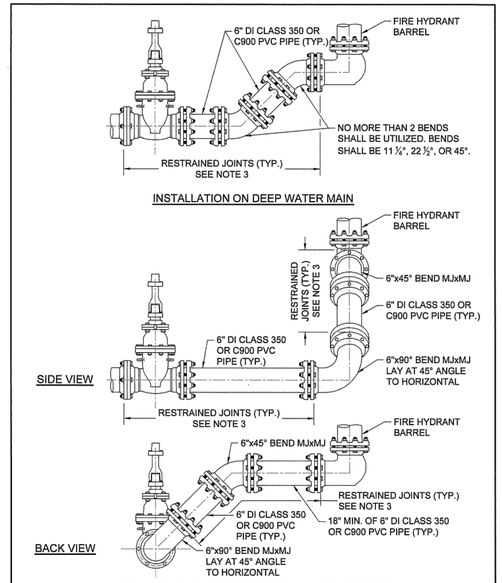


CONNECTION TO MAIN

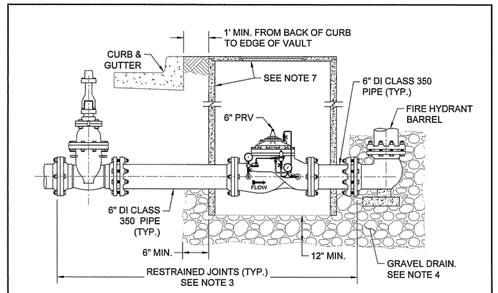


OPTION 1 OPTION 2 OPTION 3

CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	
Kathi L. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-02 1 OF 3



CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	
Kathi L. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-02 2 OF 3



INSTALLATION ON WATER MAIN WITH PRESSURE REDUCING VALVE (PRV)

NOTES: APPLICABLE TO ALL INSTALLATION TYPES.

1. NO PART OF A HYDRANT OR ITS NOZZLE CAPS SHALL BE WITHIN 6" OF ANY SIDEWALK OR PEDESTRIAN RAMP. ANY FIRE HYDRANT PLACED NEAR A STREET CORNER SHALL BE LOCATED OUTSIDE THE CURVE RADIUS AND A MINIMUM OF 4' FROM RAMPS.
2. ONE BARREL EXTENSION NOT EXCEEDING 2' LENGTH MAY BE INSTALLED DIRECTLY BELOW THE FIRE HYDRANT IN ORDER TO MEET THE REQUIRED BURY DEPTH OF 4' - 5'. BREAK AWAY BOLTS (SHOE TYPES) SHALL BE PROPERLY SPACED AND PLACED.
3. FIRE LINE SHALL HAVE ALL JOINTS RESTRAINED FROM MAIN TO FIRE HYDRANT. JOINTS SHOWN MAY VARY. SEE SPL WW-27, WW-27A, AND WW-27B FOR RESTRAINT OPTIONS.
4. BELOW EACH HYDRANT, A DRAINAGE PIT 24" IN DIAMETER AND 12" DEEP SHALL BE EXCAVATED AND FILLED WITH COMPACTED COARSE GRAVEL OR BROKEN STONE MIXED WITH COARSE SAND UNDER AND AROUND THE BOWL OF THE HYDRANT, AND TO A LEVEL 12" ABOVE THE HYDRANT DRAIN OPENING (SEE STD. SPEC. 510). THE HYDRANT DRAINAGE PIT SHALL NOT BE CONNECTED TO A SANITARY SEWER. THE DRAIN GRAVEL SHALL BE COVERED WITH FILTER FABRIC PER STD. SPEC. 620S. FOR PRV, GRAVEL SHALL EXTEND UNDER THE PRV VAULT 12" MIN. DEPTH UNDER THE VAULT AND 6" MIN. BEYOND VAULT.
5. FOR FIRE HYDRANT LEADS AT A MAIN OUTLET LARGER THAN 6" DIAMETER, OUTLET SHALL BE FLANGED AND A FLG x FLG REDUCER SHALL BE INSTALLED DIRECTLY ON THE OUTLET.
6. WRAP 8 MIL. POLY-FILM WRAP ON ALL BURIED PIPE AND FITTINGS.
7. FOR HYDRANTS WITH PRV, CLASS III RCP VAULT 60" MIN. I.D. WITH REINFORCED PRECAST CONCRETE LID (AASHTO H-20 LOADING) WITH COA FRAME AND 32" COVER WITH LETTERING MODIFIED FOR WATER.

CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	
Kathi L. Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-02 3 OF 3

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CITY OF AUSTIN

11/19/2020

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COA STANDARD DETAILS - WATER (1 OF 3)

NO.	BY	DATE	REMARKS	REVISIONS

SHEET INFORMATION

DATE Nov 19, 2020

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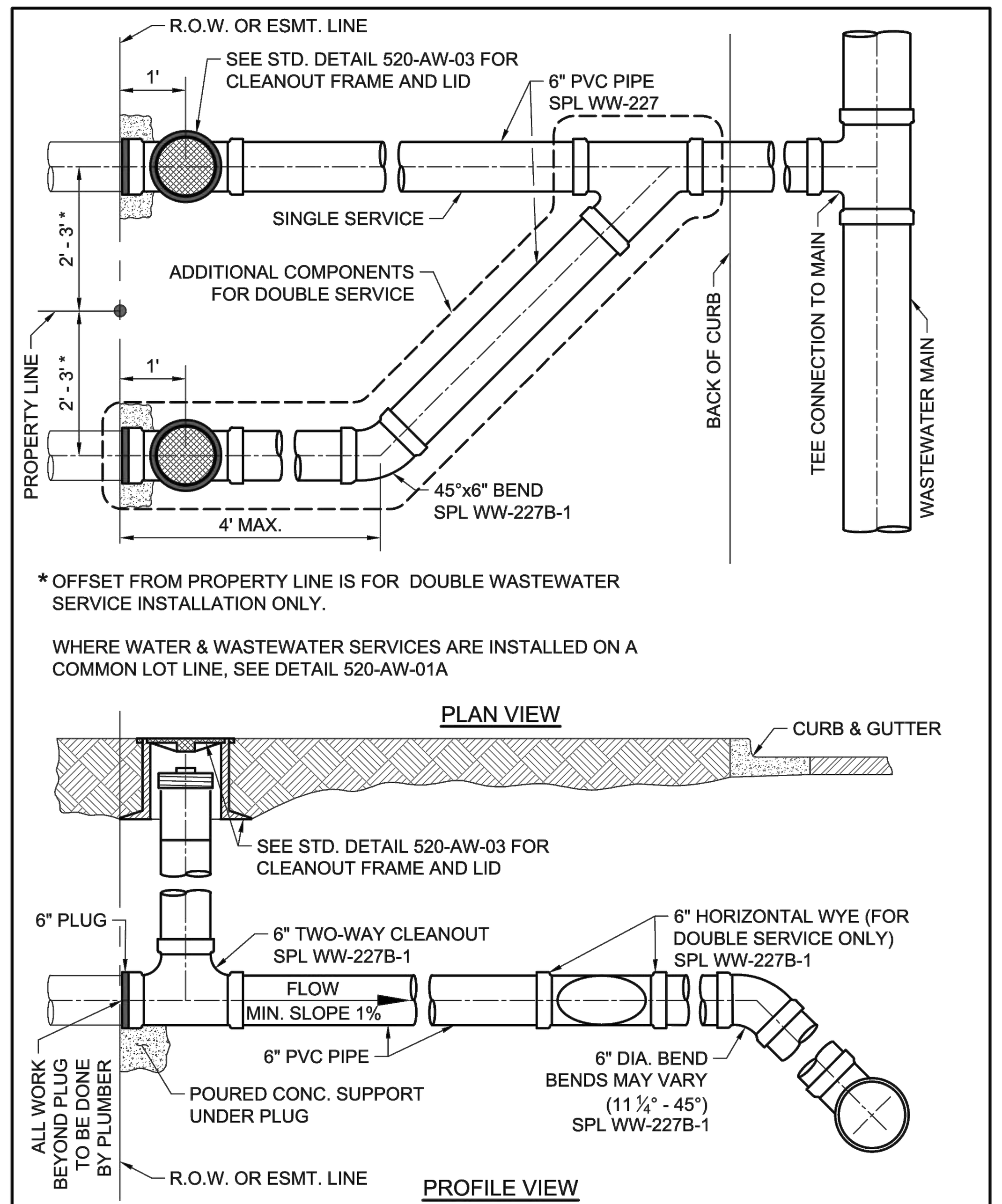
GP-19-0000.WPD

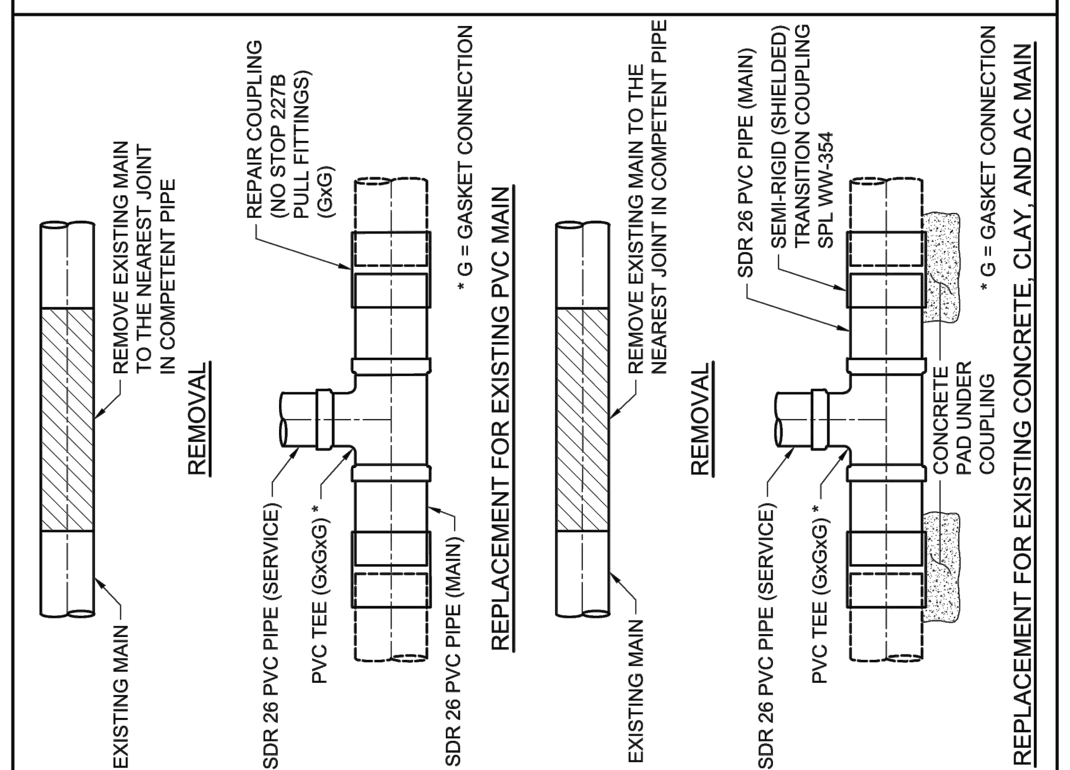
G:\007849 Meredith St SD Imp Design and Bidding-AS\07.00 CADD\Construction Shts\27-28 -GP_Standard Details (Water).dwg Layout: 47 COA STANDARD DETAILS - WATER (1 OF 3) Plotted: 11/19/2020 10:22:16 AM



CITY OF AUSTIN AUSTIN WATER	SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION	
RECORD COPY SIGNED JEFF A. KYLE 11/07/2018 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-01C 1 OF 4

NOTES:

1. DURING SUBDIVISION CONSTRUCTION, UTILITY CONTRACTOR INSTALLS WASTEWATER TEE CONNECTION TO MAIN, 6" STUB, HORIZONTAL WYE FOR DOUBLE SERVICES, 6" SERVICE BRANCH WITH TWO-WAY CLEANOUT(S) AND RISER, FRAME, AND COVER. CLEANOUT(S) TO BE PLUGGED AT PROPERTY LINE OR EASEMENT LINE END. ALL WASTEWATER PIPING SHALL HAVE ELASTOMERIC GASKET TYPE JOINTS AND SLOPE DOWNWARD TO MAIN 1% MIN. TO 45° MAX. DEPTH OF SERVICE AT PROPERTY LINE WILL BE SHOWN ON PLANS BY ENGINEER IF GREATER THAN 4', OTHERWISE THE INSTALLED DEPTH WILL BE 4' MIN. AND 6' MAX. AT PROPERTY LINE. IF WASTEWATER SERVICE LINE TO MAIN REQUIRES DEFLECTION EXCEEDING 45°, SEE SHEET 3 OF 4.
2. PIPING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY CITY OF AUSTIN STANDARD SPECIFICATION 510.3 (14); MATERIALS SHALL BE AS SPECIFIED IN 510.2 (2)(A) AND (3)(B); BACKFILL ABOVE THE GRANULAR BEDDING SHALL BE AS REQUIRED BY SECTION 510.3 (25). SERVICE LINES IN THESE AREAS SHALL HAVE A MIN. COVER BELOW FINAL STREET GRADE OF 42".
3. PLUMBER SHALL REMOVE PLUG AND CONNECT TO TWO-WAY CLEANOUT. NO CONNECTION TO CLEANOUT STACK IS ALLOWED.



CITY OF AUSTIN AUSTIN WATER	SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION	
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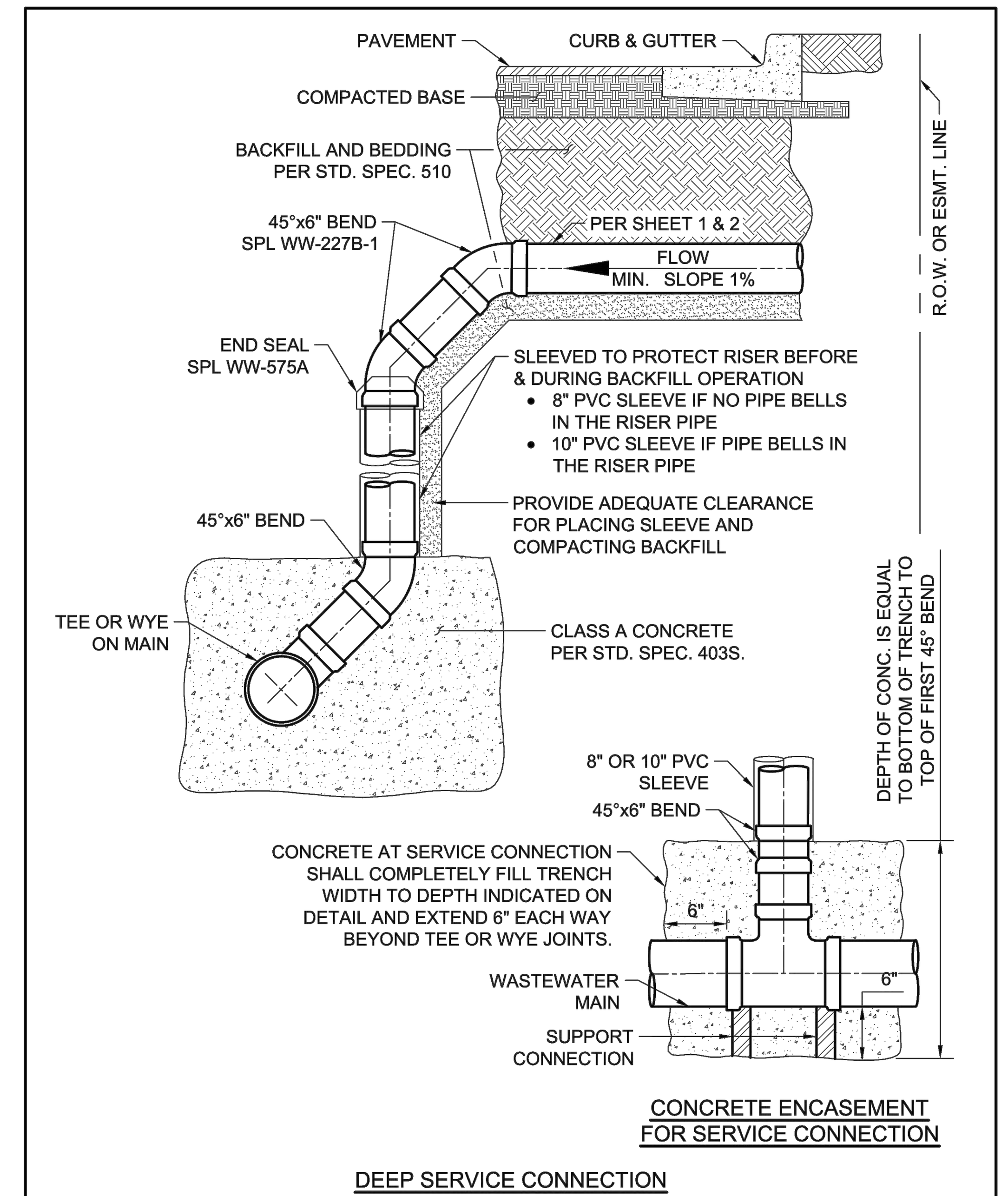

CITY OF AUSTIN AUSTIN WATER	SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION	
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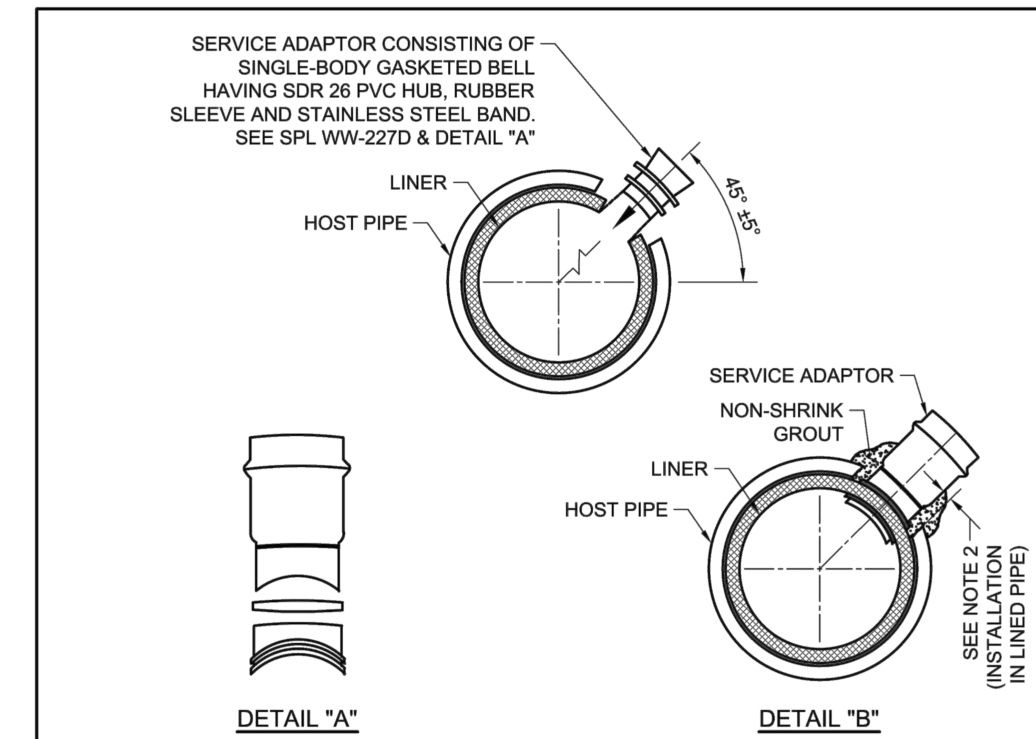

INSTALLATION IN LINED PIPE:

1. MARK LOCATION OF TAP.
2. BREAK & REMOVE HOST PIPE SO THAT OPENING IS AT LEAST 2" BUT NO MORE THAN 3" WIDER THAN DIAMETER OF THE SERVICE ADAPTOR.
3. DO NOT DAMAGE LINER.
4. CORE HOLE THROUGH LINER USING ADAPTOR MANUFACTURER RECOMMENDED BIT.
5. INSTALL SERVICE ADAPTOR.
6. HOLES CUT IN HOST PIPE SHALL BE PACKED WITH NON-SHRINK GROUT (ASTM C1107 GRADE). SEE DETAIL "B"

NOTES:

1. USE ONLY TO TAP EXISTING LINED PIPE.
2. SEE APPROPRIATE STD. FOR SERVICE LINE INFORMATION.
3. THE EDGE OF THE CORE HOLE MUST BE AT LEAST 3' FROM THE ENDS OF THE PIPE, ANY OTHER CORE SERVICE CONNECTIONS, AND ANY FITTINGS.
4. FOR DEEP SERVICE APPLICATIONS SEE SHEET 3 OF 4, EXCEPT SUBSTITUTE A CORED HOLE, AND SERVICE ADAPTOR FOR THE TEE OR WYE.
5. SERVICE CONNECTIONS TO MANHOLES MUST BE MADE USING A PIPE-TO-MANHOLE CONNECTOR WHICH LIMITS THE PIPE SLOPE INTO THE MANHOLE TO 12% MAX.

6" WASTEWATER CONNECTION TO EXISTING LINED MAIN

CITY OF AUSTIN AUSTIN WATER	SINGLE AND DOUBLE WASTEWATER SERVICE CONNECTION	
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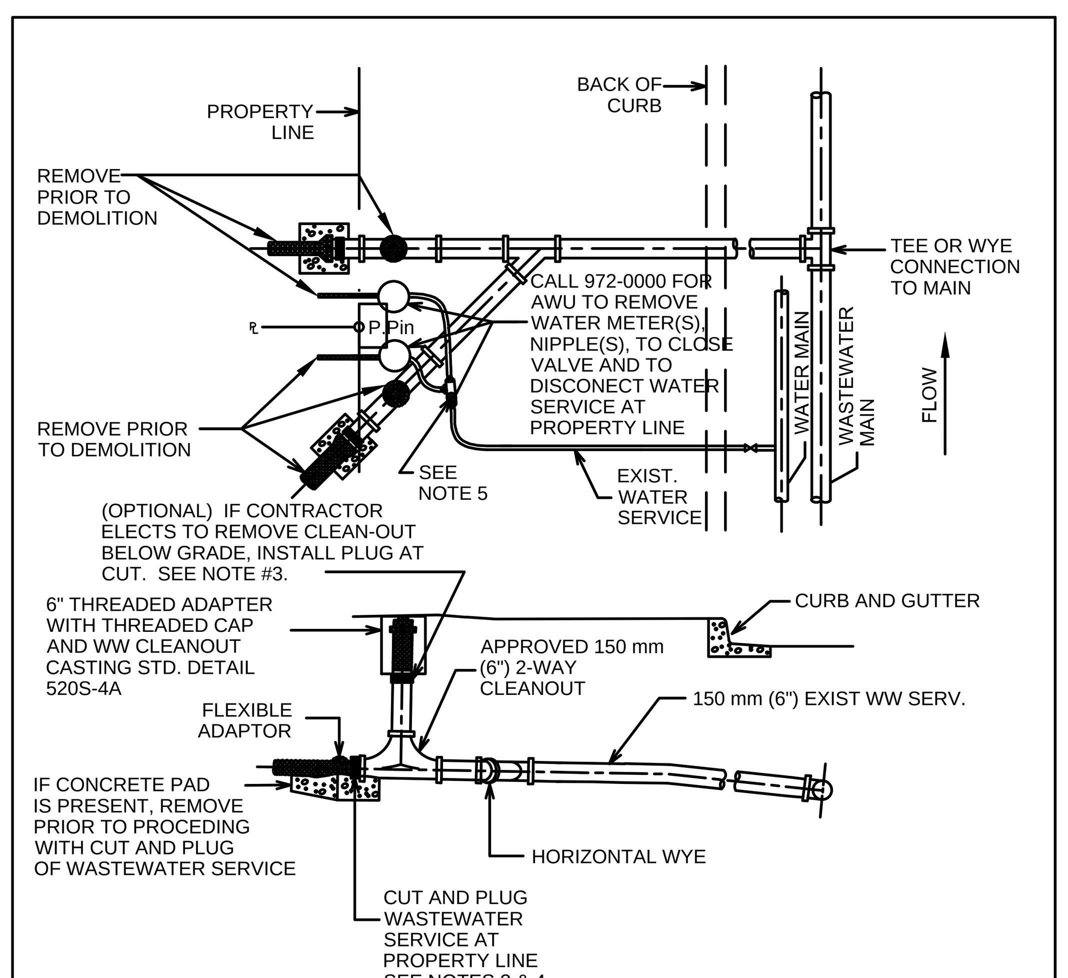
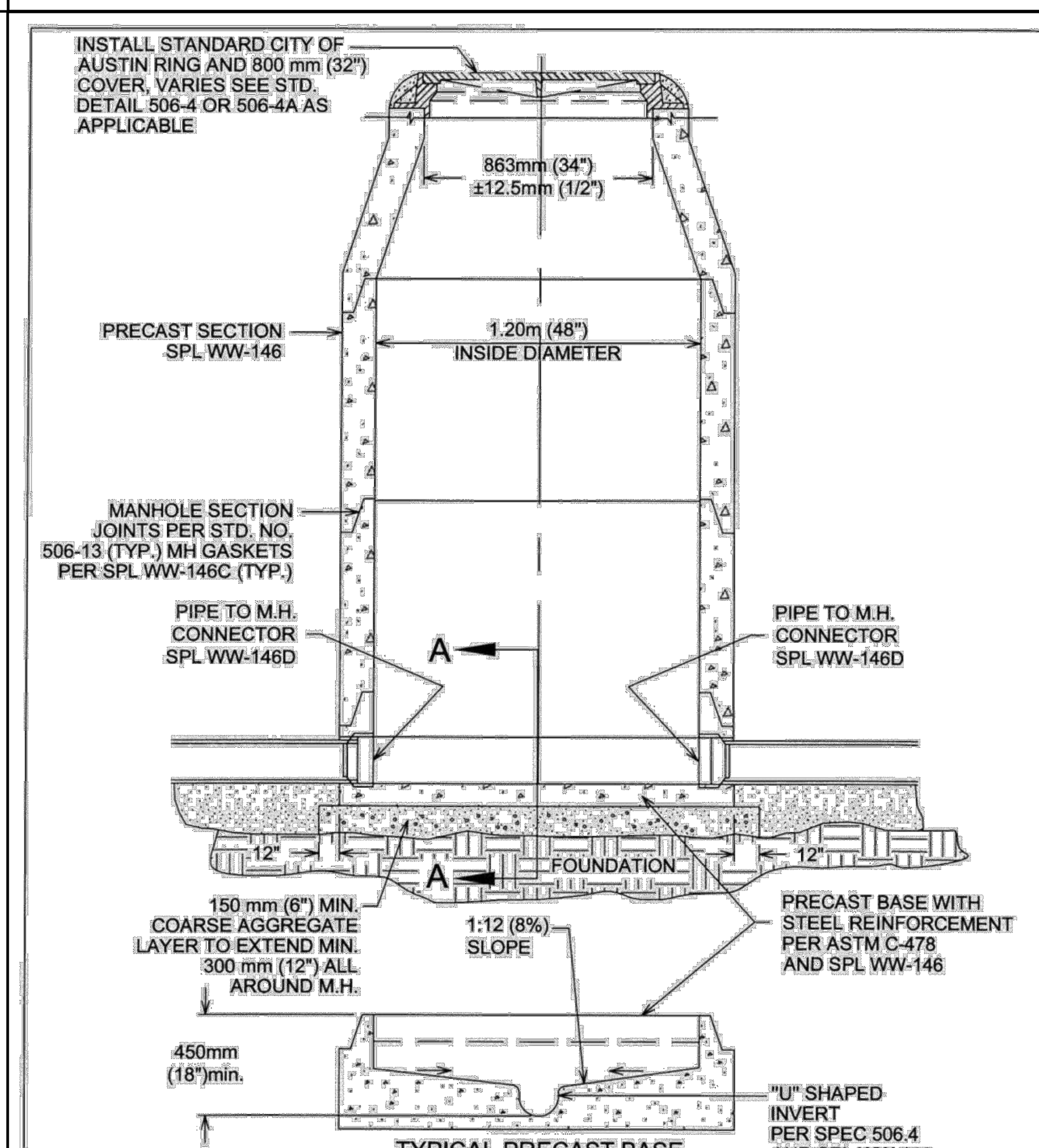


NOTES:

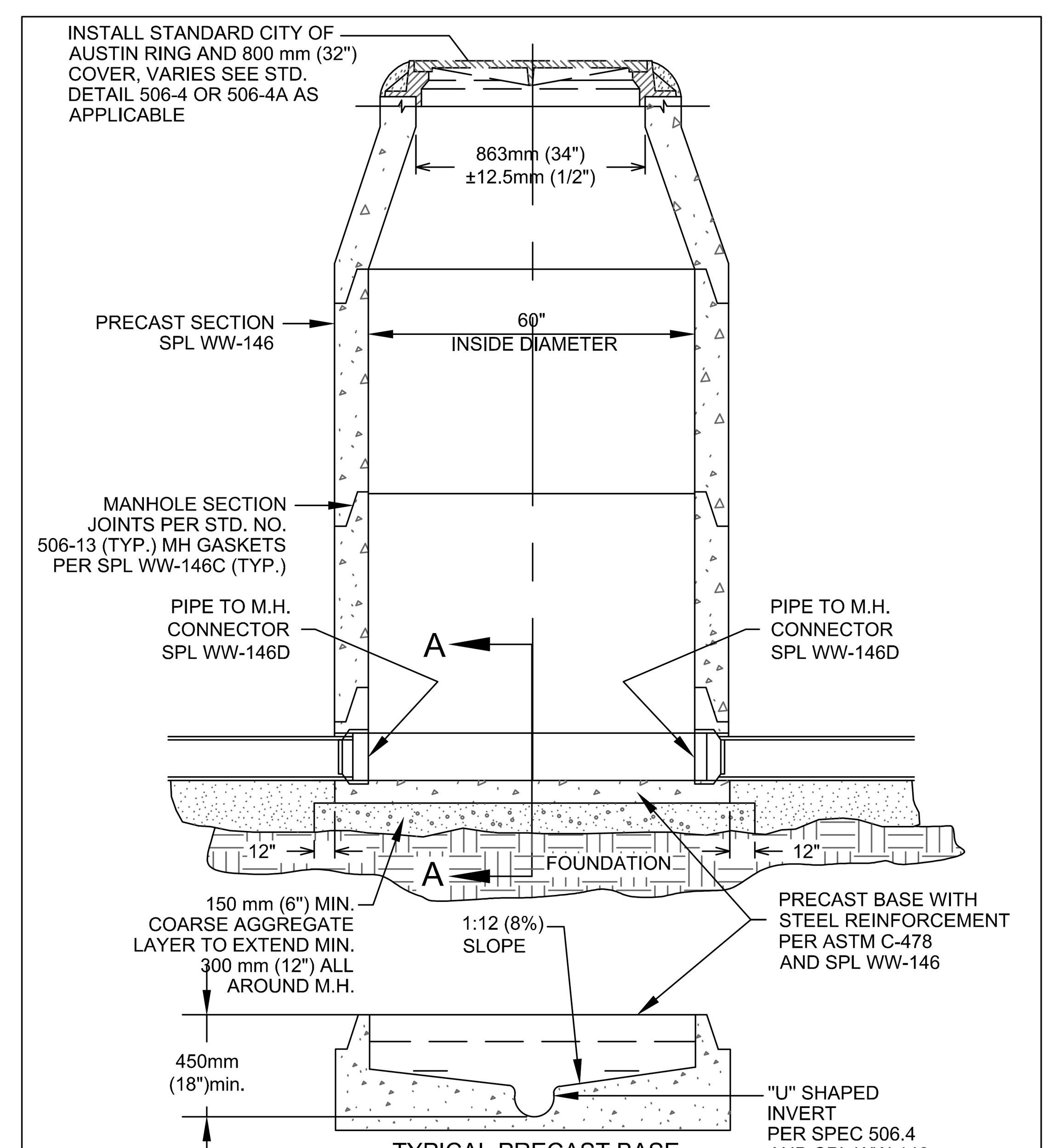
1. CONTRACTOR SHALL PROTECT EXISTING CLEAN-OUT FROM DAMAGE DURING CONSTRUCTION AND SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT IF DAMAGED. CONTRACTOR HAS THE OPTION TO REMOVE CLEAN-OUT AND REPLACE WHEN SERVICE IS RE-ESTABLISHED.
2. DISCONNECTS MUST BE COMPLETE AND INSPECTED PRIOR TO COMMENCEMENT OF DEMOLITION.
3. PLUG SHALL BE LISTED ON SPL WW-227C. PVC PIPE MAY USE PVC PUSH ON CAP.
4. CONTRACTOR SHALL CALL 972-0000 TO REQUEST INSPECTION OF WASTEWATER CUT & PLUG THREE (3) BUSINESS DAYS PRIOR TO THE TIME THAT THE INSPECTION WILL BE NEEDED.
5. BALL VALVE SHALL NOT BE LOCATED UNDER CURB OR PAVEMENT, AND NOT BE LOCATED MORE THAN 24" HORIZONTALLY FROM METER BOX.

CITY OF AUSTIN AUSTIN WATER UTILITY	TEMPORARY CUT AND PLUG OF W/WW SERVICE LINES FOR DEMOLITION PERMIT	
RECORD COPY SIGNED BY KATHI L FLOWERS 06/01/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-2



NOTE:
1. THE MANHOLE BASE SHALL BE BEDDED ON 150 mm (6") COARSE AGGREGATE. THE CONTRACTOR SHALL LEVEL AND PLUMB THE BASE PRIOR TO SETTING THE PRECAST MANHOLE RISER SECTIONS ON THE PRECAST CONCRETE BASE.
2. MH FOUNDATION SHALL MEET OR EXCEED STD. SPEC. 506.5B.

CITY OF AUSTIN AUSTIN WATER UTILITY	WASTEWATER MANHOLE ON PRECAST BASE	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-10



NOTE:
1. THE MANHOLE BASE SHALL BE BEDDED ON 150 mm (6") COARSE AGGREGATE. THE CONTRACTOR SHALL LEVEL AND PLUMB THE BASE PRIOR TO SETTING THE PRECAST MANHOLE RISER SECTIONS ON THE PRECAST CONCRETE BASE.
2. MH FOUNDATION SHALL MEET OR EXCEED STD. SPEC. 506.5B.

60" WASTEWATER MANHOLE ON PRECAST BASE

NOTES:

1. SEE SHEET 41 FOR WATER SERVICE DETAIL.

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REVISIONS

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SHEET INFORMATION
DATE Nov 19, 2020
SHEET 48 OF 81

GP-19-0000.WPD

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EXHIBIT A

Meredith Wastewater 3 ft. depth

% Deflection = 0.1 (4.17+2.29) 100 / 0.149 (115) + 0.061 (2000) = 0.46%

Maximum % deflection = 1+ 0.46 = 1.46%

* See assumed values highlited in Tables 2-5 of this bulletin

Less than the maximum listed under Table 1.

JM Eagle — Building essentials for a better tomorrow™

TECHNICAL BULLETIN

JANUARY 2009

DEPTH OF BURIAL FOR PVC PIPE

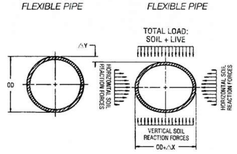
FLEXIBLE PIPE THEORY

PVC pipes are classified as flexible pipes. They flex without breaking when loaded externally from soil weight and vehicular traffic. Rigid pipes, such as those made of concrete or clay, do not perceptibly flex when loaded and experience wall crushing when their load limit is reached. This mode of failure for rigid pipes has given rise to the terms "crush strength" and "D-Load", but these terms do not apply to PVC pipes.

When a PVC pipe encounters external loading, its diameter will begin to deflect, meaning its sides will move outward and slightly downward. If the pipe is buried in supportive soil, the stiffness of the soil will resist the deflection (see Figure 1). This action and reaction is the key to how a PVC pipe carries external loads.

Figure 1

FLEXIBLE PIPE DEFLECTION



The combination of the embedment soil stiffness and the pipe stiffness form a system that acts to support external loads. By itself, the pipe may not support much weight, but the soil/pipe system can have tremendous load capacity.

A PVC pipe's resistance to deflection in an unburied state is measured by its "pipe stiffness". Pipe stiffness is usually less significant than soil stiffness in PVC pipe installations, but in general, a higher pipe stiffness results in a higher load capacity.

Soil stiffness is most affected by the level of compaction achieved, and to a lesser extent by the soil type. Soil stiffness values for various conditions and soil types have been derived through extensive testing.

CALCULATING ALLOWABLE BURIAL DEPTH

Because a PVC pipe flexes rather than breaks when loaded, the failure criterion is not fracture strength. Instead, a limit is placed on pipe diametric deflection. This limit is expressed in terms of percentage reduction in diameter due to external loading. Industry recommendations for maximum deflection are shown in Table 1.

Table 1

MAXIMUM RECOMMENDED DIAMETRIC DEFLECTION

PVC Pressure Pipes	5%
PVC Sewer / Drain Pipes	7½%
PVC Electrical Conduits	5%

A "failure" of a flexible pipe system from external loading is defined by the point at which the top of the pipe begins to experience inverse curvature. Research has shown this point occurs at a minimum of 30% deflection; recommendations for maximum deflection therefore incorporate safety factors of 4:1 or 6:1.

In order to determine the suitability of a particular burial depth, a system designer estimates the pipe deflection through the use of an empirical equation called the "Modified Iowa Equation". A simplified, conservative version of the equation is presented below:

MODIFIED IOWA EQUATION

$$\% \text{ DEFLECTION} = \frac{0.1\,(W' + P)\,100}{0.149\,(PS) + 0.061E'}$$

Where:

% DEFLECTION = predicted percentage of diametric deflection.

W' = Live Load (lbs/in²): pressure transmitted to the pipe from traffic on the ground surface. Live Load values are found in Table 2.

P = Prism Load (lbs/in²): pressure acting on the pipe from the weight of the soil column above the pipe (also called "Dead Load"). Prism Load values are found in Table 3.

PS = Pipe Stiffness (lbs/in²): a flexible pipe's resistance to deflection in an unburied state. Pipe Stiffness values for JM Eagle products are found in Table 4.

E' = Modulus of Soil Reaction (lbs/in²): stiffness of the embedment soil. Values for Modulus of Soil Reaction are found in Table 5.

Table 2

LIVE LOADS ON PVC PIPE			
HEIGHT OF COVER (FT)	LIVE LOAD TRANSFERRED TO PIPE, (LBS/IN²) HIGHWAY[1]	RAILWAY E80[2]	AIRPORT[3]
1	12.50		
2	5.56	26.39	13.14
3	4.17	23.61	12.28
4	2.78	18.40	11.27
5	1.74	16.67	10.09
6	1.39	15.63	8.79
7	1.22	12.15	7.85
8	0.69	11.11	6.93
10	*	7.64	6.00
12	*	5.56	4.76
14	*	4.17	3.06
16	*	3.47	2.29
18	*	2.78	1.91
20	*	2.08	1.53
22	*	1.91	1.14
24	*	1.74	1.05
26	*	1.39	*
28	*	1.04	*
30	*	0.69	*
35	*	*	*
40	*	*	*

[1] Simulates 20 ton truck traffic + impact.
[2] Simulates 80,000 lb/ft railway load + impact.
[3] 160,000 lbs. dual tandem gear assembly; 26-inch spacing between tires and 55-inch center-to-center spacing between fore and aft tires under a rigid pavement 12 inches thick + impact.
* Negligible live load influence.

Table 3

assumed unit weight of clayey Gravel

PRISM LOAD SOIL PRESSURE (LBS/IN2)				
HEIGHT OF COVER (FT)	SOIL UNIT WEIGHT (LBS/FT3) 100	110	120	125	130
1	0.69	0.76	0.83	0.87	0.90
2	1.39	1.53	1.67	1.74	1.81
3	2.08	2.29	2.50	2.60	2.71
4	2.78	3.06	3.33	3.47	3.61
5	3.47	3.82	4.17	4.34	4.51
6	4.17	4.58	5.00	5.21	5.42
7	4.86	5.35	5.83	6.08	6.32
8	5.56	6.11	6.67	6.94	7.22
9	6.25	6.88	7.50	7.81	8.13
10	6.94	7.64	8.33	8.68	9.03
11	7.64	8.40	9.17	9.55	9.93
12	8.33	9.17	10.00	10.42	10.83
13	9.03	9.93	10.83	11.28	11.74
14	9.72	10.69	11.67	12.15	12.64
15	10.42	11.46	12.50	13.02	13.54
16	11.11	12.22	13.33	13.89	14.44
17	11.81	12.99	14.17	14.76	15.35
18	12.50	13.75	15.00	15.63	16.25
19	13.19	14.51	15.83	16.49	17.15
20	13.89	15.28	16.67	17.36	18.06
21	14.58	16.04	17.50	18.23	18.96
22	15.28	16.81	18.33	19.10	19.86
23	15.97	17.57	19.17	19.97	20.76
24	16.67	18.33	20.00	20.83	21.67
25	17.36	19.10	20.83	21.70	22.57
26	18.06	19.86	21.67	22.57	23.47
27	18.75	20.63	22.50	23.44	24.38
28	19.44	21.39	23.33	24.31	25.28
29	20.14	22.15	24.17	25.17	26.18
30	20.83	22.92	25.00	26.04	27.08
31	21.53	23.68	25.83	26.91	27.99
32	22.22	24.44	26.67	27.78	28.89
33	22.92	25.21	27.50	28.65	29.79
34	23.61	25.97	28.33	29.51	30.69
35	24.31	26.74	29.17	30.38	31.60
36	25.00	27.50	30.00	31.25	32.50
37	25.69	28.26	31.67	32.12	33.40
38	26.39	29.03	32.50	32.99	34.31
39	27.08	29.79	33.33	33.85	35.21
40	27.78	30.56	34.17	34.72	36.11
41	28.47	31.32	35.00	35.59	37.01
42	29.17	32.08	35.83	36.46	37.92
43	29.86	32.85	36.67	37.33	38.82
44	30.56	33.61	37.50	38.19	39.72
45	31.25	34.38	38.33	39.06	40.63
46	31.94	35.14	39.17	39.93	41.53
47	32.64	35.90	40.00	40.80	42.43
48	33.33	36.67	41.67	41.67	43.33
49	34.03	37.43	42.53	42.53	44.24
50	34.72	38.19	43.40	43.40	45.14

Table 5

AVERAGE VALUES OF MODULUS OF SOIL REACTION, E' (FOR INITIAL FLEXIBLE PIPE DEFLECTION)					
SOIL CLASS	PIPE BEDDING MATERIALS (Unified Classification System[2])	E' FOR DEGREE OF COMPACTION OF PIPE ZONE BACKFILL (PSI) Loose	Slight < 85% Proctor, < 40% relative density	Moderate 85% - 95% Proctor, 40% - 70% relative density	High > 95% Proctor, > 70% relative density
Class V	Fine-grained Soils (LL>50)[3] Soils with medium to high plasticity CH, MH, CH-MH	No data available; consult a competent soils engineer; Otherwise use E' = 0			
Class IV	Fine-grained Soils (LL < 50)Soils with medium to no plasticity CL, ML,ML-CL, with less than 25% coarse-grained particles.	50	200	400	1,000
Class III	Fine-grained Soils (LL < 50)Soils with medium to no plasticity CL, ML,ML-CL, with more than 25% coarse-grained particles 100-400 1,000 2,000 Coarse-grained Soils with Fines GM, GC, SM, SC contains more than 12% fines	100	400	1,000	2,000
Class II	Coarse-grained Soils with Little or No Fines GW, GP, SW, SPC contains less than 12% fines	200	1,000	2,000	3,000
Class I	Crushed Rock	1,000	3,000	3,000	3,000
	Accuracy in Terms of Percentage Deflection	±2	±2	±1	±0.5

[1] ASTM Designation D 2487, USBR Designation E-3
[2] LL = Liquid limit
[3] Or any borderline soil beginning with one of these symbols (i.e. GM-GC, GC-SC)
[4] For a 1% accuracy and predicted deflection of 3%, actual deflection would be between 2% and 4%.

Notes: Values applicable only for fills less than 200' (61m). Table does not include any safety factor. For use in predicting initial deflections only; appropriate Deflection Lag Factor must be applied for long-term deflections. If bedding falls on the borderline between two compaction categories, select lower E' value or average the two values. Percentage Proctor based on laboratory maximum dry density from test standards using about 12,500 ft-lb/cu ft (598,000 J/m³) [ASTM D 698, AASHTO T-99, USBR Designation E-11]. 1psi = 6.9kN/m².

Source: "Soil Reaction for Buried Flexible Pipe" by Amster K. Howard, U.S. Bureau of Reclamation, Denver Colorado. Reprinted with permission from American Society of Civil Engineers Journal of Geotechnical Engineering Division, January 1977, pp. 93-48.

A pipe system designer uses this equation to predict PVC pipe deflection given type of PVC pipe, burial depth, soil density, type of traffic, type of embedments soil, and compaction density of embedment soil. The designer then compares the predicted deflection to there commended maximum deflection in Table 1 to check if the burial depth is appropriate.

Example 1: Shallow Burial

A pipe system designer is interested in using ASTM D3034 SDR 35 PVC sewer pipe in a shallow-burial installation with the following characteristics: -1 foot burial depth:

- 120 pounds per cubic foot soil density
- H20 highway traffic
- sand embedment material
- 90% Proctor density embedment soil compaction

$$\% \text{ DEFLECTION} = \frac{0.1\,(P+W')\,100}{0.149\,(PS) + 0.061E'}$$

$$\% \text{ DEFLECTION} = \frac{0.1\,(0.83 + 12.5)\,100}{0.149\,(46) + 0.061(2{,}000)}$$

$$\% \text{ DEFLECTION} = 1.0 \pm 1\%$$

The maximum predicted deflection is 2.0%, well below the maximum recommended for PVC sewer pipe in Table 1 of 7½%.

Minimum Burial Depth: The minimum recommended burial depth for PVC pipes beneath a highway is one foot. This recommendation assumes proper specification of embedment materials and compaction, and proper installation.

Example 2: Deep Burial

A pipe system designer is interested in using ASTM D3034 SDR 35 PVC sewer pipe in a deep-burial installation with the following characteristics:

- 45 foot burial depth
- 120 pounds per cubic foot soil density
- H20 highway traffic (Note: Live loads are negligible for deep burials)
- sand embedment material
- 90% Proctor density embedment soil compaction

$$\% \text{ DEFLECTION} = \frac{0.1\,(P+W')\,100}{0.149\,(PS) + 0.061E'}$$

$$\% \text{ DEFLECTION} = \frac{0.1\,(37.5 + 0)\,100}{0.149\,(46) + 0.061(2{,}000)}$$

$$\% \text{ DEFLECTION} = 1.0 \pm 1\%$$

The maximum predicted deflection is 3.9%, well below the maximum recommended for PVC sewer pipe in Table 1 of 7½%.

For more information, see the following JM Eagle Technical Bulletins:

- PVC Pipe Trench Construction
- Deflection Testing of PVC Sewer Pipe
- PVC Sewer and Drain Pipe Burial Depth Charts
- PVC Water Pipe Burial Depth Charts

Table 4

PVC PIPE STIFFNESS* (PS) — PIP, WELL CASING, AND IPSSDR WATER PIPES		
PRESSURE RATING (PSI)	SDR	PIPE STIFFNESS (PSI)
63	64	7
80	51	14
100	41	28
125	32.5	57
160	26	115
200	21	224
315	13.5	916

PVC SEWER / DRAIN PIPES — SDR 35, PWRIB
All have a minimum pipe stiffness of 46 psi. SDR 26 has a minimum pipe stiffness of 115 psi.

ASTM D2729 - DRAIN LINE	
SIZE (INCHES)	PIPE STIFFNESS (PSI)
3	19
4	11
6	3

AWWA C900 WATER PIPES		
PRESSURE CLASS (PSI)	DR	PIPE STIFFNESS (PSI)
100	25	129
150	18	364
200	14	815

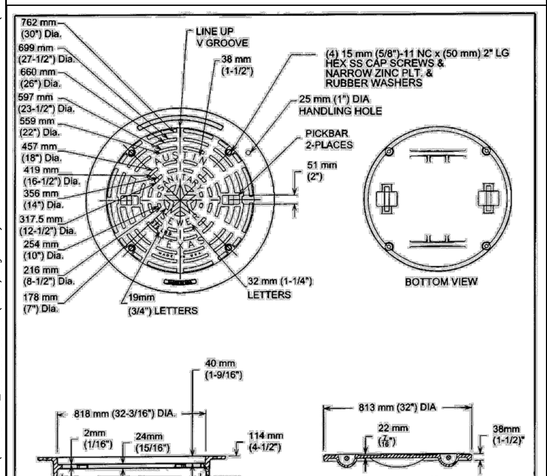
AWWA C905 WATER PIPES		
PRESSURE RATING (PSI)	DR	PIPE STIFFNESS (PSI)
165	25	129
235	18	364

SCHEDULE 40 COEXCEL DWV PIPE	
SIZE (INCHES)	PIPE STIFFNESS (PSI)
1½	600
2	300
3	300
4	200
6	120

PVC PIPE STIFFNESS* (PS) — PVC ELECTRICAL UTILITY DUCTS	
TYPE	PIPE STIFFNESS (PSI)
EB-20	20
EB-35	35
DB-60	60
DB-100	100
DB-120	120

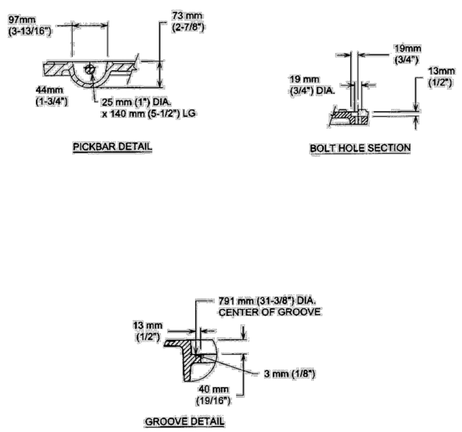
WATER PIPE, WELL CASING, AND ELECTRICAL CONDUITS — SCHEDULE 40	
SIZE (INCHES)	PIPE STIFFNESS (PSI)
½	5,928
¾	3,136
1	2,547
1 ¼	1,397
1 ½	1,008
2	595
2 ½	784
3	509
4	307
6	154
8	104
10	78
12	64

SCHEDULE 80	
SIZE (INCHES)	PIPE STIFFNESS (PSI)
½	17,066
¾	9,078
1	6,995
1 ¼	3,930
1 ½	2,911
2	1,846
2 ½	2,141
3	1,473
4	949
6	607
8	417
10	356
12	330

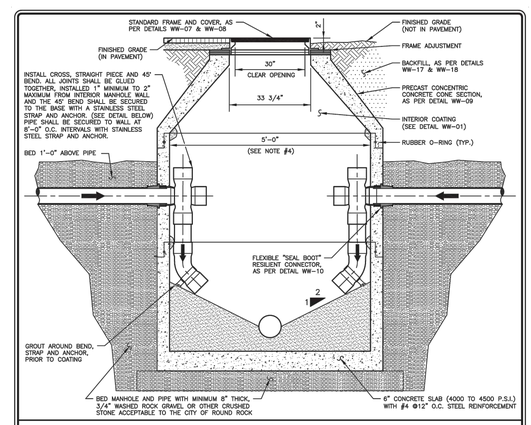


NOTES:
1. MANUFACTURER'S LOGO, COUNTRY OF ORIGIN, LID WEIGHT (IN LBS.) AND DATE OF CASTING SHALL BE CAST IN RING AND COVER AS DESCRIBED BY 503S-5W.
2. SEE SPL WW-219 FOR ADDITIONAL INFORMATION.

CITY OF AUSTIN — AUSTIN WATER UTILITY	WATERTIGHT MANHOLE RING AND 813 mm 32" COVER	
Kathi L Flowers 6/01/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-6W 1 OF 2



CITY OF AUSTIN — AUSTIN WATER UTILITY	WATERTIGHT MANHOLE RING AND 813 mm 32" COVER	
Kathi L Flowers 6/01/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 503S-6W 2 OF 2



NOTES:
1. SEE NOTES #2 THROUGH #10 ON DETAIL WW-01.
2. DROP SERVICES SHALL BE REQUIRED WHENEVER AN INFLUENT SEWER SERVICE IS LOCATED MORE THAN TWO FEET (2'-0") ABOVE THE MAIN INVERT CHANNEL.
3. WHEN P.V.C. PIPE IS USED IN SANITARY SEWER LINES, SOLVENT TYPE JOINT P.V.C. FITTINGS TO BE UTILIZED IN THE DROP ASSEMBLY ONLY. FITTINGS TO BE PVC SDR-35 WITH A TWO PART WATER RESISTANT GLUE AT ALL JOINTS.
4. A 5'-0" MANHOLE IS REQUIRED FOR 1 OR 2 DROP SERVICES. IF THERE ARE MORE THAN 2 DROP SERVICES, A 6'-0" DIAMETER MANHOLE IS REQUIRED.

APPROVED / DATE	INTERNAL DROP CONNECTION FOR WASTEWATER MANHOLE DETAIL	DRAWING NO: WW-03
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)		

NOTE: SEE AUSTIN WATER DETAILS FOR BOLTED MANHOLE RING AND 813 MM 32" COVER (503S-5W) ON SHEET 45.

STATE OF TEXAS — JOHN G. FRIEDMAN 88486 — REGISTERED PROFESSIONAL ENGINEER — 11-20-2020

rps — Texas PE Firm Reg. #F-929
4801 Southwest Pkwy, Pkwy 2, Suite 150, Austin, Texas 78735
T +1 512 328 5771 E usInfrastructure@rpsgroup.com

CITY OF AUSTIN — AUSTIN WATER UTILITY

11/19/2020

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
COA STANDARD DETAILS - WATER (3 OF 3)

NO.	BY	DATE	REVISIONS	REMARKS

SHEET INFORMATION
DATE Nov 19, 2020
SHEET 49 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-AS\07.00 CADD\Construction Shts\27-28 -GP_Standard Details (Water).dwg Layout: 49 COA STANDARD DETAILS - WATER (3 OF 3) Plotted: 11/19/2020 10:22:37 AM

BARRICADING SUMMARY TABLES

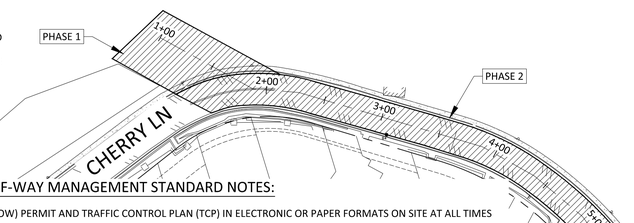
Streets

Street	Classsification	Protection	Speed Limit	Street From	Street To	Planned Improvements	Traffic Control Plan Sheet / Detail	Allowed Barricading Hours	Duration	Comments
Cherry Lane	Local City	Not Protected	20	Scenie Drive	Rockmore Avenue	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC01 & TC02	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Cherry Lane	Local City	Not Protected	20	Rockmore Avenue (South)	Rockmore Avenue (North)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC03, TC04 & TC06	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Avenue	Local City	Not Protected	20	Cherry Lane	Bridle Path	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC05	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Cherry Lane	Local City	Not Protected	20	Rockmore Avenue	Raleigh Avenue	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC08	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Avenue	City Collector	Not Protected	20	Cherry Lane	Kennel Wood Road	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC09	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Avenue	City Collector	Not Protected	20	Kennel Wood Road	Meredith Street (West)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC10, TC11 & TC12	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Avenue	City Collector	Not Protected	20	Meredith Street (West)	Meredith Street (East)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC13, TC14, TC15 & TC16	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Avenue	Local City	Not Protected	20	Meredith Street (eAST)	Leberman Lane	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC17	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Meredith Street	Local City	Not Protected	25	Rockmore Avenue	Leberman Lane	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC18	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Meredith Street	Local City	Not Protected	25	Leberman Lane	Raleigh Avenue	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC19 & TC20	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Leberman Lane	Local City	Not Protected	10	Meredith Street (East)	Rockmore Avenue	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC21	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Meredith Street	Local City	Not Protected	25	Leberman Lane	Raleigh Avenue	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC22	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	

Intersections

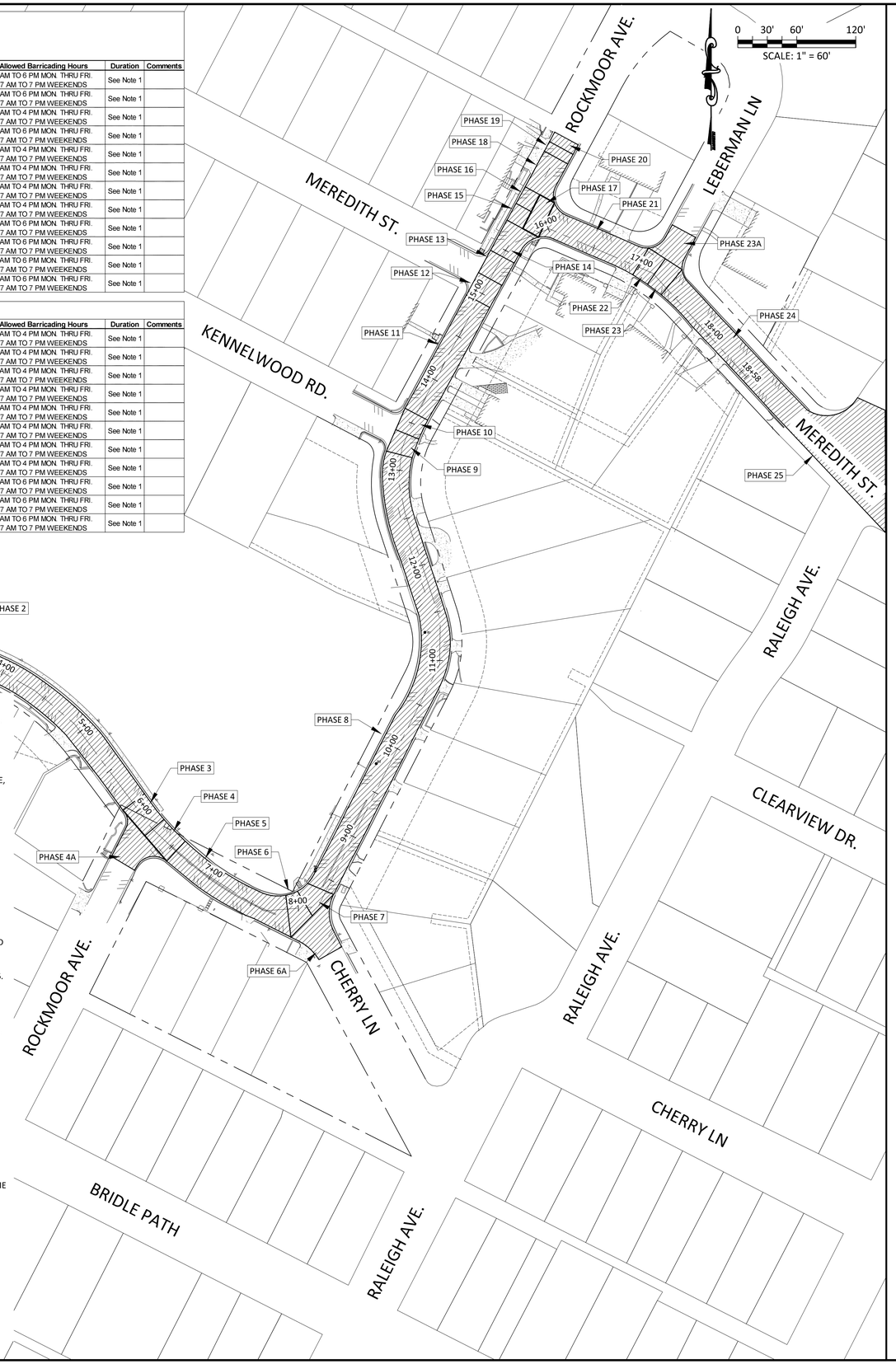
Street Intersection	Planned Improvements	Traffic Control Plan Sheet / Detail	Allowed Barricading Hours	Duration	Comments
Cherry Lane & Rockmore Ave (West intersection) (West)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC03	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Cherry Lane & Rockmore Ave (West intersection) (East)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC04	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Cherry Lane & Rockmore Ave (East intersection) (West)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC07	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Ave & Kennelwood Road (South)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC10	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Ave & Kennelwood Road (North)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC11	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Ave & Meredith Street (South intersection) (South)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC13	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Ave & Meredith Street (South intersection) (North)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC14	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Rockmore Ave & Meredith Street (North intersection)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC15, TC16	9 AM TO 4 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Meredith Street & Leberman Lane (West)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC19	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Meredith Street & Leberman Lane (East)	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC20	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	
Meredith Street & Raleigh Ave	Storm drain improvements with assocated water utility relocations and street repairs	Sheet TC23	9 AM TO 6 PM MON. THRU FRI. 7 AM TO 7 PM WEEKENDS	See Note 1	

NOTE 1: PRIOR TO APPROVAL OF R.O.W. PERMIT CONTRACTOR SHALL COMPLETE THE DURATION COLUMN OF THIS TABLE BASED UPON THE PROJECT SEQUENCING REQUIREMENTS AND THE CONTRACTOR'S MEANS AND METHODS FOR CONSTRUCTING THE PROJECT.



RIGHT-OF-WAY MANAGEMENT STANDARD NOTES:

1. CONTRACTOR SHALL HAVE AN APPROVED RIGHT OF WAY (ROW) PERMIT AND TRAFFIC CONTROL PLAN (TCP) IN ELECTRONIC OR PAPER FORMATS ON SITE AT ALL TIMES WHEN WORKING IN THE ROW.
2. CONTRACTOR SHALL PROVIDE NOTIFICATION, AS PER THE LATEST MOBILITY GUIDELINES (MG-04).
3. UNLESS OTHERWISE APPROVED BY THE ROW DIVISION OF AUSTIN TRANSPORTATION DEPARTMENT (ATD): A.) ONLY ONE PHASE OF A TCP MAY BE SET AT ANY ONE TIME, AND B.) INITIAL SETUP AND PHASE CHANGES OF LONG-TERM WORK ZONES SHALL BE INSTALLED ON WEEKENDS.
4. ONCE TRAFFIC CONTROL HAS BEEN SET, THE AUTHORIZED AND COMPETENT REPRESENTATIVE FROM THE PROJECT TEAM/BARRICADE COMPANY WILL COMPLETE AND UPLOAD THE "CONTRACTOR'S SELF-INSPECTION CHECKLIST" FORM. SEE FORM AND DETAILED INSTRUCTIONS HERE: HTTPS://WWW.AUSTINTEXAS.GOV/PAGE/RIGHT-WAY-TRAFFIC-CONTROL
5. FOR ROW VIOLATIONS, AN INVESTIGATION FEE WILL BE ASSESSED FOR EACH OFFENSE UNTIL THE VIOLATION IS CORRECTED. SEE CURRENT FEE SCHEDULE HERE: HTTPS://WWW.AUSTINTEXAS.GOV/SITES/DEFAULT/FILES/FILES/TRANSPORTATION/RIGHT_OF_WAY/APPROVED_ROW_FEES.PDF
6. EXCAVATIONS SHALL BE BACKFILLED OR PLATED WHEN REQUIRED TO OPEN TO TRAFFIC. TEMPORARY PAVING SHALL BE DONE ACCORDING TO CITY OF AUSTIN (COA) STANDARD DETAIL 1100S-4 (FOR HMAC OR PCC PAVEMENTS). FOR EXCAVATIONS EXCEEDING A TRANSVERSE WIDTH OF 5 FEET, THE CONTRACTOR SHALL PROVIDE AN ENGINEERED PLATING PLAN FOR REVIEW BY THE CITY.
7. PEDESTRIAN ROUTES IN AND AROUND THE WORK ZONE, INCLUDING CONSTRUCTION ENTRANCES, TEMPORARY WALKING PATHS, BYPASSES, COVERED WALKWAYS, AND DETOURS, MUST REMAIN ACCESSIBLE AND ADA COMPLIANT THROUGHOUT THE PROJECT.
8. ALL APPLICABLE SAFEGUARDS SHALL BE IN PLACE PER CHAPTER 33 OF THE INTERNATIONAL BUILDING CODE, TO INCLUDE PEDESTRIAN PROTECTIONS PER SECTION 3306.
9. "CONSTRUCTION ENTRANCE AHEAD" SIGNS MUST BE PLACED AT ALL APPROACHES TO CONSTRUCTION ENTRANCES, UNLESS OTHERWISE SHOWN ON THE APPROVED TCP.
10. EXISTING DRIVEWAYS SHALL NOT BE CLOSED EXCEPT WITH ADVANCE NOTICE TO THE AFFECTED BUSINESSES/RESIDENCES AND APPROVAL FROM THE ROW DIVISION OF ATD.
11. ALL TRAFFIC CONTROL DEVICES INCLUDING PROTECTIVE BARRIERS MUST BE CRASHWORTHY AND INSTALLED ACCORDING TO THE MANUFACTURER'S GUIDELINES. CRASHWORTHINESS SHALL BE DETERMINED PER MASH TESTING REQUIREMENTS.
12. OVERNIGHT PROTECTION OF WORK ZONES AND STORAGE OF MATERIAL/EQUIPMENT SHALL BE ACCORDING TO COA STANDARD DETAIL 804S-4.
13. THE NAME OF THE BARRICADE CONTRACTOR SHALL BE SHOWN ON THE NON-REFLECTIVE SURFACE OF ALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH COA STANDARD DETAIL 804S-5.
14. THE CITY'S TRAFFIC ENGINEER OR INSPECTOR MAY MAKE OR REQUIRE FIELD ADJUSTMENTS TO ADDRESS ISSUES OF SAFETY AND MOBILITY.
15. IF EXISTING CAPITAL METRO BUS STOPS ARE WITHIN THE TEMPORARY TRAFFIC CONTROL OR DETOUR AREA, THE CONTRACTOR SHALL CONTACT CAPITAL METRO (LAURIE SHAW AT 512-621-5713 (MOBILE)/ 512-369-7701 (WORK), LAURIE.SHAW@CAPMETRO.ORG) TWO WEEKS PRIOR TO SETTING UP THE TRAFFIC CONTROL DEVICES IN ORDER TO COORDINATE POTENTIAL BUS-STOP RELOCATION OR ANY OTHER RELATED ISSUES.
16. IF EXISTING SIGNALIZED INTERSECTIONS ARE WITHIN THE TEMPORARY TRAFFIC CONTROL AREA, THE CONTRACTOR SHALL CONTACT ATD - SIGNALS DIVISION AT (512) 974-4075, ONE WEEK PRIOR TO SETTING TRAFFIC CONTROL DEVICES.
17. THE RIGHT OF WAY SHALL BE RETURNED TO FULL USE AT THE END OF THE APPROVED WORK HOURS.
18. CONTRACTORS SHALL ADHERE TO ALL ROW SPECIAL EVENT ACTIVITY RESTRICTIONS, AS PER THE LATEST MOBILITY GUIDELINES (MG-08).
19. PROJECTS THAT ARE ROUTED THROUGH THE DAPCZ PROCESS ARE REQUIRED TO COORDINATE WITH THE OFFICE OF SPECIAL EVENTS (512-974- 1000 OR TRANSPORTATIONSPECIALEVENTS@AUSTINTEXAS.GOV), IN CONJUNCTION WITH THE ROW DIVISION OF ATD. VISIT CITY STAGE FOR SCHEDULED EVENTS FOR ALL OF AUSTIN.



CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

DOUCET + CHAN
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Civil Engineering - Entitlements - Surveying/Mapping
7401 B. Highway 71 W, Suite 160
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OVERALL KEY MAP

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC00

Project No.: 1669-001

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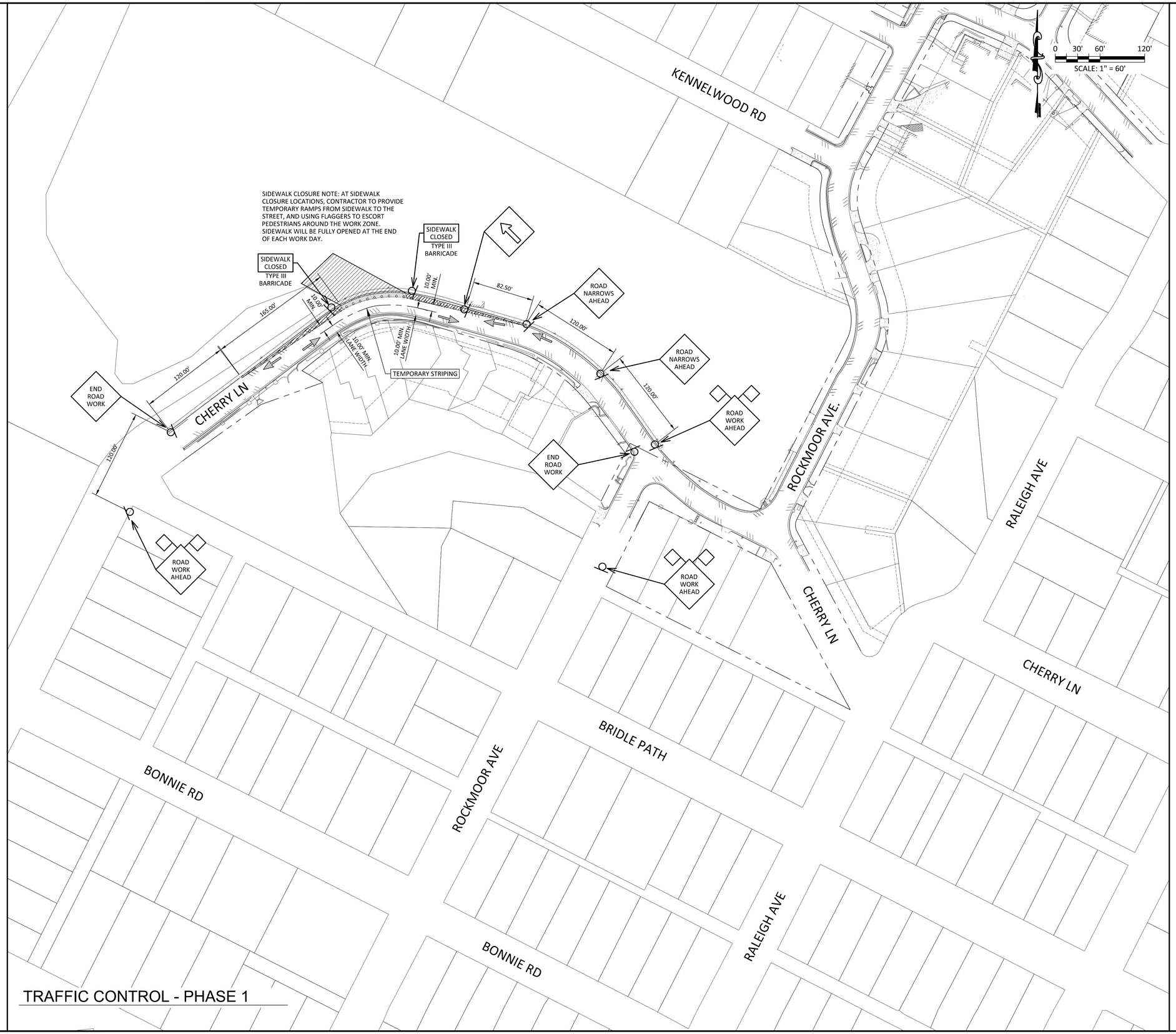

TRAFFIC CONTROL - PHASE 1

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER — X — DETAIL NAME
SHEET NUMBER — XX — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
CHERRY LANE	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 1

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
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PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET
TC01
51 OF 81

Project No.: 1669-001

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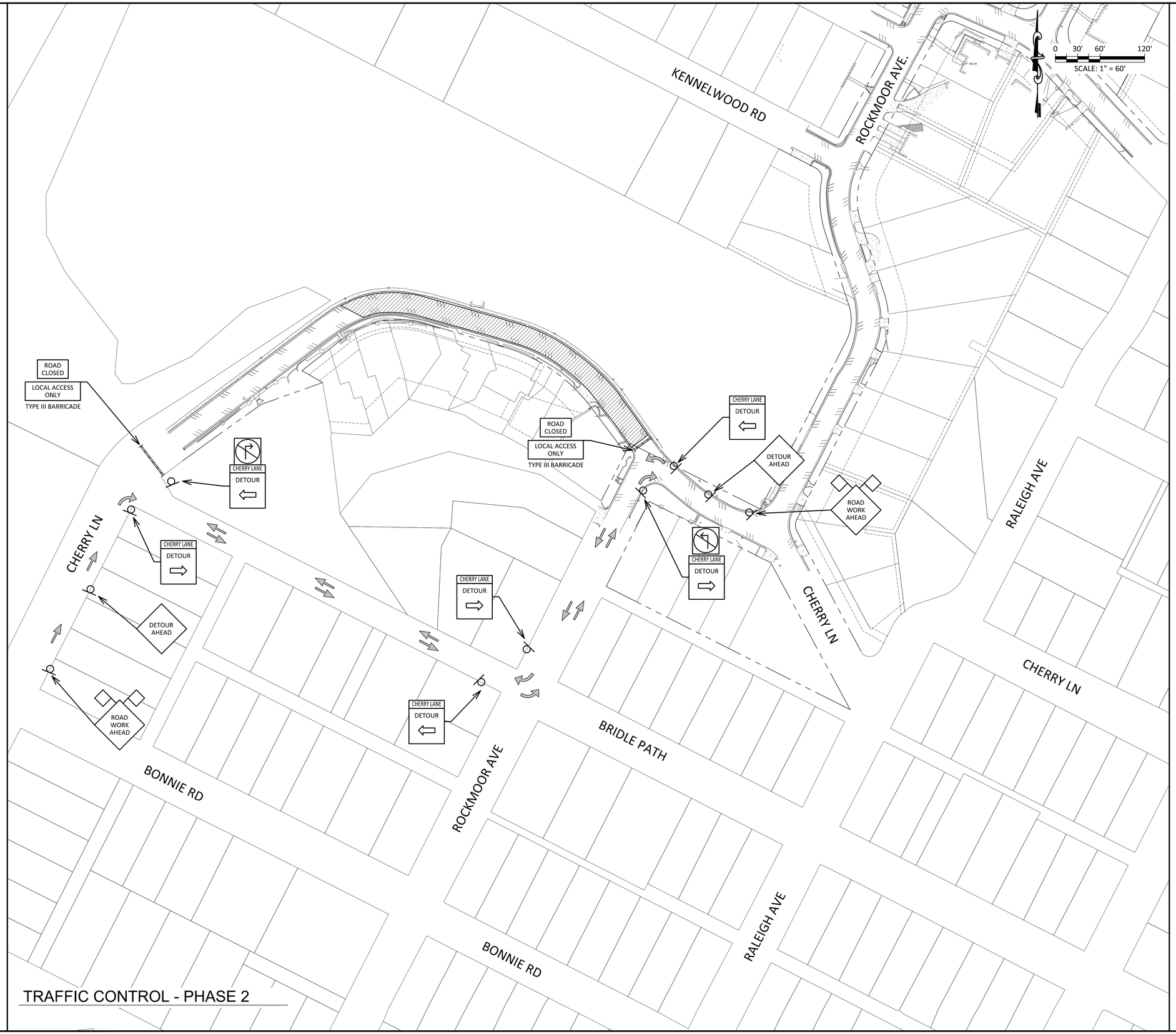

TRAFFIC CONTROL - PHASE 2

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER — X — DETAIL
SHEET NUMBER — XX — NAME
DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
CHERRY LANE	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 2

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8/24/2020

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Reviewed:	ZX
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SHEET
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52 OF 81

Project No.: 1669-001

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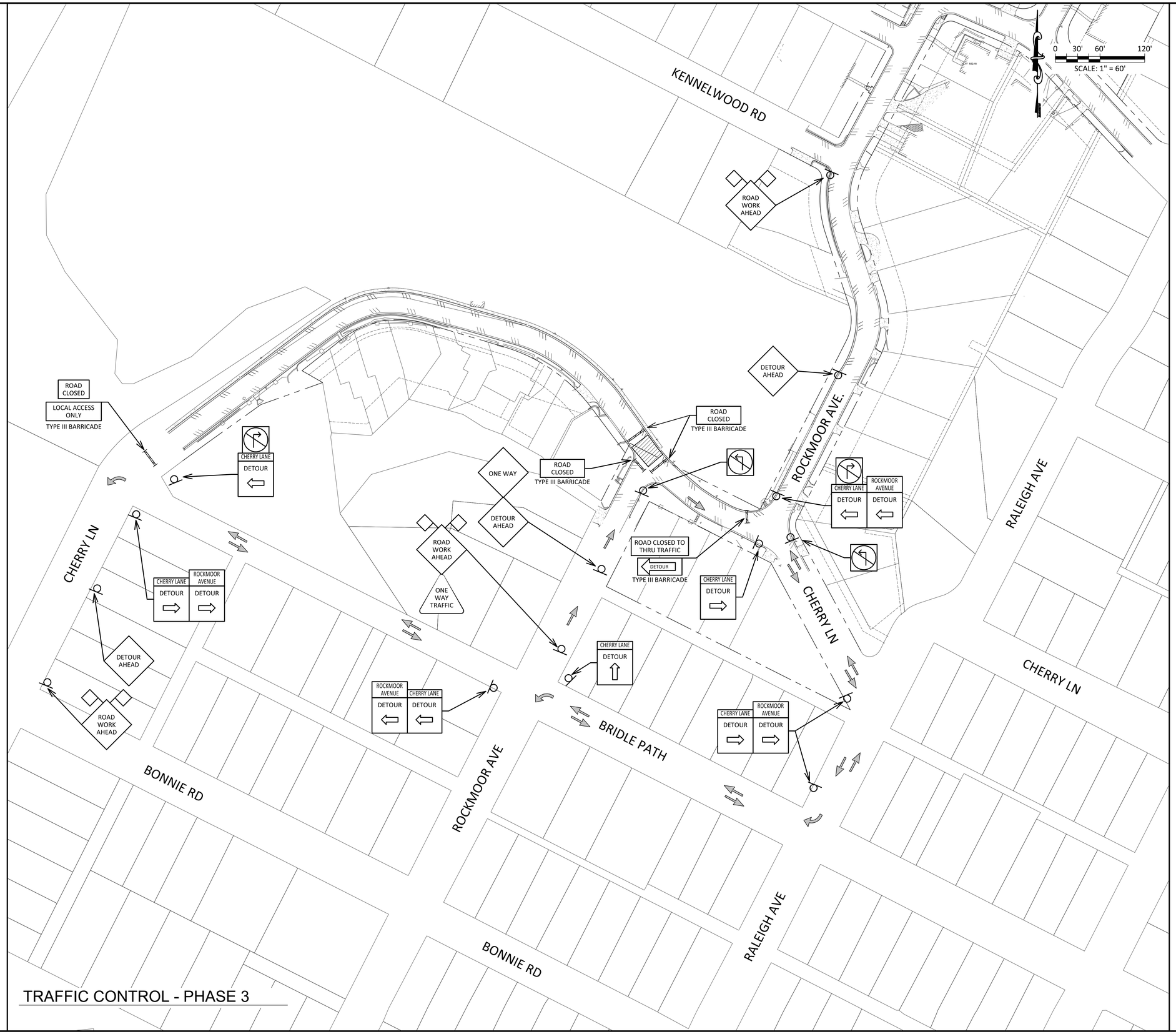

TRAFFIC CONTROL - PHASE 3

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER — X — DETAIL
SHEET NUMBER — XX — NAME
DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
CHERRY LANE	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 3

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

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8/24/2020

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Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET
TC03
53 OF 81

Project No.: 1669-001

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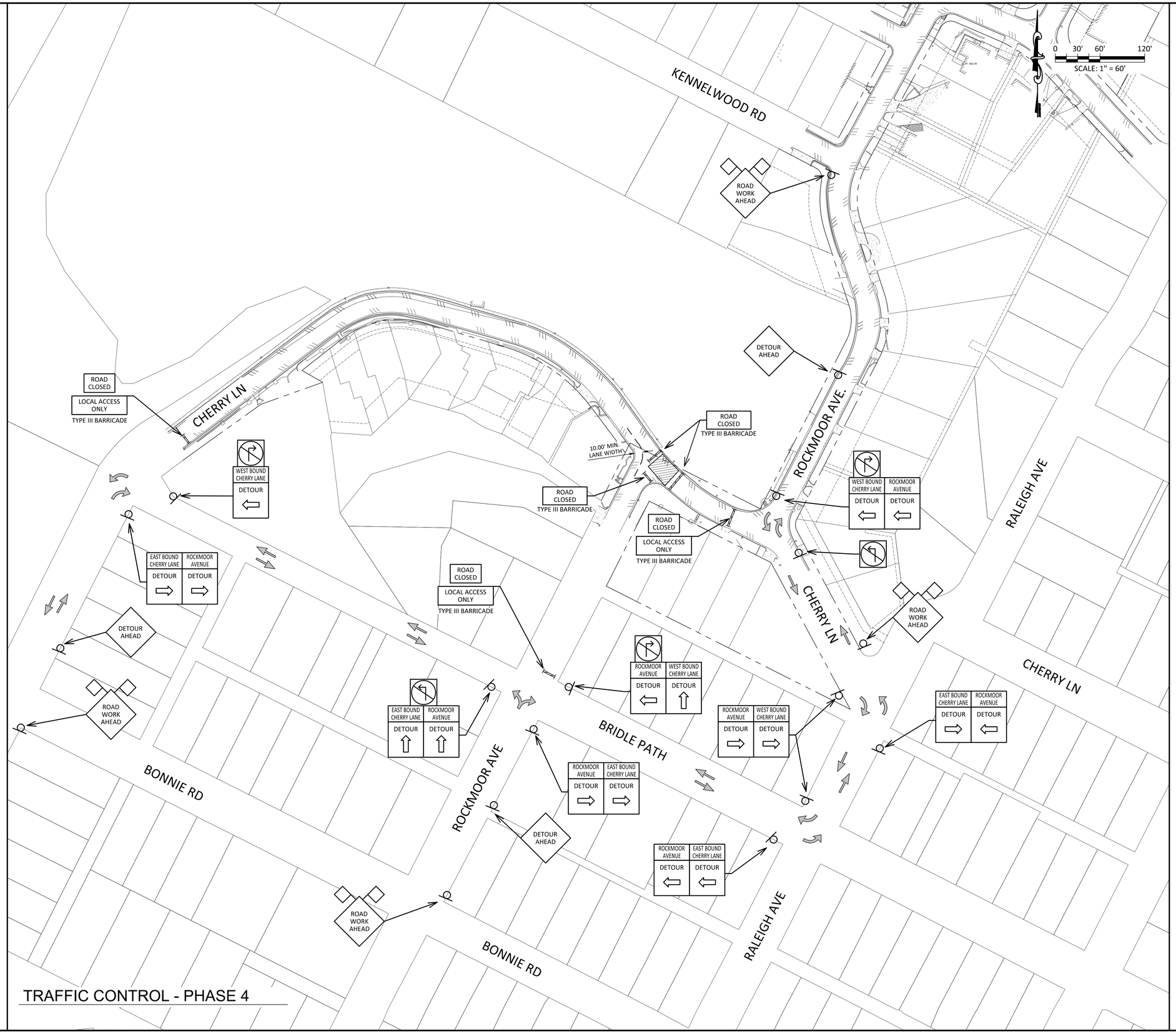

TRAFFIC CONTROL - PHASE 4

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER — X — DETAIL NAME
SHEET NUMBER — XX — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
CHERRY LANE	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 4

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET
TC04
54 OF 81

Project No.: 1669-001

Drawing: X:\Branches\Austin\WIP\Projects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_files\1669-001 TCP.dwg
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Last Modified: Aug. 24, 20 - 17:48
Plot Date/Time: Aug. 24, 20 - 17:51:23

TRAFFIC CONTROL - PHASE 4A

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER — X — DETAIL
SHEET NUMBER — XX — NAME
DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
CHERRY LANE	20 MPH
ROCKMOOR AVE	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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www.doucetengineers.com
Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 4A

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET
TC05
55 OF 81

Project No.: 1669-001

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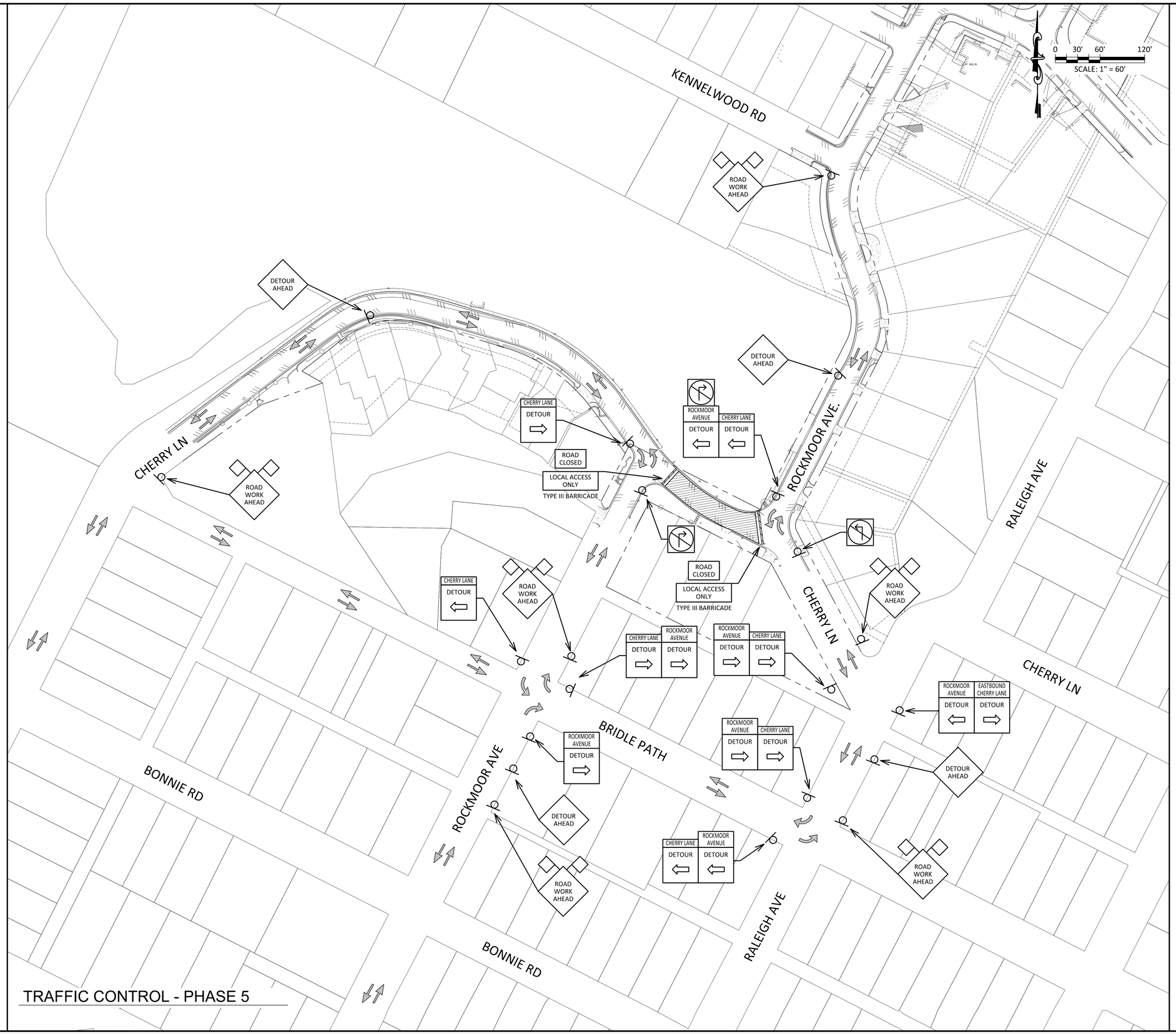

TRAFFIC CONTROL - PHASE 5

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER — X — DETAIL
SHEET NUMBER — XX — NAME
DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
CHERRY LANE	20 MPH
ROCKMOOR AVE	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 5

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET
TC06
56 OF 81

Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_files\1669-001 TCP.dwg
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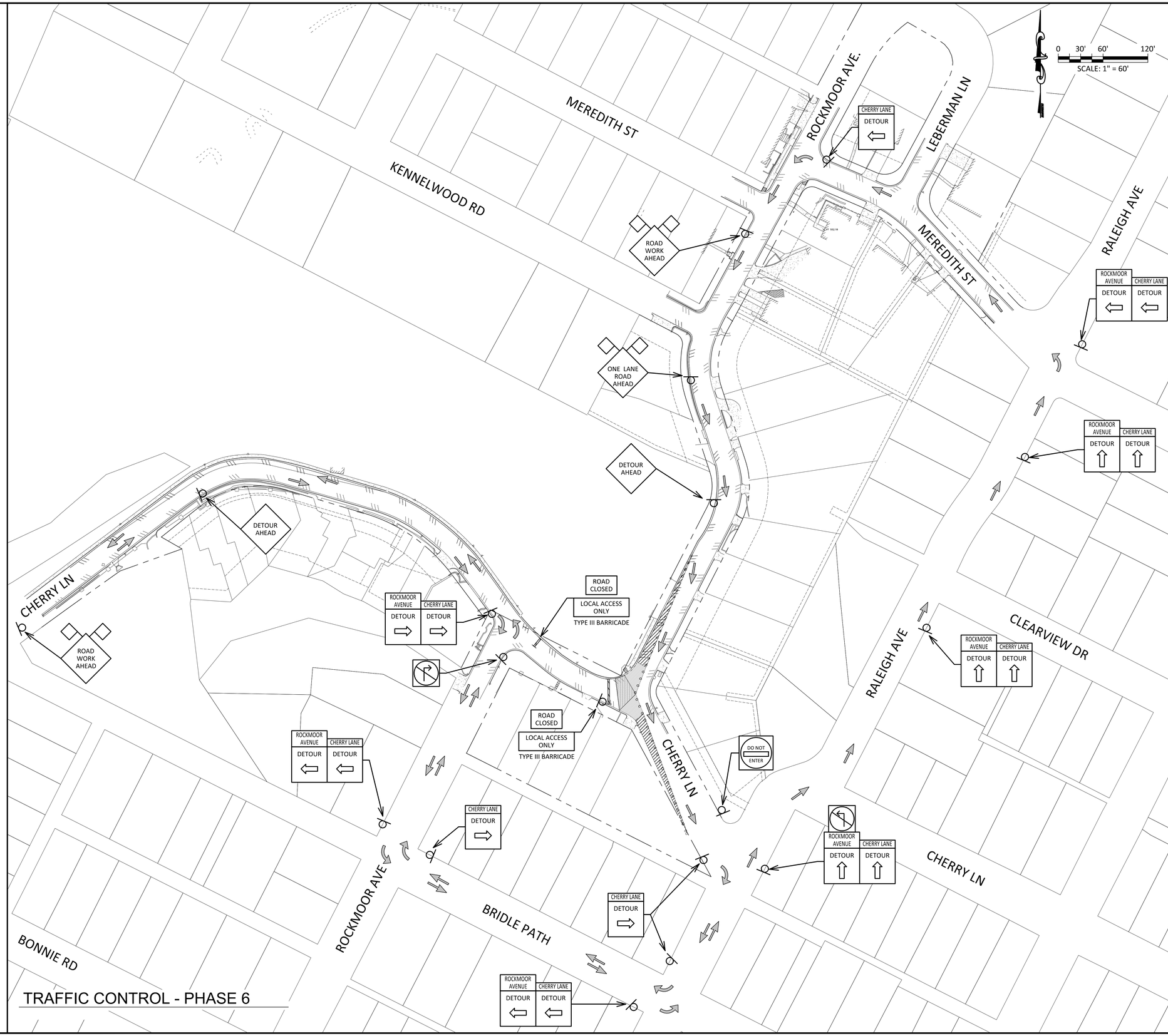

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

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TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
CHERRY LANE	20 MPH
ROCKMOOR AVE	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 6

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC07

57 OF 81

Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_files\1669-001 TCP.dwg
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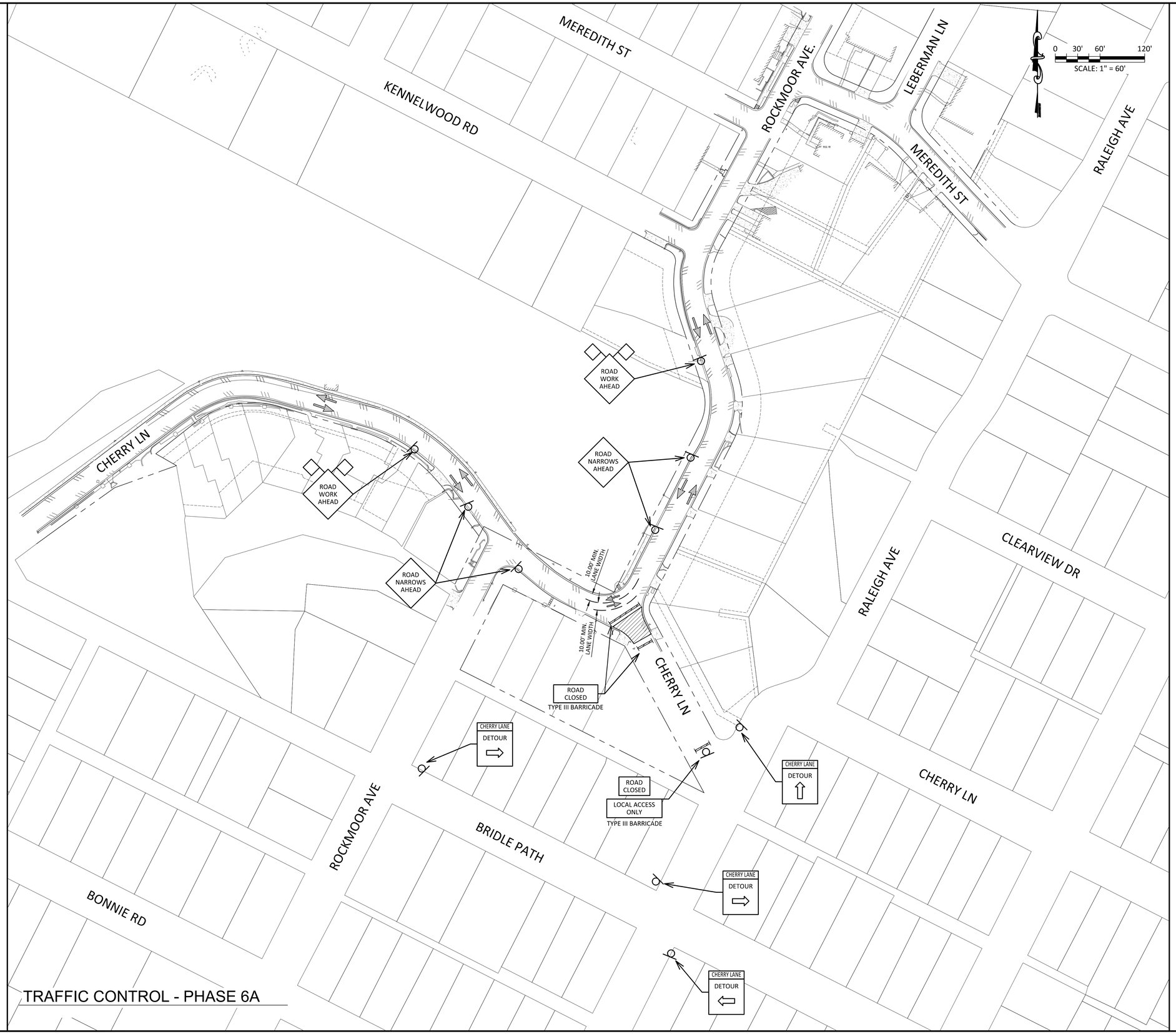

TRAFFIC CONTROL - PHASE 6A

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
CHERRY LANE	20 MPH
ROCKMOOR AVE	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 6A

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC08

58 OF 81

Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\Doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_files\1669-001 TCP.dwg
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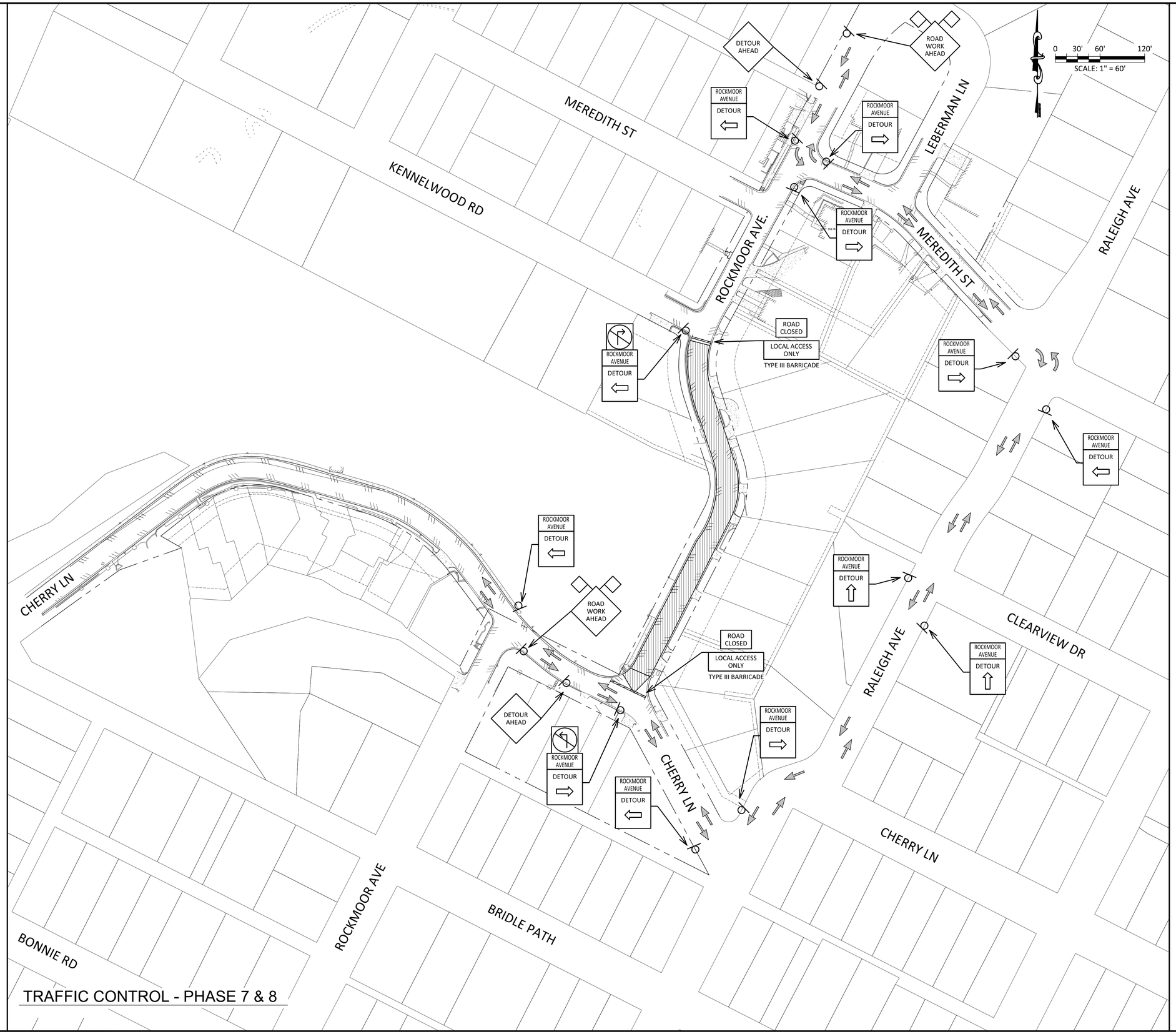

TRAFFIC CONTROL - PHASE 7 & 8

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
CHERRY LANE	20 MPH
ROCKMOOR AVE	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 7 & 8

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC09

Project No.: 1669-001

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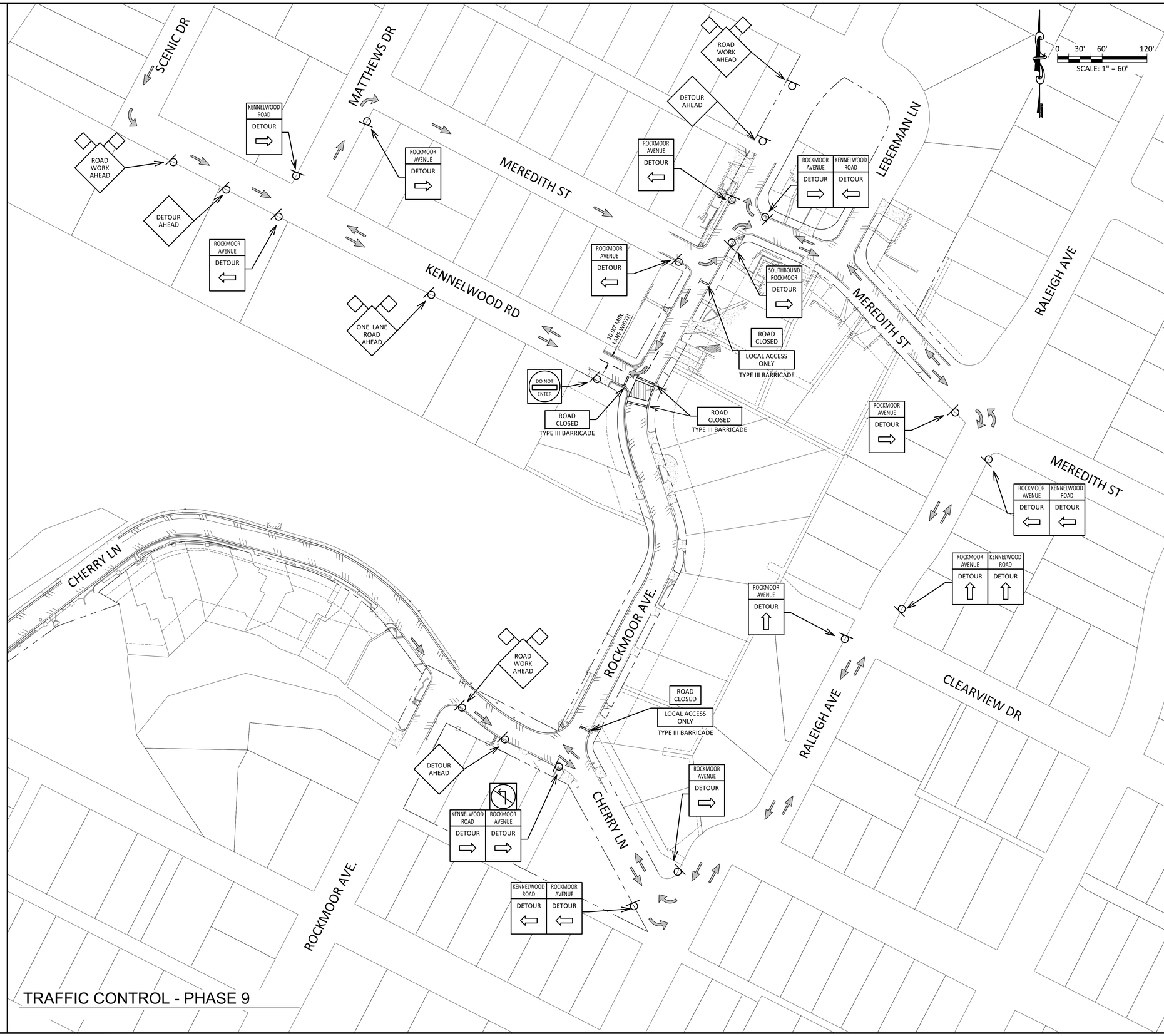

TRAFFIC CONTROL - PHASE 9

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH
KENNELWOOD RD	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 9

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC10

60 OF 81

Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_files\1669-001 TCP.dwg
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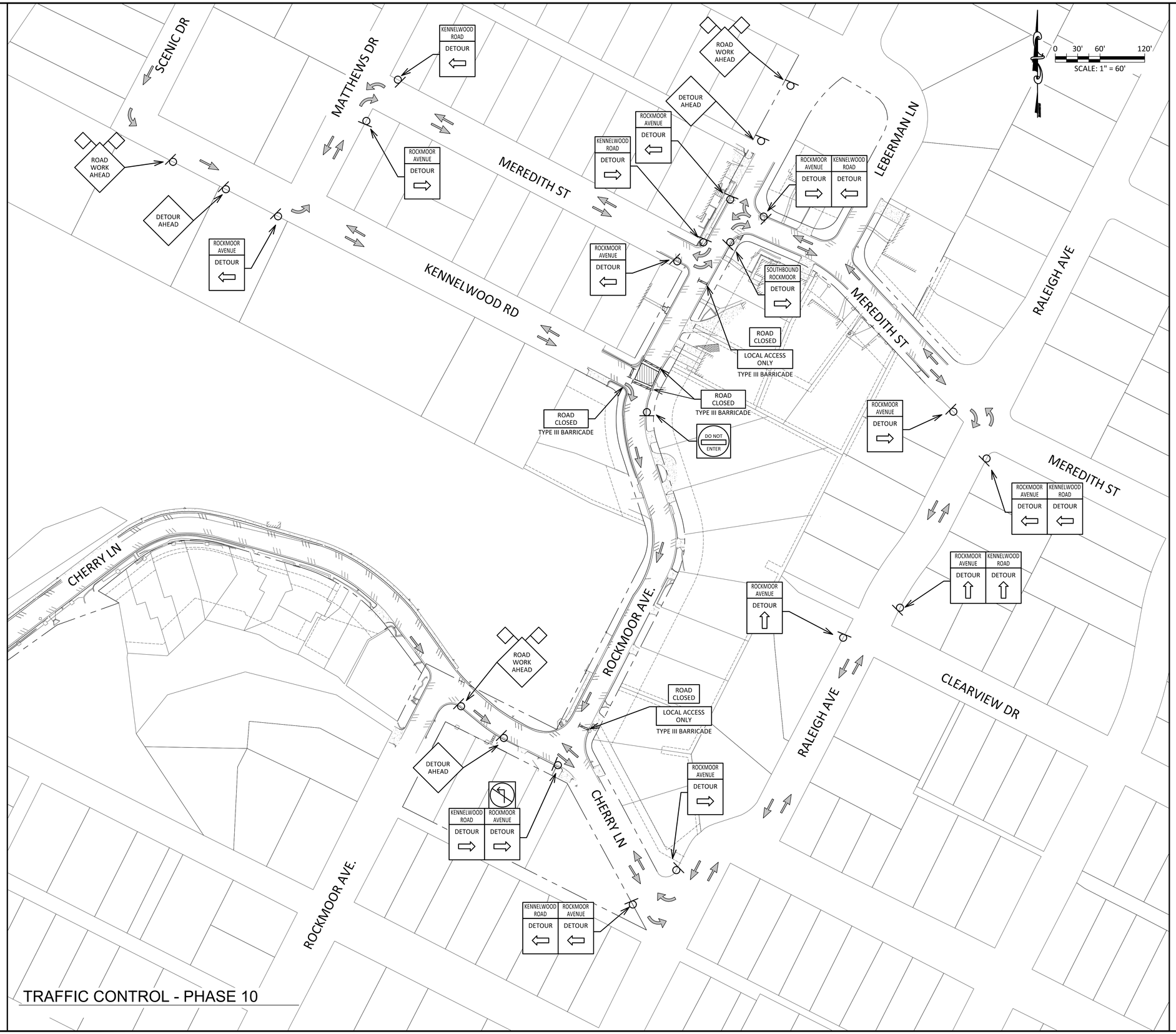

TRAFFIC CONTROL - PHASE 10

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH
KENNELWOOD RD	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 10

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC11

61 OF 81

Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_files\1669-001 TCP.dwg
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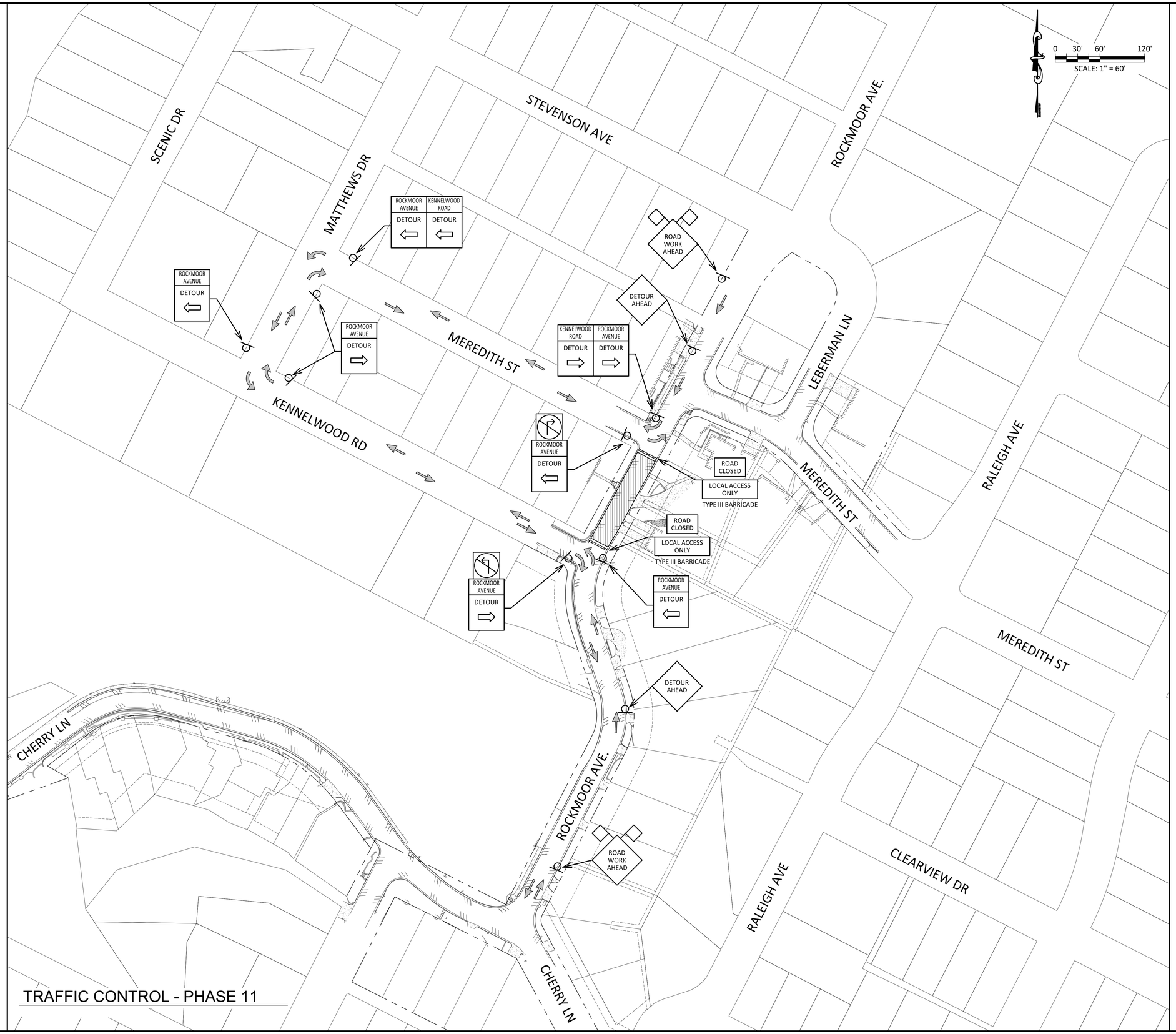

TRAFFIC CONTROL - PHASE 11

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

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TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH
KENNELWOOD RD	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 11

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC12

62 OF 81

Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_final\1669-001 TCP.dwg
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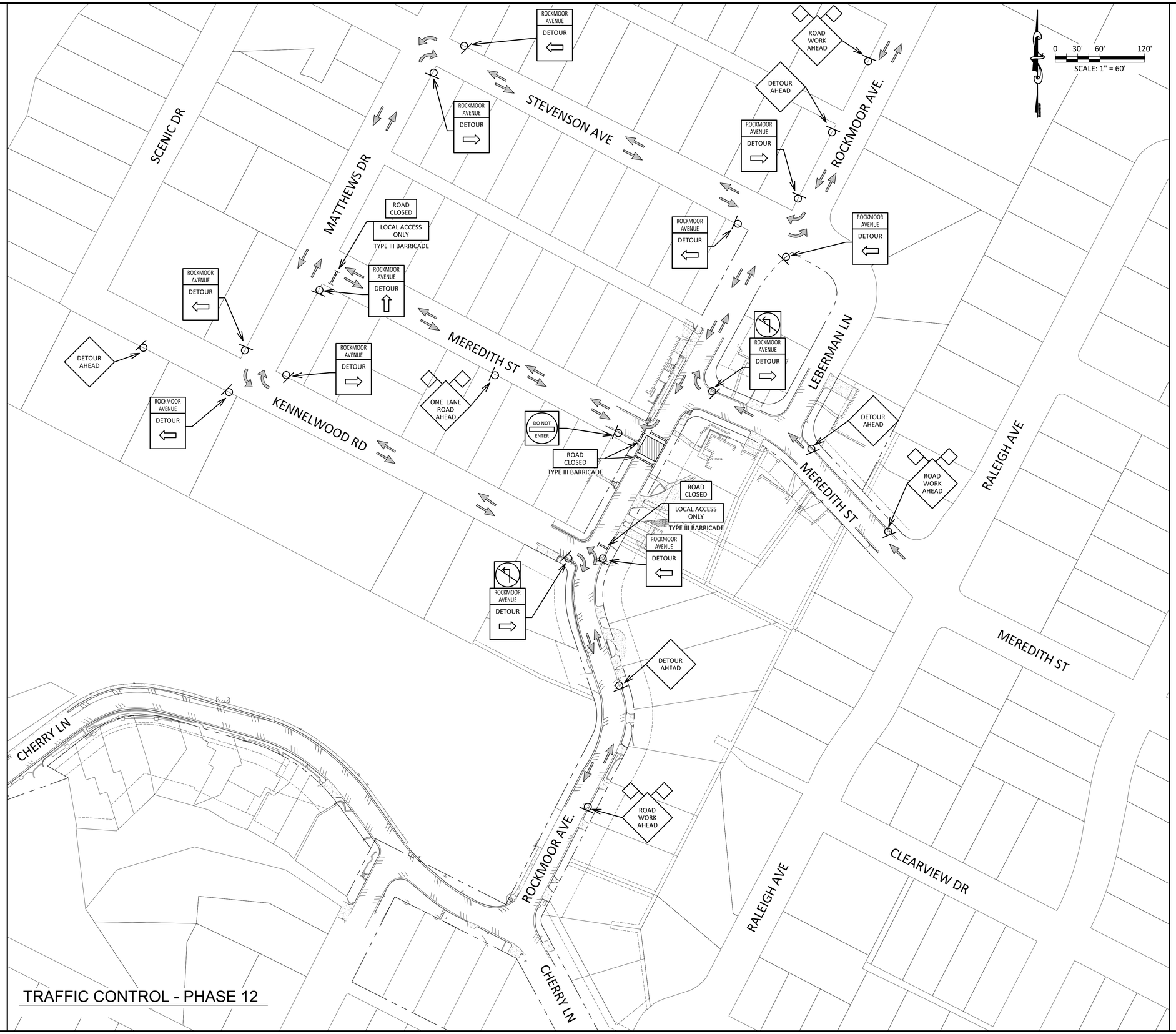

TRAFFIC CONTROL - PHASE 12

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

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TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER — X — DETAIL
SHEET NUMBER — XX — NAME
DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH
KENNELWOOD RD	20 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Austin, Texas 78735, Phone: (512)-583-2600
www.doucetengineers.com
Firm Registration Number: 3937

TRAFFIC CONTROL
PHASE 12

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET
TC13
63 OF 81

Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_final\1669-001 TCP.dwg
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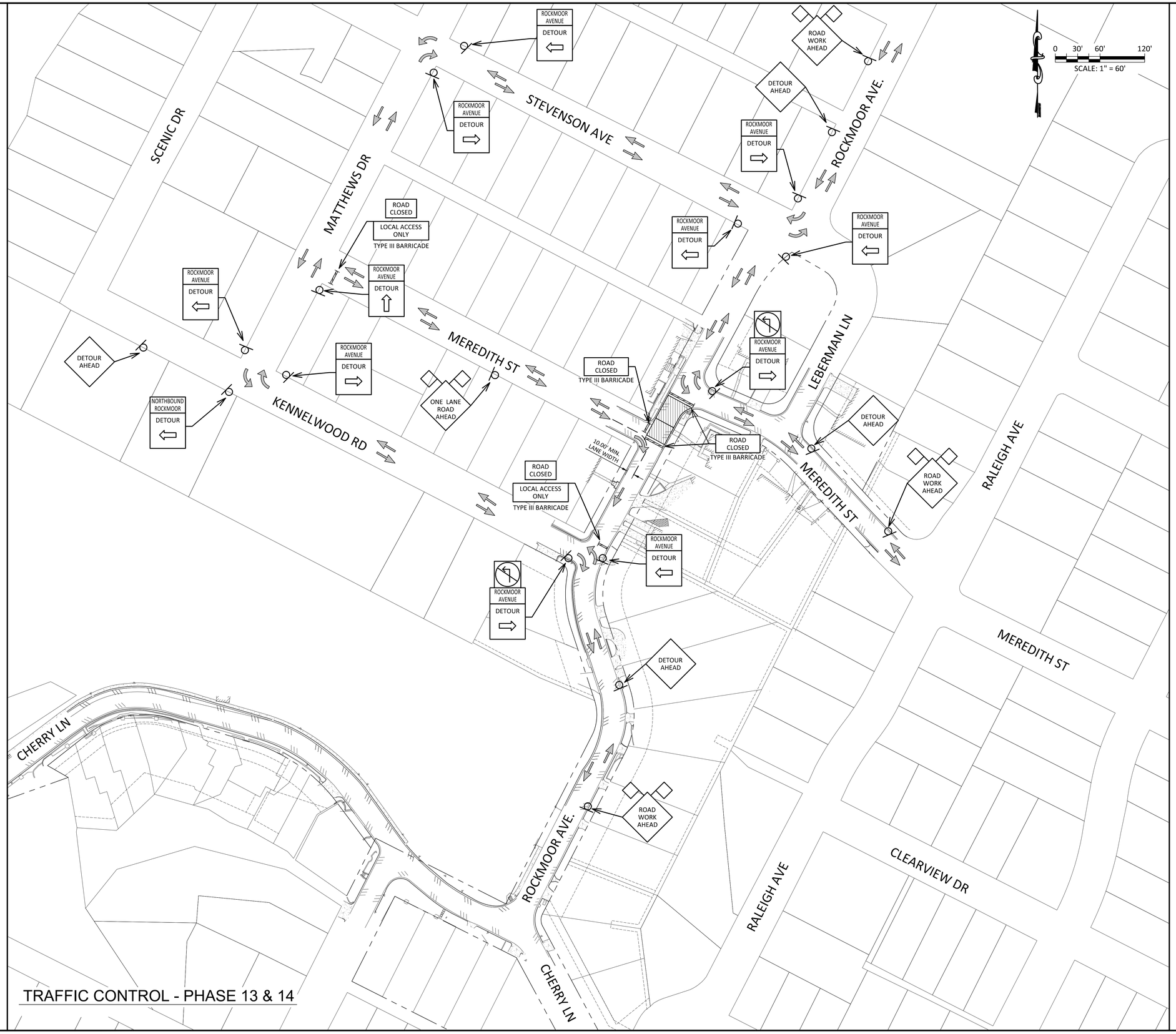

TRAFFIC CONTROL - PHASE 13 & 14

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

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TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER — X — DETAIL NAME — DETAIL CALLOUT REFERENCE
SHEET NUMBER — XX

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 13 & 14

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET
TC14
64 OF 81

Project No.: 1669-001

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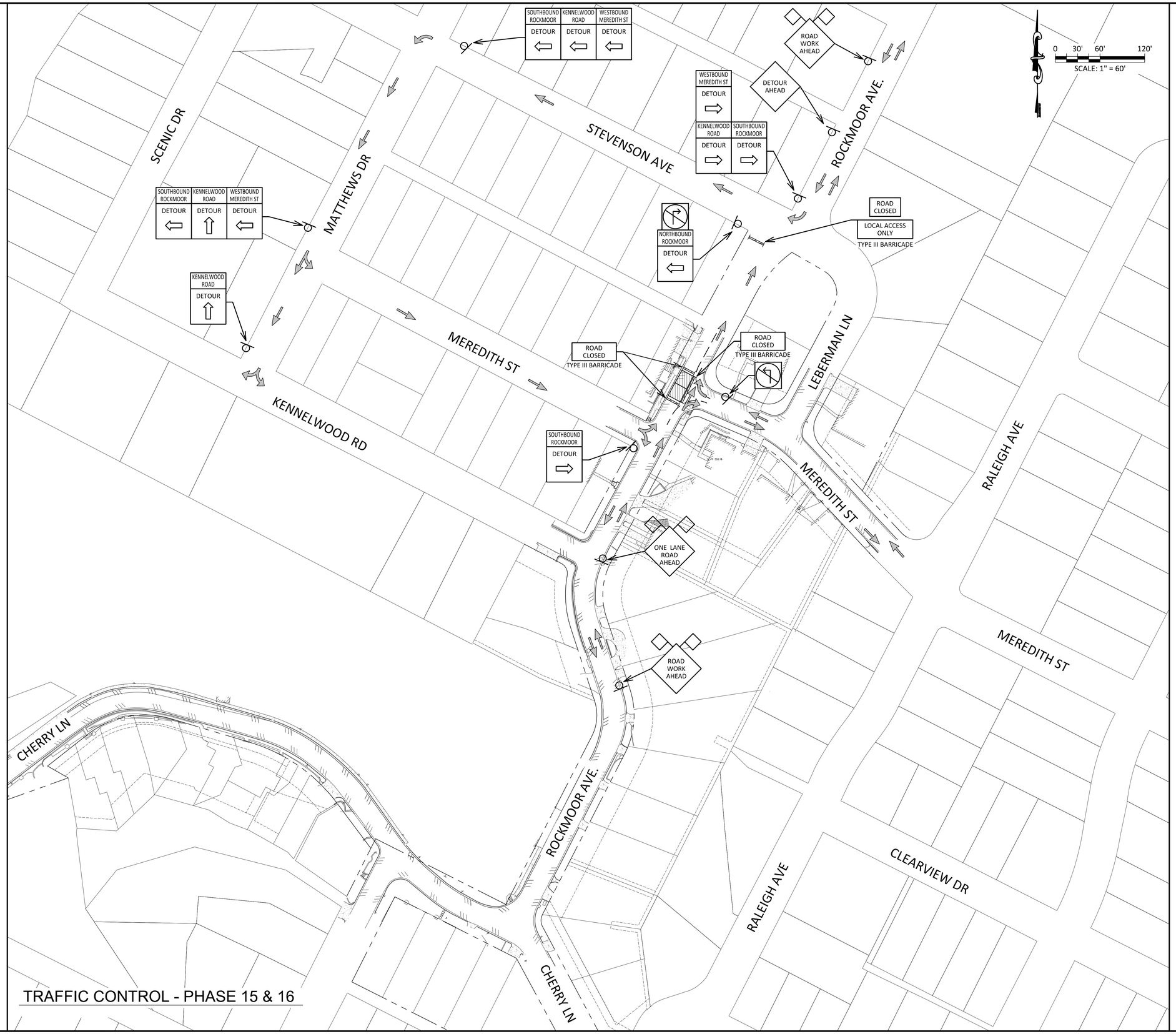

TRAFFIC CONTROL - PHASE 15 & 16

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 15 & 16

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC15

Project No.: 1669-001

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TRAFFIC CONTROL - PHASE 17

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 17

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC16

Project No.: 1669-001

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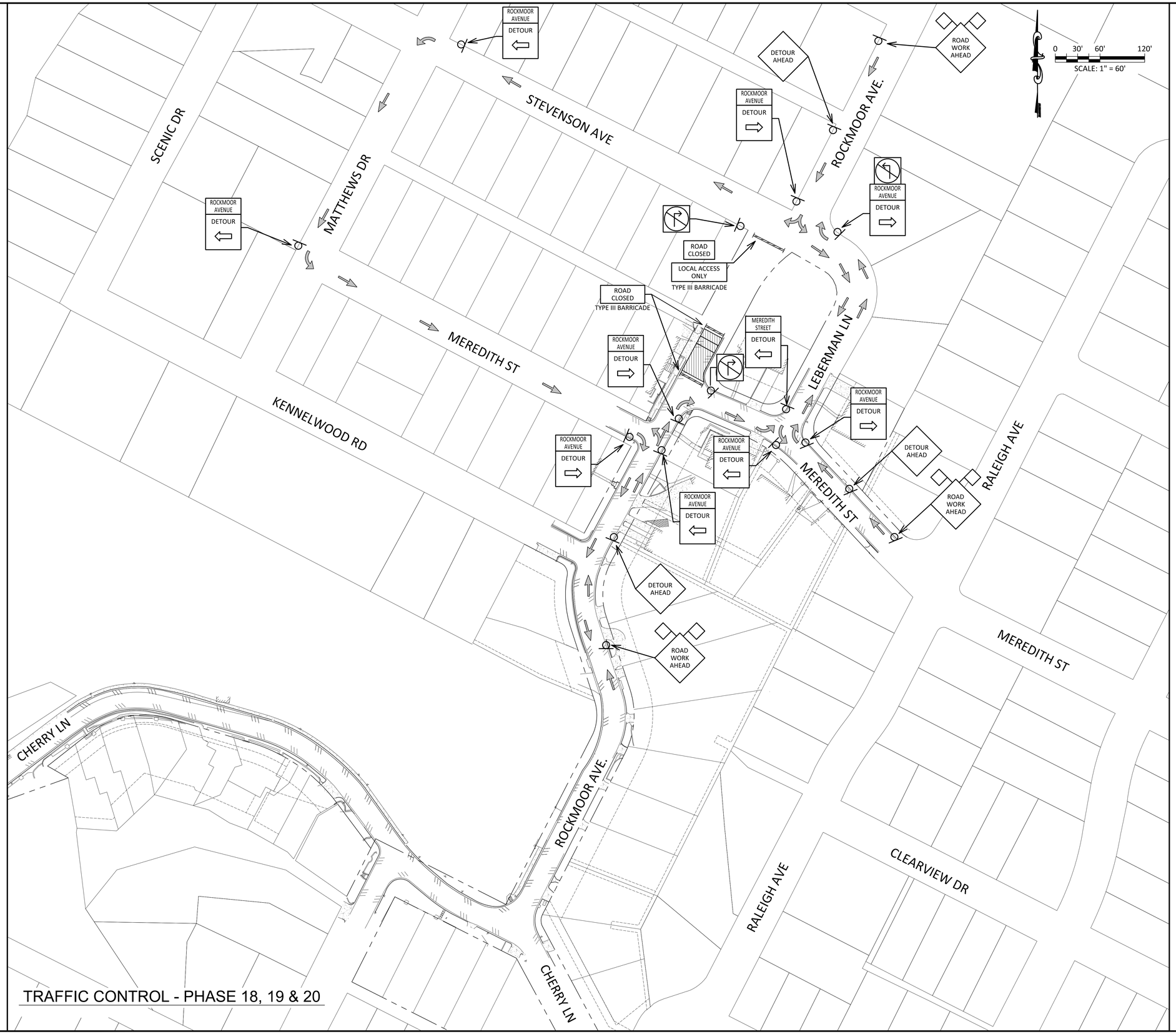

TRAFFIC CONTROL - PHASE 18, 19 & 20

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — DETAIL NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 18 - 20

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC17

Project No.: 1669-001

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Last Modified: Aug. 24, 20 - 17:48
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TRAFFIC CONTROL - PHASE 21

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH
LEBERMAN LN	10 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 21

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
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127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC18

Project No.: 1669-001

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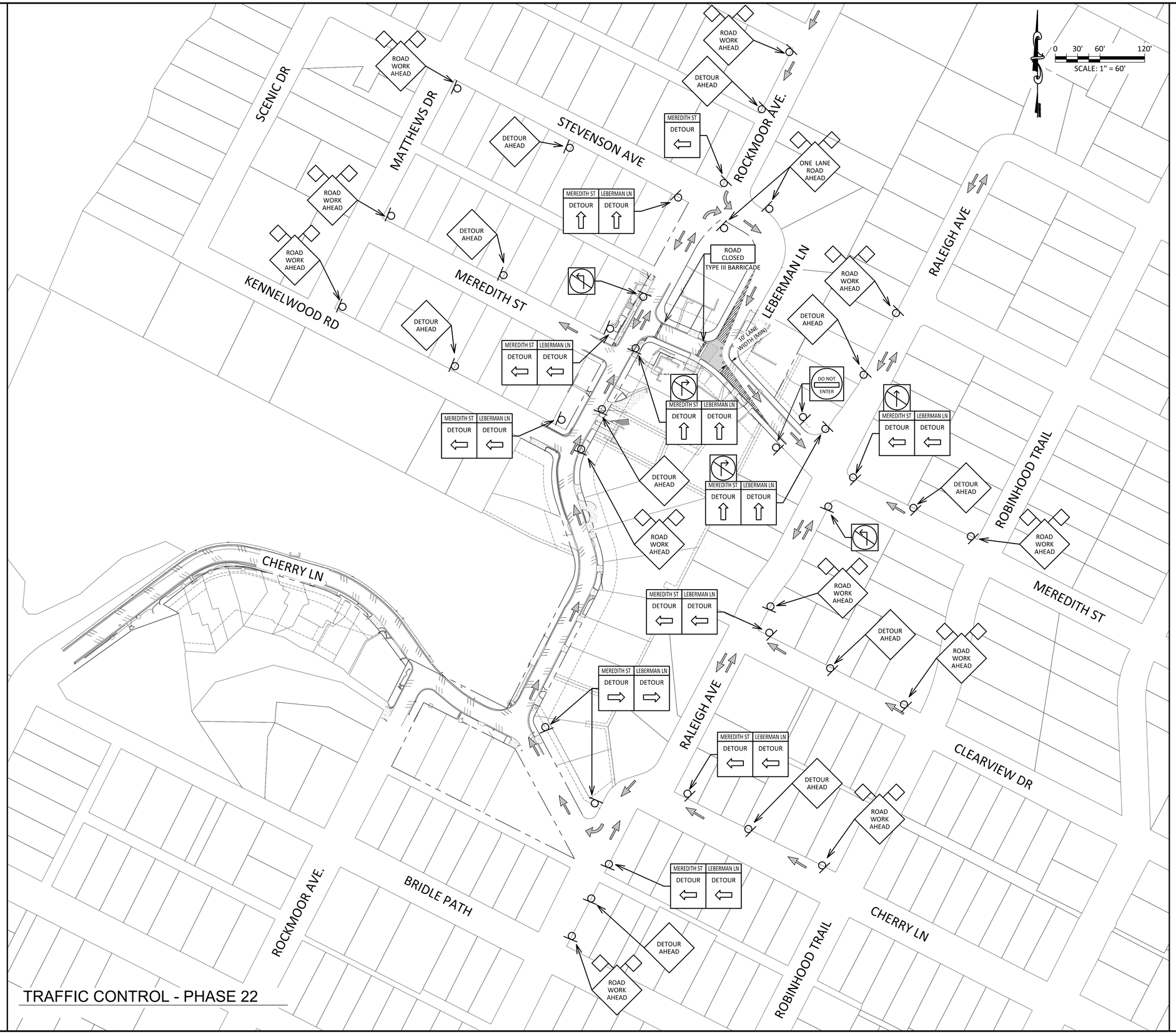

TRAFFIC CONTROL - PHASE 22

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH
LEBERMAN LN	10 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 22

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC19

69 OF 81

Project No.: 1669-001

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TRAFFIC CONTROL - PHASE 23

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION

DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH
LEBERMAN LN	10 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 23

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
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8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC20

70 OF 81

Project No.: 1669-001

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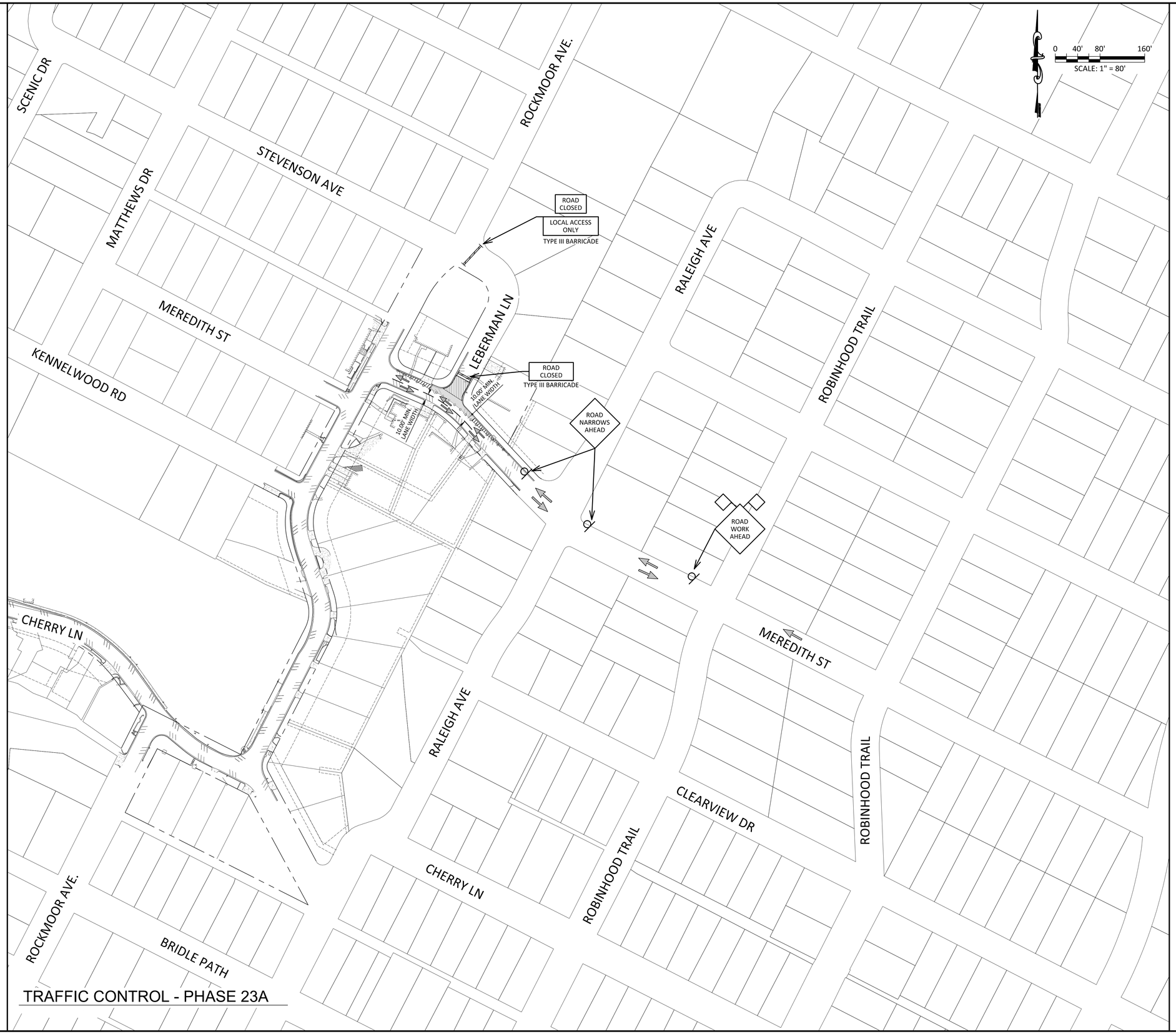

TRAFFIC CONTROL - PHASE 23A

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH
LEBERMAN LN	10 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 23A

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

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Reviewed:	ZX
Date:	8/24/2020

SHEET

TC21

Project No.: 1669-001

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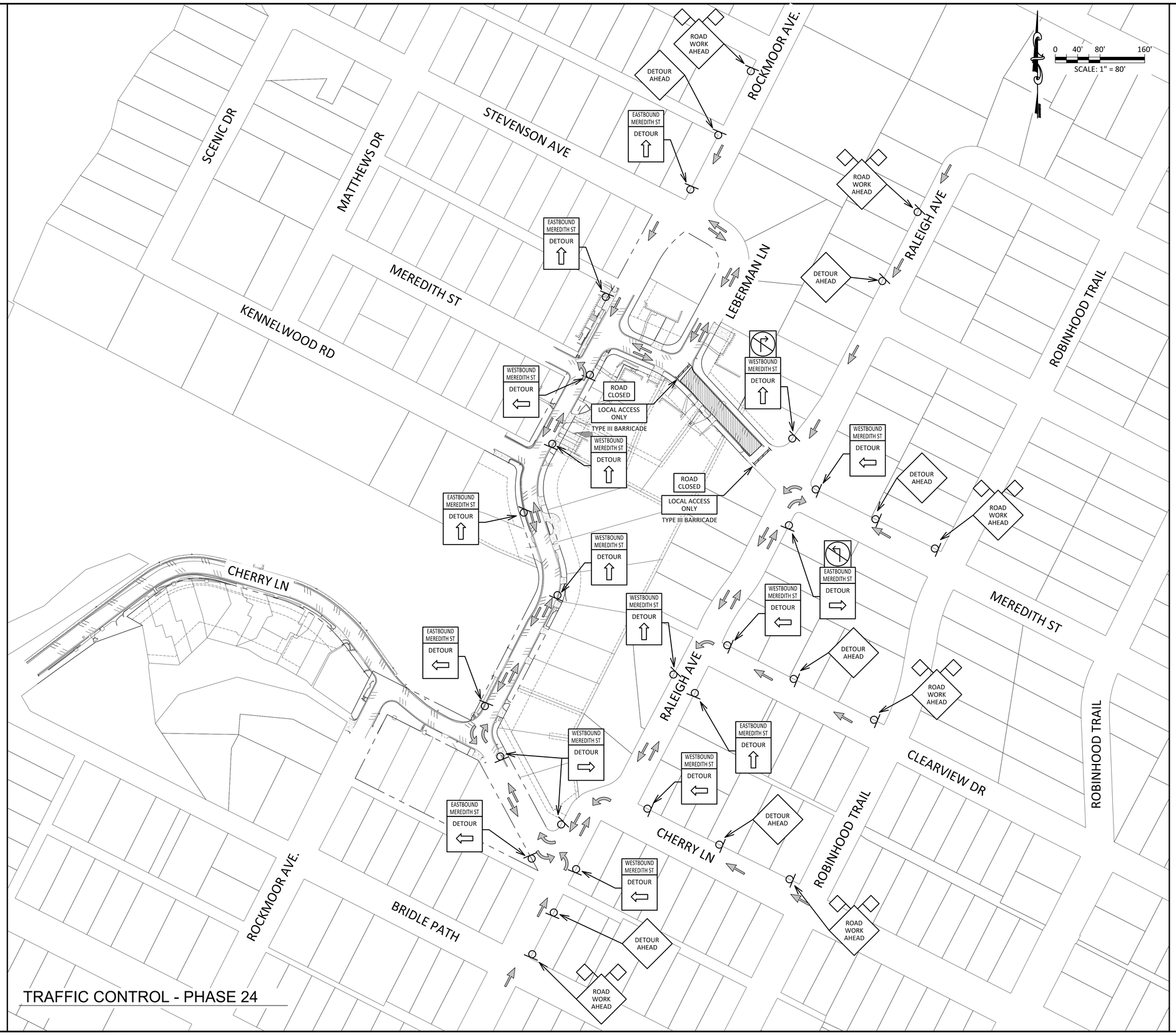

TRAFFIC CONTROL - PHASE 24

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — X / XX — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
ROCKMOOR AVE	20 MPH
MEREDITH ST	25 MPH
LEBERMAN LN	10 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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Firm Registration Number: 3937

TRAFFIC CONTROL PHASE 24

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC22

72 OF 81

Project No.: 1669-001

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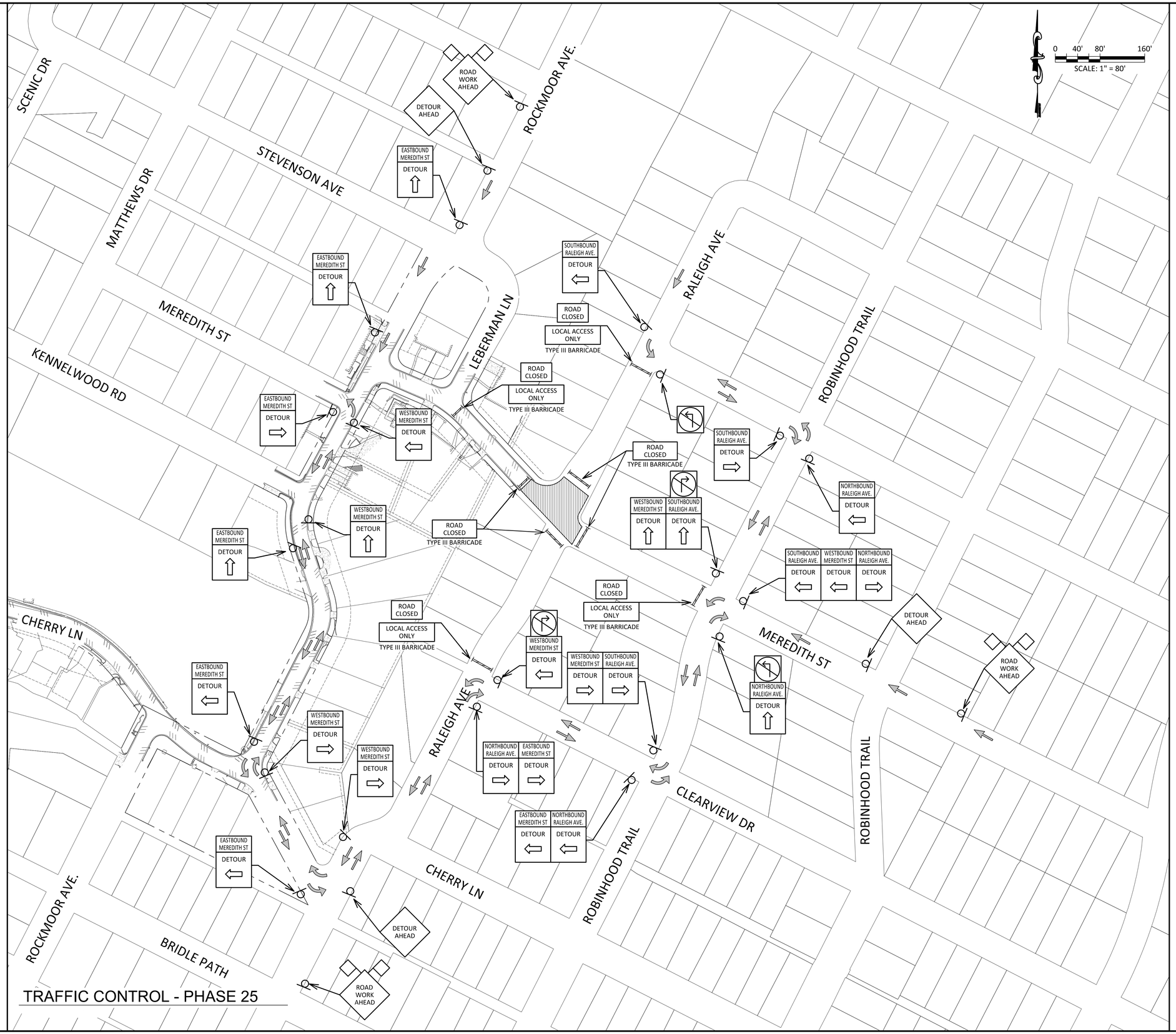

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

TRAFFIC CONTROL LEGEND

- SIGN
- TYPE III BARRICADE
- WORK ZONE/SEGMENT
- LANE CLOSED TO TRAFFIC
- FLAGGER
- CHANNELIZING DEVICES (DRUMS)
- TRAFFIC DIRECTION
- DETAIL NUMBER / SHEET NUMBER — DETAIL / NAME — DETAIL CALLOUT REFERENCE

POSTED SPEED LIMITS:

STREET NAME	SPEED(MPH)
MEREDITH ST	25 MPH
RALEIGH AVE	25 MPH

NOTES: CONTRACTOR TO REMOVE EXISTING PAVEMENT STRIPING/MARKING ON CHERRY LANE AND ROCKMOOR AVENUE WITHIN LIMITS OF CONSTRUCTION.

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TRAFFIC CONTROL PHASE 25

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED
PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET

TC23

73 OF 81

Project No.: 1669-001

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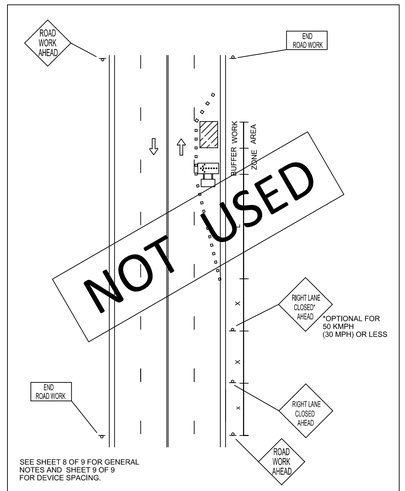
Plot Date/Time: Aug. 24, 20 – 17:50:59

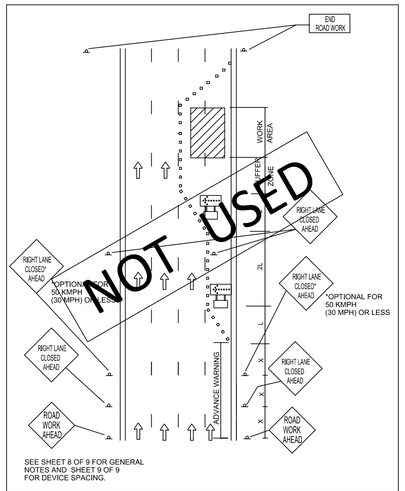
CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION.
CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

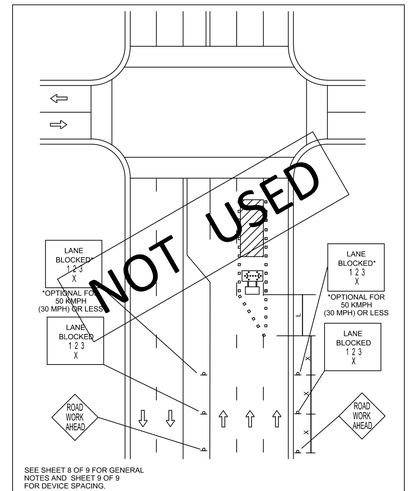
CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.



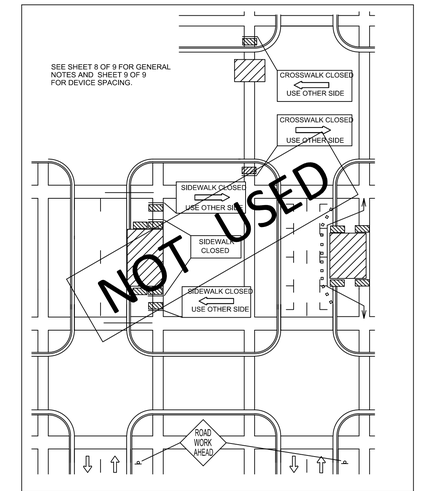
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
ARTERIAL ONE LANE CLOSURE
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 804S-1 1 OF 9



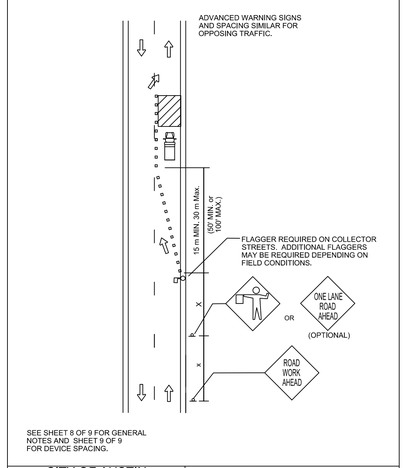
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
ONE WAY ARTERIAL TWO-LANE CLOSURE
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 804S-1 2 OF 9



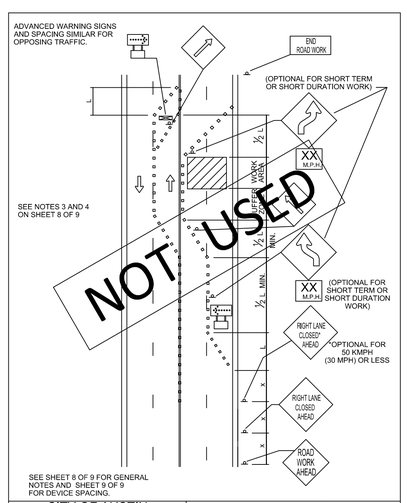
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
TWO WAY, DIVIDED ARTERIAL ONE LANE CLOSURE
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 804S-1 3 OF 9



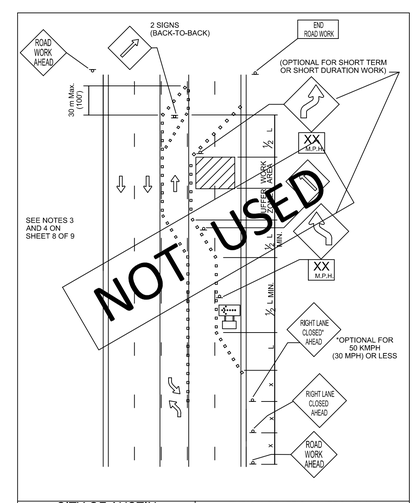
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
BYPASS WALKWAY, SIDEWALK AND CROSSWALK CLOSURES.
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 804S-1 4 OF 9



CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
COLLECTOR/RESIDENTIAL LANE CLOSURES
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 804S-1 5 OF 9



CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
TYPICAL TRAFFIC CONTROL PLAN FOR SHIFTING TRAFFIC
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 804S-1 6 OF 9



CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
TYPICAL TRAFFIC CONTROL PLAN FOR SHIFTING TRAFFIC
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 804S-1 7 OF 9

1. ALL SETUPS SHALL BE IN ACCORDANCE WITH THE CURRENT ADDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL.
2. TO DETERMINE APPROPRIATE DEVICES AND SIGN SIZES TO BE USED, REFER TO STANDARD 804S-5. SHEETS 5, 6 AND 7 OF 11.
3. FOR INTERMEDIATE-TERM SITUATIONS, WHEN IT IS NOT FEASIBLE TO REMOVE AND RESTORE PAVEMENT MARKINGS, THE CHANNELIZATION MUST BE MADE DOMINANT BY USING A VERY CLOSE DEVICE SPACING. THIS IS ESPECIALLY IMPORTANT IN LOCATIONS OF CONFLICTING INFORMATION, SUCH AS WHERE TRAFFIC IS DIRECTED OVER A DOUBLE YELLOW CENTERLINE. IN SUCH LOCATIONS, A MAXIMUM CHANNELIZING DEVICE SPACING OF 3 m (10') IS REQUIRED.
4. FOR LONG TERM STATIONARY WORK, ALL CONFLICTING PAVEMENT MARKINGS MUST BE REMOVED AND CENTERLINE STRIPING PROVIDED WHERE TWO WAY TRAFFIC IS IN ADJACENT LANES.
5. FOR TEMPORARY PAVEMENT MARKING REQUIREMENTS SEE STANDARD 804S-3.
6. FOR ONE-WAY AND MULTI-LANE ROADWAYS THE "LANE BLOCKED" SIGN MAY BE USED IN LIEU OF THE "LANE CLOSED AHEAD" SIGN. THE NUMBER OF DIGITS ON THE SIGN SHALL NOT BE GREATER THAN THE NUMBER OF LANES PRESENT ON THE ROADWAY. THE "X" SHALL BE PLACED UNDER THE NUMBER OF LANE(S) BLOCKED.
7. FOR FLAGGING OPERATION REQUIREMENTS SEE STANDARD 804S-2.
8. CONTRACTOR SHALL PROVIDE SIDEWALK CLOSURES, CROSSWALK CLOSURES OR WALKWAY BYPASS WHEREVER PEDESTRIAN MOVEMENTS ARE AFFECTED BY CONSTRUCTION ACTIVITIES. ALL SIDEWALKS AND CROSSWALKS SHALL BE ACCESSIBLE WHEN CONTRACTOR IS NOT WORKING UNLESS APPROVED BY THE TRANSPORTATION DIVISION.
9. FOR EXCAVATION PROTECTION AND SAFETY FENCE REQUIREMENTS SEE STANDARD 804S-4.
10. THE USE OF ARROW DISPLAYS ARE REQUIRED ON ALL LANE CLOSURES. THE CONTRACTOR SHALL PROVIDE ONE (1) STAND-BY UNIT IN GOOD WORKING CONDITION AT THE JOB SITE, READY FOR USE IF THE OPERATION REQUIRES 24-HOUR A DAY LANE CLOSURE SET-UPS.

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
GENERAL NOTES
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 804S-1 8 OF 9

Typical Transition Lengths and Suggested Maximum Spacing of Devices

Speed KMPH	Posted Speed MPH	Formula	Minimum Desirable Taper Lengths (L) Meters (Feet): 3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)	Suggested Max. Device Spacing: On a taper Meters (feet)	On a tangent Meters (feet)	Suggested Sign Spacing Meters (Feet): "X" Dimension
50	30	L=WS²/60	45 (150)	50 (165)	55 (180)	9 (30)	15-20 (60-75)	40 (120)
55	35		65 (205)	70 (225)	75 (245)	10 (35)	25-25 (70-90)	50 (160)
65	40		80 (265)	90 (295)	100 (320)	12 (40)	25-30 (80-100)	75 (240)
70	45	L=WS	135 (450)	150 (495)	165 (540)	13 (45)	25-30 (90-110)	100 (320)
80	50		150 (500)	165 (550)	180 (600)	15 (50)	30-35 (100-125)	120 (400)
90	55		165 (550)	185 (605)	200 (660)	16 (55)	35-40 (110-140)	150 (500)
95	60		180 (600)	200 (660)	220 (720)	18 (60)	40-45 (120-150)	180 (600)
105	65		195 (650)	215 (715)	235 (780)	19 (65)	40-50 (130-165)	210 (700)
115	70		215 (700)	235 (770)	255 (840)	21 (70)	45-55 (140-175)	240 (800)

LEGEND
- Channelizing devices
- Trailer mounted flashing arrow board
- Flagger

CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
DEVICE SPACING
RECORD COPY SIGNED BY KERI JUAREZ 01/04/11 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 804S-1 9 OF 9

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www.doucetengineers.com
Firm Registration Number: 3937

TRAFFIC CONTROL DETAIL SHEET 1

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS
ZHIPENG XING
127763
LICENSED PROFESSIONAL ENGINEER
8/24/2020

Scale: 1"=
Designed: JK
Drawn: ZD
Reviewed: ZX
Date: 8/24/2020

SHEET
TC24
74 OF 81

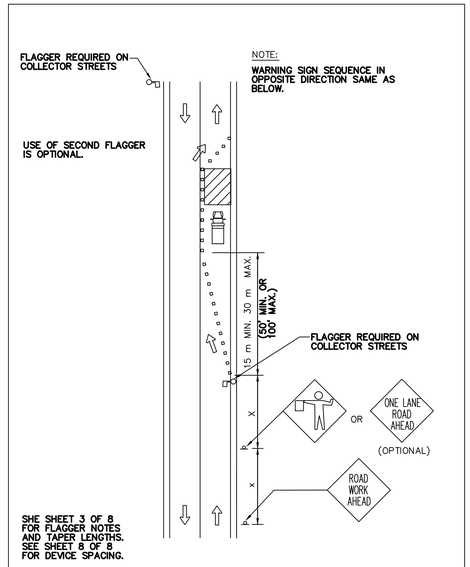
Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_final\1669-001 TCP DETAILS.dwg
User: ZXING
Last Modified: Aug. 24, 20 - 17:22
Plot Date/Time: Aug. 24, 20 - 17:34:08

CONTRACTOR NOTES:

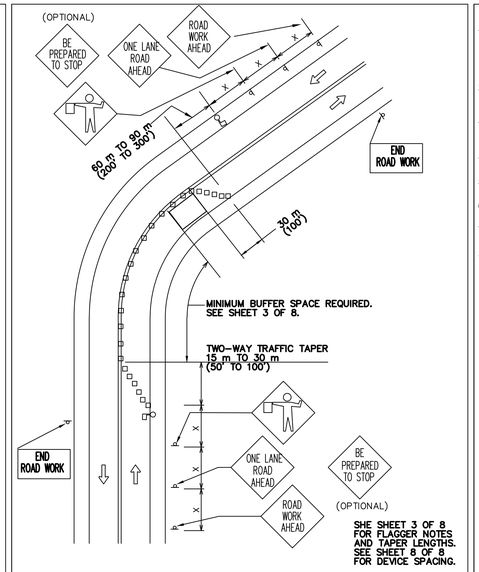
EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION.
CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.



DEPARTMENT OF PUBLIC WORKS — COLLECTOR / RESIDENTIAL STREET FLAGGING OPERATIONS

RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED — THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — STANDARD NO. 804S-2 1 OF 8



DEPARTMENT OF PUBLIC WORKS — FLAGGER SETUP FOR 2 LANE ROADWAY

RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED — THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — STANDARD NO. 804S-2 2 OF 8

1. FOR DAYTIME WORK, THE FLAGGER SHALL WEAR AN APPROVED BRIGHTLY COLORED VEST. FOR NIGHTTIME WORK, THE VEST SHALL BE RETROFLECTIVE. THE RETRO-REFLECTIVE MATERIAL SHALL BE ORANGE, YELLOW, WHITE, SILVER, STRONG YELLOW-GREEN OR A FLOURESCENT VERSION OF THESE COLORS AND SHALL BE VISIBLE AT A MINIMUM DISTANCE OF 305 m (1,000').
2. FOR LOW-VOLUME APPLICATIONS, A SINGLE FLAGGER MAY BE ADEQUATE. WHERE ONE FLAGGER CAN BE USED, SUCH AS FOR SHORT WORK AREAS ON STRAIGHT ROADWAYS, THE FLAGGER MUST BE VISIBLE TO APPROACHING TRAFFIC FROM BOTH DIRECTIONS.
3. FLAGGERS SHALL USE ONLY STOP/SLOW PADDLE TO DIRECT TRAFFIC UNLESS WORKING IN A SIGNALIZED INTERSECTION WHERE DRIVERS MAY BE CONFUSED BY THE SIGN PADDLE. HAND SIGNAL MAY BE USED IN THESE SITUATIONS.
4. FLAGGERS SHALL ENSURE THAT ALL REQUIRED SIGNING IS IN PLACE PRIOR TO BEGINNING FLAGGING OPERATIONS.
5. FLAGGERS SHALL NOT PERFORM WORK THAT IS NOT RELATED TO FLAGGING WHILE ON DUTY.
6. FLAGGERS MAY CARRY AIR HORNS OR WHISTLES TO WARN WORKERS OF AN EMERGENCY CONDITION.
7. FLAGGERS SHALL BE REQUIRED TO USE TWO-WAY RADIOS WHEN OUT OF CLEAR VIEW OF EACH OTHER.
8. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.

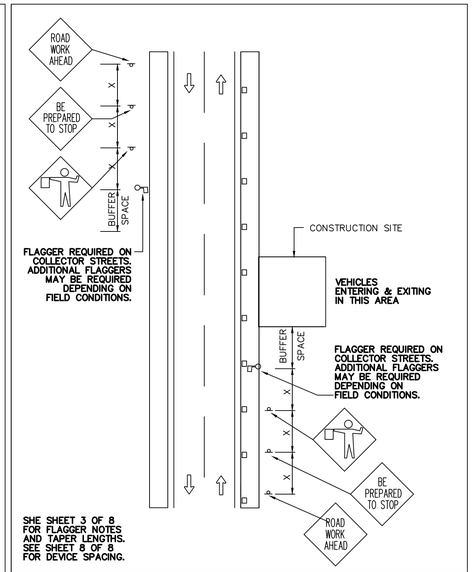
TAPER LENGTHS

SPEED (kmph)	SPEED* (mph)	LENGTH (meters)	LENGTH (feet)
30	20	11	35
40	25	17	55
50	30	26	85
55	35	36	120
65	40	51	170
70	45	66	220
80	50	84	280
90	55	101	335
95	60	125	415
105	65	146	485

*POSTED SPEED

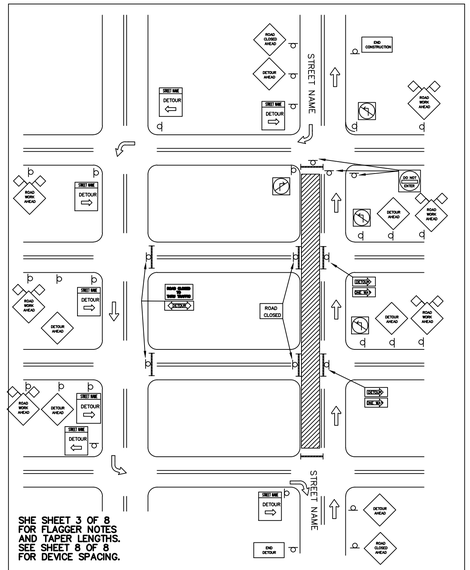
DEPARTMENT OF PUBLIC WORKS — FLAGGER SETUP FOR 2 LANE ROADWAY

RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED — THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — STANDARD NO. 804S-2 3 OF 8



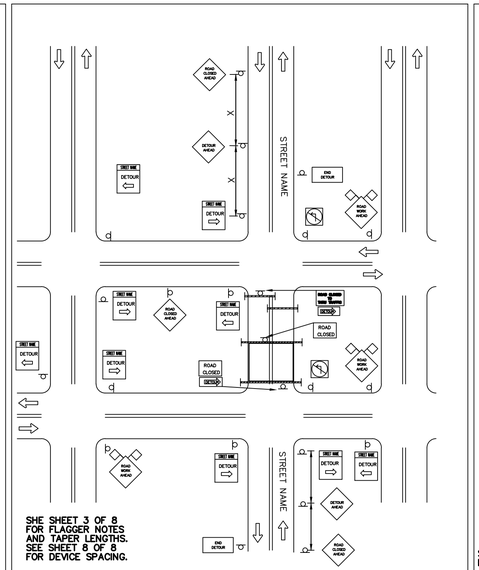
DEPARTMENT OF PUBLIC WORKS — FLAGGER SETUP FOR VEHICLES ENTERING AND EXITING WORK SITE

RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED — THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — STANDARD NO. 804S-2 4 OF 8



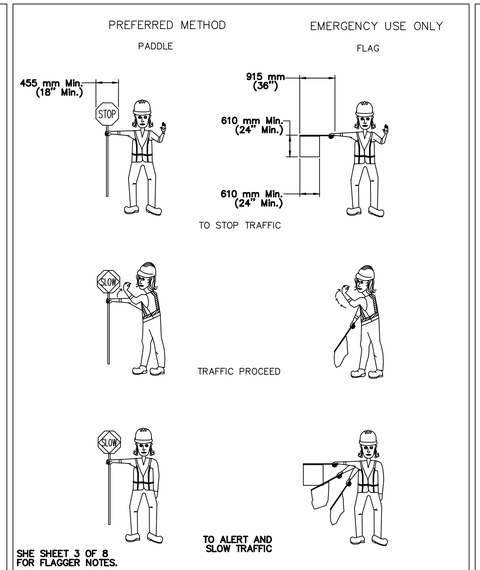
DEPARTMENT OF PUBLIC WORKS — STREET DETOUR SINGLE DIRECTION

RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED — THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — STANDARD NO. 804S-2 5 OF 8



DEPARTMENT OF PUBLIC WORKS — STREET DETOUR BOTH DIRECTIONS

RECORD COPY SIGNED BY BILL GARDNER 03/13/06 ADOPTED — THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — STANDARD NO. 804S-2 6 OF 8



DEPARTMENT OF PUBLIC WORKS — USE OF HAND SIGNALING DEVICES

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Typical Transition Lengths and Suggested Maximum Spacing of Devices

			Minimum Desirable Taper Lengths (L) Meters (Feet)			Suggested Max. Device Spacing		Suggested Sign Spacing Meters (Feet)
Speed KMPH	Posted Speed MPH	Formula	3.0(10) Offset Meters (feet)	3.3(11) Offset Meters (feet)	3.6(12) Offset Meters (feet)	On a taper Meters (feet)	On a tangent Meters (feet)	"X" Dimension
50	30	L=WS²/60	45 (150)	50 (165)	55 (180)	9 (30)	15–20 (60–75)	40 (120)
55	35		65 (205)	70 (225)	75 (245)	10 (35)	25–25 (70–90)	50 (160)
65	40		80 (265)	90 (295)	100 (320)	12 (40)	25–30 (80–100)	75 (240)
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115	70		215 (700)	235 (770)	255 (840)	21 (70)	45–55 (140–175)	240 (800)

LEGEND
- Channelizing devices
- Trailer mounted flashing arrow board
- Flagger

TRAFFIC DETOUR NOTES:

1. "STREET CLOSED" AND "STREET CLOSED TO THRU TRAFFIC" MAY BE USED IN PLACE OF "ROAD CLOSED" AND "ROAD CLOSED TO THRU TRAFFIC".
2. THE USE OF A STREET SIGN NAME NAME MOUNTED WITH THE M4-9 DETOUR SIGN** IS REQUIRED. THE STREET NAME PLATE SHOULD BE PLACED ABOVE THE DETOUR SIGN. THE PLATE MAY HAVE EITHER A WHITE-ON-GREEN OR A BLACK-ON-ORANGE LEGEND.
3. ADDITIONAL "DO NOT ENTER SIGNS" MAY BE DESIRABLE AT INTERSECTIONS WITH INTERVENING STREETS.
4. A M4-9 DETOUR SIGN** WITH AN ADVANCE TURN ARROW MAY BE USED IN ADVANCE OF A TURN. ON MULTI-LANE STREETS, SUCH SIGNS SHOULD BE USED.
5. M4-9 DETOUR SIGNS** MAY BE LOCATED ON THE FAR SIDE OF INTERSECTIONS.

** TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

DEPARTMENT OF PUBLIC WORKS — TYPICAL LENGTHS & SPACING OF DEVICES, LEGEND and GENERAL NOTES

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Firm Registration Number: 3937

TRAFFIC CONTROL DETAIL SHEET 2

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

STATE OF TEXAS — ZHIPENG XING — 127763 — LICENSED PROFESSIONAL ENGINEER — 8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET TC25

Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_files\1669-001 TCP DETAILS.dwg
User: ZXING
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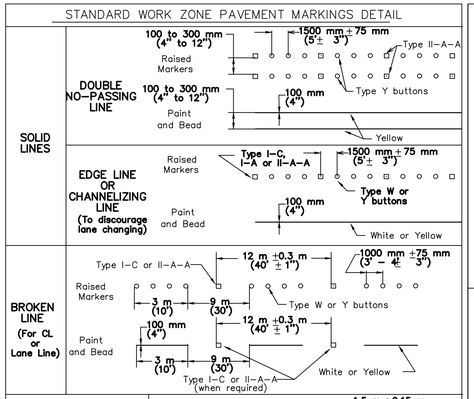
Plot Date/Time: Aug. 24, 20 - 17:24:18

CONTRACTOR NOTES:

EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION.
CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

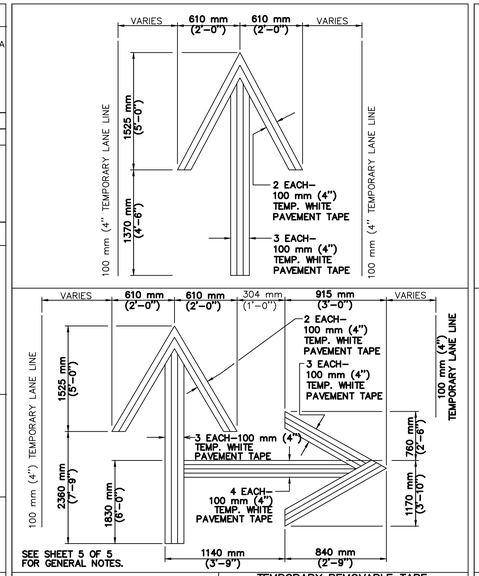
STANDARD WORK ZONE PAVEMENT MARKINGS DETAIL



SEE STANDARD 804S-3 SHEET 5 OF 5 FOR GENERAL NOTES.

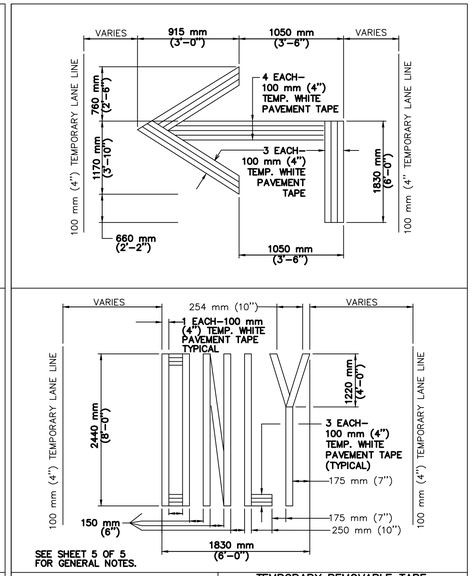
NOTE: IF RAISED PAVEMENT MARKERS ARE USED TO SUPPLEMENT REMOVABLE MARKINGS, THE MARKERS SHALL BE APPLIED TO THE TOP OF THE TAPE AT THE APPROXIMATE MID-LENGTH OF TAPE BROKEN LINES AND AT APPROXIMATE 6 m (20') SPACING FOR SOLID LINES. THIS ALLOWS AN EASIER REMOVAL OF RAISED MARKERS AND TAPE.

DEPARTMENT OF PUBLIC WORKS		TEMPORARY TRAFFIC CONTROL PAVEMENT MARKINGS	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-3 1 OF 5



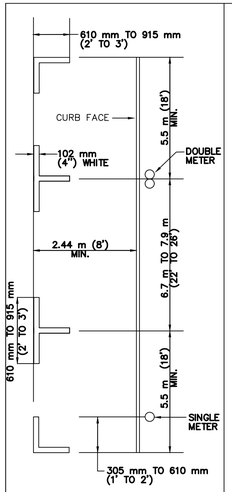
SEE SHEET 5 OF 5 FOR GENERAL NOTES.

DEPARTMENT OF PUBLIC WORKS		TEMPORARY REMOVABLE TAPE, ARROWS AND LEGENDS	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-3 2 OF 5

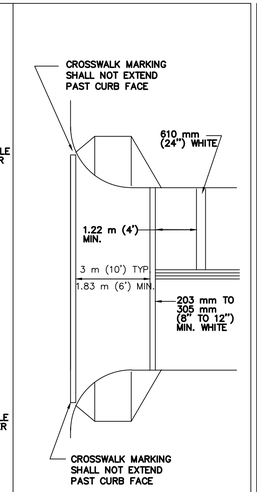


SEE SHEET 5 OF 5 FOR GENERAL NOTES.

DEPARTMENT OF PUBLIC WORKS		TEMPORARY REMOVABLE TAPE, ARROWS AND LEGENDS	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-3 3 OF 5



PARKING STALLS



CROSSWALK AND STOPBARS

SEE SHEET 5 OF 5 FOR GENERAL NOTES.

DEPARTMENT OF PUBLIC WORKS		PARKING STALLS, CROSSWALK AND STOP BARS	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-3 4 OF 5

1. ALL PAVEMENT MARKINGS USED SHALL CONFORM TO THE CURRENT EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY AND EXISTING PAVEMENT MARKINGS ON ALL ROADWAYS WITHIN THE CONSTRUCTION LIMITS AND ON ANY ROADWAY OUTSIDE THE CONSTRUCTION LIMITS THAT REQUIRES THE REROUTING OF TRAFFIC FOR HIS WORK.
3. ALL ROADWAYS TO BE OPENED TO TRAFFIC SHALL HAVE TEMPORARY OR STANDARD PAVEMENT MARKINGS INSTALLED AS SHOWN IN THE DRAWINGS, AT THE END OF EACH DAY'S OPERATION.
4. MARKINGS SHALL PROVIDE A VISIBLE REFERENCE FOR A MINIMUM DISTANCE OF 91.5 m (300') DURING NORMAL DAYLIGHT HOURS AND 49 m (160') WHEN ILLUMINATED BY AUTOMOBILE LOW-BEAM HEADLIGHTS AT NIGHT, UNLESS SIGHT DISTANCE IS RESTRICTED BY ROADWAY GEOMETRICS.
5. ALL TEMPORARY REMOVABLE PAVEMENT MARKINGS SHALL BE SUPPLEMENTED WITH RAISED PAVEMENT MARKERS.
6. TEMPORARY REMOVABLE PAVEMENT MARKING TAPE IS THE PREFERRED PAVEMENT MARKING; HOWEVER, THE CONTRACTOR MAY, WITH APPROVAL OF THE ENGINEER OR DESIGNATED REPRESENTATIVE, USE RAISED PAVEMENT MARKINGS, PAINT AND BEADS OR THERMOPLASTIC IF THE ROADWAY IS TO BE COMPLETELY RESURFACED.
7. PAVEMENT MARKINGS THAT ARE NO LONGER APPLICABLE AND WHICH MAY CREATE CONFUSION OR DIRECT A MOTORIST TOWARD OR INTO THE CLOSED PORTION OF THE ROADWAY, SHALL BE REMOVED OR OBLITERATED BEFORE THE ROADWAY IS OPENED TO TRAFFIC. THE ABOVE DOES NOT APPLY TO SHORT-DURATION, SHORT TERM STATIONARY OR INTERMEDIATE TERM STATIONARY WORK.
8. REMOVAL OR OBLITERATION OF PAVEMENT MARKINGS INCLUDES CENTERLINES, CHANNELIZING LINES, LANE LINES, EDGE LINES, WORDS, ARROWS, SYMBOLS AND RAISED PAVEMENT MARKINGS.
9. PAVEMENT MARKINGS SHALL BE REMOVED OR OBLITERATED TO THE FULLEST EXTENT POSSIBLE, SO AS NOT TO LEAVE A DISCERNIBLE MARK. GRINDING OF PAVEMENT MARKINGS WILL ONLY BE ALLOWED ON PAVEMENT THAT IS TO BE COMPLETELY REPLACED.
10. TEMPORARY FLEXIBLE-REFLECTIVE TABS MAY BE USED FOR TEMPORARY PAVEMENT MARKINGS ON NEW PAVEMENT, PROVIDED THEY ARE PLACED ON 1.5 m (5') CENTERS.
11. THE CONTRACTOR SHALL PLACE TEMPORARY FLEXIBLE-REFLECTIVE TABS IMMEDIATELY AFTER THE FINAL HMAC OVERLAY AS EACH LANE IS COMPLETED AND READY FOR TRAFFIC. NO DIRECT PAYMENT WILL BE MADE FOR THIS OPERATION, BUT WILL BE CONSIDERED SUBSIDIARY TO THE OTHER BID ITEMS. FINAL STRIPING SHOULD BE COMPLETED WITHIN FOURTEEN (14) DAYS OF THE FINAL PAVING.

DEPARTMENT OF PUBLIC WORKS		GENERAL NOTES	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 804S-3 5 OF 5

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TRAFFIC CONTROL DETAIL SHEET 3

LKA - MEREDITH ST. STORM DRAIN IMPROVEMENTS

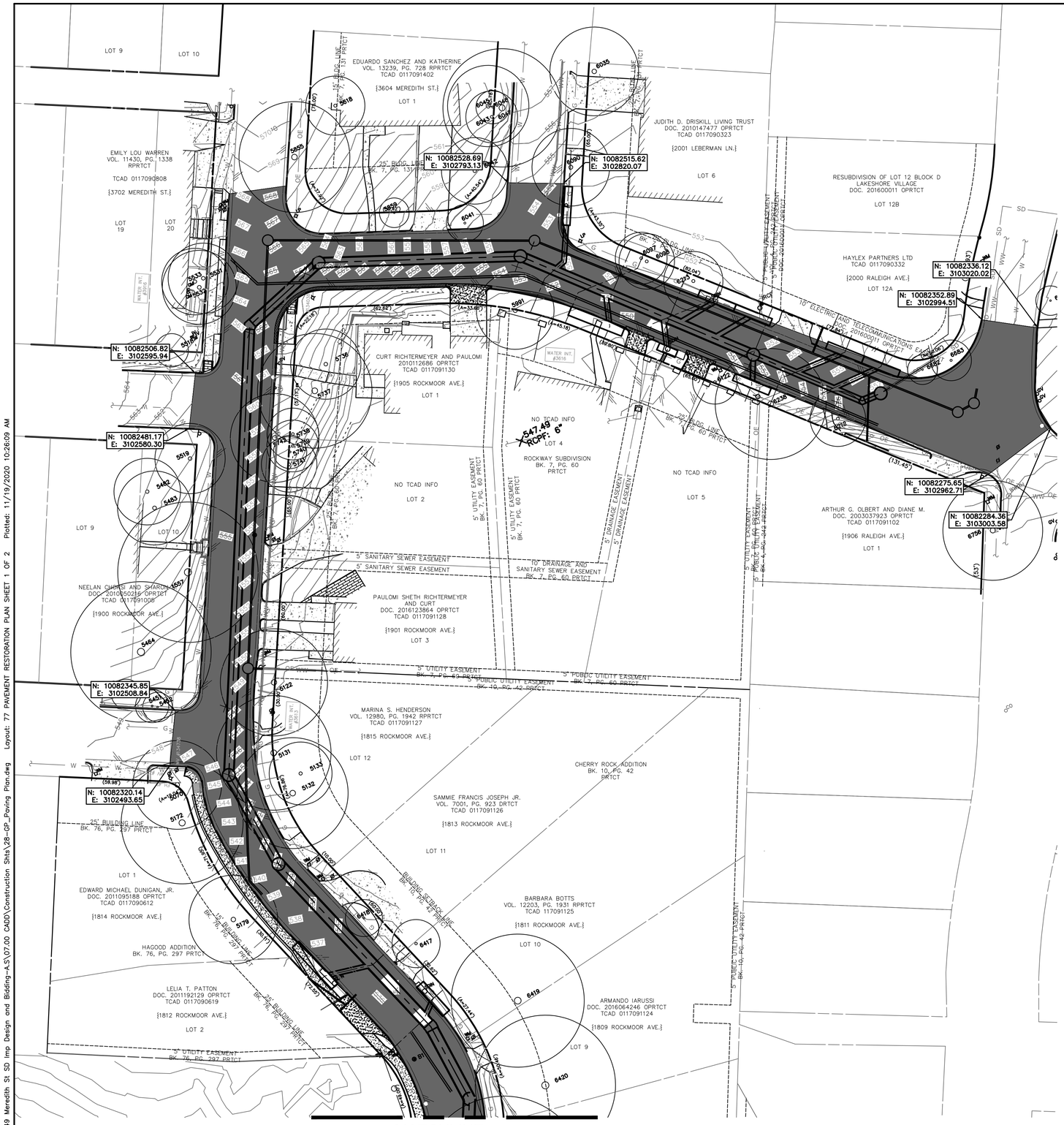
STATE OF TEXAS
ZHIPENG XING
127763
LICENSED PROFESSIONAL ENGINEER
8/24/2020

Scale:	1"=
Designed:	JK
Drawn:	ZD
Reviewed:	ZX
Date:	8/24/2020

SHEET
TC26
76 OF 81

Project No.: 1669-001

Drawing: X:\Branches\Austin\WWProjects\doucet\1669-001 Meredith Street\dwg\working_drawings\submitted_files\1669-001 TCP DETAILS.dwg
User: ZXING
Last Modified: Aug. 24, 20 - 17:22
Plot Date/Time: Aug. 24, 20 - 17:24:26



N

0 30' 60'
SCALE IN FEET

LEGEND

PROPOSED STORM DRAIN LINE

PAVING AREA

NOTES:

1. ALL DAMAGED SIDEWALK, DRIVEWAYS, CURB AND GUTTER, AND ADA RAMPS SHALL BE REMOVED AND REPLACED.
2. MILL AND OVERLAY WITH 2" TYPE D ASPHALT FROM LIP OF GUTTER TO LIP OF GUTTER USING THE PROPOSED TRAFFIC CONTROL PLAN PHASING.

CITY OF AUSTIN

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
PAVEMENT RESTORATION PLAN

NO.	BY	DATE	REMARKS

REVISIONS

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

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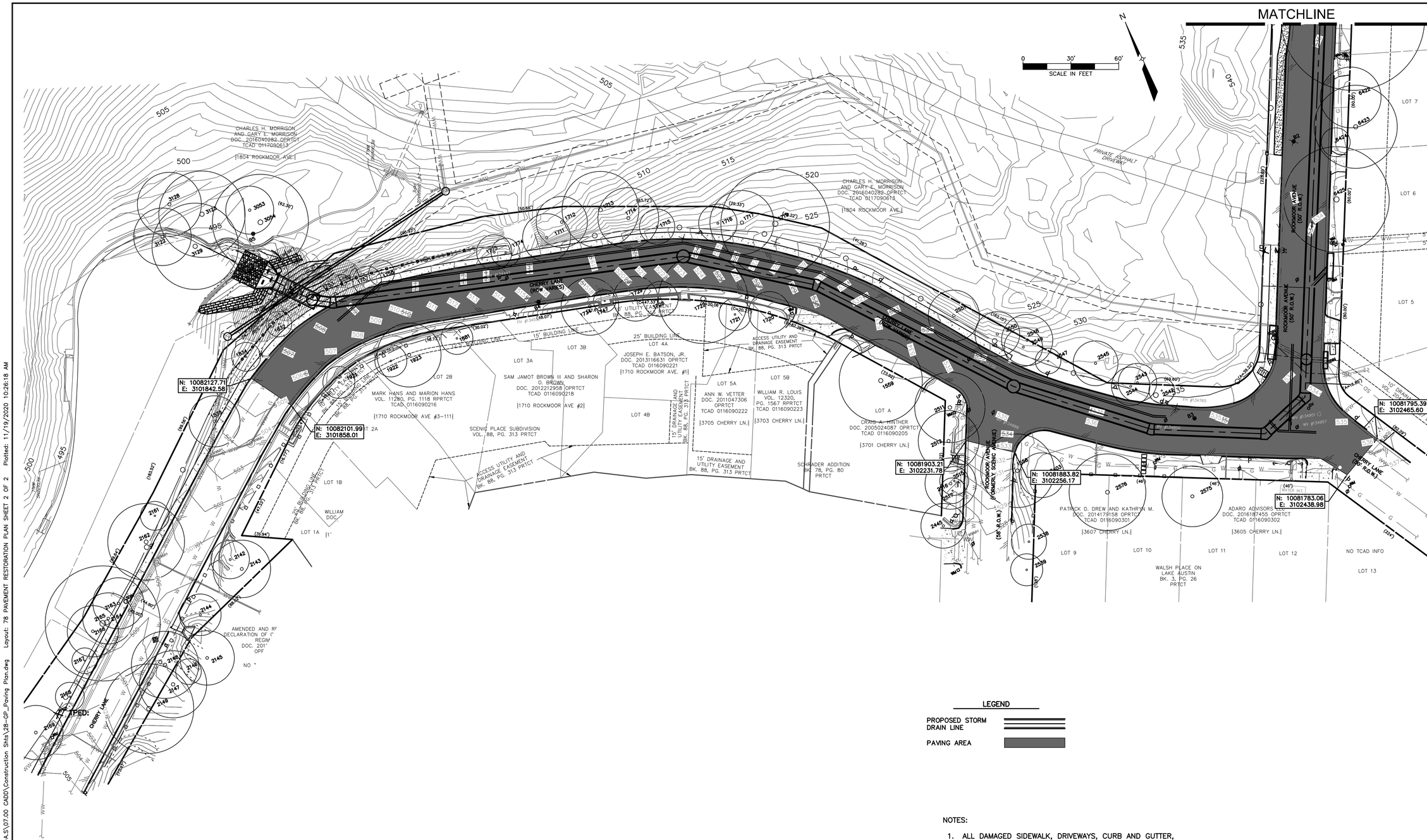
SHEET INFORMATION

DATE Nov 19, 2020

SHEET 77 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-AS\07.00 CADD\Construction Snts\28-GP_Paving Plan.dwg Layout: 77 PAVEMENT RESTORATION PLAN SHEET 1 OF 2 Plotted: 11/19/2020 10:26:09 AM



LEGEND

PROPOSED STORM DRAIN LINE

PAVING AREA

NOTES:

1. ALL DAMAGED SIDEWALK, DRIVEWAYS, CURB AND GUTTER, AND ADA RAMPS SHALL BE REMOVED AND REPLACED.
2. MILL AND OVERLAY WITH 2" TYPE D ASPHALT FROM LIP OF GUTTER TO LIP OF GUTTER USING THE PROPOSED TRAFFIC CONTROL PLAN PHASING.

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CITY OF AUSTIN FOUNDED 1839

GENERAL PERMIT OFFICE
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PAVEMENT RESTORATION PLAN

REVISIONS

NO.	BY	DATE	REMARKS

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 78 OF 81

GP-19-0000.WPD

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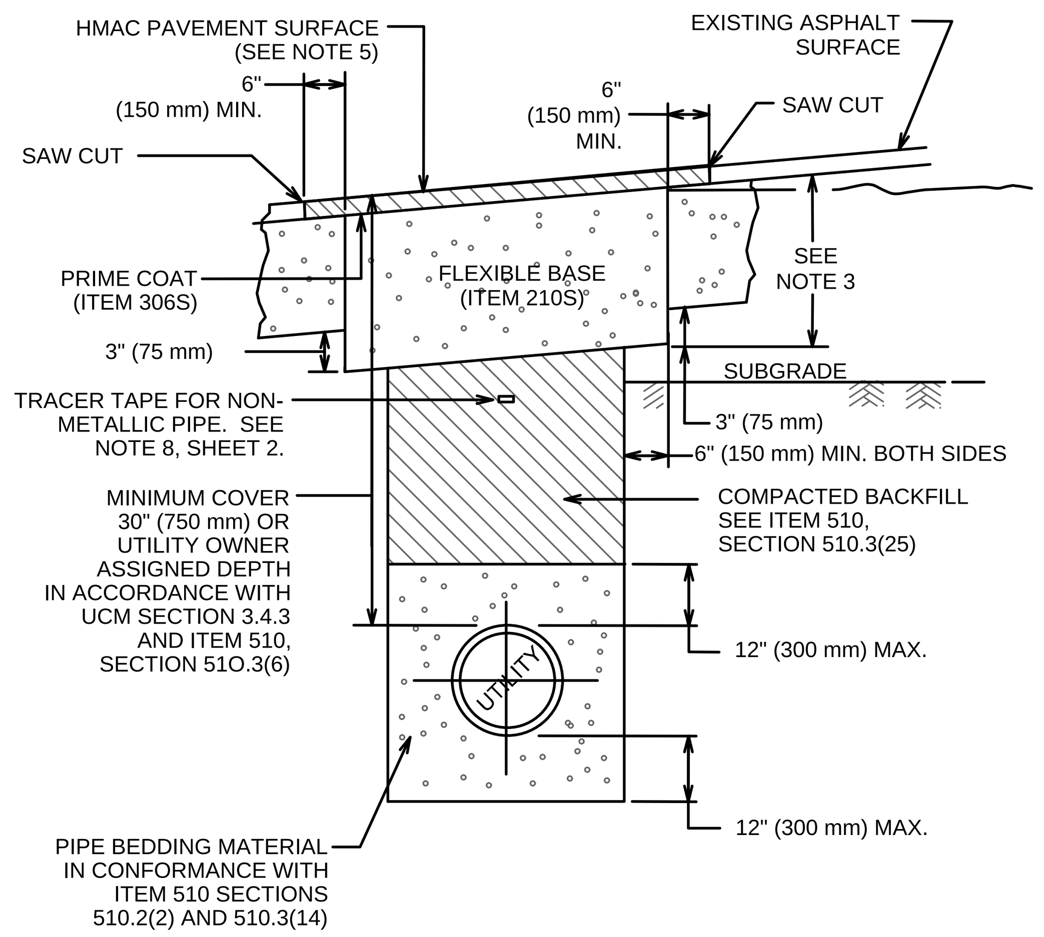
TRENCH REPAIR IN ASPHALTIC SURFACE OVER FLEXIBLE BASE
(UCM SECTION 5.8.0)



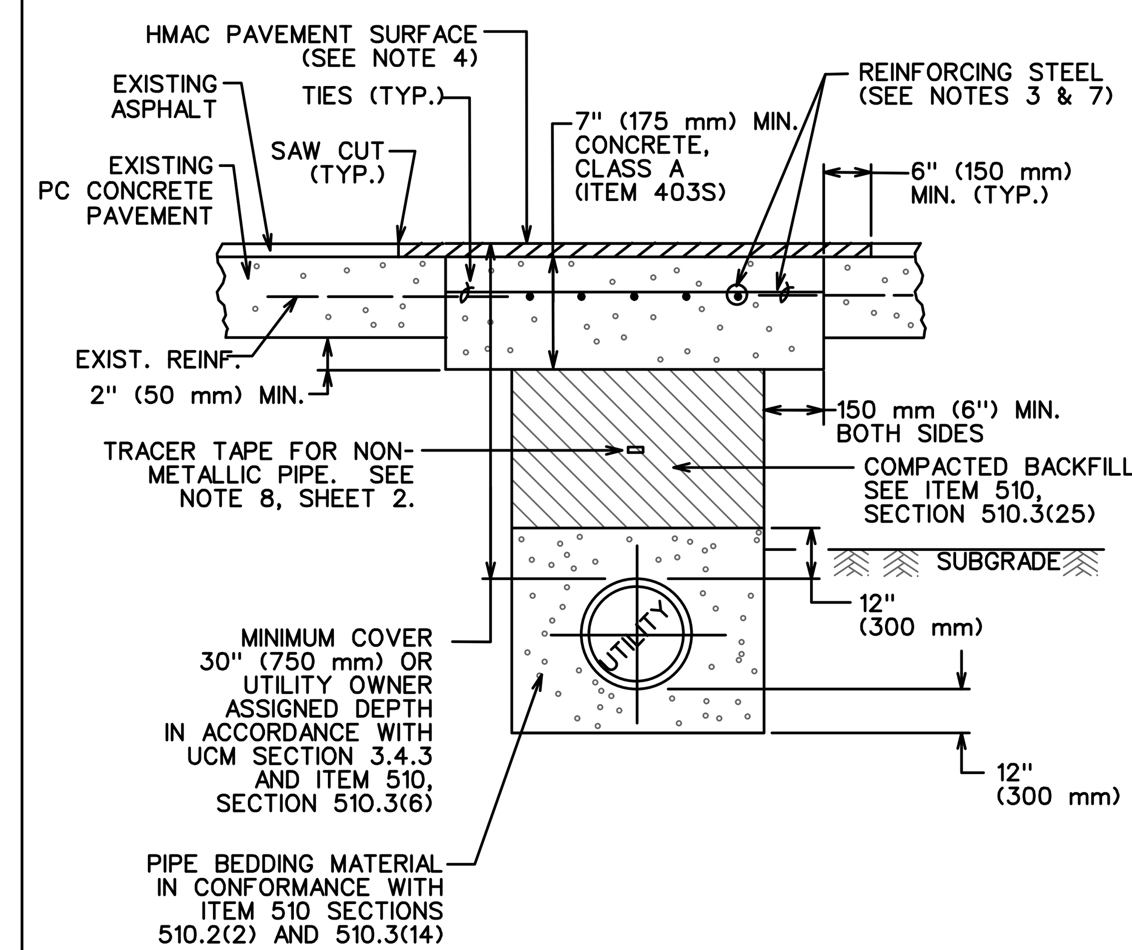
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT	
RECORD COPY SIGNED BY KERI JUAREZ — 01/04/11 — ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-2 1 OF 2

NOTES:

1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE, A MINIMUM OF 12" (300 mm) WIDER THAN UNDISTURBED SIDES OF THE TRENCH AND SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX AC OR TEMPORARY HMAC. TEMPORARY MIX SHALL BE PLACED OVER FLEXIBLE BASE.
3. ROAD BASE SHALL BE REPLACED IN KIND WITH BASE THICKNESS EQUAL TO EXISTING BASE THICKNESS PLUS 3" (75 mm), BUT IN NO CASE LESS THAN 12" (300 mm).
4. DAMAGED PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH A BASE THICKNESS OF 10" (250 mm) OR A THICKNESS MATCHING EXISTING, WHICHEVER IS GREATER.
5. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
6. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
7. TACK COAT ALL EXPOSED EDGES AND SURFACES (SPEC ITEM 307S).
8. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FLEXIBLE BASE WITH ASPHALT SURFACE TRENCH REPAIR-EXISTING PAVEMENT	
RECORD COPY SIGNED BY KERI JUAREZ — 01/04/11 — ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-2 2 OF 2

TRENCH REPAIR IN EXISTING PAVEMENTS
(UCM SECTION 5.5.10, 5.5.11, & 5.5.12)



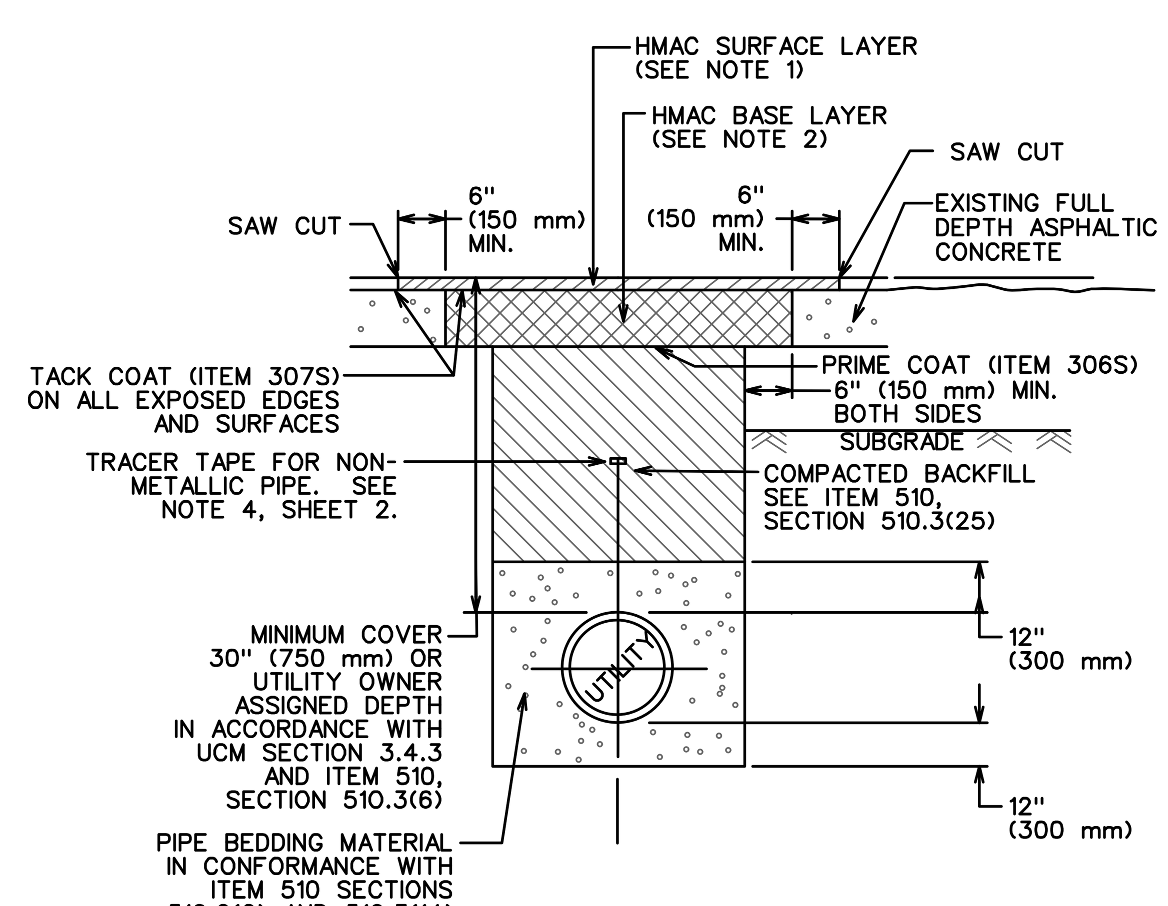
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	ASPHALT OVERLAY OF REINFORCED AND NON-REINFORCED PC PVT.-TRENCH REPAIR	
RECORD COPY SIGNED BY BILL GARDNER — 9/14/05 — ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-3 1 OF 2

NOTES:

1. EXISTING REINFORCED CONCRETE SHALL BE SAW CUT TO A MINIMUM DEPTH OF 1½" (40 mm) AT A MINIMUM DISTANCE OF 6" (150 mm) BACK OF THE VERTICAL WALL OF THE UTILITY TRENCH.
2. REPLACEMENT REINFORCED CONCRETE SHALL BE CLASS A AND SHALL MATCH EXISTING FINISH AND THICKNESS, BUT THE THICKNESS SHALL NOT BE LESS THAN 7" (175 mm).
3. REINFORCING STEEL IN THE REPLACEMENT SLAB SHALL BE AT LEAST #5 (15M) BARS. REINFORCING STEEL SHALL BE LAP SPLICED ACCORDING TO ITEM NO. 406S. IF LENGTH OF LAP CAN NOT BE ACHIEVED, BARS SHALL BE OVERLAPPED AND WELDED A MINIMUM LENGTH OF 6" (150 mm).
4. IF EXISTING PAVEMENT SECTION HAS AN ASPHALT SURFACE THE FOLLOWING APPLIES: REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
5. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
6. TACK COAT (ITEM 307S) ALL EXPOSED EDGES AND SURFACES.
7. ON EXISTING PC CONCRETE PAVEMENT WITHOUT REINFORCING STEEL, USE 4" TO 6" (100 mm TO 150 mm), #5 (15M) DOWELS AT 12" (300 mm) ON CENTER FOR PAVEMENT THICKNESS 6" (150 mm) OR GREATER.
8. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	ASPHALT OVERLAY OF REINFORCED AND NON-REINFORCED PC PVT.-TRENCH REPAIR	
RECORD COPY SIGNED BY BILL GARDNER — 9/14/05 — ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-3 2 OF 2

REPAIR OF FULL DEPTH ASPHALTIC CONCRETE (UCM SECTION 5.5.13)



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FULL DEPTH ASPHALTIC CONCRETE PAVEMENT TRENCH REPAIR	
RECORD COPY SIGNED BY BILL GARDNER — 9/14/05 — ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-5 1 OF 2

NOTES:

1. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
2. THE COMBINED THICKNESS OF THE REPLACEMENT AC SURFACE AND BASE LAYERS SHALL MATCH THE THICKNESS OF EXISTING FULL DEPTH AC LAYER. HOWEVER, THE REPLACEMENT AC BASE LAYER SHALL BE A MINIMUM THICKNESS OF 6" (150 mm) OF TYPE A OR B HMA. A BASE LAYER TYPE THAT MATCHES THE NEW HMA SURFACE LAYER (SEE NOTE 1) MAY BE USED, IF THE TOTAL REPAIR AREA IS LESS THAN 300 SQUARE YARDS (250 SQUARE METERS).
3. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
4. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	FULL DEPTH ASPHALTIC CONCRETE PAVEMENT TRENCH REPAIR	
RECORD COPY SIGNED BY BILL GARDNER — 9/14/05 — ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-5 2 OF 2

STATE OF TEXAS — JOHN G. FRIEDMAN — 88486 — REGISTERED PROFESSIONAL ENGINEER
11-20-2020

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CITY OF AUSTIN — FOUNDED 1839

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS
PAVING DETAILS (1 OF 3)

REVISIONS

NO.	BY	DATE	REMARKS

SHEET INFORMATION

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SHEET 79 OF 81

GP-19-0000.WPD

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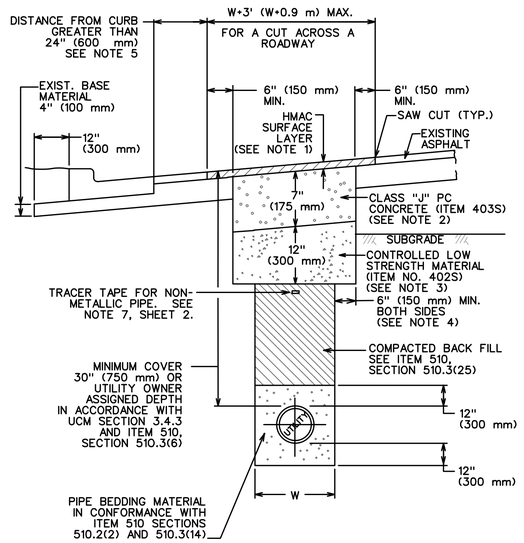
REPAIR OF EXCAVATIONS PARALLEL TO THE CURB
(UCM SECTION 5.5.7.1)

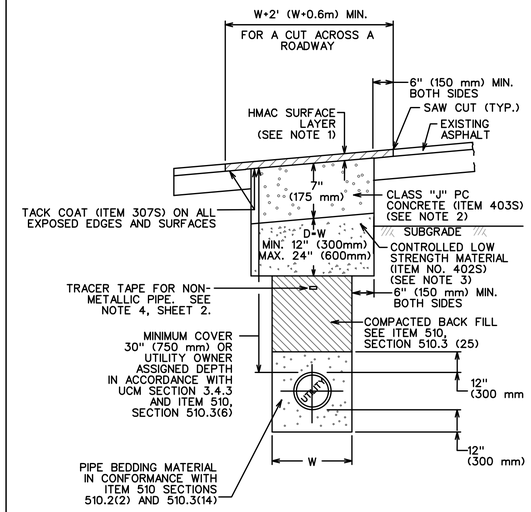


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		EXCAVATIONS PARALLEL TO THE CURB	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-6B 1 OF 2

NOTES:
1. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm') HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
2. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
3. CLASS "J" CONCRETE, ITEM 403S OR CONTROLLED LOW STRENGTH MATERIAL (CLSM), MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL.
4. FOR TRENCH WIDTHS 6" (150 mm) OR LESS, WIDENING OF THE BASE BEYOND THE TRENCH FACE MAY BE ELIMINATED IF THE EXISTING PAVEMENT STRUCTURE (INCLUDING THE BASE) REMAINS INTACT AND STABLE AFTER COMPLETION OF EXCAVATION.
5. IF ANY DIMENSION IN THIS AREA IS LESS THAN 24" (600 mm), THE ENTIRE AREA WILL BE REMOVED AND PAVED WITH NEW PAVEMENT.
6. TACK COAT, ITEM 307S, ALL EXPOSED EDGES AND SURFACES.
7. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S RE-QUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		EXCAVATIONS PARALLEL TO THE CURB	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-6B 2 OF 2

REPAIR OF TRANSVERSE EXCAVATIONS
(UCM SECTIONS 5.5.7.1 and 5.5.7.2)



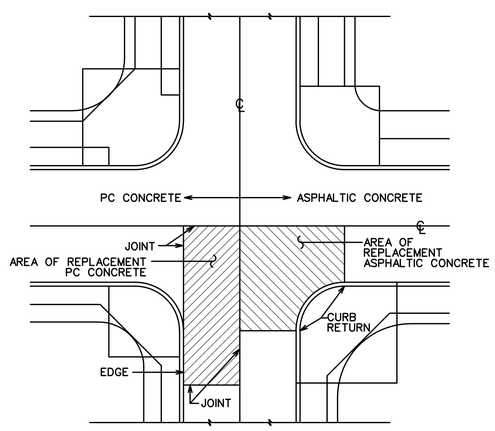
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRANSVERSE EXCAVATIONS	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-6D 1 OF 2

NOTE:
1. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
2. BASE LAYER ALTERNATIVES:
   a) 7" (175 mm) CLASS "J" PC CONCRETE (ITEM 403s). (A PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.)
   b) 10" (250 mm) CONTROLLED LOW STRENGTH MATERIAL (ITEM 402S); OR
   c) FLEXIBLE BASE (ITEM 210S) THICKNESS TWICE THE EXISTING BASE THICKNESS BUT A MINIMUM OF 18" (450 mm).
3. CLASS "J" (2 SACK MIX) MAY BE SUBSTITUTED FOR CONTROLLED LOW STRENGTH MATERIAL, IF APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
4. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S RE-QUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRANSVERSE EXCAVATIONS	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-6D 2 OF 2

REPAIR OF NEW STREETS and ARTERIAL STREETS in GOOD CONDITION
(UCM SECTION 5.3.3 and 5.3.4)

TYPICAL RESTORATION FOR EXCAVATION IN INTERSECTIONS



TYPICAL PLAN

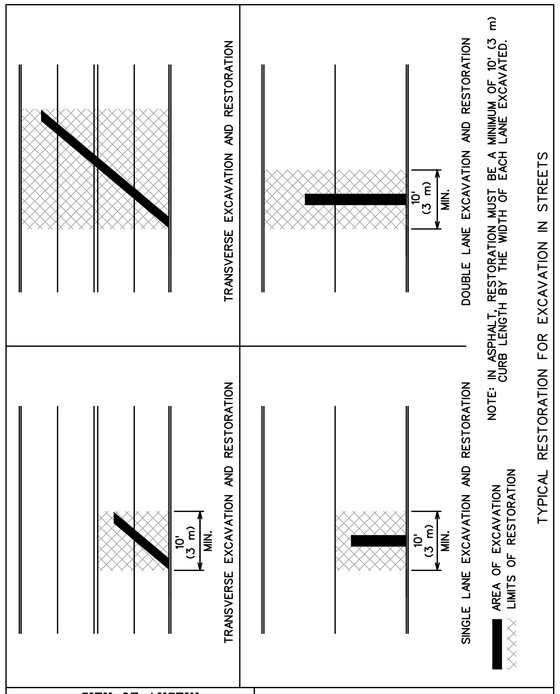
TRENCH REPAIRS WITHIN PORTLAND CEMENT CONCRETE PAVEMENTS NOTE:

IF ANY PART OF THE TRENCH REPAIR FALLS WITHIN AN INTERSECTION, THEN THE ENTIRE CONCRETE SLAB FROM JOINT TO JOINT AND JOINT TO EDGE SHALL BE REPLACED, UNLESS OTHERWISE DIRECTED IN WRITING BY THE DIRECTOR.

TRENCH REPAIRS WITHIN ASPHALTIC CONCRETE PAVEMENTS NOTES:

1. IF ANY PART OF THE TRENCH REPAIR FALLS WITHIN AN INTERSECTION, DEFINED FROM CURB RETURN TO CURB RETURN, THE ENTIRE QUADRANT OF THE EXISTING SURFACE SHALL BE REPLACED, UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
2. A QUADRANT IS DEFINED AS THE CROSS-HATCHED AREA IN THE ABOVE DETAIL.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		STREET REPAIR REQUIREMENTS	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-7 1 OF 3



TYPICAL RESTORATION FOR EXCAVATION IN STREETS

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		STREET REPAIR REQUIREMENTS	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-7 2 OF 3

CITY OF AUSTIN

GENERAL PERMIT OFFICE
LKA - MEREDITH ST STORM DRAIN IMPROVEMENTS

PAVING DETAILS (2 OF 3)

REVISIONS

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STATE OF TEXAS
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SHEET INFORMATION

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SHEET 80 OF 81

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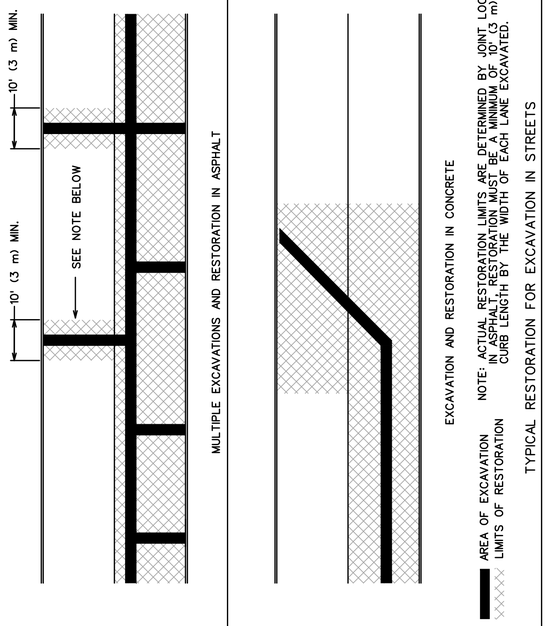
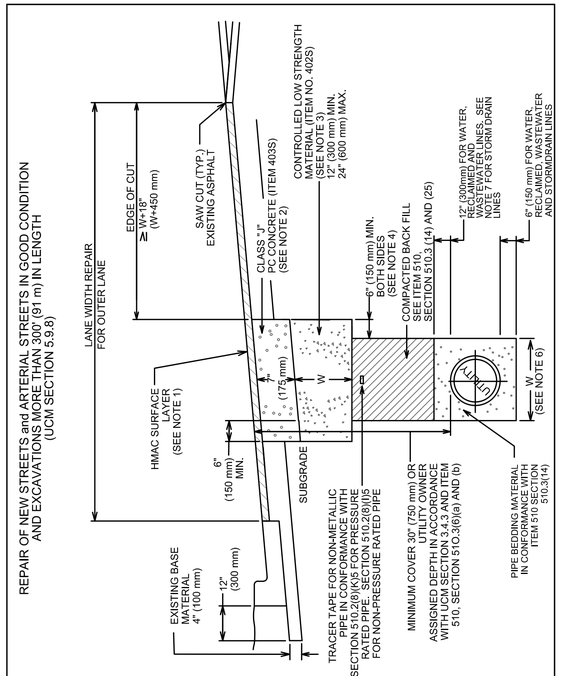


TYPICAL RESTORATION FOR EXCAVATION IN STREETS

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		STREET REPAIR REQUIREMENTS	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-7 3 OF 3

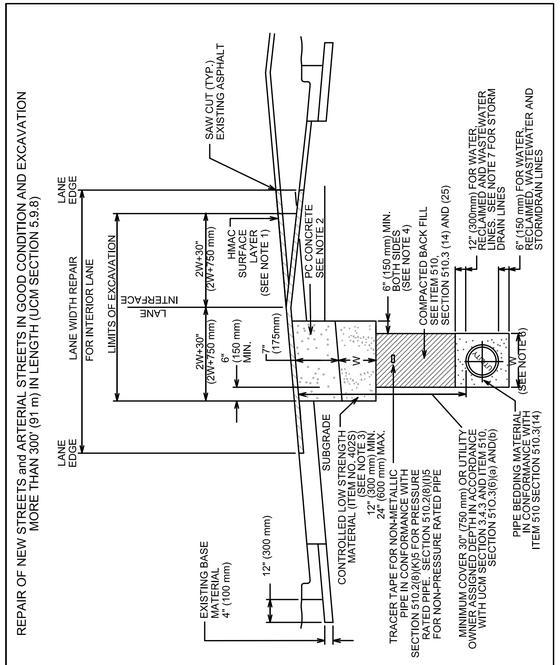


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRAFFIC LANE REPLACEMENT FOR OUTER LANE EXCAVATIONS	
RECORD COPY SIGNED BY CUONG TRAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-8A 1 OF 2

NOTES:

1. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS. SEE ITEM 340S, SECTION 340S.4.
2. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
3. CLASS "J" (2 SACK MIX) MAY BE SUBSTITUTED FOR CONTROLLED LOW STRENGTH MATERIAL, IF APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
4. FOR TRENCH WIDTHS 6" (150 mm) OR LESS, WIDENING OF THE BASE BEYOND THE TRENCH FACE MAY BE ELIMINATED IF THE EXISTING PAVEMENT STRUCTURE (INCLUDING THE BASE) REMAINS INTACT AND STABLE AFTER COMPLETION OF EXCAVATION.
5. TACK COAT (ITEM 307S) ALL EXPOSED EDGES AND SURFACES.
6. FOR WATER, RECLAIMED AND WASTEWATER LINE TRENCHES REFER TO 510.3(5) W=TRENCH WIDTH.
7. FOR STORM DRAINS, THE PIPE BEDDING ENVELOPE SHALL EXTEND THE FULL TRENCH WIDTH TO A DEPTH OF 6" (150 mm) BELOW THE PIPE, AND SHALL RISE AT LEAST TO THE SPRING LINE OF THE PIPE. THE DESIGN OF STORM DRAIN PIPES SUBJECTED TO VEHICULAR TRAFFIC OR OTHER LOADING SHALL BE SUPPORTED BY STRUCTURAL ENGINEERING CALCULATIONS OR REFERENCED TO ENGINEERING STANDARDS. IN ADDITION TO THE PIPE SELECTION, THE DESIGN INCLUDES THE PIPE BEDDING ENVELOPE, DEPTH OF COVER AND COMPACTION REQUIREMENTS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRAFFIC LANE REPLACEMENT FOR OUTER LANE EXCAVATIONS	
RECORD COPY SIGNED BY CUONG TRAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-8A 2 OF 2



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRAFFIC LANE REPLACEMENT FOR INTERIOR LANE EXCAVATIONS	
RECORD COPY SIGNED BY CUONG TRAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-8B 1 OF 2

NOTES:

1. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS. SEE ITEM 340S, SECTION 340S.4.
2. CLASS "J" PC CONCRETE (ITEM 403S). PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
3. 12" (300 mm) MIN. 24" (600 mm) MAX. CONTROLLED LOW STRENGTH MATERIAL (ITEM 40SS). CLASS "J" (2 SACK MIX) MAY BE SUBSTITUTED FOR CONTROLLED LOW STRENGTH MATERIAL, IF APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
4. FOR TRENCH WIDTHS 6" (150 mm) OR LESS, WIDENING OF THE BASE BEYOND THE TRENCH FACE MAY BE ELIMINATED IF THE EXISTING PAVEMENT STRUCTURE (INCLUDING THE BASE) REMAINS INTACT AND STABLE AFTER COMPLETION OF EXCAVATION.
5. TACK COAT (ITEM 307S) ALL EXPOSED EDGES AND SURFACES.
6. FOR WATER, RECLAIMED AND WASTEWATER LINE TRENCHES REFER TO 510.3(5) W=TRENCH WIDTH.
7. FOR STORM DRAINS, THE PIPE BEDDING ENVELOPE SHALL EXTEND THE FULL TRENCH WIDTH TO A DEPTH OF 6" (150 mm) BELOW THE PIPE, AND SHALL RISE AT LEAST TO THE SPRING LINE OF THE PIPE. THE DESIGN OF STORM DRAIN PIPES SUBJECTED TO VEHICULAR TRAFFIC OR OTHER LOADING SHALL BE SUPPORTED BY STRUCTURAL ENGINEERING CALCULATIONS OR REFERENCED TO ENGINEERING STANDARDS. IN ADDITION TO THE PIPE SELECTION, THE DESIGN INCLUDES THE PIPE BEDDING ENVELOPE, DEPTH OF COVER AND COMPACTION REQUIREMENTS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TRAFFIC LANE REPLACEMENT FOR INTERIOR LANE EXCAVATIONS	
RECORD COPY SIGNED BY CUONG TRAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-8B 2 OF 2

STATE OF TEXAS
JOHN G. FRIEDMAN
88486
REGISTERED PROFESSIONAL ENGINEER
11-20-2020

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Texas PE Firm Reg. #F-929
4801 Southwest Pkwy, Pkwy 2, Suite 150, Austin, Texas 78735
T +1 512 328 5771 E usinfrastructure@rpsgroup.com

CITY OF AUSTIN
EST. 1839

GENERAL PERMIT OFFICE
LKA – MEREDITH ST STORM DRAIN IMPROVEMENTS

PAVING DETAILS (3 OF 3)

NO.	BY	DATE	REVISIONS	REMARKS

SHEET INFORMATION

DATE Nov 19, 2020

SHEET 81 OF 81

GP-19-0000.WPD

G:\007849 Meredith St SD Imp Design and Bidding-A-S\07.00 CADD\Construction Shts\28-GP_Paving Plan.dwg Layout: 81 PAVING DETAILS (3 OF 3) Plotted: 11/19/2020 10:26:32 AM

LANDSCAPE NOTES

1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL OVERHEAD AND UNDERGROUND UTILITIES (INCLUDING THOSE PROPOSED WITH THIS PROJECT, I.E. IRRIGATION, WASTEWATER, WATER, STORM SEWER, GAS, TELECOM, FIBER OPTIC, ELECTRIC, ETC.) PRIOR TO STARTING WORK.

2. INFORMATION PROVIDED ON THIS PLAN IS GENERAL IN NATURE; DIMENSIONS, AREAS, AND DISTANCES ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO BIDDING. DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR RESOLUTION PRIOR TO STARTING WORK.

3. THE CONTRACTOR IS TO THOROUGHLY FAMILIARIZE HIM/HERSELF WITH ALL PLANS, SPECIFICATIONS AND THE SITE PRIOR TO BIDDING. FAILURE TO DO SO WILL NOT REDUCE THE CONTRACTOR'S OBLIGATION TO PERFORM THE WORK AS DESCRIBED FOR THE PRICE BID.

4. QUANTITIES SHOWN ARE INTENDED TO ASSIST CONTRACTORS IN EVALUATING THEIR OWN TAKE OFFS AND ARE NOT GUARANTEED AS ACCURATE REPRESENTATIONS OF REQUIRED MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS BID QUANTITIES AND IS REQUIRED TO REFLECT THE DESIGN INTENT.

5. ALL PLANT MATERIALS SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, OR EQUIVALENT

6. NO SUBSTITUTIONS OF PLANT MATERIAL LOCATIONS, SPECIES OR SIZE WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT. ALL PLANT MATERIALS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

7. AS PART OF THE BASE BID, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL LANDSCAPE MAINTENANCE AS INDICATED IN THE PROJECT SPECIFICATIONS (INCLUDING, BUT NOT LIMITED TO MOWING, WATERING, REPLACEMENT OF UNACCEPTABLE, DISEASED OR DEAD PLANTS, ETC.) AND WEED CONTROL UNTIL FINAL ACCEPTANCE BY OWNER.

8. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL TO BE ALIVE AND BE IN A HEALTHY, VIGOROUS CONDITION FOR A PERIOD OF ONE YEAR FROM THE DATE OF COMPLETION OF THE ENTIRE PROJECT OR OTHER DATE(S) ESTABLISHED BY THE LANDSCAPE ARCHITECT, OR OWNER, EXCEPT AS MAY RESULT FROM NEGLECT OR DAMAGE BY THE OWNER, DAMAGE BY OTHERS OR UNUSUAL PHENOMENA BEYOND THE CONTRACTORS CONTROL.

9. CONTRACTOR SHALL REPLACE ALL DEAD, AND/OR UNHEALTHY PLANT MATERIALS AND/OR PLANT MATERIALS THAT HAVE PARTIALLY DIED PURSUANT TO THE CONDITION OF THE WARRANTY AT NO EXPENSE TO THE OWNER. DEAD MATERIALS MUST BE REPLACED WITHIN 10 BUSINESS DAYS PER TECHNICAL PROVISIONS. RE-WARRANT REPLACEMENT PLANTS FOR AN ADDITIONAL ONE YEAR UNDER THE SAME TERMS AS THE ORIGINAL WARRANTY. PLANT MATERIALS USED FOR REPLACEMENT SHALL BE THE SAME SPECIES, SIZE AND SHAPE.

10. ALL PLANTS SHALL BE HEALTHY, VIGOROUS AND REPRESENTATIVE OF THE SPECIES SPECIFIED. ALL PLANTS SHALL BE WELL BRANCHED, PROPORTIONED, AND FREE OF ALL INSECTS, DISEASES, BARK BRUISES, SCRAPES, CRACKED BRANCHES AND PHYSICAL DAMAGE. PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. NO PLANT MATERIALS WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT WRAPPING MATERIAL SHALL BE REMOVED AT TIME OF PLANTING, AS SHOWN ON DETAILS.

11. ALL PLANTS SHALL BE INSTALLED AS PER DETAILS AND THE CONTRACT SPECIFICATIONS.

12. ALL PLANTS AND STAKES SHALL BE SET PLUMB UNLESS OTHERWISE SPECIFIED.

13. THE LANDSCAPE CONTRACTOR SHALL REFER TO THE CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

14. INSTALLATION OF LANDSCAPE SHALL BE PERFORMED BY A QUALIFIED LANDSCAPE INSTALLER WITH A MINIMUM OF FIVE YEARS CONTINUOUS EXPERIENCE OF INSTALLING LANDSCAPE PLANTINGS OF SIMILAR SIZE AND SCOPE.

15. CONTRACTOR SHALL PROVIDE MAINTENANCE FOR LANDSCAPE & IRRIGATION SYSTEM FOR 12 MONTHS FOLLOWING FINAL ACCEPTANCE OF ENTIRE PROJECT.

16. LANDSCAPE MATERIALS SHALL BE LOCATED SO AS NOT TO OBSTRUCT VISUAL OR PHYSICAL ACCESS TO FIRE HYDRANTS. ALL LANDSCAPE MATERIALS SHALL BE INSTALLED IN CONFORMANCE WITH UTILITY COMPANY REQUIREMENTS AT TRANSFORMERS, METERS, OVERHEAD LINES, ETC. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.

17. EXECUTE ALL LANDSCAPING AND REVEGETATION PRIOR TO REQUEST FOR CERTIFICATE OF OCCUPANCY, FINAL INSPECTION OR AS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER. HOWEVER, NO PLANT MATERIALS SHALL BE INSTALLED BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE LANDSCAPE ARCHITECT, OWNER OR OWNER'S DESIGNATED REPRESENTATIVE. FULLY PREPARE ALL LANDSCAPE BEDS (INCLUDING IRRIGATION) PRIOR TO INSTALLATION OF LANDSCAPE PLANTS.

18. SITE STOCKPILED TOPSOIL MAY BE USED IF IT HAS BEEN DEEMED ACCEPTABLE IN QUALITY AND APPROVED BY LANDSCAPE ARCHITECT.

19. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING.

20. THE LANDSCAPE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM FULLY COMPLIANT WITH TCEQ REQUIREMENTS AND COMPLIANT WITH THE LANDSCAPE IRRIGATION NOTES AND CONTRACT SPECIFICATIONS.

21. IF ESTABLISHING VEGETATION DURING ANY STAGE OF A DROUGHT, SECTION 6-4-30 MAY REQUIRE A VARIANCE. CONTACT AUSTIN WATER CONSERVATION STAFF AT WATERUSECOMPVAR@AUSTINTEXAS.GOV OR CALL (512) 974-2199.

22. ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY 6 INCH WHEEL CURBS, WHEELSTOPS OR OTHER APPROVED BARRIERS AS PER ECM 2.4.7. [LDC 25-2-1004(A), ECM 2.4.7(A)]

LANDSCAPE IRRIGATION NOTES

AUTOMATIC IRRIGATION SYSTEMS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS. THESE REQUIREMENTS SHALL BE NOTED ON THE SITE DEVELOPMENT PERMIT AND SHALL BE IMPLEMENTED AS PART OF THE LANDSCAPE INSPECTION:

1. A NEW COMMERCIAL AND MULTI-FAMILY IRRIGATION SYSTEM MUST BE DESIGNED AND INSTALLED SO THAT:

(A) THERE IS NOT DIRECT OVERSPRAY ONTO NON-IRRIGATED AREAS;

(B) THE SYSTEM DOES NOT INCLUDE SPRAY IRRIGATION ON AREAS LESS THAN SIX (6) FEET WIDE (SUCH AS MEDIANS, BUFFER STRIPS, AND PARKING LOT ISLANDS)

(C) ABOVE-GROUND IRRIGATION EMISSION DEVICES ARE SET BACK AT LEAST SIX (6) INCHES FROM IMPERVIOUS SURFACES;

(D) THE IRRIGATION SYSTEM HAS A MASTER VALVE;

(E) CIRCUIT REMOTE CONTROL VALVES HAVE ADJUSTABLE FLOW CONTROLS;

(F) SERVICEABLE IN-HEAD CHECK VALVES ARE ADJACENT TO PAVED AREAS WHERE ELEVATION DIFFERENCES MAY CAUSE LOW HEAD DRAINAGE;

(G) THE IRRIGATION SYSTEM HAS A CITY- APPROVED WEATHER BASED CONTROLLER;

(H) AN AUTOMATIC RAIN SHUT-OFF DEVICE SHUTS OFF THE IRRIGATION SYSTEM AUTOMATICALLY AFTER NOT MORE THAN A ONE-HALF INCH (1/2") RAINFALL;

(I) ZONE VALVES AND CIRCUITS ARE SEPARATED BASED ON PLANT WATER REQUIREMENTS;

(J) AN IRRIGATION EMISSION DEVICE (SUCH AS SPRAY, ROTOR, OR DRIP EMITTER) DOES NOT EXCEED THE MANUFACTURER'S RECOMMENDED OPERATING PRESSURE; AND

(K) NO COMPONENT OF THE IRRIGATION SYSTEM DEVIATES FROM THE MANUFACTURER'S RECOMMENDED USE OF THE PRODUCT.

2. THE MAXIMUM SPACING BETWEEN SPRAY OR ROTARY SPRINKLER HEADS MUST NOT EXCEED THE RADIUS OF THROW OF THE HEAD UNLESS MANUFACTURER OF THE SPRINKLER HEAD SPECIFICALLY RECOMMENDS A GREATER SPACING. THE RADIUS OF THROW IS DETERMINED BY REFERENCE TO THE MANUFACTURER'S SPECIFICATIONS FOR A SPECIFIC NOZZLE AT A SPECIFIC OPERATING PRESSURE.

3. THE IRRIGATION INSTALLER SHALL DEVELOP AND PROVIDE AN AS-BUILT DESIGN PLAN AND WATER BUDGET TO THE CITY AT THE TIME THE FINAL PLUMBING INSPECTION IS PERFORMED. THE WATER BUDGET SHALL INCLUDE:

(A) A CHART CONTAINING ZONE NUMBERS, PRECIPITATION RATE, AND GALLONS PER MINUTE; AND

(B) THE LOCATION OF THE EMERGENCY IRRIGATION SYSTEM SHUT-OFF VALVE. A LAMINATED COPY OF THE WATER BUDGET SHALL BE PERMANENTLY INSTALLED INSIDE THE IRRIGATION CONTROLLER DOOR.

4. THE IRRIGATION INSTALLER SHALL PROVIDE A REPORT TO THE CITY ON A FORM PROVIDED BY THE AUSTIN WATER UTILITY DEPARTMENT CERTIFYING COMPLIANCE WITH SUBSECTION 1 WHEN THE FINAL PLUMBING INSPECTION IS PERFORMED BY THE CITY.

5. IRRIGATION CONTRACTOR SHALL PROVIDE A COMPLETE AS-BUILT PLAN TO OWNER, OR OWNER'S DESIGNATED REPRESENTATIVE SHOWING ALL IRRIGATION COMPONENTS AND SIZE OF COMPONENTS, INCLUDING WATER PRESSURE, MAIN LINE, LATERAL LINES, VALVES, HEADS, BACKFLOW DEVICE, CONTROLLER, QUICK COUPLERS, ETC.

6. COMPLY WITH ALL APPLICABLE TCEQ IRRIGATION RULES AND REGULATIONS.

7. CONTRACTOR IS TO VERIFY PRESSURE AND WATER SUPPLY CHARACTERISTICS ARE ADEQUATE FOR THIS INSTALLATION. ANY DISCREPANCIES OR INADEQUACIES SHALL BE REPORTED TO THE OWNER IMMEDIATELY, BEFORE STARTING CONSTRUCTION. DESIGN PRESSURE IS 65 PSI AT 45 GMP.

8. CONTRACTOR SHALL OBTAIN ALL PERMITS AND HANDLE ALL INSPECTIONS FOR THIS WORK AS REQUIRED BY LOCAL REGULATIONS AND SHALL PAY ALL FEES ASSOCIATED WITH THESE PERMIT(S).

9. VERIFY LOCATION OF CONTROLLER, WATER SUPPLY; SITE CONDITIONS MAY VARY. OPERABLE IRRIGATION EQUIPMENT (VALVES, QUICK COUPLERS, BFP, ETC.) SHALL BE INSTALLED SEPARATELY IN VALVE BOXES.

10. ALL HEADS SHALL BE INSTALLED ON TRIPLE SWING JOINTS. HEADS SHALL BE NOT BE LOCATED CLOSER THAN 6" FROM PAVEMENT.

11. ADJUST RADII AND SPRAY PATTERNS TO ELIMINATE OVERSPRAY ONTO BUILDINGS, SIDEWALKS, FENCES, DRIVEWAYS, ROADWAYS, ETC.

12. ALL PAVEMENT CROSSINGS (LATERALS, WIRING, MAINLINE, ETC.) SHALL OCCUR WITHIN SLEEVES. INCLUDING SIDEWALKS, DRIVEWAYS, TRAILS, BIKE WAYS, ROADWAYS, ETC.

13. PRIOR TO CONSTRUCTION, VERIFY WITH THE GENERAL CONTRACTOR AND ALL UTILITY COMPANIES THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES. IMMEDIATELY REPORT ANY BREAKAGES TO THE APPROPRIATE UTILITY COMPANY.

14. THE CONTRACTOR IS TO INSTALL ALL SLEEVES IN SEQUENCE WITH OTHER CONSTRUCTION ACTIVITIES, AND WILL BE RESPONSIBLE FOR COORDINATING WITH OTHER SITE CONTRACTORS FOR THIS WORK. ADEQUATELY MARK THE LOCATIONS OF ALL SLEEVES AND PIPE CONNECTION POINTS TO EXISTING LINES.

15. INSTALL THE MAIN LINE A MINIMUM OF 15" DEEP AND LATERAL LINES MIN. 12" DEEP.

16. PROVIDE A NEW WATER PROOF TAG WITH CONTRACTOR'S NAME AND TELEPHONE NUMBER CLEARLY SHOWN AND SECURELY ATTACHED TO THE INSIDE OF THE CONTROLLER DOOR.

LANDSCAPE MAINTENANCE NOTES

1. THE OWNER WILL CONTINUOUSLY MAINTAIN REQUIRED LANDSCAPING IN ACCORDANCE WITH CITY OF AUSTIN LAND DEVELOPMENT CODE, SECTION 25-2-984

A) REGULAR MAINTENANCE OF ALL REQUIRED LANDSCAPE AREAS AND PLANT MATERIAL IN A VIGOROUS AND HEALTHY CONDITION., FREE FROM DISEASE, PESTS, WEEDS, AND LITTER. THIS MAINTENANCE SHALL INCLUDE WEEDING, WATERING, FERTILIZATION, PRUNING, MOWING, EDGING, MULCHING OR OTHER NEEDED MAINTENANCE, IN ACCORDANCE WITH GENERALLY ACCEPTED HORTICULTURAL.

B) THE REPAIR OR REPLACEMENT OF REQUIRED LANDSCAPE STRUCTURES (WALLS, FENCES, ETC.) TO A STRUCTURALLY SOUND CONDITION.

C) THE REGULAR MAINTENANCE, REPAIR, OR REPLACEMENT, WHERE NECESSARY, OF ANY REQUIRED SCREENING OR BUFFERING.

D) ALL OPEN SPACE AREAS THAT ARE TO BE PRESERVED AS NATURAL PLANT COMMUNITIES SHALL BE TRIMMED, AT LEAST ONCE A YEAR, OF ALL EXOTIC VEGETATION, LAWN GRASSES, TRASH, OR OTHER DEBRIS. NATURAL AREA SHOULD BE MULCHED, PRUNED AND OTHERWISE MAINTAINED SO THAT PLANTS ARE VIGOROUS.

LANDSCAPE CERTIFICATION

I, DAVID CAZARES, A PROFESSIONAL LANDSCAPE ARCHITECT, DO HEREBY CERTIFY THAT ALL INFORMATION SHOWN TO BE TRUE AND ACCURATE AND THAT THIS PLAN SATISFIES THE WRITTEN REQUIREMENTS OF THE LANDSCAPE REGULATIONS, CHAPTER 25-2, SUBCHAPTER C, ARTICLE 9 OF THE LAND DEVELOPMENT CODE

Tag No.	Total Caliper Inches Removed	Tree Type	Replacement Factor	Replacement Inches Required	Reason for Removal and Mitigation
1750	16	POST OAK	50%	8	CONSTRUCTION
1753	7	HACKBERRY	0%	0	CONSTRUCTION
1832	8	HACKBERRY	50%	4	CONSTRUCTION
3064	12	CEDAR ELM	50%	6	CONSTRUCTION
3069	14	CEDAR ELM	50%	7	CONSTRUCTION
3135	16	CEDAR ELM	50%	8	CONSTRUCTION
	73	Total Inches Removed		33	Total Mitigation Inches

TREE REPLACEMENT LIST

TREE TYPE	PROPOSED CALIPER	QUANTITY	REPLACEMENT INCHES
BALD CYPRESS	3	2	6
CEDAR ELM	3	2	6
TEXAS REDBUD	3	3	9
YAUPON HOLLY	3	4	12
		TOTAL PROVIDED	33

TREE LIST

COMMON NAME	BOTANICAL NAME	SIZE	SPACING	COMMENT
BALD CYPRESS	TAXODIUM DISTICHUM	3" CALIPER	AS SHOWN	SINGLE TRUNK
CEDAR ELM	ULMUS CRASSIOFLIA	3" CALIPER	AS SHOWN	SINGLE TRUNK
TEXAS REDBUD	CERCIS CANADENSIS V. TEXENSIS	3" CALIPER	AS SHOWN	MULTI-TRUNK
YAUPON HOLLY	ILEX VOMITORIA	3" CALIPER	AS SHOWN	MULTI-TRUNK

I CERTIFY THAT THESE ENGINEERING DOCUMENTS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THEIR INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION PRIOR TO FORMAL CITY APPROVAL.

SITE PLAN APPROVAL SHEET _____ OF _____
FILE NUMBER_SP-XXXX-XXXXX_ APPLICATION DATE: XX/XX/XXXX_
APPROVED BY COMMISSION ON _____ UNDER SECTION _____ OF CHAPTER _____ OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE(25-5-81, LDC)_____ CASE MANAGER _Lynda Courtney_
PROJECT EXPIRATION DATE (ORD. #970905-A)_____DWPZ_____DDZ__X___

_____
Director, Planning and Development Review Department
RELEASED FOR GENERAL COMPLIANCE:_____ZONING__AV____
Rev. 1 _____Correction 1 _____
Rev. 2 _____Correction 2 _____
Rev. 3 _____Correction 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.

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 UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

REGISTERED LANDSCAPE ARCHITECT
DAVID J. CAZARES
1871
STATE OF TEXAS
20 November 2020

mwm Design Group
305 East Huntland Drive
Suite 200
Austin, Texas 78752
p: 512.453.0767
f: 512.453.1734
TBAE FIRM REGISTRATION NO.: 1452
TBPE FIRM REGISTRATION NO.: F-1416
TBPLS FIRM REGISTRATION NO.: 10065600

NO.	DATE	DESCRIPTION	BY

0 1"
The bar above measures one inch on the original drawing. Adjust scales accordingly.

LANDSCAPE NOTES & CALCULATIONS

Meredith St. Storm Drain Improvements
3600 Meredith Street
Austin, Texas

PLOTTED: 11/20/2020
JOB NO: xxx-xx

L001

1 OF 2

SP-xx-xxxxx

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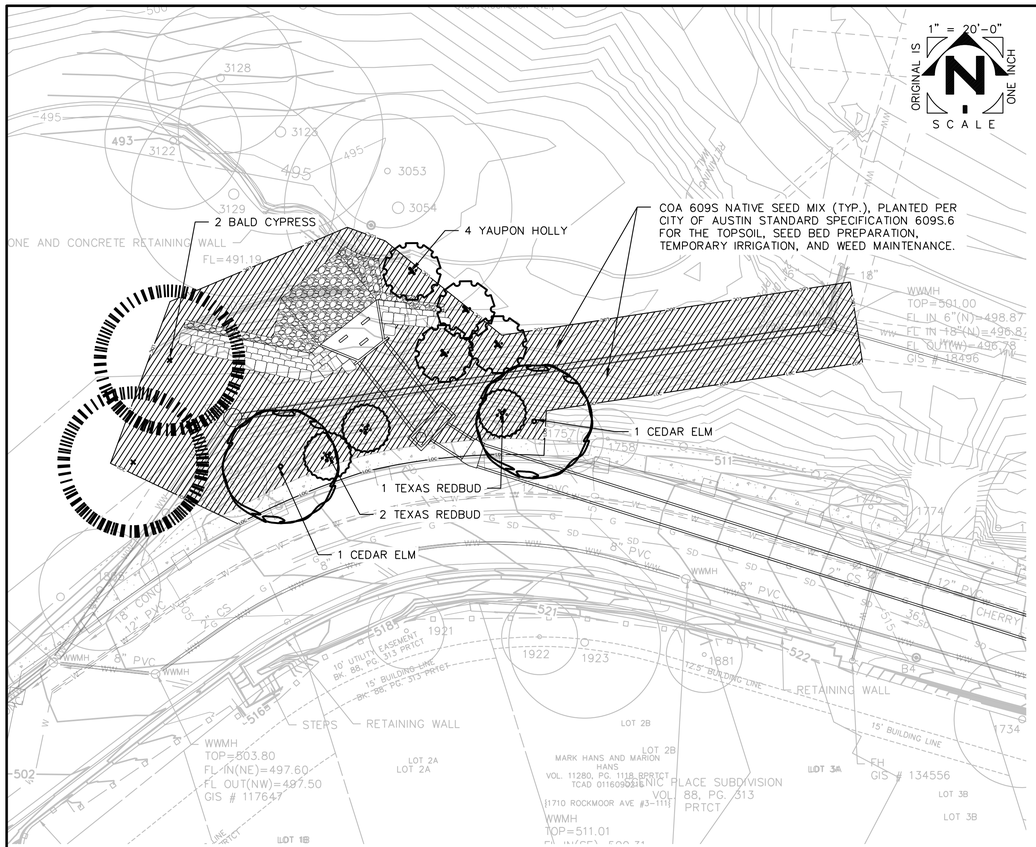
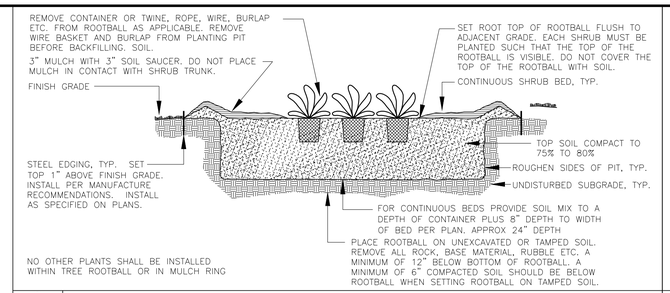
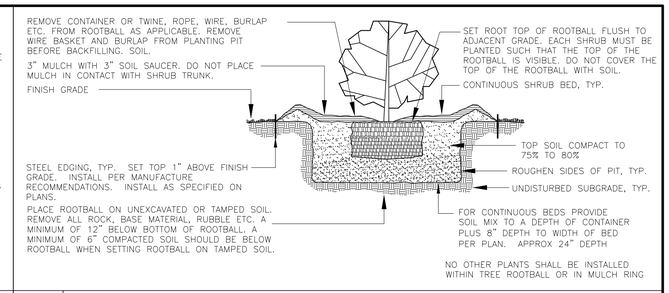


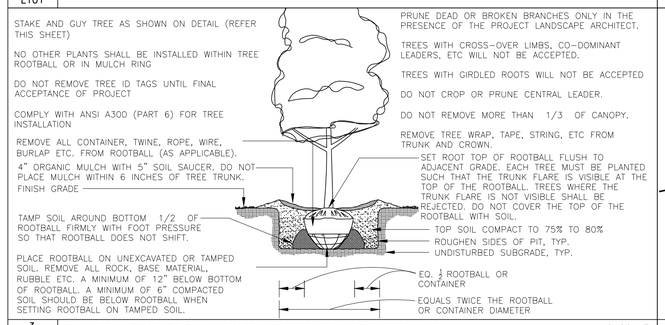
NOTE: ALL TREES TO BE TEMPORARILY IRRIGATED



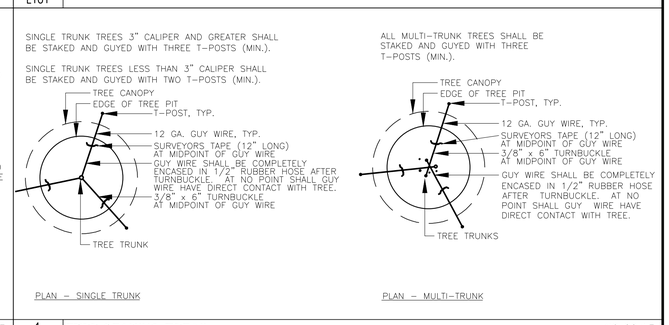
1 L101 **PERENNIAL / GROUNDCOVER PLANTING DETAIL** NO SCALE



2 L101 **SHRUB PLANTING DETAIL** NO SCALE



3 L101 **TREE PLANTING DETAIL (SINGLE TRUNK) GREATER THAN 3" CALIPER** NO SCALE



4 L101 **TREE STAKING DETAIL** NO SCALE

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SITE PLAN APPROVAL SHEET _____ OF _____
FILE NUMBER: SP-XXXX-XXXXX_ APPLICATION DATE: XX/XX/XXXX_
APPROVED BY COMMISSION ON _____ UNDER SECTION _____ OF CHAPTER _____ OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE(25-5-81, LDC)_____ CASE MANAGER _Lynda Courtney_
PROJECT EXPIRATION DATE (ORD. #970905-A)_____DMPZ_____DDZ__X___

_____
Director, Planning and Development Review Department
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REGISTERED LANDSCAPE ARCHITECT DAVID J. CAZARES 1871 STATE OF TEXAS
20 November 2020

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NO.	DATE	DESCRIPTION	BY

0 1"
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LANDSCAPE PLAN AND DETAILS

Meredith St. Storm Drain Improvements
3600 Meredith Street
Austin, Texas

PLOTTED: 11/20/2020
JOB NO: xxx-xx

L101

2 OF 2

SP-xx-xxxxx

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