Michael Baker
INTERNATIONAL

Submittal Transmittal Form

St. Pete – Clearwater International Airport Gates 7-10 Terminal Addition	Baker Project # 153823

Transmitted To:	Transmitted By:
Kashy Hubbell The Artec Group, Inc. P.O. Box 50335 Sarasota, Florida 34232-0302 Tel: 941-960-1378 Fax: 305-421-0490 KHubbell@theartecgroup.com	Chip Hayward, AIA, CSI-CCCA, LEED GA Michael Baker International 5020 West Linebaugh Avenue, Suite 240 Tampa, Florida 33624 Tel: (813) 889-3892 Fax: (813) 889-3893 chayward@mbakerintl.com

Qty.	Submittal No./Date	Description	Pages Reviewed
1	11/07/2016	02361 Termite Control Substitution Request	1-4 of 4

Transmitted For:	Transmitted Via:
Review and Responses or Action Noted	Email/Sharepoint

☐ No Exceptions
☐ Exception Noted
Submit ____ Corrected Copies
☐ Revise and Resubmit
☒ Rejected

This Review is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences and procedures of construction; and for coordination of the work of all trades. Approval of a specific item does not indicate approval of an assembly of which the item is a component. Approval of items does not relieve the contractor from complying with all requirements of the Contract Documents.

A/E Review Comments:

- Provide side by side comparison between products specify in Project Manual and product proposed (include cost per square footage).

Kristina Gutierrez. for
Signature Chip Hayward.
Michael Baker International, Inc.

Nov. 10 2016.
Date

Cc: Company Name	Contact Name
St. Pete-Clearwater Airport	Scott Yarley, PE
AID	Michael Cummings
Michael Baker Intl.	
File	

SUBSTITUTION REQUEST FORM

Substitution Request Number: 001 Date: 11/07/16

General Contractor: The Artec Group

Project Name: St. Pete Clearwater Airport terminal expansion

Project Location: 14700 Terminal Blvd. Clearwater, FL

Architect's Project No.: 140743

Specification Section: 02361

Paragraph Number:

Original Product Specified: "Prevail FT", "Torpedo", "Demon TC" "Demon Max" - 11-2-16

Proposed Product Substitution: Dominion 2L

General reason for not giving priority to Specified Items: The product are not on the market anymore. Specs are old! Dominion 2L is equal to the two products listed

Answer the following questions:	***Circle One***	
• Are extensive revisions to contract documents required?	Yes	(No)
• Proposed changes are in keeping with general intent of Contract Documents?	Yes	(No)
• Substitution affects other materials or systems? (If yes, attach complete data)	Yes	(No)
• Substitution requires dimensional revision or redesign of structure or MEP work? (If yes, attach complete data)	Yes	(No)
• Comparison of two products is attached to demonstrate equality of products? (Original specified item versus proposed substitution)	(Yes)	No
• The following data is furnished herewith for evaluation of the substitution:		
❑ Catalog Data Sheets ❑ Drawings ❑ Reports ❑ Samples ❑ Test Data ❑ Other Label		
• Are there any schedule impacts if the original product specified is used? (If yes, please indicate the number of calendar days: _____)	Yes	(No)
• Scheduled delivery date of original product: NA / / .		
• Scheduled delivery date of proposed substitution: NA / / . Days saved ____)		
• Is the original product acceptable to local building officials? (If no, please fill in data below)	(Yes)	No
Contact at Building Department: _____		
Phone: ( ) - Ext. Fax: ( ) - -		
• Are there any savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $_____)	Yes	(No)
• Are there any life cycle costs savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $_____)	Yes	(No)
• Are there any additional costs that will be incurred by the Owner? (If yes, identify cost impact: $_____)	Yes	(No)
• Are there any additional costs that will be incurred by other trade contractors? (If yes, identify total cost impact: $_____)	Yes	(No)
• Is the specified product or material compatible with other products or materials scheduled or specified to be installed?	(Yes)	No
• Is the proposed substitution compatible with other materials scheduled or specified to be installed?	(Yes)	No

- Can the specified product or material be installed and coordinated with the installation of other products or materials specified to be installed? Yes No
- What is the warranty period for the originally specified product? Labor ____ (Yrs) Material ____ (Yrs)
- What is the warranty period for the proposed substitution? Labor ____ (Yrs) Years 5 (Yrs)

By signature below the Contractor and/or Subcontractor proposing the material or product substitution hereby certify that the above noted information is true and accurate. The Contractor and/or subcontractor further certify that each of them waiver their rights to additional payment or time, that may subsequently become necessary because of failure of the substitution to perform adequately. **THE CONTRACTOR AND SUB-CONTRACTOR HEREBY FURTHER CERTIFY THAT THIS SUBMISSION HAS BEEN FULLY CHECKED AND COORDINATED WITH THE CONTRACT DOCUMENTS.**

Linda Hale — 11/7/16
(Subcontractor's Signature) (Date)

Linda Hale
(Printed Subcontractors Name)

[signature] — 11/7/16
(Contractor's Signature) (Date)

KATHY HUBBELL - THE ARTEC GROUP
(Printed Contractor's Name)

ARCHITECT'S ACTION AND/OR REVIEW COMMENTS:

The proposed Substitution Request has been reviewed for compliance with the Design Intent of the Contract Documents by the Architect, in accordance with the General and Supplementary Conditions of the Contract; However, this review shall not relieve the Contractor or the sub-contractor of their duties and responsibilities under the terms of the Contract, and/or the coordination and product incorporation provisions certified by the Contractor and sub-contractor above. The proposed Substitution shall **not** be incorporated into the project unless the marked accepted and Architect's acceptance is acknowledged by the Owner. The Architect's Review Comments and Response are as follows:

- ☐ Rejected; not accepted
- ☐ Revise and resubmit
- ☐ Accepted
- ☐ Accepted as noted below
- ☐ Additional Review Comments Attached
- ☐ _____

(Architect's Signature) / / (Date)

(Printed Architect's Name)

ACKNOWLEDGEMENT OF SUBSTITUTION REQUEST BY OWNER:

(Signature) / / (Date)

(Printed Owner's Name)

END OF FORM

Substitution Request Number: _____ Date: / /

Project Name: _____

Architect's Project No.: _____

Proposed Product Substitution: _____

ARCHITECT'S ADDITIONAL REVIEW COMMENTS:

END OF ADDITIONAL REVIEW COMMENTS

PRECONSTRUCTION SUBTERRANEAN TERMITE SERVICE AGREEMENT

APEX PEST CONTROL INC
www.apexpest.com

☐ East Florida/Corporate
1180 US Highway 1
Suite 105
Rockledge, FL 32955
(321) 459-2847
(800) 929-2847

☐ Central Florida
2545 Diversified Way
Orlando, FL 32804
(407) 292-7770
(888) 764-2847

☐ North Florida
4751 E Moody Blvd, Suite 7D
Bunnell, FL 32110-7300
(386) 206-9109
(888) 408-2847

☐ West Florida
2812 South 70th Street
Tampa, FL 33619
(813) 221-2847
(877) 459-2847

☐ South Florida
1810 Hypoluxo Rd., Ste D12
Lake Worth, FL 33462
(561) 908-6210
(888) 220-1888

DATE OF TREATMENT	ACCOUNT NUMBER	☐ RESIDENTIAL ☐ COMMERCIAL
PURCHASER		PROPERTY
NAME		NAME (if different from Purchaser)
MAILING ADDRESS		SERVICE ADDRESS (if different from mailing address)
CITY, STATE, ZIP CODE		CITY, STATE, ZIP CODE
PHONE (HOME)	PHONE (OFFICE/CELL)	PHONE (HOME) PHONE (OFFICE/CELL)
EMAIL		EMAIL

Structure(s) to be treated include _____

Location of Notice of Treatment: _____

This is a Pre Construction Subterranean Termite Service Agreement ("Agreement") between Apex Pest Control, Inc. ("APEX") and the above-named Purchaser to treat the above referenced Structure(s) for a period of (5) years for Eastern Subterranean Termites (Reticulitermes) and Formosan Subterranean Termites (Coptotermes Formosanus), hereinafter referred to in the plural as "Subterranean Termites", aerial infestations excluded. This Agreement is offered for **repair and retreatment**, meaning that APEX will pay for repairs associated with "New Damage" to the Structure(s), subject to any terms or conditions herein. Re-treatments may be necessary during the period of this Agreement and will be provided at no additional cost to the Purchaser if a reinfestation of Subterranean Termites occurs.

The initial treatment provided under this agreement is intended to **prevent** an infestation of subterranean termites.

For purposes of this Agreement, the parties agree that "expiration date" is defined as that day that falls exactly (5) years from the date of Certificate of Occupancy. Purchaser's failure to pay any and all amounts owed for contracted services in accordance with this Agreement will render this Agreement voidable, at the election of APEX, but shall not relieve Purchaser from the obligation and requirement to provide payment for all amounts due and owing pursuant to this Agreement.

After the initial (5) year period of this agreement, the Purchaser may exercise the option to continue the service for an additional (1) years by paying Apex to perform a complete or maintenance treatment, depending on the circumstances, to the Structure(s) and entering into a new contract with an annual renewal amount determined by APEX and agreed upon by the Purchaser.

PAYMENT TERMS:

Price per square foot: _____

Per Plans square feet: _____

Sales Tax: _____

Total Contract Price: _____

Additional Agreed to Charges:

A. Additional square footage will be charged at the contract rate above.

B. Minimum Trip Charges will be charged at a rate of _____

_____

By signing this Agreement, Purchaser hereby acknowledges that Purchaser has read and fully understands all terms, disclaimers, limitations, conditions and exclusions contained on the front and back of this Agreement that affect APEX's obligations to re-treat the Structure(s) or, if the Repair and Re-treatment Option is selected, to repair and re-treat the Structure(s), under the terms of this Agreement. Purchaser specifically understands that APEX and Purchaser are bound only by the terms of this Agreement and not by any other representation(s) whether oral, written, or otherwise.

_____ _____ _____ _____

DATE PURCHASER/PURCHASER'S AGENT DATE APEX PEST CONTROL, INC.

AP-TA05R (Feb 2013)

SUBSTITUTION REQUEST FORM

Substitution Request Number: 001 Date: 11/07/16

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Architect's Project No.: 140743

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(Subcontractor's Signature) (Date)

Linda Hale
(Printed Subcontractors Name)

[signature] — 11/7/16
(Contractor's Signature) (Date)

KATHY HUBBELL - THE AZTEC GROUP
(Printed Contractor's Name)

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- ☐ Accepted as noted below
- ☐ Additional Review Comments Attached
- ☐ _____

_____

_____

_____ / /
(Architect's Signature) (Date)

_____
(Printed Architect's Name)

ACKNOWLEDGEMENT OF SUBSTITUTION REQUEST BY OWNER:

_____ / /
(Signature) (Date)

_____
(Printed Owner's Name)

END OF FORM

Substitution Request Number: Date: / /

Project Name:

Architect's Project No.:

Proposed Product Substitution:

ARCHITECT'S ADDITIONAL REVIEW COMMENTS:

END OF ADDITIONAL REVIEW COMMENTS

PRECONSTRUCTION SUBTERRANEAN TERMITE SERVICE AGREEMENT

APEX PEST CONTROL INC
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☐ East Florida/Corporate
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Suite 105
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(800) 929-2847

☐ Central Florida
2545 Diversified Way
Orlando, FL 32804
(407) 292-7770
(888) 764-2847

☐ North Florida
4751 E Moody Blvd, Suite 7D
Bunnell, FL 32110-7300
(386) 206-9109
(888) 408-2847

☐ West Florida
2812 South 70th Street
Tampa, FL 33619
(813) 221-2847
(877) 459-2847

☐ South Florida
1810 Hypoluxo Rd., Ste D12
Lake Worth, FL 33462
(561) 908-6210
(888) 220-1888

DATE OF TREATMENT	ACCOUNT NUMBER	☐ RESIDENTIAL ☐ COMMERCIAL
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_____.

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_____ _____ _____ _____

DATE PURCHASER/PURCHASER'S AGENT DATE APEX PEST CONTROL, INC.

AP-TA05R (Feb 2013)

Michael Baker
INTERNATIONAL

Submittal Transmittal Form

St. Pete – Clearwater International Airport Gates 7-10 Terminal Addition	Baker Project # 153823

Transmitted To:	Transmitted By:
Kashy Hubbell The Artec Group, Inc. P.O. Box 50335 Sarasota, Florida 34232-0302 Tel: 941-960-1378 Fax: 305-421-0490 KHubbell@theartecgroup.com	Chip Hayward, AIA, CSI-CCCA, LEED GA Michael Baker International 5020 West Linebaugh Avenue, Suite 240 Tampa, Florida 33624 Tel: (813) 889-3892 Fax: (813) 889-3893 chayward@mbakerintl.com

Qty.	Submittal No./Date	Description	Pages Reviewed
1	10/28/2016	02361 Termite Control Product Data	1-18 of 18

Transmitted For:	Transmitted Via:
Review and Responses or Action Noted	Email/Sharepoint

☐ No Exceptions
☐ Exception Noted
Submit ____ Corrected Copies
☐ Revise and Resubmit
☒ Rejected

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Signature
Michael Baker International, Inc.

Nov. 2, 2016
Date

A/E Review Comments:

- Submit substitution request for this proposed alternate per Section 1600A of the Project Manual.
- Provide product warranty documentation for 5 years as per Section 02361-1 1.6 of the Project Manual; provide manufacture's certification that a 5 year warranty is available for the product submitted.

Cc: Company Name	Contact Name
St. Pete-Clearwater Airport	Scott Yarley, PE
AID	Michael Cummings
Michael Baker Intl.	
File	

The Artec Group, Inc.

376 Interstate Court

Sarasota, FL 34240

Phone:941-960-1378
Fax: 305-421-0490

TRANSMITTAL

No. 00056

PROJECT: Airport Terminal Improvements PH 3

DATE: 10/28/2016

TO: Michael Baker International
5020 West Linebaugh Avenue
Suite 240
Tampa, FL

REF: Submittals

ATTN: Chip Hayward

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☑ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☑ As Required	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☑ Attached	☐ Returned for Corrections
☐ Other: Made from Submittal	☐ Separate Cover Via: Mail	☐ Due Date:

ITEM NO.	COPIES	DATE	ITEM	NUMBER	REV. NO.	DESCRIPTION	STATUS
	1	09/29/2016	SUT	02361-003	001	Sample Warranty	NEW
	1	09/29/2016	SUT	02361-002	001	Product data	NEW
	1	09/29/2016	SUT	02361-001	001	Applicator qualifications and gauge	NEW
	1	09/29/2016	SUT	02361-004	001	Applicator's Certificate	NEW

Remarks:

CC:

Signed _____
Kashy Hubbell

Primavera ®

Dominion 2L Termiticide/Insecticide

For use by professional personnel licensed or registered by the state to apply termiticide, turf maintenance, nursery/greenhouse, and/or landscaping/ornamental products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the structural pest control regulatory agency of your state prior to use of this product.

PREVENTS AND CONTROLS SUBTERRANEAN TERMITES, AND CARPENTER ANTS

FOR USE ON TURFGRASS (INCLUDING SOD FARMS, LANDSCAPE ORNAMENTALS, FRUIT AND NUT TREES AND INTERIOR PLANTSCAPES.

FOLIAR AND SYSTEMIC INSECT CONTROL

ACTIVE INGREDIENT:	
Imidacloprid: 1-1(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine	21.4%
INERT INGREDIENTS:	78.6%
Total:	100.0%

Contains 2 pounds of imidacloprid per gallon.

Shake well before using.

EPA Reg. No. 53883-229 **EPA Est. No. 53883-TX-002**

Keep out of reach of children

CAUTION

PRECAUCION AL USUARIO: Si usted no puede leer o entender ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.
(TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)

FIRST AID	
If Swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If Inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, • preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on Skin or Clothing	• Take off contaminated clothing • Rinse skin immediately with plenty of soap and water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If in Eyes	• Hold eyelids open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison central center or doctor, or going for treatment. You may also contact SafetyCall® International (866) 897-8050 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
No specific antidote is available. Treat patient symptomatically.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Keep children or pets away from treated area until dry.

one year or two year.

1

(2)

Personal Protective Equipment (PPE)

WPS and Termiticide Uses:
Applicators and other handlers (mixers and loaders) who handle this product for uses covered by the Worker Protection Standard (40 CFR part 170) – such as sod farms; or who are using this product as a termiticide, must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.
- Shoes plus socks

Follow manufacturer's instructions for cleaning/ maintaining personal protective equipment, PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When used as a termiticide, once the product is diluted as directed on the label, shirt, pants, shoes and socks may be worn. All pesticide handlers must wear protective eyewear when working in a non-ventilated space or when applying termiticide by rodding or sub-slab injection.

Non-WPS Uses:
Applicators and other handlers must wear:

- Shirt and pants
- Gloves
- Shoes plus socks

Engineering controls statements: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(4)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

User should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.
- Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Apply this product only as specified on this label. Extreme care must be taken to avoid runoff. Apply only to soil or other fill substrate that will accept the solution at the specified rate. Do not treat soil that is water-saturated or frozen or in any conditions where run-off or movement from the treatment area (site) is likely to occur.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Exception: If the product is applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

Coveralls

- Chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton. if you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep children and pets off treated area until dry.

APPLICATION AS A TERMITICIDE

DOMINION 2L TERMITICIDE/INSECTICIDE may be used in and around structures and building construction to prevent and control termite infestations.

GENERAL USE INSTRUCTIONS

For subterranean termite control, specific treatment recommendations may differ due to regulations, treatment procedures, soil types, construction practices and other factors. The purpose of chemical soil treatment for termite control is to establish a continuous chemical treated zone (horizontal and/or vertical) between the wood and other cellulose material in the structure and the termite colonies in the soil. Follow all federal, state, and local regulations and treatment standards for protection of a structure from termites. The establishment of an aerial or above ground colony may require additional treatments to control the termites, as well as landscape modifications, and/or structural repairs to deny termites of a moisture source. Use a 0.05% to 0.1% dilution based on current recommendations. For a typical control situation, a 0.05% dilution is used. A 0.1% dilution may be used when a severe or persistent infestation exists..

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean up is completed.

Structures that contain wells or cisterns within the foundation of the structure can only be treated using the treated backfill method described in the treatment around wells and cisterns section of this label. Consult state and local specifications for recommended distances of wells from treated area, or if such regulations do not exist, refer to Federal Housing Administration Specifications (H.U.D.) for guidance.

MIXING: Refer to **MIXING TABLE** for correct amount of DOMINION 2L TERMITICIDE/INSECTICIDE to be used.

Follow this procedure for mixing the termiticide dilution:

1. Fill tank to 1/3 full.
2. If using large sprayer, start pump to begin bypass agitation and place end of treating tool in tank to allow circulation through hose.
3. Add appropriate amount of DOMINION 2L TERMITICIDE/INSECTICIDE. Add remaining amount of water. Let pump

run and allow recirculation through the hose for 2 to 3 minutes.

MIXING TABLE FOR DOMINION 2L TERMITICIDE/INSECTICIDE		
EMULSION CONCENTRATE	**GALLONS WATER**	**AMOUNT OF IMI 2 LB**
0.05%	100	27.5 fl oz
	50	13.8 fl. oz.
	25	6.9 fl oz
	1	0.3 fl oz
0.1%	100	55.0 fl. oz.
	50	27.5 fl oz
	25	13.8 fl oz
	1	0.6 fl oz

IN-LINE INJECTION: Use the table below to mix the appropriate amount of DOMINION 2L TERMITICIDE/INSECTICIDE for the desired injection volume of finished emulsion.

MIXING TABLE - INJECTOR	
INJECTOR VOLUME	**CONCENTRATION**
0.3 fl oz/gal	0.05%
0.6 fl oz/gal	0.1%

CONVERSION KEY: 128 fl oz = 1 gal; 16 fl oz = 1 pint; 8 pints = 1 gal; 1 fl oz = 29.5 mL

APPLICATION VOLUME

The application volumes described in the DOMINION 2L TERMITICIDE/INSECTICIDE DIRECTIONS FOR USE should be used whenever possible. However, where soil conditions will not accept application of 4 gallons of DOMINION 2L TERMITICIDE/INSECTICIDE per 10 linear feet, twice the DOMINION 2L TERMITICIDE/INSECTICIDE concentration may be applied in 2 gallons of solution per 10 linear feet. For example, if 0.05% is the correct use rate to be applied in 4 gallons of water, then 2 gallons of 0.1% dilution may be used per 10 linear feet to deliver an equivalent amount of DOMINION 2L TERMITICIDE/INSECTICIDE per unit of soil.

PRE-CONSTRUCTION TREATMENT

Do not apply at a lower dosage and/or concentration than specified on this label for application prior to installation of the finished grade.

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

CONCRETE SLAB-ON-GROUND OR BASEMENTS: Apply an overall treatment to the entire surface of soil or other substrate to be covered by the slab including areas to be under carports, porches, basement floor and entrance platforms. Apply at the rate of 1 gallon of solution to accurately and uniformly cover 10 square feet. If fill under slab is gravel or other coarse aggregate, apply at the rate of 1.5 gallons or sufficient volume of solution, to accurately and uniformly cover 10 square feet. in addition, apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet to provide a uniform treated zone in soil at critical areas such as along the inside of foundation walls, and around plumbing, bath traps, utility services, and other features that will penetrate the slab.

After completion of grading, make an application by trenching or trenching and rodding around the slab or foundation perimeter. Rodding may be done from the bottom of a shallow trench. When rodding, rod holes must be spaced in a manner that will allow for a continuous chemical treated zone, not to exceed 12 inches, to be deposited along the treated area. Rod holes should not extend below the footing. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth to provide a uniform treated zone. When trenching, the trench along the outside foundation should be about 6 inches in width and 6 inches in depth. Use a low pressure spray (not to exceed 25 PSI at the treatment tool when the valve is open) to treat soil which will be placed in the trench after rodding. Mix the spray solution with soil as it is being placed in the trench. When treating voids in hollow masonry units, use 2 gallons of solution per 10 linear feet of wall. Apply solution so it will reach the footing by injecting into the lower areas of the wall, just above the floor or footing.

When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor ,

fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Rodding in trench followed by flooding of trench and treatment of backfill may provide a better opportunity to achieve a continuous chemical treated zone than using soil rodding alone to establish a vertical termiticide treated zone.

CRAWL SPACES: Application must be made by trenching or trenching and rodding downward along the inside and outside of foundation walls, around piers, interior supports in contact with the soil, plumbing, and utility services. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth to provide a uniform treated zone. Rodding may be done from the bottom of a shallow trench to top of the footing or a minimum of 4 feet. When rodding, rod holes must be spaced in a manner that will allow for a continuous chemical treated zone to be deposited along the treated area. Rod holes should not extend below he footing. When trenching, the trench should be about 6 inches wide and 6 inches deep. Use a low pressure spray to treat soil which will be placed in the trench, mixing the spray solution with soil as it is being placed in the trench.

HOLLOW BLOCK FOUNDATIONS OR VOIDS: Hollow block foundations or voids in masonry resting on the footing may be treated to provide a continuous chemical treated zone in the voids at the footing. Apply 2 gallons of solution per 10 linear feet to the lower part of the void so that it reaches the top of the footing or soil.

Treatment of voids in block or rubble foundation walls must be closely examined. Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site (refer to **PRECAUTIONARY STATEMENTS**). Do not allow people or pets to contact or to reoccupy the contaminated areas of the structure until the clean up is completed.

POST-CONSTRUCTION TREATMENT

CONCRETE SLAB-ON-GROUND: To apply a treatment under the slab, including attached porches, carports, entrance platforms, garages and similar slab structures, it may be necessary to drill through the slab or exterior foundation. Drill holes should be spaced in a manner that will allow for application of a continuous chemical treated zone. Treat all existing cracks and cold, construction or expansion joints. Also, treat around bath traps, plumbing and utility services which penetrate the slab. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet per foot of depth to provide a uniform treated zone. DO NOT MAKE TREATMENT UNTIL LOCATION OF HEAT OR AIR CONDITIONING DUCTS AND VENTS ARE KNOWN AND IDENTIFIED. USE EXTREME CAUTION TO AVOID CONTAMINATION OF DUCTS AND VENTS. Plug and fill all drilled holes in commonly occupied areas with a suitable sealant. Plugs must be of non-cellulose material or covered by an impervious, non-cellulose material.

An application should be made by trenching or trenching and nodding around the outside of the foundation wall. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet per foot of depth to provide a uniform treated zone. When trenching, the trench along the outside foundation should be about 6 inches wide and 6 inches deep. Use a low pressure spray to treat soil as it is being placed in the trench.

Rodding can be done from the bottom of a shallow trench. When rodding, rod holes should be spaced in a manner that will allow for a continuous chemical treated zone, not to exceed 12 inches, to be deposited along the treated area. Rod hole depth should not extend below the footing.

BATH TRAPS: Exposed soil or soil covered with tar or a similar type sealant beneath and around plumbing and/or drain pipe entry areas should be treated with 3 gallons of solution per square foot. An access door or inspection vent should be cut and installed, if not already present. After inspection and removal of any wood or cellulose debris, the soil can be treated by rodding or drenching the soil.

CRAWL SPACES: When there is insufficient clearance between floor joists and ground surfaces to allow applicator access, excavate, if possible, and treat according to crawl spaces (refer to **PRE-CONSTRUCTION TREATMENT**). If unable to excavate, crawl space soil treatment may be used to prevent surface access by termites. Apply 1 gallon of solution (see **APPLICATION VOLUME**) per 10 square feet to provide a uniform chemical treated zone. Use a very coarse spray at a pressure not exceeding 25 PSI at the treatment tool when the valve is open.

Where a crawl space cannot be reached with the application wand, use extension wands or other suitable equipment to apply a coarse spray on the soil at the above rates. Do not apply to inaccessible crawl space areas using pressures greater than 25 PSI at the treatment tool when the valve is open.

Treatment may also be made by drilling through the foundation wall or through the floor above and treating the soil perimeter at a rate of 1 gallon of solution per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals so check state regulations which may apply.

To prevent subterranean termites from constructing mudtubes between soil and crawl space wood members above, an overall soil treatment of this product may be applied. Remove all cellulose debris before application. Apply 1 gallon of solution (see **APPLICATION VOLUME**) per 10 square feet to provide a uniform chemical treated zone.

SHALLOW FOUNDATIONS: For shallow foundations, one foot or less in depth, dig a narrow trench approximately 6 inches wide and deep along the outside and inside of the foundation walls, being careful not to dig below the bottom of the footings. For foundations with exposed footings, dig a trench alongside the footing taking care not to undermine the footing. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet to the top of footer to provide a uniform treated zone. The dilution should be applied to the trench and mixed with the soil as it is placed in the trench.

BASEMENTS - OUTSIDE PERIMETER: Along the outside of the exterior walls, an application must be made by trenching or rodding within the trench. Rodding depth should be to the top of the footer, or to a minimum of 4 feet or according to state or local regulations. When rodding through a trench, dig a narrow trench about 6 inches wide and 6 inches deep. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth to provide a uniform treated zone by rodding through the trench. Use a low pressure spray to treat soil which will be placed into the trench after rodding. Mix spray solution with the soil as it is being placed in the trench.

BASEMENTS - INSIDE PERIMETER: If necessary, treat by drilling along the perimeter of the interior walls. Applications also may be necessary around Sewer pipes, floor drains, conduits, expansion joints or any cracks or holes in the basement floor. Apply 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet to provide a uniform treated zone.

Drill holes should be spaced in a manner that will allow for application of a continuous chemical treated zone. Plug and fill all drill holes in commonly occupied areas of the building with a suitable sealant. Plugs must be of non-cellulose material or covered by an impervious, non-cellulose material.

HOLLOW BLOCK FOUNDATION OR VOIDS: Hollow block foundations or voids in masonry resting on the footing may be treated to provide a continuous chemical treated zone in the voids at the footing. Apply 2 gallons of solution per 10 linear feet to the lower part of the void so that it reaches the top of the footing or soil. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals so check state regulations which may apply.

Treatment of voids in block or rubble foundation walls must be closely examined. Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site (refer to **PRECAUTIONARY STATEMENTS**). Do not allow people or pets to contact or to reoccupy the contaminated areas of the structure until the clean up is completed.

PLENUMS: For plenum-type structures which use a sealed underfloor space to circulate heated and/or cooled air throughout the structure, apply the dilution at the rate of 4 gallons of solution (see **APPLICATION VOLUME**) per 10 linear feet, per foot of depth of soil to provide a uniform treated zone adjacent to both sides of foundation walls, supporting piers, plumbing and conduits. The soil should be treated by trenching to a depth of 6 inches or trenching and rodding (where conditions permit) or to the top of the footing. When conditions will not permit trenching or rodding, a surface application adjacent to interior foundation walls may be made, but the treated strip shall not exceed a width of 18 inches, horizontally, from the foundation walls, piers or pipes. The surface application will be made at a rate of 1.5 gallons of solution per 10 square feet as a very coarse spray under low pressure (not to exceed 25 PSI when measured at the treating tool when valve is on).

When treating plenums, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

TREATMENT AROUND WELLS OR CISTERNS: Do not contaminate wells or cisterns.

Structures With Wells/Cisterns Inside Foundations: Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not apply within 5 feet of any well or cistern by rodding and/or trenching or by the backfill method. Treat soil between 5 and 10 feet from the well or cistern by the backfill method only. Treatment of soil adjacent to water pipes within 3 feet of grade should only be done by the backfill method.
   a) Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
   b) Treat the soil at the rate of 4 gallons of solution per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
   c) After the treated soil has absorbed the solution, replace the soil into the trench.

Structures With Adjacent Wells/Cisterns and/or Other Water Bodies: Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application.

1. Prior to treatment, if feasible, expose the water pipes) coming from the well to the structure, if the pipes) enter the structure within 3 feet of grade.
2. Prior to treatment applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains

that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of treatment.

3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

FOAM APPLICATIONS

Construction practices, soil subsidence and other factors may create situations in which a continuous chemical treated zone cannot be achieved using conventional treatment alone. In situations where necessary, conventional application methods can be supplemented through use of foam generating equipment, or similar devices, to provide a continuous treated zone.

Foam application may be made alone or in combination with conventional application methods, provided that the labeled amount of active ingredient per unit area is used.

Foam Application Use Directions: Mix appropriate concentration of DOMINION 2L TERMITICIDE/INSECTICIDE in water and add the manufacturer's recommended quantity of foam agent to the DOMINION 2L TERMITICIDE/INSECTICIDE solution (see table for foaming recommendations). Apply a sufficient volume of DOMINION 2L TERMITICIDE/INSECTICIDE foam alone or in combination with liquid solution to provide a continuous treated zone at the recommended rate for specific application sites.

NOTE: Add the manufacturer's recommended quantity of foam agent to the DOMINION 2L TERMITICIDE/INSECTICIDE solution.

[Only one of the tables below will be used based upon the size of container offered for sale]
[FOR 240 ML SIZE ONLY]

MIXING TABLE - DOMINION 2L TERMITICIDE/INSECTICIDE FOAM

IMI 2 lb (mL)	GALLONS OF WATER	FOAM EXPANSION RATIO	FINISHED FOAM (0.05% ai)
160	1	20:1	20 gal
80	1	10:1	10 gal
40	1	5:1	5 gal

MIXING TABLE - DOMINION 2L TERMITICIDE/INSECTICIDE FOAM

IMI 2 lb (fl oz)	GALLONS OF WATER	FOAM EXPANSION RATIO	FINISHED FOAM (0.05% ai)
6.9	1	25:1	25 gal
	2.5	10:1	
	5	5:1	
13.8	1	50:1	50 gal
	2.5	20:1	
	5	10:1	

Depending on the circumstances, foam applications may be used alone or in combination with liquid solution applications. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids, wall voids, under slabs, stoops, porches, or to the soil in crawlspaces, and other similar voids.

Foam and liquid applications must be consistent with volume and active ingredient instructions in order to ensure proper application has been made. The volume and amount of active ingredient are essential to an effective treatment. At least 75% of the gallons of DOMINION 2L TERMITICIDE/INSECTICIDE must be applied as a typical liquid treatment. The remaining 25% or fewer gallons is delivered to appropriate locations using a foam application.

RETREATMENT

Retreatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the treated zone due to construction, excavation, or landscaping and/or evidence of the breakdown of the termiticide treated zone in the soil. The vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product's labeling. The timing and type of these retreatments will vary, depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the treated zone. Retreatment may be made as either a spot or complete treatment.

When a structure is not known to be reinfested and the treated zone is not disturbed, but where the structure was last treated five or more years ago, retreatment may be performed if, in the judgment of the applicator, it is necessary to ensure adequate protection of the structure. In determining the timing of any retreatment, the applicator should consider efficacy and/or degradation data and/or site-specific conditions and previous experience that indicate a vulnerability of the structure to termite attack.

Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or treated zone disruption has occurred.

When another registered termite control product/system is used as the primary treatment for prevention or control of subterranean termites and is applied to all label-specified areas, DOMINION 2L TERMITICIDE/INSECTICIDE may be applied as a spot application in a secondary treatment to critical areas of the structure including plumbing and utility entry sites, bath traps, expansion joints, foundation cracks. The outside foundation wall, and areas of known or suspected activity at either a pre-construction or post-construction timing. These secondary treatments must be made applied in amounts and concentration in accordance with label directions relevant to the treatment area(s) to receive the secondary treatment.

PERIMETER PEST CONTROL
Treat soil, turf or ground cover adjacent to the structure where ants are trailing or may find food or harborage. Apply to flower, shrub or ornamental plant beds adjacent to the structure where ants may find food or forage. To control ants tunneling in soil apply a 0.05% to 0.1% solution as a drench or soil injection at intervals to establish a continuous treated zone. Treat along the edge of walls, driveways or other hard surfaces where ants are tunneling beneath the surface.

Apply in sufficient water to cover the foliage and soil area being treated. Maximum application is once per month to maintain control.

Do not allow residents or pets into the immediate area during the application or contact with treated areas until spray has dried.

Do not use this product against native or imported fire ants, pharaoh or harvester ants.

NOTE: In instances of high pest pressures and quick knockdown or elimination at pest entry points is needed, additional treatments using DOMINION 2L TERMITICIDE/INSECTICIDE with targeted applications of a pyrethroid to places where pests enter the structure may be made. Read and follow all label directions for use of this companion product.

GENERAL PRECAUTIONS FOR APPLICATIONS

- After treatment, plug and fill all holes drilled in concrete slab areas of the building with a suitable sealant.
- Do not apply solution until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Caution must be taken to avoid puncturing and injection into the structural elements.
- Do not plant for the purpose of consumption, edible plants into the treated areas of soil.
- Avoid contamination of public and private water supplies.
- Use anti-backflow equipment or an air gap on filling hoses.
- Consult State, Federal, or local authorities for information regarding the approved treatment practices for areas in close proximity to potable water supplies.

APPLICATION ON TURFGRASS

DOMINION 2L TERMITICIDE/INSECTICIDE may be used to control insect pests on turfgrass in home lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, athletic fields and sod farms.

DOMINION 2L TERMITICIDE/INSECTICIDE controls soil inhabiting pests such as Northern & Southern masked chafers, Cyclocephala borealis, C. immaculafa, and/or C. lurida; Asiatic garden beetle, Maladera castanea; European chafer, Rhizofroqus majalis; Green June beetle, Cotinis nitida; May or June beetle, Phyllophaga spp.; Japanese beetle, Popillia japonica; Oriental beetle, Anomala orientalis; Billbugs. Spherophorus spp.; Annual bluegrass weevil, Hyperodes spp.; Black turfgrass ataenius, Ataenius spretulus and Aphodius spp. European Crane Fly Tipula paludosa, and mole crickets,. scapteriscus spp. DOMINION 2L TERMITICIDE/INSECTICIDE can also be used for suppression of cutworms and chinch bugs.

For optimum control, make applications preceding or during the egg laying period of the target pest. The active ingredient in DOMINION 2L TERMITICIDE/INSECTICIDE has enough residual activity so that applications can be made preceding the egg laying activity. Application timing can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Most favorable control will be achieved when applications are made prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

Do not make applications when turfgrass areas are waterlogged or the soil is saturated with water. Sufficient distribution of the active ingredient cannot be achieved under these conditions. The treated turf area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile. Applications cannot exceed a total of 1.6 pints (0.4 lb of active ingredient) per acre per year.

APPLICATION EQUIPMENT FOR USE ON TURFGRASS
Apply DOMINION 2L TERMITICIDE/INSECTICIDE in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for the application of turfgrass insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to

ensure that equipment is working properly.

Do not apply through any irrigation system.

RECOMMENDED APPLICATIONS

TURF GRASSES

PEST	RATE	APPLICATION INSTRUCTIONS
Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbug Black turfgrass ataenius Cutworms (suppression) European chafer European crane fly Green June Beetle Japanese beetle Northern Masked chafer Oriental beetle *Phyllophaga* spp. Southern masked chafer	1 .25 to 1.6 pt/A or 0.46 to 0.6 fl. oz. (14 to 17 mL) per 1000 sq. ft.	For best control of grubs, billbugs, annual bluegrass weevil, and European Crane Fly, apply prior to egg hatch of the target pest. Read **APPLICATION EQUIPMENT** section of this label.
Chinchbugs (suppression) Mole crickets	1.6 pt /A or 0.6 fl. oz. (17 mL) per 1000 sq. ft.	For suppression of chinchbugs, apply before hatching of the first instar nymphs. To control mole crickets apply before or during the peak egg hatch period. Use a curative insecticide in addition to DOMINION 2L TERMITICIDE/INSECTICIDE when adults or large nymphs are present and actively tunneling. Follow label instructions for other insecticides when tank-mixing.
Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more specific information regarding timing of application. **NOTE:** For best control, irrigation or rainfall should occur within 24 hours after application to move the active ingredient through the thatch. Do not apply more than 1.6 pt (0.4 lb of active ingredient) per acre per year. Avoid mowing turf or lawn area until after sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.		

APPLICATION TO ORNAMENTALS

DOMINION 2L TERMITICIDE/INSECTICIDE is for use on ornamentals in commercial and residential landscapes and interior plantscapes. DOMINION 2L TERMITICIDE/INSECTICIDE is a systemic product and will be taken up into the plant system from root uptake. To assure optimum effectiveness, the product must be placed where the growing portion of the target plant can absorb the active ingredient. The addition of a nitrogen containing fertilizer, where applicable, into the solution may enhance the uptake of the active ingredient. Application can be made by foliar application or soil applications; including soil injection, drenches, and broadcast sprays. Foliar applications offer locally systemic activity against insect pests.

When making soil applications to plants with woody stems, systemic activity will be delayed until the active ingredient is taken up throughout the plant. In some cases, this translocation delay could take 60 days or longer. For this reason, applications should be made prior to anticipated pest infestation to achieve optimum levels of control.

For outdoor ornamentals, broadcast applications cannot exceed a total of 1.6 pints (0.4 lb of active ingredient) per acre per year.

Ant Management Programs

Use DOMINION 2L TERMITICIDE/INSECTICIDE to control aphids, scale insects, mealybugs and other sucking pests on ornamentals to limit the honeydew available as a food source for ant populations. DOMINION 2L TERMITICIDE/INSECTICIDE applications can be then be supplemented with residual sprays, bait placements or other ant control tactics to further reduce the pest population.

NOTE: Not for use in commercial greenhouses, nurseries, or on grass grown for seed, or on commercial fruit and nut trees.

APPLICATION EQUIPMENT FOR FOLIAR APPLICATIONS

DOMINION 2L TERMITICIDE/INSECTICIDE mixes readily with water and may be used in many types of application equipment. Mix product with the required amount of water and apply as desired dependent upon the selected use pattern.

When making foliar applications on hard to wet foliage such as holly, pine, or ivy, the addition of a spreader/ sticker is recommended. If concentrate or mist type spray equipment is used, an equivalent amount of product should be used on the area sprayed, as would be used in a dilute application.

DOMINION 2L TERMITICIDE/INSECTICIDE has been found to be compatible with commonly used fungicides, miticides, liquid fertilizers, and other commonly used insecticides. Check physical compatibility using the correct proportion of products in a small jar test if local experience is unavailable.

Do not apply through any irrigation system.

RECOMMENDED APPLICATIONS

FOR USE ONLY IN AND AROUND INDUSTRIAL AND COMMERCIAL BUILDINGS AND RESIDDENTIAL AREAS.

CROP	PEST	RATE	APPLICATION INSTRUCTIONS
Trees Shrubs Evergreens Flowers Foliage plants Groundcovers Interior plantscapes	Adelgids Aphids Japanese beetles Lace bugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Mealybugs Psyllids Sawfly Larvae Thrips (suppression) Whiteflies	1.5 fl. oz. (45 mL) per 100 gal of water	**Foliar Applications:** Begin applications before the onset of high pest populations and reapply as needed.
	White grub larvae (such as Japanese beetle larvae, Chafers, Phyllophaga spp. Asiatic garden beetle, Oriental beetle)	0.46 to 0.6 fl. oz. (14 to 17 mL) per 1000 sq. ft.	**Broadcast Applications:** Use enough water to mix the product and thoroughly apply to the treatment area. Do not use less than 2 gallons of water per 1000 sq ft. For best results, irrigate after application to incorporate DOMINION 2L TERMITICIDE/INSECTICIDE into the upper soil layer. For additional use directions, refer to the **FLOWERS and GROUND COVERS** section of this label.

SOIL INJECTION* AND SOIL DRENCH APPLICATIONS IN AND AROUND INDUSTRIAL AND COMMERCIAL BUILDINGS AND RESIDENTIAL AREAS, AND STATE, NATIONAL, AND PRIVATE WOODED AND FORESTED AREAS

***No Soil injection Applications Allowed in Nassau or Suffolk Counties of New York.**

PEST	CROP/RATE	APPLICATION INSTRUCTIONS	REMARKS
Adelgids Aphids Armored scales (suppression) Black vine weevil larvae Emerald ash borer Eucalyptus longhorned borer Flatheaded borer (including bronze birch and alder borer) Japanese beetles Lace bugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine tip moth larvae Psyllids Royal palm bugs Sawfly larvae Soft scales Thrips (suppression) White grub larvae Whitefies	**TREES** 0.1 to 0.2 fl. oz. (3 to 6 mL) per inch of trunk diameter (D.B.H.)	**SOIL INJECTION:** **Grid System:** Space holes in a grid pattern on 2.5 foot centers, extending to the drip line of the tree. **Circle System:** Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. **Basal System:** Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base. **Soil Drench:** Apply uniformly as a drench around the base of the tree in not less than 10 gallons of water per 1000 square feet. Direct application to the root area. Remove plastic or any other barrier that will stop solution from reaching the root zone.	Use enough water to mix the product and inject an equal amount of solution in each hole. Use low pressure and sufficient solution for distribution of the liquid into the treatment area. For best control, keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per tree. **For Control of Specified Borers:** Trees with existing insect damage and stress may not recover after treatment with DOMINION 2L TERMITICIDE/INSECTICIDE.
	SHRUBS 0.1 to 0.2 fl. oz. (3 to 6 mL) per foot of shrub height	**Soil Injection:** Apply at the recommended dosage to each plant. **Soil Drench:** Apply uniformly as a drench around the base of the tree in not less than 10 gallons of water per 1000 square feet. Direct application to the root area. Remove plastic or any other barrier that will stop solution from reaching the root zone.	Use enough water to mix the product and inject an equal amount of solution in each hole. Use low pressure and sufficient solution for distribution of the liquid into the treatment area. For best control, keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per shrub.
	FLOWERS AND GROUNDCOVERS 0.46 to 0.6 fl. oz. (14 to 17 mL) per 1000 sq ft	Apply as a broadcast treatment before or after planting, or apply after plants are established. Mix into soil. For best control on established plants, irrigate thoroughly after application.	

FOLIAR APPLICATIONS FOR USE ONLY IN AND AROUND RESIDENTIAL AREAS

CROP	PEST	RATES	APPLICATION INSTRUCTIONS
POME FRUITS **Apple** **Crabapple** **Loquat** **Mayhaw** **Pear** **Pear (oriental)** **Quince**	**Aphids (except Wooly apple aphid)** **Leafhoppers (including glassy-winged sharpshooter)** **Leafminer** **Mealybugs*** **San Jose scale***	1.5 ft oz (45 mL) per 100 gal or 6.0 ft oz/A[1]	Apply specified dosage as foliar spray as needed after petal-fall is complete. For control of rosy apple aphid, apply prior to leafrolling caused by the pest. For first generation leafminer control, make first application as soon as petal-fall is complete. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. DOMINION 2L TERMITICIDE/INSECTICIDE will not control late stage larvae. For San Jose Scale, time applications to the crawler stage. Treat each generation. For late season (preharvest) control of leafhopper species, apply DOMINION 2L TERMITICIDE/INSECTICIDE while most leafhoppers are in the nymphal stage. For optimal control of mealybug, insure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybug. Do not apply more than 6.0 fluid ounces per acre in a single application. Do not make more than 5 applications. Allow 10 or more days between applications. Allow at least 7 days between last application and harvest. * Not for use in California for control on pears.
Pecan*	**Yellow pecan aphid** **Black margined aphid** **Pecan leaf phylloxera** **Pecan spittlebug** **Pecan stem phylloxera**	1.5 fl. oz. (45 mL) per 100 gal or 6.0 fl. oz./A[1]	Make foliar applications as pests begin to build before populations become extreme. Two applications at a 10 to 14 day interval may be required to achieve control. Scout and retreat if needed. Thorough uniform coverage of foliage is necessary for optimal control. Addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's recommended use rate may improve coverage. Do not apply more than a total of 18.0 fluid ounces of DOMINION 2L TERMITICIDE/INSECTICIDE per acre per year. Do not make more than 3 applications. Allow 10 or more days between applications. * Use on pecans not permitted in California unless directed by specific supplemental labeling.

[1] The amount of DOMINION 2L TERMITICIDE/INSECTICIDE required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.

FOLIAR APPLICATION FOR USE ONLY IN AND AROUND INDUSTRIAL AND COMMERCIAL BUILDINGS AND RESIDENTIAL AREAS.

CROP	PEST	RATE	APPLICATION INSTRUCTIONS
Grapes	Leafhoppers (including glassy-winged sharpshooter) Mealybugs	1.5 fl. oz. (45 mL) per 100 gal or 3.0 fl. oz/A (90 mL/A)	Apply specified dosage as a foliar spray using 200 gallons of water per acre. Do not apply more than a total of 6.0 ounces of DOMINION 2L TERMITICIDE/INSECTICIDE per acre per year. Allow at least 14 days between applications. Applications may be applied up to and including day of harvest.

RESTRICTIONS

- Do not graze treated areas or use clippings from treated areas for feed or forage.
- Avoid runoff or puddling of irrigation water following application. Keep children and pets off treated area until dry.
- Avoid application of DOMINION 2L TERMITICIDE/INSECTICIDE to areas which are water logged or saturated, which will not allow penetration into the root zone of the plant.
- Do not apply more than 1.6 pt (0.4 lb of active ingredient) per acre per year.

Treated areas may be replanted with any crop specified on an imidacloprid label, or with any crop for which a tolerance exists for the active ingredient.

For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval should be observed.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store water soluble packets in original container and out of reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticide below. In spill or leak incidents, keep unauthorized people away.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site (in the treatment area) or at an approved waste disposal facility.

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, because of manner of use and other factors beyond Control Solutions control it is impossible for Control Solutions, Inc. to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT ALLOWED BYY APPLICABLE LAW, CONTROL SOLUTIONS, INC. MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Control Solutions, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. Control Solutions, Inc. disclaims any liability whatsoever for special, incidental or consequential damages, resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: TO THE EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT CONTROL SOLUTIONS, INC.'S ELECTION, THE REPLACEMENT OF PRODUCT.

Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507

STATE OF FLORIDA
Department of Agriculture and Consumer Services
BUREAU OF LICENSING AND ENFORCEMENT

Date	File No.	Expires
July 7, 2016	**JB6132**	**July 31, 2017**

THE **PEST CONTROL FIRM** NAMED BELOW HAS REGISTERED UNDER THE PROVISIONS OF CHAPTER 482 FOR THE PERIOD EXPIRING: **July 31, 2017** **AT**

2812 S 70TH STREET
TAMPA, FL 33619

APEX PEST CONTROL, INC.
1180 US HWY 1 SUITE #105
ROCKLEDGE, FL 32955

General Household Pest and Rodent Control
Lawn and Ornamental
Termite and Other WDO Control

ADAM H. PUTNAM, COMMISSIONER

STATE OF FLORIDA
Department of Agriculture and Consumer Services
BUREAU OF LICENSING AND ENFORCEMENT

APEX PEST CONTROL, INC.
2812 S 70TH STREET
PEST CONTROL FIRM

JB6132

HAS PAID THE FEE REQUIRED BY CHAPTER 482 FOR THE PERIOD EXPIRING **July 31, 2017**

COMMISSIONER Signature

Wallet Card - Fold Here

BUREAU OF LICENSING & ENFORCEMENT
3125 CONNER BLVD, BLDG. 8
TALLAHASSEE, FLORIDA 32399-1650

PRECONSTRUCTION SUBTERRANEAN TERMITE SERVICE AGREEMENT

APEX PEST CONTROL INC
www.apexpest.com

☐ **East Florida/Corporate**
1180 US Highway 1
Suite 105
Rockledge, FL 32955
(321) 459-2847
(800) 929-2847

☐ **Central Florida**
2545 Diversified Way
Orlando, FL 32804
(407) 292-7770
(888) 764-2847

☐ **North Florida**
4751 E Moody Blvd, Suite 7D
Bunnell, FL 32110-7300
(386) 206-9109
(888) 408-2847

☐ **West Florida**
2812 South 70th Street
Tampa, FL 33619
(813) 221-2847
(877) 459-2847

☐ **South Florida**
1810 Hypoluxo Rd., Ste D12
Lake Worth, FL 33462
(561) 908-6210
(888) 220-1888

DATE OF TREATMENT	ACCOUNT NUMBER	☐ RESIDENTIAL ☐ COMMERCIAL
PURCHASER		**PROPERTY**
NAME		NAME (If different from Purchaser)
MAILING ADDRESS		SERVICE ADDRESS (If different from mailing address)
CITY, STATE, ZIP CODE		CITY, STATE, ZIP CODE
PHONE (HOME)	PHONE (OFFICE/CELL)	PHONE (HOME) PHONE (OFFICE/CELL)
EMAIL		EMAIL

Structure(s) to be treated include _____

Location of Notice of Treatment: _____

This is a Pre Construction Subterranean Termite Service Agreement ("Agreement") between Apex Pest Control, Inc. ("APEX") and the above-named Purchaser to treat the above referenced Structure(s) for a period of (_____) years for Eastern Subterranean Termites (Reticulitermes) and Formosan Subterranean Termites (Coptotermes Formosanus), hereinafter referred to in the plural as "Subterranean Termites", aerial infestations excluded. This Agreement is offered for **repair and retreatment, meaning that APEX will pay for repairs associated with "New Damage" to the Structure(s), subject to any terms or conditions herein.** Re-treatments may be necessary during the period of this Agreement and will be provided at no additional cost to the Purchaser if a reinfestation of Subterranean Termites occurs.

The initial treatment provided under this agreement is intended to **prevent** an infestation of subterranean termites.

For purposes of this Agreement, the parties agree that "expiration date" is defined as that day that falls exactly (_____) years from the date of Certificate of Occupancy. Purchaser's failure to pay any and all amounts owed for contracted services in accordance with this Agreement will render this Agreement voidable, at the election of APEX, but shall not relieve Purchaser from the obligation and requirement to provide payment for all amounts due and owing pursuant to this Agreement.

After the initial (_____) year period of this agreement, the Purchaser may exercise the option to continue the service for an additional (1) years by paying Apex to perform a complete or maintenance treatment, depending on the circumstances, to the Structure(s) and entering into a new contract with an annual renewal amount determined by APEX and agreed upon by the Purchaser.

PAYMENT TERMS:

Price per square foot: _____ Sales Tax: _____

Per Plans square feet: _____ Total Contract Price: _____

Additional Agreed to Charges:

A. Additional square footage will be charged at the contract rate above.

B. Minimum Trip Charges will be charged at a rate of _____

_____.

By signing this Agreement, Purchaser hereby acknowledges that Purchaser has read and fully understands all terms, disclaimers, limitations, conditions and exclusions contained on the front and back of this Agreement that affect APEX's obligations to re-treat the Structure(s) or, if the Repair and Re-treatment Option is selected, to repair and re-treat the Structure(s), under the terms of this Agreement. Purchaser specifically understands that APEX and Purchaser are bound only by the terms of this Agreement and not by any other representation(s) whether oral, written, or otherwise.

_____ _____ _____ _____

DATE PURCHASER/PURCHASER'S AGENT DATE APEX PEST CONTROL, INC.

GENERAL TERMS AND CONDITIONS

APEX and Purchaser agree to the following Terms and Conditions:

1. SPECIFIC EXCLUSIONS:
APEX shall not be responsible or liable for any of the following:

a. Damage of any nature to the Structure(s) or it's contents resulting from insect, pest, mold, fungi, or wood destroying organism other than Subterranean Termites.
b. Damage resulting from construction defects, structural defects, design defects, masonry failures, wood to ground contact, or grade alterations that disrupt or reduce the effectiveness of the termiticide treatment or that provide Subterranean Termites with hidden or protected access to the Structure(s), whether visible or not.
c. Repairing or restoring areas of the Structure(s) not affected by a live infestation of subterranean termites verified by APEX. APEX is not responsible to Purchaser for repair contractor's inability to match wallpaper, tile, paint, wall texture, trim, carpeting, shingles, siding, etc... as part of any damage repair claim submitted.
d. Damage and/or remedial treatments resulting from a disruption of the termiticide barrier or from infested wood and/or furniture being introduced into Structure(s) after initial treatment.
e. Personal expenses or economic damages such as lodging, meals, transportation, medical, gas, utilities, etc.; or reimbursement for loss of quiet enjoyment, loss of use or diminution in value of the Structure(s); or any indirect, special, or consequential damages, including loss of anticipated or actual profits, income or business opportunities, or attorneys fees (of any nature) and costs.
f. Damage caused by APEX to trees, shrubs, flowers, sprinkler systems or portions of Structure(s) that interfere with the services provided under this Agreement.

These specific exclusions are in addition to any and all other exclusions, disclaimers, limitations, or conditions contained within this Agreement.

2. DUTY TO AVOID CONDUCIVE CONDITIONS
Purchaser agrees to cooperate with APEX during the term of this Agreement by avoiding and eliminating those conditions or factors that might contribute to a Subterranean Termite infestation or disrupt the termiticide barrier surrounding and beneath the perimeter of the Structure(s), if applied. These conditions include, but are not to be limited to, construction defects, wood, trash, direct wood to soil contact, tree stumps, standing water or above ground moisture accumulations caused by any natural or man-made source. Such moisture accumulations include, but are not to be limited to, condensation, leaks from exterior walls, windows, doors, roofs, skylights, chimneys, gutters, down spouts, plumbing, plumbing fixtures, sprinkler systems, air conditioning and heating systems (including condensate drains and duct work) or inadequate ventilation. Purchaser agrees to notify APEX of and to eliminate the aforementioned conditions under and within an eighteen (18) inch area around the perimeter of the foundation of the Structure(s). APEX is not responsible for any damage to the Structure(s), or its contents, resulting from any conditions conducive to a Subterranean Termite infestation that caused or contributed to such infestation or damage. Purchaser agrees to eliminate any conducive conditions identified within sixty (60) days of APEX's written notification. Purchaser's failure to eliminate the conducive condition within sixty (60) days will render this Agreement voidable by APEX.

3. PERIODIC REINSPECTIONS
APEX will perform periodic visual inspections of the Structure(s) at APEX's discretion or upon Purchaser's request. The inspection will be of readily accessible areas only and may not include attics or crawlspaces. APEX will not open any walls, remove any floor coverings or move any furniture, equipment or other obstructions during the inspection to access or inspect any portion of the Structure(s). Purchaser acknowledges and accepts that this visual inspection of the readily accessible areas of the Structure(s) is a reasonable inspection for the purposes of this Agreement.

4. MODIFICATIONS OR ALTERATIONS TO STRUCTURE(S)
This Agreement only covers the Structure(s) identified above as of the date of this Agreement. The Purchaser shall provide notification to APEX, in writing, prior to any alteration, addition, modification or change to the Structure(s) or any disruption of the termiticide barrier surrounding or beneath the perimeter of the Structure(s), to include, but not limited to, a disruption, removal or addition to the soil surrounding the foundation of the Structure(s). APEX shall have the right to terminate this Agreement if Purchaser fails to provide written notice of any alteration, addition, modification or change to the Structure(s) or the termiticide barrier surrounding or beneath the perimeter of the Structure(s). Any additional treatment required because of any alteration, addition, modification or change to the Structure(s) or any disruption of the termiticide barrier surrounding or beneath the perimeter of the Structure(s) will be provided by APEX at Purchaser's expense. Purchaser agrees that APEX shall have the right to charge an additional fee or increase the renewal fee stated on the front page of this Agreement, or both, as a result of such alteration, addition, modification or change to the Structure(s) that occurs while this Agreement is in effect.

5. CHANGE IN LAW
Should any federal, state or local law or regulation change regarding the Agreement, treatment or services, APEX is authorized to take any action necessary to bring itself into compliance with said laws. If APEX cannot modify its Agreement, treatments or services to comply with such change in the law, then APEX reserves the right to immediately terminate this Agreement.

6. WAIVER OF SUBROGATION RIGHTS
Purchaser, individually, on behalf of any of Purchaser's insurance carriers and under any and all polices of insurance benefiting Purchaser, waives any and all rights of subrogation against APEX for any claim whatsoever arising from any intentional or negligent act or omission or any services or products provided under the terms of this Agreement.

7. NO THIRD PARTY INTENDED BENEFICIARY INTENDED
This Agreement expressly excludes and is not intended to benefit any party other than the Purchaser executing this Agreement or a new owner transferee.

8. LIMITATION OF LIABILITY AND DAMAGES
Any obligation to service, repair or re-treat the Structure(s) under the terms of this Agreement is given in lieu of, and APEX hereby disclaims, any other guarantees or warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose. Except for the repair Damage to the Structure(s), APEX's liability for all other claims arising out of or relating to the interpretation, performance or breach of this Agreement – or any claim for damages under statute or common law injury caused by performance and/or negligence or any other tort claim in the inducement or performance of the Agreement – shall not exceed the cumulative aggregate sum of $5,000.00 for all claims related to or arising out of this Agreement. In no event shall APEX be liable for indirect, special, incidental, or consequential damages including, but not limited to, diminished resale value of a structure or its contents, loss of use of the structure or its contents, punitive damages, income, rents, business opportunities, or loss of anticipated profits. Purchaser expressly waives any claim for economic, compensatory, or consequential damages relating to the existence of termites or termite damage; or for increased costs, loss of use, business interruption, diminution of value, or any "stigma" damages due to the presence of termites or termite damage; or for increased costs resulting from enforcement of any ordinances or laws regulating the construction, repair or demolition of a building or other structure.

9. NEW DAMAGE
APEX agrees to pay for the repairs of any subterranean termite damage to the treated Structure(s) that occurs after the initial treatment and through ____ years from the date of Certificate of Occupancy. Purchaser must submit a written claim to APEX and APEX must verify that an infestation and damage from Subterranean Termites occurred before any repairs are performed.

10. LIABILITY LIMITS/CONTROL OF REPAIR PROCESS
APEX's repair and re-treatment obligation under this Agreement is limited to a total of **ONE MILLION DOLLARS** ($1,000,000.00). Only licensed contractors mutually approved by Purchaser and APEX will be allowed to repair new damage to the Structure(s).

11. CHEMICAL SENSITIVITY
If Purchaser or an occupant of the Structure(s) knows, or believes, that he or she may be sensitive to pesticides, written notice must immediately be provided to the APEX prior to treatment or retreatment of any area of the Structure(s). APEX reserves the right, upon receipt of such notification, to deny or terminate service. Failure to provide this notification represents Purchaser and occupants' assumption of the risk and waiver of any claims against APEX in connection with such sensitivity. Purchaser further agrees to indemnify, protect and hold harmless APEX from any and all chemical sensitivity claims, causes, actions, judgments, costs, attorney's fees, expenses and losses of every kind and character, whether direct or indirect, brought by Purchaser or other occupants (including invitees and licensees) to the Property, if Purchaser fails to provide the above written notice.

12. BINDING ARBITRATION
Purchaser and APEX agree that any and all controversies or claims between them, their principals, agents, representatives, successors, or assigns, arising in any way out of, or relating to, this Agreement to include the subject Structure(s) or Property and any services performed, shall be settled solely and exclusively by arbitration. Such arbitration shall be conducted in Brevard County, Florida using the substantive law of Florida governing the issue or claim in dispute and in accordance with the Voluntary Binding Arbitration provisions of Section 44.104, Florida Statutes. The arbitrator shall be independent, mutually agreed upon, and to the greatest extent possible, be knowledgeable in pest control and building construction matters by education, experience, licensing and training to deal with the issues and claims presented. The decision of the arbitrator shall be

a final and binding resolution of the disagreement, which may be entered as a judgment by any court of competent jurisdiction. Neither party shall sue the other where the basis of the suit is or arises out of this Agreement, other than for (1) enforcement of the arbitrator's decision; or (2) appointment of an arbitrator if one cannot be mutually agreed upon. The parties specifically agree that the sole and exclusive venue of any suit shall be in Brevard County, Florida. **All costs, expenses, and fees of arbitration and settling a controversy shall be borne equally by the parties.** This arbitration provision shall survive cancellation, expiration, or termination of this Agreement.

13. TRANSFERABILITY
This Agreement is transferable to a new owner of Structure(s) upon written notice to APEX; however, APEX reserves the right to charge a transfer fee.

14. TERMINATION
APEX's responsibilities, duties, obligations, and any liabilities under this Agreement shall be terminated if APEX is prevented or delayed from fulfilling any of its duties, obligations or responsibilities under the terms of this Agreement by reasons or circumstances beyond its control or by the Purchaser's interference or refusal to provide APEX with access to the Structure(s) or areas in need of service. This obligation includes, but is not limited to, Purchaser's responsibility to move fixtures or components in or on the Structure to allow for service. APEX is authorized, following notification to Purchaser, to install or open access panels to facilitate the service performed under this Contract.

15. SEVERABILITY
Purchaser agrees that if any part of this Agreement is held to be invalid or unenforceable for any reason, the remaining terms and conditions of this Agreement shall remain in full force and effect.

16. NON-PAYMENT
In the event that Purchaser fails to pay any sum due and owed under the terms of this Agreement, APEX has the right to terminate this Agreement. In the event a collection service is utilized or legal action becomes necessary to recover all unpaid balances, Purchaser will be responsible to pay all costs associated with said collection, including attorney's fees. Notwithstanding any provision in this Agreement to the contrary, APEX is entitled to bring civil suit and claim damages, interest, attorney's fees, and costs for issues arising from this agreement relating to collection of unpaid amounts.

Michael Baker
INTERNATIONAL

We Make a Difference

LETTER OF TRANSMITTAL

TO: The Artec Group, Inc. P.O. Box 50335 Sarasota, FL 34232-0302	DATE: 7/27/2016 JOB NO: 153823 REFERENCE: St. Pete-Clwt Airport DESCRIPTION:

ATTN: Dan Heim, Project Manager

SENT TO YOU VIA: ☐ Mail ☐ Blueprinter ☐ Overnight Delivery (Carrier) _____

☒ E-Mail ☐ Your Pick-Up ☐ Michael Baker Messenger ☒ Other Courier _____

No. of Copies	No. of Originals	DESCRIPTION
1		Substitution Request Form #001
1		Jumbo tex 60 Submittal Data
1		ICC Evaluation Form
1		Fortfiber Building System Group SDS Sheets

SENT FOR YOUR: ☐ Approval ☐ Review ☐ Comments ☐ Per Your Request
☒ Files ☐ Signature ☒ Use ☐ Information ☐ _____

REMARKS:

- Returned not reviewed.
- Provide side by side comparison of both products.
- Do not include SDS sheets with substitution request.
- The General Contractor is to sign the substitution request & substitution request should be sequential.
- PLEASE NOTE THAT THERE WAS NO SUBMITTAL FROM THE GC RECEIVED BY THE ARCHITECT PRIOR TO THE STUCCO APPLICATION.

BY: _____

William "Chip" Hayward, Jr. AIA, CSI-CCCA
Senior Associate/Architect

COPIES TO: Scott Yarley w/1 set (enclosed)
Michael Cummings w/1 set (enclosed)
Sharepoint w/ enclosed
File

MBAKERINTL.COM

5020 Linebaugh Avenue Suite 240, Tampa, Florida 33624
Office: 813-889-3892| Fax: 813-889-3893

The Artec Group, Inc.
376 Interstate Court
Sarasota, FL 34240
Phone (941) 960-1378
Fax (350) 421-0490

Letter of Transmittal

To:	Chip Hayward – Michael Baker Inc.
From:	Daniel Heim – The Artec Group
Date:	7/25/2017
Job Reference #	PIE – St. Pete Clearwater International Airport Terminal Improvements

We are sending you the following:

☐ Attached ☐ Under Separate Cover Via _____ the following items:

Shop Drawings ☐ Prints ☐ Plans ☐ Sample

x☐ Specifications ☐ Copy of Letter ☐ Change Order

Copies	Date	Number	Description
			SUBMITTAL
1	7/25/17		Substitution request form # 001
1	7/25/17		Jumbo tex 60 submittal data
1	7/25/17		ICC evaluation form
1	7/25 17		Fortfiber Building Systems Group SDS sheets

These are transmitted as checked below: ☐ For Approval ☐ Approved as Submitted

☐ Resubmit _____ copies for Approval

☐ For your Use ☐ Approved as Noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

X☐ For review and comment ☐ other _____

☐ For Bids due _____ 200__ ☐ Prints returned after loaned to us

Remarks:

Product data for substitution request.

Copy to: _____ Signed: Daniel Heim_____

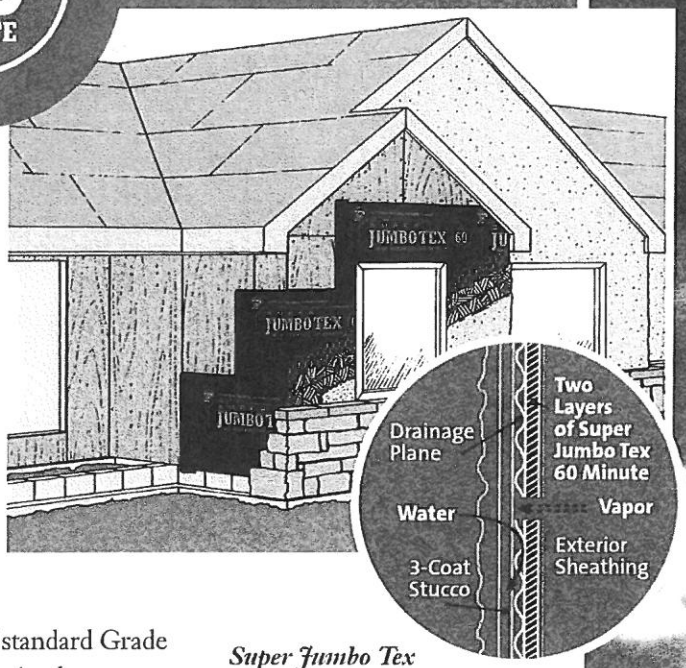
The Artec Group, Inc.
376 Interstate Court
Sarasota, FL 34240
Phone (941) 960-1378
Fax (350) 421-0490

✔ Select item ■ Review item

PREMIER

SUPER JUMBO TEX® 60 MINUTE

WEATHER-RESISTIVE BARRIER



Super Jumbo Tex 60 Minute protects against water intrusion from the outside, while allowing moisture to escape from the inside.

Part of a Complete Moisture Control System

Super Jumbo Tex 60 Minute is the industry's leading 60 Minute building paper, with an unmatched track record of performance in the field. It is a member of the Jumbo Tex product line that has been chosen by builders and architects to protect over *five million* homes and commercial buildings from the problems caused by water intrusion and excessive moisture.

Super Jumbo Tex 60 Minute is used in both production and custom residential construction where there is a need for a high performance weather-resistive barrier. The product delivers over *six times* the water protection of standard Grade "D" paper, while providing optimal breathability, to prevent the potential for moisture condensation within exterior walls. As important, it has the rugged durability necessary to resist tearing and puncturing on the jobsite. The product is part of a complete Moisture Control System for walls engineered by the Fortifiber Building Systems Group®, which helps manage and eliminate moisture-related problems – including water-related structural failures, mold and mildew.

"The industry's leading 60 Minute building paper; with an unmatched track record of performance in the field..."

Unique Weather-Resistive Properties

The product is an asphalt-saturated building paper, which delivers highly reliable performance in the real world. Because it is manufactured from a base stock of kraft linerboard, Jumbo Tex is far less brittle than felt – so it is less likely to tear during installation around corners and in tight conditions. Unlike some housewraps, it will retain its weather-resistive properties when exposed to either job site surfactants or wood extracts and tannin derivatives from wood siding.

The product's 40 inch roll size makes it easier to install and store on the jobsite than other weather-resistive building materials. It is also more cost-effective than most housewraps, while offering the most formidable defense against water intrusion and moisture problems. In fact, it is possible to pay in excess of three times more for other weather-resistive barriers that cannot surpass its reliable performance behind stucco, fiber cement siding, brick, vinyl and wood siding.

- SOLID PROTECTION AGAINST MOISTURE PROBLEMS
- STRONG WATER RESISTANCE
- LOW VOC: MEETS CA 01350 FOR INDOOR AIR QUALITY
- EXCELLENT PRICE-PERFORMANCE
- IDEAL BALANCE BETWEEN WATER RESISTANCE AND PERMEABILITY
- FOR STUCCO, FIBER CEMENT SIDING, BRICK, VINYL AND WOOD SIDING
- REDUCES AIR INFILTRATION

Decades of Proven Performance

Super Jumbo Tex 60 Minute is a product manufactured by the Fortifiber Building Systems Group. With more than a seventy-five year history of proven performance, technical expertise and practical know-how, the company has become a trusted partner to builders, architects and code officials.

since 1939

15 YEAR

SUPER JUMBO TEX 60 MINUTE

Product Description: Super Jumbo Tex 60 Minute is a premier grade weather-resistive barrier designed for use within a variety of exterior wall assemblies. It provides excellent protection from internal wall damage due to water intrusion and condensation.

Composition: Super Jumbo Tex 60 Minute is an asphalt-saturated kraft Grade "D" breather type sheathing paper.

Size & Weight: Super Jumbo Tex 60 Minute is supplied in 40" x 240 sq. ft. and 40" x 324 sq. ft. rolls. Product weight is approximately 6 lbs/100 sq. ft.

Applicable Standards: Exceeds Federal Specification UU-B-790a, Type 1, Grade "D", Style 2.

Complies with the International Code Council Evaluation Services Acceptance Criteria for Water Resistive Barriers (AC 38).

Complies with the Uniform Building Code Standard 14-1.

Complies as an alternative to the water-resistive barrier specified in Section 1404.2 of the International Building Code®.

Complies as an alternative to the weather-resistant sheathing papers specified in Section R703.2 of the International Residential Code®.

Passed: California Department of Health Standard 01350 for VOC emissions.

ICC Evaluation Service Report 1027.

American Society for Testing & Materials (ASTM):

- *ASTM D-779 - Standard Test Method for Water Resistance of Paper; Paperboard and Other Sheet Materials by the Dry Indicator Test Method*
- *ASTM D-828 - Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus*
- *ASTM E-96 - Water Vapor Transmission of Materials*
- *ASTM E-283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen*
- *ASTM E-1677 - Standard Specification for an Air Barrier Material*

Physical Properties: Super Jumbo Tex 60 Minute is continually tested in accordance with ASTM procedures. The values shown in Table 1 are typical values obtained in these tests.

Limitations: Product should be covered as soon as possible. Inspect product to insure it is free of any protrusions or damage which may detract from the weather-resistive barrier integrity. Holes, tears or punctures should be sealed with Moistop® Sealant or Fortifiber Sheathing Tape. This product is not recommended for horizontal, below grade or roofing applications.

Installation: Super Jumbo Tex 60 Minute should be installed in accordance with the local applicable building code. The International Residential Code Section R703.2 and Uniform Building Code Standard 14-1, section 1402.1, state that weather-resistive barriers should be applied horizontally, with the upper layers overlapping the lower layer by a minimum of 2" (3" is recommended), and all vertical joints should be lapped a minimum of 6". To ensure the integrity of the weather-resistive barrier system, Fortifiber strongly recommends the use of a Two-Ply Jumbo Tex product or two layers of a single ply Jumbo Tex product when used with a three-coat stucco system.

Availability: The Fortifiber Building Systems Group's products are distributed nationwide. For product information and pricing, please call a Fortifiber distributor near you. If you need assistance locating a participating distributor, please call our Customer Service Department at 1-800-773-4777.

Fortifiber Warranty: Fortifiber Corporation warrants that its products are in compliance with their published specifications and are free from defects in materials and workmanship for a period of two years from the date of purchase. This warranty does not apply to loss due to abuse. Material found to be defective will be replaced at no charge by Fortifiber, but in no event shall Fortifiber be liable for any other costs or damages, including any labor costs.

THIS EXPRESS WARRANTY IS GIVEN IN LIEU OF AND EXCLUDES ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Fortifiber's sole obligations under this warranty are as set forth herein. In no event shall Fortifiber be liable for any lost revenue or profits, direct, indirect, special, incidental or consequential damages of any kind.

This product may be eligible for Fortifiber's FortiShield 15 year warranty when used in conjunction with other Fortifiber products. Please see our website at www.fortifiber.com/warranty.htm for details.

SPECIFICATION SUMMARY: Provides secondary weather protection behind exterior cladding to prevent moisture penetration and condensation in exterior wall assemblies.

WEATHER-RESISTIVE BARRIER: Fortifiber/Super Jumbo Tex 60 Minute asphalt saturated kraft 60 minute Grade "D" breather type sheathing paper, single ply.

REFERENCE SPECIFICATION: Federal Specification UU-B-790a, Type 1, Grade "D", Style 2.

Table 1- Physical Properties

Characteristic	Test Method	Results	Industry Standard
Water Vapor Transmission	ASTM E-96 (A)	75 grams 11 perms (MVT)	35 grams (min.) 5 perms (MVT)
Water Resistance	ASTM D-779	>60 minutes	10 minutes
Tensile Strength	ASTM D-828	MD - 70 lb.^{f}/inch CD - 60 lb.^{f}/inch	MD - 20 lb.^{f}/inch CD - 20 lb.^{f}/inch
System Air Leakage	ASTM E-283	.02 CFM/ft^2	.06 CFM/ft^2
Low VOC	CA 01350	Pass	–

Fortifiber Building Systems Group®
Protecting Your World from the Elements®

Call 1-800-773-4777 or 1-775-333-6400 for sales and technical assistance. On the Internet visit www.fortifiber.com.

ICC EVALUATION SERVICE

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ICC-ES Report

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ESR-1027

Reissued 10/2016

This report is subject to renewal 10/2018.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

SECTION: 07 25 00—WATER-RESISTIVE BARRIERS/WEATHER BARRIERS

SECTION: 07 27 00—AIR BARRIERS

REPORT HOLDER:

FORTIFIBER BUILDING SYSTEMS GROUP®

300 INDUSTRIAL DRIVE
FERNLEY, NEVADA 89408

EVALUATION SUBJECT:

JUMBO TEX®, JUMBO TEX HD 30 MINUTE®, SUPER JUMBO TEX 60 MINUTE®, WEATHERSMART®, TWO-PLY WEATHER TEX®, TWO-PLY HYDRO TEX®, AND PLYDRY® WATER-RESISTIVE BARRIERS

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ICC-ES Evaluation Report

ESR-1027

Reissued October 2016

This report is subject to renewal October 2018.

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 25 00—Water-Resistive Barriers/Weather Barriers
Section: 07 27 00—Air Barriers

REPORT HOLDER:

FORTIFIBER BUILDING SYSTEMS GROUP®
300 INDUSTRIAL DRIVE
FERNLEY, NEVADA 89408
(775) 333-6400
www.fortifiber.com
techservice@fortifiber.com

EVALUATION SUBJECT:

JUMBO TEX®, JUMBO TEX HD 30 MINUTE®, SUPER JUMBO TEX 60 MINUTE®, WEATHERSMART®, TWO-PLY WEATHER TEX®, TWO-PLY HYDRO TEX®, AND PLYDRY® WATER-RESISTIVE BARRIERS

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2012, 2009 and 2006 *International Building Code®* (IBC)
- 2012, 2009 and 2006 *International Residential Code®* (IRC)
- 2012, 2009 and 2006 *International Energy Conservation Code®* (IECC)
- 1997 *Uniform Building Code™* (UBC)

Properties evaluated:

- Physical properties
- Air barrier
- Surface-burning characteristics

1.2 Evaluation to the following green code(s) and/or standards:

- 2013 California Green Building Standards Code (CALGreen), Title 24, Part 11
- 2012 and 2015 International Green Construction Code® (IgCC)
- 2011 and 2014 ANSI/ASHRAE/USGBC/IES Standard 189.1–Standard for the Design of High-Performance Green Buildings, Except Low-Rise Residential Buildings
- 2012 and 2008 ICC 700 *National Green Building Standard™* (ICC 700-2012 and ICC 700-2008)

Attributes verified:

- See Section 2.0

2.0 USES

Jumbo Tex, Jumbo Tex HD 30 Minute, Super Jumbo Tex 60 Minute, WeatherSmart, Two-Ply Weather Tex, Two-Ply Hydro Tex, and PlyDry are alternatives to the water-resistive barriers specified in IBC Section 1404.2 and IRC Section R703.2, and to the weather-resistive barriers specified in UBC Section 1402.1. When applied in two layers, they also comply with the water-resistive barrier requirements of IBC Section 2510.6, IRC Section R703.6.3 and UBC Section 2506.4.

The water-resistive barriers are used on the exterior side of exterior walls of buildings of Type V-N construction under the UBC, structures regulated under the IRC, and buildings of Type V-B construction under the IBC except as noted in Section 4.2. Under the 2012 IBC, the water-resistive barriers may be used on buildings of Type I, II, III or IV construction that are not greater than 40 feet (11 192 mm) in height above grade, and comply with Section 1403.5. Under the 2009 and 2006 IBC, Jumbo Tex, Jumbo Tex HD 30 Minute, Super Jumbo Tex 60 Minute, Two-Ply Hydro Tex, WeatherSmart, and PlyDry water-resistive barriers may be used on the exterior side of exterior walls of buildings of Type I or II construction, when installed between two layers of noncombustible materials without an intervening air space.

WeatherSmart may be used as an air barrier material in accordance with IRC Section N1102.4.1 and Section 402.4 of the 2012 IECC (Sections 402.4 and 502.4 of the 2009 and 2006 IECC).

The attributes of the water-resistive barriers have been verified as conforming to the provisions of (i) CALGreen Section 5.407.1 for water-resistive barriers; (ii) ICC 700-2012 Section 602.1.8, 11.602.1.8 and 12.5.602.1.8; and (iii) ICC 700-2008 Section 602.9 for water-resistive barriers.

The attributes of WeatherSmart have been verified as conforming to the provisions of (i) CALGreen Section A4.407.5 for air barriers; (ii) 2012 and 2015 IgCC Section 605.1.2.1 for air barriers; and (iii) 2014 ASHRAE 189.1 Section 7.3.1.1 and 2011 ASHRAE 189.1 Section 7.4.2.9 for air barriers. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

3.0 DESCRIPTION

3.1 Jumbo Tex:

Jumbo Tex is a Grade D asphalt-saturated kraft building

paper. Jumbo Tex weighs 3.6 pounds per 100 square feet (0.18 kg/m^2) and is manufactured in rolls of varying sizes.

3.2 Jumbo Tex HD 30 Minute:

Jumbo Tex HD 30 Minute is a Grade D asphalt-saturated kraft building paper weighing 3.9 pounds per 100 square feet (0.19 kg/m^2) and is manufactured in rolls of varying sizes.

3.3 Super Jumbo Tex 60 Minute:

Super Jumbo Tex 60 Minute is a Grade D asphalt-saturated kraft building paper with a 60-minute water-resistance rating. Jumbo Tex weighs 6 pounds per 100 square feet (0.29 kg/m^2) and is manufactured in rolls of varying sizes.

3.4 WeatherSmart:

WeatherSmart is a Grade D, nonwoven, polypropylene fabric with a monolithic polymer coating on one side, and has a 60-minute water-resistance rating. WeatherSmart weighs 1.9 pounds per 100 square feet (0.09 kg/m^2) and is manufactured in rolls of varying sizes. When used as an air barrier material, the product has an air permeance not exceeding 0.02 L/(s m^2) @ 75 Pa [0.004 cfm.ft^2 at 0.3 w.g. (1.57 psf)].

3.5 Two-Ply Weather Tex:

Two-Ply Weather Tex is a two-layer water-resistive barrier composed of one layer of WeatherSmart, as described in Section 3.4, and one layer of Super Jumbo Tex 60 Minute, as described in Section 3.3. Weather Tex weighs 7.9 pounds per 100 square feet (0.39 kg/m^2) and is manufactured in rolls of varying sizes.

3.6 Two-Ply Hydro Tex:

Two-Ply Hydro Tex is a two-layer water-resistive barrier composed of one layer of Super Jumbo Tex 60 Minute, as described in Section 3.3, and one layer of WeatherSmart® Drainable (ESR-3791). Two-Ply Hydro Tex weighs 7.4 pounds per 100 square feet (0.36 kg/m^2) and is manufactured in rolls of varying sizes.

3.7 PlyDry:

PlyDry is a Grade D woven fabric with a polyolefin coating, microperforated for water vapor permeability. PlyDry weighs 1.18 pounds per 100 square feet (0.06 kg/m^2) and is manufactured in rolls of varying sizes.

3.8 Surface Burning Characteristics:

The Jumbo Tex, Jumbo Tex HD 30 Minute, Super Jumbo Tex 60 Minute, Two-Ply Weather Tex, Two-Ply Hydro Tex, WeatherSmart, and PlyDry products have a flame spread index of less than 100 and a smoke-developed index of less than 450, when tested in accordance with IBC Section 802.1.

4.0 INSTALLATION

4.1 General:

The water-resistive barriers must be installed in accordance with IBC Sections 1404.2 and 2510.6, IRC Sections R703.2 and R703.6.3, or UBC Sections 1402.1 and 2506.4, as applicable, on the exterior side of exterior wall framing, sheathing or insulation, with the printed side installed facing outward.

The water-resitive barriers described in this report are installed after wall framing is completed and before or after windows and doors are installed. The roll is placed approximately 6 inches (152 mm) from the starting corner, except where the manufacturer's installation instructions specify a greater dimension, and is fastened with corrosion-resistant staples, corrosion-resistant nails, or corrosion nails or staples having plastic washer heads, The water-resistive barrier is then unrolled horizontally around the building and fastened in accordance with the manufacturer's published installation instructions. A minimum of 6 inches (152 mm) of overlap is to be provided for vertical seams and 2 inches (51 mm) for horizontal seams, except where the manufacturer's published installation instructions specify a greater overlap.

When the water-resistive barriers are installed over wood-based sheathing in exterior plaster applications, the water-resistive barriers must be applied in two layers over the sheathing, in accordance with IBC Section 2510.6, IRC Section R703.6.3 or UBC Section 2506.4, as applicable. When used as an alternative to the 60-minute Grade D building paper over wood-based sheathing, the water-resistive barrier must be separated from the stucco in accordance with the exception to IBC Section 2510.6 and IRC Section R703.6.3. For cementitious coatings or exterior insulation and finish systems, application is to be in accordance with the ICC-ES evaluation report on the exterior coating system.

4.2 Fire-resistance-rated Construction Assemblies:

In Type V-A construction, the Jumbo Tex, Jumbo Tex HD 30 Minute, and Super Jumbo Tex 60 Minute water-resistive barriers may be used in exterior fire-resistance-rated assemblies described in IBC Table 720.1(2), or described in a current ICC-ES evaluation report that specifies use of building paper, without changing the assigned hourly rating of the assembly.

4.3 Air Barrier:

WeatherSmart, when used as an air barrier material, must be installed in accordance with the manufacturer's published installation instructions and this report.

5.0 CONDITIONS OF USE

The water-resistive barriers described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of conflict between the manufacturer's published installation instructions and this report, this report governs.

5.2 The water-resistive barriers must be covered with an approved exterior wall covering.

5.3 The air permeance noted in Section 3.4 is for WeatherSmart used as an air barrier material only. The design and evaluation of an air barrier assembly, with WeatherSmart as a component, is outside the scope of this report.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Water-resistive Barriers (AC38), dated January 2015 (editorially revised April 2015).

6.2 Reports of testing in accordance with ASTM E84.

6.3 Reports of testing in accordance with ASTM E2178.

7.0 IDENTIFICATION

The water-resistive barriers described in this report are identified on one side, at regular intervals, with the product name, the Fortifiber Building Systems Group name and website address, and the evaluation report number (ESR-1027).

Fortifiber Building Systems Group®

Protecting Your World from the Elements®

SAFETY DATA SHEET

Asphalt Saturated Products

1. Product And Company Identification

Supplier
Fortifiber Building Systems Group
300 Industrial Drive
Fernley, NV 89408

Company Contact: Technical Services
Telephone Number: (800) 773-4777
Web Site: www.fortifiber.com

Product(s):
Jumbo Tex®
Two- Ply Jumbo Tex®
Jumbo Tex® HD 30 Minute
Two-Ply Jumbo Tex® HD 30 Minute
Super Jumbo Tex® 60 Minute
Two-Ply Super Jumbo Tex® 60 Minute
HWD-15®
Scribe-Rite® Black
MH-15®
Rolled Furring Strips

Issue Date: 05/28/2015
Supersedes: 05/28/2015

Product Description
Asphalt saturated kraft paper.

2. Hazards Identification

In the solid state the material is not considered a hazardous material as defined by 21 CFR 1910.1200 (b) (6) (v). This product meets the definition of an "Article" and is not subject to the regulations of the Hazardous Products Act.

Eye Hazards
N/A.

Skin Hazards
N/A.

Ingestion Hazards
Non-Toxic

Inhalation Hazards
N/A.

Signs and Symptoms of Exposure
None.

Medical Conditions Generally Aggravated by Exposure
None known.

3. Composition/Information On Ingredients

Ingredient Name	CAS Number		Percent Of Total Weight
Asphalt	8052-42-4		25-50

4. First Aid Measures

Eye
N/A.

Skin
N/A.

Ingestion
N/A.

Inhalation
N/A.

5. Fire Fighting Measures

Flash Point: >450°F

Auto Ignition Temperature: >450°F

Special Fire Fighting Instructions: The asphalt saturated paper requires that this product be treated as a fuel oil fire.

Method Used: Cleveland Cup.

Flammability Limits: LEL- Not Applicable.

Unusual Fire And Explosion: Hazards None. UEL – Not Applicable.

Extinguishing Media: Carbon Dioxide, Foam, Water, or Dry Chemical.

6. Accidental Release Measures

Not applicable for product in purchased form.

7. Handling And Storage

Safe Handling
Normal application will not expose the user of these articles to hazardous substance levels.

Safe Storage
Do not store near an open flame.

8. Exposure Controls/Personal Protection

Skin Protection
N/A.

Eye/Face Protection
N/A.

Ventilation
N/A.

Respiration Protection
N/A.

9. Physical And Chemical Properties
Appearance: Brown to black colored paper. **Boiling Point:** N/A. **Melting Point:** N/A. **Specific Gravity:** >1. **Vapor Pressure:** N/A. **Vapor Density:** N/A. **Solubility:** Negligible. **Odor:** Asphalt odor.

10. Stability And Reactivity
Stability: Stable **Conditions to Avoid:** Fire. **Materials to Avoid:** None known. **Hazardous Polymerization:** Not anticipated under normal use. **Hazardous Decomposition:** Not anticipated under normal use. **Thermal Decomposition (Combustion):** May produce carbon monoxide and hydrogen sulfide fumes.

11. Toxicological Information
Chronic/Carcinogenicity None of the ingredients present in this product, at concentrations equal to or greater than 0.1%, have been determined to be carcinogenic by IARC, NTP or OSHA.

12. Ecological Information
There is no data on the ecotoxicity of this product. This product should not pose an ecological risk.

13. Disposal Considerations
Dispose in accordance with applicable federal, state and local government regulations.

14. Transport Information
Hazardous Material Proper Shipping Name: Not regulated by DOT. **Special Handling or Shipping Precautions:** None required. **Hazard Class:** Non-hazardous. **UN Identification Number:** None.

15. Regulatory Information
SARA 313 Regulated Chemicals: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. **Ingredient(s) - State Regulations:** Asphalt.

16. Other Information
This SDS Supersedes A Previous Form Dated: 05/28/2015

Disclaimer
Although reasonable care has been taken in the preparation of this document, Fortifiber extends no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purposes(s).

TRANSMITTAL LETTER

Keenan Hopkins Schmidt & Stowell C

5422 Bay Center Dr., Ste. 200
Tampa, FL 33609

Transmittal # **18344-3-0010**

Date: 7/18/2017
Phone: (813) 628-9330
Fax: (813) 627-2296

Project Name: PIE St. Pete Clearwater International Airport **Project #:** 18344-3

To: THE ARTEC GROUP
Attn: Dan Heim
1411 N. Westshore Boulevard; Suite 205

Tampa, Fl 33607

SUBJECT: Material Substitution Request - Jumbo Tex 60

Phone: (813) 281-2247 **Fax:** (813) 286-6593

Items listed are being sent
- ☑ Enclosed
- ☐ Under Separate Cover
- ☑ Via E-mail

We are transmitting the following to you:

- ☑ Product Data
- ☐ Architectural Drawings
- ☐ Engineering Drawings
- ☐ Samples
- ☐ Letters
- ☐ Change Order Requests
- ☐ Submittals:
- ☐ Shop Drawings
- ☐ Specifications
- ☐ O & M Manuals
- ☐ Prints
- ☐
- ☐ Plans
- ☐ Addenda

Item No.	Item Date	Copies	For	Description
1	07/18/2017	1	For Approval	Substitution Request Form #001
2	07/18/2017	1	For Approval	Jumbo Tex 60 Submittal Data
3	07/18/2017	1	For Approval	ICC Evaluation Report
4	07/18/2017	1	For Approval	Fortifiber Building Systems Group SDS sheets

Remarks:

Dan,

See attached Material Substitituion Request Forms with Product Data.

Pinellas County Bid # 156-0155-CP (PF)
PIE ST. Pete Claerwater Airport
Terminal Improvements Project

THE ARTEC GROUP, INC.
376 Interstate Court
Sarasota, Florida 34240

__X__ Approved

_____ Approved with correction as noted on submittal and/or attached sheet(s)

Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Subcontractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Signature Dan Heim
Dan Heim
Title Project Manager

Date _____

COPIES TO:

Daniel Scott

Digitally signed by Daniel Scott
DN: C=US, E=dan.scott@khss.com, O=KHS&S Contractors, OU=Senior Project Manager, CN=Daniel Scott
Date: 2017.07.18 12:09:37-04'00'

By: Daniel Scott
Project Manager

Received by: _____ Date: _____

SUBSTITUTION REQUEST FORM

Substitution Request Number: 001 Date: 07 / 18 / 2017

General Contractor: The Artec Group

Project Name: Airport Terminal Improvements-Phase 3, Gates 7-10 Terminal Addition

Project Location: St.Pete-Clearwater International Airport,14700 Terminal Blvd, Clearwater,

Architect's Project No.: 153823

Specification Section: 07250

Paragraph Number: Part 2 - Products - 2.1A.

Original Product Specified: Tyvek Commericial Wrap D

Proposed Product Substitution: Jumbo Tex 60 Minute

General reason for not giving priority to Specified Items: Approved submittals were not received when KHS&S was instructed to start the stucco application. Jumbo Tex is the product that KHS&S uses most often for stucco installation throughout Florida.

Answer the following questions:	***Circle One***	
• Are extensive revisions to contract documents required?	Yes	(No)
• Proposed changes are in keeping with general intent of Contract Documents?	(Yes)	No
• Substitution affects other materials or systems? (If yes, attach complete data)	Yes	(No)
• Substitution requires dimensional revision or redesign of structure or MEP work? (If yes, attach complete data)	Yes	(No)
• Comparison of two products is attached to demonstrate equality of products? (Original specified item versus proposed substitution)	(Yes)	No

- The following data is furnished herewith for evaluation of the substitution:

  ■ Catalog Data Sheets ❑ Drawings ❑ Reports
  ❑ Samples ■ Test Data ■ Other SDS Report

• Are there any schedule impacts if the original product specified is used? (If yes, please indicate the number of calendar days: _____)	Yes	(No)
• Scheduled delivery date of original product: N/A / / .		
• Scheduled delivery date of proposed substitution: In stock . Days saved ____)		
• Is the original product acceptable to local building officials? (If no, please fill in data below)	(Yes)	No

Contact at Building Department: _____

Phone: ( ) - Ext. Fax: ( ) - -

• Are there any savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $ 2,000.00)	(Yes)	No
• Are there any life cycle costs savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $_____)	Yes	(No)
• Are there any additional costs that will be incurred by the Owner? (If yes, identify cost impact: $_____)	Yes	(No)
• Are there any additional costs that will be incurred by other trade contractors? (If yes, identify total cost impact: $_____)	Yes	(No)
• Is the specified product or material compatible with other products or materials scheduled or specified to be installed?	(Yes)	No
• Is the proposed substitution compatible with other materials scheduled or specified to be installed?	(Yes)	No

- Can the specified product or material be installed and coordinated with the installation of other products or materials specified to be installed? (Yes) No
- What is the warranty period for the originally specified product? Labor ONE (Yrs) Material TEN (Yrs)
- What is the warranty period for the proposed substitution? Labor ONE (Yrs) Years TWO (Yrs)

By signature below the Contractor and/or Subcontractor proposing the material or product substitution hereby certify that the above noted information is true and accurate. The Contractor and/or subcontractor further certify that each of them waiver their rights to additional payment or time, that may subsequently become necessary because of failure of the substitution to perform adequately. **THE CONTRACTOR AND SUB-CONTRACTOR HEREBY FURTHER CERTIFY THAT THIS SUBMISSION HAS BEEN FULLY CHECKED AND COORDINATED WITH THE CONTRACT DOCUMENTS.**

Daniel Scott Digitally signed by Daniel Scott DN: C=US, E=dan.scott@khss.com, O=KHSAS Contractors, OU=Senior Project Manager, CN=Daniel Scott Date: 2017.07.18 11:28:22-04'00'

07 / 18 / 2017

(Subcontractor's Signature) (Date)

Daniel Scott

(Printed Subcontractors Name)

/ /

(Contractor's Signature) (Date)

(Printed Contractor's Name)

ARCHITECT'S ACTION AND/OR REVIEW COMMENTS:

The proposed Substitution Request has been reviewed for compliance with the Design Intent of the Contract Documents by the Architect, in accordance with the General and Supplementary Conditions of the Contract; However, this review shall not relieve the Contractor or the sub-contractor of their duties and responsibilities under the terms of the Contract, and/or the coordination and product incorporation provisions certified by the Contractor and sub-contractor above. The proposed Substitution shall **not** be incorporated into the project unless the marked accepted and Architect's acceptance is acknowledged by the Owner. The Architect's Review Comments and Response are as follows:

- ❑ Rejected; not accepted
- ❑ Revise and resubmit
- ❑ Accepted
- ❑ Accepted as noted below
- ❑ Additional Review Comments Attached
- ❑ _____

/ /

(Architect's Signature) (Date)

(Printed Architect's Name)

ACKNOWLEDGEMENT OF SUBSTITUTION REQUEST BY OWNER:

/ /

(Signature) (Date)

(Printed Owner's Name)

END OF FORM

Substitution Request Number: _____ Date: / /

Project Name: _____

Architect's Project No.: _____

Proposed Product Substitution: _____

ARCHITECT'S ADDITIONAL REVIEW COMMENTS:

END OF ADDITIONAL REVIEW COMMENTS

LETTER OF TRANSMITTAL

TO: The Artec Group, Inc.
P.O. Box 50335
Sarasota, FL 34232-0302

DATE: 10/31/2017
JOB NO: 155631
REFERENCE: St. Pete-Clwt Airport
DESCRIPTION: Safety Data Sheets

ATTN: Dan Heim, Project Manager

SENT TO YOU VIA: ☐ Mail ☐ Blueprinter ☐ Overnight Delivery (Carrier) _____

☒ E-Mail ☐ Your Pick-Up ☐ Michael Baker Messenger ☒ Other Courier SharePoint

No. of Copies	No. of Originals	DESCRIPTION
1	1	Substitution request Tyvek

SENT FOR YOUR: ☐ Approval ☐ Review ☐ Comments ☐ Per Your Request
☒ Files ☐ Signature ☒ Use ☐ Information ☐ _____

REMARKS:
In order to review your request for the substitution of Tyvek as per Specification 0750, please provide documentation that Jumbo-tex meets or exceeds Tyvek in all the performance specifications listed in Section 07250, Part 2.1.C Performance Characteristics, tests 1 through 7.
It is also requested you provide all the required additional assembly products and construction methods for a complete Weather Barrier Membrane System, including any manufacturer's accessories for framed stucco and metal lath assemblies.

BY: _____
William "Chip" Hayward, Jr. AIA, CSI-CCCA
Senior Associate/Architect
Michael Baker International

COPIES TO: Scott Yarley w/1 set (via email)
Michael Cummings w/1 set (via email)
Sharepoint w/ enclosed
File

SUBSTITUTION REQUEST FORM

Substitution Request Number: 001 Date: 07 / 18 / 2017

General Contractor: The Artec Group

Project Name: Airport Terminal Improvements-Phase 3, Gates 7-10 Terminal Addition

Project Location: St.Pete-Clearwater International Airport,14700 Terminal Blvd, Clearwater,

Architect's Project No.: 153823

Specification Section: 07250

Paragraph Number: Part 2 - Products - 2.1A.

Original Product Specified: Tyvek Commericial Wrap D

Proposed Product Substitution: Jumbo Tex 60 Minute

General reason for not giving priority to Specified Items: Approved submittals were not received when KHS&S was instructed to start the stucco application. Jumbo Tex is the product that KHS&S uses most often for stucco installation throughout Florida.

Answer the following questions:	***Circle One***	
• Are extensive revisions to contract documents required?	Yes	(No)
• Proposed changes are in keeping with general intent of Contract Documents?	(Yes)	No
• Substitution affects other materials or systems? (If yes, attach complete data)	Yes	(No)
• Substitution requires dimensional revision or redesign of structure or MEP work? (If yes, attach complete data)	Yes	(No)
• Comparison of two products is attached to demonstrate equality of products? (Original specified item versus proposed substitution)	(Yes)	No
• The following data is furnished herewith for evaluation of the substitution:		
■ Catalog Data Sheets ❑ Drawings ❑ Reports		
❑ Samples ■ Test Data ■ Other SDS Report		
• Are there any schedule impacts if the original product specified is used? (If yes, please indicate the number of calendar days: _____)	Yes	(No)
• Scheduled delivery date of original product: N/A / /		
• Scheduled delivery date of proposed substitution: In stock. Days saved ___)		
• Is the original product acceptable to local building officials? (If no, please fill in data below)	(Yes)	No
Contact at Building Department: _____		
Phone: ( ) - Ext. Fax: ( ) - -		
• Are there any savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $ 2,000.00)	(Yes)	No
• Are there any life cycle costs savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $_____)	Yes	(No)
• Are there any additional costs that will be incurred by the Owner? (If yes, identify cost impact: $_____)	Yes	(No)
• Are there any additional costs that will be incurred by other trade contractors? (If yes, identify total cost impact: $_____)	Yes	(No)
• Is the specified product or material compatible with other products or materials scheduled or specified to be installed?	(Yes)	No
• Is the proposed substitution compatible with other materials scheduled or specified to be installed?	(Yes)	No

- Can the specified product or material be installed and coordinated with the installation of other products or materials specified to be installed? (Yes) No
- What is the warranty period for the originally specified product? Labor ONE (Yrs) Material TEN (Yrs)
- What is the warranty period for the proposed substitution? Labor ONE (Yrs) Years TWO (Yrs)

By signature below the Contractor and/or Subcontractor proposing the material or product substitution hereby certify that the above noted information is true and accurate. The Contractor and/or subcontractor further certify that each of them waiver their rights to additional payment or time, that may subsequently become necessary because of failure of the substitution to perform adequately. **THE CONTRACTOR AND SUB-CONTRACTOR HEREBY FURTHER CERTIFY THAT THIS SUBMISSION HAS BEEN FULLY CHECKED AND COORDINATED WITH THE CONTRACT DOCUMENTS.**

Daniel Scott Digitally signed by Daniel Scott DN: C=US, E=daniel.scott@kbas.com, O=KBAS Contractors, OU=Senior Project Manager, CN=Daniel Scott Date: 2017.07.18 11:38:22-04'00'

07 / 18 / 2017

(Subcontractor's Signature) (Date)

Daniel Scott

(Printed Subcontractors Name)

Daniel J Heim

10 / 10 / 17

(Contractor's Signature) (Date)

Daniel J Heim

(Printed Contractor's Name)

ARCHITECT'S ACTION AND/OR REVIEW COMMENTS:

The proposed Substitution Request has been reviewed for compliance with the Design Intent of the Contract Documents by the Architect, in accordance with the General and Supplementary Conditions of the Contract; However, this review shall not relieve the Contractor or the sub-contractor of their duties and responsibilities under the terms of the Contract, and/or the coordination and product incorporation provisions certified by the Contractor and sub-contractor above. The proposed Substitution shall **not** be incorporated into the project unless the marked accepted and Architect's acceptance is acknowledged by the Owner. The Architect's Review Comments and Response are as follows:

- ❑ Rejected; not accepted
- ❑ Revise and resubmit
- ❑ Accepted
- ❑ Accepted as noted below
- ❑ Additional Review Comments Attached
- ❑ _____

/ /

(Architect's Signature) (Date)

(Printed Architect's Name)

ACKNOWLEDGEMENT OF SUBSTITUTION REQUEST BY OWNER:

/ /

(Signature) (Date)

(Printed Owner's Name)

END OF FORM

Substitution Request Number: _____ Date: / /

Project Name: _____

Architect's Project No.: _____

Proposed Product Substitution: _____

ARCHITECT'S ADDITIONAL REVIEW COMMENTS:

END OF ADDITIONAL REVIEW COMMENTS

The Artec Group, Inc.
376 Interstate Court
Sarasota, FL 34240
Phone (941) 960-1378
Fax (350) 421-0490

Letter of Transmittal

To:	Chip Hayward – Michael Baker Inc.
From:	Daniel Heim – The Artec Group
Date:	9/5//2017
Job Reference #	PIE – St. Pete Clearwater International Airport Terminal Improvements

We are sending you the following:

_ Attached _ Under Separate Cover Via _____ the following items:

Shop Drawings _ Prints _ Plans _ Sample

x_ Specifications x_ Copy of Letter _ Change Order

Copies	Date	Number	Description
1	9/5/17	07250	Resubmittal Jumbo tex substitution
1	9/5/17	09180	Resubmittal Cement plaster stucco

These are transmitted as checked below: x_ For Approval _ Approved as Submitted

x_ Resubmit ___1__ copies for Approval

_ For your Use _ Approved as Noted _ Submit _____ copies for distribution

_ As requested _ Returned for corrections _ Return _____ corrected prints

_ For review and comment _ other _____

_ For Bids due _____ 200__ _ Prints returned after loaned to us

Remarks:

RE Send with Substitution Request

Copy to: _____ Signed: Daniel Heim Daniel Heim

TRANSMITTAL LETTER

Keenan Hopkins Schmidt & Stowell C

5422 Bay Center Dr., Ste. 200
Tampa, FL 33609

Transmittal # **18344-3-0011**

Date: 8/17/2017
Phone: (813) 628-9330
Fax: (813) 627-2296

Project Name: PIE St. Pete Clearwater International Airport **Project #:** 18344-3

To: THE ARTEC GROUP
Attn: Dan Heim
1411 N. Westshore Boulevard; Suite 205

Tampa, Fl 33607

SUBJECT: Architectural

Phone: (813) 281-2247 **Fax:** (813) 286-6593

Items listed are being sent
- ☑ Enclosed
- ☐ Under Separate Cover
- ☑ Via E-mail

We are transmitting the following to you:

- ☑ Product Data
- ☐ Architectural Drawings
- ☐ Engineering Drawings
- ☐ Samples
- ☑ Letters
- ☐ Change Order Requests
- ☐ Submittals:
- ☐ Shop Drawings
- ☐ Specifications
- ☐ O & M Manuals
- ☐ Prints
- ☑ In-Spex Letter
- ☐ Plans
- ☐ Addenda

Item No.	Item Date	Copies	For	Description
1	08/17/2017		For Approval	Resubmitting - 07250 - Jumbo Tex Substitution
2	08/17/2017		For Approval	Resubmitting - 09180 - Cement Plaster - Stucco

Remarks: Dan,

I have placed all of items in the Dropbox folder assigned to KHS&S.

Pinellas County Bid # 156-0155-CP (PF)
PIE ST. Pete Claerwater Airport
Terminal Improvements Project

THE ARTEC GROUP, INC.
376 Interstate Court
Sarasota, Florida 34240

__X__ Approved

_____ Approved with correction as noted on submittal and/or attached sheet(s)

Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Subcontractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

Signature Dan Heim
Dan Heim
Title Project Manager
Date Sept. 1, 2017

COPIES TO:

By: Daniel Scott
Project Manager

Received by: Dan Heim Date:

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www.inspexllc.com

377 S Moss Rd.
Winter Springs, FL 32708
(407) 588-2561
MSTARKS@IN-SPEXLLC.COM

INVOICE

Project # 17-016 ST Pete/Clearwater Air **Invoice #** 17-016-01

To: Dan Scott
KHS & S Contractors
5422 Bay Center DR., Suite 200
Tampa, FL 33609

Date: August 11, 2017

Consulting Services	Date	Job	Hours	Rate	Total
Docs review & letter	8/11/2017	St Pete/CLW Airport	1.50	$140.00	$210.00
				$140.00	$0.00
					$0.00
					$0.00
					$0.00
			1.50	$140.00	**$210.00**

Mileage	Miles	Rate	Total
		$0.540	$0.00
		$0.540	$0.00
			$0.00
			$0.00
			$0.00
			$0.00

Expenses (receipts attached)	Total
	$0.00
Total Due	**$210.00**

Payment due upon receipt. Please remit to:
In-Spex, LLC
377 S Moss Rd.
Winter Springs, FL 32708

IN-SPEX
YOUR OUNCE OF PREVENTION
www.inspexllc.com

377 S Moss Rd.
Winter Springs, FL 32708
(407) 588-2561

G. Michael Starks

CGC, CDT, CCPR, LEED BD & C

Qualifications:

B.S. Florida Technological University (UCF), 1978.
Florida Certified Residential Contractor (CRC), 1985
Florida Certified General Contractor (CGC), 1990
Certified Structural Masonry Inspector – FC & PA
Masonry Association of Florida – Founding Member, Secretary 1988-1992
Florida Concrete & Products Association - Stucco Task Force – Sec/V Chair 2010-13
Florida Lath & Plaster Bureau – President 2013-17, founding member, VP - Secretary 2012-3
ASTM C-11 Committee – Voting Member
Secretary C 1063 Task Group 2010-11; Task Groups C926; C932: C897 & others
Construction Specification Institute (CSI) – President, Greater Orlando Chapter 2006
Education & Certification Chair 2008 – 2012
Institute Technical Documents Award - 2012
Certified Construction Documents Technician (CDT)
Certified Construction Products Representative (CCPR)
LEED AP-BD & C – 2008
Building Officials Association of Florida
Institute for Business & Home Safety – Fortified Evaluator Training
International Code Council

Certified Continuing Education Provider Numbers
Florida Construction Industry Licensing Board - PVD 918
Florida Board of Architecture - PVD 372

Background:

Mr. Starks entered the construction industry in 1981 in the plaster and drywall business on the supply/distribution side.

He moved to the manufacturer's side in 1986 with what was then Santee Cement. This company widely encouraged continuing education and this is where, through a thorough and continual extended education program, Mr. Starks gained his technical knowledge. At the same time, he was garnering practical knowledge on the jobsites he visited on a daily basis.

While all of this was going on and as a part of his continuing education program, Mr. Starks became licensed as a contractor. He eventually upgraded his license to Class A, General Contractor. He also was a founding member of the Masonry Association of Florida and founding member and Chairman of the Florida Lath & Plaster Bureau. In addition, he serves actively on the C11 committee of ASTM for Stucco, EIFS and Drywall Standards.

This varied experience gives Mr. Starks a rounded perspective on the issues facing our industry today. His daily dealings with contactors, subs, design professionals and code officials offer him an understanding of the problems faced by each of these players.

Proficiencies:

Project Scope, Specifications and Detail review;
Verification Inspections;
Technical Assistance and Troubleshooting for Masonry and Stucco;
Participation in Codes and Standards writing including ASTM C926, C1063, C932, C897, more
Develop and present Continuing Ed programs for Contractors, Inspectors & Architects;
Research and Development of new stucco related products and methods;
Development of technical marketing media.

Publications:

Articles
"Accelerators & Retarders for Portland Cement-Based Plaster," 2015
"Alligator-back: Causes & Corrections," 2015
"Surface-Applied & Integral Bonding Agents for Stucco," 2015
"Portland Cement/Lime vs. Masonry Cement/Stucco in Florida," 2015
"Stucco Over Expanded Metal Lath: Common Errors and Mistakes," 2015
"Decorative Cementitious Coating (DCC) & The FBC," 2015
"Plaster Application: The Double-back or Double-up Method," 2015
"Ghosting' in Stucco," 2015
"Lath Over Concrete Block – A Bad Idea," 2015
"Stucco Doesn't Leak...Hole Do. Liquid (Fluid)-Applied Barriers for Stucco," 2015
"When May I Paint My Stucco," 2015
"Stucco & pH – Lime Burn," 2015
"Rust Spots in Finished Plaster," 2015
"Seasonal Variations in Stucco Applications," 2015
"Stucco Tips & Troubleshooting Guide," 2015
"Masonry/Stucco Cements and Florida Code Approval," 2015
"Stucco on Concrete: Pre-Cast, Poured-in-Place & Tilt-up," 2015
"Coring Stucco to Determine Thickness," 2017

Continuing Education Classes

These classes are certified for up to 2 hours of Continuing Education for Architects, Contractors, Building Officials and Inspectors and Engineers licensed in Florida as well as Subcontractors, Manufacturers and Distributors. To date these classes have been delivered to well over one thousand license holders in Florida.

Stucco 101 – Water-Resistant Structures
Stucco – 10 Factors Affecting Project Success
Stucco – If You Do This...It will Leak!

Masonry Foundation of Florida
Masonry Workshop – Stucco on Solid Bases

Florida Lath & Plaster Bureau (editor)

Designing & Specifying Traditional Portland Cement-Based Plaster
Principles of Stucco construction in Florida

Representative Projects:
In addition to the representative sample below, there are hundreds of others to which involvement was prior to founding In-Spex, LLC.

Scope, Specification and Details review and Continuing Ed
- DR Horton Homes - Central FL Region
- Park Square Homes
- William Ryan Homes – Tampa Division
- Meritage Homes – Orlando Division
- Davis Bews Engineering
- FDS Engineering
- David Weekley Homes – Central Florida Division
- K Hovnanian Homes – Orlando Division

Single Family Residences
- Martinez – Tampa
- Meredith – Winter Garden
- Biddle – Winter Garden
- Arias – Lake Mary
- Alexander – Lake Wales
- Cummings – Brandon
- Brae Burn – Vero Beach
- DeGeorge – Jupiter
- Estuary at Grey Oaks – Naples
- Hornak – St Cloud

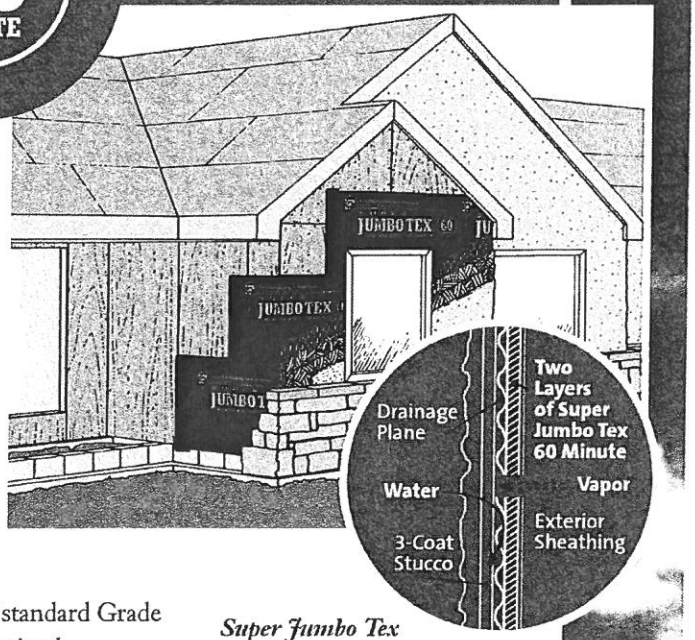
Multi-Family
- Maitland West - Maitland
- Echelon – Sarasota
- Boca Lofts – Boca Raton
- Bel Air – Miami
- Moorings – Naples
- Spectra at Emerson Square – Ft Myers

Commercial Projects
- Jacksonville Naval Air Station Bldg 758
- Florida State College – Jacksonville
- Orlando City Soccer Stadium
- Orlando VA Hospital
- Winter Park Hospital
- Citadel II - Orlando

PREMIER

SUPER JUMBO TEX® 60 MINUTE

WEATHER-RESISTIVE BARRIER



Super Jumbo Tex 60 Minute protects against water intrusion from the outside, while allowing moisture to escape from the inside.

Part of a Complete Moisture Control System

Super Jumbo Tex 60 Minute is the industry's leading 60 Minute building paper, with an unmatched track record of performance in the field. It is a member of the Jumbo Tex product line that has been chosen by builders and architects to protect over *five million* homes and commercial buildings from the problems caused by water intrusion and excessive moisture.

Super Jumbo Tex 60 Minute is used in both production and custom residential construction where there is a need for a high performance weather-resistive barrier. The product delivers over *six times* the water protection of standard Grade "D" paper, while providing optimal breathability, to prevent the potential for moisture condensation within exterior walls. As important, it has the rugged durability necessary to resist tearing and puncturing on the jobsite. The product is part of a complete Moisture Control System for walls engineered by the Fortifiber Building Systems Group®, which helps manage and eliminate moisture-related problems – including water-related structural failures, mold and mildew.

"The industry's leading 60 Minute building paper; with an unmatched track record of performance in the field..."

Unique Weather-Resistive Properties

The product is an asphalt-saturated building paper, which delivers highly reliable performance in the real world. Because it is manufactured from a base stock of kraft linerboard, Jumbo Tex is far less brittle than felt – so it is less likely to tear during installation around corners and in tight conditions. Unlike some housewraps, it will retain its weather-resistive properties when exposed to either job site surfactants or wood extracts and tannin derivatives from wood siding.

The product's 40 inch roll size makes it easier to install and store on the jobsite than other weather-resistive building materials. It is also more cost-effective than most housewraps, while offering the most formidable defense against water intrusion and moisture problems. In fact, it is possible to pay in excess of three times more for other weather-resistive barriers that cannot surpass its reliable performance behind stucco, fiber cement siding, brick, vinyl and wood siding.

- SOLID PROTECTION AGAINST MOISTURE PROBLEMS
- STRONG WATER RESISTANCE
- LOW VOC: MEETS CA 01350 FOR INDOOR AIR QUALITY
- EXCELLENT PRICE-PERFORMANCE
- IDEAL BALANCE BETWEEN WATER RESISTANCE AND PERMEABILITY
- FOR STUCCO, FIBER CEMENT SIDING, BRICK, VINYL AND WOOD SIDING
- REDUCES AIR INFILTRATION

Decades of Proven Performance

Super Jumbo Tex 60 Minute is a product manufactured by the Fortifiber Building Systems Group. With more than a seventy-five year history of proven performance, technical expertise and practical know-how, the company has become a trusted partner to builders, architects and code officials.

SUPER JUMBO TEX 60 MINUTE

Product Description: Super Jumbo Tex 60 Minute is a premier grade weather-resistive barrier designed for use within a variety of exterior wall assemblies. It provides excellent protection from internal wall damage due to water intrusion and condensation.

Composition: Super Jumbo Tex 60 Minute is an asphalt-saturated kraft Grade "D" breather type sheathing paper.

Size & Weight: Super Jumbo Tex 60 Minute is supplied in 40" x 240 sq. ft. and 40" x 324 sq. ft. rolls. Product weight is approximately 6 lbs/100 sq. ft.

Applicable Standards: Exceeds Federal Specification UU-B-790a, Type 1, Grade "D", Style 2.

Complies with the International Code Council Evaluation Services Acceptance Criteria for Water Resistive Barriers (AC 38).

Complies with the Uniform Building Code Standard 14-1.

Complies as an alternative to the water-resistive barrier specified in Section 1404.2 of the International Building Code®.

Complies as an alternative to the weather-resistant sheathing papers specified in Section R703.2 of the International Residential Code®.

Passed: California Department of Health Standard 01350 for VOC emissions.

ICC Evaluation Service Report 1027.

American Society for Testing & Materials (ASTM):

- *ASTM D-779 - Standard Test Method for Water Resistance of Paper; Paperboard and Other Sheet Materials by the Dry Indicator Test Method*
- *ASTM D-828 - Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus*
- *ASTM E-96 - Water Vapor Transmission of Materials*
- *ASTM E-283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen*
- *ASTM E-1677 - Standard Specification for an Air Barrier Material*

Physical Properties: Super Jumbo Tex 60 Minute is continually tested in accordance with ASTM procedures. The values shown in Table 1 are typical values obtained in these tests.

Limitations: Product should be covered as soon as possible. Inspect product to insure it is free of any protrusions or damage which may detract from the weather-resistive barrier integrity. Holes, tears or punctures should be sealed with Moistop® Sealant or Fortifiber Sheathing Tape. This product is not recommended for horizontal, below grade or roofing applications.

Installation: Super Jumbo Tex 60 Minute should be installed in accordance with the local applicable building code. The International Residential Code Section R703.2 and Uniform Building Code Standard 14-1, section 1402.1, state that weather-resistive barriers should be applied horizontally, with the upper layers overlapping the lower layer by a minimum of 2" (3" is recommended), and all vertical joints should be lapped a minimum of 6". To ensure the integrity of the weather-resistive barrier system, Fortifiber strongly recommends the use of a Two-Ply Jumbo Tex product or two layers of a single ply Jumbo Tex product when used with a three-coat stucco system.

Availability: The Fortifiber Building Systems Group's products are distributed nationwide. For product information and pricing, please call a Fortifiber distributor near you. If you need assistance locating a participating distributor, please call our Customer Service Department at 1-800-773-4777.

Fortifiber Warranty: Fortifiber Corporation warrants that its products are in compliance with their published specifications and are free from defects in materials and workmanship for a period of two years from the date of purchase. This warranty does not apply to loss due to abuse. Material found to be defective will be replaced at no charge by Fortifiber, but in no event shall Fortifiber be liable for any other costs or damages, including any labor costs.

THIS EXPRESS WARRANTY IS GIVEN IN LIEU OF AND EXCLUDES ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Fortifiber's sole obligations under this warranty are as set forth herein. In no event shall Fortifiber be liable for any lost revenue or profits, direct, indirect, special, incidental or consequential damages of any kind.

This product may be eligible for Fortifiber's FortiShield 15 year warranty when used in conjunction with other Fortifiber products. Please see our website at www.fortifiber.com/warranty.htm for details.

SPECIFICATION SUMMARY: Provides secondary weather protection behind exterior cladding to prevent moisture penetration and condensation in exterior wall assemblies.

WEATHER-RESISTIVE BARRIER: Fortifiber/Super Jumbo Tex 60 Minute asphalt saturated kraft 60 minute Grade "D" breather type sheathing paper, single ply.

REFERENCE SPECIFICATION: Federal Specification UU-B-790a, Type 1, Grade "D", Style 2.

Table 1- Physical Properties

CHARACTERISTIC	TEST METHOD	RESULTS	INDUSTRY STANDARD
Water Vapor Transmission	ASTM E-96 (A)	75 grams 11 perms (MVT)	35 grams (min.) 5 perms (MVT)
Water Resistance	ASTM D-779	>60 minutes	10 minutes
Tensile Strength	ASTM D-828	MD - 70 lb.^{f}/inch CD - 60 lb.^{f}/inch	MD - 20 lb.^{f}/inch CD - 20 lb.^{f}/inch
System Air Leakage	ASTM E-283	.02 CFM/ft^2	.06 CFM/ft^2
Low VOC	CA 01350	Pass	–

Fortifiber Building Systems Group®
Protecting Your World from the Elements®

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ICC-ES Report

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ESR-1027

Reissued 10/2016

This report is subject to renewal 10/2018.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

SECTION: 07 25 00—WATER-RESISTIVE BARRIERS/WEATHER BARRIERS

SECTION: 07 27 00—AIR BARRIERS

REPORT HOLDER:

FORTIFIBER BUILDING SYSTEMS GROUP®

300 INDUSTRIAL DRIVE
FERNLEY, NEVADA 89408

EVALUATION SUBJECT:

JUMBO TEX®, JUMBO TEX HD 30 MINUTE®, SUPER JUMBO TEX 60 MINUTE®, WEATHERSMART®, TWO-PLY WEATHER TEX®, TWO-PLY HYDRO TEX®, AND PLYDRY® WATER-RESISTIVE BARRIERS

ICC ES | ICC ES C PMG | ICC ES LISTED

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ICC-ES Evaluation Report

ESR-1027

Reissued October 2016

This report is subject to renewal October 2018.

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 25 00—Water-Resistive Barriers/Weather Barriers
Section: 07 27 00—Air Barriers

REPORT HOLDER:

FORTIFIBER BUILDING SYSTEMS GROUP®
300 INDUSTRIAL DRIVE
FERNLEY, NEVADA 89408
(775) 333-6400
www.fortifiber.com
techservice@fortifiber.com

EVALUATION SUBJECT:

JUMBO TEX®, JUMBO TEX HD 30 MINUTE®, SUPER JUMBO TEX 60 MINUTE®, WEATHERSMART®, TWO-PLY WEATHER TEX®, TWO-PLY HYDRO TEX®, AND PLYDRY® WATER-RESISTIVE BARRIERS

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2012, 2009 and 2006 *International Building Code®* (IBC)
- 2012, 2009 and 2006 *International Residential Code®* (IRC)
- 2012, 2009 and 2006 *International Energy Conservation Code®* (IECC)
- 1997 *Uniform Building Code™* (UBC)

Properties evaluated:

- Physical properties
- Air barrier
- Surface-burning characteristics

1.2 Evaluation to the following green code(s) and/or standards:

- 2013 California Green Building Standards Code (CALGreen), Title 24, Part 11
- 2012 and 2015 International Green Construction Code® (IgCC)
- 2011 and 2014 ANSI/ASHRAE/USGBC/IES Standard 189.1–Standard for the Design of High-Performance Green Buildings, Except Low-Rise Residential Buildings
- 2012 and 2008 ICC 700 *National Green Building Standard™* (ICC 700-2012 and ICC 700-2008)

Attributes verified:

- See Section 2.0

2.0 USES

Jumbo Tex, Jumbo Tex HD 30 Minute, Super Jumbo Tex 60 Minute, WeatherSmart, Two-Ply Weather Tex, Two-Ply Hydro Tex, and PlyDry are alternatives to the water-resistive barriers specified in IBC Section 1404.2 and IRC Section R703.2, and to the weather-resistive barriers specified in UBC Section 1402.1. When applied in two layers, they also comply with the water-resistive barrier requirements of IBC Section 2510.6, IRC Section R703.6.3 and UBC Section 2506.4.

The water-resistive barriers are used on the exterior side of exterior walls of buildings of Type V-N construction under the UBC, structures regulated under the IRC, and buildings of Type V-B construction under the IBC except as noted in Section 4.2. Under the 2012 IBC, the water-resistive barriers may be used on buildings of Type I, II, III or IV construction that are not greater than 40 feet (11 192 mm) in height above grade, and comply with Section 1403.5. Under the 2009 and 2006 IBC, Jumbo Tex, Jumbo Tex HD 30 Minute, Super Jumbo Tex 60 Minute, Two-Ply Hydro Tex, WeatherSmart, and PlyDry water-resistive barriers may be used on the exterior side of exterior walls of buildings of Type I or II construction, when installed between two layers of noncombustible materials without an intervening air space.

WeatherSmart may be used as an air barrier material in accordance with IRC Section N1102.4.1 and Section 402.4 of the 2012 IECC (Sections 402.4 and 502.4 of the 2009 and 2006 IECC).

The attributes of the water-resistive barriers have been verified as conforming to the provisions of (i) CALGreen Section 5.407.1 for water-resistive barriers; (ii) ICC 700-2012 Section 602.1.8, 11.602.1.8 and 12.5.602.1.8; and (iii) ICC 700-2008 Section 602.9 for water-resistive barriers.

The attributes of WeatherSmart have been verified as conforming to the provisions of (i) CALGreen Section A4.407.5 for air barriers; (ii) 2012 and 2015 IgCC Section 605.1.2.1 for air barriers; and (iii) 2014 ASHRAE 189.1 Section 7.3.1.1 and 2011 ASHRAE 189.1 Section 7.4.2.9 for air barriers. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

3.0 DESCRIPTION

3.1 Jumbo Tex:

Jumbo Tex is a Grade D asphalt-saturated kraft building

paper. Jumbo Tex weighs 3.6 pounds per 100 square feet (0.18 kg/m^2) and is manufactured in rolls of varying sizes.

3.2 Jumbo Tex HD 30 Minute:

Jumbo Tex HD 30 Minute is a Grade D asphalt-saturated kraft building paper weighing 3.9 pounds per 100 square feet (0.19 kg/m^2) and is manufactured in rolls of varying sizes.

3.3 Super Jumbo Tex 60 Minute:

Super Jumbo Tex 60 Minute is a Grade D asphalt-saturated kraft building paper with a 60-minute water-resistance rating. Jumbo Tex weighs 6 pounds per 100 square feet (0.29 kg/m^2) and is manufactured in rolls of varying sizes.

3.4 WeatherSmart:

WeatherSmart is a Grade D, nonwoven, polypropylene fabric with a monolithic polymer coating on one side, and has a 60-minute water-resistance rating. WeatherSmart weighs 1.9 pounds per 100 square feet (0.09 kg/m^2) and is manufactured in rolls of varying sizes. When used as an air barrier material, the product has an air permeance not exceeding 0.02 L/(s m^2) @ 75 Pa [0.004 cfm.ft^2 at 0.3 w.g. (1.57 psf)].

3.5 Two-Ply Weather Tex:

Two-Ply Weather Tex is a two-layer water-resistive barrier composed of one layer of WeatherSmart, as described in Section 3.4, and one layer of Super Jumbo Tex 60 Minute, as described in Section 3.3. Weather Tex weighs 7.9 pounds per 100 square feet (0.39 kg/m^2) and is manufactured in rolls of varying sizes.

3.6 Two-Ply Hydro Tex:

Two-Ply Hydro Tex is a two-layer water-resistive barrier composed of one layer of Super Jumbo Tex 60 Minute, as described in Section 3.3, and one layer of WeatherSmart® Drainable (ESR-3791). Two-Ply Hydro Tex weighs 7.4 pounds per 100 square feet (0.36 kg/m^2) and is manufactured in rolls of varying sizes.

3.7 PlyDry:

PlyDry is a Grade D woven fabric with a polyolefin coating, microperforated for water vapor permeability. PlyDry weighs 1.18 pounds per 100 square feet (0.06 kg/m^2) and is manufactured in rolls of varying sizes.

3.8 Surface Burning Characteristics:

The Jumbo Tex, Jumbo Tex HD 30 Minute, Super Jumbo Tex 60 Minute, Two-Ply Weather Tex, Two-Ply Hydro Tex, WeatherSmart, and PlyDry products have a flame spread index of less than 100 and a smoke-developed index of less than 450, when tested in accordance with IBC Section 802.1.

4.0 INSTALLATION

4.1 General:

The water-resistive barriers must be installed in accordance with IBC Sections 1404.2 and 2510.6, IRC Sections R703.2 and R703.6.3, or UBC Sections 1402.1 and 2506.4, as applicable, on the exterior side of exterior wall framing, sheathing or insulation, with the printed side installed facing outward.

The water-resitive barriers described in this report are installed after wall framing is completed and before or after windows and doors are installed. The roll is placed approximately 6 inches (152 mm) from the starting corner, except where the manufacturer's installation instructions specify a greater dimension, and is fastened with corrosion-resistant staples, corrosion-resistant nails, or corrosion nails or staples having plastic washer heads, The water-resistive barrier is then unrolled horizontally around the building and fastened in accordance with the manufacturer's published installation instructions. A minimum of 6 inches (152 mm) of overlap is to be provided for vertical seams and 2 inches (51 mm) for horizontal seams, except where the manufacturer's published installation instructions specify a greater overlap.

When the water-resistive barriers are installed over wood-based sheathing in exterior plaster applications, the water-resistive barriers must be applied in two layers over the sheathing, in accordance with IBC Section 2510.6, IRC Section R703.6.3 or UBC Section 2506.4, as applicable. When used as an alternative to the 60-minute Grade D building paper over wood-based sheathing, the water-resistive barrier must be separated from the stucco in accordance with the exception to IBC Section 2510.6 and IRC Section R703.6.3. For cementitious coatings or exterior insulation and finish systems, application is to be in accordance with the ICC-ES evaluation report on the exterior coating system.

4.2 Fire-resistance-rated Construction Assemblies:

In Type V-A construction, the Jumbo Tex, Jumbo Tex HD 30 Minute, and Super Jumbo Tex 60 Minute water-resistive barriers may be used in exterior fire-resistance-rated assemblies described in IBC Table 720.1(2), or described in a current ICC-ES evaluation report that specifies use of building paper, without changing the assigned hourly rating of the assembly.

4.3 Air Barrier:

WeatherSmart, when used as an air barrier material, must be installed in accordance with the manufacturer's published installation instructions and this report.

5.0 CONDITIONS OF USE

The water-resistive barriers described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of conflict between the manufacturer's published installation instructions and this report, this report governs.

5.2 The water-resistive barriers must be covered with an approved exterior wall covering.

5.3 The air permeance noted in Section 3.4 is for WeatherSmart used as an air barrier material only. The design and evaluation of an air barrier assembly, with WeatherSmart as a component, is outside the scope of this report.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Water-resistive Barriers (AC38), dated January 2015 (editorially revised April 2015).

6.2 Reports of testing in accordance with ASTM E84.

6.3 Reports of testing in accordance with ASTM E2178.

7.0 IDENTIFICATION

The water-resistive barriers described in this report are identified on one side, at regular intervals, with the product name, the Fortifiber Building Systems Group name and website address, and the evaluation report number (ESR-1027).

Product Quality Summary Report

Period	04/01/2014 - 04/22/2014
Plant	Gator Sand Mine FDOT #16-564-1318

Product	Conc Sand Cert for FDOT Code 01 1037249
Specification	
3/8" (9.5mm)	100.0
#4 (4.75mm)	100.0
#8 (2.36mm)	99.9
#16 (1.18mm)	93.8
#30 (0.6mm)	55.1
#50 (0.3mm)	20.6
#100 (0.15mm)	3.0
#200 (75um)	0.21
Pan	0.00
-#200 (75um)	0.2
Total Moisture	3.7
FM	2.28

Product Quality Summary Report

Period	04/01/2014 - 04/22/2014
Plant	Gator Sand Mine FDOT #16-564-1318
Comments	
Query	Query Selections Date Created 04/22/2014 Date Range 04/01/2014 - 04/22/2014 Plant Gator Sand Mine FDOT #16-564 Sample Type Shipping

TITAN AMERICA

August 6, 2017

Mr. Daniel Scott
KHS&S
5422 Bay Center Drive Suite 200
Tampa, FL 33609

Job: St. Pete-Clearwater Int. Airport

Dear Daniel Scott,

After the conversation with you and Ron Cameron about the exterior walls of the above mentioned property I believe you are experiencing crazing cracks. The General Contractor has nothing to be concerned about.

From time to time, you may experience very fine cracks in the stucco as it cures. This cracking is micro-scopic in nature and typically is only visible after being fogged, after rain, or heavy dew after the initial drying period. There is little concern for leaking with regards to these cracks as they are on the surface, can continue to carry the load, and there is no breach of bond.

As you mentioned a good coat of primer will in fact be sufficient to finish the wall before paint. Elastomeric paint is designed to keep small cracks sealed and microscopic ones such as these aren't a risk to begin with.

Sincerely,

Tom Zimmerman
Territory Manger
Titan Florida
Phone #: 813-376-0014

HIBOND®

LAMBERT CORPORATION
20 N. COBURN AVENUE, ORLANDO, FLORIDA 32805
PHONE: (407) 841-2940 TOLL FREE: 800-432-4746
FAX: (407) 839-1890
WEBSITE: http://www.lambertusa.com

Revision: February 2009
Supersedes all previous publications

Premium rewettable bonding agent for plaster and concrete applications

Advantages:

- No VOC's
- Water based
- Easy to apply
- Ready to use
- Re-emulsifiable
- Strong durable bond

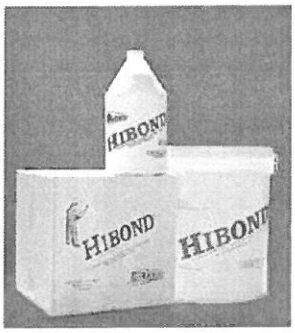
Coverage:

- Bonding Agent (straight) – 250-300 ft2 per gal (6.1-7.4m2/liter)
- Admixture – 1-2 gal (3.8-7.6 liters) per 94 lbs (42.6kg) cement in mix

See Coverage section for full details

Packaging:

55 gal (208.2L) drum
5 gal (18.9L) pail
1 gal (3.8L) jug (4/case)



Product Description

HIBOND® is designed to be used as a "paint-on-type" bonding agent or as an admixture to grouts, mortars, stuccos, portland cement or gypsum based plasters and patching compounds. It is a thick milky white liquid available with a blue dye upon request. When used as a bonding agent, HIBOND forms a glue line type coating that helps create a chemical bond between a compatible substrate and a suitable top layer. When used as an admixture, HIBOND is blended with the raw ingredients to increase adhesion to the substrate, cohesion between components of the mixture, and to increase the physical characteristics (durability/curing) of the end product.

Synthetic latexes such as HIBOND® are made by dispersing polyvinyl acetate (PVA) polymer particles in water to form a polymer emulsion. When this emulsion is painted on the surface, it forms a glue line that adds adhesiveness to the critical bonding point when additional concrete or plaster mixes are applied. When this same emulsion is added to cement or plaster mixes, the spheres of polymer will coalesce or come together to form a film that coats the aggregate particles and the hydrating cement grains. The resulting mixture bonds better to existing concrete, develops higher strengths, reduces chloride moisture penetration, and is more resistant to chemical attack than untreated concrete.

HIBOND® is a latex adhesive specially formulated to create a strong bond at the glue line when used as a "painted-on" bonding agent, or to increase adhesion and cohesion of cementitious or gypsum plaster mixes when used as an admixture.

Basic Uses - Bonding Agent

When used as "paint on" coating on a suitable substrate, HIBOND® dries to a uniform film that retains plasticity and never becomes brittle. It re-wets when exposed to wet concrete or plaster mixes creating a 3-way bond (chemical, mechanical, and adhesive). Chemical bond is formed as the wet cement mix is applied over the HIBOND® causing it to re-wet, forming a bond within the crystalline structure of the new material being applied. Mechanical bond is formed as the HIBOND® penetrates into the pores of the substrate forming a mechanical interlock or physical keying. Roughing or scarifying the substrate will give additional mechanical-physical keying. An adhesive bond is formed as the moisture evaporates from the HIBOND® developing adhesion within the surface pores of the base material.

Basic Uses - Admixture

When used as an admixture, part of the mixing water is replaced with HIBOND® that results in a mix that has greater adhesion, higher tensile strengths, and more cohesiveness. Portland cement type mixes become more impact resistant, less brittle, and have much greater adhesion especially when thin edging is required.

HIBOND® is a beneficial admixture when conventional cement mixes cannot be adequately cured. It establishes a superior curing characteristic that is very important to the complete hydration of thin applications of portland cement mixes. It forms a surface skin that reduces water evaporation along with its chemical ability as a polymer to attract and hold water for a complete cure.

Installation

Before using this product, please refer to the Material Safety Data Sheet for additional information. Proper handling precautions MUST be followed. The conditions of use, handling, and application of this product and information (whether verbal or written), including any suggested formulations and recommendations, are beyond Lambert Corporation's control. Therefore, it is imperative that testing be performed to determine satisfaction and suitability for intended use and health, safety, and environmental issues. The following

information is meant as a guideline of best industry practices. While Lambert Corporation does suggest adherence to these guidelines, unforeseeable variables and/or developed successful installer practices may cause variation in methods and/or results.

Surface Preparation

All spalling, scaling, crumbly material must be removed from surfaces and crevices, and the area rendered structurally sound. Dust, dirt, oil, wax, chalky or loose paint, mildew, rust and other foreign material must be removed for adequate bonding. New concrete must be allowed to cure according to industry standards.

Painted surfaces must be sound, washable, and firmly adhered to substrate. Do not apply HIBOND® over water-soluble calcimine paints or rusted surfaces. Wait 60 days before applying over newly painted surfaces. Glossy painted surfaces should be dulled or roughened with abrasive. When the surface causes water to bead like it does on wax paper, you will most likely have a problem with bonding. These areas need to be sandblasted, scarified, bush hammered, or acid etched to produce an acceptable open surface for bonding. If surface is questionable, apply a test patch with the product/system specified.

Never apply cement plaster or toppings where efflorescence is present. Efflorescence is a white soluble salt that breaks down the bond of any cement-based product. These areas need to be sandblasted to produce an acceptable sound, and open substrate for bonding.

Mixing and Application Instructions

Used as a Bonding Agent Only

Stir HIBOND® well prior to use, make sure no settling has occurred. HIBOND® should be used straight from container with no dilution for maximum bond strength. If concrete substrate is very porous, presoaking with clean water will prevent rapid water absorption from HIBOND®. Apply uniformly like a coat of lacquer using spray, brush, or roller. Form a continuous thin film over the entire surface to be bonded and allow to penetrate (15-20 minutes). Check to be sure there is no peeling or curling before applying wet plaster or cement. Film can be tacky or dry at time of application. Fresh films of HIBOND® are water sensitive as the product must re-emulsify upon application of the cement plaster.

Caution

On toppings of 1/2-inch (13 mm) or more use HIBOND® as a bonding grout mixed with portland cement as outlined in "Used as a Bonding Grout". On toppings of 1/2-inch (13 mm) or less, maximum adhesion and performance can be obtained by using HIBOND® as an admix in the new concrete, as well as a bonding agent at the glue line.

HIBOND® films lose much of their water sensitivity on aging and may not redisperse. If too much time passes between applying HIBOND® and placing a succeeding layer, the film could act more like a bond breaker. Maximum permissible open time is unpredictable and can vary from 1 to 4 weeks. Should the HIBOND® film lose its water sensitivity prior to application of cement plaster, a fresh coat of HIBOND® must be applied before plastering. If surface is questionable, apply a test patch with the product/system specified.

Used as a Bonding Agent For Cement Plaster Stucco

HIBOND® should be applied as described above. Prior to application of cement plaster inspect bonding agent application to assure a continuous film is over entire bonding surface. Re-apply over areas not satisfactorily covered. Protect film from dirt and debris until cement plaster finish is in place. For two-coat application of cement plaster/stucco, apply scratch coat a minimum of 3/8-inch (9.6 mm), allow to dry, then apply finish coat a minimum of 1/8-inch (3.2). Where two coats of cement plaster are necessary, only the first coat is bonded by HIBOND®. The first coat should be a minimum of 3/8-inch (9.6 mm) thick and permitted to dry before second coat application. If drying is not allowed, moisture in the finish coat will penetrate the scratch coat and flood the HIBOND® film (which has not had time to cure) resulting in a possible bond failure.

Used as an Admixture - Cement Mixes

Recommended levels of use for concrete admixture applications range from 5-10% polymer by weight, based on the Portland cement content of the mix. For every 94-pound (42.6kg) bag of cement used in a mix, 1 gallon (3.8L) of HIBOND® is required to obtain the minimum 5% concentration level, 2 gallons (7.6L) for maximum of 10% concentration.

Used as a Bonding Grout

Mix 1 gallon (3.8L) HIBOND® with 20-lbs (9.1kg) cement. Mix to a creamy consistency. Scrub grout onto prepared surface to be bonded. Mix only that quantity that can be used in 15 minutes. Place concrete before grout dries. Caution - If the concrete is manipulated after the HIBOND® has coalesced, cracking may occur on drying. Due to the short working time, steel-trowelled finishes are difficult if not impossible to produce without surface cracking.

Curing Procedures

A HIBOND® polymer film formed as the latex coalesces helps to maintain high levels of internal moisture in the concrete. Because of this, prolonged curing is neither necessary nor recommended.

Solvent-based sealers (and cure-and-seals) may have a slight softening effect on HIBOND® modified cement mixes if applied prior to full cure.

Limitations

Do not use where long-term exposure to constant water is possible. Polyvinyl acetate latexes (HIBOND®) require air curing and become less effective in very moist environments. HIBOND® provides excellent results with intermittent water exposure, but is not recommended for use in areas of continuous water exposure, such as swimming pools or water tanks. Use a non-rewettable product such as Lambert's liquid acrylic resin concrete admixture for areas of continuous water exposures.

Do not use where hydrostatic pressure is present in the substrate, on concrete that is frozen, or over efflorescence. Not recommended for use with anti-freeze agents, accelerators, or air entraining admixtures. HIBOND® latex emulsions have a minimum temperature below which the polymer spheres will not coalesce to form a tough durable film. This placement temperature is 45°F (7.2°C). Placing of concrete products at temperatures below 45°F (7.2°C) is not recommended

because of poor cement hydration and polymer coalescence. Placement at substrate temperatures above 85°F (29.4°C) is cautioned because the working time is generally too short. Pre-wetting concrete will lower substrate temperatures and improve working times.

FAST SET PATCHING CEMENTS MUST BE APPLIED WHILE HIBOND® FILM IS STILL TACKY.

Do not store HIBOND® below freezing temperatures. Prolonged freezing may damage contents. Frozen material should immediately be placed in a warm environment to gradually thaw. Direct heat should not be applied. If product can be stirred easily after thawing, bonding qualities most likely have not been lost. Apply a test patch with the system specified to determine bonding qualities of frozen HIBOND®.

Technical Data

Applicable Standards

- ASTM C 631
- ASTM C 1059, Type I
- MIL B - 19235C (Docks)
- CORPS OF ENG - CE 240.01

PHYSICAL DATA

Solids, % By Weight	50.0% -55.0%
Weight Per Gallon	9.4 lbs (1.1kg/L)
Shelf Life	6 months
Freeze - Thaw Stability	5 cycles
Odor	Very low
Specific Gravity	1.08

PROPERTY	TEST METHOD
Tensile Bond Strength	**ASTM C – 190** Pulling apart neat portland cement briquette halves bonded together.
RESULT: 380 PSI (2.6MPa), average 28 days. In all cases failure occurred in the cementitious material - not within the bond	
Flexural Bond Strength	**ASTM C-78** Concrete beams laminated with bonding agent
RESULT: 500 PSI (3.4MPa)	
Shear Bond Strength	**ASTM C-39** Slant shear cylinder test
RESULT: 460 PSI (3.2MPa), average 28 days	
Flammability	Laboratory tests for fire resistance
RESULT: Non-flammable, meets MIL-B-19235C	

Coverage

- Used straight as a "paint-on" bonding agent - 250 to 300 square feet per gallon (6.1-7.4 m^2/L)
- Used as admixture to cement mixes - For every 94-pound (42.6 kg) bag of cement used in a mix, 1 gallon (3.8 liter) of HIBOND is required to obtain the minimum 5% concentration level, 2 gallons (7.6 liters) for maximum 10% concentration.

Clean-Up & First Aid

Clean-Up

In case of spills, flush area with large amounts of water, place into appropriate container, and dispose of in accordance with applicable local regulations. Uncured HIBOND® can be removed with water. Cured HIBOND® can be softened with lacquer thinner.

First Aid

Inhalation - Remove to fresh air.

Eye and Skin Contact - Promptly wash eyes with plenty of water for 15 minutes. Consult a physician if irritation persists. Wash skin with soap and water.

Ingestion - Drink plenty of water, may cause irritation of the mouth, throat, or stomach. Do not induce vomiting. Seek medical attention for all over exposures.

KEEP OUT OF REACH OF CHILDREN.
FOR INDUSTRIAL USE ONLY.

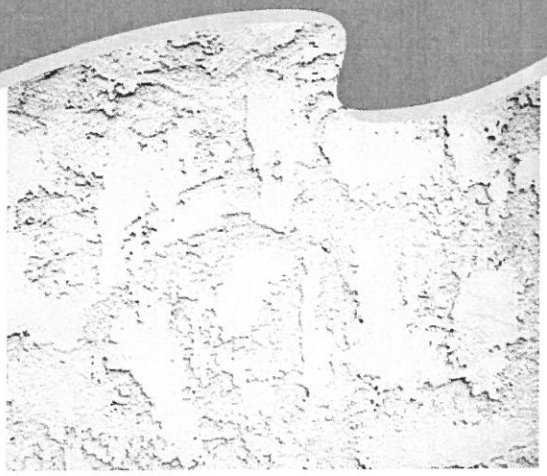
TITAN AMERICA

STUCCO CEMENT

TITAN AMERICA® Stucco Cement is specifically designed for the plastering trade. This product, the result of extensive testing and controlled production, has characteristics desired by the stucco applicator. Titan America® Stucco Cement, with proper proportions of sand and clean, potable water provides a smooth, workable mix that retains good consistency and develops a strong bond. While Titan America® Stucco Cement can inhibit moisture penetration, it is not waterproof and is not to be considered a moisture barrier for design or construction purposes.

- Extended water retention
- Superb workability
- Reliable performance
- Quality packaging

STUCCO CEMENT



RECOMMENDED USES

Titan America® Stucco Cement is specifically designed for interior and exterior applications of Portland Cement based plasters. It is common to see this product applied over wire lath, concrete unit masonry and cast-in-place concrete. Additional additives may be required to assist in the bonding of the Stucco to certain substrates such as cast-in-place or pre-cast concrete.

SPECIFICATIONS AND QUALITIES

Titan America® Stucco Cement is manufactured by inter-grinding Portland Cement Clinker (meeting ASTM C-150), Gypsum and Limerock. Water repellent and air-entraining admixtures are added during the manufacturing process to assist with workability and board life. Titan America® Stucco Cement meets or exceeds the requirements of ASTM C-91. Titan America® Stucco Cement when mixed with masonry sand (ASTM C-144) and tested according to ASTM C-270 will produce a mortar that complies with those requirements. Titan America® Stucco Cement, when mixed in accordance with ASTM C-1328, will produce stucco cement that meets or exceeds the requirements of that Standard.

INSTRUCTIONS

Titan America® Stucco Cement

Plaster Coats	PROPORTIONAL MIXING GUIDELINES		
	Titan America® Masonry 70 lb. bags	Sand/Arena	
		Parts/Partes Cement : Sand Cemento : Arena	Shovels/Part Palas/Parte
Scratch (Capa Inicial)	1 Bag	2 1/2 : 4	15–24
Brown (Segunda Capa)	1 Bag	3 : 4	18–24
Scratch (Capa Inicial)	1 Bag	2 : 3	12–24

- No allowance for waste, aggregate size or field conditions.
- One bag of Titan America® Stucco Cement is approximately one cubic foot by volume.
- Approximately six #2 shovels of damp, loose sand equals one cubic foot by volume.

CEMENT PREPARATION

Titan America® Stucco Cement will not perform as designed if the mixing instructions are not followed correctly. It is important to ensure that the product does not dry out prematurely; this condition can affect the overall strength and durability of the finished product. The cement should be mixed only with clean sand and potable water unless prior sampling shows potential job materials will produce the desired mortar.

Mix in a mechanical mixer as follows:

1) Add approximately 2/3 of the potable water required.
2) Add 1/2 of the sand required (ASTM C-144 approved).
3) Add Titan America® Stucco Cement.
4) Add the remainder of the sand (ASTM C-144 approved).
5) Add enough potable water to bring mortar to desired consistency.
6) Allow mortar to mix 5 minutes after the introduction of the last ingredient. Short mixing or overloading with sand can produce a lower mortar quality.

WALL PREPARATION

All surfaces to be plastered must be clean of contaminants and/or any debris, including excess uncured mortar from block masonry that may affect the Stucco Cement from achieving adequate bond. It is recommended, prior to any application, to determine whether there is a need for a bonding agent to assist in the attachment of the Stucco Cement. Concrete Block applications should be uniformly wet (fogged) just prior to application of the first and each succeeding plaster coat. To obtain the best results, some moisture should be maintained in the stucco (by fogging if necessary) for the first few days after application.

ACCESSORY PRODUCTS

The water and aggregate used in the mixing process should be free of any substance that could adversely affect the hardened masonry or any metal accessories used in the system.

APPLICATION

Estimated coverage per bag of material in square feet.

Parts* Partes	Thickness/Grueso			
	3/8"	3/8"	5/8"	7/8"
2 1/2 : 1	112	84	67	48
3 : 1	128	96	77	55
3 1/2 : 1	144	108	87	62
4 : 1	160	120	96	69

No allowance for waste, aggregate size or field conditions. Actual coverage will vary.
**Sand to Cement ratio.*

CAUTION

Causes skin irritation, injurious to eyes. Contains Portland Cement. Freshly mixed cement, mortar, concrete or grout may cause skin injury. Avoid contact with skin where possible and wash exposed skin areas promptly with water. If any cement or cement mixtures get into the eyes, rinse immediately and repeatedly with water for 15 minutes and get prompt medical attention.

KEEP OUT OF THE REACH OF CHILDREN

Titan Florida
11000 NW 121st Way
Medley, FL 33178

For additional information or to obtain Material Safety Data Sheets, please visit www.titanamerica.com or call Customer Service at (800) 226-2057.

Hand Delivered 10/10/17 to Mike Cummings

The Artec Group, Inc.
376 Interstate Court
Sarasota, FL 34240
Phone (941) 960-1378
Fax (350) 421-0490

Letter of Transmittal

To:	Chip Hayward – Michael Baker Inc.
From:	Richard Charleson – The Artec Group
Date:	8/14/2017
Job Reference #	PIE – St. Pete Clearwater International Airport Terminal Improvements

We are sending you the following:

⌋ Attached Δ Under Separate Cover Via_____the following items:

Shop Drawings Δ Prints Δ Plans Δ

Sample xΔ Specifications Δ Copy of Letter Δ Change Order

Copies	Date	Number	Description
			SUBMITTAL
1	8/11/2017		In-Spex Letter addressing the exterior building wrap

These are transmitted as checked below: Δ For Approval Δ Approved as Submitted

⌋ Resubmit_____copies for Approval

⌋ For your Use Δ Approved as Noted Δ Submit_____copies for distribution

⌋ As requested Δ Returned for corrections Δ Return_____corrected prints

XΔ For review and comment Δ other _____

⌋ For Bids due_____200_ Δ Prints returned after loaned to us

Remarks:

Copy to:_____Signed: Richard Charleson

✔ Select item ■ Review item

IN-SPEX
YOUR OUNCE OF PREVENTION
www.in-spexllc.com

In-Spex, LLC
377 S. Moss Rd.
Winter Springs, FL 32708
(407) 588-2561
mstarks@in-spexllc.com

August 11, 2017

Dan Scott
KHS &S Contractors
5422 Bay Center Dr.; Suite 200
Tampa, FL 33609

RE: WRBs at St. Petersburg/Clearwater Airport

Dan:
It appears that there are some irregularities specifically relating to the transmittal process and the timeline for Requests for Alternate/Equals or Substitutions. However, I am not privileged to have all of that documentation at my disposal; therefore, my comments are limited to the code/standards aspects of your issue.

Your specification clearly requires Tyvek Commercial Wrap, which complies with the requirements of in Section 1404.2 of the FBC 5th Edition.

> **1404.2 Water-resistive barrier.** A minimum of one layer of No.15 asphalt felt, complying with ASTM D 226 for Type 1 felt or other *approved* materials, shall be attached to the studs or sheathing, with flashing as described in Section 1405.4, in such a manner as to provide a continuous *water-resistive barrier* behind the *exterior wall* veneer.

There is further requirement in Section 1405.10.1.1 to install in accordance with Section 2510.6. This section is where you find the requirement for two layers.

> **2510.6 Water-resistive barriers.** *Water-resistive barriers* shall be installed as required in Section 1404.2 and, where applied over wood-based sheathing, shall include a water-resistive vapor-permeable barrier with a performance at least equivalent to two layers of Grade D paper. The individual layers shall be installed independently such that each layer provides a separate continuous plane and any flashing (installed in accordance with Section 1405.4) intended to drain to the water-resistive barrier is directed between the layers.
>
> > **Exception:** Where the *water-resistive barrier* that is applied over wood-based sheathing has a water resistance equal to or greater than that of 60-minute Grade D paper and is separated from the stucco by an intervening, substantially nonwater-absorbing layer or drainage space.

The point here is that both the Tyvek Commercial Wrap and the Jumbo-Tex 60 meet these requirements from a code perspective. Therefore, there can be no code deficiency as far as product is concerned. The two products are code equals.

Please call if I can be of further assistance.

G. Michael Starks CGC, CDT, CCPR, LEED BD & C
In-Spex, LLC

IN-SPEX
YOUR OUNCE OF PREVENTION
www.inspexllc.com

377 S Moss Rd.
Winter Springs, FL 32708
(407) 588-2561

G. Michael Starks

CGC, CDT, CCPR, LEED BD & C

Qualifications:

B.S. Florida Technological University (UCF), 1978.
Florida Certified Residential Contractor (CRC), 1985
Florida Certified General Contractor (CGC), 1990
Certified Structural Masonry Inspector – FC & PA
Masonry Association of Florida – Founding Member, Secretary 1988-1992
Florida Concrete & Products Association - Stucco Task Force – Sec/V Chair 2010-13
Florida Lath & Plaster Bureau – President 2013-17, founding member, VP - Secretary 2012-3
ASTM C-11 Committee – Voting Member
Secretary C 1063 Task Group 2010-11; Task Groups C926; C932: C897 & others
Construction Specification Institute (CSI) – President, Greater Orlando Chapter 2006
Education & Certification Chair 2008 – 2012
Institute Technical Documents Award - 2012
Certified Construction Documents Technician (CDT)
Certified Construction Products Representative (CCPR)
LEED AP-BD & C – 2008
Building Officials Association of Florida
Institute for Business & Home Safety – Fortified Evaluator Training
International Code Council

Certified Continuing Education Provider Numbers
Florida Construction Industry Licensing Board - PVD 918
Florida Board of Architecture - PVD 372

Background:

Mr. Starks entered the construction industry in 1981 in the plaster and drywall business on the supply/distribution side.

He moved to the manufacturer's side in 1986 with what was then Santee Cement. This company widely encouraged continuing education and this is where, through a thorough and continual extended education program, Mr. Starks gained his technical knowledge. At the same time, he was garnering practical knowledge on the jobsites he visited on a daily basis.

While all of this was going on and as a part of his continuing education program, Mr. Starks became licensed as a contractor. He eventually upgraded his license to Class A, General Contractor. He also was a founding member of the Masonry Association of Florida and founding member and Chairman of the Florida Lath & Plaster Bureau. In addition, he serves actively on the C11 committee of ASTM for Stucco, EIFS and Drywall Standards.

This varied experience gives Mr. Starks a rounded perspective on the issues facing our industry today. His daily dealings with contactors, subs, design professionals and code officials offer him an understanding of the problems faced by each of these players.

Proficiencies:

Project Scope, Specifications and Detail review;
Verification Inspections;
Technical Assistance and Troubleshooting for Masonry and Stucco;
Participation in Codes and Standards writing including ASTM C926, C1063, C932, C897, more
Develop and present Continuing Ed programs for Contractors, Inspectors & Architects;
Research and Development of new stucco related products and methods;
Development of technical marketing media.

Publications:

Articles
"Accelerators & Retarders for Portland Cement-Based Plaster," 2015
"Alligator-back: Causes & Corrections," 2015
"Surface-Applied & Integral Bonding Agents for Stucco," 2015
"Portland Cement/Lime vs. Masonry Cement/Stucco in Florida," 2015
"Stucco Over Expanded Metal Lath: Common Errors and Mistakes," 2015
"Decorative Cementitious Coating (DCC) & The FBC," 2015
"Plaster Application: The Double-back or Double-up Method," 2015
"Ghosting' in Stucco," 2015
"Lath Over Concrete Block – A Bad Idea," 2015
"Stucco Doesn't Leak...Hole Do. Liquid (Fluid)-Applied Barriers for Stucco," 2015
"When May I Paint My Stucco," 2015
"Stucco & pH – Lime Burn," 2015
"Rust Spots in Finished Plaster," 2015
"Seasonal Variations in Stucco Applications," 2015
"Stucco Tips & Troubleshooting Guide," 2015
"Masonry/Stucco Cements and Florida Code Approval," 2015
"Stucco on Concrete: Pre-Cast, Poured-in-Place & Tilt-up," 2015
"Coring Stucco to Determine Thickness," 2017

Continuing Education Classes
These classes are certified for up to 2 hours of Continuing Education for Architects, Contractors, Building Officials and Inspectors and Engineers licensed in Florida as well as Subcontractors, Manufacturers and Distributors. To date these classes have been delivered to well over one thousand license holders in Florida.

Stucco 101 – Water-Resistant Structures
Stucco – 10 Factors Affecting Project Success
Stucco – If You Do This...It will Leak!

Masonry Foundation of Florida
Masonry Workshop – Stucco on Solid Bases

Florida Lath & Plaster Bureau (editor)

Titan Florida
455 Fairway Drive
Deerfield Beach, FL 33441
Telephone (954) 481-2800
Fax (954) 421-0296

October, 2 2017

KHS&S
5422 Bay Center Dr.
Tampa, FL 33609

Mr Scott,

Titan America has looked at lab reports from Lake Wales mine and have concluded that the coarse sand is acceptable in use with our Titan Stucco cement. Under normal mining conditions the Lake Wales mine sand will continue to keep its gradation to a certain degree and there will be no noticeable differences on site. Titan Stucco Cement meets or exceeds the requirements of ASTM C-91. Sand should be in accordance with ASTM C 897-05.

Sincerely,

Tom Zimmerman
Territory Manager
Titan Florida

Received 10/10/17
Mike Cummings
Via: Hand Delivery

The Artec Group, Inc.
376 Interstate Court
Sarasota, FL 34240
Phone (941) 960-1378
Fax (350) 421-0490

Letter of Transmittal

To:	Chip Hayward – Michael Baker Inc.
From:	Daniel Heim – The Artec Group
Date:	7/25/2017
Job Reference #	PIE – St. Pete Clearwater International Airport Terminal Improvements

We are sending you the following:

☐ Attached ☐ Under Separate Cover Via _____ the following items:

Shop Drawings ☐ Prints ☐ Plans ☐ Sample

x☐ Specifications ☐ Copy of Letter ☐ Change Order

Copies	Date	Number	Description
			SUBMITTAL
1	7/25/17		Substitution request form # 001
1	7/25/17		Jumbo tex 60 submittal data
1	7/25/17		ICC evaluation form
1	7/25 17		Fortfiber Building Systems Group SDS sheets

These are transmitted as checked below: ☐ For Approval ☐ Approved as Submitted

☐ Resubmit _____ copies for Approval

☐ For your Use ☐ Approved as Noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

X☐ For review and comment ☐ other _____

☐ For Bids due _____ 200__ ☐ Prints returned after loaned to us

Remarks:

Product data for substitution request.

Copy to: _____ Signed: Daniel Heim_____

SUBSTITUTION REQUEST FORM

Substitution Request Number: 2 Date: 4 / 7 / 2017

General Contractor: The Artec Group

Project Name: St. Pete/Clearwater Airport / PIE

Project Location: 14700 Terminal Blvd # 221-Clearwater, Fl 33762

Architect's Project No.: 001544A

Specification Section: Glazing

Paragraph Number:

Original Product Specified: 1 5/16" Laminated Insulated Azuria Light with Solarban 70 XL # 2 Surface

Proposed Product Substitution: 1 5/16" Laminated Insulated PPG Solar Blue with Energy Select # 2 - TRULITE

General reason for not giving priority to Specified Items: Lead time

Answer the following questions: ***Circle One***

- Are extensive revisions to contract documents required? Yes (No)
- Proposed changes are in keeping with general intent of Contract Documents? (Yes) No
- Substitution affects other materials or systems? (If yes, attach complete data) Yes (No)
- Substitution requires dimensional revision or redesign of structure or MEP work? (If yes, attach complete data) Yes (No)
- Comparison of two products is attached to demonstrate equality of products? (Original specified item versus proposed substitution) (Yes) No
- The following data is furnished herewith for evaluation of the substitution:
  - ☐ Catalog Data Sheets ☐ Drawings ☐ Reports
  - ☐ Samples ☐ Test Data ☐ Other _____
- Are there any schedule impacts if the original product specified is used? (If yes, please indicate the number of calendar days: _____) Yes (No)
- Scheduled delivery date of original product: ___/___/___. 12 weeks out
- Scheduled delivery date of proposed substitution: ___/___/___. Days saved 42) 6 weeks out
- Is the original product acceptable to local building officials? (If no, please fill in data below) (Yes) No
  Contact at Building Department: _____
  Phone: ( ) - Ext. _____ Fax: ( ) - -
- Are there any savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $_____) Yes (No)
- Are there any life cycle costs savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $_____) Yes (No)
- Are there any additional costs that will be incurred by the Owner? (If yes, identify cost impact: $_____) Yes (No)
- Are there any additional costs that will be incurred by other trade contractors? (If yes, identify total cost impact: $_____) Yes (No)
- Is the specified product or material compatible with other products or materials scheduled or specified to be installed? (Yes) No
- Is the proposed substitution compatible with other materials scheduled or specified to be installed? (Yes) No

- Can the specified product or material be installed and coordinated with the installation of other products or materials specified to be installed? (Yes) No
- What is the warranty period for the originally specified product? 5 years on laminate 10 on insulated. Labor ____(Yrs) Material ____(Yrs)
- What is the warranty period for the proposed substitution? 5 years on laminate 10 on insulated Labor ____(Yrs) Years ____(Yrs)

By signature below the Contractor and/or Subcontractor proposing the material or product substitution hereby certify that the above noted information is true and accurate. The Contractor and/or subcontractor further certify that each of them waiver their rights to additional payment or time, that may subsequently become necessary because of failure of the substitution to perform adequately. **THE CONTRACTOR AND SUB-CONTRACTOR HEREBY FURTHER CERTIFY THAT THIS SUBMISSION HAS BEEN FULLY CHECKED AND COORDINATED WITH THE CONTRACT DOCUMENTS.**

Eric Johnson — 4/10/17
(Subcontractor's Signature) (Date)
Eric Johnson
(Printed Subcontractors Name)

Daniel Heim — 4/12/17
(Contractor's Signature) (Date)
Daniel Heim
(Printed Contractor's Name)

ARCHITECT'S ACTION AND/OR REVIEW COMMENTS:

The proposed Substitution Request has been reviewed for compliance with the Design Intent of the Contract Documents by the Architect, in accordance with the General and Supplementary Conditions of the Contract; However, this review shall not relieve the Contractor or the sub-contractor of their duties and responsibilities under the terms of the Contract, and/or the coordination and product incorporation provisions certified by the Contractor and sub-contractor above. The proposed Substitution shall **not** be incorporated into the project unless the marked accepted and Architect's acceptance is acknowledged by the Owner. The Architect's Review Comments and Response are as follows:

- ☐ Rejected; not accepted
- ☐ Revise and resubmit
- ☐ Accepted
- ☑ Accepted as noted below
- ☐ Additional Review Comments Attached
- ☐

THE GLASS COLORS FOR THE DOORS & STOREFRONT SHOULD MATCH IN COLOR; THE PROPOSED ALTERNATIVE MFG. WILL BE ACCEPTABLE

William A Haywood Jr — 5/2/2017
(Architect's Signature) (Date)
William A. Haywood, Jr.
(Printed Architect's Name)

ACKNOWLEDGEMENT OF SUBSTITUTION REQUEST BY OWNER:

Scott Yarlett — 5/2/2017
(Signature) (Date)
Scott Yarlett
(Printed Owner's Name)

END OF FORM

Substitution Request Number: 2 Date: 4/7/2017

Project Name: ST. PETE - CLEARWATER AIRPORT / PIE

Architect's Project No.:

Proposed Product Substitution: REFER TO PAGE 1

ARCHITECT'S ADDITIONAL REVIEW COMMENTS:

ATTACHED EMAIL CORRESPONDANCE REGARDING CLARIFICATION OF SAMPLES SUBMITTED & COLOR COPIES OF GLASS SAMPLES, PAGES 1-16 OF 16

END OF ADDITIONAL REVIEW COMMENTS

GUARDIAN GLASS | PERFORMANCE CALCULATOR

February 3, 2017
By Vanderpool, Glenn
gvanderpool@trulite.com

Trulite

Untitled glass type 1927

Make-up Name	Make-up Icon	Transmittance			Reflectance			U-Value		Relative Heat Gain (RHG)	Shading Coefficient (sc)	Solar Heat Gain Coefficient (SHGC)	Light To Solar Gain (LSG)	Thermal Stress
		Visible (τ_v %)	UV (τ_{uv} %)	Solar (τ_e %)	Visible ρ_v % out	Visible ρ_v % in	Solar ρ_e % out	Winter Night (Btu/hr ft² F)	Summer Day (Btu/hr ft² F)					(°F/C)
Default Make-up 01		31	0	11	21	11	43	0.28	0.26	53	0.25	0.22	1.42	Go
Default Make-up 02		41	0	16	7	11	15	0.28	0.26	55	0.26	0.23	1.83	Stop

Calculation Standard: NFRC 2010

Default Make-up 01

Outdoors

GLASS 1	AGC Clear Commercial (IGDB) Thickness = 1/4" = 6mm	#1 ----- #2 Energy Select™ 23 (IGDB)
GAP 1	100% Air, 1/2" = 12.7 mm	
GLASS 2	PPG Solarblue® glass (IGDB) Thickness = 1/4" = 6mm	#3 ----- #4 -----
INTERLAYER 1	0.090" (2.29mm) Saflex® R Clear PVB	
GLASS 3	Clear (North America) Thickness = 1/4" = 6mm	#5 ----- #6 -----

Total Unit (Nominal) = 1 11/32 in / 32.986 mm Slope = 90° Window Height = 1 meter

Estimated Nominal Glazing Weight: 9.12 lb/ft²

Indoors

Default Make-up 02

Outdoors

GLASS 1	PPG Solarblue® glass (IGDB) Thickness = 1/4" = 6mm	#1 ----- #2 PPG Solarban® 70XL for Tints (IGDB)
GAP 1	100% Air, 1/2" = 12.7 mm	
GLASS 2	Clear (North America) Thickness = 1/4" = 6mm	#3 ----- #4 -----
INTERLAYER 1	0.090" (2.29mm) Saflex® R Clear PVB	
GLASS 3	Clear (North America) Thickness = 1/4" = 6mm	#5 ----- #6 -----

Total Unit (Nominal) = 1 11/32 in / 32.986 mm Slope = 90° Window Height = 1 meter

Estimated Nominal Glazing Weight: 9.12 lb/ft²

Indoors

4

or building element over a range of frequencies.

Sound Transmission Class (STC) is a single-number quantity which characterizes the airborne sound insulation of a material or building element over a range of frequencies.

Disclaimer

This performance analysis is provided for the limited purpose of assisting the user in evaluating the performance of the glass products identified on this report. Spectral data for products manufactured by Guardian reflect nominal values derived from typical production samples. Spectral data for products not manufactured by Guardian were derived from the LBNL International Glazing Database and have not been independently verified by Guardian. The values calculated by this tool are generated according to established engineering practices and applicable calculation standards. Many factors may affect glass performance, including glass size, building orientation, shading, wind speed, type of installation, and others. The applicability and results of the analysis are directly related to user inputs and any changes in actual conditions can have a significant effect on the results. It is possible to create many different glazing types and glass make-ups using this tool. Guardian makes no guarantee that any glazing modeled by the tool is available from Guardian or any other manufacturer. The user has the responsibility to check with the manufacturer regarding availability of any glass type or make-up. While Guardian has made a good faith effort to verify the reliability of this tool, it may contain unknown programming errors that could result in incorrect results. The user assumes all risk relating to the results provided by the tool and is solely responsible for selection of appropriate products for the user's application. GUARDIAN MAKES NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND WITH RESPECT TO THE PERFORMANCE CALCULATOR. THERE ARE NO WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PERFORMANCE CALCULATOR AND NO WARRANTY SHALL BE IMPLIED BY OPERATION OF LAW OR OTHERWISE. IN NO EVENT SHALL GUARDIAN BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND RELATING TO OR RESULTING FROM USE OF THE PERFORMANCE CALCULATOR.

Program Version: 4.1.0.4938
Database Version: 20170131

Important Notes

The performance values shown above represent NOMINAL VALUES for the center of glass with no spacer system or framing. Slight variations may occur due to manufacturing tolerances, point of manufacture, and type of instrumentation used to measure the optical properties. For configurations that include non-specular (diffuse) components, performance results cannot be verified and should only be used as a general indication of performance. For configurations which include ceramic frit coating, the actual values may vary significantly based upon the thickness and composition of the frit. For configurations with coatings laminated facing the PVB, there may be a noticeable color change. Guardian recommends a full size mock-up be approved. Calculations and terms in this report are based on NFRC 2010.

Please note that the THERMAL STRESS GUIDELINE is only a rough reference to the thermal safety of a glazing. Other factors such as the size of glass areas, shapes and patterns, glass thickness, glass damaged during shipping, handling or installation, orientation of the building, exterior shading, overhangs/fins that reduce wind speed, and areas with high daily temperature fluctuations can all increase the probability of thermal breakage. The results shown are not for any specific glazing installation and do not constitute a warranty against glass breakage.

Explanation of Terms

% Transmittance Visible or Light Transmittance (τ_v %) is the percentage of visible light at normal incidence (90° to surface) that is transmitted by the glass.

% Ultraviolet (UV) Transmittance (τ_{uv} %) is the percentage of ultraviolet light at normal incidence directly transmitted by the glass. Ultraviolet Light is defined as radiant energy from the sun having a wavelength range of 300 nm to 380 nm.

% Solar Energy Direct Transmittance (τ_e %) is the percentage of solar energy at normal incidence directly transmitted by the glass. Solar Energy is the radiant energy from the sun having a wavelength range of 300 nm to 2500 nm.

% Reflectance Visible Outdoors or Light Reflectance Out (ρ_v % out) is the percentage of visible light at normal incidence directly reflected by the glass back outdoors.

% Reflectance Visible Indoors or Light Reflectance In (ρ_v % In) is the percentage of visible light at normal incidence directly reflected by the glass back indoors.

% Solar Energy Reflected Outdoors or Solar Direct Reflectance Out (ρ_e % out) is the percentage of solar energy at normal incidence directly reflected by the glass back outdoors.

% Solar Energy Reflected Indoors or Solar Direct Reflectance In (ρ_e % in) is the percentage of solar energy at normal incidence directly reflected by the glass back indoors.

Absorptance (α_e %) (Solar, Visible or UV) is defined as a process in which a range of radiation is retained by a substance and converted into heat energy. The creation of heat energy also causes the substance to emit its own radiation.

U-Factor or U-Value (U_G) is the air-to-air thermal conductance of 39" high glazing and associated air films. US Standard units are Btu/hr.ft².F. and SI / Metric units are W/m²K. Winter night values are 12.3 mph wind at -0.4°F outdoors and 69.8°F still indoor air. Summer values are 0 sun, 6.15 mph wind at 89.6°F outdoors and 75.2°F still indoor air.

Relative Heat Gain (RHG) is the total net heat gain to the indoors due to both the air-to-air thermal conductance and the solar heat gain. Imperial units are Btu/hr.ft². RHG = [(Summer U-Value)(89.6°F - 75.2°F) + (Shading Coefficient)(200 Btu/hr-ft²)]. Metric units are W/m². RHG = [(Summer U-Value)(32°C - 24°C) + (Shading Coef.)(631 W/m²)]

Shading Coefficient (SC) is the fraction of solar heat, direct (300 to 2500 nm) plus indirect (5 to 40 μm), transferred indoors through the glass. For reference, 1/8" (3.1 mm) clear glass has a value of 1.00 (SC is an older term being replaced by the SHGC).

Solar Heat Gain Coefficient (SHGC) is the fraction of solar energy incident on the glazing that is transferred indoors both directly and indirectly through the glazing. The direct gain portion equals the direct solar transmittance, while the indirect is the fraction of the solar energy absorbed to the energy reradiated and convected indoors. No heat gain from warmer outdoor air is included. SHGC = (Direct Solar Trans) + {[(Indirect Solar Heat Gain) - (Summer U-Value)(89.6°F - 75.2°F)] / (248.209 Btu/hr-ft²)}

Light-to-Solar Gain (LSG) is the ratio of visible light gain to solar gain. LSG = (Visible Transmittance) / (SHGC)

Color Rendering Index in transmission, D65 (R_a) is the change in color of an object as a result of the light being transmitted by the glass.

Weighted Sound Reduction Index (Rw) is a single-number quantity which characterizes the airborne sound insulation of a material

****Note: Architect to choose glass color and implement technical data from choice

Oldcastle BuildingEnvelope®

Date: May 19, 2016
Customer: Glass Pros of Tampa
Project: St Pete/Clearwater Airport
Location: Anywhere, USA
Glass Type: 1-5/16" Azuria/Solarban 70 w/090

INSULATING GLASS UNIT PERFORMANCE DATA

	ID #		Notes
Outboard:	5036	1/4" PPG Azuria®	a
Air Space:	1	1/2" Spacer, (Air Filled)	
Inboard:	5203	9/16" Custom Laminate	a
		Outer Ply: 1/4" Solarban® 70XL Lowe #4	
		Interlayer : .090 clear PVB	
		Inner Ply: 1/4" Clear	

Nominal Thickness: **1.259 Inches** f

Performance Properties	COG Results*	Units
Transmittance		
Visible Light	42	%
Solar Energy	14	%
Ultraviolet	<1	%
Reflectance		
Visible Light (Exterior)	14	%
Visible Light (Interior)	19	%
Solar Energy (Exterior)	9	%
Thermal		
Winter Nighttime		
U-factor/U-Value	0.45	Btu/hr-ft^2-°F
Summer Daytime		
U-factor/U-Value	0.48	Btu/hr-ft^2-°F
Shading Coefficient	0.36	-
Solar Heat Gain Coefficient	0.31	-
Relative Heat Gain	78	Btu/hr-ft^2
Light to Solar Gain	1.35	-

***Vertically Glazed Center Of Glass (COG) Results Calculated Using LBNL Window 6.3 Software.**

Notes: a) NFRC certified spectral data file
b) Data generated by Oldcastle BuildingEnvelope®
c) Average solar data
d) Simulated with LBNL Optics 6.0
e) Vendor supplied spectral data file
f) Please reference ASTM C1036 and C1172 for allowable glass thickness variations

(7)

Hayward Jr., William A

From: Daniel Heim <DHeim@theartecgroup.com>
Sent: Friday, April 28, 2017 10:41 AM
To: Hayward Jr., William A; Gutierrez-Lanier, Karina; Michael Cummings (mcummings@aidinc.us)
Cc: Michael Nettles; Richard Charleson; Louis Sanchez
Subject: RE: PIE Gates 7-10 Terminal Addition-Glass Samples

Thank you.

Daniel Heim
Project Manager
THE ARTEC GROUP, INC.
http://www.theartecgroup.com
941.960.1378 Office
941.306.8406 Cell
305.421.0490 Fax

DoD NFESC "Red Team" ATFP Specialist
"Building the Foundations of American Freedom and Security"

From: Hayward Jr., William A [mailto:CHayward@mbakerintl.com]
Sent: Friday, April 28, 2017 10:39 AM
To: Daniel Heim <DHeim@theartecgroup.com>; Gutierrez-Lanier, Karina <KGutierrez-Lanier@mbakerintl.com>; Michael Cummings (mcummings@aidinc.us) <mcummings@aidinc.us>
Cc: Michael Nettles <MNettles@theartecgroup.com>; Richard Charleson <RCharleson@theartecgroup.com>; Louis Sanchez <LSanchez@theartecgroup.com>
Subject: RE: PIE Gates 7-10 Terminal Addition-Glass Samples
Importance: High

Thanks Dan, this clears up several concerns regarding the color variance in the samples provided. We will move forward with the processing of the substitution request.

William A. (Chip) Hayward Jr. AIA, CSI-CCCA, LEED GA
Senior Associate/Architect | Michael Baker International
5020 West Linebaugh Avenue, Suite 240 | Tampa, FL 33624 | [O] 813-466-6022
chayward@mbakerintl.com | www.mbakerintl.com

Michael Baker INTERNATIONAL | We Make a Difference

Connect with us:

From: Daniel Heim [mailto:DHeim@theartecgroup.com]
Sent: Friday, April 28, 2017 10:22 AM
To: Hayward Jr., William A <CHayward@mbakerintl.com>; Gutierrez-Lanier, Karina <KGutierrez-Lanier@mbakerintl.com>; Michael Cummings (mcummings@aidinc.us) <mcummings@aidinc.us>
Cc: Michael Nettles <MNettles@theartecgroup.com>; Richard Charleson <RCharleson@theartecgroup.com>; Louis Sanchez <LSanchez@theartecgroup.com>
Subject: FW: PIE Gates 7-10 Terminal Addition-Glass Samples

Karina, Chip. Please review this narrative I have received regarding the glass substitution request. If there is any other information or submittals you require please let me know.
Thank you.

Daniel Heim
Project Manager
THE ARTEC GROUP, INC.
http://www.theartecgroup.com
941.960.1378 Office
941.306.8406 Cell
305.421.0490 Fax

DoD NFESC "Red Team" ATFP Specialist
"Building the Foundations of American Freedom and Security"

From: Eric Johnson [mailto:eric@glassprostampa.com]
Sent: Friday, April 28, 2017 9:23 AM
To: Daniel Heim <DHeim@theartecgroup.com>
Cc: 'Ginnie ' <sales@glassprostampa.com>
Subject: RE: PIE Gates 7-10 Terminal Addition-Glass Samples

Morning Daniel,

Let's try this narrative first. I'll refer to the sample by the number on upper right hand corner.

3673:4 is for the 1" glass unit in doors.

1/423TT (C2)	Clear glass w/ low E
1/4AL	¼" Air Space
1/4LOA	**¼" Blue Glass Annealed**

.090CL	PVB (poly vinyl butyl) interlayer clear color
3/16CLA	**3/16" Clear Glass Annealed**

3622:4 is for the 1 5/16" glass unit in storefront.

1/423TT(C2)	Clear glass w/ low e
1/2AL	½" Air Space
1/4LOHS	**¼" Blue Glass Heat Strengthened**
.090CL	PVB (poly vinyl butyl) interlayer clear color
1/4CLHS	**¼" Clear Heat Strengthened**

The items in bold and in green vs purple are what we believe to be the items in question.

The glass fabricators (in this case TruLite) made the units glass in green with annealed glass. The units glass in purple was made with heat strengthened. There is a separate department that makes samples and they don't always fabricate the units specific to the safety requirements for samples. For example....if we ordered a standard 1" insulated unit using clear tempered glass; the sample department may vary well send us a 1" unit using clear annealed glass.

This being said, the importance of approving the "samples" are for color and to compare the technical data the accompanies each. We use the approval of the samples for these items. When it comes to releasing the glass order, we are restricted to only order the glass in the make up and glass types (heat strengthened, annealed or tempered) as to how the manufacturer has received their FPA. So, the FPA dictates the glass types and make-up and the samples are for reference of color specific to Architects design.

I hope this helps.

Eric Johnson
President/Owner
Glass Pros of Tampa
4912 N. Manhattan Ave.
Tampa, Fl. 33614
P: 813-630-9774
F: 813-630-4195

From: Daniel Heim [mailto:DHeim@theartecgroup.com]
Sent: Thursday, April 27, 2017 12:56 PM
To: 'Eric Johnson'
Cc: 'Ginnie '
Subject: FW: PIE Gates 7-10 Terminal Addition-Glass Samples

Eric please review this E-mail trail as it was the basis for discussion to Tuesday. I still need clarification or I say Chip the architect still needs this clarification for the approval of the substitution request. If you think a written narrative of our conversation is adequate then please provide. Otherwise I think we need to schedule a meeting with him and Scott to get this resolved so you can move forward on the glass order. Also you were checking into resubmittals for the glass canopy units as well.
Thank you.

Daniel Heim
Project Manager
THE ARTEC GROUP, INC.
http://www.theartecgroup.com
941.960.1378 Office
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From: Gutierrez-Lanier, Karina [mailto:KGutierrez-Lanier@mbakerintl.com]
Sent: Tuesday, April 18, 2017 12:22 PM
To: Daniel Heim <DHeim@theartecgroup.com>
Cc: Scott Yarley (syarley@fly2pie.com) <syarley@fly2pie.com>; Michael Nettles <MNettles@theartecgroup.com>; Richard Charleson <RCharleson@theartecgroup.com>; Mohsen Mohammadi <mohsen@aidinc.us>; Louis Sanchez <LSanchez@theartecgroup.com>; Michael Cummings <mcummings@aidinc.us>; Hayward Jr., William A <CHayward@mbakerintl.com>
Subject: RE: PIE Gates 7-10 Terminal Addition-Glass Samples

Dan,

As a follow up to the email about the glass substitution request, I am sending you a picture of the previously "accepted" glass sample for color next to the two glass samples provided to us.
I have also attached a picture of the stickers in each of the samples, two pictures total.

Please let us know which of the two samples provided to us is the one in the substitution request.

We will need to know this to be able to process the substitution request and glass sample.
Based on your previous correspondence/email we understand you are working on resolution of this question. We are sending these photos as a clarification of the issue.

Thank you,

Karina Gutierrez | Design Associate | Michael Baker International
5020 West Linebaugh Avenue, Suite 240 | Tampa, FL 33624 | [O] 813-466-6023
KGutierrez-Lanier@mbakerintl.com | www.mbakerintl.com

Michael Baker INTERNATIONAL | *We Make a Difference*

Connect with us:

From: Michael Cummings [mailto:mcummings@aidinc.us]
Sent: Monday, April 17, 2017 10:27 AM
To: Daniel Heim <DHeim@theartecgroup.com>; Hayward Jr., William A <CHayward@mbakerintl.com>
Cc: Gutierrez-Lanier, Karina <KGutierrez-Lanier@mbakerintl.com>; Scott Yarley (syarley@fly2pie.com)

<syarley@fly2pie.com>; Michael Nettles <MNettles@theartecgroup.com>; Richard Charleson <RCharleson@theartecgroup.com>; Mohsen Mohammadi <mohsen@aidinc.us>; Louis Sanchez <LSanchez@theartecgroup.com>
Subject: RE: PIE Gates 7-10 Terminal Addition-Glass Samples

Thanks Chip and Daniel,

Obviously everyone understands the importance in closing these final details with the glass. Please let's do everything possible to get these issues closed so the glass can be released by COB tomorrow.

Thanks,
-Mike

From: Daniel Heim [mailto:DHeim@theartecgroup.com]
Sent: Monday, April 17, 2017 9:55 AM
To: 'Hayward Jr., William A' <CHayward@mbakerintl.com>
Cc: Michael Cummings <mcummings@aidinc.us>; Gutierrez-Lanier, Karina <KGutierrez-Lanier@mbakerintl.com>; Scott Yarley (syarley@fly2pie.com) <syarley@fly2pie.com>; Michael Nettles <MNettles@theartecgroup.com>; Richard Charleson <RCharleson@theartecgroup.com>
Subject: RE: PIE Gates 7-10 Terminal Addition-Glass Samples

Thank you for the quick response to the samples. I will get on this request and hope to have this information for our meeting tomorrow.

Daniel Heim
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DoD NFESC "Red Team" ATFP Specialist
"Building the Foundations of American Freedom and Security"

From: Hayward Jr., William A [mailto:CHayward@mbakerintl.com]
Sent: Monday, April 17, 2017 9:45 AM
To: Daniel Heim <DHeim@theartecgroup.com>
Cc: Michael Cummings <mcummings@aidinc.us>; Gutierrez-Lanier, Karina <KGutierrez-Lanier@mbakerintl.com>; Scott Yarley (syarley@fly2pie.com) <syarley@fly2pie.com>
Subject: PIE Gates 7-10 Terminal Addition-Glass Samples
Importance: High

Dan,

We need an explanation of what the two glass samples are, they are slightly different in shade and it is not clear what the differences are. Can you get us a quick narrative of what the two samples are; the technical description on the label is different, so it is not clear what is being presented.

We will also need a sample of the spandrel glass that is scheduled to go over the door at some point.

The glass samples were compared to the control sample and we are close to finalizing this.

William A. (Chip) Hayward Jr. AIA, CSI-CCCA, LEED GA
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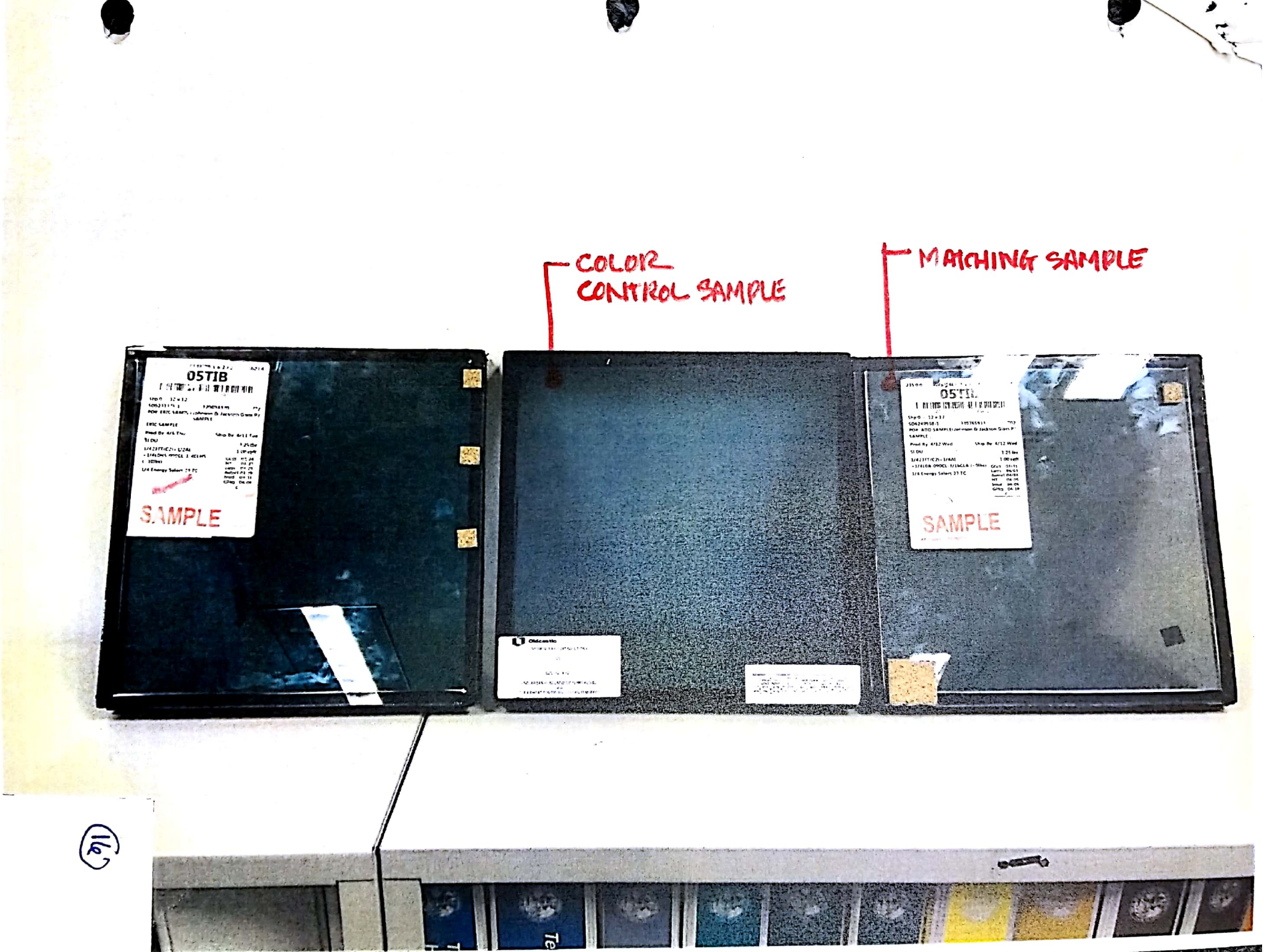

(16)

RETURNED 10/26/2017
CC: SCOTT YARLEY, MIKE CUMMINGS, VINCE KOVACH, FILE/SHARE POINT

SUBSTITUTION REQUEST FORM

Substitution Request Number: _____ Date: 10/16/17

General Contractor: SPACE COAST FIRE & SAFETY

Project Name: ST. PETE TERMINAL

Project Location: Clearwater, FL

Architect's Project No.: 1406.01

Specification Section: 15210-8.C

Paragraph Number: 2.23

Original Product Specified: Potter-Roemer, Elkhart or Allen

Proposed Product Substitution: GUARDIAN 2040 VALVE CABINET, 5015 HOSE VALVE

General reason for not giving priority to Specified Items: Availability

product originally submitted in January 2017

Answer the following questions:

	Circle One	
◦ Are extensive revisions to contract documents required?	Yes	(No)
◦ Proposed changes are in keeping with general intent of Contract Documents?	(Yes)	No
◦ Substitution affects other materials or systems? (If yes, attach complete data)	Yes	(No)
◦ Substitution requires dimensional revision or redesign of structure or MEP work? (If yes, attach complete data)	Yes	(No)
◦ Comparison of two products is attached to demonstrate equality of products? (Original specified item versus proposed substitution)	Yes	No

◦ The following data is furnished herewith for evaluation of the substitution:

☒ Catalog Data Sheets ☐ Drawings ☐ Reports
☐ Samples ☐ Test Data ☐ Other _____

◦ Are there any schedule impacts if the original product specified is used? (If yes, please indicate the number of calendar days: _____)	Yes	(No)
◦ Scheduled delivery date of original product: ___/___/___.		
◦ Scheduled delivery date of proposed substitution: ___/___/___. Days saved ___)		
◦ Is the original product acceptable to local building officials? (If no, please fill in data below)	(Yes)	No

Contact at Building Department: _____

Phone: (___) ___ - _____ Ext. _____ Fax: (___) ___ - _____

◦ Are there any savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $_____)	Yes	(No)
◦ Are there any life cycle costs savings that will accrue to the Owner for use of the proposed substitution? (If yes, please indicate amount: $_____)	Yes	(No)
◦ Are there any additional costs that will be incurred by the Owner? (If yes, identify cost impact: $_____)	Yes	(No)
◦ Are there any additional costs that will be incurred by other trade contractors? (If yes, identify total cost impact: $_____)	Yes	(No)
◦ Is the specified product or material compatible with other products or materials scheduled or specified to be installed?	(Yes)	No
◦ Is the proposed substitution compatible with other materials scheduled or specified to be installed?	(Yes)	No

- Can the specified product or material be installed and coordinated with the installation of other products or materials specified to be installed? Yes No
- What is the warranty period for the originally specified product? Labor 1 (Yrs) Material 1 (Yrs)
- What is the warranty period for the proposed substitution? Labor 1 (Yrs) Years 1 (Yrs)

By signature below the Contractor and/or Subcontractor proposing the material or product substitution hereby certify that the above noted information is true and accurate. The Contractor and/or subcontractor further certify that each of them waiver their rights to additional payment or time, that may subsequently become necessary because of failure of the substitution to perform adequately. THE CONTRACTOR AND SUB-CONTRACTOR HEREBY FURTHER CERTIFY THAT THIS SUBMISSION HAS BEEN FULLY CHECKED AND COORDINATED WITH THE CONTRACT DOCUMENTS.

(Subcontractor's Signature) 10/16/17 (Date)

RAY COLE
(Printed Subcontractor's Name)

(Contractor's Signature) 10/25/17 (Date)

Daniel Heim
(Printed Contractor's Name)

ARCHITECT'S ACTION AND/OR REVIEW COMMENTS:

The proposed Substitution Request has been reviewed for compliance with the Design Intent of the Contract Documents by the Architect, in accordance with the General and Supplementary Conditions of the Contract; However, this review shall not relieve the Contractor or the sub-contractor of their duties and responsibilities under the terms of the Contract, and/or the coordination and product incorporation provisions certified by the Contractor and sub-contractor above. The proposed Substitution shall **not** be incorporated into the project unless the marked accepted and Architect's acceptance is acknowledged by the Owner. The Architect's Review Comments and Response are as follows:

- ☒ Rejected; not accepted
- ☐ Revise and resubmit
- ☐ Accepted
- ☐ Accepted as noted below
- ☐ Additional Review Comments Attached
- ☒ A COMINATION FE & FIRE HOSE CABINET WILL BE REQUIRED DUE TO CONFLICTS WITH THE LIGHT SWITCHES & FUTURE STAIR DOOR SWING.

(Architect's Signature) 10/20/2017 (Date)

(Printed Architect's Name)

ACKNOWLEDGEMENT OF SUBSTITUTION REQUEST BY OWNER:

(Signature) / / (Date)

(Printed Owner's Name)

END OF FORM

Substitution Request Number: Date: / /

Project Name:

Architect's Project No.:

Proposed Product Substitution:

ARCHITECT'S ADDITIONAL REVIEW COMMENTS:

END OF ADDITIONAL REVIEW COMMENTS