# CONTRACT #C21-07 AGREEMENT FOR CONSULTANT SERVICES BETWEEN THE CITY OF ALBANY AND NUTE ENGINEERING

# FOR PROJECT: 2021 AND 2022 SANITARY SEWER REHABILITATION – ENGINEERING DESIGN SERVICES

AMENDMEN	T OF AGREEMENT NO. 2
	REEMENT FOR CONSULTANT SERVICES is ay of, 2022, by and among the ity ("CITY") and Nute Engineering,
In consideration of the mutual #C21-07, the parties agree as follows	l covenants and conditions set forth herein Contract
6314 linear feet of sewer rehabilitation limits under the 2023 Annual Sewer l AGREEMENT shall be made part of	stract No. C21-07 shall be modified as follows: add on and package together with remaining 2022 sewer Rehabilitation project. This AMENDMENT OF the original AGREEMENT, Contract No. C21-07. of October 1, 2020 to December 1, 2022 and is
not to exceed \$226,220, as set forth in	DMENT OF AGREEMENT shall be in the amount in the attached AMEDMENT TO AGREEMENT and Contract of \$338,233.00 to \$564,453.00).
	in compliance with Contract No. C21-07, and in of Work, including any agreed upon modifications
	the parties hereto have caused this AMENDMENT C21-07 to be executed the day and year first above
CITY OF ALBANY:	CONSULTANT:
By	By_ Said Stile
Nicole Almaguer, City Manager	(Authorized Officer)
AttestCity Clerk	

Attachment: Nute Engineering Fee Proposal, dated 9/2/2022

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Civil and Sanitary Consultants

September 2, 2022

Mr. Mark Hurley, P.E. City of Albany Public Works Director 1000 San Pablo Avenue Albany, CA 94706

Re: 2023 Sanitary Sewer Rehabilitation Project (SSRP)
Proposal for Engineering Design Services

Nute Engineering is pleased to submit the following proposal for the engineering design services for the 2023 Sanitary Sewer Rehabilitation Project (SSRP), which will involve rehabilitation of at minimum 8,617 LF of existing sewer lines within the City of Albany. The project work will primarily be done using pipe bursting as a pipe replacement method. It is understood that some locations, including San Pablo Avenue may require other methods including open-cut rehabilitation and Cured-In-Place-Pipe (CIPP) depending on physical constraints such as utility conflicts. The exact locations and/or extent of the sewer replacements may be revised based on findings in the pre-design investigations.

#### PROJECT DESCRIPTION

The current project includes sewer alignments that were brought to a 90% completion level for the 2022 SSRP design along with several new alignments. The 2023 SSRP sewer lines are listed in the table below:

		Pipe
Street	Street Limits	Length (ft)
Brighton Avenue (90% complete)	Evelyn Avenue to Key Route	1,114
Spokane Avenue (90% complete)	Brighton North to El Cerrito CL	232
Masonic Avenue (90% complete)	Brighton South to Midblock Head End MH	460
Kains Avenue (90% complete)	Garfield North to Midblock Head End MH	147
Key Route Blvd. (90% complete)	Solano Avenue to Washington Avenue	350
Kains Avenue	Brighton Avenue to Garfield Avenue	620
Talbot Avenue	Brighton Avenue to Garfield Avenue	520
Evelyn Avenue	Brighton Avenue to Garfield Avenue	540
San Carlos Avenue	South of Portland Avenue to Washington Avenue	590
Curtis Street	Washington Avenue to Solano Avenue	720
Talbot Avenue	Dartmouth Avenue to Berkeley Limit Line	820
San Pablo Avenue	Portland Avenue to Brighton Avenue	1,567
San Pablo Avenue	Brighton Avenue to El Cerrito City Limits	105
San Pablo Avenue/Easement	San Pablo Avenue to El Cerrito City Limits	302

Table 1. Limits and lengths subject sewers for 2023 SSRP (City of Albany)



Street	Street Limits	Pipe Length (ft)
Curtis Street	1038 Curtis Street to 1032 Curtis Street	135
Terrace Street	NW Corner of Terrace Park to Neilson Street	125
Ventura Avenue	1033 Ventura to Beverly Place Intersection	185
Beverly Place	Ventura Avenue to Berkeley City Limits	85
	Total Linear Footage	8,617

#### Table 1 (cont.)

Most of the subject sewers are located throughout the City, generally comprised of sewer mains identified in the 2014 City of Albany Sewer Master Plan. A pipe bursting rehabilitation approach has been successfully implemented to rehabilitate these lines in past projects.

The 2023 SSRP also includes the rehabilitation of the San Pablo Trunk Sewer from Portland Avenue on the southern end to the El Cerrito City Limits on the northern end including an easement segment connecting to the Cerrito Creek trunk sewer at the north end of Adams Street. This alignment will be more complicated than typical SSRP pipe rehabilitations with the following considerations:

- Most of this alignment is within the Caltrans right-of-way therefore requiring an encroachment permit.
- Caltrans encroachment permit requirements for pipeline projects may require plan and profile drawings and/or a geotechnical investigation.
- > Engineering traffic control plans and potholing may also be necessary depending on field conditions.
- Construction work in the easement portion of the pipeline will require coordination with the private landowner.

Because the plan requirements will not be known until the pre-design investigation, this proposal includes allowances to accommodate the potential Caltrans encroachment permit requirements. Also, EBMUD may provide partial topographic mapping of the area. An allowance is also included for topographic surveying to accommodate additional survey work depending on the information from EBMUD. It is also understood that the work on San Pablo Avenue may be moved from the 2023 SSRP to a future project to accommodate an upcoming ADA ramp project on San Pablo Avenue.

As stated, most of the sewer lines included in both projects will be pipe burst and a DR-17 HDPE liner pipe will be inserted, except where a CIPP method is necessary due to site constraints. Some open cut sewer replacement may also be necessary depending on pre-design investigation findings. The lateral connections will be reinstated and the lower laterals will be replaced or pipe burst. Most of the lines in the project are located in roadways, but some of the pipes are within easements on private property or on sidewalks.

A two-way cleanout will be installed at the connection of the lower lateral to the upper lateral, likely in the sidewalk or just off the edge of the sidewalk. In addition, the manholes on the sewer lines will be replaced unless they are found to be new or in good condition.

During the sewer rehabilitation operations, it will be necessary to divert the sewage flow. Some of the lines to be pipe burst are dead end lines so there is no flow coming through except for the connected properties. The homeowners will need to be advised not to use their fixtures during the pipe bursting process. Where there is a need to divert sewage, a pump will be inserted in the upstream manhole and the discharge pipe will need to be strung out to the downstream manhole. The daytime flows are typically low and cars can drive over the flexible discharge piping so it will not block driveways.



#### APPROACH TO THE DESIGN

In order to economize on the design costs, we plan to use the City's sewer maps as the base maps without profiles for the majority of the bid and construction plans (except San Pablo Avenue). The City's sewer maps are very detailed and provide the rim and invert elevations of the manholes, which will be sufficient information for the contractor's bidding and construction purposes. No topographic surveys will be conducted for this project and construction stakes should not be necessary unless a decision is made to rehabilitate any specific pipelines by open cut replacement. A field investigation will be performed to verify length of the project sewers based on a ground surface measure and manhole depths using a survey rod with a specialized device designed for manholes.

Geotechnical investigations will not be completed for this project unless determined necessary for a specific location for which an allowance is included in the proposal. It is mutually understood that there is some risk of high ground water or hard rock being encountered during construction for project areas where a geotechnical investigation has not been completed. An allowance is included for a geotechnical investigation, if required, for work within the Caltrans right-of-way on San Pablo Avenue.

We will prepare the bid schedule and bid descriptions as well as the special provisions and technical provisions dealing with pipe bursting, CIPP lining, open cut sewer replacement and other required specifications.

The existing CCTV inspection records of these lines may not be sufficiently complete to locate all the side sewers connecting to the sewer mains. We will show one lateral per property on the plans either in the location determined by the televising or at an assumed location. The plans and specifications will require the contractor to televise the sewer lines to find the laterals and then physically locate and pothole all laterals prior to sewer replacement. In some cases there may be more than one lateral per building structure which the contractor will need to find.

For the design plans we will show the location of the water and/or gas meters but we will not know the location of the gas service because they are generally attached to the building structure. California Public Contract Code does not require that utility laterals are shown on the plans if a house is present at the location.

In the event the televising finds an obstruction that would prevent pipe bursting, the contractor will be required to dig up and remove the obstruction so the pipe bursting can proceed.

We will contact the utility companies for copies of their records of their underground utilities. Utilities will be shown on the plans in the vicinity of the pipe bursting and possible excavations such as where manholes are to be replaced or where the lower laterals will cross other utilities. If determined to be necessary, a contractor will pothole during the design phase to locate and confirm the depth and size of grade critical utilities. City of Albany storm drains will also be mapped based on the available GIS data.

Traffic control should not be a large issue for these sewers except where excavation will be required for manhole replacement, especially on busier roadways such as San Pablo Avenue. Traffic control may also be necessary around sewage diversions where manholes must remain open to accommodate the diversion hose. The project specifications will require the contractor to provide an engineered traffic control plan for approval by the City of Albany and Caltrans for the San Pablo Avenue crossing. An allowance for engineered traffic control plans is included based on potential Caltrans requirements for San Pablo Avenue.



#### BASIC DESIGN SERVICES TO BE PERFORMED BY THE ENGINEER

The following are the scope of basic design services we propose to provide on the above described sewer improvement project.

## Schedule A Services – 2023 SSRP Design and Preparation of Plans and Specifications

- Perform Field Investigation In-depth site investigation to verify and develop a database of findings:
  - · Pipe lengths, diameter, materials
  - · Manhole material, conditions, depths
- 2. Prepare contract plans using the City of Albany sewer map including the following;
  - a. Prepare the background plans and investigate the underground utilities from record drawings, markings on the pavement or from potholing by others.
  - b. Review State of California Geotracker site to assess risk of encountering contaminated soil or groundwater during construction.
  - c. Review televising information to locate laterals and possible obstructions. Draft the laterals and any obstructions on the plans.
  - d. Prepare the plans (without profiles) showing the sewer mains to be pipe burst together with annotations for sewer pipes outside of the Caltrans right-of-way.
  - e. Prepare plans and profile drawings for the San Pablo Avenue trunk sewer.
  - f. Prepare construction details including traffic control requirements.
  - g. Prepare technical specifications to be incorporated into the City's front end bid documents and standard specifications.
  - h. Coordinate all backfill, paving and traffic control requirements of the City of Albany and Caltrans.
  - San Pablo Avenue sewer investigation and Caltrans coordination to obtain encroachment permit. Coordinate with EBMUD for their future work on San Pablo Avenue. Coordinate work in Sutter Health property easement.
- 3. Prepare an estimate of the project construction cost based on the final construction plans and specifications at 35%, 95%, and 100% submittal.
- 4. Attend a kick-off meeting and three progress meetings with City staff during design.
- 5. Provide assistance during bidding including responding to contractors' questions, attendance at a pre-bid meeting and issuing addendums as necessary.

# Schedule B Services - Additional Design Tasks for San Pablo Avenue (Allowances)

- 1. Potholing Investigations
- 2. Topographic surveying (if survey from EBMUD doesn't contain necessary information.)
- 3. Geotechnical investigation
- 4. Engineered traffic control plans



#### PROPOSED SCHEDULE

The following is our proposed schedule for the preparation of the Plans and Specifications for these projects.

# 2023 SSRP Schedule

October 15, 2022	Start engineering design work
January 15, 2023	Submit 35% Plans and estimates
April 1, 2023	Submit 95% Plans, Specifications and estimates
May 1, 2023	Submit 100% Plans and Specifications for bidding

### SERVICES NOT INCLUDED IN THIS PROPOSAL

It is understood that the following services are outside the scope of this proposal and will be provided by others:

- 1. Aerial mapping and setting of construction stakes.
- 2. Traffic control, if necessary, for field surveying.
- 3. Smoke testing and televising of the sewers and laterals as determined to be necessary.
- 4. Environmental review or preparation of an environmental impact report of the project.
- 5. Legal services in connection with the project.
- 6. Mapping and Acquisition of rights of ways, rights of entries and permits (except Caltrans encroachment permit).
- 7. Engineering testing/remediation services in connection with contaminated soil or groundwater.
- 8. On-site inspection services.
- 9. Engineering Services During Construction.



# **ENGINEERING FEE**

We propose to do all the work on a time and materials basis to be billed according to the Schedule of Hourly Rates attached hereto as Attachment A. The following is the budget for the engineering fee for the schedule outlined above:

Schedule A – 2023 SSRP Design and Preparation of Plans and Specifications	\$171,184
Schedule B – Additional Tasks (Allowances)	\$ 55,036
TOTAL	\$226,220

Very truly yours,

NUTE ENGINEERING

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David Stier, P.E.

Attachment A – Schedule of Hourly Rates Attachment B – Project Estimating Sheet





## ATTACHMENT A

#### 2022 HOURLY RATE SCHEDULE

OFFICE PERSONNEL	HOURLY RATE
Principal Engineer	\$258.00
Senior Engineer	211.00
Office Surveyor	205.00
Engineer III	199.00
Engineer II	191.00
Engineer I	165.00
Field Representative*	181.00
Assistant Engineer II	129.00
Assistant Engineer I	119.00
Engineering Technician II	171.00
Engineering Technician I	151.00
1-Person Survey Crew w/Robotic Total Station	250.00
Office Surveyor	205.00
Senior Designer	188.00
CAD Drafter II	158.00
CAD Drafter I	138.00
Technical Administrative Support	118.00
Clerical	101.00
LITIGATION SERVICES	
Court Appearance/Deposition	372.00

<sup>\*</sup>Field Representative for construction is a Prevailing Wage category as required by the California Department of Industrial Relations.

# REIMBURSABLE EXPENSES

Sub-consultants will be charged at 1.10 times cost. Charges for reproductions, blueprinting, outside computer services, rental of special equipment, delivery, express mail, insurance certificates (where client requires to be listed as an additional insured) and meals and lodging will be charged at 1.10 times cost. Mileage and technology charges are included in the hourly rates. Nute Engineering reserves the right to adjust its hourly rate structure for all ongoing contracts.

**EFFECTIVE DATE:** August 1, 2022

	Senior Engineer	Survey Crew w/TS	Office Surveyor	Engineer III	Engineer II	CAD Drafter I	To
Rate \$/Hr	\$211	\$250	\$205	\$199	\$191	\$138	_
CHEDULE A - 2023 SSRP Design and Preparation of Plans & Specifications							
Field Investigation - Pipe and MH Database				40	40	40	4
2. Design and Prepare Plans and Details							$oldsymbol{\mathbb{L}}$
a. Prepare background plans, utility investigations				60	60	60	4
b. Review Geotracker for possible contaminated areas			Į.	4	4		
c. Review CCTV Inpsection Reports/video, draft laterals				16	24	40	
d. Prepare pipeburst plans and annotations (plan only, no profiles)	4		i i	40	40	40	
e. Prepare plan and profile drawings (San Pablo Avenue)	4		1	40	40	40	L
f. Prepare construction details				20	20	40	
g. Technical Specifications	2			8	8		Γ
h. Coordinate backfill, paving and traffic control, Caltrans Requirements on San Pablo Ave				12	12		Ι
i. San Pablo Sewer Investigation/Caltrans EP Coordination	2			40	40	20	I
<ol><li>Prepare estimates of construction cost @ 35%, 95%, and 100%</li></ol>	2			12	12		T
Attend kickoff meeting and two progress meetings			i i	9	9		T
<ol><li>Assistance during bidding (contractors' questions, pre-bid mtg, addenda)</li></ol>			1	8	8		T
Total Hours	14			309	317	280	Γ
Total Schedule A Cost	\$2,954			\$61,491	\$60,547	\$38,640	Ī
HEDULE B - Additional Design Tasks for San Pablo Avenue (Allowances)							Ī
Potholing Investigation				4	4		Ι
Topographic surveying		24	24	4	4	32	I
Geotechnical investigation				4	4		Ī
4. Engineered Traffic Control Plans				8	8		_[
Total Hours		24	24	20	20	32	I
Total Schedule B Cost		\$6,000	\$4,920	\$3,980	\$3,820	\$4,416	I
TOTAL	\$2,954	\$6,000	\$4,920	\$65,471	\$64,367	\$43,056	1