



City of Arts & Innovation

City Council Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL DATE: DECEMBER 12, 2023

FROM: PUBLIC WORKS DEPARTMENT WARDS: ALL

SUBJECT: MEASURE Z – APPROVE A PROFESSIONAL CONSULTANT SERVICES AGREEMENT FOR REQUEST FOR PROPOSAL NO. 2309, WITH NICHOLS CONSULTING ENGINEERS OF FOUNTAIN VALLEY, CALIFORNIA, FOR THE COMPLETION OF A PAVEMENT CUT FEE STUDY, , IN THE AMOUNT NOT TO EXCEED \$190,600, FOR A TERM THROUGH JUNE 30, 2025

ISSUE:

Approve a Professional Consultant Services Agreement for Request For Proposal No. 2309, with Nichols Consulting Engineers of Fountain Valley, California, for the completion of a Pavement Cut Fee Study in the amount not to exceed \$190,600 for a term through June 30, 2025.

RECOMMENDATIONS:

That the City Council:

1. Approve a Professional Consultant Services Agreement Request for Proposal No. 2309, with Nichols Consulting Engineers of Fountain Valley, California, for the completion of a Pavement Cut Fee Study, in the amount not to exceed \$190,600 for a term through June 30, 2025; and
2. Authorize the City Manager, or designee, to execute the Professional Consultant Service Agreement with Nichols Consulting Engineers, including making minor and non-substantive changes.

BACKGROUND:

The condition and appearance of public roadways is an important quality of life benchmark for Riverside residents. Well-maintained city streets provide residents with pride of place and can attract visitors and businesses to our city. The Public Works Department (Public Works) strives to maximize the maintenance of city streets using available funding, implementing best practices, and exploring new and/or innovative methods to further protect the roadway system.

Public Works has adopted a Pavement Management Program, extended the paving moratorium from three to five years, recommends paving and restorative projects utilizing specialized software, developed a GIS Paving Map to identify planned and recently completed paving

projects, and pursues grant opportunities to improve the condition of City streets. In addition, staff assess truck traffic volumes and cut-through traffic concerns to recommend adoption of four or more axle-restrictions to encourage trucks and heavy vehicles to remain on local freeways to minimize damage to the City’s roadway network. The City’s Pavement Management Program budget has increased from \$13 million in 2013 to over \$24 million in 2023, and staff continues to consider and pursue programs, materials, and policies to better address roadway repairs and paving needs.

Recently, Public Works partnered with the Public Utilities Department to recommend an on-call services contract to address the backlog of outstanding trench repairs associated with water line repairs and upgrades. The contract specifications and list of locations are being prepared to bid this work later in 2023. Public Works has also contracted with Infrastructure Management Services (IMS) to perform citywide pavement condition surveys to make objective recommendations on paving projects and respective treatments. Collectively, these practices and funding allocations are aimed at improving the quality of life for residents, attracting increased investment in the community, and maximizing the useful life of roads. The City of Riverside maintains over 875 centerline miles of roads and alleys, and it is not practical or feasible to pave roads before they reach their useful life.

Cities such as Austin, Kansas City, Burlington, Cincinnati, Los Angeles, Sacramento, Phoenix, San Francisco, and recently Anaheim have conducted Pavement Trench Cut studies and all have concluded that excavations within roadways degrade, shorten the life, and reduce the Pavement Condition Index (PCI) score of streets even when the excavations are patched and repaired in conformity with adopted standards. Excavations in paved streets can impact the roughness/rideability of the road and places an added burden on the agency to prematurely resurface the street.

Cities have conducted Pavement Trench Cut studies to determine the extent of the damage associated with trench repairs, assess and quantify pavement damage caused by utility cuts, conduct structural and functional damage at various sites with varying PCI classes and pavement ages, and review City trench repair standards and policies. The study may also recommend a fee structure to partially recover actual and direct costs and expenses incurred to maintain, repair, or surface the road to fully mitigate the degradation that excavations cause. As an example, the City of Anaheim adopted the following fee schedule per their study:

Table 1 – City of Anaheim Pavement Trench Cut Fee Schedule

PCI	Fee	
	Trench or Bore Pit (\$/SF)	Pothole (\$/EA)
>65	\$8.40	\$69.30
55 to 65	\$11.60	\$95.70
<55	\$3.60	\$29.70

Increased fees are associated with roads having a PCI between 55 and 65 (Fair to Good) as roads in this PCI range can quickly degrade to a conditional rating of Poor and Very Poor. Cities aim to prevent roads from prematurely going into a rating of Poor and Very Poor as it can cost six to ten times more to repair compared to preservation treatments. Thus, contractors and utility companies conducting work on streets with a PCI range of 55 to 65 are more likely to have a direct impact on the roadways’ useful life. Some of the key findings in Anaheim’s study include:

- 65% of test sites exhibited structural damage in the cut or zone of influence.

- 45% of test sites needed an average additional overlay thickness of 3.1 inches in the cut zone of influence to compensate for structural damage.
- On average, the PCI of sections with utility cuts was 20 points lower than those without
- The average reduction in service life due to cuts was 21.3%.
- Pavement with higher PCIs experience more functional damage than pavements with lower PCIs.

COMMITTEE RECOMMENDATION:

On May 11, 2023, the Mobility and Infrastructure Committee reviewed the matter, and all three members were present. The Committee unanimously recommended that the City Council approve a Pavement Cut Fee Study to assess damages caused by trenching associated with development and utility work and to consider adopting a fee schedule to recover street degradation costs for those damages.

DISCUSSION:

On August 7, 2023, RFP 2309 for the completion of a Pavement Cut Fee Study was posted on Planet Bids to provide the following services:

Task I - Preliminary Pavement Cut Fee Study Analysis

- A. The Consultant will provide a summary of recent pavement cut fee studies performed by various cities in the Inland Empire, Southern California, Statewide, and Nationwide. The Consultant will elaborate on the findings, discuss economic impacts, and emphasize the associated costs.
- B. The Consultant will develop methodologies to establish the effects of utility trenches and other pavement cuts on pavement performances. The Consultant shall describe the engineering approaches that were used to determine the impacts of pavement cuts on City streets including PCI Comparison and Deflection Testing.
- C. The Consultant shall provide in detail the results of the engineering approaches that were used in the investigation.
- D. The Consultant shall develop a fee schedule for utility trenches and other types of cuts.
 - Consultant shall describe the approach used to develop unit cost fees for the pavement cuts.
 - The basis for assessing these fees and the specific components of the fees shall be discussed in detail.
 - These cut fees shall be based upon full recovery of damage caused to pavements from these cuts resulting in a reduction of pavement life.
 - The selected Consultant shall create and/or present a matrix for various potential options on establishing pavement cut fees.
 - Compare the recommended pavement cut fees for the City to other cities in Inland Empire, Southern California, Statewide, and Nationwide.

Task II – Pavement Cut Fee Study Workshop

During the Pavement Cut Fee Study Workshop, the selected Consultant will provide a PowerPoint presentation that includes but is not limited to the following:

- Project Background and Scope
- Recommendations
- Alternatives and their analysis
- Preferred alternative

Task III – Pavement Cut Fee Study Report

Following the Pavement Cut Fee Study Workshop, the Consultant will provide a series of Draft and Final Pavement Cut Fee Study reports outlining all requested information including the results from the Pavement Cut Fee Study Workshop. Public Works may present the Draft Pavement Cut Fee Study to City Subcommittees and/or City Council to obtain feedback.

Task IV- Public Outreach And Presentations

In addition to standard communication and progress meetings with City staff, the Consultant will be required to attend various public presentations which may include City Committees and City Council.

Task V – Pavement Cores / Geotechnical Exploration and Analysis

The Consultant will perform all field work and conduct all necessary geotechnical analysis to adequately assess the City’s existing street network to complete all work described herein. The City maintains approximately 139 miles of Arterials, 136 miles of Collectors, and 585 miles of residential streets. The Consultant will perform coring activities at a minimum of 64 sites to obtain existing pavement thickness for the structural analysis.

Task VI – Alternative Forms of Revenue Generation (Optional Task)

Public Works may negotiate a price with the Consultant at a future date to develop other alternative forms of generating fees relating to pavement cuts within the City. These additional fees could be considered by the City for future analysis.

Task VII – Implement Pavement Cut Fee Study Schedule (Optional Task)

Public Works may negotiate a price with the Consultant at a future date for the Consultant to provide post study assistance in drafting language for changing and updating the City’s Municipal Code to implement a pavement fee schedule. Items would potentially include creation of PowerPoint presentations for discussions with upper management and/or City Council.

The notification of release was sent to 291 registered vendors of PlanetBids and 23 prospective bidders downloaded the RFP 2309 documents. The City did not schedule a pre-proposal job walk, there were seven (7) questions and answers submitted through PlanetBids, and no addenda was submitted. When the RFP closed on September 5, 2023, three (3) proposals were received from three responsive companies to complete the Pavement Cut Fee Study (Attachment 1). An evaluation committee consisting of three Public Works staff employees reviewed each proposal and the Purchasing division determined that Nicols Consulting Engineers was the highest rated bidder and the most qualified firm to complete the requested services. (Table 2).

Table 2 – Evaluation Results

Company	Rank	Score	Amount
Nichols Consulting Engineers	1	96.50	\$190,600
Applied Research Associates	2	74.27	\$472,655
Engineering and Research International	3	60.57	\$549,938

The Purchasing Manager concurs that the recommendation to award complies with Purchasing Resolution No. 23914.

The Final Pavement Cut Fee Study is expected to be submitted in the first half of 2024. Public Works plans to provide regular project status & timeline updates to the Mobility and Infrastructure Committee.

STRATEGIC PLAN ALIGNMENT:

This item contributes to **Strategic Priority 6 Infrastructure, Mobility and Connectivity** and **Goal 6.2** – Maintain, protect, and improve assets and infrastructure within the City’s built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity.

This item aligns with each of the five Cross-Cutting Threads as follows:

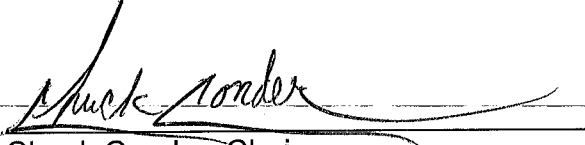
1. **Community Trust** – The proposed study aligns with the City’s goals to improve the roadway network and quality of life for residents and visitors. The Public Works Department (Public Works) has provided numerous presentations to the City Council, Transportation Committee, and Budget Engagement Commission as part of the City’s Pavement Management Program. This study would make recommendations on policies, practices, and new fee schedule to help preserve and maintain roads.
2. **Equity** – Public Works strives to improve the City’s roadway network to provide safe and reliable transportation to all areas of the City. Additionally, staff meets with each City Councilmember to discuss goals, budgets, recommendations for street improvements, and obtain feedback on the requests received from their constituents. This Trench Cut Study would assess the City to make policy and fee schedule recommendations to better maintain City streets.
3. **Fiscal Responsibility** – Public Works responsibly manages a variety of funding sources to complete projects and award consultant contracts to help advance the department’s mission. Public Works is a prudent steward of public funds and staff utilized a team to review and score proposals.
4. **Innovation** – Many agencies see the benefit in conducting a Pavement Cut Fee Study that assesses and quantifies pavement damage caused by utility cuts to develop a fee schedule to offset this damage.
5. **Sustainability & Resiliency** – The Pavement Cut Fee Study would include findings, recommendations, and a preliminary fee schedule to better repair and preserve City streets.

FISCAL IMPACT:

The fiscal impact of this action is \$190,600. Sufficient funds are budgeted and available in the Measure Z Capital Fund, Pavement Rehabilitation & Pedestrian Improvement Project account number 9902709-470734 to approve a Professional Consultant Services Agreement (Attachment 2) with Nichols Consulting Engineers and to complete the Pavement Cut Fee Study.

Prepared by: Edward Lara, Principal Engineer
Approved by: Gilbert Hernandez, Public Works Director
Certified as to
availability of funds: Kristie Thomas, Finance Director/Assistant Chief Financial Officer
Approved by: Kris Martinez, Assistant City Manager
Approved as to form: Phaedra A. Norton, City Attorney

Concurs with:



Chuck Conder, Chair
Mobility & Infrastructure Committee

Attachments:

1. Award Recommendation
2. Services Agreement
3. Presentation