PUBLIC IMPROVEMENT BY PRIVATE CONTRACT

PIPC Permit Procedure Manual

City of Corvallis



June 2017

Public Works Department

Development Review Engineering

TABLE OF CONTENTS

SECTION – TITLE	PAGE
SECTION I – INTRODUCTION	1
SECTION II – PIPC PERMIT PROCEDURES	4
Step 1 – Plan and Support Documentation Submittal	4
Step 2 – Permit Issuance	
Step 3 – Preconstruction Conference	8
Step 4 – Construction & Testing	10
Step 5 – Final Inspection	
Step 6 – Warranty Initiation & Termination	16
SECTION III – PLATS, DEDICATIONS, AND EASEMENTS	17
SECTION IV – PIPC FORMS	<u>Form</u>
Intake Form for PIPC Plan Review	I
Permit Application Checklist	II
Permit Application (Individual and Corporate)	III
Contractor's Indemnity Agreement	
Stormwater Facilities Agreement (Individual and Corporate)	V
Performance Bond	VI
Mutual Improvement Agreement	VII
PIPC Improvement Security Agreement	
Notice of Franchise Installation by Developer (form letter)	
Utility Easement (Individual and Corporate)	
Drainageway Easement (Individual and Corporate)	
Warranty Deed (Individual and Corporate)	
Deed – Right of Way Dedication (Individual and Corporate)	
Notice of Completion (form letter)	
Warranty Bond	
Stormwater Facility Warranty Bond	
Warranty Initiation Checklist	
Estimate Summary Worksheet.	
Franchise Utility Easement (Individual and Corporate) Easement Release	
Public Access Easement (Individual and Corporate)	
Stormwater Facility Table	
SECTION V – APPENDICES	
Preconstruction Conference Checklist	Appendix A
Special Permit Conditions	Appendix B
POL 1050 – PIPC Permitting and Inspection Policy	
PRO 3013 – Fire Line Installation Procedure	* *
Preconstruction Attendance Log	Appendix E

SECTION I – INTRODUCTION

A. Public Improvements

This Manual presents procedures, which shall apply to all required public improvements constructed under private contracts within the City of Corvallis. A public improvement is defined as infrastructure that must be constructed in accordance with the latest edition of the *Design Criteria Manual, Standard Construction Specifications*, and other City Guides and Standards that will become the permanent maintenance responsibility of the City. Public improvements are permitted, constructed, and inspected under the authority of the City Engineer.

Policy 1050 (Appendix C) provides guidance and gives specific examples of what types of work require a Public Improvement by Private Contract (PIPC) permit. This Manual is intended to provide a general description of the permitting procedures and requirements for PIPC projects. Any work requiring a PIPC permit that is performed without the required permit is subject to a fine of \$500 for each day that such violation continues (*Land Development Code Chapter 1.3 – Enforcement*).

PIPC projects generally encompass the following:

- 1. New or reconstructed sanitary and storm sewers, laterals, and appurtenances, including:
 - a. All sewer lines in the public Right-of-Way (ROW); and
 - b. All sewer mains in public easements (sewer is private to point of connection); and
 - c. Any part of a sewer system which serves two or more parcels; and
 - d. Any part of a sewer which serves two or more parcels/lots. Sewers should be configured so each parcel/lot has its own private connection to the public sanitary or storm sewer; and
 - e. Any storm water piping system and water quality/detention/conveyance system that carries storm water discharge from a public facility (e.g., street) should be public, and at minimum requires a public drainage easement.
- 2. New or reconstructed public water mains and appurtenances, including:
 - a. All water service lines from the City main to the meter that are not installed under a tap card issued by Development Services; and
 - b. Fire service waterlines up to the point of connection to the backflow prevention device where the backflow prevention device is located outside of a building. Where the backflow prevention device is located inside of a building, the property owner shall own and maintain the fire service waterline from the valve at the point of connection to the City's water main per *Procedure 3013* (Appendix D).
- 3. New or reconstructed public street or roadway facilities including bridges, drainage structures, pedestrian, bicycle, transit facilities, and streetlights.
- 4. Drainageway improvements that are required concurrent with development, in accordance with *Land Development Code Section 4.13*.

B. Roles and Responsibilities

PIPC projects require coordination with the Applicant, the Engineer of Record, the Contractor, and City staff.

- 1. The Applicant shall be responsible for the following:
 - a. Maintaining overall responsibility for project and construction management, contract administration, permit acquisition and compliance, and, if required, ROW and/or easement dedications.
 - b. Naming an agent in writing (such as a developer), if other than the Applicant, to act on the Applicant's behalf.
 - c. Retaining the services of a licensed professional Engineer of Record to fulfill the responsibilities as defined below including regular on-site inspection, authority to ensure Contractor's work conforms to authorized plans and specifications, preparation of as-built plans, and coordination of final and warranty inspection punch-list repairs. A copy of the Engineer of Record's scope of work shall be provided prior to issuance of the PIPC Permit.
 - d. Hiring a licensed and insured Contractor.
 - e. Obtaining Erosion Prevention and Sediment Control, and Excavation and Grading Permits from Development Services, when warranted.
 - f. Obtaining an electrical permit for public streetlights from Development Services, when warranted.
 - g. Providing project performance, warranty, and maintenance securities. These may be issued under the Contractor's name. Standard forms are provided in Section IV.
 - h. Ensuring construction does not begin until the PIPC Permit is issued.
 - i. Ensuring all final and warranty inspection punch-list repairs are completed and accepted by the City.
- 2. The Engineer of Record shall be responsible for the following:
 - a. Preparing and submitting complete detailed construction plans to the City.
 - b. Scheduling and conducting a preconstruction conference prior to issuance of the PIPC Permit.
 - c. Providing primary construction inspections consistent with this Manual, City Standards, and accepted engineering practice.
 - d. Serving as authority to ensure Contractor's work conforms to authorized plans and specifications. Note: This does not mean to imply responsibility or authority over Contractor's ways and means.
 - e. Coordinating and providing certified test results for required testing.
 - f. Requesting TV inspections and waterline testing.
 - g. Submitting a written request for the final inspection including support documents.
 - h. Notifying and furnishing plans to franchise utilities and the US Postal Service, and resolving franchise and City utility conflicts.
 - i. Preparing stamped and signed as-built drawings as outlined in Section II Step 5.

- 3. The City shall be responsible for the following:
 - a. Reviewing submitted construction plans. Plan reviews are typically completed within fifteen business
 days of receipt of a <u>complete</u> plan set including associated support documentation such as
 Transportation Impact Analyses, detention, and water quality calculations.
 - b. Processing project security.
 - c. Calculating and collecting PIPC permit fees and issuing the PIPC Permit upon receipt and approval of all *Permit Application Checklist* (Form II) items.
 - d. Assisting in issue resolution and facilitating conformance with requirements.
 - e. Scheduling television inspections, witnessing/conducting quality assurance tests, and conducting a final inspection as outlined in this Manual.
 - f. Verify completion of Warranty Initiation Checklist items (Form XVII).
 - g. Accepting the improvements subject to a warranty period.
 - h. Conducting a warranty inspection and verifying completion and acceptance of warranty repairs.
- C. Standards, Guides, and Manuals

City Standards, Guides, and Manuals may be downloaded without cost from the City's website.

D. Discrepancies, Omissions, and Inconsistencies

In resolving inconsistencies between the authorized plans and the *Standard Construction Specifications*, precedence shall be given in the following order:

PIPC Special Permit Conditions PIPC Permit Procedure Manual Standard Construction Specifications Authorized Plans*

* Figure dimensions on plans shall take precedence over scale dimensions and detailed plans shall take precedence over general plans.

SECTION II – PIPC PERMIT PROCEDURES

This Section provides a general description of the PIPC process. Specific PIPC applications and permits may vary from the general process. If there are questions about the applicability of the general description to a specific project, the Applicant should direct inquiries to Development Review Engineering at (541) 766-6941. The City of Corvallis reserves the right to change this process without notice at any time.

Plan authorizations are valid for six months. If a permit has not been issued within six months after plan authorization then the authorization expires, and the plans will need to be resubmitted for authorization and will be subject to City Codes and Standards in effect at the time of re-application.

Step 1 – Plan and Support Documentation Submittal

- A. Complete and submit to Development Review Engineering an *Intake Form for PIPC Plan Review* (Form I) along with stamped plans as described below.
- B. The Engineer of Record shall prepare and submit to Development Review Engineering seven complete sets of stamped and signed detailed construction plans, on 24 inch by 36 inch sheets. At least one set shall be wet signed. Plans shall contain, at a minimum, the following information on scaled drawings:
 - 1. A cover sheet with project title, vicinity map, sheet index, and an overall site plan showing lot lines, ROW lines, public and franchise utility lines (existing and proposed), drainage ways, and other pertinent features. Private facilities should be noted and labeled as private.
 - 2. Separate plan and profile drawings for each utility with all utility crossings shown and clearances labeled.
 - 3. Stationing for all manholes, service taps, valves, fittings, and other appurtenances labeled on both plan and profile drawings.
 - 4. Plan, profile, cross-sections, and curb return data for street designs. Street design information must also include centerline radii and dimensions for sidewalks, landscaped parkways, and ROW.
 - 5. Reference to, and inclusion of, appropriate *Standard Detail Drawings*.
 - 6. Details for waterline valve configurations.
 - 7. A Street Light and Conduit Plan that includes the locations and specifications for all poles, transformers, utility service/transformer pedestals, meter/disconnect cabinets with circuits, wiring, junction boxes, and conduit necessary for construction per the City's *Standard Construction Specifications*. The Plan must include dimensions between these structures and dimensions from the curb line. Details of all proposed structures must also be included.
 - 8. A "streetscape" plan that incorporates the following features: composite utility layers, ROW and property lines, existing street center and edge lines, existing and proposed traffic signals, street lights and related structures (conduit, pedestals), proposed driveway locations, vision clearance triangles for all intersections, existing and proposed street striping and signing (in conformance with the MUTCD), existing and proposed sidewalks, dimensions showing location of curb from ROW lines, and proposed street tree locations and tree species. Refer to *Land Development Code 4.2.30* for tree/utility separation requirements.
 - 9. For water quality and detention facilities, include a design summary table. An example table identifying the required information is included in the forms section of the PIPC Manual.

- 10. A landscaping and irrigation plan showing types, locations and quantities of specified plant materials, and irrigation systems for public stormwater detention and stormwater quality facilities.
- C. In conjunction with the submittal of detailed construction plans described above, the Engineer of Record shall prepare and submit to Development Review Engineering:
 - 1. Three complete sets of calculations and support data used for all engineering designs including: detention and water quality, transportation impact, and geotechnical. The calculations shall include an executive summary describing approach and conclusions and shall be stamped by an Oregon licensed Engineer.
 - 2. A statement from the Engineer of Record indicating how all conditions of approval from the public hearing process are addressed.
 - 3. Certification by the Engineer of Record that existing utility locations have been reviewed for conflicts, that Franchise Utility representatives have been provided copies of the plans, and that potential for franchise utility relocation has been addressed pursuant to applicable Franchise Utility Agreements.
- D. Upon receipt of plans and associated support documentation, the City will review and, typically, can complete review within 15 business days. After the review is complete, the City will authorize the plans or provide a letter outlining required revisions. However, if the plans are incomplete, a letter of incompleteness may be issued instead.
- E. After receipt of revised plans following a review, the City will re-review and, typically, within fifteen business days, authorize the plans or provide another letter describing required revisions.
- F. Authorized plans will be stamped "Authorized for Construction" signed, and dated by the City.

Step 2 – Permit Issuance

PIPC plan authorization and permit issuance are each effective for six months. If a permit has not been issued within six months of plan authorization or construction has not commenced within six months of permit issuance, re-application will be required and improvements will be subject to City Codes and Standards in effect at the time of re-application.

- A. Upon authorization of the plans, the following items must be submitted prior to scheduling of a Preconstruction Conference and issuance of the PIPC Permit:
 - 1. A completed and signed *Application for Permit to Construct Public Improvements Under Private Contract* (Form III), including fully executed *Special Permit Conditions* (Appendix B).
 - Seven sets of plans to be stamped "Authorized for Construction of Public Improvements," signed and dated by the City. Five of the seven sets are retained and two are returned to the Applicant.
 Note: Provide one 11 inch × 17 inch plan set for field use.
 - 3. An electronic copy of the plans (in a non-executable AutoCAD or dxf, and pdf files) with reference to at least two state plane coordinates (NAD83/91 HARN). Questions on format or obtaining state plane coordinates should be addressed to the City's GIS group at (541) 766-1742. Control information may be accessed at the City's website: ftp://ftp.ci.corvallis.or.us/pw/engineering/Survey%20Data/Control/
 - 4. A Certificate of Insurance in the Contractor's name, identifying the project name and permit number and naming the City of Corvallis as additional insured. Note: If the project name and permit number are missing, the certificate cannot be accepted. The certificate shall contain substantially the following statement: "The Insurance covered by this certificate will not be canceled or materially altered, except after 30 days written notice has been received by the City." The amounts shall be as follows:
 - a. <u>Comprehensive or Commercial General Liability Insurance</u>—the Contractor shall maintain during the life of the project such Comprehensive or General Liability Insurance as shall protect them, the City, the Engineer of Record, and any Subcontractor performing work covered under the PIPC permit from claims of damages for bodily injury, including accidental death, as well as from claims for property damage, which may arise from negligent operations during the project, whether such operations be by themself or by any Subcontractor or by anyone directly or indirectly employed by either of them.
 - This insurance shall include personal injury coverage, contractual liability coverage for the indemnity provided for under this contract, and products/completed operations liability. Combined single limit per occurrence shall not be less than **two million dollars** when applicable.
 - b. <u>Business Automobile Liability Insurance</u> the Contractor shall maintain during the life of the contract such Business Automobile Liability Insurance as shall protect them, the City, the Engineer of Record, and any Subcontractor performing work covered under the PIPC permit.

This coverage may be written in combination with the Comprehensive or Commercial General Liability Insurance. Combined single limits per occurrences shall not be less than **two million dollars** or the equivalent.

- 5. A Contractor's *Indemnity Agreement* (Form IV), signed and notarized.
- 6. A signed and notarized Stormwater Facilities Agreement (Form V).
- 7. A detailed project schedule. This schedule will be used to establish a completion date within a *PIPC Improvements Security Agreement* (Form VIII) if the plat is to be recorded.

- 8. Traffic control plans must be reviewed and approved by the Engineer of Record and be consistent with the Oregon Department of Transportation (ODOT) *Short Term Traffic Control Handbook* and the MUTCD. Traffic control plans must address all modes of travel, including bicycle, pedestrian, and transit. The traffic control plan must be submitted for review and approval a minimum of five working days in advance of the work. If applicable, No Parking signs shall be posted a minimum of 48 hours prior to their effective date.
- 9. The Engineer of Record's Scope of Work describing their specific responsibilities: performing regular inspections, confirming conformance to plans and specifications, submitting as-builts, etc.
- 10. Approved Erosion Prevention and Sediment Control Permit and/or Grading and Excavation Permit, as applicable. This permit is processed through Development Services at (541) 766-6929.
- 11. Confirmation that applicable Land Use Conditions of Approval have been satisfied.
- 12. Copies of tap cards for any water meters larger than two inches and double detector check valve bypass meters. These cards are processed through Development Services at (541) 766-6929.
- 13. Copies of any other required permits or documentation requested by the City Engineer, such as permits from Benton County, ODOT, Division of State Lands, DEQ, Army Corps of Engineers, ODF&W, Railroad, etc.
- 14. Any necessary off-site recorded easements. Standard forms are provided in Section IV.
- 15. An *Estimate Summary Worksheet* (Form XVIII) with itemized Bid Tab or a stamped, itemized Engineer's Estimate with itemized costs for construction.
- 16. Payment of PIPC permit fees based on the total cost of construction for the public improvements itemized in No. 15 above as outlined in *Corvallis Municipal Code Article 8.03.400*, plus applicable television inspection fees, infrastructure cost recovery charge, and street improvement prepayment, as applicable.
- 17. Performance security in accordance with Land Development Code 4.0.20.
 - a. Where a land division is proposed
 - i. If Applicant chooses to install the improvements, the subdivision plat shall contain all the required certifications except the County Surveyor and the Board of County Commissioners. The plat shall be kept by the City until the improvements have been completed and approved by the City Engineer (*Land Development Code 2.4.40.08.a*).
 - ii. If Applicant chooses to record a final plat prior to warranty initiation of PIPC improvements, a *PIPC Improvement Security Agreement* (Form VIII) shall be executed and a performance guarantee per *Land Development* Code 2.4.40.09 shall be provided. Performance security shall be established at 120 percent (*Land Development Code 2.4.40.09.b*) of the total cost of construction for the public improvements identified in No. 15 above. The Agreement shall reference a completion date based on the project schedule submitted in No. 7 above and as acceptable to the City Engineer.
 - b. Where a land division is not proposed
 - i. Public improvements shall be installed or secured prior to the issuance of building permits, and in accordance with the applicable provisions of *Land Development Code 2.4.40.12*.

Step 3 – Preconstruction Conference

- A. When plans have been authorized <u>and the permit items noted above have been submitted</u>, a preconstruction conference can be scheduled, held, and conducted by the Engineer of Record. The preconstruction conference must be held prior to issuance of the PIPC Permit and the start of construction. The Engineer of Record must provide five business days' notice to the City prior to the preconstruction conference.
- B. The Engineer of Record shall inform the Applicant, Contractor, City, and representatives from all pertinent franchise utilities (power, TV cable, natural gas, telephone) of the time and location of the meeting and request their attendance.

Items to be discussed include, but are not limited to:

- Roles and responsibilities of the Applicant, Engineer of Record, Contractor, City, and franchise utility
 representatives. The Engineer of Record shall be the point of contact for the development team.
 Coordination of communication between the development team and the City will be managed by the
 Engineer of Record. The City's point of contact will be the Field Representative assigned to the project.
- 2. All PIPC projects require a detailed schedule, updated weekly in writing and submitted to the Field Representative by the Engineer of Record. The schedule must list major activities such as system connections, initial installation of infrastructure features (i.e., the first catch basin, ADA ramp, etc.), paving, pavement marking installation, quality assurance testing, phasing transitions, and any other item potentially affecting City staff or the public.
- 3. Scheduling of trenching by the Contractor for franchise utility installation.
- 4. Erosion prevention and sediment control and site weatherization.
- 5. Traffic control, dust control, and the City's noise ordinance: The Engineer of Record must submit a traffic control plan for City approval. The Engineer of Record shall monitor, and be responsible for, plan implementation and performance throughout construction.
- 6. Haul routes shall be selected to minimize damage to City streets and generally route trucks to major streets as directly as possible.
- 7. City involvement for taps to live waterlines and valve operation is required.
- 8. The Engineer of Record shall verify in writing that the proposed products conform to the *Standard Construction Specifications*. Products for which verification must be submitted include, but are not limited to: pipe and fittings, valves, meters greater than two inches, meter and valve boxes, fire hydrants, manhole and catch basin components, cleanout covers, grout, aggregate, asphaltic and portland cement concrete, geotech fabrics, tack, traffic signal and street light components, street striping, and pavement markings. Verification must be provided to the Field Representative prior to placement or installation.
- 9. Exceptions for products or materials not meeting the *Standard Construction Specifications* must be submitted for review and approval at least ten business days prior to installation.
- 10. Provision of weekly inspection reports including test results and locations: The Engineer of Record shall conduct adequate site visits to monitor the progress of the work and verify compliance with the authorized plans and specifications. These site visits shall be comprehensive enough to allow the Engineer of Record to stamp "As-Built" or "Record Drawings" on the plans and ensure the as-built drawings accurately represent the actual finished work product according to accepted engineering practice.
- 11. Process for field revisions (and change orders where SDC reimbursement is sought) and required approvals for requested revisions: The Engineer of Record shall prepare and submit written

documentation of any design or material deviation from authorized plans and specifications that affects the finished product. This documentation shall be submitted at least two business days prior to implementing the change to allow for City review and concurrence. Any deviating work performed without prior City review and concurrence may be rejected.

- 12. TV inspections.
- 13. Procedures for requesting required inspections for work impacting adjacent properties or ROW.
- 14. Appropriate public notification that may be required for work impacting adjacent properties or ROW.
- 15. Durable pavement markings.
- 16. Weekly meetings: Unless otherwise waived or altered by the City, on-site weekly meetings shall be held to discuss the work. At a minimum, the Engineer of Record, Contractor, and Field Representative shall attend these meetings.

Step 4 – Construction and Testing

- A. The Engineer of Record shall notify the Field Representative, within the time frames specified below, in advance of the following situations to ensure that the Field Representative can be present on-site:
 - 1. Any over-excavation: provide two business days' advance notice;
 - 2. Hot taps: provide 10 business days' advance notice;
 - 3. Line flushing: provide two business days' advance notice;
 - 4. Pressure and chlorination testing of public water lines: provide two business days' advance notice;
 - 5. Pavement marking: provide 10 business days' advance notice; and
 - 6. Connections to existing manholes: provide two business days' advance notice.
- B. The Engineer of Record shall be responsible for scheduling, monitoring, reporting, and verifying the results of the tests detailed below. Reports shall include all tests conducted, including failing tests, as well as a map indicating the locations of all field density tests. All required compaction tests for street subgrade and base course shall be separate from compaction tests for trenches (i.e., tests conducted for either streets or trenches cannot be applied toward the requirements of the other).

1. Streets

- a. Subgrade and Base Compaction
 - i. A minimum of one field density test shall be conducted on compacted material every 50 linear feet. In the event that any test indicates less than the specified percent compaction, the substandard area shall be defined by additional testing and shall be re-compacted with additional tests conducted at the same locations until test results indicate the material has met or exceeded the specified percent compaction.
 - ii. If the required compacted depth of the subgrade materials exceeds six inches, it shall be constructed in two or more layers of approximately equal thickness. The maximum compacted thickness of any one layer shall not exceed six inches.
 - iii. All base course material must be supplied with test results as specified in the *Standard Construction Specifications*. Required test results include: percent fracture, durability, sand equivalent, liquid limit and plasticity, and gradation.
 - iv. Moisture density curves shall be conducted per procedures set forth in AASHTO T-99. Minimum density in the field shall be 95 percent of the maximum dry density. A new moisture density curve shall be developed for each type of material encountered. Additionally, a new moisture density curve shall be developed for every 500 linear feet of compacted-in-place material or when the Field Representative determines a change in source material has occurred. All moisture density curves for aggregate shall only be valid for a period of 30 days from the date they were generated. Field density tests shall be conducted as noted above, with all tests being run in the direct transmission mode. In instances when direct transmission cannot be utilized, alternative methods may be proposed.
 - v. Over-excavation shall conform to the Standard Construction Specifications.

b. Asphalt Pavement

- i. For dense graded Hot Mix Asphalt Concrete, the mixture shall be compacted to at least 92 percent of the theoretical maximum density (Rice Density) as determined by ODOT TM 306.
- ii. The Job Mix Formula is the stamped mix design for the project, per ODOT *Standard Specification* Section 00745, Hot Mix Asphalt Concrete and as approved by the City Engineer.

c. Portland Cement Concrete Pavement

i. Compressive strength specimens, air entrainment, and slump tests shall be taken for every 50 cubic yards of concrete with a minimum of one series of tests per day. A minimum of four specimens shall be molded with one of those being tested at seven days, two at 28 days and the remaining one as a hold. The compressive strength shall be the average of two or more 28 day specimens from the same truck with no more than 500 psi of difference in the strengths. In the event that the first 28 day specimen does not meet the design strength, then the remaining 28 day specimen and hold specimen shall be tested for average compressive strength at 56 days.

d. Curbs

i. Compressive strength tests for extruded curbs are not required unless, due to situations that arise in the field, the Engineer of Record or the Field Representative determines such tests are necessary. Poured in place curbs will be tested according to the above-noted procedures.

2. Sanitary and Storm Sewer

- a. (Sanitary sewer only) Air test of lines, including service lines.
- b. (Sanitary sewer only) Manhole leakage testing, which includes vacuum testing (to be conducted after final lift of paving when all manholes have been set to finish grade) and visible leak inspection (visible leaks constitute a failure). All manholes, including existing manholes with new connections, shall pass leakage testing.

c. Trench Backfill

- i. Material tests for aggregate backfill per the Standard Construction Specifications.
- ii. For trench compaction, a minimum of one field density test shall be conducted on compacted material for every 50 linear feet, or fraction thereof, of trench and for every three feet, or fraction thereof, of fill placed. Unless otherwise specified, mechanical compaction of all pipe zone material and trench backfill material is required. The material shall be compacted according to the pipe manufacturer's recommendations and in lifts of appropriate thickness for the type of equipment being used, to a density of 95 percent of the maximum relative density as determined by AASHTO T99. The method of compaction shall be modified as necessary to protect the pipe. At the option of the City Engineer, backfill density tests may be taken at any time and location.
- iii. Moisture density curves shall be conducted per procedures set forth in AASHTO T-99. Minimum density in the field shall be 95 percent of the maximum dry density. A new moisture-density curve shall be developed for each source of material. Additionally, a new moisture curve shall be developed for every 500 linear feet of compacted-in-place material or when the Field Representative determines a change in source material has occurred. All moisture density curves for aggregate shall only be valid for a period of 30 days from the date they were generated. Field density tests shall be conducted as outlined above, with all tests being run in the direct transmission mode.

d. Deflection (mandrel) Test

- i. Deflection tests shall be performed by the Contractor and witnessed by the Engineer of Record.
- ii. PVC pipe shall be subject to a deflection test after the trench backfill and compaction has been completed. The test shall be conducted by pulling an approved mandrel through the completed pipeline. The diameter of the mandrel shall be not less than 93% of the pipe diameter unless otherwise specified by the City Engineer. Any sections of pipe that do not pass this test shall be located and removed or repaired.

e. Television Inspection

- PIPC permit fees cover TV inspection by the City one time only for final inspection and, one time only, for warranty inspection. All public lines 4 inches and larger are included in the TV inspection.
- ii. The Engineer of Record shall notify the Field Representative, in writing, five business days prior to the requested TV inspection date. The results of mandrel, pressure, and backfill density tests shall be submitted prior to or concurrent with the TV inspection request. The Engineer of Record shall allow the City a minimum of five business days to complete TV inspections. The five working days shall be working days following the requested date on the notification. The Engineer of Record shall allow one additional business day to complete the inspection for each 500 lineal feet of pipe over 2,000 lineal feet. The Contractor shall construct no improvements over sewers/drains until they are inspected and accepted. A TV inspection will be scheduled for separate completed sections of the project to allow paving only with prior approval by the City Engineer.
- iii. In the event TV inspections cannot be completed due to improperly cleaned systems, incomplete systems, inadequate site access, or when repairs are required to be verified, Applicant will be responsible for the cost of additional TV inspections. The schedule for completing TV inspections, when additional inspections are required, will be at the convenience of the City.
- iv. The Contractor shall be responsible for de-watering the trenches as specified in *Section III.1.D.05* of the *Standard Construction Specifications*.

3. Waterlines

a. Trench Backfill

- i. Material tests for aggregate backfill per the Standard Construction Specifications.
- ii. For trench compaction, a minimum of one field density test shall be conducted on compacted material for every 50 linear feet, or fraction thereof, of trench and for every three feet, or fraction thereof, of fill placed. Unless otherwise specified, mechanical compaction of all pipe zone material and trench backfill material is required. The materials shall be compacted according to the pipe manufacturer's recommendations and in lifts of appropriate thickness for the type of equipment being used, to a density of 95 percent of the maximum relative density as determined by AASHTO T99. The method of compaction shall be modified as necessary to protect the pipe. At the option of the Engineer, backfill density tests may be taken at any time and location.
- iii. Moisture density curves shall be conducted as per procedures set forth in AASHTO T-99. Minimum density in the field shall be 95 percent of the maximum dry density. A new moisture-density curve shall be developed for each source of material. Additionally, a new moisture curve shall be developed for every 500 linear feet of compacted in place material or when the Field Representative determines a change in source material has occurred. All moisture density curves

for aggregate shall only be valid for a period of 30 days from the date they were generated. Field density tests shall be conducted as outlined above, with all tests being run in the direct transmission mode.

b. Angle Stop Location Verification

- i. Verification of both horizontal and vertical angle stop alignment shall be provided in writing by the Engineer of Record (refer to *Standard Detail No. 306*).
- ii. No initial flush, pressure or bacteriological testing of waterlines will be conducted by the City until curbs have been constructed; angle stop locations verified; and all thrust blocking poured with a three-day cure.

c. Initial Flush

i. Prior to any waterline testing, an initial flush shall be performed on all new main lines, hydrants and appurtenances such that a velocity of 2.5 fps is achieved through the new main.

d. Pressure and Leakage Testing

- i. The Field Representative shall be notified of all pressure tests a minimum of two business days in advance.
- ii. Testing shall be performed per AWWA standards and the tests shall be conducted by the Contractor and witnessed by the Field Representative.
- iii. Pressure tests shall be made on all valved sections of newly laid main and service pipe. Pressure tests shall be conducted prior to disinfection of the line only after all curbs have been placed and angle stop locations verified. All entrained air shall be expelled from the line prior to elevating to test pressure. The test pressure shall be 150 psi (minimum) calculated for the point of highest elevations but shall not exceed 200 psi at any point. The test pressure shall be applied and maintained for a two-hour duration. Thrust blocking required for any reach of pipe shall have a minimum of three days cure time prior to pressure testing.
- iv. A leakage test shall be conducted concurrently with the pressure test. The City shall furnish the pressure gauge and monitor the test and the Contractor shall furnish the pump, pipe, connections, and all other necessary apparatus and shall conduct the test. Testing shall be against closed hydrants with pipeline valves open. In addition, the test shall include the service lines to the closed meter stops with corporation stops open.

e. Chlorination

i. New waterlines must be chlorinated to a minimum 25 parts per million (ppm) and must have a residual of 10 ppm after 24 hours. After chlorination, waterlines shall be flushed to achieve upstream main line residual. All hyper-chlorinated water must be flushed into the sanitary sewer system. After flushing, the line shall remain closed for an additional 24 hour period for regrowth.

f. Microbiological Testing

- i. The Field Representative shall perform all required microbiological tests.
- ii. Microbiological samples shall be taken after the regrowth period if the chlorine residual is less than 1 ppm or if it matches the residual of existing waterlines upstream of the new waterlines. Note that water samples must reach the lab no later than 12:00 p.m., Monday through Thursday. In the event that the sample is positive, the line shall be retested, including chlorination.

4. Streetlights

a. Inspection

- i. Two separate permits are required for streetlight installations: an electrical permit from Development Services and the PIPC permit.
- ii. Streetlight conduit (before burial), junction box connections, and service cabinet wiring requires electrical inspections from Development Services. After approval, Development Services will green tag the cabinet prior to the electrical company providing power.
 - The City Transportation Maintenance Supervisor is responsible for requesting the power utility company to energize the cabinet.
- iii. Public Works staff will inspect the streetlight system at the PIPC final inspection and may perform spot inspections throughout the installation process.

b. Installation

- i. ODOT Blue and Green sheet submittals are required prior to beginning installation.
- ii. All wiring needs to be enclosed in conduit or junction boxes. No exposed wiring is allowed. No underground splices are allowed outside of junction boxes.
- iii. Conduit shall be installed at the front (closer to the street) side of the sidewalk, and one foot of separation maintained at crossings, between meter boxes, and cleanouts. The minimum burial depth is 30 inches. Conduit shall be two-inch minimum and sized in accordance with National Electric Code (NEC). Yellow #12 AWG conductor shall be installed as a "tracer" wire for future locating of all empty streetlight conduits. Conduit bushing and duct seal must be provided at the end of each conduit.
- iv. Junction boxes are required for each streetlight and shall be clearly and permanently labeled as "Street Lighting" or "Lighting." Junction boxes must be installed on a gravel base.
- v. A single master photocell shall be installed on the pole nearest the service cabinet. A test switch that bypasses the photocell control and energizes the streetlights shall be located in the service cabinet.
- vi. Galvanized steel or other approved conduit clamps must be used when installing conduit onto wooden poles. Plastic conduit clamps are not allowed.

Step 5 – Final Inspection

- A. When all work is complete, the Engineer of Record shall use and stamp the *Notice of Completion* (Form XIV) to provide the City with written notification of completion and to request a final inspection. This Notice must be submitted before the City will conduct a final inspection and accept the improvements into warranty. Submission of this Notice must also include:
 - 1. Notice of Franchise Installation by Developer (Form IX) for each franchise utility.
 - 2. All test results, certified by the Engineer of Record.
 - 3. All required easements, dedications, and/or plats, signed by the grantor, for City signatures (see Section III for more information). Standard forms are provided in Section IV. All documents must be recorded at the Developer's expense prior to warranty initiation. Note that dedications and plats require an environmental assessment.
 - 4. A preliminary paper copy of as-built drawings, 11 inch × 17 inch or full size, must be submitted with the request for the final inspection for City review. Final copies must be submitted and approved prior to acceptance of the project and initiation of the warranty period. Final as-built drawings shall reference all recording numbers for all applicable easements and/or dedications as well as other recorded agreements, such as irrevocable petitions, for public improvements. Questions concerning electronic as-built format should be directed to the City's GIS group at (541) 754-1742. Requirements for final paper and electronic as-built drawings are:
 - a. Two stamped and wet-signed full size paper copies
 - b. One copy, AutoCAD electronic drawings (.dwg or .dxf file type)
 - c. One copy, PDF or TIFF electronic drawings (.pdf or .tiff file type)
 - 5. For public stormwater detention and water quality facilities, a warranty and maintenance period of two years from acceptance will be established. The terms for the warranty and maintenance period shall be specified under the following documents:
 - a. Stormwater Facilities Agreement (Form V); and
 - b. Stormwater Facilities Maintenance Plan prepared in conformance with the *Stormwater Design Standards*.
- B. Upon receipt of all items noted above, the Field Representative will schedule and conduct a final inspection of the project within ten business days.
- C. After final inspection, the Field Representative will provide a written correction notice (punch-list) identifying repairs that must be made prior to acceptance of the public improvements.

Step 6 – Warranty Initiation and Termination

- A. Except for public stormwater detention and/or water quality facilities, public improvements are subject to a one-year warranty from the date of City acceptance. Stormwater detention and/or water quality facilities are subject to a two-year warranty and maintenance period from the date of City acceptance. The City accepts public improvements upon satisfaction of the following requirements:
 - 1. All required final inspection corrections have been completed; and
 - 2. Final paper and electronic (non-executable AutoCAD or dxf, <u>and</u> pdf files) as-built drawings have been submitted; and
 - 3. Copies of all required recorded easements, dedications and/or plats, and applicable environmental assessments have been submitted (See Section III); and
 - 4. Warranty Security has been established:
 - a. Except for stormwater detention and/or water quality facilities, the one-year warranty security amount shall be equal to ten percent of the total cost of construction for the public improvements or \$2,500, whichever is greater.
 - b. For stormwater detention and/or water quality facilities, the two-year maintenance and warranty security amount shall be equal to 20 percent of the total cost of the construction for the stormwater facilities or \$5,000, whichever is greater.
- B. Upon receipt of all required documents and information, the City will provide a letter to initiate the warranty period and define the terms of the warranty.
- C. The City will provide written notification for correction of any deficiencies that arise during the warranty period. In addition, the City will conduct an inspection prior to the end of the warranty period. Any deficiencies identified during the warranty period shall be corrected according to the *Standard Construction Specifications* and the terms outlined in the corrections letter.
- D. The warranty period will not be terminated, and warranty security will not be released, until all items identified for correction have been completed and accepted by the City. Following satisfactory repair, the City shall terminate the warranty and release the warranty funds. If warranty repairs are not completed in a timely manner, as determined by the City Engineer, the City may cause the repairs to be completed at Applicant's expense.

SECTION III – PLATS, DEDICATIONS, AND EASEMENTS

- A. All ROW, drainageway dedications, easements. and City utility easements required with a PIPC permit that are not recorded on a subdivision or partition plat must be reviewed and recorded separately (at Applicant's expense) by Development Review Engineering. These documents must be recorded prior to the release of project security for PIPC permits and prior to the issuance of building permits as follows:
 - 1. <u>Prior to requesting a final inspection</u>, the Applicant must submit a completed Easement, Warranty Deed, or Plat (Forms in Section IV) with:
 - a. notarized signatures
 - b. a legal description prepared by a licensed professional land surveyor
 - c. a graphic of the easement or dedication area
 - 2. For Dedications or Warranty Deeds, the Applicant must submit an environmental assessment in conformance with *Land Development Code 4.0.100.g*.
 - 3. Staff will review the legal description and the City Attorney will review the document's format for approval. Once approved, the City Manager's signature will be obtained. Allow a minimum of 10 business days for this process, assuming no corrections are required.
 - 4. After the documents are fully executed and ready for recording, staff will contact the developer and request a check, made payable to *Benton County Recorder*, for the recording fee. When the check is received, staff will record the documents.
 - 5. If requested, a copy of the recorded documents will be forwarded to the Applicant.

CITY OF CORVALLIS DEVELOPMENT REVIEW ENGINEERING INTAKE FORM FOR PIPC PLAN REVIEW

Date Submitted:
Project Name:
Project Location:
Project Description:
ENGINEER OF RECORD
Name:
Firm:
Address:
Phone:
Email:
APPLICANT
Name:
Firm:
Address:
Phone:
Email:
CONTRACTOR (If Known)
Name:
Firm:
Address:
Phone:
Email:

CITY OF CORVALLIS PIPC PERMIT APPLICATION CHECK LIST

	ese items must be completed prior to issuance of the PIPC permit. See Step 2 – Permit Issuance in the PC Manual for more detail.
	A completed and signed Application for Permit to Construct Public Improvements Under Private Contract
	Fully executed Special Permit Conditions
	Seven sets of plans to be stamped "Authorized for Construction of Public Improvements,", signed and dated by the City. Note: Provide one 11" × 17" plan set for field use.
	An electronic copy of the plan set (in a non-executable AutoCAD or dxf, \underline{and} pdf files) with reference to at least two state plane coordinates (NAD83/91 HARN).
	Certificate of Insurance in the contractor's name, <u>identifying the project name and permit number and naming the City of Corvallis as additional insured</u> . Note: If the project name and permit number are missing, the certificate cannot be accepted.
	Signed and Notarized Contractor's Indemnity Agreement
	Signed and Notarized Stormwater Facilities Agreement, as applicable
	Detailed Project Schedule
	Traffic Control Plan approved by the Engineer of Record
	Engineer of Record's Scope of Work
	Approved Erosion Prevention and Sediment Control and/or Grading and Excavation Permits
	Confirmation that applicable Land Use Conditions of Approval have been satisfied
	Copy of tap cards for large meters (over 2-inches) and double detector check valve bypass meters
	Copies of other Agency Approvals (ODOT, Benton County, DEQ, DSL, ODFW, ACOE, Railroad)
	Any required off-site easements
	An <i>Estimate Summary Worksheet</i> with itemized Bid Tab or a stamped, itemized Engineer's Estimate including construction costs, engineering, and surveying services
	Payment of PIPC permit fees
Ap	proved and Finalized Project Security (check one):
	☐ Surety Bond No ☐ LOC/MIA: Acct No
	☐ Deposit Check No ☐ Plat (For Subdivisions Only)
	☐ Street Cut Bond (CMC 2.03)
	PIPC Improvement Security Agreement for security other than the plat
	Pre-construction conference. Note: the pre-construction conference will not be scheduled until plans are authorized by the City and the permit items noted above have been submitted. Allow five working days notice to the City prior to the preconstruction conference.
	Material submittals from suppliers as approved by the Engineer of Record
	ICR, ZOB Payments, as applicable

	FO	R C	ITY USE (ONLY			
Project Name:				I	Permit No.		
Special Conditions Attac	hed Yes I	No	Issued by:			Date:	
CITY OF COI APPLICATION FO	RVALLIS, DEVI DR PERMIT TO UNDER PR	CC	NSTRUC	T PUBLIC			
PROJECT LOCATION:							
DESCRIPTION OF WORK	- check public imp	rove	ements to be	constructed	under privat	te contract:	
☐ Water ☐ Sanitary S	ewer Streets/L	ights	s □ Stor	m Drainage	☐ Other:		
OTHER APPROVALS – ch	eck required approv	als	from other a	gencies and i	nclude copi	es of authori	zed permits:
\square DSL \square ACOE	☐ Railroad ☐ O	OOT	□ Ben	ton Co. 🗆 🗀	ODEQ	ODF&W	
PROJECT SECURITY – ch	eck applicable form	of s	security:	☐ Performa	nce Bond (No	0.:)
☐ MIA (Acct No.:		_)	☐ Plat	☐ Other:			
PROJECT COMPLETION	DATE:						
24-HOUR EMERGENCY O							
I, the undersigned, hereby a construct public improveme appropriate Standard Cons Conditions. I understand it complied with, the City Eng a stop work order and impose be undertaken prior to receiffective for six months. It has not commenced within the subject to City Codes and In Witness Whereof, the uncor principal, their representate execute this Permit Applicate.	ints under private contruction Specification of these Specification ineer has the right are a fine of \$500 per per of the authorize of a permit has not be six months of permit Standards in effect dersigned has caused tive, by signing bel	ntra ons, ons, C ond a oday d pe een it iss at the	ct (PIPC). Codes, Order Codes, Order authority, per for each date from the PIPC issued within suance, re-ap the time of re s Permit Ap	This is subjectionances, Procedures, Proce	ct to, and we cocedures, a dures and S opment Cocion continuo ization and of plan autill be required e executed.	with full known and the attack of the attack of the section 1. The section 1. The section of the	vledge of, the ched Special itions are not 3.60, to issue struction may ince are each construction wements will not is an entity
Applicant	Title			Dat	e	_	
State of OREGON County of Benton							
This instrument was acknow	ledged before me o	n				,	20,
by			_				
				NOTARY I		OR OREGON	ı

	FOR CIT	Y USE ONLY	
Project Name:			Permit No
Special Conditions Attac	ched □ Yes □ No Is	ssued by:	Date:
	RVALLIS, DEVELOP OR PERMIT TO CON UNDER PRIVAT	STRUCT PUBLI	
PROJECT LOCATION:			
DESCRIPTION OF WORK	- check public improvement	ents to be constructe	d under private contract:
☐ Water ☐ Sanitary S	Sewer	☐ Storm Drainage	☐ Other:
OTHER APPROVALS – ch	eck required approvals fro	om other agencies an	d include copies of authorized permits:
□ DSL □ ACOE	☐ Railroad ☐ ODOT	☐ Benton Co. ☐	□ ODEQ □ ODF&W
PROJECT SECURITY – ch	eck applicable form of sec	curity: Perform	nance Bond (No.:)
☐ MIA (Acct No.:)	□ Plat □ Other:	
PROJECT COMPLETION 1	DATE:		
24-HOUR EMERGENCY C	CONTACT AND PHONE		
construct public improveme appropriate Standard Considerations. I understand it complied with, the City Engal stop work order and impose undertaken prior to receiptfective for six months.	nts under private contract of truction Specifications, Confineer has the right and authorized permit of the authorized permit a permit has not been issued in the second permit is second permit in the second permit in the second permit is second permit in the second permit	(PIPC). This is sub Codes, Ordinances, des, Ordinances, Pro hority, per Land Dev or each day such violait. PIPC plan auth sued within six montance, re-application	Review Engineering, for permission to bject to, and with full knowledge of, the Procedures, and the attached Special ocedures and Special Conditions are not velopment Code Section 1.3.60, to issue lation continues. No construction may horization and permit issuance are each this of plan authorization or construction will be required and improvements will on.
	tive, by signing below, cer	* *	be executed. If Applicant is an entity esentative is authorized by Applicant to
Applicant	Title	Γ	Date
State of OREGON County of			
This instrument was acknow	ledged before me on	, 20	, by
as		of	
			Y PUBLIC FOR OREGON mission Expires

CONTRACTOR'S INDEMNITY AGREEMENT

	the project developer or agents, o		
hold harmless indemnify an	v,d defend the City of Corvallis,	a municipal corporat	Contractor, nereby agrees to ion; and each of its officers
	s, from any and all liability cla		
	of work during the construction o	of public works improv	ements described as all public
infrastructure associated with	authorized plans for:		
		Permit No	oject number)
(project name)		(pr	oject number)
by reason of any negligent ac employee, or representative of	et or omission of the Contractor any of them.	r, any Subcontractor,	or Supplier, or by any agent,
In Witness Whereof, the under	rsigned has caused this Indemnit	y Agreement to be exe	ecuted this
day of		If Contractor	is an entity or principal, its
	, 20, w, certifies that such representat	ive is authorized by the	e entity or principal to execute
this agreement.			
Contractor Representative			
State of ODECON			
State of OREGON County of Benton			
•			
	edged before me on		
by	as(Title)	of	
(Name)	(Title)		(Party)
		NOTARY PUBLIC	
		My Commission E	xpires
Approved as to Form			
City Attorney			
City Attorney			

Stormwater Facilities Agreement

, Develo	per, hereby states that he/she shall maintain all stormwater
detention and/or water quality facilities for:	name) ,, (project number)
	cilities by the City. The stormwater facilities shall be
secured with a Maintenance and Warranty Security (bon submitted at the time of facility acceptance by the Cit incorporated into and made a part of this Agreement.	ad/account #) to be by. These Plan(s) and Security are, by reference, hereby
Public Works Department. A punch list detailing any and Developer shall complete all punch-list repairs in a any time during the lifetime of this Agreement, the City' or any other maintenance activity, is necessary to prevent	tion of the subject facilities shall be provided by the City's required repairs will be provided in writing to Developer timely manner, as determined by the City Engineer. If at a Public Works Department determines sediment removal, went system failure and/or negative impacts to the public and Developer shall immediately complete the required
notification to the City's Public Works Department, who prior to the end of the maintenance and warranty period sediment removal will be provided in writing to Develop in a timely manner, as determined by the City Engineer.	nance and warranty period, Developer shall provide written ich shall conduct a final inspection of the subject facilities d. A final punch list detailing any required repairs and/or er, and Developer shall complete all final punch-list repairs Following completion of the final punch-list repairs, and Department, this Agreement shall be terminated. Written
If punch list or other repairs are not performed as speci Developer's expense under the terms of the Maintenance	ified herein, the City may cause the repairs to be made at e and Warranty Security.
	s Stormwater Facilities Agreement to be executed. If y signing below, certifies such representative is authorized
Developer Date	
State of OREGON County of Benton	
This instrument was acknowledged before me on	, 20,
by	
	NOTARY PUBLIC FOR OREGON
	My Commission Expires
Approved as to Form	,
City Attorney	

Stormwater Facilities Agreement

,I	Developer, hereby states that he/she shall maintain all stormwater
detention and/or water quality facilities for:	project name) ,,
for a period of two years after acceptance of	the facilities by the City. The stormwater facilities shall be stenance Plan(s). Their maintenance and warranty shall be
secured with a Maintenance and Warranty Securit submitted at the time of facility acceptance by the incorporated into and made a part of this Agreement	by (bond/account #) to be the City. These Plan(s) and Security are, by reference, hereby tent.
Public Works Department. A punch list detailing and Developer shall complete all punch-list repair any time during the lifetime of this Agreement, the or any other maintenance activity, is necessary to	inspection of the subject facilities shall be provided by the City's g any required repairs will be provided in writing to Developer rs in a timely manner, as determined by the City Engineer. If at e City's Public Works Department determines sediment removal to prevent system failure and/or negative impacts to the public writing and Developer shall immediately complete the required
notification to the City's Public Works Department prior to the end of the maintenance and warranty sediment removal will be provided in writing to Dein a timely manner, as determined by the City Eng	naintenance and warranty period, Developer shall provide written nt, which shall conduct a final inspection of the subject facilities period. A final punch list detailing any required repairs and/or eveloper, and Developer shall complete all final punch-list repairs gineer. Following completion of the final punch-list repairs, and forks Department, this Agreement shall be terminated. Writter eloper.
If punch list or other repairs are not performed as Developer's expense under the terms of the Maint	s specified herein, the City may cause the repairs to be made a tenance and Warranty Security.
	ted this Stormwater Facilities Agreement to be executed. If tive, by signing below, certifies such representative is authorized
Developer Date	
State of OREGON County of	
This instrument was acknowledged before me on	, 20, by
as	of
	NOTARY PUBLIC FOR OREGON My Commission Expires
Approved as to Form	
City Attorney	
City 1 ittorney	

PERFORMANCE BOND

	BOND NO	
KNOW ALL PERSONS BY THESE PRESENTS	that we,	as
Principal, and the City of Corvallis, an Oregon municipal corpora	as Surety, are jointly tion, hereinafter referred to	y and severally held and bound unto as CITY, in the sum of
	Dollars \$	for the payment of
which we jointly and severally bind ourselves, our by these presents.	heirs, executors, administr	ators, successors, and assigns firmly
This Bond is being established to cover the costs of and inspection fees, franchise utilities, contingency of project costs).		
THE CONDITION OF THIS BOND IS SUCH TH	AT:	
Whereas the Principal herein has made a improvements under private contract within CITY;		gineer for a permit to install public
Whereas these public improvements are	required to satisfy condit	ions of building permit/minor land
partition/subdivision No	; and	
Whereas said permit application was appro- issued, subject to and upon certain conditions, including completion dates, provided for in said made a part of this bond to the same extent and ef- the terms, provisions, specifications, and requirement	directions, stipulations, te permit, a copy of which p fect as if written herein and	rms, provisions, and requirements, ermit is attached hereto and hereby d specific reference now made to all
NOW THEREFORE, if the Principal he conditions, stipulations, directions, and requiremer enumerated herein or not, faithfully comply with tharmless CITY its officers, agents, and employees indirectly resulting from or arising out of the op connection with performance or conduct of the wand observe all of said terms, provisions, condition is void, otherwise it shall remain in full force and examples and souls this	ats of said permit and shall the same and shall assume from all claims, liabilities, erations or conduct of sai ork under said permit, and s, stipulations, directions at ffect.	in all respects, whether the same be the defense of, indemnify, and save loss, damage, or property directly or d Principal or any subcontractor in shall in all respects faithfully keep nd requirements, then this obligation
WITNESS our hands and seals this	day of	, 20
Principal	Surety	
by	by	
	Attorney-in-Fact	
Approved as to Form		
City Attorney		

PIPC Permit No.

	111 C 1 c1 mit 110.
This Mutual Improvement Agreement, hereinafter ret	ferred to as AGREEMENT, is made and entered into by and
between	the developer of
hereinafter referred to as DEVELOPER; and	, an approved
lending institution, hereinafter referred to as LEND	ING INSTITUTION; and the City of Corvallis, an Oregon
municipal corporation, hereinafter referred to as CITY	7. The promises and agreements of each being in consideration
of the promises and agreements of the other.	

The above-named parties mutually agree to the following conditions of this AGREEMENT which is hereby established to fulfill the requirements of CITY Land Development Code, Ordinance No. 93-20, as amended, and any or all other existing CITY policies and ordinances, and as a guarantee of faithful performance.

I. DEVELOPER AGREES:

- A. That a line of credit has been established at LENDING INSTITUTION, as stated in Section II.D., for the purpose of installing the improvements permitted under PIPC Permit No ______, and related engineering and inspection fees, contingency costs, warranty security, and CITY administration cost (estimated at 20 percent of the total project cost).
- B. That the amounts for each item identified in Section II.D. shall be determined from the finalized contract, engineer's estimate or contractor's bid tabulation, subject to the approval of the City Engineer. In the event the amounts established in this AGREEMENT are insufficient to cover the actual costs to construct the required improvements, DEVELOPER shall provide CITY with a new AGREEMENT, which shall have sufficient funds to complete construction of all the required improvements.
- C. That the funds established in said account, except for the warranty security, shall be used only for the construction of the public improvements and such other items as specifically itemized in Section II.D. Said funds shall be disbursed as specifically itemized in Section II.D. Said funds, with the exception of the warranty security, shall be disbursed by LENDING INSTITUTION only after CITY provides written authorization of DEVELOPER's itemized payment request.
- D. That interim disbursements may be made from the account, on the basis of the percentage of work completed, with written authorization by CITY of DEVELOPER's itemized payment request.
- E. To obtain a permit from CITY for construction of the public improvements, and for any other related items specifically identified and to notify CITY at least two business days prior to commencing construction. No construction shall be undertaken prior to receipt of the approved permit.
- F. That all required improvements shall be satisfactorily completed and accepted by CITY on or before the completion date set forth within the PIPC Permit unless a written extension of time is requested by DEVELOPER and granted by the written mutual consent of LENDING INSTITUTION and CITY.
- G. That DEVELOPER shall submit record drawings for approval of the City Engineer and, if required by conditions of approval, shall provide fully executed easements and/or dedications, along with associated recording fees, prior to CITY acceptance of the public improvements.
- H. That, <u>except</u> for stormwater detention and water quality facilities, DEVELOPER shall be responsible for all public improvements for a one-year warranty period from the date of acceptance by CITY, and DEVELOPER shall immediately correct all failures in the physical improvements so identified by CITY.

PIPC Permit No.	

- I. That, <u>for</u> stormwater detention and water quality facilities, DEVELOPER shall be responsible for all public stormwater detention and water quality improvements for a two-year warranty period from the date of acceptance by CITY, and DEVELOPER shall immediately correct all failures in the physical improvements so identified by CITY.
- J. That DEVELOPER shall establish the following funds:
 - a. A warranty fund in the amount of \$2,500 or 10 percent of the total cost of all construction items, whichever is greater, for warranty repair, and/or replacement, if necessary, with the exception of stormwater detention and water quality facilities. This warranty fund shall be maintained for the one-year warranty period described in Section I.H.
 - b. A maintenance and warranty fund of \$5,000 or 20 percent of the total cost of the stormwater facilities' construction, whichever is greater, for the maintenance, warranty repair, and/or replacement, if necessary, of the stormwater and water quality facilities. This maintenance and warranty fund shall be maintained for the two-year warranty period described in Section I.I.
 - c. The funds described in this Section shall, unless otherwise authorized for release by CITY, remain in the account through the warranty period until all warranty repairs have been accepted by CITY and CITY provides written notice of warranty termination.
- K. That if DEVELOPER fails to comply with the terms of this AGREEMENT, LENDING INSTITUTION is hereby authorized to release all funds remaining in the account, established by this AGREEMENT, to CITY upon written notification by CITY, to DEVELOPER, and to LENDING INSTITUTION that DEVELOPER has breached the AGREEMENT, notwithstanding the provisions of Section I.C. If the funds remaining in the account are insufficient, as determined by CITY, to cover the costs for completing all public improvements and such other items as specifically called for in this AGREEMENT for which the line of credit was established, including the warranty funds, DEVELOPER shall provide to CITY such additional funds as required and substantiated in writing by CITY. If said additional funds are not forwarded to CITY within 30 calendar days of the written request for such funds, CITY may file an action at law for the collection of the additional amounts plus all attorney fees and legal costs.
- L. That an amount of not less than five percent of the total amount established, exclusive of the warranty securities identified in Section I.J., shall remain in the account until the public improvements have received acceptance by CITY.

II. LENDING INSTITUTION AGREES:

- A. That a line of credit has been established for DEVELOPER for the purpose of installing the public improvements permitted under the PIPC Permit No. referenced in Section I.A., and related engineering and inspection fees, contingency costs, warranty security and CITY administration cost (estimated at 20 percent of the total project cost), in the total amount as stated in Section II.D.
- B. Funds from said account shall only be disbursed when authorized by CITY, in writing, on the basis of the percentage of work completed, with written authorization by CITY of DEVELOPER's itemized payment request. All funds so disbursed shall be paid to CITY or DEVELOPER. In no case shall the disbursement of funds from this line of credit exceed the total amount of the account, exclusive of the warranty fund, identified in Section II.D. In the event any funds shall be disbursed in violation of this AGREEMENT, LENDING INSTITUTION shall be liable for payment of such amounts to CITY. Neither LENDING INSTITUTION nor DEVELOPER may cancel the line of credit account without completion of all improvements specified in Section II.D. and written acceptance of those improvements by CITY.
- C. To establish as a part of the total account, warranty funds as specified in Sections I.J., and to release the funds from this account only upon written authorization by CITY. The warranty funds shall, unless

|--|

otherwise authorized for release by CITY, remain in the account through the applicable warranty period to secure warranty repair and/or replacement until termination of the warranty period or upon completion and written acceptance by CITY of all required warranty repairs and/or construction, whichever is later.

	established to complete the project based on	the costs
pelow:		
1. Public Streets	\$	
2. Public Street Lights	\$	
3. Public Waterlines	\$	
4. Public Sanitary Sewers	\$	
5. Public Storm Drains (less Detention	on/Water Quality) \$	
6. Stormwater Facilities (Detention/V	WQ) \$	
7. Franchise Utility Installation	\$	
8. Field Engineering, Inspection, and	1 Survey \$	
9. Materials Testing	\$	
10. Mobilization/Traffic Control & Cl	eanup	
11. PIPC Excavation and Grading (if r	not in above items) \$	
12. Total of all Construction Items ((1 – 11) \$	
13. Project Administration (20% of Total of All Above Const.)	ruction Items) \$	
14. Project Security (Line 12+13 = 12)	0%) \$	
15. 1-Year PIPC Warranty Fund (\$2,500 or 10% of Items 1 Thru 11	1 Less No. 6) \$	
16. 2-Year Stormwater Facilities Main Warranty Fund (\$5,000 or 20% of		
17. Project Total Including Warran	tv \$	

E. That a minimum of five percent of the total account, exclusive of the warranty funds, as established within DEVELOPER's itemized payment request shall be retained in the account and shall be disbursed only with CITY's written acceptance of the public improvements. This retainage shall not be construed to be the same as the warranty securities as called for in Section I.J.

F. That consistent with Section I.K., LENDING INSTITUTION hereby agrees to release all funds remaining in the account, established by this AGREEMENT to CITY upon written notification by CITY, to DEVELOPER, and to LENDING INSTITUTION that DEVELOPER has breached the AGREEMENT, notwithstanding the provisions of Section I.C.

III. CITY AGREES:

- A. To accept this AGREEMENT in lieu of a performance and payment bond or in lieu of the completed improvements required by CITY's Land Development Code, Ordinance No. 93-20, as amended, and/or by other CITY policies and ordinances, or as otherwise required by CITY, as a guarantee of performance by DEVELOPER.
- B. That after receiving written notice that all improvements have been completed, CITY shall conduct a final inspection of the improvements. CITY shall notify DEVELOPER, in writing, of all items of work that shall be corrected and/or completed prior to acceptance of the public improvements by CITY. Additionally, CITY shall make an inspection near the end of the applicable warranty period and shall notify DEVELOPER of any and all required warranty corrections. When all corrections have been satisfactorily made, CITY will notify DEVELOPER and LENDING INSTITUTION that any remaining balance in the warranty fund is no longer required.
- C. To review DEVELOPER's itemized payment request and approve or disapprove said request within 10 business days of its receipt. CITY shall only provide written authorization for DEVELOPER's last itemized payment request, together with funds retained per Section II.E., when all improvements have been satisfactorily completed and accepted in writing by CITY.

DIDC	Permit No	•	
FIFT.	reriiii N) <u> </u>	

In Witness Whereof, DEVELOPER, LENDING INSTITUTION, and CITY have caused this AGREEMENT to be executed. If a party is an entity or principal, its representative, by signing below, certifies that such representative is authorized by the entity or principal to execute this AGREEMENT.

DELIEL OPEN			
DEVELOPER			
Signature		Title	Date
State of OREGON			
County of Benton			
This instrument was acknow	ledged before me on		, 20,
By	as(Title)	of	(D. ()
(Name)	(Title)		(Party)
		NOTARY PUBLIC FO My Commission Expire	
LENDING INSTITUTION			
Signature		Title	Date
State of OREGON County of _			
This instrument was acknow	ledged before me on		, 20
By	as	of	
(Name)	(Title)		(Party)
		NOTARY PUBLIC FO My Commission Expire	
CITY OF CORVALLIS			
by			
Mark W. Shepard, City	Manager	Date	
State of OREGON County of Benton			
The foregoing instrument was by Mark W. Shepard, as City authority of its City Council	as acknowledged before me this y Manager for the City of Corva	day of day of llis, and accepted on behalf o	, 20 of the City of Corvallis by
		NOTARY PUBLIC FO	
Approved as to Form		My Commission Expire	
City Attorney			

PIPC Improvement Security Agreement

Recording use only. After recording return to: **City of Corvallis Central Administrative Services 501 SW Madison Ave** PIPC Permit No ______, _____, hereinafter referred to as APPLICANT, is the person(s) or entity applying for a final subdivision Plat associated with Land Use Decision Name/Order No.:

This space reserved for County

CITY, is the City of Corvallis, an Oregon Municipal Corporation.

Per Land Development Code (LDC) Section 2.4.40.08.b, APPLICANT and CITY hereby execute this AGREEMENT to allow recording of a final subdivision Plat prior to full completion and acceptance of required improvements (Public, Franchise, etc.). APPLICANT affirms and agrees:

- 1. That required improvements as specified in the LDC necessary to serve this development are not complete and accepted by CITY.
- 2. That it is the policy of CITY (City Council Policy 7.04) that building permits should not be issued until all required improvements are completed and accepted by CITY.
- 3. That all plans for required on-site improvements shall be authorized for construction by the City Engineer under the PIPC Permit No. referenced above prior to recording any Plat.
- 4. That any off-site improvements required for the development shall be addressed to the satisfaction of the City Engineer prior to recording any Plat (e.g., plans authorized).
- 5. That APPLICANT shall provide a performance guarantee for the required improvements meeting the requirements of LDC Section 2.4.40.09 prior to recording any plat. For this AGREEMENT, this

guarantee is established as (Bond/Acct No.)

- 6. That all required improvements shall be satisfactorily completed and accepted by CITY on or before the completion date set forth within the PIPC Permit, unless mutually extended in writing.
- 7. That if required improvements are not complete as described herein, CITY may cause the work to be completed and recover the full cost and expense thereof from APPLICANT and/or their surety.
- 8. That all potential lot purchasers shall be informed in writing that required improvements have not been accepted and that CITY shall not be liable regarding the timing of such acceptance and ability to obtain building permits, connect, or occupy.

In Witness Whereof, the undersigned has caused this AGREEMENT to be executed. If APPLICANT is an entity or principal, its representative, by signing below, certifies that such representative is authorized by APPLICANT to execute this agreement.

PIPC Improvement Security Agreement

PIPC Permit No	,		
	,	APPLICANT, is the person(s) or entity applying for a
final subdivision Plat associa	ted with Land Use Decision	Name/Order No.:	
APPLICANT		-	
Signature		Title	Date
State of OREGON County of Benton			
This instrument was acknow	ledged before me on		
By(Name)	as(Title)	of	(Party)
		NOTARY PUBLIC F My Commission Expi	OR OREGON res
CITY OF CORVALLIS			
by Mark W. Shepard, City N	Manager	Date	
State of OREGON County of Benton			
	Manager for the City of Co	this day of orvallis, and accepted on behalf	
		NOTARY PUBLIC F	OR OREGON
		My Commission Expi	res
Approved as to Form			
City Attorney			

NOTICE OF FRANCHISE INSTALLATION

(Date)		
City of Corvallis Development Review Engineering P.O. Box 1083 Corvallis, OR 97339		
PIPC PROJECT NUMBER PIP PROJ	ECT NAME	
NOTICE OF FRANCHISE INSTALLAT	TION BY DEVELOPER	
The developer's obligation to install france Code Section 4.0.90 for the above-reference		e City of Corvallis Land Development
(Franchise Utility)	hereby acknow	vledges that the developer of the
above-referenced project has constructed	the necessary improvements requir	ed prior to
	completion of	-
(Franchise Utility)		
(Type of services provided by the Franchise Utility)	service to each	ı lot.
Franchise Utility Company Name	Franchise Utility Representative	Date
Engineer of Record	Date	
		Affix PE Stamp Here

EASEMENT

After recording return to:

City of Corvallis Central Administrative Services 501 SW Madison Avenue	
KNOW ALL PERSONS BY THESE PRESENTS, that	
, hereinafter	
referred to as GRANTOR, is the owner of real property described herein and does hereby and forever grant unto the City of Corvallis, an Oregon municipal corporation, hereinafter referred to as CITY, a permanent easement and right-of-way over and aldescribed as follows; to wit:	long the full length and width of the premises
REFER TO ATTACHED EXHIBIT(s),,	
Area of Easement: (total SF)	
With the right, privilege, and authority, to CITY to construct, main	tain, replace, reconstruct, and/or remove a
Public, with all therewith, on, under, and across the said premises, and to cut and repostructions which may endanger the safety or interfere with the constructions.	move from said right-of-way any trees and other
Public, and the nabove described premises at any and all times for the purpose of of the enjoyment of the Easement hereby granted.	right of ingress and egress to, over, and from the doing anything necessary, useful, or convenient

This space reserved for County

Recording use only.

GRANTOR RESERVES THE RIGHT to use the surface of the premises for walkways, driveways, planting, and related purposes to the extent such use is consistent with CITY's construction, use, and maintenance of said facility on the premises. No building or other permanent structure that would enjoin CITY from the intended purpose of this Easement shall be placed upon the premises without the written permission of CITY.

EASEMENT

In Witness Whereof, the undersigned have caused this Easement to be executed. If GRANTOR is an entity or principal, their representative, by signing below, certifies that such representative is authorized by GRANTOR to

execute this Easement. **GRANTOR** Date State of OREGON County of Benton NOTARY PUBLIC FOR OREGON My Commission Expires CITY OF CORVALLIS Mark W. Shepard, City Manager State of OREGON County of Benton The foregoing instrument was acknowledged before me this _____ day of ______, 20_____, by Mark W. Shepard, as City Manager for the City of Corvallis, and accepted on behalf of the City of Corvallis by authority of its City Council. NOTARY PUBLIC FOR OREGON My Commission Expires Approved as to Form

City Attorney

EASEMENT

After recording return to: City of Corvallis Central Administrative Services 501 SW Madison Avenue

This space reserved for County
Recording use only.

KNOW ALL PERSONS BY THESE PRESENTS, that	

______, hereinafter referred to as GRANTOR, is the owner of real property described

herein and does hereby and forever grant unto the City of Corvallis, an Oregon municipal corporation, hereinafter referred to as CITY, a permanent easement and right-of-way over and along the full length and width of the premises described as follows; to wit:

REFER TO ATTACHED EXHIBIT	(s),,,
Area of Easement:	(total SF)
With the right, privilege, and authori	ty, to CITY to construct, maintain, replace, reconstruct, and/or remove a
therewith, on, under, and across the s	, with all appurtenances incident thereto or necessary aid premises, and to cut and remove from said right-of-way any trees and other e safety or interfere with the construction, use, or maintenance of said
	, and the right of ingress and egress to, over, and from the all times for the purpose of doing anything necessary, useful, or convenient ereby granted.

GRANTOR RESERVES THE RIGHT to use the surface of the premises for walkways, driveways, planting, and related purposes to the extent such use is consistent with CITY's construction, use, and maintenance of said facility on the premises. No building or other permanent structure that would enjoin CITY from the intended purpose of this Easement shall be placed upon the premises without the written permission of CITY.

EASEMENT

In Witness Whereof, the undersigned have caused this Easement to be executed. If GRANTOR is an entity or principal, their representative, by signing below, certifies that such representative is authorized by GRANTOR to

execute this Easement.

City Attorney

GRANTOR Date State of OREGON County of Benton This instrument was acknowledged before me on _______, 20_____, by ______ as ______ of _____ NOTARY PUBLIC FOR OREGON My Commission Expires _____ CITY OF CORVALLIS Mark W. Shepard, City Manager State of OREGON County of Benton The foregoing instrument was acknowledged before me this _____ day of ______, 20_____, by Mark W. Shepard, as City Manager for the City of Corvallis, and accepted on behalf of the City of Corvallis by authority of its City Council. NOTARY PUBLIC FOR OREGON My Commission Expires Approved as to Form

After recording return to: City of Corvallis Central Administrative Services 501 SW Madison Avenue	
KNOW ALL PERSONS BY THESE PRESENTS, that	
, hereinafter referred to as GRANTOR, is the owner of real property described herein and does hereby and forever grant unto the City of Corvallis, an Oregon municipal corporation, hereinafter referred to as CITY, a permanent easement and right-of-way over and a described as follows; to wit:	long the full length and width of the premise
REFER TO ATTACHED EXHIBIT(s),,	
Area of Drainageway Easement: (total SF)

This space reserved for County

Recording use only.

With the right, privilege, and authority, to CITY to construct, maintain, replace, reconstruct, and/or remove a Public Drainageway in properly functioning condition with all appurtenances incident thereto or necessary therewith, on, under, and across the said premises, and to cut and remove from said right-of-way any trees and other obstructions which may endanger the safety or interfere with the construction, use, or maintenance of said Public Drainageway and the right of ingress and egress to, over, and from the above described premises at any and all times for the purpose of doing anything necessary, useful, or convenient for the enjoyment of the Easement hereby granted.

GRANTOR AGREES to limit use of the premises to purposes consistent with CITY's construction, use, and maintenance of said Public Drainageway. Such uses typically include natural landscaping and stormwater quality treatment as approved by CITY. No new building or other permanent structure, dumping, regrading, paving, decrease in vegetative cover, or other action which would enjoin CITY from the intended purpose of this Easement shall be placed or occur upon the premises without the written permission of CITY.

In Witness Whereof, the undersigned have caused this Drainageway Easement to be executed. If GRANTOR is an entity or principal, its representative, by signing below, certifies that such representative is authorized by GRANTOR to execute this Drainageway Easement.

GRANTOR	Date		
State of OREGON County of Benton			
This instrument was acknow	ledged before me on		, 20
by			
		NOTARY PUBLIC FOR OF	REGON
		My Commission Expires	
CITY OF CORVALLIS			
by Mark W. Shepard, City Ma	nager		
State of OREGON County of Benton			
The foregoing instrument wa by Mark W. Shepard, as City authority of its City Council.	Manager for the City of Corva	day ofallis, and accepted on behalf of the	, 20, City of Corvallis by
		NOTA BY BUILDING FOR OR	DECON
		NOTARY PUBLIC FOR OF My Commission Expires	
Approved as to Form			
City Attorney			

After recording return to: City of Corvallis Central Administrative Services 501 SW Madison Avenue

ace reserved ng use only.	for	County	

KNOW	ALL	PERSONS	BY	THESE	PRESENTS.	that
111011		LINOTIN	$\boldsymbol{\nu}$	IIIDDL	I ILLDELIID,	unu

herein and does hereby and forever grant unto the City of Corvallis, an Oregon municipal corporation, hereinafter referred to as CITY, a permanent easement and right-of-way over and along the full length and width of the premises described as follows; to wit:

REFER TO ATTACHED EXHIBIT(s)______, _____, _____,

Area of Drainageway Easement: (total SF)

With the right, privilege, and authority, to CITY to construct, maintain, replace, reconstruct, and/or remove a Public Drainageway in properly functioning condition with all appurtenances incident thereto or necessary therewith, on, under, and across the said premises, and to cut and remove from said right-of-way any trees and other obstructions which may endanger the safety or interfere with the construction, use, or maintenance of said Public Drainageway and the right of ingress and egress to, over, and from the above described premises at any and all times for the purpose of doing anything necessary, useful, or convenient for the enjoyment of the Easement hereby granted.

GRANTOR AGREES to limit use of the premises to purposes consistent with CITY's construction, use, and maintenance of said Public Drainageway. Such uses typically include natural landscaping and stormwater quality treatment as approved by CITY. No new building or other permanent structure, dumping, regrading, paving, decrease in vegetative cover, or other action which would enjoin CITY from the intended purpose of this Easement shall be placed or occur upon the premises without the written permission of CITY.

In Witness Whereof, the undersigned have caused this Drainageway Easement to be executed. If GRANTOR is an entity or principal, its representative, by signing below, certifies that such representative is authorized by GRANTOR to execute this Drainageway Easement.

GRANTOR	Date		
State of OREGON County of Benton			
This instrument was acknowle	dged before me on	, 20, by	
as	of		
		NOTARY PUBLIC FOR OREGON	
		My Commission Expires	
CITY OF CORVALLIS			
by Mark W. Shepard, City Man	ager		
State of OREGON County of Benton			
The foregoing instrument was by Mark W. Shepard, as City authority of its City Council.	acknowledged before me this Manager for the City of Corva	day of, 20	 lis by
		NOTARY PUBLIC FOR OREGON	
		My Commission Expires	
Approved as to Form			
City Attorney			

After recording return to: City of Corvallis **Central Administrative Services 501 SW Madison Avenue**

KNOW ALL PERSONS BY THESE PRESENTS, that , hereinafter referred to as GRANTOR, is the owner of real property described herein and does hereby and forever grant unto the City of Corvallis, an Oregon municipal corporation, hereinafter referred to as CITY, the following described real property free of encumbrances except as specifically set forth herein: EXCEPTIONS: REFER TO ATTACHED EXHIBIT(s)______, ______, ______, ______ Area of Warranty Deed: (total SF)

This space reserved for County

Recording use only.

GRANTOR(s) hereby covenant that they are the owner of the above-described property free of all encumbrances except as above stated and will warrant and defend the same against all persons who may lawfully claim the same except as shown above.

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 197.352. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES. TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930 AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 197.352.

The true and actual consideration for this conveyance is

In Witness Whereof, the undersigned have caused this Easement to be executed. If GRANTOR is an entity or principal, their representative, by signing below, certifies that such representative is authorized by GRANTOR to execute this Easement.

GRANTOR	Date	-	
State of OREGON County of Benton			
This instrument was acknowled	lged before me on		, 20
by			
		NOTARY PUBLIC FOR O	REGON
		My Commission Expires	
CITY OF CORVALLIS			
by Mark W. Shepard, City Ma	nager		
State of OREGON County of Benton			
The foregoing instrument was by Mark W. Shepard, as City N authority of its City Council.	acknowledged before me the Manager for the City of Cor	nis day of vallis, and accepted on behalf of the	, 20 City of Corvallis by
		NOTARY PUBLIC FOR O	DECON
		My Commission Expires	
Approved as to Form			
City Attorney			

After recording return to: City of Corvallis Central Administrative Services 501 SW Madison Avenue This space reserved for County Recording use only.

Central Administrative Services	
501 SW Madison Avenue	
KNOW ALL PERSONS BY THESE PRESENTS, that	
, hereinafter	
referred to as GRANTOR, is the owner of real property described	
herein and does hereby and forever grant unto the City of Corvalli	s, an Oregon municipal corporation, hereinafter
referred to as CITY, the following described real property free o	
herein:	1 1 5
EXCEPTIONS:	
REFER TO ATTACHED EXHIBIT(s),,	
(),	
Area of Warranty Deed: (total SF)	
(1000 01 11 01 01 01 01 01 01 01 01 01 01	
GRANTOR(s) hereby covenant that they are the owner of the about	ve-described property free of all encumbrances
except as above stated and will warrant and defend the same again	
except as shown above.	or an persons who may rawrong cramm one same
encept as shown accive.	
BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, T	THE PERSON TRANSFERRING FEE TITLE
SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY	
DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED	
APPLICABLE LAND USE LAWS AND REGULATIONS.	
INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO TH	
APPROPRIATE CITY OR COUNTY PLANNING DEPARTM	
DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARM	· · · · · · · · · · · · · · · · · · ·
IN ORS 30.930 AND TO INQUIRE ABOUT THE RIGHTS OF	
ANY, UNDER ORS 197.352.	T.E. GIEGO I ROLLINI I OWILLIO, II
1111, 011221 010 177.002.	

The true and actual consideration for this conveyance is _____

In Witness Whereof, the undersigned have caused this Easement to be executed. If GRANTOR is an entity or principal, their representative, by signing below, certifies that such representative is authorized by GRANTOR to execute this Easement.

GRANTOR	Date		
State of OREGON County of Benton			
This instrument was acknowled	dged before me on	, 20, by	
as	of		
		NOTARY PUBLIC FOR	OREGON
		My Commission Expires	
CITY OF CORVALLIS			
by Mark W. Shepard, City Mark W. Shepar			
Wark W. Shepard, City Wa	mager		
State of OREGON County of Benton			
The foregoing instrument was by Mark W. Shepard, as City Mauthority of its City Council.	acknowledged before me thi Manager for the City of Corv	allis, and accepted on behalf of	, 20, the City of Corvallis by
		NOTARY PUBLIC FOR	OREGON
		My Commission Expires	
Approved as to Form			
City Attorney			

(Metes and Bounds Conveyance) - INDIVIDUAL

After recording return to: City of Corvallis Central Administrative Services 501 SW Madison Ave

KNOW ALL PERSONS BY THESE PRESENTS, that	
, hereinafter	
referred to as GRANTOR, is the owner of real property described	
herein and does hereby dedicate unto the City of Corvallis, an	
Oregon municipal corporation, hereinafter referred to as CITY, for	road, pedestrian, drainage, and utility purposes,
on, over, across, under, along, and within that tract of land describe	ed in of
Benton County Deed Records; located in Benton County, State of	Oregon, more particularly described as follows:

This space reserved for County

Recording use only.

Area of Dedication: _____ (total SF)

GRANTOR(s) hereby covenant that they are the owner in fee simple and the property is free of all liens and encumbrances, they have good and legal right to grant their right above described, and they will pay all taxes and assessments due and owing on the property.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

(Metes and Bounds Conveyance) - INDIVIDUAL

In Witness Whereof, the undersigned have caused this Right of Way Dedication to be executed. If GRANTOR is an entity or principal, their representative, by signing below, certifies that such representative is authorized by GRANTOR to execute this Right of Way Dedication.

GRANTOR	Date	
State of OREGON County of Benton		
This instrument was acknowled	lged before me on	, 20
by		
		NOTARY PUBLIC FOR OREGON
		My Commission Expires
CITY OF CORVALLIS		
by Mark W. Shepard, City Ma	nager	
State of OREGON County of Benton		
		s day of, 20, allis, and accepted on behalf of the City of Corvallis
		NOTARY PUBLIC FOR OREGON
		My Commission Expires
Approved as to Form		
City Attorney		

Area of Dedication: _____ (total SF)

GRANTOR(s) hereby covenant that they are the owner in fee simple and the property is free of all liens and encumbrances, they have good and legal right to grant their right above described, and they will pay all taxes and assessments due and owing on the property.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

(Metes and Bounds Conveyance) - CORPORATE

In Witness Whereof, the undersigned have caused this Right-of-Way Dedication to be executed. If GRANTOR is an entity or principal, its representative, by signing below, certifies that such representative is authorized by GRANTOR to execute this Right of Way Dedication.

GRANTOR (entity name)	Date	Signature	Title
(entity) Address		(entity) City, State, Zip)
State of OREGON County of Benton			
This instrument was acknowledged be	efore me on	, 20, by	
as	0	of	
		NOTARY PUB	LIC FOR OREGON
		My Commission	Expires
CITY OF CORVALLIS			
by Mark W. Shepard, City Manager		_	
State of OREGON County of Benton			
The foregoing instrument was acknow by Mark W. Shepard, as City Manage authority of its City Council.	vledged before m r for the City of G	the this day of Corvallis, and accepted on l	, 20, oehalf of the City of Corvallis by
		NOTARY PUB	LIC FOR OREGON
		My Commission	Expires
Approved as to Form			
City Attorney			

NOTICE OF COMPLETION

City of Corvallis Development Review Engineering P.O. Box 1083 Corvallis, OR 97339	
(PIPC Number) (Project Name)	– NOTICE OF COMPLETION
All construction testing required by the City of Corvallis Standard Construct Procedure Manual, Section II, Step 4 has been completed for the above reindicate the project has been constructed in accordance with all applicable City the above-referenced documents relating to the required testing of new infrastructure.	ferenced project. The subject tests Standards and is in compliance with
This letter, accompanied by the following required documents, as applicable, se	erves as a request for final inspection:
☐ Certified test results	
☐ <i>Notice of Franchise Installation</i> by Developer (Form VIII)	
☐ Easements and/or dedications, signed by the grantor	
☐ As-built drawings	
Engineer of Record Date	
	Affix PE Stamp Here

WARRANTY BOND

	BOND NO		
KNOW ALL PERSONS BY THESE PRESENTS	that	, as Principal,	
and of Oregon, Surety are held and firmly bound un	, a corporation organized and e	existing under the Laws of the State Oregon municipal corporation, as	
Obligee, in the total sum of		Dollars	
\$ for the payment of successors and assigns, jointly and severally, firmly		ade, the executors, administrators,	
for public improvements constructed under PIPC l	Permit No	•	
NOW, THEREFORE, THE CONDITION OF Tremedy said work free from defects in materials a and acceptance by the City, then this obligation sh	nd workmanship for a period	of one year following completion	
WITNESS our hands and seals this	day of	, 20	
Principal	Surety		
bySignature	byAttorney-in-Fact		
Approved as to Form			
City Attorney			

STORMWATER FACILITY MAINTENANCE AND WARRANTY BOND

	BOND NO		
KNOW ALL PERSONS BY THESE PRESENTS	that	, as Principal,	
and of Oregon, Surety are held and firmly bound un	, a corporation organized and to the City of Corvallis, an	existing under the Laws of the State Oregon municipal corporation, as	
Obligee, in the total sum of		Dollars	
\$ for the payment of successors and assigns, jointly and severally, firm	which, well and truly to be r y by these presents:	made, the executors, administrators,	
for Stormwater Facility Maintenance and Warrant	y Security constructed under	PIPC Permit No	
NOW, THEREFORE, THE CONDITION OF TH and remedy said work free from defects in mat completion and acceptance by the City, then this o effect.	erials and workmanship for	a period of two years following	
WITNESS our hands and seals this	day of	, 20	
Principal	Surety		
bySignature	Attorney-in-Fact		
Approved as to Form			
City Attorney			

PIPC WARRANTY INITIATION CHECK LIST PIP_____

Prior to Fin	nal Walk-Through, the Following Items Must Be Submitt	ed a	nd Accepted by the City:	
	☐ Notice of Franchise Installation by Developer			
	☐ Test results, certified by the Engineer of Record (including Angle Stop Location verification)			
	All required easements, dedications, and/or plats, signed	d by	the grantor, for City signatures (All	
	documents must be recorded prior to warranty initiation	1)		
	Engineer's stamped and signed street light design and in	ıstal	lation guarantee	
	Preliminary paper as-built drawings given to inspector			
Final walk-	through completed and punch list submitted	Co	ompletion Date:	
Prior to Wa	arranty Initiation, the Following Items Must Be Submitte	d and	d Accepted by the City	
	Street Signs Ordered - Make sure paid		Date:	
	Check permit conditions			
	Easements granted			
	All punchlist items completed and approved (cc all appl	licab	le utility staff on punchlist letter!)	
	Stamped paper and electronic as-built drawings (in a no	n-ex	ecutable AutoCAD or dxf and pdf files)	
	Development Services emails to confirm no outstanding	g issu	ues (check Permit-Plan for tags)	
	PIPC Warranty Security (excluding SW Detention and	WQ	Facilities)	
	Total PIPC Contract		Amount \$	
	Performance Security Type		Amount \$	
	Total PIPC w/out SW Detention & WQ Facilities		Amount \$	
	Total PIPC Warranty Security (10% or \$2,500)		Amount \$	
	□ Warranty Bond No		MIA: Acct No.	
	□ Deposit Check No		Other	
Stormwater	r Detention and WQ Facilities			
	Approved Stormwater Facilities Agreement			
☐ Landscape Architect sign-off on all SW/WQ plants, shrubs, and irrigation installation				
	Warranty Security for SW Detention and WQ Facilities	:		
	Total Cost for SW Detention/WQ Facilities		Amount \$	
	Total SW/WQ Warranty Security (20% or \$5,000)		Amount \$	
	□ Warranty Bond No		LOC/MIA: Acct No.	
	☐ Deposit Check No		Other	
	Warranty Initiation Letter Sent (cc all applicable utility	staff	f on warranty initiation letter)	
Ou	tstanding Items Under Separate Performance Security			
	Item			
	Item		Amount \$	
Otl	her Notes/Comments			

PIPC Estimate Summary Worksheet (Attach Detailed Estimate/Bid)

1.	Public Streets	\$
2.	Public Street Lights	\$
3.	Public Waterlines	\$
4.	Public Sanitary Sewers	\$
5.	Public Storm Drains (less Detention/Water Quality)	\$
6.	Stormwater Facilities (Detention/WQ)	\$
7.	Franchise Utility Installation	\$
8.	Field Engineering, Inspection, and Survey	\$
9.	Materials Testing	\$
10.	Mobilization/Traffic Control & Cleanup	\$
11.	PIPC Excavation and Grading (if not in above items)	\$
12.	Total of all Construction Items (1 - 11)	\$
13.	Project Administration (20% of Total of All Above Construction Items)	\$
14.	Project Security (Line 12+13 = 120%)	\$
15.	1-Year PIPC Warranty Fund (\$2,500 or 10% of Items 1 Thru 11 Less No. 6)	\$
16.	2-Year Stormwater Facilities Maintenance & Warranty Fund (\$5,000 or 20% of Item No. 6)	\$
17.	Project Total Including Warranty	\$

Affix PE Stamp Here

After recording return to:	
City of Corvallis	
Central Administrative Services	
501 SW Madison Ave	
KNOW ALL PERSONS BY THESE PRESENTS, that	
, hereinafter	
referred to as GRANTOR, is the owner of real property described	
herein and does hereby and forever grant unto the City of	
Corvallis, an Oregon municipal corporation, hereinafter referred	
to as CITY, a permanent utility easement and right-of-way over and	d along the full length and width of the premises
described as follows; to wit:	
REFER TO ATTACHED EXHIBIT(s),,,	
Area of Utility Easement: (total SF)	

This space reserved for County

Recording use only.

With the right, privilege, and authority, to CITY to permit Franchise Utility Companies the right to construct, maintain, replace, reconstruct, and/or remove their utilities with all appurtenances incident thereto or necessary therewith, on, under, and across the said premises, and to cut and remove from said Utility Easement any trees and other obstructions which may endanger the safety or interfere with the construction, use, or maintenance of said utilities and the right of ingress and egress to, over, and from the above described premises at any and all times for the purpose of doing anything necessary, useful, or convenient for the enjoyment of the Utility Easement hereby granted.

CITY shall require Franchise Utility Companies, upon each and every occasion that such franchise utility is constructed, maintained, replaced, reconstructed, and/or removed, to restore the premises of the Grantor, and any buildings or improvements disturbed by the Franchise Utility Company, to a condition as near as practicable as they were prior to any such installation or work, and if not practicable, then pay to Grantor a reasonable compensation for such conditions that cannot be reasonably or practicably restored.

GRANTOR reserves the right to use the surface of the premises for walkways, driveways, planting, and related purposes to the extent such use is consistent with the Franchise Utility Company's construction, use, and maintenance of said facility on the premises. No building or other permanent structure that would enjoin the Franchise Utility Company from the intended purpose of this Utility Easement shall be placed upon the premises without the written permission of CITY.

In Witness Whereof, the undersigned have caused this Utility Easement to be executed. If GRANTOR is an entity or principal, their representative, by signing below, certifies that such representative is authorized by GRANTOR

to execute this Utility Easement. **GRANTOR** Date State of OREGON County of Benton NOTARY PUBLIC FOR OREGON My Commission Expires _____ CITY OF CORVALLIS Mark W. Shepard, City Manager State of OREGON County of Benton The foregoing instrument was acknowledged before me this _____ day of ______, 20_____ by Mark W. Shepard, as City Manager for the City of Corvallis, and accepted on behalf of the City of Corvallis by authority of its City Council. NOTARY PUBLIC FOR OREGON My Commission Expires Approved as to Form

City Attorney

After recording return to:	
City of Corvallis	
Central Administrative Services	
501 SW Madison Ave	
KNOW ALL PERSONS BY THESE PRESENTS, that	
, hereinafter	
referred to as GRANTOR, is the owner of real property described	
herein and does hereby and forever grant unto the City of	
Corvallis, an Oregon municipal corporation, hereinafter referred	
to as CITY, a permanent utility easement and right-of-way over and	d along the full length and width of the premises
described as follows; to wit:	
REFER TO ATTACHED EXHIBIT(s),,,	
Area of Utility Easement: (total SF)	

This space reserved for County

Recording use only.

With the right, privilege, and authority, to CITY to permit Franchise Utility Companies the right to construct, maintain, replace, reconstruct, and/or remove their utilities with all appurtenances incident thereto or necessary therewith, on, under, and across the said premises, and to cut and remove from said Utility Easement any trees and other obstructions which may endanger the safety or interfere with the construction, use, or maintenance of said utilities and the right of ingress and egress to, over, and from the above described premises at any and all times for the purpose of doing anything necessary, useful, or convenient for the enjoyment of the Utility Easement hereby granted.

CITY shall require Franchise Utility Companies, upon each and every occasion that such franchise utility is constructed, maintained, replaced, reconstructed, and/or removed, to restore the premises of the Grantor, and any buildings or improvements disturbed by the Franchise Utility Company, to a condition as near as practicable as they were prior to any such installation or work, and if not practicable, then pay to Grantor a reasonable compensation for such conditions that cannot be reasonably or practicably restored.

GRANTOR reserves the right to use the surface of the premises for walkways, driveways, planting, and related purposes to the extent such use is consistent with the Franchise Utility Company's construction, use, and maintenance of said facility on the premises. No building or other permanent structure that would enjoin the Franchise Utility Company from the intended purpose of this Utility Easement shall be placed upon the premises without the written permission of CITY.

In Witness Whereof, the undersigned have caused this Utility Easement to be executed. If GRANTOR is an entity

or principal, their representative, by signing below, certifies that such representative is authorized by GRANTOR to execute this Utility Easement. **GRANTOR** Date State of OREGON County of Benton This instrument was acknowledged before me on ______, 20____, by _____ as _____ of ____ NOTARY PUBLIC FOR OREGON ¹My Commission Expires _____ CITY OF CORVALLIS Mark W. Shepard, City Manager State of OREGON County of Benton The foregoing instrument was acknowledged before me this _____ day of _____ by Mark W. Shepard, as City Manager for the City of Corvallis, and accepted on behalf of the City of Corvallis by authority of its City Council. NOTARY PUBLIC FOR OREGON My Commission Expires _____ Approved as to Form City Attorney

¹ a

EASEMENT RELEASE This space reserved for County Recording use only. After recording return to: City of Corvallis Central Administrative Services 501 SW Madison Ave KNOW ALL PERSONS BY THESE PRESENTS, that on the _____day of _______, _____, granted to the City of Corvallis, an Oregon Municipal Corporation, hereinafter referred to as CITY, a easement over and along the full width and length of the premises _____, ____, to wit: REFER TO ATTACHED EXHIBIT(s)______, _____, ______, Area of Easement Release: _____ (total SF) By mutual agreement, CITY hereby re-conveys and releases to _____ CITY OF CORVALLIS Mark W. Shepard, City Manager

described by Benton County Deed Record recorded on the day of described in the attached EXHIBIT(s), it being the intention of the parties to terminate, release, and relinquish all the right, title, and interest of CITY in the above-described easement and all obligations related thereto. **IN WITNESS THEREOF,** CITY has executed this release this _____ day of ______, 20____. State of OREGON County of Benton The foregoing instrument was acknowledged before me this _____ day of ______, 20_____ by Mark W. Shepard, as City Manager for the City of Corvallis, and accepted on behalf of the City of Corvallis by authority of its City Council. NOTARY PUBLIC FOR OREGON My Commission Expires Approved as to Form City Attorney PROJECT AND PERMIT NUMBER: LOCATION: Address _____ Assessor's Map No. ____ Tax Lot

Aft C C 5

After recording return to:	
City of Corvallis	
Central Administrative Services	
501 SW Madison Ave	
KNOW ALL PERSONS BY THESE PRESENTS, that	
, hereinafter	
referred to as GRANTOR, is the owner of real property described	
herein and does hereby and forever grant unto the City of	
Corvallis, an Oregon municipal corporation, hereinafter referred	<u> </u>
to as CITY, a permanent public access easement and public right-	of-way over and along the full length and width
of the premises described as follows; to wit:	
REFER TO ATTACHED EXHIBIT(s),,,	
Area of Public Access Easement: (total SF)

This space reserved for County

Recording use only.

With the right, privilege, and authority, to CITY to construct, use, maintain, repair, replace public access facilities and permit public access over and along the said premises for the purpose of non-exclusive public use. Any conveyance of fee title to Grantee's Easement Area will include a conveyance of the Easement, regardless of whether the Easement is specifically identified in the instrument of conveyance.

No above-ground structures, barriers, fences, buildings, or other improvements of any kind will be installed in the Public Access Easement Area other than such surfaces and improvements facilitating public access.

Grantor reserves the right to install utilities, cables, landscaping, signage, concrete and asphalt surfaces, and other improvements in the Easement Area as long as such use does not unreasonably interfere with Grantee's permitted uses of the Easement.

In Witness Whereof, the undersigned have caused this Public Access Easement to be executed. If GRANTOR is

an entity or principal, their representative, by signing below, certifies that such representative is authorized by GRANTOR to execute this Public Access Easement. GRANTOR Date State of OREGON County of Benton

NOTARY PUBLIC FOR OREGON
NOTARY PUBLIC FOR OREGON
My Commission Expires
day of, 20 and accepted on behalf of the City of Corvallis
NOTARY PUBLIC FOR OREGON
My Commission Expires

City Attorney

Aft C C 5

After recording return to:	
City of Corvallis	
Central Administrative Services	
501 SW Madison Ave	
KNOW ALL PERSONS BY THESE PRESENTS, that	
, hereinafter	
referred to as GRANTOR, is the owner of real property described	
herein and does hereby and forever grant unto the City of	
Corvallis, an Oregon municipal corporation, hereinafter referred	<u> </u>
to as CITY, a permanent public access easement and public right-	of-way over and along the full length and width
of the premises described as follows; to wit:	
REFER TO ATTACHED EXHIBIT(s),,,	
Area of Public Access Easement: (total SF)

This space reserved for County

Recording use only.

With the right, privilege, and authority, to CITY to construct, use, maintain, repair, replace public access facilities and permit public access over and along the said premises for the purpose of non-exclusive public use. Any conveyance of fee title to Grantee's Easement Area will include a conveyance of the Easement, regardless of whether the Easement is specifically identified in the instrument of conveyance.

No above-ground structures, barriers, fences, buildings, or other improvements of any kind will be installed in the Public Access Easement Area other than such surfaces and improvements facilitating public access.

Grantor reserves the right to install utilities, cables, landscaping, signage, concrete and asphalt surfaces, and other improvements in the Easement Area as long as such use does not unreasonably interfere with Grantee's permitted uses of the Easement.

In Witness Whereof, the undersigned have caused this Public Access Easement to be executed. If GRANTOR is an entity or principal, their representative, by signing below, certifies that such representative is authorized by GRANTOR to execute this Public Access Easement.

GRANTOR	Date		
State of OREGON County of Benton			
This instrument was acknown	wledged before me on	, 20, by	
as	of		
		NOTARY PUBLIC FOR	OREGON
		My Commission Expires	
CITY OF CORVALLIS			
hv			
Mark W. Shepard, City N			
State of OREGON County of Benton			
The foregoing instrument v by Mark W. Shepard, as Ci by authority of its City Cou	was acknowledged before me this ity Manager for the City of Corvanneil.	day ofallis, and accepted on behalf of t	, 20, he City of Corvallis
		NOTARY PUBLIC FOR	OREGON
		My Commission Expires	
Approved as to Form			
City Attorney			

Example Storm Water Facility Data Table (include on plans)

Detention Basin # (acres, %						
impervious)						
Design Storm	Precipitation	Pre-	Development	Development	Detention	Detention
	(inches)	Development	Runoff Pre-	Runoff Post	Depth	Volume
		Runoff (CFS)	Detention (CFS)	Detention (CFS)	(feet)	(ft ³)
2-yr						
5-yr						
10-yr						
100-yr						
(overflow)						
Is facility designed to accommodate additional future flows Yes No				No		

Control structure	Elevation (feet)	Flow total (CFS)		
		2-year	5-year	10-year
Orifice 1 (size)				
Orifice 2 (size)				
Orifice 3 (size)				
Overflow weir				

Water Quality Facility					
PGIS (ft²)	Design Storm (year)	Precipitation (inches)	Design Flow (CFS)	Flow Capacity (CFS)	Bypass (yes, no)
					-

Project Name	
Permit No.	Date

GENERAL	Covered	COMMENTS
The Engineer of Record (EOR) and the City Field Representative are contacts for this project.		
2. The EOR shall conduct all inspections and submit weekly reports.		
3. The EOR shall certify and have a representative present at all required testing except waterline testing which shall be witnessed by City personnel.		
4. All design changes shall first be submitted to the EOR then submitted to the City Engineer for review.		
5. The Field Representative shall inform contractor of issues as a courtesy, but shall seek resolution to all issues from the EOR only.		
6. All compaction testing shall follow procedures outlined in the PIPC Manual, (refer to Section II, Step 4, p. 11-20).		
7. A project schedule shall be submitted to the City prior to any construction activity.		
8. All work within public right-of-way requires an approved traffic control plan. Plans must be submitted at least 5 business days prior to beginning any work.		
9. Sidewalk closures shall be limited to 5 business days. If more than 5 days is needed, a temporary, ADA compliant patch must be constructed to keep the sidewalk open.		
10. Working hours are from 7 a.m. to 6 p.m. Work in the right of way and required City inspections may be restricted during City holidays (see General Conditions Section II.2.L.00). Working hours in the right of way may otherwise be restricted to reduce impacts to the public.		
11. All City streets must be cleaned of any potential hazards immediately and cleaned of dirt, rock, and construction debris at the end of each day.		
12. The Notice of Franchise Installation by Developer form must be signed by each franchise utility company and submitted to the City prior to Warranty Initiation.		
13. All public improvements shall be installed and accepted prior to issuance of a certificate of occupancy per LDC Section 4.0.20.		

Project Name	
Permit No.	Date

WATER	Covered	COMMENTS
1. All City water system valves shall be operated by City personnel only. This includes the hot tap valve once the hot tap has been completed by City crews.		
2. Hot taps shall be performed by City crews at the contractor's or developer's expense. Hot taps shall be scheduled by the EOR through the Field Representative, who shall be given 10 business days' notice. Note that any required traffic control and/or shoring must be supplied by the contractor. If the City crews experience any delay or are forced to abandon the job until a later date, any additional mobilization and hourly costs shall be billed to the project.		
 Waterline construction practices: waterline shall be clean no ground/storm water may be allowed to enter the waterline. waterline shall be fully bedded as per City of Corvallis Standard Detail 201. pipe shall be plugged when construction is not taking place. 		
4. Place chlorination corp. 18 inches to 10 feet from first in-line valve downstream of tie-in, extend the line to back of curb if necessary to maintain pedestrian, bike, and vehicular traffic. Additionally, it is in the best interest of the contractor to install a test corp. near the end of the line to allow for a sampling port.		
5. The waterline shall be flushed, pressure tested, chlorinated, and bacteria tested per AWWA and City standards. Flushing, pressure testing, and chlorination shall be conducted by the contractor and witnessed by City personnel. Bacteria testing shall be conducted by the City and witnessed by the Contractor. Note that water samples must reach the lab no later than 3:00 p.m. on Monday through Thursday. In the event that the sample is positive the line shall be re-chlorinated and retested.		
6. Corp. stops which are used for testing only shall be turned off at the main and the angle stop and piping shall be removed after the line has passed all required testing and is placed into service. This must be witnessed by the Field Representative.		
7. Fire hydrants must remain bagged until waterline and hydrants are put into service. Fire hydrants must have the Storz adapters installed prior to placing them into service.		

Project Name		
Permit No.	Date	

STORM SEWER AND SANITARY SEWER	Covered	COMMENTS
1. Storm and sanitary lines must be mandrel tested after backfilling and compaction is complete, and sanitary lines must be pressure tested.		
2. All storm and sanitary line construction and the placement of backfill shall be monitored by the EOR.		
3. Sanitary manholes shall be vacuum tested after final lift of paving is complete. EOR shall be present during these tests.		
4. After all lines and manholes have been completed and the backfill has been placed, compacted, and tested, the EOR shall submit a TV inspection request to the Field Representative. Allow 10 business days for TV inspections.		
5. Pipes entering manholes, including PVC pipes, shall have a flexible joint placed within 18 inches (minimum) or a distance equal to 1 ½ times the pipe diameter, whichever is greater, of the manhole structure.		

STREETS AND SIDEWALKS	Covered	COMMENTS
1. Full panel replacement is required on any damaged concrete.		
2. All AC street cuts shall conform to Standard Detail No. 110.		
3. Durable pavement marking materials shall be approved by the City prior to installation. The EOR shall notify the City 10 business days' in advance of installation to schedule a pre-striping and marking meeting with the EOR, striping contractor, and City representatives.		
4. Any and all pavement markings that are damaged during construction shall be replaced by the Contractor to original condition or better.		
5. The EOR shall monitor erosion control plan implementation and performance throughout construction.		

Project Name	
Permit No.	Date

STREETLIGHTS	Covered	COMMENTS
1. In addition to the PIPC permit, an electrical permit from Development Services is required for streetlight installations.		
2. ODOT Blue and Green Sheet submittals are required prior to beginning installation.		
3. The City is responsible for requesting power once the streetlight cabinet is green tagged.		
4. All wiring needs to be enclosed in conduit or junction boxes. No exposed wiring is allowed, and no underground splices.		
5. Street lighting conduit shall be installed under the front (street side) of the sidewalk, and one foot of separation maintained at crossings, between meter boxes, and cleanouts. Conduit bushing and duct seal must be provided at the end of each conduit. Yellow #12 AWG conductor shall be installed with empty conduits as a "tracer" wire for future locating.		
6. Junction boxes with a gravel base are required for each streetlight.		
7. A single master photocell is to be installed on the pole nearest the service cabinet.		
8. A test switch that bypasses the photocell control and energizes the streetlights shall be located in the service cabinet.		
9. Galvanized steel or other approved conduit clamps must be used when installing conduit onto wooden poles. Plastic conduit clamps are not allowed.		

Special Permit Conditions for PIP1X-XXXX: Project Name Address:

ATTENTION: Oregon Law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-0090. You may obtain copies of the rules by calling the center. Note: the telephone number for the Oregon Utility Notification Center is (503) 232-1987 or 1-800-332-2344.

Project-Specific Conditions:

- 1. Work hours on arterial and collector streets within travel lanes may be restricted to after 8:30 a.m. and before 4:30 p.m.
- 2. All existing street parking shall be maintained during construction except when authorized by the City Public Works Department and appropriately signed with no parking signs.
- 3. Existing City/public utilities to be abandoned shall be removed to the main unless previous written authorization to abandon the utilities in place is obtained from the City. Any City utility abandonment requires approval of the City field representative and must be noted on as-builts. Sewers are to be capped at the hub/saddle with a watertight plug/cap.
- 5. All work shall comply with conditions of approval from associated land use decisions, and any natural features preservation plan.

General Conditions:

- 6. A copy of the PIPC permit, authorized plans, and Special Permit Conditions shall be on-site during any construction of public improvements.
- 7. Generally, allowable working hours shall be from 7:00 AM to 6:00 PM per Corvallis Municipal Code 5.03.030.020.05.
- 8. All adjacent property owners shall be notified 48 hours prior to any construction.
- 9. All materials and workmanship shall comply with <u>City of Corvallis Standard Construction</u> Specifications, latest edition.
- 10. No modifications to the approved plans shall be made without prior authorization from the City Engineer. Submittals shall be provided to the City and approved prior to work which deviates from the authorized plans.
- 11. Per Council Policy No. 91-9.02, any dirt or debris deposited upon any street, alley, or sidewalk which creates a potential hazard shall be removed immediately by the project contractor. If for any reason the project contractor cannot immediately accomplish the work or cannot be readily notified, City staff shall cause the hazard to be removed and bill the project contractor at a rate of 1.5 times the actual cost. Under a hazardous situation the offender may be cited in Municipal Court. ** Streets must be kept swept and not flushed unless flushing can be accomplished without causing run-off to enter and/or impact public

- storm drainage systems, including drainageways.
- 12. Per Council Policy No. 91-9.02, all dirt or debris deposited on a public street, alley, or sidewalk from any construction activity **that is not an immediate hazard** shall be removed before 5:00 p.m. of that same day. After appropriate notice, if the cleanup is not accomplished by 5:00 p.m. of the following day, a stop-work order shall be placed upon the project and shall remain until the street, alley, or sidewalk has been cleaned to the satisfaction of the City Manager. ** Streets must be kept swept and not flushed unless flushing can be accomplished without causing run-off to enter and/or impact public storm drainage systems, including drainageways.
- 13. All work shall be performed in compliance with applicable OSHA safety regulations.
- 14. All work within public right-of-way requires an approved traffic control plan. Plans must be submitted at least 5 business days prior to beginning any work.
- 15. All testing shall be performed in accordance with the City's <u>Public Improvement by Private Contract (PIPC) Permit Procedure Manual</u> as outlined in <u>Section II, Step 4.B.</u>
- 16. A Notice of Franchise Installation by Developer form, located in Section IV of the PIPC Manual, shall be submitted for each franchise utility and certified by the Engineer of Record **prior to final inspection by the City**.
- 17. All required easements and/or dedications shall be signed by the grantor and submitted for City signatures with the request for a final inspection of the project. All required easements and/or dedications shall be recorded at the developer's expense prior to warranty initiation.
- 18. No mechanical trenching shall occur within the drip-line of any tree. Work within the drip-line of any tree shall be performed by hand-digging or boring. Permittee shall protect existing trees. No tree limbs or roots larger than two inches shall be cut or disturbed without written authorization from a licensed arborist.
- 19. Permittee shall maintain seven feet horizontal separation from existing City utilities for parallel installations and 1-foot vertical separation for crossings.
- 20. All unattended excavations shall be backfilled, or plated. A fence may be allowed outside street surfaces with prior approval.
- 21. Common utility trenches are not allowed for City Utilities.
- 22. Vision clearance and sight distance shall be provided at all driveways and street intersections per the City of Corvallis Off-Street Parking and Access Standards.
- 23. Street tree plantings shall conform to LDC section 4.2.30.b

Areas Where Trees May Not Be Planted -

- 2. Unless approved otherwise by the City Engineer, trees may not be planted:
 - a) Within 10 ft. of fire hydrants and utility poles;
 - b) Within 20 ft. of street light standards;
 - c) Within five ft. from an existing curb face, except where required for street trees;
 - d) Within 10 ft. of a public sanitary sewer, storm drainage, or water line; or
 - e) Where the Director determines the trees may be a hazard to the public interest or general welfare. (This includes blocking stop/street signs)

Water System Conditions:

- 24. All meter settings 2 inches or less shall be installed per <u>Standard Detail No. 306, 306A and 306B</u>.
- 25. Domestic water meters 3 inches or larger shall have an Invensys TRPL installed by the contractor that reads in cubic feet and City crews will wire the MXU transmitter.
- 26. Hot taps shall be provided by City crews at Contractor's expense. Contractor shall excavate for the hot tap, provide and install associated shoring, stainless steel full circle tapping saddle, and gate valve. The excavation for the hot tap shall be 8-feet long on the tapping side of the main, 4-feet wide centered on the tapping point, 1-foot behind the main, and 2-feet below the main. The tap shall be located a minimum of 18-inches from all joints and appurtenances.
- 27. All tapping saddles/sleeves shall be full circle stainless steel.
- 28. All bolts, other than "Tee" bolts, shall be cadmium or zinc plated, or stainless steel.
- 29. Per City requirements, samples of the water line must be taken a minimum of every 200 feet, at every branch, and at the end of the line. All valved sections of public waterline shall have a 1-inch chlorination corp. or service within each valved section to allow each valved section to be tested for pressure and bacterial contamination. The chlorination corps/services shall be located between 18 inches and 10 feet downstream of each valve. Water line acceptance testing shall be pursuant to <u>Standard Construction Specification Technical Requirement IV</u>.
- 30. Angle stop location verification shall be required prior to any waterline testing.
- 31. All sewer main and laterals shall be separated from water main and services in compliance with Oregon Health Authority (OAR 333-061-0050 (9)) and Oregon DEQ regulations.
- 32. Per <u>Standard Construction Specifications</u>, <u>Division IV</u>, all valves 8 inches or smaller shall be resilient seated gate valves. Larger valves shall be butterfly valves.
- 33. Water valves shall be set per <u>Standard Detail No. 302</u>. If a valve box is located outside a paved surface, the valve box shall be adjusted to final grade, and a 2' x 2' by 4-inch thick concrete collar shall be installed around it.
- 34. Fire hydrants shall be installed per <u>Standard Detail No. 303</u>. A 2' x 2' by 6-inch thick concrete collar shall be placed around the hydrant riser pipe a minimum of 2-inches below the breakaway flange. Hydrant port orientation shall be subject to Fire Department approval. All hydrants shall be painted "Safety Orange" as manufactured by Pittsburgh Paint (Color No. 90-313 Gloss).
- 35. Fire service vaults with Double Detector Check (DDC) and Fire Department Connection (FDC) shall be installed per <u>Standard Detail No. 308</u>, and include aluminum doors with hydraulic assist that lock open at 90 degrees. Snooper meters shall be installed prior to the final inspection.
- 36. Thrust blocks shall be installed per <u>Standard Detail No. 301</u>.
- 37. All water main shall be cement lined Class 52 AWWA C151 ductile iron, and poly-encased per AWWA standards for Method A, wet trench installation.
- 38. All water main and services shall be bedded and backfilled per <u>Standard Detail No. 201</u>. All backfill associated with public improvements shall be "Class B" unless otherwise specified. All pipe zone and Class B backfill material shall be compacted to minimum 95% of maximum dry

- density per AASHTO T99. The results of the compaction tests shall be submitted to the City prior to waterline testing and final paving.
- 39. All waterlines shall maintain between 36 inches and 42 inches of cover to finished grade. Water services shall have minimum 30 inches of cover within public right-of-way and shall be installed per <u>Standard Detail No. 306</u>.
- 40. Meter boxes shall be installed in pairs/groups and shall have a 3/4-inch conduit 18 inches deep between them to accommodate multiple meters on a single radio transmitter reader per Standard Detail No. 306B. Conduit joints shall be glued with a manufacturer-approved compound.
- 41. Concrete caps shall be installed per <u>Standard Detail No. 202</u> where clearance between other utilities is less than 1-foot.
- 42. All water main high points shall be fitted with an air relief per Standard Detail No. 305.

Sanitary/Storm Sewer System Conditions:

- 43. Pipes entering manholes shall have a flexible joint placed within 18 inches (minimum) or a distance equal to 1 ½ times the pipe diameter, whichever is greater, of the manhole structure.
- 44. Cleanouts shall be placed on all laterals at the public right-of-way per <u>Standard Detail No. 206</u>. If a cleanout is located outside a paved surface, the clean out shall be adjusted to final grade, and a 2' x 2' by 4-inch thick concrete collar shall be installed around it.
- 45. Gutter inlet catch basins are generally not allowed and require City approval prior to installation. When approved, gutter inlets shall be installed per <u>Standard Detail No. 208</u>, with "bike friendly" grates (Inland Foundry 517-2 Style C-2 or approved equal). Poured in place bases shall have monolithic bottoms and walls.
- 46. Curb inlet catch basins shall be installed per <u>Standard Detail No. 209</u>. Poured in place bases shall have monolithic bottoms and walls.
- 47. All sewer main and laterals shall be separated from water main and services in compliance with Oregon Health Division (OAR 333-061-0050 (9)) and Oregon Department of Environmental Quality regulations.
- 48. All sewer/storm drain main and laterals shall be bedded and backfilled per <u>Standard Detail No. 201</u>. All backfill within public right of way shall be "Class B" unless otherwise specified. All pipe zone and Class B backfill material shall be compacted to minimum 95% of maximum dry density per AASHTO T99. The results of the compaction tests shall be submitted to the City prior to acceptance testing.
- 49. Storm Drain and Sanitary Sewer acceptance testing shall be pursuant to the <u>Standard Construction Specifications</u>, <u>Division III</u> and the City's <u>PIPC Manual</u> as outlined in <u>Section II</u>, <u>Step 4.B</u>.

Street Network Conditions:

50. Street cuts shall be per <u>Standard Detail No. 110</u>. Existing pavement shall be saw cut after trench backfilling and prior to paving to remove pavement damaged by construction and provide 6 inches undisturbed base. Cut joints shall be tacked immediately prior to and sand sealed **immediately** after paving.

- 51. If hard surface cuts fall within bicycle lanes, extend the cut out to the bike lane stripe and/or concrete curb/gutter. No longitudinal patches are allowed within the bike lane.
- 52. All concrete sidewalks, curbs, curb ramps, gutter bars, driveway approaches, accesses and/or street panels that are damaged or removed during construction shall be replaced with full-panels to original or better than original condition using 28 day 4000psi concrete. Temporary patches shall be cold mix asphalt or alternate materials as approved by the City. Temporary patches are the responsibility of the permittee and shall be maintained until complete restoration has been completed.
- 53. Sidewalks shall be replaced within five business days and shall be made handicapped accessible at all times other than during closure for actual concrete placement and curing. If the remainder of site is not returned to original or better condition within ten working days, the permittee shall contact the City and submit a schedule (subject to approval) for completion of that work.
- 54. All ADA ramp construction and/or repairs shall conform to the federally mandated requirements outlined in the ADAAG (American with Disabilities Act Accessibility Guidelines) and the Standard Construction Specifications.
- 55. All sidewalks shall have a 1-foot level area adjacent to the sidewalk and maximum slopes as shown in <u>Standard Detail 106</u>. Planting strip cross-slopes shall be 2% unless otherwise shown, labeled and approved on the plans.
- 56. Any and all pavement markings damaged during construction shall be replaced by the Contractor to the original condition or better. The City may choose to install pavement markings at the developer's/contractor's expense.
- 57. Durable pavement markings and marking materials shall be approved by the City prior to installation. The Engineer of Record shall notify the City 2 weeks in advance of installation to schedule a pre-striping and marking meeting with the City. The Engineer of Record, and striping contractor shall attend.
- Street striping to be Premark "heat-fused" hot tape (ODOT Type B) or 3M Stamark Inlaid tape Series 380AW or 381AW tape. Use Kreteprime for thermoplastic on concrete surfaces. Premark "heat-fused" tape (ODOT Type B-HS) with Vizigrip for crosswalks (125 mil), and bike symbols (90mil). Reflective pavement markers to be 3M RPM 290/291Series. Use Henry #184 Flexible Dot Stick Bituminous Marker Adhesive applied at 340°F. Reflective pavement markers and buttons shall be used for centerline delineation unless other materials are approved. Bike lane symbols are required for bike lanes. Installation of all products shall be per manufacturer's recommendations. Layout of striping shall meet MUTCD standards. Notify the City at least 48 hours prior to installing any striping a City representative will need to be on site during striping installation. Allow for 20-day review on all "approved equal" submittals.

Billin	g Information Conditions:
59.	Hot taps and street signs, including installation, shall be provided by the City at the Contractor's expense. Bills shall be sent to the following address:
	Name:
	Address:
	City, State, Zip:
	Phone: ()
Roles	and Responsibilities Conditions:
install prepa the O as we const	r <u>Section 4.0.90</u> of its <u>Land Development Code</u> , the City has established procedures for the lation of Public Improvements by Private Contract (PIPC). A PIPC Procedure Manual has been used to detail these procedures. The Manual includes discussion of the general responsibilities of wner/Developer (or their agent) and Engineer of Record (who comprise the development team) as the City. In order to improve coordination between these parties, especially during the ruction phase, responsibility for the following items shall be as designated below, as discussed the Preconstruction Conference:
60.	Communication between the development team and the City will be coordinated by the development team's Point of Contact, which shall be the Engineer of Record. The City point of contact during the construction phase shall be the Field Contact assigned to the project.
61.	All PIPC projects shall require a detailed schedule to be updated weekly in writing and submitted to the City's Field Contact by the development team's point of contact. The schedule shall list major planned work activities such as system connections, initial installation of infrastructure features (i.e. first catch basin, ADA ramp), paving, striping, quality assurance testing, phasing transitions, and any other item potentially affecting City staff or the public.
	RESPONSIBLE PARTY:
62.	Unless otherwise waived or altered by the City, on-site weekly meetings shall be held to discuss the work. At a minimum, the Contractor, the Engineer of Record, and City Field Contact shall attend these meetings.
	MEETING SCHEDULE & LOCATION:

- 63. The Engineer of Record shall submit a traffic control plan for City approval, shall monitor plan implementation and performance throughout construction, and shall have Authority to Accept or Reject work with respect to traffic control.
- 64. For the following items, the ENGINEER OF RECORD shall be the responsible party:
- The Engineer of Record shall have the authority to accept or reject all aspects of the work including, but not limited to, conformance with plans and specifications; any modifications or corrections; traffic control; and erosion control.
 - Note that City acceptance of all public improvements must ultimately be obtained.
- For all PIPC projects that require an **erosion control** plan, the Engineer of Record or other qualified professional shall prepare the erosion control plan, submit the plan for City

(Development Services) approval, and monitor plan implementation and performance throughout construction.

- The Engineer of Record shall verify in writing that proposed products meet applicable specifications. Products requiring **submittals** include, but are not limited to: pipe and fittings, valves, meter and valve boxes, fire hydrants, manhole and catch basin components, cleanout covers, grout, aggregate, asphaltic and portland cement concrete, geotech fabrics, tack, traffic signal components, striping and pavement markings. This verification shall be provided prior to placing or installing products.
- The Engineer of Record shall conduct adequate site visits to monitor the progress of the work and verify compliance with plans and specifications. These site visits shall be comprehensive enough to allow the Engineer of Record to stamp "As-Built" or "Record Drawings" on the plans and ensure that the as-built drawings accurately represent the actual finished work product according to accepted engineering practice.
- The Engineer of Record shall schedule, apply for, monitor, report, verify, and submit results for all quality assurance **testing** as specified in the PIPC Process Guide or as approved by the City to determined compliance. The Engineer of Record shall certify all test results as required for all public infrastructure. These test results shall be submitted to the City for review **prior to final inspection and acceptance**.
- The Engineer of Record shall prepare and submit written documentation of any design or material changes from the authorized plans and specifications. This documentation shall be submitted at least two working days prior to implementing the change to allow for City review and concurrence. Any changes performed without prior City review and concurrence may be rejected.
- A preliminary paper copy of as-built drawings, 11" x 17" or full size, must be submitted with the request for the final inspection for City review. Final copies must be submitted and approved prior to acceptance of the project and initiation of the warranty period. Final as-built drawings shall reference all recording numbers for all applicable easements and/or dedications as well as other recorded agreements, such as irrevocable petitions, for public improvements. Questions concerning electronic as-built format should be directed to the City's GIS group at (541) 754-1742. Requirements for final paper and electronic as-built drawings are:
 - Two stamped and wet signed full size paper copies
 - One copy, AutoCAD electronic drawings (.dwg or .dxf file type)
 - One copy, PDF or TIFF electronic drawings (.pdf or .tiff file type)

ENGINEER OF RECORD	
Signature:	
Printed Name:	
Firm:	
Street Address:	
City/State/Zip:	
Phone/Fax:	
Email:	
OWNER	
Signature:	
Printed Name:	
Firm:	
Street Address:	
City/State/Zip:	
Phone/Fax:	
Email:	
CONTRACTOR	
Signature:	
Printed Name:	
Firm:	
Street Address:	
City/State/Zip:	
Phone/Fax:	
Email:	

X:\DIVISIONS\ENGINEERING\DEVELOPMENT REVIEW\OFFICE ADMIN, FORMS, MANUALS, MP'S, TRAVEL\MANUALS, MASTER PLANS\PIPC PRO MANUAL\2016 UPDATE\APPENDIX B SPECIAL PERMIT CONDITIONS.DOCX

Review and Concur:



Community Development

Development Services Division 501 SW Madison Avenue P.O. Box 1083 Corvallis, OR 97339-1083 (541) 766-6929 TTY (541) 766-6477 FAX (541) 766-6936

Policies / Interpretations / Procedures

POL 1050 Adopted: October 22, 1995 Last Reviewed: February, 2014

PUBLIC IMPROVEMENT PLAN REVIEW, PERMITTING, AND INSPECTION

Policy Summary:

Clarifies definition of the term "public improvement"; outlines plan review, permitting, and inspection responsibilities associated with the installation of public improvements.

Background:

To improve the consistency and quality of the plan review, permitting, and inspection processes associated with the installation of public improvements, City staff identified the need to clarify the definition of the term "public improvement" and to more specifically assign staff responsibilities related to public improvement installations.

Discussion:

The term "public improvement" has significance for staff because standards for installation and the processes for plan review, permitting, and inspection differ between "public" improvements and "non-public" improvements. In general, public improvements, once installed and approved, become City maintained facilities while non-public improvements, once installed and approved, become the responsibility of the property owner. Public improvements are often built to different standards than non-public improvements. Additionally, different plan review, permitting, and inspection processes exist and are necessary for public improvements and non-public improvements. Consequently, it is important to clarify the definition of the term "public improvement" as it relates to the construction industry.

Policy:

For the purposes of this policy, a public improvement is defined as an infrastructure improvement that must be constructed to standards adopted by the City Engineer, will become the permanent maintenance responsibility of the City, and must be permitted, constructed and inspected under the authority of the City Engineer.

POL 1050 February, 2014 Page 2

Examples of public improvements are as follows:

Water Systems:

- All water service lines from the City main to the meter.
- All water lines serving a fire hydrant (and including the hydrant). Exception: if a double check valve is installed in the line serving the hydrant, the public improvement terminates at the double check valve.
- All water lines serving a fire sprinkler system up to the required backflow device (if the device is located at or near the property line) or up to the shutoff valve at the water main (if the backflow device is at or inside the building).

Sewer Systems:

- All sewer lines in the public right-of-way or public easement; and,
- Any part of a sewer system on private property which serves:
 - a) Two or more parcels; or,
 - b) Three or more buildings on the same parcel.

Storm Drainage Systems:

- Any storm water piping system that carries storm water discharge from a public facility.
- Drainage way improvements that are required concurrent with construction in accordance with LDC 4.5
- Any storm water piping system that carries storm water discharge from two or more parcels.

There may be cases when a system is defined as a public improvement based on the above examples but the City Engineer requests that the Development Services Division permit, plan review, and inspect the improvement in order to enhance customer service. In these cases the Development Services Civil Engineer (CE-1) will confer with the Development Review Supervisor to reach a decision. The CE-1 will note on the approved plans which work group has the responsibility for conducting the inspections, and the Specialty Inspection Supervisor will be notified of the decision. An example of this type of case is as follows:

Sewer Systems:

• A new sewer service tapped into a main (not a manhole) located in a local street.

NEXT SCHEDULED REVIEW: February, 2016



Community Development

Development Services Division 501 SW Madison Avenue P.O. Box 1083 Corvallis, OR 97339-1083 (541) 766-6929 TTY (541) 766-6477 FAX (541) 766-6936

Policies / Interpretations / Procedures

PRO 3013 Adopted: February 7, 1996 Last Reviewed: February, 2014

FIRE SERVICE LINE INSTALLATION

Procedure Summary:

- 1. Specifies when a fire service line is public vs. private
- 2. Specifies staff responsibilities for review and inspection
- 3. Specifies the standards for installation.

Background:

The installation of fire service lines has been a source of great confusion with respect to delineating between public versus private, the role of staff from various departments in the review and inspection processes, and what standards apply.

Water lines serving fire protection systems or "fire service lines" are a unique extension of the potable water system in that Attorney General Opinion OP-6299 dated May 26, 1989, states that these lines are not within the regulatory authority of the Building Codes Division. These service lines are not regulated by the State of Oregon Plumbing Specialty Code, and those who install these lines need not be licensed plumbing contractors. The issuance of this Attorney General opinion raised questions as to which City department should be reviewing plans for and inspecting the lines, which standards should be used during the plan review and inspection process, and which regulations could be used to require backflow devices for these lines.

Staff consensus is that the Development Services Division will conduct the initial review of fire service line submittals. Because a Public Improvement by Private Contract (PIPC) permit is often involved, Development Services staff will coordinate the transition of the applicant into the PIPC process.

Discussion:

There are two layers of permitting procedures and installation standards applicable to fire service installations.

- 1. <u>Public</u>: Public Improvement by Private Contractor (PIPC) permits are issued by Public Works through the Development Review Division. City Engineering Standards for permitting, flushing, pressure testing, disinfecting and bacteriological testing apply to any portion of the fire service open to the public system.
- 2. <u>Private</u>: Building Permits are handled by the Development Services Division. NFPA-13 standards for materials certification, bag testing and pressure testing apply to the private portion of the fire service.

The following is a basic overview of the two installation scenarios involving fire service line installations. More detail on the specific steps is provided in the procedure section:

Scenario 1:

When the Double Detector Check Assembly (DDCA) is located in a vault at the property line/public right-of-way.

The point of public/private delineation is the first OS&Y valve at the Double Detector Check Assembly (DDCA). The installation up to this valve is reviewed, inspected and approved by Development Review under a PIPC permit.

The DDCA, vault, and fire service line up to and into the building are reviewed and inspected by Development Services under a Building Permit.

Under this scenario, the processes outlined in the PIPC permit packet must be completed and installation accepted by Development Review before Development Services then assumes the lead.

Development Services inspectors will require an approval from Development Review for the PIPC portion and a completed NFPA-13 Underground Certificate for all piping installed downstream of the DDCA. This shall be completed by the contractor before granting final approval.

Scenario 2:

When the Double Detector Check Assembly (DDCA) is located inside of the building or in a vault distant from the public right-of-way.

This installation is called a Combined Fire Service. In this scenario a public/private delineation valve is installed at the property line on the fire service line. Technically, the line is then private from the delineation valve into the vault or building, and NFPA-13 standards apply.

Because the public water feed for the fire service line is not protected by a backflow preventer until it reaches the DDCA in the building or vault, the private portion must be flushed, disinfected and accepted by Development Review in accordance with City Engineering Standards, in addition to NFPA-13 Standards. Because these two codes

differ in a few instances, the most restrictive shall govern. For example, City Engineering standards require a 150 psi pressure test and full flow flush. NFPA-13 requires a 200 psi pressure test and full flow flush with a clean bag test. In this case the NFPA-13 standard is more restrictive and therefore governs. Conversely, NFPA-13 does not require a disinfection and Bac-T test where City Engineering Standards do, so the latter governs. In either case, Development Review and Development Services inspectors will coordinate and jointly monitor all inspections and testing procedures.

Development Services inspectors will require an approval from Development Review and an Underground Certificate, as published in NFPA-13, to be completed by the contractor before granting final approval.

Procedure:

- 1. <u>Building Permit</u>. The building permit for fire service lines begins at either the DDCA in scenario 1, or the delineation valve in scenario 2. Plans for fire service lines are required to be submitted to the Development Services Division for review. The plan review will be conducted by the Development Services Project Coordinator with input from the Plumbing Inspector, Fire Marshal, and the Civil Engineer (CE-1). The CE-1 will coordinate the transition of the applicant into the PIPC process. Under scenario 2, the building permit fee will include the entire fire service line installation beginning from the delineation valve at the right-of-way.
- 2. <u>PIPC Permit (Scenario 1 vault).</u> Permitting of the public fire service waterline from its point of connection at the public water mainline up to the first valve in the DDCA located in a vault at the ROW will be administered by Development Review (DR) as outlined in the PIPC Process Guide and Permit Packet. Coordination with Development Services (DS) will be required to ensure consistency with the building permit application for the private portion of the fire service.
 - <u>PIPC Permit (Scenario 2 building).</u> Permitting of the public and private portions of the combined fire service will be administered through the Development Review (DR) PIPC Process Guide and Permit Packet. This includes the point of connection at the existing public mainline, all public waterline within the ROW, and the public delineation valve. The public delineation valve shall be located at or near the ROW line. The PIPC process shall insure that this delineation valve is fitted with a PVC sleeve labeled "Fire Service Normally Open" to avoid inadvertent closure. The PIPC permit fee shall include only the cost of the public portion of the combined fire service up to the delineation valve. Design coordination with Development Services (DS) will be required to ensure consistency with the building permit application for the private fire system and the private waterline up to and including the first OS&Y valve of the DDCA in the building.
- 3. <u>Pre-Construction Conferences.</u> PIPC and Building Permit pre-construction conferences shall be held. Representatives from each department should be invited to each pre-con.

4. <u>Construction Standards</u>. In considering the specific elements of the various standards, the most restrictive shall govern.

(Scenario 1 - vault) Construction of the public fire service up to the first OS&Y valve of the DDCA and the vault shall be in accordance with the City's Engineering Standards, Fire Department Operating Guideline 11.2.8, and the "Construction and Testing" guidelines outlined in the City's PIPC Process Guide and Permit Packet. Construction of the private fire service from the DDCA and throughout the building shall be in accordance with NFPA-13 and applicable building, electrical and plumbing codes.

(Scenario 2 - building) Construction of the public portions of the combined fire service waterline up to the delineation valve shall be in accordance with the City's Engineering Standards and the "Construction and Testing" guidelines outlined in the City's PIPC permit packet and Fire Department Operating Guideline 11.2.8. After the delineation valve, construction of the private fire service shall be in accordance with NFPA-13 and applicable building, electrical and plumbing codes. In addition, the NFPA-13 materials certification, type of materials, bag testing and pressure testing requirements are applicable. Development Review and Development Services inspectors will coordinate and jointly monitor all inspections and testing.

5. <u>Flushing.</u> Per the guidelines outlined in the City's PIPC Process Guide and Permit Packet, an initial PIPC flush shall be performed on all new public waterlines including the public or combined fire service.

(Scenario 1 - vault) Two flushes shall occur. The first flush includes the public fire service up to and including the first OS&Y valve of the DDCA. After this occurs the contractor may proceed with steps 6 & 7 below. The second flush is performed after the public portion is accepted by DR and released for service. The second flush shall occur under the NFPA-13 bag test requirements below.

(Scenario 2 - building) At the discretion of the inspector, one flush may be all that is necessary so long as it meets the most restrictive city standard or NFPA-13 flushing requirement. The combined fire service up to and including the first OS&Y valve of the DDCA shall be installed in the appropriate location inside of the building and flushed according to NFPA-13 bag test requirements as noted below.

In either scenario, only DR may operate the public water valves to facilitate these flushes.

NFPA-13 Bag Test. Per the requirements of NFPA-13, DS shall coordinate the contractor's request for a bag test with DR and Fire. It is the contractor's responsibility to ensure that adequate measures are taken to accommodate water disposal from flushing. This includes preventing the structure from being adversely impacted or undermined. The inspector has the latitude to refuse a flush and require the contractor to make additional provisions for wastewater disposal if structural components are in danger of undermining, flooding is likely to occur, or other adverse impacts are likely from discharges.

6. Pressure & Leak Testing.

(Scenario 1 - vault) Pressure and leakage testing up to the DDCA is required at 150 psi. DR shall witness this pressure and leakage testing. From the DDCA into the building, NFPA-13 requires fire service and waterline testing to be conducted at 200 psi. DS shall witness this testing.

(Scenario 2 - building) The combined fire service must be pressure and leak tested to NFPA-13 standards at a minimum of 200 psi pressure. DS shall witness this testing and provide a copy of documentation to DR.

- 7. PIPC Disinfection& Bacteriological Testing. Per the guidelines outlined in the City's PIPC Process Guide and Permit Packet, the Contractor shall disinfect all new public waterline and the combined fire service prior to being placed into service. DR shall confirm proper chlorination levels and perform all required microbiological sampling. All hyper-chlorinated water must be flushed into the sanitary sewer system or other DEQ approved method. After flushing, the line shall remain closed for an additional 24 hour period (for regrowth). Note that water samples must reach the lab no later than 12:00 p.m. on Monday through Thursday. Samples shall be taken to City lab (state approved) by a City representative. In the event that the sample is positive the line shall be retested, including disinfection.
- 8. <u>Acceptance for Operation</u>. Following a passing microbiological test, the fire service will be accepted for operation by DR.
- 9. <u>Locking of OS&Y Valve</u>: Upon acceptance for operation, DR will lock the DDCA OS&Y valve closed. After installation of the DDCA and DS finaling the private system, a tap card will be used to initiate a water service account and unlock the valve. The DDCA valve may be unlocked and operated by DR to facilitate private flushing and testing.
- 10. <u>PIPC Warranty</u>. The public portion of the combined fire service waterline (from the hot tap to the delineation valve) will be subject to a PIPC one-year warranty period. The one-year warranty will not be initiated until the project is accepted and all requirements outlined in the City's PIPC Process Guide and Permit Packet are complete. The privately owned and maintained portion of the combined fire service (from the delineation valve on the mainline, typically located at the ROW line, to the first OS&Y valve in the DDCA) will not be subject to the PIPC one-year warranty period.

NOTE: At this point the lead contact for the project shifts from Development Review staff back to Development Services staff.

11. NFPA-13 Inspection and Testing. After acceptance of the fire service by DR, the DDCA will be installed by the contractor and the private fire service line will be inspected and tested according to NFPA-13 standards and Fire Department Operating Guideline 11.2.8, by DS. DS staff will coordinate with DR or other qualified Public Works representative to

PRO 3013 February 2014 Page 6

operate the valve as needed for testing. These standards include materials certification, bag test and pressure testing to a minimum 200 psi (unless pressure testing has already been performed under #6 above). Chlorination is not required due to the DDCA protection.

- 12. <u>Finalizing</u>. The private portion of the fire service downstream of the delineation valve will be finalized through the building permit process.
 - The DDCA must be tested by a certified backflow assembly tester. Evidence in the form of a testing certificate shall be provided to the plumbing inspector at the time of final.
 - A completed "Underground Certificate" as published in NFPA-13, shall be provided to the building inspector at the time of final.
 - The building inspector shall verify that DR has accepted the system and the oneyear warranty period has been initiated before closing the case.
 - The inspector will notify the CE-1 and a tap card will be used to initiate a water service account and unlock the valve. The DDCA valve may then be unlocked by DR

NEXT SCHEDULED REVIEW: February 2016

Preconstruction Conference Attendance Log

Project Name:	
Permit No:	
Date:	

Name	Representing	Phone	Email