APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING SAFETY DEPARTMENT AND FIRE CODE APPROVAL FOR BUILDING PERMIT

3. ALL SIGNS MUST COMPLY WITH THE REQUIREMENTS OF THE SIGN ORDINANCE AND ZONING ORDINANCE, AND OTHER APPLICABLE

4. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST OF RELOCATION OR DAMAGE

5. PARKING WILL CONFORM TO THE FOLLOWING TOWN OF ADDISON STANDARDS:

90° PARKING

STANDARD:

8.5' x 17' HANDICAP: 15' x 17.0'

6. ALL BEARINGS, DISTANCES AND EASEMENTS SHALL MATCH THOSE ON THE SUBDIVISION PLAT.

FIRE PREVENTION

- THE ADDISON FIRE DEPARTMENT REQUIRES ASPHALT OR CONCRETE PAVEMENT PRIOR TO CONSTRUCTION AS AN "ALL WEATHER DRIVING
- 2. HYDRANTS MUST BE INSTALLED WITH THE CENTER OF THE 4 1/2-INCH OPENING AT LEAST EIGHTEEN (18) INCHES ABOVE FINISHED GRADE. THE 4 1/2-INCH OPENING MUST FACE THE DRIVEWAY OR STREET WITH A 3'-6" FOOT SETBACK FROM CURBLINE(S). NO OBSTRUCTION IS ALLOWED WITHIN THREE (3) FEET OF ANY HYDRANT AND THE 4 1/2-INCH OPENING MUST BE TOTALLY UNOBSTRUCTED FROM THE STREET.
- TIMING OF INSTALLATION: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE DEVELOPER, SUCH FACILITIES INCLUDE ALL SURFACE ACCESS ROADS WHICH SHALL BE INSTALLED AND MADE SERVICABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. WHERE ALTERNATE METHODS OF PROTECTION ARE PROVIDED, AS APPROVED BY THE CITY COUNCIL, THE ABOVE MAY BE MODIFIED OR
- 4. ALL PERVIOUS/DECORATIVE PAVING SHALL BE ENGINEERED AND INSTALLED FOR 80,000 LB. LIVE VEHICLE LOADS. ANY PERVIOUS/DECORATIVE PAVING WITHIN 100' OF ANY BUILDING MUST BE APPROVED BY THE FIRE DEPARTMENT.
- COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN FIVE (5) FEET OF OPENINGS, COMBUSTIBLE WALLS, OR COMBUSTIBLE EAVE LINES.
- 6. FIRE LANES DESIGNATED ON SITE PLAN SHALL BE REGISTERED WITH THE CITY OF ADDISON FIRE MARSHAL'S OFFICE AND INSPECTED FOR FINAL

PRIOR TO BUILDING PERMIT APPROVAL, THE FOLLOWING LANDSCAPE REQUIREMENTS MUST BE MET: A. NOTE METHOD OF IRRIGATION FOR REQUIRED LANDSCAPE AREAS. CERTIFY THAT PLANS SATISFY ORDINANCE REQUIREMENTS. C. NOTE METHOD OF PROTECTING EXISTING TREES FROM

CONSTRUCTION DAMAGE GENERAL NOTES

- A. PRIOR TO FINAL ACCEPTANCE BY THE TOWN OF ADDISON.
- 1. A TEXAS REGISTERED PROFESSIONAL ENGINEER SHALL CERTIFY THAT THE PROJECT WAS CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE TOWN OF ADDISON.
- 2. THE OWNER SHALL PROVIDE 1 REPRODUCIBLE SET OF AS-BUILTS (SEALED AND CERTIFIED BY A TEXAS REGISTERED ENGINEER) AND 2 BLUELINE SETS.
- 3. A FIVE FOOT SIDE WALK SHALL BE INSTALLED ALONG BENT TREE PLAZA PARKWAY. SEE ATTACHED DETAIL.
- 4. A ONE YEAR 10% MAINTENANCE BOND IS REQUIRED FOR THE INTERNAL SUBDIVISION INFRASTRUCTURE.
- 5. CONTRACTOR SHALL DEMONSTRATE THAT THE WATER AND SANITARY SEWER SYSTEMS MEET THE PROPER PRESSURE, BACTERIA, AND MANDREL TESTS, IN ADDITION, THE OWNER SHALL PROVIDE A VHS FORMAT VIDEO TAPE OF THE SANITARY SEWER.
- B. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES TO LOCATED EXISTING FACILITIES. THESE INCLUDE BUT MAY NOT BE LIMITED TO THE FOLLOWING:
- 1. TOWN OF ADDISON
- 2. LONE STAR GAS 3. SOUTHWESTERN BELL
- 4. STORER CABLE 5. PLANNED CABLE SYSTEMS
- 6. TU ELECTRIC
- C. PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONVEY A PRE-CONSTRUCTION CONFERENCE BETWEEN THE TOWN OF ADDISON, CONSULTING ENGINEER, CONTRACTOR(S), UTILITY COMPANIES AND ANY OTHER AFFECTED PARTIES. NOTIFY BRUCE ELIS AT 450-2847 AT LEAST' 48-HOUR PRIOR TO BEGINNING OF CONSTRUCTION.
- D. ANY EXISTING PAVEMENT, CURBS AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
- E. LOT PINS SHALL BE INSTALLED AFTER CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE. CONCRETE MONUMENTS SHALL BE PLACED AS SHOWN ON THE FINAL PLAT AND IRON PINS SHALL BE PLACED AT BLOCK CORNERS, CURVE POINTS AND ANGLE POINTS IN PUBLIC RIGHT-OF-WAY. CONCRETE MONUMENTS SHALL BE SIX (6) INCHES IN DIAMETER AND TWENTY-FOUR (24) INCHES LONG. AN IRON ROD ONE-HALF INCH IN DIAMETER EMBEDDED AT LEAST THREE (3) INCHES IN THE MONUMENT AT THE EXACT INTERSECTION POINT OF THE MONUMENT. THE MONUMENTS SHALL BE SET AT SUCH AN ELEVATION THAT AFTER CONSTRUCTION THE TOP OF THE MONUMENT WILL BE NOT LESS THAN TWELVE (12) INCHES BELOW THE GROUND SURFACE.
- F. THE CONTRACTOR SHALL STAMP A 2-INCH "S" AND 2-INCH "W" IN THE CURB AT THE LOCATION OF THE SEWER SERVICE AND WATER SERVICE LINES, RESPECTFULLY.
- G. AN INTERSECTIONS THAT HAVE VALLEY DRAINAGE, THE CROWN OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
- H. TEMPORARY OR PERMANENT STREET BARRICADES SHALL REMAIN AT ALL POINTS OF INGRESS AND EGRESS TO PREVENT PUBLIC USE UNTIL SUCH STREET RECEIVED FINAL
- I. CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT BY THE TOWN OF ADDISON FOR WORKING WITHIN THE PUBLIC RIGHT-OF-WAY.
- J. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE A QUALIFIED GEOTECHNICAL LAB TO PERFORM MATERIALS TESTING DURING THE CONSTRUCTION, AT THE REQUEST OF THE TOWN OF ADDISON.
- K. THE CONTRACTOR SHALL SUBMIT MATERIAL SHEETS TO THE TOWN OF ADDISON FOR APPROVAL PRIOR TO INCORPORATING MATERIALS INTO THE JOB.
- L. THE UTILITY CONTRACTOR SHALL SUBMIT TO THE TOWN OF ADDISON FOR APPROVAL A TRENCH SAFETY PLAN SEALED BY A REGISTERED PROFESSIONAL ENGINEER FOR THE INSTALLATION OF UTILITIES GREATER THAN FIVE (5) FEET IN DEPTH.

GENERAL CONSTRUCTION NOTES:

- CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET
- ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION. COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING
- 3. TEMPORARY EROSION/SEDIMENTATION CONTROL AND TREE/NATURAL AREA PROTECTION MEASURES:
 - THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, GRADING OR EXCAVATION)
 - ANY SIGNIFICANT VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THAT WHICH IS SHOWN ON THE APPROVED PLANS MUST BE APPROVED BY THE PLANNING SPECIALIST OR ARBORIST, AS APPROPRIATE.
 - THE CONTRACTOR IS TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER EVERY SIGNIFICANT RAINFALL TO INSURE THAT THEY HAVE NOT BEEN SUBSTANTIALLY DISTURBED. THE PERSON(S) OR FIRM(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL BE IMMEDIATELY DIRECTED TO MAKE ANY NECESSARY REPAIRS.
 - ANY SEDIMENT BUILD-UP OCCURRING AFTER A SIGNIFICANT RAIN SHALL BE REMOVED AND PLACED IN THE DESIGNATED SPOIL
- 4. OFF-SITE DISPOSAL: THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT PROPER NOTIFICATION AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE REMOVAL. THIS NOTIFICATION SHALL INCLUDE THE DISPOSAL LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE
- 5. SEEDING FOR PERMANENT EROSION CONTROL SHALL BE PERFORMED ON ALL DISTURBED AREAS AS FOLLOWS:
- ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.
- A MINIMUM OF 4" OF TOPSOIL SHALL BE PLACED IN ALL DRAINAGE CHANNELS (EXCEPT ROCK) AND BETWEEN THE CURB AND
- THE CONTRACTOR SHALL HYDROMULCH OR SOD ALL EXPOSED CUTS AND FILLS UPON COMPLETION OF CONSTRUCTION EXCEPT WHERE CUTS ARE MADE IN SOLID ROCK.
- THE SEEDING FOR EROSION CONTROL SHALL BE APPLIED OVER AREAS DISTURBED BY CONSTRUCTION AS FOLLOWS:
 - FROM OCTOBER 2 TO APRIL 30, SEEDING SHALL BE WITH WINTER RYE AT A RATE OF 6 POUNDS PER 1,000 SQUARE FEET OF HULLED WINTER RYE WITH A PURITY OF 98% WITH 90% GERMINATION. FROM APRIL 30 TO OCTOBER 1, SEEDING SHALL BE WITH HULLED
- BERMUDA GRASS (CYNODEN DACTOLYN) AT A RATE OF 4 POUNDS PER 1,000 SQUARE FEET WITH A PURITY OF 98% WITH 85% GERMINATION.
- FERTILIZER SHALL HAVE AN ANALYSIS OF 31-3-10 AND SHALL BE APPLIED AT THE RATE OF 140 POUNDS PER ACRE.
- THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX (6) INCHES. THE IRRIGATION SHALL OCCUR AT 10-DAY INTERVALS DURING THE FIRST TWO MONTHS. RAINFALL OCCURRENCES OF 1/2 INCH OR GREATER SHALL POSTPONE THE WATER SCHEDULE ONE WEEK.
- MULCH TYPE USED SHALL BE WOOD CELLULOSE FIBER MULCH, APPLIED AT A RATE OF 75 POUNDS PER 1,000 SQUARE FEET.
- RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1-1/2" HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN SIXTEEN (16) SQUARE FEET EXIST.
- 6. THE NAME AND PHONE NUMBER OF THE DESIGNATED REPRESENTATIVE FOR THE OWNER/ENGINEER WHO WILL HAVE THE AUTHORITY TO MAKE APPROPRIATE CHANGES TO THE SEDIMENTATION/EROSION CONTROL PLAN, IF IT IS DISCOVERED TO BE INADEQUATE:

BURY & PITTMAN D.F.W., INC. ENGINEER

214-991-0011 PHONE NUMBER

7. THE IDENTITY OF THE PERSON OR FIRM WHO WILL BE RESPONSIBLE FOR THE MAINTENANCE OF EACH SEDIMENTATION/EROSION CONTROL SCHEME BEING USED ON THE PROJECT:

CONSTRUCTION MANAGEMENT CORP.

214-702-7585 PHONE NUMBER

- 8. SEQUENCE OF CONSTRUCTION:
 - A. INSTALL EROSION CONTROLS AS INDICATED ON APPROVED SITE B. INSTALL TREE PROTECTION.
 - C. EVALUATION OF TEMPORARY EROSION CONTROL INSTALLATION. REVIEW CONSTRUCTION SCHEDULE WITH THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION CONTROL PLAN.
 - BEGIN SITE CLEARING. ROUGH GRADE SITE. INSPECT AND MAINTAIN ALL
 - CONTROLS AS PER GENERAL NOTES. CONSTRUCT SITE UTILITIES.
 - MID-CONSTRUCTION ON-SITE MEETING TO COORDINATE CHANGES IN CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF EROSION CONTROL PLAN. IDENTIFY ANTICIPATED COMPLETION DATE AND COORDINATE FINAL CONSTRUCTION SEQUENCE AND INSPECTION SCHEDULE.
- H. CONSTRUCT PAVING, PARKING AND BUILDINGS.
- I. COMPLETE CONSTRUCTION AND INSTALL LANDSCAPING.
- RECEIVE OPERATING PERMIT AND CITY CLEARANCE FOR
- OCCUPANCY. M. REMOVE TEMPORARY EROSION/SEDIMENTATION CONTROLS.
- ENGINEER'S NAME, ADDRESS AND TELEPHONE NUMBER:
 - BURY & PITTMAN D.F.W., INC. 5310 HARVEST HILL ROAD SUITE 100 DALLAS, TEXAS 75230

214-991-0011

- 10. ANY TEMPORARY SPOILS STOCKPILE MUST BE LOCATED WITHIN THE PROPOSED PARKING AREAS OUTSIDE OF ANY TREE DRIPLINES. ALL EXCESS MATERIAL WILL BE DISPOSED OF OFF SITE. CONTRACTOR SHALL NOT DISPOSE OF SURPLUS MATERIAL FROM THE SITE WITHOUT NOTIFYING THE INSPECTOR 48 HOURS PRIOR TO THE REMOVAL. THIS NOTIFICATION SHALL INCLUDE THE DISPOSAL LOCATION.
- 11. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF ANY AND ALL EXISTING BUILDINGS/STRUCTURES ON SITE AND UTILITY RELOCATION
- 12. PROVIDE CURB AND GUTTER THROUGHOUT THE SITE EXCEPT AS NOTED ON
- 13. ALL STORM SEWER PIPE SHALL BE CLASS III RCP OR SMOOTH-RIB (SPIRAL RIB) CORRUGATED METAL PIPE WITH REINFORCEMENT STRIPS OR SMOOTH LINED CORRUGATED POLY-ETHYLENE (HANCOR HI-Q) PIPE OR APPROVED EQUIVALANT.

EXCEPT AS NOTED OTHERWISE:

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "STANDARD SPECIFICATION FOR PUBLIC WORKS
- 2. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED AND
- 3. ALL DEBRIS AND EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE IN A MANNER NOT TO DAMAGE PRIOR TO ACCEPTANCE OF THE
- 4. ALL FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACING AND COMPACTING. THE PLASTICITY INDEX MUST BE
- 5. ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT.
- 6. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 40.
- 7. LAP ALL BAR SPLICES 24 BAR DIAMETERS OR 24 INCHES.
- 8. CONCRETE RIP RAP TO BE 4 1/2" THICK CONCRETE WITH #3's @ 12"
- 10. PROVIDE A MINIMUM CLEARANCE OF 2" BETWEEN OUTSIDE OF STEEL AND FACE OF CONCRETE.

9. PROVIDE CONCRETE EXPANSION JOINTS AT 40 FEET O.C. ON ALL RIP

11. ALL CONCRETE WORK SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF ACI 301-72.

12. ALL EXPOSED CORNERS FOR CONCRETE WORK SHALL BE CHAMFERED 1".

- 13. THE INFORMATION CONTAINED ON THESE DRAWINGS IN REGARDS TO EXISTING UTILITIES, TOPOGRAPHY, CONTOURS, HYDROGRAPHY, OR SUBSURFACE CONDITIONS IS FURNISHED SOLELY AS THE BEST INFORMATION AVAILABLE AT THIS TIME. ITS ACCURACY IS NOT GUARANTEED AND ITS USE IN NO WAY RELIEVES THE CONTRACTOR OF ANY RESPONSIBILITY FOR LOSSES DUE TO ANY INACCURACIES.
- 14. ALL REQUIRED RELOCATIONS OR ALTERATIONS OF TELEPHONE POLES, UNDERGROUND CONDUIT, POWER POLES, AND ANY OTHER FACILITIES SHALL BE DONE BY THIS CONTRACTOR. THIS CONTRACTOR SHALL SCHEDULE AND COORDINATE HIS WORK WITH THAT OF OTHER CONTRACTORS AND UTILITY COMPANIES SO AS NOT TO DELAY THE
- 15. THE STANDARD CONSTRUCTION SPECIFICATIONS OF THE GOVERNING AGENCY PUBLIC WORKS DEPARTMENT SHALL GOVERN MATERIALS AND METHODS USED TO DO THIS WORK. ANY REVISIONS MADE AFTER BIDDING WILL NOT APPLY UNLESS A CHANGE ORDER IS SECURED IN WRITING.
- 16. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES FOR EXISTING UTILITY LOCATIONS, AND VERIFY ALIGNMENT AND GRADE. PRIOR TO CONSTRUCTION. ANY DESCREPENCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO BEGINING CONSTRUCTION.
- 17. ALL TRASH COLLECTION FOR THIS SITE WILL BE PERFORMED BY PRIVATE CONTRACTOR.

WATER AND WASTEWATER UTILITY CONSTRUCTION NOTES

- 1. THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL GOVERN MATERIAL AND METHODS USED TO DO THIS WORK.
- 2. CONTRACTOR MUST OBTAIN A STREET CUT PERMIT FROM ENGINEERING DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.
- AT LEAST FORTY-EIGHT (48) HOURS BEFORE BEGINNING ANY WATER AND WASTEWATER CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY THE TOWN OF ADDISON ENGINEERING DIVISION FOR MAIN LINE CONSTRUCTION OR WATER AND WASTEWATER UTILITY TAPS INSPECTION FOR TAPS ONLY CONSTRUCTION
- 4. THE CONTRACTOR SHALL CONTACT THE ADDISON AREA UTILITY COMPANIES 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.
- 5. CONTRACT DOCUMENTS MUST INCLUDE A TRENCH SAFETY PLAN AND A PAY ITEM FOR TRENCH SAFETY MEASURES, IN COMPLIANCE WITH TEXAS HOUSE BILL 1569.
- 6. ALL MATERIALS TESTS, INCLUDING SOIL DENSITY TESTS AND RELATED SOIL ANALYSIS, SHALL BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY FUNDED BY THE
- 7. THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION.
- 8. FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY STANDARD SPECIFICATION.
- WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION.

NOTES:

- ALL FIRE LINE PIPE SHALL BE C900 PVC CLASS 200 (D.R. 14) OR CLASS 50 D.I. PIPE. ALL DOMESTIC WATER PIPE SHALL BE SCH. 40 PVC.
- 2. FIRE SPRINKLER SYSTEM UNDERGROUND PIPING SHALL BE PERMITTED THROUGH FIRE PREVENTION BY A LICENSED CONTRACTOR.
- 3. ALL WASTEWATER PIPE SHALL BE SDR 35 PVC., OR PRESSURE RATED PIPE WHERE REQUIRED.
- ALL PRIVATE WATER AND WASTEWATER LINES WILL COMPLY WITH THE UNIFORM PLUMBING CODE.

4. STAMP FIRE SPRINKLER PADS "F.D." OR PAINT PAD RED.

LINE TAPS TO THE CITY MAIN

- 6. ALL PRIVATE FIRE SPRINKLER LINES WILL COMPLY WITH NFPA-24 REQUIREMENTS.
- 7. THE TOP OF PROPOSED MANHOLES SHALL MATCH THE FINISHED GRADE ELEVATIONS AND TWO FEET ABOVE 100 YEAR WATER SURFACE ELEVATION.
- 8. SEE MECHANICAL FOR EXACT LOCATION OF WATER AND WASTEWATER ELEVATIONS. ALL BACKFLOW DEVICES WILL CARRY A MANUFACTURER RATING NOT TO EXCEED A 7 P.S.I.
- PRESSURE DROP THROUGH BACKFLOW DEVICE APPROVED BY THE CITY OF ADDISON. 10. ALL BACKFLOW DEVICES WILL BE LOCATED WITHIN THE BUILDING SHELL, UNLESS SHOWN ELSEWHERE. A DOUBLE CHECK DETECTOR CHECK VALVE WILL BE PLACED ON FIRE
- 11. ALL ON-SITE WATER AND WASTEWATER LINES WILL BE EXTENDED TO A MINIMUM OF 5 FEET FROM THE BUILDING.
- 12. CONCRETE ENCASE ALL WATER LINES THAT CROSS WITHIN 1.5 FEET OF WASTEWATER
- 13. PROVIDE CLEAN—OUTS ON WASTEWATER LINE PER TOWN OF ADDISON STANDARDS.
- 14. EXTEND ALL EXISTING UTILITY MANHOLES, BOXES, COVERS, ETC. TO PROPOSED FINISH GRADE, UNLESS APPROVED OTHERWISE.

TEXAS WATER COMMISSION NOTES

- 1. THE PLANS ARE IN ACCORDANCE WITH: A. LOCAL CITY SPECIFICATIONS.
 - B. TEXAS DEPARTMENT OF HEALTH'S DESIGN CRITERIA FOR SEWERAGE
- 2. ALL MANHOLES SHALL BE CONSTRUCTED WITH WATER TIGHT RINGS AND COVERS (WITH VENTING EVERY FOURTH MANHOLE IF WITHIN 100 YEAR FLOOD PLAIN) - 31 TAC 313.5 (C)(1).
- 3. ALL SEWER PIPES SHALL HAVE COMPRESSION OR MECHANICAL JOINTS 31 TAC 313.5 (C)(2)(ii).
- 4. A MANDREL TEST WILL NOT BE PERFORMED UNTIL BACKFILL HAS BEEN IN PLACE FOR A MINIMUM OF 30 DAYS - 31 TAC 313.5(C)(10)(A).
- ALL MANHOLES AND WET WELLS MUST BE TESTED SEPARATELY AND INDEPENDENTLY OF THE COLLECTION LINES - 31 TAC 313.5(C)(10)(C).

TAC 313.5(C)(10) TESTING

TESTING NEW GRAVITY SEWER LINES. FOR ALL NEW GRAVITY SEWER PIPE HAVING A DIAMETER GREATER THAN OR EQUAL TO SIX (6) INCHES ON THE RECHARGE ZONE, THE FOLLOWING REQUIREMENTS SHALL APPLY:

- (A) IN-PLACE DEFLECTION TESTS MUST BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID PIPES. THE TEST MUST CONSIST OF PULLING A RIGID BALL OR A MANDREL SIZED AT 95% OF THE INSIDE DIAMETER OF THE PIPE FROM THE MANHOLE TO MANHOLE. THE TEST MUST BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE MAY EXCEED A DEFLECTION OF 5.0%. THE TEST MUST BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
- (B) AN INFILTRATION AND/OR EXFILTRATION AND/OR LOW-PRESSURE AIR TEST MUST BE PERFORMED, AND THE TYPE OF TEST MUST BE SPECIFIED IN THE DESIGN PLANS. COPIES OF ALL TEST RESULTS MUST BE SUBMITTED TO THE APPROPRIATE DISTRICT OFFICE WITHIN 30 DAYS OF TEST COMPLETION. TESTS SHALL CONFORM TO THE FOLLOWING
- (i) THE TOTAL INFILTRATION OR EXFILTRATION, AS DETERMINED BY WATER TEST, MUST BE AT A RATE NOT GREATER THAN 50 GALLONS PER INCH OF PIPE DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET. IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, REMEDIAL ACTION MUST BE UNDERTAKEN IN ORDER TO REDUCE THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITH THE LIMITS SPECIFIED.
- (ii) LOW-PRESSURE AIR TESTS MUST CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-924 OR OTHER EQUIVALENT PROCEDURES. FOR SAFETY REASONS, IT IS RECOMMENDED THAT AIR TESTING OF SECTIONS OF PIPE BE LIMITED TO LINES LESS THAN 36-INCH AVERAGE INSIDE DIAMETER. LINES THAT ARE 36-INCH AVERAGE INSIDE DIAMETER AND LARGER MAY BE AIR TESTED AT EACH JOINT. THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE DURING A JOINT TEST, REGARDLESS OF PIPE SIZE, SHALL BE 20 SECONDS. FOR SECTIONS OF PIPE LESS THAN 36-INCH AVERAGE INSIDE DIAMETER, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUNDS PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE MUST BE COMPUTED BY THE FOLLOWING EQUATION:
 - T = 0.0850(D)(K)/(Q), WHERE: T = TIME FOR PRESSURE TO DROP 1.0 POUNDS PER SQUAREINCH GAUGE IN SECONDS;
- K = 0.00049(D)(L), BUT NOT LESS THAN 1.0; D = AVERAGE INSIDE DIAMETER IN INCHES; L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET; AND Q = RATE OF LOSS, ASSUME 0.003 CUBIC FEET PER MINUTE PER SQUARE FOOT (FT3/MIN/FT SQ) OF INTERNAL

SURFACE AREA.

- (C) MANHOLES AND WET WELLS MUST BE TESTED SEPARATELY AND INDEPENDENTLY OF THE COLLECTION LINES. ALL MANHOLES MUST BE HYDROSTATICALLY TESTED WITH A MAXIMUM-LOSS ALLOWANCE OF .025 GALLON PER FOOT DIAMETER PER FOOT OF HEAD PER HOUR. OTHER TESTING METHODS, SUCH AS VACUUM TESTING, MAY BE APPROVED ON A CASE-BY-CASE BASIS BY THE EXECUTIVE
- (D) EMBEDMENT MATERIALS MUST MEET OR EXCEED THE SPECIFICATION FOR BEDDING CLASS A OR B AS DESCRIBED IN ASTM C 12, OR CLASS I OR II AS DESCRIBED IN ASTM D 2321, AND SPECIFICATIONS AS CONTAINED IN CHAPTER 317 OF THIS TITLE (RELATING TO DESIGN CRITERIA FOR SEWERAGE SYSTEMS).
- (E) PROVIDE 4 FOOT MINIMUM COVER FOR ALL WASTEWATER GRAVITY AND FORCE MAIN LINES.
- WASTEWATER LINE CROSSINGS. (G) ALL PIPE AND JOINTS SHALL HAVE MINIMUM PRESSURE RATING OF

(F) PROVIDE 6 INCH MINIMUM SEPARATION BETWEEN ALL WATER AND