



## Potential Change Order Request

## Skanska USA Building Inc.

**1318017 - Belmont Middle and High School**

221 Concord Street  
Belmont, MA

1318017 Belmont Middle and High School	
Potential Change Order: 666	Date: 5/13/2022

<b>To:</b>	Thomas Gatzunis Daedalus Projects Incorporated 1 Faneuil Hall Marketplace South Floor 3 Boston, MA 02109	<b>From:</b>	Paige Matthews Skanska USA Building Inc. 101 Seaport Boulevard Suite 200 Boston, MA 02210 Tel: Fax:
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### Description

CCD 324 ART ROOMS SLIDING DOOR FLOOR TRACK REVISION

### Notes

Following a submittal review for the sliding door panels, it was determined that a more effective door track solution was required for the door bases. As these doors also act as marker boards, they must resist the force exerted by a teacher writing on them. This Directive revises the door hardware to accommodate door function.

The following sheets are revised:

A11-10D - LEVEL 01 SLAB EDGE PLAN - AREA D

A50-20 - ARCHITECTURAL MILLWORK - ART WING

A50-21 - ARCHITECTURAL MILLWORK - ART WING

The following Spec Sections are revised:

06 4000 ARCHITECTURAL MILLWORK

Neither the adjustments to the Contract Price nor the Contract Time upon which this PCO is based contemplates any project delays, suspensions, disruptions, cost escalations or other impacts caused, directly or indirectly, by the Pandemic (as defined in the GMP), as such cost adjustment to the Contract Sum and GMP shall be reconciled in accordance with the Owner Pandemic Allowance. Skanska further reserves all rights to request adjustment of the Contract Time as a result of the Pandemic Standards and in connection with this PCO. Skanska will make every reasonable effort to provide the required documentation and notice in accordance with this Contract, however, Skanska may not be able to meet the contractual deadlines due to circumstances outside of Skanska's control.

### Schedule Impact

Skanska reserves the right to continue to assess our construction schedule on a monthly basis and advise the Owner of any impacts at that time.

Item No	Company	Item Description	Amt Prop
0001	Marguerite Concrete, Inc.	CCD 324 - Cast In Place Concrete - Marguerite 027 - pricing per Skanska email dated 6/26/21. PCO 101 dated 1/14/22	\$20,578.00
0002	Polybois, Inc.	CCD 324 - Millwork/Finish Carpentry - Polybois 059 - P20 dated 7/7/21	\$2,874.00

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## Skanska USA Building Inc.

**1318017 - Belmont Middle and High School**

221 Concord Street  
Belmont, MA

**Belmont Middle and High School**

Potential Change Order Request

Skanska Standard With Architect Signature

Potential Change Order: 666			Date: 5/13/2022
0003	Sweeney Drywall Finishes Corp.	CCD 324 - Drywall - Sweeney Drywall 046 - no cost impact per 8/27/21 meeting	\$0.00
Level 1	Skanska USA Building Inc.	1.35% SDI Markup	\$317.00
Level 2	Skanska USA Building Inc.	2.70% CCIP Markup	\$642.00
Level 3	Skanska USA Building Inc.	5.00% Skanska O & P Markup	\$1,221.00
Level 4	Skanska USA Building Inc.	.73% P & P Bond Markup	\$187.00
PCO #666 Total:			\$25,819.00

**Submitted By:**

**Architect/Design Approval By:**

**Approved By:**

Signature

Signature

Signature

Name Paige Matthews

Name Brian Spangler

Name Thomas Gatzunis

Date

Date

Date



PCO #PCO# 101

Marguerite Concrete Inc.  
239 South Street  
Hopkinton, Massachusetts 01748  
Phone: 508 381 0789  
Fax: 508-381-0791

Project: 19-09-191 - Belmont Middle & High School  
221 Concord Ave  
Boston, Massachusetts 02478

## Prime Contract Potential Change Order #PCO# 101: CCD 324

TO:	Skanska USA Building, Inc. 101 Seaport Blvd, Ste 200 Boston, Massachusetts 02210	FROM:	Marguerite Concrete Inc. 11 Rosenfeld Drive Hopedale, Massachusetts 01747
PCO NUMBER/REVISION:	PCO# 101 / 0	CONTRACT:	1 - Belmont Middle & High School Prime Contract**
REQUEST RECEIVED FROM:	Asa West (Marguerite Concrete Inc.)	CREATED BY:	Christian Nashawaty (Marguerite Concrete Inc.)
STATUS:	Pending - Not Proceeding	CREATED DATE:	1/14/2022
REFERENCE:		PRIME CONTRACT CHANGE ORDER:	None
FIELD CHANGE:	No		
LOCATION:		ACCOUNTING METHOD:	Amount Based
SCHEDULE IMPACT:	0 days	PAID IN FULL:	No
		TOTAL AMOUNT:	\$20,577.64

POTENTIAL CHANGE ORDER TITLE: CCD 324

CHANGE REASON: Design Development

POTENTIAL CHANGE ORDER DESCRIPTION: (The Contract Is Changed As Follows)  
CE #110 - CCD 324 Display Case Tracks

ATTACHMENTS:

Description	UOM	Unit Price	Quantity	Subtotal
Select Sawcutting	lf	\$10.00	450	\$4,500.00
Laborer	hours	\$83.71	160	\$13,393.60
OH&P 15.00%				\$2,684.04
Grand Total:				\$20,577.64

Cost for Procut Carried within  
Marguerite

Cost for Marguerite to chip out and clean  
concrete after cuts are made.

Brian Spangler (Perkins & Will, Inc.)

Skanska USA Building, Inc.  
101 Seaport Blvd, Ste 200  
Boston, Massachusetts 02210

Marguerite Concrete Inc.  
11 Rosenfeld Drive  
Hopedale, Massachusetts 01747

SIGNATURE

DATE

SIGNATURE

DATE

SIGNATURE

DATE



# POLYBOIS INC.

MENUISERIE ARCHITECTURALE / ARCHITECTURAL MILLWORK

Tel.: (418) 338-4638 / 1-800-463-6322 / Fax: (418) 338-8059

Internet: <http://www.polybois.ca> / E-mail: [luc.m@polybois.ca](mailto:luc.m@polybois.ca)

TO: Lauren Fraser  
Skanska

DATE:	2021-07-07
PROJET:	Belmont University
CONTRAT #:	C-1974
CLIENT REF :	CCD-324
POLYBOIS REF:	P-20

## MODIFICATION

**Add - To provide and install recessed sliding tracks. Above finish floor mounted tracks deleted. Templates will be fabricated and installed. Added separate mobilisation to install templates/on site coordination.**

Material			122,51 \$
Fabrication	4.18	75\$/h	313,62 \$
Shipping			478,08 \$
Installation	16.92	102,62\$/h	1 736,16 \$
Tax			0,00 \$
O.H.P.:15% -> factory			137,13 \$
O.H.P.:5% -> installation			86,81 \$

**TOTAL USD\$**

**2 874,31 \$**

**ADD TBD days to schedule**

APPROVED & AUTHORIZED BY:

BY:

**POLYBOIS INC.**

NAME AND TITLE

Luc McCutcheon, eng.  
President, General Manager

[luc.m@polybois.ca](mailto:luc.m@polybois.ca)

DATE

Licence RBQ: 1208-3739-90

# Construction Change Directive Transmittal

Perkins+Will, Inc. | 225 Franklin Street, Suite 1100 Boston, MA 02110

PROJECT: Belmont High School - FS-SD 153003.001      DATE SENT: 6/18/2021

SUBJECT: ART ROOMS SLIDING DOOR FLOOR TRACK REVISION      CONSTRUCTION CHANGE DIRECTIVE ID: CCD-324

TYPE: Construction Change Directive      TRANSMITTAL ID: 07558

PURPOSE: For Construction      VIA: Info Exchange

## CONSTRUCTION CHANGE DIRECTIVE

CONTRACT SUM: As Follows

SUM DESCRIPTION: Time and materials

CONTRACT TIME: 0 days

## FROM

NAME	COMPANY	EMAIL	PHONE
Jeff Brussel	Perkins+Will, Inc.	jeff.brussel@perkinswill.com	+16174063455

## TO

NAME	COMPANY	EMAIL	PHONE
Don White	CHA Companies	dwhite@chacompanies.com	
Gabriel Suriel	CHA Companies	gsuriel@chacompanies.com	617-451-2717
Gary Hewitt	Skanska USA Building, Inc.	gary.hewitt@skanska.com	
Ian Wilson	Skanska USA Building, Inc.	ian.wilson@skanska.com	
Jake Chiudina	Skanska USA Building, Inc.	jake.chiudina@skanska.com	
Jim Craft	Skanska	Jim.Craft@skanska.com	
Jon Simard	Skanska USA Building, Inc.	jonathan.simard@skanska.com	
Justin Craft	Skanska USA Building, Inc.	justin.craft@skanska.com	
Justin Ferdenzi	Daedalus Projects, Inc.	jferdenzi@dpi-boston.com	(617) 921-2830
Kevin Putney	Daedalus Projects, Inc.	kputney@chacompanies.com	6179399861

# Construction Change Directive Transmittal

DATE: 6/18/2021  
ID: 07558

NAME	COMPANY	EMAIL	PHONE
Lauren Daly	Skanska USA Building, Inc.	Lauren.Daly@skanska.com	
Lauren Fraser	Skanska USA Building, Inc.	Lauren.Fraser@skanska.com	
Manuel Hoyo	Skanska	manuel.hoyo@skanska.com	
Marissa Mezoff	Skanska USA Building, Inc.	Marissa.Mezoff@skanska.com	
Michael Loring	Skanska USA Building, Inc.	michael.loring@skanska.com	
Michael Pisano	Skanska USA Building, Inc.	michael.pisano@skanska.com	
Mike Morrison	Skanska	Mike.Morrison@skanska.com	
Nicholas Singer	Skanska USA Building, Inc.	nicholas.singer@skanska.com	
Paige Matthews	Skanska USA Building, Inc.	Paige.matthews@skanska.com	
Pat Brusch		patbrusch@aol.com	
Russ Marron	Skanska USA Building, Inc.	Russell.Marron@skanska.com	
Sandra Saccone	Daedalus Projects, Inc.	ssaccone@chacompanies.com	617-939-9831
Scott MacKenzie	Skanska USA Building, Inc.	scott.mackenzie@skanska.com	
Scott Martin	Skanska USA Building, Inc.	scott.a.martin@skanska.com	
Thomas Gatzunis	Daedalus Projects, Inc.	tgatzunis@dpi-boston.com	
Tom Watson	Skanska USA Building, Inc.	thomas.watson@skanska.com	
Tony DelGreco	Daedalus Projects, Inc.	tdelgreco@dpi-boston.com	(617) 921-2830
William LoVallo	LeMessurier Consultants	wlovallo@lemessurier.com	16178681200

## REMARKS:

Following a submittal review for the sliding door panels, it was determined that a more effective door track solution was required for the door bases. As these doors also act as marker boards, they must resist the force exerted by a teacher writing on them. This Directive revises the door hardware to accommodate door function. The following sheets are revised:

1. A11-10D – LEVEL 01 SLAB EDGE PLAN - AREA D
2. A50-20 – ARCHITECTURAL MILLWORK – ART WING

# Construction Change Directive Transmittal

DATE: 6/18/2021

ID: 07558

## 3. A50-21 – ARCHITECTURAL MILLWORK – ART WING

The following Spec Sections are revised:

### 06 4000 ARCHITECTURAL MILLWORK

#### DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NUMBER	SCALE	SIZE	NOTES
1	6/18/2021		064000 _Archit ectural Woodw ork_Bel mont			File: 064000_Architectural Woodwork_Belmont.p df
1	6/18/2021		A11- 10D - LEVEL 01 SLAB EDGE PLAN - AREA D			File: A11-10D - LEVEL 01 SLAB EDGE PLAN - AREA D.pdf
1	6/18/2021		A50-20 - ARCHI TECTU RAL MILLW ORK - ART WING			File: A50-20 - ARCHITECTURAL MILLWORK - ART WING.pdf
1	6/18/2021		A50-21 - ARCHI TECTU RAL MILLW ORK - ART WING			File: A50-21 - ARCHITECTURAL MILLWORK - ART WING.pdf
1	6/18/2021	CCD-324 Consent Letter.pdf				

# Construction Change Directive Transmittal

DATE: 6/18/2021  
ID: 07558

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## COPIES:

Brian Spangler	(Perkins+Will, Inc.)
Vital Albuquerque	(Perkins+Will, Inc.)
Christina Strid	(Perkins+Will, Inc.)



# Perkins&Will

## CONSTRUCTION CHANGE DIRECTIVE

### CCD-324 ART ROOM SLIDING DOOR FLOOR TRACK REVISIONS

To:	Skanska USA	Date:	June 18, 2021
From:	Perkins and Will	Project Name:	Belmont Middle and High School
Directive No.:	CCD-324	Project Number:	153003.001

You are hereby directed to make the following change(s) to this contract.

Following a submittal review for the sliding door panels, it was determined that a more effective door track solution was required for the door bases. As these doors also act as marker boards, they must resist the force exerted by a teacher writing on them. This Directive revises the door hardware to accommodate door function.

The following sheets are revised:

1. A11-10D – LEVEL 01 SLAB EDGE PLAN – AREA D
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The following Spec Sections are revised:

06 4000 ARCHITECTURAL MILLWORK

Proposed Adjustments:

1. The proposed basis of the adjustment to the Contract Sum is:

- ☐ Fixed Fee, inclusive of, and computed in accordance with provisions of items (a) through (g) in Section 2.A.3 of the Owner-Construction Manager Agreement \$ \_\_\_\_\_
- ☐ Estimated lump sum basis to be adjusted in accordance with unit prices: \$ \_\_\_\_\_ per \_\_\_\_\_
- ☒ Time and materials basis to be subsequently adjusted on the basis of actual costs, with a "not to exceed limit" of: N/A

2. The Contract Time is proposed to (be adjusted) (remain unchanged). The proposed adjustment, if any, is an (increase) (decrease) of 0 days.

When signed by the Owner and Architect and received by the Contractor, this document becomes effective IMMEDIATELY as a Construction Change Directive (CCD), and the Contractor shall proceed with the change(s) described above.

Contractor signature indicates agreement with the proposed adjustments in Contract Sum and Contract Time set forth in this CCD.

Perkins and Will

Architect (Firm Name)	OPM (Firm Name)	Owner (Firm Name)	Contractor (Firm Name)
225 Franklin St. Boston			
Address	Address	Address	Address
Signature	Signature	Signature	Signature

Perkins&Will

June 18, 2021  
Re: **CCD-324**

<i>Typed Name</i>	<i>Typed Name</i>	<i>Typed Name</i>	<i>Typed Name</i>
<i>Date</i>	<i>Date</i>	<i>Date</i>	<i>Date</i>

**BELMONT MIDDLE AND HIGH SCHOOL**

221 Concord Ave.

Construction Documents - 12.16.2019

Addendum #4

Conformed Set

CCD-144

ASI-177

CCD-159

**CCD-324****Perkins and Will**

Project: 153003.001

16 December, 2019

29 January, 2020

6 February, 2020

21 December, 2020

14 January, 2021

19 January, 2021

**18 June, 2021**

## SECTION 06 4000

## ARCHITECTURAL WOODWORK

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

## A. Section Includes:

1. Interior standing and running trim, including painted MDF (WD-2).
2. Sliding wood panels with porcelain-enamel (markerboard) faces in Art Classrooms.
3. Wood cabinets including cubbies and desks.
4. Mobile book cart.
5. Plastic-laminate cabinets.
6. Plastic-laminate countertops for custom wood cabinet bases.
7. Quartz agglomerate countertops (ST-1) for custom wood cabinet bases.
8. Solid-surfacing-material countertops (SS-1).
9. Hardware and accessories.
10. Shop finishing of woodwork.
11. Upholstered banquette seating
12. Sliding door panels at Art Classrooms
13. Accordion door closure panels.

## B. Related Requirements:

1. Section 01 8113 "Sustainable Design Requirements" for general requirements and procedures for compliance with certain USGBC LEED prerequisites and credits.
2. Section 05 5000 "Metal Fabrications" for metal framing members.
3. Section 06 1000 "Rough Carpentry" for wood furring, blocking, shims, and hanging strips required for installing woodwork and concealed within other construction before woodwork installation.
4. Section 06 6400 "Plastic Paneling" for glass-fiber-reinforced plastic paneling (FRP) and trim accessories.
5. Section 08 1416 "Flush Wood Doors" for wood veneered wood doors to match architectural woodwork.
6. Section 08 3473.16 "Wood Sound Control Door Assemblies" for wood veneered wood doors to match architectural woodwork.
7. Section 10 1100 "Visual Display Units" for porcelain-enamel markerboard assemblies.
8. Section 10 1200 "Display Cases" for standard manufactured metal framed and enclosed display cases.
9. Section 10 1223 "Custom Fabricated Display Cases" for custom fabricated display cases consisting of glass doors and shelves (Drawing Key Designations DC4 and DC5).

## ARCHITECTURAL WOODWORK

**BELMONT MIDDLE AND HIGH SCHOOL**

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10. Section 12 3213 "Manufactured Wood-Veneer-Faced Casework" for standard manufactured wood-veneer-faced cabinets of stock design.
11. Section 12 3216 "Manufactured Plastic-Laminate-Faced Casework" for standard manufactured plastic-laminate-faced cabinets of stock design.
12. Section 12 3553.19 "Wood Laboratory Casework" for wood laboratory casework.
13. Section 12 3619 "Wood Countertops" for butcher-block countertops (WD-3).
14. Section 12 3623.13 "Plastic-Laminate-Clad Countertops" for plastic-laminate-clad countertops for standard manufactured cabinets.
15. Section 12 3653.19 "Epoxy Countertops."
16. Section 12 3661.19 "Quartz Agglomerate Countertops" for quartz agglomerate countertops for standard manufactured cabinets.

**1.3 DEFINITIONS**

- A. Architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items unless concealed within other construction before woodwork installation.
- B. TSCA: (Federal) Toxic Substances Control Act; 15 U.S.C., Section 2697 (TSCA Title VI).

**1.4 ACTION SUBMITTALS**

- A. Make Submittals in accordance with Section 01 3300 "Submittal Procedures."
- B. Product Data: For panel products, high-pressure decorative laminate, adhesive for bonding plastic laminate, fire-retardant-treated materials, cabinet hardware and accessories, and finishing materials and processes.
  1. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.
- C. Sustainable Design Submittals:
  1. Environmental Product Declaration (EPD): Provide manufacturers' product documentation for each product having an Environmental Product Declaration (EPD).
    - a. Documentation should confirm EPD conforms with ISO 14205, 14040, 14044 and EN 15804 or ISO 21930.
    - b. EPD shall have at least Cradle to Grave scope.
    - c. Complete "LEED Materials Documentation Sheet" with MRc2 information for each product having an EPD.
  2. Product Certificates: For regional materials, indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include distance to Project and cost for each regional material.
  3. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.
  4. Product Data: For adhesives, indicating that product contains no urea formaldehyde.
  5. Laboratory Test Reports: For adhesives, indicating compliance with requirements for low-emitting materials.
  6. Provide manufacturers' product data confirming that the composite wood products in the building have low formaldehyde emissions that meet the California Air Resources Board

**BELMONT MIDDLE AND HIGH SCHOOL**

221 Concord Ave.

Construction Documents - 12.16.2019

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**18 June, 2021**

ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde resins.

7. Complete "LEED Materials Documentation Sheet" with IEQc2 information for composite wood products installed within the waterproofing membrane.
8. Laboratory Test Reports: For composite wood products, indicating compliance with requirements for low-emitting materials.

D. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.

1. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
2. Show locations and sizes of cutouts and holes for plumbing fixtures, faucets, electrical boxes and plates, and other items installed in architectural woodwork.

E. Samples for Verification:

1. Lumber with or for transparent finish, not less than 5 inches wide by 24 inches long, for each species and cut, finished on 1 side and 1 edge.
2. Veneer-faced panel products with or for transparent finish, 12 by 24 inches, for each species and cut. Include at least one face-veneer seam and finish as specified.
3. Plastic laminates, 8 by 10 inches, for each type, color, pattern, and surface finish, with 1 sample applied to core material and specified edge material applied to 1 edge.
4. Thermoset decorative-panels, 8 by 10 inches, for each type, color, pattern, and surface finish, with edge banding on 1 edge.
5. Quartz agglomerate materials, 6 inches square.
6. Solid-surfacing materials, 6 inches square.
7. Corner pieces as follows:
  - a. Cabinet-front frame joints between stiles and rails, as well as exposed end pieces, 18 inches high by 18 inches wide by 6 inches deep.
  - b. Miter joints for standing trim.
8. Exposed cabinet hardware and accessories, one unit for each type and finish.

## 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and fabricator.
- B. Product Certificates: For each type of product, signed by product manufacturer.
- C. Composite Wood Products Certificates: Submit certificates for composite wood products for compliance with TSCA Title VI, CARB Phase 2, or both.
- D. Evaluation Reports: For fire-retardant-treated materials, from ICC-ES.

## 1.6 CLOSEOUT SUBMITTALS

- A. Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

**BELMONT MIDDLE AND HIGH SCHOOL**

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CCD-324**Perkins and Will**

Project: 153003.001

16 December, 2019

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21 December, 2020

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19 January, 2021

18 June, 2021**1.7 QUALITY ASSURANCE**

- A. Manufacturer's Qualifications: Employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.
  - 1. Manufacturer's Certification: Licensed participant in AWI's Quality Certification Program.
- B. Installer Qualifications: Manufacturer of products or a licensed participant in AWI's Quality Certification Program.
- C. Quality Standard: Comply with AWI's "Architectural Woodwork Standards" for grades of architectural woodwork indicated for construction, finishes, installation, and other requirements.
  - 1. Provide AWI Quality Certification Program certificates indicating that woodwork, including installation, complies with requirements of grades specified.
    - a. This Project has been registered with the Architectural Woodwork Institute as AWI/QCP Project Number 19.1523.
  - 2. The Contract Documents contain selections chosen from options in the quality standard and additional requirements beyond those of the quality standard. Comply with such selections and requirements in addition to the quality standard.
- D. Fire-Test-Response Characteristics: Where fire-retardant materials or products are indicated, provide materials and products with specified fire-test-response characteristics as determined by testing identical products per test method indicated by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify with appropriate markings of applicable testing and inspecting agency in the form of separable paper label or, where required by authorities having jurisdiction, imprint on surfaces of materials that will be concealed from view after installation.
- E. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- F. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Section 01 3100 "Project Management and Coordination."
  - 1. Prior to delivery of architectural woodwork, review coordination and environmental controls required for proper installation and ambient conditioning in areas to receive woodwork. Proceed with woodwork installation only when required ambient conditions can be maintained.

**1.8 DELIVERY, STORAGE, AND HANDLING**

- A. Do not deliver woodwork until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

**BELMONT MIDDLE AND HIGH SCHOOL**

221 Concord Ave.

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**CCD-324****Perkins and Will**

Project: 153003.001

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**18 June, 2021****1.9 PROJECT CONDITIONS**

- A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
  - 1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed, and indicate measurements on Shop Drawings.
  - 2. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

**1.10 COORDINATION**

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that architectural woodwork can be supported and installed as indicated.

**PART 2 - PRODUCTS****2.1 ARCHITECTURAL WOODWORK MANUFACTURERS**

- A. Manufacturers: Subject to compliance with requirements, manufacturers offering architectural woodwork that may be incorporated into the Work include, but are not limited to the following or equal:
  - 1. Mass Cabinets, Inc., Methuen, MA (978) 738-0600.
  - 2. Millwork One, Inc., Cranston, RI (401) 738-6990.
  - 3. South Shore Millwork, Norton, MA (774) 225-6300.
  - 4. Windham Millwork, Windham, ME (207) 892-3238.

**2.2 LEED REQUIREMENTS**

- A. Provide products with Third Party Environmental Product Declaration (EPD) wherever possible.
- B. Certified Wood: Architectural woodwork shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
- C. Low-Emitting Materials: Composite wood products shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing

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**18 June, 2021**

of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

- D. Composite wood, as defined by the California Air Resources Board, Airborne Toxic Measure to Reduce Formaldehyde Emissions from Composite Wood Products Regulation, must be documented to have low formaldehyde emissions that meet the California Air Resources Board ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde resins.

## 2.3 MATERIALS

- A. Provide materials that comply with requirements of AWI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
- B. Certified Wood: Architectural woodwork shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
- C. Wood Species and Cut for Transparent Finish:
1. Drawing Designation WD1: White washed oak, quarter sawn or sliced, Grade AA, polyurthane finish.
    - a. Basis-of-Design Product: Brookside Veneers, Ltd.
- D. Wood Species for Opaque Finish: Any closed-grain hardwood or painted MDF (WD-2).
- E. Composite Wood Products: Products shall be made using ultra-low-emitting formaldehyde resins as defined in the California Air Resources Board's "Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products" or shall be made with no added formaldehyde.
1. Composite wood products shall be labeled as TSCA Title VI compliant.
- F. Wood Products: Comply with the following:
1. Recycled Content of Medium-Density Fiberboard and Particleboard: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 50 percent.
  2. Low-Emitting Materials: Composite wood products shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
  3. Hardboard: AHA A135.4.
  4. Medium-Density Fiberboard: ANSI A208.2, Grade MD, made with binder containing no urea formaldehyde.
  5. Particleboard: ANSI A208.1, Grade M-2, made with binder containing no urea formaldehyde.
  6. Veneer-Faced Panel Products (Hardwood Plywood): HPVA HP-1, made with adhesive containing no urea formaldehyde.
- G. Thermoset Decorative Panels: Particleboard or medium-density fiberboard finished with thermally fused, melamine-impregnated decorative paper complying with LMA SAT-1.



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1. Provide PVC or polyester edge banding complying with LMA EDG-1 on components with exposed or semiexposed edges.
- H. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by woodwork quality standard.
  1. Basis-of-Design Product: Subject to compliance with requirements, provide products indicated on Drawing A13-00 "FINISH LEGEND" or a comparable product by one of the following:
    - a. Abet Laminati, Inc.
    - b. Pionite Surface Systems.
    - c. Formica Corporation.
    - d. Lamin-Art, Inc.
    - e. Nevamar Company, LLC; Decorative Products Div.
    - f. Wilsonart International; Div. of Premark International, Inc.
    - g. Bella Laminati.
- I. Tempered Float Glass for Cabinet Doors: ASTM C 1048, Kind FT, Condition A, Type I, Class 1 (clear), Quality-Q3, 6 mm thick.
- J. Tempered Float Glass for Cabinet Shelves: ASTM C 1048, Kind FT, Condition A, Type I, Class 1 (clear), Quality-Q3; with exposed edges seamed before tempering, 6 mm thick unless otherwise indicated.
- K. Laminated Glass: ASTM C 1172. Use materials that have a proven record of no tendency to bubble, discolor, or lose physical and mechanical properties after fabrication and installation.
  1. Construction: Laminate glass with polyvinyl butyral interlayer to comply with interlayer manufacturer's written instructions.
  2. Interlayer Thickness: Provide thickness not less than that indicated and as needed to comply with requirements.
  3. Interlayer Color: Clear.
- L. Metal Trim:
  1. Stainless Steel Trim, Directional Satin Finish (No. 4):
    - a. Tubing: ASTM A 554, Grade MT 304.
    - b. Sheet, Strip, Plate, and Flat Bar: ASTM A 666, Type 304.
    - c. Bars and Shapes: ASTM A 276, Type 304.
  2. Extruded Aluminum Trim, Clear Anodized: Paramount Extrusions or equal.
    - a. Extruded Bars and Shapes: ASTM B 221, Alloy 6063-T5/T52.
    - b. Plate and Sheet: ASTM B 209, Alloy 5005-H32.

**2.4 FIRE-RETARDANT-TREATED MATERIALS**

- A. Where fire-retardant-treated materials are indicated, use materials complying with requirements in this Article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified.
  1. Do not use treated materials that do not comply with requirements of referenced woodworking standard or that are warped, discolored, or otherwise defective.

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2. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to distinguish treated materials from untreated materials.
3. Identify fire-retardant-treated materials with appropriate classification marking of UL, U.S. Testing, Timber Products Inspection, or another testing and inspecting agency acceptable to authorities having jurisdiction.

B. Fire-Retardant Particleboard: Panels complying with the following requirements, made from softwood particles and fire-retardant chemicals mixed together at time of panel manufacture to achieve flame-spread index of 25 or less and smoke-developed index of 25 or less per ASTM E 84.

1. For panels 3/4 inch thick and less, comply with ANSI A208.1 for Grade M-2 except for the following minimum properties: modulus of rupture, 1600 psi; modulus of elasticity, 300,000 psi; internal bond, 80 psi; and screw-holding capacity on face and edge, 250 and 225 lbf, respectively.

C. Fire-Retardant Fiberboard: Medium-density fiberboard panels complying with ANSI A208.2, made from softwood fibers, synthetic resins, and fire-retardant chemicals mixed together at time of panel manufacture to achieve flame-spread index of 25 or less and smoke-developed index of 200 or less per ASTM E 84.

## 2.5 CABINET HARDWARE AND ACCESSORIES

A. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 170 degrees of opening, self-closing.

B. Continuous (Piano) Hinges: BHMA A156.9, B51491, stainless steel.

C. Door And Draw Pulls:

1. Type 1: Back mounted, solid metal, 5 inches long, 2-1/2 inches deep, and 5/16 inch in diameter.
2. Type 2: Recessed linear pulls, used as indicated on Drawings.

D. Adjustable Shelf Standards and Brackets: ANSI/BHMA A156.9.

1. Vertical Slotted Shelf Standards: B84102, zinc-plated steel, white powder-coated finish.
2. Shelf Brackets for Slotted Standards: B84112, zinc-plated steel, white powder-coated finish, size required to support shelving depth indicated. Provide the following products or equal.

E. Shelf Rests: BHMA A156.9, B04013; plastic, two-pin type with shelf hold-down clips.

F. Drawer Slides: BHMA A156.9, B05091.

G. Steel Slides for Sliding Glass Doors: BHMA A156.9, B87063 or B97063. Ball bearing track system for 6-mm sliding glass doors.

1. Product: CRL Polished Aluminum Rollertrack No. 16780 (Top Track) and 16790 (Bottom Track) by C.R. Lawrence Co, Inc, or equal.

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- H. Door Locks: BHMA A156.11, E07121.
- I. Drawer Locks: BHMA A156.11, E07041.
- J. Coat Hooks: Häfele No. 842.34.050, stainless steel, or equal.
- K. Grommets for Cable Passage through Countertops:
  - 1. Product: MAX2/B; BG3 by Doug Mockett & Company, Inc. or equal.
  - 2. Color: Color as selected by Architect from manufacturer's full range.
- L. Flush Power Outlets through Countertops:
  - 1. Product: Dean Product No. BE04315-2-0-Z-Z294-72 by Byrne Electrical Specialists, Rockford, MI, or equal.
  - 2. Color: Storm.
- M. Pop-Up Power and Data Grommets through Countertops:
  - 1. Product: PCS51A/U1 - Beethoven (3 power / dual USB) by Doug Mockett & Company, Inc. or equal.
  - 2. Color: Color as selected by Architect from manufacturer's full range.
- N. Wire Managers: Extruded plastic (PVC) 1-piece J-shaped wire managers.
  - 1. Size: 2-1/2 inches by 1 inch.
  - 2. Color: Color as selected by Architect from manufacturer's full range.
- O. Label Holders: Aluminum; approximately 3 inches long by 1/2 inch high.
  - 1. Finish: Color as selected by Architect from manufacturer's full range.
- P. Countertop Support Brackets: Steel, welded along both 45 degree mitered sides and across the back. Ground and debur all edges. Provide pre-drilled holes for mounting.
  - 1. Basis-of-Design Products: Subject to compliance with requirements, provide L-Bracket Countertop Support Brackets, Model LB-17, Model FW-42 (and other sizes as indicated on Drawings), by The Original Granite Bracket or equal.
  - 2. Capacity: Minimum 600 lbs. per bracket.
  - 3. Color: As selected by Architect from manufacturer's full range.
- Q. Bench Support Brackets: Steel, welded along both 45 degree mitered sides and across the back. Ground and debur all edges. Provide pre-drilled holes for mounting.
  - 1. Basis-of-Design Products: Subject to compliance with requirements, provide Large Shelf Brackets, Model LSB-1610 by The Original Granite Bracket or equal.
  - 2. Capacity: Minimum 600 lbs. per bracket.
  - 3. Color: As selected by Architect from manufacturer's full range.
- R. Convactor Grilles: Extruded aluminum, clear satin anodized finish.
  - 1. Basis-of-Design Product: 4000 Series, Model AO by Tuttle & Bailey, Richardson, TX (tel. 972-680-9128) [www.tuttleandbailey.com](http://www.tuttleandbailey.com) or equal.
- S. Wall Grilles: Stainless steel linear bar grilles, satin finish.

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1. Basis-of-Design Product: Model AG10 Bar Grille (core only with tabs for wall mounting) by Architectural Grille (Division of the Giumenta Corp.), Brooklyn, NY (tel. 800-387-6267 or 718-832-1200) [www.archgrille.com](http://www.archgrille.com) or equal.
  - a. Provide straight, concave, and convex linear bar grilles, where indicated on Drawings.
- T. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.
  1. Satin Stainless Steel: BHMA 630.
- U. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.
- V. Cabinet Lights: Recessed LED puck lights, 3 inch diameter, aluminum body, 5.3W power consumption, spaced 24 inches o.c.
  1. Lens: 36 degrees.
  2. LED Color: 3000K.
  3. Second Lens: Clear.
  4. Finish: White.
- W. Safe Drop Box: Provide aluminum drop box and door drop slot where indicated.
  1. Basis-of-Design Product: Subject to compliance with requirements, provide Salisbury Receptacle No. 2256ALM with Door Mail Drop Slot No. 2255ALM by Salisbury Industries, or equal.
- X. Keyboard Tray: Provide undermount, adjustable keyboard tray with swivel mouse pad.
  1. Basis of Design Product: Humanscale 6G system with 900 Board and Swivel Mouse.
- Y. Leveling Castors: Aluminum Leveling plate casters with side accessible adjustment wheel.
  1. Basis of Design Product: Gilmore-Kramer GD-40F.
  2. Load capacity: 110 lbs; (4) casters rated to 220 lbs.
  3. Leveling Pad: Polyurethane.
  4. Wheel material: Nylon.
  5. Body: Die-cast Aluminum, Color: Black.
- Z. Power Outlets below Countertop:
  1. Product: PCS99C-U (3 power / dual USB) by Doug Mockett & Company, Inc. or equal.
  2. Color: Black.
- AA. Undercounter CPU Holder:
  1. Product: CPU1A by Doug Mockett & Company, Inc. or equal.
  2. Color: As selected by Architect from manufacturer's full range.
- BB. CPU Monitor Arm:
  1. Product: M2.1 Monitor Arm by Humanscale.
  2. Color: Polished aluminum with white trim.
  3. Warranty: 15 years.

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CC. Closet Shelf and Coat Rod: Provide bracket, closet shelf, and coat rod where indicated on drawings.

1. Bracket: Model 1198 Extra-Duty Series by Knappe & Vogt Mfg. Co.
  - a. Material and Finish: Steel, powder coated, with matching screw heads.
  - b. Color: Warm White.
2. Closet Rods: Round closet rod tubing.
  - a. Material: Stainless Steel
  - b. Size: 1-5/16 inches (33 mm) diameter, length as indicated on drawings.
3. Shelf Boards: All Purpose Decorative Shelf Board #1980 by Knappe & Vogt Mfg. Co.
  - a. Material: Particle Board.
  - b. Color: White.

DD. Wire Management Tray:

1. Product: WM4 by Doug Mockett & Company, Inc. or equal.
2. Color: As selected by Architect from manufacturer's full range.

EE. Ball Catch Door Panel Hardware:

1. Product: BTC30 Ball Tension Catch by Deltana, or equal.
2. Size: 3" x 3/4"
3. Material: Satin Nickel.

## 2.6 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Fire-retardant-treated softwood lumber, kiln dried to less than 15 percent moisture content.
- B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.
- C. Concealed Panel-Hanger Clips: Extruded aluminum Z-clips with pre-drilled countersunk mounting holes.
- D. Adhesives, General: Adhesives shall not contain urea formaldehyde.
- E. Low-Emitting Materials: Adhesives shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- F. VOC Limits for Installation Adhesives: Installation adhesives shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
1. Wood Glues: 30 g/L.
  2. Multipurpose Construction Adhesives: 70 g/L.
  3. Contact Adhesive: 250 g/L.
- G. Adhesive for Bonding Plastic Laminate: Contact cement.
1. Adhesive for Bonding Edges: Hot-melt adhesive or adhesive specified above for faces.

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- A. Woodwork Grade: Unless otherwise indicated, provide Custom-grade woodwork complying with referenced quality standard.
- B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.
- C. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:
  - 1. Corners of Cabinets and Edges of Solid-Wood (Lumber) Members and Rails: 1/16 inch.
- D. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
  - 1. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
- E. Shop-cut openings to maximum extent possible to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
  - 1. Seal edges of openings in countertops with a coat of varnish.
- F. Install glass to comply with applicable requirements in Section 08 8000 "Glazing" and in GANA's "Glazing Manual." For glass in wood frames, secure glass with removable stops.

**2.8 STANDING AND RUNNING TRIM FOR TRANSPARENT FINISH**

- A. Wood Species and Cut: White wahed oak, quarter sawn.
- B. For rails wider or thicker than available lumber, use veneered construction. Do not glue for width or thickness.
- C. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
- D. Assemble casings in plant except where limitations of access to place of installation require field assembly.

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- A. Sliding Wood Panels With Porcelain-Enamel (Markerboard) Faces:
1. Faces: Porcelain-enamel-faced markerboard panel on core indicated.
    - a. Color: As selected by Architect from full range of industry colors.
  2. Exposed Edges: High pressure decorative Extruded aluminum frames and trim, fabricated from not less than 0.062-inch-thick, extruded aluminum; of size and shape indicated on Drawings laminate, grade VGS, extents as indicated on drawings.-
    - a. Aluminum FinishColor: Clear anodic finishPL-11 (see Finish Schedule).
- B. Porcelain-Enamel Markerboard Panels: Balanced, high-pressure, factory-laminated markerboard assembly of three-ply construction, consisting of moisture-barrier backing, core material, and porcelain-enamel face sheet with low-gloss finish. Laminate panels under heat and pressure with manufacturer's standard, flexible waterproof adhesive.
1. Face Sheet Thickness: 0.013 inch uncoated base metal thickness.
  2. Particleboard Core: 1/2 inch thick; with 0.013-inch-thick, galvanized-steel sheet backing.
- C. Magnetic Chalktrays: Provide two 12 inch long magnetic chalktrays, extruded aluminum with ribbed section and smoothly curved exposed ends.
- C-1. Product: OptiMA Magtray by MyWhiteBoards.com
- D. Sliding Door Hardware: BHMA A156.14; consisting of complete sets including rails, hangers, supports, bumpers, floor guides, and accessories indicated.
1. Bottom Track: Recessed by-pass double floor track.
    - D-a. Product: K. N. Crowder Mfg., Inc., Model C-202 Double Groove Threshold, or equal.
- E. Fabrication: Factory fit wood panels to suit opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.

**2.10 WOOD CABINETS FOR TRANSPARENT FINISH**

- A. AWI Type of Cabinet Construction: Flush overlay.
- B. Wood Species and Cut for Exposed Surfaces: White washed oak, quarter sawn or sliced (WD1).
1. Grain Direction: Vertically for drawer fronts, doors, and fixed panels.
  2. Matching of Veneer Leaves: Slip match.
  3. Vertical Matching of Veneer Leaves: End match.
  4. Veneer Matching within Panel Face: Center balance match.
- C. Semiexposed Surfaces: Provide surface materials indicated below:
1. Surfaces Other Than Drawer Bodies: Same species and cut indicated for exposed surfaces.
  2. Drawer Sides and Backs: Solid-hardwood lumber, same species indicated for exposed surfaces; or solid-hardwood lumber, stained to match species indicated for exposed surfaces.
  3. Drawer Bottoms: Hardwood plywood.

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- D. Provide dust panels of 1/4-inch plywood or tempered hardboard above compartments and drawers, unless located directly under tops.

**2.11 PLASTIC-LAMINATE CABINETS**

- A. AWI Type of Cabinet Construction: Flush overlay.
- B. Laminate Cladding for Exposed Surfaces: High-pressure decorative laminate complying with the following requirements:
  - 1. Horizontal Surfaces Other Than Tops: Grade HGS.
  - 2. Postformed Surfaces: Grade HGP.
  - 3. Vertical Surfaces: Grade VGS.
  - 4. Edges: PVC edge banding, 0.12 inch (3 mm) thick, matching laminate in color, pattern, and finish.
- C. Materials for Semiexposed Surfaces:
  - 1. Surfaces Other Than Drawer Bodies: High-pressure decorative laminate, Grade VGS.
    - a. Edges of Plastic-Laminate Shelves: PVC edge banding, 0.12 inch (3 mm) thick, matching laminate in color, pattern, and finish.
    - b. For semiexposed backs of panels with exposed plastic-laminate surfaces, provide surface of high-pressure decorative laminate, Grade VGS.
  - 2. Drawer Sides and Backs: Thermoset decorative panels.
  - 3. Drawer Bottoms: Thermoset decorative panels.
  - 4. Loose (adjustable) Shelves: High pressure decorative laminate, Grade HGS, on both faces with PVC edge banding, 0.12 inch (3 mm) thick, matching laminate in color, pattern, and finish on front and rear edges.
- D. Concealed Backs of Panels with Exposed Plastic Laminate Surfaces: High-pressure decorative laminate, Grade BKL.
- E. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
  - 1. As indicated on Drawing A13-00 "FINISH LEGEND" for Designations PL-1 through PL-10.
- F. Provide dust panels of 1/4-inch plywood or tempered hardboard above compartments and drawers, unless located directly under tops.

**2.12 BOOK CART**

- A. Provide mobile book cart on lockable casters, as indicated on Drawing A67 "CASEWORK DETAILS."



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- A. AWI Grade: Premium.
- B. High-Pressure Decorative Laminate Grade: HGS.
- C. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
  - 1. As indicated on Drawing A13-00 "FINISH LEGEND" for Designations PL-1 through PL-10.
- D. Edge Treatment: 3-mm non-PVC extrusions, through color with satin finish, custom color to match laminate colors.
  - 1. Basis-of-Design Product: BioEdge® Edgebanding by BioPlastic Solutions, Prairie, MN or equal.
- E. Core Material: Particleboard made with exterior glue or medium-density fiberboard made with exterior glue.
- F. Core Material at Sinks: Medium-density fiberboard made with exterior glue or exterior-grade plywood.
- G. Backer Sheet: Provide plastic-laminate backer sheet, Grade BKL, on underside of countertop substrate.

**2.14 QUARTZ AGGLOMERATE COUNTERTOPS (ST-1)**

- A. Quartz Agglomerate: Solid sheets consisting of quartz aggregates bound together with a matrix of filled plastic resin and complying with ICPA SS-1, except for composition.
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Zodiaq® Quartz by E. I. du Pont de Nemours and Company, or a comparable product by one of the following or equal:
    - a. Cambria.
    - b. LG Chemical, Ltd.
    - c. Samsung Chemical USA, Inc.
    - d. Technistone USA, Inc.
  - 2. Color and Pattern: As indicated on Drawing A13-00 "FINISH LEGEND."
- B. Fabricate countertops according to quartz agglomerate manufacturer's written instructions and the AWI's "Architectural Woodwork Standards."
- C. Configuration:
  - 1. Front: Straight, slightly eased at top.
  - 2. Backsplash: Straight, slightly eased at corner.
  - 3. End Splash: Matching backsplash.
- D. Countertops: 1/2-inch-thick, quartz agglomerate with front edge built up with same material.

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- E. Backsplashes: 1/2-inch-thick, quartz agglomerate.
- F. Fabricate tops with shop-applied edges and backsplashes unless otherwise indicated. Comply with quartz agglomerate manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.
- G. Joints: Fabricate countertops without joints, unless joints are unavoidable.
- H. Cutouts and Holes:
  - 1. Undercounter Plumbing Fixtures: Make cutouts for fixtures in shop using template or pattern furnished by fixture manufacturer. Form cutouts to smooth, even curves.
    - a. Provide vertical edges, slightly eased at juncture of cutout edges with top and bottom surfaces of countertop and projecting 3/16 inch into fixture opening.
  - 2. Counter-Mounted Plumbing Fixtures: Prepare countertops in shop for field cutting openings for counter-mounted fixtures. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.
  - 3. Fittings: Drill countertops in shop for plumbing fittings, undercounter soap dispensers, and similar items.

**2.15 SOLID-SURFACING-MATERIAL COUNTERTOPS**

- A. Grade: **Custom.**
- B. Solid-Surfacing-Material Thickness: **1/2 inch.**
- C. Colors, Patterns, and Finishes: Provide materials and products that result in colors of solid-surfacing material complying with the following requirements:
  - 1. Color and Pattern: As indicated on Drawing A13-00 "FINISH LEGEND."
- D. Fabricate tops in one piece, unless otherwise indicated. Comply with solid-surfacing-material manufacturer's written recommendations for adhesives, sealers, fabrication, and finishing.
  - 1. Fabricate tops with shop-applied edges of materials and configuration indicated.
  - 2. Fabricate tops with shop-applied backsplashes.

**2.16 SHOP FINISHING**

- A. General: Finish architectural woodwork at fabrication shop as specified in this Section. Defer only final touchup, cleaning, and polishing until after installation.
- B. Finishing Materials: Products shall comply with the testing and product requirements of the California Department of Health Services "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- C. Preparation for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural woodwork, as applicable to each unit of work.

**BELMONT MIDDLE AND HIGH SCHOOL**

221 Concord Ave.

Construction Documents - 12.16.2019

Addendum #4

Conformed Set

CCD-144

ASI-177

CCD-159

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1. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. Apply two coats to back of paneling and to end-grain surfaces. Concealed surfaces of plastic-laminate-clad woodwork do not require backpriming when surfaced with plastic laminate, backing paper, or thermoset decorative panels.
- D. Transparent Finish:
  1. Architectural Woodwork Standards Grade: Premium.
  2. Finish: System - 5, conversion varnish or System - 11, catalyzed polyurethane.
  3. Staining: None.
  4. Open Finish for Open-Grain Woods: Do not apply filler to open-grain woods.
  5. Sheen: Flat, 15-30 gloss units measured on 60-degree gloss meter per ASTM D 523.
- E. Opaque Finish:
  1. Grade: Premium.
  2. AWI Finish System: Conversion varnish.
  3. Color: As selected by Architect from manufacturer's full range.
  4. Sheen: Satin, 31-45 gloss units measured on 60-degree gloss meter per ASTM D 523.

**PART 3 - EXECUTION****3.1 PREPARATION**

- A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.
- B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

**3.2 INSTALLATION**

- A. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.
- B. Assemble woodwork and complete fabrication at Project site to comply with requirements for fabrication in Part 2, to extent that it was not completed in the shop.
- C. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches.
- D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use

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fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.

- F. Standing and Running Trim: Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible. Do not use pieces less than 60 inches long, except where shorter single-length pieces are necessary. Scarf running joints and stagger in adjacent and related members.
1. Fill gaps, if any, between top of base and wall with plastic wood filler, sand smooth, and finish same as wood base if finished.
  2. Install wall railings on indicated metal brackets securely fastened to wall framing.
  3. Install standing and running trim with no more variation from a straight line than 1/8 inch in 96 inches.
- G. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
  2. Maintain veneer sequence matching of cabinets with transparent finish.
  3. Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches o.c. with No. 10 wafer-head screws sized for 1-inch penetration into wood framing, blocking, or hanging strips; or No. 10 wafer-head sheet metal screws through metal backing or metal framing behind wall finish.
- H. Countertop Installation: Install countertops level to a tolerance of 1/8 inch in 8 feet, 1/4 inch maximum. Do not exceed 1/64-inch difference between planes of adjacent units.
1. Secure countertops to subtops with adhesive according to quartz agglomerate manufacturer's written instructions. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with quartz agglomerate manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.
  2. Bond joints with adhesive and draw tight as countertops are set. Mask areas of countertops adjacent to joints to prevent adhesive smears.
  3. Install backsplashes and end splashes by adhering to wall and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears.
  4. Install aprons to backing and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears. Fasten by screwing through backing. Pre-drill holes for screws as recommended by manufacturer.
  5. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts to prevent damage while cutting. Make cutouts to accurately fit items to be installed, and at right angles to finished surfaces unless beveling is required for clearance. Ease edges slightly to prevent snipping.
  6. Apply sealant to gaps at walls; comply with Section 07 9200 "Joint Sealants."
- I. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.

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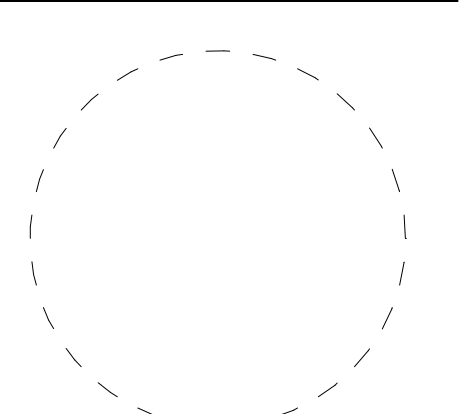
19 January, 2021

**18 June, 2021****3.3 ADJUSTING AND CLEANING**

- A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean woodwork on exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

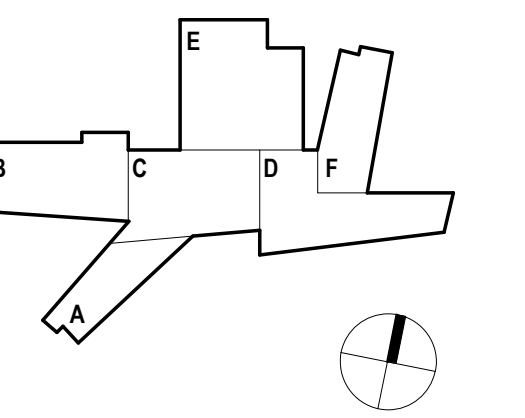
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**BELMONT MIDDLE AND  
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BELMONT, MA 02478

## YPLAN



REVISIONS		
NEXT REVISION HISTORY MAY BE TRUNCATED BELOW. FULL REVISION HISTORY AVAILABLE FROM ARCHITECT UPON REQUEST.		
15	CCD-324	06.18.2021
14	CCD-111	09.22.2020
13	CCD-128	06.29.2020
12	CCD-087	06.24.2020
11	PR-077 AMENDED	06.03.2020
10	PR-049	04.22.2020
9	CCD-090	03.23.2020
8	CCD-062	02.28.2020
7	ADDENDUM #4	01.29.2020
6	ASI-021	10.12.2019
MARK	ISSUE	DATE

**INFORMED SET**  
02.06.2020

LIB NUMBER	153003.001
DRAWN	Author
CHECKED	Checker
	TITLE

LEVEL 01 SLAB EDGE  
PLAN - AREA D

**A11-10D**



PROJECT

**BELMONT MIDDLE AND  
HIGH SCHOOL**  
221 CONCORD AVE.  
BELMONT, MA 02478

TOWN OF BELMONT

KEYPLAN

REVISIONS

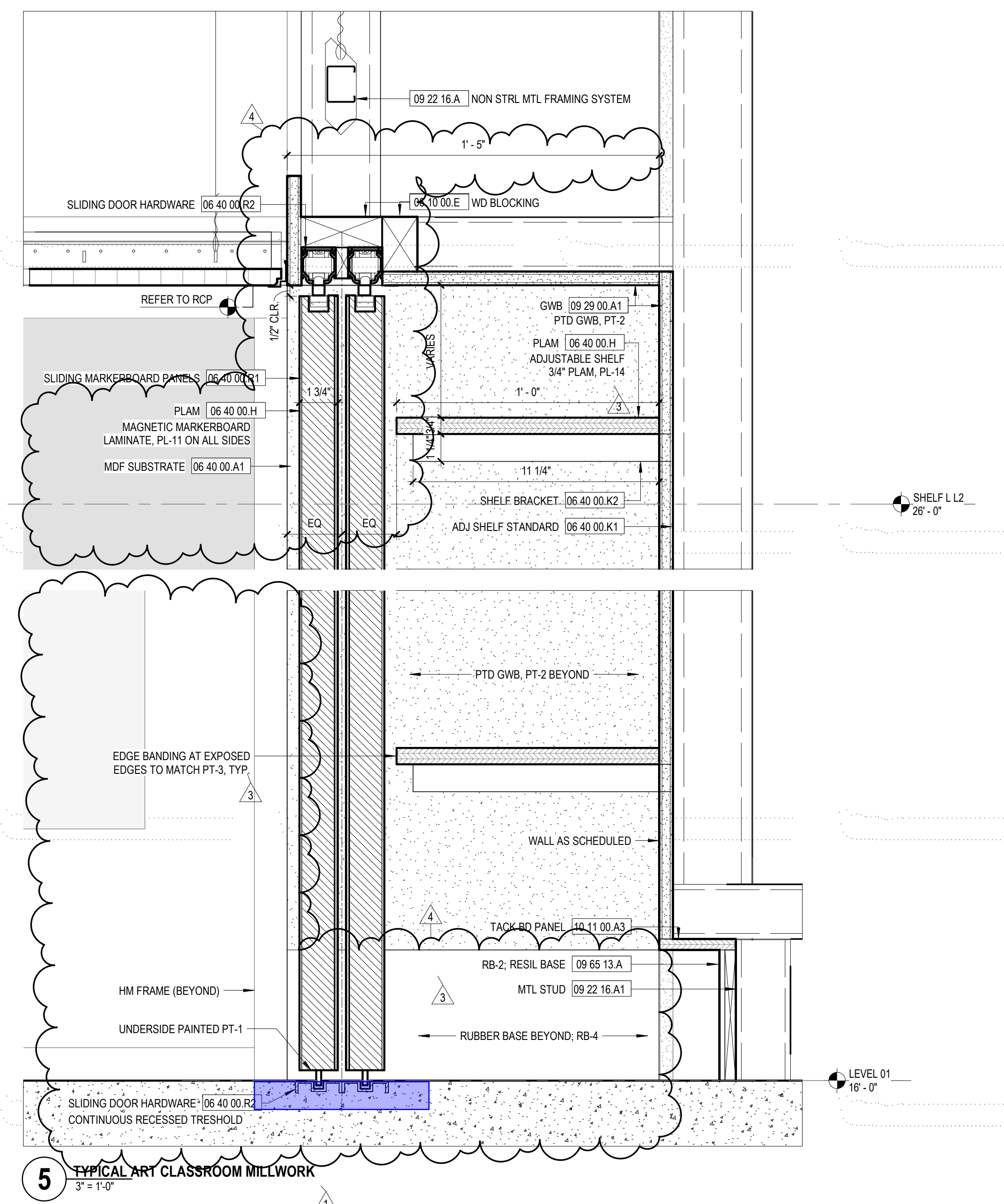
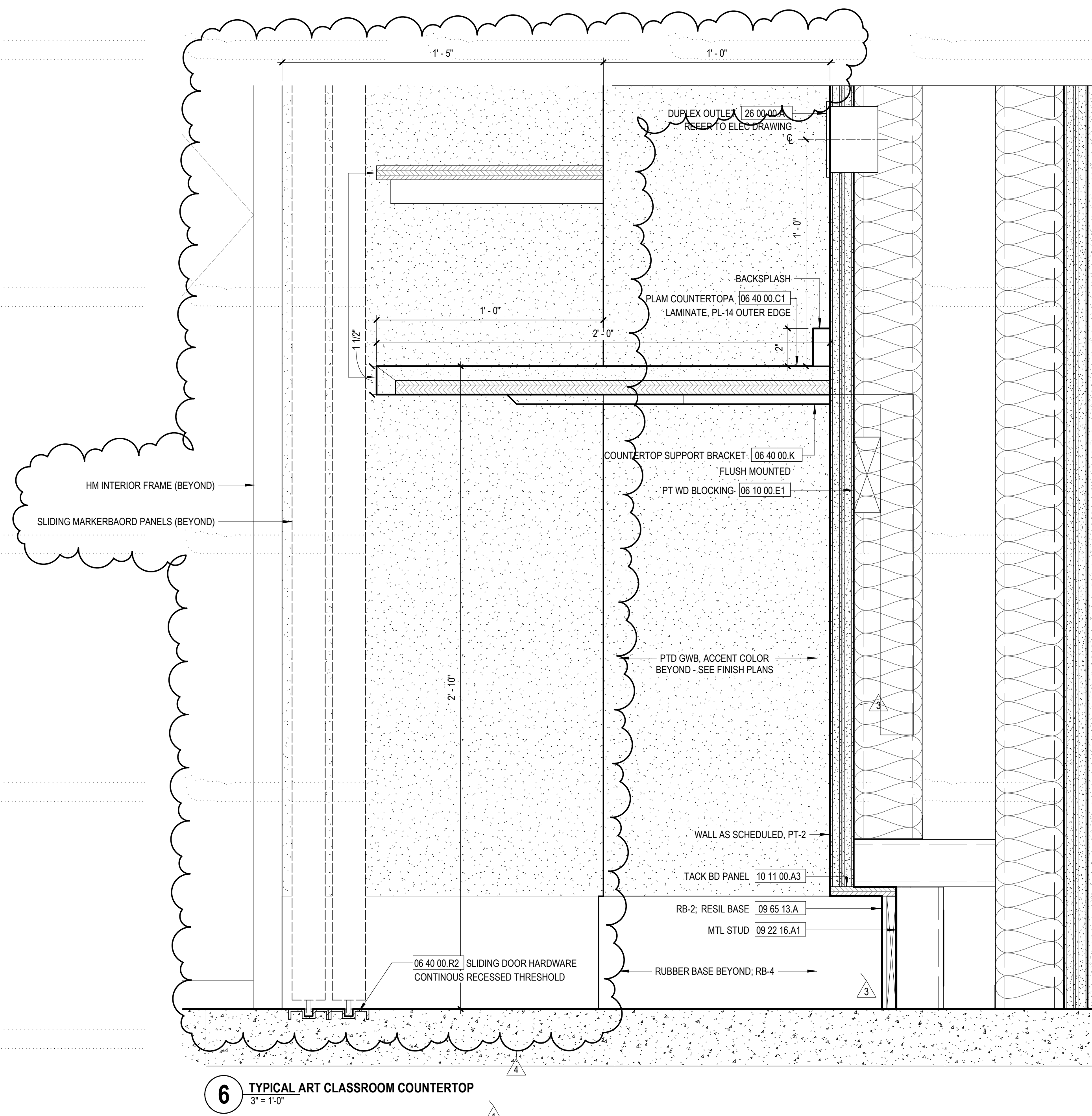
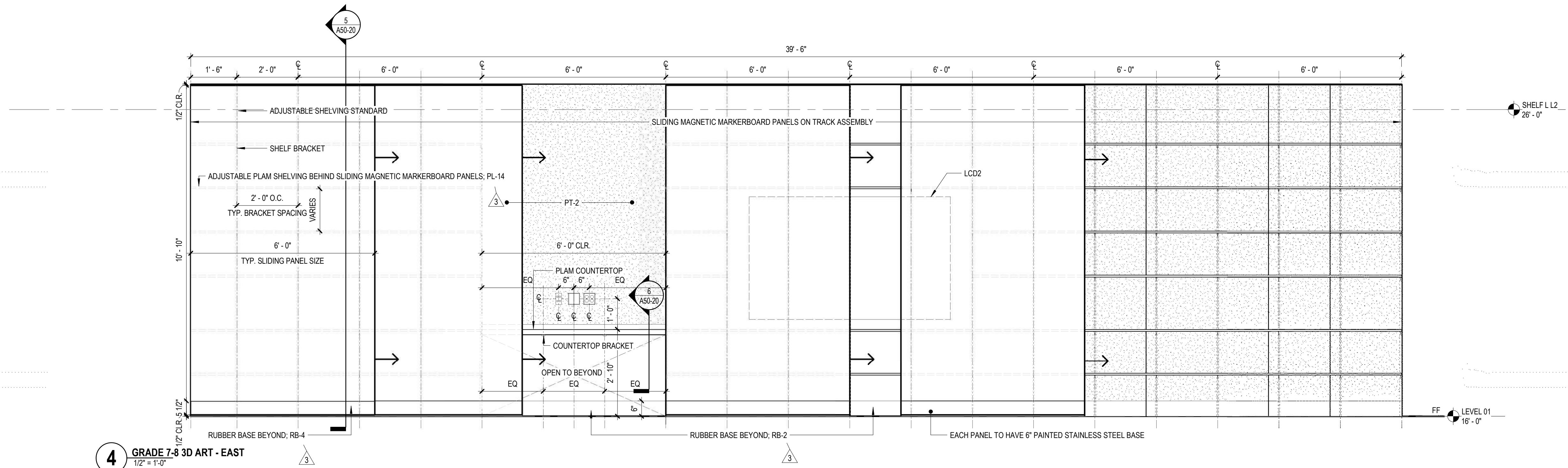
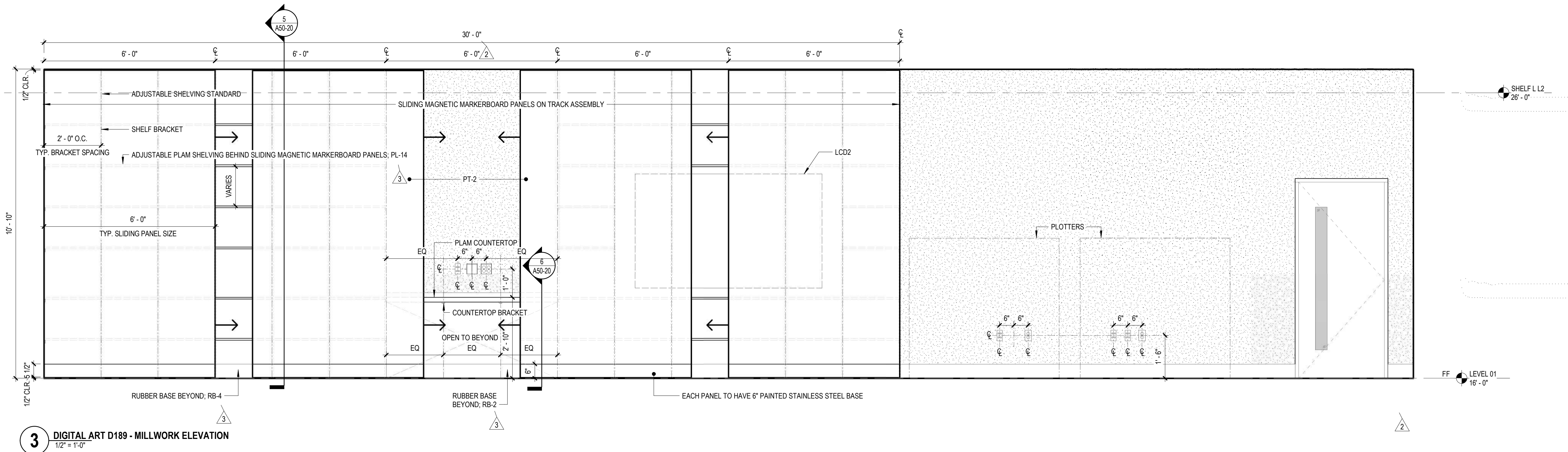
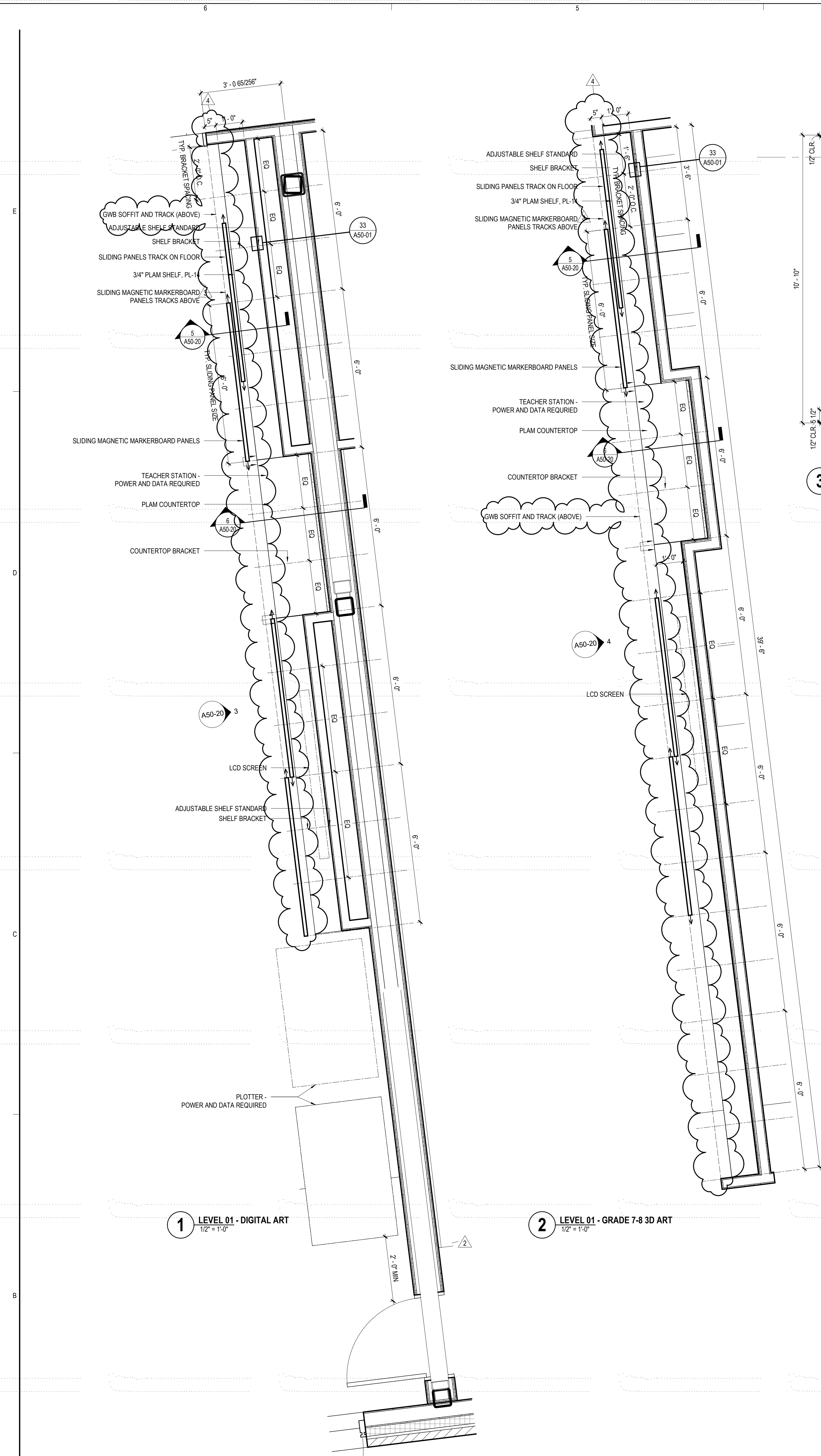
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3	ASH-139	11.16.2020
2	COO-111	09.22.2020
1	ASH-040	02.17.2020

**CONFORMED SET**  
02.06.2020

JOB NUMBER 153003.001  
DRAWN Author  
CHECKED Checker  
TITLE

**ARCHITECTURAL  
MILLWORK - ART WING**

**A50-20**



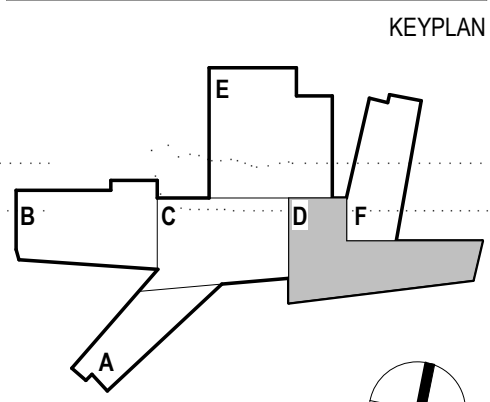


SHELF L12  
28'-0"

SHELF L12  
28'-0"

PROJECT  
**BELMONT MIDDLE AND  
HIGH SCHOOL**  
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REVISIONS

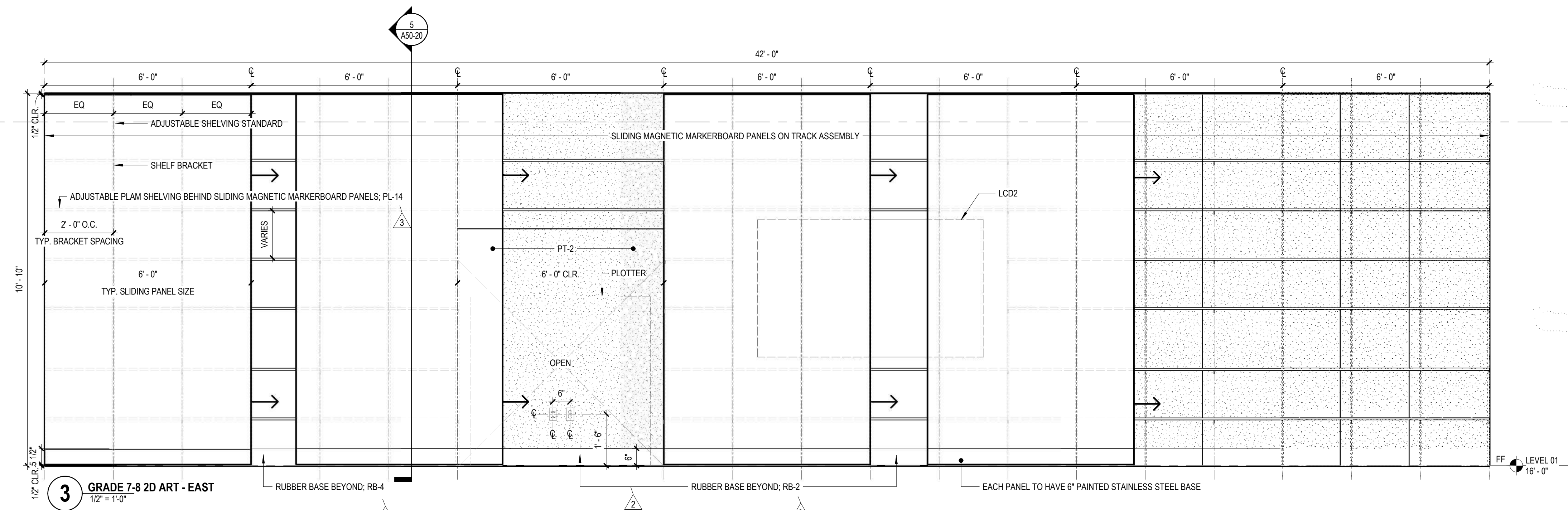
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2	CCD-111	09.22.2020
1	ASH-040	02.17.2020

CONFORMED SET  
02.06.2020

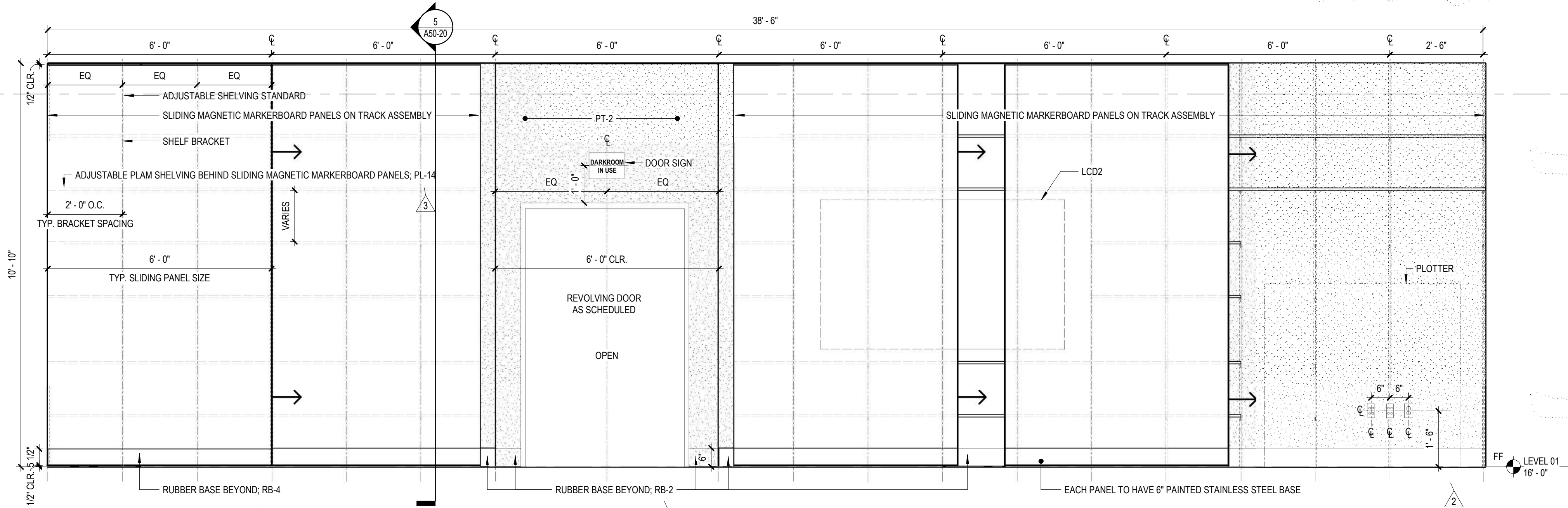
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DRAWN Author  
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ARCHITECTURAL  
MILLWORK - ART WING

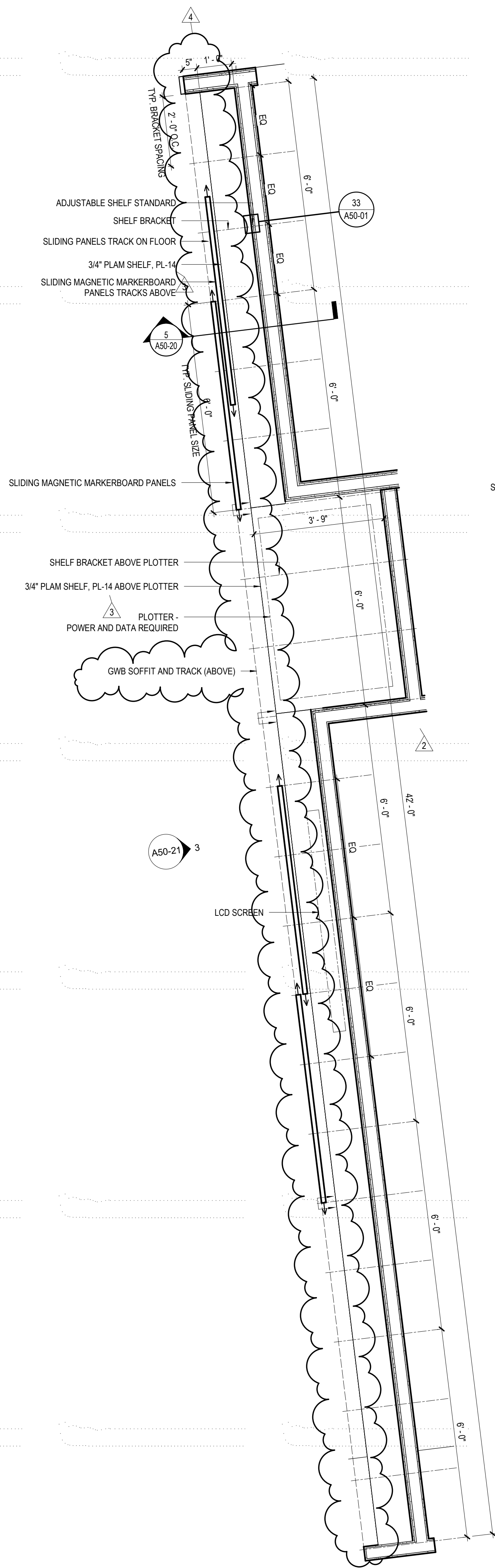
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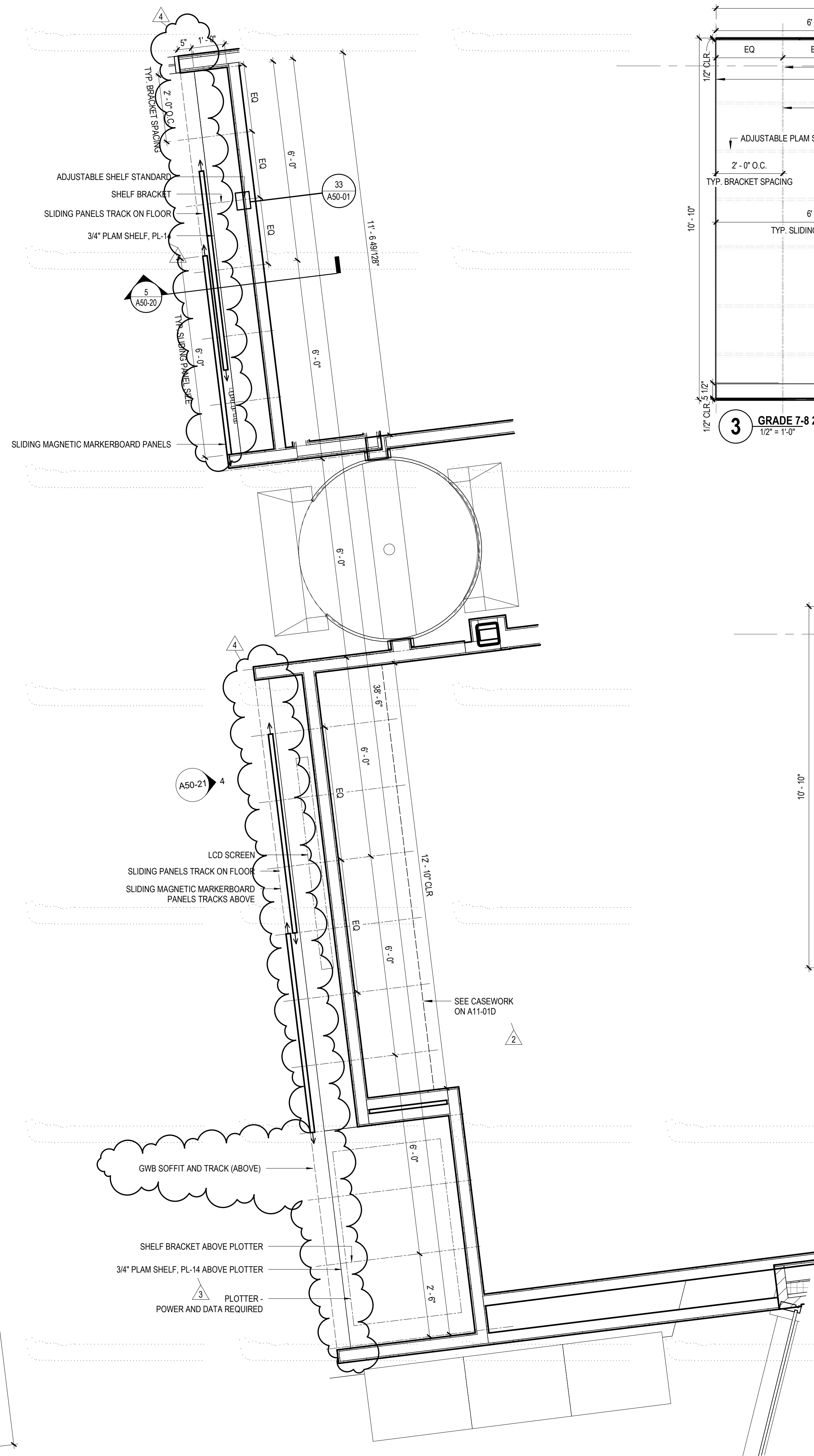
3 GRADE 7-8 2D ART - EAST  
1/2" = 1'-0"



4 PHOTOGRAPHY - EAST  
1/2" = 1'-0"



1 LEVEL 01 - GRADE 7-8 2D ART  
1/2" = 1'-0"



2 LEVEL 01 - PHOTOGRAPHY  
1/2" = 1'-0"