

To	Marchell Adams-David, City Manager
Thru	Patrick O. Young, AICP, Director
From	Christopher Golden, Planning Supervisor John Anagnost, Senior Planner
Department	Planning and Development
Date	January 6, 2022
Subject	Fire Service Provision to Newly Annexed Areas

Overview

Raleigh’s annexation petition process enables property owners outside of Raleigh’s corporate limits to request to be added to Raleigh’s corporate limits. In many cases, annexation requests are for property near the periphery of Raleigh’s jurisdiction. City services may need to be extended or modified to reach these areas and budget considerations made to ensure consistent service quality across Raleigh’s incorporated lands.

There are parts of Wake County that are eligible for annexation to Raleigh where it may be difficult to provide fire protection services to the degree that is needed for Raleigh Fire Department to maintain industry benchmarks and more generally to ensure protection of life and property to the same extent as existing incorporated areas.

There are four pending annexation cases, each of which is associated with a pending rezoning case, that have been evaluated as outside the area where existing Raleigh Fire resources can provide fire protection and emergency response services in a manner that meets the baseline performance goals of Raleigh Fire. Raleigh Fire creates its own baseline performance metrics that are based on industry benchmarks but are adjusted to reflect Raleigh’s resources and service areas. This memo will refer primarily to Raleigh Fire’s baseline metrics as the key indicator of service provision to annexation/rezoning sites.

In the future, Raleigh Fire will provide more detailed guidance about anticipated service provision to the City Council for annexation petitions. The information will enable the City Council to take action on annexation cases that are informed by the implications for fire service provision to the annexation property. This memo explains the relationship of annexations to fire service as well summary information about pending cases where this relationship may be a source of concern. Staff are prepared to provide more detailed analysis about the four pending cases at an upcoming City Council work session.

Annexation Impact on Fire Service

Upon annexation, property immediately enters the service area for an assortment of City services. Some of these services, such as water and sewer or solid waste collection, require customers to initiate a service account that enables the subject department to directly track revenue and costs. Fire protection and law enforcement must extend their services without additional service fees, though the newly annexed area will contribute property tax revenue to the general fund which supports fire and police services.

Public safety departments need to evaluate cost impacts of new developments. These impacts often take the form of additional staff and facilities. Services such as Solid Waste may be able to respond to more distant customers by extending routes from existing facilities. In contrast, public safety departments need to ensure that emergency response times do not fall below Raleigh Fire's desired baselines. This gives these departments less flexibility to make interim adjustments to service coverage while new facilities are planned.

There are multiple components that contribute to response time, one of which is travel time to the scene of an emergency. As annexations lead residents and businesses to locate farther into Raleigh's periphery, the travel time from existing fire stations will increase and response times will consequently increase as well.

The lengthening of response times for newly annexed areas presents the risk that new residents of annexed areas receive a substandard level of service. Service needs in newly annexed areas can also compete with provision of services to existing developments within Raleigh's jurisdiction if City resources do not expand commensurately with development.

Construction of a new fire stations closer to annexation sites can improve response times for new development so that Raleigh can continue to meet its performance benchmarks. Additionally, personnel and equipment need to account for the volume of calls for service and be allocated in response to the geographic origins of those calls.

In conjunction with new station locations, Raleigh Fire needs to make budgetary considerations for the number of trucks, firefighters, and support personnel that may be needed to respond to new call volumes while maintaining service in existing areas. Those considerations should also take place with sufficient time to be implemented before new development begins to strain existing resources.

Recent Analysis of Fire Service

Raleigh Fire has historically been diligent in projecting service needs and then planning new stations and adjusting staffing accordingly. However, the recent pace of growth in Raleigh has strained the department's ability to maintain the level of performance that it has previously achieved.

A 2020 report by Matrix Consulting evaluated Raleigh Fire data from 2016 to 2018 against performance metrics promulgated by the Insurance Services Office (ISO). These

metrics were also supplemented with benchmarks from professional organizations such as the National Fire Protection Association (NFPA), the Center for Public Safety Excellence (CPSE), and others.

One of the most important metrics for public safety departments, and fire departments in particular, is response time. Response time is the time elapsed between a department receiving a call for service and arriving at the incident that prompted the call. In addition to the need to respond to structure fires, response times are important to fire departments because fire departments frequently serve as emergency medical responders for non-fire emergencies. NFPA 1710 and Standards of Cover are guiding metrics for fire department emergency response. For example, NFPA 1710 4.1.2.1 Section 5 (*For other than high-rise, 480 seconds (8 min) or less travel time for the deployment of an initial full alarm assignment at a fire suppression incident*) states that the initial (4) Engines and (2) Aerial Ladders should arrive within 8 minutes.

The 2020 Matrix Consulting report found that travel time component of response time in 2018 was eight seconds greater than the department's baseline performance goal of five minutes and twelve seconds (pg. 61). While eight seconds is a relatively short period of time, the baseline that Raleigh Fire set for itself was already more than one minute longer than the industry benchmark of four minutes. Newly annexed areas present an unavoidable source of growth in that travel time from existing fire stations because of the greater distance between the station and the annexed area.

The 2020 Matrix Consulting report makes several recommendations for improving Raleigh Fire's operations based on the metric cited above as well as a range of other performance indicators. Among the recommendations is a call for funding of eight additional fulltime firefighters by 2025. The report did not make specific recommendations about construction of new facilities.

Additionally, the report projected the growth in the volume of calls for service. The number of calls per year was projected to increase by 34% between 2020 and 2040. The report noted that the increase in call volume will consume more of the operational time of fire trucks to the extent that "[a]s the utilization increases, and the response time decreases for that unit, an additional company may be necessary to handle the call volume" (pg. 130).

Finally, the report recommended concentrating more fire service resources near the core of Raleigh due to the amount of medium- and high-rise infill development occurring in and around downtown. This recommendation could present a conflict with the need for additional resources proximate to peripheral growth unless the department experiences a requisite expansion of capacity.

Annexation Eligibility and Utility Extensions

The City Council has established criteria to determine when property outside Raleigh's corporate limits is eligible to request annexation. These criteria are recorded in three resolutions. Resolutions 2008-460, 2009-22, and 2022-380 identify characteristics a

property must have in order to petition for annexation. A property must generally fit in one of the following categories:

- Within Raleigh’s extra-territorial jurisdiction (ETJ)
- Outside of Raleigh’s ETJ, contiguous with existing corporate limits, and adjacent to existing water and sewer lines
- Outside of Raleigh’s ETJ, contiguous with existing satellite corporate limits, near existing water and sewer lines, and expected to be added to Raleigh’s ETJ within five years

Some other forms of eligibility are described in the resolutions that are more rare and not pertinent to this memo. Additionally, some sites within the Falls Lake Watershed Protection Area are not able to petition for annexation even if they meet the criteria described above.

Raleigh’s ETJ extends a significant distance into unincorporated Wake County, particularly to the Northeast and Southeast. These areas are experiencing significant demand for residential development as well as commercial development. In many cases, rezoning requests are submitted in conjunction with annexation petitions so that a greater number of residential units may be constructed on the annexed property or commercial development can occur where it previously was not permitted and/or not supported by need water and sewer utilities.

As new developments are permitted, annexed, and constructed, they are required to extend water and sewer service to the next adjacent property, with the developer bearing the cost. While utility permitting rules ensure that water and sewer service are in place for new development, continued extensions of the corporate limits can enable development that may be difficult to serve for other City departments.

Current Annexation Cases with Fire Service Concerns

There are five annexation cases under review as of January 2022 that have been evaluated as potentially being underserved by fire protection resources. Four of these annexation cases are associated with rezoning cases. The Table 1 on the following page below shows the annexation case number, rezoning case number, site location, potential development, fire service concern, and review status as of January 2023 for the five cases.

One case is scheduled to have a City Council public hearing on January 17, 2023 (AX-32-22). Two of the cases (AX-1-22 and AX-21-22) are scheduled to have City Council public hearings on January 24, 2023. City Council is legally able to approve or deny these cases on those dates. Alternatively, they may choose to hold the cases to a later date. That later date could take place before or after the anticipated work session in which fire service issues would be discussed.

These upcoming annexations and associated rezones are located both inside and outside of the city’s extraterritorial jurisdiction (ETJ). City policy treats annexations inside the ETJ differently than those outside of the ETJ. The city’s legal obligations are different for each as well.

Table 1: Pending annexation cases with fire service concerns

Annexation Case	Rezoning Case	Location	Potential Development	Fire Service Concern	Status
AX-12-20	Z-16-20 (From R-30 Wake County to R-10-PD and RX-PD-Raleigh-Proposed)	Hodge Road, south of Poole Road (Contiguous-Outside ETJ)	2,660 residential units	Response time (all types)	Under review by PC
AX-1-22	Z-2-22 (From R-30 Wake County to (CX-5-CU, RX-3-CU Raleigh-Proposed)	6720 Rock Quarry Road (Contiguous-Outside ETJ)	871 residential units	Response time (all types)-	CC public hearing (1/24/23)
AX-21-22	Z-38-22 (From MH to R-6)	7640 Oak Hill Drive (Contiguous-Inside ETJ)	168 residential units	Response time (ladder)	CC public hearing (1/24/23)
AX-22-22	Z-69-22 (From R-30 Wake County to R-6-CU-Raleigh-Proposed)	Auburn Knightdale Road, south of Battle Bridge Road (Contiguous to Satellite-Outside ETJ)	200 residential units	Response time (all types)	Under review by PC
AX-32-22	N/A	5100 Forestville Road (Non-Contiguous-Inside ETJ)	73,340 Sq. Ft. Of commercial space.	Response time (all types)	CC public hearing (1/17/23)

If annexations outside Raleigh’s ETJ are denied, the applicants would not be able to submit subdivision plans or site plans with the City of Raleigh for new development. In

this situation, the city is not obligated to provide any service if the annexation is not approved. The property owner/developer/applicant could however choose to develop the property with the appropriate county under their standards.

If annexations inside Raleigh's ETJ are denied the property owner/developer/applicant could connect to Raleigh water and sewer (so long as they followed city policy) and develop the property under City zoning regulations to the extent that the zoning requirements allow through administrative approval. Development plans under this scenario, being subject to administrative approvals, means that staff are obligated by the UDO to approve the plans if they meet the zoning requirements.

Water and Sewer service would be provided but users would pay "outside rates" which are double the rates for residents inside city limits. In this situation, the city is obligated to provide utility service because the development is occurring under Raleigh's zoning and permitting authority. The city is not legally obligated to provide fire, police protection or solid waste services. Those services would be the responsibility of the county in which the property is located. Developments of this type are highly unlikely to petition for voluntary annexation and therefore should not be anticipated to pay city taxes at any point in the future.

The administrative approval obligation described above for annexations inside Raleigh's ETJ is true even if the proposed development is not likely to have adequate fire protection service. The UDO and the North Carolina Building Code provide fire safety standards for development. These include access for fire trucks, water supply sufficiency for fire suppression, and circulation around buildings for fire equipment.

The development standards do not speak to the resource capacity of the fire department responding to an emergency. However, buildings located where fire service does not meet ISO standards are likely to be charged higher insurance premiums due to additional risk of fire damage and liability.

The City Council may wish to consider the implications of fire service when taking action on these annexation and rezoning cases as well as others in the future. In particular, the timing of potential development enabled by these cases can be evaluated in relation to the likelihood of additional Raleigh Fire resources entering service in the future.

Future Review of Annexations for Fire Service

The recommendations for expansion of Raleigh Fire's service capacity from the 2020 Matrix Consulting report give an indication that annexation petitions should be reviewed against the proposed development's impact on fire service. With this goal in mind, Raleigh Fire has proposed a new approach to their review of annexation petitions. Raleigh Fire will coordinate development enabled by annexation with its long-term facility planning and annual staffing needs.

In the past, Raleigh Fire has largely reviewed annexation requests from the perspective of whether fire equipment could physically access a development site. This analysis was based largely on the street network surrounding the site. Based on the information

presented in this memo, as well as discussions between staff in the Raleigh Fire and Planning and Development departments, future annexation petitions will receive a more detailed review from Raleigh Fire.

The analysis of future annexations is intended to illuminate new service needs along with the needs of infill development within more urban areas of Raleigh's corporate limits. The existing service capacity of the department will be considered in combination with adopted plans for new fire stations. The review will make a determination of whether an annexation site is likely to receive services at the baseline set by Raleigh Fire. The most likely future resources cited in this analysis would be new fire stations, equipment, and personnel. The format of the expanded fire review would be that the Raleigh Fire reviewer would select one of the following responses to the annexation petition:

1. There is a known service issue in this area (response time, equipment availability, personnel, etc). The city has no active capital or partnership planning in this area; unknown when the city can serve this area. City is interested in applicant participating in solution.
2. There is a known service issue in this area (response time, equipment availability, etc). The city has active capital or partnership planning in this area; city expects to be able to serve this area in the future, exact timing still to be determined. Timing could be sooner/more certain if applicant wants to participate in solution
3. There is a known service issue in this area (response time, equipment availability, etc). The city has active capital or partnership planning in this area; city expects to be able to serve this area in the future, specifically XX time.
4. No known service challenges in this area for this project.

Additional contextual information will be included on a case-by-case basis.

The information will be presented to the Planning Commission and City Council as part of the annexation review process. This process may also coincide with rezoning review. The review for combined annexation/rezoning processes outside of the ETJ will be particularly important because areas outside the ETJ are less likely to have been considered for future service provision in planning documents such as the Capital Improvement Program. Consequently, these areas are less likely to have a clear timeline for adequate service provision.

Next Steps

Staff from Planning and Development and Raleigh Fire are proposing a City Council work session in late February 2023 to discuss fire service as it relates to annexation. In this work session, staff can explain the fire service implications of the pending cases and provide an overarching legal and policy framework for how the City has historically approached service provision in peripheral areas.

RESOLUTION NO. (2008) 460

**A RESOLUTION ESTABLISHING A POLICY REGARDING ACCEPTANCE
OF ANNEXATION PETITION REQUESTS FOR PROPERTIES
OUTSIDE OF RALEIGH'S EXTRATERRITORIAL JURISDICTION**

WHEREAS, a general extraterritorial jurisdiction (ETJ) extension into a future growth area of Raleigh would allow for a more orderly transition from county to municipal development regulations than a series of individual development site annexation requests and approvals.

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF RALEIGH,
NORTH CAROLINA THAT:**

Section 1. It is the policy of the City not to accept any annexation petition requests for property outside the existing Raleigh ETJ or property in an area formally being considered for extension of Raleigh's ETJ.

Section 2. Exceptions to this policy may be considered on a case by case basis for the following potential annexation sites outside Raleigh's ETJ:

- a. Existing developed property requiring emergency connection to municipal water or sewer lines.
- b. Property within Durham County identified through the City of Raleigh's mutual annexation agreement with the City of Durham as being in Raleigh's urban service area.
- c. Property in that area between I-540 and Strickland Road/Falls of Neuse Road where development will meet Raleigh's Falls Lake watershed development policies.
- d. Property in an adjacent municipality's ETJ that through an annexation agreement modification is to be transferred to Raleigh's ETJ.
- e. Property that is publicly owned land.
- f. Property that involves any parcel of land existing at the time of this resolution's adoption that is split by the existing ETJ boundary line.

Section 3. A copy of this resolution shall be filed with the City of Raleigh City Clerk's office.

Adopted: February 5, 2008

Effective: February 5, 2008

Distribution: Planning – Bryant, Duke
Transcription Svcs – Taylor

RESOLUTION NO. (2009) 22

**A RESOLUTION TO AMEND RESOLUTION NO. 2008-460
WHICH ESTABLISHED A POLICY REGARDING ACCEPTANCE
OF ANNEXATION PETITION REQUESTS FOR PROPERTIES
OUTSIDE OF RALEIGH'S EXTRATERRITORIAL JURISDICTION**

WHEREAS, on February 5, 2008 the Raleigh City Council adopted Resolution No. 2008-460, "A Resolution Establishing a Policy Regarding Acceptance of Annexation Petition Requests for Properties Outside of Raleigh's Extraterritorial Jurisdiction"; and

WHEREAS, on November 3, 2009 the Raleigh City Council approved the addition of the following language to Section 2 of Resolution 2008-460:

- "g. Property that is adjacent to the contiguous city limits of Raleigh and that is adjacent or in close proximity to existing City of Raleigh water and sewer lines."

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF RALEIGH, NORTH CAROLINA THAT RESOLUTION NO. 2008-460 IS HEREBY AMENDED TO READ AS FOLLOWS:

Section 1. It is the policy of the City not to accept any annexation petition requests for property outside the existing Raleigh ETJ or property in an area formally being considered for extension of Raleigh's ETJ.

Section 2. Exceptions to this policy may be considered on a case by case basis for the following potential annexation sites outside Raleigh's ETJ:

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- d. Property in an adjacent municipality's ETJ that through an annexation agreement modification is to be transferred to Raleigh's ETJ.
- e. Property that is publicly owned land.
- f. Property that involves any parcel of land existing at the time of this resolution's adoption that is split by the existing ETJ boundary line.

- g. Property that is adjacent to the contiguous city limits of Raleigh and that is adjacent or in close proximity to existing City of Raleigh water and sewer lines.

Section 3. A copy of this resolution shall be filed with the City of Raleigh City Clerk's office.

Adopted: November 3, 2009

Effective: November 3, 2009

Distribution: Planning – Bryant, Duke
Transcription Svcs – Taylor

RESOLUTION NO. (2008) 460

**A RESOLUTION ESTABLISHING A POLICY REGARDING ACCEPTANCE
OF ANNEXATION PETITION REQUESTS FOR PROPERTIES
OUTSIDE OF RALEIGH'S EXTRATERRITORIAL JURISDICTION**

WHEREAS, a general extraterritorial jurisdiction (ETJ) extension into a future growth area of Raleigh would allow for a more orderly transition from county to municipal development regulations than a series of individual development site annexation requests and approvals.

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