# Boyle Heights Community Plan Update

## Draft Regulations Economic Feasibility Assessment: Additional Considerations – Industrial Area Analysis

Addendum II to the Boyle Heights Economic Feasibility Study

August 31, 2023

AECOM

# Contents

# Additional Considerations: Industrial Area Analysis

## Introduction

The City of Los Angeles (City) has drafted an update to the Boyle Heights Community Plan (BHCP). The proposed BHCP updates the last BHCP adopted in 1998 and establishes policies, goals, and regulations for the Boyle Heights Community Plan Area (CPA) and includes zoning, land uses, and other policy recommendations. One component in the draft plan is the Community Benefits Program (CBP), which offers density bonuses and other incentives to encourage the production of affordable housing.

In May of 2022, AECOM was retained by the City to assess the economic feasibility of the proposed benefits program and development regulations. The study began in June of 2022, and a final report—The Boyle Heights Community Plan Update Economic Feasibility Analysis—was delivered by AECOM in February of 2023.

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In April of 2023, the City Planning Commission considered and recommended for approval the Proposed Boyle Heights Community Plan. In that meeting and in subsequent discussions with the public and elected officials, considerations arose regarding residential development in an industrial portion of the CPA, which led the City to consider a land use alternative that would make residential development in the industrial area bound by 3rd St in the north, 7th St in the south, Mission Rd in the west, and S Clarence St in the east (Study Area) "by right," subject to setting aside a portion of units as covenanted affordable through a mandatory inclusionary housing requirement.

In response, the City engaged AECOM to conduct further analysis to assess the economics of residential redevelopment in the Study Area and to assess whether and how much affordable housing can be feasibility supported. Supporting tasks include a brief review of the market opportunity and a high-level assessment of environmental remediation costs and risks.

The following presentation includes AECOM's analysis and findings. The presentation is intended to be attached as an addendum to the previously submitted report.

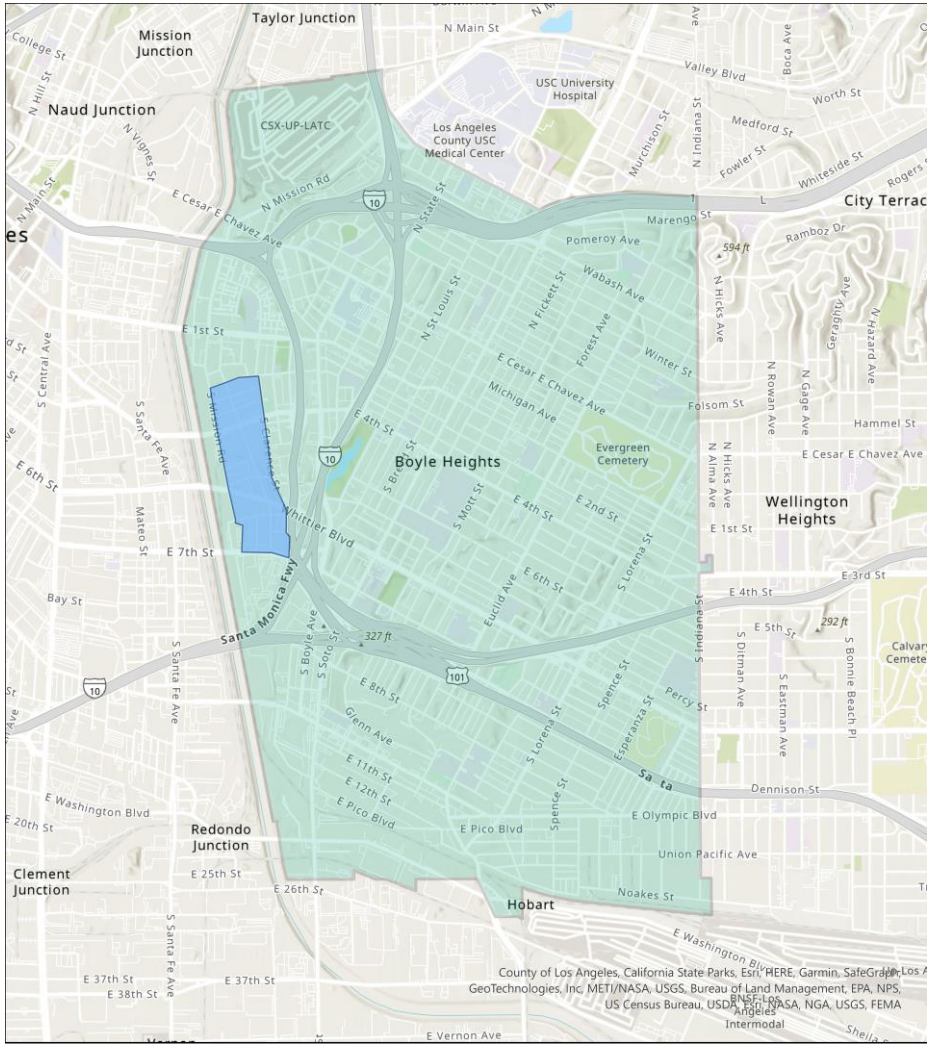
# Study Area and Market Context

# Study Area Context

The Study Area consists mainly of industrial uses. However, development trends in the Arts District just across the LA River, which is undergoing transformation from an industrial to a mixed-use district with residences, retail, and creative office uses, coupled with completion of the 6th Street Bridge in 2022, sets the stage for potential redevelopment in the Study Area.

To carry out this assessment, the study includes the following elements and key assumptions:

- Even with the market trends noted above, the market for residential redevelopment in the Study Area is untested. Consequently, the study uses market measures in comparable LA-River-adjacent areas (such as the Arts District, Lincoln Heights, or Frogtown) as a proxy for potential values in the Study Area.
- As a legacy industrial area, it is likely that sites within the Study Area have environmental issues that may require remediation. While the City's Draft Environmental Impact Report (DEIR) finds there are no known hazardous sites in the Study Area, without extensive drilling and soil sampling, the extent of these environmental issues and the associated remediation costs cannot be fully known. Other sites outside the Study Area may also seek to convert to residential uses in the future. To address future potential issues, this assessment includes a high-level scan of available environmental data to broadly characterize and quantify the range of environmental risks of other sites and their potential impacts on development feasibility.



# Market Assessment

## Industrial Conversion Projects

There are a number of relevant examples (completed 2018-2022) of new residential developments that were converted from industrial land uses in the proximity of the Study Area, in areas such as the Arts District and Lincoln Heights. With the exception of the building at 2020 Barranca (2.5% affordable), all these developments are 100% market rate units. For these projects, their entitlements predate Measure JJJ or were otherwise exempt from affordable housing requirements

There are several more residential projects that have been proposed and approved on parcels formerly used for industrial uses in neighborhoods bordering Boyle Heights. These recently proposed projects in the Arts District (listed in the table below) sought General Plan Amendments and negotiated agreements with the City to provide community benefits that include a certain portion of the dwelling units set aside as affordable housing (from 11%-22% of total dwelling units).

**Proposed Industrial Conversion Projects**

| Project | Total Units | Affordable Units | Projected Year Built |
|---|---|---|---|
| 520 Mateo St.<br>Arts District | 475 | 52 (11%) | 2023 |
| 670 Mequit St.<br>Arts District | 308 | 49 (16%) | 2025 |
| 3143 Violet St<br>Arts District | 347 | 76 (22%) | 2026 |

*Source: Urbanize LA, Costar, AECOM*

**Recent Industrial Conversion Projects from Nearby Neighborhoods**

| Project | Unit Type | Units | % Total | Avg SF | Rent/Unit | Rent/SF | Year Built |
|---|---|---|---|---|---|---|---|
| 695 S Santa Fe Ave | Studio | 80 | 25% | 660 | $2,889 | $4.38 | |
| Arts District | 1BR | 194 | 61% | 846 | $3,526 | $4.17 | |
| | 2BR | 46 | 14% | 1338 | $4,852 | $3.63 | Year Built: 2020 |
| | *Total/Avg* | *320* | | *879* | *$3,557* | *$4.09* | |
| 930 E 3rd st | Studio | 73 | 15% | 571 | $2,853 | $5.00 | |
| Arts District | 1BR | 316 | 67% | 855 | $3,724 | $4.36 | |
| | 2BR | 83 | 18% | 1119 | $4,670 | $4.17 | Year Built: 2019 |
| | *Total/Avg* | *472* | | *858* | *$3,756* | *$4.38* | |
| 691 Mill St<br>Arts District | Studio | 57 | 100% | 1170 | $3,551 | $3.03 | Year Built: 2019 |
| 2020 Barranca St. | Studio | 100 | 51% | 297 | $1,802 | $6.07 | |
| Lincoln Heights | 1BR | 67 | 34% | 699 | $2,003 | $3.34 | |
| | 2BR | 31 | 16% | 859 | $2,334 | $2.75 | Year Built: 2022 |
| | 3 BR | 2 | 1% | 1120 | $3,553 | $3.10 | |
| | *Total/Avg* | *200* | | *492* | *$1,969* | *$4.00* | |
| 1836 Sichel St<br>Lincoln Heights | 3BR | 27 | 100% | 1044 | $2,707 | $2.59 | Year Built: 2018 |

*Source: Urbanize LA, Costar, AECOM*

# Key Findings

## Market Analysis and Developer Interviews

- Conversions of industrial land uses to residential and mixed uses are common development processes in nearby neighborhoods, including the Arts District, Lincoln Heights and Frogtown. These neighborhoods have proven to be popular for new residential and commercial development, and many developments combine residential uses with retail, office, or creative production space.

- Several industrial conversion projects currently under development in the Arts District are all relatively large (in number of dwelling units and height) compared to residential developments in Boyle Heights. They are all mixed-income residential developments that also include retail and/or office space. Set-asides for affordable housing range from 11% to 22% in this market sample.

- According to real estate professionals active in and around Boyle Heights, in lieu of a standard ordinance or zoning overlay, the process of land use conversion can involve a lengthy General Plan Amendment and entitlement process. A land use designation that allows conversion by right would likely attract developer interest. While there might be opportunity for industrial conversion in Boyle Heights, additional density would improve the feasibility of these developments.

- There are often additional risks associated with converting industrial land uses to residential and retail mixed use developments. The redevelopment process can reveal the need for environmental remediation and incur additional costs to remove or neutralize potential contaminants. For this reason, developers consider these additional costs when developing their projects. Depending on the details of the site, industrial conversion can offer excellent redevelopment opportunities, especially when there is momentum to transform the neighborhood character (most prominent in the Arts District).

# Environmental Review

# Sample Sites in the Study Area

- The City provided AECOM with a list of sites in the Study Area that have current or prior industrial uses, as sample sites to look at remediation needs.
- The sites range in size from 0.2 to 1.1 acres.
- Current uses at the sites include commercial and industrial uses such a laundromat, a meat processing center, and wholesale distribution of dry ice and ice cream products.

| Property | Address | Parcel Size[1] (acres;sqft) | Current Use | Property Website | Zoning[2] | Historical Use[3] |
|---|---|---|---|---|---|---|
| **Omni Laundry** | 629 S. Clarence St | 0.201; 8,755 | Denim laundromat and dyer | Omni Laundry | Commercial/ Industrial | Manufacturing |
| **RW Zant Co, Meat Wholesaler** | 1470 E. 4th St. | 0.53; 23,086 | Offices for food distribution company - "operations" and "customer service" | RW Zant Co, Meat Wholesaler | Commercial/ Industrial | Bellview Creamery (1947-1954) Ocoma Foods Food Distributor (1954-1967) |
| **Commodity Food Sales** | 517 S. Clarence St. | 1.104; 48,090 | Meat processing plant | Commodity Supplemental Food Program \| Food and Nutrition Service (usda.gov) | Commercial/ Industrial | Meat Storage (1948) Wholesale Meat Distributor (1953) |
| **Russak's Cured & Smoked Products** | 1407 Boyd St. | 0.833; 36,285 | Commercial seller of meat products | Russak's Cured & Smoked Products | Commercial/ Industrial | Meat Processing |
| **Sun Service Dry Ice** | 2225 E. 7th St. | .344; 14,984 | Commercial seller of dry ice and ice cream supplies | Sun Service Dry Ice | Commercial/ Industrial | Oil Service Station |

# Environmental Assessment

- A number of businesses operating on these sites use Contaminants of Concern (COC) including waste oils, dyes, and lead, but none has any known contamination, and all fall within the regular thresholds of current permits and regulations. As such, they have been classified as "Clean," according to CalEPA's environmental criteria and Geotracker and the EPA's Toxic Release Inventory.
- Upon further review, AECOM concludes that none of the sample sites would require additional environmental remediation to address concerns of contamination. While the assessment could change after further sampling of soils during development, the current assessment does not indicate that conversion from industrial uses to residential uses would incur any additional costs beyond standard demolition and construction protocols.
- While the sample sites offer insight into the potential development costs in the Study Area, these sites do not represent the universe of potential risks of contamination and costs of remediation before, during, and after redevelopment. The following page contains a range of potential costs to redevelopment based on the most likely hypothetical contamination scenarios on other sites in the Study Area that may require remediation.
- Consequently, financial feasibility testing will assume no additional costs for the base case and highlight any cost sensitivity to the potential remediation costs shown on the following page. The proforma will use a sensitivity test that adds Return on Costs (ROC) to cover the high end of the range of remediation costs for the parcel size of each prototype. This increase in ROC is approximately 2.5%.

| Property | Proximity to potential contamination[4] | Applicable Regs | Contaminants of Concern (COCs)[5] | Media (soil, gw, etc.) | Remedial Status[4,5] |
|---|---|---|---|---|---|
| **Omni Laundry** | Next to chemical storage facility (apex dye house), stationary air emissions (trendwest inc) | Department of Toxic Substance Control (DTSC), US EPA Emission Inventory System (EIS) for Trendwest, California Environmental Reporting System for Apex Dye House | COCs nearby (Apex Dye House) are: trisodium phosphate, soluzyme powder k, solusilicone conc, soluscour rc, solupacket kp; | No known contamination on site, simply under permitting/regulation | Clean according to CalEPA's EnviroStor criteria* and GeoTracker, and EPA Toxic Release Inventory |
| **RW Zant Co, Meat Wholesaler** | Near Hexclad warehouse chemical storage facility | DTSC, California Department of Occupational Health and Safety (Cal OSHA), California Environmental Reporting System | On site: Lead (solid), Electrolyte/sulfuric acid (liquid) | No known contamination on site, simply under permitting/regulation | Clean according to CalEPA's EnviroStor criteria* and GeoTracker, and EPA Toxic Release Inventory |
| **Commodity Food Sales** | Near Hexclad warehouse chemical storage facility | DTSC, Cal OSHA, California Environmental Reporting System | No known contamination on site, simply under permitting/regulation | No known contamination on site, simply under permitting/regulation | Clean according to CalEPA's EnviroStor criteria* and GeoTracker, and EPA Toxic Release Inventory |
| **Russak's Cured & Smoked Products** | Near Gans Ink and Supply Co with chemical storage and haz waste and industrial stormwater discharge | DTSC, Cal OSHA, EPA for NPDES permit, California Environmental Reporting System | On site: Waste oil, cleaners (KOH, NaOCl), Pentafluoroethane, 1,1,1-Tetrafluoroethane, 1,1,1,2-Tetrafluoroethane | No known contamination on site, simply under permitting/regulation | Clean according to CalEPA's EnviroStor criteria* and GeoTracker, and EPA Toxic Release Inventory |
| **Sun Service Dry Ice** | Next to historical LUST cleanup site from 1994-2015, next to above ground petroleum storage, chemical storage facility, haz waste, and UST - tanks have had violations in recent years (15 total violations) | DTSC, Cal OSHA, EIS, California Environmental Reporting System | COCs nearby (City of LA General Service sites): Zerex antifreeze coolant, waste oil, and waste gasoline and diesel fuel, | No known contamination on site, simply under permitting/regulation | Clean according to CalEPA's EnviroStor criteria* and GeoTracker, and EPA Toxic Release Inventory |

# Hypothetical Contamination Scenarios

- As noted in the previous slide, preliminary assessment indicates that none of the sample sites are likely to require environmental remediation. However, based on a review of available data under hypothetical contamination scenarios, remediation may be required.
- The table below details four hypothetical environmental contamination scenarios for a parcel size of approximately 11,000 SF (average parcel size in the Study Area) and the type of remediation necessary to make the parcel developable for residential uses.
- The scenarios range from shallow soil impacted on a ¼ of the site to up to 10 feet below ground surface contamination throughout the site.
- These scenarios indicate a potential range in costs from $108,000 to $432,000 for a site of approximately 11,000 SF ( between $9.82 and $39.27 per square foot).

| Nature of Environmental Contamination | Property Size (sq ft) | Type of Remediation | Cost[1] | | | | | | Post Remediation Requirements[3] |
|---|---|---|---|---|---|---|---|---|---|
| | | | Investigation/Planning/Closure[2] | | Remediation | | Total | | |
| | | | Low | High | Low | High | Low | High | |
| Shallow soil (0-2 ft bgs) impacted with low level contaminants (SVOCs, metals) at approximately 1/4 of the site | 11,000 | Placement of an engineered barrier (asphalt cap) over the impacted portion for use as a parking lot. | $70,000 | $91,000 | $38,000 | $49,000 | $108,000 | $140,000 | -Engineered barrier maintenance and repair requirements.<br>-Dig restrictions/limitations.<br>-Construction worker monitoring during Dig activities. |
| Shallow soil (0-2 ft bgs) impacted with low level contaminants (VOCs, SVOCs, metals) site-wide. All waste is non-hazardous. | 11,000 | Removal of surficial soil to 2 ft bgs for offsite non-hazardous disposal, backfill with clean soil. | $70,000 | $91,000 | $111,000 | $144,000 | $181,000 | $235,000 | None |
| Shallow soil (0-2 ft bgs) impacted with contaminants (VOCs, SVOCs, metals) site-wide. One quarter of the waste is characteristically hazardous, the remainder is non-hazardous. | 11,000 | Removal of surficial soil to 2 ft bgs for offsite non-hazardous and hazardous disposal, backfill with clean soil. | $70,000 | $91,000 | $136,000 | $177,000 | $206,000 | $268,000 | None |
| Soil (0-10 ft bgs) impacted with contaminants (VOCs, SVOCs, metals) site-wide. All waste is non-hazardous. | 11,000 | Removal of the top 5 ft bgs of soil for offsite non-hazardous disposal, backfill with clean soil - which also acts as barrier. | $70,000 | $91,000 | $262,000 | $341,000 | $332,000 | $432,000 | Dig restrictions/limitations. |

# Financial Feasibility Analysis

(Phase 2)

# Development Prototypes & Feasibility

## Prototype Summary: Full Parking Scenario Prototypes from Phase 1

The Proposed Community Benefits Program (CBP) offers a suite of incentives (density bonus, FAR bonus , parking reduction, etc.) to encourage the production of affordable housing if the development includes minimum set asides of affordable housing and family-sized units (2 or more bedrooms).

In response to comments from City Officials, the City has retained AECOM to assess the potential feasibility of allowing parcels currently zoned exclusively for commercial and industrial uses in the Study Area to redevelop as residential and mixed-use residential/retail district. The new land use designation would allow for the previous commercial and industrial uses while also allowing for the new land uses. Projects that opt to redevelop as residential and mixed use developments would be required to provide a certain percentage of all dwelling units as affordable. In Phase 1 of the Analysis, AECOM developed residential land use prototypes based on recently constructed (i.e., market-validated) precedents found elsewhere in the greater market area.[1]

In Phase 3, AECOM adapted the proforma assumptions to account for lower costs and revenues for the industrial/commercial space relative to retail space and developed a 5th prototype to align with zoning requirements in the IX3 hybrid industrial zone. AECOM has also expanded the range of AMI levels and set-asides to compare the potential impacts on development feasibility for the requirements of both the City Officials' request and the set-asides established in the "BHCPU Bonus" scenario that utilizes the Local Affordable Housing Incentive Program outlined in LAMC CH 1A Section 9.3.2 and the BHCPU Community Benefits Program of the Community Plan Implementation Overly District and the requirements for Measure JJJ for projects switching from non-residential to residential uses.

The proforma analysis includes feasibility testing for the Initial Run (current market rates and construction costs) and the Preferred Scenario (previously referred to as Sensitivity Test 5 that includes appreciation of both market rate rents and construction costs). The table below summarizes the applicable zoning codes and development assumptions.

| Site and Land Use Assumptions | | | | Assumed Zoning Classifications | | | | | | FAR | | | | Density (DU/AC) | | | | Parking Ratio (Stalls/DU) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proto-type | Use | Commercial Space | Lot Size | Form | Frontage | Develop-ment Standards | Use | Density | TOC | Base Maximum | Base Tested* | Max BHCPU Bonus | Bonus Tested* | Base Maximum | Base Tested* | Max BHCPU Bonus | Bonus Tested * | Base Required | Base Tested* | BHCPU Bonus | Bonus Tested * |
| 1 | Small Lot Mixed Use | 2,000 | 15,000 | LM6 | SH3 | 4 | CX2 | 4 | Tier 3 | 1.5 | 1.5 | 4.0 | 4.0 | 108 | 64 | 194 | 180 | 0.35 | 1.1 | 0 | 1.1 |
| 2 | Large Lot Mixed Use | 5,000 | 32,000 | LM6 | SH3 | 4 | CX2 | 4 | Tier 3 | 1.5 | 1.5 | 4.0 | 4.0 | 108 | 63 | 194 | 180 | 0.32 | 1.3 | 0 | 1.0 |
| 5[2] | Hybrid Industrial | 25,245 | 23,000 | LM4 | G2 | 4 | IX3 | 8 | Tier 3 | N/A | N/A | 3.0 | 3.0 | N/A | N/A | 194 | 83 | N/A | N/A | 0 | 1.5 |

*(1)AECOM developed physical test-fit models for each prototype based on site and market parameters and attempted where physically possible to meet the maximum allowable thresholds for both Base and Density Bonus Scenarios*
*(2) Prototypes 3 and 4 are shown in Phase 1. Prototype 5 was developed to test the IX3 land use that could be allowable in the Study Area. This prototype only considers the Bonus Scenario, as previous rounds of testing found the Base Scenario to be infeasible for all prototypes under current market conditions.*

# Development Prototypes & Feasibility

## Set-aside Requirements of Proposed Programs

**Phase 1** of Proforma Financial Feasibility Testing analyzed the development feasibility of proposed set-aside requirements and their corresponding incentives as proposed in the Community Benefits Package.

**Phase 2** considered additional requirements for "family-sized units" of two or more bedrooms.

**Phase 3 (here)** considers how parameters change for the conversion of industrial to residential land uses and explore the potential of a mandatory inclusionary requirement for developments seeking to develop residential and mixed-use districts in the Study Area. AECOM will compare the requirements of the currently proposed CBP and the request from City Council to consider from a 60% requirement of affordable housing in this area to the highest feasible set-aside percentages. The table below summarized the potential set-asides and AMI levels of these three programs.

Because the Environmental Review for the sample sites in the Study Area revealed that there were no additional known remediation costs associated with converting the current industrial and commercial land uses to residential and mixed-use residential/retail land uses, there are no additional direct costs incorporated in the pro-forma analysis. Furthermore, the land use alternative would allow by-right residential and mixed-use development as long as the requirements for the inclusion of affordable units are met.

However, because of the uncertainty associated with land conversions and redevelopment from industrial land uses, AECOM carried out a sensitivity test that assumed additional indirect costs associated with financial uncertainty and a corresponding higher threshold for developer profit. This slight increase in contingency is incorporated as a sensitivity test for projects compared to compliant projects in rest of the CPA. These additional costs could provide insight into potential future land conversions elsewhere in the CPA.

**Comparison of Potential Inclusionary Requirements**

| | Acutely Low | Extremely Low | Very Low | Low |
|---|---|---|---|---|
| **Boyle Heights CPU CBP** | 10% | 11% | 15% | 25% |
| **City Council Request** | Range from 60% Affordable to Maximum Feasible | | | |

*Note: For reference, the set-aside requirements for projects that trigger Measure JJJ are 5% ELI and an option of 11% VLI or 20% LI*

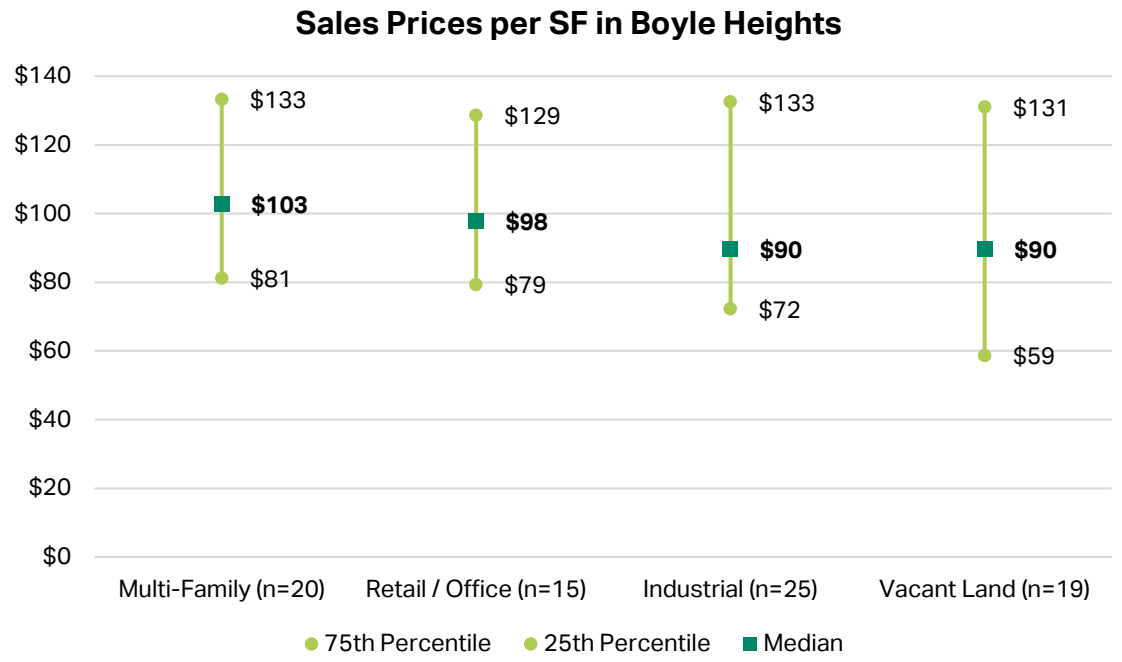
# Development Prototypes & Feasibility

## Market Land Value Assumptions

For a project to be feasible as tested, estimated residual land value must be compared to the market value of the land. A feasible project generates a value that is high enough to acquire the land.

An analysis of recent land transactions in Boyle Heights indicates a land value range from $133 per land square foot at the 75th percentile to $59 per square foot at the 25th percentile

For the feasibility assessment of the conversion of industrial land to residential, AECOM considered land values for industrial properties in Boyle Heights. It should be noted, however, that real estate sales transactions within the Study Area are higher than the average for Boyle Heights. According to Costar, transactions in the Study Area in 2022 and 2023 ranged from $64 to $460 per square foot (with few observations, n=6). This indicates there could be a premium paid for land in this sub-area relative to the rest of the CPA. For this reason, the threshold for "likely feasible," has been raised to $84/SF for this round of feasibility testing.

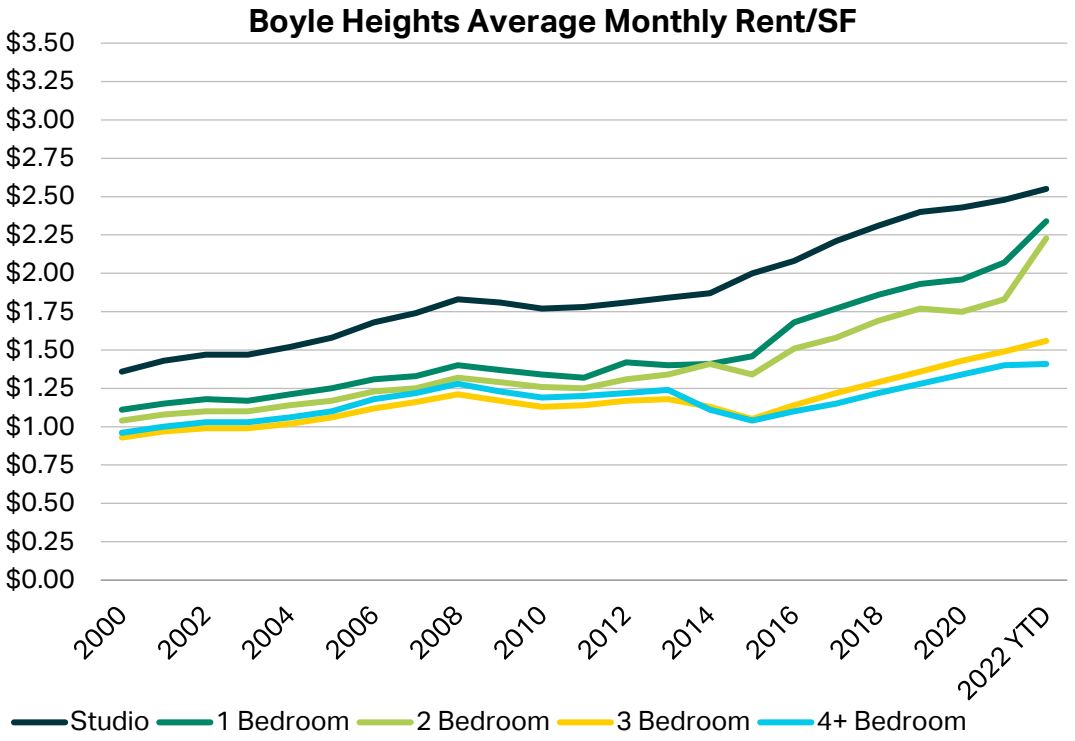


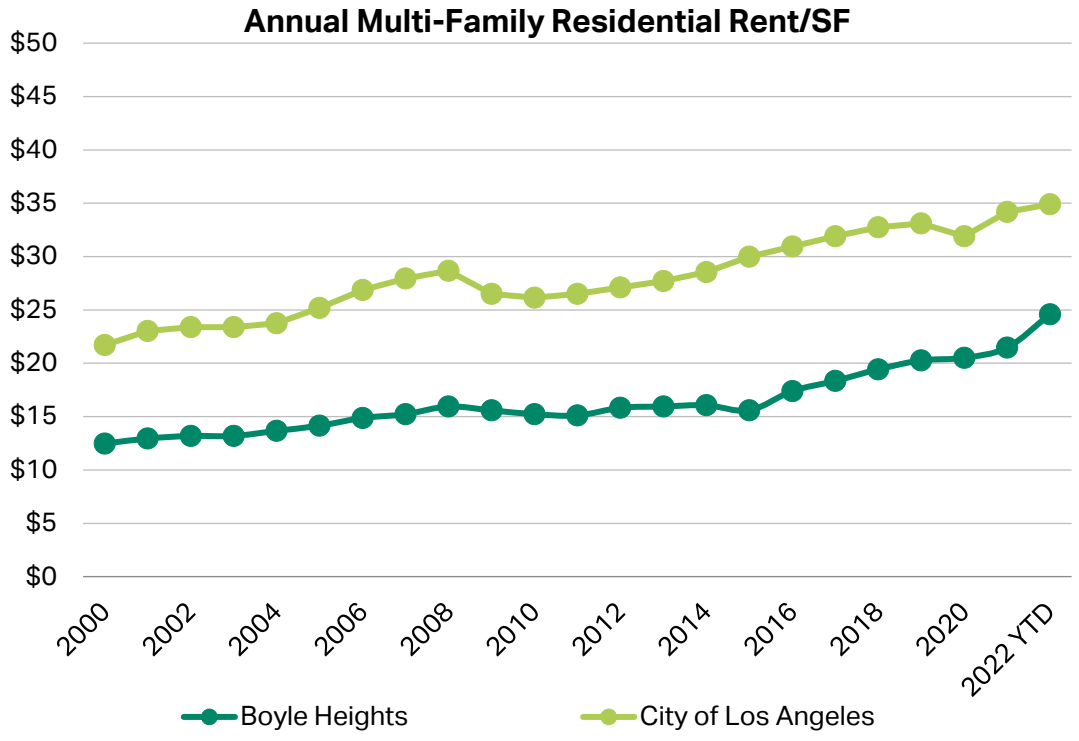
# Development Prototypes & Feasibility

## Market Rate Rent Assumptions (repeated from Phase 1)

Housing rents in Boyle Heights are lower than citywide averages but are growing at a faster rate, increasing by 97% since 2000 compared to 61% citywide.

Current average market rate rents in Boyle Heights are 65%-75% of the city-wide average depending on the unit type



# Development Prototypes & Feasibility

## Market Rate Rent Assumptions (repeated from Phase 1)

To test the feasibility of the Community Benefits Program, AECOM modelled three different sets of market rate rents:

- **Low**: Based on current average rent/SF by unit type in the Boyle Heights CPA. The "low" rent assumption is supportable by a household income of $99,000 (20% of BH CPA). (Assumption for Initial Run Scenario)
- **Medium**: Based on comparable market rate projects in adjacent neighborhoods with a 65%-75% discount by unit type derived from historical trends. The "medium" rent assumption is supportable by a household income of $125,000 (13% of BH CPA).
- **High**: Based on grossing up the Medium rents by 10% as developments begin to achieve comparable rents to the market rate comps. The "high" rent assumption is supportable by a household income of $138,000 (10% BH CPA). (Assumption for the Preferred Scenario and Risk Premium Scenarios).

**Recent MF Projects from Nearby Areas (Basis for "Medium" Rent Assumptions)**

| Project | Unit Type | Units | % Total | Avg SF | Rent/Unit | Rent/SF |
|---|---|---|---|---|---|---|
| 695 S Santa Fe Ave | Studio | 80 | 25% | 660 | $2,889 | $4.38 |
| Arts District | 1BR | 194 | 61% | 846 | $3,526 | $4.17 |
| | 2BR | 46 | 14% | 1338 | $4,852 | $3.63 |
| | *Total/Avg* | *320* | | *879* | *$3,557* | *$4.09* |
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| Arts District | 1BR | 316 | 67% | 855 | $3,724 | $4.36 |
| | 2BR | 83 | 18% | 1119 | $4,670 | $4.17 |
| | *Total/Avg* | *472* | | *858* | *$3,756* | *$4.38* |
| 905 E 2nd St | Studio | 78 | 24% | 494 | $2,370 | $4.80 |
| Little Tokyo | 1BR | 179 | 56% | 732 | $3,409 | $4.66 |
| | 2BR | 63 | 20% | 1033 | $3,736 | $3.62 |
| | *Total/Avg* | *320* | | *1170* | *$3,220* | *$3.92* |
| 232 E 2nd St | Studio | 51 | 21% | 550 | $2,232 | $4.06 |
| Little Tokyo | 1BR | 112 | 47% | 715 | $2,837 | $3.97 |
| | 2BR | 77 | 32% | 1143 | $3,793 | $3.32 |
| | *Total/Avg* | *240* | | *817* | *$2,951* | *$3.61* |
| 1836 Sichel St | 3BR | 27 | 100% | 1044 | $2,707 | $2.59 |
| Lincoln Heights | | | | | | |
| **Average** | **Studio** | | **22%** | **569** | **$2,586** | **$4.56** |
| | **1BR** | | **58%** | **787** | **$3,374** | **$4.29** |
| | **2BR** | | **21%** | **1158** | **$4,263** | **$3.68** |
| | **3BR** | | **NA** | **1044** | **$2,707** | **$2.59** |

*Source: Costar, AECOM 2022*

**Rent/Unit Assumptions**

| | Low | Medium | High |
|---|---|---|---|
| **Studio** | $1,275 | $1,550 | $1,722 |
| **1BR** | $1,544 | $1,947 | $2,163 |
| **2BR** | $2,007 | $2,574 | $2,860 |
| **3BR** | $2,028 | $2,684 | $2,982 |

*Source: Costar, AECOM 2022*

**Market Rent/SF Assumptions**

| | Low | Medium | High |
|---|---|---|---|
| **Studio** | $2.55 | $3.10 | $3.44 |
| **1BR** | $2.34 | $2.95 | $3.28 |
| **2BR** | $2.23 | $2.86 | $3.18 |
| **3BR** | $1.56 | $2.44 | $2.71 |

*Source: Costar, AECOM 2022*

# Development Prototypes & Feasibility

## Prototype 1: Small Lot Mixed-Use

### Base Scenario

FAR: 1.5

Density (Lot SF/Unit): 682

Units: 22

Residential GFA: 20,800 SF

Commercial/Industrial GFA: 2,000 SF

Parking: 24 spaces (1/ unit + 2 commercial)

Parking Strategy: Structure and Subterranean

### Assumptions

Zoning: [LM6-SH3-4] [CX2-4]

Lot Size:15,000 SF

Lot Dimensions: 100 x 150 ft

### Bonus Scenario

FAR: 4.0

Density (Lot SF/Unit): 242

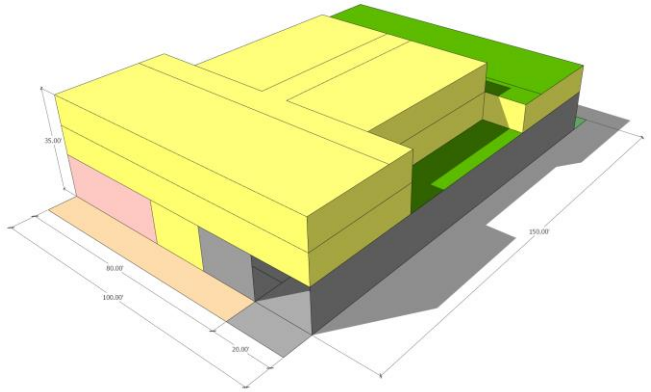
Units: 62 (6-16 Affordable)

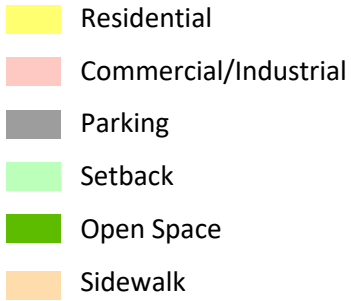
Residential GFA: 58,000 SF

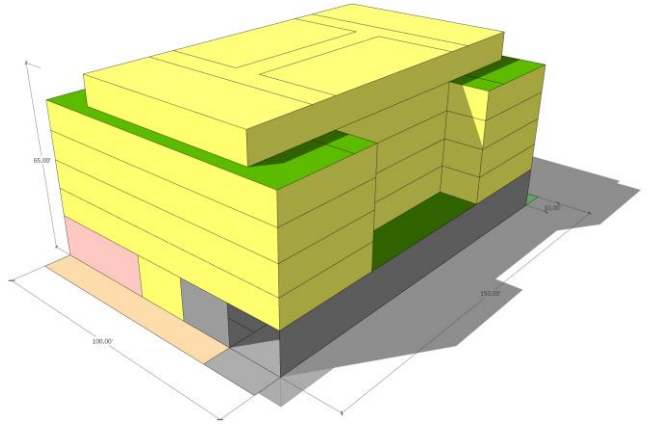
Commercial/Industrial GFA: 2,000 SF

Parking: 68 spaces (1/ unit + 4 commercial)

Parking Strategy: Structure and Subterranean





# Development Prototypes & Feasibility

## Prototype 2: Large Lot Mixed use

### Base Scenario

FAR: 1.5

Density (Lot SF/Unit): 696 SF

Units: 46

Residential GFA: 43,00 SF

Commercial/Industrial GFA: 5,000 SF

Parking: 57 spaces (1/ unit + 9 commercial)

Parking Strategy: Structure

### Assumptions

Zoning: [LM6-SH3-4] [CX2-4]

Lot Size: 32,000 SF

Lot Dimensions: 160 x 200 ft

### Bonus Scenario

FAR: 4.0

Density (Lot SF/Unit): 242

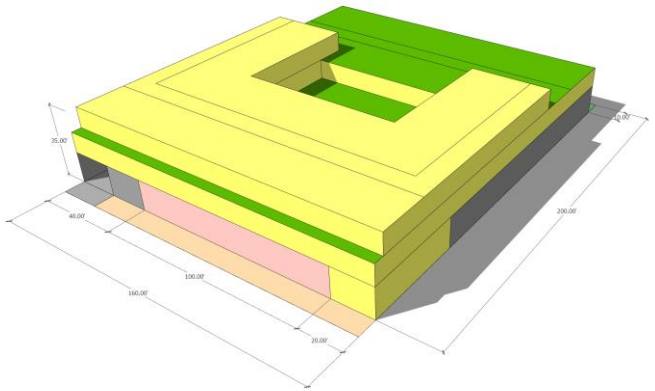
Units: 132 (13-33 Affordable)

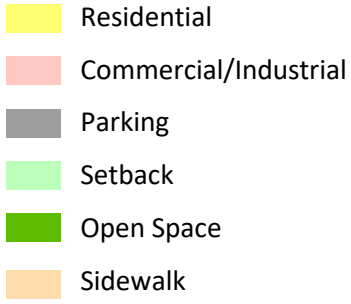
Residential GFA: 123,000 SF

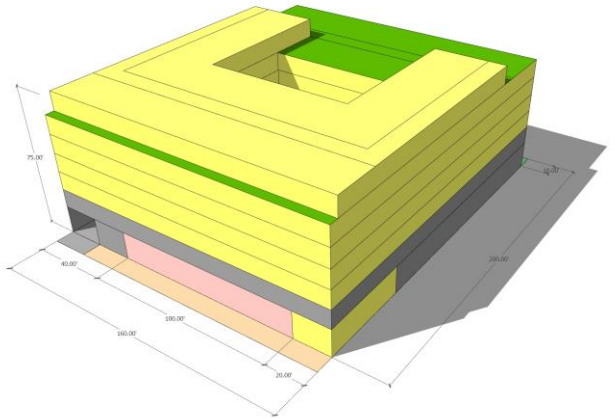
Commercial/Industiral GFA: 5,000 SF

Parking: 137 spaces (1/ unit + 5 commercial)

Parking Strategy: Structure





# Development Prototypes & Feasibility

## Prototype 5: Hybrid Industrial Residential

### Assumptions

Zoning: [LM4-G2-4] [IX3-8]

Lot Size: 23,000 SF

Lot Dimensions: 125 x 184 ft

### Bonus Scenario

FAR: 3.0

Density (Lot SF/Unit): 522

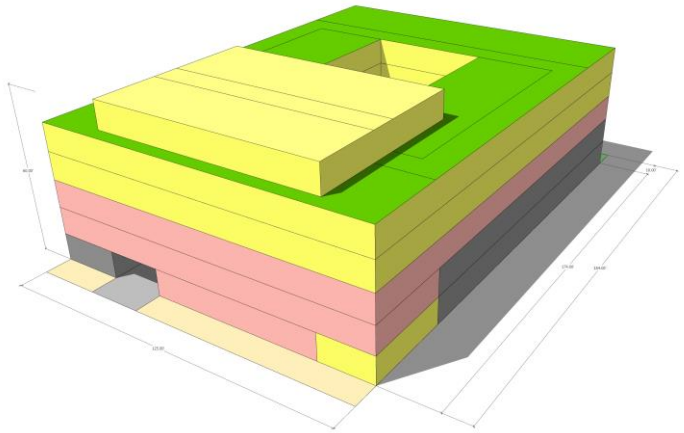
Units: 44 (5-12 Affordable)

Residential GFA: 43,945 SF

Commercial/Industrial GFA: 25,245 SF

Parking: 69 spaces (1 / unit +25 commercial)

Parking Strategy: Structure



- Residential
- Commercial/Industrial
- Parking
- Setback
- Open Space
- Sidewalk

# Development Prototypes & Feasibility: BHCPU CBP

## Residual Land Value Summary—*Initial Run*

**Scenario Parameters—Initial Run:**
*Medium market rents, Schedule VI affordable rents, current construction costs, full parking, $84/SF feasibility threshold*

- Besides the threshold of feasibility raising from $72/SF for all of Boyle Heights to $84/SF for the Study Area, the same assumptions from Phase 1 were used in the analysis of the Initial Run.
- Feasibility is limited to the higher-density prototypes (Prototype 1and 2) and 10% EL, 11% EL, and 15% VL set-asides.
- No prototype is feasible for the 25% L set-aside.

| | 10% AL | 11% EL | 15% VL | 25% L |
|---|---|---|---|---|
| Prototype 1 | ***likely feasible*** | ***likely feasible*** | ***likely feasible*** | infeasible |
| Prototype 2 | ***feasible*** | ***feasible*** | infeasible | infeasible |
| Prototype 5 | infeasible | infeasible | infeasible | infeasible |

# Development Prototypes & Feasibility: BHCPU CBP

## Residual Land Value Summary—*Preferred Scenario: Higher Construction Costs and Market Rents*

**Scenario Parameters—Preferred Scenario**
*High market rents, Schedule VI affordable rents, higher construction costs, full parking, $84/SF feasibility threshold*

- "High" Market Rate Rents increase in feasibility significantly over the Initial Run. While the "High" rents are 10% higher than the "Medium" rents, they remain slightly lower than market rents for equivalent prototypes in nearby neighborhoods that have supported recent residential development growth. Consequently, the "High" rents are likely achievable in Boyle Heights for new projects in the Study Area adjacent to the LA River.
- According to CBRE, construction costs are predicted to increase 14% by the end of 2023 over 2022[1]. If this occurs, and rents remain at current market rates, all prototypes and set-asides become infeasible in the short term.
- Results from this model yield likely feasible and feasible results for Prototypes 1 and 2 under the 10% AL and 11% EL scenarios and likely feasible for Prototypes 1 and 2 under the 15% VL scenario.
- Prototype 5 was not feasible under the testing scenarios. The highest RLV yielded was $60/SF for the 11% EL scenario. A reduction in costs from a City program or policy could potentially improve feasibility and encourage a development project of this type.

| | 10% AL | 11% EL | 15% VL | 25%L |
|---|---|---|---|---|
| Prototype 1 | ***likely feasible*** | ***likely feasible*** | ***likely feasible*** | infeasible |
| Prototype 2 | ***feasible*** | ***feasible*** | ***likely feasible*** | infeasible |
| Prototype 5 | infeasible | infeasible | infeasible | infeasible |

(1) https://www.cbre.com/insights/books/2022-us-construction-cost-trends

# Development Prototypes & Feasibility: BHCPU CBP

## Residual Land Value Summary—*Risk Premium*

**Scenario Parameters—Risk Premium:**
*High market rents, Schedule VI affordable rents, higher construction costs, full parking, $84/SF feasibility threshold*

- Conversion of land use from industrial to residential and mixed residential/retail land uses must assume additional risks that may be required for site remediation. To account for these unknown potential additional costs to the developer, AECOM has increased the Return on Costs (ROC) 10% to 12.5% of before incorporating the cost of land. This risk premium is approximately equal to the high remediation cost scenario calculated in the Environmental Review by square foot of land.
- Feasibility is limited to the highest-density prototypes (Prototype 2) for the 10% EL and 11% EL set-asides.

| | 10% AL | 11% EL | 15% VL | 25% L |
|---|---|---|---|---|
| Prototype 1 | infeasible | infeasible | infeasible | infeasible |
| Prototype 2 | ***likely feasible*** | ***likely feasible*** | infeasible | infeasible |
| Prototype 5 | infeasible | infeasible | infeasible | infeasible |

# Development Prototypes & Feasibility: Maximum Inclusionary Set-Asides

## Residual Land Value Summary—*Preferred Scenario*

**Scenario Parameters—Preferred Scenario:**
*High market rents, Schedule VI affordable rents, higher construction costs, full parking, $84/SF feasibility threshold*

- City Officials requested AECOM test the prototypes to see how much affordable housing set-aside the proposed land use designations in the CPU could sustain under current market conditions.
- While a suggested target of 60% is not feasible for these prototypes, a few of the thresholds see increases from the proposed CBP.
- Further incentives could increase the feasibility yields, including additional FAR and Density and higher market rents. The Reduced Parking Scenarios from Phase 1 also raise the feasibility calculations for all prototypes.
- The table below shows the maximum set-aside by AMI level for each prototype tested. The proposed CBP would require 10% Acutely Low, 11% Extremely Low, 15% Very Low, and 25% Low.

| Maximum Set-Aside Percentage by Prototype and AMI Level | | | | |
|---|---|---|---|---|
| | AL | EL | VL | L |
| Prototype 1 | 11% | 13% | 15% | 17% |
| Prototype 2 | 13% | 15% | 17% | 22% |
| Prototype 5 | 6% | 8% | 10% | 12% |

# Development Prototypes & Feasibility

## Summary of Findings for the Projects in the Study Area

- The results of the proforma analysis for Phase 3 feasibility testing yield results that are generally consistent with those of Phase 1 in that the program as designed would **encourage higher density mixed-use development.**
- The environmental review suggests that parcels within the Study Area would **not incur additional development costs if they were converted to residential and mixed-use residential/retail land uses**. These sites would incur market rate costs for demolition and site preparation consistent with Phase 1 and Phase 2 of the feasibility testing. However, AECOM carried out additional sensitivity testing for hypothetical scenarios with levels of contamination for reference to additional risks that could occur outside the Study Area.
- The environmental review also estimates hypothetical potential remediation costs for other potential sites in the CPA (not the selected sample sites) that range from $108,000 to $432,000 for a site of approximately 11,000 SF. The proforma analysis incorporates potential additional costs and risks of land conversion by increasing the Return on Costs for the developer by a margin sufficient to cover these expenses. This ROC is approximately equivalent to the cost of the remediation per square foot of land in the high cost hypothetical scenario.
- The feasibility of these prototypes in the Study Area cannot support the high affordable housing set-asides that have been suggested by City Officials. **Without additional incentives or more intensive allowable uses, development in the Study Area does not outperform the remainder of Boyle Heights**. The industrial land in the Study Area is often more expensive than residential parcels throughout the CPA. If the Study Area were to become a “hot market” district, rising rents would improve the feasibility of projects there and allow for higher set-asides.
- **Increasing FAR and Density limits beyond what is currently proposed in the CPU would also allow additional market rate and affordable housing development in the Study Area**. The proforma analysis yielded many results that were feasible or infeasible by relatively small margins. Additional density could improve feasibility results and encourage development in the Study Area.