

80 M ST, SE



Columbia
Property Trust



Design Review Package 12.20.2019

ZONING COMMISSION
District of Columbia
CASE NO. 19-23
EXHIBIT NO. 1A

hickok cole

Table of contents

01 COVER
02 TABLE OF CONTENTS, PROJECT TEAM

CONTEXT

03 ZONING MAP
04 SURVEYOR'S PLAT
05 FAR TABULATIONS
06 SITE ANALYSIS
07 CIRCULATION MAP
08 EXISTING CONDITIONS
09 ZONING DIAGRAMS
10 MASSING CONCEPTS
11 SE CORNER - FIRST & M

MASS TIMBER

12 WHAT IS MASS TIMBER
13 BENEFITS OF MASS TIMBER: SUSTAINABILITY
14 BENEFITS OF MASS TIMBER: AESTHETICS & WELLNESS
15 BENEFITS OF MASS TIMBER: STRUCTURAL STRENGTH AND FIRE SAFETY
16 CONCEPT SECTION

FLOOR PLANS

17 EXISTING - P3 FLOOR PLAN
18 EXISTING - P2 FLOOR PLAN
19 EXISTING - P1 FLOOR PLAN
20 PROPOSED - 1ST FLOOR PLAN
21 EXISTING - 2ND FLOOR PLAN
22 EXISTING - TYPICAL FLOOR PLAN
23 EXISTING - 7TH FLOOR PLAN
24 PROPOSED - 8TH FLOOR PLAN
25 8TH FLOOR TERRACE
26 PROPOSED - 9TH FLOOR PLAN
27 PROPOSED - 10TH FLOOR PLAN
28 PROPOSED - ROOF PLAN

DESIGN DRAWINGS

29 SOUTH ELEVATION
30 SOUTH ELEVATION - NOTATED
31 CROSS SECTION - NOTATED
32 EXISTING ENTRY
33 PROPOSED ENTRY
34 GROUND FLOOR CONCEPT
35 SOFFIT CONCEPT
36 SOFFIT CONCEPT
37 SOFFIT CONCEPT
38 PARTIAL SECTION AT ENTRY
39 PROPOSED ENTRY
40 EAST ELEVATION
41 EAST ELEVATION - NOTATED
42 CROSS SECTION - NOTATED
43 MATERIAL BOARD - EXISTING
44 MATERIAL BOARD - PROPOSED
45 MATERIAL BOARD - PROPOSED
46 PROPOSED TERRACE & CANOPY
47 PROPOSED ROOF TERRACE
48 NORTH ELEVATION
49 NORTH ELEVATION - NOTATED
50 WEST ELEVATION
51 WEST ELEVATION - NOTATED

PROJECT TEAM

OWNERSHIP:

COLUMBIA PROPERTY TRUST
801 PENNSYLVANIA AVE, NW
SUITE 801
WASHINGTON DC, 20004
202-750-1802

ARCHITECT:

HICKOK COLE
1023 31st STREET, NW
WASHINGTON, DC 20007
202-667-9776

STRUCTURAL ENGINEER, MEP ENGINEER, CODE CONSULTANT, ACOUSTIC CONSULTANT:

ARUP
1120 CONNECTICUT AVE, NW
SUITE 1110
WASHINGTON, DC 20036
202.729.8220

CIVIL & LANDSCAPE CONSULTANT:

WILES MENSCH
11860 SUNRISE VALLEY DRIVE
SUITE 200
RESTON, VA 20191
703.391.7600

BUILDING ENVELOPE:

WISS, JANNEY, EISTNER ASSOCIATES, INC.
2941 FAIRVIEW PARK DRIVE
SUITE 300
FALLS CHURCH, VA 22042
703.641.4601

SPEC WRITER:

HELLER & METZGER, PC
1899 PENNSYLVANIA AVE, NW
WASHINGTON, DC 20006
202.364.2222

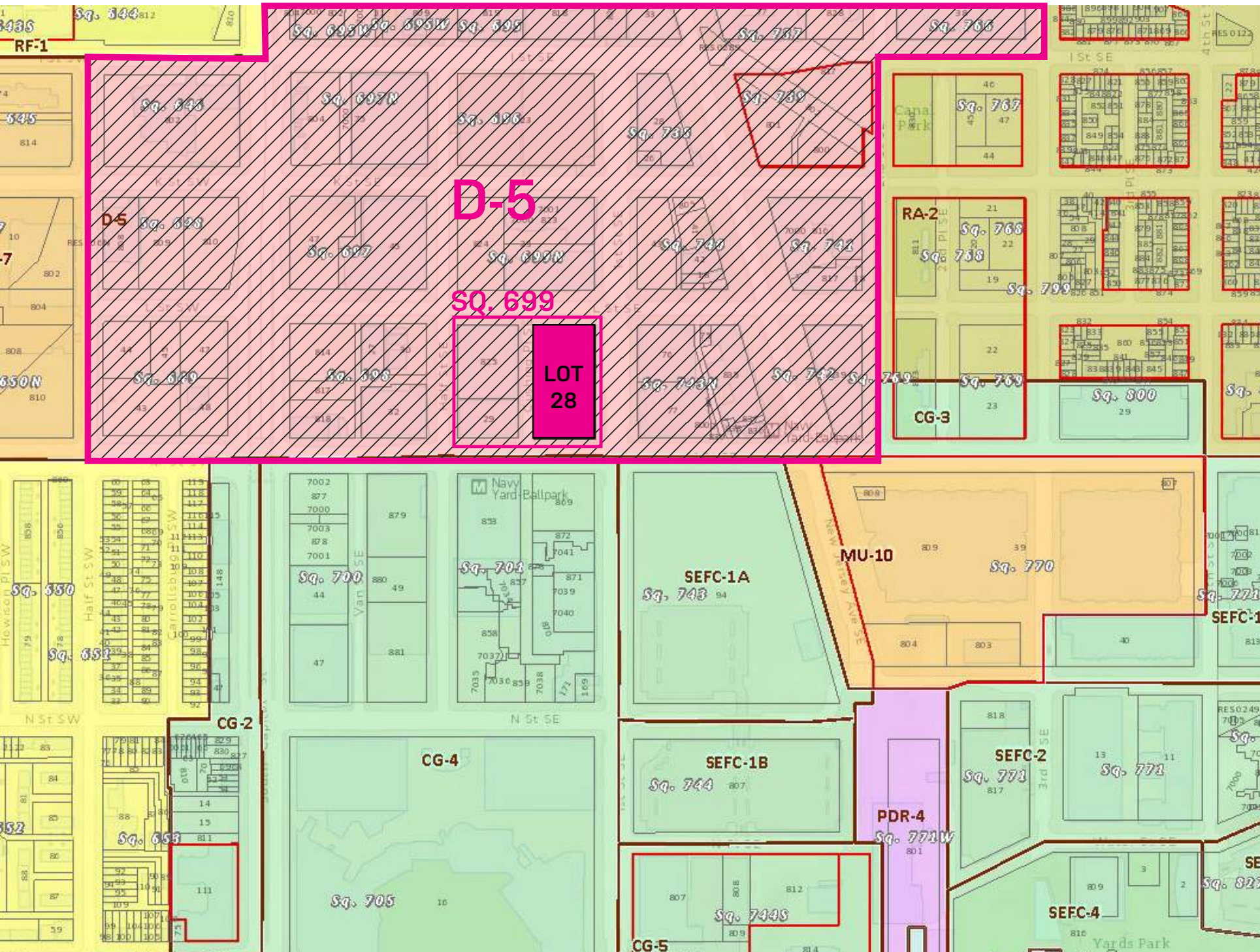
LIGHTING:

CM + KLING ASSOCIATES, INC.
1020 CAMERON STREET
ALEXANDRIA, VA 22314
703.684.6270

VERTICAL TRANSPORTATION:

MICHAEL BLADES & ASSOCIATES, LTD
5409 RAPIDAN COURT
LOTHIAN, MD 20711
410.798.8504

Zoning Map



ZONING ANALYSIS

GENERAL AND ZONING CLASSIFICATIONS

OWNER: COLUMBIA PROPERTY TRUST
 YEAR BUILT: 2000

NO. OF STORIES: 2 STORY ADDITION W/ OCCUPIED PENTHOUSE
 7 STORIES OF EXISTING ABOVE GRADE
 3 STORIES OF EXISTING PARKING BELOW GRADE

ZONE: D5
 SQUARE/LOT: 699/0028
 OVERLAY: SUB-AREA: M and SOUTH CAPITOL STREET
 CREDIT TRADE: CREDIT TRADE AREA 7
 HISTORIC DISTRICT: N/A
 WARD: 6
 ANC: 6D
 PARCEL AREA: 45,117 SF

EXISTING BUILDING INFORMATION

HEIGHT: 89'-9" TO TOP OF PARAPET
 STORIES: 7 ABOVE GRADE, 3 BELOW GRADE
 CURRENT GSF: 290,760 SF
 MEASURING PNT: EL. 27.5' (TOP OF CURB ALONG CUSHING PLACE)
 VEHICLE PARKING: 295 SPACES PROVIDED - 181 STD + 114 TANDEM (162 SPACES REQ'D/ZR1958)
 BICYCLE PARKING: NO LONG TERM PROVIDED/6 SHORT TERM EXISTING
 LOADING: 3 LOADING BERTHS/3 LOADING PLATFORMS/1 DELIVERY SPACE

PROPOSED BUILDING INFORMATION

HEIGHT: 128'-9" (130' MAX HEIGHT ALLOWABLE FROM 1ST ST RIGHT OF WAY) - I-540.1
 STORIES: 9 STORIES W/ HABITABLE PENTHOUSE
 PROPOSED GSF: 378,266 GSF - TOTAL INCLUDES 4,458 GSF OF PENTHOUSE SPACE ABOVE 0.4 FAR PER SECTION C-1503.1(c) - I-539.1(c)
 MEASURING PNT: EL. 23.4' (MEASURED @ TOP OF CURB AT 1ST STREET)
 LOT OCCUPANCY: 100% - I-202.1
 REAR SETBACK: REAR SETBACK NOT PROVIDED AS LOT FRONTS THREE (3) OR MORE STREETS - I-205.2
 FRONT SETBACK: 15'-0" FROM CURB ALONG M STREET PER SECTION I-616.6(b)
 VEHICLE PARKING: 288 SPACES PROVIDED - 175 STD + 113 TANDEM (162 SPACES REQ'D/ZR1958) - C-704.1 & I-212.1
 BICYCLE PARKING: 43 LONG TERM SPACES PROVIDED/6 SHORT TERM TO REMAIN - C-802.5
 LOADING: 3 LOADING BERTHS/3 LOADING PLATFORMS/1 DELIVERY SPACE - C-901.6 & 901.1
 GAR: NA - C-601.3

**DISTRICT OF COLUMBIA GOVERNMENT
OFFICE OF THE SURVEYOR**

Washington, D.C., October 9, 2019

Plat for Building Permit of: **SQUARE 699 LOT 28**

Scale: 1 inch = 40 feet

Recorded in Book 156 Page 3

Receipt No. 20-00192 Drawn by: A.S.

Furnished to: **DIANA HERNDON**

"I hereby certify that the dimensions and configuration of the lot(s) hereon depicted are consistent with the records of the Office of the Surveyor unless otherwise noted, but may not reflect actual field measurements. The dimensions and configuration of A&T lots are provided by the Office of Tax and Revenue and may not necessarily agree with the deed description(s)."

I hereby certify that on this plat on which the Office of the Surveyor has drawn the dimensions of this lot, I have accurately and completely depicted and labeled the following:

1) all existing buildings and improvements - including parking spaces, covered porches, decks and retaining walls over four feet above grade, and any existing face-on-line or party wall labeled as such, well as projections and improvements in public space - with complete and accurate dimensions;

2) all proposed demolition or raze of existing buildings duly labeled as such; all proposed buildings and improvements - including parking spaces, covered porches, decks and retaining walls over four feet above grade, any existing face-on-line or party wall labeled as such, as well as projections and improvements in public space and the improvements used to satisfy nervous surface or green area ratio requirements - with complete and accurate dimensions, in conformity with the plans submitted with building permit application _____; and

3) any existing chimney or vent on an adjacent property that is located within 10 feet of this lot.

I also hereby certify that:

- 1) my depiction on this plat, as detailed above, is accurate and complete as of the date of my signature hereon;
- 2) there is no elevation change exceeding ten feet measured between lot lines; or if so, this elevation change is depicted on a site plan submitted with the plans for this permit application;
- 3) I have/have not (*circle one*) filed a subdivision application with the Office of the Surveyor;
- 4) I have/have not (*circle one*) filed a division of lots application with the Office of Tax & Revenue; and
- 5) if there are changes to the lot and its boundaries as shown on this plat, or to the proposed construction and plans as shown on this plat, that I shall obtain an updated plat from the Office of the Surveyor on which I will depict all existing and proposed construction and which I will then submit to the Office of the Zoning Administrator for review and approval prior to permit issuance.

I acknowledge that any inaccuracy or errors in my depiction on this plat will subject any permit or certificate of occupancy issued in reliance on this plat to enforcement, including revocation under Sections 105.6(1) and 110.5.2 of the Building Code (Title 12A of the DCMR) as well as prosecution and penalties under Section 404 of D.C. Law 4-164 (D.C. Official Code §22-2405).

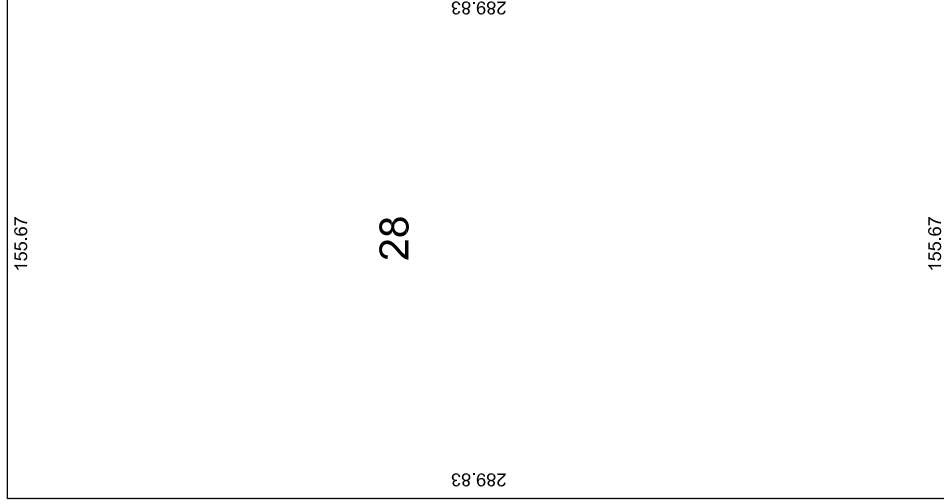
Signature: _____ Date: _____

Printed Name: _____ Relationship to Lot Owner: _____

If a registered design professional, provide license number _____ and include stamp below.

Surveyor, D.C.

L STREET, S.E.



CUSHING PLACE, S.E.

1st STREET, S.E.

M STREET, S.E.



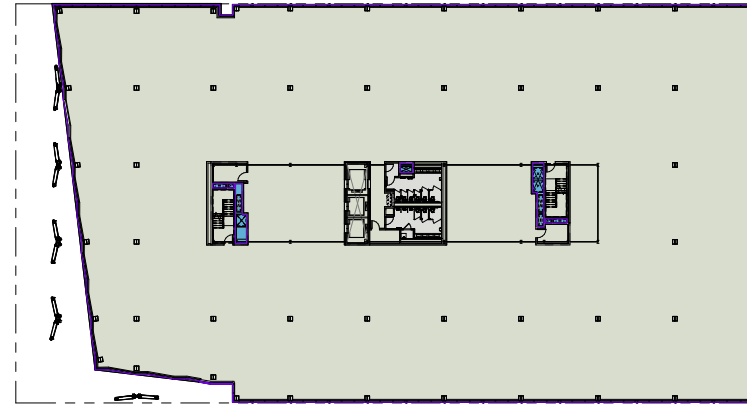
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SR-20-00192(2019)
* E-MAIL

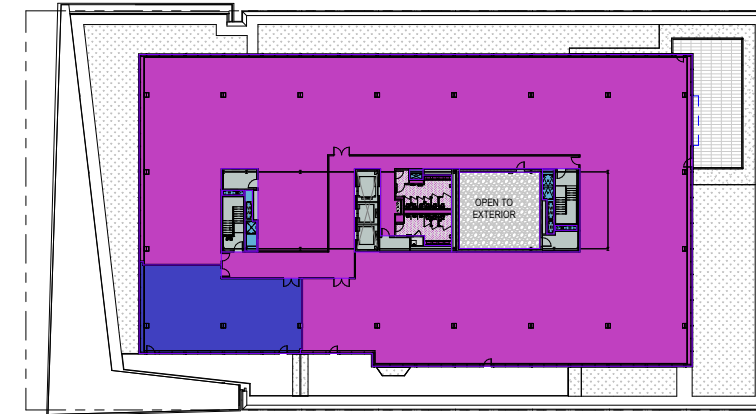
FAR Tabulations



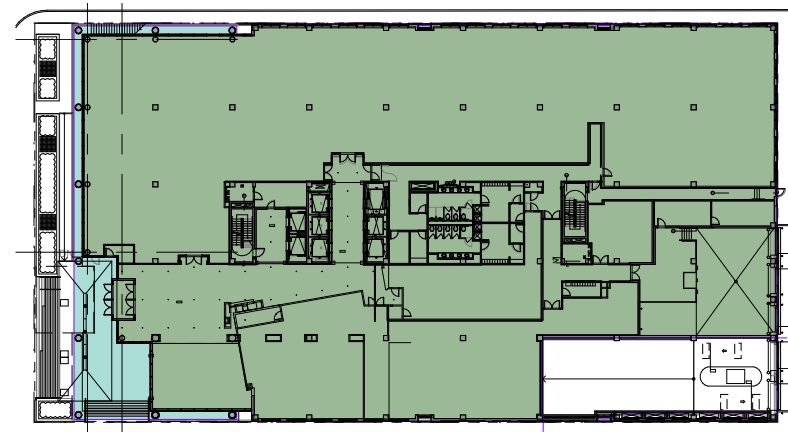
8th FLOOR - PROPOSED



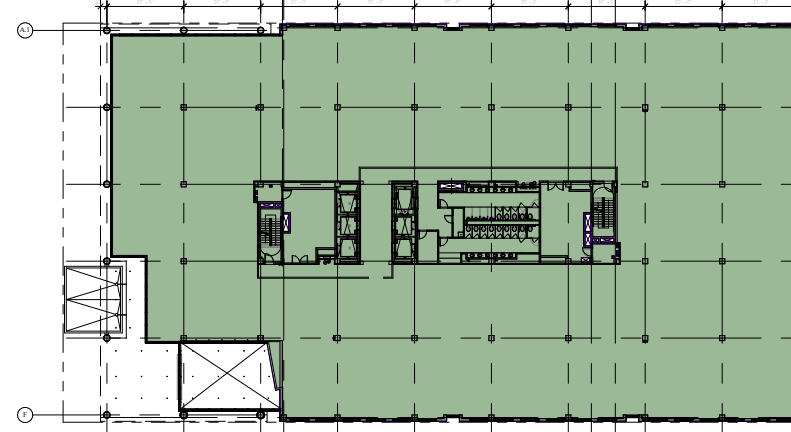
9th FLOOR - PROPOSED



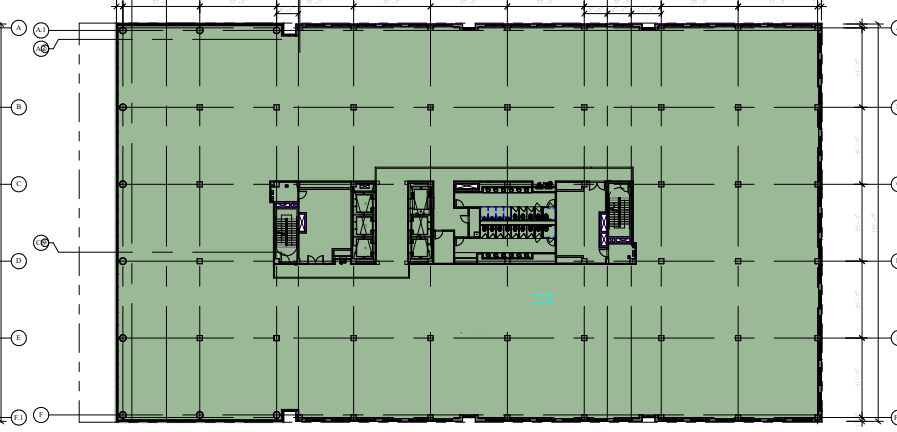
HABITABLE PENTHOUSE - PROPOSED



1ST FLOOR - EXISTING



2ND FLOOR - EXISTING



TYPICAL FLOOR 3-7 - EXISTING

FAR CALCULATIONS

FAR PLANS

- EXCLUDED - AMENITY
- EXCLUDED - COMMUNAL WORK AREA
- EXCLUDED - MECH
- FAR - EXISTING BUILDING
- FAR - EXISTING OVERHANG
- FAR - HABITABLE PENTHOUSE
- FAR - NEW BUILDING
- FAR - NEW OVERHANG
- FAR - OCCUPABLE PENTHOUSE
- FAR - PENTHOUSE UTILITY SPACE
- GARAGE
- MAJOR VERTICAL PENETRATION

EXISTING LEVELS

LEVEL 01

EXISTING BUILDING AREA	37,335 GSF
EXISTING OVERHANG	2,040 GSF
TOTAL	39,375 GSF

LEVEL 02

EXISTING BUILDING AREA	39,185 GSF
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LEVEL 03-07

EXISTING BUILDING AREA	42,440 GSF
TOTAL - 5 LEVELS	212,200 GSF

TOTAL	290,760 GSF
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PROPOSED LEVELS

LEVEL 08

PROPOSED BUILDING AREA	40,468 GSF
EXISTING OVERHANG	2,077 GSF
TOTAL	42,545 GSF

LEVEL 09

PROPOSED BUILDING AREA	40,504 GSF
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HABITABLE PENTHOUSE

PROPOSED HABITABLE AREA [AREA ABOVE 0.4 FAR]	4,458 GSF
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TOTAL	87,507 GSF
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TOTAL PROPOSED FAR - 378,267 GSF

Site Analysis

RANDALL RECREATION CENTER

NATIONAL MALL

EASTERN MARKET/ CAPITOL HILL

SOUTHWEST WATERFRONT

KING GREENLEAF RECREATION CENTER

80 M STREET SE
DESIGN REVIEW PACKAGE

NATIONALS PARK

DIAMOND TEAGUE PARK

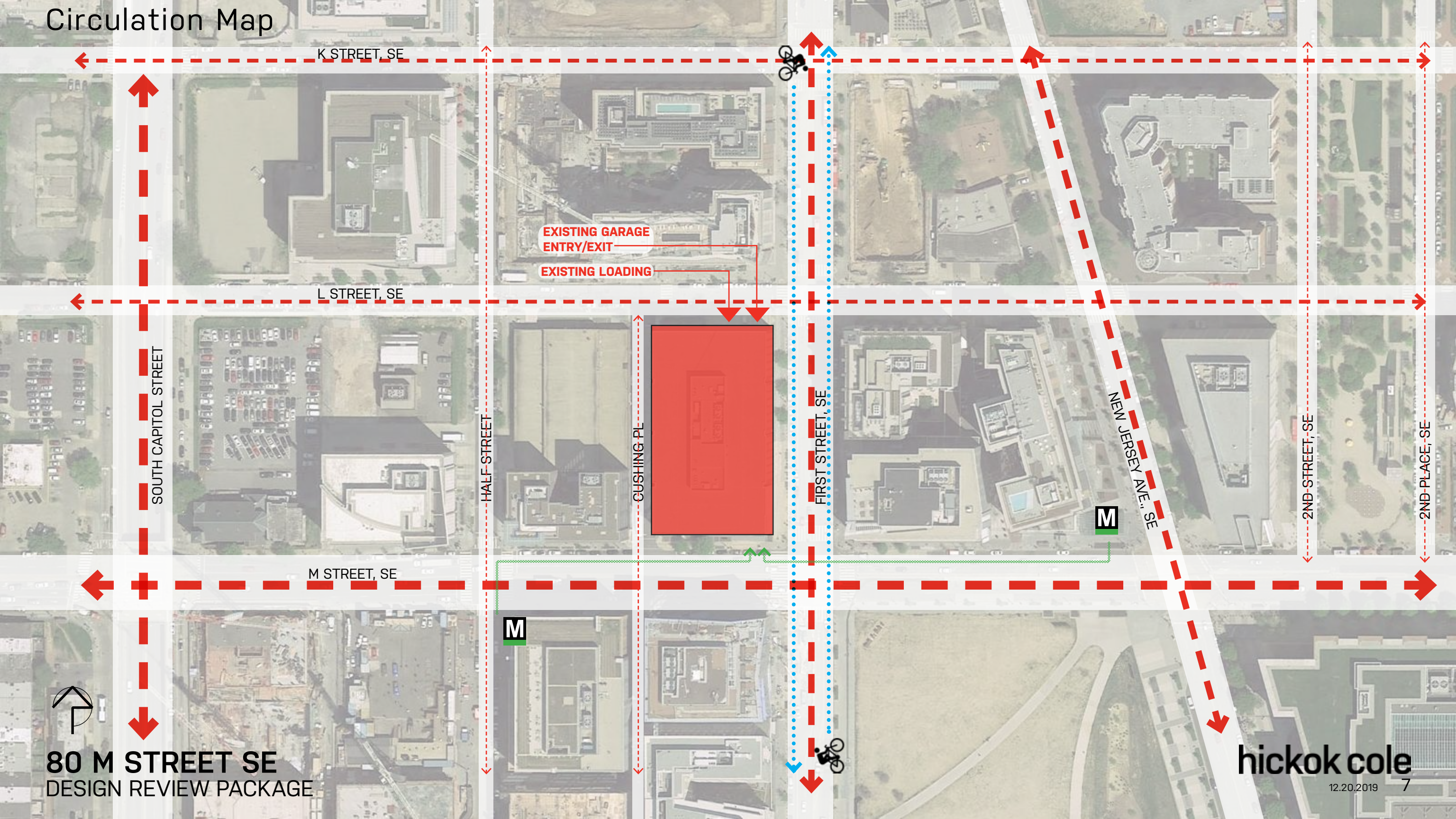
ANACOSTIA RIVER

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Circulation Map



K STREET, SE

L STREET, SE

M STREET, SE

SOUTH CAPITOL STREET

HALF STREET

CUSHING PL

FIRST STREET, SE

NEW JERSEY AVE., SE

2ND STREET, SE

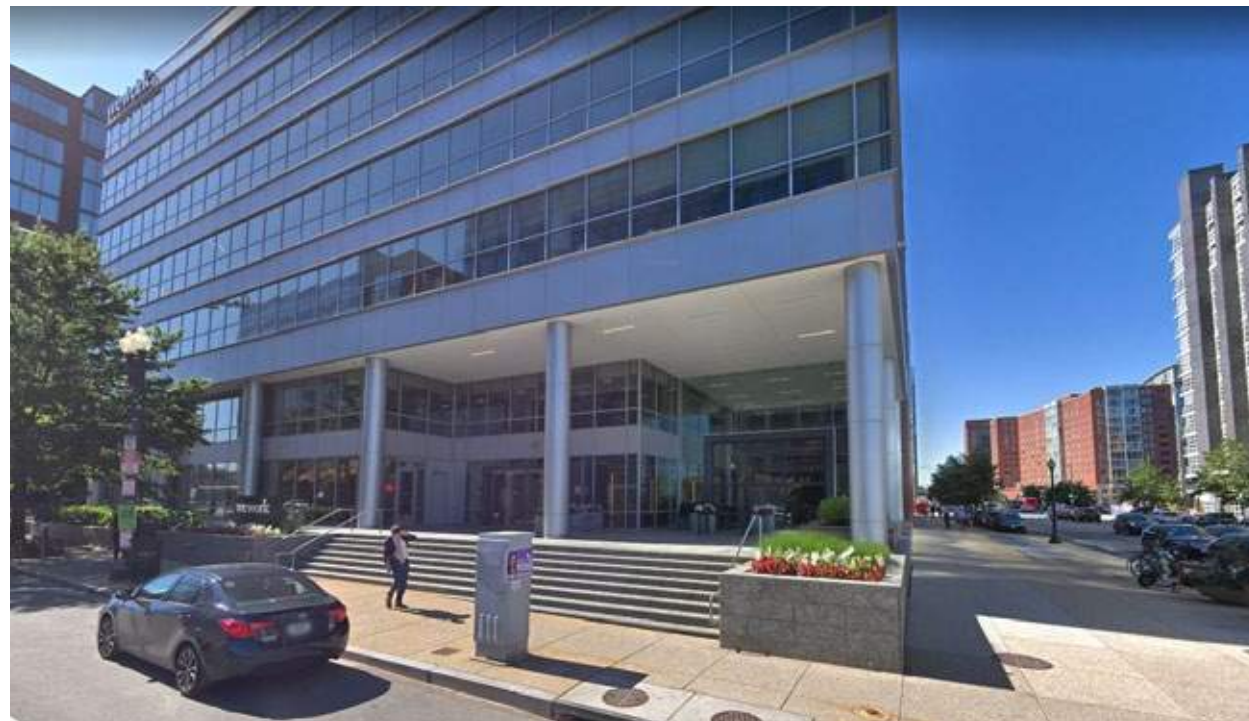
2ND PLACE, SE

EXISTING GARAGE
ENTRY/EXIT

EXISTING LOADING



Existing Conditions

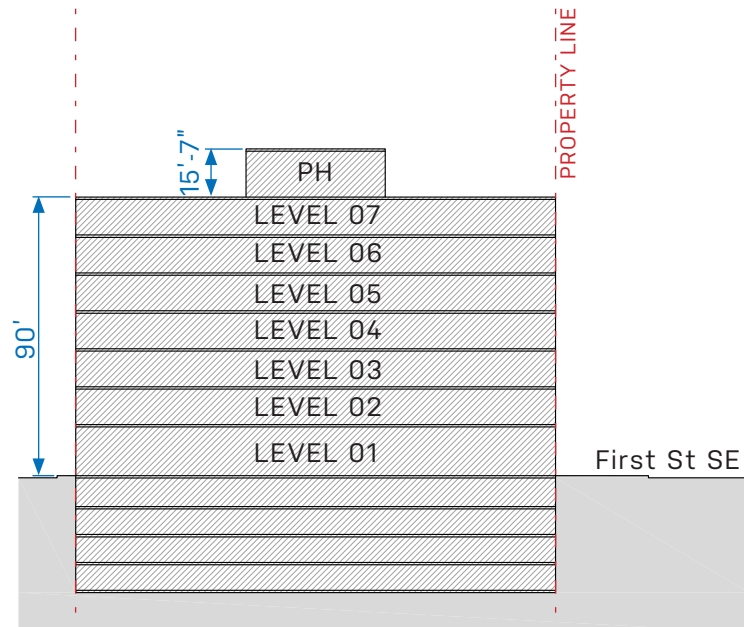
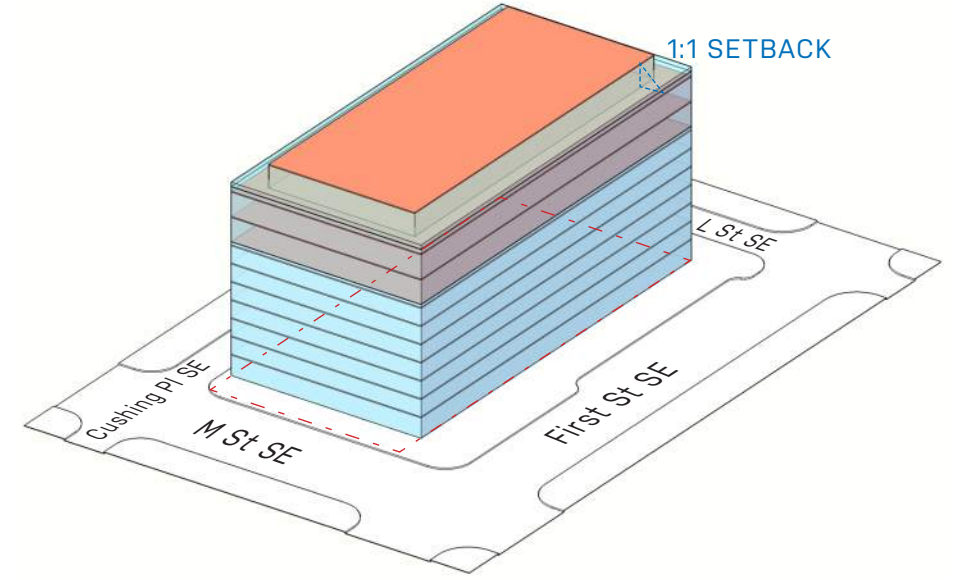
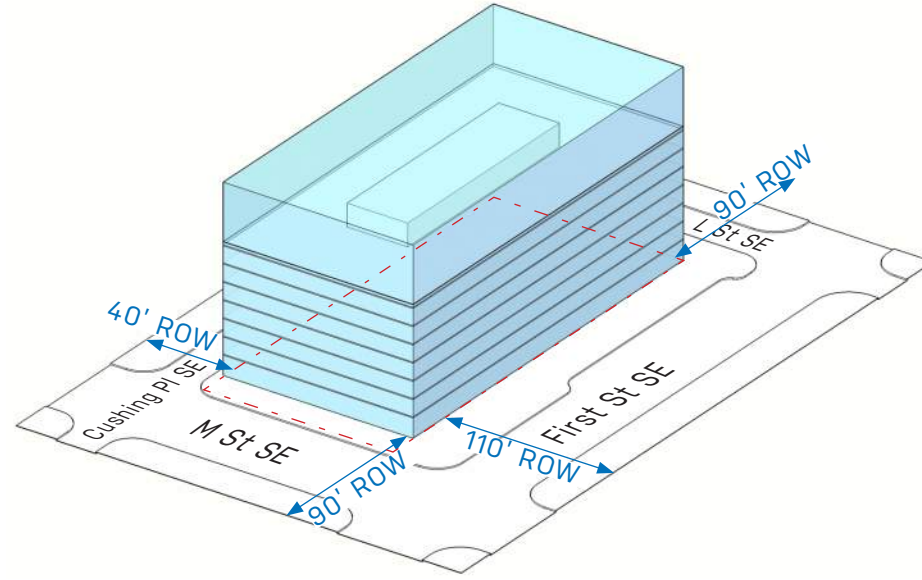
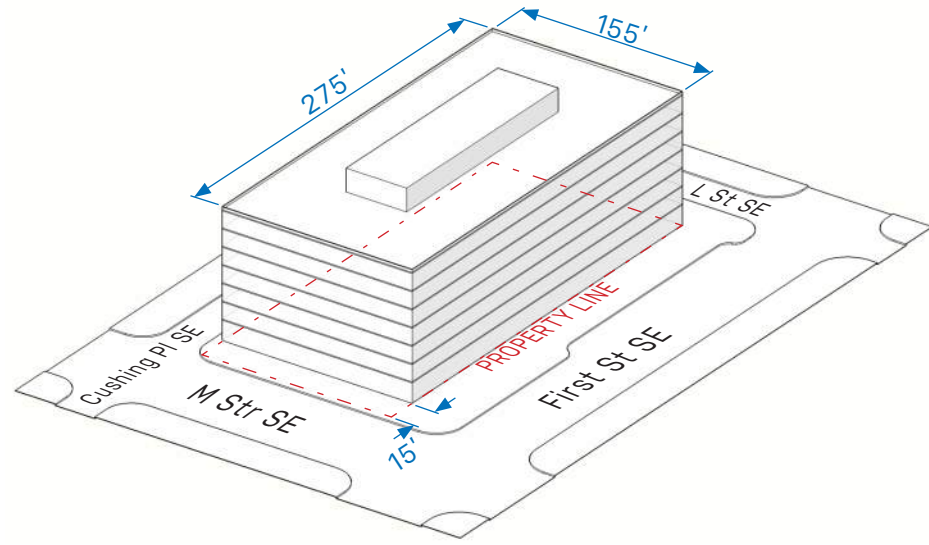


80 M STREET SE
DESIGN REVIEW PACKAGE

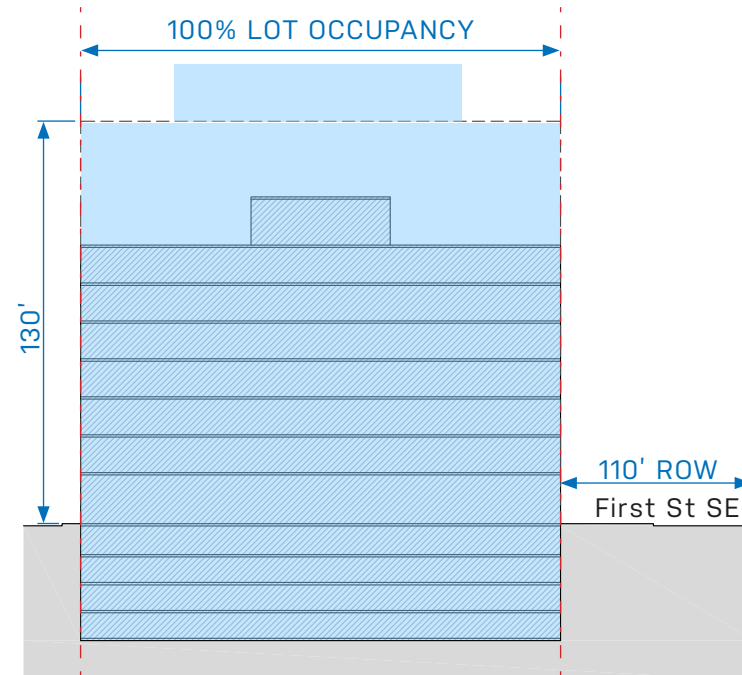
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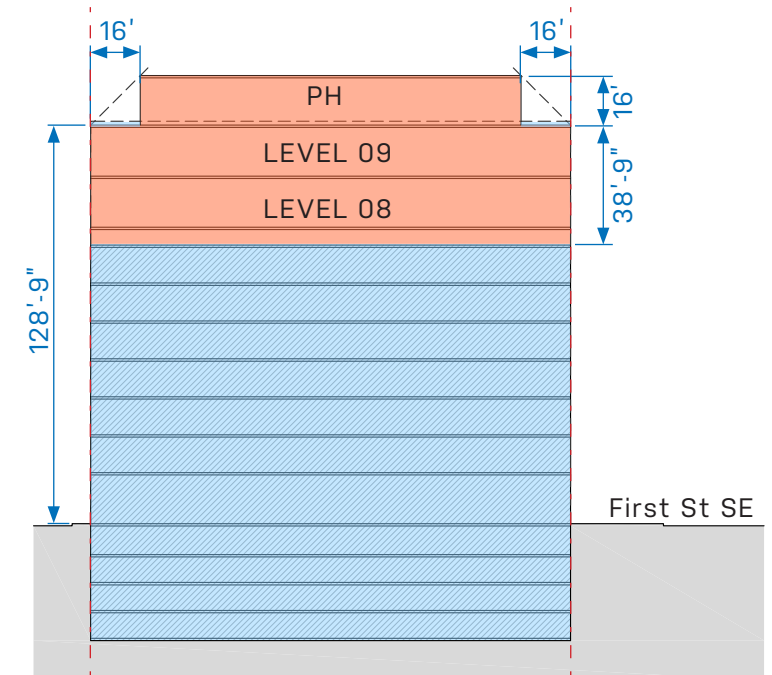
Zoning Diagrams



EXISTING BUILDING

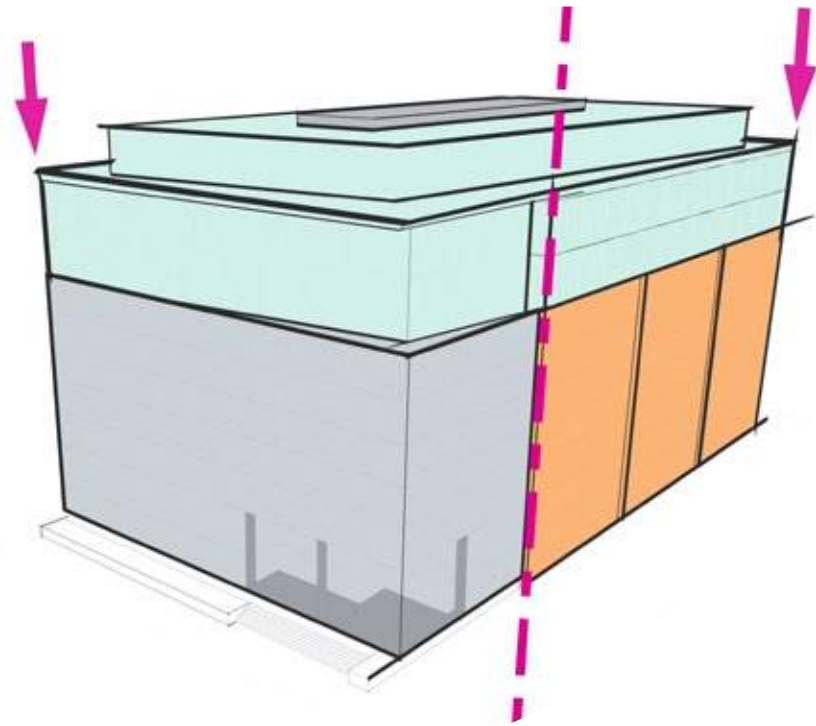


ZONING EXTENTS

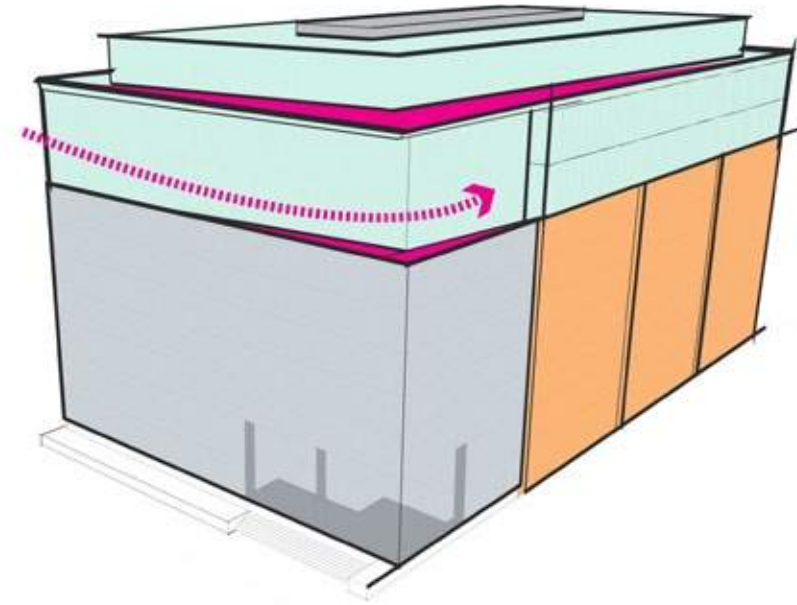


PROPOSED STRUCTURE

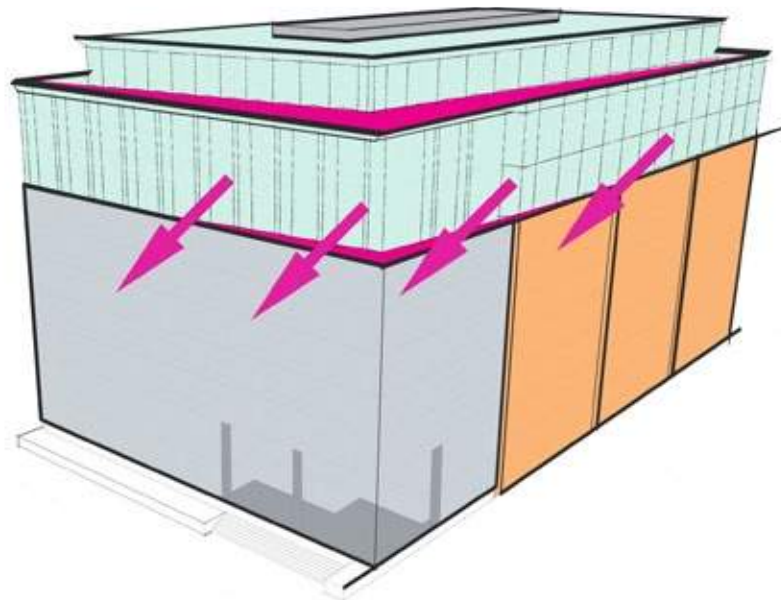
Massing Concepts



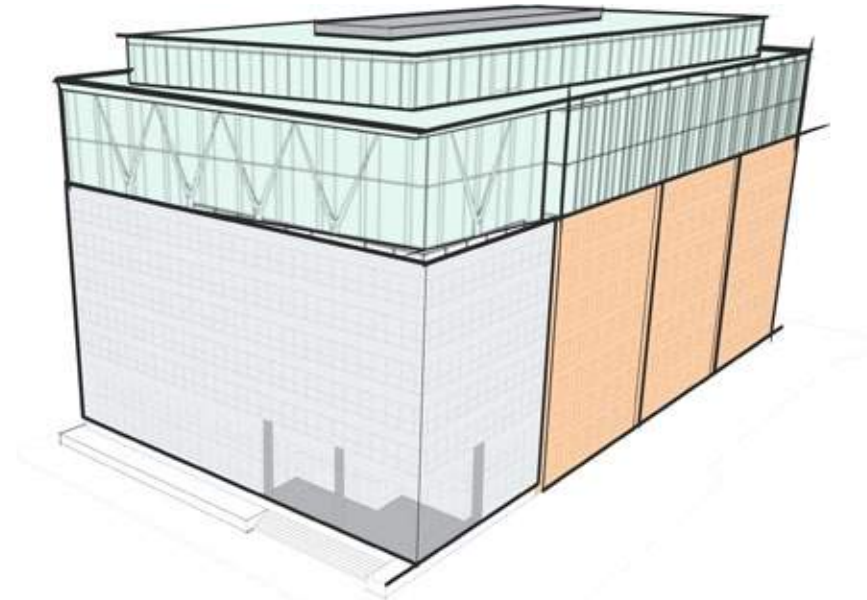
Hold SW & NE Corners



Fold Mass to Highlight Corner



Create Opportunities to Maximize Expansive View



Articulate Mass and Highlight Structure



PARALLEL STRAND LUMBER

Composite of wood strands
The strongest and stiffest
wood product available. It
is the most effective choice for
beams. Unlike other heavy
timbers, PSL is often used in
applications because it can be
re-treated.

Manufacturing Process:
1. Selection of log
2. Drying
3. Cutting into veneers
4. Dipping
5. Glue application
6. Pressing
7. Drying and curing
8. Cutting, marking, and packaging

Product Size:
Up to 12" thick x 16" deep x 80' long
Application:
Beams, columns, and trusses

Trees Used:
Douglas-Fir, Larch, Pacific Silver Fir,
Western Yellow Pine, Western
White Pine, and Poplar

Fun Fact:
PSL uses waste materials from
plywood manufacturing

NAIL-LAMINATED TIMBER

NLT is created by stacking dimensional
lumber together on its edge and fastening it
together with nails. Plywood sheathing can
be added to one side to allow the product to
be used as a wall panel. It is cheaper than
other heavy timber options and more widely
accepted in building codes because it is
simple to make and simple to understand.

Manufacturing Process:

1. Grading and selection of dimensional lumber
2. Fastening individual dimensional lumber, stacked on edge, into one structural element with nails
3. Installing the plywood sheathing (optional)
4. Finishing the underside

Product Size:

Up to 12" thick x 12" wide x 100' long.
(width and length of panel only
limited by shipping and erection
constraints)

Application:

Floors, decks, walls, roofs, stair and
elevator shafts

Trees Used:

Spruce-Pine-Fir, Douglas-Fir Larch,
Alaska Yellow Cedar, Port Orford
Cedar, Southern Yellow Pine, and
many other species

Adhesive:

Nails

Fun Fact:

Nail-laminated timber has been
used to build warehouses and
factories for the past 150 years.
It was previously referred to as
heavy timber or mill decking.

GLUE-LAMINATED TIMBER

Glulam is an engineered product made
of two or more layers of lumber glued
together with the grain of all layers running
parallel to the length. Its composition
enables the production of a variety of sizes
and shapes, including curves. Glulam's size
is limited only by the manufacturing and
transportation capabilities. Glulam has
many advantages over sawn lumber, such
as greater size and strength.

Manufacturing Process:

1. Selection of dimensional lumber
2. Splicing and joining with staggered finger joints
3. Adhesive application
4. Pressing
5. Sanding
6. Cutting, marking, and packaging

Product Size:

Up to 30" thick x 7' wide

Application:

Beams, columns, arches, trusses, and walls

Trees Used:

Douglas-Fir Larch, Southern Yellow Pine,
Hem-Fir, and Spruce-Pine-Fir

Fun Fact:

Glulam's earliest use can be traced to a
bridge built in Bavaria, Germany in the early
1800s. However, it wasn't until World War II
that glulam flourished as a building material
due to developments in waterproof glues
and fabrication technologies.

CROSS-LAMINATED TIMBER

CLT consists of several boards stacked
and glued together. To obtain specific
characteristics, layers may be placed in
a typical CLT cross-section contains

Manufacturing Process:

1. Lumber selection (each piece is)
2. Lumber grouping and planing
3. Adhesive application
4. Panel lay-out and pressing
5. Cutting, marking, and packaging

Product Size:

Up to 15" thick x 10' wide x 64' long

Application:

Walls, floors, roofs, stair and elevator

Trees Used:

Douglas-Fir, Spruce-Pine-Fir, South
and Alaska Yellow Cedar

Fun Fact:

To fabricate CLT, some wood manu-
facturers kiln-dry the Mountain Pine B

WHAT IS MASS TIMBER?

The term “mass timber construction” is different from light-wood frame, stick-frame or even heavy timber post-and-beam structures. Mass timber usually refers to timber products engineered for loads similar in strength to structural materials like concrete and steel. -USGBC

- **Cross-Laminated Timber (CLT):**
Panels consisting of three, five, or seven layers of lumber oriented at right angles to one another and glued together.
- **Nail-laminated Timber (NLT):**
Panels created by fastening individual layers of lumber, stacked on edge, into one structural element with nails.
- **Glue-Laminated Timber (Glulam):**
Usually beams or columns composed of individual lumber laminations and then glued together.
- **Parallel Strand Lumber (PSL):**
Usually beams or columns manufactured by gluing strands of wood together under pressure.

BENEFITS OF MASS TIMBER: SUSTAINABILITY

- Wood sequesters carbon for the life-cycle of its usage, especially when harvested from sustainably managed forests
- Mass timber buildings can be 30-40% of the weight of an equally sized concrete structure, which also means:
 - » foundations don't have to be as large,
 - » they require less fuel to get to construction site¹
- 2014 study published in the Journal of Sustainable Forestry, found the ability to reduce global CO₂ emissions by 15-20% if CLT were used instead of steel
- Can have a total carbon footprint a third smaller than similarly sized steel and concrete buildings
- Reduces thermal bridging and performs well as an insulator, R-value = 1.25/inch of thickness (10x concrete, 400x steel)
- Wood from beetle-kill pines can be used in mass timber products

“Carbon dioxide is the building block of wood. As the tree grows, more carbon dioxide is stored.”

-Professor Arijit Sinha, Oregon State University

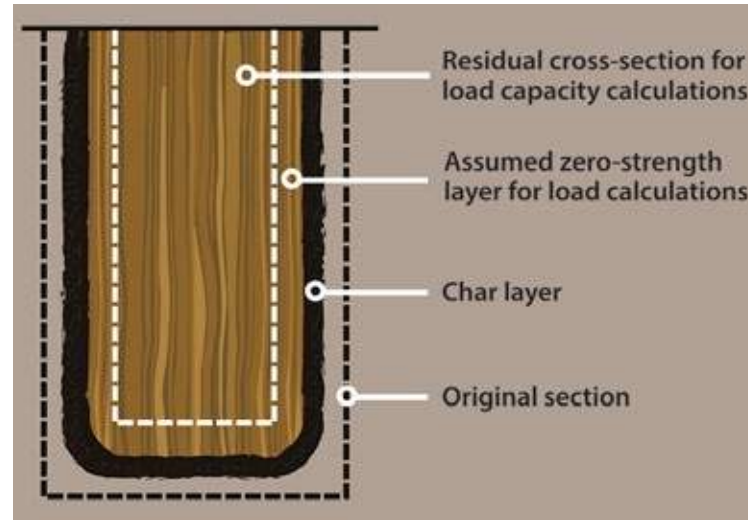
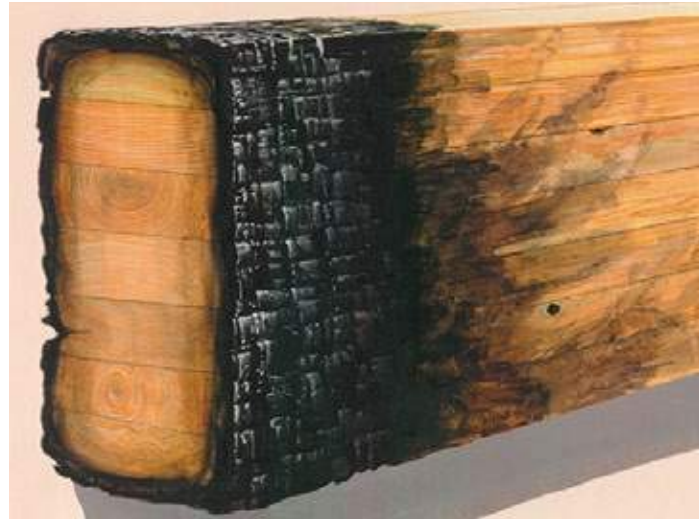
¹ Engadget, 'Timberscrapers' Could Soon Dominate Urban Skylines,
<https://www.engadget.com/2017/09/28/timberscrapers-dominate-urban-skylines/>



BENEFITS OF MASS TIMBER: AESTHETICS & WELLNESS

- Use of natural textures and biophilic design can combat absenteeism, presenteeism, information retention, hospital recovery times¹
- Evidence suggests that wood, like other biophilic materials, provide health benefits and reduce stress²
- In a study presence of visual wood surfaces in a room lowered sympathetic nervous system (physiological stress) activation³
- Lower heart rate and blood pressure have been observed in lab settings when the scent of alpha-pinene (pine tree oil) is present⁴
- A 2015 study⁵ of 7,600 workers noted that workers in environments with natural elements reported:
 - » 15% higher level of wellbeing
 - » 6% higher level of productivity
 - » 15% higher levels of creativity

1 2012, The Economics of Biophilia, Terrapin Bright Green
2 2015, Wood as a Restorative Material in Healthcare Environments, FPIInnovations & Design with Science
3 2011, University of British Columbia and FPIInnovations Wood and Human Health study
4 2014, University of Tokyo and Forestry Products Research Institute of Japan
5 2015, Human Spaces: The Global Impact of Biophilic Design in the Workplace, Interface



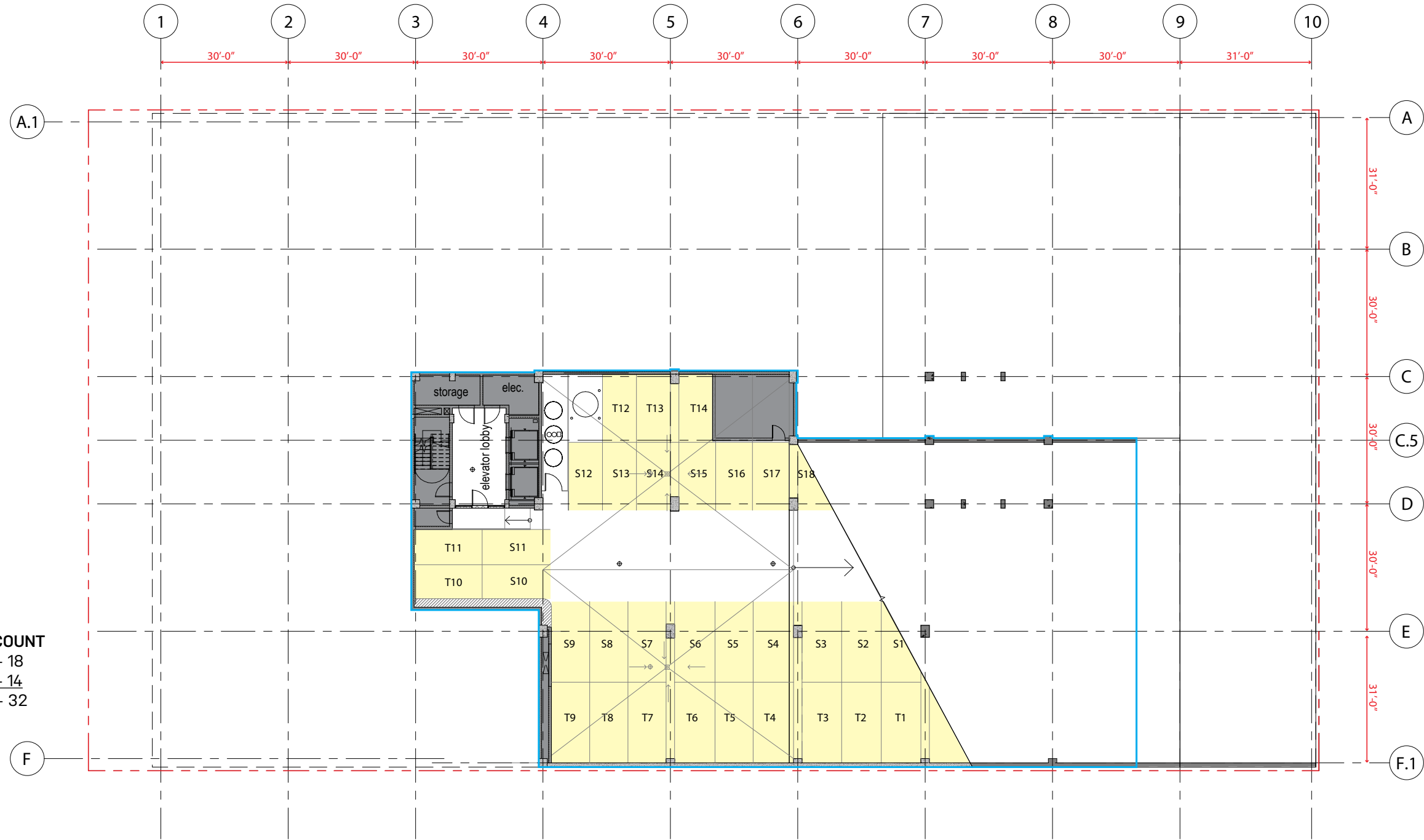
BENEFITS OF MASS TIMBER: **STRUCTURAL STRENGTH AND FIRE SAFETY**

- CLT layers are rotated 90 degrees, composite material shows a structural strength that rivals steel
- Lighter wooden buildings can withstand earthquakes better and dissipate the energy of shaking more readily than steel structures
- CLT lamination negates imperfections that any one layer has
- Increasing the density of the wood causes it to char rather than burn outright which slows destruction and helps to maintain structural integrity
- Wood performance in fire is predictable, design for fire resistance through increasing wood depth:
 - » 1hr exposure = 1.8in/hr
 - » 2hrs exposure = 1.58in/hr¹

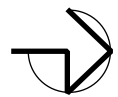




Existing - P3 floor plan

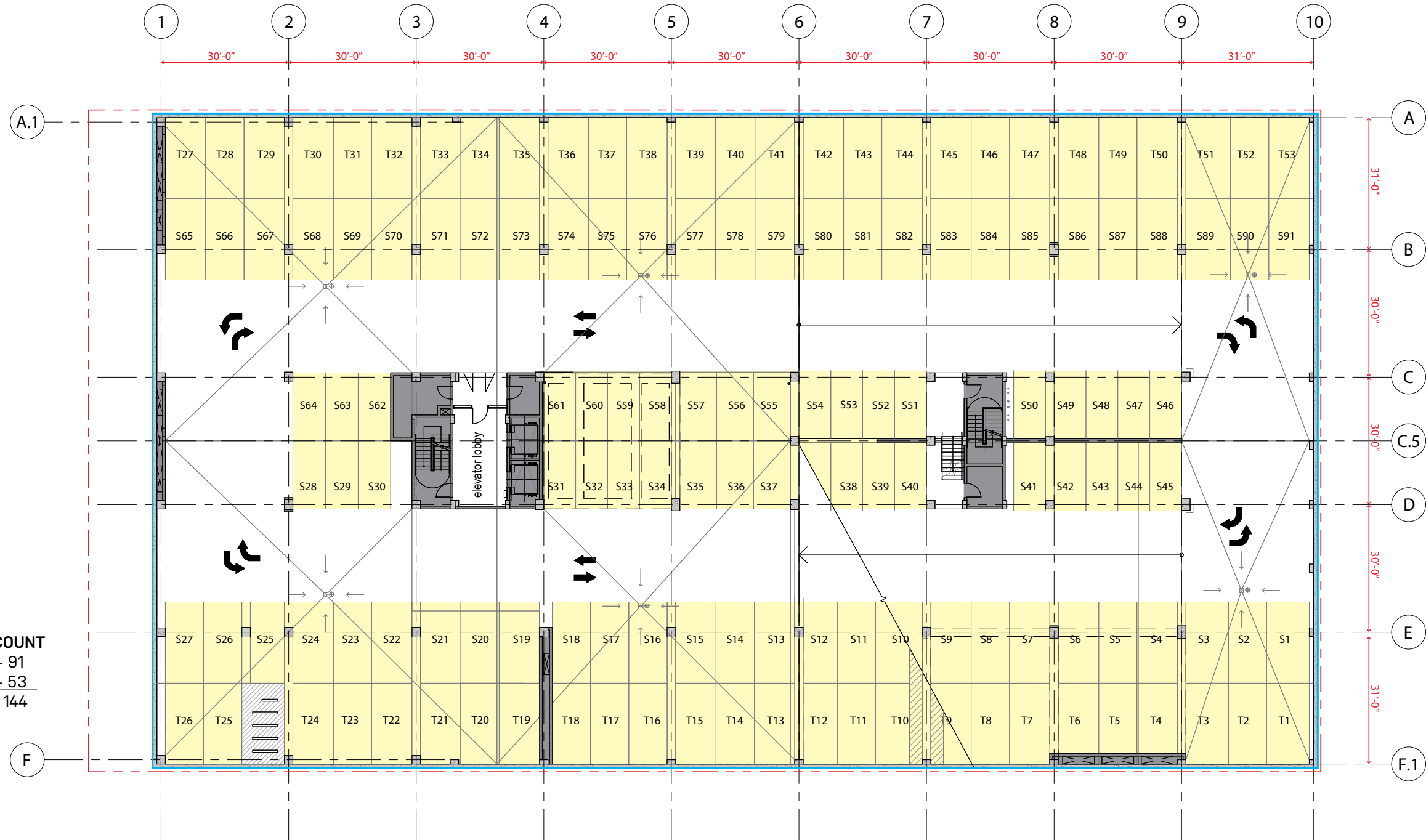


EXISTING PARKING COUNT
 STANDARD SPACES - 18
 TANDEM SPACES - 14
 TOTAL SPACES - 32



Existing - P2 floor plan

*All floor plans are illustrative & final layout is subject to adjustment prior to permit review



EXISTING PARKING COUNT
 STANDARD SPACES - 91
 TANDEM SPACES - 53
 TOTAL SPACES - 144

Existing - P1 floor plan

*All floor plans are illustrative & final layout is subject to adjustment prior to permit review



EXISTING PARKING COUNT
 STANDARD SPACES - 66
 TANDEM SPACES - 46
 TOTAL SPACES - 112

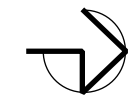
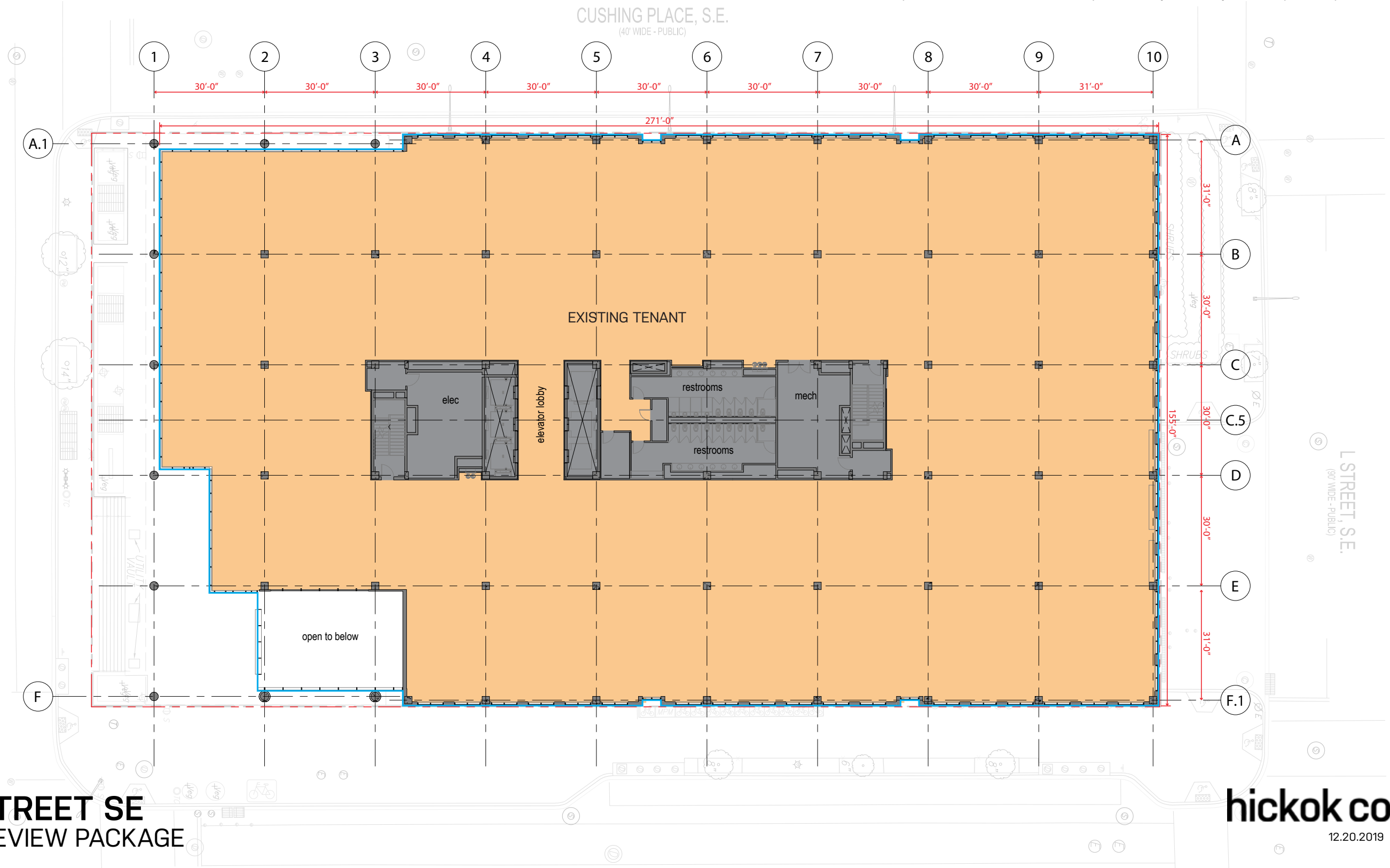
Proposed - 1st floor plan

*All floor plans are illustrative & final layout is subject to adjustment prior to permit review



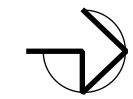
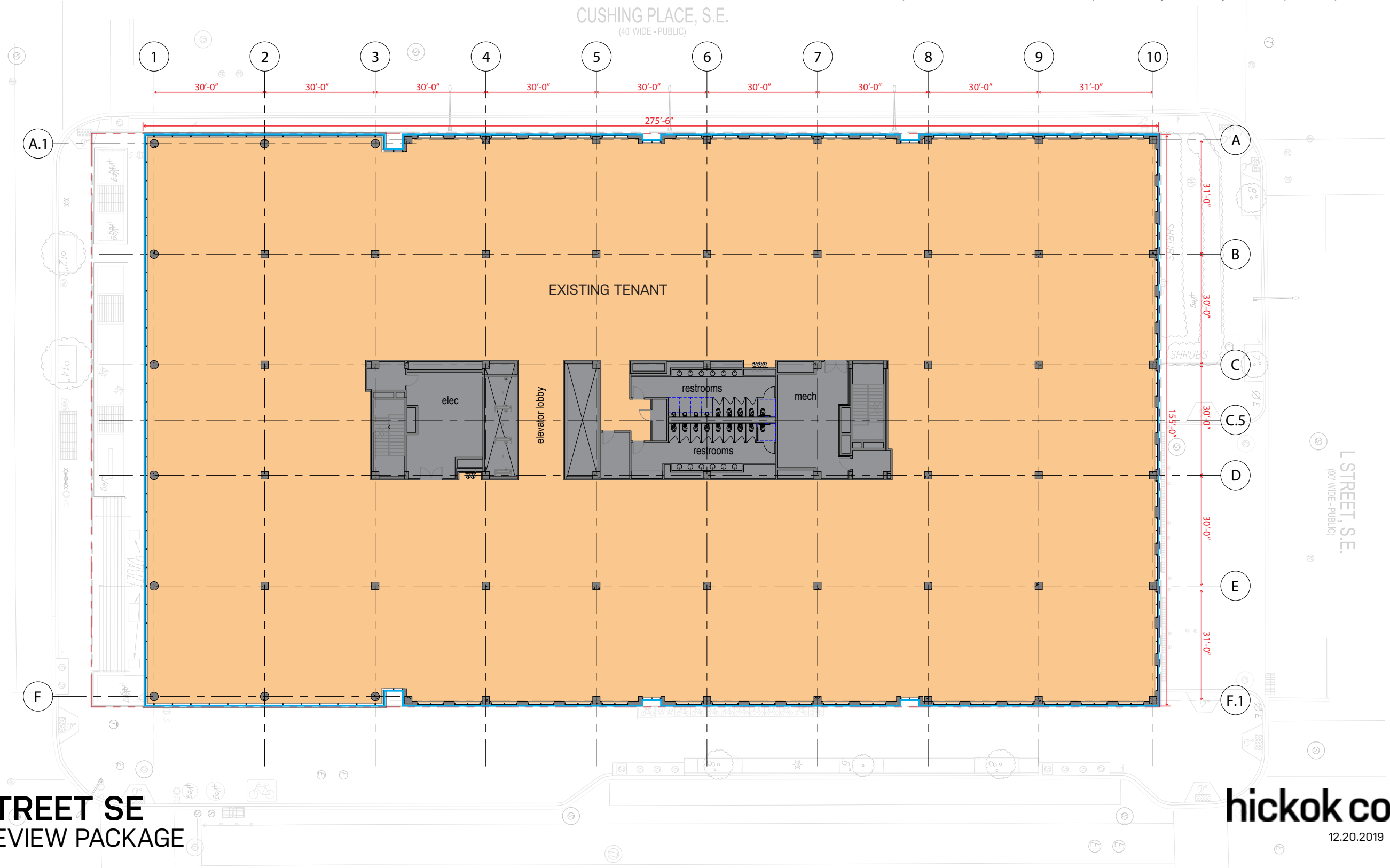
Existing - 2nd floor plan

*All floor plans are illustrative & final layout is subject to adjustment prior to permit review



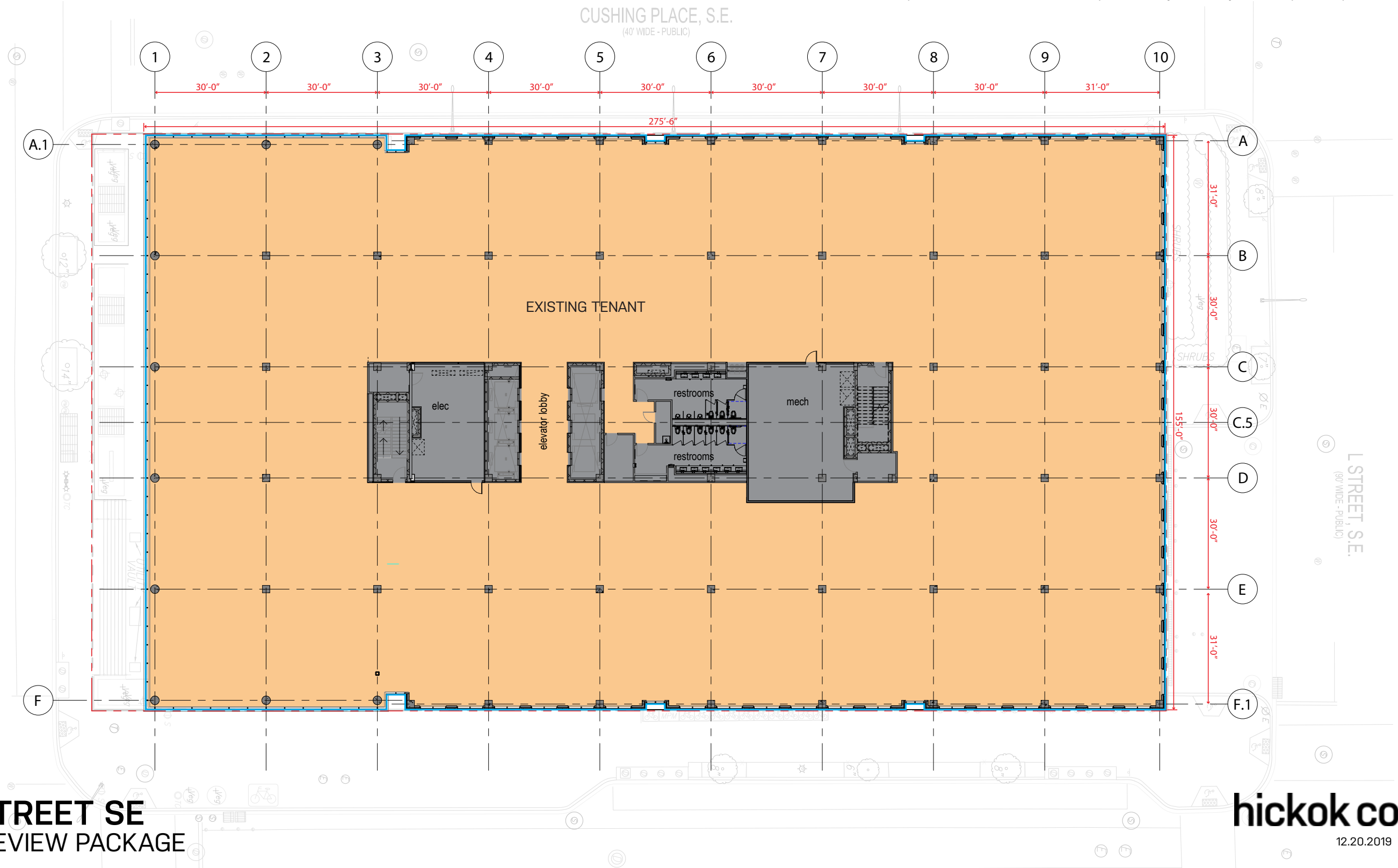
Existing - Typical floor plan

*All floor plans are illustrative & final layout is subject to adjustment prior to permit review



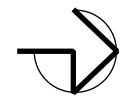
Existing - 7th floor plan

*All floor plans are illustrative & final layout is subject to adjustment prior to permit review



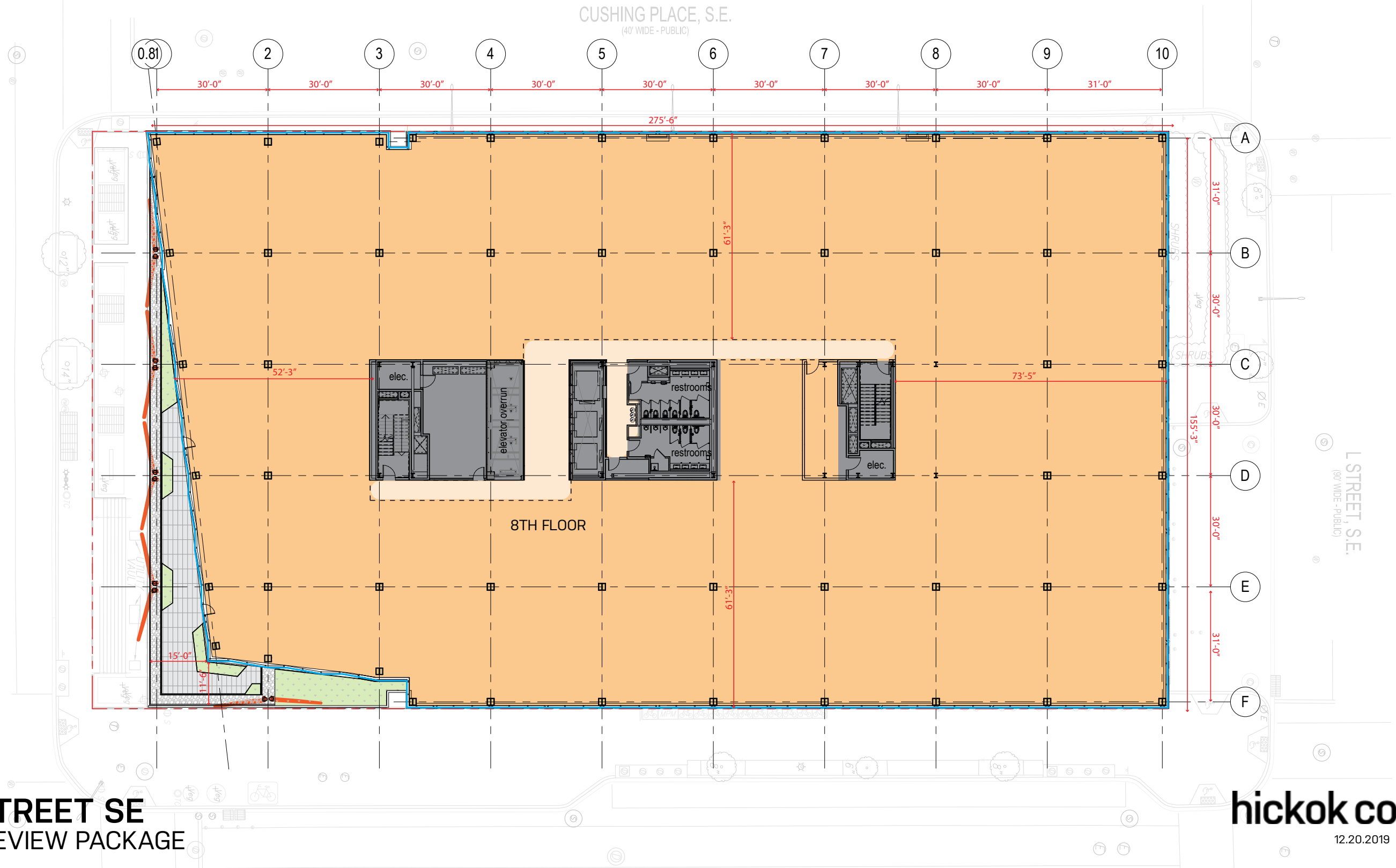
CUSHING PLACE, S.E.
(40' WIDE - PUBLIC)

L STREET, S.E.
(90' WIDE - PUBLIC)



Proposed - 8th floor plan

*All floor plans are illustrative & final layout is subject to adjustment prior to permit review



8th floor terrace



Proposed - 9th floor plan

*All floor plans are illustrative & final layout is subject to adjustment prior to permit review

