

STUDY SCOPE & GOALS

The city of San Francisco suffers from a significant shortage of housing, most especially from a shortage of affordable housing for middle- and low-income residents.

In order to address this problem, the City of San Francisco partnered with David Baker Architects and Seifel Consulting to evaluate how the State Density Bonus Law could work best within our local context. DBA has designed residential projects throughout San Francisco for more than 30 years and understands that each neighborhood has its own unique character as well as specific planning and zoning controls.

The State Density Bonus Law requires that local jurisdictions allow up to a 35% increase in the total number of units a building can have if the building also includes the requisite percentage of affordable housing (see Table I below for more details). This law mandates that local jurisdictions waive certain zoning regulations to achieve this density.

TABLE I. PERCENT OF AFFORDABLE HOUSING PROVIDED BY STATE-MANDATED DENSITY BONUS PROGRAM

Density Bonus	Very Low (50% AMI)	Low (80% AMI)	Moderate (120% AMI)
7 %	-	-	12 % Units
15 %	-	-	20 % Units
20 %	5 % Units	10 % Units	25 % Units
23 %	~ 7 % Units	12 % Units	28 % Units
30 %	9 % Units	~17% Units	35 % Units
35 %	11 % or More Units	20% Units	40 % Units

In order to understand which waivers encouraged contextually appropriate increases in density — listed under the Menu of Waivers, on pages 20–29 — this study analyzes eleven prototypical sites throughout the city and explores how the State Density Bonus Law impacts the capacity, limitations, and potential of each parcel. Following the standard development process, the study started with a conceptual design for each parcel — a simple model of the project's scale, height, and overall volume. Digital modeling and representation were used to study a code-compliant development as exists under current zoning laws. Four to five additional iterations utilizing waivers helped illustrate the physical implications of incremental density increases within existing neighborhoods.

In conjunction with this design exploration, Libby Seifel of Seifel Consulting undertook a detailed financial analysis to calculate the economic feasibility of the proposed development scenarios on three of the eleven sites studied. This, along with the design analysis, helped identify which specific Planning Code waivers most effectively increase a parcel's overall development potential while producing contextually appropriate buildings.

The results from these studies make it clear that in our local market, the 35% increase as mandated by the State Density Bonus law may not provide enough incentive for developers to create more affordable housing. Therefore, the team also studied other ways to encourage developers to create more affordable housing through a proposed San Francisco policy known as the Affordable Housing Bonus Program.

All the models in this study were executed at a conceptual level only. Any project electing to participate in either the State Density Bonus or Affordable Housing Bonus Programs will require more detailed design. To ensure that increased density will enhance rather than detract from the current urban fabric, an additional Design Guidelines publication is in development.

SITE SELECTION

In order to test the impact of the State Density Bonus Law, conceptual designs were created for eleven prototypical sites that represent a true cross section of the study area (see map on opposite page) and that reflect diverse zoning conditions, height limits (ranging from 40 to 130 feet), and other restrictions.

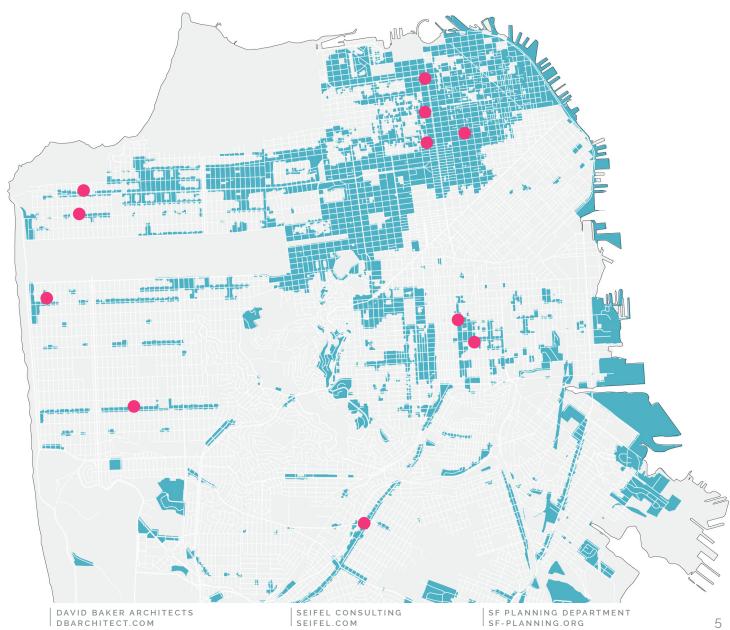
These sites conform to the following criteria:

- · Residential use must be permitted
- Mixed-use neighborhoods those that mix residential and commercial uses with access to public transit were prioritized.
- Density limits are regulated by a ratio related to lot area. The ratio is calculated as a unit per square foot (i.e. 1 unit per 200 SF of lot area, or 1:200) and ranges from 1:200 to 1:800.

The study did not include RH-1 and RH-2 districts that are primarily comprised of single-family homes or those areas that were recently re-zoned to districts that do not require numerical density limits. Combined, these areas represent more than 70% of the City.

Sites likely to be attractive to developers and sites with larger lots were prioritized, as they offer a manageable scale of development, but a handful of smaller lots were also included to illustrate the full programmatic impact. Table II on page 16 provides further detail on the parcels selected.

Areas where density bonus would apply Prototype Site Locations



METHODOLOGY

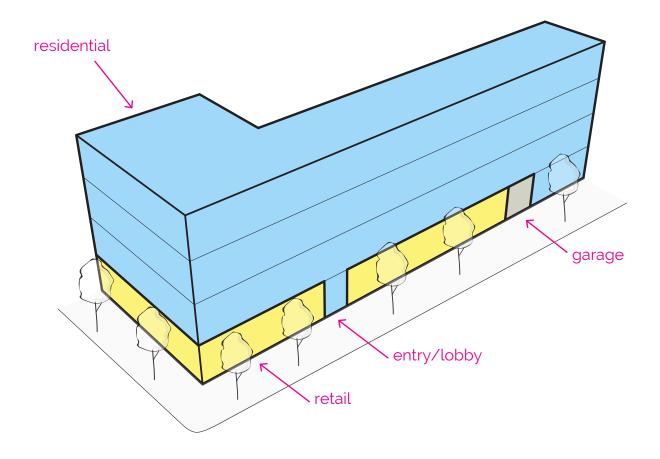
In order to fully understand how a prototypical development might increase in size if it took advantage of the State Density Bonus Law, DBA first had to understand what a development would look like without it. To do so, a Base Case was established for each prototype.

The Base Case is a model of a completely code-compliant building, one that meets height and density limits, provides a code-complying rear yard and open space, and has no units in need of an exposure variance. To ensure code compliance, each Base Case was reviewed by the San Francisco Planning Department.

After each Base Case was designed, DBA completed a model of how the State Density Bonus Law would change potential development on the site. Planning Department staff vetted several scenarios to determine how best to accommodate the additional units on the specific study sites.

Finally, a model was developed for the local Affordable Housing Bonus Program. These models were designed with an additional two stories and explored increased density limits. Average unit sizes were derived from Seifel's analysis; the unit mix includes 40% two-bedroom units.

The models created are very conceptual and simply focus on the configuration and gross square footage of residential, parking, and commercial uses — the bigger-picture building massing. The sites were approached as if a developer came to DBA as a client asking for help determining a site's potential yield. And in fact, the models created are very similar to what DBA would deliver to a developer evaluating a potential parcel.



SITE MODEL EXAMPLE



PLANNING CODE ASSUMPTIONS:

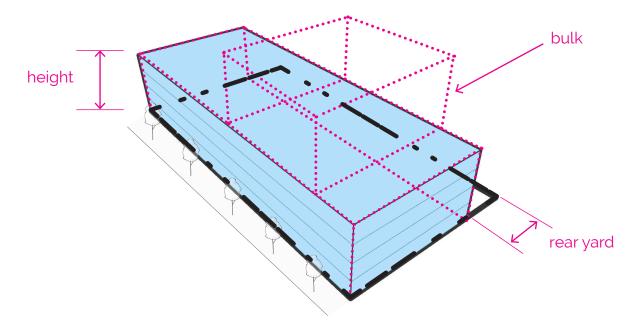
Some of the sites within the study were corner lots. In these cases, the planning code allows for a rear yard modification (per PC Section 134(e)(2)). DBA did not utilize this modification in constructing the Base Cases. Instead, this modification is reserved for use as a waiver within either the State Density Bonus or Local Affordable Housing Bonus Program.

DIGITAL MODELING ASSUMPTIONS:

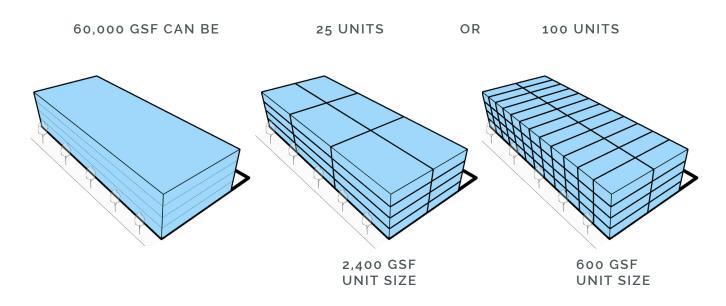
- Residential square footage includes common circulation, amenity spaces, and lobby spaces
- Service spaces are assumed to be included within either the garage or residential gross square footage and have not been specifically designed
- Parking stackers are used where noted to achieve required parking requirements
- All square footages listed are gross square feet unless otherwise noted

BASE CASE FINDINGS

Under present zoning, two factors typically constrain the number of units that can be built on each site. The first are physical envelope constraints, including height, bulk, and rear yard requirements, which determine the maximum permitted volume of a building. Second are density limits, as defined by the Planning Code, which limit the total number of residential units allowed on a parcel.



PHYSICAL ENVELOPE
Defined by a site's zoning parameters that determine the maximum permitted volume of a building (such as height, bulk, and rear yard, etc).



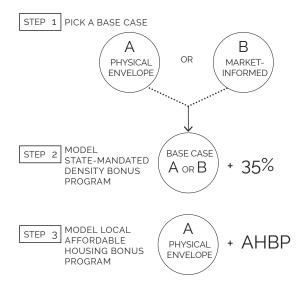
DENSITY LIMITS

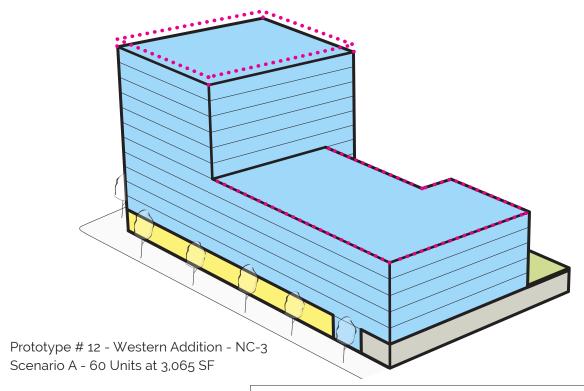
Defined by the planning code to limit the total number of residential units (such as 1 unit per every 400 SF of lot area).

In fact, because the two sets of constraints produce such different yields, it was necessary to model both scenarios on every site in order to determine an accurate unit count from which to proceed. We call these Scenarios A and B — Scenario A is constrained by physical envelope regulations and Scenario B is constrained by density limits. In general, when Scenario A yielded realistic unit sizes, it was used as the Base Case for all subsequent studies on that parcel. When the unit sizes in Scenario A were larger or smaller than what the current market would realistically build, Scenario B was used.

Depending on the specific site context, either the physical envelope regulations or the density limit were found to be the constraining factor. In some cases, it would not be possible to build the number of units allowed under the current density regulations in the existing allowable envelope. In other cases, filling the allowable physical envelope while restraining the density by number of units yielded unrealistically large units. For example, if prototype 12 were to be built to the maximum physical envelope allowable and also comply with the existing density constraints, the residential units would be 3,065 gross square feet each — a size unlikely to be economically feasible. For sites such as these, Seifel's analysis and San Francisco Planning Department data (published as a separate document by the City) were used to help determine a more realistic unit size.

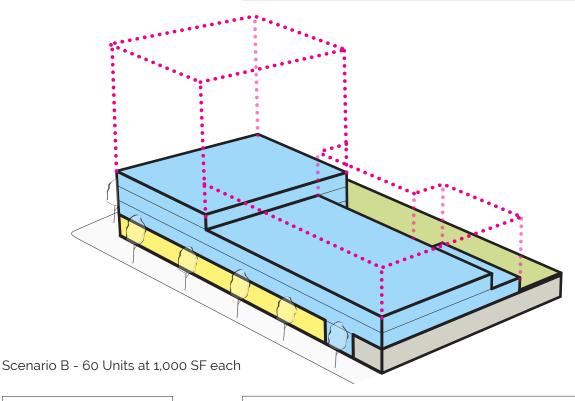
There was some evidence that most of the 1:200 sites were constrained by the physical envelope and most of the 1:800 sites were constrained by density limits. However, this did not prove true for all sites; therefore, we felt the need to model both scenarios for each site.





SCENARIO A - FULL ENVELOPE BASE CASE

Scenario A models the full physical envelope allowed by zoning constraints and complies with all other planning code requirements.



RESIDENTIAL RETAIL GARAGE OPEN SPACE MAX. ENVELOPE

SCENARIO B - MARKET INFORMED BASE CASE

Scenario B was modeled first by computing the allowed number of units based on site density limitations and lot size. A target residential square footage was then identified by multiplying the number of units allowed by an assumed average unit size.

35% DENSITY INCREASE FINDINGS

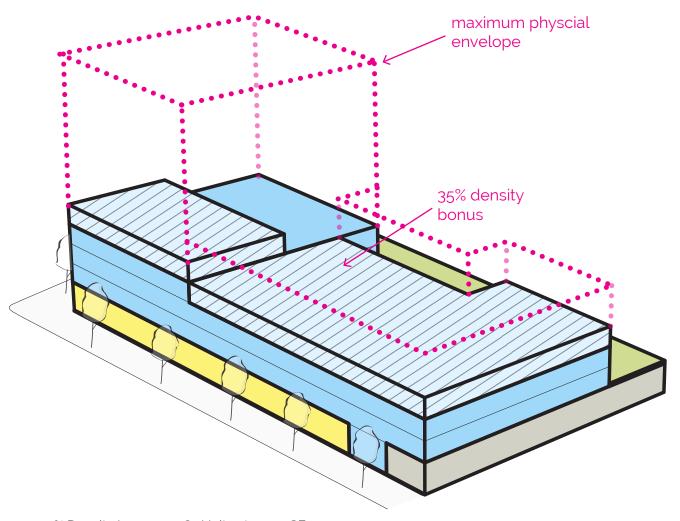
The State Density Bonus Law allows a developer to increase a project's density up to 35% over what is permitted in return for providing affordable housing as part of the project (see Table I on page 2 for more information). However, when a project increases the number of units by 35%, it is unlikely that it can accommodate that density and remain completely code compliant. The state law anticipates the likely need for zoning flexibility and directs municipalities to grant waivers that do not adversely impact health, safety, or livability. In other words, the City can allow height, bulk, open space, lot coverage, or other zoning concessions to accommodate increased density and promote more affordable housing.

This study identified a set of code constraints that could be partially or completely waived to enable increased density (listed in the Menu of Waivers on pages 20–29). It is important to note that the bulk of planning code requirements are not affected by the Menu of Waivers.

The zoning regulations most often waived were rear yard, height, and unit exposure, often simultaneously. Within this study, modified rear yards were treated as code compliant (and in practice DBA has found that projects with modified rear yards still satisfy the intent of the exposure requirement).

On average, we found that increasing the size of the building by 35% reduced the rear yard from the required 25% of lot area to 16% of lot area. While some sites reduced the rear yard to less than 20% of lot area, the study suggests that most sites can increase density while maintaining a rear yard that measures 20% of lot area. On site 6, utilizing the rear yard waiver increased the building's yield by 35%, bringing the total number of units from 23 to 31.

There were similar results with height requirements — not surprisingly, sometimes the only way to increase a building's volume is to add additional floors. In fact, seven of the eleven sites studied required a height waiver in order to achieve the 35% increase in density. Of these, five (more than half) required a rear yard waiver as well. On site 11, waiving the height requirement brought the total number of units from 47 to 63, a 34% increase. And on site 2, waiving both the height and rear yard requirements increased the number of units from 60 to 81 for a 35% gain.



35% Density Increase - 81 Units at 1,000 SF



LOCAL AFFORDABLE HOUSING BONUS PROGRAM (AHBP)

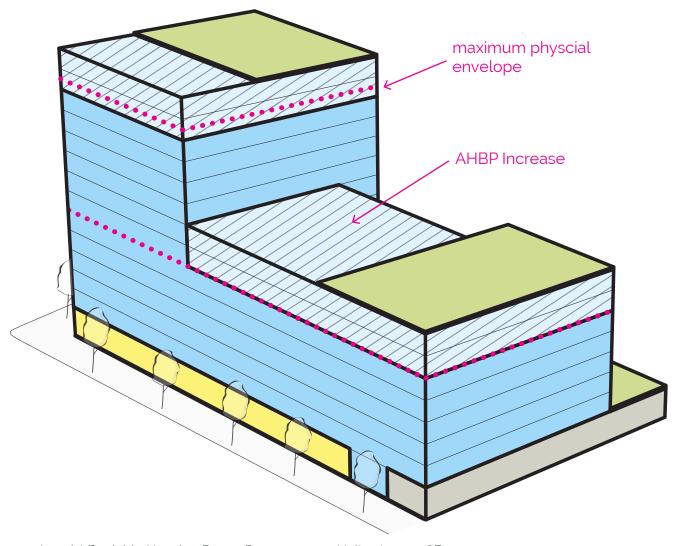
Although the State Density Bonus Law may encourage the production of more affordable housing in many California cities, in San Francisco it may not provide developers with enough incentive to reach the City's goal of 30% affordable housing in new construction — and it does nothing to encourage the production of middle-income housing. Therefore, San Francisco's Affordable Housing Bonus Program was studied to determine whether it could encourage developers to produce more affordable housing for both low- and middle-income residents.

Having already looked at a 35% increase in density (as part of the State Density Bonus Law studies) these new digital models looked at even greater increases in density, with the goal of 30% affordable units on each site. To understand how providing 30% affordable housing could be made economically feasible for developers, Seifel Consulting was tasked with determining how great an increase in density would be required (see Seifel Study for more information). The digital models were informed by those financial findings.

Unlike with the State Density Bonus studies, where models were created using both Base Case scenarios, for this exercise only Base Case Scenario A (the allowed physical envelope) was used as a starting point. All the models produced were reviewed by City planning staff, analyzed for financial feasibility and constructability, and evaluated for their contextual appropriateness.

As with the State Density Bonus Law studies, all of these studies required waivers, most specifically around height limitations. Although it is impossible to define an ideal height that works for every single site, most of the sites studied proved that an additional two stories over the existing height limit produced a significant increase in yield while maintaining essential neighborhood character. Additionally, a two-story increase can often be achieved without a change in construction type, allowing the cost-per-square-foot to remain the same.

In reality, many San Francisco neighborhoods already have varying heights — the product of a long history and ever changing zoning code — and this program would only apply in neighborhoods that already reflect a diversity of heights and uses. Not only do varying heights already exist, but DBA believes it is those variances, and others occurring naturally over time, that make a city engaging — especially when well designed. DBA and the City are currently at work on an additional publication that will outline specific Design Guidelines intended to help maintain the city's distinct character.



Local Affordable Housing Bonus Program - 233 Units at 1,000 SF



MODELING THE LOCAL AFFORDABLE HOUSING BONUS PROGRAM

All the studies of the Affordable Housing Bonus Program followed these rules:

- · Increased height by two stories, not to exceed 20 feet
- Deviated as necessary from the Planning Code to reach the additional density goals by following the Menu of Waivers (see section below)

STUDY RESULTS

TABLE II. PROTOTYPICAL STUDY SITES

#	Neighborhood	Zoning	Lot Area	Height	Density	FAR
1	Outer Excelsior	Outer Excelsior NCD	14,419 SF	65-A	600	-
2	Van Ness	RC-4	24,201 SF	80-D	200	4.8
3	Outer Sunset	NC-1	13,500 SF	40-X	800	1.8
5	Inner Richmond	NC-3	5,000 SF	40-X	600	3.6
6	Balboa	NC-2	18,620 SF	40-X	800	2.5
7	Haight	Haight NCD	34,391 SF	50-X, 40-X	600	1.8
8	Mission	NC-2	4.750 SF	45-X	800	2.5
9	Taraval	Taraval NCD	11,996 SF	50-X	800	2.5
10	Russian Hill	RC-3	7,400 SF	65-A	400	3.6
11	Nob Hill	RM-4	9.336 SF	65-A	200	4.8
12	Western Addition	NC-3	35.723 SF	130-E	600	3.6

#	BASE CASE (C	ODE CONF		NG) FINDINGS Unit GSF	Height	Bulk	FAR	sa Rear Yard	Parking	Exposure
	Neighborhood Outer Excelsior		Units							
1		40,008 SF	24	1667 SF	-	-	-	-	-	_
2	Van Ness	76,691 SF	60	1278 SF	-	-	-	-	-	-
3	Outer Sunset	28,339 SF	17	1667 SF	-	-	-	-	-	-
5	Inner Richmond	12,497 SF	8	1562 SF	-	-	-	-	-	-
6	Balboa	38,241 SF	23	1667 SF	-	-	-	-	-	-
7	Haight	57.000 SF	57	1000 SF	-	-	-	-	-	-
8	Mission	7.998 SF	6	1333 SF	-	-	-	-	-	-
9	Taraval	19,995 SF	15	1333 SF	-	-	-	-	-	-
10	Russian Hill	25,327 SF	19	1333 SF	-	-	-	-	-	-
11	Nob Hill	35,485 SF	47	755 SF	-	-	-	-	-	-
12	Western Addition	60,000 SF	60	1000 SF	-	-	-	-	-	-

:	35% DENSITY	INCREASE	FINDI	NGS		Height	Bulk	FAR	Rear Yard	Parking	Exposure
#	Neighborhood	Res. GSF	Units	Unit GSF	% Inc. B.C.*			Wa	aivers		
1	Outer Excelsior	53.344 SF	32	1667 SF	35%	$X^{(2)}$	X	-	-	-	-
2	Van Ness	107,973 SF	81	1333 SF	35%	$X^{(1)}$	X	X	X	-	X
3	Outer Sunset	38,341 SF	23	1667 SF	35%	X ⁽¹⁾	-	-	X	X	X
5	Inner Richmond	17,182 SF	11	1562 SF	35%	$X^{(2)}$	-	-	-	-	-
6	Balboa	51,677 SF	31	1667 SF	35%	X ⁽¹⁾	-	-	X	-	X
7	Haight	77.000 SF	77	1000 SF	35%	-	-	-	-	-	-
8	Mission	10,664 SF	8	1333 SF	35%	-	-	-	-	-	-
9	Taraval	26,660 SF	20	1333 SF	35%	-	-	-	X	-	X
10	Russian Hill	34,658 SF	26	1333 SF	35%	$X^{(2)}$	-	-	-	-	-
11	Nob Hill	47,565 SF	63	755 SF	35%	$X^{(2)}$	-	-	-	X	-
12	Western Addition	81,000 SF	81	1000 SF	35%	-	-	-	-	-	-

^{* %} Unit Increase from Base Case $X^{(0-2)}$ = Number of additional stories

Rear Yard Parking LOCAL AFFORDABLE HOUSING **BONUS PROGRAM FINDINGS** Waivers # Neighborhood Res. GSF Units Unit GSF % Inc. B.C.* Outer Excelsion 64,239 SF 56 1147 SF Χ Χ 1 133% 2 Van Ness 119,267 SF 970 SF 105% Χ X Χ X Χ 123 Χ **Outer Sunset** 56,651 SF 1667 SF 200% Χ Χ Χ 3 34 Inner Richmond 20,137 SF 1562 SF 162% Χ Χ 5 13 _ 6 Balboa 71,705 SF 1667 SF 187% Χ Χ Χ 43 Χ Χ 7 Haight 120,221 SF 897 SF 135% 134 8 Mission 18,270 SF 1333 SF 233% Χ Χ 14 Taraval 61,247 SF Χ Χ 46 1333 SF Χ Χ

1333 SF

755 SF

1000 SF

32

65

233

Χ

Χ

Χ

207%

168%

138%

288%

Χ

Χ

Χ

9

10

11

12

Russian Hill

Nob Hill

Western Addition

43,292 SF

48,774 SF

232,809 SF

^{* %} Unit Increase from Base Case

MENU OF WAIVERS

In developing models for this study, DBA utilized six main waivers in differing numbers and combinations (see Table II on pages 16-19). However, in order to make real-life projects — those subject to unique lot sizes, locations, and configurations - more contextually appropriate and economically feasible, a Menu of Waivers was created. The menu includes not only the six main waivers used by DBA in this study but also three other waivers that were informed by DBA's professional experience and that were recommended by industry leaders including the San Francisco Housing Action Coalition and the Council of Community Housing Organizations.

The Planning Department's final legislation will outline the quantity of the waivers a given project can have, as well as which are appropriate at differing levels of affordability. It is worth noting that only three of the study prototypes relied on more than three waivers; most required height and up to two additional waivers.

- REAR YARD
- DWELLING UNIT EXPOSURE
- HEIGHT
- BULK
- FAR
- USABLE OPEN SPACE
- PARKING
- OFF-STREET LOADING
- OBSTRUCTIONS OVER STREETS AND ALLEYS

REAR YARD

Planning Code Section 134, Rear Yards, was written to preserve the open space in the middle of smaller blocks where typical lots measure 25' x 100'. In most zones, Section 134 requires that rear yard depth shall be at least 25% of the lot's total depth, and no less than 15 feet deep. In the current code, rear yards must be either on grade or on the building's lowest level of residential dwelling. It is worth noting that any residential dwelling facing a code-complying rear yard is automatically considered to be in compliance with Section 140, as it relates to exposure.

This waiver does not eliminate the rear yard requirement entirely but instead provides greater flexibility while still fulfilling the code's original intent. A waiver of Section 134 modifies the requirement in three ways: first by reducing the percentage of open space from 25% to 20%; second, by allowing the open space to occur anywhere on the lot (similar to the current modification of code Sections 134e and 134f); and third, by never requiring the rear yard to be on grade but rather always allowing it to occur on the first level of residential dwelling.

In the majority of the prototypes, rear yard compliance was a major hurdle, and the study made it clear that flexibility with the rear yard would foster more effective and efficient development. Four of the prototypes (sites 2, 3, 6, 9) benefited from a rear yard waiver. Two of the five exceeded the 20% minimum but only when we were flexible with the configuration. One prototype, site 9, explored a 16% reduction but the project team felt this was too great.

DWELLING UNIT EXPOSURE

Planning Code Section 140, Dwelling Unit Exposure, requires that units face on to a rear yard, side yard, street, outer court, or inner court. In every case except inner courts, the size of these open spaces is not tied to the building's height. However in projects with inner courts, Section 140 requires the inner court to increase in size as the building increases in height. This waiver simplifies the inner court size requirements and reduces their required width.

Consider two 85-foot tall buildings with dwelling units that face each other. Under the current code, if they are situated across a public street or alley from each other, or are separated by an outer court, the distance between can be as little as 25 feet (30 feet if they face onto code-complying rear yards). However if the two buildings face each other across an inner court, they would need to be about 55 feet apart — an unrealistic number. This more onerous standard penalizes developments on single lots by forcing them to plan for overly large inner courts and, in fact, many current developments request variances (or, when available, an exception) from this anomalous restriction.

The intent of this waiver is to reduce the overly large inner courts required with tall buildings. The waiver also allows a reduction in the number of units that meet exposure requirements. When this waiver is used in conjunction with the rear yard waiver, units facing the modified rear yard will be considered code-compliant in terms of exposure.

In all scenarios, including both the local and state programs, sites 2, 3, 6, and 9 required a rear yard waiver in tandem with an exposure waiver to achieve the desired density. This correlation speaks to the importance of flexibility in both the rear yard and exposure requirements, as well how they are inextricably linked.

HEIGHT

San Francisco is divided into height and bulk districts as indicated on the Zoning Map and in Article 2.5 of the Planning Code. These districts define and restrict the maximum height and bulk allowed per parcel — in other words, how tall and big a parcel's building may be — and vary dramatically throughout the study area. In fact, the height restrictions studied ranged from 40 to 130 feet.

This waiver permits a project to apply for up to 20 feet (or two stories) of additional building height, yielding more residential units. This is allowed in addition to the 5-foot height increase designed to encourage a gracious ground floor (see Design Guidelines, a separate publication from this study).

The majority of the sites studied under the Local Affordable Housing Bonus program and all sites studied under the State Density Bonus program required a height waiver to achieve the desired increase in density. In many of the neighborhoods studied, buildings that exceed the height limits already exist; therefore there is some precedence for increased height on some parcels. Additionally, the 20-foot height increase will be a critical tool to incentivize use of the State and Local Density Bonus programs.

BULK

San Francisco is divided into height and bulk districts as indicated on the Zoning Map and in Article 2.5 of the Planning Code. These districts define and restrict a the maximum height and bulk allowed per parcel — in other words, how tall and big a parcel's building may be — and vary dramatically throughout the study area. Bulk constraints mandate that at a certain height, a building must step back from the property line — a limitation designed to avoid an overwhelming sense of mass.

This waiver does not eliminate any bulk restriction but rather changes the height at which a building must step back by up to 20 feet. For example, if a bulk limitation is imposed at 40 feet, the bulk limitation will be increased to 60 feet, meaning that the building will not have to step back until it reaches 60 feet.

Only five of the eleven sites studied were subject to bulk constraints. Of these sites 1 and 2 as studied under the State Density Bonus Program and sites 1, 2, and 12 as studied under the Local Density Bonus Program required bulk waivers. On site 2, flexibility with the bulk length requirement allowed the building diagram to become much more efficient, doubling the unit count from 60 in the Base Case to 123 in the Local Bonus Program model.

Although bulk constraints do not apply everywhere within the city, easing of this restriction is key to achieving greater residential density and can still be seen as contextual appropriate.

FAR

Planning Code Section 124, Basic Floor Area Ratio, limits the ratio of building floor area to parcel area. This section does not typically apply to residential square footage but it does apply in some zoning districts and in Special Use Districts within the city.

Of the sites studied, only one had an FAR restriction (and FAR restrictions probably apply to a much smaller percentage of parcels city wide). This waiver allows a project to be relieved from FAR requirements, should they apply.

By utilizing the FAR waiver and the rear yard, exposure, height, and bulk waivers, site 2's unit count doubled, starting at 60 in the Base Case and increasing to 123 in the Local Density Bonus Program model.

USABLE OPEN SPACE

Planning Code Section 135, Usable Open Space, sets forth the amount, type, and configuration of open space to be provided in each residential development. This waiver does not allow an exemption from this code section but allows a 10% reduction in the required amount of usable open space to be provided.

On most of the sites studied, the open space requirement was almost satisfied by the rear yard. In these cases, roof decks would most likely make up the difference — as is the case in many real-life scenarios today. However, roof decks are costly to build and might discourage developers.

Sites 5, 10, and 11 require a roof deck of less than 1,000 square feet to meet current open space requirements. A 10% reduction in the amount of open space required would have prevented these sites from needing a roof deck at all, which would lower construction costs and might provide enough incentive for developers to take advantage of either the State or Local Density Bonus Programs.

PARKING

Planning Code Section 151, Off-Street Parking, determines the maximum allowed or minimum required amount of off-street parking within new developments. As stated in the Planning Code, the intent of this section is to strike a balance between the need for private parking and the encouragement of walking, cycling, and the use of public transit.

Parking minimums have already been replaced with parking maximums in large areas of the city that have been recently rezoned. Most of the sites studied are in neighborhood commercial districts or on transit corridors that have not been rezoned for decades and still require minimum amounts of parking — often 1:1 for dwelling units, a much larger ratio then what would be required today. This waiver allows relief from minimum parking requirements where they occur.

Nine sites (3, 5, 6, 7, 8, 9, 10, 11, and 12) required parking lifts to satisfy parking requirements, and seven sites (3, 5, 7, 8, 9, 11, and 12) could not meet the parking requirement without a waiver or significant underground excavation (an option that would likely hurt the project's economic feasibility). Offering a parking requirement waiver increases the area dedicated to residential and active ground-floor use and reduces costs associated with parking lifts or excavation for additional parking levels. The waiver not only gives developers additional incentive to take advantage of these Density Bonus Programs but also helps activate the street edge, which DBA believes to be an important element in successful urban spaces.

OFF-STREET LOADING

Planning Code Section 152, Off-Street Loading, requires that projects over a certain size provide offstreet freight loading spaces for deliveries. This waiver reduces the required number of off-street loading spaces.

The garages and parking spaces within this study were not designed in detail. However, sites 2, 7, and 12 required off-street loading spaces that significantly reduced the amount of usable square footage. Additionally, in fully residential buildings it is worth noting that these off-street loading spaces are generally not well used — or get used for something other than their intended purpose.

Reducing the off-street loading requirement allows developers to maximize limited ground-floor space, using that square footage for dwellings, retail spaces, or improved streetscaping rather than loading.

OBSTRUCTIONS OVER STREETS AND ALLEY

Planning Code Section 136, Obstructions over Streets and Alleys, regulates overhanging elements such as bay windows and cornices. This waiver provides flexibility of this Planning Code section by loosening the strict rules on bay window and cornice width, depth, and configurations. More flexibility in other architectural features (such as sunshades) is also allowed.

This planning code section works well for the 40-foot-high residential buildings that constitute the majority of San Francisco. These regulations are less successful when applied to taller buildings, especially those where a more contemporary expression is appropriate.

Amendments to the rules for bay windows can create room for increased density and livability. This waiver also helps with good urban design by allowing more flexibility in the configuration of the bays. Taller buildings might benefit from wider bays than those currently allowed, for instance, and all buildings might benefit by reconfiguring the space formerly dedicated to bays to more efficient living. Flexibility in the amount and configuration of glazing on bays should also be allowed. Currently bays require 50% glazing, which might actually be too much glazing for residential use as it can cause the unit to overheat.

Sunshades, awnings, and other projections that are used to shade buildings and provide visual texture are also strictly regulated by the current code. Allowing additional flexibility with these elements would help ensure that buildings designed to meet increased density goals also succeed aesthetically and contextually.

DBA and other industry leaders agree that flexibility with façades and bays can help encourage denser yet still innovative and well-designed buildings.

BODY OF WORK APPENDIX OF PROTOTYPE SITES

This section includes the full body of work undertaken by DBA in conjunction with the City of San Francisco to evaluate how the State Density Bonus Law would apply in a local context. The study analyzed eleven carefully selected sites throughout the city, modeling four conceptual development scenarios for each. (Additional information about Site Selection can be found on page 4. See pages 6-15 for a complete discussion of the study's methodology.) Each of the models created by DBA is shown here. These models not only helped inform the Menu of Waivers proposed on page 20, but also confirmed the need for the Local Affordable Housing Bonus Program as outlined on page 14.

As previously mentioned, the models created are highly conceptual and focus simply on the configuration and gross square footage of residential, parking, and commercial uses — the bigger-picture building massing. All models were reviewed by City Planning staff, analyzed for financial feasibility and constructability, and evaluated for contextual appropriateness. However, any project electing to participate in either the State Density Bonus or Local Affordable Housing Bonus Programs would require more detailed design.



ZONING PARAMETERS

ZONING CLASSIFICATIONS: EXCELSIOR OUTER MISSION NCD Block/Lots: 6083021, 6083022, 6083023, 6083024, 6083036, 6083027

LOT AREA: 14,419 SF

HEIGHT AND BULK: 65-A

BULK DISTRICT	Height Above Which	Maximum Plan Dimensions (in		
	Maximum Dimensions Apply (in feet)	Length	Diagonal dim.	
А	40	110	125	

REAR YARD (SECT 134): 25% OF LOT DEPTH, NO LESS THAN 15 FEET (REQ AT THE SECOND STORY AND ABOVE).

DENSITY (SECT 745): 1 PER 600 SF OF LOT AREA 14.419/600 = **24 UNITS**

FLOOR AREA RATIO: NOT APPLICABLE TO RESIDENTIAL PER SECT. 124 (b), BUT WOULD APPLY TO ANY NON-RESIDENTIAL USES

STREET FRONTAGE: COMMERCIAL NOT REQUIRED.

USABLE OPEN SPACE: 80 SF PER UNIT IF ALL PRIVATE; 100 SF IF COMMON SPACE. 24 UNITS X 100 SF = **2,400 SF REQ**.

PARKING REQ: UP TO 1 PER UNIT, BUT NONE REQ., POTENTIAL MODIFICATION/WAIVER BY ZA PER SECT. 161(J).

GROUND FLOOR HEIGHT: MINIMUM 14' (FLOOR TO FLOOR)



FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 14,419/600 SF = 24 UNITS (MAX ALLOWED)

BASE AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND BULK REQUIREMENTS = 42,607 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED: 42,607 SF / 24 UNITS=1,775 AVG. GSF UNIT



MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 14,419/600 SF = **24 UNITS (MAX ALLOWED)**

1250 NET SF / 1667 GROSS SF ASSUMED UNIT SIZE

1667 GSF x 24 = 40,008 ASSUMED RESIDENTIAL GSF

MARKET-INFORMED BASE CASE IS CLOSE TO FULL ENVELOPE BUILD OUT ON THIS SITE



MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 14,419/600 SF = 24 UNITS (MAX ALLOWED)

24 MAX UNITS ACHIEVABLE X 1.35% DENSITY INCREASE = 32.4 ~ **32 UNITS ALLOWED** 1250 NET SF / 1667 GROSS SF ASSUMED UNIT SIZE

32 UNITS ALLOWED x 1667 GSF ASSUMED UNIT SIZE = 53,344 ALLOWED RESIDENTIAL GSF

ACCOMMODATIONS NEEDED: HEIGHT, BULK



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

56 UNITS* 64,239 RESIDENTIAL GSF

64,239 GSF / 56 UNITS = 1,147 GSF AVG UNIT SIZE ACCOMMODATIONS NEEDED: HEIGHT, BULK HEIGHT INCREASED FROM 65' TO 85' 56 UNITS IS 133 % INCREASE IN DENSITY FROM BASE CASE

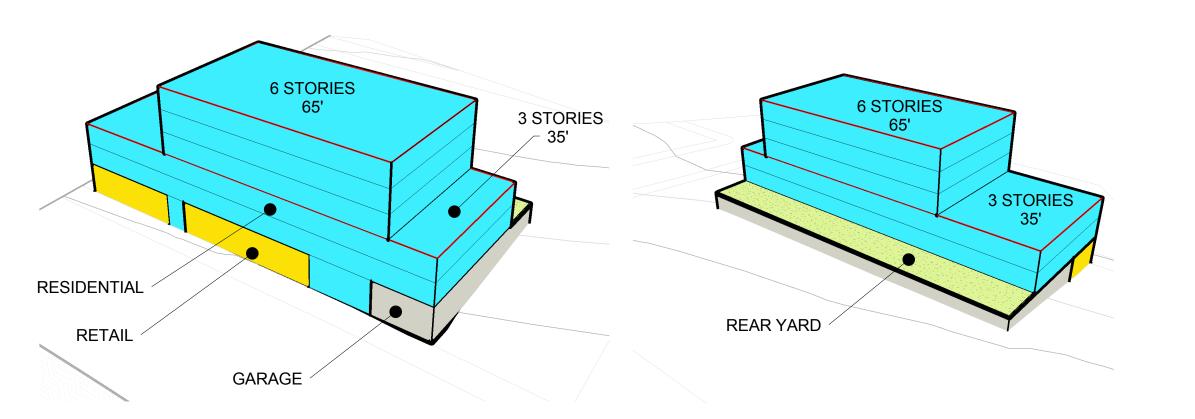
*NOTE: ASSUMED 56 UNITS NEEDED FOR FINANCIAL VIABILITY PER RESULTS OF FINANCIAL ANALYSIS





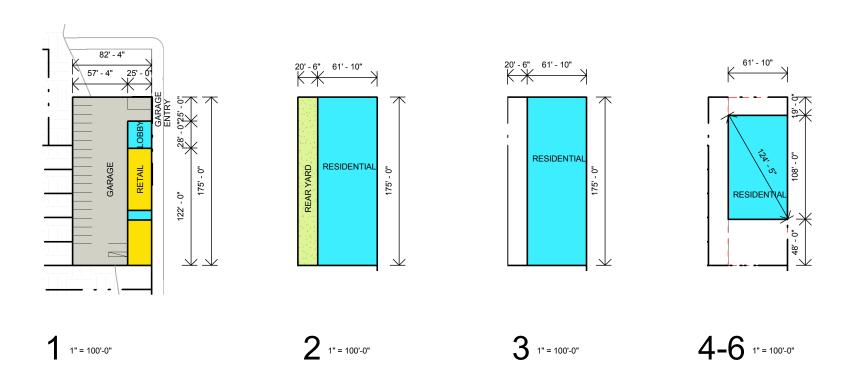
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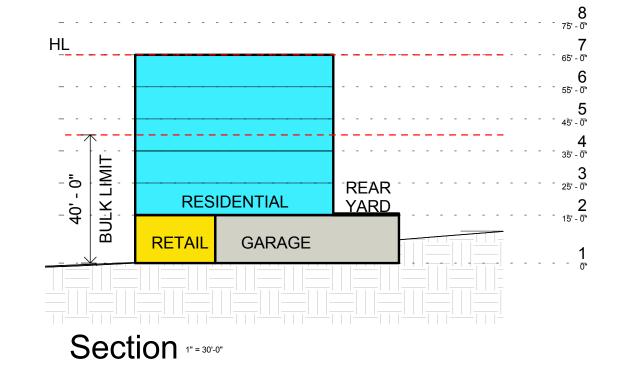
PROTOTYPE 1



FE GROSS AREA				
Garage Retail	10654 SF			
Retail	2800 SF			
Residential	42607 SF			
Grand total	56061 SF			

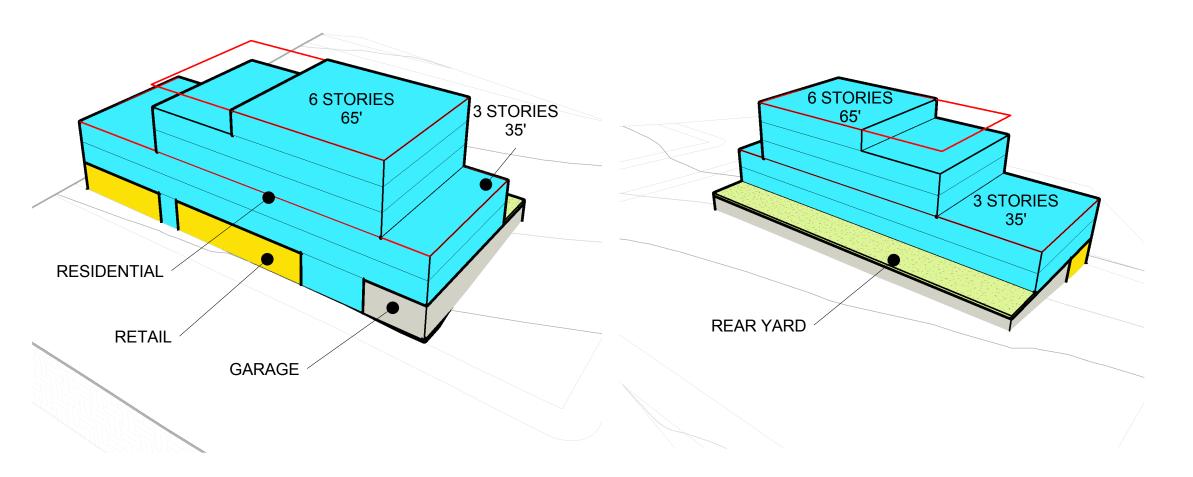
Open Space Required: 24 UNITS X 100 SF = 2,400 SF Residential Average Unit Size - 1775 GSF 19 Parking Spaces











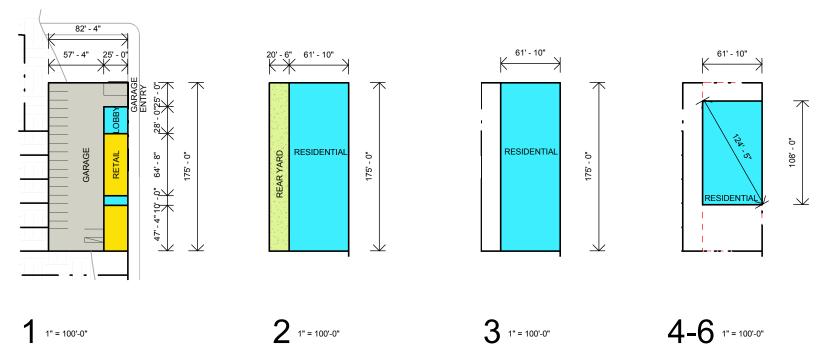
MARKET GROSS AREA

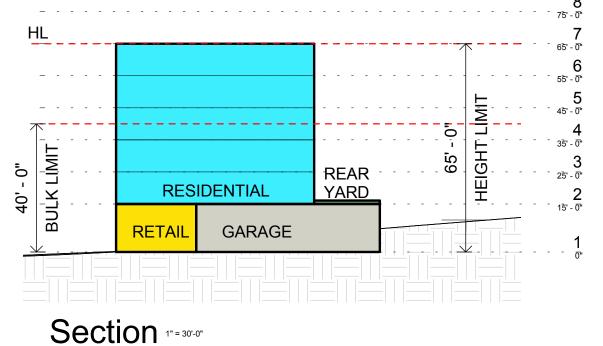
Garage	10654 SF
Retail	2800 SF
Residential	40011 SF
Grand total	53465 SF

Open Space	3588 SF

Open Space Required: 24 UNITS X 100 SF = 2,400 SF Residential Average Unit Size - 1667 GSF

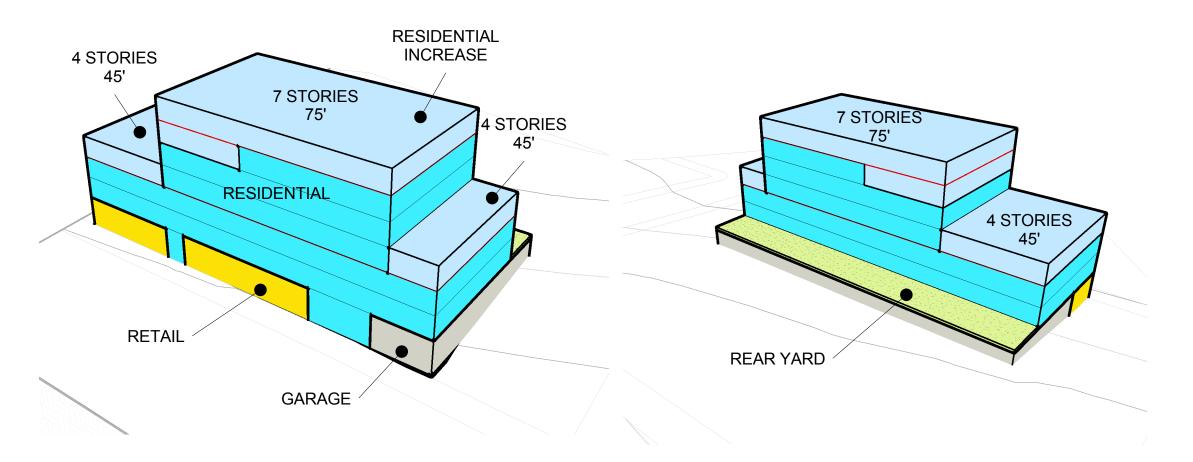
19 Parking Spaces











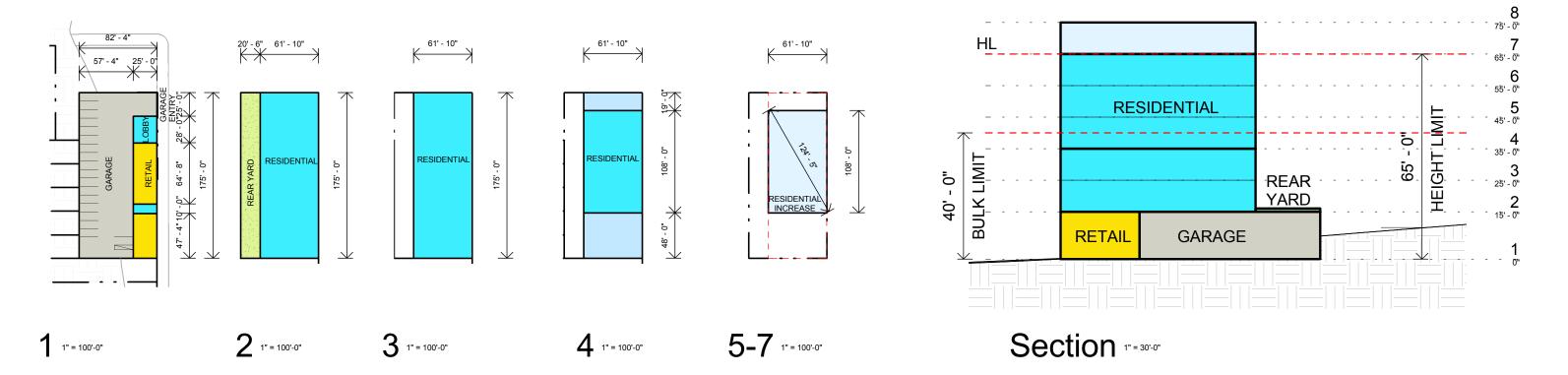
ACCOMMODATIONS NEEDED: HEIGHT, BULK

MARKET +	35% AREA
Retail	2800 SF
Residential	53424 SF
Garage	10654 SF
Grand total	66877 SF

Residential Increase	13412 SF
Residential	40011 SF
	53424 SF

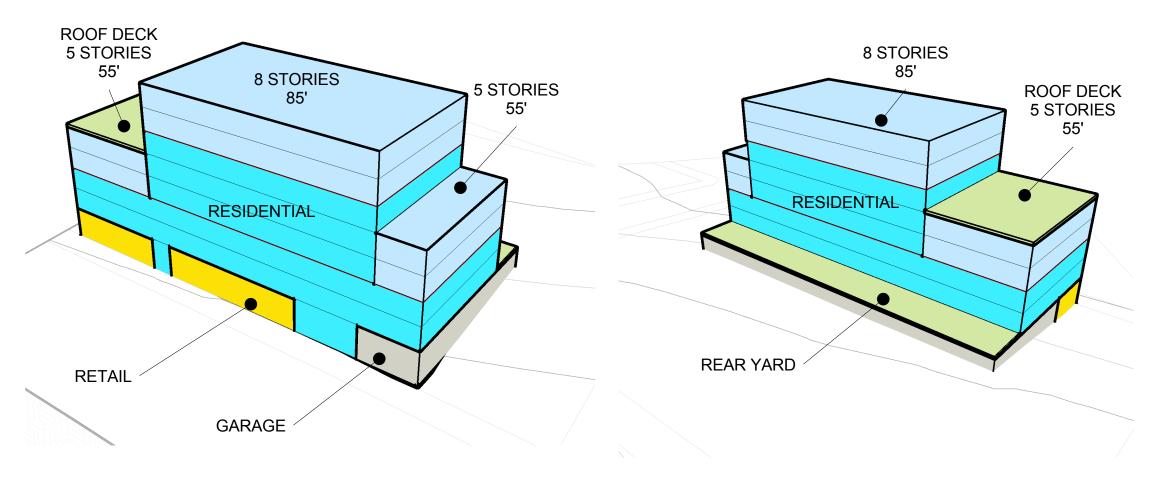
Open Space	3588 SF

Open Space Required: 32 UNITS X 100 SF = 3,200 SF Residential Average Unit Size - 1667 GSF 19 Parking Spaces







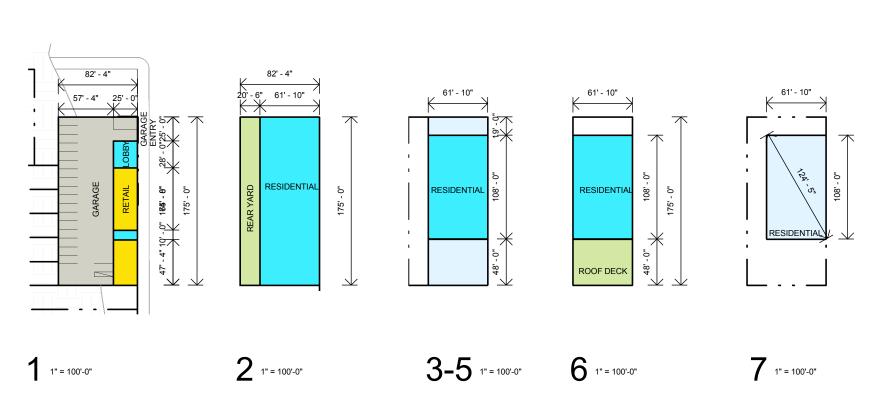


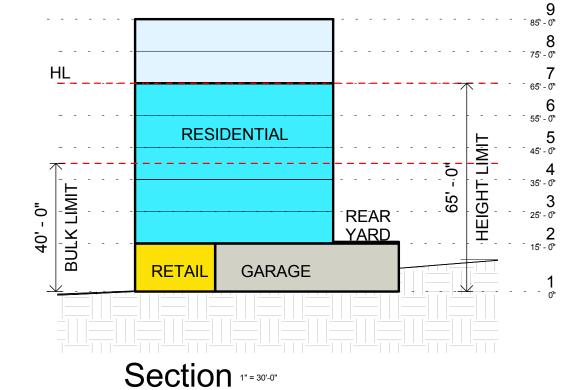
ACCOMMODATIONS NEEDED: HEIGHT, BULK

BONUS PROGRAM	
Garage	10654 SF
Residential	64239 SF
Retail	2800 SF
Grand total	77693 SF
·	·

Open Space 5751 SF

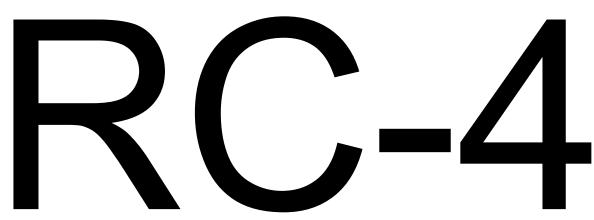
Open Space Required: 56 UNITS X 100 SF = 5,600 SF Residential Average Unit Size - 1147 GSF 19 Parking Spaces













ZONING PARAMETERS

ZONING CLASSIFICATIONS: RC-4, VAN NESS SPECIAL USE DISTRICT LOT: 0594001

LOT AREA: 24, 201 SF

HEIGHT AND BULK: 80-D

BULK DISTRICT	Height Above Which	Maximum Plan	Dimensions (in feet)
	Maximum Dimensions Apply (in feet)	Length	Diagonal dim.
D	40	110	140

REAR YARD: 25% OF LOT DEPTH, NO LESS THAN 15 FEET (AT DWELLINGS LEVELS ONLY). MAY BE WAIVED 243 (C) (7) (25% OF LOT DEPTH = 34.5) PER PC SECT. 134 (a) (c) REAR YARD SHALL BE PROVIDED AT LOWEST STORY CONTAINING A DWELLING UNIT

DENSITY: 1 PER 200 SF OF LOT AREA = 24.201 SF / 200 = **121 UNITS MAX** PER SECT. 243. DENSITY CONSTRAINTS ARE WAIVED.

FLOOR AREA RATIO: DOES NOT APPLY TO DWELLINGS PER RC-4 BUT DOES APPLY IN VAN NESS SUD = 4.8:1 (PARKING NOT INCLUDED)

4.8 X 24.201 SF TOTAL LOT AREA = 116.164.8 SF TOTAL BLDG AREA ALLOWED

FRONT SETBACK: NONE. NO REQ. PER RC-4 BUT PER VNSUD. SEC. 253.2 MAY APPLY WHERE ABOVE 50' ALONG VAN NESS. 20' IS REQ. - ASSUME NO SETBACK ALONG VAN NESS IS REQ.

USABLE OPEN SPACE: 36 SF PER UNIT IF ALL PRIVATE; 80 SF IF COMMON SPACE. 36 SF PER UNIT FOR LIVE/WORK

80 SF X 121 UNITS = 9680 SF

PARKING REQ: 1 PER 4 DWELLING UNITS, BUT POTENTIAL MODIFICATION/WAIVER BY ZA PER

SECT. 161(J).







FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

BASE FAR IS 4.8 X 24,201 (LOT AREA) = 116,165* SF OF BLDG AREA ALLOWED (EXCLUDING GARAGE)

*BASE CASE IS UNABLE TO REACH MAX ALLOWED UNDER FAR BECAUSE OF HEIGHT AND BULK LIMITATIONS. Per PC Section 243, density constraints on this site are waived and FAR does apply to this site per the Van Ness SUD. It should be noted that this is a very unique condition because FAR rarely applies to residential.

BASE AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND BULK REQUIREMENTS = 76,691 SF RESIDENTIAL (TOTAL FAR ACHIEVABLE = 86,682 SF)

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 76.691 SF / 121 UNITS = 634 GSF AVG. UNIT SIZE

MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND BULK REQUIREMENTS = 76,691 SF RESIDENTIAL

ASSUMING 78% EFFICIENCY (PER TSP STUDY) = 60 UNITS ACHIEVABLE WITHIN ALLOWED HEIGHT AND BULK **CONSTRAINTS**

RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 76.691 SF / 60 UNITS = 1278 SF AVG. GROSS UNIT

FULL ENVELOPE BUILD OUT AND MARKET BASE CASE ARE THE SAME AMOUNT OF RESIDENTIAL SF AND ARE BOTH INCLUDED ON SHEET 2.

MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

60 UNITS ACHIEVABLE X 1.35% DENSITY INCREASE = 81 UNITS 1.000 NET SF / 1.333 GROSS SF ASSUMED UNIT SIZE

81 UNITS ALLOWED x 1,333 GROSS SF ASSUMED UNIT SIZE = 107,973 ALLOWED RESIDENTIAL GSF

ACCOMMODATIONS NEEDED: HEIGHT, BULK, FAR, REAR YARD

SCENARIO

SCENARIO

AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

119.267 RESIDENTIAL GSF

119,267 GSF / 123 UNITS = 970 AVG GSF UNIT SIZE

ACCOMMODATIONS NEEDED: HEIGHT, BULK, FAR, REAR YARD **HEIGHT INCREASED FROM 80' TO 100'**

123 UNITS IS 105 % INCREASE IN DENSITY FROM BASE CASE

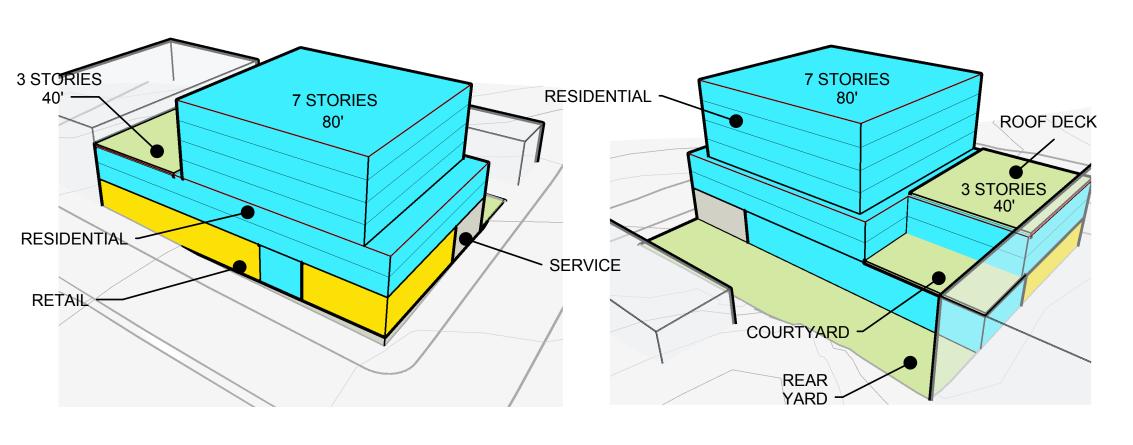
*NOTE: ASSUMED 123 UNITS NEEDED FOR FINANCIAL VIABILITY PER RESULTS OF FINANCIAL ANALYSIS





PROTOTYPE 2

RC-4



FE/MARKET AREA

Garage 25672 SF 76921 SF Residential 9991 SF Retail Grand total 112583 SF

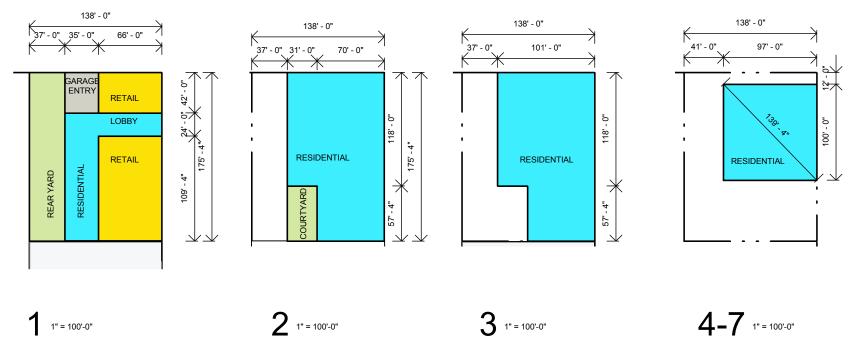
12303 SF Open Space

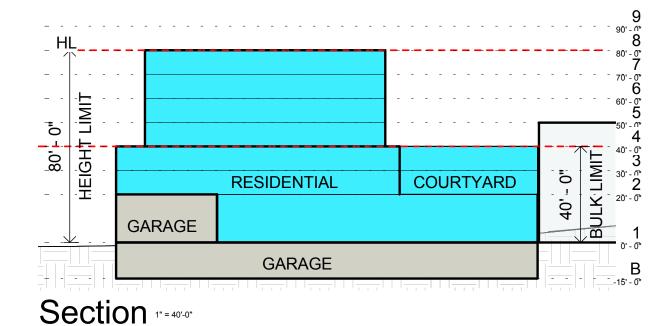
Open Space Required: 121 UNITS X 80 SF = 9,680 SF

Residential Average Unit Size - 634 GSF (FE)

Residential Average Unit Size - 1278 GSF (MARKET) 49 Parking Spaces / 49 Required

Garage - 18 Spaces Required for Commercial

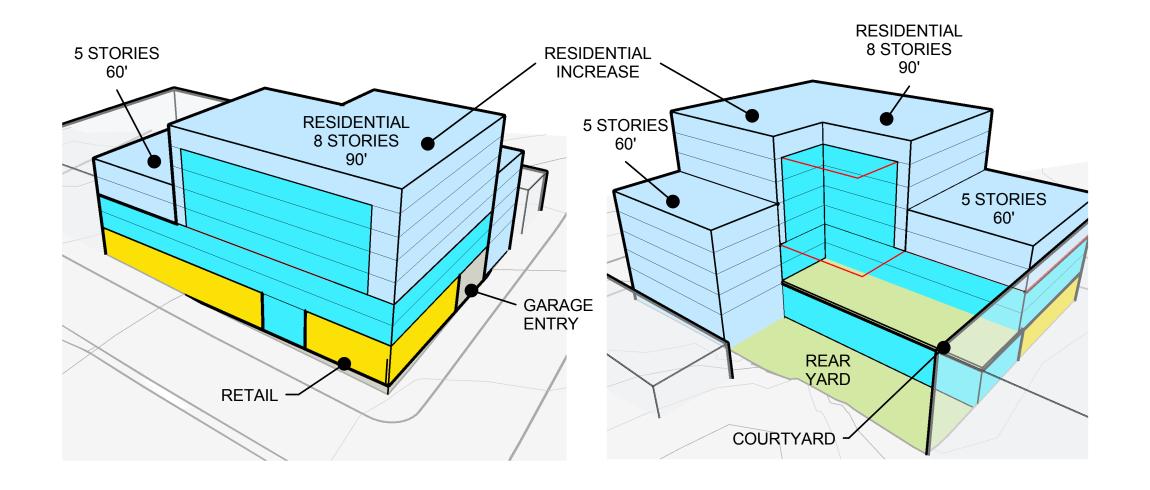




David Baker Architects
www.dbarchitect.com



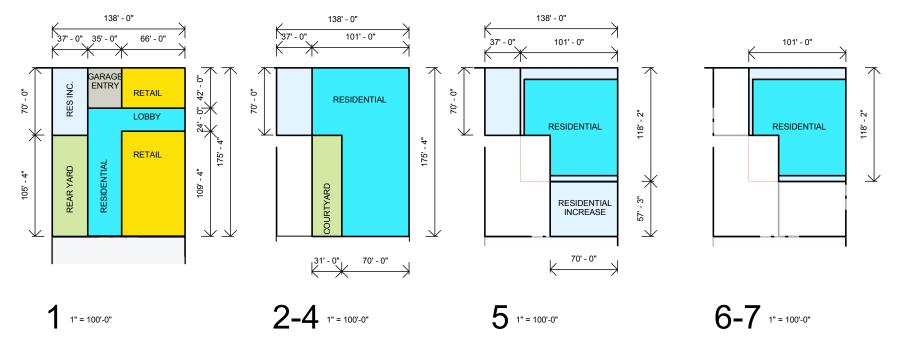
FULL ENVELOPE BUILD OUT & MARKET BASE RC-4

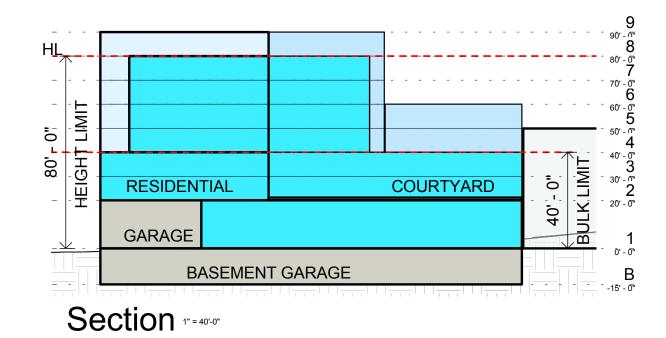


ACCOMMODATIONS NEEDED: HEIGHT, BULK, FAR, REAR YARD

MARKET +	- 35% AREA
Garage	25672 SF
Residential	108252 SF
Retail	9991 SF
Grand total	143915 SF
Residential	69409 SF
Residential Increase	38844 SF
	108252 SF
Open Space	9986 SF

Open Space Required: 81 UNITS X 80 SF = 6,480 SF
Residential Average Unit Size - 1333 GSF
39 Parking Spaces / 39 Required
Garage - 18 Spaces Required for Commercial



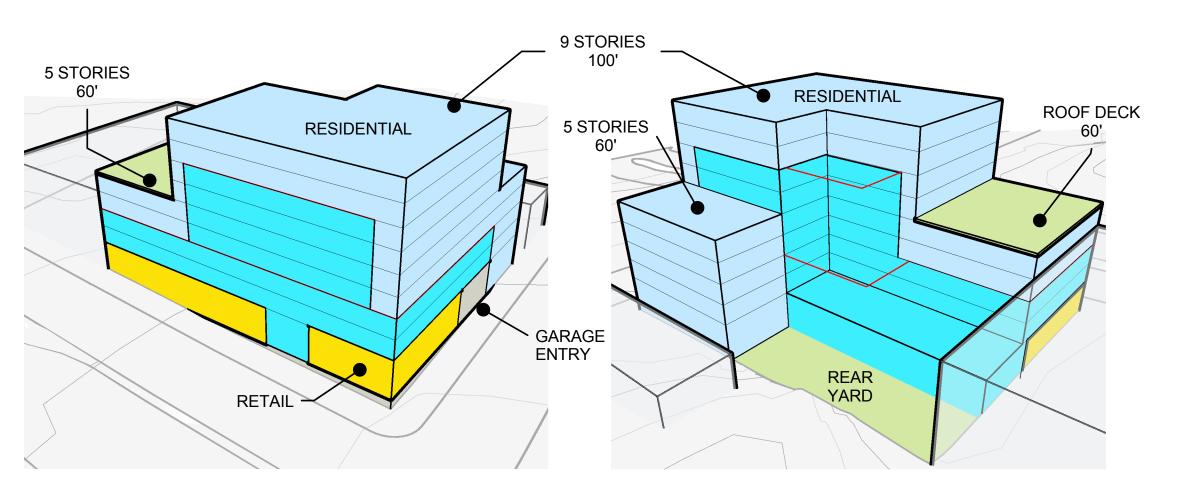






MARKET CASE + 35 % DENSITY INCREASE

8/2015



RC-4

David Baker Architects
www.dbarchitect.com

ACCOMMODATIONS NEEDED: HEIGHT, BULK, FAR, REAR YARD

BONUS PROGRAM		
Garage	25672 SF	
Garage Residential	119267 SF	
Retail	9991 SF	
Grand total	154930 SF	

Open Space 11501 SF

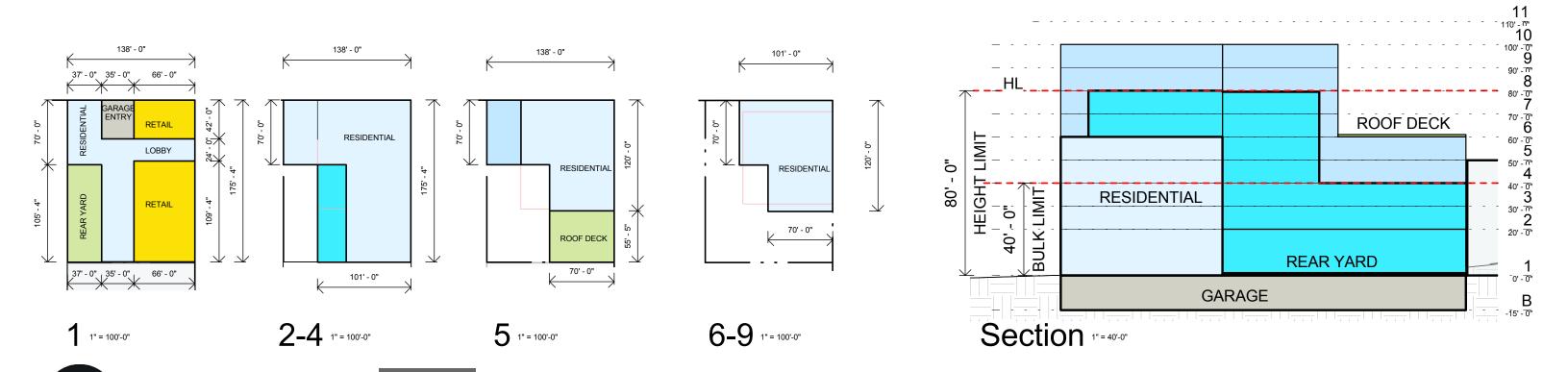
Open Space Required: 123 UNITS X 80 SF = 9,840 SF

 $\frac{08/2015}{2.2}$ PROTOTYPE **2**

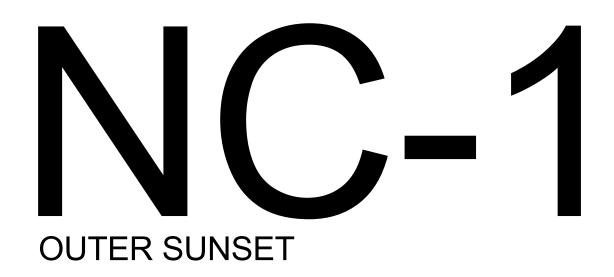
Residential Average Unit Size - 970 GSF

49 Parking Spaces / 49 Required

Garage - 18 Spaces Required for Commercial



AFFORDABLE HOUSING BONUS PROGRAM



ZONING PARAMETERS

ZONING CLASSIFICATIONS: NC-1

LOTS: 1800010D

LOT AREA: 13,500 SF

HEIGHT AND BULK: 40-X

REAR YARD: (SECT 134): 25% lot depth no less than 15 feet, AT GRADE. Can be a corner

configuration per Sec. 134(e)(2).

DENSITY: 1 unit / 800 sq. ft lot area 13,500/800 = **17 UNITS**

FLOOR AREA RATIO: 1.8:1 (DOES NOT APPLY TO RESIDENTIAL USES)

FRONT SETBACK: NONE

STREET FRONTAGE: Commercial not required. Active uses required (res. or comm.)

- IF RESIDENTIAL, 50% OF STREET FRONTAGE SHOULD BE WALK UP UNITS
- LOBBY IS LESS THAN 40' OR 25% OF STREET FRONTAGE

USABLE OPEN SPACE: 100SF / DU if private, 133 SF if common (also consider min. dimension regs.)

17 UNITS x 133 SF = **2,261 SF**

PARKING REQ.: 1:1 but potential modification/waiver by ZA per sec. 161(j)

GROUND FLOOR HEIGHT (SECT 145.1): 10' MINIMUM (Floor to floor)

5' Ground floor height bump allowed per section 263.20



FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 13,500 / 800 SF = 17 UNITS (MAX ALLOWED)

BASE RESIDENTIAL AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS = 32,073 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 32,073 SF / 17 UNITS = 1,887 SF AVG. GROSS UNIT



MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 13,500 / 800 SF = 17 UNITS (MAX ALLOWED)

1250 NET SF / 1667 GROSS SF ASSUMED UNIT SIZE

1667 GSF x 17 = 28.339 ALLOWED RESIDENTIAL GSF

THE MARKET INFORMED BASE CASE IS LESS THAN THE ALLOWABLE BUILDING ENVELOPE.



MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 13,500 / 800 SF = 17 UNITS (MAX ALLOWED)

1250 NET SF / 1667 GROSS SF ASSUMED UNIT SIZE

17 MAX UNITS ALLOWED X 1.35% DENSITY INCREASE = 23 UNITS ALLOWED 23 UNITS ALLOWED x 1667 GROSS SF ASSUMED UNIT SIZE = 38,341 ALLOWED RESIDENTIAL GSF

ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD, PARKING



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

56,651 RESIDENTIAL GSF

ASSUMED UNIT SIZE FROM MARKET INFORMED BASE CASE = 1,667 GSF UNIT SIZE

56,651 SF / 1667 SF = **34 UNITS**

ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD, PARKING HEIGHT INCREASED TO 65' FROM 45'
34 UNITS IS 200% INCREASE IN ALLOWED UNITS FROM BASE CASE

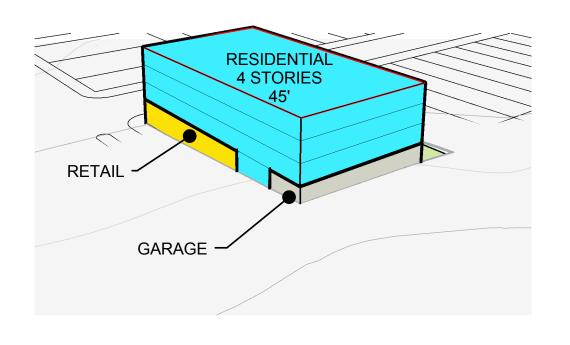


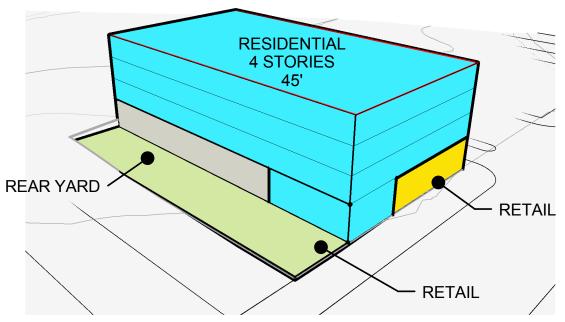


18/2015

PROTOTYPE 3

NC-1





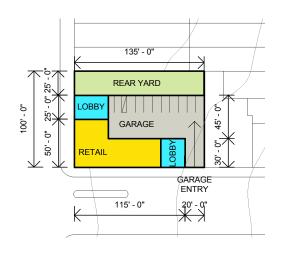
FE Gross Area		
Garage	5103 SF	
Residential	32073 SF	
Retail	3403 SF	
Grand total	40579 SF	

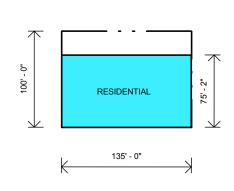
Open Space 3390 SF

Open Space Required: 17 UNITS X 133 SF = 2,261 SF

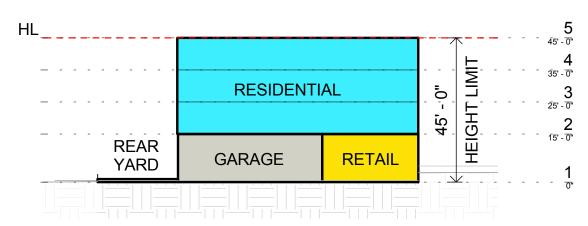
Residential Average Unit Size - 1887 GSF

18 Parking Spaces (Lifts) / 17 Required





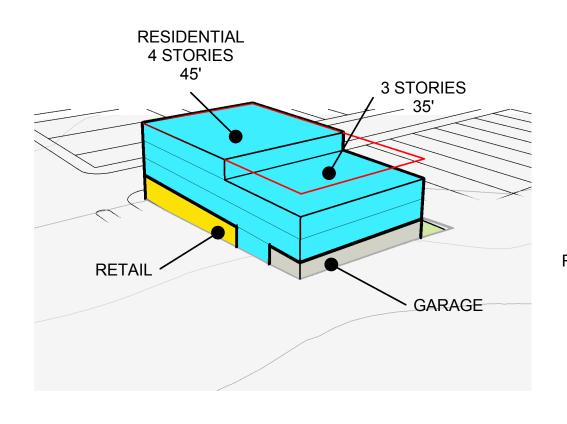
2-4 1" = 100'-0" 1" = 100'-0"

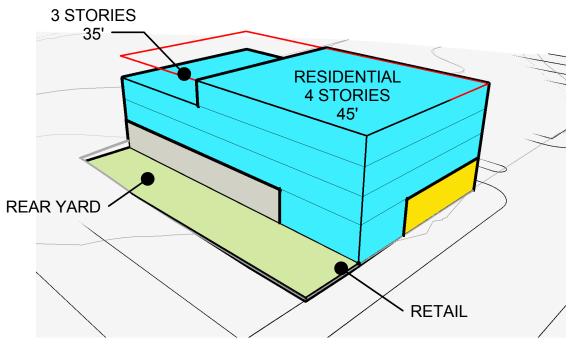


Section 1" = 30'-0"





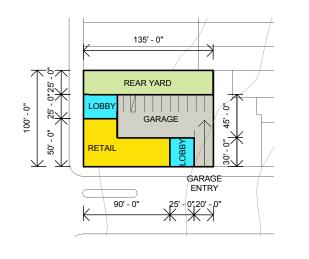


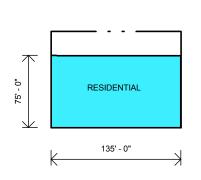


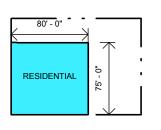
MARKET BASE CASE		
Garage	5102 SF	
Residential	27862 SF	
Retail	3404 SF	
Grand total	36368 SF	
Open Space	3386 SF	

Open Space Required: 17 UNITS X 133 SF = 2,261 SF Residential Average Unit Size - 1667 GSF

18 Parking Spaces (Lifts) / 17 Required







1" = 100'-0"

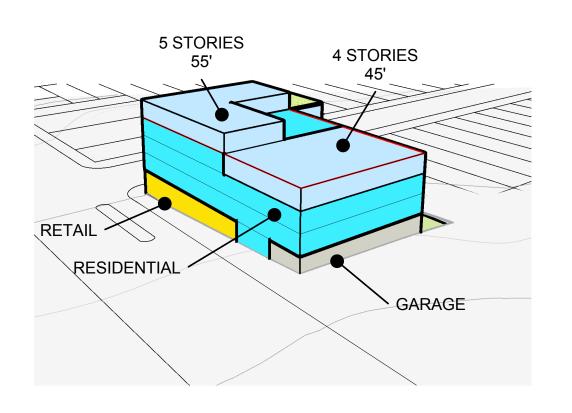
2-3 1" = 100'-0"

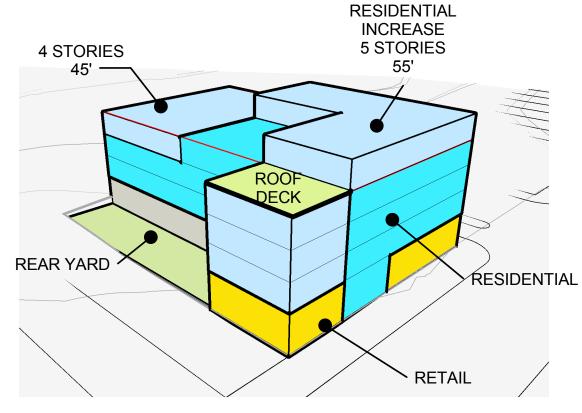
1" = 100'-0"

Section 1" = 30'-0"









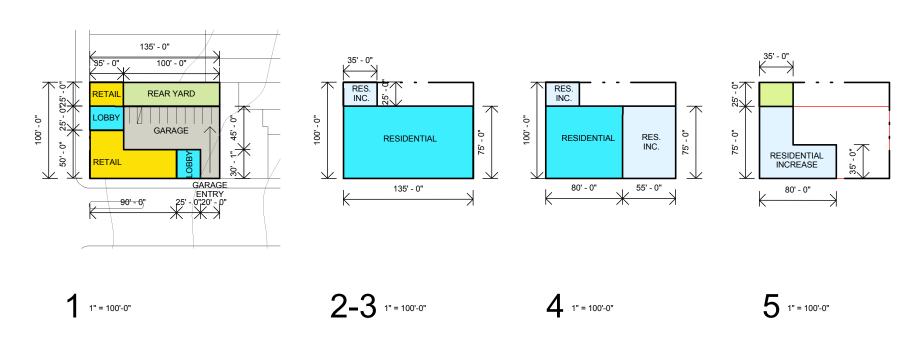
ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD, **PARKING**

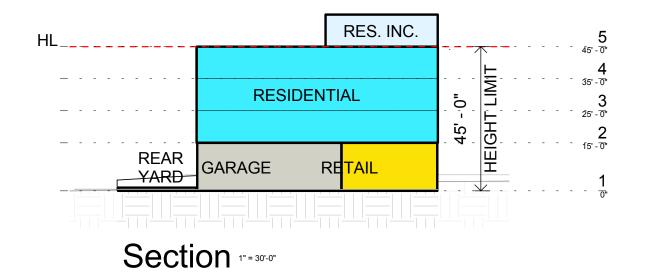
MARKET -	+ 35% AREA
Retail	4281 SF
Residential	38965 SF
Garage	5098 SF
Grand total	48344 SF
Residential Increase	10969 SF
Residential	27996 SF
	38965 SF
Open Space	3342 SF

Open Space Required: 23 UNITS X 133 SF = 3,059 SF

Residential Average Unit Size - 1667 GSF

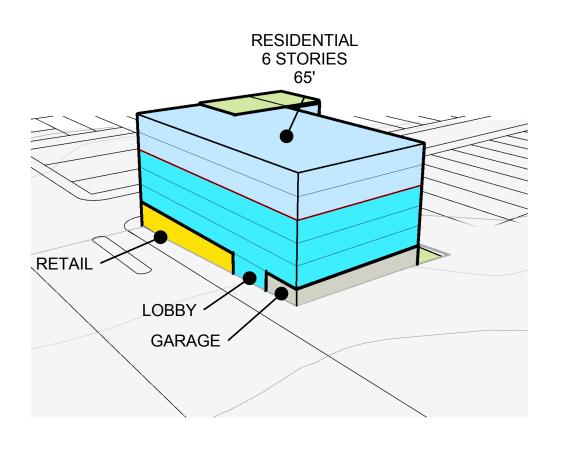
18 Parking Spaces (Lifts) / 23 Required

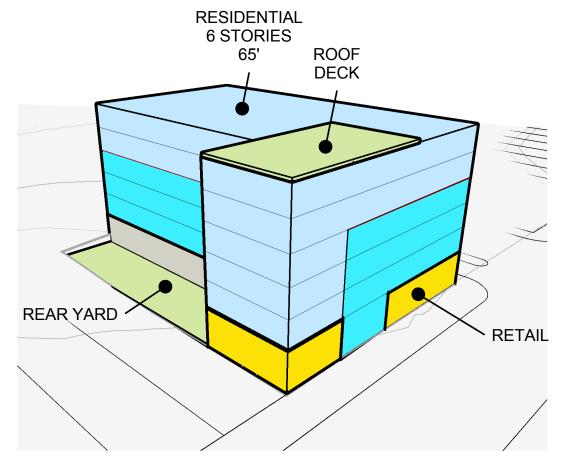












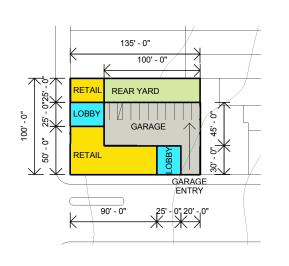
ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD, **PARKING**

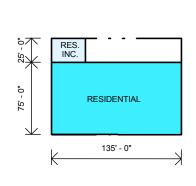
BONUS PROGRAM		
Retail	3403 SF	
Residential	56651 SF	
Garage	5103 SF	
Grand total	65157 SF	

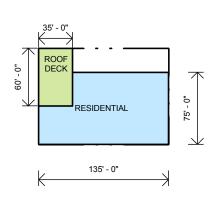
Open Space 4606 SF

Open Space Required: 34 UNITS X 133 SF = 4,522 SF Residential Average Unit Size - 1667 GSF

18 Parking Spaces (Lifts) / 34 Required







HEIGHT LIMIT **RESIDENTIAL** 0_-**REAR GARAGE** RETAIL YARD

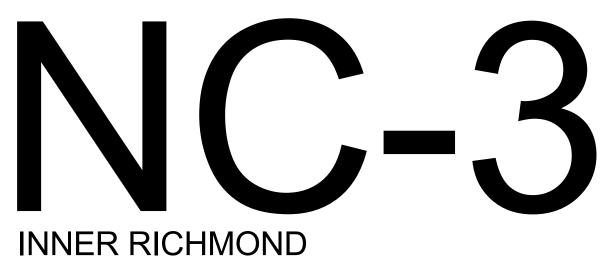
2-6 1" = 100'-0" 1" = 100'-0"

7 1" = 100'-0"

Section 1" = 30'-0"









ZONING CLASSIFICATIONS: NC-3

LOTS: 1091024

LOT AREA: 5,000 SF

HEIGHT AND BULK: 40-X

REAR YARD: (SECT 134): 25% at the lowest story containing a DU and above. Can be a corner configuration per Sec. 134(e)(2).

DENSITY (SECT 745) : 1 unit / 600 sq. ft lot area 5,000/600 = **8 UNITS**

FLOOR AREA RATIO: 1.8:1 (DOES NOT APPLY TO RESIDENTIAL USES)

FRONT SETBACK: NONE

STREET FRONTAGE: Commercial not required. Active uses required (res. or comm.)

- IF RESIDENTIAL, 50% OF STREET FRONTAGE SHOULD BE WALK UP UNITS
- LOBBY IS LESS THAN 40' OR 25% OF STREET FRONTAGE

USABLE OPEN SPACE: 100 SF / DU if private, 133 SF if common (also consider min. dimension reqs.)

133 SF X 8 UNITS = **1064 SF**

PARKING REQ.: 1:1 with potential modification/waiver by ZA per Sect. 161(j)

GROUND FLOOR HEIGHT (SECT 145.1): 10', Minimum 14' (Floor to Floor) for non-residential not required in 40' Height District

+5' Ground Floor Height Bump Allowed





FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 5,000/600 SF = 8 UNITS (MAX ALLOWED)

<u>BASE AREA</u> - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS = 12.497 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 12,497 SF / 8 UNITS = 1,562 SF AVG. GROSS UNIT

NOTE: IN ORDER TO PROVIDE REQUIRED PARKING, 60' OF STREET PARKING IS NOT ACTIVE PER SECTION 145.1 (c)(2-3) AND MAY REQUIRE VARIANCE.

MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 5,000/600 SF = 8 UNITS (MAX ALLOWED)

1250 NET SF / 1667 GROSS SF ASSUMED UNIT SIZE

1667 GSF x 8 = 13,336 ASSUMED RESIDENTIAL GSF

THE MARKET INFORMED BASE CASE IS HIGHER THAN WHAT ZONING ALLOWS, THEREFORE THE FULL ENVELOPE BUILD OUT WILL BE CONSIDERED THE BASE CASE.

SCENARIO

MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 5,000/600 SF = 8 UNITS (MAX ALLOWED)

ASSUMED UNIT SIZE TAKEN FROM FULL ENVELOPE BUILD OUT = 1,562 GSF UNIT SIZE

8 MAX UNITS ALLOWED X 1.35% DENSITY INCREASE = 11 UNITS ALLOWED
11 UNITS ALLOWED x 1,562 GROSS SF ASSUMED UNIT SIZE = 17,182 ALLOWED RESIDENTIAL GSF
ACCOMMODATIONS NEEDED: HEIGHT



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

20,137 RESIDENTIAL GSF

ASSUMED UNIT SIZE TAKEN FROM FULL ENVELOPE BUILD OUT = 1,562 GSF UNIT SIZE

20,137 SF / 1562 SF = 13 UNITS

ACCOMMODATIONS NEEDED: HEIGHT, PARKING HEIGHT INCREASED TO 60' FROM 40' 13 UNITS IS 162 % INCREASE IN ALLOWED UNITS FROM BASE CASE

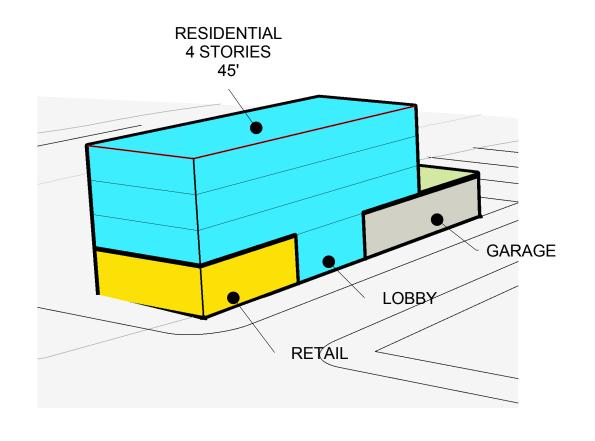


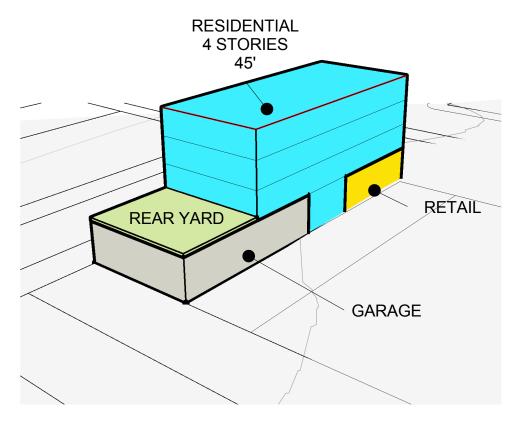


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PROTOTYPE 5

NC-3

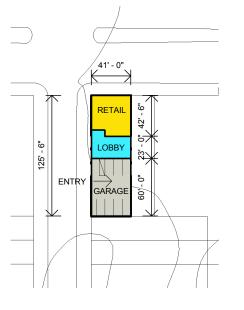


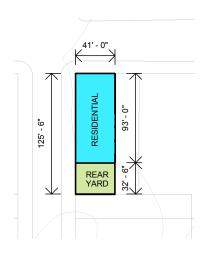


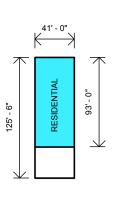
FE GROSS AREA		
Retail	1655 SF	
Garage Residential	2462 SF	
Residential	12497 SF	
Grand total	16614 SF	

Open Space	1336 SF

Open Space Required: 8 UNITS X 133 SF = 1,064 SF Residential Average Unit Size - 1562 GSF 10 Parking Spaces (Lifts) / 8 Required







Section 1" = 30'-0"

RETAIL

RESIDENTIAL





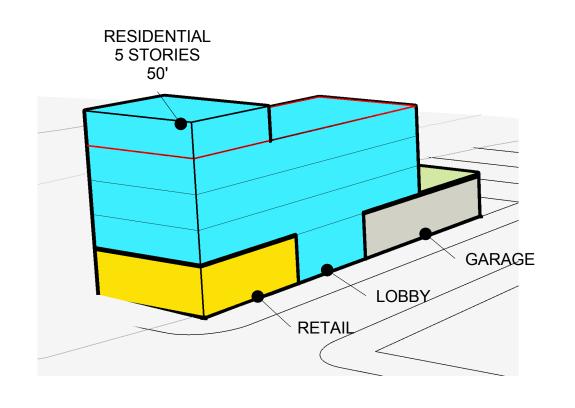


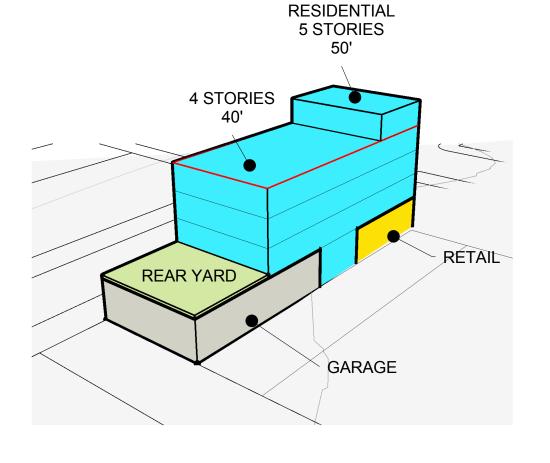
FULL ENVELOPE BUILD OUT

GARAGE

HEIGHT LIMIT

REAR YARD





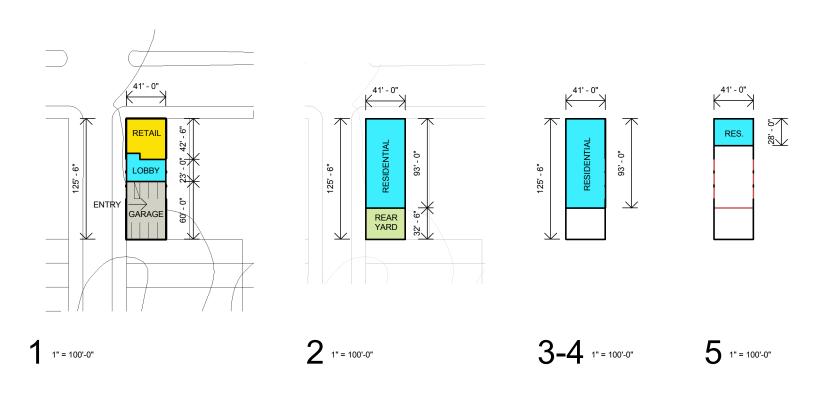
MARKET BASE CASE

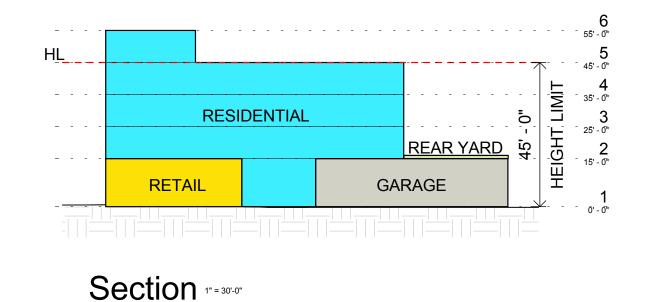
Garage	2462 SF
Residential	13647 SF
Retail	1655 SF
Grand total	17764 SF

Open Space 1336 SF

Open Space Required: 8 UNITS X 133 SF = 1,064 SF Residential Average Unit Size - 1667 GSF 10 Parking Spaces (Lifts) / 8 Required

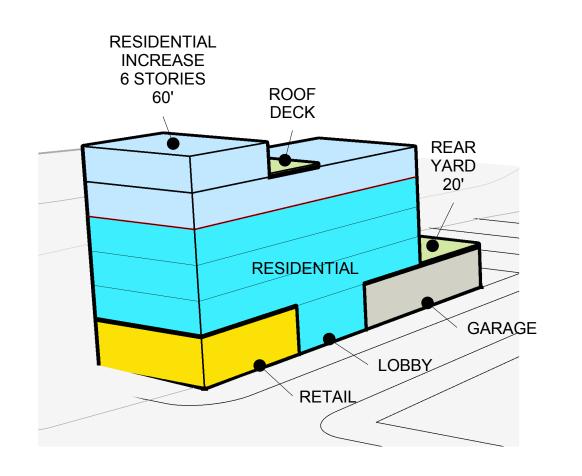
THE MARKET INFORMED BASE CASE IS HIGHER THAN WHAT ZONING ALLOWS, THEREFORE THE FULL ENVELOPE BUILD OUT WILL BE CONSIDERED THE BASE CASE.

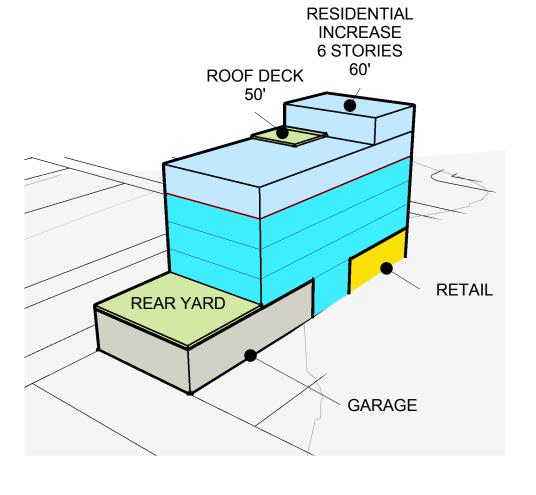












ACCOMMODATIONS NEEDED: HEIGHT

MARKET +	35% AREA
Garage	2462 SF
Garage Residential	17458 SF
Retail	1655 SF
Grand total	21575 SF

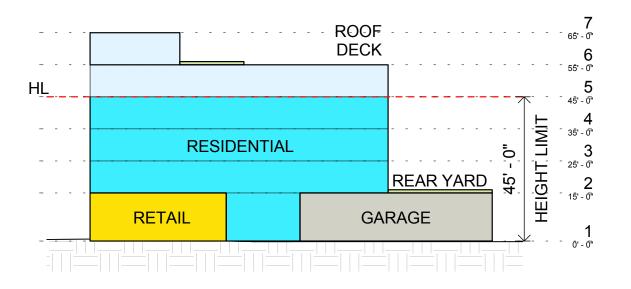
Residential Increase	4961 SF
Residential	12497 SF
	17458 SF

Open Space	1733 SF

Open Space Required: 11 UNITS X 133 SF = 1,463 SF Residential Average Unit Size - 1562 GSF

11 Parking Spaces (Lifts) / 11 Required

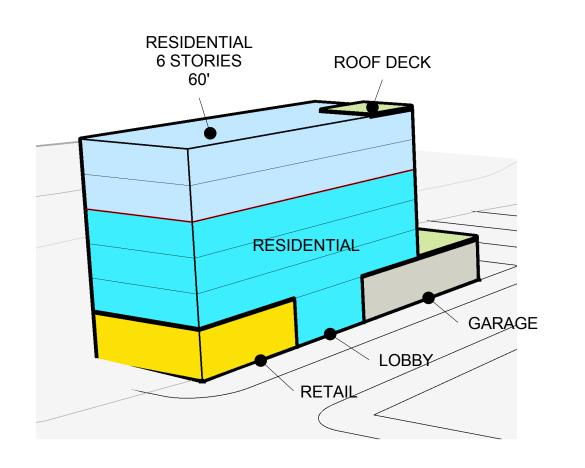
41'-0" RETAIL 19-25-10-10-10-10-10-10-10-10-10-10-10-10-10-	125' - 6" RESIDENTIAL ALSO - 125' - 6" S2' - 6" 93' - 0"	RESIDENTIAL	RES. ROOF - 0" RES. ROOF - 0" ROOF - 0"
1" = 100'-0"	2 1" = 100'-0"	3-5 1" = 100'-0"	6 1" = 100'-0"

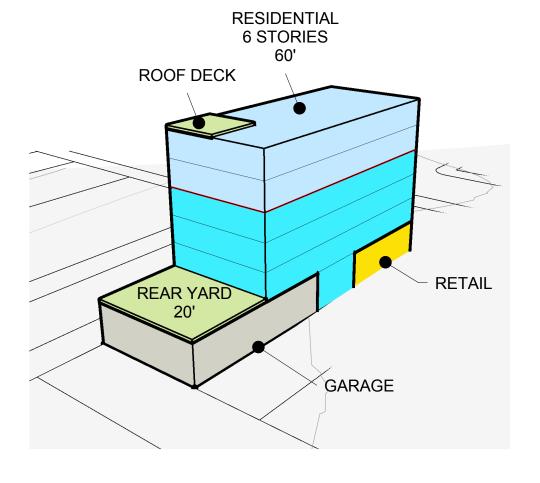


Section 1" = 30'-0"









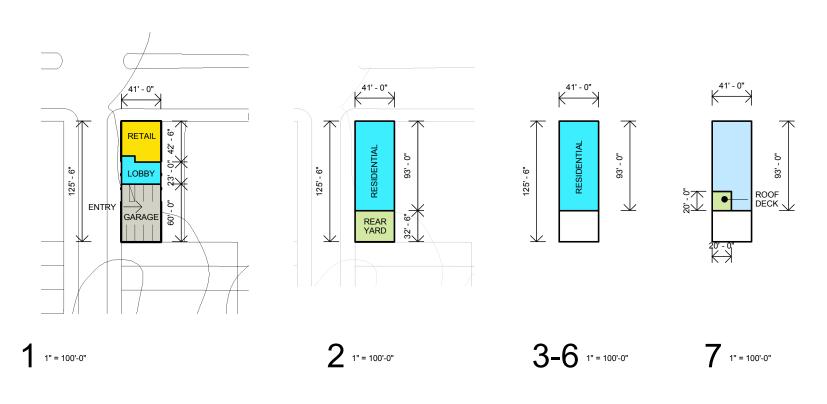
ACCOMMODATIONS NEEDED: HEIGHT, PARKING

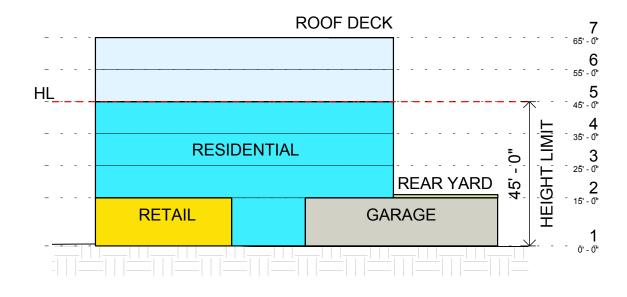
BONUS PROGRAM		
Retail	1655 SF	
Residential	20137 SF	
Garage	2462 SF	
Grand total	24254 SF	

Open Space	1736 SF
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11 Parking Spaces (Lifts) / 13 Required

Open Space Required: 13 UNITS X 133 SF = 1,729 SF Residential Average Unit Size - 1562 GSF

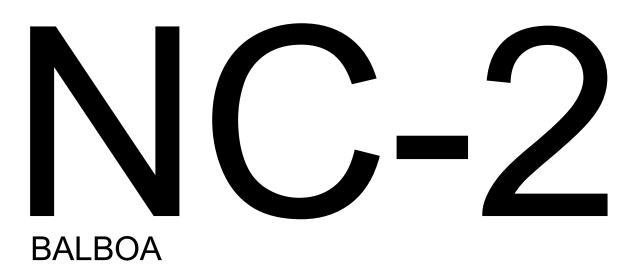




Section 1" = 30'-0"







ZONING PARAMETERS

ZONING CLASSIFICATIONS: NC2 Balboa LOTS: 1606001, 1606046, 1606045, 1606044

LOT AREA: 18,620 SF

HEIGHT AND BULK: 40-X

REAR YARD: 25% at 2nd Story and above, or at 1st Story if it contains a DU. Can be a corner configuration per Sect. 134(e)(2).

DENSITY: 1 unit / 800 SF lot area 18,620/800 = **23 UNITS**

FLOOR AREA RATIO: 2.5:1 (DOES NOT APPLY FOR RESIDENTIAL USES)

STREET FRONTAGE: Active uses required (res or comm.)

- IF RESIDENTIAL, 50% OF STREET FRONTAGE SHOULD BE WALK UP UNITS
- LOBBY IS LESS THAN 40' OR 25% OF STREET FRONTAGE

OPEN SPACE: 100sf/DU if private, x 1.33 = 133 SF if common (also consider min. dimension reqs.)

23 UNITS X 133 SF = **3,059 SF**

PARKING REQ.: 1:1, but potential modification/waiver by ZA per Sect. 161(j)

GROUND FLOOR HEIGHT: 10' MINIMUM (FLOOR TO FLOOR)

• 5' Ground floor height bump allowed per section 263.20



FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 18,620/800 SF = 23 UNITS (MAX ALLOWED)

BASE AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS = 39.831 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 39,381 SF / 23 UNITS = 1,732 SF AVG. GROSS UNIT



MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 18,691/800 SF = 23 UNITS (MAX ALLOWED)

1250 NET SF / 1667 GROSS SF ASSUMED UNIT SIZE

1667 GSF x 23 = 38.341 ASSUMED RESIDENTIAL GSF

THE MARKET INFORMED BASE CASE IS HIGHER THAN WHAT ZONING ALLOWS, THEREFORE THE FULL ENVELOPE BUILD OUT WILL BE CONSIDERED THE BASE CASE.



MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 18,691/800 SF = 23 UNITS (MAX ALLOWED)

1250 NET SF / 1667 GROSS SF ASSUMED UNIT SIZE

23 MAX UNITS ALLOWED X 1.35% DENSITY INCREASE = 31 UNITS ALLOWED
31 UNITS ALLOWED x 1667 GROSS SF ASSUMED UNIT SIZE = 51,677 ALLOWED RESIDENTIAL GSF
ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

71,705 RESIDENTIAL GSF

ASSUMED UNIT SIZE TAKEN FROM MARKET INFORMED BASE CASE = 1,667 GSF UNIT SIZE

71,705 SF / 1667 SF **= 43 UNITS**

ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD HEIGHT INCREASED TO 65' FROM 45' 41 UNITS IS 187% INCREASE IN ALLOWED UNITS FROM BASE CASE



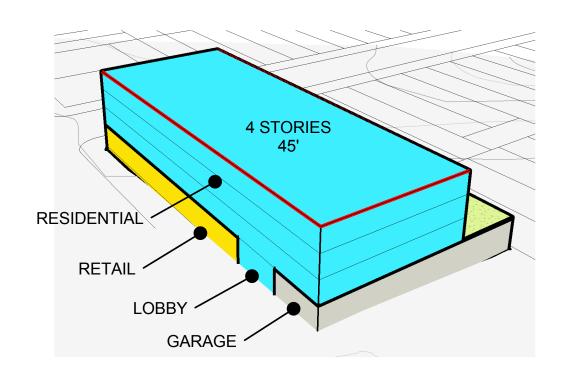


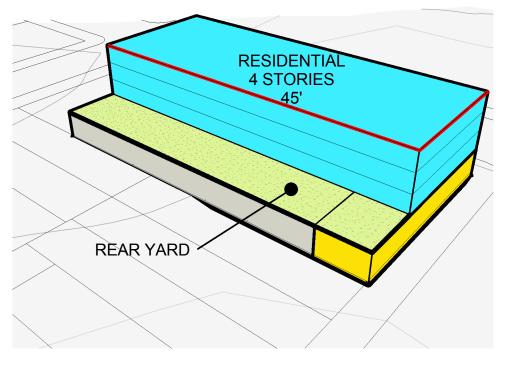
08/2015

PROTOTYPE 6

NC-2

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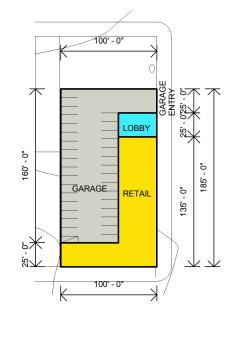


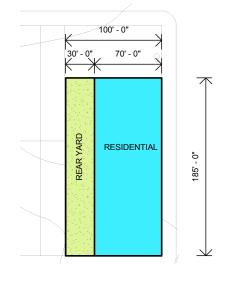


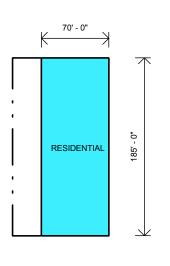
FE GROSS AREA		
Retail	6900 SF	
Residential	39831 SF	
Garage	10600 SF	
Grand total	57331 SF	

Open Space	5797 SF

Open Space Required: 23 UNITS X 133 SF = 3,059 SF Residential Average Unit Size - 1732 GSF 32 Parking Spaces / 23 Required







HEIGHT LIMIT RESIDENTIAL 45' - 0" REAR YARD **GARAGE RETAIL**

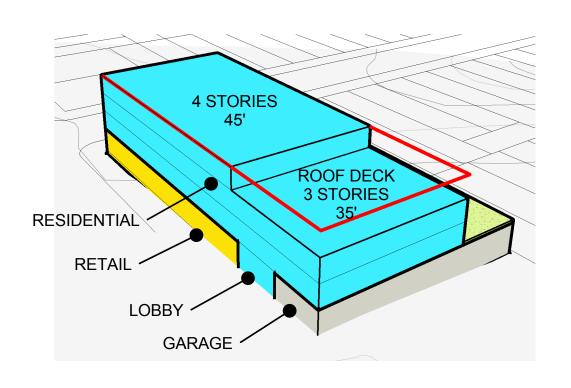
2 1" = 100'-0"

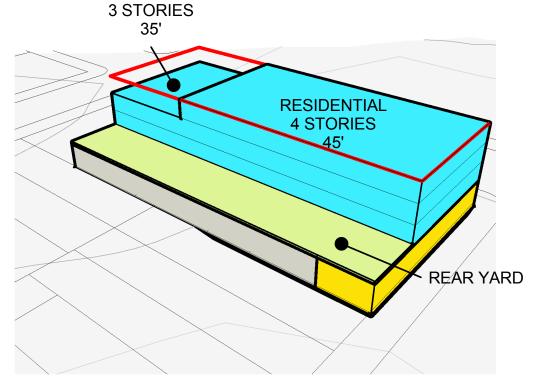
3-4 1" = 100'-0"

Section 1" = 30'-0"









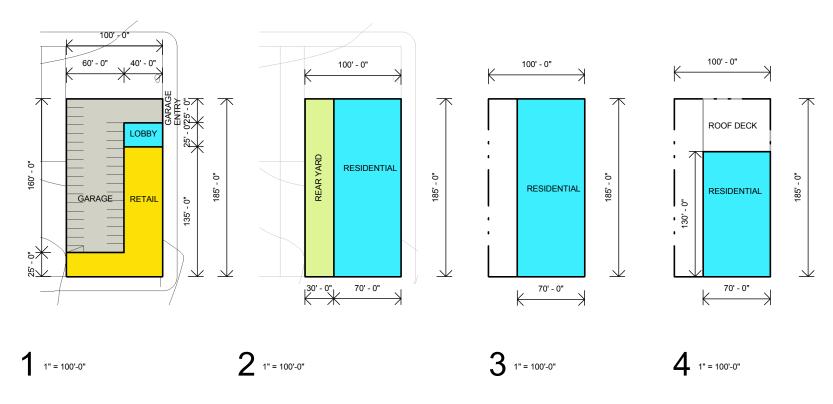
MARKET	BASE CASE
Retail	6900 SF
Residential	36000 SF
Garage	10600 SF
Grand total	53500 SF
Open Space	5550 SF

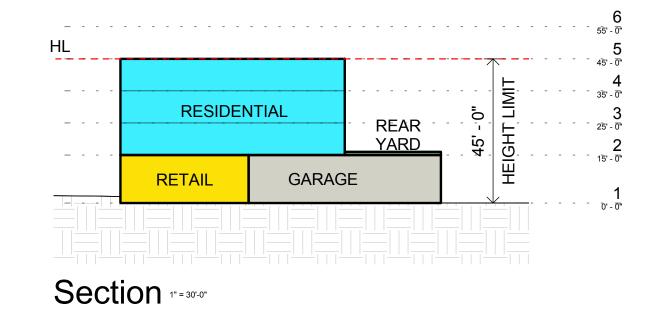
Open Space Required: 23 UNITS X 133 SF = 3,059 SF

Residential Average Unit Size - 1667 GSF

32 Parking Spaces / 23 Required

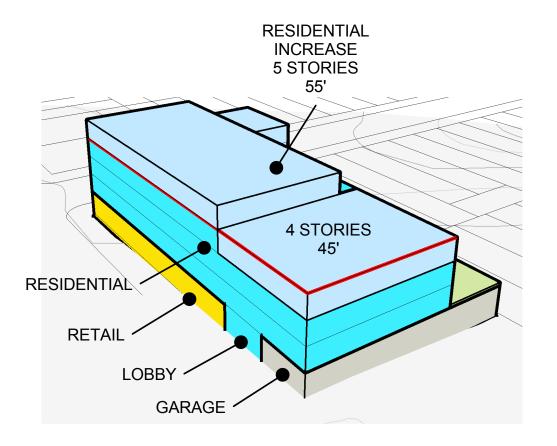
THE MARKET INFORMED BASE CASE IS HIGHER THAN WHAT ZONING ALLOWS, THEREFORE THE FULL ENVELOPE BUILD OUT WILL BE CONSIDERED THE BASE CASE.

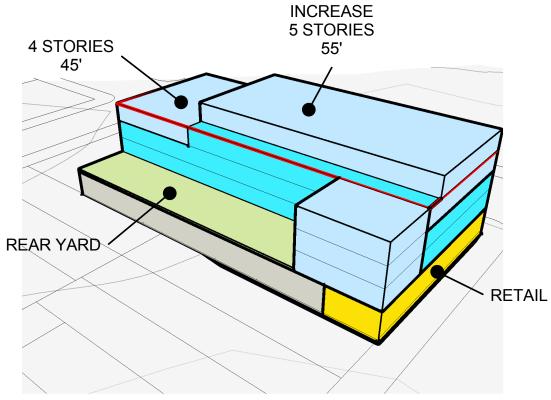












RESIDENTIAL

ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD

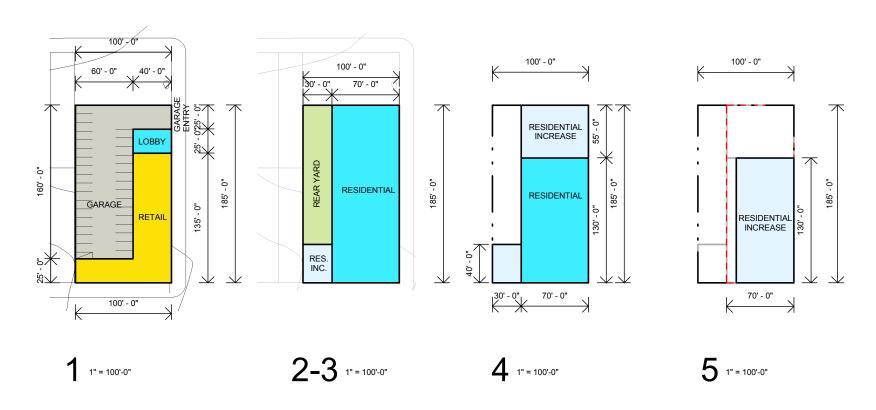
MARKET	+ 35% AREA
Retail	6900 SF
Residential	51255 SF
Garage	10600 SF
Grand total	68755 SF
Residential Increase	15255 SF
Residential	36000 SF
1 Coldential	51255 SF

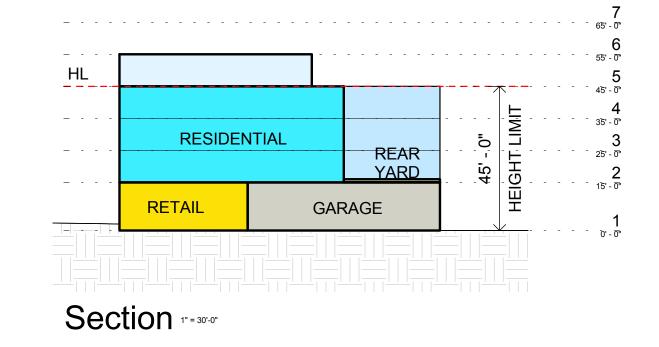
Open Space 4355 SF

Open Space Required: 31 UNITS X 133 SF = 4,123 SF

Residential Average Unit Size - 1667 GSF

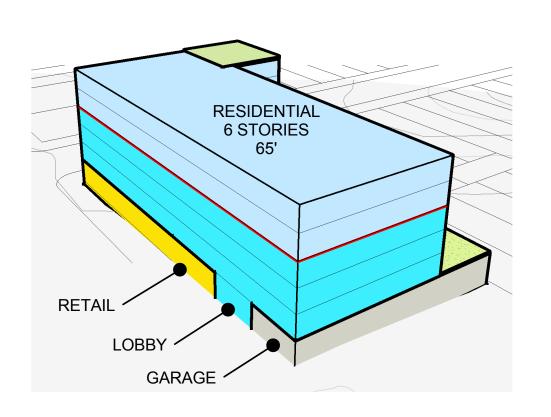
32 Parking Spaces / 31 Required

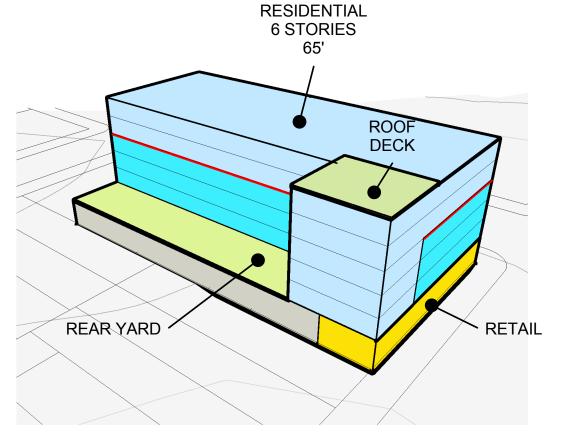










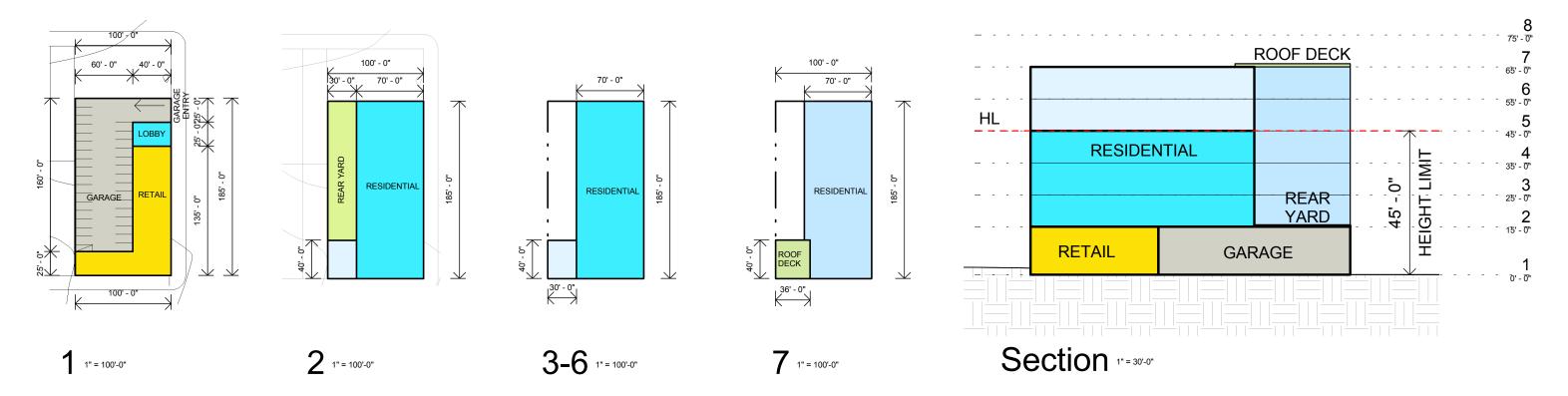


ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD

BONUS PROGRAM	
Retail	6900 SF
Residential	71705 SF
Garage	10600 SF
Grand total	89205 SF
Open Space	5797 SF

Open Space Required: 43 UNITS X 133 SF = 5,719 SF Residential Average Unit Size - 1667 GSF

46 Parking Spaces (Lifts) / 43 Required









CURRENT ZONING PARAMETERS

ZONING CLASSIFICATIONS: HAIGHT NCD Block/Lots: 1228005, 1228006

LOT AREA: 34,391 SF

HEIGHT AND BULK: 50-X (1228006) 40-X (1228005)

REAR YARD (SECT 134): 25% AT GRADE

DENSITY: 1 unit / 600 SF OF LOT AREA 34,391/600 = **57 UNITS**

FLOOR AREA RATIO: 1.8:1 (Does not apply for Residential uses)

STREET FRONTAGE: Commercial not required. Active uses required (res. or comm.)

- IF RESIDENTIAL. 50% OF STREET FRONTAGE SHOULD BE WALK UP UNITS
- LOBBY IS LESS THAN 40' OR 25% OF STREET FRONTAGE

USABLE OPEN SPACE: 80 SF PER UNIT IF ALL PRIVATE; 100 SF IF COMMON SPACE.

57 UNITS x 100 SF = **5,700 SF**

PARKING REQ: 1:1 but potential modification/waiver (residential and commercial) by ZA per sect. 161(j)

cci. To T(j)

GROUND FLOOR HEIGHT: MINIMUM 10' FOR NON-RESIDENTIAL (FLOOR TO FLOOR)





FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 34,391/600 SF = 57 UNITS (MAX ALLOWED)

BASE AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND BULK REQUIREMENTS = 77.652 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED: 77,652 SF / 57 UNITS = 1,362 GSF AVG. UNIT SIZE

BASE RES. SF ACHIEVABLE 77652 SF / 1000 GSF UNIT = 77.7 ~ 78 UNITS POSSIBLE WITHOUT DENSITY CONSTRAINTS

MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 34,391/600 SF = **57 UNITS (MAX ALLOWED)**

750 NET SF / 1000 GSF ASSUMED UNIT SIZE

1000 GSF x 57 = 57,000 ASSUMED RESIDENTIAL GSF

THE MARKET INFORMED BASE CASE IS LESS THAN THE ALLOWABLE BUILDING ENVELOPE.



MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 34,391/600 SF = 57 UNITS (MAX ALLOWED)

750 NET SF / 1000 GROSS SF ASSUMED UNIT SIZE

57 MAX UNITS ALLOWED X 1.35% DENSITY INCREASE = 76.95 ~ 77 UNITS ALLOWED
77 UNITS ALLOWED x 1000 GROSS SF ASSUMED UNIT SIZE = 77,000 ALLOWED RESIDENTIAL GSF
THE 35% INCREASE IS SIMILAR TO THE FULL ENVELOPE ALLOWED BY ZONING.
ACCOMODATIONS NEEDED: + 5' - 0" HEIGHT BUMP AT GROUND FLOOR



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

134 UNITS* 120,221 RESIDENTIAL GSF

120,221 GSF / 134 UNITS = **897 AVG GSF UNIT SIZE**

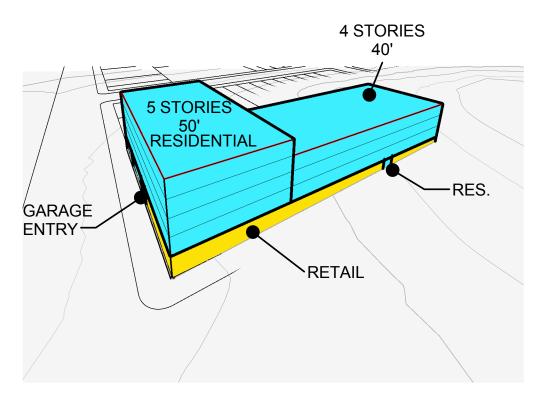
ACCOMMODATIONS NEEDED: HEIGHT, + 5' - 0" HEIGHT BUMP AT GROUND FLOOR, PARKING HEIGHT INCREASED FROM 40' TO 75' 134 UNITS IS 135 % INCREASE IN DENSITY FROM BASE CASE

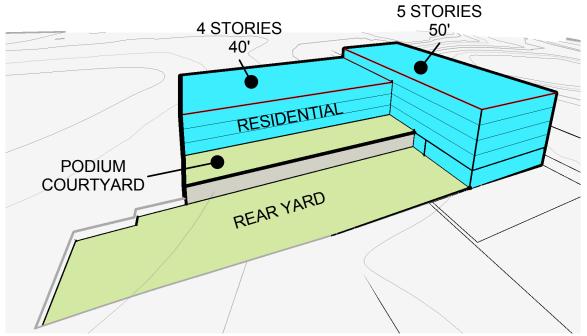
*NOTE: ASSUMED 134 UNITS NEEDED FOR FINANCIAL VIABILITY PER RESULTS OF FINANCIAL ANALYSIS





08/2015



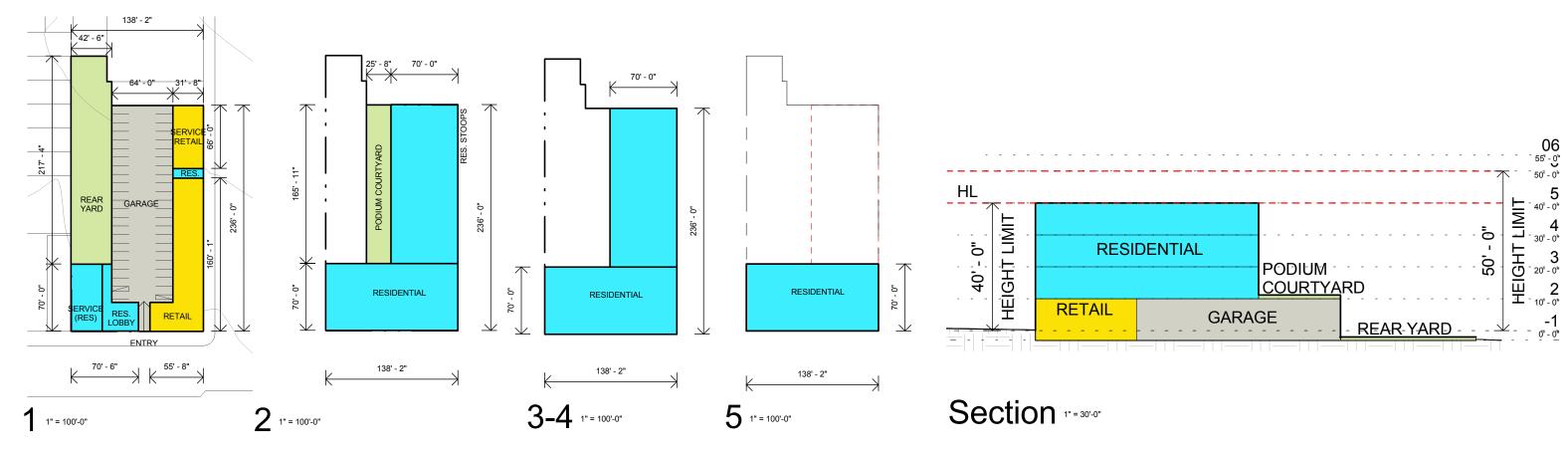


FE GROSS AREA

Garage	13539 SF
Residential	77652 SF
Retail	7884 SF
Grand total	99074 SF

Open Space	13414 SF
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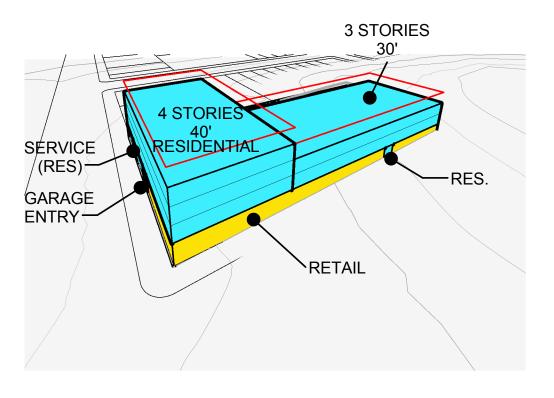
Open Space Required: 67 UNITS X 100 SF = 6,700 SF Residential Average Unit Size - 1362 GSF 83 Parking Spaces (Lifts) / 67 Required

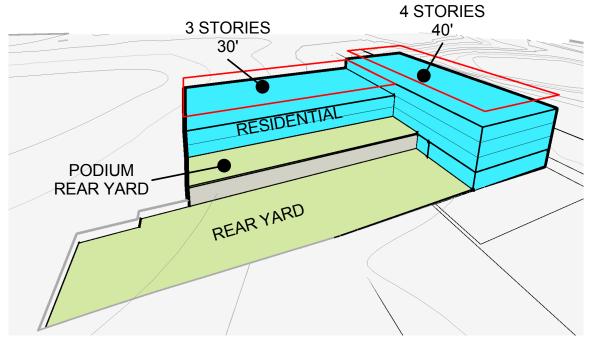






FULL ENVELOPE BUILD OUT NCD



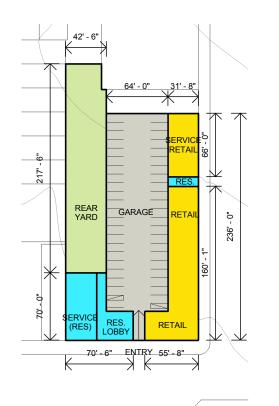


MARKET BASE CASE

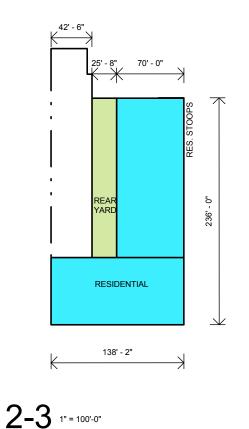
Garage	13539 SF
Residential	56367 SF
Retail	7884 SF
Grand total	77790 SF

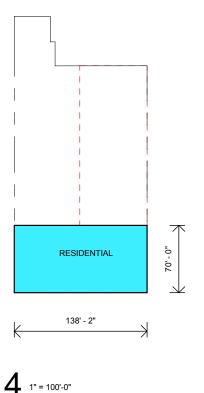
Open Space 13414 SF

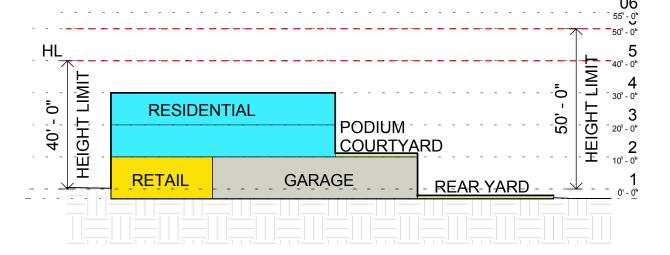
Open Space Required: 67 UNITS X 100 SF = 6,700 SF Residential Average Unit Size - 1000 GSF 83 Parking Spaces (Lifts) / 67 Required



1" = 100'-0"







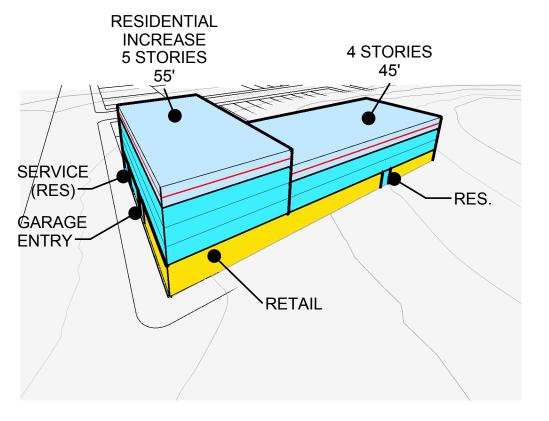
Section 1" = 30'-0"

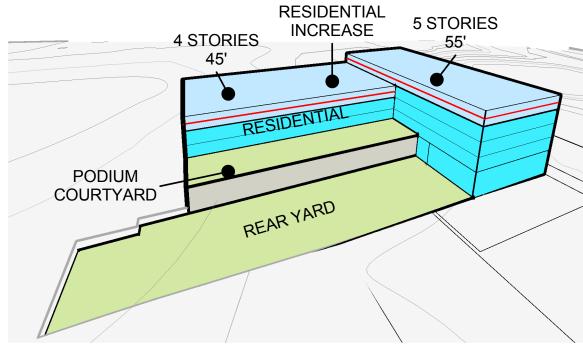
David Baker Architects
www.dbarchitect.com



MARKET INFORMED BASE CASE

8/2015





ACCOMMODATIONS NEEDED: HEIGHT, + 5'-0" HEIGHT BUMP AT GROUND FLOOR

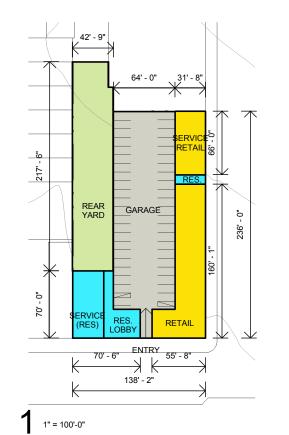
MARKET +	35 % AREA
Garage	13539 SF
Residential	77654 SF
Retail	7884 SF
Grand total	99077 SF
Residential	56367 SF
Residential Increase	21287 SF
	77654 SF
Open Space	13414 SF

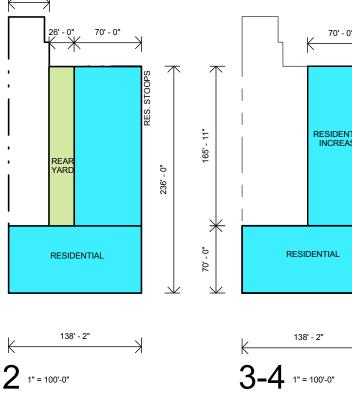
Open Space Required: 77 UNITS X 100 SF = 7,700 SF

Residential Average Unit Size - 1000 GSF

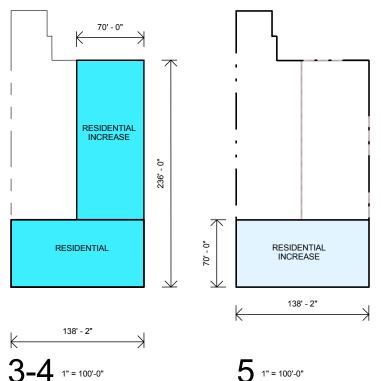
83 Parking Spaces (Lifts) / 77 Required

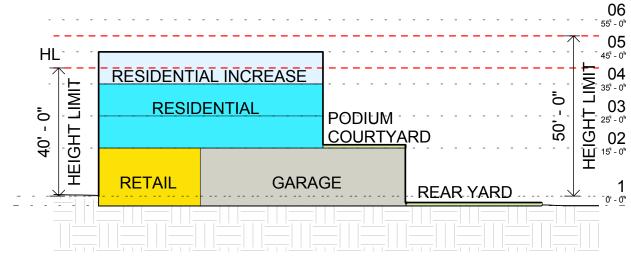
* In order to avoid excavation and maximize parking, a 5' ground floor bump was assumed as part of this scenario





NCD

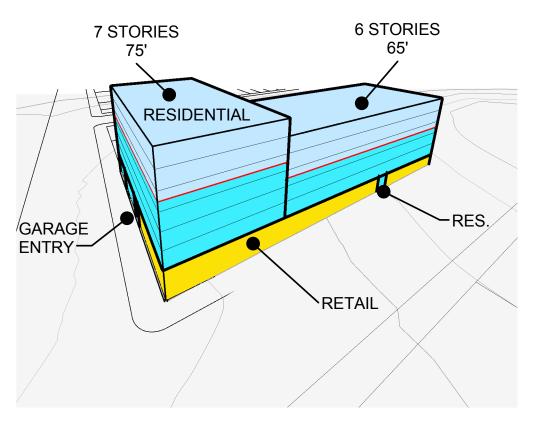


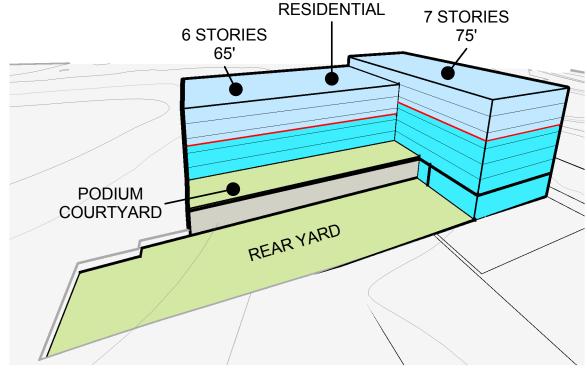


Section 1" = 30'-0"

David Baker Architects
www.dbarchitect.com







ACCOMMODATIONS NEEDED: HEIGHT, + 5' - 0" HEIGHT BUMP AT GROUND FLOOR, PARKING

BONUS PROGRAM	
Garage	13539 SF
Garage Residential	120223 SF
Retail	7884 SF
Grand total	141646 SF

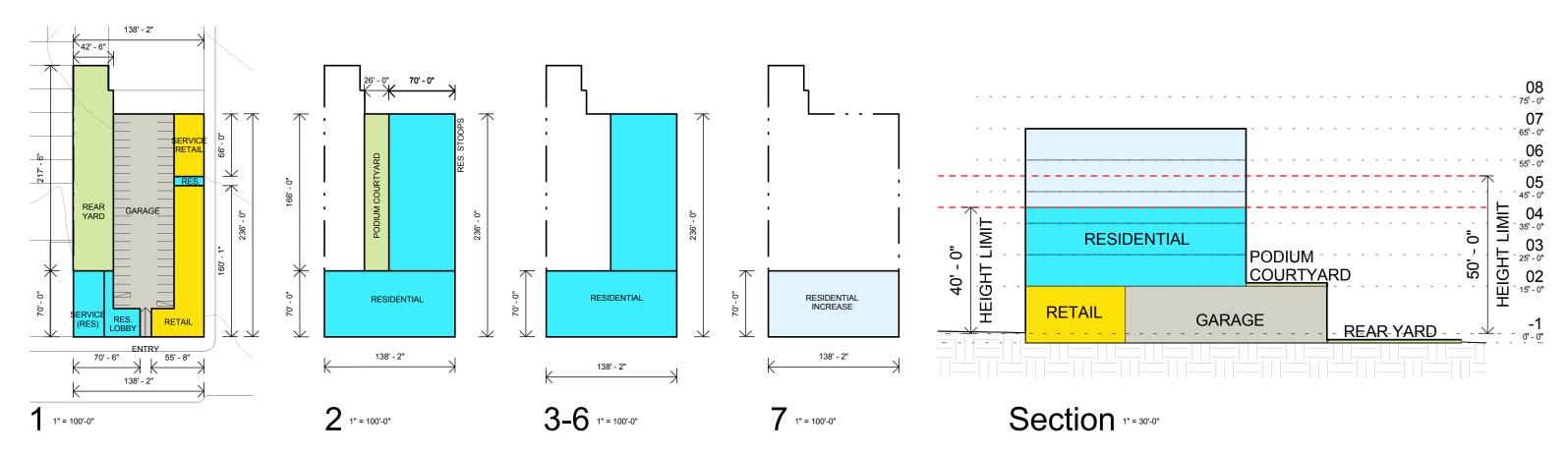
Open Space 13414 SF

Open Space Required: 134 UNITS X 100 SF = 13,400 SF

Residential Average Unit Size - 897 GSF

83 Spaces (Lifts) / 134 Required

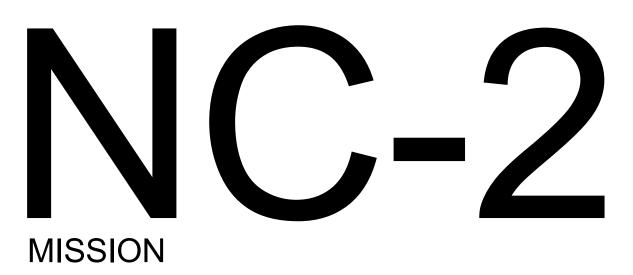
* In order to avoid excavation and maximize parking, a 5' ground floor bump was assumed as part of this scenario







NCD



SCENARIO

FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 4.750/800 SF = 6 UNITS (MAX ALLOWED)

BASE AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS = 11,170 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 11,170 SF / 8 UNITS = 1,862 SF AVG. GROSS UNIT

ZONING PARAMETERS

ZONING CLASSIFICATIONS: NC-2 LOTS: 3594016

LOT AREA: 4,750 SF

HEIGHT AND BULK: 45-X

REAR YARD: (SECT 134): 25% at 2nd Story and above, or at 1st story if it contains a DU. Can be a corner configuration per Sect. 134(e)(2).

DENSITY: 1 unit / 800 sq. ft lot area 4,750/800 = 6 UNITS

FLOOR AREA RATIO: 2.5:1 (DOES NOT APPLY FOR RESIDENTIAL USES)

FRONT SETBACK: NONE

STREET FRONTAGE: Active uses required (res. or comm.)

- IF RESIDENTIAL. 50% OF STREET FRONTAGE SHOULD BE WALK UP UNITS
- LOBBY IS LESS THAN 40' OR 25% OF STREET FRONTAGE

USABLE OPEN SPACE: 100SF / DU if private, 133 SF if common (also consider min. dimension 6 UNITS X 133 SF = **798 SF**

reqs.)

PARKING REQ.: 1:1 but potential modification/waiver by ZA per sect. 161(j)

GROUND FLOOR HEIGHT (SECT 145.1): MINIMUM 14' FOR NON-RESIDENTIAL (FLOOR TO FLOOR)



MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 4,750/800 SF = 6 UNITS (MAX ALLOWED)

1000 NET SF / 1333 GROSS SF ASSUMED UNIT SIZE

1333 GSF x 6 = 7.998 ALLOWED RESIDENTIAL GSF

THE MARKET INFORMED BASE CASE IS LESS THAN THE ALLOWABLE BUILDING ENVELOPE.



MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 4,750/800 SF = 6 UNITS (MAX ALLOWED)

1000 NET SF / 1333 GROSS SF ASSUMED UNIT SIZE

6 MAX UNITS ALLOWED X 1.35% DENSITY INCREASE = 8.1 ~ 8 UNITS ALLOWED 8 UNITS ALLOWED x 1333 GROSS SF ASSUMED UNIT SIZE = 10.664 ALLOWED RESIDENTIAL GSF THE 35% DENSITY INCREASE IS LESS THAN THE ALLOWABLE BUILDING ENVELOPE, THEREFORE NO ACCOMMODATIONS ARE NEEDED.



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

18.270 RESIDENTIAL GSF

ASSUMED UNIT SIZE TAKEN FROM MARKET BASE CASE = 1,333 GSF UNIT SIZE

18,270 SF / 1333 SF = 14 UNITS

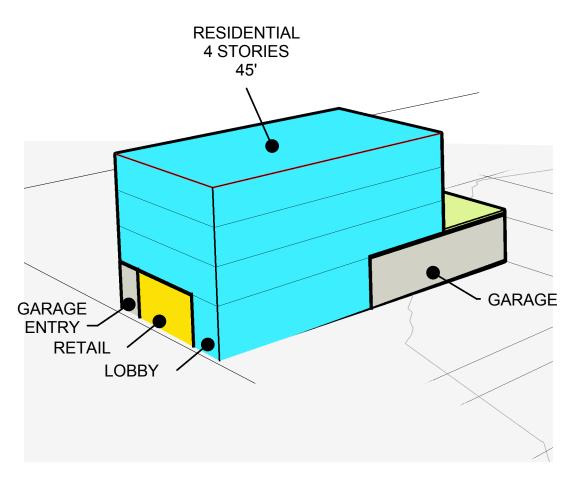
ACCOMMODATIONS NEEDED: HEIGHT, PARKING HEIGHT INCREASED TO 65' FROM 45' 14 UNITS IS 233% INCREASE IN ALLOWED UNITS FROM BASE CASE

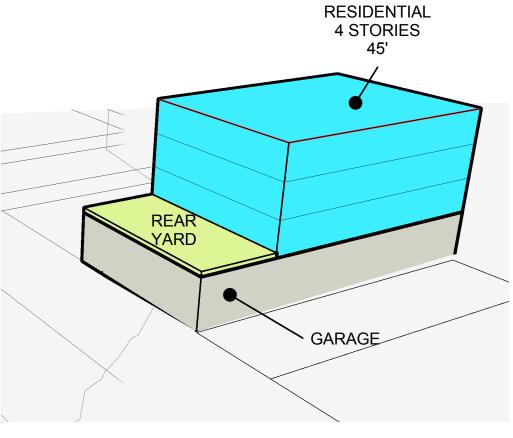




PROTOTYPE 8

NC-2



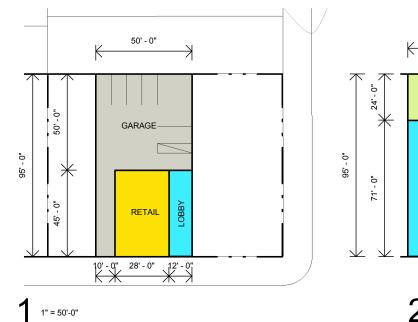


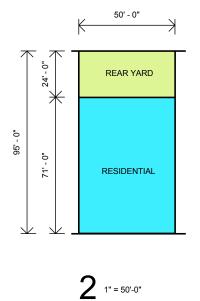
FE GROSS AREA	
Garage	2949 SF
Garage Residential	11170 SF
Retail	1258 SF
Grand total	15377 SF

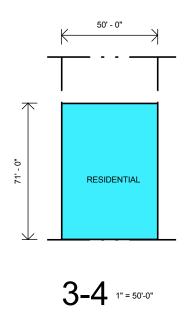
Open Space	1200 SF

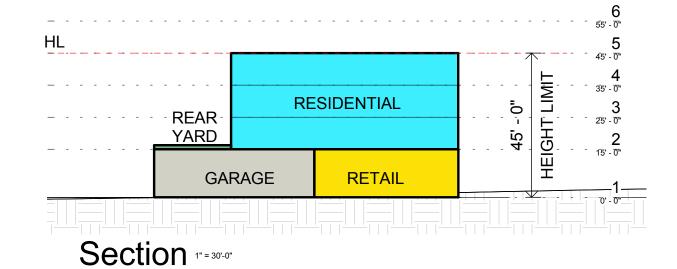
Open Space Required: 6 UNITS X 133 SF = 798 SF Residential Average Unit Size - 1862 GSF

6 Parking Spaces / 6 Required



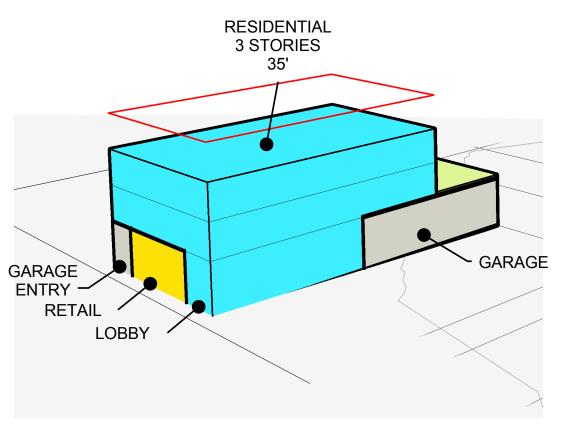


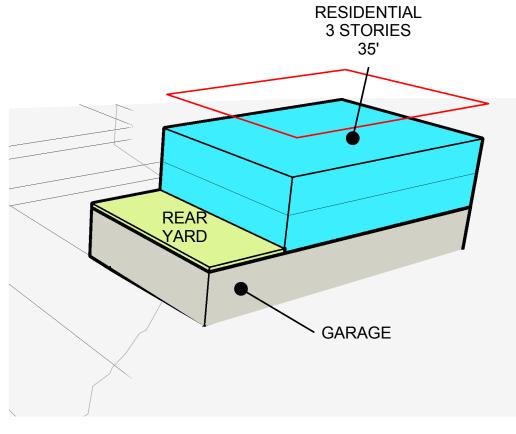












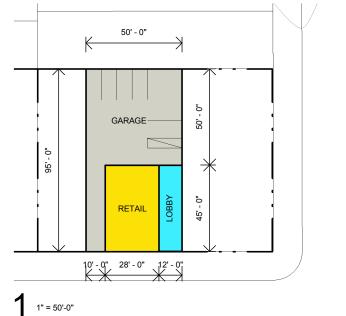
MARKET BASE CASE	
Residential	7626 SF
Garage Retail	2949 SF
Retail	1258 SF
Grand total	11833 SF

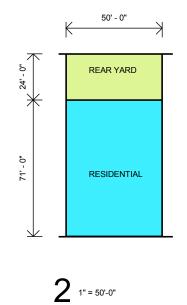
Open Space 1200 S

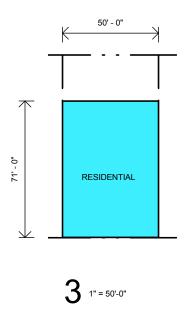
Open Space Required: 6 UNITS X 133 SF = 798 SF

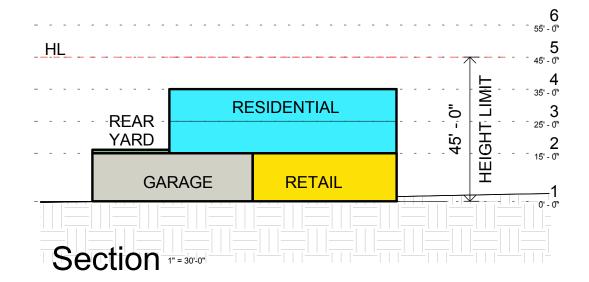
Residential Average Unit Size - 1333 GSF

6 Parking Spaces / 6 Required



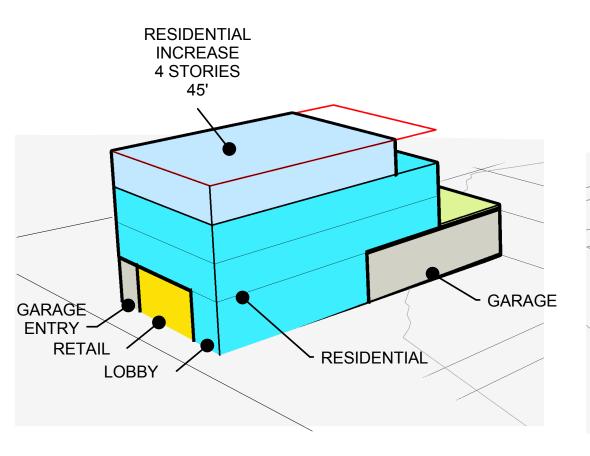


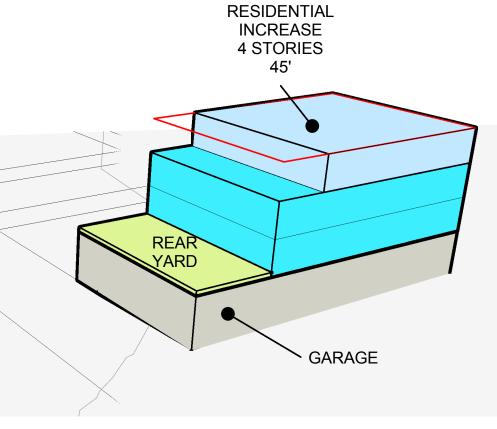






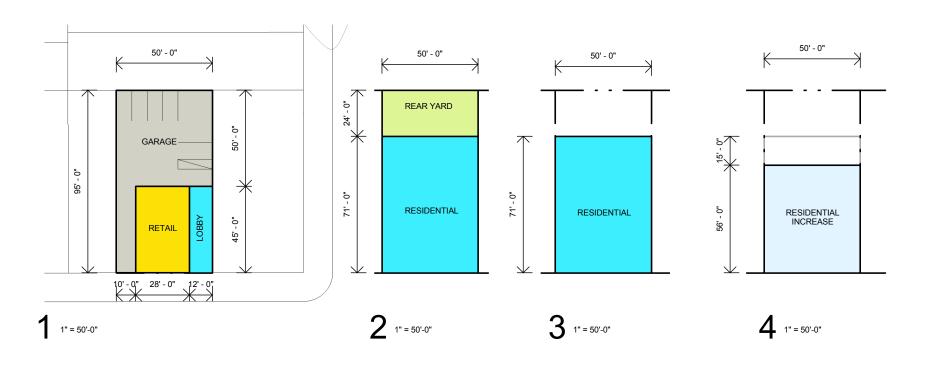


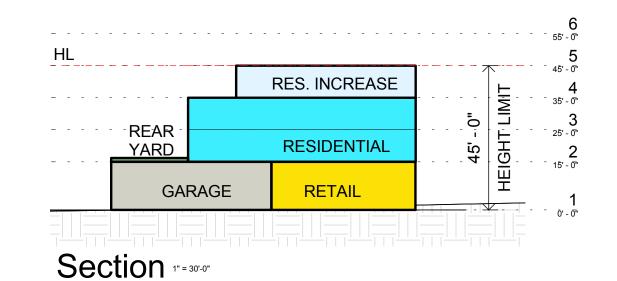




MARKET +	35% AREA
Garage	2949 SF
Residential	10440 SF
Retail	1258 SF
Grand total	14648 SF
Residential	7640 SF
Residential Increase	2800 SF
	10440 SF
Open Space	1200 SF

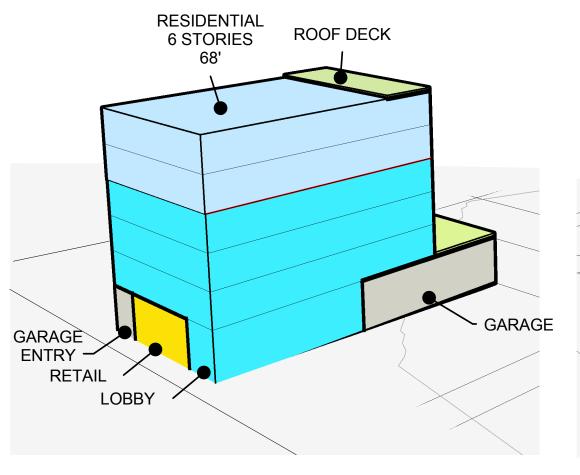
Open Space Required: 8 UNITS X 133 SF = 1,064 SF Residential Average Unit Size - 1333 GSF 9 Parking Spaces (Lifts) / 8 Required

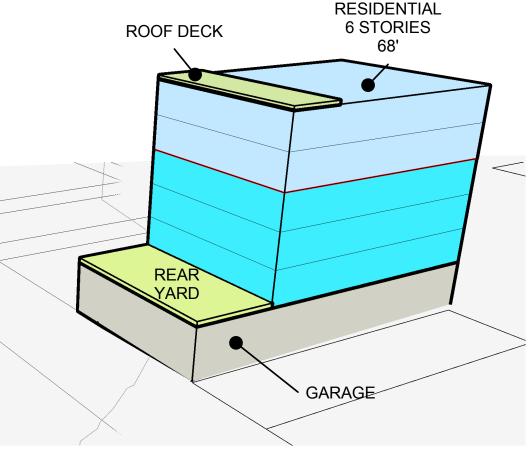












ACCOMMODATIONS NEEDED: HEIGHT, PARKING

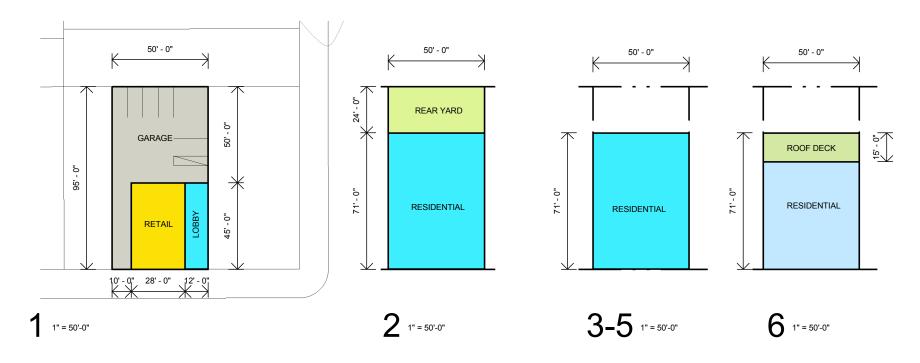
BONUS PROGRAM	
Garage	2949 SF
Residential	18270 SF
Retail	1258 SF
Grand total	22477 SF

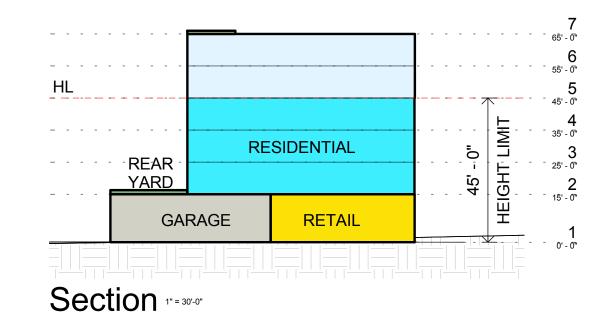
Open Space 1950 SF

Open Space Required: 14 UNITS X 133 SF = 1862 SF

Residential Average Unit Size - 1333 GSF

9 Parking Spaces (Lifts) / 14 Required









TARAVAL

SCENARIO A

FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 11,996 SF / 800 SF = **15 UNITS (MAX ALLOWED)**

BASE AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS = 37,247 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 37,247 SF / 15 UNITS = 2,483 SF AVG. GROSS UNIT

ZONING PARAMETERS

ZONING CLASSIFICATIONS: NCD

LOTS: 2397035

LOT AREA: 11,996 SF

HEIGHT AND BULK: 50-X

REAR YARD: (SECT 134): 25% at second story and above, Ground floor rear yard required

if ground floor contains DU

DENSITY (SECT 741): 1 unit / 800 sq. ft lot area 11,996/800 =15 UNITS

FLOOR AREA RATIO: 2.5:1 (Does not apply for residential uses)

FRONT SETBACK: NONE

STREET FRONTAGE: Commercial not required. Active uses required (res. or comm.)

- IF RESIDENTIAL, 50% OF STREET FRONTAGE SHOULD BE WALK UP UNITS
- LOBBY IS LESS THAN 40' OR 25% OF STREET FRONTAGE

USABLE OPEN SPACE: 100 SF / DU if private, 133 SF if common (also consider min. dimension reqs.) 133 SF x 15 = **1.995 SF**

PARKING REQ.: 1:1 but potential modification/waiver by ZA per sec. 161(j)

GROUND FLOOR HEIGHT (SECT 145.1): Minimum 14' for Non-residential (Floor to Floor)

+ 5' Ground Floor Height Bump Allowed



MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 11,996 SF / 800 SF = 15 UNITS (MAX ALLOWED)

1000 NET SF / 1333 GROSS SF ASSUMED UNIT SIZE

1333 GSF x 15 = 19.995 ASSUMED RESIDENTIAL GSF

THE MARKET INFORMED BASE CASE IS SIGNIFICANTLY LESS THAN THE ALLOWABLE BUILDING ENVELOPE.



MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 11,996 SF / 800 SF = 15 UNITS (MAX ALLOWED)

1000 NET SF / 1333 GROSS SF ASSUMED UNIT SIZE

15 MAX UNITS ALLOWED X 1.35% DENSITY INCREASE = 20.25 ~ **20 UNITS ALLOWED**20 UNITS ALLOWED x 1333 GROSS SF ASSUMED UNIT SIZE **= 26,660 ALLOWED RESIDENTIAL GSF**THE 35% INCREASE IS SIGNIFICANTLY LESS THAN THE ALLOWABLE BUILDING ENVELOPE.
ACCOMMODATIONS NEEDED: REAR YARD



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

61,247 RESIDENTIAL GSF

ASSUMED UNIT SIZE TAKEN FROM MARKET INFORMED BASE CASE = 1,333 GSF UNIT SIZE

61,247 SF / 1333 SF = 46 UNITS

ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD, PARKING HEIGHT INCREASED TO 75' FROM 55' 46 UNITS IS 207% INCREASE IN ALLOWED UNITS FROM BASE CASE

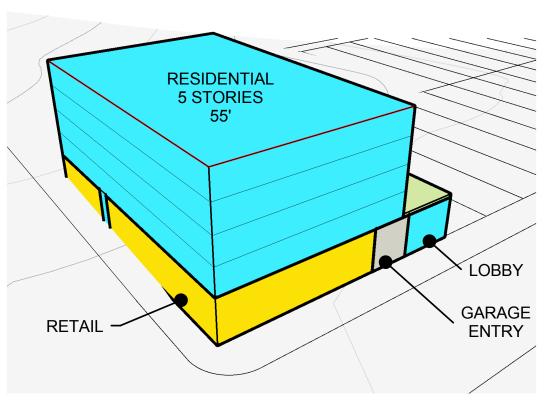


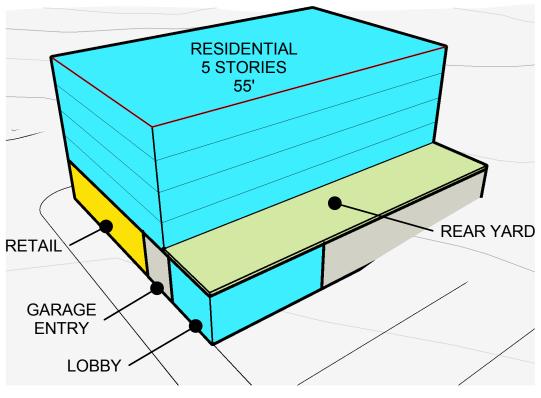


08/2015

PROTOTYPE 9

NCD





HL

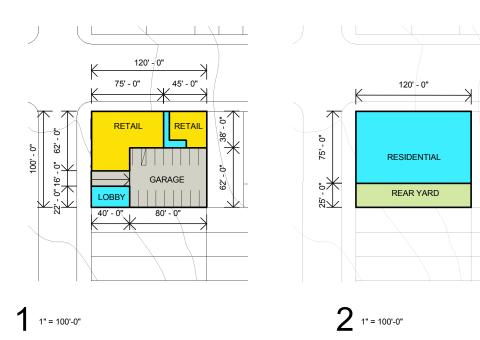
5599 SF Garage Residential 37247 SF 5151 SF Retail 47998 SF Grand total

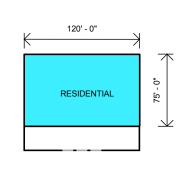
	Open Space	3000 SF
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Open Space Required: 15 UNITS X 133 SF = 1,995 SF

Residential Average Unit Size - 2483 GSF

16 Parking Spaces / 15 Required





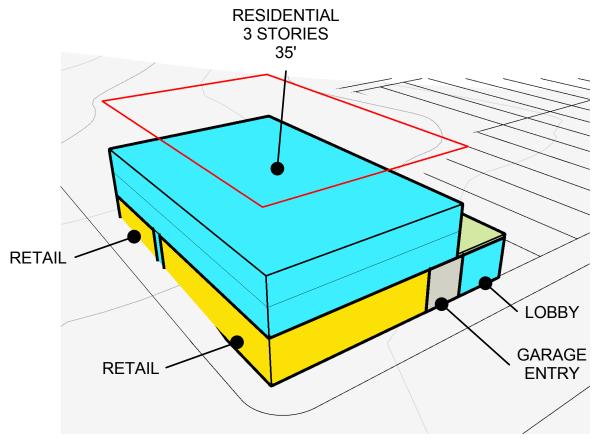
HEIGHT LIMIT 55' - 0" RESIDENTIAL REAR YARD **GARAGE RETAIL**

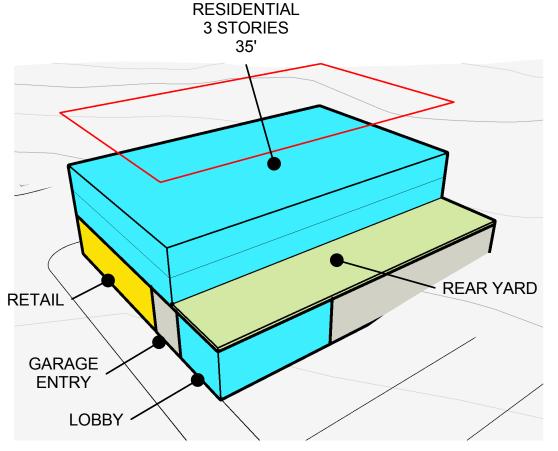
3-5 1" = 100'-0"

Section 1" = 30'-0"









MARKET BASE CASE

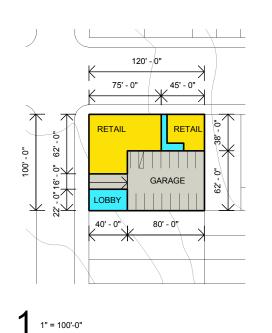
Garage	5599 SF
Residential	19247 SF
Retail	5151 SF
Grand total	29998 SF

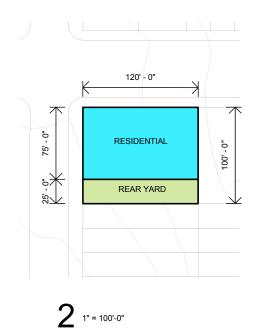
Open Space	3000 SF

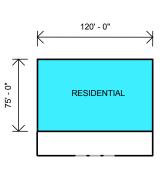
Open Space Required: 15 UNITS X 133 SF = 1,995 SF

Residential Average Unit Size - 1333 GSF

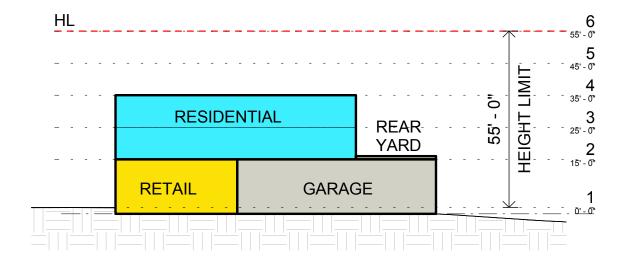
16 Parking Spaces / 15 Required







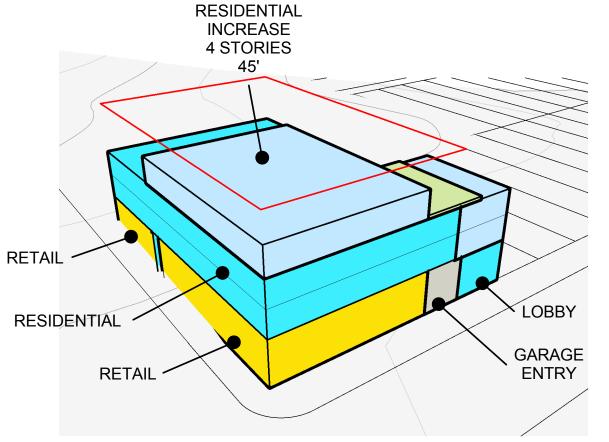
3 1" = 100'-0"

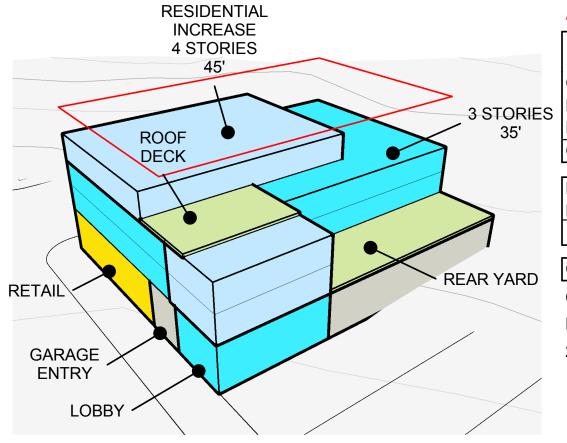


Section 1"=30'-0"









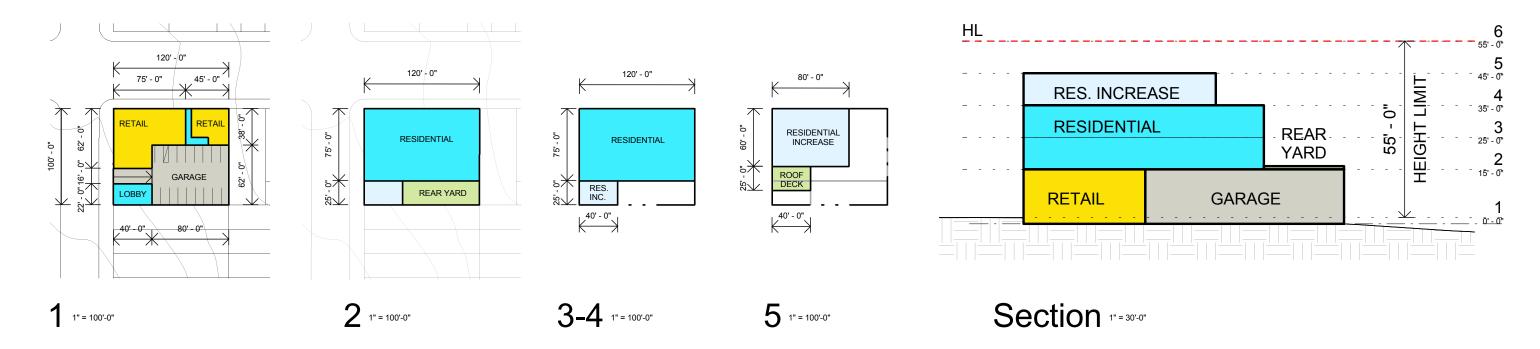
ACCOMMODATIONS NEEDED: REAR YARD

MARKET +	35% AREA
Garage	5599 SF
Residential	26047 SF
Retail	5151 SF
Grand total	36798 SF

Residential Increase	6800 SF
Residential	19247 SF
	26047 SF

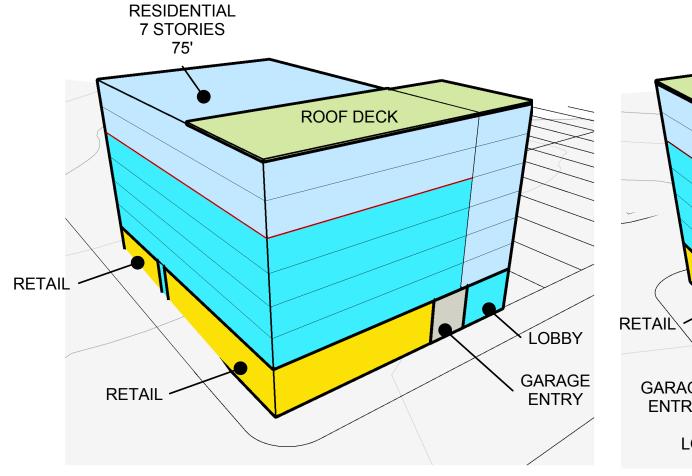
Open Space	3000 SF	

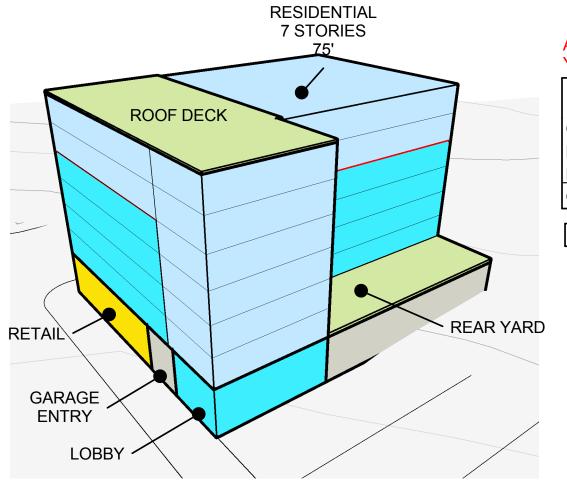
Open Space Required: 20 UNITS X 133 SF = 2,660 SF Residential Average Unit Size - 1333 GSF 29 Parking Spaces (Lifts) / 20 Required









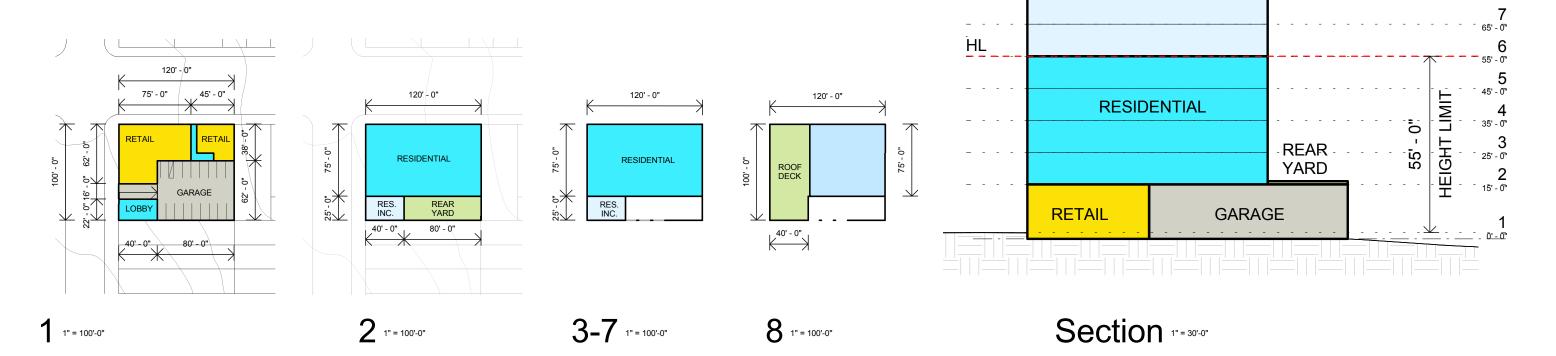


ACCOMMODATIONS NEEDED: HEIGHT, REAR YARD, PARKING

BONUS PROGRAM		
Garage	5599 SF	
Residential	61247 SF	
Retail	5151 SF	
Grand total	71998 SF	

Open Space	6118 SF
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Open Space Required: 46 UNITS X 133 SF = 6,118 SF Residential Average Unit Size - 1333 GSF 29 Parking Spaces (Lifts) / 46 Required











FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 7,400/400 SF = 18.5 ~ 19 UNITS (MAX ALLOWED)

BASE AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS = 32.192 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 32,192 SF / 19 UNITS = 1,694 SF AVG. GROSS UNIT

ZONING PARAMETERS

ZONING CLASSIFICATIONS: RC-3

LOTS: 0502005H

LOT AREA: 7,400 SF

HEIGHT AND BULK: 65-A

BULK DISTRICT	Height Above Which Maximum Dimensions Apply (in feet)	Maximum Plan	Dimensions (in feet)
		Length	Diagonal dim.
А	40	110	125

REAR YARD: (SECT 134): 25% OF LOT DEPTH, NO LESS THAN 15 FEET (AT DWELLING LEVELS ONLY). REAR YARD SHÁLL BE PROVIDED AT LOWEST STORY CONTAINING A DWELLING UNIT.

DENSITY (SECT 745): 1 unit / 400 sq. ft lot area 7,400/400 = **19 UNITS**

FLOOR AREA RATIO: 3.6:1 (DOES NOT APPLY)

STREET FRONTAGE: Commercial not required. Active uses required (res. or comm.)

- IF RESIDENTIAL, 50% OF STREET FRONTAGE SHOULD BE WALK UP UNITS
 - LOBBY IS LESS THAN 40' OR 25% OF STREET FRONTAGE
- GROUND FLOOR DUS SUBJECT TO GROUND FLOOR RESIDENTIAL DESIGN GUIDELINES INCLUDING SET BACK AND TWO STORY EXPRESSION

USABLE OPEN SPACE: 60 SF PER UNIT IF ALL PRIVATE; 80 SF IF COMMON SPACE. 80 SF X 19 UNITS = 1,520 SF

PARKING REQ.: 1 PER 4 DWELLING UNITS

GROUND FLOOR HEIGHT (SECT 145.1): MINIMUM 14' FOR NON-RESIDENTIAL (FLOOR TO FLOOR)



MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 7,400/400 SF = 19 UNITS (MAX ALLOWED)

1000 NET SF / 1333 GROSS SF ASSUMED UNIT SIZE

1333 GSF x 19 = 25.327 ASSUMED RESIDENTIAL GSF

MARKET BASE CASE IS LESS THAN FULL ENVELOPE BUILD OUT.



MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 7,400/400 SF = 19 UNITS (MAX ALLOWED)

1000 NET SF / 1333 GROSS SF ASSUMED UNIT SIZE

19 MAX UNITS ALLOWED X 1.35% DENSITY INCREASE = 25.65 ~ 26 UNITS ALLOWED 26 UNITS ALLOWED x 1333 GROSS SF ASSUMED UNIT SIZE = 34.658 ALLOWED RESIDENTIAL GSF ACCOMMODATIONS NEEDED: HEIGHT



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

43.292 RESIDENTIAL GSF

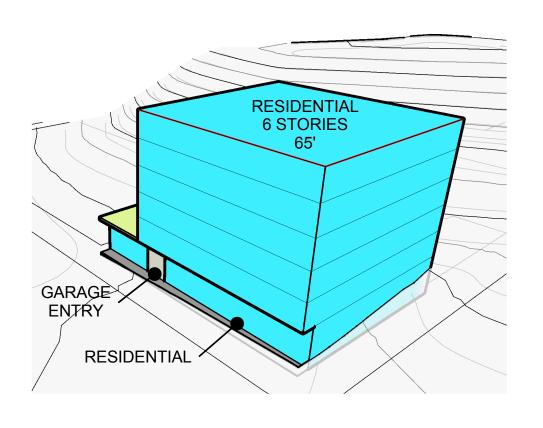
ASSUMED UNIT SIZE TAKEN FROM MARKET BASE CASE = 1,333 GSF UNIT SIZE

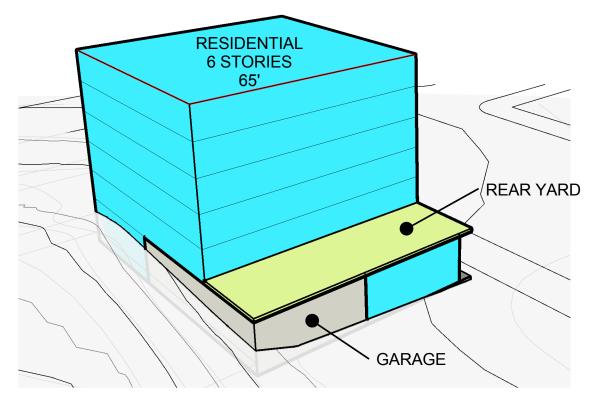
43,292 SF / 1333 SF = 32 UNITS

ACCOMMODATIONS NEEDED: HEIGHT HEIGHT INCREASED TO 85' FROM 65' 32 UNITS IS 168% INCREASE IN ALLOWED UNITS FROM BASE CASE





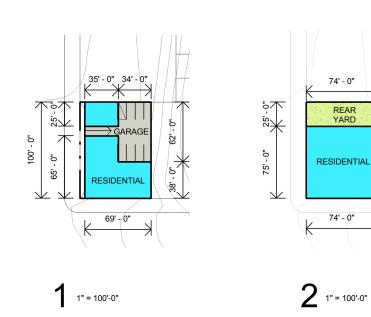


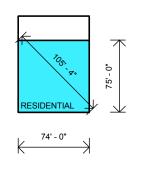


FE GROSS AREA		
Garage	2459 SF	
Residential	32192 SF	
Grand total	34652 SF	

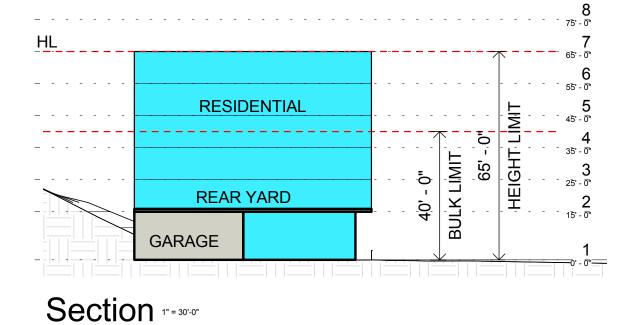
Open Space	1850 SF

Open Space Required: 19 UNITS X 80 SF = 1,520 SF Residential Average Unit Size - 1694 GSF 7 Parking Spaces / 5 Required



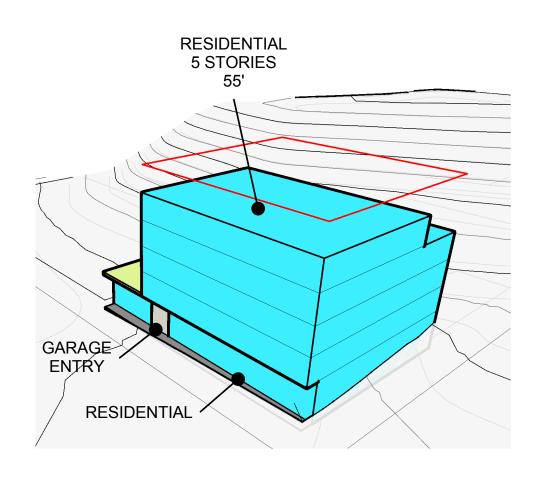


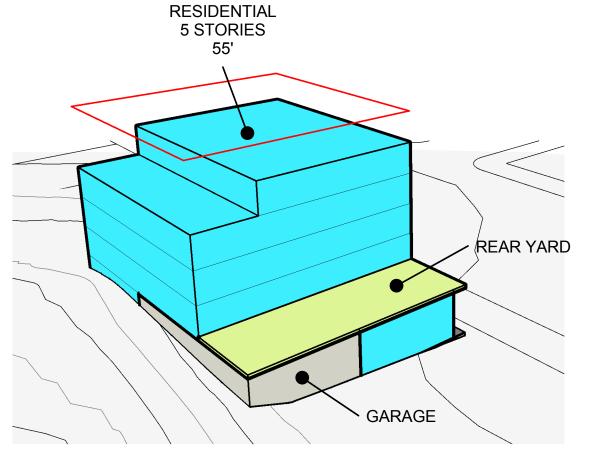
3-6 1" = 100'-0"











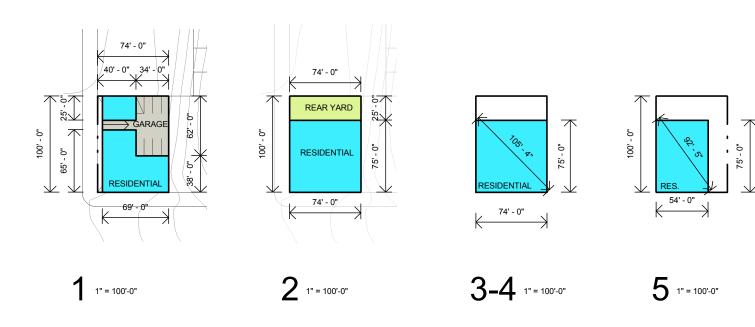
MARKET	BASE	CASE
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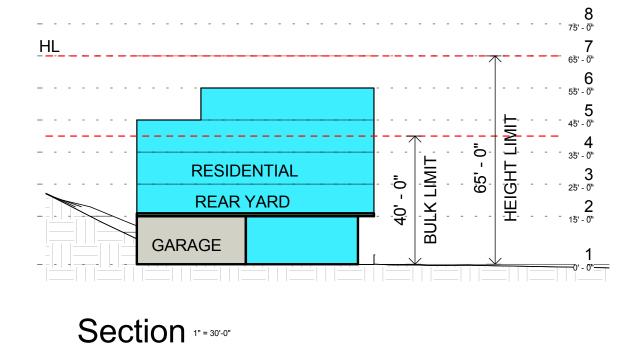
Garage	2459 SF
Residential	25142 SF
Grand total	27602 SF

Open Space	1850 SF
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Open Space Required: 19 UNITS X 80 SF = 1,520 SF Residential Average Unit Size - 1333 GSF

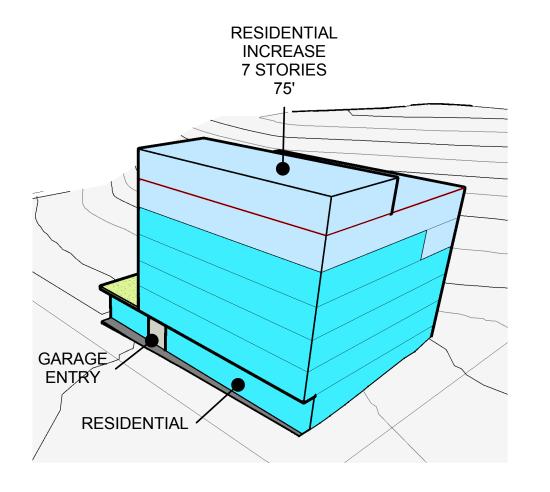
7 Parking Spaces / 5 Required

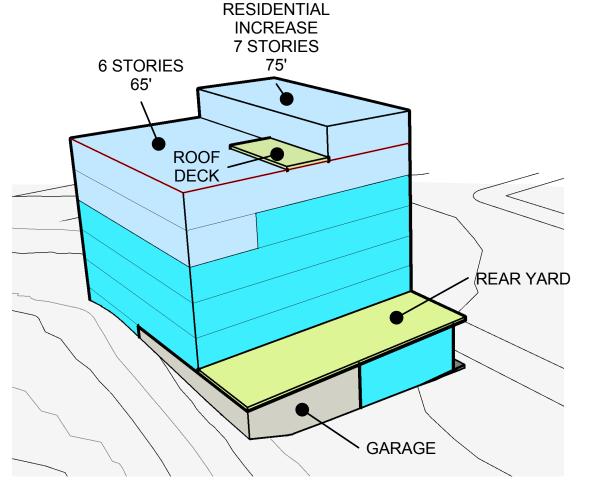












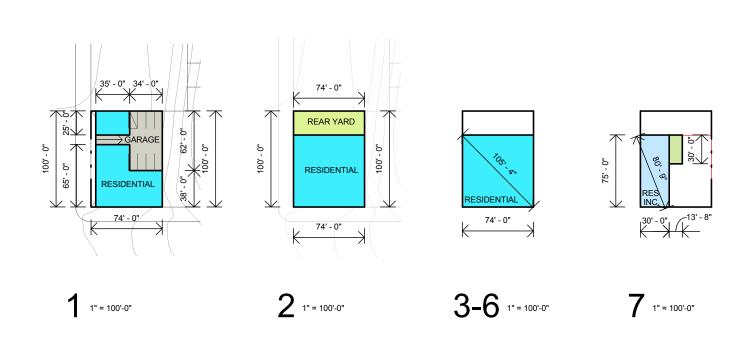
ACCOMMODATIONS NEEDED: HEIGHT

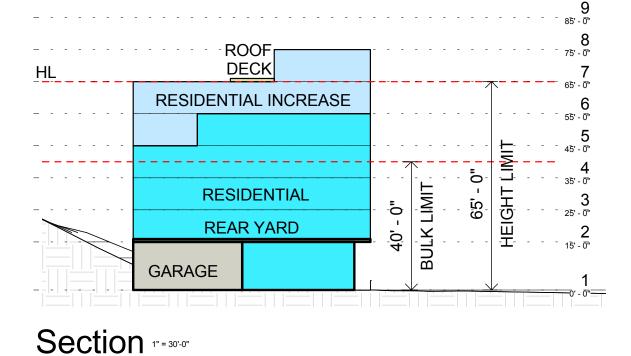
MARKET +	· 35% AREA
Garage	2459 SF
Residential	34442 SF
Grand total	36902 SF
Desidential Income	0000 05
Residential Increase	9300 SF
Residential	25142 SF
	34442 SF

Open Space 2261 SF Open Space Required: 26 UNITS X 80 SF = 2,080 SF

Residential Average Unit Size - 1333 GSF

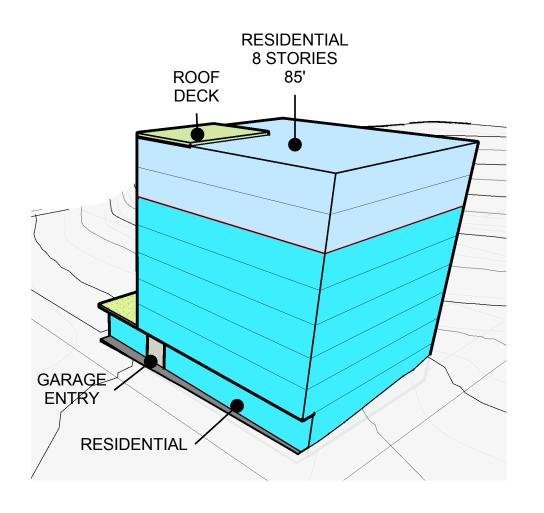
7 Parking Spaces / 7 Required

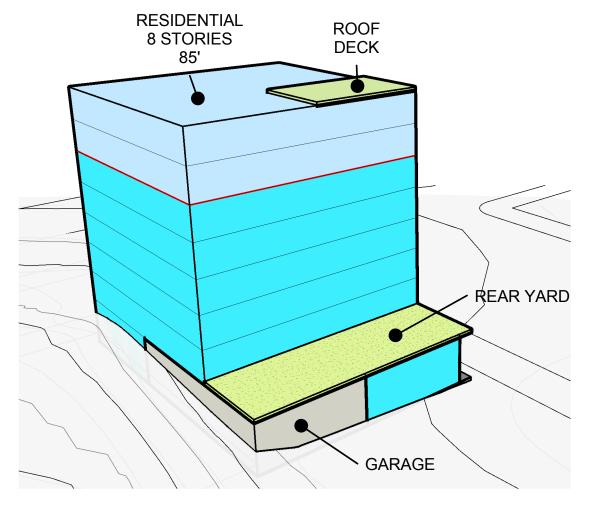












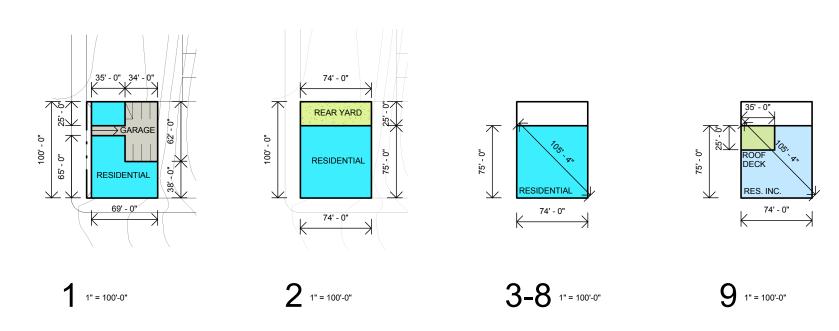
ACCOMMODATIONS NEEDED: HEIGHT

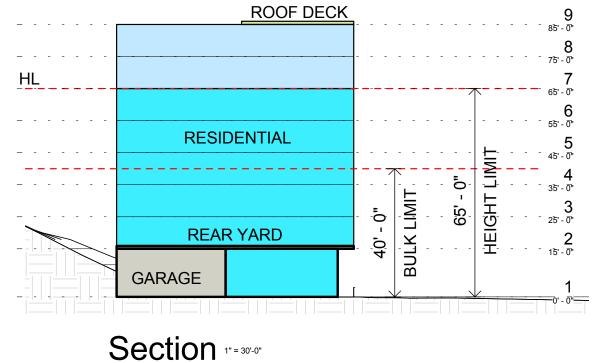
BONUS PROGRAM	
Garage	2459 SF
Garage Residential	43292 SF
Grand total	45752 SF

Open Space	2725 SF

Open Space Required: 32 UNITS X 80 SF = 2,560 SF Residential Average Unit Size - 1333 GSF

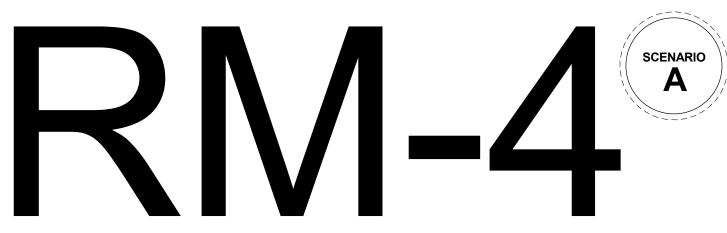
8 Parking Spaces (Lifts) / 8 Required











NOB HILL

ZONING PARAMETERS

ZONING CLASSIFICATIONS: RM-4

LOTS: 0252016

LOT AREA: 9,336 SF

HEIGHT AND BULK: 65-A

BULK DISTRICT	Height Above Which	Maximum Plan	Dimensions (in feet)
	Maximum Dimensions Apply (in feet)	Length	Diagonal dim.
А	40	110	125

REAR YARD: (SECT 134): 25% of lot depth, but no less than 15 feet

DENSITY: 1 unit / 200 sq. ft lot area

9,336/200 = **47 UNITS**

STUDIOS less than 500 SF = 3/4 of a unit

FLOOR AREA RATIO: 4.8:1 (Does not apply to residential uses)

FRONT SETBACK: Based upon average of adjacent buildings; up to 15 ft. or 15% of lot depth, whichever is less

STREET FRONTAGE: Commercial not required. Active uses required (res. or comm.)

- IF RESIDENTIAL, 50% OF STREET FRONTAGE SHOULD BE WALK UP UNITS
- LOBBY IS LESS THAN 40' OR 25% OF STREET FRONTAGE

USABLE OPEN SPACE: 36SF / DU if all private, 48 SF if common (also consider min. dimension regs.)

47 UNITS x 48 SF = **2,256 SF**

PARKING REQ.: 1:1 but potential modification/waiver by ZA per sec. 161(j)

GROUND FLOOR HEIGHT (SECT 145.1): Minimum 14' for Non-Residential (FLOOR TO FLOOR)



FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 9,336 / 200 SF = 47 UNITS (MAX ALLOWED)

BASE RESIDENTIAL AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS = 35,485 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 35,485 SF / 47 UNITS = 755 SF AVG. GROSS UNIT

ACCOMMODATIONS NEEDED: PARKING

THE MARKET INFORMED BASE CASE IS HIGHER THAN WHAT ZONING ALLOWS, THEREFORE THE FULL ENVELOPE BUILD OUT WILL BE CONSIDERED THE BASE CASE.

MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 9,336/200 SF = 47 UNITS (MAX ALLOWED)

750 NET SF / 1000 GROSS SF ASSUMED UNIT SIZE

1000 GSF x 47 = 47,000 ASSUMED RESIDENTIAL GSF

ACCOMMODATIONS NEEDED: HEIGHT, PARKING

THE MARKET INFORMED BASE CASE IS HIGHER THAN WHAT ZONING ALLOWS, THEREFORE THE FULL ENVELOPE BUILD OUT WILL BE CONSIDERED THE BASE CASE.



MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 9,336/200 SF = **47 UNITS (MAX ALLOWED)**

ASSUMED UNIT SIZE TAKEN FROM FULL ENVELOPE BUILD OUT = 755 SF UNIT SIZE

47 MAX UNITS ALLOWED X 1.35% DENSITY INCREASE = 62.5 ~ **63 UNITS ALLOWED**63 UNITS ALLOWED x 755 GROSS SF ASSUMED UNIT SIZE = **47.565 ALLOWED RESIDENTIAL GSF**

ACCOMMODATIONS NEEDED: HEIGHT, PARKING



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

48,774 RESIDENTIAL GSF

ASSUMED UNIT SIZE TAKEN FROM FULL ENVELOPE BUILD OUT = 755 GSF UNIT SIZE

48,774 SF / 755 SF = **65 UNITS**

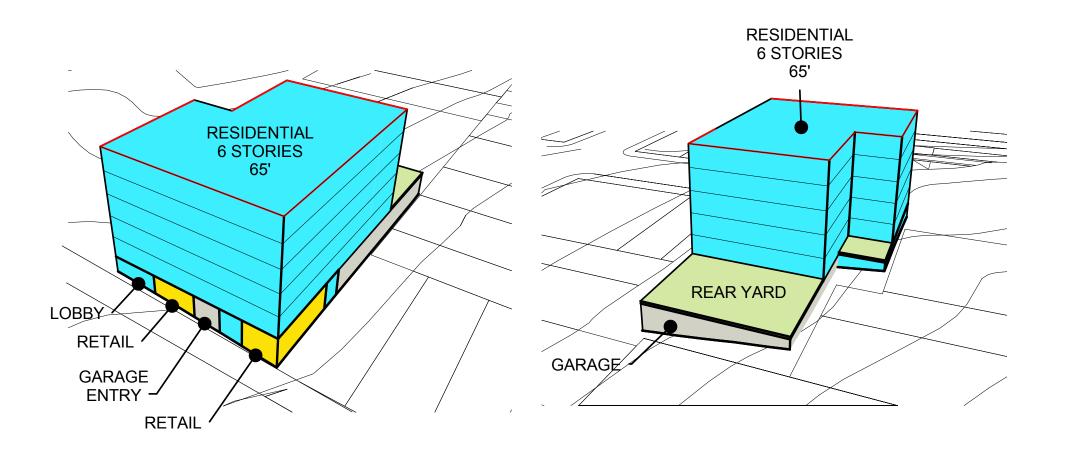
ACCOMMODATIONS NEEDED: HEIGHT, PARKING HEIGHT INCREASED TO 85' FROM 65' 65 UNITS IS 138% INCREASE IN ALLOWED UNITS FROM BASE CASE





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PROTOTYPE 11



FE GROSS /	AREA
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Garage	5874 SF
Residential	35485 SF
Retail	1225 SF
Grand total	42584 SF

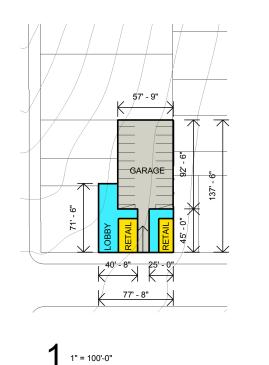
Open Space	2726 SF
Topon opaco	272001

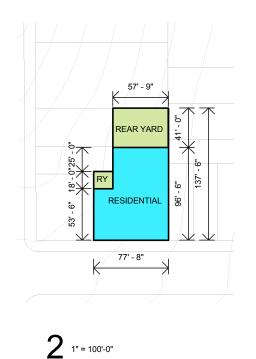
Open Space Required: 47 UNITS X 48 SF = 2,256 SF

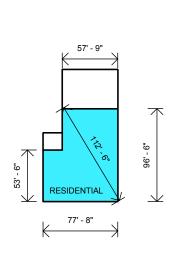
Residential Average Unit Size - 755 GSF

48 Spaces (Puzzle Lift with Pit) / 47 Required

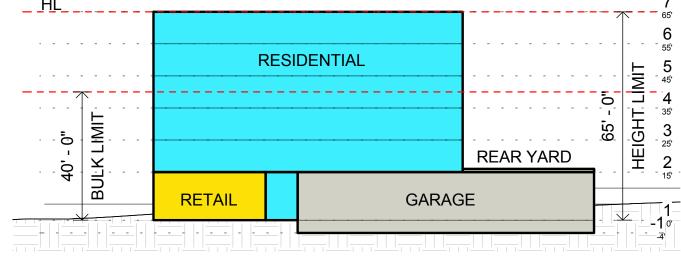
THE MARKET INFORMED BASE CASE IS HIGHER THAN WHAT ZONING ALLOWS, THEREFORE THE FULL ENVELOPE BUILD OUT WILL BE CONSIDERED THE BASE CASE.







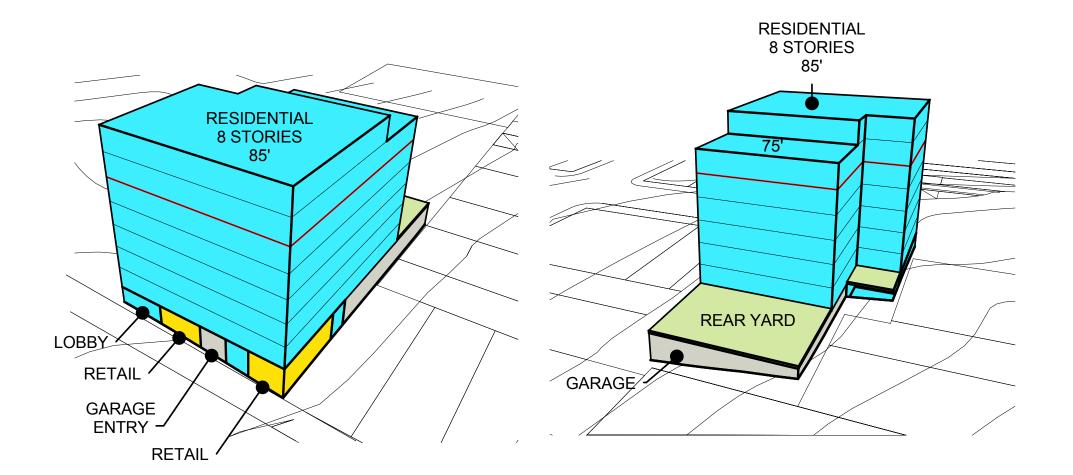
3-6 1" = 100'-0"



Section 1" = 30'-0"







ACCOMMODATIONS NEEDED: HEIGHT

MARKET	GROSS AREA
Garage	5872 SF
Residential	47010 SF
Retail	1225 SF
Grand total	54106 SF

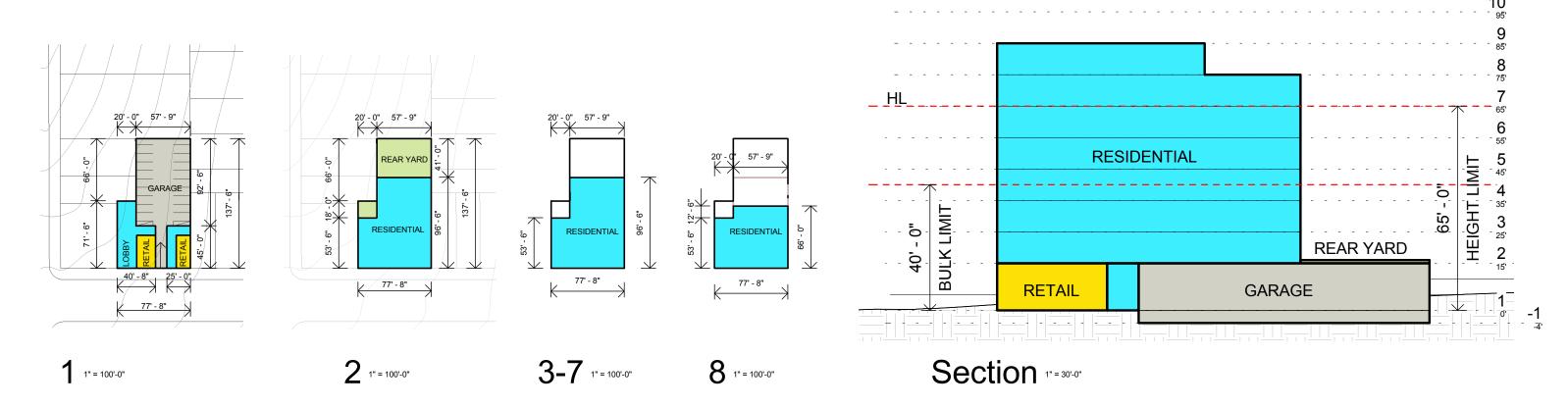
2726 SF Open Space

Open Space Required: 47 UNITS X 48 SF = 2,256 SF

Residential Average Unit Size - 1000 GSF

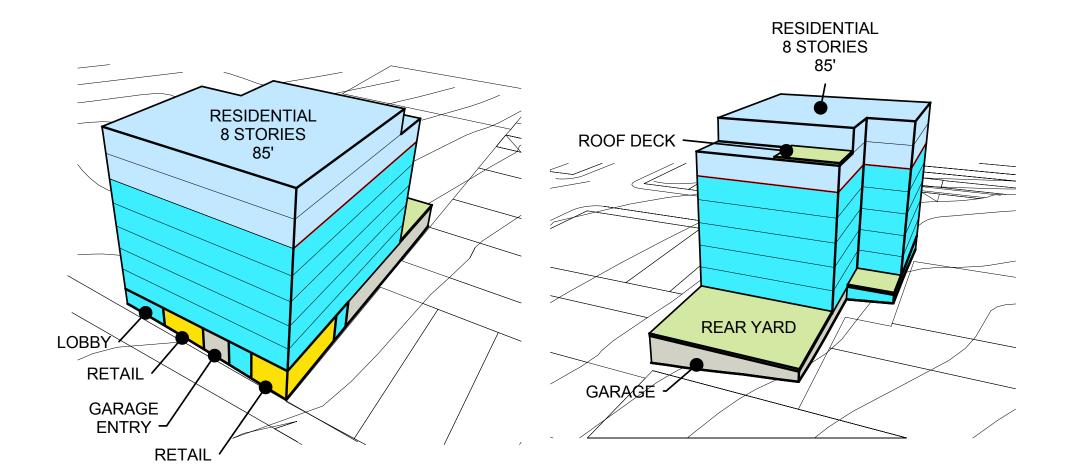
48 Spaces (Puzzle Lift with Pit) / 47 Required

THE MARKET INFORMED BASE CASE IS HIGHER THAN WHAT ZONING ALLOWS, THEREFORE THE FULL ENVELOPE BUILD OUT WILL BE CONSIDERED THE BASE CASE.







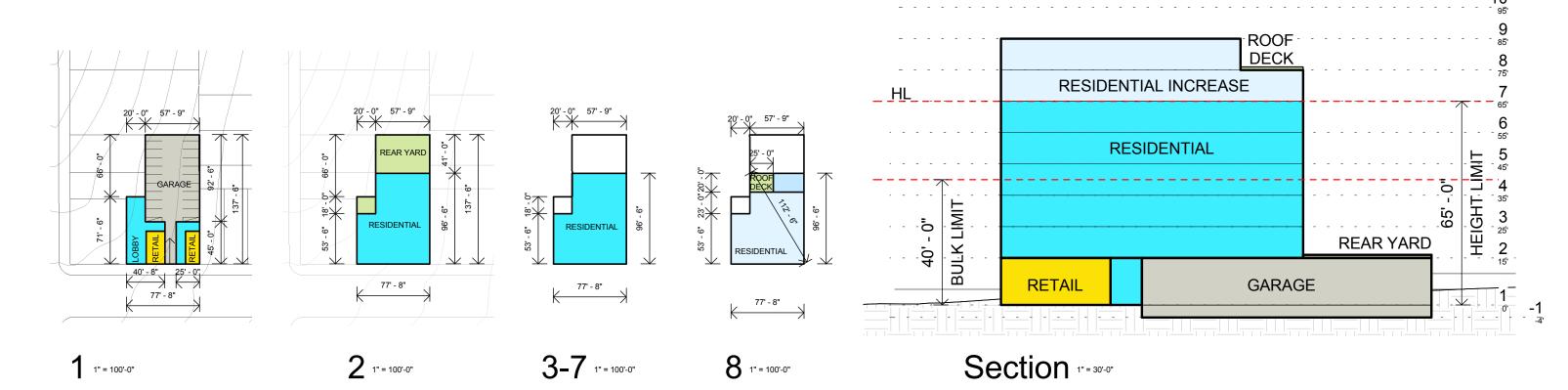


ACCOMMODATIONS NEEDED: HEIGHT, PARKING

MARKET	+ 35% AREA
Garage	5872 SF
Residential	47617 SF
Retail	1225 SF
Grand total	54714 SF
Residential	35485 SF
Residential Increase	12132 SF
	47617 SF
Open Space	3226 SF

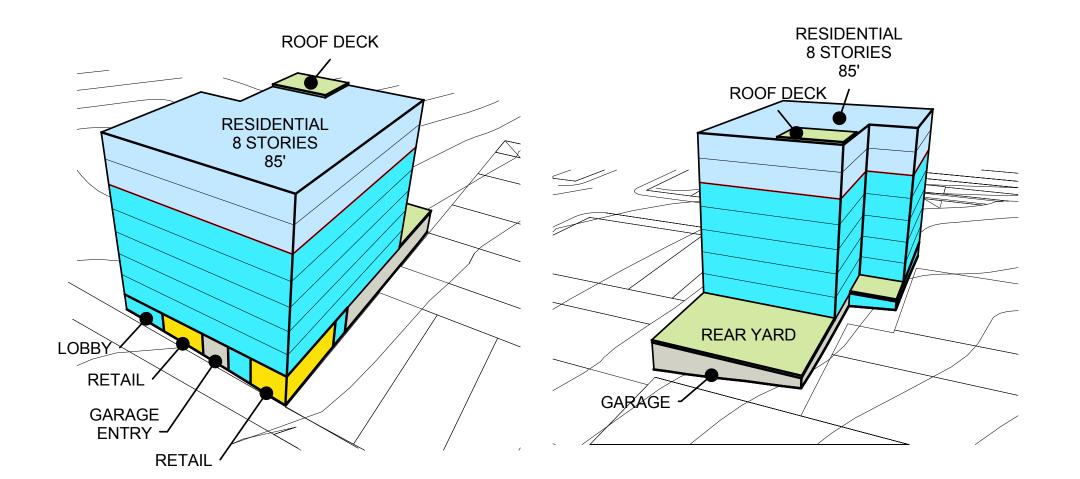
Open Space Required: 63 UNITS X 48 SF = 3,024 SF Residential Average Unit Size - 755 GSF

48 Spaces (Puzzle Lift with Pit) / 63 Required







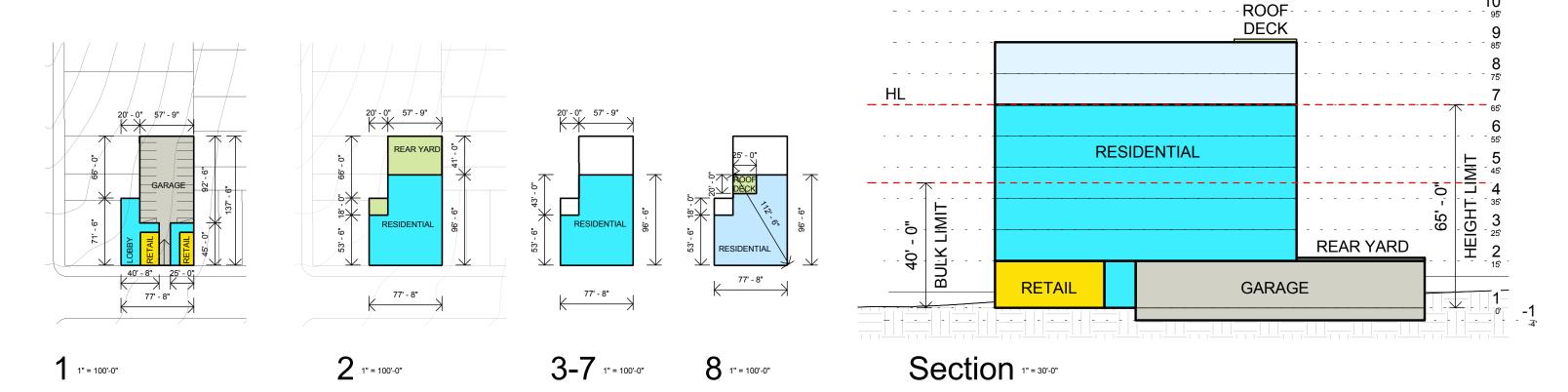


ACCOMMODATIONS NEEDED: HEIGHT, PARKING

BONUS PROGRAM		
Retail	1225 SF	
Residential	48774 SF	
Garage	5872 SF	
Grand total	55871 SF	

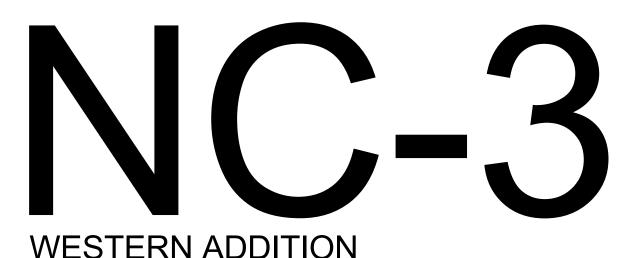
Open Space 3226 SF

Open Space Required: 65 UNITS X 48 SF = 3,120 SF Residential Average Unit Size - 755 GSF 48 Spaces (Puzzle Lift with Pit) / 65 Required











FULL ENVELOPE BUILD OUT

PHYSICAL ENVELOPE ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS

LOT AREA 35,723/600 SF = **60 UNITS (MAX ALLOWED)**

BASE AREA - MAXIMUM AMOUNT OF RESIDENTIAL DENSITY ACHIEVABLE WITHIN ALLOWED HEIGHT AND ZONING REQUIREMENTS = 183,887 SF

BASE RES. SF ACHIEVABLE / BASE # OF UNITS ALLOWED 183,887 SF / 60 UNITS = 3,065 SF AVG. GROSS UNIT

ZONING PARAMETERS

ZONING CLASSIFICATIONS: NC-3

LOTS: 0647011A, 0647011, 0647010, 0647009, 0647008, 0647007

LOT AREA: 35,723 SF

HEIGHT AND BULK: 130-E

BULK DISTRICT	Height Above Which	Maximum Plan	Dimensions (in feet)
	Maximum Dimensions Apply (in feet)	Length	Diagonal dim.
E	65	110	140

REAR YARD: (SECT 134): 25% at the lowest story containing a DU and above. Can be a corner configuration per Sec. 134(e)(2).

DENSITY (SECT 745): 1 unit / 600 sq. ft lot area 35,723/600 = **60 UNITS**

FLOOR AREA RATIO: 3.6:1 (DOES NOT APPLY TO RESIDENTIAL USES)

FRONT SETBACK: NONE

STREET FRONTAGE: Commercial not required. Active uses required (res. or comm.)

- IF RESIDENTIAL, 50% OF STREET FRONTAGE SHOULD BE WALK UP UNITS
- LOBBY IS LESS THAN 40' OR 25% OF STREET FRONTAGE

USABLE OPEN SPACE: 80SF / DU if private, 106 SF if common (also consider min. dimension reqs.) 60 UNITS X 106 SF = **6,360 SF**

PARKING REQ.: 1:1 but potential modification/waiver by ZA per sect. 161(j)

GROUND FLOOR HEIGHT (SECT 145.1): MINIMUM 14' FOR NON-RESIDENTIAL (FLOOR TO FLOOR)



MARKET INFORMED BASE CASE

UNIT SIZE ASSUMPTION BASED ON CURRENT MARKET DATA

LOT AREA 35,723/600 SF = **60 UNITS (MAX ALLOWED)**

750 NET SF / 1000 GROSS SF ASSUMED UNIT SIZE

1000 GSF x 60 = 60,000 ASSUMED RESIDENTIAL GSF

THE MARKET INFORMED BASE CASE IS SIGNIFICANTLY LESS THAN THE ALLOWABLE ENVELOPE.



MARKET INFORMED BASE + 35 % INCREASE

MARKET BASE CASE FROM ABOVE WITH 35% DENSITY BONUS

LOT AREA 35,723/600 SF = **60 UNITS (MAX ALLOWED)**

750 NET SF / 1000 GROSS SF ASSUMED UNIT SIZE

60 MAX UNITS ALLOWED X 1.35% DENSITY INCREASE = 81 UNITS ALLOWED 81 UNITS ALLOWED x 1000 GROSS SF ASSUMED UNIT SIZE = 81,000 ALLOWED RESIDENTIAL GSF

A 35% INCREASE TO THE MARKET INFORMED BASE CASE IS SIGNIFICANTLY LESS THAN THE ALLOWABLE ENVELOPE, THEREFORE NO ACCOMMODATIONS ARE NEEDED



AFFORDABLE HOUSING BONUS PROGRAM

DENSITY INCREASE TO FULL ENVELOPE

232,809 RESIDENTIAL GSF

ASSUMED UNIT SIZE TAKEN FROM MARKET INFORMED BASE CASE = 1,000 GSF UNIT SIZE

232,809 SF / 1000 SF = 233 UNITS

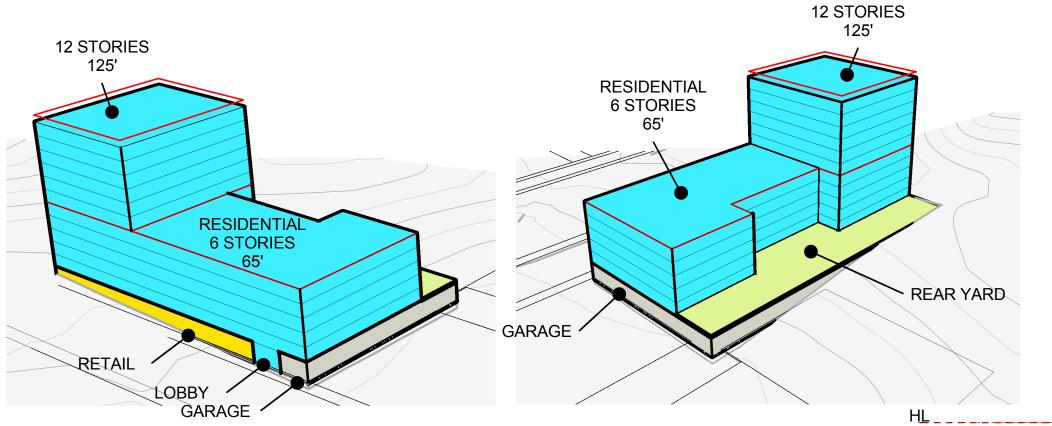
ACCOMMODATIONS NEEDED: HEIGHT, BULK, PARKING HEIGHT INCREASED TO 145' FROM 125' 233 UNITS IS 288 % INCREASE IN ALLOWED UNITS FROM BASE CASE





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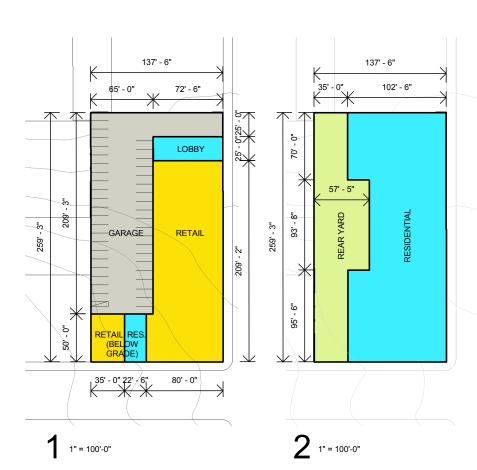
PROTOTYPE 12

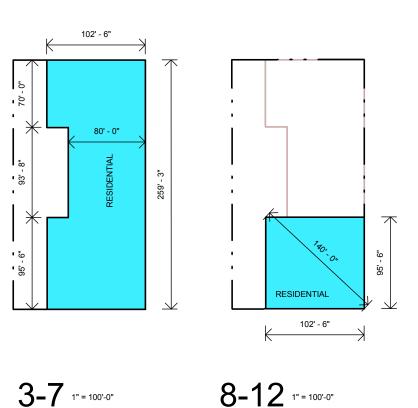


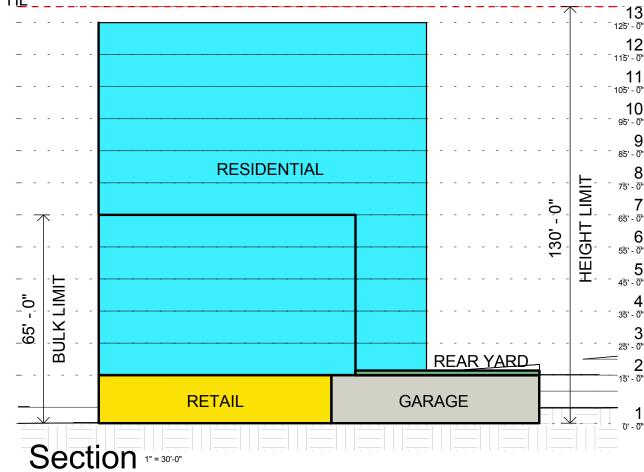
FE GROSS AREA		
Retail	18431 SF	
Residential	183887 SF	
Garage	15381 SF	
Grand total	217698 SF	

11195 SF Open Space

Open Space Required: 60 UNITS X 106 SF = 6,360 SF Residential Average Unit Size - 3065 GSF 82 Parking Spaces (Lifts) / 60 Required





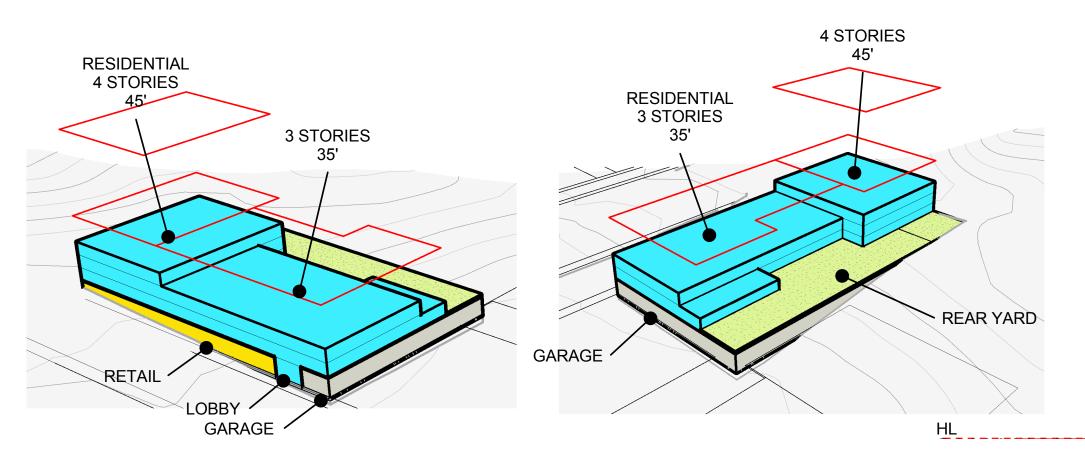






FULL ENVELOPE BUILD OUT NC-3

 $\frac{08/2015}{2}$ PROTOTYPE 12

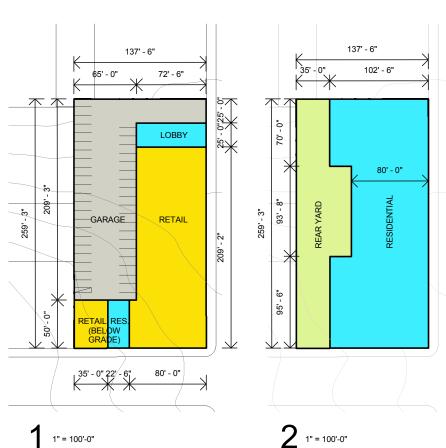


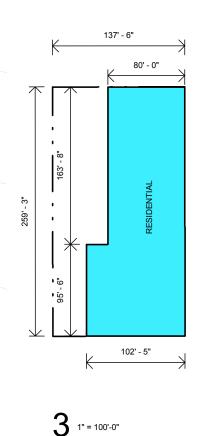
MARKET BASE CASE

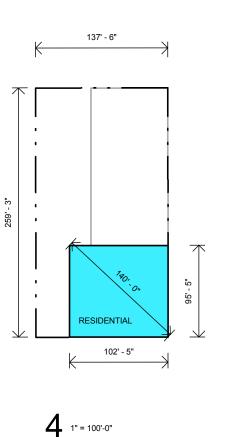
Retail 18431 SF 60053 SF Residential Garage 15381 SF Grand total 93864 SF

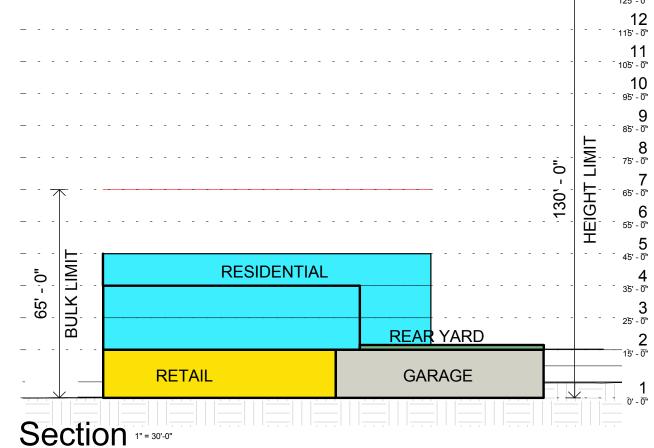
11195 SF Open Space

Open Space Required: 60 UNITS X 106 SF = 6,360 SF Residential Average Unit Size - 1000 GSF 82 Parking Spaces (Lifts) / 60 Required







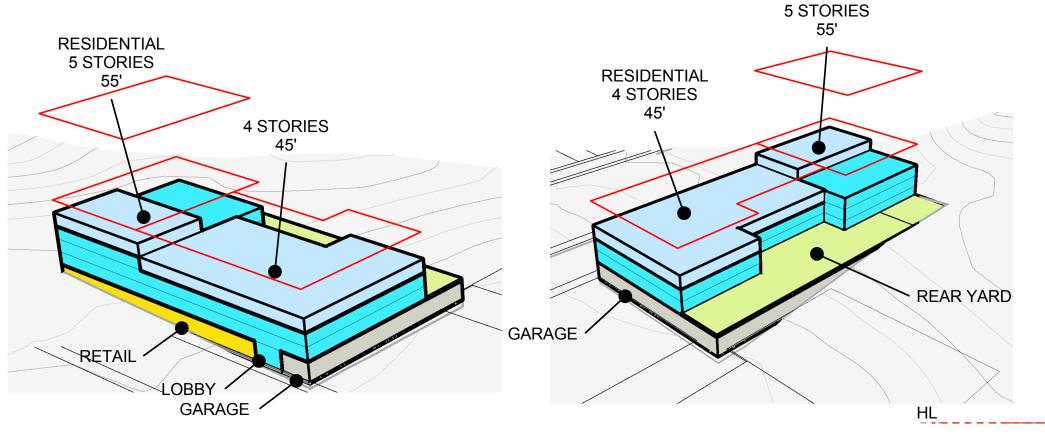






MARKET INFORMED BASE CASE NC-3

PROTOTYPE $\frac{12}{2.1}$



MARKET +	35% AREA
Garage	15381 SF
Residential	81079 SF
Retail	18431 SF
Grand total	114890 SF

Residential Increase	19450 SF
Residential	61629 SF
	81079 SF

Open Space 11195 SF

Open Space Required: 81 UNITS X 106 SF = 8,586 SF Residential Average Unit Size - 1000 GSF 82 Parking Spaces (Lifts) / 81 Required

