

GENERAL PROJECT NOTES

- REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATION OF UNDERGROUND UTILITIES. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND THE OWNER AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR FAILURE TO SHOW ANY OR ALL SUBSURFACE UTILITIES OR TO SHOW THEM IN THEIR EXACT LOCATIONS. PRIOR TO CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND FIELD VERIFY THE LOCATION OF ALL KNOWN AND UNKNOWN UTILITIES THAT MY CONFLICT WITH CONSTRUCTION. THE CONTRACTOR SHALL COMPLETE FIELD VERIFICATION OF EXISTING UTILITIES PRIOR TO THE ORDERING OF VAULTS, PIPE OR FITTINGS SO THAT ADJUSTMENTS CAN BE MADE. NO SEPARATE PAY ITEM AND NO CONTRACT TIME EXTENSIONS WILL BE GRANTED FOR UTILITY LOCATES.
- A VARIETY OF UNDERGROUND ELECTRICAL, TELEPHONE AND CABLE TV EXISTS ON THE LIFT STATION SITE. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF THE CONSTRUCTION SO THAT IF IT IS NECESSARY TO CHANGE THE DESIGN, THE PROGRESS OF THE WORK WILL NOT BE DELAYED, & ALL COSTS INCURRED FOR UTILITY CONFLICTS WILL BE AT NO ADDITIONAL COST. THE CONTRACTOR SHALL CONTACT THE TEXAS ONE CALL SYSTEM (811) TO LOCATE ANY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES EXPOSED OR CROSSED BY CONSTRUCTION. WHERE EXISTING LINES ARE CUT, BROKEN OR DAMAGED BY CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY REPAIR AND/OR REPLACE WITH SOME TYPE OF ORIGINAL CONSTRUCTION, OR BETTER, AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT OF ALL POWER AND TELEPHONE POLES AND GUY WIRES WITHIN 15 FEET OF PROPOSED IMPROVEMENTS AND SHALL REPAIR DAMAGED POLES AND GUY WIRES OR RELOCATE POLES AND GUY WIRES AS REQUIRED BY THE UTILITY OWNER AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR MUST CONTACT & COORDINATE ALL WORK AND FEES W/ UTILITY OWNER AT NO ADDITIONAL COST TO CITY.
- CONTRACTOR SHALL SECURE EXCAVATION AT THE END OF EACH DAY. THE OWNER MAY REQUIRE THAT NO TRENCHES BE LEFT OPEN OVERNIGHT IN STREETS OR POPULATED AREAS.
- TOPSOIL SHALL BE STOCKPILED AND REPLACED TO A MINIMUM DEPTH OF 12 INCHES AND DISC HARROWED TO A MINIMUM DEPTH OF 4 INCHES.
- FINISHED GROUND SHALL HAVE NO MORE ROCKS OVER 1 INCH THAN SURROUNDING UNDISTURBED GROUND.
- PREVENT PONDING OF STORM WATER RUNOFF ON ALL GROUND DISTURBED BY CONSTRUCTION ACTIVITIES.
- TRIMMING OF TREES SHALL BE ACCOMPLISHED USING A SAW OR PRUNING SHEARS. ALL CUT LIMBS OVER 1 INCH IN DIAMETER SHALL BE PAINTED WITH TREE WOUND PAINT IMMEDIATELY AFTER TREE TRIMMING.
- CONTRACTOR SHALL REPLACE ANY TREES REMOVED OR DESTROYED WITHOUT THE OWNER'S PERMISSION OR SHALL PAY FAIR MARKET VALUE (AS DETERMINED BY THE OWNER) TO THE OWNER.
- ANY FENCES DAMAGED OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT THE SAME LOCATION WITH A FENCE OF EQUAL OR SUPERIOR QUALITY.
- TEMPORARY FENCING SHALL BE REQUIRED WHERE INDICATED ON THE DRAWINGS, WHERE THERE IS AN OPEN WET WELL TOP, EXCAVATIONS OR AS DIRECTED BY THE CITY.
- CONTRACTOR SHALL PROVIDE A STORM WATER POLLUTION PREVENTION PLAN AND PROVIDE ALL APPURTENANCES TO COMPLY WITH THE LATEST TCEQ STORM WATER POLLUTION PREVENTION REGULATIONS.
- CONTRACTOR SHALL PROVIDE ADEQUATE MEASURES FOR DEWATERING AS NECESSARY (NO PAY ITEM).
- CONTRACTOR SHALL PROTECT ALL UNDERGROUND IRRIGATION SYSTEMS (KNOWN AND UNKNOWN). ALL DAMAGE SHALL BE REPAIRED BY AN IRRIGATOR LICENSED IN THE STATE OF TEXAS.
- CONTRACTOR SHALL SUBMIT A WRITTEN PLAN AND SCHEDULE 14 DAYS IN ADVANCE OF CONSTRUCTION ACTIVITIES REQUIRING REPLACEMENT OR SUPPORT OF EXISTING SANITARY SEWER PIPE, WATER PIPE OR STORM DRAIN PIPE. THE PLAN SHALL DESCRIBE IN DETAIL THE METHOD FOR REPLACING OR SUPPORTING EXISTING PIPE AND ASSOCIATED SCHEDULE.
- CONTRACTOR, AT HIS DISCRETION, MAY TUNNEL UNDER EXISTING UTILITIES OR ROADWAYS OTHER THAN THOSE CROSSINGS SPECIFICALLY SHOWN ON THE DRAWINGS, AT NO ADDITIONAL COST TO THE OWNER.
- SURVEY POINTS INDICATED AS "CONTROL POINT" (IRON ROD SETS, "X" IN CONC, AND 60D NAILS POINT") SHALL BE USED FOR HORIZONTAL AND VERTICAL SURVEY CONTROL FOR THE PROJECT. ALL CONSTRUCTION SURVEYS SHALL BE COMPLETED BY THE CONTRACTOR (NO PAY ITEM).
- THE CONTRACTOR SHALL RESTORE AT HIS OWN EXPENSE, TEMPORARY ROADS AND CONSTRUCTION WORK AREAS.
- CONTRACTORS OPERATIONS MUST STAY WITHIN THE PERMANENT EASEMENTS AND CONTRACTOR'S WORK AREA DESIGNATED ON THE PLAN SHEETS. ANY DAMAGE OUTSIDE THESE OPERATIONS SHALL BE REPAIRED AND/OR REPLACED AT THE CONTRACTORS EXPENSE. ACCESS ROUTES OR OPERATIONS WHICH FALL OUTSIDE THE DESIGNATED AREAS WILL ONLY BE ALLOWED WITH PRIOR LANDOWNER CONSENT. CONTRACTOR SHALL PROVIDE THE OWNER WITH A COPY OF ANY AGREEMENTS MADE BETWEEN THE LANDOWNER AND THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE A DVD TO THE OWNER DOCUMENTING THE CONDITION OF THE SITE INCLUDING THE PERMANENT EASEMENT AND SURROUNDING AREA PRIOR TO THE START OF ANY CONSTRUCTION. DVD TO BE PROVIDED PRIOR TO FIRST PAYMENT TO CONTRACTOR (NO PAY ITEM).
- PROVIDE ACCESS FOR LANDOWNERS AT EXISTING ROADS, ALLEYS, AND DRIVEWAYS AT ALL TIMES.
- CONTRACTOR SHALL PROTECT ALL TREES, LANDSCAPING AND STRUCTURES LOCATED WITHIN THE PERMANENT EASEMENTS. TREES, LANDSCAPING AND STRUCTURES NOT INDICATED FOR REMOVAL OR TRANSPLANT ON THE PLANS SHALL NOT BE REMOVED OR TRANSPLANTED WITHOUT RECEIVING WRITTEN APPROVAL FROM THE CITY OF ROCKWALL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE CONSTRUCTION SITE AND ADJACENT AREAS CLEAR OF TRASH AND CONSTRUCTION DEBRIS. DUE TO THE LIMITED SIZE OF THE SITE, A CONSTRUCTION EXIT MAY BE IMPRACTICAL, THEREFORE IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RINSE ALL DIRT, MUD, SILT, DUST, ETC., OFF THE TIRES OF CONSTRUCTION EQUIPMENT PRIOR TO LEAVING THE SITE. CONTRACTOR SHALL SWEEP ALLEY AND THE PORTION OF SUNSET HILL DRIVE THAT HAS CONSTRUCTION DIRT, DEBRIS, ETC., A MINIMUM ONCE A DAY AND/OR AS REQUIRED BY CITY INSPECTOR.

STANDARD SEWER NOTES

- SEWER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT CITY OF ROCKWALL, SPECIFICATIONS AND CODES.
- STANDARD MANHOLE FRAMES AND 30" DIAMETER COVER SHALL BE PAMREX AS MANUFACTURED BY CERTAINTEED CORPORATION.
- 4200 P.S.I. CONCRETE SHALL BE USED FOR ALL MANHOLES.
- USE ONLY A NON-SHEAR COUPLING FOR PIPE CONNECTIONS.
- WHEN THE TRENCH SAFETY EXCEEDS 5 FEET IN DEPTH, THE CONTRACTOR SHALL MEET OR EXCEED THE O.S.H.A. STANDARDS FOR TRENCH SAFETY.

This record drawing is a compilation of the sealed engineering drawing for this project, modified by addenda, change orders and information furnished by the contractor. The information shown on the record drawings that was provided by the contractor or others not associated with the design engineer cannot be verified for accuracy or completeness. This original sealed drawings are on file at the offices of Birkhoff, Hendricks & Carter, L.L.P.

BY MH DATE 06/08/15

LIFT STATION NOTES

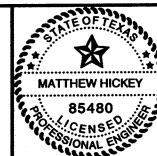
- CONTRACTOR SHALL COORDINATE LOCATION OF ALL APPURTENANCES WITH PUMP SUPPLIER. BASE ELBOW ANCHOR BOLT TYPE, LOCATION AND ORIENTATION SHALL BE COORDINATED BY THE CONTRACTOR THROUGH PUMP SUPPLIER ANCHORS FOR BASE ELBOWS SHALL BE SUPPLIED BY THE PUMP MANUFACTURER AND INSTALLED PER PUMP SUPPLIER RECOMMENDATIONS.
- ALL DUCTILE IRON PIPING SHALL BE ANSI/AWWA C115. FITTINGS SHALL BE ANSI/AWWA C110 DUCTILE IRON, FULL BODY, FLANGED, STANDARD THICKNESS. JOINTS SHALL BE ANSI/AWWA C111, MECHANICAL JOINT. PIPE AND FITTINGS SHALL HAVE INTERNAL AND EXTERNAL EPOXY COATINGS. ALL BURIED DUCTILE IRON PIPING SHALL ALSO BE POLYETHYLENE ENCASED IN ACCORDANCE WITH AWWA C105.
- ALL DUCTILE IRON PIPING SHALL BE LINED WITH 40 MILS NOMINAL DFT OF PROTECTO 401 OR APPROVED EQUAL.
- ALL EXPOSED DUCTILE IRON PIPING AND FITTINGS WITHIN THE WET WELL AND VALVE VAULT SHALL BE COATED WITH TNEC SERIES 435 PERMA-GLAZE APPLIED AT 15-25 MILS DFT. PRIOR TO APPLICATION, ALL SURFACES SHALL BE CLEANED AS PER NAPF 500-03-01 SOLVENT CLEANING USING STIFF BRISTLE BRUSHES TO REMOVE ALL GREASE, OIL, FACTORY-APPLIED TAR OR BITUMASTIC COATINGS AND ANY OTHER CONTAMINANTS. IF SURFACE PROFILE IS EQUAL TO OR GREATER 1.5 MILS, CLEAN AS PER NAPF 500-03-03 POWER TOOL CLEANING TAKING CARE NOT TO BURNISH THE METAL. IF THE SURFACE PROFILE IS LESS THAN 1.5 MILS, ABRASIVE BLAST AS PER NAPF 500-03-04 BRUSH-OFF BLAST CLEANING TO ACHIEVE REQUIRED PROFILE.
- WHERE PIPES OR CONDUIT PASS THROUGH THE WALL OF THE WET WELL OR VALVE VAULT, THE SPACE BETWEEN THE WET WELL AND THE PIPE SHALL BE SEALED WITH LINK SEALS MODEL S-316.
- CONTRACTOR SHALL GROUT OPENINGS FOR ACCESS FRAMES AND WET WELL BOTTOM AS SHOWN. ALL GROUT SHALL BE NON-SHRINK AND BE COMPATIBLE WITH SPECIFIED COATINGS. CONFIGURE GROUT IN WET WELL BOTTOM PER PUMP MANUFACTURER RECOMMENDATION.
- COMPLETELY RESTRAIN ALL JOINTS FOR PIPE, BENDS, TEES AND FITTINGS ON THE FORCE MAIN PIPING.
- ALL CONCRETE AND GROUT SURFACES INSIDE THE WET WELL SHALL BE COATED PER THE TECHNICAL SPECIFICATIONS. ALL CONCRETE AND GROUT SHALL HAVE A MINIMUM OF 28 DAYS CURE TIME PRIOR TO COATING APPLICATION. ABRASIVE BLAST ALL SURFACES TO SSPC-SP13/NACE 6 PRIOR TO COATING APPLICATION. FOLLOW MANUFACTURERS PUBLISHED APPLICATION INSTRUCTIONS INCLUDING THOSE FOR SURFACE REPAIR PRIOR TO COATING.
- WET WELL AND VALVE VAULT SHALL HAVE WATER TIGHT JOINTS (O-RING OR APPROVED EQUAL). INTERIOR AND EXTERIOR SIDES OF JOINTS SHALL BE SEALED WITH NON-SHRINK GROUT.

PAVING NOTES

- CONCRETE FOR ALL CURB AND GUTTERS, VALLEY GUTTERS, DRIVEWAYS, SIDEWALKS AND BRICK PAVER BORDERS AND BASES SHALL BE IN CONFORMANCE WITH NCTCOG ITEM 303.3.9.2, CLASS P1 CONCRETE (4,000 P.S.I.). THE CONTRACTOR SHALL UTILIZE ONE CONCRETE MIX DESIGN THROUGHOUT THE PROJECT. 20% OF CEMENT CAN BE REPLACED WITH A FLY ASH REPLACEMENT RATIO OF 1.25. CONCRETE MIX DESIGN SHALL BE SUBMITTED FOR REVIEW.
- REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM 615, 616 AND 617.
- ALL REINFORCING STEEL SHALL BE TIED (100%). REINFORCING STEEL SHALL BE SET ON PLASTIC CHAIRS. BAR LAPS SHALL BE MINIMUM 30 DIAMETERS.
- SAWED TRANSVERSE DUMMY JOINTS SHALL BE SPACED EVERY 15' OR 1.25 TIMES LONGITUDINAL BUTT JOINT SPACING WHICHEVER IS LESS. SAWING SHALL OCCUR WITHIN 5 TO 12 HOURS AFTER THE POUR INCLUDING SEALING. OTHERWISE THE SECTION SHALL BE REMOVED AND LONGITUDINAL BUTT JOINT CONSTRUCTED.
- FLEXIBLE BASE MATERIAL SHALL BE COMPACTED TO A 95% STANDARD PROCTOR DENSITY (ASTM D1557). 6-INCH COMPACTED SUBGRADE SHALL BE COMPACTED TO A 95% STANDARD PROCTOR DENSITY (ASTM D698). DENSITY TEST RESULTS SHALL BE COMPLETED BY AN INDEPENDENT LABORATORY APPROVED BY THE CITY. ALL RESULTS SHALL BE PROVIDED TO THE CITY. THERE SHALL BE NO SEPARATE PAYMENT FOR DETERMINATION OF MAXIMUM DENSITY, ALL COSTS SHALL BE INCLUDED IN THE APPROPRIATE ITEMS OF THE BID SCHEDULE.
- ALL FILL SHALL BE COMPACTED BY SHEEPS FOOT ROLLER. MAXIMUM LOOSE LIFT FOR COMPACTION SHALL BE 8 INCHES. ALL LIFTS SHALL BE TESTED FOR DENSITY BY AN INDEPENDENT LABORATORY APPROVED BY THE CITY.
- ALL AREAS OUTSIDE PAVEMENT DISTURBED BY CONSTRUCTION ACTIVITIES SHALL HAVE SOLID SOD ON 4" TOP SOIL GRASS ESTABLISHED IMMEDIATELY. GRASS SHALL MEET THE REQUIREMENTS OF NCTCOG ITEM 202.5. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE BID SCHEDULE ITEM. AREAS DISTURBED OUTSIDE THE R.O.W. OR LIMITS OF CONSTRUCTION SHALL HAVE GRASS ESTABLISHED IMMEDIATELY AT THE CONTRACTORS EXPENSE (NO PAY ITEM).
- ALL AREAS TO BE EXCAVATED OR FILLED SHALL HAVE EROSION CONTROL PLACED PRIOR TO COMMENCING EARTHWORK. EROSION CONTROL DEVICES SHALL BE MAINTAINED THROUGHOUT THE PROJECT IN ACCORDANCE WITH NCTCOG ITEM 201 (NO SEPARATE PAY ITEM).
- CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL EXISTING CONCRETE AND HMAC PAVEMENT AS REQUIRED FOR CONSTRUCTION OF THE PROJECT. ALL COSTS SHALL BE INCLUDED IN THE APPROPRIATE ITEMS IN THE BID SCHEDULE.
- ALL CONNECTIONS OF PROPOSED CONCRETE PAVEMENT TO EXISTING CONCRETE PAVEMENT SHALL INCLUDE A LONGITUDINAL BUTT JOINT AS THE LOAD TRANSFER DEVICE - SEE DETAIL THIS SET OF PLANS. CONCRETE SAW CUTS FOR ALL DRIVEWAYS AND SIDEWALKS SHALL BE SUBSIDIARY TO THE APPROPRIATE BID ITEM FOR DRIVEWAY AND SIDEWALK REPLACEMENT.
- THERE SHALL BE NO SEPARATE PAYMENT FOR SUBGRADE PREPARATION UNDER DRIVEWAY AND ALLEY AREAS AND ALL COST SHALL BE INCLUDED IN THE APPROPRIATE ITEMS OF THE BID SCHEDULE.
- PAYMENT FOR REMOVAL AND REPLACEMENT OF STREET, DRIVE AND SIDEWALK PAVEMENTS SHALL BE BASED ON PLAN QUANTITY AND NO ADJUSTMENTS WILL BE MADE UNLESS APPROVED IN WRITING BY THE CITY ENGINEER.
- ALL PAVEMENTS TO BE REMOVED AND REPLACED SHALL BE FULL DEPTH SAW CUT ALONG NEAT LINES AS SHOWN IN THE PLANS. PROPOSED CONCRETE PAVEMENT SHALL BE CONSTRUCTED WITH LONGITUDINAL CONSTRUCTION JOINTS AT ALL CONNECTIONS TO EXISTING CONCRETE PAVEMENT.

These plans and related specifications were prepared for construction of this specific project only. Reuse of these documents is not permitted without written authorization of Birkhoff, Hendricks & Carter, L.L.P. If this drawing is converted to an electronic file, if any discrepancy occurs between the electronic file and the Birkhoff, Hendricks & Carter, L.L.P. original document, the original document will govern in all cases.

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
 PROFESSIONAL ENGINEERS
 Texas Firm F526
 11910 Greenville Ave., Suite 600
 Dallas, Texas 75243 (214) 361-7900



Matthew Hickey
 1/2/14

CITY OF ROCKWALL, TEXAS
 NORTHSHORE LIFT STATION
 GENERAL PROJECT & LIFT STATION NOTES

BHC
 PROJECT NO.
 2013-119
 January 2014

SHEET NO.
2