GENERAL REQUIREMENTS

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GENERAL REQUIREMENTS

A. DEFINITIONS

1. City - City of Union, Oregon, a municipal corporation and authorized City Personnel.

2. City Engineer - The Engineer, and his/her representative, authorized by the City of Union to act as the City's representative in engineering matters as they relate to improvements to the City's infrastructure or construction of new infrastructure to be built by developers and then dedicated to the City.

3. Contractor - The person, firm, or corporation that has contracted to construct City infrastructure improvements for which the City will ultimately have ownership; or a developer, and including the developer's engineer, construction inspector, etc.

4. Drawings - The Project Plans prepared by a Professional Engineer licensed in the State of Oregon that depict the detailed characteristics and scope of work for a particular infrastructure improvement project; and the City Standard Details.

5. Specifications - The detailed project specifications prepared by a registered Professional Engineer that consist of written descriptions of a technical nature of materials, equipment, construction systems, standards, and workmanship for a particular infrastructure improvement project; and the City Standard Technical Specifications.

B. CITY ENGINEER'S AUTHORITY

1. The City Engineer shall act as the City's representative on the project, and shall decide questions which may arise as to quality and acceptability of materials furnished and work performed. The City Engineer may make visits to the site and determine if the work is proceeding in accordance with the Drawings and Specifications. The City Engineer, however, does not guarantee the performance of the Contractor by the City Engineer's providing of such review. The City Engineer's undertaking hereunder shall not relieve the Contractor of his/her obligation to perform the work in conformity with the Drawings and Specifications and in a workmanlike manner; shall not make the City Engineer an insurer of the Contractor's performance; shall not impose upon the City Engineer any obligations to see that the work is performed in a safe manner; and shall not relieve the Contractor from his/her responsibility to adequately supervise the work.

2. The City Engineer will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

C. ABBREVIATIONS

The following abbreviations of Associations, units of measurement, and miscellaneous items are defined as they may be used in these Contract Documents or on the Drawings. This list may not be all-inclusive.

GENERAL REQUIREMENTS

Associations

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	Associated General Contractors of America
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ANSI	American National Standards Institute
APA	American Plywood Association
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWS	American Welding Society
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
DFPA	Douglas Fir Plywood Association
DIPRA	Ductile Iron Pipe Research Association
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronics Engineers
IPCEA	Insulated Power Cable Engineers Association
ITE	Institute of Transportation Engineers
NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
NSF	National Sanitation Foundation
SAE	Society of Automotive Engineers
SDI	Steel Door Institute
SSPC	Steel Structures Painting Council
WWPA	Western Wood Products Association

Codes and Acts

MUTCD	Manual on Uniform Traffic Control Devices
NEC	National Electrical Code
NEPA	National Environmental Policy Act
OAR	Oregon Administrative Rules
RCW	Revised Code of Washington (Laws of the State)
SEPA	State Environmental Policy Act
UBC	Uniform Building Code
UL	Underwriters Laboratories, Inc.
UPC	Uniform Plumbing Code
WAC	Washington Administrative Code

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Federal Agencies

BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
DOD	Department of Defense
FHWA	Federal Highway Administration
LCDC	Land Conservation and Development Commission
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
OSHA	Occupational Safety and Health Administration
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

State Agencies

DEQ	Oregon Department of Environmental Quality
DWS	Oregon Health Authority - Drinking Water Services
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
OWRD	Oregon Water Resources Department
WISHA	Washington Industrial Safety and Health Administration
WSDOT	Washington State Department of Transportation

Units of Measurement and Abbreviation (Partial Listing)

AC	Asbestos Cement or Asphalt Concrete
ACP	Asphalt Concrete Pavement
BST	Bituminous Surface Treatment
C.I.	Cast Iron
CL	Centerline
C.O.	Clean Out
Cl.	Class
cfm	Cubic Feet Per Minute
Conc.	Concrete
Culv.	Culvert
CY, C.Y., or Cu.Yd.	Cubic Yard(s)
DI	Ductile Iron
Dia.	Diameter
Ea.	Each

Elev., EL, or El.	Elevation
Est.	Estimate or Estimated
Extg.	Existing
F	Fahrenheit
F.F.	Finished Floor
FLG	Flange
fps	Feet Per Second
Ft.	Foot or Feet
gpm	Gallons Per Minute
HDPE	High Density Polyethylene
HMAC	Hot-Mix Asphalt Concrete
Hp	Horsepower
I.D.	Inside Diameter
I/I	Infiltration/Inflow
In.	Inch or Inches
Incl.	Including
Inv.El.	Invert Elevation
Irr	Irrigation
L	Liter
Lb.	Pound(s)
L.F. or Lin.Ft.	Linear Foot (Feet)
LS or L.S.	Lump Sum
Max.	Maximum
MH	Manhole
MJ	Mechanical Joint
Min.	Minimum
MPH	Miles Per Hour
N.T.S.	Not to Scale
O.C.	On Center
O.D.	Outside Diameter
PL	Plate
PVC	Polyvinyl Chloride
psi	Pounds Per Square Inch
Q	Flow Rate
R	Radius
REQD.	Required
RPM	Revolutions Per Minute
R/W	Right-of-Way
S	Sanitary Sewer
SCH	Schedule
SD	Storm Drain
SF, S.F., or Sq.Ft.	Square Foot
Sht.	Sheet
Stl.	Steel

SWL	Static Water Level
SY, S.Y., or Sq.Yd.	Square Yard
TDH	Total Dynamic Head
TM	Test Method
Typ.	Typical
W	Water
WS	Wood Stave

D. PRECONSTRUCTION CONFERENCE/PROJECT WORK MEETINGS

1. Preconstruction Conference

   A preconstruction conference shall be held prior to the Work commencing on the project. The Contractor, City, City Engineer, and other appropriate agencies, utilities, etc., shall attend. The meeting shall be held to discuss general contracting procedures, communications, roles and responsibilities, quality control, project work schedule, agency requirements, and other topics that relate to the Work as appropriate.

2. Project Work Meetings

   The Contractor and/or his superintendent shall meet with the City and/or City Engineer on a regular basis to review the progress of the Work, Work schedule, project concerns, etc., as may be appropriate. These meetings will also be used to review Record Drawings being kept on the project by the Contractor.

E. PROTECTION OF EXISTING FACILITIES AND CONTRACTOR'S WORK

The Contractor shall exercise care during construction to avoid damaging existing pipes, valves, manholes and other underground and above ground structures. This applies especially to heavy equipment used during street excavations, and base rock operations. The Contractor shall exercise care when operating compaction equipment over pipes. Any piping and structures damaged shall be replaced or repaired by the Contractor, as specified by the utility owner, at no cost to the City.

The Contractor shall take reasonable precautions to protect the work in progress from damage by vandalism, and shall, where reasonably possible, secure the premises where work is being performed from entry by unauthorized persons.

F. SUPERVISION BY CONTRACTOR

1. The Contractor shall supervise and direct the work, and shall be solely responsible for the means, methods, techniques, quality, sequences, and procedures of construction. The Contractor shall employ and maintain on the work site a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to the supervisor shall be as

binding as if given to the Contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work.

If the Contractor does not have any personnel on site under his/her direct employ, but there are personnel under subcontract to the Contractor working on site, then the Contractor shall have either his/her designated Supervisor on site or the Contractor shall authorize, in writing, the Subcontractor to act as the Contractor's representative. All communications given to the Supervisor or Contractor's representative shall be as binding as if given to the Contractor.

2. The Contractor shall at all times enforce strict discipline and good order among his/her employees, and shall not employ on the job any unfit person or anyone not skilled in the work assigned to him. Any employee found to be incompetent, or to act in a disorderly or improper manner, shall be removed from the project.

G. PERMITS, EASEMENTS, AND LICENSES

Temporary permits and licenses necessary for the prosecution of the work including building, electrical and plumbing permits, NPDES Permit 1200-C for erosion and sedimentation control, shall be obtained by the Contractor unless otherwise stated in the Drawings and Specifications. Permanent permits and licenses such as state highway permits, railroad crossing licenses, county road crossing permits, etc., shall be obtained by the Contractor. The Contractor shall comply with all requirements of these temporary and permanent permits and licenses as they relate to the work, i.e., insurance, traffic control, scheduling, etc. The Contractor shall pay all inspection fees, flagging costs, etc., if any, required by the permits or licenses.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the Drawings and Specifications are at variance therewith, he/she shall promptly notify the City Engineer in writing.

For City infrastructure projects, all easements and rights-of way required for the work shall be obtained by the City. For infrastructure projects by others, all easements and rights-of-way required for the work shall be obtained by the Contractor. The Contractor shall comply with all requirements of these easements and rights-of way as they relate to the work, i.e., insurance, traffic control, scheduling, restoration, etc.

H. ENVIRONMENTAL AND NATURAL RESOURCES

Pursuant to ORS 279.318, the agencies listed below may have enacted ordinances or regulations which deal with the prevention of environmental pollution or the preservation of natural resources. The Contractor shall comply with any ordinances or regulations enacted or adopted by these agencies.

Federal Agencies:
- Department of Agriculture
  - Forest Service
  - Natural Resources Conservation Service
- Department of Defense
  - Army Corps of Engineers
- Environmental Protection Agency
- Department of Interior
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Outdoor Recreation
  - Bureau of Land Management
  - Bureau of Indian Affairs
  - Bureau of Reclamation
- Department of Labor
  - Occupational Safety and Health Administration
- Department of Transportation
  - Coast Guard
  - Federal Highway Administration

State Agencies:
- Department of Agriculture
- Department of Environmental Quality
- Department of Fish and Wildlife
- Department of Forestry
- Department of Geology and Mineral Industries
- Department of Human Resources
- Land Conservation and Development Commission
- Soil and Water Conservation Commission
- State Land Board
- Water Resources Department

Local Agencies:
- City Council
- County Court
- Rural Fire Protection District
- Other Special Districts

I. SHOP DRAWINGS

The Contractor shall submit Shop Drawings or manufacturer's data sheets in accordance with the schedule of Shop Drawings and sample submittals. It should be noted that the City may require Shop Drawings for other items as may be deemed necessary. A minimum of 4 copies of each item shall be submitted.

The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show the City the services, materials, and equipment Contractor proposes to provide and to enable the City to review the information.

Any work performed prior to City's review and approval of the pertinent Shop Drawing will be at the sole expense and responsibility of Contractor.

All submittals or resubmittals shall be accompanied by and furnished in accordance with the Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance form provided at the end of these General Requirements. All submittals shall be submitted at a time sufficiently early to allow review of same by the City and to accommodate the rate of construction progress required under this Contract.

The City will return two prints of each shop drawing to the Contractor, with comments noted thereon, generally within 15 calendar days following their receipt at his/her office. The Contractor shall make any corrections required by the City and shall return the required number of corrected copies of Shop Drawings and resubmit new samples for review. The Contractor shall direct specific attention in writing to revisions other than the corrections called for by the City on previous submittals. It is considered reasonable that the Contractor shall make a complete and acceptable submittal to the City by the second submission of the drawing. The City reserves the right to withhold monies due the Contractor to cover additional costs of the City's review beyond the second submission.

1. If Shop Drawings are returned to the Contractor marked "NO EXCEPTIONS NOTED," formal revision and resubmittal of said Shop Drawings will not be required.

2. If Shop Drawings are returned to the Contractor marked "NO EXCEPTIONS, PROVIDED THE FOLLOWING CONDITIONS ARE MET," formal revision and resubmittal of said Shop Drawings will not be required.

3. If Shop Drawings are returned to the Contractor marked "MAKE CORRECTIONS NOTED," formal revision and resubmittal of said Shop Drawings will not be required.

4. If Shop Drawings are returned to the Contractor marked "REVISE AND RESUBMIT," the Contractor shall revise said Shop Drawings and shall resubmit 4 copies of said revised Shop Drawings to the City.

5. If Shop Drawings are returned to the Contractor marked "REJECTED," the Contractor shall revise said Shop Drawings and resubmit 4 copies of said revised Shop Drawings to the City.

6. If Shop Drawings are returned to the Contractor marked "SUBMIT SPECIFIED ITEM," the Contractor shall submit material requested but shall not be required to resubmit all previous material.

For each resubmittal necessary, an additional 15 calendar days shall be allowed for review. The Contractor shall include copies of all approved submittal information in the Contractor's Record Drawings and Operation and Maintenance Manual. A copy of each shop drawing and sample shall also be kept in good order by the Contractor at the job site and shall be available to the City.

J. PROJECT SAFETY

The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work, including excavation safety. The Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction as it relates to project and work safety.

The Contractor shall maintain local access to area residents and emergency traffic throughout the life of the project and coordinate construction activities closely with area residents to keep them informed of operations that may impact their use of any streets or roadways.

All signs, barricades, barriers, lights, cones, trench boxes, shoring/bracing, and other such "devices" required to warn, protect, or direct the public and workmen during the life of the Contract shall be furnished, installed, moved, and removed by the Contractor. When conditions warrant their use, flagpersons shall also be provided by the Contractor. The determination of what measures are required, in addition to those specifically called for by the Drawings and Specifications, shall be solely the responsibility of the Contractor.

The City Engineer and City are not responsible for determining whether proper safety precautions, etc., are being utilized. Should the Contractor fail to furnish the necessary protective measures, the City or City Engineer may, but shall not be required to, bring to the Contractor's attention by written notice of such failure and the Contractor shall undertake such corrective measures as is proper.

All construction work shall be performed in accordance with the provisions of the Occupational Safety and Health Regulations of the Oregon Occupational Safety and Health Division, and other applicable regulations. It shall be the Contractor's responsibility to meet all requirements of Chapter 437 of the State of Oregon Administrative Rules. In addition, Oregon Revised Statutes (ORS) 757.541 through 757.571 and Oregon Administrative Rules (OAR) 860-024-0006 and 860-024-0007 administered by the Oregon Public Utilities Commission shall apply.

The materials used for and the installation of all warning and traffic control devices shall conform to the applicable provisions of the Oregon Standard Specifications for Construction - current edition, Sections 00220 and 00225, and the Manual on Uniform Traffic Control Devices, U.S. Department of Transportation, Federal Highway Administration, current edition.

It shall be the Contractor's sole responsibility to provide a "competent person" as defined in the regulations to be on the project site during all trenching operations. The "competent person" appointed by the Contractor shall fulfill all requirements of the regulations.

Prior to opening an excavation, the Contractor shall arrange for field location of utility installations such as sewer, telephone, fuel, electric, gas, water lines, or any other underground installations that reasonably may be expected to be encountered during the excavation work. When excavation operations approach the estimated location of underground installations, the Contractor shall determine the exact location of the installations by safe and acceptable means. While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard workers.

The Contractor shall ensure that structural ramps that are used by workers as a means of access or egress from an excavation shall be designed by a competent person, in accordance with all requirements of the regulations.

Workers exposed to public vehicular traffic shall be provided with and shall wear warning vests or other suitable garments marked with, or made of, reflectorized or highly visible material. No worker shall be permitted underneath loads handled by lifting or digging equipment. Workers shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped in accordance with the regulations to provide adequate protection for the operator during loading and unloading operations.

The Contractor shall take adequate precautions, in accordance with the regulations, to prevent exposure to harmful levels of atmospheric contaminants and to assure acceptable atmospheric conditions. These precautions include providing proper respiratory protection or ventilation and, when controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, the Contractor shall provide testing as often as necessary to ensure that the atmosphere remains safe. The Contractor shall provide emergency rescue equipment, such as breathing apparatus, safety harness, etc., where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use.

The Contractor shall not allow work in excavations in which there is accumulated water or in excavations where water is accumulating, unless adequate precautions have been taken to protect workers against the hazards posed by water accumulations. The precautions necessary to protect workers adequately vary with each situation, but include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and life line. If the Contractor is controlling water or preventing it from accumulating by the use of water removal equipment, the water removal equipment and operation shall be monitored by a competent person to ensure proper operation. If excavation work interrupts the natural drainage of surface water, such as streams, then diversion ditches, dikes or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation.

In situations where the Contractor feels his trench operations pose a risk to the stability of adjoining buildings, walls, or other structures, he shall notify the City and City Engineer and shall provide adequate support systems per the requirements of the regulations. Excavation

below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to workers shall not be permitted except when the Contractor has retained a Registered Professional Engineer and he has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity, or said Registered Professional Engineer has approved the determination that such excavation will not pose a hazard to workers.

Sidewalks, pavements, and appurtenant structures shall not be undermined unless a support system or other method of protection is provided to protect workers from the possible collapse of such structures. The Contractor shall provide adequate protection to all persons from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. The Contractor shall also provide protection by placing and keeping excavated materials or equipment at least two feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations or by a combination of both, if necessary.

The Contractor shall ensure that daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person appointed by the Contractor for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspection shall also be made after every rain storm or other hazard increasing occurrence. These inspections are only required when worker exposure can be reasonably anticipated. Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, the Contractor shall remove workers from the hazardous area until the necessary precautions have been taken to ensure their safety.

It shall be the Contractor's responsibility to provide all physical barrier protection at all excavations. All wells, pits, shafts, etc., shall be barricaded or covered. Further, no trenches shall be left open at any time unless guarded with adequate barricades, warning lamps, and signs. Proper traffic and pedestrian control shall be provided by the Contractor.

The Contractor shall ensure that each worker in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with the regulations.

It shall be the Contractor's responsibility to design the sloping and benching systems for trench excavation in accordance with the requirements of the regulations stated herein. Where the Contractor takes the option to not utilize one of the standard tables or trench excavation designs contained in OAR Chapter 437, then it is the Contractor's responsibility to retain a Registered Professional Engineer to design said sloping and benching system. When the Contractor chooses this option, the design shall be in written form and shall include at least the following information:

1. The magnitude of the slopes that were determined to be safe for the particular project.

2. The configurations that would determine to be safe for the particular project.

3. The stamp and signature of the Registered Professional Engineer approving the design.

At least one copy of the design shall be maintained at the job site while the slope is being constructed. After that time the design need not be at the job site, but a copy shall be made available to the City upon request.

Where the design of a support system, shield system, or other protective system is required, it shall be the Contractor's responsibility to meet all requirements of the regulations. It shall be the Contractor's responsibility to have on-site at least one copy of the manufacturer's tabulated data which identifies the Registered Professional Engineer who approved the data or, when a support system or shield system or other protective system is not a standard manufactured item but is designed by a Registered Professional Engineer, at least one copy of the design shall be maintained at the job site during construction of the protective system. After that time, the design may be stored off the job site, but a copy of the design shall be made available upon request.

K. PRIOR APPROVAL OF ALTERNATE EQUIPMENT OR MATERIALS

The Contractor may submit to the City Engineer any request for approval of alternate equipment or materials that may be equal to, but are not specifically named as approved equipment or materials in the City Standard Specifications. Such submittals shall contain sufficient information to allow the City and/or City Engineer to fully evaluate the equipment. Any substitutions without prior approval will be rejected.

L. PROGRESS OF THE WORK - CLEANUP

The Contractor shall arrange his/her work schedule such that all phases of Work, once started, shall be diligently pursued until completed. The intent is that the work area shall not be disturbed for undue periods of time. Work shall not be left uncompleted. If the City determines that Work is not being diligently completed, the City shall request the Contractor to complete said Work.

Cleaning up shall be a continuing process from the start of the Work to final acceptance of the project. The Contractor shall, at all times, at his/her own expense and without further order, keep property on which Work is in progress free from accumulations of waste material or rubbish caused by employees or by the Work, and at all times during the construction period shall maintain structure sites, rights-of-way, easements, adjacent property, and the surfaces of streets and roads on which Work is being done in a safe condition for the Contractor's workers and the public. Accumulations of waste materials that might constitute a fire hazard will not be permitted. Spillage from the Contractor's hauling vehicles on traveled public or private roads shall be promptly cleaned up. The Contractor shall take appropriate action to control dust

caused by his/her operations. This shall include, but not be limited to, watering of exposed areas, cleaning of roadways, etc. This is considered a normal part of the construction project. Upon completion of the Work, the Contractor shall, at his/her own expense, remove all temporary structures, rubbish, waste material, equipment, and supplies resulting from his/her operations. He/she shall leave such lands in a neat and orderly condition that is at least as good as the condition in which he/she found them prior to his/her operations. Should the Contractor fail to provide said cleanup upon 24-hour written notice, the City shall have the right to perform such Work at the expense of the Contractor.

The Contractor shall replace or restore, equivalent to their original condition, all surfaces or existing facilities disturbed by his work, whether within or outside of the work areas. Restoration work will include, but is not limited to, roadways, utilities, structures, landscaping, etc.

M. QUALITY CONTROL AND ACCESS TO THE WORK

The Contractor shall perform all quality control testing during the construction of the work to ensure the work performed is in accordance with the Specifications. The Contractor shall also perform all tests required by laws, ordinances, regulations, and orders of public authorities. Copies of all test results shall be provided to the City for review. Materials, equipment, or work which fails to meet the Contract requirements shall not be used in the Work.

The City will at all times have access to the Work. In addition, authorized representatives and agents of any participating federal or state agency shall be permitted to review all Work, materials, invoices of materials, and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the Work and also for any review or testing thereof. The Contractor shall notify testing personnel, including testing personnel provided by the City or City Engineer, at least 48 hours in advance of operations to allow for personnel assignments and test scheduling. All materials to be tested shall be provided by the Contractor at his/her expense. After tests are completed, the Contractor shall be responsible for repairing test areas to match original conditions. The Contractor shall pay for all additional reviews and retesting required because of defective work or ill-timed notices.

The Contractor shall submit samples of the material to be utilized on the project to the City for review. The City may take additional samples and provide check tests on material being incorporated into the work to verify compliance with the requirements of the Specifications. Materials or workmanship found to be outside of the specification limits shall be replaced with suitable material at no expense to the City.

Tests or reviews by the City or others shall not relieve the Contractor from his/her obligations to perform the Work in accordance with the requirements of the Specifications and does not make the City, or others, an insurer of the Contractor's Work.

The Contractor shall be responsible for providing his/her own construction monitoring and quality control program. The Contractor shall provide and maintain a quality control program

that will ensure the quality of the work and materials incorporated into the project. The Contractor shall provide appropriate quality control personnel and testing facilities and certified testing personnel to perform the Work. A written quality control program shall be provided to the City Engineer for review prior to any Work being performed. The plan shall describe testing facilities, qualifications of quality control and testing personnel, testing frequency, and reporting schedule.

Following are the minimum required tests and testing frequency that shall be included in the Contractor's quality control program for the materials listed. See the Technical Specifications for other testing and quality control requirements. If the Contractor fails to provide all or any part of the required quality control for the project after the City has requested him to do so in writing, the City may elect to have the quality control work performed and bill the Contractor the actual cost of quality work plus $100 for each test.

1. Trench Backfill Materials

   A minimum of one ASTM D 1557 laboratory density test will be performed for each testable material used as trench backfill, providing the maximum theoretical density and optimum moisture content of the material. A minimum of one nuclear gauge density test (ASTM D 2922) will be performed every 300 feet along the trench line on each lift of material to show required density is being achieved. Once an acceptable compaction method is established and verified with field density tests, the testing interval can be reduced to 600 feet along the trench line. If backfill material or compaction equipment changes, compaction testing shall immediately be performed to verify that density is being achieved and shall continue at 300-foot intervals until a new compaction method is verified.

2. Earthwork

   A minimum of one ASTM D 1557 laboratory density test will be performed for each testable material used as embankment material, providing the maximum theoretical density and optimum moisture content of the material can be determined. A minimum of one nuclear gauge density test (ASTM D 2922) will be performed every 800 square yards on each lift of material to show required density is being achieved. Once an acceptable compaction method is established and verified with field density tests, the testing interval can be reduced to one test each 1,600 square yards on each lift. If backfill material or compaction equipment changes, compaction testing shall immediately be performed to verify that density is being achieved and shall continue at 800 square yard intervals until a new compaction method is verified.

3. Base Rock and Surface Rock

   Testing required to qualify material source prior to production consists of the following (ODOT certification of the material source can be substituted for this testing):

Abrasion AASHTO T 96

Degradation ODOT TM T-208

Quality control testing required during production consists of the following:

Gradation	AASHTO T 27	Start of production and one test every 1,000 tons (three tests minimum)
Fracture Face	WAQTC TM-1	Start of production and one test every 3,000 tons (three tests minimum)
Sand Equivalent	AASHTO T 176	Start of production and one test every 3,000 tons (three tests minimum)

Compliance of aggregates produced and stockpiled before the Award Date or Notice to Proceed of this Contract will be determined by the following:

Continuing production records meeting the requirements set forth in these Specifications for stockpiled material or furnish records of testing for the entire stockpile, changing sampling frequency to the following:

a. Start of production means "One Set of Tests Per Stockpile."

b. One per 1,000 tons means "One Set of Tests Per 1,000 Tons of Material in the Stockpile" with a minimum of 3 sets of gradation tests per project.

c. One per 3,000 tons means "One Set of Tests Per 3,000 Tons of Material in the Stockpile."

A minimum of one ASTM D 1557 laboratory density test will be performed on base rock material, providing the maximum theoretical density and optimum moisture content of the material. A minimum of one nuclear gauge density test (ASTM D 2922) will be performed every 800 square yards on each lift of base rock to show required density is being achieved. Once an acceptable compaction method is established and verified with field density tests, the testing interval can be reduced to one test each 1,600 square yards on each lift. If base rock material or compaction equipment changes, compaction testing shall immediately be performed to verify that density is being achieved and shall continue at 800 square yard intervals until a new compaction method is verified.

4. Hot-Mix Asphalt Concrete Pavement (HMAP)

Testing required to qualify HMAP aggregate material source prior to production consists of the following (ODOT certification of the material source can be substituted for this testing):

Soundness	AASHTO T 104
Abrasion	AASHTO T 96
Degradation	ODOT TM T-208
Lightweight Pieces	AASHTO T 113
Plastic Index	AASHTO T 103
Friable Particles	AASHTO T 112

Quality control testing required on HMAP aggregate during production consists of the following:

Gradation	AASHTO T 27	Start of production and one test every 1,000 tons (three tests minimum)
Sand Equivalent	AASHTO T 176	Start of production and one test every 3,000 tons (three tests minimum)
Fracture Face	WAQTC TM-1	Start of production and one test every 3,000 tons (three tests minimum)
Wood Particles	ODOT TM T-225	Start of production and one test every 3,000 tons (three tests minimum)
Elongated Pieces	ODOT TM T-229	Start of production and one test every 3,000 tons (three tests minimum)
Dust or Clay Coating	ODOT TM T-226	Start of production and one test every 3,000 tons (three tests minimum)

Compliance of HMAP aggregates produced and stockpiled before the Award Date or Notice to Proceed of this Contract will be determined by the following:

Continuing production records meeting the requirements set forth in these Specifications for stockpiled material or furnish records of testing for the entire stockpile, changing sampling frequency to the following:

a. Start of production means "One Set of Tests Per Stockpile."

b. One per 1,000 tons means "One Set of Tests Per 1,000 Tons of Material in the Stockpile" with a minimum of 3 sets of gradation tests per project.

c. One per 3,000 tons means "One Set of Tests Per 3,000 Tons of Material in the Stockpile."

Quality control testing of hot-mix asphalt concrete pavement mixture required during placement is as follows:

Asphalt Content	AASHTO T 308	One test every 1,000 tons, one test per day minimum
Gradation	(Residual Agg. From AASHTO T 308)	One test every 1,000 tons, one test per day minimum
Maximum Specific Gravity	AASHTO T 209	One test every 1,000 tons, one test per day minimum
Compaction	WAQTC TM-8	5 tests every 1,000 tons
Percent Hydrated Lime	ODOT TM T-321	One test every 1,000 tons

Asphalt content, gradation, and maximum specific gravity testing will be performed at the start of production to verify the hot-mix asphalt mix design.

5. Portland Cement Concrete (PCC)

Aggregate testing is required to be completed with the mix design. Should additional testing of aggregate for PCC be deemed necessary by the Engineer, testing shall be performed by the Contractor as specified by ASTM C 33. Samples shall be selected at random from the stockpile and tested for conformance with the Specifications. The decision to perform aggregate testing and testing frequencies shall be left to the Engineer.

Quality control testing of PCC during and following placement is as follows:

Air Content	AASHTO T 152	One test per each set of cylinders One test per each truck
Slump	AASHTO T 119	One test per each set of cylinders One test per each truck
Concrete Temperature	AASHTO T 309 or ASTM C 1064	One test per each set of cylinders
Strength	AASHTO T 22, AASHTO T 23, ASTM C 31, and ASTM C 39	One set of three cylinders per 25 cubic yards (minimum one set per day)

N. COOPERATION WITH AREA RESIDENTS

The Contractor shall cooperate with the residents and business owners in the area to provide good access to private property whenever possible. Sidewalks shall be kept clear at all times of any construction materials. Barricades, traffic cones, blinkers, and signing shall be used to direct the public through the work area safely.

O. CONSTRUCTION STAKING

1. The Contractor shall carefully preserve benchmarks, reference points and stakes set by others. In the case of willful or careless destruction by the Contractor, he/she shall be charged with the resulting expense of replacement and shall be responsible for any mistakes or liability that may be caused by the loss or disturbance.

2. All construction staking required for the work shall be performed by the Contractor as reviewed by the City Engineer. Adequate staking shall be provided to install the improvements to the lines and grade called for on the Drawings.

P. EXISTING SURVEY MONUMENTATION

The Contractor shall be responsible for the protection and perpetuation of existing land survey, property, or construction monuments shown on the Drawings, which are marked or are clearly visible on the ground. The Contractor shall give the City a minimum of 72 hours' notice prior to working in the vicinity of any such monument that he/she may disturb so the City can arrange for such monuments to be referenced. When proper notice is provided, the City shall have any disturbed monuments restored following construction. Should the Contractor fail to provide adequate notice to the City, he/she shall be responsible for the expense of having the disturbed monument restored by a qualified surveyor.

Q. EXISTING UTILITIES

1. The following utilities may be affected by the Contractor's Work:

   a. Gas
   Avista Utilities
   P.O. Box 1048
   La Grande, Oregon 97850
   Contact Person: Don Kellogg
   Cell No.: 541-786-0280

   b. Power
   Oregon Trail Electric Co-Op
   P.O. Box 790
   La Grande, Oregon 97850
   Contact Person: Bill Neilson
   Telephone No.: 541-963-3155

   c. Water/Sewer
   City of Union, Oregon
   342 South Main / P.O. Box 529
   Union, Oregon 97883
   Contact Person: Paul Phillips
   Telephone No.: 541-910-7300

d. Telephone
Frontier Communications
P.O. Box 430
La Grande, Oregon 97850
Contact Person: Ken Aldrich
Telephone No.: 541-962-0562

e. Television
Charter Communications
P.O. Box 1401
La Grande, Oregon 97850
Contact Person: Don Beith
Cell No: 541-786-4165

f. State Highway Maintenance
Oregon Department of Transportation
406 E. Frazier, Union, Oregon 97823
Contact Person: Bob Reed
Telephone No.: 541-384-4224

2. Known utilities and structures expected to be adjacent to or encountered in the Work should be shown on the Drawings. Information on existing utilities may be provided by others and existing records may not be complete or accurate. It is expected there may be discrepancies and omissions in the location, size, and quantities of utilities and structures shown. Those shown are for convenience of the Contractor only. The Contractor shall work closely with the owner of any utilities or structures affected by the Work to avoid any damage.

3. The Contractor shall be responsible for the actual locating and protecting of existing utilities. The Contractor, prior to commencement of work, shall contact existing Utility Companies such as water, sewer, power, telephone, gas, etc., to have the Utility Companies locate all utilities which will be affected by the work to be performed. The Contractor shall give 48-hour notification in accordance with ORS 757-541. The "call before you dig" number is 811 or 1-800-332-2344. The Contractor shall perform all necessary coordination work with the Utility Companies in performing the work and shall be fully responsible for any damage to existing utilities caused by the Contractor's operations. The Contractor shall make any advance exploration necessary to protect all existing utilities and to properly plan the installation of pipelines or other work to the design line and grade.

4. If a conflict develops between the design line and grade of a pipeline or project improvement and an existing utility, the City Engineer may adjust the pipeline grade or have the existing utility relocated. The existing utility may be relocated by the owner of the utility or its designated representative or by the Contractor upon the approval of the utility owner and the City Engineer. The Contractor shall perform all relocation work

required by the City Engineer. If the Contractor performs the relocation work, a Change Order shall be negotiated prior to any actual work unless payment for the work is specified otherwise.

5. The owner of the utilities shall normally be responsible for taking the utility out of service if necessary for the performance of the work; i.e., shutting valves, etc. In the case of water valves, the City may operate the valves or request the Contractor to do so. When the Contractor is requested to do so, the Contractor shall operate water valves as a normal part of the work at no additional cost to the City. All water valves shall be operated as instructed by the City. It can be expected that some valves may not fully operate properly which may require that additional valves be operated. This situation shall be considered a normal requirement of the work.

6. The Contractor shall receive prior approval from the appropriate authority or utility owner before any public or private utility service is interrupted. The Contractor shall give a minimum of 4 hours' notice to all utility customers who will be affected by the Contractor's operations. No utility service shall be disconnected or interrupted for more than 9 hours or as required by the utility owner, whichever is less, in any 24-hour period. When disruption of service will be longer than 9 hours in any one day, the Contractor shall provide safe and appropriate temporary service. All temporary service shall be coordinated with the utility owner. When regular utility service interruption is required during the course of the work, the Contractor shall submit a written plan to the City Engineer and utility owner which details proposed work plan notification procedures, and estimated extent of service interruption. The Contractor must obtain written approval of his plan from the utility owner prior to interrupting the utility service. As a minimum, notification shall include door hangers and public notification in the newspaper and radio, as appropriate. Personal contact shall be made where practical. The Contractor shall make every effort possible to provide continuous utility service to all utility customers. When special conditions exist where an interruption of utility service would create an extra hardship on the utility customer or create a hazardous condition, the Contractor shall provide continuous service. Particular care and planning must be arranged to provide continuous service of existing services or temporary services as approved by the utility owner and the City Engineer. If the Contractor inadvertently damages or interrupts an existing utility, the Contractor shall immediately notify affected utility users and make arrangements to provide temporary service to the parties affected and shall repair said utility as required by the utility owner and the City Engineer at no cost to the City. If the Contractor fails to make immediate repairs and provide service as required, the City may have said work performed by others and charge the Contractor for the work.

7. The Contractor shall support and otherwise protect all pipes, conduits, cables, poles, and other existing services where they cross the trench or are otherwise undermined or affected by his work. The Contractor shall restore the support of an undermined

existing utility using select backfill compacted to 95 percent maximum density as determined by ASTM D 698.

R. EXISTING EQUIPMENT REMOVAL AND SALVAGE

Existing equipment or materials removed by the Contractor during the course of the Work, which the City requests to be salvaged, shall remain the property of the City. The equipment and materials shall be removed with care to prevent unnecessary damage and shall be neatly stored at a location directed by the City. Equipment or materials not to be salvaged as requested by the City shall be salvaged or recycled by the Contractor in accordance with ORS 279C.510(1) if feasible and cost effective.

S. USE OF EXPLOSIVES

Rock excavation may be required for the work to be performed. Use of explosives may be allowed if other means for excavating the rock have been shown to be inadequate. Prior to performing the blasting operations, the Contractor shall provide the City and City Engineer with a detailed work plan of the blasting operation. When explosives are utilized, the Contractor shall exercise the utmost care and follow all necessary safety practices so as not to endanger life or property, and comply with governing state and local laws and regulations. The blasting operation shall be designed and accomplished by an experienced, qualified, licensed blasting Contractor.

T. CORRECTION OF WORK

The Contractor shall promptly remove from the premises or correct all work rejected by the City or City Engineer for failure to comply with the Drawings and Specifications, whether incorporated into the construction or not, and the Contractor shall promptly replace, correct and re-execute the work in accordance with the Drawings and Specifications.

U. INDEMNIFICATION

1. To the fullest extent permitted by laws and regulations, the Contractor shall indemnify and hold harmless and defend at the Contractor's expense, including attorney's fees, the City and the City Engineer and their officers, agents, and employees from and against all claims, liabilities, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the work. Provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and is caused in whole or in part by any alleged negligent act or omission of the Contractor, any subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a

party indemnified hereunder or arises by or is imposed by law and regulations regardless of the negligence of any such party. Indemnification shall also include, but not be limited, to:

a. Liability or claims resulting directly or indirectly from the alleged negligence or carelessness of the Contractor or his/her agents in the performance of the work, or in guarding or maintaining the same, or from any improper materials implements, or appliances used in its construction, or by or on account of any act or omission of the Contractor or his/her agents;

b. Liability or claims arising directly or indirectly from or based on the violation of any law, ordinance, regulation, order, or decree, whether by the Contractor or his/her agents;

c. Liability or claims arising directly or indirectly from the use or manufacture by the Contractor, his/her agents, or the City in the performance of this contract of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article, or appliance, unless otherwise specifically stipulated in this contract;

d. Liability or claims arising directly or indirectly from the breach of any warranties, whether express or implied, made to the City or any other parties by the Contractor or his/her agents;

e. Liabilities or claims arising directly or indirectly from the willful misconduct of the Contractor or his/her agents; and

f. Liabilities or claims arising directly or indirectly from any breach of the obligations assumed herein by the Contractor.

g. Liabilities or claims arising directly or indirectly from the Contractor's failure, or his/her agents, to follow and enforce required safety plans, trench excavation plans, etc.

2. In any and all claims against the City or City Engineer or any of their consultants, agents, or employees by any employee of the Contractor, any subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any such subcontractor or other person or organization under Workers' or Workmen's Compensation Acts, disability benefit acts or other employee benefit acts.

V. GUARANTY

The Contractor shall guaranty all materials and equipment furnished and work performed for a period of one (1) year, unless provided otherwise in the Technical Specifications, from the date of Final Completion. The Contractor warrants and guaranties for a period of one (1) year from the date of Final Completion of the system that the completed system is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The City will give notice of observed defects with reasonable promptness. In the event the Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, the City may do so and charge the Contractor the cost thereby incurred.

If any corrections of the work are performed during the one-year guaranty period which requires monitoring by the City Engineer, the services of the City Engineer shall be paid for by the Contractor.

W. STARTUP AND TRAINING

It shall be the Contractor's responsibility to install all system components in accordance with the Manufacturer's recommendations. All equipment shall be lubricated and adjusted as components prior to testing the system as a whole. The Contractor shall arrange with the City and/or City Engineer to witness a test of the system and equipment after installation is completed. The Contractor shall provide the services of Manufacturers' representatives to assist with the startup of major components and to provide training to the City's personnel. These tests shall demonstrate the complete facility operates in accordance with the Drawings and Specifications and the required functions. It is anticipated that minor adjustments may occur after the system has been started up. The Contractor shall make adjustments and correct deficiencies as required so the system can be kept in operation once it is placed into service. These adjustments, etc., shall be completed before final acceptance. The Contractor shall pay all costs associated with Manufacturer's representatives and startup work.

As part of this Work, the Contractor shall provide startup training to the City and City Engineer in sufficient detail so the City and City Engineer are fully familiar with the proper operation and maintenance of project components and systems. The startup training shall occur after the construction work is complete and properly functioning.

X. RECORD DRAWINGS

The Contractor shall maintain on the jobsite an up-to-date, complete, and accurate set of Record Drawings. These drawings shall include all work performed by the Contractor and shall note any changes or deviations made from the details shown on the Construction Drawings. Such changes include, but are not be limited to, dimensional changes, location, grade changes, elevation changes, material type, configuration, etc. All changes shall be neatly and accurately shown on the Record Drawings. The Record Drawings shall also include all required job photos.

The Contractor shall provide ties to all buried service line taps from an above-ground reference point such as a valve, manhole, etc. At least two swing tie references shall be provided for all service line stubouts which will not be connected to an active service. Swing tie measurements shall be from some permanent reference point, i.e., house corner, fire hydrant, power pole, etc. All ties shall be provided in such a way so that the buried service line can be accurately located after construction work is complete. All buried improvements shall be described in detail including location, type, size, depth, brand name, model numbers, etc. Buried improvements shall include valves, fittings, repair clamps, connections to existing lines, etc. All offsets shall be appropriately noted on the Record Drawings.

A clear color digital photograph shall be taken of each improvement that would be permanently buried, such as connections to existing lines, fittings, and/or valve configurations, etc. A surveying rod or similar device shall be included in the photo to provide a scaling reference. Labels shall indicate the location and date of the photograph plus any appropriate information relative to what is shown. The photographs shall be mounted and indexed in a 3-ring looseleaf notebook. Two laser color copies of the notebook shall be provided in addition to the original color photo notebook. The intent is that items that may require future maintenance by the City be photographed so that accurate information concerning buried improvements will be known.

The Contractor shall also note the locations, types, size, depth, etc., of any existing utilities which are encountered during the performance of the work. The Record Drawings shall be available for inspection during the project by the City and City Engineer. The Contractor shall keep the record drawings current each day to avoid loss of critical or important information. Upon completion of the work, the Contractor shall give the record drawings and photographs to the City. The project will not be accepted by the City until the complete Record Drawings have been provided.

IT IS INTENDED THAT THE RECORD DRAWINGS BE COMPLETE AND DETAILED. EXAMPLES OF ACCEPTABLE RECORD DRAWINGS ARE AVAILABLE FOR INSPECTION AT THE CITY ENGINEER'S OFFICE. CONSIDERABLE EFFORT SHALL BE EXPENDED IN PREPARING THE RECORD DRAWINGS.

Y. OPERATION AND MAINTENANCE MANUAL

For projects that involve the construction of electrical systems, systems with controlled operation, mechanical systems, or when requested by the City, four copies of an Operation and Maintenance Manual shall be submitted to the City Engineer prior to the Contractor completing the Work. The material shall be bound in a 3-ring looseleaf notebook with the project name, City's name, and Contractor's name printed on the cover. The material shall also be clearly indexed and grouped by the various systems in the project. This data shall be supplied for all materials, equipment, and devices and components which will require maintenance, replacement of parts, and knowledge of operation. The information furnished shall pertain specifically to the materials and equipment furnished. Manufacturers' O&M manuals that deal with more than one product line shall have the non-relevant information crossed or blocked out. The Contractor shall furnish a complete listing of all equipment supplied and each respective supplier's name, address, and telephone number. The O&M data furnished shall

include detailed Manufacturer's operation and maintenance information on each component, function description of operation, a complete parts list, and a separate parts list for parts not readily available.

For all electrical systems, in addition to other requirements listed herein, record drawing one-line diagrams and wiring diagrams properly labeled shall be submitted. The Contractor shall also furnish the City with copies of the appropriate plan sheets marked up with "Record Drawing" locations of conduits underground, under or in concrete slabs, locations of installed equipment, and the name, address, and phone number of the electrician who installed the system.

For mechanical systems, in addition to other requirements listed herein, where appropriate, lubrication schedules shall be furnished or clearly identified in the Manufacturer's Operation and Maintenance Manual.

For painting systems, the Contractor shall provide either fresh labels from paint cans with a list of places used or a written description of the painting systems, locations used and application requirements, and supplier's name, address, and phone number.

IT IS INTENDED THAT THE O&M MANUAL BE COMPLETE AND DETAILED. EXAMPLES OF ACCEPTABLE O&M MANUALS ARE AVAILABLE FOR INSPECTION AT THE CITY ENGINEER'S OFFICE. CONSIDERABLE EFFORT SHALL BE EXPENDED IN PREPARING THE O&M MANUAL.

Z. WORK ACCEPTANCE

Upon receipt of the "Contractor's Notice of Construction Completion" (contained at the end of the General Requirements), the City and/or City Engineer shall determine whether or not the work is sufficiently complete to warrant a final project review. If the work is not complete, the Contractor shall complete the work prior to requesting final project review. If the work is complete and no items are left undone to the knowledge of the City and the Contractor, the City and/or City Engineer shall, within ten (10) days of receipt of said notice, make a final project review with the Contractor and will notify the Contractor, in writing, of any particulars in which this review reveals that the work is defective. The Contractor shall make such corrections as are necessary to remedy such defects. The completion of items identified in the final project review shall not relieve the Contractor from completing or correcting work that is subsequently found to be incomplete or defective.

After the Contractor has completed any such corrections to the satisfaction of the City and delivered all operations and maintenance manuals, guarantees, certificates of review and other documents, all as required by the plans and specifications, shall submit to the City the "Contractor's Project Completion Certification." Upon receipt, completion, and approval of the above listed items, the City will issue a "Final Acceptance Report" stating that to the City's knowledge, information, and belief, the work has been completed by the Contractor.

Final completion shall be that date designated in the Final Acceptance Report stating that the work is complete and the work has been accepted by the City under the conditions of the plans and specifications.

CONTRACTOR'S PROJECT
COMPLETION CERTIFICATION

_____ hereby certifies that the project known as
(Contractor)

_____
(Name of Project)

has been completed in accordance with all requirements of the project plans and specifications. The Contractor further certifies that information contained in the Record Drawings and Operation and Maintenance Manual is complete, accurate, and properly described equipment, materials, and system installed as a part of the project. The Contractor further certifies that proper training has been given to the City's designated representative as to proper operation and service of the project system and components.

_____
(Signature)

_____
(Name)

_____
(Title)

_____
(Date)

Instructions: This form shall be completed by the Contractor and submitted to the City when the Contractor believes the project is complete; i.e., construction, paperwork, etc.

CONTRACTOR'S NOTICE OF
CONSTRUCTION COMPLETION

____ hereby certifies that all construction work on the
(Contractor)
project ____
(Name of Project)
has been completed in accordance with all requirements of the project plans and specifications. The Contractor further certifies that all system components have been properly installed, serviced and lubricated where appropriate, checked and tested for proper operation, all as recommended by the product manufacturer and as required by the Contract Documents.

By:_____________________________________
(Signature)

____
(Name)

____
(Title)

____
(Date)

- -

(All items below the dotted line shall be completed by the City.)

Review by the City:

- ☐ Construction work appears to be complete and a final project review has been scheduled for _____________________________________.
  (Date and Time)

- ☐ Construction work is not complete. The Contractor shall complete the necessary work and resubmit a new "Contractor's Notice of Construction Completion."

By:_____________________________________
(Signature)

____
(Name)

____
(Title)

____
(Date)

FINAL ACCEPTANCE REPORT
City of Union, Oregon

PROJECT: _____

DATE: _____

PROJECT ENGINEER: _____

CONTRACTOR: _____

CONTRACT DATE: _____

RECITAL: The work performed under this project was reviewed for the purpose of determining acceptability of construction. All corrective work requested by the City was completed and reviewed by the City on _____ (Date). To the best knowledge and belief of the City, the work performed by the Contractor has been completed in accordance with the intent of the Contract Documents.

The City hereby accepts the work on the above-referenced project and sets the date of Final Completion as _____(Date).

City of Union, Oregon

By:_____
(Name)

Title:_____

Date:_____

The Contractor, _____, agrees that the date of Final Completion is also the date of commencement of project warranties. The Contractor has released all liens on the project, including materialmen and mechanics liens.

_____
(Contractor)

By:_____

Title:_____

Date:_____

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE				DATE	NO.
SECTION 1 – REQUEST FOR APPROVAL FO THE FOLLOWING ITEMS *(This section will be initiated by the Contractor)*					
TO Engineer:		FROM Contractor:		PROJECT	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL
ITEM No.	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model number, etc.)*	MFR. OR CONTR. CAT. CURVE DRAWING OR BROCHURE NO.	No. OF COPIES	CONTRACT REFERENCE DOCUMENT SPEC. SECTION NO.	CONTRACT REFERENCE DOCUMENT DRAWING SHEET NO.	COMMENTS
REMARKS				I certify that the above-submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated. NAME AND SIGNATURE OF Contractor		