GENERAL ITEMS

1. Prior to any construction the Contractor shall be familiar with the Contract Documents and Specifications, the Plans (including all notes). The City of Royse City Specifications and any other applicable standards or specifications relevant to the proper completion of the work specified. Failure on the part of the Contractor to be familiar with all Standards and Specifications pertaining to this work shall in no way relieve the Contractor of responsibility for performing the work in accordance with all such applicable Standards and Specifications.
2. Prior to construction, Contractor shall have in their possession all necessary permits, plans, licenses, etc. Contractor shall have at least one set of approved Engineering Plans and Specifications on-site at all times.
3. All work shall conform to the City of Royse City design manuals and standards. In the event an item is not covered in the plans or the City of Royse City design manuals and standards, the most current North Central Texas Council of Governments (NCTCOG) Standard Specifications for Public Works Construction shall apply with concurring notification to the City and Project Engineer. The City shall have the final decision on all construction materials, methods, and procedures.
4. Construction inspection will be performed by representatives of the Owner, Engineer, City, Geotechnical Engineer, and reviewing authorities and agencies. Unrestricted access shall be provided to them at all times. Contractor is responsible for understanding and scheduling required inspections. Testing samples shall be collected and processed by certified technicians.
5. All contractors must confine their activities to the work area. No encroachments onto developed or undeveloped areas will be allowed. Any damage resulting therefrom shall be Contractor's responsibility to repair.
6. Developer shall be responsible for obtaining all offsite easements prior to commencement of offsite and relevant on-site construction activities.
7. It will be the responsibility of each contractor to protect all existing public and private utilities throughout the construction of this project. Contractor shall contact the appropriate utility companies for line locations prior to commencement of construction and shall assume kill liability to those companies for any damages caused to their facilities.
8. Trench Safety Design will be the responsibility of the Utility Contractor. Contractor shall submit a trench safety design approved by a professional engineer to the City Inspector for review prior to the start of any underground utility construction.
9. Continuous access for mail service shall be provided during construction.
10. If any conflict arises between these generals notes and any other notes found in the plans, the City General Notes shall take precedence.

EROSION CONTROL & VEGETATION

1. Every soil disturbing activity shall have an accompanying Erosion Control Plan (ECP), and either Construction Site Notice (CSN) for those activities disturbing more than 1 but less than 5 acres, or Notice of Intent (NOI) for those activities disturbing 5 or more acres including those activities less than 5 acres, but are part of a common plan of development totaling 5 or more acres. A copy of the appropriate CSN or NOI shall be provided to the City of Royse City prior to issuance of a grading permit. The ECP shall be provided to Royse City's Public Works Department prior to grading.
2. The CSN or NOI shall be posted in a location viewable to the public until construction is complete and Notice of Termination (NOT) submitted. The Storm Water Pollution Prevention Plan (SWP3) shall be readily available for review by Federal, State, or local officials.
3. No soil disturbing activities will occur prior to the SWP3, ECP, and associated Best Management Practices (BMP) being fully implemented, and then inspected by Royse City's Public Works Department.
4. The contractor shall comply with the current NCTCOG iSWMTM Technical Manual for Construction, the TPDES General Construction Permit TXR150000 and any other State and/or Local regulations.
5. The contractor shall employ measures as necessary to prevent dirt, mud, debris from being tracked off site. Any dirt, mud, debris tracked offsite shall be cleaned up by the contractor immediately.
6. The site shall be reviewed by the operator or his representative weekly, and after any major storm. Adjustments/repairs to the erosion control measures will be made as needed. The contractor shall notify Royse City's Public Works Department of adjustments/repairs such that the adjustments/repairs may be inspected and approved by the City.
7. Along parkways and medians in the right-of-way, a four (4) foot strip of native sod shall be placed behind the curb on top of four (4) inches of topsoil. Contractor shall be responsible for any temporary irrigation or watering as needed. Areas adjacent to new residential lots, where the homebuilder will be disturbing this area, may be exempt from this requirement so long as adequate erosion control measures are installed and maintained behind the curb.
8. Contractor shall establish perennial vegetation on all other disturbed areas immediately upon completion of grading activities. An appropriate seed mix should be considered with respect to the season and the timing of final acceptance. A cool season seed mix should be used between September 15th and April 15th. Final acceptance of a site shall be contingent upon perennial vegetation being fully established in all disturbed areas.
9. A completed N.O.T. shall be submitted to the State and a copy of this N.O.T. shall be provided to the City of Royse City prior to final acceptance.

TREE PRESERVATION

1. Prior to construction, the contractor or subcontractor shall construct and maintain a protective fence at the drip line of all protected existing trees, bushes, landscaping plants, sprinklers, and lawns unless noted otherwise on the construction drawings. Any damage to the existing trees, bushes, landscaping plants, sprinklers, and lawns caused by construction shall be replaced to the satisfaction of the City of Royse City at the contractor's expense.
2. All protective measures shall be in place prior to commencement of any site or grading work and remain in place until all exterior work has been completed.
3. The City's Public Works Department shall be contacted to approve the placement of the Tree Preservation fencing, prior to beginning of site work on property.
4. The following activities shall be prohibited within the limits of the primary root zone: Material storage, equipment cleaning/liquid disposal, no tree attachments of signs or wires, and construction equipment/vehicular traffic is prohibited.
5. Unless specifically allowed, no grade changes shall be allowed within the limits of the primary root zone of any protected tree unless the City approves adequate construction methods.
6. No trimming of trees may occur within the Tree Preservation fencing limits without prior consent of the City.

TRAFFIC CONTROL

1. When the normal function of the roadway is suspended through closure of any portion of the right-of-way, temporary construction work zone traffic control devices shall be installed to effectively guide the motoring public through the area. Consideration for road user safety, worker safety, and the efficiency of road user flow shall be an integral element of every traffic control zone. All traffic control devices shall be in accordance with the latest T.M.U.T.C.D. Devices must contain either Type III Hi-Intensity sheeting or Type IV reboundable Hi-Intensity sheeting.
2. Any traffic control plans not included in the engineering plan set must be submitted for review a minimum of seven (7) working days prior to the anticipated lane closure. Construction activity shall not begin until the traffic control plan is approved by the City of Royse City. Traffic control plans may be required on other roadways as determined by the City or the designee. All traffic control plans must be prepared by an individual that is certified in their preparation. Any deviation from an approved traffic control plan must be reviewed by the City or their designated representative.
3. The contractor shall be responsible for maintaining all traffic control devices on an around-the-clock basis, whether or not work is active. Any deficiencies shall be corrected by the contractor immediately, regardless of time of day.
4. Lane closures will not be permitted on arterial roadways before 9:00 am or after 4:00 pm. Violations may result in suspension of all work at the job site for a minimum of 48-hours. The City reserves the right to deny a closure for a special event.
5. Lane closures will not be permitted on streets adjacent to private and/or public schools during the following hours:

   Elementary ..... 7:15am - 8:15am; 2:45pm – 3:45pm
   Middle School ..... 7:55am – 9:00am; 3:30pm – 4:40pm
   High School ..... 6:45am – 7:45am; 2:15pm – 3:15pm

6. All temporary traffic control devices shall be removed as soon as practical when they are no longer needed. When work is suspended for short periods of time at the end of the workday, temporary traffic control devices that are no longer appropriate shall be removed or covered. The first violation of this provision will result in a verbal warning to the construction foreman. Subsequent violations will result in suspension of all work at the job site for 48-hrs minimum.
7. Existing permanent signs removed by the contractor for construction purposes other than stop, yield and street name signs shall be returned to the City of Royse City. All stop, yield and street name signs removed shall be temporarily erected in the appropriate locations (no less than 7 feet vertical from grade) until permanent signing can be installed. Any temporary stop or yield sign locations to be left in place overnight will require prior approval from the City.
8. Any permanent sign or existing pavement markings that conflict with the approved traffic control plan shall be covered, obliterated or removed as directed by the City.
9. Access must be maintained to all drives and side streets or as indicated in the traffic control plan.

PEDESTRIAN ACCESSIBILITY (WITHIN PUBLIC R.O.W.)

1. All newly constructed sidewalks, curb ramps and crosswalks installed within City of Royse City public rights-of-way shall be considered a pedestrian access route and shall conform to the most current "Draft" Guidelines for Public Rights-of-Way created by the United States Access Board. *http://www.access-board.gov/prowac/draft.htm*
2. Curb Ramps shall conform to all federal guidelines, and shall adhere to the following criteria:
   a. 8.3% maximum running slope and 2.0% maximum cross slope
   c. Minimum 4.0-ft width
   d. Minimum 4.0-ft x 4.0-ft landings at top and bottom of ramps with 2.0% maximum running slope and cross slope.
   e. Detectable warning surface placed at point of entry into roadway.
3. Detectable warning surface shall be pre-manufactured plates with truncated dome material built in. Only plates from TxDOT approved vendors shall be permitted and shall be installed per manufacturer's specifications. Brick pavers will not be allowed. Final color shall be approved by the City, but shall generally be in the "RED" color family.
4. The contractor shall provide a clear and safe route for pedestrians adjacent to the site for the duration of construction. A temporary pedestrian route shall be provided when any existing sidewalk is closed due to construction activity.
5. Construction materials shall be kept off existing sidewalks and consolidated in areas within the City right-of-way, unless otherwise approved by the City.
6. Sidewalks shall conform to all federal guidelines, but shall generally adhere to the following:
   a. Generally follow the street grade with a maximum 2.0% cross slope.
   b. Shall be free of any overhangs by landscaping or other items to a height of 7.0-feet.
   c. Sidewalks shall maintain a continuous (pedestrian access route) elevation through residential and commercial driveways.
   d. A minimum 5.0-ft x 5.0-ft passing zone shall be provided at a minimum of 200-ft intervals.

WATER

1. Line and grade stakes for construction of all water and sanitary sewer lines and services shall be furnished by the following:
   a. Private Development: Developer's engineer, surveyor or their designated representative.
   b. Capital Improvement Projects: the Contractor, unless specified otherwise in the contract.

   Property lines and corners must be properly staked to verify the water line alignment. The City shall not be liable for improper alignment or delay of any kind caused by improper or inadequate surveys.
2. All new water services shall be AWWA C901, 1" minimum DR-9 (250 psi) HDPE poly pipe with PE4710 as specified in ASTM F714, from the service tap to the curb stop, 1-inch minimum compression fitting angle stop, and meter box, unless otherwise indicated on the plans. Curb stops will be located within the meter box and facing toward the lot. For single family residential services the minimum meter size is ¾". Following the 1" service and the curb stop, a 1" to ¾" adaptor may be utilized to accommodate a ¾" meter. 1-½-inch meters not permitted.
3. Each meter box shall be located adjacent to the curb and installed after street pavement has been completed and curbs backfilled. Meter boxes shall be Bass & Hays BH PMC 1220-12 for small meter boxes or BH PMC 1015-12 for large meter boxes with hinged blue tops and no reader lid. A 2" minimum metal locator plate shall be placed in the recess of the meters.
4. All water services shall be located along the lot lines. Single services shall be placed no more than 2-ft inside the service lot at the lot line.
5. Detector pads embedded in sand shall be installed above all service connections.
6. Each individual service location shall be sawcut into the face of the curb with a 4-inch high "W" painted by the Contractor. If no curb exists, a similar mark shall be placed in the pavement near the edge of the roadway. After cleaning the sawcut via compressed air or brush, apply one coat of APWA Blue spray paint to mark the sawcut symbol.
7. All water service lines shall be embedded with 6-inch sand below and around the pipe and 1-ft. of sand over the top of the pipe; from the water main to the meter. Water service lines within City roadway right-of-way shall be compacted to a minimum of the 95% Standard Proctor density with a +/- 3% wet of optimum moisture content.
8. All 6", 8" and 12" water mains shall be AWWA C900 PVC pipe or polywrapped ductile iron.
9. Minimum cover shall be 4 feet for 6-inch to 8-inch lines, 5 feet for 12-inch to 16-inch lines, and 6 feet for 20-inch and larger lines. Additional cover may be required in un-paved or un-developed areas.
10. Water mains in the right-of-way near storm inlets shall be constructed with a minimum clearance of 12 inches behind the inlet by pulling the pipe using longitudinal bending in accordance to 80% of the pipe manufacturers' requirements.
11. Standard embedment shall be NCTCOG Class "B-3" for all waterlines, with revisions in accordance with the Royse City Technical Construction Standards.
12. All blow-off (flush) valves shall be two (2) inch and shall be provided in accordance with City of Royse City standards and/or NCTCOG standards.
13. Bolts and nuts for mechanical joints will be of a high-strength low-alloy corrosion resistant steel conforming to ASTM A325 (Type 3).
14. All waterline fittings shall be ductile iron. All 6" - 12" valves shall be AWWA approved resilient wedge gate valves.
15. In addition to thrust blocking, all fittings must be restrained.
16. Install 2' x 2' x 4" thick, concrete pad around all water valves outside of concrete pavement.
17. Valve extensions shall be provided on all valves with operating nuts greater than 5-ft below finished ground or paving grade.
18. All valves shall be marked with a "V" by sawcut on the curb or pavement The "V" shall point to the location of the valve as follows: If the valve is in the paving, the "V" shall be marked upright; if the valve is outside the paving, the "V" shall be marked upside down. After cleaning the sawcut via compressed air or brush, apply one coat of APWA Blue spray paint to mark the sawcut symbol.
19. NRS Resilient-Seated Gate Valves shall conform to AWWA C509 or AWWA C515. Rubber-Seated Butterfly Valves shall conform to AWWA C504. All valves shall have a 2" square operating nut and open to the left. All valves shall be Mueller, Clow or AVK.
20. Valve Boxes shall be "Shorty" Valve Boxes with PVC Valve Stacks. Adjustable valve stacks are not permitted.

STORM SEWER

1. When there is less than two feet of clearance between a water/sewer line and a storm sewer, the Contractor shall install concrete encasement around the sanitary sewer or waterlines at the storm sewer crossing. The encasement shall be a minimum of 10 L.F. and 6" thick centered at the crossing.
2. Manhole lids on storm sewer inlets shall be centered over the outgoing storm lateral.
3. All bends and wyes for pipes less than 42" diameter must be factory manufactured bends and wyes.
4. Inlet block-outs shall be placed three (3') feet from the back of standard curbs for the distance of ten (10') feet upstream (both sides in sag conditions) and five (5') feet downstream from the inside face of inlet. Inlet block-outs shall be placed five (5') feet downstream from the inside face of inlet, unless otherwise noted.
5. Structural concrete used for storm water structures shall be in compliance with the latest version of the NCTCOG standards and specifications.
6. Prior to final acceptance, all storm sewers shall be television filmed and cleared of any sediment and debris.
7. Standard embedment shall be NCTCOG Class "B" for all public storm lines, with revisions in accordance with the Royse City Technical Construction Standards.

RETAINING WALLS

1. Retaining walls greater than 2 feet in height must be an engineered design by an engineer licensed in the State of Texas.
2. Retaining walls (including the footing) shall not be constructed to encroach upon City Right-of-Way, public easements, or public utilities without the consent of the City.

FIRE HYDRANTS

1. Fire hydrants shall be placed 3 feet from back of curb unless otherwise indicated on the plans, or as required to clear sidewalks. Fire hydrants shall not be located within a sidewalk.
2. Fire hydrants shall be three way breakaway type no less than 5¼ inches in size and must conform to AWWA specifications C-502. They shall be Mueller, East Jordan, AVK or approved equal with all bronze to bronze moving parts. Two 2½-inch NST hose connections are required. 4-1/2" X 5" Storz hydrant converter required on all hydrants. The 4½-inch diameter steamer connection shall be 4.800 pitch with 4 threads per inch. The operating nut shall be 1½-inch P to F pentagon nut, open left. Mechanical joint connection is required. The steamer nozzle shall face the fire lane, adjacent roadway or as directed by the Fire Department.
3. A Blue Stimsonite, Fire-Lite reflector (or approved equal) shall be placed in the center of the street opposite each fire hydrant. The fire hydrant shall be painted with two coats of Tnemec Series 530 Omnithane paint or approved equal, and two coats of primer. Bonnet to flange and nozzle caps of Fire Hydrant to be painted with 2 coats of Tnemec Safety Paint Series 2H "Hi-Build" according to the following:
   a. Hydrants connected to 6" main line shall be painted silver.
   b. Hydrants connected to 8" main line shall be painted blue.
   c. Hydrants connected to 10" main line shall be painted yellow

SANITARY SEWER

1. Line and grade stakes for construction of all water and sanitary sewer lines and services shall be furnished by the following:
   a. Private Development: Developer's engineer, surveyor or their designated representative.
   b. Capital Improvement Projects: The Contractor, unless specified otherwise in the contract.

   Property lines and corners must be properly staked to verify the sewer line alignment. The City shall not be liable for improper alignment or delay of any kind caused by improper or inadequate surveys.
2. Unless otherwise noted on the plans, all sanitary sewer pipes shall be PVC ASTM Designation D3034 up through 15" in diameter. Pipes larger than 15" in diameter shall be designated PVC ASTM F679. Other pipe shall be subject to Approval by the City.
3. All residential sanitary sewer laterals shall include a 4" tee wye bend, pipe and stopper, and shall be installed downstream from the water service at the lot centerline and extended 10' beyond the property line onto private property. Sewer laterals shall be laid on a minimum slope of +2.00% from the main line to the street right-of-way.
4. After curb and paving has been completed, contractor shall cut a four (4) inch high "S" on the curb indicating the location of the cleanout. After cleaning the sawcut via compressed air or brush, apply one coat of APWA Green paint to mark the sawcut symbol.
5. All sanitary sewers and laterals shall be tested by pulling a mandrel, air pressure test, and television video. The television video shall be provided to the City Inspector in a DVD format and shall be labeled accordingly for City record.
6. All sanitary sewer manholes within flood plains or flood prone areas require Type "S" manhole lids and be properly vented per TCEQ requirements.
7. All manholes shall be vacuum tested where a 10" mercury vacuum is developed. The air vacuum shall then be monitored for a test period of 2 minutes. The allowance drop in air vacuum shall be no greater than 1" mercury over the test period.
8. The Contractor shall install City of Royse City standard wastewater manhole lids on all manholes.
9. Unless otherwise noted, in open spaces, the top of the sanitary sewer manhole shall be installed a minimum of 12 inches above the surrounding ground.
10. Structural concrete used for wastewater structures shall be in compliance with the latest version of the NCTCOG standards and specifications.
11. Standard embedment shall be NCTCOG Class "B-2" for all public sanitary sewer lines, with revisions in accordance with the Royse City Technical Construction Standards, for crushed stone 12" above top of pipe.

PAVING

1. All mix designs shall be sealed by a professional engineer and submitted to the City Inspector one week before a scheduled pour. Mix designs are subject to approval by the City.
2. All concrete paving shall have a minimum compressive strength of 4,000 psi, unless a higher compressive strength is specified.
3. All fill shall be compacted to 95% Standard Proctor Density in a maximum of 6" (six) inch lifts or per the approved Geotechnical Engineers Report.
4. Subgrade shall extend 12" minimum behind the curb, be a minimum of 6" thick and shall be lime or cement stabilized as recommended in the Geotechnical Report. The amount of lime to be added shall be sufficient to achieve a Plasticity Index not to exceed 12.
5. A subgrade density report must be presented to the City Inspector prior to paving. Densities are only valid for 72 hours. Densities received on a Friday are valid until noon on the following Monday. Densities taken before inclement weather may be required to be retaken at the City Inspector's discretion. A minimum of four (4) test cylinders are required for breaks at 7 days, 2 at 28 days, and the last cylinder being an extra.
6. All City streets are required to be paved with the use of an approved slip form paving machine with mechanical vibration. Hand pours are only allowed at intersection returns or other non-standard areas as approved by the City Inspector. Hand pours shall be vibrated by an approved hand vibrator.
7. Construction joints, cold joints and curb returns shall have fabric installed to allow for expansion.
8. Sawed joints shall be every 15 feet for 6" thick concrete and every 20 feet for 8" thick concrete; and shall be constructed within the first 12 hours of concrete placement.
9. Expansion joints shall be placed at a maximum every 400 feet.
10. All median noses shall be poured monolithically.
11. All Baffler Free Ramps shall comply with the current TDLR, ADA and TxDOT regulations.

GENERAL CONSTRUCTION NOTES
April 2020
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CITY OF ROYSE CITY PUBLIC WORKS DEPARTMENT

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RC Royse City A Friendly Touch of Texas