

Date: 2/8/19

Cost Proposal

Jim Wingate Project Coordinator Construction & Development Department of Aviation

Re: SAIA - Sandau Roof Replacement

Owner:	San Antonio International Airport
Owner's Representative:	Jim Wingate
Contractor:	Alpha Building Corporation
Project Manager:	Amy Bricker
RFP No.:	181205-01
Contractor: Project Manager:	Alpha Building Corporation Amy Bricker

This Proposal is offered as set forth in the terms and conditions of the contract and the statement of work as amended by a more detailed statement of work attached.

- 1. All work shall be performed in accordance with the <u>Request for Proposal No. 181205-01</u>
- **2.** Furnish materials, equipment, labor, and supervision as required to complete the scope of work listed below:

a. LOWER ROOF AREA

- i. Lower Roof Area :
 - 1. Sweep off loose gravel and debris.
 - 2. Remove built up roofing down to light weight concrete decking.
 - 3. Install $\frac{1}{2}$ tapered crickets in between the roof drains.
 - 4. Mechanically fasten one (1) layer of ¹/₂" DensDeck Prime cover board to light weight concrete deck.
 - 5. Install a white reinforced TPO Membrane System as per the manufacturer's requirements.
 - 6. The system will consist of one (1) layer of 60 MIL reinforced TPO membrane fully adhered to the cover board. The edges will be lapped a minimum of 3" and will be hot air welded in place.
- ii. DETAIL A- (Edge Metal):
 - 1. Install ¹/₂"x 6" CDX plywood nailer to match the new existing height of the roof system.
 - 2. Install 24-gauge galvanized gravel guard.
 - 3. Strip gravel guard in with 8" TPO Strips.



- iii. <u>DETAIL B- (Parapet Walls where Lower & Upper Roofs Meet):</u>
 - 1. Install ¹/₂"x 12" CDX plywood at parapet walls.
 - 2. Install 12" TPO flashing same thickness as membrane at parapet walls. Secure top of flashing (except at small projections) with termination bar and 24-gauge galvanized surface mounted counter flashing.
- iv. <u>DETAIL C- (Parapet Walls with Coping Cap):</u>
 - 1. Install ¹/₂"x 18" CDX plywood at parapet walls.
 - 2. Install 18" TPO flashing same thickness as membrane at parapet walls. Secure top of flashing (except at small projections) with termination bar and 24- gauge galvanized coping cap with plates.
- v. CURBS & PENETRATIONS:
 - 1. Install TPO curb flashing same thickness as membrane at curbs. Secure top of flashing with termination bar and 24-gauge galvanized A/C counter flashing.
 - 2. Re-flash all jacks, pipes, and penetrations.
 - 3. Install TPO walk-pads at roof hatch and service side of A/C units.
 - 4. Install PPH-PP-10 pipe supports to replace existing.

b. UPPER ROOF AREA:

- i. <u>Upper Roof Area</u>
 - 1. Sweep off loose gravel and debris.
 - 2. Tear off existing built up roofing down to concrete decking.
 - 3. Prime concrete deck with Vapor Retarder Primer.
 - 4. Install one (1) layer of self-adhering vapor barrier.
 - 5. In low-rise foam install ¹/₂" tapered crickets in between the roof drains.
 - 6. In low-rise foam loose lay one (1) layer of ¹/₂" DensDeck Prime cover board to light weight concrete deck.
 - 7. Install a white reinforced TPO Membrane System as per the manufacturer's requirements.
 - 8. The system will consist of one (1) layer of 60 MIL reinforced TPO membrane fully adhered to cover board. The edges will be lapped a minimum of 3" and will be hot air welded in place.
- ii. <u>DETAIL A- (Edge Metal):</u>
 - 1. Install ¹/₂"x 6" CDX plywood nailer to match the new existing height of the roof system.
 - Install 24-gauge galvanized gravel guard. Strip gravel with 8" TPO strips.



iii. <u>DETAIL C- (Parapet Walls with Coping Cap):</u>

- 1. Install ¹/₂"x 18" CDX plywood at parapet walls.
- 2. Install 18" TPO flashing same thickness as membrane at parapet walls. Secure top of flashing (except at small projections) with termination bar and 24-gauge galvanized coping cap with plates.

c. <u>CURBS & PENETRATIONS:</u>

- i. Install TPO curb flashing same thickness as membrane at curbs. Secure top of flashing with termination bar and 24-gauge galvanized A/C counter flashing.
- ii. Re-flash all jacks, pipes, and penetrations.
- iii. Install TPO walk-pads at service side of A/C units.
- iv. Install PPH-PP-10 pipe supports to replace existing.

d. <u>CANOPY ROOF AREAS:</u>

- i. <u>Canopy Roof Areas</u>
 - 1. Sweep off loose gravel and debris.
 - 2. Remove built-up roofing membrane to light weight concrete decking.
 - 3. Mechanically fasten one (1) layer of ¹/₂" DensDeck Prime cover board to light weight concrete deck.
 - 4. Install a white reinforced TPO Membrane System as per the manufacturer's requirements.
 - 5. The system will consist of one (1) layer of 60 MIL reinforced TPO membrane fully adhered to the cover board. The edges will be lapped a minimum of 3" and will be hot air welded in place
- ii. <u>DETAIL A- (Edge Metal):</u>
 - 1. Install ¹/₂"x 6" CDX plywood nailer to match the new existing height of the roof system.
 - 2. Install 24-gauge galvanized gravel guard. Strip gravel guard in with 8" TPO strips.
- 3. The current wage decision is included in this proposal.
- 4. No other job related requirements are acknowledged or included in this offer



Assumptions & Clarifications

- 1. No handling or disposal of hazardous materials.
- 2. Work to be performed during standard working hours Monday through Friday.
- 3. We exclude evenings, weekends and holidays.
- 4. We exclude all unforeseen conditions.
- 5. Any additional work/deficiencies discovered after removal of the existing roof will need to be evaluated and prices separately.
- 6. Beldon's (2) year Limited Warranty is included.
- 7. Manufacturer's (20) year limited "NDL" warranty is included.
- 8. Beldon does not perform any design calculations on existing conditions and will not bring existing items up to code if it is a remove and replace.

Projected scheduled time frame: 5 Weeks

Cost:	\$ 1	55,712.11
Bond:	\$	3,570.00

Total Cost:

\$159,282.11

Respectfully,

Amy Bricker

Amy Bricker, Project Manager Alpha Building Corporation

Attached: RS MEANS



Amy Bricker Alpha Building Corporation 2018-10-11-0808 - San Antonio Airport JOC - Basic Contract Year - 10/11/2018 to 10/10/2019 SAIA - Sandau Roof Replacement - 181205-01

Estimator: Amy Bricker

Summary of tagged estimates...

Division Summary (MF04)

01 - General Requirements	\$36,395.50	26 - Electrical	
02 - Existing Conditions	\$5,465.00	27 - Communications	
03 - Concrete		28 - Electronic Safety and Security	
04 - Masonry		31 - Earthwork	
05 - Metals		32 - Exterior Improvements	
06 - Wood, Plastics, and Composites	\$6,299.27	33 - Utilities	
07 - Thermal and Moisture Protection	\$102,135.07	34 - Transportation	
08 - Openings		35 - Waterway and Marine Transportation	
09 - Finishes		41 - Material Processing and Handling Equipment	
10 - Specialties		44 - Pollution Control Equipment	
11 - Equipment		46 - Water and Wastewater Equipment	
12 - Furnishings		48 - Electric Power Generation	
13 - Special Construction		Alternate	\$85,663.79
14 - Conveying Equipment		Trades	
21 - Fire Suppression		Assemblies	
22 - Plumbing	\$17,975.00	FMR	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)		MF04 Total (Without totalling components)	\$253,933.63
25 - Integrated Automation			

Totalling Components

RS Means Subtotal RSMeans SAN ANTONIO, TX CCI 2018Q3, 87.60%		\$253,933.63 \$(31,487.76)	STD HR Coefficient (-30.0000%	b)	\$((66,733.76)
Material, Labor, and E	quipment Totals (No Totalling Components)		Priced/Non-Priced			
Material:	\$59,723.88		Total Priced Items:	57	\$253,933.63	

Material:	\$59,723.88
Labor:	\$178,604.80
Equipment:	\$15,604.95
Other:	\$0.00
Laborhours:	2,357.89
Green Line Items:0	\$0.00

riced/Non-Priced					
Total Priced Items: Total Non-Priced Items:	57 0	\$253,933.63 \$0.00	0.00%		
	57	\$253,933.63			

Grand Total

\$155,712.11

ion rsonnel, clerk, average rsonnel, project manager, maximum rsonnel, superintendent, maximum	UM Week Week	Quantity 2.0000 1.5000	Unit Cost \$780.00	Total Book \$1,560.00 RSM18eFAC	
rsonnel, project manager, maximum	Week		\$780.00	\$1,560.00 RSM18eFAC	
rsonnel, project manager, maximum	Week		\$780.00	\$1,560.00 RSM18eFAC	
		1.5000		L, O&P	F
rsonnel, superintendent, maximum	Wook		\$4,500.00	\$6,750.00 RSM18eFAC L, O&P	F
	WEEK	4.5000	\$4,175.00	\$18,787.50 RSM18eFAC L, O&P	F
aids, and fall protection equipment, installation, setup and removal of aids, sidewall staging bracket	Ea.	30.0000	\$20.50	\$615.00 RSM18eFAC L, O&P	F
aids, and fall protection equipment, installation, setup and removal of aids, sidewall staging, guard post with 2 wood rails	Ea.	30.0000	\$20.50	\$615.00 RSM18eFAC L, O&P	F
r day for general equipment rental, without operators, aerial lift, ing boom, diesel, to 45' high, 500 lb. capacity	Ea.	20.0000	\$300.30	\$6,006.00 RSM18eFAC E, O&P	F
r week for general equipment rental, without operators, toilet, portable	Ea.	20.0000	\$72.60	\$1,452.00 RSM18eFAC E, O&P	Ρ
tion, up to 25 mile haul distance, 50 miles round trip for mobilization or ization crew, equipment hauled on towed trailer, 3-ton capacity and demobilization of material and equipment	Ea.	2.0000	\$305.00	\$610.00 RSM18eFAC L, E, O&P	F
eral Requirements Total				\$36,3	395.50
e demolition, rubbish handling, the following are to be added to the on prices. Dumpster, weekly rental, includes one dump per week, 40 pacity, 10 tons	Week	5.0000	\$850.00	\$4,250.00 RSM18eFAC M, O&P	F
e demolition, dump charges, typical urban city, tipping fees only, building ction materials	Ton	15.0000	\$81.00	\$1,215.00 RSM18eFAC M, O&P	F
ing Conditions Total				\$5,4	465.00
mposites					
neous framing, nailers, treated, wood construction, 2" x 6" CDX plywood nailer	L.F.	284.0000	\$2.57	\$729.88 RSM18eFAC M, L, O&P	F
Area					
neous framing, nailers, treated, wood construction, 2" x 6" DX plywood nailer	L.F.	175.0000	\$2.57	\$449.75 RSM18eFAC M, L, O&P	F
Area					
	aids, sidewall staging bracket aids, sidewall staging, guard post with 2 wood rails r day for general equipment rental, without operators, aerial lift, ing boom, diesel, to 45' high, 500 lb. capacity r week for general equipment rental, without operators, toilet, portable al tion, up to 25 mile haul distance, 50 miles round trip for mobilization or ization crew, equipment hauled on towed trailer, 3-ton capacity and demobilization of material and equipment eral Requirements Total e demolition, rubbish handling, the following are to be added to the on prices. Dumpster, weekly rental, includes one dump per week, 40 bacity, 10 tons e demolition, dump charges, typical urban city, tipping fees only, building tion materials ing Conditions Total mposites neous framing, nailers, treated, wood construction, 2" x 6" CDX plywood nailer Area neous framing, nailers, treated, wood construction, 2" x 6" DX plywood nailer	aids, sidewall staging bracket aids, and fall protection equipment, installation, setup and removal of aids, sidewall staging, guard post with 2 wood rails r day for general equipment rental, without operators, aerial lift, ing boom, diesel, to 45' high, 500 lb. capacity r week for general equipment rental, without operators, toilet, portable al tion, up to 25 mile haul distance, 50 miles round trip for mobilization or ization crew, equipment hauled on towed trailer, 3-ton capacity and demobilization of material and equipment eral Requirements Total e demolition, rubbish handling, the following are to be added to the on prices. Dumpster, weekly rental, includes one dump per week, 40 bacity, 10 tons e demolition, dump charges, typical urban city, tipping fees only, building tion materials ing Conditions Total mposites neous framing, nailers, treated, wood construction, 2" x 6" Area neous framing, nailers, treated, wood construction, 2" x 6" L.F. DX plywood nailer	aids, sidewall staging bracket aids, and fall protection equipment, installation, setup and removal of aids, sidewall staging, guard post with 2 wood rails r day for general equipment rental, without operators, aerial lift, r week for general equipment rental, without operators, toilet, portable al r week for general equipment rental, without operators, toilet, portable al r week for general equipment rental, without operators, toilet, portable al r week for general equipment rental, without operators, toilet, portable al r week for general equipment rental, without operators, toilet, portable al r demobilization of material and equipment Ea . 2.0000 Ea. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2	aids, sidewall staging bracket aids, and fall protection equipment, installation, setup and removal of r day for general equipment, installation, setup and removal of r day for general equipment rental, without operators, aerial lift, ing boom, dissel, to 45' high, 500 lb. capacity r week for general equipment rental, without operators, toilet, portable al. 20.0000 \$72.60 al. 20.0000 \$72.60 al. 20.0000 \$305.00 ization crew, equipment hauled on towed trailer, 3-ton capacity and demobilization of material and equipment e demolition, rubbish handling, the following are to be added to the on prices. Dumpster, weekly rental, includes one dump per week, 40 bacity, 10 tons e demolitions Total mposites neous framing, nailers, treated, wood construction, 2" x 6" Area neous framing, nailers, treated, wood construction, 2" x 6" L.F. 175.0000 \$2.57 DX plywood nailer	aids, sidewall staging bracket L. OAP aids, sidewall staging, guard post with 2 wood rails Ea. 30.0000 \$20.50 \$615.00 RSM18eFAC inds, aidewall staging, guard post with 2 wood rails Ea. 20.0000 \$300.30 \$6,006.00 RSM18eFAC ing boom, diesel, to 45' high, 500 lb. capacity Ea. 20.0000 \$72.60 \$1,452.00 RSM18eFAC ing boom, diesel, to 45' high, 500 lb. capacity Ea. 20.0000 \$72.60 \$1,452.00 RSM18eFAC ind, uton, up to 25 mile haul distance, 50 miles round trip for mobilization or ewe, equipment hauled on towed trailer, 3-ton capacity Ea. 2.0000 \$305.00 \$610.00 RSM18eFAC eral Requirements Total ************************************

Estimator: Amy Bricker

ltem	Description	UM	Quantity	Unit Cost	Total Book	
13 06-11-10-24-510	0 Miscellaneous framing, nailers, treated, wood construction, 2" x 6" Detail A	L.F.	60.0000	\$2.57	\$154.20 RSM18eFAC M, L, O&P	1
	Canopy Roof Area					
14 06-11-10-30-580	0 Roof framing, ridge board, #2 or better, 1" x 6" Roof crickets - tapred - between roof drains	L.F.	1,372.0000	\$3.05	\$4,184.60 RSM18eFAC M, L, O&P	
15 06-16-36-10-010	2 Sheathing, plywood on roofs, CDX, 1/2" thick Detail B - parapet wall where lower and upper roof meet	S.F.	150.0000	\$1.62	\$243.00 RSM18eFAC M, L, O&P	
	Lower Roof Area					
16 06-16-36-10-010	2 Sheathing, plywood on roofs, CDX, 1/2" thick Detail c - CDX Plywood at Parapet Walls	S.F.	134.5000	\$1.62	\$217.89 RSM18eFAC M, L, O&P	I
	Lower Roof Area					
17 06-16-36-10-010	2 Sheathing, plywood on roofs, CDX, 1/2" thick Detail C - CDX Plywood at Parapet walls	S.F.	197.5000	\$1.62	\$319.95 RSM18eFAC M, L, O&P	
	Upper Roof Area					
	06 - Wood, Plastics, and Composites Total				\$6,2	99.27
07 - Thermal ar	nd Moisture Protection					
18 07-05-05-10-372	Selective demolition, thermal and moisture protection, roofing, built-up, n 5 ply, with gravel Remove built up roof down to lightweight concrete decking	o gravel, S.F.	6,948.0000	\$2.94	\$20,427.12 RSM18eFAC L, O&P	
	Lower Roof Area					
19 07-05-05-10-372	 Selective demolition, thermal and moisture protection, roofing, built-up, n 5 ply, with gravel Tear off existing built up roof down to concrete deck 	o gravel, S.F.	4,284.0000	\$2.94	\$12,594.96 RSM18eFAC L, O&P	
	Upper Roof Area					
		o gravel S F	146.0000	\$2.94	\$429.24 RSM18eFAC	
20 07-05-05-10-372	 Selective demolition, thermal and moisture protection, roofing, built-up, n 5 ply, with gravel Remove built up roofing membrane to light weight concrete deck 				L, O&P	
20 07-05-05-10-372	5 ply, with gravel				L, O&P	

stimator: Amy E	Bricker				Combined	estimate	s
Thermal and Moistu	re Protection						
ltem	Description	UM	Quantity	Unit Cost	Total	Book	
	Sweep off loose gravel and debris						
	Lower Roof Area						
07-05-05-10-3725	Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal sweep off loose gravel and debris	S.F.	4,284.0000	\$0.52	\$2,227.68 ^r	RSM18eFAC L, O&P	Ρ
	Upper Roof Area						
07-05-05-10-3725	Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal Sweep off loose gravel and debris	S.F.	146.0000	\$0.52	\$75.92 ^r	RSM18eFAC L, O&P	Ρ
	Canopy Roof Area						
07-13-53-10-2200	Elastomeric sheet waterproofing and access., polyethylene and rubberized asphalt sheets, 60 mils thick Carlisle VapAir Seal - Air and Vapor Barrier	S.F.	4,284.0000	\$3.31	\$14,180.04 ^p	RSM18eFAC M, L, O&P	Ρ
	Upper Roof Area						
07-16-16-20-0020	Cementitious waterproofing, cement base, 1/8" application, sprayed on	S.F.	4,284.0000	\$3.03	\$12,980.52 ^µ	RSM18eFAC	Р
	Carlisle low voc adhesive and primer - concrete deck vapor retarder barrier					M, L, L, Oui	
	Upper Roof Area						
07-22-16-10-0810	Roof deck insulation, excluding fastening, gypsum cover board, fiberglass mat facer, 1/2" thick 1/2" DensDeck Prime Cover Board	S.F.	6,948.0000	\$1.13	\$7,851.24 ^r	RSM18eFAC M, L, O&P	Ρ
	Lower Roof Area						
07-22-16-10-0810	Roof deck insulation, excluding fastening, gypsum cover board, fiberglass mat facer, 1/2" thick 1/2" DensDeck Prime Cover Board	S.F.	4,284.0000	\$1.13	\$4,840.92 ^p	RSM18eFAC M, L, O&P	Ρ
	Upper Roof Area						
07-22-16-10-0810	Roof deck insulation, excluding fastening, gypsum cover board, fiberglass mat facer, 1/2" thick 1/2" DensDeck Prime Cover Board	S.F.	146.0000	\$1.13	\$164.98 ^p	RSM18eFAC M, L, O&P	Ρ
	Canopy Roof Area						
07-22-16-10-3010	Roof deck insulation, fastening alternatives, coated screws, 4" long	Ea.	5,000.0000	\$0.32	\$1,600.00 F	RSM18eFAC M, L, O&P	Р
07-22-16-10-3075	Roof deck insulation, fastening alternatives, 3" galvanized deck plates	Ea.	5,000.0000	\$0.17	\$850.00 ^p	RSM18eFAC M, L, O&P	Р
	Thermal and Moisturitem Item 07-05-05-10-3725 07-05-05-10-3725 07-13-53-10-2200 07-16-16-20-0020 07-22-16-10-0810 07-22-16-10-0810 07-22-16-10-0810 07-22-16-10-0810	Sweep off loose gravel and debris Lower Roof Area 07-05-05-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal sweep off loose gravel and debris 07-05-05-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal sweep off loose gravel and debris 07-05-05-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal Sweep off loose gravel and debris 07-05-05-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal Sweep off loose gravel and debris 07-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal Sweep off loose gravel and debris 07-13-53-10-2200 Elastomeric sheet waterproofing and access., polyethylene and rubberized asphalt sheets, 60 mils thick Carlisle VapAir Seal - Air and Vapor Barrier 07-16-16-20-0020 Cementitious waterproofing, cement base, 1/8" application, sprayed on Carlisle low voc adhesive and primer - concrete deck vapor retarder barrier 07-22-16-10-0810 Roof deck insulation, excluding fastening, gypsum cover board, fiberglass mat facer, 1/2" thick 1/2" DensDeck Prime Cover Board 07-22-16-10-0810 Roof deck insulation, excluding fastening, gypsum cover board, fiberglass mat facer, 1/2" thick 1/2" DensDeck Prime Cover Board 07-22-16-10-0810 Roof deck insulation, excluding fastening, gypsu	Thermal and Moisture Protection UM Item Description UM Sweep off loose gravel and debris	Thermal and Moistur Protection UM Quantity Item Description UM Quantity Sweep off loose gravel and debris Lower Roof Area	Thermal and Moview Protection UM Quantity Unit Cost Item Description UM Quantity Unit Cost 07-05-05-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal gravel removal gravel removal gravel removal gravel removal gravel removal S.F. 4.284.0000 \$0.52 07-05-05-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal gravel removal Sweep of loose gravel and debris S.F. 146.0000 \$0.52 07-05-05-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal Sweep of loose gravel and debris S.F. 146.0000 \$0.52 07-05-05-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal S.F. 4.284.0000 \$0.52 07-05-05-10-3725 Selective demolition, thermal and moisture protection, roofing, built-up, loose gravel removal S.F. 4.284.0000 \$0.33 07-13-63-10-200 Carnisle low voc anhesive and primer - concrete deck vapor retarder barrier Vupper Roof Area S.F. 6.948.0000 \$1.13 07-22-16-10-0810 Reof deck insulation, excluding fastening, gypsum cover board, fiberglass mat facer, 1/2* linek<	Thermal and Moisture Protection Description UM Quantity Unit Cost Total Sweep off loose gravel and debris	Thermal and Moisture Protection Description UM Quantity Unit Cost Total Book 1 term Description Selective demolitor, thermal and moisture protection, roofing, built-up, loose gravel removal sweep off loose gravel and debris S.F. 4,284.0000 \$0.52 \$2.227.68 Missing AG 07-05-05-10-3725 Selective demolitor, thermal and moisture protection, roofing, built-up, loose gravel removal sweep off loose gravel and debris S.F. 4,284.0000 \$0.52 \$2.227.68 Missing AG 07-05-05-10-3725 Selective demolitor, thermal and moisture protection, roofing, built-up, loose gravel removal sweep off loose gravel and debris S.F. 146.0000 \$0.52 \$7.59.2 Missing AG 07-13-53-10-2200 Elastometic sheet wateproofing and access, polyethylene and rubberized carliel VapAir Seal - Air and Vapor Barrier S.F. 4.284.0000 \$3.31 \$14,180.04 Missing AG 07-16-16-20-0020 Cerneritious wateproofing, cernerit base, fil ⁶ application, sprayed on Carliels low voc adhesive and primer - concrete deck vapor relarder barrier S.F. 4,284.0000 \$1.13 \$12,900.52 Missing AG 07-22-16-10-0810 Roof deck insulation, excluding fastening, gypsum cover board, fiberglass mat 12.2 S.F. <

Estimator: Amy Bricker

07 - Thermal and Moisture Protection

	ltem	Description	UM	Quantity	Unit Cost	Total Book	
31	07-54-23-10-0200	Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered Detail B - 12" TPO flashing at parapet walls	Sq.	1.5000	\$221.00	\$331.50 RSM18eFAC M, L, E, O&P	Ρ
		Lower Roof Area					
32	07-54-23-10-0200	Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered Detail A - 8" strips at gravel guard	Sq.	1.8600	\$221.00	\$411.06 RSM18eFAC M, L, E, O&P	Ρ
		Lower Roof Area					
33	07-54-23-10-0200	Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered Detail C - 18" TPO flashing at parapet walls	Sq.	1.3450	\$221.00	\$297.25 RSM18eFAC M, L, E, O&P	Ρ
		Lower Roof Area					
34	07-54-23-10-0200	Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered Detail C - 18" TPO flashing at parapet wall	Sq.	1.8750	\$221.00	\$414.38 RSM18eFAC M, L, E, O&P	Ρ
		Canopy Roof Area					
35	07-54-23-10-0200	Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered walk pads at service side of AC units	Sq.	3.0000	\$221.00	\$663.00 RSM18eFAC M, L, E, O&P	Ρ
36	07-65-10-10-9324	Sheet metal flashing and counter flashing, including up to 4 bends, steel sheets, galvanized, 24 gauge Detail B - counter flashing at parapet walls	S.F.	140.0000	\$5.55	\$777.00 RSM18eFAC M, L, O&P	Ρ
		Lower Roof Area					
37	07-65-10-10-9324	Sheet metal flashing and counter flashing, including up to 4 bends, steel sheets, galvanized, 24 gauge 24 ga galvanized coping cap	S.F.	418.0000	\$5.55	\$2,319.90 RSM18eFAC M, L, O&P	Ρ
38	07-71-16-20-0100	Pitch pockets, variable sizes, adjustable, 4" to 7", welded corners, 4" deep	Ea.	32.0000	\$31.50	\$1,008.00 RSM18eFAC M, L, O&P	Р
		 (12) 4" x 4" (5) 6" x 6" (1) 8" x 8" (1) 12" x 12" - Due to line item sizing counted as 2 (2) 12" x 36" - Due to line itme sizing counted as 5 				Wi, L, OAF	
39	07-71-19-10-1350	Gravel stop, galvanized steel, plain, 24 gauge, with continuous cleat, 4" leg, 4" face height 24 ga galvanized gravel guard	L.F.	518.0000	\$12.35	\$6,397.30 RSM18eFAC M, L, O&P	Ρ

Estimator: Amy Bricker

07 - Thermal and Moisture Protection

	ltem	Description	UM	Quantity	Unit Cost	Total Book	
40	07-71-26-10-1300	Reglets and accessories, counter flashing for above, 12" wide, galvanized steel, 26 gauge Counter flashing at A/C	L.F.	200.0000	\$6.45	\$1,290.00 RSM18eFAC M, L, O&P	F
41	07-71-26-10-1300	Reglets and accessories, counter flashing for above, 12" wide, galvanized steel, 26 gauge Surface mounted counter flashing	L.F.	188.0000	\$6.45	\$1,212.60 RSM18eFAC M, L, O&P	F
42	07-72-23-10-0020	Roof vents, mushroom shape, for built-up roofs, aluminum	Ea.	11.0000	\$92.50	\$1,017.50 RSM18eFAC M, L, O&P	F
		Roof Vents				Wi, L, Odr	
43	07-92-13-20-3900	Caulking and sealant options, polyurethane, 1 or 2 component, bulk, in place, 1" x 1/2" $$	L.F.	1,000.0000	\$4.16	\$4,160.00 RSM18eFAC M, L, O&P	F
		07 - Thermal and Moisture Protection Total				\$102,1	35.07
22	- Plumbing						
44	22-05-29-10-7424	Hangers and supports for plumb'g/HVAC pipe/equip., roof supports, pipe, strut and channel type, up to 2-1/2" diameter pipe, 3-1/2" off roof Roof pipe support for 100 LF	Ea.	10.0000	\$80.00	\$800.00 RSM18eFAC M, L, O&P	F
45	22-14-26-13-4400	Roof drains, roof, integral expansion joint, cast iron body, 12" cast iron dome, 8" pipe size Roof Drains	Ea.	6.0000	\$2,200.00	\$13,200.00 RSM18eFAC M, L, O&P	I
46	22-14-26-16-5100	Facility area drains, scupper floor, oblique strainer, cast iron, 8" x 12" top, 5" and 6" pipe size Roof Scuppers	Ea.	5.0000	\$795.00	\$3,975.00 RSM18eFAC M, L, O&P	F
		22 - Plumbing Total				\$17,9	75.00
Alte	ernate						
47	07-54-23-10-0200	Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams fully adhered 60 Mil TPO fully adhered - min of 3" overlap - Material Only	Sq.	83.3700	\$106.98	\$8,918.92 CUSTOM M, E, O&P	F
		Lower Roof Area					
48	07-54-23-10-0200	Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams fully adhered 60 Mil TPO - fully adhered - min 3" overlap - material only	Sq.	51.4000	\$106.98	\$5,498.77 CUSTOM M, E, O&P	F
		Upper Roof Area					
49	07-54-23-10-0200	Thermoplastic polyolefin roofing (T.P.O.), 60 mil membrane, heat welded seams, fully adhered 60 Mil TPO - Fully Adhered - min 3" overlap - Material Only	Sq.	1.7500	\$106.98	\$187.22 CUSTOM M, E, O&P	F

Estimator: Amy Bricker

Alternate						
ltem	Description	UM	Quantity	Unit Cost	Total Book	
	Canopy Roof Area					
50 07-71-16-20-0100	Demo - Pitch pockets, variable sizes, adjustable, 4" to 7", welded corners, 4" deep Labor Adjustment: 50% of \$13.18 = \$6.59	Ea.	32.0000	\$6.59	\$210.88 CUSTOM L, O&P	Ρ
	Using O&P Pricing Bare Costs: (M:\$16.65 L:\$7.35 E: O:48.00 LH:0.167) O&P Labor Calc = O&P Total - (Bare Material + 10.000%) - (Bare Equipment + 10.00 \$31.50 - \$18.32 - \$0.00 = \$13.18 Labor w/CCI = \$13.18 * 100.000% = \$13.18	00%)				
51 07-72-23-10-0020	Demo - Roof vents, mushroom shape, for built-up roofs, aluminum	Ea.	11.0000	\$10.50	\$115.50 CUSTOM L, O&P	Ρ
	Labor Adjustment: 50% of \$21.00 = \$10.50					
	Using O&P Pricing Bare Costs: (M:\$65.00 L:\$11.70 E: O:30.00 LH:0.267) O&P Labor Calc = O&P Total - (Bare Material + 10.000%) - (Bare Equipment + 10.00 \$92.50 - \$71.50 - \$0.00 = \$21.00 Labor w/CCI = \$21.00 * 100.000% = \$21.00	00%)				
52 22-14-26-13-4400	Demo - Roof drains, roof, integral expansion joint, cast iron body, 12" cast iron dome, 8" pipe size Labor Adjustment: 50% of \$467.50 = \$233.75	Ea.	6.0000	\$233.75	\$1,402.50 CUSTOM L, O&P	Р
	Using O&P Pricing Bare Costs: (M:\$1,575.00 L:\$298.00 E: O:3.00 LH:5.333) O&P Labor Calc = O&P Total - (Bare Material + 10.000%) - (Bare Equipment + 10.00 \$2,200.00 - \$1,732.50 - \$0.00 = \$467.50 Labor w/CCI = \$467.50 * 100.000% = \$467.50)0%)				
	Roof Drains					
53 22-14-26-16-5100	Demo - Facility area drains, scupper floor, oblique strainer, cast iron, 8" x 12" top 5" and 6" pipe size Labor Adjustment: 50% of \$102.00 = \$51.00	, Ea.	5.0000	\$51.00	\$255.00 CUSTOM L, O&P	Р
	 Using O&P Pricing Bare Costs: (M:\$630.00 L:\$64.00 E: O:14.00 LH:1.143) O&P Labor Calc = O&P Total - (Bare Material + 10.000%) - (Bare Equipment + 10.00 \$795.00 - \$693.00 - \$0.00 = \$102.00 Labor w/CCI = \$102.00 * 100.000% = \$102.00	00%)				
	Roof Scuppers					
54 Crew G-05	G-05 Crew - 2019 - RSMeans Standard Books O&P	Daily	9.0000	\$2,929.59	\$26,366.31 CUSTOM L, E, O&P	Р
	G-05 (2019 - RSMeans Standard Books)				2, 2, 00	

Estimator: Amy Bricker				Combined estimates				
Alternate								
ltem	Description	UM	Quantity	Unit Cost	Total	Book		
	Labor Hours: 40 Equip Hours: 8 Daily Hours: 40							
	Crew Details: Code: ROFC Description: Roofers, Composition (Outside Foreman) Qty Code: ROFC Description: Roofers, Composition Qty: 2 Hourly: 75.05 Da Code: ROHE Description: Roofers, Helpers (Composition) Qty: 2 Hourly Code: 015433100900 Description: Application Equipment Qty: 1 Hourly	aily: 1200.8 v: 56.4 Daily: 902.4						
	Lower Roof Area							
55 Crew G-05	G-05 Crew - 2019 - RSMeans Standard Books O&P	Daily	9.0000	\$2,929.59	\$26,366.31 ^C	USTOM _, E, O&P	F	
	G-05 (2019 - RSMeans Standard Books) Labor Hours: 40 Equip Hours: 8 Daily Hours: 40				L	., L, Our		
	Crew Details: Code: ROFC Description: Roofers, Composition (Outside Foreman) Qty Code: ROFC Description: Roofers, Composition Qty: 2 Hourly: 75.05 Da Code: ROHE Description: Roofers, Helpers (Composition) Qty: 2 Hourly Code: 015433100900 Description: Application Equipment Qty: 1 Hourly	aily: 1200.8 ⁄: 56.4 Daily: 902.4						
	Upper Roof Area							
56 Crew G-05	G-05 Crew - 2019 - RSMeans Standard Books O&P	Daily	2.0000	\$2,929.59	\$5,859.18 ^C	USTOM	Р	
	G-05 (2019 - RSMeans Standard Books) Labor Hours: 40 Equip Hours: 8 Daily Hours: 40				L	., E, O&P		
	Crew Details: Code: ROFC Description: Roofers, Composition (Outside Foreman) Qty Code: ROFC Description: Roofers, Composition Qty: 2 Hourly: 75.05 Da Code: ROHE Description: Roofers, Helpers (Composition) Qty: 2 Hourly Code: 015433100900 Description: Application Equipment Qty: 1 Hourly	aily: 1200.8 v: 56.4 Daily: 902.4						
	Canopy Roof Area							
7 Crew Q-02	Q-02 Crew - 2018 - RSMeans Standard Books O&P	Daily	5.0000	\$2,096.64	\$10,483.20 ^C	USTOM _, O&P	Р	
	Q-02 (2018 - RSMeans Standard Books) Labor Hours: 24 Equip Hours: 0 Daily Hours: 24				L	-, Uαr		

Estimator: Amy Bricker				C	Combined estimates		
rnate							
ltem	Description	UM	Quantity	Unit Cost	Total	Book	
	Crew Details: Code: PLUM Description: Plumbers Qty: 2 Hourly: 93.6 Daily: 1497.6 Code: PLUM Description: Plumbers (Apprentice) Qty: 1 Hourly: 74.88 Daily: 599.04						
	Crew to re run condensate and gas line						
	Alternate Total					\$85,663.7	
	Estin	nate Grand	Total			155.712.1	