

# City of Molalla – Standard Construction Notes for Plans

Approved February 2020

The following general notes will be included on all public works improvement plans approved by the City. Sections not included in the work may be omitted with approval from the Public Works Director or their authorized representative.

## General Notes:

1. All work and materials shall conform to the current edition of the Oregon Standard Specifications for Construction as amended by the City of Molalla Public Works Standards and construction requirements per the Public Works Director. All work within the public right-of-way or public easements requires a public works permit.
2. The Contractor is responsible for the procurement of all applicable permits, licenses and certificates relative to the trades to complete the project and for the use of such work when completed. Compliance shall be at all levels, federal, state, county, and local, relating to the performance of work.
3. It shall be the responsibility of the Contractor to verify all utility locations prior to construction and arrange for the relocation of any in conflict with the proposed construction. The locations, depth, and description of existing utilities shown were compiled from available records and/or field surveys. The engineer or utility companies do not guarantee the accuracy of the completeness of such records. Additional utilities may exist within the work area.
4. Oregon Law requires the Contractor to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 052-001-0010 through OAR 952-001-0000. The contractor may obtain copies of the rules from the center by calling toll free to (877)668-4001 or by accessing the internet at [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org). The contractor must notify the center at least two (2) business days, but not more than ten (10) business days, before commencing an excavation. Call toll free to (800)332-2344.
5. The contractor shall make provisions to keep all existing utilities (including non-locatable) in service and protect them during construction. Contractor shall be responsible for the immediate notification of damage to utilities and the repair or replacement of damaged utilities using materials and methods approved by the utility owner. No service interruptions shall be permitted without prior written agreement with the utility owner/provider.
6. The contractor shall notify project engineer and City of Molalla public works inspector forty-eight (48) hours in advance of starting construction and twenty-four (24) hours before resuming work after shut downs, except for normal resumption of work following Saturdays, Sundays or holidays.
7. The contractor shall remove and dispose of all trees, stumps, roots, topsoil, and other material and where indicated on the plans. Materials shall be disposed of in such a manner as to meet all applicable regulations. No burning is allowed within City limits.
8. All construction vehicles shall park on the construction site or at a location(s) indicated on the approved plan. Hours of construction for public improvements shall be 7:00 Am to 8:00 PM, Monday through Friday. No work on public improvements is allowed on Saturday, Sundays or government holidays. Construction activities include all field maintenance of equipment, refueling, and pick-up or delivery of equipment as well as the actual construction activity.
9. The contractor shall keep an approved set of plans on the project site at all times.

10. The contractor shall perform all work necessary to complete this project in accordance with the plans and specifications including such incidentals as may be necessary to meet the intent of the project contract documents and applicable agency requirements.
11. The contractor shall maintain and coordinate access satisfactory with the needs of emergency service agencies and all affected properties.
12. If ground water springs or tiled drainage systems are encountered during construction, the contractor shall immediately contact the project engineer. The project engineer shall direct the contractor to take measures to ensure that the water is not conveyed through utility trenches and the natural flow path of the spring is altered as little as practicable. The project engineer shall submit a report summarizing the findings to the city. Impacts and mitigation shall be addressed for city approval.
13. The contractor shall pothole and verify location and depth of all existing utilities prior to the start of construction. The contractor shall take all necessary field measurements and otherwise verify all dimensions and existing construction conditions indicated and or shown on the plans. Should any error or inconsistency exist, the contractor shall not proceed with the work affected until reported to the project engineer for clarification or correction.
14. Any inspection by the city, county, state, federal agency, or project engineer shall not, in any way relieve the contractor from any obligation to perform the work in compliance with the applicable codes and regulations, city standards, and project documents.
15. The contractor shall verify centerline and top of curb elevations prior to construction to insure compliance with the construction drawings and report any discrepancies immediately to the project engineer.
16. The contractor shall submit a traffic control plan for approval prior to the start of the construction in accordance with the specifications, city standards, and the current edition of the Manual of Uniform Traffic Control Devices. All flaggers shall be certified by the state of Oregon.
17. The contractor shall provide the city and project engineer a twenty-four (24) hour contact person and number.
18. The contractor shall verify temporary construction easements prior to construction.
19. The contractor shall record all changes to the construction plans. Changes shall include reference measurements, materials type, and utilities not previously shown on the plans. Information shall be submitted to the project engineer for the completion of record drawings.
20. All survey monuments on the project's site or that may be subject to disturbance within the construction area, or the construction of any off-site improvements shall be adequately referenced and protected prior to commencement of any construction activity. If the survey monuments are disturbed, moved, relocated, or destroyed as a result of any construction, the contractor shall, at their cost, retain the services of a registered professional land surveyor in the state of Oregon to restore the monument to its original condition and file the necessary surveys as required by Oregon State Law. A copy of any recorded survey shall be submitted to the City Public Works Director or authorized representative.
21. The contractor is required to meter construction water through a city bulk water meter. Contact Molalla Utility Billing at 503-829-6855 to set up an account.
22. Any roots encountered over 2 inches shall be cut with saw perpendicular to trench.

Erosion and sediment control notes:

1. The contractor shall provide effective erosion control protection to include, but not limited to, grading, ditching, hay bales, silt fencing, and sediment barriers to minimize erosion and impact to adjacent property.

2. Approval of the erosion and sediment control plan does not constitute an approval of permanent road or drainage design (e.g. Size and location of roads, pipes, structures, channels, detention facilities, utilities, etc.)
3. The erosion and sediment control measures must be constructed in conjunction with all clearing and grading activities, and in such a manner as to insure that sediment and sediment laden water does not enter the storm drainage system, streets, or violate applicable water standards.
4. The contractor shall call for initial and final erosion and sediment control inspection. Erosion and sediment control inspection shall be approved prior to the start of construction activities. Contractor shall remove trash and sediment deposits prior to final project inspection.
5. The erosion and sediment control measures shall be inspected and maintained daily by the applicant/contractor. Inactive sites shall be inspected and maintained a minimum of once a month or within 24 hours following a storm event.
6. Gravel construction entrances shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures, such as a wheel wash, may be required to insure that all paved areas are kept clean for the duration of the project. Wheel wash basins shall be periodically (or as directed by city inspectors) drained, cleaned of sediment, and refilled with clean water. At no time shall vehicles exit the site without using wheel wash station, including during maintenance of wheel wash basin.
7. Storm drain inlets, basins, and area drains shall be protected until the completion of the project. Silt sack inserts with bio-bags along curb inlets and catch basins is the preferred measure for inlet protection where applicable. Contractor shall provide and maintain silt sack protection at the nearest catch basin inlet(s) downstream of the projects site. Install inlet protection to new inlets as installed.
8. At no time shall sediment be allowed to accumulate within a trapped catch basin. All silt sacks shall be inspected daily and cleaned or replaced as necessary. All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not flush sediment laden water into the downstream storm system.
9. The contractor shall install, operate and maintain adequate erosion control measures in conformance with the standards adopted by the City of Molalla during the construction of any public utilities and buildings improvements until such time as approved permanent vegetative materials have been installed.
10. At the completion of construction, all exposed soils must be hydroseeded and/or covered with straw and tacifier. If ground cover is not established by October 15, the open areas shall be protected through the winter with mulch, erosion blankets, or other method(s) approved by the city. Seeding shall be performed no later than September 31 for each phase of construction.
11. Stockpiles of soil or other erosion prone materials for extended periods must be covered with temporary erosion control measures and protected with silt fencing.
12. During all phases of work the contractor shall take precautions to abate any dust nuisance. Dust shall be minimized to the extent practicable and prevention measures shall be continuous until final inspection by the city.
13. No person shall create physical erosion by dragging, dropping, tracking, or otherwise placing or depositing, or permitting to be deposited, mud, dirt, rock, or other debris on a public street, or into any part of the public storm water system and surface water system, or into any part of a private storm water or surface water system that drains or connects to the public storm water and surface water system. Any such deposited material shall be immediately removed by hand labor or mechanical means. No material shall be washed or flushed into any part of

the storm water or surface water system until all mechanical means to remove the debris are exhausted and preventative sediment filtration is in place.

14. All sediment fence shall be installed per manufacturers recommendations and comply with the recent edition of the Oregon Standard Specifications for Construction as amended by the City of Molalla Public Works Standards and construction requirements per the Public Works Director.

Street notes:

1. The contractor shall submit a traffic control plan for approval prior to the start of construction in accordance with the specifications, city standards, and the current edition of the Manual on Uniform Traffic Control Devices. Approval of plan required prior to any work performed in existing public right-of-way. All flaggers shall be certified by the State of Oregon.
2. Contractor to provide state certified independent testing agency for all testing of sub-grade, base rock, concrete curb and driveway, asphalt pavement, and concrete pavement. City reserves the right to direct testing agency on frequency of testing. Testing agency shall submit one copy of all testing reports to city's authorized representative.
3. No fills are to be placed prior to city approval of striping. Sub-grade shall be compacted to 95% of the maximum dry density. As determined by AASHTO T-180. Along with testing using a nuclear density gauge, a proof-roll shall be conducted by the contractor and accepted by city. Prior to placement of base rock. All soft areas shall be over-excavated to a depth satisfactory to the geotechnical engineer and city representative, backfilled with crushed  $\frac{3}{4}$ "-0 and compacted to 95% of the maximum dry density, as determined by AASHTO T-180.
4. Base rock shall be from an approved source. City must receive and approve a copy of State mix design at least seven (7) days prior to the placement of base rock. Base rock shall conform to the recent edition of the Oregon Standard Specifications for Construction as amended by the City of Molalla Public Works Standards.
5. Base rock shall be compacted to 95% of the maximum dry density. As determined by AASHTO T-180. Along with testing using a nuclear density gauge, a proof roll shall be conducted by the contractor and accepted by the city prior to paving.
6. No paving shall take place until all testing of underground utilities (including tone testing by city), sub-grade, and base rock is completed and approved by the city.
7. Asphalt pavement shall be from an approved source. City must receive and approve a copy of a State mix design at least seven (7) days prior to the placement of pavement. Pavement shall conform to the recent edition of the Oregon Standard Specifications for Construction as amended by the City of Molalla Public Works Standards and construction requirements per the Public Works Director.
8. Asphalt pavement shall be compacted to a minimum of 92% of relative density based on rice gravity.
9. Utility cuts across existing streets shall be T-cut, conforming to city detail.
10. All construction staking of public streets shall be performed by or under the direction of a professional land surveyor registered in the State of Oregon. Stakes shall, at a minimum, locate all horizontal points of curvature (beginning, midpoint, and ending), vertical points of curvature (beginning, low/high point, and ending), curb returns (beginning, midpoint, and ending), and centerline for offset crowns. Maximum spacing for reference stakes is fifty (50) feet. Construction shall not be allowed before staking is performed.
11. Newly constructed curbs shall be stamped with the capital letter "D" for storm, "S" for sanitary, and "W" for water at the location of each underground service crossing. Letters shall be three (3) inches in height and embossed a minimum of one-quarter (1/4) inch deep. All

weep holes shall be installed during initial curb and gutter pour. Installation of weep holes after initial pour shall be core drilled only. Use of saw cut and knock out by hammer is prohibited.

12. All driveway aprons and curb and gutter shall have cylinder samples taken by a State certified independent testing agency. Report of a break result shall be provided to the City's authorized representative.
13. All street signage, striping, and reflectors shall be installed by applicant/contractor prior to project correction list walk-through. All crosswalk striping and roadway emblems shall be thermoplastic. All signage and striping shall comply with City standards, and the current edition of the Manual on Uniform Traffic Control Devices.
14. See notes for street lighting, dry utilities, street trees, landscaping, and irrigation.

#### Storm Notes:

23. All storm manhole lids shall be sixteen (16) hole type. Manholes in planter areas shall be a minimum of six (6) inches above finished grade.
24. All connections to existing manholes shall be core drilled. Use of cut-off saw and knock out by hammer is prohibited. Revisions to design will not constitute a variance to core drill requirement and may, at City discretion, require manufacture and installation of new manhole matching design revision.
25. Storm laterals shall be a minimum of six (6) inches diameter and have locating wire (solid 12-gauge white insulation) installed beside the pipe and plastic caution tape installed 1-foot above the pipe crown. Surface locating wire at right-of-way cleanouts; tape shall be tied off to the 2X4 marker painted white. Tone testing by City to pass prior to paving.
26. Newly constructed curbs or replaced curbs shall be stamped with the capitol letter "D" at the location of each underground storm lateral crossing. Letters shall be three (3) inches in height and embossed a minimum of one-quarter (1/4) inch deep.
27. All weep holes shall be installed during initial curb and gutter pour. Installation of weep holes after initial pour shall be core drilled only. Use of saw cut and knock out by hammer is prohibited.
28. All storm lines shall be flushed and cleaned prior to testing. All storm lines shall be video inspected. In addition, storm lines constructed of flexible pipe shall be mandrel tested at five-percent (5%). Contractor to furnish all necessary test equipment and perform the tests in a manner satisfactory to the City. City inspector shall be present during testing (24-hour notification required).
29. Storm water facilities shall not be activated and/or connected to public storm systems or waterways unless facility has been tested and approved by City staff.
30. Contractor to provide independent testing agency for all testing of trench backfill. Testing of backfill lifts shall not exceed three (3) feet in depth and tests of lifts shall be staggered along trench line. City reserves the right to direct testing agency on frequency of testing. Testing agency shall submit one (1) copy of all testing reports to City's authorized representative.
31. All construction taking of public storm lines shall be performed by or under the direction of a professional land surveyor registered in the State of Oregon. Stakes shall, at a minimum, locate all tees, cleanouts, manholes, catch basins, ditch inlets, and outfalls. Maximum spacing for reference stakes is fifty (50) feet. Construction shall not be allowed before staking is performed.

#### Sewer Notes:

32. All sanitary manhole lids shall be two (2) hole type unless otherwise specified. Manholes in planter areas shall be a minimum of six (6) inches above finished grade.
33. All connections to existing manholes shall be core drilled. Use of cut-off saw and knock out by hammer is prohibited. Revisions to design will not constitute a variance to core drill requirement and may, at City discretion, require manufacture and installations of new manhole matching design revision.
34. Sanitary laterals shall be a minimum of four (4) inches in diameter, unless multi-family/commercial/industrial zoning, and have locating wire (solid 12-gauge green insulation) installed beside the pipe and plastic caution tape installed 1-foot above the pipe crown. Surface locating wire at right-of-way cleanouts; tape shall be tied off to the 2X4 marker painted green. Tone testing by City to pass prior to paving.
35. Newly constructed curbs or replaced curbs shall be stamped with the capitol letter "S" at the location each sanitary lateral crossing. Letters shall be three (3) inches in height and embossed a minimum of one-quarter (1/4) inch deep.
36. All public sewer lines shall be flushed and cleaned prior to testing. All public sewer lines shall be pressure tested and video inspected. In addition, sewers constructed of flexible pipe shall be mandrel tested to five percent (5%). Contractor to furnish all necessary test equipment and perform the tests in a manner satisfactory to the City. City inspector shall be present during testing (24-hour notification required).
37. Public sanitary sewer manholes shall be vacuum tested after the street paving is completed. Contractor to furnish all necessary test equipment and perform the tests in a manner satisfactory to the City. City inspector shall be present during testing (24-hour notification required).
38. For all public sanitary manholes, the contractor shall supply the City with manhole cover inserts. For public manholes located in natural or landscaped areas or in residential streets, the contractor shall supply manhole cover inserts made of durable plastic. For public manholes located in arterial and collector streets, the contractor shall supply manhole cover inserts made of stainless steel.
39. Contractor to provide independent testing agency for all testing of trench backfill. Testing of backfill lifts shall not exceed three (3) feet in depth and tests of lifts shall be staggered along trench line. City reserves the right to direct testing agency on frequency of testing. Testing agency shall submit one copy of all testing reports to City's authorized representative.
40. All construction staking of public sanitary lines shall be performed by or under the direction of a professional land surveyor registered in the State of Oregon. Stakes shall, at a minimum, locate all tees, clean-outs, manholes, water line crossings, and pump stations. Maximum spacing for reference stakes is fifty (50) feet. Construction shall not be allowed before staking is performed.

Water Notes:

41. City will operate all existing valves to isolate waterlines for work required and for all flushing and filling activities. Contact the public works maintenance division at 503-829-5409 a minimum of twenty-four (24) hours in advance.
42. City will provide notification to affected water users for planned service disruptions. Contact the public works maintenance division at 503-829-5409 a minimum of seventy-two (72) hours in advance.
43. Public water lines shall conform to materials and installation requirements as may be required by the City of Molalla and American Water Works Association.

44. All water line crossings shall be in conformance with OAR Chapter 333. The City may require more stringent standards.
45. All water lines shall be C-900 or C-905. All fittings shall be push-on gasketed unless otherwise specified. Tees and crosses shall be flanged except tees to fire hydrants which will be MJ by flanged. All valves joined to tees and crosses shall be flanged by mechanical joint.
46. All public water lines shall be installed with locating wire (solid 12-gauge blue insulation) installed beside the pipe and plastic caution tape installed 1-foot about the pipe crown. Wire shall be brought to the surface at all service meter stops, fire hydrants, valve boxes, air reliefs, and blow-offs. Tone testing by City to pass prior to paving.
47. All public water lines shall have a minimum of 30 inches of cover.
48. See City of Molalla details for thrust blocks and fire hydrant assemblies.
49. All water valves and boxes shall be designed and constructed a minimum of eighteen (18) inches from face of curb unless otherwise approved by City's authorized representative.
50. Contractor to provide independent testing agency for all testing of trench backfill. Testing of backfill lifts shall not exceed three (3) feet in depth and tests of lifts shall be staggered along trench line. City reserves the right to direct testing agency on frequency of testing. Testing agency shall submit one copy of all testing reports to City's authorized representative.
51. All construction staking of public water lines shall be performed by or under the direction of a professional land surveyor registered in the State of Oregon. Stakes shall, at a minimum, locate all bends, tees, crosses, fire hydrants, blow-offs, isolation valves, vaults, and booster pump stations. Maximum spacing for reference stakes is 50 feet. Construction shall not be allowed before staking is performed.
52. After water valve cans are adjusted to finish grade for all new and existing valves, where the depth of the operation nut is greater than three (3) feet, operating extensions shall be provided to bring the operating nut to a point fourteen (14) inches below the surface of the ground or pavement.
53. Hydrostatic tests: the test shall conform with AWWA C-605, Section 4 with the following modifications. The test pressure shall be 150 PSI at the highest point of elevation in any section. The duration shall be 120 minutes and shall be monitored by the City of Molalla Public Works Department.
54. Disinfection: Pipelines shall be flushed and disinfected before placing into service. Disinfection shall conform to AWWA C651. Discharging of the highly chlorinated water used for disinfection shall not be discharged into surface waters. Applicable federal, state, and local regulations concerning discharge shall be followed. Oregon State Health Division bacteriological tests shall be taken by an outside testing facility and results of the test shall be reported to the City prior to hydrostatic tests.

Street Lighting and Dry Utility Notes:

1. All light poles, conduit, and junction boxes shall conform to the requirements of Portland General Electric and the City of Molalla. Pole shrouds and junction boxes shall be set to finished grade. All junction boxes and lids shall be H-20 loading.
2. All lighting shall be energized and approved by Portland General Electric prior to project correction list walk through.
3. All franchise utility conduits shall run along a common trench within the public utility easement. All public right-of-way crossings shall be at right angles to street centerline and be located in common trench at intersections or mid-block locations.
4. All public right-of-way crossings or sleeves shall be installed and approved prior to proof roll of street base rock.

5. The contractor shall grade public utility easements so that all franchise utility pedestals and vaults can be set to finished grade as measured from back of public sidewalk. Finished grades within public right-of-way shall be at two (2) percent and outside of public right-of-way shall not exceed 2H:1V unless approved by City's authorized representative.
6. All existing overhead utilities shall be relocated underground at applicant/contractors' expense prior to proof roll of street base rock.

Street trees, Landscaping, and Irrigation:

1. All street trees and landscaping shall not conflict with sight distance requirements. Street trees shall maintain the following clearance distances:
  - a. Minimum of five (5) feet from all sanitary, storm, and water service crossings
  - b. Minimum of ten (10) feet of clearance from all fire hydrants
  - c. Minimum of twenty (20) feet of clearance from all catch basins/gutter inlets and street lights
  - d. Minimum of forty (40) feet of clearance from near curb line of intersecting street
2. All landscape plantings shall maintain three (3) feet of clearance from fire hydrants as measured from center nut to edge of mature growth.
3. All irrigation systems shall have backflow protection as required by plumbing code and the City of Molalla.