



Office of the City Manager

CONSENT CALENDAR
March 14, 2023

To: Honorable Mayor and Members of the City Council
From: Dee Williams-Ridley, City Manager
Submitted by: David Sprague, Interim Fire Chief
Subject: Contract: KLD Engineering, P.C. for Evacuation and Response Time Modeling

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to piggyback on the County of Santa Barbara contract and execute a contract and any amendments with KLD Engineering, P.C., for Evacuation and Response Time Modeling from April 1, 2023 through June 30, 2024 in the amount not to exceed \$400,000 with an option to extend for an additional two years not to exceed an additional \$100,000 if the piggyback contract is extended.

FISCAL IMPACTS OF RECOMMENDATION

Funds are available for this contract in the Fire Department Measure FF (Budget code 164-72-745-000-0000-000-612990) and UC Settlement Funds (Budget code 147-72-743-000-0000-000-612990).

CURRENT SITUATION AND ITS EFFECTS

The City requires professional assistance to meet the unfunded state mandates outlined in SB 99, AB 747, and AB 1409, and requires related professional services in the areas of traffic and evacuation modeling and planning.

The first objective of this project is to analyze the City's primary evacuation routes to understand their capacity, safety, and viability under emergency scenarios. The City requires a detailed traffic model to be created so a baseline evaluation of evacuation routes can be conducted. This project will accurately estimate the number of people and vehicles that may need to be evacuated during a wildfire or other emergency, build a traffic simulation model, and then use that model to analyze the how the major evacuation routes will operate under emergency conditions, as well as to estimate how long it would take to evacuate under various conditions (season, day of the week, time of day, weather, etc.).

The second objective of this project is to provide an analysis of any public safety impacts resulting from projected development of new accessory dwelling units (ADUs), junior accessory dwelling units (JADUs), and their associated extra vehicles in the Very High Fire Hazard Severity Zone (VHFHSZ).

The third objective of this project is to analyze the impact of some recently completed, planned, and proposed (as needed) roadway projects have on evacuation capacity, responder ingress during evacuation, and to daily emergency apparatus response times.

On August 15th, 2022 the County of Santa Barbara issued a Request for Proposals (RFP) for an Evacuation Route Modeling & Planning Project. The deadlines for submission was September 5, 2022. KLD Engineering, P.C. was awarded the contract from this RFP. The term of the current contact runs from November 1, 2022 to June 30, 2024.

BACKGROUND

Due to climate and land use changes, wildfires are occurring more frequently along the West Coast. The fuel, topography, transportation network, housing density, and narrow structure separation make a large portion of the City a CalFIRE Very High Fire Danger Severity Zone (VHFDSZ). This means the area presents significant wildfire risk to the people living in, working in and visiting these areas and the adjacent areas of the City.

With an estimated population of 30,000 in the VHFDSZ even a partial evacuation will place a substantial number of people and vehicles on the road network. Given the geography of the City with wildland areas to the east, evacuees must predominately travel west to evacuate the VHFDSZ using mostly narrow evacuation routes.

Evacuating a large number of people with such a challenging transportation network presents a significant risk. If flames or smoke from a wildfire, or down power lines from an earthquake block one or more of these evacuation routes, the risk is exacerbated.

According to the Standards of Coverage analysis provided to City Council on April 19, 2022, the City's response to fire and medical emergencies is 1 minute, 53 seconds slower than the nationally recommended travel time of four-minutes. Today the Department only has only experiential data to quantify the impacts proposed roadway treatments would have to response times.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

There are no identified environmental sustainability or climate related impacts to this work.

RATIONALE FOR RECOMMENDATION

This work is required by the State of California within SB 99, AB 747, and AB 1409. The City also requires related professional services in the areas of traffic and evacuation modeling and planning to help the community make informed decisions as to the impacts future transportation projects may have on evacuation capacity, responder ingress during evacuation, and daily responder response times to emergencies of various types.

ALTERNATIVE ACTIONS CONSIDERED

None.

CONTACT PERSON

David Sprague, Interim Fire Chief, (510) 981-3473

Attachments:

1: Resolution

RESOLUTION NO. ##,###-N.S.

CONTRACT: KLD ENGINEERING, P.C. FOR EVACUATION AND RESPONSE TIME MODELING

WHEREAS, due to climate and land use changes, wildfires are occurring more frequently along the West Coast. The fuel, topography, transportation network, housing density, and narrow structure separation make a large portion of the City a CalFIRE Very High Fire Danger Severity Zone (VHFDSZ). This means the area presents significant wildfire risk to the people living in, working in and visiting these areas and the adjacent areas of the City; and

WHEREAS, with an estimated population of 30,000 in the VHFDSZ even a partial evacuation will place a substantial number of people and vehicles on the road network. Given the geography of the City with wildland areas to the east, evacuees must predominately travel west to evacuate the VHFDSZ using mostly narrow evacuation routes. Evacuating a large number of people with such a challenging transportation network presents a significant risk. If flames or smoke from a wildfire, or down power lines from an earthquake block one or more of these evacuation routes, the risk is exacerbated; and

WHEREAS, according to the Standards of Coverage analysis provided to City Council on April 19, 2022, the City's response to fire and medical emergencies is 1 minute, 53 seconds slower than the nationally recommended travel time of four-minutes. Today the Department only has only experiential data to quantify the impacts proposed roadway treatments would have to response times; and

WHEREAS, the City requires professional assistance to meet the unfunded state mandates outlined in SB 99, AB 747, and AB 1409, and requires related professional services in the areas of traffic and evacuation modeling and planning; and

WHEREAS, funds are available for this contract in the Fire Department Measure FF (Budget code 164-72-745-000-0000-000-612990) and UC Settlement Funds (Budget code 147-72-743-000-0000-000-612990).

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City Manager is authorized to piggyback on the County of Santa Barbara contract and execute a contract and any amendments with KLD Engineering, P.C., for Evacuation and Response Time Modeling from April 1, 2023 through June 30, 2024 in the amount not to exceed \$400,000 with an option to extend for an additional two years not to exceed an additional \$100,000 if the piggyback contract is extended.