## GENERAL NOTES FOR CONSTRUCTION PLANS

- 1. ALL SANITARY SEWER MAINS AND SYSTEM PLANS AND CONSTRUCTION CONFORM WITH THE SOUTHWEST METROPOLITAN WATER AND SANITATION DISTRICT (THE DISTRICT) SANITARY SEWER STANDARDS AND SPECIFICATIONS AND BE SUBJECT OT CONSTRUCTION OBSERVATION BY DISTRICT PERSONNEL OR REPRESENTATIVES. COPIES OF THE DISTRICT STANDARDS AND SPECIFICATIONS MAY BE OBTAINED FROM THE DISTRICT MANAGER. THE OWNER, HIS ENGINEER OR CONTRACTOR, SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH THE DISTRICT MANAGER AND DISTRICT ENGINEER AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. PLANS WITH THE DISTRICT REVIEW STAMP WILL BE DISTRUBTED AT THE PRECONSTRUCTION MEETING. NO CONSTRUCTION WILL BE PERMITTED UNTIL FORMAL COMPLETION OF EASEMENTS AND RECORDINGS, AND PRIOR TO THE PRECONSTRUCTION MEETING.
- 2. UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION HAVE BEEN LOCATED FROM FIELD INVESTIGATION AND THE BEST AVAILABLE UTILITY RECORDS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY LINES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH THE AFFECTED UTILITY COMPANIES AND SHALL NOTIFY THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC), PHONE NUMBER 811, 48 HOURS PRIOR TO STARTING CONSTRUCTION.
- 3. THE LENGTH OF SANITARY SEWER LINES IF THE HORIZONTAL DISTRICT BETWEEN CENTER OF MANHOLE TO CENTER OF MANHOLE. THEREFORE, DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGHMENT AND MANHOLE DIMENSIONS.
- 4. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES (1) SIGNED COPY OF PLANS APPROVED BY THE DISTRICT.
- 5. RECORD DRAWINGS AS REQUIRED IN THE SPECIFICATIONS ARE TO BE SUBMITTED BY THE CONTRACTOR PRIOR TO INITIAL/PROBATIONARY ACCEPTANCE OF THE CONSTRUCTION.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ANY EXISTING SIGNS, STRUCTURES, FENCES, ETC., ENCOUNTERED ON THE JOB AND RESTORING THEM TO THEIR ORIGINAL CONDITION.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR:

- A. NOTIFYING THE DISTRICT 48 HOURS IN ADVANCE OF ANY NEED TO SHUT DOWN ANY PORTION OF THE EXISTING SANITARY SEWER SYSTEM.
- B. NOTIFYING THE DISTRICT 48 HOURS IN ADANCE OF THE WORK.
- C. IN CASE OF AN EMERGENCY AFTER WORKING HOURS, CALL THE DISTRICT OFFICE AT 303-979-2333 FOR RECORDED INSTRUCTIONS.
- 8. PRIOR TO INSTALLATION OF SANITARY SEWER MAINS, ROAD CONSTRUCTION MUST HAVE PROGRESSED TO AT LEAST "SUB-GRADE" STAGE. SUB-GRADE IS DEFINED AS AN ELEVATION OF NO MORE THAN EIGHT INCHES BELOW THE FINISHED STREET GRADE. ALL MANHOLE COVERS SHALL BE ADJUSTED TO THE FINAL FINISHED GRADE BY THE CONTRACTOR.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVING ANY GROUNDWATER ENCOUNTERED DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT. GROUNDWATER SHALL BE PUMPED, PIPED, REMOVED AND DISPOSED OF IN A MANNER WHICH DOES NOT CAUSE FLOODING OF EXISTING STREETS NOR EROSION ON ABUTTING PROPERTIES IN ORDER TO CONSTRUCT THE IMPROVEMENTS SHOWN HON THESE PLANS. NO CONCRETE SHALL BE PLACED WHERE GORUNDWATER IS VISIBLE OR UNTIL THE GROUNDWATER TABLE HAS BEEN LOWERED BELOW THE PROPOSED IMPROVEMENTS. ANY UNSTABLE AREAS, AS A RESULT OF GROUNDWATER, ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE STABILIZED AS AGREED UPON BY THE CONTRACTOR, THE DISTRICT, AND THE DESIGN ENGINEER AT THE TIME OF THEIR OCCURRENCE.
- 10. IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO RESOVE PROBLEMS WITH THE DISTRICT DUE TO CHANGED CONDITIONS ENCOUNTERED DURING THE PROGRESS OF ANY PORTION OF THE PROPOSED WORK. IF, IN THE OPINION OF THE DISTRICT, PROPOSED ALTERATIONS TO THE SIGNED CONSTRUCTION PLANS INVOLVES SIGNIFICANT CHANGE TO THE CHARACTER OF THE WORK, OR TO THE FUTURE CONTIGUOUS PUBLIC OR PRIVATE IMPROVEMENTS, THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR SUBMITTING REVISED PLANS TO THE DISTRICT FOR REVIEW PRIOR TO ANY FURTHER CONSTRUCTION RELATED TO THAT PORTION OF THE WORK.
- 11. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OR THE PROJECT, INCLUDING SAFETY OF ALL PERSON AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, ENDEMNIFY AND HOLD HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

- EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF, THE OWNER, THE DESIGN ENGINEER, OR THE COUNTY.
- 12. THE PIPE USED FOR SANITARY SEWER MAINS SHALL BE IN ACCORDANCE WITH ASTM D-3034 SDR35/SDR26,WHERE APPLICABLE, PVC PIPE IN PAVED R-O-W'S AND EASEMENTS AND AWWA C900-07 CLASS 165 IN UNPAVED EASEMENTS, AWWA 900-07 CLASS 235 IN EXPANSIVE AREAS. UNLESS NOTED OTHERWISE. ALL PIPE SHALL BE GREEN IN COLOR.
- 13. INITIAL/PROBATIONARY ACCEPTANCE OF THE NEW SANITARY SEWER MAINS IS CONTINGENT UPON RECIVING COPIES OF:
  - A. SANITARY SEWER TRENCH COMNPACTION TEST RESULTS, AND
  - B. RECORD DRAWINGS.
- 14. THE SANITARY SEWER SYSTEM WILL BE TESTED IN ACCORDANCE WITH THE DISTRICT STANDARDS AND SPECIFICATIONS. THE DISTRICT WILL REQUIRE THE CONTRACTOR TO CONDUCT AND SUBMIT THE FOLLOWING:
  - A. FLUSHING, VIDEO AND MEASUREMENT OF DIPS OR SAGS.
  - B. LOW PRESSURE AIR TEST 100% OF THE NEW PVC PIPE SYSTEM, AND
  - C. AIR VACUUM TEST OF 100% OF MANHOLES.
- 15. MANHOLE RIMS SHALL BE SET AT AN ELEVATION RELATIVE TO THE PAVEMENT, IN ACCORDANCE WITH THE GOVERNING AGENCY STANDARDS. WHETHER THE MANHOLE IS IN A PAVED OR UNPAVED GRADE, A MINIMUM OF ONE (1) AND A MAXIMUM OF FOUR (4) ROWS OF CONCRETE RINGS SHALL BE USED TO ADJUST THE RIM ELEVATIONS TO FINAL GRADE. THE MAXIMUM ACCEPTABLE VERTICAL ADJUSTMENT UTILIZING CONCRETE RINGS IS TWELVE (12) INCHES. NO MULTIPLE 2" AND 3" CONCRETE RINGS ALLOWED.
- 16. CONNECTIONS TO EXISTING DISTRICT LINES WILL BE PERMITTED UPON ACCEPTANCE OF THE NEW SANITARY SYSTEM. EXISTING PIPE AT THE POINT OF CONNECTION SHALL NOT BE "BROKEN OUT" UNTIL THE NEW SYSTEM IS ACCEPTED.
- 17. THE CONTRACTOR SHALL VEWRIFY EXISTING MANHOLE INVERTS TO BE CONNECTED TO PRIOR TO CONSTRUCTION STAKING.
- 18. THE CONTRACTOR SHALL TAKE CARE TO PROPERLY SHAPE ALL MANHOLE INVERTS AND BENCHES IN ACCORDANCE WITH DISTRICT STANDARDS AND SPECIFICATIONS TO PROMOTE SMOOTH FLOW THROUGH THE MANHOLE. THE CHANNELS MUST BE FULL DEPTH AS A MINIMUM. INVERTS OF LINES INTERSECTING AT 90 DEGREE AND A HIGHLY DIVERGENT OR FLAT SLOPES ARE ESPECIALLY CRITICAL. A CAMERA MUST BE ABLE TO PASS THROUGH THE MANHOLE CHANNEL. MANHOLE

- INVERTS SHALL BE CONSTRUCTED WITH A SMOOTH TROWEL FINISH, AND BENCHED WITH A LIGHT BROOM, NON-SKID FINISH.
- 19. THE DISTRICT, IT'S REPRESENTATIVE, AND/OR THE DISTRICT ENGINNER, IS NOT A GUARANTOR OF THE CONSTRUCTING CONTRACTORS' OBLIGATIONS AND PERFORMANCE OF CONTRACT.
- 20. OBSERVATIONS OF WORK IN PROGRESS AND ON-SITE VISITS ARE NOT TO BE CONSTRUED AS A GUARANTEE BY THE DISTRICT OR DISTRICT ENGINEER OF THE CONTRACTOR'S CONTRACTUAL COMMITMENT.
- 21. THE DISTRICT, AND/OR DISTRICT ENGINEER, IS NOT RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE PROJECT SITE, NOT FOR COMPLIANCE BY THE APPROPRIATE PARTY OF ANY REGULATIONS RELATING THERETO.
- 22. THE OWNER IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PLAN REVIEW AND CONSTRUCTION OBSERVATION.