

Addendum #1



People. Partnership. Performance.

P.O. Box 1837
Tacoma, WA 98401-1837
www.portoftacoma.com

August 10, 2015

TO: **PLANHOLDERS**

SUBJECT: 401 ALEXANDER BUILDING 9407 ROOF REPLACEMENT AND BUILDING
UPGRADES
MASTER ID 091362 | CONTRACT NO. 070129

ADDENDUM NUMBER ONE

This addendum is issued to amend the following:

SPECIFICATIONS

A. SECTION 00 43 13 – BID SECURITY FORM

1. **REPLACE** Section with corrected Bid Security Form

B. SECTION 07 21 00 – BUILDING INSULATION

1. **ADD** Section 07 21 00 to the Contract Documents

C. SECTION 32 17 13 – WHEELSTOPS

1. **ADD** Section 32 17 13 to the Contract Documents

DRAWINGS

A. DRAWING A2.11 – FLOORPLAN – AREA A

1. **REPLACE** with new Drawing A2.11

B. DRAWING A2.12 – FLOORPLAN – AREA B

1. **REPLACE** with new Drawing A2.12

C. DRAWING A6.01 – ROOFPLAN – OVERALL

1. **REPLACE** with new Drawing A6.01

D. DRAWING A6.11 – ROOFPLAN – AREA A

1. **REPLACE** with new Drawing A6.11

E. DRAWING A6.12 – ROOFPLAN – AREA B

1. **REPLACE** with new Drawing A6.12

F. DRAWING A6.13 – ROOFPLAN – AREA C

1. **REPLACE** with new Drawing A6.13

G. DRAWING A6.51 – DETAILS

1. **REPLACE** with new Drawing A6.51

H. DRAWING S8.01 – DETAILS

1. **REPLACE** with new Drawing S8.01

SUBSTITUTION REQUESTS

A. SECTION 07 52 00 – MODIFIED BITUMEN ROOFING SYSTEM

1. Section 2.01A - **ADD** “4. CertainTeed Corporation is approved as noted in Substitution request”

B. SECTION 07 52 00 – MODIFIED BITUMEN ROOFING SYSTEM

1. Section 2.01A - Malarkey M2 – XTT- T Roof System is rejected as noted in Substitution request.

Receipt for this addendum shall be indicated in the space provided in Section 00 41 43, Bid Form.

END OF SECTION

ATTACHMENT A – SECTION 00 43 13 – BID SECURITY FORM

ATTACHMENT B – SECTION 07 21 00 – BUILDING INSULATION

ATTACHMENT C – SECTION 32 17 13 – WHEELSTOPS

ATTACHMENT D – DRAWING A2.11 – FLOORPLAN – AREA A

ATTACHMENT E – DRAWING A2.12 – FLOORPLAN – AREA B

ATTACHMENT F – DRAWING A6.01 – ROOFPLAN – OVERALL

ATTACHMENT G – DRAWING A6.11 – ROOFPLAN – AREA A

ATTACHMENT H – DRAWING A6.12 – ROOFPLAN – AREA B

ATTACHMENT J – DRAWING A6.13 – ROOFPLAN – AREA C

ATTACHMENT K – DRAWING A6.51 – DETAILS

ATTACHMENT L – DRAWING S8.01 – WOOD DETAILS

ATTACHMENT M – SUBSTITUTION REQUEST – CERTAINTIED

ATTACHMENT N – SUBSTITUTION REQUEST – MALARKEY

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as Principal, and _____, as Surety, are held and firmly bound unto the PORT OF TACOMA as Obligee, in the penal sum of _____ Dollars, for the payment of which the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigned, jointly and severally, by these present.

The condition of this obligation is such that if the Obligee shall make any award to the Principal for 401 Alexander Building 9407 Roof Replacement and Building Upgrades according to the terms of the proposal or bid made by the Principal therefor, and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and award and shall give bond for the faithful performance thereof, with Surety or Sureties approved by the Obligee; or, if the principal shall, in case of failure to do so, pay and forfeit to the Obligee the penal amount of the deposit specified in the call for bids, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect and the Surety shall forthwith pay and forfeit to the Obligee, as penalty and liquidated damages, the amount of this bond.

SIGNED, SEALED AND DATED THIS _____ day of _____, 20____

BY _____
Principal

BY _____
Surety

Agent and Address

Note: Bidder may submit Surety's bid bond form, provided it is similar in substance, made out in the name of the Port of Tacoma, and that the agent's name and address appear as specified. Bonds containing riders limiting responsibility for toxic waste or limiting the term of responsibility will be rejected.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of contract, including Divisions 0 and 1 Specification Sections, apply to work of this section.

1.02 SECTION INCLUDES

- A. Batt Insulation Materials

1.03 REFERENCES

- A. References shall be the latest adopted edition.
 - 1. American Society for Testing and Materials (ASTM):
 - a. ASTM C665 – Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.

1.04 SUBMITTALS

- A. Refer to Division 1 for submittal procedures.
- B. Product Data: Submit manufacturers' data sheet for each product specified.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.
- B. Do not install interior building insulation until after roof is on, building is dried in and building interior is thoroughly dried out.

PART 2 - PRODUCTS

2.01 BATT INSULATION MATERIALS

- A. Thermal Blanket Insulation: Fiberglass blanket insulation conforming to ASTM C665; provide in largest size available for least number of joints.
 - 1. Attachment: Impaling clip of galvanized steel wire attached to sheet metal perforated base; with large diameter washer retainer painted white, to be adhered to surface to receive insulation, length to suit insulation thickness and substrate, capable of securely and rigidly fastening insulation in place.
 - 2. Protective Facing Sheet: Lamtec WMP-50, factory perforated to allow vapor transmission through the sheet, constructed with white polypropylene film, fiberglass and polyester scrim, 30# natural kraft paper and metallized polyester film. Facing may be either bonded to insulation or installed separate from the insulation, installer's choice.
 - a. Tape: Provide matching white tape manufactured or recommended by Lamtec for use with their facing for permanent field joining of all joints.

2.02 ACCESSORIES

- A. Stick Pin Insulation Fasteners: Impaling clip of galvanized steel wire attached to sheet metal perforated base; with large diameter washer retainer painted white, to be adhered to surface to receive insulation, length to suit insulation thickness and substrate, capable of securely and rigidly fastening insulation in place.
- B. Adhesive: Low VOC adhesive recommended by manufacturer for application.

PART 3 - EXECUTION

3.01 COORDINATION

- A. Review, coordinate and accommodate work of other trades that interface with, affect or are affected by the work of this section so as to facilitate the execution of the overall Work of this project in a coordinated and efficient manner.

3.02 INSTALLATION – THERMAL BLANKET INSULATION

- A. Install stick pin insulation fasteners securely to roof structure, space fasteners at no more than 24 - 30 inches on center each way or as required to support insulation properly up tight to roof structure free of sagging or displacement; allow adhesive to obtain full bond strength before proceeding with insulation installation.
- B. Install blanket insulation in accordance with manufacturer's instructions impaled onto stick pins, fit joints between blankets tight.
- C. Insulation shall cover entire area free of void or gaps.
- D. Install protective facing sheet continuously over insulation in largest sheets possible with minimum number of joints; impale facing onto stick pins and secure in place with large washer, lap joints 4 inches minimum.
- E. Set washers on stick pins at the same elevation so that bottom of insulation is a relatively flat plane, free of dips and hollows and having uniform appearance.
- F. Continuously tape joints in protective facing sheet full length; tape installation shall be neat and free of wrinkles, folds or irregularities in appearance.
- G. Cut off excess length of stick pins just below the washer.

3.03 PROTECTION OF FINISHED WORK

- A. Do not permit installed insulation to be damaged prior to its concealment.

3.04 FIELD QUALITY CONTROL

- A. Contractor Quality Control: Employ / assign quality control personnel to monitor the work of this section for conformance to the requirements of this section and to good construction practices.
 - 1. Contractor is solely responsible for managing and controlling the quality of the work and conformance with the requirements of this section.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of contract, including Divisions 0 and 1 Specification Sections, apply to work of this section.

1.02 SECTION INCLUDES

- A. Precast Concrete Wheelstops

1.03 REFERENCES

- A. References shall be the latest adopted edition.
 - 1. American Society for Testing and Materials (ASTM):
 - a. ASTM A615 – Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
 - b. ASTM C33 – Standard Specification for Concrete Aggregates.
 - c. ASTM C150 – Standard Specification for Portland Cement.
 - d. ASTM C260 – Standard Specification for Air-Entraining Admixtures for Concrete.
 - 2. Washington State Department of Transportation (WSDOT):
 - a. WSDOT Specification: Standard Specification for Road, Bridge, and Municipal Construction, prepared by the Washington State Department of Transportation. (Delete Measurement and Payment Provisions).
 - b. WSDOT Standard Plans for Road and Bridge and Municipal Construction: Standard plans prepared by the Washington State Department of Transportation.

1.04 SUBMITTALS

- A. Refer to Division 1 for submittal procedures.
- B. Product Data: Submit manufacturer's product data.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Wheelstop Parking Bumpers: Precast concrete, conforming to the following:
 - 1. Nominal Size: 6 inches high, 8 - 10 inches wide, 6 feet long.
 - 2. Profile: WSDOT/APWA Precast Cement Concrete Bumper Curb Standard Plan F-1.
 - 3. Cement: ASTM C150, Portland Type I - Normal; gray color.
 - 4. Concrete Materials: ASTM C33; water and sand.
 - 5. Reinforcing Steel: ASTM A615, deformed steel bars; unfinished, strength and size commensurate with precast unit design.
 - 6. Air Entrainment Admixture: ASTM C260.
 - 7. Concrete Mix: Minimum 4000 psi, 28 day strength, air entrained to 5 to 7 percent.
 - 8. Use rigid molds, constructed to maintain precast units uniform in shape, size and finish. Maintain consistent quality during manufacture.

9. Embed reinforcing steel in concrete.
 10. Cure units to develop concrete quality, and to minimize appearance blemishes such as non-uniformity, staining, or surface cracking.
 11. Minor patching in plant is acceptable, providing appearance of units is not impaired.
- B. Attachment:
1. Dowels: #6 reinforcing steel bar; 30 inches long.

PART 3 - EXECUTION

3.01 COORDINATION

- A. Review, coordinate and accommodate work of other trades that interface with, affect or are affected by the work of this section so as to facilitate the execution of the overall Work of this project in a coordinated and efficient manner.

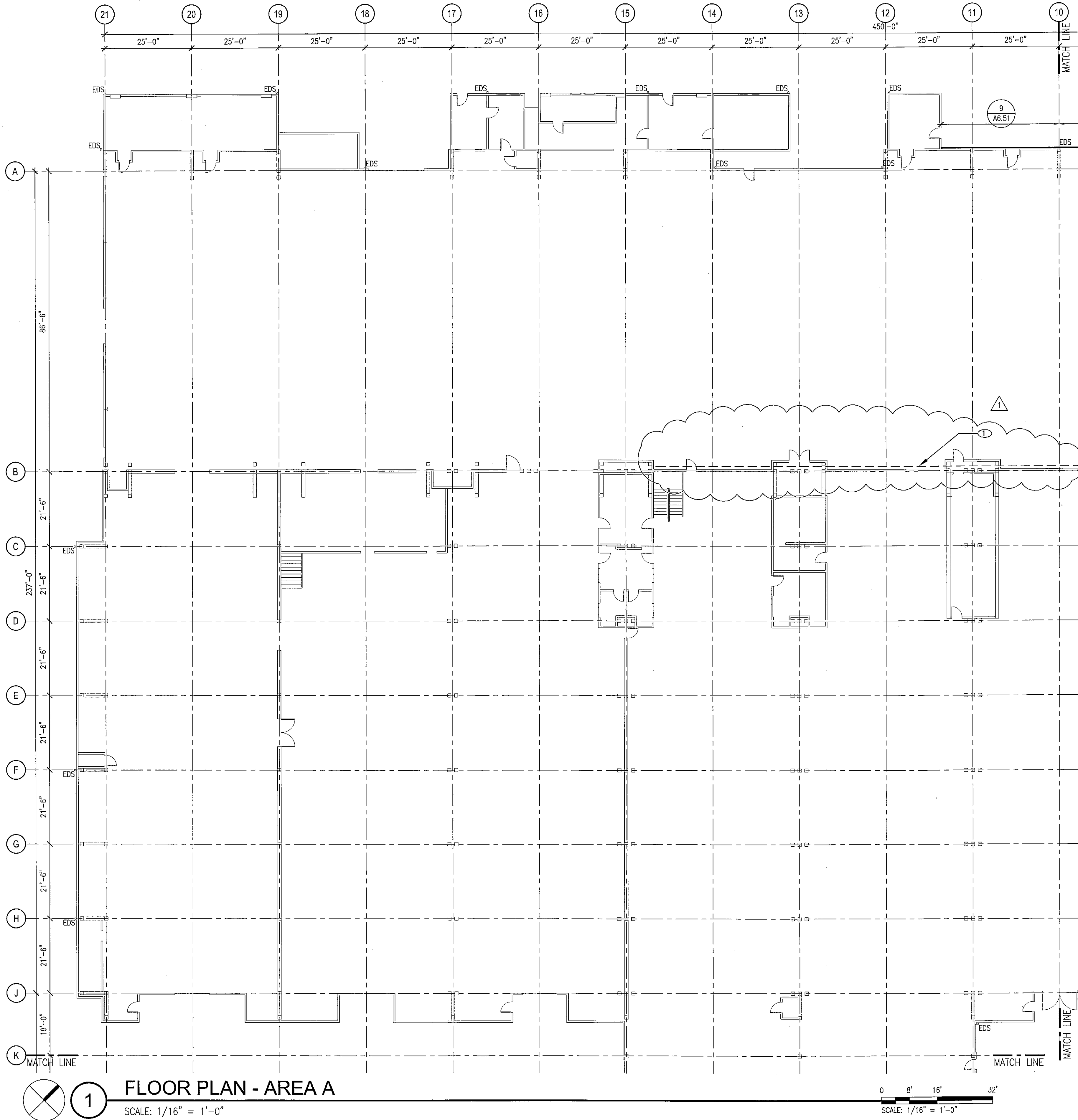
3.02 INSTALLATION

- A. Install units in locations noted on the Drawings without damage to shape or finish. Replace or repair damaged units.
- B. Install units in straight or square alignment with adjacent work.
- C. Secure curbs in the proper location as follows:
 1. Asphalt Pavement: Drive reinforcing steel dowel through holes cast in curb into pavement and subgrade below; top of dowel shall be driven flush with top of curb.

3.03 FIELD QUALITY CONTROL

- A. Contractor Quality Control: Employ / assign quality control personnel to monitor the work of this section for conformance to the requirements of this section and to good construction practices.
 1. Contractor is solely responsible for managing and controlling the quality of the work and conformance with the requirements of this section.

END OF SECTION



1 FLOOR PLAN - AREA A
SCALE: 1/16" = 1'-0"

FLOOR PLAN LEGEND:

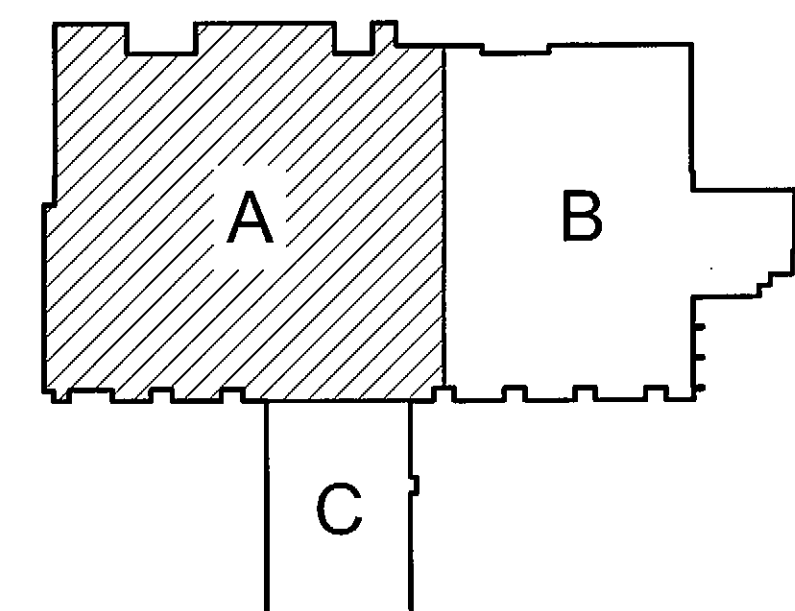
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- EXISTING SWING/OVERHEAD DOOR
- EXISTING WINDOW
- EXISTING WOOD/STEEL COLUMN
- EXISTING WOOD BUTTRESS
- EXISTING DOWNSPOUT
- EXISTING BUILDING NOT IN SCOPE
- REMOVE WATER DAMAGED BATT INSULATION AT UPPER WALL AT GRID B

FLOOR PLAN GENERAL NOTES:

- BUILDING TO REMAIN OCCUPIED DURING SCOPE OF WORK. COORDINATE SCHEDULE WITH ENGINEER TO ENSURE MINIMAL DISRUPTION OF TENANT OPERATIONS.
- REFER TO STRUCTURAL DRAWINGS FOR EXTENT OF WORK TO EXISTING STRUCTURE.

KEYPLAN

SCALE: NTS



6547

A2.11

SHEET 4 OF 24

CONTRACT/CONS: 070129

M. ID: 091362

PHASE: 100% SET

401 ALEXANDER BUILDING 9407 ROOF REPLACEMENT AND BUILDING UPGRADES

FLOOR PLAN - AREA A

TOWNSHIP: 21

RANGE: 03

SECTION: 27

DATE-HRZ: --

VERT: --

PARCEL: 5000350013

DRAWING SCALE: AS NOTED

APPROVED: *[Signature]*

8-11-15

DIRECTOR ENG. DATE

PRINTED BY: mirantz Aug 07, 2015

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98421

RTV 07.17.15

CHECKED BY DATE

PROJ. ENGR DATE

BCRA

Port of Tacoma

2109 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

TEL: 253.627.4367 FAX: 253.627.4386 WWW.BCRADESIGN.COM

6129

REGISTERED ARCHITECT

[Signature]

JAMES T. WOLCH

STATE OF WASHINGTON

MARK: /

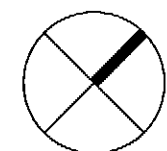
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BY: -

DATE: 8-11-15

APPR: -

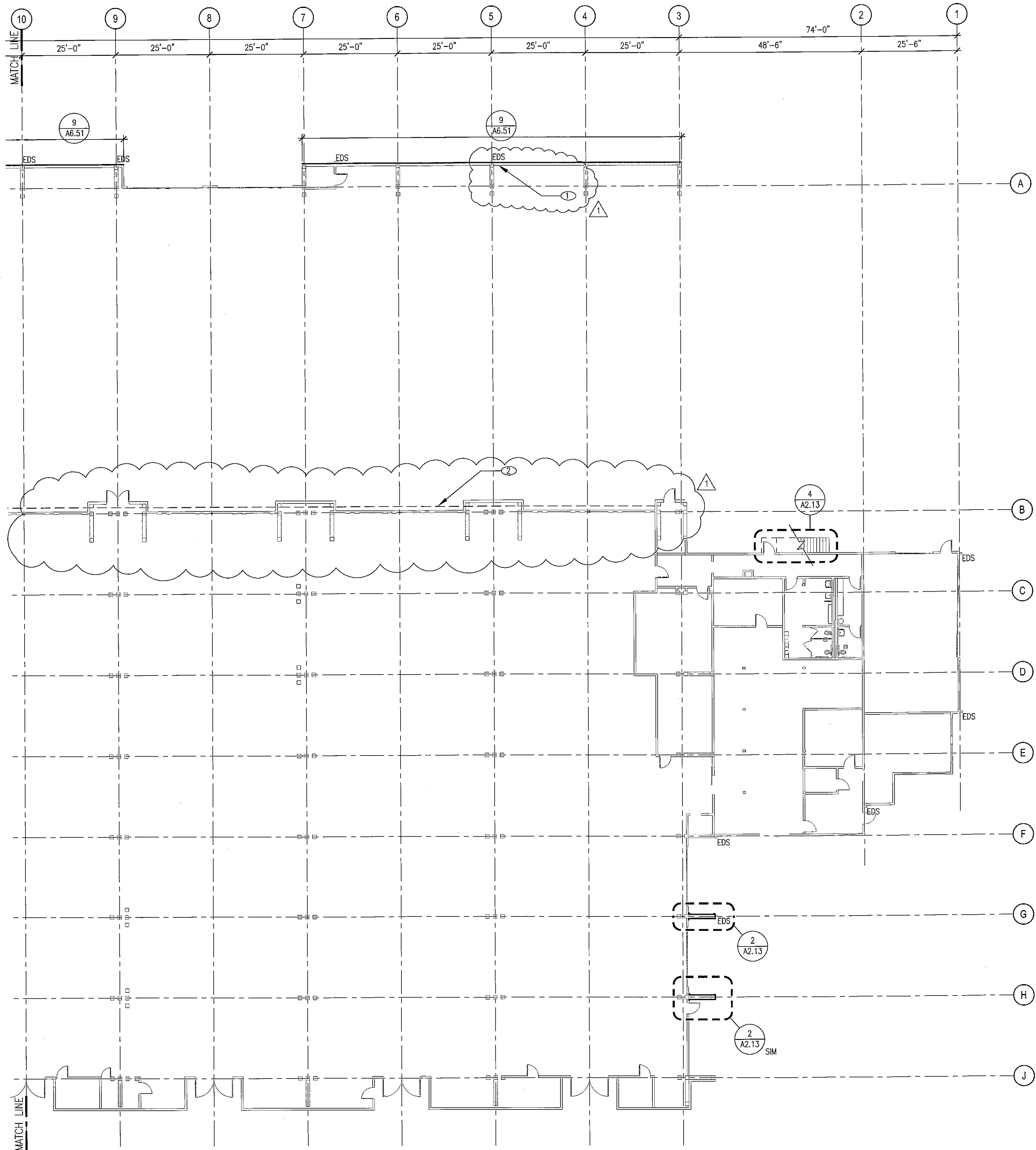
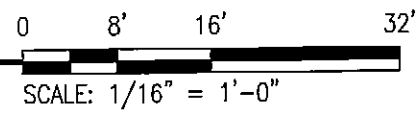
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1

FLOOR PLAN - AREA B

SCALE: 1/16" = 1'-0"



FLOOR PLAN LEGEND:

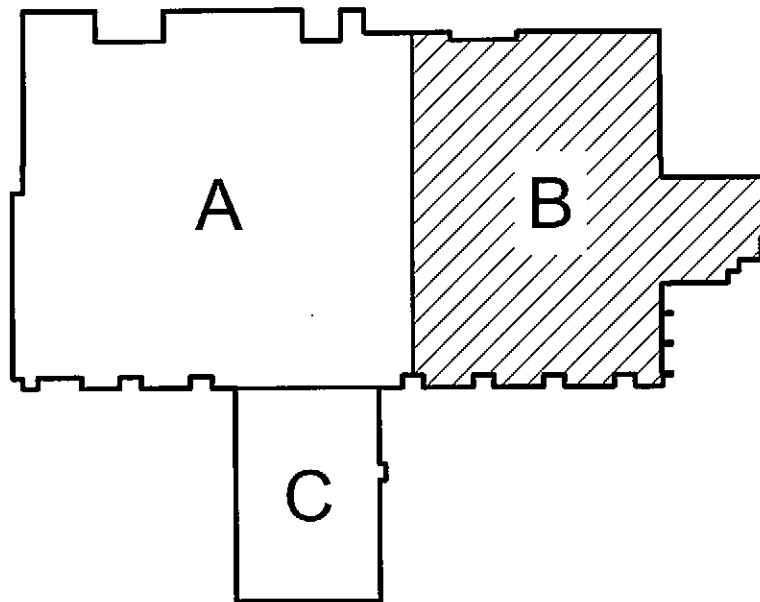
- EXISTING WALL
- EXISTING SWING/OVERHEAD DOOR
- EXISTING WINDOW
- EXISTING WOOD/STEEL COLUMN
- EXISTING WOOD BUTTRESS
- EXISTING DOWNSPOUT
- EXISTING BUILDING NOT IN SCOPE
- REMOVE & REPLACE METAL SIDING TO CLEAR NEW WORK AT BUTTRESS REPAIR
- REMOVE WATER DAMAGED BATT INSULATION AT UPPER WALL AT GRID B

FLOOR PLAN GENERAL NOTES:

- BUILDING TO REMAIN OCCUPIED DURING SCOPE OF WORK. COORDINATE SCHEDULE WITH ENGINEER TO ENSURE MINIMAL DISRUPTION OF TENANT OPERATIONS.
- REFER TO STRUCTURAL DRAWINGS FOR EXTENT OF WORK TO EXISTING STRUCTURE.

KEYPLAN

SCALE: NTS



6547

A2.12

SHEET 5 OF 24

CONT./CONS: 070129

M. ID: 091362

PHASE: 100% SET

401 ALEXANDER BUILDING 9407 ROOF REPLACEMENT AND BUILDING UPGRADES

FLOOR PLAN - AREA B

TOWNSHIP: 21

DAT-HRZ: --

PARCEL: 5000350013

DIRECTOR ENG. DATE

PRINTED BY: mfrantz Aug 07, 2015

PORT ADDRESS: ONE SITCUM PLAZA

APPROVED: 8-11-15

CHECKED BY: DATE

PROJ. ENGR DATE

6129 REGISTERED ARCHITECT

JAMES T. WOLCH

STATE OF WASHINGTON

BCRA

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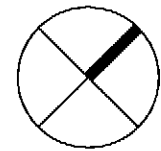
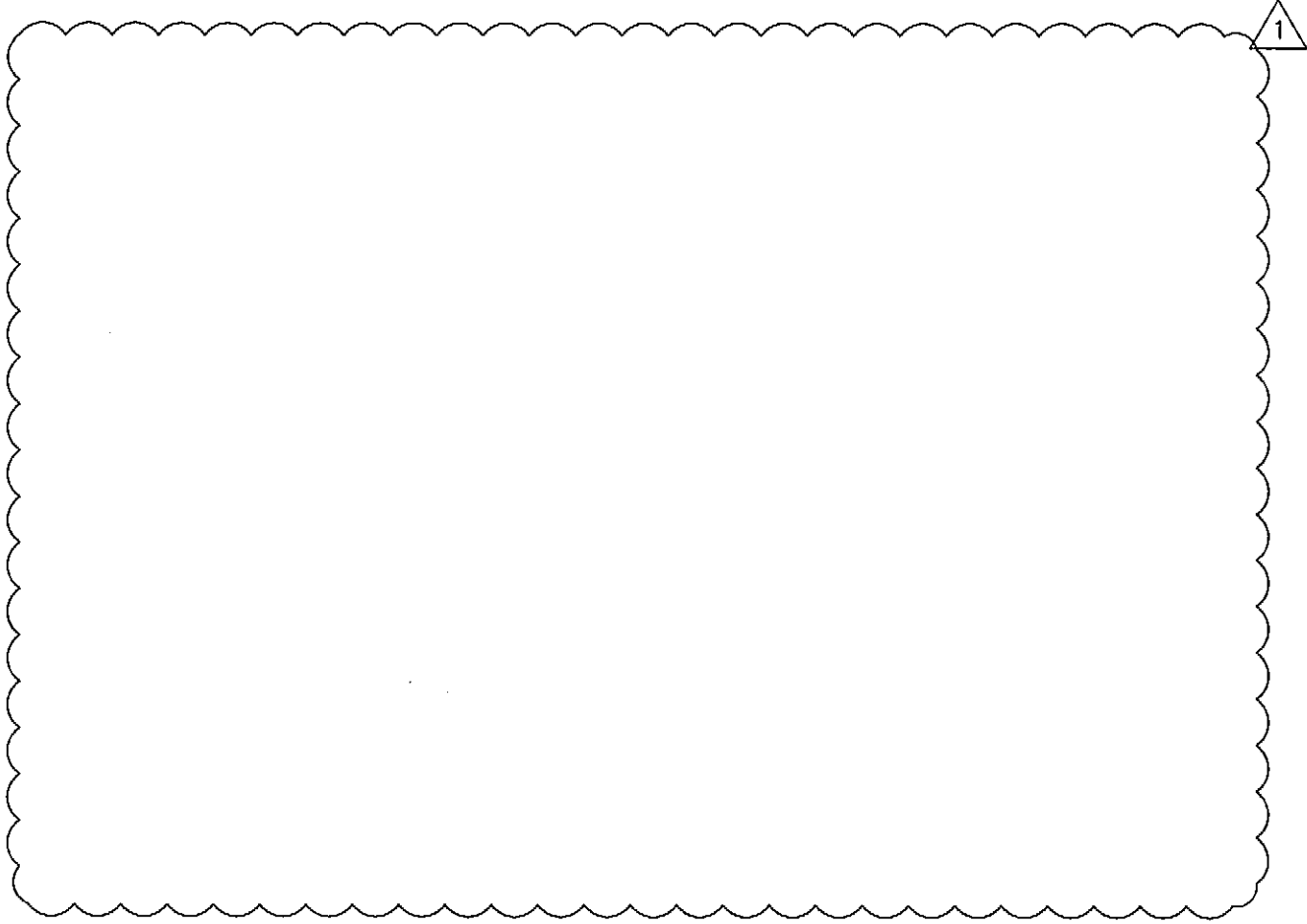
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

MARK: REVISION: BY: DATE: APPR: 8-11-15

ADDENDUM 1

Port of Tacoma

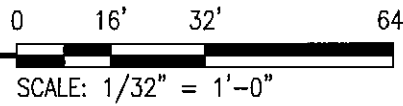
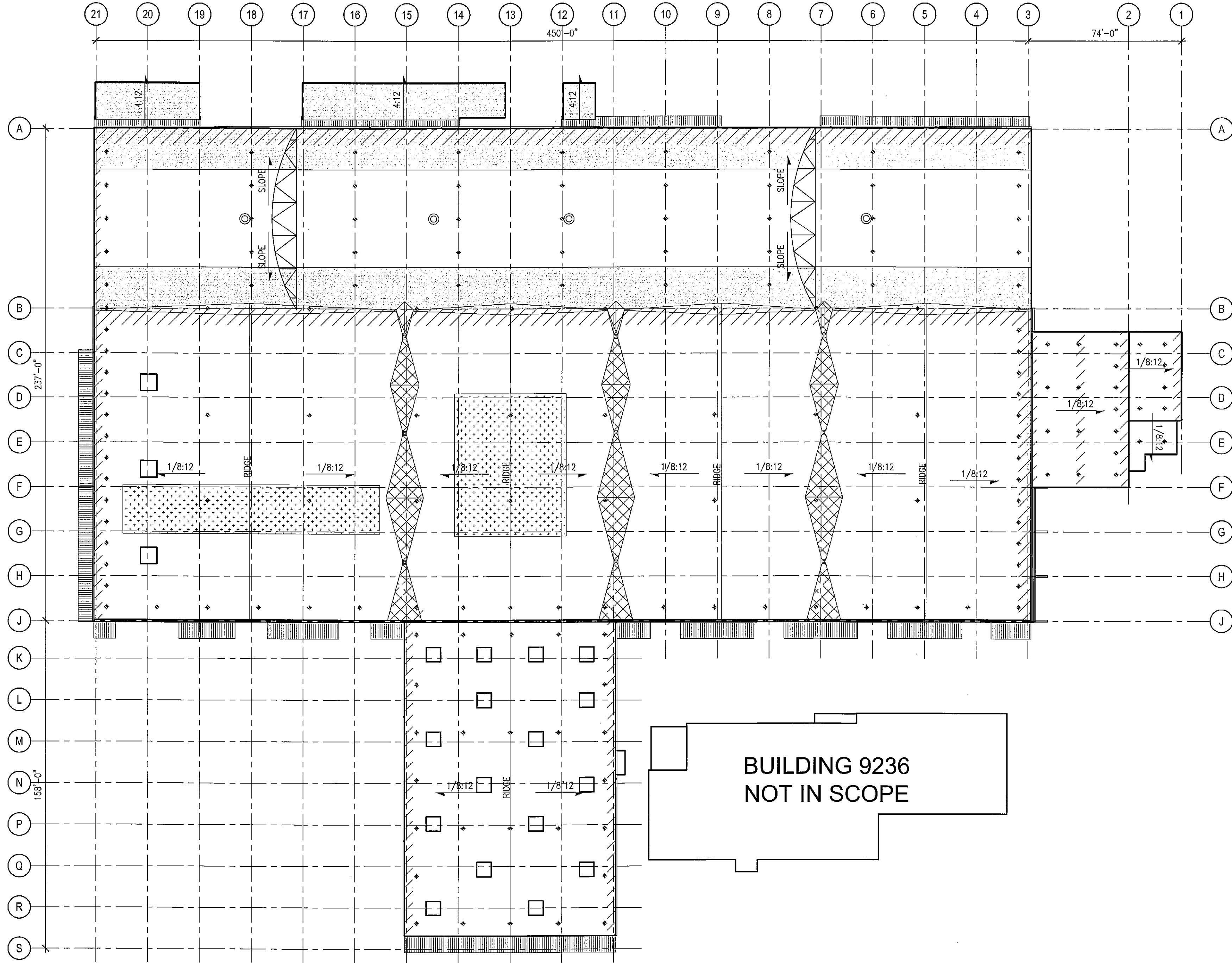
P.O. BOX 1807 TACOMA, WA 98402-0007



1

ROOF PLAN - OVERALL

SCALE: 1/32" = 1'-0"
NOTE: REFER TO ENLARGED ROOF PLANS FOR LEGEND AND GENERAL NOTES



6547
A6.01
SHEET 7 OF 24

CONTRACT/CONS: 070129
M. ID: 091362
PHASE: 100% SET

401 ALEXANDER BUILDING 9407 ROOF REPLACEMENT
AND BUILDING UPGRADES

ROOF PLAN - OVERALL

TOWNSHIP: 21
DATE-HRZ: ---
PARCEL: 5000350013

RANGE: 03
VERT: ---
SECTION: 27

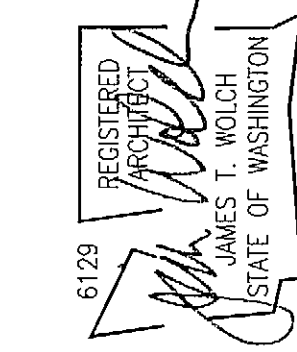
DRAWING SCALE: AS NOTED

APPROVED: *[Signature]*
8-11-15

RTV 07.17.15

CHECKED BY: *[Signature]*
DATE: 07.17.15

DIRECTOR ENG. DATE: 8-11-15
PRINTED BY: DATE: Aug. 10, 2015
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98421



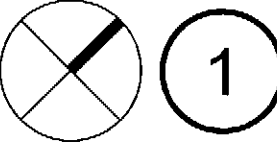
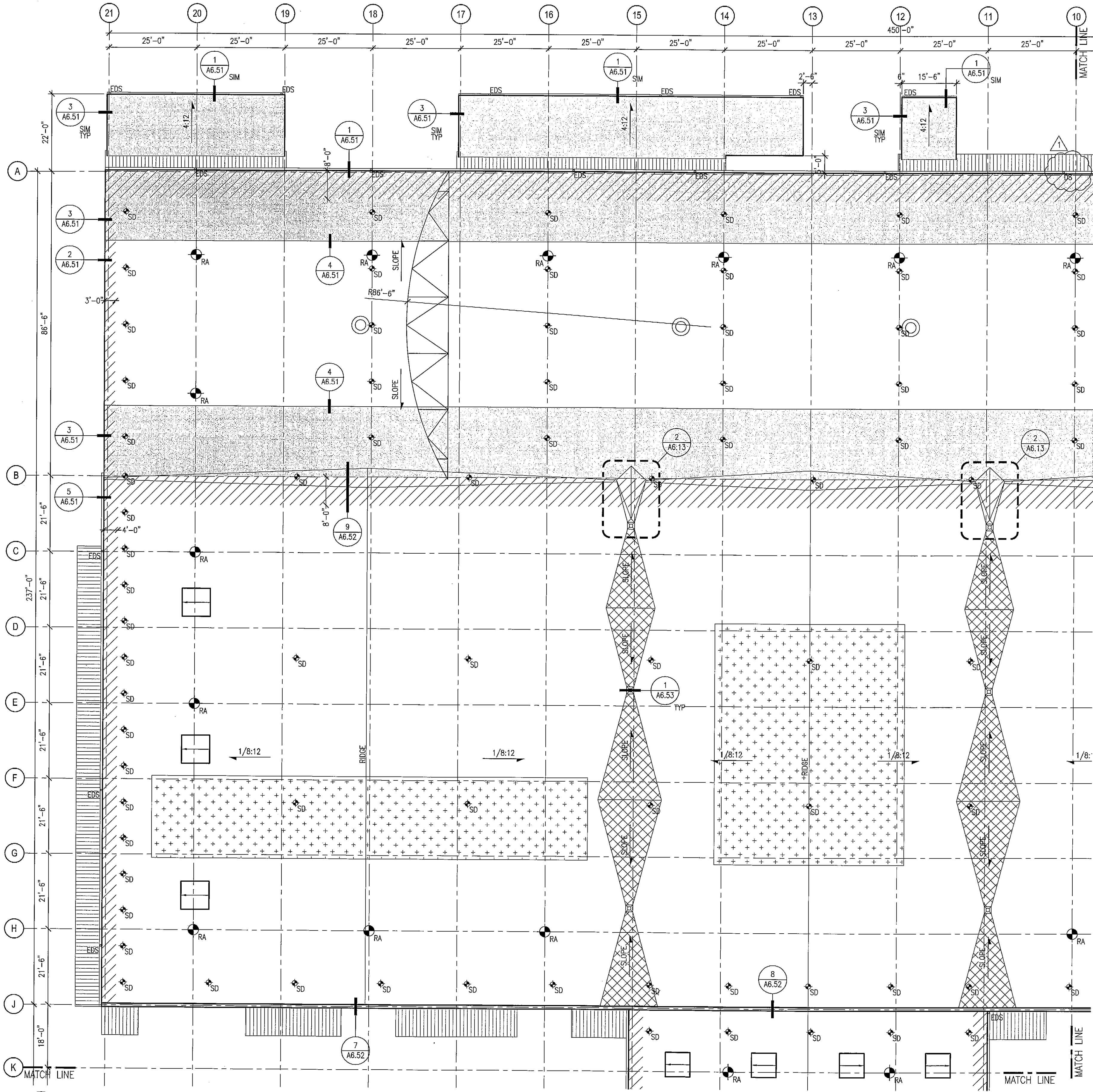
BCRA
2108 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402
TEL: 253.877.4477 FAX: 253.877.4088 WWW.BCRADESIGN.COM

Port of Tacoma
P.O. BOX 1857 TACOMA, WA 98401-1857

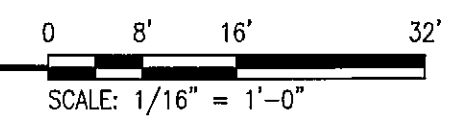
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REVISION: ADDENDUM 1
BY: ---
DATE: 08.11.15

BINDING EDGE

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1 ROOF PLAN - AREA A
SCALE: 1/16" = 1'-0"



ROOF PLAN LEGEND:

NOTE: NOT ALL SYMBOLS MAY BE PRESENT ON THIS SHEET

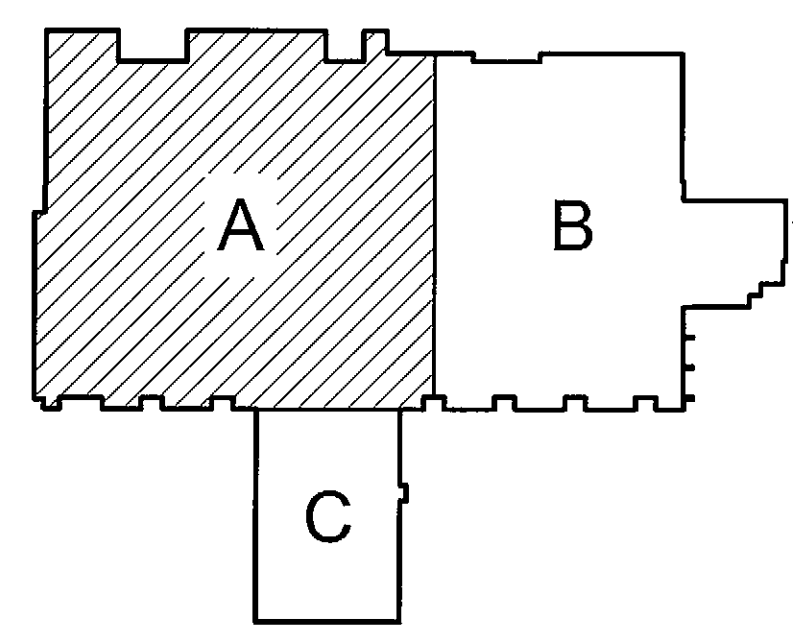
- ASPHALT SHINGLE ROOFING
- REPLACE EXISTING WATER-DAMAGED 2x DECKING TO NEAREST PURLIN - REFER ALSO TO STRUCTURAL; REMOVE WATER-DAMAGED BLANKET INSULATION BENEATH DECKING (AREA SHOWN IS REPRESENTATIVE; ACTUAL AREAS ARE TO BE FIELD VERIFIED AFTER REMOVAL OF EXISTING ROOFING) REPLACE DAMAGED BATT INSULATION & VAPOR BARRIER BENEATH DECKING AREA C ONLY
- REPLACE EXISTING WATER DAMAGED 2x DECKING - REFER ALSO TO STRUCTURAL; REMOVE WATER-DAMAGED BLANKET INSULATION BENEATH DECKING (AREA SHOWN IS REPRESENTATIVE; ACTUAL AREAS ARE TO BE FIELD VERIFIED AFTER REMOVAL OF EXISTING ROOFING)
- TAPERED RIGID INSULATION CRICKET, 1/8" MIN SLOPE
- OVERFRAMED PLYWOOD CRICKETING PER DETAIL 9/A6.52
- EXISTING METAL WALL CLADDING BELOW
- CONTINUOUS CUTTER w/ BIRD SPIKES ALONG ENTIRE LEADING EDGE
STANDING SEAM SHEET METAL PARAPET COPING w/ BIRD SPIKES ALONG ENTIRE EDGE
- ROOF ANCHOR PER DETAIL 4/A6.52
- SEAGULL DETERRENT SUPPORT PER DETAIL 1/A6.52; QUANTITY & LOCATIONS SHOWN ARE APPROXIMATE
- EXISTING DOWNSPOUT LOCATION TO REMAIN
- ROOF DRAIN PER DETAIL 1/A6.53
- 92"x92" CURB MOUNTED SKYLIGHT PER DETAIL 2/A6.53; FIELD VERIFY SIZING
- EXISTING ROOF SLOPE & DIRECTION; CONTRACTOR TO VERIFY
- EXISTING MECHANICAL EQUIPMENT; REMOVE AS REQUIRED TO PERFORM THE SCOPE OF WORK, AND REINSTALL
- REPLACE EXISTING DOWNSPOUT

ROOF PLAN GENERAL NOTES:

- CONTRACTOR TO REMOVE ALL EXISTING ROOFING SYSTEMS DOWN TO WOOD DECKING TO ALLOW FOR INSPECTION. NOTIFY ENGINEER OF ANY AREAS OF DAMAGE BEYOND THOSE CALLED OUT IN THESE DOCUMENTS.
- CONTRACTOR TO REMOVE & REPLACE ALL EXISTING SKYLIGHTS (APPROXIMATELY 8'x8' CURB MOUNTED, FIELD VERIFY).
- CONTRACTOR TO VERIFY & REMOVE ALL ROOF MOUNTED EQUIPMENT FOR RE-USE, AS REQUIRED TO PERFORM THE SCOPE OF WORK. CLEAN PRIOR TO REINSTALLATION.
- REFER TO 2/A6.01 (AND ALSO HAZMAT REPORT) FOR TYPICAL LEAD PAINT PROTECTION PROCEDURES DURING SCOPE OF WORK.
- CONTRACTOR TO PROVIDE TEMPORARY PROTECTION TO PREVENT CONSTRUCTION DEBRIS FROM FALLING INTO THE OCCUPIED TENANT SPACES. DEBRIS MAY CONTAIN LEAD PAINT. REFER ALSO TO THE HAZARDOUS MATERIALS REPORT.

KEYPLAN

SCALE: NTS



6129
REGISTERED
ARCHITECT
JAMES T. VOLCH
STATE OF WASHINGTON

APPROVED: *[Signature]* 8/1/15

DIRECTOR: ENG. DATE: 8/1/15

PRINTED BY: late Aug 10, 2015

PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 99421

401 ALEXANDER BUILDING 9407 ROOF REPLACEMENT
AND BUILDING UPGRADES

ROOF PLAN - AREA A

6547
A6.11
SHEET 8 OF 24

CONTRACTOR: 070129

M. ID: 091362

PHASE: 100% SET

TOWNSHIP: 21

DIST-HRZ: --

PARCEL: 5000350013

RANGE: 03

SECTION: 27

VERT: --

DRAWING SCALE: AS NOTED

AS NOTED

DATE: 08.11.15

BY: --

REVISION: 1

ADDENDUM 1

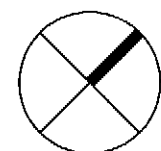
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BY: --

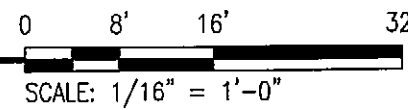
REVISION: 1

ADDENDUM 1

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SCALE: 1/16" = 1'-0"

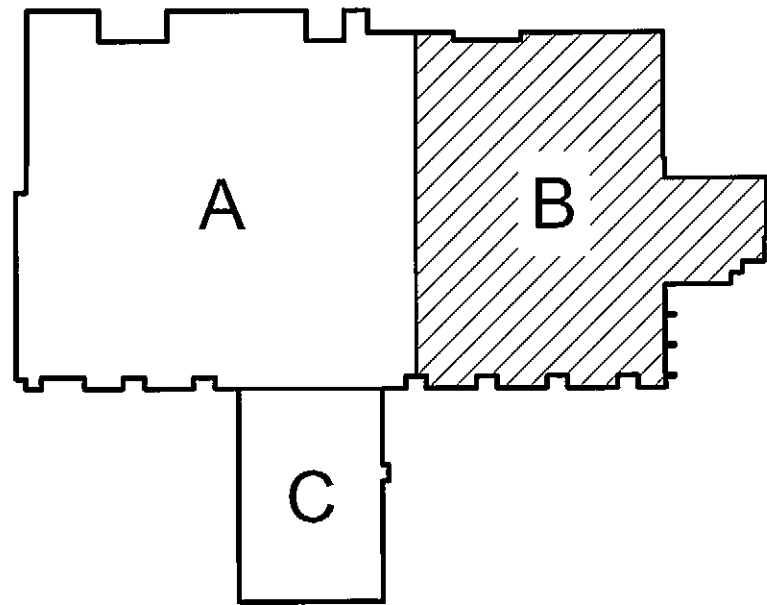


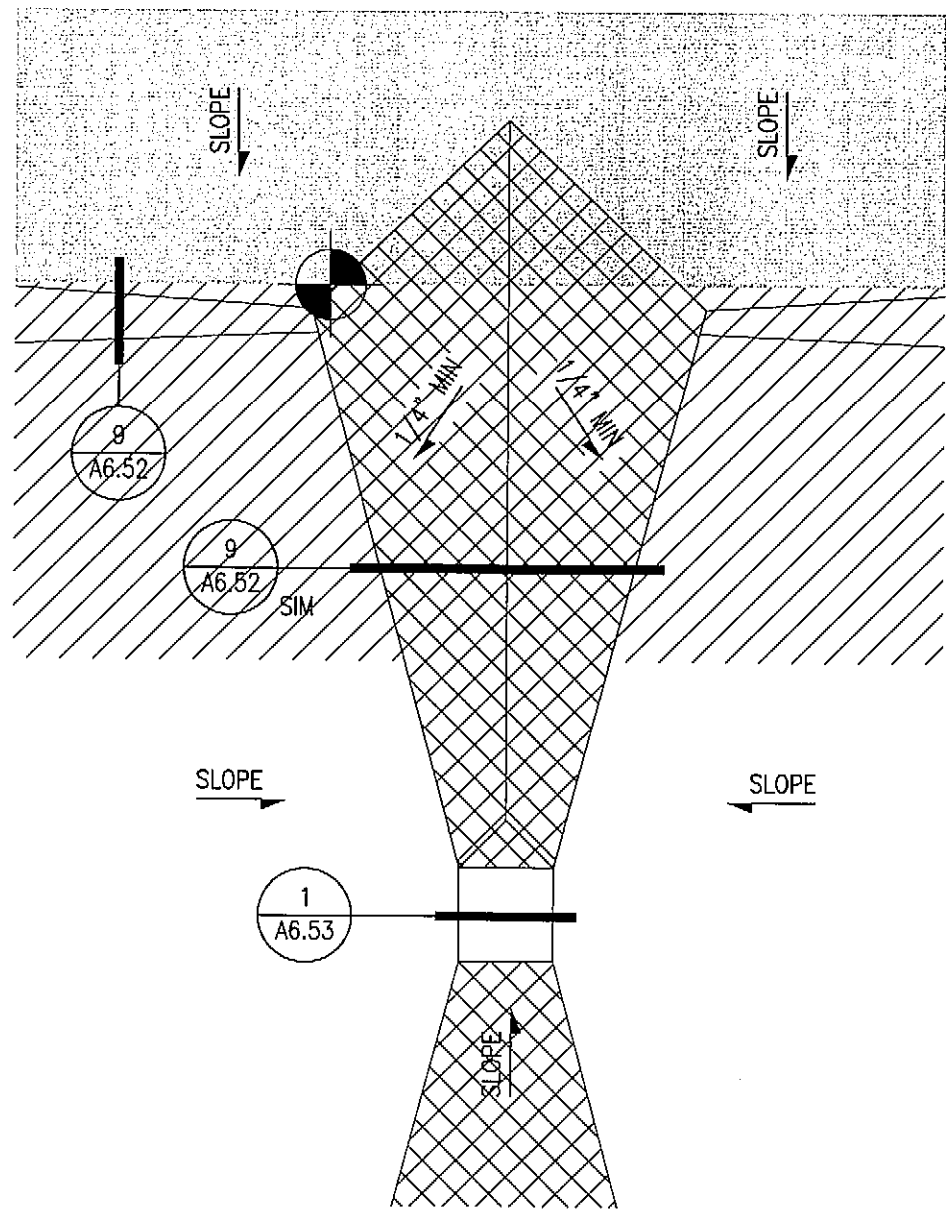
NOTE: NOT ALL SYMBOLS MAY BE PRESENT ON THIS SHEET

- ROOF PLAN GENERAL NOTES:

1. CONTRACTOR TO REMOVE ALL EXISTING ROOFING SYSTEMS DOWN TO WOOD DECKING TO ALLOW FOR INSPECTION. NOTIFY ENGINEER OF ANY AREAS OF DAMAGE BEFORE THOSE CALLED OUT IN THESE DOCUMENTS.
2. CONTRACTOR TO REMOVE & REPLACE ALL EXISTING SKYLIGHTS (APPROXIMATELY 8'x8' CURB MOUNTED, FIELD VENT).
3. CONTRACTOR TO VERIFY & REMOVE ALL ROOF MOUNTED EQUIPMENT FOR RE-USE, AS REQUIRED TO PERFORM THE SCOPE OF WORK. CLEAN PRIOR TO REINSTALLATION.
4. REFER TO 2/A6.01 (AND ALSO HAZMAT REPORT) FOR TYPICAL LEAD PAINT PROTECTION PROCEDURES DURING SCOPE OF WORK.
5. CONTRACTOR TO PROVIDE TEMPORARY PROTECTION TO PREVENT CONSTRUCTION DEBRIS FROM FALLING INTO THE OCCUPIED TENANT SPACES. DEBRIS MAY CONTAIN LEAD PAINT. REFER ALSO TO THE HAZARDOUS MATERIALS REPORT.

SCALE: NTS

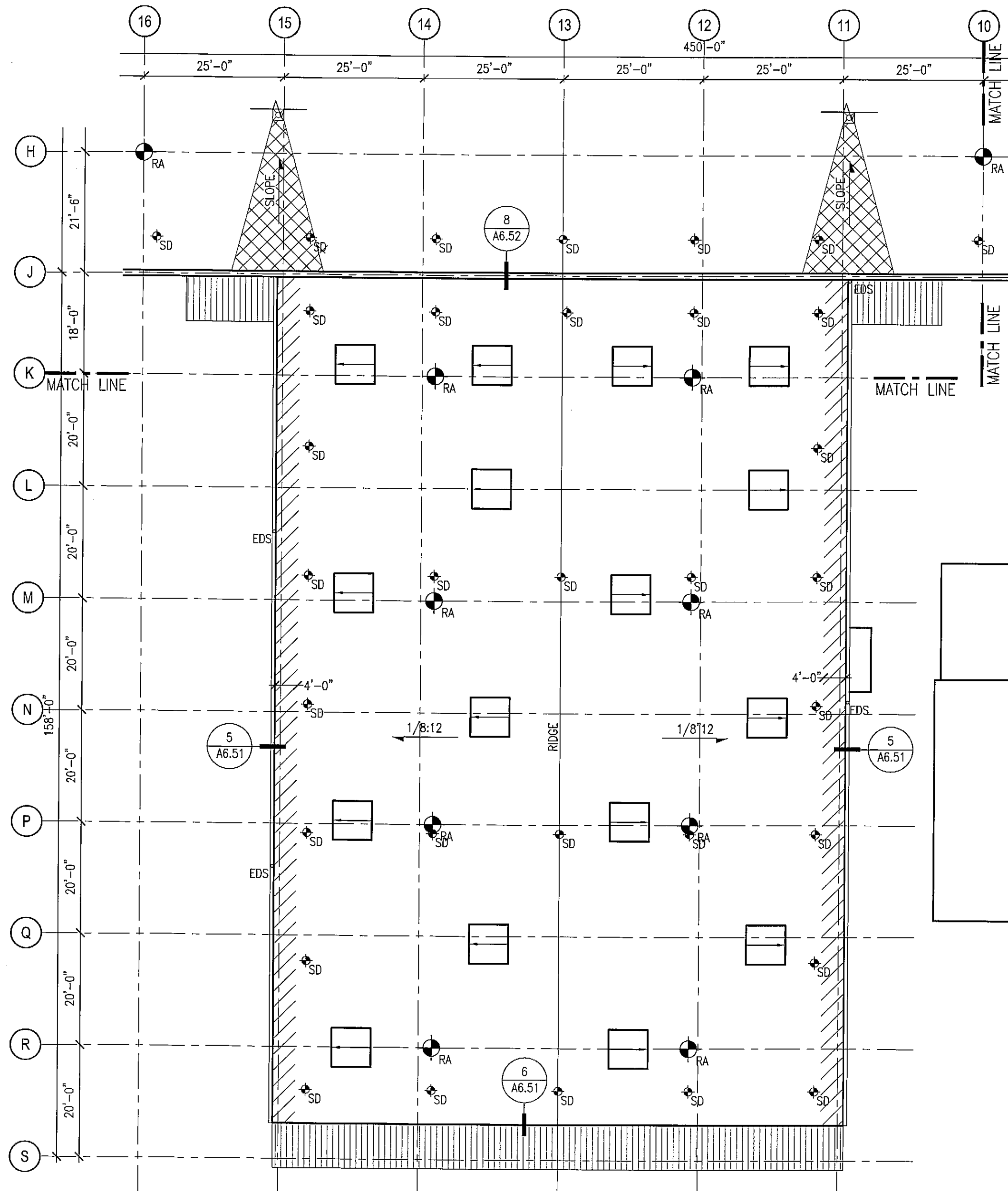




TYPICAL PLYWOOD DIVERTER CRICKET

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

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



ROOF PLAN - AREA C

SCALE: 1/16" = 1'-0"

SCALE: 1/16" = 1'-0"

ROOF PLAN LEGEND:

NOTE: NOT ALL SYMBOLS MAY BE PRESENT ON THIS SHEET

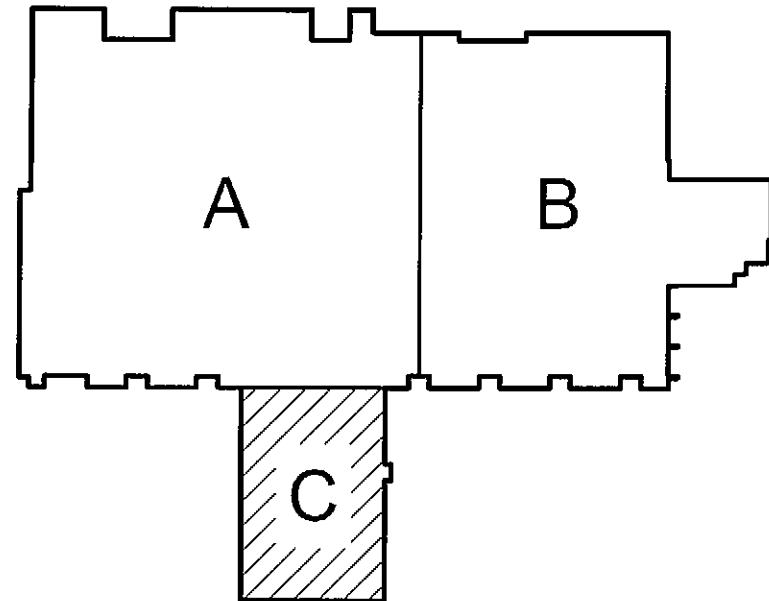
- ASPHALT SHINGLE ROOFING
- REPLACE EXISTING WATER-DAMAGED 2x DECKING TO NEAREST PURLIN - REFER ALSO TO STRUCTURAL; REMOVE WATER-DAMAGED BLANKET INSULATION BENEATH DECKING (AREA SHOWN IS REPRESENTATIVE; ACTUAL AREAS ARE TO BE FIELD VERIFIED AFTER REMOVAL OF EXISTING ROOFING) REPLACE DAMAGED BATT INSULATION & VAPOR BARRIER BENEATH DECKING AREA C ONLY
- REPLACE EXISTING WATER DAMAGED 2x DECKING - REFER ALSO TO STRUCTURAL; REMOVE WATER-DAMAGED BLANKET INSULATION BENEATH DECKING (AREA SHOWN IS REPRESENTATIVE; ACTUAL AREAS ARE TO BE FIELD VERIFIED AFTER REMOVAL OF EXISTING ROOFING)
- TAPERED RIGID INSULATION CRICKET, 1/8" MIN SLOPE
- OVERFRAMED PLYWOOD CRICKETING PER DETAIL 9/A6.52
- EXISTING METAL WALL CLADDING BELOW
- CONTINUOUS GUTTER w/ BIRD SPIKES ALONG ENTIRE LEADING EDGE
- STANDING SEAM SHEET METAL PARAPET CORING w/ BIRD SPIKES ALONG ENTIRE EDGE
- ROOF ANCHOR PER DETAIL 4/A6.52
- SEAGULL DETERRENT SUPPORT PER DETAIL 1/A6.52; QUANTITY & LOCATIONS SHOWN ARE APPROXIMATE
- EXISTING DOWNSPOUT LOCATION TO REMAIN
- ROOF DRAIN PER DETAIL 1/A6.53
- 92"x92" CURB MOUNTED SKYLIGHT PER DETAIL 2/A6.53; FIELD VERIFY SIZING
- EXISTING ROOF SLOPE & DIRECTION; CONTRACTOR TO VERIFY
- EXISTING MECHANICAL EQUIPMENT; REMOVE AS REQUIRED TO PERFORM THE SCOPE OF WORK, AND REINSTALL
- REPLACE EXISTING DOWNSPOUT

ROOF PLAN GENERAL NOTES:

- CONTRACTOR TO REMOVE ALL EXISTING ROOFING SYSTEMS DOWN TO WOOD DECKING TO ALLOW FOR INSPECTION. NOTIFY ENGINEER OF ANY AREAS OF DAMAGE BEYOND THOSE CALLED OUT IN THESE DOCUMENTS.
- CONTRACTOR TO REMOVE & REPLACE ALL EXISTING SKYLIGHTS (APPROXIMATELY 8'x8' CURB MOUNTED, FIELD VERIFY).
- CONTRACTOR TO VERIFY & REMOVE ALL ROOF MOUNTED EQUIPMENT FOR RE-USE, AS REQUIRED TO PERFORM THE SCOPE OF WORK. CLEAN PRIOR TO REINSTALLATION.
- REFER TO 2/A6.01 (AND ALSO HAZMAT REPORT) FOR TYPICAL LEAD PAINT PROTECTION PROCEDURES DURING SCOPE OF WORK.
- CONTRACTOR TO PROVIDE TEMPORARY PROTECTION TO PREVENT CONSTRUCTION DEBRIS FROM FALLING INTO THE OCCUPIED TENANT SPACES. DEBRIS MAY CONTAIN LEAD PAINT. REFER ALSO TO THE HAZARDOUS MATERIALS REPORT.

KEYPLAN

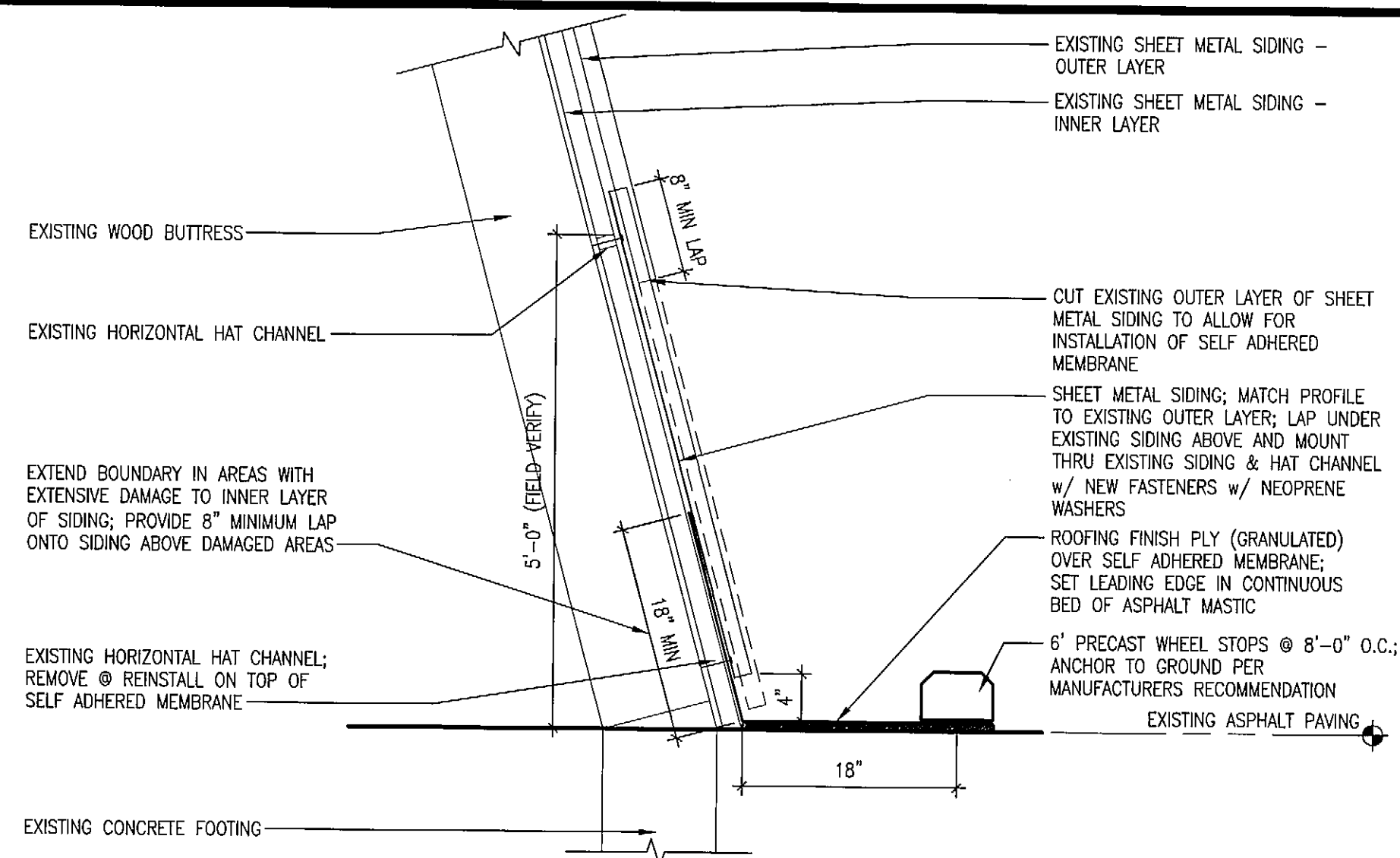
SCALE: NTS



6547 A6.13 SHEET 10 OF 24	401 ALEXANDER BUILDING 9407 ROOF REPLACEMENT AND BUILDING UPGRADES				ROOF PLAN - AREA C				Port of Tacoma 2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402 T 253.627.4387 F 253.627.4385 WWW.BCRADESIGN.COM	
	CONTR/CONS: 070129	TOWNSHIP: 21	RANGE: 03	SECTION: 27	DIRECTOR ENG. DATE: 8-11-15	PROJ. ENGR DATE: 10-10-2015	DATE: 08.11.15	APPR: 08.11.15	BY: 08.11.15	DATE: 08.11.15
	M. ID: 091362	DAT-HRZ: ---	VERT: ---	PARCEL: 5000350013	PRINTED BY: ONE SITCUM PLAZA	TACOMA, WA 98421	REVISION: 1	ADDENDUM 1	MARK: 1	DATE: 08.11.15
	PHASE: 100% SET	DRAWING SCALE: AS NOTED								

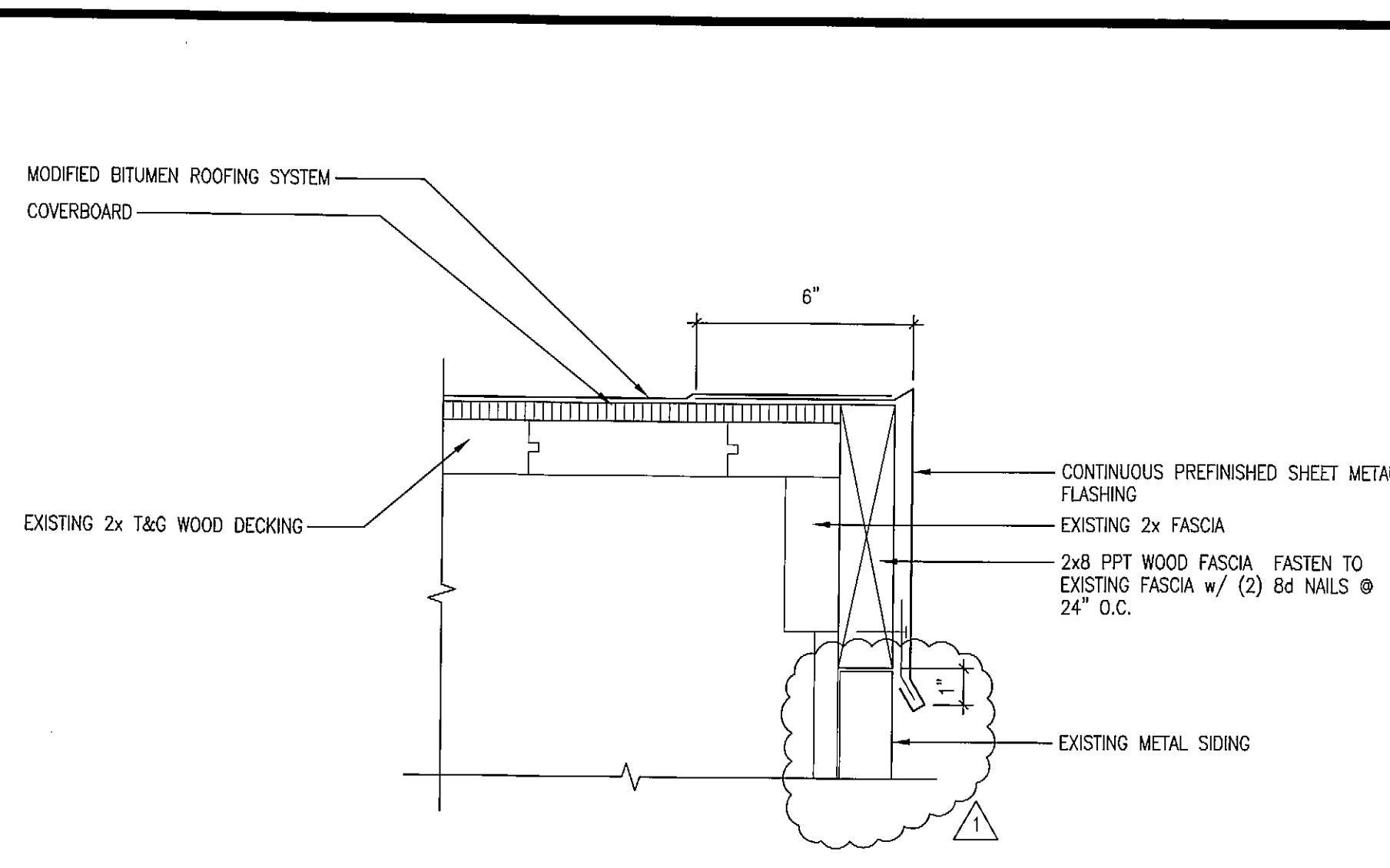
9 WALL DETAIL @ GRADE

SCALE: 1" = 1'-0"



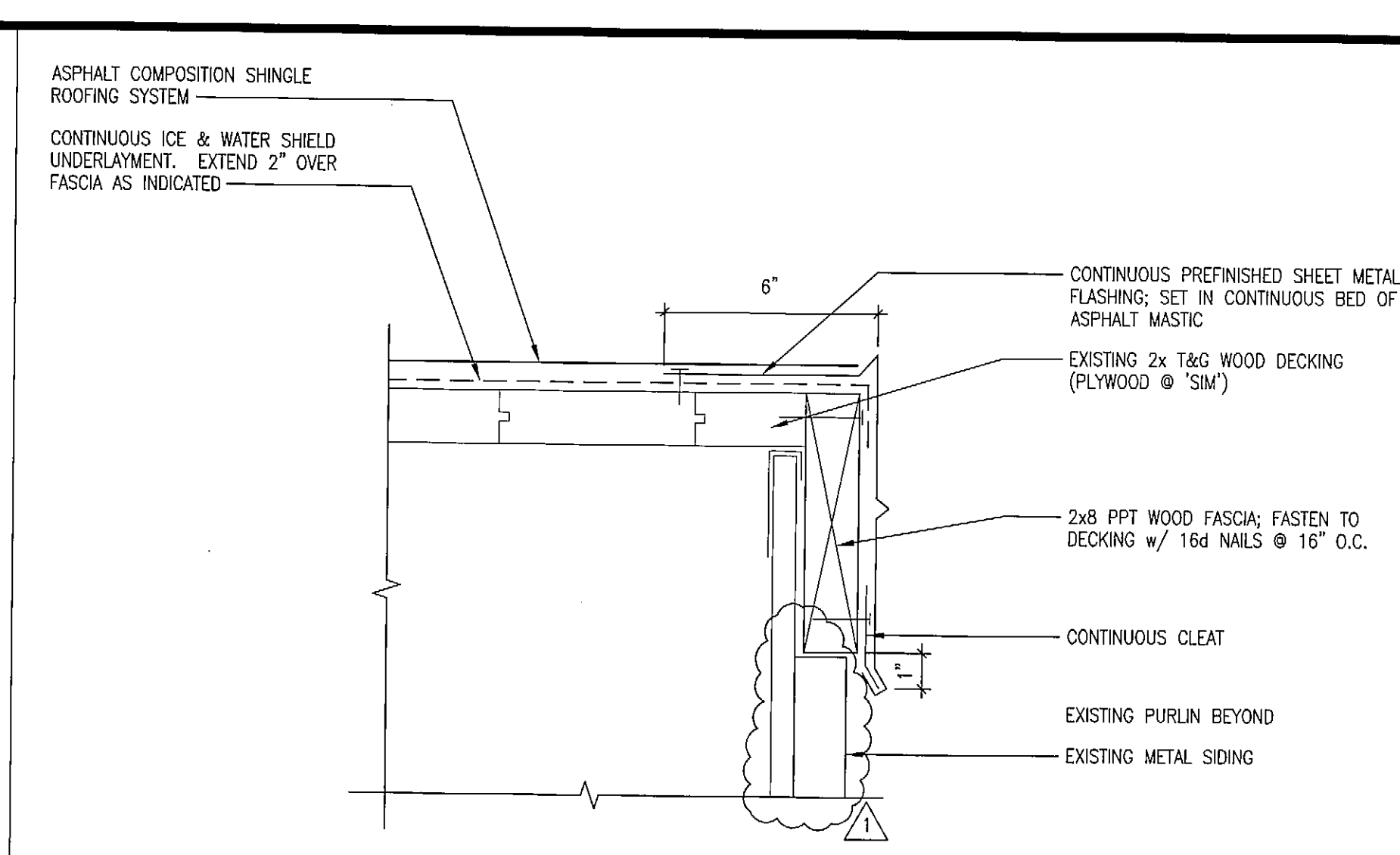
6 RAKE DETAIL @ LOW SLOPE ROOF

SCALE: 3" = 1'-0"



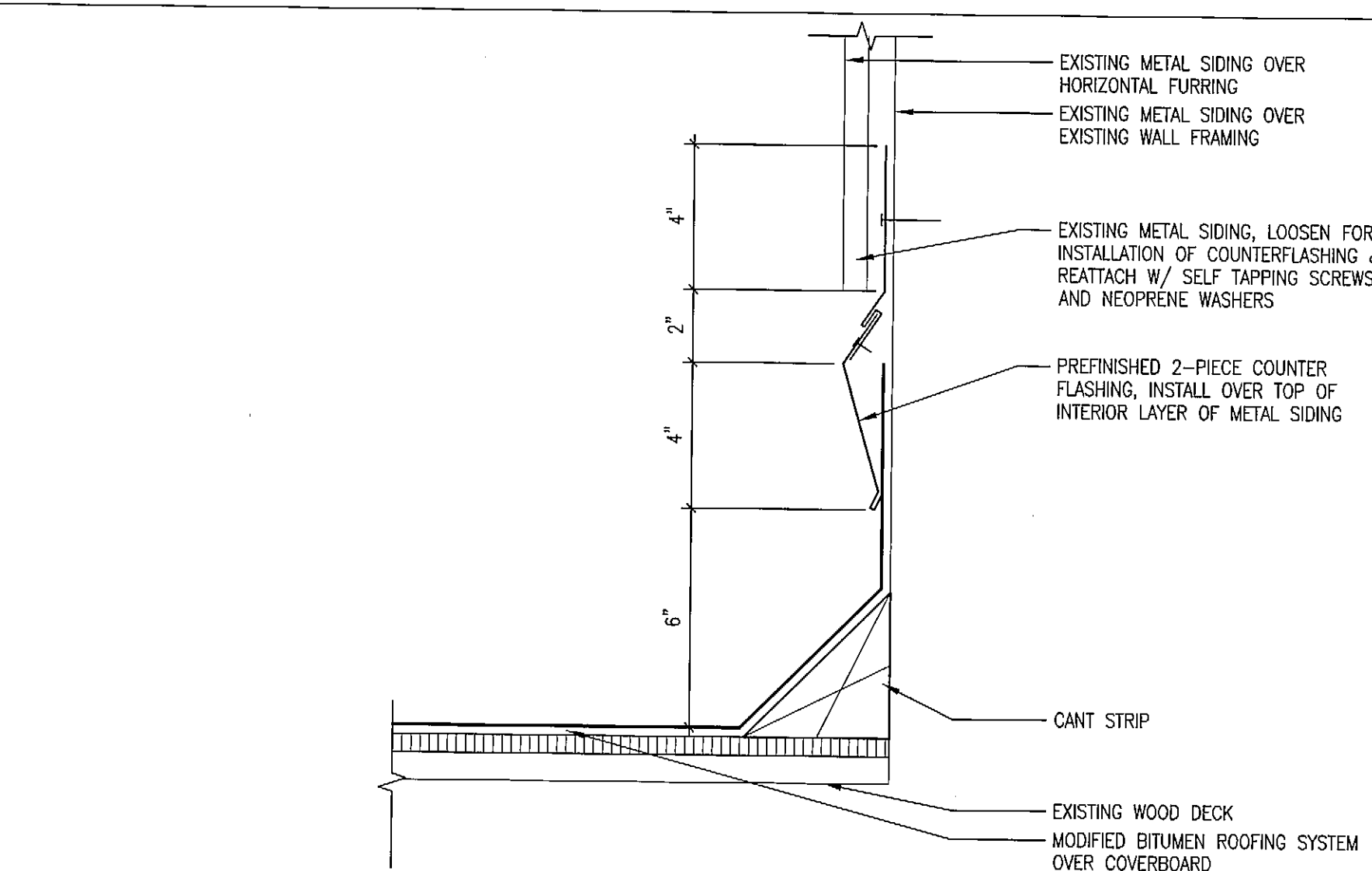
② RAKE DETAIL @ BARREL ROOF

SCALE: 3" = 1'-0"



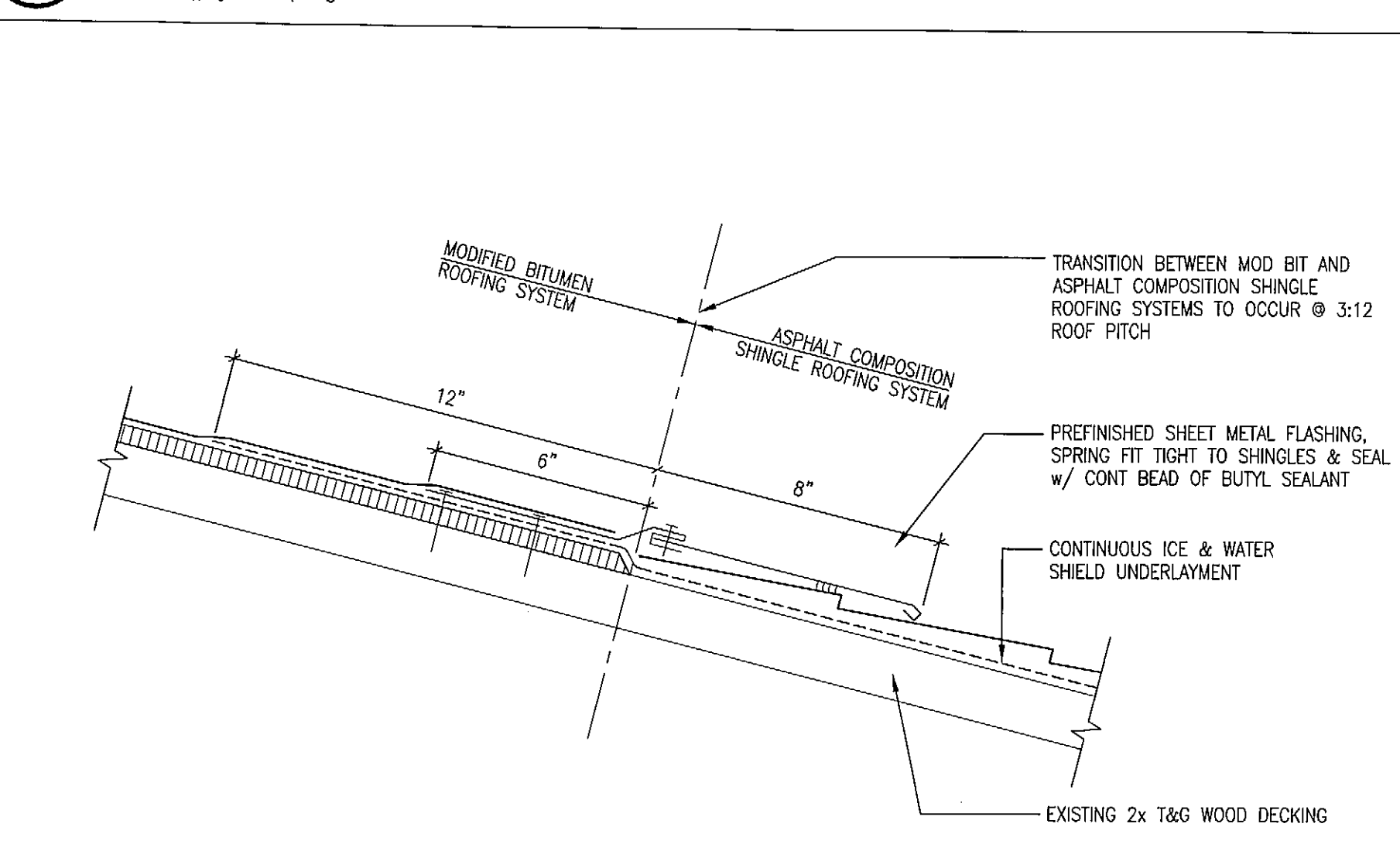
8 CURB MOUNTED EQUIPMENT DETAIL

SCALE: 3" = 1'-0"



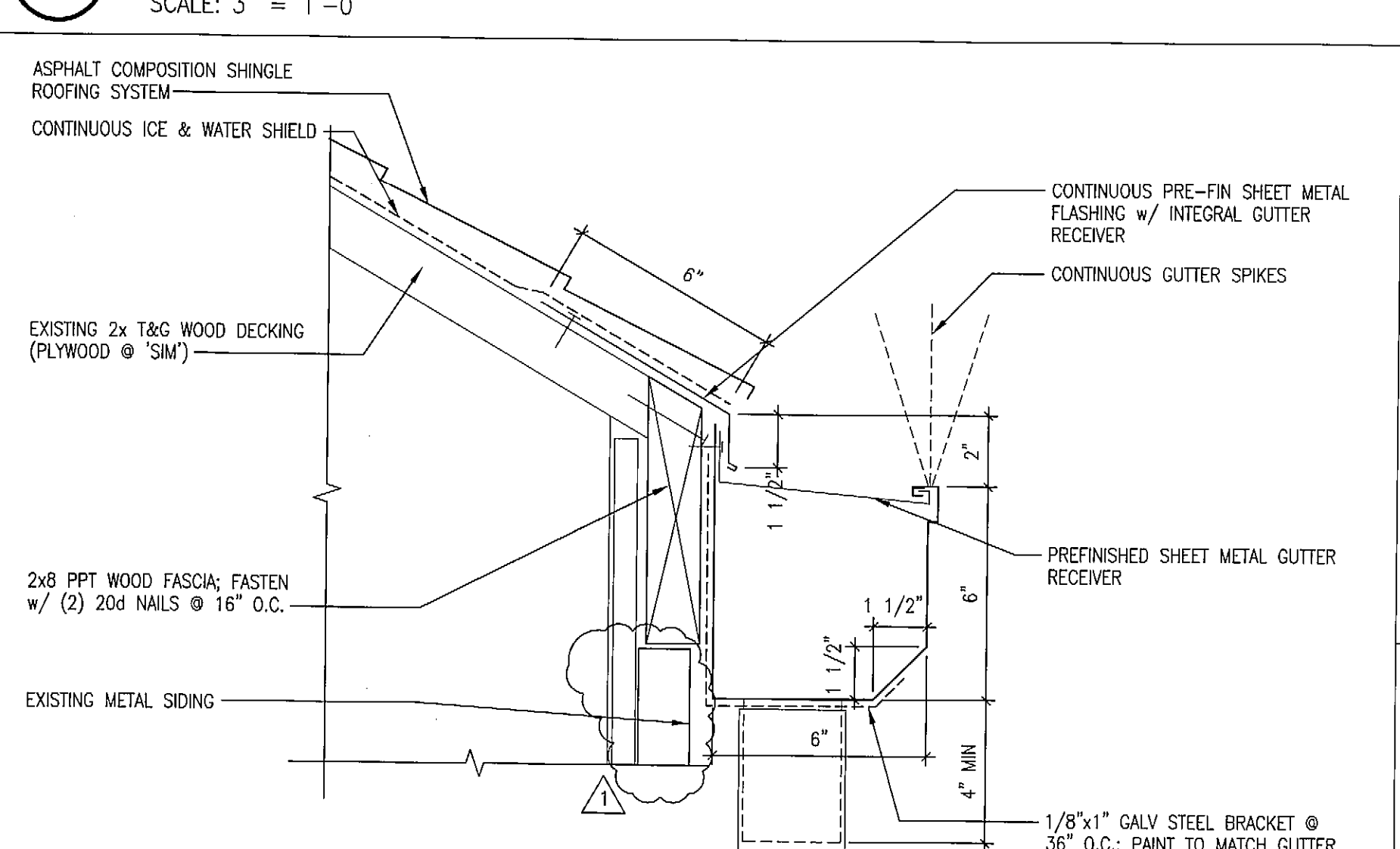
5 GUTTER DETAIL @ LOW SLOPE ROOF

SCALE: 3" = 1'-0"



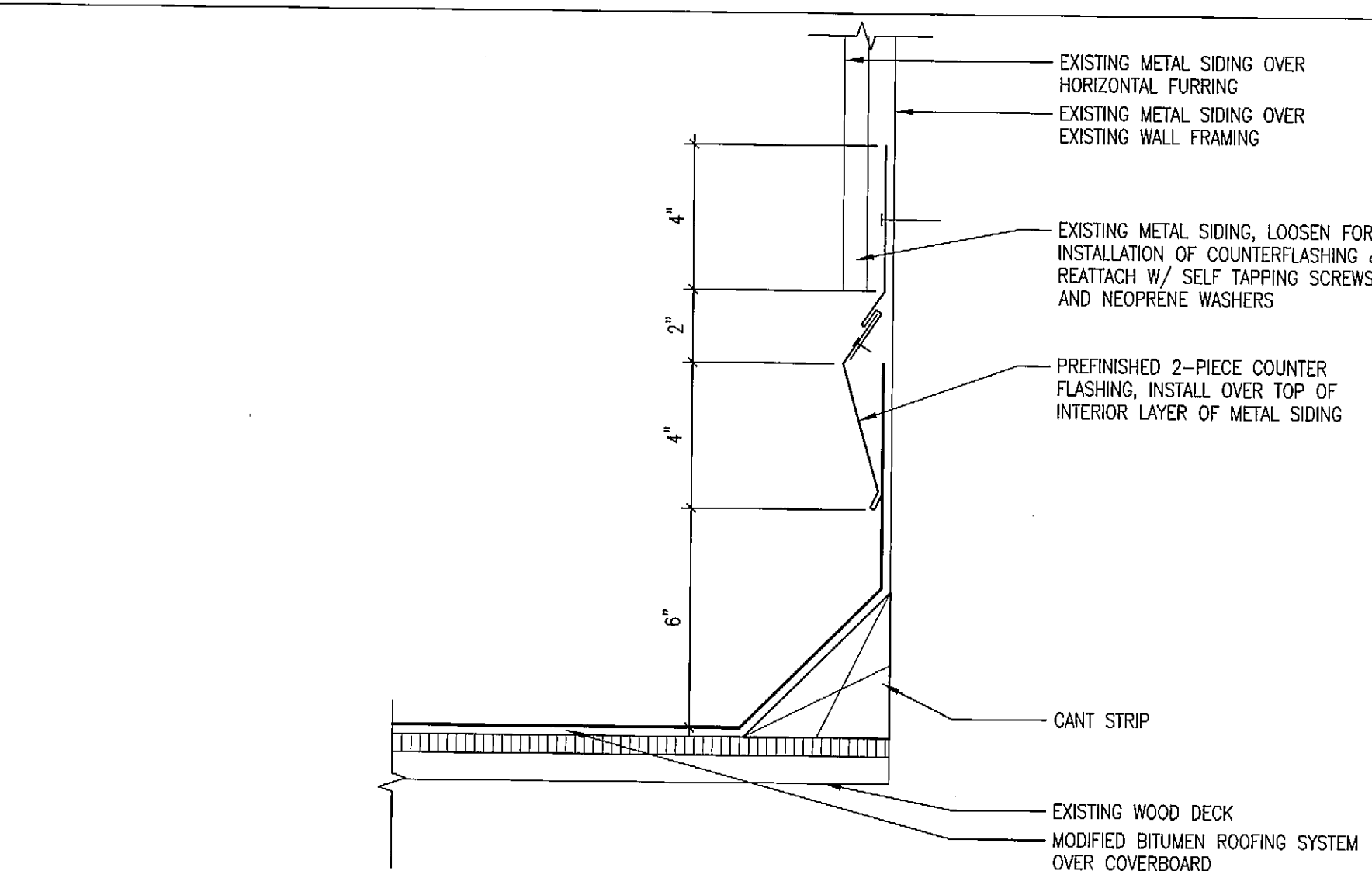
② RAKE DETAIL @ BARREL ROOF

SCALE: 3" = 1'-0"



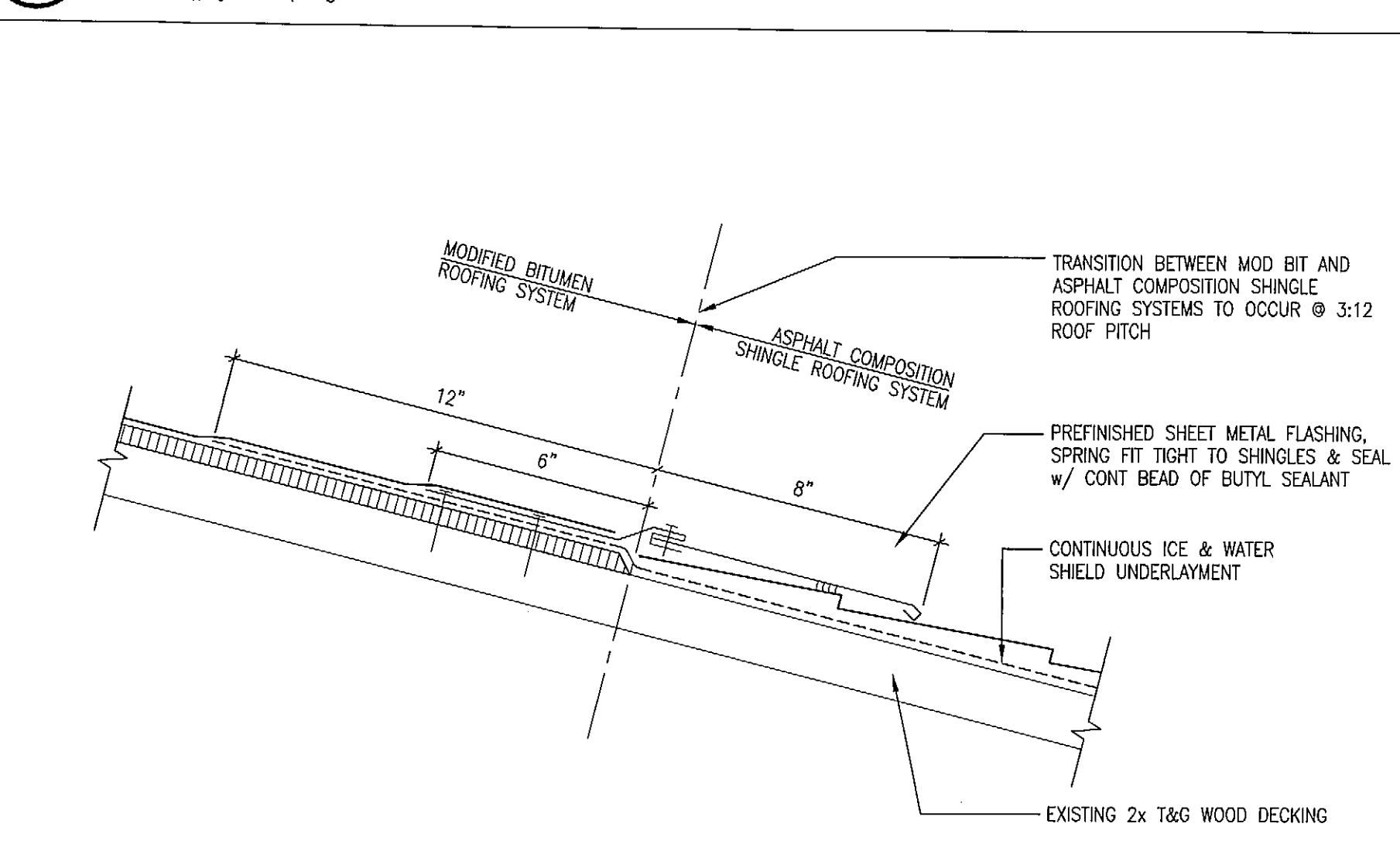
7 ROOF TO WALL DETAIL @ LOW SLOPE ROOF

SCALE: 3" = 1'-0"



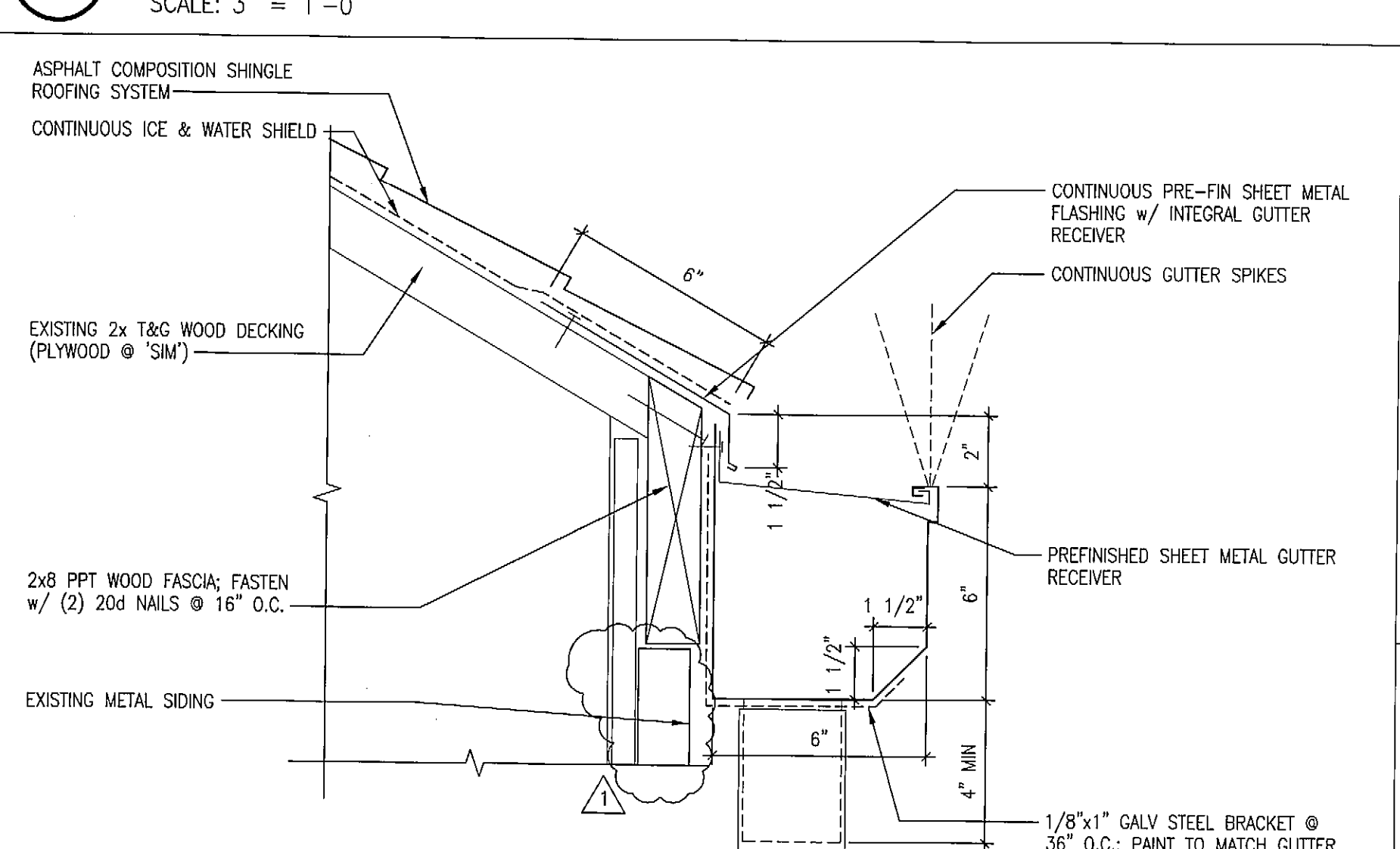
1 ROOFING TRANSITION DETAIL

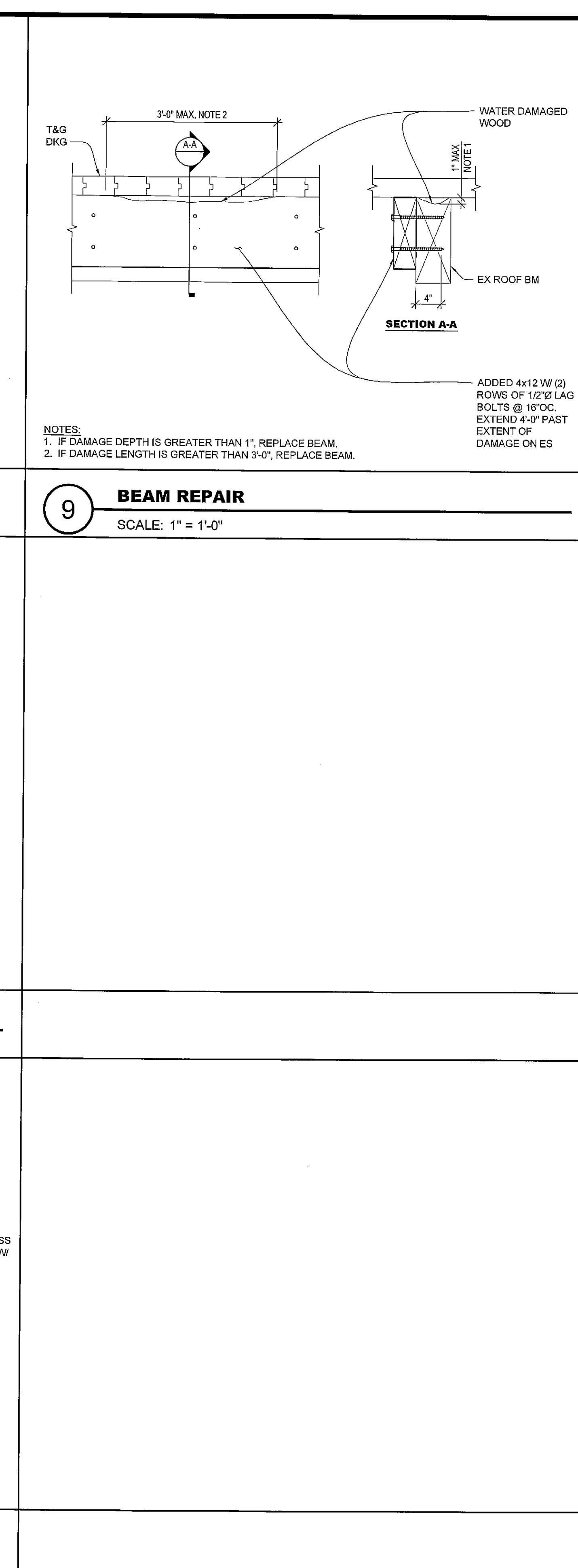
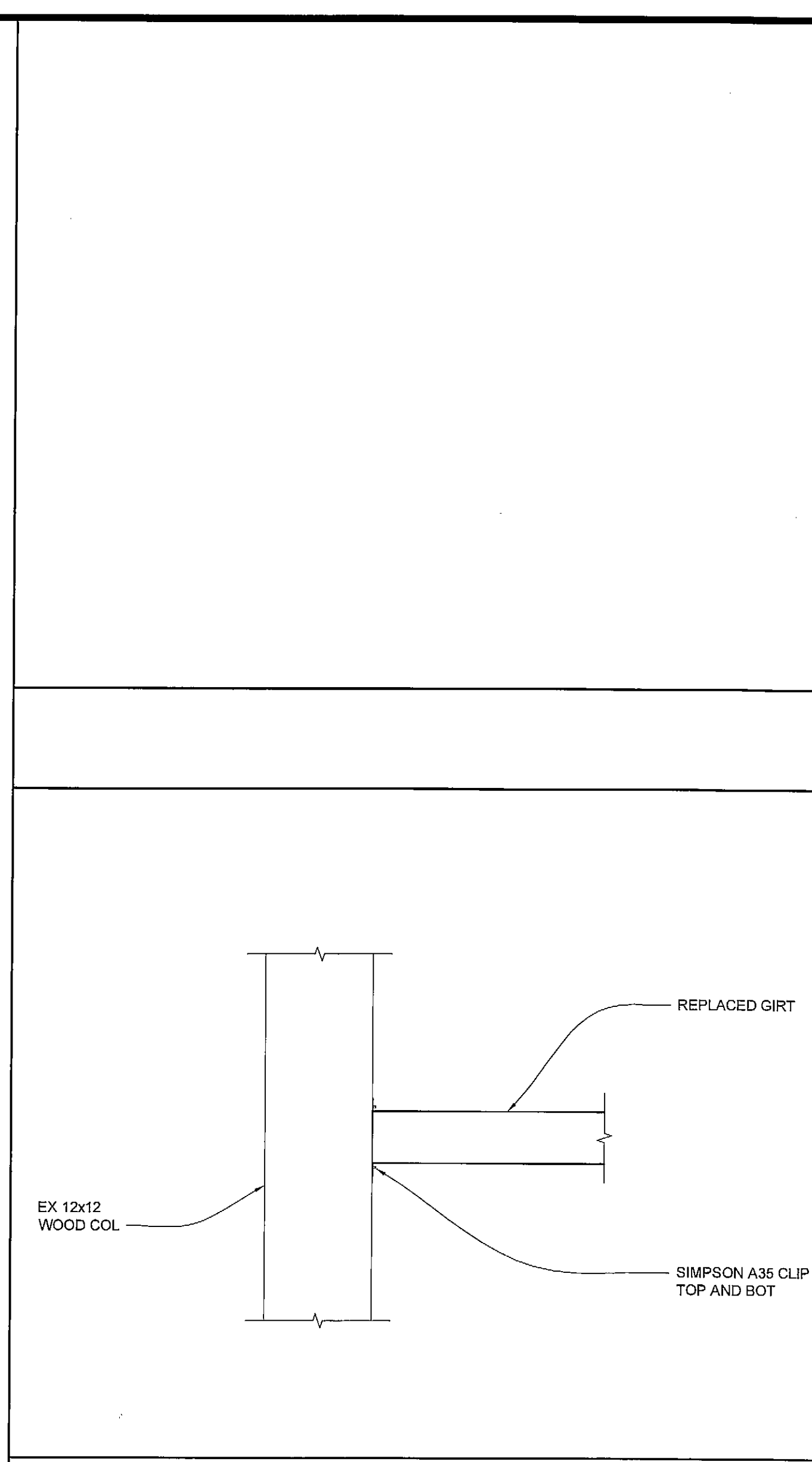
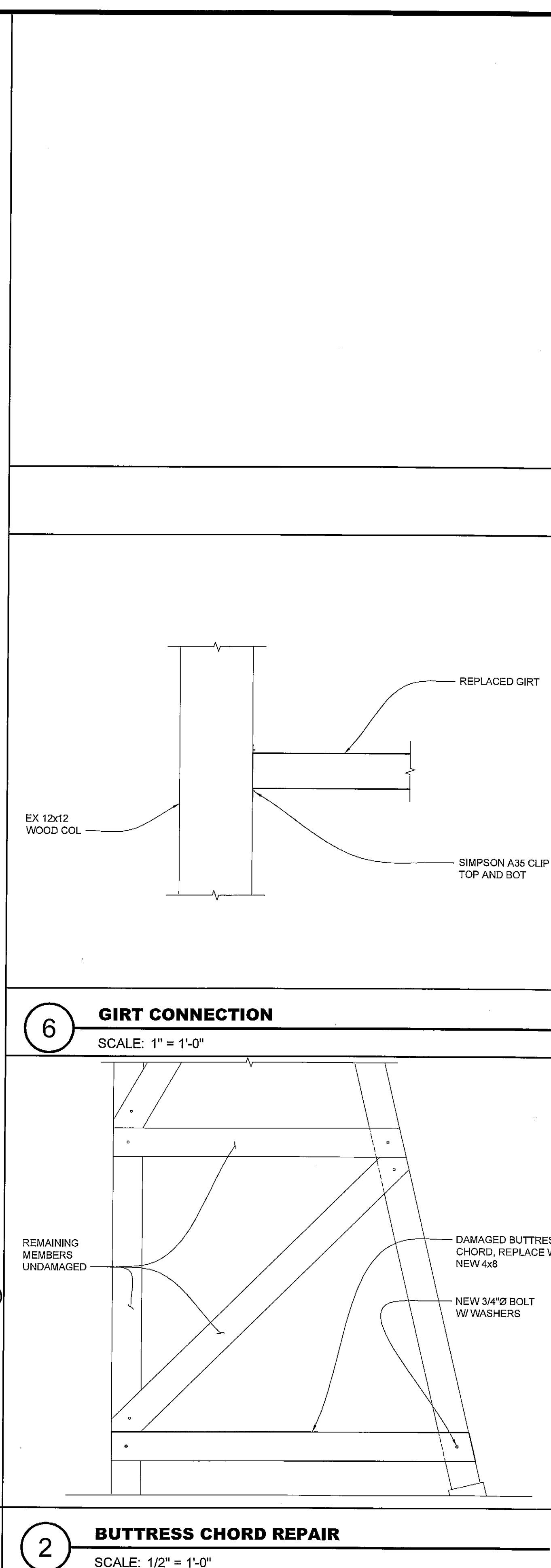
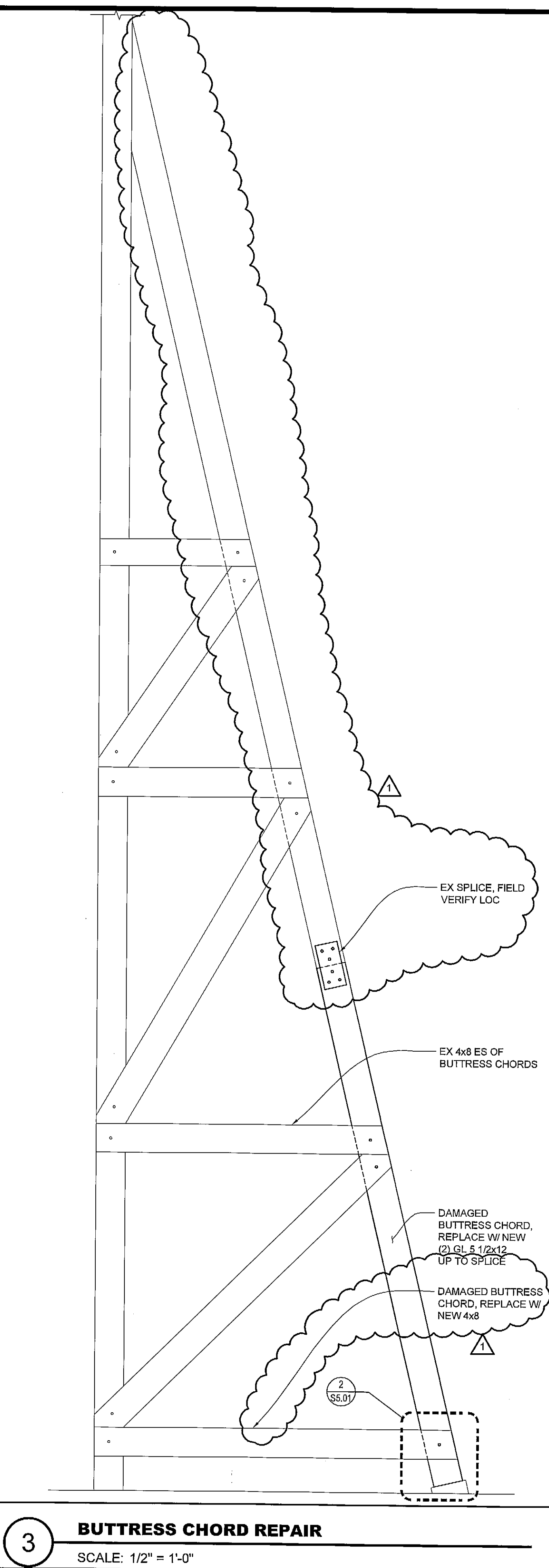
SCALE: 3" = 1'-0"



1 GUTTER DETAIL

SCALE: 3" = 1'-0"





6547

S8.01

SHEET 24 OF 24

CONT./CONS: 070129

M. ID: 091362

PHASE: 100% SET

401 ALEXANDER BUILDING 9407 ROOF REPLACEMENT AND BUILDING UPGRADES

WOOD DETAILS

TOWNSHIP: 21

RANGE: 03

SECTION: 27

DAT-HRZ: ---

VERT: ---

PARCEL: 500350013

DRAWING SCALE: AS NOTED

APPROVED: *[Signature]* 8/11/15

BJJ 07.17.15

CHECKED BY: DATE

PRELJ. ENGR. DATE

PRINTED BY: ygolovchik Jun 26, 2015

PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421

BCRA

Port of Tacoma

P.O. BOX 1007 TACOMA, WA 98402

T 253.627.4367 F 253.627.4395 WWW.BCRADDESIGN.COM

2106 PACIFIC AVENUE SUITE 300, TACOMA, WA 98402

MARK: Δ

REVISION: ADDENDUM #1

BY: -

DATE: 08.10.2015

APPR: -

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 43 25 - SUBSTITUTION REQUEST FORM - DURING BIDDING

Project Title 401 Alexander Building 9407 Roof Replacement and Building Upgrades Project No. 091362
Submitted By: Terry Wheeler / Joe Thompson Contract No. 070129
Prime/Sub/Supplier: CertainTeed Corporation Date: 7/29/15

Specification Title: Modified Bitumen Roofing System Section No. 07 52 00
Description: Part 2 - Products Paragraph: 2.01
Page No. 5

Proposed Substitution: CertainTeed Corporation
Trade Name: _____ Model No.: Flintlastic
Manufacturer: CertainTeed Corporation
Address: 18 Monroe Rd. Palawan, PA Phone No.: 800-396-8134

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted By: Terry Wheeler / Joe Thompson
Signed By: [Signature] Firm: CertainTeed Corporation
Address: 18 Monroe Rd.
Palawan, PA 19355
Telephone: 610-651-5875 Email: joe.thompson@sawt-gobaw.com

Supporting Data Attached:

☐ Drawings ☒ Product Data ☐ Samples ☒ Tests ☒ Reports ☐ Other _____

ENGINEER'S REVIEW AND ACTION

- ☐ Substitution approved
☒ Substitution approved as noted
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

85 mph wind rating; Class B to 3:12 slope;
20 year system warranty; coverboard

Signed by: RTV Date: 08.10.15



Commercial Roofing

PRIOR APPROVAL REQUEST FORM

We do hereby submit for your consideration the following system(s)/product(s) in addition to those currently specified for the above-mentioned project. **Thank you for reviewing this submittal. Please check the appropriate box at the bottom and return via fax or email.**

PROJECT: 401 Alexander Building 9407 Roof Replacement

Proposed Substitutions:

2.01a	- CertainTeed Corporation (www.certainteed.com)
Commercial Territory Manager	- Terry Wheeler
2.01d1	- Flintlastic Ultra Poly SMS
2.01d2	- Flintlastic GTS-FR
2.01d3a	- Flintlastic Ultra Glass SA
2.01d3b	- Flintlastic GTS-FR
2.01e	- as specified or DensDeck Prime
2.01e1	- FlintFast

Attached is the complete system information and technical data.

- | | |
|--|-------------------|
| A. Does the substitution affect dimensions shown on Drawings? | Yes__ No <u>X</u> |
| B. Effect the substitution has on other trades, contracts and completion date? | NONE |
| C. What affect does substitution have on applicable code requirements? | NONE |
| D. Difference between proposed substitution and specified item? | NONE |
| E. Manufacturer's guarantees of the proposed and specified items are: | THE SAME |

The undersigned states that the appearance, quality, and performance of the proposed product are equal to or greater than that of the specified item.

Submitted by,

Joe Thompson
Commercial Systems Analyst

Date: 7/29/15

Phone: 610-651-5875

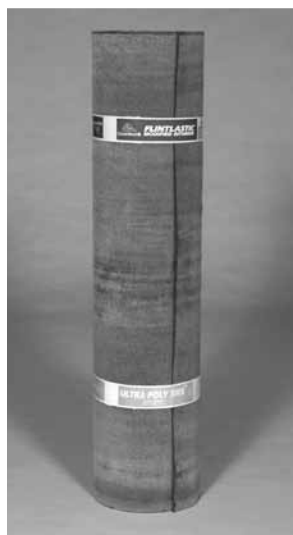


CertainTeed Commercial Roofing

FLINTLASTIC® ULTRA POLY SMS BASE SHEET

SBS MODIFIED ASPHALT COATED POLYESTER BASE SHEET

Product Information



Product Use: Flintlastic Ultra Poly SMS Base Sheet is designed for use as a base sheet for both hot and cold applied SBS modified bitumen or built-up roofing systems. It is suitable for use in the construction of various types of roof membrane assemblies for both new construction and reroofing, over a variety of substrates. Flintlastic Ultra Poly SMS Base Sheet will provide additional strength when used as the first ply over nailable, non-nailable and insulated substrates. In addition, it will perform as a venting base sheet when spot mopped over approved insulations. Also suitable as a mid ply in multi-layer systems or as a torched-down base sheet over a gypsum coverboard.

Precautions: Flintlastic Ultra Poly SMS Base Sheet may be mechanically attached or applied in either hot asphalt or approved cold adhesive such as CertainTeed's FlintBond™ or torched over approved substrates, depending on system design and selection. Rolls should be stored upright, off ground, completely protected from the weather. Roof decks shall be structurally sound, dry, smooth and meet or exceed minimum requirements of the deck manufacturer, local code and CertainTeed. Additional specifications and precautions are contained in the CertainTeed Commercial Roof Systems Manual.

Product Composition and Features: Flintlastic Ultra Poly SMS Base Sheet is manufactured using a high performance, non-woven polyester mat which is impregnated and coated with a superior grade modified bitumen compound. It is lightly surfaced with a mineral release agent. The polyester base mat provides excellent strength and tear and puncture resistance. Flintlastic Ultra Poly SMS Base Sheet is pliable and will conform to most surfaces for ease of application.

Roll Dimensions:	39 ³ / ₈ " x 32' 10"
Nominal Coverage:	One square
Approximate Weight:	90 lbs. per roll
Top Surface:	Fine sand
Back Surface:	Fine sand

Applicable Standards: Meets or exceeds ASTM D6164, Grade S, Type I. Flintlastic Ultra Poly SMS is listed by Underwriters Laboratories for use in various Class A, B, and C roof assemblies, Factory Mutual, Miami-Dade, Florida Building Code Statewide Approval (FL 2533 and FL 16709) and Texas Department of Insurance (RC-47).

Modified Bitumen Coating: Non-oxidized (flux) asphalt, blended with an elastomeric, thermoplastic styrene-butadiene-styrene (SBS) polymer.

Support Mat: A high performance, puncture and tear resistant, non-woven polyester mat.

Technical Data

Test Description	Test Method	Results
Softening Point:	ASTM D36	260°F
Tensile Strength:	ASTM D5147 @ 73.4 +/- 3.60F MD/XD @ 0 +/- 3.60F MD/XD	85/60 lbs./in. 100/90 lbs./in.
Elongation:	ASTM D5147 @ 73.4 +/- 3.60F MD/XD @ 0 +/- 3.60F MD/XD	40%/55% 30%/40%
Dimensional Stability:	ASTM D5147 MD/XD	0.2%/0.1%
Low Temperature Flex:	ASTM D5147	Pass @ -15°F
Compound Stability:	ASTM D5147	Min. 250°F
Tear Strength:	ASTM D5147 @ 73.4 +/- 3.6°F MD/XD	110/90 lbs.
Thickness:	ASTM D5147	3.7 mm (148 mils)

Product Application

Roof systems constructed with Flintlastic Ultra Poly SMS Base Sheet as the base ply or mid ply shall be applied in accordance with installation procedures listed in the CertainTeed Commercial Roof Systems Manual. The following information is intended for general information purposes only and is not all-inclusive. Refer also to the product labels and Material Safety Data Sheets prior to product use.

Preparation: Substrates to receive a roof system shall be firmly attached, smooth, dry, clean and free of sharp projections and depressions. Flashing details shall be in place, ready to receive roofing with roof accessories available prior to application of materials. Substrates requiring priming shall be primed with suitable asphalt primer such as CertainTeed's FlintPrime® and be allowed to completely dry. Substrates shall provide positive drainage. Roof insulation shall be tapered to drains.

Installation: Flintlastic Ultra Poly SMS Base Sheet shall be installed with 2" side laps and 4" end laps, with end laps diagonally staggered not less than 3 feet apart. For nailable substrates, mechanically fasten Flintlastic Ultra Poly SMS Base Sheet 9" o.c. at side laps and 18" o.c. in two rows, 12" in from each edge with approved fasteners. For non-nailable or insulated substrates, Flintlastic Ultra Poly SMS Base Sheet shall be set in either spot or solid mopping of bitumen as required by the CertainTeed Commercial Roof Systems Manual. Spot mopping, when specified, shall be applied in 9" diameter circles, 24" o.c. in all directions. Solid moppings shall be applied at the rate of 25 lbs. per 100 square feet. Bitumen shall be heated and applied within temperature guidelines as set forth by CertainTeed according to type and grade. For mop applications, overlap sidelaps 3".

Precautions: Cold weather applications require special handling to prevent damage to the rolls and to ensure satisfactory installation. Do not apply roofing systems over improperly prepared substrates or substrates which contain moisture.

Maintenance: CertainTeed's Commercial Roofing Systems do not require any additional special maintenance beyond normal roof maintenance procedures. CertainTeed recommends regular roof maintenance and inspection to determine the condition of drains, flashings and other similar items, and to prolong the life expectancy of the roof system.

Warranties

CertainTeed offers a number of different types of Roof Membrane Warranties designed to meet the building owner's specific requirements. Please contact your nearest CertainTeed office for additional information and requirements.

Technical Assistance and Services

CertainTeed provides technical assistance in the design, selection, specification and application techniques for all CertainTeed Commercial Roof Systems. Architectural and field representatives are available for consultation within each region.

For more information, contact CertainTeed Commercial Roofing Technical Services at 800-396-8134 x2.

Caution: Fire Hazard

Torch down application of this product may create a risk of FIRE, including SMOLDERING FIRES. The roofing applicator is solely responsible for ensuring and enforcing safe and proper application of CertainTeed products by competent and qualified personnel. Only properly trained roofing professionals are authorized to install this product.

Never apply flame directly to combustible materials or allow the flame to enter into hidden or protected areas that may contain combustible materials. Follow all local code requirements. Have a Class A-B-C fire extinguisher available to each applicator. Thoroughly inspect the job site whenever torching equipment has been used. Be certain that all chances of a fire have been eliminated.

Refer to the CertainTeed Commercial Roof Systems Manual, Midwestern Roofing Contractors Association (MRCA) CERTA program, National LP Gas Association, National Roofing Contractors Association (NRCA), National Fire Protection Association (NFPA), and Asphalt Roofing Manufacturers Association (ARMA) for further information and safety recommendations.

ASK ABOUT ALL OF OUR OTHER CERTAINTEED® PRODUCTS AND SYSTEMS:

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GYPSUM • CEILINGS • INSULATION

www.certainteed.com <http://blog.certainteed.com>

CertainTeed Corporation
P.O. Box 860
Valley Forge, PA 19482

Professional: 800-233-8990
Consumer: 800-782-8777

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Code No. COMM-078



FLINTLASTIC® GTS–FR

SBS MODIFIED BITUMEN FIRE-RESISTANT ROLL ROOFING PRODUCTS

Product Information

Product Use: Flintlastic GTS–FR is designed for use as a roofing membrane over various types of substrates for both new construction and reroofing installations. It is suitable for most low slope roofing applications and may be used for roof system flashings, including wall treatments, base flashings and field flashings.

Limitations: Flintlastic GTS–FR is intended for torch application only and should not be exposed to adhesives or solvent-based materials. Rolls should be stored upright, off the ground and completely protected from the weather. Roof decks shall be structurally sound, dry, smooth and meet or exceed minimum requirements of the deck manufacturer, local code and CertainTeed. Additional specifications and precautions are listed in the CertainTeed Commercial Roof Systems Manual.

Product Composition and Features: Flintlastic GTS–FR products are manufactured on state-of-the-art, dedicated roofing lines that were exclusively designed for the production of modified bitumen roofing membrane. Flintlastic GTS–FR is produced with a high-performance, non-woven polyester mat impregnated and coated with a superior grade, fire-retardant modified bitumen compound.

Roll Dimensions:	39 ³ / ₈ " X 32' 10"
Nominal Coverage:	One square
Approximate Weight:	103 lbs. per roll
Top Surface:	Mineral granules
Back Surface:	Torchable polyester film

Applicable Standards: Meets ASTM D6164, Grade G, Type II. Flintlastic GTS–FR is approved by Underwriters Laboratories for use in various Class A, B and C roof assemblies, Florida Building Code Statewide Approval (FL 2533 and FL 16709) and Texas Department of Insurance (RC-47).

Technical Data

Modified Bitumen Coating: Non-oxidized (flux) asphalt blended with a compatible elastomeric styrene-butadiene-styrene polymer and select fire-retardant fillers.

Support Mat: Non-woven polyester mat.

Test Description	Test Method	Results*
Softening Point:	ASTM D36	260°F
Tensile Strength:	ASTM D5147 @ 73.4 +/- 3.6°F MD/XD	125/70 lbs./in.
Elongation:	ASTM D5147 @ 73.4 +/- 3.6°F MD/XD	85%/100%
Dimensional Stability:	ASTM D5147 MD/XD	0.5%/0.3%
Low Temperature Flex:	ASTM D5147	Pass @ 0°F
Compound Stability:	ASTM D5147	250°F
Thickness:	ASTM D5147	4.0 mm (160 mils)
Tear Strength:	ASTM D5147 @ 73.4 +/- 3.6°F MD/XD	165/115 lbs.

***NOTE:** Published results are nominal production values confirmed by independent laboratory testing.

Product Application

Flintlastic modified bitumen roofing systems shall be applied in accordance with installation procedures contained in the CertainTeed Commercial Roof Systems Manual. The following information is intended for general information purposes only and is not all-inclusive.

Preparation: Substrates to receive a roof system shall be firmly attached, smooth, dry, clean and free of depressions and sharp projections. Substrates requiring priming shall be primed with asphalt primer and be allowed to completely dry. Substrates shall provide positive drainage. Roof insulation shall be tapered to drains.



Product Application (continued)

Installation: Unless otherwise specified by CertainTeed, install one ply of base sheet lapping 2" on sides and 4" on ends. Base sheet shall be mechanically fastened to nailable substrates, and either solid or spot mopped in hot asphalt to non-nailable or insulated substrates as specified in the CertainTeed Commercial Roof Systems Manual. Apply base sheet in such a manner as to provide and maintain a minimum 6" offset between side and endlaps of base ply and Flintlastic finishing membrane. Over the base ply, install one ply of Flintlastic GTS-FR lapping 3" on sides and 6" on ends with endlaps diagonally staggered not less than 3 feet apart. Side and endlaps should be inspected to ensure an approximately 1/8" flow of modified compound has been achieved. Note that torching SBS is very different than torching APP. The key point is to make the backside of the SBS membrane just shiny. At that stage, the SBS modified compound is softened sufficiently to adhere aggressively. If the SBS modified asphalt shows signs of flow, the material has been overheated.

Precautions: Cold weather applications require special handling to prevent damage to the rolls and to ensure satisfactory installation. Do not apply roofing systems over improperly prepared substrates or substrates which contain moisture. Follow all safety recommendations relating to the use and maintenance of liquid propane gas torches and equipment.

Maintenance: Flintlastic Roof Systems do not require any additional maintenance beyond normal roof maintenance procedures. CertainTeed recommends regular roof maintenance and inspection to determine the condition of drains, flashings and other similar items, and to prolong the life expectancy of the roof system.

Warranties

CertainTeed offers a number of different types of roof membrane warranties designed to meet the building owner's specific requirements. Please contact your nearest CertainTeed office for additional information and requirements.

Technical Assistance and Services

CertainTeed provides technical assistance in the design, selection, specification and application guidelines of CertainTeed's Commercial Roof Systems. Architectural and field representatives are available for consultation within each region.

For more information, contact CertainTeed Commercial Roofing Technical Services at 800-396-8134 x2.

Caution: Fire Hazard

Torch down application of this product may create a risk of FIRE, including SMOLDERING FIRES. The roofing applicator is solely responsible for ensuring and enforcing safe and proper application of CertainTeed products by competent and qualified personnel. Only properly trained roofing professionals are authorized to install this product.

Never apply flame directly to combustible materials or allow the flame to enter into hidden or protected areas that may contain combustible materials. Follow all local code requirements. Have a Class A-B-C fire extinguisher available to each applicator. Thoroughly inspect the job site whenever torching equipment has been used. Be certain that all chances of a fire have been eliminated.

Refer to the CertainTeed Commercial Roof Systems Manual, Midwestern Roofing Contractors Association (MRCA) CERTA program, National LP Gas Association, National Roofing Contractors Association (NRCA), National Fire Protection Association (NFPA), and Asphalt Roofing Manufacturers Association (ARMA) for further information and safety recommendations.

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Code No. COMM-281



DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 43 25 - SUBSTITUTION REQUEST FORM - DURING BIDDING

Project Title 401 Alexander Building 9407 Roof Replacement and Building Upgrades

Project No. 091362

Submitted By: PAT REDDAWAY

Contract No. 070129

Prime/Sub/Supplier: SUPPLIER

Date: 8/4/15

Specification Title: MODIFIED BITUMEN ROOFING SYSTEM

Section No. 075200

Description: MULTI PLY MODIFIED
BITUMEN ROOF SYSTEM

Paragraph: 2.01 - A

Page No. 5

Proposed Substitution: MALARKEY M2 - XTT-T ROOF SYSTEM

Trade Name: N/A

Model No.: N/A

Manufacturer: MALARKEY ROOFING PRODUCTS

Address: 3131 N. COLUMBIA BLVD, PORTLAND Phone No.: 253-222-5331

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted By: PAT REDDAWAY

Signed By: 

Firm: MALARKEY ROOFING PRODUCTS

Address: 3331 LAURELWOOD CIR NE

TACOMA, WA 98422

Telephone: 253-222-5331

Email: PREDDAWAY@MALARKEYROOFING.COM

Supporting Data Attached:

☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ Other

ENGINEER'S REVIEW AND ACTION

- ☐ Substitution approved
- ☐ Substitution approved as noted
- ☒ Substitution rejected - Use specified materials.
- ☐ Substitution Request received too late - Use specified materials.

Signed by: RTV

Date: 08.10.15

Project No. 091362
Contract No. 070129

00 43 25 - 1

System Configuration

M2-XTT-T (620, 630 Cap)

Materials per 100 sq./ft. of roof area:

Base Sheet:

One (1) ply of 620 **76.0 lbs. per sq.**

Cap Sheet:

One (1) ply of 630 **122.5 lbs. per sq.**

Insulation: **As Specified**

Weight per square: (-insulation): **198.5 lbs. Nominal**

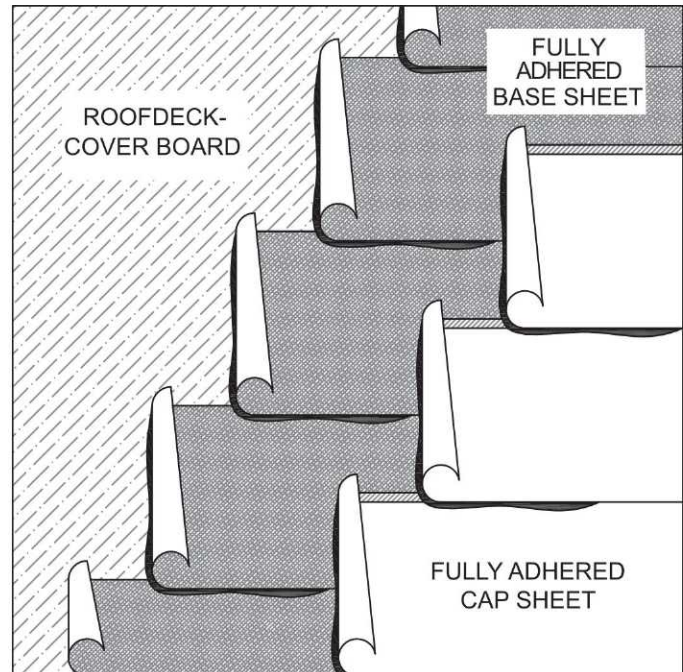
Roof deck and general information: Roof deck must be clean, dry, smooth, and structurally sound to receive the new roofing system. Drainage must be incorporated in the design to prevent ponding water. For more information, please refer to the current Malarkey Specification Manual: General requirements and Commercial Installation Instructions.

Special requirements: This roofing system can be installed as illustrated on slopes up to 1" in 12". Slopes that are greater than 1" in 12" are to be installed in a strapped fashion using wood nailers/insulation stops to facilitate back nailing of the roofing system. For more information, please refer to the current Malarkey Specification Manual: General Requirements/Strapped Installations.

Application: *Torch Applied* - Install all the 620 thermally applied base sheet per the Malarkey Specification Manual. Install the 620 & the 630 so that the water is over (shingle fashion) or parallel to (strapped), but never against the laps. Unroll roll completely and set into position. Re-roll the membrane a min. of 6' and no more than 16' making sure the sheet remains aligned correctly. Side laps are to be 3" wide with end laps of 6". Use a propane torch and apply the flame split 75% on the roll, 25% on the base sheet to the exposed outer surface of the membranes underside in a steady motion until the membrane reaches the desired consistency (starting to liquify) and roll membrane into position achieving a min. 1/4" compound flow-out.

Valleys and waterways: Prior to application of the 630 Cap sheet, all valleys and waterways shall receive an extra layer of Malarkey ply/base sheet which needs to be at least a full width sheet extending a minimum of 12" up the inclines out of the valleys and waterways.

Flashings: Install all primed flashings (lead, metal, scuppers, etc) in a layer of mastic on top of the inter-ply and stripped off with two (2) plies of reinforcement, feathering each ply 3" from the edge of the flange and corresponding ply. Install cap sheet after all flashings have been stripped in.



Torch apply, two-ply built-up roofing system with the 620 SBS modified field fiberglass base sheet and the 630 SBS modified cap sheet installed over an approved roof deck.

Base flashing configuration: 610/630

Base flashings: Base flashing stripping plies are to be installed over the inter-ply before the installation of the field surfacing. Stripping plies are to extend 3" beyond the toe of the cant and up the vertical surface of all flat to vertical transitions (curbs, walls, roof top equipment, etc). After the installation of the field surfacing, install the specified cap sheet base flashing extending 6" beyond the toe of the cant and up the vertical surface. Terminate the base flashing as shown in the commercial roofing details of the current Malarkey Specification Manual.

Fire Ratings: The specification carries a **Class 'A'** rating up to a **1" in 12"** over the following decks: Wood, Metal, Concrete, Lightweight Concrete, Structural Wood Fiber, and Gypsum. For other ratings, contact the Malarkey Technical Services Department.

PARAGON® ULTRA TG BASE

SBS MODIFIED BASE SHEET

Note: Malarkey Roofing Products (Malarkey) Inventory SKU numbers for this product: **620**

Product Description

Product Use: Paragon® ULTRA TG Base is a durable and resilient SBS modified bitumen membrane developed for torch grade SBS roofing systems. This high-performance sheet material is ideal for use over various decks as the initial ply or used as multiple ply roof systems. Paragon® ULTRA TG Base can be used in many Malarkey fire-rated modified SBS roof systems using a torch or heat-welder. Please consult Malarkey Technical Services for approval of roof systems.

Composition and Materials: Paragon® ULTRA TG Base is manufactured on a non-woven fiberglass mat, impregnated and coated with a high quality SBS modified bitumen saturant. Paragon® ULTRA TG Base is coated with a fine mineral surfacing. Paragon® ULTRA TG Base has eight lay lines on the sheet, creating a user-friendly sheet for either a base or ply sheet.

ROLL PROPERTIES	TYPICAL RESULTS
Coverage Rate	100 sq. ft. (9.3 m ²)
Weight per roll	76 lbs. (34.5 kg)
Dimensions	39½" wide x 33.5' long (1 m wide x 10.2 m long)
Total Area per Roll	109.9 ft ² (10.2 m ²)
Thickness	115 mils (2.9 mm)
Lay Lines	2", 4", 12½", 18¼"

Product Approvals

Paragon® ULTRA TG Base is approved for use in systems listed by Intertek/WHI and FM Global. Contact technical services for approved system details. Paragon® ULTRA TG Base meets the requirements of ASTM D6163, Type 1, Grade S for modified bitumen sheet materials using glass fiber reinforcement.

Application

Application Procedure: Paragon® ULTRA TG Base shall be applied as specified. Roof decks should be sound, dry, smooth, meet necessary local requirements, and provide positive drainage. Do not apply wet sheet materials. See Malarkey Specification Manual for specific installation instructions. Contact Malarkey's Technical Department for details.

Storage and Handling: Paragon® ULTRA TG Base requires dry storage and protection from the weather prior to application, as well as during time of application. Store on end on a flat dry surface. Make sure not to damage roll edges, as this may make installation difficult.

Technical Assistance: Malarkey has technical services assistance available. Contact Malarkey for details at (800) 545-1191 or (503) 283-1191, weekdays 6:00 am to 5:00 pm Pacific Time.

Warranty

Malarkey Roofing Products® offers various warranties to meet specific requirements. The warranty packages available for systems using Paragon® ULTRA TG Base include 5, 10, 15, 20, 25, and 30-year limited and unlimited coverage. Contact your roofer, local distribution center or Malarkey for full details.

PARAGON[®]

ULTRA TG BASE

Physical Properties	ASTM Test Method	ASTM D6163 Standard Type I S	Paragon [®] ULTRA TG Base
			Typical Results
Peak Load at 0°F (-18°C) as manufactured	D5147	70 lbf/in (12.3 kN/m)	80 lbf/in (17.6 kN/m)
Peak Load at 0°F (-18°C) after heat conditioning	D5147	70 lbf/in (12.3 kN/m)	75 lbf/in (17.6 kN/m)
Elongation at 0°F (-18°C) as manufactured	D5147	1 %	2%
Elongation at 0°F (-18°C) after heat conditioning	D5147	1%	2%
Peak Load at 73.4°F (23°C) as manufactured	D5147	30 lbf/in (5.3 kN/m)	35 lbf/in (6.2 kN/m)
Peak Load at 73.4°F (23°C) after heat conditioning	D5147	30 lbf/in (5.3 kN/m)	35 lbf/in (6.2 kN/m)
Elongation at 73.4°F (23°C) as manufactured	D5147	2%	3%
Elongation at 73.4°F (23°C) After HC	D5147	2%	3%
Ultimate Elongation at 73.4°F (23°C) as manufactured	D5147	3%	35%
Ultimate Elongation at 73.4°F (23°C) after heat conditioning	D5147	3%	7%
Tear Strength at 73.4°F (23°C)	D5147	35 lbf (156 N) min.	40 lbf (200 N)
Low temperature flexibility, max.	D5147	0°F (-18°C)	Pass
Compound Stability at 215°F (102°C)	D5147	0.5% max	0.1%
*Paragon [™] ULTRA TG Base used in conjunction with a variety of Malarkey ASTM D6162 or 6163 sheets meet ASTM D5849 as manufactured and after heat conditioning.			

PARAGON® ULTRA TG CAP

SBS MODIFIED FR FIBERGLASS CAP SHEET

Note: Malarkey Roofing Products® (Malarkey) Inventory SKU numbers for this product: **630**

Product Description

Product Use: Paragon® ULTRA TG Cap is a fire-rated (FR) mineral cap sheet manufactured to meet the needs of a high-performance, quality built-up SBS roofing system. Paragon® ULTRA TG Cap sheet can be applied with using a torch or torching the field sheets and by using cold process adhesives and heat welding the seams. Paragon® ULTRA TG Cap is used as a surface sheet in many Malarkey fire-rated systems. Please consult Malarkey Technical Services for approval of roof systems.

Composition and Materials: Paragon® ULTRA TG Cap is manufactured on a non-woven fiberglass mat, impregnated and coated with a high quality SBS modified asphalt saturant that is stabilized with fire-retardant compounds. Paragon® ULTRA TG Cap is surfaced with ceramic granules for ultraviolet protection and superior weatherability.

ROLL PROPERTIES	TYPICAL RESULTS
Coverage Rate	75 square feet (7 m ²)
Weight per roll	98 lbs. (43 kg)
Dimensions	39½" wide x 25' long (1 m wide x 10.4 m long)
Thickness	130 mils (3.3 mm)
Thickness, Back Coat, typical	40 mils (1 mm)

Product Approvals

Paragon® ULTRA TG Cap is approved for use in systems listed by Intertek/WHI and FM Global. Contact technical services for approved system details.

Paragon® ULTRA TG Cap sheet meets the requirements of ASTM D6163, Type 1, Grade G for modified bitumen sheet materials using glass fiber reinforcement.

Application

Application Procedure: Paragon® ULTRA TG Cap shall be applied as specified. Roof decks should be sound, dry, smooth, meet necessary local requirements, and provide positive drainage. Do not apply wet cap sheets. See Malarkey Specification Manual for specific installation instructions. Contact Malarkey's Technical Department for details.

Storage and Handling: Paragon® ULTRA TG Cap requires dry storage and protection from the weather prior to application, as well as during time of application. Store on end on a flat dry surface. Make sure not to damage roll edges, as this may make installation difficult.

Technical Assistance: Malarkey has technical services assistance available. Contact Malarkey for details at (800) 545-1191 or (503) 283-1191, weekdays 6:00 am to 5:00 pm Pacific Time.

Warranty

Malarkey Roofing Products® offers various warranties to meet specific requirements. The warranty packages available for systems using Paragon® ULTRA TG Cap include 5, 10, 15, 20, 25, and 30-year limited and unlimited coverage. Contact your roofer, local distribution center or Malarkey for full details.

PARAGON[®]

ULTRA TG CAP

Physical Properties	ASTM Test Method	ASTM D6163 Standard Type I G	Paragon [®] ULTRA TG Cap
			Typical Results
Peak Load at 0°F (-18°C) as manufactured	D5147	70 lbf/in (12.3 kN/m)	85 lbf/in (15 kN/m)
Peak Load at 0°F (-18°C) after heat conditioning	D5147	70 lbf/in (12.3 kN/m)	85 lbf/in (15 kN/m)
Elongation at 0°F (-18°C) as manufactured	D5147	1%	1%
Elongation at 0°F (-18°C) after heat conditioning	D5147	1%	1%
Peak Load at 73.4°F (23°C) as manufactured	D5147	30 lbf/in (5.3 kN/m)	35 lbf/in (6.2 kN/m)
Peak Load at 73.4°F (23°C) after heat conditioning	D5147	30 lbf/in (5.3 kN/m)	35 lbf/in (6.2 kN/m)
Elongation at 73.4°F (23°C) as manufactured	D5147	2%	3%
Elongation at 73.4°F (23°C) After Heat conditioning	D5147	2%	3%
Ultimate Elongation at 73.4°F (23°C) as manufactured	D5147	3%	35%
Ultimate Elongation at 73.4°F (23°C) after heat conditioning	D5147	3%	25%
Tear Strength at 73.4°F (23°C)	D5147	35 lbf (156 N) min.	55 lbf (275 N)
Low temperature flexibility, max.	D5147	0°F (-18°C)	Pass
Compound Stability at 215°F (102°C)	D5147	0.5% max	0.1%
Granule Embedment, g, (max)	D4977	2 g	0.7 g

PARAGON® ULTRA SA BASE

SELF-ADHERING SBS MODIFIED BASE SHEET

Note: Malarkey Roofing Products (Malarkey) Inventory SKU numbers for this product: 610

Product Description

Product Use: 610 Paragon® ULTRA SA Base is a durable and resilient self-adhering SBS modified bitumen membrane developed for use in multi-layered SBS roofing systems. This high-performance sheet material is ideal for use over various decks as the base or used as multiple ply roof systems. 610 Paragon® ULTRA SA Base can be used in many Malarkey fire-rated modified SBS roof systems including self-adhering, torch or heat-welded, cold-applied, hot mopping asphalt or SEBS modified mopping asphalt multiply systems. Please consult Malarkey Technical Services for approval of roof systems.

Composition and Materials: 610 Paragon® ULTRA SA Base is manufactured on a fiberglass scrim, impregnated and coated with a high quality SBS modified bitumen. The back of the membrane is coated with a self-adhering bitumen formulated for optimal adhesion in low sloped roofing applications, with a high strength release film to protect the adhesive prior to application. 610 Paragon® ULTRA SA Base has four (4) lay lines on the sheet, creating a user-friendly sheet for either a base or ply sheet.

Technical Data

ROLL PROPERTIES	TYPICAL RESULTS
Coverage Rate	100 sq ft. (9.3 m ²)
Weight per roll	85 lbs. (38.6 kg)
Dimensions	39⅜" wide x 33.5' long (1 m wide x 10.2 m long)
Total Area per Roll	109.9 ft ² (10.2 m ²)
Thickness	120 mils (3.0 mm)
Lay Lines	3", 18¼"
610 Paragon® Ultra SA Base is approved for use in systems listed by Intertek/WHI and FM Global.	

Application

Application Procedure: 610 Paragon® ULTRA SA Base shall be applied as specified. Roof substrates should be sound, dry, smooth, meet necessary local requirements, and provide positive drainage. Do not apply wet sheet materials. See Malarkey Specification Manual for specific installation instructions. Contact Malarkey's Technical Services Department for details.

Storage and Handling: 610 Paragon® ULTRA SA Base requires dry storage and protection from the weather prior to application, as well as during application. Store on end on a flat dry surface. Make sure not to damage roll edges, as this may make installation difficult.

Technical Assistance: Malarkey has technical services assistance available. Contact us for details at (800) 545-1191 or (503) 283-1191, weekdays 7:00 am to 5:00 pm Pacific Time.

Warranty

Malarkey Roofing Products® offers various warranties to meet specific requirements. Warranty packages available for systems using 610 Paragon® ULTRA SA Base include 5, 10, 15, 20, 25, and 30-year limited and unlimited coverage. Contact your roofer, local distribution center or Malarkey for full details.

610 Paragon® ULTRA SA Base and other Malarkey products are available throughout North America and Pacific Rim countries. Visit WWW.MALARKEYROOFING.COM for additional product information and availability.

PARAGON[®]

ULTRA SA BASE

Physical Properties	ASTM Test Method	ASTM D6163 Standard Type I Grade S	Paragon [®] ULTRA SA Base
			Typical Results
Peak Load at 0°F (-18°C) as manufactured	D5147	70 lbf/in (12.3 kN/m)	80 lbf/in (17.6 kN/m)
Peak Load at 0°F (-18°C) after heat conditioning	D5147	70 lbf/in (12.3 kN/m)	75 lbf/in (17.6 kN/m)
Elongation at 0°F (-18°C) as manufactured	D5147	1%	2%
Elongation at 0°F (-18°C) after heat conditioning	D5147	1%	2%
Peak Load at 73.4°F (23°C) as manufactured	D5147	30 lbf/in (5.3 kN/m)	70 lbf/in (12.34 kN/m)
Peak Load at 73.4°F (23°C) after heat conditioning	D5147	30 lbf/in (5.3 kN/m)	60 lbf/in (10.5 kN/m)
Elongation at 73.4°F (23°C) as manufactured	D5147	2%	3%
Elongation at 73.4°F (23°C) after heat conditioning	D5147	2%	3%
Ultimate Elongation at 73.4°F (23°C) as manufactured	D5147	3%	30%
Ultimate Elongation at 73.4°F (23°C) after heat conditioning	D5147	3%	30%
Tear Strength at 73.4°F (23°C)	D5147	35 lbf (156 N) min.	50 lbf (220 N)
Low temperature flexibility, max.	D5147	0°F (-18°C)	0°F (-19°C)
Dimensional Stability	D5147	0.5% max	0.1%
Adhesion to Plywood, 40°F	D1970	2 lbft/ft width	5 lbft/ft width
Adhesion to Plywood, 77°F	D1970	12.0 lbft/ft width	29 lbft/ft width
*610 Paragon [®] ULTRA SA Base, used in conjunction with a variety of Malarkey ASTM D6162 or D6163 sheets, meets ASTM D5849 as manufactured and after heat conditioning.			