

CITY OF SNOHOMISH
SNOHOMISH, WASHINGTON

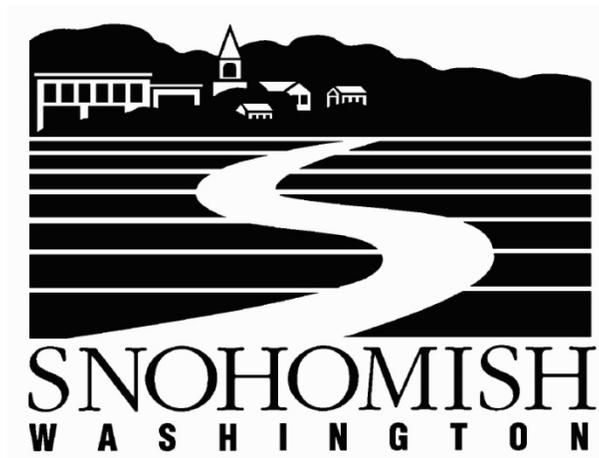
CONTRACT DOCUMENTS

for the

BIOSOLIDS REMOVAL AND REUSE PROJECT

Prepared for:

City of Snohomish



Prepared by:

BHC
CONSULTANTS
SEATTLE TACOMA
950 Pacific Avenue, Suite 710
Tacoma, WA 98402

Kennedy/Jenks Consultants
Engineers & Scientists

200 SW Market Street, Suite 500
Portland, OR 97201

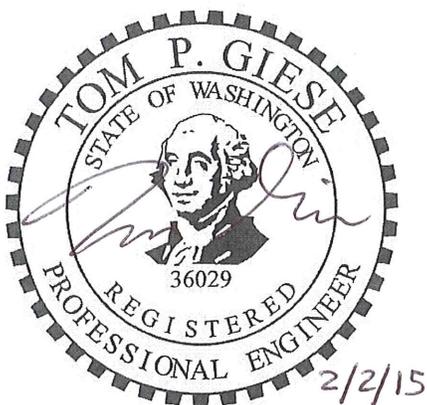
February 2015

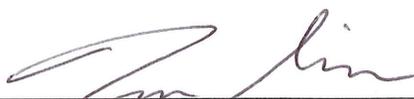
CERTIFICATE PAGE

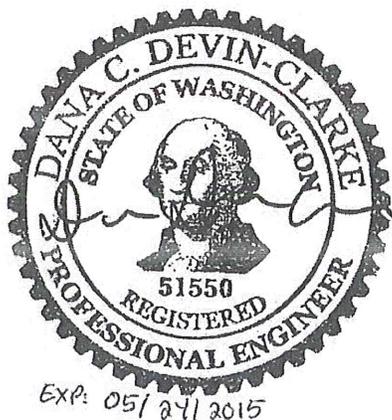
CITY OF SNOHOMISH

BIOSOLIDS REMOVAL AND REUSE PROJECT

The engineering material and data contained in these Specifications were prepared under the supervision and direction of the undersigned, whose seal as a registered professional engineer is affixed below.




Tom Giese, PE, BHC Consultants, LLC




Dana Devin-Clarke, PE, Kennedy/Jenks
Consultants

TABLE OF CONTENTS

SECTION 1: BID PROPOSAL

NOTICE OF CALL FOR BIDS	1
INFORMATION FOR BIDDERS.....	3
*PROPOSAL FORMS	6
*BID PROPOSAL.....	8
*DEPOSIT OR BID BOND FORM	16
*STATEMENT OF BIDDER QUALIFICATIONS	17
*ANTI-DISCRIMINATION CERTIFICATE	19
*INDEMNIFICATION ADDENDUM.....	20
*CERTIFICATION OF NON-SEGREGATED FACILITIES	21
*CERTIFICATION OF PERMITTED BENEFICIAL USE FACILITY	22
CONTRACT	23
CONTRACT BOND.....	26
INSURANCE COVERAGE QUESTIONNAIRE.....	29
CONTRACTOR'S DECLARATION OF OPTION FOR MANAGEMENT OF STATUTORY RETAINED PERCENTAGE.....	30
RETAINAGE RELEASE REQUIREMENTS.....	34

SECTION 2: SPECIAL PROVISIONS

INTRODUCTION TO THE SPECIAL PROVISIONS	
AMENDMENTS TO THE STANDARD SPECIFICATIONS	
01010	SUMMARY OF WORK
01025	MEASUREMENT AND PAYMENT
01060	CODES, PERMITS AND PREVENTION OF ENVIRONMENTAL POLLUTION
01300	SUBMITTALS
01530	TEMPORARY FACILITIES AND UTILITIES
01700	CONTRACT CLOSEOUT
02150	BIOSOLIDS REMOVAL AND REUSE

APPENDICES:

- A. REFERENCE DRAWINGS
- B. BIOSOLIDS MANAGEMENT PLAN
- C. PREVAILING MINIMUM HOURLY WAGE RATES

*** DOCUMENTS TO BE TURNED IN WITH BID**

SECTION 1

BID PROPOSAL

**CITY OF SNOHOMISH
BIOSOLIDS REMOVAL AND REUSE PROJECT
NOTICE OF CALL FOR BIDS**

NOTICE IS HEREBY GIVEN, that sealed bids shall be received and recorded by the City Clerk at City Hall, 116 Union Avenue, Snohomish, WA 98290, until 2:00 PM, Pacific Coast Time, Friday, February 20, 2015, and then publicly opened and read aloud. Bids for this project are being solicited through the small works roster process.

The work to be performed under this contract provides for onsite dredging and dewatering of biosolids from the City's wastewater treatment plant (WWTP) lagoon system. Work also includes the hauling and disposal of the dewatered biosolids at a Washington State Department of Ecology permitted beneficial use facility. Work will be as specified in these general and special provisions for the City of Snohomish, Snohomish County, Washington. A collection of reference drawings for the WWTP and a copy of the preceding Biosolids Management Plan are provided in Appendix A and B, respectively. Qualifications for bidding this project require successful completion of three (3) similar projects at treatment facilities within the last five (5) years.

Project Title: City of Snohomish Biosolids Removal and Reuse Project

Engineer's Estimate Range: \$275,000 - \$350,000

Specifications, addenda, and a plan holders list for this project are available on-line through Builders Exchange of Washington, Inc. at <http://www.bxwa.com>; 2607 Wetmore Avenue, Everett, WA 98201-2929, (425) 258-1303, Fax (425) 259-3832. To access the project, click on: "Posted Projects", "Public Works", "City of Snohomish", and "Projects Bidding". Note: Bidders are encouraged to "Register as a Bidder", in order to receive automatic email notification of future addenda and to be placed on the "Bidders List". Contact Builders Exchange of Washington at (425-258-1303) should you require further assistance. Informational copies of any available maps, plans and specifications are on file for inspection in the office of the City of Snohomish Public Works Engineering Department or on the City's website www.ci.snohomish.wa.gov.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five percent (5%) of the base bid amount of such bid proposal. NO BID SHALL BE CONSIDERED UNLESS ACCOMPANIED BY SUCH BID PROPOSAL DEPOSIT. If the successful bidder does not enter into a contract and file a performance and payment bond and the required insurance certificates, with the City of Snohomish within ten (10) working days after Notice of Award of Bid, the amount of the bid deposit shall be forfeited to the City of Snohomish. Unsuccessful bidders' deposits will be returned upon City's execution of contract documents or rejection of all bids.

A one hundred percent (100%) Contractor's Performance and Payment Bond is required covering the full Contract Price. The bond must be delivered to the Snohomish City Clerk within ten (10) working days after notification of the award to the successful bidder. The Bond

must be approved by City officials before the contract award is final. A Contract is required and must be executed and returned to the City of Snohomish within ten (10) working days after notification of award. Approval of the contract by City officials is required before the contract award is final.

A certificate of liability insurance with \$1,000,000 single event and \$3,000,000 aggregate limits for this project must be furnished to the City of Snohomish within ten (10) working days after Notice of Award of Bid. This insurance certificate shall also specifically name the City of Snohomish as an additional insured. The successful bidder may not commence work under this contract until all required insurance coverage has been approved by the City.

The City of Snohomish reserves the right to reject any or all bids, and to waive irregularities or informalities in the bid or in the opening. The City of Snohomish reserves the right to delete portions of the work.

No bidder may withdraw his bid after the hour set for the opening thereof, or before award of contract, unless said award is delayed for a period exceeding sixty (60) calendar days.

The bidder further agrees to begin work within ten (10) working days after Notice to Proceed has been issued, unless approved otherwise by the City of Snohomish. The Contractor has ninety (90) calendar days to complete the project. Payment of liquidated damages will be made by the Contractor to the City in the amount specified in the Contract if the work is not physically completed within the allotted time, in accordance with Section 1-08.9 of the Standard Specifications.

Bid package and technical related questions can be directed to Max Selin, P.E., Project Engineer, at (360) 282-3196.

Dated this 4th day of February, 2015

City of Snohomish, Washington

BY:

Torchie Corey, City Clerk

INFORMATION FOR BIDDERS

BIDS will be received by the CITY OF SNOHOMISH (herein called the "OWNER") at the time and location set forth in the Call for Bids herein before and then at said office publicly opened and read aloud.

Each BID must be submitted in a sealed envelope addressed to the CITY OF SNOHOMISH, ATTN: CITY CLERK, 116 Union Ave., Snohomish, WA, 98290. Each sealed envelope containing a BID must be plainly marked on the outside as BID for **BIOSOLIDS REMOVAL AND REUSE PROJECT**. The envelope should bear on the outside the name of the BIDDER, his address, his license number if applicable, and the name of the project for which the BID is submitted. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at the above address.

All BIDS must be made on the required PROPOSAL FORM. All blank spaces for BID prices must be filled in, in ink or typewritten, and the PROPOSAL FORM must be fully completed and executed when submitted. Only one copy of the PROPOSAL FORM is required. All BIDS must be received by 2:00 PM, Pacific Coast Time, Friday, February 20, 2015.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within sixty (60) calendar days after the actual date of the opening thereof.

Before submitting its proposal, the BIDDER shall examine the site of the work and review the specifications and reference drawings (see Appendix A) including ADDENDA and ascertain for themselves the work required and all of the physical conditions in relation thereto. Failure to take this precaution will not release the successful BIDDER from entering into contracts nor excuse the BIDDER from performing the work in strict accordance with the terms of the contract. No verbal statement made by any officer, agent, or employee of the OWNER, in relation to the physical conditions pertaining to the site of the work, will be binding on the OWNER during the gathering of information for proposal preparation by each BIDDER. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The CONTRACT DOCUMENTS contain the provisions required for completion of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

The BID must include a copy of the proposed Beneficial Use Facility's Notice of Final Coverage Under the General Permit issued by the Washington State Department of Ecology Biosolids Program Coordinator for the region where biosolids will be applied.

The CONTRACTOR shall submit documentation, as indicated in the BID proposal, verifying it has the minimum experience qualifications required for bidding. Due to the sensitive nature of the work, the OWNER has determined that the minimum experience requirement for BIDDERS to BID on this project is the successful completion of three (3) similar projects at treatment facilities within the last five (5) years.

Each BID must be accompanied by a BID deposit payable to the OWNER for five percent (5%) of the base bid amount of the BID. As soon as the BID prices have been compared, the OWNER will return the deposits of all except the three lowest responsible BIDDERS. When the Agreement is executed, the deposits of the remaining unsuccessful BIDDERS will be returned.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance and payment bond within ten (10) working days after the date on the NOTICE OF AWARD. The performance and payment bond in the amount of 100 percent of the Contract Price, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and bond forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may at his option consider the BIDDER in default; in which case the BID deposit accompanying the bid shall become the property of the OWNER.

The OWNER, within ten (10) working days of receipt of acceptable bond and Agreement signed by the party to whom the Agreement was awarded, shall sign the Agreement within such period.

CONTRACTOR shall not commence work until a NOTICE TO PROCEED has been issued by the OWNER.

The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER, in the OWNER'S discretion, that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted.

The project contains additive bid items. Award will be made as a whole to one BIDDER. The OWNER reserves the right to award one, all, none or any combination of the additive bid items thereof that best serves the interest of the OWNER. However, it is the OWNER'S intent to include the additive bid items unless the total pricing exceeds the OWNER'S budget.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do

any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his BID.

The low BIDDER must supply the names and addresses of major material suppliers and subcontractors when requested to do so by the OWNER and where requested in the BID proposal.

The City of Snohomish reserves the right to delete portions of the work.

Bid Package and technical related questions can be directed to the Project Engineer, Max Selin, PE, at (360) 282-3196.

CITY OF SNOHOMISH - BID PROPOSAL

TO: City of Snohomish
Attn: City Clerk
116 Union Avenue
Snohomish, WA 98290

The bidder declares that he or she has carefully examined the contract documents for the project; that he or she has personally visited the sites; that he or she has satisfied himself or herself as to the quantities of work involved, including materials and the equipment and conditions of work involved, surveying necessary for the project, and including the fact that the description of the quantities of work and materials as included herein, is brief and intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the contract documents and that this proposal is made according to the contract documents, which are hereby made a part of this proposal. The City of Snohomish reserves the right to delete portions of the work.

The bidder declares that he or she has exercised his or her own judgment regarding the interpretations of the specifications contained within the contract documents and has utilized all data that he or she believes pertinent in arriving at his or her conclusions.

The bidder agrees to hold his or her bid proposal open for sixty (60) calendar days after the receipt of bids by the City.

The bidder agrees that if this proposal is accepted, he or she will, within ten (10) working days after notification of acceptance, execute a contract in the form included in the contract documents with the City of Snohomish, and will, prior to the time of execution of the contract, deliver to the City of Snohomish a performance and payment bond and a Certificate of Insurance and as required therein, and will, furnish all machinery, tools, apparatus, and other means necessary to do the work in the manner, in the time, and according to the methods specified in the contract documents.

The bidder understands that the project includes two additive bid items and that, although the City intends to include both additive bid items, the City is under no obligation to include the additive bid items in the final contract price. The bidder must complete the bid form in entirety; however, it is at the discretion of the City to award the contract with or without the additive work. The City reserves the right to award the base or additive contract amount, or none at all, as it best serves the interest of the City. The bidder understands that the proposed beneficial use facility (BUF) must be permitted by the Washington State Department of Ecology.

The bidder further agrees, if awarded the contract, to begin work within ten (10) working days after the date of notice to proceed, unless otherwise approved by the City, and to complete the work within ninety (90) calendar days as described in Section 1-08.5 in the Special Provisions included herein.

In the event the bidder is awarded the contract and shall fail to complete the work within the time limit or extended time limit agreed upon as more particularly set forth in the contract documents, liquidated damages shall be paid to the owner per the specifications contained in the contract documents.

The bidder proposes to accept as full payment for the work proposed herein the amount computed under the provisions of the contract documents. This amount shall be based on actual quantities of work performed. Bidder agrees that the unit prices represent a true measure of the labor and material required to perform the work, including all allowances for overhead and profit for each type of work called for in these contract documents.

**BID PROPOSAL
 BIOSOLIDS REMOVAL AND REUSE PROJECT
 CITY OF SNOHOMISH**

Note: Unit prices for all items, all extensions, and the total amount bid must be shown. Where conflict occurs between the unit price and the total amount named for any item the unit price shall prevail, and totals shall be corrected to conform thereto. All entries must be typed or entered in ink.

BID SCHEDULE

ITEM	SPEC NO.	DESCRIPTION	QTY	UNITS	UNIT PRICE	AMOUNT
1	01025	MOBILIZATION AND DEMOBILIZATION	1	LS		
2	01025	BIOSOLIDS REMOVAL AND REUSE, LAGOON CELLS #1 & #2	560	DRY TONS		
3	01025	FORCE ACCOUNT	1	LS	\$10,000	\$10,000
					Subtotal Bid Items 1-3	
					8.8% WSST	
					Total Base Bid	

ADDITIVE BID ITEM NO. 1

ITEM	SPEC NO.	DESCRIPTION	QTY	UNITS	UNIT PRICE	AMOUNT
4ADD	01025	BIOSOLIDS REMOVAL AND REUSE, LAGOON CELL #3	96	DRY TONS		
					Subtotal	
					8.8% WSST	
					Total Bid for Additive Bid Item No. 1	

ADDITIVE BID ITEM NO. 2

ITEM	SPEC NO.	DESCRIPTION	QTY	UNITS	UNIT PRICE	AMOUNT
5ADD	01025	BIOSOLIDS REMOVAL AND REUSE, LAGOON CELL #4	69	DRY TONS		
					Subtotal	
					8.8% WSST	
					Total Bid for Additive Bid Item No. 2	

RECEIPT OF ADDENDA

Receipt of the following Addenda to the Contract Documents is hereby acknowledged

Addendum #	Date of Receipt	Signed Acknowledgement

Note: Failure to acknowledge receipt of Addenda may be considered an irregularity in the bid proposal.

WORK TO BE COMPLETED BY CONTRACTOR

List the Work and the dollar amount thereof that the Contractor will complete with its forces if awarded the contract.

Work to be Performed	Dollar Amount

PROPOSED SUBCONTRACTORS (Per RCW 39.30.060)

List the Subcontractors and their Washington State Department of Licensing Contractor's Registration No. that you will use on the Work if you are awarded the contract.

Work to be Performed	Subcontractor (Name and Registration Number)

BID PROPOSAL SIGNATURE SHEET

The undersigned bids for completion of the following project: **Biosolids Removal and Reuse Project** as described in the contract documents. The bidder proposes to accept as full payment for the work proposed herein; the amount computed under the provisions of the contract documents.

NOTE: The City reserves the right to accept or reject any and all bids as determined by the City.

TOTAL BASE BID:

Total Base Bid Including Applicable Tax	\$
--	----

TOTAL BID W/ ADDITIVE BID ITEMS:

Total Base Bid with Additive No. 1 Including Applicable Tax	\$
Total Base Bid with Additive No. 2 Including Applicable Tax	\$
Total Base Bid with Additive No. 1 and No. 2 Including Applicable Tax	\$

Contractor (Firm Name)

Signature

Address

Name & Title (printed)

Phone & Fax Number

Date of Signing

Washington State Contractor's
Registration Number

Indicate whether contractor is partnership,
corporation, or sole proprietorship

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check or surety bond in an amount equal to five percent (5%) of the base bid amount.

NO BID SHALL BE CONSIDERED UNLESS ACCOMPANIED BY SUCH BID PROPOSAL DEPOSIT.

Bid proposal to be submitted in a sealed envelope marked "**BID ENCLOSED**" FOR **Biosolids Removal and Reuse Project**

WASHINGTON STATE SALES TAX

The work on this contract is to be performed upon lands whose ownership obligates the Contractor to pay sales tax. The provisions of Section 1-07.2(2) of the Special Provisions apply.

COMPLETION TIME AND LIQUIDATED DAMAGES

It is understood and agreed that all work required to complete this project and achieve the implied intent of the contract documents shall be completed within ninety (90) calendar days. Refer to Section 1-08.5 of the Special Provisions.

It is further understood and agreed that the Owner may deduct liquidated damages from payments due or to become due the Contractor in the amount set forth in Section 1-08.9, Liquidated Damages, for each working day beyond the time allowed in the contract, as stipulated in the paragraph above, unless specified otherwise. Such deductions may be made for any delays, which cannot reasonably be shown to be beyond the Contractor's control.

The liquidated damages do not include and are in addition to damages from costs for engineering, administrative, and other costs incurred beyond contract completion date. The cost of additional engineering, project oversight, and other costs beyond contract completion date shall be billed to the contractor at standard billing rates for said services then in effect.

NON COLLUSION DECLARATION

The undersigned, being duly sworn, deposes and says that the Bid submitted herewith is a genuine and not a collusive or sham bid or made in the interest or on behalf of any person herein named and that the person, firm, association, joint venture, co-partnership, or corporation herein named, has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in the preparation and submission of a bid for consideration in the award of a contract for the project described on the first page of this Proposal Form.

PREVAILING WAGES

The prevailing rate of wages shall be paid to all workers, laborer, or mechanics per Chapter 39.12 RCW. (See 2014 WSDOT/APWA Standard Specifications). Prevailing wage rates for trades in the County that may be applicable to the project are included in Appendix C.

PROPOSAL FORM (continued)

BID DEPOSIT

Provide a Bid Deposit in an amount of five percent (5%) of the Base Bid Amount based upon the quantities and unit prices in the Bid Schedule, including applicable taxes, and in the form indicated on the following pages.

Cash _____ IN THE AMOUNT OF \$ _____

Cashier's Check _____ \$ _____

Certified Check _____ \$ _____ Payable to the Owner

Bid Bond _____ IN THE AMOUNT OF 5% OF THE **BASE BID**
AMOUNT

SURETY

If the Bidder is awarded a contract on this Bid, the Surety who provides the Contract Bond will be _____.

Whose address is _____
Street

_____ City State Zip Code

BIDDER INFORMATION AND SIGNATURE

The party by whom this bid is submitted and by whom the contract will be entered into, in case the award is made to him, is:

Corporation/Partnership/Individual

Firm Name: _____

Doing business at _____
Address City/State

Which is the address to which all communications concerned with this bid and contract should be sent.

The name of the president, treasurer, and manager of the bidding corporation, or the names of all persons and parties interested in this bid as partners or principals are as follows

<u>Name/Title</u>	<u>Address</u>
_____	_____
_____	_____
_____	_____
_____	_____

IN WITNESS hereto, the undersigned agrees to the conditions of the BID, certifies that this BID has not been restricted, modified or conditioned, acknowledges receipt of addenda ____ to ____, attests to the absence of collusion in the Non-Collusion Affidavit below, and agrees to be bound by its provisions, certifies and agrees concerning non-segregated facilities in the Non-Segregated facilities statement below, covenants, stipulates and agrees in accordance with the Anti-Discrimination Certification below, declares, accepts and understands in accordance with the Bidder's Declaration and Understanding below, agrees as to prevailing wages as below, agrees as to Washington State Sales tax as above, understands and agrees as to the completion of time and liquidated damages as below, and with the full authority of the firm or other business entity submitting this BID has set his hand this _____ day of _____ 2015.

If Sole Proprietor or Partnership

Signature of Bidder

Title

If Corporation

Attest: _____
Name of Corporation

Secretary By _____

Title _____

Sworn to before me this _____ day of

_____, _____.

Notary Public in and for the State
Of Washington residing at

- NOTE:
1. If the Bidder is a co-partnership, so state, giving the Name under which business is transacted.
 2. If the Bidder is a corporation, this Proposal must be Executed by the duly authorized officials and notarized.

DEPOSIT OR BID BOND FORM

DEPOSIT STATEMENT

Herewith find deposit in the form of certified check, cashier's check or cash in the amount of \$ _____, which amount is not less than five percent of the total bid.

SIGN HERE _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as Principal,
and _____, as Surety, are held
firmly bound unto the _____, Washington, as Obligee, in
the penal sum of _____ Dollars, for the payment of which
the Principal and the Surety bind themselves, their heirs, executors, administrators, successors,
and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Obligee shall make any award to the Principal
for

_____, Washington, according to the

terms of the bid made by the Principal therefore, the Principal shall duly make and enter into a
contract with the Obligee in accordance with the terms of said proposal or bid and award and
shall give bond for the faithful performance thereof, with Surety or Sureties approved by the
Obligee, or if the Principal shall, in case of failure to so do, pay and forfeit to the Obligee the
penal amount of the deposit specified in the call for bids, then this obligation shall be null and
void; otherwise, it shall be and remain in full force and effect, and the Surety shall forthwith pay
and forfeit to the Obligee, as penalty and liquidated damages, the amount of this bond.

SIGNED, SEALED, AND DATED THIS _____ DAY OF _____, _____.

Principal

Surety

_____, _____

Received return of deposit in the sum of \$ _____

STATEMENT OF BIDDER'S QUALIFICATIONS

Name of Firm: _____

Address: _____

Telephone No.: _____ Fax No.: _____

Contact Person for this Project: _____

E-mail: _____

Number of years the Contractor has been engaged in the construction business under present firm name, as indicated above: _____

Gross dollar amount of work currently under contract:

Gross dollar amount of contracts currently not completed:

General character of work performed by firm:

List three (3) similar projects at treatment facilities that have been successfully completed by the Contractor within the last five (5) years and the contract amount of each project, together with the Owner's name and telephone number, and the Engineer's name:

Project Name	Contract Amount	Owner	Phone	Engineer's Name

List the major pieces of equipment which are anticipated to be used on this project by the Contractor and note which items are owned by the Contractor and which are to be leased or rented from others:

Bank Reference: _____

Surety Reference: _____

How many general superintendents or other responsible employees in a supervisory position do you have at this time, and how long have they been with the firm?

Identify who will be the general superintendent and/or project superintendent on this project. Also, list the number of years each person identified has been with firm.

Have you changed bonding companies within the last three years? _____

If so, why? _____

Have you ever been a party to a lawsuit or an arbitration proceeding in any way relating to a construction project? _____

Identify the proceeding and parties and describe the claims asserted by all parties. _____

What was the disposition of the case?

Do you have any outstanding payments due to the Department of Revenue?

If yes, explain.

Bidder agrees that the Owner shall have the right to obtain credit reports.

Yes ____ No ____

ANTI-DISCRIMINATION CERTIFICATE

CITY OF SNOHOMISH
STATE OF WASHINGTON
COUNTY OF SNOHOMISH

The bidder hereby covenants, stipulates and agrees that no person shall be discriminated against in the bidding of the service and/or materials hereunder and that the bidder shall not refuse to hire any person therefore because of such person's race, creed, color or national origin, unless based on a bona fide occupational qualification. Also, the bidder will in no matter discriminate against any person because of such person's race, creed, color or national origin. Any such discrimination shall be deemed a violation of this bid and shall render this bid subject to forfeiture.

Contractor's Signature

Subscribed and sworn to before me this _____ day of _____, 2015.

Notary Public in and for
The State of Washington,
Residing at

My commission expires _____

INDEMNIFICATION ADDENDUM

_____ (hereinafter called Contractor) agrees to defend, indemnify and hold the City of Snohomish (hereinafter called Owner) harmless from any and all claims, demands, losses and liabilities to or by third parties arising from, resulting from or connected with services performed or to be performed under this subcontract by Contractor or Contractor's agents or employees to the fullest extent permitted by law and subject to the limitations provided below.

Contractor's duty to indemnify Owner shall not apply to liability for damages arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of Owner or Owner's agents or employees.

Contractor's duty to indemnify Owner for liability for damages arising out of bodily injury to persons or damage to property caused by or resulting from the concurrent negligence of (a) Owner's agents or employees, and (b) Contractor or Contractor's agents or employees, shall apply only to the extent of negligence of Contractor or Contractor's agents or employees.

Contractor specifically and expressly waives any immunity that may be granted it under the Washington State Industrial Insurance Act, Title 51 RCW. Further, the indemnification obligation under this subcontract shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable to or for any third party under workers compensation acts, disability benefits acts, or other employee benefits acts; provided Contractor's waiver of immunity by the provisions of this paragraph extends only to claims against Contractor by Owner and does not include, or extend to, any claims by Contractor's employees directly against Contractor.

Contractor's duty to defend, indemnify and hold Owner harmless shall include as to all claims, demands, losses and liability to which it applies, Owner's personnel-related costs, reasonable attorney's fees, court costs and all other claim-related expenses.

THE UNDERSIGNED HEREBY CERTIFY THAT THIS ADDENDUM WAS MUTUALLY NEGOTIATED.

Dated: _____ Dated: _____

Owner: CITY OF SNOHOMISH

Contractor:

By _____
Signature

By: _____
Signature

Title: _____

Title: _____

CERTIFICATION OF NONSEGREGATED FACILITIES

The Bidder certifies that s/he does not maintain or provide for her/his employees any segregated facilities at any of her/his establishments, and that s/he does not permit her/his employees to perform their services at any locations, under her/his control, where segregated facilities are maintained. The Bidder certifies further that s/he will not maintain or provide for her/his employees any segregated facilities at any of her/his establishments, and that s/he will not permit her/his employees to perform their services at any location under her/his control where segregated facilities are maintained. The Bidder agrees that a breach of this certification will be a violation of the Equal Opportunity clause on any contract resulting from acceptance of this bid. As used in this certification, the term “segregated facilities” means any waiting rooms, work areas, restrooms, and washrooms, restaurants, or other eating areas, time clocks, locker rooms or other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact because of habit, local custom or otherwise. The Bidder agrees that except where s/he has obtained identical certification from proposed subcontractor prior to the award of subcontracts exceeding \$10,000, which are not exempt from the provisions of the Equal Opportunity clause, that s/he will retain such certifications in her/his files.

NOTE: The penalty for making false statements in offers is prescribed in 18 USV 1001.

Dated: _____, _____
(Name of Bidder)

By _____
Signature

Title _____

Official Address:

(City, State, Zip)

Must be included without alteration.

CERTIFICATION OF PERMITTED BENEFICIAL USE FACILITY

The Bidder certifies that the proposed Beneficial Use Facility (BUF) is permitted by the Washington State Department of Ecology in accordance with WAC 173-308-310, and has been designated a Beneficial Use Facility (as defined in WAC 173-308-080) through the permitting process. The Bidder also certifies that the attached documentation is proof of current permit coverage and that the proposed BUF permit coverage has not expired.

Name of Biosolids Receiving Site:

Address of Site:

Name of Owner:

Owner's Address:

Owner's Telephone No.:

Is the site permitted to accept and land apply biosolids? YES _____ NO _____

Dated: _____, _____
(Name of Bidder)

By _____
Signature

Title _____

Official Address:

(City, State, Zip)

Must attach Notice of Final Coverage Under the General Permit for the proposed BUF that has been issued by the Washington State Department of Ecology Biosolids Program Coordinator for the region where biosolids will be applied.

CONTRACT

THIS AGREEMENT, made in 3 copies, each of which shall be deemed original, and entered into as of the date hereinafter affixed, by and between CITY OF SNOHOMISH, hereinafter called the Owner, and _____, HEREINAFTER called the Contractor,

WITNESSETH:

That in consideration of the terms and conditions contained herein and attached and made a part of this Agreement, the parties hereto covenant and agree as follows:

I. The Contractor shall do all work and furnish all labor, tools, materials and equipment for the completion of the **Biosolids Removal and Reuse Project** in accordance with and as described in the attached contract document, including any Addenda which are by this reference incorporated herein and made a part hereof, and shall perform any alterations in or additions to the work provided under this contract and every part thereof.

If said work is not completed within the time specified, the Contractor agrees to pay to the Owner the sum set forth in Section 1-08.9 for each and every calendar day said work remains uncompleted after expiration of the specified time, as liquidated damages. The Contractor shall provide and bear the expense of all equipment, work, and labor of any sort whatsoever that may be required for the transfer of materials and for completing the work provided for in this contract and every part thereof, except such as are mentioned in the specifications to be furnished by CITY OF SNOHOMISH.

II. CITY OF SNOHOMISH hereby promises and agrees with the Contractor to employ and does employ the Contractor to provide the materials and to do and cause to be done the above-described work and to complete and finish the same according to the attached contract documents and the terms and conditions herein contained and hereby contracts to pay for the same according to the attached specifications and the schedule of prices bid and hereto attached, at the time and in the manner and upon the conditions provided for in this contract.

III. The Contractor for himself and for his heirs, executors, administrators, successors and assigns does hereby agree to the full performance of all covenants herein contained upon the part of the Contractor.

IV. It is further provided that no liability shall attach to CITY OF SNOHOMISH by reason of entering into this contract, except as expressly provided herein.

V. The CITY OF SNOHOMISH is committed to transparency and accountability in its contracting and expenditures, and obtaining maximum taxpayer value for public works projects. Prior to final acceptance and release of retainage by the CITY OF SNOHOMISH, Contractor shall provide the CITY OF SNOHOMISH with a report listing the names and addresses of the subcontractors and suppliers receiving contract funds from the Project.

VI. This agreement consists of the following documents, all of which are incorporated by reference as if set forth in full herein, and are component parts hereof:

1. Legal, Procedural, Contract Documents, and Indemnification Addendum
2. Washington State Legal Requirements (RCW'S; WAC'S)
3. City of Snohomish Engineering Standards and Specifications
4. Amendments to the Standard Specifications
5. 2014 Standard Specifications (WSDOT/APWA)
6. Special Provisions
7. Reference Drawings

Countersigned:

This _____ day of _____, 2015.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed the day and year first herein above written.

CITY OF SNOHOMISH (Owner)

By _____
Larry Bauman, City Manager

Approved as to form

By _____
Grant Weed, City Attorney

CONTRACTOR

By _____

Address:

Telephone Number:

Fax Number:

Acknowledgement of Waiver of Contractor's Industrial insurance immunity. See Standard Specifications, 1-07.14. (Initial acknowledgement)

Owner

Contractor

CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS: That whereas CITY OF SNOHOMISH has awarded to _____, hereinafter designated as the “Principal,” a contract for the completion of the Project designated City of Snohomish **Biosolids Removal and Reuse Project** all as hereto attached and made a part hereof, and whereas said principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract:

NOW, THEREFORE, we the principal and _____

(Surety)

a corporation, organized and existing under and by virtue of the laws of the State of _____, duly authorized to do business in the State of Washington, as surety, are held and firmly bound unto CITY OF SNOHOMISH, a municipal corporation of the State of Washington in the sum of: _____, lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by those presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the above-bonded principal, his or its heirs, executors, administrators, successors, or assigns shall in all things stand to and abide by and well and truly keep and perform the covenants, conditions, and agreements in the said contract and shall faithfully perform all the provisions of such contract and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, at the time and in the manner therein specified, and shall pay all laborers, mechanics, subcontractors, and material men and all persons who shall supply such person or persons or subcontractors with provisions and supplies for the carrying on of such work on his or their part and shall indemnify and save harmless CITY OF SNOHOMISH, their officers and agents and shall further save harmless and indemnify said CITY OF SNOHOMISH from any defect or defects in any of the workmanship entering into any part of the work covered by said contract which shall develop or be discovered prior to final acceptance of such work, then this obligation shall become null and void.

And the said surety, for the value received, hereby further stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on the bond, and it does hereby waive notice of any change, extension of time, alterations, or additions to the terms of the contract or the work or to the specifications.

IN WITNESS WHEREOF, the said principal and the said surety have caused this bond and three (3) counterparts thereof to be signed and sealed by their duly authorized officers this _____ day of _____, _____.

Principal

TWO WITNESSES: (If sole proprietor or Partnership)

By _____

ATTEST: (If Corporation)

Corporate Seal

By _____

Title _____

Surety

By _____

Its _____

Address of local office and agent of Surety Company is: _____

APPROVED AS TO FORM

By _____
Grant Weed, Attorney for CITY OF SNOHOMISH

NOTE: THIS QUESTIONNAIRE MUST BE COMPLETED AND ATTACHED TO CERTIFICATE OF INSURANCE.

INSURANCE COVERAGE QUESTIONNAIRE

For:

Project Title: **Biosolids Removal and Reuse Project**

Project Owner: **City of Snohomish**

Are the following coverage's and/or conditions in effect?

	Yes	No
The Policy form is ISO Commercial General Liability form GC-00 001 or GC 00 02 (Circle ONE). If no, attach a copy of the policy with required coverages clearly identified.		
The Owner, its officials, officers, employees and volunteers are additional insures as Respects (a) activities performed for the Owner by or on behalf of the Named Insured, (b) products and completed operations of the Named Insured, or (c) premises, owned, leased, or used by the Named Insured.		
Products Completed operation coverage.		
Cross Liability clause (or equivalent wording).		
Personal Injury Liability Coverage (with employee exclusion deleted)		
Broad Form Damage with XCU Hazards included.		
Blanket Contractual Liability coverage applying to this contract or Contractual Liability Coverage applying to this contract		
Employers Liability – Stop Gap		
Written notice of cancellation to the City		

Deductibles or SIRS GL _____ AL _____ Excess _____

Insurer's Best Rating GL _____ AL _____ Excess _____

This questionnaire is issued as a matter of information. This questionnaire is not an insurance policy and does not amend, extend, or alter the coverage afforded by the policies indicated on the attached Certificate of Insurance or as required by the Contract Documents

Agency/Broker

Completed by (type)

Address

Completed by (signature)

Name of Person to Contact

Telephone Number

CITY OF SNOHOMISH

**CONTRACTOR'S DECLARATION OF OPTION FOR MANAGEMENT
OF STATUTORY RETAINED PERCENTAGE**

The owner shall withhold the retained percentage for this contract from time-to-time as such retained percentage accrues and in accordance with RCW 60.28.010, 020, and 050.

OPTION A. I hereby elect to have the retained percentage for this contract held in a fund by the owner until thirty five (35) calendar days following final acceptance of the work. (No interest will be earned on the retained percentage amount under this election).

CONTRACTOR:

Date: _____

OPTION B. I hereby elect to have the owner deposit the retained percentage for this contract, from time-to-time, as such retained percentage accrues and in accordance with RCW 60.28.010, 020, and 050.

I hereby designate _____ as the depository for said funds which shall be deposited in an interest earning account subject to joint control by owner and the contractor. All interest earned on said deposits shall belong to the contractor. (If contractor fails to designate the depository then the owner designates)

I hereby further agree to be fully responsible for payment of all costs of fees incurred as a result of establishing said depository account and depositing the retained percentage as authorized by statute. The owner shall not be liable in any way for any costs or fees in connection therewith.

CONTRACTOR:

Date: _____

ATTN: FINANCE DEPARTMENT *This form is for selection of retainage option **ONLY**. **OPTION B** must have a signed Escrow Instruction/Agreement on file prior to processing retainage payment to the bank. Signed Agreement will be secured by the Purchasing Division.*

Retained Management 1 of 1

CITY OF SNOHOMISH

PUBLIC WORKS PROJECT - RETAINED PERCENTAGE ESCROW AGREEMENT

Escrow No. _____

City of Snohomish
116 Union Avenue
Snohomish, WA 98290

Contractor: _____

Address: _____

Project Title: _____

TO: Escrow Bank or Trust Co:

The undersigned, _____, herein referred to as the Contractor, has directed the City of Snohomish to deliver to you its warrants which shall be payable to you and the Contractor jointly. Such warrants are to be held and disposed of by you in accordance with the following instructions and upon the terms and conditions hereinafter set forth.

INSTRUCTIONS

1. Warrants or checks made payable to you and the contractor jointly upon delivery to you shall be endorsed by you and forwarded for collection. The moneys will then be used by you to purchase, as directed by the Contractor, bonds or other securities chosen by the Contractor and approved by the City of Snohomish. Attached is a list of such bonds, or other securities approved by the City of Snohomish. Other bonds or securities, except stocks may be selected by the Contractor, subject to express written approval of the City of Snohomish. Purchase of such bonds or other securities shall be in a form which shall allow you alone to reconvert such bonds or other securities into money if you are required to do so by the City of Snohomish as provided in paragraph 4 of this Escrow Agreement.
2. When and as interest on the securities held by you pursuant to this agreement accrues and is paid, you shall collect such interest and forward it to the Contractor at its address designated below unless otherwise directed by the Contractor.

3. You are not authorized to deliver to the Contractor all or any part of the securities held by you pursuant to this agreement (or any moneys derived from the sale of such securities, or the negotiation of the City of Snohomish's warrants) except in accordance with written instructions from the City of Snohomish. Compliance with such instructions shall relieve you of any further liability related thereto. The estimated completion date on the contract underlying this Escrow Agreement is _____.

4. In the event the City of Snohomish orders you to do so in writing, you shall, within thirty-five (35) calendar days of receipt of such order, reconvert into money the securities held by you pursuant to this agreement and return such money together with any other moneys held by you hereunder, to the City of Snohomish. Written release will be issued by the City Treasurer. For further information contact the City Treasurer at (360) 568-3115.

5. The Contractor agrees to pay you as compensation for your services hereunder as follows:

Payment of all fees shall be the sole responsibility of the Contractor and shall not be deducted from any property placed with you pursuant to this agreement until and unless the City of Snohomish directs the release to the Contractor of the securities and moneys held hereunder whereupon you shall be granted a first lien upon such property released and shall be entitled to reimburse yourself from such property for the entire amount of your fees as provided for herein above. In the event that you are made a party to any litigation with respect to the property held by you hereunder, or in the event that the conditions of this escrow are not promptly fulfilled or that you are required to render any service not provided for in these instructions, or that there is any assignment of the interests of this escrow or any modifications hereof, you shall be entitled to reasonable compensation for such extraordinary services from the Contractor and reimbursement from the Contractor for all costs and expenses, including attorneys fees occasioned by such default, delay, controversy or litigation.

6. This agreement shall not be binding until executed by the Contractor and the City of Snohomish and accepted by you.

7. This instrument contains the entire agreement between you, the Contractor and the City of Snohomish with respect to this escrow and you are not a party to nor bound by any instrument or agreement other than this; you shall not be required to take notice of any default or any other matter nor be bound by nor required to give notice or demand, nor required to take any action whatever except as herein expressly provided; you shall not be liable for any loss or damage not caused by your own negligence or willful misconduct.

8. The foregoing provisions shall be binding upon the assigns, successors, personal representatives and heirs of the parties hereto.

9. The Contractor's Federal Income Tax Identification number is _____.

The undersigned have read and hereby approve the instructions as given above governing the administration of this escrow and do hereby execute this agreement on this _____ day of _____, 2015.

CONTRACTOR

CITY OF SNOHOMISH

Signature

City Manager

Title: _____

ATTEST:

City Clerk

The above escrow instructions received and accepted this _____ day of _____, 2015.

ESCROW BANK OR TRUST CO:

Signature

Title: _____

Securities Authorized by City of Snohomish - Select only one:

1. Bills, certificates, notes or bonds of the United States;
2. Other obligations of the United States or its agencies;
3. Obligations of any corporation wholly-owned by the government of the United States;
4. Indebtedness of the Federal National Mortgage Association; and
5. Time deposits in commercial banks.

PLEASE RETURN THIS SIGNED AGREEMENT TO:

City of Snohomish
 Attn: City Treasurer
 116 Union Avenue
 Snohomish, WA 98290

RETAINAGE RELEASE REQUIREMENTS

The following are the documents required to be on file with the City of Snohomish prior to release of retainage to the Contractor.

No.	Document	Generated by	Contact	Date Received by City
1	Contractor's Notification to City of Completion of Contract Work	Contractor	City Engineer	
2	Recommendation of Project Acceptance	City / Project Engineer	City Engineer	
3	Final Project Acceptance	City / Council	City Engineer	
4	Intent to Pay Prevailing Wages	Contractor	Dept. of Labor & Industries	
5	Notification of Completion to Department of Revenue	City / City Treasurer	Dept. of Revenue Excise Tax Division	
6	Affidavit of Wages Paid	Contractor	Dept. of Labor & Industries	
7	Certificate of Payment State Excise Tax by Public Works Contractor	State	Dept of Revenue Excise Tax Division	
8	Release Regarding Industrial Insurance	City	City Engineer	
9	Certification of Payment of Contributions	State	Dept. of Employment Security	
10	Receipt for Payment in full or Release of Lien signed by Lien Claimant and filed with City	Contractor	All claims against retainage or payment Bond filed with the City	

SECTION 2

SPECIAL PROVISIONS

INTRODUCTION TO THE SPECIAL PROVISIONS

(July 31, 2007 APWA GSP)

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2014 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter “Standard Specifications”). The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions are made up of both General Special Provisions (GSPs) in the form of amendments to Division 1 “General Requirements” of the Standards Specifications from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. The project-specific provisions include supplemental specifications in Construction Specifications Institute (CSI) format. Each Provision supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The project-specific Special Provisions are not labeled as such. The GSPs are labeled under the headers of each GSP, with the date of the GSP and its source. For example:

(May 18, 2007 APWA GSP)

(August 7, 2006 WSDOT GSP)

(May 2014 COS)

Also incorporated into the Contract Documents by reference are:

- *Manual on Uniform Traffic Control Devices for Streets and Highways*, currently adopted edition, with Washington State modifications, if any
- *Standard Plans for Road, Bridge and Municipal Construction*, WSDOT/APWA, current edition
- *City of Snohomish Engineering Design and Construction Standards Manual*

Contractor shall obtain copies of these publications, as necessary, at Contractor’s own expense.

Wherever reference is made in the Standard Specifications to the Contracting Agency, State, Commission, Department of Transportation, Secretary of Transportation, such reference shall be deemed to be the City of Snohomish through its City Council, employees, and duly authorized representatives.

AMENDMENTS TO THE STANDARD SPECIFICATIONS

DIVISION 1 – GENERAL REQUIREMENTS

DESCRIPTION OF WORK

(March 13, 1995 WSDOT GSP)

This contract provides for the dredging, dewatering, transporting, and offsite beneficial reuse of wastewater treatment plant biosolids accrued within the City’s lagoon cells. Mobilization/demobilization, temporary staging of dredging and dewatering equipment and site environmental protection are included as part of the contracted work, which will be performed in accordance with these Contract Provisions and the Standard Specifications.

1-01 DEFINITIONS AND TERMS

1-01.3 Definitions

(September 12, 2008 APWA GSP)

This Section is supplemented with the following:

All references in the Standard Specifications to the terms “State”, “Department of Transportation”, “Washington State Transportation Commission”, “Commission”, “Secretary of Transportation”, “Secretary”, “Headquarters”, and “State Treasurer” shall be revised to read “Contracting Agency”.

All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”.

The venue of all causes of action arising from the advertisement, award, execution, and performance of the contract shall be in the Superior Court of the County where the Contracting Agency’s headquarters are located.

Additive

A supplemental unit of work or group of bid items, identified separately in the Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

Alternate

One of two or more units of work or groups of bid items, identified separately in the proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

Contract

The written agreement between the Contracting Agency and the Contractor. It describes, among other things:

1. What work will be done, and by when;
2. Who provides labor and materials; and
3. How Contractors will be paid

The Contract includes the Contract (Agreement) form; bidder's completed Proposal Form, all required forms, certificates and affidavits, performance, labor and material payment bonds, the 2014 Standard Specifications for Road, Bridge and Municipal Construction and amendments thereto, Contract Provisions, Reference Drawings, Standard Plans, City of Snohomish Engineering Standards and Specifications and associated Standard Details, addenda and change orders.

Contract Documents

See definition for "Contract".

Contract Time

The period of time established by the terms and conditions of the contract within which the work must be physically completed.

Dates***Bid Opening Date***

The date on which the Contracting Agency publicly opens and reads the bids.

Award Date

The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive bidder for the work.

Contract Execution Date

The date the Contracting Agency officially binds the agency to the contract.

Notice to Proceed Date

The date stated in the Notice to Proceed on which the contract time begins.

Substantial Completion Date

The day it is determined that the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, and only minor incidental work, replacement of temporary substitute facilities, or correction or repair remains for the physical completion of the total contract.

Physical Completion Date

The day all of the work is physically completed on the project. All documentation required by the contract and required by law does not necessarily need to be furnished by the Contractor by this date.

Completion Date

The day all the work specified in the contract is completed and all the obligations of the Contractor under the contract are fulfilled by the Contractor. All documentation required

by the contract and required by law must be furnished by the Contractor before establishment of this date.

Final Acceptance Date

The date on which the Contracting Agency accepts the work as complete.

Engineer

The Contracting Agency's representative who administers the construction program for the Contracting Agency, which may be the Contracting Agency itself.

Notice of Award

The written notice from the Contracting Agency to the successful bidder signifying the Contracting Agency's acceptance of the bid.

Notice to Proceed

The written notice from the Contracting Agency to the Contractor authorizing and directing the Contractor to proceed with the work and establishing the date on which the contract time begins.

Traffic

Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders

Delete this Section and replace it with the following:

1-02.1 Qualifications of Bidder

(March 25, 2009 APWA GSP)

Bidders must meet the minimum qualifications of RCW 39.04.350(1), as amended:

“Before award of a public works contract, a bidder must meet the following responsibility criteria to be considered a responsible bidder and qualified to be awarded a public works project. The bidder must:

- (a) At the time of bid submittal, have a certificate of registration in compliance with chapter 18.27 RCW;
- (b) Have a current state unified business identifier number;
- (c) If applicable, have industrial insurance coverage for the bidder's employees working in Washington as required in Title 51 RCW; an employment security department number as required in Title 50 RCW; and a state excise tax registration number as required in Title 82 RCW; and
- (d) Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3).”

1-02.2 Plans and Specifications
(October 1, 2005 APWA GSP)

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed will be found in the Call for Bids (Advertisement for Bids) for the work.

After award of the Contract Documents will be issued to the Contractor at no cost as detailed below:

To Prime Contractor	No. of Sets	Basis of Distribution
Specifications	2	Furnished automatically upon award.
Reference Drawings (11"x17")	2	Furnished automatically upon award.

Additional Contract Documents may be obtained from the City if needed upon request.

1-02.4 Examination Of Plans, Specifications And Site Of Work
(March 13, 1995 WSDOT GSP)

1-02.4(1) General
(May 2014 COS)

This Section is supplemented with the following:

Contractor shall review the entire Contract to ensure that the completeness of their Proposal includes all items of Work regardless of where shown in the Contract Documents. Bidders are cautioned that alternate sources of information (copies of the Contract obtained from third parties) are not necessarily an accurate or complete representation of the Contract Documents. Bidders shall use such information at their own risk.

1-02.5 Proposal Forms
(October 1, 2005 APWA GSP)

Delete this section and replace it with the following:

At the request of a bidder, the Contracting Agency will provide a proposal form for any project on which the bidder is eligible to bid.

The proposal form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be

furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's name, address, telephone number, and signature; the bidder's D/M/WBE commitment, if applicable; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the proposal form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the proposal forms unless otherwise specified.

Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid. The bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any D/M/WBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any D/W/MBE requirements are to be satisfied through such an agreement.

1-02.7 Bid Deposit

(October 1, 2005 APWA GSP)

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the base bid amount that could be awarded;
5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

The bidder must use the bond form included in the Contract Documents.

1-02.9 Delivery of Proposal

(October 1, 2005 APWA GSP)

Revise the first paragraph to read:

Each proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Advertisement for Bids clearly marked on the outside of the envelope, or as otherwise stated in the Bid Documents, to ensure proper handling and delivery.

1-02.13 Irregular Proposals

(March 25, 2009 APWA GSP)

Revise item 1 to read:

1. A proposal will be considered irregular and will be rejected if:
 - a. The Bidder is not prequalified when so required;
 - b. The authorized proposal form furnished by the Contracting Agency is not used or is altered;
 - c. The completed proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
 - d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
 - e. A price per unit cannot be determined from the Bid Proposal;
 - f. The Proposal form is not properly executed;
 - g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
 - h. The Bidder fails to submit or properly complete a Disadvantaged, Minority or Women's Business Enterprise Certification, if applicable, as required in Section 1-02.6;
 - i. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
 - j. More than one proposal is submitted for the same project from a Bidder under the same or different names.

1-02.14 Disqualification of Bidders

(March 25, 2009 APWA GSP, Option B)

Delete this Section and replace it with the following:

A Bidder will be deemed not responsible if:

1. the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended; or

2. evidence of collusion exists with any other Bidder or potential Bidder. Participants in collusion will be restricted from submitting further bids; or
3. the Bidder, in the opinion of the Contracting Agency, is not qualified for the work or to the full extent of the bid, or to the extent that the bid exceeds the authorized prequalification amount as may have been determined by a prequalification of the Bidder; or
4. an unsatisfactory performance record exists based on past or current Contracting Agency work or for work done for others, as judged from the standpoint of conduct of the work; workmanship; or progress; affirmative action; equal employment opportunity practices; termination for cause; or Disadvantaged Business Enterprise, Minority Business Enterprise, or Women's Business Enterprise utilization; or
5. there is uncompleted work (Contracting Agency or otherwise), which in the opinion of the Contracting Agency might hinder or prevent the prompt completion of the work bid upon; or
6. the Bidder failed to settle bills for labor or materials on past or current contracts, unless there are extenuating circumstances acceptable to the Contracting Agency; or
7. the Bidder has failed to complete a written public contract or has been convicted of a crime arising from a previous public contract, unless there are extenuating circumstances acceptable to the Contracting Agency; or
8. the Bidder is unable, financially or otherwise, to perform the work, in the opinion of the Contracting Agency; or
9. there are any other reasons deemed proper by the Contracting Agency.

As evidence that the Bidder meets the bidder responsibility criteria above, the apparent three lowest Bidders must submit to the Contracting Agency within 24 hours of the bid submittal deadline, documentation (sufficient in the sole judgment of the Contracting Agency) demonstrating compliance with all applicable responsibility criteria, including all documentation specifically listed in the supplemental criteria. The Contracting Agency reserves the right to request such documentation from other Bidders as well, and to request further documentation as needed to assess bidder responsibility.

The basis for evaluation of Bidder compliance with these supplemental criteria shall be any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) which any reasonable owner would rely on for determining such compliance, including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from owners for whom the Bidder has worked, or other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

If the Contracting Agency determines the Bidder does not meet the bidder responsibility criteria above and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within 24 hours of receipt of the

Contracting Agency's determination by presenting its appeal to the Contracting Agency. The Contracting Agency will consider the appeal before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two working days after the Bidder determined to be not responsible has received the final determination.

1-02.15 Pre-Award Information

(October 1, 2005 APWA GSP)

Revise this section to read:

Before awarding any contract, the Contracting Agency may require one or more of these items or actions of the apparent lowest responsible bidder:

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
2. Samples of these materials for quality and fitness tests,
3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,
4. A breakdown of costs assigned to any bid item,
5. Attendance at a conference with the Engineer or representatives of the Engineer,
6. Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located.
7. A copy of State of Washington Contractor's Registration, or
8. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.3 Execution of Contract

(October 1, 2005 APWA GSP)

Revise this section to read:

Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.

Within ten (10) working days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, and a satisfactory bond as required by law and Section 1-03.4. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

Until the Contracting Agency executes a contract, no proposal shall bind the Contracting Agency nor shall any work begin within the project limits or within Contracting Agency-

furnished sites. The Contractor shall bear all risks for any work begun outside such areas and for any materials ordered before the contract is executed by the Contracting Agency.

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within the calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of ten (10) working additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

1-03.4 Contract Bond
(October 1, 2005 APWA GSP)

Revise the first paragraph to read:

The successful bidder shall provide an executed contract bond for the full contract amount. This contract bond shall:

1. Be on a Contracting Agency-furnished form;
2. Be signed by an approved surety (or sureties) that:
 - a. Is registered with the Washington State Insurance Commissioner, and
 - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Be conditioned upon the faithful performance of the contract by the Contractor within the prescribed time;
4. Guarantee that the surety shall indemnify, defend, and protect the Contracting Agency against any claim of direct or indirect loss resulting from the failure:
 - a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform the contract, or
 - b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond must be signed by the president or vice-president, unless accompanied by written proof of the authority of the individual signing the bond to bind the corporation (i.e., corporate resolution, power of attorney or a letter to such effect by the president or vice-president).

1-04 SCOPE OF THE WORK

Section 1-04 is supplemented with Sections 01010 and 01530 of the Special Provisions.

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

(October 1, 2005 APWA GSP)

Revise the second paragraph to read:

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

1. Addenda,
2. Proposal Form,
3. Special Provisions, including APWA General Special Provisions, if they are included,
4. Reference Drawings
5. Amendments to the Standard Specifications,
6. WSDOT Standard Specifications for Road, Bridge and Municipal Construction,
7. Contracting Agency's Standard Plans (if any), and
8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

1-04.6 Variation in Estimated Quantities Replacement

Section 1-04.6 is hereby deleted and replaced with the following:

Payment to the Contractor will be made only for the actual quantities of work performed and accepted in conformance with the contract. When the actual accepted quantity of work performed under a unit item varies from the original proposal quantity, payment will be at the unit contract price for all work and within the original time for completion.

1-05 CONTROL OF WORK

1-05.7 Removal of Defective and Unauthorized Work

(October 1, 2005 APWA GSP)

Supplement this section with the following:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Contracting Agency, or fails to perform any part of the work required by the Contract Documents, the Contracting Agency may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Contracting Agency determines to be an emergency situation, the Contracting Agency may have the defective and

unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Contracting Agency or Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.

No adjustment in contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency's rights provided by this Section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the work as required.

1-05.11 Final Inspection

Section 1-05.11 is replaced by Section 01700 of the Special Provisions.

1-05.12 Final Acceptance

Section 1-05.12 is replaced by Section 01700 of the Special Provisions.

1-05.13 Superintendents, Labor and Equipment of Contractor

(March 25, 2009 APWA GSP)

Revise the seventh paragraph to read:

Whenever the Contracting Agency evaluates the Contractor's qualifications pursuant to Section 1-02.14, it will take these performance reports into account.

1-05.15 Method of Serving Notices

(March 25, 2009 APWA GSP)

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Contracting Agency's Project Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be in paper format, hand delivered or sent via mail

delivery service to the Project Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

Add the following new section:

1-05.16 Water and Power
(October 1, 2005 APWA GSP)

The Contractor shall make necessary arrangements, and shall bear the costs for making and removing temporary connections to available power and water sources necessary for the performance of the work. Available power and water sources shall be as identified by the Contracting Agency and within the Contract Documents.

Add the following new section:

1-05.17 Oral Agreements
(October 1, 2005 AWWA GSP)

No oral agreement or conversation with any officer, agent, or employee of the Contracting Agency, either before or after execution of the contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the contract. Such oral agreement or conversation shall be considered as unofficial information and in no way binding upon the Contracting Agency, unless subsequently put in writing and signed by the Contracting Agency.

1-06 CONTROL OF MATERIAL

Section 1-06 is supplemented with Section 01300 of the Special Provisions.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws To Be Observed
(May 2014 COS)

Section 1-07.1 is supplemented with the following:

In cases of conflict between different safety regulations, the more stringent regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).

The Contractor shall maintain at the project site office, or other well known place at the project site, all articles necessary for providing first aid to the injured. The Contractor shall

establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor's care, persons, including employees, who may have been injured on the project site. Employees should not be permitted to work on the project site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor's care.

All work under this contract shall be performed in a safe manner. The Contractor and all Subcontractors shall observe all rules and regulations of the Washington State Department of Labor and Industries, rules and regulations of OSHA, WISHA or any other jurisdiction, and all other applicable safety standards. The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal working hours.

The Engineer's and Contracting Agency's review of the Contractor's work plan, safety plan, schedule or performance does not and is not intended to include review or approval of the adequacy of the Contractor's safety measures in, on, or near the construction site. The Engineer or Contracting Agency does not purport to be a safety expert, is not engaged in that capacity under the Contract, and has neither the authority nor the responsibility to enforce construction safety laws, rules, regulations or procedures, or to order the stoppage of Work for claimed violations thereof.

The Contractor shall exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees and property). All exposed moving parts of equipment capable of inflicting injury by accidental contact shall be protected with sturdy removable guards in accordance with applicable safety regulations.

1-07.2 State Sales Tax

Delete this section, including its sub-sections, in its entirety and replace it with the following:

1-07.2 State Sales Tax *(October 1, 2005 APWA GSP)*

1-07.2(1) General

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(4) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(3) describes this exception.

The Contracting Agency will pay the retained percentage only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.050). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(2) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(3) State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.

1-07.2(4) Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

1-07.5 Environmental Regulations

Section 1-07.5 is supplemented with Section 01060 of the Special Provisions and the following:

(August 3, 2009 WSDOT GSP)

Environmental Commitments

The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract Documents. Throughout the work, the Contractor shall comply with the following requirements:

General

The Contractor shall ensure that the Project Manager representing the Contractor and all Subcontractors has read and understands this Special Provision. Prior to commencing any work on site, the Contractor shall provide the Contracting Agency with a signed statement from the Contractor stating that the Contractor's Project Manager has read, understands and will abide by the conditions of this Special Provision. The statement may be included as part of the Environmental Protection Plan submitted under Section 01060 of the Special Provisions.

Wetlands and Water Quality

The following restrictions and requirements pertain to work throughout the project limits:

Areas set aside for wash out of trucks, pumping equipment, and tools shall be approved by the Contracting Agency. This area shall not have any possibility of draining to storm drainage infrastructure or waters of the State including wetlands.

All water generated by the dredging and dewatering processes shall be controlled and contained, and disposed of to the treatment lagoons with no possibility of entry to waters of the State, including wetlands.

Payment

All costs to comply with this special provision for the environmental commitments and requirements are incidental to the contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the contract.

1-07.6 Permits and Licenses

Section 1-07.6 is supplemented with Section 01060 of the Special Provisions.

1-07.17 Utilities and Similar Facilities
(May 2014 COS)

This Section is supplemented with the following:

Locations and dimensions shown in the Reference Drawings for existing facilities are in accordance with available information obtained without uncovering, measuring or other verification.

Utility Locations

The following addresses and telephone numbers of utility companies known or suspected of having facilities within the project limits are supplied for the Contractor’s convenience in the table below:

<p>Water City of Snohomish Joe Palmer Water Division Lead 425-328-0068</p>	<p>Sewer and Storm Drain City of Snohomish Dereck DeBardi Sewer and Water Division Lead 425-328-6251</p>
<p>Power Snohomish County PUD 360-563-2218</p>	<p>Phone Frontier Marsha Hall 425-231-4609</p>
<p>Cable Comcast Casey Brown 425-754-0064</p>	

1-07.17(2) Utility Construction, Removal, or Relocation by Others
(May 2014 COS)

Delete this Section in its entirety and replace with the following:

Any authorized agent of the Contracting Agency or utility owners may enter the right-of-way to repair, rearrange, alter, or connect their equipment. The Contractor shall cooperate with such effort and shall avoid creating delays or hindrances to those doing the work. As needed, the Contractor shall arrange to coordinate work schedules.

The Contractor shall carry out the Work in a way that will minimize interference and delay for all forces involved. Any costs incurred prior to the utility owners anticipated completion (or if no completion is specified, within a reasonable period of time) that results from the coordination and prosecution of the Work regarding utility adjustment, relocation, replacement, or construction shall be at the Contractor’s expense.

Payment

All costs to comply with this Section and repair specified in this Section, unless otherwise stated, are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the bid prices of the Contract.

1-07.18 Public Liability and Property Damage Insurance

Delete this section in its entirety, and replace it with the following:

1-07.18 Insurance

(May 10, 2006 APWA GSP)

1-07.18(1) General Requirements

- A. The Contractor shall obtain the insurance described in this section from insurers approved by the State Insurance Commissioner pursuant to RCW Title 48. The insurance must be provided by an insurer with a rating of A-: VII or higher in the A.M. Best's Key Rating Guide, which is licensed to do business in the state of Washington (or issued as a surplus line by a Washington Surplus lines broker). The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer (including financial condition), terms and coverage, the Certificate of Insurance, and/or endorsements.
- B. The Contractor shall keep this insurance in force during the term of the contract and for thirty (30) calendar days after the Physical Completion date, unless otherwise indicated (see C. below).
- C. If any insurance policy is written on a claim made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made, and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Final Completion or earlier termination of this contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.
- D. The insurance policies shall contain a "cross liability" provision.
- E. The Contractor's and all subcontractors' insurance coverage shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or insurance pool coverage.
- F. All insurance policies and Certificates of Insurance shall include a requirement providing for a minimum of 45 days prior written notice to the Contracting Agency of any cancellation in any insurance policy.

- G. Upon request, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s).
- H. The Contractor shall not begin work under the contract until the required insurance has been obtained and approved by the Contracting Agency.
- I. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five (5) working days notice to the Contractor to correct the breach, immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.
- J. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the contract and no additional payment will be made.

1-07.18(2) Additional Insured

All insurance policies, with the exception of Professional Liability and Workers Compensation, shall name the following listed entities as additional insured(s):

- the Contracting Agency and its officers, elected officials, employees, agents, and volunteers

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, whether primary, excess, contingent or otherwise, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(3) describes limits lower than those maintained by the Contractor.

1-07.18(3) Subcontractors

Contractor shall ensure that each subcontractor of every tier obtains and maintains at a minimum the insurance coverages listed in 1-07.18(5)A and 1-07.18(5)B. Upon request of the Contracting Agency, the Contractor shall provide evidence of such insurance.

1-07.18(4) Evidence of Insurance

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. The certificate and endorsements must conform to the following requirements:

1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as Additional Insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement. A statement of additional insured status on an ACORD Certificate of Insurance shall not satisfy this requirement.

3. Any other amendatory endorsements to show the coverage required herein.

1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve the Contractor from liability in excess of such limits. All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible shall be the responsibility of the Contractor.

1-07.18(5)A Commercial General Liability

A policy of Commercial General Liability Insurance, including:

- Per project aggregate
- Premises/Operations Liability
- Products/Completed Operations – for a period of one year following final acceptance of the work.
- Personal/Advertising Injury
- Contractual Liability
- Independent Contractors Liability
- Stop Gap / Employers’ Liability
- Explosion, Collapse, or Underground Property Damage (XCU)

Such policy must provide the following minimum limits:

- \$1,000,000 Each Occurrence
- \$3,000,000 General Aggregate
- \$1,000,000 Products & Completed Operations Aggregate
- \$1,000,000 Personal & Advertising Injury, each offence
- Stop Gap / Employers’ Liability
- \$1,000,000 Each Accident
- \$1,000,000 Disease - Policy Limit
- \$1,000,000 Disease - Each Employee

1-07.18(5)B Automobile Liability

Automobile Liability for owned, non-owned, hired, and leased vehicles, with an MCS 90 endorsement and a CA 9948 endorsement attached if “pollutants” are to be transported. Such policy(ies) must provide the following minimum limit:

- \$1,000,000 combined single limit

1-07.18(5)C Workers’ Compensation

The Contractor shall comply with Workers’ Compensation coverage as required by the Industrial Insurance laws of the state of Washington.

1-07.18(5)F Excess or Umbrella Liability

The Contractor shall provide Excess or Umbrella Liability coverage at limits of \$2,000,000 per occurrence and annual aggregate. This excess or umbrella liability coverage shall apply, at a minimum, to both the Commercial General and Auto insurance policy coverage.

1-07.24 Rights of Way

(October 1, 2005 APWA GSP)

Delete this section in its entirety, and replace it with the following:

Limits of project activity are indicated in the Reference Drawings. The Contractor's work activities shall be confined within these limits, unless arrangements for use of private property or other City property are made.

Whenever any of the work is accomplished on or through property other than public property or right of way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. However, no easements or rights of entry have been acquired nor are deemed necessary for completion of the work and are considered optional.

The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Contracting Agency certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. Each property owner shall be given 48 hours notice prior to entry by the Contractor.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Contracting Agency a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Contracting Agency before the Completion Date will be established.

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters
(May 25, 2006 APWA GSP)

Add the following new section:

1-08.0(1) Preconstruction Conference
(October 10, 2008 APWA GSP)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer, the Contracting Agency and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the initial work schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To establish normal working hours for the work;
5. To review safety standards and traffic control; and
6. To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

1. A preliminary work schedule;
2. A preliminary outline of the work plan; and
3. A list of material sources for approval, if applicable.

Add the following new section:

1-08.0(2) Hours of Work
(May 25, 2006 APWA GSP)

Except in the case of emergency or unless otherwise approved by the Contracting Agency, the normal straight time working hours for the contract shall be a consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. with a maximum 1-hour lunch break Monday through Friday, unless otherwise approved by the Contracting Agency. The normal straight time 8-hour working period for the contract shall be established at the preconstruction conference or prior to the Contractor commencing the work.

If a Contractor desires to perform work on holidays, Saturdays, Sundays, or before 7:00 a.m. or after 6:00 p.m. on any day, the Contractor shall apply in writing to the Contracting Agency for permission to work such times. Permission to work longer than an 8-hour period between 7:00 a.m. and 6:00 p.m. is not required. Such requests shall be submitted to the Contracting Agency no later than noon on the working day prior to the day for which the Contractor is requesting permission to work.

Permission to work between the hours of 10:00 p.m. and 7:00 a.m. during weekdays and between the hours of 10:00 p.m. and 9:00 a.m. on weekends or holidays may also be subject to noise control requirements. Approval to continue work during these hours may be revoked at any time the Contractor exceeds the Contracting Agency's noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor's operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.

Permission to work Saturdays, Sundays, holidays or other than the agreed upon normal straight time working hours Monday through Friday may be given subject to certain other conditions set forth by the Contracting Agency. These conditions may include but are not limited to: requiring the Contracting Agency to be present during the work; requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency employees who worked during such times, on non Federal aid projects; considering the work performed on Saturdays, Sundays, and holidays as working days with regards to the contract time; and considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period. Assistants may include, but are not limited to, WWTP staff, inspectors and other Contracting Agency employees when in the opinion of the Contracting Agency, such work necessitates their presence.

1-08.4 Notice to Proceed and Prosecution of the Work

(October 1, 2005 APWA GSP)

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Contracting Agency. The Contractor shall commence construction activities on the project site within ten (10) working days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

1-08.5 Time for Completion

(May 2014 COS)

Delete this Section in its entirety and replace with the following:

The Contractor shall complete all Contract Work within the number of "working days" stated in the Contract Provisions or as extended by the Contracting Agency in accordance with Section 1-08.8. In lieu of approved extensions, the Contract Work will be performed within a 90 day duration. Every day will be counted as a "working day" unless it is a nonworking day or a Contracting Agency determined unworkable day. A nonworking day is defined as a Saturday, a Sunday, a day on which the Contract specifically suspends Work, or one of these

holidays: January 1, the third Monday of January, the third Monday of February, Memorial Day, July 4, Labor Day, November 11, Thanksgiving, and Christmas Day. When any of these holidays fall on a Sunday, the following Monday shall be counted a nonworking day. When the holiday falls on a Saturday, the preceding Friday shall be counted a nonworking day. The days between December 25 and January 1 will be classified as nonworking days, provided the Contractor actually suspends performance of the Work.

Any unworkable day is defined as a half or whole day the Contracting Agency declares to be unworkable because of weather or conditions caused by the weather that prevents satisfactory and timely performance of the Work shown on the critical path of the Contractor's approved progress schedule. Other conditions beyond the control of the Contractor may qualify for an extension of time in accordance with Section 1-08.8.

The Contract time shall begin on the first working day following the 10th calendar day after the issuance of the written notice to proceed or the first day on which the Contractor begins to perform Work on the site, whichever first occurs, unless approved otherwise by the Contracting Agency. The Contract Provisions may specify another starting date for the Contract time, in which case time will begin on the starting date specified.

Each working day shall be charged to the Contract as it occurs until the Work is physically complete. If requested by the Contractor in writing, the Contracting Agency will provide the Contractor with a weekly statement that shows the number of working days: (1) charged to the Contract the week before; (2) specified for the substantial and physical completion of the Contract; and (3) remaining for the physical completion of the Contract. The statement will also show the nonworking days and any partial or whole days that the Contracting Agency determines to be unworkable. If the Contractor disagrees with any statement issued by the Contracting Agency, the Contractor shall submit a written protest within 10 calendar days after the date of the statement. The protest shall be sufficiently detailed to enable the Contracting Agency to ascertain the basis for the dispute and the amount of time disputed. Any statement that is not protested by the Contractor as required in this Section shall be deemed as having been accepted. If the Contractor elects and is approved by the Contracting Agency to work 10 hours a day for four days a week (a 4-10 schedule), the fifth day of the week of that week will be charged as a working day if that day would be chargeable as a working day if the Contractor had not elected to utilize the 4-10 schedule.

The Contracting Agency will give the Contractor written notice of the Completion Date of the Contract after all of the Contractor's obligations under the Contract have been performed by the Contractor. The following events must occur before the Completion Date will be established:

1. The physical Work on the project must be complete; and
2. The Contractor must furnish all documentation required by the Contract and required by law, to allow the Contracting Agency to process final acceptance of the Contract. The following documents must be received by the Contracting Agency prior to establishing a Completion Date:

- a. Certified payrolls (Federal-aid projects);
- b. Material acceptance certification documents;
- c. Annual report of amounts paid as MBE/WBE participants or quarterly report of amounts credited as DBE participation, as required by the Contract Provisions
- d. Final Contract voucher certification;
- e. Property owner releases if needed as required by Section 1-07.24.

1-08.7 Maintenance During Suspension
(October 1, 2005 APWA GSP)

Revise the second paragraph to read:

At no expense to the Contracting Agency, the Contractor shall provide through the construction area a safe, smooth, and unobstructed roadway, sidewalk, and path for use by the WWTP staff and public, where such access would normally be provided, during suspension (as required in Section 1-07.23 or the Special Provisions). This may include a temporary access road or pathway.

1-09 MEASUREMENT AND PAYMENT

1-09.1 Measurement of Quantities

Section 1-09.1 is replaced by Section 01025 of the Special Provisions.

1-09.6 Force Account

(October 10, 2008 APWA GSP)

Supplement this section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by Engineer.

1-09.9 Payments

Section 1-09.9 is replaced by Section 01025 of the Special Provisions.

1-09.13(3) Claims \$250,000 or Less
(October 1, 2005 APWA GSP)

Delete this Section and replace it with the following:

The Contractor and the Contracting Agency mutually agree that those claims that total \$250,000 or less, submitted in accordance with Section 1-09.11 and not resolved by nonbinding ADR processes, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

DIVISION 2 – EARTHWORK

Division 2 is supplemented with Section 02150 of the Special Provisions.

SECTION 01010

SUMMARY OF WORK AND CONTRACT CONSIDERATIONS

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. The City of Snohomish (Owner) owns and operates a lagoon-based wastewater treatment plant (WWTP) located in the southwestern part of the City. The WWTP consists of a headworks structure (flow measurement, influent pumping and screening), a multi-cell lagoon system with submerged fixed film (SFF) media, effluent filtration and a chlorine contact basin. The purpose of this Work is removal of biosolids from the lagoons for proper reuse (i.e., land application). The Contractor will be required to dredge, dewater, haul and land apply for reuse an estimated quantity of between 560 and 725 dry tons of biosolids total from up to four lagoon cells.

1.02 TYPE OF CONTRACT

- A. The Work covered by these Contract Documents shall be provided under a single Contract.

1.03 WORK SEQUENCE

- A. The WWTP must remain in operation at all times. Prior to starting the work, confer with the Owner to develop a work schedule. Perform the work in phases to accommodate Owner's continued use and operation of existing treatment lagoons. Coordinate dredge and haul schedule with the Owner. Submit a work schedule as specified in 01300. The project shall be completed within ninety (90) calendar days of Notice-to-Proceed.
- B. As indicated in Section 02150, removal of biosolids from the lagoons shall occur one lagoon at a time. Dredging shall start in Lagoon 1 and then move sequentially downstream through Lagoons 2, 3 and 4. Refer to Section 02150 for additional information on coordination items and constraints.
- C. Hours of operation shall be limited to 7 am to 6 pm Monday through Friday (excluding holidays observed by the Owner) unless separate arrangements are agreed upon with the Owner.

1.04 PROJECT MEETINGS

- A. Prior to beginning the Work, the Contractor and its key personnel and Subcontractors shall attend a project kickoff meeting with the Owner and Engineer. The purpose of the meeting will be to coordinate roles, responsibilities and lines of communication for the project and establish the project schedule.
- B. The Owner will conduct weekly coordination meetings with the Contractor at the job site. Attendance is required by Contractor's project manager and affected Subcontractors. The Owner will prepare, maintain and distribute agenda and dated record of: (1) actions required and taken and (2) decisions and made. During the meeting, the Contractor shall provide input on required actions and decisions.

1.05 CONTRACTOR'S USE OF SITE AND OWNERS CONTINUED OPERATIONS

- A. The Contractor shall confine his use of the site for work and storage to the Work Area Limits shown on the reference drawings. The Contractor's use of adjacent lands and roads for access to move onto and off of the site and for daily access of workers, material and equipment shall be arranged and scheduled to minimize interference with the Owner's continued operations.
- B. The Owner intends to continue operation of portions of its existing facility during the project period. The Contractor shall plan and schedule its work to minimize impacting the Owner's continued operations and shall, at all times, maintain safe access for the Owner's operating personnel and equipment.
- C. The Contractor shall be responsible for maintaining safe emergency exiting for the Owner's and Contractor's personnel in all areas affected by the Contractor's work.
- D. If operation of the Owner's existing facility is adversely affected by the Contractor's work, the Owner may suffer a financial loss and may make a claim against the Contractor to recover its loss.

1.06 DOCUMENTING EXISTING

- A. Prior to commencing the Work, the Contractor shall tour the site with the Owner. Examine and document photographically and in writing the condition of existing buildings, equipment, improvements, and landscape planting on or adjacent to the site. This record shall serve as a basis for determination of subsequent damage due to the Contractor's operations and shall be signed by all parties making the tour. The Contractor shall record existing conditions with a digital camera. The photo files shall be titled with the date and area of the WWTP and provided electronically to the Owner.

1.07 SHUTDOWN OF EXISTING UTILITIES, SERVICES OR OPERATIONS

- A. Obtain the Owner's approval at least seven (7) calendar days prior to shutdown of any utility, service or operation of the existing facility. Prior to dredging in Lagoon Cells #2, #3 and #4, the lagoon cell must be isolated. The flow must be re-routed around the lagoon cell to minimize impact on water quality during dredging. The Contractor must also coordinate temporary shut off of the mixers and aerators as well as the air to the SFF media modules during dredging of the lagoons. Give required notice and make appropriate arrangements with utility owners and other affected parties prior to shutdown of any utility service or bypass of treatment units.

1.08 UNIT PRICE WORK

- A. The estimated quantities listed on the Bid Form are not guaranteed to be accurate but are intended solely to determine a Contract Price. If actual quantities differ from estimated quantities by more than plus or minus 25 percent, the unit prices may be adjusted by negotiation. Payment to the Contractor shall be based on actual quantities for each type of work as determined by the Owner from certified quantity measurements submitted by the Contractor.

- B. For the purpose of determining quantities for payment, the Contractor shall submit certified measurements of biosolids quantities to the Owner with each application for payment. The Owner will determine the quantities for payment based on data submitted by the Contractor and the Owner's written determination shall be final unless appealed in accordance with the Standard Specifications.
- C. Unit Prices shall include all of the Contractor's cost including overhead and profit.

1.09 REFERENCE STANDARDS

- A. When these specifications state that Work or tests shall conform to specific provisions in a referenced standard, specification, code, recommendation or manual published by an association, organization, society or agency, the referenced provisions, as they apply to the Work of the Contractor only, shall be considered a part of these specifications as fully as if included in total. When these specifications or applicable codes contain higher or more restrictive requirements than those contained in reference standards, these specifications or applicable codes shall govern.
- B. The latest edition of a referenced standard published at the time of submission of bids shall apply unless a specific date for the referenced standard is cited in these specifications.

1.10 CONTRACTOR'S QUALITY CONTROL

- A. The Contractor shall be fully responsible for inspecting the work of its subcontractors to assure that the work when completed will comply with the Contract Documents.
- B. Inspections, periodic observations and testing performed by the Owner are for the Owner's benefit and information only and shall not be construed as partial or incremental acceptance of the work and shall not be deemed to establish any duty on the part of the Owner to the Contractor or its subcontractors.

1.11 SAFETY

- A. After the issuance of the Notice-to-Proceed and prior to mobilization, the Contractor shall provide to the Owner a Worker Health and Safety Manual that at a minimum addresses and identifies the following:
 - 1. Policies and Rules
 - 2. Roles and Responsibilities
 - 3. Hazard Assessments
 - 4. Safe Work Practices
 - 5. Use of Personal Protective Equipment
 - 6. Preventative Maintenance
 - 7. Training (Managers , Supervisors, Workers, Subcontractors)
 - 8. Inspections
 - 9. Accident/Injury Investigations
 - 10. Emergency Preparedness
 - 11. Recordkeeping and Reporting
 - 12. Waste Management

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

1.01 GENERAL

- A. This section covers the method of measuring completed work for payments to the Contractor. No separate or additional measurement and payment will be made for indirect costs, including but not limited to, supervision and overhead, profit, and any work under Division 1 of these specifications. Such costs shall be considered incidental to the work and shall be included in the various unit price or lump sum bid items, as applicable. No payment will be made for work that is not in compliance with the Contract Documents.

1.02 COMPUTATION OF QUANTITIES

- A. Refer to Section 02150 for computation of quantities.

1.03 PROGRESS PAYMENTS

- A. Progress payments for completed work will be based upon certified quantities and measurements provided by the Contractor for each bid item as described in Paragraph 1.05 below. A progress estimate cutoff date will be established at the project kickoff meeting. The initial progress estimate will be made not later than 30 calendar days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Final Completion. Progress estimates made during progress of the work are tentative, and made only for the purpose of determining progress payment. The progress estimates are subject to change at any time prior to the calculation of the Final Payment. Progress payments will be made in accordance with the progress estimates less retainage, the amount of progress payments previously made and funds withheld by the Owner for disbursement in accordance with the Contract Documents.
- B. Progress payments for work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any work has been satisfactorily completed.
- C. Payments received on account of work performed by a subcontractor are subject to the provisions of RCW 39.04.250.

1.04 MEASUREMENT AND PAYMENT

- A. The unit and lump sum bid item prices shall constitute full payment for furnishing all labor; equipment; materials; tools; fuel; permits and agreements; spill prevention, control and countermeasures (SPCC) plan; temporary erosion and sediment control (TESC); overhead and profit and performing all operations required to complete the work as defined in the Contract Documents. Notwithstanding the omission or mention of any incidental work, the bid item price and payment shall also constitute full compensation for all work incidental to completion of the bid item, unless such work is otherwise specifically mentioned for separate payment under another bid item.

- B. No measurement will be made for:
 - 1. Work performed beyond the constraints of the bid items;
 - 2. Materials wasted, used, or disposed of in a manner contrary to the Contract;
 - 3. Rejected materials;
 - 4. Hauling and disposing of rejected materials; or
 - 5. Any other work or material contrary to any contract provision.

- C. All computations of quantities will be made by the Owner based on certified measurements provided by the Contractor. The Contractor may perform quantity computations for comparison. If there is a discrepancy where the computed quantity cannot be agreed upon, the Owner's computation will be used.

- D. When any vehicle removes biosolids which have the unit designation of weight, the driver of the vehicle shall give the Owner a legible weight ticket with the following information:
 - 1. Vehicle identification number
 - 2. Name of the scale facility
 - 3. The date and time the load was weighed
 - 4. The tare weight of the vehicle for each day
 - 5. The gross weight of the loaded vehicle as registered on a scale; and
 - 6. The legal gross weight of the vehicle as permitted by the State of Washington Department of Transportation

1.05 BID ITEM DESCRIPTIONS

- A. Bid Item No. 1 - Mobilization and Demobilization:
 - 1. Measurement shall be measured as lump sum (LS) and will be based on the establishment of project schedule, submittal requirements, receipt of all bonds and insurance policies, obtaining all required permits, transportation of all essential equipment to and from the project site, setting up and taking down equipment, preparing and cleaning up contractor staging areas, and other pre- and post-construction expenses for preparatory and finalizing work and operations performed by the Contractor.
 - 2. When all submittals under Division 1 have been favorably reviewed, 40 percent of the amount of this bid item will be made at the lump sum price stated in the Bid Schedule.
 - 3. When all equipment has been setup at the project site and is ready for operation, 40 percent of the amount of this bid item will be made at the lump sum price stated in the Bid Schedule.
 - 4. Upon completion of the project, the remaining 20 percent of the amount of this bid item will be made at the lump sum price stated in the Bid Schedule.

- B. Bid Item No. 2 - Biosolids Removal and Reuse, Lagoon Cells #1 & #2
 - 1. Measurement of solids removed and reused from Lagoon Cells #1 and #2 will be in dry tons. The solids shall be removed and reused in accordance with Section 02150.
 - 2. Payment shall be based on the bid item unit price per dry ton. Payment shall constitute full compensation for all labor, materials, tools, equipment, fuel, dredging, screening, chemicals, dewatering, hauling, lab solids analysis, weighing, permitting, reuse at the certified Beneficial Use Facility, safety and health provisions, and all other incidentals necessary to remove and land apply the biosolids in accordance with all state and federal laws and Section 02150 of these Specifications.

- C. Bid Item No. 3 – Force Account
 - 1. A bid allowance of \$10,000 is established for performance of force account work as directed by the Owner. The Owner does not warrant expressly or by implication that the actual amount paid for force account work will correspond to the \$10,000 allowance. Payment will be made based on the work performed and the corresponding costs as authorized in writing by the Owner. This may include removal and reuse of additional biosolids at the bid item unit price.

- D. Additive Bid Item No. 1 – Biosolids Removal and Reuse, Lagoon Cell #3 (Optional Item)
 - 1. Measurement of solids removed and reused from Lagoon Cell #3 will be in dry tons. The solids shall be removed and reused as directed by the Owner in accordance with Section 02150. The Contractor shall remove and reuse only those quantities for Lagoon Cell #3 that are pre-approved by the Owner in writing.
 - 2. Payment shall be based on the bid item unit price per dry ton. Payment shall constitute full compensation for all labor, materials, tools, equipment, fuel, dredging, screening, chemicals, dewatering, hauling, lab solids analysis, weighing, permitting, reuse at the certified Beneficial Use Facility, safety and health provisions, and all other incidentals necessary to remove and land apply the biosolids in accordance with all state and federal laws and Section 02150 of these Specifications.

- E. Additive Bid Item No. 2 – Biosolids Removal and Reuse, Lagoon Cell #4 (Optional Item)
 - 1. Measurement of solids removed and reused from Lagoon Cell #4 will be in dry tons. The solids shall be removed and reused as directed by the Owner in accordance with Section 02150. The Contractor shall remove and reuse only those quantities for Lagoon Cell #4 that are pre-approved by the Owner in writing.
 - 2. Payment shall be based on the bid item unit price per dry ton. Payment shall constitute full compensation for all labor, materials, tools, equipment, fuel, dredging, screening, chemicals, dewatering, hauling, lab solids analysis, weighing, permitting, reuse at the certified Beneficial Use Facility, safety and health provisions, and all other incidentals necessary to remove and land apply the biosolids in accordance with all state and federal laws and Section 02150 of these Specifications.

END OF SECTION

SECTION 01060

CODES, PERMITS AND PREVENTION OF ENVIRONMENTAL POLLUTION

1.01 CITY, COUNTY AND STATE LAWS

- A. The Contractor shall comply with the requirements of all city, county, state and federal laws, whether or not stated herein, having specific control over this type of operation.

1.02 FEDERAL, STATE AND LOCAL POLLUTION CONTROL REGULATIONS

- A. Meet all federal, state and local pollution control regulations for all work performed under this contract. No chemicals, petroleum products, biosolids, or other deleterious materials are allowed to fall, flow, leach, or otherwise enter public waters.
- B. Observe all statutes, ordinances, and regulations pertaining to the prevention of environmental pollution and the preservation of public natural resources. All such statutes, ordinances, regulations, or portions thereof pertaining to work performed under this contract are hereby incorporated with and made a part of this contract.
- C. The Contractor shall be aware of these provisions and coordinate with the specific controlling agencies.
- D. The Contractor shall furnish all bonds and insurance required by the controlling agencies and shall, if requested, pay for any inspections and testing accomplished or furnished by them.

1.03 PERMITS

- A. Land application of biosolids for reuse shall be only at a Beneficial Use Facility (BUF) that is permitted by the Washington State Department of Ecology (Ecology). Submit documentation showing that the BUF is permitted and that the permit is current as part of the Environmental Protection Plan (see Paragraph 1.04). Contractor shall operate under the BUFs General Biosolids Application Permit. The Owner will coordinate all work with Ecology.
- B. The Contractor shall obtain a Hydrant Use Permit from the City of Snohomish if connection to an existing hydrant will be made to provide water to facilitate the Contractor's operations.
- C. The Contractor shall be responsible for obtaining any additional permits required to perform the Work.

1.04 ENVIRONMENTAL PROTECTION PLAN

- A. The Contractor shall submit an Environmental Protection Plan that includes the following:
 - 1. Information on the name, location and description of the proposed BUF.
 - 2. Documentation showing that the BUF is permitted by Ecology and that the permit is current, including all associated submittals required by the permit and all applicable Federal reporting requirements (see 40 CFR Part 503).
 - 3. Ecology approved Spill Prevention and Response Plan for the BUF.

4. Spill Prevention, Control and Countermeasures (SPCC) Plan for the Contractor and Contractor's equipment on-site and in-transit.
5. The proposed hauling route between the project site and BUF.
6. Proposed locations on the project site for any temporary stockpiling of dewatered biosolids, if applicable. Stockpiles shall be completely removed at the end of each day.
7. Temporary erosion and sediment control (TESC) measures around stockpile and loading areas.

1.05 STATE AND FEDERAL SAFETY REQUIREMENTS

- A. The Contractor shall include in the work all components and features required for both state and federal safety regulations. Such components and features shall include, but not be specifically limited to, any and all protective devices, guards, restraints, locks, latches, shoring, switches, and other safety provisions that may be required or necessitated by state and federal safety regulations. The Contractor shall determine the specific requirements for safety provisions and shall cause inspections and reports by the appropriate safety authorities to be conducted to insure compliance with the intent of the regulations.
- B. The Contractor shall perform all work in accordance with state and federal safety regulations. Any and all safety procedures and equipment shall be followed and utilized as may be required. All costs for components and features required to meet state and federal safety regulations shall be incidental to performance of the work.

END OF SECTION

SECTION 01300

SUBMITTALS

1.01 SUBMITTAL PROCEDURES

- A. Accompany each submittal with a Submittal form, which contains the following information:
 - 1. Contractor's name and the name of Subcontractor or supplier who prepared the submittal.
 - 2. The project name and submittal number.
 - 3. Description of the submittal and reference to the Contract requirement or technical specification section and paragraph number being addressed.
- B. Submit to the Owner three (3) color hard copies of submittals or a color electronic copy in PDF format via email for each submittal. Follow the procedures described in the paragraphs below.

1.02 PLAN OF OPERATIONS

- A. Submit three copies for information. Include name, address, cell phone number, e-mail address and brief resume of the designated superintendent. Also include a description and contact information for subcontractors and major suppliers, as applicable.
- B. Include a plan showing Contractor's intended use of the site for staging, access and operations. Show location of enclosing fence, access points and gates. Show location for Contractor's parking, work areas (for equipment operation, loading and stockpiling) and storage areas.
- C. Include information on the dewatering equipment and chemicals to be used, including the projected quantity of chemicals to be used and stored on site and MSDS for each chemical. If the Contractor plans to use more than 25 pounds of polymer per dry ton of biosolids, the Contractor must indicate how any excess polymer will be neutralized and adverse impacts on the treatment process avoided.
- D. Include locations for discharge of filtrate/centrate and wash water and routing of temporary piping to convey flow to these locations.
- E. Include location of temporary utility connections and routing, or the utility source if not utilizing a temporary connection to existing utilities (e.g., electrical generator).
- F. Include information for onsite testing facilities that will be used to measure total solids of collected samples.

1.03 WORK SCHEDULE

- A. Submit three copies for review.
- B. Identify the critical path. If the Construction Schedule does not reflect the specified Work, or the Contract Time, it will be returned to the Contractor for modification.

- C. Give the Owner seven (7) calendar days notice prior to requiring any shutdown of equipment or utilities or bypassing of a lagoon cell.
- D. Give the Owner three (3) calendar days prior notice of normal work days on which Contractor activity will not take place or of scheduled activity that will not take place.

1.04 SUBMITTAL REVIEW

- A. Review Procedure and Meaning:
 - 1. The Owner or Engineer will mark each submittal prior to returning it to the Contractor. The mark will indicate whether or not the review was favorable and what action is required of the Contractor. Review categories "No Exceptions Taken" and "Make Corrections Noted" both indicate Favorable Review.
 - 2. Favorable Review of a submittal does not constitute approval or deletion of items required as part of the submittal but not included with the submittal. Favorable Review of items included in the submittal does not constitute deletion of specified features, options or accessories that were not included in the submittal.
 - 3. The action required by the Contractor for each category of review is as follows:
 - a. **NO EXCEPTIONS TAKEN**. NO RESUBMITTAL REQUIRED.
 - b. **MAKE CORRECTIONS NOTED**. **NO RESUBMITTAL REQUIRED**. The Contractor shall make corrections noted and separately submit any related information that is required, but was not included with the submittal.
 - c. **REVISE AND RESUBMIT**. The Contractor shall amend and resubmit the submittal as noted or required to comply with the Contract Documents.
 - d. **REFERENCE ONLY**. The item submitted is required for information only and does not require a response other than acknowledging receipt of the item.
 - e. **SUBMITTAL NOT REQUIRED**. The item submitted is not required to be submitted.
 - 4. The submittal review form accompanying the returned submittal may contain numbered notes. Marking a corresponding number on a submittal shall have the same affect as applying the entire note to the submittal.
- B. Re-submittals that contain changes that were not requested by the Owner or Engineer on the previous submittal shall be accompanied by a letter explaining the change.
- C. Favorable Review Required Prior to Proceeding: Do not proceed with work prior to obtaining Favorable Review of related submittals.
- D. Intent and Limitation on Owner's or Engineer's Review:
 - 1. The Contractor has primary responsibility for submitting and providing work that complies with the requirements of the Contract Documents. That responsibility cannot be delegated in whole or in part to subcontractors or suppliers. Neither Favorable Review nor the Owner's failure to notice or comment on deficiencies in the Contractor's submittals shall relieve the Contractor from the duty to provide work, which complies with the requirements of the Contract Documents.

1.05 LIST OF SUBMITTALS

SUBMITTAL	SECTION
DIVISION 0 SUBMITTALS <ul style="list-style-type: none"> • BID PROPOSAL • STATEMENT OF BIDDER QUALIFICATIONS • DEPOSIT OR BID BOND FORM • ANTI-DISCRIMINATION CERTIFICATE • INDEMNIFICATION ADDENDUM • CERTIFICATION OF NON-SEGREGATED FACILITIES • CERTIFICATION OF PERMITTED BUF • CERTIFICATE OF INSURANCE • ESCROW AGREEMENT (IF APPLICABLE) 	SEE PROPOSAL FORMS
WORK SCHEDULE	01010 1.03 & 01300 1.03
DOCUMENTATION OF EXISTING CONDITIONS	01010 1.06
WORKER HEALTH AND SAFETY MANUAL	01010 1.11
TRUCK WEIGHT TICKETS & VEHICLE/SCALE INFO.	01025 1.04-D & 02150 1.06-C
ENVIRONMENTAL PROTECTION PLAN <ul style="list-style-type: none"> • BUF INFORMATION • BUF PERMIT DOCUMENTATION • BUF SPILL PREVENTION AND RESPONSE PLAN • SPCC PLAN • HAULING ROUTE • STOCKPILING AND TESC MEASURES • ADDITIONAL PERMITS, AS NEEDED 	01060 1.04
PLAN OF OPERATIONS <ul style="list-style-type: none"> • SUPERINTENDENT, SUPPLIER, SUBCONTRACTOR INFORMATION • PLAN FOR INTENDED USE OF SITE • DISCHARGE LOCATIONS AND TEMPORARY PIPING/UTILITIES • EQUIPMENT AND CHEMICAL INFORMATION • TESTING FACILITY INFORMATION 	01300 1.02
ACTION ITEM LIST	01700 1.02
PROJECT CLOSEOUT CHECKLIST	01700 1.04-A
RUNNING TOTAL OF CHEMICAL USE	02150 1.05-D
TOTAL SOLIDS TEST RESULTS	02150 1.06-D & 1.05-B

END OF SECTION

SECTION 01530

TEMPORARY FACILITIES AND UTILITIES

1.01 GENERAL

- A. This section describes utility access on-site at the WWTP.

1.02 TEMPORARY POWER AND WATER

- A. The Contractor is required to make all necessary temporary connections to provide power and water necessary to accomplish the Work. All temporary connections must meet current applicable codes and be made in a manner to assure the safety of Contractor and WWTP staff. All temporary connections must be made by licensed personnel, if required by current code or regulation and in coordination with the Owner and WWTP staff.
- B. 120-volt electrical service for total electrical loads not exceeding 20 amps is available for Contractor's use during this project. The Contractor may make use of available electrical outlets that are not already in use or will not be required by the Owner or WWTP staff for the duration of the project. Any additional power requirements shall be the responsibility of the Contractor to provide by means of a temporary connection to available power (complete with ground fault and over-current protections) or an electrical generator. Electrical generator shall be provided in a sound attenuating enclosure. The Contractor will not be charged by the Owner for onsite power consumption.
- C. The Owner will provide access to potable water via two hydrants as shown on the reference drawings. The Contractor will not be charged for potable water use onsite. An approved reduced pressure backflow prevention assembly, flow meter and adequate air gap are required. The Contractor is required to supply the reduced pressure backflow prevention assembly and flow meter and obtain a Hydrant Use Permit from the City of Snohomish. The connection to existing water service must be tested and approved by an entity acceptable to the Owner and will be inspected by the City of Snohomish. The Contractor may also utilize available hose bibs when not in use by the WWTP staff. Use of hose bibs must be coordinated with the Owner and be limited to sanitary use, tool cleanup, and similar minor uses. The Contractor is responsible for assuring that these sources and available volumes are adequate for their needs. Any additional appurtenances, volume, pressure, storage tanks, etc. required for operation are the responsibility of the Contractor to provide.

1.03 SANITARY FACILITIES

- A. The Contractor shall provide chemical toilets or water closets at appropriate locations within the project site for use by its employees and subcontractors. At the end of the job such toilets shall be removed completely.
- B. The facilities shall conform to governing code requirements and be serviced, cleaned and disinfected frequently.

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

1.01 FINAL CLEANUP

- A. Prior to Final Inspection, clean the entire construction area and all other areas affected by the performance of work under this Contract. Identify any areas that were damaged as the result of Contractor activity and perform repair work using personnel skilled in executing the type of work being repaired. Perform all work to the highest trade standards applicable to that type of work.
 - 1. Remove all tools, equipment, excess material and debris. Contractor shall be responsible for disposal of all surplus material, waste products and debris.
 - 2. Apply a new layer of 4 to 6 inches of crushed surfacing top course in accordance with Section 9-03.9(3) of the Standard Specifications to areas that were used for stockpiling and in any other areas of activity (e.g., loading, truck access, etc.) where the crushed surfacing has been soiled or excessively disturbed due to performance of the Work.
 - 3. Repair, patch or replace new or existing work including pavement, sidewalks, curbs, gutters, catch basins, gratings, manholes, covers, landscaping, plant materials and other items that have been damaged, broken, cracked or chipped as a result of performing this Work.
 - 4. Remove all grease and oil stains on pavement caused by Contractor's equipment.

1.02 CONTRACTOR'S ACTION LIST OF ITEMS TO BE CORRECTED AND/OR COMPLETED

- A. During construction, the Contractor shall maintain an action list of items to be corrected and/or completed. The Contractor shall regularly add items and update the list as information becomes available or as requested by the Owner. The Contractor shall use this list to report on progress at each weekly progress meeting.

1.03 INSPECTION, FINAL COMPLETION AND FINAL PAYMENT

- A. When the Contractor has completed or corrected all the items on its list, the Contractor shall give the Owner written notice that the Work is ready for inspection. The Owner shall make note of any deficiencies, generate a punch list, and notify the Contractor in writing of the need to correct the identified deficiencies. When the Owner finds the Work acceptable and fully complete in accordance with the Contract Documents, and upon receipt of a final Application for Payment and completion of all items on the project closeout checklist (see Paragraph 1.04 below), the Owner will issue a Notice of Final Completion, make Final Payment and Accept the Work.
- B. The Owner will make Final Payment less contract retainage to the Contractor 35 calendar days after recording the Notice of Final Completion.

1.04 PROJECT CLOSEOUT CHECKLIST

- A. The following are the documents required to be on file with the City of Snohomish prior to release of retainage to the Contractor.

No.	Document	Generated by	Contact	Date Received by City
1	Contractor's Notification to City of Completion of Contract Work	Contractor	City Engineer	
2	Recommendation of Project Acceptance	City / Project Engineer	City Engineer	
3	Final Project Acceptance	City / Council	City Engineer	
4	Intent to Pay Prevailing Wages	Contractor	Dept. of Labor & Industries	
5	Notification of Completion to Department of Revenue	City / City Treasurer	Dept. of Revenue Excise Tax Division	
6	Affidavit of Wages Paid	Contractor	Dept. of Labor & Industries	
7	Certificate of Payment State Excise Tax by Public Works Contractor	State	Dept of Revenue Excise Tax Division	
8	Release Regarding Industrial Insurance	City	City Engineer	
9	Certification of Payment of Contributions	State	Dept. of Employment Security	
10	Receipt for Payment in full or Release of Lien signed by Lien Claimant and filed with City	Contractor	All claims against retainage or payment Bond filed with the City	

END OF SECTION

SECTION 02150

BIOSOLIDS REMOVAL AND REUSE

1.01 GENERAL DESCRIPTION OF WORK

- A. The City of Snohomish (Owner) owns and operates a lagoon-based wastewater treatment plant (WWTP) located in the southwestern part of the City. The facility consists of a headworks structure (flow measurement, influent pumping and screening), a multi-cell lagoon system with submerged fixed film (SFF) media, effluent filtration and a chlorine contact basin. See the reference drawings (Appendix A) for a layout of the WWTP. A copy of the preceding Biosolids Management Plan (Appendix B) is also provided for reference.
- B. The Work to be performed shall include all labor, tools, materials, fuel and equipment necessary to remove and land apply the biosolids at an Ecology permitted Beneficial Use Facility (BUF). General work described in this section includes dredging, dewatering, weighing, hauling and land application of the lagoon biosolids.
- C. The project duration shall be ninety (90) calendar days from issuance of the Notice-to-Proceed. The Notice-to-Proceed may be issued more than ten (10) working days after execution of the Contract so that the project duration aligns with the window for beneficial use of the biosolids.

1.02 COMPLIANCE WITH REGULATIONS

- A. The Contractor shall base biosolids removal work plans on disposal and land application requirements provided in 40 CFR Part 503 Biosolids Regulations for Class B biosolids and all other required federal, state and local laws and regulations.

1.03 PROJECT MOBILIZATION/DEMobilIZATION

- A. The lump sum price for mobilization/demobilization shall include all transportation, loading and unloading, set up, equipment removal and clean up costs. The Contractor shall coordinate these activities with the Owner and WWTP staff. Staging areas are available for Contractor use for the duration of this project. The staging areas must be returned to their original state to the satisfaction of the Owner after demobilization and clean up. See reference drawings (Appendix A) for staging area locations.

1.04 BIOSOLIDS DREDGING

- A. Biosolids dredging shall be included as part of the "Biosolids Removal and Reuse" bid items, including all necessary personnel, equipment, and facilities, other than that provided by the City as specifically stated in these specifications.
- B. Dredging activities shall not damage the lagoon liner along the sides and bottom of the lagoons, or the reinforced controlled density fill at the bottom of the lagoons. Refer to the reference drawings (Appendix A) for a typical lagoon cross-section.
- C. Removal of biosolids from the lagoon cells shall occur one at a time. Dredging shall start in Lagoon Cell #1 and then move sequentially downstream through Lagoon Cells #2, #3 and #4. This will allow re-suspended solids that are pushed downstream an opportunity to settle and be removed with the rest of the settled solids. This will also make sure that Lagoon #1 is dredged and available for treatment well before nitrification in the lagoons must be fully established to meet stricter discharge limits

between July and October. Coordinate with the Owner to hydraulically isolate the lagoons and route flow around them using canal gates at existing inlet/outlet and flow control structures (see reference drawings in Appendix A). This will help to maintain adequate effluent quality when settled solids are disturbed during the dredging process.

- D. As discussed in Paragraph 1.08.B below, all material removed from the lagoon cells shall be screened using a 3/8-inch screen.
- E. Coordinate with the Owner to temporarily disconnect mooring cables for the floating surface aerators in the lagoons and move the aerators as necessary to allow access of equipment for dredging the settled biosolids. Disconnection and movement of aerators shall be done by the Contractor under the direction of the Owner. There are 18 floating surface aerators in Lagoon Cell #1 and 3 floating surface aerators in each Lagoon Cells #2, #3 and #4. Each aerator has 3 mooring cable connections. The Contractor is responsible for repositioning the aerators and reconnecting the mooring cables once the dredging of each lagoon cell is complete.
- F. Coordinate with the Owner to temporarily disconnect and move the 3-inch air hoses from the submerged fixed-film (SFF) media modules as necessary to allow access of equipment for dredging the settled biosolids. Disconnection and movement of hoses shall be done by the Contractor under the direction of the Owner. There are 18 SFF media modules each in Lagoon Cells #2, #3 and #4, each with their own hose connection. The hoses float on the surface of the water. The SFF media modules sit at the bottom of the lagoons and shall not be moved out of position. The Contractor is responsible for reconnecting the hoses once the biosolids dredging of each lagoon cell is complete. Once the biosolids are removed, any aerators that were disconnected and/or moved shall be reconnected and placed back in their original position by the Contractor and any SFF media modules that were disconnected shall be reconnected by the Contractor. The Contractor must also reposition any SFF media modules that were inadvertently moved out of position and work with the Owner to re-balance distribution of air among the modules (by manually adjusting ball valves on the hoses), as necessary. The Contractor shall then coordinate with the Owner to place the lagoon cell back into service by repositioning the canal gates at the inlet/outlet and flow control structures.
- G. From the time the Contractor informs the Owner that the dredging of a lagoon cell is complete, the Owner can elect to perform an acceptance survey within 72 hours. The Owner shall perform the acceptance survey via the Owner's sampling boat. The acceptance survey shall be performed at no expense to the Contractor. The Contractor may have one (1) observer in the sampling boat during the acceptance survey. Lack of a Contractor's observer does not invalidate the acceptance survey results. With prior consent of the Owner, an acceptance survey for all lagoon cells may be completed after the Contractor has completed dredging, but prior to demobilization. After the completion of the acceptance survey, the Owner shall immediately review the results to verify that the Contractor has removed as many of the biosolids as is practical. Once the Owner determines that dredging of a lagoon cell is complete, the Owner shall issue written notice of that fact to the Contractor.
- H. Should the Owner determine that sufficient dredging to remove the estimated quantities of biosolids has not been completed, the Owner and the Contractor shall establish the necessary remedial steps to achieve acceptance. Work necessary to achieve sufficient dredging shall be performed at no cost to the City and with no grant of any extension of the Contract duration. The Owner reserves the right to determine

what portion of a lagoon cell must be resurveyed and the method of resurvey when those remedial steps have been completed.

1.05 BIOSOLIDS DEWATERING

- A. Biosolids dewatering, including chemicals and all costs incidental to the successful operation and maintenance of the dewatering process, shall be included as part of the "Biosolids Removal and Reuse" bid items, inclusive of necessary personnel, equipment, and facilities, other than that provided by the City as specifically stated in these specifications.
- B. The Contractor shall dewater the City's biosolids to a minimum of 20% total solids (TS), or greater if required by the Contractor's selected BUF to facilitate spreading of the biosolids with their equipment. If the minimum TS value is not met, the Owner and the Contractor shall immediately establish the necessary steps to achieve the minimum Contract value. The Owner reserves the right to withhold payment for loads that do not meet the minimum TS requirement, or waive that requirement if it will not impact land application or spreading of the biosolids at the BUF. A sample shall be collected from each truckload of dewatered biosolids prior to hauling offsite. Trucks may depart to the BUF once samples are taken. The sample shall be used to verify the TS percentage within each truckload. Every sample shall be a composite sample made up of a minimum of three (3) grab samples from that truckload. These samples shall be collected either by the Contractor or the Owner, at the discretion of the Owner. Samples shall be collected during the truck loading process in a manner approved by the Owner and shall be representative of the material leaving the dewatering process or being stockpiled on the site. The Contractor shall supply their own drying oven and calibrated scale to perform the TS testing. Contractor shall provide the TS data to the Owner within 24 hours of sample collection. For verification purposes, the Owner may take a split-sample of any collected composite samples and test them for TS.
- C. All biosolids dewatering equipment filtrate/centrate and wash down water must be returned to Lagoon Cell #1 (or Lagoon Cell #2 during dredging of Lagoon Cell #1) or another location at the discretion of the Owner. The Contractor shall provide and install all necessary fittings, valves, and piping to convey the filtrate/centrate and wash water to the appropriate locations. Filtrate/centrate, wash down or clean up water containing dewatering agents must not negatively impact the treatment processes. Filtrate/centrate can precipitate the formation of large scum mats. The Contractor shall be responsible for ensuring that any scum mat formed as a result of their activities does not exceed 100 square feet in surface area for the duration of this Contract. The Contractor shall be responsible for collection and disposal of all biosolids dewatering debris and scum removed in a manner approved in advance, by the Owner.
- D. The Contractor shall identify the amount and type of chemicals needed for the dewatering process. Contractor to provide polymer required for dewatering. The Contractor shall provide information (typically MSDS) to the Owner on the chemical(s) to be used for this project. This information shall be submitted as part of the Plan of Operations (per Section 01300) to the Owner prior to use for this project. Biosolids quality must not be altered to be potentially toxic to plants, and thereby, unsuitable for agricultural utilization. If the Contractor plans to use more than 25 pounds of polymer per dry ton of biosolids, the Contractor must indicate how any excess polymer will be neutralized and adverse impacts on the treatment process avoided.
- E. Net weight of dewatering agents to be used for this project shall be submitted to the Owner upon delivery to the WWTP. As indicated in Paragraph 1.09 below, payments per dry ton for Biosolids Removal and Reuse shall exclude the weight of chemicals

used. The Contractor shall therefore daily submit a running total of the amount of chemical used to the Owner.

- F. To the maximum extent possible, all dewatered biosolids and all of the Contractor's equipment and supplies must be contained in one of the identified staging areas. Any spillage of biosolids, filtrate/centrate, sewage, chemicals, fuel or any debris or materials associated with the Contractor's activities or operations must be cleaned up immediately in a manner approved of by the Owner, at the Contractor's expense. Provide double containment for on-site storage of all chemicals.

1.06 BIOSOLIDS MANAGEMENT

- A. To the maximum extent possible, the Contractor shall provide the necessary personnel, equipment, and facilities to manage dewatered biosolids within the identified staging areas (dewatering equipment, loaders, trucks, etc.). As necessary, the Owner will work with the Contractor to identify other areas that can be utilized for dewatering operations, stockpiling, etc. with limited or no interruptions. The Contractor must adequately manage biosolids within those designated areas.
- B. Dewatered biosolids may be stockpiled on-site at a place and in a manner to be determined by the Owner. Biosolids must be piled as high as possible, using a loader or other mechanism, to minimize storage area requirements. Erosion control measures must be provided around the stockpile and loading area to contain runoff. Erosion control measures such as wattles and/or silt fences, in accordance with the Stormwater Management Manual for Western Washington, will be sufficient. Unless otherwise allowed by the Owner, the stockpiled biosolids must be cleared at the end of each day.
- C. Weight quantities used to calculate dry tons for Bid Item No. 2 and Additive Bid Items No. 1 and 2 shall be measured by a certified scale and recorded on a weight ticket. There is no truck scale located at the WWTP. Consequently, certified highway scales must be utilized for this purpose. The weight ticket must be from a certified scale in accordance with the Standard Specifications, Section 1-09.2(1). Weight tickets must be provided to the Owner for all loads of dewatered biosolids that are hauled to the BUF. Adjustments may be made for total solids concentrations less than 20% as determined by Owner.
- D. In order to ensure the minimum 20% total solids criteria is being met, the Owner will take representative samples of the dewatered biosolids and the Contractor shall test those samples for total solids in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater." The Contractor shall cooperate in collecting representative samples and shall anticipate additional time and effort will be required for this activity. The Contractor shall provide the test results within 24 hours of the samples being provided.
- E. The Contractor shall provide scale tickets from the on-site certified truck scale or other mutually agreed upon certified weight documentation to the Owner within 24 hours of weighing.

1.07 BIOSOLIDS HAULING AND LAND APPLICATION

- A. Biosolids shall be hauled to a Washington State Department of Ecology (Ecology) permitted Beneficial Use Facility (BUF).
- B. Biosolids must be managed and applied at agronomic rates in accordance with WAC 173-308 Biosolids, Ecology approved Biosolids Management Guidance documents

and pursuant to Ecology approvals and/or permits and all other applicable Federal, State and local laws, ordinances, rules and regulations. A copy of the BUF's Notice of Final Coverage Under the General Permit (Permit) issued by the Washington State Department of Ecology Biosolids Program Coordinator for the region where biosolids will be applied and all associated submittals required by the Permit must be submitted as part of the Environmental Protection Plan required in Section 01060. All applicable Federal reporting requirements (see 40 CFR Part 503) must also be included.

- C. Coordination between hauling and land application by the Contractor is essential for the success of this project. As discussed in Paragraph 1.06 above, stockpiling of biosolids at the WWTP is limited. Biosolids must be loaded and transported to the BUF in conjunction with dredging and dewatering operations. As necessary, biosolids may be temporarily stockpiled at the BUF until application can occur if this is deemed acceptable by the BUF. All temporary stockpiling at the BUF must be approved in advance by the Ecology Regional Biosolids Coordinator if this results in a deviation from normal permitted operations.
- D. The WWTP site will be available for access by the Contractor between 7 am and 6 pm, Monday through Friday (excluding holidays observed by the City). The Contractor shall haul biosolids by the most direct routes available, minimizing public exposure potential.
- E. The Contractor shall provide a Spill Prevention and Response Plan for the BUF that has been approved by Ecology. The Contractor shall also provide a Spill Prevention, Control and Countermeasures (SPCC) Plan applicable to its operations at the WWTP site and hauling of dewatered biosolids to the BUF. Both plans are to be provided as part of the Environmental Protection Plan required in Section 01060.
- F. All trucks shall be well maintained and all truck beds adequately sealed to prevent the escape of any solids or liquids. Trucks shall be cleaned before leaving the WWTP and it shall be the Contractor's responsibility to clean up any biosolids that are deposited on roadways either entering or leaving the WWTP or BUF as a result of their activities, in a timely manner. Water is available at the WWTP for vehicle wash down prior to transportation off-site. Washdown water shall be contained and conveyed to the lagoons for disposal. The Contractor may use the existing decant structure near the headworks and Lagoon #1 (see reference drawings in Appendix A) to contain water used for wash down of trucks.
- G. Any spills during transportation shall be the responsibility of the Contractor to clean up. Contractor shall notify the Department of Ecology of all spills as required by the BUF's Spill Prevention and Response Plan and the Contractor's SPCC Plan. The Owner shall also be immediately notified if a spill occurs. The Contractor shall arrange for emergency response and clean up assistance, at the Contractor's expense, if needed. Regardless of the spill size, the Contractor shall take immediate action to contain all spills. For spills at the WWTP, the Contractor shall not leave the WWTP site until the spill is adequately cleaned up to the satisfaction of the Owner. For all spills, the Contractor shall secure the area around the spill and:
 - 1. Prevent public contact,
 - 2. Divert traffic to prevent motorists from driving through the spill,
 - 3. Satisfactorily remove and transport biosolids to the BUF per the BUF's Spill Prevention and Response Plan and the Contractor's SPCC Plan.

- H. The Contractor is responsible for contacting the Snohomish County Public Works Department or other applicable agencies to verify constraints or restrictions that might apply to proposed hauling routes and complying with all applicable regulations.

1.08 BIOSOLIDS QUANTITY AND QUALITY

- A. The estimated quantity of accumulated biosolids in the lagoon cells is 725 dry tons (DT) with 373 DT in Lagoon Cell #1, 187 DT in Lagoon Cell #2, 96 DT in Lagoon Cell #3 and 69 DT in Lagoon Cell #4. Average TS concentration is 5.5% TS. A breakdown of DT, average TS, and average solids depth by lagoon cell is provided in the reference drawings (Appendix A). Results of earlier sampling and testing by the Owner for depth and total solids concentrations are also summarized in Table 1 below. The in-situ percent solids information reported herein and shown on the reference drawings provided to prospective bidders is only advisory in order to guide their own sampling and analysis plan to evaluate biosolids characteristics found in the Lagoon cells. Each bidder must determine how evaluations of their own in-situ biosolids characteristics will influence their own contract proposal as TS concentration will vary horizontally and vertically. Results of total volatile solids reduction following a 40-day anaerobic bench test are provided in Table 2 to demonstrate compliance with vector attraction reduction for Class B biosolids. Biosolids characteristics for nutrients and metals are listed in Tables 3 and 4.
- B. It is the responsibility of the Contractor to assure biosolids contain less than 1 percent by volume recognizable manufactured inert material as defined in WAC 173-308, Washington State's Biosolids Management Rule. Prior to 2012, all biosolids entering the lagoons were screened via a 1/2-inch screen. To comply with the Biosolids Management Rule, all material removed from the lagoon cells shall be screened using a 3/8-inch screen.
- C. The Owner is not responsible for the performance efficiency of any item of the Contractor's equipment or equipment system used in this Contract. Each prospective bidder must evaluate how the biosolids characteristics will influence the performance efficiency of their equipment.

1.09 BIOSOLIDS DRY WEIGHT DETERMINATION

- A. Payment for Bid Item No. 2 and Additive Bid Items No. 1 and 2 are based upon the dry weight of biosolids and shall not include the weight of chemicals. The dry weight of dewatered biosolids shall be determined by the following calculation:

$$\text{Dry weight of dewatered biosolids produced per day} = \sum A_n - B$$

"A_n" = Dry weight of dewatered biosolids for Truck "n" (lbs.) = ([certified weight of truck with solids] – [certified tare weight of truck without solids]) x (% Total Solids for truckload)

"B" = Weight of chemicals used per day. This will be computed based on the multiplying the volume of chemical used by the unit weight.

Table 1. Solids Depth and Total Solids Results from June 2014 Sampling Event

Lagoon Cell	Solids Depth (in ft)	Total Solids	Biosolids Quantity (in Dry Tons)
1	1.5	7%	373
2	3.4	6%	187
3	2.1	5%	96
4	1.8	4%	69

Table 2. Total Volatile Solids Reduction Following 40-Day Anaerobic Bench Test

Lagoon Cell	Initial Total Volatile Solids	Final Total Volatile Solids	Volatile Solids Reduction	< 17% Reduction?
1	48.3%	47.5%	3.15%	Yes
2	50.1%	47.4%	10.2%	Yes
3	49.0%	47.6%	5.45%	Yes
4	45.6%	45.0%	2.39%	Yes

Note: Volatile solids reduction is determined using the Van Kleeck Equation

Table 3. Nutrient Characteristics

Sample ID	Ammonia	Total Kjeldahl Nitrogen	Total Organic Nitrogen	pH	Salinity	Total Solids	Volatile Solids	Nitrate	Total Nitrate	Potassium	Total Phosphorous
Units	mg/kg	mg/kg	mg/kg		PSU	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lagoon Cell 1											
1-1	4,188	34,411	30,205	7.59	0.191	3.02	54.5	14.9	18.2	1,431	7,194
1-2	5,021	54,297	19,268	7.72	0.421	7.68	46.3	7.1	7.93	954	8,598
1-3	6,618	36,362	29,737	7.55	0.329	5.52	48.2	6.11	6.67	1,477	10,748
1-4	5,231	32,276	27,308	7.47	0.33	7.12	47.2	5.42	6.67	1,086	9,562
1-5	4,416	25,518	21,087	7.88	0.218	5.05	45.3	7.73	15.4	1,167	9,695
1-6	5,241	36,210	30,957	7.31	0.247	4.8	47.9	10.4	11.9	1,396	10,072
Average	5,119	36,512	26,427	8	0	6	48	9	11	1,252	9,312
Lagoon Cell 2											
2-1	9,395	38,167	28,770	7.55	0.437	7.95	44.8	1.73	1.73	1,197	15,440
2-2	8,621	33,475	24,854	7.42	0.388	7.83	46.2	ND	ND	1,204	16,062
2-3	8,812	37,119	28,307	7.39	0.346	7.36	48.6	ND	ND	1,192	16,368
Average	8,943	36,254	27,310	7	0	8	47	2	2	1,198	15,957
Lagoon Cell 3											
3-1	5,583	31,342	25,759	7.42	0.201	6.43	46.9	ND	ND	1,168	17,239
3-2	7,050	32,132	25,081	7.4	0.332	7.05	47.3	ND	1.28	1,211	16,622
3-3	7,769	37,057	29,285	7.33	0.306	6.65	50	0.39	2.75	1,196	16,060
Average	6,801	33,510	26,708	7	0	7	48	0	2	1,192	16,640
Lagoon Cell 4											
4-1	3,951	31,357	27,403	7.43	0.08	4.83	47.1	1.86	2.84	1,209	15,824
4-2	3,171	25,397	22,191	7.28	0.062	3.3	41.7	34	34.9	1,333	21,422
4-3	2,539	23,696	21,157	7.23	0.754	6.35	44.6	ND	ND	1,164	17,505
Average	3,220	26,817	23,584	7	0	5	44	18	19	1,235	18,250

mg/kg = milligram per kilogram

ND = Non-detect

Table 4. Metals Concentration in Lagoon Biosolids

Sample Location	Mercury	Arsenic	Cadmium	Copper	Lead	Molybdenum	Nickel	Selenium	Zinc
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lagoon Cell 1	2.84	ND	1.49	290	65.8	1.67	24.5	0.72	763
Lagoon Cell 2	5.54	ND	4.00	621	72.9	2.52	32.5	3.86	1,594
Lagoon Cell 3	4.53	ND	4.99	804	95.2	3.28	30	5.01	1,962
Lagoon Cell 4	3.8	ND	4.89	947	109	3.2	29.4	2.96	2,165

mg/kg = milligram per kilogram

ND = Non-detect

END OF SECTION

APPENDIX A

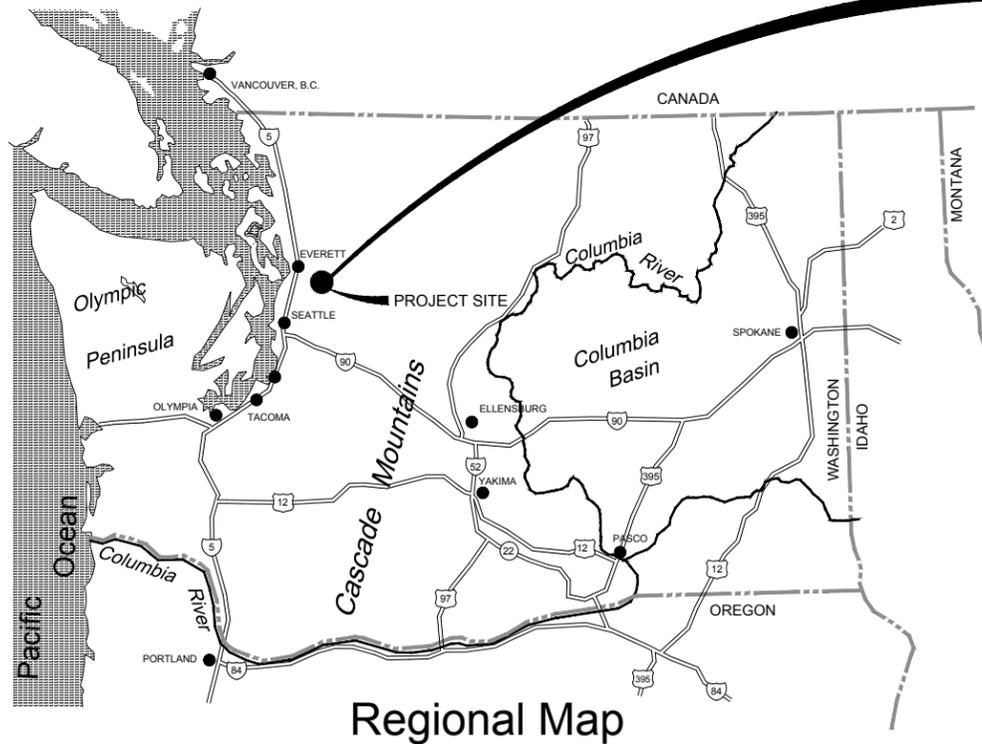
REFERENCE DRAWINGS



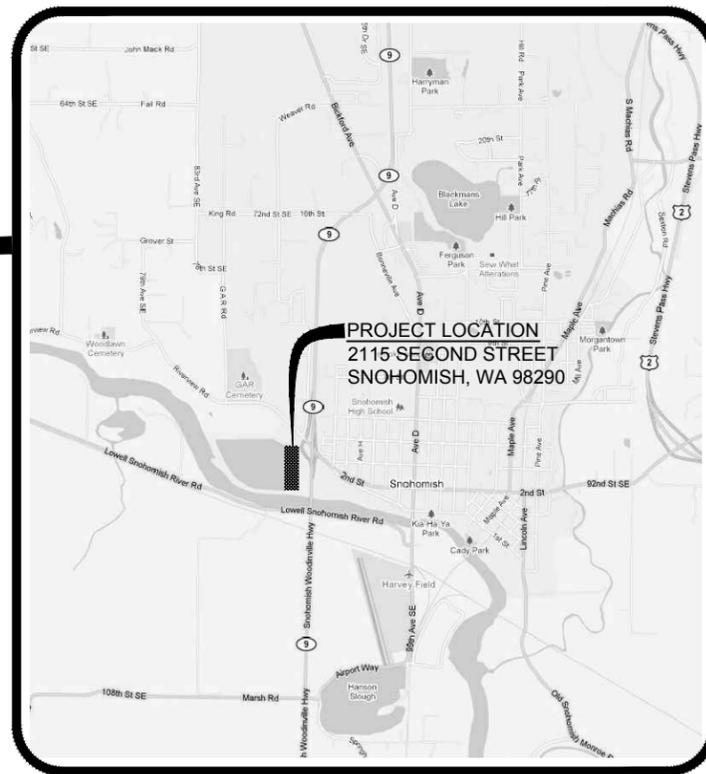
CITY OF SNOHOMISH

Snohomish, Washington

BIOSOLIDS REMOVAL AND REUSE PROJECT



Regional Map



Vicinity Map

CITY OF SNOHOMISH OFFICIALS

KAREN GUZAK
 DERRICK BURKE
 PAUL KAFTANSKI
 MICHAEL ROHRSCHEIB
 TOM HAMILTON
 DEAN RANDALL
 LYNN SCHILATY
 LARRY BAUMAN
 STEVE SCHULLER

MAYOR
 COUNCIL MEMBER
 COUNCIL MEMBER
 COUNCIL MEMBER
 COUNCIL MEMBER
 COUNCIL MEMBER
 COUNCIL MEMBER
 CITY MANAGER
 PUBLIC WORKS DIRECTOR

LIST OF DRAWINGS

GENERAL SHEETS

- G1 TITLE SHEET
- G2 CIVIL/GENERAL SYMBOLS AND NOTES
- G3 PROCESS FLOW DIAGRAM AND DESIGN CRITERIA
- G4 HYDRAULIC PROFILE

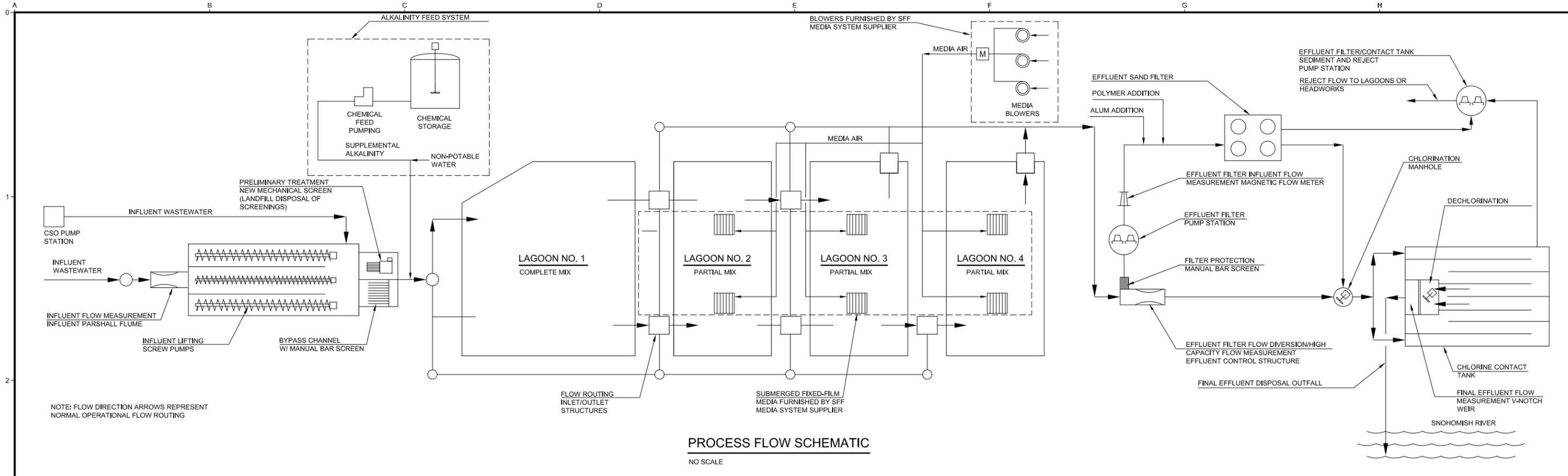
CIVIL SHEETS

- C1 SITE PLAN AND CONTRACTOR STAGING AREA
- C2 CURRENT LAGOON BIOSOLIDS QUANTITIES
- C3 LAGOON OVERVIEW PLAN

MECHANICAL SHEETS

- M1 LAGOON NO. 2 PLAN
- M2 LAGOON NO. 3 PLAN
- M3 LAGOON NO. 4 PLAN
- M4 LAGOON SECTIONS
- M5 SFF MEDIA MODULE DETAILS

FOR REFERENCE ONLY



DESIGN CRITERIA

2020 INFLUENT WASTEWATER DESIGN CRITERIA

AVERAGE ANNUAL FLOW (AAF)	MGD	1.67
MAXIMUM MONTH DRY WEATHER FLOW (MMDWF)	MGD	1.32
MAXIMUM MONTH FLOW (MMF)	MGD	2.80
PEAK DAY DRY WEATHER FLOW (PDDWF)	MGD	2.75
PEAK DAY FLOW (PDF)	MGD	8.40
PEAK HOUR FLOW (PHF)	MGD	22.80
AVERAGE ANNUAL CBOD5 LOAD	LBS/DAY	2,300
MAXIMUM MONTH CBOD5 LOAD	LBS/DAY	2,740
PEAK DAY CBOD5 LOAD	LBS/DAY	5,320
AVERAGE ANNUAL TSS LOAD	LBS/DAY	3,008
MAXIMUM MONTH TSS LOAD	LBS/DAY	3,830
PEAK DAY TSS LOAD	LBS/DAY	7,752
AVERAGE ANNUAL AMMONIA-N LOAD	LBS/DAY	226
MAXIMUM MONTH AMMONIA-N LOAD	LBS/DAY	290
PEAK DAY AMMONIA-N LOAD	LBS/DAY	620
AVERAGE ANNUAL TKN LOAD	LBS/DAY	348
MAXIMUM MONTH TKN LOAD	LBS/DAY	467
PEAK DAY TKN LOAD	LBS/DAY	940

HEADWORKS

PARSHALL FLUME	NUMBER	1
THROAT SIZE	INCHES	18
MECHANICAL SCREEN	NUMBER	1
TYPE		MULTIPLE-RAKE
OPENING SIZE	INCHES	1/4
CAPACITY, EACH	MGD	23.5
MANUAL BAR SCREEN	NUMBER	1
BAR SPACING	INCHES	3/4"
INFLUENT PUMPS	NUMBER	3 (2 LARGE, 1 SMALL)
TYPE		ARCHIMEDES SCREW
LARGE PUMP DIAMETER	FT	6
LARGE PUMP CAPACITY	MGD	15.5
LARGE PUMP MOTOR SIZE	HP	100
SMALL PUMP DIAMETER	FT	3.5
SMALL PUMP CAPACITY	MGD	3.5
SMALL PUMP MOTOR SIZE	HP	25

LAGOONS

LAGOON NO. 1			
VOLUME AT MAXIMUM MONTH	MG	10	
DETENTION TIME AT MAXIMUM MONTH	DAYS	3.6	
DESIGN OPERATING DEPTH	FT	10	
FREEBOARD AT DESIGN OPERATING DEPTH	FT	6	
NUMBER OF SURFACE AERATORS		18	
AERATOR POWER, EACH	HP	15	
LAGOON MIXING ENERGY	HP/IMG	27	
LAGOONS NO. 2, 3, AND 4			
VOLUME AT MAXIMUM MONTH, EACH	MG	3.5	
DETENTION TIME AT MAXIMUM MONTH, EACH	DAYS	1.25	
DESIGN OPERATING DEPTH	FT	10	
FREEBOARD AT DESIGN OPERATING DEPTH	FT	6	
NUMBER OF SURFACE AERATORS, EACH		3	
AERATOR POWER, EACH	HP	7.5	
LAGOON MIXING ENERGY, EACH	HP/IMG	6.4	

EFFLUENT CONTROL STRUCTURE

PARSHALL FLUME	NUMBER	1	
THROAT SIZE	INCHES	36	
MANUAL BAR SCREEN	NUMBER	1	
BAR SPACING	INCHES	3/4	
EFFLUENT FILTRATION			
FILTER FEED PUMPS			
NUMBER		2 (1 DUTY, 1 STANDBY)	
TYPE		SUBMERSIBLE	
MOTOR SIZE	HP	10	
CAPACITY, EACH	MGD	0.80	
TOTAL DYNAMIC HEAD	FT	15	
TERTIARY FILTERS			
TYPE		SLOW SAND	
NUMBER OF FILTER CELLS		2	
NUMBER OF FILTER MODULES PER CELL		2	
FILTER AREA PER MODULE	SF	50	
TOTAL FILTER AREA	SF	200	
FILTER LOADING RATE	GPM/SF	2.8	
TOTAL FILTRATION CAPACITY	MGD	0.80	
DESIGN HEADLOSS	FT	4	
BACKWASH PUMPS			
NUMBER		2 (1 DUTY, 1 STANDBY)	
TYPE		SUBMERSIBLE	
MOTOR SIZE	HP	3.4	
CAPACITY, EACH	GPM	60	
TOTAL DYNAMIC HEAD	FT	40	
POLYMER FEED SYSTEM			
NUMBER OF POLYMER FEED UNITS		1	
NEAT POLYMER FEED CAPACITY	GPH	1	
DILUTION WATER FEED CAPACITY	GPH	200	
ALUM FEED SYSTEM			
NUMBER OF STORAGE TANKS		1	
STORAGE TANK CAPACITY	GAL	1,000	
NUMBER OF METERING PUMPS		2 (1 DUTY, 1 STANDBY)	
METERING PUMP CAPACITY, EACH	GPH	2	

DISINFECTION

CHLORINE CONTACT TANK	CONTACT TANK VOLUME	GAL	178,570
THEORETICAL DETENTION TIME	AT PEAK DAY FLOW	HRS	0.5
THEORETICAL DETENTION TIME	AT AVERAGE ANNUAL FLOW	HRS	2.5
CHLORINATORS			
NUMBER		1	
CAPACITY	LBS/DAY	500	
SULFONATORS			
NUMBER		1	
CAPACITY	LBS/DAY	200	

NPDES PERMIT LIMITS

CBOD5 (JUL-OCT MONTHLY AVG)	MG/L (LBS/DAY)	25 (58)
CBOD5 (JUL-OCT WEEKLY AVG)	MG/L	40
CBOD5 (JUL-OCT MAX DAY)	LBS/DAY	93
CBOD5 (NOV-JUN MONTHLY AVG)	MG/L (LBS/DAY)	25 (584)
CBOD5 (NOV-JUN WEEKLY AVG)	MG/L (LBS/DAY)	40 (934)
TSS (JUL-OCT MONTHLY AVG)	MG/L (LBS/DAY)	37 (355)
TSS (JUL-OCT WEEKLY AVG)	MG/L (LBS/DAY)	56 (537)
TSS (NOV-JUN MONTHLY AVG)	MG/L (LBS/DAY)	30 (701)
TSS (NOV-JUN WEEKLY AVG)	MG/L (LBS/DAY)	45 (1,051)
AMMONIA-N (JUL-OCT MONTHLY AVG)	LBS/DAY	29
AMMONIA-N (JUL-OCT MAX DAY)	LBS/DAY	99
FECAL COLIFORM (MONTHLY AVG)	CFU/100ML	200
FECAL COLIFORM (WEEKLY AVG)	CFU/100ML	400

SUPPLEMENTAL ALKALINITY

SOURCE		MAGNESIUM HYDROXIDE
CONCENTRATION	%	50-60
STORAGE TANK	NUMBER	1
VOLUME	GAL	5,400
METERING PUMPS		
NUMBER		2 (1 DUTY, 1 STANDBY)
TYPE		PERISTALTIC
CAPACITY, EACH	GPH	35

SUBMERGED FIXED-FILM (SFF) MEDIA SYSTEM

SFF MEDIA			
TOTAL NUMBER OF MODULES		54	
NUMBER OF MODULES, LAGOON NO. 1		0	
NUMBER OF MODULES, LAGOON NO. 2		18	
NUMBER OF MODULES, LAGOON NO. 3		18	
NUMBER OF MODULES, LAGOON NO. 4		18	
MEDIA FACE AREA PER MODULE	SF	3,549	
TOTAL MEDIA FACE AREA	SF	191,646	
AMMONIA-N REMOVAL PER 1,000 SF			
MEDIA FACE AREA	LBS/DAY	3.5	
AMMONIA-N REMOVAL PER MODULE	LBS/DAY	12.5	
TOTAL AMMONIA-N REMOVAL CAPACITY	LBS/DAY	677	
AIR DIFFUSER TYPE		COARSE BUBBLE	
NORMAL AIR FLOW PER MODULE	SCFM	20 - 45	
AIR SCOUR FLOW PER MODULE	SCFM	90	
AIR SCOUR DURATION PER MODULE	MIN	20	
AIR SCOUR INTERVAL	WEEKS	1	
MEDIA BLOWERS			
NUMBER		3 (2 DUTY, 1 STANDBY)	
TYPE		POSITIVE DISPLACEMENT	
MOTOR SIZE	HP	75	
CAPACITY, EACH	SCFM	1,000	

P:\CAD\131\1397009_00_Snohomish_Biosolids_Removal\139700900-G003.dwg

USE OF DOCUMENTS

THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES

1" = 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

FOR REFERENCE ONLY

DESIGNED: TPG
DRAWN: LMM
CHECKED: MDL

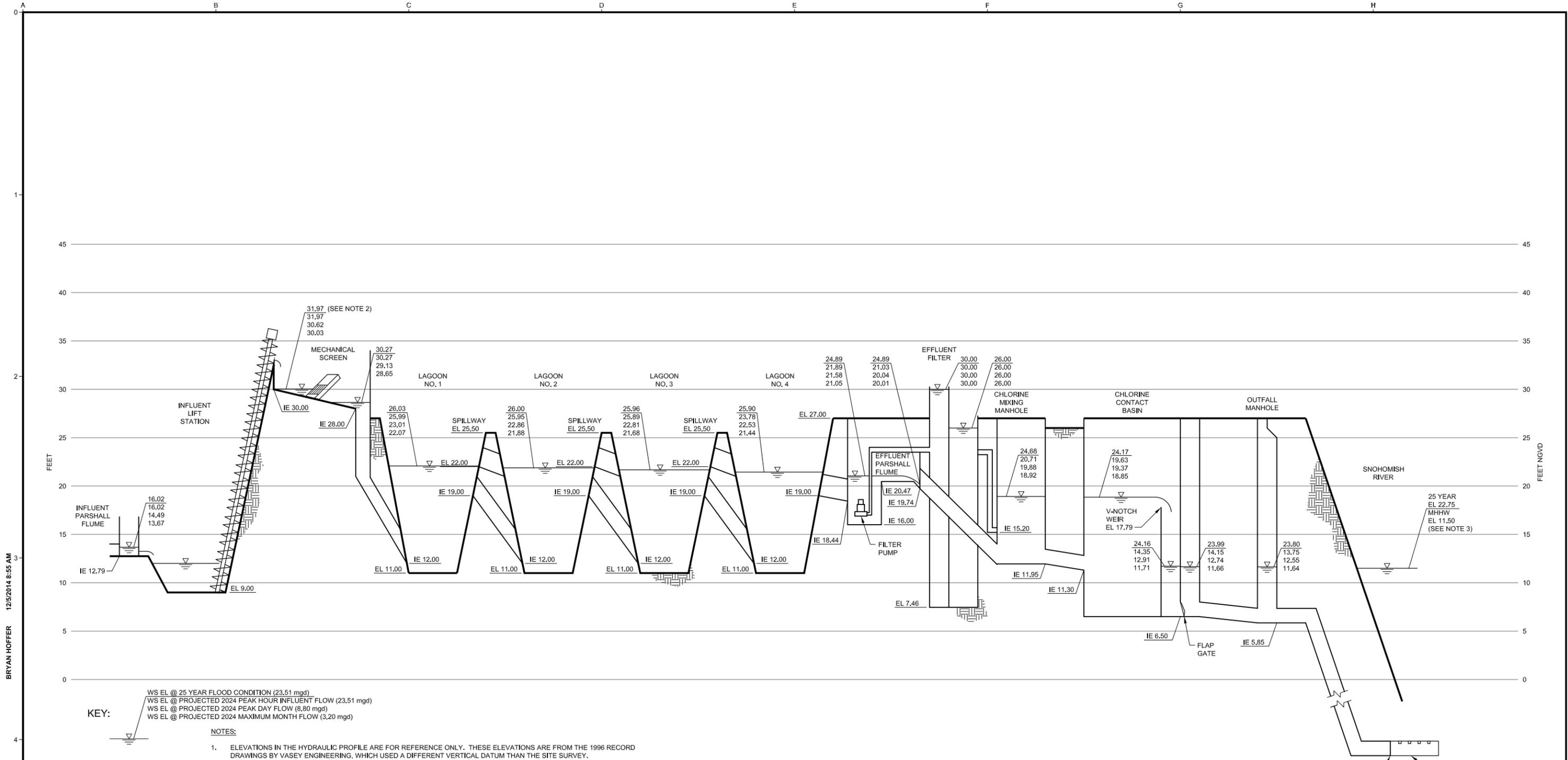
CITY OF SNOHOMISH
Snohomish, Washington

BIOSOLIDS REMOVAL AND REUSE PROJECT

Kennedy/Jenks Consultants
FEDERAL WAY, WASHINGTON

PROCESS FLOW DIAGRAM AND DESIGN CRITERIA

FILE NAME: 139700900-G003.dwg
JOB NO.: 1397009*00
DATE: DECEMBER 2014
SHEET: **G3** OF 12



HYDRAULIC PROFILE
 SCALE: HORIZ NOT TO SCALE
 VERT 1"=5'-0"

USE OF DOCUMENTS
 THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
 1" = 25mm
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

FOR REFERENCE ONLY

DESIGNED	TPG
DRAWN	RJS
CHECKED	MDL

CITY OF SNOHOMISH
 Snohomish, Washington
BIOSOLIDS REMOVAL AND REUSE PROJECT

Kennedy/Jenks Consultants
 FEDERAL WAY, WASHINGTON

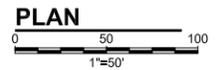
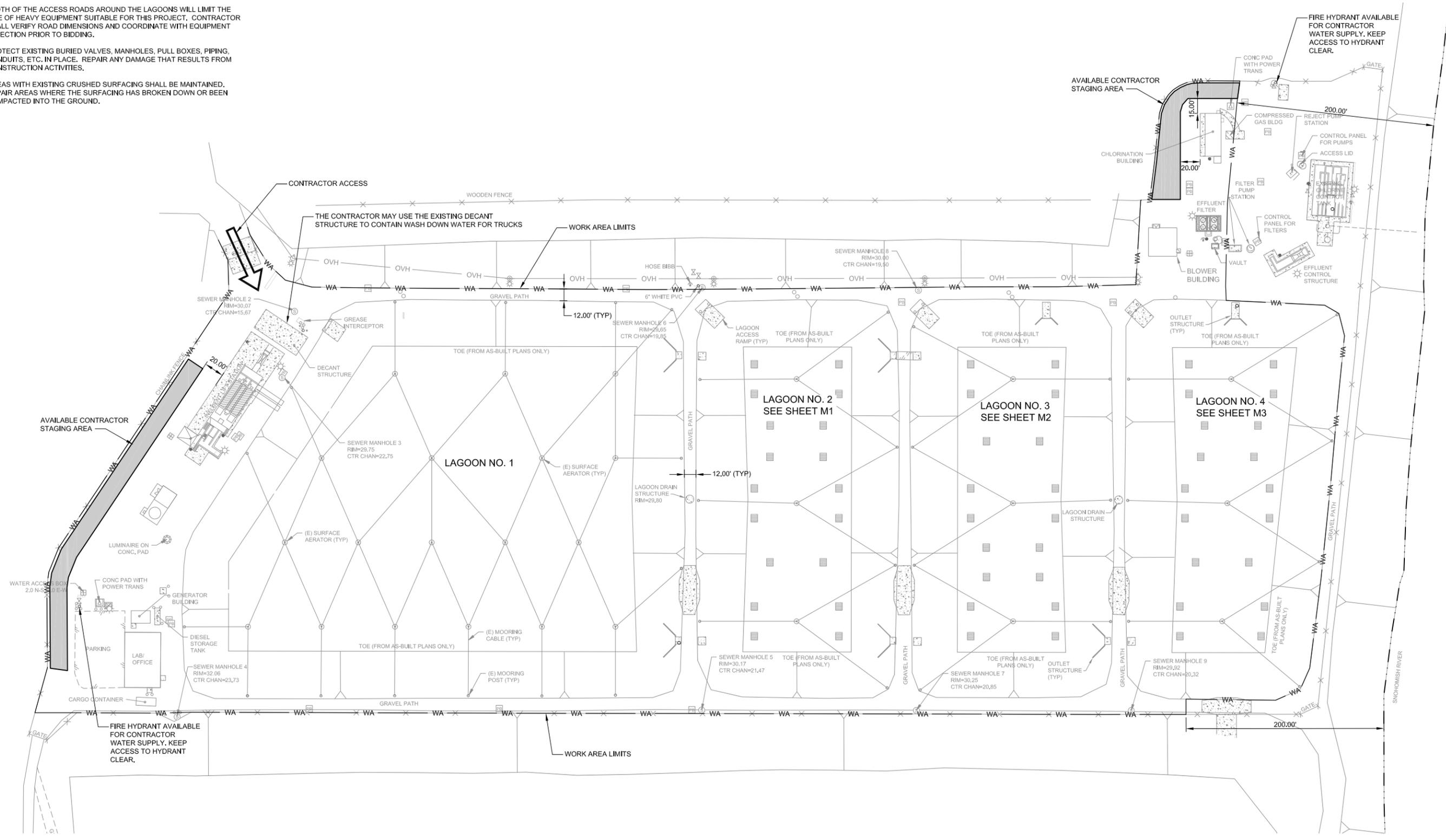
HYDRAULIC PROFILE

FILE NAME	139700900-G004.dwg
JOB NO.	1397009*00
DATE	DECEMBER 2014
SHEET	G4 OF 12

P:\CAD\131397009_00_Snohomish_Biosolids_Removal\139700900-G004.dwg BRYAN HOFFER 12/5/2014 8:55 AM

NOTES:

1. WIDTH OF THE ACCESS ROADS AROUND THE LAGOONS WILL LIMIT THE SIZE OF HEAVY EQUIPMENT SUITABLE FOR THIS PROJECT. CONTRACTOR SHALL VERIFY ROAD DIMENSIONS AND COORDINATE WITH EQUIPMENT SELECTION PRIOR TO BIDDING.
2. PROTECT EXISTING BURIED VALVES, MANHOLES, PULL BOXES, PIPING, CONDUITS, ETC. IN PLACE. REPAIR ANY DAMAGE THAT RESULTS FROM CONSTRUCTION ACTIVITIES.
3. AREAS WITH EXISTING CRUSHED SURFACING SHALL BE MAINTAINED. REPAIR AREAS WHERE THE SURFACING HAS BROKEN DOWN OR BEEN COMPACTED INTO THE GROUND.



P:\CAD\131397009_00_Snohomish_Biosolids_Removal\139700900-C001.dwg
BRYAN HOFFER 1/12/2015 10:27 AM

USE OF DOCUMENTS			
THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.			
NO.	REVISION	DATE	BY

SCALES	
	1"
	25mm
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.	

FOR REFERENCE ONLY

DESIGNED	TPG
DRAWN	LMM
CHECKED	MDL

CITY OF SNOHOMISH
Snohomish, Washington

BIOSOLIDS REMOVAL AND REUSE PROJECT

Kennedy/Jenks Consultants
FEDERAL WAY, WASHINGTON

SITE PLAN AND CONTRACTOR STAGING AREA	
FILE NAME	139700900-C001.dwg
JOB NO.	1397009'00
DATE	DECEMBER 2014
SHEET	OF
C1	12

FILE NAME	139700900-C001.dwg
JOB NO.	1397009'00
DATE	DECEMBER 2014
SHEET	OF
C1	12

P:\CAD\131397009_00_Snohomish_Biosolids_Removal\139700900-C002.dwg
 BRYAN HOFFER 1/12/2015 10:28 AM



- NOTES:**
1. LISTED DRY TON QUANTITIES ARE CURRENT ESTIMATED BIOSOLIDS AMOUNT WITHIN EACH LAGOON.
 2. DEPTH OF SLUDGE BLANKET IS AN ESTIMATE BASED ON A SAMPLING EVENT CONDUCTED IN JUNE 2014.

PLAN
 NO SCALE

USE OF DOCUMENTS
 THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
 1" = 25mm
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

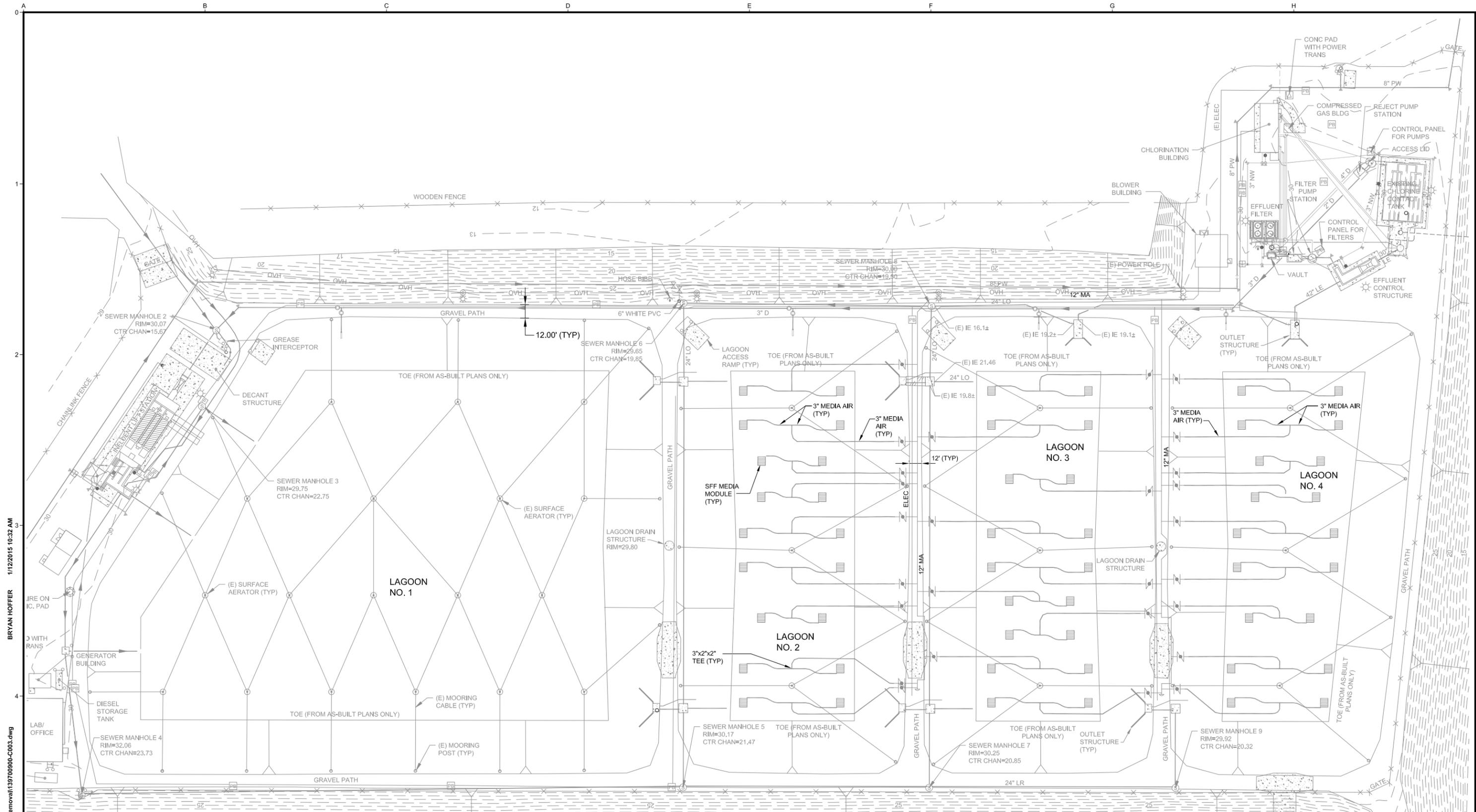
FOR REFERENCE ONLY

DESIGNED
TPG
 DRAWN
BBH
 CHECKED
MDL

CITY OF SNOHOMISH
 Snohomish, Washington
BIOSOLIDS REMOVAL AND REUSE PROJECT
 Kennedy/Jenks Consultants
 FEDERAL WAY, WASHINGTON

CURRENT LAGOON BIOSOLIDS QUANTITIES

FILE NAME 139700900-C002.dwg
JOB NO. 1397009*00
DATE DECEMBER 2014
SHEET OF C2 12



PLAN
 0 20 40 60
 1"=40'

P:\CAD\131397009_00_Snohomish_Biosolids_Removal\139700900-C003.dwg
 BRYAN HOFFER 1/12/2015 10:32 AM

USE OF DOCUMENTS
 THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
 1" = 25mm
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

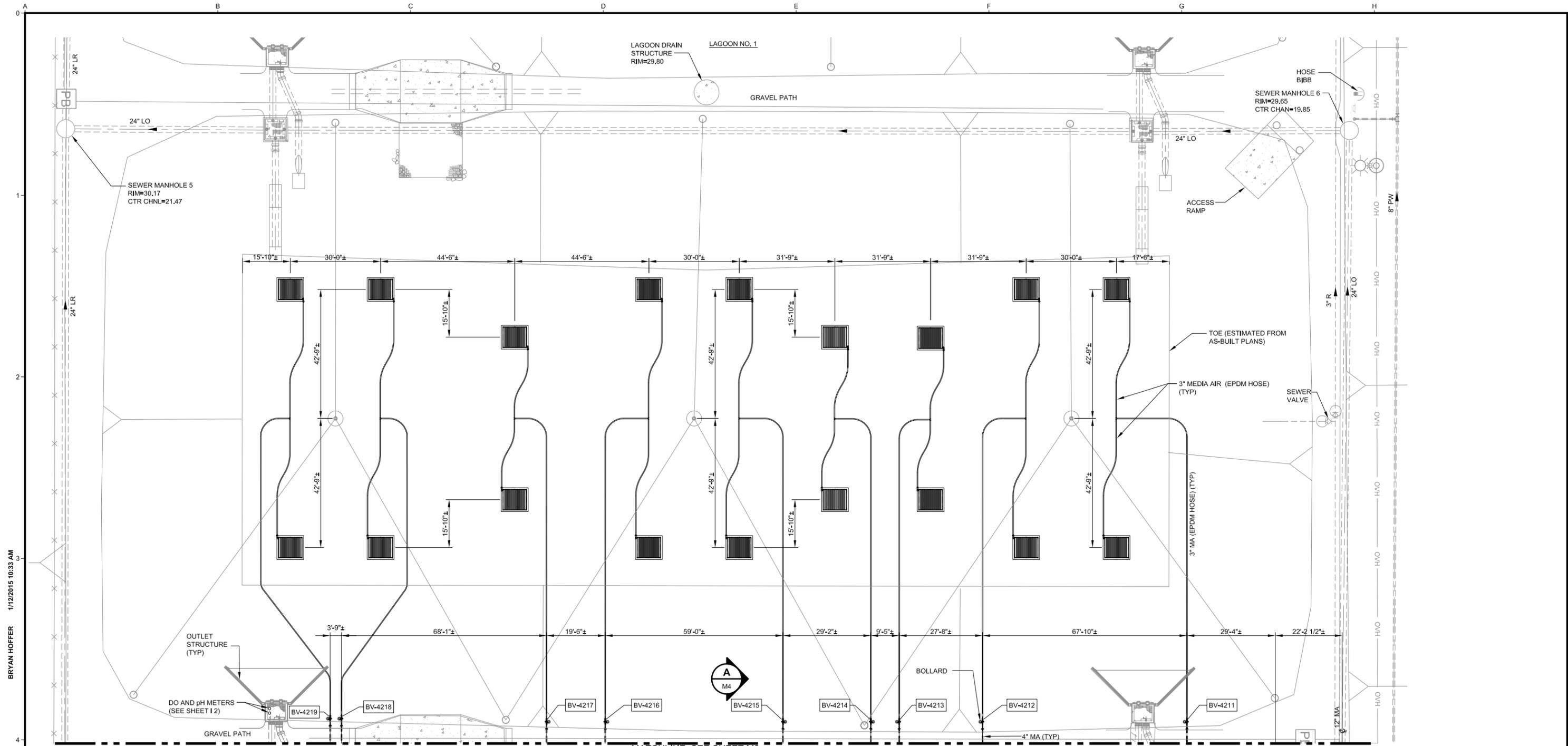
FOR REFERENCE ONLY

DESIGNED TPG
 DRAWN LMM
 CHECKED MDL

CITY OF SNOHOMISH
 Snohomish, Washington
BIOSOLIDS REMOVAL AND REUSE PROJECT
 Kennedy/Jenks Consultants
 FEDERAL WAY, WASHINGTON

LAGOON OVERVIEW PLAN

FILE NAME 139700900-C003.dwg
 JOB NO. 1397009'00
 DATE DECEMBER 2014
 SHEET OF
C3 12



LAGOON NO. 2 PLAN

0 10 20
1/16"=1'-0"

P:\CAD\131397009_00_Snohomishi_Biosolids_Removal\139700900-M001.dwg

BRYAN HOFFER 1/12/2015 10:33 AM

USE OF DOCUMENTS
THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
1" = 25mm
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

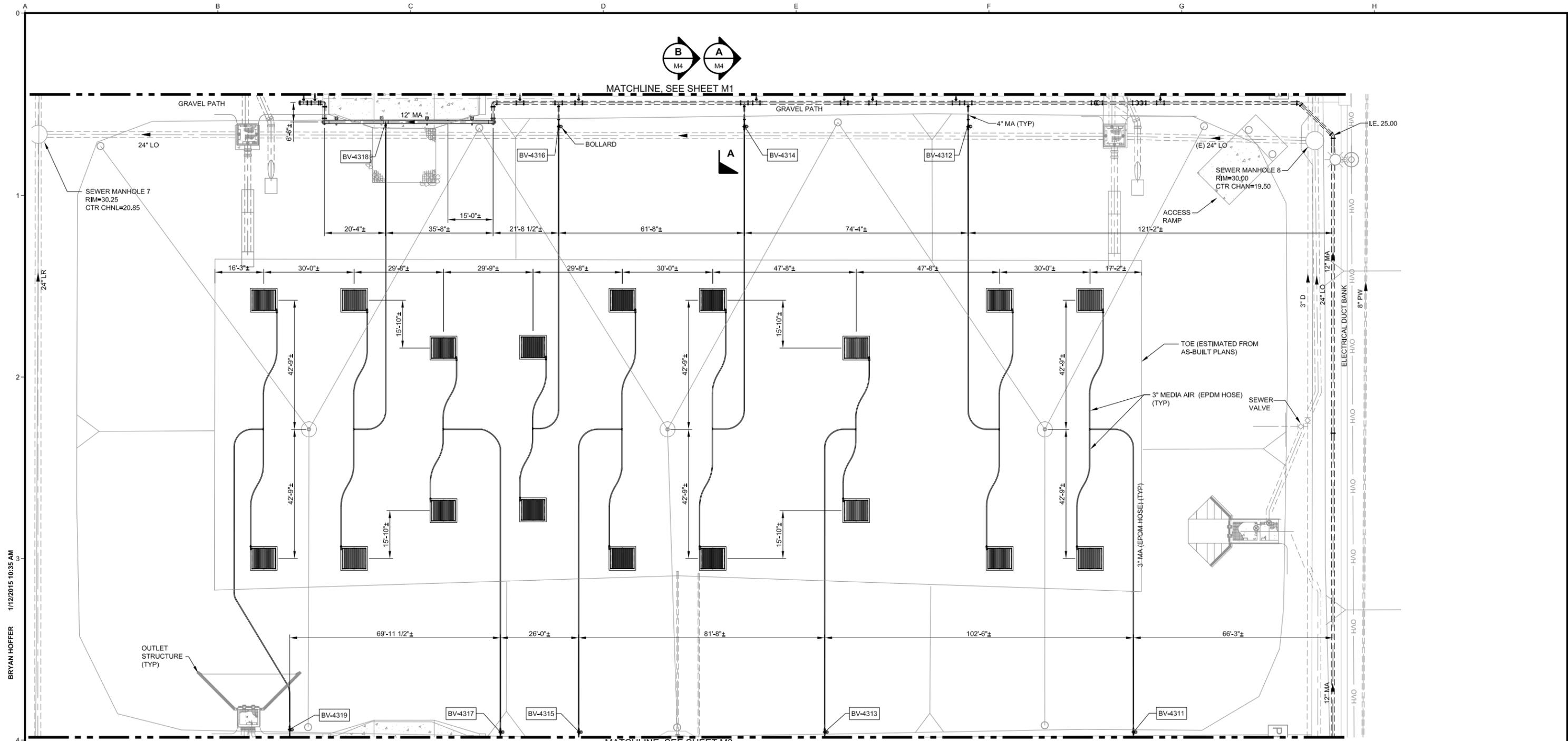
FOR REFERENCE ONLY

DESIGNED TPG
DRAWN LMM
CHECKED MDL

CITY OF SNOHOMISH
Snohomish, Washington
BIOSOLIDS REMOVAL AND REUSE PROJECT
SNOHOMISH WASHINGTON
Kennedy/Jenks Consultants
FEDERAL WAY, WASHINGTON

LAGOON NO. 2 PLAN

FILE NAME 139700900-M001.dwg
JOB NO. 1397009*00
DATE DECEMBER 2014
SHEET OF
M1 12



LAGOON NO. 3 PLAN

0 10 20
1/16"=1'-0"

P:\CAD\131397009_00_Snohomishi_Biosolids_Removal\139700900-M002.dwg
BRYAN HOFFER 1/12/2015 10:35 AM

USE OF DOCUMENTS
THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
1" = 25mm
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

FOR REFERENCE ONLY

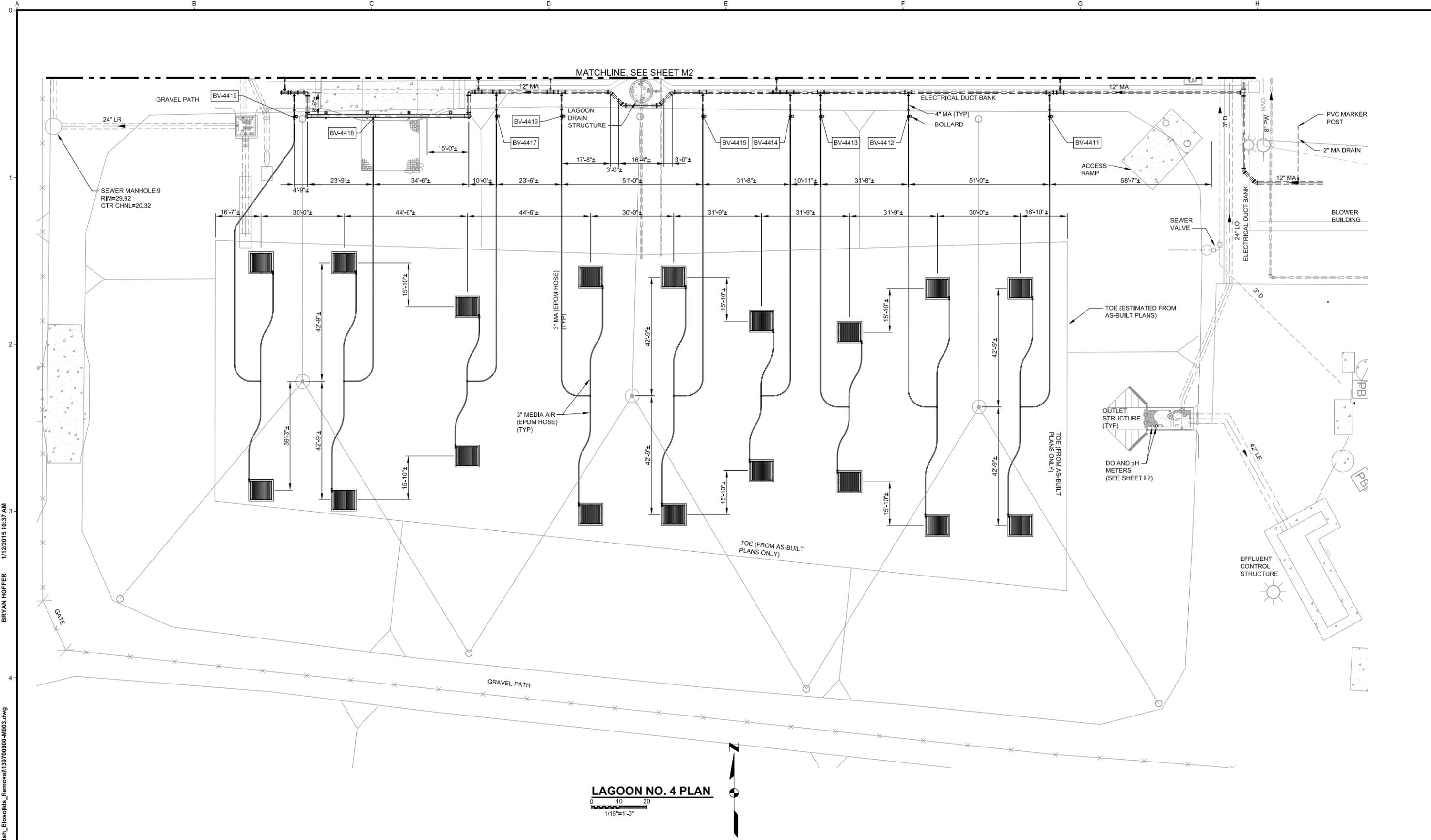
DESIGNED TPG
DRAWN LMM
CHECKED MDL



CITY OF SNOHOMISH
Snohomish, Washington
BIOSOLIDS REMOVAL AND REUSE PROJECT
Kennedy/Jenks Consultants
FEDERAL WAY, WASHINGTON

LAGOON NO. 3 PLAN

FILE NAME 139700900-M002.dwg
JOB NO. 1397009'00
DATE DECEMBER 2014
SHEET OF
M2 12



LAGOON NO. 4 PLAN
 0 10 20
 1/16"=1'-0"

P:\CAD\131397009_00_Snohomishi_Biosolids_Removal\139700900-M003.dwg
 BRYAN HOFFER 1/12/2015 10:37 AM

USE OF DOCUMENTS
 THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
 1" = 25mm
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

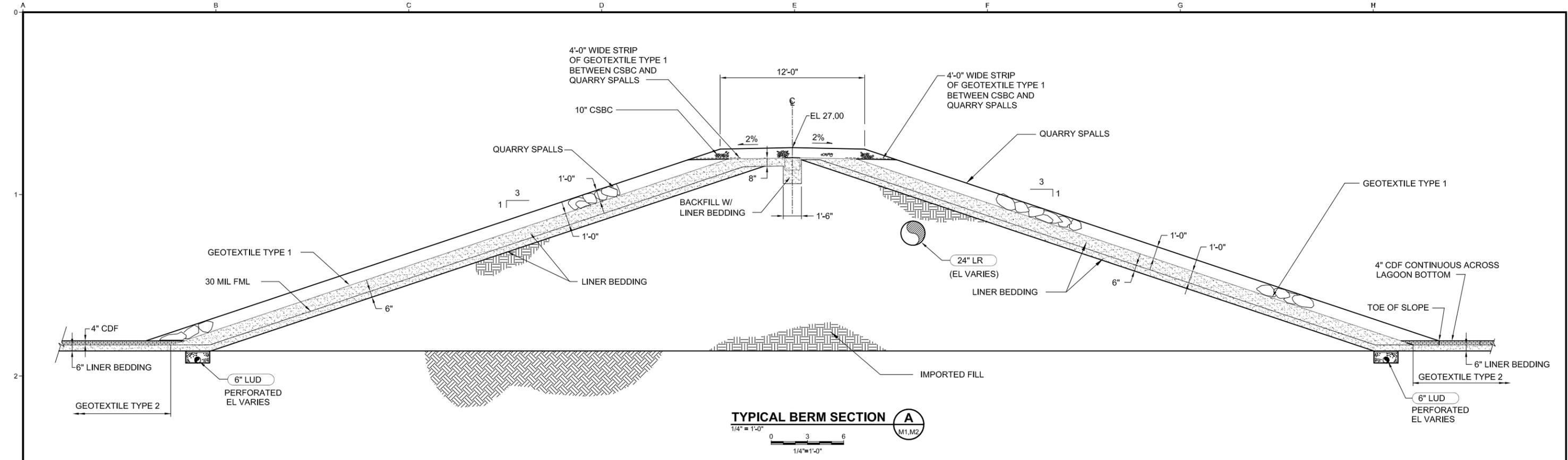
FOR REFERENCE ONLY

DESIGNED TPG
 DRAWN LMM
 CHECKED MDL

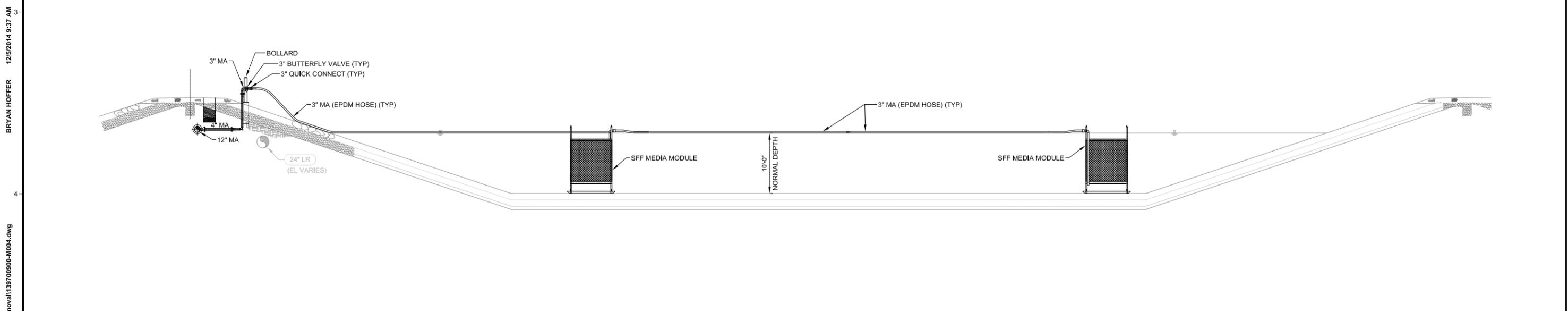

CITY OF SNOHOMISH
 Snohomish, Washington
BIOSOLIDS REMOVAL AND REUSE PROJECT
 Kennedy/Jenks Consultants
 FEDERAL WAY, WASHINGTON

LAGOON NO. 4 PLAN

FILE NAME 139700900-M003.dwg
 JOB NO. 1397009*00
 DATE DECEMBER 2014
 SHEET OF
M3 12



TYPICAL BERM SECTION A
 1/4" = 1'-0"
 1/4" = 1'-0"



SECTION B
 1/8" = 1'-0"

USE OF DOCUMENTS
 THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
 1" = 25mm
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

FOR REFERENCE ONLY

DESIGNED: TPG
 DRAWN: BBH
 CHECKED: MDL

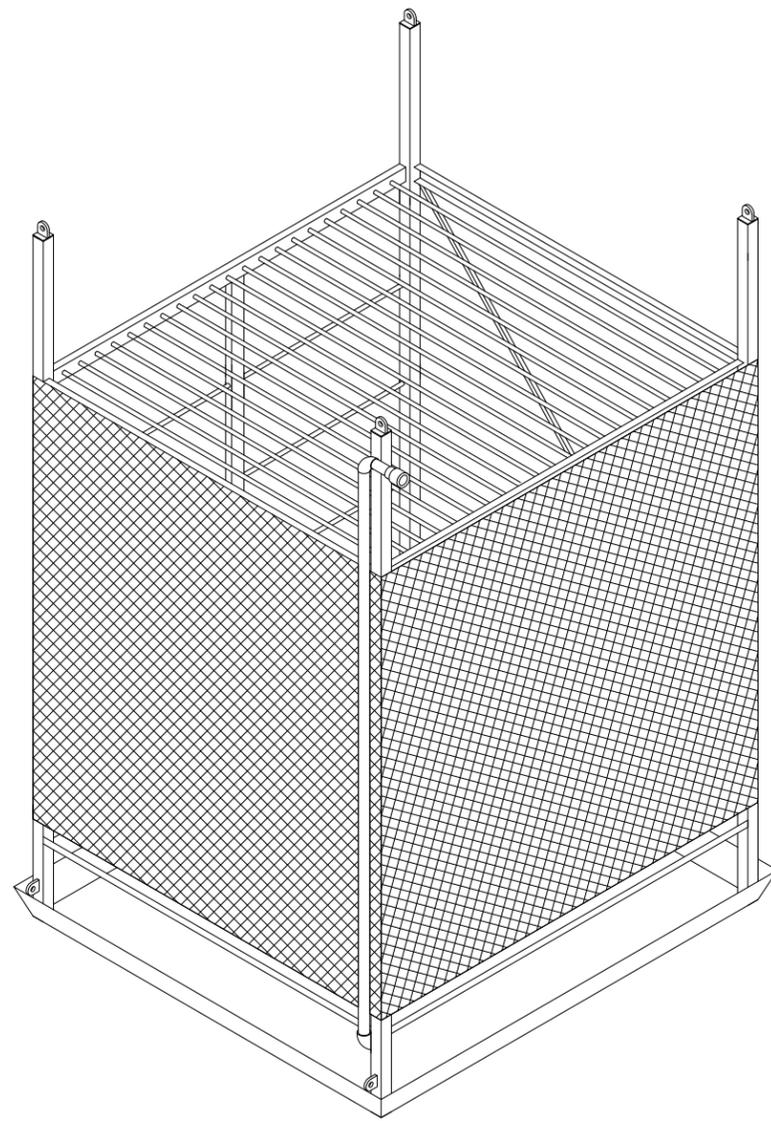
CITY OF SNOHOMISH
 Snohomish, Washington
BIOSOLIDS REMOVAL AND REUSE PROJECT
 Kennedy/Jenks Consultants
 FEDERAL WAY, WASHINGTON

LAGOON SECTIONS

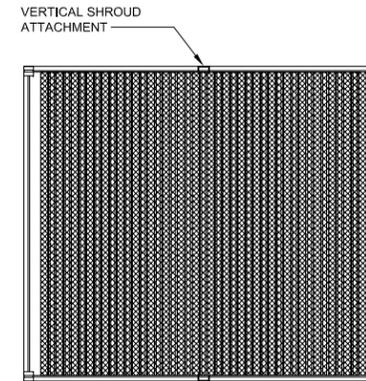
FILE NAME: 139700900-M004.dwg
 JOB NO.: 1397009*00
 DATE: DECEMBER 2014
 SHEET: **M4** OF 12

P:\CAD\131\397009_00_Snohomish_Biosolids_Removal\139700900-M004.dwg 12/5/2014 9:37 AM BRYAN HOFFER

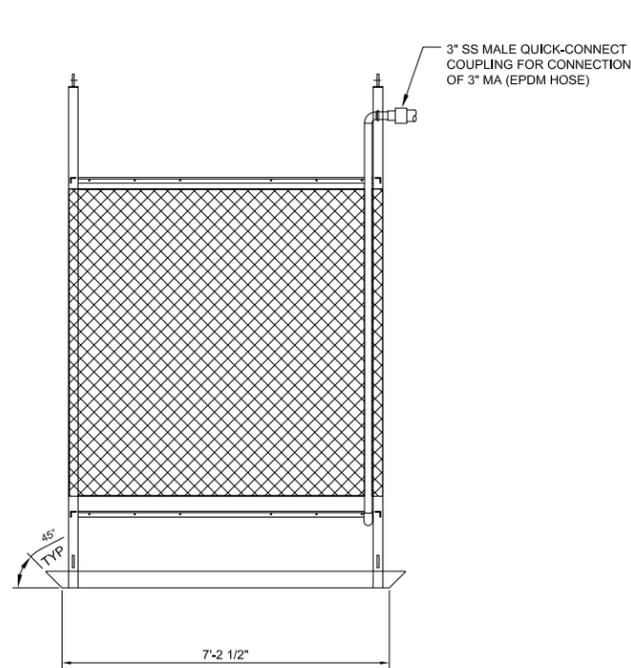
P:\CAD\1317009_00_Snohomish_Biosolids_Removal\131700900-M005.dwg
 BRYAN HOFFER 12/5/2014 9:39 AM



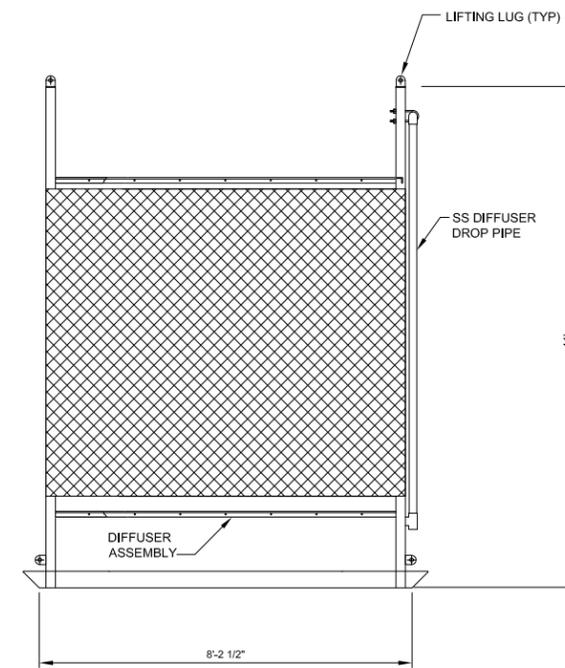
ISOMETRIC VIEW



PLAN VIEW
 BAFFLE CURTAIN AND CONNECTION ANGLES NOT SHOWN FOR CLARITY



SIDE VIEW



ELEVATION VIEW

USE OF DOCUMENTS
 THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

SCALES
 1" = 25mm
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

FOR REFERENCE ONLY

DESIGNED	TPG
DRAWN	LMM
CHECKED	MDL



CITY OF SNOHOMISH
 Snohomish, Washington
BIOSOLIDS REMOVAL AND REUSE PROJECT

Kennedy/Jenks Consultants
 FEDERAL WAY, WASHINGTON

SFF MEDIA MODULE DETAILS

FILE NAME	139700900-M005.dwg
JOB NO.	1397009*00
DATE	DECEMBER 2014
SHEET	OF
M5	12

APPENDIX B

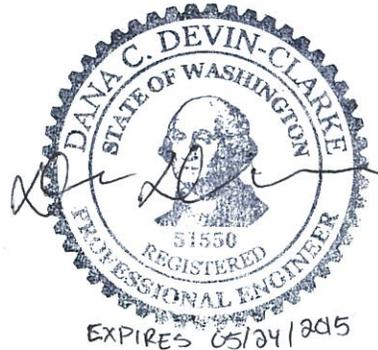
BIOSOLIDS MANAGEMENT PLAN

Kennedy/Jenks Consultants

200 S.W. Market Street, Suite 500
Portland, Oregon 97201
503-423-4000
FAX: 503-295-4901

Snohomish Biosolids Management Plan

13 January 2015



Prepared for

City of Snohomish
116 Union Avenue
Snohomish, WA 98290

K/J Project No. 1397009*00

Table of Contents

<i>List of Tables</i>	<i>i</i>
<i>List of Figures</i>	<i>i</i>
<i>List of Appendices</i>	<i>ii</i>
<i>List of Acronyms</i>	<i>ii</i>
Section 1: Introduction	1
1.1 Existing Wastewater Treatment Processes	3
1.2 Solids Characteristics.....	5
Section 2: Alternatives Analysis.....	8
2.1 Biosolids Beneficial Use and Disposal Options	8
2.1.1 Disposal in a Landfill	8
2.1.2 Haul and Application at a Beneficial Use Facility	8
2.1.3 On-site Land Application	9
2.2 Biosolids End Use Operating Costs.....	10
Section 3: Recommended Alternative	13
3.1 Next Steps	13

List of Tables

Table 1: Lagoon Solids Depth	5
Table 2: Pollutant Concentrations of Lagoon Biosolids.....	5
Table 3: Nutrient Characteristics of Lagoon Biosolids.....	6
Table 4: Total Volatile Solids Reduction Following 40-Day Anaerobic Bench Test	7
Table 5: Cost Estimate Comparison of Each Alternative	11

List of Figures

Figure 1: Snohomish Vicinity Map	2
Figure 2: WWTP Facility Schematic	4
Figure 3: Available Land for On-site Application of Biosolids	9

Table of Contents (cont'd)

List of Appendices

- A General Permit for Biosolids Management
- B Biosolids Sampling Plan
- C SEPA Checklist
- D Estimated Schedule for Solids Removal

List of Acronyms

City	City of Snohomish
WWTP	Wastewater treatment plant
Ecology	Department of Ecology
BUF	Beneficial Use Facility
Plan	Biosolids Management Plan
WAC	Washington Administrative Code
MG	Million gallons
MGD	Million gallons per day
TMDL	Total maximum daily load
HRT	Hydraulic retention time
MPN/g	Most probable number per gram of dry solids
GIS	Geographic Information System
Kennedy/Jenks	Kennedy/Jenks Consultants
SEPA	State Environmental Policy Act
EPA	Environmental Protection Agency

Section 1: Introduction

All facilities in Washington that treat, store, transfer, use, or dispose of biosolids, sewage sludge, or septage and that require coverage under the General Permit for Biosolids Management must submit an “Application for Coverage under the Statewide General Permit for Biosolids Management.”

The City of Snohomish (City) currently treats and stores biosolids at their wastewater treatment plant (WWTP). The City has developed the following Biosolids Management Plan (Plan) to address the permitting requirements set forth by Department of Ecology (Ecology) and regulated under the state’s biosolids regulations in Chapter 173-308 of the Washington Administrative Code (WAC).

The Plan provides a detailed description for the land application of biosolids including identification of land application sites and methods for removing and applying biosolids from the existing lagoons. This Plan also contains: (1) the Application for Coverage under the Statewide General Permit for Biosolids Management (Appendix A), (2) Biosolids Sampling Plan (Appendix B), (3) State Environmental Policy Act (SEPA) documentation (Appendix C) and (4) Estimated Schedule for Solids Removal (Appendix D). Three primary options were identified for biosolids disposal or beneficial use, as follows:

1. Landfill disposal following mechanical dewatering of biosolids from the lagoons,
2. Contract hauling and land application of dewatered biosolids via a BUF, and
3. Land application of dewatered biosolids at an off-site farm either owned by the City or a private farmer.

The Plan will consider each of these reuse options and recommend the best option for the City.

Figure 1 is the Vicinity Map of the WWTP which is located at 2115 Second Street, Snohomish, WA 98290 (latitude: 47.9147172 and longitude: -122.1121366).

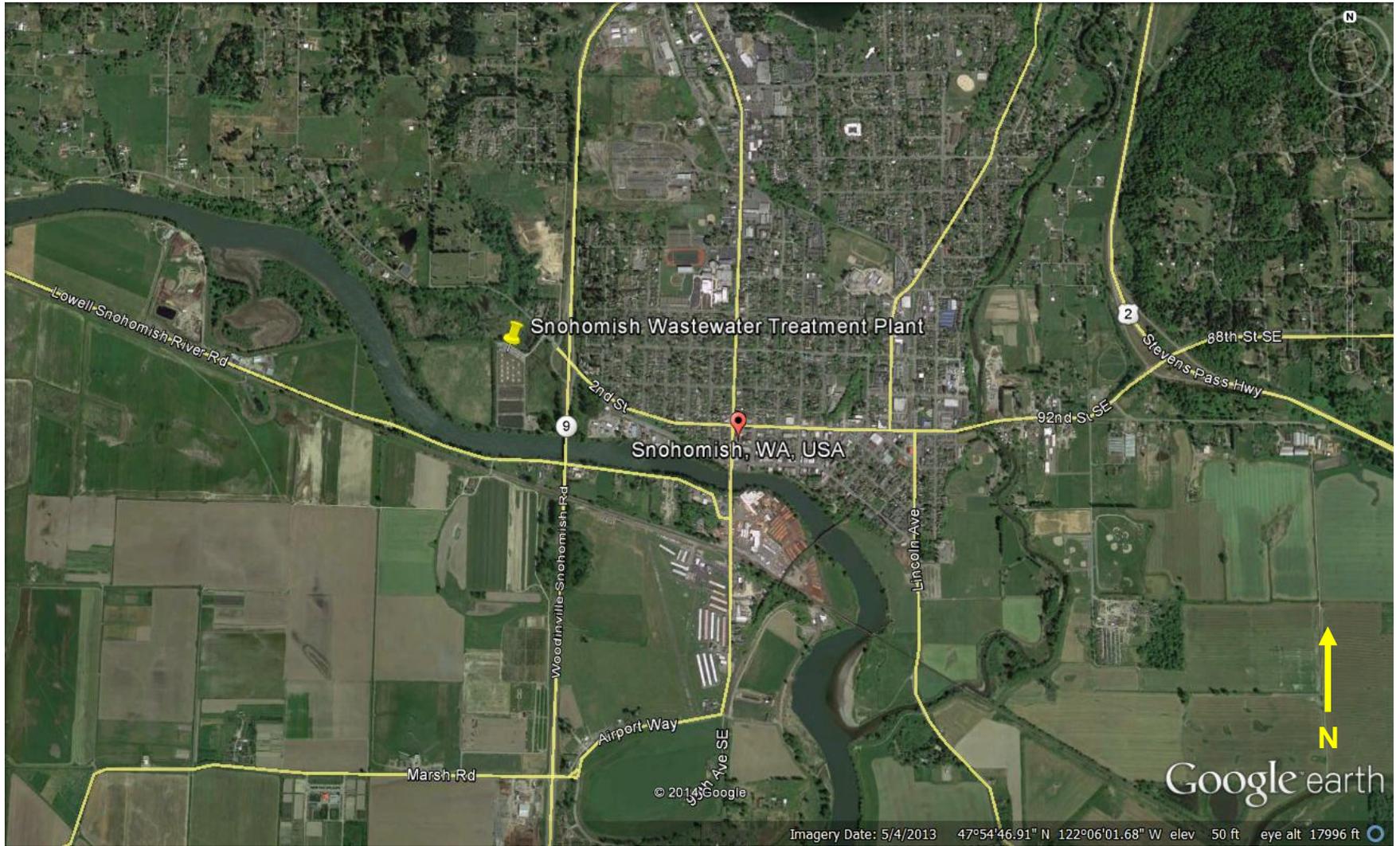


Figure 1: Snohomish Vicinity Map

1.1 Existing Wastewater Treatment Processes

In 1958, the City brought online the original sewage treatment plant, a 40-acre facultative stabilization lagoon with chlorine disinfection. In 1989, the City added a new chlorine contact tank, chlorine feed, mixing equipment and a new outfall. In 1995, the City upgraded the facility to a multi-lagoon aerated system. A new headworks was constructed, consisting of three influent screw pumps, a rotary screen and a manually cleaned bar screen. The new lagoon system consists of four aerated lagoons on ten acres of the old system. The treatment chain is now comprised of one 10 million gallon (MG) completely mixed aerated basin followed by three 3.5 MG partially mixed settling basins. Screened wastewater enters Lagoon 1 and flows through Lagoons, 2, 3 and 4 in series.

The aerated lagoons at the WWTP were originally designed to remove organic material through all four lagoon cells and retain settleable solids in the three partially mixed lagoon cells. After a total maximum daily load (TMDL) from the Snohomish Estuary was established in 2000, the WWTP had difficulty complying with the new discharge requirements for ammonia. Therefore, in 2012, 54 Submerged Fixed Film media modules and a new aeration system were added to Lagoons 2, 3 and 4, improving nitrification in these lagoon cells.

The typical operating depth of the lagoons is 10 feet, which corresponds to a water surface elevation of about 24 feet and hydraulic retention time (HRT) of 7.35 days at the design flow of 2.8 million gallons per day (MGD). The average level of solids accumulation in the four lagoons is less than the 3 feet allotted for design so the design HRT is still possible. While the lagoons have sufficient capacity, it was determined that solids should be removed to optimize treatment efficiency. Figure 2 is a flow schematic of the WWTP.

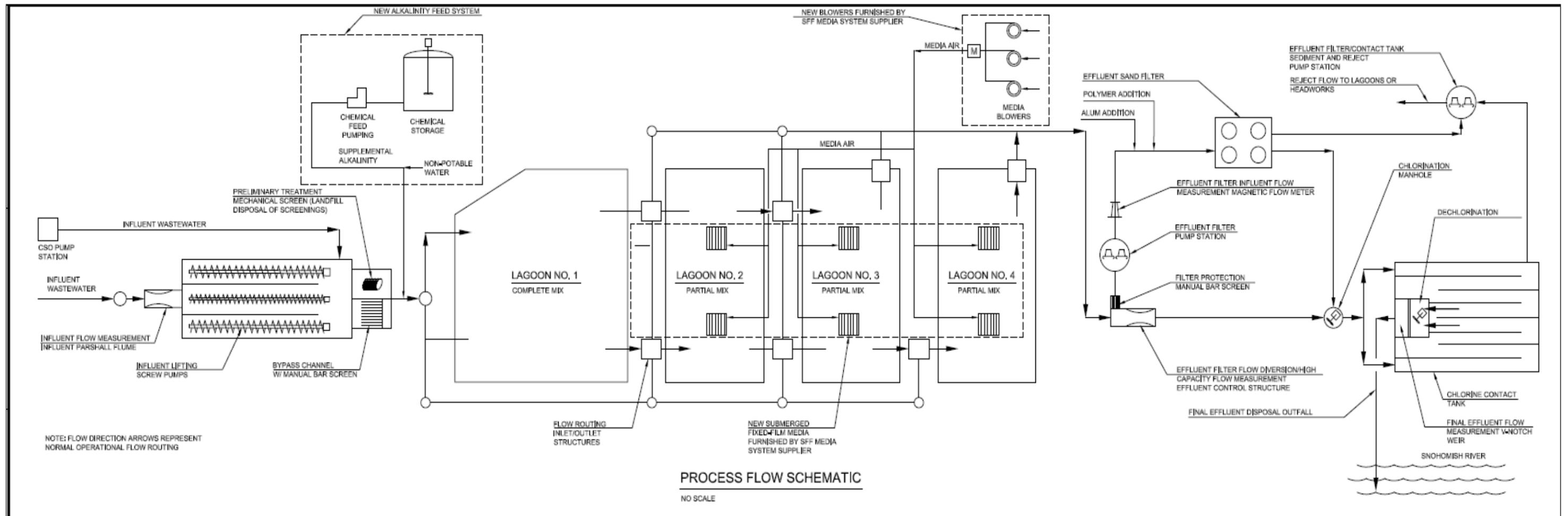


Figure 2: WWTP Facility Schematic

1.2 Solids Characteristics

Biosolids have not been removed from the lagoons since they were placed into service in 1995. The City completed a Biosolids Sampling Plan on 22 May 2014 that was submitted to Ecology and used for conducting quality and quantity characterization of the lagoons. To determine the quantity of solids residing within each lagoon, the solids blanket depth was measured at multiple locations in June 2014. The solids depths and corresponding dry tons are listed in Table 1. Total estimated biosolids quantity is 725 dry tons (657 metric tons).

Table 1: Lagoon Solids Depth

Lagoon Location	Solids Concentration ^(a) , %	Solids Depth, ft.	Solids Quantity, Dry Tons
Lagoon 1	7	1.5	373
Lagoon 2	6	3.4	187
Lagoon 3	5	2.1	96
Lagoon 4	4	1.8	69
	5.5 Average	2.2 Average	725 Total

Notes

(a) Solids concentration was sampled in February 2014

In addition to depth sampling, the lagoons will also undergo three sampling events to determine the solids pathogens content, vector attraction reduction, metals and nutrient characteristics. Sampling Event #1 was conducted to determine if the biosolids met Class B pathogen reduction requirements. Class B designation requires the geometric mean of seven samples be less than 2 million most probable number per gram of dry solids (MPN/g). The geometric mean in Lagoons 1 through 4 fell well below this requirement, with the highest mean being 366,971 MPN/g in Lagoon 1. The geometric mean of samples taken from Lagoons 2 through 4 was 2,829 MPN/g. This initial sampling supports the conclusion that the biosolids in each of the lagoons will meet the Class B standards for pathogen reduction. Sampling Event #2 in December 2014, corroborated these initial results. The geometric mean was 513,639 MPN/g in Lagoon 1 and 2,310 in Lagoons 2 through 4.

Sampling Event #2 was used to characterize the nutrient and metal concentration of the solids and to determine compliance with federal and state biosolids regulations. The results from Sampling Event #2 are shown in Tables 2, 3 and 4 below. Sampling Event #3 will be conducted approximately six weeks before actual dredging of the lagoons. The information from this event will be used to ensure the biosolids continue to meet Class B requirements with respect to pathogen reduction requirements.

Table 2: Pollutant Concentrations of Lagoon Biosolids

Sample Location	Mercury mg/kg	Arsenic mg/kg	Cadmium mg/kg	Copper mg/kg	Lead mg/kg	Molybdenum mg/kg	Nickel mg/kg	Selenium mg/kg	Zinc mg/kg
Lagoon 1	2.84	ND	1.49	290	65.8	1.67	24.5	0.72	763
Lagoon 2	5.54	ND	4.00	621	72.9	2.52	32.5	3.86	1,594
Lagoon 3	4.53	ND	4.99	804	95.2	3.28	30	5.01	1,962
Lagoon 4	3.8	ND	4.89	947	109	3.2	29.4	2.96	2,165

Table 3: Nutrient Characteristics of Lagoon Biosolids

Sample ID	Ammonia	Total Kjeldahl Nitrogen	Total Organic Nitrogen	pH	Salinity	Total Solids	Volatile Solids	Nitrate	Total Nitrate	Potassium	Total Phosphorous
Units	mg/kg	mg/kg	mg/kg		PSU	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lagoon 1											
1-1	4,188	34,411	30,205	7.59	0.191	3.02	54.5	14.9	18.2	1,431	7,194
1-2	5,021	54,297	19,268	7.72	0.421	7.68	46.3	7.1	7.93	954	8,598
1-3	6,618	36,362	29,737	7.55	0.329	5.52	48.2	6.11	6.67	1,477	10,748
1-4	5,231	32,276	27,308	7.47	0.33	7.12	47.2	5.42	6.67	1,086	9,562
1-5	4,416	25,518	21,087	7.88	0.218	5.05	45.3	7.73	15.4	1,167	9,695
1-6	5,241	36,210	30,957	7.31	0.247	4.8	47.9	10.4	11.9	1,396	10,072
Average	5,119	36,512	26,427	8	0	6	48	9	11	1,252	9,312
Lagoon 2											
2-1	9,395	38,167	28,770	7.55	0.437	7.95	44.8	1.73	1.73	1,197	15,440
2-2	8,621	33,475	24,854	7.42	0.388	7.83	46.2	ND	ND	1,204	16,062
2-3	8,812	37,119	28,307	7.39	0.346	7.36	48.6	ND	ND	1,192	16,368
Average	8,943	36,254	27,310	7	0	8	47	2	2	1,198	15,957
Lagoon 3											
3-1	5,583	31,342	25,759	7.42	0.201	6.43	46.9	ND	ND	1,168	17,239
3-2	7,050	32,132	25,081	7.4	0.332	7.05	47.3	ND	1.28	1,211	16,622
3-3	7,769	37,057	29,285	7.33	0.306	6.65	50	0.39	2.75	1,196	16,060
Average	6,801	33,510	26,708	7	0	7	48	0	2	1,192	16,640
Lagoon 4											
4-1	3,951	31,357	27,403	7.43	0.08	4.83	47.1	1.86	2.84	1,209	15,824
4-2	3,171	25,397	22,191	7.28	0.062	3.3	41.7	34	34.9	1,333	21,422
4-3	2,539	23,696	21,157	7.23	0.754	6.35	44.6	ND	ND	1,164	17,505
Average	3,220	26,817	23,584	7	0	5	44	18	19	1,235	18,250

Notes:

mg/kg = milligram per kilogram

ND = Non-detect

Table 4: Total Volatile Solids Reduction Following 40-Day Anaerobic Bench Test

Lagoon Cell	Initial Total Volatile Solids	Final Total Volatile Solids	Volatile Solids Reduction	< 17% Reduction?
1	48.3%	47.5%	3.15%	Yes
2	50.1%	47.4%	10.2%	Yes
3	49.0%	47.6%	5.45%	Yes
4	45.6%	45.0%	2.39%	Yes

Note:

Volatile solids reduction is determined using the Van Kleeck Equation

Section 2: Alternatives Analysis

2.1 Biosolids Beneficial Use and Disposal Options

This section provides an overview of the options for beneficial use (i.e., land application) and/or disposal of biosolids. The benefits and drawbacks of each option are explained and a preliminary cost estimate for each alternative is provided.

2.1.1 Disposal in a Landfill

Landfill of biosolids is generally used as an emergency backup or contingency biosolids disposal option as landfilling does not meet U.S. Environmental Protection Agency's (EPAs) or Ecology's requirement to maximize the beneficial use of biosolids. Typical scenarios that lead to selection of landfill for disposal rather than beneficial use include: land acquisition constraints; high concentrations of metals or other materials in the biosolids; or odorous material that may create a public nuisance.

Benefits of landfilling are that disposal requires a smaller land area than land application. There are no seasonal restrictions for disposal. Also, the biosolids do not need to meet the various Class B or A requirements set forth in the federal or state biosolids regulations. In addition, biosolids improve packing of solid waste and can increase biogas production at landfills. Disadvantages are that landfilling biosolids eliminates the utilization of the valuable nutrients and organic matter present in the biosolids. In addition, landfilling tipping fees can be cost prohibitive and increase on an annual basis. Hauling distances can be significant.

For the purpose of this analysis, it was assumed the biosolids would go to the Cedar Hills Regional Facility near Seattle Washington. The facility currently accepts biosolids as an emergency backup for King County. A benefit of Cedar Hills is that the landfill practices methane gas recovery.

2.1.2 Haul and Application at a Beneficial Use Facility

BUFs are a permitted entity with Ecology that beneficially use biosolids through land application. In general, a BUF will compete for a contract to haul and land apply the solids for a municipality.

Benefits of utilizing a BUF include the recycling of valuable nutrients and organic matter. Secondly, the BUF maintains all equipment and permits necessary for land application which greatly reduces the operations and maintenance cost for the City due to the fact they do not have to operate a land application program. Also, the regulatory requirements are greatly reduced because the City does not have to prepare Ecology required General and Site-specific Land Application Plans. Finally, due to the competitive nature of bidding for hauling and land application, contracting biosolids application tends to be less costly than managing a city owned and operated land application program.

As is the case with any beneficial use practice, a disadvantage is that while the biosolids land application is contracted out, the City is still ultimately responsible for the ultimate disposition of

the biosolids. This just means that the City needs to maintain an ongoing relationship with the BUF to make sure the biosolids are being applied to the land per contractual requirements between the BUF and City. Another shortcoming is the long hauling distances to the majority of Ecology approved BUF's located in eastern Washington. However, at least one permitted BUF is located within Snohomish County.

Multiple BUFs were contacted to solicit interest in accepting the City's dewatered lagoon biosolids. All responses indicated willingness and ability to take the entire quantity of biosolids assuming they met Class B standards. In particular, Cascade Materials, a local BUF in Snohomish said they were very interested in accepting the biosolids from the City.

2.1.3 On-site Land Application

Adjacent to the City of Snohomish WWTP are 25 acres of City-owned land as seen in Figure 3. The land is a decommissioned sludge lagoon of unknown soil quality. The EPA requires 10 meter setbacks from waterbodies; in this case a buffer surrounding the property along the river edge is approximately 24 meters however, the property still falls within the floodplain.



Figure 3: Available Land for On-site Application of Biosolids

Benefits for a City-owned program is control over the land application process. Also, the proximity of the land area to the treatment plant eliminates hauling costs.

Disadvantages are that multiple services are required for successful operation of a City managed land application program including: management, additional permitting, hauling and application, Geographic Information System (GIS)/mapping, soil sampling and providing an annual report post application. The local site that would receive biosolids is small and would

require careful attention to application boundaries and ongoing tracking of the agronomic rate. Soil samples would need to be taken pre and post-harvest to monitor the soil nitrogen levels. Unless the land application work was contracted out, the City would be required to purchase and maintain land application equipment such as a manure spreader and front-end loader. Another complicating factor is the City will be using a portion of the 25 acre site in the future for stormwater treatment, which may reduce the available area.

Typical biosolids application rates for agriculture are around 5 dry tons per acre. The total quantity of solids to be applied are approximately 725 dry tons which would require 125 acres to land apply all of the biosolids. Due to the relatively small size of the parcel, applications would need to occur over five years in a row to apply all the biosolids within the lagoons. Unless the City planned on buying solids handling equipment, they would most likely have to contract out the actual land application.

2.2 Biosolids End Use Operating Costs

A preliminary cost estimate was conducted for each of the three alternatives. The primary source of costs for dredging, dewatering and contract hauling is a 2013 Bid Tabulation provided by the City of Everett, whose biosolids program is comparable to that of the City. The costs provided below are only an order of magnitude estimate to compare alternatives, the actual program costs can vary by up to +/- 30 percent. The estimates are shown in Table 5 below.

Table 5: Cost Estimate Comparison of Each Alternative

Item Description	QTY	Units	Total Net Cost \$	Notes
Alt 1. Haul and Disposal in Landfill				
Mobilization	1	LS	107,000	City of Everett Bid Tab 2013
Dredge	\$141.97	\$/DT	103,000	City of Everett Bid Tab 2013
Dewater	\$36.37	\$/DT	26,400	City of Everett Bid Tab 2013
Hauling	129	Loads	38,700	Estimate
Landfill Tipping Fee	130	\$/ton	94,300	Solid Waste Disposal Fee (http://your.kingcounty.gov/solidwaste/facilities/disposal-fees.asp)
Total Cost for Alternative 1			369,400	
Alt 2. Haul and Reuse at BUF				
Mobilization	1	LS	107,000	City of Everett Bid Tab 2013
Dredge	\$141.97	\$/DT	103,000	City of Everett Bid Tab 2013
Dewater	\$36.37	\$/DT	26,400	City of Everett Bid Tab 2013
Hauling & Land Application	\$50.49	\$/DT	36,700	City of Everett Bid Tab 2013
Total Cost for Alternative 2			273,100	
Alt 3. Application On-site Adjacent the WWTP				
Annual pre-application sampling	1	LS	20,000	Estimate
Mobilization	\$107,000	\$/yr	535,000	Requires one application a year for at least 5 years
Dredge	\$141.97	\$/DT	113,300	Assumed a 10% increase for dredge due to inflation over 5 years
Dewater	\$36.37	\$/DT	29,100	Assumed a 10% increase for dewater due to inflation over 5 years
Hauling & Land Application	\$74.00	\$/DT	53,650	Local land application program cost is higher than City of Everett's contract price as hauler isn't gaining the benefit of the fertilizer, also requires rental of equipment and one FTE for operation
Monitoring and Site Sampling	1	LS	20,000	Estimate
Total Cost for Alternative 3			771,100	

Alternative 2 is estimated to yield the lowest costs to the City with Alternative 1 a close second. While the costs for dredging and dewatering for Alternatives 1 and 2 are identical, competition between the BUF's for a hauling contract drives the costs down.

Alternative 3 resulted in the highest program costs. The land area adjacent to the WWTP is insufficient to receive the total quantity of dredged biosolids in one year. It would take five years to remove and land apply at appropriate agronomic rates. The most expensive item of all three alternatives is the cost for mobilization to dredge the lagoons. Alternative 3 incurs the cost of mobilization each year for at least five consecutive years.

Section 3: Recommended Alternative

After review of the benefits and costs for each alternative, Kennedy/Jenks Consultants recommends the City proceed with Alternative 2. Contracting the hauling of biosolids and land application to a BUF would provide the greatest benefits to the City while meeting Ecology biosolids regulatory requirements.

3.1 Next Steps

The City will proceed with a final sampling event (Sampling Event #3) just prior to the removal and land application of the biosolids, to further characterize the solids within the lagoons. In the meantime, specifications will be developed for two bid packages; one for dredging and dewatering and a second for hauling and land application. The specifications will require that all contractors applying for the hauling and land application project be a BUF, ensuring the Ecology permitting requirements will be met. A Spill Prevention and Response Plan will be prepared per requirements in the General Permit once a BUF has won the haul and application contract.

Appendix A: General Permit for Biosolids Management



Application for Coverage Under the General Permit for Biosolids Management

Section A: Basic Facility Information

1) Facility name Snohomish Wastewater Treatment Plant Facility owner City of Snohomish
 2) Physical address 2115 2nd Street Snohomish WA 98290 Mailing address 116 Union Avenue, Snohomish WA 98290

3) Primary contact: Name Duane Leach Title WWTP Manager
 Phone (425) 568-0160 Email leach@snohomishwa.gov

4) Responsible official: Name Larry Bauman Title City Manager
 Phone 360-568-3115 Email bauman@snohomishwa.gov

5) Facility type – check all that apply

- Major Wastewater Treatment Plant (design flow of >1 mgd or serving a population of >10,000); wet weather design flow 2.80 MGD million gallons per day (Max Month)
- Minor Wastewater Treatment Plant (design flow of <1 mgd and serving a population of <10,000); wet weather design flow _____ million gallons per day
- Class I Facility (have a pretreatment program or designated as Class I)
- Composting Facility (receive biosolids or sewage sludge from others for composting)
- Septage Management Facility (land apply or prepare septage for land application)
- Beneficial Use Facility (receive biosolids from others for land application)
- Other – describe _____

6) Ownership – check all that apply

<input type="checkbox"/> Federal	<input type="checkbox"/> State	<input checked="" type="checkbox"/> Local (county, city, town, village)	<input type="checkbox"/> Private
<input type="checkbox"/> Other – explain _____			

7) If your facility or any associated management or application site is located on tribal land, explain ____
 Not applicable

8) Other permits – check all that apply

<input checked="" type="checkbox"/> National Pollutant Discharge Elimination System (NPDES); permit number <u>WA-002954-8</u>	<input type="checkbox"/> State Waste Discharge; permit number _____	<input type="checkbox"/> Stormwater Discharge
<input type="checkbox"/> Ocean Dumping	<input type="checkbox"/> Underground Injection Control Program	<input type="checkbox"/> Hazardous Waste Management Program
<input type="checkbox"/> Prevention of Significant Deterioration Program	<input type="checkbox"/> Nonattainment Program	<input type="checkbox"/> Dredge or Fill
<input type="checkbox"/> National Emission Standards for Hazardous Pollutants Preconstruction	<input type="checkbox"/> Other – describe _____	



Application for Coverage Under the General Permit for Biosolids Management

Section B: Biosolids Quality

1) Pollutant concentrations – list any pollutants exceeding the Table 1 or Table 3 values and describe how these are being addressed by your facility and at any land application sites (see [WAC 173-308-160](#)) Not applicable, solids are currently stored in sludge lagoons; and have not been applied regularly to a land application site

2) Pathogen reduction method – check all that apply (see [WAC 173-308-170](#) or [WAC 173-308-270\[3\]](#))

<input type="checkbox"/> Class A—Alternative 1 (<i>time/temperature</i>)	<input type="checkbox"/> Class A—Alternative 2 (<i>pH/time/temperature/% solids</i>)
<input type="checkbox"/> Class A—Alternative 3 (<i>process to further reduce pathogens [PFRP]</i>)	
<input type="checkbox"/> Composting <input type="checkbox"/> Heat drying <input type="checkbox"/> Heat treatment <input type="checkbox"/> Thermophilic aerobic digestion <input type="checkbox"/> Beta ray irradiation <input type="checkbox"/> Gamma ray irradiation <input type="checkbox"/> Pasteurization	
<input type="checkbox"/> Class A—Alternative 4 (<i>PFRP equivalent</i>)	<input checked="" type="checkbox"/> Class B—Alternative 1 (<i>7 samples</i>)
<input type="checkbox"/> Class B—Alternative 2 (<i>process to significantly reduce pathogens [PSRP]</i>)	
<input type="checkbox"/> Aerobic digestion <input type="checkbox"/> Air drying <input type="checkbox"/> Anaerobic digestion <input type="checkbox"/> Composting <input type="checkbox"/> Liming	
<input type="checkbox"/> Class B—Alternative 3 (<i>PSRP equivalent</i>)	<input type="checkbox"/> Septage injection
<input type="checkbox"/> Septage incorporation	<input type="checkbox"/> Septage pH stabilization
<input type="checkbox"/> Does not meet pathogen reduction requirements – explain _____	

3) Vector attraction reduction method – check all that apply (see [WAC 173-308-180](#) or [WAC 173-308-270\[3\]](#))

<input type="checkbox"/> Alternative 1 (<i>38% volatile solids reduction</i>)	
<input checked="" type="checkbox"/> Alternative 1a (<i>bench test-anaerobic</i>) <input type="checkbox"/> Alternative 1b (<i>bench test-aerobic</i>)	
<input type="checkbox"/> Alternative 2 (<i>specific oxygen uptake rate</i>)	<input type="checkbox"/> Alternative 3 (<i>aerobic process</i>)
<input type="checkbox"/> Alternative 4 (<i>pH stabilization</i>)	<input type="checkbox"/> Alternative 5 (<i>>75% solids</i>)
<input type="checkbox"/> Alternative 6 (<i>≥90% solids</i>)	<input type="checkbox"/> Alternative 7 (<i>injection</i>)
<input type="checkbox"/> Alternative 8 (<i>incorporation</i>)	<input type="checkbox"/> Septage injection
<input type="checkbox"/> Septage incorporation	<input type="checkbox"/> Septage pH stabilization
<input type="checkbox"/> Does not meet vector attraction reduction requirements – explain _____	

4) Briefly describe how your facility meets the requirement for the removal of manufactured inerts (see [WAC 173-308-205](#)) Influent is screened at the facility headworks through an existing 1/4" bar screen screen



Application for Coverage Under the General Permit for Biosolids Management

Section C: Biosolids Generated and Managed During the Past Year

- 1) Generated _____ *dry tons*
- 2) Sent to a facility for further treatment _____ *dry tons*; list facility names with subtotals _____
- 3) Received from a facility for further treatment _____ *dry tons*; list facility names with subtotals _____
- 4) Sent to a landfill for disposal _____ *dry tons*; list landfill names with subtotals _____
- 5) Sent to an incinerator _____ *dry tons*; list incinerator names with subtotals _____
- 6) Stored for less than 2 years _____ *dry tons*
- 7) Stored or accumulated for more than 2 years (this includes lagoon facilities) _____ ⁷²⁵ *dry tons*
- 8) Sent to a Beneficial Use Facility (BUF) _____ *dry tons*; list BUF names with subtotals _____
- 9) Received by a BUF (only BUFs should complete this) _____ *dry tons* ; list facility names with subtotals _____
- 10) Land applied or sold/given away (do not include amounts sent to a BUF) _____ *dry tons*
- 11) If you want to maintain the option of sending your biosolids for management to any permitted BUF you must either list the BUFs to which biosolids may be provided or specify the criteria by which BUFs may be selected in the future or check the box below. **Ecology strongly recommends you check the box below.**
 - We maintain the option to send our biosolids to any facility permitted by Ecology to accept it, including any BUFs.

Section D: Additional Comments

Please include any additional comments that you think are important (for example, expectations for major changes in biosolids generation, quality, or management over the next 5 years) _____

As described in Agree Order No. 10467 , the City of Snohomish expects to complete a Biosolids Managment Plan by August 29th, 2014.

The plan recommends that once sampling and testing confirms the lagoons solids meet Class B requirements, the biosolids will be _____

dredged, dewatered and land applied at a Beneficial Use Facility.



Application for Coverage Under the General Permit for Biosolids Management

Section E: Attachments

In addition to this application form, a complete application includes, but is not limited to, the following attachments (see [Subsection 3.4](#) of the permit).

- 1) **Vicinity Map.** A Vicinity Map is required for all facilities and any associated treatment or storage facilities. The map must extend at least 1 mile around the perimeter of the facility and any associated treatment or storage facilities. The map must also show the location and means of access. Check and complete as appropriate.
 - A Vicinity Map is being submitted with this application.
 - A Vicinity Map was previously submitted on 02/23/11. I reviewed the previous submittal, confirm it is complete and accurate, and maintain a copy of the document.
- 2) **Facility Schematic.** A Facility Schematic is required for all facilities. The Facility Schematic must show how you process and/or manage biosolids. Check and complete as appropriate.
 - A Facility Schematic is being submitted with this application.
 - A Facility Schematic was previously submitted on 02/23/11. I reviewed the previous submittal, confirm it is complete and accurate, and maintain a copy of the document.
- 3) **Spill Prevention and Response Plan.** A Spill Prevention and Response Plan is required if you or your agent transport your biosolids (see [Subsection 5.1](#) of the permit). Check and complete as appropriate.
 - A Spill Prevention and Response Plan has been submitted with this application.
 - A Spill Prevention and Response Plan was previously submitted on _____. I reviewed the previous submittal, confirm it is complete and accurate, and maintain a copy of the document.
- 4) **Biosolids Sampling and Analysis Plan.** A Biosolids Sampling and Analysis Plan is required when you sample your biosolids. Check and complete as appropriate.
 - A Biosolids Sampling and Analysis Plan is being submitted with this application.
 - A Biosolids Sampling and Analysis Plan was previously submitted on _____. I reviewed the previous submittal, confirm it is complete and accurate, and maintain a copy of the document.
- 5) **Analytical Data.** If you sample your biosolids, land application site soil, or land application site water you must submit Analytical Data from the past 2 years. Check and complete as appropriate.
 - Analytical Data from the past 2 years have been submitted with this application.
 - Analytical Data from the past 2 years were previously submitted on _____. (Note: Data submitted with your annual biosolids reports are considered to be "previously submitted".)
- 6) **Temporary Disposal Plan.** A Temporary Disposal Plan is required if you dispose biosolids in a landfill on a temporary basis (see [WAC 173-308-300\(8\)](#)). Check and complete as appropriate.
 - A Temporary Disposal Plan is being submitted with this application.
 - A Temporary Disposal Plan was previously submitted on _____. I reviewed the previous submittal, confirm it is complete and accurate, and maintain a copy of the document.



Application for Coverage Under the General Permit for Biosolids Management

- 7) **Contingency Plan for Exceptional Quality (EQ) Biosolids.** A Contingency Plan is required if you create EQ biosolids. The Contingency Plan must describe your plans for handling biosolids in the event that your process fails to produce EQ biosolids. Check and complete as appropriate.
- A Contingency Plan is being submitted with this application.
- A Contingency Plan was previously submitted on _____. I reviewed the previous submittal, confirm it is complete and accurate, and maintain a copy of the document.
- 8) **Site Specific Land Application Plan (SSLAP).** A SSLAP is required for every site where nonexceptional quality biosolids are applied (see [Subsection 3.6.1](#) of the permit). If your biosolids are land applied by a permitted BUF, you do not need to submit a SSLAP. Check and complete as appropriate.
- A SSLAP is being submitted with this application.
- A SSLAP was previously submitted on _____. I reviewed the previous submittal, confirm it is complete and accurate, and maintain a copy of the document.
- Our biosolids are land applied by a BUF permitted to accept our biosolids.
- 9) **General Land Application Plan (GLAP).** A GLAP is required if you want to maintain the option of proposing new sites for applying nonexceptional quality biosolids during the term of this permit (see [Subsection 3.6.2](#) of the permit). If your biosolids are land applied by a permitted BUF, you do not need to submit a GLAP. Check and complete as appropriate.
- A GLAP is being submitted with this application.
- A GLAP was previously submitted on _____. I reviewed the previous submittal, confirm it is complete and accurate, and maintain a copy of the document.
- Our biosolids are land applied by a BUF permitted to accept our biosolids.
- 10) **State Environmental Policy Act (SEPA).** The act of applying for coverage under this permit triggers a requirement for review under SEPA (see [Subsection 3.2](#) of the permit). This does not necessarily mean that a new SEPA threshold determination will be required, but any decisions regarding what is needed in order to comply with SEPA must be made by the SEPA Lead Official. Check and complete as appropriate.
- A SEPA determination or a notice from a SEPA Lead Official showing that the SEPA requirements have been met is being submitted with this application.
- 11) **Public Notice.** Depending on your operation you may be required to conduct Public Notice as part of submitting this application (see [Subsection 3.5](#) of the permit). Check and complete as appropriate.
- A copy of our Public Notice or an Affidavit of Publication is being submitted with this application.
- Public Notice is not required for our facility at this time because we met the Public Notice requirements under a previous permit, submitted a copy of our Public Notice or an Affidavit of Publication on _____, and will not apply nonexceptional quality biosolids during the term of this permit. I reviewed the previous submittal, confirm it is complete and accurate, and maintain a copy of the document.



Application for Coverage Under the General Permit for Biosolids Management

Section F: Certification Statement

This certification statement must be signed by the **Responsible Official** listed in Section A (see [WAC 173-308-310\(10\)\(b\)](#)).

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature *Larry Brown* Title *City Manager* Date *1/13/15*

Section G: Submitting Your Application

Submit your application as described below. Contact information for Ecology staff is in the table below and at: <http://www.ecy.wa.gov/programs/swfa/biosolids/contacts.html>.

- Hardcopy** of complete, final application to the biosolids coordinator in the Ecology regional office where your facility is located (drafts may submitted electronically).
- Copy to the biosolids coordinator at any other Ecology regional office where your biosolids will be treated, stored, disposed, or applied to the land. **Please submit electronically.**
- Copy to the biosolids coordinator at Ecology's headquarters office. **Please submit electronically.**
- Copy to the local health jurisdiction (LHJ) in each county where your biosolids will be treated, stored, disposed, or applied to the land unless the LHJ has stated in writing that they do not wish to receive copies.

Mailing Addresses for Ecology Biosolids Staff

<p><u>Central Regional Office – Biosolids</u> Biosolids Coordinator Department of Ecology Waste 2 Resources Program 303 South Mission Wenatchee, WA 98801</p>	<p><u>Central Regional Office – Septage</u> Septage Coordinator Department of Ecology Waste 2 Resources Program 15 West Yakima Ave, Suite 200 Yakima, WA 98902-3452</p>	<p><u>Eastern Regional Office</u> Biosolids Coordinator Department of Ecology Waste 2 Resources Program N 4601 Monroe, Ste 100 Spokane, WA 99205-1295</p>
<p><u>Northwest Regional Office</u> Biosolids Coordinator Department of Ecology Waste 2 Resources Program 3190 160th Avenue SE Bellevue, WA 98008-5452</p>	<p><u>Southwest Regional Office</u> Biosolids Coordinator Department of Ecology Waste 2 Resources Program PO Box 47775 Olympia, WA 98504-7775</p>	<p><u>Headquarters Office</u> Biosolids Coordinator Department of Ecology Waste 2 Resources Program PO Box 47600 Olympia, WA 98504-7600</p>

Appendix B: Biosolids Sampling Plan

22 May 2014

Biosolids Sampling Plan

Prepared For: Steve Schuller, City of Snohomish
Submitted by: Mark Cullington, Kennedy/Jenks Consultants
Reviewed by: Tom Giese, BHC Consultants
Subject: Snohomish Biosolids Sampling Plan
Wastewater Treatment Plant - Facility Plan & Sewer Plan
K/J 1397009.00

Introduction

The City submitted a Draft Biosolids Sampling Plan dated 13 September 2013 to the Washington Department of Ecology (Ecology) for review and comment. Because there is not a biosolids sampling protocol prescribed in state or federal biosolids regulations, it was prudent to submit and discuss the draft Plan with Ecology's Northwest Region Biosolids Coordinator. The following final Biosolids Sampling Plan (Plan) reflects the input received from Ecology and can be used by the City of Snohomish (City).

The purpose of this Plan is to provide the City with a sampling and analysis protocol for obtaining data quality and depths of biosolids in the existing lagoons at the wastewater treatment plant (Plant). The data will be used for planning purposes to determine the most cost-effective and appropriate methods for disposing of or beneficially using the biosolids contained in the lagoons.

Following the implementation of this Plan, there are three primary options the City may consider for biosolids disposal or beneficial use, as follows:

1. Landfill disposal following mechanical dewatering of biosolids from the lagoons.
2. Contract hauling to a biosolids Beneficial Use Facility (BUF) to dredge, screen, transport, land-apply, and manage the biosolids.
3. Land application to an off-site farm either owned by the City or a farmer.

The results of the Plan will be included the forthcoming Biosolids Management Plan as part of the City's Application for Coverage under the Statewide General Permit for Biosolids Management in accordance with Chapter 173-308 Washington Administrative Code (WAC). The forthcoming Biosolids Management Plan will consider the disposal options listed above and recommend the best option based on the sampling results.

The Plant currently has four treatment lagoons (Lagoons 1, 2, 3, and 4). All four of these lagoons were constructed in 1994 and placed into operation in 1995. They have only been used to treat screened domestic wastewater. Screened wastewater enters Lagoon 1 and flows through Lagoons 2, 3, and 4 in series. This document addresses the sampling and analysis protocol for all four lagoons.

Snohomish Biosolids Sampling Plan
 22 May 2014
 Page 2 of 7

Biosolids Sampling Determination

The following recommended steps should be taken to assist the City in determining the quantity and quality in the lagoons:

1. The lagoons should be surveyed to determine the quantity of biosolids in each lagoon. It is important to understand the quantity of biosolids in the lagoons for estimating dredging costs and to also determine the amount of testing required for regulated pollutants and nutrients per Ecology's biosolids regulations (Chapter 173-308 WAC) and the United States Environmental Protection Agency's federal biosolids regulations (Title 40 Code of Federal Regulations Part 503). Table 1 is a template that may be used by the City for documenting biosolids depths for each lagoon. Figure 1 in Appendix A shows the grid layout for the biosolids depth determinations.

The City surveyed the lagoons in January 2014 and determined a total biosolids quantity of 611 tons (674 metric tons).

Table 1. Biosolids Depth Determination Field Worksheet

Sample Location	Depth to Top of Biosolids	Depth to Lagoon Bottom	Depth of Biosolids	Date	Notes
Lagoon 1					
1-1					
1-2					
1-3					
1-4					
1-5					
1-6					
1-7					
1-8					
1-9					
1-10					
1-11					
1-12					
1-13					
1-14					
1-15					
1-16					
1-17					
1-18					
1-19					

Snohomish Biosolids Sampling Plan
 22 May 2014
 Page 3 of 7

Sample Location	Depth to Top of Biosolids	Depth to Lagoon Bottom	Depth of Biosolids	Date	Notes
Lagoon 2					
2-1					
2-2					
2-3					
2-4					
2-5					
2-6					
2-7					
2-8					
Lagoon 3					
3-1					
3-2					
3-3					
3-4					
3-5					
3-6					
3-7					
3-8					
Lagoon 4					
4-1					
4-2					
4-3					
4-4					
4-5					
4-6					
4-7					
4-8					

Snohomish Biosolids Sampling Plan

22 May 2014

Page 4 of 7

2. Table 2 lists the pollutants, nutrients, and other regulated parameters, and frequency per Ecology and U.S. Environmental Protection Agency (EPA) requirements. The sampling frequency for each lagoon is based on the known quantity of biosolids in the lagoons (611 tons [674 metric tons]), requirements set forth in the federal and state biosolids regulations, and confirmation from Ecology's regional biosolids coordinator regarding the frequency listed in Table 2. The significance of each sampling event is explained in detail below:

Sampling Event #1. This is an initial characterization that assists the City in understanding if biosolids meet Class B requirements with respect to fecal coliform. See Figure 2 in Appendix A.

Sampling Event #2. This characterization provides for a thorough analysis of the solids in all lagoons and is used to determine compliance with the federal and state biosolids regulations. The nitrogen data from this sampling event may also be used to determine the agronomic rates used for land applying Class B biosolids. Ecology and the City will need to coordinate to determine the appropriate timing of this sampling so it is not completed too far in advance of biosolids removal and land application. See Figures 2, 3 and 4 in Appendix A.

Sampling Event #3. The final sampling event is conducted approximately six weeks prior to actually dredging the biosolids if land application is determined to be the disposal option. The information from this event will be used to ensure the biosolids still meet the Class B requirements with respect to fecal coliform. Ecology and the City will need to coordinate to determine the appropriate timing of this sampling so it is not completed too far in advance biosolids removal and land application. See Figure 2 in Appendix A.

Snohomish Biosolids Sampling Plan
 22 May 2014
 Page 5 of 7

Table 2. Biosolids Parameters^{(a)(b)(c)(d)(e)(f)(g)}

Parameter	Units	Sampling Event #1	Sampling Event #2	Sampling Event #3
Fecal Coliform	MPN/gram	Nine discrete samples for Lagoon 1 and two each from Lagoons 2, 3 and 4 (see Figure 2) Total of 15 samples	Nine discrete samples for Lagoon 1 and two each from Lagoons 2, 3, and 4 (see Figure 2) Total of 15 samples	Nine discrete samples for Lagoon 1 and two each from Lagoons 2, 3, and 4 (see Figure 2) Total of 15 samples
Salinity	S/m	None	Six discrete samples for Lagoon 1 Three discrete samples for each of Lagoons 2, 3, and 4 (see Figure 3) Total of 15 samples	None
pH	standard			
Total Solids Content	% TS			
Total Volatile Solids	% TVS			
Total Organic - N	mg/kg			
Total Kjeldahl - N	mg/kg			
Ammonium-N	mg/kg			
Nitrate-N	mg/kg			
Total Phosphorus	mg/kg			
Total Potassium	mg/kg			
40 Day Bench Test	mg/kg	None	One composite sample per lagoon (see Figure 4) Total of 4 samples	None
Arsenic	mg/kg			
Cadmium	mg/kg			
Copper	mg/kg			
Lead	mg/kg			
Mercury	mg/kg			
Molybdenum	mg/kg			
Nickel	mg/kg			
Selenium	mg/kg			
Zinc	mg/kg			

Notes:

- a) mg/kg = milligrams per kilogram which equals parts per million (ppm)
- b) Nitrogen parameters and all metals will be reported on a dry weight basis
- c) Standard methods used in accordance with Chapter 173-308-140, "Biosolids sampling and Analysis"
- d) MPN = Most Probable Number. Fecal coliform density calculated and reported using geometric mean.
- e) S/m = Siemens per Meter.
- f) Measured as Electrical Conductivity
- g) N = Nitrogen

Snohomish Biosolids Sampling Plan
22 May 2014
Page 6 of 7

Sampling Analysis and Protocol

Biosolids Depth Determination Procedure

Understanding the amount of biosolids contained in the lagoons helps with developing bid documents for dredging and disposal, and overall costs. Each lagoon will be divided into grids (e.g., 1-1, 1-2, 1-3, 1-4, etc.) of approximately equal size as shown on Figure 1 in Appendix A. Lagoon 1 has a total of 19 grids and Lagoons 2, 3, and 4 have eight grids each.

Cones or stakes will be placed on the shore of the lagoons to mark grid lines. For the purposes of evaluating the depths/volume of biosolids in each lagoon, samples will be collected from each grid cell based on the following protocol:

- Lagoons 1, 2, 3 and 4: The depth of biosolids in each lagoon will be obtained by manually measuring the middle of each grid cell with the sampling equipment described below. The top and bottom of the sludge blanket should be measured and recorded in Table 1, above.

The following field sampling equipment will be used:

- The schematic of lagoons showing delineated grid layout and sampling sites designated prior to conducting depth determinations.
- A CorePRO Sr. Sampler Sludge Judge, 15 feet long with 1-foot markings to determine biosolids depth. The end of the pipe can be crimped and sharpened, if needed, to cut through the consolidated solids.
- A boat with life vests and personal protective gear (e.g., latex gloves, safety glasses).

Biosolids Quality Sampling

Each lagoon will be divided into grids (e.g., 1-1, 1-2, 1-3, 1-4, etc.) of approximately equal size as shown on Figures 2, 3 and 4 in Appendix A. Lagoon 1 has a capacity of 10 million gallons (MG) and is the largest of the four lagoons and will have more sampling points. Lagoons 2, 3, and 4 are of similar size and capacity (3.5 MG each) and have less sampling points.

Cones or stakes will be placed on the shore of the lagoons to mark grid lines. For the purpose of evaluating biosolids quality, samples will be collected from each grid based on the following protocol:

- Lagoons 1, 2, 3, and 4: Samples will be collected and tested as described in Table 2, above. Depending upon accessibility to the biosolids blanket within each grid cell, it may be necessary to obtain multiple (e.g., 2-3) aliquots of biosolids within a grid and composite into a single sample.

Samples will be transported to a laboratory certified in accordance with Ecology's Environmental Laboratory Accreditation Program for testing and analysis. The City has an existing contract with an accredited laboratory for similar testing and analysis. A certified laboratory will be chosen based on their availability to conduct the appropriate analysis and costs.

Snohomish Biosolids Sampling Plan
22 May 2014
Page 7 of 7

Field Sampling Equipment

- a) 1: Schematic of Lagoons showing delineated grid layout and sampling sites designated prior to sampling.
- b) 1: AMS multi-stage sludge and sediment sampler with a 14 foot long handle, cleaned and inspected.
- c) 15: 1-liter (minimum size) clean sample jars labeled (e.g. "1-1", "1-2", etc.). These jars will be used for composting and containing samples of the biosolids. Samples will be analyzed for the parameters listed in Table 2.
- d) 1: Boat; life vests and personal protective gear (e.g., latex gloves, safety glasses).
- e) 1: Tub or bucket to confine jars when sampling.
- f) 1: Stainless-steel bowl and spoon for homogenizing and compositing biosolids, as needed.

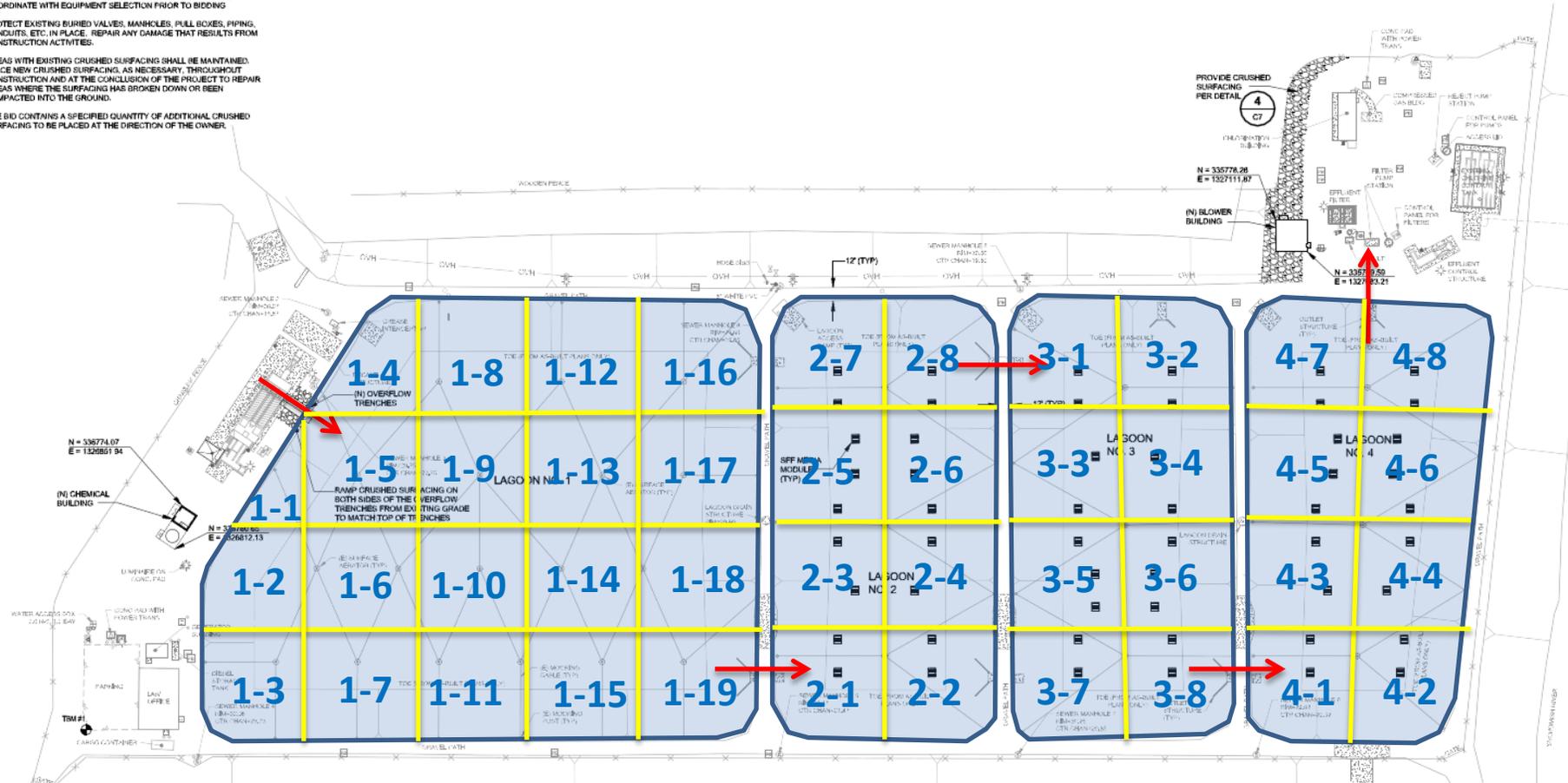
Field Sampling Procedures

The jars will be kept covered until sampling commences and between successive sample extractions. At each predetermined sampling site, the following procedures will be completed:

1. Place sample jar in tub to confine the jar and contain any spillage.
2. Locate the top of the biosolids blanket and record the distance from this point to the water surface.
3. Locate the lagoon bottom and record the distance from the bottom to the surface of the lagoon.
4. Using the sampler, core the biosolids blanket. Care is to be taken to not penetrate or damage the underlying liner. Remove the sampler from the wastewater. Dispense the sample into the sample jar or stainless-steel bowl for homogenization.
5. Multiple deployments may be required from each of the grid cells to obtain sufficient sample volume. Minimize agitation and avoid excessive amounts of water in the sample.
6. Label each 1-liter sample with the sample location (grid number), date, time, and the initials of the person taking the sample. Record information.
7. Proceed to the next identified sample location and repeat Steps 1 through 6.

Keep the samples on ice. Complete the chain-of-custody form and relinquish samples to laboratory staff. Microbiological analyses shall be started the same day samples are collected.

- NOTES:**
1. WIDTH OF THE ACCESS ROADS AROUND THE LAGOONS WILL LIMIT THE SIZE OF HEAVY EQUIPMENT FOR INSTALLATION OF THE SFF MEDIA MODULES. CONTRACTOR SHALL VERIFY ROAD DIMENSIONS AND COORDINATE WITH EQUIPMENT SELECTION PRIOR TO BIDDING.
 2. PROTECT EXISTING BURIED VALVES, MANHOLES, PULL BOXES, PIPING, CONDUITS, ETC. IN PLACE. REPAIR ANY DAMAGE THAT RESULTS FROM CONSTRUCTION ACTIVITIES.
 3. AREAS WITH EXISTING CRUSHED SURFACING SHALL BE MAINTAINED. PLACE NEW CRUSHED SURFACING, AS NECESSARY, THROUGHOUT CONSTRUCTION AND AT THE CONCLUSION OF THE PROJECT TO REPAIR AREAS WHERE THE SURFACING HAS BROKEN DOWN OR BEEN COMPACTED INTO THE GROUND.
 4. THE BID CONTAINS A SPECIFIED QUANTITY OF ADDITIONAL CRUSHED SURFACING TO BE PLACED AT THE DIRECTION OF THE OWNER.



Lagoon 1 Lagoon 2 Lagoon 3 Lagoon 4

FIGURE 1: LAGOONS 1, 2, 3, AND 4: BIOSOLIDS DEPTH SAMPLING PLAN SCHEMATIC



MKE MARK TTY 02/15 12:12 PM

P:\CAD\07171025-05_Brown\msh\07171025-0504.dwg

<p>USE OF DOCUMENTS</p> <p>THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.</p>	<p>RECORD DRAWING</p> <p>NO. _____ REVISION _____ DATE: 07/20/13 BY: KJ</p>		<p>DESIGNED</p> <p>TPG</p> <p>DRAWN</p> <p>LJM</p> <p>CHECKED</p> <p>MOL</p>	<p>CITY OF SNOHOMISH Snohomish, Washington</p> <p>SNOHOMISH WWPW NEAR-TERM IMPROVEMENTS</p> <p>Kennedy/Jenks Consultants FEDERAL WAY, WASHINGTON</p>	<p>SITE PLAN</p>	<p>FILE NAME: 07171025-0504</p> <p>JOB NO.: 07171025-03</p> <p>DATE: JUNE 2013</p> <p>SHEET OF: C4 OF 79</p>
	<p>RECORD DRAWING</p> <p>NO. _____ REVISION _____ DATE: 07/20/13 BY: KJ</p>					

- NOTES:**
1. WIDTH OF THE ACCESS ROADS AROUND THE LAGOONS WILL LIMIT THE SIZE OF HEAVY EQUIPMENT FOR INSTALLATION OF THE SFF MEDIA MODULES. CONTRACTOR SHALL VERIFY ROAD DIMENSIONS AND COORDINATE WITH EQUIPMENT SELECTION PRIOR TO BIDDING.
 2. PROTECT EXISTING BURIED VALVES, MANHOLES, PULL BOXES, PIPING, CONDUITS, ETC. IN PLACE. REPAIR ANY DAMAGE THAT RESULTS FROM CONSTRUCTION ACTIVITIES.
 3. AREAS WITH EXISTING CRUSHED SURFACING SHALL BE MAINTAINED. PLACE NEW CRUSHED SURFACING, AS NECESSARY, THROUGHOUT CONSTRUCTION AND AT THE CONCLUSION OF THE PROJECT TO REPAIR AREAS WHERE THE SURFACING HAS BROKEN DOWN OR BEEN COMPACTED INTO THE GROUND.
 4. THE BID CONTAINS A SPECIFIED QUANTITY OF ADDITIONAL CRUSHED SURFACING TO BE PLACED AT THE DIRECTION OF THE OWNER.

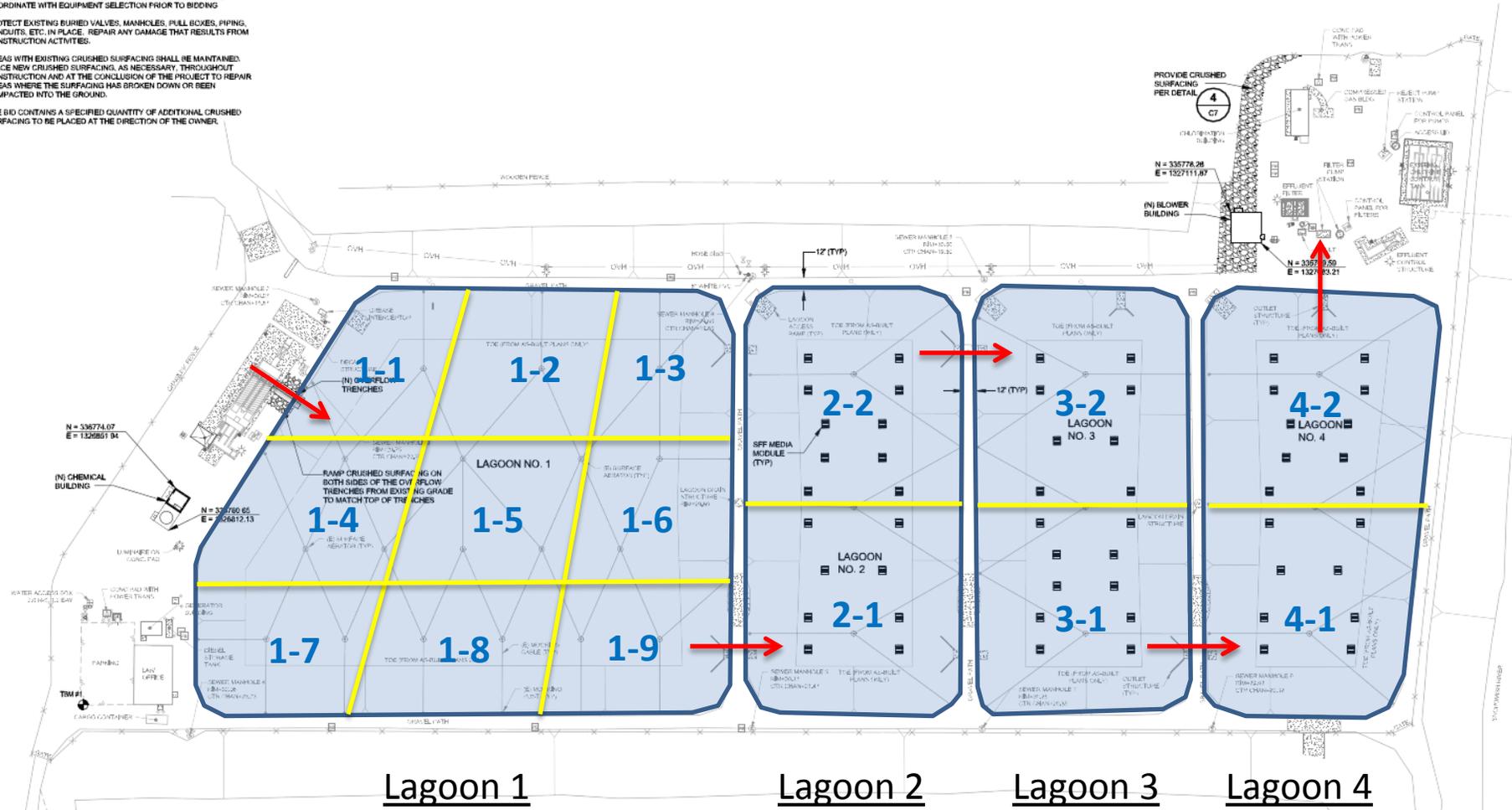


FIGURE 2: LAGOONS 1, 2, 3, AND 4: BIOSOLIDS QUALITY SAMPLING PLAN SCHEMATIC – FECAL COLIFORM



MKE:MARK TTY:2011 12:12 PM

P:\CAD\07191025-02_Snohomish\07191025-0204.dwg

USE OF DOCUMENTS THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.	RECORD DRAWING These Record Drawings have been prepared based on information provided by the contractor and others. Kennedy/Jenks Consultants has not verified the accuracy or completeness of information provided to them and does not warrant the accuracy or completeness of these Record Drawings. Users of these Record Drawings assume all risk of loss resulting from their use.			SCALES 1" = 20' IF THIS BAR IS NOT DIMENSIONED CORRECTLY, ADJUST SCALES ACCORDINGLY.	DESIGNED TPG DRAWN LJM CHECKED MDL	CITY OF SNOHOMISH Snohomish, Washington WWTP NEAR-TERM IMPROVEMENTS W A S H I N G T O N Kennedy/Jenks Consultants FEDERAL WAY, WASHINGTON	SITE PLAN	FILE NAME 0719102003-C004
	NO. REVISION _____	DATE 07/20/13	BY KJ					JOB NO. 07191020 03 DATE JUNE 2013 SHEET OF C4 79

NOTES:

1. WIDTH OF THE ACCESS ROADS AROUND THE LAGOONS WILL LIMIT THE SIZE OF HEAVY EQUIPMENT FOR INSTALLATION OF THE SFF MEDIA MODULES. CONTRACTOR SHALL VERIFY ROAD DIMENSIONS AND MODULES. CONTRACTOR SHALL VERIFY ROAD DIMENSIONS AND COORDINATE WITH EQUIPMENT SELECTION PRIOR TO BIDDING.
2. PROTECT EXISTING BURIED VALVES, MANHOLES, PULL BOXES, PIPING, CONDUITS, ETC. IN PLACE. REPAIR ANY DAMAGE THAT RESULTS FROM CONSTRUCTION ACTIVITIES.
3. AREAS WITH EXISTING CRUSHED SURFACING SHALL BE MAINTAINED. PLACE NEW CRUSHED SURFACING, AS NECESSARY, THROUGHOUT CONSTRUCTION AND AT THE CONCLUSION OF THE PROJECT TO REPAIR AREAS WHERE THE SURFACING HAS BROKEN DOWN OR BEEN COMPACTED INTO THE GROUND.
4. THE BID CONTAINS A SPECIFIED QUANTITY OF ADDITIONAL CRUSHED SURFACING TO BE PLACED AT THE DIRECTION OF THE OWNER.

→ Flow path

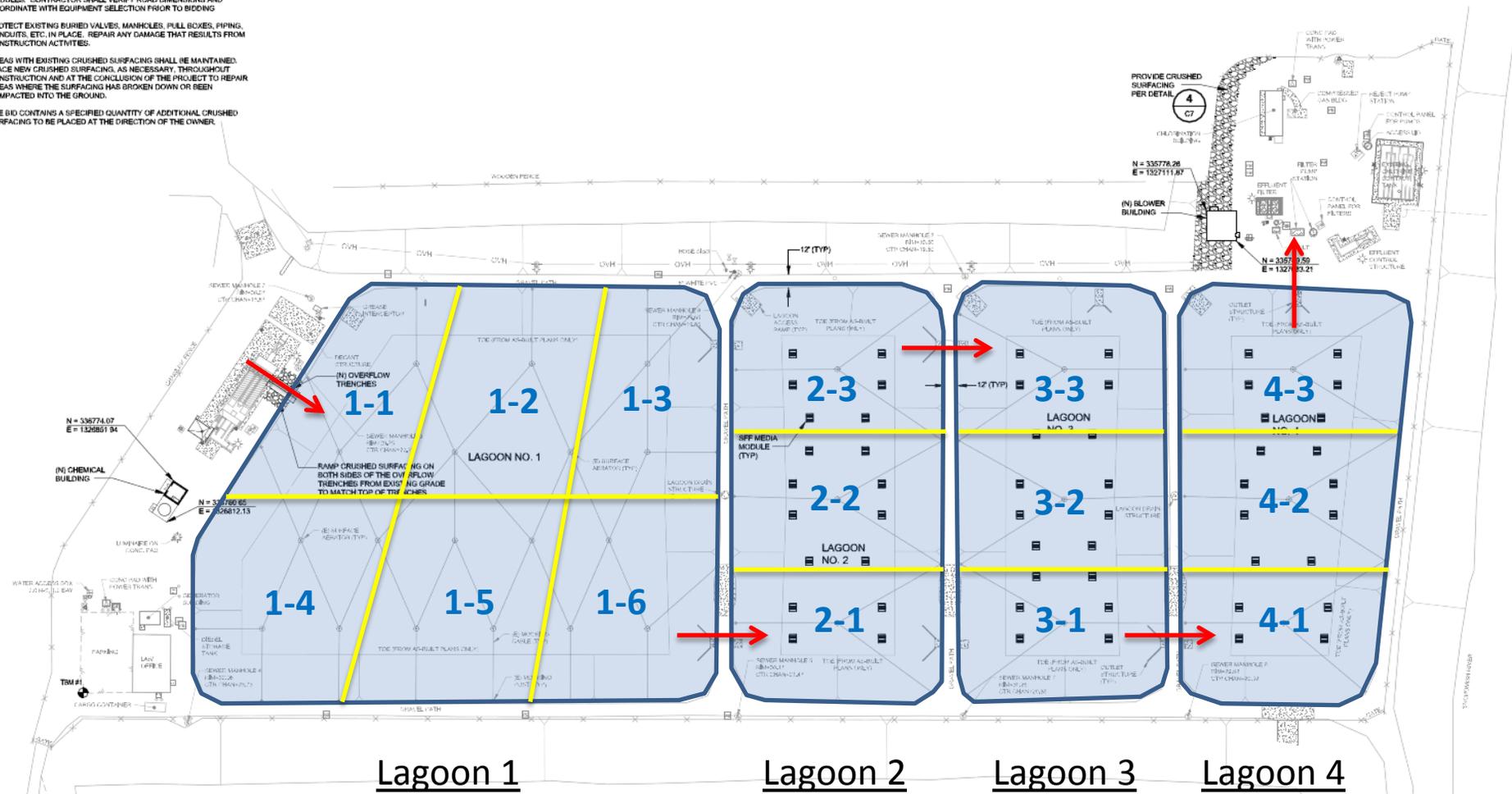


FIGURE 3: LAGOONS 1, 2, 3, AND 4: BIOSOLIDS QUALITY SAMPLING PLAN SCHEMATIC – NUTRIENTS AND OTHER PARAMETERS

MKE MARK TTY: 2013 11:12 PM

P:\CADD\2013\13-01_Snohomish\13-01005-C004.dwg

USE OF DOCUMENTS THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGN, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.	RECORD DRAWING These Record Drawings have been prepared based on information provided by the contractor and others. Kennedy/Jenks Consultants has not verified the accuracy or completeness of information provided to them and does not warrant the accuracy or completeness of these Record Drawings. Users of these Record Drawings assume all risk of loss resulting from their use.	SCALES 1" = 50' IF THIS BAR IS NOT DIMENSIONED CORRECTLY, ADJUST SCALES ACCORDINGLY.	DESIGNED TPG	CITY OF SNOHOMISH Snohomish, Washington WWTP NEAR-TERM IMPROVEMENTS Kennedy/Jenks Consultants FEDERAL WAY, WASHINGTON	SITE PLAN	FILE NAME 079702003-C004
	NO. REVISION DATE BY		DRAWN LJM			CHECKED MDL

- NOTES:**
1. WIDTH OF THE ACCESS ROADS AROUND THE LAGOONS WILL LIMIT THE SIZE OF HEAVY EQUIPMENT FOR INSTALLATION OF THE SFF MEDIA MODULES. CONTRACTOR SHALL VERIFY ROAD DIMENSIONS AND COORDINATE WITH EQUIPMENT SELECTION PRIOR TO BIDDING.
 2. PROTECT EXISTING BURIED VALVES, MANHOLES, PULL BOXES, PIPING, CONDUITS, ETC. IN PLACE. REPAIR ANY DAMAGE THAT RESULTS FROM CONSTRUCTION ACTIVITIES.
 3. AREAS WITH EXISTING CRUSHED SURFACING SHALL BE MAINTAINED. PLACE NEW CRUSHED SURFACING, AS NECESSARY, THROUGHOUT CONSTRUCTION AND AT THE CONCLUSION OF THE PROJECT TO REPAIR AREAS WHERE THE SURFACING HAS BROKEN DOWN OR BEEN COMPACTED INTO THE GROUND.
 4. THE BID CONTAINS A SPECIFIED QUANTITY OF ADDITIONAL CRUSHED SURFACING TO BE PLACED AT THE DIRECTION OF THE OWNER.

→ Flow path

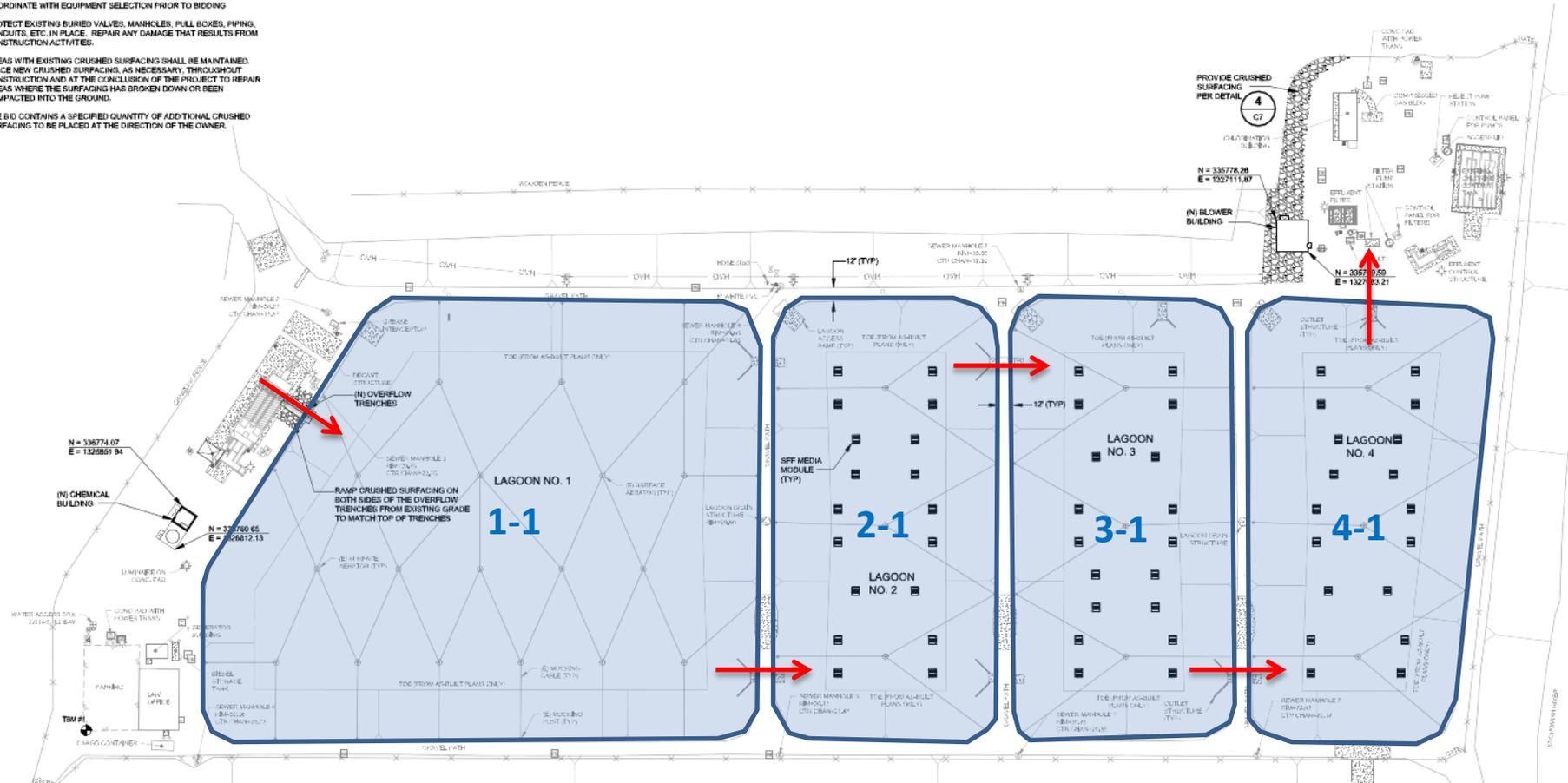
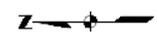


FIGURE 4: LAGOONS 1, 2, 3, AND 4: BIOSOLIDS QUALITY SAMPLING PLAN SCHEMATIC – METALS

MKE:MARK T11/2011 12:12 PM

P:\CAD\07191025-02_Snohomish\07191025-0204.dwg

USE OF DOCUMENTS THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.	RECORD DRAWING These Record Drawings have been prepared based on information provided by the contractor and others. Kennedy/Jenks Consultants has not verified the accuracy or completeness of information provided to them and does not warrant the accuracy or completeness of these Record Drawings. Users of these Record Drawings assume all risk of loss resulting from their use.			DESIGNED TPG	CITY OF SNOHOMISH Snohomish, Washington WWTP NEAR-TERM IMPROVEMENTS W A S H I N G T O N	SITE PLAN	FILE NAME 071910203-C004
	NO. RECORD DRAWING	REVISION	DATE	BY			DRAWN LJM
				CHECKED MDL	Kennedy/Jenks Consultants FEDERAL WAY, WASHINGTON	DATE JUNE 2013	SHEET OF C4 79

Appendix C: SEPA Checklist



**CITY OF SNOHOMISH
PLANNING AND DEVELOPMENT SERVICES
DETERMINATION OF NON-SIGNIFICANCE (DNS)
File #18-14**

Date Issued: December 30, 2014

Proposal Name: Wastewater Treatment Plant Biosolids Removal (City file no. 18-14-SEPA)

Proponent: Max Selin, Project Engineer
City of Snohomish Public Works Department
116 Union Avenue
Snohomish, WA 98290
(360)282-3196

Lead Agency: City of Snohomish Planning and Development Services Department

Description of Proposal: Removal of biosolids from existing Wastewater Treatment Plant, a 10-acre four-lagoon system initially constructed in 1995. Work will include dewatering, dredging, and removal of an estimated 750 dry tons of biosolids and transport to a disposal location for appropriate reuse. Reuse is currently anticipated to be offsite land application, subject to concurrence by Washington Department of Ecology.

Location of Proposal: The site is addressed as 2115 Second Street, Snohomish, on Snohomish County tax parcel 28051300201800, in the NW quarter of Section 13, Township 28 N, Range 05 E, W.M.

Threshold Determination: The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. The requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in the development regulations and comprehensive plans adopted under chapter 36.70A RCW, and in other applicable local, state, or federal laws or rules, as provided by RCW 43.21C.240 and WAC 197-11-158. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist, applicable regulations, and other information on file with the City of Snohomish. This information is available for review at the Snohomish City Hall, 116 Union Avenue, Snohomish, WA 98290 between the hours of 9:00 a.m. and 5:00 p.m. Monday through Friday, excluding holidays.

Written comments may be submitted to the lead agency to the attention of Owen Dennison, at the address below. Comments must be received by 5:00 p.m. on January 14, 2015.

SEPA Responsible Official: Owen Dennison

Position/Title: Planning Director **Phone:** (360) 282-3173 **E-mail:** dennison@snohomishwa.gov

Address: City of Snohomish, 116 Union Avenue, Snohomish, WA 98290

Signature: _____

Owen J. Dennison, Planning Director

APPEALS:

Unless withdrawn or revised pursuant to comments received within the comment period above, this Determination of Non-Significance shall be final on January 14, 2015. Appeals of this SEPA threshold determination must be filed in writing with the City Clerk for the City of Snohomish by 5:00 p.m. on **January 14, 2015**. Appeals must be made in accordance with the provisions of Chapter 14.75 SMC. A \$500 appeal fee must be filed with the appeal. Appeals must be in writing and received as original documents by the close of the appeal period. Fax, e-mail and similar forms of document transmission shall not be accepted and shall not be considered as meeting the filing requirements. Appeals must state the section of the SMC being appealed, the specific determination or mitigation being appealed and the form of relief requested.

SEPA ENVIRONMENTAL CHECKLIST
UPDATED 2014



Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable:

Snohomish Wastewater Treatment Plant Biosolids Removal and Land Application Services

2. Name of applicant:

City of Snohomish, Public Works Department

3. Address and phone number of applicant and contact person:

**Max Selin, PE
Project Engineer
City of Snohomish
Public Works Department
116 Union Avenue
Snohomish, WA 98290**

4. Date checklist prepared:

November 15, 2014

5. Agency requesting checklist:

City of Snohomish, Public Works Department

6. Proposed timing or schedule (including phasing, if applicable):

**Preparation of Bid Documents – December 2014
Advertisement for Bids – by February 2015
Award of Biosolids Services Contract – by April 2015
Completion of Biosolids Removal and Land Application Project – by end of September 2015**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

The existing lagoons constructed in 1995, have not required dredging or solids removal until now. It is estimated that the proposed improvements will provide sufficient capacity for future operation for approximately another 20 years. Therefore, there are no further plans for biosolids removal from the lagoons.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

**General Sewer Plan & Wastewater Facilities Plan, May 2005
Engineering Report for Near-Term Wastewater Treatment Plant Improvements, November 2010
Request for Proposals of Submerged Fixed-Film Media Equipment, February 2011
Draft General Sewer Plan & Wastewater Facilities Plan Amendment, July 2013
Application for Coverage Under the General Permit for Biosolids Management, January 2015
National Pollutant Discharge Elimination System (NPDES) Waste Discharge Permit No. WA-0029548, November 2012
Biosolids Lagoon Sampling Plan, May 2014
Biosolids Management Plan, January 2015**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

Yes, a Draft Biosolids Management Plan, per WAC 173-308, has been submitted to Washington Department of Ecology (Ecology) for review in August 2014. Ecology has provided the City

three minor comments and a final version of the Plan will be submitted to Ecology in December 2014.

10. List any government approvals or permits that will be needed for your proposal, if known.

Conditional approval for land application of the lagoon biosolids is provided by Department of Ecology dependent upon the results of two remaining sampling events outlined in the Biosolids Sampling Plan and the Biosolids Management Plan. Full concurrence by Ecology should take place in December 2014.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The City of Snohomish (City) owns and operates a lagoon-based wastewater treatment plant (WWTP) located in the southwestern part of the City. The facility consists of a headworks structure (screening and grit removal), a 10 acre multi-cell lagoon system with submerged fixed film media, effluent filtration and a chlorine contact basin. The purpose of this work is to oversee removal of biosolids from the lagoons for proper reuse (ie., land application). The Contractor will be required to dredge, dewater and remove for reuse an estimated quantity of 750 dry tons of biosolids total from the four lagoon cells.

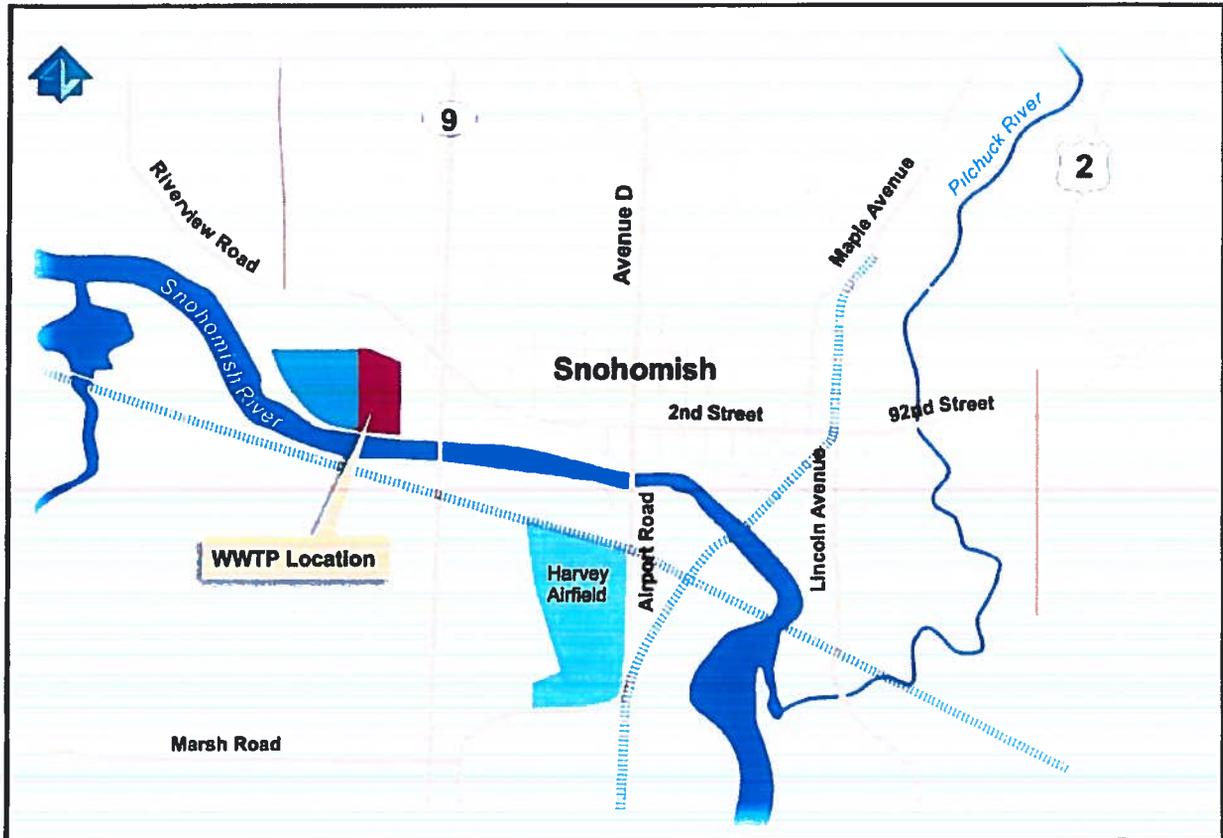
The project duration is estimated to be sixty (60) calendar days from the issuance of the Notice to Proceed. All lagoon cells will remain in service throughout the dredging and dewatering process.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Per the Biosolids Mgmt Plan 08/14, the receiving site maintains permits required for land application, subject to separate process and SEPA review.

The Snohomish WWTP is located at 2115 Second Street, Snohomish, WA 98290 (Section 13, Township 28, Range 05). See map below.

*Tax Parcel
28051300201800*



The following is a picture of the wastewater treatment plant. The work will be occurring in the four lagoon cells located on the east (right) side of the WWTP property.



B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

The WWTP site is generally flat, except for the flood protection berm along the south side of the site fronting the Snohomish River, the berms that form the treatment lagoons, and areas on the site that were filled to elevate structures when the treatment lagoons were constructed.

- b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope on the site is the flood protection berm along the south side of the site fronting the Snohomish River with a slope of approximately 50% (2 run:1 rise).

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Does not apply. No excavation, filling, grading or other construction activities will occur as a result of this project.

NRCS data indicates Pilchuck loamy sand / Puyallup fine Sandy loam

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Does not apply. No excavation, filling, grading or other construction activities will occur as a result of this project. However, there are not indications at the surface of unstable soils, but the alluvial soils are thought to be susceptible to liquefaction during a significant seismic event.

- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Does not apply. No filling, excavation or grading will occur; only deposited solids within the lagoon will be removed and will be land applied off site at a beneficial use facility.

Dredging 750 dry tons of biosolids.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Does not apply.

Subject to erosion BMPs in 2005 DOE Stormwater Manual

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

No difference from the current impervious surfaces.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Does not apply.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Exhaust from the biosolids dredging equipment and hauling vehicles, but quantities will be negligible and only temporary during the project window.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Lagoon biosolids will be tested for volatile solids content. These odor generating compounds are regulated by Ecology's biosolids regulations per WAC 173-308. One of the conditions for reuse of the biosolids is to meet these standards, therefore offsite odor emissions are not expected to be significant.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

The bid documents will specify a maximum amount of time biosolids may stored on site to limit odor generation.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Yes, the Snohomish River (designated a Class A water body) borders the south side of the site (see map above).

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Lagoon #4 is within 200 feet of the ordinary high water mark of the Snohomish River. Settled solids will be removed from this lagoon, but all activities will be either contained in the lagoon, or where outside of the lagoon at least 200 feet from the river.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Does not apply.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Does not apply.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

Although the entire site is within the 100-year floodplain, the berms around the WWTP protect it from the 100-year flood.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

The existing WWTP discharges treated municipal wastewater into the Snohomish River in accordance with NPDES Permit No. WA-002954-8. The purpose of the proposed project is to improve compliance with the permit requirements. Removal of sediment from the lagoon will reduce the impact of seasonal turnover of the lagoons, which can re-suspend settled sediment and lead to spikes in effluent total suspended solids. Also, removing the settled sediment will increase the available treatment volume in the lagoons, which may improve removal of carbonaceous biochemical oxygen demand and ammonia.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No groundwater will be withdrawn from a well or discharged to groundwater.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Does not apply.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

There is very little (1.2% of site) impervious areas at the site. As a result, runoff from the few impervious areas is allowed to naturally percolate into the soil. Temporary erosion control measures will be implemented during dredging, dewatering and onsite storage to

ensure that the runoff (if any) from areas of activity does not travel offsite.

2) Could waste materials enter ground or surface waters? If so, generally describe.

It is not likely that waste materials could enter the ground or surface waters. Precautions will be taken to ensure that the dewatering activities are contained. The dewatering leachate will be returned directly to the lagoons, while the dewatered biosolids will be stored for a minimal amount of time before being hauled offsite for land application.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

Does not apply.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Does not apply.

4. Plants

a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

None.

c. List threatened and endangered species known to be on or near the site.

None known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Does not apply.

e. List all noxious weeds and invasive species known to be on or near the site.

None known.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

birds: ~~hawk~~ heron, ~~eagle~~ ~~songbirds~~, other: **ducks, crows, gulls**
mammals: deer, bear, elk, beaver, other:
fish: bass, ~~salmon~~ ~~trout~~ herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site.

Puget Sound chinook salmon and bull trout both pass by this site in the Snohomish River during incoming migration and out-migration.

c. Is the site part of a migration route? If so, explain.

The Pacific Flyway is a major north-south flyway for migratory birds that encompasses most of Western Washington, including City of Snohomish.

d. Proposed measures to preserve or enhance wildlife, if any:

None.

e. List any invasive animal species known to be on or near the site.

Does not apply.

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electricity and/or diesel will be used to power the dewatering equipment. Power source for dredging is to be determined, but expected to be diesel or electric.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Does not apply.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

None.

- 1) Describe any known or possible contamination at the site from present or past uses.

The original lagoon wastewater treatment system encompassed 45 acres and treated solids starting in 1958. Industrial pretreatment programs were not implemented until much later. The lagoon was decreased in size to 10 acres in 1995 and the remaining cells were decommissioned. The soil quality within the region of the decommissioned lagoons is an unknown, but not expected to be disturbed as part of this project.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

Does not apply.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Does not apply.

- 4) Describe special emergency services that might be required.

Does not apply.

- 5) Proposed measures to reduce or control environmental health hazards, if any:

The perimeter of the WWTP is fenced with appropriate signage to restrict public access and prevent exposure to wastewater that has not been fully treated and to dredged and dewatered biosolids removed from the lagoons. The wastewater treatment plant operators receive special training and use protective clothing and equipment to prevent infection and sickness from exposure to raw wastewater and biosolids. The wastewater treatment plant is operated in compliance with the Washington State Department of Ecology requirements and limits set forth in the NPDES permit. Sampling and testing is performed regularly to verify compliance.

Biosolids will be dewatered prior to transport, to a minimum 20% total solids. Dewatering process is centrifugal with removed waters returned to the Lagoons. Solids will be tested prior to shipment.

b. **Noise**

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

During removal of the solids, truck traffic to the wastewater treatment plant site will increase and there will be operation of heavy equipment.

3) Proposed measures to reduce or control noise impacts, if any:

Trucks and operation of heavy equipment will be limited to working between normal operating hours weekdays between 7:00 AM and 10:00 PM and weekends between 9:00 AM and 10:00 PM as specified by Snohomish Municipal Code 8.16.010 (L).

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The site is currently the City of Snohomish WWTP. The site is surrounded by the Snohomish River to the south and west, Highway 9 to the east, and land owned by the Pilchuck Audubon Society to the north. *Single family homes to the northeast, across Second St.*

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Does not apply.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

Does not apply.

c. Describe any structures on the site.

The site consists of concrete masonry Lab Building, Chlorination Building, Chemical Building and Blower Building, each housing equipment and controls used for operation of the wastewater treatment plant. In addition, the Lab Building has personnel and work spaces. There are also concrete structures on the site (e.g., headworks, effluent filters, chlorine contact tank) used for treatment of the wastewater.

d. Will any structures be demolished? If so, what?

No structures will be demolished.

e. What is the current zoning classification of the site?

The site is currently zoned industrial.

f. What is the current comprehensive plan designation of the site?

The current comprehensive plan designation is industrial.

g. If applicable, what is the current shoreline master program designation of the site?

The current shoreline master program designation is "Urban."

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

There are Class 3 wetlands on the site located between the eastern edge of the existing engineered fill and the right-of-way boundary for Highway 9. However, all project improvements and construction activities will occur within the treatment plant lagoon, and thus outside the wetland boundaries.

i. Approximately how many people would reside or work in the completed project?

No one will reside within the completed project. Three City employees will work at the site when the project is completed, which is the same number as currently work at the site.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The site will continue to be used for wastewater treatment. The proposed project does not change the use of the site or the amount of the site that is used for this purpose, but rather improves the performance of the existing WWTP.

Use is consistent with Land Use Tables of SML 14.207

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

Does not apply.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

Does not apply.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Does not apply.

b. What views in the immediate vicinity would be altered or obstructed?

Does not apply.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Does not apply.

Offsite views are limited. WWTP is removed from public way and screened with vegetation.

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply.

c. What existing off-site sources of light or glare may affect your proposal?

Does not apply.

d. Proposed measures to reduce or control light and glare impacts, if any:

Does not apply.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are recreational opportunities (e.g., boating) on the Snohomish River bordering the south and west sides of the site. The flood protection berm along the south and west sides of the site bordering the Snohomish River serves as an informal recreational trail. The land owned by the Pilchuck Audubon society bordering the north end of the site is used for bird watching.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

The proposed project would not displace any of the current recreational uses.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Does not apply.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

No.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

None known.

Site is not identified on WISAARD as high potential.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Does not apply. There will be no disturbance of the existing ground or structures.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

Does not apply.

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

The primary access to the site is off of ~~Second Avenue~~ which extends east to downtown Snohomish, west on Riverview Road to residential and farming areas and has exit and entrance ramps to Highway 9.

Second Street

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The site is not served directly by public transit, but Community Transit provides bus service within the general vicinity. The nearest transit stop is about ½ mile to the east of the site.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

The project will not add or eliminate any parking spaces. There are currently approximately 8 designated parking spaces in front of the existing Lab Building.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

No.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

The completed project will not increase or decrease the current vehicular trips to and from the site, which are related to employee access during peak traffic hours, and infrastructure support operations and commercial deliveries during normal business hours.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No.

- h. Proposed measures to reduce or control transportation impacts, if any:

Does not apply.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Does not apply.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The project will temporarily increase use of electricity and generate a small temporary increase in the use of water during dredging and dewatering, but no new utility service will be associated with the project.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Max Selig

Name of signee Max Selig

Position and Agency/Organization Project Engineer, City of Snohomish

Date Submitted: 12/2/14

D. supplemental sheet for nonproject actions [\[help\]](#)

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Appendix D: Estimated Schedule for Solids Removal

ID	Task Name	Duration	Start	Finish	Predecessors	August 1		September 1		October 1		November 1		December 1		January 1		February 1		March 1		April 1		May 1		June
						8/3	8/17	8/31	9/14	9/28	10/12	10/26	11/9	11/23	12/7	12/21	1/4	1/18	2/1	2/15	3/1	3/15	3/29	4/12	4/26	5/10
1	Submit Draft Biosolids Management Plan	1 day	Mon 8/11/14	Mon 8/11/14																						
2	City Review Draft Biosolids Sampling Plan	8 days	Tue 8/12/14	Thu 8/21/14	1																					
3	Finalize Draft Biosolids Management Plan	5 days	Fri 8/22/14	Thu 8/28/14	2																					
4	Submit Draft Biosolids Management Plan to DEQ	1 day	Fri 8/29/14	Fri 8/29/14	3																					
5	Receive Comments from DEQ on BMP	1 day	Tue 10/1/13	Tue 10/1/13																						
6	Submit Final Biosolids Management Plan to DEQ	1 day	Tue 10/15/13	Tue 10/15/13																						
7	City Conduct Sampling Event #2	40 days	Wed 3/4/15	Tue 4/28/15																						
8	City Conduct Sampling Event #3	1 day	Mon 4/27/15	Mon 4/27/15																						
9	Prepare Bid Documents	60 days	Tue 2/3/15	Mon 4/27/15																						
10	Request for Proposal	2 wks	Tue 4/28/15	Mon 5/11/15	9																					
11	Award Project	10 days	Mon 5/18/15	Fri 5/29/15	10																					
12	Notice to Proceed	1 day	Mon 6/1/15	Mon 6/1/15	11																					

Project: Biosolids Plan Schedule_upda
Date: Tue 8/12/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Progress	
Split		External Tasks		Inactive Summary		Manual Summary		Deadline	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

APPENDIX C

PREVAILING MINIMUM HOURLY WAGE RATES

State of Washington
 Department of Labor & Industries
 Prevailing Wage Section - Telephone 360-902-5335
 PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 2/2/2015

<u>County</u>	<u>Trade</u>	<u>Job Classification</u>	<u>Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>
Snohomish	Asbestos Abatement Workers	Journey Level	\$42.67	<u>5D</u>	<u>1H</u>	
Snohomish	Boilermakers	Journey Level	\$64.44	<u>5N</u>	<u>1C</u>	
Snohomish	Brick Mason	Brick And Block Finisher	\$44.46	<u>5A</u>	<u>1M</u>	
Snohomish	Brick Mason	Journey Level	\$51.32	<u>5A</u>	<u>1M</u>	
Snohomish	Brick Mason	Pointer-Caulker-Cleaner	\$51.32	<u>5A</u>	<u>1M</u>	
Snohomish	Building Service Employees	Janitor	\$9.47		<u>1</u>	
Snohomish	Building Service Employees	Shampooer	\$9.47		<u>1</u>	
Snohomish	Building Service Employees	Waxer	\$9.47		<u>1</u>	
Snohomish	Building Service Employees	Window Cleaner	\$13.48		<u>1</u>	
Snohomish	Cabinet Makers (In Shop)	Journey Level	\$15.08		<u>1</u>	
Snohomish	Carpenters	Acoustical Worker	\$52.32	<u>5D</u>	<u>4C</u>	
Snohomish	Carpenters	Bridge, Dock And Wharf Carpenters	\$52.32	<u>5D</u>	<u>4C</u>	
Snohomish	Carpenters	Carpenter	\$52.32	<u>5D</u>	<u>4C</u>	
Snohomish	Carpenters	Carpenters on Stationary Tools	\$52.45	<u>5D</u>	<u>4C</u>	
Snohomish	Carpenters	Creosoted Material	\$52.42	<u>5D</u>	<u>4C</u>	
Snohomish	Carpenters	Floor Finisher	\$52.32	<u>5D</u>	<u>4C</u>	
Snohomish	Carpenters	Floor Layer	\$52.32	<u>5D</u>	<u>4C</u>	
Snohomish	Carpenters	Scaffold Erector	\$52.32	<u>5D</u>	<u>4C</u>	
Snohomish	Cement Masons	Journey Level	\$52.38	<u>7A</u>	<u>1M</u>	

Snohomish	Divers & Tenders	Diver	\$105.37	<u>5D</u>	<u>4C</u>	<u>8A</u>
Snohomish	Divers & Tenders	Diver On Standby	\$59.50	<u>5D</u>	<u>4C</u>	
Snohomish	Divers & Tenders	Diver Tender	\$54.82	<u>5D</u>	<u>4C</u>	
Snohomish	Divers & Tenders	Surface Rcv & Rov Operator	\$54.82	<u>5D</u>	<u>4C</u>	
Snohomish	Divers & Tenders	Surface Rcv & Rov Operator Tender	\$51.07	<u>5A</u>	<u>4C</u>	
Snohomish	Dredge Workers	Assistant Engineer	\$53.00	<u>5D</u>	<u>3F</u>	
Snohomish	Dredge Workers	Assistant Mate (Deckhand)	\$52.58	<u>5D</u>	<u>3F</u>	
Snohomish	Dredge Workers	Boatmen	\$52.30	<u>5D</u>	<u>3F</u>	
Snohomish	Dredge Workers	Engineer Welder	\$54.04	<u>5D</u>	<u>3F</u>	
Snohomish	Dredge Workers	Leverman, Hydraulic	\$55.17	<u>5D</u>	<u>3F</u>	
Snohomish	Dredge Workers	Mates	\$52.30	<u>5D</u>	<u>3F</u>	
Snohomish	Dredge Workers	Oiler	\$52.58	<u>5D</u>	<u>3F</u>	
Snohomish	Drywall Applicator	Journey Level	\$52.32	<u>5D</u>	<u>1H</u>	
Snohomish	Drywall Tapers	Journey Level	\$52.37	<u>5P</u>	<u>1E</u>	
Snohomish	Electrical Fixture Maintenance Workers	Journey Level	\$13.76		<u>1</u>	
Snohomish	Electricians - Inside	Cable Splicer	\$62.37	<u>7H</u>	<u>1E</u>	
Snohomish	Electricians - Inside	Construction Stock Person	\$30.95	<u>7H</u>	<u>1D</u>	
Snohomish	Electricians - Inside	Journey Level	\$58.23	<u>7H</u>	<u>1E</u>	
Snohomish	Electricians - Motor Shop	Craftsman	\$15.37		<u>1</u>	
Snohomish	Electricians - Motor Shop	Journey Level	\$14.69		<u>1</u>	
Snohomish	Electricians - Powerline Construction	Cable Splicer	\$68.33	<u>5A</u>	<u>4A</u>	
Snohomish	Electricians - Powerline Construction	Certified Line Welder	\$62.50	<u>5A</u>	<u>4A</u>	
Snohomish	Electricians - Powerline Construction	Groundperson	\$42.56	<u>5A</u>	<u>4A</u>	
Snohomish	Electricians - Powerline Construction	Heavy Line Equipment Operator	\$62.50	<u>5A</u>	<u>4A</u>	
Snohomish	Electricians - Powerline Construction	Journey Level Lineperson	\$62.50	<u>5A</u>	<u>4A</u>	
Snohomish	Electricians - Powerline Construction	Line Equipment Operator	\$52.47	<u>5A</u>	<u>4A</u>	
Snohomish	Electricians - Powerline Construction	Pole Sprayer	\$62.50	<u>5A</u>	<u>4A</u>	
Snohomish	Electricians - Powerline Construction	Powderperson	\$46.55	<u>5A</u>	<u>4A</u>	
Snohomish	Electronic Technicians	Journey Level	\$30.10		<u>1</u>	
Snohomish	Elevator Constructors	Mechanic	\$80.14	<u>7D</u>	<u>4A</u>	
Snohomish	Elevator Constructors	Mechanic In Charge	\$86.77	<u>7D</u>	<u>4A</u>	
Snohomish	Fabricated Precast Concrete Products	Journey Level - In-Factory Work Only	\$13.50		<u>1</u>	
Snohomish	Fence Erectors	Fence Erector	\$14.00		<u>1</u>	

Snohomish	Flaggers	Journey Level	\$36.17	<u>7A</u>	<u>3I</u>	
Snohomish	Glaziers	Journey Level	\$54.91	<u>7L</u>	<u>1Y</u>	
Snohomish	Heat & Frost Insulators And Asbestos Workers	Journeyman	\$60.93	<u>5J</u>	<u>1S</u>	
Snohomish	Heating Equipment Mechanics	Journey Level	\$70.37	<u>7F</u>	<u>1E</u>	
Snohomish	Hod Carriers & Mason Tenders	Journey Level	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Industrial Power Vacuum Cleaner	Journey Level	\$9.47		<u>1</u>	
Snohomish	Inland Boatmen	Boat Operator	\$54.57	<u>5B</u>	<u>1K</u>	
Snohomish	Inland Boatmen	Cook	\$50.95	<u>5B</u>	<u>1K</u>	
Snohomish	Inland Boatmen	Deckhand	\$51.19	<u>5B</u>	<u>1K</u>	
Snohomish	Inland Boatmen	Deckhand Engineer	\$52.18	<u>5B</u>	<u>1K</u>	
Snohomish	Inland Boatmen	Launch Operator	\$53.40	<u>5B</u>	<u>1K</u>	
Snohomish	Inland Boatmen	Mate	\$53.40	<u>5B</u>	<u>1K</u>	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator, Foamer Operator	\$9.73		<u>1</u>	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	\$11.48		<u>1</u>	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	\$12.78		<u>1</u>	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	\$9.47		<u>1</u>	
Snohomish	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	\$10.53		<u>1</u>	
Snohomish	Insulation Applicators	Journey Level	\$52.32	<u>5D</u>	<u>4C</u>	
Snohomish	Ironworkers	Journeyman	\$61.62	<u>7N</u>	<u>1O</u>	
Snohomish	Laborers	Air, Gas Or Electric Vibrating Screed	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Airtrac Drill Operator	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Ballast Regular Machine	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Batch Weighman	\$36.17	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Brick Pavers	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Brush Cutter	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Brush Hog Feeder	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Burner	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Caisson Worker	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Carpenter Tender	\$42.67	<u>7A</u>	<u>3I</u>	

Snohomish	Laborers	Caulker	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Cement Dumper-paving	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Cement Finisher Tender	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Change House Or Dry Shack	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Chipping Gun (under 30 Lbs.)	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Chipping Gun(30 Lbs. And Over)	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Choker Setter	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Chuck Tender	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Clary Power Spreader	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Clean-up Laborer	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Concrete Dumper/chute Operator	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Concrete Form Stripper	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Concrete Placement Crew	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Concrete Saw Operator/core Driller	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Crusher Feeder	\$36.17	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Curing Laborer	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Demolition: Wrecking & Moving (incl. Charred Material)	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Ditch Digger	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Diver	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Drill Operator (hydraulic,diamond)	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Dry Stack Walls	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Dump Person	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Epoxy Technician	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Erosion Control Worker	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Faller & Bucker Chain Saw	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Fine Graders	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Firewatch	\$36.17	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Form Setter	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Gabian Basket Builders	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	General Laborer	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Grade Checker & Transit Person	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Grinders	\$42.67	<u>7A</u>	<u>3I</u>	

Snohomish	Laborers	Grout Machine Tender	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Groutmen (pressure)including Post Tension Beams	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Guardrail Erector	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Hazardous Waste Worker (level A)	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Hazardous Waste Worker (level B)	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Hazardous Waste Worker (level C)	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	High Scaler	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Jackhammer	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Laserbeam Operator	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Maintenance Person	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Manhole Builder-mudman	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Material Yard Person	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Motorman-dinky Locomotive	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Nozzleman (concrete Pump, Green Cutter When Using Combination Of High Pressure Air & Water On Concrete & Rock, Sandblast, Gunite, Shotcrete, Water Bla	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Pavement Breaker	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Pilot Car	\$36.17	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Pipe Layer Lead	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Pipe Layer/tailor	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Pipe Pot Tender	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Pipe Reliner	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Pipe Wrapper	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Pot Tender	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Powderman	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Powderman's Helper	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Power Jacks	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Railroad Spike Puller - Power	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Raker - Asphalt	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Re-timberman	\$44.00	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Remote Equipment Operator	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Rigger/signal Person	\$43.46	<u>7A</u>	<u>3I</u>	

Snohomish	Laborers	Rip Rap Person	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Rivet Buster	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Rodder	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Scaffold Erector	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Scale Person	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Sloper (over 20")	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Sloper Sprayer	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Spreader (concrete)	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Stake Hopper	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Stock Piler	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Tamper (multiple & Self-propelled)	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Timber Person - Sewer (lagger, Shorer & Cribber)	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Toolroom Person (at Jobsite)	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Topper	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Track Laborer	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Track Liner (power)	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Traffic Control Laborer	\$38.68	<u>7A</u>	<u>3I</u>	<u>8R</u>
Snohomish	Laborers	Traffic Control Supervisor	\$38.68	<u>7A</u>	<u>3I</u>	<u>8R</u>
Snohomish	Laborers	Truck Spotter	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Tugger Operator	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	\$64.99	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$70.02	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$73.70	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$79.40	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$81.52	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$86.62	<u>7A</u>	<u>3I</u>	<u>8Q</u>

Snohomish	Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$88.52	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$90.52	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$92.52	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Tunnel Work-Guage and Lock Tender	\$44.10	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Tunnel Work-Miner	\$44.10	<u>7A</u>	<u>3I</u>	<u>8Q</u>
Snohomish	Laborers	Vibrator	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Vinyl Seamer	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Watchman	\$32.87	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Welder	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Well Point Laborer	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers	Window Washer/cleaner	\$32.87	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers - Underground Sewer & Water	General Laborer & Topman	\$42.67	<u>7A</u>	<u>3I</u>	
Snohomish	Laborers - Underground Sewer & Water	Pipe Layer	\$43.46	<u>7A</u>	<u>3I</u>	
Snohomish	Landscape Construction	Irrigation Or Lawn Sprinkler Installers	\$17.31		<u>1</u>	
Snohomish	Landscape Construction	Landscape Equipment Operators Or Truck Drivers	\$20.06		<u>1</u>	
Snohomish	Landscape Construction	Landscaping Or Planting Laborers	\$14.13		<u>1</u>	
Snohomish	Lathers	Journey Level	\$52.32	<u>5D</u>	<u>1H</u>	
Snohomish	Marble Setters	Journey Level	\$51.32	<u>5A</u>	<u>1M</u>	
Snohomish	Metal Fabrication (In Shop)	Fitter	\$15.38		<u>1</u>	
Snohomish	Metal Fabrication (In Shop)	Laborer	\$9.79		<u>1</u>	
Snohomish	Metal Fabrication (In Shop)	Machine Operator	\$9.47		<u>1</u>	
Snohomish	Metal Fabrication (In Shop)	Painter	\$9.98		<u>1</u>	
Snohomish	Metal Fabrication (In Shop)	Welder	\$15.38		<u>1</u>	
Snohomish	Millwright	Journey Level	\$53.42	<u>5D</u>	<u>4C</u>	
Snohomish	Modular Buildings	Journey Level	\$9.47		<u>1</u>	
Snohomish	Painters	Journey Level	\$37.80	<u>6Z</u>	<u>2B</u>	
Snohomish	Pile Driver	Journey Level	\$52.57	<u>5D</u>	<u>4C</u>	
Snohomish	Plasterers	Journey Level	\$50.42	<u>7Q</u>	<u>1R</u>	
Snohomish	Playground & Park Equipment Installers	Journey Level	\$11.94		<u>1</u>	
Snohomish	Plumbers & Pipefitters	Journey Level	\$62.57	<u>5A</u>	<u>1G</u>	

Snohomish	Power Equipment Operators	Asphalt Plant Operators	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Assistant Engineer	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Barrier Machine (zipper)	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Batch Plant Operator, Concrete	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Bobcat	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Brokk - Remote Demolition Equipment	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Brooms	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Bump Cutter	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cableways	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Chipper	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Compressor	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Concrete Finish Machine -laser Screed	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure.	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Conveyors	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cranes: 20 Tons Through 44 Tons With Attachments	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cranes: 100 Tons Through 199 Tons, Or 150' Of Boom (Including Jib With Attachments)	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cranes: 200 Tons To 300 Tons, Or 250' Of Boom (including Jib With Attachments)	\$56.36	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cranes: A-frame - 10 Tons And Under	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cranes: Friction 100 Tons Through 199 Tons	\$56.36	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cranes: Friction Over 200 Tons	\$56.92	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cranes: Over 300 Tons Or 300' Of Boom (including Jib With Attachments)	\$56.92	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Crusher	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>

Snohomish	Power Equipment Operators	Deck Engineer/deck Winches (power)	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Derricks, On Building Work	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Dozers D-9 & Under	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Drilling Machine	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Elevator And Man-lift: Permanent And Shaft Type	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Forklift: 3000 Lbs And Over With Attachments	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Forklifts: Under 3000 Lbs. With Attachments	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Gradechecker/stakeman	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Guardrail Punch	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Horizontal/directional Drill Locator	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Horizontal/directional Drill Operator	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Hydralifts/boom Trucks Over 10 Tons	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Hydralifts/boom Trucks, 10 Tons And Under	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Loader, Overhead 8 Yards. & Over	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Loaders, Overhead Under 6 Yards	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Loaders, Plant Feed	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Loaders: Elevating Type Belt	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Locomotives, All	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Material Transfer Device	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators		\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>

		Mechanics, All (leadmen - \$0.50 Per Hour Over Mechanic)				
Snohomish	Power Equipment Operators	Motor Patrol Grader - Non-finishing	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Motor Patrol Graders, Finishing	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Outside Hoists (elevators And Manlifts), Air Tuggers, strato	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Overhead, Bridge Type: 100 Tons And Over	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Pavement Breaker	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Pile Driver (other Than Crane Mount)	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Plant Oiler - Asphalt, Crusher	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Posthole Digger, Mechanical	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Power Plant	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Pumps - Water	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Quad 9, Hd 41, D10 And Over	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Rigger And Bellman	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Rollagon	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Roller, Other Than Plant Mix	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Roto-mill, Roto-grinder	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Saws - Concrete	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Scrapers - Concrete & Carry All	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>

Snohomish	Power Equipment Operators	Service Engineers - Equipment	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Shotcrete/gunite Equipment	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$56.36	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Slipform Pavers	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Spreader, Topsider & Screedman	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Subgrader Trimmer	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Tower Bucket Elevators	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Tower Crane Over 175'in Height, Base To Boom	\$56.36	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Tower Crane Up To 175' In Height Base To Boom	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Transporters, All Track Or Truck Type	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Trenching Machines	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Truck Crane Oiler/driver - 100 Tons And Over	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Truck Crane Oiler/driver Under 100 Tons	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Truck Mount Portable Conveyor	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Welder	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Wheel Tractors, Farmall Type	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators	Yo Yo Pay Dozer	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Asphalt Plant Operators	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Assistant Engineer	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Barrier Machine (zipper)	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish		Batch Plant Operator, Concrete	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>

	Power Equipment Operators- Underground Sewer & Water				
Snohomish	Power Equipment Operators- Underground Sewer & Water	Bobcat	\$51.97	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Brokk - Remote Demolition Equipment	\$51.97	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Brooms	\$51.97	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Bump Cutter	\$54.75	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Cableways	\$55.24	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Chipper	\$54.75	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Compressor	\$51.97	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$55.24	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Concrete Finish Machine -laser Screed	\$51.97	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure.	\$54.33	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$54.75	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Conveyors	\$54.33	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Cranes: 20 Tons Through 44 Tons With Attachments	\$54.75	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Cranes: 100 Tons Through 199 Tons, Or 150' Of Boom (Including Jib With Attachments)	\$55.79	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Cranes: 200 Tons To 300 Tons, Or 250' Of Boom (including Jib With Attachments)	\$56.36	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Cranes: 45 Tons Through 99 Tons, Under 150' Of Boom (including Jib With Attachments)	\$55.24	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Cranes: A-frame - 10 Tons And Under	\$51.97	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish		Cranes: Friction 100 Tons Through 199 Tons	\$56.36	<u>7A</u>	<u>3C</u> <u>8P</u>

	Power Equipment Operators- Underground Sewer & Water					
Snohomish	Power Equipment Operators- Underground Sewer & Water	Cranes: Friction Over 200 Tons	\$56.92	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Cranes: Over 300 Tons Or 300' Of Boom (including Jib With Attachments)	\$56.92	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Cranes: Through 19 Tons With Attachments A-frame Over 10 Tons	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Crusher	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Deck Engineer/deck Winches (power)	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Derricks, On Building Work	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Dozers D-9 & Under	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Drilling Machine	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Elevator And Man-lift: Permanent And Shaft Type	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Forklift: 3000 Lbs And Over With Attachments	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Forklifts: Under 3000 Lbs. With Attachments	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Gradechecker/stakeman	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Guardrail Punch	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>

Snohomish	Power Equipment Operators- Underground Sewer & Water	Horizontal/directional Drill Locator	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Horizontal/directional Drill Operator	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Hydralifts/boom Trucks Over 10 Tons	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Hydralifts/boom Trucks, 10 Tons And Under	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Loader, Overhead 8 Yards. & Over	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Loaders, Overhead Under 6 Yards	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Loaders, Plant Feed	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Loaders: Elevating Type Belt	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Locomotives, All	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Material Transfer Device	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Mechanics, All (leadmen - \$0.50 Per Hour Over Mechanic)	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Motor Patrol Grader - Non-finishing	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Motor Patrol Graders, Finishing	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Outside Hoists (elevators And Manlifts), Air Tuggers, strato	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Overhead, Bridge Type Crane: 20 Tons Through 44 Tons	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish		Overhead, Bridge Type: 100 Tons And Over	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>

	Power Equipment Operators- Underground Sewer & Water					
Snohomish	Power Equipment Operators- Underground Sewer & Water	Overhead, Bridge Type: 45 Tons Through 99 Tons	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Pavement Breaker	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Pile Driver (other Than Crane Mount)	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Posthole Digger, Mechanical	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Power Plant	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Pumps - Water	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Quad 9, Hd 41, D10 And Over	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Quick Tower - No Cab, Under 100 Feet In Height Based To Boom	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Rigger And Bellman	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Rollagon	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Roller, Other Than Plant Mix	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Roto-mill, Roto-grinder	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Saws - Concrete	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Scrapers - Concrete & Carry All	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>

Snohomish	Power Equipment Operators- Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Service Engineers - Equipment	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Shotcrete/gunite Equipment	\$51.97	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Shovel , Excavator, Backhoe, Tractors Under 15 Metric Tons.	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$56.36	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Slipform Pavers	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Spreader, Topsider & Screedman	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Subgrader Trimmer	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Tower Bucket Elevators	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Tower Crane Over 175'in Height, Base To Boom	\$56.36	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Tower Crane Up To 175' In Height Base To Boom	\$55.79	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Transporters, All Track Or Truck Type	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Trenching Machines	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Truck Crane Oiler/driver - 100 Tons And Over	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Truck Crane Oiler/driver Under 100 Tons	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish		Truck Mount Portable Conveyor	\$54.75	<u>7A</u>	<u>3C</u>	<u>8P</u>

	Power Equipment Operators- Underground Sewer & Water				
Snohomish	Power Equipment Operators- Underground Sewer & Water	Welder	\$55.24	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Wheel Tractors, Farmall Type	\$51.97	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Equipment Operators- Underground Sewer & Water	Yo Yo Pay Dozer	\$54.75	<u>7A</u>	<u>3C</u> <u>8P</u>
Snohomish	Power Line Clearance Tree Trimmers	Journey Level In Charge	\$44.86	<u>5A</u>	<u>4A</u>
Snohomish	Power Line Clearance Tree Trimmers	Spray Person	\$42.58	<u>5A</u>	<u>4A</u>
Snohomish	Power Line Clearance Tree Trimmers	Tree Equipment Operator	\$44.86	<u>5A</u>	<u>4A</u>
Snohomish	Power Line Clearance Tree Trimmers	Tree Trimmer	\$40.08	<u>5A</u>	<u>4A</u>
Snohomish	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	\$30.20	<u>5A</u>	<u>4A</u>
Snohomish	Refrigeration & Air Conditioning Mechanics	Mechanic	\$62.57	<u>5A</u>	<u>1G</u>
Snohomish	Residential Brick Mason	Journey Level	\$20.00		<u>1</u>
Snohomish	Residential Carpenters	Journey Level	\$40.14	<u>5D</u>	<u>4C</u>
Snohomish	Residential Cement Masons	Journey Level	\$14.00		<u>1</u>
Snohomish	Residential Drywall Applicators	Journey Level	\$40.14	<u>5D</u>	<u>4C</u>
Snohomish	Residential Drywall Tapers	Journey Level	\$52.37	<u>5P</u>	<u>1E</u>
Snohomish	Residential Electricians	Journey Level	\$31.49	<u>7F</u>	<u>1D</u>
Snohomish	Residential Glaziers	Journey Level	\$36.20	<u>7L</u>	<u>1H</u>
Snohomish	Residential Insulation Applicators	Journey Level	\$25.68		<u>1</u>
Snohomish	Residential Laborers	Journey Level	\$20.73		<u>1</u>
Snohomish	Residential Marble Setters	Journey Level	\$30.74		<u>1</u>
Snohomish	Residential Painters	Journey Level	\$17.46		<u>1</u>
Snohomish	Residential Plumbers & Pipefitters	Journey Level	\$28.99		<u>1</u>
Snohomish	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	\$36.92	<u>5A</u>	<u>1G</u>
Snohomish	Residential Sheet Metal Workers	Journey Level (Field or Shop)	\$42.58	<u>7F</u>	<u>1R</u>
Snohomish	Residential Soft Floor Layers	Journey Level	\$42.41	<u>5A</u>	<u>3D</u>
Snohomish	Residential Sprinkler Fitters (Fire Protection)	Journey Level	\$42.48	<u>5C</u>	<u>2R</u>
Snohomish	Residential Stone Masons	Journey Level	\$30.74		<u>1</u>
Snohomish	Residential Terrazzo Workers	Journey Level	\$9.47		<u>1</u>
Snohomish	Residential Terrazzo/Tile Finishers	Journey Level	\$21.60		<u>1</u>

Snohomish	Residential Tile Setters	Journey Level	\$25.17		<u>1</u>	
Snohomish	Roofers	Journey Level	\$44.71	<u>5A</u>	<u>3H</u>	
Snohomish	Roofers	Using Irritable Bituminous Materials	\$47.71	<u>5A</u>	<u>3H</u>	
Snohomish	Sheet Metal Workers	Journey Level (Field or Shop)	\$70.37	<u>7F</u>	<u>1E</u>	
Snohomish	Shipbuilding & Ship Repair	Boilermaker	\$40.72	<u>7M</u>	<u>1H</u>	
Snohomish	Shipbuilding & Ship Repair	Carpenter	\$38.10	<u>7R</u>	<u>2B</u>	
Snohomish	Shipbuilding & Ship Repair	Electrician	\$37.58	<u>5T</u>	<u>3E</u>	
Snohomish	Shipbuilding & Ship Repair	Heat & Frost Insulator	\$60.93	<u>5J</u>	<u>1S</u>	
Snohomish	Shipbuilding & Ship Repair	Laborer	\$27.88	<u>5T</u>	<u>3E</u>	
Snohomish	Shipbuilding & Ship Repair	Machinist	\$37.58	<u>5T</u>	<u>3E</u>	
Snohomish	Shipbuilding & Ship Repair	Painter	\$37.80	<u>6Z</u>	<u>2B</u>	
Snohomish	Shipbuilding & Ship Repair	Shipfitter	\$37.58	<u>5T</u>	<u>3E</u>	
Snohomish	Shipbuilding & Ship Repair	Welder/Burner	\$37.58	<u>5T</u>	<u>3E</u>	
Snohomish	Sign Makers & Installers (Electrical)	Sign Installer	\$26.56		<u>1</u>	
Snohomish	Sign Makers & Installers (Electrical)	Sign Maker	\$20.50		<u>1</u>	
Snohomish	Sign Makers & Installers (Non-Electrical)	Sign Installer	\$22.56		<u>1</u>	
Snohomish	Sign Makers & Installers (Non-Electrical)	Sign Maker	\$20.50		<u>1</u>	
Snohomish	Soft Floor Layers	Journey Level	\$42.41	<u>5A</u>	<u>3D</u>	
Snohomish	Solar Controls For Windows	Journey Level	\$9.47		<u>1</u>	
Snohomish	Sprinkler Fitters (Fire Protection)	Journey Level	\$69.59	<u>5C</u>	<u>1X</u>	
Snohomish	Stage Rigging Mechanics (Non Structural)	Journey Level	\$13.23		<u>1</u>	
Snohomish	Stone Masons	Journey Level	\$51.32	<u>5A</u>	<u>1M</u>	
Snohomish	Street And Parking Lot Sweeper Workers	Journey Level	\$15.00		<u>1</u>	
Snohomish	Surveyors	Assistant Construction Site Surveyor	\$54.33	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Surveyors	Chainman	\$53.81	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Surveyors	Construction Site Surveyor	\$55.24	<u>7A</u>	<u>3C</u>	<u>8P</u>
Snohomish	Telecommunication Technicians	Journey Level	\$22.38		<u>1</u>	
Snohomish	Telephone Line Construction - Outside	Cable Splicer	\$36.96	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Hole Digger/Ground Person	\$20.49	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Installer (Repairer)	\$35.40	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Special Aparatus Installer I	\$36.96	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Special Apparatus Installer II	\$36.19	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Telephone Equipment Operator (Heavy)	\$36.96	<u>5A</u>	<u>2B</u>	

Snohomish	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	\$34.34	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Telephone Lineperson	\$34.34	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Television Groundperson	\$19.45	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Television Lineperson/Installer	\$25.89	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Television System Technician	\$30.97	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Television Technician	\$27.77	<u>5A</u>	<u>2B</u>	
Snohomish	Telephone Line Construction - Outside	Tree Trimmer	\$34.34	<u>5A</u>	<u>2B</u>	
Snohomish	Terrazzo Workers	Journey Level	\$46.96	<u>5A</u>	<u>1M</u>	
Snohomish	Tile Setters	Journey Level	\$46.96	<u>5A</u>	<u>1M</u>	
Snohomish	Tile, Marble & Terrazzo Finishers	Finisher	\$37.79	<u>5A</u>	<u>1B</u>	
Snohomish	Traffic Control Stripers	Journey Level	\$43.11	<u>7A</u>	<u>1K</u>	
Snohomish	Truck Drivers	Asphalt Mix Over 16 Yards (W. WA-Joint Council 28)	\$48.87	<u>5D</u>	<u>3A</u>	<u>8L</u>
Snohomish	Truck Drivers	Asphalt Mix To 16 Yards (W. WA-Joint Council 28)	\$48.03	<u>5D</u>	<u>3A</u>	<u>8L</u>
Snohomish	Truck Drivers	Dump Truck	\$37.94		<u>1</u>	
Snohomish	Truck Drivers	Dump Truck And Trailer	\$38.52		<u>1</u>	
Snohomish	Truck Drivers	Other Trucks	\$38.52		<u>1</u>	
Snohomish	Truck Drivers	Transit Mixer	\$34.63		<u>1</u>	
Snohomish	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	\$17.05		<u>1</u>	
Snohomish	Well Drillers & Irrigation Pump Installers	Oiler	\$13.93		<u>1</u>	
Snohomish	Well Drillers & Irrigation Pump Installers	Well Driller	\$19.01		<u>1</u>	

State of Washington
Department of Labor & Industries
Prevailing Wage Section - Telephone 360-902-5335
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Apprentice Level Prevailing Wage Rates for Snohomish County and Laborers Trade for the Effective Date: 2/2/2015

<u>Step</u>	<u>Occupation</u>	<u>Begin Hours</u>	<u>End Hours</u>	<u>Apprentice Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>
Step 1	Window Washer, Cleaner/Western WA/Registered Prior to 6/1/2012	1	1000	\$29.75	<u>7A</u>	<u>3I</u>	
Step 2	Window Washer, Cleaner/Western WA/Registered Prior to 6/1/2012	1001	2000	\$32.87	<u>7A</u>	<u>3I</u>	
Step 3	Window Washer, Cleaner/Western WA/Registered Prior to 6/1/2012	2001	3000	\$32.87	<u>7A</u>	<u>3I</u>	
Step 4	Window Washer, Cleaner/Western WA/Registered Prior to 6/1/2012	3001	4000	\$32.87	<u>7A</u>	<u>3I</u>	
Step 1	Window Washer, Cleaner/Western WA/Registered On or After 6/1/2012	1	1000	\$29.75	<u>7A</u>	<u>3I</u>	
Step 2	Window Washer, Cleaner/Western WA/Registered On or After 6/1/2012	1001	2000	\$32.87	<u>7A</u>	<u>3I</u>	
Step 3	Window Washer, Cleaner/Western WA/Registered On or After 6/1/2012	2001	3000	\$32.87	<u>7A</u>	<u>3I</u>	
Step 4	Window Washer, Cleaner/Western WA/Registered On or After 6/1/2012	3001	4000	\$32.87	<u>7A</u>	<u>3I</u>	
Step 5	Window Washer, Cleaner/Western WA/Registered On or After 6/1/2012	4001	5000	\$32.87	<u>7A</u>	<u>3I</u>	
Step 6		5001	6000	\$32.87	<u>7A</u>	<u>3I</u>	

	Window Washer, Cleaner/Western WA/Registered On or After 6/1/2012					
Step 1	Laborer/Western WA/Registered Prior to 6/1/2012	1	1000	\$29.75	<u>7A</u>	<u>3I</u>
Step 2	Laborer/Western WA/Registered Prior to 6/1/2012	1001	2000	\$32.98	<u>7A</u>	<u>3I</u>
Step 3	Laborer/Western WA/Registered Prior to 6/1/2012	2001	3000	\$36.21	<u>7A</u>	<u>3I</u>
Step 4	Laborer/Western WA/Registered Prior to 6/1/2012	3001	4000	\$39.44	<u>7A</u>	<u>3I</u>
Step 1	Laborer/Western WA/Registered On or After 6/1/2012	1	1000	\$29.75	<u>7A</u>	<u>3I</u>
Step 2	Laborer/Western WA/Registered On or After 6/1/2012	1001	2000	\$32.98	<u>7A</u>	<u>3I</u>
Step 3	Laborer/Western WA/Registered On or After 6/1/2012	2001	3000	\$36.21	<u>7A</u>	<u>3I</u>
Step 4	Laborer/Western WA/Registered On or After 6/1/2012	3001	4000	\$37.83	<u>7A</u>	<u>3I</u>
Step 5	Laborer/Western WA/Registered On or After 6/1/2012	4001	5000	\$39.44	<u>7A</u>	<u>3I</u>
Step 6	Laborer/Western WA/Registered On or After 6/1/2012	5001	6000	\$41.06	<u>7A</u>	<u>3I</u>

State of Washington
 Department of Labor & Industries
 Prevailing Wage Section - Telephone 360-902-5335
 PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Apprentice Level Prevailing Wage Rates for Snohomish County and Laborers - Underground Sewer & Water Trade for the Effective Date: 2/2/2015

<u>Step</u>	<u>Occupation</u>	<u>Begin Hours</u>	<u>End Hours</u>	<u>Apprentice Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>
Step 1	Laborers Underground Sewer/Western WA/Registered Prior to 6/1/2012	1	1000	\$29.75	<u>7A</u>	<u>3I</u>	
Step 2	Laborers Underground Sewer/Western WA/Registered Prior to 6/1/2012	1001	2000	\$32.98	<u>7A</u>	<u>3I</u>	
Step 3	Laborers Underground Sewer/Western WA/Registered Prior to 6/1/2012	2001	3000	\$36.21	<u>7A</u>	<u>3I</u>	
Step 4	Laborers Underground Sewer/Western WA/Registered Prior to 6/1/2012	3001	4000	\$39.44	<u>7A</u>	<u>3I</u>	
Step 1	Laborers Underground Sewer/Western WA/Registered On or After 6/1/2012	1	1000	\$29.75	<u>7A</u>	<u>3I</u>	
Step 2	Laborers Underground Sewer/Western WA/Registered On or After 6/1/2012	1001	2000	\$32.98	<u>7A</u>	<u>3I</u>	
Step 3	Laborers Underground Sewer/Western WA/Registered On or After 6/1/2012	2001	3000	\$36.21	<u>7A</u>	<u>3I</u>	
Step 4	Laborers Underground Sewer/Western WA/Registered On or After 6/1/2012	3001	4000	\$37.83	<u>7A</u>	<u>3I</u>	
Step 5	Laborers Underground Sewer/Western WA/Registered On or After 6/1/2012	4001	5000	\$39.44	<u>7A</u>	<u>3I</u>	
Step 6		5001	6000	\$41.06	<u>7A</u>	<u>3I</u>	

	Laborers Underground Sewer/Western WA/Registered On or After 6/1/2012						
--	--	--	--	--	--	--	--

State of Washington
 Department of Labor & Industries
 Prevailing Wage Section - Telephone 360-902-5335
 PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Apprentice Level Prevailing Wage Rates for Snohomish County and Plumbers & Pipefitters Trade for the Effective Date: 2/2/2015

<u>Step</u>	<u>Occupation</u>	<u>Begin Hours</u>	<u>End Hours</u>	<u>Apprentice Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>
Step 1	Plumber/Zone 1,2,3,5,6 & 7	1	1000	\$36.12	<u>5A</u>	<u>1G</u>	
Step 2	Plumber/Zone 1,2,3,5,6 & 7	1001	2000	\$38.66	<u>5A</u>	<u>1G</u>	
Step 3	Plumber/Zone 1,2,3,5,6 & 7	2001	3000	\$41.80	<u>5A</u>	<u>1G</u>	
Step 4	Plumber/Zone 1,2,3,5,6 & 7	3001	4000	\$44.39	<u>5A</u>	<u>1G</u>	
Step 5	Plumber/Zone 1,2,3,5,6 & 7	4001	5000	\$47.00	<u>5A</u>	<u>1G</u>	
Step 6	Plumber/Zone 1,2,3,5,6 & 7	5001	6000	\$49.60	<u>5A</u>	<u>1G</u>	
Step 7	Plumber/Zone 1,2,3,5,6 & 7	6001	7000	\$52.19	<u>5A</u>	<u>1G</u>	
Step 8	Plumber/Zone 1,2,3,5,6 & 7	7001	8000	\$54.79	<u>5A</u>	<u>1G</u>	
Step 9	Plumber/Zone 1,2,3,5,6 & 7	8001	10000	\$57.39	<u>5A</u>	<u>1G</u>	
Step 1	Steamfitter	1	1000	\$36.12	<u>5A</u>	<u>1G</u>	
Step 2	Steamfitter	1001	2000	\$38.66	<u>5A</u>	<u>1G</u>	
Step 3	Steamfitter	2001	3000	\$41.80	<u>5A</u>	<u>1G</u>	
Step 4	Steamfitter	3001	4000	\$44.39	<u>5A</u>	<u>1G</u>	
Step 5	Steamfitter	4001	5000	\$47.00	<u>5A</u>	<u>1G</u>	
Step 6	Steamfitter	5001	6000	\$49.60	<u>5A</u>	<u>1G</u>	
Step 7	Steamfitter	6001	7000	\$52.19	<u>5A</u>	<u>1G</u>	
Step 8	Steamfitter	7001	8000	\$54.79	<u>5A</u>	<u>1G</u>	

Step 9	Steamfitter	8001	10000	\$57.39	<u>5A</u>	<u>1G</u>	
--------	-------------	------	-------	---------	-----------	-----------	--

State of Washington
 Department of Labor & Industries
 Prevailing Wage Section - Telephone 360-902-5335
 PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Apprentice Level Prevailing Wage Rates for Snohomish County and Power Equipment Operators Trade for the Effective Date: 2/2/2015

<u>Step</u>	<u>Occupation</u>	<u>Begin Hours</u>	<u>End Hours</u>	<u>Apprentice Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>
Step 1	Constr Equip Operator/Northwest and Central WA	1	1000	\$41.40	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 2	Constr Equip Operator/Northwest and Central WA	1001	2000	\$43.25	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 3	Constr Equip Operator/Northwest and Central WA	2001	3000	\$45.10	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 4	Constr Equip Operator/Northwest and Central WA	3001	4000	\$46.94	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 5	Constr Equip Operator/Northwest and Central WA	4001	5000	\$50.64	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 6	Constr Equip Operator/Northwest and Central WA	5001	6000	\$52.48	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 1	Heavy Duty Repair Mechanic/Northwest and Central WA	1	1000	\$41.40	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 2	Heavy Duty Repair Mechanic/Northwest and Central WA	1001	2000	\$43.25	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 3	Heavy Duty Repair Mechanic/Northwest and Central WA	2001	3000	\$45.10	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 4		3001	4000	\$46.94	<u>7A</u>	<u>3C</u>	<u>8P</u>

	Heavy Duty Repair Mechanic/Northwest and Central WA						
Step 5	Heavy Duty Repair Mechanic/Northwest and Central WA	4001	5000	\$50.64	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 6	Heavy Duty Repair Mechanic/Northwest and Central WA	5001	6000	\$52.48	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 1	Hoisting Engineer/Northwest and Central WA	1	1000	\$41.40	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 2	Hoisting Engineer/Northwest and Central WA	1001	2000	\$43.25	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 3	Hoisting Engineer/Northwest and Central WA	2001	3000	\$45.10	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 4	Hoisting Engineer/Northwest and Central WA	3001	4000	\$46.94	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 5	Hoisting Engineer/Northwest and Central WA	4001	5000	\$50.64	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 6	Hoisting Engineer/Northwest and Central WA	5001	6000	\$52.48	<u>7A</u>	<u>3C</u>	<u>8P</u>

State of Washington
 Department of Labor & Industries
 Prevailing Wage Section - Telephone 360-902-5335
 PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Apprentice Level Prevailing Wage Rates for Snohomish County and Power Equipment Operators- Underground Sewer & Water Trade for the Effective Date: 2/2/2015

<u>Step</u>	<u>Occupation</u>	<u>Begin Hours</u>	<u>End Hours</u>	<u>Apprentice Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>
Step 1	Constr Equip Operator/Northwest and Central WA	1	1000	\$41.40	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 2	Constr Equip Operator/Northwest and Central WA	1001	2000	\$43.25	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 3	Constr Equip Operator/Northwest and Central WA	2001	3000	\$45.10	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 4	Constr Equip Operator/Northwest and Central WA	3001	4000	\$46.94	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 5	Constr Equip Operator/Northwest and Central WA	4001	5000	\$50.64	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 6	Constr Equip Operator/Northwest and Central WA	5001	6000	\$52.48	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 1	Heavy Duty Repair Mechanic/Northwest and Central WA	1	1000	\$41.40	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 2	Heavy Duty Repair Mechanic/Northwest and Central WA	1001	2000	\$43.25	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 3	Heavy Duty Repair Mechanic/Northwest and Central WA	2001	3000	\$45.10	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 4		3001	4000	\$46.94	<u>7A</u>	<u>3C</u>	<u>8P</u>

	Heavy Duty Repair Mechanic/Northwest and Central WA						
Step 5	Heavy Duty Repair Mechanic/Northwest and Central WA	4001	5000	\$50.64	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 6	Heavy Duty Repair Mechanic/Northwest and Central WA	5001	6000	\$52.48	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 1	Hoisting Engineer/Northwest and Central WA	1	1000	\$41.40	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 2	Hoisting Engineer/Northwest and Central WA	1001	2000	\$43.25	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 3	Hoisting Engineer/Northwest and Central WA	2001	3000	\$45.10	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 4	Hoisting Engineer/Northwest and Central WA	3001	4000	\$46.94	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 5	Hoisting Engineer/Northwest and Central WA	4001	5000	\$50.64	<u>7A</u>	<u>3C</u>	<u>8P</u>
Step 6	Hoisting Engineer/Northwest and Central WA	5001	6000	\$52.48	<u>7A</u>	<u>3C</u>	<u>8P</u>