

**Proposal for Annual Miscellaneous  
Water and Sewer Main Replacements**  
Projects 14-21 and 14-22 Additional Work  
Sewer Main Replacement Crossing Highway 85 and Stevens Creek  
Updated May 27, 2015

Our proposal is divided into two parts: 1) Project Understanding and Approach and 2) Fee Schedule. Each part is presented as follows.

## **Part 1: Project Understanding and Approach**

Part 1 includes the following:

- Project Understanding
- Scope of Services
- Project Team
- Schedule

Each element is described below.

### **Project Understanding**

Design services for additional sewer main replacement is requested for Projects 14-21 and 14-22. Due to the age and condition of the existing 15-inch sewer main crossing under both Stevens Creek and SR 85, replacement is desired. The proposed 18-inch sewer main replacement will extend from the existing 15-inch sewer main in San Leandro Avenue west of SR 85 to the east side of Stevens Creek. A sewer main is also anticipated on the east side of Stevens Creek to provide a connection between the new 18-inch crossing and existing 15-inch sewer main. Following completion of the proposed 18-inch sewer main crossing, the existing 15-inch sewer main or the existing 16-inch sewer main crossing under SR 85 will be abandoned. The City will clean and inspect both existing mains after the proposed 18-inch crossing is constructed. Following inspection, a determination will be made by the City regarding whether the 15-inch main or 16-inch main will be abandoned. The existing sewer main that is not abandoned will function as an emergency bypass.

Encroachment permits will be required from both Caltrans and Santa Clara Valley Water District (SCVWD). Initial meetings between SCVWD and the City indicated that the preferred method of sewer replacement is bore and jack under the existing fish ladder structure.

Additional considerations are as follows:

1. The condition of the existing manholes will also be investigated and recommendations provided to the City regarding rehabilitation or replacement options.

2. For construction of the 18-inch sewer main replacement, a sewer bypass plan will be prepared.
3. Suggestions will be offered for use of gates or plugs at the existing manhole to isolate the existing 15-inch or 16-inch sewer main to be used for emergency bypass.
4. A new easement from Caltrans and SCVWD is desired for the proposed 18-inch sewer main crossing.

It is anticipated that design documents for the proposed sewer crossing replacement will be a part of the bid package for other proposed Moffett Gateway improvements described in the April 3, 2015 proposal for Projects 14-21 and 14-22 including: 1) Project 2 Moffett Gateway sewer replacement; 2) Option 1 two new 12-inch water services; and 3) Option 2 Leong Drive water main. Table 1 summarizes additional sewer crossing improvements and includes other Moffett Gateway improvements (from April 3 proposal) for reference.

**TABLE 1  
PROJECT 2 SUMMARY OF WATER AND SEWER REPLACEMENTS**

PROJECT 2	WATER MAIN REPLACEMENT				SEWER MAIN REPLACEMENT		
	Zone	Existing	Proposed	LF	Existing	Proposed	LF
Moffett Gateway - MH F5-052 to unidentified MH 360' east					15" VCP	18" HDPE	360
<i>Option 1:</i> Moffett Gateway: 2 new 12" services	2		12" PVC	750			
<i>Option 2:</i> Moffett Gateway: Leong Drive – Walker Drive to Winston Place	2	8" CIP	12" PVC	980			
<b>New 18-inch sewer crossing SR 85 and Stevens Creek</b>					<b>15" VCP</b>	<b>18" HDPE w/casing</b>	<b>460</b>
<b>Connect new 18-inch sewer crossing to MH F5-052</b>					<b>15" VCP</b>	<b>18" HDPE</b>	<b>120</b>
<b>New SS connection on San Leandro Avenue</b>					<b>8" VCP</b>	<b>18" HDPE</b>	<b>50</b>
<b>TOTALS</b>				<b>1730</b>			<b>990</b>

## Scope of Services

The scope of services is divided into basic engineering services and client meeting services as follows:

### Basic Engineering Services

Basic Engineering Services is divided into the following phases:

- Phase 1 – Preliminary Investigation and Refinement of Conceptual Plans
- Phase 2 – Schematic Design
- Phase 3 – Design Development/Construction Documents
- Phase 4 – Bidding
- Phase 5 – Construction
- Phase 6 – Post Construction

Tasks under each phase are described below.

## **Phase 1 – Preliminary Investigation and Refinement of Conceptual Plans**

### **Task 1: Project Management**

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This task will include preparation and periodic updates of the project schedule, coordination with subconsultant, monthly project invoicing and status reports, and updated monthly schedules. The initial project schedule will be submitted within five days of award of contract.

### **Task 2: Preliminary Investigation and Refinement of Conceptual Plans**

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For completion of this task, NV5 staff will be augmented by staff of our geotechnical engineer, Geocon Consultants (Geocon). Specific subtasks are as follows:

#### **Task 2.1: Review Existing Conditions**

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The NV5 team will attend a kick-off meeting with the City (included under Task 8) to review project requirements and existing information. Preliminary plans for proposed development in the Moffett Gateway area will be reviewed for coordination of proposed improvements. Two members of the NV5 project team will visit the project sites to investigate existing site conditions, to identify opportunities and constraints, to verify the location of existing utilities, and to determine the condition of existing manholes. The site visit will occur after the topographic survey (Task 2.2) is completed. In addition, available background information provided by the City will be reviewed including: closed-circuit television (CCTV) logs; City utility maps of water, sanitary sewer, storm drain systems; and water and sewer as-built plans. Utility companies (gas, cable, phone) will be contacted to verify the location of other utilities within the project area. The initial contact will be in the form of an “A” letter. Utility “B” and “C” packages will subsequently be prepared during design development. The “B” letter package documenting utility locations will be submitted to the utility providers to verify correctness of the plans. The “C” letter package represents the final construction documents including any utility relocations. The project team will also review current City Standard Provisions, City Standard Details, as well as City codes, ordinances and design criteria.

- Deliverable: The brief technical memorandum (TM) prepared for Project 2 (as part of April 3, 2015 scope) will be augmented with recommendations for manhole rehabilitation in the expanded project area.

#### **Task 2.2: Topographic Survey**

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NV5 will provide topographic survey for the design of the new sewer main crossing Highway 85 and Stevens Creek per Additional Services Authorization No. 1.

#### **Task 2.3: Geotechnical Investigation/Soil Disposal Report**

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Geocon will perform a limited geotechnical investigation to characterize soil conditions at/near the proposed jacking and receiving pits. Geocon will work under (no fee) encroachment/access permits issued by the City. Geocon’s study will include a field exploration program and limited laboratory testing. The

results of Geocon's study will be compiled and presented in a formal letter report. To complete the study discussed above, the following will be performed:

#### USA Clearances

Geocon's exploration locations will be marked in the field and cleared through Underground Service Alert.

#### Field Exploration

Geocon will advance two small-diameter soil borings – one on either side of SR-85 in the vicinity of proposed jacking/receiving pits. The boring on the west side of SR-85 will be located between San Leandro Avenue and a retaining wall for SR-85. The boring on the east side of SR-85 will be located on City of Mountain View property on the east side of Stevens Creek. The borings will be advanced to depths of approximately 20 feet by a C-57 licensed driller using a truck-mounted drill rig. The subsurface soil conditions encountered in each exploratory boring at the time of drilling will be classified and continuously logged. Relatively-undisturbed and bulk samples of soils encountered in the borings will be obtained and returned to our laboratory for further examination and testing. Geocon will also collect soil samples for chemical laboratory analysis. Upon completion, the borings will be backfilled with a mixture of lean concrete grout and soil cuttings.

#### Geotechnical Laboratory Testing

Geocon will perform laboratory tests on representative soil samples to evaluate pertinent physical properties for the purpose of characterizing the soils for design of the jacking/receiving pits. Laboratory testing for in-situ dry density and moisture density, unconfined compressive strength, gradation analyses, and plasticity may be performed.

#### Chemical Laboratory Testing

Four soil samples will be submitted for chemical analysis of CAM 17 metals, total petroleum hydrocarbons as gasoline (TPHg), as diesel (TPHd), and as motor oil (TPHmo), volatile organic compound (VOCs), and pesticides for the purpose of profiling the soil for potential reuse or disposal.

#### Engineering Analyses and Reporting

The results of the limited geotechnical investigation will be compiled into a formal letter report. A draft copy of the report will be submitted for review, followed by three, wet-signed and stamped originals and one electronic (pdf) copy. The report will include (but not be limited to) the following:

- Site plan showing the locations of the exploratory borings
- Logs of the exploratory borings including depth to groundwater (if encountered)
- Laboratory test results
- Anticipated excavation characteristics

## **Task 2.4: Potholing**

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Following review of existing conditions, potholing may be required to augment available utility as-built information and verify potential conflicts with existing utilities. Exaro Technologies (potholing contractor) will be contacted to perform potholing activities for up to 10 locations (identified by NV5) or up to two days. Potholing includes vacuum excavation at the identified locations, followed by pothole restoration per City Standard Detail A-20. This task includes coordination with the potholing contractor. The potholing contractor will notify USA in advance of potholing activities, obtain an encroachment permit from the City, submit insurance certificates in conformance with City requirements, and provide traffic control as required. The results of the potholing activities will be incorporated into the construction plans.

## **Phase 2 – Schematic Design**

### **Task 3: Schematic Design**

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This task includes the following items:

1. Preparation of a schematic layout (alignment only) as 35 percent engineering plans for City review.
2. Preparation of preliminary construction cost estimates for City review.
3. Following receipt of City review comments, responses to each comment will be prepared.
4. Project review meeting with City to discuss comments on 35 percent plans (included under Task 8).
  - Deliverable: PDF and four sets of 35 percent plans (alignment only) and preliminary construction cost estimate.

## **Phase 3 – Design Development/Construction Documents**

### **Task 4: Design Development/Construction Documents**

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This task will follow approval of the schematic design and construction cost estimates prepared in Task 3 and includes preparation of 65 percent, 95 percent, draft 100 percent and final 100 percent construction documents. Technical Specifications will include requirements for manhole rehabilitation or replacement options. Technical Specifications will be in accordance with Caltrans Standards and will include measurement and payment clauses for all bid items. The task also includes: coordination and support for processing Caltrans encroachment permit of SR 85 crossing, coordination and support for SCVWD encroachment permit for Stevens Creek crossing, and preparation of a plat and legal for new 18-inch sewer main easement. A preliminary list of drawings is included in Appendix A for Project 2. Support for City preparation of CEQA documents is also included.

## **Task 4.1: Preparation of 65 Percent Construction Documents**

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Construction documents will be prepared at 65 percent design level, and will include plans, technical specifications, engineering calculations (pipeline sizing, thrust blocks, restraining joints) and engineer's estimates of probable construction cost. It is assumed that the City will provide the remainder of the bid documents including bid proposal forms, General Provisions, and Special Provisions. NV5 will coordinate with City construction and traffic engineers regarding construction phasing and traffic control plans to maintain public convenience during construction. Following the City's review of the 65 percent documents, the City will provide written comments to NV5. Two members of the NV5 project team will meet with the City to discuss the City's review comments (included under Task 8). A sewer bypass plan for the proposed 18-inch sewer main crossing will be prepared as part of the construction documents.

- Deliverable: PDF and four sets of 65 percent plans, technical specifications, construction cost estimate, and engineering calculations.

## **Task 4.2: Preparation of 95 Percent Construction Documents**

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Construction documents will be prepared at 95 percent design level, and will include plans, technical specifications, and engineer's estimates of probable construction cost. NV5 will revise the 65 percent documents to incorporate City comments and directions. NV5 will provide written responses to all City comments with submission of the 95 percent documents. Following the City's review of the 65 percent documents, the City will provide written comments to NV5. Two members of the NV5 project team will meet with the City to discuss the City's review comments (included under Task 8).

- Deliverable: PDF and four sets of 95 percent plans, technical specifications and construction cost estimate, response to City comments on 65 percent submittal

## **Task 4.3: Preparation of 100 Percent Construction Documents**

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Construction documents will be prepared at 100 percent design level, and will include plans, technical specifications, and engineer's estimates of probable construction cost. NV5 will revise the 95 percent documents to incorporate City comments and directions. NV5 will provide written responses to all City comments with submission of the 100 percent draft documents. Following the City's review of the 100 percent draft documents, the City will provide written comments to NV5. Two members of the NV5 project team will meet with the City to discuss the City's review comments (included under Task 8).

NV5 will revise the 100 percent draft documents to incorporate City comments and directions. NV5 will provide written responses to all City comments with submission of the 100 percent final documents.

- Deliverable: PDF and four sets of 100 percent draft plans, technical specifications and construction cost estimate; response to City comments on 95 percent and 100 percent draft submittal; one wet-signed copy of the final 100 percent plans, four sets of 100 percent final plans, technical specifications, and cost estimate; One electronic copy and PDF of final 100 percent construction plans (AutoCAD), technical specifications (Microsoft Word format), and cost estimate (Microsoft Excel format). The final PS&E will also be provided in PDF format.

#### **Task 4.4: Caltrans Encroachment Permit (Project 2 Sewer Crossing)**

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A Caltrans encroachment permit application will be completed for anticipated construction of proposed 18-inch sewer main crossing under SR 85. This task includes coordination and support for application processing.

#### **Task 4.5: SCVWD Encroachment Permit (Project 2 Sewer Crossing)**

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A SCVWD encroachment permit application will be completed for anticipated construction of proposed 18-inch sewer main crossing under Stevens Creek. This task includes coordination and support for application processing including one permit coordination meeting with the City and SCVWD.

#### **Task 4.6: Legal Description and Rights of Way for Easement (Project 2 Sewer Crossing)**

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NV5 will prepare legal descriptions and plats for the sanitary sewer main crossing through SCVWD and Caltrans parcels. As part of this process, it will be necessary to establish Caltrans and SCVWD parcel lines to prepare the two (2) easement descriptions. To complete this task, NV5 will research Caltrans, SCVWD, and Santa Clara County Records, as well as perform field surveys to help establish line locations. Once completed, NV5 will prepare two (2) legal descriptions and plats suitable for recordation by the Santa Clara County Recorder.

In the event that elements of the survey trigger the necessity of complying with Business and Professions Code 8762 (b)(2) and/or 8762 (b)(4), a Record of Survey or a Corner Record will need to be filed with the County of Santa Clara. NV5 will prepare a Record of Survey Map after Caltrans and SCVWD parcel lines have been surveyed, and subsequently established in the project mapping. This Map will show parcel boundary evidence found during the survey, as well as the resolved locations of the parcel lines. Once completed, the Map will then be submitted to the County of Santa Clara Public Works Department for technical review. Upon completion of this review process, NV5 will print the Map on mylar sheets for signatures by our Survey Manager and the County, and submit for recordation. This task includes allowance to respond to up to two rounds of comments on the map from the County. Please note that there will be map checking fees imposed by the County. Payment of map checking fees is excluded from NV5's fee.

### **Phase 4 – Bidding**

#### **Task 5: Bidding Period**

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Bid Period Services are included as part of Projects 14-21 and 14-22 scope dated April 3, 2015.

## **Phase 5 – Construction**

### **Task 6: Construction**

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This task also includes effort beyond April 3, 2015 Scope including providing construction staking, and reviewing post-construction CCTV logs to determine acceptability of the rehabilitated sewer.

## **Phase 6 – Post-Construction**

### **Task 7: Post-Construction**

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This task includes preparation of as-built record drawings. Following construction, the City will provide contractor's red-lined record drawings for NV5's use. NV5 will incorporate the changes during construction into the plans and submit the record drawings to the City.

- Deliverable: One signed, stamped set of record drawings on Mylar, One set of electronic files for each record drawing in AutoCAD and PDF format

## **Client Meeting Services**

### **Task 8: Meeting With Client**

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Meetings are included as part of Projects 14-21 and 14-22 scope dated April 3, 2015.

## **Additional Services**

### **Task 9: Additional Client Meetings**

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For Project 2, additional meetings with the City may occur including:

1. Additional 2-hour meetings
2. Additional 1-hour meetings

A budget for these meetings on a per meeting basis for the NV5 Project Manager and Utility Design Engineer is as follows: \$704/2-hour meeting; \$352/1-hour meeting

### **Task 12: Special Engineering Services**

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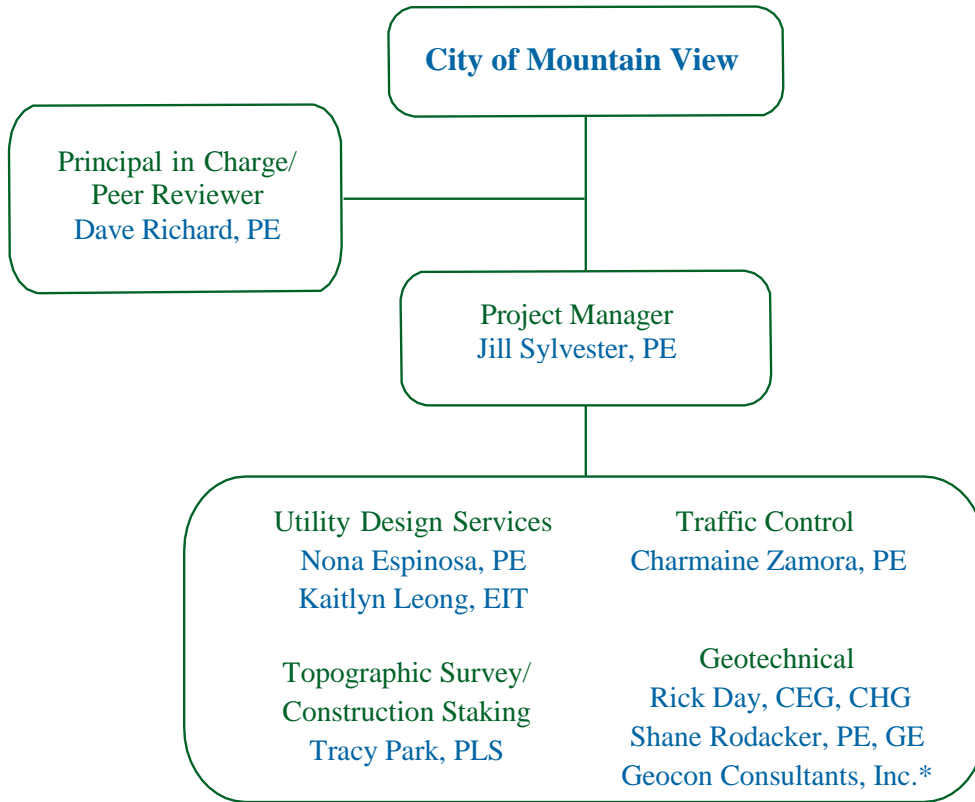
When requested by the City, NV5 will perform Special Engineering Services as agreed to in writing. NV5 will be compensated for additional services as extra work. Special Engineering Services may include:

1. Construction Oversight
2. Additional Soil Sampling and Analysis



# Project Team

An organization chart for our Project Team is provided below. Information regarding roles, responsibilities, and percent of time expected to be spent on the project is summarized in Table 2.



*\*Subconsultant*

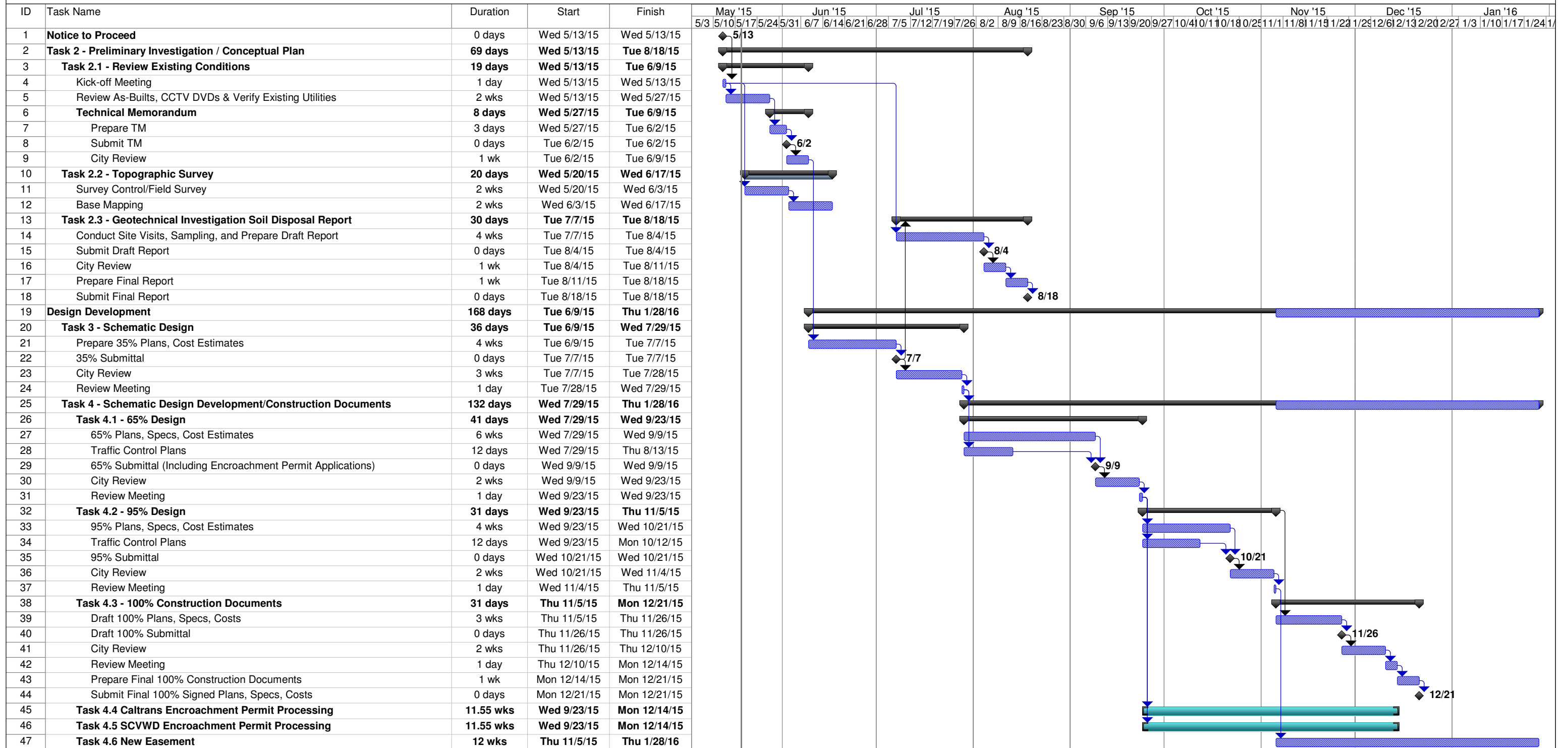
**TABLE 2  
KEY STAFF AND RESPONSIBILITIES**

<b>Team Member Project Role</b>	<b>Project Responsibilities</b>	<b>Percent of Time Expected on Project</b>
<b>Jill Sylvester, PE</b> Project Manager	As project manager, Jill will be in charge of your project on a daily basis and will be the City’s main point of contact. She will be responsible for working with the City to define the processes to be used and bring NV5’s experience to your projects.	50%
<b>Dave Richard, PE</b> Principal in Charge/ Peer Review	Dave will establish a plan for designers to document their work, document an independent design check, and conduct an independent design review. Dave will ensure that adequate resources are available to Jill.	5%
<b>Nona Espinosa, PE</b> Utility Designer Engineer	Nona will be involved in all phases of project development including from preliminary investigation through construction and will leverage her experience with past City water and sewer projects to guide design development.	25%
<b>Kaitlyn Leong, EIT</b> Utility Designer	Kaitlyn will support Jill with review of CCTV logs, verification of existing utilities, plan and profile design, and engineer’s estimate of probable construction costs.	50%
<b>Charmaine Zamora, PE</b> Traffic Control	Charmaine will be responsible for traffic control design. Charmaine will work closely with City construction and traffic engineers regarding construction phasing to minimize public inconvenience during construction.	15%
<b>Tracy Park, PLS</b> Topographic Survey	Tracy will be the local survey leader for all survey, mapping, staking, and potential right-of-way efforts.	10%
<b>Richard Day, CEG, CHG</b> <b>Shane Rodacker, PE, GE</b> Geotechnical Subconsultant Soil Disposal Report	Shane and Richard will lead geotechnical investigation and provide a soil disposal report summarizing soil sampling and laboratory analysis results.	10%

## Schedule

Milestones for design completion are summarized in the following schedule.

**City of Mountain View  
Annual Miscellaneous Water and Sewer Main Replacements  
Project 14-21 and 14-22  
May 19, 2015 - Project 2 Schedule**



## Part 2: Fee Schedule

Based on the proposed scope of services, a fee schedule has been prepared for Project 2 additional sewer crossing. A detailed breakdown of anticipated effort and costs associated with each task is included in Appendix B along with an overall charge rate schedule. A fee estimate summary organized by task is presented below.

### Project 2 Additional Sewer Crossing

<b>Task</b>	<b>Fee</b>
<b>Basic Engineering Services</b>	
Project Management	\$1,940
Preliminary Investigation/Refinement of Conceptual Plans	\$24,867
Schematic Design	\$4,640
Schematic Design Development/Construction Documents	\$44,448
Bidding (included as part of April 3, 2015 scope)	--
Construction	\$3,526
Post-Construction	\$1,334
<b><i>Total Basic Engineering Services</i></b>	<b><i>\$80,755</i></b>
<b>Client Meeting Services</b> (included as part of April 3, 2015 scope)	

## Appendix A

### Project 2 Plan Sheet List

\* Indicates new sheet for 18-inch Sewer Crossing

Sheet #	Sheet Name	Description
1	Title Sheet	
2	General Notes	
3	Key Map	
4	Moffett Gateway	Plan and Profile S
5	*Moffett Gateway	*Plan and Profile S
6	*Moffett Gateway	*Plan and Profile S
7	*Details	*Bore and Jack Details
8	*Sewer Bypass Plan	
9	City Standard Details	Construction Details
10	City Standard Details	Construction Details
11	City Standard Details	Construction Details
12	*Traffic Control (San Leandro)	Details

### Additional Plan Sheets to Add Option 1

Sheet #	Sheet Name	Description
13	Moffett Gateway Option 1	Plan and Profile W
14	Moffett Gateway Option 1	Plan and Profile W
15	General Option 1	Details
16	General Option 1	Tie-In Details
17	Traffic Control	General Notes and Details
18	Traffic Control Option 1	Details
19	Traffic Control Option 1	Details

### Additional Plan Sheets to Add Option 2

Sheet #	Sheet Name	Description
20	Moffett Gateway Option 2	Plan and Profile W
21	Moffett Gateway Option 2	Plan and Profile W
22	General Option 2	Details
23	General Option 2	Tie-In Details
24	Traffic Control	General Notes and Details
25	Traffic Control Option 2	Details
26	Traffic Control Option 2	Details

## Appendix B

### Detailed Fee Summary (attached) and Labor Hour Schedule

<b>Classification Title</b>	<b>Rate</b>
Engineering Manager	\$198
Senior Engineer	\$176
Assistant Engineer	\$105
Survey Manager	\$198
Senior Surveyor	\$181
2-person crew	\$280
1-person crew	\$185
Junior Surveyor	\$120
Project Assistant	\$90

**Fee proposal for Annual Miscellaneous Water and Sewer Main Replacements, Projects 14-21 and 14-22.  
Additional Work Sewer Main Replacement Crossing Highway 85 and Stevens Creek**

TASKS	Engr	Sr.	Asst.	Survey	Sr	2-Person	1-person	Jr	Project	Subtotal	Sub-	Subtotal	Total
	Mgr.	Engr	Engr	Mgr.	Srvyr	Srvy Crew	Srvy Crew	Srvyr	Asst.	NV5 Hours by Task	Consultant Costs	Dollars by Task	Dollars by Task
	\$198	\$176	\$105	\$198	\$181	\$280	\$185	\$120	\$90	(including 10% markup)			
<b>BASIC ENGINEERING SERVICES PROJECT 2 SEWER CROSSING</b>													
<b>TASK A1-PROJECT MANAGEMENT</b>													
Prepare schedule		4							2	6			\$ 884
Sub-consultant coordination		2								2			\$ 352
Monthly Invoicing and status reports		4								4			\$ 704
<b>Task A1 Subtotal</b>		<b>10</b>							<b>2</b>	<b>12</b>			<b>\$ 1,940</b>
<b>TASK A2-PRELIMINARY INVESTIGATION/REFINEMENT OF CONCEPTUAL PLANS</b>													
<i>Task A2.1-Review Existing Conditions</i>													
Site visit		2	2							4			\$ 562
Review as-builts & verify existing utilities		4	8							12			\$ 1,544
<b>Task A2.1 Subtotal</b>		<b>6</b>	<b>10</b>							<b>16</b>			<b>\$ 2,106</b>
<i>Task A2.3-Geotechnical Investigation/Soil Disposal Report</i>													
Permitting, USA Clearance, and Field Exploration											\$ 4,950	\$ 4,950	
Geotechnical Laboratory Testing											\$ 1,375	\$ 1,375	
Chemical Laboratory Testing											\$ 2,585	\$ 2,585	
Reporting and project management		2								2	\$ 1,375	\$ 1,727	
<b>Task A2.3 Subtotal</b>		<b>2</b>								<b>2</b>			<b>\$ 10,637</b>
<i>Task A2.4-Potholing</i>													
Vacuum Excavated up to 2 days		4	4							8	\$ 11,000	\$ 12,124	
<b>Task A2.4 Subtotal</b>		<b>4</b>	<b>4</b>							<b>8</b>			<b>\$ 12,124</b>
<b>Task A2 Subtotal</b>		<b>12</b>	<b>14</b>							<b>26</b>			<b>\$ 24,867</b>
<b>TASK A3-SCHEMATIC DESIGN</b>													
<i>Thirty five Percent (35%) Submittal</i>													
35% Submittal-Plans	4	8	16							28			\$ 3,880
Cost estimate (preliminary)	1	2	2							5			\$ 760
<b>Task A3 Subtotal</b>	<b>5</b>	<b>10</b>	<b>18</b>							<b>33</b>			<b>\$ 4,640</b>
<b>TASK A4-SCHEMATIC DESIGN DEVELOPMENT/ CONSTRUCTION DOCUMENTS</b>													
<i>Task A4.1-Preparation of 65 Percent Construction Documents</i>													
65% Submittal-Plans, Specs, Costs	2	12	20						6	40			\$ 5,148
Traffic Control Plans		6	12							18			\$ 2,316
<b>Task A4.1 Subtotal</b>	<b>2</b>	<b>18</b>	<b>32</b>						<b>6</b>	<b>58</b>			<b>\$ 7,464</b>
<i>Task A4.2-Preparation of 95 Percent Construction Documents</i>													
95% Submittal-Plans, Specs, Costs	2	12	20						6	40			\$ 5,148
Traffic Control Plans		4	8							12			\$ 1,544
<b>Task A4.2 Subtotal</b>	<b>2</b>	<b>16</b>	<b>28</b>						<b>6</b>	<b>52</b>			<b>\$ 6,692</b>



**Fee proposal for Annual Miscellaneous Water and Sewer Main Replacements, Projects 14-21 and 14-22.  
Additional Work Sewer Main Replacement Crossing Highway 85 and Stevens Creek**

TASKS	Engr	Sr.	Asst.	Survey	Sr	2-Person	1-person	Jr	Project	Subtotal	Sub-	Subtotal	Total
	Mgr.	Engr	Engr	Mgr.	Srvyr	Srvy Crew	Srvy Crew	Srvyr	Asst.	NV5 Hours by Task	Consultant Costs	Dollars by Task	Dollars by Task
	\$198	\$176	\$105	\$198	\$181	\$280	\$185	\$120	\$90	(including 10% markup)			
<i>Task A4.3-Preparation of 100 Percent Construction Documents</i>													
100% Draft Submittal-Plans, Specs, Costs	2	4	4						6	16		\$ 2,060	
100% Final signed Plans, Specs, Costs		4	4						4	12		\$ 1,484	
Task A4.3 Subtotal	2	8	8						10	28			\$ 3,544
<i>Task A4.4-Caltrans Encroachment Permit</i>													
Permit application and coordination		16	16							32		\$ 4,496	
Task A4.4 Subtotal		16	16							32			\$ 4,496
<i>Task A4.5-SCVWD Encroachment Permit</i>													
Permit application and coordination (with one meeting)		20	16							36		\$ 5,200	
Task A4.5 Subtotal		20	16							36			\$ 5,200
<i>Task A4.6-Legal Description and Rights of Way for Easement</i>													
Right-of-way research				2	8					10		\$ 1,844	
Right-of-way surveys						16				16		\$ 4,480	
Right-of-way mapping				2	16					18		\$ 3,292	
Legal Descriptions (2)				2	8					10		\$ 1,844	
Record of Survey				4				40		44		\$ 5,592	
Task A4.6 Subtotal				10	32	16		40		98			\$ 17,052
<b>Task A4 Subtotal</b>	<b>6</b>	<b>78</b>	<b>100</b>	<b>10</b>	<b>32</b>	<b>16</b>		<b>40</b>	<b>22</b>	<b>304</b>			<b>\$ 44,448</b>
<b>TASK A6-CONSTRUCTION</b>													
Construction staking (both lines same time)					4	8				12		\$ 2,964	
Review post-construction CCTV DVDs		2	2							4		\$ 562	
Task A6 Subtotal		2	2		4	8				16			\$ 3,526
<b>TASK A7-POST-CONSTRUCTION</b>													
Record Drawings		4	6							10		\$ 1,334	
Task A7 Subtotal		4	6							10			\$ 1,334
<b>Total</b>	<b>11</b>	<b>116</b>	<b>140</b>	<b>10</b>	<b>36</b>	<b>24</b>		<b>40</b>	<b>24</b>	<b>401</b>	<b>\$ 21,285</b>	<b>\$ 80,755</b>	<b>\$ 80,755</b>
<b>Sewer Crossing Additional Engineering Services</b>													<b>\$ 80,755</b>