

BOARD OF SUPERVISORS AGENDA ITEM SUMMARY

Requested Board Meeting Date: May 6, 2014

ITEM SUMMARY, JUSTIFICATION and/or SPECIAL CONSIDERATIONS:

Amendment #2, contract #CT-WW-14000000000000000173, Westland Resources, Inc., to provide Southeast Interceptor Augmentation – Feasibility Study Alignment Study and Design. This amendment adds the requirements of a basin study, sewer augmentation, and alignment study for the Old Nogales Interceptor, a tributary to the Southeast Interceptor, increases the contract amount by \$168,689.00 and extends the contract expiration date by six months. Funding source: RWRD Obligations Administering Department: Regional Wastewater Reclamation Department.

On August 19, 2013 the BOS awarded up to \$500,000.00 for completion of all phases of the Southeast Interceptor (SEI) Augmentation – Feasibility Study Alignment and Design project. The project is currently in the initial study and alignment phase with the design phase to be added at a later date. Because of anticipated additional flows from the Arizona State Prison complex, Verano, and the Aerospace Corridor, study of the effects on the Old Nogales Interceptor (ONI a tributary to the SEI) and subsequent impact to the SEI was conducted. This study indicated that further augmentation and possible realignment of the ONI was required. By this amendment RWRD requests an increase of the original BOS award to a not to exceed amount of \$689,689.00 for completion of this work for both the ONI and SEI.

Effective Date: May 6, 2014

Termination Date: April 30, 2015

Original Contract Amount: \$207,833.00

Previous Amendment(s): \$28,952.00

Previous Contract Amount: \$236,785.00

Amount this Amendment: \$168,689.00

Revised Contract Amount: \$405,474.00

Project Manager: Greg Hitt

Contract Officer: Jerome Rizzo, 724-3245
Procurement Department

CT-WW-14#173-02
~~05-06-2014~~
~~04-30-2015~~
~~\$168,689.00~~
~~\$168,689.00~~
~~\$405,474.00~~
 Renewal: Yes
 Term: 01-01-2015
05-06-2015

Vendor is using a Social Security Number: No

AMS# CT-WW-14000000000000000173, Ver. 3

Please return to Harry Lewis.

Vers-3
Vendor 1

Pgs. 12 (1) ^{of}

CLERK OF THE BOARD USE ONLY: BOS MTG.

ITEM No.

To CoB: 4.23.14
Agenda: 5-6-14

C

PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT		<table border="1"> <tr><td style="text-align: center;">CONTRACT</td></tr> <tr><td><i>NO. CT-WW-140000000000000000173</i></td></tr> <tr><td>AMENDMENT NO. <u>02</u></td></tr> <tr><td>This number must appear on all invoices, correspondence and documents pertaining to this contract.</td></tr> </table>	CONTRACT	<i>NO. CT-WW-140000000000000000173</i>	AMENDMENT NO. <u>02</u>	This number must appear on all invoices, correspondence and documents pertaining to this contract.
CONTRACT						
<i>NO. CT-WW-140000000000000000173</i>						
AMENDMENT NO. <u>02</u>						
This number must appear on all invoices, correspondence and documents pertaining to this contract.						
PROJECT:	SOUTHEAST INTERCEPTOR AUGMENTATION – FEASIBILITY STUDY ALIGNMENT STUDY AND DESIGN					
CONSULTANT:	Westland Resources, Inc.					
CONTRACT NO.:	CT-WW-140000000000000000173					
AMENDMENT NO.:	Two (2)					
FUNDING:	RWRD Obligations					

CONTRACT TERM: 08/19/13 - 10/31/14	ORIGINAL CONTRACT AMOUNT:	\$	207,833.00 ✓
TERMINATION PRIOR AMENDMENT: 10/31/14	PRIOR AMENDMENT(S):	\$	28,952.00 ✓
TERMINATION THIS AMENDMENT: 04/30/15	AMOUNT THIS AMENDMENT:	\$	168,689.00
	REVISED CONTRACT AMOUNT:	\$	405,474.00

CONTRACT AMENDMENT

WHEREAS, COUNTY and CONSULTANT have entered into the Contract referenced above; and

WHEREAS, the project is divided into phases; and

WHEREAS, the parties previously agreed on scope and cost for Phase 1 - Feasibility Study and Alignment Report; and

WHEREAS, under Contract Amendment No. 1 the parties included in this Phase 1 the study of the Old Nogales Interceptor (ONI) a tributary to the Southeast Interceptor (SEI) sewer; and

WHEREAS, as a result of this study of the ONI it has been determined that future flows from the Arizona State Prison Complex, Verano, and the Aerospace Corridor may further impact the ONI and subsequently the SEI and that further investigation as to a basin study, an augmentation study, and an alternate alignment study of the ONI is required; and

WHEREAS, the parties have agreed on scope and cost for this additional work; and

WHEREAS, the cost of this ONI work will be in addition to the original Board of Supervisors award on August 19, 2013 for the SEI project; and

WHEREAS, the additional ONI work will extend the project completion date by six months.

NOW, THEREFORE, it is agreed as follows:

CHANGE: ARTICLE III – COMPENSATION AND PAYMENT, first paragraph:

From: "In consideration of the services specified in this Contract, the COUNTY agrees to pay CONSULTANT Not To Exceed Two Hundred Thirty Six Thousand Seven Hundred Eighty Five Dollars (\$236,785.00) during the term of the contract..."

To: "In consideration of the services specified in this Contract, the COUNTY agrees to pay CONSULTANT Not To Exceed Four Hundred Five Thousand Four Hundred Seventy Four Dollars (\$405,474.00) during the term of the contract..."

ADD: to EXHIBIT "A" – SCOPE OF WORK, ATTACHMENT 2 TO EXHIBIT "A" Additional Scope of Services Southeast Interceptor Augmentation 3SEI13 (5 pages)

ADD: to EXHIBIT "B" – TASK SUMMARY, ATTACHMENT 1 TO EXHIBIT "B" (5 pages)

This Amendment shall be effective on May 5, 2014.

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All other provisions of the Contract, not specifically changed by this amendment, shall remain in effect and be binding upon the parties.

IN WITNESS WHEREOF, the parties have affixed their signatures to this amendment on the dates written below.

APPROVED:

Chair, Board of Supervisors

Date

CONTRACTOR:



Signature

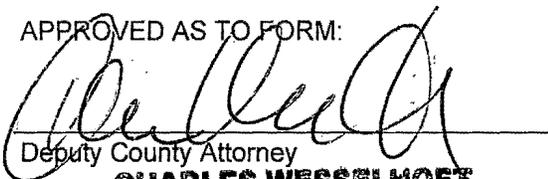
Mark F. Taylor, Vice-President
Name and Title (Please Print)

4-11-14
Date

ATTEST:

Clerk of the Board

APPROVED AS TO FORM:



Deputy County Attorney
CHARLES WESSELHOFF

Name (Please Print)

4-3-14
Date

Additional Scope of Services
Southeast Interceptor Augmentation

3SEI13

REVIEW OF EXISTING BACKGROUND INFORMATION

The Consultant shall review and become familiar with information on the portion of the Old Nogales Interceptor (ONI) beginning at Euclid Avenue and 36th Street to the most upstream point at Old Nogales Highway and Hughes Access Road. Additionally, the consultant shall consider potential future gravity sewer alignments that would extend the ONI to Wilmot Road and Old Vail Connection Road. Such information may include existing flows, proposed flows (AZ State Prison, Verano, and the Aerospace Corridor as previously defined), alignments, pipe sizes, and elevation data. For this level of investigation, the Consultant shall review the need for public right-of-way or easements, identify utility conflicts, and any other information the Consultant considers relevant to establish the alignment and augmentation needs of the ONI.

The Consultant will be tasked with:

- **Conducting a sewer basin study to determine the physical service limits of the proposed ONI and Aerospace Corridor Sewer. The sewer main will be designed to serve the State Prison Complex, Verano and the Aerospace Corridor. The basin to be defined will show what areas could flow to the proposed route. No flows are to be determined for basin areas outside the ones identified (Aerospace Corridor, State Prison and Verano);**
- **Conducting an augmentation study of the existing ONI to determine pipe sizes and route if a new route is required;**
- **Conducting an alignment study to determine the alignment of a new gravity sewer to serve the Aerospace Corridor and State Prison Complex**

The ONI flows into the Southeast Interceptor (SEI) at the intersection of Euclid Avenue and 36th Street. Significant growth has been identified to occur in areas that are tributary to the ONI, known as the Aerospace and Defense Corridor. Any future alignments or flows within the ONI basin would have an impact on the SEI and the area being evaluated.

Section 2 - Project Management

This task includes management functions for all activities of the project. The Consultant shall provide a Project Manager (CPM) who will be in charge of all activities of the project. The CPM will allocate the Consultant's resources and establish all internal staff responsibilities. RWRD will assign a Project Manager (PM) who will serve as the Consultant's primary contact.

Task 2.1.0 – Meetings, Progress Reports and Scheduling

Subtask 2.1.1 - Progress Meetings, Gate Meetings, and Progress Reports

The Consultant shall schedule and facilitate progress meetings on a monthly basis to review work progress, solicit comments, request information and discuss expectations for remaining work. The Consultant will prepare progress reports for each monthly meeting detailing work accomplishments for the preceding month(s) and expectations for the upcoming months.

Consultant shall be available to attend RWRD Gate Meetings to answer technical questions relating to the project design.

Deliverable 2.1.1 - The Consultant shall prepare an updated project schedule, meeting agenda and minutes of the Progress Meeting for distribution to the attendees within five (5) working days of the meeting. The Consultant shall prepare a Progress Report to be delivered at the Progress Meeting.

Subtask 2.1.2 - Scheduling

The Consultant shall provide RWRD with a project schedule developed in MS Project 2003 (or compatible) of all planned project tasks, activities, deliverables and completion dates. The project schedule shall include critical milestones for each task and identify the critical path. For scheduling purposes, the review period allotted for RWRD is two weeks.

Deliverable 2.1.2 - The Consultant shall submit a project schedule with the submission of this scope amendment and an updated project schedule at the Progress Meeting(s).

Section 3 - Project Communication

Project communication shall be conducted by e-mail or written correspondence to maintain a clear record of decision. The PM shall receive all e-mail correspondence and shall be copied where a third party is being contacted by the Consultant. Hard copies of official and other signed documents may be delivered directly to the PM or may be mailed. Telephone correspondence is acceptable only when followed immediately by an e-mail detailing the discussion.

Section 4 - Quality Assurance /Quality Control

The Consultant will perform internal Quality Assurance and Quality Control (QA/QC) measures for all submittals to RWRD. The Consultant shall identify the QA/QC Staff that will provide guidance on project methodology, criteria, review of project deliverables, and perform checks of engineering calculations. At a minimum, QA/QC staff shall consist of a senior level engineer experienced in sewer planning, design and construction methods. Other QA/QC staff, not involved in the day-to-day project activities, can be used on an as needed basis.

The Consultant has total responsibility for the accuracy, timeliness and completeness of the work and documents furnished. The CPM will review the submittals to determine if quality control procedures are being applied and if they are adequate and appropriate for the work presented.

Deliverables shall be accompanied by a QA/QC review stamp, with a signature and date space for the document author and the QA/QC responsible party. Additional QA/QC documentation may be in the form of copies of appropriate deliverables lists, tables, checklists, etc. which show columns for checking, revision, re-checking, and quality control reviews, as appropriate.

Submittals to RWRD, not accompanied by the QA/QC Stamp, which verifies the use of quality control procedures, shall be returned to the Consultant. Documentation of the application of quality control procedures will be a requisite element of each review submittal.

Section 5 - Feasibility Study and Alignment Report

Task 5.1.0 - Review of Existing Background Information

Subtask 5.1.1 - Real Property Investigation

To evaluate the feasibility of each proposed alignment, the Consultant will investigate conditions and use of public rights-of-way and ownership of properties containing possible easements. If it is found that a preferred alignment is not a feasible alignment due to any Real Property issue, the

Consultant will provide guidance on the steps required to obtain a final selected alignment for this project. The Consultant will confer with the PM, who will coordinate discussion with PC Real Property Division to verify all Real Property requirements and to facilitate property or easement acquisition.

Deliverable 5.1.2 -The Consultant will develop a Real Property Report to address Real Property requirements. This report will include recommendations related to needed easements and/or real property acquisitions for the proposed alignment(s). The Real Property Report will become a section within the Alignment Study Report. The Real Property Report will be submitted in draft form to the PM for staff and Pima County Real Property Division review and approval.

Subtask 5.1.3 - Permitting

The Consultant shall identify any permits and environmental clearances required for the proposed interceptor alignment(s), as well as the estimated time frames for approvals. The Consultant shall include a summary of all permits and environmental clearances in the Alignment Study Report.

Subtask 5.1.4 - Existing Utilities

The Consultant will be responsible for researching or contacting all utilities to determine the location of existing public and private utilities and provide, as accurately as possible, utility locations in the proposed alignment plans. All utilities will be designated, located, and mapped according to ASCE Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data (CI/ASCE 38-02) commonly referred to as a Subsurface Utility Engineering (SUE) survey. A utility investigation is required for the proposed alignment(s). The investigation will include copies of all communications conducted with utilities, including letters of clearance.

For the Feasibility Study and Alignment Report it is expected that only quality level "D" and "C" will be needed. This will establish the utility locations for determining conflicts and allow these to be considered in the evaluation of the proposed routes. A SUE survey will not be required for the Feasibility Study and Alignment Report but will be required for the Design of the sewer main which is outside this scope of work.

Quality level "D": Information derived from existing records or oral recollections.

Quality level "C": Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to quality level D information.

Subtask 5.1.5 – Neighborhood Homeowners Associations and Historic Districts

The Consultant will be responsible for researching and identifying all Neighborhood Homeowners Associations and Historic Districts. This task includes listing names and telephone numbers of current neighborhood representatives.

Subtask 5.1.6 – Existing Improvements and Landscaping

The Consultant will be responsible for assessing the type and extent of existing improvements and landscaping potentially disturbed by construction within the proposed alignment(s). The Consultant will identify improvements and landscaping that are to be replaced by RWRD within the proposed alignment(s).

Task 5.2.0 - Alignment Report

The Alignment Report will include the subtasks as outlined below and be completed for each alternative alignment. Background information and any previously completed reports that will assist with the evaluation will be included in the Alignment Report as appendix information. The Alignment Report will be produced in a final draft format, and submitted to RWRD for review and comment prior to completing the final report. The Consultant shall provide six (6) printed copies with one (1) digital copy of the Alignment Report for draft and final reviews.

Subtask 5.2.1 – Evaluation of Proposed Sewer Alignments

The Consultant shall identify any potentially adverse conditions or significant obstacles to the design, construction, and operation of each augmentation sewer alignment and evaluate the feasibility of each alternative alignment. A minimum of three alignments shall be thoroughly reviewed and included within this evaluation.

The Consultant shall include the following items of concern in their evaluation. This list is not meant to exclude consideration of any additional relevant items identified by the Consultant during the course of the evaluation.

- Review the proposed alignment(s) for feasibility in terms of standard engineering practice, constructability, Operation & Maintenance and requirements for special structures.
- Review the potential permanent and temporary easement requirements for the alternative alignment(s).
- Review alternative alignment(s) for adverse conditions or significant obstacles resulting from railroad crossings, City of South Tucson/City of Tucson right-of-way, utility conflicts, proposed development, and any other obstacles identified by the Consultant.

Deliverable 5.2.1 - The Consultant shall prepare an **Alignment Report**. This report shall include exhibit(s), and plan(s) for each proposed alignment at 1:100 scale. The plan view aerial background will have 2-foot contours and identify the locations of any adverse conditions, significant obstacles, or other items of concern along the proposed alignment(s). The figures shall include the proposed gravity sewer interceptor and potential easements associated therewith. The consultant shall identify the alignments in order of probability and will summarize the reasoning for their probability order for RWRD review and approval. Preliminary selection shall occur during this task, in order to move forward with the hydraulic analysis.

The Consultant shall prepare and include a decision and probability matrix within the Alignment Report. The decision and probability matrix shall review each proposed alignment, showing all of the positive and negative factors associated with each proposed alignment. Each factor identified in the report shall be weighted by risk or value and totaled to help establish a preferred alignment. RWRD and the Consultant shall jointly establish the factors and weighting of the variables with RWRD having the final decision of the factors and weighting.

Subtask 5.2.2 - Hydraulic Analysis

The Consultant shall perform a preliminary hydraulic analysis for each proposed alignment(s). The hydraulic analysis shall verify the hydraulic profile, pipe length and pipe size based on projected flows to be obtained from the PM.

The Consultant shall include the preliminary hydraulic analysis, findings and flow characteristics in the Alignment Report.

Subtask 5.2.3 - Project Cost and Schedule

For all alignment alternative(s), the Consultant shall estimate the dollar cost of the identified alignment(s) taking into consideration potentially adverse conditions or significant obstacles as they relate to design, permitting, environmental clearances, right-of-way use, easement acquisition, and construction. The Consultant shall include a summary of probable cost for alignment alternative(s) in the Alignment Report.

Subtask 5.2.4 - Conclusions and Recommendations Summary

The Consultant shall document their conclusions in the Alignment Report. In particular, the Consultant shall identify those features of the proposed alignment(s) that may involve adverse conditions or significant obstacles to the timely completion of an interceptor. Based on the conclusions of the Alignment Report, the Consultant shall recommend appropriate actions to increase the probability of the successful implementation and construction of the project.

Deliverable 5.2.4 - The Consultant shall prepare a section in the Alignment Report summarizing conclusions and recommendations. The Alignment Report shall clearly define the basis on which the Consultant's recommendations are made. Upon completing the final version of the Alignment Report, the Consultant shall combine the Alignment Report and all supporting documentation into a single, bound report. This Alignment Report will be titled, "Southeast Interceptor Augmentation Euclid Avenue from 36th Street to 18th Street." The Consultant shall provide RWRD with six (6) printed copies with one (1) digital copy of the report.

Subtask 5.2.5 - Department Approval / Documentation

Consultant shall review the final Alignment Report, and all generated background information with RWRD. The Consultant will be provided the final alignment selection and approval documentation from the RWRD team to be included as an appendix to the report document by the Consultant.



WestLand Resources, Inc.
Engineering and Environmental Consultants

March 21, 2014

Mr. Greg Hitt, P.E.
Capital Planning Manager
PIMA COUNTY REGIONAL WASTEWATER
RECLAMATION DEPARTMENT
201 North Stone Ave, 3rd Floor
Tucson, AZ 85701

Re: **OLD NOGALES INTERCEPTOR AUGMENTATION – AEROSPACE CORRIDOR
FEASIBILITY STUDY AND ALIGNMENT STUDY
AMENDMENT TO PCRWRD PROJECT 3SEI13
WESTLAND PROJECT 1398.03**

Dear Mr. Hitt:

WestLand Resources, Inc. (WestLand) is pleased to provide the scope of work for the Old Nogales Interceptor (ONI) Augmentation and Aerospace Corridor Feasibility Alignment Study. The attached proposed scope of work is redlined to provide the scope for the entire project amendment. In addition, an electronic file will be sent for your use.

As an amendment to the SEI Alignment Study and Design project, WestLand was asked to provide a scope and fee for the Feasibility Study and Alignment Report for the ONI Augmentation and the Aerospace Corridor.

WestLand will be utilizing the same rate schedule as previously submitted for the SEI project. Attached please find the scope of work, fee breakdown and schedule for the ONI-Aerospace Corridor Feasibility Study and Alignment Report. The cost for the Feasibility Study and Alignment Report is \$168,689. The original contract value is \$500,000. The total contract value with this amendment is as shown in *Table 1* below.

Table 1. Total Costs

Original contract amount	\$500,000
Amendment for ONI-Aerospace Corridor Study	\$168,689
Total Revised Contract Cost	\$668,689

Should you have any questions please feel free to contact me at (520) 206-9585.

Respectfully,
WestLand Resources, Inc.



Craig Cannizzaro, P.E.
Senior Project Manager

CXC:emr

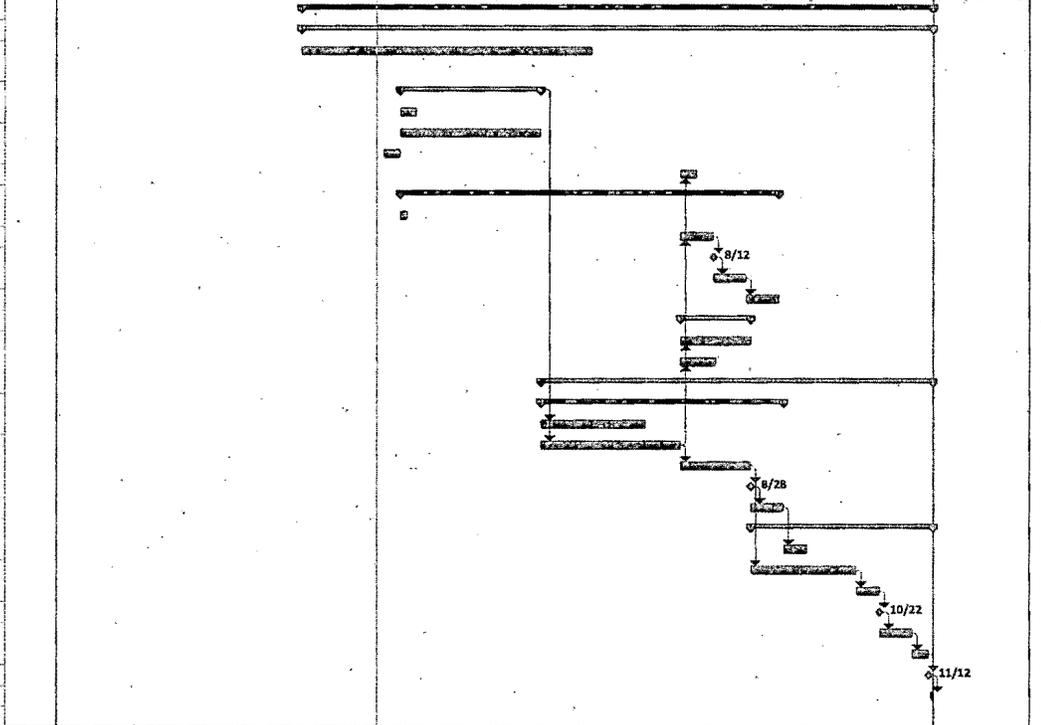
Enclosure: Proposed Redlined Scope of Work
Proposed Schedule
Proposed Fee

TASK SUMMARY

	Task Name	Task Manager	Labor	Direct Expenses	Subcontractors	Task Total
Task 1:	Project Management/Communication	0	17,390	112	11,681	29,183
Task 2:	Feasibility-Alignment Study	0	87,560	1,346	50,600	139,506
Task 3:	0	0	0	0	0	0
Task 4:	0	0	0	0	0	0
Task 5:	0	0	0	0	0	0
Task 6:	0	0	0	0	0	0
Task 7:	0	0	0	0	0	0
Task 8:	0	0	0	0	0	0
Task 9:	0	0	0	0	0	0
Task 10:	0	0	0	0	0	0
Task 11:	0	0	0	0	0	0
Task 12:	0	0	0	0	0	0
Task 13:	0	0	0	0	0	0
Task 14:	0	0	0	0	0	0
Task 15:	0	0	0	0	0	0
PROJEC T			104,950	1,458	62,281	168,689

ber 1 November 1 December 1 January 1 February 1 March 1 April 1 May 1 June 1 July 1 August 1 September 1 October 1 November 1 December 1
 10/13/10/27/11/10/11/24/12/8/12/22/ 1/5 /1/19/ 2/2 /2/16/ 3/2 /3/16/ 3/30/4/13/4/27/5/11/5/25/ 6/8 /6/22/ 7/6 /7/20/ 8/3 /8/17/ 8/31 /9/14 /9/28/10/12/10/26/ 11/9 /11/23/ 12/7/ 11/

1	ONI Augmentation Feasibility Study and Alignment Report
2	Review of Existing Background Information
3	Review of Existing Flows, Alignments, Manholes, Pipe Sizes, Elevation Data, and Future Development
4	Existing Utilities
5	Contact all Utilities
6	Review and Compile Existing Data
7	Neighborhood Homeowners Associations and Historic Districts
8	Existing Improvements and Landscaping
9	Real Property Investigation
10	Define property ownerships
11	Review property requirements with alignments
12	Submit Draft Real Property Report for review
13	PCRWRD Review and Comment
14	Prepare Final Real Property Report
15	Permitting
16	Cultural Survey of Proposed Alignments
17	Environmental Review
18	Alignment Report
19	Prepare Preliminary Alignment Report
20	Develop Decision & Probability Matrix
21	Develop Alignment Alternatives
22	Review Alternatives Using Matrix
23	Submit Preliminary Alignment Report
24	PCRWRD Review and Comment
25	Prepare Final Alignment Report
26	Hydraulic Analysis
27	Project Cost and Schedule
28	Conclusions and Recommendations Summary
29	Submit Draft Final Alignment Report
30	PCRWRD Review and Comment
31	Prepare Final Alignment Report
32	Submit Final Alignment Report
33	Final Alignment Report Review Meeting
34	



Project: SEI Project Schedule Date: Fri 3/21/14	Task	External Tasks	Manual Task	Finish-only	Progress
	Split	External Milestone	Duration-only	Deadline	
	Milestone	Inactive Task	Manual Summary Rollup	Baseline	
	Summary	Inactive Milestone	Manual Summary	Baseline Milestone	
	Project Summary	Inactive Summary	Start-only	Baseline Summary	

Project Name: ONI Augmentation Study
 Task: Project Management/Communication
 Client:
 Project Manager: CC
 Task Manager:
 Code: 2011

Sub Task ID

- 1
- 2 Monthly Progress Meetings
- 3 Scheduling
- 4 QA/QC
- 5
- 6
- 7

Staff Type	Hourly Rate	Total Hours	Total Billings	Hours and Costs By Task							
				1	2	3	4	5	6	7	
Principal Consultant-G17	\$165.00	22	\$3,630		10	4	8				
Engin-Sr Proj Eng Sr PM-G16	\$155.00	52	\$8,060		20	8	24				
Const-Const. Inspector-G15	\$145.00	0	\$0								
Desig-Civil Designer-G13	\$120.00	0	\$0								
Desig-Civil Designer-G11	\$100.00	0	\$0								
Admin-Tech Edtr Admin Ast-G08	\$75.00	28	\$2,100		20		8				
Desig-GIS Spc Cartographer-G10	\$90.00	40	\$3,600		20	20					
Engin-Engineering Tech-G10	\$90.00	0	\$0								
	\$0.00	0	\$0								
	\$0.00	0	\$0								
Culta-Prin Invlgtr Proj Mgr-G11	\$100.00	0	\$0								
Culta-Prng Dir Sr PE Sr PM-G17	\$165.00	0	\$0								
Surveyor-G10	\$90.00	0	\$0								
Survey Field Crew-G06	\$60.00	0	\$0								
	\$0.00	0	\$0								
TOTAL COST - LABOR		142	\$17,390	\$0	\$8,050	\$3,700	\$5,640	\$0	\$0	\$0	\$0

Direct Expenses

Item	\$/Unit	Unit									
Printer/Copier - Black & White 8.5 x 11	\$0.06	copy	\$16		100	50	120				
Printer/Copier - Black & White 11 x 17	\$0.13	copy	\$0								
Printer/Copier - Colored 8.5 x 11	\$0.81	copy	\$0								
Printer/Copier - Colored 11 x 17	\$1.62	copy	\$81		50						
Printer/Copier - Photo Quality (photo paper) 8.5 x 11	\$3.90	copy	\$0								
Printer/Copier - Photo Quality (photo paper) 11 x 17	\$7.79	copy	\$0								
Plotter - Black & White 24 x 36	\$0.60	sheet	\$0								
Plotter - Line Color 24 x 36	\$12.00	sheet	\$0								
Plotter - Full Color 24 x 36	\$24.00	sheet	\$0								
Plotter - Photo Quality 24 x 36	\$36.00	sheet	\$0								
Plotter - Full Color 36 x 48	\$48.00	sheet	\$0								
SPOT Tracker	\$10.00	day	\$0								
Total Station-Surveying Equipment	\$60.00	day	\$0								
Vehicle - Polaris	\$117.00	day	\$0								
Vehicle Rental	\$82.00	day	\$0								
Vehicle Rental (Large 4WD/Specialty)	\$105.00	day	\$0								
Water Truck	\$65.00	hour	\$0								
Direct Expense Subtotal			\$97	\$0	\$87	\$3	\$7	\$0	\$0	\$0	\$0
G & A Fee	0.15		\$15	\$0	\$13	\$0	\$1	\$0	\$0	\$0	\$0
TOTAL COST - DIRECT EXPENSES			\$112	\$0	\$100	\$3	\$8	\$0	\$0	\$0	\$0

Subcontract

HDR		\$10,619		\$5,580		\$5,039					
Kaneen		\$0									
Sub 3		\$0									
Subcontract Subtotal		\$10,619	\$0	\$5,580	\$0	\$5,039	\$0	\$0	\$0	\$0	\$0
G & A Fee	0.1	\$1,062	\$0	\$558	\$0	\$504	\$0	\$0	\$0	\$0	\$0
TOTAL COST - SUBCONTRACT		\$11,681	\$0	\$6,138	\$0	\$5,543	\$0	\$0	\$0	\$0	\$0

TOTAL COSTS \$29,183 \$0 \$14,288 \$3,703 \$11,191 \$0 \$0 \$0

Project Name: ONI Augmentation Study
 Task: Feasibility-Alignment Study
 Client:
 Project Manager: CC
 Task Manager:
 Code: 2011

Sub Task ID

- 1 Survey
- 2 Permitting
- 3 Utility Investigation
- 4 Alignment Study and Route options
- 5 Matrix Analysis
- 6 Homeowners Association and Districts
- 7 Cost & Schedule

Staff Type	Hourly Rate	Total Hours	Total Billings	Hours and Costs By Task						
				1	2	3	4	5	6	7
Principal Consultant-G17	\$165.00	44	\$7,260				40	4		
Engin-Sr Proj Eng Sr PM-G16	\$155.00	108	\$16,740				100	8		
Const-Const. Inspector-G15	\$145.00	16	\$2,320							16
Desig-Civil Designer-G13	\$120.00	60	\$7,200				60			
Desig-Civil Designer-G11	\$100.00	160	\$16,000			20	140			
Admin-Tech Editr Admin Ast-G08	\$75.00	40	\$3,000				40			
Desig-GIS Spec Cartographer-G10	\$90.00	254	\$22,860			8	240	6		
Engin-Engineering Tech-G10	\$90.00	0	\$0							
	\$0.00	0	\$0							
	\$0.00	0	\$0							
Culm-Prin Invstgr Proj Mgr-G11	\$100.00	60	\$6,000		60					
Culm-Prgr Dir Sr Pl Sr PM-G17	\$165.00	12	\$1,980		12					
Surveyor-G10	\$90.00	20	\$1,800	20						
Survey Field Crew-G06	\$60.00	40	\$2,400	40						
	\$0.00	0	\$0							
TOTAL COST - LABOR		814	\$87,560	\$4,200	\$7,980	\$2,720	\$67,900	\$2,440	\$0	\$2,320

Direct Expenses

Item	\$/Unit	Unit								
Portable toilet	\$125.00	month	\$0							
Printer/Copier - Black & White 8.5 x 11	\$0.06	copy	\$24				400			
Printer/Copier - Black & White 11 x 17	\$0.13	copy	\$7				50			
Printer/Copier - Colored 8.5 x 11	\$0.81	copy	\$0							
Printer/Copier - Colored 11 x 17	\$1.62	copy	\$0							
Printer/Copier - Photo Quality (photo paper) 8.5 x 11	\$3.90	copy	\$0							
Printer/Copier - Photo Quality (photo paper) 11 x 17	\$7.79	copy	\$0							
Plotter - Black & White 24 x 36	\$0.60	sheet	\$0				100			
Plotter - Line Color 24 x 36	\$12.00	sheet	\$120	10						
Plotter - Full Color 24 x 36	\$24.00	sheet	\$960				40			
Plotter - Photo Quality 24 x 36	\$36.00	sheet	\$0							
Plotter - Full Color 36 x 48	\$48.00	sheet	\$0							
SPOT Tracker	\$10.00	day	\$0							
Total Station-Surveying Equipment	\$60.00	day	\$0							
Vehicle - Polaris	\$117.00	day	\$0							
Vehicle Rental	\$82.00	day	\$0							
Vehicle Rental (Large 4WD/Specialty)	\$105.00	day	\$0							
Water Truck	\$65.00	hour	\$0							
Direct Expense Subtotal			\$1,171	\$120	\$0	\$0	\$1,051	\$0	\$0	\$0
G & A Fee	0.15		\$176	\$18	\$0	\$0	\$158	\$0	\$0	\$0
TOTAL COST - DIRECT EXPENSES			\$1,346	\$138	\$0	\$0	\$1,208	\$0	\$0	\$0

Subcontract

			1	2	3	4	5	6	7
HDR		\$44,000			\$18,000	\$10,000	\$6,000		\$10,000
Kaneen		\$2,000						\$2,000	
Sub 3		\$0							
Subcontract Subtotal		\$46,000	\$0	\$0	\$18,000	\$10,000	\$6,000	\$2,000	\$10,000
G & A Fee	0.1	\$4,600	\$0	\$0	\$1,800	\$1,000	\$600	\$200	\$1,000
TOTAL COST - SUBCONTRACT		\$50,600	\$0	\$0	\$19,800	\$11,000	\$6,600	\$2,200	\$11,000

TOTAL COSTS \$139,506 \$4,338 \$7,980 \$22,520 \$80,108 \$9,040 \$2,200 \$13,320