

Development Services

From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201
More Contact Info (<http://www.portlandoregon.gov/bds/article/519984>)



APPEAL SUMMARY

Status: Decision Renderd

| | |
|---|---|
| Appeal ID: 24636 | Project Address: 1510 SW Alder St |
| Hearing Date: 2/24/21 | Appellant Name: Zachary Hughes |
| Case No.: B-002 | Appellant Phone: 9719406077 |
| Appeal Type: Building | Plans Examiner/Inspector: Catherine Heeb, Sean Vanderjagt |
| Project Type: commercial | Stories: 21 Occupancy: R-2,S-2,B,A-2,A-3 Construction Type: Type I |
| Building/Business Name: Alta ART Tower | Fire Sprinklers: Yes - Through out |
| Appeal Involves: Erection of a new structure | LUR or Permit Application No.: 19-106186-CO |
| Plan Submitted Option: pdf [File 1] | Proposed use: Residentail |

APPEAL INFORMATION SHEET

Appeal item 1

| | |
|---|--|
| Code Section | 1407.10.4 |
| Requires | Section 1407.10.4 requires that the NFPA 285 testing of MCM panel is to be preformed on the proposed system intended for the use. |
| Code Modification or Alternate Requested | Use of Metal Composite Panels in lieu of Metal Panel at exterior soffits. |
| Proposed Design | Design remains the same as previously reviewed in the permit with use of the alternate Metal Composite Panel for assemblies 3C.1 and 3C.7 in lieu of a metal panel. |
| Reason for alternative | Alternate material provides equivalent health, life and fire safety as shown in our code equivalency AMMR letter prepared by Jensen Hughes. Alternate Product confirms with design review of the building exterior (mirrored finish soffit). |

APPEAL DECISION

Use of metal composite panels in lieu of metal panel at exterior soffits: Granted as proposed.

The Administrative Appeal Board finds that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health, safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 90 calendar days of the date this decision is published. For information on the appeals process, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.



MWP 3 Mirrored
Sample



MWP 4 Black Sample

Project Name: Art Tower

Project Location: 1515 SW Morrison Street, Portland, OR 97205

Description: Code Equivalency - Use of Alpolic® /fr Panels for Exterior Wall Covering (Soffit)

Date: September 15, 2020

Applicable Code: Oregon Structural Specialty Code - 2014 Edition.

Project Description: The Art Tower project includes a 21-story mixed-use tower with several levels of below-grade parking garage. The occupancies consist of Group A-2 (restaurant), Group A-3 (amenity spaces), Group B (business), Group R-2 (apartment – primary occupancy) and Group S-2 (parking garage). The project was designed under the provisions of the 2014 Edition of the Oregon Structural Specialty Code (OSSC). The building is constructed with Type IA construction and protected throughout with automatic sprinkler system per NFPA 13.

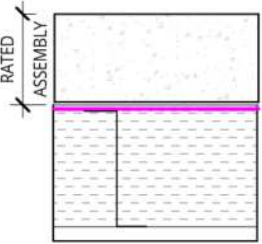
All other aspects not mentioned in this letter is assumed to be in direct compliance with OSSC or otherwise acceptable by the City of Portland as the Authority Having Jurisdiction.

Code Requirement: The use of metal composite materials as exterior wall coverings (which is defined under Section 202 to include soffits) are required to comply with OSSC Section 1407. Specifically, Section 1407.10.4 requires that the NFPA 285 testing of MCM panel is to be performed on the proposed system intended for the use.

Code Alternate Requested: To permit using a proprietary product, Alpolic® /fr panels which has been evaluated and approved by ICC and documented in ESR-2653 (copy of this document is available on the ICC website¹) in a horizontal orientation as an exterior soffit on Levels 2 and 21 based on the following proposed alternate assembly designs. Appendix A includes the technical information of the panels including the list of fire tests that the panel has been tested and passed.

Proposed Designs: It is proposed to use Alpolic® /fr panels on exterior wall coverings as part of the soffit assemblies identified as 3C.1 and 3C.7, as follows:

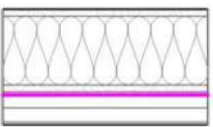
¹ From ICC website: <https://icc-es.org/report-listing/esr-2653/>



CONCRETE SLAB - SEE STRUCTURAL **Minimum 8 inches**
 SELF ADHERED MEMBRANE WEATHER BARRIER (AIR BARRIER COMPONENT)
 6" MINERAL BOARD INSULATION TYPE 1 (R-24.6) WITH 1/4" NYLON SHIMS
 WITH COLD-FORMED FURRING ASSEMBLIES
 Z-FURRING
 METAL WALL PANELS - Alpolic® /fr
 Mineral fiber board is wool type, either Roxul cavity rock or Curtainrock 60.

EXTERIOR SOFFIT - LEVEL 2 AND LEVEL 21

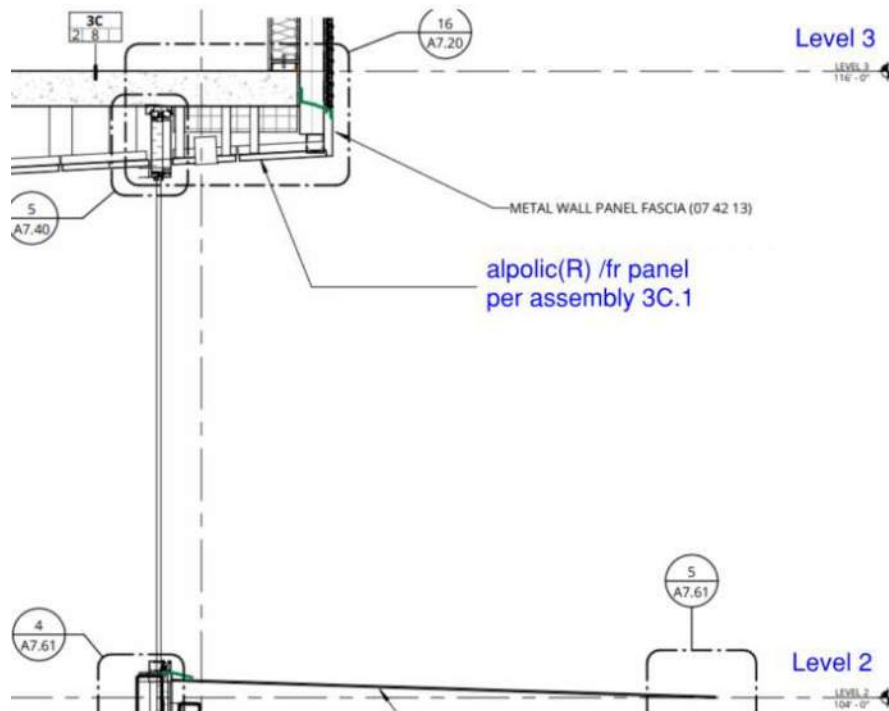
| | | |
|------|-----------------------|--|
| 3C.1 | FIRE RATING / SOURCE: | |
| | STC RATING / SOURCE: | |
| | IIC RATING / SOURCE: | |
| | INSULATION: R 24.6 | |

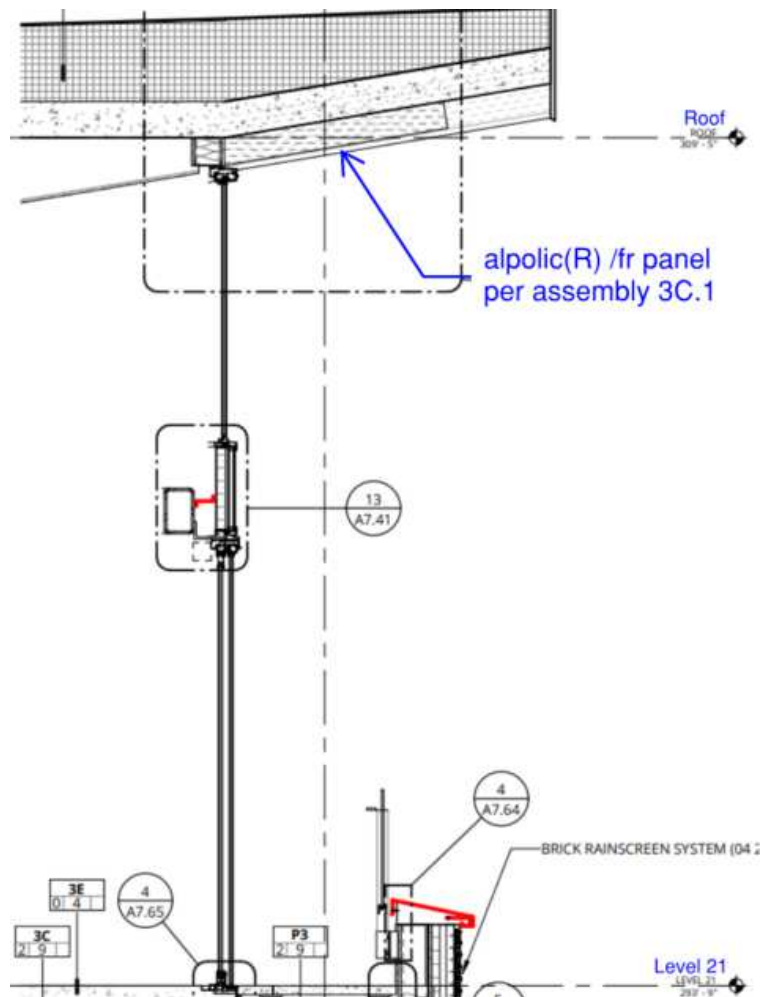
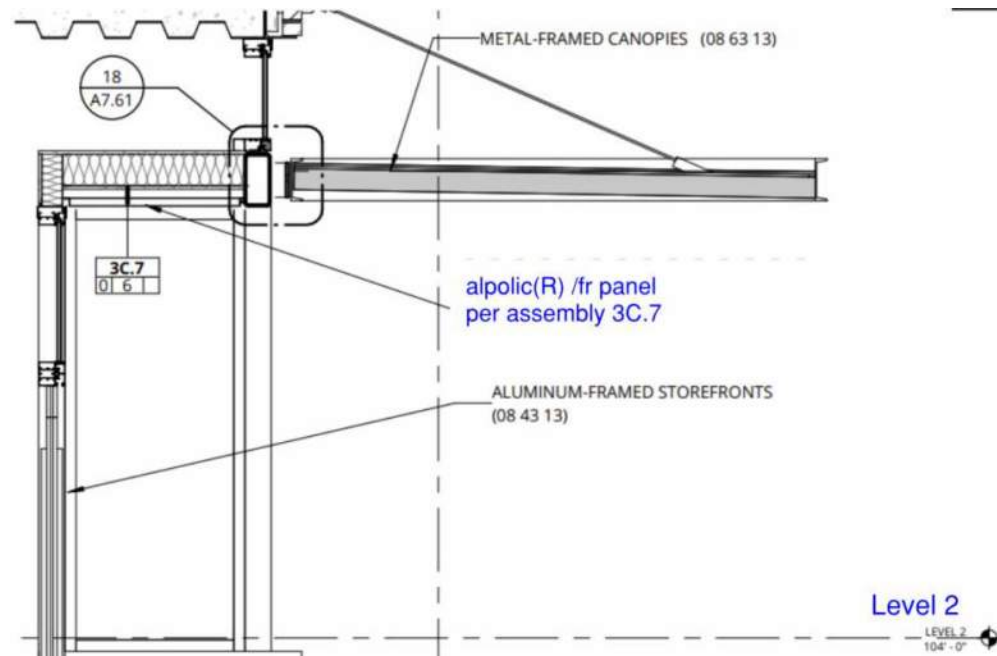


GYPSUM WALL BOARD **5/8-inch Type X**
 COLD FORMED METAL STUDS W/ INSULATION
 MR GYPSUM SHEATHING **5/8-inch Type X**
 SELF-ADHERED MEMBRANE WEATHER BARRIER (AIR BARRIER COMPONENT)
 COLD-FORMED FURRING ASSEMBLIES
 Z GIRTS @ 16" O.C.
 METAL WALL PANEL - Alpolic® /fr
 Stud: 6-inch deep, 54 mil thick, 16-inch o.c. spacing,
 Insulation: glass fiber batts - R21

EXTERIOR SOFFIT - EAST TI SPACE

| | | |
|------|-----------------------|--|
| 3C.7 | FIRE RATING / SOURCE: | |
| | STC RATING / SOURCE: | |
| | IIC RATING / SOURCE: | |
| | INSULATION: | |





Reason for Alternate:

OSSC Section 202 defines exterior wall covering to include soffits which are oriented horizontally. The use of Alpolic® /fr panel as a metal composite material with solid plastic core (not foam plastic insulation) for exterior wall coverings is governed by Section 1407. For use in Type I construction, Section 1407.10 provides three main requirements; surface-burning characteristics, thermal barriers and full-scale tests under NFPA 285.

Alpolic® /fr panel has passed the NFPA 285 test. NFPA 285 only includes testing of an assembly in a vertical orientation to evaluate potential hazards of fires spreading to upper floors. Fires involving multiple stories are considered to present greater hazards and risks compared to those involving a single story as one fire compartment. Therefore, based on the definition of exterior wall coverings which include exterior soffits and that Section 1407 specifically mentions exterior wall coverings, rather than exterior walls, it is the intent of the code to apply the same requirements of Section 1407 and the results of NFPA 285 for use of MCM on both exterior walls and soffits.

Further, the concern of a horizontal fire spread for a soffit application is addressed by the surface-burning characteristics requirement in Section 1407.10.1 which requires MCM have a flame-spread index of not more than 25 and a smoke-developed index of not more than 450 (i.e., Class A) in accordance with ASTM E84. The test specimen in ASTM E84 is oriented in a horizontal position. The Alpolic® /fr panel (4 mm in thickness proposed for this project) has been tested per ASTM E84 to have a flame-spread index of 0 and Smoke Developed Index of 10, both exceed the requirements of Section 1407.10.1.

The presence of combustible elements in a soffit has been addressed by the code based on both the definition of exterior wall coverings and provision of the same requirements for both exterior walls and soffits in Section 1407 through the NFPA 285 test. An unlikely fire involving the soffit would spread horizontally within a single story/fire compartment, rather than vertically across multiple stories which is the main concern of Section 1407 and NFPA 285. The extent of horizontal fire spread will also be limited based on the results of the ASTM E84 test. Based on the test result of a flame-spread index of 0, the panel when involved in a fire would char, melt and/or drip, rather than spread the fire/flame.

It is also worth noting that Section 1407 is not the only place where the requirements for walls and ceilings are similar or the same. Section 803 addresses the same requirements for both interior wall and interior ceiling finishes. As a reference, in a nonsprinklered building per Table 803.11, both interior wall and ceiling finishes for rooms and enclosed spaces are only required to have the same rating; a Class B (flame-spread index of 26-75), or Class C (flame-spread index of 76-200) in some occupancies or in a sprinklered building.

Additional inherent features are also recognized. For the Level 2 application, the majority of the soffit is located at least 20 feet above grade where the potential of ignition of the soffit will be low. The benefit of the 20-foot height is recognized in Table 601 to exempt fire protection of structural roof members and allow the use of limited combustible materials (fire-retardant treated wood) due to the unlikely involvement of the members from fires located below the roof. Relative to this project, the 20-foot height would mean a reduced likelihood of exterior fires involving the Alpolic® /fr panels.

At the Future Tenant space in the south-east corner of Level 2, although the soffit is less than 20 feet, the extent of the soffit is limited to approximately 20 square feet in area. With regards to Level 21, although the soffit is less than 20 feet, Level 21 is the highest occupied floor and there is no opportunity for an unlikely fire that involve any occupancy or significant combustible materials above the soffit or roof assembly. The equipment and penthouse on the roof are located set back from the edge of the soffit.

Another protection for combustible soffit is addressed by sprinkler protection as required by NFPA 13. No exception or additional feature is taken with regards to the exterior sprinkler coverage. In accordance with NFPA 13 Section 8.15.1.2.18, where exterior soffits are

provided with Alpolic® /fr panels and extend more than 4 feet in depth on both Levels 2 and 21, exterior sprinkler coverage will be provided for these areas.

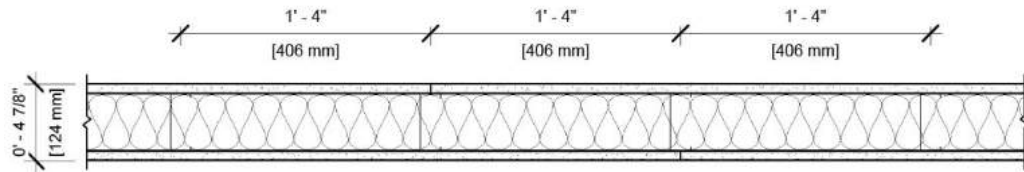
Since NFPA 285 is an assembly test, not a component test, the use of different components other than those in the tested assembly would require an engineering judgement or Code Equivalency. This Equivalency letter also addresses the use of Alpolic® /fr panel on proposed horizontal assemblies 3C.1 and 3C.7 using different components, which will be demonstrated to provide equal or better level of fire performance compared to the tested assembly, as described below. One of the tested assemblies is outlined in Section 4.3 of ESR-2653, reproduced as follows.

4.3 Exterior Walls of Buildings of Type I, II, III or IV Construction:

Extruded aluminum mounting bars must be attached to the building walls at the jobsite. The panels are then attached to the mounting bars using extruded aluminum retainer clips so that the panels are pressure interlocked into the bulb end of the mounting bars.

1. Where exterior walls are required to be noncombustible construction, the walls with the Alpolic®/fr wall panels must be constructed as follows: Minimum 43-mil [0.0428 inch minimum base-metal thickness (1.09 mm)], 3⁵/₈-inch-deep (92.1 mm), cold-formed steel C-shaped studs spaced a maximum of 16 inches (406 mm) on center.
2. The interior side of the wall must be covered with one layer of minimum 5/₈-inch-thick (15.9 mm), Type X gypsum wallboard, applied vertically with horizontal joints blocked. The wallboard must be fastened to the studs and blocking in accordance with the IBC. The interior wallboard joints must be taped and treated with paper tape and joint compound. The screw heads must be treated with joint compound.
3. The exterior side of the wall must be covered with one layer of minimum 5/₈-inch-thick (15.9 mm), Type X gypsum sheathing complying with ASTM C79, with horizontal joints blocked. The sheathing must be attached to studs and blocking in accordance with the IBC.
4. The wall cavity between the steel studs must be filled with 3⁵/₈-inch-thick (92 mm), R-11, foil-faced, glass-fiber insulation.
5. All openings in the wall construction must be framed with minimum 43-mil [0.0428 inch minimum base-metal thickness (1.09 mm)] galvanized steel framing.

Items 1 to 4 form a wall assembly where the Alpolic® /fr panels were attached to during the NFPA 285 testing. Such wall assembly appears to be similar to a typical 1-hour fire-resistance-rated assembly, for example, UL listed U419 interior partition, as shown below. Please note that although the assembly is not required by Section 1407 to have a 1-hour rating, the comparison between the tested assembly and UL listed assembly is intended to serve as a baseline to evaluate the proposed designs, one with a concrete slab and the other with consistent materials but thicker insulation/stud, against the tested assembly.

**UL U419**

Interior Partitions - Steel Stud
(Non-Load-Bearing)

Fire Rating

1 hours

System Thickness

4 7/8 in.

STC

44**ASSEMBLY DETAILS**

Gypsum Board: 5/8" Thick Gypsum Board (UL Type ULIX™)

Steel Studs: 3-5/8" Steel Studs, EQ20 (0.020"), Spaced 16" O.C.

Insulation: 3-1/2" Thick Glass Fiber Batt Insulation

Gypsum Board: 5/8" Thick Gypsum Board (UL Type ULIX™)

For assembly 3C.1, the 8-inch concrete slab will provide a 4-hour fire-resistance rating based on Table 722.2.2.1. By comparison, this rating exceeds that of the required thermal barrier (15-minute) and the tested assembly (1-hour).

Similarly, for assembly 3C.7, the increased thickness of the mineral fiber insulation and steel studs will not reduce the fire performance level of the tested assembly. Based on Harmathy's Rule #2 for fire endurance ratings, "the fire endurance of a construction does not decrease with the addition of further layers." In this case the increase thickness can be considered further layers which would not decrease the performance level of the wall assembly.

Adopting the same approach from Harmathy's Rule #2, it can be justified that additional noncombustible components within these wall assemblies would not reduce the fire performance or thermal barrier capability either.

Section 1407.10.2 also requires that MCM be separated from the interior of a building by a thermal barrier consisting of at least 1/2-inch of gypsum wallboard, which provides 15 minutes of protection based on Table 722.2.1.4(2). This has been achieved in the proposed designs via the 8-inch concrete slab or 5/8-inch thick Type X gypsum boards. In addition, the Alpolic® /fr panel will also be separated to the interior space on ends where the panel meets the exterior wall by a wall assembly compliant with Section 4.3 of ESR-2653 or thicker layers providing at least the same thermal barrier requirement.

Conclusion:

The use of the Alpolic® /fr panel in a horizontal application (soffit) has been addressed based on the definition of exterior wall coverings, which include soffits where the same requirements are applied in Section 1407 and low flame-spread index based on the ASTM E84 results. Based on the proposed designs incorporating 8 inches of concrete slab and increased thickness of mineral fiber insulation, the proposed designs will meet or exceed the performance level of the NFPA 285 tested assembly, and therefore, meet or exceed the intent of OSSC Section 1407.

Please contact Jensen Hughes at 425-217-1074 or alianto@jensenhughes.com if you have any questions or comments regarding the information provided in this Alternate Means and Methods Request.

Submitted by, JENSEN HUGHES

Prepared by:

Andy Lianto, PE
Senior Fire Protection Engineer



2020.09.15
15:37:19-07'00'

Reviewed and Approved by,

CITY OF PORTLAND BUREAU OF DEVELOPMENT SERVICES

By: _____
Signature

Printed name

Title

Date

Attachment: Appendix A – Alpolic® /fr panel Technical Information

A. Appendix A – Alpolic® /fr Panel Technical Information

ALPOLIC®/fr TECHNICAL INFORMATION

IMPACT RESISTANCE BY DUPONT METHOD

| | | ALPOLIC®/fr | |
|------------|--------|-----------------------------------|--------------|
| | | DENT DEPTH (x10 ⁻² IN) | |
| STEEL BALL | HEIGHT | 4MM .157" | 6MM .236" |
| 1.10 lb | 20 in | 5.07 | 3.93 |
| 2.20 lb | 12 in | 5.47 | 4.72 |
| 2.20 lb | 20 in | 7.40 | 6.30 |

BOND INTEGRITY

| | | | ALPOLIC®/fr | |
|----------------|----------|--------|-----------------|--------------|
| | | | TOTAL THICKNESS | |
| PROPERTY | HEIGHT | ASTM | 4MM .157" | 6MM .236" |
| Vertical Pull | psi | C-297 | 427 | |
| Drum Peel | in-lb/in | D-1781 | 27.6 | |
| Flatwise Shear | psi | C-273 | 949 | |

ENGINEERING PROPERTIES

| | | | ALPOLIC®/fr | |
|---------------------------|---------------------|-------|----------------------|----------------------|
| | | | TOTAL THICKNESS | |
| PROPERTY | UNIT | ASTM | 4MM .157" | 6MM .236" |
| Aluminum Thickness | in | - | .020 | .020 |
| Specific Gravity | - | - | 1.90 | 1.81 |
| Weight | lbs/ft ² | - | 1.56 | 2.23 |
| Coefficient of Expansion | in/in/°F | D-696 | 13x10 ⁻⁶ | 13x10 ⁻⁶ |
| Tensile Yield Strength | psi | E-8 | 6344 | 3840 |
| Tensile Strength | psi | E-8 | 7126 | 4266 |
| Elongation | % | E-8 | 5.0 | 2.0 |
| Flexural Elasticity | psi | C-393 | 5770x10 ³ | 4220x10 ³ |
| Flexural Stiffness | psi | C-393 | 1.93x10 ⁹ | 4.98x10 ⁹ |
| Punching Shear Resistance | | | | |
| Maximum Load | lbs | D-732 | 2259 | — |
| Shear Resistance | psi | D-732 | 4637 | — |
| Deflection Temperature | °F | D-648 | 241.8 | 228.8 |

SURFACE TREATMENTS

ALPOLIC®/fr (fire-retardant) with a mineral filled core offers the same flatness, rigidity, workability, formability and quality features of standard ALPOLIC®/PE. ALPOLIC®/fr is curvable to a 6" radius and can be joined with hot melt adhesive to form complex shapes. In addition, ALPOLIC®/fr is available in the same full palette of bright, clean colors and gloss ranges as standard ALPOLIC®/PE, as well as Stone Series, Anodized and Natural Metals. Extensive fire performance laboratory testing by independent testing agencies in accordance with requirements set forth by IBC has established ALPOLIC®/fr approval on Type 1, 2, 3, 4 and 5 Construction throughout the United States and Canada when used as a wall cladding material.

FIRE PERFORMANCE

ALPOLIC®/fr (fire-retardant) has been tested by independent testing laboratories using the following nationally recognized fire tests.

ASTM E84

| | | |
|------------------|-----|----|
| Flame spread: | 4mm | 00 |
| Smoke Developed: | 4mm | 10 |
| Flame spread: | 6mm | 00 |
| Flame spread: | 6mm | 00 |

ASTM E162

| | | |
|---------------|-----|---|
| Flame Spread: | 4mm | 0 |
|---------------|-----|---|

ASTM E108 MODIFIED

Passed

ASTM 1929

| | | |
|-----------|-----|-------|
| Flash: | 4mm | 811°F |
| Ignition: | 4mm | 837°F |

NFPA 285, INTERMEDIATE SCALE MULTI STORY APPARATUS TEST:

| | |
|-----|--------|
| 4mm | passed |
| 6mm | passed |

ASTM E119

| | |
|-----|--------|
| 4mm | passed |
|-----|--------|

CAN/ULC S 134M

| | |
|-----|--------|
| 4mm | passed |
|-----|--------|

NFPA 259, POTENTIAL HEAT RELEASE

| | |
|-----|---------------------------|
| 4mm | <6000 BTU/ft ² |
|-----|---------------------------|

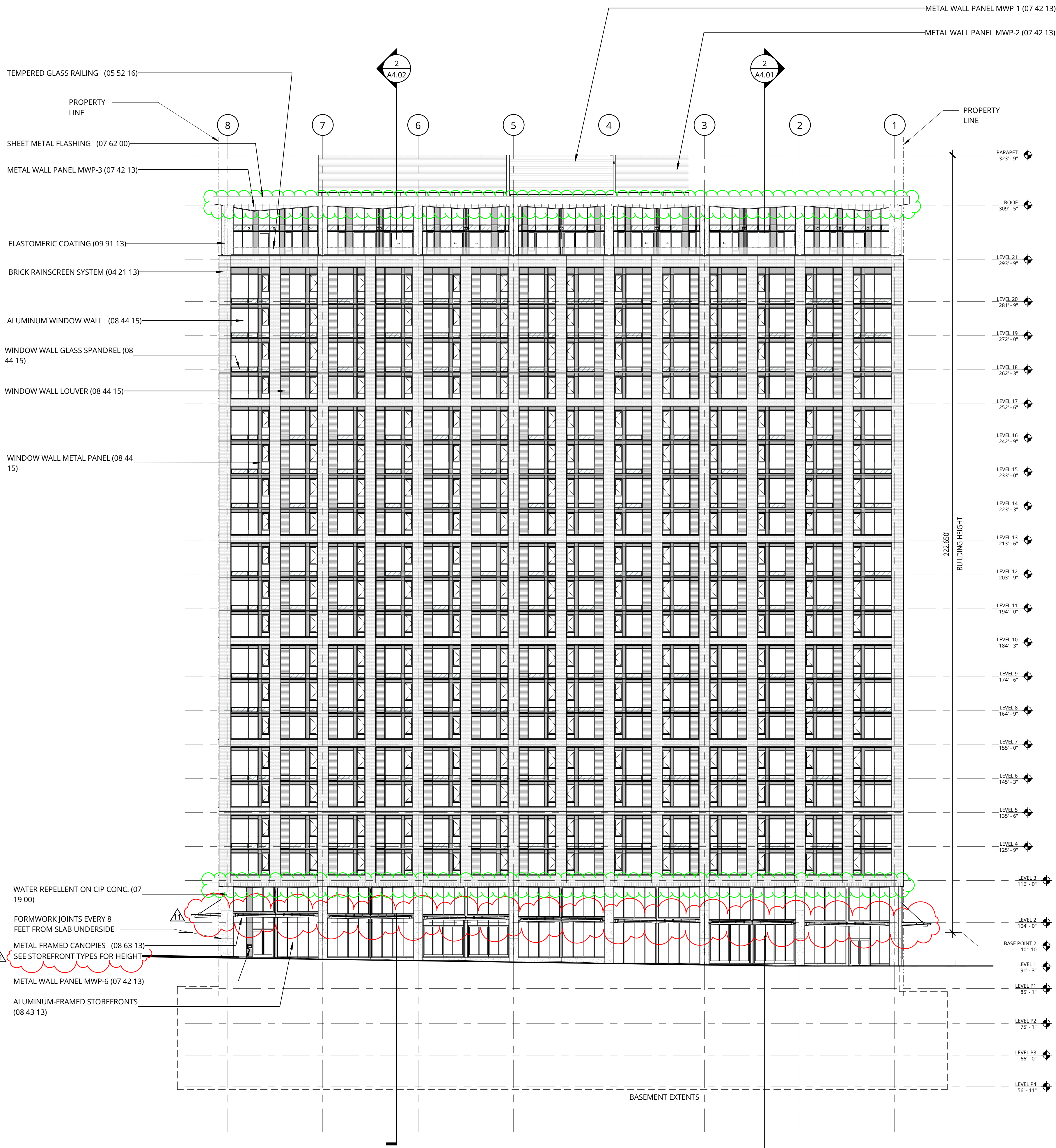
COMBUSTION GAS TOXICITY PER UNIVERSITY OF PITTSBURGH

"No more toxic than wood."

CODE EVALUATION REPORTS*

1. ICC ES ESR-2653
2. City of Los Angeles Report
3. Miami Dade Notice of Acceptance
4. Florida Building Code Approval
5. New York City (ACM)
(SCM)
(TCM)
6. CAN/ULC S102, S134 & S135
7. ASTM E84 & E119
8. NFPA 285

* Report numbers are available at:
www.alpolic-americas.com/en/building-codes



1 NORTH ELEVATION
1/16" = 1'-0"



2 EAST ELEVATION
1/16" = 1'-0"

GENERAL NOTES - EXTERIOR ELEVATIONS

1. REFER TO SHEET A0.01 FOR 'PROJECT NOTES' APPLICABLE TO ALL PORTIONS OF THE WORK.
2. ELEVATIONS NOTED ARE RELATIVE TO SEA LEVEL (OR PROJECT DATUM).
3. SEE SHEETS **A12.21-A12.26** FOR WINDOW TYPES SCHEDULE AND CONFIGURATIONS.
4. SEE DOOR SCHEDULE SHEETS A12.01A & B FOR DOOR LOCATIONS AND TYPES.
5. SEE ENLARGED ELEVATIONS AND WALL SECTIONS FOR ADDITIONAL EXTERIOR DETAILS.
6. SEE ENLARGED STOREFRONT PLAN **A12.21-A12.22** FOR LOCATIONS OF PF&R SMOKE REMOVAL BREAK OUT IDENTIFICATION STICKERS

ELEVATION LEGEND

- BRICK RAINSCREEN SYSTEM (MATCH LIMESTONE MISSION)
- CIP CONCRETE (MEET CSC3)
- METAL PANEL MWP-1 LIGHT GRAY
- METAL PANEL MWP-2 LIGHT GRAY
- METAL PANEL MWP-3 (SOFFIT) MIRRORRED
- METAL PANEL MWP-5 SILVER METALLIC
- SPANDREL GLASS
- STOREFRONT/WW METAL INFILL PANELS AND FRAMING (MATCH CHARCOAL GREY)



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SAN FRANCISCO, CA 94103
T 415.252.7063
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ART TOWER
1515 SW MORRISON STREET
PORTLAND, OREGON 97205
WOOD PARTNERS

| REVISION | DATE | DESCRIPTION |
|----------|----------|-------------------|
| 2 | 04/15/19 | GMP ADDENDUM 1 |
| 4 | 06/26/19 | PERMIT REVISION 2 |
| 6 | 09/18/19 | CONSTRUCTION SET |
| 7 | 08/16/19 | PERMIT REVISION 4 |
| 11 | 05/07/20 | CCD-007 |

BUILDING
ELEVATIONS

CONSTRUCTION SET

DATE
09.18.2019
PROJECT NUMBER
170710

SHEET NUMBER

A3.11

1. REFER TO SHEET A0.01 FOR "PROJECT NOTES" APPLICABLE TO ALL PORTIONS OF THE WORK.
2. ELEVATIONS NOTED ARE RELATIVE TO SEA LEVEL (OR PROJECT DATUM).
3. SEE SHEETS **A12.21-A12.26** FOR WINDOW TYPES SCHEDULE AND CONFIGURATIONS.
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ELEVATION LEGEND

BRICK RAINSCREEN SYSTEM
(MATCH LIMESTONE MISSION)

CIP CONCRETE
(MEET CSC3)

METAL PANEL MWP-1
LIGHT GRAY

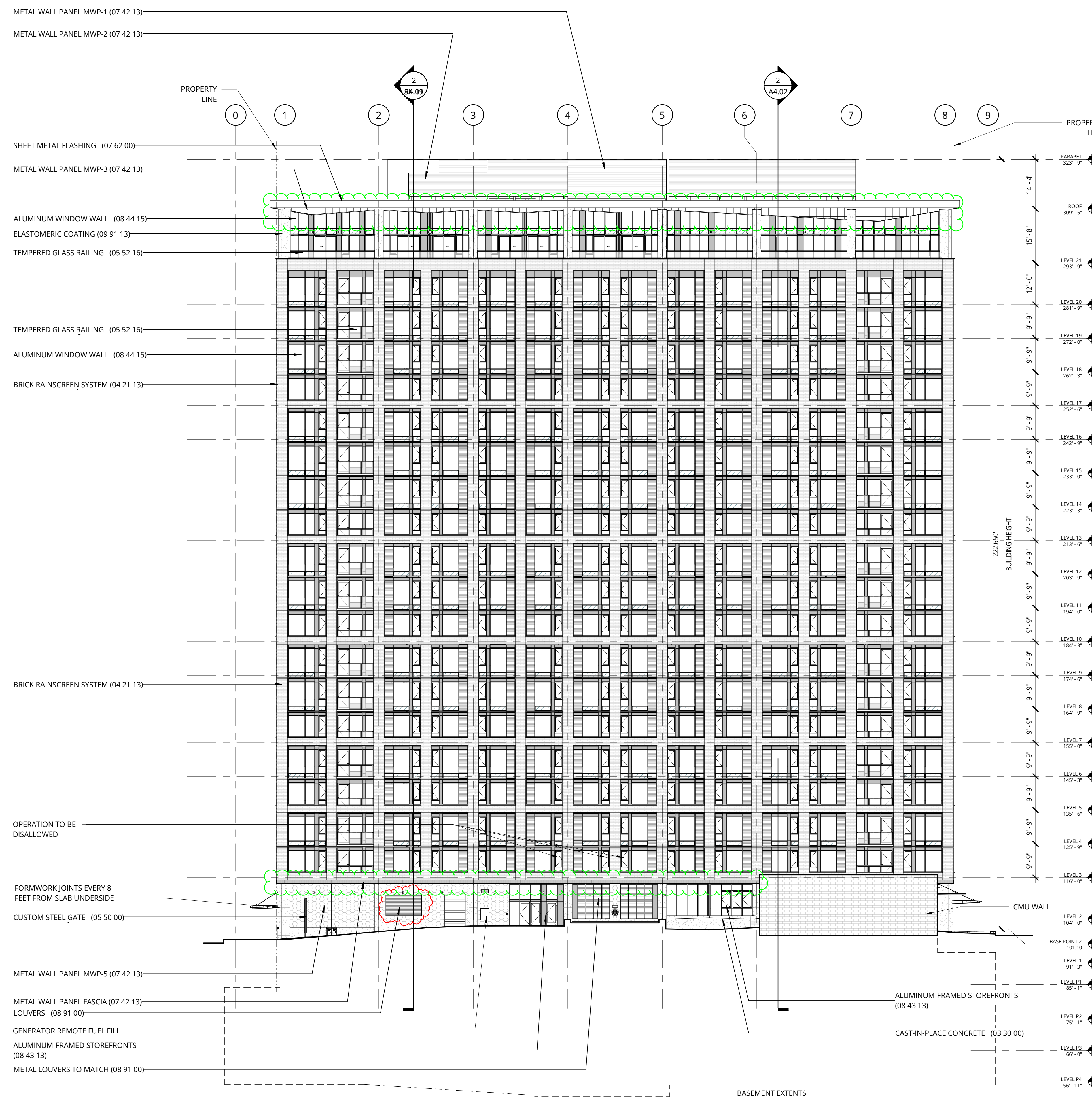
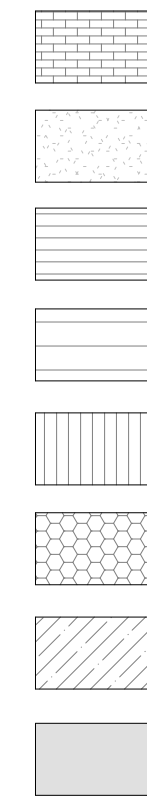
METAL PANEL
LIGHT GRAY

METAL PANEL MWP-3 (SOFFIT)
MIRRORED

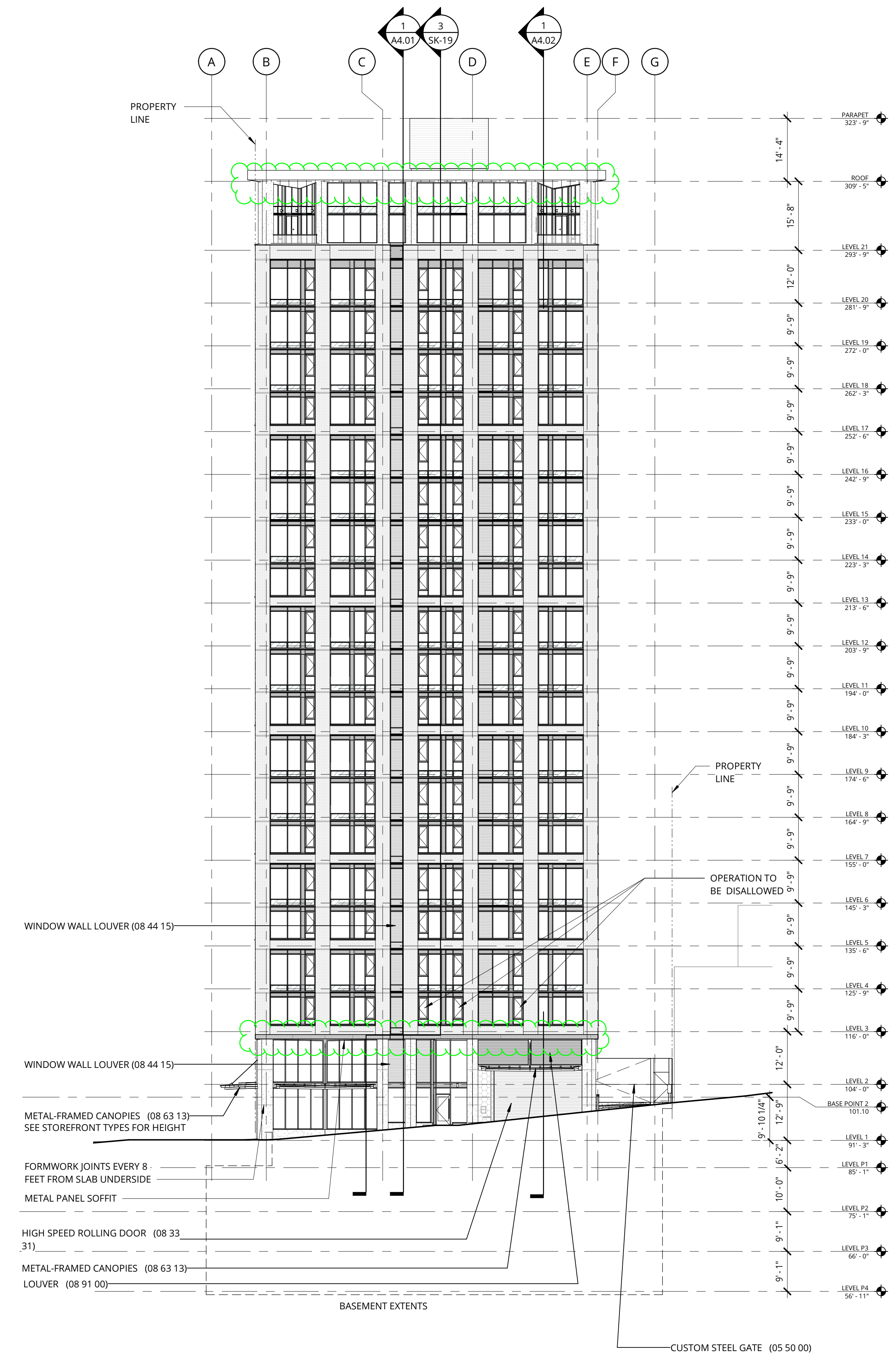
METAL PANEL MWP-5
SILVER METALLIC

SPANDREL GLASS

STOREFRONT/WW METAL
INFILL PANELS AND FRAMING
(MATCH CHARCOAL GREY)



1 SOUTH ELEVATION



2 WEST ELEVATION



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ART TOWER
1515 SW MORRISON STREET
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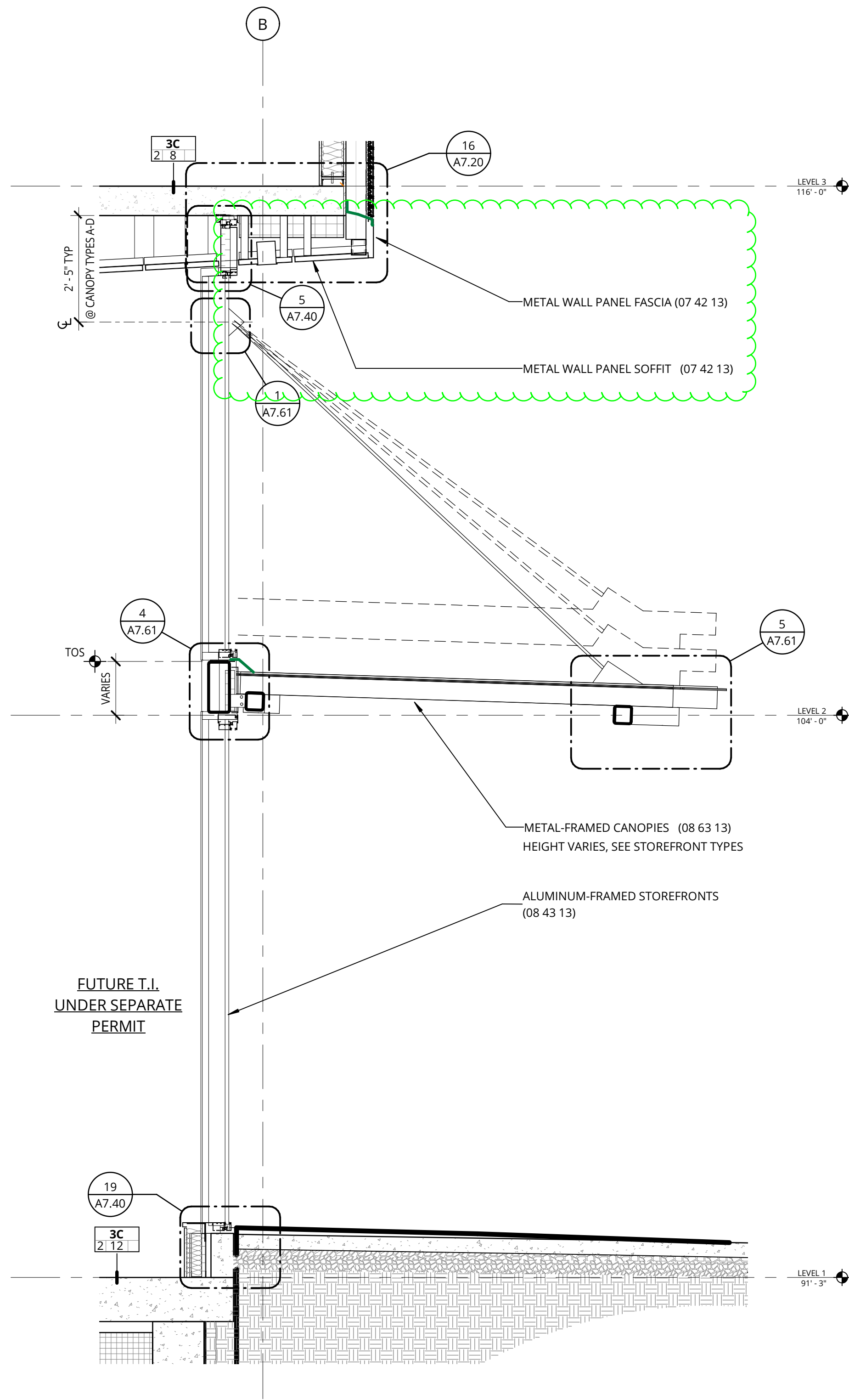
WOOD PARTNERS

[illegible]BUILDING
ELEVATIONS

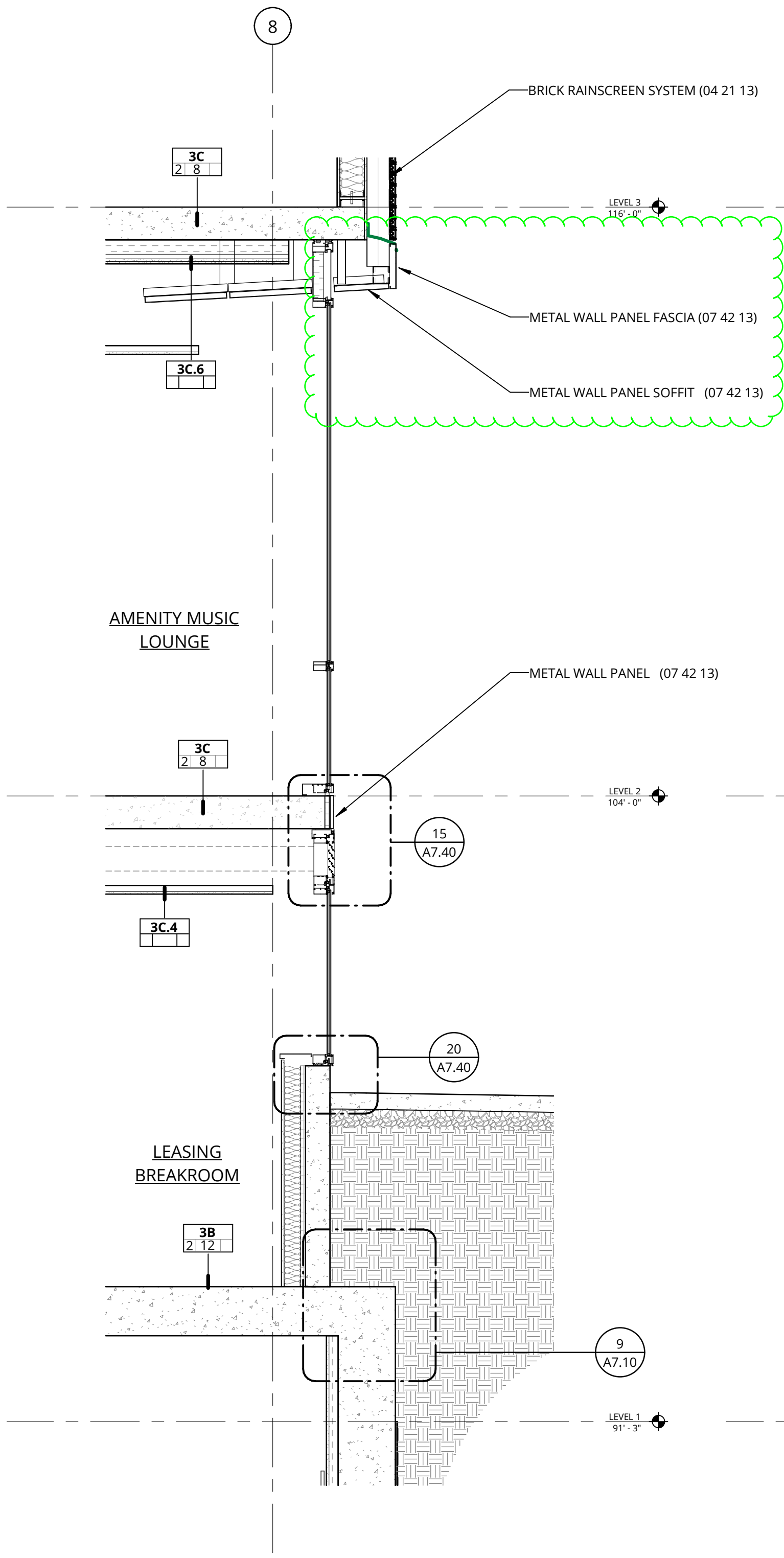
CONSTRUCTION SET

| | |
|--------------------|--------------------------|
| DATE 09.18.2019 | PROJECT NUMBER 170710 |
| SHEET NUMBER | |

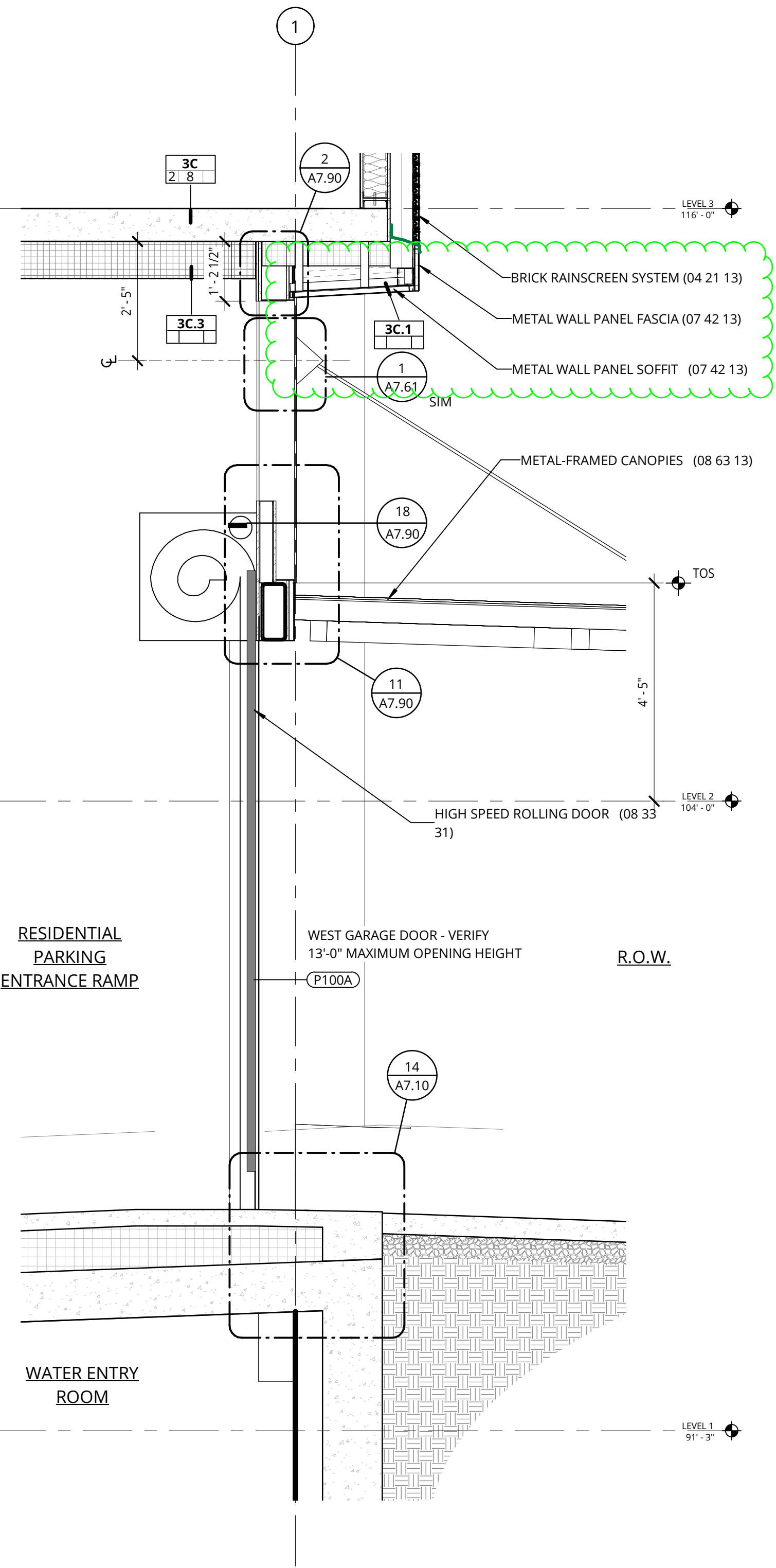
A3.12



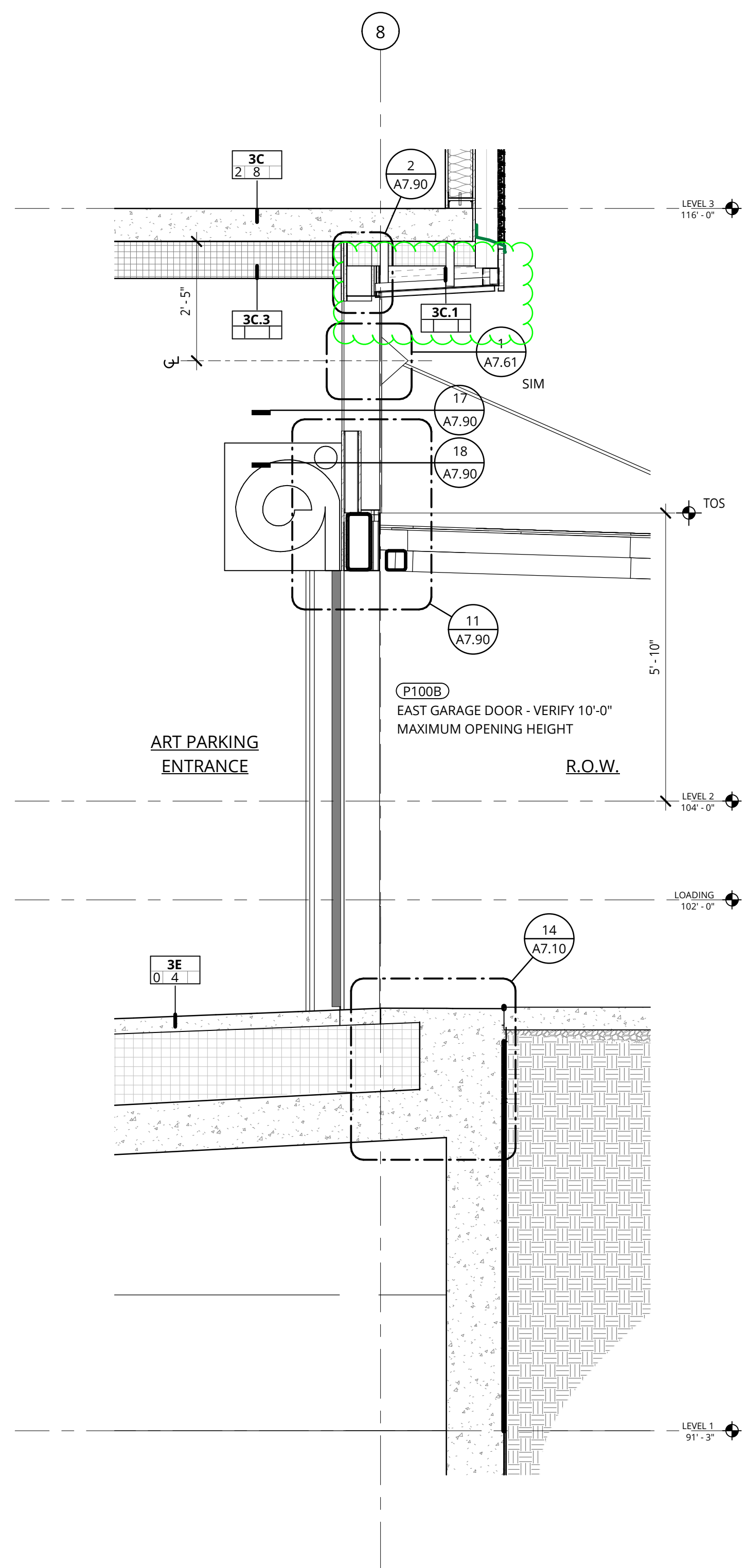
1 TYP STOREFRONT AT CANOPY
1/2" = 1'-0"



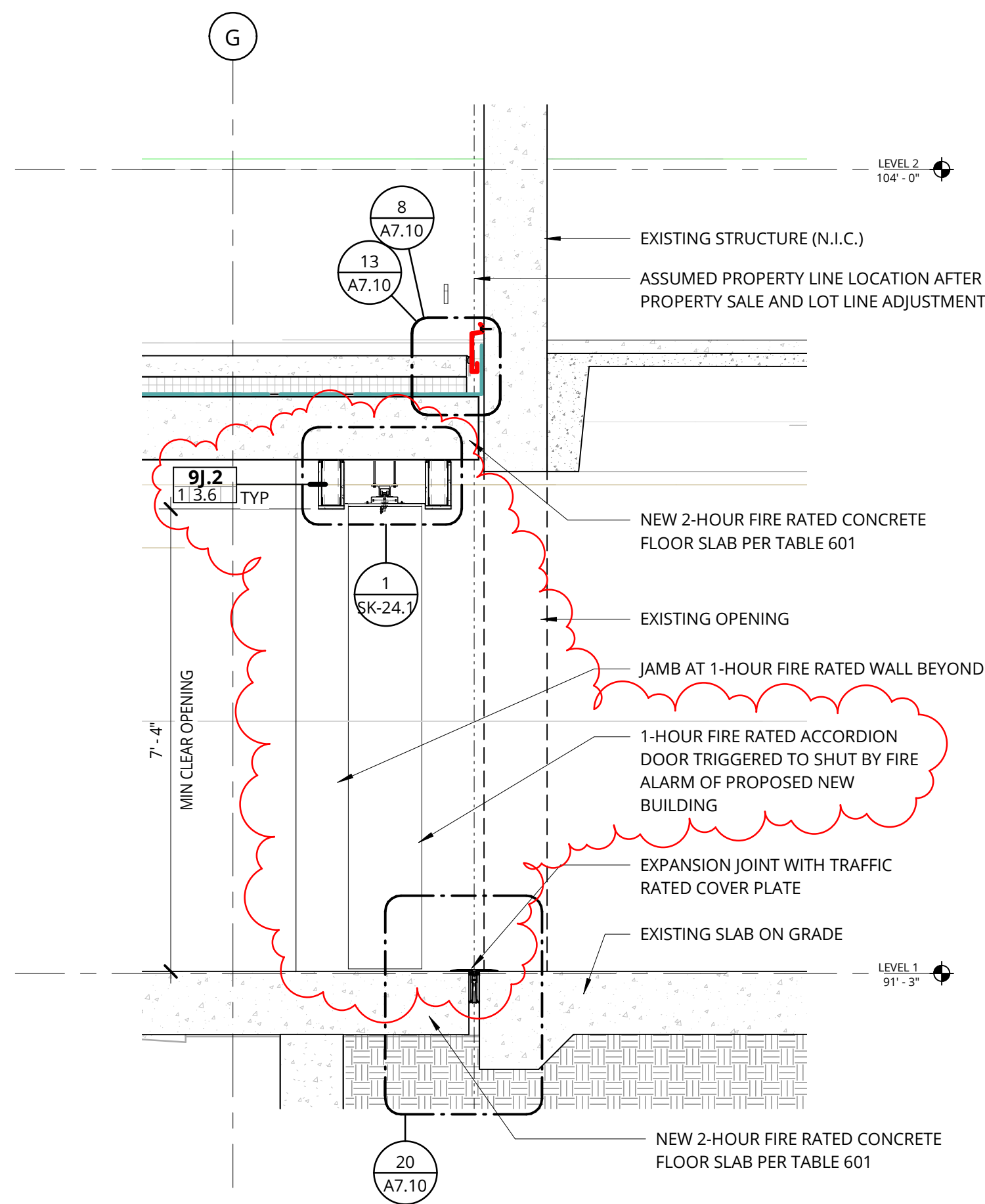
2 STOREFRONT AT ELEVATED GRADE
1/2" = 1'-0"



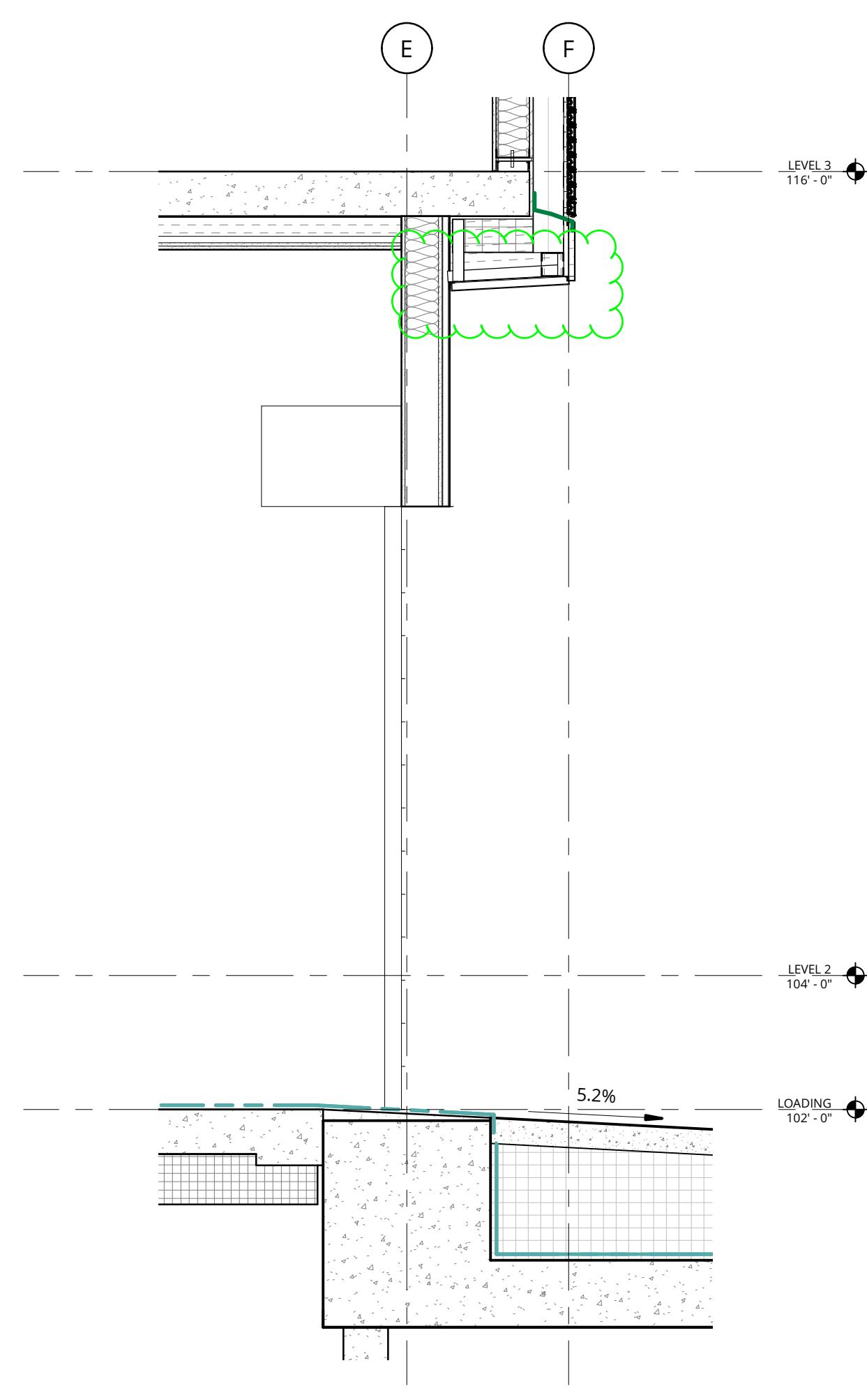
3 WEST GARAGE ENTRY
1/2" = 1'-0"



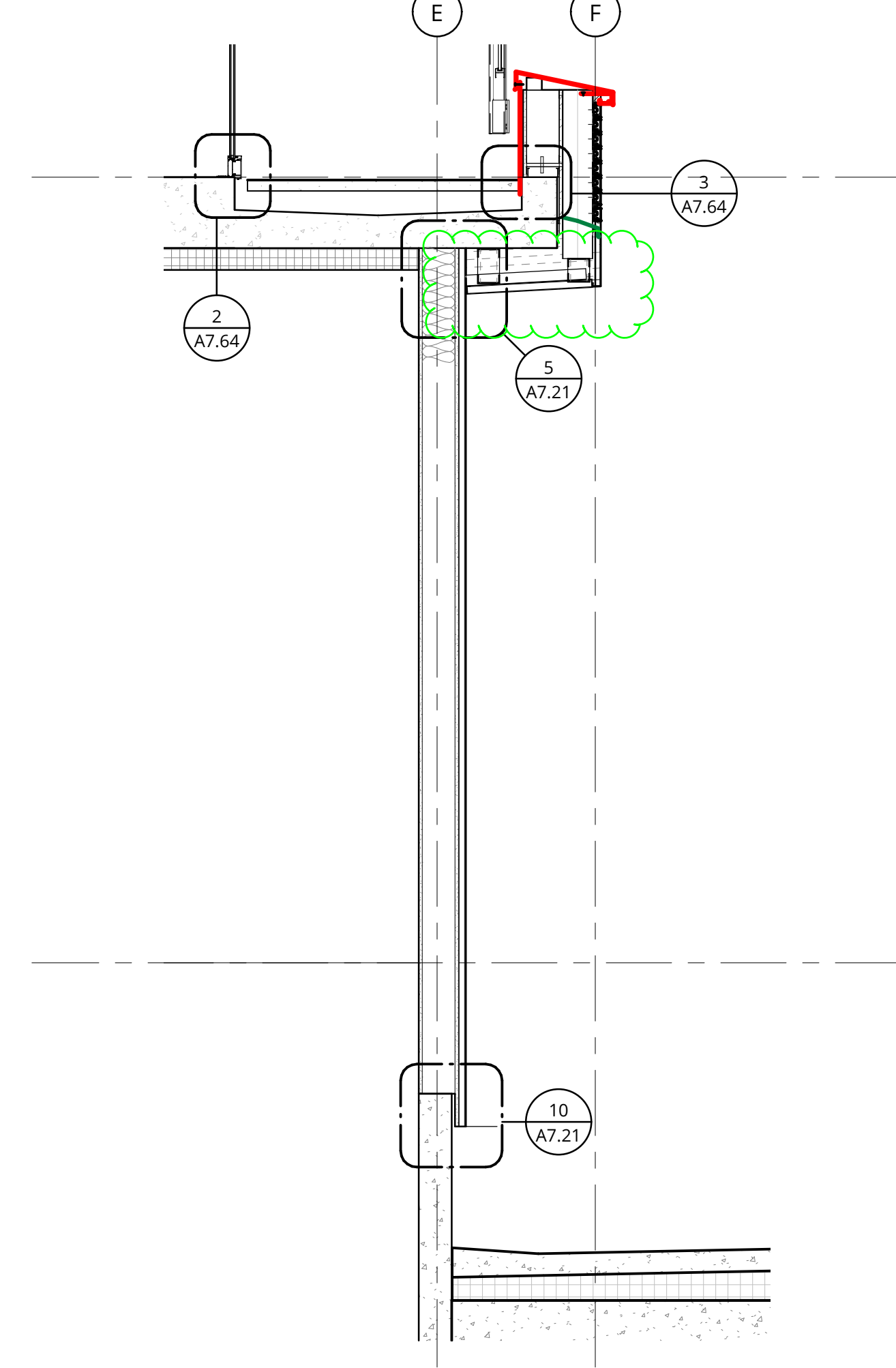
4 EAST GARAGE ENTRY
1/2" = 1'-0"



5 ADJACENT PARKING CONNECTION
1/2" = 1'-0"



6 TRASH ROOM ENTRY
1/2" = 1'-0"



7 COURTYARD SOLID WALL AND LEVEL 3 BALCONY
1/2" = 1'-0"

GENERAL NOTES - WALL SECTIONS

1. REFER TO SHEET A0.01 FOR 'PROJECT NOTES' APPLICABLE TO ALL PORTIONS OF THE WORK.



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ART TOWER

1515 SW MORRISON STREET
PORTLAND, OREGON 97205

WOOD PARTNERS

| REVISION | DATE | DESCRIPTION |
|----------|----------|-------------------|
| 2 | 04/15/19 | GMP ADDENDUM 1 |
| 3 | 05/01/19 | PERMIT REVISION 1 |
| 4 | 06/26/19 | PERMIT REVISION 2 |
| | 01/04/20 | RFI 0064 |
| | 04/28/20 | RFI 0199 |
| 11 | 05/07/20 | CCD-007 |
| | 08/13/20 | RFI 0355 |

WALL SECTIONS

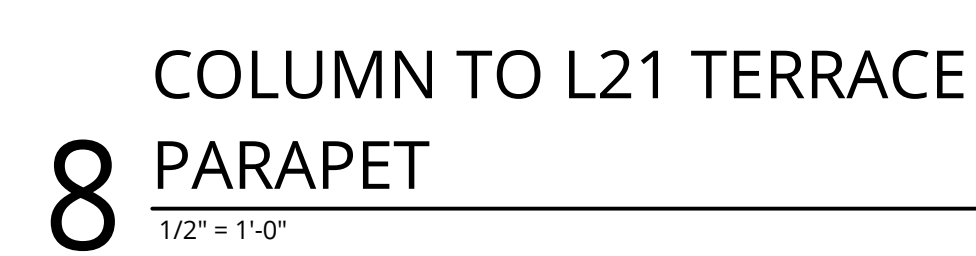
CONSTRUCTION SET

DATE
09.18.2019
PROJECT NUMBER
170710

SHEET NUMBER

A4.51

1. REFER TO SHEET A0.01 FOR 'PROJECT NOTES' APPLICABLE TO ALL PORTIONS OF THE WORK.

[illegible]

WALL SECTIONS

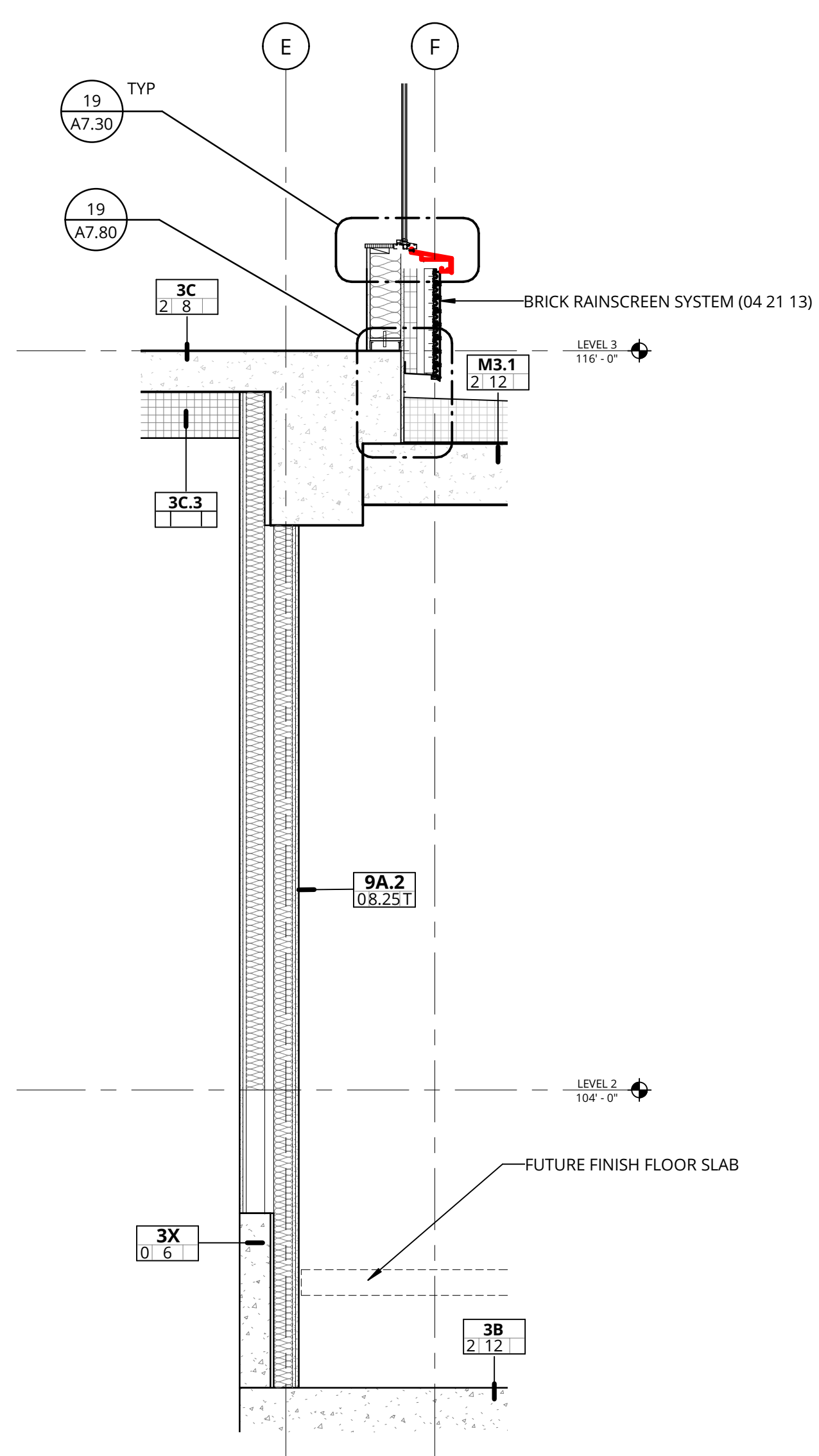
CONSTRUCTION SET

| | |
|--------------------|--------------------------|
| DATE 09.18.2019 | PROJECT NUMBER 170710 |
| SHEET NUMBER | |

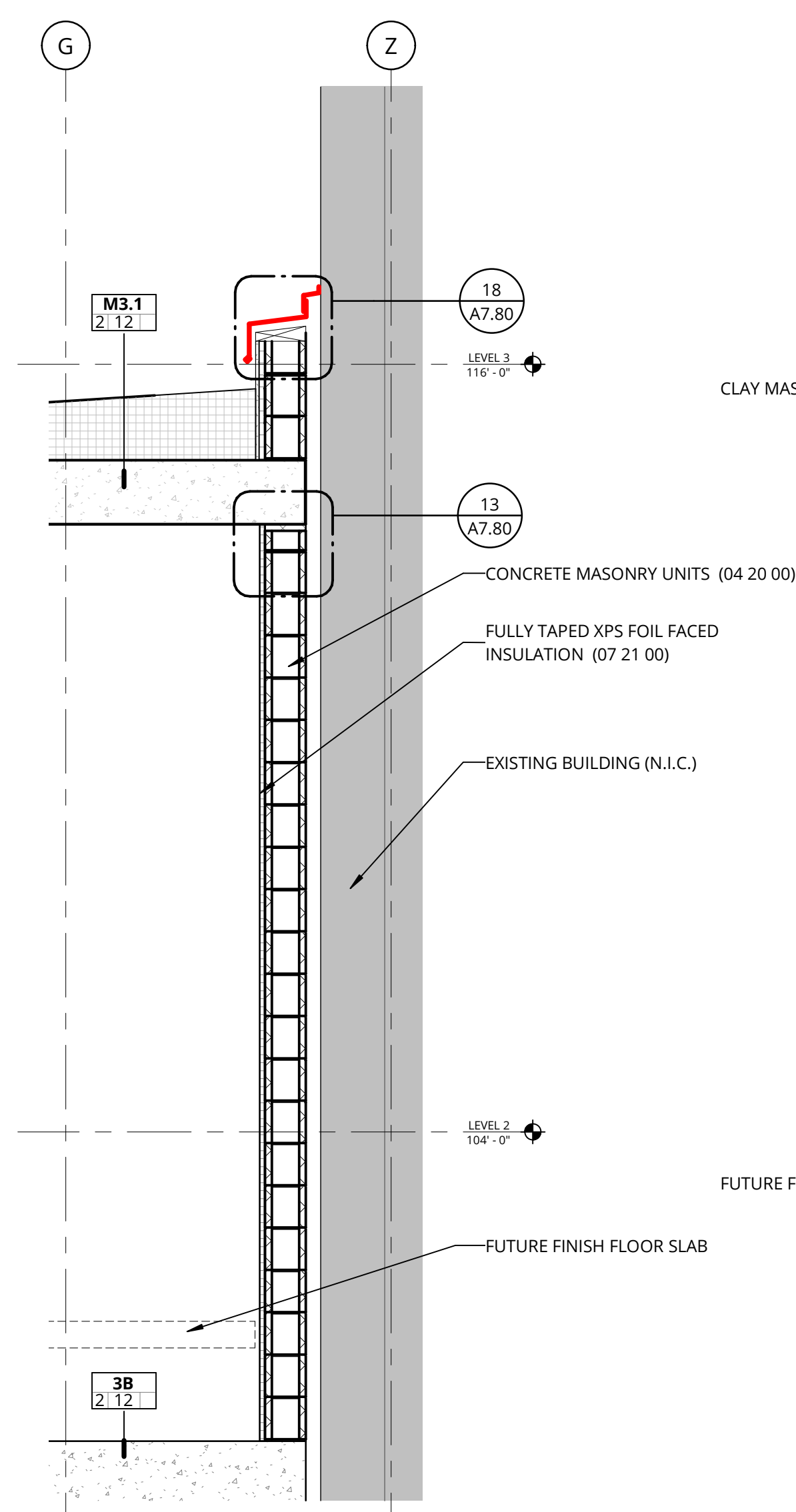
A4.52

GENERAL NOTES - WALL SECTIONS

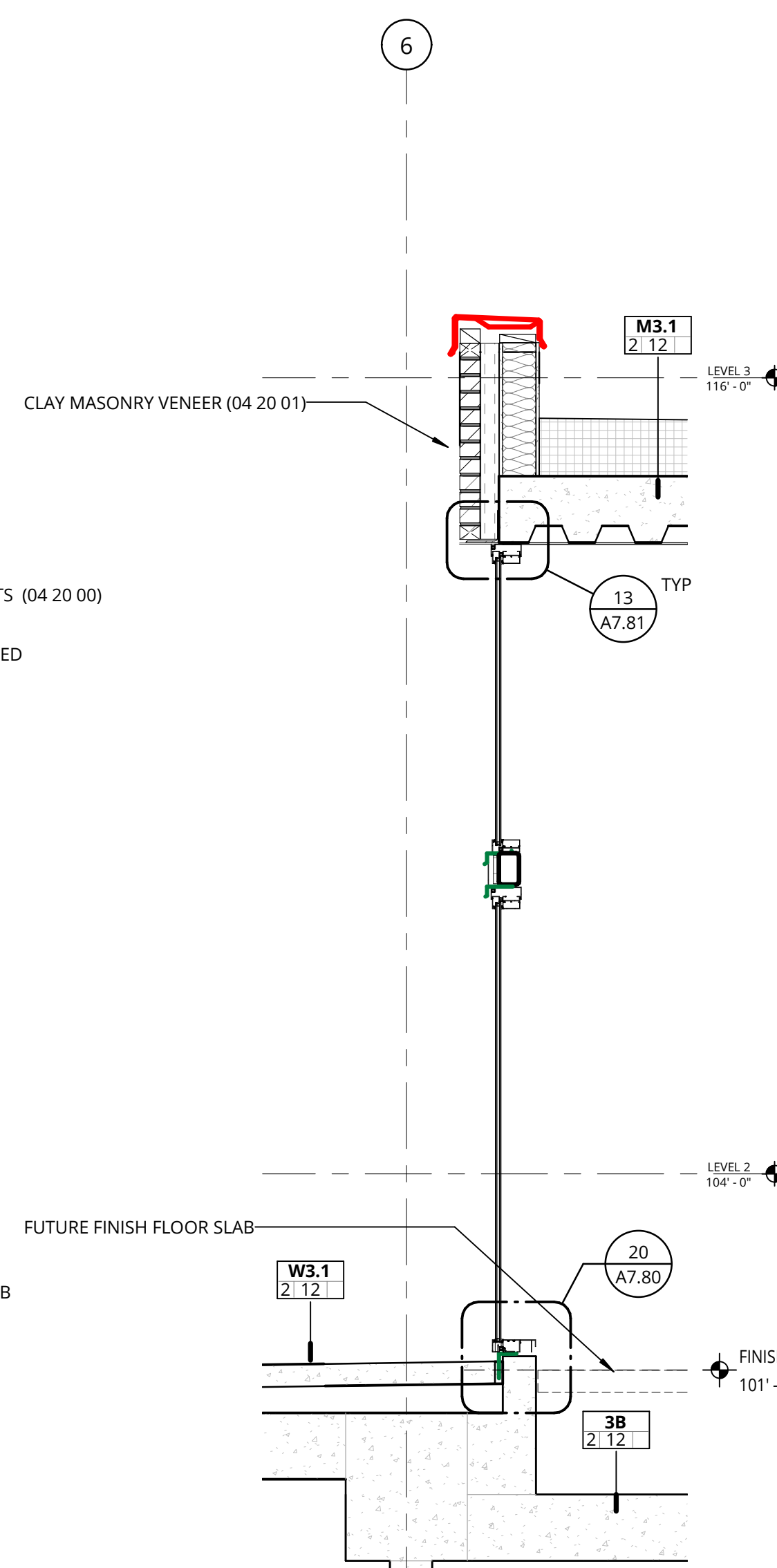
1. REFER TO SHEET A0.01 FOR 'PROJECT NOTES' APPLICABLE TO ALL PORTIONS OF THE WORK.



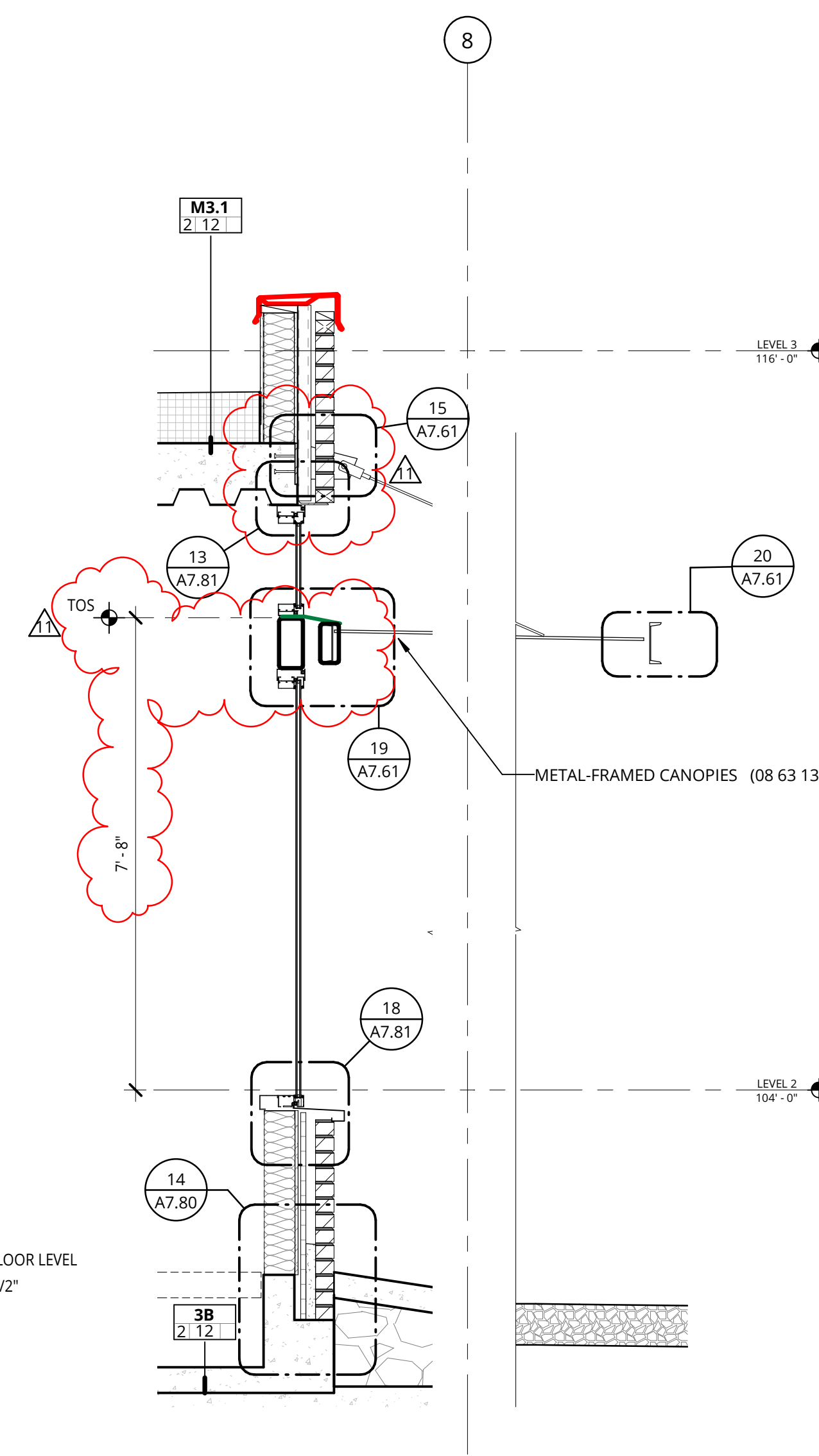
1 TOWER CONNECTION AT FUTURE T.I.



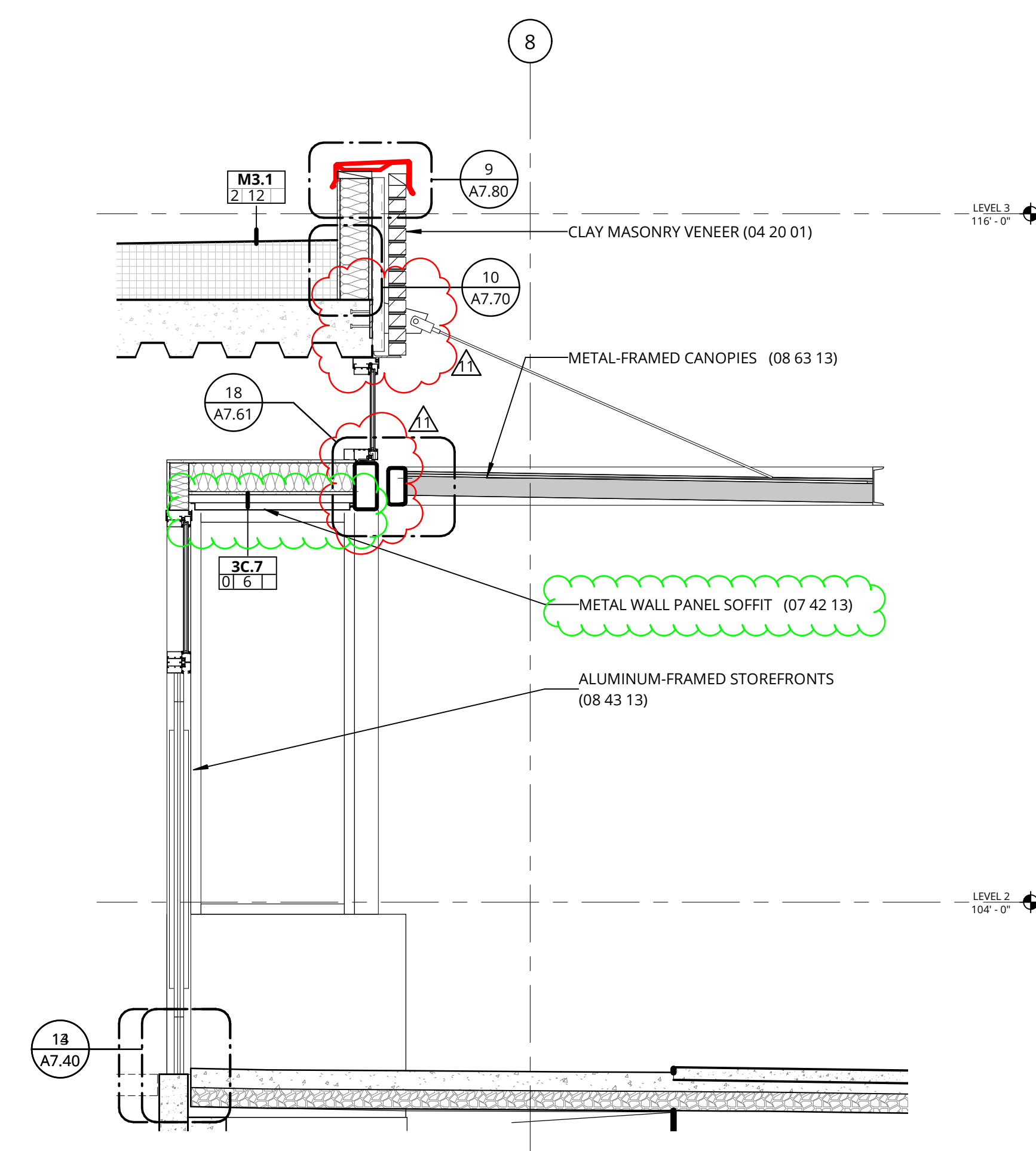
2 SEISMIC JOINT AT FUTURE T.I.



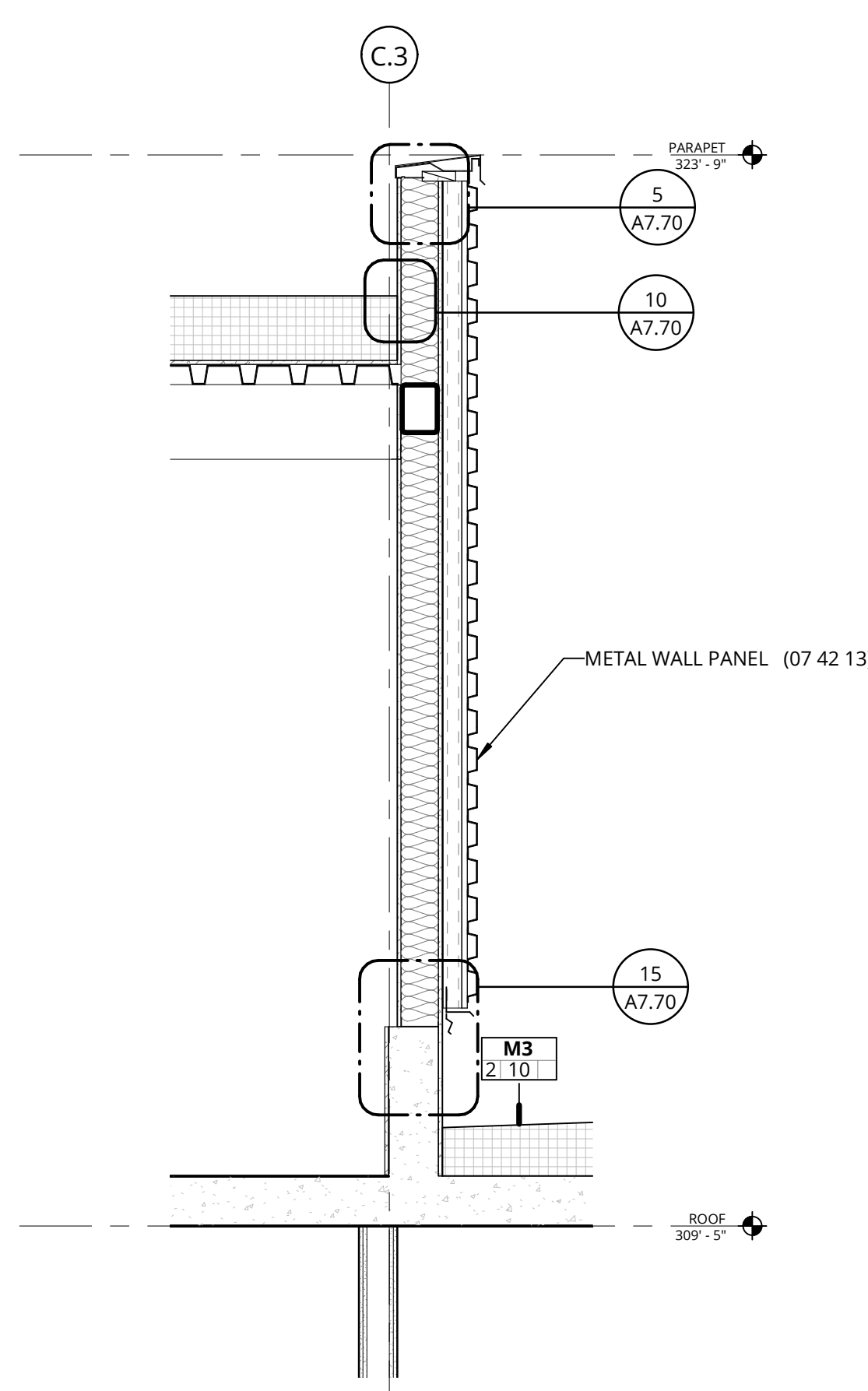
3 FUTURE T.I. COURTYARD WALL



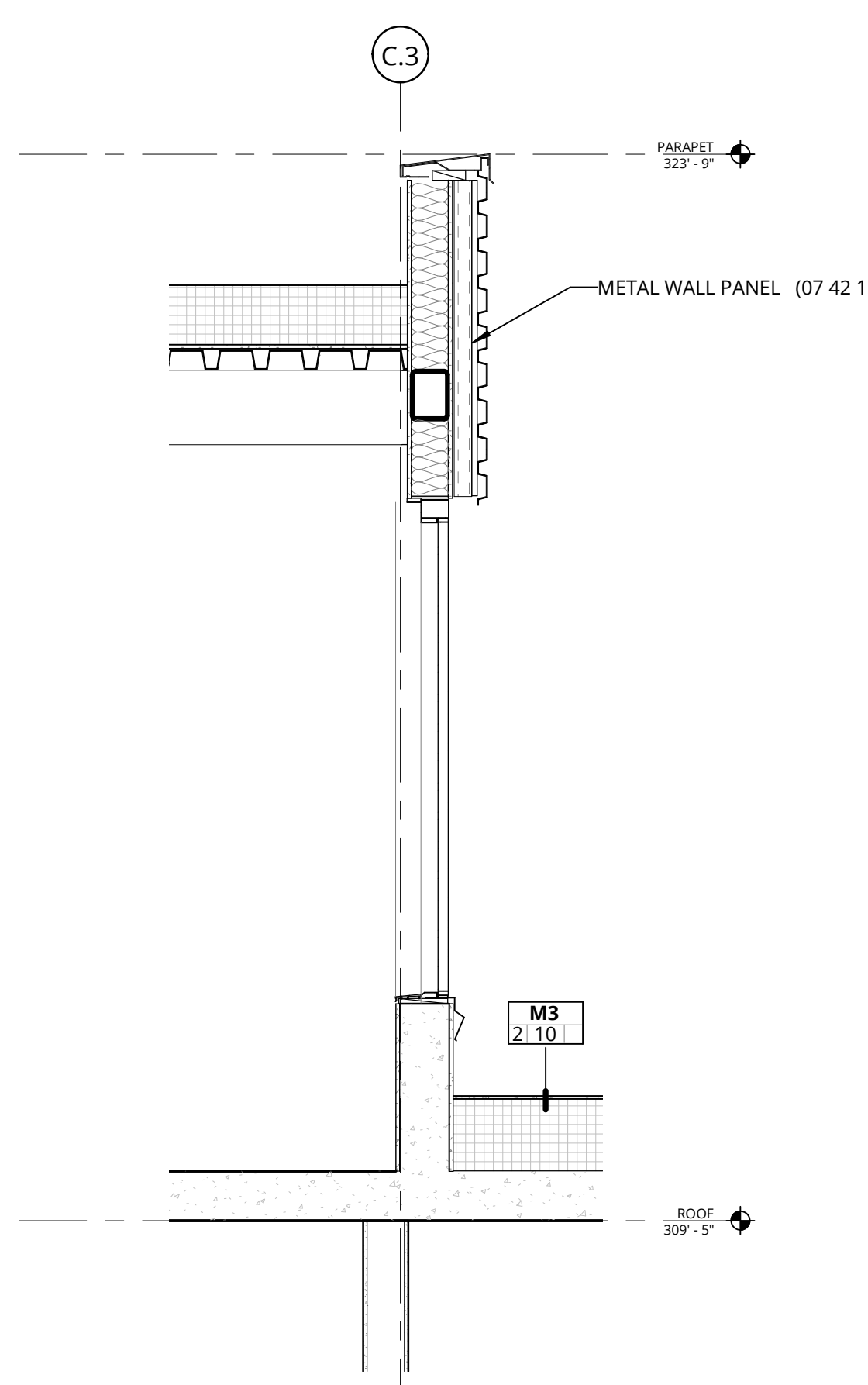
4 STOREFRONT AT FUTURE T.I.



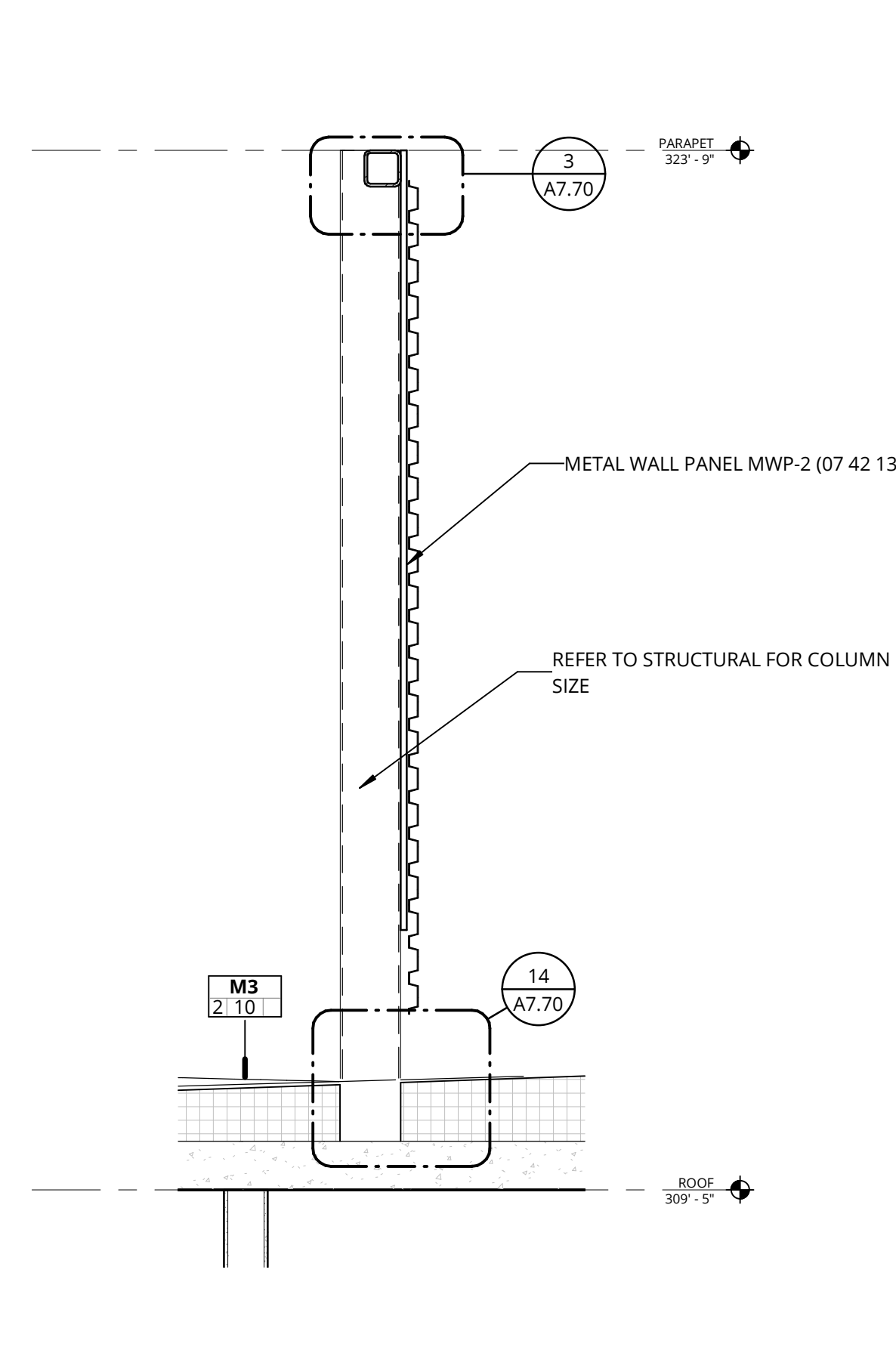
5 FUTURE T.I. ENTRY



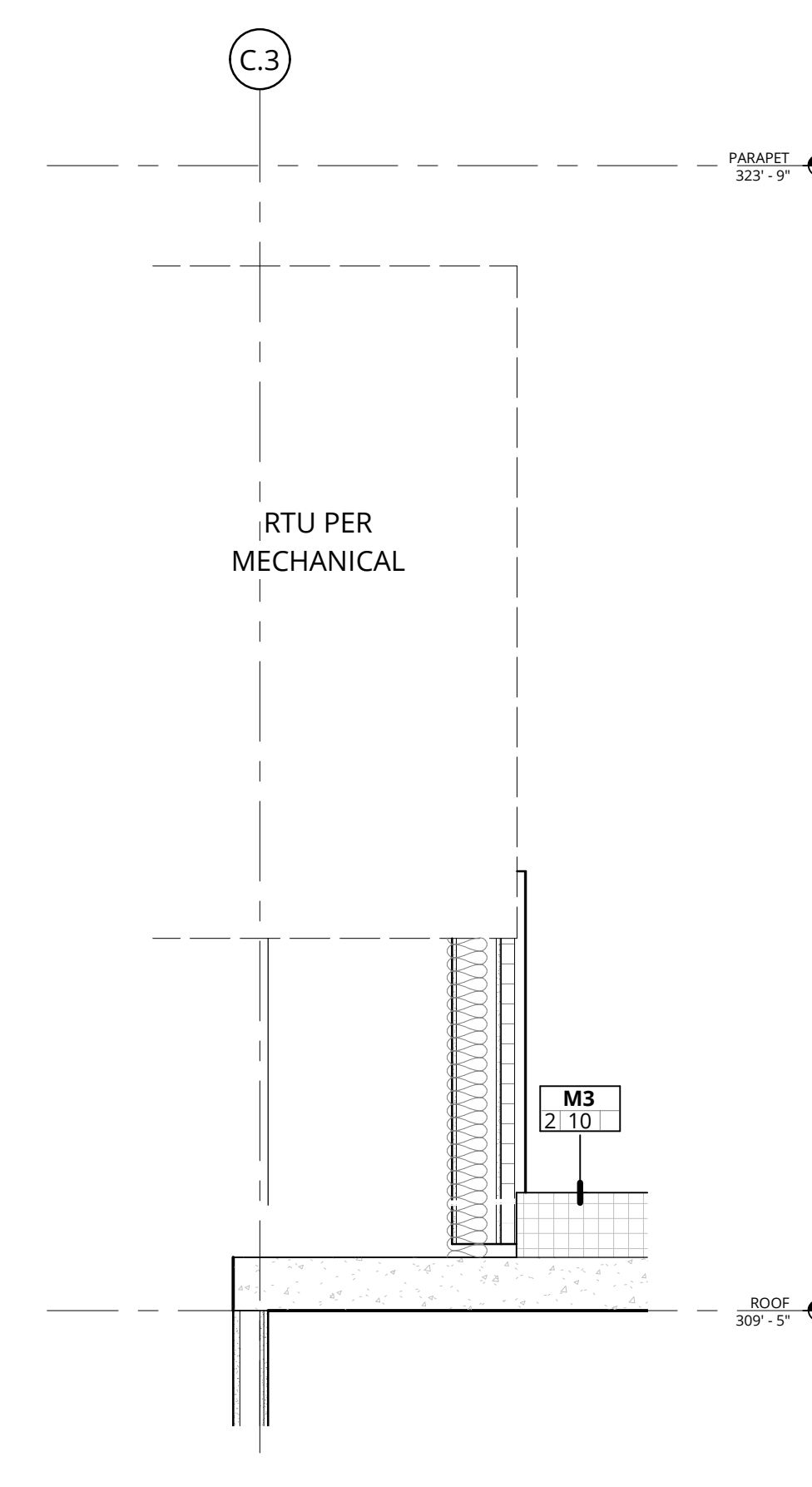
6 ROOF BULKHEAD



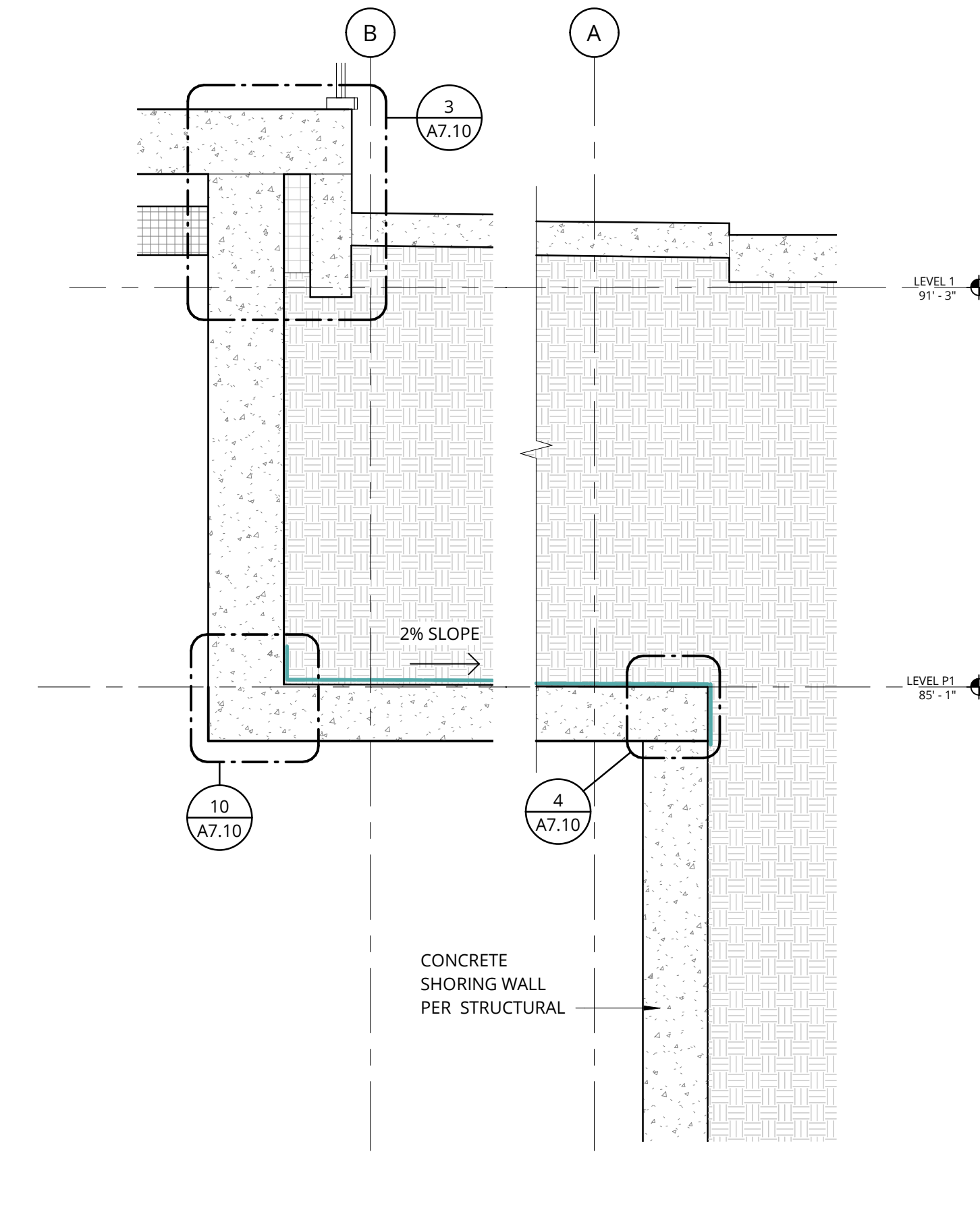
7 ROOF DOOR
1/2" = 1'-0"



8 TYP ROOF MECH SCREEN
1/2" = 1'-0"



9 WALL AT RTU



10 DECK UNDER SIDEWALK



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WALL SECTIONS

CONSTRUCTION SET

| | |
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A4.53