TEMPORARY WATER SERVICE NOTES

1. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL THE METHOD OF PROVIDING TEMPORARY DOMESTIC WATER SERVICE TO ALL AFFECTED CUSTOMERS AND EMERGENCY FIRE SERVICE IF DEEMED NECESSARY. THIS SHALL INCLUDE BUT NOT BE LIMITED TO:
   - 1.1. THE CONTRACTOR'S METHOD TO PROVIDE MAINTENANCE AND PROTECTION DURING THE ENTIRE LENGTH OF THE CONTRACT TO ENSURE CONTINUED WATER SERVICE.
   - 1.2. SIZES, MATERIALS OF CONSTRUCTION AND NSF (OR AT LEAST POTABLE WATER CERTIFICATION) OF TEMPORARY DOMESTIC AND FIRE PROTECTION LINES.
   - 1.3. MEANS AND METHODS FOR RAMPING OF TEMPORARY LINES AT DRIVEWAY ENTRANCES AND WALKWAYS IN ORDER TO PREVENT TRIP HAZARDS AND VEHICULAR DAMAGE. LINES CROSSING SIDEWALKS ARE REQUIRED TO BE RAMPED TO MEET ADA REQUIREMENTS AND SHALL HAVE A MAXIMUM SLOPE OF 12:1.
     - 1.3.1. THE CONTRACTOR WILL LIKELY BE REQUIRED TO PROVIDE SHALLOW TRENCHES TO ACCOMMODATE TEMPORARY WATER LINES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE TRENCHES DURING CONSTRUCTION AND RESTORING THE SURFACES TO ORIGINAL CONDITIONS AT THE END OF CONSTRUCTION.
   - 1.4. MEANS AND METHODS FOR SECURING TEMPORARY WATER LINES (IF NOT SECURED BY RAMPING) FROM EXCESS MOVEMENT WHEN BEING DRIVED OVER BY VEHICLES.
   - 1.5. CHECK VALVES ON EACH RESIDENTIAL DOMESTIC CONNECTION FOR PROTECTION OF WATER SUPPLY.
   - 1.6. DISINFECTION AND TESTING PER AWWA C651-14 OF EACH TEMPORARY LINE PRIOR TO CONNECTION TO THE CUSTOMERS.
2. ALL TEMPORARY WATER CONNECTIONS SHALL BE COMPLETED BY A LICENSED VERMONT MASTER PLUMBER WHO ACCESSES A SUITABLE LOCATION BY THE WATER METER TO COMPLETE THE WORK. NECESSARY PERMITS SHALL BE OBTAINED FROM BURLINGTON'S PLUMBING INSPECTOR AND THE PERMIT FEE SHALL BE PAID FOR BY THE CONTRACTOR. THIS PERMIT REQUIREMENT DOES NOT APPLY TO TEMPORARY WATER CONNECTED TO UNDERGROUND WATER SERVICE LINES WITHIN THE CITY RIGHT OF WAY.
3. ALL COORDINATION WITH PRIVATE RESIDENCES SHALL BE COMPLETED BY THE CONTRACTOR.
4. ANY TEMPORARY WATERLINES DEPICTED ON THE DRAWINGS ARE FOR PLANNING PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL LAYOUT OF ALL TEMPORARY WATERLINES.
5. IF THERE IS NO FUNCTIONING BALL VALVE ADJACENT TO THE EXISTING METER THEN THE CONTRACTOR'S PLUMBER SHALL INSTALL A NEW BALL VALVE WHICH WILL BE PAID FOR WITH THE APPROPRIATE BID ITEM.
6. CONTRACTOR SHALL WORK WITH HOMEOWNERS TO ENSURE THEY HAVE ADVANCED NOTICE PRIOR TO BEING CONNECTED FROM TEMPORARY WATER TO REHABILITATED WATER MAIN. TURNING OFF WATER TO HOMEOWNERS BECAUSE TEMPORARY WATER LINE IS SCHEDULED TO BE TAKEN AWAY IS NOT ACCEPTABLE.
7. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY WATER INSIDE BUILDINGS THAT IS WITHIN 5 PSI OF EXISTING WATER PRESSURE AT EACH HOUSE. WATER PRESSURE VARIES THROUGHOUT THE CITY AND THE APPROPRIATE PRESSURES CAN BE CONFIRMED BY THE CITY WHEN REQUESTED BY THE CONTRACTOR.
8. TEMPORARY WATER PLAN SHALL PROTECT WATERLINES FROM FREEZING AT ALL TIMES. TEMPORARY WATER LINES PROPOSED DURING FREEZING TEMPERATURES MAY NOT BE ALLOWED UNLESS SPECIAL APPROVED PROTECTIVE MEASURES ARE IMPLEMENTED.
9. TEMPORARY WATER PLANS SHALL BE REVIEWED AND APPROVED BY WATER RESOURCES ENGINEERING STAFF AND THE BURLINGTON FIRE DEPARTMENT PRIOR TO IMPLEMENTATION. THE FOLLOWING BURLINGTON FIRE DEPARTMENT REQUIREMENTS MAY BE UPDATED AT ANY TIME.
   - 9.1. TEMPORARY HYDRANT PLACEMENT SHALL BE DONE IN ACCORDANCE WITH THE 2015 NFPA 1 CHAPTER 18 CODE BOOK.
   - 9.2. FIRE HYDRANTS SHALL PROVIDE FOR DETACHED ONE- AND TWO-FAMILY DWELLINGS IN ACCORDANCE WITH BOTH OF THE FOLLOWING:
     - 9.2.1. MAXIMUM DISTANCE TO A FIRE HYDRANT FROM THE CLOSEST POINT ON THE BUILDING SHALL NOT EXCEED 600-FEET.
     - 9.2.2. THE MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS SHALL NOT EXCEED 800-FEET.
   - 9.3. FIRE HYDRANTS SHALL BE PROVIDED FOR BUILDINGS OTHER THAN DETACHED ONE- AND TWO-FAMILY DWELLINGS IN ACCORDANCE WITH BOTH OF THE FOLLOWING:
     - 9.3.1. MAXIMUM DISTANCE TO A FIRE HYDRANT FROM THE CLOSEST POINT ON THE BUILDING SHALL NO EXCEED 400-FEET.
     - 9.3.2. THE MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS SHALL NOT EXCEED 500-FEET.
   - 9.4. IF AN EXISTING HYDRANT IS GOING TO BE USED FOR PROVIDING WATER TO TEMPORARY HYDRANTS, WATER SUPPLY TO TEMPORARY HYDRANTS SHALL BE SUPPLIED FROM THE STEAMER OUTLET OF THE CLOSEST HYDRANT POSSIBLE. THIS CONNECTION NEEDS TO INCLUDE A 4-INCH STORZ CONNECTION AT THE SUPPLY HYDRANTS, WITH A VALVE TO ENABLE THE FIRE DEPARTMENT TO MAKE A CONNECTION WITHOUT SHUTTING THE SUPPLY HYDRANT DOWN.
   - 9.5. SUPPLY LINES FROM THE SUPPLY HYDRANT TO THE TEMPORARY HYDRANTS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 4-INCHES.

WATER DISTRIBUTION & COLLECTION SYSTEM: AS-BUILT STANDARDS FOR WATER RESOURCES WORK IN THE ROW

1. THE FOLLOWING AS-BUILT, REQUIREMENTS APPLY TO ALL NEW AND EXISTING STREETS WHERE THE CONTRACTOR IS COMPLETING INFRASTRUCTURE WORK. PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO THE CONTRACT. BASED ON THE SCALE OF THE PROJECT, THE CITY ENGINEER MAY DECIDE TO OMIT CERTAIN AS -BUILT REQUIREMENTS.
2. FILES SHALL BE SUBMITTED TO THE CITY OF BURLINGTON'S WATER RESOURCES ENGINEER MUNICIPAL PROJECT MANAGER IN A .DXF (DRAWING EXCHANGE FILE) FORMAT, AUTOCAD DRAWING (.DWG) FORMAT, ESRI FILE GEODATABASE FEATURE CLASSES OR ARCVIEW SHAPEFILE FORMAT (.SHP). DIGITAL FILES SHOULD BE PROJECTED IN VT STATEPLANE FT, NAD83 (HORIZONTAL) AND NVD88 (VERTICAL). DATA FILES MUST BE COMPATIBLE WITH THE CITY'S GIS SOFTWARE.
3. PLANS SHALL ALSO BE SUBMITTED AS PDF FILES. PDF FILES SHALL SHOW A PLAN VIEW MAP OF THE ENTIRE PROJECT AREA. PDF FILES SHALL HAVE SPECIFIC LABELS SHOWING PRE-EXISTING AND NEWLY INSTALLED INFRASTRUCTURE. LABELS SHALL NOTE IF UNDERGROUND PRE-EXISTING INFRASTRUCTURE HAS BEEN REMOVED FROM THE GROUND OR ABANDONED IN-PLACE PER CITY REQUIREMENTS. LABELS SHALL INCLUDE THE METHOD OF ABANDONMENT WHERE RELEVANT. LABELS SHALL STATE THE MATERIAL AND DIAMETER OF ALL PRE-EXISTING AND NEW INFRASTRUCTURE.
4. ALL DIGITAL FILES SHALL BE SUBMITTED VIA EMAIL OR USB DRIVE IN A TIMELY MANNER.
5. APPLICABLE EENTITIES IMPACTED BY THE CONTRACT WORK AND THEIR DATA LAYER PROPERTIES SHALL BE NOTED TO THE FOLLOWING:
   - a. WATER MAIN ENTITIES SHALL BE CREATED ON A "WMAIN" LAYER.
   - b. WATER SERVICE LINES SHALL BE CREATED ON A "WSERVICELINE" LAYER.
   - c. WATER SYSTEM VALVES SHALL BE CREATED ON A "WSYSTEMVALVE" LAYER.
   - d. CURB STOP VALVES SHALL BE CREATED ON A "WCURBSTOPVALVE" LAYER.
   - e. CORP STOPS SHALL BE CREATED ON A "WCORPSTOP" LAYER.
   - f. FIRE HYDRANTS SHALL BE CREATED ON A "WHYDRANT" LAYER.
   - g. FITTINGS (INCLUDING CAPS, TEES, TAPS, ETC.) SHALL BE CREATED ON A "WFITTINGS" LAYER.
   - h. WATER MAINS ABANDONED IN PLACE SHALL BE CREATED ON A "WABANDONEDMAIN" LAYER
   - i. WATER SERVICES ABANDONED IN PLACE SHALL BE CREATED ON A "WABANDONEDSERVICELINE" LAYER.
   - j. WATER SYSTEM VALVES ABANDONED IN PLACE SHALL BE CREATED ON A "WABANDONEDWATERVALVE" LAYER.
   - k. MANHOLES SHALL BE CREATED ON A "MANHOLE" LAYER.
   - l. CATCH BASINS SHALL BE CREATED ON AN "INLET" LAYER.
   - m. SANITARY SEWER/COMBINED SEWER/STORMWATER LINES SHALL BE CREATED ON A "GRAVITY MAIN" LAYER.
   - n. PRESSURIZED SANITARY SEWER LINES SHALL BE CREATED ON A "PRESSURIZED MAIN" LAYER.
   - o. CURB SHALL BE CREATED ON A "CURB" LAYER.
   - p. SIDEWALK SHALL BE CREATED ON A "SIDEWALK" LAYER. MULTI-USE PATH?
   - q. CURB RAMPS SHALL BE CREATED ON A "CURB RAMP" LAYER.
   - r. STREET PAVEMENT SHALL BE CREATED ON A "STREET" LAYER.
   - s. PAVEMENT MARKINGS SHALL BE CREATED ON A "PAVEMENT MARKING" LAYER.
   - t. SIGNS SHALL BE CREATED ON A "SIGN" LAYER.
   - u. ELECTRICAL SHALL BE CREATED ON AN "ELECTRICAL" LAYER.
   - v. TELECOM SHALL BE CREATED ON A "TELECOM" LAYER.
   - w. GAS SHALL BE CREATED ON A "GAS" LAYER.
   - x. DRIVEWAYS SHALL BE CREATED ON A "DRIVEWAY" LAYER.
   - y. PERMANENT EASEMENTS SHALL BE CREATED ON A "PERMANENT EASEMENT" LAYER.
   - z. PLANTERS SHALL BE CREATED ON A "PLANTER" LAYER.
   - bb. STRIPING SHALL BE CREATED ON A "STRIPING" LAYER.
   - cc. LANDSCAPING SHALL BE CREATED ON A "LANDSCAPING" LAYER.
   - dd. PROPERTY BOUNDARIES SHALL BE CREATED ON A "PROPERTY BOUNDARY" LAYER.
   - a. LANDSCAPING
   - ee. MISCELLANEOUS LINES, POINTS, AND TEXT ANNOTATIONS SHOULD BE PLACED ON UNIQUE LAYERS DIFFERENT FROM ONES REFERENCED ABOVE.
5. THE CITY WILL PROVIDE A COPY OF A BLANK GEODATABASE CONSISTING OF CITY STANDARD FIELDS AND DOMAINS AS A TEMPLATE.
6. ALL LINES REPRESENTING WATER MAINS, WATER SERVICE LINES, HYDRANT LATERAL LINES, AND FIRE SERVICES SHALL HAVE CONTINUOUS LINE WORK SNAPPED TO ENDPOINTS (I.E. FITTINGS, VALVES, OR HYDRANTS). ALL LINES REPRESENTING GRAVITY MAINS SHALL HAVE CONTINUOUS LINEWORK SNAPPED TO ENDPOINTS (I.E. MANHOLES, INLETS, CLEANOUTS, OR OUTFALLS).
7. THE CONTRACTOR SHALL CORRESPOND WITH BURLINGTON'S WATER RESOURCES DIVISIONS' GIS MANAGER THE MUNICIPAL PROJECT MANAGER TO ADDRESS ANY QUESTIONS ON THE DETAILS OF SUBMISSIONS.
8. RECORD DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR FOR ALL WATER RESOURCES INFRASTRUCTURE INSTALLED OR IMPACTED UNDER THIS CONTRACT. THE FOLLOWING DATA SHALL BE COLLECTED WITH SURVEY GRADE EQUIPMENT AND SHALL BE PROVIDED TO BURLINGTON'S WATER RESOURCES DIVISIONS' PROJECT MANAGER AND GIS SPECIALIST IN AN ACCEPTABLE FORMAT THAT IS COORDINATED DIRECTLY WITH THE CITY:
   - a. WATER FITTINGS (BENDS, CAPS, TAPS, ETC., INCLUDE SIZE)
   - b. WATER HYDRANTS
   - c. WATER VALVES (ACTIVE AND ABANDONED)
   - d. WATER CURB STOPS
   - e. WATER CORPORATION STOPS
   - f. WATER LINES (MATERIAL SIZE, DEPTH OF BURY TO TOP OF PIPE, ACTIVE VERSUS ABANDONED)
   - g. SANITARY SEWER/COMBINED SEWER/STORMWATER LINES (MATERIAL AND SIZE)
   - h. SANITARY SEWER/COMBINED SEWER/STORMWATER MANHOLES (SIZE AND INVERT ELEVATIONS)
   - i. STORMWATER CATCH BASINS AND OTHER STRUCTURES INCLUDING TANKAGE
   - j. CURB
   - k. SIDEWALK
   - l. CURB RAMPS
   - m. STREET PAVEMENT
   - n. PAVEMENT MARKINGS
   - o. SIGNS
   - p. ELECTRICAL
   - q. TELECOM
   - a. GAS
   - r. DRIVEWAYS
   - s. PERMANENT EASEMENTS
   - t. TEMPORARY EASEMENTS
   - u. PLANTERS
   - v. STRIPING
   - w. LANDSCAPING
   - x. PROPERTY BOUNDARIES
9. RECORD DRAWINGS AND AS BUILT DOCUMENTS SHALL BE SUBMITTED TO THE CITY NO LATER THAN SIXTY DAYS OF THE COMPLETION OF THE PROJECT. ANY SEWER OR WATER INFRASTRUCTURE ALTERED IN THE PROJECT NEEDS TO HAVE GPS SHOTS TAKEN AND AVAILABLE TO THE CITY WITHIN 48HRS OF COMPLETION OF CONSTRUCTION.
10. IF ANY NEW RIGHT OF WAY IS DEEDED TO THE CITY, RECORD DRAWINGS SHALL ALSO CONTAIN A STAMPED AND SIGNED STATEMENT BY A LICENSED LAND SURVEYOR THAT ALL PROPERTY CORNER MARKERS AND ROADWAY MONUMENTS HAVE BEEN SET IN ACCORDANCE WITH THE ACCEPTED PROPERTY PLAT.

THE STANDARDS ARE TO BE USED BY ENGINEERING PROFESSIONALS FOR PROJECTS WITHIN THE CITY. THE STANDARD DETAILS MAY NEED TO BE MODIFIED WITH CITY APPROVAL TO MEET PROJECT SPECIFIC APPLICATIONS. THE STANDARDS DO NOT COVER ALL ASPECTS OF WATER RESOURCES INFRASTRUCTURE AND IT IS THE RESPONSIBILITY OF THE DESIGNER TO ENSURE CONSTRUCTION DETAILS ARE COMPLETE FOR SPECIFIC APPLICATIONS. THE CITY IS NOT RESPONSIBLE FOR THE USE OF THESE STANDARDS FOR APPLICATIONS THAT ARE NOT APPROPRIATE. THE STANDARD DETAILS WILL BE PERIODICALLY UPDATED. IT IS THE RESPONSIBILITY OF THE DESIGNER TO CONFIRM THE STANDARDS THEY ARE USING ARE THE MOST RECENT VERSIONS.

1	REV A – INITITAL RELEASE	OCT 2023

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TYPICAL WATER

SYSTEM DETAILS II

DESIGNED AEW	RFS NO.
DRAWN AEW	SCALE NTS
CHECKED	DRAWING NO.
DATE OCTOBER 2023	SHEET 2 OF 2