DEVELOPMENT PERMIT APPLICATION

The type of development permit(s) for which this form is applicable to as well as the corresponding fee schedule are described on Pages 5-7. Mandatory application documents and the required ancillary attachments for each type of request are on Pages 8-10. Prior to the submission of an application, the applicant must contact the Planning and Zoning Division for an appointment at 954-630-4572.

STAFF USE ONLY									
Date Submitted: Case No.									
Project Name:									
Folio No(s).									
r:-									
GENER	RAL DATA – COMI	PLETE ALL SEC	CTIONS						
Address of property: 936 NE 33 Str	eet, Oakland Park, Fl	L 33334							
Legal Description: (or attach descript	tion) See attached fro	m BCPA and FISI	H survey						
Gross Acres:		Net Acres:	*						
Title to this Property has been held	since:	Existing Zoning:							
Existing Use of Property [include no	o. and sq. ft. of existing	g structure(s)]: Ele	mentary School						
Proposed Use of Property (include n									
Type of Development Permit(s) requ	iested:								
O	WNER/APPLICAN	ΓINFORMATIO)N						
(The undersigned has reviewed all in	structions concerning	the application and	understands the application must be						
complete and accurate prior to sta authorization for representative.	ff review or Public I	learing(s). Attach	proof of ownership and owner's						
Name of Property Owners: School	Board of BC	Title:							
Address: 600 SE 3 Avenue	DOUTE OF BO								
City: Fort. Lauderdale	State: FL		Zip Code: 33301						
Phone:	State.		zip Couc.						
Signature:		Signature:							
Email Address:		Email Address:							
Name of Applicant's Representative		Eman Address:							
Address:									
	64-4		7. C. I						
City:	State:		Zip Code:						
Office Phone:	Cell Phone:								



Site Address	936 NE 33 STREET, OAKLAND PARK FL 33334	ID#	4942 23 05 2940
	SCHOOL BOARD OF BROWARD COUNTY	Millage	1712
	ATTN:FACILITY MANAGEMENT	Use	83
Mailing Address	600 SE 3 AVE FORT LAUDERDALE FL 33301-3125		
Abbr Legal	OAKLAND PARK SECOND ADD 1-39 B LOT 1 TO 30 BLK 60 T	OG WITH I	OT 1 TO 15 BLK

OAKLAND PARK SECOND ADD 1-39 B LOT 1 TO 30 BLK 60 TOG WITH LOT 1 TO 15 BLK 61 AKA:OAKLAND PARK ELEM Description

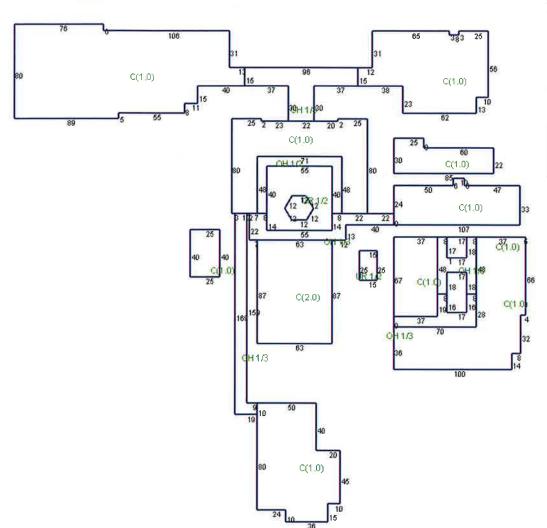
The	just va r	lues edu	displaction f	ayed or c	below to	were set sale and	in co other	mpliance adjustm	ent	ith Sec. ts requi	193.01 red by	1, Fla. S Sec. 193	stat., and ir 3.011(8).	nclud	le a
						Prope	ty As	sessmen	t V	alues					
Year		La	nd			Building / Improvement		Just / Market nt Value		et	Assessed / SOH Value			Tax	
2019	\$1	1,49	8,370		\$	9,000,12	0	\$	10,	498,490		\$10	0,498,490		
2018	\$1	1,498	8,370		\$:	9,000,12	0	\$	10,	498,490		\$10	,498,490		
2017	\$1	I,498	8,370		\$	9,000,12	0	\$	10,	498,490		\$10),498,490		
			2	019	Exempt	ions an	d Taxa	able Valu	es	by Taxir	ng Auth	ority			
					C	ounty		School	Во	ard	M	unicipa	l Ir	ndep	endent
Just Valu	ıe				\$10,49	98,490		\$10,49	98,4	490	\$10	,498,490) (\$10,4	98,490
Portabilit	ly					0				0		()		0
Assesse	d/SOH				\$10,49	98,490		\$10,49	98,4	490	\$10	,498,490) (\$10,4	98,490
Homeste	ad					0			0			0		0	
Add. Hor	nestea	d			0				0		0			0	
Wid/Vet/[Dis					0			0		0			0	
Senior						0				0		0			0
Exempt 1	Type 0	5			\$10,49	98,490		\$10,49	98,4	8,490 \$10,498,4			90 \$10,49		98,490
Taxable		0 0					(0					
			S	ales	History				۱۱		L	and Cal	culations		
Date	Тур	е	Pric	е	E	Book/Pa	ge or (CIN			Price		Factor		Туре
									\$218,422		18,422		6.86		AC
									ᅫ					4	
		_							╢					-	
		-		_					╢	Adj. E	3ldg. S.	.F. (Car	d, Sketch)	9	2789
						ᅦ				Built: 1968/	_				
						Spe	cial A	ssessme	ents	s					
Fire		G	arb	Γι	₋ight	Drain		lmpr	_	Safe	Sto	rm	Clean		Misc
17															
X															
92789															

	Special Assessments											
Fire	Garb	Light	Drain	lmpr	Safe	Storm	Clean	Misc				
17												
×												
92789												

8/27/2019 BCPA Sketch

BCPA Sketch: 494223052940

Building 1 of 2 Next



Code	Description	Long Description
C(1.0)	First Floor	First Floor
OH	Overhang	Overhang
1/3	1/3	1/3
UR	Utility	Utility
1/2	Room	Room
OH	Overhang	Overhang
1/2	1/2	1/2
C(2.0)	Two Floors	Two Floors

Details:

Page: 1

File: 9223-05-2940.xml Subject information:

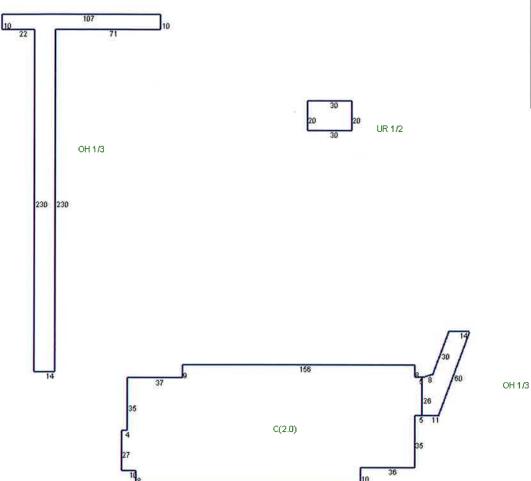
Area Summary:

Code	Description	Area	Perimeter	Adj. Area	Adj. Perim	Factor	Stories	Level
C(1.0)	First Floor	12,945.00	550.00	12,945.00	550.00	1.00	1.00	1.00
OH 1/3	Overhang 1/3	2,100.00	267.00	693.00	282.00	0.33	1.00	1.00
C(1.0)	First Floor	6,190.00	364.00	6,190.00	364.00	1.00	1.00	1.00
C(1.0)	First Floor	5,662.00	490.00	5,662.00	490.00	1.00	1.00	1.00
UR 1/2	Utility Room	374.12	72.00	187.06	72.00	0.50	1.00	1.00
OH 1/2	Overhang 1/2	1,208.00	278.00	604.00	318.00	0.50	1.00	1.00

8/27/2019 BCPA Sketch

BCPA Sketch: 494223052940

Building Prev 2of 2



Code	Description	Long Description
OH	Overhang	Overhang
1/3	1/3	1/3
C(2.0)	Two Floors	Two Floors
UR	Utility	Utility
1/2	Room	Room

Details:

Page: 2

File: 9223-05-2940.xml Subject information:

Area Summary:

Code	Description	Area	Perimeter	Adj. Area	Adj. Perim	Factor	Stories	Level
OH 1/3	Overhang 1/3	4,290.00	464.00	1,415.70	694.00	0.33	1.00	1.00
C(2.0)	Two Floors	14,744.00	525.00	29,488.00	525.00	2.00	1.00	1.00
UR 1/2	Utility Room	600.00	100.00	300.00	100.00	0.50	1.00	1.00
OH 1/3	Overhang 1/3	841.44	122.58	277.68	148.58	0.33	1.00	1.00

hef. # 12, summary of work (8 pages)

JORGE A GUTIERREZ • ARCHITECT • LLC

PROJECT:

OAKLAND PARK - ELEMENTARY SCHOOL- RENOVATIONS

SBBC PROJECT No.:

P.001895

LOCATION:

Oakland Park Elementary School

926 NW 33rd Street, Oakland Park, Florida 33334

DATE:

August 26, 2019

Property Legal Description:

All of lots 1 thru 30 in block 60 and all of lots 1 thru 15 in block 61 of "Oakland Park Second Addition" according to the plat thereof as recorded in play book 1 at page 39 of the public records of Broward County, Florida; together with that portion of northeast 32nd street. Lying between said block 60 and said as vacated by ordinance no. 119 of the city of Oakland Park. (Reference from Boundary and Topographic Survey prepared by Pulice Land Surveyors, Inc. March 8, 1993)

Oakland Park School Complex contains two contiguous and one freestanding Mediterranean Revival style structures. The one-story main classroom building (Building 4-1926) is u-shaped and distinguished by its arcaded walkways and open courtyard. The two-story auditorium (Building 6-1927) is rectangular in plan and is attached to the open (south) end of the classroom building by an extension of the arcaded walkway. Its most distinguishing interior feature is the massive exposed beams in the auditorium. The historic buildings are constructed of hollow clay tile with rough-textured stucco finishing. The original clay barrel tile roofing was replaced with rolled asphalt and was restored around 1990 (after placed on the National Register of Historical Places in 1988) using concrete Spanish S tile and Barrel tile. A detached original covered water fountain in the center of the courtyard was enclosed and renovated into an office. The complex is located in a residential area with commercial intrusions to the south of it (in rear). Concrete block structures, c. 1958, on the lot are connected to the complex by way of three flat-roofed walkways. The historic structures retain a high degree of their physical integrity. Refer to attached Architectural Plans H-101 Overal Roof Plan with location of photos & H-102 showing photos of existing conditions.

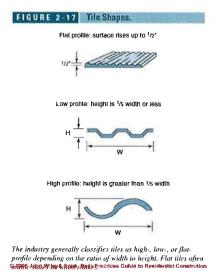
Program Description:

As part of the scope of work for Oakland Park Elementary School Renovtion the re-roofing of Historical Auditorium Building 6 as well as connected Buildings 4 & 5 and original school entrance covered walways now connecting the original school compound with new buildings 1 & 2.

Electrical and Mechanical improvements will as well be performed but not disturbuing of existing building image.

Existing roof is about 30 years old. All roof assembly will be removed inclusive of concrete tiles, membranes, cants, flashing, drip edges, nailers, etc. up to existing wood deck to remain. All abandoned supports and curbs will be removed and deck will be repared. Deteriorated or damaged T & G deck wood will repaired. All re-roofing work will be compliant with current Building Codes and best roofing practices. Other references consulted during the design process where "Architectural Sheet Metal Manual" (SMACNA) and The Secretary Of The Interior's Standards For The Treatment Of Historic Properties With Guidelines For Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings.

For "flat" potrtion of roof on Building 6 (Auditorium) A new modified bitumen roofing system will be provided with a ¼" slope per food tapered insulation system with roof board on top (refer to figure 2).



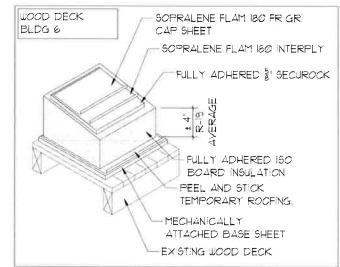


Figure 1 Tile Shapes reference

Figure 2 "Flat" portion of roof composition

For the replacement of the cement tile Low Profile Cement Tile (height is 1/5" or less) is proposed since have better performance (refer to figure 1). Once contractor is selected samples shall be provided for final color and profile selection. Colors and profiles being considered by architects are presented (refer to figure 3 to 5). Attached find Safety Data Sheets and Product information for basis of design by architect.



Figure 3 Sample Tile

Figure 4 Sample Tile

Figure 5 Sample Tile

Required metal features which are important in defining the overall historic character of the building will be copper. New copings on existing parapets, drip edges, counter flashings, new gutters and dounspouts, brackets, hangers, elbows, wall straps, end caps, etc. (refer to figure & 7).



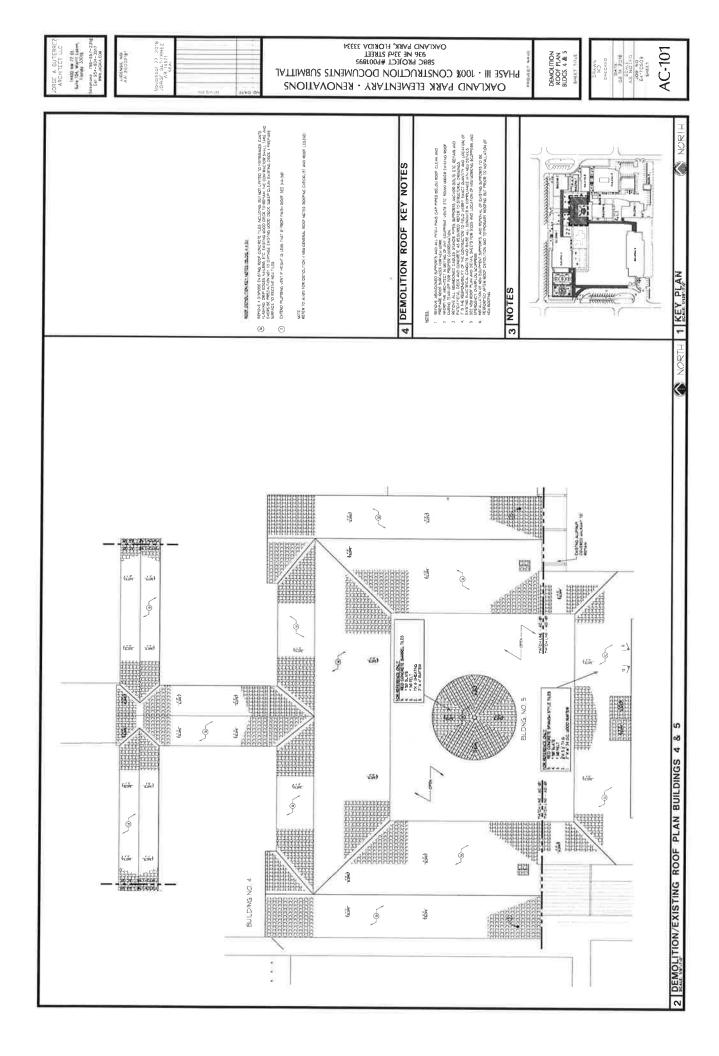
Figure 6 Copper Gutters & Downspouts

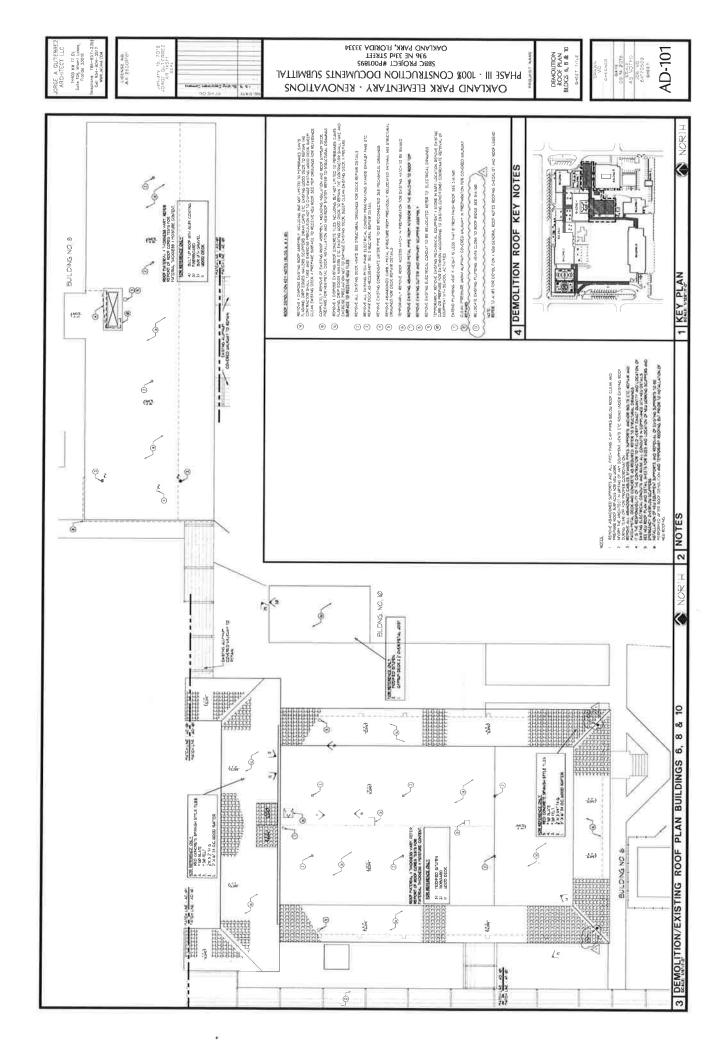


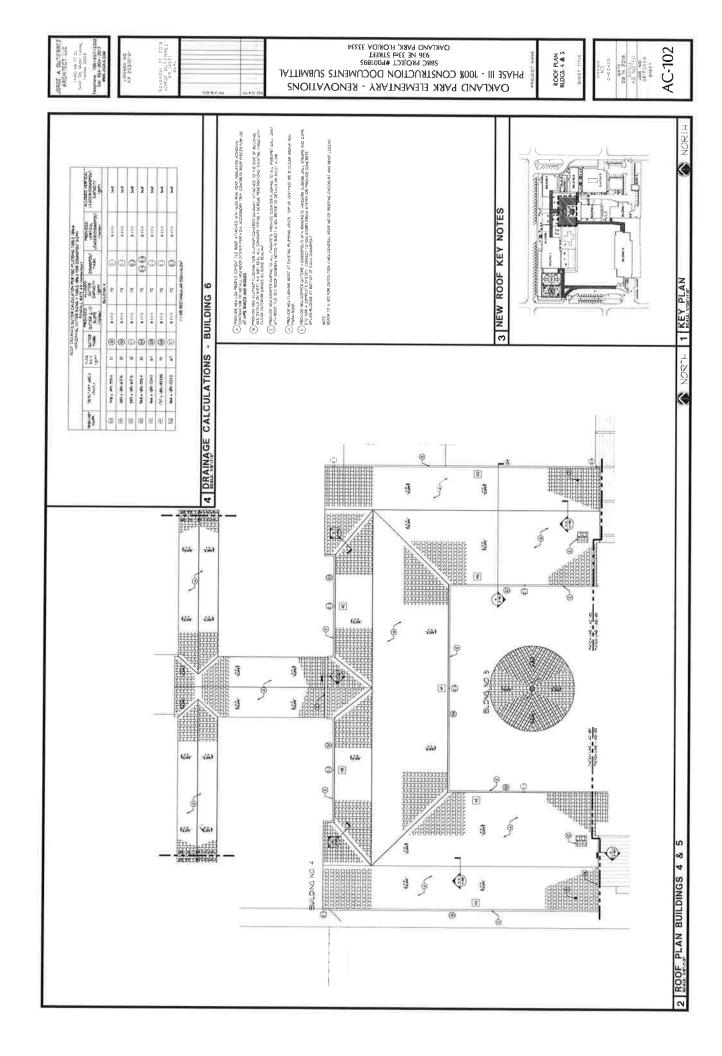
Figure 7 Copper Flashing

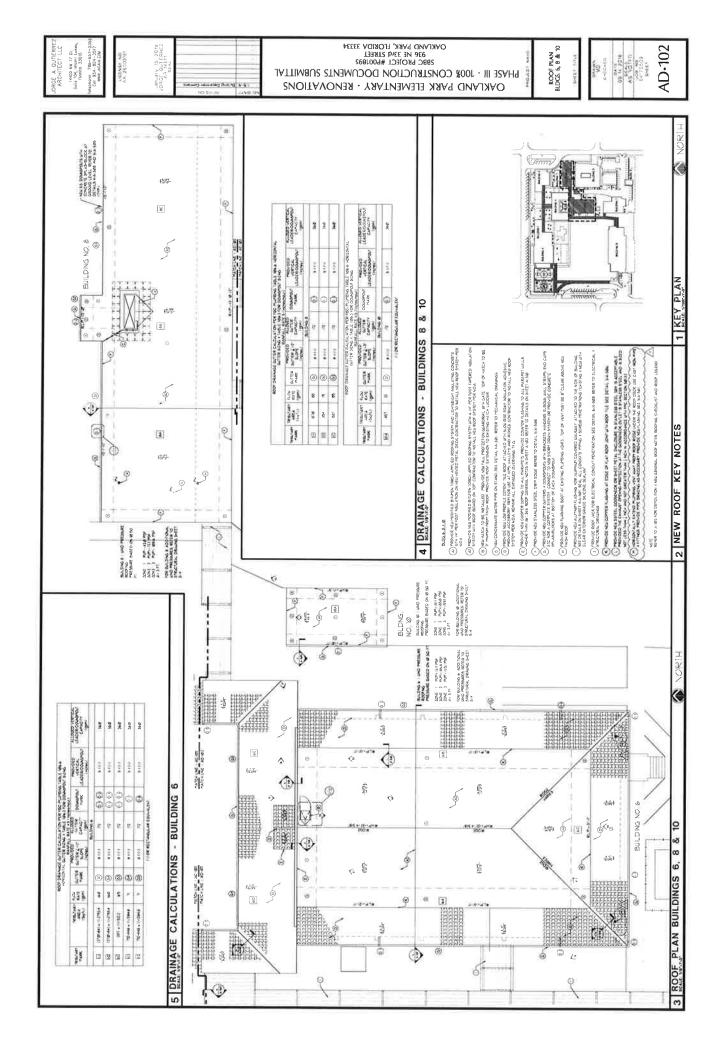
For detailed scope of work refer to Architectural Plans attached:
AC-101 Demo Roof Plan Bldgs 4 & 5
AD-101 Demo Roof Plan Bldg 6
AC-102 New Roof Plan Bldgs 4 & 5
AD-102 New Roof Plan Bldg 6
A-510 Roof Details

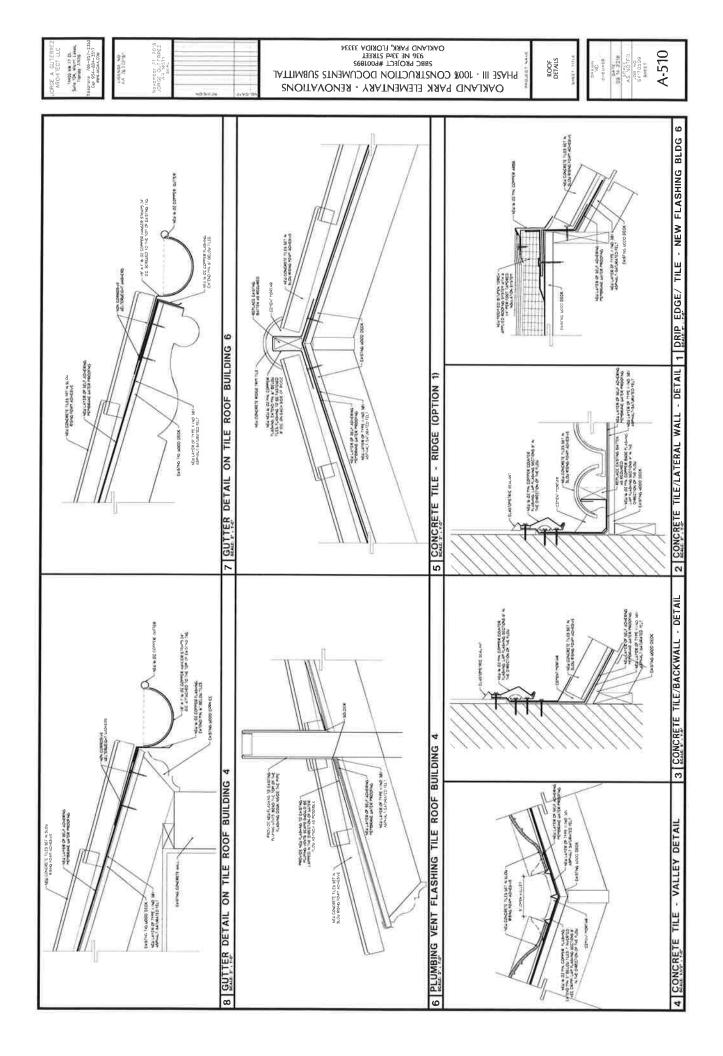
Jorge A. Gutierrez Architect LLC





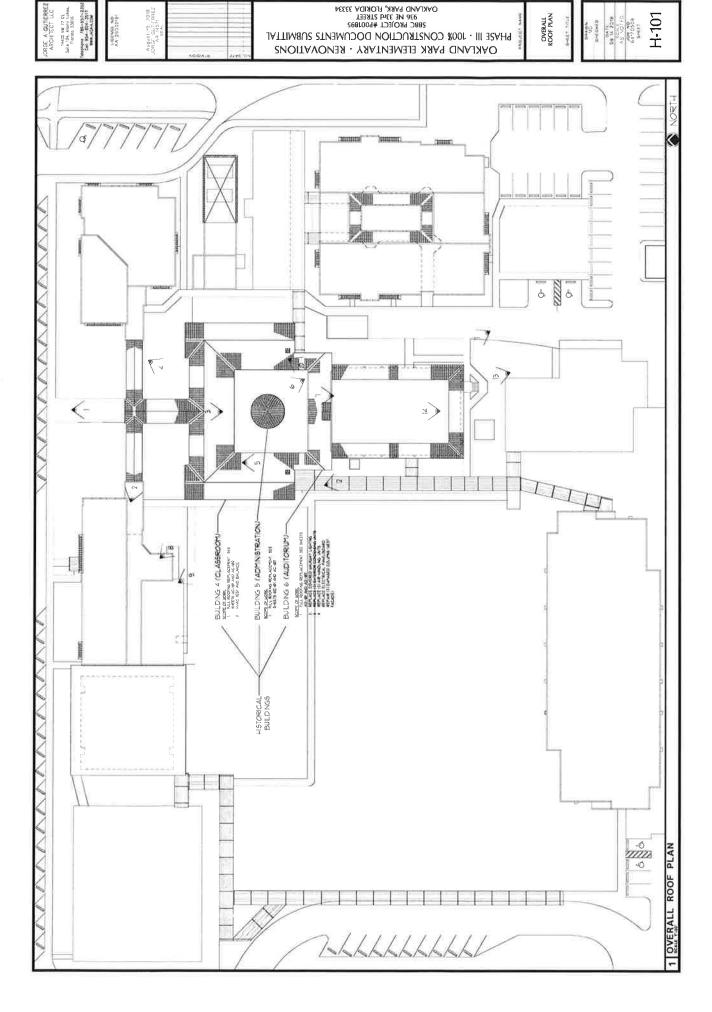






Refi# 45-photos of existing conditions

JOSGE A GLIERREZ NACHTECH LEC 14400 WW 77 CL 14400 WW 77 CL	IATTIMBUS STU	DAKLAND PARK ELEMENTARY - RE 5E III - 100% CONSTRUCTION DOCUM 58BC PROJECT #P001895 936 NE 33rd STREET OAKLAND PARK, FLORIDA 33334	
	EXISTING VERANDA AROUND PATIO	10 NORTH SIDE OF AUDITORIUM, PATIO ENTRANCE	15 PECKY CYPRESS BEAMS AUDITORIUM CEILING 20 DIFFERENT ROOF HEIGHTS
	4 ORIGINAL ENTRANCE TO SCHOOL COMPOUND	9 AUDITORIUM BUILDING NORTH-WEST	14 AUDITORIUM INTERIOR AUGUST A STATEMENT ABOVE CELLING 19 AUGUST A STATEMENT ABOVE CELLING
	3 ORIGINAL ENTRANCE TUNEL TO SCHOOL COMPOUND	S CLASSROOM BUILDING 4 & AUDITORIUM MORTH-WEST	NORTH SIDE OF AUDITORIUM Automa a BERSTING RUSTED FLASHING Automa a 138
	2 ORIGINAL SCHOOL ENTRANCE COVERED WALKWAY	7 PATIO WEW FROM AUDITORIUM ROOF	12 WEST SIDE OF AUDITORIUM LAGRAGIA 4 12 EXISTING DAMAGED RAFTERS
	1 ORIGINAL ENTRANCE TO SCHOOL COMPOUND	6 ROUND ROOM IN THE PATIO	11 Lest size of Auditorium 12 Auditorium Beams Decorative Cavings



hef.# 47 Info sheets of maderial

Boral **Roofing**Build something great™



PRODUCT INFORMATION



Profile: Barcelona 900

Color Name: Avalon Beach Blend

SKU Number: 1HBCS6259

Product Type: Standard Weight Tile

Color: Red, Brown, Tan, Multicolor

Available Regions:

Florida, Southeast-Northeast

Tile Specifications

Size: 17" x 13"

Coverage: 85

Approx. Installed Weight: 950 lbs.

Pieces per Pallet: 256

Squares per Pallet: 3.01

Approx. Weight per Pallet: 2782 lbs.

Boral Roofing

Build something great™



PRODUCT INFORMATION





Profile: Villa 900

Color Name: Amber Sand - Color Coat

SKU Number: 1MPSS0555

Product Type: Standard Weight Tile

Color: White, Tan, Multicolor

Available Regions:

Florida

Cool Rated Product

Reflectivity: 0.56

Aged Ref. (3 yr): 0.54

Emmisivity: 0.9

Aged Em. (3 yr) 0.92

SRI: 67

Aged SRI (3 yr): 64

CRRC ID#: 0092

Seller ID#: 0942

Tile Specifications

Size: 17" x 13"

Coverage: 85

Approx. Installed Weight: 920 lbs.

Pieces per Pallet: 296

Squares per Pallet: 3.48

Approx. Weight per Pallet: 3498 lbs.

*Calculated Aged Value

The printed color shown here may vary from actual available tile color and should not be used to color match. Please contact your local Sales Representative for actual tile samples.

1.800.669.TILE (8453) www.BoralRoof.com



Solar Reflectance 0.56 0.54
Thermal Emittance 0.9 0.92

Rated Product ID Number 0092
Licensed Seller ID Number 0942

Classification Production Line

Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.

Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.

Safety Data Sheet

Ceramic (Clay) Roof Tile

Date Prepared: 07/31/2018 Supersedes Date: 06/01/2015 Version 1.0

BORAL

SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Name: Ceramic (Clay) Roof Tile

1.2 Intended User of the Product

Building Material

1.3 Name, Address, and Telephone Number of the Responsible Party

BORAL ROOFING, LLC

200 Mansell Court East, Suite 305

Roswell, GA 30076

United States

(770) 645-4500

(949) 585-8200

www.boralna.com/roofing

1.4 Emergency Telephone Number

(949) 981-3319

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the Substance or Mixture (GHS-US)

This product is an article as defined in the OSHA Hazard Communication Standard [29 CFR 1910.1200(c)] and, therefore, is exempt from regulatory requirements when handled as a manufactured item. This SDS contains additional health hazard information related to dust generation during construction.

Skin Irritation 2

Eye Irritation 2B

STOT-SE (Single Exposure) 3 (Respiratory Irritation)

STOT-RE (Repeated Exposure) 2 (Respiratory Illness)

Carcinogen 1A

2.2 Label Elements (GHS-US)

Hazard Pictograms:





Signal Word:

- Danger
- **Hazard Statements:**
- Causes skin irritation (H316)
- May cause eye irritation (H320)
- May cause respiratory irritation (H335)
- May cause cancer (H350)
- May cause damage to respiratory system through prolonged or repeated exposure (H373)

Precautionary Statements:

- Do not handle until all safety precautions have been read and understood (P202)
- Avoid breathing dust; in case of inadequate ventilation, wear respiratory protection (P264) (P284)
- Cut/grind/chip product in a well-ventilated area or use a wet saw (P271)
- Wear protective gloves, protective clothing, and eye protection (P280)
- IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing (P304) (P340)
- IF IN EYES: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing until pain or irritation subsides. (P305) (P351) (P338)
- If symptoms persist: Get medical advice/attention (P308) (P313)

2.3 Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4 California Proposition 65:



WARNING: CANCER AND REPRODUCTIVE HARM—www.P65Warnings.ca.gov

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Description of Product

Ceramic (clay) article

3.2 Mixture Ingredients and Hazard Classification

Substances and hazard classification based on dust composition.

Ingredient	Product Identifier (CAS No.)	% (w/w)	Hazard Classification (GHS-US)
Aluminum oxide silicates			Skin Irritation 2, H316
	12141-46-7	70 – 80	Eye Irritation 2B, H320
			STOT 3 (Respiratory), H335
Iron oxide	1309-37-1	4 - 6	Not classified
Quartz	14808-60-7	< 10	Carcinogenicity 1A, H350
	14000-00-7	\ 10	STOT 2 (Respiratory), H373
Magnesium oxide	1309-48-4	2 – 3.5	Not classified
Sodium monoxide	12401-86-4	2 – 3.5	Not classified in this matrix product

<u>Note</u>: This product contains additional not classified substances at low concentrations that do not contribute to the hazards of this product.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. Any person who is experiencing symptoms of injury or illness should be moved to a comfortable area with fresh air, and the label or SDS of this product reviewed. **Inhalation:** If symptoms of dust exposure (respiratory irritation) occur, move the person to fresh air. Provide drinking water, if conscious, to flush mouth and irrigate upper respiratory tract. Seek medical attention for discomfort or if coughing or other symptoms do not subside.

Eye Contact: If injury is due to a projectile, seek immediate medical attention. If the person's symptom is eye irritation due to dust exposure, careful flushing with clean water should continue for at least 15 minutes. If contact lenses are present, they should be removed after flushing. Flushing should continue until irritation subsides. Medical attention should be obtained if irritation persists.

Skin: Injuries to skin due to abrasion, laceration, or crushing should be treated by flushing with clean water, followed by first aid (application of disinfectant and bandage). If the injury is more extensive or irritation and pain persists, medical attention should be sought.

4.2 Most Important Symptoms and Effects—Both Acute and Delayed

General: The most important symptoms and effects from exposure to this product's dust is respiratory irritation and respiratory system chronic illness if significant exposures occur repeatedly.

Inhalation: The immediate acute response to dust inhalation is respiratory system irritation. Upon repeated high levels of dust exposure, crystalline silica content of the dust may cause delayed or chronic respiratory illnesses, including silicosis and cancer.

Eye Contact: Exposures of the eyes to particles and dust may result in irritation, pain, redness, and blurred vision, which is usually temporary.

Skin Contact: Other than abrasion and irritation, skin contact does not cause delayed or chronic symptoms.

4.3 Indication of Immediate Medical Attention and Special Treatment

Any time symptoms of eye irritation or respiratory irritation persist, medical attention should be obtained.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Finished product is not combustible.

5.2 Special Hazards Arising from the Substance or Mixture

Fire Hazard: Not combustible.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions are not expected to occur under normal conditions.

5.3 Advice for Firefighters

Not applicable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

General Measures: Do not breathe dust. Do not get in eyes, on skin, or on clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Not applicable.

6.1.2. For Emergency Personnel

Protective Equipment: Equip clean-up crew with proper protection.

Emergency Procedures: Ventilate area if dust is generated.

6.2 Environmental Precautions

Reuse product as appropriate to avoid disposal.

6.3 Methods and Material for Containment and Clean-Up

Containment: Contain and collect as any solid. Avoid actions that cause dust to become airborne. Do not breathe dust, and do not allow large quantities of dust to contact skin.

6.4 Reference to Other Sections

See Section 8. Exposure Controls and Personal Protection. For further information, refer to Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Additional Hazards when Processed: Cutting, crushing, or grinding crystalline silica-bearing materials will release respirable crystalline silica. Use all appropriate measures of dust control or suppression and Personal Protective Equipment (PPE) described in Section 8.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking, and again when leaving work.

7.2 Conditions for Safe Storage, Including any Incompatibilities

Not applicable.

7.3 Specific End-Use(s)

No applicable limits.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Limits

The following exposure limits are based on a time-weighted full-shift exposure, unless otherwise noted.

Ingredient	OSHA PEL ⁽¹⁾	ACGIH-TLV(2)	Other ⁽³⁾
Aluminum oxide silicate	15 mg/m³ (total dust); 5 mg/m³ (respirable fraction) ⁽⁴⁾	10 mg/m³ (total dust); 3 mg/m³ (respirable fraction) ⁽²⁾	
Iron oxide	Fume: 10 mg/m³ (total dust); Particulate: 15 mg/m³ (total dust); 5 mg/m³ (respirable fraction)	5 mg/m³ (respirable fraction)	5 mg/m³ (total dust)
Quartz (crystalline silica) ⁽⁴⁾	50 μg/m³ [0.05 mg/m³ (respirable fraction)]	0.025 mg/m³ (respirable fraction)	0.05 mg/m³ (respirable fraction)
Magnesium oxide	15 mg/m³ (total dust)	10 mg/m³ (respirable dust)	
Sodium monoxide [control limit based on hydroxide]	2 mg/m³ (ceiling) ⁽⁵⁾	2 mg/m ³ (STEL) ⁽⁶⁾	

fn(1) OSHA PEL (Permissible Exposure Levels at 29 CFR 1910.1000)

 $fn^{(2)}$ ACGIH-TLV (American Conference of Governmental Industrial Hygienists-Threshold Limit Values 2018)

fn(3) NIOSH REL (National Institute for Occupational Safety & Health Recommended Exposure Limit)

fn⁽⁴⁾ Amount of respirable crystalline silica not determined.

fn⁽⁵⁾ Ceiling—Not to be exceeded

fn(6) STEL (Short-Term Exposure Limit)

8.2 Exposure Controls

Appropriate Engineering Controls: Power equipment should be equipped with wet dust suppression or dust collection devices if cutting/grinding/chipping product. Emergency eyewash equipment should be available in the immediate vicinity of any potential exposure. Use local exhaust or general dilution ventilation, or other suppression methods to maintain dust levels below exposure limits. *Reference*: OSHA Respirable Crystalline Silica Standard for Construction [29 CFR 1926.1153].

Personal Protective Equipment: Protective goggles or safety glasses, and gloves. Wear respiratory protection if dust is present when cutting/grinding/chipping product.







Hand Protection: Protective gloves as appropriate to prevent abrasion and hand injuries. Eye and/or Face Protection: Approved safety glasses, goggles, and/or face-shield. Skin and Body Protection: Appropriate work clothing and footwear should be worn.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH-approved respiratory protection should be worn in accordance with the OSHA Respiratory Protection Standard [29 CFR 1910.143].

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State: Solid.

Appearance: Solid. Tiles come in a wide range of

colors.

Odor: Essentially odorless.
Odor Threshold: Not applicable.

pH: Not applicable.

Evaporation Rate: Not applicable.
Melting Point: Not applicable.
Freezing Point: Not applicable.
Boiling Point: Not applicable.
Flashpoint: Not applicable.

Auto-Ignition Temperature: Not applicable.

Decomposition Temperature: Not applicable.

Flammability (solid, gas): Not applicable.

Lower Flammable Limit: Not applicable. **Upper Flammable Limit:** Not applicable.

Vapor Pressure: Not applicable.

Relative Vapor Density at 20° C: Not applicable.

Relative Density: Not available.

Specific Gravity: 2.6

Solubility: Negligible in water.

Partition Coefficient—N-Octanol/Water: Not

applicable.

Viscosity: Not applicable.

Explosion Data—Sensitivity to Mechanical Impact:

Not applicable.

Explosion Data—Sensitivity to Static Discharge: Not

applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Hazardous reactions are not expected to occur under normal conditions.

10.2 Chemical Stability

Stable.

10.3 Possibility of Hazardous Reactions

Not applicable.

10.4 Conditions to Avoid

Not applicable.

10.5 Incompatible Materials

Not applicable.

10.6 Hazardous Decomposition Products

Not applicable.

SECTION 11: TOXCOLOGICAL INFORMATION

11.1 Likely Routes of Exposure

Skin Contact: Product is abrasive and may irritate unprotected skin.

Eye Contact: When product is shaped or cut, chips or dust may enter unprotected eyes and cause injury or irritation.

Inhalation: When product is shaped or cut, respirable dust may be generated that, when inhaled, can cause respiratory system irritation. Prolonged or repeated inhalation exposure may cause chronic illness.

Ingestion: Not expected to be an exposure route of concern.

11.2 Symptoms Related to Physical, Chemical, and Toxicological Characteristics

Immediate Effects: Irritation of skin, eyes, and respiratory tract due to abrasion or dust inhalation will produce immediate discomfort, and first aid provided.

Delayed and Chronic Effects: Inhalation of dust on a prolonged or repeated basis may result in chronic lung disease or silicosis and may also result in lung cancer.

11.3 Numerical Measures of Toxicity

The acute and chronic effects of exposure to this product's dust have not been quantified.

11.4 Carcinogenicity

The ingredient quartz, also known as crystalline silica, has been determined to be carcinogenic by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP).

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No additional information available.

12.2 Persistence and Degradability

Not available.

12.3 Bioaccumulative Potential

Not available.

12.4 Mobility in Soil

Not available.

12.5 Other Adverse Effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal Recommendations: Scrap material should be re-used or recycled. Waste is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) (40 CFR 261). Dispose of waste material in accordance with all local, regional, national, provincial, territorial, and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Not regulated for transport.

14.2 In Accordance with IMDG

Not regulated for transport.

14.3 In Accordance with IATA

Not regulated for transport.

14.4 In Accordance with TDG

Not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 U.S. Federal Regulations

SARA Section 311/312 Hazard Classes

Exempt article [40 CFR 370.13(b)].

SARA Section 313 Emission Reporting

This product may contain constituents listed under SARA (Title III) Section 313, but not in amounts requiring supplier notification under 40 CFR Part 372, Subpart C.

TSCA Inventory

All constituents are included on the Toxic Substances Control Act Chemical Inventory (40 CFR 720).

15.2 U.S. State Regulations

State Right-to-Know Laws

This product, as an article, is exempt from hazardous substance inventory reporting under the Massachusetts, New Jersey, and Pennsylvania right-to-know laws.

California Proposition 65—Warning Required

Refer to Section 2.4

15.3 Canadian Regulations

DSL

All ingredients are listed or exempt from inclusion on the Canadian Domestic Substances List (DSL).

Class D, Division 2, Subdivision A – Material causing other toxic effects. Very Toxic—Chronic.



This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all information required by the CPR.

15.4 Other: HMIS and NFPA

HMIS:





SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Party Responsible for Preparation of this Document

BORAL ROOFING, LLC (770) 645-4500 (949) 585-8200

Limitations

The information and recommendations set forth herein are based on data we have in our possession, and we have reason to believe is accurate. It is, however, the user's responsibility to determine the safety, toxicity, or suitability for his/her own use of the herein described product. Because the actions by others is beyond our control, Boral Roofing, LLC makes no warranty expressed or implied regarding accuracy of the data or the results to be obtained from the use thereof.

NA GHS SDS

Safety Data Sheet

Concrete Roof Tile

Date Prepared: 07/31/2018 Supersedes Date: 06/01/2015 Version 1.0



SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Name: Concrete Roof Tile
1.2 Intended Use of the Product

Building Material

1.3 Name, Address, and Telephone Number of the Responsible Party

BORAL ROOFING, LLC

200 Mansell Court East, Suite 305

Roswell, GA 30076

United States

(770) 645-4500

(949) 585-8200

www.boralna.com/roofing

1.4 Emergency Telephone Number

(949) 981-3319

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the Substance or Mixture (GHS-US)

This product is an article as defined in the OSHA Hazard Communication Standard [29 CFR 1910.1200(c)] and is exempt from regulatory requirements when handled as a manufactured item. This SDS contains additional health hazard information related to dust generation during construction.

Skin Irritation 2

Eye Irritation 2B

STOT-SE (Single Exposure) 3 (Respiratory Irritation)

STOT-RE (Repeated Exposure) 2 (Respiratory Illness)

Carcinogen 1A

2.2 Label Elements (GHS-US)

Hazard Pictograms:





Signal Word:

- Danger
- Hazard Statements:
- Causes mild skin irritation (H316)
- Causes eye irritation (H320)
- May cause respiratory irritation (H335)
- May cause cancer (H350)
- May cause damage to respiratory system through prolonged or repeated exposure (H373)

Precautionary and Response Statements:

- Do not handle until all safety precautions have been read and understood (P202)
- Avoid breathing dust; in case of inadequate ventilation, wear respiratory protection (P261) (P284)
- Cut/grind/chip product in a well-ventilated area or use a wet saw (P271)
- Wear protective gloves, protective clothing, and eye protection (P280)
- IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing (P304) (P340)
- IF IN EYES: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing until pain or irritation subsides. (P305) (P351) (P338)
- If symptoms persist: Get medical advice/attention (P313)

2.3 Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4 California Proposition 65:



WARNING: CANCER AND REPRODUCTIVE HARM—www.P65Warnings.ca.gov

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Description of Product

Concrete matrix article.

3.2 Mixture Ingredients and Hazard Classification

Substances and hazard classification based on dust composition.

Ingredient	Product Identifier (CAS No.)	% (w/w)	Hazard Classification (GHS-US)
Quartz	14808-60-7	40 - 60	Carcinogenicity 1A, H350
			STOT 2 (Respiratory), H373
Portland cement (cured)			Skin Irritation 2, H316
	65997-15-1	20 – 40	Eye Irritation 2B, H320
			STOT 3 (Respiratory), H335
Limestone			Skin Irritation 2, H316
	1317-65-3	< 30	Eye Irritation 2B, H320
			STOT 3 (Respiratory), H335
Amorphous silica	7631-86-9	< 4	Not classified
Iron oxide	1309-37-1	≤ 3	Not classified

<u>Note</u>: This product contains additional not classified substances at low concentrations that do not contribute to the hazards of this product.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. Any person who is experiencing symptoms of injury or illness should be moved to a comfortable area with fresh air, and the label or SDS of this product reviewed. **Inhalation:** If symptoms of dust exposure (respiratory irritation) occur, move the person to fresh air. Provide drinking water, if conscious, to flush mouth and irrigate upper respiratory tract. Seek medical attention for discomfort or if coughing or other symptoms do not subside.

Eye Contact: If injury is due to a projectile, seek immediate medical attention. If the person's symptom is eye irritation due to dust exposure, careful flushing with clean water should continue for at least 15 minutes. If contact lenses are present, they should be removed after flushing. Flushing should continue until irritation subsides. Medical attention should be obtained if irritation persists.

Skin: Injuries to skin due to abrasion, laceration, or crushing should be treated by flushing with clean water, followed by first aid (application of disinfectant and bandage). If the injury is more extensive or irritation and pain persists, medical attention should be sought.

4.2 Most Important Symptoms and Effects—Both Acute and Delayed

General: The most important symptoms and effects from exposure to this product's dust is respiratory irritation and respiratory system chronic illness if significant exposures occur repeatedly.

Inhalation: The immediate acute response to dust inhalation is respiratory system irritation. Upon repeated high levels of dust exposure, crystalline silica content of the dust may cause delayed or chronic respiratory illnesses, including silicosis and cancer.

Eye Contact: Exposures of the eyes to particles and dust may result in irritation, pain, redness, and blurred vision, which is usually temporary.

Skin Contact: Other than abrasion and irritation, skin contact does not cause delayed or chronic symptoms.

4.3 Indication of Immediate Medical Attention and Special Treatment

Any time symptoms of eye irritation or respiratory irritation persist, medical attention should be obtained.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Finished product is not combustible.

5.2 Special Hazards Arising from the Substance or Mixture

Fire Hazard: Not combustible.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions are not expected to occur under normal conditions.

5.3 Advice for Firefighters

Not applicable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

General Measures: Do not breathe dust. Do not get in eyes, on skin, or on clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Not applicable. 6.1.2. For Emergency Personnel

Protective Equipment: Equip clean-up crew with proper protection.

Emergency Procedures: Ventilate area or use wet methods if dust is generated.

6.2 Environmental Precautions

Reuse product as appropriate to avoid disposal.

6.3 Methods and Material for Containment and Clean-Up

Containment: Contain and collect as any solid. Avoid actions that cause dust to become airborne. Do not breathe dust, and do not allow large quantities of dust to contact skin.

6.4 Reference to Other Sections

See Section 8. Exposure Controls and Personal Protection. For further information, refer to Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Additional Hazards when Processed: Cutting, crushing, or grinding crystalline silica-bearing materials will release respirable crystalline silica. Use all appropriate measures of dust control or suppression and Personal Protective Equipment (PPE) described in Section 8.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking, and again when leaving work.

7.2 Conditions for Safe Storage, Including any Incompatibilities

Not applicable.

7.3 Specific End-Use(s)

No applicable limits.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Limits

The following exposure limits are based on a time-weighted full-shift exposure, unless otherwise noted.

Ingredient	OSHA PEL ⁽¹⁾	ACGIH-TLV ⁽²⁾	Other ⁽³⁾
Quartz (crystalline silica) ⁽⁴⁾	50 μg/m³ [0.05 mg/m³ (respirable fraction)]	0.025 mg/m³ (respirable fraction)	0.05 mg/m³ (respirable fraction)
Portland cement	15 mg/m³ (total dust); 5 mg/m³ (respirable fraction)	1 mg/m³ (respirable fraction containing no asbestos and < 1% crystalline silica)	10 mg/m³ (total dust); 5 mg/m³ (respirable fraction)
Limestone	15 mg/m³ (total dust); 5 mg/m³ (respirable fraction)	10 mg/m³ (total dust); 3 mg/m³ (respirable fraction)	10 mg/m³ (total dust); 5 mg/m³ (respirable fraction)
Iron oxide	Fume: 10 mg/m³ (total dust); Particulate: 15 mg/m³ (total dust); 5 mg/m³ (respirable fraction)	5 mg/m³ (respirable fraction)	5 mg/m³ (total dust)

	Amorphous silica	80 mg/m³ ÷ %SiO₂	10 mg/m³ (total dust); 3 mg/m³ (respirable	6 mg/m³ (total dust)		
			fraction)			
ı	fn(1) OSHA PEL (Permissible Exposure Levels at 29 CFR 1910.1000)					
	fn ⁽²⁾ ACGIH-TLV (American Conference of Governmental Industrial Hygienists-Threshold Limit Values 2018)					
- 1	fn ⁽³⁾ NIOSH REL (National Institute for Occupational Safety & Health Recommended Exposure Limit)					
	$fn^{(4)}$ The amount of respirable crystalline silica has not been determined.					

8.2 Exposure Controls

Appropriate Engineering Controls: Power equipment should be equipped with wet dust suppression or dust collection devices if cutting/grinding/chipping product. Emergency eyewash equipment should be available in the immediate vicinity of any potential exposure. Use local exhaust or general dilution ventilation, or other suppression methods to maintain dust levels below exposure limits. *Reference*: OSHA Respirable Crystalline Silica Standard for Construction [29 CFR 1926.1153].

Personal Protective Equipment: Protective goggles or safety glasses, and gloves. Wear respiratory protection if dust is present when cutting/grinding/chipping product in accordance with the OSHA Respiratory Protection Standard [29 CFR 1910.134].







Hand Protection: Protective gloves as appropriate to prevent abrasion and hand injuries. **Eye and/or Face Protection:** Approved safety glasses, goggles, and/or face-shield.

Skin and Body Protection: Appropriate work clothing and footwear should be worn. **Respiratory Protection:** NIOSH-approved respiratory protection should be worn in accordance with the OSHA

Respiratory Protection Standard [29 CFR 1910.134].

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State: Solid.

Appearance: Solid. Tiles come in a wide range of

colors.

Odor: Essentially odorless. **Odor Threshold:** Not available.

pH: Not applicable.

Evaporation Rate: Not applicable.
Melting Point: Not applicable.
Freezing Point: Not applicable.
Boiling Point: Not applicable.
Flashpoint: Not applicable.

Auto-Ignition Temperature: Not applicable.

Decomposition Temperature: Not applicable.

Flammability (solid, gas): Not applicable.

Lower Flammable Limit: Not applicable. **Upper Flammable Limit:** Not applicable.

Vapor Pressure: Not applicable.

Relative Vapor Density at 20° C: Not applicable.

Relative Density: Not available.

Specific Gravity: 2.6

Solubility: Negligible in water.

Partition Coefficient—N-Octanol/Water: Not

applicable.

Viscosity: Not applicable.

Explosion Data—Sensitivity to Mechanical Impact:

Not applicable.

Explosion Data—Sensitivity to Static Discharge: Not

applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Hazardous reactions are not expected to occur under normal conditions.

10.2 Chemical Stability

Stable.

10.3 Possibility of Hazardous Reactions

Not applicable.

10.4 Conditions to Avoid

Not applicable.

10.5 Incompatible Materials

Not applicable.

10.6 Hazardous Decomposition Products

Not applicable.

SECTION 11: TOXCOLOGICAL INFORMATION

11.1 Likely Routes of Exposure

Skin Contact: Product is abrasive and may irritate unprotected skin.

Eye Contact: When product is shaped or cut, chips or dust may enter unprotected eyes and cause injury or irritation.

Inhalation: When product is shaped or cut, respirable dust may be generated that, when inhaled, can cause respiratory system irritation. Prolonged or repeated inhalation exposure may cause chronic illness.

Ingestion: Not expected to be an exposure route of concern.

11.2 Symptoms Related to Physical, Chemical, and Toxicological Characteristics

Immediate Effects: Irritation of skin, eyes, and respiratory tract due to abrasion or dust inhalation will produce immediate discomfort, and first aid provided.

Delayed and Chronic Effects: Inhalation of dust on a prolonged or repeated basis may result in chronic lung disease or silicosis and may also result in lung cancers.

11.3 Numerical Measures of Toxicity

The acute and chronic effects of exposure to this product's dust have not been quantified.

11.4 Carcinogenicity

The ingredient quartz, also known as crystalline silica, has been determined to be carcinogenic by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP).

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No additional information available.

12.2 Persistence and Degradability

Not available.

12.3 Bioaccumulative Potential

Not available.

12.4 Mobility in Soil

Not available.

12.5 Other Adverse Effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal Recommendations: Scrap material should be re-used or recycled. Waste is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) (40 CFR 261). Dispose of waste material in accordance with all local, regional, national, provincial, territorial, and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Not regulated for transport.

14.2 In Accordance with IMDG

Not regulated for transport.

14.3 In Accordance with IATA

Not regulated for transport.

14.4 In Accordance with TDG

Not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 U.S. Federal Regulations

SARA Section 311/312 Hazard Classes

Exempt article [40 CFR 370.13(b)].

SARA Section 313 Emission Reporting

This product may contain constituents listed under SARA (Title III) Section 313, but not in amounts requiring supplier notification under 40 CFR Part 372, Subpart C.

TSCA Inventory

All constituents are included on the Toxic Substances Control Act Chemical Inventory (40 CFR 720).

15.2 U.S. State Regulations

State Right-to-Know Laws

This product, as an article, is exempt from hazardous substance inventory reporting under the Massachusetts, New Jersey, and Pennsylvania right-to-know laws.

California Proposition 65—Warning Required

Refer to Section 2.4.

15.3 Canadian Regulations

DSL

All ingredients are listed or exempt from inclusion on the Canadian Domestic Substances List (DSL).

WHMIS

Class D, Division 2, Subdivision A – Material causing other toxic effects. Very Toxic—Chronic.

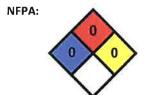


This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all of the information required by the CPR.

15.4 Other: HMIS and NFPA

HMIS:





SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Party Responsible for Preparation of this Document

BORAL ROOFING, LLC

(770) 645-4500

(949) 585-8200

Limitations

The information and recommendations set forth herein are based on data we have in our possession, and we have reason to believe is accurate. It is, however, the user's responsibility to determine the safety, toxicity, or suitability for his/her own use of the herein described product. Because the actions by others is beyond our control, Boral Roofing, LLC. makes no warranty expressed or implied regarding accuracy of the data or the results to be obtained from the use thereof.