Budget Engagement Commission

City of Arts & Innovation

TO: **HONORABLE COMMISSIONERS** **DATE: FEBRUARY 12, 2026**

FROM: **FIRE DEPARTMENT** **WARDS: ALL**

SUBJECT: **RIVERSIDE FIRE DEPARTMENT AP TRITON MASTER PLAN STUDY AND RESOURCE NEEDS ASSESSMENT.**

ISSUE:

Receive and file an update on the AP Triton Master Plan Study for the City of Riverside Fire Department (RFD), focused on emergency response system performance, current and projected service demand, response reliability, and the operational staffing and infrastructure needed to maintain effective emergency response as the City continues to grow.

RECOMMENDATIONS:

That the Budget Engagement Commission:

1. Receive and file the Master Plan Study and Standards of Cover update.

BACKGROUND:

The Riverside Fire Department retained AP Triton, LLC to conduct a comprehensive Organizational and Operational Study of the City's emergency response system. The resulting Master Plan, Standards of Cover (SOC), Community Risk Assessment (CRA), and Station Location Analysis provide a data-driven evaluation of current response performance, system capacity, and long-term operational needs. The study evaluates emergency response outcomes across the full incident lifecycle, including call processing, turnout, travel time, total response time, and effective response force assembly.

While Measure Z provides important but limited support for Riverside Fire Department capital and staffing needs, the AP Triton Master Plan as proposed does not identify or secure any *new* or supplemental ongoing funding sources beyond existing General Fund and Measure Z allocation. The City's adopted Measure Z spending plans show defined, time-limited allocations for fire apparatus, staffing enhancements, and related support, but do not create a stand-alone, permanent fire funding stream segregated from broader citywide uses.

The AP Triton Master Plan and supporting analyses were formally presented to the City of Riverside City Council on January 13, 2026, as a receive-and-file item, and no action was taken at that time.

The SOC, CRA, Station Location Assessment, and Master Plan will serve as an organizational

roadmap that will need to align with the Fire Department's 2023–2028 Strategic Plan. It evaluates historical and projected call volume, identifies gaps in operational capacity, examines capital and facility conditions, and outlines fiscal considerations, including the long-term implications of the 2036 sunset of Measure Z Transaction and Use Tax. The analysis also incorporates industry standards like National Fire Protection Association (NFPA), accreditation models of Centers for Public Safety Excellence (CPSE) and the Insurance Service Office (ISO), and best practices to ensure that recommendations reflect national performance expectations for modern fire and EMS agencies.

The analysis is particularly critical given that Riverside has not added a new fire station or frontline apparatus since 2007, while emergency incidents have increased by more than 72 percent during that same period. Call volume is projected to continue rising substantially, reaching approximately 83,000 incidents annually by 2040. These conditions have placed increasing strain on unit availability, response reliability, and firefighter workload.

The purpose of this report is to present the key findings of the SOC, CRA, Station Location, and Master Plan, as they relate to operational emergency response functions of the Fire Department Study for Council review and to provide foundational information for future policy discussions regarding service levels, capital investment, and funding strategies.

DISCUSSION:

The AP Triton Master Plan, Standards of Cover, Community Risk Assessment, and Station Location Analysis collectively identify several interrelated issues affecting the RFD's ability to meet current and future community needs from an operational emergency response perspective. The findings and recommendations presented in this report are limited to the Fire Department's response operations and system performance, and do not include broader non-operational programs, community services, or administrative functions outside of emergency response delivery. The challenges identified are driven by sustained increases in emergency service demand, population growth, limited system capacity, and significant unfunded operational and capital needs directly associated with emergency response.

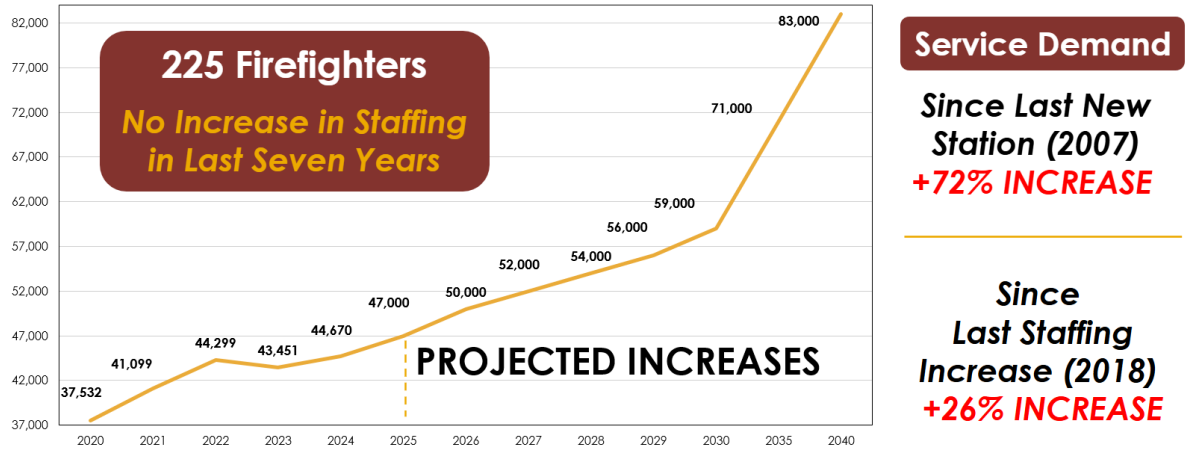
AP Triton's analysis found that calls for service within the City of Riverside have increased significantly over the past decade and are projected to continue rising at an accelerated pace. In 2024, the Fire Department responded to approximately 44,670 calls for service, with call volume projected to exceed 47,000 incidents in 2025, equating to approximately one emergency response every 11 minutes citywide. Fire-related calls have increased by approximately 35 percent since 2015, reflecting population growth, expanded wildfire exposure, and increasing service complexity.

The State's updated Fire Hazard Severity Zone mapping added more than 13,000 Riverside parcels into high-risk fire areas, increasing exposure to wildfire incidents, structure defense operations, evacuations, and simultaneous emergency responses.

The AP Triton study further found that, despite rising service demand, frontline staffing levels have remained unchanged for the past seven years. The Fire Department currently operates with approximately 225 firefighters, while service demand has increased by approximately 72 percent since the last new fire station was constructed in 2007 and by approximately 26 percent since the last staffing increase in 2018. This growing imbalance between demand and capacity was identified by AP Triton as a primary driver of increased call concurrency and system strain.

Based on its demand modeling and performance analysis, AP Triton projects that annual call

volume will continue to rise, reaching approximately 71,000 calls by 2035 and approximately 83,000 calls by 2040. The study concluded that, without corresponding investments in staffing and resources, increasing call volume will continue to reduce unit availability, extend response times, and increase the frequency and duration of system overload conditions.



The six-minute response-time benchmark emphasized in the study reflects well-established fire behavior and medical survivability data and is used specifically to evaluate emergency response effectiveness. With structure fires, arrival within this timeframe often allows initial crews to confine the fire before flashover occurs, reducing property damage and limiting the need for additional response resources. Delayed responses result in more complex incidents, longer scene times, and increased strain on the operational system, knowing that fire doubles in size every minute.

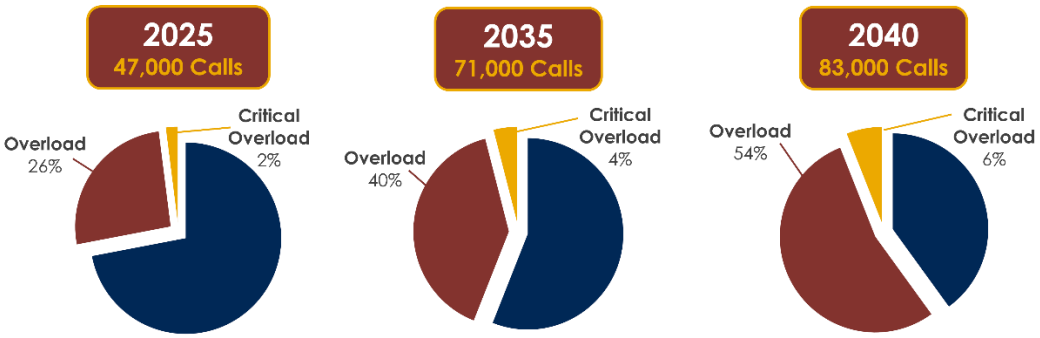
Similarly, in emergency medical incidents such as cardiac arrest, stroke, and severe trauma, patient survivability and long-term outcomes decline sharply with each minute of delay, reinforcing the importance of timely operational response. In Cardiac arrest the brain injury occurs in four to six minutes. Earlier intervention for stroke and trauma improves long-term function and survivability.

Response Performance and System Load analysis demonstrates that response performance is increasingly affected by system load and unit availability rather than station location alone. Under lower levels of call concurrency, response reliability remains relatively strong; however, as simultaneous incidents increase, unit availability declines rapidly, and response times are extended. When the system reaches four to six concurrent incidents, the Fire Department enters an overload condition, and at seven or more concurrent incidents, the system experiences critical overload, significantly limiting the City's ability to respond effectively to structure fires, wildland incidents, emergency medical calls, and other complex emergencies. These conditions directly impact the Department's ability to meet accepted operational response-time performance thresholds.

As shown in the chart below, increasing call volume directly drives higher levels of system overload over time. In 2025, with approximately 47,000 annual calls, the Fire Department is already operating in an overload condition 26% of the time, with critical overload occurring 2% of the time. As call volume grows to an estimated 71,000 calls by 2035, overload conditions increase to 40%, and critical overload doubles to 4%. By 2040, at approximately 83,000 calls per year, the system is projected to be overloaded more than half the time (54%), with critical overload occurring 6% of the time.

These trends show that, without corresponding staffing and resource increases, rising demand

will increasingly exceed available unit capacity. As overload and critical overload conditions become more frequent, response times lengthen, unit availability declines, and the Department's ability to effectively respond to simultaneous emergencies is significantly reduced.



Without staffing increases, rising call volume will push the Fire Department into sustained overload, increasing response times and risk to residents and firefighters.

Current operational staffing levels (225 firefighters) remain below regional and national per-capita benchmarks, contributing to higher workload demands, reduced resilience during peak demand periods, and increased fatigue among response personnel. The analysis identifies maintaining approximately 0.95 firefighters per 1,000 residents as a critical operational threshold for reducing overload conditions, meeting response-time expectations, and supporting continued growth in emergency response demand.

As shown in the table below, Riverside Fire staffs 0.69 firefighters per 1,000 residents, which is lower than the staffing levels of the identified regional peer agencies.

City	Firefighters	Population	Ratio (per 1,000)
Glendale	267	197,000	1.35
Pasadena	160	138,000	1.16
Long Beach	400	449,000	0.89
L.A. City	2,700	4,100,000	0.89
Anaheim	270	350,000	0.77
Corona	129	170,000	0.74
Riverside	**225**	**325,000**	**0.69**

Based on the AP Triton study and evaluation, a phased staffing strategy is recommended to right-size the Fire Department by correcting existing response performance deficits and sustaining acceptable response levels as the City continues to grow. The analysis identified that current staffing levels are insufficient to meet demand, with the Department operating at approximately 0.69 firefighters per 1,000 residents and an average response time of 7:18. AP Triton concluded that this staffing level contributes to elevated call concurrency, reduced unit availability, and response times that exceed accepted performance thresholds.

Phase 1 – Correct Current Response Deficit (Immediate Need). The first phase focuses on addressing the existing shortfall in response performance. AP Triton recommends increasing staffing to achieve a ratio of approximately 0.95 firefighters per 1,000

residents, which would require an increase of 84 firefighters, bringing total staffing to 309. This phase is intended to restore unit availability, reduce system overload, and improve response times to an estimated six minutes. Phase 1 establishes a stable operational baseline and corrects today's capacity gap before future growth further compounds performance challenges.

Phase 2 – Maintain Response Performance as the City Grows (Sustained Growth). The second phase is designed to maintain response performance as population and service demand increase over time. As the City's population is projected to grow to approximately 345,500 by 2030, 366,000 by 2035, and 386,500 by 2040, incremental staffing increases are required to preserve the 0.95 firefighters per 1,000 residents' ratio. AP Triton's evaluation identifies the need for approximately 19 additional firefighters by 2030, 20 by 2035, and 19 by 2040. These incremental additions are intended to prevent the re-emergence of system overload and sustain response times at approximately six minutes.

Together, these two phases form a deliberate and data-driven approach to right-sizing the Fire Department. Phase 1 corrects current deficiencies and stabilizes operations, while Phase 2 ensures that staffing levels keep pace with growth and demand over time. This approach aligns with AP Triton's findings and provides a defensible, scalable framework for maintaining response performance, managing risk, and protecting public and firefighter safety as Riverside continues to grow.

Current Staffing Levels

Year	Population	Ratio (per 1,000)	Firefighters	Current Response Time
2025	325,000	0.69	225	7:18

Phase 1: Correct Current Response Deficit (Immediate Need)

Year	Population	Ratio (per 1,000)	Firefighters	Staffing Increase	Projected Response Time
2025	325,000	0.95	309	+84	6:00

Phase 2: Maintain Response Performance as the City Grows (Sustained Growth)

Year	Estimated Population	Ratio (per 1,000)	Firefighters	Incremental Staffing Increase	Projected Response Time
2030	345,500	0.95	328	+19	6:00
2035	366,000	0.95	348	+20	6:00
2040	386,500	0.95	367	+19	6:00

The Study also reviewed Facilities and Infrastructure and identified significant infrastructure challenges. Many existing fire stations are aging and were not designed to support modern apparatus, expanded staffing levels, or current firefighter health and safety standards. Additional stations and targeted facility improvements are necessary to support increased operational staffing, maintain unit availability, and sustain effective emergency response coverage citywide.

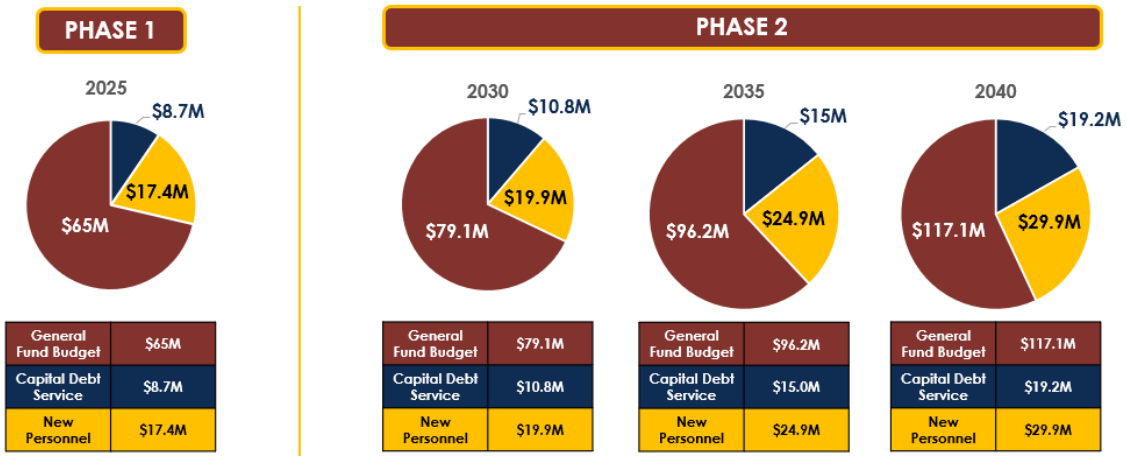
The table outlines a phased fire station facilities plan spanning 2025 through 2040, identifying stations requiring rebuilds, relocations, new construction, or renovations. The 2025 phase prioritizes multiple stations for rebuilding or relocation to accommodate additional units, addresses facilities impacted by current conditions, and includes two new station construction projects. Subsequent phases in 2028 and 2040 focus on additional rebuilds or relocations to support future unit placement, along with targeted renovations at select stations. Overall, the plan reflects a long-term, phased approach to aligning fire station infrastructure with operational needs and

anticipated service demands.

Year	Station	Needs
2025	4	Phase 1 - Rebuild / Relocate to accommodate additional unit
	8	Phase 1 - Rebuild / Relocate to accommodate additional unit
	12	Phase 1 - Rebuild / Relocate to accommodate additional unit
	15	Phase 1 – New Construction
	10	Phase 1 - Rebuild / Relocate due to current condition
	16	Phase 1 – New Construction
2028	7	Phase 2 - Rebuild / Relocate to accommodate additional unit
	2	Renovate
2031	9	Phase 2 - Rebuild / Relocate to accommodate additional unit
	3	Renovate
2034	11	Phase 2 - Rebuild / Relocate to accommodate additional unit
	5	Renovate
2037	6	Phase 2 - Rebuild / Relocate to accommodate additional unit
	13	Renovate
2040	14	Phase 2 - Rebuild / Relocate to accommodate additional unit
	1	Renovate

The phased funding plan demonstrates a sustainable approach to supporting Fire Department operations, staffing, and infrastructure through 2040. Phase 1 (2025), the current General Fund Budget, establishes a baseline General Fund budget of $65 million, with targeted investments of $132.2 million in new facilities and equipment with an initial estimated debt service for capital improvements of $8.7 million and new personnel costs of $17.4 million.

Phase 2 estimates the General Fund Budget and a gradual planned increase at five-year intervals to align resources with projected service demand and community growth, culminating in 2040 with an estimated $117.1 million General Fund budget, $19.2 million in annual debt service for additional facilities and equipment investments of $161 million, and $29.9 million for new firefighter personnel. This approach allows the City to plan responsibly while maintaining fiscal stability and service reliability.



The AP Triton Master Plan offers an objective, data-driven evaluation of the Riverside Fire

Department's emergency response operations, and system capacity. While the Department continues to provide effective emergency services, sustained growth in call volume, staffing and equipment demands, and facility modernization needs indicate that targeted strategic investments may be necessary to preserve response reliability, enhance firefighter safety, and maintain community risk reduction as the City grows. The operational analysis is intended to guide future policy discussions, capital planning, and funding strategies that support a resilient, performance-based emergency response system for Riverside.

As outlined above, the AP Triton Master Plan identifies significant operational, staffing, and infrastructure needs. The Fire Department developed a phased expenditure plan through 2040; however, it does not identify or secure any additional funding sources beyond the existing General Fund and Measure Z allocations, leaving a substantial implementation funding gap that will require future policy decisions, new revenue measures, or reallocation of existing resources.

FISCAL IMPACT:

There is no fiscal impact to this report.

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Attachments:

1. Riverside City Master Plan (Final Report)
2. Presentation