SECTION 4 – PUBLIC SANITARY SEWER EXTENSION

The provisions of this section are intended to specify and outline the responsibilities of the parties involved and the process followed by the District prior to acceptance of a Public Sanitary Sewer Extension not constructed by the District. These requirements are intended to meet the goals and objectives of the District in combination with all other state, federal, county and local laws and ordinances.

4.1 PUBIC SANITARY SEWER EXTENSION PERMIT

Prior to the commencement of construction of any Public Sanitary Sewer System a valid Public Sanitary Sewer Extension Permit shall be issued by the District in accordance with these Standards. The Extension Permit is required to construct or reconstruct any Public Sanitary Sewer appurtenances which are owned, or intended to be conveyed to the District. All other sanitary sewer piping not intended to be conveyed to the District shall be permitted by the Local Plumbing Authority.

4.2 RESPONSIBILITIES

The responsibilities of the District, Developer, Developer's Engineer, and Contractor are defined in the following subsections.

4.2.1 District Responsibilities

The District shall be responsible for the review and approval of Plans, issuance of the Public Sanitary Sewer Extension Permit and the final inspection and acceptance of sanitary sewer mains and services. The District's review constitutes review under OAR 340-52 and ORS 672.

During the preliminary design phase and plan review process the District will be determining whether the proposal complies with these Standards, District's Regulations, applicable state laws, and other laws incorporated by specific reference.

The activities authorized by the approval of the request in this application may be subject to other laws not addressed in this process. The Federal Endangered Species Act (ESA) is one such law. The ESA is a federal law that is adopted, administered and enforced by agencies of the Federal Government and not Water Environment Services. Water Environment Services in its review of this application will not make any evaluation on whether activities taken pursuant to an approval will or will not result in a violation of the ESA or of any other jurisdictions.

4.2.2 Developer Responsibilities

It shall be the responsibility of the Developer to obtain land use approval through the appropriate Planning Authority. The Developer shall make application for a Public Sanitary Sewer Extension Permit to the District. The Developer shall have ultimate responsibility for compliance with all requirements specified in these Standards and District Regulations. The Developer shall be directly responsible for all administrative requirements including application for service, submittal of all required Plans, bonds and insurance, and payment of fees. The Developer shall submit a signed and executed Sanitary Sewer Engineering Agreement (which can be found in Appendix A) and shall be responsible for performance of the Developer's Engineer in meeting all design requirements, and for the performance of the Contractor in meeting all construction-related requirements. The Developer is specifically put on notice that it is their responsibility, and not

Water Environment Services' to determine whether activities taken pursuant to a Plan approved by Water Environment Services do not conflict with the provisions of the Federal Endangered Species Act or of any other regulatory laws or other jurisdictions.

4.2.3 Developer's Engineer Responsibilities

These Standards establish minimum requirements for designing the District's Sanitary Sewer System. They are not intended to be a substitute for engineering knowledge, judgment, or experience. The information presented herein shall be reviewed by the Developer's Engineer and shall be applied as necessary to the project. The Developer's Engineer shall be responsible for specifically complying with these Standards and District Regulations.

Any Public Sanitary Sewer Extension proposed for connection to the District Sanitary Sewer System must be constructed under the continuous inspection of a registered professional Engineer or Engineer's Inspector. The Engineer's Inspector(s) shall be recognized as representatives of the Engineer and their duties shall be to approve materials and workmanship as required by the plans and specifications. The Engineer may give written notice that all work be stopped until the Engineer and/or their Inspector is satisfied that materials and workmanship conform to the applicable specifications.

The Sanitary Sewer Engineering Agreement between the Developer and the Engineer shall provide that the Engineer shall have the sole responsibility for determining that design, materials and construction of the Public Sanitary Sewer Extension conform to these Standards. Such agreement shall further provide that the Engineer shall certify such testing and inspection services as are required by the District and are deemed necessary by the Engineer to stamp and sign the Certification of Completion (which can be found in Appendix B) as required by these Standards and the District Regulations.

4.2.4 Contractor's Responsibilities

The Contractor shall be duly licensed by the State of Oregon and other licensing political subdivisions having jurisdiction over the work and be bonded to perform such work. It shall be the Contractor's responsibility to notify the Engineer as required in Section 4.4.2 of these Standards.

4.3 PLAN SUBMITTAL, REVIEW AND APPROVAL PROCESS

4.3.1 Application Submittal

The Public Sanitary Sewer Extension submittal shall include all required information along with any other information requested by the District.

Required information includes but is not limited to:

1. Two (2) sets of complete civil construction Plans.
2. Sanitary Sewer Engineering Agreement (which can be found in Appendix A).
3. Construction and Engineering Cost Estimate (which can be found in Appendix A).
4. Sanitary Plan review fees (see the District Fee Table).

A submittal is not considered accepted until it is complete. All submittals will be reviewed for completeness and the Engineer will be notified if required information is missing. Upon acceptance of a submittal, subsequent project review and approval steps shall be undertaken.

4.3.2 Construction Plans

Construction plans and specifications shall be prepared by a professional Engineer in accordance with the following requirements:

1. Required Sheets – Title Sheet, Erosion/Sedimentation Control Plan, Notes, Grading Plan (if applicable), Plan and Profiles and Standard Drawings/Detail Sheet, all to be completed in AutoCAD Release 2000 or higher format. The stamp and signature of the Engineer responsible for preparation of the Plans shall be on each sheet.
2. Dimensions – Construction Plans shall be clearly and legibly drawn on engineering paper 22 by 34 inches or 24 by 36 inches with a 1½ inch clear margin on the left edge and ½ inch margins on all other edges.
3. Scale – Scales shall be 1" = 50' horizontal and 1" = 10' vertical. Alternative scales may be approved by the District on a case by case basis. The scale shall be shown for each plan and profile view.
4. Lettering – The minimum lettering size shall be six-hundredths (0.06) of an inch high for existing items and eight-hundredths (0.08) of an inch high for new items. Items shall be legible and reproducible. Generally text for all new improvements shall be horizontal.
5. Title Block – Located on the lower edge of the drawing, showing: date, drawing number, engineer's name, address and official stamp, and where applicable, the Owner/Developer's name and address and the name of the subdivision.
6. North Arrow – Each sheet shall include a north arrow.

4.3.2.1 Title Sheet

Title Sheet shall include the following:

1. Index of Sheets
2. Complete legend of symbols used.
3. Vicinity Map to a scale of not less than 1"=800' showing the project location.
4. Site Plan of the entire project shall show street right-of-way and/or subdivision layout to a scale of 1"=100'. A smaller scale may be used on large projects upon approval of the District. The site Plan shall be a composite Plan showing all properties to be served by the proposed sanitary sewer improvements, all other proposed improvements, properties adjacent to and within 250 feet of the proposed development, existing natural or artificial streams, swales, sanitary sewers, mainline sizes, designations, structures and their addresses, tract names and numbers, tax lot numbers or property owner's names, street names and total acreage including streets directly served.

Temporary and permanent bench marks including their descriptions.

4.3.2.2 Plan and Profile Sheets

1. Plan View

Plan view of sanitary sewer mainlines shall be shown in a stacked format with the plan view centered over the profile view. As a minimum the following information should be shown in the plan view:

A. Proposed public sewer extension showing sewer mains, manholes and service connections.

B. Mainlines shall be clearly labeled. The District will provide sanitary sewer mainline designations to be used in the design. Maintain District stationing formats for new mainlines.

C. Manholes shall be identified and stationed to facilitate checking the plan view with the profile view. Manhole callouts shall be in District format (found in the Appendix A). Maintain District stationing formats for new mainlines and manholes.

D. Service connection tees off the mainline. On each lot being served show the mainline stationing, pipe size and depth.

E. Right-of-way, property, and easement lines.

F. Subdivision names, roadway names, and lot numbers.

G. Existing utilities and structures, including hydrants, pedestals, signs, mailboxes, light poles, structures, manholes, valves, meter boxes, power poles, handicap ramps, striping and trees.

H. Edge of pavement on both sides of the street, including shoulders, curb, sidewalk, ditch line, culverts and driveways. Plan and profile should include the above items for 200 feet beyond the proposed improvement.

I. Location and size of all existing and proposed storm and roof drains, water systems and other utilities shall be shown as a lighter line weight than the new sanitary sewer improvements. Street stationing may be shown on the construction Plans but later removed on the final asbuilts. Roof drain connection points shall be shown using the ®→ symbol.

J. Accurate two (2) foot contour lines or property corner and curb elevations to help determine if existing basements or proposed daylight basements in new subdivisions can or should be served.

K. Location of water courses, stream and railroad crossings, culverts, and storm drains that cross the alignment within 500 feet of the proposed extension in order to prevent future grade conflicts. All water course crossings must show the 100-year flood plain.

L. Location of wells, water mains, valves, pump stations, and blow-offs within a 100 foot radius of the proposed extension. All manholes, water mains, services, gas mains, underground power, and other utilities either crossing the alignment within 250 feet of the terminus of the proposed extension or adjacent to the proposed extension within the right-of-way or within ten (10) feet of the easement line. The intent is to prevent grade conflicts of all future extensions.

M. Location of all existing facilities on which work is to be performed, i.e. installation, repair or removal.

N. Location and description of all known existing property monuments, including, but not limited to, section corners, quarter corners, donation land claim corners and any other County control monuments.

2. Profile View

Plan and profiles on each sheet shall match (i.e. profile to show pipe in same direction as the plan view). Profiles shall contain the following information:

A. Location of existing and proposed manholes and other appurtenances with each manhole numbered and stationed. Manhole numbers to be provided by District. Manhole callouts shall be in the District format (found in the Appendix A). The benchmark used as a basis for vertical control in the design shall be referenced on the Plans.

B. Vertical datum shall be based on the I.E. in of the existing District manhole or mainline extension point.

C. Grid lines using the horizontal and vertical scale.

D. Existing and proposed ground and/or pavement surface.

E. Sanitary mainlines shall be labeled with the name of the mainline centered under the profile view in large bold letters.

F. Mainlines shall be labeled with the pipe size, slope (in foot/foot), length, and type of backfill between manholes.

G. Nonstandard manholes should be labeled with the type (i.e. tamperproof, drop, flat top, etc.).

H. Railroad, culvert, ditch, or stream crossings with elevations of the ditch or streambed and casing details.

I. All existing and proposed storm, water and utility mainline crossings.

J. All existing facilities upon which work is to be performed, i.e., installation, repair, or removal.

SPECIAL NOTE: The Engineer shall field locate and verify the alignment, depth, and inverts of all existing facilities shown on the Plans that will be crossed by proposed facilities which might cause a slope or alignment change of the sanitary sewer

and shall certify them with a note on the Plans. District asbuilts are only to be used as an aid to the design Engineer when field verifying the existing facilities.

4.3.2.3 Standard Detail Drawings Sheets

All applicable standard drawings shall be included on a separate sheet, in a clear legible size. If a standard drawing, such as a sanitary sewer manhole, must be modified to fit existing, or unique conditions, the modified detailed drawing shall be shown on the plan and profile sheet. When appropriate, due to required detail complexity, a separate detail sheet shall be used.

4.3.2.4 General Notes

As a minimum the District's general construction notes (found in the Appendix A) shall be included on the Plans, with additional notes added at the discretion of the designing Engineer.

4.3.2.5 Supporting Information

The Engineer shall submit sufficient supporting information to justify the proposed design. Such information shall include, but not be limited to, the following:

1. Design calculations
2. Alternate materials specifications including manufacturers' design application recommendations and catalog cut sheets.

   Plan support information to include as appropriate:

3. Soils engineering report
4. Engineering geology report

4.3.2.6 Other Requirements

Periodically, the District may require additional information to support design assumptions used for sanitary sewer design. When required the information shall be included on the Plans or submitted in memorandum form to the District. The following may be required:

1. Potential size of Drainage Basin
2. Number of potential EDU's

4.3.2.7 Reviewing Agencies

The District shall review all submitted proposals and Plans for Public Sanitary Sewer Extension construction.

The design and construction of public and private improvements within the District may involve numerous agencies, districts, and private utilities. It shall be the Developer's responsibility to coordinate the design, permit process, and construction with the applicable agencies, districts, and private utilities.

4.3.2.8 Permits and Fees

The Developer shall obtain all necessary District plan review and approval, construction permits and pay all applicable District fees prior to the commencement of any work.

4.3.2.9 Sanitary Sewer Engineering Agreement

The Developer and the Developer's Engineer shall submit a signed Sanitary Sewer Engineering Agreement on a District supplied form (which can be found in Appendix A) which outlines the responsibilities of the Developer and Engineer, with regards to surveying, costing, design, inspection, testing, certification and asbuilt requirements of the District for acceptance of the proposed Public Sanitary Sewer Extension project.

4.3.3 Pre-Construction Meeting

A pre-construction meeting shall be arranged by the Developer's Engineer to be held at District offices prior to issuing of the Public Sanitary Sewer Extension Permit. Attendees must include the Developer, Developer's Engineer, Contractor and the District representatives. Other interested parties may also attend the meeting. The purpose of the meeting is to discuss issues surrounding the project including but not limited to materials, construction details, sequencing, traffic control, Developer's Engineer testing and inspections, District inspection and other requirements to insure the work is completed in a timely manner and acceptable to the District at its completion. At this meeting the Contractor shall present certification of the District's license requirements found in Section 11.6 of the District's Rules and Regulations.

4.4 PROJECT CONSTRUCTION

4.4.1 Minor Modification or Deviation from the Approved Plans

No minor modification or deviation from the approved Plans and specifications shall be made without the prior written approval of the District. When any minor modification or deviation of the approved Plans is requested by the Developer's Engineer, two (2) sets of Plans showing the revisions shall be submitted to the District for approval. No construction of the modified section can commence until these revised Plans are reviewed and approved by the District. Approvals shall be made by the District in writing.

4.4.2 Inspection and Testing

The Developer's Engineer is responsible for all testing and inspection services as required by the District and to certify the material, construction and testing results to the District. The Developer's Engineer or the Engineer's Inspector shall be allowed full access to all parts of the work, including the plants of producers and fabricators at all times; and shall be furnished with every reasonable facility for ascertaining whether or not the work, as performed, is in accordance with the requirements and intent of the approved Plans and specifications. The Contractor shall furnish, at the Contractor's own expense, such samples as are customarily required for testing purposes. The District does not furnish inspection of sanitary sewer construction. For this reason, it is imperative that the Developer and/or the Developer's Contractor provide prompt and complete notification to the Engineer and the District as to the progress of the construction

of sanitary sewer improvements. Notification must be given to the Engineer when the following work is to be scheduled:

1. Mobilization.
2. Placement of erosion/sedimentation controls.
3. Excavation and installation of the sanitary sewer mainlines begins.
4. Compaction testing/proof roll of trench backfill and fill areas.
5. Construction of structures (including manholes, service connections and cleanouts).
6. Compaction testing of backfill.
7. Placement and compaction of pavement.
8. Finishing roadbed and slopes (backfilling curb or gutter, trimming out banks and drainage channels, etc.).

Failure to give the Engineer proper notification (48 hours) of the Contractors work schedule may invalidate the work performed and make necessary, testing and inspection from an independent testing laboratory for compliance with the District's construction specifications. Such tests shall be furnished, at no expense to the District.

4.5 ACCEPTANCE AND WARRANTY

Acceptance of the Public Sanitary Sewer Extension will be made in writing by the District after all conditions of the Public Sanitary Sewer Extension Permit have been met. The following subsections outline the Districts post-construction requirements prior to final acceptance.

4.5.1 Test Results

The sanitary sewer system including the mainline, manhole and service connection testing shall be observed by the Engineer or Engineers Inspector and the results shall be certified to the District on the approved District forms (which can be found in Appendix B).

4.5.2 Service Connection Drawings

Provide appropriate information to locate newly installed sanitary sewer service connections for each lot or parcel within the project boundaries. The location as measured to physical objects in the field to assure that the service connection can be located after construction is completed. See the Appendix B for instructions and forms. Service connection drawings shall become the property of the District and are Public Records.

4.5.3 Asbuilt Plan Requirements

For all Public Sanitary Sewer Extensions the Engineer shall submit certified asbuilt Plan and profile drawings. Asbuilt drawings shall meet the requirements of CCSD#1 and shall be of archival quality. Each page shall be stamped and signed by the Engineer and state in writing that this is an asbuilt drawing. Asbuilt drawings shall become the property of the District and are Public Records.

4.5.4 Certification of Completion

A stamped and signed Certificate of Completion (found in the Appendix B) shall be provided by the Developer's Engineer. This statement certifies to the District that all construction methods, workmanship and materials, have been inspected, tested by approved methods and found to conform to the approved Plans and the specifications of the District.

Minimum Requirements:

One (1) set of full sized "Draft" asbuilt full size paper drawings shall be submitted to the District for review and approval prior to final Mylar submittal. At minimum, the final asbuilt drawings shall be a legible black line drawing printed on 4 mil Mylar, capable of being reproduced.

The following additional minimum information shall be noted on sanitary sewer asbuilt drawings:

1. Service connections drawing for each building lot with a callout showing the mainline stationing, pipe size, length, and depth at the property line crossing.
2. Show alignment changes, slope changes, pipe size changes and changes in construction materials.
3. Measured depth from existing ground surface of all storm, sanitary, waterline and utilities that cross the pipeline alignment in profile.
4. Type of pipe, backfill material and location.
5. Indicate areas of rock removal not completed by standard backhoe, i.e. splitter or blasting.
6. The subdivision name shown in the title block shall match the name shown on the plat.

   Drawings shall also be submitted electronically in AutoCAD version 2000 or later format as required (found in the Appendix A) by the District. The electronic submittal shall become the property of the District.

4.5.5 Final Inspection

A final inspection of the Public Sanitary Sewer improvements for conformance with Plans, specifications, and these Standards must occur. The Developer's Engineer shall notify the District upon completion of construction and request a final inspection conducted by District personnel. Any deficiencies resulting in non-acceptance of the work shall be identified in writing and presented to the Developer's Engineer for correction. Upon correction of the noted deficiencies the Developer's Engineer shall notify the District and request a re-inspection. If the work is accepted the Developer's Engineer will be notified.

4.5.6 Construction and Engineering Cost

The Developer's Engineer shall calculate and submit on District forms the actual construction and engineering cost of the Public Sanitary Sewer Extension. The Construction and Engineering Cost Data Sheet form can be found in Appendix C.

4.5.7 Letter of Conveyance

The Developer/Owner shall convey (at no cost to the District) all right, title and interest in the Public Sanitary Sewer Extension to the District. The Conveyance of Public Sanitary Sewer Main Extension form can be found in the Appendix C.

4.5.8 Warranty Bond

A warranty bond or cash deposit in an amount equal to twenty-five percent (25%) of the actual construction and engineering cost to complete the Public Sanitary Sewer Extension. The warranty bond or cash deposit shall be provided to the District by the Developer/Owner at no cost to the District. This bond shall guarantee the workmanship and materials of the Public Sanitary Sewer Extension for a minimum period of one (1) year from the date of acceptance by the District unless a longer period is required by the District. The Warranty Bond form can be found in the Appendix C.

4.5.9 Letter of Acceptance

Upon completion of all the requirements of the Public Sanitary Sewer Extension Permit, District Regulations, and these Standards the District shall issue a letter stating the District will accept for ownership and maintenance the Public Sanitary Sewer Extension and specify the date the warranty period will begin.

4.5.10 Warranty Period

The Owner/Developer or Contractor's warranty period shall be for a minimum period of one (1) year from the date specified in the Letter of Acceptance unless a longer period is required by the District.

Prior to the end of the warranty period, the District will conduct an inspection of the Public Sanitary Sewer Extension and notify the Owner/Developer or their Engineer of any deficiencies found. Any faulty workmanship and/or defective materials which are discovered within the warranty period shall be corrected and/or replaced by the Owner/Developer at no expense to the District. Such warranty period and warranty bond may be extended upon the disclosure of a defect for a minimum of one (1) year after the correction of the defect is completed at the sole discretion of the District.

All repair work required during the warranty period shall be performed within thirty (30) days of issuance of written notification to the Owner/Developer. Emergency work performed by the District and all work performed by the District due to the nonperformance of the Contractor shall be reimbursed to the District within thirty (30) days of invoice. If the Contractor fails to reimburse the District in thirty (30) days the District may file a bond claim.

After the warranty inspection and completion of all work required to bring the sanitary sewer mainline into conformance with these Standards, all sureties shall be released unless the warranty period and warranty bond is extended.