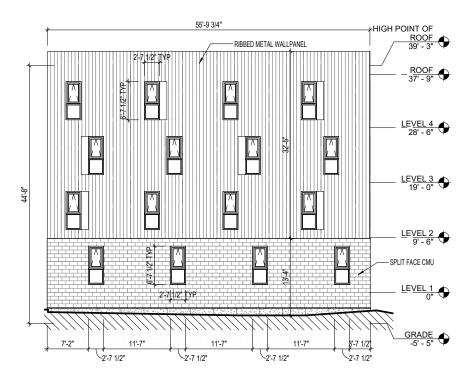


PREVIOUS AND CURRENT ELEVATIONS

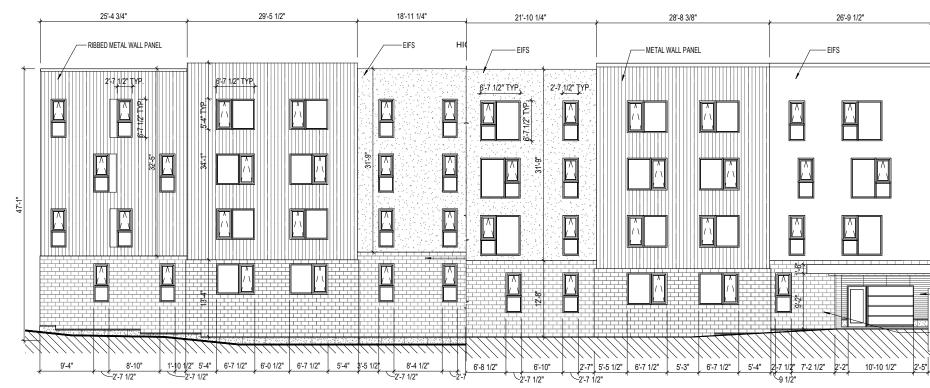
CENTRIA INTERCEPT PANEL AT -WINDOWS, "COLONIAL RED"

ATAS METAFOR WALL PANEL, -

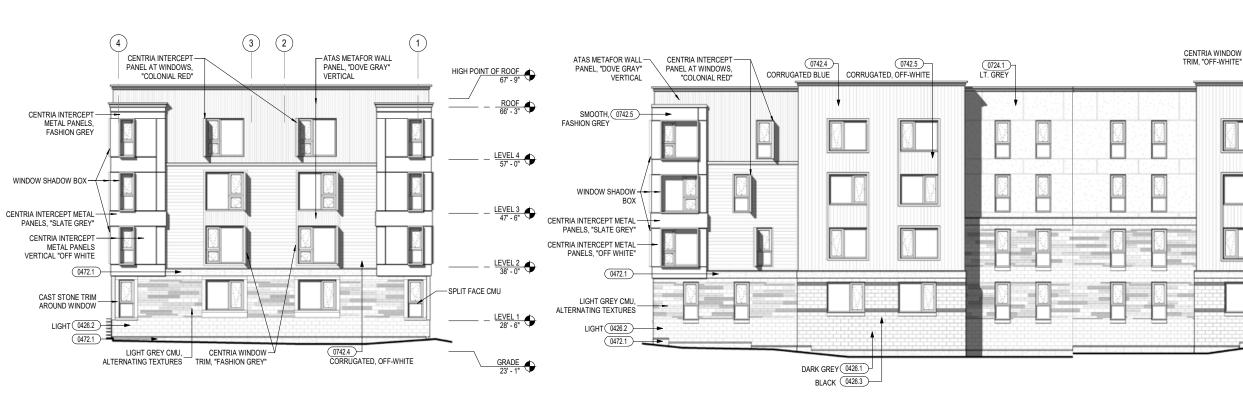
"DOVE GRAY" VERTICAL



PREVIOUS WEST ELEVATION - MAIN ST



▶ PREVIOUS WEST ELEVATION - COURTYARD





CURRENT WEST ELEVATION - COURTYARD



- METAL PANEL

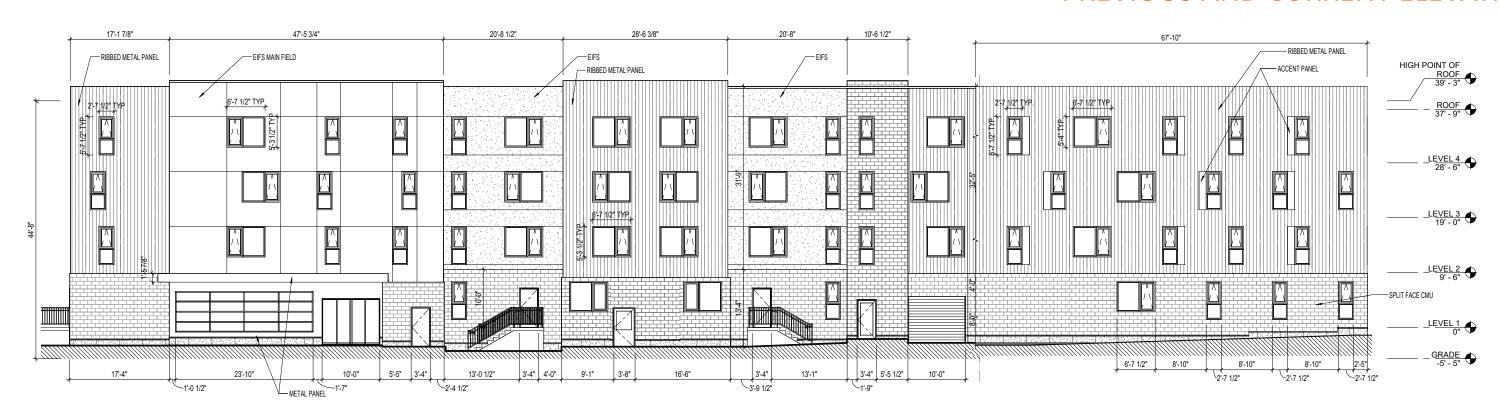
(0472.1)

FASHION GREY 0724.1

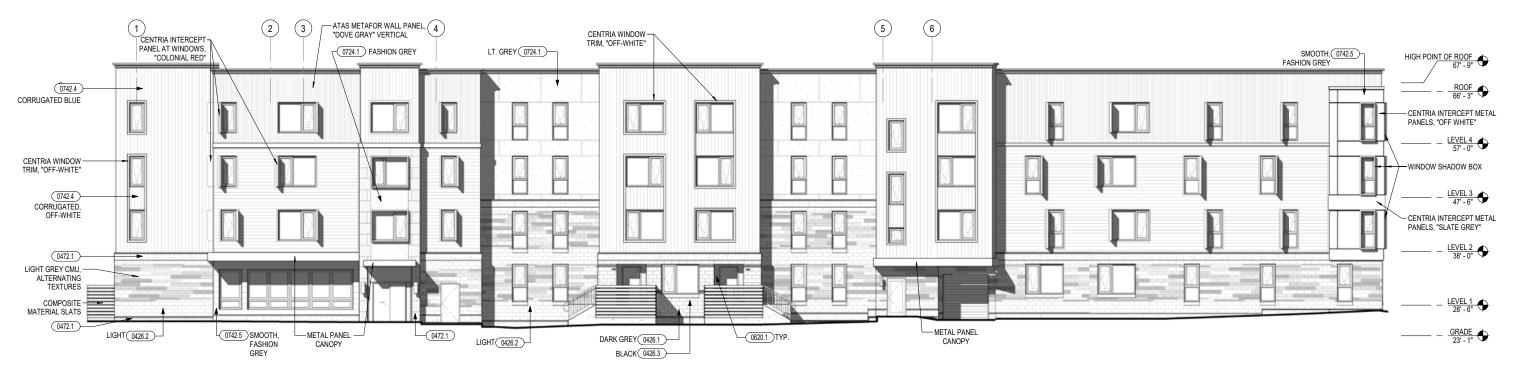
4

HIGH POINT OF ROOF 67'-9"

PREVIOUS AND CURRENT ELEVATIONS



▶ PREVIOUS EAST ELEVATION - EAST ST





CURRENT EAST ELEVATION - EAST ST



Added larger windows at prominent Restricted use of EIFS to less prominent Main Street views to give more formality recessed bays, relegated only to upper floors and continuity to Main Street CENTRIA INTERCEPT PANEL AT-WINDOWS, "COLONIAL RED" (4) CENTRIA WINDOW ATAS METAFOR WALL PANEL, ATAS METAFOR WALL-CENTRIA INTERCEPT 0742.4)-CORRUGATED BLUE 0742.5 — CORRUGATED, OFF-WHITE 0724.1 LT. GREY TRIM, "OFF-WHITE" "DOVE GRAY" VERTICAL PANEL, "DOVE GRAY" VERTICAL PANEL AT WINDOWS, "COLONIAL RED" HIGH POINT OF ROOF 67'-9" SMOOTH, 0742.5)-FASHION GREY ROOF 66' - 3" ______LEVEL 4 WINDOW SHADOW _____LEVEL 3 CENTRIA INTERCEPT METAL CENTRIA INTERCEPT METAL LEVEL 2 LIGHT GREY CMU. LIGHT (0426.2) 0472.1 FASHION GREY 0724.1)-DARK GREY 0426.1 BLACK 0426.3 Additional detailing at windows to create a second layer of scale while increasing presence of windows **▶** WEST ELEVATION (COURTYARD)

(3)

CENTRIA INTERCEPT

PANEL AT WINDOWS, "COLONIAL RED"

CENTRIA INTERCEPT METAL PANELS, FASHION GREY

WINDOW SHADOW BOX

CENTRIA INTERCEPT METAL-PANELS, "SLATE GREY"

CENTRIA INTERCEPT-METAL PANELS

VERTICAL "OFF WHITE

0472.1

LIGHT 0426.2

(2)

-ATAS METAFOR WALL

200

0742.4 CORRUGATED, OFF-WHITE

HIGH POINT OF ROOF

LEVEL 4

LEVEL 3 47' - 6"

PANEL, "DOVE GRAY

VERTICAL

器器

BUILDING 4 ELEVATIONS

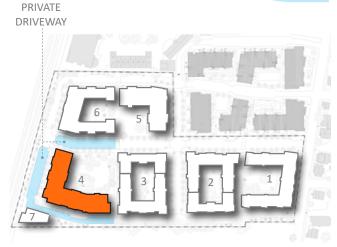
More developed courtyard building entry to activate building corner and strengthen visual cues. Added roof terrace to enhance public connection to courtyard and provide community space.

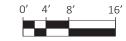


Facade subdivided in three horizontal layers, "base, middle, top"

Window fins to enhance scale of opening

More developed detailing at masonry to add visual depth and interest







More developed building corners with importance to the

Cast stone trim around

windows to give more formality

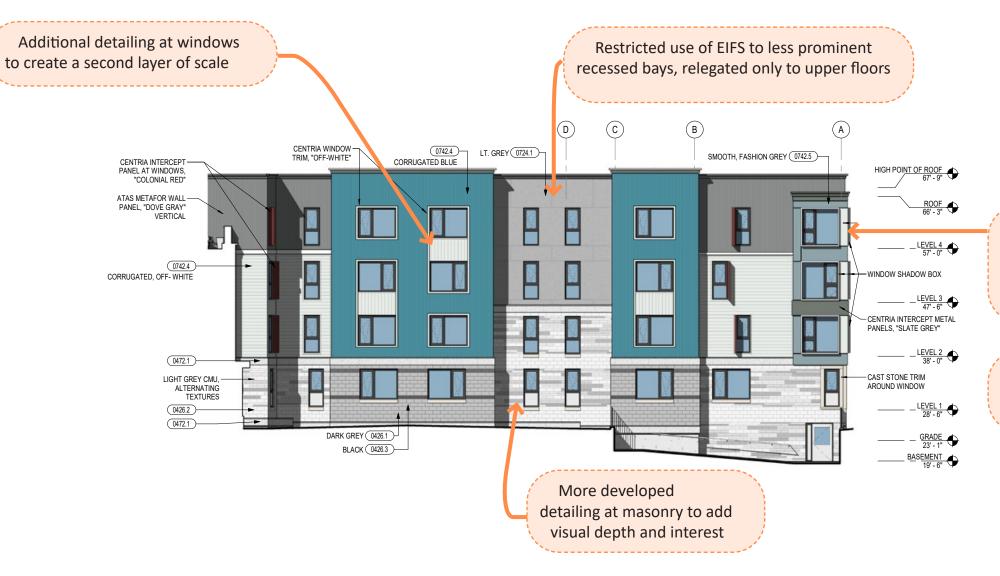
and continuity to Main Street

Main Street hierarchy

LIGHT GREY CMU,





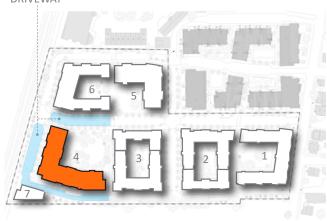


BUILDING 4ELEVATIONS

Added larger windows at prominent Main Street views to give more formality and continuity to Main Street

Facade subdivided in three horizontal layers, "base, middle, top"

PRIVATE DRIVEWAY

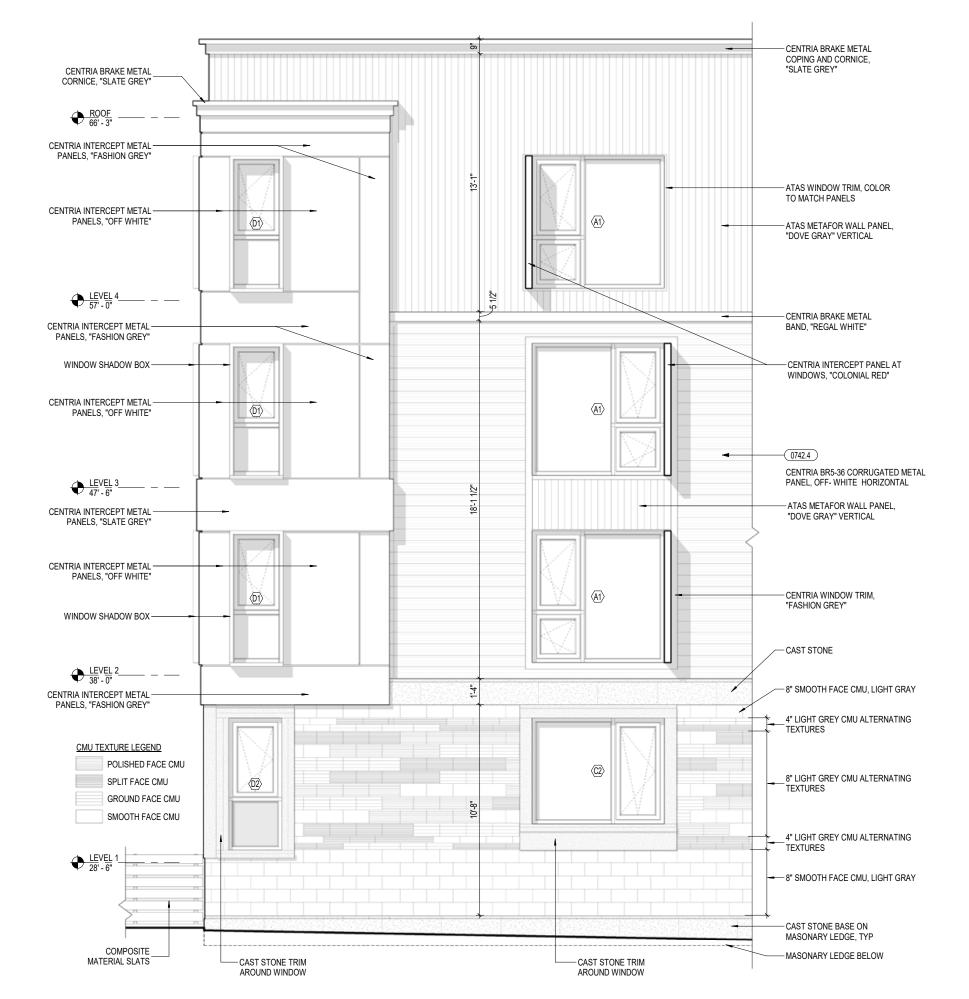




▶ NORTH ELEVATION (COURTYARD)





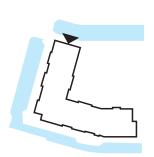


BUILDING 4ELEVATIONS

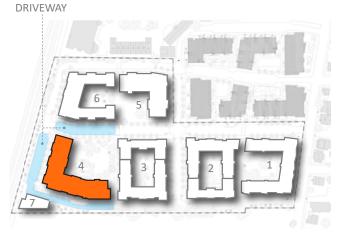
CODED NOTES

0742.4

CORRUGATED/RIBBED MTL WALL PANEL (TYPE 4) W/ EXPOSED FASTENERS



PRIVATE







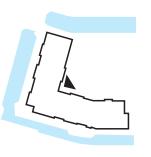
METAL RAILING, -CENTRIA BRAKE METAL-COPING AND CORNICE, "SLATE GREY" GLASS PANEL CENTRIA BRAKE METAL COPING -AND CORNICE, "OFF-WHITE" ROOF 66' - 3" 0742.4 - ATAS WINDOW TRIM, COLOR TO MATCH PANELS CENTRIA BR5-36 CORRUGATED METAL PANEL, "SLATE BLUE" VERTICAL ATAS METAFOR WALL PANEL, - ATAS METAFOR WALL PANEL, "DOVE GRAY" VERTICAL "DOVE GRAY" VERTICAL ATAS WINDOW TRIM, COLOR-TO MATCH PANELS - CENTRIA BRAKE METAL COPING AND CORNICE, "OFF-WHITE" LEVEL 4 57' - 0" - CENTRIA BRAKE METAL BAND, "REGAL WHITE" - CENTRIA INTERCEPT PANEL AT WINDOWS, "COLONIAL RED" "FASHION GRAY" 0724.1 LEVEL 3 47' - 6" CENTRIA BR5-36 CORRUGATED METAL -CENTRIA WINDOW TRIM, COLOR TO MATCH PANELS 4' X 2' CAST STONE -CMU TEXTURE LEGEND POLISHED FACE CMU SPLIT FACE CMU CAST STONE -GROUND FACE CMU SMOOTH FACE CMU 8" SPLIT FACE CMU, DARK GRAY -8" SMOOTH FACE CMU, LIGHT GRAY 4" LIGHT GREY CMU ALTERNATING TEXTURES 8" POLISHED FACE CMU, BLACK -8" SPLIT FACE CMU, DARK GRAY --8" LIGHT GREY CMU ALTERNATING TEXTURES 8" POLISHED FACE CMU, BLACK 4" LIGHT GREY CMU ALTERNATING TEXTURES LEVEL 1 8" SMOOTH FACE CMU, LIGHT GRAY 8" SPLIT FACE CMU, DARK GREY --CAST STONE BASE ON — ALUMINUM CURTAIN --- WALL MOUNT LIGHT - METAL CANOPY CAST STONE -MASONARY LEDGE, TYP TYP. FASHION GREY WINDOW SILL, TYP.

BUILDING 4 ELEVATIONS

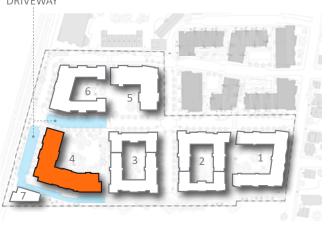
CODED NOTES

EXTERIOR INSULATION AND FINISH SYSTEM

CORRUGATED/RIBBED MTL WALL PANEL (TYPE 4) W/ EXPOSED FASTENERS











- MASONARY LEDGE BELOW

(3) 0742.4 CENTRIA BRAKE METAL-COPING AND CORNICE, CENTRIA BR5-36 CORRUGATED METAL PANEL, "SLATE BLUE" VERTICAL - CENTRIA WINDOW TRIM, "OFF-WHITE" CENTRIA BRAKE METAL COPING AND CORNICE, CENTRIA BRAKE METAL -COPING AND CORNICE, "SLATE GREY" "OFF-WHITE" "SLATE GREY" ATAS METAFOR WALL PANEL, "DOVE GRAY" VERTICAL ROOF ______ -0724.1 LIGHT GREY ATAS WINDOW TRIM, COLOR TO MATCH PANELS CENTRIA INTERCEPT PANEL AT-WINDOWS, "COLONIAL RED" + LEVEL 4 ---CENTRIA BRAKE METAL BAND, "REGAL WHITE" CENTRIA WINDOW TRIM, COLOR TO MATCH PANELS (C2) 0742.4 CENTRIA BR5-36 CORRUGATED METAL PANEL, OFF- WHITE HORIZONTAL 0724.1 FASHION GRAY CENTRIA WINDOW TRIM, COLOR TO MATCH PANELS (F5) (F5) CENTRIA INTERCEPT METAL PANEL, "SLATE BLUE" -4' X 2' CAST STONE 8" SMOOTH FACE CMU, LIGHT GRAY--8" SMOOTH FACE CMU, LIGHT GRAY 4" LIGHT GREY CMU ALTERNATING TEXTURES 4" LIGHT GREY CMU ALTERNATING TEXTURES 8" LIGHT GREY CMU — ALTERNATING TEXTURES 8" LIGHT GREY CMU 4" LIGHT GREY CMU-ALTERNATING TEXTURES (T2-2ZZ) (\$T2-2XX) LEVEL 1 28' - 6" 4" LIGHT GREY CMU ALTERNATING TEXTURES 8" SMOOTH FACE CMU, -LIGHT GRAY LIGHT GRAY CAST STONE BASE ON MASONARY LEDGE, TYP -0742.1 SMOOTH, FASHION GREY MASONARY LEDGE BELOW -- ALUMINUM CURTAIN -WALL MOUNT LIGHT -CENTRIA INTERCEPT METAL PANEL,

BUILDING 4 ELEVATIONS

CODED NOTES

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

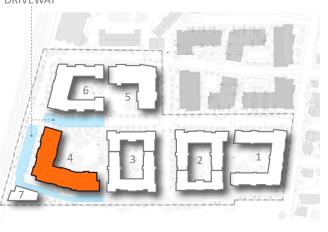
FLAT MTL WALL PANEL (TYPE 1) W/ 0742.1

CONCEALED FASTENERS

CORRUGATED/RIBBED MTL WALL PANEL (TYPE 4) W/ EXPOSED FASTENERS











BUILDING 4 ELEVATIONS

SPLIT FACE CMU (CMU1) (BY SECTION 040001)

CODED NOTES

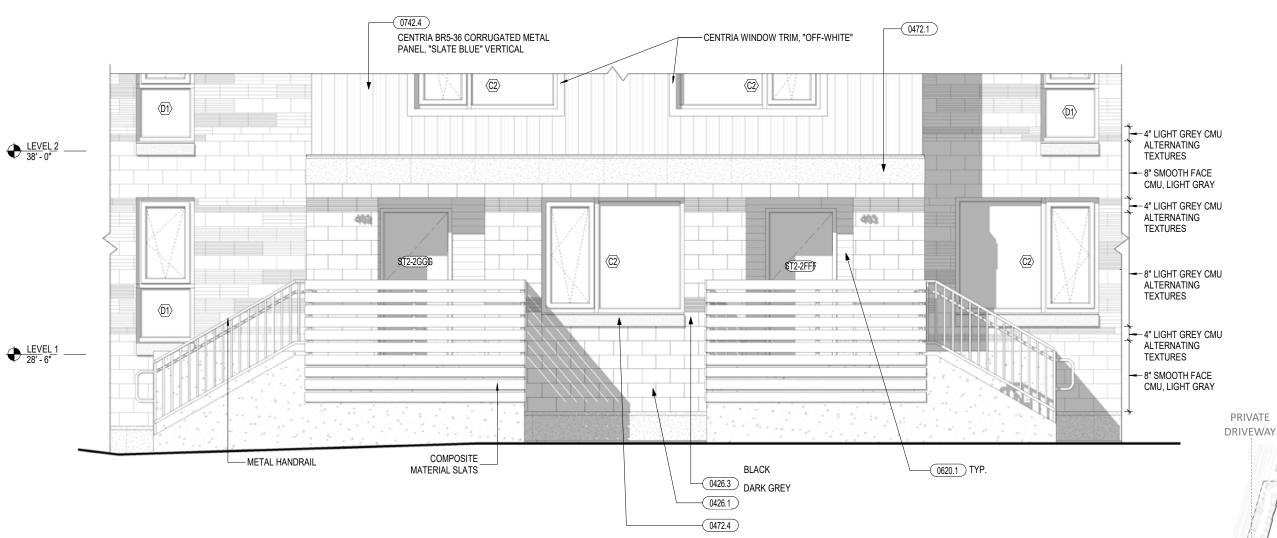
0426.1

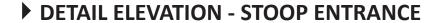
PRIVATE

0426.3 POLISHED FACE CMU (CMU3) (BY SECTION 0472.1 CAST STONE TRIM UNIT (BY SECTION 040001)

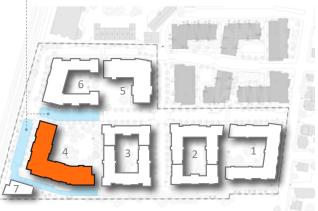
0472.4 CAST STONE SILL (BY SECTION 040001) 0620.1 SHIPLAP SIDING - TRANSPARENT FINISH CORRUGATED/RIBBED MTL WALL PANEL (TYPE 0742.4

4) W/ EXPOSED FASTENERS













BUILDING 4 PERSPECTIVES











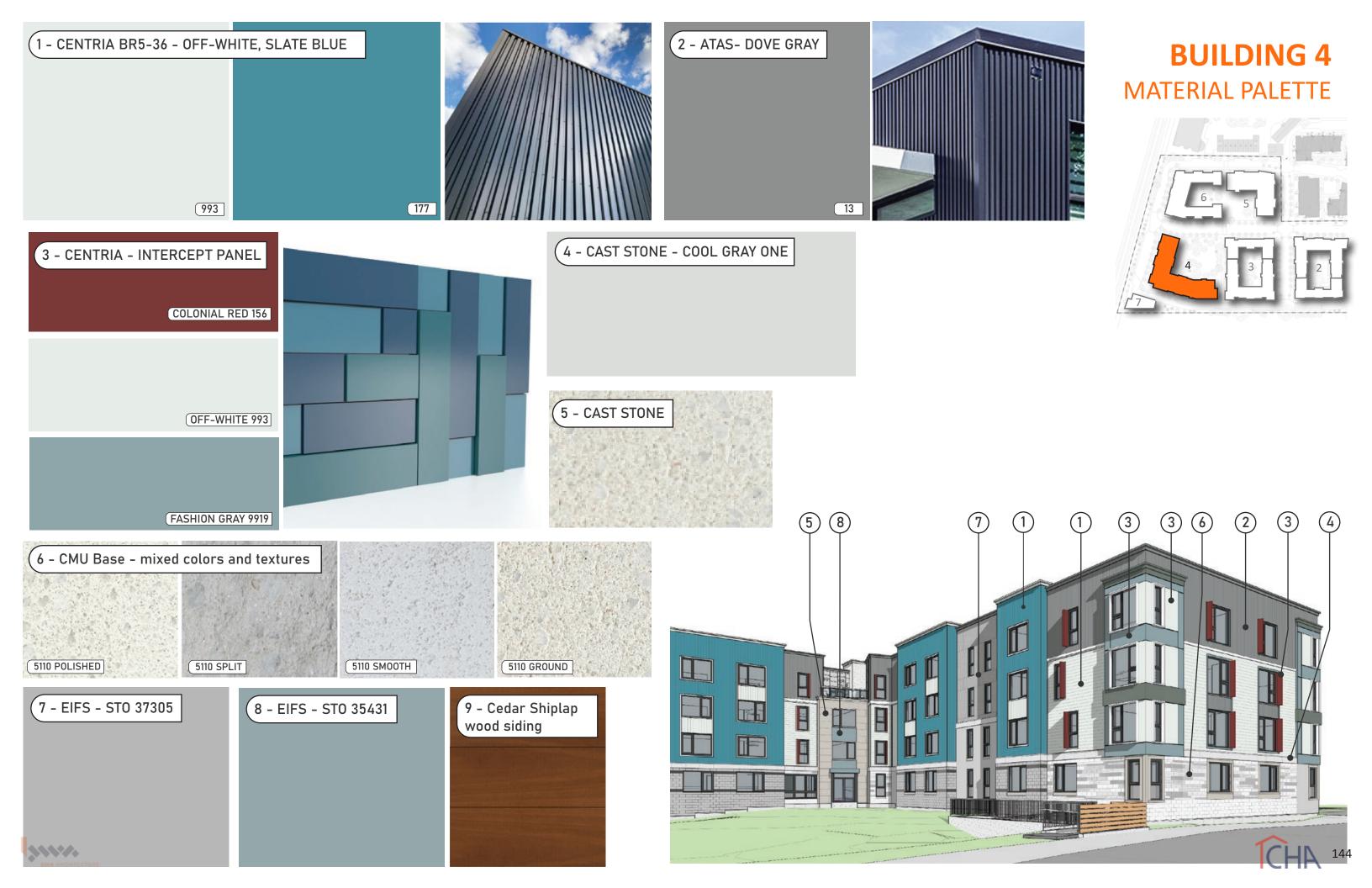


BUILDING 4 PERSPECTIVES













Centria Accents



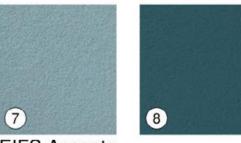
Centria Main Field 2



2 2

Building 4 West Elevation - Courtyard Entry

Centria BR5-36 Sample



EIFS Accents



EIFS Main Field







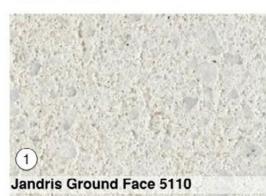
Wood at Unit Entry Niches



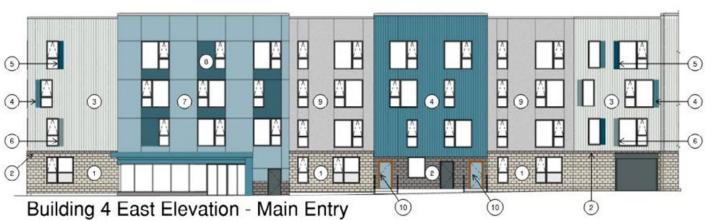
Centria Main Field 1



CMU Accent

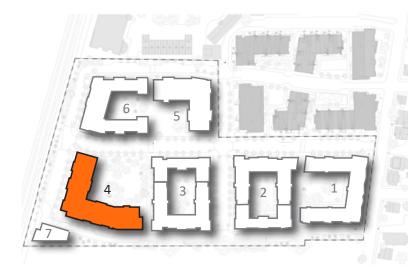


CMU Main Field



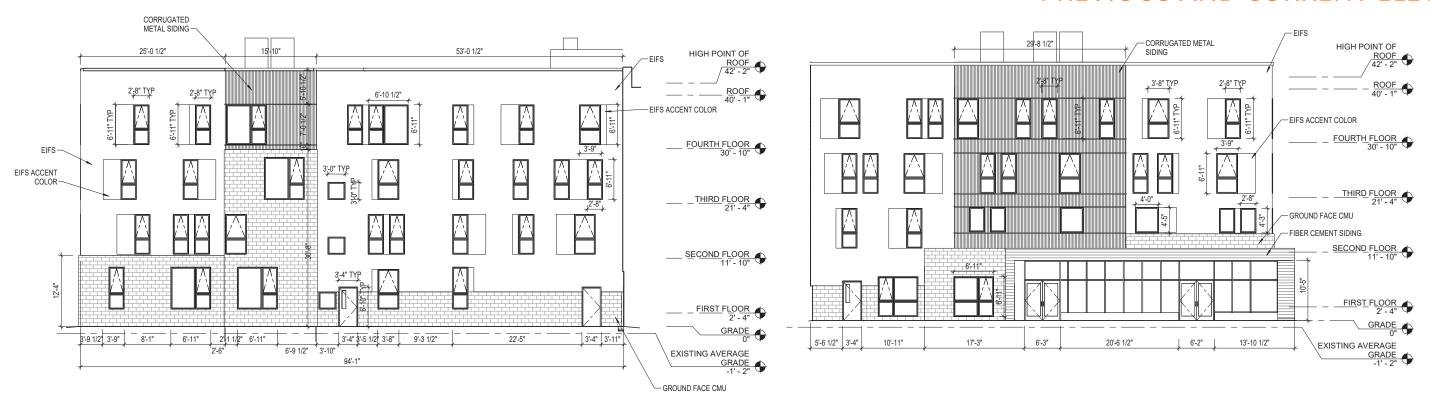


BUILDING 4 PREVIOUS MATERIAL PALETTE





PREVIOUS AND CURRENT ELEVATIONS

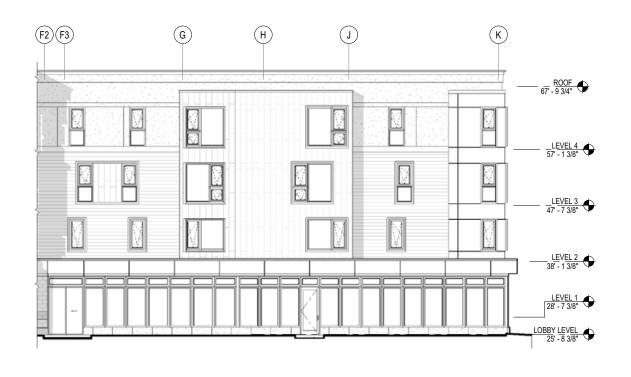


PREVIOUS EAST ELEVATION (COURTYARD)



CURRENT EAST ELEVATION - COURTYARD

▶ PREVIOUS SOUTH ELEVATION (COURTYARD)

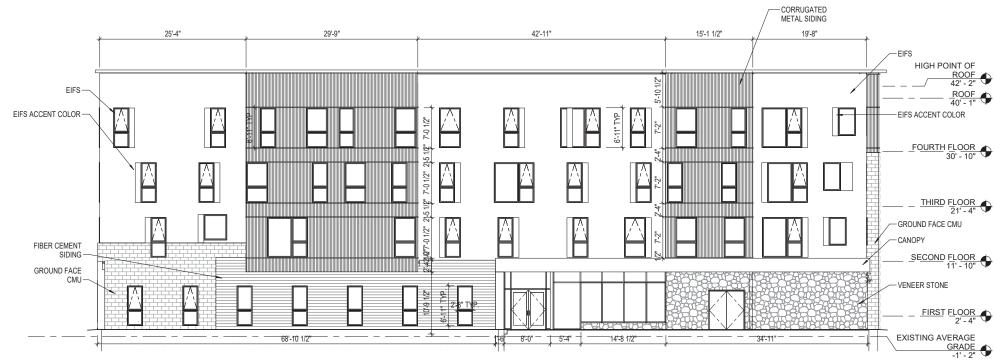




CURRENT SOUTH ELEVATION (COURTYARD)

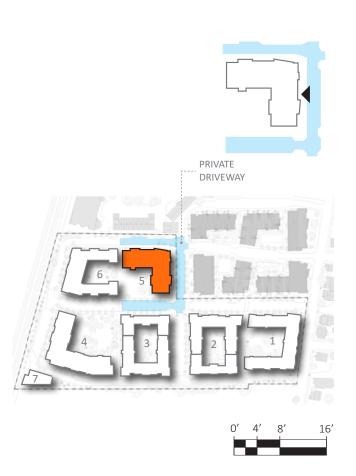


PREVIOUS AND CURRENT ELEVATIONS



▶ PREVIOUS NORTH ELEVATION





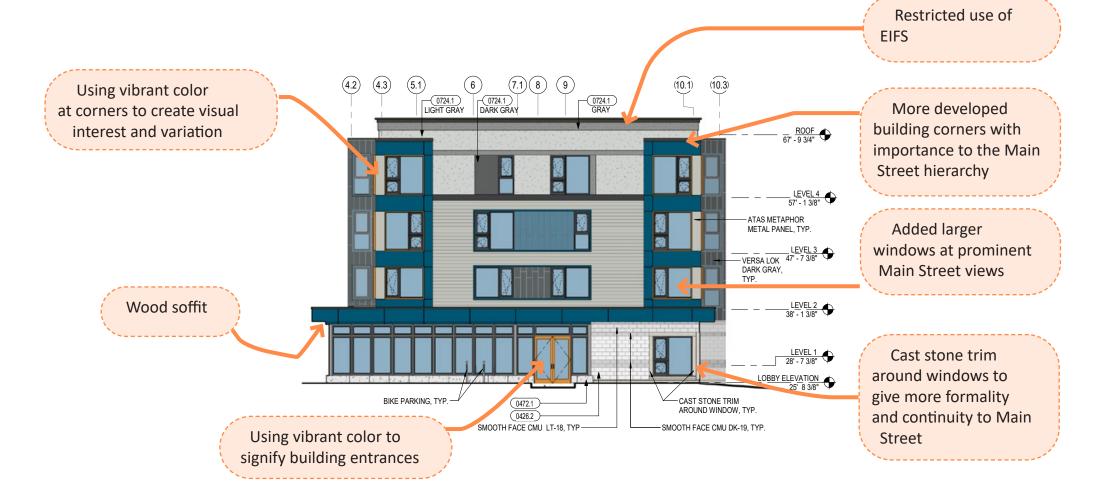








ELEVATIONS

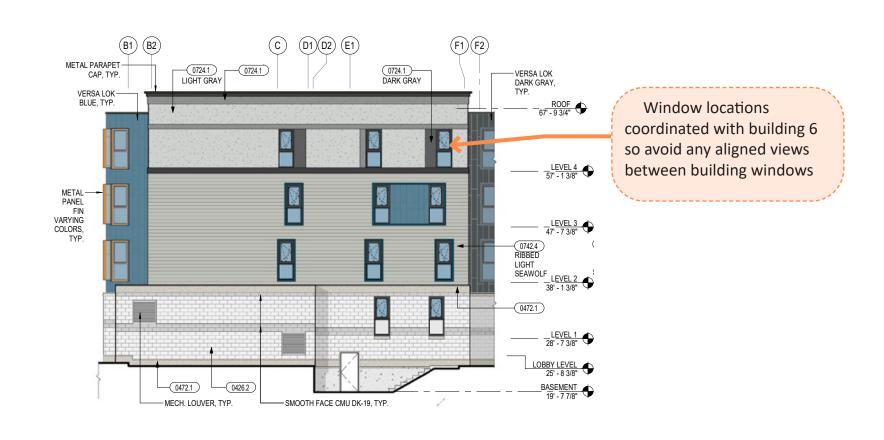


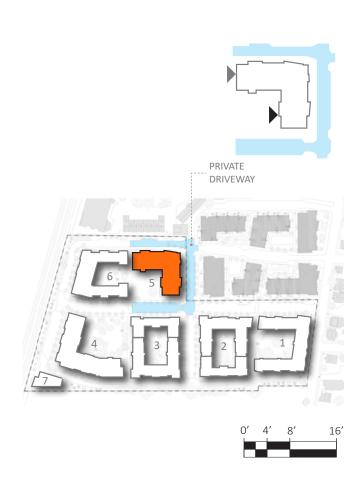


BUILDING 5ELEVATIONS



▶ SOUTH ELEVATION (COURTYARD)









Vibrant colored glazing used to signify common

building entrance

BUILDING 5 0724.1 — GRAY 5'-6 3/8" 8'-6 1/2" 0724.1 — LIGHT GRAY ATAS METAPHOR -VERTICAL WALL (K)(F2) (F1) (E2) (D4)(D3) D1 (B1) (G) **ELEVATIONS** VERSA LOK – DARK GRAY, 0724.1 — DARK GRAY VERSA LOK -BLUE, TYP. ROOF 67' - 9 3/4" METAL PANEL FIN Facade subdivided VARYING COLORS, TYP. in three horizontal layers, LEVEL 4 57' - 1 3/8" "base, middle, top" 0742.4 RIBBED LIGHT SEAWOLF, TYP. LEVEL 3 47' - 7 3/8" ATAS METAPHOR-METAL PANEL, TYP. __LEVEL 2 ENTRY CANOPY: -FLAT METAL PANEL CLADDING -STANDING SEAM ROOF -GWB LEVEL 1 28' - 7 3/8" CEILING, TYP. COMPOSITE MATERIAL SLATS, TYP. 0472.1 CURTAIN WALL SYSTEM, TYP. SMOOTH FACE CMU DK-19, TYP. -SMOOTH FACE CMU LT-18, TYP-SMOOTH FACE CMU LT-18, TYP-Wood soffit ▶ NORTH ELEVATION Restricted use of EIFS VERSA LOK—DARK GRAY, TYP. (10.3) 8 (7.2) 4.2 (4.1) 3.1 1.2 (10.2)(10.1) 2 VERSA LOK — BLUE, TYP. 0724.1 LIGHT GRAY 0724.1 0724.1 ORAY GRAY ROOF 67' - 9 3/4" PRIVATE ATAS METAPHOR DRIVEWAY VERTICAL WALL PANEL- GRAY, TYP LEVEL 4 57' - 1 3/8" METAL PANEL FIN-VARYING COLORS, LEVEL 3 47' - 7 3/8" 0742.4 — RIBBED LIGHT SEAWOLF, TYP. LEVEL 2 38' - 1 3/8" 0472.1 LOBBY LEVEL 25' - 8 3/8" -COMPOSITE MATERIAL SLATS, TYP. 0426.2 MECHANICAL LOUVER, TYP. BASEMENT 19' - 7 7/8" SMOOTH FACE CMU DK-19, TYP. — Added additional detailing at bike Relocated transformer room ramp, visually tying back to the vault off of Main Street **▶** WEST ELEVATION State development unit entrances



(10.1) (10.2) (6) (7.2)(8) 9 (10.3) METAL PARAPET CAP, TYP. EIFS CORNICE, TYP. ROOF 67' - 9 3/4" EIFS REVEAL, TYP. -EXTERIOR INSULATION AND FINISH-SYSTEM (EIFS), TYP. $\langle A1 \rangle$ (D) (A1) - LEVEL 3 47' - 7 3/8" INTERLOCKING PANELS, TYP. -CENTRIA BR5-36 METAL PANEL -HORIZONTAL. TYP. //ETAL PANEL "FIN", COLORS VARY, TYP. **(**2\$ CENTRIA WINDOW TRIM, -COLOR TO MATCH PANELS, TYP. METAL PARAPET CAP, TYP. - LEVEL 2 ENTRY CANOPY: -FLAT METAL PANEL CLADDING STANDING SEAM ROOF -GWB CEILING, TYP. LUMINUM CURTAIN WALL SYSTEM, TYP. -

BUILDING 5ELEVATIONS







CASTE STONE, TYP. -

-8" GROUND FACE CMU, TYP.



1.2 2 3.1 METAL PARAPET CAP, TYP. -EIFS CORNICE, TYP. EIFS REVEAL, TYP. -EXTERIOR INSULATION AND -FINISH SYSTEM (EIFS), TYP. (D1) EVEL 4 57' - 1 3/8' CENTRIA BR5-36 METAL PANEL HORIZONTAL. TYP. METAL PANEL "FIN", COLORS VARY, TYP. -CENTRIA WINDOW TRIM, -COLOR TO MATCH PANELS, TYP. LEVEL 3 47' - 7 3/8' INTERLOCKING PANELS, TYP. -CENTRIA WINDOW TRIM, -LEVEL 2 38' - 1 3/8" CASTE STONE, TYP. 8" GROUND FACE CMU, TYP. LEVEL 1 28' - 7 3/8" (5B02A)

BUILDING 5ELEVATIONS



▶ DETAIL ELEVATION EAST - COURTYARD

- CAST STONE WINDOW SILL, TYP.



G (F2) (D4)(E1) E2 (F1) **BUILDING 5 ELEVATIONS** METAL PARAPET CAP, TYP. EIFS CORNICE, TYP. -ROOF 67' - 9 3/4" METAL PARAPET CAP, TYP. EIFS REVEAL, TYP. EXTERIOR INSULATION AND FINISH-SYSTEM (EIFS), TYP. (A1) CENTRIA BR5-36 METAL PANEL -HORIZONTAL. TYP. METAL PANEL "FIN", COLORS VARY, TYP. -(D1)__ (A1) CENTRIA WINDOW TRIM, COLOR TO-MATCH PANELS, TYP. - LEVEL 3 47' - 7 3/8" INTERLOCKING PANELS, TYP. PRIVATE **(**21**) (**21**) (**21**)** DRIVEWAY -METAL PARAPET CAP, TYP. CASTE STONE, TYP. -CLADDING -STANDING SEAM ROOF -GWI 8" GROUND FACE CMU, TYP. -CASTE STONE, TYP. -ALUMINUM CURTAIN WALL SYSTEM, TYP.



BUILDING 5 PERSPECTIVES





BUILDING 5 PERSPECTIVES





BUILDING 5 PERSPECTIVES





1 - CENTRIA BR5-36



2 - ATAS- DOVE GRAY



BUILDING 5

CURRENT MATERIAL PALETTE

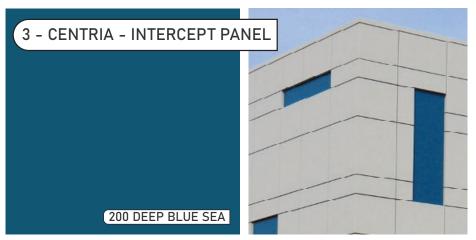


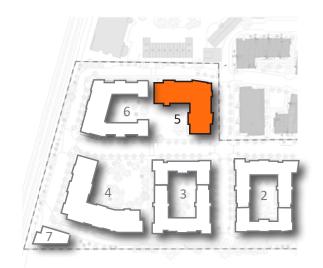






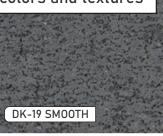




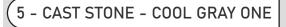


6 - CMU Base - mixed colors and textures





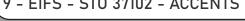














10 - SHADOW BOX



GFCMU - Jandris - Main Field GFCMU - Accent

CENTRIA BR5-36 RIBBED PANEL



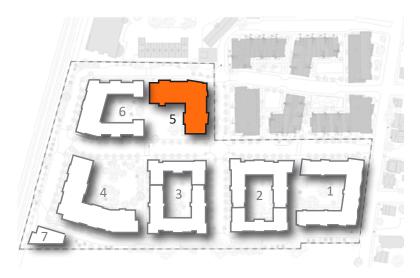
STO EIFS MAIN FIELD

31309 🔳 87 C1

STO EIFS ACCENT COLOR

33400 1 10 C3

BUILDING 5PREVIOUS MATERIAL PALETTE







BUILDING 6ELEVATIONS AND MATERIALS



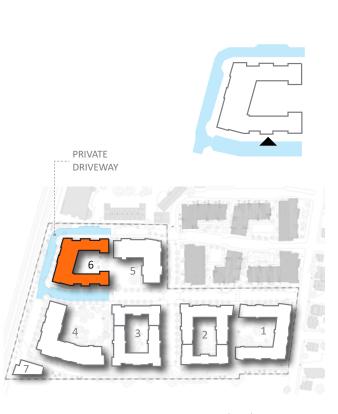


PREVIOUS AND CURRENT ELEVATIONS



PREVIOUS EAST ELEVATION - MAIN ST







CURRENT EAST ELEVATION - MAIN ST

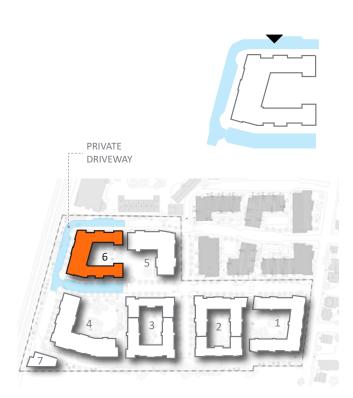




EIFS (STOTHERM CI) — 142'-9" 27'-7" 30'-11" 30'-2 1/2" PREVIOUS AND CURRENT ELEVATIONS — HIGH POINT 5'-7 1/2" 5'-7" OF ROOF 7'-10 1/2" 5'-7" 2'-8" 5'-7" 2'-11 39'-5" 6'-7 1/2" , 6'-6" 26'-10" 5 1/2" 7'-6" 9'-11" 2'-8" TYP_c EXPOSED FASTENER (NICHIHA ILLUMINATION) FIBER CEMENT PANEL FOURTH FLOOR 32' - 1" EXPOSED FASTENER EIFS (STOTHERM CI) THIRD FLOOR 22' - 3" SECOND FLOOR 9' - 10" GROUND FACE CMU VENEER FIRST_FLOOR 0" EXISTING AVERAGE 6'-8" 6'-8" 3'-7" 3'-4" 3'-4" 3'-10 1/2" 5'-4" 26'-1" 9'-11 1/2" 4'-0" 3'-6" 5'-4" 6'-10" 3'-4" 9'-2" 1'-2" 1'-2 1/2" 1'-2" (EL. 22.40') 14'-5 1/2" 55'-8" 143'-6"

PREVIOUS WEST ELEVATION - WEST ST





BUILDING 6







Additional detailing of windows at Main St only to create a second layer of scale while adding distinct character and window presence 0746.1 — RIBBED, C2 SMOOTH, C1 (0746.1) RIBBED, C3 0746.1 SMOOTH, C4 0746.1

Restricted use of EIFS to less prominent recessed bays, relegated only to upper floors

Added cornice to provide visual interest at roofline

More developed building corners with importance to the Main Street hierarchy



BUILDING 6 ELEVATIONS

CODED NOTES

0426.1 SPLIT FACE CMU (CMU1) (BY SECTION 040001) 0426.2 GROUND FACE CMU (CMU2) (BY SECTION

0426.3 POLISHED FACE CMU (CMU3) (BY SECTION

0472.1 CAST STONE TRIM UNIT (BY SECTION 040001) FIBER-CEMENT PANEL SIDING TYPE 1

COLOR KEY

- FIBER CEMENT FACADE COLORS C1: BM 997 BAJA DUNES C2: BM HC-84 ELMIRA WHITE
- C3: BM 2005-10 RED ROCK C4: BM 1202 BAKED TERRA COTTA

- C4. BM 1202 BARED TERRA COTTA
 CMU VENEER COLORS:
 C1: WHITE, GROUND FACE JANDRIS 5110-G
 C2: GREY, GROUND FACE JANDRIS W-60
 C3: GREY, SPLIT FACE JANDRIS W-60
 C4: BLACK, POLISHED FACE JANDRIS 4540
 EIFS COLORS:
- C1: STO 32440

EAST ELEVATION - MAIN ST

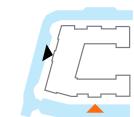
Window has less presence on side streets to enhance prominence of Main St at primary spine

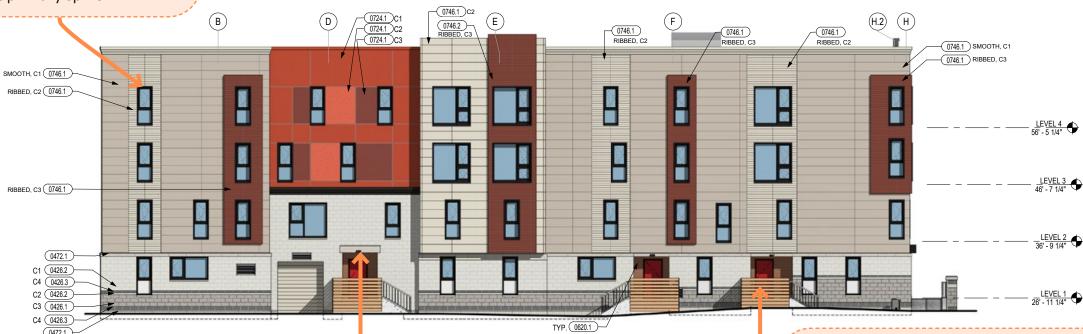
Prominent building entrance featuring material and color change, benches, large lighting fixtures, and wood screen to signal entry

Added sconces at doors on Main St to help distinguish and formalize this street relative to side streets

More large windows on Main St relative to other facades

Cast stone trim around windows to give more formality and continuity to Main Street

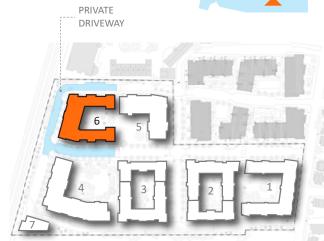


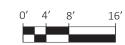


SOUTH ELEVATION - SOUTH ST

Cast stone lintel only on side streets

Added additional wood detailing at unit entries to add additional warmth while visually connecting to JP Fed and JP State









WEST ELEVATION - WEST ST



BUILDING 6 ELEVATIONS

CODED NOTES

SPLIT FACE CMU (CMU1) (BY SECTION 040001) 0426.2 GROUND FACE CMU (CMU2) (BY SECTION

0426.3 POLISHED FACE CMU (CMU3) (BY SECTION

0472.1 CAST STONE TRIM UNIT (BY SECTION 040001) FIBER-CEMENT PANEL SIDING TYPE 1

COLOR KEY

FIBER CEMENT FACADE COLORS:
 C1: BM 997 BAJA DUNES
 C2: BM HC-84 ELMIRA WHITE

C3: BM 2005-10 RED ROCK C4: BM 1202 BAKED TERRA COTTA

C4. BM JOZE BANED FERRA COTTA

C4. DM J VENEER COLORS:
C1: WHITE, GROUND FACE - JANDRIS 5110-G
C2: GREY, GROUND FACE - JANDRIS W-60
C3: GREY, SPLIT FACE - JANDRIS W-60
C4: BLACK, POLISHED FACE - JANDRIS 4540

5 EIFS COLORS:

C1: STO 32440 C2: STO 32401 C3: STO 33240







BUILDING 6 ELEVATIONS

0426.2 GROUND FACE CMU (CMU2) (BY SECTION

0426.3 POLISHED FACE CMU (CMU3) (BY SECTION

0472.1 CAST STONE TRIM UNIT (BY SECTION 040001)

FIBER-CEMENT PANEL SIDING TYPE 1

1. FIBER CEMENT FACADE COLORS:

CMU VENEER COLORS:
 C1: WHITE, GROUND FACE - JANDRIS 5110-G

CODED NOTES SPLIT FACE CMU (CMU1) (BY SECTION 040001)

COLOR KEY

C1: BM 997 BAJA DUNES C2: BM HC-84 ELMIRA WHITE

C3: BM 2005-10 RED ROCK C4: BM 1202 BAKED TERRA COTTA

C2: GREY, GROUND FACE - JANDRIS W-60
C3: GREY, SPLIT FACE - JANDRIS W-60
C4: BLACK, POLISHED FACE - JANDRIS 4540
5 EIFS COLORS:

C1: STO 32440 C2: STO 32401 C3: STO 33240



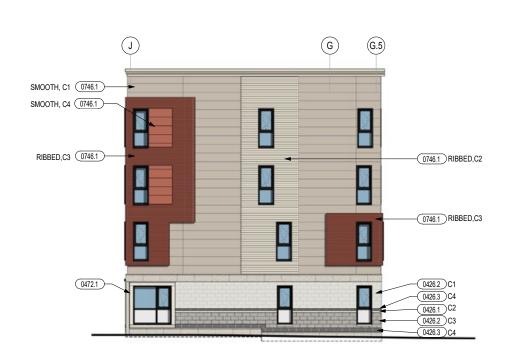
▶ NORTH ELEVATION - COURTYARD

▶ WEST ELEVATION - COURTYARD

(8)

86

0746.1 RIBBED, C3



200

湯湯

28

-0746.1 SMOOTH, C1

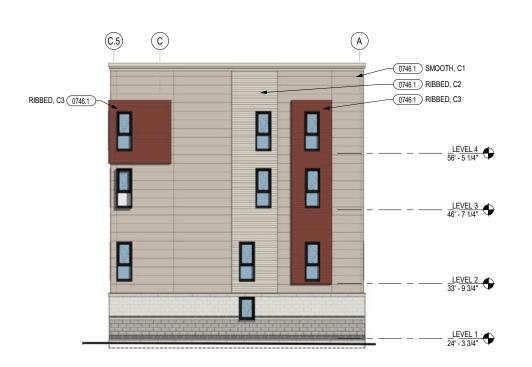
-0746.1 RIBBED, C3

0472.1 33' - 9 3/4"

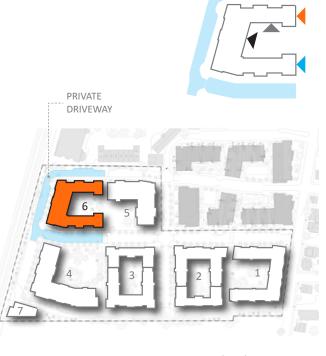
9

10

NORTH ELEVATION - EAST WING



NORTH ELEVATION - WEST WING







(2) (3) (3.2) - SEALANT AT HORIZONTAL PANELEXPANSION JOINTS RIBBED, C2 0746.1 0746.1 RIBBED, C3 -0746.1 SMOOTH, C1 €14 (D1) (01) -3" BREAK METAL REVEAL -PREFINISHED METAL SURROUND 0746.1 SMOOTH, C4 -0746.1 C4 -0746.1 RIBBED, C3 (01) €1≱ (D1) €14 (F2) €14 (D1) " PRE-FORMED OUTSIDE -METAL CANOPY CEMENT CORNER, TYP. SS THROUGH-WALL -SS THROUGH-WALL FLASHING, TYP. -FLASHING, TYP. CAST STONE WAINSCOT -16" CAST STONE WAINSCOT STEEL PIPE RAILS, AINT RED; BM 2005-10 8"X8" CAST STONE CORNER -C1 - GROUND FACE CMU - 1 COURSE 4" POLISHED CMU, C4 -1 COURSE 4" GROUND FACE CMU, -3 COURSES 8" SPLIT FACE CMU, -1 COURSE 8" POLISHED FACE CMU, C4. TYP ABOVE CAST STONE BASE. WOOD SCREEN -8" POLISHED FACE CMU. 3/4" REVEAL IN CIP ALUMINUM SLIDING AUTOMATIC DOOR -C4. TYP AT COMMON ENTRIES - 16" CAST STONE BASE ON MASONRY LEDGE, TYP. CONC. STAIR WITH NON-

BUILDING 6 ELEVATIONS

CODED NOTES

SPLIT FACE CMU (CMU1) (BY SECTION 040001) 0426.2 GROUND FACE CMU (CMU2) (BY SECTION

0426.3 POLISHED FACE CMU (CMU3) (BY SECTION

0472.1 CAST STONE TRIM UNIT (BY SECTION 040001) FIBER-CEMENT PANEL SIDING TYPE 1 0746.1

COLOR KEY

FIBER CEMENT FACADE COLORS: C1: BM 997 BAJA DUNES C2: BM HC-84 ELMIRA WHITE

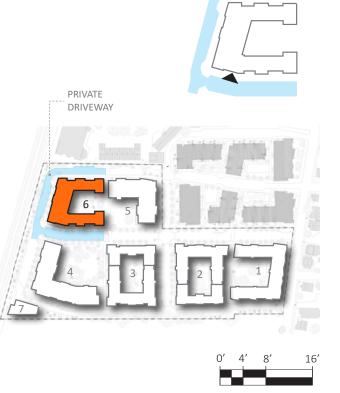
C3: BM 2005-10 RED ROCK C4: BM 1202 BAKED TERRA COTTA

C4. BM JOZE BANED FERRA COTTA

C4. DM J VENEER COLORS:
C1: WHITE, GROUND FACE - JANDRIS 5110-G
C2: GREY, GROUND FACE - JANDRIS W-60
C3: GREY, SPLIT FACE - JANDRIS W-60
C4: BLACK, POLISHED FACE - JANDRIS 4540

5 EIFS COLORS:

C1: STO 32440 C2: STO 32401 C3: STO 33240



▶ DETAIL ELEVATION - MAIN ENTRANCE





BUILDING 6 ELEVATIONS

CODED NOTES

SPLIT FACE CMU (CMU1) (BY SECTION 040001) 0426.2 GROUND FACE CMU (CMU2) (BY SECTION

0426.3 POLISHED FACE CMU (CMU3) (BY SECTION

CAST STONE TRIM UNIT (BY SECTION 040001)
FIBER-CEMENT PANEL SIDING TYPE 1 0472.1

0746.1

COLOR KEY

FIBER CEMENT FACADE COLORS:
 C1: BM 997 BAJA DUNES
 C2: BM HC-84 ELMIRA WHITE
 C3: BM 2005-10 RED ROCK
 C4: BM 1202 BAKED TERRA COTTA

C4: BM 1202 BAKED TERRA COTTA

CMU VENEER COLORS:
C1: WHITE, GROUND FACE - JANDRIS 5110-G
C2: GREY, GROUND FACE - JANDRIS W-60
C3: GREY, SPLIT FACE - JANDRIS W-60
C4: BLACK, POLISHED FACE - JANDRIS 4540
5 EIFS COLORS:
C1: STO 32440
C2: STO 32401
C3: STO 33240

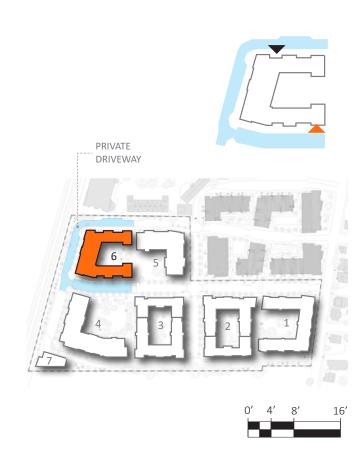




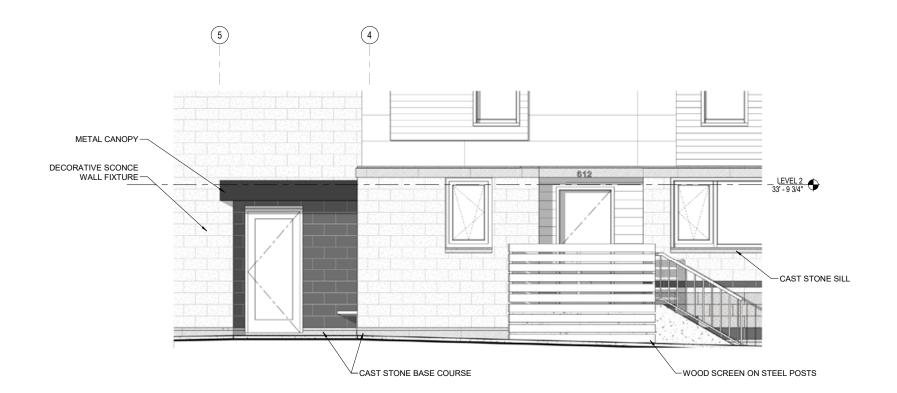


8° CAST STONE HEAD, JAMB, AND SILL AT MAIN STREET FACING WINDOWS IN MASONRY 4" SS ADDRESS NUMBERS 16" CAST STONE LINTEL 16" CAST STONE BAND LEVEL 2 33 - 9 3/4 8" CAST STONE JAMB GROUND FACE CMU POLISHED CMU 16" CAST STONE SILL BASE LEVEL 2 21" - 3 3/4" DECORATIVE WALL SCONCE FIXTURE 10" CAST STONE BASE

BUILDING 6ELEVATIONS



DETAIL ELEVATION - MAIN ST ENTRANCE







BUILDING 6PERSPECTIVES







BUILDING 6 PERSPECTIVES





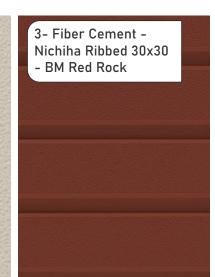






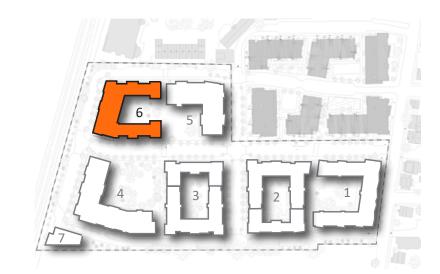
1- Fiber Cement -Nichiha Illumination 30x30 - BM Baja Dunes

2- Fiber Cement -Nichiha Illumination 30x30 - BM Elmira White



4- Fiber Cement -Nichiha Ribbed 30x30 - BM Elmira White

BUILDING 6 CURRENT MATERIAL PALETTE



5 - EIFS Sto 32440

6- EIFS Sto 32401

7 - EIFS Sto 33240

8- Fiber Cement -Nichiha Novenary Tile - BM Baked Terra Cotta

9- Fiber Cement -Nichiha Illumination 30x30 - BM Baked Terra Cotta

10 - Ground Face CMU - Jandris 5110-g

11- Split Face CMU Jandris W-60

12 - Polish Face CMU Jandris 4540

13 - Cast Stone

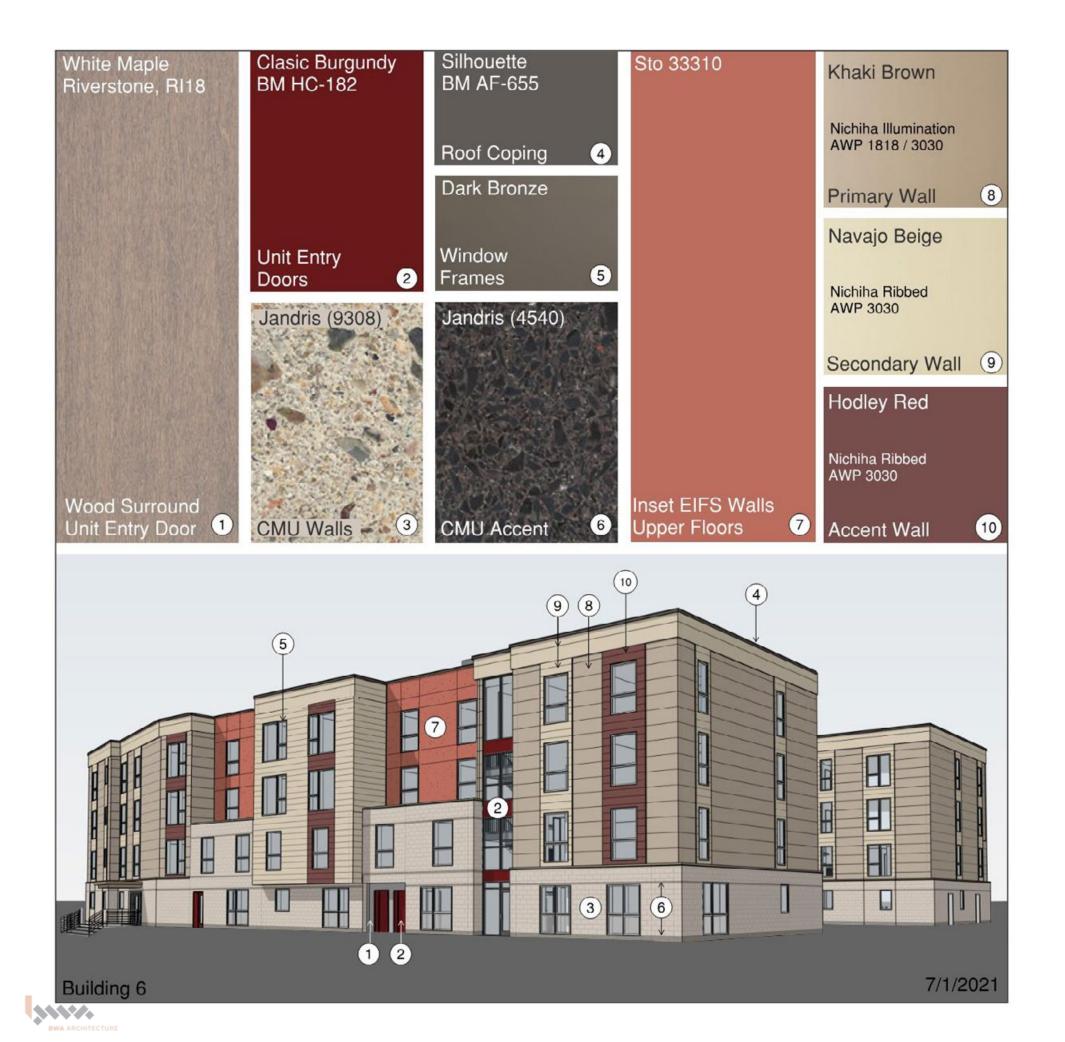
14 - Intus 'Dark Bronze' Windows and **Accent Trim**

15- Ship lap Wood Siding - Cambia

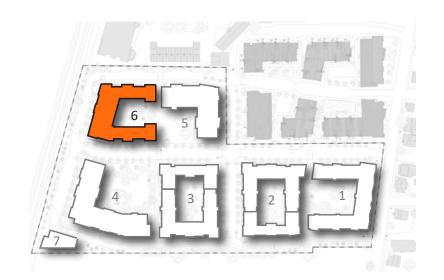






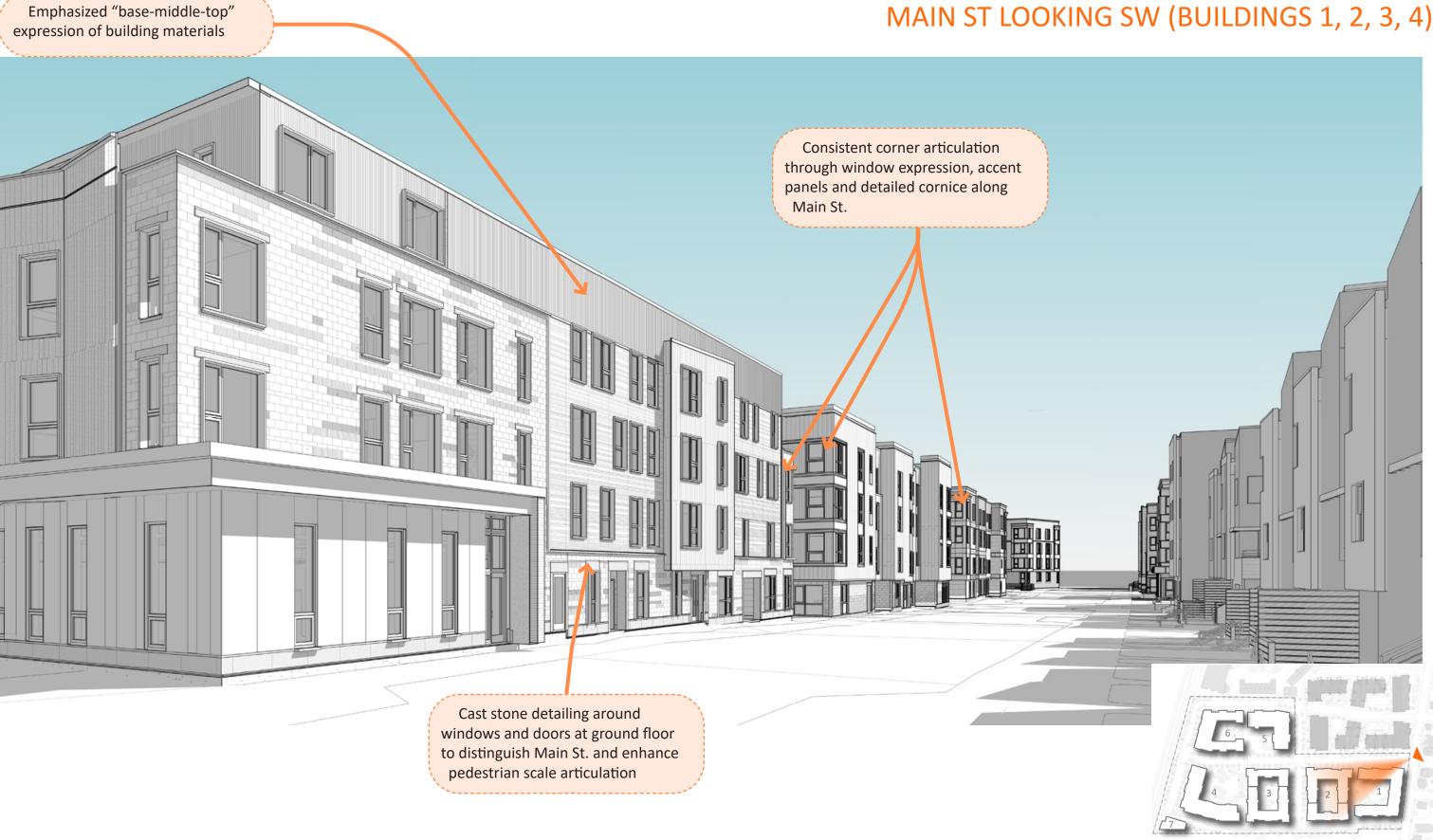


BUILDING 6PREVIOUS MATERIAL PALETTE





MAIN ST LOOKING SW (BUILDINGS 1, 2, 3, 4)





MAIN AND NORTH ST LOOKING SOUTH (BUILDINGS 5, 6)





MAIN ST LOOKING SW (BUILDINGS 1, 2, 3, 4)



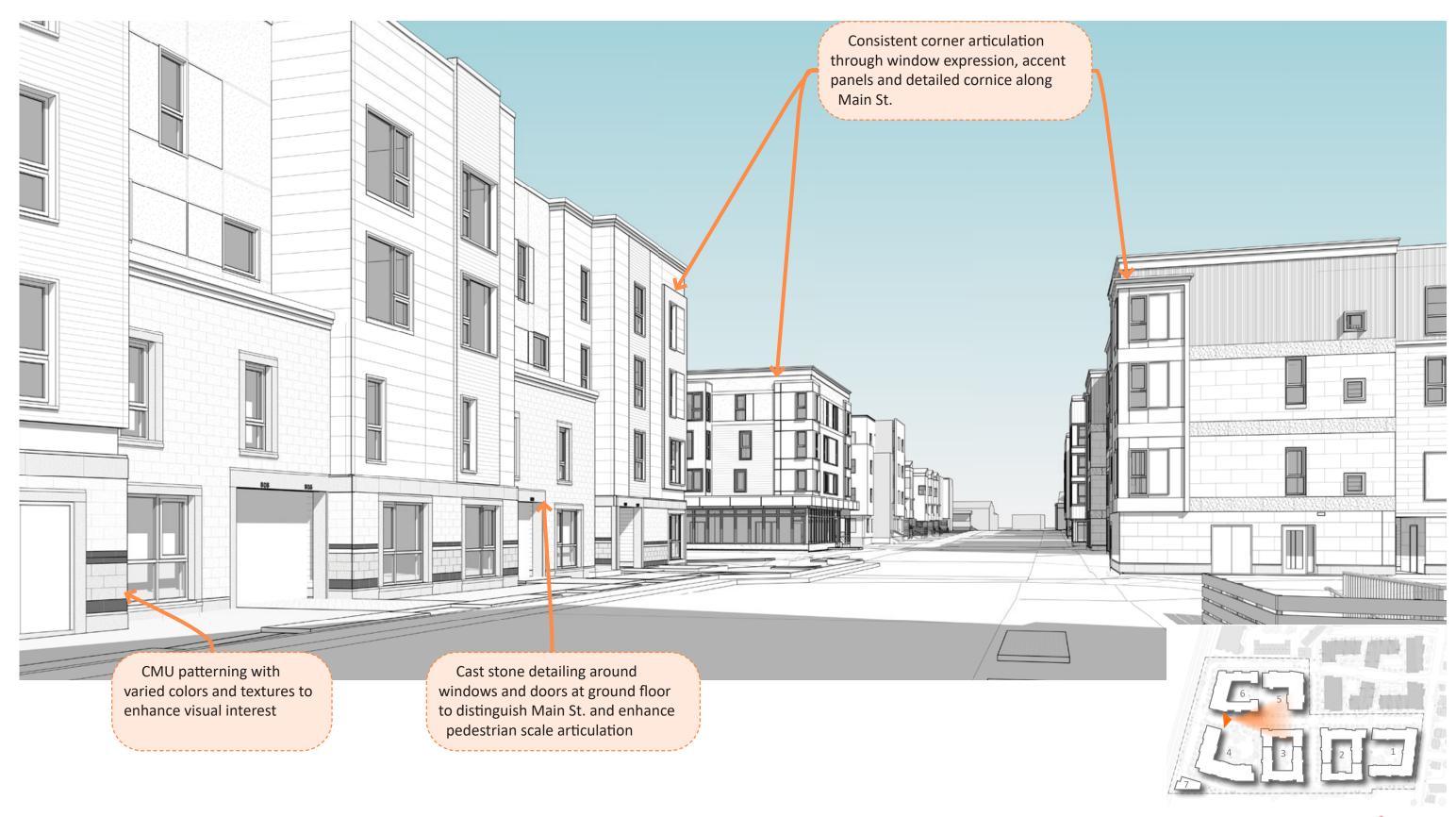


VIEW FROM BUILDING 4 COMMUNITY PARK (BUILDINGS 3, 5, 6)





MAIN ST LOOKING NORTH (BUILDINGS 3, 5, 6)





MAIN AND SOUTH ST LOOKING NORTH (BUILDINGS 3, 4, 6)





EAST ST LOOKING NORTH (BUILDINGS 3, 4)





PERSPECTIVE SITE VIEWS Less formal cornices and window Window detailing does not wrap the EAST ST LOOKING NORTH (BUILDINGS 2, 3) corner as on Main St., creating a solid facade articulation at corners on side streets corner to make East St. less formal



Cast stone at sill only

WEST ST LOOKING NORTH (BUILDINGS 5, 6)



Smaller windows and less material



WEST ST LOOKING SOUTH (BUILDINGS 5, 6)





VOLUME 3: APPENDICES



Report: Jefferson Park Federal Per Unit Construction Costs

The Cambridge Housing Authority has reviewed the construction budget for Jefferson Park Federal identify cost drivers contributing to the high construction cost of \$745,402 per unit.1 As noted in Figure 1, \$315,187, or 42% of the per unit costs, are extraordinary costs. These costs are not typical or standard on affordable housing projects. Absent these extraordinary costs, the per unit construction cost at Jefferson Park would be \$430,215. This is in line with other affordable housing projects in the Boston-Cambridge area. For example, two other pending affordable housing projects in Cambridge have comparable cost as the Jefferson Park number with projected costs ranging between \$390,000 and

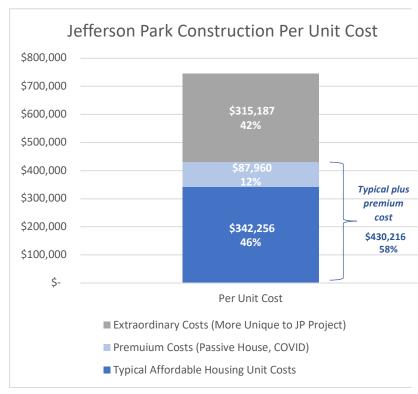


Figure 1: Typical, premium, and extraordinary costs per unit

\$477,000 per unit. In addition, all affordable housing projects are currently being impacted by premium costs which are adding approximately 12% to project costs resulting from COVID-19 escalation and supply chain interruptions and enhanced sustainability measures such as Passive House design and net-zero readiness.

Figure 2 on the next page illustrates the items that contribute to the \$315,187 per unit in extraordinary costs being incurred specifically by the Jefferson Park project. Extraordinary costs fall into one of five categories:

- (1) the premium resulting from needing to meet prevailing wage and public procurement requirements (\$141,793 per unit);
- (2) the premium relating to the very large percentage of units with three or more bedrooms (\$87,447 per unit);
- (3) the premium required for abating hazardous material and demolishing 11 existing buildings, constructing new site infrastructure and utilities on an 8-acre site and providing a robust tree replanting and maintenance program (\$51,341 per unit);
- (4) the premium associated with the three-year length of construction, overall size and complexity of the project, and project phasing (\$28,558 per unit); and
- (5) the premium to provide Head Start classrooms and area maintenance and management spaces (\$6,049 per unit).

¹ Soft costs add another \$160K in project costs bring the overall per unit cost to approximately \$905.6K. Soft cost expenses cover costs related to project financing, including construction loan interest, architectural services, financing fees, relocation, other project soft costs and developer fee. CHA's costs in these areas are typical for a low-income housing tax credit, affordable housing development.



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CONSTRUCTION COST MEMO

CONSTRUCTION COST MEMO

In addition to the extraordinary costs being incurred by the Jefferson Park project, two other factors which will be discussed later are currently impacting project costs by \$87,960 or 12%, and include:

- (1) the premium resulting from COVID-19 escalation and supply chain disruptions including labor shortages (\$60,604 for Jefferson Park, or 8% of the per unit construction cost);
- (2) the premium relating to enhanced sustainability and energy efficiency measures including Passive House and net-zero ready designs (\$27,356 for Jefferson Park or 4% of the per unit construction cost).

Details on the cost drivers totaling \$315,187 per unit specific to the Jefferson Park project is provided below.

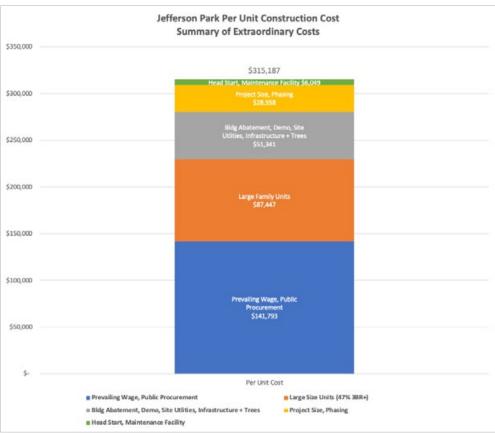


Figure 2: Summary of the Jefferson Park extraordinary costs per unit

Prevailing Wage and Public Procurement. As a public agency, the Cambridge Housing Authority (CHA) is required by Massachusetts General Law to pay prevailing wage and to procure contractors through a two-tiered system. The CHA estimates prevailing wage and public procurement premiums increase the construction costs at Jefferson Park by \$141,793 per unit, or approximately 32% increasing the per unit cost from \$430,215 to \$572,008. This is conservative analysis, as industry standards estimate prevailing wage and public procurement premiums at between 30% and 40% of construction costs.

An example of the cost premium associated with prevailing wage is provided in a 2016 study completed by the Construction Labor Research Council which compared the wage and fringe benefits package between a New England/Boston area Trade Union (Local 357 of NEMCA/Air-Conditioning and Refrigeration Contractors of Boston, Inc), and comparable to prevailing wage, to non-union data for the same occupation in the same geographic region. The study found for the Boston-Cambridge area "that the nonunion total rate range were



CONSTRUCTION COST MEMO

from 48 to 57 percent lower than the union rate. (Conversely, the union rate ranges from 92 to 131 percent higher than the nonunion rate.)"

LiUna, a national union representing Laborers reports that nationally the wage rate is 55% higher for a union worker than a non-union worker. This differential is even greater in the Boston-Cambridge area. As further example, the prevailing wage and benefit rates currently being experienced at current CHA projects include rates between \$106.28 to \$123.25 for electricians, \$118.32 to \$122.35 for plumbers, \$107.71 to \$113.10 for HVAC workers, \$152.07 to \$168.06 for elevator operators/technicians, and \$108.97 to \$116.00 for carpenters.

Another factor driving the increase in costs attributable to public procurement is the way in which the process creates smaller pools of potential bidders for filed sub-bid subcontractors. In the fall of 2019, the CHA received only one or two bids for numerous filed sub-bid trades for Burns Apartments and Roosevelt Towers. Among the factors resulting in few potential bidders is the requirement for contractors to go through a pre-qualification process and evidence of a State Contractor Certification which narrows down the number of contractors who are eligible to bid. Once pre-qualified, contractors can see which other contractors have also pre-qualified for a particular trade, resulting in a level of transparency that does not always encourage a competitive market for bidding. In addition, public procurement laws require selection of the lowest responsible bidder for a project's general contracting work and individual subcontractors for major trades. Typically, in the affordable housing field, developers contract with a general contractor and allow that general contractor to select subcontractors based on experience and their ability to deliver a quality project within budget and on time. Taking the general contractor out of the process of selecting subcontractors based solely on the lowest bidder can create and has created dissonance between general and subcontractors on projects and contract administration. These dynamics result in higher costs, with general contractors and subcontractors building in a cushion driving up the project costs to account for any management-related issues around coordination, timeliness, and quality of product.

In 2018, CHA conducted a review of comparable non-public projects in Cambridge and comparable public projects in Boston. A comparison of costs between a CHA publicly procured project completed in 2015 and a non-publicly bid project completed in 2018 found CHA costs (adjusted for inflation) were 36% higher due to public procurement and prevailing wage. Both projects were new construction of similar design and finishes, located in Central Square, completed by the same contractor and on similar constricted urban sites. CHA also completed cost comparisons with Boston Housing Authority projects that had received home rule approval (i.e. projects that are exempt from public procurement, but not prevailing wage). With most projects ranging between 70 and 120 units, CHA found that the costs of its projects were on average 21.5% higher than Boston Housing Authority.

Large Family Units. The Jefferson Park project is creating 130 units with three or more bedrooms, or nearly 47% of the total units. The larger units required to house families results in higher construction costs when calculated on a per unit basis than developments with a larger number of studios, one- and two-bedroom units since more space needs to be constructed. In addition, town-house style units (see Figure 3 on the next page) which CHA looks to maximize for larger size families increase the square footage per unit due to the space requirements of internal staircases



Dining Room 3 bedrooms with closets Living Room 170 sf 142 sf 120+ - 130+ sf Entrance from street with vestibule and closet. and back door to courtyard in Kitchen ull Bath on Kitchen Half Bath and 100 sf 2nd Floor in-unit laundry First Floor Second Floor

Figure 3: Typical 3-bedroom apartment layout (town-house style)

The impact of differing unit mixes is evident when comparing the Jefferson Park project with CHA's Temple Place or Just-A-Start's New Street development. The average gross square footage per unit at Jefferson Park is 1,455 square feet given the high percentage of large family units. For comparison, the per unit gross square footage of CHA's Temple Street Apartment, which consists of only one- and two-bedroom units, is 1,070 square feet. Similarly, at Just-A-Start's New Street development, which has 21 three-bedroom units, or under 20% of the total units planned, the per unit gross square footage is 1,207 square feet. We have calculated the costs for the added square footage of the larger units to be \$24,310,175, or \$87,447 per unit. This reflects the additional ~250 square feet per unit being constructed because of the substantial number of large family units.

In many respects, looking at affordable housing cost on a per unit basis serves as a disincentive to constructing larger size units. CHA could have opted to create many more one-bedroom units in lieu of three-bedroom units within the same square footage effectively driving down the per unit cost. A better measure is cost per bedroom and cost per square foot. When reviewing those metrics against CHA's Jefferson Park State project, completed in 2018, Jefferson Park Federal costs are lower in both instances. Adjusted for inflation, Jefferson Park State had a per square foot cost of \$551.36 versus \$512.47 projected for Jefferson Park Federal. Similarly, Jefferson Park State, with its large number of smaller units, had a per bedroom cost of \$395,125 when adjusted for inflation versus \$309,749 currently projected for Jefferson Park Federal.

Abatement, Demolition, New Site Utilities, and Infrastructure. Very few new affordable housing developments being built today are constructing a new neighborhood, but that is what is happening at Jefferson Park as CHA looks to expand and improve affordable housing opportunities in the city. The proposed design requires the abatement and demolition of eleven obsolete, failing buildings onsite and the reconstruction of all infrastructure and utilities across the 8-acre site. This is a significantly more than typical affordable housing developments that can either repair existing infrastructure and utilities or take advantage of short connections from the site to the public way. CHA only pursued new construction once it determined that poor interior and exterior conditions of the existing buildings coupled with failing site infrastructure made rehabilitation more costly than new construction. New construction also allowed for a significant increase of 103 new affordable apartments for families.

Built in the early 1950's, the existing buildings at Jefferson Park contain significant hazardous materials that need to be abated prior the demolition of buildings. The total cost of the abatement is estimated to be \$2.75 million. The demolition of the buildings is estimated to be an additional \$2.6 million.





CONSTRUCTION COST MEMO

CONSTRUCTION COST MEMO

Further, the site's infrastructure and utility systems (sewer, water, electric, gas) are between 40 and 80 years old, failing and need to be replaced entirely. The CHA has conducted emergency repairs over the years (see Figure 4), but they are not sufficient. Infrastructure includes the construction of new roads, which will sit above the site's new utility systems and allow for the proposed site design to connect the site to the neighborhood grid and allow for better vehicular and pedestrian access to the property and new units. The site also must meet storm water storage and mitigation requirements and significant increases in electrical requirements transformer to support the neighborhood. The cost



Figure 4: All existing buildings suffer from failing utilities such as from Eversource, including a new Eversource deteriorating sewer pipes and water mains causing flooding onsite.

of this new infrastructure, site utilities and related work is close to \$9 million, or \$32K of the \$51K per unit cost.

In all, the cost to abate hazardous materials, demolish the existing buildings, and install new site utilities and infrastructure to replace failing systems is \$14,272,762, or \$51,341 per unit.

Construction Complexity, Length, and Phasing. Given the size and scale of the project, the construction schedule is anticipated to be close to three years in total which is nearly three times longer than the typical affordable housing development project. With a project of this duration, the project incurs more cost related to its administration and supervision. For example, contractor costs are higher since bonding and insurance companies set higher prices for longer, more expensive projects and contractors must include additional costs on longer projects to cover inflation at levels greater than projects with smaller durations given more risks associated with longer projects and the escalation of the price of materials and labor over time.

Additionally, the size of the project presents design and constructability challenges that contribute to higher costs. For example, the site is divided into multiple buildings and multiple blocks (see Figure 5) which add additional square footage, façade area, foundations, and mechanical/electrical/plumbing systems to the project



Figure 5: The 8-acre site is broken up into 6 residential buildings and multiple blocks.



CONSTRUCTION COST MEMO

when compared to projects that include only one or two buildings. Furthermore, the size of the project means CHA is not able to provide the contractor with an entirely vacant site. Several buildings, such as the existing Head Start building, will need to be maintained while construction is underway, adding additional phasing costs.

In all, the premium for construction complexity, length and phasing to be over \$7.9 million, or \$28.5K per unit.

Head Start and Maintenance/Management Spaces. The final driver on construction cost is the inclusion of two Head Start classrooms in the project as well as CHA maintenance and management space to support the entire North Cambridge area, as opposed to maintenance and management space to support the property alone. These unique programmatic elements add roughly \$1.68 million to the project, or \$6,000 per unit.

Other Current Factors Driving Up Project Costs (Current "Premium" Costs). As noted earlier, there are two other factors that are generally increasing project costs for affordable housing development at the current time: higher costs due to the COVID 19 pandemic and enhanced sustainability design.

COVID-19 Impact. CHA currently estimates that \$16,848,000, or 8% of the Jefferson Park project costs relates to the cost escalation, supply change disruption, and labor shortages. Consigli who is the CHA's Construction Manager on the Jefferson Park has been tracking these costs closely, and are reporting a 12% escalation in pricing year to date. They note that the lack of supply and high demand for shipping containers, and ground transportation is influencing pricing. With a strong pipeline of working keeping materials high, they do not expect dramatic drops in pricing, just a price stabilization. Examples of material costs increases include 20% for roof insulation and membranes, 15% for gypsum wall board, and 5% for structural steel, cooper wiring, and mechanical equipment.

Enhanced Sustainable Design. CHA has made significant progress in reducing its green house gas emissions, increasing its on-site electricity generations, and lowering its gas and electricity usage. However, recognizing that more is required, CHA adopted passive house and net-zero ready designs for Jefferson Park. The implementation of these two designs is adding measurable cost to the project which we conservatively estimate to be \$7,605,000, or \$27,356 per unit or 4% of the project unit costs. We applaud the City's commitment to assist Jefferson Park in meeting these metrics.

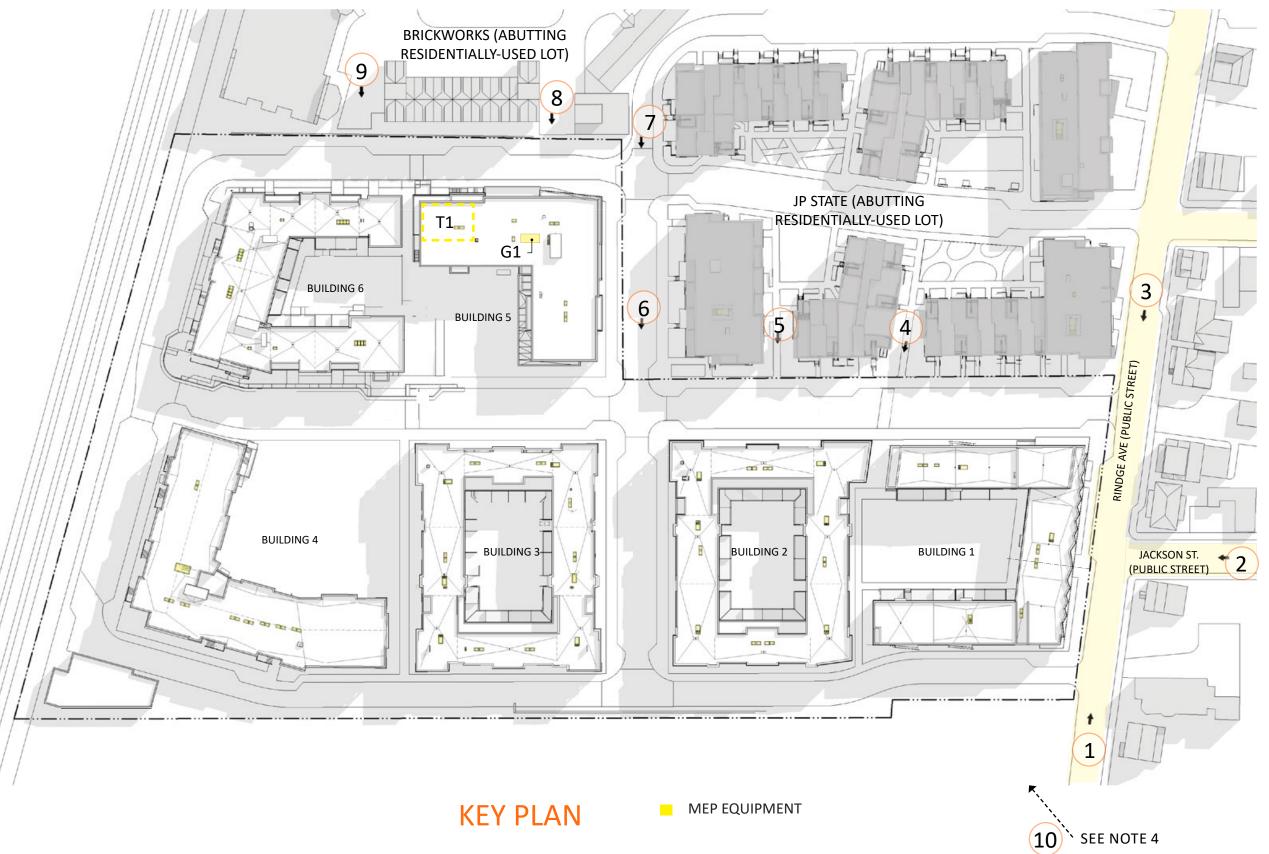
Conclusion. The Jefferson Park team has been mindful when designing the new Jefferson Park to be as efficient and economical in its design while still providing comfortable homes for residents and high-quality buildings that the CHA can successfully manage and maintain long-term. As noted above, the construction cost at Jefferson Park is being impacted by specific procurement and wage requirements that CHA as a public entity must meet, the large number of family size units being constructed on site, the extensive requirements to upgrade a failing site utility and infrastructure, the complexity resulting from a redevelopment of a nearly 8-acre site over a three year period, and the inclusion of two Head Start classrooms as well as a much-needed CHA maintenance facility in the project. These extraordinary costs account for roughly 42% of costs, or \$315,187 per unit. The remaining per unit cost of \$430,215 to construct the new Jefferson Park Federal are in-line with other affordable housing development costs. In addition to costs specific to Jefferson Park, many affordable housing projects including Jefferson Park are also facing unprecedent increases from the COVID 19 pandemic which has impacted supply chain, material, and labor costs. The transition of the industry to a higher, more enhanced sustainable design is also increasing project cost. These additional premium costs account for roughly 12% of costs, or \$87,356 per unit.



SITE PLAN AND VIEWS



MECHANICAL EQUIPMENT SITE PLAN



NOTE:

- 1. All roadways are private driveways unless otherwise noted.
- 2. No electrical equipment will be located at grade except for Generator G1.
- 3. All utility-mandated electrical equipment will be located within the transformer vault in building 5.
- 4. No equipment is visible from further away on Rindge Ave. to the west as well as to the east.

SITE PLAN INFORMATION

(Section 11.207.7.5 of the CZO) Locations, dimensions, and screening of all mechanical equipment located on-site



MECHANICAL EQUIPMENT BUILDING 1 - MEP U205 1 A3.112 3 PRIVATE PUBLIC DRIVEWAY STREET BUILDING 1 - WEST ↑ ↑ BUILDING 1 - WEST BUILDING 1 - EAST 16 8'-0" 17 18 37'-8 1/8" **FOURTH FLOOR PLAN** S 1 A3.113 Screen added at low roof to shield MEP UNIT TYPE U205 equipment from all views

MEP EQUIPMENT - VIEWS





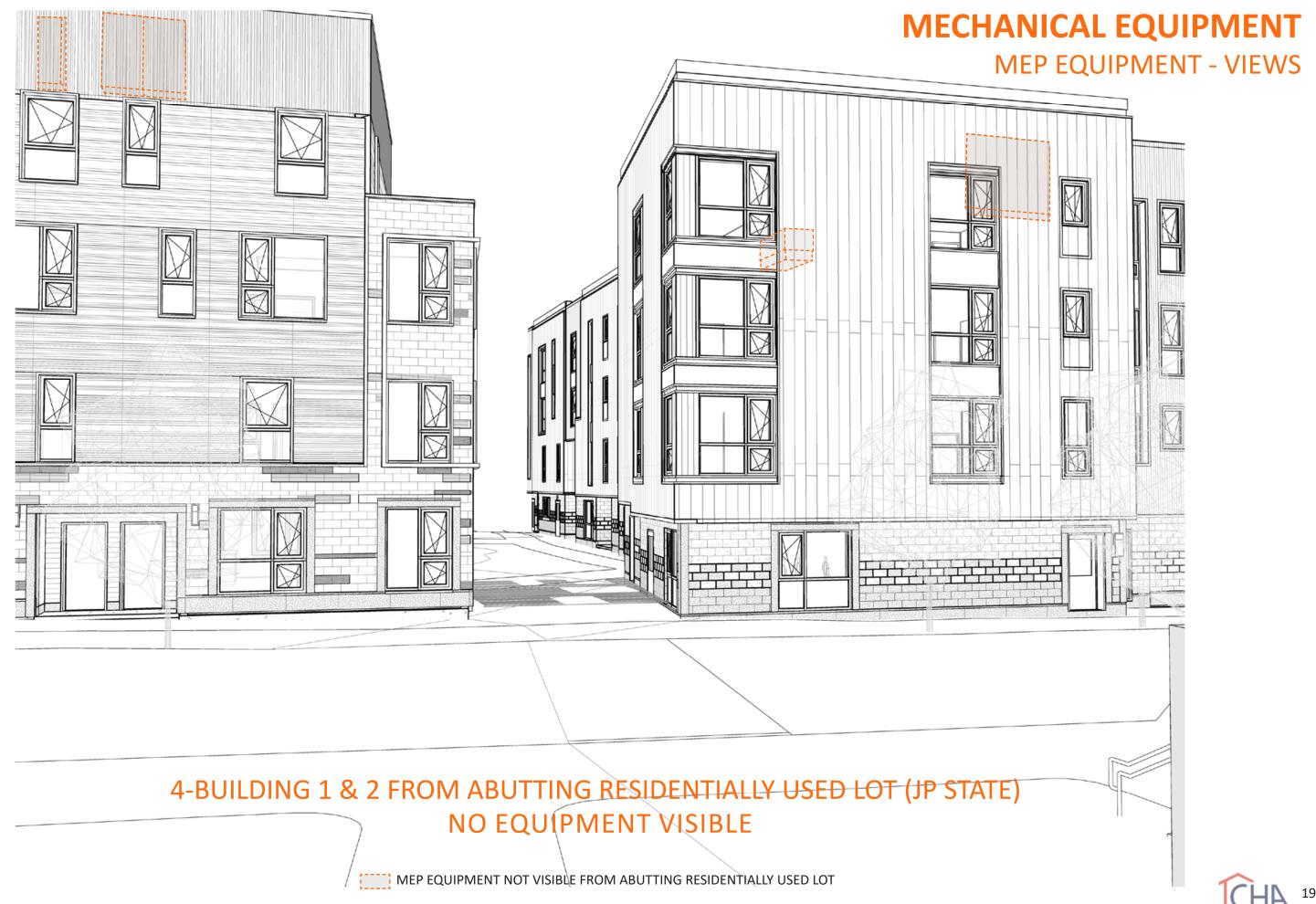
MEP EQUIPMENT - VIEWS



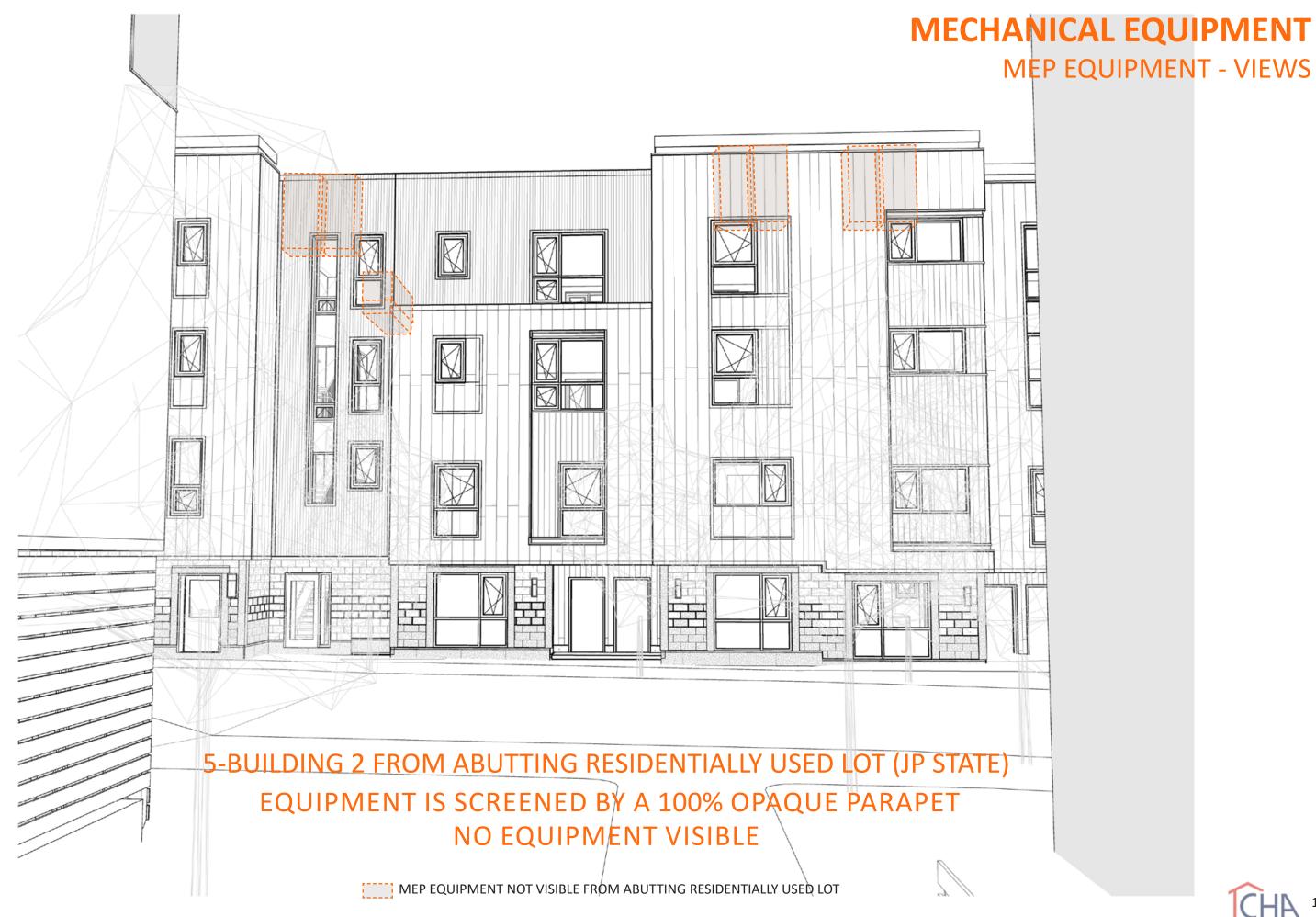














MEP EQUIPMENT - VIEWS



6-BUILDING 2 & 3 FROM ABUTTING RESIDENTIALLY USED LOT (JP STATE)

EQUIPMENT IS SCREENED BY A 100% OPAQUE PARAPET

NO EQUIPMENT VISIBLE

MEP EQUIPMENT NOT VISIBLE FROM ABUTTING RESIDENTIALLY USED LOT



MEP EQUIPMENT - VIEWS



EQUIPMENT IS SCREENED BY A 100% OPAQUE PARAPET NO EQUIPMENT VISIBLE





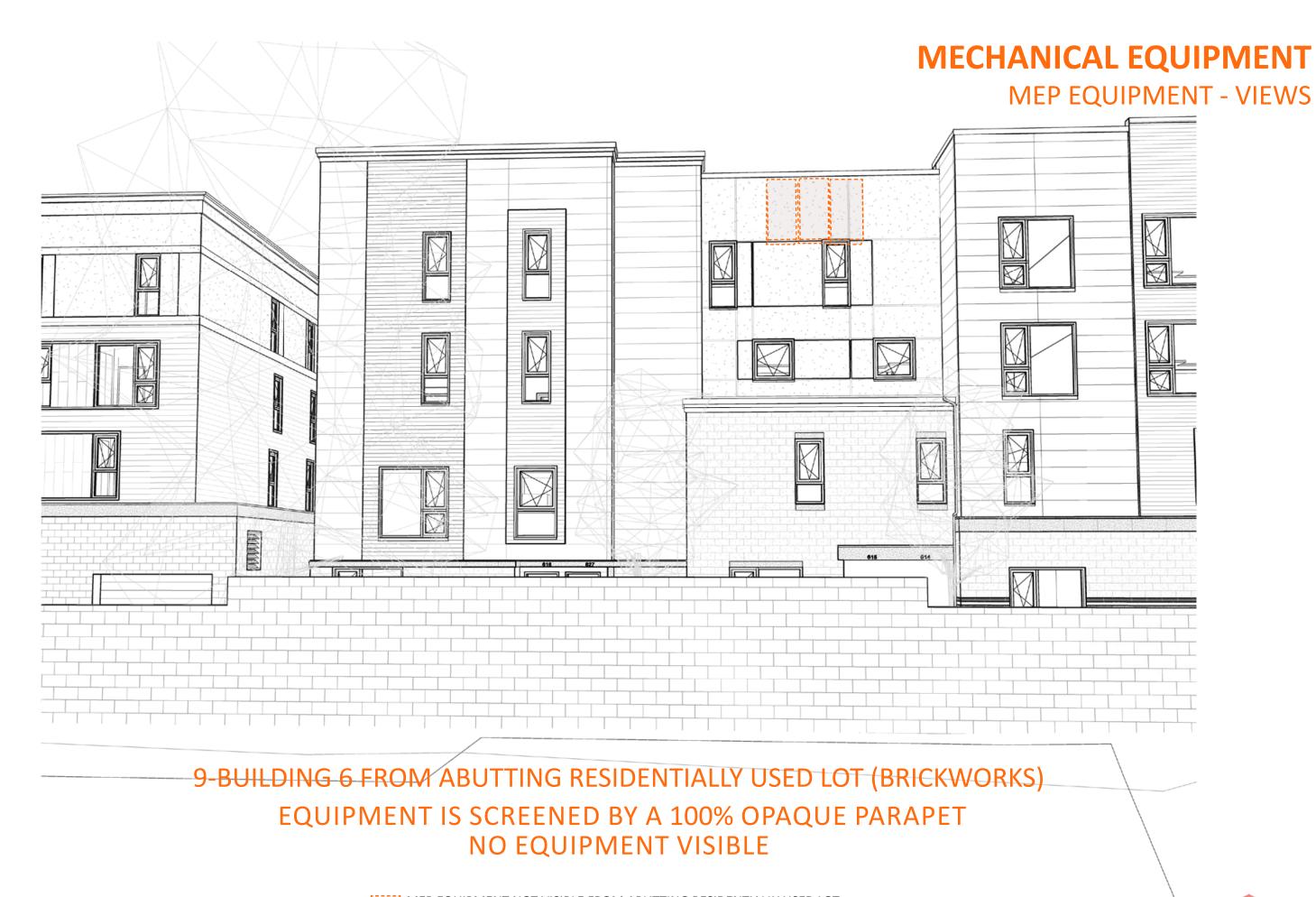
MEP EQUIPMENT - VIEWS



8-BUILDING 5 FROM ABUTTING RESIDENTIALLY USED LOT (BRICKWORKS)

NO EQUIPMENT VISIBLE







MEP EQUIPMENT - VIEWS



10-BUILDING 1 & 2 FROM CEMETERY EQUIPMENT IS SCREENED BY A 100% OPAQUE PARAPET NO EQUIPMENT VISIBLE

MEP EQUIPMENT NOT VISIBLE FROM ABUTTING RESIDENTIALLY USED LOT



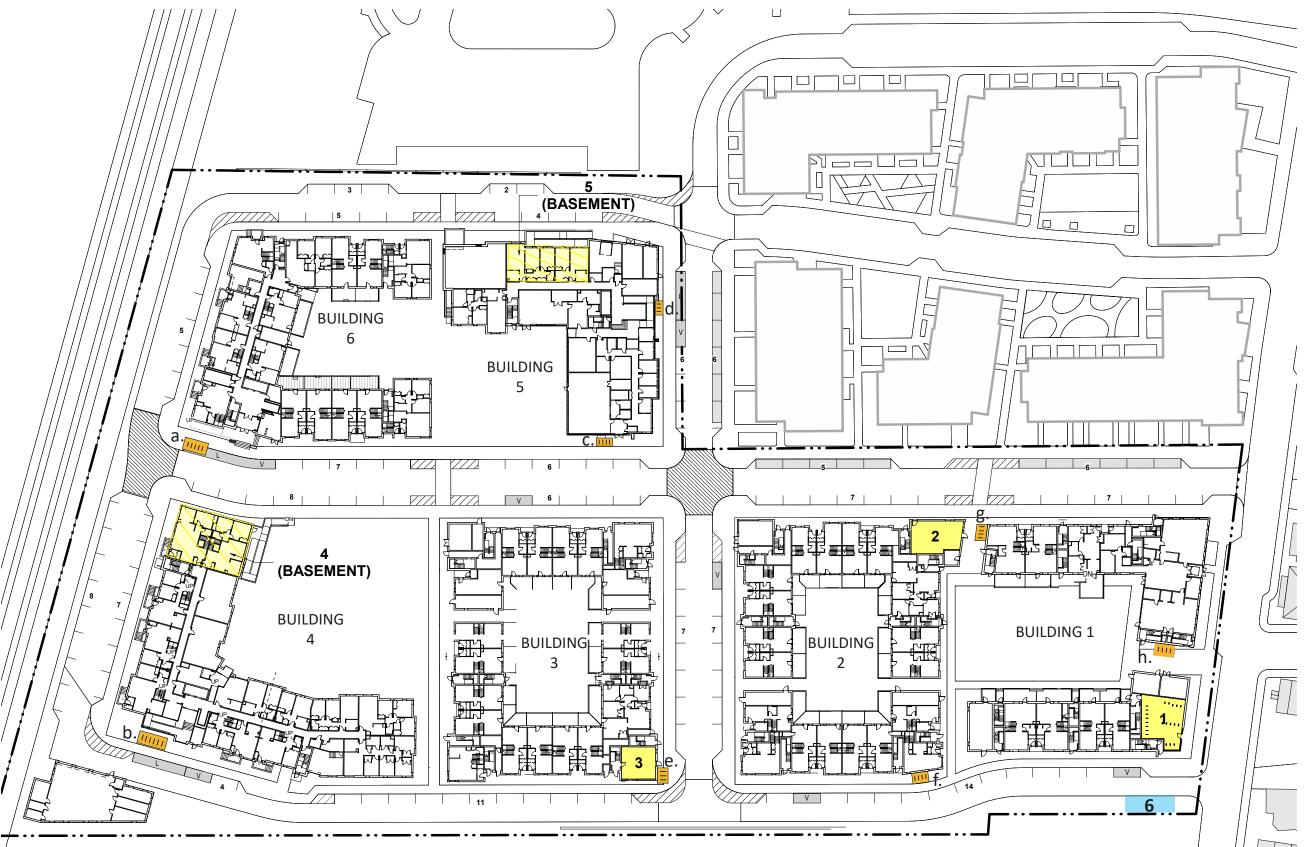
BICYCLE PARKING PLANS

SITE PLAN AND FLOOR PLANS



BIKE PARKING PLAN

SITE PLAN



BIKE ROOM	CAPACITY	LOCATION
01	42	B1
02	40	B2
03	28	В3
04	90	B4
05	70	B5
	= 270	
06	30	BLUEBIKES

NOTE 1: Linear blue bike dock dimension is 62'x6'

NOTE 2: A 23-dock Blue Bike station is proposed; per zoning requirement, this equals a credit of 30 bicycle parking spaces.

NOTE 3:There are 56 short-term bicycle parking spaces on site.

SHORT TERM BIKE	CAPACITY
а	10
b	12
c,f,g,h	8
d, e	6
Total	66

BIKE ROOM	TANDEM BIKES PER ROOM	
01, 04, 05	6	
02, 03	4	
TOTAL	26	



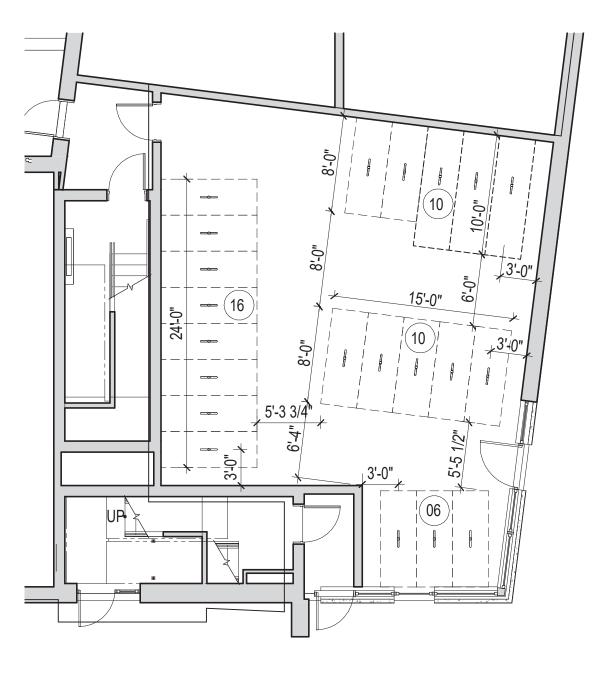


SHORT TERM BIKE PARKING



BICYCLE PARKING PLANS

BUILDING 1



B1 - BIKE ROOM

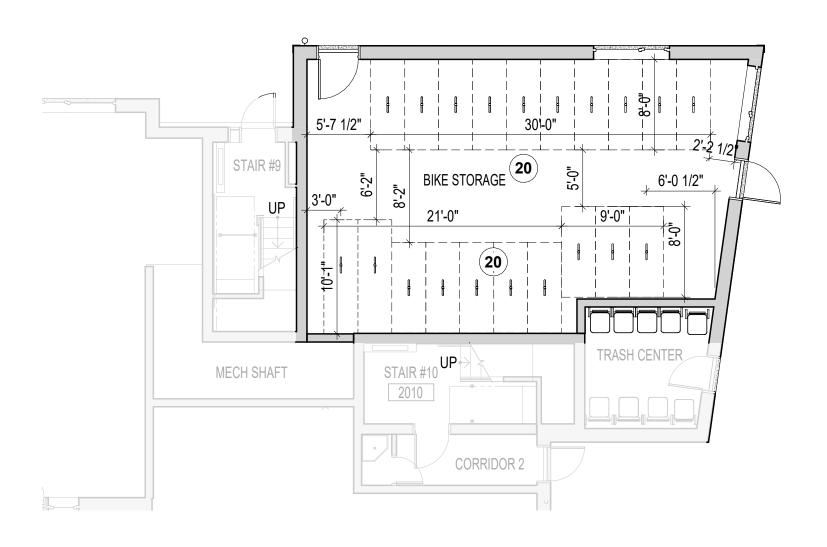
1/8" = 1'-0"

42 BIKES



BICYCLE PARKING PLANS

BUILDING 2



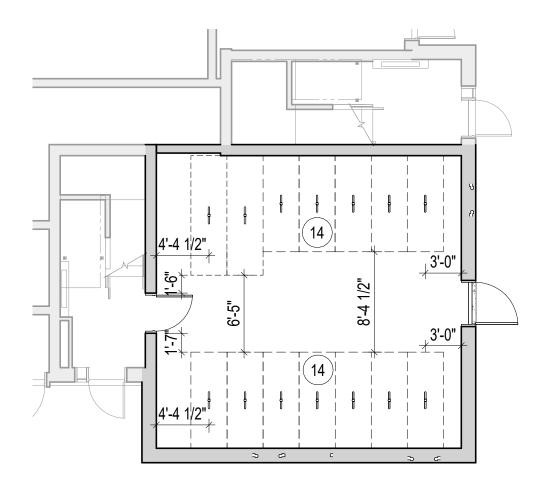
B2 - BIKE ROOM

40 BIKES

1/8" = 1'-0"



BICYCLE PARKING PLANS BUILDING 3



B3 - BIKE ROOM

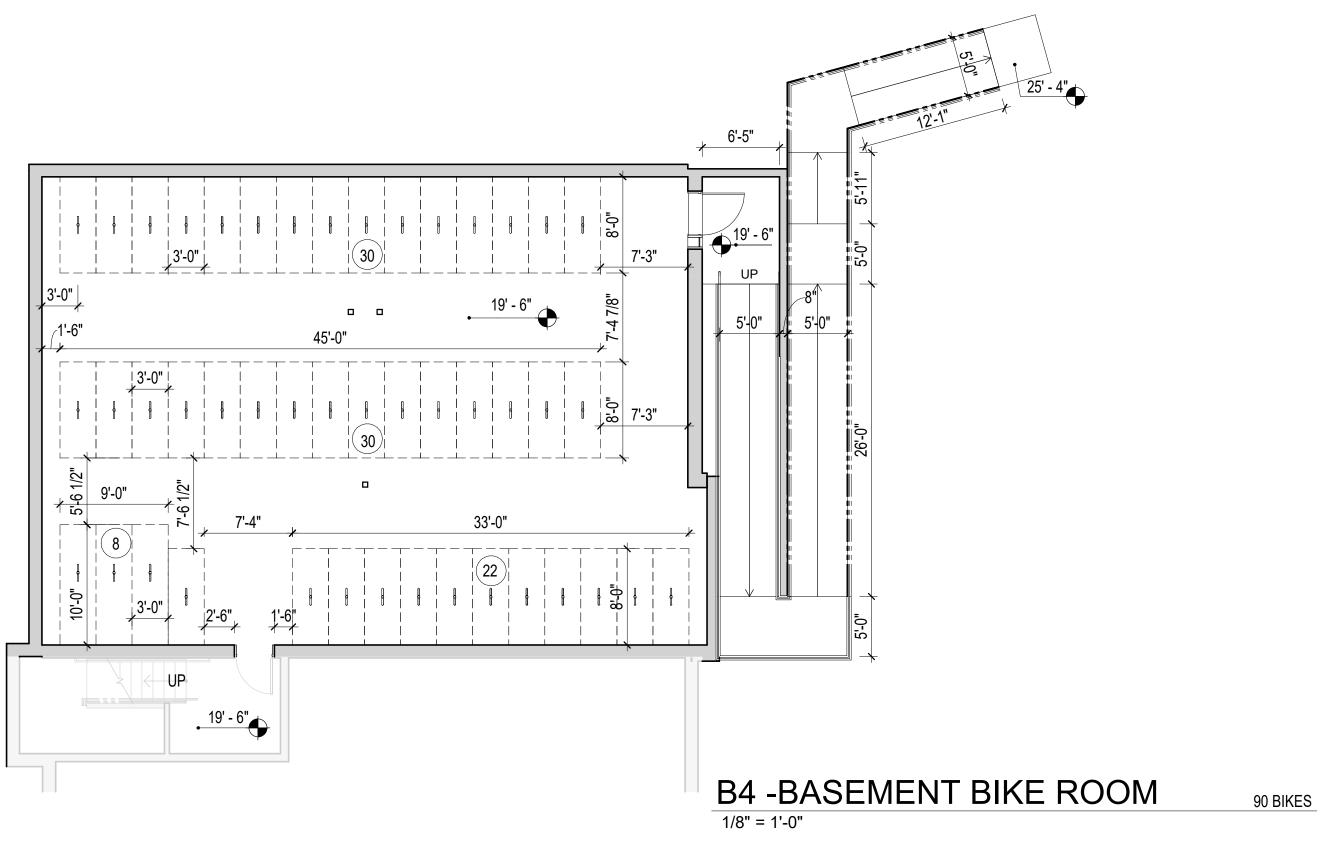
1/8" = 1'-0"





BICYCLE PARKING PLANS

BUILDING 4





BICYCLE PARKING PLANS

BUILDING 5

