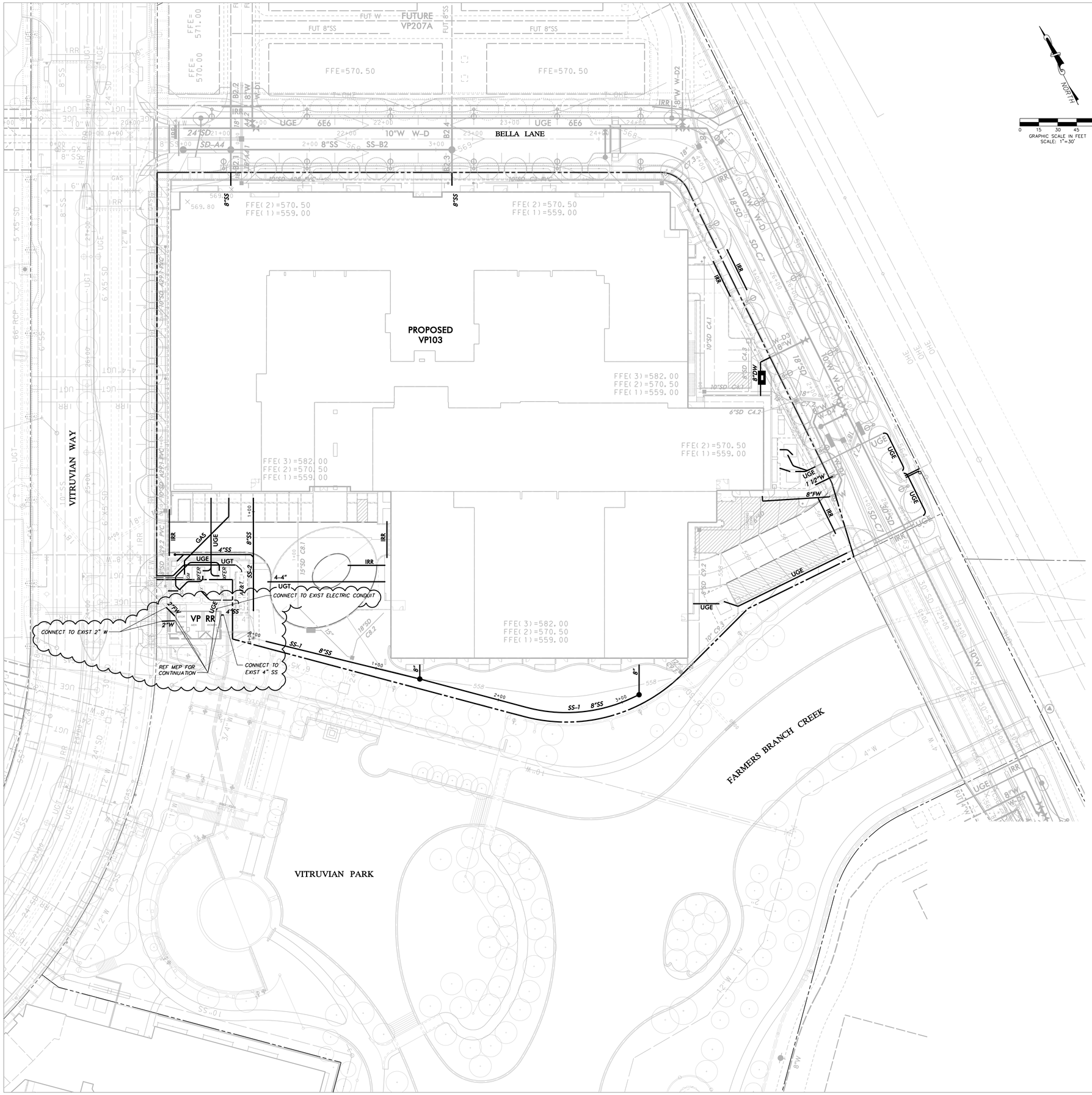

NORTH

0 15 30 45 60
GRAPHIC SCALE IN FEET
SCALE: 1"=30'

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.

UTILITY NOTES

1. **GENERAL CONSTRUCTION NOTES:** REFER TO SHEET C0-1.00 "GENERAL CONSTRUCTION NOTES, LEGEND AND ABBREVIATIONS" FOR THE GENERAL CONSTRUCTION NOTES FOR THE PROJECT.

2. **INSPECTION AND TESTING:** THE CONTRACTOR SHALL COORDINATE INSPECTION AND TESTING WITH THE APPROPRIATE GOVERNING AUTHORITIES PRIOR TO BACKFILLING TRENCHES FOR ALL UTILITIES.

3. **TRENCH COMPACTION:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING COMPACTION TO A MINIMUM OF 95% STANDARD PROCTOR IN AREAS OF PROPOSED AND FUTURE PAVEMENT AND ALL AREAS EXCAVATED AT THE BUILDING FOOTINGS FOR UTILITY SERVICE ENTRIES. TRENCHES WHICH LIE OUTSIDE THESE AREAS SHALL BE COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR.

4. **CONFLICTS:** 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 LINES AND STORM DRAIN OR SANITARY SEWER PIPING, THE CONTRACTOR SHALL ADJUST THE WATER LINE DOWNWARDS IN SUCH A MANNER SO THAT THE PIPE MANUFACTURER'S RECOMMENDATIONS ON THE PIPE DEFLECTIONS AND JOINT STRESS ARE NOT EXCEEDED.

5. **CONNECTION TO EXISTING UTILITIES:** THE CONTRACTOR SHALL VERIFY THE SIZE, TYPE, ELEVATION, CONFIGURATION, AND ANGULATION OF EXISTING WATER, SANITARY SEWER AND UTILITY LINES PRIOR TO CONSTRUCTION OF TIE-IN MATERIALS. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS TO EXISTING FACILITIES DAMAGED BY HIS ACTIVITIES.

6. **WATER METERS:** THE CONTRACTOR SHALL ACQUIRE BOTH DOMESTIC AND IRRIGATION METERS FROM THE GOVERNING AUTHORITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING METERS INSTALLED IN BOXES AND CONNECTING PUBLIC TO PRIVATE WATER LINES.

7. **PIPE COVER:** TOP OF ALL WATER LINES SHALL BE INSTALLED WITH A MINIMUM COVER OF 42".

8. **HORIZONTAL BLOCKING:** HORIZONTAL BLOCKING FOR WATER LINES HAS BEEN OMITTED FOR CLARITY, HOWEVER, BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES 'STANDARD DETAILS'.

9. **THRUST BLOCKING:** 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.

10. **ADDITIONAL BENDS:** 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 MAY PULL PIPE AS NEEDED AT THE BENDS WHERE THE DEFLECTION ANGLE OF THE PIPE DOES NOT MATCH THE ANGLE OF THE BEND PROVIDED THE PIPE DEFLECTION IS WITHIN TOLERABLE MANUFACTURES LIMITS. THE COST FOR ADDITIONAL BENDS AND BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

11. **POLYETHYLENE WRAP:** ALL VALVES, DUCTILE IRON AND CAST IRON PIPE, FITTINGS AND SPECIALS SHALL BE POLYETHYLENE WRAPPED.

12. **ADJUSTMENTS:** THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ALL MANHOLES, CLEANOUTS, VALVES, BOXES, VAULTS AND HYDRANTS TO FINAL GRADE. THE COST SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

13. **APPURTENANCES:** ALL VALVES AND OTHER APPURTENANCES ON ALL FIRE PROTECTION LINES SHALL BE UL/FM APPROVED. THE COST SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

14. **FIRE PROTECTION WORK:** ALL FIRE PROTECTION WORK MUST BE PERMITTED AND APPROVED BY THE GOVERNING AUTHORITIES FIRE DEPARTMENT. THE CONTRACTOR SHALL CONDUCT ALL REQUIRED PRESSURE TESTS ON THE FIRE PROTECTION LINES TO THE SATISFACTION OF THE FIRE MARSHALL FOR THE GOVERNING AUTHORITY AS WALL AS THE DEVELOPERS' INSURANCE CARRIER.

15. **SANITARY SEWER PIPE:** ALL SEWER PIPE SHALL BE SDR-35, IN ACCORDANCE WITH ASTM SPECIFICATIONS D-3034 FOR 4" THROUGH 15", AND ASTM F-879 FOR 15" THROUGH 27".

16. **WATER PIPE:** ALL WATER MAINS 4 INCH THROUGH 12 INCH SHALL BE C-900 (SDR - 18). WATER MAINS 14 INCH THROUGH 36 INCH SHALL BE C -905 (SDR - 18). WATER LINES LESS THAN 4" SHALL BE TYPE K COPPER.

17. **SANITARY SEWER MANHOLES:** ALL SEWER MANHOLES WITH PRESSURE TYPE FRAME AND COVERS SHALL HAVE THE INTERIOR SURFACE COATED WITH AN EPOXY COATING (RAVEN 405 OR APPROVED EQUAL), MINIMUM 40 MILS THICKNESS, INSTALLED PER MANUFACTURE'S SPECIFICATIONS.

CONDUIT AND SLEEVING NOTES

1. **GENERAL CONSTRUCTION NOTES:** REFER TO SHEET C0-1.00 "GENERAL CONSTRUCTION NOTES, LEGEND AND ABBREVIATIONS" FOR THE GENERAL CONSTRUCTION NOTES FOR THE PROJECT.

2. **PLACEMENT OF CONDUIT AND SLEEVES:** ALL UNDERGROUND CONDUIT AND SLEEVES ARE TO BE PLACED BEFORE SITE PAVING CONSTRUCTION COMMENCES AND SHALL BE BURIED A MINIMUM OF 24" BELOW THE BOTTOM OF PAVEMENT, EXCEPT ELECTRICAL CONDUIT WHICH REQUIRE A MINIMUM COVER OF 36". ALL CONDUIT AND SLEEVES SHALL EXTEND TWO (2) FEET BEYOND THE BACK OF CURB OR EDGE OF SIDEWALK. TURN CONDUIT UPWARD AND CAP EACH CONDUIT 6" ABOVE FINISH GRADE. THE CONTRACTOR SHALL FURNISH DETAILED AS-BUILT LOCATION INFORMATION FOR ALL CONDUIT AND SLEEVES TO THE DEVELOPER.

3. **TELEPHONE CONDUIT:** FURNISH AND INSTALL TWO (2) 4" DIAMETER SCHEDULE 40 PVC TELEPHONE CONDUIT WITH PULL LINES FROM THE SITE PROPERTY LINE TO 5' OUTSIDE THE BUILDING WALL AT THE TELEPHONE ROOM IN THE BUILDING. CONDUIT SHALL BE CAPPED AT BOTH ENDS. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL TELEPHONE COMPANY TO VERIFY THE EXACT LOCATION OF TO BE INSTALLED FOR THEIR USE. MARK LOCATIONS OF CONDUIT WITH #3 X 36" REBAR INSTALLED 2' INTO THE GROUND AT EACH END LOCATION.

4. **ELECTRIC AND GAS CONDUIT:** THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL ELECTRIC AND GAS PROVIDER TO VERIFY THE EXACT SIZE, TYPE, NUMBER AND LOCATION OF CONDUIT AND/OR SLEEVING REQUIRED TO BE PROVIDED BY THE CONTRACTOR FOR GAS AND ELECTRIC FACILITIES TO SERVE THIS SITE. MARK LOCATIONS OF CONDUIT WITH #3 X 36" REBAR INSTALLED 2' INTO THE GROUND AT EACH END LOCATION.

5. **SITE LIGHTING CONDUIT:** REFERENCE MEP PLANS FOR SITE LIGHTING AND ALL RELATED CONDUIT, WIRING PULL BOXES, POLE BASES AND ASSOCIATED ELECTRICAL WORK TO BE COORDINATED AND/OR PROVIDED FOR BY THE CONTRACTOR PRIOR TO PAVING OPERATIONS.

6. **IRRIGATION CONDUIT:** ALL IRRIGATION CONDUIT AND SLEEVES SHALL BE SCHEDULE 40 PVC, INSTALLED WITH A MINIMUM OF 24" COVER. REFERENCE THE PAVING PLAN AND/OR LANDSCAPE PLANS FOR NUMBER OF CONDUIT, SIZE AND LOCATIONS OF PROPOSED IRRIGATION CONDUITS AND SLEEVES.

7. **PULL WIRES:** ALL UNDERGROUND CONDUIT AND SLEEVES SHALL BE INSTALLED WITH PULL LINES.

8. **CONFLICTS:** IN THE EVENT OF A CONFLICT BETWEEN CONDUIT AND STORM DRAIN AND/OR UTILITY PIPING, THE CONTRACTOR SHALL ADJUST CONDUIT DOWNWARD FOR CLEARANCE.

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UDR

VITRUVIAN PARK RESTROOM
VITRUVIAN WAY
ADDISON, TX 75001

No.	Date	Item

REVISIONS

ICE
Drawn
JAM
Checked
BFD
Approved

STATE OF TEXAS
BRUCE F. DUNNE
62654
LICENSED
PROFESSIONAL ENGINEER

UTILITY PLAN

Project No.	10061.10
Date	06.28.12
Last Revision	

C5.01