

GENERAL CONSTRUCTION NOTES

1. THE APPROXIMATE LOCATION OF THE EXISTING UTILITIES IS GIVEN FOR REFERENCE ONLY. BEFORE COMMENCING THE WORK, THE CONTRACTOR SHALL COORDINATE THE LOCATION OF EXISTING AND PROPOSED UTILITIES. LOCATION OF UTILITIES, AS INDICATED, SHALL NOT RELIEVE THE CONTRACTOR OF HIS CONTRACTUAL OBLIGATIONS OF CONTACTING UTILITY OWNERS, MUNICIPALLY OWNED UTILITY LINES SUCH AS WATER, SANITARY SEWER, STORM SEWER AND TRAFFIC SIGNALIZATION MAY NO BE LOCATED BY THEIR OWNERS, AND IN SUCH CASE, THE CONTRACTORS SHALL DETERMINE THE LOCATION BY THE CONTRACTOR TO LOCATE, HORIZONTALLY AND VERTICALLY, EXISTING UTILITIES WHICH ARE SHOWN ON THE CONSTRUCTION DRAWINGS, OR WHICH THE CONTRACTOR HAS BEEN GIVEN NOTICE OR HAS KNOWLEDGE OF SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
2. THE COST OF REMEDIAL WORK, REMOVAL OF PORTIONS OF THE WORK OF EXTENSIVE DESIGN CHANGES OCCASIONED BY THE FAILURE OF THE CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UTILITIES AS DESCRIBED ABOVE SHALL BE BORNE BY THE CONTRACTOR.
3. CONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR LOCATION OF EXISTING FACILITIES THAT MAY NOT BE SHOWN ON THE PLANS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
4. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE TRENCH SAFETY AND SHORING SYSTEMS IN ACCORDANCE WITH O.S.H.A. REGULATIONS.
5. CONTRACTOR SHALL PROVIDE ALL WORK TO MINIMIZE DISTURBANCES TO SURROUNDING LANDOWNERS, PROTECT EXISTING FENCING, GARDENS, TREES, AND OTHER EXISTING FACILITIES. IF NECESSARY, TO ORIGINAL CONDITION OR BETTER. CONTRACTOR SHALL INSTALL NEW MATERIALS IF THE EXISTING MATERIALS, WHEN REMOVED, ARE NOT SUITABLE FOR RE-USE AS DIRECTED BY THE ENGINEER. CONTRACTOR IS RESPONSIBLE FOR REPAVING ALL DAMAGED PAVEMENT AND DRIVEWAYS, RECONSTRUCTING DITCHES AND SWEELS, AND REPLACING CULVERTS, SIGNS, AND OTHER EXISTING FACILITIES.
6. THE CONTRACTOR IS RESPONSIBLE FOR TIMELY REMOVAL AND PROPER LEGAL DISPOSAL OF ANY TRASH OR DEBRIS LOCATED WITHIN CONSTRUCTION OF ACCESS AREAS, INCLUDING EXISTING MATERIAL LOCATED ON-SITE PRIOR TO MOVE-IN.
7. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ALL ADJACENT PROPERTIES, ACCESS SHALL BE MAINTAINED DURING ALL WEATHER CONDITIONS.
8. ENFORCE POSITIVE DRAINAGE OF ALL WORK AREAS DURING CONSTRUCTION. FINAL GRADE ALL AREAS OF CONSTRUCTION AND ACCESS LIMITS TO DRAIN AFTER COMPLETION OF ALL OTHER CONSTRUCTION ACTIVITIES.
9. CONTRACTOR SHALL PROVIDE ELEVATION AT THE TOP OF PIPE AT 100 – INTERVALS AND AT HORIZONTAL OR VERTICAL ALIGNMENT CHANGES.
10. CONTRACTOR SHALL CONTACT TEXAS 811 (® (800)–344–8377). CONTRACTOR SHALL CONTACT ALL AGENCIES WITH UTILITIES IN THE VICINITY PRIOR TO CONSTRUCTION.
11. VALVES CONNECTING TO PUBLIC WATER SYSTEM SHALL BE OPERATED BY WATER SYSTEM EMPLOYEES ONLY.
12. TRENCH ALIGNMENT SHALL BE AS STRAIGHT AS CONDITIONS PERMIT. ANY DEVIATION FROM PLANNED ALIGNMENT SHALL HAVE PRIOR APPROVAL BY THE PROJECT ENGINEER/INSPECTOR. ALL TRENCH CUTS SHALL BE IN ACCORDANCE WITH EXISTING SAFETY REGULATIONS IN EFFECT.
13. TRENCH BOTTOM SHOULD BE UNDISTURBED, TAMPERED, OR RELATIVELY SMOOTH EARTH. WHERE EXCAVATION IS IN ROCK, THE CONDUIT SHOULD BE LAID ON A LAYER OF CLEAN BACK FILL.
14. ALL BACK FILL SHOULD BE FREE OF DEBRIS OR OTHER MATERIAL THAT MAY DAMAGE THE CONDUIT SYSTEM OR CAUSE SETTLING. THE MATERIAL SHOULD FILL THE VOIDS AROUND THE CONDUIT TO PREVENT HOT SPOTS & SETTLING.
15. CONTRACTOR MUST COORDINATE ALL WORK THROUGH THE OWNER, THE ENGINEER, AND WITH ALL OTHER TRADE CONTRACTORS WHO MAY BE WORKING ON-SITE SIMULTANEOUSLY. INCLUDE KENDALL COUNTY IN COORDINATION OF STREETS AND DRAINAGE CONSTRUCTION. PROVIDE MIN. 24 HR NOTICE FOR INSPECTIONS.
16. CONTRACTORS SHALL COMPLY WITH KENDALL COUNTY RULES AND REGULATIONS DATED JANUARY 1, 1997, AS WELL AS OTHER SAFETY CODES AND INSPECTION PROVISIONS APPLICABLE TO THIS PROJECT.
17. IF GROUNDWATER OR SEEPAGE IS ENCOUNTERED DURING CONSTRUCTION, CONTRACTORS SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY.
18. EXISTING LARGE TREES, WHEN LOCATED NEAR THE STREET RIGHT-OF-WAY LINES OR WITHIN UTILITY EASEMENT, SHALL NOT BE REMOVED WITHOUT FINAL PERMISSION FROM THE OWNER. EXISTING TREES WITHIN THE "LOT" AREAS SHALL BE PROTECTED FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION.
19. THE FIRE MARSHAL SHALL INSPECT ALL FIRE HYDRANTS PRIOR TO BEING COVERED.

KENDALL WEST UTILITY (KWU)

1. ALL DOMESTIC & RECYCLED WATER LINES AND FORCE MAIN SHALL BE AWWA C-900 DR-18. LOW PRESSURE SEWER SHALL PVC SDR 21 OR PVC SCH 40. FORCE MAINS SHALL BE PVC SDR-26 (MIN. 160 PSI). SANITARY SEWER SHALL BE PVC SDR-26 MINIMUM 160 PSI AT WATER MAIN CROSSING.
2. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THE PROJECT SHALL CONFORM TO APPLICABLE KENDALL WEST UTILITY STANDARDS AND SPECIFICS FOR CONSTRUCTION AS WELL AS OTHER SAFETY CODES AND INSPECTION PROVISIONS APPLICABLE TO THE PROJECT.
3. ALL PUBLIC WATER AND/OR SANITARY SEWER INFRASTRUCTURE SHALL BE TESTED BY THE CONTRACTOR, AS PROVIDED FOR IN THE KENDALL WEST UTILITY STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION.
4. FOR PURPOSES OF RECORD DRAWINGS FOR KENDALL WEST UTILITY, THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL FINAL MEASUREMENTS, TAPS AND LENGTH OF SERVICE CONNECTIONS.
5. CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND STORM DRAINAGE STRUCTURE WHETHER SHOWN ON THE PLANS OR NOT.
6. ALL GARBAGE AND SPOIL MATERIAL FROM THE WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS/HER EXPENSE.
7. ALL TRENCH BACKFILL FROM THE PROJECT SHALL BE ACCOMPLISHED ACCORDING THE KENDALL WEST UTILITY "UTILITY PIPE TRENCH" DRAWING NO. 02221-1.0. NO WATER JETTING SHALL BE ALLOWED. OBSERVATION OF TRENCH BACKFILL SHALL BE SUPPLEMENTED BY MOISTURE-DENSITY TESTING CONDUCTED AT PERIODIC INTERVALS DURING THE COMPACTION PROJECT. THE CONTRACTOR SHALL BE REQUIRED THE MAKE SUITABLE EXCAVATION TO ALLOW ACCESS FOR SUCH TESTING, AND SHALL BE REQUIRED TO REMOVE AND REPLACE BACKFILL AS MANY TIMES AS NECESSARY TO ACHIEVE MINIMUM COMPACTION REQUIREMENTS SPECIFIED IN KENDALL WEST UTILITY STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING PERMITS, PERFORMING TESTS, AND OBTAINING APPROVALS AND ACCEPTANCES REQUIRED FOR COMPLETE CONSTRUCTION OF THIS PROJECT.
9. ALL ITEMS NOT SPECIFICALLY CALLED FOR IN THE PLANS, OR IN THE KENDALL WEST UTILITY STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION, BUT NECESSARY TO REASONABLY CONSTRUCT THE FACILITY OR IMPROVEMENT, SHALL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT AND NO SEPARATE PAYMENTS SHALL BE MADE FOR THESE ITEMS.
10. THE CONTRACTOR SHALL EXCAVATE AND FIELD VERIFY EXISTING UTILITIES (LOCATION, DEPTH AND SIZE) CROSSING THE PROPOSED ALIGNMENT OF THE PROPOSED WATER AND/OR SANITARY SEWER UTILITY AND NOTIFY THE ENGINEER OF POTENTIAL CONFLICTS, PRIOR TO ANY CONSTRUCTION IN THE AREA.
11. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY.
12. CONTRACTOR TO PROTECT AND PRESERVE EXISTING UTILITIES (E.G. IRRIGATION, ELECTRIC, GAS, STORM SEWER, SANITARY SEWER, CATV, ETC.) UNLESS NOTED OR OTHERWISE IN PLANS. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
13. ALL WATER AND SANITARY SEWER MAINS REQUIRE INSPECTION BY KENDALL WEST UTILITY.
14. ALL CONSTRUCTION OF DOMESTIC AND RECYCLED WATER LINES, SERVICE AND METERS AND THE LOW-PRESSURE SEWER SYSTEM SHALL COMPLY WITH KENDALL WEST UTILITY STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION UNLESS OTHERWISE NOTED (MAY 2016).

TEXAS WATER COMPANY STANDARD WATER NOTES

1. NO CONSTRUCTION ACTIVITIES SHALL BEGIN UNTIL A PRECONSTRUCTION MEETING HAS BEEN HELD BETWEEN THE CONTRACTOR, ENGINEER OF RECORD, AND A REPRESENTATIVE OF CLWSC.
2. IT IS THE INTENT OF THESE PLANS TO SHOW THE LOCATION OF EXISTING UNDERGROUND FACILITIES IN ACCORDANCE WITH EXISTING RECORDS. HOWEVER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND VERIFY THE EXACT LOCATION OF ALL EXISTING UNDERGROUND FACILITIES PRIOR TO EXCAVATION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY OF ANY AND ALL DAMAGES TO EXISTING FACILITIES.
3. BOUNDARY FENCES OR OTHER IMPROVEMENTS REMOVED TO PERMIT CONSTRUCTION SHALL BE REPLACED IN THE SAME LOCATION AND IN SAME CONDITION AS GOOD OR BETTER THAN IN WHICH THEY WERE FOUND. NO COMPENSATION SHALL BE GIVEN TO THE CONTRACTOR FOR REMOVAL AND REPLACEMENT OF FENCES.
4. CONTRACTOR SHALL NOTIFY THE CLWSC (830-964-3854) AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS AND SIDEWALKS ADJACENT TO PROJECT FREE OF MUD AND DEBRIS FROM THE CONSTRUCTION.
6. CONTRACTOR SHALL NOT PLACE FILL OR WASTE MATERIAL ON ANY PRIVATE PROPERTY WITHOUT PRIOR WRITTEN AGREEMENT WITH THE PROPERTY OWNER. A COPY OF ANY WRITTEN AGREEMENT BETWEEN PROPERTY OWNER AND CONTRACTOR SHALL BE FURNISHED TO CLWSC.
7. NO EXCESS EXCAVATION MATERIAL SHALL BE DEPOSITED IN LOW AREAS OR ALONG NATURAL DRAINAGE WAY WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
8. ALL VEGETATED AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITIONS THAN FOUND PRIOR TO THE BEGINNING OF CONSTRUCTION.
9. BEFORE FINAL COMPLETION OF THE PROPOSED WORK, ALL ROADWAY, SLOPES, DITCHES AND BERMS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. 10. REMOVE AND DISPOSE OF TREES, STUMPS, BRUSH, ROOTS, VEGETATION, LOGS, RUBBISH AND OTHER OBJECTIONABLE MATTER WITHIN THE LIMITS OF AREA AFFECTED BY THE WORK, INCLUDING ALL AREAS TO BE RE-GRADED. PROTECT TREES, SHRUBS, AND OTHER LANDSCAPE FEATURES SPECIFICALLY DESIGNATED FROM DAMAGE DURING CONSTRUCTION OPERATIONS.
11. CONTRACTOR TO CONFIRM ACTUAL HORIZONTAL AND VERTICAL LOCATION OF EXISTING STRUCTURES, PIPING, PAVING, FENCING AND ALL OTHER EXISTING FACILITIES PRIOR TO CONSTRUCTION.
12. CONTRACTOR SHALL COORDINATE FOR ALL NECESSARY UTILITY LOCATES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
13. CONTRACTOR SHALL NOTIFY TEXAS DEPARTMENT OF TRANSPORTATION AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY WITHIN THE STATE RIGHT-OF-WAY.
14. CONTRACTOR SHALL NOT OPEN CUT ANY IMPROVED DRIVEWAY IN STATE RIGHT-OF-WAY WITHOUT PRIOR WRITTEN APPROVAL OF PROPERTY OWNER.

TEXAS WATER COMPANY STANDARD WATER NOTES (CONT)

15. FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICATED OR RESTORE EXISTING GRADES. REMOVE RUBBISH VEGETATION AND ROCKS OVER 1½" IN DIAMETER. ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE AWAY FROM STRUCTURES. PROVIDE UNIFORM ROUNDING AT TOP AND BOTTOM OF SLOPES AND OTHER BREAKS IN GRADE. CORRECT IRREGULARITIES AND AREAS WHERE WATER WILL STAND.
16. NO UTILITY TRENCHES OR PITS ARE TO BE LEFT OPEN OVERNIGHT. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ADEQUATE SAFETY MEASURES ARE IN PLACE FOR BOTH HUMANS AND LIVESTOCK FOR ANY TRENCH LEFT OPEN OVERNIGHT. BACKFILLING WILL OCCUR DAILY AND AS SOON AS PRACTICAL FOLLOWING CONSTRUCTION OPERATIONS.
17. THE MOST RECENT CLWSC STANDARDS AND SPECIFICATIONS SHALL APPLY TO ALL CONSTRUCTION REGARDLESS OF INFORMATION PROVIDED ON PLANS. CONTRACTORS ARE ENCOURAGED TO VERIFY CURRENT INFORMATION WITH CLWSC STAFF PRIOR TO THE BEGINNING OF CONSTRUCTION.
18. ALL ROAD CROSSINGS UNDER KENDALL COUNTY ROADWAYS SHALL REQUIRE A SEPARATE PERMIT FROM KENDALL COUNTY ENGINEER. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS AND SHALL CONSTRUCT ALL CROSSINGS IN ACCORDANCE WITH KENDALL COUNTY STANDARDS.
19. CONTRACTOR SHALL FOLLOW METHODS AND PROCEDURES OF SHUTDOWN AS DIRECTED BY THE CLWSC STAFF.
20. CONTRACTOR SHALL NOTIFY CONSUMERS OF, AND COORDINATE ALL SHUTDOWNS WITH CLWSC, PER CLWSC GUIDELINES.
21. CONTRACTOR SHALL ESTABLISH PIPE GRADES USING TOP OF FINISHED GRADE UNLESS OTHERWISE INDICATED ON PLANS.
22. CONTRACTOR SHALL GRADE MAIN TO AVOID USE OF AIR VALVES.
23. CONTRACTOR SHALL MAINTAIN MINIMUM 10 FEET CLEARANCE BETWEEN MAINS AND SANITARY SEWERS.
24. CONTRACTOR SHALL CONSTRUCT ALL CROSSINGS WITH SANITARY SEWER FACILITIES IN ACCORDANCE WITH THE MOST RECENT VERSION OF APPLICABLE TCEQ STANDARDS.
25. CONTRACTOR SHALL MAINTAIN MINIMUM 10 FEET CLEARANCE BETWEEN HYDRANTS AND DRIVEWAYS.
26. CONTRACTOR SHALL INSTALL SERVICES SUCH THAT CONSUMER'S LINES DO NOT CROSS DRIVEWAYS.
27. CONTRACTOR SHALL PROVIDE A CLEAN NEAT AS-BUILT DRAWING WITHIN 30 DAYS OF JOB COMPLETION IN BOTH PAPER AND ELECTRONIC (.PDF) FORMAT.
28. CONTRACTOR SHALL USE DUCTILE IRON FITTING WITH MECHANICAL JOINT AND MEGALUG PER CLWSC STANDARD SPECIFICATIONS ON ALL PIPE REGARDLESS OF PIPE MATERIAL UNLESS OTHERWISE INDICATED ON PLANS.
29. CONTRACTOR SHALL INSTALL ALL APPURTENANCES ON WATER MAIN IN ACCORDANCE WITH APPLICABLE CLWSC STANDARD DETAILS.
30. CONTRACTOR SHALL INSTALL TRACER WIRE ON ALL WATER MAINS LOCATED IN COMMERCIAL SUBDIVISIONS AND RESIDENTIAL SUBDIVISIONS WITH URBAN STREET CROSS SECTIONS.
31. CONTRACTOR SHALL MAINTAIN A COPY OF THE STAMPED SET OF PLANS "APPROVED FOR CONSTRUCTION" ON THE JOB SITE AT ALL TIMES.

GENERAL SITE PREPARATION NOTES

1. CONTRACTOR SHALL FOLLOW ALL APPLICABLE GUIDELINES IN ACCORDANCE TO WITH THE GEOTECHNICAL INVESTIGATION UNLESS DIRECTED OTHERWISE IN THE SPECIFICATIONS OR CONSTRUCTION DRAWINGS.
2. FINAL GRADING AND REVEGETATION SHALL OCCUR IN DISTURBED AREAS WITHIN SEVEN (7) DAYS OF INSTILLATION AND BACKFILLING OF THE LINES.
3. THE ENGINEER SHALL APPROVE THE FINAL GRADING PRIOR TO HYDROMULCH SEEDING.
4. ALL AREAS DISTURBED DURING CONSTRUCTION THAT ARE NOT COVERED IN CONCRETE SHALL BE HYDROMULCH. AREAS OUTSIDE OF CLEARING LIMITS THAT ARE DISTURBED FOR CONTRACTOR CONVENIENCE (HAUL ROADS, STAGING AREAS) WILL BE HYDROMULCH WITH NO SEPARATE PAY.

SEWER AND WATER GENERAL NOTES

1. MUNICIPAL WATER LINES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS, SECTION 290, AS ADOPTED BY THE TCEQ.
2. SANITARY SEWER LINES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 217, DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS ADOPTED BY THE TCEQ.
3. WHERE WATER LINES AND NEW SEWER LINES ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE FEET (I.E. WATER WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTILLATION MUST MEET THE REQUIREMENTS OF 30 TAC 217.53 OR 30 TAC 290.44 (E) (WATER HYGIENE).
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT SIZE, TYPE, AND LOCATION OF ALL UTILITIES AND PROTECTING AND REPAIRING THE SAME AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ALL MANHOLES, CLEANOUTS, VALVE VAULTS, VALVE BOXES AND ANY OTHER SURFACE UTILITY FEATURES TO THE FINAL FINISHED GRADE.
6. PRIOR TO BEGINNING ANY ON-SITE WORK, ADEQUATE HORIZONTAL AND VERTICAL CONTROLS SHALL BE PLACED FOR LOCATING THE PROPOSED UTILITY LINES.
7. EXISTING LINE LOCATIONS ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE, BUT ARE NOT GUARANTEED TO CORRECT OR COMPLETE.
8. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THE SET OF RECORD DRAWINGS SHOWING THE CONSTRUCTED FLOWLINE AND TOP OF MANHOLE ELEVATIONS AND ANY DEVIATIONS FROM THE PLANS. THE ENGINEER SHALL COMPILE AND CONFIRM THE INFORMATION AND PROVIDE FULL SIZE (11 X 17), RECORD DRAWINGS TO KENDALL COUNTY.

CRITERIA FOR SEWER MAIN CONSTRUCTION
IN THE VICINITY OF WATER MAIN
(TCEQ 30 TAC 290.44(a))

1. WHERE A SEWER MAIN CROSSES OVER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE (9) FEET, ALL PORTIONS OF THE SEWER MAIN WITHIN THE NINE (9) FEET OF THE WATER LINE SHALL BE CONSTRUCTED USING 150 PSI PRESSURE RATED DUCTILE IRON, CAST IRON, OR PVC PIPE AND JOINED WITH EQUALLY PRESSURE RATED PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL A SECTION SECTION OF 150 PSI PRESSURE RATED PIPE AT LEAST EIGHTEEN (18) FEET MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE CONNECTION REQUIREMENTS. (NO SEPARATE PAY ITEM.)
2. WHERE A SEMI-RIGID OR RIGID SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE (9) FEET BUT GREATER THAN TWO (2) FEET, THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND, (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTION OF THE SEWER WITHIN NINE (9) FEET OF THE WATER MAIN.
3. WHERE A SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION IS LESS THAN TWO (2) FEET, THE SEWER MAIN SHALL BE CONSTRUCTED OF CAST IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI WITHIN 9 (9) FEET SHALL HAVE A SEGMENT OF SEWER PIPE CENTERED ON THE WATER MAIN, SHALL BE PLACED NO CLOSER THAN SIX INCHES BETWEEN OUTER DIAMETERS, AND SHALL BE JOINED WITH PRESSURE RATED RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON, DUCTILE IRON MATERIAL A SECTION OF 150 PSI PRESSURE RATED PIPE AT LEAST EIGHTEEN (18) FEET MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE CONNECTION REQUIREMENTS. (NO SEPARATE PAY ITEMS.)
4. WHERE A SEWER MAIN PARALLELS A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE (9) FEET, THE SEWER MAIN SHALL BE BELOW THE WATER MAIN, SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI FOR BOTH PIPE AND JOINTS FOR A DISTANCE OF NINE (9) FEET BEYOND THE POINT OF CONFLICT, SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE BETWEEN OUTER DIAMETERS OF TWO (2) FEET VERTICALLY AND FOUR (4) FEET HORIZONTALLY, AND SHALL BE JOINED WITH PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE MATERIAL.
5. THE OUTER EDGE OF SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED ANY CLOSER THAN NINE (9) FEET TO WATER MAINS.

NON-EDWARDS AQUIFER RECHARGE ZONE
SANITEAY SEWER SYSTEM
GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL COMPLY WITH THE FOLLOWING AS APPLICABLE:

(A) CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S CRITERIA FOR SEWAGE SYSTEMS [30 TAC 317.1, 30 TAC 317.2, 30 TAC 317.3, AND 30 TAC 317.4].
2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTILLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED PERMIT FROM THE CONSULTANT.
3. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES, INCLUDING SERVICE LATERALS, AND DRAINAGE STRUCTURES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTHS OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT, AND TO PROTECT THE SAME DURING CONSTRUCTION.

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4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING, AND STRUCTURES.
5. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAT ONE INCH DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE OWNER FOR GUIDANCE. CONSTRUCTION INSPECTOR SHALL ALSO BE NOTIFIED.
6. THE CONTRACTOR SHALL MAINTAIN SERVICE TO EXISTING SANITARY SEWERS AT THE TIMES DURING CONSTRUCTION.
7. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, UTILITY COMPANY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND GAS VALVES THAT ARE IN THE PROJECT AREA.
8. ALL RESIDENTIAL SEWER SERVICE LATERALS SERVING VACANT TRACTS SHALL BE EXTENDED TO THE PROPERTY LINE AND CAPPED AND SEALED.

BLASTING (BLASTING WILL NOT BE PERMITTED IN THIS PROJECT)

EXCAVATION

9. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTILLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS, AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS.SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
10. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PERMANENTLY PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAN DEVELOPMENT PERMIT.

WATER LINE CROSSING

11. WHERE THE MINIMUM 9 FOOT SEPARATION DISTANCE BETWEEN SEWER LINES AND WATER LINES/MAINS CANNOT BE MAINTAINED, THE INSULATION OF SEWER LINES SHALL BE IN STRICT ACCORDANCE WITH THE TEXAS NATURAL RESOURCES CONSERVATION COMMISSION'S RULES (30 TAC 317.13 APPENDIX E)

EROSION AND SEDIMENT CONTROL

12. THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF SEWER COLLECTION SYSTEMS. DEVELOPER OR AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTES ON THIS PROJECT'S PLAN AND PROFILE SHEETS.
13. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINALL ACCEPTANCE OF PROJECT.

SUPPLEMENTARY

14. NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM WHICH IT RELATES.
15. ALL PVC SEWER PIPE WITH OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH PIPE, MINIMUM STIFFNESS OF 115 PSI.
16. WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE NOTICE TO PROCEED WITH THE OWNER OF ENGINEER WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.
17. 4. ALL PIPE MATERIAL USED IN A SEWER COLLECTION SYSTEM UNDER PRESSURE FLOW CONDITIONS SHALL MEET THE PERFORMANCE REQUIREMENTS OF ATSM D2241 CLASS 200 PVC PIPE.

DATE	07/05/23								
REVISION									
NO.	1	ADDED TX WATER CO NOTES							
	2								

3/20/2023



PAPE-DAWSON
ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #1028800

MIRALOMAS GARDEN HOMES - UNIT 3
KENDALL COUNTY, TEXAS

GENERAL NOTES
(SHEET 1 OF 2)

PLAT NO.	
JOB NO.	12616-04
DATE	MARCH 2023
DESIGNER	AC
CHECKED	BC
DRAWN	AR
SHEET	C1.00