

**AGREEMENT WITH TOWILL, INC., TO PROVIDE ON-CALL PROFESSIONAL LAND SURVEYING SERVICES FOR THE CITY OF SANTA ANA**

THIS AGREEMENT is made and entered into on this 2nd day of May 2023 by and between Towill, Inc., a California corporation (“Consultant”), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California (“City”).

**RECITALS**

- A. On October 2, 2019, the City issued a Request for Proposal (“RFP”) No. 19-090, by which it desired to retain a consultant having special skill and knowledge in the field of Professional Land Surveying services on an “on-call” basis for the City’s Public Works Agency.
- B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide such services described in the scope of work that was included in RFP No. 19-090.
- C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional consulting firm in the field.

**NOW THEREFORE**, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

**1. SCOPE OF SERVICES**

On an on-call basis, and at the City’s sole discretion, Consultant shall perform all tasks, services, and obligations described in the scope of work section included within RFP No. 19-090, including providing all labor, materials, tools, equipment, and incidental customary work required to fully and adequately complete the services described and set forth in the “**Scope of Services**,” which was included in RFP 19-090 and is attached hereto and fully incorporated herein by this reference as **Exhibit A** and as more specifically set forth in Consultant’s proposal (excluding fee and cost proposal and resumes), which is attached hereto and fully incorporated herein by this reference as **Exhibit B**.

**2. COMPENSATION**

- a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in **Exhibit B**. Consultant is one of three (3) consultants selected to provide services on an on-call basis under RFP 19-090. The total compensation for these services provided by all such consultants selected under RFP 19-090 shall not exceed the shared aggregate amount of One Million, Five Hundred Thousand Dollars and Zero Cents (**\$1,500,000**) during the term of the Agreement, including any extension periods.
- b. Payment by City shall be made within 45 days (forty-five) days following receipt of proper

invoice evidencing work performed, subject to City accounting procedures.

- c. Payment need not be made for work that fails to meet the standards of performance set forth in the Recitals that may reasonably be expected by City.

### **3. TERM**

This Agreement shall commence on the date first written above and terminate on May 1, 2026, unless terminated earlier in accordance with Section 16, below. The term of this Agreement may be extended for up to two (2) one-year periods upon a writing executed by the City Manager and City Attorney.

### **4. PREVAILING WAGES**

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., (“Prevailing Wage Laws”), which require the payment of prevailing wage rates and the performance of other requirements on “public works” and “maintenance” projects. If the services being performed are part of an applicable “public works” or “maintenance” project, as defined by the Prevailing Wage Laws, and the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

### **5. INDEPENDENT CONTRACTOR**

Contractor shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

### **6. OWNERSHIP OF MATERIALS**

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement (“Documents & Data”). Consultant shall require all subcontractors to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and

warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

## 7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subcontractors, if any, to obtain and maintain insurance as described below:

a. Minimum Scope and Limit of Insurance

- (1) **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
- (2) **Automobile Liability:** ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with a limit no less than **\$1,000,000** per accident for bodily injury and property damage.
- (3) **Workers' Compensation:** as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **\$1,000,000** per accident for bodily injury or disease.
- (4) **Professional Liability (Errors and Omissions):** Insurance appropriate to the Consultant's profession, with a limit of no less than **\$1,000,000** per occurrence or claim, **\$2,000,000** aggregate.
- (5) **Broader Coverage:** if the Consultant maintains broader coverage and/or higher limits than the minimums shown above, the City requires and shall be entitled to the broader coverage and/or the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

b. Other Insurance Provisions

- (1) **Additional Insured Status:** The City, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at

least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 if a later edition is used).

- (2) **Primary Coverage:** For any claims related to this contract, the Consultant's insurance coverage shall be primary coverage at least as broad as ISO CG 20 01 04 13 as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
- (3) **Notice of Cancellation:** Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the City.
- (4) **Waiver of Subrogation:** Consultant hereby grants to City a waiver of any right to subrogation that any insurer of said Consultant may acquire against the City by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.
- (5) **Self-Insured Retentions:** Self-insured retentions must be declared to and approved by the City. The City may require the Consultant to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or City.
- (6) **Acceptability of Insurers:** Insurance is to be placed with insurers authorized to conduct business in the state with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.
- (7) **Claims Made Policies:** If any of the required policies provide claims-made coverage:
  - i. The retroactive date must be shown, and must be before the date of the contract or beginning of contract work.
  - ii. Insurance must be maintained and evidence of insurance must be provided **for at least five (5) years after completion of contract work.**
  - iii. If coverage is canceled or non-renewed, and not replaced **with another claims-made policy form with a retroactive date prior to** the contract effective date, the Consultant must purchase "extending reporting" coverage for a minimum of **five (5) years** after completion of work.

- (8) **Verification of Coverage:** Consultant shall furnish the City with original Certificates of Insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing all policy endorsements to City before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them.

The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

- (9) **Subcontractors:** Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Consultant shall ensure that City is an additional insured on insurance required from subcontractors.
- (10) **Special Risks or Circumstances:** City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

## 8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, contractors, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant, its subcontractors, agents, employees, or other persons acting on its behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

## **9. INTELLECTUAL PROPERTY INDEMNIFICATION**

Consultant shall defend and indemnify the City, its officers, agents, representatives, and employees against any and all liability, including costs, for infringement of any United States' letters patent, trademark, or copyright infringement, including costs, contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

## **10. RECORDS**

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

## **11. CONFIDENTIALITY**

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

## **12. CONFLICT OF INTEREST CLAUSE**

Consultant covenants that it presently has no interests and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

## **13. NON-DISCRIMINATION**

Consultant shall not discriminate because of race, color, creed, religion, sex, marital status, sexual orientation, gender identity, gender expression, gender, medical conditions, genetic information, or

military and veteran status, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, teaching, training, utilization, promotion, termination or other employment related activities or any services provided under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

#### **14. EXCLUSIVITY AND AMENDMENT**

This Agreement represents the complete and exclusive statement between the City and Consultant, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which is not embodied herein.

#### **15. ASSIGNMENT**

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services that are the subject to this Agreement performed by City personnel or by other contractors retained by City.

#### **16. TERMINATION**

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

- a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product(s) completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.
- b. Payment need not be made for work that fails to meet the standard of performance specified in the Recitals of this Agreement.

#### **17. WAIVER**

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving

the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

**18. JURISDICTION - VENUE**

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

**19. PROFESSIONAL LICENSES**

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

**20. MISCELLANEOUS PROVISIONS**

- a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.
- b. All Exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

**21. NOTICE**

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City:

Clerk of the City Council  
City of Santa Ana  
20 Civic Center Plaza (M-30)  
P.O. Box 1988  
Santa Ana, CA 92702-1988

Fax: 714- 647-6956

With courtesy copies to:

Executive Director, Public Works Agency  
City of Santa Ana  
20 Civic Center Plaza (M-21)  
P.O. Box 1988  
Santa Ana, California 92702

To Consultant:

Towill, Inc.  
Attn: Marvin E. Miller, Regional Director  
500 S. Main Street, Suite 540  
Orange, CA 92868  
(949) 261-1900

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these time frames, weekends, federal, state, County or City holidays shall be excluded.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the date and year first above written.

**ATTEST:**

**CITY OF SANTA ANA**

\_\_\_\_\_  
Jennifer L. Hall  
City Clerk

\_\_\_\_\_  
Kristine Ridge  
City Manager

**APPROVED AS TO FORM:**

SONIA R. CARVALHO  
City Attorney

**CONSULTANT:**

By:   
\_\_\_\_\_  
Brandon Salvatierra  
Deputy City Attorney

  
\_\_\_\_\_  
Marvin E. Miller  
Regional Director

*[signatures continued on next page]*

RECOMMENDED FOR APPROVAL:

---

Nabil Saba  
Executive Director  
Public Works Agency

# **EXHIBIT A**

**Appendix  
ATTACHMENT 1  
SCOPE OF WORK**

**CITY OF SANTA ANA  
REQUEST FOR PROPOSALS  
FOR  
PROFESSIONAL LAND SURVEYING SERVICES  
RFP NO.: 19-090**

**Introduction and Background:**

The City of Santa Ana intends to retain Professional Land Surveyors, licensed in the State of California, to perform land surveying services on an as-needed or “on-call” basis, or project basis for Capital Improvement Program (CIP) projects, and/or for projects under construction. Specific services shall be on-call and shall include all duties typically expected of a Professional Land Surveyor or surveying firm.

A Professional Services Agreement will be entered into with several of the qualified firms/consultant(s) to provide Professional Land Surveying services for a variety of projects on an on-call basis. On an on-call, as-needed basis, the selected firm(s) may be asked to provide professional services on specific, project-by-project basis, based on an agreed-upon specific scope of services and fees.

In general, work consists of general Land Professional Surveying services for Public Works Projects and or related to City facilities. The funding sources for each project may vary for each project/task order assignment shall comply with the funding agency’s requirements. The consultant shall be able to assist the City through this contract to provide the necessary services.

The consultant shall utilize in-house staff and/or sub-consultants to complete the assignments to meet the City standards. **For specialized work for which the prime consultant shall require a sub-consultant, the prime consultant shall serve as an administrative liaison between the City and the sub-consultant.**

**Prime consultant mark-ups for sub-consultant work will not be allowed.**

All proposals, plans, drawings, specifications, estimates, grant applications, and/or studies will be subject to the final approval and satisfaction of the City of Santa Ana.

**Scope of Services**

On as needed basis, the selected firm/s shall provide the City with the following services as described herein. A California-licensed land surveyor shall be in responsible charge of all survey work performed under this agreement.

The consulting firm/s selected for these services shall demonstrate the ability and experience in the following types of work and not limited to:

- A. Prepare legal descriptions, plats and maps for subdividing property
- B. Research existing County and City records for survey monuments within the project area. Prior to any clearing, removal, or excavation efforts, perform a diligent search for property line monuments, street centerline monuments, and benchmarks within the project area, recording their identities and precise locations in reference to monuments or witness monuments that will not be disturbed during construction. The records of these monuments and references shall conform to Section 8771 of the Business and Professions Code of the State of California. After completion of the construction, any monument disturbed or removed during construction shall be reset, conforming to Section 8771. Each centerline intersection shall be drawn on a single Corner Record showing local tie points and tie distances. A pdf copy of the final receded Corner Record shall be submitted to the City.
- C. Perform boundary line adjustments
- D. Perform monument perpetuation/preservation in areas that will be impacted by City projects
  - o Includes site investigation for existing monumentation, with a report provided to the City with recommendations.
  - o May include pre- and post-construction records
- E. Replace lost or obliterated property corners
- F. Set boundary markers or property corners, also known as monuments
- G. Retrace boundaries for fences and other purposes
- H. Locate, relocate, establish, reestablish, or retrace, or retrace any property line or boundary of any parcel of land, right-of-way, easement, or alignment of those lines or boundaries
- I. Prepare legal descriptions and information shown with the description of any deed or other title document
- J. Prepare Record of Surveys

### **Map Checking Services**

- A. Information furnished by the City for checking will be roughly as follows: 1 set of Exhibits, title reports, reference documents (Deed, Parcel Map, Tract Map, etc.), traverse closures, and improvement plans.
- B. Prepare maps or plats
- C. Review Exhibits for technical correctness and completeness, consistency with the City guidelines and requirements, compliance with the Subdivision Map Act, and acceptance for recording.
- D. Review title report and existing easements for correct plotting and references.
- E. Review improvement plans associated with the project to ensure the Exhibits correctly identify the limits and location as shown on the improvement plans.
- F. Provide a set of redline check prints showing the redlined comments, and required

corrections and information.

- G. Provide a check letter covering the major required comments, and corrections and instruction for future submittals.
- H. Provide a timesheet at the end of every review to include, but is not limited to, project name, review number, dates, review hours, hourly rate, and total cost.
- I. Review maps and/or surveys such as Parcel Maps, Final Maps, or Tentative Maps

### **Construction Services**

- A. Stake the location of fixed engineering works for construction purposes. Provide construction staking for project improvements. Records of the line and grade stakes (cut sheets) shall be on forms provided by the City, and the originals shall become the property of the City upon completion of each survey request. The City will provide digital construction plans and specifications for each project.
- B. Set line and grade stakes in accordance with the plans and specifications. Notify the City immediately of any discrepancies or design errors discovered on the plans during staking or when verifying the line and grade of existing improvements at join points.
- C. Complete the construction staking within the time frame as specified on the Survey Request Form, or (given minimum notice) commence the staking no longer than two working days from receipt of the request, providing continuous service until the request is complete.
- D. Furnish all office support, labor, materials, equipment, tools and incidentals necessary to complete the specified surveys. The costs for these items shall be included in the hourly or lump sum costs and no additional compensation will be allowed therefor.

### **Miscellaneous Services**

- A. Investigate boundary discrepancies
- B. Locate, relocate, establish, reestablish, or retrace the alignment or elevation for any of the fixed works embraced within the practice of civil engineering
- C. Determine contours of the earth's surface for topographic maps
- D. Photogrammetric surveying or aerial topographic mapping or aerial photography
- E. Provide Professional Land Surveying services as requested. A detailed scope of work will be outlined when specific project is assigned to the consultant. Services shall include, but are not limited to, cross-sections, intersection grids, centerline determination, digital terrain models (dtm), right of way determination, utility profiles and exhibits.
- F. Generate a computer drawing in Microstation V8 format as well as the sample survey

drawing on the City of Santa Ana website listed in item K below.

- G. All survey needs to be prepared to the satisfaction of the City's Surveyor and meet the following standards:
- H. Horizontal control shall be based on the 1983 North American Datum (NAD83), tied to a minimum of two proximate County of Orange, CCS83, Zone VI, 1991.35 Epoch Adjustment control points. Project coordinate values shall be provided in U.S. Survey Feet. The County control points shall determine the Basis of Bearing for the project.
- I. Vertical control shall be based on the North American Vertical Datum of 1988 (NAVD88), tied to a minimum of two proximate County of Orange bench marks. Project elevations shall be provided in U.S. Survey Feet.
- J. Horizontal alignment(s) for the project shall be tied to the survey centerline monuments within the project area.
- K. With the coordinate values, a full location and detailed description, including point character with reference(s), shall be provided for all found and set monuments for the project. For this purpose, a sketch of the control network is required.
- L. Copies of all survey field notes and raw data files shall be provided along with a listing of the final coordinates for all surveyed points. The digital file format for the listing shall be: point number, northing, easting, elevation, description (comma delineated with no spaces, one point per line). The coordinate precision shall be one hundredth of a foot.
- M. At any given time the City may need to mobilize survey crews to different project sites, the consultant shall have a minimum of three (3) survey crews for mobilization.
- N. All City CADD standards as well as Microstation configuration files are located at:

<http://www.santa-ana.org/pwa/EngineeringServices.asp>

**Other Terms and Conditions:**

- 1. The project will be implemented in compliance with the City of Santa Ana's policies, as well as Prevailing Wages and State/Federal Requirements.
- 2. The City regards the inclusion of California based designs, engineering, and construction professionals, facilities, and services as part of the Team to be highly desirable, but not mandatory.
- 3. The City reserves the right to amend this Request for Proposal by addendum prior to the final dates of submission.
- 4. All reports, proposals, or other data or materials which are submitted shall become the sole property of the City of Santa Ana with the exception of the confidential Financial Capacity information and sealed fee proposals which will be returned to all proposers after award of

contract to the selected Team.

5. All products used or developed in the execution of any contract resulting from this request will remain in the public domain at the completion of this project.
6. The City has an affirmative action program. The purpose of the affirmative action program is to encourage certified minority business enterprises and women business enterprises. All submitting firms must have established affirmative action programs approvable by the City. During the RFP stage, all firms will need to complete a “Certification of Non-Discrimination by Contractors” for each firm on their team.

#### **Special Requirements (Attachment 4)**

This project may utilize California Department of Transportation (Caltrans) funds and shall therefore comply with all state and federal requirements. The below referenced forms included in Attachment 4 (Additional Provisions) of the Appendix must be completed in their entirety and submitted with your proposal:

- LAPM Exhibit 10-H: Sample Cost Proposal
- LAPM Exhibit 10-O1: Consultant Proposal DBE Commitment
- LAPM Exhibit 10-O2: Consultant Contract DBE Commitment
- LAPM Exhibit 10-K: Consultant Certification of Contract Costs and Financial management System

*Please reference Caltrans Local Assistance Procedure Manual, Consultant Selection, Chapter 10, for further instructions and guidelines pertaining to the completion of these forms:*  
<https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/lapm/ch10.pdf>

#### **COMPLIANCE WITH REQUIREMENTS OF FUNDING AGENCY:**

This agreement may be funded with state and/or federal grant funds administered by Caltrans. Proposer shall comply with all requirements as they pertain to the use of these funds. Refer to Attachment 4 for Caltrans required forms, including **Exhibit 10-H – Sample Cost Proposal** (H2 for On-Call Contracts) in the Appendix of this RFP.

#### **DISADVANTAGED BUSINESS ENTERPRISES (DBE) GOAL:**

The Agency has established a DBE goal for this Contract. Proposers are encouraged to obtain DBE participation for this contract. Refer to **Exhibit 10-I – Notice to Proposers DBE Information** included in the Appendix of this RFP. Proposers must submit **Exhibits 10-O1 & 10-O2 – Consultant Proposal & Contract DBE Commitment** to demonstrate compliance with Agency’s DBE goal.

#### **CONSULTANT AUDIT AND REVIEW PROCESS:**

Prior to contract award and dependent on contract award amount, the selected Consultant shall be subject to an audit or review by Caltrans’ Audit and Investigations (A&I), other state audit organizations, or the federal government. The selected Consultant shall complete **Exhibit 10-K – Consultant Annual Certification of Indirect Costs and Financial Management System** for all prime and sub-consultants in the Appendix of this RFP.

*To independently download any of the Caltrans Exhibits required per this RFP, visit:*  
<https://dot.ca.gov/programs/local-assistance/forms/local-assistance-procedures-manual-forms>

## **EXHIBIT B**



*PROPOSAL TO PROVIDE*  
**On-call Professional Land Surveying Services**  
*RFP No. 19-090*

*SUBMITTED ON OCTOBER 24, 2019*  
*PREPARED BY TOWILL, INC.*



**ORIGINAL**



## Cover Letter

October 24, 2019

City of Santa Ana  
Attn: Mr. Sean Thomas, PE  
Public Works Agency; M-36  
20 Civic Center Plaza; 3rd Floor Reception, Ross Annex  
Santa Ana, CA 92701

**RE: Request for Proposal No. 19-090  
Professional Land Surveying Services**

Dear Mr. Thomas:

Towill, Inc. (Towill) is pleased to present our team's qualifications and proposal to provide as needed surveying support to the City of Santa Ana (City) in response to your Request for Proposal (RFP). Since 1955, Towill has provided highly specialized geomatics services to clients throughout California. We are proud of the work we have accomplished and the relationships we have built along the way, and we are eager to establish a strong working relationship with the City.

### Who We Are

**Towill is a surveying and mapping firm; this is our sole focus and has been for the past 64 years.** This is what we do, all we do, and we do it all in-house. We are not a division of a larger engineering company where priorities and resources can shift. We do not have an internal client base (other engineers) that can provide us with work when projects slow down. Since our clients can choose who they hire, we must strive for excellence in all we do.

As a professional services firm and as individuals, our number one goal is to provide our clients with on time, first time right project deliverables. Since we are solely focused on geomatics services, we attract and retain a core group of passionate staff and focus our investments on new survey equipment and the latest software. Towill's key personnel who will be assigned to this contract have on average 27 years of professional experience in field surveying, photogrammetric mapping, remote sensing, and GIS.

We take pride in designing cost-efficient technical approaches that continually meet or exceed our clients' requirements for every project assignment. Our goal is never to just complete a survey/mapping design task, but to provide valuable geospatial information that will be used by engineers and others to improve the places we work and live. Whether it is for a small boundary survey or a large topographic base map, we understand that we are an important and valuable part of the overall project.

### Expert Project Management

Towill has assembled a versatile team with exceptional technical experience and professional qualifications, and a commitment to responsiveness to meet your objectives. Leading the team as **Project Manager** will be **James Rios, PLS**. James is a Professional Land Surveyor with 21 years of experience as a Project Manager, Project Surveyor, and Party Chief. James has well-rounded experience with a heavy focus on projects for Southern California public sector clients, including but not limited to the Cities of Irvine, Yucaipa, Chino, local transportation agencies such as OCTA, RCTC, SBCTA, and the Port of Long Beach. Many of James' project assignments have been completed according to Caltrans specifications with MicroStation V8 deliverables.

Submitted October 24, 2019



Towill has enhanced our team with the addition of DBE/SBE firm Chaudhary & Associates, Inc. (Chaudhary) as a subconsultant to provide added field survey capacity. Located in Long Beach, Chaudhary has been providing quality construction surveying, design, and right of way services in Southern California for the past 43 years. Towill has an excellent working relationship with Chaudhary and has utilized their expertise on several projects throughout Southern California and the entire State of California.

### Required Information

I, Marvin E. Miller, will have contractual responsibility with the City of Santa Ana during the period of proposal evaluation and my contact information follows at the end of this Cover Letter. Towill will serve as the Prime Consultant for the City of Santa Ana and Chaudhary will work as a DBE subconsultant to Towill. I am authorized to make legally binding commitments for Towill.

### Contract Agreement Statement

Towill agrees to any and all provisions as contained in the Agreement in the RFP.

In closing, I am pleased to present you with a uniquely qualified team that has the support, when and if needed, of Towill's entire corporate resources. I trust that the following proposal is sufficient in detail for your evaluation. However, should you have any questions or require additional information, please do not hesitate to contact me by phone at (949) 261-1900 or via email at [marvin.miller@towill.com](mailto:marvin.miller@towill.com). Thank you in advance for your consideration of Towill, Inc. We look forward to the opportunity to be of service to the City of Santa Ana on this contract.

Sincerely,  
**TOWILL, INC.**

Marvin E. Miller, MBA, RPP, PLS, CP, PPS, SP  
Regional Director

## Points of Contact

### Contractual Responsibility

**Name:** Marvin E. Miller  
**Title:** Regional Director  
**Address:** Towill, Inc.  
500 S. Main Street, Suite 540  
Orange, CA 92868-4507  
**Email:** [marvin.miller@towill.com](mailto:marvin.miller@towill.com)  
**Phone:** 949.261.1900 ext. 1504

### Project Management

**Name:** James Rios  
**Title:** Project Manager  
**Address:** Towill, Inc.  
500 S. Main Street, Suite 540  
Orange, CA 92868-4507  
**Email:** [james.rios@towill.com](mailto:james.rios@towill.com)  
**Phone:** 949.261.1900 ext. 1704



## Firm and Team Experience

### Firm Profile

Towill, Inc. (Towill) is an experienced provider of surveying and geomatics services offering a broad range of advanced surveying, mapping, and geospatial solutions, which include land surveying; high accuracy specialty surveying; digital aerial photography; airborne, terrestrial, and mobile Light Detection and Ranging (LiDAR); digital 3D and 2D photogrammetric mapping; volumetrics; and geographic information systems (GIS).

Since the firm's establishment in 1955, the field of surveying and mapping has been Towill's sole focus. We have become one of the most accomplished providers of geospatial solutions in the western United States. Towill has invested over \$6 million in modern hardware and software to ensure that we can provide our clients with the most accurate, cost-efficient, and timely services available.

This commitment to innovation, combined with our dedicated, passionate staff, are the keys to Towill's success, which is demonstrated by our high rate of repeat clients and referrals. Over 85% of Towill's business comes from repeat clients, which is a testament to our client focus, culture of client service, and overall ability to deliver on time, first time right services.

### Extent of Experience

Over the last 64 years, Towill has completed more than 16,000 projects across a wide range of industries in support of engineering design, transportation, rail, tunneling, major planning, GIS, construction, and floodplain projects. Our projects range from large to small and from multi-million-dollar, multi-year on-call contracts with agencies such as the U.S. Army Corps of Engineers (USACE) and the State of California Departments of Transportation (Caltrans) and Water Resources (DWR), to smaller projects completed in as little as one day. We provide our clients with a single source for all their surveying, mapping, and GIS needs.

Towill has worked with dozens of public agencies, from local to federal, throughout our history; we understand your priorities and the unique challenges that cities face. Our previous experience on dozens of as needed or on call surveying and mapping contracts

for various public-sector clients provides us with working knowledge of local agency systems, procedures, and expectations. We excel at managing multiple projects simultaneously because we know that our clients depend heavily on the deliverables that we produce to perform their planning, design, and construction tasks. Towill has the staff, experience, and resources needed to complete your tasks on time and on budget.

Within the past ten years, Towill has successfully held on-call survey and mapping contracts with a wide variety of public sector clients of all sizes, including the cities of Chino, Huntington Beach, Irvine, Long Beach, Moreno Valley, Pomona, Pasadena, San Diego, and Vista, and the counties of Los Angeles, Orange, Riverside, and San Bernardino.

This extensive previous experience is proof that we understand our primary role as a consultant: to provide a pool of resources—personnel and equipment—that our clients can call upon to fulfill surveying and mapping requirements as necessary.

### Our DBE Commitment

Towill is proud of our firm's commitment to the affirmative action (including SLBE/ELBE/DBE/MBE/WBE/DVBE/OBE) programs and being an equal opportunity employer. We have successfully mentored small and disadvantaged businesses through the Caltrans' Calmentor Program. This statewide California program is designed to encourage and support small businesses through voluntary partnerships with established firms. Caltrans provides training, facilitates the relationships, and provides opportunities to network with additional consultants. Goals are set in a Memorandum of Understanding; and upon documentation and goal achievement by both the Mentor and Protégé firms, the firms are graduated. Towill has graduated multiple small firms from this program.

In addition to the individuals Towill offers in-house, we have joined with a long-term partner on this contract: Chaudhary & Associates (DBE, Micro/SBE, MBE) to provide field survey support. We are eager to share the work assigned from this contract with Chaudhary because they are composed of individuals we know personally, trust completely, and with whom we have



a history of providing successful projects together. We will achieve 10% utilization with Chaudhary, far exceeding the City's established DBE goal of 0.5%.

### Key Personnel

Towill is pleased to introduce the team of key personnel we have chosen specifically for this contract. Our assigned key personnel will be available to the extent proposed for the duration of the required services. Towill acknowledges that no person designated as "key" shall be removed or replaced without prior written concurrence of the City of Santa Ana.

At any given time of the year, Towill's active backlog represents ~45% of our monthly capacity. Accordingly, we have more than enough capacity to support the anticipated requirements of this program.

An organizational chart is included at the end of this section. Complete resumes for the following key individuals are located in Appendix A.

#### Survey Project Manager: **James Rios, PLS**

James has 22 years of experience in land surveying as a Project Manager, Project Surveyor, Party Chief, and Mapping Manager. James has well rounded experience with a heavy focus on projects for Southern California public sector clients, including Orange County Public Works, the Cities of Moreno Valley and Yucaipa, the Port of Long Beach, and many others. His extensive experience includes performing field calculations, right-of-way and boundary surveys, and mapping.



James regularly coordinates and oversees efforts in all aspects of land surveying, including research and analysis, title reports, rights-of-way, easements, American Land Title Association (ALTA) surveys, topography, boundaries and mapping, construction staking, and the preparation and filing of subdivision maps, Corner Records, and Records of Survey.

As Project Manager, James will be responsible for daily oversight of field survey crews and office survey staff, including progress tracking and reporting to the Principal-in-Charge. In addition, he performs research

activities; prepares metadata and technical reports in accordance with contractual requirements; implements QA/QC processes for all field and office surveying tasks; and verifies that the content and accuracy of deliverables adhere to project specifications.

#### Principal-in-Charge: **Marvin E. Miller, MBA, RPP, PLS, CP, PPS, SP**

Marvin is an accomplished geomatics professional with 43 years of project/operations management, project design/implementation, and business leadership/consulting experience within the private sector disciplines of surveying, remote sensing, photogrammetry, enterprise GIS, and related geomatics services. During his career, Marvin has served as Principal in Charge, Project Manager, Technical Compliance Manager, and Surveyor of Record for numerous federal, state, and local agency project undertakings.



As Principal-in-Charge, Marvin will be responsible for contract administration, including preparation of cost estimates, proposals, technical and administrative reports, and invoices. Additional responsibilities include monitoring budgets and schedules for compliance and acting as necessary to keep them within contractual parameters. He will perform oversight of all project group members and their functions and Independent Technical Review (ITR) of technical procedures, QA/QC procedures, and results (i.e., deliverables).

**Marvin will serve as James Rios' back-up when he is unavailable.**

#### QA/QC Lead **Frank Borges, PLS**

Frank Borges is a Professional Land Surveyor and an Associate Principal at Towill with 23 years of experience. He has performed and supervised projects involving boundary surveys, legal descriptions and plats, topographic base maps, geodetic survey control, aerial mapping, ALTA surveys, monitoring surveys, construction staking, aeronautical surveys, hydrographic surveying, and LiDAR scanning for clients both private





and public. His success on projects comes from his attention to detail in clearly established production procedures, QA/QC, and accountability for tasks completed.

As QA/QC Lead, Frank will be responsible for assuring the professional quality, technical accuracy, completeness, and consistency of all Towill's deliverables under this contract.

**Licensed Party Chief / Field Survey Lead:  
Nicholas Lewis, PLS**

Nick is a California Professional Land Surveyor and Certified Party Chief with the International Union of Operating Engineers Local 12. He brings 37 years of field survey experience to the Towill team and has worked on projects for the Cities of Fullerton, Irvine, and Huntington Beach. His land surveying experience includes roadway design and construction, horizontal and vertical control, topographic surveys, boundary surveys, GPS, monitoring, and 3D laser scanning.



As Field Survey Lead, Nick will be responsible for developing work approaches and cost estimates, scheduling and managing field crews, directing field and office staff, and providing quality assurance/ quality control and supplemental work and safety planning. Nick is capable of performing production work when needed and management of specific project tasks. He also performs job site inspections for safety and planning of work tasks and may be responsible for communication with City staff and the general public at the project site as needs dictate.

**Associate Surveyor / Office Survey Lead:  
Christopher Johnson, LSIT**

Chris is an Office Surveyor/Certified Party Chief with 33 years of experience in the surveying field. His background includes design surveys, construction staking, corridor control surveys, boundary surveys, ALTA surveys, 3D laser scanning, right-of-way monumentation, and topographic surveys. He is knowledgeable in the use of MicroStation, InRoads,



TopoDOT, and Trimble survey instrumentation and software, as well as Caltrans standards.

As Office Survey Lead, Chris will be responsible for processing field data, performing GPS reductions and network adjustments, reducing laser scanning datasets, analyzing laser scan data, and preparing internal deliverables to the project team for final CAD mapping and deliverables.

**Senior Geomatics Analyst / Aerial Survey Lead:  
Lorraine Amenda, PLS, CP**

Lorraine has 29 years of surveying and mapping experience and has served as a Senior Photogrammetrist and Photogrammetry Project Manager for over fifteen years. She joined Towill after the completion of her Surveying Engineering degree from California State University, Fresno. Her experience and knowledge include least-squares adjustments and advanced computations for surveying and photogrammetric processes, design of ground control networks, flight planning, and Light Detection and Ranging (LiDAR) data processing.



As Aerial Survey Lead, Lorraine will be responsible for daily oversight of photogrammetry personnel (including those assigned to airborne LiDAR and GIS tasks) and tracking progress and preparing reports for the Project Manager and Principal-in-Charge. She performs advanced technical functions, such as airborne GPS processing, analytical aerotriangulation computations, airborne LiDAR data processing, and volume calculations. In addition, she prepares metadata and technical reports in accordance with contractual requirements; implements QA/QC processes for all photogrammetric, airborne LiDAR, and GIS tasks; and verifies that the content and accuracy of deliverables adhere to project specifications.

**Geomatics Specialist / Airborne  
LiDAR Lead:**

**Keith Kirkby, PE, P.Eng.**  
Keith's 23 years of experience includes a diverse array of proficiency providing geomatics (geospatial) services with an emphasis on airborne remote sensing applications.





He has designed, implemented, and managed dozens of airborne LiDAR acquisition missions, geodetic and photo control surveys, aerial photography campaigns, and GPS field surveys for engineering design and GIS base mapping applications.

As Airborne LiDAR Lead, Keith will be responsible for the acquisition and interpretation of LiDAR data, which includes development of work plans, coordination and scheduling of equipment and other resources, on-site data acquisition, which may include field surveying, post-mission data processing and reductions, interpretation and analysis, and reporting of LiDAR data utilizing a variety of techniques.

**Associate Surveyor / Terrestrial LiDAR Lead:  
Frederick "JR" Gregory, LSIT**

JR has 14 years of surveying and mapping experience in both the field and office, which includes topographic mapping, plats/legal descriptions, LiDAR data extraction and classification, and right-of-way appraisal mapping. Over the past five years, JR has focused extensively on the design of static and mobile terrestrial LiDAR (3D laser scanning) surveys and the collection, processing, and classification of LiDAR point cloud data. He is well versed in a variety of survey and mapping software applications and packages, including AutoCAD Civil 3D; Cardinal VR; Carlson software; Bentley MicroStation, InRoads, and TerraScan; TopoDOT; Trimble Business Center and Trimble RealWorks; and STAR\*NET.



As Terrestrial LiDAR Lead, JR will be responsible for the design and execution of any required 3D laser scanning tasks, as well as the processing and classification of the terrestrial LiDAR data collected.

**Certified Party Chief:  
Oliver Rocha, LSIT**

Oliver is a Certified Party Chief with 29 years of land surveying experience. He has worked for several local public agencies, including the Cities of Irvine, Moreno Valley, Colton, and Yucaipa. He has been involved in numerous survey projects consisting of topographic, boundary,



construction, right-of-way, and GPS surveying on a variety of projects, including highways, roadways, site development, and communications. He will be responsible for performing the necessary field surveys to support task orders, including but not limited to, topographic, boundary, and construction surveys.

As Certified Party Chief, Oliver will lead and coordinate field staff task assignments on a daily basis, according to project assignment under the direction of the Field Survey Lead and Project Manager. He oversees crew set up and ensures that proper equipment and procedures are used, consistent with the scope of work for the project. He also performs job site inspections for safety and planning of work tasks and may be responsible for communication with City staff and the general public at the project site as needs dictate.

**Subconsultant Party Chief:  
Jose Casanova, LSIT, Chaudhary & Associates**

Jose has more than 20 years of extensive civil engineering and land surveying experience in the private sector. He is highly proficient in MicroStation, InRoads, AutoCAD, Civil 3D, Softdesk, and GPS Trimble software. He has worked on a variety of projects including land surveying, architectural, transportation, water, land development, and telecommunications, and is currently studying for his Land Surveying license. He has also spent time as a Party Chief and Chainman in a field crew, providing him with a complete understanding of project design.



**Subconsultant Potholing Lead:  
Salvador Silva, AirX Utility Surveyors**

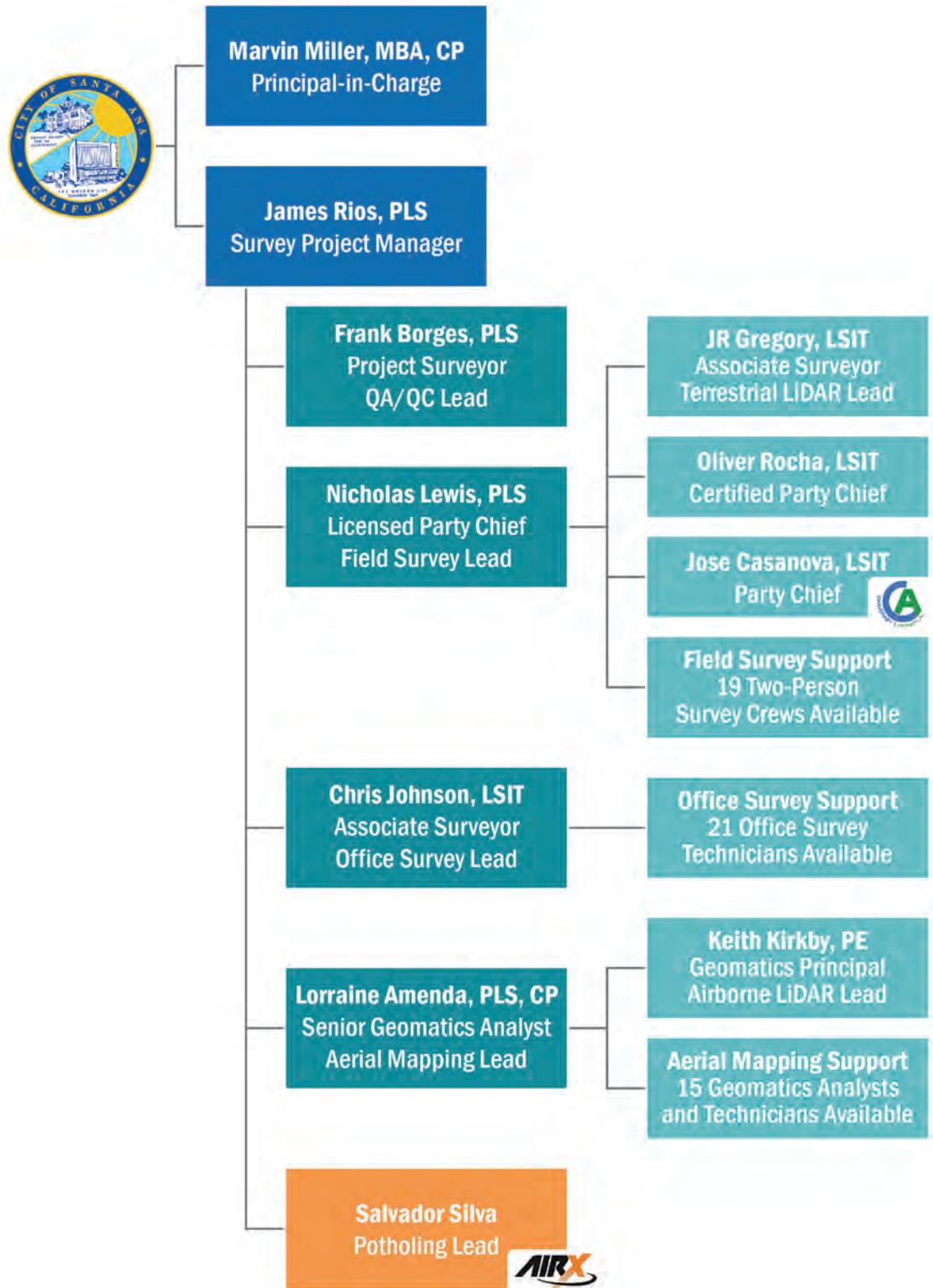
Salvador has nine years of experience at AirX working from the ground up as a laborer specializing in potholing, to crew chief, and now field crew supervisor.

As Potholing Lead, Salvador will be responsible for scheduling potholing crews and monitoring productivity and safety during traffic control setup and during pothole excavation.





# Organization Chart





## Understanding of Need

### Project Understanding

Towill completely understands the required details regarding the possible variety of the City's public works projects, including the technical requirements, scope of work, schedule, project Area of Interest (AOI), and the required deliverables associated with survey task order. Moreover, Towill understands that the primary on-call professional land survey services required by the City of Santa Ana may include:

1. Research and Data Collection
2. Vertical & Horizontal Control Surveys
3. Prepare Legal Descriptions, Plats, and Maps
4. Monument Perpetuation/Preservation
5. Map Checking Services
6. Construction Staking Services
7. Photogrammetric/LiDAR Surveys
8. Topographic Surveys
9. Boundary and Right of Way Surveys

The overall Project Area of Interest (AOI) is approximately 27.5 square miles and includes the corporate boundaries of the City of Santa Ana. In addition, we understand that one of the primary goals of the program is to provide the City's Public Works Department with timely/precision professional surveying services that are tailored to fit the objective of each project assignment.

Because surveying, mapping, and GIS are the only services we offer, on-call service contracts represent a significant portion of Towill's business model. In fact, across our firm, we currently manage over 50 different

on-call surveying/mapping contracts for public sector clients and utility companies of all sizes.

It is important to note that we prioritize all of our on call contracts equally. New task orders are inserted into our workflow as they arise and are completed as delivery schedules dictate. We achieve very high levels of client satisfaction by maintaining the critical internal communication necessary to keep on top of task budgets and schedules, shift workloads across office locations as needed to maximize efficiency, and rapidly re assign available resources to meet project commitments.

Details on the nine primary land surveying services noted above can be found in the Scope of Services and Schedule section of this proposal.

### Proactive Task Order Management

Our approach for all the work that we do always starts with communication. Before any work begins, our project managers strive to learn about your expectations for each task order, your schedule and budget requirements, and any other potential issues. We then develop a concise Scope of Work, cost estimate, and schedule which, when accepted by the City, becomes the basis for the work. No work will be performed until the City has authorized it via the issuance of a Notice-to-Proceed (NTP).

Upon approval of the task order, the team will have a kickoff meeting to focus on delivering a consistent,

Towill's Task Order Management Process





efficient, and quality deliverable. Instructions to the project team will be developed and distributed to all members. These instructions may include communication protocols, schedules/budgets, technical standards, health/safety requirements, scope of work, required deliverables, quality control plans and procedures, and/or review of environmental policies.

Throughout the performance period, Towill's project manager will maintain open lines of communication with City staff, attending regular status meetings and/or reporting on the project's progress via email correspondence or by phone. Once deliverables are submitted to the City, we respond to any questions or comments you may have, make any final revisions necessary, and ensure that your staff is completely satisfied with all deliverables prior to close-out of the task order.

This process is summarized in the flowchart graphic on the previous page. Towill's project manager and support team are committed to responsiveness to meet your objectives. We know from experience that our proven task order management process will be key to successfully deliver your task orders on time and within budget.

### Suggestions or Special Concerns

Given the nature of the anticipated Capital Improvement Program (CIP) projects along with Towill's 64 years of experience providing on-call land surveying, we are pleased to have the opportunity to suggest some value-added services for your consideration.

#### Terrestrial, Mobile, and Airborne LiDAR

Towill brings 15 years of terrestrial LiDAR scanning ability. Terrestrial LiDAR scanning can be used to obtain spatial information for features that require a high level of detail or that are difficult to reach. It can also be used to gather many data points on complex surfaces, such as rough and uneven ground. The key to successful terrestrial LiDAR scanning technology is knowing when it is the right tool for the job and how to combine and augment it with other measurement methods and data products to provide the most efficient service for the tasks at hand. In addition, Towill's unique business model, which combines complete aerial photogrammetric and LiDAR services, as well as ground-based field surveying augmented with LiDAR,

brings a comprehensive mapping tool set to the City.

Recently, Towill completed 16 miles of detailed topographic mapping along State Route 91 in Riverside County, utilizing a combination of mobile and terrestrial LiDAR, aerial photogrammetry, and conventional ground surveys. This seamless integration of various advanced and conventional technologies allowed the Towill team to complete this design-level mapping project to Caltrans standards within 120 days. This is a strength the Towill team will bring to the City.

Depending upon the project requirements, incorporating aerial LiDAR as part of the overall solution often represents a cost and time-saving approach. Our airborne LiDAR systems are integrated with precision Phase One 100-megapixel digital image sensors. Combining traditional photogrammetric mapping techniques with state-of-the-profession aerial LiDAR, represents not only a cost-efficient project approach but also the ability to provide precision map documents in areas that would compromise the safety of our field crews. We would also like to point out that we often fuse together terrestrial and aerial LiDAR data sets. For projects where LiDAR represents a more cost-efficient approach, the combination of stereo imagery with aerial LiDAR traditional photogrammetry techniques with state-of-the-profession LiDAR technologies.

#### Potholing

Towill's land surveying experience in highly urbanized areas often requires locating buried utilities. Accordingly, should the need arise for locating underground utilities, Towill will enlist the services of our subcontractant, AirX Utility Surveyors, Inc. AirX is a Woman Owned Small Business (WOSB) with offices in Rancho Cucamonga and Escondido, California, has been providing Subservice Utility Engineering (SUE) services since 2000. They are a trusted SUE services provider to not only Towill but also to many local agencies throughout Southern California.

#### Assumptions and/or Exclusions

Access to all assigned project AOI's will be made available to the survey teams without restrictions or added cost.



## Relevant Project Experience

Since Towill's inception in 1955, we have served as a consultant on hundreds of contracts for public agency clients, from the federal and state level down to local agencies and special districts, with the majority of our work generated from on-call contract task orders. In fact, approximately 70% of Towill's total revenue earned last year came from municipal clients and their projects. Following is a small sample of the projects we have completed over the last five years.

### Caltrans District 59: As-needed Aerial Mapping Services Contract

Towill is currently under our fifth consecutive contract with Caltrans to provide as-needed professional aerial photogrammetric mapping services statewide. Most tasks under this contract are focused on the acquisition, processing, and classification of airborne LiDAR (Light Detection and Ranging) data and the generation of color orthophotography; an increasing number of projects over the last two contract periods have also included the capture of planimetric features.

Specific services provided under these contracts include airborne LiDAR data acquisition and processing, photogrammetric mapping, aerotriangulation, ground control surveys, and quality control surveys. We completed a total of 56 task orders during our previous on-call contract (2015-2018), including:

- State Route 74 in Orange County: Airborne LiDAR mapping and orthophotography for approximately five miles from west of Hot Spring Canyon Road to the Riverside County border in southeast Orange County. **Year Completed: 2018;**
- Interstate 15 in Riverside County: Airborne LiDAR data collection for pavement condition studies along a three-mile stretch of highway near Temecula. **Year Completed: 2017;** and
- Interstate 40 in San Bernardino County: Airborne LiDAR, Mapping, and Orthophotography for a 50-mile stretch between Ludlow and Needles. **Year Completed: 2016.**

**Client:** Caltrans District 59  
**Contact:** John Erickson, CP, PLS  
**Phone:** 916.227.7649

### Orange County Transportation Authority: OC Streetcar Project Construction Management Services

Towill is providing on-call construction staking services to PGH Wong for the OC Streetcar project. This OCTA project is in coordination with the City of Santa Ana and City of Garden Grove to construct a new east-west double-track modern streetcar in Orange County between the Santa Ana Regional Transportation Center in the City of Santa Ana and the Harbor Boulevard/Westminster Avenue intersection in the City of Garden Grove. The purpose of the project is to improve transit connectivity and transit accessibility, increase transit options, relieve congestion by providing alternative mobility options in a manner that is sensitive to the community's character, and provide benefits to the environment through improved air quality. **Year Completed: Ongoing.**

**Owner:** OCTA  
**Client:** PGH Wong Engineering, Inc.  
**Contact:** Doaa Aboul-Hosn, PE  
**Phone:** 602.300.4091

### City of Irvine: Culver Drive and University Drive Intersection Improvements Project

Towill is providing construction surveying services to support the Culver Drive/University Drive Intersection Improvements project. The project involves widening the roadway; reconstructing the concrete median, sidewalks, curb and gutter, etc.; street light relocation; traffic signal modification; extension of an existing channel box culvert; installation of a landscape and irrigation system; signing, striping, and pavement markings; and relocation and adjustment of IRWD water facilities. Towill's tasks include performing a centerline survey and monumentation recovery; detailed surveys of the streets, sidewalks, and neighboring properties; developing a digital terrain model and street cross-sections; performing construction staking and as-built surveys; and monument preservation. **Year Completed: Ongoing.**



### City of Irvine: Alton Parkway Pavement Rehabilitation Project

Towill performed horizontal and vertical control surveys, topographic surveys and centerline surveys for a 3,000-foot portion of Alton Parkway near the Irvine Spectrum. Utilizing a combination of conventional survey methods and 3D laser scanners, Towill collected full street topographic data without impeding traffic or closing a lane. The final data was mapped, a digital terrain model created, and all delivered to the design team in MicroStation and InRoads format.

**Year Completed: 2017.**

**Client:** City of Irvine  
**Contact:** Uyenly Bui  
**Phone:** 949.724.7559

### City of Fullerton: Raymond Avenue Grade Separation Project

Towill provided quality assurance construction surveying services, including verifying the primary and project control, reviewing the horizontal design alignments and vertical profiles, and responding to construction survey requests, to support this grade separation project. We monitored the contractor’s surveyor for compliance with the project surveying requirements, verified their layout and controls, spot checked reference points and finished work, and monitored for settlement or movement of existing facilities. Construction surveys were performed in accordance with the Caltrans Survey Manual and its revisions. **Year Completed: Ongoing.**

**Owner:** City of Fullerton  
**Client:** Berg & Associates, Inc.  
**Contact:** Carlos J. Quiroz, QSP  
**Phone:** 310.548.9292

### Los Angeles County Department of Public Works: As-Needed Surveying and Mapping Services Contract

Towill has been providing land surveying and mapping services for the Los Angeles County Department of

Public Works since 2013. Our two most recent task orders are described below.

- LACDPW Headquarters Building ALTA/NSPS Land Title Survey: Towill completed an ALTA/NSPS Land Title Survey for the Department of Public Works Headquarters building. Services included establishing ground control, color aerial photography, planimetric feature collection at 1” = 20’, and development of Digital Terrain Model (DTM) sufficient in detail for generating 1.0’ design contours. Our subconsultant, AirX, used Ground Penetrating Radar (GPR) to locate the underground utilities. **Year Completed: 2019.**
- Roosevelt Park Construction Staking: Towill is currently supporting the County’s contractor with construction staking services for the subject project. To date, there have been a total of 32 staking requests issued, all of which have been completed within forty-eight hours after receipt. **Year Completed: Ongoing.**

**Client:** LACDPW  
**Contact:** Mark Wittig, PLS  
**Phone:** 626.458.5144

### Orange County Public Works: On-call Surveying Services Contract

Towill has been providing on-call surveying services to the Surveyor’s Office of the Orange County Public Works Department since 2010. Services that can be requested under this contract include boundary surveys, monumentation, monument preservation, topographic surveys, construction surveys, and other land surveying tasks. Our current contract extends from 2018 through 2021.

Under our previous contract, Towill completed 11 surveying task orders, including several that involved deformation monitoring and monument preservation and perpetuation. Deformation monitoring was provided for the Peters Canyon, Villa Park, and Sulphur Creek Dams. The monitoring surveys included horizontal and vertical control, horizontal monitoring of specific points along the dams utilizing GPS static survey procedures, and vertical monitoring of specific



points along the dams utilizing precise leveling procedures.

Towill also provided monument preservation and perpetuation services for more than 150 monuments in the unincorporated areas of Cowan Heights, Lemon Heights, and Panorama Heights in Orange County to support planned overlay construction activities. **Year Completed for all of these task orders: Between 2015 and 2018.**

**Client: OCPW**  
**Contact: Wade Weaver**  
**Phone: 714.955.0151**

## References

### City of Irvine

#### Uyenly Bui

Email: [uyenly.bui@ci.irvine.ca.us](mailto:uyenly.bui@ci.irvine.ca.us)

Phone: 949.724.7559

#### Projects:

- Culver Drive and University Drive Intersection Improvements
- Alton Parkway Pavement Rehabilitation

### Orange County Public Works

#### Wade Weaver

Email: [wade.weaver@ocpw.ocgov.com](mailto:wade.weaver@ocpw.ocgov.com)

Phone: 714.955.0151

#### Projects:

- Olive Heights Monument Preservation
- Various deformation monitoring task orders

### County of Los Angeles

#### Mark Wittig, PLS

Email: [mwittig@dpw.lacounty.gov](mailto:mwittig@dpw.lacounty.gov)

Phone: 626.458.5144

#### Projects:

- LACDPW HQ ALTA/NSPS Land Title Survey
- Roosevelt Park Construction Staking



## Scope of Services and Schedule

### Scope of Work

#### Research and Data Collection

Towill routinely conducts a variety of project-related research, such as title reports, APN/property ownership review, zoning, benchmarks, boundary control, and FEMA documents, to name a few. Through decades of experience, we know which agencies to contact for each specific type of document, what the processes and lead times are for obtaining them, and what potential challenges to expect. Research may be performed at city or county offices, utility agencies, or other appropriate sources.

#### Vertical and Horizontal Control

Horizontal and vertical control is the backbone of any successful survey project. The placement of control point locations is carefully evaluated to determine the most efficient method of performing the project tasks. Existing maps and photography, city and county maps, and available historic maps are studied to determine how to refine control point locations to better serve each project and make the working conditions safe for the field staff. Whenever possible, the control points are located on or near roads, trails, levees, or other common routes of transportation. Special efforts are taken to obtain appropriate permission to access private and/or government properties.

Towill is experienced in conducting conventional surveys, monitoring surveys, precise digital geodetic leveling, and GPS static surveys, as well as establishing local project control. We have set up thousands of control networks and are well-versed in tying into and/or expanding existing control networks. Our staff have decades of experience with a wide variety of coordinate systems and the expertise to know which ones apply to each project.

We regularly perform static, rapid-static, kinematic and real-time kinematic (RTK), and real-time network (RTN) GPS surveys to establish ground control, depending on the requirements for the project. We own and use Trimble dual-frequency GPS receivers. Static and fast static sessions are used to establish primary control stations; fast-static and kinematic sessions are used for secondary control. The Towill Team is well-versed in utilizing GPS methods for establishing

vertical control and deformation monitoring to various standards, including the National Geodetic Surveys.

Moreover, Towill has extensive experience in the performance of geodetic surveys and is very familiar with working in the most current national datums; e.g., the North American Datum of 1983 (NAD83), 2011 (2010), and the North American Vertical Datum of 1988 (NAVD88). We also have a world-renowned geodetic expert on staff to lead any specialty or high accuracy survey efforts, if needed. Towill's team of professional licensed surveyors are keenly aware and always up to date with technical issues relating to the evolution of geodetic datums, geodetic surveying technologies, and associated standards and procedures.

#### Legal Descriptions, Plats, and Maps

Towill has extensive experience and expertise in boundary and property surveys for land and parcel determination, performing tens of thousands of surveys over our 63-year history. The initial step to any successful boundary survey is performing the proper research of land records. Public records research is required to identify primary control, right-of-way information, and boundary lines, or lines of occupation, before performing the work. Research may be performed at city or county offices, utility agencies, title companies, or other appropriate sources. Necessary records are identified, organized, and analyzed for the field and office tasks.

Once the research is complete and all documentation associated with a boundary has been analyzed, we can prepare highly accurate calculations of where we can expect to locate monumentation associated with the boundary determination. Throughout the course of the field survey (which utilize both GPS and conventional survey techniques), adjustments can be made to further enhance the accuracy of the search locations and minimize the amount of field time required to complete the survey. When survey results are returned from the field, they are compared to record deeds and maps and the boundary analysis is performed. With years of experience, we can efficiently and accurately complete the boundary process, com-



piling an accurate and defensible survey.

Towill's team of surveyors has the experience and knowledge to tackle any and all boundary surveys, from public land surveys to subdivision retracements and establishment of centerlines. Towill consistently remains informed of changes in local, state, and federal laws pertaining to surveying and is very active in continuing education to ensure we remain current. When locations are returned from the field, they are compared to record deeds and maps, and the boundary analysis is performed. With our years of experience, we can efficiently and accurately complete the boundary process, compiling an accurate and defensible survey.

According to the California Professional Land Surveyors' Act, a Corner Record may be used to perpetuate, rehabilitate, or reestablish monumentation that has existed in the past in other circumstances; and, when more extensive work is required, or several monuments in the same area are in question, it may be necessary to file a Record of Survey map. Records of Survey will clearly identify project horizontal control, record map information, and additional data, and lines and calls prepared in the initial boundary surveys phase. Once a map is ready, our project manager will submit the document to the City for review and to Orange County for map checking. Any comments will be addressed, and the document will then be filed at the County Recorder's Office for recordation.

These mapping items will be prepared in accordance with the California Subdivision Map Act, California Professional Land Surveyor's Act, California Public Resource Code, and the City of Santa Ana Municipal Code. These items will be discussed with the City and/or County agency where the property is situated. The anticipated deliverables for this item will vary depending on the requested subdivision mapping task requested.

#### Map Checking Services

Towill's team of professional surveyors are well qualified to perform map checking services for the City. In fact, the greatest testament to our expert working knowledge is that we are currently performing the exact same map checking as those noted in the City's RFP for the City of Fremont as well as Alameda and San Mateo Counties. We also served as a map

checking subconsultant to MSN Engineering for their on-call contract with the City of Pasadena. Our experience includes but is not limited to the preparation and review of parcel maps, tentative maps, subdivision maps, records of survey, and annexation maps.

When preparing maps to support the division of land, knowledge of the Subdivision Map Act (SMA) is critical. Subdivision and other related maps begin as any other boundary survey would, with research, field surveys, and boundary line determinations. Understanding the intent of the map guides the next step, where new lines may need to be determined for parcel splits or site features may be located to support a lot line adjustment or encumbrance map.

#### Construction Staking

Construction staking assignments begin with our checking and verifying project horizontal and vertical control prior to the commencement of construction layout work. Our crews will independently survey this control, and we will provide a project control report for use by the construction staking surveyor. When ground surveys, such as field quantity verification, subsidence, layout verification, or utility relocation surveys, are needed, all resulting data is smoothly integrated into final as-built or as-verified reports.

A review of the construction plans is completed to determine if sufficient information has been provided for us to perform construction staking from the plans; we also vigilantly check for errors or omissions. Missing information is tabulated and presented to the City for their review. When we see things that do not look right, our first step, upon review by the Project Manager, is always to alert the City. While we are not engineers, our experience with working from their plans has afforded us the insight to know when things do not appear to be in order and may need a second look.

We regularly perform surveys to support the construction of a wide range of projects for both public and private entities. Typically, the staking plan will be laid out in AutoCAD or other software if specified by the client. The project manager conducts a site reconnaissance, coordinates with the client, and finalizes the field crew's action plan.

Construction line and grade layout, whether it is



for roads, sewer, water, storm drain, or grading, will require a swift response to avoid costly delays in construction. Towill often works in a survey construction management capacity and has developed profession-leading, efficient methods for work performance. Field crews are equipped with pre calculated horizontal and vertical alignments so that offsets can be determined at the time of staking and so that cuts and fills can be compared to design data at the point of collection. Many of Towill's survey crews are headed up by experienced LSITs with the ability to perform field calculations, field inspections, and problem-solving when the need arises. All verification data is transferred to Towill's database for secondary accuracy checks by office personnel.

Limits of removal are staked based on approved plans and/or visual inspection in the field. Our crews have enough experience at this exercise to realize when things appear to be either insufficient or excessive. If it is believed that the removal limits either exceed or are inadequate for construction, we will advise City staff. The limits can be staked either at the actual location, such as paint on curb, or on an offset that can be used later for construction, thereby saving time and money.

Examples of QA/QC steps for construction layout are calculating points from different starting points, comparing station and offset listings with plan sets, and graphic checks for irregularities. In the field, comparisons are made to existing structures, and the relationship of reference points are verified visually as they are set. As-staked shots are taken on points set to compare coordinates to the original calculated positions. Different personnel are called to examine items throughout the process to provide an independent check.

### Monument Preservation

In keeping with Section 8771 of the California Business and Professions Code, Towill recognizes how critically important accurate and enduring survey monumentation and control is to the survey operations of both the City and the surveying community. Without the perpetuation of controlling monuments, countless additional hours of field and office work can occur for both public- and private-sector projects.

Every project we undertake begins with a thorough

review of not only record information but also of the proposed construction in the area. Our project manager organizes the investigation into existing recorded documentation with the City of Santa Ana, Orange County, and other agencies. Records research is typically performed by the project manager or under his direction. From this research, a plan of action is developed for the preservation of existing monumentation and the setting of new points.

Our first step in preserving the monumentation is to determine by field verification what monuments are still in place, which have been buried, and which have been destroyed. We then advise the City of our findings and plan an operation of setting tie points, which, based on our review of the construction documents, will be established outside proposed construction activities.

Monumentation will be marked with either furnished (or as otherwise specified) disks, plugs, or tags, which shall be stamped with the project manager's California Professional Land Surveyor registration number, or as directed in each task. Monumentation shall be established or preserved for the project or project areas, and shall include considerations for utility locations, proper spacing, and durability. All monuments will be field referenced with a minimum of four (4) intersecting reference points, such as cut crosses on curbs, rebars outside the work area, or other approved reference points.

A pre-construction Corner Record will then be prepared and recorded with the County of San Bernardino for each monument. Corner Records shall include the character of the monument, its record reference, reference ties, and other pertinent data. All such field monumentation work will conform to Section 8771 of the California Business and Professions Code, which addresses the preservation of existing survey monuments.

When construction has been completed, we return to the area and determine which monuments and/or tie points will need replacement. In many instances, damage to the existing monuments is limited. In cases where monuments are to be replaced, a durable monument, as described above, or standard well monument, if required by the City, is established and post-construction Corner Records are filed. All doc-



umentation and Corner Records will be prepared to meet the requirements of both the City of Santa Ana and the County of Orange.

### Topographic Surveys

Towill's primary business is land surveying and mapping. Along with our extensive field and office survey staff, we also have an in-house photogrammetry group of professionals that enables us to perform mapping tasks using either ground- or aerial-based surveying methods, or a combination of the two. This allows us to most efficiently address the client's needs. Because our internal staff work together on every job, and on such a wide range of project types, we have full knowledge of which methods are most suitable to the task at hand, and how to communicate efficiently to develop a full understanding of your needs and how best to serve you.

Planning is the most important tool to economically serve a project with a variety of field and office activities. Towill performs field topographic surveys for design to produce maps at a wide range of scales, using both GPS and conventional surveying equipment and techniques. Such surveys are typically performed to produce a detailed map for engineering design or as supplemental data collection to enhance and complete photogrammetric mapping.

We have experience performing virtually every type of field topographic surveying task, including:

- Detailed site surveys for design and construction purposes (including location of surface and underground utilities, monitoring wells, curb and gutter lines, and building pad elevations);
- Cross-section and profiling along rivers, canals, and levees for hydraulic analysis and design;
- Surveys of bridges and surrounding topography;
- Surveys of tunnels and the interior of large diameter pipelines; and
- Surveys to check and complement photogrammetric mapping.

For many of our clients, Towill has conducted multiple site topographic surveys. We have in-house access to some of the latest technology available for these types of tasks. Utilizing robotic one-man instruments allows us to have more experienced field staff conducting our topographic data acquisition. With very

precise and accurate measuring devices, we often utilize reflectorless technology to acquire the information needed within streets and other areas of heavy traffic without impeding traffic flow.

Whether the site is large or small, with Towill's unique capability to complete photogrammetric compilation in house, we will be able to find the most economical solution to your needs.

### Photogrammetric Mapping

Photogrammetric mapping is the process by which aerial photography is used to produce planimetric and topographic maps of the earth's surface and features of the manmade environment. Photogrammetric mapping represents a very important business line for Towill, accounting for an average of 35% of our company's annual revenue. Moreover, photogrammetric mapping is not an ancillary professional service at Towill; many of our most highly accomplished and experienced personnel have dedicated their careers to advancing Towill's photogrammetry operations and providing a level of service far above the competition.

Prior to the execution of the primary data collection mission described herein, Towill will either recover and target existing ground control positions, or, if needed, establish and target new ground control positions throughout the AOI. Using the digital image, ground control, and ABGPS/IMU data, Towill will prepare a Fully Automated Analytical Aerotriangulation (FAAT) solution to establish supplemental control for orienting individual photogrammetric stereo-models covering the entire AOI. Upon completion of the FAAT solution, survey/map documents, such as planimetric features, contours, or color orthophotography, can be prepared as-needed anywhere and at any time within the AOI.

### Boundary and Right of Way Surveys

Towill has extensive experience and expertise in boundary and property surveys for land and parcel determination, performing tens of thousands of surveys over our 64-year history. The initial step to any successful boundary survey is performing the proper research of land records. Public records research is required to identify primary control, right-of-way information, and boundary lines, or lines of occupation, before performing the work. Research may be performed at city or county offices, utility agencies, title



companies, or other appropriate sources. Necessary records are identified, organized, and analyzed for the field and office tasks.

Once the research is complete and all documentation associated with a boundary has been analyzed, we can prepare highly accurate calculations of where we can expect to locate monumentation associated with the boundary determination. Throughout the course of the field survey (which utilize both GPS and conventional survey techniques), adjustments can be made to further enhance the accuracy of the search locations and minimize the amount of field time required to complete the survey. When survey results are returned from the field, they are compared to record deeds and maps and the boundary analysis is performed. With years of experience, we can efficiently and accurately complete the boundary process, compiling an accurate and defensible survey.

Towill's team of surveyors has the experience and knowledge to tackle any and all boundary surveys, from public land surveys to subdivision retracements and establishment of centerlines. Towill consistently remains informed of changes in local, state, and federal laws pertaining to surveying and is very active in continuing education to ensure we remain current. When locations are returned from the field, they are compared to record deeds and maps, and the boundary analysis is performed. With our years of experience, we can efficiently and accurately complete the boundary process, compiling an accurate and defensible survey.

According to the California Professional Land Surveyors' Act, a Corner Record may be used to perpetuate, rehabilitate, or reestablish monumentation that has existed in the past in other circumstances; and, when more extensive work is required, or several monuments in the same area are in question, it may be necessary to file a Record of Survey map. Records of Survey will clearly identify project horizontal control, record map information, and additional data, and lines and calls prepared in the initial boundary surveys phase. Once a map is ready, our project manager will submit the document to the City for review and to Orange County for map checking. Any comments will be addressed, and the document will then be filed at the County Recorder's Office for recordation.

## Deliverables

Major deliverables anticipated with this on-call project include, but are not limited to, the following:

- CVS point file in P,N,E,Z,D of survey points
- PDF copy of Field Notes
- One set of stakes set in the field
- Planimetric features in MicroStation V8 format
- DTM surface data in MicroStation V8 format
- PDF copy of Pre-Construction Corner Records
- PDF copy of Post-Construction Corner Records
- Pictures collected in the field
- Cut sheets
- Color digital orthophotography in GeoTIFF format
- Design-scale contours
- Record of Survey report
- Hard copy survey/map documents
- Miscellaneous project reports

## Schedule/Timeline

Considering that the City intends to enter into an on-call contract that will have a wide range of scope, we are not able to provide a schedule for work that is yet to be defined. However, within our response to the City's RFP, we have demonstrated our ability to respond to the most demanding of schedules. To further support this claim, we offer the following schedule as an example of a project we recently completed for a nearby city in San Bernardino County.

The scope of this project included construction survey and staking services for a federally funded Safe Routes to School improvement project with two project locations totaling approximately 1.1 miles of dense urbanized roadway.

Improvements at each location included bicycle lanes, sidewalk, curb and gutter, ADA-accessible curb ramps, commercial driveways, residential driveways, and asphalt concrete pavement for minor street widening.

Towill's scope of services included the following:

- Site control through the recovery of street centerline monumentation and establishment of temporary site control for staking operations;
- Rough grade stakes for rough grading and clearing and grubbing;
- Asphalt concrete and concrete demo limits;



- Grade stakes for curb and gutter, driveway replacement/reconstruction, existing utility finish grade adjustment, and under sidewalk drains;
- Monument preservation; and
- Miscellaneous surveying by a two-person crew (the Client requested a budget of 80 hours).

ACTIVITY	2017	2018						
	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
<b>Construction Survey and Staking Services</b>	<b>NTP</b>							
Research, Coordination, and Meetings								
Site Control								
Rough Grade Stakes: Rough Grading / Clearing & Grubbing								
Asphalt Concrete & Concrete Demo Limits								
Grade Stakes: Curb & Gutter								
Grade Stakes: Driveway Replacement / Reconstruction								
Grade Stakes: Existing Utility Adjustment								
Grade Stakes: Under Sidewalk Drains								
Monument Preservation and Corner Records								
Miscellaneous As-needed Surveying: Two-Person Crew								

### Fee Proposal

As requested in the RFP, our fee proposal is included in a separately sealed envelope labeled "Fee Proposal."

### Certifications

Signed certification forms are included in the Appendix.



## Appendix

Per the requirements of the City's RFP, Towill has included the required forms and documents listed below on the following pages.

- Attachment 3-1: Non-Collusion Affidavit
- Attachment 3-2: Non-Lobbying Certification
- Attachment 3-3: Non-Discrimination Certification
- LAPM Exhibit 10-O1: Consultant Proposal DBE Commitment
- LAPM Exhibit 10-O2: Consultant Contract DBE Commitment
- LAPM Exhibit 10-K: Consultant Certification of Contract Costs and Financial Management System
- Resumes for all proposed team members



**Appendix**  
**ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT**  
**CERTIFICATIONS**

NON-COLLUSION AFFIDAVIT  
(Title 23 United States Code Section 112 and  
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed           *Aaron Badarino*          

State of California  
County of \_\_\_\_\_

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

SEE ATTACHED CALIFORNIA JURAT

\_\_\_\_\_  
Notary Public Signature

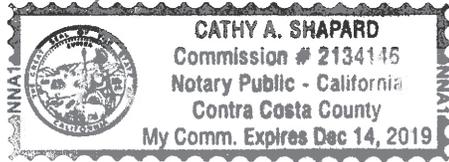
Notary Public Seal

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of Contra Costa

Subscribed and sworn to (or affirmed) before me on this 21st  
day of October, 2019, by Aaron Badavinac

proved to me on the basis of satisfactory evidence to be the  
person(s) who appeared before me.



(Seal)

Signature Cathy A Shapard

**Appendix**  
**ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION**  
**CERTIFICATIONS**

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Towill, Inc.

Signed and Printed Name: *Aaron Badavinac* Aaron Badavinac

Title Chief Financial Officer

Date October 18, 2019



**Appendix**  
**ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION**  
**CERTIFICATIONS**

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.
7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: *Aaron Badawina*  
Title: Chief Financial Officer  
Firm: Towill, Inc.  
Date: October 18, 2019

**EXHIBIT 10-01 CONSULTANT PROPOSAL DBE COMMITMENT**

1. Local Agency: City of Santa Ana 2. Contract DBE Goal: 0.5%  
 3. Project Description: On-Call Professional Land Surveying Services  
 4. Project Location: Citywide (Santa Ana, California)  
 5. Consultant's Name: Towill, Inc. 6. Prime Certified DBE:

7. Description of Work, Service, or Materials Supplied	8. DBE Certification Number	9. DBE Contact Information	10. DBE %
Field surveying support	3110	Chaudhary & Associates, 707.255.2729 211 Gateway Road W, Suite 204, Napa, CA 94558	10%
<b>Local Agency to Complete this Section</b>		<b>11. TOTAL CLAIMED DBE PARTICIPATION</b>	<b>10 %</b>
17. Local Agency Contract Number: _____ 18. Federal-Aid Project Number: _____ 19. Proposed Contract Execution Date: _____ 20. Consultant's Ranking after Evaluation: _____			
Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.  _____ _____ _____		IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.  <div style="display: flex; justify-content: space-between;"> <div data-bbox="906 1423 1247 1470">                       12. Preparer's Signature                 </div> <div data-bbox="1279 1423 1477 1470"> <u>10/18/2019</u>                      13. Date                 </div> </div> <div style="display: flex; justify-content: space-between;"> <div data-bbox="906 1501 1247 1543"> <u>Aaron Badavinac</u>                      14. Preparer's Name                 </div> <div data-bbox="1279 1501 1477 1543"> <u>925.682.6976</u>                      15. Phone                 </div> </div> <div style="display: flex; justify-content: space-between;"> <div data-bbox="906 1564 1247 1606"> <u>Chief Financial Officer</u>                      16. Preparer's Title                 </div> </div>	

DISTRIBUTION: Original – Included with consultant's proposal to local agency.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

**EXHIBIT 10-O2 CONSULTANT CONTRACT DBE COMMITMENT**

1. Local Agency: City of Santa Ana 2. Contract DBE Goal: 0.5%  
 3. Project Description: On-Call Professional Land Surveying Services  
 4. Project Location: Citywide (Santa Ana, California)  
 5. Consultant's Name: Towill, Inc. 6. Prime Certified DBE:  7. Total Contract Award Amount: TBD  
 8. Total Dollar Amount for **ALL** Subconsultants: TBD 9. Total Number of **ALL** Subconsultants: TBD

10. Description of Work, Service, or Materials Supplied	11. DBE Certification Number	12. DBE Contact Information	13. DBE Dollar Amount
Field surveying support	3110	Chaudhary & Associates, 707.255.2729 211 Gateway Road W, Suite 204 Napa, CA 94558	TBD
<b>Local Agency to Complete this Section</b>			\$ TBD
20. Local Agency Contract Number: _____ 21. Federal-Aid Project Number: _____ 22. Contract Execution Date: _____	<b>14. TOTAL CLAIMED DBE PARTICIPATION</b>		10 %
Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.			IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.
23. Local Agency Representative's Signature	24. Date	 _____ 15. Preparer's Signature	_____ 10/18/2019 16. Date
25. Local Agency Representative's Name	26. Phone	Aaron Badavinac _____ 17. Preparer's Name	_____ 925.682.6976 18. Phone
27. Local Agency Representative's Title		Chief Financial Officer _____ 19. Preparer's Title	

**DISTRIBUTION:** 1. Original – Local Agency  
 2. Copy – Caltrans District Local Assistance Engineer (DLAE). Failure to submit to DLAE within 30 days of contract execution may result in de-obligation of federal funds on contract.

**ADA Notice:** For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

EXHIBIT 10-K CONSULTANT ANNUAL CERTIFICATION OF INDIRECT COSTS AND FINANCIAL MANAGEMENT SYSTEM

(Note: If a Safe Harbor Indirect Cost Rate is approved, this form is not required.)

Consultant's Full Legal Name: Towill, Inc.

Important: Consultant means the individual or consultant providing engineering and design related services as a party of a contract with a recipient or sub-recipient of Federal assistance. Therefore, the Indirect Cost Rate(s) shall not be combined with its parent company or subsidiaries.

Indirect Cost Rate:

Combined Rate 190.75 % OR

Home Office Rate % and Field Office Rate (if applicable) %

Facilities Capital Cost of Money % (if applicable)

Fiscal period \* 01/01/18 - 12/31/18

\* Fiscal period is annual one year applicable accounting period that the Indirect Cost Rate was developed (not the contract period). The Indirect Cost Rate is based on the consultant's one-year applicable accounting period for which financial statements are regularly prepared by the consultant.

I have reviewed the proposal to establish an Indirect Cost Rate(s) for the fiscal period as specified above and have determined to the best of my knowledge and belief that:

- All costs included in the cost proposal to establish the indirect cost rate(s) are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) 48, Code of Federal Regulations (CFR), Chapter 1, Part 31 (48 CFR Part 31);
• The cost proposal does not include any costs which are expressly unallowable under the cost principles of 48 CFR Part 31;
• The accounting treatment and billing of prevailing wage delta costs are consistent with our prevailing wage policy as either direct labor, indirect costs, or other direct costs on all federally-funded A&E Consultant Contracts.
• All known material transactions or events that have occurred subsequent to year-end affecting the consultant's ownership, organization, and indirect cost rates have been disclosed as of the date of this certification.

I am providing the required and applicable documents as instructed on Exhibit 10-A.

Financial Management System:

Our labor charging, job costing, and accounting systems meet the standards for financial reporting, accounting records, and internal control adequate to demonstrate that costs claimed have been incurred, appropriately accounted for, are allocable to the contract, and comply with the federal requirements as set forth in Title 23 United States Code (U.S.C.) Section 112(b)(2); 48 CFR Part 31.201-2(d); 23 CFR, Chapter 1, Part 172.11(a)(2); and all applicable state and federal rules and regulations.

Our financial management system has the following attributes:

- Account numbers identifying allowable direct, indirect, and unallowable cost accounts;
• Ability to accumulate and segregate allowable direct, indirect, and unallowable costs into separate cost

accounts;

- Ability to accumulate and segregate allowable direct costs by project, contract and type of cost;
- Internal controls to maintain integrity of financial management system;
- Ability to account and record costs consistently and to ensure costs billed are in compliance with FAR;
- Ability to ensure and demonstrate costs billed reconcile to general ledgers and job costing system; and
- Ability to ensure costs are in compliance with contract terms and federal and state requirement

Cost Reimbursements on Contracts:

I also understand that failure to comply with 48 CFR Part 16.301-3 or knowingly charge unallowable costs to Federal-Aid Highway Program (FAHP) contracts may result in possible penalties and sanctions as provided by the following:

- Sanctions and Penalties - [23 CFR Part 172.11\(c\)\(4\)](#)
- False Claims Act - [Title 31 U.S.C. Sections 3729-3733](#)
- Statements or entries generally - [Title 18 U.S.C. Section 1001](#)
- Major Fraud Act - [Title 18 U.S.C. Section 1031](#)

All A&E Contract Information:

- Total participation amount \$ 1,036,250 on all State and FAHP contracts for Architectural & Engineering services that the consultant received in the last three fiscal periods.
- The number of states in which the consultant does business is 2.
- Years of consultant’s experience with 48 CFR Part 31 is 20.
- Audit history of the consultant’s current and prior years (if applicable)
 

<input type="checkbox"/> Cognizant ICR Audit	<input type="checkbox"/> Local Gov’t ICR Audit	<input type="checkbox"/> Caltrans ICR Audit
<input checked="" type="checkbox"/> CPA ICR Audit	<input type="checkbox"/> Federal Gov’t ICR Audit	

I, the undersigned, certify all of the above to the best of my knowledge and belief and that I have reviewed the Indirect Cost Rate Schedule to determine that any costs which are expressly unallowable under the Federal cost principles have been removed and comply with [Title 23 U.S.C. Section 112\(b\)\(2\)](#), [48 CFR Part 31](#), [23 CFR Part 172](#), and all applicable state and federal rules and regulations. I also certify that I understand that all documentation of compliance must be retained by the consultant. I hereby acknowledge that costs that are noncompliant with the federal and state requirements are not eligible for reimbursement and must be returned to Caltrans.

Name\*\*: Aaron Badavinac Title\*\*: Chief Financial Officer  
 Signature:  Date of Certification (mm/dd/yyyy): 10/18/2019  
 Email\*\*: aaron.badavinac@towill.com Phone Number\*\*: 925.682.6976 ext. 1001

\*\*An individual executive or financial officer of the consultant’s or subconsultant’s organization at a level no lower than a Vice President, a Chief Financial Officer, or equivalent, who has authority to represent the financial information used to establish the indirect cost rate.

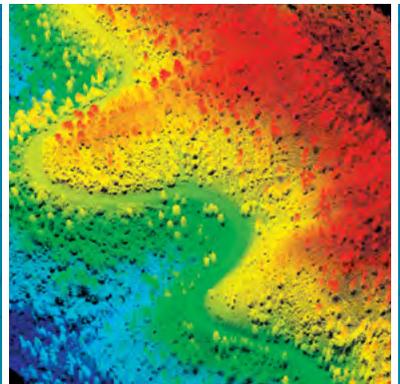
**Note: Both prime and subconsultants as parties of a contract must complete their own Exhibit 10-K forms. Caltrans will not process local agency’s invoices until a complete Exhibit 10-K form is accepted and approved by Caltrans Audits and Investigations.**

**Distribution:** 1) Original - Local Agency Project File  
2) Copy - Consultant  
3) Copy - Caltrans Audits and Investigations

# T TOWILL

SURVEYING | MAPPING | GIS

500 S. MAIN STREET  
SUITE 540  
ORANGE, CA 92868  
949.261.1900 TEL  
[WWW.TOWILL.COM](http://WWW.TOWILL.COM)



INNOVATION AND EXCELLENCE IN GEOMATICS ENGINEERING SINCE 1955

# **EXHIBIT C**



**CITY OF SANTA ANA, CALIFORNIA**  
**LAND SURVEY SERVICES HOURLY RATE SCHEDULE**  
**Effective April 1, 2023 - March 31, 2028**

<b>Name/Title/Classification</b>	<b>Base Year</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Marvin Miller* - Principal-in-Charge	\$239.87	\$251.86	\$264.46	\$277.67	\$291.55
Jake Kruger* - Principal Land Surveyor	\$246.01	\$258.32	\$271.24	\$284.80	\$299.04
James Rios* - Survey Project Manager	\$198.29	\$208.21	\$218.63	\$229.57	\$241.05
Frank Borges* - QA/QC Lead	\$246.01	\$258.32	\$271.24	\$284.80	\$299.04
Senior Land Surveyor	\$253.40	\$266.06	\$279.37	\$293.34	\$308.02
Project Surveyor	\$176.26	\$185.08	\$194.33	\$204.05	\$214.25
<i>Associate Surveyor</i>	\$148.24	\$155.66	\$163.43	\$171.62	\$180.19
<i>Survey Office Technician</i>	\$125.18	\$131.45	\$138.04	\$144.94	\$152.20
<i>Survey CADD Technician</i>	\$95.53	\$100.30	\$105.32	\$110.60	\$116.13
<i>Project Coordinator</i>	\$94.70	\$99.43	\$104.39	\$109.60	\$115.07
<i>Geomatics Specialist</i>	\$253.40	\$266.06	\$279.37	\$293.34	\$308.02
<i>Senior Geomatics Analyst</i>	\$164.71	\$172.96	\$181.60	\$190.68	\$200.21
<i>Geomatics Analyst</i>	\$118.59	\$124.51	\$130.74	\$137.27	\$144.15
<i>Geomatics Technician</i>	\$100.49	\$105.51	\$110.79	\$116.32	\$122.14
<i>Certified Party Chief**</i>	\$196.88	\$206.73	\$217.07	\$227.91	\$239.29
<i>Licensed Party Chief**</i>	\$202.32	\$212.43	\$223.05	\$234.21	\$245.91
<i>Party Chief**</i>	\$190.33	\$199.86	\$209.84	\$220.33	\$231.33
<i>Chainman/Rodman**</i>	\$173.60	\$182.27	\$191.38	\$200.95	\$210.99
<i>Apprentice**</i>	\$138.87	\$145.81	\$153.10	\$160.74	\$168.77

**AUTHORIZED OVERTIME LABOR RATES**

Saturdays and over 8 hours on weekdays -1.5 times the above Regular Rate | Sundays and Holidays - 2.0 times the above Regular Rate

**NOTES:**

1. Key personnel are indicated with an asterisk and employees subject to prevailing wage requirements are indicated with 2 asterisks.
2. Non-Exempt personnel are indicated with italic text.
3. Escalated hourly rates will take effect on April 1 of each subsequent year following the contract base year (04/01/23 - 03/31/24).
4. Field survey personnel and crews are invoiced a minimum of 4 hours per mobilization and then in 2 hour increments up to 8-hours.