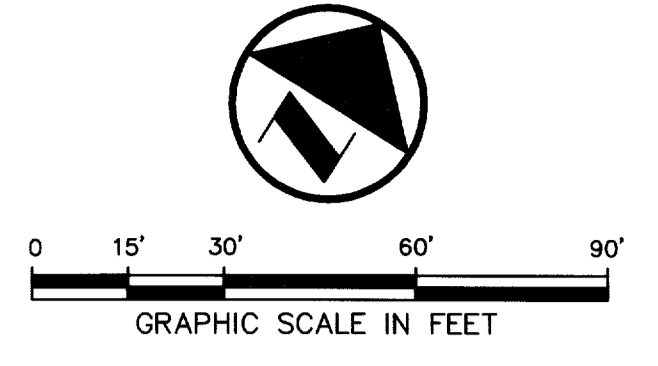


**BENCH MARK LIST:**  
 BM #1 ALUMINUM DISK SET IN CONCRETE STAMPED "ARP 2 ADS",  
 LOCATED ON THE ADDISON AIRPORT, APPROXIMATELY 400'  
 EAST OF THE CONTROL TOWER  
 ELEV=570.88

**MIDWAY PARK NORTH II**  
 (VOL. 83035, PG. 1180)  
 LOT 1



**LEGEND**

- B. BOLLARD
- EM ⊙ ELECTRIC METER
- PP ⊙ POWER POLE
- LS ⊙ LIGHT STANDARD
- WM ⊙ WATER METER
- WV ⊙ WATER VALVE
- ICV ⊙ IRRIGATION CONTROL VALVE
- FH ⊙ FIRE HYDRANT
- CO ⊙ CLEANOUT
- MH ⊙ MANHOLE
- GM ⊙ GAS METER
- TSC ⊙ TRAFFIC SIGNAL CONTROL
- TSP ⊙ TRAFFIC SIGNAL POLE
- TELE ⊙ TELEPHONE BOX
- TV ⊙ TV BOX
- FP ⊙ FLAG POLE
- SIGN ⊙ TRAFFIC SIGN
- PROPERTY LINE
- - - FENCE

**WATER AND SANITARY SEWER GENERAL NOTES**

1. UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL BE CLASS "A", (3000 PSI).
2. ALL WATER MAINS SHALL BE PVC C909, DR 18, CLASS 150.
3. WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
4. ALL WATER MAINS UNLESS OTHERWISE NOTED SHALL HAVE A MINIMUM COVER OF 48" BELOW FINISHED GRADE.
5. SANITARY SEWER PIPE SHALL BE PVC SDR-35.
6. WHEN WATER MAINS AND SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES SHALL APPLY:
  - (A) WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING ASTM SPECIFICATIONS WITH A PRESSURE RATING FOR BOTH THE PIPE AND JOINTS OF 150 PSI. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.
  - (B) WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, AN ABSOLUTE MINIMUM DISTANCE OF SIX INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED. IN ADDITION, THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.
  - (C) WHERE A SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE OR CONCRETE PIPE WITH GASKETED JOINTS, A MINIMUM TWO FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. IN ADDITION, THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.
  - (D) WHERE A SEWER CROSSES OVER A WATERLINE ALL PORTIONS OF THE SEWER WITHIN NINE FEET OF THE WATERLINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC PIPE WITH A PRESSURE RATING OF AT LEAST 150 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE, THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE FEET INTERVALS WITH SPACERS OR BE FILLED TO THE SPRING LINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.
  - (E) THE SEWER NEED NOT BE DISTURBED WHERE A NEW WATERLINE IS TO BE INSTALLED PARALLEL TO AN EXISTING SEWER THAT SHOWS NO EVIDENCE OF LEAKAGE AND THE WATERLINE IS INSTALLED ABOVE THE SEWER A MINIMUM OF TWO FEET VERTICALLY AND FOUR FEET HORIZONTALLY. SHOULD EXCAVATION FOR THE WATERLINE PRODUCE EVIDENCE THAT THE SEWER IS LEAKING, THE SEWER MUST BE REPAIRED OR REPLACED AS DESCRIBED IN SUBPARAGRAPHS (A) OR (D) OF THIS PARAGRAPH.
  - (F) THE SEWER NEED NOT BE DISTURBED WHERE A NEW WATERLINE IS TO CROSS OVER (BY TWO FEET OR MORE) EXISTING SEWER SHOWING NO EVIDENCE OF LEAKAGE. SHOULD EXCAVATION FOR THE WATERLINE PRODUCE EVIDENCE THAT THE SEWER IS LEAKING, THEN THE SEWER MUST BE REPAIRED OR REPLACED AS DESCRIBED IN SUBSECTION (C) OR (D).
7. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
8. CONTRACTOR SHALL TIE A 1" WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AN SHALL LEAVE A MINIMUM OF 36" OF FLAGGING EXPOSED AFTER CURB AND PAVING IS COMPLETED. CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OF ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
9. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
10. THE UTILITY CONTRACTOR SHALL INSTALL THE WATER SERVICES TO A POINT TWO (2') FEET BACK OF THE CURB LINE AT A DEPTH OF 12" INCHES. THE METER BOX SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AFTER THE PAVING CONTRACTOR HAS COMPLETED THE FINE GRADING BEHIND THE BACK OF THE CURB. EACH SERVICE LOCATION WILL BE MARKED ON THE CURB, WITH A BLUE LETTER "W" BY THE UTILITY CONTRACTOR AND TIED TO PROPERTY CORNERS ON THE "RECORD DRAWINGS".
11. ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS.
12. UTILITY TRENCHES SHALL BE BACKFILLED WITH MATERIAL MEETING NCTCOG ITEM 6.2.10 AND MECHANICALLY COMPACTED IN 8" LIFTS TO THE TOP OF THE SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
13. VALVE BOXES SHALL BE FURNISHED AND SET ON EACH GATE VALVE. AFTER THE FINAL CLEAN-UP AND ALIGNMENT HAS BEEN COMPLETED, THE CONTRACTOR (UTILITY) SHALL POUR A CONCRETE BLOCK 24"x24"x6" AROUND ALL VALVE BOXES TOPS SO THE FINISHED GRADE IS LEVEL WITH THE FINISHED GRADE.
14. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTORS EXPENSE.
15. USE RESTRAINING GLANDS ON ALL M.J. FITTINGS @ 90°, 45°, AND F.H. LEADS (MEGA LUG OR APPROVED EQUAL).
16. "GRADE-LOK" ON HYDRANT LEADS IS OPTIONAL.
17. ADJUST ALL EXISTING VALVES, MANHOLES, AND FIRE HYDRANTS TO FINISH GRADE.
18. WHERE SANITARY SEWER CONNECTS TO EXISTING MANHOLE - CORE AND SEAL MANHOLE WALL.

**RECORD DRAWING**  
 THIS DRAWING HAS BEEN REVISED TO REFLECT CONSTRUCTION RECORDS MAINTAINED AND PROVIDED BY THE CONTRACTOR FOR THIS PROJECT.  
 CONTRACTOR: PHOENIX COMMERCIAL INC.  
 DATE REVISED: 11/18/2002

INSTALL IN VAULT:  
 1-6"x2" TEE  
 1-2" WM (RRR)  
 1-6"x3" TEE  
 3-3" VALVE  
 1-3" METER  
 1-3" DOUBLE CHECK ASSEMBLY  
 2-6" VALVE (EXISTING)  
 1-6" DET. CHK. (EXISTING)

15800 MIDWAY ROAD Ltd.  
 (VOL. 83174, PG. 4832)

NO.	DATE	REVISION
1	11/18/2002	RECORD DRAWING

**Pacheco Koch Consulting Engineers**  
 9401 LBJ FREEWAY SUITE 300 DALLAS, TEXAS 75243 972.235.3031

**WATER & SANITARY SEWER PLAN**  
 NJ MALIN EXPANSION  
 MIDWAY ROAD  
 ADDISON, TEXAS  
 CITY OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CJE	JLM	JULY 03, 2001	1"=30'			<b>C5.0</b>



M:\DWG-25\2500-01.074\C5.0 WATER & SANITARY SEWER PLAN.DWG