



**DATE:** August 8, 2023  
**TO:** Honorable Mayor & City Council  
**FROM:** Planning & Zoning Commission  
**VIA:** Eric Hill, AICP, Assistant Director of Planning acting as Secretary of the Planning & Zoning Commission  
Christina D. Day, AICP, Director of Planning   
**SUBJECT:** Results of Planning & Zoning Commission Meeting of August 7, 2023 

**AGENDA ITEM NO. 1A - ZONING CASE 2022-009**  
**PETITIONER: ONLAP PROPERTY OWNERS, LLC**

Request to rezone 19.1 acres located at the southwest corner of Plano Parkway and Executive Drive from Corridor Commercial to Planned Development-Corridor Commercial. Zoned Corridor Commercial and located within the 190 Tollway/Plano Parkway Overlay District. Remanded by City Council on June 26, 2023. Project #ZC2022-009.

**APPROVED:** 6-2

Speaker Card(s) Received	Support:	<u>1</u>	Oppose:	<u>0</u>	Neutral:	<u>0</u>
Letters Received Within 200' Notice Area:	Support:	<u>3</u>	Oppose:	<u>0</u>	Neutral:	<u>0</u>
Petition Signatures Received:	Support:	<u>0</u>	Oppose:	<u>0</u>	Neutral:	<u>0</u>
Other Responses:	Support:	<u>9</u>	Oppose:	<u>28</u>	Neutral:	<u>2</u>

**RESULTS:**

The Commission recommended the item for approval subject to the following stipulations:

The permitted uses and standards will be in accordance with the Corridor Commercial (CC) zoning district unless otherwise specified herein:

1. Mid-rise residential and single-family residence attached are additional permitted uses within Tract 1 only. If neither mid-rise residential nor single-family residence attached development occurs, Tract 1 must be developed in accordance with the Corridor Commercial (CC) zoning district regulations.
2. Tract 1 Standards:
  - a. If residential uses are developed, the following uses are prohibited:
    - i. Car Wash
    - ii. Compact Construction & Transportation Sales & Service

- iii. Convenience Store with Fuel Pumps
- iv. Drive-In Theater
- v. Major Vehicle Repair
- vi. Minor Vehicle Repair
- vii. Motorcycle Sales/Service
- viii. Open storage
- ix. Restaurant – with Drive-In or Drive-Through service
- x. Small Engine Repair Shop
- xi. Water Treatment Plant

b. Mid-rise Residential Standards:

i. Area, Yard, and Bulk Requirements:

Description	Requirement
Maximum Number of Units	501
Minimum Front Yard	30 feet
Minimum Side and Rear yards	None
Maximum Height	5 stories; 70 feet
Maximum Floor Area Ratio	2:1
Minimum Floor Area Per Dwelling Unit:	
Efficiency	500 square feet
1 bedroom	650 square feet
2 bedroom	800 square feet
Each additional bedroom	200 square feet
Parking	
Efficiency units	1.0 space per dwelling unit
1 Bedroom units	1.0 space per dwelling unit
2 Bedroom units	1.5 space per dwelling unit
3 Bedroom units	2.0 space per dwelling unit

ii. Miscellaneous Area, Yard, and Bulk Requirements:

- (1) Mid-rise residential development is exempt from the supplemental regulations of Section 15.800 (Multifamily Residence) of the Zoning Ordinance.
- (2) A minimum of 75% of mid-rise residential units facing Plano Parkway and Executive Drive must have one of the following design features: a true balcony, stoop, or patio to create outdoor living space, with a minimum depth of 4 feet and a minimum width of 8 feet.
- (3) Front yard setbacks are exempt from the provisions of 13.500.2I. and 13.500.2N. of the Zoning Ordinance.
- (4) Side yard setbacks are exempt from the provisions of 13.500.3I. and 13.500.3K. of the Zoning Ordinance.
- (5) Rear yard setbacks are exempt from the provisions of 13.500.4A. and 13.500.4D. of the Zoning Ordinance.

- c. Single-family residence attached uses must conform to Section 10.700 (UMU, Urban Mixed-Use Zoning District) of the Zoning Ordinance, except the street and sidewalk standards set forth in 10.700.10 C-G will not apply.
- d. Screening and Fencing Requirements:
  - i. A landscape edge with a minimum dimension of 15 feet must be placed along the western property boundary of Tract 1 if developed with mid-rise residential, open space, or single-family residential attached uses. A solid evergreen landscape screen must be installed and maintained to grow to a height of at least 15 feet within two years of installation.
  - ii. Fencing is restricted to wrought iron, tubular steel, tubular aluminum, or masonry and must be a minimum of 50% open construction.
- e. Open Space and Landscaping Standards:
  - i. A minimum of 1.5 acres must be provided as usable open space and meet the multifamily requirements per section 13.800 of the Zoning Ordinance. Open space must be set back a minimum of 300 feet from U.S. Highway 75 and State Highway 190 right-of-way.
  - ii. Minimum landscape edge along Plano Parkway: 30 feet
  - iii. Minimum landscape edge along Executive Drive: 20 feet
  - iv. Streetscape: Street trees, measuring a minimum of 4-inch caliper, must be provided at a rate of one tree per 50 linear feet of street frontage.
  - v. If easement areas fall within the landscape edge, no shade trees will be required, only grass, shrubs, and ornamentals. Trees that cannot be planted in the easement areas must be planted elsewhere along the street.
- f. Noise and Air Quality Mitigation Standards for Residential Development:
  - i. Mid-rise residential and single-family residence attached buildings must be set back a minimum of 435 feet from the State Highway 190 frontage road.
  - ii. True balconies and patios are permitted where an EHA site analysis for the building meeting City of Plano standards proves noise levels will be less than 65 dBA Ldn at the time of Preliminary Site Plan approval.
  - iii. Pollution Mitigation Measures – The following standards must be used during initial construction and must be added as notes to the site plan. The Building Official or designee may substitute equivalent or superior construction methods upon replacement or reconstruction, consistent with building code requirements.
    - (1) Mechanical ventilation for mid-rise residential and single-family residence attached buildings must exceed the building code as follows:
      - (a) All ventilation units must be outdoor-air sourced.
      - (b) Units must be installed on the roof of the building with air intakes ducted to the northernmost elevation of the building.

(2) Air Filtration:

- (a) Each outdoor-air sourced mechanical ventilation unit must contain a filter box on the intake side or filter housing as part of the assembly.
- (b) These filter boxes must contain a filter (or combination of filters in “series”) capable of filtering outdoor airborne particulates to the MERV 8 standard or greater, based on the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) ratings.

iv. Noise Mitigation Measures – The following standard must be used during initial construction and must be added as a note to the site plan. The Building Official or designee may substitute equivalent or superior construction methods upon replacement or reconstruction, consistent with building code requirements.

- (1) Construction documents sealed by an architect must be provided as part of the building construction plan set that details mitigation of the interior noise at each unit to a maximum level of 45 dBA.
- (2) The engineer of record will be responsible for testing the interior noise and providing a noise study for all units to the Building Inspections Department prior to the final building inspection.

g. Facade Standards:

i. Mid-Rise Residential Buildings:

- (1) At least 80% of any exposed exterior wall of main buildings and accessory buildings will consist of glass, native stone, clay-fired brick or tile, or a combination of these materials. However, a maximum of 50% of any exposed exterior wall may consist of metal. The remaining 50% shall comply with the materials listed above.
- (2) No building facade may exceed a length of 600 feet without a break in the facade of a minimum width of 70 feet for the entire depth of the building.

ii. Nonresidential Buildings: At least 80% of any exposed exterior wall of the first floor of main buildings, parking structures, and accessory buildings will consist of glass, native stone, clay-fired brick or tile, or a combination of these materials.

iii. Additional Parking Garage Structure Requirements:

- (1) Parking structure facades on all streets must be designed with both vertical (façade rhythm of 20 feet to 30 feet) and horizontal (aligning with horizontal elements along the block) articulation.
- (2) Where above-ground structured parking is located at the perimeter of a building, it must be screened in such a way that cars on all levels are hidden from view along rights-of-way. Screening may be achieved through the use of louvered, solid, or opaque vertical screening elements.
- (3) When parking structures are located at corners, corner architectural elements must be incorporated, such as corner entrance and signage.
- (4) Parking structure ramps must not be visible from any adjacent right-of-way.

3. Tract 2 Standards:
  - a. Miscellaneous Area, Yard, and Bulk Requirements:
    - i. Minimum Front Yard: 15 feet
    - ii. Front yard setbacks are exempt from Section 13.500.2.I and 13.500.2.N of the Zoning Ordinance.
    - iii. The minimum landscape edge along State Highway 190 is 15 feet.
4. Phasing:
  - a. A minimum of 33 single-family residence attached units and the required open space must be constructed at the same time as the first phase of mid-rise residential units, not to exceed 260 units.
  - b. A landscape berm with a minimum height of 6 feet and a maximum slope of 3:1 must be constructed as part of the first phase on the southern portion of Tract 1 between State Highway 190 and residential units should no nonresidential building be part of the first phase in this location. The landscape berm must include trees, shrubs, ground cover, and related elements. A minimum of one 3-inch caliper shade tree and one 3-inch caliper ornamental tree (7-foot planted height) must be placed per 50 feet. The landscape berm must extend the full length of the residential units. Should openings in the berm be required (to allow for pedestrian paths, utilities, or drainage, for example), the design must include overlapping berms that continue parallel to State Highway 190.
    - i. Signs must be placed along the landscape berm stating that the area may be used for future commercial development.
  - c. Prior to or concurrent with the issuance of a certificate of occupancy for the remaining mid-rise residential units, a building permit certificate of occupancy must be issued for a minimum of 70,000 square feet of nonresidential square footage, not including parking garages.
  - d. The landscape berm can be removed once a permit for non-residential has been issued on the southern portion of Tract 1 between State Highway 190 and the residential units.
5. Governance Association: Applications for building permits for development within the district shall not be approved until a property owner's governance association is established. The association shall be responsible for maintaining all common property, improvements, and amenities within the district. It shall have power sufficient to assess and collect dues and charges as required to perform its responsibilities. It may have additional powers to administer other programs, including but not limited to security, promotion and marketing, and entertainment.

To view the hearing, please click on the provided link:

<https://planotx.new.swagit.com/videos/268562?ts=478>

DS/kob

cc: Eric Hill, Assistant Director of Planning  
Christina Sebastian, Land Records Planning Manager  
Melissa Kleineck, Lead Planner  
Justin Cozart, GIS Technician  
Jeanna Scott, Building Inspections Manager  
Dorothy Alatorre, Sr. Administrative Assistant - Neighborhood Services

[Google Link](#)

MEETING DATE	TIME	MEETING ID	ZONING CASE
August 7, 2023	7:00 PM	PZ 08.07.23	ZC2022-009

**RESULTS for Bennett Ratliff**

I, **Bennett Ratliff**, 2nd Vice Chair, after review of the written information and listening to the hearing participants, voted in **SUPPORT** to this case, finding the following:

( 1 ) The request is consistent with the overall Guiding Principles of the Comprehensive Plan because:

It provides for a transit oriented mixed use development when considering surrounding land uses that are impacted by the proposed project. Adjacent retail and commercial developments will benefit from the residents of this development thus achieving the requirements of RGM5.

**and**

( 2 ) The request is substantially beneficial to the immediate neighbors, surrounding community, and general public interest because:

This project will enhance the community for adjacent multi-family residents, increase customer opportunities for adjacent retail and restaurants, and be a catalyst for additional redevelopment in the vicinity.

**and**

( 3 ) The request is consistent with other policies, actions, maps:

- Bicycle Transportation Plan Map
- Downtown Vision & Strategy Update (2019)
- Future Land Use Map & Dashboards - Character Defining Elements
- Future Land Use Map & Dashboards - Mix of Uses
- Future Land Use Map and Dashboards - Description & Priorities
- Parks Master Plan Map
- Redevelopment & Growth Management Policy - Action 8 (RGM8)
- Thoroughfare Plan Map & Cross-Sections
- Transit-Oriented Development Policy
- Other

( 4 ) Comments on any of the above which further explain my position:

*BENNETT RATLIFF*

August 7, 2023 @ 8:15:47 PM

**Signature**

**Date**

MEETING DATE	TIME	MEETING ID	ZONING CASE
August 7, 2023	7:00 PM	PZ 08.07.23	ZC2022-009

**RESULTS for Bill Lisle**

I, **Bill Lisle**, Commissioner, after review of the written information and listening to the hearing participants, voted in **SUPPORT** to this case, finding the following:

( 1 ) The request is consistent with the overall Guiding Principles of the Comprehensive Plan because:

This contributes to the redevelopment of east Plano and is the highest and best use for the property

**and**

( 2 ) The request is substantially beneficial to the immediate neighbors, surrounding community, and general public interest because:

It eliminates blight and a vacant building adding density to the CityLine stations.

**and**

( 3 ) The request is consistent with other policies, actions, maps:

- Bicycle Transportation Plan Map
- Downtown Vision & Strategy Update (2019)
- Future Land Use Map & Dashboards - Character Defining Elements
- Future Land Use Map & Dashboards - Mix of Uses
- Future Land Use Map and Dashboards - Description & Priorities
- Parks Master Plan Map
- Redevelopment & Growth Management Policy - Action 8 (RGM8)
- Thoroughfare Plan Map & Cross-Sections
- Transit-Oriented Development Policy
- Other

( 4 ) Comments on any of the above which further explain my position:



August 7, 2023 @ 8:21:14 PM

**Signature**

**Date**

MEETING DATE	TIME	MEETING ID	ZONING CASE
August 7, 2023	7:00 PM	PZ 08.07.23	ZC2022-009

**RESULTS for David L. Downs**

I, **David L. Downs**, Chair, after review of the written information and listening to the hearing participants, voted in **SUPPORT** to this case, finding the following:

( 1 ) The request is consistent with the overall Guiding Principles of the Comprehensive Plan because:

The Guiding Principles are meant to insure a robust evaluation of all projects but as the name suggests, they are a Guide Ande leave room for approval of projects that are unique and are beneficial to the city in ways not previously considered.

**and**

( 2 ) The request is substantially beneficial to the immediate neighbors, surrounding community, and general public interest because:

The new development will potentially revitalize this corner in positive ways for residents and businesses in the area. The addition of the residents and the open space will help increase business opportunities for those existing retail businesses owners.

**and**

( 3 ) The request is consistent with other policies, actions, maps:

- Bicycle Transportation Plan Map
- Downtown Vision & Strategy Update (2019)
- Future Land Use Map & Dashboards - Character Defining Elements
- Future Land Use Map & Dashboards - Mix of Uses
- Future Land Use Map and Dashboards - Description & Priorities
- Parks Master Plan Map
- Redevelopment & Growth Management Policy - Action 8 (RGM8)
- Thoroughfare Plan Map & Cross-Sections
- Transit-Oriented Development Policy
- Other

( 4 ) Comments on any of the above which further explain my position:



August 7, 2023 @ 8:17:15 PM

**Signature**

**Date**



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August 7, 2023	7:00 PM	PZ 08.07.23	ZC2022-009

**RESULTS for Gary Cary**

I, **Gary Cary**, 1st Vice Chair, after review of the written information and listening to the hearing participants, voted in **OPPOSITION** to this case, finding the following:

I agree with the conclusions in the preliminary report provided by staff because:

**or**

The project is incompatible with the Future Land Use Map Dashboard of the Comprehensive Plan because:

Not aligned with numerous comp plan elements including 5a and 5b. I also believe staff had it right that there are better long term uses.

The request is inconsistent with the overall Guiding Principles of the Comprehensive Plan because:

The request is not substantially beneficial to the immediate neighbors, surrounding community, and general public interest because:

The request is inconsistent with other policies, actions, maps:

- Downtown Vision & Strategy Update (2019)
- Expressway Corridor Environmental Health Map & Guidelines
- Future Land Use Map and Dashboards - Description & Priorities
- Redevelopment & Growth Management Policy - Action 5A (RGM5A)
- Redevelopment & Growth Management Policy - Action 5B (RGM5B)
- Redevelopment & Growth Management Policy - Action 8 (RGM8)
- Redevelopment of Regional Transportation Corridors Policy
- Other

Comments on any of the above which further explain my position:

*Gary Cary*

August 7, 2023 @ 8:15:41 PM

**PLANNING & ZONING COMMISSION**  
FINDINGS RELATED TO ZONING CASE



MEETING DATE	TIME	MEETING ID	ZONING CASE
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Signature

Date

MEETING DATE	TIME	MEETING ID	ZONING CASE
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**RESULTS for J. Michael Brounoff**

I, **J. Michael Brounoff**, Commissioner, after review of the written information and listening to the hearing participants, voted in **OPPOSITION** to this case, finding the following:

I agree with the conclusions in the preliminary report provided by staff because:

The application does not satisfy the city's land use policy for new residential development in well integrated and thoughtful pedestrian oriented neighborhoods, providing the mix of complementary uses set for in the Comprehensive Plan for the Expressway Corridor future land use category.

or

The project is incompatible with the Future Land Use Map Dashboard of the Comprehensive Plan because:

The request is inconsistent with the overall Guiding Principles of the Comprehensive Plan because:

The request is not substantially beneficial to the immediate neighbors, surrounding community, and general public interest because:

The request is inconsistent with other policies, actions, maps:

- Downtown Vision & Strategy Update (2019)
- Expressway Corridor Environmental Health Map & Guidelines
- Future Land Use Map and Dashboards - Description & Priorities
- Redevelopment & Growth Management Policy - Action 5A (RGM5A)
- Redevelopment & Growth Management Policy - Action 5B (RGM5B)
- Redevelopment & Growth Management Policy - Action 8 (RGM8)
- Redevelopment of Regional Transportation Corridors Policy
- Other

Comments on any of the above which further explain my position:

**PLANNING & ZONING COMMISSION**  
FINDINGS RELATED TO ZONING CASE



MEETING DATE	TIME	MEETING ID	ZONING CASE
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*J. Michael Brummett*

August 7, 2023 @ 8:19:22 PM

**Signature**

**Date**

MEETING DATE	TIME	MEETING ID	ZONING CASE
August 7, 2023	7:00 PM	PZ 08.07.23	ZC2022-009

**RESULTS for Michael Bronsky**

I, **Michael Bronsky**, Commissioner, after review of the written information and listening to the hearing participants, voted in **SUPPORT** to this case, finding the following:

( 1 ) The request is consistent with the overall Guiding Principles of the Comprehensive Plan because:

I believe that this development meets the Guiding Principles for Plano Today, Plano 2050 and Plano Together.

**and**

( 2 ) The request is substantially beneficial to the immediate neighbors, surrounding community, and general public interest because:

I believe that the intentional incorporation of Universal Design into their housing and other areas is something that is of such great public interest that it will be a great guide going forward for housing and the mix of use that it offers for current and future citizens.

**and**

( 3 ) The request is consistent with other policies, actions, maps:

- Bicycle Transportation Plan Map
- Downtown Vision & Strategy Update (2019)
- Future Land Use Map & Dashboards - Character Defining Elements
- Future Land Use Map & Dashboards - Mix of Uses
- Future Land Use Map and Dashboards - Description & Priorities
- Parks Master Plan Map
- Redevelopment & Growth Management Policy - Action 8 (RGM8)
- Thoroughfare Plan Map & Cross-Sections
- Transit-Oriented Development Policy
- Other

( 4 ) Comments on any of the above which further explain my position:

After listening to all of the Plano City Council's discussion especially Councilman Smith the changing of the mediation for EHA areas for air particulates is significant to this project and is of a solid benefit for the city.



**PLANNING & ZONING COMMISSION**  
FINDINGS RELATED TO ZONING CASE



MEETING DATE	TIME	MEETING ID	ZONING CASE
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Signature

Date

MEETING DATE	TIME	MEETING ID	ZONING CASE
August 7, 2023	7:00 PM	PZ 08.07.23	ZC2022-009

**RESULTS for Tianle Tong**

I, **Tianle Tong**, Commissioner, after review of the written information and listening to the hearing participants, voted in **SUPPORT** to this case, finding the following:

( 1 ) The request is consistent with the overall Guiding Principles of the Comprehensive Plan because:

It fits the general purpose and goals for Revitalization and Growth Management

**and**

( 2 ) The request is substantially beneficial to the immediate neighbors, surrounding community, and general public interest because:

It provides more residents to support the surrounding retails stores, and it provides more open space for the neighbors.

**and**

( 3 ) The request is consistent with other policies, actions, maps:

- Bicycle Transportation Plan Map
- Downtown Vision & Strategy Update (2019)
- Future Land Use Map & Dashboards - Character Defining Elements
- Future Land Use Map & Dashboards - Mix of Uses
- Future Land Use Map and Dashboards - Description & Priorities
- Parks Master Plan Map
- Redevelopment & Growth Management Policy - Action 8 (RGM8)
- Thoroughfare Plan Map & Cross-Sections
- Transit-Oriented Development Policy
- Other

( 4 ) Comments on any of the above which further explain my position:

If we consider the slightly larger area and surrounding neighborhoods, the proposed plan would fit the RGM8 requirements. This project will definitely revitalize the area and provide values to our city,



August 7, 2023 @ 8:18:03 PM

**Signature**

**Date**

MEETING DATE	TIME	MEETING ID	ZONING CASE
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**RESULTS for Tosan Olley**

I, **Tosan Olley**, Commissioner, after review of the written information and listening to the hearing participants, voted in **SUPPORT** to this case, finding the following:

( 1 ) The request is consistent with the overall Guiding Principles of the Comprehensive Plan because:

- The development accommodates emerging trends, technologies, and opportunities that improve the quality of life and allow the city to remain attractive and vibrant into the future.
- Helps manage Plano’s transition to a mature city

**and**

( 2 ) The request is substantially beneficial to the immediate neighbors, surrounding community, and general public interest because:

- Fills a gaping hole in service to the adjoining neighborhood, reduces blight in the area and connects the neighborhood to thriving economic hub across the tracks

**and**

( 3 ) The request is consistent with other policies, actions, maps:

- Bicycle Transportation Plan Map
- Downtown Vision & Strategy Update (2019)
- Future Land Use Map & Dashboards - Character Defining Elements
- Future Land Use Map & Dashboards - Mix of Uses
- Future Land Use Map and Dashboards - Description & Priorities
- Parks Master Plan Map
- Redevelopment & Growth Management Policy - Action 8 (RGM8)
- Thoroughfare Plan Map & Cross-Sections
- Transit-Oriented Development Policy
- Other

( 4 ) Comments on any of the above which further explain my position:



**Signature**

August 7, 2023 @ 8:21:35 PM

**Date**



**Agenda Item No. 1A**

**Public Hearing:** Zoning Case 2022-009

**Petitioner:** Onalp Property Owner, LLC

**DESCRIPTION:**

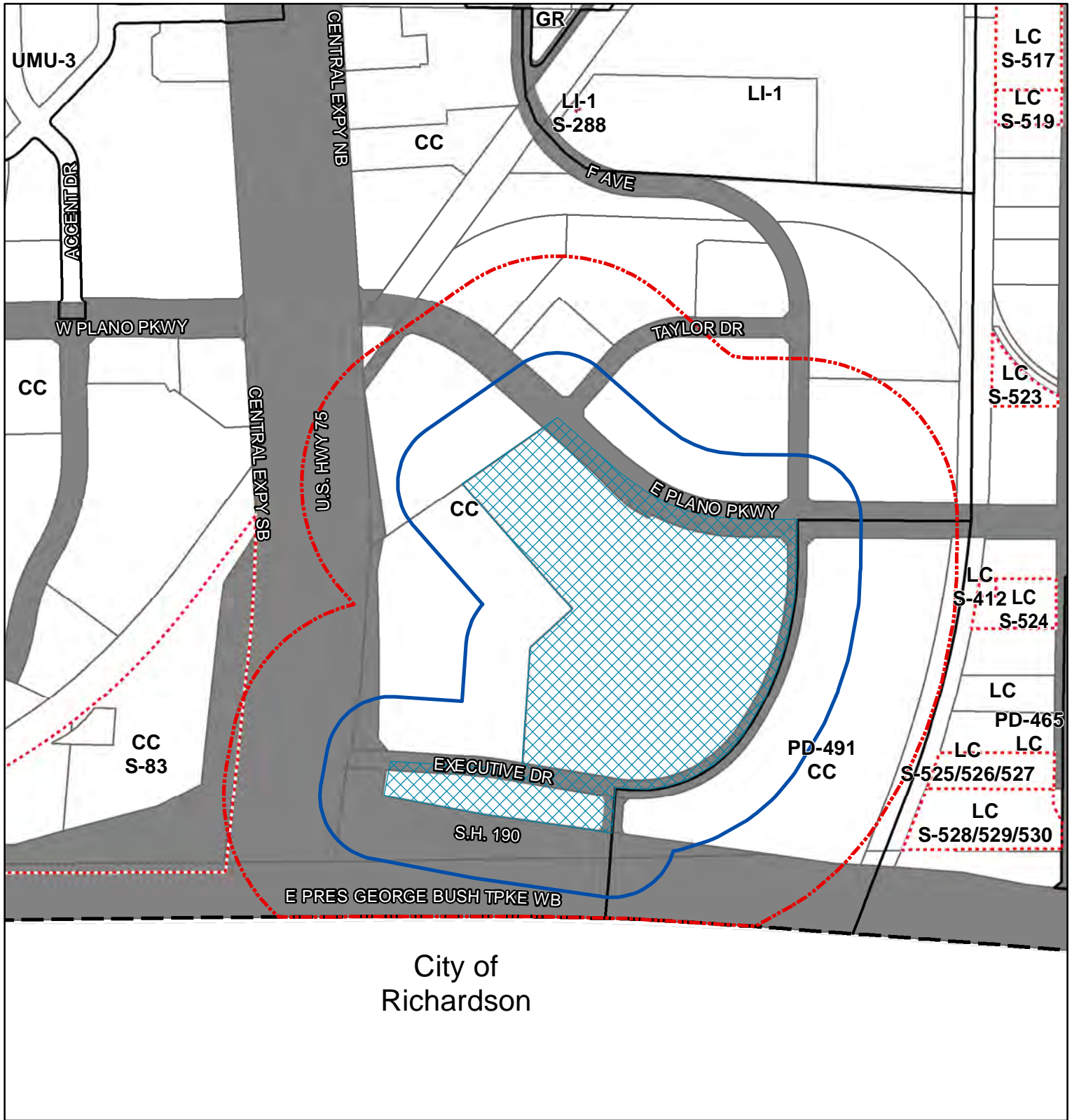
Request to rezone 19.1 acres located at the southwest corner of Plano Parkway and Executive Drive **from** Corridor Commercial **to** Planned Development-Corridor Commercial. Zoned Corridor Commercial and located within the 190 Tollway/Plano Parkway Overlay District. Remanded by City Council on June 26, 2023. Project #ZC2022-009.

**SUMMARY:**

The applicant is requesting to rezone the subject property from Corridor Commercial to Planned Development-Corridor Commercial to allow residential uses with modified development standards. This request would aid in the city's goal of redevelopment in the U.S. Highway 75 corridor. The Planning & Zoning Commission denied this request on May 1, 2023, and subsequently appealed to City Council. The denial of the Planning & Zoning Commission results in a requirement for a supermajority of the City Council, 6 of 8 members, voting in favor to approve the case. On June 26, 2023, the City Council considered the case, but a supermajority vote could not be achieved. The City Council then voted to remand the case to the Planning & Zoning Commission "for further study" (Zoning Ordinance 4.600.1 City Council Action). The applicant has made two changes since the case was previously considered:

1. Added standards related to air filtration for residential buildings, and
2. Changed the setback of open space from 150 feet to 300 feet. The setback better reflects the location of the open space shown on the associated concept plan, which has not changed.

Although the applicant has proposed significant phasing and health-related mitigation standards requirements, this request includes policy and design-related challenges. The city's land use policies support design that proposes new residential in well-integrated and thoughtful pedestrian-oriented neighborhoods, minimizes or eliminates the impacts of the adjacent expressways for residents, and commits to a balanced mix of residential and nonresidential uses on commercial redevelopment sites. The proposal does not include adequate zoning standards to address these policy and design issues. As a result, the current zoning should remain unchanged to allow the presentation of other economic development opportunities that are better aligned with the long-term vision of the community. For these reasons, staff does not support the requested change. Approval will require findings due to substantial conflicts with the Comprehensive Plan's policy guidance for Redevelopment and Growth Management.

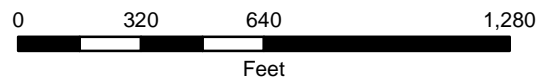
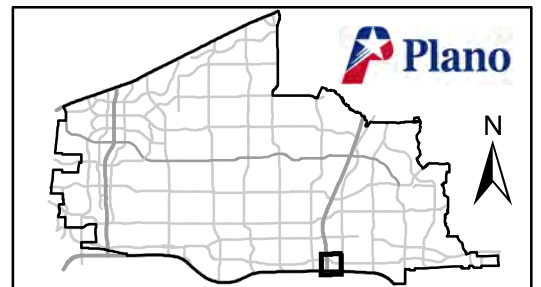


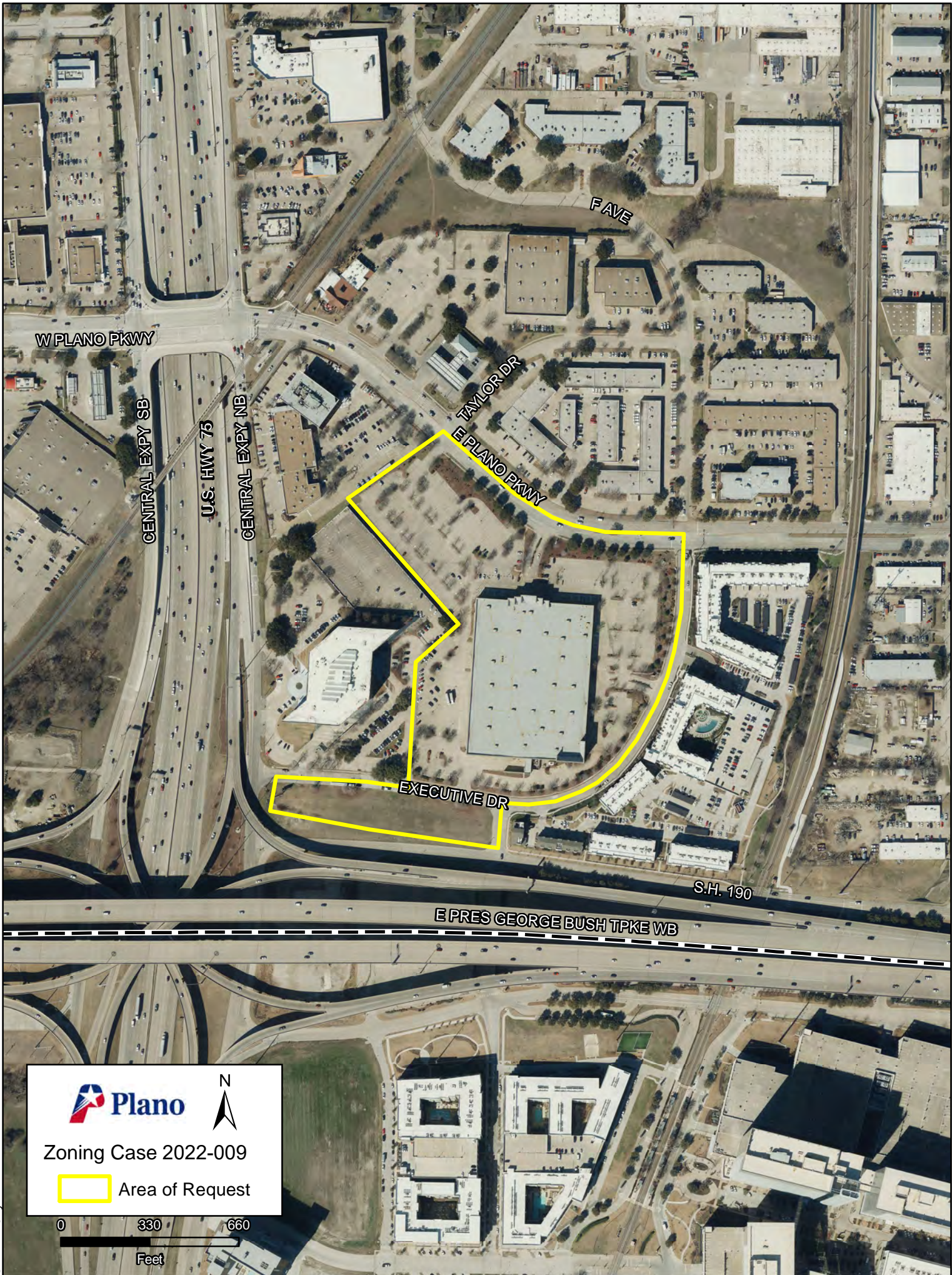
Zoning Case: 2022-009

Existing Zoning: Corridor Commercial and located within the 190 Tollway/Plano Parkway Overlay District (CC)

Proposed Zoning: Planned Development-Corridor Commercial and located within the 190 Tollway/Plano Parkway Overlay District (PD-CC)

- 500' Courtesy Notification Buffer
- 200' Notification Buffer
- Subject Property
- Streets
- Municipal Boundaries
- Zoning Boundary
- Specific Use Permit
- Zoning Boundary Change/SUP





W PLANO PKWY

CENTRAL EXPY SB

U.S. HWY 75

CENTRAL EXPY NB

TAYLOR DR


E PLANO PKWY

F AVE

EXECUTIVE DR

S.H. 190


E PRES GEORGE BUSH TPKE WB

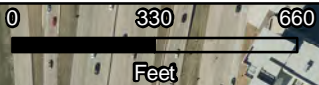


**Plano**

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Zoning Case 2022-009

 Area of Request



## STAFF PRELIMINARY REPORT - INTRODUCTORY REMARKS

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The applicant is requesting to rezone the subject property to Planned Development-Corridor Commercial (PD-CC) to allow multifamily and single-family residence as permitted uses and to modify development standards. The subject property is zoned Corridor Commercial (CC). The CC district intends to provide for retail, service, office, and limited manufacturing uses within major regional transportation corridors. This district's regulations and standards reflect the high traffic volumes and high visibility of these regional highways. A Planned Development (PD) district provides the ability to amend use, height, setback, and other development standards at the time of zoning to promote innovative design and better development controls appropriate to both off- and onsite conditions.

A concept plan, Fry's Electronic Addition, is attached as agenda item 1B.

### History

A similar zoning case, [ZC2021-003](#), with a larger number of residential units, was heard by the Planning & Zoning Commission (Commission) on [April 5, 2021](#). The Commission denied the request 6-1, which the applicant appealed to City Council. The appeal was scheduled for the [May 10, 2021](#), City Council meeting. At that meeting, the applicant requested to table the zoning case to the [June 28, 2021](#), City Council meeting, at which point the applicant withdrew the appeal request.

The Planning & Zoning Commission heard this zoning case on [March 1, 2023](#). At that meeting, the Commission tabled the zoning case to the [April 17, 2023](#), meeting and requested that the applicant address concerns related to the phasing of commercial and residential uses and noise mitigation standards. At the April 17, 2023, meeting, the applicant requested to table the case to the [May 1, 2023](#), meeting to allow additional time to refine the request. The applicant presented changes made to the noise study, concept plan, and proposed Planned Development stipulations at the May 1, 2023, Planning & Zoning Commission meeting. The Commission denied the request 4-3. The denial was appealed to City Council on [June 26, 2023](#). The City Council remanded the case for further study by the Planning & Zoning Commission.

With this current request, the applicant has increased the open space setback from U.S. Highway 75 and State Highway 190 from 150 feet to 300 feet. This change reflects the setback at the location of the open space, as it has always been shown on the associated concept plan. Additionally, requirements for air filtration have been included to protect residents from the impacts of the adjacent expressways.

### Surrounding Land Use and Zoning

North	Across Plano Parkway, the properties are zoned Corridor Commercial (CC), developed with retail, service contractor, professional/general administrative offices, and a religious facility.
East	Across Executive Drive, the property is zoned Planned Development-491-Corridor Commercial (PD-491-CC) and is developed as multifamily residences.
South	State Highway 190 is elevated to the south, and there is parking for the CityLine/Bush DART station under the highway. Across State Highway 190, the properties are located within the City of Richardson and are vacant or developed as multifamily residences.

West	The properties are zoned Corridor Commercial (CC) and are developed with professional/general administrative office and medical office uses.
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**Proposed Planned Development Stipulations**

The proposed planned development language is as follows (additions are in underlined text, and deletions are in strike-through text):

The permitted uses and standards will be in accordance with the Corridor Commercial (CC) zoning district unless otherwise specified herein:

1. Mid-rise residential and single-family residence attached are additional permitted uses within Tract 1 only. If neither mid-rise residential nor single-family residence attached development occurs, Tract 1 must be developed in accordance with the Corridor Commercial (CC) zoning district regulations.

2. Tract 1 Standards:

a. If residential uses are developed, the following uses are prohibited:

- i. Car Wash
- ii. Compact Construction & Transportation Sales & Service
- iii. Convenience Store with Fuel Pumps
- iv. Drive-In Theater
- v. Major Vehicle Repair
- vi. Minor Vehicle Repair
- vii. Motorcycle Sales/Service
- viii. Open storage
- ix. Restaurant – with Drive-In or Drive-Through service
- x. Small Engine Repair Shop
- xi. Water Treatment Plant

b. Mid-rise Residential Standards:

i. Area, Yard, and Bulk Requirements:

Description	Requirement
Maximum Number of Units	501
Minimum Front Yard	30 feet
Minimum Side and Rear yards	None
Maximum Height	5 stories; 70 feet
Maximum Floor Area Ratio	2:1
Minimum Floor Area Per Dwelling Unit:	
Efficiency	500 square feet

1 bedroom	650 square feet
2 bedroom	800 square feet
Each additional bedroom	200 square feet
Parking	
Efficiency units	1.0 space per dwelling unit
1 Bedroom units	1.0 space per dwelling unit
2 Bedroom units	1.5 space per dwelling unit
3 Bedroom units	2.0 space per dwelling unit

ii. Miscellaneous Area, Yard, and Bulk Requirements:

- (1) Mid-rise residential development is exempt from the supplemental regulations of Section 15.800 (Multifamily Residence) of the Zoning Ordinance.
- (2) A minimum of 75% of mid-rise residential units facing Plano Parkway and Executive Drive must have one of the following design features: a true balcony, stoop, or patio to create outdoor living space, with a minimum depth of 4 feet and a minimum width of 8 feet.
- (3) Front yard setbacks are exempt from the provisions of 13.500.2I. and 13.500.2N. of the Zoning Ordinance.
- (4) Side yard setbacks are exempt from the provisions of 13.500.3I. and 13.500.3K. of the Zoning Ordinance.
- (5) Rear yard setbacks are exempt from the provisions of 13.500.4A. and 13.500.4D. of the Zoning Ordinance.

c. Single-family residence attached uses must conform to Section 10.700 (UMU, Urban Mixed-Use Zoning District) of the Zoning Ordinance, except the street and sidewalk standards set forth in 10.700.10 C-G will not apply.

d. Screening and Fencing Requirements:

- i. A landscape edge with a minimum dimension of 15 feet must be placed along the western property boundary of Tract 1 if developed with mid-rise residential, open space, or single-family residential attached uses. A solid evergreen landscape screen must be installed and maintained to grow to a height of at least 15 feet within two years of installation.
- ii. Fencing is restricted to wrought iron, tubular steel, tubular aluminum, or masonry and must be a minimum of 50% open construction.

e. Open Space and Landscaping Standards:

- i. A minimum of 1.5 acres must be provided as usable open space and meet the multifamily requirements per section 13.800 of the Zoning Ordinance. Open space must be set back a minimum of 300~~450~~ feet from U.S. Highway 75 and State Highway 190 right-of-way.

- ii. Minimum landscape edge along Plano Parkway: 30 feet
  - iii. Minimum landscape edge along Executive Drive: 20 feet
  - iv. Streetscape: Street trees, measuring a minimum of 4-inch caliper, must be provided at a rate of one tree per 50 linear feet of street frontage.
  - v. If easement areas fall within the landscape edge, no shade trees will be required, only grass, shrubs, and ornamentals. Trees that cannot be planted in the easement areas must be planted elsewhere along the street.
- f. Noise and Air Quality Mitigation Standards for Residential Development:
- i. Mid-rise residential and single-family residence attached buildings must be set back a minimum of 435 feet from the State Highway 190 frontage road.
  - ii. True balconies and patios are permitted where an EHA site analysis for the building meeting City of Plano standards proves noise levels will be less than 65 dBA Ldn at the time of Preliminary Site Plan approval.
  - iii. Pollution Mitigation Measures – The following standards must be used during initial construction and must be added as notes to the site plan. The Building Official or designee may substitute equivalent or superior construction methods upon replacement or reconstruction, consistent with building code requirements.
    - (1) Mechanical ventilation for mid-rise residential and single-family residence attached buildings must exceed the building code as follows:
      - (a) All ventilation units must be outdoor-air sourced.
      - (b) Units must be installed on the roof of the building with air intakes ducted to the northernmost elevation of the building.
    - (2) Air Filtration:
      - (a) Each outdoor-air sourced mechanical ventilation unit must contain a filter box on the intake side or filter housing as part of the assembly.
      - (b) These filter boxes must contain a filter (or combination of filters in “series”) capable of filtering outdoor airborne particulates to the MERV 8 standard or greater, based on the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) ratings.
  - iv. Noise Mitigation Measures – The following standard must be used during initial construction and must be added as a note to the site plan. The Building Official or designee may substitute equivalent or superior construction methods upon replacement or reconstruction, consistent with building code requirements.

- (1) Construction documents sealed by an architect must be provided as part of the building construction plan set that details mitigation of the interior noise at each unit to a maximum level of 45 dBA.
- (2) The engineer of record will be responsible for testing the interior noise and providing a noise study for all units to the Building Inspections Department prior to the final building inspection.

g. Facade Standards:

i. Mid-Rise Residential Buildings:

- (1) At least 80% of any exposed exterior wall of main buildings and accessory buildings will consist of glass, native stone, clay-fired brick or tile, or a combination of these materials. However, a maximum of 50% of any exposed exterior wall may consist of metal. The remaining 50% shall comply with the materials listed above.
- (2) No building facade may exceed a length of 600 feet without a break in the facade of a minimum width of 70 feet for the entire depth of the building.

ii. Nonresidential Buildings: At least 80% of any exposed exterior wall of the first floor of main buildings, parking structures, and accessory buildings will consist of glass, native stone, clay-fired brick or tile, or a combination of these materials.

iii. Additional Parking Garage Structure Requirements:

- (1) Parking structure facades on all streets must be designed with both vertical (façade rhythm of 20 feet to 30 feet) and horizontal (aligning with horizontal elements along the block) articulation.
- (2) Where above-ground structured parking is located at the perimeter of a building, it must be screened in such a way that cars on all levels are hidden from view along rights-of-way. Screening may be achieved through the use of louvered, solid, or opaque vertical screening elements.
- (3) When parking structures are located at corners, corner architectural elements must be incorporated, such as corner entrance and signage.
- (4) Parking structure ramps must not be visible from any adjacent right-of-way.

3. Tract 2 Standards:

a. Miscellaneous Area, Yard, and Bulk Requirements:

i. Minimum Front Yard: 15 feet



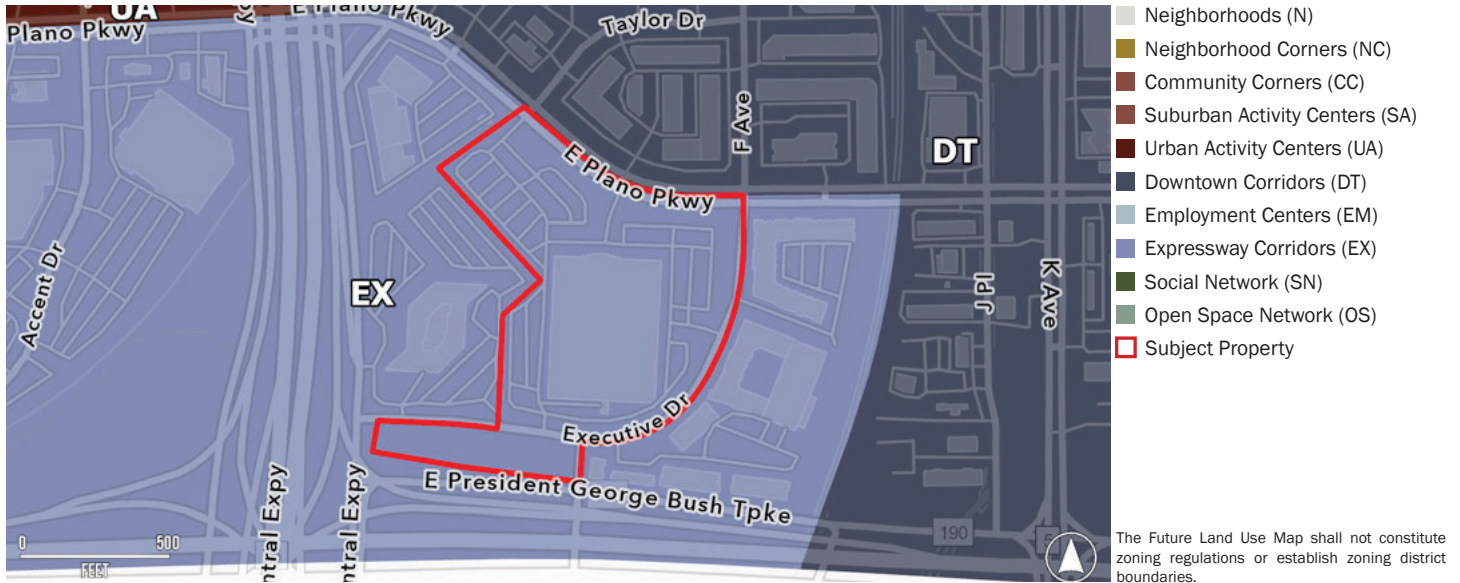
- ii. Front yard setbacks are exempt from Section 13.500.2.I and 13.500.2.N of the Zoning Ordinance.
- iii. The minimum landscape edge along State Highway 190 is 15 feet.

4. Phasing:

- a. A minimum of 33 single-family residence attached units and the required open space must be constructed at the same time as the first phase of mid-rise residential units, not to exceed 260 units.
  - b. A landscape berm with a minimum height of 6 feet and a maximum slope of 3:1 must be constructed as part of the first phase on the southern portion of Tract 1 between State Highway 190 and residential units should no nonresidential building be part of the first phase in this location. The landscape berm must include trees, shrubs, ground cover, and related elements. A minimum of one 3-inch caliper shade tree and one 3-inch caliper ornamental tree (7-foot planted height) must be placed per 50 feet. The landscape berm must extend the full length of the residential units. Should openings in the berm be required (to allow for pedestrian paths, utilities, or drainage, for example), the design must include overlapping berms that continue parallel to S.H. 190.
    - i. Signs must be placed along the landscape berm stating that the area may be used for future commercial development.
  - c. Prior to or concurrent with the issuance of a certificate of occupancy for the remaining mid-rise residential units, a building permit certificate of occupancy must be issued for a minimum of 70,000 square feet of nonresidential square footage, not including parking garages.
  - d. The landscape berm can be removed once a permit for non-residential has been issued on the southern portion of Tract 1 between State Highway 190 and the residential units.
5. Governance Association: Applications for building permits for development within the district shall not be approved until a property owner's governance association is established. The association shall be responsible for maintaining all common property, improvements, and amenities within the district. It shall have power sufficient to assess and collect dues and charges as required to perform its responsibilities. It may have additional powers to administer other programs, including but not limited to security, promotion and marketing, and entertainment.

VISION: "Plano is a global leader, excelling in exceptional education, abounding with world class businesses and vibrant neighborhoods"  
GUIDING PRINCIPLES: Plano Today. Plano 2050. Plano Together.

## 1 | Future Land Use Map



### Expressway Corridors (EX)

### PRIORITIES

The Expressway Corridors future land use category applies to development along the major expressways serving regional and interstate commerce. Development in these corridors is expected to include a mix of retail, service, office, restaurant, medical, hotel, and technology-based uses. Uses should be served by parking structures to reduce surface parking and encourage efficient use of land.

*Residential Uses & Environmental Health* - Due to noise and health impacts of expressways, residential development should be considered in limited circumstances where needed to revitalize declining commercial centers. Use of the Expressway Corridor Environmental Health Map is crucial to ensure that buildings are adequately designed to protect sensitive land uses, such as schools, housing, and day cares.

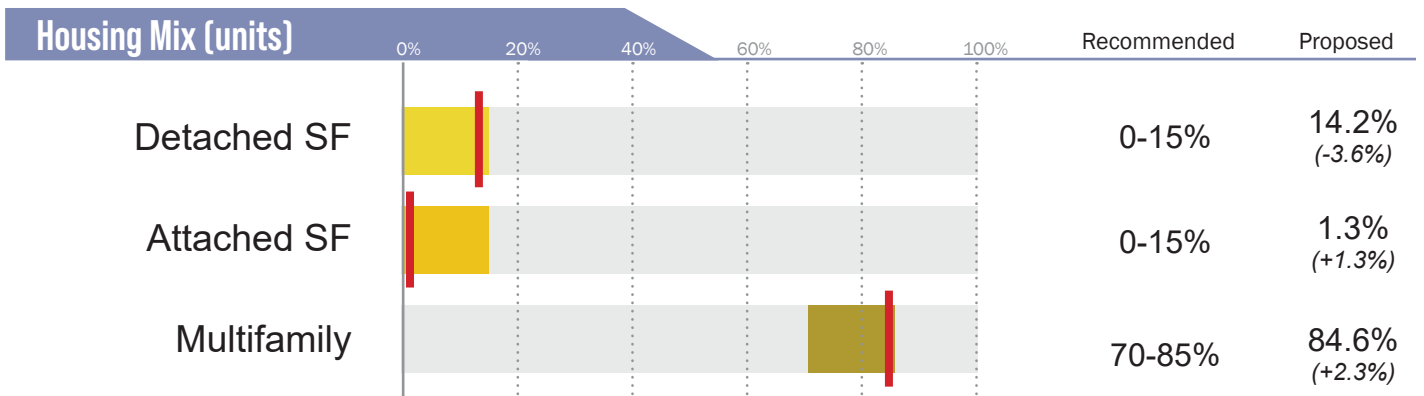
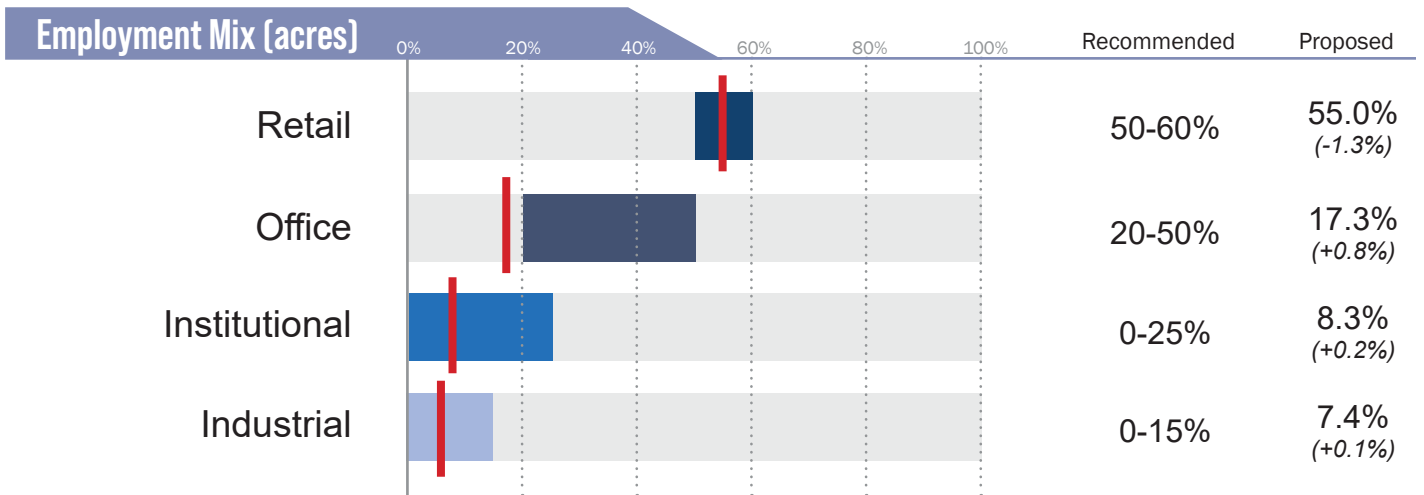
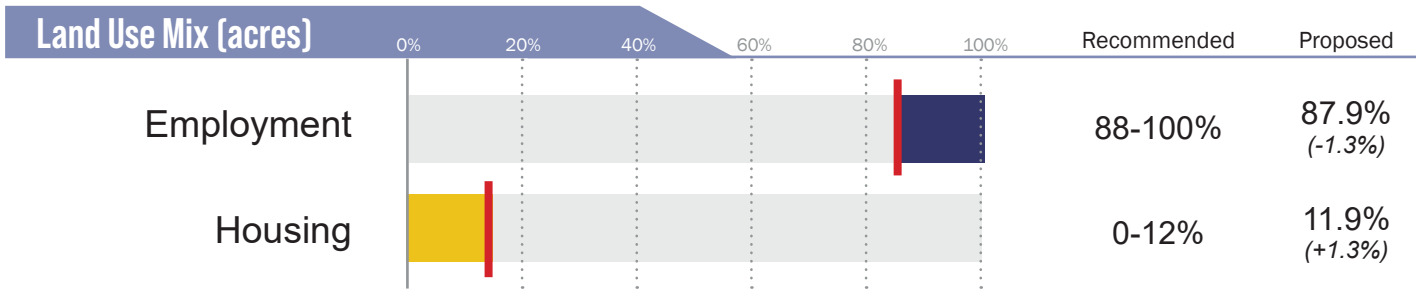
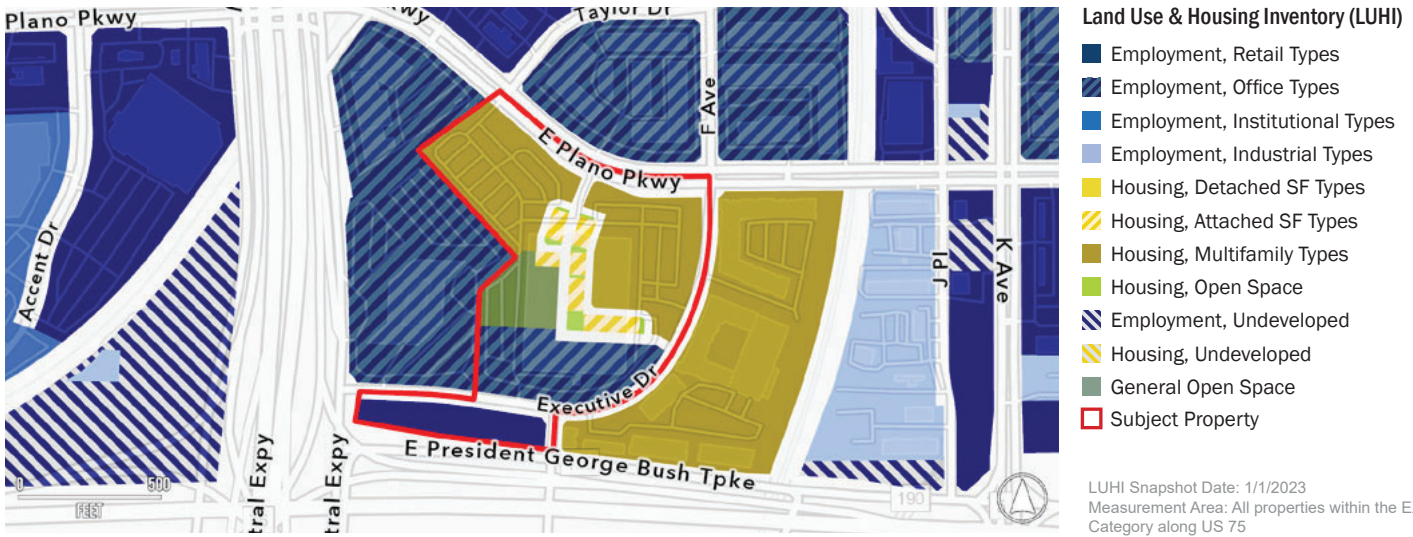
*US 75 Corridor Redevelopment* - As the oldest of the expressways in Plano, the US 75 (Central Expressway) was developed with auto-centric and service-oriented uses geared towards highway commuters. Revitalization and redevelopment is desired to provide additional employment opportunities and improve general aesthetics along the corridor.

1. Redevelopment of the US 75 Corridor
2. Protecting sensitive uses in Environmental Health Areas
3. Limiting residential uses to redevelopment of underperforming commercial centers

## 2 | Mix of Uses

[Click here for "How to Read The Dashboards"](#)

If approved, the request would result in the following Mix of Uses:



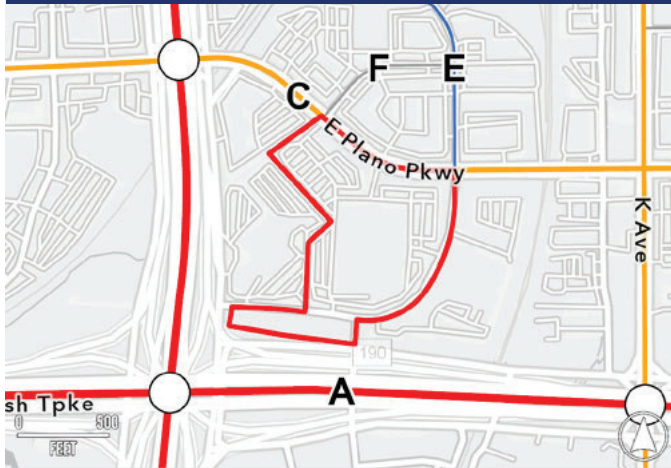
### 3 | Desirable Character Defining Elements

 [Click here for "How to Read The Dashboards"](#)

DESIRABLE CHARACTER DEFINING ELEMENT	RECOMMENDED BY COMPREHENSIVE PLAN	APPLICANT PROPOSAL
Building Heights	1 to 20 stories	3 to 20 stories
Density	SF: 10 to 40 DUA MF: 20 to 75 DUA	SF: 40 DUA; MF: 69 DUA
Intensity	Moderate to High (50 to 75% Lot Coverage)	Moderate to High (50% to 100% allowed depending on use)
Open Space	10% to 20% Passive Open Space	Varies by Lot
Parking Orientation	Structured parking preferable to surface lots	Mix of Structure, On-Street, and Surface Parking
Block Pattern & Streetscape	Wide Blocks Corporate Commercial Streets	Medium Block, Urban Residential and Commercial Streets
<b>Multimodal Access</b>		
1. Automobiles	HIGH: Direct access from frontage roads/major streets	HIGH: Direct access from Plano Pkwy., Executive Dr., and PGBT
2. Transit	LOW: Served by bus at major intersections	HIGH: Served by DART Bus Route 883 on Plano Pkwy and the CityLine/Bush DART Station across State Highway 190.
3. Micromobility	MEDIUM: Connected to trails and bike routes	HIGH: On-street Bike Route #75 and DART Hike and Bike Trail
4. Pedestrians	LOW: Mostly served by perimeter sidewalks	HIGH: The site provides an interior street system.

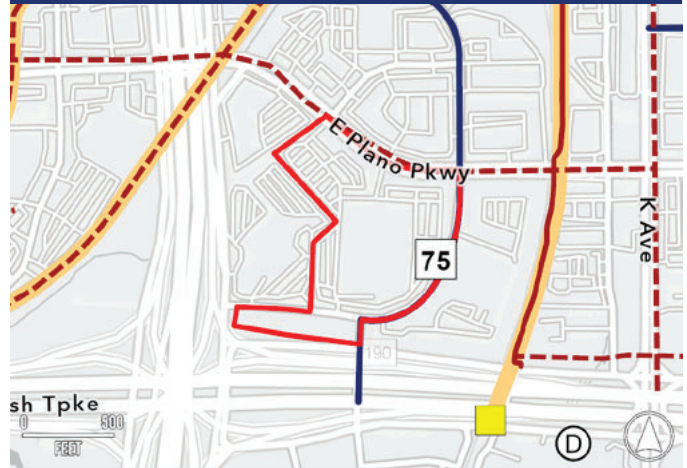
## 4 | Other Comprehensive Plan Maps

### Thoroughfare Plan Map



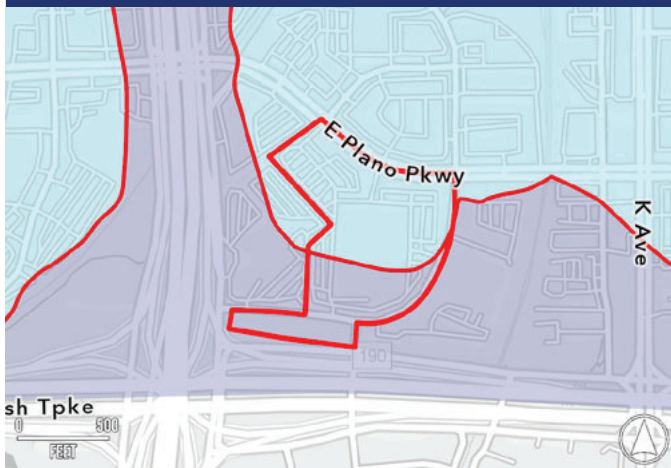
The site has frontage along Plano Parkway (Type C Arterial - 6 lane, divided), Executive Drive (Type F Collector - 2-lane, undivided), and U.S. 75 and S.H. 190 (Type A - Expressway, varies).

### Bicycle Transportation Plan Map



On-street Bike Route #75 follows the property's eastern boundary of Crawford Rd. and Executive Drive. A 10-foot shared-use path/trail will be constructed along the Plano Pkwy. frontage.

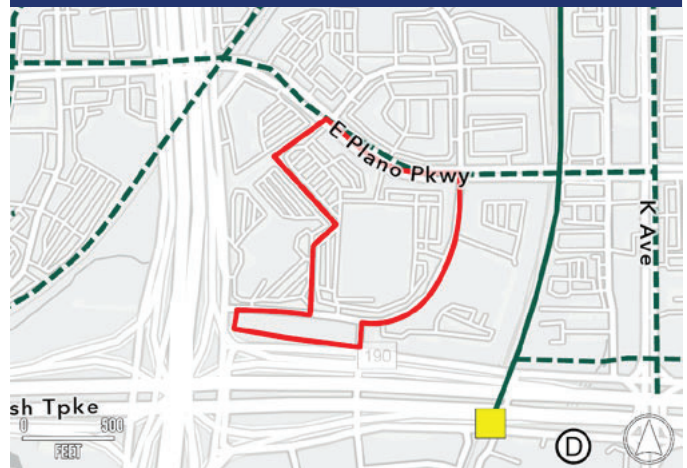
### Expressway Corridor Environmental Health Map



The subject property is located within both the EHA-1 and EHA-2 area. Mitigation is required to protect sensitive land uses such as residential development.

EHA-1     EHA-2     Not Applicable

### Parks Master Plan Map



The nearest public park is located approximately 1,000 feet to the south in the City of Richardson (CityLine Park). A 1.4-acre private open space lot is also proposed to serve the development.

## 5 | Comprehensive Plan Policies & Actions

**CORE POLICIES:** The following policies are applicable to all zoning cases. No specific analysis of these policies are provided in the staff report as these serve as the fundamental basis for all staff recommendations.



**Land Use:** Plano will support a system of organized land use to provide housing and employment choices aligned with the market, where new and redevelopment areas respect the viability and quality of life for existing neighborhoods, businesses, and institutions.



**Redevelopment & Growth Management:** Plano will protect and preserve the well-established built environment of Plano and prevent overcrowding by requiring new growth and redevelopment to respect the unique development patterns, suburban character, housing needs, infrastructure capacity considerations, and fiscal constraints of our community.

**LAND USE-RELATED POLICIES:** The following policies are applicable on a case-by-case basis depending upon the type, location, and general nature of the request. Refer to the staff report for analysis of these policies with respect to the proposed zoning change, where applicable.



**Redevelopment of Regional Transportation Corridors:** Plano will encourage reinvestment and redevelopment of identified regional transportation corridors to create cohesive developments that incorporate well-designed commercial, retail, and housing opportunities, where those uses are appropriate according to the Future Land Use Map and other related Comprehensive Plan standards.

- Applicable  
 Not Applicable



**Revitalization of Retail Shopping Centers:** Plano will encourage reinvestment, revitalization, and redevelopment of underperforming neighborhood retail corners to accommodate a viable combination of local commercial, retail, and entertainment uses. Where appropriate transitions can be maintained, redevelopment may present opportunities to introduce residential uses and improve access.

- Applicable  
 Not Applicable



**Special Housing Needs:** Plano will support the special housing needs of residents including seniors, people with disabilities, and low- to moderate-income households through inclusive regulations and programs and actions furthering the goals stated in the Consolidated Plan. Proposed locations for special housing needs should be afforded the same health and safety considerations as other housing.

- Applicable  
 Not Applicable



**Transit-Oriented Development:** Plano will proactively encourage development within walking distance of existing and planned transit stations to create an integrated mix of uses including residential, employment, retail, and civic spaces.

- Applicable  
 Not Applicable



**Undeveloped Land:** Plano will reserve its remaining undeveloped land for high quality development with distinctive character, prioritizing businesses offering skilled employment. New housing in these areas will only be considered appropriate where it is consistent with the Future Land Use Map and other related Comprehensive Plan standards.

- Applicable  
 Not Applicable

**OTHER POLICIES/DOCUMENTS:** Additional policies may apply where applicable:

The subject property is located within the study area for the Downtown Vision & Strategy Update (2019). Refer to the "Conformance to the Comprehensive Plan" section later in this report for analysis of this study.

- Envision Oak Point (2018)  
 Downtown Vision & Strategy Update (2019)  
 Spring Creekwalk Master Plan (1990)

**FOR RESIDENTIAL AND MIXED-USE DEVELOPMENTS ONLY:** The following actions from the Redevelopment & Growth Management (RGM) Policy are applicable to requests for mixed-use developments:

**RGM5:** Ensure that any rezoning requests for multiuse development include:

- Applicable  
 Not Applicable

- A) No more than 50% square footage for residential uses. Requests should also conform with other identifying elements (density, building heights, etc.) in the applicable Dashboard descriptions. Requests that do not conform with these requirements must be justified by findings.
- B) Phasing requirements that prevent the disproportionate completion of residential uses prior to nonresidential uses within the development. Nonresidential square footage must constitute a minimum of 33% of all square footage approved for occupancy during development (e.g., every 2 square feet of residential development requires at least 1 square foot of nonresidential development; and
- C) Key design features provided prior to, or concurrent with, the construction of any residential uses. These include elements of the development supporting the long-term value to the overall community, and specifically any new residents, such as open/green space, amenities, street enhancements, and trails.

**RGM8:** Limit new residential development to areas that are appropriate based on individual site considerations and consistency with the Future Land Use Map and Dashboards. Multifamily developments should also meet a housing diversification or economic development need of the city, including transit-oriented development, special housing needs (as defined by the city's Consolidate Plan), or be constructed as part of a high-rise 10 stories or greater.

- Applicable  
 Not Applicable

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## 6 | Findings Policy

### RGM1: Mix of Uses, Density, & Building Height

In accordance with the Redevelopment and Growth Management (RGM) Policy Action 1, zoning change requests that do not conform to the mix of uses, density, and building heights as described in the Dashboards are **disfavored**. Requests that do not conform to these criteria may be occasionally allowed when found:

- ▶ Consistent with the Guiding Principles of the Comprehensive Plan; and
- ▶ Substantially beneficial to the immediate neighbors, surrounding community, and general public interest.

### RGM5: Mixed-Use Developments

In addition, the Redevelopment and Growth Management (RGM) Policy Action 2 requires findings when approving a mixed-use development that exceeds 50% square footage for residential uses and/or does not conform to other identifying elements (density, height, etc.) in the applicable Dashboard.

#### Are Findings Required?

- Yes, because the request does not comply with the Mix of Uses of the associated Dashboard.
- Yes, because the request does not comply with the Building Heights of the associated Dashboard.
- Yes, because the request does not comply with the Maximum Density of the associated Dashboard.
- Yes, because the request is inconsistent with Action RGM5 (for mixed-use developments).
- No, findings are not required.

## STAFF PRELIMINARY REPORT - CONFORMANCE TO THE COMPREHENSIVE PLAN

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The proposed request has been reviewed for conformance with the Comprehensive Plan. Major factors included in the analysis are provided below, but the Comprehensive Plan Fact Sheet has more specific details about the request.

**Guiding Principles** – This set of Guiding Principles to the Comprehensive Plan establishes overarching themes that apply to all policies and actions and express values for Plano Today, Plano 2050, and Plano Together. Since the principles do not stand alone but are used in concert with one another and carry across the Plan as a whole, each principle must be judged through a lens that incorporates all of the other principles to be fully and accurately understood. As such, the Commission is encouraged to review the full list of Guiding Principles and judge zoning requests through the lens of all principles.

### Future Land Use Map Category & Dashboard

**Future Land Use Category** – The subject property is located in the [Expressway Corridors \(EX\)](#) category of the Future Land Use Map (FLUM). This category focuses on providing a mix of commercial uses, with priorities to limit residential uses only where necessary to redevelop underperforming commercial areas, promote revitalization/redevelopment of the U.S. Highway 75 Corridor, and protect sensitive land uses (e.g., schools, day cares, housing, open space) in the [Environmental Health Areas \(EHA\)](#).

The request meets two of the three goals. However, careful consideration is needed to ensure that the proposed site design provides sufficient amenities and quality-of-life protections for future residents. Those issues, including analysis of the sufficiency of EHA mitigation, are addressed more specifically in other sections of this report.

FLUM - EX Description and Priorities		
Priorities	Redevelopment of U.S. Highway 75 Corridor	Meets
	Protecting sensitive land uses in Environmental Health Areas	Does Not Meet
	Limiting residential uses to redevelopment of underperforming commercial areas	Meets

**Mix of Uses** – The request would provide a mix of *Retail, Office, Multifamily, and Attached Single-Family Types*, as defined by the Comprehensive Plan. As proposed in the associated Concept Plan, the request would comply with the recommended Mix of Uses for the EX Dashboard.

FLUM – EX Mix of Uses	
Land Use Mix	Meets
Employment Mix	Meets
Housing Mix	Meets

**Desirable Character Defining Elements** – The request complies with many of the Character Defining Elements of the EX Dashboard, with the exception of Block Pattern & Streetscape. The minimum setbacks and private internal streets proposed through the PD would separate the site into smaller, more urban-style blocks and streetscapes. Although this does not align with the wider setbacks of the [Corporate Corridor Streets](#) recommended by the EX Dashboard (which are appropriate for the mostly expressway-oriented frontage typical for this future land use category), urban-style streetscapes are



more appropriate for limited situations where residential uses are necessary to promote redevelopment in the corridor. The urban street structure does not meet typical urban block size or provide connectivity in support of the redevelopment of adjacent parcels.

FLUM – EX Desirable Character Defining Elements			
Building Height	Meets	Multimodal Access <ul style="list-style-type: none"> <li>• Automobiles</li> <li>• Transit</li> <li>• Micromobility</li> <li>• Pedestrians</li> </ul>	Meets Meets Meets Meets
Maximum Density	Meets		
Intensity	Meets		
Open Space	Meets		
Parking Orientation	Meets		
Block Pattern & Streetscape	Partially Meets		

**Other Comprehensive Plan Maps**

[Thoroughfare Plan](#), [Bicycle Transportation Plan](#), and [Parks Master Plan](#) Maps – The proposed planned development stipulations and associated concept plan show the street, bicycle, and pedestrian infrastructure required, including right-of-way dedication in various locations and a 10-foot shared-use path/trail along the property’s Plano Parkway frontage.

[Expressway Corridor Environmental Health Map](#) – The subject property will include sensitive land uses in the form of open space and residential uses. Sensitive land uses within Expressway Corridor Environmental Health Areas should achieve a maximum outdoor noise level of less than 65 dBA Ldn. Mitigation is necessary to protect these uses. Refer to later sections of the report for additional background on this issue.

The property falls entirely in either EHA-2 (southern part of property) and EHA-1 (northern part of property). This request proposes to place residential units outside EHA-2, consistent with city standards. The residential units are proposed within EHA-1, where satisfactory mitigation must be achieved in order to make certain land uses appropriate. The applicant has provided an EHA Site Analysis, which is included as an attachment to this staff report and was updated with additional information based upon the discussion at the March 1, 2023, Commission meeting.

The EHA site analysis has five requirements which are as follows:

1. Be prepared by a recognized expert experienced in the fields of environmental noise and air pollution assessment and architectural acoustics;
2. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and predominant noise sources on the project site;
3. Estimate existing, future, and projected cumulative noise at ground level and for all proposed floors of the building, and compare those noise levels to the adopted standards of the Expressway Corridor Environmental Health Guidelines;
4. Recommend appropriate mitigation options; and
5. Estimate resulting noise exposure after the mitigation measures have been implemented.

The EHA analysis prepared by the applicant is consistent with these requirements.

The analysis states that since the main lanes of State Highway 190 are elevated, the six-story building and five-story parking garage, as proposed in the associated concept plan, will not provide any change in noise levels. The results of the study related to these improvements are a change from previous comments, which stated, “*The most effective outdoor noise mitigation has been integrated into the site design. The site configuration utilizes a six-story garage and a 64-foot-tall office building located along the southern portion of the proposed development area to screen noise coming from the PGBT and US 75*”. The commercial buildings may not provide sound level changes for upper levels of residential buildings due to their height. The lower levels of the residential buildings are now placed behind the multi-story commercial building and parking garage, and the study shows that the noise levels are exactly the same with or without the nonresidential structures in place.

The EHA Site Analysis recommends that the most effective outdoor noise mitigation is a minimum setback of 300 feet from State Highway 190. The applicant is proposing a 435 setback from State Highway 190; however, there are still locations that exceed the city’s exterior noise threshold of 65 dBA L<sub>dn</sub>, with some locations experiencing levels as high as 73.5 dBA L<sub>dn</sub>. The analysis also recommends placing a 500-foot temporary landscape berm with a minimum height of six feet and a maximum slope of 3:1 in the first phase to buffer ground-level noise from the State Highway 190 frontage road. Although, as shown in the analysis, the berm does not provide any noise reduction from the elevated expressway. For additional noise mitigation, the proposed zoning stipulations include requirements that would verify the internal noise standards are met.

In an effort to create more significant mitigation for sound, staff requested that the applicant consider alternative site designs that may be more effective in creating noise reductions. These alternatives included enlarging the proposed office building to create a more substantial buffer, or redesigning the mid-rise residential units so that the residential parking garages are placed between the units and the expressways. The applicant was not supportive of these recommendations.

The applicant is also proposing to restrict balconies where noise levels exceed 65 dBA L<sub>dn</sub>. Lastly, the analysis recommends mitigation of air quality concerns through the design of the building ventilation system. To that end, the updated zoning request includes increased mechanical ventilation requirements, and the proposed PD language also includes requirements for interior noise verification and testing during the construction process.

Overall, the applicant has made improvements to the mitigation requirements, but the zoning request is not in conformance with the Expressway Corridor Environmental Health Map because the outdoor noise levels are not mitigated below 65 dBA L<sub>dn</sub>.

Other Comprehensive Plan Maps	
Thoroughfare Plan Map	Meets
Bicycle Transportation Plan Map	Meets
Parks Master Plan Map	Meets
Expressway Corridor Environmental Health Map	Does Not Meet

**Policies & Actions of the Comprehensive Plan and Other Studies**

[Redevelopment of Regional Transportation Corridors](#) – The purpose of this policy is to promote reinvestment and redevelopment in Plano’s regional transportation corridors through well-planned, cohesive developments that are consistent with the Comprehensive Plan. Although the request would provide much-needed reinvestment into the site, staff is concerned the proposed layout and PD stipulations do not provide adequate mitigation from potential environmental health impacts of the expressway corridor and are not suitably designed for residential uses. Additionally, the proposal does not meet other recommendations for mixed-use development as stated in the Redevelopment and Growth Management Policy of the Comprehensive Plan. A more detailed analysis of these concerns is provided elsewhere in the report. For these reasons, staff finds the request inconsistent with the Redevelopment of Regional Transportation Corridors Policy.

[Transit-Oriented Development Policy](#) and [Downtown Vision & Strategy Update](#) – The comprehensive plan supports the development of transit-oriented development (TOD) to create an integrated mix of uses within walking distance of light rail stations. The subject property is located within 1/4 mile of the CityLine/Bush DART Station in the City of Richardson. Although separated from the station by State Highway 190, the expressway is elevated at this location, and there are at-grade trails and signalized crosswalks planned along the rail line to allow bicycle and pedestrian connectivity between Plano and the CityLine station. The proximity to the CityLine station would likely be an attractive feature of the proposed development to future residents and businesses, generally consistent with the goals of the TOD Policy.

Additionally, the Downtown Vision and Strategy Update (2019) includes CityLine as one of the four stations in its study area (CityLine Station, 12th Street Station, Downtown Plano Station, Parker Road Station). It states:

*“The CityLine/Bush Station serves Richardson and Plano. While the platform is in Richardson on the south side of the Bush Turnpike, it is within walking distance of new multifamily housing and underdeveloped property south of Plano Parkway. The CityLine, Raytheon, and other developments in Richardson bring thousands of employees to the area. Properties in Plano are suitable for mixed-use development. Commercial uses may find market support from heavy commuter traffic. Successful residential use in this area requires imaginative design and amenities.”*

The request meets the general vision for mixed-use development in the area south of Plano Parkway near the CityLine station. Furthermore, under the “Continuing the Momentum” section, it states:

*“Develop 1,000 units of housing within 1/2 mile of the Downtown Plano Station and 2,000 units within the Plano DART Corridor. Promote a variety of housing and price points.”*

The subject property is located more than 1/2 mile from the Downtown Plano Station but is within the Plano DART Corridor. Approximately 3,000 total units have been built or are pending construction in the DART corridor since this policy was adopted. However, this document has not been updated since the adoption of the comprehensive plan, and these housing targets may be considered obsolete due to the implementation of the new Future Land Use Dashboards and Land Use and Housing Inventory (LUHI). As stated previously, the number of units requested is consistent with the EX Dashboard for this area.

Based on the direction provided by the Commission and City Council regarding the applicability of TOD for transit stations located outside of Plano, staff finds the request consistent with the Transit-Oriented Development Policy. The request is also partially consistent with the Downtown Vision and Strategy

Update, meeting the general vision for TOD/mixed-use development south of Plano Parkway but exceeding the number of residential units recommended for the DART corridor.

[Redevelopment and Growth Management Policy: Action 5A \(RGM5A\)](#) – This action recommends that mixed-use projects include no more than 50% total square footage for residential uses. The proposed PD stipulations for the second phase commit to pulling a certificate of occupancy for a minimum of 70,000 square feet of nonresidential development prior to or concurrent with the remaining mid-rise residential units. However, it should be noted that no non-residential development will be required to be constructed during phase one, while upwards of 630,000 square feet of residential development (as shown in the associated concept plan) will be allowed. The zoning could result in a fully residential site, or if constructed at zoning minimum for commercial development, 90% residential and 10% commercial. As the request is inconsistent with RGM5A, findings will be required by the Commission to approve the request.

[Redevelopment and Growth Management Policy: Action 5B \(RGM5B\)](#) – This action recommends that mixed-use development be phased so that the square footage of residential uses approved for occupancy never exceeds nonresidential uses approved for occupancy by a ratio of more than 2 to 1 (i.e., every 2 square feet of development requires at least 1 square foot of nonresidential development). The proposed PD stipulations would allow 33 single-family residence attached units and a maximum of 206 mid-rise residential units to be constructed in phase one without the construction of any nonresidential square footage. This would result in a minimum ratio of 2.9 square feet of residential to 1 square foot of nonresidential development. For these reasons, the request is inconsistent with RGM5B.

[Redevelopment and Growth Management Policy: Action 8 \(RGM8\)](#) – This action recommends a two-part test for new residential development. First, residential uses should be limited to areas appropriate based on individual site considerations and the FLUM Dashboards. Second, multifamily developments should further the city's housing diversity or economic development goals, including Transit-Oriented Development. As the site is located in a TOD area, the request meets the second part of the test. However, due to site design concerns and inconsistency with various policies of the Comprehensive Plan discussed elsewhere in this report, staff finds the proposal inconsistent with individual site considerations and the FLUM Dashboards.

[Findings Policy](#) – Findings are required to recommend approval of this item due to inconsistency with action RGM5A, which recommends rezoning requests for mixed-use developments include no more than 50% square footage of residential uses.

[Comprehensive Plan Summary](#) – The request meets the general description and priorities of the EX Dashboard; however, closer examination of the proposed PD stipulations shows insufficient mitigation from the expressway corridors, phasing, and ratio of residential to non-residential uses very inconsistent with the RGM Policy, and other site design concerns. Due to inconsistency with Action RGM5, approval of the request will require findings by the Commission and City Council. The Findings Forms have been attached to this staff report for review.

## Comprehensive Plan Policy Summary

Policy or Study	Analysis
Future Land Use Map and Dashboards <ul style="list-style-type: none"> <li>• Description &amp; Priorities</li> <li>• Mix of Uses</li> <li>• Character Defining Elements</li> </ul>	<b>Partially Meets</b> <b>Meets</b> <b>Meets</b>
Thoroughfare Plan Map Bicycle Transportation Plan Map Parks Master Plan Map Expressway Corridor Environmental Health Map	<b>Meets</b> <b>Meets</b> <b>Meets</b> <b>Does Not Meet</b>
Redevelopment of Regional Transportation Corridors Policy Transit-Oriented Development Policy Redevelopment & Growth Management Policy <ul style="list-style-type: none"> <li>• RGM – Action 5A</li> <li>• RGM – Action 5B</li> <li>• RGM – Action 8</li> </ul>	<b>Does Not Meet</b> <b>Meets</b> <b>Does Not Meet</b> (Triggers Findings Policy) <b>Does Not Meet</b> <b>Partially Meets</b>
Downtown Vision & Strategy Update	<b>Partially Meets</b>

### Adequacy of Public Facilities

Wastewater Demand Summary – Analyzing the city’s existing gravity wastewater mains, the increase in sewer demand with the proposed land uses may prompt additional offsite wastewater improvements to meet the demand flows required with each phase as the property develops.

Water Demand Summary – It has been determined, through analysis of the city’s existing water distribution system, that the proposed development can be supported during the existing maximum daily demand conditions and during fire flow demands.

Traffic Impact Analysis (TIA) – A TIA is not required for this rezoning request. Staff has compared the proposed mix of uses on Tract 1, including the introduction of 501 mid-rise residential units, 33 single-family residence attached units, 123,600 square feet of office, and 100 hotel rooms, with the existing 172,800 square feet of retail using the average Institute of Traffic Engineers (ITE) trip generation rates.

The following table shows the estimated traffic generation during peak hours (7:00-9:00 a.m. and 4:00-6:00 p.m.):

	<b>Building Area or Unit Total</b>	<b>AM</b>	<b>PM</b>
<b>Existing Development</b>			
	172,800 SF of Retail	173	645
<b>Proposed Development</b>			
	501 Mid-Rise Residential units	175	220
	33 Single-Family Residence Attached units	15	17
	123,600 SF of Office	192	184
	100 Hotel Rooms	52	61
<b>Proposed Total:</b>		<b>382</b>	<b>421</b>

From the preceding table, the proposed development would generate significantly more peak-hour morning traffic but significantly less peak-hour evening traffic.

Public Safety Response Time – Based on existing personnel, equipment, and facilities, fire emergency response times will be sufficient to serve the site. Residential units in this area will increase EMS, and fire calls for service and may impact future staffing levels and the type of equipment assigned to area fire stations.

Access to and Availability of Amenities and Services – The subject property is located within Park Fee Service Area 2. Private open space will be provided to serve residents within the subject property, per the proposed planned development standards.

The subject property is located within the Harrington Library’s service area, and service to future residents would be possible with the current library resources.

School Capacity – Plano Independent School District has provided a letter regarding school capacity, which staff has included as an attachment.



**P L A N O**  
Independent School District

January 3, 2023

Donna Sepulvado  
Senior Planner  
1520 K Avenue, 2nd Floor  
Suite 250, Plano, Texas 75074

RE: Property located at 700 East Plano Parkway, Plano

Dear Donna,

You have inquired as to the capacities and enrollment projections for the schools impacted by a potential development property located at 700 East Plano Parkway, Plano.

The following table provides both enrollment and capacity figures.

School	2022/23 Enrollment	2023/24 Enrollment (Projected)	2024/25 Enrollment (Projected)	2025/26 Enrollment (Projected)	2026/27 Enrollment (Projected)	Functional Capacity	Program Capacity
Mendenhall ES	607	618	629	639	639	634	746
Otto MS	995	973	962	911	843	1,223	1,439
Williams HS	1,212	1,183	1,127	1,049	1,013	1,873	2,204
Plano East Senior HS	3,083	3,142	3,089	2,958	2,859	3,374	3,494

The enrollment figures are derived from our most recent demographer's report. The 2022/2023 column represents actual enrollment as of October 2022. All other enrollment figures are projected and are based on City zoning as it existed in the Fall of 2022. The impact of any zoning changes since that time (including this requested rezoning) are not yet factored into the projections.

Program capacity figures are based on current building floor plans, and the application of the District's maximum class size to every standard classroom. 22 students max for Kindergarten and Grades 1 through 4, 26 max for Grade 5, and 28 max at the Secondary level.

Functional capacity figures recognize there will always be inherent/uncontrollable inefficiencies in classroom utilization. For instance, as mentioned above, the District limits class sizes in kindergarten through grade 4 to a maximum of 22 students. If a building has three first grade classrooms, it can accommodate up to 66 students (Program Capacity). However, if only 54 students are enrolled in first grade, each class will actually only serve 18 students. The additional capacity of 12 students (66-54) is not utilized as it is not available to other grades or other campuses. In recognition of this variable, the functional capacity is calculated at 85% of the program capacity.

Sincerely,

Johnny Hill  
Deputy Superintendent of Business and Employee Services  
Plano ISD

## STAFF PRELIMINARY REPORT - ANALYSIS & RECOMMENDATION

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### Mid-Rise Residential Use

The applicant is proposing a maximum of 501 mid-rise residential units. Mid-rise residential is a type of multifamily residence and defined as buildings containing not less than five floors designed for residential occupancy and including accessory uses, including but not limited to parking garages, recreational amenities, meeting space, storage, and personal services. A mid-rise residential development may include a mix of residential and nonresidential uses in the same structure.

There are some significant challenges posed by mid-rise residential development within the subject property:

1. **Comprehensive Plan:** The requested use, as proposed in the associated PD district, is not in conformance with significant portions of the Comprehensive Plan as detailed in the analysis above.
2. **Surrounding Zoning:** The surrounding zoning on the north, west, and south sides is Corridor Commercial (CC) which allows uses that may be incompatible with residential living.
3. **Commercial Use of the Property:** The subject property is a prime location for future economic development. It has high visibility and access to the surrounding thoroughfares. The existing CC zoning allows a wide variety of nonresidential uses, and commercial development here would benefit from existing residential development and zoning in Plano in the general area as well as in the CityLine development in Richardson.
4. In the general area, there are 2,638 multifamily units either pending or with plans under review, including 2,300 units at Collin Creek Mall and 338 at Heritage Creekside.

To further expound on this last issue, with the initial rezoning request to create the zoning for the redevelopment of Collin Creek Mall (UMU-3), the city and the applicant partnered together and hired RCLCO Real Estate Advisors to provide a residential analysis. This analysis is attached to this report and analyzed the area shown in the adjacent map. The purpose of this analysis was to promote a diverse mix of housing options to respond to the region's evolving demographics and housing preferences.

This firm specializes in real estate strategy development related to master-planned mixed-use communities. RCLCO's analysis identified the target market audiences for the proposed redevelopment and how the reimagined site could provide the products, lifestyle, amenities, and design elements that residents are seeking. The analysis was completed in 2018 and recommended a total of 1,900 multifamily rental units for the Collin Creek Mall property, and stated this number was a 10-year demand projection. The demand for these units will be met with the construction of the Collin Creek Mall redevelopment. As this study is aging, the city has hired AECOM to perform an updated study which is currently underway.

Due to the issues above, the subject property is not appropriate for mid-rise residential use.



## Single-Family Residence Attached Use

The applicant is proposing a maximum of 33 single-family residence attached units served from internal privately-maintained streets. This is a change from the more recent zoning case and is in alignment with the Comprehensive Plan's Mix of Uses numbers for the Expressway Corridor category. As currently designed on the concept plan, the units are situated between two large mid-rise residential buildings, and the potential future nonresidential building and associated parking garage. The single-family residence attached units will share access from internal private streets with the mid-rise residential and future commercial developments.

The Urban Land Institute has a reference guide entitled "*Transforming Suburban Business Districts.*" Page 155 provides guidance for decision-makers when considering place-making initiatives:

*"Place making involves the development of places designed, constructed, and maintained to stimulate and please the senses, to encourage community use, and to promote civic and personal pride. Besides allowing people to perform essential functions, such as employment and shopping, places should be enjoyable, entertaining, and educational. Success in place making lies in configuring spaces and structures, and the connections between them, in a way that facilitates and encourages human activity and interaction within the context of community."*

The placement and design of the single-family residence attached units would be better in a more compact arrangement allowing for a sense of community and neighborhood identity for these residents. As presented, the design includes isolated single-family development, which does not adequately establish quality place-making elements for future residents. Although there are internal open space areas, including a large centralized common area, and an urban-style street with sidewalks and street trees in front of the homes, the design of the homes does not connect thoughtfully to the mid-rise residential developments. This design meets the technical requirement of the mix of uses but is not aligned with the spirit of the recommendations of the Comprehensive Plan.

If single-family is appropriate in this location, the applicant should consider redesigning the site to create a high-quality neighborhood layout that is well-integrated into the remainder of the subject property. To this end, mid-rise residential and commercial development should also be served by pedestrian-oriented streets with appropriate building design standards to protect the views of single-family homes. The associated concept plan shows single-family homes facing the back of a future parking garage, which is not a good example of quality urban design. As currently proposed, staff is concerned that the applicant is only proposing the single-family units to meet the Comprehensive Plan mix of uses, and is not adequately considering the quality of life or place-making issues for future residents.

Lastly, as detailed in the analysis above, the requested single-family residential use is not in conformance with several significant recommendations of the Comprehensive Plan.

## Phasing

The applicant is proposing a minimal threshold for the development of residential uses, inconsistent with city policy requirements. The first phase requires a maximum of 260 units, the required open space, and 33 single-family residence attached units. There are no requirements for nonresidential development within phase one. With the second phase of mid-rise residential, a certificate of occupancy must be issued for a minimum of 70,000 square feet of nonresidential uses. This needs to happen prior to a certificate of occupancy for the remaining mid-rise residential units.

This is a marked improvement to the phasing requirements and would require a significant nonresidential development to occur. As proposed, development could occur in the remainder of Tract 1 or within Tract 2. If Tract 2 were to be developed, this would leave the remainder of Tract 1 vacant, with a landscaped berm, and reserved for future development.

In order to mitigate the potential quality of life impacts for future residents, the applicant is proposing to limit the commercial uses which would occur within the remainder of Tract 1. Signs are also required to be posted informing residents that the area may be developed in the future.

### Access to DART

The proposed development is north of the CityLine station in Richardson. Using routes along the sidewalks as shown on the concept plan and/or via the trail adjacent to the DART line, the walking distance to the Bush DART station is approximately 2,200 feet (0.42 miles).

There are currently sidewalks along the east side of Executive Drive and along the State Highway 190 service road that could accommodate pedestrians. Future residents would have to walk along Plano Parkway to access the trail or cross Executive Drive, walk along the service road sidewalk, cross the three-lane westbound service road, cross under State Highway 190, and cross the three-lane eastbound service road. There is a single pedestrian connection/crosswalk along State Highway 190 located at the trail adjacent to the DART line, which provides a pedestrian connection to the north and south in this area.

### Residential Uses in Expressway Corridors

The city's long-range planning policies have focused on limiting residential development in expressway corridors for the dual purposes of preserving land for economic development and maintaining safety and quality of life for residents. In 2018, the Planning Department hired Harris Miller Miller & Hanson, Inc. (HMMH), a firm that specializes in the field of acoustical and air quality analysis, to perform a noise and air pollution study and to develop more refined policies or regulations based upon the results of the analysis. As part of the study, HMMH examined the science and best practices of associated quality-of-life issues to aid decision-makers in considering development patterns when applying setback policy and considering potential exceptions to that policy.

Research provided by HMMH shows that noise and air pollution impact public health, particularly for extended durations of exposure and sleeping at night. Based upon the results of the study, the city modified the policy in the Comprehensive Plan and adopted zoning regulations that pertain to specific sensitive land uses. The Comprehensive Plan map designates two areas, Expressway Corridor Environmental Health Area One (EHA-1) and Expressway Corridor Environmental Health Area Two (EHA-2).

Land uses are designated which are particularly impacted by noise and air quality factors from the expressways, including residential uses. Developing residential uses in EHA-2 areas are designated as an inappropriate land use; noise levels are at or greater than 75 dBA  $L_{dn}$  in those areas. EHA-1 is the portion further from the expressways, where outdoor noise levels are greater than or equal to 65 dBA  $L_{dn}$  and less than 75 dBA  $L_{dn}$ . Sensitive land uses are appropriate in EHA-1 if satisfactory mitigation is achieved based on the results of an EHA Site Analysis.

The city's buffer standard is intended to offer a higher quality of life to residents by abating sound for open spaces and allowing residents to open windows for ventilation and enjoy private patio or porch spaces. The applicant is proposing Planned Development stipulations relating to noise and air quality mitigation. The mitigation strategies include a residential setback of a minimum of 435 feet from the State Highway 190 frontage road, construction of a temporary berm between the residential buildings and the frontage road in Phase 1, balcony restrictions where exterior noise levels exceed 65 dBA Ldn, pollution mitigation measures, and noise mitigation measures. The applicant is requiring all ventilation units to be outdoor-air sourced, be installed on the roof of the building with air intakes ducted to the northernmost elevation of the building, and require filters meeting MERV 8 minimum standards. Additionally, construction documents must be provided that state the interior noise at each unit shall not exceed 45 dBA L<sub>dn</sub>.

The Expressway Corridor Environmental Health Area focuses on mitigating outdoor noise levels. The standards proposed by the applicant provide some protection for residents, including ensuring interior noise levels are sufficient for health and safety concerns related to sleep disturbance, which is consistent with the intent of the regulation.

The Planned Development includes language consistent with the recommendations of the EHA site analysis. However, it should be noted the conclusions regarding outdoor noise in the site analysis changed from the initial study dated January 9, 2023, presented previously, to the study dated March 28, 2023, and included with this report. With this update, the recommendations for mitigation have also changed.

### Planned Development Stipulations

The applicant is proposing planned development standards related to site and building design, phasing, and exemptions which are intended to support residential living and influence the development of future nonresidential buildings on the subject property.

These standards include:

1. Tracts: The applicant is dividing the property into two Tracts. Tract 1 is north of Executive Drive and includes the allowance for a maximum of 501 mid-rise residential units and a minimum of 33 single-family residence attached uses. Tract 2 is south of Executive Drive and includes standards to accommodate future hotel development.
2. Open Space: The proposed planned development stipulations include a requirement for a minimum of 1.5 acres of open space with a minimum 300-foot setback from the expressways.
3. Phasing: As mentioned previously, the applicant is proposing phasing standards for Tract 1, including a maximum of 260 mid-rise residential units, the required open space, and 33 single-family residence attached units. There are no requirements for nonresidential development within phase one. With the second phase of construction, prior to or concurrent with the issuance of a certificate of occupancy for the remaining mid-rise residential units, a certificate of occupancy must be issued for a minimum of 70,000 square feet of nonresidential uses, not including parking garages.
4. Use Restrictions: The applicant is limiting uses in tract 1 that could impact the quality of life for future residents. The following uses are prohibited if residential is developed:
  - a. Car Wash

- b. Compact Construction & Transportation Sales & Service
- c. Convenience Store with Fuel Pumps
- d. Drive-In Theater
- e. Major Vehicle Repair
- f. Minor Vehicle Repair
- g. Motorcycle Sales/Service
- h. Open storage
- i. Restaurant – with Drive-In or Drive-Through service
- j. Small Engine Repair Shop
- k. Water Treatment Plant

5. Residential Standards:

- a. All residential buildings must be constructed to achieve interior noise levels of 45 dBA  $L_{dn}$  or less.
- b. All residential buildings must be set back a minimum of 435 feet from the State Highway 190 frontage road.
- c. Single-Family Residence Attached Standards: Townhome units must meet the requirements of the Urban Mixed-Use District, including being served by UMU streets, with some exceptions to street standards that will support the proposed small single-family development.
- d. Height: Mid-rise residential buildings are capped at a maximum height of five stories, 70 feet. This restriction is requested to be consistent with the applicant's proposed development. Single-family residences are capped at three stories.
- e. Standards Specific to Mid-Rise Residential:
  - i. Floor Area Ratio: To accommodate the development of the mid-rise residential buildings in Tract 1, the applicant is proposing to increase the floor area ratio, which is the amount of building square footage on the lot, from 1:1 to 2:1.
  - ii. Unit Sizes: The request establishes minimum unit sizes consistent with the Multifamily Residence-3 (MF-3) zoning district to confirm the units are consistent with the City of Plano's established standards.
  - iii. An irrigated living screen is required to be placed along the western property line adjacent to residential uses and required open space. This will provide some screening from the adjacent commercial property to the west.
  - iv. Parking: The request utilizes the UMU district parking requirements for the mid-rise residential units. The applicant is proposing reduced parking requirements to take advantage of the proximity to the DART station in Richardson.

- v. Outdoor Living Areas: To create private outdoor living spaces, a minimum of 75% of mid-rise residential units facing Plano Parkway and Executive Drive must have one of the following design features: a true balcony, stoop, or patio to create outdoor living space. Units facing U.S. Highway 75 or State Highway 190 are not allowed to have balconies to protect the residents from the impacts of the expressways.
6. Setbacks and Landscape Edges: The request includes reduced setbacks to allow flexibility for mid-rise residential buildings in Tract 1 and to accommodate future commercial development in Tract 2. The applicant has also included a minimum setback for residential units from the frontage road of State Highway 190 to create separation for residences from the expressway. As shown in the companion concept plan, the landscape edge has been increased along Executive Drive from 10 to 20 feet to add additional green space. Due to the narrowness of the property in Tract 2, the applicant is requesting to reduce the landscape edge to 15 feet along State Highway 190.
  7. Air Filtration: The applicant is proposing stipulations that provide increased air filtration. The request now includes requirements that each outdoor-air sourced ventilation unit must contain a filter box on the intake side or filter housing. Additionally, the standards include a commitment that the filter boxes must meet Minimum Efficiency Reporting Values (MERV) of MERV 8 standard or greater. MERV ratings report a filter's ability to capture larger particles between 0.3 and 10 microns.
  8. Building Facades:
    - a. Mid-rise residential and nonresidential buildings, including parking garages, in Tract 1 must have at least 80% of the walls consisting of glass, native stone, clay-fired brick or tile, or a combination. The applicant is proposing building materials at a standard exceeding the building code.
    - b. The applicant is placing restrictions on facade lengths to break up the building faces in Tract 1.
    - c. Additional parking garage standards are included to screen vehicles, and ramps, and create some architectural interest on corners of the structures for both Tract 1 and Tract 2.
  9. Street Trees: The applicant is proposing to reduce the required street trees from one street tree per 40 linear feet for major and minor per the UMU district standards, to one per 50 linear feet. Staff supports this change.
  10. Exemptions: There are several proposed exemptions included as PD standards, which will allow the buildings in Tract 1 to be placed within 30 feet of the property line. Additionally, an exemption is proposed from the building separation requirements of Section 15.800 (Multifamily Residence) of the Zoning Ordinance.
  11. Fencing is restricted to wrought iron, tubular steel, tubular aluminum, or masonry and must be a minimum of 50% open construction. This design standard will benefit the property by creating a more open environment with visibility for safety.
  12. Governance Association: A governance association is required to be established for maintenance of common property and improvements.

Overall, the PD district is designed to include standards that will allow for residential development to occur consistent with the companion concept plan. The nonresidential uses on the site are allowed under the current zoning and do not require a Planned Development district to modify the existing zoning; however, design standards are included that will influence any future commercial development, such as building facade requirements.

### **SUMMARY:**

The applicant is requesting to rezone the subject property **from** Corridor Commercial **to** Planned Development-Corridor Commercial to allow residential uses with modified development standards. This request would aid in the city's goal of redevelopment in the U.S. Highway 75 corridor. The Planning & Zoning Commission denied this request on May 1, 2023, and subsequently appealed to City Council. The denial of the Planning & Zoning Commission results in a requirement for a supermajority of the City Council, 6 of 8 members, voting in favor to approve the case. On June 26, 2023, the City Council considered the case, but a supermajority vote could not be achieved. The City Council then voted to remand the case to the Planning & Zoning Commission "for further study" (Zoning Ordinance 4.600.1 City Council Action). The applicant has made two changes since the case was previously considered:

1. Added standards related to air filtration for residential buildings, and
2. Changed the setback of open space from 150 feet to 300 feet. The setback better reflects the location of the open space shown on the associated concept plan, which has not changed.

Although the applicant has proposed significant requirements related to phasing and health-related mitigation standards, this request includes policy and design-related challenges. The city's land use policies support design that proposes new residential in well-integrated and thoughtful pedestrian-oriented neighborhoods, minimizes or eliminates the impacts of the adjacent expressways for residents, and commits to a balanced mix of residential and nonresidential uses on commercial redevelopment sites. The proposal does not include adequate zoning standards to address these policy and design issues. As a result, the current zoning should remain unchanged to allow the presentation of other economic development opportunities that are better aligned with the long-term vision of the community. For these reasons, staff does not support the requested change. Approval will require findings due to substantial conflicts with the Comprehensive Plan's policy guidance for Redevelopment and Growth Management.

### **RECOMMENDATION:**

Recommended for denial.

**LEGAL DESCRIPTION**

**BEING** A TRACT OF LAND SITUATED IN THE SAMUEL KLEPPER SURVEY, ABSTRACT NO. 216 IN THE CITY OF PLANO, COLLIN COUNTY, TEXAS, BEING A PART OF LOT 1, BLOCK A OF FRY'S ELECTRONIC ADDITION, AN ADDITION TO THE CITY OF PLANO, COLLIN COUNTY, TEXAS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME P, PAGE 247, PLAT RECORDS, COLLIN COUNTY, TEXAS, BEING A PART OF A 13.888 ACRE TRACT OF LAND DESCRIBED IN THE SPECIAL WARRANTY DEED TO CHAIR PROPERTY OWNER LLC RECORDED INSTRUMENT NO. 2008-01680-000-000, OPEN PUBLIC RECORDS, COLLIN COUNTY, TEXAS, BEING A PART OF PLANO PARKWAY, EXECUTIVE DRIVE, CRAWFORD ROAD (VARIABLE WIDTH RIGHT-OF-WAY) AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

**BEING** AT THE CENTERLINE INTERSECTION OF SAID PLANO PARKWAY AND EXECUTIVE DRIVE:

**THENCE** WITH SAID CENTERLINE OF EXECUTIVE DRIVE, THE FOLLOWING COURSES AND DISTANCES:

SOUTH 1°34'47" WEST, A DISTANCE OF 155.50 FEET TO THE BEGINNING OF A TANGENT CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 34°42'51", A RADIUS OF 916.89 FEET, A CHORD BEARING AND DISTANCE OF SOUTH 17°01'27" WEST, 543.93 FEET;

IN A SOUTHWESTERLY DIRECTION WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 164.93 FEET TO THE BEGINNING OF A COMPOUND CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 64°55'19", A RADIUS OF 400.00 FEET, A CHORD BEARING AND DISTANCE OF SOUTH 85°10'57" WEST, 430.17 FEET;

IN A SOUTHWESTERLY DIRECTION WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 402.22 FEET TO THE CENTERLINE INTERSECTION OF SAID EXECUTIVE DRIVE WITH SAID CRAWFORD ROAD;

**THENCE** WITH SAID CENTERLINE OF CRAWFORD ROAD, SOUTH 4°30'00" WEST, A DISTANCE OF 142.50 FEET TO THE NORTH RIGHT-OF-WAY LINE OF PRESIDENT GEORGE BUSH TURNPIKE (A VARIABLE WIDTH RIGHT-OF-WAY);

**THENCE** WITH SAID RIGHT-OF-WAY LINE OF PRESIDENT GEORGE BUSH TURNPIKE, THE FOLLOWING COURSES AND DISTANCES:

NORTH 81°12'22" WEST, A DISTANCE OF 407.28 FEET;

NORTH 79°48'52" WEST, A DISTANCE OF 313.15 FEET;

NORTH 11°33'07" EAST, A DISTANCE OF 188.88 FEET TO THE CENTERLINE OF SAID EXECUTIVE DRIVE;

**THENCE** WITH SAID CENTERLINE OF EXECUTIVE DRIVE, THE FOLLOWING COURSES AND DISTANCES:

SOUTH 85°58'52" EAST, A DISTANCE OF 248.27 FEET TO THE BEGINNING OF A TANGENT CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 9°10'21", A RADIUS OF 1,030.00 FEET, A CHORD BEARING AND DISTANCE OF SOUTH 83°13'38" EAST, 96.40 FEET;

IN A SOUTHWESTERLY DIRECTION WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 18.84 FEET;

SOUTH 80°12'21" EAST, A DISTANCE OF 62.15 FEET;

**THENCE** OVER AND ACROSS SAID EXECUTIVE DRIVE, NORTH 9°47'30" EAST, A DISTANCE OF 30.20 FEET TO THE SOUTHWEST CORNER OF SAID FRY'S ELECTRONIC ADDITION AND THE SOUTHWEST CORNER OF LOT 1, BLOCK A OF ATRIUM AT COLLEGE RIDGE, AN ADDITION TO THE CITY OF PLANO, COLLIN COUNTY, TEXAS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME P, PAGE 119, PLAT RECORDS, COLLIN COUNTY, TEXAS:

**THENCE** WITH THE COMMON LINE OF SAID FRY'S ELECTRONIC ADDITION AND SAID ATRIUM AT COLLEGE RIDGE, THE FOLLOWING COURSES AND DISTANCES:

NORTH 4°02'07" EAST, A DISTANCE OF 352.25 FEET TO THE BEGINNING OF A TANGENT CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 43°00'00", A RADIUS OF 320 FEET, A CHORD BEARING AND DISTANCE OF NORTH 28°20'30" EAST, 153.11 FEET;

IN A NORTHEASTERLY DIRECTION WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 15.11 FEET TO THE EAST END OF SAID CURVE;

NORTH 46°00'00" EAST, A DISTANCE OF 184.35 FEET;

NORTH 40°58'52" WEST, A DISTANCE OF 520.00 FEET TO THE MOST WESTERLY CORNER OF SAID LOT 1, BLOCK A;

**THENCE** WITH THE WEST LINE OF SAID FRY'S ELECTRONIC ADDITION, NORTH 56°10'13" EAST, PASSING AT A DISTANCE OF 311.01 TO THE NORTH CORNER OF SAID FRY'S ELECTRONIC ADDITION, IN ALL A TOTAL DISTANCE OF 502.00 FEET TO THE CENTERLINE OF SAID PLANO PARKWAY;

**THENCE** WITH SAID CENTERLINE RIGHT-OF-WAY, THE FOLLOWING COURSES AND DISTANCES:

SOUTH 48°10'18" EAST, A DISTANCE OF 261.23 FEET TO THE BEGINNING OF A TANGENT CURVE TO THE LEFT HAVING A CENTRAL ANGLE OF 41°10'12", A RADIUS OF 973.36 FEET, A CHORD BEARING AND DISTANCE OF SOUTH 88°12'01" EAST, 451.64 FEET;

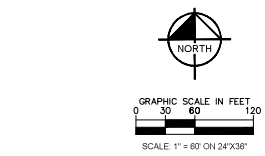
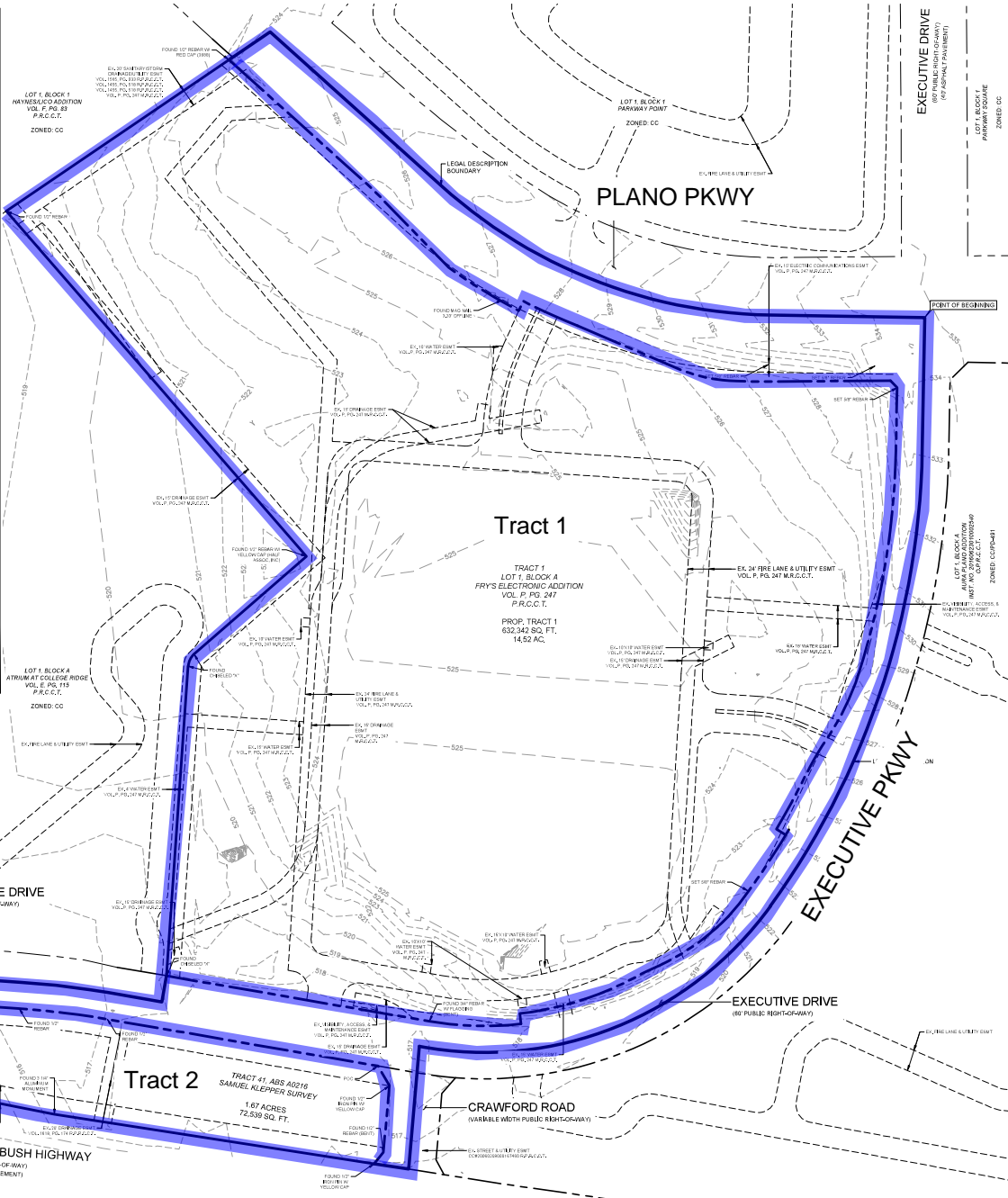
IN A SOUTHEASTERLY DIRECTION WITH SAID CURVE TO THE LEFT, AN ARC DISTANCE OF 492.52 FEET TO THE END OF SAID CURVE;

SOUTH 88°02'40" EAST, A DISTANCE OF 175.90 FEET TO THE POINT OF BEGINNING AND CONTAINING FOUR ACRES, MORE OR LESS.

**NOTES:**

BEARINGS CALLED FOR HEREIN ARE BASED ON THE FINAL PLAT OF LOT 1, BLOCK A OF FRY'S ELECTRONIC ADDITION, AN ADDITION TO THE CITY OF PLANO, COLLIN COUNTY, TEXAS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME P, PAGE 247, PLAT RECORDS, COLLIN COUNTY, TEXAS.

THIS DOCUMENT WAS PREPARED UNDER 23 TAC §602.11. DOES NOT REFLECT THE RESULTS OF AN ON THE GROUND SURVEY AND IS NOT TO BE USED TO CONVEY OR ESTABLISH INTERESTS IN REAL PROPERTY EXCEPT THOSE RIGHTS AND INTERESTS WRITEN OR ESTABLISHED BY THE CREATOR OR RECORDED IN THE INSTRUMENT OR THE BOUNDARY OF THE POLITICAL SUBDIVISION FOR WHICH IT WAS PREPARED.



**NOTE**

APPROVAL OF THE ZONING CASE ASSOCIATED WITH THIS EXHIBIT SHALL NOT BE APPROVAL OF ANY ASSOCIATED STUDY, PLAT, OR PLAN. APPROVAL OF DEVELOPMENT STANDARDS SHOWN HEREON IS THE FINAL STEP OF THE PERMIT PROCESS. PLANNING & ZONING COMMISSION AND/OR CITY COUNCIL ACTION ON STUDIES, PLATS, OR PLANS RELATING TO DEVELOPMENT OF THIS PROPERTY SHALL BE CONSIDERED AN ACTION SEPARATE FROM ACTION TAKEN ON THIS ZONING CASE.

**LEGEND**

PROPERTY LINE  
LEGAL DESCRIPTION LIMITS (TO CENTERLINE OF R.O.W.)

NO.	REVISIONS	DATE	BY

**Kimley-Horn**

1385 NIEL ROAD, TWO GALLERIA OFFICE TOWER, SUITE 100  
 PHONE: 872.743.1400 FAX: 872.520.3200  
 TEXAS REGISTERED ENGINEERING FIRM #250

PROJECT NO. 040571200  
 DATE: JAN. 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: AMW  
 DRAWN BY: JMW  
 CHECKED BY: JSE

**FRY'S ELECTRONIC ADDITION**  
 PLANO, TX

**ZONING EXHIBIT**

CITY PROJECT #ZC2022-009

**ZONING EXHIBIT**  
 OF  
 FRY'S ELECTRONIC ADDITION  
 LOT 1, BLOCK A & ABS A0216 SAMUEL KLEPPER SURVEY, TRACT 41  
 19.05 AC,  
 SITUATED IN SAMUEL KLEPPER SURVEY ABSTRACT NO. 216, CITY OF PLANO, COLLIN COUNTY, TEXAS  
 DATE: JANUARY 26, 2023

OWNER/DEVELOPER:  
 KIMLEY-HORN AND ASSOCIATES, LLC  
 C/O BAY WEST DEVELOPMENT  
 1725 S. Bascom Avenue  
 Campbell, California 95008  
 Tel. No. 408.714.2661  
 Contact: Bryan Huff

CIVIL ENGINEER:  
 KIMLEY-HORN AND ASSOCIATES, INC.  
 12455 Westfield Road  
 San Diego, California 92121  
 Tel. No. 619.774.7500  
 Contact: Sarah Scott, P.E.

# **EHA Site Analysis**

## **700 East Plano Parkway**

HMMH Project Number 311920

March 28, 2023

Prepared for:

**Bay West Development**

Prepared by:

Scott Noel

Claire Dossey

Dillon Tannler



**HMMH**

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Suite 516

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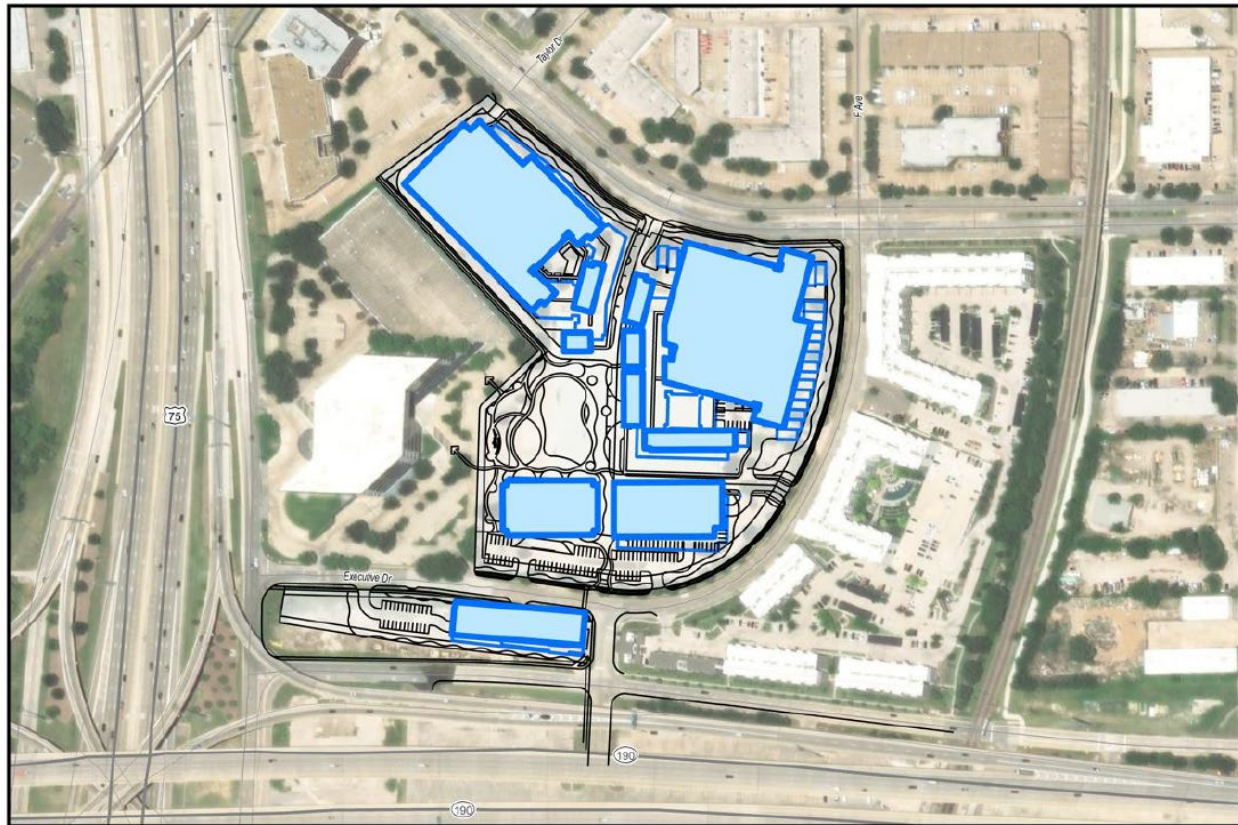
## Executive Summary

The purpose of this report is to evaluate the environmental noise conditions of a proposed multi-phased residential and commercial development bounded by East Plano Parkway, President George Bush Turnpike (PGBT) and US-75 in Plano, Texas. Figure 1 is a map showing the site plan and relative location of the project. The report will identify projected noise conditions upon project completion of each phase and identify applicable and potential noise abatement or mitigation options that could be incorporated into the design of the project. The noise analysis methodology is consistent with the Expressway Corridor Environmental Health Guidelines in the Plano Comprehensive Plan 2021.

The analysis was undertaken to predict 2040 day-night average sound level ( $L_{dn}$ ) for each residential unit. The predictions were developed by implementing the Plano city-wide model previously developed and calibrated to establish Plano Expressway Corridor Environmental Health Areas. The model was further calibrated with the data collected on-site that established existing noise conditions and the planned building and site configuration of the 700 East Plano Parkway project. It was confirmed while conducting on-site measurements that noise at the project site is predominantly generated from the PGBT and US-75.

**Figure 1. Project Site Plan**

Source: Bay West Development, 2022.



0 100 200 400 Feet

Proposed Buildings

Project Parcel

Project Overview

Plano Bay West Development  
700 East Plano Parkway  
Plano, Texas



The property falls within both the EHA-1 (northern part of property) and the EHA-2 (southern part of property) of the Expressway Corridor Environmental Health Map. The Policy states that for EHA-1:

*“Properties where outdoor noise levels are greater than or equal to 65 dBA Ldn and less than 75 dBA Ldn. Sensitive land uses are appropriate in EHA-1 if satisfactory mitigation is achieved.”*

Whereas for EHA-2, the Policy states:

*“Properties where outdoor noise levels are greater than or equal to 75 dBA Ldn. Sensitive land uses are generally inappropriate in EHA-2, but may be appropriate if satisfactory mitigation is achieved.”*

The project has placed all buildings planned for a sensitive land use (residential) outside EHA-2, consistent with city standards.

The results of the analysis indicate that future noise levels at the exterior of buildings planned for a sensitive land use (residential) during all phases will either: a) be less than 65 dBA Ldn, or b) be greater than or equal to 65 dBA Ldn and less than 75 dBA Ldn per the EHA-1 standard in the Comprehensive Plan 2021 per above, where sensitive land uses are appropriate if satisfactory mitigation is achieved. The analysis also identified there were limited uses planned for extended outdoor activities directly associated with residential land uses and that those locations are well shielded from highway noise as they are completely shielded from noise by the residential units themselves.

Various mitigation measures are recommended for the areas where exterior noise levels of buildings planned for a sensitive land use (residential) are greater than or equal to 65 dBA Ldn and less than 75 dBA Ldn.

The Expressway Corridor Environmental Health Study prepared for the City of Plano states:

*“Based on the research included in the literature review, long-term exposure to elevated noise levels associated with expressways has the most negative health consequences when it impacts sleep.”*

It goes on to state:

*“In cases where exterior walls of residential units are projected to be at noise levels over 65 dBA Ldn, outside to inside noise loss would be calculated, based on planned building construction type and window conditions to determine if the inside of the sensitive uses would be exposed to noise above 45 dBA Ldn.”*

Additionally, the Department of Housing and Urban Development (HUD) guidelines are based on a goal of a 45 dBA Ldn inside the living unit. The EHA Guidelines in the Comprehensive Plan 2021 do not specify requirements relating to the maximum interior sound levels, but do allow for a potential mitigation method of:

*“6. Enhancing the building design using improved window, door, and wall material and/or treatments, as allowed per other regulations.”*

As such, it is recommended that specific materials and building design details, such as use of specific windows, doors, walls, etc. are incorporated for all units where exterior walls indicate future noise levels of buildings planned for a sensitive land use (residential) are greater than 65 dBA Ldn such that interior noise levels at living and sleeping areas would be 45 dBA Ldn or less.

Furthermore, the EHA Guidelines suggests balconies be limited and located further from the expressway. It is recommended that balconies or patios not be included on the southern façade of any of the residential buildings facing the PGBT.

Because of the elevated nature of PGBT, the commercial structures on the southern portion of the development do not provide significant protection to the buildings planned for a sensitive land use (residential) to the north as originally suspected. This is due to sound traveling over the top of those buildings. But there is some benefit provided to the single-family homes from the at-grade roadways. It is recommended that should no commercial structures be built as part of the first phase of development, a minimum 500-foot temporary landscape berm with a minimum height of 6 feet and a maximum slope of 3:1 be constructed on the southern portion of the site between the S.H. 190 frontage road and residential units. This berm would not mitigate the PGBT but would provide shielding from the S.H. 190 frontage road with blocking line of sight and adding soft absorptive ground.

Similar to interior sound levels, the EHA Guidelines in the Comprehensive Plan 2021 do not specify requirements for air quality. But as identified in the City of Plano’s Expressway Corridor Environmental Health Study, exposure to highway-based air pollutants is greatly reduced at approximately 300 feet from the expressway edge.

The project has placed all buildings planned for a sensitive land use (residential) greater than 300 feet from the expressway edge thus mitigating highway-based air pollutants.

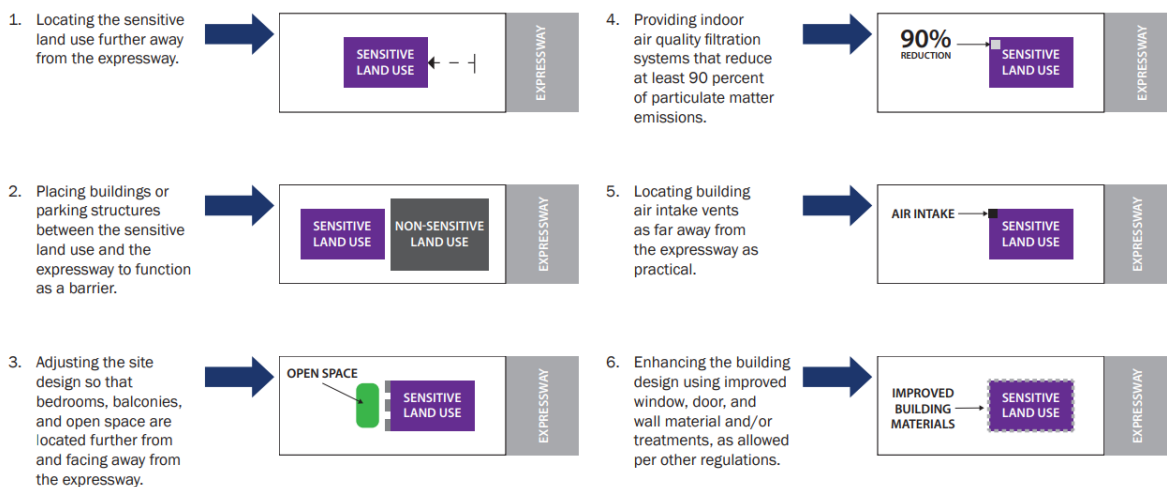
Furthermore, it is recommended that 1) all ventilation units for residential uses be “outdoor-air sourced”, and 2) ventilation units for residential uses be installed with air intakes “ducted” to the northernmost elevation of the building.

The proposed mitigations outlined above are consistent with mitigation methods 1, 2, 3, 5, and 6 recommended by the Expressway Corridor Environmental Health policies shown:

#### MITIGATION METHODS

A combination of these methods is recommended for the most effective mitigation. Mitigation methods can be recommended through an EHA Site Analysis.

Potential mitigation methods include:



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## 1 Noise Exposure Standards

Local guidelines provide the basis for understanding acceptable noise exposure at the project, specifically areas where people would sleep. The City of Plano has developed guidelines related to noise, based on Federal guidelines and regulations, that will clarify the acceptable levels of noise exposure for this project. Some additional information on the fundamentals of acoustics, is included in Appendix A of this report that further explains some of the technical information included in the government guidelines and recommendations.

### 1.1 City of Plano

The City of Plano recently established noise guidelines for Sensitive Land Uses (SLU) located near expressway as part of a change to the City of Plano's Comprehensive Plan. The guidance is used within two areas designated as Expressway Corridor Environmental Health Area One (EHA-1) and Expressway Corridor Environmental Health Area Two (EHA-2) both of which are located on the 700 East Plano Parkway parcel. The area included within the EHA-1 zone was identified as where outdoor noise levels were projected to be greater than or equal to 65 dBA Ldn and less than 75 dBA Ldn. The EHA-2 zone was defined as the area where the outdoor noise levels were projected to be above 75 dBA Ldn. The areas are further defined in the City of Plano Expressway Corridor Environmental Health Map. SLUs within EHA-1 are identified as appropriate if proper mitigation is achieved and evaluated through a site analysis whereas a SLU within EHA-2 may be deemed inappropriate unless it is redevelopment of an existing SLU. The analysis for this project will be conducted in conformance with the guideline to identify projected future conditions for the sensitive land uses and identify applicable mitigation.

## 2 Methodology

Roadway noise exposure levels for the project were computed using an acoustical planning and modeling program called SoundPLAN® (Version 8.2). SoundPLAN® was created by Braunstein & Berndt GmbH. An industry standard, SoundPLAN® was developed to provide estimates of sound levels at distances from specific noise sources taking into account the effects of terrain features including relative elevations of noise sources, receivers, and intervening objects (buildings, hills, trees), and ground effects due to areas of hard ground (pavement, water) and soft ground (grass, field, forest). In addition to computing sound levels at specific receiver positions, SoundPLAN® can produce noise contour graphics that show areas of equal and similar sound level.

### 2.1 Noise Model Input

The model used for this analysis was the same as the one used in evaluation of environmental noise in the City of Plano and establishment of the Expressway Corridor Environmental Health Areas. The following provides a summary of the information that was used in development of the model.

Geometric data was derived from elevation contours derived from city wide 2017 Lidar provided by the City of Plano. Building data was created from CAD drawings of the proposed development (Plano 121) and the City of Plano Buildings GIS layer 2016 (buildings on neighboring lots).

Traffic data was established for President George Bush Turnpike (PGBT) from the North Texas Tollway Authority (NTTA), which includes 2018 Annual Weekday Daily Traffic (AWDT). Since the noise analysis requires Annual Average Daily Traffic (AADT), the AWDT was adjusted based on a comparison of the 2018 AADT from TXDOT sources and the AWDT included in the report. A forecasted growth percentage was applied to 2017 AADT data to establish the 2040 volumes. The forecasted growth percentages, hourly traffic distributions, and truck percentages were utilized from the North Texas Tollway Authority Comprehensive Traffic & Toll Revenue Study. The posted speeds were used for the noise modeling. The expressway is 70 miles per hour (mph) and the frontage road is 55 mph.



**Table 1. Traffic Data Used in Noise Modeling**

Source: HMMH 2018

PGBT Averages	2018 AADT	% Trucks	Posted Speed	2040 AADT
Mainline	131,856	4.1%	70	167,978
EB Frontage	12,608	4.8%	55	16,062
WB Frontage	12,758	5.5%	55	16,253

### 3 Noise Measurements and Results

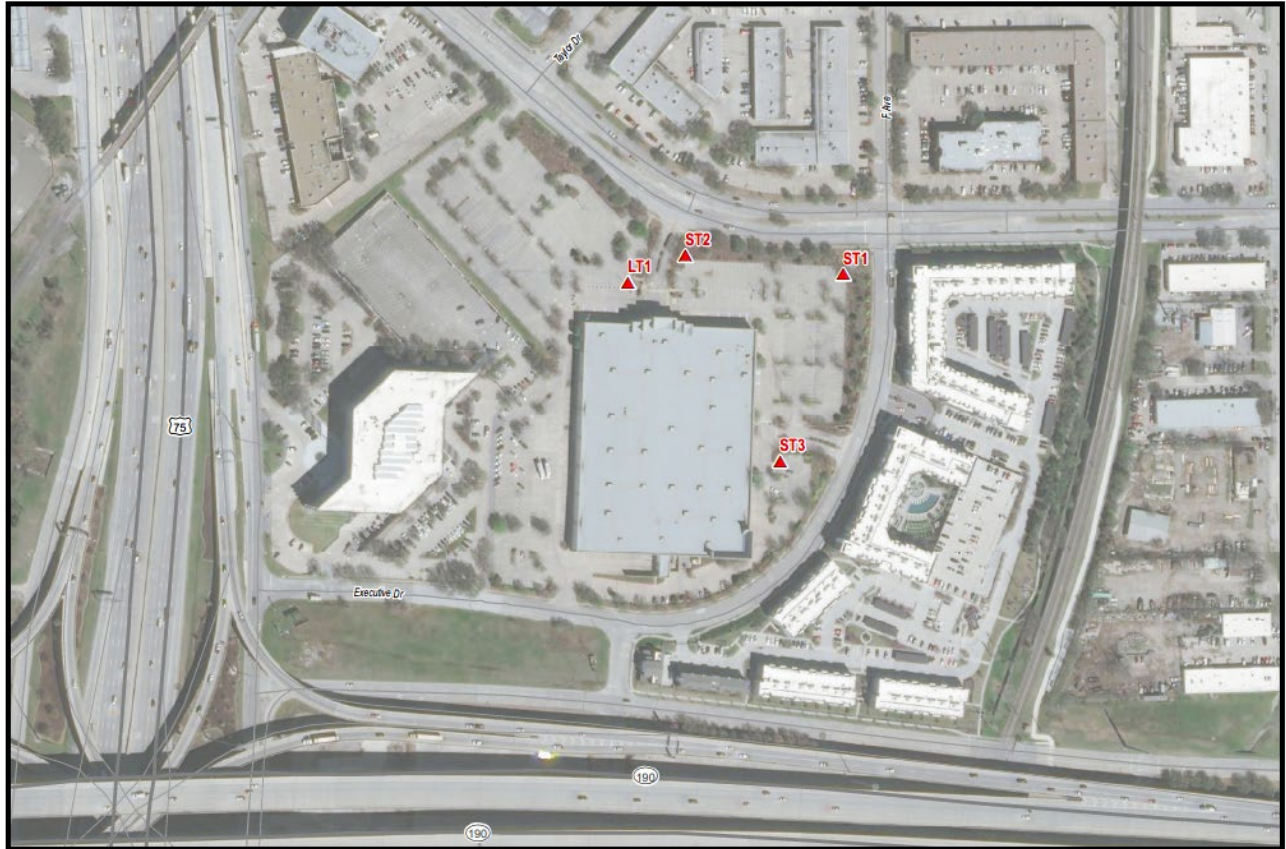
Noise measurements and traffic counts were completed to document existing noise levels and to validate the roadway noise model. The model validation process includes concurrently measuring traffic volumes and noise levels in order to verify that the actual noise levels generated at the subject site from the traffic volumes counted at that time are consistent with the modeled noise levels with the same level of traffic. If the model does not immediately validate, it is typically resolved by including additional model detail that may impact noise, such as ground types, roadside safety barriers, or neighboring buildings. It should be noted the traffic counts are used solely to validate the model. The project noise analysis is conducted using the 2040 AADT figures identified in Table 1.

The short-term measurements were completed with a Bruel & Kjaer 2245 sound level meter with operator present. Each sound level meter was paired with a preamplifier and ½” microphone. The equipment used meets the American National Standards Institute (ANSI) S1.4 specifications for a Type 1 precision meter. The sound level meters were calibrated before and after the test with calibration traceable to the National Institute of Standards and Technology (NIST). Appendix B provides annual calibration sheets for the equipment used in the noise measurement effort.

Three short-term measurements (20 minutes) and one long-term measurement (24 hours) were collected throughout the site. The short-term measurements were collected on May 6, 2022 and the long-term measurement was conducted May 9 through May 10, 2022. Figure 2 is a map of the measurement locations. Roadway traffic counts were collected concurrent with each short-term measurement. These traffic counts were converted to hourly equivalent volumes and applied to each of the noise model roadways for validation purposes. Texas Department of Transportation (TxDOT) and Federal Highway Administration (FHWA) consider a noise model to be a valid predictor of noise if a traffic noise measurement agrees with the modeled sound level within +/- 3 dB.

**Figure 2. Measurement Locations**

Source: Map Image and Data © ESRI 2020, HMMH 2022.



▲ M# Measurement Site

0 100 200 400 Feet

**Measurement Locations**

**Plano Bay West Development**  
 700 East Plano Parkway  
 Plano, Texas



**3.1 Noise Measurement Results**

Table 2 provides the results of the short-term measurement effort and the corresponding validation model sound levels. Since the modeled sound levels are within 3 dB of the measured sound levels the roadway noise model is considered a valid predictor of noise. The dominant noises source was the PGBT plus the occasional breeze and car pass by within the existing shopping area parking lot.

**Table 2. Short-Term Measurement and Model Validation Results**

Source: HMMH 2022

Measurement Location	Time	Measured dBA L <sub>eq</sub>	Modeled dBA L <sub>eq</sub>	Difference (dB)
M1	9:51 – 10:21	65.9	67.9	1.9
M2	10:34 – 11:04	66.4	68.8	2.4
M3	11:20 – 11:50	62.3	62.6	0.4
M4	11:30-12:00	63.5	63.6	0.1

## 4 Project Noise Exposure

The proposed project would be predominantly subject to roadway noise from the PGBT. Secondary sound sources would continue to include roadway noise from US-75, traffic along the S.H. 190 frontage road, East Plano Parkway and Executive Boulevard as well as rail and transit noise from the nearby freight and DART light rail.

As discussed in Section 2 of this report, the latest existing (2018) AADT volumes and speeds for the roadways near the project were obtained from TxDOT and the NTTA and then escalated to 2040 to establish future traffic volumes. These future traffic volumes were used to calculate a future average Day-Night Level ( $L_{dn}$ ) Roadway Noise Exposure at each of the building facades that would include sensitive land uses on the site. These future levels were used for comparison to the newly enacted Plano Comprehensive Plan's Expressway Corridor Environmental Health Guidelines.

Noise levels were modelled for each floor of the residential buildings. The proposed residential buildings include two, five-story multi-family structures, northwest and northeast multi-family wrap, containing 249 and 252 residential units, respectively, as well as 33 three-story townhomes.

### 4.1 Project Noise Results

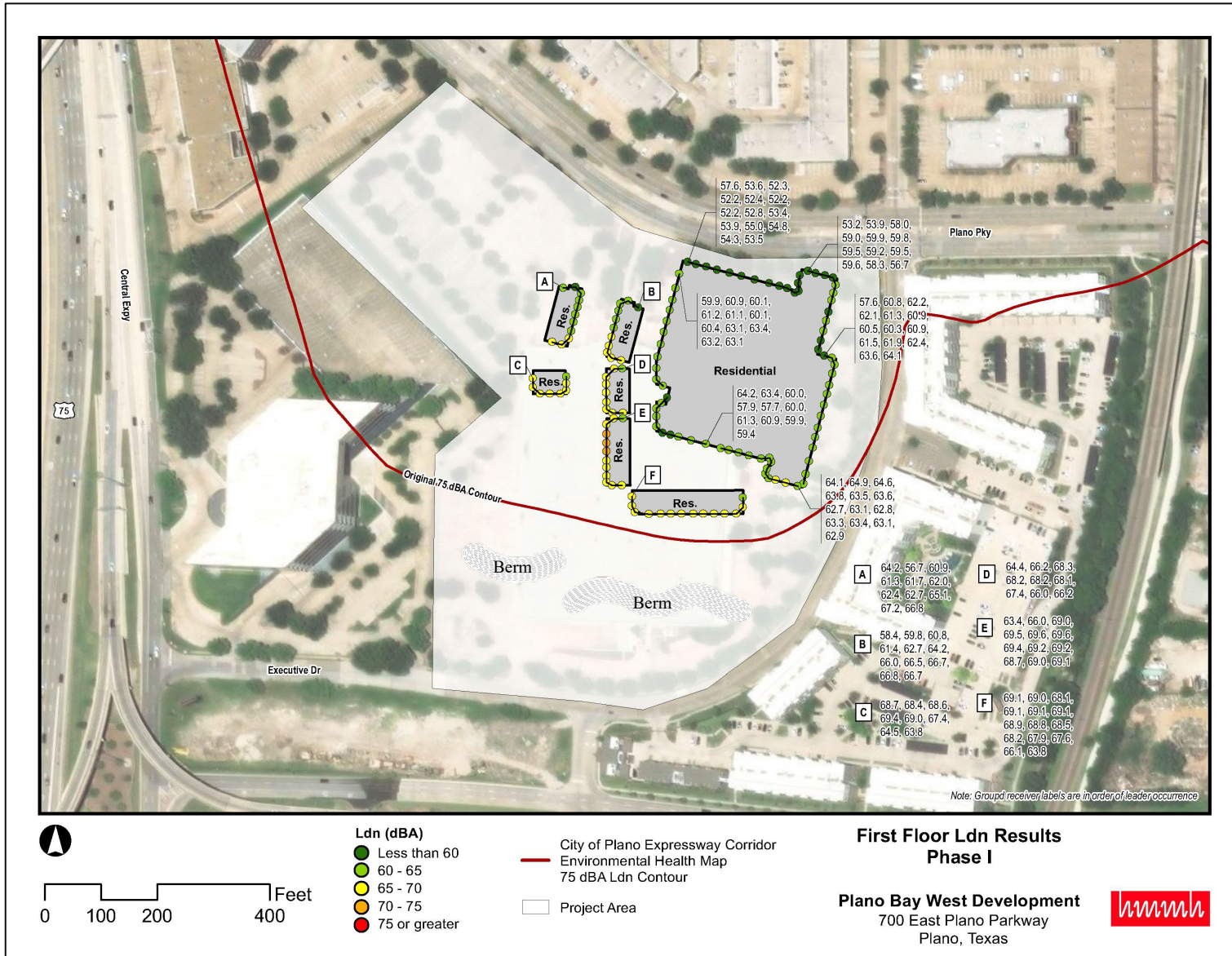
The residential buildings provide enough shielding to protect the limited uses planned for extended outdoor activities directly associated with residential land uses from the traffic noise of the PGBT. Figures 3 through 12 provide the location and graphical depiction of the outdoor noise levels at ground level and for all proposed floors of the buildings planned for a sensitive land use (residential) for both Phase I and the entire project. Tables 3 and 4 provides the estimated outdoor  $L_{dn}$  noise levels at each point.

It is anticipated that interior noise mitigation actions will be necessary for some of the residences along the southern façade of a few of the buildings.

- Floor 1-3 of the units closest to the Expressway on the western façade of one Townhome building will require indoor noise mitigation
- Floors 1-5 on the western façade and near the cut out on the southern side of the western end of residential buildings will require indoor noise mitigation.
- Floors 3-5 on the southern façade of the residential buildings and near the western end of the northern façade will require indoor noise mitigation
- Floor 5 of the multi family residential building will require indoor mitigation at the top floor locations
- All other units will not require further indoor noise mitigation

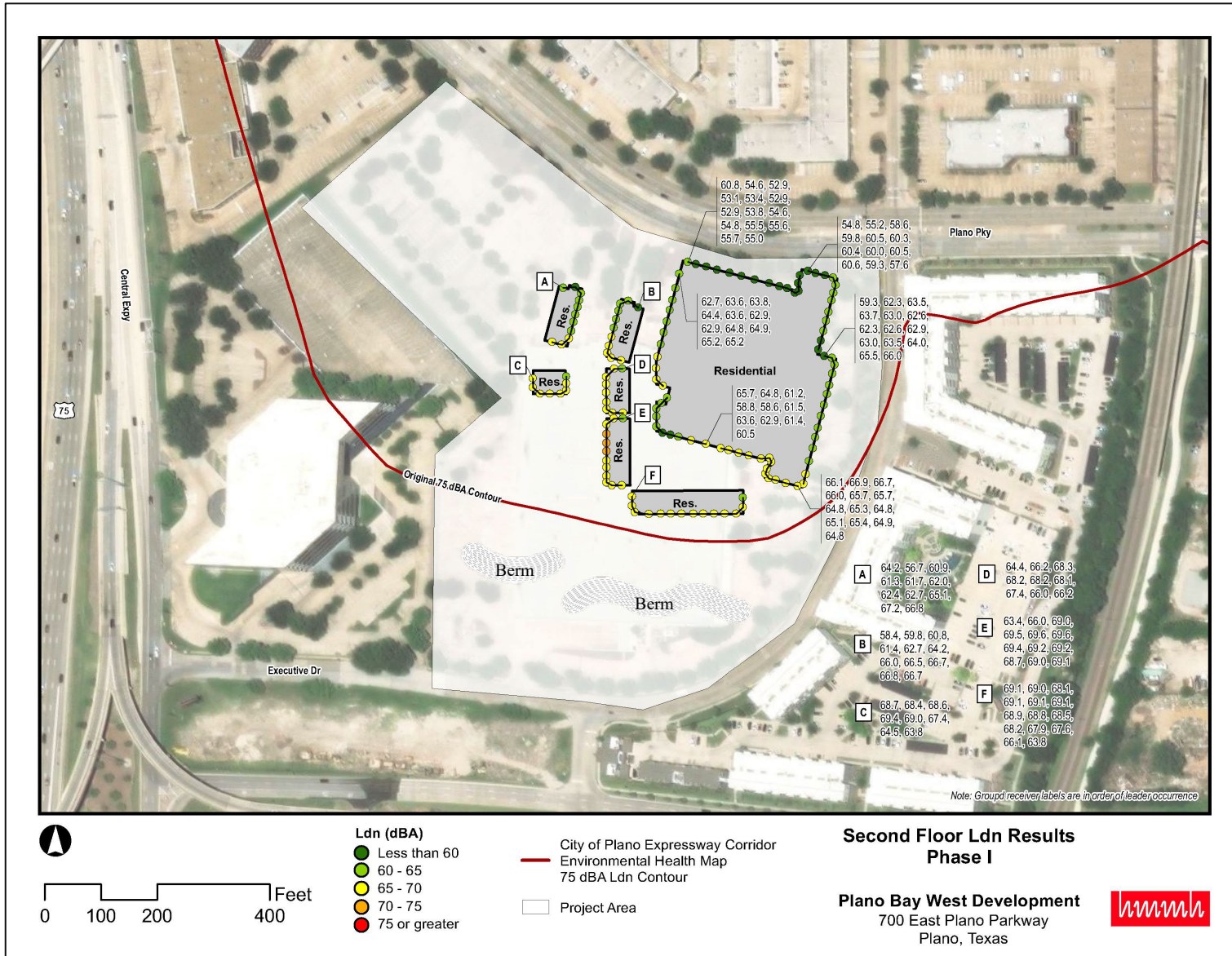
**Figure 3. Project Day-Night Level ( $L_{dn}$ ) Roadway Exterior Noise Exposure for 1<sup>st</sup> Floor of Phase I**

Source: HMMH 2023.



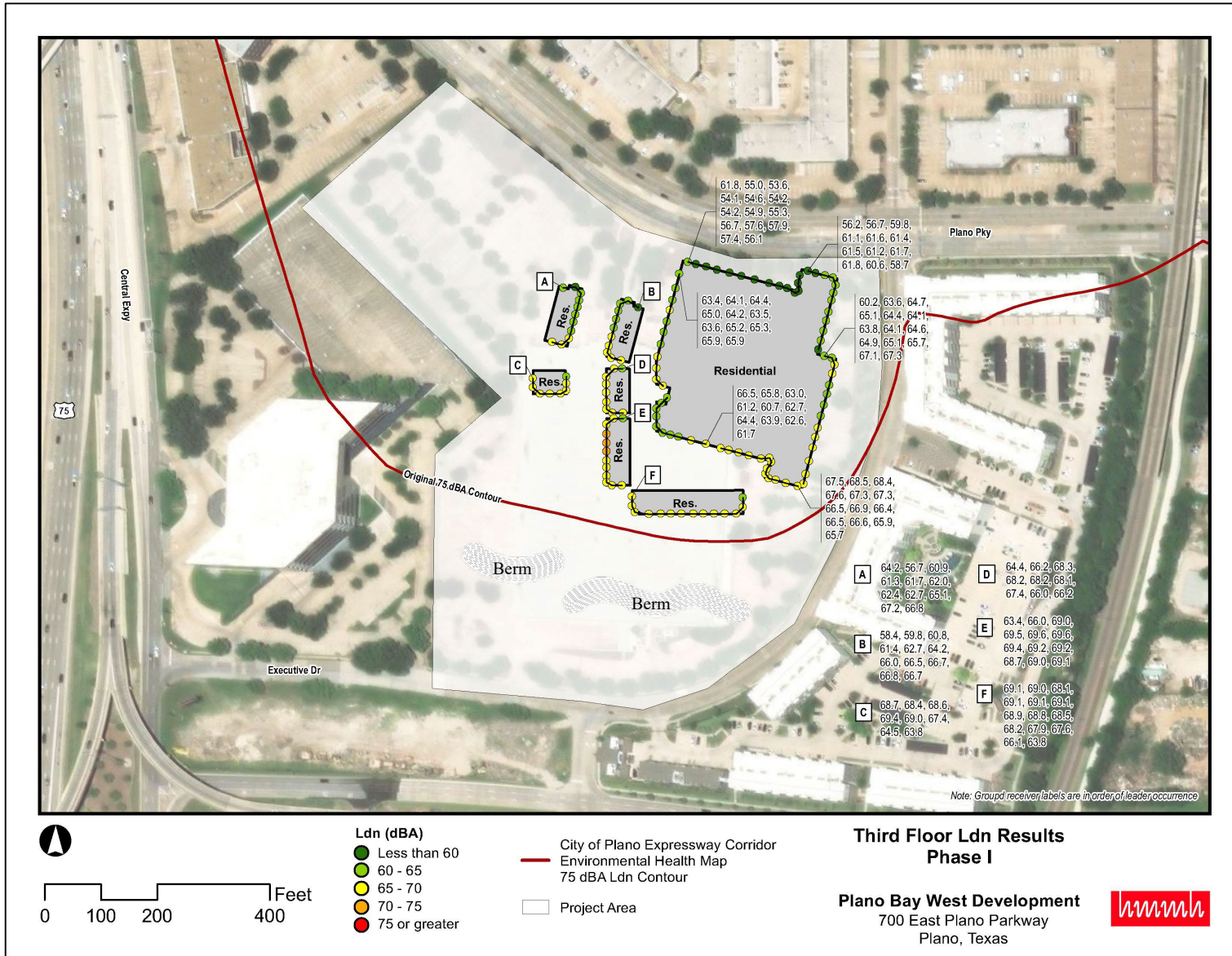
**Figure 4. Project Day-Night Level ( $L_{dn}$ ) Roadway Exterior Noise Exposure for 2<sup>nd</sup> Floor of Phase I**

Source: HMMH 2023.



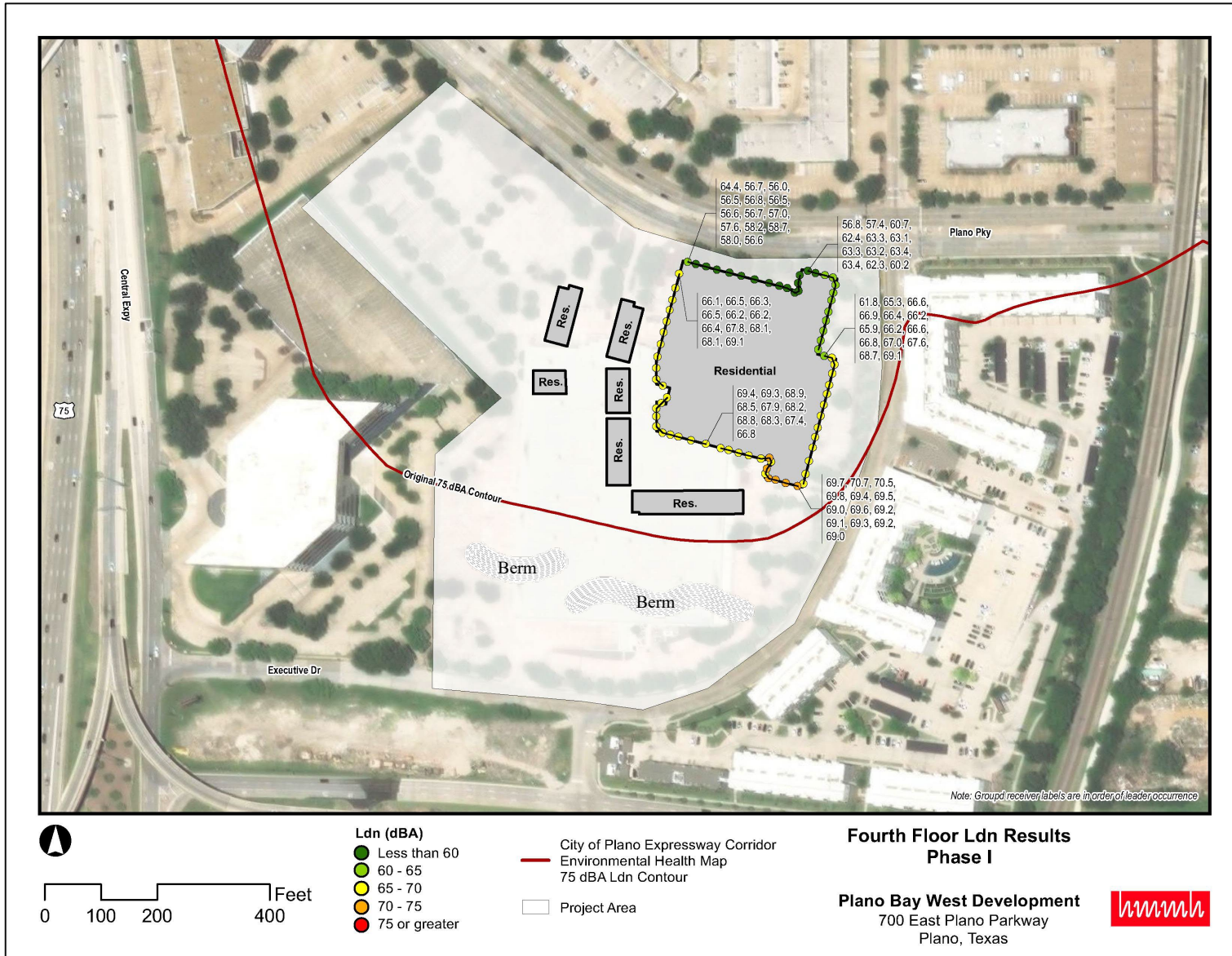
**Figure 5. Project Day-Night Level ( $L_{dn}$ ) Roadway Exterior Noise Exposure for 3<sup>rd</sup> Floor of Phase I**

Source: HMMH 2023



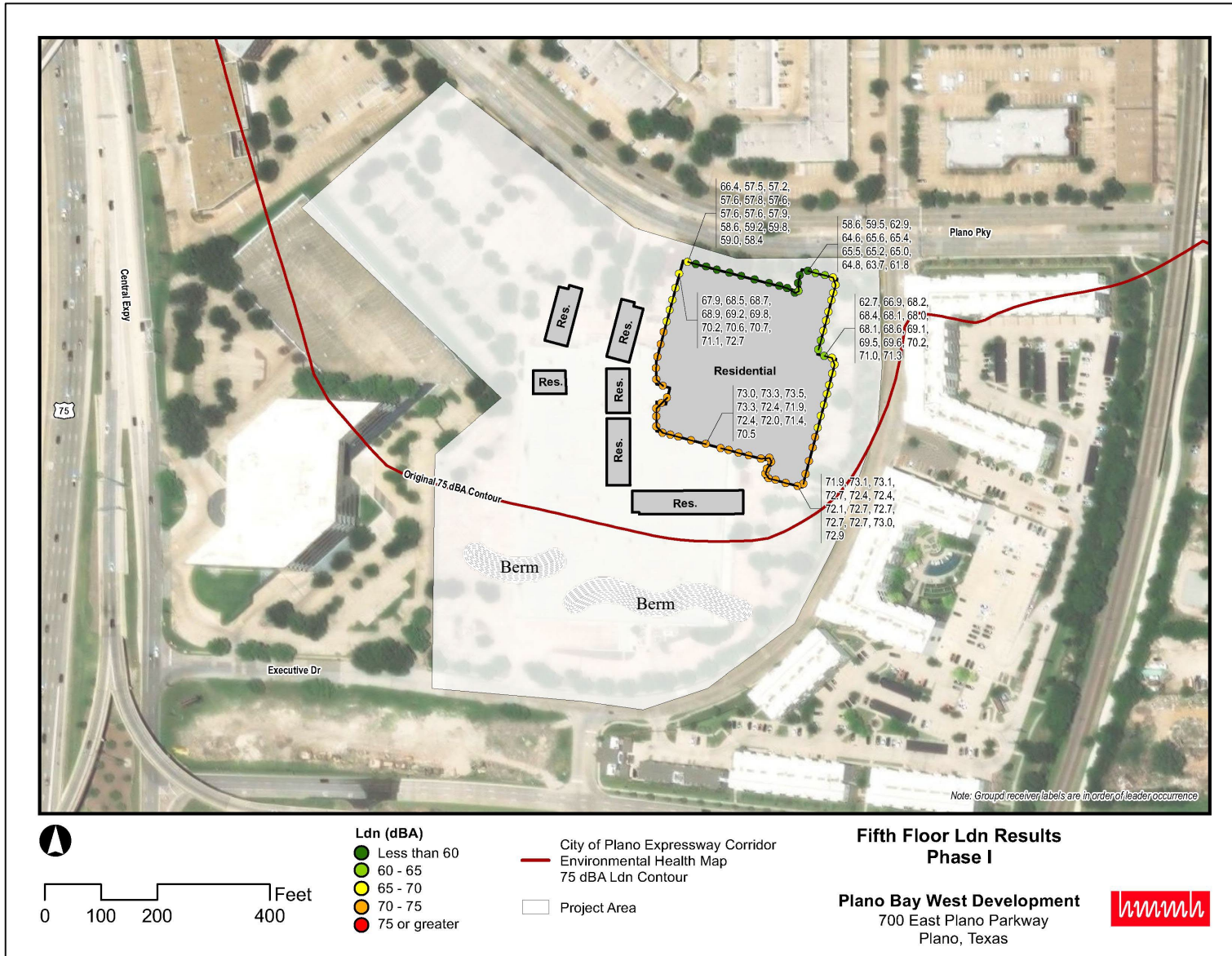
**Figure 6. Project Day-Night Level ( $L_{dn}$ ) Roadway Exterior Noise Exposure for 4<sup>th</sup> Floor of Phase I**

Source: HMMH 2023.



**Figure 7. Project Day-Night Level ( $L_{dn}$ ) Roadway Exterior Noise Exposure for 5<sup>th</sup> Floor of Phase I**

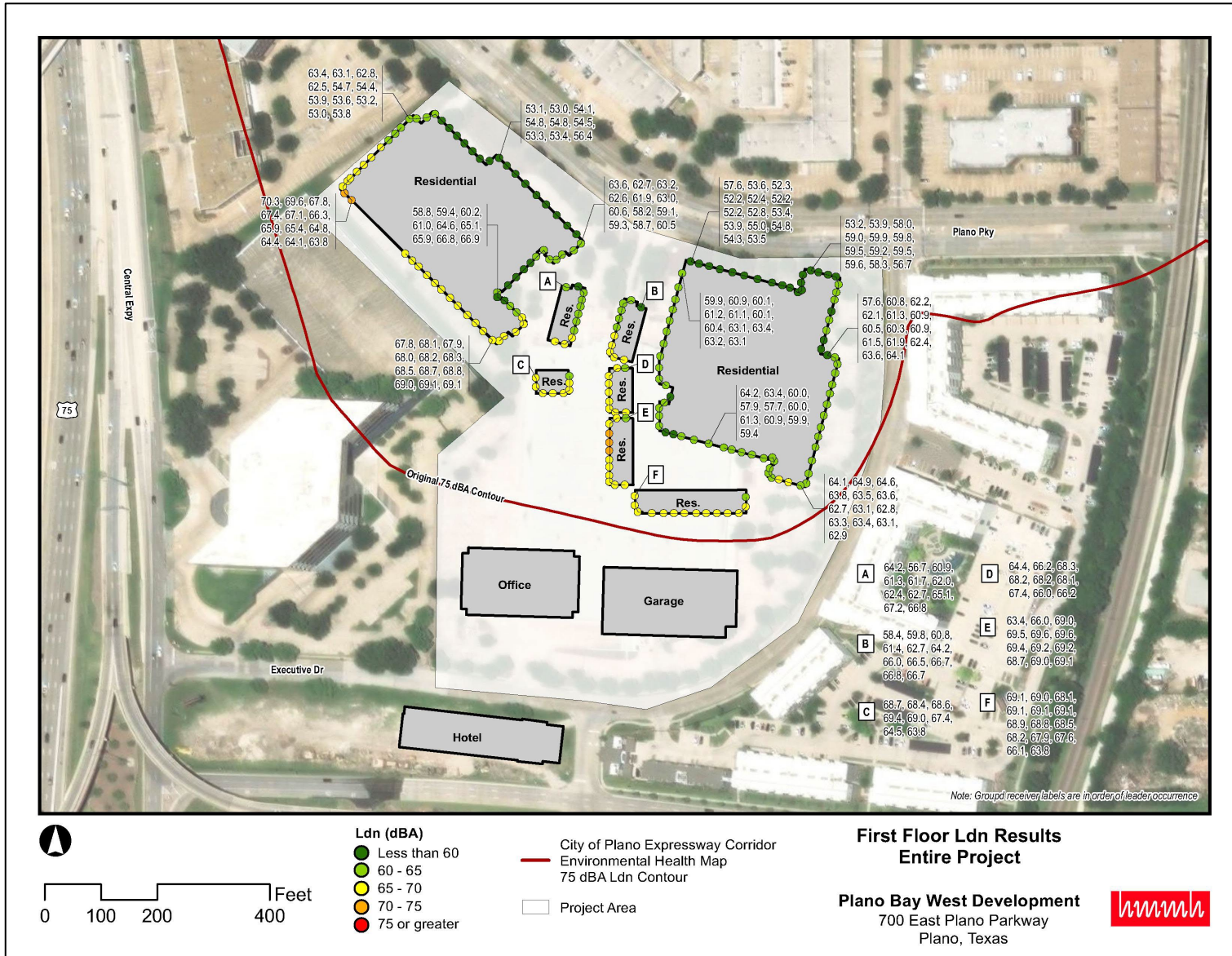
Source: HMMH 2023.





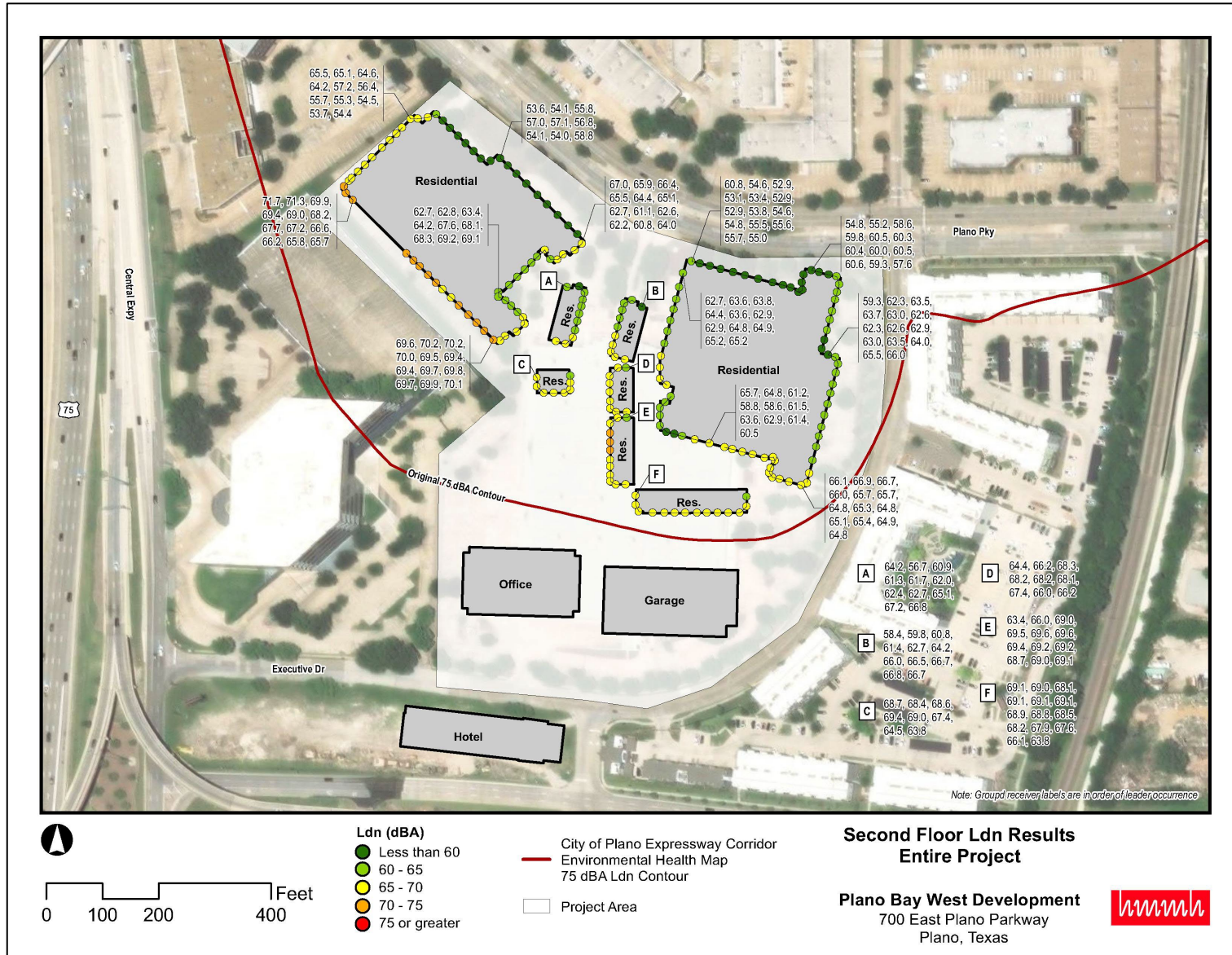
**Figure 8. Project Day-Night Level (L<sub>dn</sub>) Roadway Exterior Noise Exposure for 1<sup>st</sup> Floor of Entire Project**

Source: HMMH 2023.



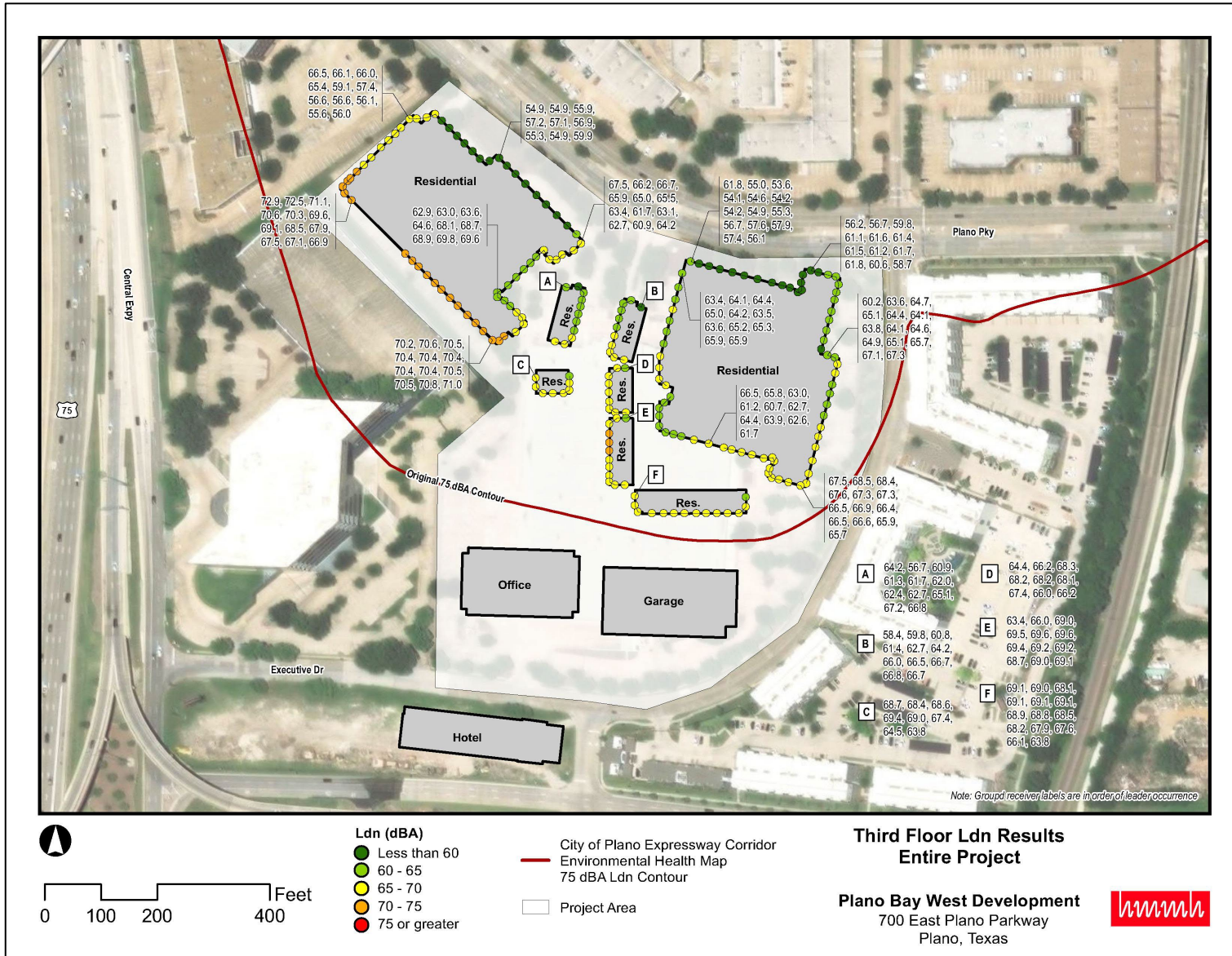
**Figure 9. Project Day-Night Level ( $L_{dn}$ ) Roadway Exterior Noise Exposure for 2<sup>nd</sup> Floor of Entire Project**

Source: HMMH 2023.



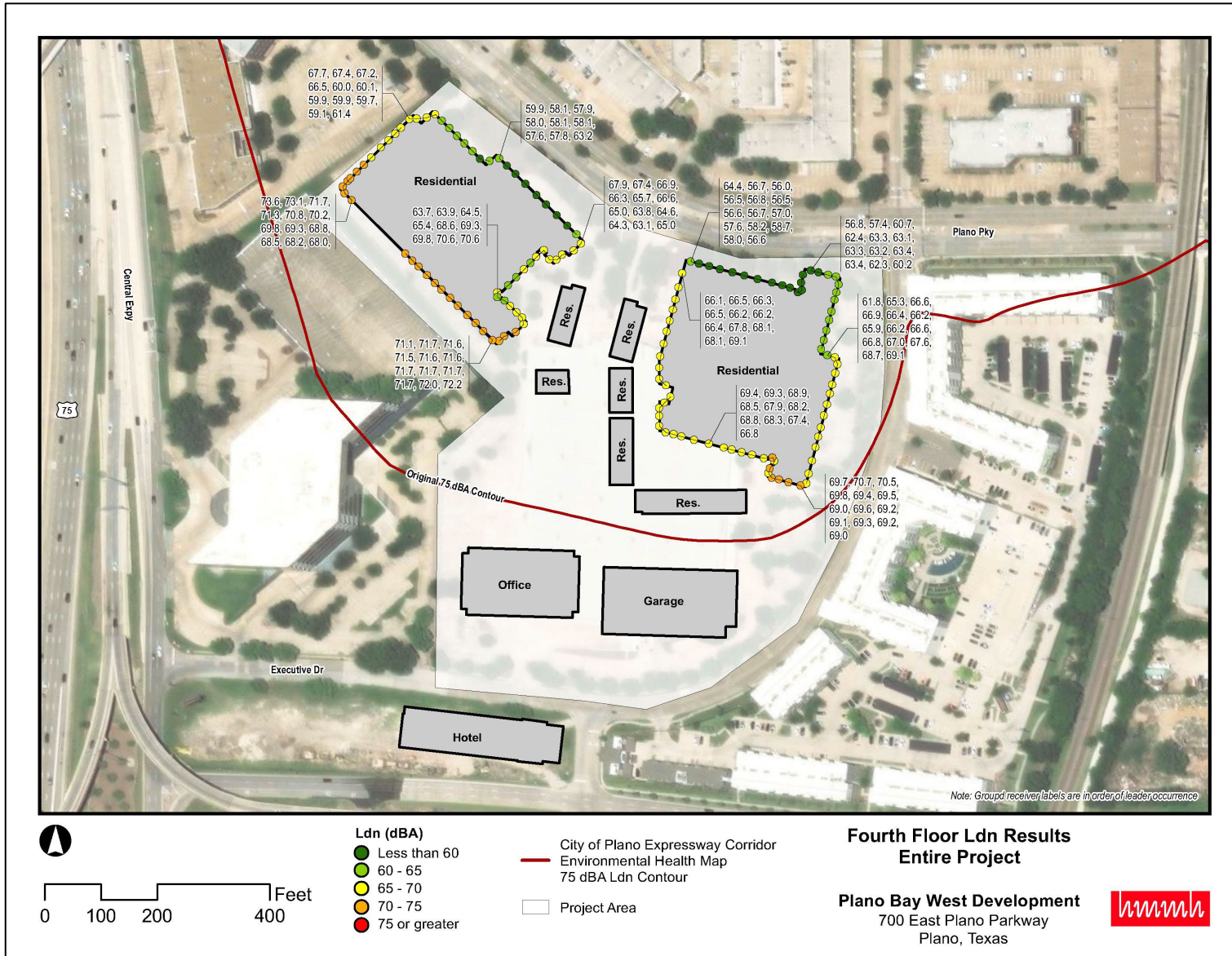
**Figure 10. Project Day-Night Level ( $L_{dn}$ ) Roadway Exterior Noise Exposure for 3<sup>rd</sup> Floor of Entire Project**

Source: HMMH 2023.



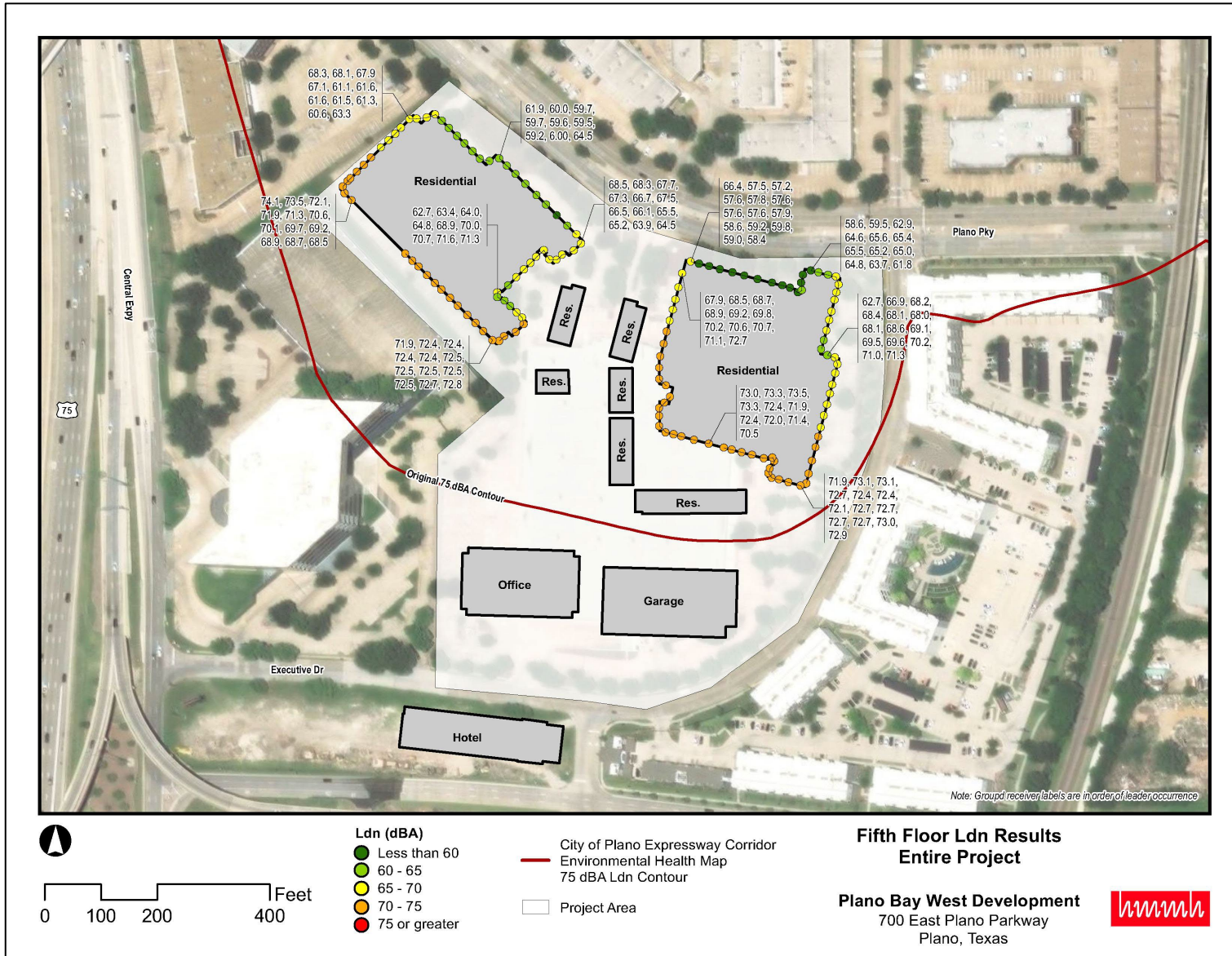
**Figure 11. Project Day-Night Level ( $L_{dn}$ ) Roadway Exterior Noise Exposure for 4<sup>th</sup> Floor of Entire Project**

Source: HMMH 2023.



**Figure 12. Project Day-Night Level ( $L_{dn}$ ) Roadway Exterior Noise Exposure for 5<sup>th</sup> Floor of Entire Project**

Source: HMMH 2023.



**Table 3: Receiver Exterior Sound Levels of Phase I**

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
B-01	64.2	64.2	64.2	64.2	64.2
B-02	56.7	56.7	56.7	56.7	56.7
B-03	60.9	60.9	60.9	60.9	60.9
B-04	61.3	61.3	61.3	61.3	61.3
B-05	61.7	61.7	61.7	61.7	61.7
B-06	62	62	62	62	62
B-07	62.4	62.4	62.4	62.4	62.4
B-08	62.7	62.7	62.7	62.7	62.7
B-09	65.1	65.1	65.1	65.1	65.1
B-10	67.2	67.2	67.2	67.2	67.2
B-11	66.8	66.8	66.8	66.8	66.8
C-01	68.7	68.7	68.7	68.7	68.7
C-02	68.4	68.4	68.4	68.4	68.4
C-03	68.6	68.6	68.6	68.6	68.6
C-04	69.4	69.4	69.4	69.4	69.4
C-05	69	69	69	69	69
C-06	67.4	67.4	67.4	67.4	67.4
C-07	64.5	64.5	64.5	64.5	64.5
C-08	63.8	63.8	63.8	63.8	63.8
D-01	58.4	58.4	58.4	58.4	58.4
D-02	59.8	59.8	59.8	59.8	59.8
D-03	60.8	60.8	60.8	60.8	60.8
D-04	61.4	61.4	61.4	61.4	61.4
D-05	62.7	62.7	62.7	62.7	62.7

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
D-06	64.2	64.2	64.2	64.2	64.2
D-07	66	66	66	66	66
D-08	66.5	66.5	66.5	66.5	66.5
D-09	66.7	66.7	66.7	66.7	66.7
D-10	66.8	66.8	66.8	66.8	66.8
D-11	66.7	66.7	66.7	66.7	66.7
E-01	64.4	64.4	64.4	64.4	64.4
E-02	66.2	66.2	66.2	66.2	66.2
E-03	68.3	68.3	68.3	68.3	68.3
E-04	68.2	68.2	68.2	68.2	68.2
E-05	68.2	68.2	68.2	68.2	68.2
E-06	68.1	68.1	68.1	68.1	68.1
E-07	67.4	67.4	67.4	67.4	67.4
E-08	66	66	66	66	66
E-09	66.2	66.2	66.2	66.2	66.2
F-01	63.4	63.4	63.4	63.4	63.4
F-02	66	66	66	66	66
F-03	69	69	69	69	69
F-04	69.5	69.5	69.5	69.5	69.5
F-05	69.6	69.6	69.6	69.6	69.6
F-06	69.6	69.6	69.6	69.6	69.6
F-07	69.4	69.4	69.4	69.4	69.4
F-08	69.2	69.2	69.2	69.2	69.2
F-09	69.2	69.2	69.2	69.2	69.2
F-10	68.7	68.7	68.7	68.7	68.7

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
F-11	69	69	69	69	69
F-12	69.1	69.1	69.1	69.1	69.1
G-01	69.1	69.1	69.1	69.1	69.1
G-02	69	69	69	69	69
G-03	68.1	68.1	68.1	68.1	68.1
G-04	69.1	69.1	69.1	69.1	69.1
G-05	69.1	69.1	69.1	69.1	69.1
G-06	69.1	69.1	69.1	69.1	69.1
G-07	68.9	68.9	68.9	68.9	68.9
G-08	68.8	68.8	68.8	68.8	68.8
G-09	68.5	68.5	68.5	68.5	68.5
G-10	68.2	68.2	68.2	68.2	68.2
G-11	67.9	67.9	67.9	67.9	67.9
G-12	67.6	67.6	67.6	67.6	67.6
G-13	66.1	66.1	66.1	66.1	66.1
G-14	63.8	64.2	64.2	64.2	64.2
H-01	57.6	60.8	61.8	64.4	66.4
H-02	53.6	54.6	55	56.7	57.5
H-03	52.3	52.9	53.6	56	57.2
H-04	52.2	53.1	54.1	56.5	57.6
H-05	52.4	53.4	54.6	56.8	57.8
H-06	52.2	52.9	54.2	56.5	57.6
H-07	52.2	52.9	54.2	56.6	57.6
H-08	52.8	53.8	54.9	56.7	57.6
H-09	53.4	54.6	55.3	57	57.9



Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
H-10	53.9	54.8	56.7	57.6	58.6
H-11	55	55.5	57.6	58.2	59.2
H-12	54.8	55.6	57.9	58.7	59.8
H-13	54.3	55.7	57.4	58	59
H-14	53.5	55	56.1	56.6	58.4
H-15	53.2	54.8	56.2	56.8	58.6
H-16	53.9	55.2	56.7	57.4	59.5
H-17	58	58.6	59.8	60.7	62.9
H-18	59	59.8	61.1	62.4	64.6
H-19	59.9	60.5	61.6	63.3	65.6
H-20	59.8	60.3	61.4	63.1	65.4
H-21	59.5	60.4	61.5	63.3	65.5
H-22	59.2	60	61.2	63.2	65.2
H-23	59.5	60.5	61.7	63.4	65
H-24	59.6	60.6	61.8	63.4	64.8
H-25	58.3	59.3	60.6	62.3	63.7
H-26	56.7	57.6	58.7	60.2	61.8
H-27	57.6	59.3	60.2	61.8	62.7
H-28	60.8	62.3	63.6	65.3	66.9
H-29	62.2	63.5	64.7	66.6	68.2
H-30	62.1	63.7	65.1	66.9	68.4
H-31	61.3	63	64.4	66.4	68.1
H-32	60.9	62.6	64.1	66.2	68
H-33	60.5	62.3	63.8	65.9	68.1
H-34	60.3	62.6	64.1	66.2	68.6

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
H-35	60.9	62.9	64.6	66.6	69.1
H-36	61.5	63	64.9	66.8	69.5
H-37	61.9	63.5	65.1	67	69.6
H-38	62.4	64	65.7	67.6	70.2
H-39	63.6	65.5	67.1	68.7	71
H-40	64.1	66	67.3	69.1	71.3
H-41	64.1	66.1	67.5	69.7	71.9
H-42	64.9	66.9	68.5	70.7	73.1
H-43	64.6	66.7	68.4	70.5	73.1
H-44	63.8	66	67.6	69.8	72.7
H-45	63.5	65.7	67.3	69.4	72.4
H-46	63.6	65.7	67.3	69.5	72.4
H-47	62.7	64.8	66.5	69	72.1
H-49	63.1	65.3	66.9	69.6	72.7
H-50	62.8	64.8	66.4	69.2	72.7
H-51	63.3	65.1	66.5	69.1	72.7
H-52	63.4	65.4	66.6	69.3	72.7
H-53	63.1	64.9	65.9	69.2	73
H-54	62.9	64.8	65.7	69	72.9
H-55	64.2	65.7	66.5	69.4	73
H-56	63.4	64.8	65.8	69.3	73.3
H-57	60	61.2	63	68.9	73.5
H-58	57.9	58.8	61.2	68.5	73.3
H-59	57.7	58.6	60.7	67.9	72.4
H-60	60	61.5	62.7	68.2	71.9

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
H-61	61.3	63.6	64.4	68.8	72.4
H-62	60.9	62.9	63.9	68.3	72
H-63	59.9	61.4	62.6	67.4	71.4
H-64	59.4	60.5	61.7	66.8	70.5
H-65	63.1	65.2	65.9	69.1	72.7
H-66	63.2	65.2	65.9	68.1	71.1
H-67	63.4	64.9	65.3	68.1	70.7
H-68	63.1	64.8	65.2	67.8	70.6
H-69	60.4	62.9	63.6	66.4	70.2
H-70	60.1	62.9	63.5	66.2	69.8
H-71	61.1	63.6	64.2	66.2	69.2
H-72	61.2	64.4	65	66.5	68.9
H-73	60.1	63.8	64.4	66.3	68.7
H-74	60.9	63.6	64.1	66.5	68.5
H-75	59.9	62.7	63.4	66.1	67.9

Source: HMMH analysis, 2023

<sup>1</sup> Red indicates exterior noise level exceeds the exterior sound level criteria of 65 dBA Ldn

**Table 4: Receiver Exterior Sound Levels of Entire Project**

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
A-01	70.31	71.7	72.9	73.6	74.1
A-02	69.6	71.3	72.5	73.1	73.5
A-03	67.8	69.9	71.1	71.7	72.1
A-04	67.4	69.4	70.6	71.3	71.9
A-05	67.1	69	70.3	70.8	71.3
A-06	66.3	68.2	69.6	70.2	70.6
A-07	65.9	67.7	69.1	69.8	70.1
A-08	65.4	67.2	68.5	69.3	69.7
A-09	64.8	66.6	67.9	68.8	69.2
A-10	64.4	66.2	67.5	68.5	68.9
A-11	64.1	65.8	67.1	68.2	68.7
A-12	63.8	65.7	66.9	68	68.5
A-13	63.4	65.5	66.5	67.7	68.3
A-14	63.1	65.1	66.1	67.4	68.1
A-15	62.8	64.6	66	67.2	67.9
A-16	62.5	64.2	65.4	66.5	67.1
A-17	54.7	57.2	59.1	60	61.1
A-18	54.4	56.4	57.4	60.1	61.6
A-19	53.9	55.7	56.6	59.9	61.6
A-20	53.6	55.3	56.6	59.9	61.5
A-21	53.2	54.5	56.1	59.7	61.3
A-22	53	53.7	55.6	59.1	60.6
A-23	53.8	54.4	56	61.4	63.3
A-24	53.1	53.6	54.9	59.9	61.9

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
A-25	53	54.1	54.9	58.1	60
A-26	54.1	55.8	55.9	57.9	59.7
A-27	54.8	57	57.2	58	59.7
A-28	54.8	57.1	57.1	59.6	54.5
A-29	56.8	56.9	58.1	59.5	53.3
A-30	53.3	54.1	55.3	57.6	59.2
A-31	53.4	54	54.9	57.8	60
A-32	56.4	58.8	59.9	63.2	64.5
A-33	63.6	67	67.5	67.9	68.5
A-34	62.7	65.9	66.2	67.4	68.3
A-35	63.2	66.4	66.7	66.9	67.7
A-36	62.6	65.5	65.9	66.3	67.3
A-37	61.9	64.4	65	65.7	66.7
A-38	63	65.1	65.5	66.6	67.5
A-39	60.6	62.7	63.4	65	66.5
A-40	58.2	61.1	61.7	63.8	66.1
A-41	59.1	62.6	63.1	64.6	65.5
A-42	59.3	62.2	62.7	64.3	65.2
A-43	58.7	60.8	60.9	63.1	63.9
A-44	60.5	64	64.2	65	64.5
A-45	58.8	62.7	62.9	63.7	62.7
A-46	59.4	62.8	63	63.9	63.4
A-47	60.2	63.4	63.6	64.5	64
A-48	61	64.2	64.6	65.4	64.8
A-49	64.6	67.6	68.1	68.6	68.9

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
A-50	65.1	68.1	68.7	69.3	70
A-51	65.9	68.3	68.9	69.8	70.7
A-52	66.8	69.2	69.8	70.6	71.6
A-53	66.9	69.1	69.6	70.6	71.3
A-54	67.8	69.6	70.2	71.1	71.9
A-55	68.1	70.2	70.6	71.7	72.4
A-56	67.9	70.2	70.5	71.6	72.4
A-57	68	70	70.4	71.5	72.4
A-58	68.2	69.5	70.4	71.6	72.4
A-59	68.3	69.4	70.4	71.6	72.5
A-60	68.5	69.4	70.4	71.7	72.5
A-61	68.7	69.7	70.4	71.7	72.5
A-62	68.8	69.8	70.5	71.7	72.5
A-63	69	69.7	70.5	71.7	72.5
A-64	69.1	69.9	70.8	72	72.7
A-65	69.1	70.1	71	72.2	72.8
B-01	64.2	64.2	64.2	64.2	64.2
B-02	56.7	56.7	56.7	56.7	56.7
B-03	60.9	60.9	60.9	60.9	60.9
B-04	61.3	61.3	61.3	61.3	61.3
B-05	61.7	61.7	61.7	61.7	61.7
B-06	62	62	62	62	62
B-07	62.4	62.4	62.4	62.4	62.4
B-08	62.7	62.7	62.7	62.7	62.7
B-09	65.1	65.1	65.1	65.1	65.1

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
B-10	67.2	67.2	67.2	67.2	67.2
B-11	66.8	66.8	66.8	66.8	66.8
C-01	68.7	68.7	68.7	68.7	68.7
C-02	68.4	68.4	68.4	68.4	68.4
C-03	68.6	68.6	68.6	68.6	68.6
C-04	69.4	69.4	69.4	69.4	69.4
C-05	69	69	69	69	69
C-06	67.4	67.4	67.4	67.4	67.4
C-07	64.5	64.5	64.5	64.5	64.5
C-08	63.8	63.8	63.8	63.8	63.8
D-01	58.4	58.4	58.4	58.4	58.4
D-02	59.8	59.8	59.8	59.8	59.8
D-03	60.8	60.8	60.8	60.8	60.8
D-04	61.4	61.4	61.4	61.4	61.4
D-05	62.7	62.7	62.7	62.7	62.7
D-06	64.2	64.2	64.2	64.2	64.2
D-07	66	66	66	66	66
D-08	66.5	66.5	66.5	66.5	66.5
D-09	66.7	66.7	66.7	66.7	66.7
D-10	66.8	66.8	66.8	66.8	66.8
D-11	66.7	66.7	66.7	66.7	66.7
E-01	64.4	64.4	64.4	64.4	64.4
E-02	66.2	66.2	66.2	66.2	66.2
E-03	68.3	68.3	68.3	68.3	68.3
E-04	68.2	68.2	68.2	68.2	68.2

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
E-05	68.2	68.2	68.2	68.2	68.2
E-06	68.1	68.1	68.1	68.1	68.1
E-07	67.4	67.4	67.4	67.4	67.4
E-08	66	66	66	66	66
E-09	66.2	66.2	66.2	66.2	66.2
F-01	63.4	63.4	63.4	63.4	63.4
F-02	66	66	66	66	66
F-03	69	69	69	69	69
F-04	69.5	69.5	69.5	69.5	69.5
F-05	69.6	69.6	69.6	69.6	69.6
F-06	69.6	69.6	69.6	69.6	69.6
F-07	69.4	69.4	69.4	69.4	69.4
F-08	69.2	69.2	69.2	69.2	69.2
F-09	69.2	69.2	69.2	69.2	69.2
F-10	68.7	68.7	68.7	68.7	68.7
F-11	69	69	69	69	69
F-12	69.1	69.1	69.1	69.1	69.1
G-01	69.1	69.1	69.1	69.1	69.1
G-02	69	69	69	69	69
G-03	68.1	68.1	68.1	68.1	68.1
G-04	69.1	69.1	69.1	69.1	69.1
G-05	69.1	69.1	69.1	69.1	69.1
G-06	69.1	69.1	69.1	69.1	69.1
G-07	68.9	68.9	68.9	68.9	68.9
G-08	68.8	68.8	68.8	68.8	68.8



Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
G-09	68.5	68.5	68.5	68.5	68.5
G-10	68.2	68.2	68.2	68.2	68.2
G-11	67.9	67.9	67.9	67.9	67.9
G-12	67.6	67.6	67.6	67.6	67.6
G-13	66.1	66.1	66.1	66.1	66.1
G-14	63.8	64.2	64.2	64.2	64.2
H-01	57.6	60.8	61.8	64.4	66.4
H-02	53.6	54.6	55	56.7	57.5
H-03	52.3	52.9	53.6	56	57.2
H-04	52.2	53.1	54.1	56.5	57.6
H-05	52.4	53.4	54.6	56.8	57.8
H-06	52.2	52.9	54.2	56.5	57.6
H-07	52.2	52.9	54.2	56.6	57.6
H-08	52.8	53.8	54.9	56.7	57.6
H-09	53.4	54.6	55.3	57	57.9
H-10	53.9	54.8	56.7	57.6	58.6
H-11	55	55.5	57.6	58.2	59.2
H-12	54.8	55.6	57.9	58.7	59.8
H-13	54.3	55.7	57.4	58	59
H-14	53.5	55	56.1	56.6	58.4
H-15	53.2	54.8	56.2	56.8	58.6
H-16	53.9	55.2	56.7	57.4	59.5
H-17	58	58.6	59.8	60.7	62.9
H-18	59	59.8	61.1	62.4	64.6
H-19	59.9	60.5	61.6	63.3	65.6

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
H-20	59.8	60.3	61.4	63.1	65.4
H-21	59.5	60.4	61.5	63.3	65.5
H-22	59.2	60	61.2	63.2	65.2
H-23	59.5	60.5	61.7	63.4	65
H-24	59.6	60.6	61.8	63.4	64.8
H-25	58.3	59.3	60.6	62.3	63.7
H-26	56.7	57.6	58.7	60.2	61.8
H-27	57.6	59.3	60.2	61.8	62.7
H-28	60.8	62.3	63.6	65.3	66.9
H-29	62.2	63.5	64.7	66.6	68.2
H-30	62.1	63.7	65.1	66.9	68.4
H-31	61.3	63	64.4	66.4	68.1
H-32	60.9	62.6	64.1	66.2	68
H-33	60.5	62.3	63.8	65.9	68.1
H-34	60.3	62.6	64.1	66.2	68.6
H-35	60.9	62.9	64.6	66.6	69.1
H-36	61.5	63	64.9	66.8	69.5
H-37	61.9	63.5	65.1	67	69.6
H-38	62.4	64	65.7	67.6	70.2
H-39	63.6	65.5	67.1	68.7	71
H-40	64.1	66	67.3	69.1	71.3
H-41	64.1	66.1	67.5	69.7	71.9
H-42	64.9	66.9	68.5	70.7	73.1
H-43	64.6	66.7	68.4	70.5	73.1
H-44	63.8	66	67.6	69.8	72.7

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
H-45	63.5	65.7	67.3	69.4	72.4
H-46	63.6	65.7	67.3	69.5	72.4
H-47	62.7	64.8	66.5	69	72.1
H-49	63.1	65.3	66.9	69.6	72.7
H-50	62.8	64.8	66.4	69.2	72.7
H-51	63.3	65.1	66.5	69.1	72.7
H-52	63.4	65.4	66.6	69.3	72.7
H-53	63.1	64.9	65.9	69.2	73
H-54	62.9	64.8	65.7	69	72.9
H-55	64.2	65.7	66.5	69.4	73
H-56	63.4	64.8	65.8	69.3	73.3
H-57	60	61.2	63	68.9	73.5
H-58	57.9	58.8	61.2	68.5	73.3
H-59	57.7	58.6	60.7	67.9	72.4
H-60	60	61.5	62.7	68.2	71.9
H-61	61.3	63.6	64.4	68.8	72.4
H-62	60.9	62.9	63.9	68.3	72
H-63	59.9	61.4	62.6	67.4	71.4
H-64	59.4	60.5	61.7	66.8	70.5
H-65	63.1	65.2	65.9	69.1	72.7
H-66	63.2	65.2	65.9	68.1	71.1
H-67	63.4	64.9	65.3	68.1	70.7
H-68	63.1	64.8	65.2	67.8	70.6
H-69	60.4	62.9	63.6	66.4	70.2
H-70	60.1	62.9	63.5	66.2	69.8

Location	Ground Floor (Ldn)	2 <sup>nd</sup> Floor (Ldn)	3 <sup>rd</sup> Floor (Ldn)	4 <sup>th</sup> Floor (Ldn)	5 <sup>th</sup> Floor (Ldn)
H-71	61.1	63.6	64.2	66.2	69.2
H-72	61.2	64.4	65	66.5	68.9
H-73	60.1	63.8	64.4	66.3	68.7
H-74	60.9	63.6	64.1	66.5	68.5
H-75	59.9	62.7	63.4	66.1	67.9

## 5 Air Quality

As identified in the City of Plano’s Expressway Corridor Environmental Health Study, exposure to highway-based air pollutants is greatly reduced at approximately 300 feet from the expressway edge and that exposure can be further mitigated through design of building ventilation system.

The site plan for the 700 East Plano development includes residential units that are all more than 300 feet from the highway edge protecting it from high concentrations of highway-based air pollutants. The project can further mitigate exposure to highway-based air pollutants by ensuring that: 1) all ventilation units for residential uses be “outdoor-air sourced”, and 2) ventilation units for residential uses be installed with air intakes “ducted” to the northernmost elevation of the building. With the combination of the location of the residential units on the site and further mitigating through design of building ventilation system as described above, residents are not expected to experience higher concentrations of highway-based air pollutants.

## 6 Outdoor Site Mitigation

The most effective outdoor noise mitigation has been integrated into the site design. Highway setback distances of 300 feet provide the vast majority of protection. Since the PGBT is elevated, a barrier could not be feasible to build at this location to protect against noise from the PGBT. A minimum 500-foot temporary landscape berm with a minimum height of 6 feet constructed on the southern portion of the site between the S.H. 190 frontage road and residential units will shield the bottom floor of the single-family homes from the ground level traffic on the S.H. 190 frontage road prior to the construction of the commercial buildings. This site plan reduces noise conditions on most of the site to be below the 65 dBA  $L_{dn}$  exterior noise threshold of the Expressway Corridor Environmental Health Guidelines. However, there are still some locations where exterior noise levels of buildings planned for a sensitive land use (residential) exceed the 65 dBA  $L_{dn}$  threshold, and therefore additional building material will be required to achieve the interior noise level guidance described in Section 7. It is also recommended that no balconies or patios be built for the residential units or single-family homes on the southern façade.

## 7 Indoor Mitigation Strategies

The Expressway Corridor Environmental Health Study prepared for the City of Plano states:

*“Based on the research included in the literature review, long-term exposure to elevated noise levels associated with expressways has the most negative health consequences when it impacts sleep.”*

It goes on to state:

*“In cases where exterior walls of residential units are projected to be at noise levels over 65 dBA  $L_{dn}$ , outside to inside noise loss would be calculated, based on planned building construction type and window conditions to determine if the inside of the sensitive uses would be exposed to noise above 45 dBA  $L_{dn}$ .”*

Additionally, the Department of Housing and Urban Development (HUD) guidelines are based on a goal of a 45 dBA  $L_{dn}$  inside the living unit. The EHA Guidelines in the Comprehensive Plan 2021 do not specify requirements relating to the maximum interior sound levels, but do allow for a potential mitigation method of:

*“6. Enhancing the building design using improved window, door, and wall material and/or treatments, as allowed per other regulations.”*

As such, it is recommended that specific materials and building design details are incorporated for all units where exterior walls indicate future noise levels of buildings planned for a sensitive land use (residential) are greater than 65 dBA  $L_{dn}$  such that interior noise levels at living and sleeping areas would be 45 dBA  $L_{dn}$  or less.

In a building with typical wood frame construction and single-pane windows the Outdoor to Indoor Noise Loss is generally 20 dBA and therefore, all units where outdoor highway noise levels are 65 dBA  $L_{dn}$  or

lower will meet the 45 dBA  $L_{dn}$  guidance. Additional materials (increased STC windows and doors and insulation where greater than 65).

### **7.1 Mitigation for Residential Units with Outdoor Highway Noise Levels 65-69 dBA**

In order to reduce indoor noise to levels at or below 45 dBA  $L_{dn}$  at residential units at 700 East Plano Parkway where outdoor highway noise levels are 65-69 dBA  $L_{dn}$ , additional design and building construction strategies should be considered. The following guidance on project materials and construction would result in the necessary abatement to achieve the above noted interior noise standard for all of these units.

#### **7.1.1 Windows**

- (1) For locations that have outdoor highway noise levels that are 65-69 dBA  $L_{dn}$  the glass of a single glaze window should be a minimum of 1/2 inch thick. The glass of a double pane window should be a minimum of 1/4 inch thick each with dissimilar glass thicknesses and a minimum STC range of 35 or greater.
- (2) All operable windows should include weather stripping with an efficiently airtight, flexible nonmetallic material that is compressed airtight when the window is closed.

#### **7.1.2 Exterior doors.**

- (1) An exterior door should be minimum 1 3/4 inch thick solid core wood or metal clad and should be fully weather stripped in an airtight manner.
- (2) Any sliding door should have the operable sash that is weather stripped with an efficient airtight gasket. The door should have a sound transmission rating of STC 35 or greater.

#### **7.1.3 Exterior walls.**

- (1) A masonry wall should equal or exceed the weight of an equivalent wall constructed of six-inch dense concrete block. At least one surface should be painted or plastered.
- (2) Siding-on-sheathing, stucco, or brick veneer should be installed on the outside of minimum four-inch nominal deep studs.
- (3) The interior wall surface of an exterior wall should be minimum 1/2 inch gypsum board or plaster installed on the inside of the wall studs.
- (4) Continuous sheathing should cover the exterior side of the wall studs behind wood, asphalt, or aluminum siding. The sheathing should be minimum 1/2 inch thick.
- (5) When wood sheathing is used, sheathing boards or panels must be butted tightly and covered on the exterior with overlapping and airtight building paper.
- (6) Insulation with a minimum thermal resistance (R) factor of 11 should be installed in the cavity space behind the exterior sheathing and between wall studs.
- (7) Any brick veneer, masonry block, or stucco wall should be constructed airtight except as otherwise required by the Building Code. All surface joints should be grouped or caulked airtight.
- (8) A penetration of a wall by a pipe or duct should be caulked or filled with mortar

#### **7.1.4 Ceilings**

- (1) A gypsum board or plaster ceiling at least 1/2 inch thick should be installed below attic spaces or roof rafters or roof construction weighing less than eight pounds per square foot.

- (2) Insulation with a minimum thermal resistance (R) factor of 19 should be installed above the ceiling between the joists.

## 7.2 Mitigation for Residential Units with Outdoor Highway Noise Levels 70-75 dBA

In order to reduce indoor noise to levels at or below 45 dBA  $L_{dn}$  at residential units at 700 East Plano Parkway where outdoor highway noise levels are 70-75 dBA  $L_{dn}$ , additional design and building construction strategies should be considered. The following guidance on project materials and construction would result in the necessary abatement to achieve the above noted interior noise standard for all of these units.

In addition to the items listed in section 7.1.1 through 7.1.4, the following would be necessary.

### 7.2.1 Windows

- (1) For locations that have outdoor highway noise levels that are 70-75 dBA  $L_{dn}$  windows should be more than one pane, possibly including lamination, and have a minimum STC range of 39 or greater.

### 7.2 Exterior doors.

- (1) Any sliding door should have the operable sash that is weather stripped with an efficient airtight gasket. The door should have a sound transmission rating of STC-39 or greater.

## 8 Conclusions

In conclusion, the project site design has been developed in a manner that will reduce highway outdoor noise exposure for buildings planned for a sensitive land use (residential) from the PGBT and US 75. However, there are still some locations where exterior noise levels of buildings planned for a sensitive land use (residential) exceed 65 dBA  $L_{dn}$ . Prolonged exposure to noise levels exceeding the 65 dBA  $L_{dn}$  exterior noise threshold of the Expressway Corridor Environmental Health Guidelines can be mitigated through design enhancements. Those mitigations include the following:

- A minimum 300-foot setback from the PGBT for buildings planned for a sensitive land use (residential).
- Enhanced materials and building design details, such as use of specific windows, doors, walls, etc. for all units where exterior walls indicate future noise levels of buildings planned for a sensitive land use (residential) greater than 65 dBA  $L_{dn}$  such that interior noise levels at living and sleeping areas would be 45 dBA  $L_{dn}$  or less.
- No balconies or patios built on the southern façade of residential units or single-family homes facing the PGBT.
- A minimum 500-foot temporary landscape berm with a minimum height of 6 feet constructed on the southern portion of the site between the S.H. 190 frontage road and residential units if residential units are to be build prior to the construction of the commercial buildings.
- All ventilation units for residential uses be “outdoor-air sourced”.
- Ventilation units for residential uses be installed with air intakes “ducted” to the northernmost elevation of the building.





## Appendix A Fundamentals of Acoustics

This attachment describes the noise terminology and metrics used in this report.

### A.1 Decibels (dB), Frequency and the A-Weighted Sound Level

Loudness is a subjective quantity that enables a listener to order the magnitude of different sounds on a scale from soft to loud. Although the perceived loudness of a sound is based somewhat on its frequency and duration, chiefly it depends upon the sound pressure level. Sound pressure level is a measure of the sound pressure at a point relative to a standard reference value; sound pressure level is always expressed in decibels (dB).

Decibels are logarithmic quantities, so combining decibels is unlike common arithmetic. For example, if two sound sources each produce 100 dB operating individually and they are then operated together, they produce 103 dB. Each doubling of the number of sources produces another three decibels of noise. A tenfold increase in the number of sources makes the sound pressure level go up 10 dB, and a hundredfold increase makes the level go up 20 dB. If two sources differ in sound pressure level by more than 10 decibels, then operating together, the total level will approximately equal the level of the louder source; the quieter source doesn't contribute significantly to the total.

People hear changes in sound level according to the following rules of thumb: 1) a change of 1 decibel or less in a given sound's level is generally not readily perceptible except in a laboratory setting; 2) a 5-dB change in a sound is considered to be generally noticeable in a community setting; and 3) it takes approximately a 10-dB change to be heard as a doubling or halving of a sound's loudness.

Another important characteristic of sound is its frequency, or "pitch." This is the rate of repetition of sound pressure oscillations as they reach our ears. Frequency is expressed in units known as Hertz (abbreviated "Hz" and equivalent to one cycle per second). Sounds heard in the environment usually consist of a range of frequencies. The distribution of sound energy as a function of frequency is termed the "frequency spectrum."

The human ear does not respond equally to identical noise levels at different frequencies. Although the normal frequency range of hearing for most people extends from a low of about 20 Hz to a high of 10,000 Hz to 20,000 Hz, people are most sensitive to sounds in the voice range, between about 500 Hz to 2,000 Hz. Therefore, to correlate the amplitude of a sound with its level as perceived by people, the sound energy spectrum is adjusted, or "weighted."

The weighting system most commonly used to correlate with people's response to noise is "A-weighting" (or the "A-filter") and the resultant noise level is called the "A-weighted noise level" (dBA). A-weighting significantly de-emphasizes those parts of the frequency spectrum from a noise source that occurs both at lower frequencies (those below about 500 Hz) and at very high frequencies (above 10,000 Hz) where we do not hear as well. The filter has very little effect, or is nearly "flat," in the middle range of frequencies between 500 and 10,000 Hz. In addition to representing human hearing sensitivity, A-weighted sound levels have been found to correlate better than other weighting networks with human perception of "noisiness." One of the primary reasons for this is that the A-weighting network emphasizes the frequency range where human speech occurs, and noise in this range interferes with speech communication. Another reason is that the increased hearing sensitivity makes noise more annoying in this frequency range.

## A.2 Equivalent Sound Level ( $L_{eq}$ )


The Equivalent Sound Level, abbreviated  $L_{eq}$ , is a measure of the total exposure resulting from the accumulation of A-weighted sound levels over a particular period of interest -- for example, an hour, an 8-hour school day, nighttime, or a full 24-hour day. However, because the length of the period can be different depending on the timeframe of interest, the applicable period should always be identified or clearly understood when discussing the metric. Such durations are often identified through a subscript, for example  $L_{eq1h}$ , or  $L_{eq(24-hour)}$ .

The  $L_{eq}$  may be thought of as a constant sound level over the period of interest that contains as much sound energy as (is “equivalent” to) the actual time-varying sound level with its normal peaks and valleys. It is important to recognize, however, that the two signals (the constant one and the time-varying one) would sound very different from each other. Also, the “average” sound level suggested by  $L_{eq}$  is not an arithmetic value, but a logarithmic, or “energy-averaged” sound level. Thus, the loudest events may dominate the noise environment described by the metric, depending on the relative loudness of the events.

## A.3 Day-Night Sound Level ( $L_{dn}$ )


The  $L_{dn}$  represents a concept of noise dose as it occurs over a 24-hour period. It is the same as a 24-hour  $L_{eq}$ , with one important exception;  $L_{dn}$  treats nighttime noise differently from daytime noise. In determining  $L_{dn}$ , it is assumed that the A-weighted levels occurring at nighttime (10 p.m. to 7 a.m.) are 10 dB louder than they really are. These penalties are applied to account for greater sensitivity to nighttime noise, and the fact that events at nighttime are often perceived to be more intrusive because the background ambient noise at night is less than the ambient noise during the day.

## Appendix B Annual Calibration Sheets



**HBK**  
HOTTINGER BRÜEL & KJÆR

The Hottinger Brüel & Kjær Calibration Laboratory  
5079 Premiere Parkway Suite 120  
Duluth, GA 30097  
Telephone: 770/209-6907  
Fax: 770/447-4933  
Web site address: <http://www.hbkworld.com>



Calibration  
Certificate  
Number  
1568.01

### CERTIFICATE OF CALIBRATION

Certificate No: CAS-571131-N6X5K5-107

Page 1 of 10

---

**CALIBRATION OF:**

Sound Level Meter:	Brüel & Kjær	2245	Serial No: 100483
Microphone:	Brüel & Kjær	4966	Serial No: 3236855
Supplied Calibrator:	Brüel & Kjær	4231	Serial No: 3025161
Software version:	1.1.2.386		

---

**CLIENT:** Harris Miller Miller & Hanson Inc.  
700 District Avenue Suite 800  
Burlington, MA 01803

---

**CALIBRATION CONDITIONS:**

Preconditioning: 4 hours at 23 ± 3 °C  
Environment conditions See actual values in Environmental Condition sections

---

**SPECIFICATIONS:**

This document certifies that the instrument as listed under "Model/Serial Number" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95%. Statements of compliance, where applicable, are based on calibration results falling within specified criteria with no reduction by the uncertainty of the measurement. The calibration of the listed instrumentation, was accomplished using a test system which conforms with the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and ISO 10012-1. For "as received" and/or "final" data, see the attached page(s). Items marked with one asterisk (\*) are not covered by the scope of the current A2LA accreditation This Certificate and attached data pages shall not be reproduced, except in full, without the written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. This instrument has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

---

**PROCEDURE:**  
Hottinger Brüel & Kjær Model 3630 Sound Level Meter Calibration System Software 7763 Version 8.3 - DB: 8.30 Test Collection 2245-4966.

---

**RESULTS:**

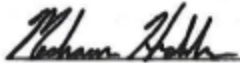
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<input type="checkbox"/> Damaged - See attached report	<input type="checkbox"/> Outside acceptance criteria	<input type="checkbox"/> Limited test - See attached details
	<input type="checkbox"/> Inoperative	
	<input type="checkbox"/> Data not taken	

---

Date of Calibration: Mar. 23, 2022

John Avitabile  
Calibration Technician

Certificate issued: Mar. 24, 2022

  
 Meshaun Hobbs  
Quality Representative



**HBK**  **HOTTINGER  
BRÜEL & KJÆR**  
The Hottinger Brüel & Kjær Inc. Calibration Laboratory  
3079 Premiere Parkway Suite 120  
Duluth, GA 30097  
Telephone: 770-209-6907  
Fax: 770-447-4033  
Web site address: <http://www.hbkworld.com>



Calibration  
Certificate  
# 1568.01

**CERTIFICATE OF CALIBRATION**

No.: CAS-571131-N6X5K5-303

Page 1 of 2

**CALIBRATION OF:**

Calibrator:	Brüel & Kjær	Type	4231	Serial No.:	3025161
Identification:	Kit #3	IEC Class:	1		

**CUSTOMER:**

Harris Miller Miller & Hanson, Inc  
700 District Ave, Ste 800  
Burlington, MA 01803

**CALIBRATION CONDITIONS:**

Environment conditions:	Air temperature:	22.5	°C
	Air pressure:	98.151	kPa
	Relative Humidity:	34.9	%RH

**SPECIFICATIONS:**

This document certifies that the acoustic calibrator as listed under "Type" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. Statements of compliance, where applicable, are based on calibration results falling within specified criteria with no reduction by the uncertainty of the measurements. The calibration of the listed transducer was accomplished using a test system which conforms to the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and guidelines of ISO 10012-1. For "as received" and "final" data, see the attached page(s). Items marked with one asterisk (\*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without written approval of the Hottinger Brüel & Kjær Inc. Calibration Laboratory-Duluth, GA. Results relate only to the items tested. The transducer has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants. The acoustic calibrator has been calibrated in accordance with the requirements as specified in IEC60942.

**PROCEDURE:**

The measurements have been performed with the assistance of Hottinger Brüel & Kjær Inc. acoustic calibrator calibration application  
Software version 2.3.4 Type 7794 using calibration procedure 4231 Complete

**RESULTS:**

<input checked="" type="checkbox"/> "As Received" Data: Within Acceptance Criteria	<input type="checkbox"/> "As Received" Data: Outside Acceptance Criteria
<input checked="" type="checkbox"/> "Final" Data : Within Acceptance Criteria	<input type="checkbox"/> "Final" Data : Outside Acceptance Criteria

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$ , providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the calibrator under calibration.

Date of Calibration: March 22, 2022

Certificate issued: March 22, 2022

Kyle Chancey

Calibration Technician

Meshawn Hobbs  
Quality Representative

## References and Endnotes

Bay West Development, Site and Architecture Plans, 2022.

City of Plano, City of Plano Expressway Corridor Environmental Health Map, 2019

City of Plano, Business Intelligence/Geographic Information departments, 2017 AADT Map, 2018.

U.S. Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Welfare with an Adequate Safety Margin, 1974.

U.S. Department of Housing and Urban Development, HUD Noise Guidebook, 2009.



# **RESIDENTIAL MARKET & SEGMENTATION ANALYSIS**

COLLIN CREEK MALL REDEVELOPMENT  
PLANO, TEXAS

MM CCM 48, LLC.  
April 12, 2019

Since 1967, RCLCO has been the “first call” for real estate developers, investors, the public sector, and non-real estate companies and organizations seeking strategic and tactical advice regarding property investment, planning, and development.

RCLCO leverages quantitative analytics and a strategic planning framework to provide end-to-end business planning and implementation solutions at an entity, portfolio, or project level. With the insights and experience gained over 50 years and thousands of projects—touching over \$5B of real estate activity each year—RCLCO brings success to all product types across the United States and around the world.

Learn more about RCLCO at [www.RCLCO.com](http://www.RCLCO.com).

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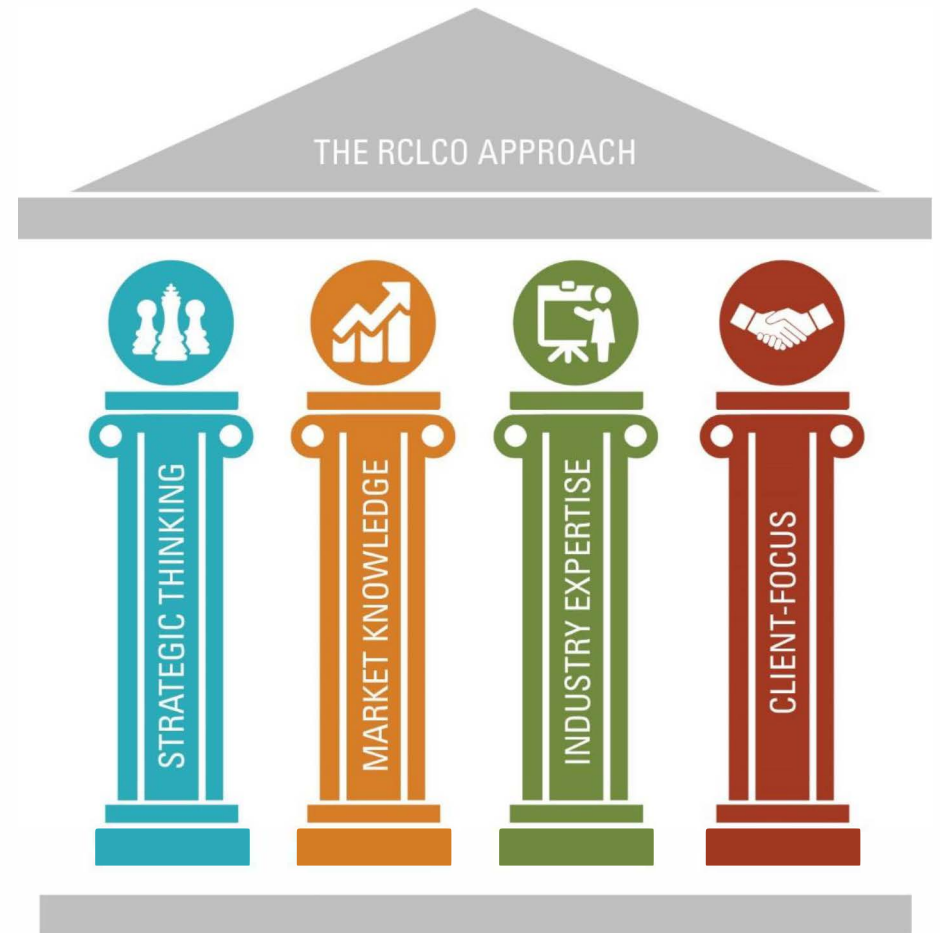
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## OBJECTIVES & KEY FINDINGS

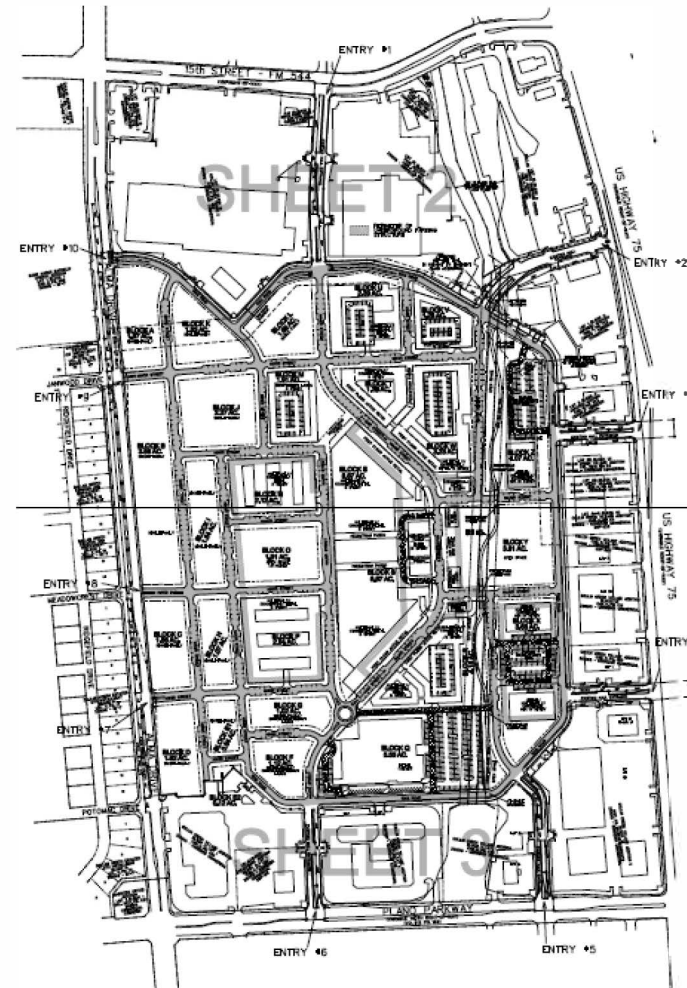
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## OBJECTIVES

The Client is currently planning the redevelopment of Collin Creek Mall, a single-use lifestyle retail center located west of Downtown Plano. The redevelopment of Collin Creek Mall presents an opportunity to develop a successful urban center offering greater density, social interaction, and commerce in a live-work-play environment. In order for this site to become a successful urban center, it must provide residential options that are appealing to and compatible with the surrounding community.

RCLCO was retained to help develop a forward-looking, market-driven strategy incorporating both for-sale and rental residential development. In order to develop a residential strategy consistent with the market opportunity at the subject site, RCLCO completed the following:

- ▶ Conduct a demographic analysis of the household base surrounding Collin Creek Mall, paying particular attention to age, income, tenure, preferred product type, and household segmentation.
- ▶ Examine the relevant competitive supply of rental housing as well as the expected pipeline of projects that may provide future competition.
- ▶ Examine the relevant competitive supply of for-sale housing development, paying careful attention to target customers, densities, and the proposed pipeline.
- ▶ Conduct a demand analysis for new housing at the MSA level and at the subject site, segmenting the market by socioeconomic characteristics and geography.
- ▶ Using available information, identify key gaps in the market that could be filled at Collin Creek Mall with relevant product types appealing to a variety of market segments.
- ▶ Conduct product profiles on unique product types that may have application to Collin Creek Mall, including niche product types that could add richness and generate interest in the community.
- ▶ Analyze all of the above and assemble residential development recommendations for Collin Creek Mall identifying target market audiences, pricing, and achievable lease-up/sales velocity.



## **UNIQUE OPPORTUNITY TO CREATE A VIBRANT, MIXED-USE DISTRICT IN AN AREA WITH MOMENTUM**

The Collin Creek Mall redevelopment presents an opportunity to create a mixed-use district that is walkable and attainably priced in one of the fastest growing counties in the country. Strong regional access, proximity to Downtown Plano, and significant employment growth in the immediate vicinity all help support higher intensity land uses and a differentiated environment not afforded by most other suburban areas.

## **RAPIDLY GROWING METROPOLITAN AREA WITH A DIVERSE RANGE OF HOUSEHOLDS & HOUSING NEEDS**

Over the past 25 years and especially this economic cycle, the Metroplex has experienced robust household and employment growth, driven by a diversified economy, business-friendly local governments, and relatively low cost of living relative to other large-scale metropolitan areas. During the past few years, the market has illustrated signs of embracing new urban trends, especially in areas surrounding economic centers, a trend likely to benefit the Collin Creek Mall redevelopment.

The Metroplex as well as eastern and central Plano (See page 21 for a map of geographies) boast a broad range of household segments from post graduates to seniors, and everyone in-between. Housing needs continuously change as households move among life stages and generational shifts occur. Historically, builders and developers have developed for only a few household segments, while demographic trends and consumer preferences indicate a need for a wider array of residential products of varying orientations and price points.

## **DESPITE STRONG DEMONSTRATED SALES FOR SMALL-LOT SFDS & TOWNHOMES, THE AREA LACKS SUFFICIENT PIPELINE CATERING TO THE GROWING DEMAND POOL**

Compared to the Metroplex and Collin County, eastern and central Plano has a relatively diversified homebuyer distribution with professionals, mature households, and families all representing significant portions of the for-sale housing market. As such, a wide range of housing is needed to realize the full potential of housing demand in the area. Recently delivered for-sale housing is primarily in the form of

small-lot, single-family detached homes and townhomes which have achieved strong success in recent years given robust demand. Though townhomes have generally averaged pricing in the mid-\$300,000s and detached homes have average in the mid-\$400,000s, the subject site's proposed mix of uses and walkability is far superior to local competition and will allow the development to offer some higher value housing.

## **APARTMENT DEVELOPMENT IN THE AREA HAS PERFORMED WELL, BUT SOME SEGMENTS REMAIN UNDERSERVED**

Significant new apartment supply was added to the submarket over the past two years, leading to increased vacancy rates and lower rental rate growth, though a relatively limited pipeline will allow the market to stabilize over the next 18 to 24 months. As the area continues to urbanize, developers continue to deliver denser rental product, though the majority of new supply has targeted traditional apartment renters, especially young professionals. Through a strong segmentation strategy, rental product at Collin Creek Mall can appeal to a broader market audience, including some families and mature renter households.

## **IN ORDER TO MAXIMIZE RESIDENTIAL ABSORPTION ON-SITE, DELIVER DIFFERENTIATED HOUSING TARGETING THE WIDE RANGE OF RENTERS AND OWNERS IN THE MARKET**

*For-Sale Product Offering:* RCLCO recommends the delivery of a wide range of for-sale product, ranging from small-lot SFD to mid-rise condos, with a potential opportunity for a high-rise condo at least 10 years after the start of the development. With recommended pricing from the mid-\$200,000s to over \$600,000 across a variety of product types, RCLCO assumes the development can achieve between 76 and 94 annual average sales, once all product types are active.

*Rental Product Offering:* Though RCLCO recommends the delivery of five unique rental product types to appeal to key and underrepresented market segments, there should also be variation and segmentation within each product category to maximize absorption potential. Based on structural demand projections, RCLCO estimates there is annual average demand for 235 multifamily rental units and 24 single-family rental units, with average rents ranging between \$1.80 to \$2.00 per square foot.

# FOR-SALE PRODUCT RECOMMENDATIONS

	LOW- TO MID-RISE CONDOMINIUMS (40 DU/AC)	STACKED THS / FLATS (20-25 DU/AC)	TOWNHOMES (13-16 DU/AC)	SMALL-LOT SINGLE-FAMILY, DETACHED (8-12 DU/AC)
				
10-YR DEMAND	125 to 175 Potential Units 12-18 Annual Absorption	110 to 130 Potential Units 11-13 Annual Absorption	310 to 340 Potential Units 31-34 Annual Absorption	225 to 275 Potential Units 22-28 Annual Absorption
OPPORTUNITY	Attract young professionals looking to purchase their first homes, as well as empty nesters/retirees looking to downsize	Price alternative to traditional townhomes, targeted towards mature Millennials & young families looking for more space	Attract mature professionals, families, & empty nesters looking for housing in an urban neighborhood, but with open space & other amenities	Appeal to households seeking an urban environment & walkability, while maintaining a relatively sizable home; Additional support from empty nesters downsizing from 3,000+ SF homes
MARKET AUDIENCE	Young Professionals Mature Professionals Empty Nesters	Young Professionals Mature Professionals Young Families	Young Families Mature Professionals Empty Nesters	Young Families Intermediate Families Mature Professionals
SITE POTENTIAL	<b>MEDIUM:</b> This product type is untested in the market, as very few condo communities have delivered outside of urban Dallas	<b>HIGH:</b> Stacked flats allow the development to increase density while still providing households with enough space	<b>HIGH:</b> Townhomes are a proven product in the market & will likely see similar success to other communities in Plano	<b>HIGH:</b> The site will draw first-time owners looking for more space than an attached product at a lower price point than traditional detached homes
PRICING	<b>\$265,000 to \$515,000</b> ~\$305/SF	<b>\$250,000 to \$390,000</b> ~\$200/SF	<b>\$340,000 to \$430,000</b> ~\$195/SF Top of Submarket; 11% Premium over Heritage Creekside	<b>\$405,000 to \$595,000</b> ~\$190/SF Competitive with Top of Submarket; 14%+ Premium over Heritage Creekside
TIMING	<b>LONG-TERM</b>	<b>MID-TERM</b>	<b>NEAR-TERM</b>	<b>NEAR-TERM</b>

*Note: There is a potential opportunity for high-rise condominiums in the later phases of development to garner significant premiums over existing housing in the local market.*

# RENTAL PRODUCT RECOMMENDATIONS

	CONVENTIONAL APARTMENTS (75-85 DU/AC)	EMPTY NESTER APARTMENTS (60-75 DU/AC)	INDEPENDENT / ASSISTED LIVING (60-75 DU/AC)	TOWNHOMES (13-18 DU/AC)
				
10-YEAR DEMAND	1,800 to 1,900 Potential Units ~Approx. 1 bldg. every 18 mos., with varying orientations	335 to 375 Potential Units ~Approx. 2 bldgs. (1 age-targeted & 1 age-restricted)	135 to 155 Potential Units ~Approx. 1 bldg. after 2024	230 to 255 Potential Units ~Approx. 2-3 unique phases
OPPORTUNITY	Attract diverse groups of households looking for rental housing in low-density urban or high-density suburban locations	Capitalize on large (and increasing) base of 55+ renters looking for high-quality apartments in lower-density urban neighborhoods	Attract a unique market segment to the site, offering a slightly more urban location than other retirement communities in Plano	Offer an alternative for people who are looking for more space than an apartment, but who are not ready to purchase a home
MARKET AUDIENCE	Young Professionals Mature Professionals Students	Empty Nesters Retirees	Retirees/Seniors	Mature Professionals Young Families Empty Nesters
SITE POTENTIAL	<b>HIGH:</b> Numerous deliveries over the past few years in Plano show the depth of market & desire to rent in the submarket	<b>MEDIUM:</b> The walkability of the site in addition to restaurants & entertainment options will likely appeal to mature renters	<b>HIGH:</b> The site is well-equipped to provide green space & retail amenities that appeal to retirees	<b>HIGH:</b> Most single-family attached product in the region is for-sale but this could be an opportunity to attract different market segments
PRICING*	<b>Avg. of \$1.85-\$2.00 /SF</b> 550-1,600 SF	<b>Avg. of \$1.85-\$2.00 /SF</b> 5%+ Larger than Conventional Apartments	<b>Pricing Dependent on Level of Care &amp; Service Offered</b>	<b>Avg. of \$1.80-\$1.95/SF</b> 10%+ Larger than Conventional Apartments
TIMING	<b>NEAR-TERM TO MID-TERM</b>	<b>MID-TERM TO LONG-TERM</b>	<b>MID-TERM TO LONG-TERM</b>	<b>NEAR-TERM</b>

*Note: Potential to garner higher rents per square foot if construction exceeds six-stories for more urban-style rental units. RCLCO believes there is likely an opportunity for concrete or steel construction in later phases to support higher value product, assuming the project becomes destination worthy and also attracts employment in Class A office*

# LAND USE MATRIX

LAND USE	ESTIMATED AC	DENSITY (DU/AC)	TOTAL NUMBER OF UNITS	NEAR-TERM	MID-TERM	LONG-TERM	PHASING DETAILS / NOTES
<b>FOR-SALE RESIDENTIAL</b>							
Small-Lot Single-Family Detached	5.9	11-12	65-70	Initial Delivery			Deliver in 2-3 phases to ensure maximum pricing potential
For-Sale Townhomes	6.9	13-15	95-105	Initial Delivery			Deliver in 3-4 phases to ensure maximum pricing potential
Stacked THs/Flats	2.9	22-25	65-75		Initial Delivery		Increase density as development matures; deliver in 2-3 phases
Low- to Mid-Rise Condominiums	1.6	38-44	60-70		Initial Delivery		Increase density as development matures; deliver in two phases
High-Rise	0.8	95-105	75-85			Initial Delivery	Reserve a small pad site for the long-term high-rise condo potential
<b>RENTAL RESIDENTIAL</b>							
Rental Townhomes	3.9	16-18	60-70	Initial Delivery			Deliver rental townhomes in conjunction with multifamily properties to ensure operational efficiencies
Independent/Assisted Living	2.8	65-75	185-205		Initial Delivery		Delivery of two projects beginning in year six of development
Empty Nester Apartments	3.2	70-75	220-245		Initial Delivery		Deliver in two phases, with the potential to deliver one age-targeted & one age-qualified community
Conventional Apartments	10.3	80-90	825-915	Initial Delivery			Deliver new project every 12-18 months at increasing density as project matures
<b>TOTAL</b>	<b>38.2 Acres</b>	<b>44-48 DU/AC</b>	<b>1,680-1,840 Units</b>				

## **SITE ANALYSIS & SOCIOECONOMIC TRENDS**

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## STRENGTHS

- ▶ **Access to Employment:** The Telecom Corridor has an established reputation as a central office hub with a critical mass of existing employment. Additionally, the site is proximate to major highways connecting the site to other key regional hubs in Dallas and is proximate to DART's Red Line which provides easy access to Downtown Dallas.
- ▶ **Location:** Collin Creek Mall is located in an excellent position, proximate to both Highway 75 (Central Expressway) and the President George Bush Turnpike (PGBT), making the site easily accessible from all directions. Additionally, the site's location near Downtown Plano gives households easy access to retail and other urban amenities that the neighborhood has to offer.
- ▶ **Access to Recreation:** In addition to the urban amenities and retail offered proximate to the site, the cities of Plano and Richardson both have extensive trail and park plans, with proposed trails linking Collin Creek Mall to much of North Dallas and numerous parks and nature areas.
- ▶ **Momentum:** Both Heritage Creekside and CityLine have delivered a variety of rental and for-sale units over the past two years, finding great success both in terms of pricing and lease-up/sales pace. Collin Creek Mall can leverage the momentum in the area to attract households looking to move into a vibrant, urbanizing submarket.

## CHALLENGES

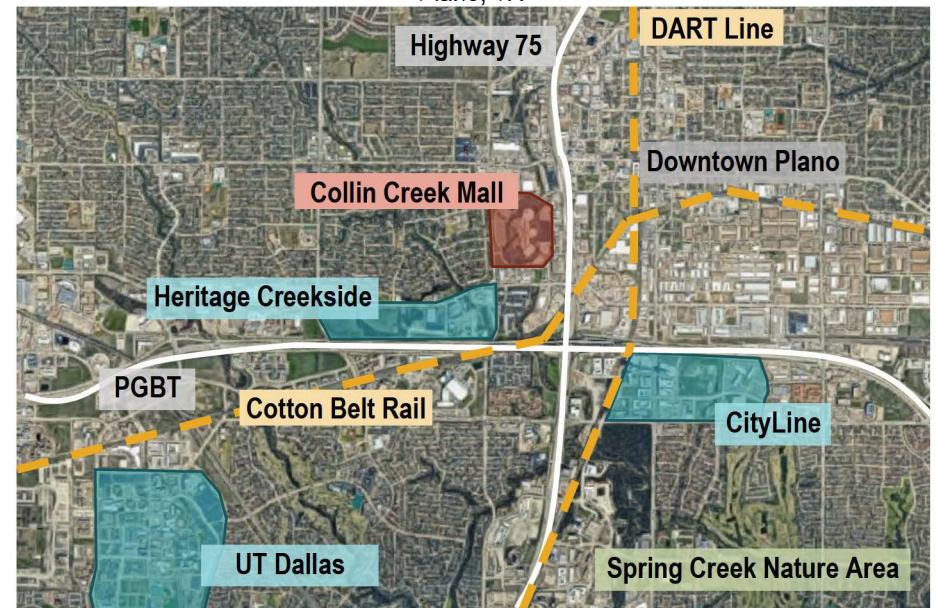
- ▶ **Limited East-West Access:** Although the site is located directly across of the Central Expressway from Downtown Plano, there is limited permeability across the highway, isolating the mall from Downtown Plano and CityLine.
- ▶ **Historical Pull to DNT:** Despite a few major developments along the Central Expressway, much of the high-value, mixed-use development has occurred along the Dallas North Tollway, especially at Legacy/Legacy West and in Frisco. Utilizing recent momentum along Hwy. 75; the development of a strong master plan that integrates residential, commercial, and parkland; positioning land uses at a slight price alternative to DNT; and enhanced connectivity will help differentiate the Collin Creek Mall redevelopment.

## OPPORTUNITIES

- ▶ **Walkability:** Once completed, the site has the potential to create a unique, pedestrian-friendly environment unlike others in North Dallas. Likely, households will choose this location over other, likely cheaper, options due to the walkability and access to retail, employment, and services that the site will provide.
- ▶ **Improved Access to Downtown Plano:** Providing easier access over the Central Expressway in the form of pedestrian bridges or a circulator would help to connect Collin Creek Mall to Downtown Plano. These connections would create a more cohesive submarket and serve as an important driver of demand in the neighborhood.
- ▶ **Differentiation:** The delivery of a unique urban park or Crystal Lagoon will differentiate the development as a truly unique environment, appealing to a wide variety of market segments.

### Subject Area Overview

Plano, TX



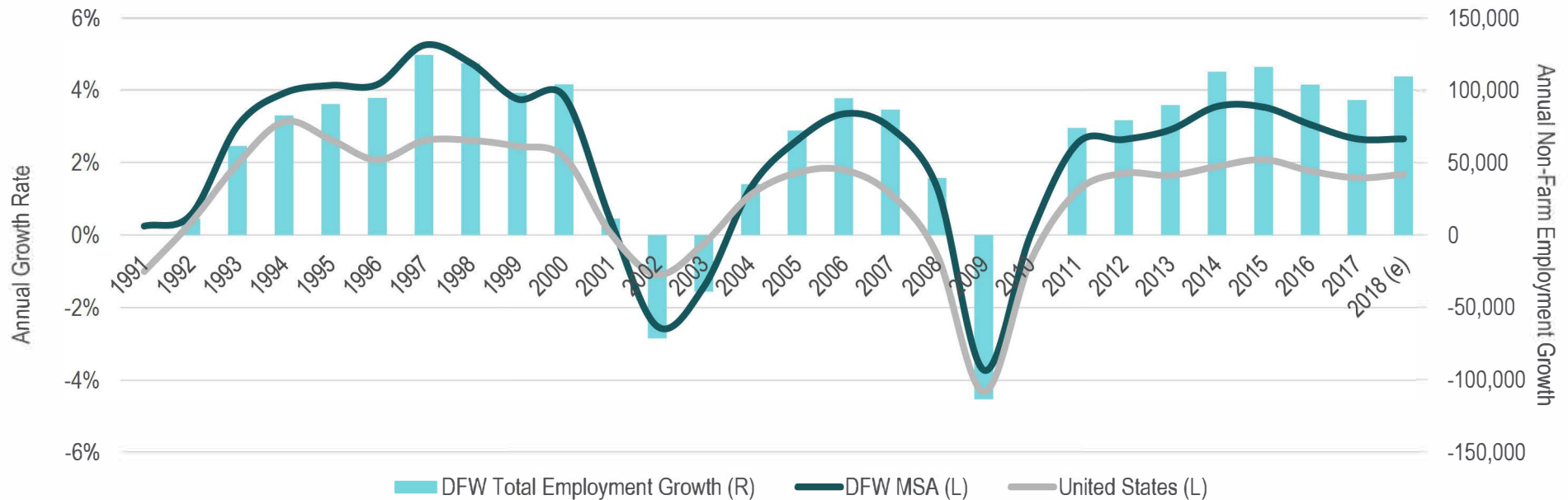
# EMPLOYMENT GROWTH

## OVER THE PAST 25 YEARS, THE DALLAS-FORT WORTH MSA HAS SEEN ROBUST EMPLOYMENT GROWTH, GENERALLY ABOVE THE UNITED STATES AS A WHOLE

- ▶ With the exception of two years following the dot-com bubble, employment growth rates across the Metroplex have exceeded that of the nation, leading to one of the fastest growing metropolitan areas in the country. Following the Great Recession, Dallas-Fort Worth made a relatively quick recovery given its diversified economy and aggressive economic development initiatives. While it is likely that the economy will experience at least one recession during the redevelopment of Collin Creek Mall, historical performance and future prospects bode well for rapid recoveries and long-term vitality.
- ▶ The Metroplex has continued to attract major corporate headquarters from across the United States due to its relative affordability and pro-business environment. As of 2018, the Dallas-Fort Worth MSA contained 22 Fortune 500 headquarters the third most headquarters in a metropolitan area behind only New York and Chicago. Since 2011, Dallas has seen average annual job growth of approximately 100,000 employees, representing an annual growth rate of 1.7%. As employers and employees continue to move into the market, Dallas should expect to continue to see long-term growth positively impacting the real estate market.

### Employment Growth

Dallas-Fort Worth-Arlington TX, MSA and United States; 1991-2018



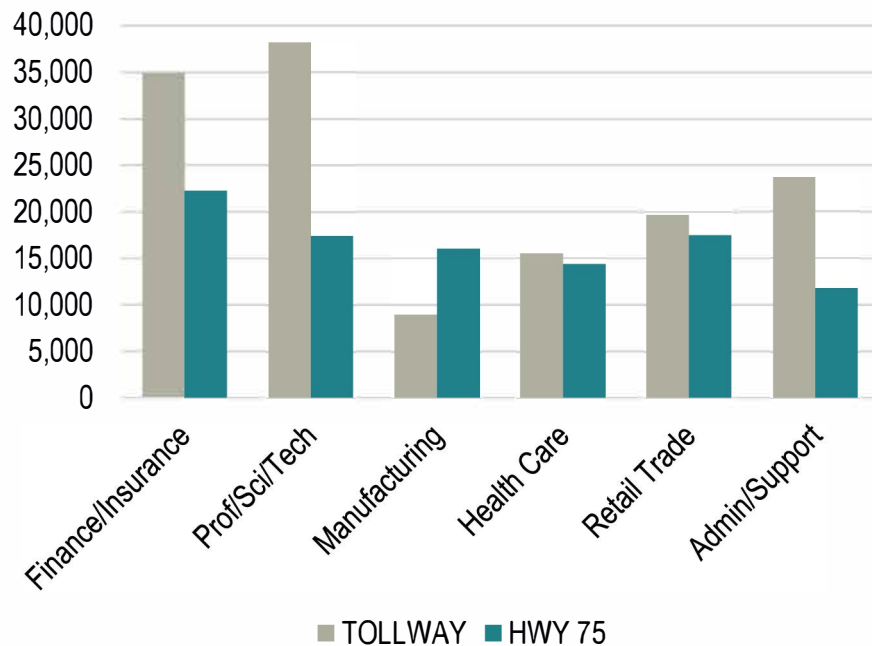
Source: Moody's

# CORRIDOR EMPLOYMENT COMPARISON

## MORE REGIONAL HEADQUARTERS TEND TO CONCENTRATE ALONG HIGHWAY 75 GIVEN THE AREA'S MORE ATTAINABLE PRICE POINTS AND MULTIMODAL ACCESS

The Dallas North Tollway and Highway 75 are both major regional office corridors with a combined total employment exceeding 400,000 employees. The corridors have three of their five top industries in common: Professional Services, Finance/Insurance, and Retail. While much of the employment in these corridors falls into the same industries, the tenant and office types differ. With its Legacy and Legacy West Developments, the DNT has a heavy concentration of major corporate offices, including headquarters of several Fortune 500 companies. Highway 75, however, has fewer large corporations and more regional/division hubs than national headquarters.

**Top Industry Employment by Corridor**  
North Dallas; 2016



**Corridor Employment Profiles**  
North Dallas; 2016

	DNT	HWY 75
<b>Total Employees, 2016</b>	226,963	163,755
<b>Percent Growth, 2010-2016</b>	23%	16%
<b>Fortune 1000 Companies</b>	5 (3 Fortune 500)	2 (1 Fortune 500)

**Major Employers**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Capital One</li> <li>• Bank of America</li> <li>• HP Enterprise</li> <li>• Ericsson</li> <li>• Toyota</li> <li>• Frito-Lay</li> <li>• JCPenny</li> <li>• NTT DATA</li> <li>• Pepsi</li> <li>• Dr. Pepper/Snapple</li> </ul> | <ul style="list-style-type: none"> <li>• State Farm</li> <li>• AT&amp;T</li> <li>• Blue Cross Blue Shield</li> <li>• RealPage</li> <li>• Geico</li> <li>• Raytheon</li> <li>• Fujitsu</li> <li>• Cisco</li> <li>• Fossil</li> </ul> |
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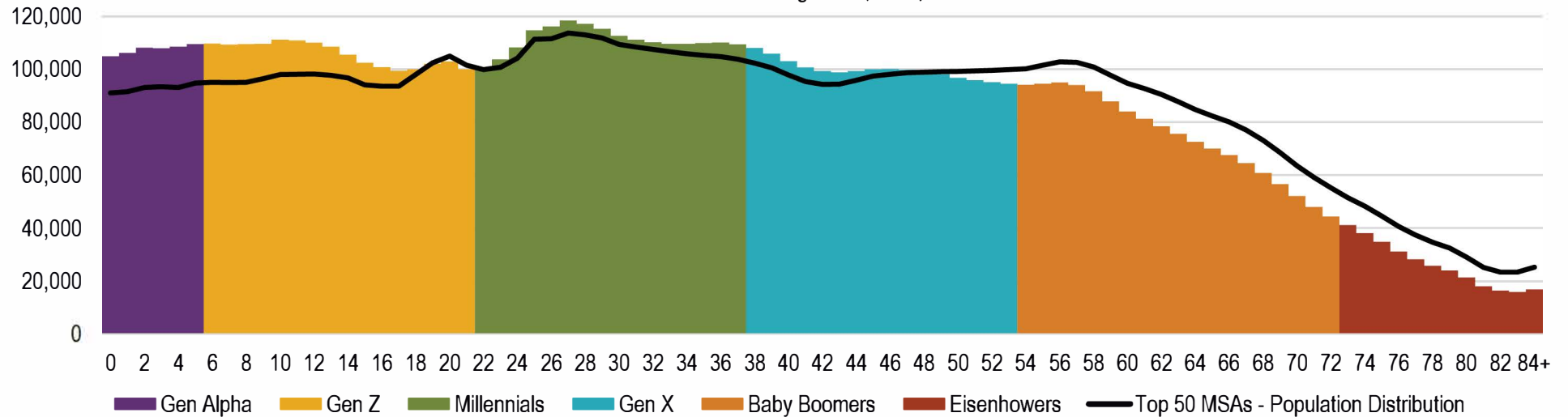
Source: U.S. Census Bureau

# GENERATIONAL DISTRIBUTION

## DUE TO STRONG ECONOMIC CONDITIONS AND HEALTHY MIGRATION INTO THE MSA, DALLAS HAS AN OUTSIZED NUMBER OF RESIDENTS UNDER THE AGE OF 45

As Dallas has attracted Millennials and Gen X from throughout the country, these segments have had children and stayed in the market. Due to this, Dallas has an outsized number of children and professionals under the age of 45 which help drive the economy and housing market. Moreover, over the next decade, these generations will continue to drive the need for a diverse offering of housing options, ranging from first-time homebuyers to downsizing empty nesters.

**Age Distribution of Population**  
Dallas-Fort Worth-Arlington TX, MSA; 2018



Year	Student Housing	Rental Housing	Rent as Couple / Buy Condo	Young Family Own	Mature Family Own	Empty Nester Downsize Own	Buy/Rent Retirement Home
2015	Millennials	Millennials	Millennials	Gen X	Baby Boomers	Baby Boomers	Eisenhowers
				Millennials	Gen X		Baby Boomers
2020	Gen Z	Millennials	Millennials	Millennials	Gen X	Baby Boomers	Eisenhowers
		Gen Z	Gen X	Baby Boomers			
2025	Gen Z	Millennials	Millennials	Millennials	Gen X	Gen X	Baby Boomers
		Gen Z	Gen Z	Millennials	Baby Boomers		
2030	Gen Z	Gen Z	Gen Z	Millennials	Gen X	Gen X	Gen X
	Gen Alpha				Millennials	Baby Boomers	Baby Boomers

Source: Esri

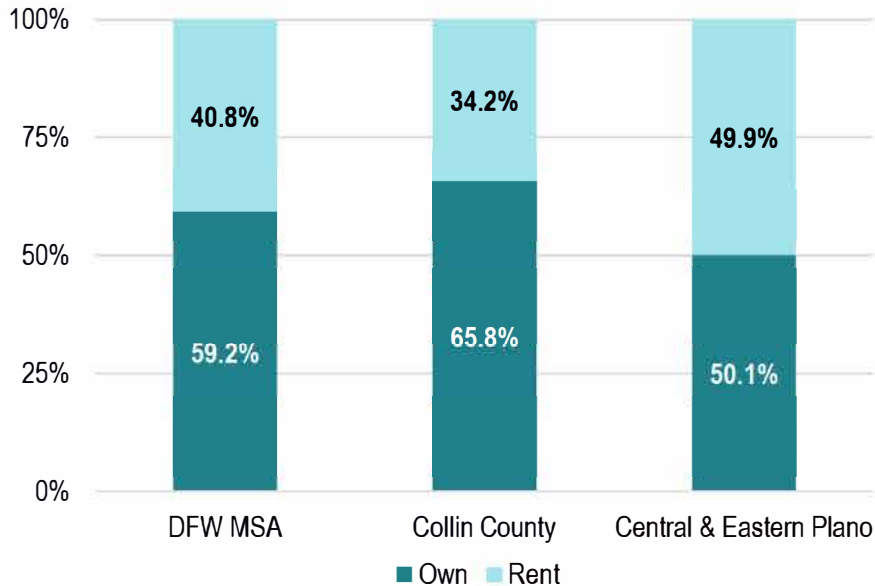
# KEY DEMOGRAPHIC TRENDS

## ALTHOUGH COLLIN COUNTY HAS AN OUTSIZED SHARE OF OWNER HOUSEHOLDS, CENTRAL AND EASTERN PLANO HAVE AN ALMOST EVEN SPLIT BETWEEN RENTER AND OWNER HOUSEHOLDS, AS WELL AS SMALLER HOUSEHOLD SIZES

- ▶ Owner households represent 59% of all households throughout the Dallas-Fort Worth MSA; however, these households represent an even greater share in Collin County, an area offering high paying jobs, strong schools, and key services. Within Central and Eastern Plano (C/E Plano), there is an even split between renter and owner households, representing an opportunity to capitalize on both segments of the market. As household growth has remained strong throughout the MSA and Collin County, the subject site is likely to encounter strong demand for new rental and owner housing units over the next 10 to 15 years.
- ▶ Central and eastern Plano have significantly smaller household sizes than Collin County and the Dallas MSA as a whole, due in part to the large presence of professionals and empty nesters, as well as the high number of rental units in the market. Additionally, C/E Plano has a smaller share of family units than Collin County and the MSA as a whole, leading to smaller household sizes.

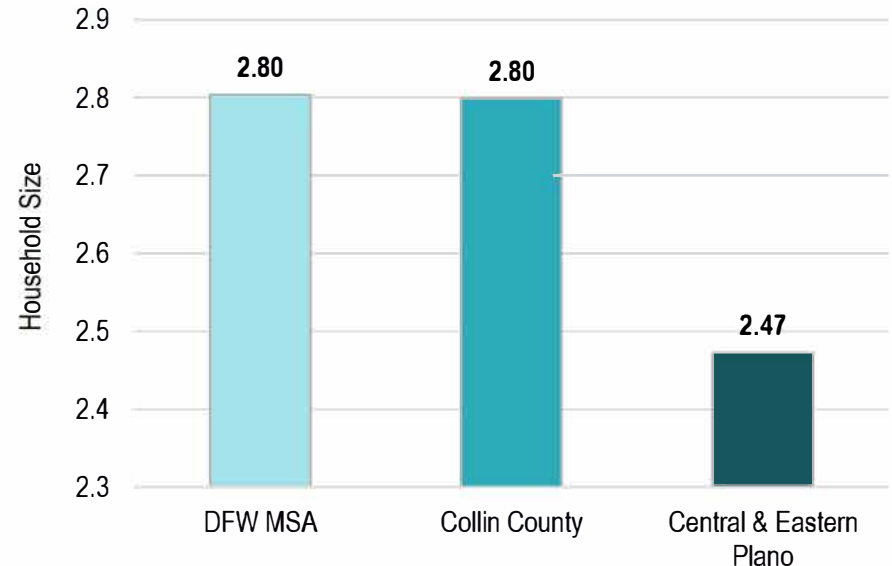
**Housing Tenure, 2018;**

Central & Eastern Plano, Collin County, Dallas-Fort Worth, TX MSA



**Household Size, 2018;**

Central & Eastern Plano, Collin County, Dallas-Fort Worth, TX MSA



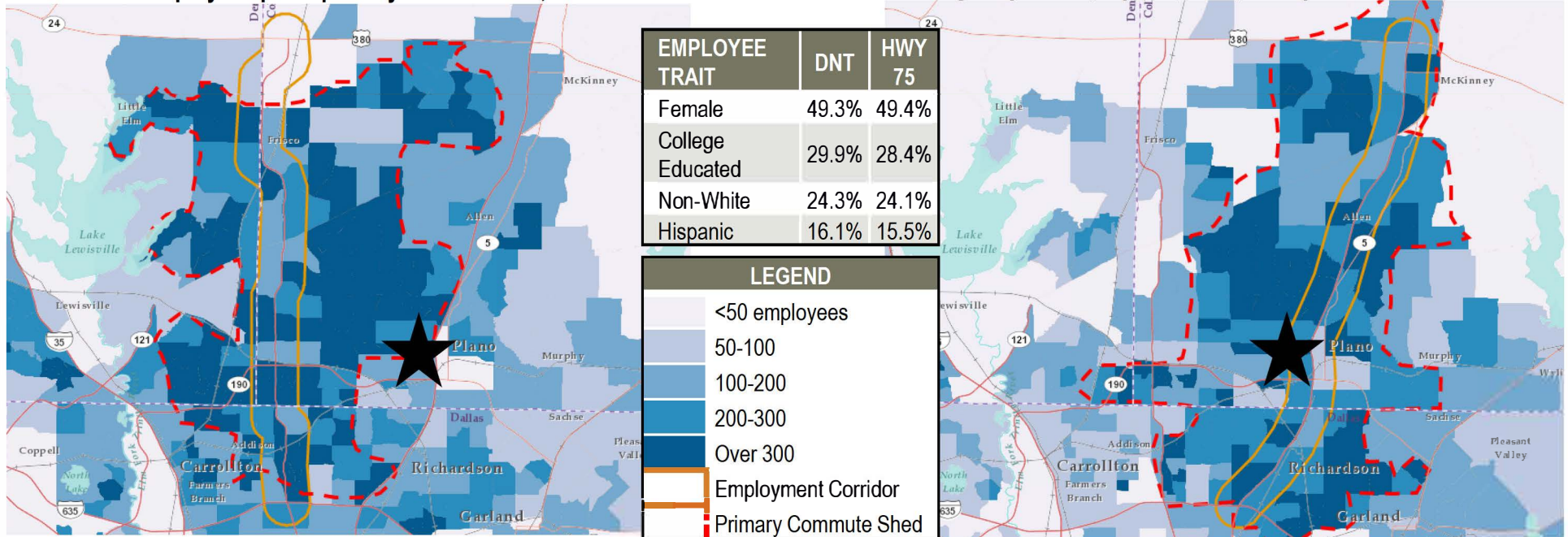
Source: RCLCO National Consumer Preference Survey – 2018

## THE COLLIN CREEK MALL REDEVELOPMENT WILL BENEFIT FROM ITS ACCESS TO HOUSEHOLDS ACROSS NORTH DALLAS

- ▶ Despite some differences in industries and employer types, the workforces of each corridor are markedly similar in their employee education, ethnic diversity, and gender balance
- ▶ The primary commute shed is roughly outlined (**RED**) for each. It is notable that most DNT employees live west of Highway 75, while most Highway 75 employees live east of the DNT; neighborhoods between the two corridors are popular among employees of both corridors. Given Collin Creek Mall's location at the intersection of Highway 75 and PGBT, the site will likely be able to draw from a larger area given its highly accessible location from multiple direction.
- ▶ The Highway 75 corridor has limited, new mixed-use districts relative to the DNT, which has seen significant high-density development. Despite recent development along Highway 75, single-family detached homes remain 50% of all housing units, and the housing stock is significantly older than that along the DNT, with 37% of all housing units built before 1980, compared to 18% for DNT.

DNT Employees per Sq. Mi. by Census Tract; 2014

Highway 75 Employees per Sq. Mi. by Census Tract; 2014



Source: U.S. Census Bureau



## NATIONAL HOUSING PREFERENCES

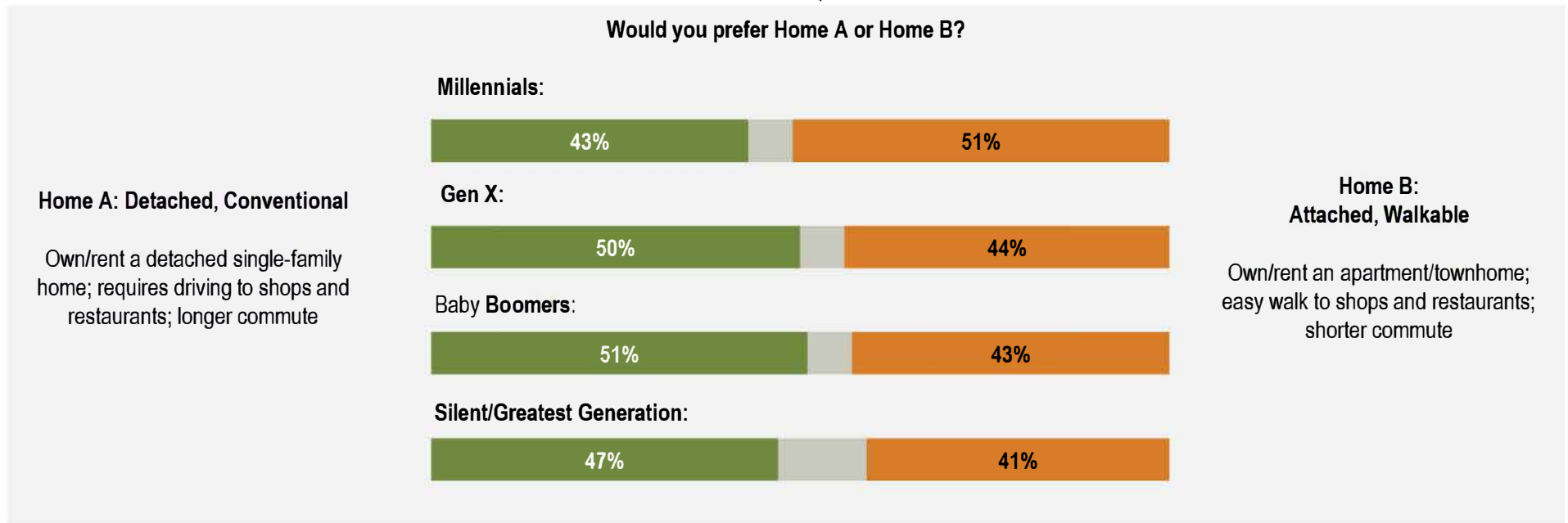
## NEW HOUSING DEVELOPMENT HAS HISTORICALLY FOCUSED ON SINGLE LAND USE ENVIRONMENTS, BUT YOUNGER GENERATIONS ENTERING THE HOUSING MARKET ARE MORE WILLING TO SACRIFICE SPACE FOR A MIXED-USE ENVIRONMENT

Younger generations are increasingly interested in living in walkable environments and are willing to sacrifice the space associated with detached product in order to live in a mixed-use neighborhood. This research is supported by RCLCO's National Consumer Preference Survey as well as research conducted by the National Association of Realtors, which shows that younger households would prefer to live in a neighborhood with shops, walkability, and easy access to employment rather than a suburban single-use neighborhood. Despite the research, developers have historically focused on single land use environments, providing large, single-family detached homes in suburban settings. As the subject site is poised to deliver a variety of residential product types and a mix of commercial land uses, it will likely appeal to these owners and households wishing to live in a more urban environment than what is currently offered in most areas of Collin County. Millennials are likely the primary target market when providing mixed-use product; however, there is a large portion of households from all generations who would prefer the attached, walkable home. The Collin Creek Mall redevelopment presents one of the strongest opportunities in Collin County and along the Central Expressway to provide a live-work-play environment for a range of household segments.

### Housing Preference by Generation

United States; 2015

Would you prefer Home A or Home B?



Source: National Association of Realtors, 2015

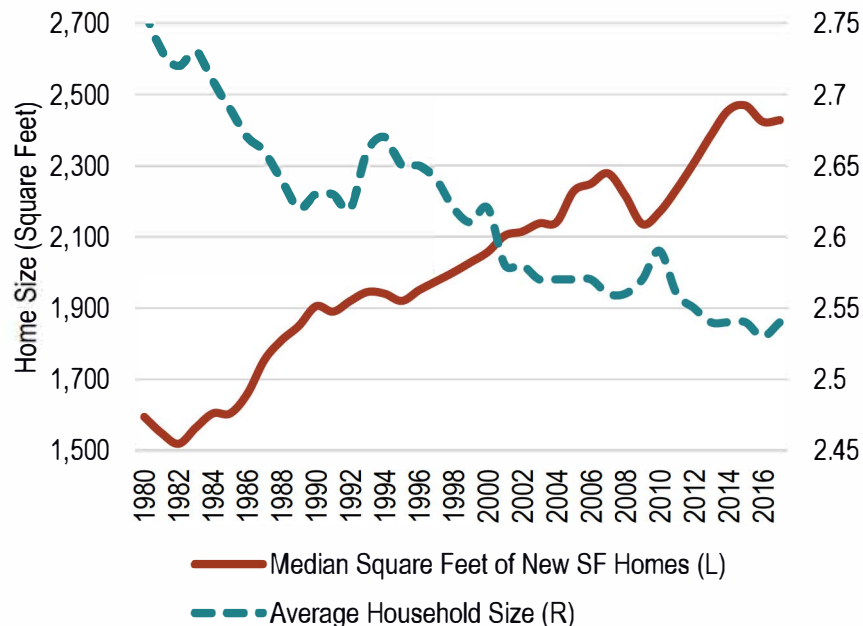


# HOUSEHOLD AND HOME SIZE MISMATCH

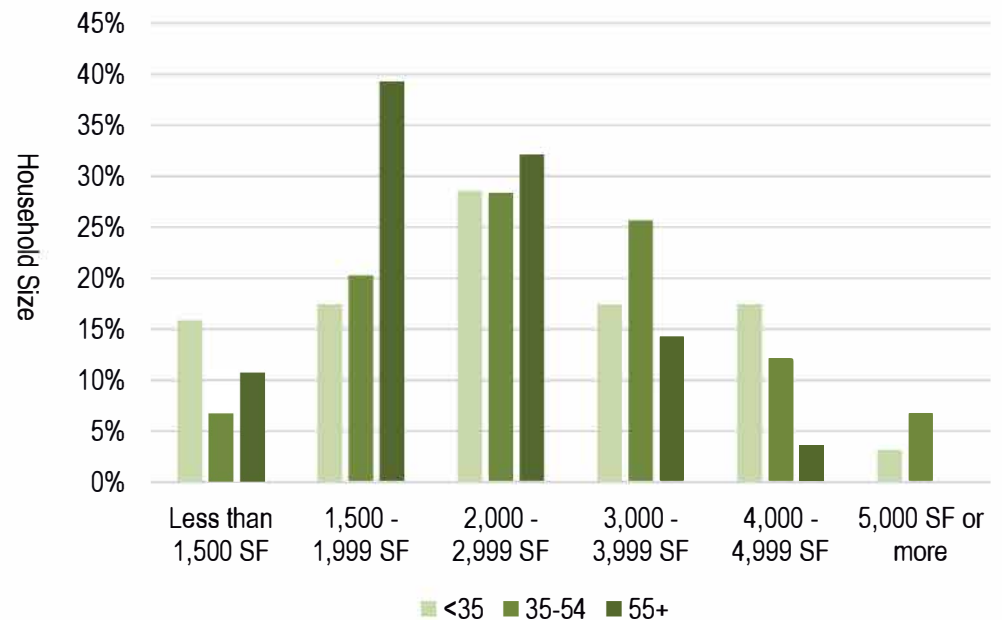
## DEVELOPERS THROUGHOUT THE UNITED STATES HAVE CONTINUED TO INCREASE THE OVERALL SQUARE FOOTAGE OF NEW, SINGLE-FAMILY HOMES DESPITE A DECLINE IN THE AVERAGE HOUSEHOLD SIZE AND STATED CONSUMER PREFERENCES

- ▶ As the average age of first marriage has continued to rise throughout the United States and families delay having children, the average size of households has continued to decline. Despite this decline in household size, builders have continued to increase the total square footage of new single-family homes. As housing becomes increasingly unaffordable, many households are looking to smaller, less expensive product types that fit their needs better than traditional, large lot single-family product. Furthermore, Millennials are often seeking smaller, first homes, while empty nesters look to downsize into lower maintenance housing.
- ▶ In addition to demographic shifts towards smaller households, RCLCO's national and regional consumer research indicates households have a higher preference for smaller homes and attached product than what is currently being built in the market. The chart below illustrates recent and prospective new home buyers' preference for home size by age of the householder. The vast majority of households indicate a preference for homes below 3,000 square feet, especially Millennials and Baby Boomers.
- ▶ The Collin Creek Mall redevelopment creates a unique opportunity to offer a range of housing types, as well as smaller, more efficient floorplans that could increase density as well as capture more segments of the market. Many young households are willing to trade size for affordability, and attracting these households to the site will be integral for realizing the development's full absorption potential.

**Completed New Single-Family Homes and Average Household Size**  
United States, 1980-2017



**Stated Home Size Preference by Household Age**  
Dallas-Fort Worth, TX MSA, 2018

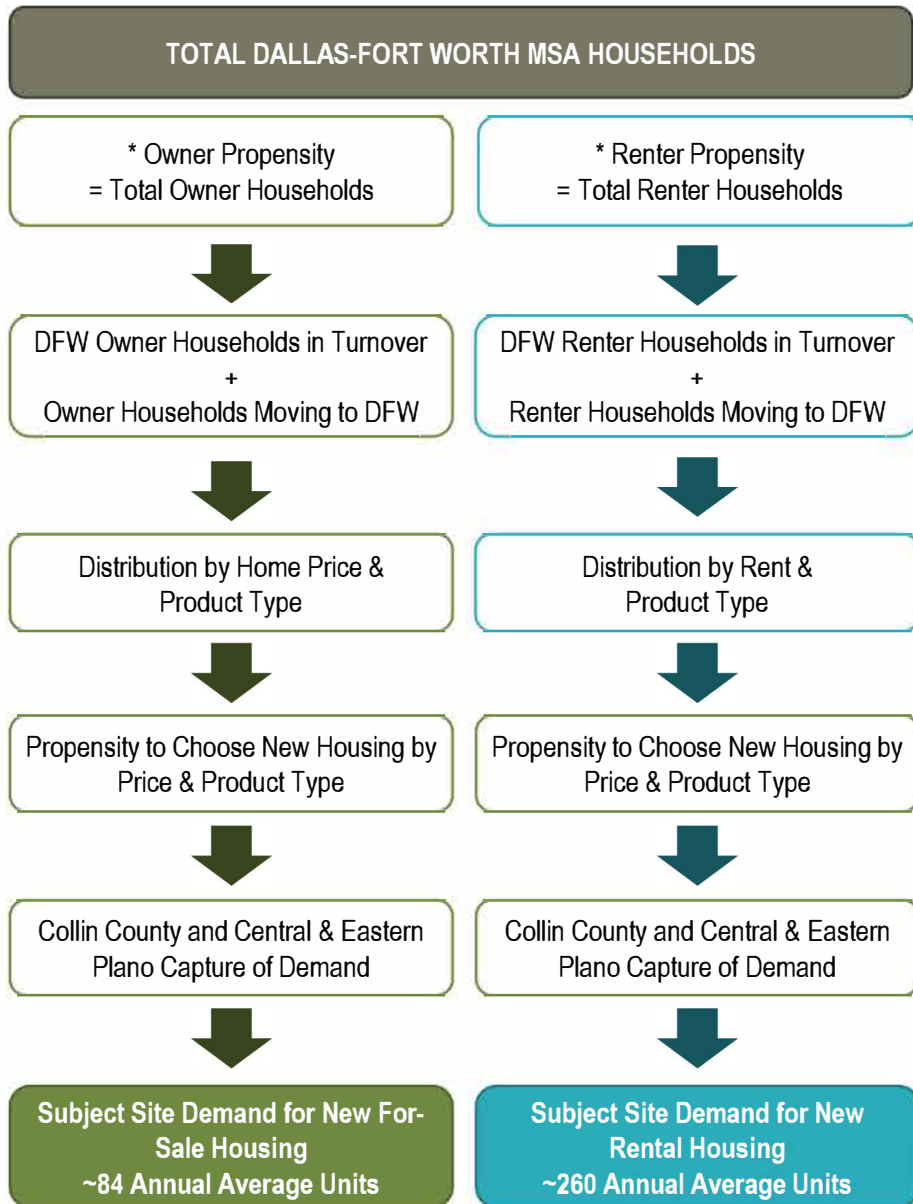


Source: U.S. Census Bureau; RCLCO National Consumer Preference Survey – 2018

## SEGMENTATION ANALYSIS

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# HOUSING DEMAND



RCLCO utilized Moody's Analytics and ownership propensities, product propensities, and turnover rates from US Census Bureau's 2015-2017 American Community Survey, as well as proprietary consumer research to estimate total for-sale and rental housing demand over the next 10 years. Based on household projections, current housing propensities, and demographic shifts, RCLCO projects annual average housing demand for a range of household segments and product types.

- ▶ Based on the methodology outlined above, RCLCO projects average annual structural demand of 394 to 473 for-sale housing units. Land availability and housing affordability are the two key constraints for new for-sale housing, though the introduction of higher density for-sale housing at Collin Creek Mall, if positioned appropriately, could help ease some of these concerns. After factoring in the site's relative competitiveness, ramp up period, and build-out timeline, RCLCO estimates an average absorption of 84 new for-sale housing units, annually.
- ▶ There is also a strong market for rental housing as the area continues to densify and urbanize with robust household and employment growth. Evaluating structural demand for all types of rental housing across central and eastern Plano, RCLCO estimates between 2,150 and 2,350 annual new rental units. Based on the competitive pipeline, land availability, and the proposed segmentation strategy, RCLCO estimates an average annual absorption of 260 new rental units.
- ▶ In order to achieve the stated absorption potential for rental and for-sale housing, it is crucial that a thoughtful and strategic segmentation strategy is implemented for the Collin Creek Mall redevelopment. Segmenting the market by household type, price point, and product orientation are critical success factors required to maximizing absorption potential and enables a developer to deliver multiple projects simultaneously while reducing internal competition.

Source: Moody's Analytics; RCLCO Consumer Research; U.S. Census Bureau's American Community Survey

# SEGMENTATION ANALYSIS

RCLCO analyzed the active buyer segments within the Dallas-Fort Worth-Arlington, TX MSA, Collin County, and a smaller geography consisting of two census Public-Use Microdata Areas (PUMAs). The geography consisting of two PUMAs was chosen as it best represents the segmentation and diversity of households currently living near the subject site. Due to the scale of the project at Collin Creek Mall, the subject site is likely to attract both owners and renters from across the DFW MSA and Collin County; however, the primary market segments renting or buying at the site are best reflected by the Central and Eastern Plano PUMAs.

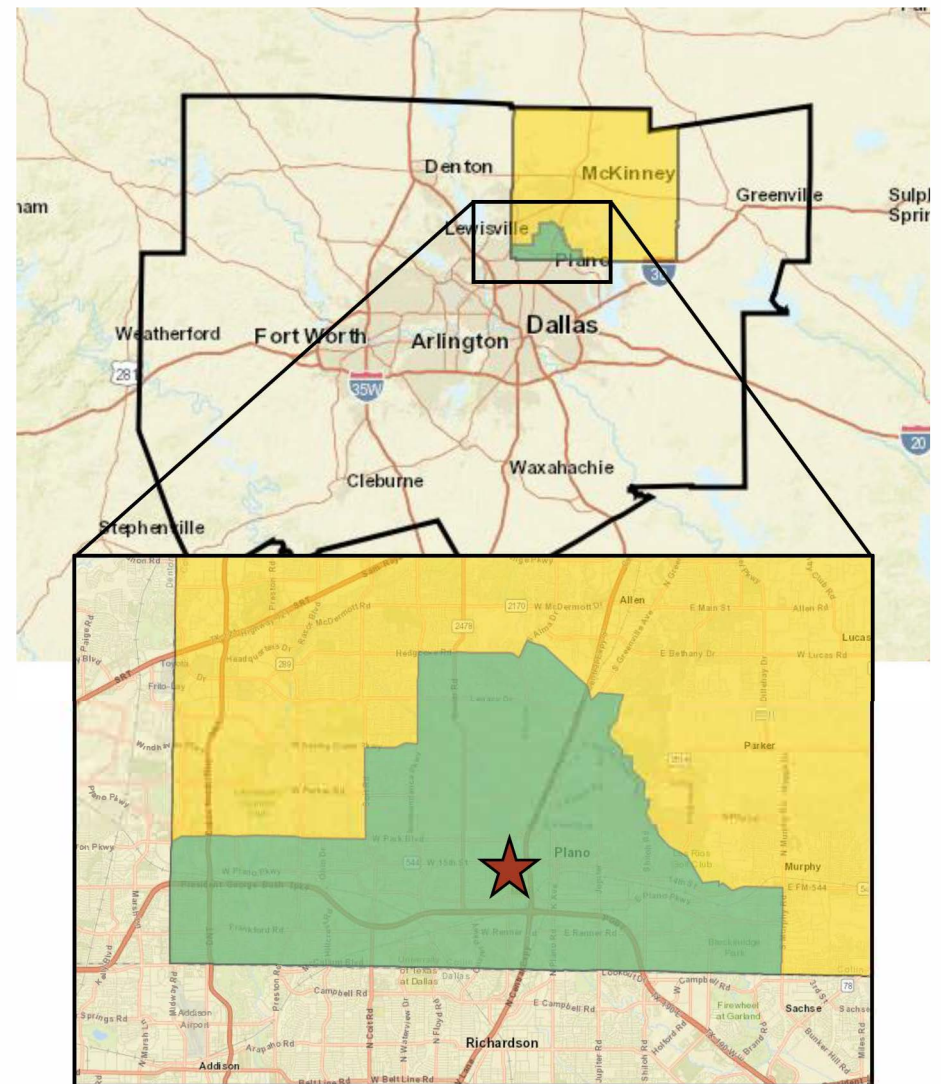
The segmentation analysis uses Public-Use Microdata Samples of the American Community Survey in order to classify recent homebuyers into a variety of segments based on a set of custom cross-tabulations outlined in the table below. Each of these market segments have distinct housing preferences that the subject site can potentially address. Additionally, RCLCO layers in a proprietary statistical demand model to estimate long-term demand by price point and segment. The findings of the segmentation analysis are described on the following pages.

## Definition of Household Segments

Segment	Age of Householder		Age of Oldest Child		Age of Youngest Child	
	Min	Max	Min	Max	Min	Max
<b>Childless Segments</b>						
Young Prof.	18	34				
Middle-Aged Prof.	35	44				
Mature Prof.	45	54				
Empty Nester	55	64				
Retiree/Senior	65	+				
<b>Family Segments</b>						
Young Family			0	4	N/A	N/A
Intermediate Family			5	17	0	12
Mature Family			N/A	N/A	13	N/A
Family w/ Mature Children			N/A	N/A	18	N/A

## Map of Segmentation Areas

Dallas-Fort Worth-Arlington MSA, Collin County, Central and Eastern Plano PUMAs

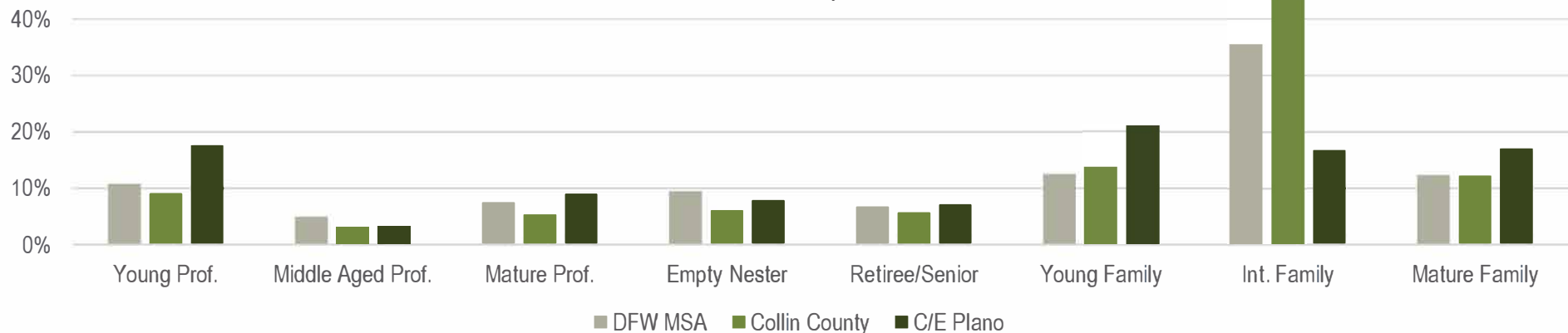


Source: Esri, RCLCO

# OWNER SEGMENTATION

SEGMENT	DESCRIPTION/OVERVIEW	MOBILITY	CAPTURE	C/E PLANO ANN. DEMAND	REL. TO CCM	PRODUCT PREF.
<b>Young &amp; Middle Aged Profs.</b>	Childless professionals tend to have higher turnover and mobility rates as they purchase a first or second home. These households often seek housing <u>proximate to employment &amp; entertainment</u> , as well as homes with <u>fewer bedrooms &amp; more space for entertaining</u> .	High turnover rates	<b>Outsized Capture</b> C/E Plano: 21% Collin County: 12%	<b>83-99</b>	<b>High</b>	TH, 2-over-2, Condo
<b>Mature Profs.</b>	Often classified as "never nesters", these households are primarily <u>focused on high quality housing in close proximity to employment &amp; services</u> . Mature professionals often purchase some of the highest priced homes per square foot indicating their desire for quality.	Even share of active & overall owners	<b>Outsized Capture</b> C/E Plano: 9% Collin County: 5%	<b>36-43</b>	<b>High</b>	SFD, TH, 2-over-2, Condo
<b>Empty Nester+</b>	Less likely to move with many choosing to age in place; however, these segments represent the largest share of existing owner households. Introduction of compelling product in an appealing environment could entice these households to <u>downsize into new, low maintenance housing</u> .	Low turnover rates	<b>Outsized Capture</b> C/E Plano: 15% Collin County: 12%	<b>60-72</b>	<b>High</b>	SFD, TH, Condo
<b>Young Families</b>	Though representing a small share of all owner households, these households are highly active as they seek larger homes for growing families. <u>Prioritize homes that maximize value</u> .	High turnover rates	<b>Outsized Capture</b> C/E Plano: 21% Collin County: 14%	<b>83-99</b>	<b>Low/Medium</b>	SFD, TH
<b>Intermediate Families</b>	Represent one of the largest home buying segments, often rolling home equity from a 1st/2nd home into <u>larger &amp; more expensive new home</u> . With older children & larger families, many of these households <u>prioritize space</u> , which limits the appeal of higher density residential product.	High turnover rates	<b>Under Representation</b> C/E Plano: 17% Collin County: 45%	<b>66-79</b>	<b>Low</b>	SFD
<b>Mature Families</b>	Due to the presence of older children these households are less likely to move, unless staying within the same school attendance zones. Some mature families with only one child at home may consider <u>downsizing</u> in preparation for becoming empty nesters.	Low turnover rates	<b>Outsized Capture</b> C/E Plano: 17% Collin County: 12%	<b>97-81</b>	<b>Low/Medium</b>	SFD

**Distribution of Active Home Buyers Affording Homes above \$300,000**  
Central & Eastern Plano, Collin County, Dallas-Fort Worth, TX MSA

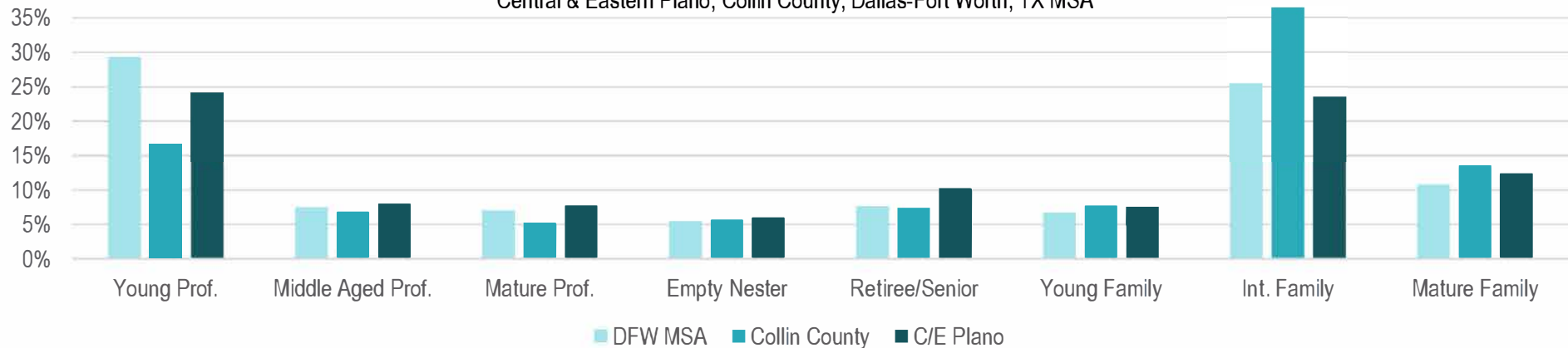


Source: U.S. Census Bureau's American Community Survey

# RENTER SEGMENTATION

SEGMENT	DESCRIPTION/OVERVIEW	MOBILITY	CAPTURE	C/E PLANO ANN. DEMAND	REL. TO CCM	PRODUCT PREF.
<b>Young &amp; Middle Aged Profs.</b>	Childless professionals tend to have very high turnover rates, seeking out some of the newest & nicest communities, depending on income level. These households often seek housing in urban locations proximate to employment & entertainment, expecting an array of amenities.	High turnover rates	<b>Outsized Capture</b> C/E Plano: 32% Collin County: 24%	<b>706-759</b>	High	Apt., TH
<b>Mature Profs.</b>	These households are primarily focused on exclusivity and quality, as well as proximity to both employment & services. These households often expect the highest-quality finishes & practical amenities geared towards mature renters.	Even share of active & overall renters	<b>Outsized Capture</b> C/E Plano: 8% Collin County: 5%	<b>171-184</b>	High	Apt., TH
<b>Empty Nester+</b>	These households expect large floorplans, high-quality finishes, & a sense of community designed around programming & amenities. Often, these renter households move back into neighborhoods with superior access to retail and entertainment.	Low turnover rates	<b>Outsized Capture</b> C/E Plano: 16% Collin County: 13%	<b>357-384</b>	High	Apt., TH, IL, AL
<b>Young Families</b>	Young families are often looking for an intermediate location to rent prior to purchasing their first home. These households are often looking for more space to take care of children and enhanced privacy.	High turnover rates	<b>Equal Capture</b> C/E Plano: 8% Collin County: 8%	<b>166-178</b>	Low/Medium	SFD, TH, Apt.
<b>Intermediate Families</b>	Intermediate families often prioritize space over features and amenities, leading them to primarily rent single-family product. These households prefer housing in secure, stable locations causing some households to move in order to access high-quality schools.	Even share of active & overall renter	<b>Under Representation</b> C/E Plano: 24% Collin County: 36%	<b>515-554</b>	Low	SFD, TH
<b>Mature Families</b>	Due to the presence of older children these households are less likely to move, unless staying within the same school attendance zones. Some mature families with only one child at home may consider downsizing in preparation of becoming empty nesters.	Low mobility & turnover rates	<b>Under Representation</b> C/E Plano: 12% Collin County: 14%	<b>273-293</b>	Low	SFD, TH

**Distribution of Active Renters Affording Units above \$1,250 per Month**  
Central & Eastern Plano, Collin County, Dallas-Fort Worth, TX MSA



Source: U.S. Census Bureau's American Community Survey

## FOR-SALE MARKET OVERVIEW

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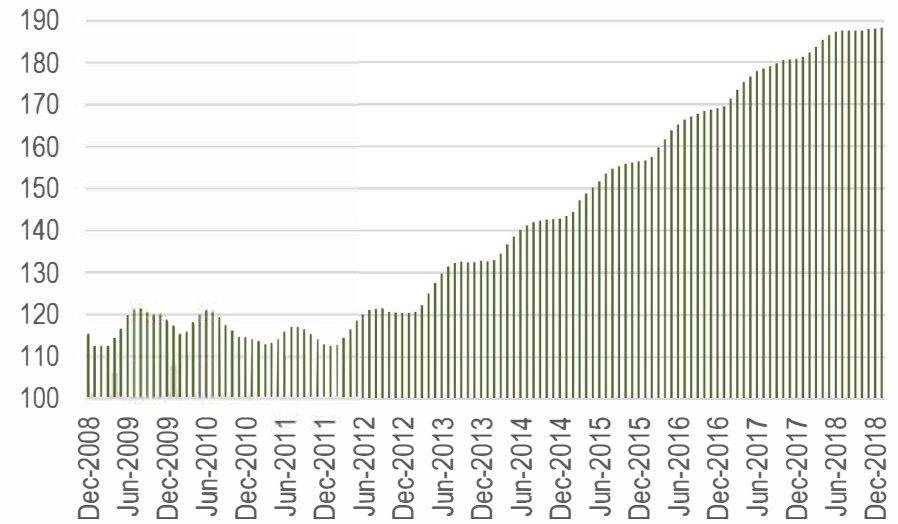
# FOR-SALE MARKET TRENDS

Strong employment and household growth continue to drive demand for new, for-sale residential development throughout the Dallas-Fort Worth MSA, though new housing activity has moderated in recent years. New housing starts increased by 4% in 2018 compared to the annual growth rate of 10% between 2009 and 2017.

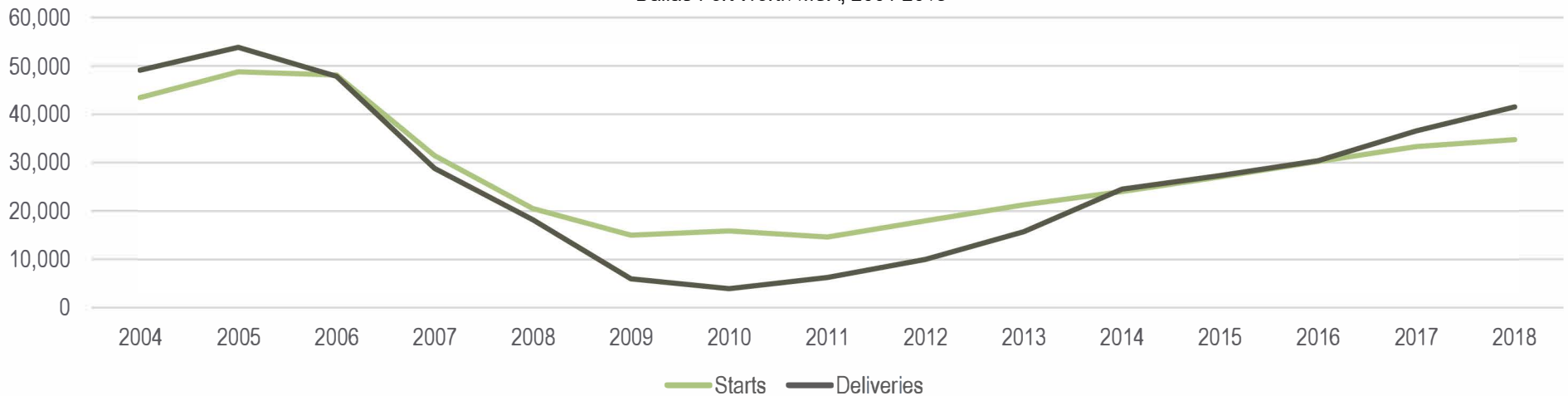
Though demand drivers remain strong, affordability concerns could present a significant threats to new residential development. Higher interest rates paired with increasing construction and land costs continue to increase pressure on the new housing market. Based on data from the Case-Shiller Home Price Index, housing is 55% more expensive than the previous peak of 2009.

Record transaction volumes and less than three months of housing inventory in the resale market illustrates significant demand for homes at lower price points (\$200,000 to \$350,000), with the median new home priced over 30% above the median resale home.

**S&P CoreLogic Case-Shiller Home Price NSA Index**  
Dallas-Fort Worth MSA; December 2008-January 2019



**New Home Starts and Lot Deliveries**  
Dallas-Fort Worth MSA; 2004-2018



Source: S&P CoreLogic Case-Shiller Index; Metrostudy



# COMPARABLE FOR-SALE PROPERTIES

## NEW FOR-SALE PRODUCT IN PLANO HAS SEEN SUCCESS WITH RAPID SALES PACES DESPITE FEW UNIQUE PRODUCT TYPES

In order to estimate potential pricing and sales pace at the subject site, RCLCO surveyed a variety of communities throughout Eastern Plano and Northern Richardson that delivered over the past few years. While not an exhaustive survey, this overview is meant to provide insight on pricing, positioning, orientation, and absorption. Both new townhome and single-family detached product are achieving similar per square foot pricing but achieve variable overall pricing depending on unit size. The comparable townhome communities offer unit sizes of roughly 2,000 square feet, while the single-family detached product have average unit sizes of between 2,200 and 3,000 square feet. Most of these communities offer limited amenities, but for those located in mixed-use locations, nearby retail and walkability serve as the primary amenities. Many of the townhomes throughout Plano has standard finishes and lacks the differentiation that could attract a range of market segments.

As *Heritage Creekside* is the most proximate to the site and scheduled to deliver a mix of rental apartments, townhomes, and single-family detached units, it is likely the most comparable community to the subject site. Despite being the only community to offer an amenity package including a pool, meeting spaces, and fitness center, it is achieving pricing below most other comparable properties as it currently lacks walkability; however, its HOA fees are relatively high at \$250/month and townhomes at the subject site will offer superior walkability to retail and employment. *Residences at CityLine* is achieving top of market pricing on both a per square foot and overall basis, likely due to the mixed-use nature of the CityLine development and close proximity to Whole Foods Market. Due to the exciting mixed-use environment at the subject site, it can achieve pricing similar to or likely surpassing the *Residences at CityLine* depending on quality of finishes.

Although sales have been strong at many of the comparable properties, the future pipeline is relatively limited with only a few major developments. While *University Place* and *Heritage Creekside* will likely continue to deliver more units over the next few years, other pipeline projects are relatively small, one-off projects such as the planned townhome communities on 15<sup>th</sup> Street and 17<sup>th</sup> Street.

Map of Comparable For-Sale Properties  
Plano, TX



MAP KEY	PROPERTY	TYPE	YEAR BUILT	TOTAL UNITS	2018 SALES	AVG. PRICE	AVG. SIZE	AVG. BASE \$/SF
1	Heritage Creekside TH	TH	2017	94	47	\$346,000	1,975	\$175
2	Villas of Middleton	TH	2018	60	24	\$361,000	1,887	\$191
3	University Place	TH	2018	170	58	\$361,000	1,928	\$187
4	Heritage Creekside SFD	SFD	2017	19	8	\$426,000	2,532	\$168
5	Residences at CityLine	SFD	2017	32	6	\$590,000	2,840	\$208
6	Rice Field at Plano Arts	SFD	2017	60	14	\$392,000	2,217	\$177
7	Palisades	SFD	2017	100	30	\$462,000	2,276	\$203
8	Ingram Terrace	SFD	2016	62	16	\$479,000	2,991	\$160

Source: Property websites; Redfin; Zillow; Metrostudy

# FOR-SALE PRODUCT RECOMMENDATIONS

	LOW- TO MID-RISE CONDOMINIUMS (40 DU/AC)	STACKED THS / FLATS (20-25 DU/AC)	TOWNHOMES (13-16 DU/AC)	SMALL-LOT SINGLE-FAMILY, DETACHED (8-12 DU/AC)
				
10-YR DEMAND	125 to 175 Potential Units 12-18 Annual Absorption	110 to 130 Potential Units 11-13 Annual Absorption	310 to 340 Potential Units 31-34 Annual Absorption	225 to 275 Potential Units 22-28 Annual Absorption
OPPORTUNITY	Attract young professionals looking to purchase their first homes, as well as empty nesters/retirees looking to downsize	Price alternative to traditional townhomes, targeted towards mature Millennials & young families looking for more space	Attract mature professionals, families, & empty nesters looking for housing in an urban neighborhood, but with open space & other amenities	Appeal to households seeking an urban environment & walkability, while maintaining a relatively sizable home; Additional support from empty nesters downsizing from 3,000+ SF homes
MARKET AUDIENCE	Young Professionals Mature Professionals Empty Nesters	Young Professionals Mature Professionals Young Families	Young Families Mature Professionals Empty Nesters	Young Families Intermediate Families Mature Professionals
SITE POTENTIAL	<b>MEDIUM:</b> This product type is untested in the market, as very few condo communities have delivered outside of urban Dallas	<b>HIGH:</b> Stacked flats allow the development to increase density while still providing households with enough space	<b>HIGH:</b> Townhomes are a proven product in the market & will likely see similar success to other communities in Plano	<b>HIGH:</b> The site will draw first-time owners looking for more space than an attached product at a lower price point than traditional detached homes
PRICING	<b>\$265,000 to \$515,000</b> ~\$305/SF	<b>\$250,000 to \$390,000</b> ~\$200/SF	<b>\$340,000 to \$430,000</b> ~\$195/SF Top of Submarket; 11% Premium over Heritage Creekside	<b>\$405,000 to \$595,000</b> ~\$190/SF Competitive with Top of Submarket; 14%+ Premium over Heritage Creekside
TIMING	<b>LONG-TERM</b>	<b>MID-TERM</b>	<b>NEAR-TERM</b>	<b>NEAR-TERM</b>

# HIGH-DENSITY EXAMPLES

	<b>Museum BLVD</b> Houston, TX (Museum District)	<b>The Parkview Residences at Southlake</b> Southlake, TX (Southlake Town Square)	<b>Georgia Row at Walter Reed</b> Washington, D.C. (Walter Reed)	<b>Cleo &amp; Mason</b> Los Angeles, CA (Playa Vista)
<b>Concept</b>				
	<b>Condominiums</b>	<b>Condominiums</b>	<b>Reinvented Stacked Flats (2-Over-2-Over-1)</b>	<b>Stacked Flats</b>
	<b>Description</b>	<p><i>Museum BLVD</i> is a 37-home, four-story condominium building located in Houston's Museum District. The luxury condominium building offers balconies in all units and two-story penthouses, some with a private terrace. Despite the luxury finishes, the smaller unit sizes and low HOA fees allow it to be a price discount to more traditional single-family housing. These units likely appeal to empty nesters downsizing from larger single-family housing in the suburbs of Houston.</p>	<p><i>Parkview Residences at Southlake</i> is a condominium community located at Southlake Town Square offering two and three bedroom units with luxury finishes. Its proximity to Southlake Town Square is similar to a condominium building's proximity to the redesigned retail at Collin Creek Mall. The target audience for these condominium units are mature professionals and empty nesters looking to downsize into a luxury unit in a walkable environment.</p>	<p><i>Georgia Row at Walter Reed</i> delivered in 2018, offering 60 for-sale townhome-style condominiums with stacked floor plans resulting in three units (some with multiple floors) on top of one another. These homes represent a compelling alternative for prospective buyers who would like more space than a traditional condominium unit, but who cannot afford or otherwise do not want a full single-family home.</p>

Image Source: Craftmark Homes; Brookfield Residential; REW  
Source: RCLCO

# SINGLE-FAMILY EXAMPLES





	455 Dovercourt Toronto, Ontario (Little Italy)	One Museum Place Atlanta, GA (Midtown)	Heritage Creekside Plano, TX	Villas at Legacy West Plano, TX (Legacy West)
Concept				
	<b>Townhome Over Creative Office</b>	<b>Luxury Townhomes</b>	<b>Small-Lot Single-Family Detached</b>	<b>Small-Lot Single-Family Detached</b>
Description	Formerly a 30,000 square foot city services building, <i>455 Dovercourt</i> has been redeveloped to offer updated office space on the first two floors, as well as 12 new for-sale townhomes built on top of the existing building. Located in a more residential area of Toronto but close to downtown, each townhome also has a rooftop with views of the city skyline. Unit sizes range from 1,000 to 1,500 square feet, helping to keep absolute price points lower than they would be for full single-family homes.	Located in Midtown, the primary urban core of Atlanta, <i>One Museum Place</i> is an ultra luxury townhome development. In addition to luxury finishes and spacious floorplans, each residence has its own garage and elevator. The community is located adjacent to the High Museum of Art and close to Piedmont Park. The townhomes are primarily owned by empty nesters looking to move into a luxury residence in an urban, walkable neighborhood.	<i>Heritage Creekside</i> is a residential development in Plano, TX consisting of townhomes, multifamily apartments, and single-family detached homes. The single-family detached homes are on small lots, primarily targeting first-time home buyers who might be unable to purchase a traditional single-family home on a larger lot but desire the privacy and size that a single-family detached home provides.	The <i>Villas at Legacy West</i> are located close to various corporate headquarters and the Shops at Legacy, a new retail development in Plano. The single-family detached homes are on small lots bridging the gap between traditional single-family homes and attached homes. This community offers homes between 2,000 and 4,200 square feet, larger than traditional single-family attached homes. These homes likely target professionals working in the many office headquarters in the market.

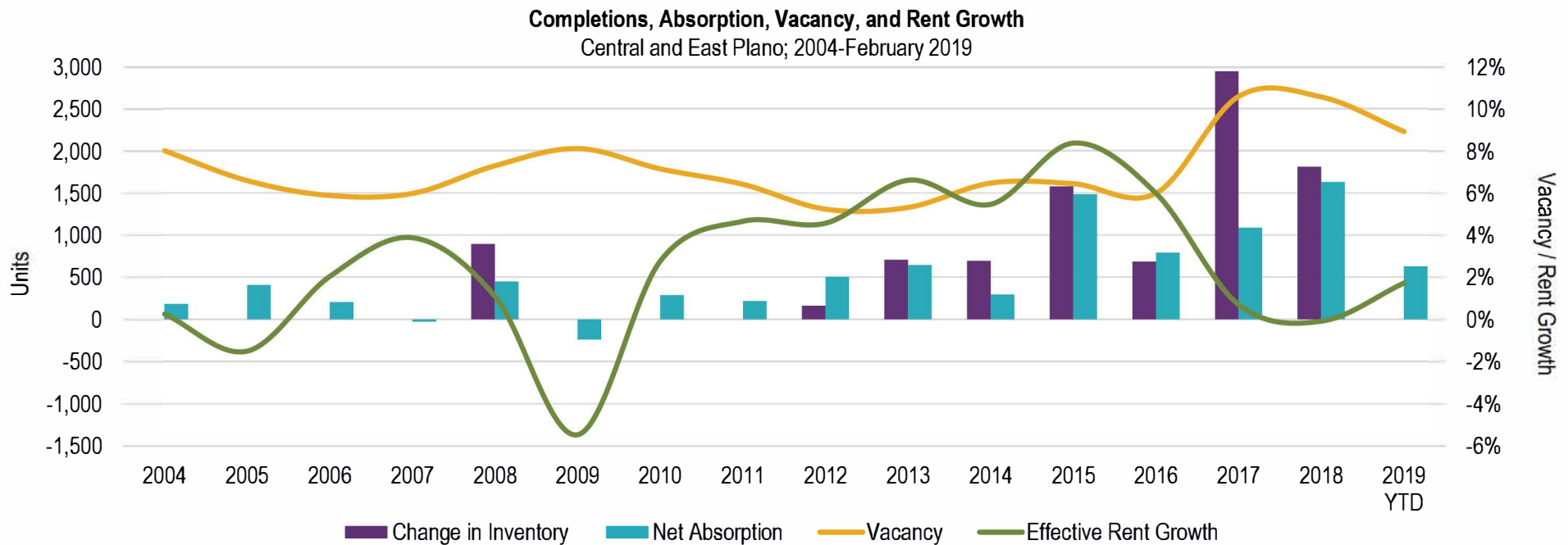
Image Source: Surge Homes; Residences at Southlake; Cambridge Homes; Realtor.com

## RENTAL MARKET OVERVIEW

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## A SURGE IN RECENT DELIVERIES HAS LED TO INCREASED VACANCY RATES AND LOWER RENT GROWTH, BUT A LIMITED PIPELINE WILL LIKELY HELP TO BALANCE SUPPLY AND DEMAND DYNAMICS OVER THE COMING YEARS

Between 2004 and 2013, Central and East Plano had only seen 1,050 total deliveries; however, in the following years between 2013 and 2018, 8,400 units delivered in the submarket. During this drastic period of growth, rent growth remained steady around 6% but vacancy increased to 11% due to the spike in deliveries in 2017 as a large share of units were in lease-up. Although the vacancy rates seem rather high, there are only two projects scheduled to deliver in 2019, adding a total of 560 units to the market. This is well below the average number of deliveries over the past few years, likely allowing the market to absorb more than these deliveries, bringing the vacancy rates down. Additionally, there are 2,700 units either planned or proposed; however, Oak Point accounts for almost 1,000 of those units and there is a possibility that some of the other projects do not deliver on schedule or at all. Unless Oak Point gains more traction, likely the primary competition at the subject site will be additional multifamily units at Heritage Creekside



Source: Costar

# COMPARABLE RENTAL COMMUNITIES

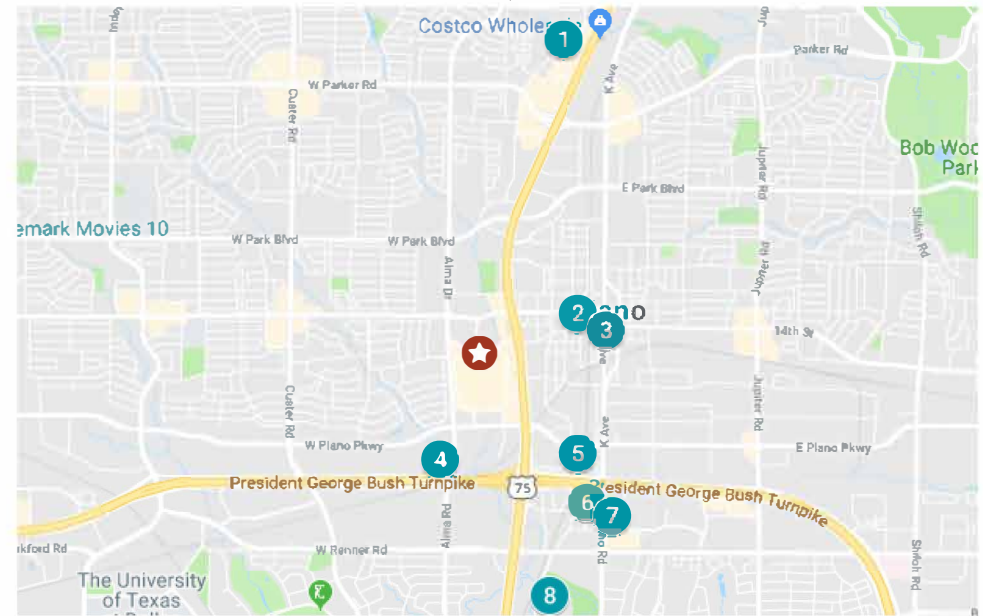
## RENTAL COMMUNITIES IN PLANO OFFER UNIQUE PRODUCT-TYPES IN ORDER TO SEGMENT THE MARKET AND MAXIMIZE ABSORPTION POTENTIAL

In order to provide insight on rental rates and absorption potential at the subject site, RCLCO surveyed eight rental communities in proximity to Collin Creek Mall. Most new communities currently achieve asking rents between \$1,500 and \$1,800 with varying rents per square foot depending on unit size. The majority of apartment communities that have delivered in the area offer a similar wrap-style product; however, *Morada Plano*, an apartment community delivering this year expecting to achieve top-of-market rents, plans to deliver below-grade parking in order to maximize density on-site while also providing retail options. The community is also delivering small units in order to maximize the rent per square foot, while maintaining overall asking rent comparable, or lower, to other communities in the area.

The CityLine development delivered five communities between 2016 and 2019 but has segmented their communities in order to attract a wide array of market audiences. *Anthem CityLine* is a standard apartment building offering a variety of amenities appealing to young professionals, with very small unit sizes for Plano. Moreover, *The Riley* offers much larger unit sizes and is achieving the highest overall rents among the competitive set, appealing more towards empty nesters and mature renters, willing to pay more for a larger unit. In order to maximize absorption potential, the subject site should follow this example of delivering a variety of apartment buildings with varying sizes, quality, and overall price points in order to appeal to the largest number of market segments.

Both *Aura One90* and *Avilla Premier Place* offer unique rental product types that help to distinguish their product from other communities in the submarket. *Aura One90* also offers rental townhomes in addition to apartments that have private entrances and garages. *Avilla Premier Place* offers exclusively single-family detached rentals, with each private residence containing its own patio and/or yard. Both of these communities are targeting more mature renters or families who might be unable or prefer not to purchase a home at the time, but prefer the privacy and space offered by a single-family residence.

Map of Comparable Rental Properties  
Plano, TX



MAP KEY	COMMUNITY NAME	YEAR BUILT	# OF UNITS	OCC. RATE	AVG. SIZE (SF)	AVG. ASK RENT	AVG. ASK \$/SF
1	Avilla Premier Place*	2017	122	95%	1,013	\$1,807	\$1.78
2	Junction 15	2015	276	89%	869	\$1,307	\$1.50
3	Morada Plano	2019	183	0%	851	\$1,620	\$1.90
4	The Bridge at Heritage Creekside	2017	326	92%	916	\$1,576	\$1.72
5	Aura One90	2016	386	94%	939	\$1,502	\$1.60
6	Anthem CityLine	2016	233	94%	823	\$1,456	\$1.77
7	The Riley	2018	262	89%	1,075	\$1,821	\$1.69
8	Jefferson Vantage	2018	420	17%	930	\$1,681	\$1.81

\*Avilla Premier Place is a single-family detached rental community  
Source: Axiometrics, Community Websites

# RENTAL PRODUCT RECOMMENDATIONS

	CONVENTIONAL APARTMENTS (75-85 DU/AC)	EMPTY NESTER APARTMENTS (60-75 DU/AC)	INDEPENDENT / ASSISTED LIVING (60-75 DU/AC)	TOWNHOMES (13-18 DU/AC)
				
10-YEAR DEMAND	1,800 to 1,900 Potential Units ~Approx. 1 bldg. every 18 mos., with varying orientations	335 to 375 Potential Units ~Approx. 2 bldgs. (1 age-targeted & 1 age-restricted)	135 to 155 Potential Units ~Approx. 1 bldg. after 2024	230 to 255 Potential Units ~Approx. 2-3 unique phases
OPPORTUNITY	Attract diverse groups of households looking for rental housing in low-density urban or high-density suburban locations	Capitalize on large (and increasing) base of 55+ renters looking for high-quality apartments in lower-density urban neighborhoods	Attract a unique market segment to the site, offering a slightly more urban location than other retirement communities in Plano	Offer an alternative for people who are looking for more space than an apartment, but who are not ready to purchase a home
MARKET AUDIENCE	Young Professionals Mature Professionals Students	Empty Nesters Retirees	Retirees/Seniors	Mature Professionals Young Families Empty Nesters
SITE POTENTIAL	<b>HIGH:</b> Numerous deliveries over the past few years in Plano show the depth of market & desire to rent in the submarket	<b>MEDIUM:</b> The walkability of the site in addition to restaurants & entertainment options will likely appeal to mature renters	<b>HIGH:</b> The site is well-equipped to provide green space & retail amenities that appeal to retirees	<b>HIGH:</b> Most single-family attached product in the region is for-sale but this could be an opportunity to attract different market segments
TIMING PRICING*	<b>Avg. of \$1.85-\$2.00/SF</b> 550-1,600 SF	<b>Avg. of \$1.85-\$2.00/SF</b> 5%+ Larger than Conventional Apartments	<b>Pricing Dependent on Level of Care &amp; Service Offered</b>	<b>Avg. of \$1.80-\$1.95/SF</b> 10%+ Larger than Conventional Apartments
TIMING	<b>NEAR-TERM TO MID-TERM</b>	<b>MID-TERM TO LONG-TERM</b>	<b>MID-TERM TO LONG-TERM</b>	<b>NEAR-TERM</b>

*Note: Potential to garner higher rent prices per square foot if construction exceeds six-stories for more urban-style rental units.*



# SINGLE-FAMILY EXAMPLES



	<b>RedPeak Platt Park Townhomes</b> Denver, CO (Platt Park)	<b>RESIDENCES AT PALMER SQUARE</b> Princeton, New Jersey (Palmer Square)
Concept  Description  Positioning		
	<b>Rental Townhomes</b>	<b>Rental Townhomes</b>
	Located in the older, historic neighborhood of Platt Park near the University of Denver, <i>RedPeak Townhomes</i> opened in 2015, providing spacious, rental townhomes for renters of all ages. This community offers a unique product consisting of luxury, rental townhomes in a market mainly comprised of rental apartments and for-sale units.	Located a block away from Princeton University, <i>Residences at Palmer Square</i> consists of luxury rental townhomes, targeted towards professors, administrators, and empty nesters who are looking for more space than a traditional rental apartment, but who do not want to purchase a home. With top-of-the-line finishes and spacious floor plans of at least 1,600 square feet, the units achieve top-of-market rents.
	<b>75% Larger Units</b> <b>80% Higher Asking Rents</b> <b>Than Other New Buildings Nearby</b>	<b>75% Larger Units</b> <b>100% Higher Asking Rents</b> <b>Than Other New Buildings Nearby</b>

Image Source: RedPeak; Plano Profile; Residences at Palmer Square  
Source: Axiometrics; RCLCO

# EMPTY NESTER RENTALS







	<b>Piedmont House</b> Atlanta, GA (Midtown)	<b>Pearl Residences at CityCentre</b> Houston, TX (CityCentre)	<b>Canvas Valley Forge</b> King of Prussia, PA (Valley Forge)
Concept  Description  Positioning			
	<b>Empty Nester-Targeted Apartments</b>	<b>Empty Nester-Targeted Apartments</b>	<b>Age-Restricted Active Adult Apartments</b>
	Located in Midtown adjacent to Piedmont Park, <i>Piedmont House</i> is a new rental apartment community which opened earlier this year. While most new apartment communities in the neighborhood are high-end, <i>Piedmont House</i> targets wealthy empty nesters, in particular, by offering "penthouse-style living" with large units, luxury finishes, and over-the-top amenities like a saltwater pool and a wine room.	Situated near the fringe of Houston in a new mixed-use urban development with high-end retail, housing, and office, <i>Pearl Residences</i> delivered in 2017 and offers luxury apartments marketed towards wealthy empty nesters. The community's amenities (athletic club, covered grill area, and resort-style pool) and large floor plans appeal to more mature renters than many comparable apartment communities in the market.	<i>Canvas Valley Forge</i> is an age-restricted active adult community located in King of Prussia, PA offering luxury units and amenity spaces designed for active adults such as a workshop and demo kitchen. <i>Canvas Valley Forge</i> advertises social events such as aqua fitness classes, live music, and movie nights aimed at providing a space for mature renters to meet and interact with one another.
	<b>40% Larger Units</b> <b>60% Higher Asking Rents</b> <b>Than Other New Buildings Nearby</b>	<b>65% Larger Units</b> <b>65% Higher Asking Rents</b> <b>Than Other New Buildings Nearby</b>	<b>5% Larger Units</b> <b>45% Higher Asking Rents</b> <b>Than Other New Buildings Nearby</b>

Image Source: *Piedmont House*; *Churchill Living*; *Canvas Valley Forge*  
 Source: *Axiometrics*; *RCLCO*

# “TRUE” SENIORS HOUSING

	<b>Balfour at Riverfront Park</b> Denver, CO (LoDo)	<b>Abiitan Mill City</b> Minneapolis, MN (Gateway District)	<b>HarborChase of the Park Cities</b> Dallas, TX (University Park / Preston Hollow)
<b>Concept</b>			
	<b>Assisted Living / Memory Care</b>	<b>Independent Living / Memory Care</b>	<b>Assisted Living / Memory Care</b>
<b>Description</b>	Located in the vibrant neighborhood of LoDo, <i>Balfour at Riverfront Park</i> provides residents with access to urban amenities, as well as proximity to family living or working in Downtown Denver. The community offers amenities such as a fitness center and a heated saltwater pool, as well as on-site nurses and doctors for residents who need assistance. It also provides a continuum of service to allow individuals with varying needs to stay on site.	Located in the heart of Downtown Minneapolis, <i>Abiitan Mill City</i> offers the unique combination of senior living in an urban environment. The community opened in 2017, targeting retired couples who need some daily assistance but also want to take advantage of the entertainment that Minneapolis has to offer. <i>Abiitan Mill City</i> offers numerous daily events both on and off-premises as well as high-end units for retirees.	<i>HarborChase of the Park Cities</i> is an ultra-luxury retirement community located in North Dallas, targeting wealthy retirees. <i>HarborChase of the Park Cities</i> offers a high-quality, luxury product not found in other assisted living communities. The community is also designed so that residents can receive a wide array of health services depending on each individual's need.
<b>Positioning</b>	<b>\$4,000 / Month for Independent &amp; Assisted Living</b> <b>\$8,100 / Month for Memory Care</b> <b>Compared to ~\$2,500 for New Apartments Nearby</b>	<b>\$1,900 - \$6,900 / Month for Independent Living</b> <b>\$6,500 / Month for Memory Care</b> <b>Compared to ~ \$2,000 for New Apartments Nearby</b>	<b>\$7,500 / Month for Assisted Living</b> <b>\$9,000 / Month for Basic Memory Care</b> <b>Compared to ~\$2,000 for New Apartments Nearby</b>

*Note: Independent Living communities are typically age-restricted, targeting senior households who are downsizing from the primary home, and still able to live independently. No services or care provided.; Assisted Living Housing includes assistance with daily activities (dressing, grooming, moving about). Attracts "well but frail" seniors over the age 75, in reasonably good health but no longer able to independently care for self.*

*Source: Axiometrics; RCLCO*

## DISCLAIMERS

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# CRITICAL ASSUMPTIONS

Our conclusions are based on our analysis of the information available from our own sources and from the client as of the date of this report. We assume that the information is correct, complete, and reliable.

We made certain assumptions about the future performance of the global, national, and local economy and real estate market, and on other factors similarly outside either our control or that of the client. We analyzed trends and the information available to us in drawing these conclusions. However, given the fluid and dynamic nature of the economy and real estate markets, as well as the uncertainty surrounding particularly the near-term future, it is critical to monitor the economy and markets continuously and to revisit the aforementioned conclusions periodically to ensure that they are reflective of changing market conditions.

We assume that the economy and real estate markets will grow at a stable and moderate rate to 2020 and beyond. However, stable and moderate growth patterns are historically not sustainable over extended periods of time, the economy is cyclical, and real estate markets are typically highly sensitive to business cycles. Further, it is very difficult to predict when an economic and real estate upturn will end.

With the above in mind, we assume that the long-term average absorption rates and price changes will be as projected, realizing that most of the time performance will be either above or below said average rates.

Our analysis does not consider the potential impact of future economic shocks on the national and/or local economy, and does not consider the potential benefits from major "booms" that may occur. Similarly, the analysis does not reflect the residual impact on the real estate market and the competitive environment of such a shock or boom. Also, it is important to note that it is difficult to predict changing consumer and market psychology.

As such, we recommend the close monitoring of the economy and the marketplace, and updating this analysis as appropriate.

Further, the project and investment economics should be "stress tested" to ensure that potential fluctuations in revenue and cost assumptions resulting from alternative scenarios regarding the economy and real estate market conditions will not cause failure.

In addition, we assume that the following will occur in accordance with current expectations:

- ▶ Economic, employment, and household growth
- ▶ Other forecasts of trends and demographic and economic patterns, including consumer confidence levels
- ▶ The cost of development and construction
- ▶ Tax laws (i.e., property and income tax rates, deductibility of mortgage interest, and so forth)
- ▶ Availability and cost of capital and mortgage financing for real estate developers, owners and buyers
- ▶ Competitive projects will be developed as planned (active and future) and that a reasonable stream of supply offerings will satisfy real estate demand
- ▶ Major public works projects occur and are completed as planned

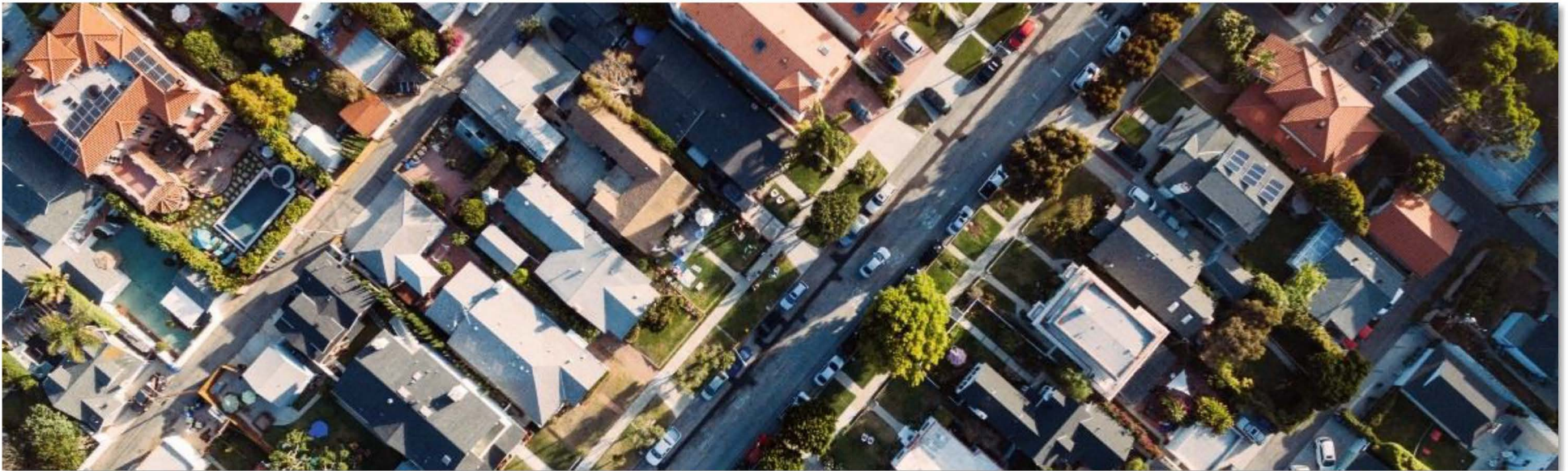
Should any of the above change, this analysis should be updated, with the conclusions reviewed accordingly (and possibly revised).

# GENERAL LIMITING CONDITIONS

Reasonable efforts have been made to ensure that the data contained in this study reflect accurate and timely information and are believed to be reliable. This study is based on estimates, assumptions, and other information developed by RCLCO from its independent research effort, general knowledge of the industry, and consultations with the client and its representatives. No responsibility is assumed for inaccuracies in reporting by the client, its agent, and representatives or in any other data source used in preparing or presenting this study. This report is based on information that to our knowledge was current as of the date of this report, and RCLCO has not undertaken any update of its research effort since such date.

Our report may contain prospective financial information, estimates, or opinions that represent our view of reasonable expectations at a particular time, but such information, estimates, or opinions are not offered as predictions or assurances that a particular level of income or profit will be achieved, that particular events will occur, or that a particular price will be offered or accepted. Actual results achieved during the period covered by our prospective financial analysis may vary from those described in our report, and the variations may be material. Therefore, no warranty or representation is made by RCLCO that any of the projected values or results contained in this study will be achieved.

Possession of this study does not carry with it the right of publication thereof or to use the name of "Robert Charles Lesser & Co." or "RCLCO" in any manner without first obtaining the prior written consent of RCLCO. No abstracting, excerpting, or summarization of this study may be made without first obtaining the prior written consent of RCLCO. This report is not to be used in conjunction with any public or private offering of securities or other similar purpose where it may be relied upon to any degree by any person other than the client without first obtaining the prior written consent of RCLCO. This study may not be used for any purpose other than that for which it is prepared or for which prior written consent has first been obtained from RCLCO.





## **AUSTIN**

221 West 6th Street, Suite 2030  
Austin, TX 78701

## **LOS ANGELES**

11601 Wilshire Boulevard, Suite 1650  
Los Angeles, CA 90025

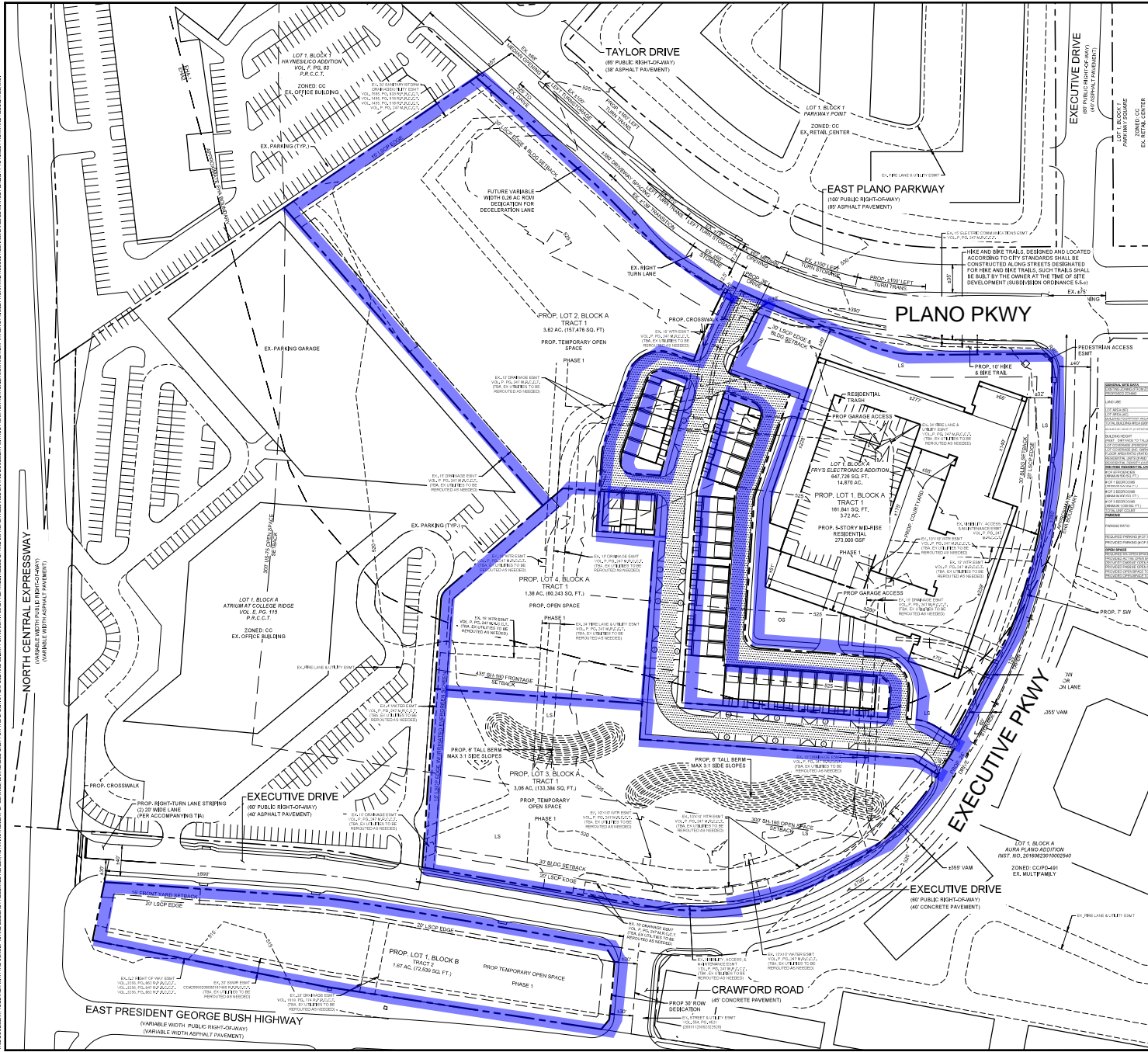
## **ORLANDO**

964 Lake Baldwin Lane, Suite 100  
Orlando, FL 32814

## **WASHINGTON, DC**

7200 Wisconsin Avenue, Suite 1110  
Bethesda, MD 20814

SHEET NO. 00001  
 PROJECT NO. 00001  
 DATE: JULY 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JMM  
 DRAWN BY: JMM  
 CHECKED BY: RES  
 CITY PROJECT #CP2022-008  
 FRY'S ELECTRONICS ADDITION PLANO, TX  
 CONCEPT PLAN  
 SHEET NUMBER 1 OF 3



**LEGEND**

- PROPERTY LINE
- - - ZONING BOUNDARY LINE
- - - EXISTING EASEMENT
- - - BUILDING SETBACK
- - - NOISE RESTRICTION ZONE
- PROPOSED FIRE LINE
- ▨ PROPOSED LANDSCAPE AREA

**NOTE**

A MINIMUM OF 75% OF MID-RISE RESIDENTIAL LOTS FACING PLANO PARKWAY AND EXECUTIVE DRIVE MUST HAVE ONE OF THE FOLLOWING DESIGN FEATURES: A TRAIL BALCONY, STAIR OR RAMP TO CREATE OUTDOOR PATIO SPACE, TRAIL BALCONY OR PATIO. PATIOS MUST NOT BE INCLUDED ON THE SOUTHERN SIDE OF THE BUILDING.

IRRESpective OF THE LOCATION AND ORIENTATION OF THE TRAILS AND BIKE TRAILS, SUCH TRAILS SHALL BE SUBJECT TO THE CITY OF PLANO DEVELOPMENT (SUBDIVISION ORDINANCE 5.5.4) DEVELOPMENT (SUBDIVISION ORDINANCE 5.5.4)

PROPERTY INFORMATION	LOT 1, BLOCK A			LOT 1, BLOCK B			LOT 1, BLOCK C			LOT 1, BLOCK D			LOT 1, BLOCK E			LOT 1, BLOCK F		
	AREA	PERCENTAGE	USE	AREA	PERCENTAGE	USE	AREA	PERCENTAGE	USE	AREA	PERCENTAGE	USE	AREA	PERCENTAGE	USE	AREA	PERCENTAGE	USE
TOTAL AREA	15.88	100%	RESIDENTIAL	3.82	24%	RESIDENTIAL	3.82	24%	RESIDENTIAL	3.82	24%	RESIDENTIAL	3.82	24%	RESIDENTIAL	3.82	24%	RESIDENTIAL
UNDEVELOPED AREA	0.00	0%		0.00	0%		0.00	0%		0.00	0%		0.00	0%		0.00	0%	
DEVELOPED AREA	15.88	100%	RESIDENTIAL	3.82	24%	RESIDENTIAL	3.82	24%	RESIDENTIAL	3.82	24%	RESIDENTIAL	3.82	24%	RESIDENTIAL	3.82	24%	RESIDENTIAL

**CONCEPT PLAN**  
 OF  
**FRY'S ELECTRONIC ADDITION**  
 LOTS 1-37 & 1X-8X, BLOCK A, TRACT 1  
 LOT 1, BLOCK B, TRACT 2

16.54 AC.  
 SITUATED IN SAMUEL KLEPPER  
 SURVEY ABSTRACT NO. 216  
 CITY OF PLANO, COLLIN COUNTY, TEXAS  
 DATE: JULY 13, 2023

OWNER/DEVELOPER:  
 ONALP PROPERTY OWNER LLC  
 1205 BAY WEST DEVELOPMENT  
 1205 S. Bascom Avenue  
 Campbell, California 95008  
 Tel. No. 408-754-2661  
 Contact: Bryan Naff

CIVIL ENGINEER:  
 KIMLEY-HORN AND ASSOCIATES, INC.  
 13455 Hill Road  
 Two O'Brien Center Tower, Suite 100  
 Dallas, Texas 75251  
 Tel. No. 972-754-3500  
 Contact: Sarah Soak, P.E.

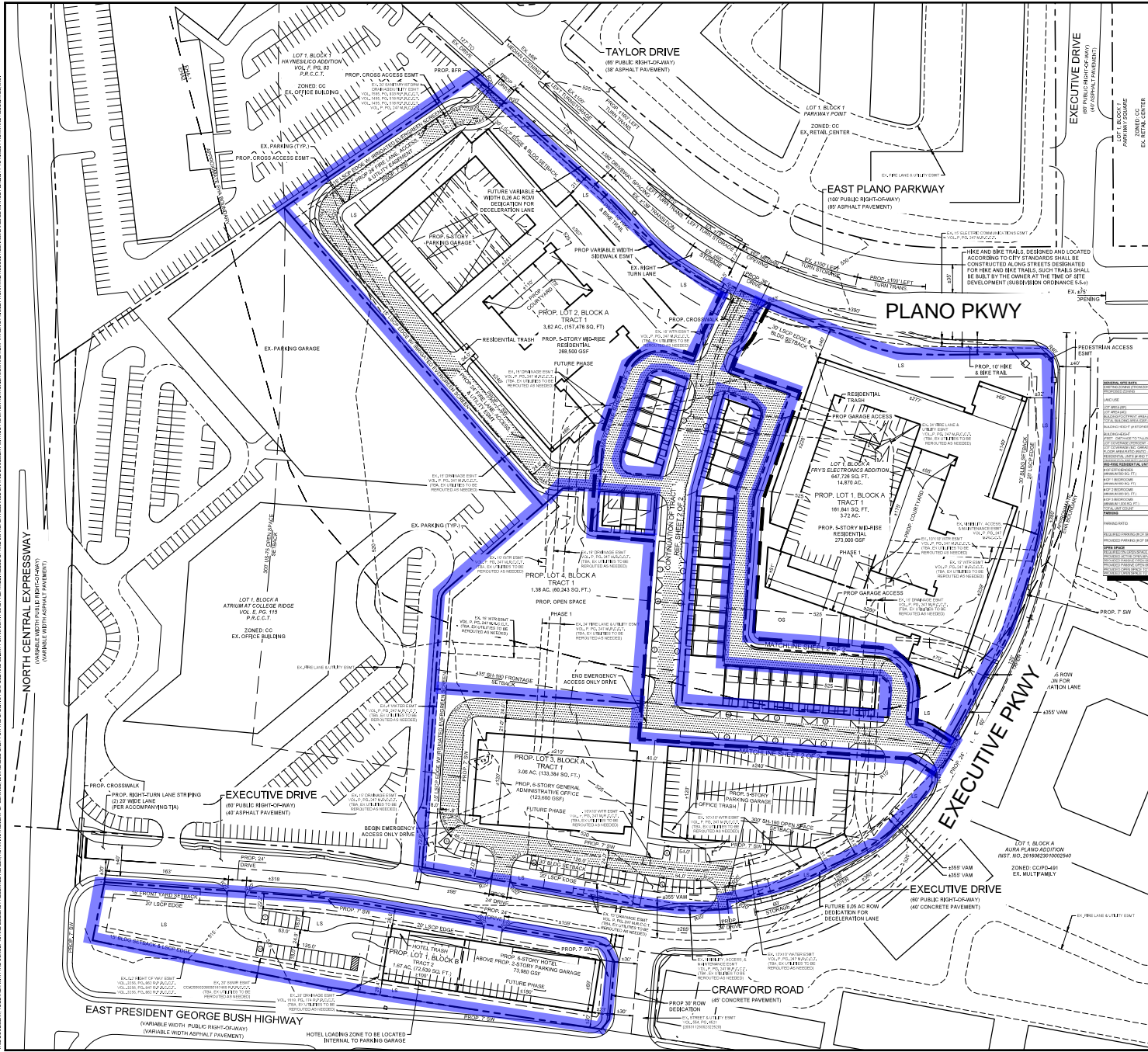
**FRY'S ELECTRONICS ADDITION PLANO, TX**

**CONCEPT PLAN**

SHEET NUMBER  
1 OF 3



THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF KIMLEY-HORN AND ASSOCIATES, INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF KIMLEY-HORN AND ASSOCIATES, INC.



**LEGEND**

- PROPERTY LINE
- - - ZONING BOUNDARY LINE
- - - EXISTING EASEMENT
- - - BUILDING SETBACK
- - - NOISE RESTRICTION ZONE
- - - PROPOSED FIRE LANE
- LS PROPOSED LANDSCAPE AREA

**NOTE**

A MINIMUM OF 75% OF MEDIAN RESIDENTIAL LOTS FACING PARKWAY AND RESIDUAL DRIVEWAY AND RESIDUAL DRIVEWAY MUST BE ONE OF THE FOLLOWING DESIGN FEATURES: A TRAIL, BIWAY, STAIR OR PAVED TO CREATE OUTDOOR RECREATION SPACE. THESE FEATURES OR PATIOS MUST NOT BE INCLUDED ON THE SOUTHERN FACE OF THE BUILDING.

**GRAPHIC SCALE IN FEET**

0 30 60 90 120

SCALE: 1" = 60' ON 24"X36"

**VICINITY MAP**

N.T.S.

TRACT	LOT 1, BLOCK A		LOT 1, BLOCK B		LOT 1, BLOCK C		LOT 1, BLOCK D		LOT 1, BLOCK E		LOT 1, BLOCK F		LOT 1, BLOCK G		LOT 1, BLOCK H		LOT 1, BLOCK I		LOT 1, BLOCK J	
	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA
1	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532
2	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532
3	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532
4	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532
5	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532
6	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532
7	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532
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9	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532
10	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532	181,941	532

**CITY PROJECT #CP2022-008**

**CONCEPT PLAN**  
OF  
**FRY'S ELECTRONIC ADDITION**  
LOTS 1-37 & 1X-8X, BLOCK A, TRACT 1  
LOT 1, BLOCK B, TRACT 2

16.54 AC.  
SITUATED IN SAMUEL KLEPPER  
SURVEY ABSTRACT NO. 216  
CITY OF PLANO, COLLIN COUNTY, TEXAS  
DATE: JULY 13, 2023

**OWNER/DEVELOPER:**  
ONALP PROPERTY OWNER, LLC  
C/O BAY WEST DEVELOPMENT  
1725 S. Bascom Avenue  
Cupertino, California 95028  
Tel. No. 408-741-2661  
Contact: Bryan Wolf

**CIVIL ENGINEER:**  
KIMLEY-HORN AND ASSOCIATES, INC.  
13455 Hill Road  
San Diego, California 92127  
Tel. No. 619-592-7300  
Contact: Sarah Soak, P.E.

**PROJECT NO.:** 06071230

**DATE:** JULY 2023

**SCALE:** AS SHOWN

**DESIGNED BY:** JMM

**DRAWN BY:** JMM

**CHECKED BY:** RES

**FRY'S ELECTRONICS ADDITION**  
PLANO, TX

**CONCEPT PLAN**

SHEET NUMBER  
**2 OF 3**

**Kimley-Horn**

13455 HILL ROAD, TWO GALLERIES OFFICE TOWER, SUITE 100  
SAN DIEGO, CALIFORNIA 92127  
PHONE: 619-592-7300 FAX: 619-592-7300  
TEAS REGISTERED ENGINEERING #0020

DATE: 07/13/2023  
 DRAWN BY: JMM  
 CHECKED BY: JES

OWNER/DEVELOPER:  
 KIMLEY-HORN AND ASSOCIATES, INC.  
 13455 NELL ROAD  
 CIO BAY WEST DEVELOPMENT  
 12025 S. SUTTON AVENUE  
 CANTON, CALIFORNIA 95021  
 TEL. NO. 408-714-2661  
 CONTACT: BOB WILF

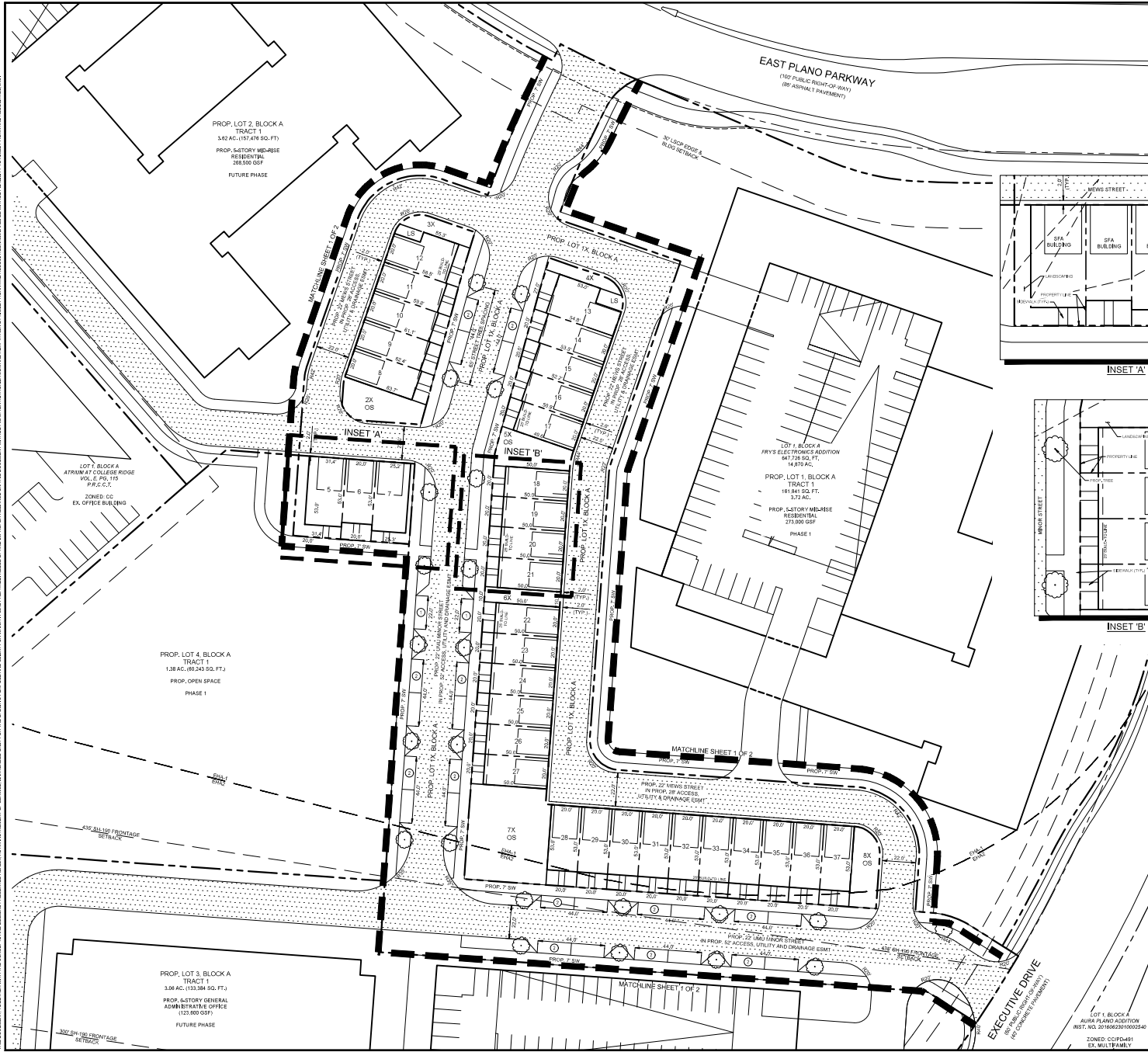
CIVIL ENGINEER:  
 KIMLEY-HORN AND ASSOCIATES, INC.  
 13455 NELL ROAD  
 CIO BAY WEST DEVELOPMENT  
 12025 S. SUTTON AVENUE  
 CANTON, CALIFORNIA 95021  
 TEL. NO. 408-714-2661  
 CONTACT: SARAH SOOK, P.E.

PROJECT NO.: 06071220  
 DATE: JULY 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JMM  
 DRAWN BY: JMM  
 CHECKED BY: JES

FRY'S ELECTRONICS  
 ADDITION  
 PLANO, TX

CONCEPT PLAN

3 OF 3

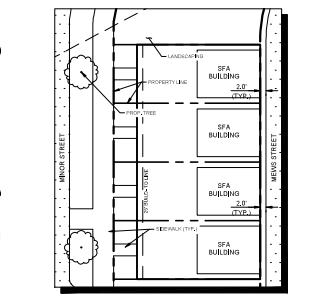
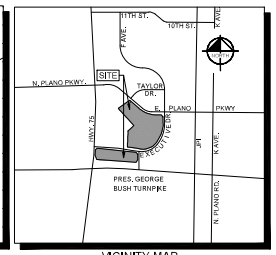
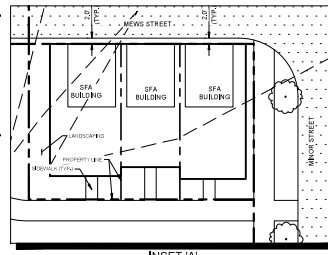


**LEGEND**

- PROPERTY LINE
- ZONING BOUNDARY LINE
- EXISTING EASEMENT
- BUILDING SETBACK
- NOISE RESTRICTION ZONE
- PROPOSED FIRE LANE
- PROPOSED LANDSCAPE AREA
- PROPOSED STREET TREE

**GRAPHIC SCALE IN FEET**  
 0 15 30 60  
 SCALE: 1" = 30' ON 24"x36"

**NORTH**



**MICRINITY MAP**  
 N.T.S.

PARCEL #	AREA	BUILDING FOOTPRINT	LOT COVERAGE
1	1,020 SQ. FT.	1,020 SQ. FT.	60%
2	1,020 SQ. FT.	800 SQ. FT.	79%
3	1,180 SQ. FT.	1,020 SQ. FT.	77%
4	2,070 SQ. FT.	2,070 SQ. FT.	100%
5	1,020 SQ. FT.	800 SQ. FT.	83%
6	1,020 SQ. FT.	800 SQ. FT.	83%
7	1,020 SQ. FT.	800 SQ. FT.	83%
8	1,020 SQ. FT.	800 SQ. FT.	83%
9	1,020 SQ. FT.	800 SQ. FT.	83%
10	1,020 SQ. FT.	800 SQ. FT.	83%
11	1,020 SQ. FT.	800 SQ. FT.	83%
12	1,020 SQ. FT.	800 SQ. FT.	83%
13	1,020 SQ. FT.	800 SQ. FT.	83%
14	1,020 SQ. FT.	800 SQ. FT.	83%
15	1,020 SQ. FT.	800 SQ. FT.	83%
16	1,020 SQ. FT.	800 SQ. FT.	83%
17	1,020 SQ. FT.	800 SQ. FT.	83%
18	1,020 SQ. FT.	800 SQ. FT.	83%
19	1,020 SQ. FT.	800 SQ. FT.	83%
20	1,020 SQ. FT.	800 SQ. FT.	83%
21	1,020 SQ. FT.	800 SQ. FT.	83%
22	1,020 SQ. FT.	800 SQ. FT.	83%
23	1,020 SQ. FT.	800 SQ. FT.	83%
24	1,020 SQ. FT.	800 SQ. FT.	83%
25	1,020 SQ. FT.	800 SQ. FT.	83%
26	1,020 SQ. FT.	800 SQ. FT.	83%
27	1,020 SQ. FT.	800 SQ. FT.	83%
28	1,020 SQ. FT.	800 SQ. FT.	83%
29	1,020 SQ. FT.	800 SQ. FT.	83%
30	1,020 SQ. FT.	800 SQ. FT.	83%
31	1,020 SQ. FT.	800 SQ. FT.	83%
32	1,020 SQ. FT.	800 SQ. FT.	83%
33	1,020 SQ. FT.	800 SQ. FT.	83%
34	1,020 SQ. FT.	800 SQ. FT.	83%
35	1,020 SQ. FT.	800 SQ. FT.	83%
36	1,020 SQ. FT.	800 SQ. FT.	83%
37	1,020 SQ. FT.	800 SQ. FT.	83%
38	1,020 SQ. FT.	800 SQ. FT.	83%
39	1,020 SQ. FT.	800 SQ. FT.	83%
40	1,020 SQ. FT.	800 SQ. FT.	83%
41	1,020 SQ. FT.	800 SQ. FT.	83%
42	1,020 SQ. FT.	800 SQ. FT.	83%
43	1,020 SQ. FT.	800 SQ. FT.	83%
44	1,020 SQ. FT.	800 SQ. FT.	83%
45	1,020 SQ. FT.	800 SQ. FT.	83%
46	1,020 SQ. FT.	800 SQ. FT.	83%
47	1,020 SQ. FT.	800 SQ. FT.	83%
48	1,020 SQ. FT.	800 SQ. FT.	83%
49	1,020 SQ. FT.	800 SQ. FT.	83%
50	1,020 SQ. FT.	800 SQ. FT.	83%
51	1,020 SQ. FT.	800 SQ. FT.	83%
52	1,020 SQ. FT.	800 SQ. FT.	83%
53	1,020 SQ. FT.	800 SQ. FT.	83%
54	1,020 SQ. FT.	800 SQ. FT.	83%
55	1,020 SQ. FT.	800 SQ. FT.	83%
56	1,020 SQ. FT.	800 SQ. FT.	83%
57	1,020 SQ. FT.	800 SQ. FT.	83%
58	1,020 SQ. FT.	800 SQ. FT.	83%
59	1,020 SQ. FT.	800 SQ. FT.	83%
60	1,020 SQ. FT.	800 SQ. FT.	83%

**CITY PROJECT #CP2022-008**

**CONCEPT PLAN**  
 OF  
**FRY'S ELECTRONIC ADDITION**  
 LOTS 1-37 & 1X-8X, BLOCK A, TRACT 1  
 LOT 1, BLOCK B, TRACT 2

16.54 AC.  
 SITUATED IN SAMUEL KLEPPER  
 SURVEY ABSTRACT NO. 216  
 CITY OF PLANO, COLLIN COUNTY, TEXAS  
 DATE: JULY 13, 2023

OWNER/DEVELOPER:  
 KIMLEY-HORN AND ASSOCIATES, INC.  
 13455 NELL ROAD  
 CIO BAY WEST DEVELOPMENT  
 12025 S. SUTTON AVENUE  
 CANTON, CALIFORNIA 95021  
 TEL. NO. 408-714-2661  
 CONTACT: BOB WILF

CIVIL ENGINEER:  
 KIMLEY-HORN AND ASSOCIATES, INC.  
 13455 NELL ROAD  
 CIO BAY WEST DEVELOPMENT  
 12025 S. SUTTON AVENUE  
 CANTON, CALIFORNIA 95021  
 TEL. NO. 408-714-2661  
 CONTACT: SARAH SOOK, P.E.

**Kimley-Horn**

13455 NELL ROAD, TWO GALLERIES OFFICE TOWER, SUITE 100  
 CANTON, CALIFORNIA 95021  
 PHONE: (925) 754-1300 FAX: (925) 252-3320  
 TEXAS REGISTERED ENGINEERING FIRM #280

PROJECT NO.: 06071220  
 DATE: JULY 2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JMM  
 DRAWN BY: JMM  
 CHECKED BY: JES

FRY'S ELECTRONICS  
 ADDITION  
 PLANO, TX

CONCEPT PLAN

SHEET NUMBER  
**3 OF 3**

**MEETING DATE**

Monday, August 28, 2023

**RESULTS**

I, Mayor/Council Member \_\_\_\_\_, after review of the written information and listening to the hearing participants, voted in **SUPPORT** of this case, finding the following:

1. The request is consistent with the overall Guiding Principles of the Comprehensive Plan because: \_\_\_\_\_;  
and
2. The request is substantially beneficial to the immediate neighbors, surrounding community, and general public interest because: \_\_\_\_\_;  
and
3. The request is consistent with other policies, actions, maps:  
Future Land Use Map and Dashboards - Description & Priorities  
Future Land Use Map & Dashboards - Mix of Uses  
Future Land Use Map & Dashboards - Character Defining Elements  
Thoroughfare Plan Map & Cross-Sections  
Bicycle Transportation Plan Map  
Parks Master Plan Map  
Transit-Oriented Development Policy  
Redevelopment & Growth Management Policy - Action 8 (RGM8)  
Downtown Vision & Strategy Update (2019)  
 Other: \_\_\_\_\_
4. Comments on any of the above which further explain my position: \_\_\_\_\_.

Overall, I believe the applicant's request should be supported; and the reasons I have indicated above outweigh the project's incompatibility with the mix of uses, density, or building heights favored by the Future Land Use Map Dashboard of the Comprehensive Plan.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## City Council Findings Form

The Guiding Principles establish overarching themes that apply to all policies and actions and express values for Today, 2050, and Together. These Principles are not intended to stand alone but to be used in concert with one another and carry across the Plan as a whole. Each principle must be judged through a lens that incorporates all of the other principles to be fully and accurately understood.

### Guiding Principle 1 | Plano Today

- 1.1. The Plan enhances the quality of life in the near term, continually striving to meet the needs and priorities of current residents, businesses, and institutions of Plano.
- 1.2. The Plan promotes the safety, viability, and vibrancy of Plano's existing neighborhoods, managing growth and shaping change that complements the city's suburban character and rich history.
- 1.3. The Plan promotes the educational, recreational, and cultural centers of the community, providing an environment for world-class facilities, businesses, and institutions that support a vital economy.
- 1.4. The Plan respects the suburban character of Plano and seeks to preserve and enhance the built environment.
- 1.5. The Plan acknowledges that Plano is mostly developed and does not anticipate significant changes in population or residential development in the future.
- 1.6. Implementation of the Plan will be open and transparent, with a high standard for exceptions to land use principles, proactively seeking community input, and updated when needed with opportunities for the public to continually share their needs and priorities with community leaders and inform the decision-making process.

### Guiding Principle 2 | Plano 2050

- 2.1. The Plan enhances the quality of life in the long term, preparing for future generations of residents, businesses, and institutions of Plano who may not yet have a voice but are impacted by the decisions of today.
- 2.2. The Plan successfully manages Plano's transition to a mature city, seeking innovative approaches and best practices to accommodate emerging trends, technologies, and opportunities that improve the quality of life and allow the city to remain attractive and vibrant into the future.
- 2.3. The Plan builds on Plano's strong history of thoughtful planning, guiding future development and redevelopment where it is safe, attractive, appropriate, and convenient; contributes to a variety of housing, employment, and social opportunities; and respects the natural environment.
- 2.4. Implementation of the Plan will be fiscally responsible, ensuring that alternatives are considered and completion of actions provides the greatest long-term value.

### Guiding Principle 3 | Plano Together

- 3.1. The Plan serves people of all backgrounds, striving to meet the needs of an inclusive and vibrant community that calls Plano "home."
- 3.2. The Plan promotes a community that is safe, engaged, and rich in educational, cultural, and recreational opportunities that are highly desirable to residents and visitors alike.
- 3.3. The Plan embraces Plano's position as a leader in the region, demonstrating the city's standard of excellence and supporting our neighbors through linkages including health, economy, culture, transportation, and sense of community.
- 3.4. The Plan manages growth and redevelopment in a gradual manner, ensuring changes are beneficial to neighbors and the surrounding community based on real, city-level demand.
- 3.5. Implementation of the Plan will be done in partnership with the community and educational, nonprofit, civic, cultural, faith-based, and governmental organizations, promoting cooperation towards common goals that enhance the quality of life for the residents, businesses, and institutions of Plano.

**MEETING DATE**

Monday, August 7, 2023

**RESULTS**

I, Mayor/Council Member \_\_\_\_\_, after review of the written information and listening to the hearing participants, voted in **OPPOSITION** to this case, finding the following:

I agree with the conclusions in the preliminary report provided by staff because:  
\_\_\_\_\_.

**or**

The project is incompatible with the Future Land Use Map Dashboard of the Comprehensive Plan because: \_\_\_\_\_.

The request is inconsistent with the overall Guiding Principles of the Comprehensive Plan because: \_\_\_\_\_.

The request is not substantially beneficial to the immediate neighbors, surrounding community, and general public interest because: \_\_\_\_\_.

The request is inconsistent with other policies, actions, maps:

- Future Land Use Map and Dashboards - Description & Priorities
- Expressway Corridor Environmental Health Map
- Redevelopment of Regional Transportation Corridors Policy
- Redevelopment & Growth Management Policy - Action 5A (RGM5A)
- Redevelopment & Growth Management Policy - Action 5B (RGM5B)
- Redevelopment & Growth Management Policy - Action 8 (RGM8)
- Downtown Vision & Strategy Update (2019)

Other: \_\_\_\_\_

Comments on any of the above which further explain my position: \_\_\_\_\_.

Overall, I believe the applicant's request should be opposed due to the reasons I have indicated above.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## City Council Findings Form

The Guiding Principles establish overarching themes that apply to all policies and actions and express values for Today, 2050, and Together. These Principles are not intended to stand alone but to be used in concert with one another and carry across the Plan as a whole. Each principle must be judged through a lens that incorporates all of the other principles to be fully and accurately understood.

### Guiding Principle 1 | Plano Today

- 1.1. The Plan enhances the quality of life in the near term, continually striving to meet the needs and priorities of current residents, businesses, and institutions of Plano.
- 1.2. The Plan promotes the safety, viability, and vibrancy of Plano's existing neighborhoods, managing growth and shaping change that complements the city's suburban character and rich history.
- 1.3. The Plan promotes the educational, recreational, and cultural centers of the community, providing an environment for world-class facilities, businesses, and institutions that support a vital economy.
- 1.4. The Plan respects the suburban character of Plano and seeks to preserve and enhance the built environment.
- 1.5. The Plan acknowledges that Plano is mostly developed and does not anticipate significant changes in population or residential development in the future.
- 1.6. Implementation of the Plan will be open and transparent, with a high standard for exceptions to land use principles, proactively seeking community input, and updated when needed with opportunities for the public to continually share their needs and priorities with community leaders and inform the decision-making process.

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