

ADDENDUM 2

ADDENDUM DATE: April 25th, 2025

PROJECT: Orange County Health Department Improvements
Orange County, NC

OWNER: Orange County Asset Management
306 Revere Rd. Suite A102.
Hillsborough, NC 27278

ARCHITECT: Smith Sinnett Architecture, P.A.
4600 Lake Boone Trail, Suite 205
Raleigh, North Carolina 27607



BIDS DUE: **April 29th, 2025 at 3:00 p.m.**
Orange County Finance, Administrative Services,
131 W. Margaret Lane Suite 300, Conference Room 302
Hillsborough, North Carolina 27278

Please note, Project Addenda and Bidders List are available at www.smithsinnett.com under the 'Documents' Tab on the navigation bar.

This Addendum shall be included in the contract for the above-referenced project. All General, Supplementary and Special Conditions, etc., as originally specified or as modified below shall apply to these items.

General

1. **Reminder:** The Period for questions and product substitutions has ended.
2. **RFI:** Is the intent to award both projects to the same contractor and will both be occurring at the same time?
Response: Both projects will go to the same contractor in one single contract. As for how the projects are sequenced, that is not stipulated.
3. **RFI:** Is there an electrical plan showing circuits or power routes to connect the new under cabinet lights?
Response: There are no electrical plans, lights will be replaced one for one.
4. **RFI:** For the new card reader by owner for opening #132, is there an existing raceway or does one need to be provided?
Response: Raceway will need to be provided in the form of surface mount/wiremold.
5. **Revision:** Addendum 1 has been reposted with seals.

Drawings – Southern Human Services Health Clinic

13. **Revised:** Plumbing Legend (A4-11) has been revised to include P-2 fixture selection. Sheet attached.
14. **Revised:** Sheet A4-01 and A4-02 - Sink tags updated on elevations where shown as clouded. Sheet attached.

Specifications

15. **Revision:** Section 00 73 00 Supplementary General Conditions - Article 13 Contract Time, Additional time requirements added to 13.1.1
16. **Revision:** Section 09 67 23 Resinous Flooring - Adjustments made to acceptable manufacturers – 2.2, B.

End of Addendum 2

Attached:

Drawings:

Southern Human Services A4-11, A4-01, A4-02

Specifications:

00 73 00

09 67 23

CASEWORK LEGEND:

MARK	DESCRIPTION
B1	2'-0" DEEP BASE CABINET, TWO HINGED DOORS AND TWO 6" HIGH DRAWERS AND ONE ADJUSTABLE SHELF. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3'-0" WIDE. HEIGHT/WIDTH VARIES.
B2	2'-0" DEEP ADA COMPLIANT SINK BASE CABINET, TWO HINGED DOORS AND ONE FALSE DRAWER. DOORS OPEN TO FLOOR, EXTEND FLOORING BELOW CABINET; PROVIDE INTEGRAL TOE-KICK
B3	2'-0" DEEP BASE CABINET, ONE HINGED DOOR AND ONE 6" HIGH DRAWER AND ONE ADJUSTABLE SHELF. HEIGHT/WIDTH VARIES.
B4	1'-10" DEEP BASE CABINET, TWO HINGED DOORS AND ONE ADJUSTABLE SHELF. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3'-0" WIDE. HEIGHT/WIDTH VARIES.
B5	1'-10" DEEP DRAWER BASE CABINET; THREE EQUAL DRAWERS AS PER ELEVATIONS. HEIGHT/WIDTH VARIES.
B6	1'-5" DEEP SINK BASE CABINET, TWO HINGED DOORS AND ONE 6" HIGH FALSE DRAWER. HEIGHT/WIDTH VARIES.
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B9	2'-6" DEEP BASE CABINET, ONE HINGED DOOR AND ONE 6" HIGH DRAWER AND ONE ADJUSTABLE SHELF. HEIGHT/WIDTH VARIES.
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▶	INDICATES FINISHED FACE

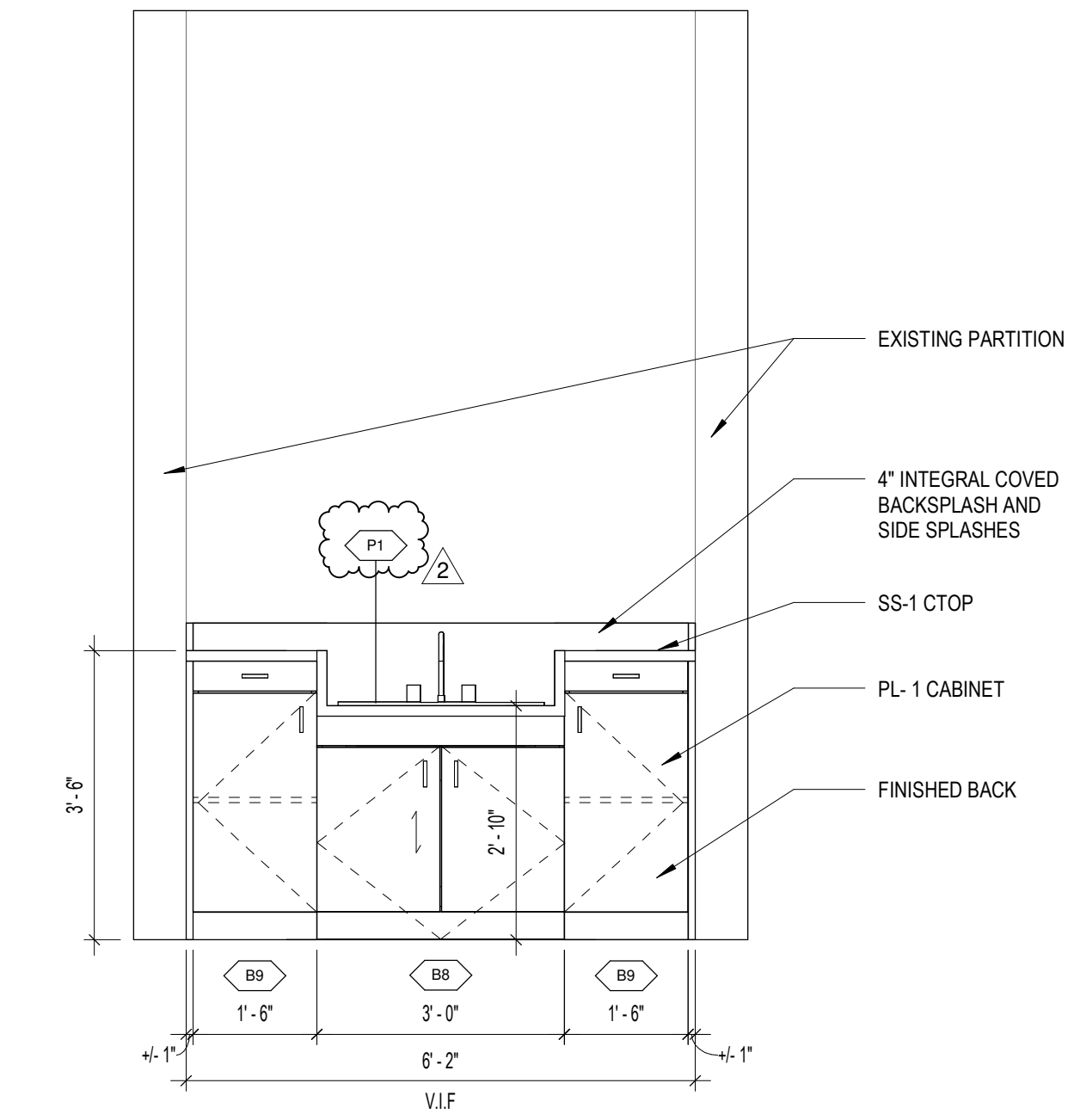
- ALL CASEWORK SHOWN IS MANUFACTURED PLASTIC LAMINATE CASEWORK, TYPICAL UNLESS NOTED OTHERWISE.
- ALL CASEWORK SHALL HAVE WHITE MELAMINE INTERIORS, AND SOFT CLOSE DRAWERS AND HINGES, AND FULL EXTENSION DRAWER GLIDES.
- ALL WALL-MOUNTED ACCESSORIES, INCLUDING BUT NOT LIMITED TO, SOAP DISPENSERS, PAPER TOWEL DISPENSERS, SHARPS CONTAINERS, AND SPECIMEN PASS-THRU'S ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE. IF SUCH ACCESSORIES IMPEDE ACCESS TO AREA OF WORK, GC SHALL UNINSTALL, STORE ONSITE, AND REINSTALL.
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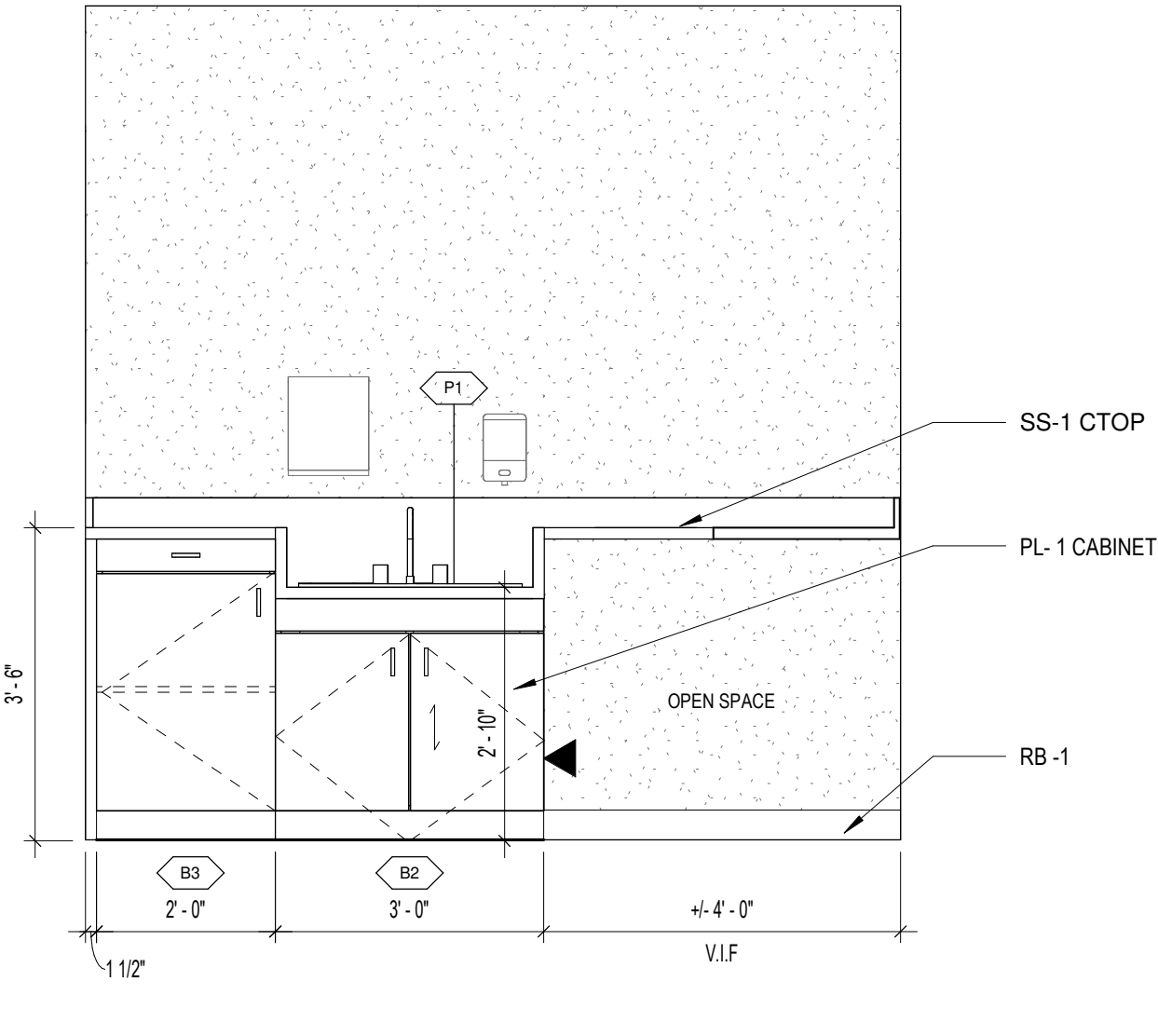
PL-1
MANUFACTURER: FORMICA
COLOR: OILED LAGNO

SS-1
MANUFACTURER: CORIAN
COLOR: ARTISTA SAGE
ALL CTOPS SHALL HAVE MATCHING 4" BACKSPLASH, TYP, AND SIDESPLASH AT SIDE WALLS UNLESS NOTED OTHERWISE.

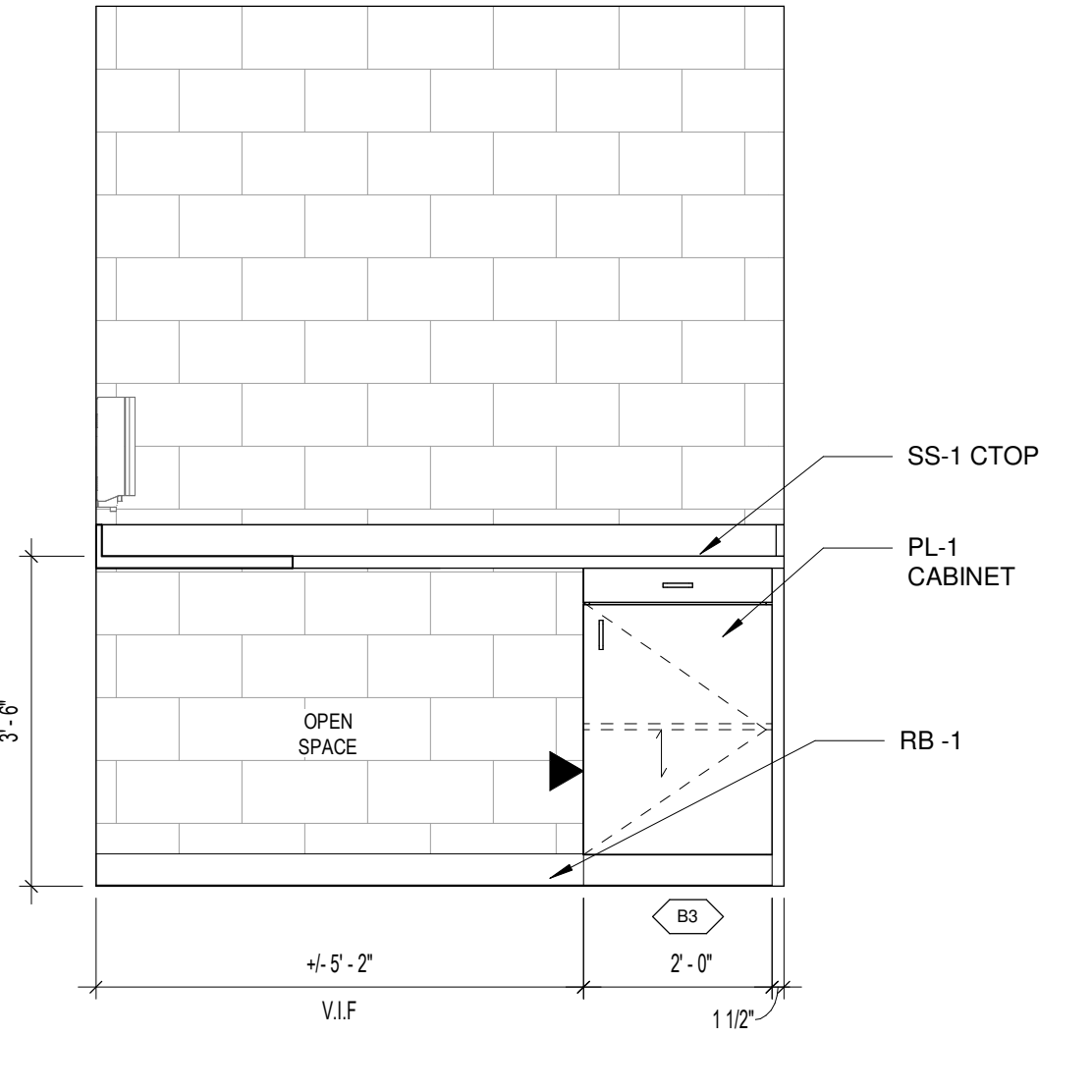
WHERE UNDER-CABINET LIGHTING IS INDICATED, PROVIDE 'LITHONIA RAZ UNDERCABINET LED' STRIP FIXTURES FULL LENGTH OF UPPER CABINETS, CONNECT TO EXISTING ELECTRICAL.



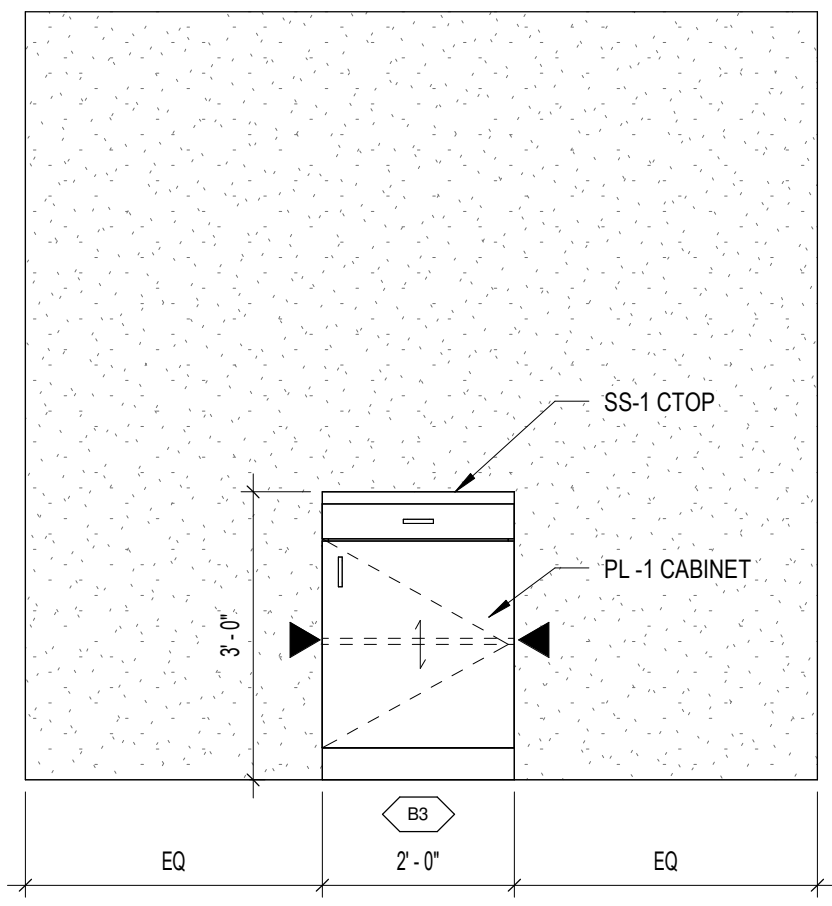
7 CORRIDOR
A4-01 1/2" = 1'-0"



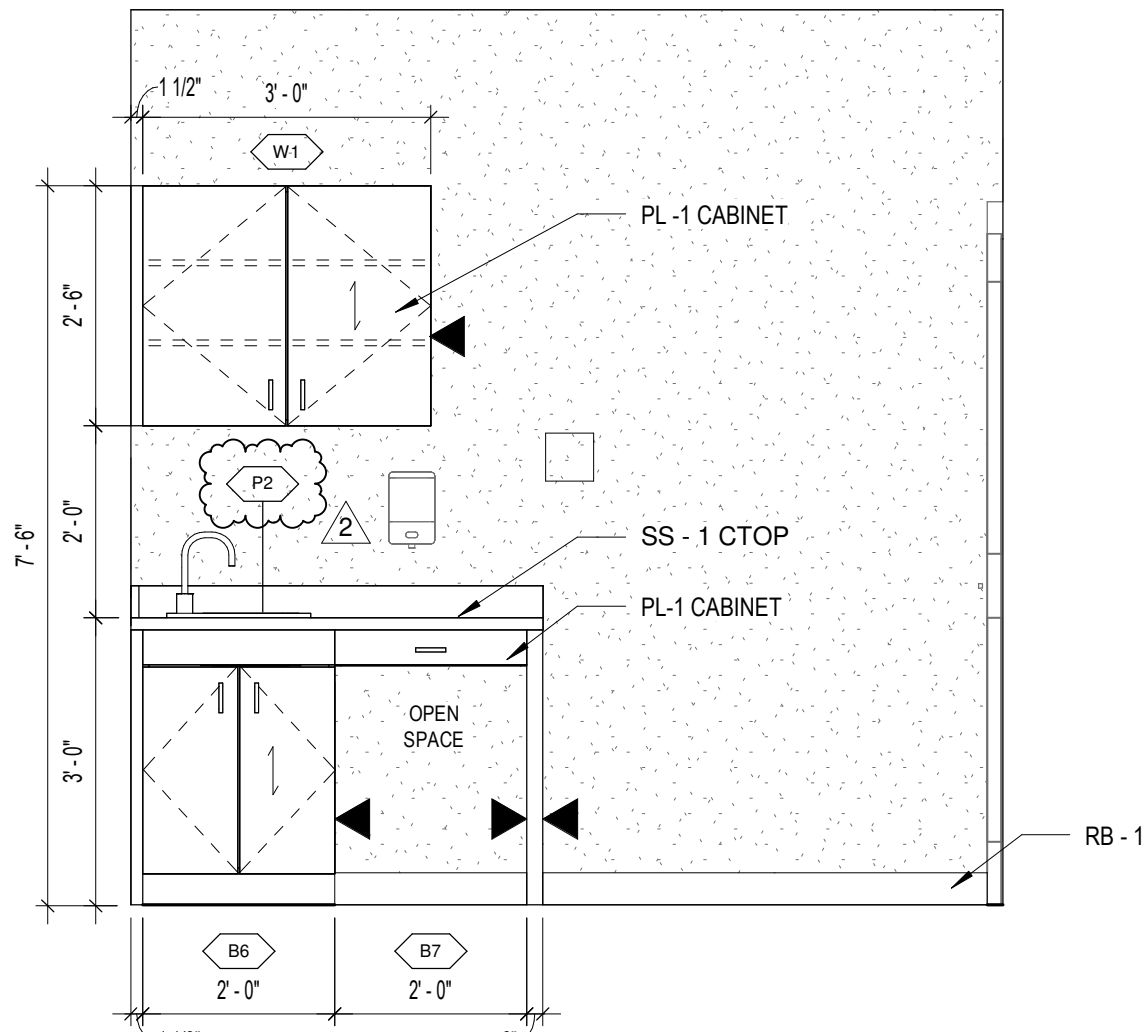
6 STERILIZATION 415 - NORTH
A4-01 1/2" = 1'-0"



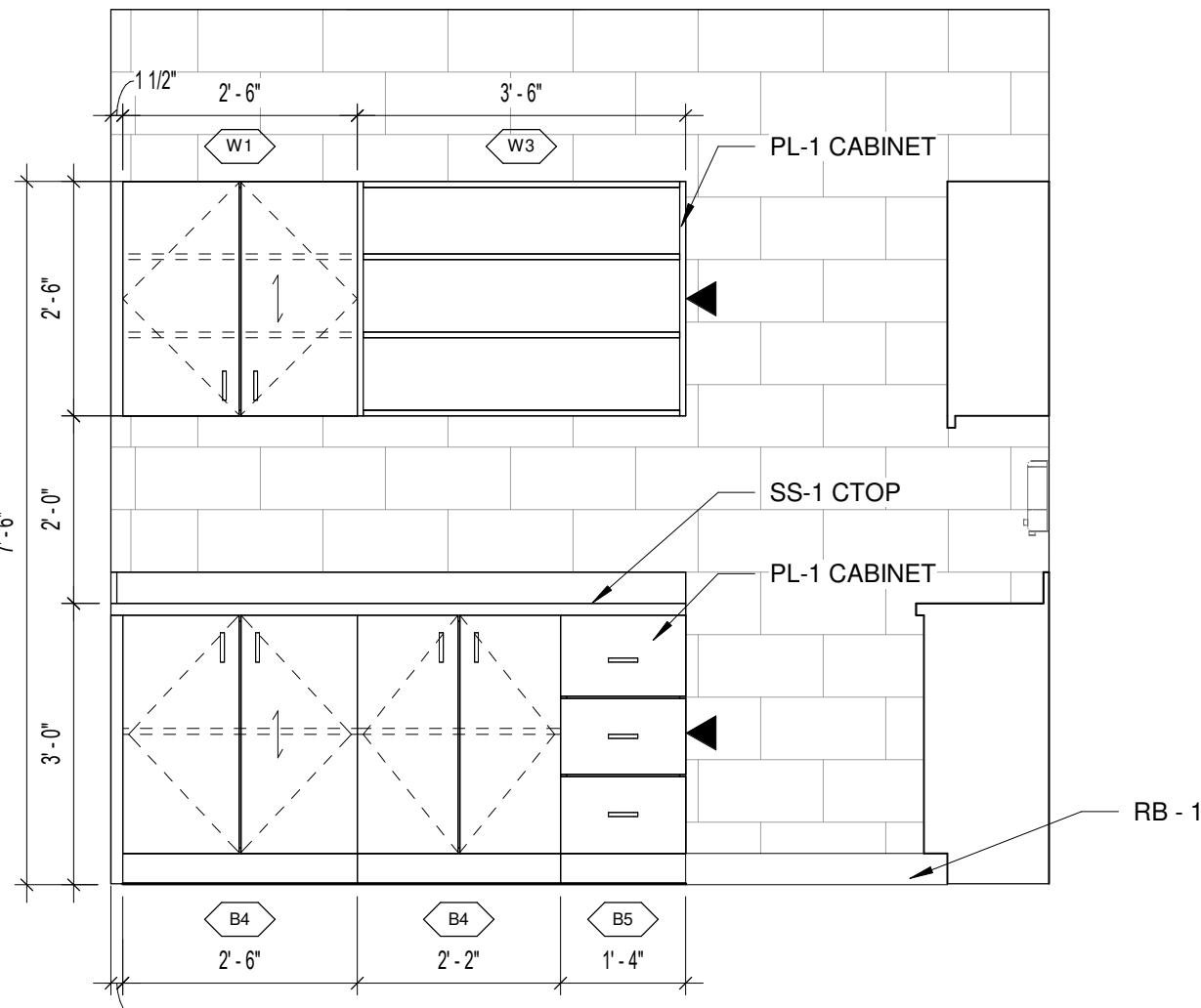
5 STERILIZATION 415 - EAST
A4-01 1/2" = 1'-0"



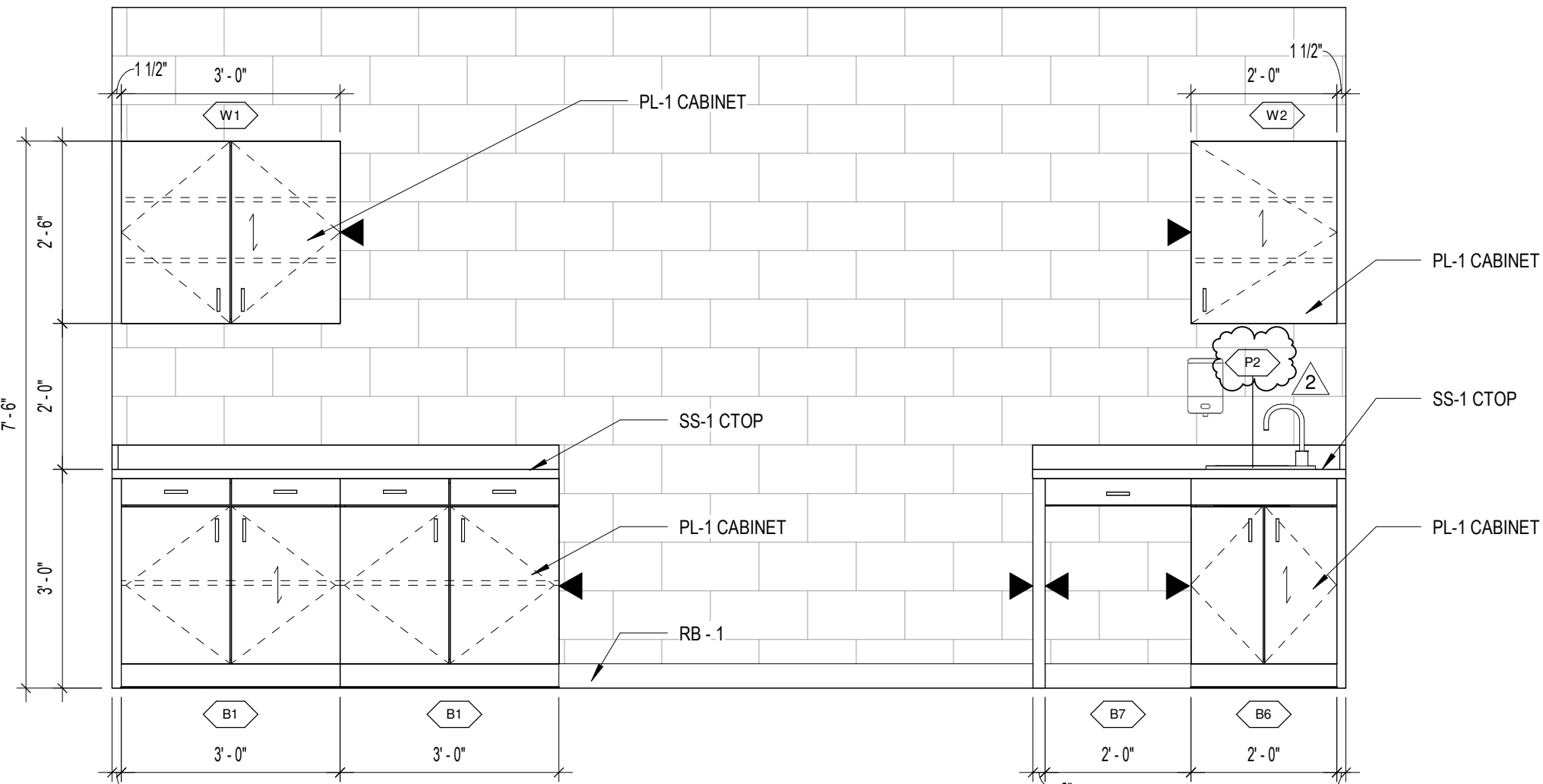
4 BLOOD DRAWING 402 - NORTH
A4-01 1/2" = 1'-0"



3 EXAM 407 - EAST
A4-01 1/2" = 1'-0"



2 EXAM 407 - NORTH
A4-01 1/2" = 1'-0"



1 EXAM 406 - NORTH
A4-01 1/2" = 1'-0"

ORANGE COUNTY HELATH DEPARTMENT IMPROVEMENTS
SOUTHERN HUMAN SERVICES HEALTH CLINIC
2501 Homestead Rd, Chapel Hill, NC. 27516
ITB 367-OC5452

2	04/25/2025	ADDENDUM 2
ID	DATE	DESCRIPTION
DRAWN BY:		NB
CHECKED BY:		DW

CASEWORK
ELEVATIONS

2024008 10 FEB 2025

A4-01

smith
sinnett
ARCHITECTURE

T 919 781 8382

4600 Lake Boone Trail
Suite 205
Raleigh, NC 27607

info@smithsinnett.com

ARCHITECTURE, P.A.
CERT. NO. 59172
PLATE 101
JAN 2017

2017
JAN 2017
JAN 2017

CONSTRUCTION DOCUMENT

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THIS DRAWING IS COMPLETED TO BE PRINTED ON A 36" X 48" SHEET

CASEWORK LEGEND:

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B1	2'-0" DEEP BASE CABINET, TWO HINGED DOORS AND TWO 6" HIGH DRAWERS AND ONE ADJUSTABLE SHELF. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3'-0" WIDE. HEIGHT/WIDTH VARIES.
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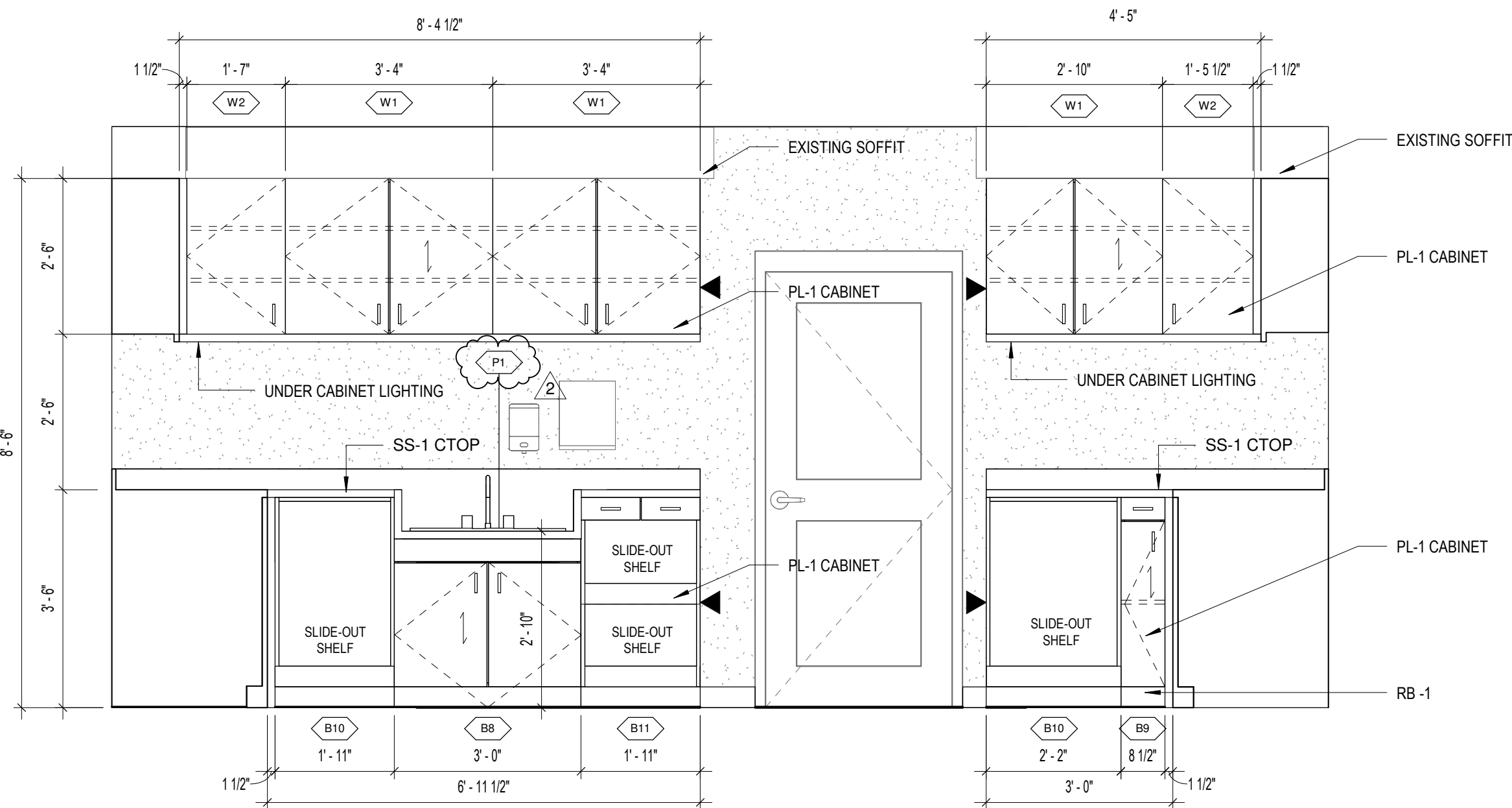
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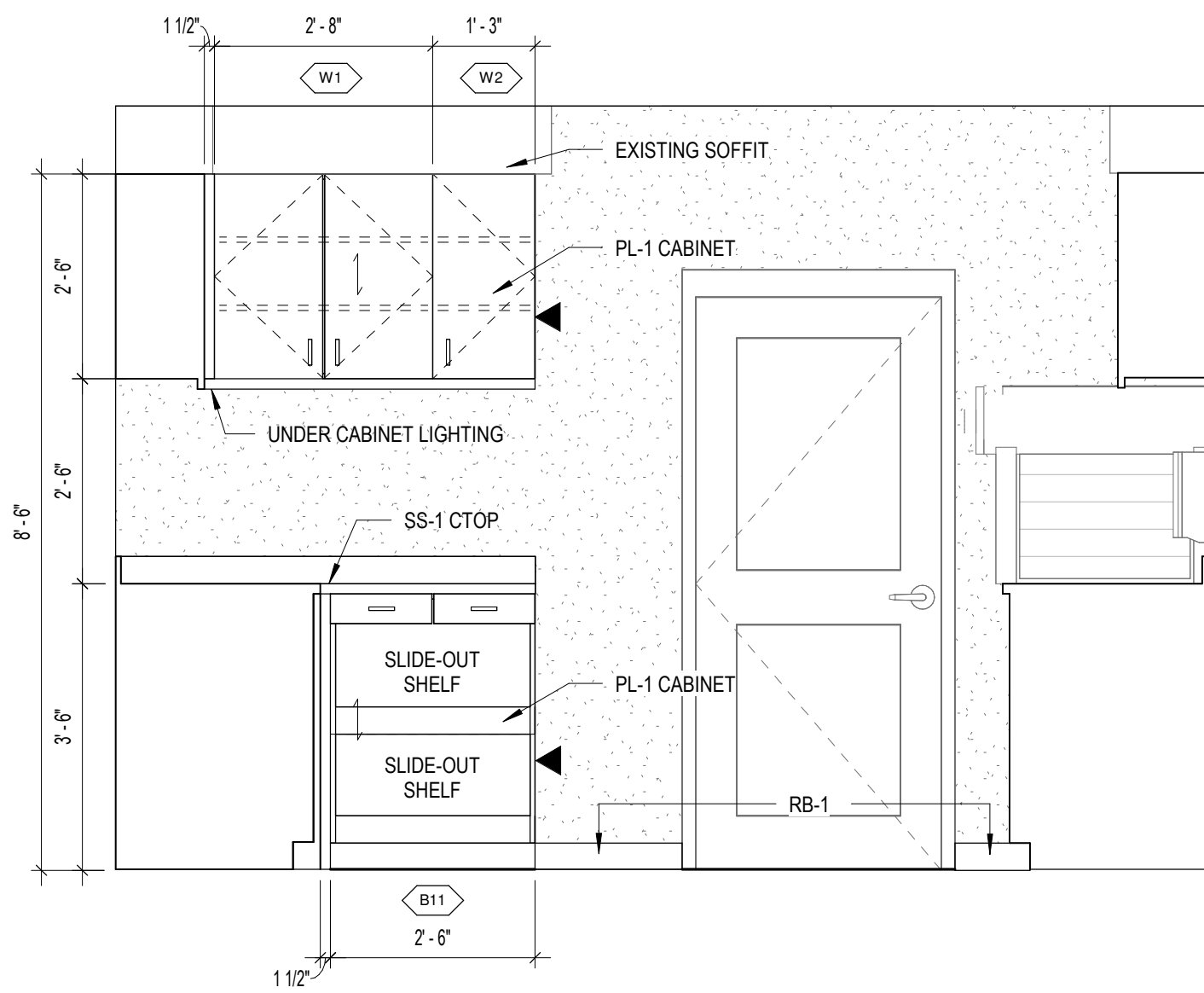
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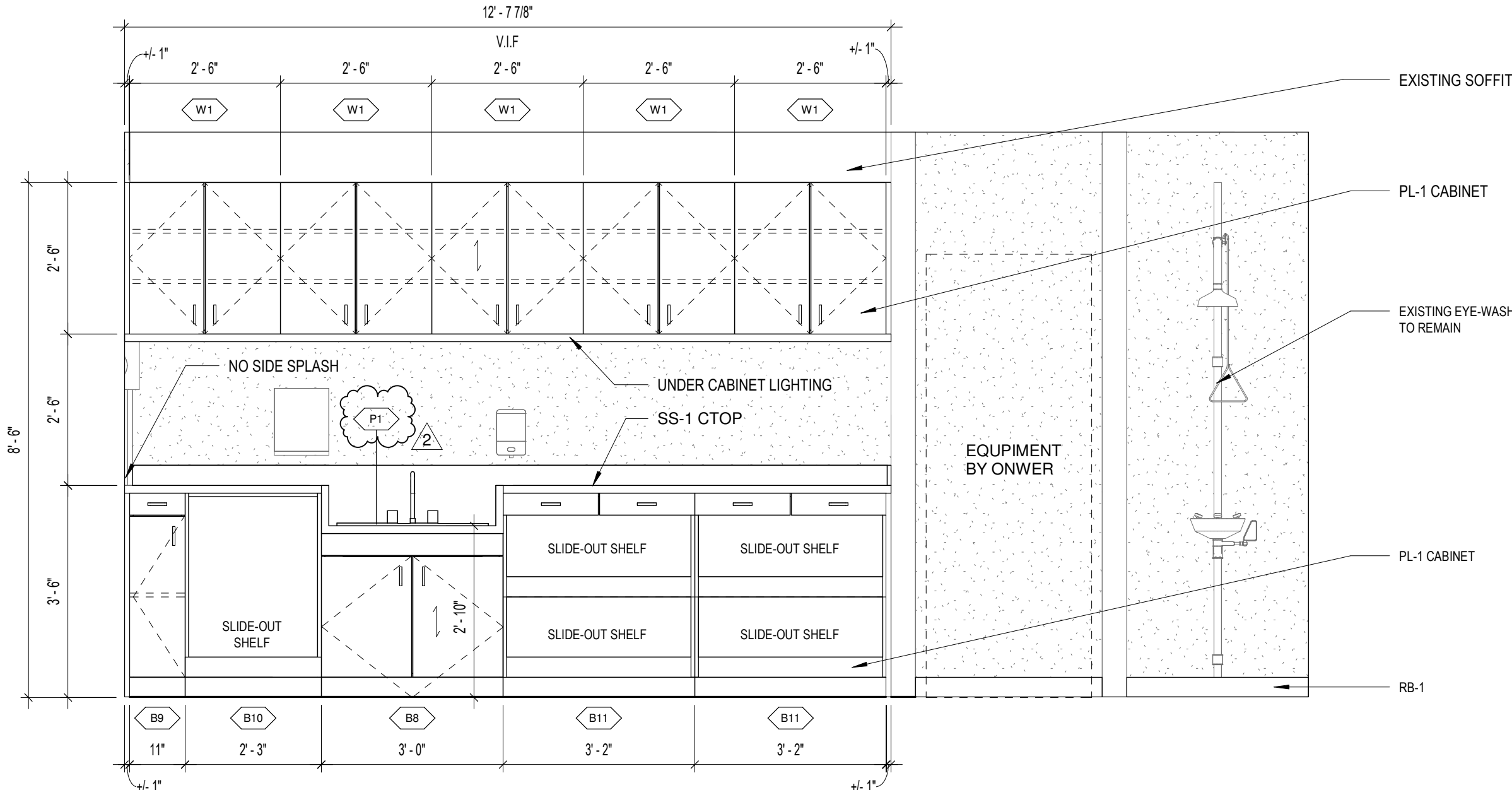
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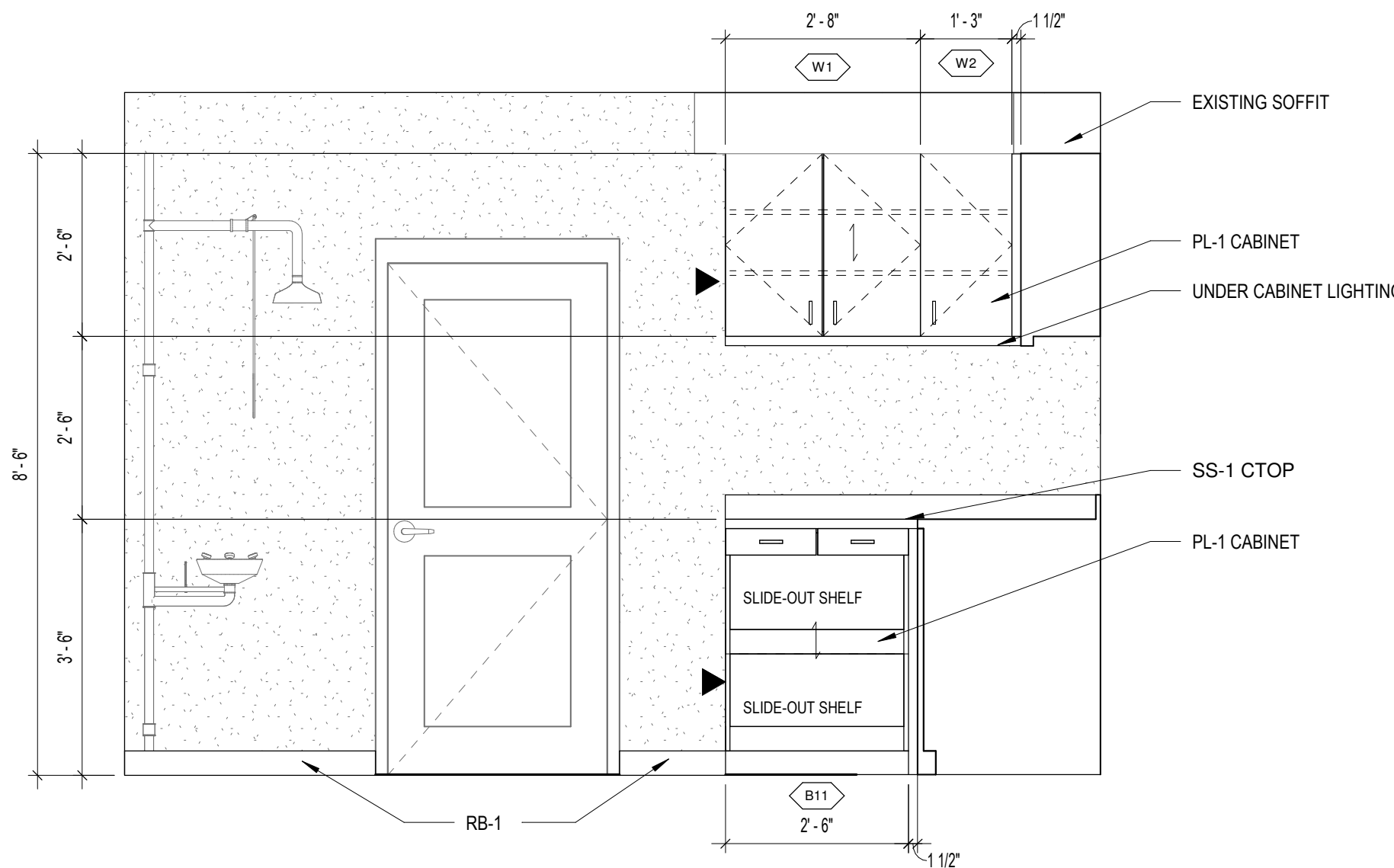
4 LAB 411 - NORTH
A4-02 1/2" = 1'-0"



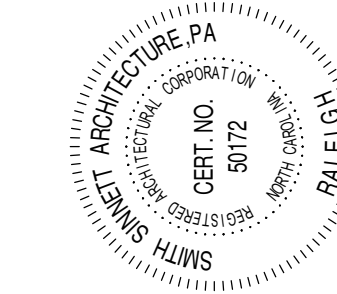
3 LAB 411 - EAST
A4-02 1/2" = 1'-0"



2 LAB 411 - SOUTH
A4-02 1/2" = 1'-0"



1 LAB 411 - WEST
A4-02 1/2" = 1'-0"



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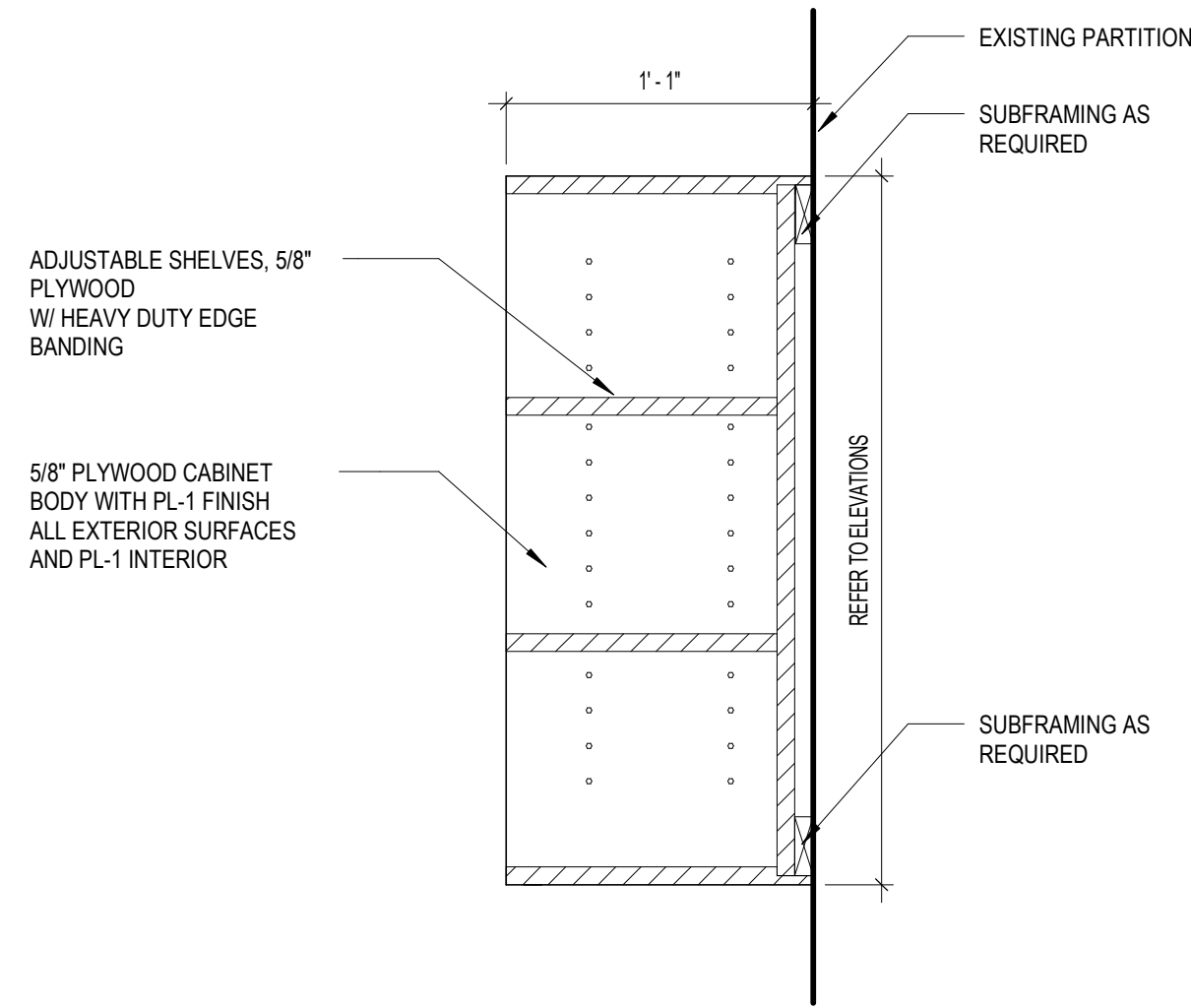
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2	04/25/2025	ADDENDUM 2
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DRAWN BY:		NB
CHECKED BY:		DW

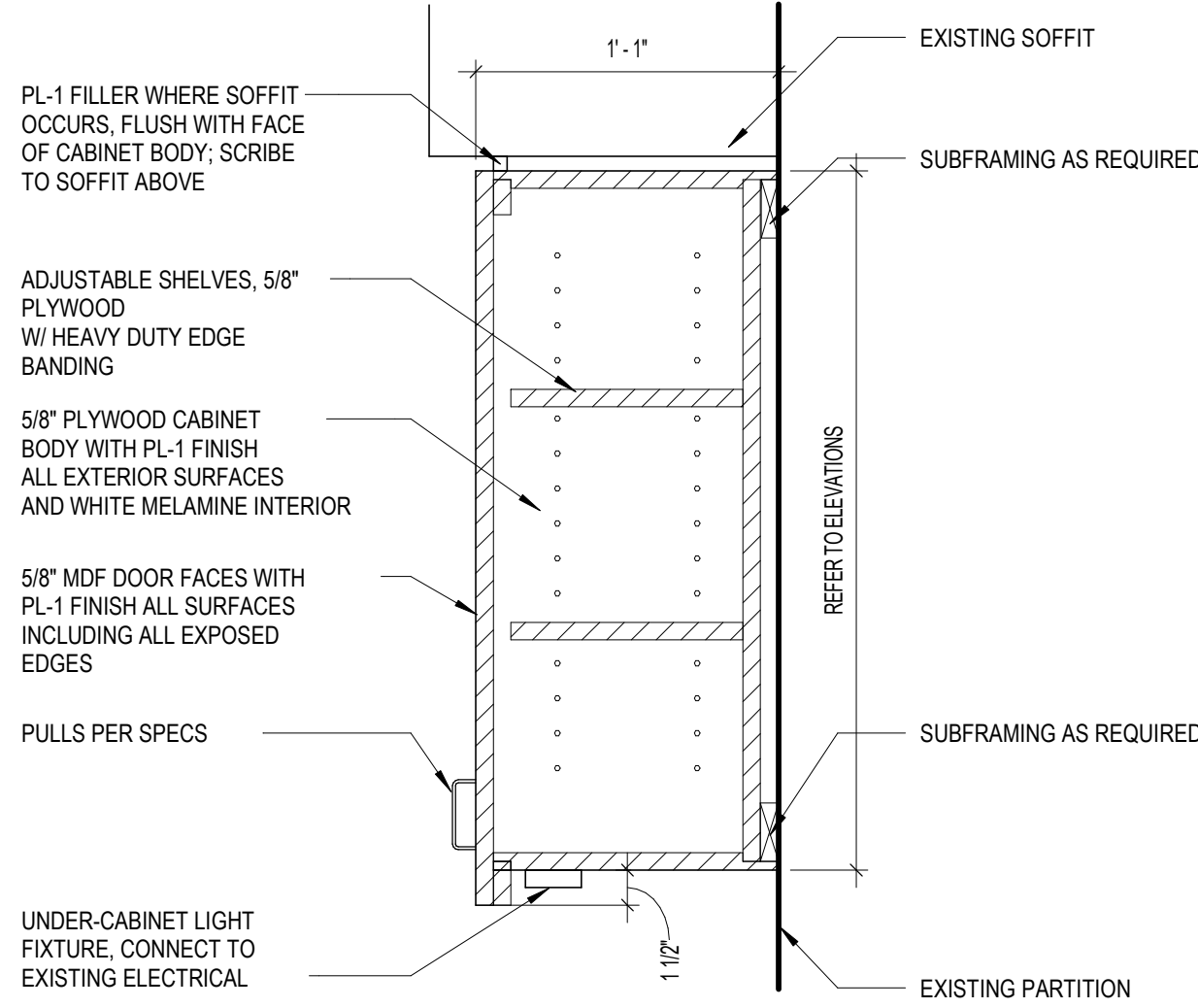
CASEWORK
ELEVATIONS

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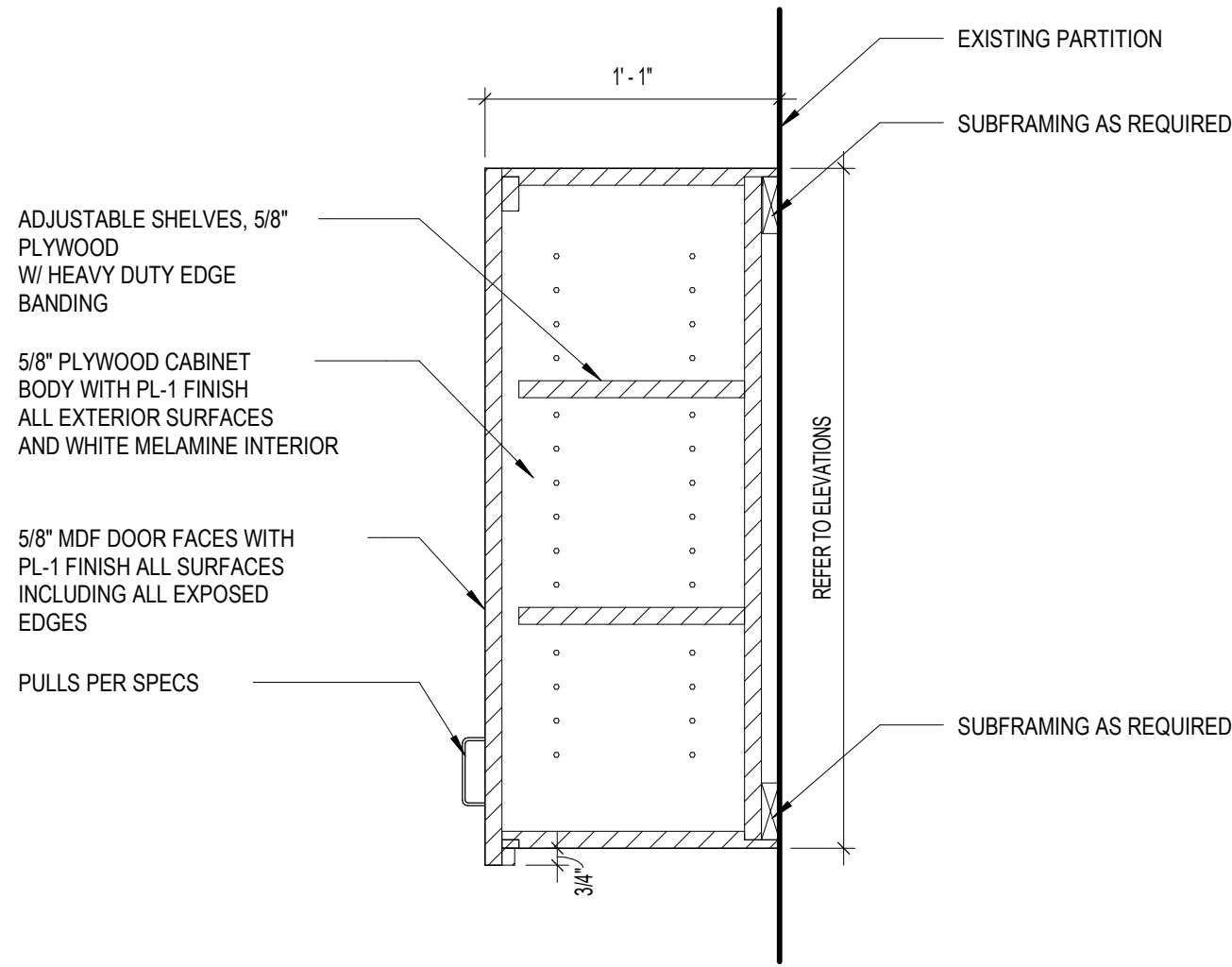
PLUMBING LEGEND		
MARK	SINK	FAUCET
P1	ELKAY DROP-IN ADA SINGLE BOWL, 25" X 22" X 6-1/2" - LRA025286PD, STAINLESS STEEL	ELKAY 4" CENTERSET W/ EXPOSED DECK, 8" GOOSENECK, 4" WRISTBLADE HANDLES - LK406GN08T4, CHROME
P2	ELKAY DROP-IN ADA SINGLE BOWL, 15" X 22" X 5-1/2" - LRA015226S, STAINLESS STEEL, ROTATE FOR SIDE-MOUNTED FAUCET, WITH FAUCET AGAINST ADJACENT WALL	ELKAY 4" CENTERSET W/ EXPOSED DECK, 8" GOOSENECK, 4" WRISTBLADE HANDLES - LK406GN08T4, CHROME
NOTES: 1. SINKS NAMED ABOVE ARE BASIS OF DESIGN ONLY. CONTRACTOR MAY SUBMIT ALTERNATES BY ACORN, KOHLER, OR EQUAL. 2. FAUCETS NAMED ABOVE ARE BASIS OF DESIGN ONLY. CONTRACTOR MAY SUBMIT ALTERNATES BY AMERICAN STANDARD, CHICAGO, KOHLER, OR EQUAL.		



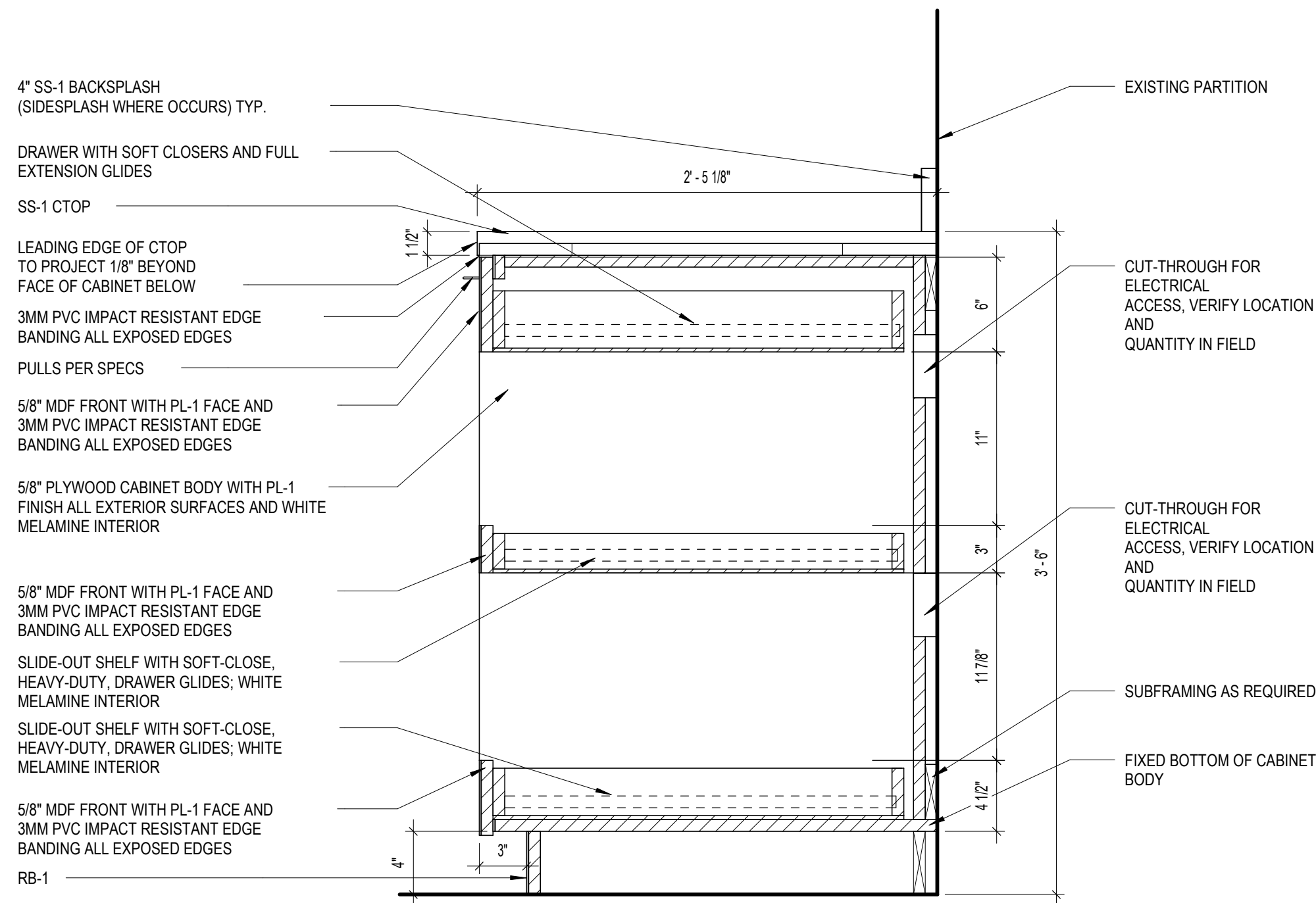
9 UPPER CABINET WITH OPEN SHELVES
A4-11 1 1/2" = 1'-0"



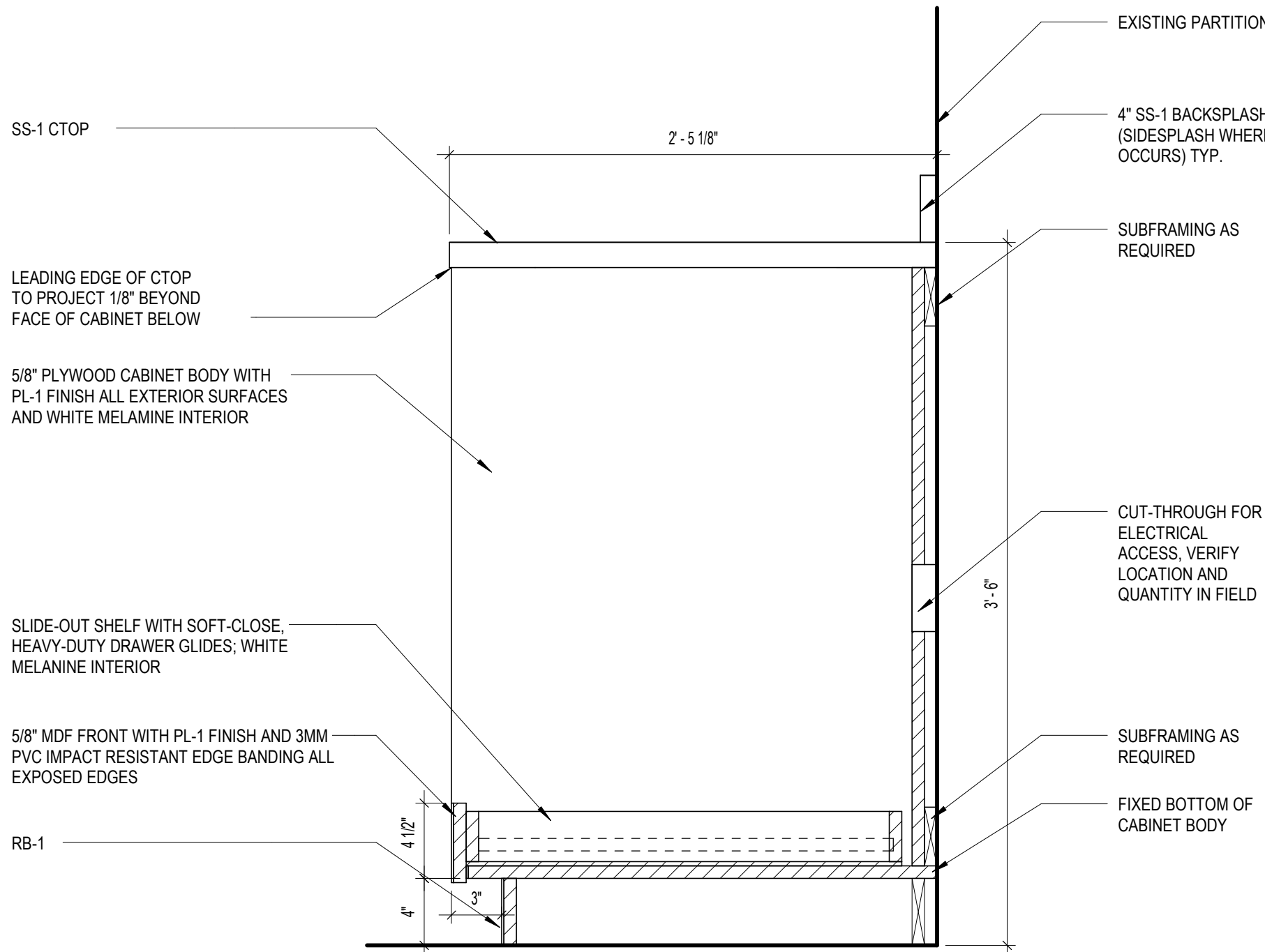
8 TYPICAL UPPER CABINET WITH U.C. LIGHTING
A4-11 1 1/2" = 1'-0"



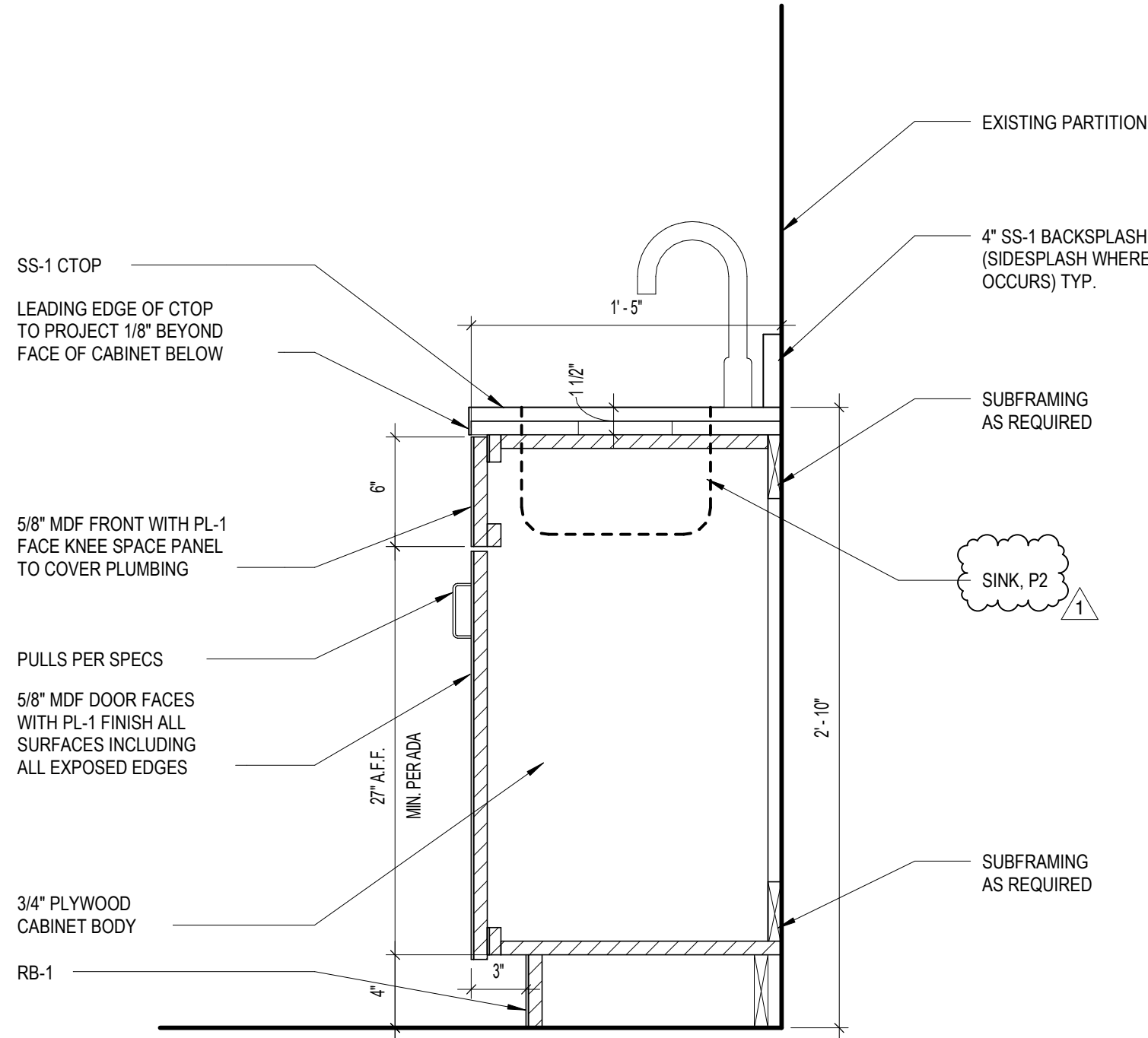
7 TYPICAL UPPER CABINET
A4-11 1 1/2" = 1'-0"



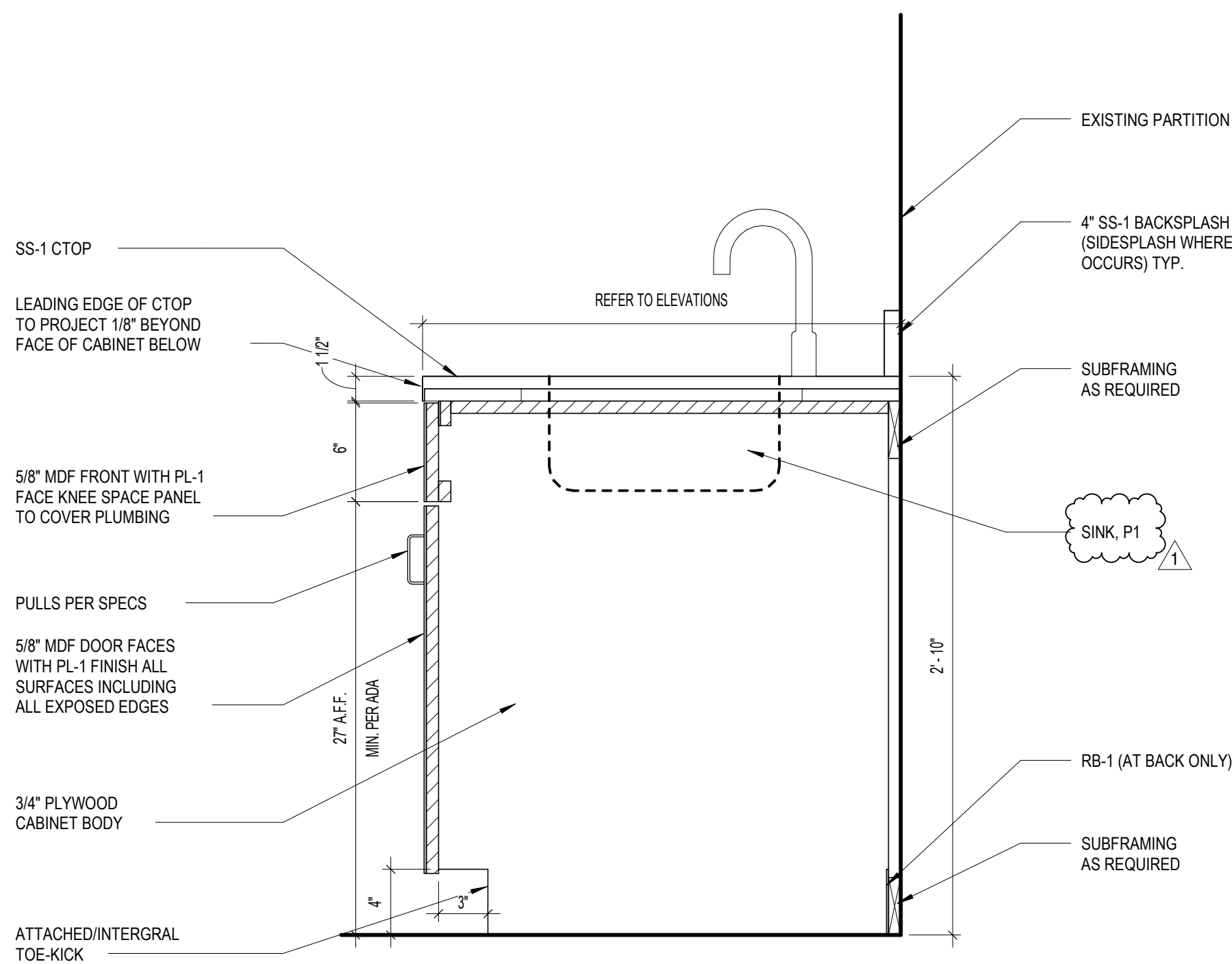
6 DOUBLE SLIDE-OUT SHELF
A4-11 1 1/2" = 1'-0"



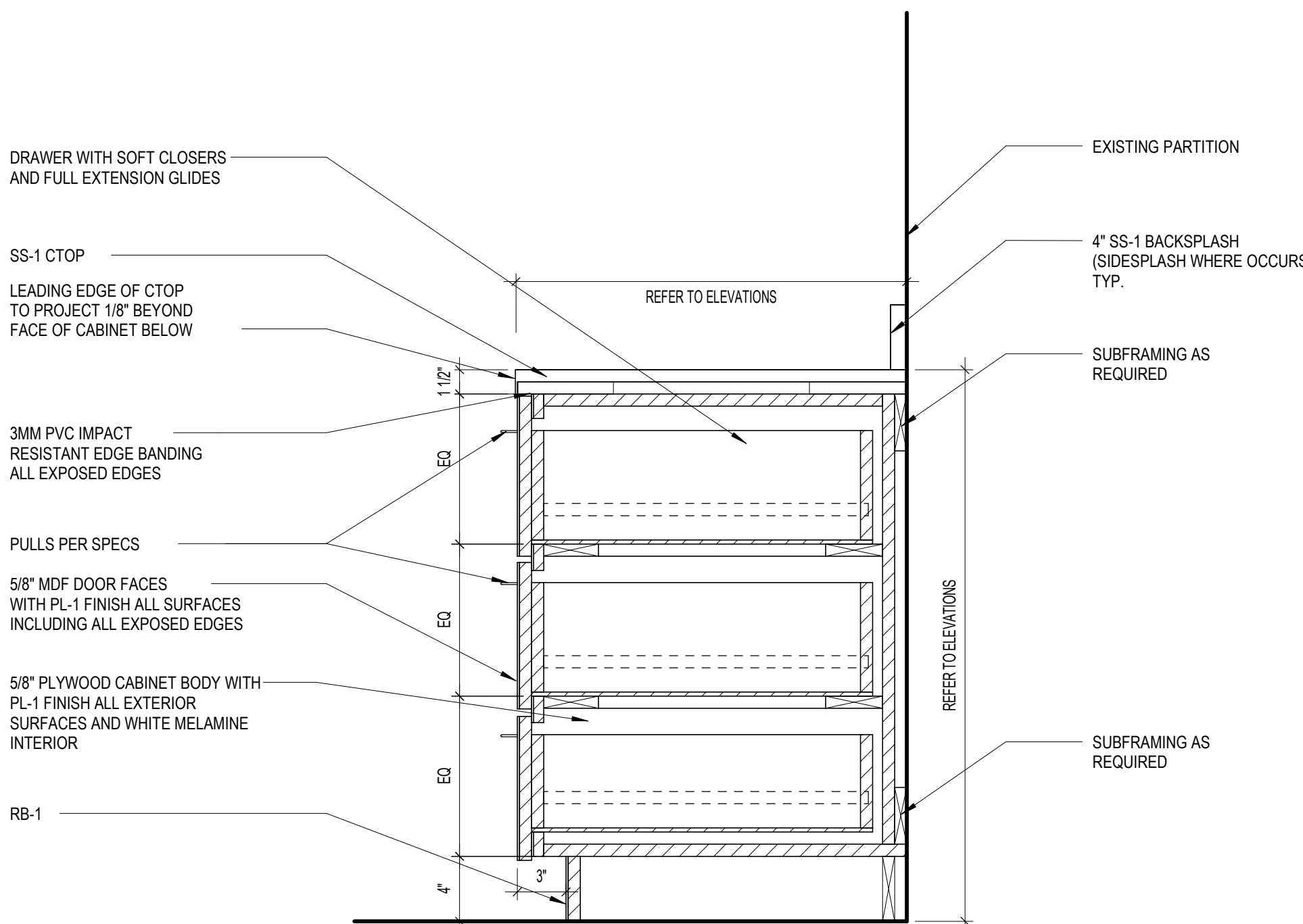
5 SINGLE SLIDE-OUT SHELF
A4-11 1 1/2" = 1'-0"



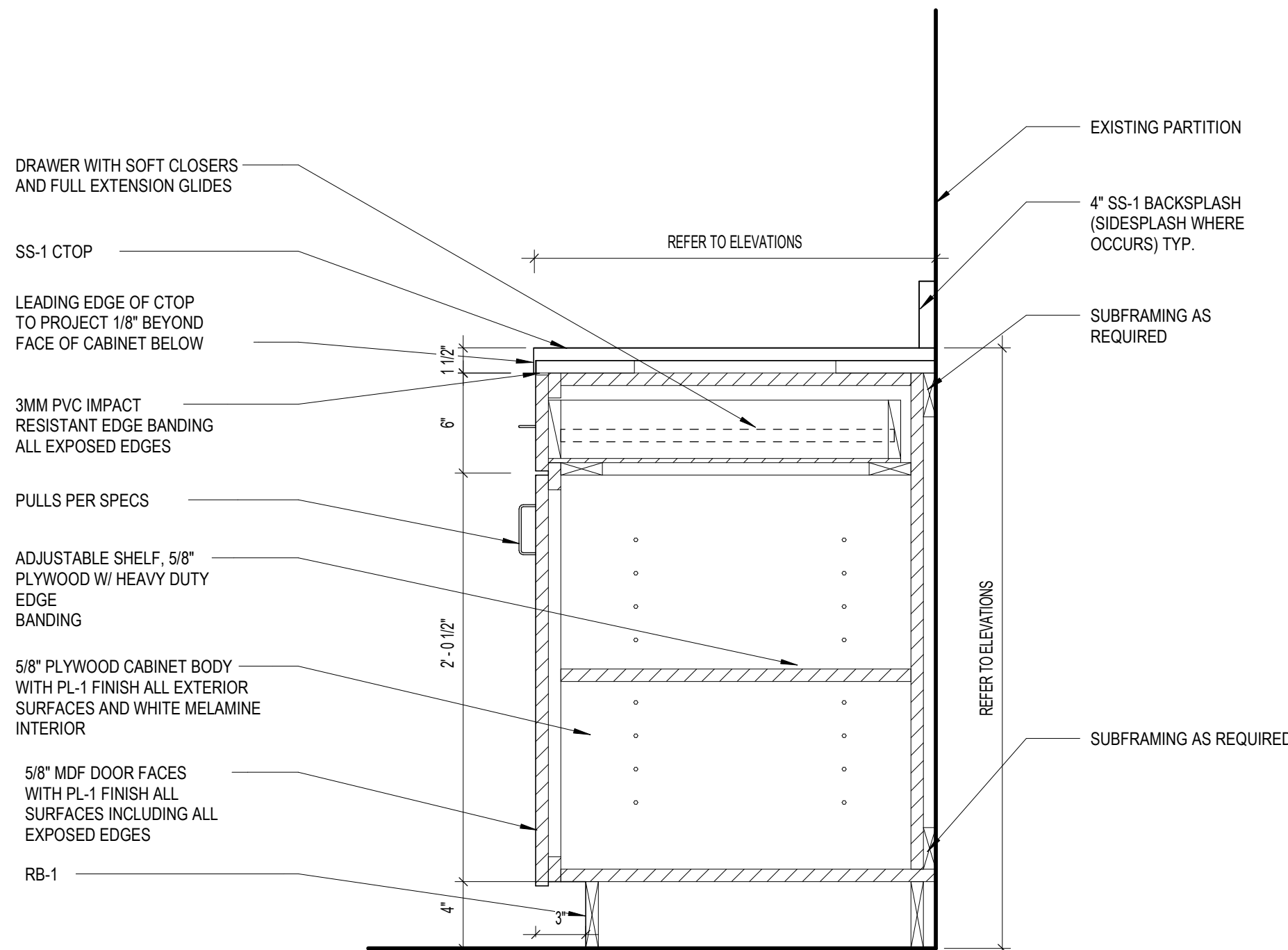
4 TYPICAL SINK BASE CABINET
A4-11 1 1/2" = 1'-0"



3 TYPICAL ADA SINK BASE CABINET
A4-11 1 1/2" = 1'-0"



2 TYPICAL DRAWER BASE
A4-11 1 1/2" = 1'-0"



1 TYPICAL BASE CABINET
A4-11 1 1/2" = 1'-0"

ORANGE COUNTY HELATH DEPARTMENT IMPROVEMENTS
SOUTHERN HUMAN SERVICES HEALTH CLINIC
2501 Homestead Rd, Chapel Hill, NC. 27516
ITB 367-OC5452

ID	DATE	DESCRIPTION
2	04/25/2025	ADDENDUM 2
1	04/18/2025	ADDENDUM 1
DRAWN BY: NB		
CHECKED BY: DW		

CASEWORK
SECTIONS

2024008 10 FEB 2025

A4-11

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THIS DRAWING IS CONSIDERED TO BE PRINTED ON A 3/8" X 4 1/2" SHEET



CONSTRUCTION DOCUMENT

smith
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ARCHITECTURE
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4600 Lake Boone Trail
Suite 205
Raleigh, NC 27607
info@smithsinnett.com

Rev. Addendum 2

SECTION 00 73 00 - SUPPLEMENTARY GENERAL CONDITIONS

The following supplements modify, change, delete from or add to the "General Conditions". Where any article of the General Conditions is modified or any paragraph, subparagraph or clause thereof is modified or deleted by these Supplementary Conditions, the unaltered provisions of that article, paragraph, subparagraph or clause shall remain in effect.

ARTICLE 6 OTHER RECORD DOCUMENTS AND SUBMITTALS

Paragraph 6.2. Submittals

Add the following subparagraphs 6.2.1

- 6.2.1 No submittal involving the selection of a color will be released until all colors are selected and approved by the Owner.

ARTICLE 8 OWNER

Add Paragraph 8.6

- 8.6 Construction Documents are provided as electronic files. The Contractor is responsible for printing hard copies of the Drawings and Project Manuals in the quantities necessary for construction.

ARTICLE 13 CONTRACT TIME

Paragraph 13.1:

Add the following Clauses 13.1.1:

- 13.1.1 The Contract time shall commence on a date to be specified in a written Notice to Proceed from the Architect. Substantial Completion shall be one hundred twenty days (120) calendar days from Notice to Proceed. Final Completion shall occur on or before Thirty (30) calendar days from Substantial Completion.

Notice to Proceed 1 (Submittals/Procurement) - Anticipated June 2nd

Notice to Proceed 2 (Construction) - 4 weeks after NTP 1 (anticipated June 30th)

Substantial Completion – 120 days after NTP 2 (anticipated October 28th)

Note: Whitted Health (building A) and Southern Health Services cannot be out of service at the same time.

Paragraph 13.18 Liquidated Damages:

Add the following Paragraph 13.18.1 and 13.18.2

- 13.18.1 The Contractor and the Contractor's surety's shall be liable for and shall pay the Owner the sum of Five Hundred Dollars (\$500.00), herein stipulated as liquidated damages, for each calendar day of delay until the Work is substantially complete.

Paragraph 13.18.2 Final Completion:

Add the following Paragraph

- 13.18.2 Time for Completion of final inspection items after Substantial Completion shall be thirty (30) Days after final inspection list is received by the Contractor. After thirty (30) days, upon seven (7) days written notice, the Owner shall have the option to correct or conclude any and all final inspection items not completed by the Contractor to the satisfaction of the Architect and the Owner within thirty (30) days from the actual date of substantial completion by utilizing its own forces or hiring others. The cost of correcting such remaining final inspection items by the Owner or others shall be deducted from the final payment to the Contractor.

For each consecutive calendar day that the Work remains incomplete after the date established for Final Completion, the Owner will retain from compensation otherwise to be paid to the Contractor the sum of **Five Hundred Dollars (\$500.00)**. This amount is the minimum measure of damages the Owner will sustain by failure of the Contractor to complete all remedial work, correct deficient work, clean up the project and other miscellaneous tasks as required to complete all work specified. This amount is separate from the liquidated damages prescribed above under paragraph 9.11.

END OF SECTION 00 73 00

Rev. Addendum 2

SECTION 09 67 23 – RESINOUS FLOORING

PART 1 – GENERAL

1.1 SUMMARY

- A. This section includes the following:
 - 1. Urethane-based resinous flooring system.
- B. Related sections include the following:
 - ~~1. Section 03 30 00 "Cast in Place Concrete."~~

1.2 SYSTEM DESCRIPTION

- A. The work shall consist of preparation of the substrate, the furnishing and application of a cementitious urethane and a squeegee-applied resinous flooring system with decorative chip broadcasts and topcoat. The system shall have the color and texture as specified by the Owner with a nominal thickness of 3/16 inch. It shall be applied to the prepared area(s) as defined in the plans strictly in accordance with the Manufacturer's recommendations.
- B. Cove base (if required) to be applied where noted on plans and per Manufacturer's standard details unless otherwise noted.

1.3 ACTION SUBMITTALS

- A. Product Data: Latest edition of Manufacturer's literature including performance data and application procedures.
- B. Submit Manufacturer's certificate of compliance that materials meet specification requirements.
- C. Manufacturer's letter or certificate verifying that Applicator meets the requirements of Paragraph 1.4.B.
- D. Color selection samples. Four 3-inch square samples demonstrating a range of orange peel textures for selection by Owner and Architect.
- E. Manufacturer's Material Safety Data Sheet (MSDS) for each product being used.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data and Instructions

1.5 QUALITY ASSURANCE

- A. The Manufacturer shall have a minimum of 10 years experience in the production, sales, and technical support of urethane industrial flooring and related materials.
- B. The Applicator shall have experience in installation of the flooring system as confirmed by the Manufacturer in all phases of surface preparation and application of the product specified. The specified contractor will be formally accredited by the Manufacturer under Manufacturer's most stringent standard. The Applicator shall furnish a letter stating these credentials.
- C. Substitution requests will be considered only with approval of the Architect.
- D. Acceptance Sample
 - 1. A minimum one-foot square representative sample of the specified flooring system shall be prepared by the Manufacturer's representative and submitted to the Owner at the time of the bid award. Contractor shall inspect the "acceptance sample" before signing contract.
 - 2. The installed flooring system shall be like the acceptance sample in thicknesses of respective film layers, color, texture, overall appearance and finish.
- E. Mock-up. A 25 square foot minimum *in situ* mock-up of resinous flooring application for each texture and color is required to be approved by the Architect and Manufacturer's Representative before proceeding with flooring application. Mock-up location(s) to be chosen by Architect. Mock-up will be evaluated for durability, adhesion, texture, color, cove base with inside and outside corner, and key-ins. Accepted mock-ups may be incorporated into the finished Work.

- F. A pre-installation meeting is required with representatives of Owner, Architect, General Contractor, Applicator, and Manufacturer's Representative in attendance. The agenda shall include a review and clarification of this specification, application procedures, quality control, inspection and acceptance criteria, and production schedules. Applicator is not authorized to proceed until this meeting is held.
- H. Manufacturer's Representative
 - 1. Manufacturer's Representative to approve slab condition and preparation before beginning of resinous flooring application.
 - 2. Manufacturer's Representative to be present for application of mock-up, and to approve application before beginning of resinous flooring application.
 - 3. Manufacturer's Representative to be present for beginning of resinous flooring application.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Material shall be delivered to project site in Manufacturer's original unopened containers bearing Manufacturer's name, product, color, batch number, and storage instructions.
- B. Materials shall be stored indoors, protected from damage, moisture, direct sunlight and temperatures below 60 degrees F or above 90 degrees F, and in accordance with Manufacturer's storage instructions.
- C. Copies of Material Safety Data Sheets (MSDS) for all components shall be kept on site for review by the Engineer or other personnel.
- D. The Applicator shall be provided with adequate disposal facilities for non-hazardous waste generated during installation of the system.

1.7 PROJECT CONDITIONS

- A. Evaluate the substrate condition, including moisture and soluble ion content and extent of substrate leveling and repairs required, if any.
- B. Coordinate flooring work with other trades to ensure adequate illumination, ventilation, and dust free environment during application and curing of flooring.
- C. Comply with material Manufacturer's recommended temperature, moisture, and ventilation requirements for flooring application.
 - 1. Application may proceed while air, material and substrate temperatures are between 60 F and 85 F providing the substrate temperature is above the dew point. Outside of this range, the Manufacturer shall be consulted.
 - 2. The relative humidity in the specific location of the application shall be less than 85 % and the surface temperature shall be at least 5 F above the dew point.
- D. Close spaces to traffic during resinous flooring application and for 24 hours minimum after application or longer if recommended by Manufacturer.
- E. Provide permanent lighting or simulate permanent lighting conditions prior to resinous flooring application.
- F. Safety Requirements
 - 1. All open flames and spark-producing equipment shall be removed from the work area prior to commencement of application.
 - 2. "No Smoking" signs shall be posted at the entrances to the work area.
 - 3. The Owner shall be responsible for the removal of foodstuffs from the work area.
 - 4. Non-related personnel in the work area shall be kept to a minimum.

1.8 CONCRETE SLAB CONDITION

- A. Concrete must have a curing period to reach 4000 psi compressive strength and 0.45 maximum water/cement ratio. The surface must be clean and dry, physically sound and free of contamination. Surfaces must be free of holes, voids or defects. Cracks and abrupt changes in surface profile must be corrected. Fins and projections must be removed. All curing compounds and sealers must be removed.
- B. Testing by Manufacturer:
 - 1. Moisture testing: Verify that concrete substrates are dry and moisture-vapor emissions are within acceptable levels according to Manufacturer's written instructions. Proceed with application only after substrates pass testing.

2. Alkalinity and adhesion testing: Verify that concrete substrates have pH within acceptable range. Perform tests recommended by Manufacturer. Proceed with application only after substrates pass testing.
3. Core analysis testing: Perform core testing for presence of soluble ion levels as recommended by Manufacturer on slabs older than one year old or on newer slabs containing curing compounds, hardeners and/or densifiers. Proceed with application only after substrates pass testing.
4. Contractor must report, in writing, surfaces in improper condition. Application will constitute acceptance of surfaces by the Applicator.

1.9 WARRANTY

- A. Manufacturer's standard warranty.

PART 2 – PRODUCTS

2.1 FLOORING

- A. Self-leveling, decorative chip broadcast, cementitious urethane/blended polymer or polyaspartic seamless flooring system, 3/16" nominal thickness.
- B. System Materials
 - a. Topping coat (may be first broadcast coat): 100% solids cementitious urethane
 - b. Broadcast aggregate: Micro- or macro-sized chip aggregate or vinyl flakes.
 - c. Broadcast coat (may be second broadcast coat): UV-resistant epoxy
 - d. Groutcoat: Urethane resin and hardener, polyaspartic resin and hardener, or UV-resistant epoxy
 - e. Final topcoat: Urethane resin and hardener or polyaspartic resin and hardener.
 2. Patch Materials
 - a. Shallow Fill and Patching: Per Manufacturer's recommendations.
 - b. Deep fill and sloping material (over 1/4-inch): Per Manufacturer's recommendations.
 3. Cove base
 - a. Cove radius: Per Manufacturer's recommendations
 - b. Topping: UV-resistant epoxy per Manufacturer's recommendations.
 - c. Broadcast aggregate: To match floor.
 - d. Broadcast coat: UV-resistant epoxy per Manufacturer's recommendations.
 - e. Groutcoat: UV-resistant epoxy per Manufacturer's recommendations.
 - f. Final topcoat: Urethane resin and hardener or polyaspartic resin and hardener to match floor.
 - g. Termination trim: Manufacturer's standard 1/8-inch thick plastic cove strip as indicated on the Drawings.

2.2 MANUFACTURER

- A. Manufacturer of approved system shall be single source.
- B. Approved systems. Substitution requests will be considered for similar systems of equal quality under the requirements of Section 01 25 00 "Substitution Procedures."
 1. Dexotex Tekcrete SLB (Basis of Design)
 2. Duraflex SLB System
 3. Carbolite/Dudick SL2
 6. Or equal

2.3 PRODUCT REQUIREMENTS

- A. Topping
 1. Percent Reactive: 100 %
 2. VOC: 0 g/L
 3. Bond Strength to Concrete (ASTM D4541): 400 psi (substrate fails at 400 psi).
 4. Compressive Strength (ASTM C579): 9,000 psi

5. Tensile Strength, (ASTM D638): 2,175 psi
6. Flexural Strength (ASTM D790): 5,076 psi
7. Impact Resistance @ 125 mils (MIL D-3134): 160 inch-lbs

B. Broadcast coat

1. Percent Reactive: 100 %
2. VOC: 0 g/L
3. Viscosity at 70 degrees F: 700cps
4. Compressive Strength (ASTM D695): 11,200 psi
5. Tensile Strength, (ASTM D638): 2,100 psi
6. Flexural Strength (ASTM D790): 5,100 psi
7. Hardness, Shore D (ASTM D2240): 80-85
8. Bond strength to concrete (ACI-40): 400 psi (substrate fails at 400 psi).
9. Abrasion Resistance (ASTM D-4060): 35 mg loss (C-17 Wheel, 1,000 gm load, 1,000 cycles)
10. Pot life at 70 degrees F: 35 minutes.

C. Groutcoat

1. Percent Solids: 100 %
2. VOC: 33 g/L
3. Bond Strength to Concrete (ASTM D4541): 400 psi (substrates fails at 400 psi).
4. Hardness (Shore D ASTM D2240): 70
5. Compressive Strength (ASTM D695): 11,200 psi
6. Tensile Strength (ASTM D638): 2,100 psi
7. Abrasion Resistance (ASTM D4060, C-17 Wheel, 1,000 gm load, 1,000 cycles): 27 mg loss
8. Pot life at 70 degrees F: 7 – 10 minutes

D. Final topcoat

1. Percent Solids: 100 %
2. VOC: 33 g/L
3. Bond Strength to Concrete (ASTM D4541): 400 psi (substrates fails at 400 psi).
4. Hardness (Shore D ASTM D2240): 70
5. Compressive Strength (ASTM C579): 18,000 psi
6. Tensile Strength (ASTM D638): 2,600 psi
7. Abrasion Resistance (ASTM D4060, C-17 Wheel, 1,000 gm load, 1,000 cycles): 27 mg loss
8. Pot life at 70 degrees F: 7 – 10 minutes
9. Gloss (ASTM D523) 60°: 90
10. Texture: As selected by Owner and Architect. Additional topcoat and texture additives as needed.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas and conditions, with Applicator present, for compliance with requirements for maximum moisture and soluble ion content, installation tolerances and other conditions affecting flooring performance. Verify that substrates and conditions are satisfactory for flooring application and comply with requirements specified.
- B. Contractor must report, in writing, surfaces left in improper condition by other trades. Application will constitute acceptance of surfaces by the Applicator.
- C. Do not proceed with application until the surface is accepted by the Manufacturer and authorization to proceed is given by the Architect.

3.2 PREPARATION

A. General

1. New and existing concrete surfaces shall be free of oil, grease, curing compounds, loose particles, moss, algae growth, laitance, friable matter, dirt, and bituminous products.

2. Moisture Testing: Perform tests recommended by Manufacturer and as follows.
 - a. Perform anhydrous calcium chloride test ASTM F1869-98. Application will proceed only when the vapor/moisture emission rates from the slab is less than and not higher than 20 lbs/1,000 sf/24 hrs.
 - b. Perform relative humidity test using in situ probes, ASTM F2170. Proceed with application only after substrates have a maximum 99% relative humidity level measurement.
 - c. If the vapor drive exceeds 99% relative humidity or 20 lbs/1,000 sf/24 hours then the Architect shall be notified and advised of additional cost for the possible installation of a vapor mitigation system that has been approved by the Manufacturer or other means to lower the value to the acceptable limit.
3. Cracks greater than 1/8-inch wide are to be chiseled or chipped-out and repaired per Manufacturer's recommendations.
4. All control joints shall pre-filled with Manufacturer's recommended product.
5. All expansion joints shall be pre-filled with sand and their location marked. Cut open after completion of floor and filled with Manufacturer's recommended joint filler.
6. There shall be no visible moisture present on the surface at the time of application of the system.
7. Mechanical surface preparation
 - a. Shot blast all surfaces to receive flooring system with a mobile steel shot, dust recycling machine (Blastrac or equal). All surface and embedded accumulations of paint, toppings hardened concrete layers, laitance, power trowel finishes and other similar surface characteristics shall be completely removed leaving a bare concrete surface having a profile of CSP greater than or equal to 3.0 and less than or equal to 4.0, as described by the International Concrete Repair Institute.
 - b. Floor areas inaccessible to the mobile blast machines shall be mechanically abraded to the same degree of cleanliness, soundness and profile using diamond grinders, needle guns, bush hammers, or other suitable equipment.
 - c. Cracks and joints (non-moving) greater than 1/8-inch wide are to be chiseled or chipped out and repaired per Manufacturer's recommendations.
8. At spalled or worn areas, mechanically remove loose or delaminated concrete to a sound concrete and patch per Manufacturer's recommendations.
9. Slab mitigation for excessive soluble ion levels: Shot blast all surfaces to receive flooring to level determined by Manufacturer to have acceptable levels of soluble ions.

3.3 APPLICATION

A. General

1. The system shall be applied in five distinct steps as listed below:
 - a. Substrate preparation
 - d. Topping application
 - e. Resin application with decorative chip broadcast
 - f. Groutcoat application
 - g. Final topcoat application
2. Immediately prior to the application of any component of the system, the surface shall be dry, and any remaining dust or loose particles shall be removed using a vacuum or clean, dry, oil-free compressed air.
3. The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results in accordance with the Manufacturer's recommendations.
4. The system shall follow the contour of the substrate unless pitching or other leveling work has been specified by the Architect.
5. A neat finish with clean boundaries and straight edges shall be provided by the Applicator.
6. Provide minimum 1/4-inch termination keyways as required by Manufacturer at the following locations, and as indicated on the Drawings:
 - a. At floor drains.
 - b. At locations where resinous flooring terminates and abuts another flooring.
 - c. Into masonry wall mortar joints at the top of cove bases.

- d. At other locations indicated on the Drawings.
- B. Topping
 1. The topping shall be applied as a self-leveling system as specified by the Architect. The topping shall be applied in one lift with a nominal thickness of 1/8 inch.
 2. The topping shall be comprised of the product described above and includes three components: a resin, hardener, and aggregate as supplied by the Manufacturer.
 3. The topping shall be mixed and applied per Application Instructions (AI).
- C. Broadcast coat
 1. The broadcast coat shall be comprised of the product described above.
 2. The broadcast coat shall be mixed and applied per AI.
 3. The broadcast coat shall be applied over horizontal surfaces using a squeegee and cross rolled with a 3/8-inch nap roller at the rate recommended by Manufacturer.
 4. Chip aggregate or vinyl flake shall be broadcast to excess into the wet resin at the rate recommended by the Manufacturer.
 5. Allow material to fully cure. Scrape floor to remove excess flake and “shave” flake that sits vertically. Vacuum, sweep and/or blow to remove all loose aggregate.
- D. Groutcoat
 1. The groutcoat shall be comprised of the product described mixed per the Manufacturer’s instructions.
 2. The groutcoat shall be applied using a squeegee and cross rolled with a 3/8-inch nap roller at the rate recommended by the Manufacturer.
- E. Final topcoat
 1. The topcoat shall be comprised of the product described mixed per the Manufacturer’s instructions.
 2. The topcoat shall be applied using a squeegee and cross rolled with a 3/8-inch nap roller at the rate recommended by Manufacturer.
- F. Cove base
 1. Apply cove base between flooring broadcast layers or after single broadcast layer.
 2. Apply layers at the rate recommended by Manufacturer.
 3. Apply topcoat simultaneously with floor topcoat at the rate recommended by Manufacturer.
 4. Height: As indicated on the Drawings.
- G. Expansion joints
 1. Sawcut resinous flooring at expansion joints.
 2. Fill with sand to 1/4-inch below level of finished floor.
 3. Install backer rod and sealant in accordance with Section 07 90 00 “Joint Sealants.”

3.4 FIELD QUALITY CONTROL

- A. Tests, Inspection
 1. The following tests shall be conducted by the Applicator:
 - a. Temperature: Air and substrate temperatures and, if applicable, dew point.
 - b. Coverage Rates: Rates for all layers shall be monitored by checking quantity of material used against the area covered.

3.5 CLEANING AND PROTECTION

- A. Cure flooring material in compliance with Manufacturer’s directions, taking care to prevent their contamination during stages of application and prior to completion of the curing process.
- B. Remove masking. Perform detail cleaning at floor termination, to leave cleanable surface for subsequent work of other sections.

END OF SECTION 09 67 23