

WARNING
 CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DEPICTING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.

BM #1 REF. ELEVATION = 559.47
 SQUARE CUT IN TOP OF CURB, SOUTH MEDIAN
 END NOSE, MARSH LANE
 1127' NORTH OF VITRUVIAN WAY.

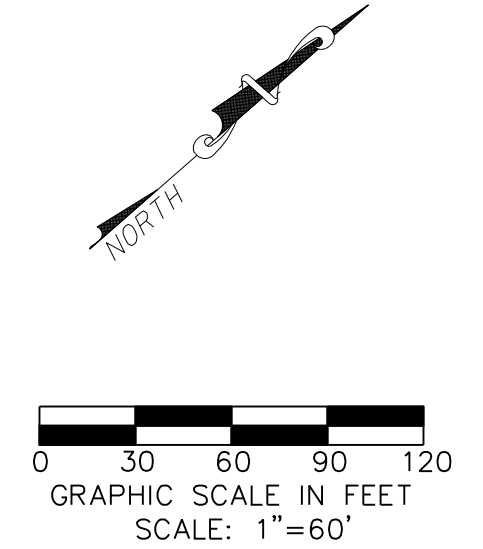
BM #2 REF. ELEVATION = 547.84
 SQUARE CUT IN TOP OF CURB, NORTH MEDIAN
 END NOSE, AT INTERSECTION OF
 VITRUVIAN WAY AND MARSH LANE.



DRAINAGE AREA CALCULATIONS - PROPOSED VITRUVIAN PARK

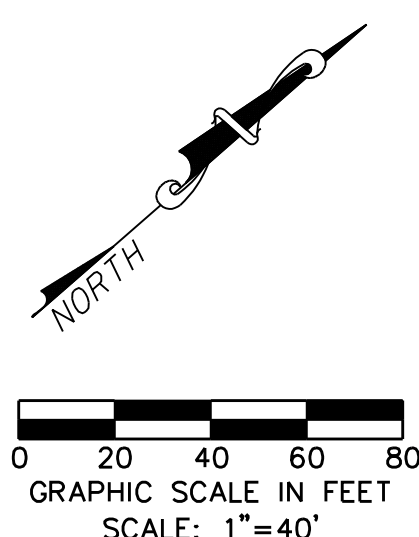
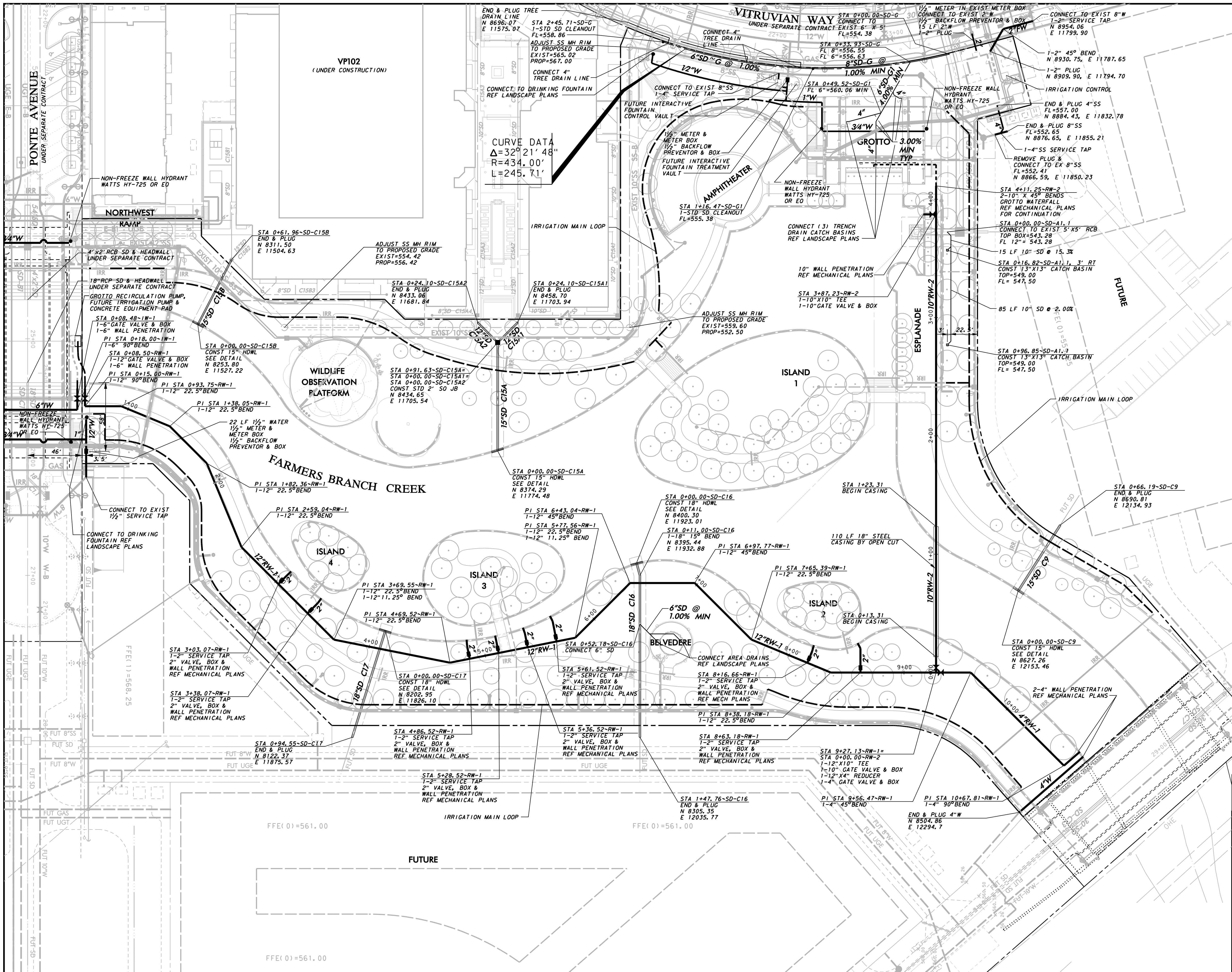
AREA NO.	AREA (acres)	RUNOFF COEFF.	CA	Tc (min)	I2 (in/hr)	Q2 (cfs)	I5 (in/hr)	Q5 (cfs)	I10 (in/hr)	Q10 (cfs)	I25 (in/hr)	Q25 (cfs)	I50 (in/hr)	Q50 (cfs)	I100 (in/hr)	Q100 (cfs)	COLLECTION POINT
C1	0.38	0.90	0.34	10.0	5.2	1.8	5.9	2.0	6.5	2.2	7.4	2.5	8.2	2.8	8.9	3.0	FUTURE ROOF DRAINS
C3	0.58	0.90	0.52	10.0	5.2	2.7	5.9	3.1	6.5	3.4	7.4	3.9	8.2	4.3	8.9	4.6	FUTURE ROOF DRAINS
C5	0.55	0.90	0.50	10.0	5.2	2.6	5.9	2.9	6.5	3.2	7.4	3.7	8.2	4.0	8.9	4.4	FUTURE ROOF DRAINS
C7	0.83	0.90	0.75	10.0	5.2	3.9	5.9	4.4	6.5	4.8	7.4	5.6	8.2	6.1	8.9	6.6	FUTURE CURB INLETS
C8	1.03	0.90	0.93	10.0	5.2	4.8	5.9	5.5	6.5	6.0	7.4	6.9	8.2	7.6	8.9	8.2	FUTURE ROOF DRAINS
C9	1.25	0.90	1.13	10.0	5.2	5.9	5.9	6.6	6.5	7.3	7.4	8.4	8.2	9.2	8.9	10.0	FUTURE ROOF DRAINS
C10A	0.34	0.90	0.31	10.0	5.2	1.6	5.9	1.8	6.5	2.0	7.4	2.3	8.2	2.5	8.9	2.7	FUTURE ROOF & AREA DRAINS
C10B	0.28	0.90	0.25	10.0	5.2	1.3	5.9	1.5	6.5	1.6	7.4	1.9	8.2	2.1	8.9	2.2	FUTURE ROOF & AREA DRAINS
C12	1.12	0.90	1.01	10.0	5.2	5.3	5.9	5.9	6.5	6.5	7.4	7.5	8.2	8.2	8.9	9.0	FUTURE ROOF DRAINS
C13	0.74	0.90	0.67	10.0	5.2	3.5	5.9	3.9	6.5	4.3	7.4	5.0	8.2	5.4	8.9	5.9	FUTURE CURB INLETS
C15A	1.32	0.90	1.19	10.0	5.2	6.2	5.9	7.0	6.5	7.7	7.4	8.8	8.2	9.7	8.9	10.5	FUTURE ROOF & AREA DRAINS
C15B	0.96	0.90	0.86	10.0	5.2	4.5	5.9	5.1	6.5	5.6	7.4	6.4	8.2	7.1	8.9	7.7	FUTURE ROOF & AREA DRAINS
C16	1.59	0.90	1.43	10.0	5.2	7.5	5.9	8.4	6.5	9.3	7.4	10.6	8.2	11.7	8.9	12.7	FUTURE ROOF & AREA DRAINS
C17	1.42	0.90	1.28	10.0	5.2	6.7	5.9	7.5	6.5	8.3	7.4	9.5	8.2	10.4	8.9	11.3	FUTURE ROOF & AREA DRAINS
C19	0.34	0.90	0.31	10.0	5.2	1.6	5.9	1.8	6.5	2.0	7.4	2.3	8.2	2.5	8.9	2.7	FUTURE CURB INLETS
C20	0.31	0.90	0.29	10.0	5.2	1.5	5.9	1.7	6.5	1.9	7.4	2.2	8.2	2.4	8.9	2.6	FUTURE CURB INLETS
C21	0.71	0.90	0.64	10.0	5.2	3.3	5.9	3.8	6.5	4.1	7.4	4.8	8.2	5.2	8.9	5.7	FUTURE ROOF & AREA DRAINS
C28	0.80	0.90	0.72	10.0	5.2	3.8	5.9	4.2	6.5	4.7	7.4	5.4	8.2	5.9	8.9	6.4	FUTURE ROOF & AREA DRAINS
TOTAL	12.7					59.8		67.3		74.2		85.1		93.3		101.6	

LEGEND
 DRAINAGE AREA DESIGNATION B26
 DRAINAGE AREA BOUNDARY
 DRAINAGE AREA SUB DIVIDE
 DIRECTION OF FLOW



NO.	REVISION	BY	DATE
TOWN OF ADDISON DALLAS COUNTY, TEXAS PARK AND STREETSCAPE IMPROVEMENTS VITRUVIAN PARK			
DRAINAGE AREA MAP & CALCULATIONS			
icon Consulting Engineers, Inc. Civil Engineers - Designers - Planners		250 W. Southlake Blvd., Suite 117 Southlake, TX 76092 (817) 552-6210	
PROJECT	DESIGN	DRAWN	DATE
5029-01	ICE	ICE	APR 26, 2010
FILE	SHEET		
PW# 2009-04	C400		

PARK AND STREETSCAPE IMPROVEMENTS - VITRUVIAN PARK

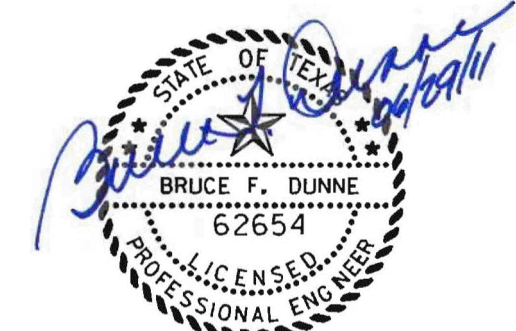


STORM SEWER, SANITARY SEWER, WATER AND MISC. UTILITY NOTES

- REFER TO SHEET G604 FOR "GENERAL PAVING NOTES" FOR THIS PROJECT.

WARNING

CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DEPICTING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.



NO.	REVISION	BY	DATE

Addison TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PARK AND STREETSCAPE IMPROVEMENTS
VITRUVIAN PARK

STORM DRAIN & UTILITY PLAN
NORTH

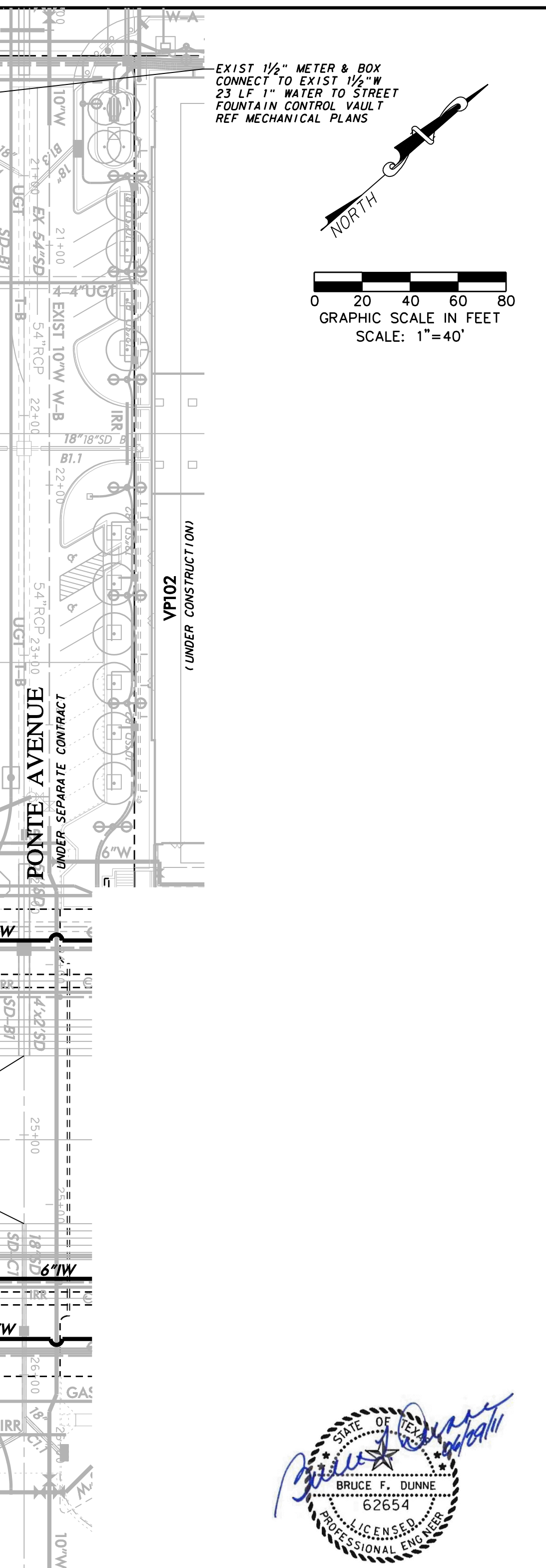
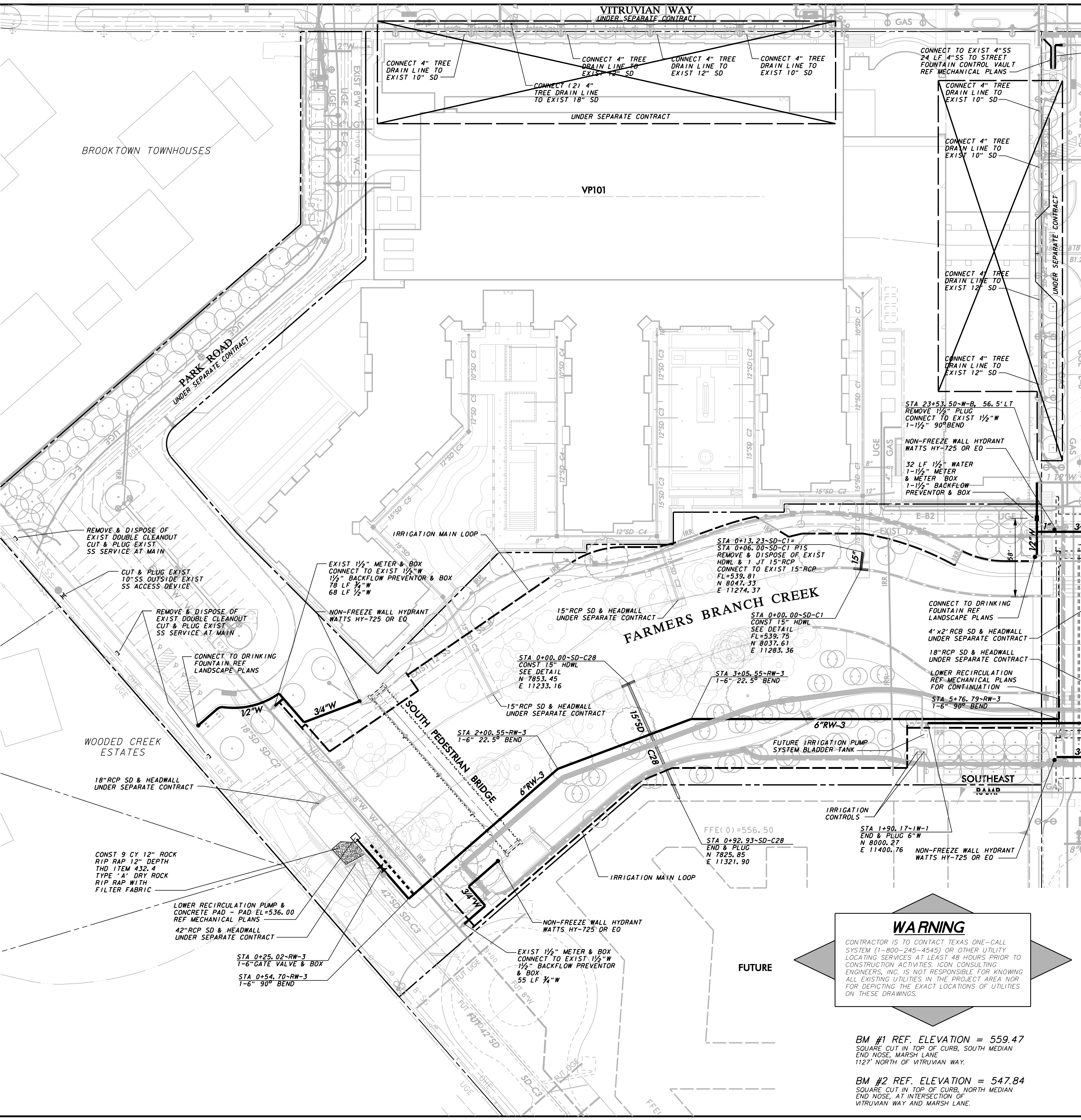
icon Consulting Engineers, Inc. 250 W. Southlake Blvd., Suite 117
Civil Engineers - Designers - Planners Southlake, Tx 76092 (817) 552-6210

PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-01	ICE	ICE	APR 26, 2010	PW# 2009-04	C401

PARK AND STREETSCAPE IMPROVEMENTS - VITRUVIAN PARK

GENERAL STORM DRAIN, SANITARY SEWER, WATER, AND MISC. UTILITY NOTES:

- REFER TO SHEET C100 "GENERAL CONSTRUCTION NOTES, LEGEND AND ABBREVIATIONS" FOR THE GENERAL CONSTRUCTION NOTES FOR THIS PROJECT.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (NCTCOG), AND ANY AND ALL AMENDMENTS BY THE TOWN OF ADDISON, AS WELL AS STANDARD CONSTRUCTION DETAILS SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL COVER ALL OPEN EXCAVATIONS WITH ANCHORED STEEL PLATING, DURING NON-WORKING HOURS, ALONG EXISTING ROADWAYS AND TRAFFIC AREAS.
- THE CONTRACTOR SHALL VERIFY THE SIZE, TYPE, ELEVATION, CONFIGURATION, AND ANGLULATION OF EXISTING STORM DRAIN, WATER, SEWER AND OTHER MISC. UTILITY LINES PRIOR TO CONSTRUCTION OF TIE-IN MATERIALS. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS TO EXISTING FACILITIES DAMAGED BY HIS ACTIVITIES.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS FOR THE SUPPORT AND PROTECTION OF ALL UTILITY POLES, FENCES, TREES, SHRUBS, GAS MAINS, TELEPHONE CABLES, ELECTRIC CABLES, DRAINAGE PIPES, UTILITY SERVICES, AND ALL OTHER UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW THE GROUND, THE COST OF WHICH SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ASSURE PROPER DEPTHS ARE ACHIEVED. IN THE EVENT OF A CONFLICT BETWEEN WATER AND/OR MISC. UTILITY LINES WITH STORM DRAIN AND/OR SANITARY SEWER PIPING, THE CONTRACTOR SHALL ADJUST THE WATER LINE / MISC. UTILITY LINES DOWNWARDS IN SUCH A MANNER SO THAT THE PIPE MANUFACTURER'S RECOMMENDATIONS ON THE PIPE DEFLECTION AND JOINT STRESS ARE NOT EXCEEDED.
- ALL STORM DRAIN STRUCTURES INCLUDING INLETS, DRAINS AND CLEANOUTS MUST BE ADJUSTED TO FINAL FINISHED GRADE BY THE CONTRACTOR.
- ALL PIPE FOR STORM DRAIN IMPROVEMENTS FIFTEEN (15) THROUGH THIRTY-SIX (36) SHALL BE REINFORCED CONCRETE PIPE (RCP), CLASS III. REINFORCED CONCRETE PIPE JOINTS SHALL BE SEALED WITH RAMNECK OR APPROVED EQUAL. ALL PIPE FOR STORM DRAINAGE IMPROVEMENTS TWO (2) THROUGH TWELVE (12) SHALL BE POLYVINYL CHLORIDE PIPE (PVC), SDR-35 UNLESS NOTED OTHERWISE. ALL PIPE ENTERING PUBLIC STORM DRAIN STRUCTURES SHALL BE GROUDED TO ASSURE WATERTIGHT CONNECTIONS.
- EMBEDMENT FOR STORM DRAIN PIPING SHALL CONSIST OF GRADE 4 CRUSHED STONE (3" BELOW PIPE FOR 27" AND SMALLER PIPES, AND 4" BELOW PIPE FOR 30" PIPES AND LARGER) TO THE GRADE OF THE PIPE, WITH SELECT NATIVE SOIL LESS THAN 3" IN DIAMETER OR GRANULAR MATERIAL TO 6" OVER THE TOP OF PIPE.
- FINISH BACKFILL SHALL BE NATIVE SOIL FREE OF ALL ROCKS AND CLODS GREATER THAN THREE INCHES IN DIAMETER, COMPACTED TO 95% STANDARD PROCTOR DENSITY, IN SIX (6) INCH MAXIMUM LOOSE LIFTS, WITH ZERO TO PLUS THREE, OPTIMUM MOISTURE.
- THE CONTRACTOR SHALL VERIFY THE SIZE, TYPE, ELEVATION, CONFIGURATION, AND ANGLULATION OF EXISTING STORM DRAIN, WATER, SANITARY SEWER AND MISC. UTILITY LINES PRIOR TO CONSTRUCTION OF TIE-IN MATERIALS. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS TO EXISTING FACILITIES DAMAGED BY HIS ACTIVITIES.
- ALL WATER MAIN MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON'S WATER SYSTEM REQUIREMENTS.
- ALL WATER MAINS TWELVE-INCH (12") DIAMETER AND SMALLER SHALL BE ANSII/AWWA C-900 PVC PRESSURE PIPE WITH CAST IRON O.D. OR WHEN PIPE PENETRATES METER VAULT WALLS IT SHALL BE DUCTILE IRON PIPE WITH RUBBER RINGS AND INTEGRAL THICKENED BELL ASSEMBLED WITH A FACTORY SUPPLIED LUBRICANT. WATER MAINS SHALL HAVE A MINIMUM CLASS RATING OF 150-PSI FOR DOMESTIC USE AND A MINIMUM CLASS RATING OF 200-PSI FOR FIRE LINE APPLICATIONS. JOINT MATERIAL FOR PVC SHALL CONFORM TO ASTM F471.
- EMBEDMENT FOR WATER, SEWER AND MISC. UTILITY PIPING SHALL COMPLY WITH NCTCOG CLASS "B" EMBEDMENT OF CRUSHED STONE TO THE SPRING LINE OF THE PIPE, WITH SAND (12" MIN) OVER THE PIPE. A LAYER OF GEO-TEXTILE FABRIC SHALL BE PLACED ON TOP OF THE STONE PRIOR TO THE PLACEMENT OF THE SAND.
- THE MINIMUM COVER TO THE TOP OF ALL WATER LINES SHALL BE FOUR FEET (4').
- THE CONTRACTOR SHALL SUPPLY AND INSTALL ANY ADDITIONAL BENDS WITH THRUST BLOCKING AND OTHER APPURTENANCES REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS. THE CONTRACTOR SHALL REMOVE EXISTING THRUST BLOCKS WHERE NECESSARY TO ALLOW THE WORK TO PROCEED, AND SHALL REPLACE THE THRUST BLOCKS WHERE REQUIRED. THE COST TO REMOVE, REPLACE OR PROVIDE THRUST BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- ALL VALVES, DUCTILE IRON AND CAST IRON PIPE, FITTINGS AND SPECIALS SHALL BE POLYETHYLENE WRAPPED (MINIMUM 8 MIL THICKNESS).
- HORIZONTAL BLOCKING FOR WATER LINES HAS BEEN OMITTED FOR CLARITY. HOWEVER, BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' STANDARD DETAILS.
- ALL FITTINGS SHALL BE DUCTILE IRON, FULL BODIED, MECHANICAL JOINT TYPE WITH RESTRAINING GLANDS, AND HAVE A MINIMUM RATED WORKING PRESSURE OF 250 PSI. FITTINGS SHALL BE WRAPPED WITH 8-MIL POLY PRIOR TO BACKFILL.
- ALL VALVES AND FITTINGS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED. THRUST BLOCKING SHALL BE MINIMUM 3000 PSI CONCRETE AND BE ABLE TO WITHSTAND A MINIMUM 200 PSI TEST PRESSURE.
- THRUST BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' STANDARD DETAILS. DO NOT COVER BELLS OR FLANGES WITH CONCRETE. THE CONTRACTOR SHALL REMOVE EXISTING THRUST BLOCKING OR RESTRAINTS WHERE NECESSARY TO ALLOW THE WORK TO PROCEED, AND SHALL REPLACE THE THRUST BLOCKS WHERE REQUIRED. THE COST TO REMOVE, REPLACE OR PROVIDE THRUST BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- NO PERSON SHALL OPEN, TURN OFF, INTERFERE WITH, ATTACH ANY HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE TOWN OF ADDISON UNLESS DULY AUTHORIZED TO DO SO BY THE TOWN OF ADDISON PUBLIC WORKS DEPARTMENT (972-450-2871).
- ALL WASTEWATER MAIN PIPING SHALL MEET THE EXTRA STRENGTH REQUIREMENTS OF ASTM SPECIFICATION D3034 (SDR-35). PIPE SHALL HAVE THE BELL AND SPIGOT TYPE JOINTS, CONSISTING OF INTEGRAL WALL SECTION WITH FACTORY INSTALLED COMPRESSION RUBBER RING GASKET, SECURELY LOCKED IN BELL GROOVE TO PROVIDE POSITIVE SEAL UNDER ALL INSTALLATION CONDITIONS. PIPE SHALL BE LAID WITH THE BELL END ON THE UPSTREAM SIDE.
- ALL EXISTING AND PROPOSED IMPROVEMENTS (VALVES, MANHOLES, FIRE HYDRANTS, WATER METERS, ETC.) SHALL BE ADJUSTED TO FINAL FINISHED GRADE BY THE CONTRACTOR.
- WATER LINES SHALL BE TESTED BOTH BACTERIOLOGICALLY AND HYDROSTATICALLY. WATER MAINS SHALL BE HYDROSTATICALLY TESTED AT 150 PSI FOR FOUR (4) HOURS. FIRE LINES SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR (2) HOURS. ALL BLEEDER LINES SHALL BE REMOVED UPON COMPLETION OF TESTING BY REMOVING THE CORPORATION STOP AND INSTALLING A BRASS PLUG. HEAVILY CHLORINATED WATER (3.5 MG/L OR GREATER FREE CHLORINE) RESULTING FROM WATER LINE STERILIZATION SHALL BE DIRECTED TO THE SANITARY SEWER AFTER THE MANDATORY CHLORINE RETENTION TIME (USUALLY 24 HOURS) UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE VERIFICATION OF COMPLETION AND COMPLIANCE OF ALL REQUIRED TESTS (PRESSURE, BACTERIOLOGICAL, BACKFLOW, VACUUM, MANDREL, VHS VIDEO OF SANITARY SEWER AND STORM DRAIN, ETC.) TO THE TOWN OF ADDISON.



NO.	REVISION	BY	DATE

TOWN OF ADDISON
 DALLAS COUNTY, TEXAS

PARK AND STREETSCAPE IMPROVEMENTS
VITRUVIAN PARK

STORM DRAIN & UTILITY PLAN
SOUTH

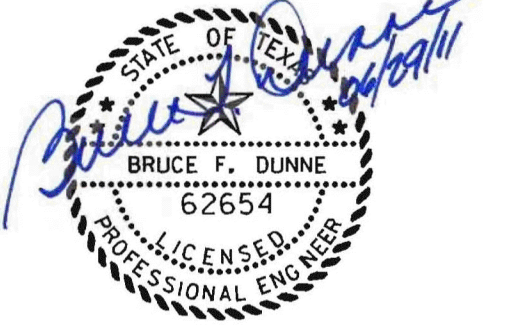
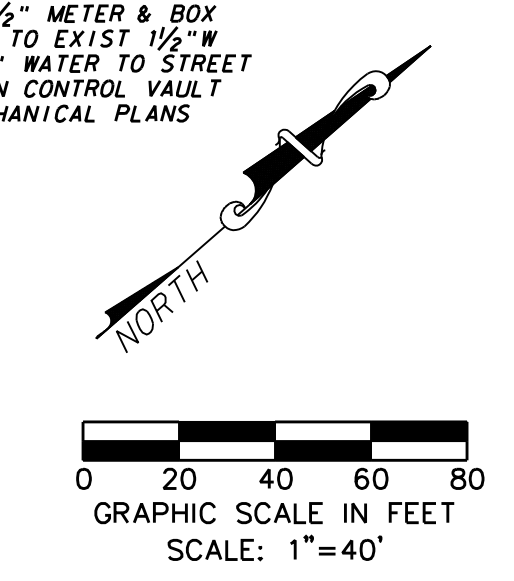
icon Consulting Engineers, Inc. Civil Engineers - Designers - Planners	250 W. Southlake Blvd., Suite 117 Southlake, Tx 76092 (817) 552-6210
PROJECT: 5029-01	DESIGN: ICE
DRAWN: ICE	DATE: APR 26, 2010
FILE: PW# 2009-04	SHEET: C402

WARNING

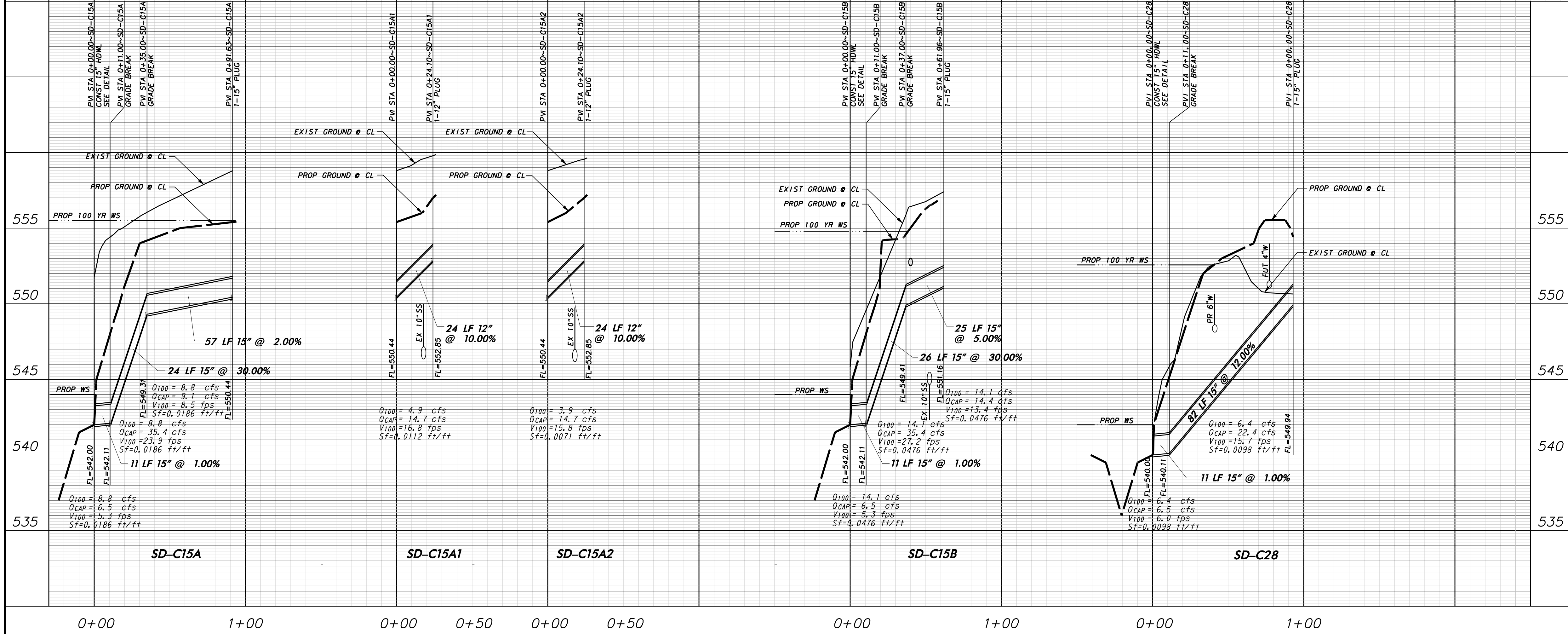
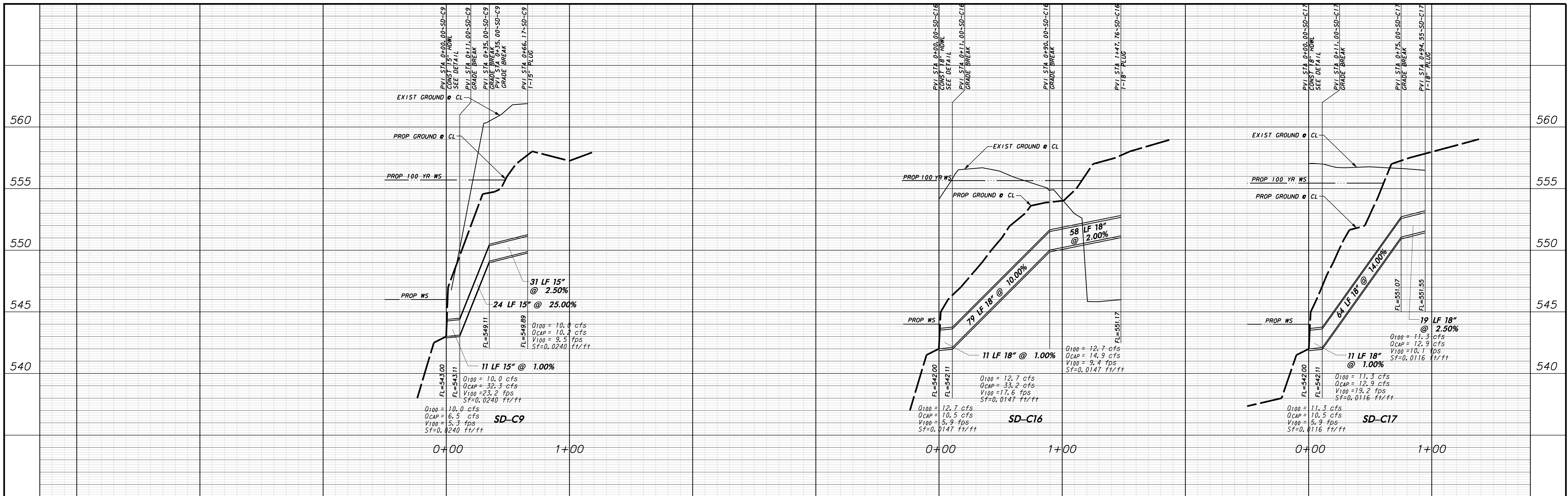
CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DEPICTING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.

BM #1 REF. ELEVATION = 559.47
 SQUARE CUT IN TOP OF CURB, SOUTH MEDIAN
 END NOSE, MARSH LANE
 1127' NORTH OF VITRUVIAN WAY.

BM #2 REF. ELEVATION = 547.84
 SQUARE CUT IN TOP OF CURB, NORTH MEDIAN
 END NOSE, AT INTERSECTION OF
 VITRUVIAN WAY AND MARSH LANE.



PARK AND STREETSCAPE IMPROVEMENTS - VITRUVIAN PARK



WARNING

CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DEPICTING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.

PROFILE SCALE:

SCALE: 1"=40' HORIZ

SCALE: 1"=4' VERT

NO.	REVISION	BY	DATE

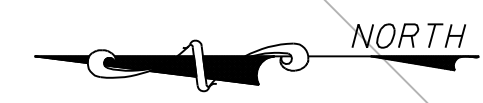
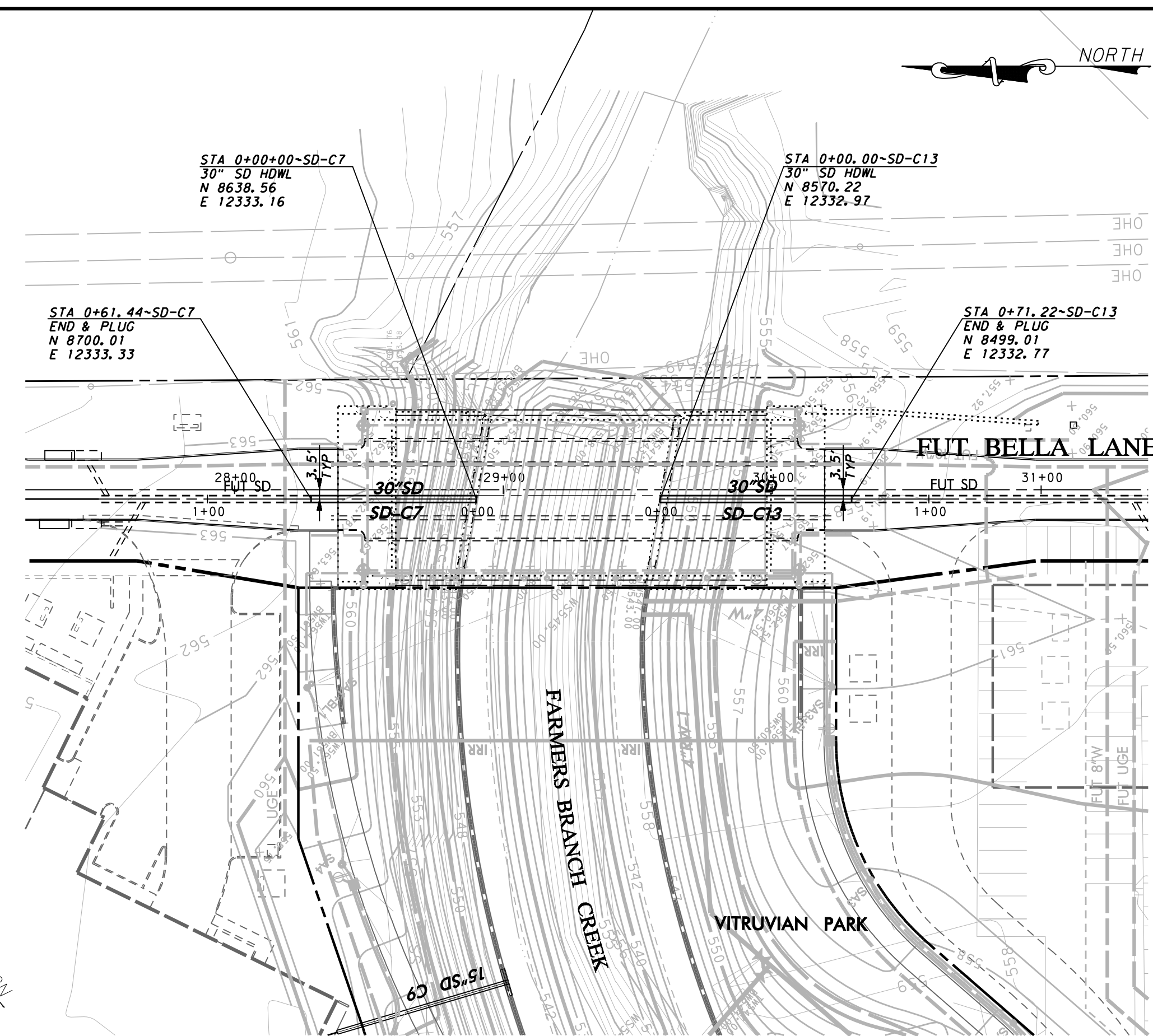
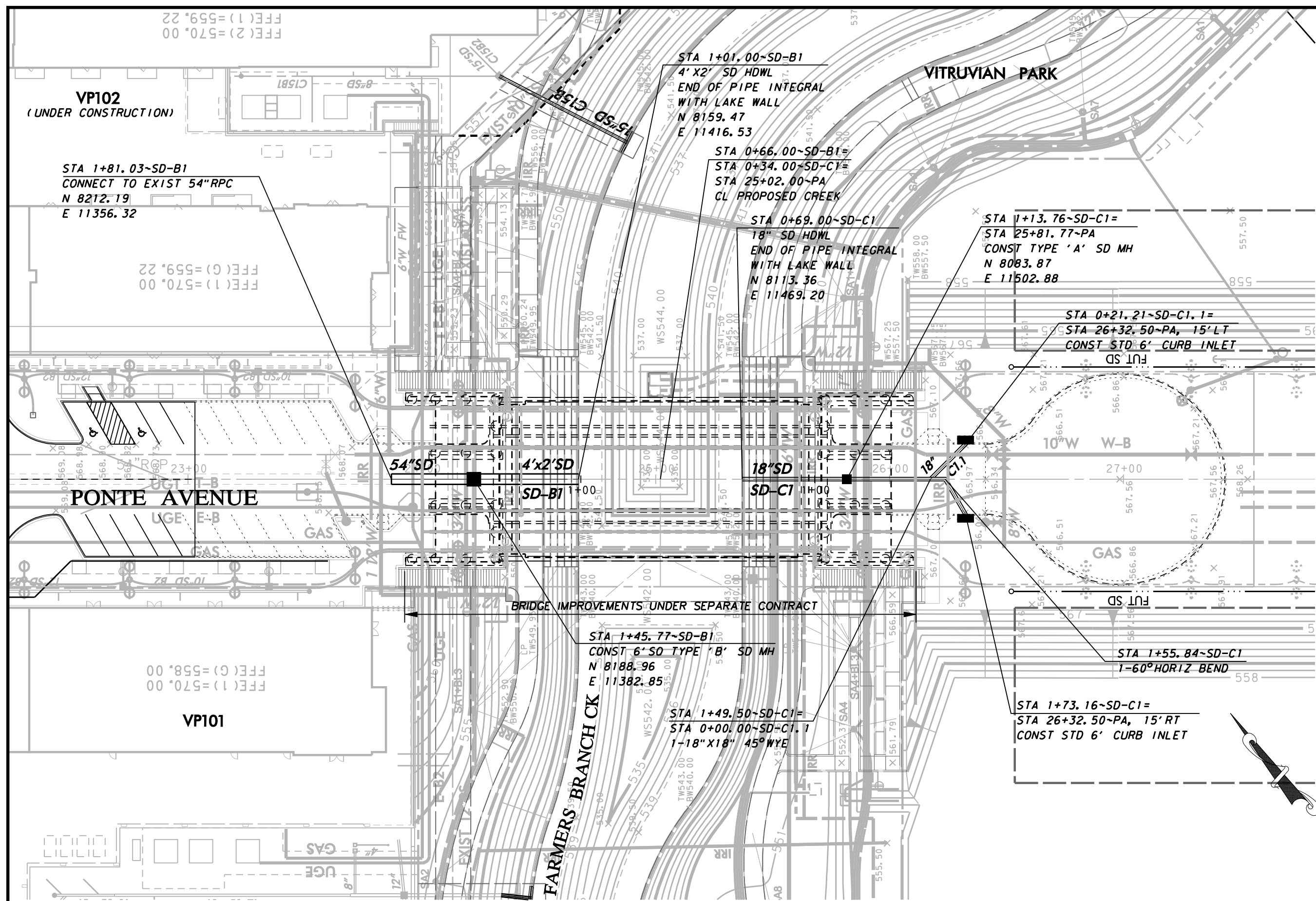
Addison! TOWN OF ADDISON
DALLAS COUNTY, TEXAS

PARK AND STREETSCAPE IMPROVEMENTS
VITRUVIAN PARK

STORM DRAIN PROFILES

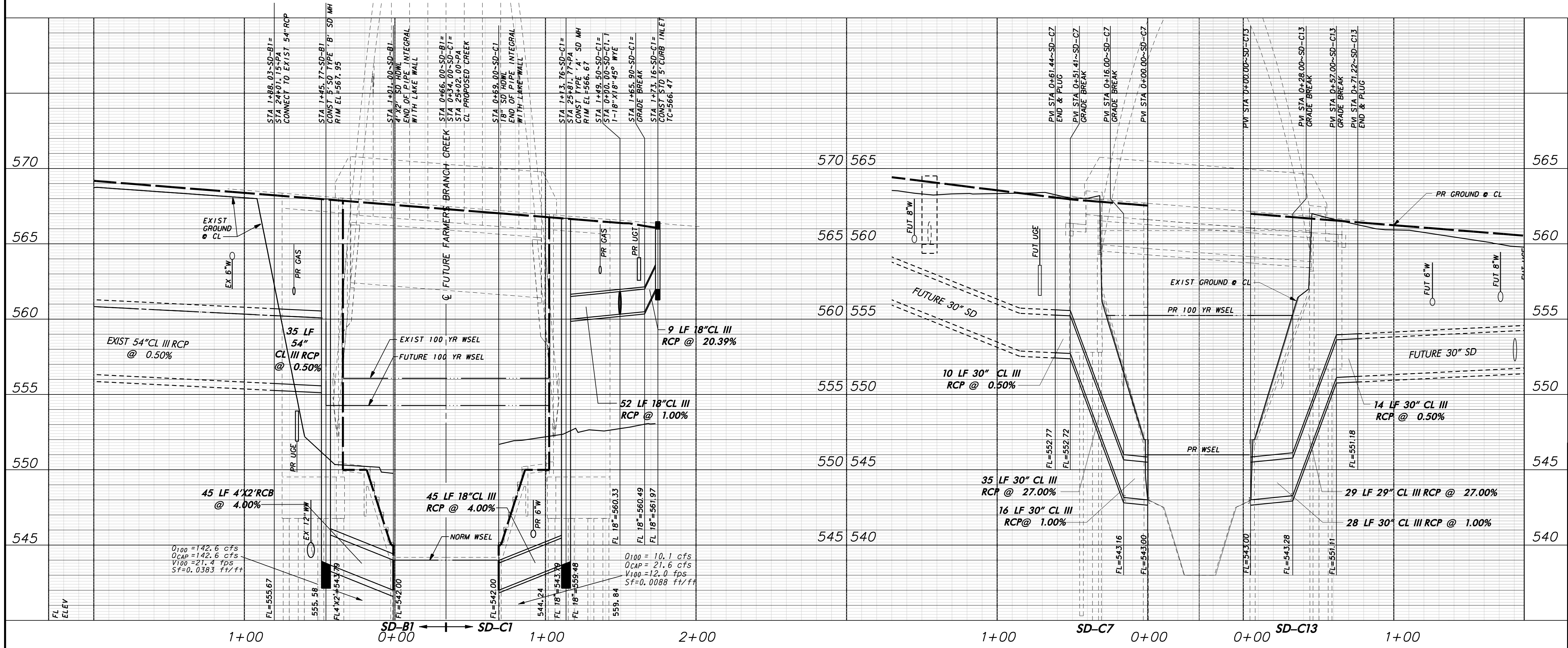
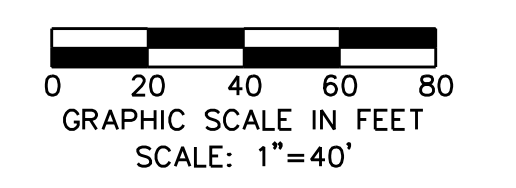
icon Consulting Engineers, Inc.		250 W. Southlake Blvd., Suite 117	
Civil Engineers - Designers - Planners		Southlake, Tx 76092 (817) 552-6210	
PROJECT	DESIGN	DRAWN	DATE
5029-01	ICE	ICE	APR 26, 2010
FILE	SHEET		
PW# 2009-04	C403		

PARK AND STREETSCAPE IMPROVEMENTS - VITRUVIAN PARK



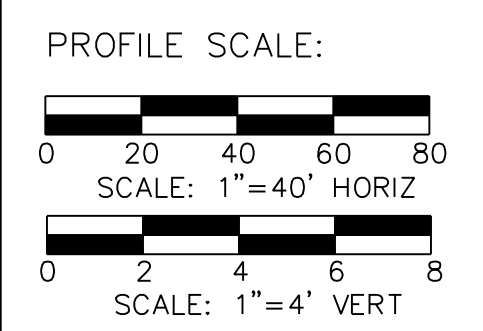
BM #1 REF. ELEVATION = 559.47
 SQUARE CUT IN TOP OF CURB, SOUTH MEDIAN
 END NOSE, MARSH LANE
 1127' NORTH OF VITRUVIAN WAY.

BM #2 REF. ELEVATION = 547.84
 SQUARE CUT IN TOP OF CURB, NORTH MEDIAN
 END NOSE, AT INTERSECTION OF
 VITRUVIAN WAY AND MARSH LANE.



WARNING

CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DETERMINING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.



NO.	REVISION	BY	DATE

Addison! TOWN OF ADDISON
 DALLAS COUNTY, TEXAS

PARK AND STREETSCAPE IMPROVEMENTS
 VITRUVIAN PARK

**STORM DRAIN PLAN & PROFILE-PA & BL
 LINES B1 & C1 AND C7 & C13**

icon Consulting Engineers, Inc. 250 W. Southlake Blvd., Suite 117
 Civil Engineers - Designers - Planners Southlake, Tx 76092 (817) 552-6210

PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
5029-01	ICE	ICE	APR 26, 2010	PW# 2009-04	C404

PARK AND STREETSCAPE IMPROVEMENTS - VITRUVIAN PARK