



## Woodhaven Park Phase 2

DATE: May 23, 2016

**BID ADDENDUM NO. 3**

### Addition/Change to the Contract Documents

1. Be advised that the special provisions attached to this bid addendum reflect changes and additions due to omissions from the original special provisions documents initially released with the Invitation to Bid dated May 2<sup>nd</sup>, and May 4<sup>th</sup>, 2016. Bids submitted on June 2<sup>nd</sup>, 2016 (extended bid date, Bid Addendum No. 2) shall assume to be based on these special provisions.

This ADDENDUM shall be signed and attached to the Bidder's Proposal and shall subsequently become part of the Contract Documents.

Company Name	
Contractor Name	
Contractor Signature	
Date	

**BID SCHEDULE**  
**WOODHAVEN PARK PHASE 2**  
**BASE BID**

In accordance with the provisions of the Oregon Standard Specifications for Construction, 2015 Edition as modified by these bid documents, the undersigned Bidder submits the following Bid Schedule with the understanding that City reserves the right to increase, decrease, or completely eliminate quantities as set forth in 00120.20. Also, the Bidder offers to do the work, whether quantities area changed (increased or decreased) in accordance with 00195.20, or not changed, at the unit rate price stated in the following Bid Schedule:

Item No.	Spec Section	Description	Unit	Quantity	Unit Price	Unit Total Cost
<b>PART 00200 - TEMPORARY FEATURES AND APPURTENANCES</b>						
1	00210	Mobilization	L.S.	1		
2	00225	Work Zone Traffic Control	L.S.	1		
3	00270	Temporary Type CL Chain-Link Fence	L.S.	1		
4	00280	Erosion Control	L.S.	1		
5	00280	Inlet Protection, Type 3	Each	6		
6	00280	Orange Sediment Fence, Unsupported	L.F.	2,020		
<b>PART 00300 - ROADWORK</b>						
7	00305	Construction Survey Work	L.S.	1		
8	00310	Removal of Structures and Obstructions	L.S.	1		
9	00320	Clearing and Grubbing	L.S.	1		
10	00330	Earthwork - Excavation and Embankment	C.Y.	1,080		
<b>PART 00400 - DRAINAGE &amp; SEWERS</b>						
11	00445	8 inch Storm Pipe	L.S.	167		
12	00445	4 inch Sanitary Pipe	L.S.	218		
13	00470	4 inch Cleanout	Each	1		
14	00470	Catch Basin	Each	1		
15	00490	Connection to Existing Structures, Storm Pipe	Each	1		
16	00490	Connection to Existing Structures, Sanitary Pipe	Each	1		
<b>PART 00600 - BASES</b>						
17	00641	3/4" - 0" Aggregate Base	C.Y.	765		

City of Sherwood  
**Woodhaven Park Phase 2**  
**Division One - Bidding Requirements**

Item No.	Spec Section	Description	Unit	Quantity	Unit Price	Unit Total Cost
<b>PART 00700 - WEARING SURFACES</b>						
18	00745	Level 2, 1/4 inch Dense ACP	TON	74		
19	00745	Level 2, 1/2 inch Dense ACP	TON	121		
20	00745	Level 2, 1/2 inch Open ACP	TON	298		
21	00759	Concrete Curbs, Playground	L.F.	209		
22	00759	Concrete Curbs, Parking Lot	L.F.	542		
23	00759	Concrete Curbs, Standard	L.F.	10		
24	00759	Concrete Curbs, Seat Wall	L.F.	36		
25	00759	Concrete Mow Strip	L.F.	269		
26	00759	Concrete Walk	S.F.	5,050		
27	00759	Commercial Driveways	S.F.	480		
28	00759	Concrete Wheel Stops	Each	10		
29	00759	Concrete Stairs	S.F.	136		
<b>PART 00800 - PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES</b>						
30	00815	Removable Bollards	Each	4		
31	00860	Longitudinal Pavement Markings - Paint	L.F.	235		
32	00867	Pavement Legend, Paint: Disabled Parking	Each	1		
<b>PART 01000 - RIGHT-OF-WAY DEVELOPMENT AND CONTROL</b>						
33	01030	Permanent Seeding	AC	0.32		
34	01030	Water Quality Seeding	AC	0.35		
35	01040	Soil Testing	Each	3		
36	01040	Water Quality Mixture	C.Y.	800		
37	01040	Conifer Trees, 6' Height	Each	2		
38	01040	Deciduous Trees, 2" Caliper	Each	31		
39	01040	Deciduous Trees, #2 Container	Each	87		
40	01040	Shrubs, #1 Container	Each	699		
41	01040	Groundcovers, #SP4 Container	Each	650		
42	01040	Wetland Plants, Plugs	Each	4,380		

City of Sherwood  
**Woodhaven Park Phase 2**  
**Division One - Bidding Requirements**

Item No.	Spec Section	Description	Unit	Quantity	Unit Price	Unit Total Cost
43	01040	Bark Mulch	C.Y.	140		
44	01040	Root Barrier	L.F.	384		
45	01050	48 inch Chainlink Fence	L.F.	231		
46	01095	Pet Station	Each	4		
47	01095	Benches	Each	8		
48	01095	Bike Racks	Each	2		
49	01095	Picnic Tables	Each	4		
50	01095	Litter Receptacles	Each	4		
51	01095	Basketball Court	L.S.	1		
52	01095	Rock Climbing Wall	L.S.	1		
53	01095	Slide	L.S.	1		
54	01095	Prefabricated Restroom	L.S.	1		
55	01095	Interlocking Soft Surface Play Tiles	S.F.	255		
56	01095	Litter Digger	Each	2		
57	01095	Pedestrian Bridge	Each	1		
58	01095	Hop Rocks, Medium	Each	2		
59	01095	Hop Rocks, Large	Each	2		
60	01095	Racoon Log	Each	1		
61	01095	Engineered Wood Fiber	C.Y.	300		
62	01095	CWS Vegetated Corridor Sign	Each	2		
63	01095	Site Security and IT	L.S.	1		
<b>PART 01100 - WATER SUPPLY SYSTEMS</b>						
64	01120	Irrigation	L.S.	1		
65	01170	1 Inch Water Service Connection Piping	L.F.	85		
66	01170	1 Inch Water Meter Assembly	Each	1		
<b>TOTAL BASE BID</b>						

City of Sherwood  
Woodhaven Park Phase 2  
Division One - Bidding Requirements

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**TOTAL BID WRITTEN IN WORDS:**

\_\_\_\_\_ **DOLLARS**

**AND** \_\_\_\_\_ **CENTS**

In the event of discrepancy, the amount in words shall dictate.

\_\_\_\_\_  
**Signature of Authorized Agent**

\_\_\_\_\_  
**Company Name**

\_\_\_\_\_  
**Printed Name**

\_\_\_\_\_  
**Date**

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**SPECIAL PROVISIONS  
FOR ROADWAY AND HIGHWAY CONSTRUCTION**

**CITY OF SHERWOOD, OREGON  
GRADING, STRUCTURE, & PAVING**

**WOODHAVEN PARK PHASE 2**

**Prepared By:**



**Harper  
Houf Peterson  
Righellis Inc.**

ENGINEERS • PLANNERS  
LANDSCAPE ARCHITECTS • SURVEYORS



EXPIRES: 12/31/17

## TABLE OF CONTENTS FOR SPECIAL PROVISIONS

SECTION 00110 - ORGANIZATION, CONVENTIONS, .....	5
ABBREVIATIONS AND DEFINITIONS .....	5
SECTION 00120 - BIDDING REQUIREMENTS AND PROCEDURES .....	5
SECTION 00130 - AWARD AND EXECUTION OF CONTRACT .....	7
SECTION 00140 - SCOPE OF WORK.....	8
SECTION 00150 - CONTROL OF WORK.....	8
SECTION 00160 - SOURCE OF MATERIALS .....	10
SECTION 00165 - QUALITY OF MATERIALS .....	10
SECTION 00170 - LEGAL RELATIONS AND RESPONSIBILITIES.....	10
SECTION 00180 - PROSECUTION AND PROGRESS.....	14
SECTION 00190 - MEASUREMENT OF PAY QUANTITIES .....	15
SECTION 00195 - PAYMENT .....	16
SECTION 00196 - PAYMENT FOR EXTRA WORK.....	17
SECTION 00197 - PAYMENT FOR FORCE ACCOUNT WORK.....	18
SECTION 00199 - DISAGREEMENTS, PROTESTS, AND CLAIMS.....	18
SECTION 00210 - MOBILIZATION.....	18
SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC .....	18
SECTION 00225 - WORK ZONE TRAFFIC CONTROL .....	18
SECTION 00270 - TEMPORARY FENCES .....	19
SECTION 00280 - EROSION AND SEDIMENT CONTROL.....	19
SECTION 00305 - CONSTRUCTION SURVEY WORK.....	19
SECTION 00310 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS .....	20
SECTION 00320 - CLEARING AND GRUBBING.....	20
SECTION 00330 - EARTHWORK.....	21
SECTION 00440 - COMMERCIAL GRADE CONCRETE.....	21
SECTION 00445 - SANITARY, STORM, CULVERT, SIPHON, AND IRRIGATION PIPE .....	21
SECTION 00490 - WORK ON EXISTING SEWERS AND STRUCTURES .....	21
SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS .....	21
SECTION 00730 - EMULSIFIED ASPHALT TACK COAT.....	22
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE .....	22
SECTION 00759 - MISCELLANEOUS PORTLAND CEMENT CONCRETE STRUCTURES .....	22
SECTION 00815 - BOLLARDS .....	23
SECTION 00850 - COMMON PROVISIONS FOR PAVEMENT MARKINGS .....	23
SECTION 00860 - LONGITUDINAL PAVEMENT MARKINGS - PAINT .....	23
SECTION 00867 - TRANSVERSE PAVEMENT MARKINGS - LEGENDS AND BARS .....	23
SECTION 00940 - SIGNS .....	24
SECTION 01030 - SEEDING .....	24
SECTION 01040 - PLANTING .....	25
SECTION 01050 - FENCES.....	26
SECTION 01095 - SITE FURNISHINGS.....	26
SECTION 01120 - IRRIGATION SYSTEMS .....	31

SECTION 01140 - POTABLE WATER PIPE AND FITTINGS .....	31
SECTION 01170 - POTABLE WATER SERVICE CONNECTIONS, 2 INCH AND SMALLER .....	38
SECTION 02010 - PORTLAND CEMENT .....	41
SECTION 02050 - CURING MATERIALS .....	41
SECTION 02150 - LUMBER AND TIMBER CONNECTORS .....	41
SECTION 02190 - PRESERVATIVE TREATMENT OF LUMBER.....	43
SECTION 02320 - GEOSYNTHETICS.....	43
SECTION 02440 – JOINT MATERIALS .....	47
SECTION 02490 - POTABLE WATER SERVICE CONNECTION MATERIALS, 2 INCH AND SMALLER .....	48
SECTION 02560 - FASTENERS.....	49
SECTION 02910 - SIGN MATERIALS .....	50

ADDITIONAL DOCUMENTS

- Romtec Specifications



## **SPECIAL PROVISIONS**

### **WORK TO BE DONE**

The Plan Set for this project which is entitled: WOODHAVEN PARK PHASE 2, SHERWOOD, OREGON.

Improvements include trail and playground improvements, parking lot construction and construction of a multi-use trail.

### **APPLICABLE SPECIFICATIONS**

The Specification that is applicable to the Work on this Project is the 2015 edition of the "Oregon Standard Specifications for Construction" produced by the Oregon Department of Transportation and the Oregon Chapter of the APWA.

All number references in these Special Provisions shall be understood to refer to the Sections and subsections of the Standard Specifications and Supplemental Specifications bearing like numbers and to Sections and subsections contained in these Special Provisions in their entirety.

### **CLASS OF PROJECT**

This is a City of Sherwood Project. The construction of this project is not federally funded.

**SECTION 00110 - ORGANIZATION, CONVENTIONS,  
ABBREVIATIONS AND DEFINITIONS**

Comply with Section 00110 of the Standard Specifications modified as follows:

**00110.20 Definitions** – Add the following:

All reference to fax submittals shall be replaced to allow electronic submittals in .pdf format.

**SECTION 00120 - BIDDING REQUIREMENTS AND PROCEDURES**

Comply with Section 00120 of the Standard Specifications modified as follows:

**00120.01 General Bidding Requirements** – Replace this section with the following:

All bids must be paper bids and conform to the bidding requirements outlined in the Invitation to Bid.

**00120.05 Request for Solicitation Documents** - Replace this section with the following:

Bid documents are available on-line at the City's website [www.sherwoodoregon.gov](http://www.sherwoodoregon.gov) for downloading. One set of construction plans and one set of specifications will be available for viewing at the City Hall Library located at 22560 SW Pine Street, Sherwood, Oregon. Bid documents are also available for purchase through Precision Images (503) 274-2030.

The Plans, which are applicable to the Work to be performed under the Contract, bear title and date as follows:

Woodhaven Park Phase 2  
Sherwood, Oregon  
April 2016

**00120.10 Bid Booklet** – Add the following to this section:

Refer to the Table of Contents and Bidder's Checklist for additional detail on bid documents.

**00120.25 Subsurface Investigation** – Add the following to the end of this section:

Documents are available at [www.sherwoodoregon.gov](http://www.sherwoodoregon.gov)

**00120.40(a)(2) Electronic Bids** – Replace with the following:

No electronic bids will be accepted.

**00120.40(d) – Bidder's Address and Signature** – Replace with the following:

Bidders shall include in the Bid the address to which all communications concerning the Bid and Contract should be sent. Address must be a physical address, no P.O. Box addresses will be permitted.

Add the following subsection:

**00120.40(g) Bidder Responsibility Form** – Submit the provided Bidder Responsibility Form, signed by the bidder that states the qualifications of the firm for accomplishing the specified work. The Bidder Responsibility Form addresses the following standards of responsibility:

1. Evidence of previous projects of similar scope undertaken by the bidder and completed for local government agencies within the last five years. Previous project information should include examples of scope of work similar to this project, the name of the project, the bidder's role on the project (general contractor or subcontractor), the date completed, the project engineer or architect, and the name of the Agency (include the Agency's address, phone number and contact person). To be considered for acceptance as Contractor for this project, a bidder must demonstrate a minimum of five (5) consecutive years' experience as a general contractor in successfully executing work of the types specified. A bidder may list additional years of experience in other types of work and as a subcontractor, but these years of experience must be in addition to the minimum number of years required as a general contractor on work similar to this project and must be listed after the minimum specified experience as a general contractor.
2. Evidence of a satisfactory record of performance during the last five (5) years;
3. Evidence of sufficient financial, material, equipment, facility and personnel resources and expertise, or ability to obtain sufficient resources and expertise, necessary to meet all contractual responsibilities;
4. Evidence that the key subcontractors, installers and personnel supervisory proposed for this contract are qualified for the type of work specified;
5. Evidence of a satisfactory record of integrity. A bidder may be determined to lack integrity if the City determines the bidder demonstrates a lack of business ethics such as violation of state environmental laws or false certifications made to an agency. The City may find a bidder non-responsive based on the lack of integrity of any entity having influence or control over the bidder (such as a key employee of the bidder that has the authority to significantly influence the bidder's performance of the Contract or a parent company, predecessor or successor entity). The standards for conduct disqualification under OAR 137-030-0110 may be used to determine a bidder's integrity.

Copies of any letters of recommendation or appreciation from the cities of previous urban utility and street projects successfully completed by the bidder would be accepted but are not required.

Add the following Subsection:

**00120.40(h) Customer Service Acknowledgement** – To demonstrate a commitment to providing an exceptionally high level of customer service to the City and the community on this project, each bidder shall complete the provided Customer Service Acknowledgment. The Acknowledgment certifies that s/he has read and understands the sections of the

specifications emphasizing customer service, including public safety and convenience, protection and preservation of private property and existing vegetation, and related aspects of construction.

**00120.91 Rejection of Bid on Grounds of Nonresponsibility of Bidder** - Replace this subsection, except for the subsection number and title, with the following:

The Bid of a Bidder who is found to be nonresponsible according to the criteria listed in 00130.10 or ORS 279C.375(3) and as specified in the invitation to bid will be rejected.

## **SECTION 00130 - AWARD AND EXECUTION OF CONTRACT**

Comply with Section 00130 of the Standard Specifications modified as follows:

**00130.10 Award of Contract** - Replace the bullet that begins "A satisfactory record of performance..." with the following bullet:

- A satisfactory record of performance. In evaluating a Bidder's record of performance, the Agency may consider, among other things, whether the Bidder completed previous contracts of a similar nature with a satisfactory record of performance. For purposes of evaluating a Bidder's performance on previous contracts of a similar nature, a satisfactory record of performance means that to the extent that the costs associated with and time available to perform a previous contract remained within the Bidder's control, the Bidder stayed within the time and budget allotted for the procurement and otherwise performed the contract in a satisfactory manner.

Replace the bullet that begins "A satisfactory record of integrity..." with the following bullet:

- A satisfactory record of integrity. In evaluating a Bidder's record of integrity, the Agency may consider, among other things, whether the Bidder has previous criminal convictions for offenses related to obtaining or attempting to obtain a contract or subcontract or in connection with the Bidder's performance of a contract or subcontract.

**00130.30 Contract Booklet** – Add the following to the end of this section:

Additional documents as noted in the Table of Contents and Bidder's Checklist.

**00130.40 Contract Bonds, Certificates, and Registrations** - Replace this subsection number and title and replace the sentence that begins "Before the Agency will..." with the following number and title and sentence:

**00130.40 Contract Submittals** - Before the Agency will execute the Contract, the successful Bidder shall furnish the following:

Add the following subsection:

**00130.40(e) Tax Identification Number** - The successful Bidder shall furnish the Agency the Bidder's Federal Tax Identification Number.

**00130.50(a) By the Bidder** – Add the following to the end of this subsection:

All documents shall be submitted at the preconstruction meeting.

**00130.90 Notice to Proceed** – Replace with the following:

Notice to Proceed will be given at the preconstruction meeting. The preconstruction meeting time is identified in the invitation to bid.

## **SECTION 00140 - SCOPE OF WORK**

Comply with Section 00140 of the Standard Specifications modified as follows:

Add the following Subsection:

**00140.31 As-Built Records** – Contractor shall maintain a current and accurate record of the work completed during the course of this contract. This may be in the form of “as-built” drawings kept by accurately marking a designated set of the contract plans with the specified information as the Work proceeds.

Accurate, complete and current “as-built” drawings are a specified requirement for full payment of the work completed. At project completion and as a condition of final payment, the Contractor shall deliver to the Project Manager a complete and legible set of “as-built” drawings.

The “as-built” drawings must show the information listed below. Where the term “locate” or “location” is used, it shall mean record of position with respect to both the construction vertical datum and either construction horizontal datum or a nearby permanent improvement.

1. Record location of underground services and utilities as installed.
2. Record location of existing underground utilities and services that are to remain and that are encountered during the course of the work.
3. Record changes in dimension, location, grade or detail to that shown on the plans.
4. Record changes made by change order
5. Record details not in the original plans
6. Provide fully completed shop drawings reflecting all revisions

## **SECTION 00150 - CONTROL OF WORK**

Comply with Section 00150 of the Standard Specifications modified as follows:

**00150.15 Construction Stakes, Lines and Grades** – Delete and replace subsections (b) and (c) with the following:

Refer to Section 00305 for items of Work on this project to be performed by Agency and Contractor forces.

**00150.20 Inspection by the Engineer** – Add the following to the end of the first paragraph:

The Contractor shall notify the Engineer 24 hours in advance for inspection of all portions of the Work.

**00150.35(c) Number and Size of Drawings** - Replace this subsection, except for the subsection number and title, with the following:

The Contractor shall submit Working Drawings according to one of the following methods:

**(1) Paper Submittal** - For paper submissions, submit seven copies of Working Drawings for steel Structures and six copies of Working Drawings for other Structures to the Engineer. The submitted copies shall be clear and readable. Drawing dimensions shall be 8 1/2 inches by 11 inches, 11 inches by 17 inches, or 22 inches by 36 inches in size. One copy of the submitted Working Drawings will be returned to the Contractor after processing. The Contractor shall submit such additional number of copies to the Engineer for processing that the Contractor would like to have returned.

**(2) Electronic Submittal** - For electronic submissions, submit Working Drawings according to the "Guide to Electronic Shop Drawing Submittal" which is available from the Engineer.

**00150.35(d-1) Stamped Working Drawings** - Replace the sentence with the following sentence:

Stamped Working Drawings will be designated as "reviewed" or "reviewed with comments" by the Engineer.

**00150.35(d-2) Unstamped Working Drawings** - Replace the sentence with the following sentence:

Unstamped Working Drawings will be designated on the face of the Drawing, as "approved", "approved as noted", or "returned for correction" by the Engineer.

**00150.50 Cooperation with Utilities** - Add the following subsection:

**(f) Utility Information:**

The following utilities work within the City of Sherwood and may be doing work in the project area including relocating existing overhead utilities underground.

Utility	Contact Person's Name and Phone Number
1. Portland General Electric	503-612-4600
5. Sherwood Broadband	Brad Crawford (503-625-4203)
6. City of Sherwood Water	Rich Sattler (503-925-2319)

This Project is located within the Oregon Utility Notification Center area which is a Utilities notification system for notifying owners of Utilities about Work being performed in the vicinity of their facilities. The Utilities notification system telephone number is 811 (or use the old number which is 1-800-332-2344).

**00150.55 Cooperation with Other Contractors** - The following contract work will be ongoing within the Project site during the following times:

Contract Name (Contractor's Name)	Estimated Times (From - To)
-----------------------------------	-----------------------------

Note anticipated

**00150.70 Detrimental Operations** – Add the following to the end of this section:

The Contractor shall video or photo document the existing conditions of the site for the purpose of documenting existing conditions prior to construction activity. The Contractor shall submit a copy of the documentation to the City on either a CD or DVD prior to commencing work.

**SECTION 00160 - SOURCE OF MATERIALS**

Comply with Section 00160 of the Standard Specifications.

**SECTION 00165 - QUALITY OF MATERIALS**

Comply with Section 00165 of the Standard Specifications.

**SECTION 00170 - LEGAL RELATIONS AND RESPONSIBILITIES**

Comply with Section 00170 of the Standard Specifications modified as follows:

Add the following subsection:

**00170.67 Fees** - The fee required by ORS 279C.825(1) will be paid by the Agency to the Commissioner of the Oregon Bureau of Labor and Industries under the administrative rules of the Commissioner.

**00170.70(a) Insurance Coverages** - The following insurance coverages and dollar amounts are required pursuant to this subsection:

<b>Insurance Coverages</b>	<b>Combined Single Limit per Occurrence</b>	<b>Annual Aggregate Limit</b>
Commercial General Liability	\$2,000,000	\$2,000,000
Commercial Automobile Liability	\$2,000,000	\$2,000,000
Pollution Liability	\$2,000,000	\$2,000,000

- With Asbestos Liability Endorsement or separate coverage
- With Lead Liability Endorsement or separate coverage

**00170.70(c) Additional Insured** - Add the following paragraph and bullets to the end of this subsection:

Add the following as Additional Insured under the Contract:

- The City of Sherwood and its officers, agents, and employees
- Sherwood City Council
- Washington County and its officers, agents, and employees
- Clean Water Services and its officers, agents, and employees
- Harper Houf Peterson Righellis Inc.

**00170.72 Indemnity/Hold Harmless** - Add the following paragraph and bullets to the end of this subsection:

Extend indemnity and hold harmless to the Agency and the following:

- The City of Sherwood and its officers, agents, and employees
- Sherwood City Council
- Washington County and its officers, agents, and employees
- Clean Water Services and its officers, agents, and employees
- Harper Houf Peterson Righellis Inc.

**00170.80 Responsibility for Damage to Work** - Replace this subsection, except for the subsection number and title, with the following:



**(a) Responsibility for Damage in General** - The Contractor shall perform Work, and furnish Materials and Equipment for incorporation into the Work, at the Contractor's own risk, until the entire Project has been completed and accepted by the Agency. The Contractor shall repair all damages to Work performed, Materials supplied, and Equipment incorporated into the Work, except as otherwise provided in this Section.

**(b) Repair of Damage to Work** - Until Final Acceptance, the Contractor shall promptly rebuild, repair, restore, and make good damages to all portions of the permanent or temporary Work, except to the extent the Agency has assumed responsibility according to the provisions of (c) below. Perform all repairs of damage to Work at no additional cost to the Agency, except for repairs necessitated by damage caused by:

- Acts of God or Nature, as defined in Section 00110; or
- Actions of governmental authorities.

**(c) Responsibility for Damage to Work Caused by Public Traffic** - The Contractor may apply for relief of responsibility for damage to Work caused by public traffic by submitting a signed Contractor's Request for Relief of Responsibility, form 734-2768, to the Engineer by mail, personal delivery or courier, by FAX, or other agreed-upon method.

The Engineer will process a maximum of two forms per month and return the forms within seven Calendar Days indicating each item as "approved" or "denied".

The approval of the Engineer is limited, and is made only for the purposes of determining relief of responsibility for damage to completed portions of the Work caused by public traffic. The completed portions of the Work are not considered complete, and are not finally accepted for any other purposes under the Contract.

If the Contractor disagrees with the Engineer's findings, the Contractor may request a Region level review according to 00199.40(b).

**(1) Request for Relief** - The Agency will only accept a request for relief from and will only assume responsibility for damages caused by public traffic, to the following completed portions of the Work:

- A segment of Roadway, drainage facilities, Slopes, lighting, traffic control devices and access facilities;
- A Bridge or other Structure within a segment of Roadway;
- Traffic signals and appurtenances at an intersection;
- Permanent, passive traffic control devices;
- Complete circuits of a highway lighting system; and
- Portions of a building open to public use.

The Agency will approve a request for the Agency to assume responsibility for damages to the completed portions of the Work caused by public traffic only under the following conditions:

- The completed portions of the Work are completed according to Contract Change Orders, the Contract Plans or approved stage construction Plans;
- The traffic control complies with approved traffic control Plans; and
- All required Materials conformance and quality compliance documents pertaining to the completed portions of the Work are on file with the Engineer (see Section 00165).

**(2) Scope of Relief** - When the Agency assumes responsibility for damage to completed portions of the Work caused by public traffic any damages will be repaired by the Contractor on an Extra or Changed Work basis, or by Agency forces, or by other means as determined by the Engineer. If completed portions of the Work are damaged by public traffic before Final Inspection, and the Agency requires the Contractor to repair the damages, the Engineer will reimburse the Contractor for the Extra or Changed Work at 75% of the total amount calculated according to Section 00197.

If completed portions of the Work are damaged by public traffic after Final Inspection, and the Agency requires the Contractor to repair the damages, the Engineer will reimburse the Contractor for the Extra or Changed Work at 100% of the total amount calculated according to Section 00197.

If any additional Work is performed by the Contractor on completed portions of the Work for which the Agency has assumed responsibility for damages caused by public traffic, and the Work is performed outside of the approved stage construction Plans or approved traffic control Plans, the Contractor shall become fully responsible and liable, and shall make good all damages caused by public traffic at no additional cost to the Agency.

**(d) Vandalism** - The Contractor shall provide reasonable protection of the Work from vandalism until Third Notification. If reasonable protection has been provided, the Contractor's responsibility for damage resulting from vandalism will be limited to \$5,000.00 per occurrence. Requests for reimbursement of amounts in excess of \$5,000.00 shall be in writing and directed to the Engineer. Upon receipt, the Engineer will investigate, evaluate the amount of damages and their cause, and determine whether, and how much, the Contractor will be recompensed.

**00170.85(b)(2) Warranties for Local Agency Projects** – Replace the paragraph that begins with “The Contractor shall warrant all Work and workmanship...” with the following paragraph:

The Contractor shall warrant all Work and workmanship, including Changed Work, Additional Work, Incidental Work, On-Site Work, and Extra Work, and Materials and Equipment incorporated in the Work, for two years from the date of Third Notification, except that manufacturers' warranties and extended warranties according to 00170.85(c) shall not be abridged.

## SECTION 00180 - PROSECUTION AND PROGRESS

Comply with Section 00180 of the Standard Specifications modified as follows:

Add the following subsection:

**00180.40(c) Specific Limitations** - Limitations of operations specified in these Special Provisions include, but are not limited to, the following:

Limitations	Subsection
Cooperation with Utilities .....	00150.50
Cooperation with Other Contractors .....	00150.55
Railway Work .....	00170.01(e)
Contract Completion Time .....	00180.50(h)
Right-of-Way and Access Delays .....	00180.65
Traffic Lane Restrictions .....	00220.40(e)
Special Events .....	00220.40(e)
In-water Work Restrictions .....	00290.34(a)
Noise Control .....	00290.32

**00180.41 Project Work Schedules** - After the paragraph that begins "Contractor's activity..." add the following paragraphs:

The Contractor shall submit a supplemental "look ahead" Project Work schedule each week to the Engineer. The "look ahead" Project Work schedule is supplemental to the Type C schedule specified below. The supplemental "look ahead" Project Work schedule shall:

- Identify the sequencing of activities and time required for prosecution of the Work.
- Provide for orderly, timely, and efficient prosecution of the Work.
- Contain sufficient detail to enable both the Contractor and the Engineer to plan, coordinate, analyze, document, and control their respective Contract responsibilities.

The supplemental "look ahead" Project Work schedule shall be written in common terminology and show the planned Work activities broken down into logical, separate activities by area, stage, and size and include the following information:

- The resources the Contractor, subcontractors, or services will use.
- The locations of each activity that will be done including the limits of the work by mile posts, stations, or other indicators.
- The time frames of each activity by Calendar Days, shifts, and hours.
- All anticipated shoulder, lane, and road closures.

At a minimum, the Contractor shall prepare a bar chart that:

- Shows at least three weeks of activity including the week the bar chart is issued.
- Uses a largest time scale unit of one Calendar Day. Smaller time scale units may be used if needed.

- Is appropriate to the activities.
- Identifies each Calendar Day by month and day.

Include the Contract name, Contract number, Contractor's name, and date of issue on each page of the bar chart.

The Contractor shall submit the supplemental "look ahead" Project Work schedule starting at First Notification and continuing each week until Second Notification has been issued and all punch list items and final trimming and clean up has been completed. The Contractor shall meet with the Engineer each week to review the supplemental "look ahead" Project Work schedule. If the Engineer or the Contractor determines that the current supplemental "look ahead" Project Work schedule requires changes or additions, either notations can be made on the current schedule or the Engineer may require the submittal of a revised supplemental "look ahead" Project Work schedule. Review of the current and subsequent supplemental "look ahead" Project Work schedules does not relieve the Contractor of responsibility for timely and efficient execution of the Contract.

In addition to the "look ahead" Project Work schedule, a Type C schedule as detailed in the Standard Specifications is required on this Contract.

**00180.42 Preconstruction Conference** - Add the following paragraph to the end of this subsection:

Before meeting with the Engineer for the preconstruction conference, hold a group utilities scheduling meeting with representatives from the utility companies involved with this project. Incorporate the utilities time needs into the Contractor's schedule submitted at the preconstruction conference.

Add the following subsection:

**00180.50(h) Contract Time** - The Contractor shall complete all Work to be done under the Contract before the elapse of 120 Calendar Days.

Recording of the elapse of Calendar Days will begin on the day the Contractor begins On-Site Work as defined in 00110.20.

**00180.85(b) Liquidated Damages** - Add the following paragraph:

The liquidated damages for failure to complete the Work on time required by 00180.50(h) will be \$800 per Calendar Day \*.

- \* Calendar Day amounts are applicable when the Contract time is expressed on the Calendar Day or fixed date basis.

## **SECTION 00190 - MEASUREMENT OF PAY QUANTITIES**

Comply with Section 00190 of the Standard Specifications modified as follows:

## SECTION 00195 - PAYMENT

Comply with Section 00195 of the Standard Specifications modified as follows:

**00195.10 Payment for Changes in Materials Costs** - Replace this subsection with the following subsection:

**00195.10 Payment for Changes in Materials Costs** – No escalation/de-escalation clauses are included in this contract.

**00195.50(a) Progress Payments** –

**00190.50(b) Retainage** – Replace the first sentence with the following:

The amount to be retained from progress payments will be 5% of the value of the Work accomplished, and will be retained in one of the forms specified in Subsection (c) below.

**00195.50(c-1) Cash, Alternate A** - In the paragraph that begins "The Agency will...", replace the sentence that begins "The Agency will deposit..." with the following sentence:

The Agency will deposit the cash retainage withheld in an interest-bearing account in a bank, savings bank, trust company, or savings association for the benefit of the Agency, as provided by ORS 279C.560(5).

In the paragraph that begins "Any retainage withheld on...", replace "00195.90(d)" with "00195.50(d)".

**00195.50(c-2) Cash, Alternate B (Retainage Surety Bond)** - Replace the paragraph that begins "If an acceptable retainage..." with the following paragraph:

If an acceptable retainage surety bond is provided, the Contractor shall notify all Subcontractors of the existence of the retainage surety bond and shall advise them of their rights under ORS 279C.560(7) and ORS 701.435.

**00195.50(c-3) Bonds and Securities** - Replace this subsection with the following subsection:

**00195.50(c-3) Bonds, Securities, and Other Instruments** - In accordance with ORS 279C.560, unless the Agency finds in writing that accepting a bond, security or other instrument poses an extraordinary risk that is not typically associated with the bond, security or other instrument, the Agency will approve the Contractor's written request to deposit bonds, securities or other instruments with the Agency or in a custodial account or other account satisfactory to the Agency with an approved bank or trust company, to be held instead of cash retainage for the benefit of the Agency. In such event, the Agency will reduce the cash retainage by an amount equal to the value of the bonds, securities and other instruments. Interest or earnings on the bonds, securities and other instruments shall accrue to the Contractor.

Bonds, securities and other instruments deposited instead of cash retainage shall be assigned to or made payable to the Agency and shall be of a kind approved by the Director of the Oregon Department of Administrative Services, including but not limited to:

- Bills, certificates, notes or bonds of the United States;
- Other obligations of the United States or agencies of the United States;
- Obligations of a corporation wholly owned by the federal government;
- Indebtedness of the Federal National Mortgage Association;
- General obligation bonds of the State of Oregon or a political subdivision of the State of Oregon;
- Irrevocable letters of credit issued by an insured institution, as defined in ORS 706.008.

The Contractor shall execute and provide such documentation and instructions respecting the bonds, securities and other instruments as the Agency may require to protect its interests. When the Engineer determines that all requirements for the protection of the Agency's interest have been fulfilled, the bonds and securities deposited instead of cash retainage will be released to the Contractor.

**00195.90 Final Payment – Add the end of this subsection:**

The Contractor shall maintain a current and accurate record of the work completed during the course of this contract. These “as-built” drawings shall be kept by accurately marking a designated set of the contract Plans with the specified information as work proceeds. Accurate, complete and current “as-built” drawings are a specified requirement for full or partial payment of the work completed. At project completion and as a condition of final payment, the Contractor shall deliver an acceptably complete and legible full-size set of “as-built” drawings to the City.

The “as-built” drawings shall show the information listed below. Where the term “locate” or “location” is used, it shall mean record of position with respect to both the construction vertical datum and either horizontal datum or a nearby permanent improvement.

- Record location of underground services and utilities as installed.
- Record location of existing underground utilities and services that are to remain and that are encountered during the course of the work.
- Record changes in dimensions, location, grade or detail to that shown on the Plans.
- Record changes made by change order.
- Record details not in the original Plans.
- Provide fully completed shop drawings reflecting all revisions.

**SECTION 00196 - PAYMENT FOR EXTRA WORK**

Comply with Section 00196 of the Standard Specifications.

## **SECTION 00197 - PAYMENT FOR FORCE ACCOUNT WORK**

Comply with Section 00197 of the Standard Specifications.

## **SECTION 00199 - DISAGREEMENTS, PROTESTS, AND CLAIMS**

Comply with Section 00199 of the Standard Specifications.

## **SECTION 00210 - MOBILIZATION**

Comply with Section 00210 of the Standard Specifications.

## **SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC**

Comply with Section 00220 of the Standard Specifications modified as follows:

**00220.40(e-2-b) Special Events** - Add the following to the end of this subsection:

The following special events will occur during this Project:

- None anticipated.

## **SECTION 00225 - WORK ZONE TRAFFIC CONTROL**

Comply with Section 00225 of the Standard Specifications modified as follows:

**00225.01(c) Standards** - Add the following bullet to the end of the bullet list:

- ODOT "Traffic Control Plans Design Manual", available on the ODOT Traffic Control Plans Unit website.

**00225.02 General Requirements** - In the paragraph that begins "Work may be suspended...", replace the sentence that begins "Costs for work performed..." with the following sentence:

Costs for work performed by the Agency may be deducted from monies due the Contractor.

**00225.90 (b) Method "B" – Lump Sum Basis** – Add the following to the end of this subsection:

Includes flagging where necessary for work within public streets.

## SECTION 00270 - TEMPORARY FENCES

Comply with Section 00270 of the Standard Specifications.

## SECTION 00280 - EROSION AND SEDIMENT CONTROL

Comply with Section 00280 of the Standard Specifications.

## SECTION 00305 - CONSTRUCTION SURVEY WORK

Section 00305, which is not a Standard Specification, is included for this Project by Special Provision.

### Description

**00305.00 Scope** - Provide construction survey work according to the current edition on the date of Advertisement, of the ODOT "Construction Surveying Manual for Contractors". This manual is available on the web at:

<http://www.oregon.gov/ODOT/HWY/GEOMETRONICS/Pages/documents.aspx>

### Measurement

**00305.80 Measurement** - No measurement of quantities will be made for construction survey work.

### Payment

**00305.90 Payment** - The accepted quantities of construction survey work will be paid for at the Contract lump sum amount for the item "Construction Survey Work".

Payment will be payment in full for furnishing all material, equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for any temporary protection and direction of traffic measures including flaggers and signing necessary for the performance of the construction survey work.

No separate or additional payment will be made for preparing surveying documents including but not limited to office time, preparing and checking survey notes, and all other related preparation work.



Costs incurred caused by survey errors will be at no additional cost to the Agency. Repair any damage to the Work caused by Contractor's survey errors at no additional cost to the Agency. The Engineer may make an equitable adjustment, which may decrease the Contract Amount, if the required survey work is not performed.

## **SECTION 00310 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

Comply with Section 00310 of the Standard Specifications.

## **SECTION 00320 - CLEARING AND GRUBBING**

Comply with Section 00320 of the Standard Specifications modified as follows:

**00320.40(b) Preserving and Trimming Vegetation** - Replace this subsection with the following subsection:

### **00320.40(b) Preserving Vegetation and Other Natural Materials:**

**(1) Within the Work Areas** - Avoid injuring vegetation or other natural materials designated to be saved. Preservation of this vegetation includes protection and special care.

**(2) Outside the Work Areas** - Avoid injuring vegetation or other natural materials. Confine operations which may injure vegetation or other natural materials to the work area or to areas that have already been cleared.

**(3) Vegetation and Materials to be Saved** - The Engineer will designate no work zones and identify and mark trees, existing landscaping, vegetation, or other natural materials to be saved, as shown. Provide and place work zone fencing, from section 00225.12 of the QPL, around designated no work zones and critical root zones of marked trees, as directed. Do not begin construction activity or move equipment into existing landscaped or vegetated areas until the work zone fencing is in place to designate and protect no work and critical root zones.

Do not work within the no work zones or critical root zone of marked trees unless written approval is obtained from the Engineer. Be responsible for all damage to and removal of trees, landscaping, vegetation or other natural materials designated to be saved. Damage will be determined by a specialist selected by the Engineer.

**00320.90 Payment** - Replace the paragraph that begins "No separate or additional payment..." with the following paragraph:

Payment for temporary chain link tree protection and site fencing will be paid in accordance with 00270.

## **SECTION 00330 - EARTHWORK**

Comply with Section 00330 of the Standard Specifications modified as follows:

**00330.03 Basis of Performance** - Add the following paragraph to the end of this subsection:

Perform all earthwork under this Section on the excavation basis.

**00330.41(a-5) Waste Materials** - Replace this subsection, except for the subsection number and title, with the following:

Unless otherwise specifically allowed and subject to the requirements of 00280.03, dispose of materials, classed as waste materials in 00330.41(a-3), outside and beyond the limits of the Project and Agency controlled property according to 00290.20. Do not dispose of materials on wetlands, either public or private, or within 300 feet of rivers or streams.

## **SECTION 00440 - COMMERCIAL GRADE CONCRETE**

Comply with Section 00440 of the Standard Specifications modified as follows:

**00440.13 Field-Mixed Concrete** - Add the following paragraph to the end of this subsection:

Pre-packaged dry blended concrete meeting the requirements of 00440.12 may be used for work items listed in 00440.14(a).

## **SECTION 00445 - SANITARY, STORM, CULVERT, SIPHON, AND IRRIGATION PIPE**

Comply with Section 00445 of the Standard Specifications.

## **SECTION 00490 - WORK ON EXISTING SEWERS AND STRUCTURES**

Comply with Section 00490 of the Standard Specifications.

## **SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS**

Comply with Section 00641 of the Standard Specifications.

## **SECTION 00730 - EMULSIFIED ASPHALT TACK COAT**

Comply with Section 00730 of the Standard Specifications modified as follows:

**00730.90 Payment** - Replace this subsection, except for the subsection number and title, with the following:

No separate or additional payment will be made for emulsified asphalt tack coat.

## **SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE**

Comply with Section 00745 of the Standard Specifications modified as follows:

**00745.10(a-1-a) Separated Sizes** - In the paragraph that begins "The number of fine aggregate...", replace "00745.13(b)" with "00745.13(a)".

**00745.80 Measurement** -

Replace the paragraph that begins "The quantities of ACP..." with the following paragraph:

The quantities of ACP will be measured on the weight basis. No separate measurement will be made for asphalt cement used in the mixture. No deduction will be made for lime or any other additive used in the mixture.

**00745.90 Payment** -

Add the following paragraph to the end of this subsection:

No separate or additional payment will be made for asphalt cement used in the mixture.

## **SECTION 00759 - MISCELLANEOUS PORTLAND CEMENT CONCRETE STRUCTURES**

Comply with Section 00759 of the Standard Specifications.

Comply with Section 00759 of the Standard Specifications modified as follows:

**00759.80 Measurement** - Add the following sentence(s) to the bullet that begins "Area Basis - Measurement...":

Measurement of concrete walks will include the total area of concrete walk, including the area of new concrete sidewalk ramps within the footprint of the concrete walk.

**00759.90 Payment** - Add the following pay items:

**Pay Item**

**Unit of Measurement**

(l) Concrete Driveway Connections..... Square Foot

Delete the paragraph that reads "Items (e) and (f) include sidewalk ramps."

Add the following paragraph(s) after the paragraph that begins "In item (k)...":

**SECTION 00815 - BOLLARDS**

Comply with Section 00815 of the Standard Specifications modified as follows:

**00815.11 Posts and Sleeves** - Replace this subsection, except for the subsection number and title, with the following:

Use Schedule 40 steel pipe for the posts and either Schedule 40 or Schedule 80 steel pipe for the sleeves, as shown. Use steel pipe conforming to ASTM A 53, Type E, Grade A.

**00815.40 Bollards** – Add the following sentence to the end of the section:  
Construct bollards in accordance with City of Sherwood Standard Drawing SS-86.

**00815.90 Payment** - Delete the following pay item to the pay item list:

(a) Bollards ..... Each

**SECTION 00850 - COMMON PROVISIONS FOR PAVEMENT MARKINGS**

Comply with Section 00850 of the Standard Specifications.

**SECTION 00860 - LONGITUDINAL PAVEMENT MARKINGS - PAINT**

Comply with Section 00860 of the Standard Specifications.

**SECTION 00867 - TRANSVERSE PAVEMENT MARKINGS - LEGENDS AND BARS**

Comply with Section 00867 of the Standard Specifications.

**SECTION 00940 - SIGNS**

Comply with Section 00940 of the Standard Specifications.

**SECTION 01030 - SEEDING**

Comply with Section 01030 of the Standard Specifications modified as follows:

**01030.13(f) Types of Seed Mixes** - Add the following to the end of this subsection:

Provide the following seed mix formulas:

- Permanent Seeding:**

<b>Botanical Name (Common Name)</b>	<b>PLS (lb/acre)</b>	<b>÷ (% Purity (minimum)</b>	<b>x % Germination) (minimum)</b>	<b>= Amount (lb/acre)</b>
Festuca rubra spp. Fallax var. 'Windward' (Windward Chewings Fescue)		13.15		_____
Festuca rubra commutata var. 'Garnett' (Garnett Creeping Chewings Fescue)		12.42		_____
Lolium perenne 'Blazer 4' (Blazer 4 Perennial Ryegrass)		37.27		_____
Lolium perenne 'Express II' (Express II Perennial Ryegrass)		37.27		_____

- Water Quality Seeding:**

<b>Botanical Name (Common Name)</b>	<b>PLS (lb/acre)</b>	<b>÷ (% Purity (minimum)</b>	<b>x % Germination) (minimum)</b>	<b>= Amount (lb/acre)</b>
Bromus carinatus (California Brome)	32.68	_____	_____	_____
Elymus glaucus (Blue Wildrye)	13.07	_____	_____	_____
Festuca rubra var. rubra (Native Red Fescue)	13.07	_____	_____	_____
Lupinus rivularis (Streambank Lupine)	6.54	_____	_____	_____

Add the following subsection:

**01030.15 Mulch** - Add the following paragraphs and bullets to the end of this subsection:

Furnish straw mulch for all roadside erosion control seeding except hydromulch may be used under the following conditions:

- Spring planting west of the Cascades between March 1 and May 15.

- Slopes are steeper than 1V to 1.5H and longer than 16 feet.
- Residential or commercial sites with low erosion potential such as sidewalk, median, or parking lot planter strips.

Projects that have variable slopes may include straw mulch and hydromulch when approved.

**01030.42 Weed Control** - Add the following paragraph and bullets after the paragraph that begins "If a pesticide has been approved for..." and before subsection (a):

The Specified Weeds and plant species to be removed include the following:

- *Rubus armeniacus*
- *R. discolor*
- *Daucus carota*
- *Clematis* species
- *Hedera* spp.
- *Cirsium arvense*

**01030.60 General** - Add the following sentence(s) after the last bullet:  
The minimum living plant coverage for native plant seeding is 70 % of ground surface.

### **SECTION 01040 - PLANTING**

Comply with Section 01040 of the Standard Specifications.

**01040.14 Topsoil** – Add the following subsection to the end of the section:

**01040.14(d) Water Quality Mixture** - Furnish medium compost meeting the requirements of Section 03020. Furnish soil meeting the following gradation requirements:

<b>Sieve Size</b>	<b>Percent Passing (by Weight)</b>
No. 4	100
No 10	95 - 100
No. 40	40 - 60
No. 100	10 - 25
No. 200	5 - 10

Sample soil according to AASHTO T 2. Determine sieve analysis according to AASHTO T 27 and AASHTO T 11.

Blend the medium compost and soil so that the mixture:

- Is composed of between 20 percent and 25 percent medium compost material and between 75 percent and 80 percent mixed soil material.
- Has a pH between 5.5 and 8.0.
- Does not have clumps greater than 3 inches in any direction.

## **SECTION 01050 - FENCES**

Comply with Section 01050 of the Standard Specifications.

## **SECTION 01095 - SITE FURNISHINGS**

Section 01095, which is not a Standard Specification, is included in this Project by Special Provision.

### **Description**

**01095.00 Scope** - This work consists of constructing site furnishings such as benches, picnic tables, litter receptacles, bicycle racks, and other furnishings as shown or directed.

The Preliminary Plan(s) and Specifications for the RomTec 2022M are bound at the end of the Special Provisions. It should be noted that the specifications indicate which elements will be provided by RomTec and which elements should be provided or completed by the Installer. The installer shall be considered the Contractor.

### **Materials**

#### **01095.10 General:**

**(a) Benches** - Provide benches meeting the following requirements:

- Provide benches manufactured by Landscape Forms, TimberForm Restoration model 2118-6 or approved equivalent.
- Benches to be constructed of powder coated, cast iron frame in color black.
- Bench slats to be kiln-dried Alaska yellow cedar.
- Install and mount benches in accordance with manufacturer's recommendations and detail(s) on sheet L2.3.
- Submit manufacturer's data sheets.

**(b) Picnic Tables** - Provide picnic tables meeting the following requirements:

- Provide picnic tables manufactured by Columbia Cascade, TimberForm Greenway, Model 2169-6 or approved equivalent.
- Picnic tables to be constructed of black, powder coated steel frames with recycled plastic seating slats.

- Install and mount benches in accordance with manufacturer's recommendations and detail(s) on sheet L2.3.
- Submit manufacturer's data sheets.

**(c) Litter Receptacles** - Provide trash receptacles meeting the following requirements:

- Provide litter receptacles (garbage and dog waste) manufactured by Columbia Cascade, TimberForm Plaza model 2770-DT or approved equivalent.
- Litter receptacles be constructed of powder coated, steel frame in color black, and kiln-dried Alaska yellow cedar wood slats.
- Install and mount litter receptacles in accordance with manufacturer's recommendations and detail(s) on sheet L2.3. Submit manufacturer's data sheets.

**(d) Bicycle Racks** - Provide bicycle racks meeting the following requirements:

- Provide bicycle racks manufactured by Fairweather Site Furnishings, Model BR-1.5 or approved equivalent.
- Bicycle racks be fabricated of 2" schedule 40 steel pipe, powder coated in color black.
- Install and mount bicycle racks receptacles in accordance with manufacturer's recommendations and detail(s) on sheet L2.3. Submit manufacturer's data sheets.

**(e) Basketball Court** - Provide basketball court meeting the following requirements:

- Basketball court pavement section to be included with bid items in sections 00641 and 00745.
- Court striping to meet the requirements as shown on sheet L2.4.
- Basketball pole shall be installed in accordance with detail(s) on sheet L2.4 and be Patterson-Williams Model #1527 or approved equal.
- Basketball backboards shall be installed in accordance with manufacturer's recommendations and detail(s), and be Patterson-Williams Model #13 or approved equal.
- Basketball goal shall be installed in accordance with manufacturer's recommendations and detail(s), and be Patterson-Williams Model #31 or approved equal.
- Submit manufacturer's data sheets and material samples per ODOT specifications.

**(f) Rock Climbing Wall** - Provide a climbing wall system meeting the following requirements:

- Climbing wall shall be constructed in accordance with details on sheet C6.2.
- Hand holds shall be Playcore, Everlast Climbing Groperz Route Setting, beginner hand holds or approved equivalent.
- Hand holds shall be installed per manufacturer's recommendations.
- Concrete to be installed per ODOT Section 00759.



- Aggregate base to be installed per ODOT Section 00641.
- Safety surface shall SofTILE KrosLOCK five (5) inch thick by two (2) feet square interlocking tiles, or approved equivalent.
- Submit SofTILE manufacturer's data sheet and a one (1) tile sample.

**(g) Play Slide** - Provide play slide meeting the following requirements:

- Provide play slide manufactured by Columbia Cascade Company, TimberForm Model No. 1643-91-EMB, Embankment wide slide chute with stainless steel bedway and 6" rails and anti-spin guardrails.
- Install play slide in accordance with detail on sheet C6.1 and manufacturer's recommendations.
- Submit manufacturer's data sheets.

**(h) Little Digger** - Provide Little Digger meeting the following requirements:

- Little Digger shall be Burke Basics Little Digger ADAAG Model 590-0063 or approved equivalent.
- Little Digger shall be installed in accordance with manufacturer's recommendations.
- Submit manufacturer's data sheets.

**(i) Hop Rocks** - Provide Hop Rocks meeting the following requirements:

- Hop Rocks shall be manufactured by Rocks & Ropes or approved equivalent.
- Hop Rocks shall be constructed of polyfibercrete, limestone colored and be treated with an acrylic anti-graffiti sealer.
- Hop Rocks shall be installed and anchored per manufacturer's recommendations.
- Hop Rocks shall be provided in large and medium sizes as called out on sheet C3.1.
- Submit manufacturer's data sheets.

**(j) Raccoon Log** - Provide a Raccoon Log meeting the following requirements:

- Raccoon Log shall be manufactured by Rocks & Ropes or approved equivalent.
- Raccoon Log shall be constructed of polyfibercrete, limestone colored and be treated with an acrylic anti-graffiti sealer.
- Raccoon Log shall be installed and anchored per manufacturer's recommendations and as shown on sheet C3.1.
- Submit manufacturer's data sheets.

**(k) Pedestrian Bridge** - Provide pedestrian bridge meeting the following requirements:

- Pedestrian bridge shall be constructed in accordance with details on sheet C4.2 and City of Sherwood Building Code.

**(l) Engineered Wood Fiber** - Provide engineered wood fiber surfacing meeting the following requirements:

- Engineered wood fiber material shall be Sof'Fall or approved equivalent.
- Engineered wood fiber material shall be non-toxic, non-flammable and IPEMA certified in accordance with ASTM F2075 and ASTM F1292, and ASTM 1951.
- Engineered wood fiber material shall be installed in new playground area and applied as a 3" thick top dressing of the existing playground area as shown on sheet C3.1.
- Engineered wood fiber material shall be installed in accordance with manufacturer's recommendations and as shown on details on sheet L2.4.
  - Submit Manufacturer's data sheet and 1 lb. sample.

**(m) Prefabricated Restroom** - This work consists of the construction and complete installation of a new restroom facility. The restroom facility shall be a prepackaged RomTec 2022M. The Preliminary Plan and Specifications for the RomTec 2022M are bound at the end of the Special Provisions. It should be noted that the specifications indicate which elements will be provided by RomTec and which elements shall be provided or completed by the Installer. The installer shall be considered the Contractor.

**(n) Pet Station** – Provide all materials, equipment and labor necessary to install the pet station as shown in the detail on sheet L2.0 of the plans. Pet station includes park signage, pet waste bag dispenser and post.

**(o) CWS Vegetated Corridor Sign** – Provide all materials, equipment and labor necessary to install the CWS vegetated corridor signs per Clean Water Services (R&O 07-20). Locations as directed by the engineer.

**(p) Site Security and IT** – Provide all materials, equipment and labor necessary to install the following:

**Infrastructure**

- Extend a 2, 2" conduits from the City's current fiber vault located near the (new) west entrance to the plumbing chase
- Provide two 110v duplex or one quad outlet inside the plumbing chase and mount to backer board
- Provide a 36"x36" fireproof plywood backer board for IT equipment to be mounted to.

**Cameras**

- Provide ¾" metal EMT conduit from plumbing chase to NW corner, SE corner, and horizontal beam on the south end of the park shelter.
  - Run CAT 6 or better cable inside these conduits and terminate in plumbing chase
  - Install City provided camera mounts (Axis model T91B61 Wall Mount) at NW and SE locations. City will do final camera connections.
- Provide 2" conduit from plumbing chase to NE corner of the parking lot next to basketball court.
  - Run CAT 6 or better cable inside this conduit and terminate in plumbing chase
  - Re-use/re-install existing fiber glass pole (next to existing fiber vault) install 2" conduit inside this polep)

- Install City provided camera mount (Axis model T91A67 Pole Mount) at this location. City will do final camera connection.

**Wireless Access Point**

- Provide ¾” metal EMT conduit from plumbing chase to front roof peak
- Run CAT 6 or better cable inside this conduit and terminate in plumbing chase
- Mount City provided Wireless Access Point at this roof location (model AP-270-MNT-V1 Vertical Mounting Kit)

**Digital Sign - Future**

- Provide power and conduit path (to plumbing chase) for future digital sign inside park shelter
  - Possible location would be high above the drinking fountains

**Access Control**

- Provide Lenel branded and/or compatible (with City’s system) access control panel, power supplies, locksets, and reader
- Provide cabling to support access control on the two bathroom doors and one plumbing chase door
- Bathroom doors will have electronic lock sets and be controlled via software and pre-set schedules
- Plumbing chase door will be activated by card reader and software.

**Construction**

**01095.40 General** - Install all site furnishings as shown and according to the manufacturer’s recommendations.

**Measurement**

**01095.80 Measurement** - The quantities of site furnishings will be measured on the unit basis.

**Payment**

**01095.90 Payment** - The accepted quantities of site furnishings will be paid for at the Contract unit price, per unit of measurement, for the following items:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(a) Benches .....	Each
(b) Picnic Tables .....	Each
(c) Litter Receptacles .....	Each
(d) Bicycle Racks .....	Each
(e) Basketball Court .....	Each
(f) Rock Climbing Wall .....	Each
(g) Play Slide .....	Each
(h) Little Digger .....	Each
(i) Hop Rocks, _____ .....	Each
(j) Raccoon Log .....	Each
(k) Pedestrian Bridge .....	Each

- (l) Engineered Wood Fiber ..... Cu. Yd.
- (m) Prefabricated Restroom ..... L.S.
- (n) Pet Station ..... Each
- (o) CWS Vegetated Corridor Sign ..... Each
- (p) Site Security and IT ..... L.S.

Payment will be payment in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

Item (k) list the size in the blank.

### SECTION 01120 - IRRIGATION SYSTEMS

Comply with Section 01120 of the Standard Specifications.

**01120.00 Scope** – Add the following sentence to the end of the first sentence:

Refer to sheets L3.0 and L3.1 – Irrigation Demolition Plan for removal, remain, return to Owner, and/or protection notes for existing system. Work to include repair of existing system components to remain in order to provide a fully functional and operating system. Provide new automated controller in accordance with sheet L3.2. Controller shall be Calsense ER20000e, 24 station.

### SECTION 01140 - POTABLE WATER PIPE AND FITTINGS

Comply with Section 01140 of the Standard Specifications modified as follows:

**01140.10 Materials** - Replace this subsection, except for the subsection number and title, with the following:

Furnish materials meeting the following requirements:

- Bolted, Sleeve-Type Couplings for Plain End Pipe..... 02475.60
- Commercial Grade Concrete in Thrust Blocks ..... 00440
- Detectable Marking Tape and Wire..... 02470.60
- Ductile Iron Pipe Fittings ..... 02475.20
- Ductile Iron Pipe ..... 02470.20
- Polyethylene Encasement ..... 02470.50
- Polyvinyl Chloride (PVC) Pipe fittings - 4" and larger ..... 02475.40
- Polyvinyl Chloride (PVC) Pipe fittings - under 4" ..... 02475.45
- Polyvinyl Chloride (PVC) Pipe - 4" and larger ..... 02470.40
- Polyvinyl Chloride (PVC) Pipe - under 4" ..... 02470.45
- Reinforcement ..... 00530
- Restrained Joints ..... 02475.50
- High Density Polyethylene Pipe ..... 02470.31

High Density Polyethylene Pipe Fittings..... 02475.31

High Density Polyethylene (HDPE) pipe shall meet the requirements of ANSI/AWWA C906, Standard PE Code Designation PE 3408, minimum cell classification PE 334434C (ASTM D 3350). Pipe may also be PE 4710 in accordance with the pending revisions to ANSI/AWWA C906-07. Pipe shall be iron pipe size (IPS) outside diameter or ductile iron pipe size (DIPS) outside diameter. All HDPE pipe and fittings shall be of the dimension ratio (DR) as shown on the plans.

**01140.11 Handling Pipe and Fittings** - Replace this entire subsection, including subsections .11(a) and .11(b), with the following subsection:

**01140.11 Handling Pipe and Fittings** - Handle pipe and fittings to prevent damage to or contamination of the pipe, fitting, lining, or coating. Load and unload pipe and fittings using hoists and slings so as to avoid shock or damage, and under no circumstances allow them to be dropped, skidded, or rolled against other pipe or fittings. If any part of the coating or lining is damaged, repair in a manner satisfactory to the Engineer. Damaged or contaminated pipe and fittings will be rejected. Immediately separate all damaged or contaminated pipe and fittings and remove from the project site.

If pipe requires temporary storage, store on cradles to prevent entry of dirt, other foreign material, or contamination. Keep the pipe or pipe joint free of dirt, other foreign material, or contamination during handling or laying operations. Remove, clean, and relay any pipe or fitting that has been installed with dirt, foreign material, or contamination in it. When pipe laying is not in progress, close the open ends of pipe with watertight plugs or by other approved means to ensure cleanliness.

**01140.12 Cutting Pipe** - Replace this entire subsection with the following subsection:

**01140.12 Cutting Pipe:**

(a) **General** - Whenever possible, use partial lengths of pipe supplied by the manufacturer to provide the proper spacing of valves, tees, or special fittings.

(b) **Cutting Operation** - Cut pipe with abrasive saws or with special pipe cutters. Square all pipe ends with the longitudinal axis of the pipe. Ream and smooth the interior edge and bevel the exterior edge of the cut ends. Flame cutting of ductile iron pipe will not be allowed.

**01140.40(c) Extra Trench Excavation** - Delete this subsection.

**01140.40(d) Grade and Alignment Changes** - Replace this subsection, except for the subsection number and title, with the following:

Excavate potholes to locate utilities. Allow enough time between excavating potholes and pipe installation to change alignment and grade of the pipeline to avoid conflicts. Obtain approval from the Engineer before using fittings to avoid conflicts.

**01140.40(e) Installation in Paved Areas** - Delete this subsection.

**01140.41(b) Ductile Iron Pipe** - Replace this entire subsection with the following subsection:

**01140.41(b) Ductile Iron Pipe** - Install ductile iron pipe according to AWWA C600 and the manufacturer's recommendations.

**(1) Curves** - Lay horizontal and vertical long radius curves with standard pipe by deflecting the joints. Use standard fittings and standard pipe lengths, unless otherwise shown. If shorter pipe lengths are required, the maximum allowable pipe lengths will be shown. Do not exceed 80 percent of the manufacturer's recommendations for the amount of deflection at each pipe joint when pipe is laid on a horizontal or vertical curve. Where field conditions require deflection or curves not shown, the Engineer will determine the methods to be used.

**(2) Pipe Laying Procedure** - When ductile iron pipe is laid on a curve, join the pipe in a straight alignment and then deflect it to the curved alignment. Widen trenches on curves for this purpose as allowed or directed.

**01140.41(d) Steel Pipe** - Delete this subsection.

**01140.41(e) Polyvinyl Chloride Pipe** - Replace this entire subsection, including subsections .41(e-1) and .41(e-2), with the following subsection:

**01140.41(e) Polyvinyl Chloride (PVC) Pipe** - Install PVC pipe according to AWWA C605 and the manufacturer's recommendations.

Lay horizontal and vertical curves in pipe, as shown, with standard pipe by deflecting the joints. Use standard fittings and standard pipe lengths unless otherwise shown. If shorter lengths of pipe are required, the maximum allowable pipe lengths will be shown. Do not exceed 80 percent of the manufacturer's recommendations for the amount of deflection at each pipe joint when pipe is laid on a horizontal or vertical curve. Where field conditions require deflection or curves not shown, the Engineer will determine the methods to be used. Do not bend PVC pipe segments.

**01140.41(f) Water and Sanitary Sewer Separation** - Replace this subsection, except for the subsection number and title, with the following:

Comply with OAR 333-061-0050 governing horizontal and vertical separation between water and sanitary sewer facilities for installation of new water lines and appurtenances. Submit all proposals for variance in writing. The proposal shall include the reason for the variance, type of material and condition of the sewer line, and location of the water and sewer facilities, including horizontal and vertical skin-to-skin clearances. Proposals will be reviewed by the Engineer and approved, approved as noted, or returned for correction. Each variance will be addressed on a case-by-case basis.

Add the following subsection:

**01140.41(g) Other Utilities** - Maintain a minimum vertical clearance of 12 inches between installed pipe and other utilities. Maintain a minimum horizontal clearance of 24 inches

between installed pipe and other utilities. Engineer's approval and additional protection is required for any pipe installation that does not maintain the specified minimum clearances.

**01140.42(a) General** - Replace the paragraph that begins "Mark pipe not..." with the following paragraph:

For pipe not furnished with a depth mark, mark pipe with a depth mark before joint assembly.

**01140.42(b) Steel Pipe under 6 Inches** - Delete this subsection.

Add the following subsection

**01140.42(c) HDPE Pipe:**

**(1) Joints and Fittings** - Join pipes and fittings using the thermal butt fusion method according to ASTM D 3261. HDPE fittings shall be of the same class as the HDPE piping.

**(2) Connections with Other Pipe Types** - Connect HDPE pipe to other pipe types using manufactured fittings, as approved.

**01140.43(a) Installation** - Replace the sentence that begins "The polyethylene encasement need..." with the following sentence:

The polyethylene encasement is not required to be watertight, but do not expose any part of the pipe, fittings, or coupling to the backfill.

**01140.45(a) Installation** - Replace the sentence that begins "Secure to the top of the pipe..." with the following sentence:

Use cable ties to secure the copper wire to the top of the pipe at a maximum spacing of 10 feet.

**01140.47 Connection to Existing Mains** - Replace this entire subsection with the following subsection:

**01140.47 Connection to Existing Mains** - Make necessary arrangements with the Engineer a minimum of 7 calendar days before making connections to existing water mains. Assemble all materials, equipment, and labor necessary to properly complete the work before starting.

**(a) Notification** - If the connection to the existing system involves temporary water system shutoff, provide written notices to the residents affected by the shutoff a minimum of 72 hours before the shutoff. Submit a draft written notification to the Engineer for approval 5 calendar days before providing written notice to the affected residents. The Engineer will advise which property owners are to be notified.

**(b) Permission** - The work to perform the connection may need to be carried out during times other than normal working hours. Do not operate any valves on the existing system without specific permission of the Engineer.

**(c) Connection Assemblies** - Excavate potholes to expose existing piping at connection points before constructing the connection. If existing piping is different than shown, provide measurements of depth and a detailed sketch of existing piping configuration and alignment to the Engineer not less than two weeks before the expected construction.

**(d) Uninterrupted Service** - Once work is started on a connection, proceed continuously without interruption, and as rapidly as possible until completed. Schedule main shutoffs to ensure that mains do not remain shut off overnight, on Fridays, over weekends, or on holidays.

**(e) Cutting Main Lines** - Cut existing water mains according to 01140.12. Remove the portions of pipe to provide for the installation of the required fittings at the points of connection. Determine the exact length of the existing water main that is to be removed. Bevel pipe ends to prevent damage to the transition coupling gasket during installation of the coupling. Clean the exterior of the existing pipe end to a sound, smooth finish before installing the coupling.

**01140.50(c) Disposal of Treated Water** - Replace this subsection, except for the subsection number and title, with the following:

Dispose of treated water flushed from mains. To protect aquatic life, de-chlorinate the waste water before disposing of water into any natural drainage channel. Dispose of disinfecting solution to the satisfaction of the Engineer and local authorities. If approved by the Engineer and the sanitary sewer Utility, disposal may be made to an available sanitary sewer, provided the rate of disposal will not overload the sewer.

Add the following subsection:

**01140.51(e) Hydrostatic Testing of High Density Polyethylene Water Mains** - Conduct the following hydrostatic tests on all HDPE pipe:

**(1) Above-Grade Test** - Before placing the pipe but after the pipe is butt fused and ready for installation, conduct an above-grade test. Before beginning the test, fill the pipeline with water, pressurize to the test pressure according to 01140.51(a), and allow to stand without makeup pressure until the pressure reaches equilibrium. Equilibrium will usually occur within 2 to 4 hours.

After equilibrium has been reached, test the pipe according to 01140.51(a). Visually inspect the pipe for leaks during the test. Repair all leaks before installing the pipe in the trench or pulling the pipeline into the borehole. Repair leaks at fusion joints by cutting out the leaking fusion joint, re-fusing the joint, and conducting a new above grade test. Successful completion of the above-grade test requires approval from the Engineer. Do not place the pipe in the trench or pull the pipe into place before successfully completing the above-grade test.

**(2) In-Place Test** - Conduct an in-place test after the pipe is placed in the trench or pulled into place. Before beginning the test, fill the pipeline with water, pressurize to the test



pressure according to 01140.51(a), and allowed to stand without makeup pressure until the pressure reaches equilibrium. Equilibrium will usually occur within 2 to 4 hours.

**01140.52(b-1) Gaseous Chlorine** - Delete this subsection.

**01140.52(g) Chlorinating Connections to Existing Water Mains** - Replace this subsection, except for the subsection number and title, with the following:

Follow the chlorinating procedure specified in AWWA Standard C651. Liberally treat the exterior of the existing main at the connection point with hypochlorites. Swab or spray the interior of the pipe and all closure fittings with a 1 percent hypochlorite solution. Disinfect the 5 feet of existing main adjacent to the connection point with a 100 ppm chlorine solution and then thoroughly flush the line.

Add the following subsection:

**01140.60 Surface Restoration** - Restore trench surfaces according to Section 00495.

**01140.80 Measurement** - Replace this entire subsection with the following subsection:

**01140.80 Measurement** - The quantities of potable water pipe and fittings will be determined as follows:

**(a) Pipe, Fittings and Couplings** - The quantities of pipe of the various kinds, types, sizes and backfill classes will be measured on the length basis and will be horizontal measurement along the top of the finished trench, with no deduction for fittings, valves, and couplings.

For PVC fittings 4 inches or greater, in addition to measurement of the pipe, an allowance of 12 pipe diameters will be made for each factory-fabricated bend, sleeve, reducer or coupling, and an allowance of 18 pipe diameters of the larger diameter pipe will be made for each factory-fabricated tee or cross. The allowance will be added to the quantity for pipe of the same diameter.

Ductile iron pipe fittings will be measured on the unit basis.

**(b) Extra Trench Excavation** - The quantities of removal and backfill of extra trench excavation will be measured on the volume basis for each backfill class. The backfill classes are defined in Section 00405. When the pipeline grade is lowered in excess of 12 inches below the grade shown, or when pipeline horizontal alignment is changed by more than 12 inches after the original trench has been excavated, all additional excavation and backfill, outside the limits of the original trench, that is required to construct the change will be classified as extra trench excavation. The depth will be the actual depth removed for the changed line or grade as directed. The width will be the actual width removed for the changed line or grade, but in no case will the measured width exceed the allowable widths specified in 00405.41(c).

**(c) Blowoff Assemblies** - The quantities of blowoff assemblies will be measured on the unit basis.

**(d) Connections to Existing Mains** - The quantities of connections to existing mains will be measured on the unit basis.

Trench resurfacing will be measured according to 00495.80.

Installation under pavement by tunneling, jacking, or boring methods will be measured according to 00406.80.

**01140.90 Payment -**

Add the following pay item(s) to the pay item list.

- (f) \_\_\_\_\_ Inch Ductile Iron Pipe with Class \_\_\_\_\_ Backfill..... Foot
- (g) \_\_\_\_\_ Inch Ductile Iron Pipe with Restrained Joints and Class \_\_\_\_ Backfill ..... Foot
- (h) Ductile Iron Pipe Tees, \_\_\_\_\_ Inch ..... Each
- (i) Ductile Iron Pipe Wyes, \_\_\_\_\_ Inch ..... Each
- (j) Ductile Iron Pipe Slip Joints, \_\_\_\_\_ Inch..... Each
- (k) Ductile Iron Pipe Cross, \_\_\_\_\_ Inch..... Each
- (l) Ductile Iron Pipe Bend, \_\_\_\_\_ Inch..... Each
- (m) Ductile Iron Pipe Coupling, \_\_\_\_\_ Inch..... Each
- (n) Ductile Iron Pipe Reducer, \_\_\_\_\_ Inch..... Each

Add the following paragraph(s) after the paragraph that begins "In item (e)...":

In item(s) (f) and (g), the nominal diameter of pipe will be inserted in the first blank. The class of backfill will be inserted in the second blank.

In item(s) (h), (i), (j), (k), (l), (m), and (n), the nominal diameter of the fittings or couplings will be inserted in the blank.

Delete the paragraph that begins "Valves will be paid..."

In the paragraph that begins "No separate or additional payment...", add the following bullets to the end of the bullet list:

- PVC fitting under 4 inch
- HDPE fittings

Replace Section 01170 of the Standard Specifications with the following Section 01170.

**SECTION 01170 - POTABLE WATER SERVICE CONNECTIONS, 2 INCH AND SMALLER**

**Description**

**01170.00 Scope** - This work consists of furnishing and installing service connections, 2 inch in diameter and smaller, from the main to the water meter, and furnishing and installing sampling stations. The water meter will be furnished and installed by others unless specified otherwise in these Special Provisions or on the plans.

**Materials**

**01170.10 Materials** - Furnish materials meeting the following requirements:

Angle Meter Valve.....	02490.60
Bronze Nipples and Fittings .....	02490.60
Copper Tubing Service Pipe .....	02490.40(a)
Corporation Stops.....	02490.30
Customer Service Valves.....	02490.60
Meter Boxes.....	02490.70
Meter Setters .....	02490.50
Polyethylene Tubing Service Pipe.....	02490.40(b)
Saddles.....	02490.20
Sampling Stations.....	02490.80
Service Fittings .....	02490.40(c)

**Construction**

**01170.40 General** - Except for class 52 or greater ductile iron pipe, make all service connections to water mains, using saddles as specified and of the size and type suitable for use with both the water main and the pipe being installed. For class 52 and greater ductile iron pipe, make direct taps for corporation stops according to the recommendations of the Ductile Iron Pipe Research Association (DIPRA), unless direct taps are prohibited by these Special Provisions. Install service pipe lines perpendicular to the main, unless otherwise shown.

**(a) Trench Depth** - Construct the depth of trench for service connection piping to provide a minimum of 30 inches of cover over the top of the pipe. Ensure that the main is not damaged during installation of the service. Excavate and backfill for service connections according to Section 00405, except install the service pipeline under existing pavement, curbs and sidewalks by boring methods approved by the agency having jurisdiction over the roadway. Resurface the trench according to Section 00495.

**(b) Installation** - Furnish and install water service assemblies at the locations shown, or as directed. Service pipe, meter assemblies, fittings, and appurtenances shall conform to the details and standards of the agency having jurisdiction. As shown, install the water service saddle, corporation stop, water service pipe, meter assembly, and meter, and reconnect the customer service pipe to the installed meter assembly.

Cut customer service pipes using tools specifically designed to leave a smooth, even, and square end on the pipe. Ream cut ends to the full inside diameter of the pipe. For pipes that will be connected using couplings that seal to the outside surface of the pipe, clean pipe ends to a sound, smooth finish before installing couplings.

Make service connections to water mains according to the recommendations of the pipe manufacturer and appropriate AWWA standard for water service installation. All water services shall be continuous without splices between the main and the meter unless otherwise approved by the agency having jurisdiction.

Install water service assemblies to match finished lines and grades, and maintain proper clearances and cover for the entire service connection. Adjust the meter box to the finished grade after the surface has been acceptably restored. When meter boxes are to be installed in driveways or a vehicular traveled way, use approved traffic rated meter boxes.

**01170.41 Reconnecting Existing Services** - Where shown, construct new service connections and angle valves to reconnect existing meter assemblies to the new mains. Verify the location of existing service connections and meter assemblies in the field. Notify affected customers of the service interruption at least 24 hours prior to service interruption. Use insulating couplings at all connections between existing galvanized steel or iron pipe and new copper pipe. All fittings, appurtenances, and other miscellaneous materials on the sections of existing pipe that have been removed become the property of the Contractor.

**01170.42 Sampling Stations** - Install sampling stations according to the manufacturer's recommendations and at the locations and depths shown or as directed. Install service connections and perform trenching, backfilling and surface restoration according to 01170.40.

### **Field Testing Installations**

**01170.50 Flushing and Disinfecting** - Before tapping the main for installation of service connections and sampling stations to existing water mains, liberally treat the exterior of the existing main with hypochlorites. Before making connections, swab or spray the ends of all service pipes, the connection points of all appurtenances, and the sampling stations with a 1 percent hypochlorite solution. Thoroughly flush the service connections and sampling stations. For installation of service connections and sampling stations concurrent with new water mains, flush and disinfect service connections and sampling stations according to Section 01140.

**01170.51 Hydrostatic Testing** - For installation of service connections and sampling stations that connect to existing water mains, apply system pressure to new installations prior to backfilling and repair any visible leaks. For installation of service connections and sampling stations concurrent with new water mains, perform hydrostatic testing of service connections and sampling stations according to Section 01140. Correct all defects in materials or workmanship and retest until satisfactory results are obtained.

### **Measurement**

**01170.80 Measurement** - The quantities of water service connection piping and water service line will be measured on the length basis.

The quantities of reconnecting existing services, sampling stations, water meter assemblies, and relocating meter assemblies will be measured on the unit basis.

**Payment**

**01170.90 Payment** - The accepted quantities of work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(a) _____ Inch Water Service Connection Piping .....	Foot
(b) Reconnecting Existing Water Services, _____ Inch .....	Each
(c) Water Sampling Stations .....	Each
(d) _____ Inch _____ Water Service Line .....	Foot
(e) _____ Inch Water Meter Assembly .....	Each
(f) Relocate _____ Inch Water Meter Assembly .....	Each

In item(s) (a) and (b), the nominal pipe diameter will be inserted in the blank.

In item (d), the nominal pipe diameter will be inserted in the first blank. The type of pipe will be inserted in the second blank.

In item(s) (e) and (f), the nominal size of the meter will be inserted into the blank. Water meter to be furnished and installed by the City of Sherwood. Contractor to provide excavation, piping and meter box for prior to meter installation by City.

Item(s) (a) and (d) include excavating, tapping the main, laying and jointing the pipe and fittings, corporation stop, saddle, appurtenances, backfilling, surface restoration, testing, and flushing and disinfection of the water service.

Item (b) includes excavating, tapping the main, laying and jointing the pipe and fittings, appurtenances, backfilling, surface restoration, testing, and flushing and disinfection of the reconnected service connection.

Item (c) includes excavating, tapping the main, water sampling station, laying and jointing the pipe and fittings, curb stops, valve box, appurtenances, backfilling, surface restoration, concrete pad, testing, and flushing and disinfection of the sampling station.

Item (e) includes excavating, installation of meter box when specified, angle meter valve, meter setter, customer service valve and appurtenances, backfilling, surface restoration, testing, and flushing and disinfection.

Item (f) includes meter when specified, angle meter valve, customer service valve, meter box, meter setter, fittings, and appurtenances necessary to install the meter assembly, and abandoning the existing water service at the mainline.

Payment will be payment in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

## **SECTION 02010 - PORTLAND CEMENT**

Comply with Section 02010 of the Standard Specifications modified as follows:

**02010.20 Blended Hydraulic Cement** - Replace the paragraph that begins "Blended hydraulic cement..." with the following paragraph:

Blended hydraulic cement shall be either Type IS-Portland blast-furnace slag cement, Type IP-Portland-pozzolan cement, or Type IT-ternary blended cement according to AASHTO M 240, modified as follows:

Add the following paragraph to the end of this subsection:

Furnish blended hydraulic cement from the QPL.

## **SECTION 02050 - CURING MATERIALS**

Comply with Section 02050 of the Standard Specifications modified as follows:

**02050.00 Scope** - Replace this subsection, except for the subsection number and title, with the following:

This Section includes the requirements for liquid compounds, polyethylene films, and curing blankets used to cover concrete and other surfaces to retain moisture and to cure.

**02050.10 Liquid Compounds** - In the paragraph that begins "Furnish liquid membrane-forming...", replace "AASHTO C 309" with "ASTM C 309".

**02050.40 Liquid Evaporation Reducer Compounds** - Delete this subsection.

## **SECTION 02150 - LUMBER AND TIMBER CONNECTORS**

Comply with Section 02150 of the Standard Specifications modified as follows:

**02150.00 Scope** - Replace this subsection, except for the subsection number and title, with the following:

This Section includes the requirements for connectors, bolts, nuts, washers, nails, and miscellaneous hardware for joining lumber and timber.

**02150.10(a) General** - Add the following to the end of this subsection:

For all connectors and hardware that contact lumber or timber treated with Alkaline Copper Quaternary (ACQ) or Copper Azole (CA), except those used with fence posts, sign posts, guardrail post, or guardrail blocks, furnish connectors according to one of the following:

- Fabricate connectors and all associated hardware, including fasteners, with Type 304 or Type 316 stainless steel according to ASTM A480.
- Coat all connectors and associated hardware, including fasteners, according to ASTM F2833, Grade 1 or ASTM F1136, Grade 3, or approved equal.

Contact between stainless steel and non-stainless steel will not be allowed.

**02150.10(b) Split Ring Connectors** - In the paragraph that begins "Provide 2 5/8 inch and 4 inch...", replace the first sentence with the following sentence:

Provide 2 5/8 inch and 4 inch inside diameter split rings manufactured from steel conforming to ASTM A830, Grade Number 1010 (AISI C1010, SAE 1010).

**02150.10(c-1) Pressed Steel Type** - Replace the first sentence with the following sentence:

Provide 2 5/8 inch diameter pressed steel shear plates manufactured from steel conforming to ASTM A830, Grade Number 1010 (AISI C1010, SAE 1010).

**02150.10(c-2) Malleable Iron Type** - Add the following sentence to the end of the paragraph:

Galvanize malleable iron type connectors according to AASHTO M 232 (ASTM A153).

**02150.10(d) Bolts, Nuts, Nails, and Miscellaneous Hardware** - Replace this subsection, with the following subsection:

**02150.10(d) Bolts, Nuts, Washers, Lag Screws, and Wood Screws** - Provide machine bolts and drift bolts according to ASTM A307 or ASTM A36. Washers may be cast ogee or malleable castings, or cut from steel plate.

Galvanize bolts, nuts, washers, lag screws, and wood screws according to ASTM F2329.

Provide bolts, nuts, washers, lag screws, and wood screws in standard type and make, unless otherwise shown.

**02150.10(e) Lightweight Metal Connectors** - Replace this subsection, except for the subsection number and title, with the following:

Lightweight metal connectors are mass produced plate or sheet steel connectors with a maximum thickness of 1/4 inch used to connect wood members to wood, concrete or

masonry. Provide lightweight metal connectors as shown with the required minimum capacities as stated in these specifications. Provide copies of the test reports from the International Code Council (ICC-ES) showing that the supplied connectors meet the minimum capacities listed in the Special Provisions. All lightweight metal connectors shall be Type 304/316 stainless steel according to ASTM A480 or galvanized according to ASTM A23 or ASTM A653, coating designation G185.

The minimum capacities of the required lightweight metal connectors are to be reviewed and approved as part of shop drawings.

Add the following subsection:

**02150.10(f) Nails and Miscellaneous Hardware** - Provide dowels according to ASTM A307 or ASTM A36.

Galvanize rough hardware, drift pins, dowels, clamps, anchors, joist hangers, and nails according to AASHTO M 232 (ASTM A153).

Provide rough hardware, drift pins, dowels, clamps, anchors, joist hangers, and nails in standard type and make, unless otherwise shown.

## **SECTION 02190 - PRESERVATIVE TREATMENT OF LUMBER**

Comply with Section 02190 of the Standard Specifications modified as follows:

**02190.20 Drying Time** - Replace this subsection with the following subsection:

**02190.20 Drying After Treatment** - When using waterborne preservatives, as defined in AWPA P5, dry items according to AWPA T1, Section 7.

During the drying period and until the treated items are installed on the Project, separate each layer of treated items using spacers that are at least 1/2 inch thick.

The maximum moisture content shall be 19 percent prior to installation.

Collect all spacers and other treated wood waste from the construction site and dispose of them according to 00290.20.

## **SECTION 02320 - GEOSYNTHETICS**

Comply with Section 02320 of the Standard Specifications modified as follows:

**02320.10(c-1-a) Geotextiles** - Replace the bullet that begins "Minimum average roll values..." with the following bullet:



- Minimum average roll values for each of the specified properties from the same production run as the delivered material.

**02320.20 Geotextile Property Values** - Replace Table 02320-1 through Table 02320-6 with the following tables:

**Table 02320-1 Geotextile Property Values for Drainage Geotextile** <sup>1, 2</sup>

Geotextile Property	ASTM Test Method	Units	Geotextile Property Requirements			
			Type 1		Type 2	
			Woven	Nonwoven	Woven	Nonwoven
Grab Tensile Strength (minimum) Machine and Cross Machine Directions	D 4632	lb	180	115	250	160
Grab Failure Strain (minimum) Machine and Cross Machine Directions	D 4632	%	< 50	≥ 50	< 50	≥ 50
Tear Strength (minimum)	D 4533	lb	67	40	90	56
Puncture Strength (minimum)	D 6241	lb	370	220	495	310
Apparent Opening Size (AOS) (maximum) U.S. Standard Sieve	D 4751	—	40	40	40	40
Permittivity (minimum)	D 4491	sec <sup>-1</sup>	0.5	0.5	0.5	0.5
Ultraviolet Stability Retained Strength (minimum)	D 4355 (at 500 hours)	%	50	50	50	50
<sup>1</sup> All geotextile properties are Minimum Average Roll Values (MARV). The test results for any sampled roll in a lot shall meet or exceed the values shown in the table. <sup>2</sup> Woven slit film geotextiles (geotextiles that are made from yarns of a flat, tape-like character) are not acceptable.						

**Table 02320-2 Geotextile Property Values for Riprap Geotextile** <sup>1, 2</sup>

Geotextile Property	ASTM Test Method	Units	Geotextile Property Requirements			
			Type 1		Type 2	
			Woven	Nonwoven	Woven	Nonwoven
Grab Tensile Strength (minimum) Machine and Cross Machine Directions	D 4632	lb	250	160	315	200
Grab Failure Strain (minimum) Machine and Cross Machine Directions	D 4632	%	< 50	≥ 50	< 50	≥ 50
Tear Strength (minimum)	D 4533	lb	90	56	110	80
Puncture Strength (minimum)	D 6241	lb	495	310	620	430
Apparent Opening Size (AOS) (maximum) U.S. Standard Sieve	D 4751	—	40	40	40	40
Permittivity (minimum)	D 4491	sec <sup>-1</sup>	0.5	0.5	0.5	0.5
Ultraviolet Stability Retained Strength (minimum)	D 4355 (at 500 hours)	%	70	70	70	70
<sup>1</sup> All geotextile properties are Minimum Average Roll Values (MARV). The test results for any sampled roll in a lot shall meet or exceed the values shown in the table. <sup>2</sup> Woven slit film geotextiles (geotextiles that are made from yarns of a flat, tape-like character) are not acceptable.						

**Table 02320-3 Geotextile Property Values for Sediment Fence <sup>1</sup>**

Geotextile Property	ASTM Test Method	Units	Geotextile Property Requirements		
			Supported	Unsupported	
			—	Elongation <sup>2</sup> ≥ 50%	Elongation <sup>2</sup> ≤ 50%
Grab Tensile Strength (minimum) Machine and Cross Machine Directions	D 4632	lb	90 90	120 100	120 100
Apparent Opening Size (AOS) (maximum) U.S. Standard Sieve	D 4751	—	30	30	30
Permittivity (minimum)	D 4491	sec <sup>-1</sup>	0.05	0.05	0.05
Ultraviolet Stability Retained Strength (minimum)	D 4355 (at 500 hours)	%	70	70	70

<sup>1</sup> All geotextile properties are Minimum Average Roll Values (MARV). The test results for any sampled roll in a lot shall meet or exceed the values shown in the table.

<sup>2</sup> Measured according to ASTM D 4632.

**Table 02320-4 Geotextile Property Values for Subgrade Geotextile (Separation) <sup>1</sup>**

Geotextile Property	ASTM Test Method	Units	Geotextile Property Requirements	
			Woven	Nonwoven
Grab Tensile Strength (minimum) Machine and Cross Machine Directions	D 4632	lb	180	113
Grab Failure Strain (minimum) Machine and Cross Machine Directions	D 4632	%	< 50	≥ 50
Tear Strength (minimum)	D 4533	lb	68	41
Puncture Strength (minimum)	D 6241	lb	371	223
Apparent Opening Size (AOS) (maximum) U.S. Standard Sieve	D 4751	—	30	30
Permittivity (minimum)	D 4491	sec <sup>-1</sup>	0.05	0.05
Ultraviolet Stability Retained Strength (minimum)	D 4355 (at 500 hours)	%	50	50

<sup>1</sup> All geotextile properties are Minimum Average Roll Values (MARV). The test results for any sampled roll in a lot shall meet or exceed the values shown in the table.

**Table 02320-5 Geotextile Property Values for Embankment Geotextile <sup>1</sup>**

Geotextile Property	ASTM Test Method	Units	Geotextile Property Requirements	
			Woven	Nonwoven
Grab Tensile Strength (minimum) Machine and Cross Machine Directions	D 4632	lb	315	200
Grab Failure Strain (minimum) Machine and Cross Machine Directions	D 4632	%	< 50	≥ 50
Tear Strength (minimum)	D 4533	lb	110	80
Puncture Strength (minimum)	D 6241	lb	620	430
Apparent Opening Size (AOS) (maximum) U.S. Standard Sieve	D 4751	—	30	30
Permittivity (minimum)	D 4491	sec <sup>-1</sup>	0.02	0.02
Ultraviolet Stability Retained Strength (minimum)	D 4355 (at 500 hours)	%	50	50

<sup>1</sup> All geotextile properties are Minimum Average Roll Values (MARV). The test results for any sampled roll in a lot shall meet or exceed the values shown in the table.

**Table 02320-6 Geotextile Property Values for Pavement Overlay Geotextile <sup>1</sup>**

Geotextile Property	ASTM Test Method	Units	Geotextile Property Requirements
			Nonwoven
Grab Tensile Strength (minimum) Machine and Cross Machine Directions	D 4632	lb	100
Grab Failure Strain (minimum) Machine and Cross Machine Directions	D 4632	%	≥ 50
Asphalt Retention (minimum)	D 6140	oz./sq.ft.	2.8
Melting Point (minimum)	D 276	°F	300

<sup>1</sup> All geotextile properties are Minimum Average Roll Values (MARV). The test results for any sampled roll in a lot shall meet or exceed the values shown in the table.

## SECTION 02440 – JOINT MATERIALS

Comply with Section 02440 of the Standard Specifications modified as follows:

**02440.15 Lubricant/Adhesive** - Replace this subsection, except for the subsection number and title, with the following:

Furnish a lubricant/adhesive conforming to ASTM D 4070 and according to the recommendations of the seal manufacturer.

## **SECTION 02490 - POTABLE WATER SERVICE CONNECTION MATERIALS, 2 INCH AND SMALLER**

Comply with Section 02490 of the Standard Specifications modified as follows:

**02490.10 General** - Replace this subsection, except for the subsection number and title, with the following:

Service line materials shall conform to AWWA C800 and these specifications. Provide service line materials that are designed for a working pressure of 100 psi. Where high pressure service materials are specified or shown, provide materials that are designed for a working pressure of 150 psi. Use high pressure service materials when service line is hydrostatically tested concurrent with the water main. All materials in contact with potable water shall conform to ANSI/NSF Standard 61, Drinking Water System Components - Health Effects, or equivalent.

**02490.30 Corporation Stops** - Replace this entire subsection with the following subsection:

### **02490.30 Service Connection Valves:**

**(a) Corporation Stops** - Corporation stops shall be constructed of bronze alloy. Corporation stops for direct tapping shall have AWWA tapered thread inlet and outlet connections compatible with either copper or polyethylene tubing.

**(1) Less Than or Equal to 1 Inch** - Corporation stops used with 3/4 inch and 1 inch outlet saddles shall have either AWWA tapered thread or male iron pipe thread inlets and outlet connections compatible with either copper or polyethylene tubing. Thread patterns for the saddle outlet and corporation stop inlet shall be the same.

**(2) Greater Than 1 Inch** - Corporation stops used with 1 1/2 inch and 2 inch outlet saddles shall have male iron pipe thread inlets and outlet connections compatible with connecting service pipes, or have male iron pipe thread outlets.

**(b) Angle Meter Valves** - Angle meter valves shall meet the requirements of ASTM B 62. All angle meter valves shall have a lock wing.

**(c) Customer Service Valves** - Customer service valves shall be bronze straight gate valves or angled gate valves on all services smaller than 2 inch and shall be non-rising stem, solid disc type with screwed or union bonnet, threaded ends, and a have brass handle. Body, bonnet, operating handle, and disc shall be ASTM B 62 bronze. Stems shall be copper silicon alloy, nickel plated steel, or other approved corrosion resistant materials with equal characteristics of strength and durability. The disc shall clear the port area completely in the fully opened position. Threaded ends shall meet the requirements of ANSI B2.1.

## SECTION 02560 - FASTENERS

Comply with Section 02560 of the Standard Specifications modified as follows:

**02560.30 Tie Rods and Anchor Bolts** - Replace this subsection with the following subsection:

### **02560.30 Tie Rods, Anchor Bolts, and Anchor Rods:**

**(a) Steel Tie Rods, Anchor Bolts, and Anchor Rods** - Steel tie rods, anchor bolts, and anchor rods shall conform to: AASHTO M 314, Grade 36 or 55; ASTM F 1554, Grade 36 or 55.

**(b) High-Strength Tie Rods, High-Strength Anchor Bolts, and High-Strength Anchor Rods** - High-strength tie rods, high-strength anchor bolts, and high-strength anchor rods shall conform to: AASHTO M 314, Grade 105; ASTM F 1554, Grade 105; or ASTM A 449, Type 1.

**(c) Nuts** - Nuts for tie rods, anchor bolts, and anchor rods shall conform to the requirements of the following, or equivalent:

#### **Plain Steel Tie Rods, Anchor Bolts, and Anchor Rods:**

- All - Heavy Hex AASHTO M 291 (ASTM A 563), Grade A

#### **Galvanized Steel Tie Rods, Anchor Bolts, and Anchor Rods:**

- All - Heavy Hex AASHTO M 291 (ASTM A 563), Grade A, C, D, or DH

#### **Plain Or Galvanized High-Strength Tie Rods, High-Strength Anchor Bolts, and High-Strength Anchor Rods:**

- All - Heavy Hex AASHTO M 291 (ASTM A 563), Grade DH

**(d) Washers** - Washers for anchor bolts shall conform to ASTM F 436, Type 1.

**02560.40 Galvanizing and Coating of Fasteners, Tie Rods, and Anchor Bolts** - Replace this subsection title with the title "**Galvanizing and Coating:**"

**02560.40(a) Galvanizing of Fasteners, Tie Rods, and Anchor Bolts** - Replace this subsection with the following subsection:

**02560.40(a) Galvanizing of Fasteners, Tie Rods, Anchor Bolts, and Anchor Rods** - Hot-dip galvanize fasteners, tie rods, anchor bolts, anchor rods, nuts, and washers according to AASHTO M 111 (ASTM A 123) or AASHTO M 232 (ASTM A 153) as appropriate to the product.

When specified, mechanically galvanize fasteners according to ASTM B 695, Class 50, Type 1.

Match galvanized bolts, tie rods, anchor bolts, and anchor rods with appropriate galvanized nuts for assembly. Ship nuts in the same container consisting of bolts, tie rods, anchor bolts, or anchor rods.

Overlap nuts for galvanized fasteners, galvanized tie rods, galvanized anchor bolts, and galvanized anchor rods according to AASHTO M 291 (ASTM A 563).

Measure the zinc thickness on the wrench flats or top of bolt head of galvanized bolts and on the wrench flats of galvanized nuts.

**02560.60(a) Rotational Capacity Test** - In the paragraph that begins "Test all high-strength fasteners...", replace the first sentence with the following sentence:

Test all high-strength fasteners, except high-strength tie rods, high-strength anchor bolts, and high-strength anchor rods, according to Method 1 or 2 below, as applicable.

**02560.60(b) Other Test Requirements** - Replace the two paragraphs that begin "Provide three extra high strength bolt assemblies..." and "Provide three extra high strength tie rod and..." with the following two paragraphs:

Provide three high-strength bolt assemblies per size per lot for check testing.

Provide one high-strength tie rod assembly, one high-strength anchor bolt assembly, and one high-strength anchor rod assembly per size per lot for check testing.

## **SECTION 02910 - SIGN MATERIALS**

Comply with Section 02910 of the Standard Specifications modified as follows:

**02910.33(d) Nonreflective Black Screened Legend** - Replace this subsection, except for the subsection number and title, with the following:

Furnish material for nonreflective black screened legends that is compatible with the sign sheeting, as recommended by the sign sheeting manufacturer.

## PART 1: GENERAL

### 1.1 DESCRIPTION

Project Name: Woodhaven Park

Location: Sherwood, OR

Model 2022 Sierra II Compact Double Restroom w/ 4' storage/mechanical room and picnic shelter extension. Includes the following options:

Block: 8" Mortar Joint Split-Face Block

Block Color: Tan

Eave/Rdige Connector: Glulam Beams

Roof System: 2x6 Tongue & Groove Decking with Clear Cedar Fascia

Roofing: 29ga Val-Rib Metal Roofing, w/ Exposed Fasteners

Roof Extension: Timber Truss and Post Roof Extension

Door Frames: 5-3/4: Door Frame x 16ga Hollow Metal

Doors: 18ga Poly Core Steel Door

Door Hinge: 4.5x4.5, Stainless Steel; Ball Beavering, Non-Removable Pin Hinge

Door Closer: Hager 5200 Series Door Closer

Door Accessories: Kickplate

Door Locks: Pull/Pull, with Deadbolt lock

Exterior Finishes: None

Steel Finishes: Factor Primed Doors/Powder coated Romtec Fabricated Products

Interior Finish Walls: Latex Epoxy Paint (Supplies and installed by contractor)

Interior Finish Floors: Sealed Concrete (Supplied and installed by contractor)

Trash Can: 13 Gallon Trash Can, White, No Lid [ADDED SINCE ORIGINAL QUOTE. SPEC. TO BE UPDATED]

Mirrors: 18"x36" Mirror [ADDED SINCE ORIGINAL QUOTE. SPEC. TO BE UPDATED]

Dispenser – Toilet Paper: Two Roll Dispenser, White, Wall Mount

Dispenser – Soap: Wall Mounted Dispenser, Stainless Steel

Diaper Deck: Diaper Deck; Brocar 100EH [ADDED SINCE ORIGINAL QUOTE. SPEC. TO BE UPDATED]

Toilet: China, Floor Mount

Toilet Flush Valve: Manual Lever, Chrome Flush Valve

Sink: 19"x17", China, Wall Mount [CONSIDER 20"X18" TO AVOID ISSUES WITH SMALL SINK SPACE]

Sink Faucet: Lever Handle Faucet

Drinking Foundation: Concrete Non-refrigerated Drinking Fountain

Room Ventilation: Natural Ventilation – Wire Weave Gables Vent

Light – External: Wall Mount Light, Mini-Pac [REVIEW ADDING LIGHTING IN ROOF TRUSS]

Light – Internal: Wall Mount Light, Mini-Pac

Light – Mech Room: 48" Fluorescent Light

Breaker Panel: 100 Amp, Rain Tight Breaker Panel

Hand Dryers: Wall Mount Hand Dryer, White, 30 Sec Dry Time

Electrical Outlet: Locking GFI Exterior Outlet [CONFIRM THIS CAN BE ADDED TO PACKAGE]



## 1.2 SCOPE

A. Romtec is a single source design, engineering, and manufacturer who shall supply the sealed plan set as well and the structural and mechanical building components as a complete, pre-designed packaged restroom building as shown on drawings and as specified herein.

B. The contractor is responsible for building installation, hereafter designated as the installer. Installer work will include site preparation and grading, excavations for structures, backfill and/or structural backfill, foundation and pad construction, and building installation.

C. Romtec packaged restroom buildings are the latest standard product of a supplier regularly engaged and having at least twenty (20) years of experience in packaged restroom building engineering, design, supply, and construction.

D. Romtec buildings are designed to meet local codes for permanent structures. Buildings that are temporary, relocatable, prefabricated, or pre-cast are not an equal to permanent, on site, conventional construction.

E. The Romtec building package has been quoted with the specific product colors noted below. Changes to these color selections may result in a price increase.

F. The building and its concrete footings, foundation, and slab are engineered by Romtec to meet site specific conditions including wind and snow loading, local frost depth, and ground conditions. Prefabricated modular mats placed on compacted base are not equal to Romtec's site specific, site poured, engineered foundation.

G. Typical fasteners such as nails, staples, and screws shall be supplied by installer. Atypical fasteners shall be supplied by Romtec. Contact Romtec for fasteners clarification if necessary.

H. Local building departments reserve the right to modify national building codes to meet the needs of their area. There is no way for Romtec to always know what the requirements of the reviewing authority will be. Romtec has made every effort to meet local codes. Any revision after submittal approval and notice to proceed will result in a change order.

I. Once submittal approval is received, three (3) wet stamped sets of plans and structural calculations shall be issued. Any additional plan sets and/or structural calculations can be obtained for a fee.

J. The specific supplier is indicated for each item. Romtec, installer, and owner supplied components are listed as such.

## 1.3 SUBMITTAL DOCUMENTATION

A. Romtec will submit the Scope of supply and design submittal (SSDS), including the construction drawings and all component data sheets. One full round of SSDS revisions are provided by Romtec in the design and engineering services with building plans under seal of a certified technical designer and complete structural calculations meeting code under seal of a professional engineer with current license in the project state.

B. Romtec does not provide LEED/Green submittals as a standard service. Romtec can assist in providing documentation for products that may meet LEED/Green standards, but Romtec does not provide or fill out LEED credit forms. Unless specifically included in Romtec's proposal and quote, Romtec does not supply materials with the intent of meeting LEED standards. Any changes due to LEED or Green building requirements will result in a change order and increased lead times."

#### 1.4 WARRANTY

A. The building and all its associated components shall be warranted against defects in materials and workmanship for a period of not less than one (1) year from date of final acceptance.

### PART 2: PRODUCTS

#### 2.1 FOUNDATION AND WALLS

A. All materials, equipment and labor for foundations/footings, interior slabs, exterior/entry slabs, and sidewalks shall be supplied by installer.

Note: Romtec has not been provided or made aware of any geotechnical reports for this project. Romtec is not responsible for any additional costs incurred by the installer if the foundation is increased due to local soil conditions.

B. Preliminary footing size is 36" x 36" and 24" deep.

C. CMU blocks shall be supplied by Romtec.

1. Exterior walls shall be constructed of smooth-face concrete masonry units (CMU).

Note: Installer may be required to notch CMU block for bond beams. Romtec is not responsible for any cost or construction delays associated with this work.

2. Block shall be dark oak (tan).

3. Latex epoxy paint interior wall finish shall be supplied by installer.

D. Masonry (concrete) grout and rebar shall be supplied by installer.

E. Doors, frames and hardware shall be supplied by Romtec.

1. Doors and frames shall be painted on site by installer.

F. Wire weave gable vents shall be supplied by Romtec.

1. Vents shall be powder coated black.

#### 2.2 ROOFING

A. Roofing materials shall be supplied by Romtec except where noted.

1. Glulam Beams
  2. 2x6 Tongue and groove decking
  3. Val-rib 29 gauge metal roofing (color to be Charcoal Gray #851)
- B. Roof extension materials shall be supplied by Romtec except where noted.
1. Timber trusses
  2. Truss plates to be powder coated black.
- C. Seal for beams and decking shall be supplied by installer.

## 2.3 PLUMBING AND FIXTURES

- A. Plumbing rough-in, installation and trim shall be supplied by installer.
- B. Floor drain(s) shall be supplied by installer.
- C. Backflow check valves shall be supplied by installer.
- D. Drain valves shall be supplied by installer.
- E. Concrete drinking fountains shall be supplied by Romtec.
- F. Restroom fixtures shall be supplied by Romtec.
1. China floor mount toilets and lever flush valves.
  2. China wall mount sinks and lever handle faucets.
  3. Grab bars, soap dispensers and toilet paper dispensers.

## 2.4 ELECTRICAL

- A. Electrical rough-in, installation and trim shall be supplied by installer.
- B. Interior and exterior building light fixtures shall be supplied by Romtec.
- C. Hand dryers to be supplied by Romtec.
- D. Main breaker panel sized for the building components shall be supplied by Romtec.
1. Panel shall be 100 amp, single phase.

## 2.5 OTHER MATERIALS & EQUIPMENT

- A. Unless otherwise specified, the following products and materials are NOT supplied by Romtec.

1. All items not listed in Romtec Products.
2. Any item listed as supplied by “installer”, “contractor”, “owner”, or “others”.

B. Unless specified in the plans or submittals, Romtec does not supply the following:

1. Building installation
2. Asphalt paving
3. Masonry pavers
4. Sidewalks
5. Landscaping
6. Site grading
7. Cast-in-place concrete foundations, footings, interior slabs and exterior/entry slabs
8. Concrete slab sealer
9. Mortar
10. Concrete grout
11. Rebar
12. Latex epoxy paint
13. Caulk for siding
14. Plumbing rough in, installation and trim
15. Electrical rough in, installation and trim
16. Drain valves and backflow check valves
17. Branch circuit breakers
18. Switches & outlets
19. Fluorescent tubes for light fixtures
20. Wall hangers for toilets
21. Typical fasteners; for example roofing nails, staples, etc.
22. Fasteners not included in product packaging
23. Irrigation Equipment
24. Gutters and downspouts
25. Fire alarm and fire suppression equipment
26. Lighting equipment not attached to the building

27. Clear coat finish for all decking, glulam beams, posts, and extensions

28. All other items indicated on final plans or required by building codes which are not specifically stated as supplied by Romtec.

### PART 3: EXECUTION

#### 3.1 SPECIAL INSPECTION

A. If required, special inspection shall be owner supplied.

#### 3.2 DELIVERY, STORAGE, AND HANDLING

A. Owner or installer will assume responsibility for adequate protection of materials from weather, damage, and pilferage or all warranties, expressed or implied may be voided.

#### 3.3 OPERATION & MAINTENANCE MANUALS

A. Do not throw away the Operations & Maintenance manuals that are provided by some manufacturers in their packaging. It is the responsibility of the installer and/or owner to collect and maintain these manuals.

#### 3.4 INSTALLATION

##### **INSTALLER SUPPLIED ITEMS - ROMTEC IS NOT INSTALLING**

The following items are to be supplied by the building installer. Refer to drawings for quantities, dimensions, locations and installation methods for items described in this section. The installer shall supply any parts not listed above in Factory Supplied Items Per Building, including but not limited to items specified in the final plans and items required by building codes. The installer shall be responsible for ensuring that the concrete foundation and slab are adequate for the site conditions and the purpose for which the building and foundation/slab are intended.

##### **Equipment, Labor and Trades** (supplied by installer)

All equipment, labor and trades to unload the building, excavate the site, build concrete forms, supply and install the reinforced concrete footings and slab, and install the building and fixtures.

##### **Engineered Fill** (supplied by installer)

3/4" minus crushed rock engineered fill around footing, foundation and slab as required.

##### **Slab Vapor Barrier** (supplied by installer)

6 mil. continuous vapor barrier under concrete slab.

**Cast in Place Concrete Foundation/Footings, Interior Slabs and Exterior/Entry Slabs** (supplied by installer)

3000 psi minimum compressive strength at 28 days, 4" +/- 1" slump, with max ¾" aggregate, and tested in accordance to meet ACI 318. Fine broom finish interior surfaces and exterior slabs. Joints required in flat work, see plans for requirements. Poured to dimensions specified in final plans. Steel rebar to be supplied by installer and installed as specified in final plans. Concrete is to be cured in accordance to ACI 308

**Concrete Slab Sealer** (supplied by installer)

Sonneborn Sonocrete Kure 1315 water-base transparent curing, sealing and dust proofing compound or equivalent. Two (2) coats to be applied per manufacturer's instructions by installer.

**Mortar Bed for First Course of Blocks** (supplied by installer)

Mixed with Hydratite<sup>®</sup> Plus mortar additive (supplied by Romtec). Mortar supplied by installer.

**Masonry (Concrete) Grout** (supplied by installer)

2500 psi minimum compressive strength at 28 days, 9" +/- 1" slump, with max ½" aggregate, and tested in accordance to meet ACI 318. Fine or coarse grout may be used in accordance with 2009 UBC. All CMU must be fully grouted and not be wetted.

Approx. 1 cubic yd. per 100 blocks.

**Rebar in Walls** (supplied by installer)

All walls have #4 Rebar and # 5 Rebar. All rebar used in building must meet ASTM A615 manufacturing standards and is to be placed per plans.

**Sidewalks** (supplied by installer)

2500 psi broom finish sidewalk with control joints per local code, with remesh 6 x 6 x 10.

**Plumbing Rough-in** (supplied by installer)

All underground water service to building and sewer drain(s) from building to be as specified in final site plan.

All floor drains as shown on final building plans.

Building water shutoff valve and drain and all rough piping as shown on final building plans, final location to be set onsite.

Notes: 1) Minimum water pressure at toilet and urinal flush valves (1 1/2" inlet pipe shall be 50 psi.), minimum pipe sizing as per 2009 Uniform Plumbing Code Section 610.

**Plumbing Installation and Trim** (supplied by installer)

Supplied fixtures as specified in final plans. (Note: supply and install fasteners and trim for fixtures as required.)

**Plumbing shall be located in the storage room for access to service and for winter heating.**

**FD-1, Floor Drain** (supplied by installer)

Smith 2005, General service floor drain. Duco cast iron body with flashing collar and adjustable strainer head. Standard round grate for poured finish floors.

**Drain Valve** (supplied by installer)

Water Line drain valve to be supplied by installer.

**Backflow Check Valve** (supplied by installer)

Sewer line backflow check valve to be supplied by installer.

**Electrical Rough-in** (supplied by installer)

All underground and/or overhead service to building as specified in final site plan.

Electric meter base and all rough wiring, switches, plugs and circuit breakers as shown on final plans. (Note: Romtec does not supply the meter base. Romtec-supplied breaker panel includes main breaker only. Branch circuit breakers are not supplied by Romtec.)

**Electrical Installation and Trim** (supplied by installer)

Installer is responsible for all necessary wire, connectors, grounding, conduit etc. to install Romtec supplied components. The installation of these components are to comply with all state and /or local codes. Provide #4 bare copper ground wire per NEC 250 and approved connectors per plans.

A 20 Amp wall outlet and shelf for a space heater shall be supplied in the storage room.

**CB-1, Branch Circuit Breakers** (supplied by installer)

Cutler Hammer BR Type-Single Phase-Single Pole (or equivalent)

**SW-1, Switch** (supplied by installer) (if needed)

Leviton 1221-2I quiet wall switch, 15 amp/120 volt, Ivory colored with cover plate (or equivalent)

**Fluorescent tubes for light fixtures** (supplied by installer)

**EO-1, GFCI Outlets,** (supplied by installer)

Leviton SmartlockPro Weather and Tamper Resistant GFCI receptacle, 15A-125V. Item W7599-TRW, white with LED indicator light.

**Weatherproof Box & Cover** (supplied by installer)

Mortared –in- application, 4600 Pass & Seymour Legrand 4600 Enclosure only, without mounting plate, 4600-26P Mounting Plate for Decorator/ GFCI, 4609 Key for Enclosure

**Wood stain** (supplied by installer)

**Latex Epoxy Paint, low VOC or equal** (supplied by installer)

Latex Epoxy based paint, low VOC or equal over sponge trowel finish Tamms Tamoseal®. Color to be white.

**Other** (supplied by installer)

The building installer is responsible for supply and installation of all other items indicated on final plans or required by building codes, which are not supplied by Romtec.