SPECIAL CONDITIONS – STORM SEWER

1. **STORM SEWER CONSTRUCTION:**
    a. Storm sewer shall be constructed in accordance with the City of Omaha Standard Specifications, except as amended by the Contract Documents.
    b. Pipe materials and fittings shall be handled in a manner to ensure installation in sound and undamaged condition and in accordance with the manufacturer's recommendations. CONTRACTOR shall carefully inspect all pipes for cracks or other defects before being lowered into the trench.
    c. Proper equipment, methods and materials shall be utilized to ensure installation conforms to the alignment and grade specified. The Contractor shall be responsible for transferring elevations from the stakes provided by the Engineer to the invert of the pipe. The Contractor shall verify all grades prior to construction and notify the Engineer immediately with any discrepancies. If a laser device is used by the Contractor, he shall check the line and grade with the stakes to a distance of at least 50 feet from the laser device and at all manholes. The Contractor shall record all grade checks and produce the grade stake record if requested by the Engineer.
    d. Pipe shall be laid true to the line and grade established on the drawings. No changes in grade or alignment shall occur between manholes. Pipe shall be installed within 0.05' (1/2 inch) of the specified alignment and within 0.02' (1/4 inch) of the specified grade. These tolerances apply to any point along the entire pipe length. At no time shall the Contractor change the line or grade without approval from the Engineer. If an underground obstruction is encountered at the assigned grade, the Contractor shall notify the Engineer and wait until the revised grade for the sewer has been determined, if necessary. As work progresses, the interior of the sewer shall be cleared of all dirt and superfluous materials of any kind. Where cleaning after laying is difficult because of small pipe size, a suitable swab or drag shall be kept in the pipe and pulled forward past each joint immediately after the jointing has been completed. All joints shall be thoroughly cleaned prior to joining pipe sections. Follow product manufacture's manufacturer's instructions for the use of lubricants, cements, and other special installation requirements.
    e. Trenches shall be kept free from water until the pipe-jointing material has set, and pipe shall not be laid when the condition of the trench or the weather is unsuitable for such work. At times when work is not in progress, open ends of pipe and fittings shall be securely closed so that no trench water, earth, or other substance will enter into the pipe or fittings. The Contractor shall clean the interior of all sewer pipes, as needed, to ensure that the pipe is free from all dirt, concrete, or other foreign material before installation. In the event that excessive dirt and/or debris are observed in recently completed sewer pipe and manholes, the Contractor shall clean and remove all materials at no cost to the Owner. Downstream manholes shall be plugged to ensure that dirt and/or debris are not washed into other portions of the system or discharged downstream of the outlet.

f. The Contractor shall clean the interior of all sewer pipes, as needed, to ensure that the pipe is free from all dirt, concrete, or other foreign material before installation. In the event that excessive dirt and/or debris are observed in recently completed sewer pipe and manholes, the Contractor shall clean and remove all materials at no cost to the Owner. Downstream manholes shall be plugged to ensure that dirt and/or debris are not washed into other portions of the system.

2. **MANHOLE CASTING**: Manhole castings shall meet the requirements of the City of Omaha. Solid cast iron covers must be used on all storm sewer manholes and inlets unless otherwise noted in the plans. Manhole covers must be "City of Springfield" covers from Neenah Foundry. Contractor can contact Sam Vagts (602-830-5789, sam.vagts@neenahfoundry.com) for ordering information.

3. **REMOVALS**: Unless otherwise noted on the plans or established elsewhere in these Special Provisions, all items removed and not relocated shall become the property of the Contractor and be disposed of properly.

4. **72" RCP CULVERT & GRADING REIMBURSEMENT**: The contract Item "72" RCP Culvert & Grading Reimbursement" shall include the purchase of installed infrastructure including 72" RCP, 72" flared end sections, earthwork, and rip-rap, and other associated items that have been installed at the project site to ensure proper site drainage. The contract in price is established at $169,877.40. The contract Infrastructure Purchase price will be $154,434.00, to be paid to Sudbeck Construction. A 10% Contractors Overhead fee has been added to the purchase price to establish the unit price.