

HEATING, VENTILATION AND AIR CONDITIONING

Heating and air conditioning for the building shall be provided via a condenser water loop routed throughout the building. (1) 1500 ton cooling tower shall be grade mounted at the lowest level. Condenser water piping shall be routed from cooling tower over to mechanical room on the lowest level, where it will be distributed up through base building shafts through (2) 100 hp variable speed pumps in parallel and (1) 150 hp standby pump. (2) 2,500 MBH boilers will be located in mechanical room on lowest level and tied into condenser water loop. Heat exchanger, air separator, and water treatment system for condenser water loop will also be located in mechanical room. (2) 10" condenser water risers will be routed up through mechanical shafts on either end of the building for connection by self-contained water-cooled unitary devices (SWUDs) on each floor.

SWUD sizing will be as follows:

1st floor: (3) 46 ton SWUDs

2nd floor: (5) 46 ton SWUDs

3rd floor: (5) 46 ton SWUDs

4th floor: (5) 46 ton SWUDs

5th floor: (3) 46 ton SWUDs

Each SWUD will be provided with a supply air duct stub out into the future tenant spaces. Freeze protection for the shell will be provided via powered induction units (PIUs) with 10kw electric resistance heaters and standalone controls. (8) evenly spaced PIUs shall be provided for each level.

Core conditioning for the base building lobbies, corridors, and restrooms shall be provided via water source heat pumps (WSHPs). WSHP sizing will be as follows:

1st floor: (1) 2.5 ton WSHP, (2) 3 ton WSHP, (2) 5 ton WSHP

2nd floor: (2) 4 ton WSHP, (1) 5 ton WSHP

3rd floor: (2) 4 ton WSHP, (1) 5 ton WSHP

4th floor: (2) 4 ton WSHP, (1) 5 ton WSHP

5th floor: (3) 4 ton WSHP

Outside air and exhaust air will be provided via roof mounted fans and ducted down through mechanical room shafts for each level.

ELECTRICAL

ELECTRICAL SERVICE AND DISTRIBUTION:

(2) Services to the building, one for each tower, is provided by the local electric utility (GA Power) via two power company pad mounted transformers. Transformers to possibly be relocated. The service voltage is 480/277 volt 3-phase 4 wire grounded wye. The north tower is served by a 3000A main switchboard and the south tower is served by 2500A main switchboard. Based off load the analysis shown below we believe this service size will be adequate for the repurposing of the building with the (2) additional floors.

Building Load Analysis			
Floor	Sqft	Watts/Sqft	Total Watts
Restaurant Floor 1	6017 sqft	40 W/Sqft	240680 Watts
Office Floor 1	59297 sqft	10 W/Sqft	592970 Watts
Office Floor 2	75978 sqft	10 W/Sqft	759780 Watts
Office Floor 3	81558 sqft	10 W/Sqft	815580 Watts
Office Floor 4	69721 sqft	10 W/Sqft	697210 Watts
Office Floor 5	36199 sqft	10 W/Sqft	361990 Watts
Miscellaneous	55000 sqft	10 W/Sqft	550000 Watts
Total			4018210 Watts

4018.21 KVA is ~4800A and is 87% of the existing 5500A combined services.

There are (2) ASCO 7000 series transfer switches, shown below, that previously backed up the entire building which are no longer necessary. They are to be removed. A quick search showed a similar transfer switch priced at ~\$70,000. These transfer switches have exterior rated NEMA 3R enclosures and could be more valuable.



The existing main switchboards, shown below, are intended to be reused. The current location does not meet required egress and clearance requirements per NEC 110.26. The switchboards are to be relocated north to the previous elevator room adjacent to MEP closet. Correct egress and clearance requirements shall be provided per NEC 110.26 at new location.



The bolted pressure switches may need to be replaced with more modern overcurrent protection. A Square D representative should evaluate the condition of the switches.

The 2500A busway that is fed from the south tower switchboard and routed to the main mechanical room of the south tower and then up through the stacked mechanical rooms is intended to be reused. The busway shall be extended to cover the additional 4th and 5th floors if possible.

New disconnects, connected to the busway, and their corresponding new 480V panels, new 480V:280V transformers and new 208V panels to provide power and lighting for all common areas for each floor shall be provided at each floor.

There is a previous generator pad existing that will no longer be used. A new natural gas emergency power generator will be located by the cooling tower. It will be required for life safety and is intended to power emergency lighting, a fire pump, fire alarm system, and elevators.

Allowances are to be provided for exterior building lighting and emergency radio responder system.

PLUMBING

Site Utilities:

A 4" domestic water service and an 10" sprinkler service shall enter the building into the dedicated Sprinkler Riser Room. Backflow preventers for these services to be located on site. Gas service shall rise at the exterior of the building to the building gas meter located near the Mechanical Yard. The building sanitary sewer shall be served by one (1) 8" sanitary sewer main and two (2) 6" grease waste main. Grease main shall be connected to an exterior precast concrete grease interceptor installed in an accessible location, as close as possible to the future kitchens, and shall receive grease waste drainage from the two main kitchen. Discharge from the grease interceptor shall be connected to site sanitary sewer utility. Storm drainage around the entire perimeter of the building shall be connected to site stormwater utility.

Water Distribution:

Water distribution shall be routed above the ceilings. Hot water shall be looped around the core restrooms and recirculated back to the water heater with a small recirculation pump. For future use, 1" cold water taps will be provided at the 4 main corners of the building to supply each tenant space on each level.

Kitchen spaces will be provided with a 2" cold water tap for future use.

An exterior freezeproof hose wall hydrant shall be provided to serve the Mechanical Yard, the front entrances, and at the front and back of the Apparatus Area, for a total of four. Hydrants shall be individually valved.

A freezeproof roof hydrant shall be provided at roof for the maintenance/cleaning of HVAC equipment. Hydrant to be valved at an accessible location below.

Sanitary Sewer:

Fixtures shall be collected to sanitary sewer main. Vents shall be combined above the ceiling to minimize total vent through roof penetrations. Sanitary sewer main shall be routed through main corridors to collect sanitary sewer drainage, with required floor cleanouts located in back-of-house spaces as much as possible. Sanitary sewer shall exit the building as detailed under 'Site Utilities'.

Grease Waste:

All grease producing fixtures in the Kitchen shall be collected through a grease waste system and be routed to a concrete precast grease interceptor, located outside as detailed under 'Site Utilities' (size TBD).

Natural Gas:

Natural gas shall be distributed at 2psi pressure to serve future gas fired kitchen appliances, HVAC units, and the generator.

Storm Drainage:

Roof areas shall be served via roof drains and secondary roof drains with internal piping. The primary storm drainage shall be routed down to below first floor slab and connected to site storm utility. The secondary roof drainage shall be routed above ceiling and discharged to exterior with a downspout nozzle.

Water Heating:

A new tank type electric water heater shall be installed with the capacity and electrical input to supply hot water to all fixtures in the core restrooms at the same time.

Plumbing Fixtures:

Water Closets: 1.28 gpf tank type water closets.

Lavatories: Wall-hung or under-counter mounted lavatory with 0.5 gpm single handle faucet.

Urinals: Wall-mounted flush valve 0.5 gpf urinals with support systems.

Janitor's Sink: Provide floor basin mop sink and service faucet with vacuum breaker.

Electric Water Coolers: Wall-hung bi-level water cooler set to deliver 8.8 gph of 50 degree water at 80 degree room temperature.

Floor drains shall be installed in all restrooms.

All plumbing fixture selections shall be approved by architect/owner.

Pumps:

It is not anticipated that a booster pump set will be required for this building. A recirculation pump shall be provided for the hot water distribution systems. Pump shall operate through an aquastat and 24-hour timer. It will be enabled to run 24 hours a day.

Fire Protection:

An 10" fire protection service shall be provided for the building including fire pump system as required. The building shall be fully sprinkled with recessed or concealed sprinkler heads in areas with finished ceilings, and upright sprinkler heads in areas open to structure. Standpipes will be provided in the stairwells. Fire protection design shall be by others.

Piping materials:

Domestic water piping shall be copper and PVC/CPVC. Waste and vent piping shall be DWV PVC. Grease waste and Vent piping shall be cast iron. Storm piping shall be cast iron. Gas piping shall be black steel.



244 Perimeter Center

Structural Overbuild Schematic Design Narrative

Mass Timber Framing and Lateral Force Resisting Systems

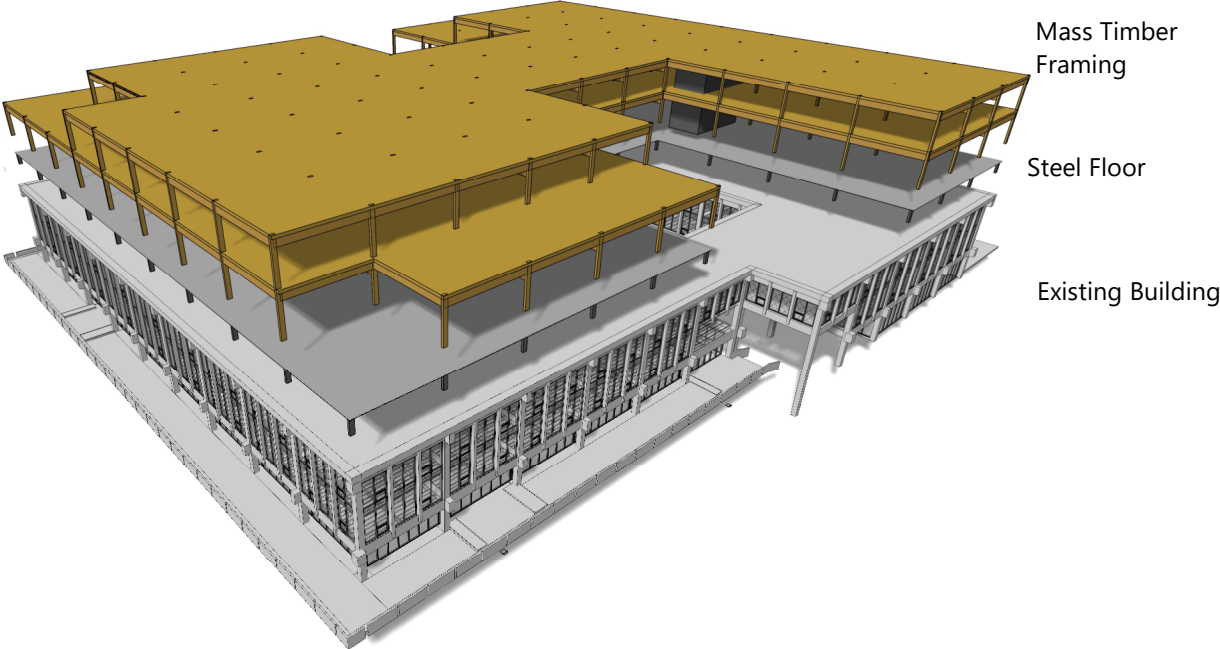
December 18, 2020

1 Summary

1.1 Project Description

The 244 Perimeter Center is a planned addition to an existing three-story concrete office building. The addition will consist of two additional mass timber stories supported on a new steel floor constructed above the existing roof. Uzun+Case will be the engineer for the new steel floor and upgrades to the existing building, while StructureCraft will be the engineer for the mass timber overbuild.

The following narrative presents a high-level description of the of the mass timber framing and the two options for the lateral force resisting system of the top two floors of this structure.



Isometric exploded view of the overbuild

1.2 Basic Design Criteria

Applicable Project Codes:

2018 International Building Code (IBC)

ASCE 7-16: Wind and Earthquake Loads: Minimum Design Loads for Buildings and Other Structures

AWC NDS 2018: National Design Specification for Wood Construction

AISC 360-16: Specification for Structural Steel Buildings

ACI 318-14: Design of Concrete Structures

Superimposed Dead Loads

Roofing and Insulation:	5 psf
Green Roof:	30 psf
Terraces and Rooftop Amenity	30 psf
Mechanical, Electrical, Misc. (Roof):	5 psf
Mechanical, Electrical, Misc. (Floor):	5 psf

Seismic Loads

Risk Category:	II
Importance Factor:	1.0
Site Class:	D
0.2s Spectral Acceleration S_s :	0.197
1.0s Spectral Acceleration S_1 :	0.087
Seismic Design Category:	B

Snow Loads

Importance Factor:	1.0
Ground Snow Load:	5 psf
Flat Roof Snow Load:	5 psf

Wind Loads

Basic Wind Speed, V_{ult} :	105 mph
Risk Category:	II
Exposure Classification:	B

Live Loads

Office:	50 psf + 15 psf partitions
Corridors:	80 psf
Stairs:	100 psf
Terrace:	75 psf
Rooftop Amenity:	75 psf
Roof (unoccupied):	20 psf

2 Mass Timber Overbuild

The mass timber framing for the two new levels consists of 2x4 Dowel Laminated Timber panels (DLT) panels supported on a series of glulam purlins. The purlins span between glulam girders, which are supported on glulam columns. At level 4, a 3" concrete topping over the DLT creates the structural diaphragm. The topping is placed over an acoustic mat which helps mitigate sound transmission. At the roof the DLT panels are sheathed with plywood or OSB as the diaphragm.



Glulam purlins and girders topped by DLT panels

With a 16'-0" floor to floor, the clear distance to the underside of a typical beam is around 10'-6", to the underside of purlins is ~13'-0" and to the underside of DLT it is close to 15'-0".

The purlin-on-girder scheme creates natural mechanical chases over the main glulam girders, allowing ducts and other MEP systems to be efficiently distributed throughout the floor.

3 Lateral Force Resisting System

3.1 Overview

Due to the extensive nature of this addition to the existing building, the capacity of the original lateral system needs to be increased. It is our understanding that at levels 1, 2, and 3 the existing system is being completely replaced with four new 'C' shaped concrete stair cores. For the mass timber superstructure above, two options aligning with these concrete walls below are proposed.

3.2 Floor and Roof Diaphragms

At Level 4 a 3" concrete topping acts as the structural diaphragm and ties into the vertical lateral elements in the stair cores. The topping is reinforced with #3 bars @ 20" o/c with additional drag/collector bars around the perimeter of the building and around the cores to collect and transfer the loads.

At the roof level nailed plywood or OSB sheathing is the structural diaphragm and will tie into the LFRS elements in the stair. Additional coil straps will be provided around the perimeter of the roof and around the cores.

3.3 Core Options

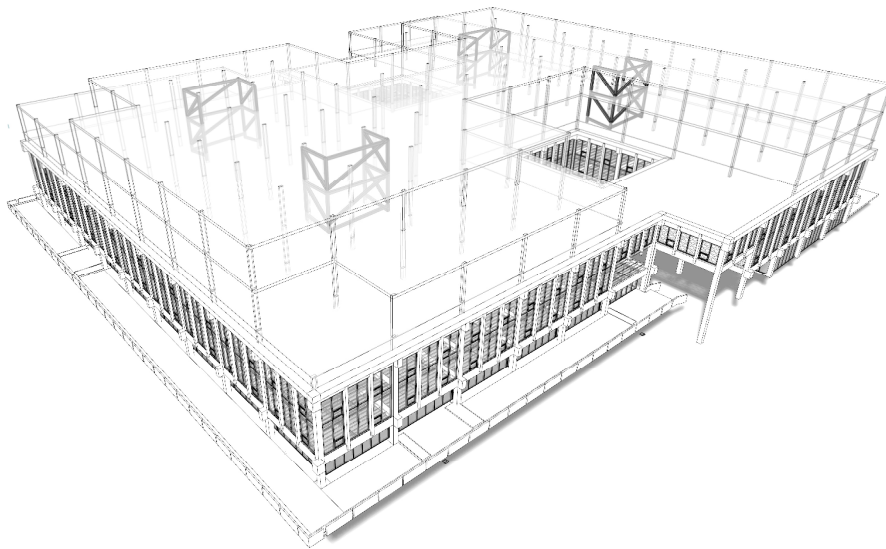
There are two options being considered for the Level 4 and 5 Lateral Force Resisting System; concrete cores and steel braced frames. In both options, these cores will be vertically aligned with the new concrete walls below.

3.3.1 Steel Braced Frame Option

A steel braced frame option would consist of steel column and beams framing around the stair cores as depicted in the isometric view below.

Single diagonal wide flange tension and compression braces will be connected to the steel beam and column elements with gusset plates. Infill metal stud and drywall would be required to frame core walls around the structural steel members.

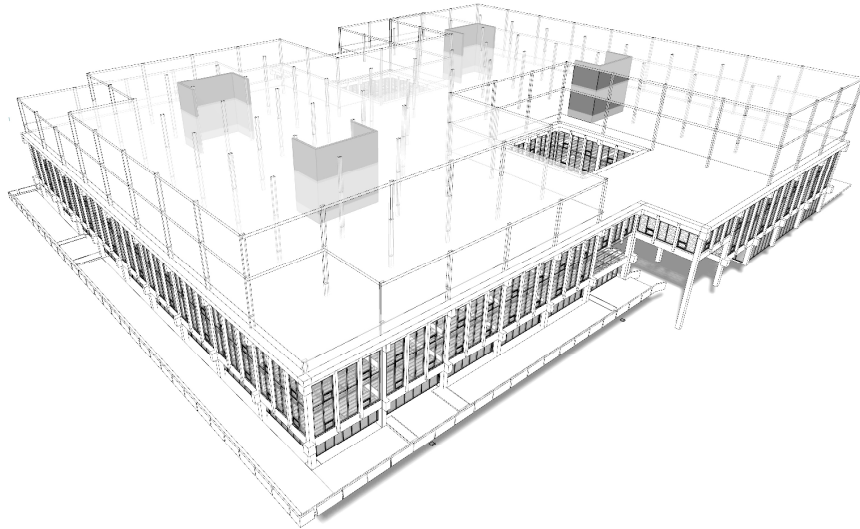
A steel braced frame option would likely provide a schedule advantage over concrete construction as the structural elements could be erected in conjunction with the timber framing.



Isometric view of steel braced frames

3.3.2 Concrete Cores

This option would entail continuing the new concrete shearwalls past level 3 and up to the underside of the roof as depicted in appendix A. The walls could be left exposed if desired or covered with metal stud and drywall.



Isometric view of concrete cores

StructureCraft

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244 Perimeter Center Parkway
Schematic Design Structural Narrative
December 18, 2020

GENERAL DESIGN CRITERIA:

Applicable Codes:

- 2018 International Building Code (With Applicable GA Amendments)
- ASCE 7-16 - Minimum Design Loads for Buildings and Other Structures
- AISC 360-16 – Specification for Structural Steel Buildings
- ACI 318-14 – Building Code Requirements for Structural Concrete

Building Risk Category:

II

Wind Loading Criteria:

- Design Speed (V): 105 mph
- Exposure: C

Seismic Loading Criteria:

- Site Class: D
- 0.2s Design Spectral Response Acceleration (S_{DS}): 0.200 *
- 1.0s Design Spectral Response Acceleration (S_{D1}): 0.133 *
- Seismic Design Category: B *
- Basic Structural System:
 - Ordinary Reinforced Concrete Shear Walls below Level 4
 - Steel Braced Frames assumed above Level 4
 - Response Modification Factor (R): 5
 - System Overstrength Factor (Ω_o): 2.5
 - Deflection Amplification Factor (C_d): 4.5
- Analysis per equivalent lateral force procedure
- * Requires verification by a site-specific seismic hazard analysis

Snow Loading Criteria:

- Flat Roof Snow Load: 5 PSF

Foundation Bearing Capacity:

- Drilled Piers:
 - 30 KSF used for original design
 - 50 KSF used for current design based on Geotechnical report

MATERIAL DEFINITIONS:

Concrete:

- Existing Concrete Beams, Joists & Slab: 4000 PSI (120 pcf max.)
 - Existing Concrete Columns: 4000 PSI *
 - Slab on grade: 3500 PSI
 - Slab on deck: 3000 PSI (115 pcf max.)
 - Topping Slabs: 3500 PSI
 - Column Enlargement/Jackets: 4000 PSI
 - Shear walls: 5000 PSI
 - Foundations and basement walls, unless noted: 4000 PSI
- * Core testing was performed on various columns but did not show an improvement above the original design strength of 4000 PSI.

Structural Steel:

- WF columns and beams: 50 KSI
- HSS shapes: 46 KSI
- All other steel, unless noted: 36 KSI

Mass Timber above Level 4:

- Coordinate with Structure Craft

SUPERIMPOSED GRAVITY LOADING CRITERIA:

Roof:

- Min. Live Load: 20 PSF
- Roofing: 15 PSF
- Misc. 10 PSF

Unoccupied Green Roof:

- Live Load: 40 PSF
- Finish and Roofing: 50 PSF (or Actual weight of soil and planting)
- Misc. 10 PSF

Terraces:

- Live Load: 100 PSF
- Finish + Topping Slab: 80 PSF (higher at planters)
- Misc. dead load 10 PSF

Offices:

- Live Load (Including Partitions): 80 PSF
- Misc.: 10 PSF

Stairs, Lobbies & Public Areas:

- Live Load: 100 PSF
- Miscellaneous Dead Load: 10 PSF

December 18, 2020

244 Perimeter Center Parkway – Schematic Design Structural Narrative

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Storage and Mech. Rooms:

- Live Load 125 PSF (Non-reducible)
- Misc.: 10 PSF

Timber Structure Level 5:

- Live Load (Including Partitions): 80 PSF
- Timber Self-Weight + Misc.: 65 PSF

Timber Structure Roof:

- Min. Live Load: 20 PSF
- Timber Self-Weight + Misc.: 30 PSF

SERVICEABILITY DESIGN CRITERIA

Deflection Limits

- Roof Members: L/360 (under live loads or wind)
- Roof Members: L/240 (under dead + live loads)
- Floor Members: L/360 (under live loads)
- Floor Members: L/240 (under dead + live loads)

STRUCTURAL SYSTEM DESCRIPTION

The existing building at 244 Perimeter Center Parkway was designed and constructed in 1974. The building consists of two concrete framed structures separated by a 2" expansion joint, with framing typically consisting of 3 1/4" slab spanning 2'-6" between 6"x17 1/4" deep concrete joists. Joists typically span between post-tensioned concrete girders which are supported by concrete columns on a 30'x30' grid. Concrete columns typically range from 18"x18" to 24"x24". Existing horizontal framing utilizes semi-lightweight concrete (120 pcf max.) The buildings consist of 3 floors, with an above-grade parking level below level 1 on the southern half of the building. Existing floor-to-floor elevations are typically 12'-6", with taller heights in some areas at the base of the building.

The project consists of various modifications to the existing structure and the addition of two new floors and a roof above the existing roof structure. The following provides a schematic description of various components of the structural systems. See schematic design architectural and structural drawings for additional information and to clarify the structural framing concepts described herein.

New Level 4:

- Overbuilt with top of slab 3'-6" above the nominal top of slab elevation of the existing concrete roof.
- W10 stub columns extend up from existing roof to support new Level 4 framing. Scan all areas to be drilled for anchor rods with GPR or equivalent to avoid existing reinforcing steel and PT tendons.
- New C-shaped concrete shear walls at stair shafts shall extend up and serve as the lateral system for level 4 and below.
- Floor framing shall utilize 3 1/4" semi-lightweight concrete (115 pcf max.) on 3" 20 ga. galvanized composite metal deck (total thickness = 6 1/4").
- Roof framing shall utilize 3" 20 ga. galvanized Type N steel roof deck.
- A 3" (min.) expansion joint should be assumed at this level between the north and south portions

of the building.

- For structural steel quantities, see plan and include additional 10% allowance for connections and miscellaneous steel not shown.

New Level 5 and Roof:

- Mass timber structure designed and detailed by Structure Craft.
- Glulam columns shall be centered at steel stub columns below at level 4.
- Lateral system is assumed to be braced frames centered on the concrete shear walls below at Level 4. It may be feasible to continue concrete shear walls up the full height to serve as the lateral system for mass timber structure as well.
- A 4" (min.) expansion joint should be assumed at these levels between the north and south portions of the building at these levels.

Existing Building Modification:

New Shear walls:

- 24" thick C-shaped shear walls at 4 existing stair cores. Shear wall thickness was governed by the need to limit lateral displacement between the two structure to work with the existing 2" expansion joint. Further detailed analysis, including response spectra analysis of the buildings may allow for some reduction in the shear wall thickness.
- Pour new shear walls between existing floors
- Drill and epoxy grout wall reinforcement into adjacent columns and floors. Scan all areas to be drilled with GPR or equivalent to avoid existing reinforcing steel and PT tendons.
- Demolish existing roof framing to allow stairs to continue up to new level 4 and 5. It is our understanding that existing stairs are intended to remain in place at levels below where possible. However, installation of shear walls and their foundations may necessitate the removal of the existing stairs at some locations.
- Some strengthening of floor framing members around new shear walls may be required due to revised support configuration.
- Assume 200 lbs/CY for estimated reinforcing quantities at shear walls.

Shear Wall Foundations:

- Assume 4' thick mat pile cap, engaging adjacent caissons and extending at least 5' beyond shear walls in all directions. Drill and epoxy reinforcing into existing caissons to properly tie to new foundation. Scan all areas to be drilled with GPR or equivalent to avoid existing reinforcing steel.
- Piles are assumed to be 8" diameter, 150-ton micropiles embedded at least 20 feet into competent bedrock per Geotechnical Report.
- Lateral loads are anticipated to govern the pile quantities. Various piles are anticipated to be battered at a 1:6 slope to provide lateral resistance.
- Some lateral resistance is assumed to be provided by the existing caissons as well. Exact magnitude of resistance is to be determined, pending recommendations and L-Pile analysis by the Geotechnical Engineer
- Pile quantities indicated are preliminary and subject to change pending design criteria from the specialty pile subcontractor regarding pile vertical and lateral capacity.
- Assume 300 lbs/CY for estimated reinforcing quantities at shear wall foundation

New Elevator Openings:

- Remove framing within one 30' x 30' bay at new elevators to edge of existing PT girders.

- Reframe with structural steel.
- It is anticipated that intermediate elevator rail support posts shall be required due to the floor-to-floor heights, pending confirmation from Elevator Manufacturer.
- Provide new concrete elevator pits. Assumed 5'-0" pit depth to be confirmed by Elevator Manufacturer. Requires special considerations related to undermining of existing foundations or affecting lateral stability. Drill and epoxy elevator pit wall reinforcing into existing caissons.
- Existing service elevator opening requires enlargement. Exact size is to be determined pending information from the Elevator Manufacturer. It is anticipated that it will require enlargement in one direction (to the West.) This will require demolition and replacement of elevator pit walls and framing on the elevated levels.
- Scan all areas to be drilled with GPR or equivalent to avoid existing reinforcing steel and PT tendons.

Level 1 Modifications:

- Various modifications to the level 1 area are anticipated where the north and south structures meet to accommodate revised/raised elevations in this area. Strengthening of the existing structure is anticipated to accommodate additional load due to the raised area.
- At the west cantilever balcony of the southern portion of the building, strengthening is anticipated. The other balconies on the south and east sides are anticipated to be unoccupied space with light landscaping to stay within existing design loads and thus avoid strengthening.

Existing Elevator Opening infill at all levels:

- Infill existing elevator opening with 4 1/2" semi-lightweight concrete slab.

Existing Column Strengthening:

- Provide column strengthening as indicated on drawings.
- Provide 4" to 6" reinforced concrete jacket at each column to be strengthened.
- Drill and epoxy reinforcement into existing structure at top and bottom.
- Drill and epoxy column ties into existing columns.
- Scan all areas to be drilled with GPR or equivalent to avoid existing reinforcing steel and PT tendons.

Existing Beam and Joist Strengthening:

- Provide beam and joist strengthening as indicated on drawings.
- Strengthening is typically required where beam continuity has been interrupted and at locations where heavier loading is anticipated such as new terrace areas.
- Strengthening is typically assumed to consist of FRP reinforcing as noted. It may be necessary to utilize alternate strengthening methods in some locations, depending on final magnitude of overstress of existing members.
- For estimated FRP quantities, see plan and include an additional 10% allowance for miscellaneous strengthening requirements not shown.

Miscellaneous Items:

- See architectural drawings for all fireproofing requirements.
- Coordinate fireproofing of 4th floor structural steel. Steel beams shall be fireproofed prior to deck placement.
- Canopies: Allow 20 lbs/SF of AESS where required.

244 PERIMETER. ATLANTA

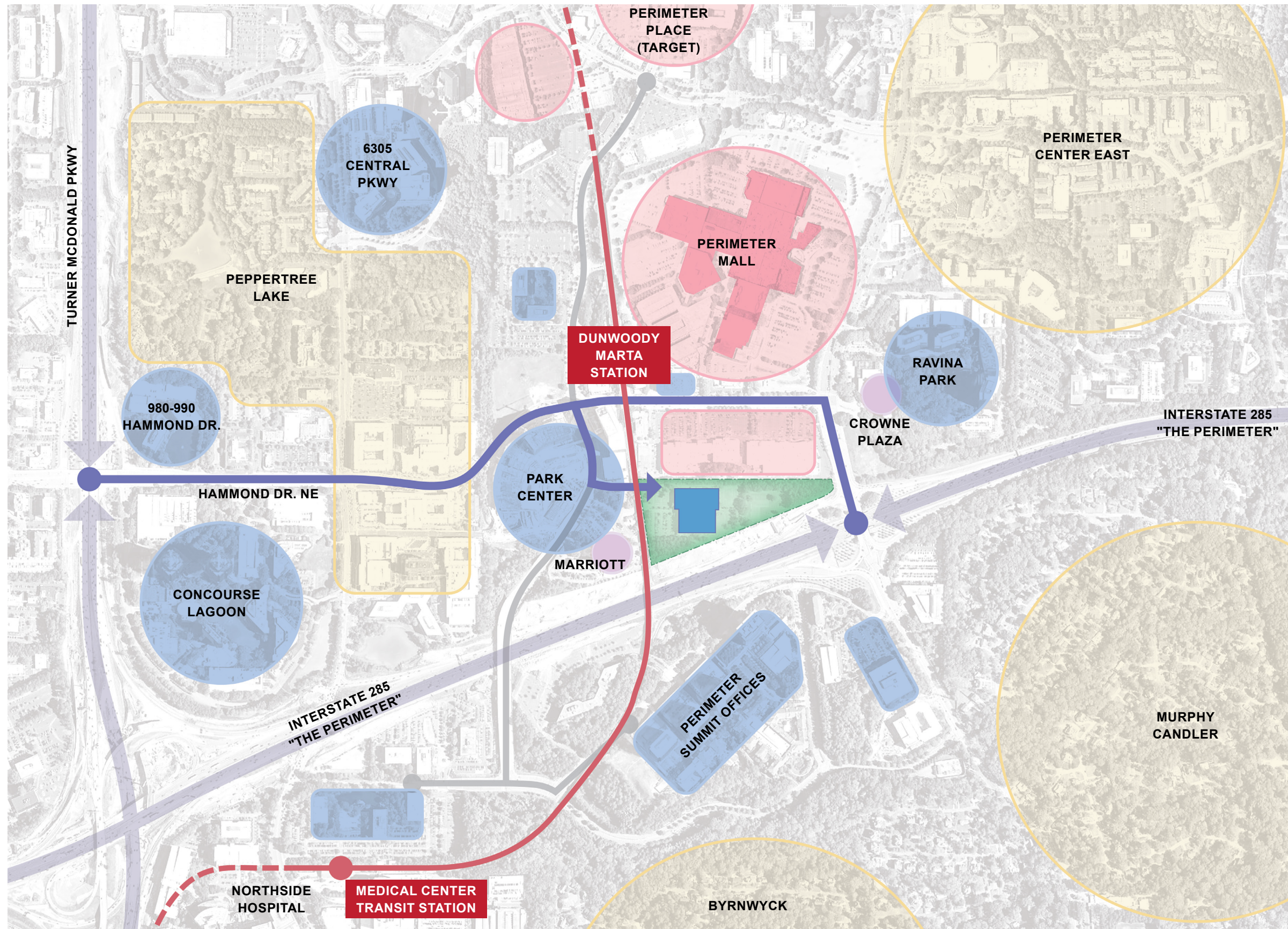
SCHEMATIC DESIGN

12.22.2020

S9ARCHITECTURE

SITE



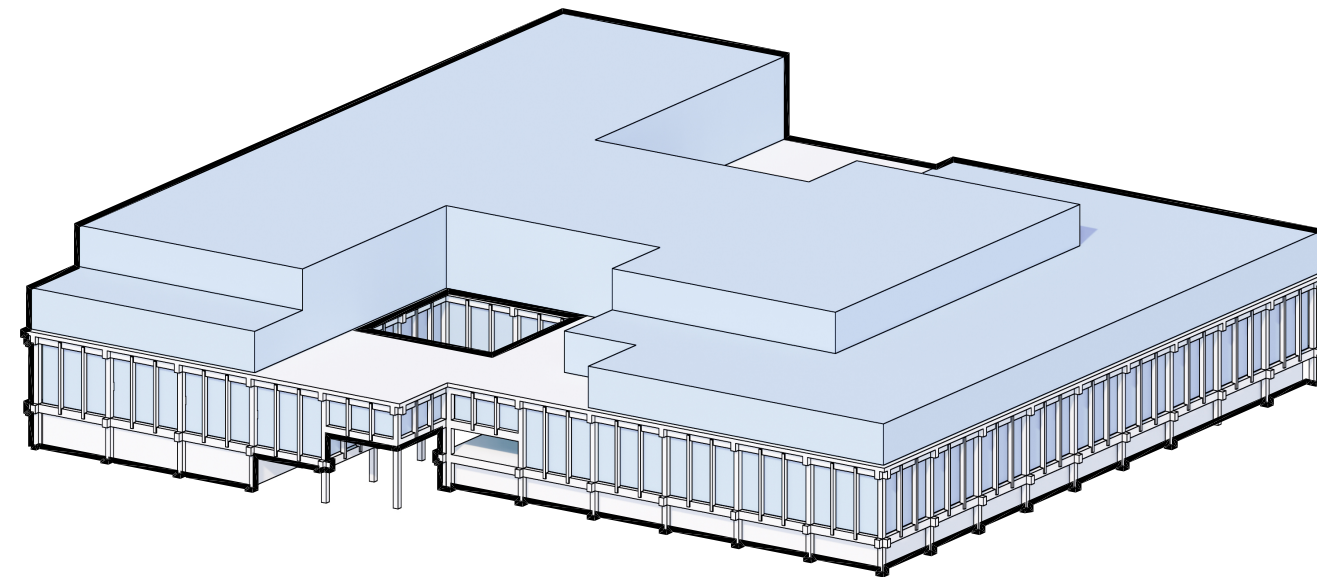


LEGEND:
 RETAIL
 RESIDENTIAL
 OFFICE
 HOTEL





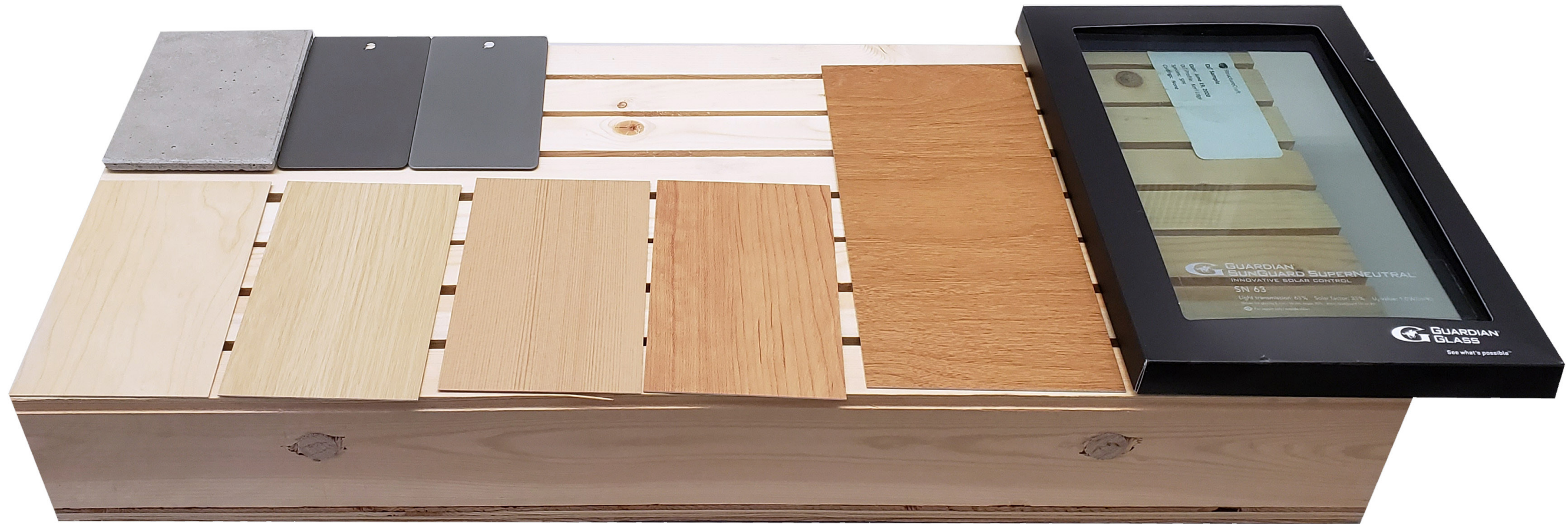
DESIGN



INTERTWINED MASSES



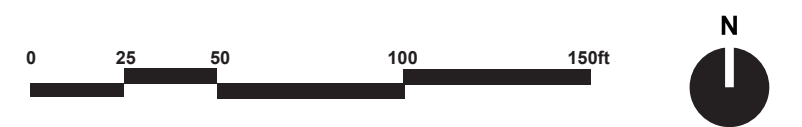
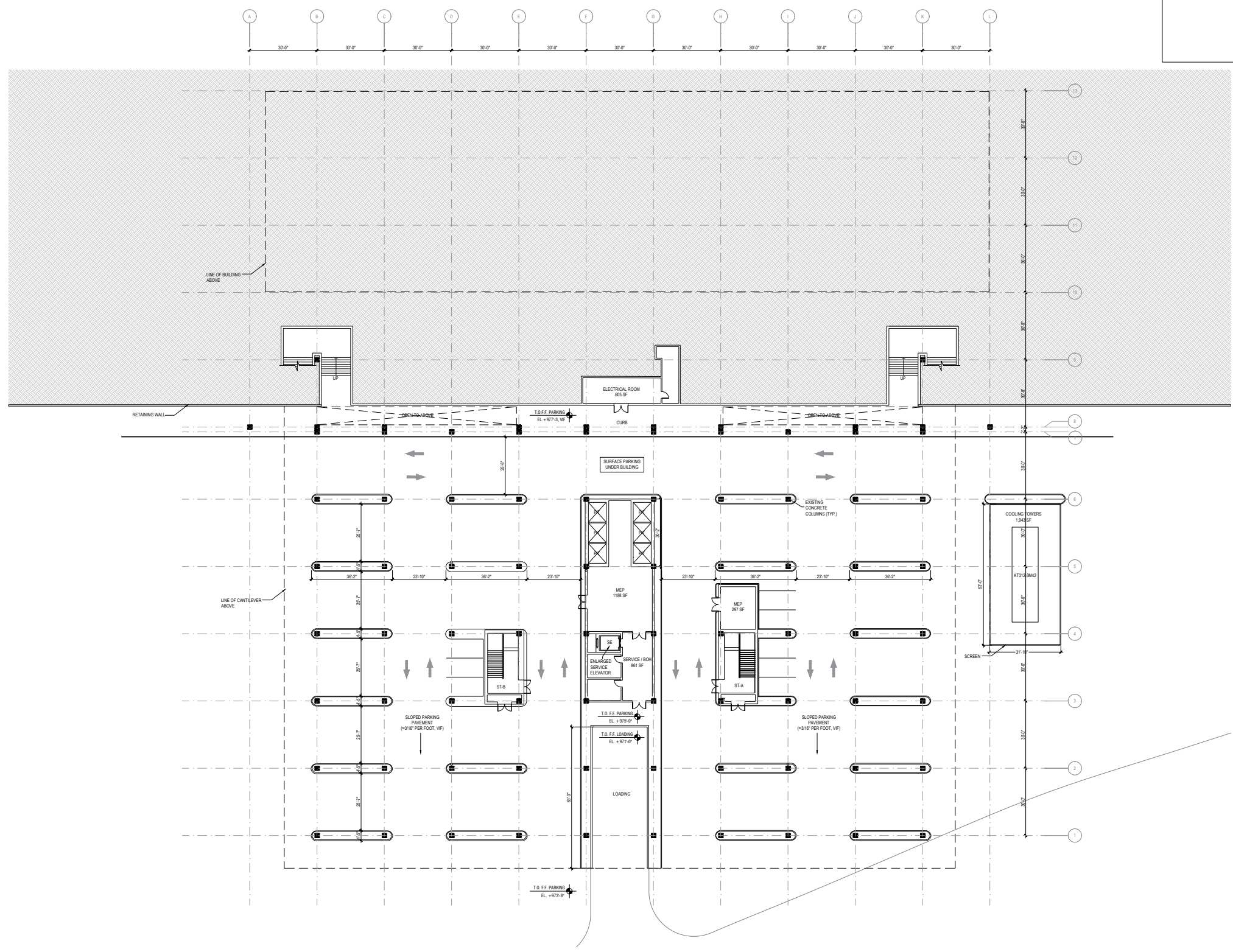






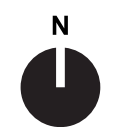
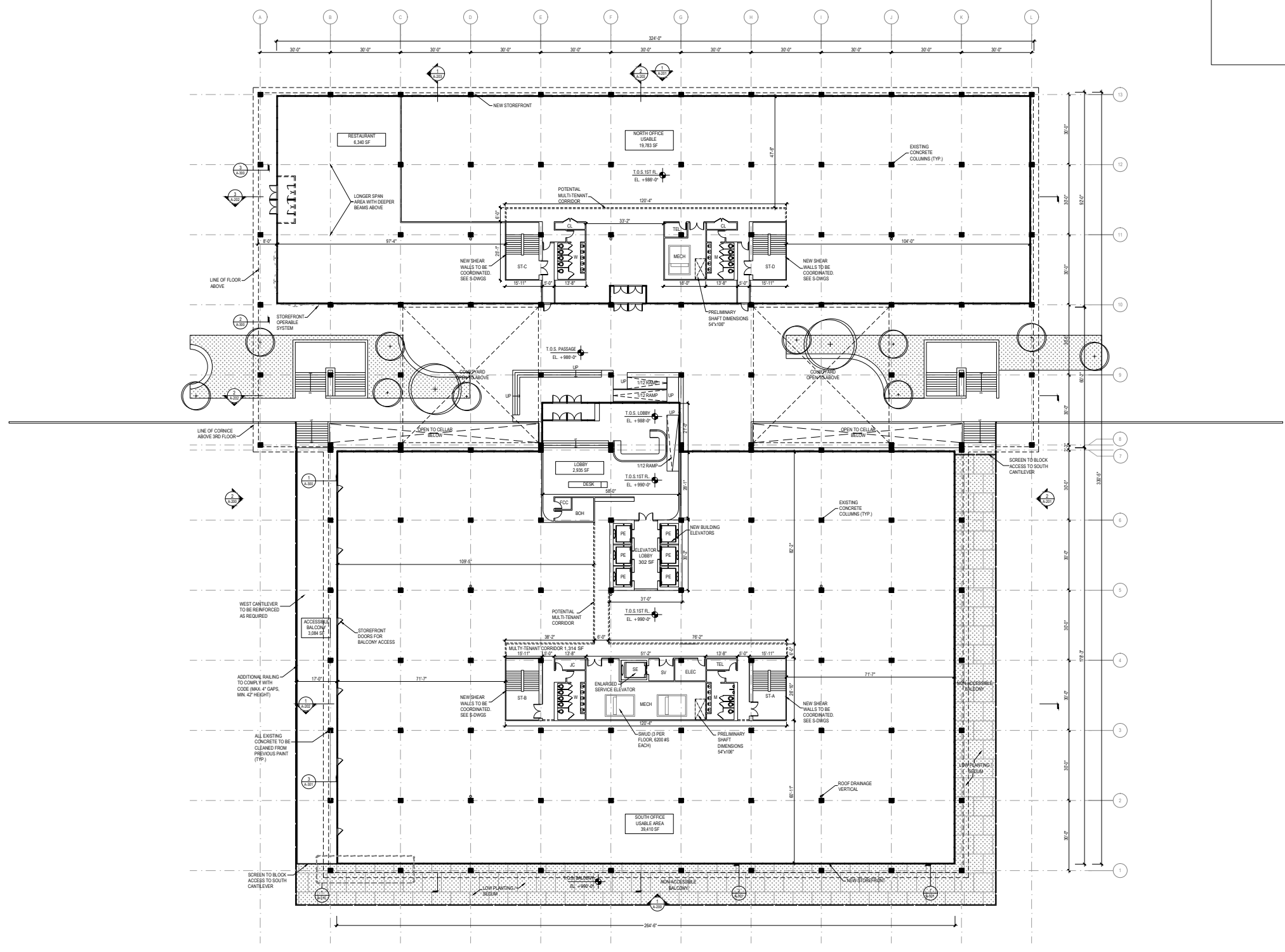
GENERAL NOTES

1. SEE STRUCTURAL DRAWINGS FOR DISTINCTION BETWEEN EXISTING AND PROPOSED STRUCTURAL ELEMENTS.
2. ALL DIMENSIONS TO EXISTING ELEMENTS TO BE VERIFIED IN FIELD.



GENERAL NOTES

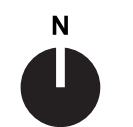
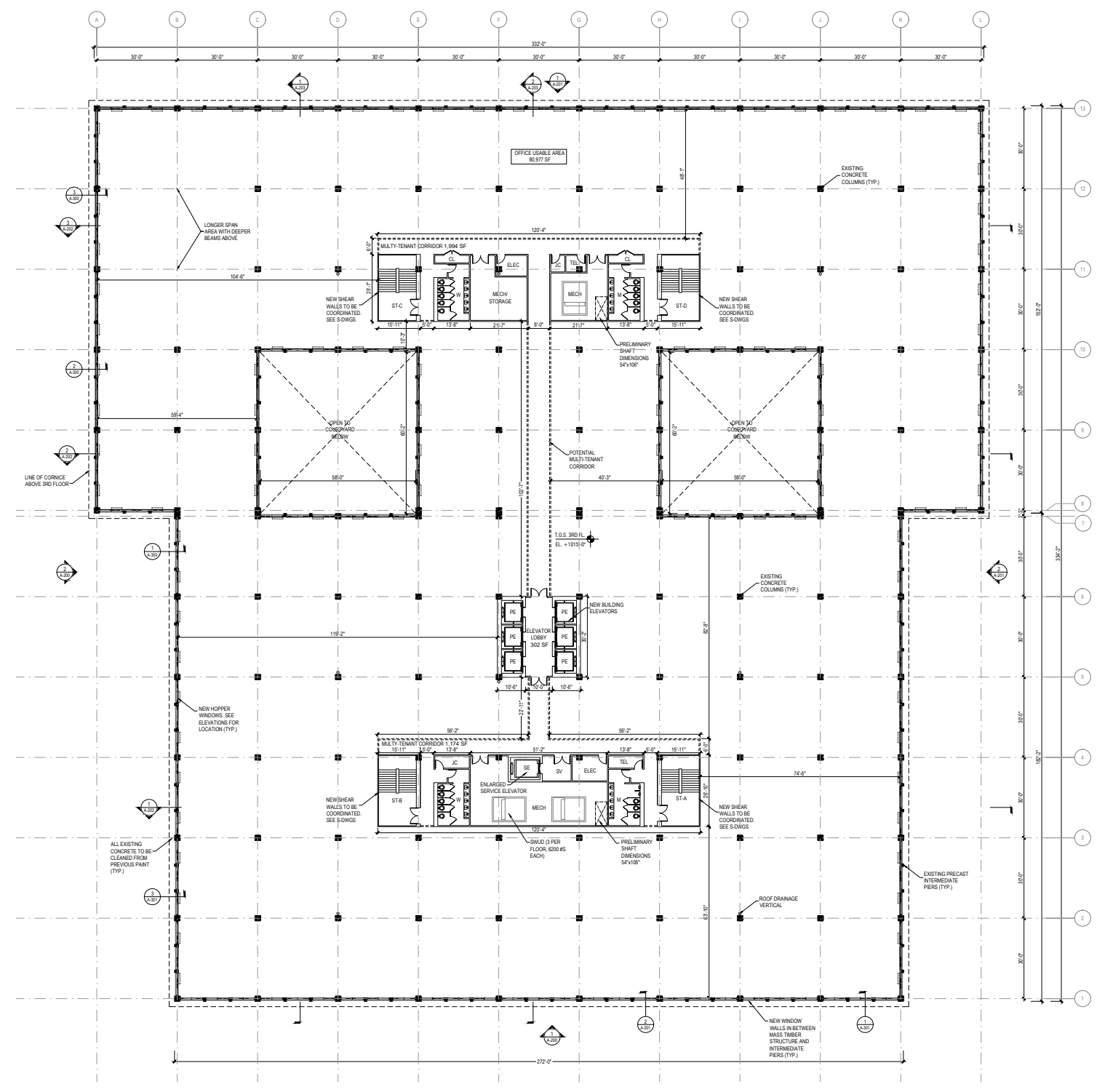
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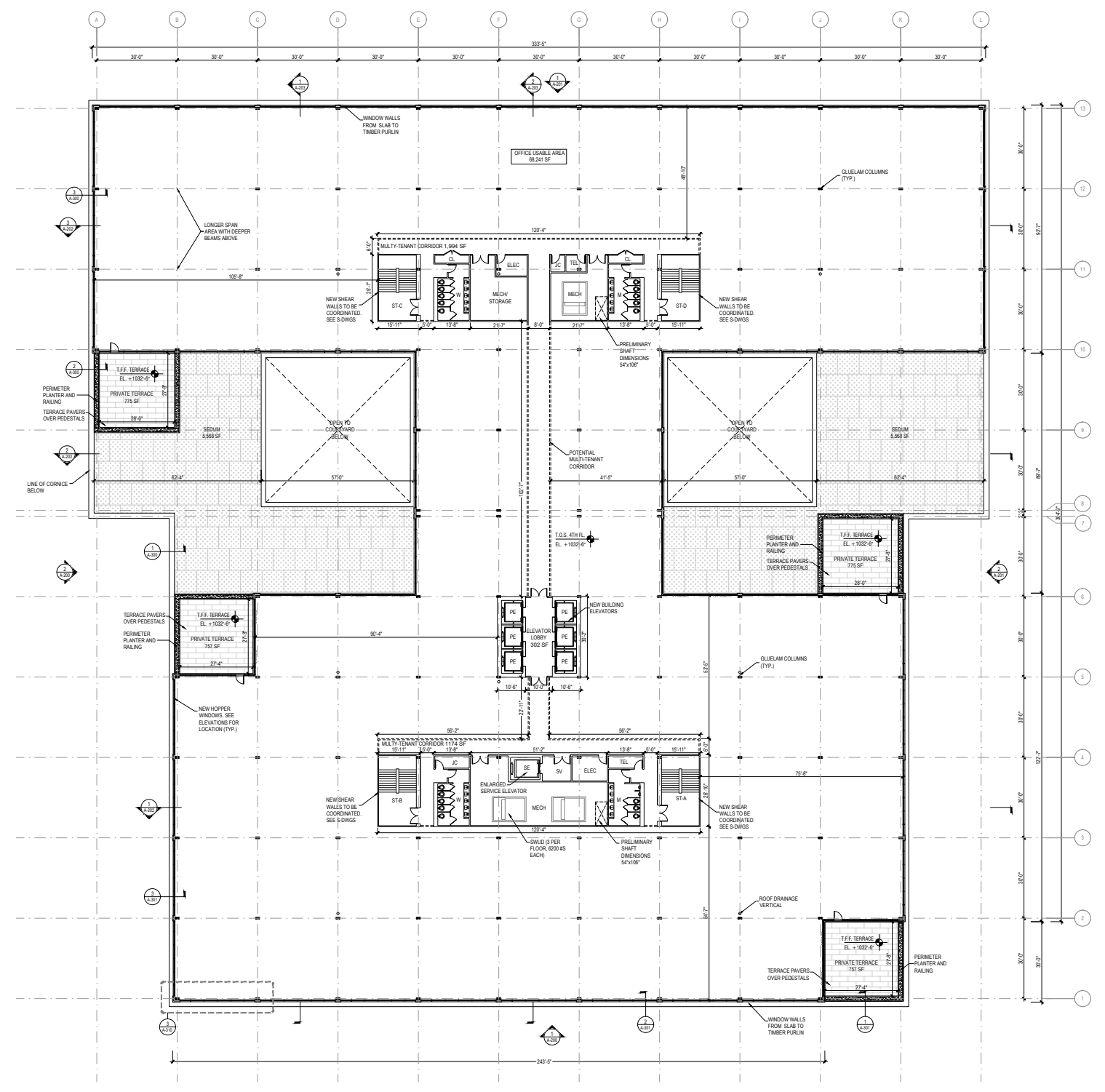
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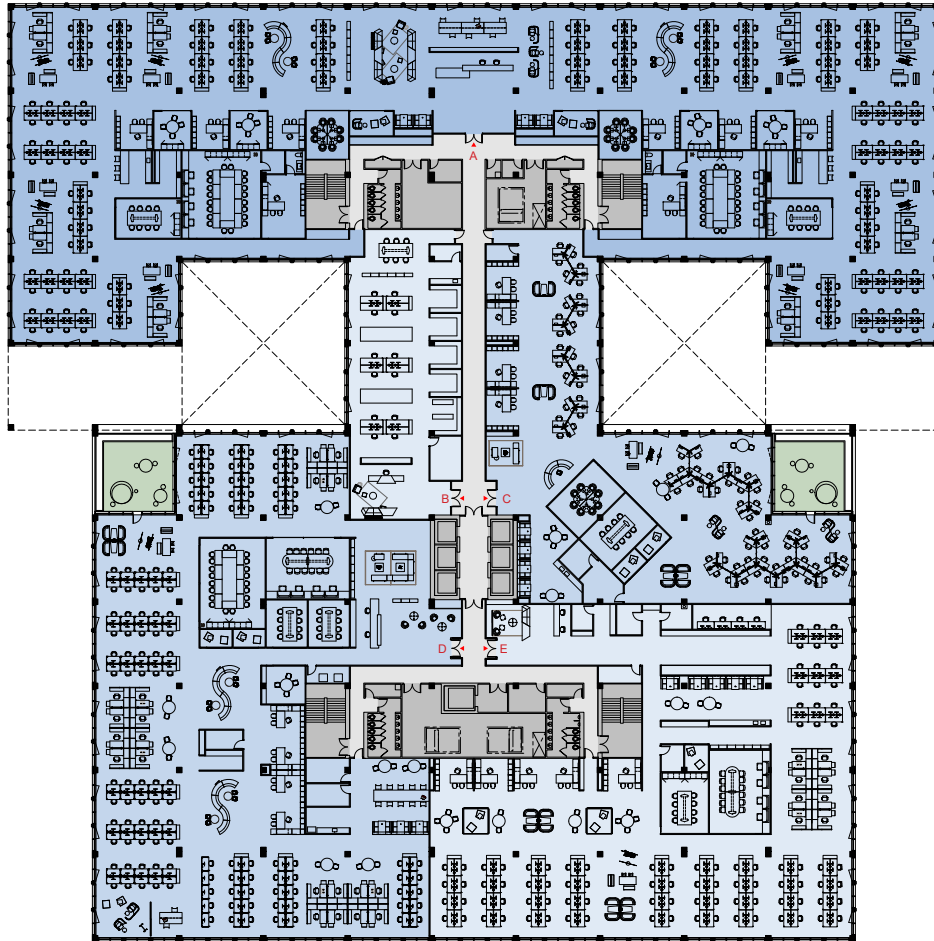


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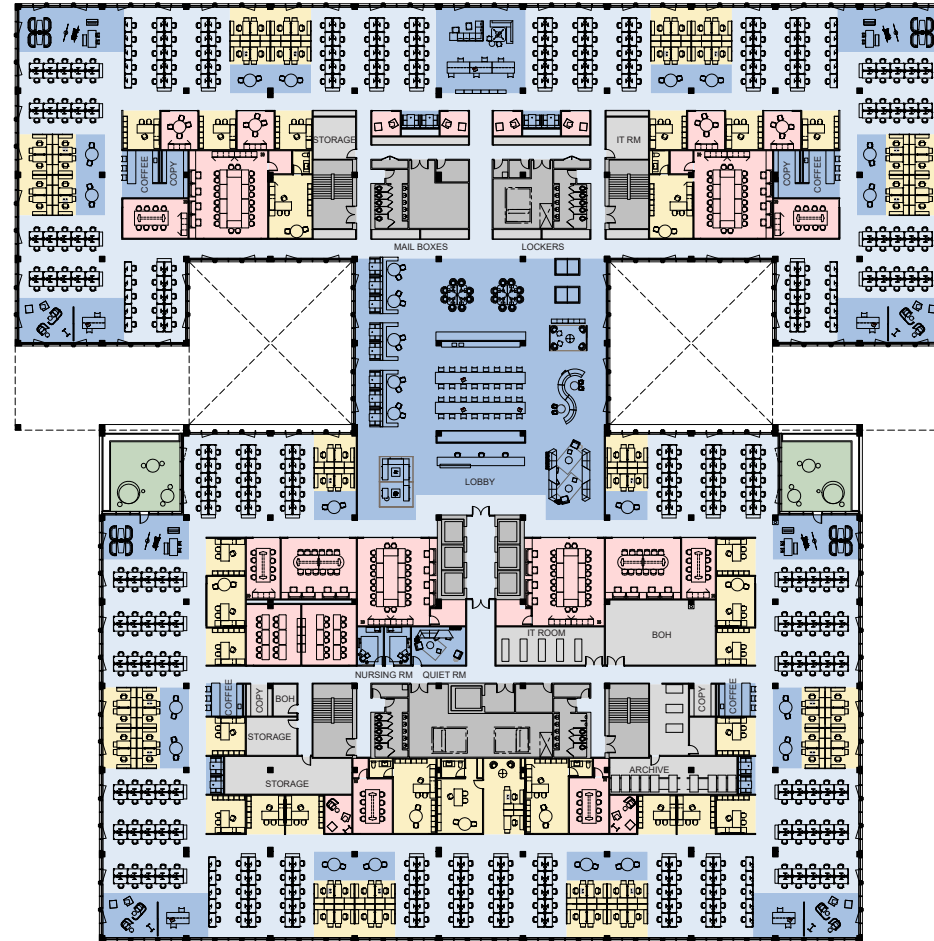


MULTI TENANT



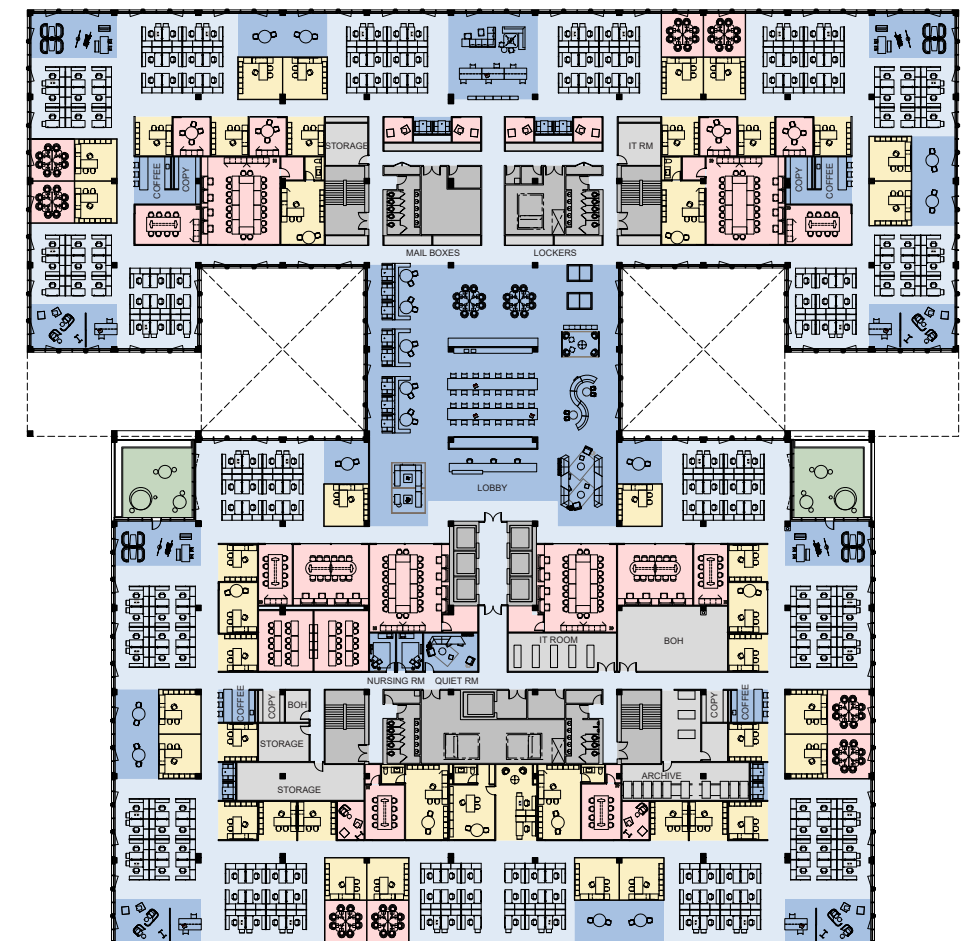
- A. 28,600 SF
- B. 4,050 SF
- C. 9,600 SF
- D. 18,500 SF
- E. 15,020 SF

SINGLE TENANT



500 WORKSTATIONS
150 SF PER PERSON

SINGLE TENANT - LOW DENSITY



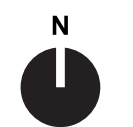
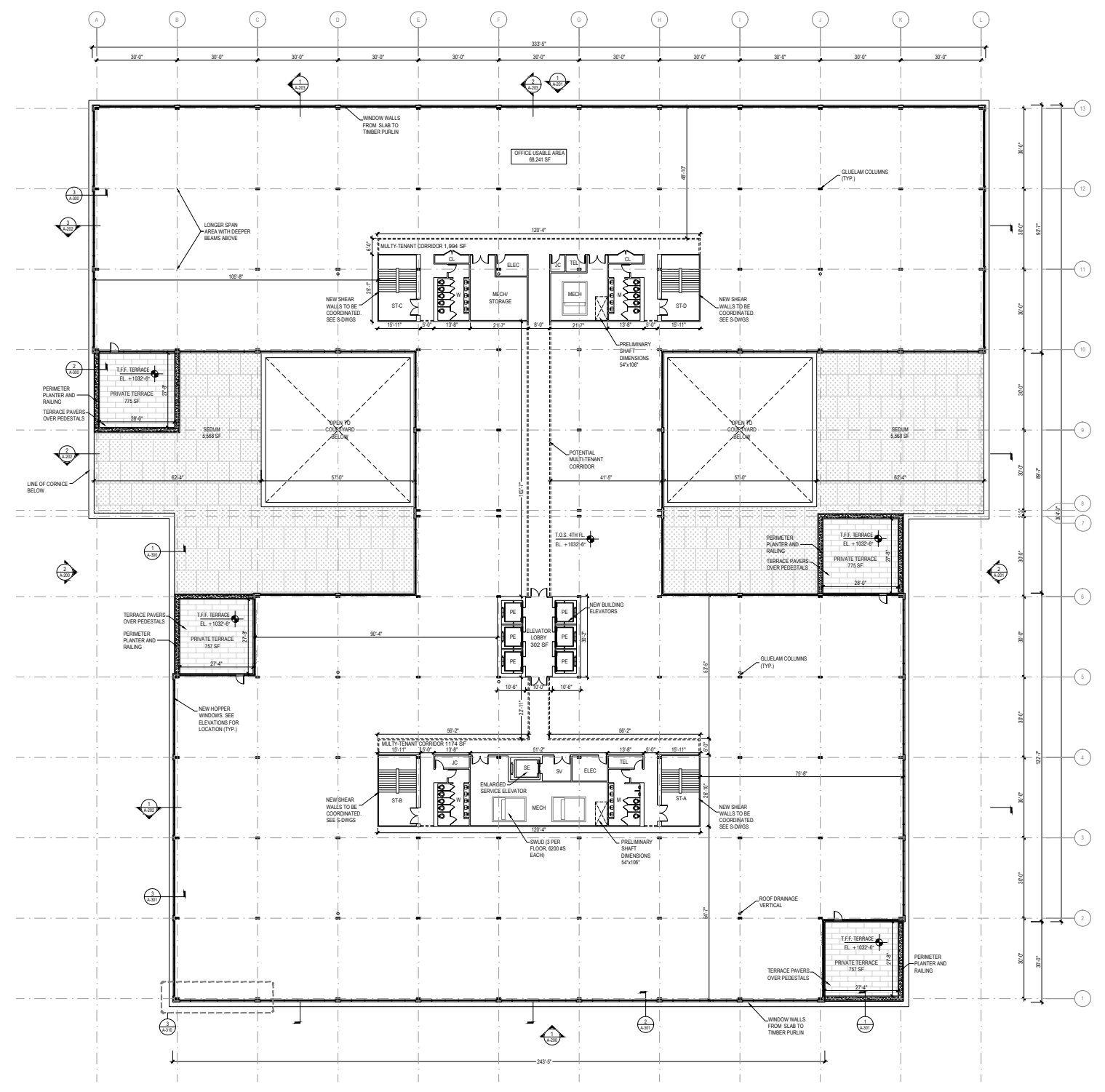
260 WORKSTATIONS
300 SF PER PERSON

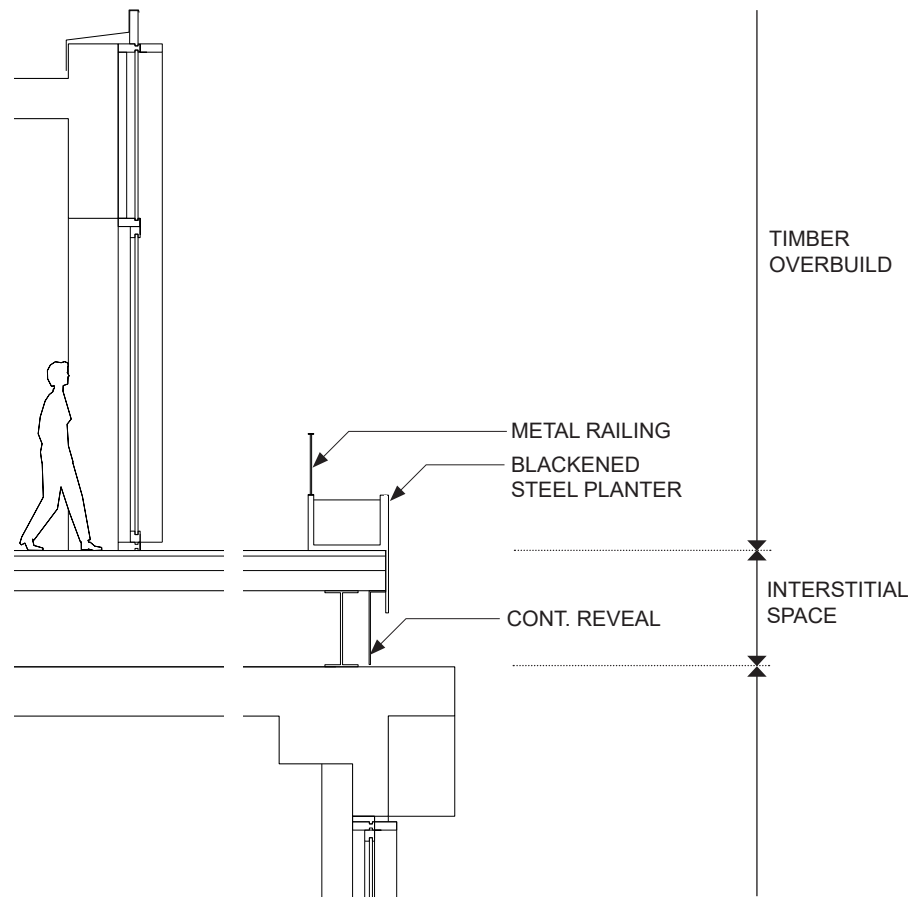
- PRIVATE MEETING SPACES
- PRIVATE OFFICES
- COLLABORATION / LOUNGE AREAS
- OPEN OFFICE
- BACK OF HOUSE



GENERAL NOTES

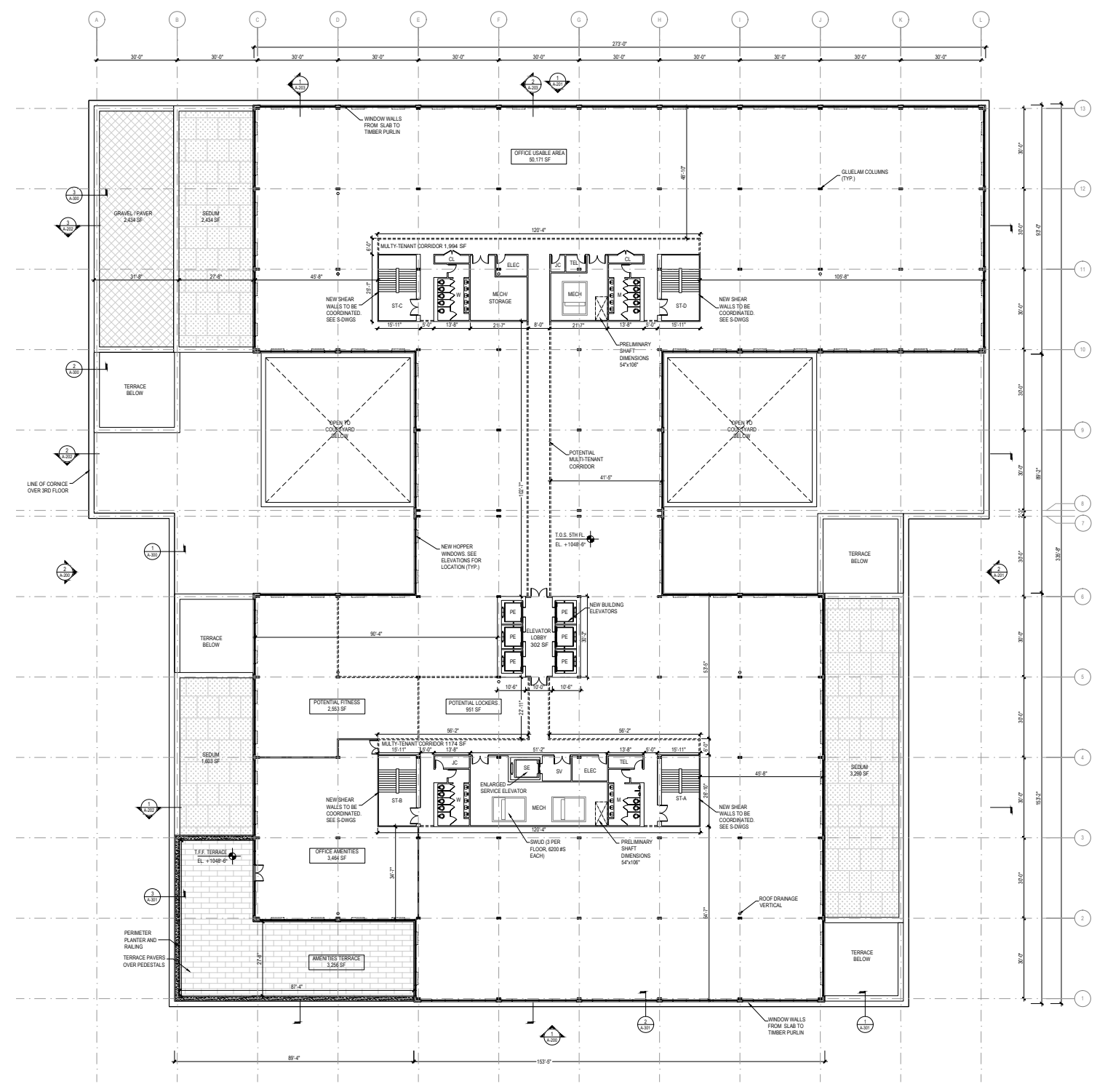
1. SEE STRUCTURAL DRAWINGS FOR DISTINCTION BETWEEN EXISTING AND PROPOSED STRUCTURAL ELEMENTS.
2. ALL DIMENSIONS TO EXISTING ELEMENTS TO BE VERIFIED IN FIELD.





GENERAL NOTES

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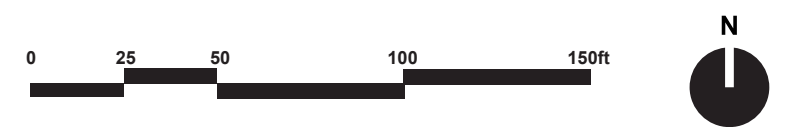
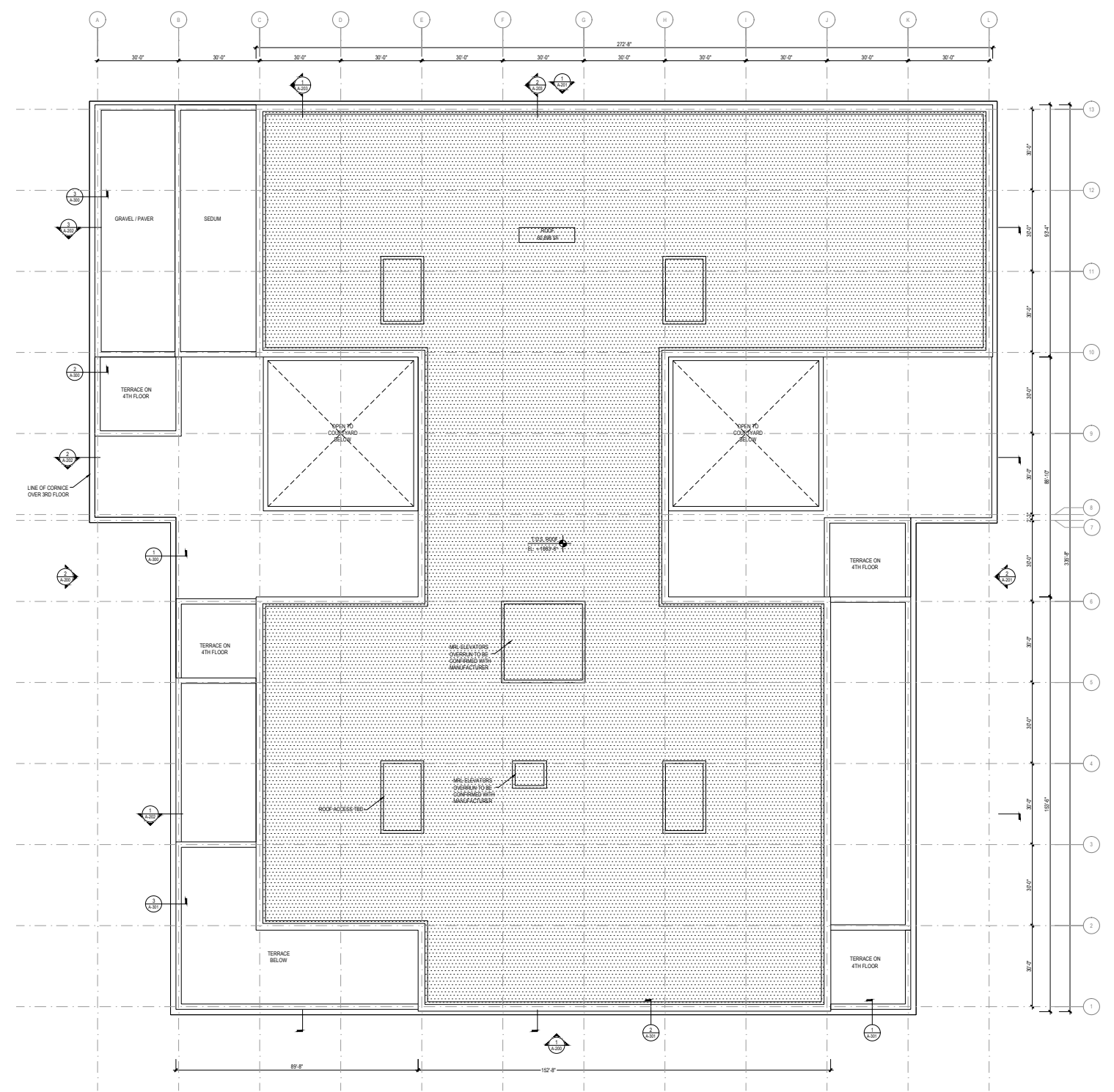




APPROX. 9'-6" TO UNDERSIDE OF BEAM

GENERAL NOTES

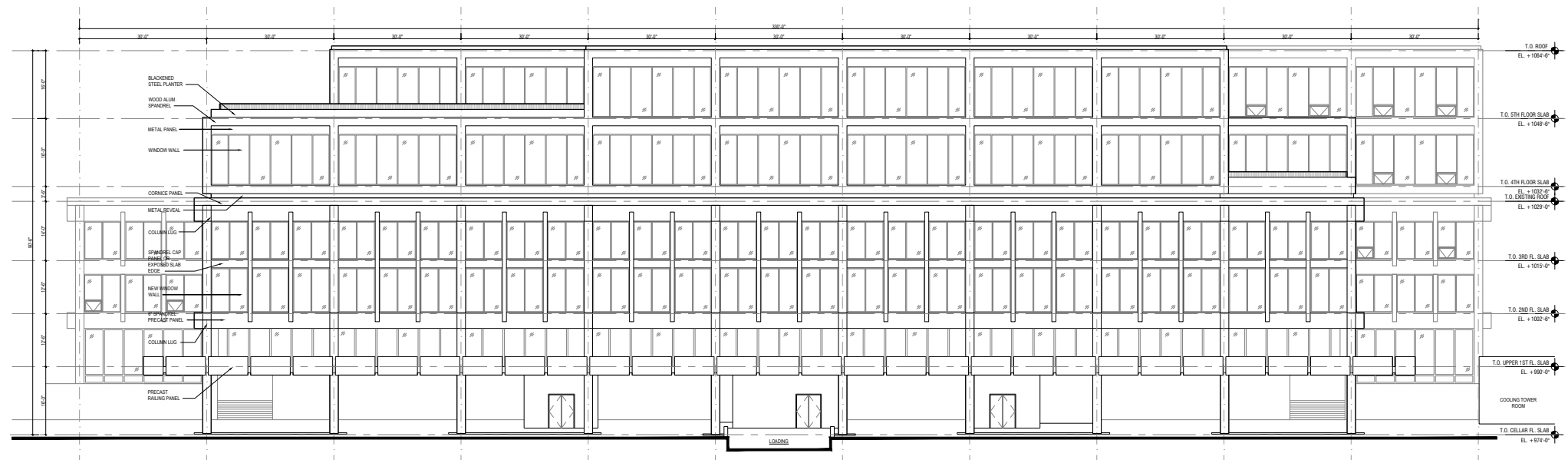
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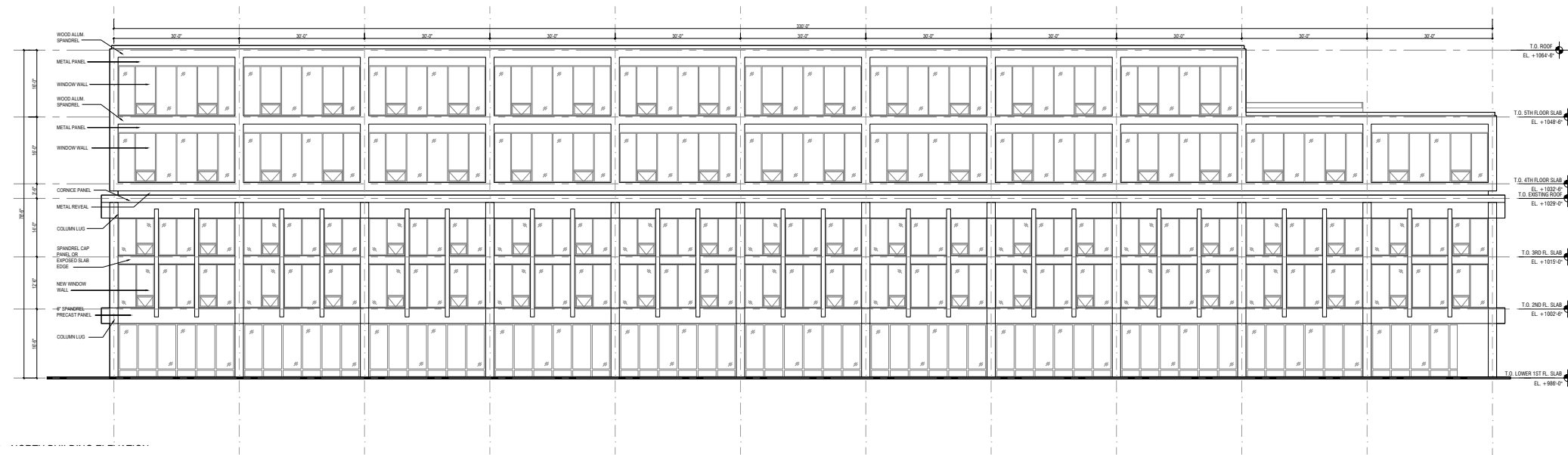


2 WEST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"





2 EAST BUILDING ELEVATION
SCALE: 3/32" = 1'-0"

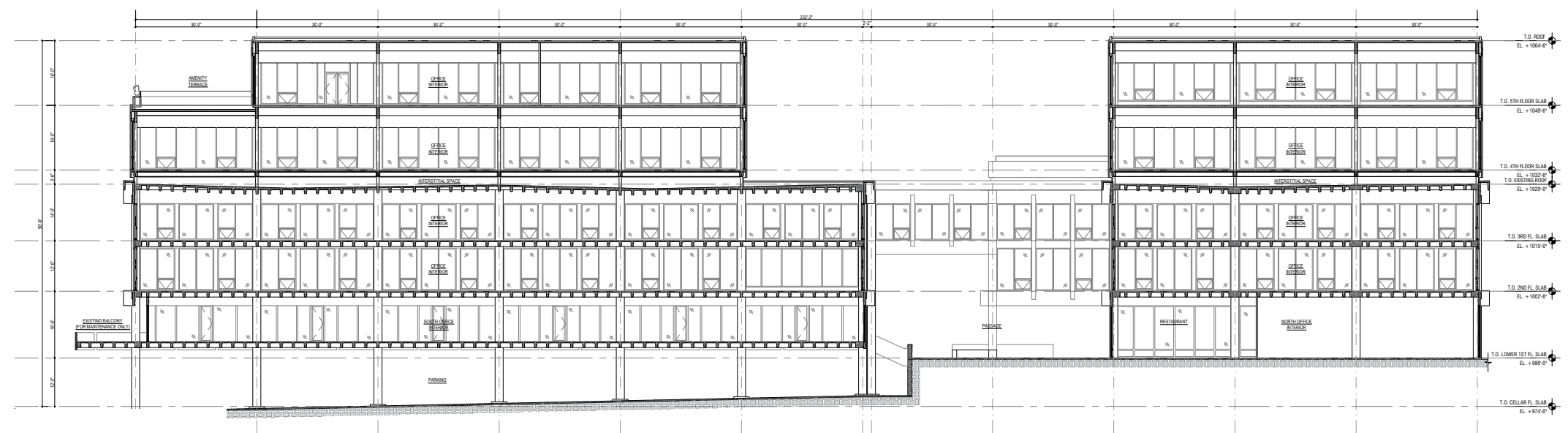


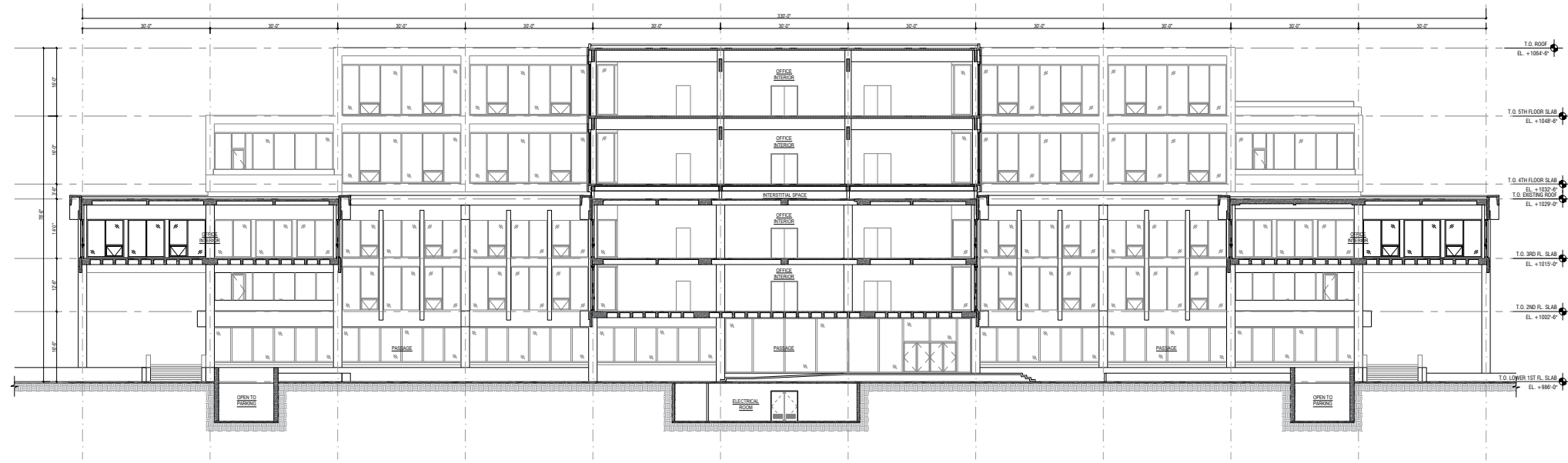
OVERBUILD: **WINDOW WALL**
EXISTING: **WINDOW WALL**



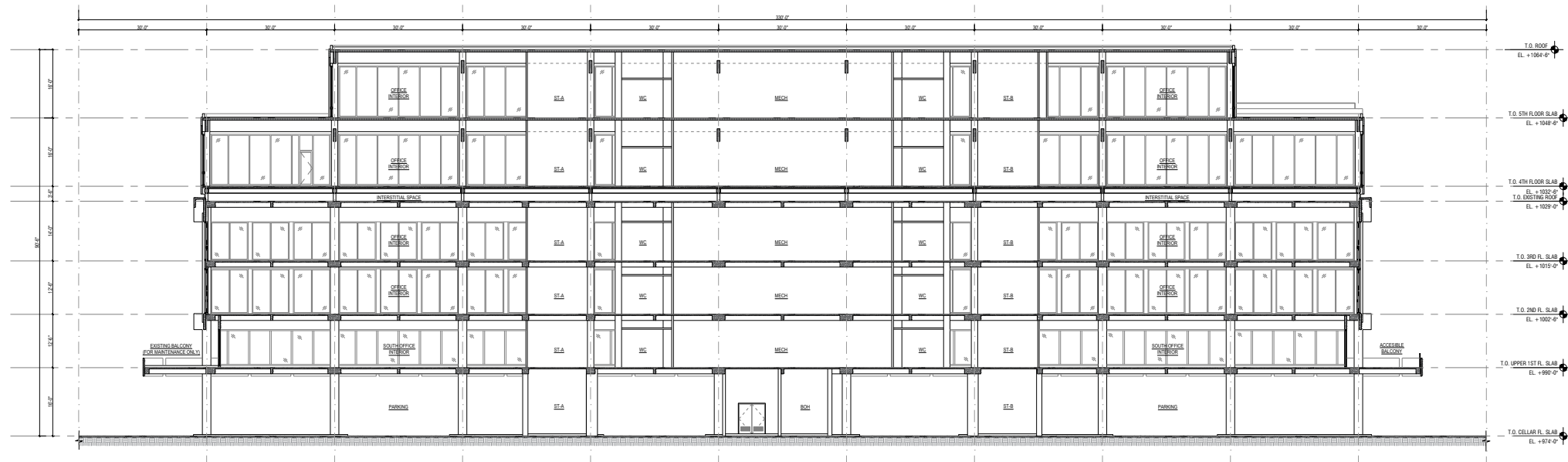


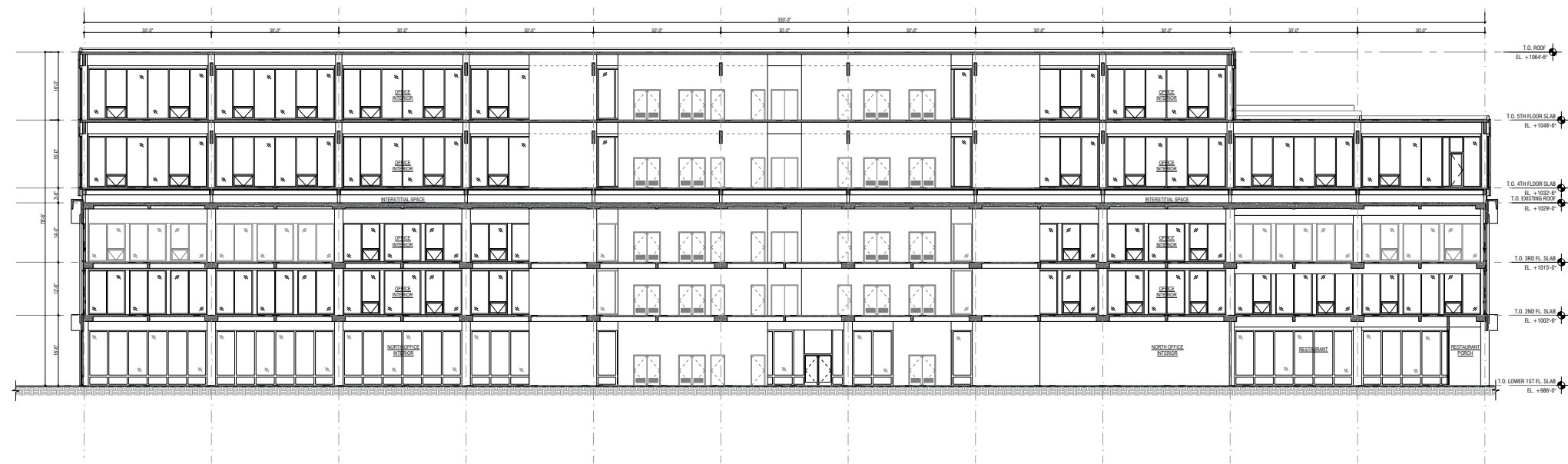
2 OVERALL BUILDING SECTION
SCALE 3/32" = 1'-0"





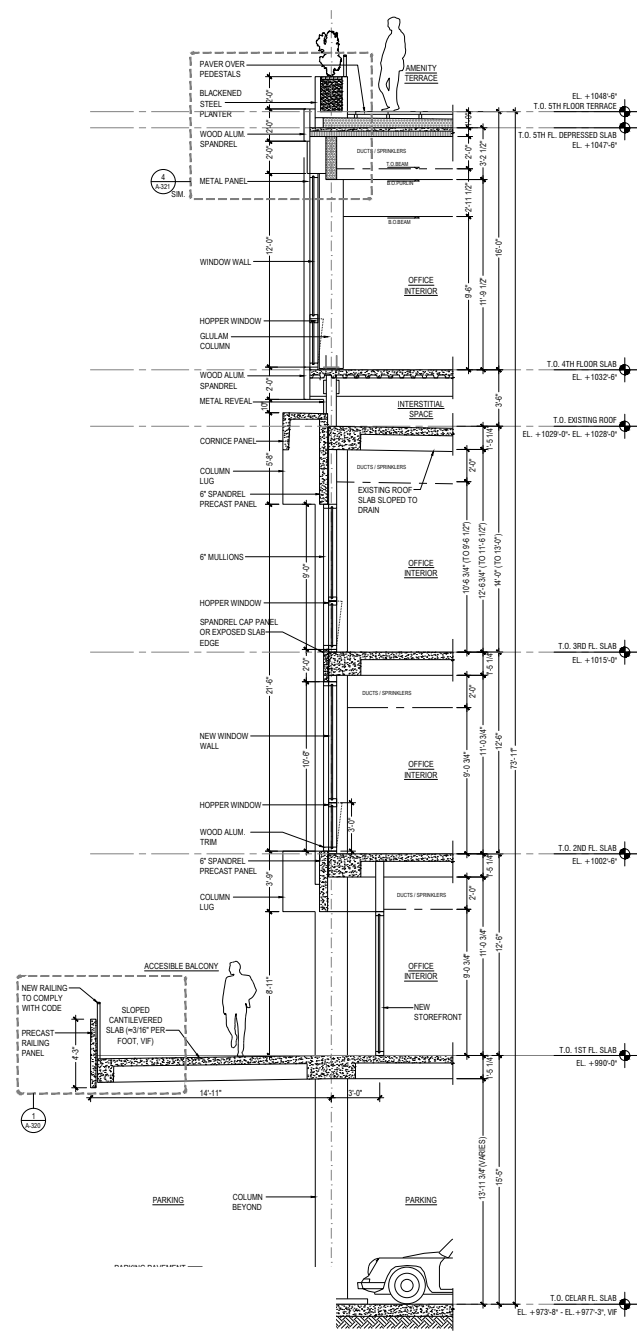
2 OVERALL BUILDING SECTION
SCALE 3/32" = 1'-0"



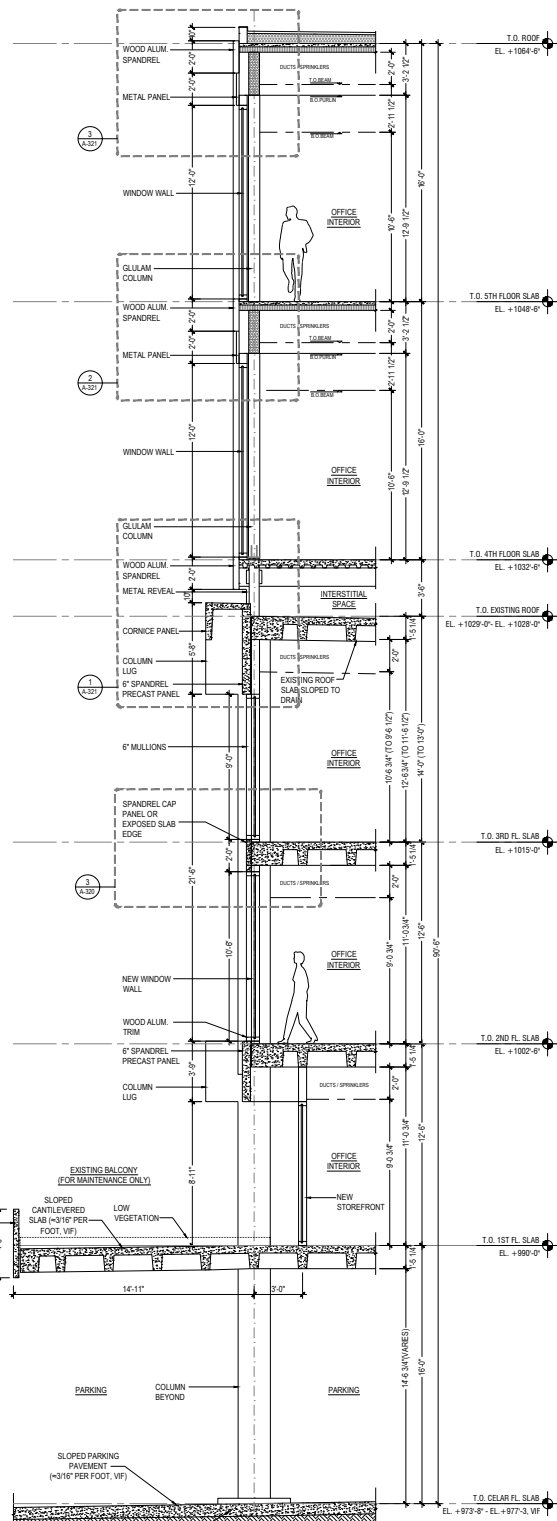




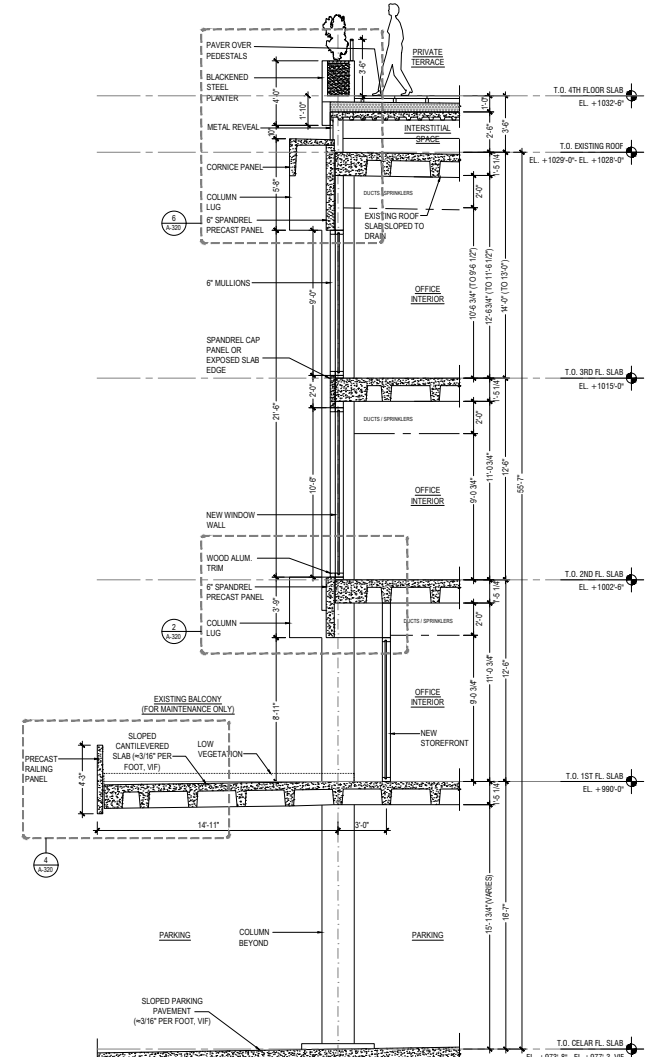
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1 WALL SECTIONS
SCALE: 1/4" = 1'-0"

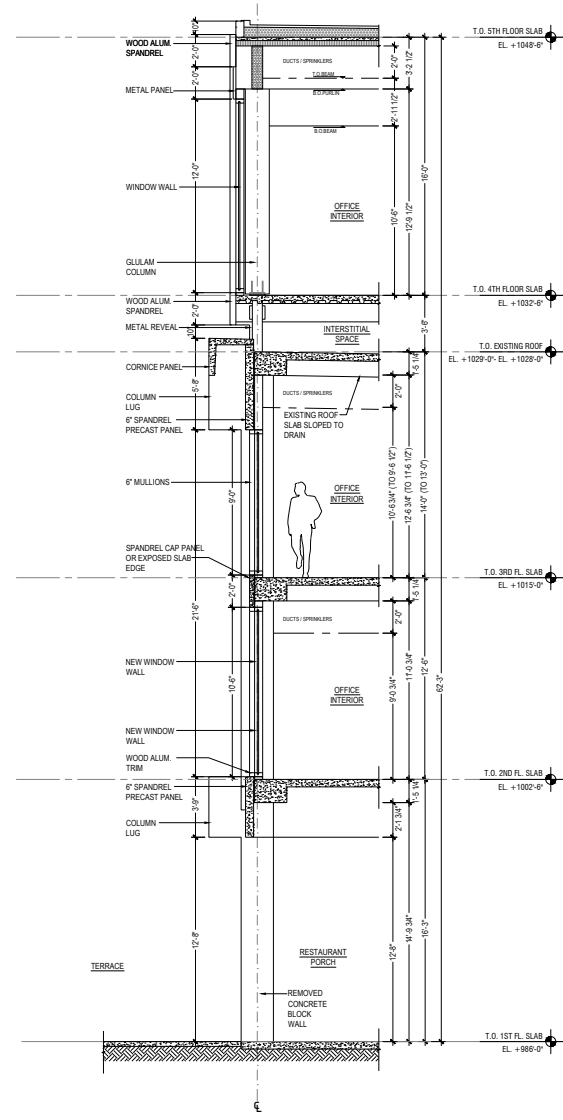


2 WALL SECTIONS
SCALE: 1/4" = 1'-0"

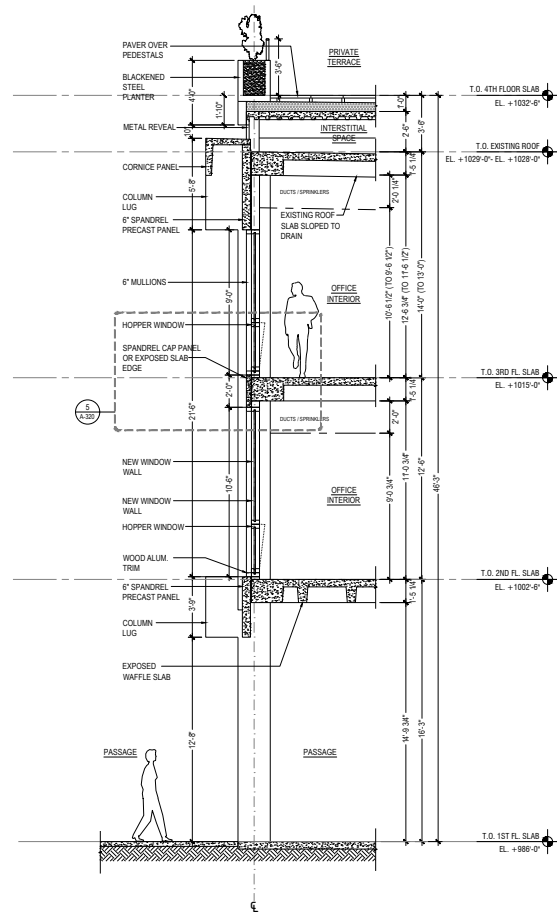


3 WALL SECTIONS
SCALE: 1/4" = 1'-0"

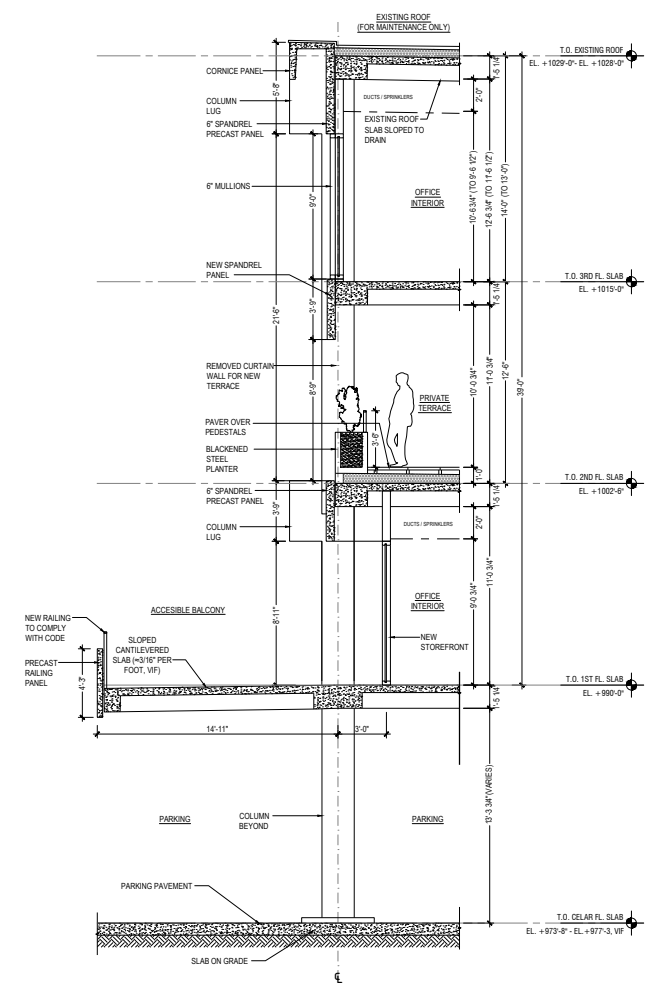
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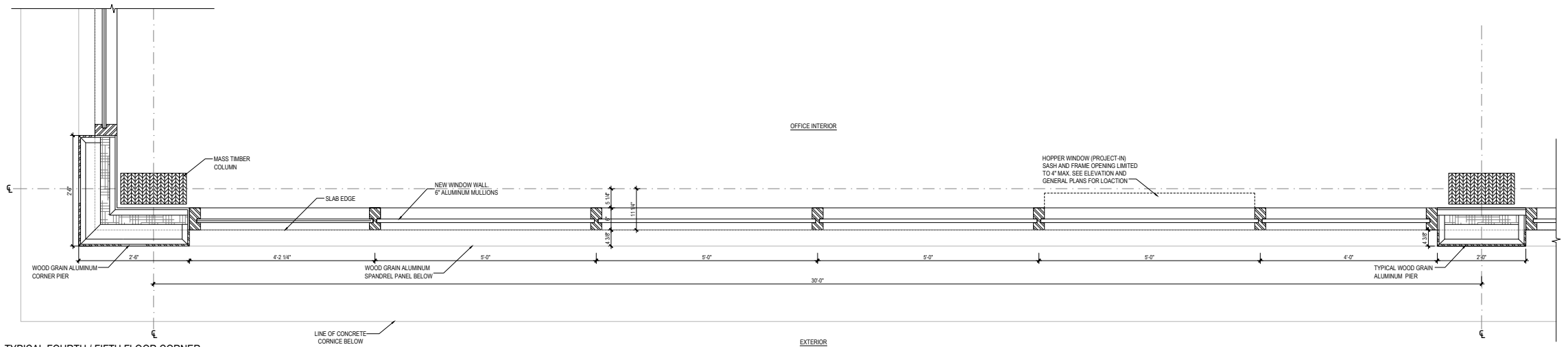
3 WALL SECTIONS
SCALE: 1/4" = 1'-0"



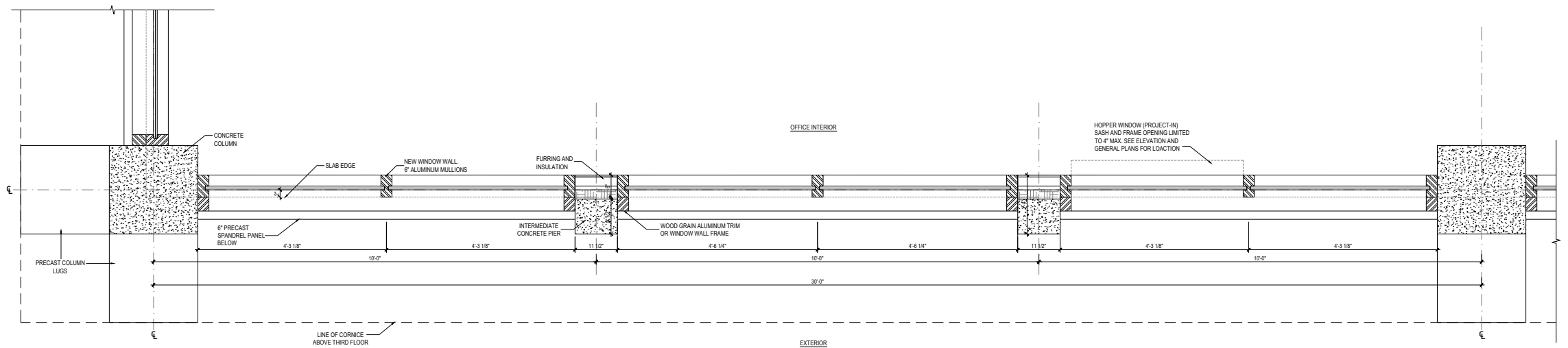
2 WALL SECTIONS
SCALE: 1/4" = 1'-0"



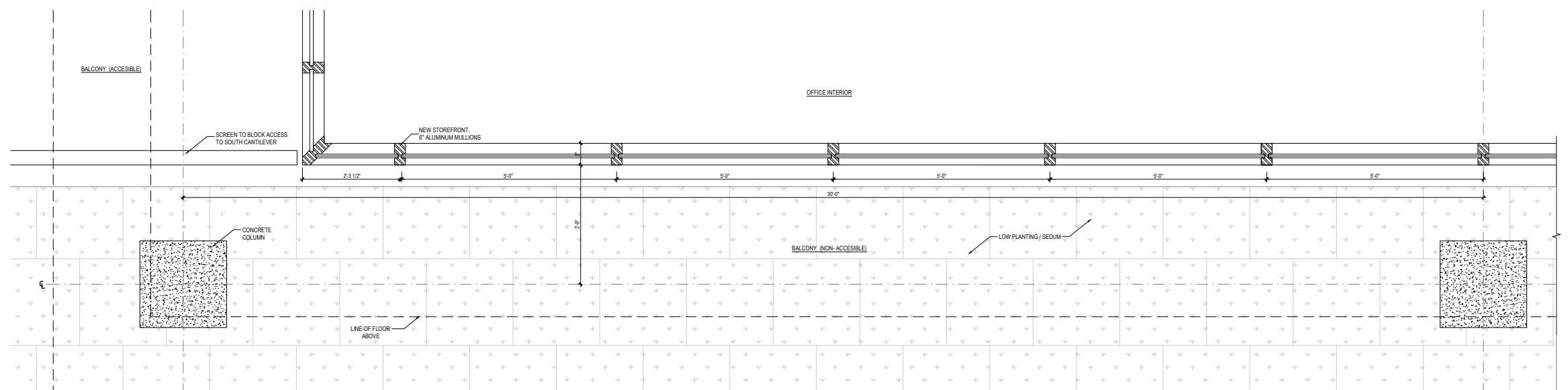
1 WALL SECTIONS
SCALE: 1/4" = 1'-0"



3 TYPICAL FOURTH / FIFTH FLOOR CORNER
SCALE: 1" = 1'-0"

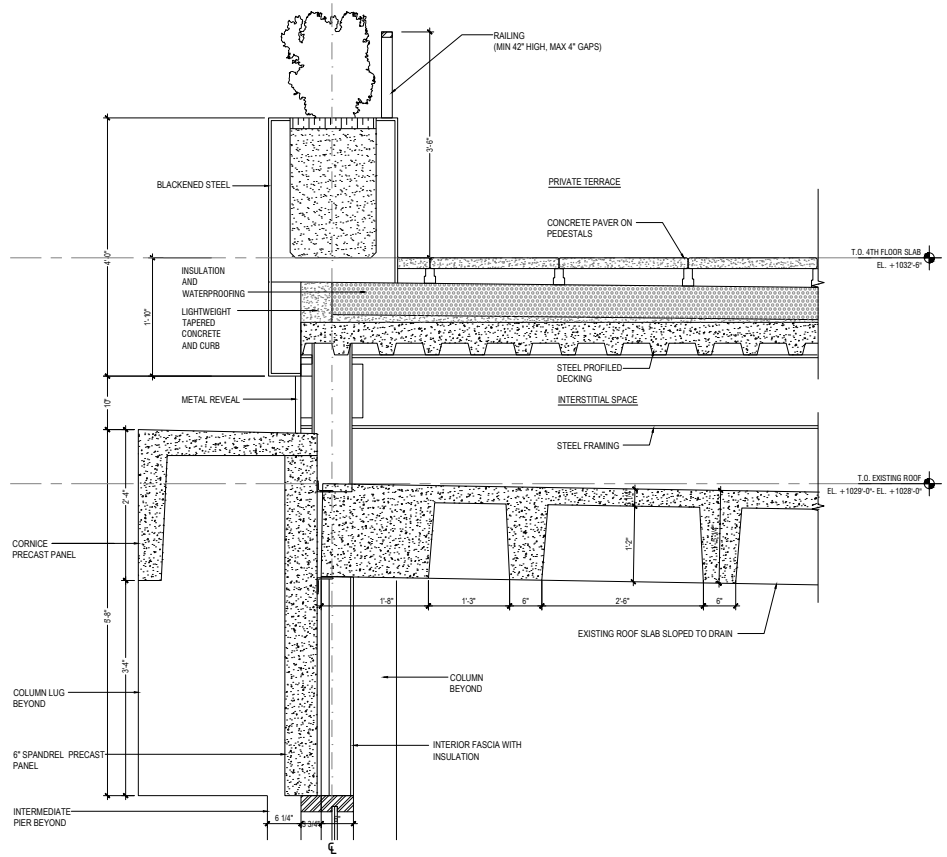


2 TYPICAL SECOND / THRID FLOOR CORNER
SCALE: 1" = 1'-0"

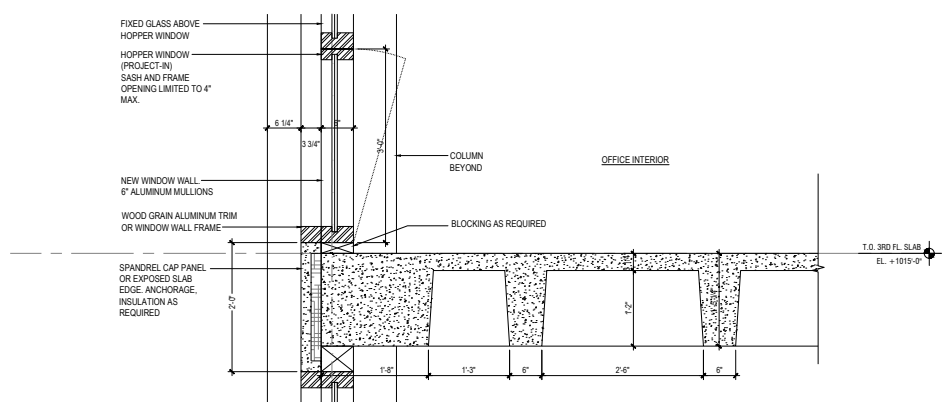


GENERAL NOTES

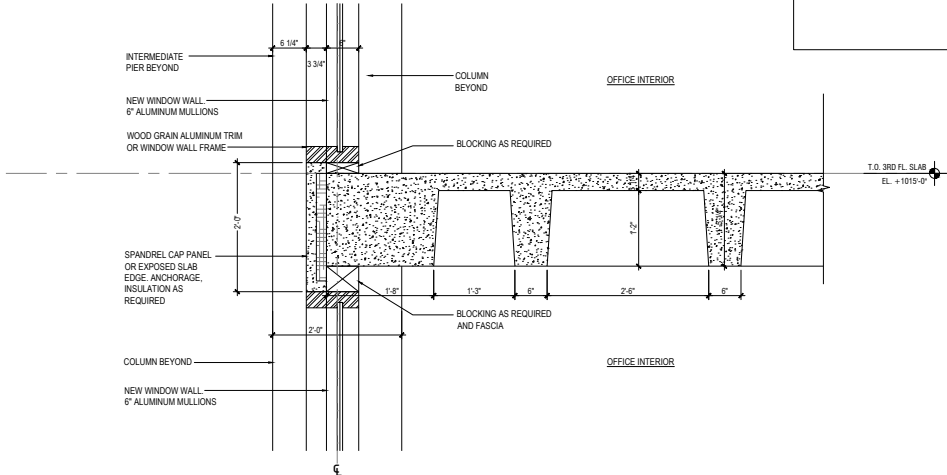
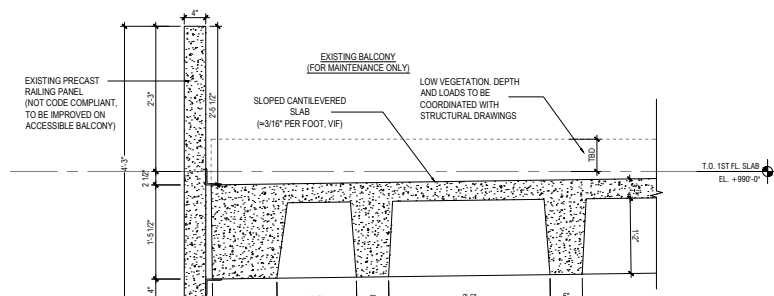
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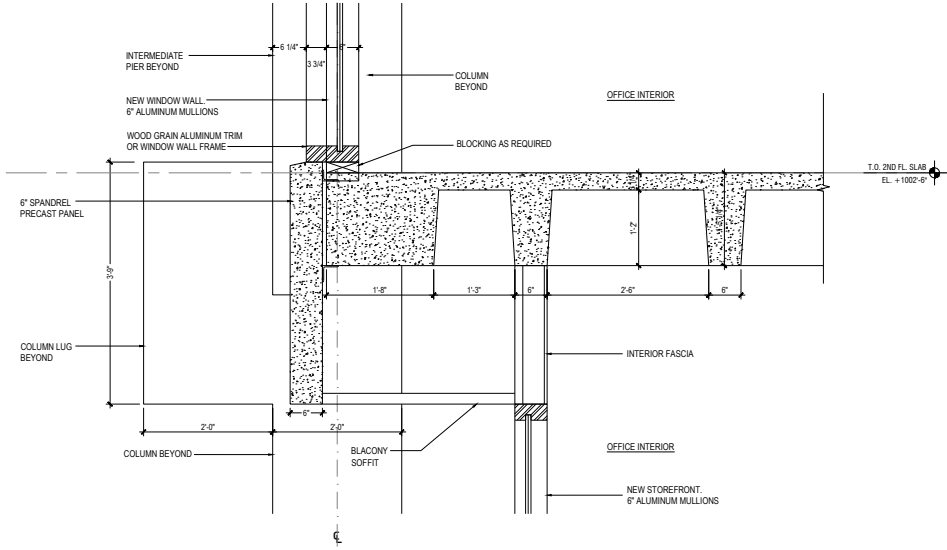
6 TYPICAL CONCRETE CORNICE WITH TERRACE
SCALE: 1" = 1'-0"



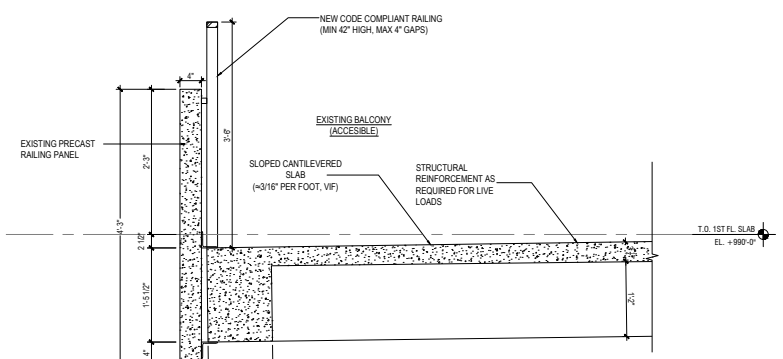
5 TYPICAL HOPPER WINDOW
SCALE: 1" = 1'-0"



3 TYPICAL SECOND FLOOR SPANDEL
SCALE: 1" = 1'-0"

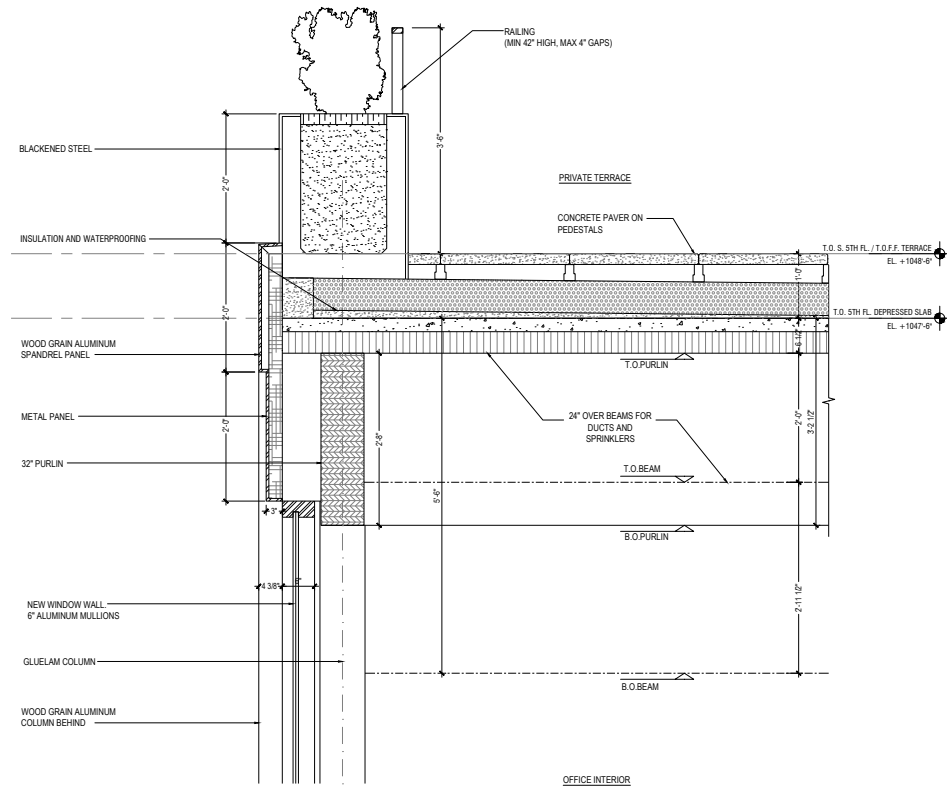


2 TYPICAL SECOND FLOOR SPANDEL
SCALE: 1" = 1'-0"

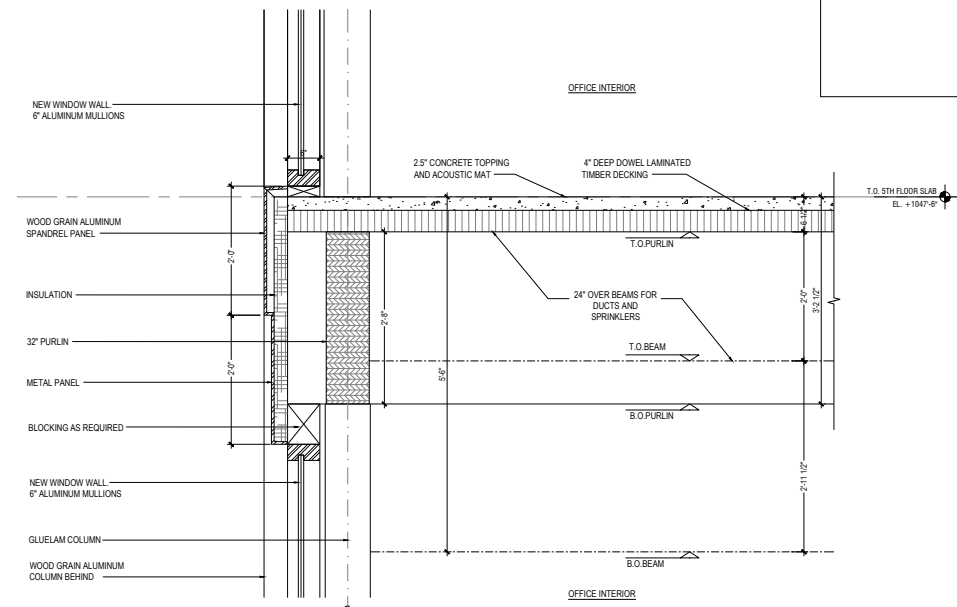
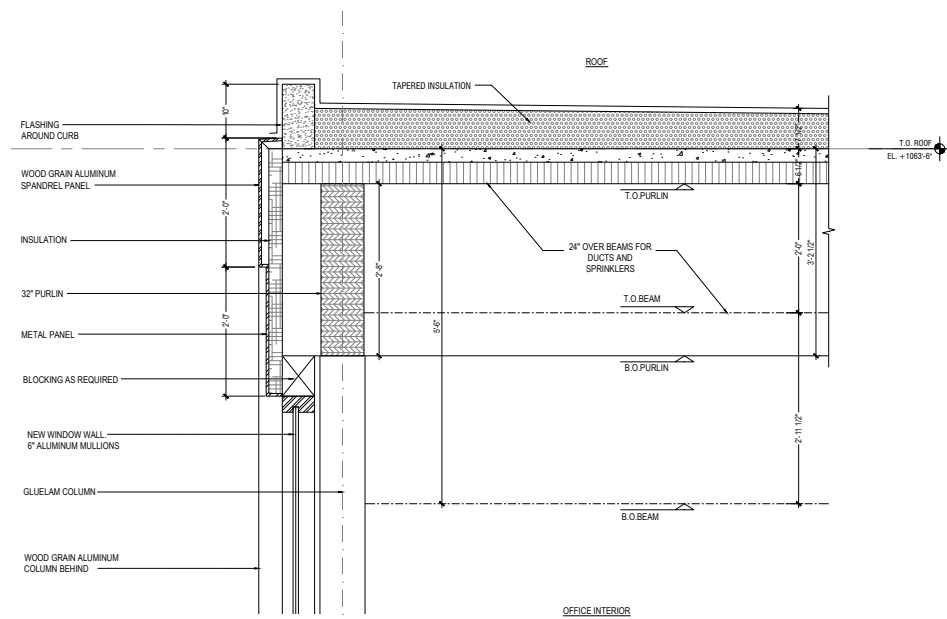


GENERAL NOTES

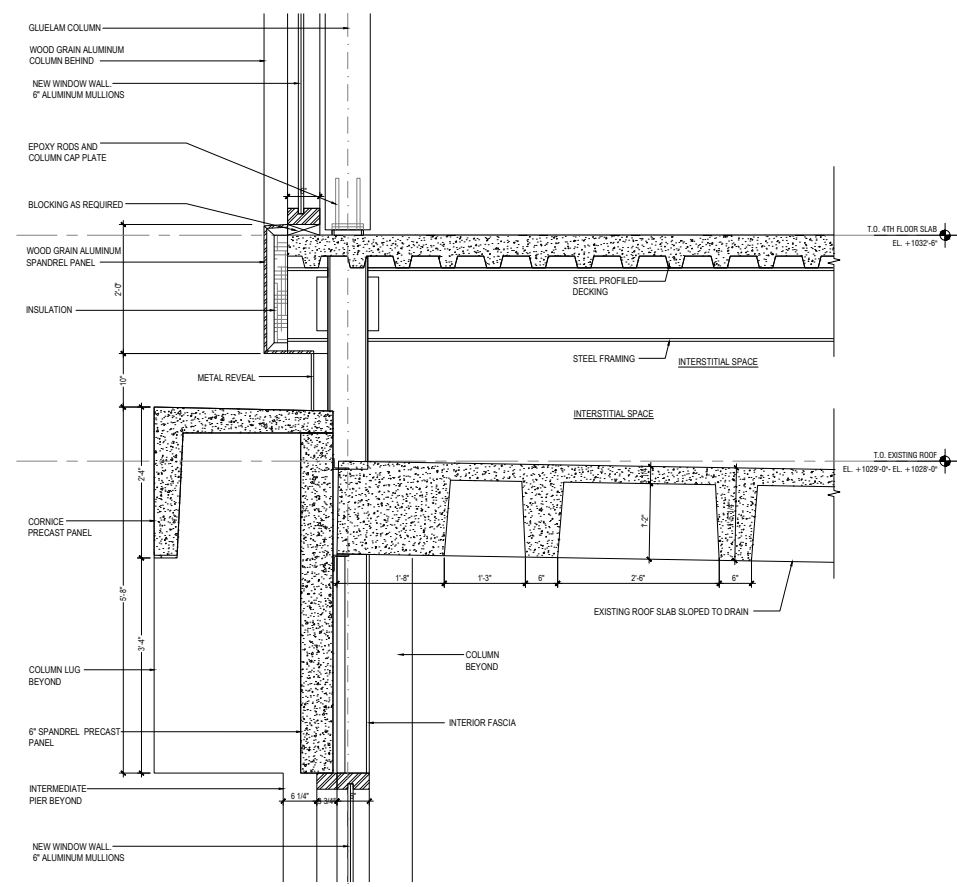
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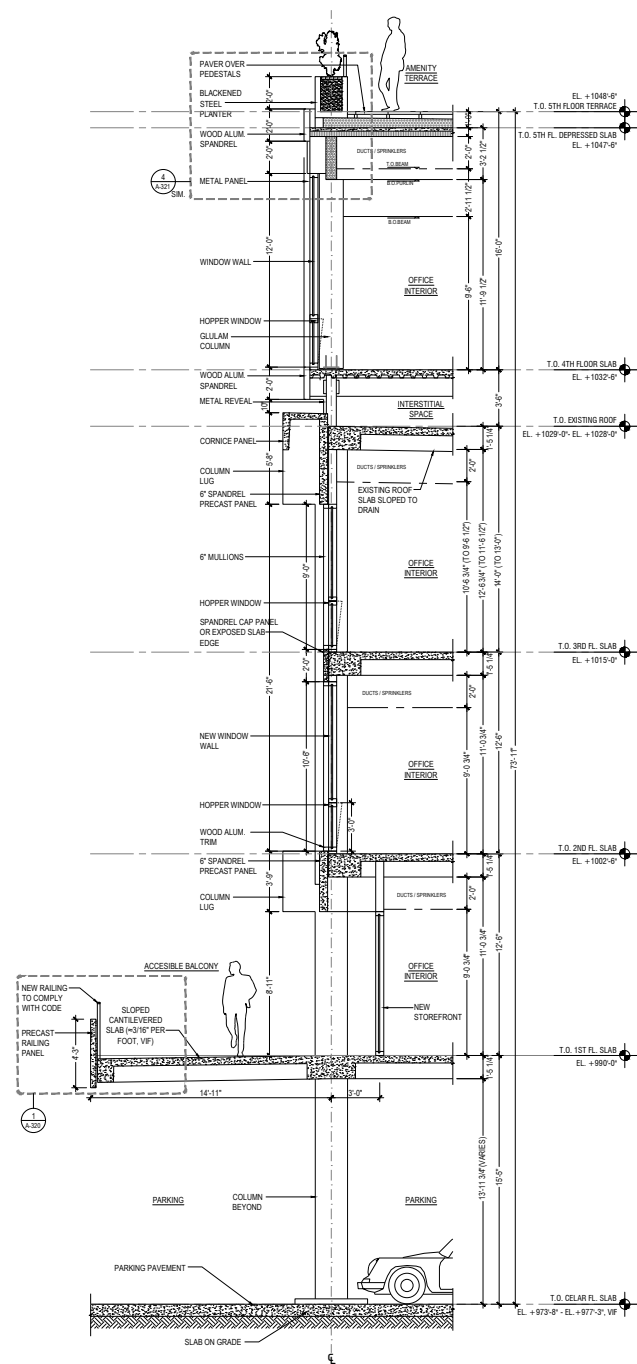
4 TYPICAL FIFTH FLOOR SPANDREL WITH TERRACE
SCALE: 1" = 1'-0"



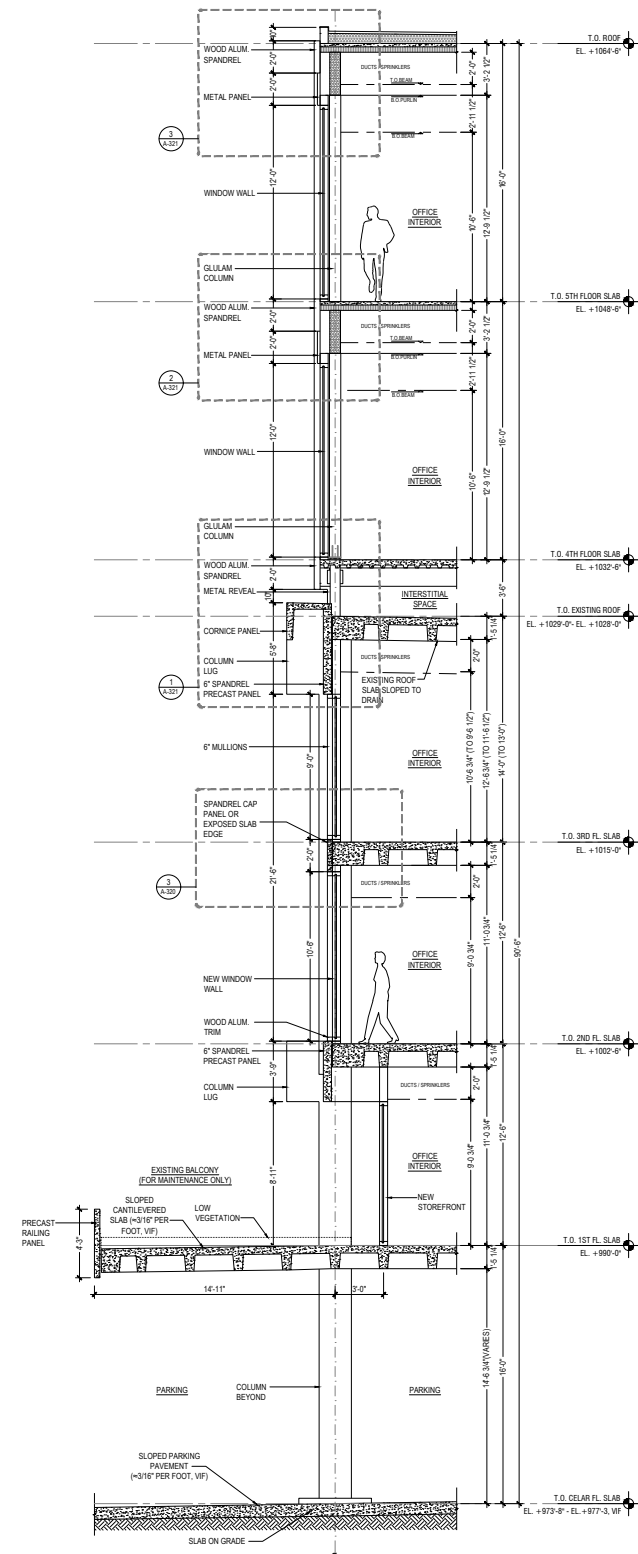
2 TYPICAL OVERBUILT 5TH FLOOR SPANDREL
SCALE: 1" = 1'-0"



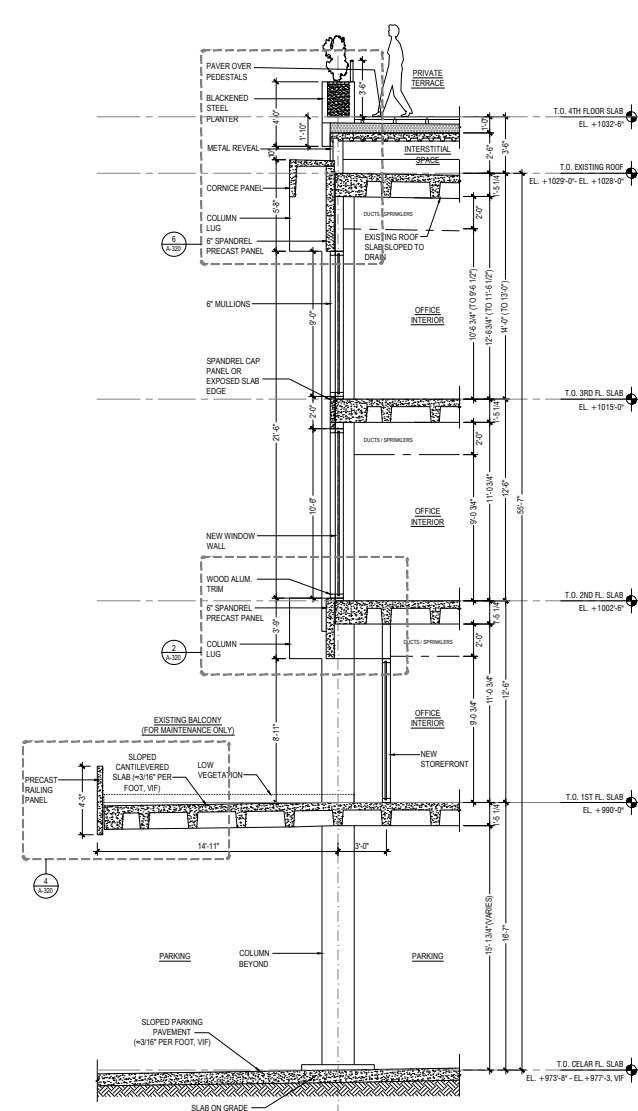
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3 WALL SECTIONS
SCALE: 1/4" = 1'-0"



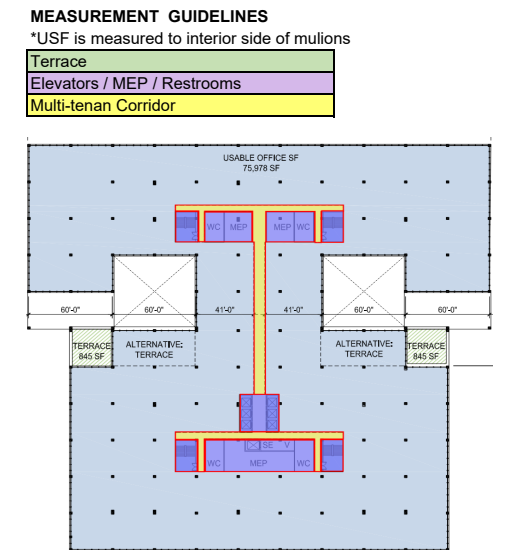
2 WALL SECTIONS
SCALE: 1/4" = 1'-0"



1 WALL SECTIONS
SCALE: 1/4" = 1'-0"

EFFICIENCY (NO TERRACES)	C	1	2	3	4	5	Total	% MULTI-TENANT	% SINGLE TENANT
Office		56,748	75,962	81,345	69,854	37,992	321,901	83.3%	86.8%
F&B		5,597	-	-	-	-	5,597	1.4%	1.4%
Usable	-	62,345	75,962	81,345	69,854	37,992	327,498	84.7%	88.2%
Lobby		2,501	-	-	-	-	2,501	0.6%	0.6%
Terrace									
Elevators / MEP / Restrooms	4,847	6,405	6,257	6,257	6,258	5,638	35,662	9.2%	9.2%
Multi-tenant Corridor		1,354	3,167	3,167	3,167	2,570	13,425	3.5%	0.0%
Amenity		3,581	-	-	-	3,868	7,449	1.9%	1.9%
Loss	4,847	13,841	9,424	9,424	9,425	12,076	59,037	15.3%	11.8%
Gross SF	4,847	76,186	85,386	90,769	79,279	50,068	386,535	100.0%	100.0%
	100.0%	18.2%	11.0%	10.4%	11.9%	24.1%	15.3%		

EFFICIENCY (with TERRACES)	C	1	2	3	4	5	Total	% MULTI-TENANT	% SINGLE TENANT
Office		56,748	75,962	81,345	69,854	37,992	321,901	81.8%	85.2%
F&B		5,597	-	-	-	-	5,597	1.4%	1.4%
Usable	-	62,345	75,962	81,345	69,854	37,992	327,498	83.2%	86.6%
Lobby		2,501	-	-	-	-	2,501	0.6%	0.6%
Terrace		757	1,542	-	2,310	2,561	7,170	1.8%	1.8%
Elevators / MEP / Restrooms	4,847	6,405	6,255	6,255	6,256	5,686	35,704	9.1%	9.1%
Multi-tenant Corridor		1,354	3,169	3,169	3,169	2,528	13,389	3.4%	0.0%
Amenity		3,581	-	-	-	3,862	7,443	1.9%	1.9%
Loss	4,847	14,598	10,966	9,424	11,735	14,637	66,207	16.8%	13.4%
Gross SF	4,847	76,943	86,928	90,769	81,589	52,629	393,705	100.0%	100.0%
	100.0%	19.0%	12.6%	10.4%	14.4%	27.8%	16.8%		



MEASUREMENT GUIDELINES

*USF is measured to interior side of mullions , dependant on final façade system

**Fitness and locker rooms are counted as Amenities

INTERIORS

