

GENERAL CONSTRUCTION NOTES

1. All workmanship and materials will be in accordance with City of Pacific Standards, City of Pacific Municipal Code, Ordinances and City Council or Hearing Examiner conditions of Project Approval. These documents are supplemented by the most current edition of the *State of Washington Standard Specifications for Road, Bridge and Municipal Construction and Standard Plans*.
2. All materials used for construction shall be new and undamaged and shall be made available for inspection and approval by the City of Pacific prior to installation. The contractor shall provide the City of Pacific with a Certificate of Materials from the supplier, if requested.
3. The contractor will be responsible for all traffic control in accordance with *U.S. Department of Transportation Manual on Uniform Traffic Control Devices* (MUTCD). Prior to disruption of any traffic, traffic control plans will be prepared and submitted to the City for approval. No work will commence until all approved traffic control is in place.
4. Temporary erosion/water pollution measures shall be required in accordance with Section 1-07.15 of the Standard Specifications and applicable requirements of the *King County Surface Water Design Manual*.
5. During construction, all public streets adjacent to the project shall be kept clean of material deposits resulting from on-site construction, and existing structures shall be protected.
6. The developer and the contractor shall comply with all other permits and other requirements by the City of Pacific or other governing authority or agency as may be applicable.
7. A preconstruction meeting shall be held with the City prior to the start of construction. The contractor shall provide the City with a construction schedule and a copy of all permits issued by Agencies other than the City.
8. A copy of the approved Plans shall be available on the site at all times during construction.
9. All project elements shall be staked by a licensed professional qualified to perform the work.
10. The contractor shall call underground locate line 1-800-424-5555 minimum 48 hours prior to any excavations. The location of underground utilities are shown in an approximate way only and have not been independently verified by the owner or it's representatives. The contractor shall determine the exact location of all utilities prior to commencing work, and agrees to be fully responsible for any damage which might be occasioned by the contractors failure to exactly locate preserve any and all underground utilities. The City, the owner, and the engineer shall be notified immediately if any conflict exists.
11. All utility trenches excavated in the right-of-way shall be backfilled with 5/8-inch crushed rock. The trenches shall be backfilled and compacted to 95% density in accordance with WSDOT 7-08.3(3).
12. Prior to acceptance of construction and/or issuance of occupancy permits, survey or certified Record Mylar Drawings and Electronic Data Files must be prepared for the entire project and submitted to the Public Works Department.

STREET CONSTRUCTION NOTES

1. See the City of Pacific Standard Notes on Sheet __.
2. See the Construction Sequence on Sheet ____.
3. All transportation system improvements shall be constructed in accordance with these approved plans. Any deviations from these plans shall require approval from the owner, engineer, and appropriate public agencies.
4. All curbs, street grades, sidewalk grades, and any other vertical and/or horizontal alignment will be staked by engineering or surveying firms capable of performing such work.
5. Where new asphalt joins existing, the existing asphalt will be cut to a neat vertical edge and tacked with Asphalt Emulsion Type CSS-1 in accordance with the standard specifications. The new asphalt will be feathered back over existing asphalt to provide for a seal at the saw cut location and the joint sealed with Grade AR-4000W paving asphalt.
6. Compaction of sub-grade, rock, and asphalt will be in accordance with the standard specifications.
7. All joint (contraction, construction, isolation, etc.) layout plans shall be approved one week before pouring concrete.
8. Form and sub-grade inspection by the City is required before pouring concrete. Twenty-four hours' notice is required for form inspection.
9. Testing and sampling frequencies will be as described in the Standards.

STORM DRAINAGE NOTES

1. See the City of Pacific Standard Notes on Sheet ___.
2. See the Construction Sequence on Sheet ____.
3. All storm drainage improvements shall be constructed in accordance with these approved plans. Any deviations from these plans shall require approval from the owner, engineer, and appropriate public agencies.
4. Storm drain pipe shall meet the following requirements:
5. Plain concrete pipe conforming to the requirements of AASHTO M 86, Class 2.
6. Reinforced concrete pipe conforming to the requirements of AASHTO M 170.
7. PVC pipe shall conform to ASTM D 3034-73 SDR 35 for 4" thru 15" diameter PVC pipe, and shall conform to ASTM F 679 for 18" thru 27" diameter PVC pipe, with joints and gaskets conforming to ASTM D 3212 and ASTM F 477.
8. Ductile iron pipe conforming to the requirements of ANSI A21.51, and AWWA C 151, thickness class as approved by City Engineer.
9. Polyethylene smooth wall pipe per Advanced Drainage Systems (ADS) N-12, bell and spigot, constructed per WSDOT Standard Specifications 7-04. Note: This type of pipe will only be approved with the City's specific written approval. Approval shall be based on site specific conditions and if additional on-site inspection time for witnessing proper pipe installation can be scheduled by the City.
10. Special structures, oil/water separators and outlet controls shall be installed per plans and manufacturers recommendations.
11. Where connections require "field verifications", connection points will be exposed by contractor and fittings verified prior to disruption of flow.
12. All storm lines and catch basins will be high-velocity cleaned and pressure tested in accordance with Division 7 of the Standard Specifications prior to paving in conformance with the standard specifications. Hydrant flushing of lines is not an acceptable cleaning method.

WATER SYSTEM NOTES

1. See the City of Pacific Standard Notes on Sheet ___.
2. See the Construction Sequence on Sheet ____.
3. All water system improvements shall be constructed in accordance with these approved plans. Any deviations from these plans shall require approval from the owner, engineer, and appropriate public agencies.
4. System valves will be operated by City employees only.
5. Fire hydrants will be bagged until system is approved. Hydrants will be painted with Parker Paint Marathon Enamel Safety Yellow paint or equal. All chains between caps and hydrants shall be cut and removed.
6. All pipe and services will be installed with continuous tracer tape installed 12 inches to 18 inches under the final ground surface. The marker will be plastic non-biodegradable, metal core, or backing marked water, which can be detected by a standard metal detector. Tape will be Terra Tape D or approved equal. In addition to the tracer tape, blue toning (tracer) wire will be installed over all pipe and services. Toning wire will be UL listed, Type UF, 14-gauge coated copper taped to the top of the pipe to prevent stretching and damage. The wire will be brought up and tied off at valve body or meter setter with the end of the wire accessible to hook up to a locator (2 feet of slack). All toning wire splices and connections will join wires both mechanically and electrically and will employ epoxy resin or heat-shrink tape insulation. Toning wire will be tested prior to acceptance of the pipe system. A written notice from the contractor to the City two days prior to the test is required.
7. The City will be given 10 working days' notice prior to scheduling a shutdown. The City of Pacific Water Section or City Inspector will perform the shutdown. Where connections require "field verification," connection points will be exposed by contractor and fittings verified two working days prior to scheduling City crews to distribute shutdown notices. The City will notify customers involved or affected of the water service interruption 48 hours in advance.
8. At any connection to an existing line where a new valve is not installed, the existing valve must be pressure tested to City standards by the contractor prior to connection. If an existing valve fails to pass the test, the contractor will make the necessary provisions to test the new line prior to connection to the existing system or install a new valve.
9. At any water main tap to existing city mains where the contractor encounters a coupling or existing assemblies, the contractor will provide a minimum of 18 inches of clearance from coupling or assemblies to edge of tapping sleeve.
10. Any water main tap or connection will be blocked according to Standard Detail ____.
11. Water mains 4-inch diameter and larger will be ductile iron cement mortar-lined thickened.
12. Any connection to an asbestos cement (A/C) water main shall require the replacement of at least one length of A/C water main with ductile iron pipe per Standard Detail C1C.
13. All lines will be pressure and water quality tested in the presence of and under the supervision of the City of Pacific in conformance with the Specification 7-09.3. The contractor shall provide plugs and/or temporary blow-off assemblies for testing, flushing, and water quality sampling.

SANITARY SEWER CONSTRUCTION NOTES

1. See the City of Pacific Standard Notes on Sheet ___.
2. See the Construction Sequence on Sheet ____.
3. All sewer system improvements shall be constructed in accordance with these approved plans. Any deviations from these plans shall require approval from the owner, engineer, and appropriate public agencies.
4. All pipe and services will be installed with continuous tracer tape installed 12 inches to 18 inches below the proposed finished sub-grade. The marker will be plastic non-biodegradable metal core or backing, marked "sewer" that can be detected by a standard metal detector. Tape will be Terra Tape "D" or approved equal. The tape will be furnished and installed by the contractor.
5. If visibility cannot be maintained between structures along the straight alignment of a sewer, toning wire will be installed above the sewer line at a depth no greater than 48 inches. Toning wire will be UL listed, Type UF, 14-gauge copper taped to the top of the pipe to prevent movement during backfilling. The wire will be laid loosely enough to prevent stretching and damage. The wire will be wrapped to manhole or cleanout rings on gravity sewers or valve body on STEP mains. A 1-pound magnesium anode will be buried with the pipe every 1,000 linear feet maximum for cathodic protection of the wire. Toning wire splices and connections to anodes will join wires both mechanically and electrically and will employ epoxy resin or heat-shrink tape insulation. Toning wire will be tested prior to acceptance of the pipe system. A written notice from the contractor to the City two days prior to the test is required.
6. Bedding of the sewer main and compaction of the backfill material will be required in accordance with the standard specification.
7. All manholes or cleanouts will be installed in accordance with Standard Plans.
8. After backfilling, but prior to paving, all mains and appurtenances will be inspected and approved by the City of Pacific Construction Inspector. Approval does not constitute final acceptance of the sewer line. The contractor will retain the responsibility to repair all deficiencies and failures revealed during all required testing for acceptance and through the duration of the warranty. It will be the contractor's responsibility to notify the City of Pacific for the required inspections. Any main or appurtenance backfilled prior to inspection will be re-excavated for inspection.
9. All lines will be high-velocity cleaned and subjected to a low-pressure air test pursuant to current WSDOT/APWA Specifications after backfilling, but prior to paving. Hydrant flushing of lines is not an acceptable cleaning method. Testing of the sanitary sewer main will include television inspecting of the main by and at the expense of the City. Immediately prior to television inspecting, enough water will be run down the line so it comes out the lower manhole and the line is flushed clean. Acceptance of the line will be made after the television inspection tape has been reviewed and approved by the inspector. Additional television inspections will be at the expense of the contractor, or the contractor may elect to perform the television inspection under the direct supervision of the City. A test of all manholes in accordance with Pacific standards is also required. Testing will take place after all underground utilities are installed and compaction of the roadway subgrade is completed.

EROSION AND SEDIMENT CONTROL NOTES

1. See the City of Pacific Standard Notes on Sheet ___.
2. See the Construction Sequence on Sheet ____.
3. On-site erosion and sediment control measures shall be the responsibility of the contractor.
4. In case erosion or sedimentation occurs to adjacent property, all construction work on the project that will aggravate the situation will cease and the contractor shall immediately commence restoration or mitigation measures. Restoration activity shall continue until such time as the problem is rectified.
5. In any area which has been stripped of vegetation and where no further work is anticipated for a period of 2-7 days or more, all disturbed areas must be immediately stabilized with mulching, grass planting, or other approved erosion control treatment applicable to the time of year in question. Grass seeding alone will be acceptable only during the months of April through September, inclusive. Seeding may proceed, however, whenever it is in the interest of the contractor, but must be augmented with mulching, netting, or other treatment.
6. All work associated with stabilizing the disturbed areas shall be in accordance with the Puget Sound stormwater management manual.
7. All necessary facilities shall be maintained on-site to prevent debris, and mud from accumulating on the public right-of-way.
8. All stock piled material (bedding, trench excavation, trench backfill) subject to erosion shall be covered with 0.06 mil plastic sheeting secured in place with sandbags or equivalent.