Feasibility of Form-Based Code for Transit-Oriented Development

A Next-Phase Analysis of the East LA 3rd Street Specific Plan and Adopted Form-Based Code

A comprehensive project submitted in partial satisfaction of the requirements for the degree Master of Urban and Regional Planning

Researcher: Michelle Chung
Client: Los Angeles County, Supervisorial District 1
Faculty Chair of Committee: Paavo Monkkonen

Disclaimer: This report was prepared in partial fulfillment of the requirements for the Master in Urban and Regional Planning degree in the Department of Urban Planning at the University of California, Los Angeles. It was prepared at the direction of the Department and of [insert client name] as a planning client. The views expressed herein are those of the authors and not necessarily those of the Department, the UCLA Luskin School of Public Affairs, UCLA as a whole, or the client.

Contents

ACKNOWLEDGEMENTS 4

EXECUTIVE SUMMARY 5

INTRODUCTION 6

LITERATURE REVIEW 7

Transit-Oriented Development as a Tool for Redevelopment 7

Form-Based Code Used as Tool to Match Investment with Community 8

Intersection of Transit-Oriented Development and Form-Based Code 10

METHODOLOGY 13

Task 1: Review land use goals of existing Third Street Specific Plan 13

Task 2: Identify prototypes of desired development 13

Task 3: Test feasibility 18

Task 4: Identify Issues in Feasibility 21

Task 5: Industry Expert Interviews 21

RESULTS 22

Summary of Findings 22

Feasibility Results 22

Interview Summary 25

Strengths, Limitations, and Considerations 27

RECOMMENDATIONS 29

CONCLUSION 31

CITATIONS 33

APPENDIX 35

List of Tables

Table 1 – Selected Sites for Test Fits 16

Table 2 – Selected Development Prototypes 17

Table 3 – Feasibility Results 23

List of Figures

Figure 1 – Specific Plan Area Parcels by Land Use 14

Figure 2 – Specific Plan Area Parcels by Utilization Ratio 15

Figure 3 – Parcels of Selected Sites 15

Figure 4 – Site by Prototype [make new map with color code] 17

Acknowledgements

Sincere gratitude to the following individuals and organizations for their contribution to this study.

Paavo Monkkonen, UCLA, Project Advisor

Waqas Rehman, Los Angeles County Supervisorial District 1, Client Advisor

Evelyn Blumenberg, UCLA

Cesar Diaz, Los Angeles County Supervisorial District 1

C.J. Gabbe, Santa Clara University

Joan Ling, UCLA

Hina Sheikh, Los Angeles County Supervisorial District 1

Executive Summary

This study addresses the feasibility of applying form-based codes in transit-oriented development areas. Specifically, the study examines the feasibility of developing mixed use in the East Los Angeles Third Street Specific Plan area within the parameters of the Form-Based Code adopted for the Specific Plan in 2014. Using a methodology that involves translating the code into development prototypes and conducting pro forma feasibility analyses on several iterations of these prototypes for key sites in the Specific Plan area, the study finds that the form-based code does not prevent the feasibility of development. In fact, there are several benefits to adopting a form-based code that work particularly well for this part of Los Angeles County. Importantly, the code in place delineates and reinforces what the East LA community has consistently sought out for new developments along the Gold Line extension even before it was completed in 2009.

This research is important because transit infrastructure, as a major public investment, ought to help leverage development that serves the communities closest to it. Form-based code is a popular tool to help achieve desired development outcomes, but the efficacy of such has not yet been studied in the context of TOD areas.

The East LA area is a complex location to examine the dynamics of form-based code with TOD because it has a long history of development investment and disinvestment. As part of Los Angeles' unincorporated urban area, governance is conducted at the County level and funding for development partnerships and public improvements is limited. As such, planning in East LA has been most effective when it has focused on the assets and needs of the immediate community. A key recommendation of this study is for the County to explore opportunities to apply this approach elsewhere in unincorporated County and in other areas where communities seek reinvestment.

Introduction

Los Angeles County Regional Planning prepared and approved the Third Street Specific Plan in 2014 to address the surrounding communities' needs and to anticipate development activity brought on by the Gold Line expansion. The Third Street Specific Plan Area currently includes four stations along the Gold Line in unincorporated East Los Angeles between Boyle Heights and Monterey Park and, with dedicated Measure M funding, will also include two new alignments on Washington and SR-60. To date, the Specific Plan Area has not experienced much change and both housing and commercial needs continue to grow.

The Plan establishes new development standards and strategies to encourage and support a sustainable, transit-supportive, pedestrian-friendly, and economically vibrant community. The client, County of Los Angeles District 1, seeks to revisit the plan and execute a "lessons learned" assessment about what the area can support relative to what the community wants. Of particular concern is the underlying economic viability of Specific Plan elements, notably a form-based code calling for vertical mixed-use development in the TOD and Neighborhood Center subareas as outlined in the Specific Plan among six total subareas. These two subareas have been selected because they are the most ambitious in terms of change from existing form and land use and are also seeing the least amount of development interest. This project evaluates the deficit in market response to the specifications detailed in the Form-Based Code with respect to these subareas and provides recommendations to update the Code to promote development interest in these corridors. Specifically, the research addresses the following question: Which components of the adopted form-based code are most influential to the feasibility of desired development in the East Los Angeles 3rd Street Specific Plan Area? The analysis focuses on the vacant and underutilized parcels within the TOD and Neighborhood Center subareas.

Upon review of the results of the feasibility analysis, I worked with Staff to determine if updates to the Form-Based Code were necessary to better align with the development goals of the Specific Plan.

Literature Review

This section puts the research regarding the economics of form-based code in TOD areas in the context of existing academic literature. To date, there is limited academic literature on the exact nexus of real estate economics and form-based code in TOD areas. Planning scholars accept that transit-oriented development can bring about reinvestment in areas that may otherwise not develop. Scholars also accept that form-based code can bring about neighborhood-appropriate development (i.e., styles, heights, and density that respect what existing buildings look like and is vetted by a community design process). However, the dynamics of the two together have not yet been studied in academic literature. As such, this literature review is presented in three parts: the first two confirming and qualifying these assumptions, and then a third section synthesizing these concepts.

Transit-Oriented Development as a Tool for Redevelopment

Transit-oriented development (TOD) is broadly defined as the distance people are willing to walk to public transit and the development that occurs because of that connection to a transit node (Dittman and Ohrland, 2004). TOD is often characterized as compact, livable, and walkable and for these reasons, is touted for its potential to spur investments in areas that have suffered neglect and economic disinvestment (Sandoval, 2015). For Los Angeles, transit-oriented development is a strategy for addressing road congestion, reducing air pollution, and mitigating shortages of affordable housing. There is also recent evidence of increased building construction activity along some rail lines (Loukaitou-Sideris, 2010).

However, TOD in and of itself does not generate investment. Boarnet and Compin previously laid out the possible constraints to transit-oriented development in their study of development around the light rail system in San Diego, CA (Boarnet and Compin, 1999). The following is a summary list of their findings:

1. Existing land use patterns near rail stations can limit the opportunities for TOD.
2. Difficulties in assembling large parcels of land can limit TOD.

3. The private land market may not sustain new development projects, including transit-oriented ones.
4. Local economic and fiscal circumstances may discourage localities from pursuing TOD.
5. Local officials may not be fully informed about both the regional and local advantages of TOD

Loukaitou-Sideris and Banerjee characterize these issues as highly dependent on location (Loukaitou-Sideris and Banerjee, 2000). For example, many areas along the Metro Blue Line located in south Los Angeles toward Long Beach remain underdeveloped despite investment in light rail. Proponents of the project maintained that the transit line would provide jobs and induce community revitalization but the decision to route through blighted areas near freeways did not attract the anticipated level of private development (Loukaitou-Sideris and Banerjee, 2000). As such, TOD must be placed in a location with complementary land use patterns, easy parcel assemblage, an active private land market, healthy local economic and fiscal environment, and political support in order to encourage reinvestment. With that said, TOD as a method of reinvestment appears to be a paradox of the chicken or egg: if the goal of TOD is to generate reinvestment but it needs all of the above factors in order to work, which comes first? For that, planners have looked to implementing various planning methods to support TOD; one of which is form-based code.

Form-Based Code Used as Tool to Match Investment with Community

Form-based code is the method of regulating development to achieve a specific urban form; it favors regulating form over use (which would be the traditional method of land use regulation, Euclidean Zoning) (Lamar, 2015). The objective of form-based code is to create a more desirable place that suits the existing community and is sustainable. To accomplish this goal, form-based codes set certain standards for the appropriate form and scale of building facades, streets, and blocks within a given community.

Form-based code is commonly associated with the New Urbanism movement in planning. New Urbanism seeks to build a sense of community and develop ecological practices by forming human-scaled neighborhoods (i.e. walkable, close to transit, mixed-use) as opposed to the car-oriented landscapes typical of suburbs designed in the 1950s (Kelbaugh, 2002). Because creating the amenities

necessary to implement New Urbanism often requires substantial changes to infrastructure, form-based code is more frequently utilized in the design of new towns and undeveloped sections of towns and cities rather than in efforts to infill or retrofit land in existing urban areas (Innis, 2007). As such, it is much harder to implement form-based code in an area like East LA because it is largely built out.

While Innis would suggest that the mismatch is due to the fact that East LA is already developed, Carmona would argue that the issue is not what existing development is involved, but who is involved in making the decisions. Carmona (2009) suggests that this gap often exists because there are at least three different groups involved in creating and implementing code: designers, policymakers, and developers, and often times these actors do not work in concert. Carmona calls each of them tyrannies in the practice of coding. Designers work to create form. Policymakers work to fit within existing governance and to reflect the community's wants. Developers work to create projects for profit. In an ideal scenario, all three actors would work together to develop code that would achieve all three outcomes; however, in practice, it is difficult to strike this balance.

In a 2010 study, Carnoske, et al. interviewed approximately 5,000 developers and realtors across the country in a survey assessing the development, sale, and perceived demand for activity-friendly New Urbanism communities (Carnoske, et al. 2010). Developers were asked to identify the extent to which specific factors encourage development of a New Urbanism-style development. Respondents reported the most encouraging factors were "shorter time for permitting, reduced impact fees, and higher allowable density (lot yields)". Other important factors included "reduced infrastructure costs (streets, curbs, gutters, and sidewalks) and reduced storm water management costs". The least influential factors included: "car sharing programs available, requirement to conform with LEED-ND standards and regulations allowing grid-streets". Form-based codes were ranked as only marginally influential. However, the survey presented form-based code as a flexible development regulation on spectrum between form-based code on the flexible end and Euclidian zoning on the restrictive end; it did not consider the form-based codes that are just as, if not more restrictive, than Euclidian zoning. Furthermore, this survey was conducted in 2010 during the

economic downturn, so other factors such as perceived market demand were for good reason ranked more significant than planning regulations.

Intersection of Transit-Oriented Development and Form-Based Code

As discussed in the previous sections, certain conditions are necessary to achieve TOD and to successfully implement form-based code. The following section synthesizes these conditions and frames the research.

Existing Land Use

The ELA Third Street Specific Plan provides introductory descriptions of the existing land use conditions in each of the station areas of the specific plan area (Los Angeles County, 2014) and are presented below. Even though some station areas have severe underutilization, the specific plan area overall is largely built out. With vacant parcels dispersed throughout built out areas, the ELA area is already proving to be a difficult place to implement form-based code; however, this is a set condition and not one that will be toggled for this research.

- Indiana Station: "The Indiana station and vicinity are characterized by relatively low-intensity buildings, including single-family homes that are used as both residences and businesses, one-story commercial buildings, one and two-story mixed-use buildings."
- Maravilla Station: "The area around Maravilla Station is characterized by older residential structures of generally one-story with minimal setbacks from the street. The station area also has underutilized parcels, including parking lots, vacant properties, and undercapitalized commercial buildings."
- Civic Center Station: "This section of 3rd Street exhibits a stronger sense of identity and definition than the other station areas with an artistic mural, geometric building painting, and the station itself combining to create a bright, accessible environment."
- Atlantic Station: "A majority of the surrounding area around the station is used for surface parking lots."

Authority

Form-based code requires a great amount of authority over the existing land use regulations. Some jurisdictions will create form-based codes that apply citywide. Others decide to implement them in specific areas. One tool that allows for this

area-specific implementation in California is the specific plan. Specific plans are a type of implementation plan in California, frequently with land use regulatory authority that overrides the underlying zoning designation (W. B. Fulton, 2005). The ELA Third Street Specific Plan achieves this authority in the context of this research project.

Community Engagement and Support

East Los Angeles, the locational context of this project, is not the first neighborhood in the Los Angeles area to implement design standards; in fact, design standards are relatively commonplace, especially when major transit investments are made because development is expected. As nearby examples, the Crenshaw Corridor plan requires design review by an appointed seven member design review board (Gabbe, 2016). The Vermont/Western plan includes development standards and design guidelines related to building setbacks, open space, ground floor transparency, façade design, and parking structure design. However, the ELA Third Street Specific Plan is the first specific plan in unincorporated County to adopt a form-based code to prioritize design (Los Angeles County Planning Department).

The client, LA County First Supervisorial District, stated that the creation of the form-based code for the ELA Third Street Specific Plan was heavily community-oriented. Over the years, form-based codes have evolved to require community participation and visioning to create consensus, whereas in "previous historical periods, such agreement was taken for granted and many aspects of urban form were dictated by technological and other constraints" (Talen, 2009). As mentioned above, community vision may not always match with what is possible given the location-specific factors related to the success of TODs.

Development Feasibility

A final consideration is the development feasibility of form-based code in TOD areas. There is precedent to posit that development feasibility is affected by development regulations. Quigley, et al. synthesize the findings of multiple studies across the United States that point to increased housing (Quigley 2007) and land prices (Kok, Monkkonen, and Quigley, 2014) as a result of land use regulations. Increased housing prices increase development return while increased land prices increase development cost. These two reactions to

development regulation do not happen simultaneously and also do not happen equally to balance out; therefore, development regulations affect development feasibility to some extent. As mentioned above, form-based code is certainly a type of development regulation.

Development feasibility is reliant on all of the conditions above and furthermore can be tested. A 2017 study regarding developer response to land use regulations in another transit-oriented development area in Los Angeles assessed the following factors: land use, FAR limits, residential density limits, height limits, parking, setbacks, lot coverage, and design (Gabbe 2017).

This same study found that it varies from developer to developer and market as to which regulations are most constraining. Therefore, relying on developer interviews is not enough to gauge how the form-based code affects feasibility. As such, a combination of both pro forma analysis and expert interviews is the most applicable approach to this research to get a comprehensive understanding of the factors that determine development feasibility.

Methodology

The methodology for this study includes an in-depth assessment of the existing Form-Based Code from a development financial feasibility standpoint by testing prototypes called out in the Code's TOD and Neighborhood Center subareas under current market conditions. The inquiry mode is quantitative. It is quasi-experimental in that it identifies the impact of code features on feasibility, but the testing is deliberately based on realistic development scenarios and not randomized. The unit of analysis is development in the ELA Third Street Specific Plan Area. An outline of the methodology is described in the tasks below.

Task 1: Review land use goals of existing Third Street Specific Plan

I met with staff to review project objectives and refine the scope and schedule as needed, gather relevant documents and reports (including the Specific Plan and Form-Based Code), and obtain further input on opportunities and challenges. County staff at this meeting included the client advisor and Director for Planning and Development, Waqas Rehman and Supervising Regional Planner Carmen Sains, who helped draft the Specific Plan.

Task 2: Identify prototypes of desired development

At the same meeting and through follow-up emails, I worked with Planning staff to select prototypes reflecting the type and range of Specific Plan revisions being considered. I tested the sites with the following development inputs, including land use, density, parking, floor area ratio, and residential affordability type.

As part of the set-up process for the test fits, I worked with staff to identify parcels that they wish to see developed or redeveloped. We decided to select parcels that either the County has already been interested in seeing developed or through a soft parcel analysis.

Soft parcel analysis:

Using 2016 tax roll from LA County Assessor, I analyzed the land utilization at the parcel level for the one half-mile radius around the four Gold Line stations in the Third Street Specific Plan Area. This "soft parcel analysis" consisted of the process described hereon.

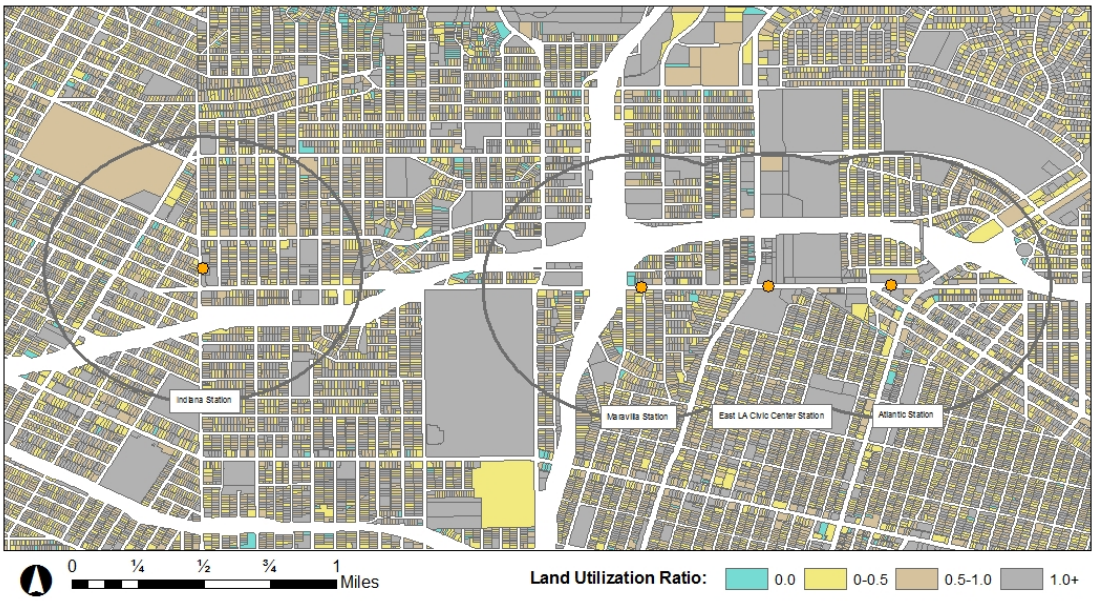
I first reviewed the use descriptions according to the County Assessor. I worked with County staff to identify uses that are incompatible with the goals of the Specific Plan. The identified uses included (surface parking lots, open storage, farm, and lumber yards). Per County staff direction, I did not consider single-family residential parcels in this analysis, as they would not be developed or redeveloped as part of the Specific Plan. The following map (Figure 1 – Specific Plan Area Parcels by Land Use) shows a simplified version of the parcels by land use.

Figure 1 – Specific Plan Area Parcels by Land Use

I then quantitatively evaluated land utilization by comparing assessed improvement land (building value) to assessed land value ("property value ratio") (Figure 2 – Specific Plan Area Parcels by Utilization Ratio). A ratio of 0.0 means the land is vacant and is thus underutilized (BLUE); a ratio between 0.0 and 0.5 means the land is underutilized (e.g. surface parking lot or other low building value use) (YELLOW); a ratio between 0.5 and 1.0 means the land has been built upon, but is likely aged with no recent rehabilitation (BROWN); a ratio over 1.0

generally means there is substantial use of the land and is thus adequately utilized (GRAY).

Figure 2 – Specific Plan Area Parcels by Utilization Ratio



I then filtered for parcels that are both incompatible with the Specific Plan and underutilized according to the property value ratio to serve as a basis for development/redevelopment test fits (Figure 3 – Parcels of Selected Sites).

Figure 3 – Parcels of Selected Sites

The following sites (Table 1 – Selected Sites for Test Fits) represent the culmination of this analysis.

Table 1 – Selected Sites for Test Fits

ID	Size	Subarea	Description	Utilization Ratio
1	33,281	TOD	Northeast Corner of Third Street and Ford Blvd, 4501 E. 3rd St (APN 5250-013-005, 5250-013-029, 5250-013-901), 4516 2nd St (APN 5250-013-006, 5250-013-007)	0.0
2	44,493	TOD	Southeast Corner of Third and Ford Blvd, 4504 E. 3rd St. (5247-005-001, 5247-005-002, 5247-005-0035247-005-020)	0.2
3	31,452	TOD	Southwest corner of Third and LaVerne St. 4850 E. 3rd St (5248-001-904) and 4802 3rd St (5248-001-902)	0.0
4	43,794	TOD	Northwest corner of Pomona Blvd and Atlantic 5161 Pomona Blvd (5250-009-037)	0.8
5	228,694	TOD	5119 Pomona Blvd (5250-009-036, 5250-009-035, 5250-009-048)	1.1
6	18,831	NC	Northeast corner of Pomona and Atlantic 250 S. Atlantic Blvd (5250-022-017 and 5250-022-021)	0.9
7	78,662	NC	Southeast corner of Pomona and Atlantic 256 S. Atlantic Blvd. (5249-031-010, 5249-031-015, 5249-031-016)	0.8

Source: LA County Assessor; ELA Third Street Specific Plan; researcher calculations

The following are the four prototypes I tested for this study: Court, Hybrid Court, Lined Block, and Flex Block. These four prototypes are part of the seven originally identified in the form-based code. The additional three, House, Rowhouse, and Duplex/Triplex, were omitted because the County noted that the community prefers mixed use developments (residential units with ground-floor retail) and would not likely support residential-only developments at this time.

As noted in the literature review, the 2017 Gabbe paper evaluated the effect of land use, FAR limits, residential density limits, height limits, parking, setbacks, lot coverage, and design on development. This study uses this same list, with the exception of land use, since form-based code does not dictate land use per se. That said, because County staff noted that the only desirable developments are

mixed-use developments, only mixed-use developments were tested. The accompanying table presents the prototype attributes by site.

Table 2 – Selected Development Prototypes

Flex Block

Court

Hybrid Court

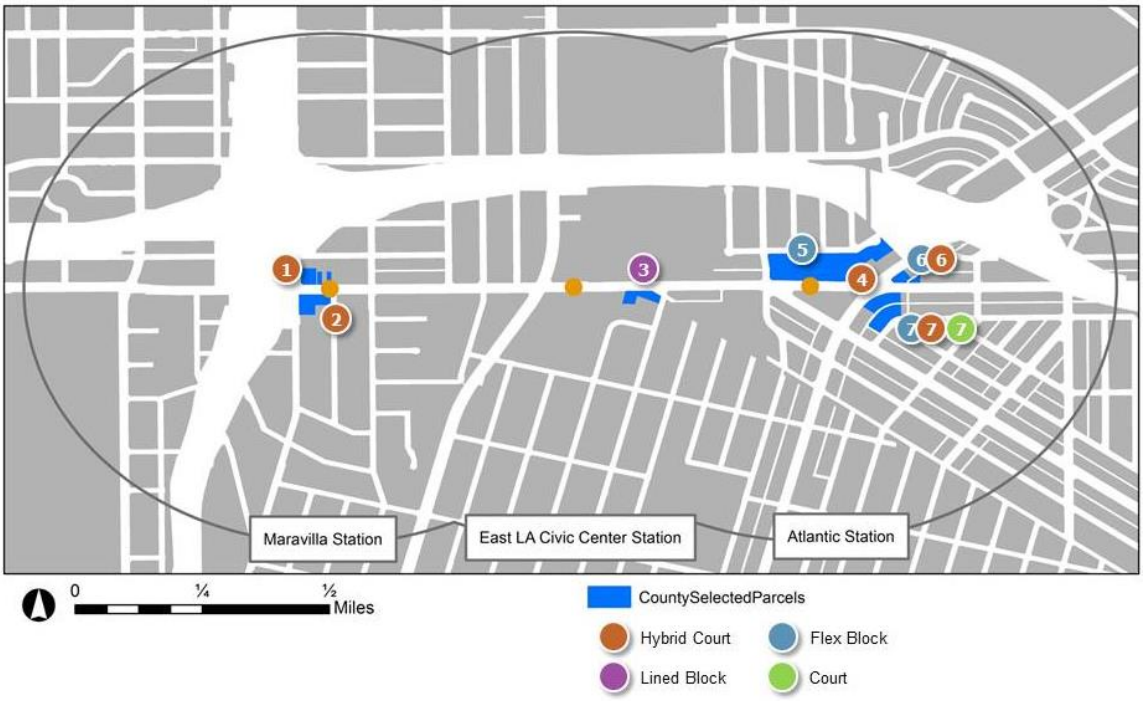
Lined Block

Prototype Number	1	2	3	4	5	6a	6b	7a	7b	7c
Land Use	TOD: Hybrid Court	TOD: Hybrid Court	TOD: Lined Block	TOD: Hybrid Court	TOD: Flex Block	NC:Flex Block	NC:Hybrid Court	NC:Court	NC:Hybrid Court	NC:Flex Block
USE:	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail
Development Assumptions										
Site SF	43,683	28,862	41,204	226,144	75,803	33,065	33,065	18,438	18,438	18,438
Stories	3.0	3.0	3.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5
Lot Coverage Ratio	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Residential Units	41	29	40	210	72	23	23	13	13	13
Residential SF [2]	36,771	25,993	36,193	189,004	65,010	20,628	20,628	11,672	11,672	11,672
Retail SF [3]	7,863	5,195	7,417	40,706	13,645	5,952	5,952	3,319	3,319	3,319
Total SF	44,634	31,188	43,610	229,710	78,655	26,580	26,580	14,991	14,991	14,991
Efficiency Ratio	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Leasable SF	37,939	26,510	37,069	195,253	66,856	22,593	22,593	12,743	12,743	12,743
Dwelling Units/Acre (residential)	40	40	40	40	40	30	30	30	30	30
Parking Ratio	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Parking Spaces [4]	41	29	40	271	80	23	23	13	13	13
Parking Type	Any	Any	Any	Any	Garage or Underground	Garage or Underground	Any	Any	Any	Garage or Underground
Parking Size	350	350	350	350	350	350	350	350	350	350
Parking Area SF	14,300	10,108	14,075	94,996	27,833	8,022	8,022	4,539	4,539	4,539
FAR	1.02	1.08	1.06	1.02	1.04	0.80	0.80	0.81	0.81	0.81

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
[2] Assumes 900 sq.ft. average unit size
[3] Assumes 20% of ground floor footprint is developed as a street-facing retail
[4] Per FBC, assumes one space per residential unit plus indicated spaces/retail sq.ft. over 10k gross

The following map identifies the prototype tested on each site (Figure 4 – Site by Prototype [make new map with color code]). Note that according to the Specific Plan, sites 1 through 5 correspond to the TOD subarea, which allows for greater density, and sites 6 and 7 correspond to the Neighborhood Center subarea, which also allows for significant density relative to the rest of the subareas of the plan, but not as intense as is allowed in the TOD subarea.

Figure 4 – Site by Prototype [make new map with color code]



Task 3: Test feasibility

I tested the economic feasibility of prototypes outlined in the Adopted Form-Based Code to help inform feasibility with regard to permitted land uses, densities, and heights. These variants were also tested for sensitivity to possible incentives for increased density, reduced parking, and market-rate versus affordable residential.

This analysis utilizes the well-accepted static pro forma financial feasibility framework to estimate the land value supported by each of the development alternatives. This approach compares real estate development value at project stabilization (i.e., after project lease up is complete) with the cost of project development, in constant 2017/2018 dollars. In developing the pro formas, I prepared a number of assumptions including development costs reflecting standard (location-adjusted) construction costs, typical project soft costs (e.g., architecture and engineering), typical operating costs, and developer return on investment. The assumptions reflect research based on academic literature review, industry market reports, and third-party data (e.g., CoStar Group market

data and RS Means construction cost estimates) for market rates in the Specific Plan area (differentiated as necessary by subarea).

Data Sources:

- **Land Costs –** Land Costs are based on comparable sales logged in Los Angeles County Assessor and CoStar made within a 0.5 mile radius of the Specific Plan Area in the past year (January 2017-December 2017). This analysis uses average land values based on market sales for land in nearby TOD areas reported by Costar in the last five years. In order to capture comparable TOD areas, I created a search boundary in CoStar for sales within a one-mile radius around each Gold Line station from Soto station on the west to Atlantic station on the east. I bounded the sales within the last five years to ensure I was not getting abnormally low sales prices resulting from sales during the Recession years, but needed the 5 years to have enough sales prices that formed a cluster of prices. It is important to note that I chose this section of the Gold Line because it is most indicative of the 3rd Street Specific Plan Area and at the same time has a large enough sample size. I originally included the entire Gold Line, but found that sales near stations in Downtown Los Angeles (Mariachi Plaza, Little Tokyo, Union Station, Chinatown) were much more expensive than the rest of the set.

  Land values vary between residential and commercial land uses and from station to station. However, I did not distinguish values within these categories (i.e., retail versus office) given the fairly granular distinction between prototypes and potential landlord ability to modify the space. For example, a retail use may support a ground floor office location and vise-versa.

- **Building Hard Costs** – Building hard costs are based on cost estimates from RSMeans Online cost estimation application for the year 2018. Assumptions include union labor and most cost-effective material and construction types given the prototype building (i.e. Type 5 construction, stucco exterior with reinforced concrete first floor for all prototypes under five stories). Hard costs consist of building construction costs, site work, tenant improvements, parking construction costs.

- **Soft Costs** – Soft costs are based on interviewed developers' pro formas from projects in the Los Angeles MSA within the last five years. Soft costs include planning fees and financing costs. Fees include location-specific Quimby (parks), school, and planning fees. Per County staff direction, the same rate of $9,039 was applied to each of the test fits for planning fees. This rate includes $335 for an Environmental Impact Report initial review, $5,000 for a minor Environmental Impact Report (typically ranges from $3,200 for a negative declaration to $10,000 for a major Environmental Impact Report), $1,000 for fire department review, $2,500 for a traffic study, and $204 for a ministerial site plan review for sites within a transit-oriented development district.

- **Revenues -** Rent assumptions were based on the rents for residential and retail products in the East LA-specific reported by Costar. High-rise apartment with mixed-use assumes a 20 percent rent premium reflective of views and other building amenities. This analysis assumes vacancy rates of 5 percent for all prototypes. Operating expenses are assumed to at 25 percent overall, assuming a triple-net lease structure (where the tenant is expected to build the space out to suit their use on their own) for the retail portion and standard on-site maintenance for the residential portion.

  Cap rates vary based on a range of factors such as real estate risk, opportunity cost of capital, and growth expectations. Projects of comparable operational risk and complexity typically require a cap rate ranging between 4.5 percent and above depending on location, construction type, and other factors. This analysis assumes cap rates ranging between 5.5 and 6.0 percent for commercial uses and between 4.5 and 5.0 percent for residential uses. Small apartments have a higher cap rate of 5.0 percent reflective of the individual investor profile given the project size, whereas high-rise apartment with mixed use has a lower cap rate of 4.5 percent reflective of project size and scale typically attractive to institutional investment capital investors.

- **Developer Return –** I referred to several recent real estate investor reports to determine reasonable return thresholds that developers would seek to make on developments (PWC Q4 2017, RERC Q3 2017, RR Investor Q4 2017,

RR Market Q4 2017). These reports all have metrics specific to the Los Angeles region and are widely trusted as industry benchmarks.

Return on Cost (NOI/TDC): Based on the same publications, the return on cost threshold (net operating income divided by total development cost) for projects in the Los Angeles region is 10%.

Return on Equity (Profit/Equity): Return on equity is a percentage measure of the return received on a real estate investment property as related to the equity in the property. It can be calculated on the first year's ownership based on the cash invested divided into the cash return from rents, etc. Based on a recent market report, the threshold is set at 7.45%.

Yield on Cost (Profit/TDC): The designated threshold for yield on cost is 5.3%. Investors are interested in projects that have yield on cost estimates (profit divided by the total development cost) that are at least or higher than average (what is reported for the market on average in publications). A project is feasible if it meets or exceeds each of the publications' average yield on cost thresholds.

Task 4: Identify Issues in Feasibility

I shared preliminary findings of the feasibility analysis with staff, which illustrated implications of Specific Plan land use designations, identified potential refinements to the existing form-based code, and helped lead to a set of recommendations for Specific Plan amendments, Form-Based Code amendments, and policy efforts for the County to consider.

Task 5: Industry Expert Interviews

I conducted a series of five interviews to provide context to and supplement the data analysis performed in Task 4. Interviewees included 1) a non-profit affordable housing developer 2) a for-profit affordable housing developer 3) a professor of urban planning 4) a land use economics consultant 5) a real estate consultant. These interviewees were a combination of those identified by County staff as key stakeholders in the industry active in the East LA area and those that I found through the literature review and were able to contact. For confidentiality reasons, I have omitted the interviewees' names from this report. The interviews

took place in person and otherwise over the phone and I took notes during these interviews.

Results

Summary of Findings

1. The test fits in the TOD subarea performed better than those in the Neighborhood Center subarea; this is attributable to respective allowable densities.
2. Mid-sized parcels (30,000-40,000 sq. ft.) facilitate efficient building scale and are thus more feasible parcels on which to build than smaller or very large parcels. The 3rd Street Specific Plan Area has several mid-sized parcels.
3. The minimum parking requirements are relatively low and as such are beneficial to overall feasibility.
4. The three-story height limit is interestingly not a prohibitive factor in development.

Feasibility Results

Of the ten test fits, four were feasible, two were marginally feasible, and the remaining four were not feasible. Test fits were considered feasible if they met all three return thresholds (ROC, ROE, YOC). If they met two out of the three, they were considered marginally feasible, which suggests that if some aspect of the development changed (e.g. request the allowable 10% reduction in required parking; retail performs above average), then the development might become feasible. If they met only one or did not meet any of the return metrics, then the test fit was infeasible. The following table summarizes the results of the pro forma analyses and the rest of this section discusses the factors that contributed to feasibility. See the appendix for static pro formas for each test fit.

Table 3 – Feasibility Results

Subarea Prototype	TOD Hybrid Court	TOD Hybrid Court	TOD Lined Block	TOD Hybrid Court	TOD Flex Block	NC Flex Block	NC Hybrid Court	NC Court	NC Hybrid Court	NC Flex Block
Site Size (Sq.Ft.)	43,683	28,862	41,204	226,144	75,803	33,065	33,065	18,438	18,438	18,438
Residential Units	41	29	40	210	72	23	23	13	13	13
Retail Sq.Ft.	7,863	5,195	7,417	40,706	13,645	5,952	5,952	3,319	3,319	3,319
Total Leasable Sq.Ft.	37,939	26,510	37,069	195,253	66,856	22,593	22,593	12,743	12,743	12,743
TDC PSF	$392	$382	$379	$419	$404	$494	$463	$423	$432	$453
Return on Cost [1]	15.0%	18.1%	18.8%	7.4%	11.5%	-9.0%	-3.1%	6.3%	4.0%	-0.7%
Return on Equity [2]	17.7%	18.2%	18.6%	15.4%	16.5%	11.7%	13.7%	16.6%	5.3%	14.4%
Yield on Cost [3]	5.7%	5.9%	5.9%	5.4%	5.6%	4.5%	4.8%	5.3%	5.2%	5.0%
Meets ROC?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**	**No**	**No**	**No**	**No**
Meets ROE?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**	**Yes**
Meets YOC?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**	**No**	**Yes**	**No**	**No**

[1] Return on Cost=Profit/TDC, 10% from developer interviews

[2] Return on Equity=Cash Flow/Equity, 7.45% from RR Investor Q4 2017 plus 1% to account for region

[3] Yield on Cost=NOI/TDC, 4.3%->5.3% from RERC Q3 2017 plus 1% to account for new construction

Benefits of Greater Density Allowance

The test fits show that greater density is a benefit to development feasibility. The four feasible test fits were all located in the TOD subarea. The remaining test fit was marginally feasible. The only difference between the TOD subarea and Neighborhood Center subarea is that the TOD subarea allows for greater density. The TOD subarea allows for 40 dwelling units per acre whereas the Neighborhood Center subarea allows for 30 dwelling units per acre. Density is beneficial because it allows developers to build more income-generating square footage over the same amount of land.

Benefits of Mid-Sized Lots

The feasible test fits also tended to be on mid-sized sites (between 30,000 and 40,000 square feet). There are several reason that building at this scale works in this market environment. If a development is too small, the land cost per leasable square foot is prohibitively expensive. I calculated residual land values for all of the test fit results and it appears that values were markedly lower for test fits that were built on smaller sites (under 30,000 square feet). Conversely, building large projects also raise financial issues. Since the rents are relatively low, there is a tradeoff between renting more square footage and having to pay for the development costs of building that square footage; the parking costs go up as more spaces have to go into a structure, the hard and soft costs increase, and the operating expenses increase.

Relatively Low Parking Requirements

For all of the tested prototypes, the number of parking spaces required equaled one space per dwelling unit plus 0.002 spaces per retail square foot over 10,000 retail square feet. The number of spaces is low enough that for several of the test fits, the parking requirements could be met by surface parking, which is significantly less expensive than structured parking. These requirements are considered low relative to the many other parts of the Los Angeles region, particularly elsewhere in unincorporated county. The current zoning elsewhere in unincorporated LA County requires 2 covered spaces per dwelling unit and one space per 250 square feet (0.004 spaces/square foot) of commercial space, with no 10,000 square foot threshold. As a comparison, I replicated the ten test fits to match general unincorporated County parking standards and found that all but two test fits were infeasible, and the remaining two were only marginally feasible (see Appendix). This comparison shows that the form-based code's parking requirements alone have a significant beneficial impact to development feasibility.

The Flex Block prototype is the only type that explicitly requires garage or underground parking. For this analysis, I assumed that developers would build structured above-ground parking rather than underground parking because underground parking is significantly more expensive and the height limits do not inhibit choosing above-ground parking. Of the three flex block test fits, only one was feasible; this suggests that structured parking (without some kind of subsidy) might not be worthwhile in this market context.

Three-Story Height Limit is Appropriate

The three-story height limit is interestingly not a prohibitive factor in development. Because the lot coverage ratio standard across all prototypes in the code is generous enough to make up for the low height. If developments were to build more than three stories without changing the density allowances, the only change would be that all parking would be structured rather than split between surface and structured. As shown in the pro formas and discussed above, the most prohibitive factor is structured parking.

Factors that May Influence Marginal Feasibility

One common reason for marginal feasibility is the relative efficiency with regard to both construction and operating costs. Smaller projects are typically more expensive on a per-square foot basis given the amortization over costs like equipment and grading over less space. In addition, the size of smaller projects appeals to smaller scale investors rather than institutional capital. These investors typically engage in deals where they may be willing to capitalize returns over a longer period and accept lower returns. Other circumstances for individual transactions may also affect feasibility. For example, developers may have purchased land several years ago when land costs were lower. In other cases, projects targeting niche segments, like luxury rentals, may have different feasibility profiles. Lastly, location plays a significant role as projects located in the TOD area likely will have a significantly higher land value and overall development cost; however, rents are likely to be higher as well.

Interview Summary

Overall, the interviews supported the pro forma findings that the form-based code does not negatively affect the feasibility of development. The interviews provided valuable insight into other possible factors that make it difficult to develop in the Third Street area. These factors include site size, level of community support, and lack of development and outreach experience in the area. I elaborate on these factors below.

Site Size

One affordable housing developer interviewee stated that a feasible affordable housing development is typically in the 50-unit to 100-unit range for the market in the LA region; they referred to this as the "sweet spot". They noted that this scale equates roughly to a 30,000 to 40,000 square-foot site, depending on given the development standards enforced by form-based codes and otherwise. They noted that one reason why they had not developed as much in East LA as other parts of the LA region is that there have been few available sites of this size. Roughly speaking, having sites that are too small mean your construction cost per square foot would be too high; having sites that are too large mean your land cost would push your development to scale that requires a more

expensive construction type and would put the development as risk of not getting absorbed at a fast enough rate.

Community Support is Essential

Several interviewees mentioned that the most significant challenge to developing in the Third Street area, and in East LA in general, is having and gaining community support. In other words, even if a project conforms to all plans and codes, it is still not approved "by-right" because the community might not support it. This sentiment is so strong that it bypasses existing measures that are supposed to make development easier. Most commonly in other areas of Los Angeles County, as one interviewee stated, developers use state-enabled density bonus incentives to deviate from baseline land use regulations. The statewide density bonus law can be used as a strategy for getting on-menu incentives (e.g., build taller, denser or with less parking) even if the developer does not maximize the permitted density on a site. The developer explained that when they work in East LA, they do not apply density bonus if they are able to make the project work without it so as not to upset the community with too much density (and the presumed negative effects of such added density).

Another interviewee works for a developer that has a long history of building in the greater East LA area in general and has in large part gained the community's trust over time. The developer's reputation for upholding community values worked in their favor when they started building in the Third Street area. Other developers who are new to the area have partnered with them for the community engagement process because the community trusts them to listen and implement their preferences. One interviewee noted that their most recent development proposal in this area required over $120,000 to carry out the community engagement process (consultant fees, staff time, overhead) and over 2 years from pre-proposal through approval and now retail tenanting. This amount was much more than they typically spent for projects elsewhere in the LA region, but they said that they treated it as an investment in gaining community support and garnering long-lasting working relationships in East LA.

FBC Codifies Community Preferences

One developer explained that the form-based code does not negatively affect development feasibility; rather, it makes the entitlement process more

transparent. They said that the FBC simply puts into writing what people already know the community would support. Having written development standards in writing that line up with what is politically feasible, they explained, is helpful because it allows development teams to design directly to those standards without having to guess if the community will support or refuse it. In turn, this makes the entitlements process quicker, and gives the County a basis from which to enforce what they know to be palatable.

Preference for Mixed-Use Development

One factor that the community wants but is, by definition, not included in the formed-based code is the desire for mixed-use development. Specifically, County staff is aware that the community prefers multifamily residential with community-serving retail on the ground floor over residential alone. Interviewees explained that ground-floor retail for developments of the allowable scale is not profitable given the relatively low lease rates that developers can charge in this area, even with proximity to transit. While the FBC does not explicitly require mixed-use development, since the County in large part honors community input for development approval and the community wants mixed-use development, the reality is that mixed-use development is what gets built.

Third Street Area Could Otherwise Support More Development

All interviewees mentioned that the community of East LA and the Third Street area in particular make it clear that they do not want urban high-rise development. The County staff mentioned common community concerns such as added traffic congestion, difficulty parking, and other nuisances as reasons for why residents do not generally support anything denser than what is allowed in the FBC. Density, FAR, and parking standards, whether written or enforced by the community, were the most commonly mentioned constraints. That said, if the community was more receptive to denser development, the market research conducted in Task 3 and echoed in the interviews suggest that the East LA areas immediately surrounding the transit stations would be able to absorb denser developments.

Strengths, Limitations, and Considerations

Static pro forma feasibility analysis is a widely-accepted method in the real estate industry to understand the feasibility of development projects. Since the form-

based code clearly defines the parameters, establishing prototypes is a straightforward process of translating the code into development scenarios. Furthermore, the data for this type of analysis are all readily available through either resources available to the public or through paid subscriptions and as such, the research is replicable and adaptable for future use and for other locations.

The process is iterative so that the client can review and provide feedback based on new information they receive from incoming developer applications and community input; the research, therefore, can immediately reflect this feedback**.** Furthermore, this analysis underscores the importance of having a cooperative relationship between clients and researchers to as the basis for influencing policy changes to further the client's goals of attracting the appropriate kinds of development in this part of East Los Angeles.

That said, there are also limitations of the research design. Developments are unique and, similar to other studies that rely on prototypes, this study is not able to account for every possible development scenario. For example, a development presented in this study as infeasible based on return on cost may be feasible if the developer is able to get a great deal on the land, or if they are able to invest a much larger than usual amount of developer equity at the beginning of the project. Or, if a site is slightly larger than presented in the study, then the feasibility also might change. Prototypes simply provide an understanding of feasibility in order of magnitude and relative to other types (e.g. low-density multifamily residential versus high-density mixed-used).

The project sought to evaluate the effects of the form-based code. While the study captures, what I think are, the most critical components of the FBC, not all components are included. For instance, there is a section of the code on signage design. This study does not account for the placement, design, or cost of signage; however, it is possible that signage, designed and placed in a prime or subprime location, could greatly affect a development's profitability. In addition, this research sought only to determine how the form-based code parameters affect feasibility. However, as discussed in the broader research, numerous other factors including local politics, economic conditions, and other site-specific characteristics affect development feasibility. The expert interviews provide insight into which of these additional factors stand out and warrant further study.

Recommendations

Keep the Form-Based Code As Is

Based on this feasibility study and as discussed in the findings, the form-based code does not appear to pose any significant feasibility issues to developing in the area. Overall, the code calls for structures that reinforce and promote the County's goals of bringing energy, growth, and economic vitality; building a cohesive community and walkable neighborhood; and reconnecting the historic community of East Los Angeles. The projects that have been built and approved take advantage of the allowed development intensity near the Gold Line stations and are better uses of underutilized parcels than what is currently there.

Importantly, the form-based code reinforces community goals for the Third Street area. This fact was echoed in interviews where developers said the code helped to solidify what they already know the community would support based on past experience. As discussed in the literature review, the community's vision may not always match with what is possible given the location-specific factors related to the success of TODs. As such, it is important for the form-based code to align with what residents want for their community, even if it limits what developers can build to an extent.

Provide Technical Support to New Market Developers

During the interviews, I learned that even experienced developers in the ELA area are not familiar with the form-based code. Of the three developers I interviewed, all three said that they deferred to their architects to figure out the form-based code. One of them said that they were lucky because their architect happened to work on the Third Street Specific Plan and helped develop the code, which made the process much easier than if they had to study the code from scratch. The upside to this is that experienced developers and designers feel comfortable taking on projects here even with the code in place. The benefit of retaining experienced developers is that they already know how to navigate the County entitlements process and how to work with the community.

However, the importance of experience and familiarity disadvantages developers who are trying to enter the ELA market. This barrier potentially stifles not only

the facilitation of new, unconventional developments that could be catalytic for the community, but also it stifles financial investment. The County should consider providing technical support to development teams that wish to get better acquainted with the County entitlements process and the Third Street form-based code. If the County pursues this, they can prioritize projects that they think would be of great benefit to the community, such as affordable housing developments.

Provide Financial Support to Developments that are Otherwise Infeasible

As discussed in the findings section, some test fits were infeasible. For example, the Flex Block prototype was not feasible for two out of the three test fits as it requires garage or underground parking, which is prohibitively expensive for the scale of developments called for by the code. This is not to say that the Flex Block prototype is not fit for the Third Street area; however, if the County wants to see these projects built, they should consider offering financial support and/or partnering to pursue outside sources of support to offset the high cost of structured parking.

One possibility for outside funding is low income housing tax credits (LIHTC) for affordable housing development. LIHTC is federally administered and provides funding for the development costs of low-income housing by allowing an investor to receive a federal tax credit equal to a percentage (up to 70% or 30% of property value of the cost incurred for development of the low-income units in a rental housing project. The amount of the credit will be based on the amount of credits awarded to the project in the competition, the actual cost of the project, the tax credit rate announced by the IRS, and the percentage of the project's units that are rented to low-income tenants. Several affordable housing developers are active in the Los Angeles region and specifically in East LA; a non-profit example is East LA Community Corporation and a for-profit example is Meta Housing Corporation. This is a great opportunity for mission-driven organizations and developers to partner with County staff to develop key sites that are important to the community in a way that can serve them best.

Another possibility is going into development agreements with certain priority projects that serve a greater benefit to the community and can leverage funding from existing sources. For example, state-level Affordable Housing and

Sustainable Communities (AHSC) funds can be used to support developments. The State awards AHSC funds on a competitive basis that factors in collaboration and support from local jurisdictions and agencies, community engagement, and transit infrastructure improvements. AHSC and other funds like it may be coupled with LITHC in an affordable housing project. This and other existing sources can be leveraged to subsidize projects that are deemed priorities for the County.

Explore More Opportunities to Apply Form-Based Code

Based on this study, it appears that form-based code in and of itself presents no barriers to development. A well-formulated form-based code in fact helps delineate and reinforce what the community will support, thus eliminating the guess-work involved in development prior to community engagement processes. The greater volume of developer permit applications and planning approvals shows the positive impact of this particular form-based code in action. The County should seek additional opportunities to adopt a form-based code where they wish to see more development and where the existing zoning is perpetuating standards that the neither developers can build to nor communities want to see built.

Conclusion

Prior to this study, my understanding of TOD and of form-based code existed in isolation. The Third Street Specific Plan facilitated an ideal circumstance to examine both in conjunction with one another and how the two together impact development. This research finds that form-based code alone does not inherently discourage development. A form-based code in practice is largely a reflection of what the community allows politically. If local residents are concerned about protecting their neighborhood from density-induced nuisances, the code will reflect that. Form-based codes can in fact be beneficial because they partially mitigate these concerns through clearly written and predictably applied urban design standards and provide prospective developers clarity as to what is and is not allowable.

There are several lessons learned that can be applied elsewhere. From a form standpoint, we can confirm 1) developers benefit from greater density allowances 2) reducing minimum parking standards near transit stations

concretely increases development feasibility and 3) some sites require more attention and/or public assistance.

There are also lessons we can learn about outside factors. 1) Cold markets and "up and coming" markets such as East Los Angeles provide the opportunity for mission-driven organizations to capitalize on new investments early, before market-rate developers enter the market. The community and County staff ought to engage with them and prioritize key sites and projects so that the developments can serve as catalysts for other beneficial projects in the future all while not giving up key sites that are important to the community. 2) In historically disadvantaged communities, planning staff should work with developers to understand and meet the desires of the community. We need to better understand why some historically disadvantaged communities oppose denser development and how planners can better work with them to address these concerns all while leveraging new investments to better serve the community that is already there.

Citations

Barry, J. M. (2008). Form-based codes: Measured success through both mandatory and optional implementation. Connecticut Law Review 41(1), 305-338.

Boarnet, M. G., & Compin, N. S. (1999). Transit-oriented development in San Diego County. Journal of the American Planning Association, 65(1), 80–95.

Carmona, M. (2009). Design Coding and the Creative, Market and Regulatory Tyrannies of Practice. Urban Studies, 46(12), 2643-2667.

Carnoske, C., Hoehner, C., Ruthmann, N., Frank, L., Handy, S., Hill, J. Brownson, R. (2010). Developer and Realtor Perspectives on Factors That Influence Development, Sale, and Perceived Demand for Activity-Friendly Communities. Journal of Physical Activity & Health, 7(0 1), S48–S59.

Dittmar, Hank and Gloria Ohland (eds.) (2004) The New Transit Town: Best Practices in Transit-Oriented Development. Washington, D.C.: Island Press.

Fulton, W. B. (2005). Guide to California planning (3rd ed.). Point Arena, Calif: Solano Press Books.

Gabbe, C. J. (2016), Do Land Use Regulations Matter? Why and How? Doctoral Dissertation for UCLA Urban and Regional Planning, 1-148.

Gabbe, C.J. (2017): How Do Developers Respond to Land Use Regulations? An Analysis of New Housing in Los Angeles, Housing Policy Debate.

Inniss, Lolita B. (2007). Back to the Future: Is Form-Based Code an Efficacious Tool for Shaping Modern Civic Life, 11 U. Pa. J.L. & Soc. Change 75, 104.

Kahn, M. E. (2007), Gentrification Trends in New Transit-Oriented Communities: Evidence from 14 Cities That Expanded and Built Rail Transit Systems. Real Estate Economics, 35: 155–182.

Kelbaugh, Douglas S. 2002. Repairing the American Metropolis: Common Place Revisited. Seattle: University of Washington Press. 161.

Kok, Nils, Monkkonen, Paavo, & Quigley, John. 2014. Land Use Regulations and the Value of Land and Housing: An Intra-Metropolitan Analysis. Journal of Urban Economics.

Lamar, Anika (2015). "Zoning as Taxidermy: Neighborhood Conservation Districts and the Regulation of Aesthetics". Indiana Law Journal.

Los Angeles County (2014). "East Los Angeles 3rd Street Plan", Los Angeles County, pp. 1-88.

Loukaitou-Sideris A. and Banerjee T. (2000) "The Blue Line Blues: Why The Vision of Transit Village May Not Materialize Despite Impressive Growth in Transit Ridership", Journal of Urban Design, Vol. 5, pp.101-125

Loukaitou-Sideris, A. (2010). A new-found popularity for transit-oriented developments? Lessons from Southern California. Journal of Urban Design, 15(1), 49–68.

PricewaterhouseCoopers (2017). Real Estate Investor Survey Q4 2017.

Quigley, John M. and Steven Raphael. 2004. Regulation and the High Cost of Housing in California. The American Economic Review 95(2): 323-328.

Situs RERC (2017). RERC Real Estate Report.

Sandoval, Gerardo Francisco and Herrera, R (2015). Transit-Oriented Development and Equity in Latino Neighborhoods: A Comparative Case Study of MacArthur Park (Los Angeles) and Fruitvale (Oakland). Portland, OR: Transportation Research and Education Center (TREC), NITC-RR-544.

Talen, Emily (2009) Design by the Rules: The Historical Underpinnings of Form-Based Codes, Journal of the American Planning Association, 75:2, 144-160

Appendix

Summary of Development Assumptions

Prototype Number	1	2	3	4	5	6a	6b	7a	7b	7c
Land Use	**TOD: Hybrid Court**	**TOD: Hybrid Court**	**TOD: Lined Block**	**TOD: Hybrid Court**	**TOD: Flex Block**	**NC:Flex Block**	**NC:Hybrid Court**	**NC:Court**	**NC:Hybrid Court**	**NC:Flex Block**
USE:	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail	Multifamily/ Retail
Development Assumptions										
Site SF	43,683	28,862	41,204	226,144	75,803	33,065	33,065	18,438	18,438	18,438
Stories	3.0	3.0	3.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5
Lot Coverage Ratio	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Residential Units	41	29	40	210	72	23	23	13	13	13
Residential SF [2]	36,771	25,993	36,193	189,004	65,010	20,628	20,628	11,672	11,672	11,672
Retail SF [3]	7,863	5,195	7,417	40,706	13,645	5,952	5,952	3,319	3,319	3,319
Total SF	44,634	31,188	43,610	229,710	78,655	26,580	26,580	14,991	14,991	14,991
Efficiency Ratio	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Leasable SF	37,939	26,510	37,069	195,253	66,856	22,593	22,593	12,743	12,743	12,743
Dwelling Units/Acre (residential)	40	40	40	40	40	30	30	30	30	30
Parking Ratio	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Parking Spaces [4]	41	29	40	271	80	23	23	13	13	13
Parking Type	Any	Any	Any	Any	Garage or Underground	Garage or Underground	Any	Any	Any	Garage or Underground
Parking Size	350	350	350	350	350	350	350	350	350	350
Parking Area SF	14,300	10,108	14,075	94,996	27,833	8,022	8,022	4,539	4,539	4,539
FAR	1.02	1.08	1.06	1.02	1.04	0.80	0.80	0.81	0.81	0.81
Cost Assumptions										
Land PSSF [5]	$130	$130	$130	$130	$130	$130	$130	$130	$130	$130
Hard Costs PSF [6]	$173	$172	$167	$167	$156	$194	$194	$163	$163	$163
Site Work PSF	$5	$5	$5	$5	$5	$5	$5	$5	$5	$5
Tenant Improvements	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50
Parking Costs (low)	$6,000	$6,000	$6,000	$6,000	$30,000	$30,000	$6,000	$6,000	$6,000	$30,000
Parking Costs (high)	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
Soft Costs exc Fees	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Quimby/Park Fee per Unit (residential)	$2,277	$2,277	$2,277	$2,277	$2,277	$2,277	$2,277	$2,277	$2,277	$2,277
School Fee PSF (residential)	$3.48	$3.48	$3.48	$3.48	$3.48	$3.48	$3.48	$3.48	$3.48	$3.48
School Fee PSF (commercial)	$0.56	$0.56	$0.56	$0.56	$0.56	$0.56	$0.56	$0.56	$0.56	$0.56
Planning Fees [7]	$9,039	$9,039	$9,039	$9,039	$9,039	$9,039	$9,039	$9,039	$9,039	$9,039
LCR	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Interest Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Loan Fees	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Construction Period (months)	12	12	12	24	24	12	12	12	12	12
Average Outstanding Balance	60%	60%	60%	60%	60%	60%	60%	60%	160%	60%
Revenue Assumptions [8]										
Rent PSF Residential	$2.69	$2.69	$2.69	$2.69	$2.69	$2.69	$2.69	$2.69	$2.69	$2.69
Rent PSF Retail	$1.87	$1.87	$1.87	$1.87	$1.87	$1.87	$1.87	$1.87	$1.87	$1.87
Residential Vacancy	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Retail Vacancy	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Operating Expenses (% of Gross Rent)	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Cap Rate	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
[2] Assumes 900 sq.ft. average unit size
[3] Assumes 20% of ground floor footprint is developed as a street-facing retail
[4] Per FBC, assumes one space per residential unit plus indicated spaces/retail sq.ft. over 10k gross
[5] Land Costs: CoStar 1 mile buffer around Gold Line last five years
[6] Hard Costs: RSMeans Construction Manual 2018 for Los Angeles region per each development as estimated
[7] County of Los Angeles 2018 fee schedule
[8] CoStar Market Report for residential and retail Q1 2018

Test Fit Pro Forma - 1

Prototype Number	**1**
Prototype	**TOD: Hybrid Court**

		Residential	*Retail*
1	**Development Assumptions**		
2	Site SF		43,683
3	Built SF		37,939
4	Efficiency Ratio		0.85
5	Leasable SF	31,255	6,683
6	Parking Ratio		0.002
7	Parking Spaces		41
8	Parking Type		Any
9	Parking Size (SF)		350
10	Parking Area SF		14,300
11	FAR		1.02
12	**Cost Assumptions**		
13	Land PSSF		$130
14	Hard Costs		
15	Building Hard Costs PSF		$173
16	Site Work PSSF		$5
17	Tenant Improvements PSF		$50
18	Parking per space (low)		$6,000
19	Parking per space (high)		$30,000
20	Soft Costs exc Fees (% of Hard)		20%
21	Planning Fees		$9,039
22	Impact Fees		
23	Quimby/Park Fee per Unit		$2,277
24	School Fee PSF	$3.48	$0.56
25	**Development Costs**		
26	Land Cost		$5,678,743
27	Hard Costs		
28	Building Hard Costs		$6,555,790
29	Site Work		$218,413
30	Tenant Improvements		$334,172
31	Parking		$245,138
32	Total Hard Costs		$7,353,514
33	Soft Costs exc Fees		$1,470,703
34	Planning Fees		$9,039
35	Impact Fees		
36	Quimby/Park Fee	$79,075	N/A
37	School Fee	$108,768	$21,246
38	Soft Costs with Fees		$1,500,987
39	***Subtotal H+S Costs before Financing***		***$8,854,501***

		Residential	*Retail*
40	**Financing Costs**		
41	Loan to Cost Ratio		0.80
42	Interest Rate		5%
43	Loan Fees		2%
44	Construction Period (months)		12
45	Average Outstanding Balance		60%
46	Points		$106,254
47	Construction Period Interest		$222,708
48	Subtotal Financing Costs		$328,962
49	**Total Development Costs**		***$14,862,206***
50	Total Development Cost PSF		$392
51	**Revenue Assumptions**		
52	Rent PSF	$2.69	$1.87
53	Vacancy	3%	4%
54	Operating Expenses	$650	0%
55	**Valuation**		
56	Gross Income	$1,008,916	$149,976
57	Less: Vacancy	$27,241	$6,449
58	Less: Operating Expenses	$270,878	$0
59	Net Operating Income (NOI)		$854,325
60	Cap Rate		5%
61	Value at Stabilization		***$17,086,503***
62	Less: Total Development Costs		$14,862,206
63	**Profit (VAS-TDC)**		***$2,224,297***
64	**Return on Cost (Profit/TDC)**		***15%***
65	**Yield on Cost (NOI/TDC)**		***6%***
66	**Residual Land Value (15% Return)**		***$6,525,520***
67	**Return on Equity (CF/Equity)**		***18%***

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles

Test Fit Pro Forma - 2

Prototype Number	**2**
Prototype	**TOD: Hybrid Court**

		Residential	*Retail*
1	**Development Assumptions**		
2	Site SF		28,862
3	Built SF		26,510
4	Efficiency Ratio		0.85
5	Leasable SF	22,094	4,416
6	Parking Ratio		0.002
7	Parking Spaces		29
8	Parking Type		Any
9	Parking Size (SF)		350
10	Parking Area SF		10,108
11	FAR		1.08
12	**Cost Assumptions**		
13	Land PSSF		$130
14	Hard Costs		
15	Building Hard Costs PSF		$172
16	Site Work PSSF		$5
17	Tenant Improvements PSF		$50
18	Parking per space (low)		$6,000
19	Parking per space (high)		$30,000
20	Soft Costs exc Fees (% of Hard)		20%
21	Planning Fees		$9,039
22	Impact Fees		
23	Quimby/Park Fee per Unit		$2,277
24	School Fee PSF	$3.48	$0.56
25	**Development Costs**		
26	Land Cost		$3,752,038
27	Hard Costs		
28	Building Hard Costs		$4,556,825
29	Site Work		$144,309
30	Tenant Improvements		$220,793
31	Parking		$173,288
32	Total Hard Costs		$5,095,216
33	Soft Costs exc Fees		$1,019,043
34	Planning Fees		$9,039
35	Impact Fees		
36	Quimby/Park Fee	$55,898	N/A
37	School Fee	$76,888	$14,846
38	Soft Costs with Fees		$1,042,928
39	***Subtotal H+S Costs before Financing***		***$6,138,144***

		Residential	*Retail*
40	**Financing Costs**		
41	Loan to Cost Ratio		0.80
42	Interest Rate		5%
43	Loan Fees		2%
44	Construction Period (months)		12
45	Average Outstanding Balance		60%
46	Points		$73,658
47	Construction Period Interest		$154,387
48	Subtotal Financing Costs		$228,044
49	**Total Development Costs**		***$10,118,226***
50	Total Development Cost PSF		$382
51	**Revenue Assumptions**		
52	Rent PSF	$2.69	$1.87
53	Vacancy	3%	4%
54	Operating Expenses	$650	0%
55	**Valuation**		
56	Gross Income	$713,203	$99,092
57	Less: Vacancy	$19,256	$4,261
58	Less: Operating Expenses	$191,484	$0
59	Net Operating Income (NOI)		$597,294
60	Cap Rate		5%
61	Value at Stabilization		***$11,945,874***
62	Less: Total Development Costs		$10,118,226
63	**Profit (VAS-TDC)**		***$1,827,648***
64	**Return on Cost (Profit/TDC)**		***18%***
65	**Yield on Cost (NOI/TDC)**		***6%***
66	**Residual Land Value (15% Return)**		***$4,624,758***
67	**Return on Equity (CF/Equity)**		***18%***

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles

Test Fit Pro Forma - 3

Prototype Number **3**
Prototype **TOD: Lined Block**

		Residential	*Retail*
1	**Development Assumptions**		
2	Site SF		41,204
3	Built SF		37,069
4	Efficiency Ratio		0.85
5	Number of Rooms	30,764	6,304
6	Parking Ratio		0.002
7	Parking Spaces		40
8	Parking Type		Any
9	Parking Size (SF)		350
10	Parking Area SF		14,075
11	FAR		1.06
12	**Cost Assumptions**		
13	Land PSSF		$130
14	Hard Costs		
15	Building Hard Costs PSF		$167
16	Site Work PSSF		$5
17	Tenant Improvements per Unit		$50
18	Parking per space (low)		$6,000
19	Parking per space (high)		$30,000
20	Soft Costs exc Fees (% of Hard)		20%
21	Planning Fees		$9,039
22	Impact Fees		
23	Quimby/Park Fee per Unit		$2,277
24	School Fee PSF	$3.48	$0.56
25	**Development Costs**		
26	Land Cost		$5,356,537
27	Hard Costs		
28	Building Hard Costs		$6,201,594
29	Site Work		$206,021
30	Tenant Improvements		$315,212
31	Parking		$241,290
32	Total Hard Costs		$6,964,117
33	Soft Costs exc Fees		$1,392,823
34	Planning Fees		$9,039
35	Impact Fees		
36	Quimby/Park Fee	$77,834	N/A
37	School Fee	$107,060	$20,758
38	Soft Costs with Fees		$1,422,621
39	***Subtotal H+S Costs before Financing***		***$8,386,738***

		Residential	*Retail*
43	**Financing Costs**		
44	Loan to Cost Ratio		0.80
45	Interest Rate		5%
46	Loan Fees		1.5%
47	Construction Period (months)		12
48	Average Outstanding Balance		60%
49	Points		$100,641
50	Construction Period Interest		$210,943
51	Subtotal Financing Costs		$311,584
52	**Total Development Costs**		***$14,054,859***
53	Total Development Cost PSF		$379
56	**Revenue Assumptions**		
57	Average Daily Rate (plus Other Re	$2.69	$1.87
58	Vacancy Rate	3%	4%
59	Operating Expenses (% of Gross I	$650	0%
60	**Valuation**		
61	Gross Income	$993,077	$141,467
62	Less: Vacancy	$26,813	$6,083
63	Less: Operating Expenses (per	$266,625	0%
64	Net Operating Income (NOI)		$835,023
65	Cap Rate		5%
66	Value at Stabilization		***$16,700,451***
67	Less: Total Development Costs		$14,054,859
68	**Profit (VAS-TDC)**		***$2,645,593***
69	**Return on Cost (Profit/TDC)**		***19%***
70	**Yield on Cost (NOI/TDC)**		***6%***
71	**Residual Land Value (15% Return)**		***$6,697,382***
72	**Project Feasible?**		***19%***

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles
Fees: City of Los Angeles

Test Fit Pro Forma - 4

Prototype Number **4**
Prototype **TOD: Hybrid Court**

		Residential	*Retail*
1	**Development Assumptions**		
2	Site SF		226,144
3	Built SF		195,253
4	Efficiency Ratio		0.85
5	Leasable SF	160,653	34,600
6	Parking Ratio		0.002
7	Parking Spaces		271
8	Parking Type		Any
9	Parking Size (SF)		350
10	Parking Area SF		94,996
11	FAR		1.02
12	**Cost Assumptions**		
13	Land PSSF		$130
14	Hard Costs		
15	Building Hard Costs PSF		$167
16	Site Work PSSF		$5
17	Tenant Improvements PSF		$50
18	Parking per space (low)		$6,000
19	Parking per space (high)		$30,000
20	Soft Costs exc Fees (% of Hard)		20%
21	Planning Fees		$9,039
22	Impact Fees		
23	Quimby/Park Fee per Unit		$2,277
24	School Fee PSF	$3.48	$0.56
25	**Development Costs**		
26	Land Cost		$29,398,772
27	Hard Costs		
28	Building Hard Costs		$32,620,950
29	Site Work		$1,130,722
30	Tenant Improvements		$1,730,005
31	Parking		$6,594,481
32	Total Hard Costs		$42,076,157
33	Soft Costs exc Fees		$8,415,231
34	Planning Fees		$9,039
35	Impact Fees		
36	Quimby/Park Fee	$406,452	N/A
37	School Fee	$559,073	$109,342
38	Soft Costs with Fees		$8,533,612
39	***Subtotal H+S Costs before Financing***		***$50,609,770***

		Residential	*Retail*
40	**Financing Costs**		
41	Loan to Cost Ratio		0.80
42	Interest Rate		5%
43	Loan Fees		1.5%
44	Construction Period (months)		12
45	Average Outstanding Balance		60%
46	Points		$607,317
47	Construction Period Interest		$1,272,937
48	Subtotal Financing Costs		$1,880,254
49	**Total Development Costs**		***$81,888,796***
50	Total Development Cost PSF		$419
51	**Revenue Assumptions**		
52	Rent PSF	$2.69	$1.87
53	Vacancy	3%	4%
54	Operating Expenses (%	$650	0%
55	**Valuation**		
56	Gross Income	$5,185,882	$776,426
57	Less: Vacancy	$140,019	$33,386
58	Less: Operating Expe	$1,392,327	0%
59	Net Operating Income (NOI)		$4,396,576
60	Cap Rate		5%
61	Value at Stabilization		***$87,931,520***
62	Less: Total Development Costs		$81,888,796
63	**Profit (VAS-TDC)**		***$6,042,724***
64	**Return on Cost (Profit/TDC)**		***7%***
65	**Yield on Cost (NOI/TDC)**		***5%***
66	**Residual Land Value (15% Return)**		***$27,567,993***
67	**Project Feasible?**		***15%***

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles

Test Fit Pro Forma - 5

Prototype Number	**5**
Prototype	**TOD: Flex Block**

		Residential	*Retail*
1	**Development Assumptions**		
2	Site SF		75,803
3	Built SF		66,856
4	Efficiency Ratio		0.85
5	Leasable SF	55,259	11,598
6	Parking Ratio		0.002
7	Parking Spaces		80
8	Parking Type		Garage or Underground
9	Parking Size (SF)		350
10	Parking Area SF		27,833
11	FAR		1.04
12	**Cost Assumptions**		
13	Land PSSF		$130
14	Hard Costs		
15	Building Hard Costs PSF		$156
16	Site Work PSSF		$5
17	Tenant Improvements PSF		$50
18	Parking per space (low)		$30,000
19	Parking per space (high)		$30,000
20	Soft Costs exc Fees (% of Hard)		20%
21	Planning Fees		$9,039
22	Impact Fees		
23	Quimby/Park Fee per Unit		$2,277
24	School Fee PSF	$3.48	$0.56
25	**Development Costs**		
26	Land Cost		$9,854,405
27	Hard Costs		
28	Building Hard Costs		$10,408,871
29	Site Work		$379,016
30	Tenant Improvements		$579,894
31	Parking		$2,385,674
32	Total Hard Costs		$13,753,454
33	Soft Costs exc Fees		$2,750,691
34	Planning Fees		$9,039
35	Impact Fees		
36	Quimby/Park Fee	$139,803	N/A
37	School Fee	$192,300	$37,440
38	Soft Costs with Fees		$2,797,169
39	***Subtotal H+S Costs before Financing***		***$16,550,624***

		Residential	*Retail*
40	**Financing Costs**		
41	Loan to Cost Ratio		0.80
42	Interest Rate		5%
43	Loan Fees		1.5%
44	Construction Period (months)		12
45	Average Outstanding Balance		60%
46	Points		$198,607
47	Construction Period Interest		$416,281
48	Subtotal Financing Costs		$614,889
49	**Total Development Costs**		***$27,019,917***
50	Total Development Cost PSF		$404
51	**Revenue Assumptions**		
52	Rent PSF	$2.69	$1.87
53	Vacancy	3%	4%
54	Operating Expenses	$650	0%
55	**Valuation**		
56	Gross Income	$1,783,745	$260,256
57	Less: Vacancy	$48,161	$11,191
58	Less: Operating Expenses	$478,907	$0
59	Net Operating Income (NOI)		$1,505,742
60	Cap Rate		5.0%
61	Value at Stabilization		***$30,114,837***
62	Less: Total Development Costs		$27,019,917
63	**Profit (VAS-TDC)**		***$3,094,919***
64	**Return on Cost (Profit/TDC)**		***11%***
65	**Yield on Cost (NOI/TDC)**		***6%***
66	**Residual Land Value (15% Return)**		***$10,374,497***
67	**Return on Equity (CF/Equity)**		***16%***

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles

Test Fit Pro Forma – 6A

Prototype Number	**6a**
Prototype	**NC:Flex Block**

		Residential	*Retail*			*Residential*	*Retail*
1	**Development Assumptions**			40	**Financing Costs**		
2	Site SF		33,065	41	Loan to Cost Ratio		0.80
3	Built SF		22,593	42	Interest Rate		5%
4	Efficiency Ratio		0.85	43	Loan Fees		1.5%
5	Leasable SF	17,534	5,059	44	Construction Period (months)		12
6	Parking Ratio		0.002	45	Average Outstanding Balance		60%
7	Parking Spaces		23	46	Points		$79,301
8	Parking Type		Garage or Underground	47	Construction Period Interest		$166,215
9	Parking Size (SF)		350	48	Subtotal Financing Costs		$245,516
10	Parking Area SF		8,022	49	**Total Development Costs**		***$11,152,316***
11	FAR		0.80	50	Total Development Cost PSF		$494
12	**Cost Assumptions**			51	**Revenue Assumptions**		
13	Land PSSF		$130	52	Rent PSF	$2.69	$1.87
14	Hard Costs			53	Vacancy	3%	4%
15	Building Hard Costs PSF		$194	54	Operating Expenses	$650	0%
16	Site Work PSSF		$5	55	**Valuation**		
17	Tenant Improvements PSF		$50	56	Gross Income	$566,003	$113,521
18	Parking per space (low)		$30,000	57	Less: Vacancy	$15,282	$4,881
19	Parking per space (high)		$30,000	58	Less: Operating Expenses	$151,963	$0
20	Soft Costs exc Fees (% of Hard)		20%	59	Net Operating Income (NOI)		$507,398
21	Planning Fees		$9,039	60	Cap Rate		5%
22	Impact Fees			61	Value at Stabilization		***$10,147,958***
23	Quimby/Park Fee per Unit		$2,277	62	Less: Total Development Costs		$11,152,316
24	School Fee PSF	$3.48	$0.56	63	**Profit (VAS-TDC)**		***($1,004,358)***
25	**Development Costs**			64	**Return on Cost (Profit/TDC)**		***-9%***
26	Land Cost		$4,298,391	65	**Yield on Cost (NOI/TDC)**		***5%***
27	Hard Costs			66	**Residual Land Value (15% Return)**		***$2,265,944***
28	Building Hard Costs		$4,383,051	67	**Return on Equity (CF/Equity)**		***12%***
29	Site Work		$165,323				
30	Tenant Improvements		$252,944				
31	Parking		$687,615				
32	Total Hard Costs		$5,488,932				
33	Soft Costs exc Fees		$1,097,786				
34	Planning Fees		$9,039				
35	Impact Fees						
36	Quimby/Park Fee	$44,361	N/A				
37	School Fee	$61,019	$12,652				
38	Soft Costs with Fees		$1,119,478				
39	***Subtotal H+S Costs before Financing***		***$6,608,410***				

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles

Test Fit Pro Forma – 6B

Prototype Number	**6b**
Prototype	**NC:Hybrid Court**

		Residential	*Retail*
1	**Development Assumptions**		
2	Site SF		33,065
3	Built SF		22,593
4	Efficiency Ratio		0.85
5	Leasable SF	17,534	5,059
6	Parking Ratio		0.00
7	Parking Spaces		23
8	Parking Type		Any
9	Parking Size (SF)		350
10	Parking Area SF		8,022
11	FAR		0.80
12	**Cost Assumptions**		
13	Land PSSF		$130
14	Hard Costs		
15	Building Hard Costs PSF		$194
16	Site Work PSSF		$5
17	Tenant Improvements per Unit		$50
18	Parking per space (low)		$6,000
19	Parking per space (high)		$30,000
20	Soft Costs exc Fees (% of Hard)		20%
21	Planning Fees		$9,039
22	Impact Fees		
23	Quimby/Park Fee per Unit		$2,277
24	School Fee PSF	$3.48	$0.56
25	**Development Costs**		
26	Land Cost		$4,298,391
27	Hard Costs		
28	Building Hard Costs		$4,383,051
29	Site Work		$165,323
30	Tenant Improvements		$252,944
31	Parking		$137,523
32	Total Hard Costs		$4,938,840
33	Soft Costs exc Fees		$987,768
34	Planning Fees		$9,039
35	Impact Fees		
36	Quimby/Park Fee	$44,361	N/A
37	School Fee	$61,019	$12,652
38	Soft Costs with Fees		$1,009,459
39	***Subtotal H+S Costs before Financing***		***$5,948,300***

		Residential	*Retail*
40	**Financing Costs**		
41	Loan to Cost Ratio		0.80
42	Interest Rate		5.2%
43	Loan Fees		1.5%
44	Construction Period (months)		12
45	Average Outstanding Balance		60%
46	Points		$71,380
47	Construction Period Interest		$149,612
48	Subtotal Financing Costs		$220,991
49	**Total Development Costs**		***$10,467,682***
50	Total Development Cost PSF		$463
51	**Revenue Assumptions**		
52	Monthly Rent	$2.69	$1.87
53	Vacancy	3%	4%
54	Operating Expenses (%	$650	0%
55	**Valuation**		
56	Gross Income	$566,003	$113,521
57	Less: Vacancy	$15,282	$4,881
58	Less: Operating Expe	$151,963	0%
59	Net Operating Income (NOI)		$507,398
60	Cap Rate		5.0%
61	Value at Stabilization		***$10,147,958***
62	Less: Total Development Costs		$10,467,682
63	**Profit (VAS-TDC)**		***($319,724)***
64	**Return on Cost (Profit/TDC)**		***-3%***
65	**Yield on Cost (NOI/TDC)**		***5%***
66	**Residual Land Value (15% Return)**		***$3,053,274***
67	**Project Feasible?**		***14%***

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles

Test Fit Pro Forma – 7A

Prototype Number	**7a**
Prototype	**NC:Court**

		Residential	*Retail*
1	**Development Assumptions**		
2	Site SF		18,438
3	Built SF		12,743
4	Efficiency Ratio		0.85
5	Leasable SF	9,922	2,821
6	Parking Ratio		0.002
7	Parking Spaces		13
8	Parking Type		Any
9	Parking Size (SF)		350
10	Parking Area SF		4,539
11	FAR		0.81
12	**Cost Assumptions**		
13	Land PSSF		$130
14	Hard Costs		
15	Building Hard Costs PSF		$163
16	Site Work PSSF		$5
17	Tenant Improvements per Unit		$50
18	Parking per space (low)		$6,000
19	Parking per space (high)		$30,000
20	Soft Costs exc Fees (% of Hard)		20%
21	Planning Fees		$9,039
22	Impact Fees		
23	Quimby/Park Fee per Unit		$2,277
24	School Fee PSF	$3.48	$0.56
25	**Development Costs**		
26	Land Cost		$2,396,994
27	Hard Costs		
28	Building Hard Costs		$2,075,895
29	Site Work		$92,192
30	Tenant Improvements		$141,054
31	Parking		$77,816
32	Total Hard Costs		$2,386,957
33	Soft Costs exc Fees		$477,391
34	Planning Fees		$9,039
35	Impact Fees		
36	Quimby/Park Fee	$25,101	N/A
37	School Fee	$34,527	$7,136
38	Soft Costs with Fees		$493,566
39	***Subtotal H+S Costs before Financing***		***$2,880,523***

		Residential	*Retail*
40	**Financing Costs**		
41	Loan to Cost Ratio		0.80
42	Interest Rate		5.2%
43	Loan Fees		1.5%
44	Construction Period (months)		12
45	Average Outstanding Balance		60%
46	Points		$34,566
47	Construction Period Interest		$72,451
48	Subtotal Financing Costs		$107,017
49	**Total Development Costs**		***$5,384,534***
50	Total Development Cost PSF		$423
51	**Revenue Assumptions**		
52	Monthly Rent	$2.69	$1.87
53	Occupancy Rate	3%	4%
54	Operating Expenses	$650	0%
55	**Valuation**		
56	Gross Income	$320,266	$63,305
57	Less: Vacancy	$8,647	$2,722
58	Less: Operating Expenses	$85,986	$0
59	Net Operating Income (NOI)		$286,216
60	Cap Rate		5%
61	Value at Stabilization		***$5,724,312***
62	Less: Total Development Costs		$5,384,534
63	**Profit (VAS-TDC)**		***$339,778***
64	**Return on Cost (Profit/TDC)**		***6%***
65	**Yield on Cost (NOI/TDC)**		***5%***
66	**Residual Land Value (15% Return)**		***$2,288,641***
67	**Return on Equity (CF/Equity)**		***17%***

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles

Test Fit Pro Forma – 7B

Prototype Number	**7b**
Prototype	**NC:Hybrid Court**

		Residential	*Retail*
1	**Development Assumptions**		
2	Site SF		18,438
3	Built SF		12,743
4	Efficiency Ratio		0.85
5	Leasable SF	9,922	2,821
6	Parking Ratio		0.002
7	Parking Spaces		13
8	Parking Type		Any
9	Parking Size (SF)		350
10	Parking Area SF		4,539
11	FAR		0.81
12	**Cost Assumptions**		
13	Land PSSF		$130
14	Hard Costs		
15	Building Hard Costs PSF		$163
16	Site Work PSSF		$5
17	Tenant Improvements per Unit		$50
18	Parking per space (low)		$6,000
19	Parking per space (high)		$30,000
20	Soft Costs exc Fees (% of Hard)		20%
21	Planning Fees		$9,039
22	Impact Fees		
23	Quimby/Park Fee per Unit		$2,277
24	School Fee PSF	$3.48	$0.56
25	**Development Costs**		
26	Land Cost		$2,396,994
27	Hard Costs		
28	Building Hard Costs		$2,075,895
29	Site Work		$92,192
30	Tenant Improvements		$141,054
31	Parking		$77,816
32	Total Hard Costs		$2,386,957
33	Soft Costs exc Fees		$477,391
34	Planning Fees		$9,039
35	Impact Fees		
36	Quimby/Park Fee	$25,101	N/A
37	School Fee	$34,527	$7,136
38	Soft Costs with Fees		$493,566
39	***Subtotal H+S Costs before Financing***		***$2,880,523***

		Residential	*Retail*
40	**Financing Costs**		
41	Loan to Cost Ratio		0.80
42	Interest Rate		5%
43	Loan Fees		1.5%
44	Construction Period (months)		12
45	Average Outstanding Balance		160%
46	Points		$34,566
47	Construction Period Interest		$193,202
48	Subtotal Financing Costs		$227,769
49	**Total Development Costs**		***$5,505,285***
50	Total Development Cost PSF		$432
51	**Revenue Assumptions**		
52	Monthly Rent	$2.69	$1.87
53	Vacancy	3%	4%
54	Operating Expenses	$650	0%
55	**Valuation**		
56	Gross Income	$320,266	$63,305
57	Less: Vacancy	$8,647	$2,722
58	Less: Operating Expenses	$85,986	$0
59	Net Operating Income (NOI)		$286,216
60	Cap Rate		5%
61	Value at Stabilization		***$5,724,312***
62	Less: Total Development Costs		$5,505,285
63	**Profit (VAS-TDC)**		***$219,026***
64	**Return on Cost (Profit/TDC)**		***4%***
65	**Yield on Cost (NOI/TDC)**		***5%***
66	**Residual Land Value (15% Return)**		***$2,149,777***
67	**Return on Equity (CF/Equity)**		***5%***

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles

Test Fit Pro Forma – 7C

Prototype Number	**7c**
Prototype	**NC:Flex Block**

		Residential	*Retail*
1	**Development Assumptions**		
2	Site SF		18,438
3	Built SF		12,743
4	Efficiency Ratio		0.85
5	Leasable SF	9,922	2,821
6	Parking Ratio		0.002
7	Parking Spaces		13
8	Parking Type		Garage or Underground
9	Parking Size (SF)		350
10	Parking Area SF		4,539
11	FAR		0.81
12	**Cost Assumptions**		
13	Land PSSF		$130
14	Hard Costs		
15	Building Hard Costs PSF		$163
16	Site Work PSSF		$5
17	Tenant Improvements PSF		$50
18	Parking per space (low)		$30,000
19	Parking per space (high)		$30,000
20	Soft Costs exc Fees (% of Hard)		20%
21	Planning Fees		$9,039
22	Impact Fees		
23	Quimby/Park Fee per Unit		$2,277
24	School Fee per Unit | PSF	$3.48	$0.56
25	**Development Costs**		
26	Land Cost		$2,396,994
27	Hard Costs		
28	Building Hard Costs		$2,075,895
29	Site Work		$92,192
30	Tenant Improvements		$141,054
31	Parking		$389,079
32	Total Hard Costs		$2,698,220
33	Soft Costs exc Fees		$539,644
34	Planning Fees		$9,039
35	Impact Fees		
36	Quimby/Park Fee	$25,101	N/A
37	School Fee	$34,527	$1,580
38	Soft Costs with Fees		$550,263
39	***Subtotal H+S Costs before Financing***		***$3,248,482***

		Residential	*Retail*
40	**Financing Costs**		
41	Loan to Cost Ratio		0.80
42	Interest Rate		5%
43	Loan Fees		1.5%
44	Construction Period (months)		12
45	Average Outstanding Balance		60%
46	Points		$38,982
47	Construction Period Interest		$81,706
48	Subtotal Financing Costs		$120,688
49	**Total Development Costs**		***$5,766,164***
50	Total Development Cost PSF		$453
51	**Revenue Assumptions**		
52	Monthly Rent	$2.69	$1.87
53	Vacancy	3%	4%
54	Operating Expenses	$650	0%
55	**Valuation**		
56	Gross Income	$320,266	$63,305
57	Less: Vacancy	$8,647	$2,722
58	Less: Operating Expenses	$85,986	$0
59	Net Operating Income (NOI)		$286,216
60	Cap Rate		5%
61	Value at Stabilization		***$5,724,312***
62	Less: Total Development Costs		$5,766,164
63	**Profit (VAS-TDC)**		***($41,852)***
64	**Return on Cost (Profit/TDC)**		***-1%***
65	**Yield on Cost (NOI/TDC)**		***5%***
66	**Residual Land Value (15% Return)**		***$1,849,766***
67	**Return on Equity (CF/Equity)**		***14%***

[1] Development standards from the ELA Third Street Specific Plan Adopted Form-Based Code
Prototypes: ELA 3rd Street Specific Plan
Land Costs: CoStar 1 mile buffer around Gold Line last five years
Hard Costs: RSMeans 2018 for Los Angeles Region
Rents: CoStar for Use Type Q1 2018
Fee: County of Los Angeles

Baseline Parking Requirements (Alternative tests of DRP Unincorporated County Requirements Outside of 3rd Street Specific Plan Area)

Subarea Prototype	TOD Hybrid Court	TOD Hybrid Court	TOD Lined Block	TOD Hybrid Court	TOD Flex Block	NC Flex Block	NC Hybrid Court	NC Court	NC Hybrid Court	NC Flex Block
Site Size (Sq.Ft.)	43,683	28,862	41,204	226,144	75,803	33,065	33,065	18,438	18,438	18,438
Residential Units	41	29	40	210	72	23	23	13	13	13
Retail Sq.Ft.	7,863	5,195	7,417	40,706	13,645	5,952	5,952	3,319	3,319	3,319
Total Leasable Sq.Ft.	37,939	26,510	37,069	195,253	66,856	22,593	22,593	12,743	12,743	12,743
TDC PSF	$432	$422	$420	$440	$449	$531	$501	$461	$472	$491
Return on Cost [1]	4.3%	6.7%	7.4%	2.4%	0.4%	-15.5%	-10.4%	-2.5%	-4.7%	-8.4%
Return on Equity [2]	14.4%	14.8%	15.1%	13.8%	13.1%	9.6%	11.3%	13.8%	1.8%	11.9%
Yield on Cost [3]	5.2%	5.3%	5.4%	5.1%	5.0%	4.2%	4.5%	4.9%	4.8%	4.6%
Meets ROC?	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**
Meets ROE?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**	**Yes**
Meets YOC?	**No**	**Yes**	**Yes**	**No**	**No**	**No**	**No**	**No**	**No**	**No**

[1] Return on Cost=Profit/TDC, 10% from developer interviews

[2] Return on Equity=Cash Flow/Equity, 7.45% from RR Investor Q4 2017 plus 1% to account for region

[3] Yield on Cost=NOI/TDC, 4.3%->5.3% from RERC Q3 2017 plus 1% to account for new construction