

CONTRACTOR RULES GUIDELINES ENCLAVE OF NAPLES CONDOMINIUM FOR MAJOR CONSTRUCTION OR REMODEL

(The term 'Contractor' includes all trades, general contractors, sub-contractors, service personnel, decorators, engineers, architects, realtors, domestics, consultants, owner's representatives, and sales personnel.)

Reference is made to Florida Statute 718 and Enclave Declaration of Condominiums, paragraph 9.3.

Temporary Covid-19 guidelines are attached for additional restrictions due to the pandemic.

Prior to the commencement of any remodeling or renovation project, the Board of Directors must approve the project. Owners must submit to the Board of Directors a scope of work, along with rough drawings, the name of the general contractor, and estimate of the start and ending dates. An invoice for Five Thousand (\$5,000.00) will be sent to the owner after Board approval has been received. An engineer contracted by the Enclave will review all plans before being submitted to the Board for approval. The cost for plans review is \$150.00 per review and will be billed to the unit owner. Once the engineer has reviewed plans and any and all revisions have been made a written approval letter will be sent to the owner.

Before work can start, the owner and general contractor must meet with the manager to go over the Contractor Rules. The owner, contractor, contractors project manager, and general manager will sign the rules. A copy of the signed rules will be maintained in the owner's file in the Enclave office.

General Contractor will supply a list of all subcontractors to be used on the project and all insurance certificates with Enclave listed as an additional insured, and licenses for each sub prior to commencement of work and before subcontractors begin working on property. Contractor Certificates of Insurance, licenses, and employee lists can be emailed to Access Control at access@enclavenaples.com

Demolition or construction cannot start until May 15. Before starting any work, the Notice of Commencement, permits, plans, and associated documents must be present in the Manager's office. All extensive remodeling or heavy construction, as defined in the Enclave Declaration of Condominium, must be

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completed, and must cease on October 15. If a Certificate of Completion, Certificate of Occupancy, or similar document evidencing final governmental approval is not provided, **all work must cease at the close of business, October 15.** No additional heavy construction work can be done until May 15 of next calendar year. **After Certificate of Occupancy is obtained; contractor will file termination of Notice of Commencement within 7 days.** The owners deposit will be returned upon receipt on termination of notice of commencement.

All Notices of Commencement, permits, plans, and associated documents, for all unit renovations, will be kept in the Manager's Office and are available during normal office hours (7:30 A.M. to 4:00 P.M.). **No work may proceed until all applicable permits are received.** Inspections will be done by City of Naples Building Inspectors and **not by private providers.** When building inspectors arrive, they will pick up the permit from the manager's office and return it to the manager's office after the inspection.

The Manager, or other designated Enclave employee, will accompany the inspector during all unit inspections, please notify the manager ahead of time when inspections are scheduled. The Manager, or designated employee, is authorized to make unit checks at any time. **A full-time Superintendent employed by the contractor will be on premises anytime subcontractors are working in the unit and throughout the entire process. A supervisor fluent in English must be on site at all times and be available to translate when subcontractors do not have English speaking personnel.**

During the construction season, there is a possibility of numerous contractors working in the building at the same time. Delays in all phases of the construction process are inevitable and contractors and owners should consider this in determining work schedules and deadlines.

Access Control has the responsibility and authority to ensure all contractors obey the building rules. Contractors must comply with all instructions from the Access Control officer. Contractors may have to wait at times while Access Control is occupied with other persons or duties.

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Post Tension Cables

- **The Enclave has post tension slabs. Slabs and ceilings will be scanned before ANY penetration into ceiling or floor. Reports will be received by manager PRIOR to any floor or ceiling penetrations.**

Insurance and License Requirements for all Contractors and Sub Contractors

COMMERCIAL GENERAL LIABILITY:

General Aggregate Limit	\$1,000,000	\$ 500,000
Products and Completed Operations Aggregate Limit	1,000,000	500,000
Personal Injury Limit:	100,000	100,000
Each Occurrence Limit: (Bodily Injury and Property Damage):	10,000	10,000

AUTOMOBILE LIABILITY: to include any Auto.

Combined single limit: \$500,000/\$1,000,000

UMBRELLA LIABILITY: 1,000,000 1,000,000

WORKER'S COMPENSATION:

State of Florida: STATUTORY (\$100,000 / \$500,000 / \$100,000)
Or Valid State Workers Compensation Certificate

All Contractors are to provide valid State / Local Licenses (not tax certificate), or certificates of competency where applicable.

Starting/Ending Time

- **Enclave staff will open unoccupied units prior to 8:00 A.M., and secure them by 4:00 P.M.**
- Work hours are 8:00 A.M. to 3:45 P.M., Monday through Friday.
- No work is permitted on weekends or holidays.
- Contractors are not allowed in the building on weekends or holidays.
- Workers may enter the property at 7:55 A.M. and may enter the building at 8:00 A.M.
- **All contractors must be out of the unit by 3:45 p.m.**
- All trades people must sign in and out with Access Control.
 - **Valid Government issued ID is required on initial visit.**

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- Be sure all workers bring their ID on their initial visit; it will not be required after initial entry.
- **No workers without valid ID will be granted access.**
- All workers will wear **clearly marked company shirts.**
 - No access will be granted without company shirts.
- **All worker's first and last names will be provided to Access Control before 8:00 a.m. for access.**
 - Any worker that shows up that is not pre-authorized will not be permitted entry.
- Tools may be dropped off and picked up daily; workers must adhere to the schedule above.
- Music shall not be played in commons areas or be able to be heard in units other than the unit being worked in.

Parking Restrictions

- **Contractor vehicles are not permitted to park inside the gate unless previously authorized by Access Control.**
- All trades must park in the parking lot outside the gate.
- **Materials and supplies may be loaded or unloaded after the time has been scheduled with Access Control.**
- Trucks will park next to the round 3 story mechanical building to load or unload.
- After unloading, the truck must be moved to the outer parking lot prior to load being taken to the unit or workers returning to unit, except in cases of large moves and trash removal.
- A maximum of 2 trucks are permitted to park next to the mechanical building at one time.
- Deliveries scheduled on the calendar have priority over unscheduled deliveries.
- Contractors will ensure that any debris from loading or unloading is cleaned up as soon as possible.

Contractors must schedule 48 hours in advance with Access Control.

- To use the elevators for deliveries and large debris removal.
- Scheduling requests may be emailed to access@enclavenaples.com
- Unscheduled deliveries will have to wait for availability of the Enclave staff; if available, otherwise they will be turned away.

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Elevator Use

- Elevators are monitored by recorded cameras.
- **All trades are required to use the #2 (East) service elevator only.**
- **Trades shall not use the #1 (North) passenger elevator, unless otherwise authorized.**
- **All trades will exit via the rear door of elevator #2 and not exit through the main lobby.**
 - **The LR button on elevator button panel opens the rear door.**
- **The up button on the unit floor will call the service elevator.**
 - **The LR button in elevator will take the elevator to the service area and open the rear door.**
 - **Do not exit into main lobby.**
- **Workers using the passenger elevator without authorization will receive one reminder of the service elevator use.**
 - **Should contractor not comply they may be asked to leave the property.**
- Due to the high number of contractors during construction season, the service elevator may not always be available immediately.
- **Notify Access Control if you need to have exclusive use of the elevator for large deliveries and or debris removal.**
 - **A key can be signed out to contractor to allow for exclusive use.**
 - **An employee of the contractor will remain on the elevator to work the “Independent Service” and return key to Access Control after done.**
 - **The exclusive use key shall be removed and the elevator is to be released after load is off the elevator, the elevator should never be held on a floor empty.**
 - **The key is not to remain in the elevator without a worker present.**
- **Do not block the door to hold the elevator, this will cause damage to the elevator.**
- Contractors must ensure that no material or debris gets lodged in the elevator door tracks they are to be monitored and kept clean.
 - Elevators are inspected at the end of each day.

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- Debris in the door tracks will cause the elevator to malfunction.
- If the elevator cab is damaged contractor will be held financially responsible and liable.
 - Any damages will be deducted from the owner's damage deposit, any damages beyond the \$5,000.00 will be billed to the owner.
- Material that will not fit in the elevator must be taken up the stairwell or craned up on the outside of the building.
 - If material is to be taken up from the exterior of the building all OSHA / safety precautions will be observed.
 - Should proper safety precautions not be observed, the job will be stopped and will not continue until proper safety measures have been put in place.
 - A company that continually ignores proper safety procedures may face being banned from the building.
- If it is necessary to place long material in the elevator using the access door in the elevator cab roof, the contractor must have the elevator company provide technicians to operate the elevator.
 - The contractor is responsible for the cost of the elevator technicians.
 - The contractor should contact Schindler Elevator at 239-566-9795 to coordinate elevator use and schedule with Access Control.
- All equipment and excess materials must be out of the unit by October 15.

Debris Removal

- Trades are not permitted to use Enclave dollies, grocery carts, valet carts or other equipment; you must provide your own.
- **Contractors are to schedule 48 hours in advance with access control for large debris removal.**
- Scheduled contractors have priority over unscheduled contractors.
- **Removal of floor tile/marble must be done using a scrapping machine on the major parts of the unit.**
- **Dumpsters are not allowed on Enclave property or in the Commons Parking lots.**
- **Trash chutes are not to be used by contractors.**
 - Trash shall not be placed in the utility room.
 - All debris must be removed from property by the contractor.

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- Do not place construction material down any drains either inside or outside the building.
- Do not clean buckets, rollers, brushes, etc. in any common area inside or outside the building, or in the parking lot.
 - **A 250.00 fine will be imposed for violation of this rule.**
- All trash and debris must be removed from the unit no later than October 15.

General Cleanliness

- Contractors are required to maintain the cleanliness of the elevator and service area.
- The floor will be swept and mopped during the day if necessary. The Enclave will provide a broom and mop if needed for this purpose.
- **In order to prevent dust from entering the elevator shaft and getting on other floors, contractors must install double dust barriers in the elevator foyer when operations in the unit cause dusty conditions.**
- **The use of an air scrubber is required to cut down on the amount of dust.**
- Contractors are responsible for keeping all areas from the unit they are working in, to the parking lot outside the gate, as clean as you found it.

Material Delivery

- Material will be off loaded and staged in the service area only.
- Nothing will be staged or left in the tunnel or in front of the building.
- **Contractors will leave a clear unobstructed path for others to enter and exit the service and parking areas at all times.**
- Do not block walk paths from the service elevator to the entry door with material or tools.
- Vehicles must be moved to the outer parking lot after materials are unloaded and prior to workers going to unit.
- All cutting of materials is to be done at the contractor's shop or in the unit, not in Enclave or Commons parking lot.

Fire Systems

- **The Enclave staff will take the fire alarm system offline when requested during construction.**
- **General Manager or Access Control must be notified prior to working on any speaker, strobe, pull station, or any other fire device.**
 - **The cost associated with any problems, malfunctions, or false alarms, caused by the contractor will be charged to that contractor.**

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- **The contractor will ensure that the fire exits always remain clear.**

Fire Alarm/Sprinkler Systems

- Any changes to fire alarm or fire sprinkler systems must be accomplished by a licensed fire alarm/sprinkler contractor, with the appropriate permits.
- Access Control or the building manager must be notified before any fire sprinkler systems are shut off or drained.
- **Sprinkler heads that are covered for painting or protection need to have the cover removed at the end of each day. Sprinkler heads will not function if the covers are left on.**
- **The alarm and fire sprinkler systems must be operational every night.**
- **If it is necessary to keep fire system offline overnight the contractor will be responsible to hire a qualified fire watch attendant to monitor the building overnight.**
- **Contractor will verify daily with Access Control that all devices are intact and working.**

Smoke Detectors

Unoccupied units

- Three (3) stand-alone smoke/CO detectors are in each unit.
- These may be removed and kept in a secure place during construction and replaced after construction has been completed.
- Contractor must verify units are in proper working condition when replaced.
- **Hardwired smoke detectors will be covered when the workers are present and must be uncovered every night.**

Occupied Units

Hard wired smoke detectors and the three (3) Stand-alone CO detectors will be covered when workers are present and uncovered every night.

Water Detection System

- All units are protected from water damage by a water detection system.
 - The system shuts off the water and alerts Access Control in the event of a water leak.
- **The contractor is responsible for protecting the Aqua Latch system during construction.**

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- If removal of the sensors is required, the contractor is responsible to secure the equipment.
 - Each device is specifically addressed as to where it is located.
 - If a device is removed, its location needs to be documented to allow for the device to be returned to its original location.
- After completion of construction, the contractor will be responsible to contact AquaLatch at (239) 272-8582 to confirm proper reinstallation and to check system for proper function.
- The expense of system reinstallation and replacement equipment will be paid by the contractor.
- **The main water valve in the unit must be turned off by the Contractor every night in unoccupied units.**

Gas Fireplaces and Stoves

- **There are gas fireplaces and appliances in many units.**
- **Any changes to these systems must be accomplished by a licensed gas contractor, with the appropriate permits.**

A/C Systems

- Contractors are responsible for frequent filter changes during construction.
- Filter changes should be done often during periods causing excessive dust.
- The use of an air scrubber is required during work causing excessive dust.
- The use of plastic barriers and outside ventilation is recommended.
- Paint odors must be kept to a minimum by the painting contractor.
- **Any change to grill or kitchen venting will require proper vent installation.**
 - **A copy of the specification is available from the Manager's office.**

Hard Flooring

- Prior to the installation of tile, marble, or wood floor, approved sound insulation such as Proflex 250 or equal material must be installed.
- Specifications are available from the manager.
- All tile, marble, and wood floor installation must be completed by October 15.
- Removal of flooring must be done by scraper machine when able.
- Floors that need to be jackhammered need to give the office 24 hours' notice to access control.

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- Note notification at the end of one day does not allow for jackhammering the following morning.

Carpet Installation

- All carpets must be installed between May 1 and October 31.

Restroom Facilities

- Workers will not use the tennis court restrooms.
- The owner must provide one restroom in the unit for use of the workers.
- Workers will not use the tennis court area for breaks.
 - Breaks or lunch are to be taken in the unit or off property inclusive of the commons parking lots.

Stairways

- The contractor is responsible to maintain the cleanliness of unit stairway landings.
- When using the stairways, the contractor is responsible for any cleaning of the stairway from the lobby to the floor being worked in.

Smoking

- **The Enclave is a non-smoking building.**
- **Smoking is not allowed in any common area.**
- **There is no designated smoking area on the property.**
- **Smokers utilizing the outer lot shall not dispose of cigarette butts in the parking area, causing a fire hazard.**
 - **A fine of \$250.00 will be imposed if violated.**

Daily Responsibilities

- **Before leaving the unit**
 - **Turn off the water main (water heater must be off) in unoccupied units.**
 - **Ensure all shutters, windows, and sliding doors are closed and locked.**
 - **Uncover smoke detectors.**
 - **Ensure contractor equipment is turned off.**
 - **Check thermostat settings.**

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- **Turn off all lights.**

The general contractor will ensure that all sub-contractors are aware of and abide by these rules. The general contractor will be held liable for any infraction by his subcontractors. The owner is ultimately responsible for their contractor and will be responsible for any repairs and any damage to the building and grounds which was caused by their contractor(s). The damages will be charged against the owner's damage deposit. Any charges above the amount of the damage deposit will be billed to the owner. Owner's deposit will be returned to the owner after termination of notice of commencement is received.

The general contractor responsible for the unit renovation shall be familiar with the Enclave property. The general manager will walk the property with the contractor if needed.

Specifications

Attached are specifications that must be followed for the following:

Flooring Sound Proofing

Windows

Lanai Waterproofing

Vent Stack Venting

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I acknowledge receipt of these instructions.

I am aware of and understand the above requirements and will abide by them.

Non-compliance may result in being barred from the building.

I understand that any questions, concerns, or request should be directed to:

Adrienne Doane
Enclave General Manager

Phone: (239) 261-7158
Fax: (239) 261-3688
Email: manager@enclavenaples.com

CONTRACTOR SIGNATURE	DATE
PRINTED NAME	
PROJECT MANAGER SIGNATURE	DATE
PRINTED NAME	
OWNER SIGNATURE	DATE
PRINTED NAME	
MANAGER SIGNATURE	DATE

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CONTRACTOR SIGNATURE	DATE
PRINTED NAME	
PROJECT MANAGER SIGNATURE	DATE
PRINTED NAME	
OWNER SIGNATURE	DATE
PRINTED NAME	
MANAGER SIGNATURE	DATE
PRINTED NAME	

April 14, 2016

Adrienne Doane, CAM
General Manager
Enclave of Naples
4601 Gulf Shore Blvd N
Naples, FL 34103

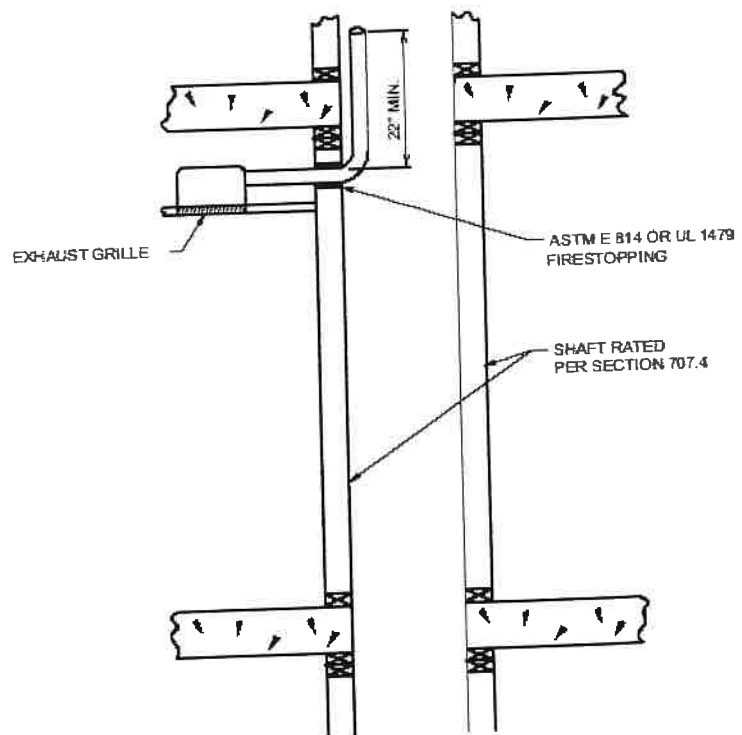
Re: Exhaust shaft video analysis

Adrienne,

This morning I reviewed the video you provided of the exhaust shaft inspection. The exhaust shaft is a continuous, fire rated, vertical shaft beginning a ground level near the garage doors and terminating at an exhaust fan on the roof. The shaft is penetrated by multiple exhaust ducts from kitchen hoods or other cooking appliances (such as an outdoor grill).

Per Florida Fire Prevention Code, NFPA 90A 5.3.4.6.2 and the current 5th Edition (2014) Florida Building Code - Building 717.5.3 an exhaust duct penetration into a fire rated shaft is allowed provided the steel exhaust subducts are extended at least 22 inches vertically into the exhaust shaft and that there is a continuous airflow upward to the outside. An example of this is shown to the right.

The main issue with not having this type of construction would be communication of air between units. If the subduct is not installed correctly, then smoke, odor, or other contaminate in the exhaust air could leave from one exhaust duct and enter another rather than continuing up the exhaust shaft and exiting the building.



CMC 056872
CFC 1427787
CA 31574

8170 Mainline Parkway
Fort Myers, FL 33912
239.939.4502

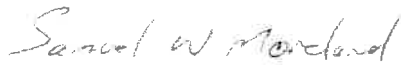
Many of the exhaust systems are correctly installed. However, as I note below, there are 16 instances of either no subduct or a short, straight piece of subduct. One of these installations is also very poorly sealed such that exhaust air could not only enter the duct but the surrounding space directly. One or two of these instances are installed with a curtain type fire damper instead of a subduct; this is also against code.

Finally, the shaft itself terminates at the garage with a multi-blade damper. The opening has a grille to allow for make-up air into the shaft but it has been covered. This would greatly restrict airflow through the shaft and the natural chimney effect that should occur in the exhaust shaft.

Distance from top (feet) as noted on video	Observation
10.8	Shaft damage, unclear if wall is penetrated
19.0	Opening only
21.6	Opening with fire damper
59.0	Opening only
69.8	Opening only
88.9	Opening only
98.7	Short, straight subduct
100.0	Opening only, not sealed
117.7	Opening only
127.3	Opening only
146.0	Opening only
155.5	Opening only
157.8	Opening only
195.2	Opening only
204.0	Opening only
223.4	Opening only
232.9	Opening with damper (not clear if fire damper)
269.6	End of shaft closed

My recommendation is to, as soon as possible, correct the deficiencies with the subducts and exhaust shaft. This will prevent any exhaust air from one unit entering another unit. And of greater concern would be, in the event of a fire, the smoke from one unit entering another unit.

Best regards,



Sam Moreland, PE

cc:

Don Pine, Vice President; Jim Cloonan, Service Manager; Craig Lawrence, Service Sales

**ENCLAVE OF NAPLES CONDOMINIUM ASSOCIATION INC.
APPROVED FLOORING SOUND PROOFING SPECIFICATIONS
PER FORGE ENGINEERING MAY 2021**

STC = Sound Transmission Class

This refers to airborne sound transmission such as speech, music, sirens, barking, and television.

IIC = Impact Insulation Class

This refers to the transmission of impact noise such as footfall or bouncing ball on the floor. IIC ratings are arrived at using laboratory tests of sample building assemblies.

Flooring Performance Specifications

Flooring Type	Porcelain Tile		Ceramic Tile		Engineered Wood		Vinyl Plank	
	STC	IIC	STC	IIC	STC	IIC	STC	IIC
GenieMat	54	50	54	50	52	53	51	52
RST0S					52	53	51	52
Proflex RCU 250	53	51	53	51	50	54	59	69
Proflex LV200					51	52	59	69
WhisperMat								
Suggested Carpet padding Proflex Db200 w/ Db 60 Adh								

Note:

1. Ratings assume installation per manufacturer's recommendations.
2. Perimeter isolation barrier installed.
3. STC / IIC scores assume 6 inch concrete slab with no ceiling treatments.

Moore Fenestration Consultants, Inc.

December 2017

Viracon Glass for Enclave:

The glass selected by the Board of Directors, to best match the original glass color (by Viracon) is also fabricated by Viracon Glass. The availability is 6 – 8 weeks all year long.

Window glass is Insulated-laminated having a thickness of 1-5/16" (3 lites) and the nominal glass for swing doors and sliding glass doors is laminated (2 lites) having a thickness of 9/16".

The glass laminate may be rated for small missile (SM) or large missile (LM) impact resistance depending on the interlayer thickness (suggest all new/replacement be LM), and will have a current Notice of Acceptance (NOA) number issued by Miami/Dade County.

MAKEUP: 1-5/16" Bronze/VE-2M Laminated Ins. Glass
HS/HS/FT

1/4" Bronze HS
0.060" or 0.090" or 110" Clear interlayer (Missile impact specific)

1/4" Clear HS
1/2" airspace – mill finish
1/4" Clear FT

The local representative for Viracon Glass is Mr. Jeff Rigot:
Office 239 – 872 – 2525

Be sure to verify current installation
as pane replacements may vary in size

ENCLAVE OF NAPLES CONDOMINIUM ASSOCIATION
LANAI / BALCONY WATERPROOFING SPECIFICATIONS

MARCH 2022

Balcony Waterproofing and Tile Installation

- A. The contractor shall remove and safely store existing storm shutters, screen enclosure, and railings as required to install the new waterproofing system. These items shall be reinstalled prior to completion of the project.
- B. The contractor shall remove the existing floor tile, thin-set mortar, and waterproofing down to the concrete substrate.
- C. The integrity of the concrete slab should be inspected for distressed concrete by the site manager or an association approved engineer. If distressed concrete is observed; spalling, cracks, etc., the Association must have the distressed areas repaired and inspected by an engineer before proceeding with installing the proposed deck waterproofing. If any concrete distress occurs after the installation of the proposed deck waterproofing, the Association shall be responsible for repairs less finishes and waterproofing.
- D. The concrete deck surface shall be clean, dry and sound before the waterproofing membrane application begins.
- E. Remove stucco at wall / deck and column / deck interfaces to allow installation of waterproofing system to be applied vertically up the face of the walls per TREMCO's installation details.
- F. Install new Vulkem EWS waterproofing system in strict accordance with manufacturer's requirements to achieve a 20-year material and labor warranty. See attached "Vulkem /EWS Section 07 18 00 Under Tile & Paver Waterproofing Coatings" specification prepared by Tremco, Inc. for specifics.
- G. Repair stucco at all deck / wall column / deck interfaces to match existing conditions. Prime and paint repaired stucco to match existing exterior finishes.
- H. After the waterproofing system has been installed, install new ceramic or porcelain floor tile in accordance with the current tile council of North American TCNA requirements.
- I. The Tile shall be installed to provide positive drainage away from the building. The tile shall be sloped toward the existing deck drain or slab edge to provide positive drainage.
- J. The tile shall be installed with Ardex X 77 Mictotoc fiber reinforced, polymer modified thin set mortar, or equivalent in strict accordance to the manufacturer's recommendations.
- K. The tile shall be installed with 1/2" gap between the tile and any walls, slider / window thresholds to be later filled and sealed with a polyurethane sealant.
- L. Extreme care shall be taken to not block or impede water flow from sliding glass door / window drainage weep systems.
- M. The tile shall be installed with minimum 3/8" wide expansion joints on eight-foot centers in each direction. The joints shall be filled with polyurethane sealant.
- N. The tile shall be grouted with Ardex FL rapid set flexible sanded grout, or equivalent, in strict accordance to the manufacturer's recommendations.

- O. Contractor is to maintain the building in watertight condition during construction and at the end of each workday.
- P. The contractor must be an approved Tremco applicator and provide documentation from the manufacturer.
- Q. The Contractor shall be responsible for any damages caused to the building.

Tremco, Inc. Commercial Sealants & Waterproofing

Section 07 18 00 TRAFFIC COATINGS Under Tile Guide Specification

Specifier: This guide specification section specifies Tremco Vulkem® EWS Traffic Coating System with PUMA Technology.

Tremco PUMA Primer is a methyl methacrylate (MMA) primer that is applied to the shot blast concrete to prepare it for the application of Tremco PUMA BC base coat.

Tremco PUMA BC is a polyurethane methacrylate (PUMA) base coat that bonds firmly to Tremco PUMA Primer. It retains its integrity even if substrate movement causes hair line cracks of up 1/16". Tremco PUMA BC will prevent water migration between it and its substrate.

Tremco PUMA BC LM is a polyurethane methacrylate (PUMA) detail and/or base coat that bonds firmly to Tremco PUMA Primer. It retains its integrity even if substrate movement causes hair line cracks of up 1/16". It has a higher modulus than Tremco PUMA BC and is used for detailing cracks and control joints prior to the Tremco PUMA BC base coat application.

Tremco PUMA BC T is a thixotropic polyurethane methacrylate (PUMA) base coat that bonds firmly to Tremco PUMA Primer. It retains its integrity even if substrate movement causes hair line cracks of up 1/16". Tremco PUMA BC T will prevent water migration between it and its substrate. Tremco PUMA BC T is used on ramps, vertical rises, detailing and field applied cant beads.

Tremco PUMA BC R is a rollable version of Tremco PUMA BC that bonds firmly to Tremco PUMA Primer. It retains its integrity even if substrate movement causes hair line cracks of up 1/16". Tremco PUMA BC R is used for ramps and upturns.

Tremco PUMA WC is a polyurethane methacrylate (PUMA) wear coat. Tremco PUMA WC is applied after Tremco PUMA BC has cured. The wear coat is loaded with aggregate to give the system excellent impact, abrasion and chemical resistance.

Tremco PUMA TC is a methyl methacrylate (MMA) top coat that is applied after Tremco PUMA WC has cured. Interlaminary adhesion to Tremco PUMA WC is exceedingly strong. The top coat affords excellent abrasion resistance, UV stability and chemical resistance to complete the Vulkem EWS system.

Basic Uses

Under tile coating applications are ideal for tile, pavers, and bonded overburden, including waterproofing concrete slabs and protecting occupied areas underneath from water damage. The system also protects concrete from damaging effects of water deicing salts, chemicals, gasoline, oils and anti-freeze.

This section is easily edited using several common commercial specification software tools.

We recommend you consult with your Tremco construction technical representative, who can be contacted through: Tremco, Inc., Commercial Sealants and Waterproofing Division, Beachwood OH; (866) 321-6357; email: techresources@tremcoinc.com; www.tremcosealants.com.

Tremco products appear in the following CSI MasterFormat guide specifications available from Tremco:

- Section 07 01 91 Joint Sealant Rehabilitation and Replacement
- Section 07 14 13.01 Hot Fluid-Applied Waterproofing, Deck (TREMproof 6100)
- Section 07 14 13.02 Hot Fluid-Applied Waterproofing, Vegetated Roof (TREMproof 6100)
- Section 07 14 16.01 Cold Fluid-Applied Waterproofing, Vertical and Deck (TREMproof 250GC)
- Section 07 14 16.02 Cold Fluid-Applied Waterproofing, Vertical (TREMproof 250GC)
- Section 07 14 16.03 Cold Fluid-Applied Waterproofing, Deck (TREMproof 250GC)
- Section 07 14 16.04 Cold Fluid-Applied Waterproofing, Vegetative Roof (TREMproof 250GC)
- Section 07 17 16.01 Bentonite Waterproofing (Paraseal)
- Section 07 17 16.02 Bentonite Waterproofing (Paraseal GM/LG 60 mil)
- Section 07 18 00.01 Traffic Coatings, Vehicular
- Section 07 18 00.02 Traffic Coatings, Pedestrian
- Section 07 18 00.03 Traffic Coatings, Mechanical Rooms
- Section 07 27 13 Modified Bituminous Sheet Air Barriers, Vapor-Retarding (ExoAir 110)
- Section 07 27 23 Board Product Air Barriers, Vapor Permeable (SECUROCK ExoAir 230)
- Section 07 27 26.01 Fluid-Applied Membrane Air Barriers, Vapor-Retarding (ExoAir 120)
- Section 07 27 26.02 Fluid-Applied Membrane Air Barriers, Vapor Permeable (ExoAir 220)
- Section 07 27 26.03 Fluid-Applied Membrane Air Barriers, Vapor Permeable (ExoAir 230)
- Section 07 92 00 Joint Sealants
- Section 08 85 00 Glazing Sealants
- Section 32 13 73 Concrete Paving Joint Sealants

This document includes Specifier notes in hidden text. To view hidden text, www.bim.net/displaying-hidden-text-in-microsoft-word-step-by-step-instructions-for-windows-and-mac/

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SECTION 07 18 00 – TRAFFIC COATINGS, UNDER TILE

PART 1 - GENERAL

1.1 SECTION INCLUDES

1. Polyurethane methacrylate traffic coatings for under tile applications

1.2 RELATED REQUIREMENTS

1. Section 03 31 00 "Cast-in-Place Concrete" for moisture curing of concrete traffic coating substrate.
2. Sections 07 90 00 / 07 95 00 Joint Protection/ Expansion Control
3. Section 07 92 00 "Joint Sealants" for joint sealants and accessories and joint preparation.

1.3 REFERENCES

- A. References, General: Versions of the following standards current as of the date of issue of the project apply to the Work of this Section.
- B. ASTM International (ASTM): www.astm.org:
1. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants
 2. ASTM C 1127 - Standard Guide for Use of High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane with an Integral Wearing Surface
 3. ASTM C 1193 - Standard Guide for Use of Joint Sealants
 4. ASTM D 4258 - Standard Practice for Surface Cleaning Concrete for Coating
 5. ASTM D 4259 - Standard Practice for Abrading Concrete
 6. CSA S413 for Parking Structures
 7. ASTM C 957 - Standard Specification for High-Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane With Integral Wearing Surface
- C. International Concrete Repair Institute (ICRI): www.icri.org:
1. ICRI 310.2R - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Conference: Conduct conference at Project Site.
1. Review requirements for traffic coating products and installation, including surface preparation, substrate conditions, project and manufacturer's details, installation procedures, mockups, testing and inspection requirements, protection and repairs, and coordination and sequencing of traffic coating work with work of other Sections.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of traffic coating product and expansion joint accessory specified, indicating compliance with requirements.
- B. Shop Drawings: Show locations for traffic coating system components. Show details for each type of substrate, movement joints, corners, and edge conditions, including penetrations, transitions, and terminations.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data:
1. Certification of manufacturer's approval of Installer.

- B. Product Test Reports: Test data for traffic coating products and traffic coating system, by qualified testing agency, indicating proposed traffic coating meets performance requirements, when requested by Architect.
 - C. Warranty: Sample of unexecuted manufacturer and installer special warranties.
 - D. Field quality control reports.
- 1.7 QUALITY ASSURANCE
- A. Installer Qualifications: A manufacturer-approved firm with minimum [five] years' experience in installation of specified or similar products in successful use on similar projects, employing workers trained by manufacturer, including a full-time on-site supervisor with a minimum of [three] years' experience installing similar work, and able to communicate verbally with Contractor[, Architect,] and employees.
 - B. Mockups: Provide traffic coating mockup application within mockups required in other sections, or if not specified, in an area of not less than 150 sq. ft. (14 sq. m) of surface where directed by [Architect] [Owner] for each type of substrate condition. Include examples of surface preparation, crack and joint treatment, traffic coating application, slip-resistant aggregate application, and flashing, transition, and termination conditions, to set quality standards for execution.
 - 1. Include intersections of deck traffic coating with adjacent vertical coating and moisture control system applications.
 - 2. If applicable, include no less than 13 ft (3.96m) including a minimum of one splice joint of Willseal® Expansion Joint System.
- 1.8 DELIVERY, STORAGE AND HANDLING
- A. Accept materials on site in manufacturer's unopened original packaging.
 - B. Store products in weather protected environment, clear of ground and moisture, within temperature ranges recommended by traffic coating manufacturer.
 - C. Construction Waste: Store and dispose of packaging materials and construction waste in accordance with requirements of Division 01 Section ["Construction Waste Management"] ["Temporary Facilities and Controls."]
- 1.9 ENVIRONMENTAL REQUIREMENTS
- A. Environmental Limitations: Apply traffic coating within the range of ambient and substrate temperatures recommended by traffic coating manufacturer.
 - 1. Protect substrates from environmental conditions that affect system performance.
 - 2. Do not apply traffic coating (or expansion joint accessories if applicable) to a damp or wet substrate or during snow, rain, fog, or mist.
- 1.10 SCHEDULING
- A. Schedule work so traffic coating system (including expansion joint accessories if applicable) applications may be inspected prior to concealment.
- 1.11 WARRANTY
- A. Applicator: Company specializing in performing the work of this section qualified by system manufacturer for warranted membrane installation. Applicator shall submit the following certification for review:

1. Applicator shall submit documentation from the membrane manufacturer to verify contractor's status as a qualified approved applicator for warranted installations.
- B. Special Manufacturer's Warranty: Manufacturer's standard form in which traffic coating manufacturer agrees to furnish traffic coating material to repair or replace those materials installed according to manufacturer's written instructions that exhibit material defects or otherwise fail to perform as specified under normal use within warranty period specified.
1. Access for Repair: Owner shall provide unimpeded access to the Project and the traffic coating system for purposes of testing, leak investigation, and repair,
 2. Cost Limitation: Manufacturer's obligation for repair or replacement shall be limited to the original installed cost of the work.
 3. Warranty Period: Twenty years from date of Substantial Completion.
- C. Special warranties specified in this article exclude deterioration or failure of traffic coating materials from the following:
1. Movement of the structure caused by structural settlement or stresses on the traffic coating exceeding manufacturer's written specifications for elongation.
 2. Mechanical damage caused by outside agents.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Products: Provide traffic coating products manufactured by **Tremco, Inc., Commercial Sealants and Waterproofing Division, An RPM Company**, Beachwood OH; (866) 321-6357; email: techresources@tremcoinc.com; www.tremcosealants.com. Source Limitations: Provide traffic coating system materials and accessory products from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General: Traffic coating system shall be capable of performing as a continuous watertight installation and as a moisture drainage plane transitioned to adjacent flashings and discharging water to the structure exterior. Traffic coating shall accommodate normal substrate movement and seal expansion and control joints, construction material transitions, opening transitions, penetrations, and perimeter conditions without resultant moisture deterioration.
- B. Compatibility: Provide traffic coating system materials that are compatible with one another and with adjacent materials under conditions of service and application required, as demonstrated by traffic coating manufacturer based on testing and field experience.

2.3 TRAFFIC COATING FOR UNDER TILE, EXTREME WEAR SYSTEM (EWS)

- A. Traffic Coating: Manufacturer's polyurethane methyl methacrylate system for extreme exterior exposure conditions, traffic-bearing, seamless, high-solids-content, cold liquid-applied, elastomeric, waterproofing membrane system with integral wearing surface for under tile.
1. Basis of Design Products: Tremco, Inc., Vulkem EWS System
- B. Primer: Two-component, chemically curing methyl methacrylate
1. Tremco PUMA Primer
- C. Base Coats: Polyurethane methacrylate
1. Tremco PUMA BC
- D. Top Coat: Methyl Methacrylate

1. Tremco PUMA TC
 2. Color: As selected by Architect from manufacturer's full range.
- E. Aggregate: Manufacturer's standard aggregate for each use indicated of particle sizes, shape, and minimum hardness recommended in writing by traffic-coating manufacturer.
1. 30-50 mesh silica sand for the primer
 2. 20-40 mesh silica sand for the top coat
- 2.4 ACCESSORY MATERIALS
- A. General: Accessory materials as described in manufacturer's written installation instructions, recommended to produce complete traffic coating system meeting performance requirements, and compatible with traffic coating material and adjacent materials.
- B. Initiator; Benzoyl Peroxide
1. Tremco PUMA Initiator/Initiator+
- C. Cleaner; One component methyl methacrylate
1. Tremco PUMA Cleaner
- D. Cold Weather Catalyst;
1. Tremco PUMA Cold Weather Catalyst
- E. Crack and Joint Detailing Coating
1. Tremco PUMA BC LM and/or Tremco PUMA WC with silica
- F. Vertical and Ramp Application Coating
1. Tremco PUMA BC R
- G. Cant Beads and Detailing of Penetrations
1. Tremco PUMA BC T
- H. Expansion Joint Pre-compressed or Closed Cell, Monolithic Foam System. Foam Structure Must not Contain Unbonded Foam Laminations;
1. Willseal® 250 for use in both vehicular and pedestrian traffic applications.
 2. Willseal® 250-R for use in both vehicular and pedestrian traffic applications requiring additional point load resistance.
 3. Willseal® Color Coreseal – CM for use in both vehicular and pedestrian traffic applications requiring +/-25% movement capability, closed cell, and a lightweight seal with an integrated waterproofing membrane. For vertical applications refer to Color Coreseal – V.
 4. Willseal® FR-H - for use in both vehicular and pedestrian traffic applications requiring hourly fire rated systems. For vertical applications refer to Willseal® FR-V.
 5. Willseal® approved accessory sealants as per Willseal application instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Surface Condition: Before applying traffic coating materials, examine substrate and conditions to ensure substrates are fully cured, smooth, and free from high spots, depressions, loose and foreign particles and other deterrents to adhesion, and conditions comply with manufacturer's written recommendations.

1. Verify concrete surfaces are visibly dry, have cured for time period recommended by traffic coating manufacturer, and are free from release agents, curing agents, laitance, and other contaminants.
 2. Test surfaces following cleaning and abrasion specified below.
 - a. Test for capillary moisture by method recommended in writing by traffic-coating manufacturer.
 - b. Test for traffic coating adhesion per manufacturer's recommended method.
 - c. Notify Architect in writing of unsatisfactory conditions.
- B. Proceed with installation once unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Preparation: Clean, prepare, and treat substrates in accordance with ASTM C 1127 and traffic coating manufacturer's written instructions.
1. Remove contaminants, curing compounds, and film-forming coatings from substrates.
 2. Remove projections and excess materials and fill voids with manufacturer's recommended substrate patching material.
 3. Mechanically abrade concrete surfaces by method of shot blasting to a uniform profile in accordance with ASTM D 4259 and meeting ICRI Surface Profile CSP 3. Do not acid etch.
 4. Clean prepared surfaces in accordance with ASTM D 4258.
- B. Protect adjacent finished surfaces by masking. Mask termination point on vertical surfaces. Protect weep holes and drains.

3.3 TERMINATIONS AND PENETRATIONS

- A. Prepare vertical and horizontal surfaces at horizontal to vertical transitions, terminations, joints, and penetrations through traffic coatings in accordance with ASTM C 1127 and manufacturer's written instructions, using accessory materials specified.
- B. At terminations of traffic coating exposed to traffic, rout 1/4 by 1/4 inch keyway in concrete.
- C. Detail Preparation: Prepare non-moving shrinkage cracks, large cracks, construction joints, expansion joints, projections and protrusions, penetrations, drains, and changes in plane in accordance with manufacturer's written instructions and details.
1. Prepare joints and cracks in substrate in accordance with ASTM C 1127 and ASTM D 4258 and manufacturer's written instructions.
- D. Joint Coating Installation: Comply manufacturer's written instructions. Allow joint coatings to cure adequately before coating with traffic coating.
1. Provide coating cants at penetrations and at horizontal-to-vertical intersections. Tool coating material to form 45 degree angle transition. Penetrations must be grouted solid at all instances.
 2. Rout and fill cracks with coating and tool flush with surface.
 3. Feather edges of joint coating applications.
 4. Allow coating to cure.
 5. Fill expansion joints less than 1" with backer rod and joint sealant contact Tremco for sealant recommendation. Do not apply traffic coating over expansion joints.
 6. Fill expansion joints greater than 1" with specified Willseal Expansion Joint material, contact Tremco for sealant recommendation. Do not apply traffic coating over expansion joints.

3.4 UNDER TILE-COATING APPLICATION

- A. Primer: Prime surfaces to receive traffic coating system. Allow to cure before proceeding.
- B. Start traffic-coating application in presence of manufacturer's technical representative.
- C. Apply traffic coating according to manufacturer's written instructions.
 - 1. Verify that wet film thickness of each coat complies with requirements every [100 sq. ft. (9 sq. m)].
- D. Apply number of coats of specified compositions for vehicular traffic coating at locations indicated on Drawings, per manufacturer's written installation instructions.
- E. Apply traffic coatings to prepared wall terminations and vertical surfaces to height indicated; omit aggregate on vertical surfaces.
- F. Cure traffic coatings. Prevent contamination and damage during application and curing stages.

3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to inspect substrate conditions, surface preparation, traffic coating application, protection, and drainage components, and to furnish reports to Architect.
- B. Coordination of Testing: Cooperate with testing agency. Allow access to work areas and staging. Notify testing agency in writing of schedule for Work of this Section to allow sufficient time for testing and inspection.
 - 1. Do not cover Work until testing and inspection is completed and accepted.
- C. Reporting: Forward written inspection reports to the Architect within 3 working days of the inspection and test being performed.
- D. Correction: Correct deficient applications not passing tests and inspections, make necessary repairs, and retest as required to demonstrate compliance with requirements.

3.6 CLEANING AND PROTECTING

- A. Clean spills, stains, and overspray resulting application utilizing cleaning agents recommended by manufacturers of affected construction. Remove masking materials.
- B. Protect traffic coating from damage from subsequent work. Protect traffic coating materials from exposure to UV light for period in excess of that acceptable to traffic coating manufacturer; replace overexposed materials and retest.

END OF SECTION