



September 11, 2025

Ryan Gayler, Capital Projects Manager  
**CITY OF PALM DESERT**  
73510 Fred Waring Drive  
Palm Desert, CA 92260

Subject: Proposal to Provide Professional Engineering Services for Design of Storm Drain and Regional Retention Basin Improvements

Dear Mr. Gayler,

The City of Palm Desert desires to retain professional engineering services for the construction of storm drain improvements and a regional retention basin to be installed on a City owned parcel adjacent to the railroad tracks immediately south of the Interstate 10 freeway and generally bounded between Cook Street, Gerald Ford Drive and the Los Arboles Apartment Complex. The project area currently experiences significant flooding in and around the intersection of Cook Street and Gerald Ford Drive during and after large rain events. The project is proposed to include preparation of two separate construction document packages for storm drain/channel improvements and the retention basin improvements. Construction will also be phased into 2 separate construction projects. The conceptual documents will be used to hold community meetings and obtain feedback from the local business owners and residents. Upon obtaining community comments, the City will provide ultimate direction for items to be incorporated into design.

### **Scope of Services**

Our Scope of Services for the project is presented in the following paragraphs:

#### **Task No. 1 – Project Administration**

TKE's Project Manager will be responsible for the entire project team. He will attend all meetings, prepare agendas and corresponding meeting minutes together with collection of signatures for meeting attendees (sign-in sheets). He will meet with the City at appropriate times and will meet as needed with agencies, residents, property owners, and utilities in addition to the meetings presented below. We will also update TKE's project budget and schedule prior to each City meeting for discussion with staff.

#### **Task No. 2 – Initial 'Kick Off' Meeting**

Prior to commencement of services, we propose to meet City staff to review project obligations and to discuss all project requirements in detail. TKE's Project Manager

and Project Engineer will attend the meeting to determine project protocol and obtain City record drawings.

### **Task No. 3            Records Research**

We will research existing survey and utility records. The purpose of the records research is to assemble survey records to establish locations of street centerlines, street rights-of-way, and easements and determine locations of all existing utilities and improvements. The research will consist of assembling copies of assessors' maps, tract maps, parcel maps, easement documents, monument ties, benchmark data, corner records, street improvement plans, and utility drawings. We will request the City provide copies of available pertinent City records, such as survey ties, benchmarks, and street, sewer, storm drain and/or water improvement plans. In addition, we will request the City provide a title report for the site.

We will notify Underground Service Alert to acquire a complete list of underground utility purveyors. For onsite work, the utility drawings will include existing drawings primarily provided from the City, and drawings and/or atlas maps from all private utility companies, and/or agencies.

We will send first utility notice letters to all identified utility companies and agencies requesting their data. We will maintain copies of the letters and correspondence for future reference. We shall also provide the City with a complete copy of all correspondence with all utility companies.

### **Task No. 4            Design Survey**

We propose to use conventional survey to prepare the base construction drawings. Our field survey crew will locate existing street centerline monuments utilizing survey control data and set necessary aerial targets. The crew will measure the horizontal angle, horizontal distance, and vertical elevation difference between each survey monument. We will complete a traverse for each survey to ensure closure. Utilizing GPS survey methods, two first order horizontal monuments will be established for the project associating the survey to the NAD 83, California State Plane Coordinate System, Zone 5, Epoch 2011.0. The monuments will be adjusted to the California High-Precision Geodetic Network and its densification stations. Elevations will be tied to existing City benchmarks based on the NGVD 88 Datum. In addition, we will measure sewer and storm drain inverts. We will collect appropriate detail within the project limits and a minimum of one hundred (100) feet beyond the project site, as required, including channels, basins, spillways, access roads, slopes, walls, trees, landscaping, walkways, sidewalks, driveways, curbs, gutters, cross gutters, fire hydrants, water valves, manholes, water meters, signs, street lights, power poles, and all other visible features that may impact the construction of the proposed improvements.

### **Task No. 5 Base Drawing Preparation**

We will prepare the base construction drawings on 24" by 36" sheets with the City's standard title block using AutoCAD Civil3D software, at a drawing scale of 1"=40'. The base construction drawings will include a plan view based on the accumulated conventional and aerial survey data. We will add the sheet north arrow, graphic scale, existing improvements and utilities (based on both assembled records and field data), property lines, public and private right-of-way, easement areas, assessor parcel numbers, street centerline, street names, building locations, water service locations; sewer manhole lids and water valve lids; cross gutters; driveways, pedestrian ramps; traffic stripes and legends; curb returns; details of private improvements, fences, gates, irrigation systems, mailboxes, trees and landscaping, and survey data to the drawings. Once the base drawings are complete, we will perform a careful field review to ensure all underground facilities are shown correctly.

### **Task No. 6 Hydrology/Hydraulic Analysis**

TKE will prepare a preliminary project drainage study that will include all areas tributary to the project. We will estimate runoff quantities for 10-year, 50-year and 100-year storm event and needed drainage facilities and catch basins for the project area. The analysis will also determine basin sizing which will be analyzed in relation to the potential runoff volumes conveyed by the different storm frequencies.

The results of the drainage study will be assembled in a summary report. The report will include an executive summary, an introduction (including discussions on study area limits, existing runoff patterns, existing land uses, existing and proposed drainage infrastructure, and design criteria), and study scope (including discussions on hydrology methods used and system hydraulics) in accordance with Riverside County Flood Control and Water Conservation District standards.

The study will include calculation tables and figures necessary to support the report findings. We will include reference to existing reports adjacent to the project to ensure the system will be designed appropriately for any future funding requests.

### **Task No. 7 Preliminary Engineering**

Preliminary engineering will include:

- a. Master Plan and Other Document Review-TKE will review the City's current drainage master plan and conceptual designs to determine design parameters. Using the inflows and outflows maximum limits, basin capacity requirements will be determined for flood control.
- b. Alternative Design Development-TKE anticipates that at least 2 different project design alternatives will be considered. The analysis of each alternative will consider factors such as environmental impacts, permitting requirements, storm drain improvement limits and basin sizing. Construction cost estimates

and benefit cost analysis will be prepared for each alternative. All hydraulic calculations will be prepared using City approved software.

### **Task No. 8 Geotechnical Investigation**

We would propose to retain Aragon Geotechnical Inc. (AGI) as a subconsultant to provide Geotechnical services for the project. AGI's scope of services includes, mobilization with truck mounted drilling equipment, boring locations/elevations, utility locates, traffic control during drilling, drill and sample borings, Shelby Tube samples or blow counts in all borings at 5-foot intervals, laboratory testing, engineering analysis, and electronic boring logs.

Prior to the field investigation, AGI will prepare a plan showing the proposed boring locations. The plan will be submitted to the City for obtaining an encroachment permit to perform the borings. If traffic control is necessary when drilling, AGI will follow the City traffic control guidelines. AGI will also perform the following:

- △ Drilling, sampling and logging of necessary borings along roadway and below proposed culvert. AGI will notify Underground Service Alert. Borings include, the asphalt pavement thickness and base thickness will be noted during the boring operations.
- △ Design of street structural section using City provided traffic indices.
- △ Laboratory testing of representative soil samples to evaluate in-situ moisture content, density tests, infiltration rates, max density and optimum tests, sieve analysis, R-value, direct shear tests, consolidation and collapse tests and corrosivity characteristics of the on-site soils.
- △ Data compilation and geotechnical analysis of existing geotechnical maps, reports, and field and laboratory data to provide recommendations for pavement design. Analysis will include recommendations for new pavement section alternatives, based on the traffic indices and R-value testing.

Preparation of a report presenting findings, conclusions and recommendations pertaining to design, compaction requirements, subgrade preparation, and earthwork/embankment recommendations. In addition, the report will provide recommendations for asphalt pavement recycling and other recommendations, which would include cost saving treatment methods.

The report will also include

- △ Settlement and slope stability analysis for roadway fill areas and culverts and (updates there to).
- △ Suitability of existing soils to be excavated for reuse as embankment fill.

### **Task No. 9 Environmental Compliance**

Tom Dodson and Associates (TDA) will prepare an Initial Study (IS) pursuant to the requirements of CEQA § 21080 and § 15060 through § 15065 of the CEQA Guidelines. Technical analyses will be conducted for each of the environmental

factors, as warranted, and well-supported responses for all questions listed under each environmental factor in CEQA Guidelines will be provided.

The environmental review of the proposed project will be conducted at a design, construction and operation level of detail. The nature of the technical analyses to be undertaken will range from stand-alone technical studies such as those to be prepared. Focused analyses necessary to address specific questions under each environmental factor of the Environmental Checklist. Mitigation measures will be developed in proportion to the severity and probability of occurrence of the identified potentially significant effect.

It is their intent to work directly with the City Planning Staff assigned to the proposed project. Their approach also incorporates the need for multiple reviews of key documents (e.g., revisions to engineering and construction drawings and project specifications) and coordination with key components of the overall required services, to ensure that the document prepared is adequate and will best reflect the Lead Agency's independent judgement. The close coordination between our Project Manager and City staff will also reflect the Lead Agency's commitment to process and notice the anticipated IS/MND in a legally defensible and procedurally compliant manner.

#### **Task No. 10 Preliminary Design Review Meetings**

After the City has completed its review, we will meet with City staff to acquire Staff's comments regarding project alternatives, project costs and alternative benefits. At the completion of the meeting, it is assumed that the City will select a project alternative to move into the design phase.

#### **Task No. 11 Community Meetings**

After completing the preliminary engineering, we will meet with City staff for discussion. Upon completion of the City's review, TKE will work with City staff to begin planning for one public meeting. TKE will assist staff with scheduling and publishing of the meeting as required and will prepare all exhibits needed for the presentation. TKE will present the plan alternatives, discuss the pros and cons of each alternative and finally discuss the benefit cost analyses and recommended alternative. TKE will document all public comments for distribution to staff.

#### **Task No. 12 60% Design**

60% Design will include preparation of preliminary construction drawings, preliminary technical specifications, preliminary construction estimates.

Construction drawings will show proposed street, storm drain and basin improvements including locations of proposed storm drain pipe, channels, catch basins, basin slopes, access roads, inlet structures, spillways, curb, drive approaches, swales, and fencing. Proposed improvements will be designed in accordance with the

City's current design standards and specifications for ultimate street and drainage improvements.

For the drawings, we will prepare a title sheet, construction notes sheet, demolition plan sheets, drainage sheets, grading sheets, plan/profile for access road and curb and gutter, cross-section sheets, and necessary detail sheets.

The title sheet shall include the title of the job, a vicinity map showing the City in relationship to surrounding communities, a location map showing the project limits, a list of abbreviations used, benchmark data, general notes, construction notes and quantities, an index for the drawings, list of utilities with phone numbers, and references on the City's standard title block.

The construction note sheet will show general construction notes and project specific requirements.

The demolition sheet will show existing improvement demolition including limits of removal. In addition, the plan will specify relocation of private improvements such as mailboxes, fences, drive approaches, etc. as required.

Construction sheets will show proposed site including locations of proposed inlet and outlet facilities, slopes, access roads, site limits, berms, and concrete structures. In addition, preliminary grades will be prepared to establish project grading requirements. The proposed improvements will be designed to minimize removals, grading and earthwork.

For drainage improvements, construction drawings will show proposed site including locations of proposed storm drain pipe, channels, headwalls and wingwalls, inlet and outlet facilities, slopes, access roads, site limits, berms, and concrete structures. In addition, preliminary grades will be prepared to establish project street regrading requirements. The proposed improvements will be designed to properly account for drain line installation and utilities.

Detail sheets will show inlet, outlet, and overflow structure details.

For the specifications, we will amend the City Standards Technical Provisions as required for the projects. The City standard specifications are supported by the Greenbook, State standard plans and specifications, and County Flood Control standards. The construction specifications will be prepared in Microsoft Word (2020 Version) format in accordance with City standards. Special provision will be added to the specifications as required to comply with regulatory agency requirements.

In addition, we will prepare quantity estimates for all proposed improvements prepared using an excel spreadsheet showing an itemized construction cost breakdown. Descriptions of work, unit prices, and quantities will be included in the spreadsheet.

### **Task No. 13                      Regulatory Permitting Coordination**

After 60% design is complete, plans and associated applications will be submitted to Union Pacific Railroad, Riverside County Flood Control and Water Conservation



**Task No. 20 Grant Assistance**

TKE will assist with grant administration in strict conformance with program requirements. Services will include:

- △ Review all City-Grant Agency contract documents.
- △ Prior to beginning to provide services, TKE will conference call with grant administrator to review implementation expectations.
- △ Assemble and submit initial documents to Grant Agency.
- △ Maintain project progress data and provide to Grant Agency.
- △ TKE will prepare a work schedule, which indicates the tasks, long lead work items, and the milestone dates to ensure the project meets the implementation requirements.
- △ Prepare progress invoices. The invoices will be sent electronically in draft format for Grant Agency's project officer's review. Upon notice that the invoice is consistent with requirements, TKE will submit invoices with supporting records including financial reports, and other records as needed.
- △ Quarterly progress reports-TKE will prepare quarterly progress reports including discussions of activities conducted, changed conditions encountered and their resolution, planned activities, request any needed special Grant Agency Assistance, and financial accounting of all project.
- △ Prepare forms for any change of scope, budget adjustment, schedule adjustment and progress reporting.
- △ Final Report-TKE will prepare a final report that will include a short project narrative describing the environmental and public health benefits of the project together with an assessment of how effective the project was in achieving the stated grant objectives within Grant Agency required time period after the conclusion of the project.

**Task No. 21 Bidding and Construction Support**

TKE will provide support during the bidding and construction phase. Work includes, but is not limited to, the following:

- △ Responding to questions during the project advertisement period, and log questions and responses. All communication will be directed to the Town for issuance to the bidders
- △ Attending pre-bid and pre-construction conference, job walk and field meetings, along with City staff. Attend construction coordination meetings, as requested by the City, to provide design clarifications or updates due to unforeseen field conditions or changes.
- △ Preparing addenda, as necessary, with coordination and issuance by the City and revise plans as-needed based on findings during the bidding phase
- △ TKE will also review and evaluate contractor submittals and RFIs, including construction schedules and material submittals, to facilitate smooth project execution and clarification to construction documents. Respond to RFIs from the contractor during construction.

- △ Support City staff during construction phases, including design clarification and conflict resolution and change orders, as needed.

### **Fee**

TKE's fee to provide the scope of service described above is shown on the attached fee table breakdown. TKE will invoice monthly in accordance with our rate schedule and will not exceed our fee without prior approval from the City.

Thank you for the opportunity to submit our proposal to provide professional surveying services. If you have any questions, please contact me at (760) 895-1949.

Sincerely,



Terry Renner, P.E., P.L.S., Q.S.D.  
Senior Vice President  
**TKE Engineering, Inc.**

**City of Palm Desert**

**Engineering Services for Design of Storm Drain and Regional Retention Basin Improvements**

**Fee Schedule Breakdown**

Task No.	Task	Project Manager		Project Engineer		Hydrology/Hydraulic Specialist		Associate Engineer		Assistant Engineer		2-Man Survey Crew		Clerical		Subconsultants	Total
		Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$		
1.	Project Administration	80	\$ 14,000	48	\$ 7,920		\$ -		\$ -		\$ -		\$ -	80	\$ 7,200		\$ 29,120
2.	Initial Kickoff Meeting	4	\$ 700	4	\$ 660		\$ -	4	\$ 620		\$ -		\$ -	4	\$ 360		\$ 2,340
3.	Records Research		\$ -	2	\$ 330		\$ -	4	\$ 620		\$ -		\$ -	12	\$ 1,080		\$ 2,030
4.	Design Survey	2	\$ 350	4	\$ 660		\$ -		\$ -		\$ -	80	\$ 20,800		\$ -		\$ 21,810
5.	Base Construction Drawings	2	\$ 350	8	\$ 1,320		\$ -	54	\$ 8,370	80	\$ 11,600		\$ -		\$ -		\$ 21,640
6.	Hydrology/Hydraulic Analysis	8	\$ 1,400	40	\$ 6,600	80	\$ 12,800	64	\$ 9,920	80	\$ 11,600		\$ -	8	\$ 720		\$ 43,040
7.	Preliminary Engineering	8	\$ 1,400	40	\$ 6,600	32	\$ 5,120	60	\$ 9,300	80	\$ 11,600		\$ -	4	\$ 360		\$ 34,380
8.	Geotechnical Investigation <sup>2.)</sup>	4	\$ 700	8	\$ 1,320		\$ -	8	\$ 1,240		\$ -		\$ -	8	\$ 720	\$ 22,550	\$ 26,530
9.	Environmental Compliance <sup>3.)</sup>	12	\$ 2,100	24	\$ 3,960	16	\$ 2,560	24	\$ 3,720		\$ -		\$ -		\$ -	\$ 104,500	\$ 116,840
10.	Preliminary Design Review Meeting	4	\$ 700	4	\$ 660	4	\$ 640		\$ -		\$ -		\$ -	2	\$ 180		\$ 2,180
11.	Community Meeting	12	\$ 2,100	12	\$ 1,980	8	\$ 1,280	8	\$ 1,240	16	\$ 2,320		\$ -	24	\$ 2,160		\$ 11,080
12.	60% Design <sup>4.)</sup>	64	\$ 11,200	120	\$ 19,800	80	\$ 12,800	280	\$ 43,400	320	\$ 46,400		\$ -	24	\$ 2,160	\$ 13,860	\$ 149,620
13.	Regulatory Permitting Coordination	24	\$ 4,200	40	\$ 6,600	16	\$ 2,560	24	\$ 3,720	64	\$ 9,280		\$ -	16	\$ 1,440	\$ 49,500	\$ 77,300
14.	Coordination with Agencies/Utilities	4	\$ 700	8	\$ 1,320		\$ -	8	\$ 1,240		\$ -		\$ -	8	\$ 720		\$ 3,980
15.	60% Design Review Meeting	2	\$ 350	2	\$ 330		\$ -		\$ -		\$ -		\$ -	1	\$ 90		\$ 770
16.	90% Design <sup>4.)</sup>	40	\$ 7,000	80	\$ 13,200	40	\$ 6,400	180	\$ 27,900	220	\$ 31,900		\$ -	16	\$ 1,440	\$ 6,930	\$ 94,770
17.	90% Design Review Meeting	2	\$ 350	2	\$ 330		\$ -		\$ -		\$ -		\$ -	1	\$ 90		\$ 770
18.	Final Contract Documents <sup>4.)</sup>	24	\$ 4,200	40	\$ 6,600	24	\$ 3,840	80	\$ 12,400	120	\$ 17,400		\$ -	12	\$ 1,080	\$ 2,310	\$ 47,830
19.	Final Coordination with Agencies/Utilities	4	\$ 700	8	\$ 1,320		\$ -	8	\$ 1,240		\$ -		\$ -	8	\$ 720		\$ 3,980
20.	Grant Assistance	64	\$ 11,200	80	\$ 13,200		\$ -	24	\$ 3,720		\$ -		\$ -	32	\$ 2,880		\$ 31,000
21.	Bidding Assistance	16	\$ 2,800	40	\$ 6,600		\$ -	24	\$ 3,720		\$ -		\$ -	16	\$ 1,440		\$ 14,560
<b>Subtotal:</b>		380	\$ 66,500	614	\$ 101,310	300	\$ 48,000	854	\$ 132,370	980	\$ 142,100	80	\$ 20,800	276	\$ 24,840	\$ 199,650	\$ 735,570
																<b>Reimbursables (@1%):<sup>1.)</sup></b>	\$ 7,430
																<b>Total:</b>	\$ 743,000

**Rates:**

Project Manager	\$ 175 /HR
Project Engineer	\$ 165 /HR
Hydrology/Hydraulic Specialist	\$ 160 /HR
Associate Engineer	\$ 155 /HR
Assistant Engineer	\$ 145 /HR
Clerical	\$ 90 /HR
2-Man Survey Crew	\$ 260 /HR

**Notes:**

- 1.) Reimbursables Include Cost for Prints, Copies, Mileage, Etc.
- 2.) Aragon Geotechnical for Geotechnical Investigation
- 3.) Tom Dodson and Associates for Environmental Compliance
- 4.) Knapp and Associates for Structural Design

**TKE Engineering, Inc.**