STATEMENT OF WORK

FOR

Flat Roof Replacement

At

Chief of Mission Residence
U.S. Embassy Helsinki, Finland

08/22/2013

REV 01 08-26-13

REV 02 08-29-13

Project 2013-028

1.0 INTRODUCTION

1.1 The U.S. American Embassy in Helsinki, Finland and Overseas Buildings Operations [OBO] has a requirement to replace the Chief of Mission Residence [CMR] flat roofs. The roof project requires a qualified Roof Contractor to perform a replacement according to US standard roof industry practices.

1.2 The CMR has two flat roofs that are waterproofed with an elastomeric coating over a concrete deck. The roof level perimeter is surrounded by a meter high stucco parapet with a masonry coping.

1.3 The Embassy location is:

U.S. Embassy Helsinki
Itainen Puistotie 14
00140 Helsinki

1.4 The Contracting Officer Representative (COR) shall be:

Kato Smith, Facility Manager
Phone 358 9 6162 5647
Cell 358 40 674 4062
Email SmithKD@State.gov

1.5 All inspections will be requested through the COR.

2.0 GENERAL REQUIREMENTS

2.1 The Contractor shall provide personnel, material, equipment, and supervision to complete the technical requirements in this Statement of Work. The Contractor shall be responsible for labor, equipment vendors and shall follow security and safety directives as explained by the Embassy.

2.2 The Contractor shall have limited access into the compound and outside the areas designated for the project except with permission by the Embassy. The Contractor shall address the impact of the consequent disruption and provide for a continuing level of operation of the Embassy functions caused by the proposed work.

2.3 Normal Embassy work week is from Monday through Friday from 08:30 to 17:00.

3.0 SCOPE OF WORK

3.1 **Contractor is allowed to use Finnish materials. All materials to be submitted to Owner for approval prior to use.**

3.2 The Contractor shall be required to prepare reports, bill of materials, quality control schedules and construction costs. These documents shall provide the necessary interfaces, coordination, and communication among the Embassy, OBO, and Contractor for the delivery of a complete roof project.

3.3 Logistics:

- All materials shall be delivered, hoisted on the exterior and stored on the roof.
- Debris removal shall be via a construction chute or hoist.
- Labor Background checks require a minimum of 5 days for clearance.

3.4 Roof Level Design Base System: Protected Membrane Roof [PMR]

- Ballast: Concrete Pavers Approx. 300mmX300mm by 50mm thick.
- Filter Fabric: 0.40 mm polyester water pervious fabric
- **Insulation: 50mm thick extruded polystyrene insulation.**
- Slip Sheet: 20 mil Polyethylene sheet.
- Drainage Board: 12 mm composite drainage polystyrene core and filter fabric.
- Membrane: 2 plies 4.0 mm smooth face modified bitumen, polyester or fiberglass reinforced.
- Base Flashing: 1 ply 4.0 mm smooth and top ply 4.0 mm white granular or aluminum faced modified bitumen.
- Termination Bar: 3.0 x 25 mm aluminum bar stock with fasteners holes 150 mm on center.
- **Metal Flashing: Minimum 0.635mm (24 gauge) copper formed in maximum 3m (10 foot) lengths. Utilize two piece counter flashing configuration at walls.**
- Deck Primer: ASTM D41

3.5 Accessories:

- Mastic Sealant: Polyisobutylene (plain or bituminous-modified), non-hardening, non-migrating, non-skinning, and non-drying
- Pourable Sealer: Pitch Pan Filler and Bonnet; Elastomeric Joint Sealant conforming to ASTM C 920, ASTM C 719, and ASTM C 1248. "Pourable Sealer S-10" by Firestone.
- Sealant: one part polyurethane caulking, Vulkem 45
- Elastomeric Coating: ASTM D-4586 Type I, Karnak 229AR
- Cementitious Cant: Quick-set cementitious non-shrink, non-metallic grout installed in "dry pack" to form cants such as "Sonogrout 10K" by Sonneborn.
- Fasteners: Securing sheet metal items to concrete substrate shall be a pre-assembled drive anchor with a stainless steel drive screw, a lead/zinc alloy expansion anchor body (6mm [1/4-inch] diameter, 38mm [1-1/2-inch] length) and a stainless steel washer with integral rubber seal (28mm [1-1/8-inch] diameter): "Zamac Hammer-Screw" as manufactured by Powers Rawl.

3.6 Removals:

- Remove existing roof down to the existing concrete deck.

3.7 Concrete work:

- Install sloped concrete topping slab over existing structural concrete deck to allow drainage to existing wall scupper. Slope to provide positive drainage from all parts of roof.
- Install new steps on south roof as per drawings. Finished steps to have equal riser heights. Design steps to have concrete pavers permanently attached to treads of steps.

3.8 Modified Bitumen Membrane Installation:

- Apply asphalt primer to entire deck surface at 0.4 liters/square meter and allow to dry
- Shingle membrane in proper direction to shed water
- Torch-apply by heating membrane in accordance with manufacturer's recommendation to achieve continuous edge flow and complete bond.
- Overlap sides minimum 3 inches (75 mm) and end laps minimum 6 inches (150 mm).
- Extend modified bituminous sheet to 2 inches (50 mm) at perimeter.
- Extend perimeter multiple ply flashing a minimum of 6 inches (150 mm) onto modified bituminous sheet roofing.
- Install second ply of modified bitumen in similar fashion. Stagger top ply of modified 18" from bottom ply laps.
- Where roof accessories are set on modified bituminous sheet roofing, set metal flanges on a secondary sheet of membrane and seal with bead of roofing cement
- Fire extinguishers shall be kept on site at all times during torch applied membrane installations.
- Maintain a fire watch for at least one hour after the last roof torch has been extinguished.

3.9 Protected Membrane Roof Placement:

- Layout slip sheet over the new membrane
- Layout and position drainage course and allow to lay flat. Cut and fit drainage course to perimeter and penetrations. Overlap adjacent panels at ends and sides so laps of both the core and fabric are in the direction of flow of water.
- Install the extruded polystyrene roof insulation board loose-laid over the drainage course. Stagger the end joints of adjacent rows and joints of the bottom layer from joints of the top layer.
- Once the drainage course and insulation have been placed over the entire area, install a single ply of the specified filter fabric, lapping each sheet.
- Loose lay the extruded polystyrene insulation over the filter fabric and drainage board.
- Wrap fabric ends over the insulation board at perimeter edge conditions, rise walls, and penetrations.
- Install the concrete pavers over the filter fabric over the entire roof area.

3.10 Installation Details:

- Parapet and Walls
    - At the upper wall, saw cut a new horizontal reglet joint into the concrete wall.
    - Install a 2 piece stainless steel counterflashing after base ply and termination bar is completed. Secure counterflashing in concrete wall with lead wedges.
    - Secure interlocking counterflashing with fasteners 300 mm on center and seal top with caulking.

- Installation of new metal threshold flashing at the existing door sills.

3.11 Railings:

- **Contractor to provide and install new railings. Railings to be painted steel, mounted to roof deck. Finished height to be 1070mm above finish floor of deck.**

4.0 CONTRACT ADMINISTRATION

4.1 The Contractor shall NOT conduct any work that is beyond this Statement of Work unless directed in writing by the CO. Any work done by the Contractor beyond this SOW without direction from the Contracting Officer (CO) will be at the Contractor's own risk and at no cost to the U.S. Government.

4.2 Neither payment, or approval, nor acceptance of Contractor's services under this contract by the Embassy shall be construed to operate as a waiver of any rights under this contract or any cause of action against the Contractor arising out of the performance of this contract.

4.3 The Embassy has the right to inspect and test all services called for by the contract, to the extent practicable, at all times and places during the term of the contract.

4.4 The COR, on behalf of the CO, has the authority to issue a temporary stop order during the execution of any particular phase of this SOW. This authority may be executed when the Embassy requires time for official functions or is in possession of specific credible information indicating that the lives of Embassy personnel are immediately threatened and that the execution of the project will increase the Embassy's vulnerability. The COR shall promptly notify the CO that work has been stopped. The Embassy may stop work on up to 10 occasions for full workdays during the project with 24 hours' notice to the Contractor. The Embassy shall fund work stoppage for mission critical operations beyond 10 days.

4.5 The CO has the right to terminate this contract for convenience at any Phase in whole, or from time to time, if the CO determines it is in the interest of the U.S. Government.

5.0 RESPONSIBILITY OF THE CONTRACTOR

5.1 The Contractor shall prepare and maintain a Project Schedule to address the cost and schedule for the project. The Project Schedule is intended to document the entire project from beginning to end.

5.2 Any cost associated with services subcontracted by the Contractor shall be borne by and be the complete responsibility of the Contractor under the fixed price of this contract.

5.3 The Contractor shall be and remain liable to the USG in accordance with applicable US law for all damages to the Embassy caused by the Contractor's negligent performance of any of the services furnished under this contract. The rights and remedies for the USG provided for under this contract are in addition to any other rights and remedies provided by US law.

5.4 The Contractor's senior representative shall be responsible for briefing COR on the status of the Work. The Contractor shall have all the means to communicate with on-site personnel using state-of-the-art technologies for the industry including, but not limited to, electronic mail, World Wide Web, digitizing equipment, wireless phone or other means.

5.5 The Contractor shall ensure that the overall program is executed smoothly, delivered on schedule, and within the project budget. The Contractor shall coordinate the efforts of all sub-contractors to ensure successful completion of this program within schedule and cost.

5.6 The Contractor shall clean the worksite at the end of each day and be responsible for all waste removal associated with their work.

5.7 All unclassified drawings and unclassified documents must be returned to the COR at completion of the task order. In addition, all documentation produced for this project shall become the property of the USG at the completion of the project.

5.8 The Contractor is responsible for safety and shall comply with all local labor laws, regulations, customs and practices pertaining to labor, safety and similar matters. The Contractor shall promptly report all accidents resulting in lost time, disabling, or fatal injuries to the COR.

6.0 CONSTRUCTION REQUIREMENTS

6.1 The Contractor shall survey the compound areas where construction will take place and become thoroughly familiarized with the existing conditions and conditions that will affect the construction. The Contractor shall ascertain all local permit requirements, licensing requirements, and the quality and availability of materials, sub-contractors, and equipment that may be needed to execute the contract.

6.2 The Contractor shall inspect and evaluate all available drawings and reports pertaining to the project. The Contractor shall field verify all dimensions for construction relevant to the project.

6.3 All materials and equipment incorporated into the project shall be brand new. The Contractor shall transport and safeguard all materials and equipment required for construction as instructed by the manufacturer's instructions.

6.4 The contractor shall include all transportation and installation costs in the bid price.

6.5 The Contractor shall at all times keep the work area free from accumulation of waste materials. Upon completing construction, the Contractor shall remove all temporary facilities and leave the project site in a clean and orderly condition acceptable to Post. Any repair of damage caused as a result of this project will be the responsibility of the Contractor.

6.6 The Contractor shall maintain continuous usage of existing systems during construction, including providing temporary cooling units if necessary.

6.7 Deliverables to Accompany Completion of Construction: The Contractor shall provide one copy of the following to the COR:

A. Contractor & Manufacturer's Contact List. The Contractor shall provide a list containing contractor's & manufacturers' contact information for future repair and maintenance.
B. Maintenance Instructions. Provide two copies to Embassy only.
C. Manufacturers' Equipment Warranties and Identification of Warranty Items
D. One-year workmanship guarantee in writing covering all equipment, materials and labor in the event any workmanship or equipment items are found defective

6.8 The Contractor shall provide operations and maintenance training on the system to Post staff. Coordinate training periods with the COR in writing at least seven (7) business days in advance.

7.0 CRITERIA

7.1 The Contractor shall construct the protected membrane roof replacement project in accordance with U.S. codes and standards. OBO will review and comment on the Contractor's submissions using the following codes and standards:

- Underwriters Laboratory Requirements for a Class A fire-rated roof assembly
- Factory Mutual wind uplift requirements
- National Roofing and Contractors Association, Roofing and Waterproofing Manual
- Sheet Metal and Air Conditioning Contractors National Association for roof system details
- American Society for Testing & Materials, roofing, waterproofing & bituminous materials
- International Building Code, to include structural load and roof drainage requirements

8.0 DELIVERABLE SCHEDULE

8.1 The Contractor shall commence work under this contract promptly upon Notice to Proceed, execute the work diligently, and achieve final completion and acceptance of the project, including final cleanup of the premises and training of Post operations personnel, within the contract period specified.

8.2 Milestones:

• Pre-Bid Meeting	August 28, 2013 at 9:00
• Bid Due Date	September 9, 2013 no later than 13:00
• Beginning of work	September 16, 2013
• Completion of project	November 1, 2013

8.3 Notification of intent to attend pre-bid meeting must be submitted to KakelaK@state.gov more than 24 hours in advance for security clearances.

8.4 Bids must be submitted in English and are due September 9, 2013 no later than 13:00. All bids to be submitted by email to SoderlinVA@state.gov.

8.5 Project Completion: Furnish surplus roof materials, one copy of maintenance and operating information, and catalog cuts of all items installed.

9.0 SECURITY

9.0 All people on site must get clearance from the Embassy Regional Security Officer prior to being allowed on site. Because of the clearance requirement, the work to be performed under this contract requires that the Contractor, its employees and sub-contractors submit personnel information for review by the Embassy. Information submitted by the Contractor will not be disclosed beyond the Embassy.

9.1 The contractor shall submit this information including vehicle requirements within 5 days of the Notice to Proceed.

10.0 PAYMENTS

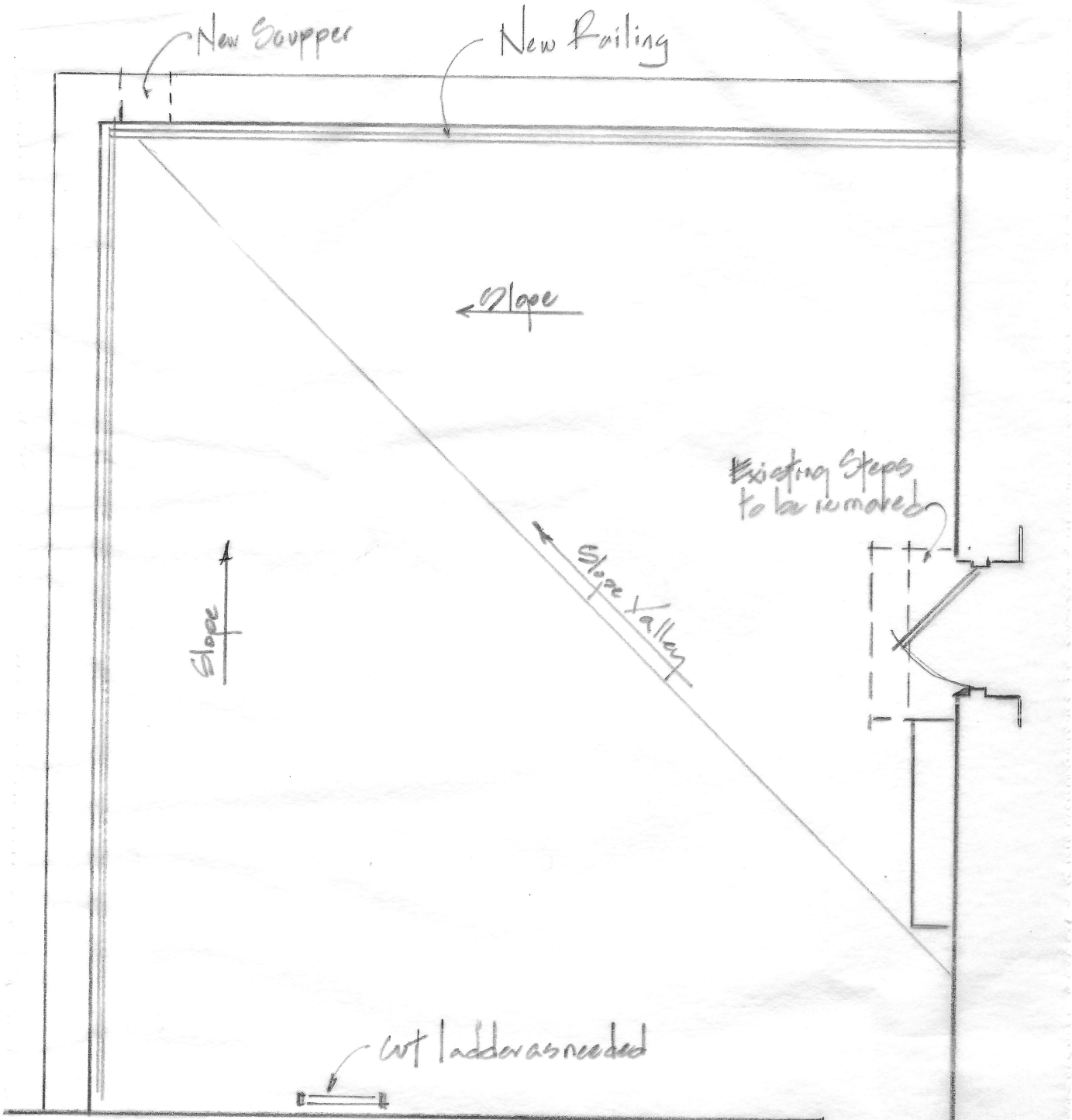
10.0 The Contractor shall provide a fixed fee, lump sum proposal to the CO for the work.

10.1 The Contractor shall submit the invoice, with the appropriate backup documents to the COR. The COR will determine if the invoice is complete and proper as submitted. The COR also will determine if billed services have been satisfactorily performed and if expenses billed are correct. If it is determined that the amount billed is incorrect, the COR will within seven days, request the Contractor to submit a revised invoice.

10.2 Payment terms are 30 days.

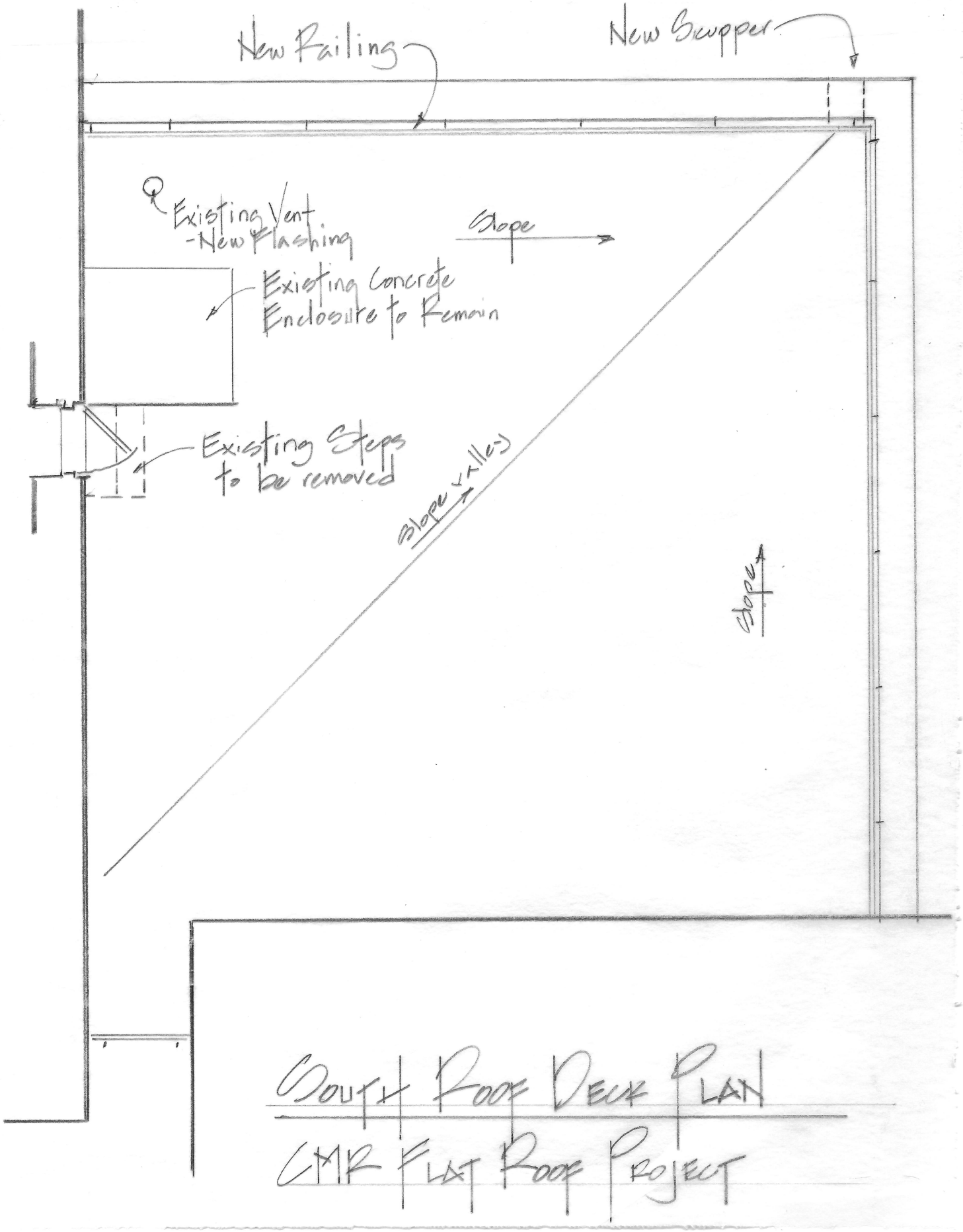
10.3 The Contractor shall specifically identify his last invoice "Final Invoice". The Final invoice shall include the remaining payment claimed to be due under the basic contract and all modifications issued, if any. The final invoice shall also include the Contractor's Release of Claims Certificate attached.

END OF STATEMENT OF WORK



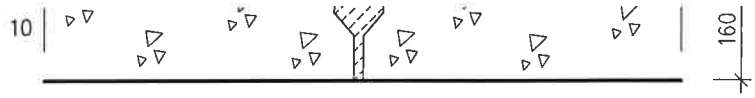
North Roof Deck Plan

CMR Flat Roof Project



South Roof Deck Plan

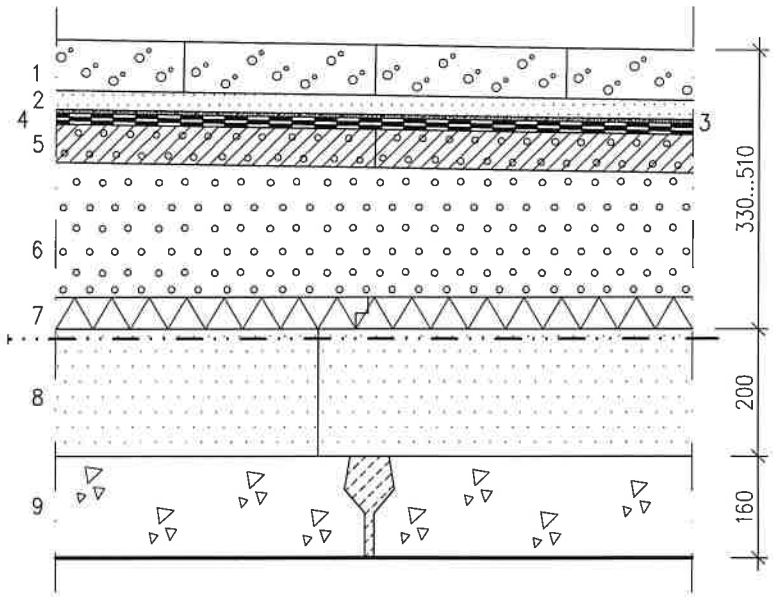
CMR Flat Roof Project



Yliviivatut rakenteet puretaan

~~1. Betonivalu 80 mm, verkkoraudoitus 3-150~~
~~2. Muovikalvo~~
~~3. 3x bitumikermi~~
~~4. Polyuretaanilevy 50 mm~~
~~5. 2x bitumikermi~~
~~6. Kevytbetoni ~90...190 mm (kallistukset), siporex~~
~~7. Kevytbetonilaattaelementti 75 mm, siporex~~
~~8. Korokepalat kevytbetonia ~200x75 k500, siporex (=yläpohjan tuuletuskanaviste, kanaviste yhdistetty parvekekatoissa sijaitseviin tuuletusreikiin 200x200 mm 2 kpl/parveke)~~
9. Kevytbetoni 200 mm, siporex
10. Kantava teräsbetonilaattaelementti 160 mm

Uudet vesikattorakenteet



1. Betonilaatat 300x300x80 mm harmaa, saumaushiekka raekoko 0...1 mm
2. Asennushiekka 30 mm, raekoko 0...8 mm
3. Salaojamatto 6 mm, Enkadrain 5006H/110PP
4. 3x kumibitumikermi BTL 2, kermit hitsataan kauttaaltaan toisiinsa, aluskermi liimataan kumibitumilla kauttaaltaan katelaattoihin
5. Kevytsorakatelaatat 60/70 mm
6. Kevytsora KS820 90...270 mm (> 1:80), kallistuskorot vesikattopiirustuksen mukaan
7. XPS-eristelevy 50 mm, puolipontattu, esim. Finnfoam FL400
8. Kevytbetoni 200 mm, siporex
9. Kantava teräsbetonilaattaelementti 160 mm

KEYNOTES	
KEY VALUE	KEYNOTE TEXT
88	ADD FROSTED FILM TO (E) WINDOW
140	DUMBWAITER SHAFT TO BE USED BY FIRE SUPPRESSION SYSTEM RE: FIRE F6.10x SERIES

FLOOR PLAN LEGEND

- EXISTING STRUCTURE & PARTITIONS TO REMAIN
- INFILLED OPENINGS
- CONCRETE WALLS, RE: STRUCTURAL
- FEBR WALLS, RE: STRUCTURAL
- DOOR TAG
- WINDOW TYPE, LOUVER TYPE
- PARTITION TYPE RE: A6.601
- KEY NOTE RE: KEYNOTE LEGEND
- ROOM TAG (ROOM NAME / ROOM NUMBER)
- AREAS OF NO ARCHITECTURAL WORK

GENERAL NOTES:

1.REFER TO DEMOLITION DRAWINGS FOR EXTENT OF EXISTING ELEMENTS TO REMAIN

2.REFER TO DEMOLITION DRAWINGS FOR EXTENT OF REPAIR AND PATCH WORK NEEDED. FULL EXTENT TO BE COORDINATED W/ IN FIELD CONDITIONS, AND W/ REQUIREMENTS FOR NEW WORK TO BE INSTALLED.

3. LEVEL 1 FINISHED FLOOR ELEVATION = +12.88M AS SURVEYED.

4. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL ELEMENTS.

5. REFER TO A6.601 FOR PARTITION TYPES. PARTITIONS AND WALLS SHOWN WITH GREY POCHE ARE EXISTING TO REMAIN.

6. REFER TO A6.611 FOR DOOR SCHEDULE. DOORS SHOWN AT 45 DEGREES ARE EXISTING TO REMAIN

7. REFER TO LS SERIES FOR PORTABLE FIRE EXTINGUISHER LOCATIONS & TYPES.

9. REFER TO A6.110 DRAWING SERIES -RCPS FOR WINDOW TREATMENT TAGS

10. REFER TO A6.631 FOR INTERIOR FINISHES SCHEDULE

11. REFER TO A6.631 FOR FURNITURE AND EQUIPMENT SCHEDULE

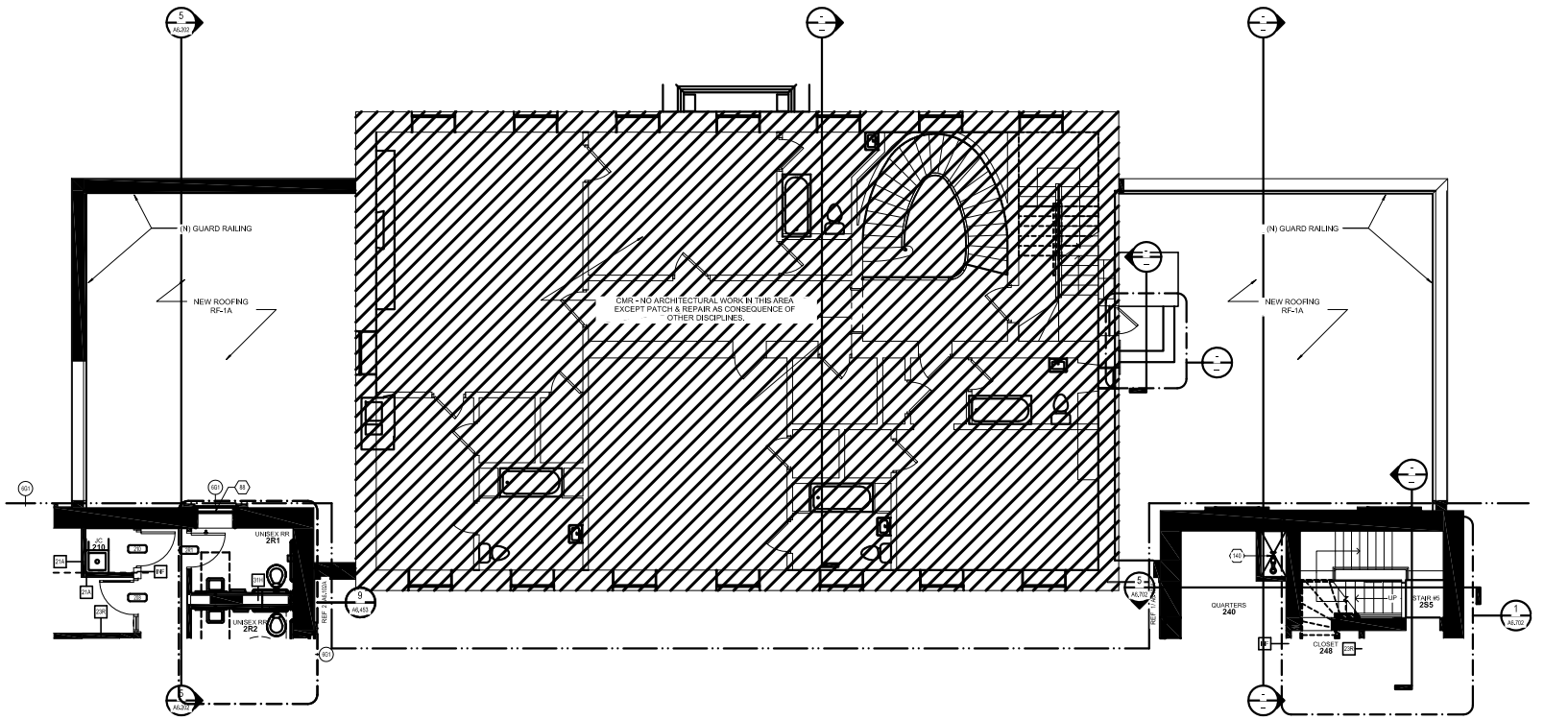
12. REFER TO CIVIL DRAWINGS FOR EXTERIOR PAVING AND SLOPES.

13. PROVIDE CEMENT BACKER BOARD AT ALL WALLS WITH TILE FINISH.

14. FOR ELEVATOR CAB INTERIOR FINISHES, REFER TO A6.721.

15. REFER TO LS SPECIAL WALL PLANS FOR EXTENT OF FEBR AREAS AND TO STRUCTURAL FOR EXECUTION.

16. IN OCCUPIED SPACES THE INTERIOR OF THE (E) WALLS IS A PLASTER FINISH, PAINTED, UNO



1 LEVEL 2 FLOOR PLAN - CMR
A6.102B 1 : 50

SCALE = 1:50

United States Department of State
OFFICE OF OVERSEAS BUILDINGS OPERATIONS
Washington, D.C.

HELSINKI COMPOUND RENOVATION AND CHANCERY ADDITION

REVISIONS		
NUMBER	DESCRIPTION	DATE

	DELIVERY TO OBO	2011 DEC 06	2012 FEB 07	2012 APR 03	2012 MAY 15	2012 JUNE 19	2012 AUG 14	2012 SEP 21	2013 FEB 28	2013 MAY 08	2013 JULY 10	2013 AUG 29
P-1	P	CD	BC	IFC								
P-2			CD 1		CD 2	BC	IFC					
P-3								CH	CD 1	CD 2	IFC	

B.L. Herbert International, L.L.C.
620 Shades Creek Pkwy, Suite 3000
Birmingham, AL 35209
Tel: (205) 802-2000

Page Southerland Page, L.L.P.
3101 Wilson Blvd, Suite 300
Arlington, VA 22201-4419
Tel: (703) 527-4100

KPFF Consulting Engineers
111 SW Fifth Avenue, Suite 2500
Portland, OR 97204
Tel: (503) 227-3251

Ellett Bryan, Inc.
5401 Dolley Madison Blvd, Suite 220
McLean, VA 22101
Tel: (703) 827-0932

Schnabel Engineering North, L.L.C.
46020 Manekin Plaza, Suite 110
Sterling, VA 20166
Tel: (703) 779-0773

Hankins and Anderson, Inc.
4880 Sadler Rd, Suite 300
Glen Allen, VA 23063
Tel: (804) 285-4171

Hinman Consulting Engineers, Inc.
One Bush St
San Francisco, CA 94104
Tel: (415) 421-4423

Rhodeside & Harwell
320 King Street, Suite 302
Alexandria, VA 22314
Tel: (703) 683-7447

Release For Construction:

A/OBO/PE/PM	A/OBO/PE/IDE	

Drawing Title: **LEVEL 2 FLOOR PLAN - CMR**

OBO Project Number:	Drawing Scale	CADD Plot Scale
SAQMMA -12-C-0002	As indicated	1:1

CADD File Name: HELW A6.102B

Date	10 JULY 2013	Sheet Number: EOB
Drawn By: Author		
Checked By: Checker		A6.102B
DSP Project Number: 711943		
Classification: SBU		

7/5/2013 1:41:17 PM

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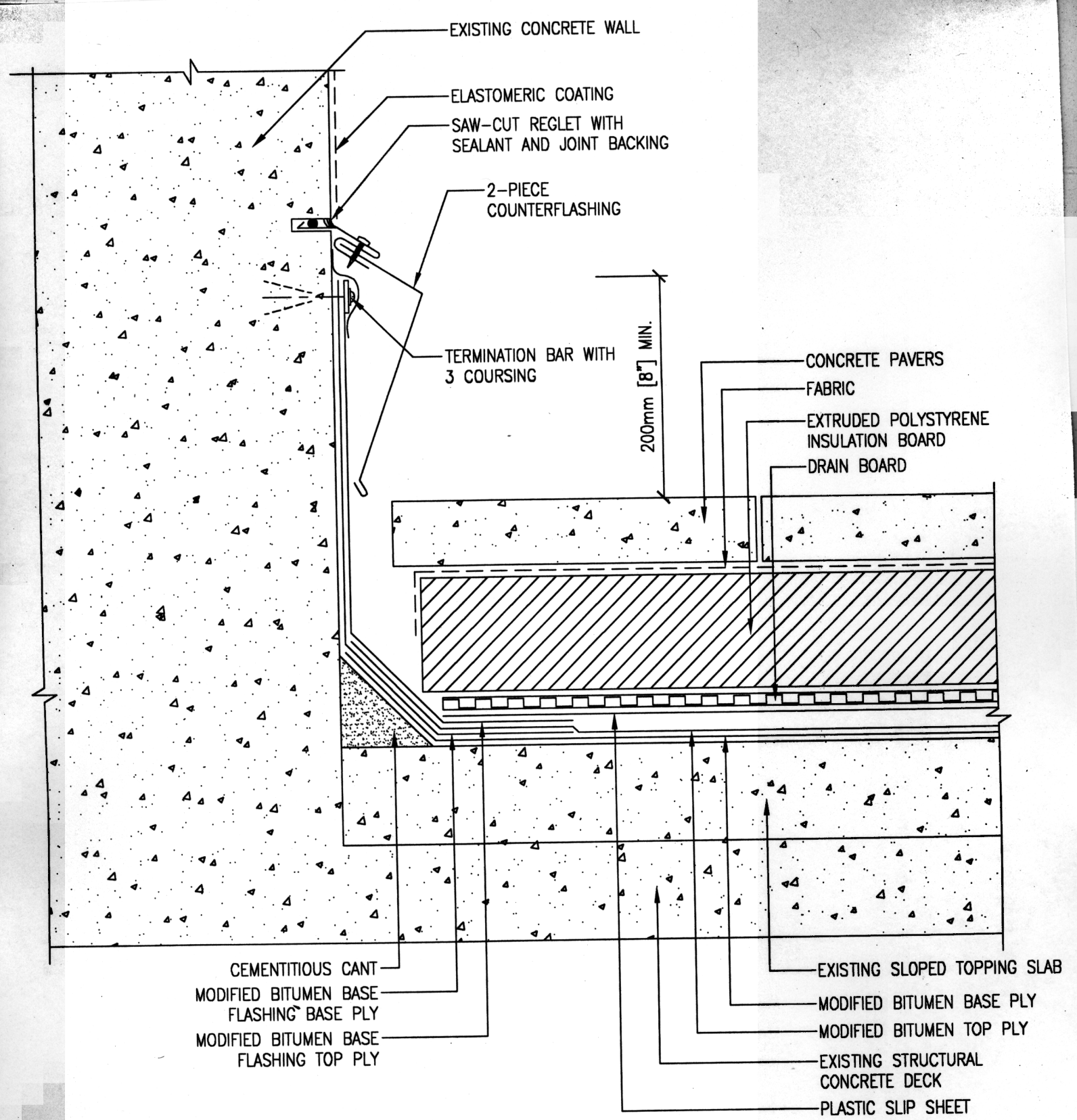

9 / A15 PENTHOUSE / RISEWALL / RMS

SCALE: NOT TO SCALE