



EVALUATION REPORT

FLORIDA BUILDING CODE, 6TH EDITION (2017)

Manufacturer: JOHNS MANVILLE CORPORATION
P.O. Box 5108
Denver, CO 80217
(303) 978-2478
www.jm.com

Issued December 14, 2017

Manufacturing Plants: Scottsboro, AL
Pawtucket, RI
Lancaster, SC

Quality Assurance: UL LLC (QUA9625)

SCOPE

Category: Roofing
Subcategory: Single Ply Roof System
Code Sections: 1504.3.1, 1504.6, 1504.7, 1507.13, 1515.1.1, 1515.1.4, 1515.2.4, 1523.1.1, 1523.6.2, 1523.6.5.2.9
Properties: Wind Resistance, Physical Properties, Impact Resistance

PRODUCT DESCRIPTION

Products	Specification	Description
JM PVC-50 mil	ASTM D 4434	Nominal 50-mil thick polyvinyl chloride with DuPont™ Elvaloy KEE single-ply roof membrane with polyester scrim reinforcement
JM PVC-60 mil	ASTM D 4434	Nominal 60-mil thick polyvinyl chloride with DuPont™ Elvaloy KEE single-ply roof membrane with polyester scrim reinforcement
JM PVC-80 mil	ASTM D 4434	Nominal 80-mil thick polyvinyl chloride with DuPont™ Elvaloy KEE single-ply roof membrane with polyester scrim reinforcement
JM PVC Fleece Backed-50 mil	ASTM D 4434	Nominal 50-mil thick polyvinyl chloride with DuPont™ Elvaloy KEE single-ply roof membrane with polyester scrim reinforcement and polyester fleece backing
JM PVC Fleece Backed-60 mil	ASTM D 4434	Nominal 60-mil thick polyvinyl chloride with DuPont™ Elvaloy KEE single-ply roof membrane with polyester scrim reinforcement and polyester fleece backing
JM PVC Fleece Backed-80 mil	ASTM D 4434	Nominal 80-mil thick polyvinyl chloride with DuPont™ Elvaloy KEE single-ply roof membrane with polyester scrim reinforcement and polyester fleece backing
JM PVC SD Plus-50 mil	ASTM D 4434	Nominal 50-mil thick polyvinyl chloride single-ply roof membrane with polyester scrim reinforcement
JM PVC SD Plus-60 mil	ASTM D 4434	Nominal 60-mil thick polyvinyl chloride single-ply roof membrane with polyester scrim reinforcement
JM PVC SD Plus-80 mil	ASTM D 4434	Nominal 80-mil thick polyvinyl chloride single-ply roof membrane with polyester scrim reinforcement
JM TPO-45	ASTM D 6878 TAS 131	Nominal 45-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement
JM TPO-60	ASTM D 6878 TAS 131	Nominal 60-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement
JM TPO-80	ASTM D 6878 TAS 131	Nominal 80-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement



Products	Specification	Description
JM TPO FB 115	ASTM D 6878 TAS 131	Nominal 60-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement and polyester fleece backing
JM TPO FB 135	ASTM D 6878 TAS 131	Nominal 80-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement and polyester fleece backing
JM TPO FB 150	ASTM D 6878 TAS 131	Nominal 60-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement and heavy polyester fleece backing
JM TPO FB 175	ASTM D 6878 TAS 131	Nominal 80-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement and heavy polyester fleece backing
JM TPO SA-60 mil	ASTM D 6878 TAS 131	Nominal 60-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement and a self-adhesive backing

REFERENCES

Entity	Report No.	Standard
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-026	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-027	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-028	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-029	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-030	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-031	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-032	TAS 114(D) (1995)
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Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-034	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-035	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-036	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-037	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-038	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-039	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-040	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-041	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-042	TAS 114(D) (1995)
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Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-044	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-045	TAS 114(D) (1995)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-046	TAS 114(D) (1995)
FM Approvals (TST1867)	3009502	FM 4470 (2012)
FM Approvals (TST1867)	3012321	FM 4470 (2012)
FM Approvals (TST1867)	3014692	FM 4470 (2012)
FM Approvals (TST1867)	3014751	FM 4470 (2012)
FM Approvals (TST1867)	3015444	FM 4470 (2012)
FM Approvals (TST1867)	3016629	FM 4470 (2012)
FM Approvals (TST1867)	3018579	FM 4450 (1989)
FM Approvals (TST1867)	3018807	FM 4470 (2012)
FM Approvals (TST1867)	3025168	FM 4470 (2012)
FM Approvals (TST1867)	3025170	FM 4470 (2012)
FM Approvals (TST1867)	3025245	FM 4470 (2012)
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FM Approvals (TST1867)	3028040	FM 4470 (2012)
FM Approvals (TST1867)	3030259	FM 4470 (2012)
FM Approvals (TST1867)	3030351	FM 4470 (2012)
FM Approvals (TST1867)	3030383	FM 4470 (2012)
FM Approvals (TST1867)	3031670	FM 4470 (2012)
FM Approvals (TST1867)	3033308	FM 4470 (2012)
FM Approvals (TST1867)	3035191	FM 4470 (2012)
FM Approvals (TST1867)	3035538	FM 4470 (2012)
FM Approvals (TST1867)	3037110	FM 4470 (2012)
FM Approvals (TST1867)	3037110	FM 4470 (2012)



Entity	Report No.	Standard
FM Approvals (TST1867)	3037540	FM 4450 (1989)
FM Approvals (TST1867)	3039813	FM 4470 (2012)
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FM Approvals (TST1867)	3043824	FM 4470 (2012)
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FM Approvals (TST1867)	3056303	FM 4470 (2012)
FM Approvals (TST1867)	3056677	FM 4470 (2012)
FM Approvals (TST1867)	3058201	FM 4470 (2012)
FM Approvals (TST1867)	3058326	FM 4470 (2012)
FM Approvals (TST1867)	3058374	FM 4470 (2012)
FM Approvals (TST1867)	3059030	FM 4470 (2012)
FM Approvals (TST1867)	3060138	FM 4470 (2012)
FM Approvals (TST1867)	3060573	FM 4470 (2012)
FM Approvals (TST1867)	3060614	FM 4470 (2012)
FM Approvals (TST1867)	3061218	FM 4470 (2012)
Miami-Dade (EVL1528)	12-0216.01	TAS 114(J) (1995)
Miami-Dade (EVL1528)	13-0307.02	TAS 114(J) (1995)
Miami-Dade (EVL1528)	13-0617.20	TAS 114(J) (1995)
Miami-Dade (EVL1528)	14-0627.08	TAS 114(J) (1995)
Momentum Technologies (TST2508)	CX23G3A	ASTM D 4434 (2012)
Momentum Technologies (TST2508)	NX21J0A	ASTM D 4434 (2012)
Momentum Technologies (TST2508)	NX21J0B	ASTM D 4434 (2012)
Momentum Technologies (TST2508)	NX21J0C	ASTM D 4434 (2012)
Momentum Technologies (TST2508)	RX10A8A	TAS 131 (1995)
Momentum Technologies (TST2508)	RX10A8B	TAS 131 (1995)
Momentum Technologies (TST2508)	RX14C8A	TAS 131 (1995)
PRI Construction Materials Technologies (TST5878)	JMC-086-02-01	FM 4474 (2011); TAS 114(J) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-088-02-01	ASTM D 1876 (2008); TAS 117(B) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-107-02-01 Rev 4	ASTM D 903 (1998); ASTM D 1876 (2008); ASTM D 5147 (2011a); TAS 117(B & A) (1995); TAS 114(C) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-108-02-01	FM 4474 (2011); TAS 114 (J) (1995)
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PRI Construction Materials Technologies (TST5878)	JMC-114-02-01	FM 4474 (2011); TAS 114 (J) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-131-02-01	FM 4474 (2011); TAS 114 (D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-132-02-01	FM 4474 (2011); TAS 114(D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-132-02-02	FM 4474 (2011); TAS 114(D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-141-02-01	FM 4474 (2011); TAS 114(J) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-143-02-01	FM 4474 (2011); TAS 114(D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-162-02-01	FM 4474 (2011); TAS 114(D) (1995)
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PRI Construction Materials Technologies (TST5878)	JMC-193-02-01A	FM 4474 (2011); TAS 114(D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-196-02-01	TAS 117(A) & (B) (1995)
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PRI Construction Materials Technologies (TST5878)	JMC-201-02-01B	FM 4474 (2011); TAS 114(J) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-205-02-01	ASTM D 3746 [(1985)(2015)]
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PRI Construction Materials Technologies (TST5878)	JMC-226-02-01	ASTM D 6878 (2011a)
PRI Construction Materials Technologies (TST5878)	JMC-242-02-01	FM 4474(D) (2011); TAS 114(J) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-245-02-02	FM 4474(B) (2011); TAS 114(D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-246-02-01	FM 4474(B) (2011); TAS 114(D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-267-02-02	FM 4474(B) (2011); TAS 114(D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-277-02-01	FM 4474(B) (2011); TAS 114(D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-278-02-01A	FM 4474(C) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-278-02-02	FM 4474(D) (2011); TAS 114(J) (1995); UL 1897 (2012)



<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>
PRI Construction Materials Technologies (TST5878)	JMC-278-02-03	FM 4474(D) (2011); TAS 114(J) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-303-02-01	FM 4474(D) (2011); TAS 114(J) (1995); UL 1897 (2012)
PRI Construction Materials Technologies (TST5878)	JMC-306-02-01	FM 4474(B) (2011); TAS 114(D) (1995)
PRI Construction Materials Technologies (TST5878)	JMC-306-02-02	FM 4474(D) (2011); TAS 114(J) (1995); UL 1897 (2012)
PRI Construction Materials Technologies (TST5878)	JMC-306-02-03	FM 4474(D) (2011); TAS 114(J) (1995); UL 1897 (2012)
PRI Construction Materials Technologies (TST5878)	JMC-311-02-01	FM 4474(B) (2011); TAS 114(D) (1995)
Robert J.M. Nieminen, P.E.	Compliance Letter 02/09/2017	TAS 114 (2011)
Trinity ERD (TST6049)	J33600.08.13	TAS 131 (1995)
Trinity ERD (TST6049)	J45020.05.13-1	TAS 114(C) (1995)
Trinity ERD (TST6049)	J45020.09.13-1-R1	TAS 114(C) (1995)
Trinity ERD (TST6049)	JM-SC11190.03.16	TAS 114(J) (1995)
Trinity ERD (TST6049)	JM-SC11320.03.16	TAS 114(D) (1995)
Trinity ERD (TST6049)	JM-SC12145.02.17	FM 4474(C) (2004)
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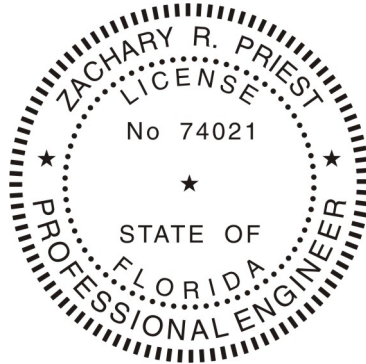


LIMITATIONS

1. Fire classification is not within the scope of this evaluation.
2. Foam plastic insulation shall be separated from the building interior in accordance with the FBC 2603.4 and 2603.6.
3. The roof deck and the roof deck attachment shall be designed by others to meet the minimum design loads established for components and cladding.
4. In the HVHZ, fastener spacing for insulation attachment is determined using a Minimum Characteristic Force (F') of 275 lbf as demonstrated via testing to TAS 105. If the field tested fastener value is below 275 lbf, then insulation attachment shall not be acceptable.
5. In the HVHZ, fastener spacing for base sheets or membrane attachment shall meet the minimum fastener resistance value and the *MDP* for the specified assembly. It is permissible for a qualified professional to submit a revised fastener spacing utilizing the withdrawal resistance value obtained from TAS 105 testing and calculations performed in accordance with RAS 117 and/or RAS 137, when the fastener resistance is found less than required.
6. In the HVHZ, if mechanical attachment through the lightweight insulating concrete to the structural deck is proposed, a field fastener withdrawal test shall be conducted in compliance with TAS 105 to determine equivalent or increased attachment densities. Revised fastener densities shall be submitted utilizing the withdrawal resistance value obtained from TAS 105 testing and calculations performed in accordance with RAS 117 and/or RAS 137.
7. For assemblies containing mechanical attachment, the allowable uplift pressure for the selected assembly shall meet or exceed the minimum design loads as determined in accordance with the FBC Chapter 16. For perimeter and corner roof zones 2 and 3, the attachment density may be increased by a qualified design professional, as necessary, to meet the design pressure requirements in these areas. In the HVHZ, calculations shall be conducted in compliance with RAS 117 and/or RAS 137. Outside the HVHZ, commonly used standards include RAS 117, FM LPDS 1-29, or ANSI/SPRI WD-1.
8. Reroofing applications shall be examined in accordance with FBC Section 1511 outside of the HVHZ and FBC Section 1521 within the HVHZ. For mechanically fastened systems, a field withdrawal resistance test (TAS 105 in the HVHZ; ANSI/SPRI FX-1 or TAS 105 in the non-HVHZ) shall be conducted by a qualified professional to ensure the fastener meets the minimum design load requirements of the system. For adhered systems, a field uplift resistance test (TAS 124 in the HVHZ; ASTM E 907, FM LPDS 1-52, ANSI/SPRI IA-1, or TAS 124 in the non-HVHZ) shall be conducted to confirm conformance of the existing to the minimum design loads.
9. For assemblies containing fully adhered or ribbon adhered attachment, or where extrapolation of the assembly is not permitted, the *MDP* for the selected assembly shall meet or exceed the minimum design loads as determined in accordance with the FBC Chapter 16 without augmentation.
10. Installation of the evaluated products shall comply with this report, the FBC, and the manufacturer's published application instructions. Where discrepancies exist between these sources, the more restrictive and FBC compliant installation detail shall prevail.
11. The minimum roof slope shall be 1/4:12 for new construction.
12. All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

COMPLIANCE STATEMENT

The products evaluated herein by Zachary R. Priest, P.E. have demonstrated compliance with the Florida Building Code, 6th Edition (2017) as evidenced in the referenced documents submitted by the named manufacturer.



Zachary R. Priest, P.E.
Florida Registration No. 74021
Organization No. ANE9641

CERTIFICATION OF INDEPENDENCE

CREEK Technical Services, LLC does not have, nor will it acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

CREEK Technical Services, LLC is not owned, operated, or controlled by any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

APPENDICES

- 1) APPENDIX A – Installation (4 pages)
- 2) APPENDIX B – Nomenclature (3 pages)
- 3) APPENDIX C – Approved Assemblies for JM TPO Single-Ply Membranes (37 pages)
- 4) APPENDIX D – Approved Assemblies for JM PVC Single-Ply Membranes (24 pages)

APPENDIX A - INSTALLATION
INSTALLATION

Note - Refer to the [APPROVED ASSEMBLIES](#) section of this report for specific installation details of a selected assembly.

Unless otherwise specified in this report the following installation details shall be met for the named products:

Component	Product	Installation Detail
Fasteners, Battens & Plates	JM All Purpose Fastener	#14 fasteners; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck; Min. 1-inch penetration into concrete deck
	JM APB Plates	2-inch diameter; Galvalume steel plate with reinforcing ribs and barbs
	JM Extra High Load Fastener	#21 fastener; Min. 3/4-inch penetration through the top rib of the steel deck;
	JM Extra High Load Plates	3-inch diameter; Galvalume steel plate with eyehooks
	JM High Load Plates	2 3/8-inch diameter; Galvalume steel plate with eyehooks
	JM High Load Plus Plates	2 3/4-inch diameter; Galvalume steel plate with barbs
	JM High Load Fastener	#15 fastener; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck;
	JM High Load LH Fastener	#15 fastener with oversized head; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck;
	JM UltraFast Fastener	#12 fastener; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck
	JM UltraFast Plate (Round)	3-inch diameter round; Galvalume steel plate
	JM UltraFast Plate (Square)	3-inch square; Galvalume steel plate
	JM UltraLok Fastener	Min. 1.8-inch galvanized steel tube and coated-steel locking staple pre-assembled with 2.7-inch diameter Galvalume steel plate
	JM Polymer Membrane Batten	Membrane anchors and plastic strips
	JM Purlin Fastener	Min. 3/4-inch penetration through purlin
	JM PVC RhinoPlate	Min. 3-inch diameter; Induction welded in the field of membrane; welds not permitted at lap seams; For use only with bareback membrane
	JM TPO RhinoPlate	Min. 3-inch diameter; Induction welded in the field of membrane; welds not permitted at lap seams; For use only with min. 60 mil thick bareback membrane
	OMG CR Base Sheet Fastener	Base sheet fastener with 1.75-inch galvanized steel shank coated with CR-10 and integrated 2.75-inch diameter Galvalume plate.
	Trufast Deep Well Batten Bar	Galvalume steel membrane batten with recessed holes
	Trufast Straight Line Batten Bar	Galvalume steel membrane batten for use with Twin-Loc Nail without integrated plate
	Trufast Twin Loc-Nail	Min. 1.4-inch shank; Base sheet fastener with and without integrated 2.7-inch diameter plate.
Insulation Adhesives	JM MBR Bonding Adhesive	Fully adhered at a rate of 1.5-2.0 gal/100 ft ²
	JM One-Step Foamable Adhesive	Ribbon adhered in 3/4 to 1-inch wide beads
	ICP Adhesives CR-20	
	OMG OlyBond 500	
	JM Two Part Urethane Insulation Adhesive Canister	
	JM Urethane Insulation Adhesive	Ribbon adhered in 1/2-inch wide beads
	JM Two Part Urethane Insulation Adhesive	Ribbon adhered in 1/2 to 3/4-inch wide beads
	JM Roofing System Urethane Adhesive	
	ASTM D 312, Type IV asphalt	Fully adhered within the EVT range at a rate of 25-40 lbs/100 ft ²
Insulation/Cover Boards	EPS	Min. 0.5-inch, min. 1.8 pcf (HVHZ) or min. 1.5 pcf (non-HVHZ) expanded polystyrene; Adhered boards shall be a maximum 4-ft x 4-ft
	Georgia-Pacific DensDeck	Min. 1/4-inch thick



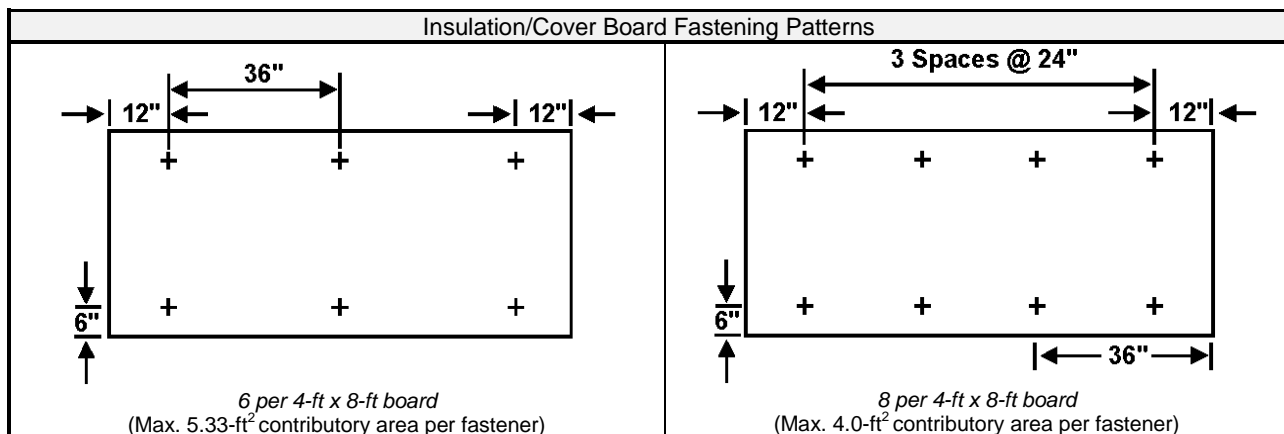
APPENDIX A - INSTALLATION

Component	Product	Installation Detail
Insulation/Cover Boards (Cont'd)	JM ENRGY 3	Min. 1/2-inch thick; Min. 20 psi; Adhered boards shall be a maximum 4 ft x 4 ft
	JM ENRGY 3 AGF	
	JM ENRGY 3 CGF	
	JM ENRGY 3 FR	Min. 1/2-inch thick; Min. 20 psi; Adhered boards shall be a maximum 4 ft x 4 ft
	JM Fesco Board	Min. 3/4-inch thick; Min. 20 psi
	JM Fesco Foam	Min. 1.5-inch thick; Min. 20 psi; Adhered boards shall be a maximum 4 ft x 4 ft
	JM Invinsa Roof Board	1/4-inch thick; Adhered boards shall be a maximum 4 ft x 4 ft
	JM Invinsa Foam Roof Board	
	JM Invinsa FR Roof Board	
	JM Retro-Fit Board	1/2-inch thick; Adhered boards shall be a maximum 4 ft x 4 ft
	JM RetroPlus Roof Board	
	JM SECUROCK Glass-Mat Roof Board	Min. 1/4-inch thick
	JM SECUROCK Gypsum-Fiber Roof Board	
	National Gypsum DEXcell Cement Roof Board	Min. 7/16-inch thick; Adhered boards shall be a maximum 4 ft x 4 ft
	National Gypsum DEXcell Glass Mat Roof Board	Min. 1/4-inch thick
	National Gypsum DEXcell FA Glass Mat Roof Board	
Base Ply and Vapor Barrier Adhesives	ADCO Millennium Hurricane Force Membrane Adhesive	Ribbon adhered in 3/4 to 1-inch wide beads
PVC Membrane Adhesives	ASTM D 312, Type IV asphalt	Fully adhered within the EVT range at a rate of 25-40 lbs/100 ft; For use only with JM PVC Fleece Backed membranes
	JM PVC Membrane Adhesive (Low VOC)	Fully adhered at rate of 50-90 ft ² /gal; Applied simultaneously to underside of membrane and substrate
	JM PVC Membrane Adhesive (Water Based)	Fully adhered at a rate of 90-130 ft ² /gal; Two-side application required for bareback TPO; Applied only to substrate when used with fleeceback TPO
	JM Roofing System Urethane Adhesive	Ribbon adhered in 1/2 to 3/4-inch wide beads
	JM MBR Bonding Adhesive	Fully adhered at a rate of 1.5-2.0 gal/100 ft ²
TPO Membrane Adhesives	ASTM D 312, Type IV asphalt	Fully adhered within the EVT range at a rate of 25-40 lbs/100 ft; For use only with JM TPO FB 150 and 175 membranes
	JM Roofing System Urethane Adhesive	Ribbon adhered in 3/4 to 1-inch wide beads
	JM Membrane Bonding Adhesive (TPO & EPDM)	Fully adhered at rate of 50-90 ft ² /gal; Applied simultaneously to underside of membrane and substrate
	JM TPO Membrane Adhesive (Low VOC)	Fully adhered at rate of 50-90 ft ² /gal; Applied simultaneously to underside of membrane and substrate
	JM LVOC Membrane Adhesive (TPO & EPDM)	Fully adhered at rate of 0.55-0.83 gal/100ft ² in two-sided application (1.1-1.67 gal/100ft ² total)
	JM TPO Water Based Membrane Adhesive	Fully adhered at a rate of 0.6-0.8 gal/100ft ² ; Two-side application required for bareback TPO; Applied only to substrate when used with fleeceback TPO
	JM Two Part Urethane Insulation Adhesive Canister	Applied in spatter pattern at a rate of 0.32 gal/100ft ² or 1/2-inch wide beads
SA Primer	JM SA Primer Low VOC	Applied at rate of 0.5 gal/sq.
Vapor Barriers	JM DynaBase HW	Min. 3-inch wide side-laps; Min. 6-inch end laps; Torch adhered to primed concrete deck
	JM DynaBase	Min. 3-inch wide side-laps; Min. 6-inch end laps; Applied with hot or cold <i>approved</i> adhesives
	JM Vapor Barrier SA	Self-adhered to primed wood, gypsum or concrete decks; Min. 3-inch sides laps; Min. 6-inch end laps
Base Sheets	JM DynaBase	Min. 3-inch wide side-laps; Min. 6-inch end laps; Applied with hot or cold <i>approved</i> adhesives
	JM DynaBase HW	Min. 3-inch wide side-laps; Min. 6-inch end laps; Torch adhered



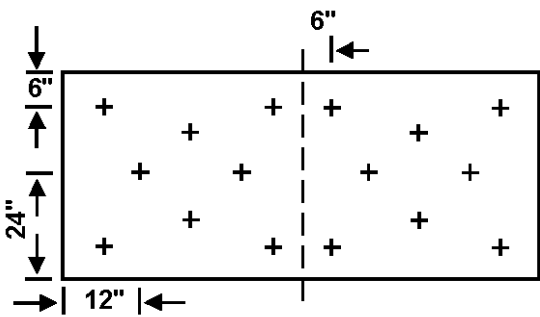
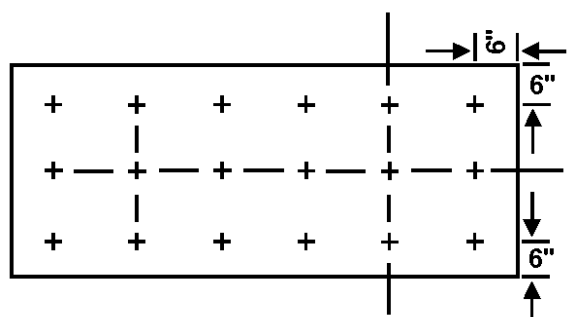
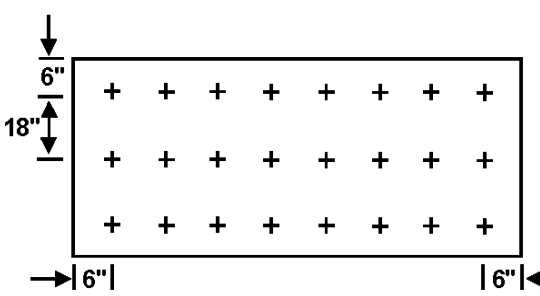
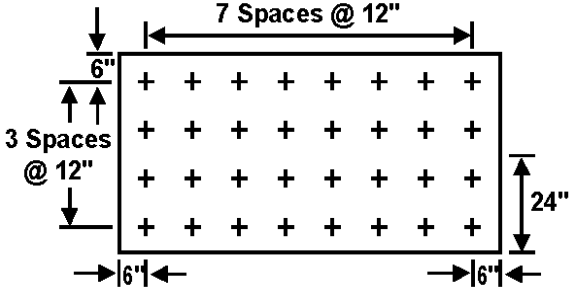
APPENDIX A - INSTALLATION

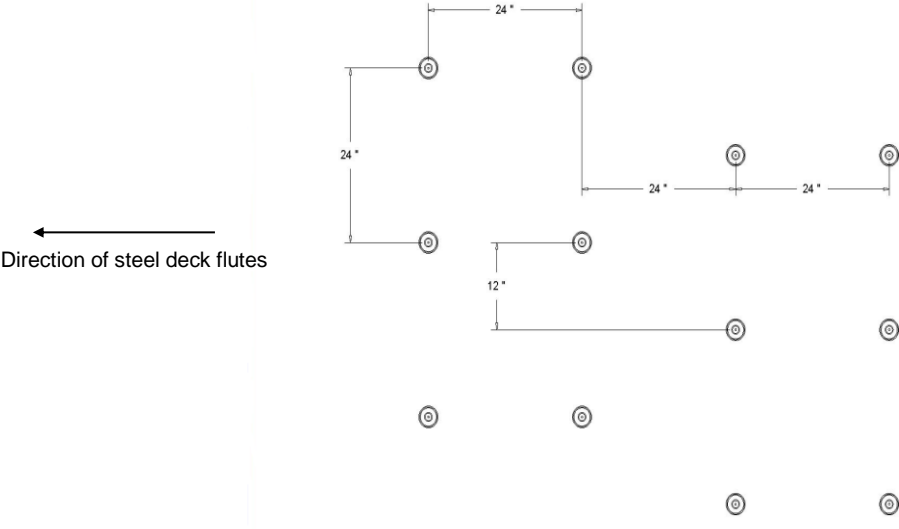
Component	Product	Installation Detail
Base Sheets (Cont'd)	JM DynaFast 180 S	Min. 3-inch wide side-laps; Min. 6-inch end laps; Side-laps shall be installed perpendicular to the direction of the steel deck ribs and parallel to the direction of the wood trusses for mechanically attached systems
TPO Single-Ply Membranes	JM TPO-45	Min. 2-inch wide side-laps with min. 1.5-inch wide heat weld for adhered systems; In-lap fastened systems shall have min. 6-inch wide side-laps with min. 1.5-inch wide heat weld; Side-laps shall be installed perpendicular to the direction of the steel deck ribs and parallel to the direction of the wood trusses for mechanically attached systems
	JM TPO-60	
	JM TPO-80	
	JM TPO FB 115	
	JM TPO FB 135	
	JM TPO FB 150	
	JM TPO FB 175	
	JM TPO SA-60 mil	
PVC Single-Ply Membranes	JM PVC-50 mil	Min. 2-inch wide side-laps with min. 1.5-inch wide heat weld for adhered systems; In-lap fastened systems shall have min. 6-inch wide side-laps with min. 1.5-inch wide heat weld; Side-laps shall be installed perpendicular to the direction of the steel deck ribs and parallel to the direction of the wood trusses for mechanically attached systems
	JM PVC-60 mil	
	JM PVC-80 mil	
	JM PVC Fleece Backed-50 mil	
	JM PVC Fleece Backed-60 mil	
	JM PVC Fleece Backed-80 mil	
	JM PVC SD Plus-50 mil	
	JM PVC SD Plus-60 mil	
Cellular Lightweight Concrete	Celcore MF with HS Rheology Admixture	Slurry coat min. 1/8-inch thick; 1-inch thick EPS board (1 lbs/ft ³); Min. 2-inch thick top coat; Celcore PVA curing compound applied at rate of 300 ft ² /gal.
	Mearlcrete	Slurry coat min. 1/8-inch thick; 1" thick EPS board (1 lbs/ft ³); Min. 2-inch thick top coat;
	Elastizell	
	Concrecel	
	Cellular Lightweight Concrete	





APPENDIX A - INSTALLATION

Insulation/Cover Board Fastening Patterns	
 <p>16 per 4-ft x 8-ft board (Max. 2.0-ft² contributory area per fastener)</p>	 <p>18 per 4-ft x 8-ft board (Max. 1.78-ft² contributory area per fastener)</p>
 <p>24 per 4-ft x 8-ft board (Max. 1.33-ft² contributory area per fastener)</p>	 <p>32 per 4-ft x 8-ft board (Max. 1.0-ft² contributory area per fastener)</p>

Alternate Fastener Patterns for Induction Weld Assemblies Only	
Description	Fastening Array Repeated Using the Geometric Grid Shown Below
<p>2-ft x 2-ft staggered grid</p>	

APPENDIX B - NOMENCLATURE
NOMENCLATURE

The following naming conventions are utilized to specify products in the [APPROVED ASSEMBLIES](#) section of this report. Refer to the nomenclature below when deciphering the allowable products for use in the selected assembly. Installation requirements shall be as noted in the [APPROVED ASSEMBLIES](#) section of this report.

Name	Definition
2-Part UIA	JM Two Part Urethane Insulation Adhesive or JM Two Part Urethane Insulation Adhesive Canister
2-Part UIA-C(B)	JM Two Part Urethane Insulation Adhesive Canister applied in 1/2-inch wide beads
2-Part UIA-C(S)	JM Two Part Urethane Insulation Adhesive Canister applied in spatter application at a rate of 0.32 gal/100ft ²
AP Fasteners & Plates	All Purpose Fastener or Structural Concrete Deck Fastener (concrete only) and UltraFast 3" Round Metal Plate or UltraFast Square Recessed Metal Plate
AP Fasteners & Plates (Square)	All Purpose Fastener or Structural Concrete Deck Fastener (concrete only) and UltraFast Square Recessed Metal Plate
APB Fasteners & Plates	JM APB Plates and JM High Load Fasteners (<i>Wood Deck</i> or <i>Steel Deck</i>) or JM All Purpose Fasteners (<i>Concrete Deck</i>)
As Tested	Information provided to the report user based on the as tested condition of the roof system
Cover Board	One layer of any of the following products: -Georgia-Pacific DensDeck -Georgia-Pacific DensDeck Prime -JM Invinsa Roof Board -JM Invinsa FR Roof Board -JM SECUROCK Glass-Mat Roof Board -JM SECUROCK Gypsum-Fiber Roof Board -National Gypsum DEXcell FA Glass Mat Roof Board -National Gypsum DEXcell Glass Mat Roof Board -National Gypsum DEXcell Cement Roof Board
Deck Detail	All decks shall be designed by others in accordance with FBC requirements. <i>As Tested</i> deck construction details are described as follows:
	Concrete Deck Min. f'_c = 2,500 psi at 28 days
	CWF Deck Min. 2.5-inch thick Tectum I cementitious wood fiber panels
	Steel Deck Min. 22 ga, Wide Rib Deck (Type WR) conforming to ANSI/SDI-RD1.0 & FBC; 0.5% Vented for <i>LW/C</i> applications only. The following nomenclature is used to further describe the <i>As Tested</i> condition.
	$F<\#>$ $<\#>$ #12-24 HWH self-drilling screws or equivalent fastener at each flute used to secure the deck to the structural supports; Min. 1/4-inch penetration
	$G<\#>$ Min. Grade $<\#>$ of <i>Steel Deck</i>
	$L<\#>$ Max. span of $<\#>$ ft
	P Min. 5/8-inch diameter puddle welds at each flute used to secure the deck to the structural supports
	$S<\#>$ 1/4 "-14 HWH x7/8" self-drilling screws or equivalent fastener secured $<\#>$ -inch o.c. along the panel side laps
	W 3/4-inch O.D. flat washer used with indicated fastener

APPENDIX B - NOMENCLATURE

Name	Definition
<i>Deck Detail (Cont'd)</i>	<i>Wood Deck</i> HVHZ: APA Span-Rated sheathing. The following nomenclature is used to further describe the <i>As Tested</i> condition:
	<i>T<#>P</i> Min. <#>-inch thickness of the plywood
	<i>T<#>O</i> Min. <#>-inch thickness of the OSB
	<i>L<#></i> Max. span of <#> inches
	<i>N<#></i> Min. 0.113-inch diameter x 2-3/8-inch ring shank nails spaced <#>-inch o.c. at all intermediate supports and at the perimeter of each board
	<i>16S<#></i> Min. 16 ga. staples, 1.5-inch x 1-inch crown spaced <#>-inch o.c. at all intermediate supports and at the perimeter of each board
<i>DensDeck</i>	Min. 1/4-inch Georgia-Pacific DensDeck
<i>DEXcell CB</i>	Min. 1/4-inch National Gypsum DEXcell Cement Roof Board
<i>DEXcell FA</i>	Min. 1/4-inch National Gypsum DEXcell FA Glass Mat Roof Board
<i>E3</i>	JM ENRGY 3, JM ENRGY 3 AGF, JM ENRGY 3 CGF or JM ENRGY 3 FR
<i>Extra HL Fasteners & Plates</i>	JM Extra High Load Fasteners (<i>Wood Deck</i> or <i>Steel Deck</i>) or JM All Purpose Fasteners (<i>Concrete Deck</i>) and JM Extra High Load Plates
<i>HL Fasteners & Plates</i>	JM High Load Fasteners (<i>Wood Deck</i> or <i>Steel Deck</i>) or JM All Purpose Fasteners (<i>Concrete Deck</i>) and JM High Load Plates
<i>INSULATION</i>	One of more layers in any combination of the following products: -ENRGY 3 -ENRGY 3 AGF -ENRGY 3 CGF -ENRGY 3 FR -Fesco Board -Fesco Foam -Invinsa Roof Board -Invinsa FR Roof Board -Retro-Fit Board -RetroPlus Roof Board -SECUROCK Glass-Mat Roof Board -SECUROCK Gypsum-Fiber Roof Board -EPS (flute fill only)
<i>INVINSA</i>	JM Invinsa or JM Invinsa FR Roof Board
<i>LWIC</i>	Poured-in-place Cellular Lightweight Concrete with encapsulated insulation board
<i>MCRF</i>	Minimum Characteristic Resistance Force as determined by TAS 105 for the named fastener in the selected assembly
<i>MDP</i>	Maximum Design Pressure
<i>Preliminarily Secured</i>	Fastened at minimum rate of 5 per 4 ft x 8 ft board or 4 per 4 ft x 4 ft board.
<i>JM PVC</i>	One ply of any one of the following products: JM PVC-50 mil, JM PVC-60 mil, or JM PVC-80 mil
<i>JM PVC FB</i>	One ply of any one of the following products: JM PVC Fleece Backed-50 mil, JM PVC Fleece Backed-60 mil or JM PVC Fleece Backed-80 mil

APPENDIX B - NOMENCLATURE

Name	Definition
<i>JM PVC FB/DynaFast</i>	One ply of JM PVC Fleece Backed-50 mil or JM PVC Fleece Backed-60 mil fully adhered in ASTM D 312 Type asphalt over DynaFast 180 S. DynaFast 180 S fastened to deck as described in <i>Approved Assembly</i>
<i>JM PVC SD Plus</i>	One ply of any one of the following products: JM PVC SD Plus-50 mil, JM PVC SD Plus-60 mil, or JM PVC SD Plus-80 mil
<i>JM TPO</i>	One ply of any one of the following products: JM TPO-45, JM TPO-60, or JM TPO-80
<i>JM TPO FB</i>	One ply of any one of the following products: JM TPO FB 115 or JM TPO FB 135
<i>JM TPO HFB</i>	One ply of any one of the following products: JM TPO FB 150 or JM TPO FB 175
<i>JM TPO SA</i>	One ply of any one of the following products: JM TPO SA-60 mil
<i>OSFA</i>	JM One-Step Foamable Adhesive
<i>PVC Bonding Adhesive</i>	Any one of the following products: -JM PVC Membrane Adhesive (Low VOC) -JM PVC Membrane Adhesive (Water-Based)
<i>Recover</i>	Where assemblies are used to recover an existing roof, the existing roof shall consist of only one layer of roofing, i.e. recovering a previously recovered roof is not permitted. Recover roofing shall be conducted in compliance with FBC Section 1511 outside of the HVHZ and FBC Section 1521 within the HVHZ. For mechanically fastened roof assemblies and induction welded assemblies, i.e. systems x-M-# and x-W-#, the insulation layer is optional, or any INSULATION board or slip sheet may be used as separation layer prior to installing the approved roof assembly.
<i>RetroPlus</i>	JM RetroPlus Roof Board
<i>RSUA</i>	JM Roofing System Urethane Adhesive
<i>SECUROCK</i>	Min. 1/4-inch JM SECUROCK Gypsum-Fiber Roof Board
<i>TPO Bonding Adhesives</i>	Any one of the following products: -JM Membrane Bonding Adhesive (TPO & EPDM) -JM LVOC Membrane Adhesive (TPO & EPDM) -JM TPO Water Based Membrane Adhesive
<i>UIA</i>	JM Urethane Insulation Adhesive
<i>UltraFast Fasteners & Plates</i>	JM UltraFast Fasteners (<i>Steel Deck</i> and <i>Wood Deck</i>) or JM All Purpose Fasteners (<i>Concrete Deck</i>) and JM UltraFast Plates (Round or Square)
<i>UltraFast Fasteners & Plates (Square)</i>	JM UltraFast Fasteners (<i>Steel Deck</i> and <i>Wood Deck</i>) or JM All Purpose Fasteners (<i>Concrete Deck</i>) and JM UltraFast Plates (Square)
<i>UltraFast Plates</i>	JM UltraFast Plates (Round or Square)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES
APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

The following notes shall be observed when using the assembly tables below.

1. Allowable pressures were calculated using a 2:1 margin of safety per FBC Section 1504.9.
2. Refer to [LIMITATIONS](#) and [NOMENCLATURE](#) sections of this evaluation when using the table(s) below.
3. Refer to [INSTALLATION](#) section of this report for installation detail when the information is not explicitly stated for the selected assembly.
4. The on-center (o.c.) spacing given is the maximum allowable attachment spacing for the rated system.
5. JM Vapor Barrier SA may be installed direct to deck prior to installing the roof assembly components for the following assembly types: C-M-#, C-W-#, LC-M-#, LC-W-#, LS-M-#, LS-W-#, S-M-#, S-W-#, W-M-#, and W-W-#
6. As Tested information for roof deck construction is provided for information only. The addition of the As Tested deck information does not obviate the requirement for rational design of the roof deck and roof deck attachment in accordance with FBC requirements.

Assembly System Numbers and Definitions	
C-A-#	Adhered Assemblies over <i>Concrete Deck</i> (New or Existing)
C-AM-#	Assemblies with Adhered Membranes over Insulated <i>Concrete Deck</i> (New, Existing, or Recover)
C-M-#	Mechanically Fastened Assemblies over <i>Concrete Deck</i>
C-W-#	Induction Welded Assemblies over <i>Concrete Deck</i>
CW-A-#	Adhered Assemblies over Cementitious Wood Fiber Decks (New or Existing)
G-A-#	Assemblies with All Layers Adhered over Gypsum Deck (New or Existing)
G-AM-#	Assemblies with Adhered Membranes over Insulated Gypsum Deck (New or Existing)
LC-A-#	Adhered Lightweight Concrete Assemblies over <i>Concrete Deck</i> (New or Existing)
LC-AM-#	Lightweight Concrete Assemblies with Adhered Membranes over <i>Concrete Deck</i> (New or Existing)
LC-M-#	Mechanically Fastened Lightweight Concrete Assemblies over <i>Concrete Deck</i> (New, Existing, or Recover)
LC-W-#	Induction Welded Lightweight Concrete Assemblies over <i>Concrete Deck</i> (New, Existing, or Recover)
LS-A-#	Adhered Lightweight Concrete Assemblies over <i>Steel Deck</i> (New or Existing)
LS-AM-#	Lightweight Concrete Assemblies with Adhered Membranes over <i>Steel Deck</i> (New or Existing)
LS-M-#	Mechanically Fastened Lightweight Concrete Assemblies over <i>Steel Deck</i> (New, Existing, or Recover)
LS-W-#	Induction Welded Lightweight Concrete Assemblies over <i>Steel Deck</i> (New, Existing, or Recover)
R-A-#	Adhered <i>Recover</i> Assemblies
R-M-#	Mechanically Fastened <i>Recover</i> Assemblies
R-W-#	Induction Welded <i>Recover</i> Assemblies
S-AM-#	Assemblies with Adhered Membranes over Insulated <i>Steel Deck</i> (New, Existing, or Recover)
S-M-#	Mechanically Fastened Assemblies over <i>Steel Deck</i> (New, Existing or Recover)
S-W-#	Induction Welded Assemblies over <i>Steel Deck</i>
W-M-#	Mechanically Fastened Assemblies over <i>Wood Deck</i> (New or Existing)
W-W-#	Induction Welded Assemblies over <i>Wood Deck</i> (New or Existing)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Assemblies over Concrete Deck (New or Existing)						
System No.	Vapor Barrier	Base Insulation	Top Insulation or Base Ply	Membrane	Membrane Attachment	MDP (psf)
C-A-1	DynaBase applied in ADCO Millennium Hurricane Force Membrane Adhesive at 6-inch o.c.	Min. 1.5-inch ENRGY 3 applied in <i>RSUA</i> at 12-inch o.c.	DynaBase applied in ADCO Millennium Hurricane Force Membrane Adhesive at 6-inch o.c.	<i>JM TPO FB</i>	<i>RSUA</i> applied 12-inch o.c.	-67.5 (Lim. 9)
C-A-2	DynaBase applied in ADCO Millennium Hurricane Force Membrane Adhesive at 6-inch o.c.	Min. 1.5-inch ENRGY 3 applied in <i>RSUA</i> at 12-inch o.c.	DynaBase applied in ADCO Millennium Hurricane Force Membrane Adhesive at 6-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-67.5 (Lim. 9)
C-A-3	OPTIONAL JM Vapor Barrier SA applied over deck primed with JM SA Primer Low VOC	Min. 1.5-inch <i>E3</i> applied in <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	OPTIONAL <i>SECUROCK</i> or JM Invinsa applied in <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	<i>JM TPO FB</i>	<i>RSUA</i> applied 12-inch o.c.	-67.5 (Lim. 9)
C-A-4	OPTIONAL JM Vapor Barrier SA applied over deck primed with JM SA Primer Low VOC	Min. 1.5-inch <i>E3</i> applied in <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	OPTIONAL <i>SECUROCK</i> or JM Invinsa applied in <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-67.5 (Lim. 9)
C-A-5	-	Min. 1.5-inch ENRGY 3 applied in <i>OSFA</i> or 2-Part <i>UIA</i> at 12-inch o.c.	OPTIONAL JM Invinsa applied in 2-Part <i>UIA</i> at 12-inch o.c.	<i>JM TPO</i>	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ² on membrane and substrate or JM TPO Water Based Adhesive; Applied 0.63-0.71 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM); Applied 0.55 gal/100ft ² (not with JM Invinsa)	-105 (Lim. 9)
C-A-6	-	Min. 1.5-inch ENRGY 3 applied in <i>OSFA</i> or 2-Part <i>UIA</i> at 12-inch o.c.	OPTIONAL JM Invinsa applied in 2-Part <i>UIA</i> at 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-105 (Lim. 9)
C-A-7	-	<i>INVINSA</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO SA</i>	Self-adhered	-105 (Lim. 9)
C-A-8	-	Min. 1.5-inch <i>E3</i> applied in <i>OSFA</i> , <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	-	<i>JM TPO SA</i>	Self-adhered	-105 (Lim. 9)
C-A-9	-	<i>RetroPlus</i> applied in ASTM D 312, Type IV asphalt	-	<i>JM TPO</i>	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 1.1-2.0 gal/100ft ²	-105 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Assemblies over Concrete Deck (New or Existing)						
System No.	Vapor Barrier	Base Insulation	Top Insulation or Base Ply	Membrane	Membrane Attachment	MDP (psf)
C-A-10	-	Min. 1.5-inch <i>E3</i> applied in <i>OSFA</i> , <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	-	<i>JM TPO FB</i>	<i>RSUA</i> or 2-Part <i>UIA</i> applied 4-inch o.c.; Min. 2-inch side lap secured with min. 1.5-inch heat weld.	-112.5 (Lim 9)
C-A-11	-	Min. 1.5-inch <i>E3</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO</i>	JM LVOC Membrane Adhesive (TPO & EPDM); Applied 0.55 gal/100ft ²	-172.5 (Lim. 9)
C-A-12	-	Min. 1.5-inch ENRGY 3, ENRGY 3 CGF, or ENRGY 3 FR applied in 2-Part <i>UIA</i> at 12-inch o.c.	-	<i>JM TPO FB</i>	JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-187.5 (Lim. 9)
C-A-13	-	Min. 1.5-inch ENRGY 3, ENRGY 3 CGF, or ENRGY 3 FR applied in 2-Part <i>UIA</i> at 12-inch o.c.	-	<i>JM TPO</i>	JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-195 (Lim. 9)
C-A-14	DynaBase HW	<i>SECUROCK</i> applied in <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO SA</i>	Self-adhered	-247.5 (Lim. 9)
C-A-15	DynaBase HW torch adhered over deck primed with ASTM D 41 primer	Min. 1.5-inch ENRGY 3 CGF applied in <i>RSUA</i> at 12-inch o.c.	<i>SECUROCK</i> applied in <i>RSUA</i> at 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-247.5 (Lim. 9)
C-A-16	-	<i>SECUROCK</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO SA</i>	Self-adhered	-247.5 (Lim. 9)
C-A-17	-	<i>INVINSA</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO</i>	JM TPO Water Based Membrane Adhesive; Applied 0.56-0.71 gal/100ft ²	-255 (Lim. 9)
C-A-18	-	<i>INVINSA</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO FB</i>	JM TPO Water Based Membrane Adhesive; Applied 0.56-0.71 gal/100ft ²	-277.5 (Lim. 9)
C-A-19	DynaBase HW	<i>SECUROCK</i> applied in <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO</i> or <i>JM TPO FB</i>	<i>JM TPO</i> : JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or <i>JM TPO FB</i> : JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-292.5 (Lim. 9)
C-A-20	DynaBase HW torch adhered over deck primed with ASTM D 41 primer	Min. 1.5-inch ENRGY 3 CGF applied in <i>RSUA</i> at 12-inch o.c.	<i>SECUROCK</i> applied in <i>RSUA</i> at 12-inch o.c.	<i>JM TPO</i> or <i>JM TPO FB</i>	<i>JM TPO</i> : JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or <i>JM TPO FB</i> : JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-292.5 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Assemblies over Concrete Deck (New or Existing)						
System No.	Vapor Barrier	Base Insulation	Top Insulation or Base Ply	Membrane	Membrane Attachment	MDP (psf)
C-A-21	-	Min. 1.5-inch <i>E3</i> applied in 2-Part <i>UIA</i> at 12-inch o.c.	-	<i>JM TPO</i>	JM Membrane Bonding Adhesive (TPO & EPDM); applied 0.55 gal/100ft ²	-322.5 (Lim. 9)
C-A-22	-	<i>DEXcell CB</i> applied in 2-Part <i>UIA</i> or OlyBond 500 at 12-inch o.c.	-	<i>JM TPO FB</i>	JM TPO Water Based Membrane Adhesive	-322.5 (Lim. 9)
C-A-23	-	<i>SECUROCK</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO FB</i>	JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-345 (Lim. 9)
C-A-24	-	<i>SECUROCK</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO</i>	JM LVOC Membrane Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ²	-360 (Lim. 9)
C-A-25	-	<i>DEXcell CB</i> or <i>DEXcell FA</i> applied in 2-Part <i>UIA</i> or OlyBond 500 at 12-inch o.c.	-	<i>JM TPO</i>	JM TPO Membrane Adhesive (Low VOC), JM LVOC Membrane Adhesive (TPO & EPDM), JM TPO Water Based Membrane Adhesive or JM Membrane Bonding Adhesive (TPO & EPDM)	-390 (Lim. 9)
C-A-26	-	<i>DEXcell FA</i> applied in 2-Part <i>UIA</i> or OlyBond 500 at 12-inch o.c.	-	<i>JM TPO SA</i>	Self-adhered	-390 (Lim. 9)
C-A-27	-	<i>DEXcell FA</i> applied in 2-Part <i>UIA</i> or OlyBond 500 at 12-inch o.c.	-	<i>JM TPO FB</i>	JM TPO Water Based Membrane Adhesive	-390 (Lim. 9)
C-A-28	-	<i>DEXcell FA</i> applied in 2-Part <i>UIA</i> or OlyBond 500 at 12-inch o.c.	-	<i>JM TPO HFB</i>	ASTM D 312, Type IV Asphalt	-390 (Lim. 9)
C-A-29	-	-	-	<i>JM TPO FB</i>	2-Part <i>UIA-C(S)</i>	-457.5 (Lim. 9)
C-A-30	-	<i>SECUROCK</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO</i>	JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-465 (Lim. 9)
C-A-31	-	<i>INVINSA</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO</i>	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ²	-465 (Lim. 9)
C-A-32	-	<i>SECUROCK</i> applied in 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	-	<i>JM TPO</i>	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ²	-495 (Lim. 9)
C-A-33	-	-	-	<i>JM TPO FB</i>	2-Part <i>UIA-C(B)</i> applied 6-inch o.c.	-495 (Lim. 9)
C-A-34	-	-	-	<i>JM TPO FB</i>	<i>RSUA</i> applied 12-inch o.c.	-502.5 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
C-AM-1	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.375-inch SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 2.67ft ²	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-45 (Lim. 7; Non-HVHZ)
C-AM-2	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 4.0ft ²	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM) applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-45 (Lim. 7; Non-HVHZ)
C-AM-3	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners and Plates secured 1 fastener per 2.0ft ²	-	-	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ² on membrane and substrate or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM); Applied 0.55 gal/100ft ²	-45 (Lim. 7; Non-HVHZ)
C-AM-4	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners and Plates secured 1 fastener per 2.0ft ²	RetroPlus	RSUA or 2-Part UIA; applied 12-inch o.c	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 1.67 gal/100ft ²	-45 (Lim. 7; Non-HVHZ)
C-AM-5	OPTIONAL INSULATION under min. 2-inch ENRGY 3	AP Fasteners and Plates secured 1 fastener per 4.0ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or RSUA applied 12-inch o.c.	-45 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
C-AM-6	OPTIONAL INSULATION under min. 2-inch ENRGY 3	AP Fasteners and Plates secured 1 fastener per 4.0ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
C-AM-7	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.33ft ²	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-52.5 (Lim. 7)
C-AM-8	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
C-AM-9	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners and Plates secured 1 fastener per 1.33ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or RSUA applied 12-inch o.c.	-52.5 (Lim. 7)
C-AM-10	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners and Plates secured 1 fastener per 1.33ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
C-AM-11	OPTIONAL INSULATION under min 1.5-inch ENRGY 3	AP Fasteners and Plates secured at a rate of 1 fastener per 1.45ft ²	JM Invinsa	RSUA or 2-Part UIA ribbons spaced 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c.	-52.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
C-AM-12	OPTIONAL INSULATION under min 1.5-inch ENRGY 3	AP Fasteners and Plates secured at a rate of 1 fastener per 1.45ft ²	JM InvinSA	RSUA or 2-Part UIA ribbons spaced 12-inch o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
C-AM-13	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	AP Fasteners and Plates secured 1 fastener per 2.67ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM) or JM TPO Membrane Adhesive (Low VOC) applied 0.83 gal/100ft ² or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-52.5 (Lim. 7)
C-AM-14	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	AP Fasteners and Plates secured 1 fastener per 2.67ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
C-AM-15	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	AP Fasteners and Plates (Square) secured 1 fastener per 1.78ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM) or JM TPO Membrane Adhesive (Low VOC) applied 0.83 gal/100ft ² or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-52.5 (Lim. 7)
C-AM-16	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.33ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
C-AM-17	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.33ft ²	Base Ply: DynaBase HW Membrane: JM TPO HFB	Base Ply: Torch Adhered Membrane: ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
C-AM-18	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners and Plates secured 1 fastener per 1.33ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
C-AM-19	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners and Plates secured 1 fastener per 1.33ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	Base Ply: DynaBase HW Membrane: JM TPO HFB	Base Ply: Torch Adhered Membrane: ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
C-AM-20	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3	AP Fasteners and Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
C-AM-21	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners and Plates secured at a rate of 1 fastener per 1.78ft ²	Min 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-60 (Lim. 7)
C-AM-22	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners and Plates secured at a rate of 1 fastener per 1.78ft ²	Min 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-60 (Lim. 7)
C-AM-23	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-60 (Lim. 7)
C-AM-24	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO SA	Self-adhered	-60 (Lim. 7)
C-AM-25	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3	AP Fasteners and Plates secured 1 fastener per 1.78ft ²	JM TPO	JM LVOC Membrane Adhesive (TPO & EPDM); Applied 0.55 gal/100ft ²	-60 (Lim. 7)
C-AM-26	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	AP Fasteners and Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-60 (Lim. 7)
C-AM-27	OPTIONAL INSULATION under min. 1.5-inch E3	AP Fasteners and Plates secured 1 fastener per 1ft ²	SECUROCK, or JM Invinsa	RSUA or 2-Part UIA; Applied 6-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c.	-67.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
C-AM-28	OPTIONAL INSULATION under min 1.5-inch ENRGY 3	AP Fasteners and Plates secured at a rate of 24 per 4-ft x 8-ft Board	Min. 1/2-inch SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-67.5 (Lim. 7)
C-AM-29	OPTIONAL INSULATION under min 1.5-inch ENRGY 3	AP Fasteners and Plates secured at a rate of 24 per 4-ft x 8-ft Board	Min. 1/2-inch SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
C-AM-30	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	AP Fasteners and Plates secured 1 fastener per 2.0ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM) or JM TPO Membrane Adhesive (Low VOC) applied 0.83 gal/100ft ² or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-67.5 (Lim. 7)
C-AM-31	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	AP Fasteners and Plates secured 1 fastener per 2.0ft ²	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
C-AM-32	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO or JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-82.5 (Lim. 7)
C-AM-33	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
C-AM-34	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	AP Fasteners and Plates secured 1 fastener per 1.33ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM) or JM TPO Membrane Adhesive (Low VOC) applied 0.83 gal/100ft ² or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-105 (Lim. 7)
C-AM-35	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	AP Fasteners and Plates secured 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-105 (Lim. 7)
C-AM-36	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO or JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-150 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
C-AM-37	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	AP Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO SA	Self-adhered	-150 (Lim. 7)

Mechanically Fastened Assemblies over Concrete Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
C-M-1	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with JM All Purpose Fasteners and JM High Load Plus Plates; Fastener rows max. 114-inch o.c.	-30 (Lim. 7; Non-HVHZ)
C-M-2	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with JM All Purpose Fasteners and High Load Plates; Fastener rows max. 90-inch o.c.	-37.5 (Lim. 7; Non-HVHZ)
C-M-3	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with JM All Purpose Fasteners and JM High Load Plus Plates; Fastener rows max. 90-inch o.c.	-45 (Lim. 7)
C-M-4	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with JM All Purpose Fasteners and High Load Plates; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
C-M-5	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with JM All Purpose Fasteners and High Load Plates; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
C-M-6	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with JM All Purpose Fasteners and High Load Plates; Fastener rows max. 114-inch o.c.	-52.5 (Lim. 7)
C-M-7	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with JM All Purpose Fasteners and High Load Plates; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
C-M-8	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with JM All Purpose Fasteners and High Load Plates; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Mechanically Fastened Assemblies over Concrete Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
C-M-9	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM TPO	Attached in-lap 6-inch o.c. with JM All Purpose Fasteners and High Load Plates; Fastener rows max. 90-inch o.c.	-75 (Lim. 7)
C-M-10	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM TPO	Attached in-lap 6-inch o.c. with JM All Purpose Fasteners and High Load Plates; Fastener rows max. 54-inch o.c.	-97.5 (Lim. 7)

Induction Welded Assemblies over Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
C-W-1	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with JM All Purpose Fasteners and JM TPO RhinoPlates at a rate of 8 per 4-ft x 8-ft board (1 fastener per 4.0-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-45 (Lim. 7)
C-W-2	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with JM All Purpose Fasteners and JM TPO RhinoPlates at a rate of 12 per 4-ft x 8-ft board (1 fastener per 2.67-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-75 (Lim. 7)
C-W-3	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with JM All Purpose Fasteners and JM TPO RhinoPlates in a 24-inch by 16-inch grid pattern	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-90 (Lim. 7)
C-W-4	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with JM All Purpose Fasteners and JM TPO RhinoPlates at a rate of 15 per 4-ft x 8-ft board (1 fastener per 2.13-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-90 (Lim. 7)

Adhered Assemblies over Cementitious Wood Fiber Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
CW-A-1	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA or RSUA applied 12-inch o.c.	JM Invinsa	OSFA, 2-Part UIA, or RSUA applied 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c. or JM TPO Water Based Membrane Adhesive; Applied 0.56-0.71 gal/100ft ²	-122.5 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Assemblies over Cementitious Wood Fiber Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
CW-A-2	Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	OPTIONAL SECUROCK	RSUA, OSFA, or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or RSUA applied 12-inch o.c.	-135 (Lim. 9)
CW-A-3	Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	OPTIONAL SECUROCK	RSUA, OSFA, or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-135 (Lim. 9)
CW-A-4	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	SECUROCK	RSUA, OSFA, or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or RSUA applied 12-inch o.c.	-140 (Lim. 9)
CW-A-5	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	SECUROCK	RSUA, OSFA, or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-140 (Lim. 9)
CW-A-6	SECUROCK	RSUA, OSFA, or 2-Part UIA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or RSUA applied 12-inch o.c.	-157.5 (Lim. 9)
CW-A-7	SECUROCK	RSUA, OSFA, or 2-Part UIA applied 12-inch o.c.	-	-	JM TPO SA	Self-adhered	-157.5 (Lim. 9)
CW-A-8	Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive applied 0.63-0.83 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.55 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ² or RSUA applied 12-inch o.c.	-157.5 (Lim. 9)
CW-A-9	JM Invinsa	RSUA applied 12-inch o.c.	-	-	JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.56-0.71 gal/100ft ²	-160 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Assemblies over Cementitious Wood Fiber Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
CW-A-10	Min. 475 psi Celcore MF with HS Rheology Admixture installed	Poured-in-place	-	-	JM TPO FB	RSUA applied 12-inch o.c.	-167.5 (Lim. 9)
CW-A-11	Min. 475 psi Celcore MF with HS Rheology Admixture installed	Poured-in-place	-	-	JM TPO FB	RSUA applied 4-inch o.c.	-197.5 (Lim. 9)

Assemblies with All Layers Adhered over Gypsum Deck (New or Existing)							
System No.	Base Sheet or Insulation	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
G-A-1	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive applied 0.63-0.83 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.55 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ² or RSUA applied 12-inch o.c.	-75 (Lim. 9)
G-A-2	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 12-inch o.c.	JM Invinsa	2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ² on membrane and substrate or JM TPO FB: RSUA applied 12-inch o.c. or JM TPO Water Based Membrane Adhesive; Applied 0.56-0.71 gal/100ft ²	-75 (Lim. 9)
G-A-3	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 12-inch o.c.	JM Invinsa	2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-75 (Lim. 9)
G-A-4	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 12-inch o.c.	SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or RSUA applied 12-inch o.c.	-75 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with All Layers Adhered over Gypsum Deck (New or Existing)							
System No.	Base Sheet or Insulation	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
G-A-5	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 12-inch o.c.	SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-75 (Lim. 9)
G-A-6	Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive applied 0.63-0.83 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.55 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ² or RSUA applied 12-inch o.c.	-77.5 (Lim. 9)
G-A-7	Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	JM Invinsa	OSFA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ² on membrane and substrate or JM TPO FB: RSUA applied 12-inch o.c. or JM TPO Water Based Membrane Adhesive; Applied 0.56-0.71 gal/100ft ²	-77.5 (Lim. 9)
G-A-8	Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	JM Invinsa	OSFA applied 12-inch o.c.	JM TPO SA	Self-adhered	-77.5 (Lim. 9)
G-A-9	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	SECUROCK	RSUA or OSFA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or RSUA applied 12-inch o.c.	-77.5 (Lim. 9)
G-A-10	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	SECUROCK	RSUA or OSFA applied 12-inch o.c.	JM TPO SA	Self-adhered	-77.5 (Lim. 9)
G-A-11	-	-	-	-	JM TPO FB	RSUA applied 12-inch o.c.	-85 (Lim. 9)
G-A-12	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 1 2-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive applied 0.63-0.83 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.55 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-90 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with All Layers Adhered over Gypsum Deck (New or Existing)							
System No.	Base Sheet or Insulation	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
G-A-13	JM Invinsa	OSFA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ² on membrane and substrate or JM TPO FB: RSUA applied 12-inch o.c. or JM TPO Water Based Membrane Adhesive; Applied 0.56-0.71 gal/100ft ²	-92.5 (Lim. 9)
G-A-14	Min. 1.5-inch E3 (no FR)	UIA at 12-inch o.c.	OPTIONAL Min. 1.5-inch E3 (no FR)	UIA at 12-inch o.c.	JM TPO	JM LVOC Membrane Adhesive (TPO & EPDM); Applied 0.55 gal/100ft ² or JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.55 gal/100ft ²	-112.5 (Lim. 9)
G-A-15	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF	UIA at 12-inch o.c.	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF	UIA at 12-inch o.c.	JM TPO or JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-195 (Lim. 9)
G-A-16	Min. 1.5-inch E3 (no FR)	UIA at 12-inch o.c.	SECUROCK	2-Part UIA, OSFA, or RSUA at 12-inch o.c.	JM TPO SA	Self-adhered	-112.5 (Lim. 9)
G-A-17	Min. 1.5-inch E3 (no FR)	UIA at 12-inch o.c.	SECUROCK	2-Part UIA, OSFA, or RSUA at 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-112.5 (Lim. 9)
G-A-18	Min. 1.5-inch E3 (no FR)	UIA at 12-inch o.c.	INVINSA	2-Part UIA, OSFA, or RSUA at 12-inch o.c.	JM TPO	JM TPO Water Based Membrane Adhesive; Applied 0.56-0.71 gal/100ft ²	-112.5 (Lim. 9)
G-A-19	Min. 1.5-inch E3 (no FR)	UIA at 12-inch o.c.	INVINSA	2-Part UIA, OSFA, or RSUA at 12-inch o.c.	JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.56-0.71 gal/100ft ²	-112.5 (Lim. 9)
G-A-20	-	-	-	-	JM TPO FB	RSUA applied 6-inch o.c.	-155 (Lim. 9)
G-A-21	Min. 1.5-inch E3 (no FR)	ICP Adhesive CR-20 applied 12-inch o.c.	OPTIONAL Min. 1.5-inch E3 (no FR)	ICP Adhesive CR-20 applied 12-inch o.c.	JM TPO	JM LVOC Membrane Adhesive (TPO & EPDM); Applied 0.55 gal/100ft ²	-172.5 (Lim. 9)
G-A-22	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF	ICP Adhesive CR-20 applied 12-inch o.c.	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF	ICP Adhesive CR-20 applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-195 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with All Layers Adhered over Gypsum Deck (New or Existing)							
System No.	Base Sheet or Insulation	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
G-A-23	Min. 1.5-inch E3 (no FR)	ICP Adhesive CR-20 applied 12-inch o.c.	OPTIONAL Min. 1.5-inch E3 (no FR)	ICP Adhesive CR-20 applied 12-inch o.c.	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM); applied 0.55 gal/100ft ²	-244 (Lim. 9)

Assemblies with Adhered Membranes over Insulated Gypsum Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
G-AM-1	-	-	PermaPly 28	Min, 1.8-inch JM UltraLok Fastener secured 7-inch o.c. at the lap and 7-inch o.c. in two (2) equally spaced and staggered rows in the field	JM TPO HFB	Fully adhered in ASTM D 312, Type IV hot asphalt	-52.5 (Lim. 7)

Adhered Lightweight Concrete Assemblies over <i>Concrete Deck</i> (New or Existing)						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	<i>MDP</i> (psf)
LC-A-1	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Min. 1.5-inch ENRGY 3	<i>RSUA</i> ribbons spaced 12-inch o.c.	<i>JM TPO</i> or <i>JM TPO FB</i>	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM) Applied 0.83 gal/100ft ² or JM TPO Water Based Adhesive applied 0.63-0.71 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.55 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive applied 0.59-0.77 gal/100ft2	-77.5 (Lim. 9)
LC-A-2	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Min. 1.5-inch ENRGY 3	<i>RSUA</i> ribbons spaced 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-77.5 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Lightweight Concrete Assemblies over Concrete Deck (New or Existing)						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LC-A-3	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF Top Layer: <i>SECUROCK</i>	Base and Top layer secured with <i>RSUA</i> ribbons spaced 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-77.5 (Lim. 9)
LC-A-4	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF Top Layer: <i>SECUROCK</i>	Base and Top layer secured with <i>RSUA</i> ribbons spaced 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-77.5 (Lim. 9)
LC-A-5	Min. 300 psi <i>LWIC</i>	Min. 1.5-inch ENRGY 3	<i>2-Part UIA</i> ribbons spaced 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM) Applied 0.83 gal/100ft ² or JM TPO Water Based Adhesive applied 0.63-0.71 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.55 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive applied 0.59-0.77 gal/100ft ²	-80 (Lim. 9)
LC-A-6	Min. 300 psi <i>LWIC</i>	Min. 1.5-inch ENRGY 3	<i>2-Part UIA</i> ribbons spaced 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-80 (Lim. 9)
LC-A-7	Min. 300 psi <i>LWIC</i>	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: <i>SECUROCK</i>	<i>2-Part UIA</i> ribbons spaced 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-80 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Lightweight Concrete Assemblies over Concrete Deck (New or Existing)						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LC-A-8	Min. 300 psi LWIC	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	2-Part UIA ribbons spaced 12-inch o.c.	JM TPO SA	Self-adhered	-80 (Lim. 9)
LC-A-9	Min. 383.5 psi Celcore MF with HS Rheology Admixture installed over OPTIONAL JM Vapor Barrier SA or DynaBase HW over ASTM D 41 primed concrete	-	-	JM TPO FB	RSUA applied 6-inch o.c.	-112.5 (Lim. 9)
LC-A-10	Min. 310 psi Elastizell with Zell-Crete Fibers	Min. 1.5-inch ENRGY 3	2-Part UIA ribbons spaced 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM) Applied 0.83 gal/100ft ² or JM TPO Water Based Adhesive applied 0.63-0.71 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.55 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive applied 0.59-0.77 gal/100ft ²	-130 (Lim. 9)
LC-A-11	Min. 310 psi Elastizell with Zell-Crete Fibers	Min. 1.5-inch ENRGY 3	2-Part UIA ribbons spaced 12-inch o.c.	JM TPO SA	Self-adhered	-130 (Lim. 9)
LC-A-12	Min. 310 psi Elastizell with Zell-Crete Fibers	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	2-Part UIA ribbons spaced 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-130 (Lim. 9)
LC-A-13	Min. 310 psi Elastizell with Zell-Crete Fibers	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	2-Part UIA ribbons spaced 12-inch o.c.	JM TPO SA	Self-adhered	-130 (Lim. 9)
LC-A-14	Min. 375 psi Concrecel	-	-	JM TPO FB	RSUA applied 12-inch o.c.	-147.5 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Lightweight Concrete Assemblies over <i>Concrete Deck</i> (New or Existing)						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LC-A-15	Min. 475 psi Celcore MF with HS Rheology Admixture installed over OPTIONAL DynaBase HW	-	-	JM TPO FB	RSUA applied 12-inch o.c.	-167.5 (Lim. 9)
LC-A-16	Min. 375 psi Concrecel	-	-	JM TPO FB	RSUA applied 6-inch o.c.	-172.5 (Lim. 9)
LC-A-17	Min. 375 psi Concrecel	-	-	JM TPO	JM TPO Membrane Adhesive (Low VOC) applied 1.5-2 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM)	-257.5 (Lim. 9)
LC-A-18	Min. 475 psi Celcore MF with HS Rheology Admixture installed over OPTIONAL DynaBase HW	-	-	JM TPO FB	RSUA applied 4-inch o.c.	-257.5 (Lim. 9)
LC-A-19	Min. 213.5 Elastizell with Zell-Crete Fibers (no EPS Board)	-	-	JM TPO FB	RSUA applied 6-inch o.c.	-290 (Lim. 9)

Lightweight Concrete Assemblies with Adhered Membranes over <i>Concrete Deck</i> (New or Existing)							
System No.	Deck Detail	LWIC	Base Sheet	Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
LC-AM-1	G33, P, L6, S18	Min. 200 psi Elastizell with Zell-Crete Fibers	PermaPly 28	Min. 1.7-inch LWC CR Base Sheet Fasteners secured 9-inch o.c. at the lap and 9-inch o.c. in two (2) equally spaced staggered rows in the field	JM TPO HFB	Fully adhered in ASTM D 312 hot asphalt	-45 (Lim. 7)

Mechanically Fastened Lightweight Concrete Assemblies over <i>Concrete Deck</i> (New, Existing, or Recover)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-M-1	G40, P, L6, S18	Min. 200 psi Elastizell with Zell-Crete Fibers	-	-	JM TPO	Attached in-lap 6-inch o.c. with JM All Purpose Fasteners and High Load Plates; Fastener rows max. 90-inch o.c.	-67.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Induction Welded Lightweight Concrete Assemblies over Concrete Deck (New or Existing) (New, Existing, or Recover)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-W-1	G40, P, L6, S18	Min. 200 psi Elastizell with Zell-Crete Fibers	-	-	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates and JM All Purpose Fasteners secured 6-inch o.c. in rows spaced 96-inch o.c.	-60 (Lim. 7)

Adhered Lightweight Concrete Assemblies over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-A-1	G33	Min. 475 psi Celcore MF with HS Rheology	-	-	JM TPO FB	RSUA applied 12-inch o.c.	-45 (Lim. 9)
LS-A-2	G33	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Min. 1.5-inch ENRGY 3	RSUA ribbons spaced 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM) Applied 0.83 gal/100ft ² or JM TPO Water Based Adhesive applied 0.63-0.71 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.55 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive applied 0.59-0.77 gal/100ft ²	-77.5 (Lim. 9)
LS-A-3	G33	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Min. 1.5-inch ENRGY 3	RSUA ribbons spaced 12-inch o.c.	JM TPO SA	Self-adhered	-77.5 (Lim. 9)
LS-A-4	G33	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF Top Layer: SECUROCK	Base and Top layer secured with RSUA ribbons spaced 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-77.5 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Lightweight Concrete Assemblies over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-A-5	G33	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF Top Layer: SECUROCK	Base and Top layer secured with <i>RSUA</i> ribbons spaced 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-77.5 (Lim. 9)
LS-A-6	G33	Min. 300 psi <i>LWIC</i>	Min. 1.5-inch ENRGY 3	<i>2-Part UIA</i> ribbons spaced 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM) Applied 0.83 gal/100ft ² or JM TPO Water Based Adhesive applied 0.63-0.71 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.55 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive applied 0.59-0.77 gal/100ft ²	-80 (Lim. 9)
LS-A-7	G33	Min. 300 psi <i>LWIC</i>	Min. 1.5-inch ENRGY 3	<i>2-Part UIA</i> ribbons spaced 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-80 (Lim. 9)
LS-A-8	G33	Min. 300 psi <i>LWIC</i>	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	<i>2-Part UIA</i> ribbons spaced 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-80 (Lim. 9)
LS-A-9	G33	Min. 300 psi <i>LWIC</i>	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	<i>2-Part UIA</i> ribbons spaced 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-80 (Lim. 9)
LS-A-10	G80, P, L5, S15	Min. 250 psi Elastizell with Zell-Crete Fibers	-	-	<i>JM TPO FB</i>	<i>RSUA</i> applied 6-inch o.c.	-97.5 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Adhered Lightweight Concrete Assemblies over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-A-11	G80, P, L5, S15	Min. 250 psi Elastizell with Zell-Crete Fibers	-	-	JM TPO	JM TPO Membrane Adhesive (Low VOC) applied at rate of 90 ft ² /gal, half applied to LWIC and half to underside of membrane or JM LVOC Membrane Adhesive (TPO & EPDM)	-97.5 (Lim. 9)
LS-A-12	G33	Min. 310 psi Elastizell with Zell-Crete Fibers	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	2-Part UIA ribbons spaced 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-130 (Lim. 9)
LS-A-13	G33	Min. 310 psi Elastizell with Zell-Crete Fibers	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	2-Part UIA ribbons spaced 12-inch o.c.	JM TPO SA	Self-adhered	-130 (Lim. 9)
LS-A-14	G33	Min. 200 psi Elastizell with Zell-Crete Fibers	-	-	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ² on membrane and substrate	-180 (Lim. 9; HVHZ only)
LS-A-15	G33	Min. 150 psi LWIC	-	-	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ² on membrane and substrate	-265 (Lim. 9; HVHZ only)

Lightweight Concrete Assemblies with Adhered Membranes over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Base Sheet	Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-AM-1	G33, P, L6, S18	Min. 200 psi Elastizell with Zell-Crete Fibers	PermaPly 28	Min. 1.7-inch LWC CR Base Sheet Fasteners secured 9-inch o.c. at the lap and 9-inch o.c. in two (2) equally spaced staggered rows in the field	JM TPO FB	Fully adhered in ASTM D 312 hot asphalt	-45 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Mechanically Fastened Lightweight Concrete Assemblies over Steel Deck (New, Existing, or Recover)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-M-1	G40, P, L6, S18	Min. 200 psi Elastizell with Zell-Crete Fibers	-	-	JM TPO	Attached in-lap 6-inch o.c. with HL Fastener & Plates; Fastener rows max. 90-inch o.c.	-67.5 (Lim. 7)

Induction Welded Lightweight Concrete Assemblies over Steel Deck (New or Existing) (New, Existing, or Recover)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-W-1	G40, P, L6, S18	Min. 200 psi Elastizell with Zell-Crete Fibers	-	-	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates and High Load Fasteners secured 6-inch o.c. in rows spaced 96-inch o.c.	-60 (Lim. 7)

Adhered Recover Assemblies						
System No.	Existing Roof	Base Insulation	Top Insulation or Base Ply	Membrane	Membrane Attachment	MDP (psf)
R-A-1	BUR or Mod-Bit Roofing with mineral surfacing	-	-	JM TPO FB	RSUA applied 12-inch o.c.	-45 (Lim. 9)
R-A-2	Concrete Deck	OPTIONAL INSULATION under Min. 1.5-inch E3	UltraFast Fasteners and Plates (Square) or UltraFast Fasteners and Plates (Square) secured 1 fastener per 2ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-45 (Lim. 7)
R-A-3	Concrete Deck	OPTIONAL INSULATION under Min. 1.5-inch E3	UltraFast Fasteners and Plates (Square) or UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
R-A-4	BUR over Concrete Deck	Min. 1.5-inch E3 (no FR)	2-Part UIA at 12-inch o.c.	JM TPO HFB	ASTM D 312 Type IV Asphalt	-217.5 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Mechanically Fastened Recover Assemblies								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
R-M-1	Steel Deck (G33) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with High Load Fasteners and JM High Load Plus Plates for Steel Deck or JM All Purpose Fasteners and JM High Load Plus Plates for Concrete Deck; Fastener rows max. 114-inch o.c.	-30 (Lim. 7; Non-HVHZ)
R-M-2	Steel Deck (G33) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with HL Fastener & Plates; Fastener rows max. 90-inch o.c.	-37.5 (Lim. 7; Non-HVHZ)
R-M-3	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch INSULATION over fill or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with JM Purlin Fasteners and High Load Plates to structural supports; Fastener rows max. 60-inch o.c.	-37.5 (Lim. 7; Non-HVHZ)
R-M-4	Wood Deck (T19/32)	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 4-inch o.c. with JM APB Plates and High Load Fasteners; Fastener rows max. 114-inch o.c.	-37.5 (Lim. 7; Non-HVHZ)
R-M-5	Existing metal roof having Min. 14 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch INSULATION over fill or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with JM Purlin Fasteners and High Load Plates to structural supports; Fastener rows max. 60-inch o.c.	-45 (Lim. 7)
R-M-6	Steel Deck (G80, F2W, L6, S24) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with High Load Fasteners and JM High Load Plus Plates for Steel Deck or JM All Purpose Fasteners and JM High Load Plus Plates for Concrete Deck; Fastener rows max. 90-inch o.c.	-45 (Lim. 7)
R-M-7	Steel Deck (G80, F1, L6, S18) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with Extra HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
R-M-8	Steel Deck (G80, F1, L6, S18) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Mechanically Fastened Recover Assemblies								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
R-M-9	Steel Deck (G80, F1, L6, S18) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with Extra HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-52.5 (Lim. 7)
R-M-10	Wood Deck (T19/32, L24, N6)	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-60 (Lim. 7)
R-M-11	Steel Deck (G80, F1, L6, S18) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
R-M-12	Steel Deck (G33, L6, P) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
R-M-13	Steel Deck (G33, L6, P) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-75 (Lim. 7)
R-M-14	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch INSULATION over fill or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with JM Purlin Fasteners and High Load Plates to structural supports; Fastener rows max. 60-inch o.c.	-82.5 (Lim. 7)
R-M-15	Steel Deck (G33, L6, P) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-97.5 (Lim. 7)

Induction Welded Recover Assemblies								
System No.	Existing Roof	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
R-W-1	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch INSULATION over fill or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured to structural supports 18-inch o.c.; Fastener rows max. 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-45 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Induction Welded Recover Assemblies								
System No.	Existing Roof	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
R-W-2	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch INSULATION over fill or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured to structural supports 6-inch o.c.; Fastener rows max. 120-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-45 (Lim. 7)
R-W-3	Steel Deck (G33, L6, P) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates at a rate of 8 per 4-ft x 8-ft board (1 fastener per 4.0-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-45 (Lim. 7)
R-W-4	Wood Deck (T15/32, L24, N6)	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Min. 2.25-inch JM All Purpose Fastener and JM TPO RhinoPlates secured max. 24-inch o.c. through sheathing into wood structural supports in rows max. 24" o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-52.5 (Lim. 7)
R-W-5	Wood Deck (T15/32, L24, N6)	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Min. 2.25-inch JM All Purpose Fastener and JM TPO RhinoPlates secured max. 9-inch o.c. through sheathing into wood structural supports in rows max. 48" o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-60 (Lim. 7)
R-W-6	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch INSULATION over fill or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured to structural supports 12-inch o.c.; Fastener rows max. 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-67.5 (Lim. 7)
R-W-7	Steel Deck (G33, L6, P) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates at a rate of 12 per 4-ft x 8-ft board (1 fastener per 2.67-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-75 (Lim. 7)
R-W-8	Steel Deck (G33, F2W, L6) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates at a rate of 15 per 4-ft x 8-ft board (1 fastener per 2.13-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-90 (Lim. 7)
R-W-9	Wood Deck (T15/32, L24, N6)	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Min. 2.25-inch JM All Purpose Fastener and JM TPO RhinoPlates secured max. 6-inch o.c. through sheathing into wood structural supports in rows max. 48" o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-112.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Induction Welded Recover Assemblies								
System No.	Existing Roof	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
R-W-10	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	Min. 1-inch INSULATION over fill or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured to structural supports 6-inch o.c.; Fastener rows max. 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-120 (Lim. 7)

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-1	G33	-	OPTIONAL INSULATION	<i>Preliminarily Secured</i> or secured with top layer	Min. 2-inch Fesco Foam	<i>UltraFast Fasteners and Plates</i> secured 1 fastener per 5.3ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM), JM TPO Membrane Adhesive (Low VOC), or JM LVOC Membrane Adhesive (TPO & EPDM)	-37.5 (Lim. 7; Non-HVHZ)
S-AM-2	G33	-	OPTIONAL INSULATION	<i>Preliminarily Secured</i> or secured with top layer	Min. 2-inch Invinso Foam	<i>UltraFast Fasteners and Plates</i> secured 1 fastener per 5.3ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM), JM TPO Water Based Membrane Adhesive, JM TPO Membrane Adhesive (Low VOC), or JM LVOC Membrane Adhesive (TPO & EPDM)	-45 (Lim. 7; Non-HVHZ)
S-AM-3	G33	-	OPTIONAL INSULATION	<i>Preliminarily Secured</i> or secured with top layer	Min. 2-inch Invinso Foam	<i>UltraFast Fasteners and Plates</i> secured 1 fastener per 5.3ft ²	JM TPO SA	Self-adhered	-45 (Lim. 7; Non-HVHZ)
S-AM-4	G33	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.375-inch SECUROCK	<i>UltraFast Fasteners and Plates (Square)</i> secured 1 fastener per 2.67ft ²	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-45 (Lim. 7; Non-HVHZ)
S-AM-5	G33	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.375-inch SECUROCK	<i>UltraFast Fasteners and Plates (Square)</i> secured 1 fastener per 2.67ft ²	JM TPO SA	Self-adhered	-45 (Lim. 7; Non-HVHZ)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-6	G33	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 4.0ft ²	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM) applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-45 (Lim. 9)
S-AM-7	G33	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 4.0ft ²	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-AM-8	G33	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners and Plates secured 1 fastener per 2.0ft ²	-	-	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83 gal/100ft ² on membrane and substrate or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM); Applied 0.55 gal/100ft ²	-45 (Lim. 9)
S-AM-9	G33	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners and Plates secured 1 fastener per 2.0ft ²	-	-	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-AM-10	G33	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners and Plates secured 1 fastener per 2.0ft ²	RetroPlus	RSUA or 2-Part UIA; applied 12-inch o.c	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM); Applied 1.67 gal/100ft ²	-45 (Lim. 9)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-11	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 2-inch ENRGY 3	<i>UltraFast Fasteners and Plates</i> secured 1 fastener per 4.0ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or RSUA applied 12-inch o.c.	-45 (Lim. 7)
S-AM-12	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 2-inch ENRGY 3	<i>UltraFast Fasteners and Plates</i> secured 1 fastener per 4.0ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-13	G33, F1, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	<i>UltraFast Fasteners and Plates (Square)</i> secured 1 fastener per 1.33ft ²	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-52.5 (Lim. 7)
S-AM-14	G33, F1, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	<i>UltraFast Fasteners and Plates (Square)</i> secured 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-15	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	<i>UltraFast Fasteners and Plates</i> secured 1 fastener per 1.33ft ²	SECUROCK	RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ² or RSUA applied 12-inch o.c.	-52.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-16	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	<i>UltraFast Fasteners and Plates</i> secured 1 fastener per 1.33ft ²	SECUROCK	RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-17	G40, P, L6, S20	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	<i>UltraFast Fasteners & Plates</i> secured at a rate of 1 fastener per 1.45ft ²	JM Invinsa	RSUA or 2-Part UIA ribbons spaced 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c.	-52.5 (Lim. 7)
S-AM-18	G40, P, L6, S20	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	<i>UltraFast Fasteners & Plates</i> secured at a rate of 1 fastener per 1.45ft ²	JM Invinsa	RSUA or 2-Part UIA ribbons spaced 12-inch o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-19	G33, P, L6, S24	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	<i>UltraFast Fasteners and Plates (Square)</i> secured 1 fastener per 1.78ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM) or JM TPO Membrane Adhesive (Low VOC) applied 0.83 gal/100ft ² or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-52.5 (Lim. 7)
S-AM-20	G33, F2, L6, S24	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	<i>UltraFast Fasteners and Plates</i> secured 1 fastener per 2.67ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM) or JM TPO Membrane Adhesive (Low VOC) applied 0.83 gal/100ft ² or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-52.5 (Lim. 7)
S-AM-21	G33, F2, L6, S24	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	<i>UltraFast Fasteners and Plates</i> secured 1 fastener per 2.67ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-22	G33, F1, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	<i>UltraFast Fasteners and Plates (Square)</i> secured 1 fastener per 1.33ft ²	JM TPO HFB	Base Ply: Torch Adhered Membrane: ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-23	G33, F1, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.33ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
S-AM-24	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners and Plates secured 1 fastener per 1.33ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
S-AM-25	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners and Plates secured 1 fastener per 1.33ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM TPO HFB	Base Ply: Torch Adhered Membrane: ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
S-AM-26	G33, F2, L6, S18	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
S-AM-27	G33, F1, L6, S30	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners & Plates secured at a rate of 1 fastener per 1.78ft ²	Min 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-60 (Lim. 7)
S-AM-28	G33, F1, L6, S30	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners & Plates secured at a rate of 1 fastener per 1.78ft ²	Min 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-60 (Lim. 7)
S-AM-29	G33, F2W, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-60 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-30	G80, F1W, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO or JM TPO FB	JM TPO: JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.83-1.10 gal/100ft ² or JM LVOC Membrane Adhesive (TPO & EPDM) applied 0.83 gal/100ft ² or JM TPO FB: JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-60 (Lim. 7)
S-AM-31	G33, F2W, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-60 (Lim. 7)
S-AM-32	G33, F2, L6, S24	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1.78ft ²	JM TPO	JM LVOC Membrane Adhesive (TPO & EPDM) or JM Membrane Bonding Adhesive (TPO & EPDM); Applied 0.55 gal/100ft ²	-60 (Lim. 7)
S-AM-33	G33, F2, L6, S24	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	UltraFast Fasteners and Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-60 (Lim. 7)
S-AM-34	G33, F2W, L6, S18	-	OPTIONAL INSULATION under min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1ft ²	SECUROCK or JM InvinSA	RSUA or 2-Part UIA; Applied 6-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c.	-67.5 (Lim. 7)
S-AM-35	L6, G80, F1, S30	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners & Plates secured at a rate of 24 per 4-ft x 8-ft Board	Min. 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-67.5 (Lim. 7)
S-AM-36	L6, G80, F1, S30	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners & Plates secured at a rate of 24 per 4-ft x 8-ft Board	Min. 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-67.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-37	G33, F2, L6, S24	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	UltraFast Fasteners and Plates secured 1 fastener per 2.0ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM) or JM TPO Membrane Adhesive (Low VOC) applied 0.83 gal/100ft ² or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-67.5 (Lim. 7)
S-AM-38	G33, F2, L6, S24	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	UltraFast Fasteners and Plates secured 1 fastener per 2.0ft ²	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
S-AM-39	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.0ft ²	JM TPO or JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-82.5 (Lim. 7)
S-AM-40	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.0ft ²	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-41	G80, F1W, L6, S24	Min. 0.5-inch DEXcell FA; UltraFast Fasteners and Plates secured 1 fastener per 1.0ft ² ; JM Vapor Barrier SA self-adhered over SA Primer	Min. 1.5-inch E3	RSUA or 2-Part UIA; Applied 6-inch o.c.	Min. 0.5-inch DEXcell FA	RSUA applied 6-inch o.c.	JM TPO FB	RSUA applied 6-inch o.c.	-82.5 (Lim. 7)
S-AM-42	G33, F2, L6, S24	Min. 0.5-inch DEXcell FA secured with top layer; JM Vapor Barrier SA self-adhered	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	UltraFast Fasteners and Plates secured 1 fastener per 1.0ft ²	JM TPO FB	RSUA applied 4-inch o.c.	-82.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-43	G80, F2, L6, S24	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	UltraFast Fasteners and Plates secured 1 fastener per 1.33ft ²	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM) or JM TPO Membrane Adhesive (Low VOC) applied 0.83 gal/100ft ² or JM TPO Water Based Membrane Adhesive; Applied 0.63-0.83 gal/100ft ²	-105 (Lim. 7)
S-AM-44	G80, F2, L6, S24	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	UltraFast Fasteners and Plates secured 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-105 (Lim. 7)
S-AM-45	G80, F2, L6, S24	Min. 0.5-inch DEXcell FA secured with top layer; JM Vapor Barrier SA self-adhered	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	UltraFast Fasteners and Plates secured 1 fastener per 1.0ft ²	JM TPO FB	RSUA applied 4-inch o.c.	-142.5 (Lim. 7)
S-AM-46	G80, F1W, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECURock	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO or JM TPO FB	JM TPO Water Based Membrane Adhesive; Applied 0.59-0.77 gal/100ft ²	-150 (Lim. 7)
S-AM-47	G80, F1W, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECURock	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM TPO SA	Self-adhered	-150 (Lim. 7)

Mechanically Fastened Assemblies over <i>Steel Deck</i> (New, Existing, or Recover)								
System No.	<i>Deck Detail</i>	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	<i>MDP</i> (psf)
S-M-1	G33, L6	OPTIONAL <i>INSULATION</i> under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL <i>Cover Board</i>	<i>Preliminarily Secured</i>	JM TPO	Attached in-lap 12-inch o.c. with High Load Fasteners and JM High Load Plus Plates; Fastener rows max. 114-inch o.c.	-30 (Lim. 7; Non-HVHZ)
S-M-2	G33, L6	OPTIONAL <i>INSULATION</i> under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL <i>Cover Board</i>	<i>Preliminarily Secured</i>	JM TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with <i>HL Fastener & Plates</i> ; Fastener rows max. 90-inch o.c.	-37.5 (Lim. 7; Non-HVHZ)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Mechanically Fastened Assemblies over Steel Deck (New, Existing, or Recover)								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
S-M-3	G80, F2W, L6, S24	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with High Load Fasteners and JM High Load Plus Plates; Fastener rows max. 90-inch o.c.	-45 (Lim. 7)
S-M-4	G80, F1, L6, S18	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 12-inch o.c. with Extra HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
S-M-5	G80, F1, L6, S18	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
S-M-6	G80, F1, L6, S18	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with Extra HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-52.5 (Lim. 7)
S-M-7	G80, F1, L6, S18	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
S-M-8	G33, P, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
S-M-9	G33, P, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-75 (Lim. 7)
S-M-10	G33, P, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-97.5 (Lim. 7)

Induction Welded Assemblies over Steel Deck (New, Existing, or Recover)								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
S-W-1	G33, P, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates at a rate of 8 per 4-ft x 8-ft board (1 fastener per 4.0-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-45 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Induction Welded Assemblies over <i>Steel Deck</i> (New, Existing, or Recover)								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
S-W-2	G33, F2, L6, S18	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates at a rate of 8 per 4-ft x 8-ft board (1 fastener per 4.0-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-67.5 (Lim. 7)
S-W-3	G33, P, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates at a rate of 12 per 4-ft x 8-ft board (1 fastener per 2.67-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-75 (Lim. 7)
S-W-4	G33, F2, L6, S24	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates in a 24-inch by 16-inch grid pattern	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-82.5 (Lim. 7)
S-W-5	G80, F2, L6, S24	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates in a 24-inch by 16-inch grid pattern	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-90 (Lim. 7)
S-W-6	G33, F2W, L6	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates at a rate of 15 per 4-ft x 8-ft board (1 fastener per 2.13-ft ²)	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-90 (Lim. 7)

Mechanically Fastened Assemblies over <i>Wood Deck</i> (New or Existing)									
System No.	Deck Detail	Thermal Barrier	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
W-M-1	T19/32P, L24	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 4-inch o.c. with JM APB Plates and High Load Fasteners; Fastener rows max. 114-inch o.c.	-37.5 (Lim. 7; Non-HVHZ)
W-M-2	T19/32P, L24, N6	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-60 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO SINGLE-PLY MEMBRANES

Induction Welded Assemblies over Wood Deck (New or Existing)									
System No.	Deck Detail	Thermal Barrier	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
W-W-1	T7/160 or T15/32P, L24	As required	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	Min. 2-inch JM All Purpose Fastener and JM TPO RhinoPlates secured max. 12-inch o.c. through sheathing into wood structural supports in row max. 8-ft o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-37.5 (Lim. 7; Non-HVHZ)
W-W-2	T7/160 or T15/32P, L24	As required	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Min. 2.25-inch JM All Purpose Fastener and JM TPO RhinoPlates secured max. 18-inch o.c. through sheathing into wood structural supports in row max. 4-ft o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-45 (Lim. 7; Non-HVHZ)
W-W-3	T15/32P, L24, N6	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Min. 2.25-inch JM All Purpose Fastener and JM TPO RhinoPlates secured max. 24-inch o.c. through sheathing into wood structural supports in rows max. 24" o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-52.5 (Lim. 7)
W-W-4	T15/32P, L24, N6	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Min. 2.25-inch JM All Purpose Fastener and JM TPO RhinoPlates secured max. 9-inch o.c. through sheathing into wood structural supports in rows max. 48" o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-60 (Lim. 7)
W-W-5	T15/32P, L24, N6	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Min. 2.25-inch JM All Purpose Fastener and JM TPO RhinoPlates secured max. 6-inch o.c. through sheathing into wood structural supports in rows max. 48" o.c.	JM TPO (Min. 60 mil)	Induction welded to JM TPO RhinoPlates	-112.5 (Lim. 7)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES
APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

The following notes shall be observed when using the assembly tables below.

1. Allowable pressures were calculated using a 2:1 margin of safety per FBC Section 1504.9.
2. Refer to [LIMITATIONS](#) and [NOMENCLATURE](#) sections of this evaluation when using the table(s) below.
3. Refer to [INSTALLATION](#) section of this report for installation detail when the information is not explicitly stated for the selected assembly.
4. The on-center (o.c.) spacing given is the maximum allowable attachment spacing for the rated system.
5. JM Vapor Barrier SA may be installed direct to deck prior to installing the roof assembly components for the following assembly types: C-M-#, C-W-#, G-M-#, LC-M-#, LS-M-#, S-M-#, S-W-#, W-M-#, and W-W-#
6. As Tested information for roof deck construction is provided for information only. The addition of the As Tested deck information does not obviate the requirement for rational design of the roof deck and roof deck attachment in accordance with FBC requirements.

Assembly System Numbers and Definitions	
C-A-#	Adhered Assemblies over <i>Concrete Deck</i> (New or Existing)
C-AM-#	Assemblies with Adhered Membranes over <i>Insulated Concrete Deck</i> (New, Existing or <i>Recover</i>)
C-M-#	Mechanically Fastened Assemblies over <i>Concrete Deck</i>
C-W-#	Induction Welded Assemblies over <i>Concrete Deck</i>
CW-A-#	Adhered Assemblies over <i>CWF Deck</i> (New or Existing)
CW-M-#	Mechanically Fastened Assemblies over <i>CWF Deck</i> (New, Existing, or <i>Recover</i>)
G-A-#	Adhered Assemblies over <i>Poured Gypsum Deck</i> (New or Existing)
G-M-#	Mechanically Fastened Assemblies over <i>Poured Gypsum Deck</i> (New, Existing or <i>Recover</i>)
LC-A-#	Adhered Lightweight Concrete Assemblies over <i>Concrete Deck</i> (New or Existing)
LC-M-#	Mechanically Fastened Lightweight Concrete Assemblies over <i>Concrete Deck</i> (New, Existing, or <i>Recover</i>)
LS-A-#	Adhered Lightweight Concrete Assemblies over <i>Steel Deck</i> (New or Existing)
LS-M-#	Mechanically Fastened Lightweight Concrete Assemblies over <i>Steel Deck</i> (New, Existing, or <i>Recover</i>)
R-A-#	Adhered <i>Recover</i> Assemblies
R-M-#	Mechanically Fastened <i>Recover</i> Assemblies
R-W-#	Induction Welded <i>Recover</i> Assemblies
S-AM-#	Assemblies with Adhered Membranes over <i>Insulated Steel Deck</i> (New, Existing or <i>Recover</i>)
S-M-#	Mechanically Fastened Assemblies over <i>Steel Deck</i> (New, Existing or <i>Recover</i>)
S-W-#	Induction Welded Assemblies over <i>Steel Deck</i>
W-AM-#	Assemblies with Adhered Membranes over <i>Insulated Wood Deck</i> (New, Existing or <i>Recover</i>)
W-M-#	Mechanically Fastened Assemblies over <i>Wood Deck</i> (New or Existing)
W-W-#	Induction Welded Assemblies over <i>Wood Deck</i> (New or Existing)

Adhered Assemblies over Concrete Deck (New or Existing)						
System No.	Vapor Barrier	Base Insulation	Top Insulation or Base Ply	Membrane	Membrane Attachment	MDP (psf)
C-A-1	DynaBase applied in ADCO Millennium Hurricane Force Membrane Adhesive at 6-inch o.c.	Min. 1.5-inch ENRGY 3 applied in <i>RSUA</i> at 12-inch o.c.	DynaBase applied in ADCO Millennium Hurricane Force Membrane Adhesive at 6-inch o.c.	<i>JM PVC FB</i>	<i>RSUA</i> applied 12-inch o.c.	-67.5 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Adhered Assemblies over Concrete Deck (New or Existing)						
System No.	Vapor Barrier	Base Insulation	Top Insulation or Base Ply	Membrane	Membrane Attachment	MDP (psf)
C-A-2	OPTIONAL JM Vapor Barrier SA applied over deck primed with JM SA Primer Low VOC	Min. 1.5-inch <i>E3</i> applied in <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	OPTIONAL <i>SECUROCK</i> , RetroPlus, or JM Invinsa applied in <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	<i>JM PVC FB</i>	<i>RSUA</i> applied 12-inch o.c.	-67.5 (Lim. 9)
C-A-3	OPTIONAL DynaBase HW or JM Vapor Barrier SA applied over deck primed with JM SA Primer Low VOC	Min. 1.5-inch <i>E3</i> applied in <i>RSUA</i> ; Applied 12-inch o.c.	<i>SECUROCK</i> applied in <i>OSFA</i> , <i>RSUA</i> , or 2-Part <i>UIA</i> at 12-inch o.c. followed by OPTIONAL DynaBase HW	<i>JM PVC FB</i>	<i>RSUA</i> applied 12-inch o.c.	-67.5 (Lim. 9)
C-A-4	-	Min. 1.5-inch <i>E3</i> (no FR) adhered with <i>UIA</i> , 2-Part <i>UIA</i> , <i>OSFA</i> , or <i>RSUA</i> at 12-inch o.c.	OPTIONAL JM Invinsa adhered with <i>UIA</i> or 2-Part <i>UIA</i> at 12-inch o.c.	<i>JM PVC FB</i>	JM PVC Membrane Adhesive (Water Based); Applied 1 gal/100ft ² or ASTM D 312 Type IV Asphalt	-105 (Lim. 9)
C-A-5	-	Min. 1.5-inch <i>E3</i> (no FR) adhered with <i>UIA</i> , 2-Part <i>UIA</i> , <i>OSFA</i> or <i>RSUA</i> at 12-inch o.c.	OPTIONAL JM Invinsa adhered with <i>UIA</i> or 2-Part <i>UIA</i> at 12-inch o.c.	<i>JM PVC</i>	JM PVC Membrane Adhesive (Low VOC); Applied 1.67 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-105 (Lim. 9)
C-A-6	-	Min. 1.5-inch <i>E3</i> (no FR) adhered with <i>UIA</i> , or 2-Part <i>UIA</i> , <i>OSFA</i> or <i>RSUA</i> at 12-inch o.c.	JM Invinsa adhered with <i>UIA</i> at 12-inch o.c.	<i>JM PVC</i>	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-112.5 (Lim. 9)
C-A-7	-	Min. 1.5-inch <i>E3</i> (no FR) applied in <i>RSUA</i> , <i>OSFA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	-	<i>JM PVC FB</i>	<i>RSUA</i> or 2-Part <i>UIA</i> applied 4-inch o.c.	-112.5 (Lim. 9)
C-A-8	-	Min. 1.5-inch <i>E3</i> (no FR), min. 1-inch Fesco, min. 1.5-inch Fesco Foam, or Retro-Fit adhered with ASTM D 312 Type asphalt	-	<i>JM PVC FB</i>	ASTM D 312 Type IV Asphalt	-150 (Lim. 9)
C-A-9	-	Min. 1.5-inch <i>E3</i> (no FR) adhered with 2-Part <i>UIA</i> , <i>OSFA</i> or <i>RSUA</i> at 12-inch o.c. or ASTM D 312 Type IV Asphalt	-	<i>JM PVC</i> or <i>JM PVC FB</i>	JM PVC Membrane Adhesive (Low VOC); Applied 1.67 gal/100ft ² with <i>JM PVC</i> only or ASTM D 312 Type IV Asphalt with <i>JM PVC FB</i> only	-217.5 (Lim. 9)
C-A-10	-	-	-	<i>JM PVC FB</i>	JM PVC Membrane Adhesive (Water Based); Applied 1 gal/100ft ²	-217.5 (Lim. 9)
C-A-11	DynaBase HW	<i>SECUROCK</i> applied in <i>RSUA</i> at 12-inch o.c.	DynaBase HW	<i>JM PVC FB</i>	<i>RSUA</i> applied at 12-inch o.c.	-217.5 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Adhered Assemblies over Concrete Deck (New or Existing)						
System No.	Vapor Barrier	Base Insulation	Top Insulation or Base Ply	Membrane	Membrane Attachment	MDP (psf)
C-A-12	DynaBase HW torch adhered over deck primed with ASTM D 41 primer	Min. 1.5-inch ENRGY 3 CGF applied in <i>RSUA</i> at 12-inch o.c.	<i>SECUROCK</i> applied in <i>RSUA</i> at 12-inch o.c.	<i>JM PVC</i>	JM PVC Membrane Adhesive (Low VOC)	-292.5 (Lim. 9)
C-A-13	-	<i>DEXcell CB</i> or <i>DEXcell FA</i> applied in 2-Part <i>UIA</i> or OlyBond 500 at 12-inch o.c.	-	<i>JM PVC</i> or <i>JM PVC FB</i>	JM PVC Membrane Adhesive (Low VOC) with <i>JM PVC</i> only or JM PVC Membrane Adhesive (Water Based) with <i>JM PVC FB</i> only	-390 (Lim. 9)

Assemblies with Adhered Membranes over Insulated Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
C-AM-1	OPTIONAL <i>INSULATION</i> under min. 1.5-inch <i>E3</i>	Simultaneously secured with top layer	<i>SECUROCK</i>	<i>AP Fasteners and Plates (Square)</i> secured 1 fastener per 1.33ft ²	<i>JM PVC</i> or <i>JM PVC FB</i>	JM PVC Membrane Adhesive (Low VOC); Applied 1-1.1 gal/100ft ² with <i>JM PVC</i> only or JM PVC Membrane Adhesive (Water Based); Applied 0.8-1.2 gal/100ft ² with <i>JM PVC FB</i> only	-52.5 (Lim. 7)
C-AM-2	OPTIONAL <i>INSULATION</i> under min. 1.5-inch <i>E3</i>	Simultaneously secured with top layer	<i>SECUROCK</i>	<i>AP Fasteners and Plates (Square)</i> secured 1 fastener per 1.33ft ²	Base Ply: DynaBase HW Membrane: <i>JM PVC FB</i>	Base Ply: Torch Adhered Membrane: <i>RSUA</i> applied 12-inch o.c.	-52.5 (Lim. 7)
C-AM-3	OPTIONAL <i>INSULATION</i> under min. 1.5-inch ENRGY 3	<i>AP Fasteners and Plates</i> secured 1 fastener per 1.33ft ²	<i>SECUROCK</i>	<i>OSFA</i> , <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	<i>JM PVC</i> or <i>JM PVC FB</i>	JM PVC Membrane Adhesive (Low VOC); Applied 1-1.1 gal/100ft ² with <i>JM PVC</i> only or JM PVC Membrane Adhesive (Water Based); Applied 0.8-1 gal/100ft ²	-52.5 (Lim. 7)
C-AM-4	OPTIONAL <i>INSULATION</i> under min. 1.5-inch ENRGY 3	<i>AP Fasteners and Plates</i> secured 1 fastener per 1.33ft ²	<i>SECUROCK</i>	<i>OSFA</i> , <i>RSUA</i> or 2-Part <i>UIA</i> ; Applied 12-inch o.c.	Base Ply: DynaBase HW Membrane: <i>JM PVC FB</i>	Base Ply: Torch Adhered Membrane: <i>RSUA</i> applied 12-inch o.c.	-52.5 (Lim. 7)
C-AM-5	OPTIONAL <i>INSULATION</i>	Simultaneously secured with top layer	Min. 1.5-inch <i>E3</i>	<i>AP Fasteners and Plates</i> secured 1 fastener per 1.78ft ²	<i>JM PVC FB</i>	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment	MDP (psf)
C-AM-6	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM PVC or JM PVC FB	JM PVC Membrane Adhesive (Low VOC); Applied 1-1.1 gal/100ft ² with JM PVC only or JM PVC Membrane Adhesive (Water Based); Applied 0.8-1.2 gal/100ft ² with JM PVC FB only	-60 (Lim. 7)
C-AM-7	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners & Plates secured at a rate of 1 fastener per 1.78ft ²	Min 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	Base Ply: DynaBase HW Membrane: JM PVC FB	Base Ply: Torch Adhered Membrane: RSUA applied 12-inch o.c.	-60 (Lim. 7)
C-AM-8	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners & Plates secured at a rate of 1 fastener per 1.78ft ²	Min 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM PVC or JM PVC FB	JM PVC Membrane Adhesive (Low VOC); Applied 1-1.1 gal/100ft ² with JM PVC only or JM PVC Membrane Adhesive (Water Based); Applied 0.8-1.2 gal/100ft ² with JM PVC FB only	-60 (Lim. 7)
C-AM-9	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.78ft ²	Base Ply: DynaBase HW Membrane: JM PVC FB	Base Ply: Torch Adhered Membrane: RSUA applied 12-inch o.c.	-60 (Lim. 7)
C-AM-10	OPTIONAL INSULATION under min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1ft ²	SECUROCK, RetroPlus, or JM InvinSA	RSUA or 2-Part UIA; Applied 6-inch o.c.	JM PVC FB	RSUA applied 12-inch o.c.	-67.5 (Lim. 7)
C-AM-11	OPTIONAL INSULATION under min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 6-inch o.c.	Base Ply: DynaBase HW Membrane: JM PVC FB	Base Ply: Torch Adhered Membrane: RSUA applied 12-inch o.c.	-67.5 (Lim. 7)

Mechanically Fastened Assemblies over Concrete Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
C-M-1	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 6-inch o.c. with Extra HL Fastener & Plates; Fastener rows max. 114-inch o.c.	-37.5 (Lim. 7; Non-HVHZ)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Mechanically Fastened Assemblies over Concrete Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
C-M-2	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Min. 5-inch wide side laps; Fastener rows max. 73-inch o.c.	-45 (Lim. 7)
C-M-3	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC or PVC SD Plus	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
C-M-4	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC SD Plus	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 54-inch o.c.	-45 (Lim. 7)
C-M-5	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 72-inch o.c.	-45 (Lim. 7)
C-M-6	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC (Min. 60 mil)	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Min. 5-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 73-inch o.c.	-52.5 (Lim. 7)
C-M-7	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC FB/ DynaFast	HL Fasteners & Plates spaced 6-inch o.c within each min. 4-inch heat welded side laps in rows max. 70-inch o.c.	-52.5 (Lim. 9)
C-M-8	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 5-inch wide side laps; Fastener rows max. 73-inch o.c.	-60 (Lim. 7)
C-M-9	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC SD Plus	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 54-inch o.c.	-60 (Lim. 7)
C-M-10	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC or JM PVC FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 4.5-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
C-M-11	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 5.5-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Mechanically Fastened Assemblies over Concrete Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
C-M-12	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC	Attached in-lap 6-inch o.c. with Extra High Load Fasteners & OMG Super XHD 2-3/4 Barbed Plates; Min. 5.5-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
C-M-13	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC FB/ DynaFast	APB Fasteners & Plates spaced 6-inch o.c within each min. 4-inch heat welded side lap.	-60 (Lim. 9)
C-M-14	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC FB/ DynaFast	HL Fasteners & Plates spaced 12-inch o.c within each min. 4-inch heat welded side lap.	-60 (Lim. 9)
C-M-15	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC FB/ DynaFast	High Load LH Fasteners and Polymer Membrane Batten OR High Load Fasteners and Deep Well Batten strip spaced 6-inch o.c. within min. 4-inch heat welded side laps in rows max. 71-inch o.c.	-60 (Lim. 9)
C-M-16	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC (Min. 60 mil)	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 72-inch o.c.	-75 (Lim. 7)

Induction Welded Assemblies over Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
C-W-1	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates with All Purpose Fasteners placed max. 12" o.c. in rows max. 72" o.c.	-37.5 (Lim. 7; Non-HVHZ)
C-W-2	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Preliminarily Secured</i>	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates with All Purpose Fasteners placed max. 12" o.c. in rows max. 60" o.c.	-45 (Lim. 7)
C-W-3	OPTIONAL INSULATION under min. 1-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with All Purpose Fasteners and JM PVC RhinoPlates in a 2-ft x 2-ft staggered grid pattern	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-52.5 (Lim. 7)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Induction Welded Assemblies over Concrete Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
C-W-4	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with All Purpose Fasteners and JM PVC RhinoPlates at a rate of 8 per 4-ft x 8-ft board (1 fastener per 4.0-ft ²)	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-67.5 (Lim. 7)
C-W-5	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates with All Purpose Fasteners placed max. 6" o.c. in rows max. 72" o.c.	-82.5 (Lim. 7)
C-W-6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates with All Purpose Fasteners placed max. 6" o.c. in rows max. 60" o.c.	-90 (Lim. 7)
C-W-7	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with All Purpose Fasteners and JM PVC RhinoPlates at a rate of 15 per 4-ft x 8-ft board (1 fastener per 2.13-ft ²)	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-90 (Lim. 7)

Adhered Assemblies over CWF Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
CW-A-1	OPTIONAL Min. 1-inch ENRGY 3	OSFA applied 12-inch o.c.	JM InvinSA	OSFA or 2-Part UIA applied 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-112.5 (Lim. 9)
CW-A-2	Min. 475 psi Celcore MF with HS Rheology Admixture installed	Poured-in-place	-	-	Base Ply: JM DynaBase Membrane: JM PVC FB	Base Ply: ADCO Millennium Hurricane Force Membrane Adhesive applied 12" o.c. Membrane: RSUA applied 12" o.c.	-117.5 (Lim. 9)
CW-A-3	OPTIONAL Min. 1-inch ENRGY 3	OSFA applied 12-inch o.c.	SECURROCK	RSUA, OSFA, or 2-Part UIA applied 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC)	-140 (Lim. 9)
CW-A-4	Min. 1-inch ENRGY 3	OSFA applied 12-inch o.c.	-	-	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-157.5 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Adhered Assemblies over CWF Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
CW-A-5	Min. 475 psi Celcore MF with HS Rheology Admixture installed	Poured-in-place	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-167.5 (Lim. 9)
CW-A-6	Min. 475 psi Celcore MF with HS Rheology Admixture installed	Poured-in-place	-	-	JM PVC FB	RSUA applied 4-inch o.c.	-197.5 (Lim. 9)

Mechanically Fastened Assemblies over CWF Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
CW-M-1	-	-	-	-	JM PVC FB/ DynaFast	1.8" Twin Loc-Nail without integrated plate fastened 6-inch o.c. along Straight Line Batten Bar within min. 4-inch heat welded side laps and in one intermediate row centered between side laps	-60 (Lim. 9)

Adhered Assemblies over Poured Gypsum Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
G-A-1	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 12-inch o.c.	-	-	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 1.67 gal/100ft ²	-60 (Lim. 9)
G-A-2	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 12-inch o.c.	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-60 (Lim. 9)
G-A-3	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 12-inch o.c.	JM Invinsa	2-Part UIA applied 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-60 (Lim. 9)
G-A-4	Min. 1.5-inch E3 (no FR)	2-Part UIA applied 12-inch o.c.	SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC)	-60 (Lim. 9)
G-A-5	Min. 1-inch ENRGY 3	OSFA applied 12-inch o.c.	-	-	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 1.67 gal/100ft ²	-77.5 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Adhered Assemblies over Poured Gypsum Deck (New or Existing)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
G-A-6	Min. 1-inch ENRGY 3	OSFA applied 12-inch o.c.	JM Invinsa	OSFA applied 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-77.5 (Lim. 9)
G-A-7	OPTIONAL Min. 1-inch ENRGY 3	OSFA applied 12-inch o.c.	SECUROCK	RSUA or OSFA applied 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC)	-77.5 (Lim. 9)
G-A-8	JM Invinsa	OSFA applied 12-inch o.c.	-	-	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-92.5 (Lim. 9)
G-A-9	Min. 1.5-inch E3 (no FR)	UIA at 12-inch o.c.	JM Invinsa	UIA at 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-112.5 (Lim. 9)

Mechanically Attached Assemblies over Poured Gypsum Deck (New, Existing, or Recover)							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
G-M-1	-	-	-	-	JM PVC FB/ DynaFast	1.8" Twin Loc-Nail without integrated plate fastened 6-inch o.c. along Straight Line Batten Bar within min. 4-inch heat welded side laps and in one intermediate row centered between side laps	-60 (Lim. 9)

Adhered Lightweight Concrete Assemblies over <i>Concrete Deck</i> (New or Existing)						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	<i>MDP</i> (psf)
LC-A-1	Min. 250 psi Elastizell with Zell-Crete Fibers installed over DynaBase HW over ASTM D 41 primed concrete	-	-	<i>JM PVC FB</i>	<i>RSUA</i> applied 6-inch o.c.	-75 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Adhered Lightweight Concrete Assemblies over Concrete Deck (New or Existing)						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LC-A-2	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Min. 1.5-inch ENRGY 3	RSUA ribbons spaced 12-inch o.c.	JM PVC JM PVC FB	JM PVC: JM PVC Membrane Adhesive (Low VOC) or JM PVC FB: RSUA applied 4-inch o.c.	-77.5 (Lim. 9)
LC-A-3	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF Top Layer: SECUROCK	Base and Top layer secured with RSUA ribbons spaced 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC); or JM PVC Membrane Adhesive (Water Based) applied 0.67 gal/100ft ²	-77.5 (Lim. 9)
LC-A-4	Min. 300 psi LWIC	Min. 1.5-inch ENRGY 3	2-Part UIA ribbons spaced 12-inch o.c.	JM PVC JM PVC FB	JM PVC Membrane Adhesive (Low VOC) or JM PVC FB: 2-Part UIA applied 4-inch o.c.	-80 (Lim. 9)
LC-A-5	Min. 300 psi LWIC	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	2-Part UIA ribbons spaced 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC); or JM PVC Membrane Adhesive (Water Based) applied 0.67 gal/100ft ²	-80 (Lim. 9)
LC-A-6	Min. 250 psi Elastizell with Zell-Crete Fibers installed over DynaBase HW over ASTM D 41 primed concrete	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-85 (Lim. 9)
LC-A-7	Min. 330 psi LWIC	-	-	JM PVC FB	JM PVC Membrane Adhesive (Water Based); Applied 1 gal/100ft ²	-90 (Lim. 9)
LC-A-8	Min. 383.5 psi Celcore MF with HS Rheology Admixture installed over OPTIONAL JM Vapor Barrier SA or DynaBase HW over ASTM D 41 primed concrete	-	-	JM PVC FB	RSUA applied 6-inch o.c.	-92.5 (Lim. 9)
LC-A-9	Min. 383.5 psi Celcore MF with HS Rheology Admixture installed over OPTIONAL JM Vapor Barrier SA or DynaBase HW over ASTM D 41 primed concrete	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-102.5 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Adhered Lightweight Concrete Assemblies over Concrete Deck (New or Existing)						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LC-A-10	Min. 160 psi Elastizell	Base Layer: Min. 1.5-inch E3 (no FR) Top Layer: JM Invinsa	Base Layer: <i>UIA</i> at 6-inch o.c. or 2-Part <i>UIA</i> at 12-inch o.c. Top Layer: <i>UIA</i> at 12-inch o.c.	<i>JM PVC</i>	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-112.5 (Lim. 9)
LC-A-11	Min. 250 Elastizell with Zell-Crete Fibers	-	-	<i>JM PVC FB</i>	<i>RSUA</i> applied 12-inch o.c.	-117.5 (Lim. 9)
LC-A-12	Min. 310 psi Elastizell with Zell-Crete Fibers	Min. 1.5-inch ENRGY 3	2-Part <i>UIA</i> ribbons spaced 12-inch o.c.	<i>JM PVC</i>	JM PVC Membrane Adhesive (Low VOC)	-130 (Lim. 9)
LC-A-13	Min. 310 psi Elastizell with Zell-Crete Fibers	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: <i>SECUROCK</i>	2-Part <i>UIA</i> ribbons spaced 12-inch o.c.	<i>JM PVC</i>	JM PVC Membrane Adhesive (Low VOC)	-130 (Lim. 9)
LC-A-14	Min. 375 psi Concrecel	-	-	<i>JM PVC FB</i>	<i>RSUA</i> applied 12-inch o.c.	-147.5 (Lim. 9)
LC-A-15	Min. 550 psi Elastizell with Zell-Fibers	-	-	Base Ply: JM DynaBase Membrane: <i>JM PVC FB</i>	Base Ply: ADCO Millennium Hurricane Force Membrane Adhesive applied 12" o.c. Membrane: <i>RSUA</i> applied 12" o.c.	-167.5 (Lim. 9)
LC-A-16	Min. 475 psi Celcore MF with HS Rheology Admixture installed over OPTIONAL DynaBase HW	-	-	<i>JM PVC FB</i>	<i>RSUA</i> applied 12-inch o.c.	-167.5 (Lim. 9)
LC-A-17	Min. 375 psi Concrecel	-	-	<i>JM PVC FB</i>	<i>RSUA</i> applied 6-inch o.c.	-172.5 (Lim. 9)
LC-A-18	Min. 550 psi Elastizell with Zell-Fibers	-	-	<i>JM PVC FB</i>	<i>RSUA</i> applied 12-inch o.c.	-177.5 (Lim. 9)
LC-A-19	Min. 475 psi Celcore MF with HS Rheology Admixture installed over OPTIONAL DynaBase HW	-	-	Base Ply: DynaBase Membrane: <i>JM PVC FB</i>	Base Ply: ADCO Millennium Hurricane Force Membrane Adhesive applied 6" o.c. Membrane: <i>RSUA</i> applied 6" o.c.	-192.5 (Lim. 9)
LC-A-20	Min. 262 psi LWIC	<i>SECUROCK</i>	2-Part <i>UIA</i> ribbons spaced 12-inch o.c.	<i>JM PVC</i>	JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-210 (Lim. 9; Non-HVHZ)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Adhered Lightweight Concrete Assemblies over Concrete Deck (New or Existing)						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LC-A-21	Min. 262 psi LWIC	SECUROCK	2-Part UIA ribbons spaced 12-inch o.c	Base Ply: DynaBase HW Membrane: JM PVC FB	Base Ply: Torch adhered Membrane: RSUA applied 12" o.c.	-210 (Lim. 9; Non-HVHZ)
LC-A-22	Min. 550 psi Elastizell with Zell-Fibers	-	-	JM PVC FB	RSUA applied 6-inch o.c.	-225 (Lim. 9)
LC-A-23	Min. 550 psi Elastizell with Zell-Fibers	-	-	Base Ply: JM DynaBase Membrane: JM PVC FB	Base Ply: ADCO Millennium Hurricane Force Membrane Adhesive applied 6" o.c. Membrane: RSUA applied 6" o.c.	-192.5 (Lim. 9)
LC-A-24	Min. 475 psi Celcore MF with HS Rheology Admixture installed over OPTIONAL DynaBase HW	-	-	JM PVC FB	RSUA applied 4-inch o.c.	-257.5 (Lim. 9)
LC-A-25	Min. 383.5 psi Celcore MF with HS Rheology Admixture (No EPS Board) installed over DynaBase HW over ASTM D 41 primed concrete	-	-	JM PVC FB	RSUA applied 6-inch o.c.	-262.5 (Lim. 9)
LC-A-26	Min. 250 Elastizell with Zell-Crete Fibers (no EPS Board)	-	-	JM PVC FB	RSUA applied 6-inch o.c.	-290 (Lim. 9)
LC-A-27	Min. 375 psi Concrecel	-	-	JM PVC FB	MBR Low VOC Membrane Adhesive applied 2-2.5 gal/100ft ²	-342.5 (Lim. 9)
LC-A-28	Celcore MF with HS Rheology Admixture (min. 49 pcf wet cast density)	-	-	JM PVC FB	JM PVC Membrane Adhesive (Water Based); Applied 1 gal/100ft ²	-367.5 (Lim. 9)
LC-A-29	Min. 370 psi Concrecel (No EPS Board)	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-375 (Lim. 9)
LC-A-30	Min. 250 psi Elastizell with Zell-Crete Fibers (no EPS Board)	-	-	JM PVC FB	RSUA applied 4-inch o.c.	-390 (Lim. 9)
LC-A-31	Min. 383.5 psi Celcore MF with HS Rheology Admixture (no EPS board) installed over ASTM D 41 primed concrete	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-417.5 (Lim. 9)
LC-A-32	Min. 370 psi Concrecel (No EPS board)	-	-	JM PVC FB	RSUA applied 6-inch o.c.	-480 (Lim. 9)
LC-A-33	Min. 383.5 psi Celcore MF with HS Rheology Admixture (No EPS Board)	-	-	JM PVC FB	RSUA applied 6-inch o.c.	-502.5 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Mechanically Attached Lightweight Concrete Assemblies over Concrete Deck (New, Existing, or Recover)						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LC-M-1	Min. 475 psi Celcore MF with HS Rheology	-	-	JM PVC FB/ DynaFast	1.8" Twin Loc-Nail without integrated plate fastened 6-inch o.c. along Straight Line Batten Bar within min. 4-inch heat welded side laps and in one intermediate row centered between side laps	-60 (Lim. 9)

Adhered Lightweight Concrete Assemblies over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-A-1	G33, P, L5, S15	Min. 475 psi Celcore MF with HS Rheology	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-60 (Lim. 9)
LS-A-2	G80, P, L5, S15	Min. 383.5 psi Celcore MF with HS Rheology Admixture	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-75 (Lim. 9)
LS-A-3	G80, P, L5, S15	Min. 383.5 psi Celcore MF with HS Rheology Admixture	-	-	JM PVC FB	RSUA applied 6-inch o.c.	-75 (Lim. 9)
LS-A-4	G33	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Min. 1.5-inch ENRGY 3	RSUA ribbons spaced 12-inch o.c.	JM PVC JM PVC FB	JM PVC: JM PVC Membrane Adhesive (Low VOC) or JM PVC FB: RSUA applied 4-inch o.c.	-77.5 (Lim. 9)
LS-A-5	G33	Min 340 psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF Top Layer: SECUROCK	Base and Top layer secured with RSUA ribbons spaced 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC); or JM PVC Membrane Adhesive (Water Based) applied 0.67 gal/100ft ²	-77.5 (Lim. 9)
LS-A-6	G33	Min. 300 psi LWIC	Min. 1.5-inch ENRGY 3	2-Part UIA ribbons spaced 12-inch o.c.	JM PVC JM PVC FB	JM PVC Membrane Adhesive (Low VOC) or JM PVC FB: 2-Part UIA applied 4-inch o.c.	-80 (Lim. 9)
LS-A-7	G33	Min. 300 psi LWIC	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	2-Part UIA ribbons spaced 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC); or JM PVC Membrane Adhesive (Water Based) applied 0.67 gal/100ft ²	-80 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Adhered Lightweight Concrete Assemblies over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-A-8	G80, P, L5, S12	Min. 370 psi Concrecel	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-97.5 (Lim. 9)
LS-A-9	G80, P, L5, S15	Min. 250 psi Elastizell with Zell-Crete Fibers	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-97.5 (Lim. 9)
LS-A-10	G80, P, L5, S15	Min. 250 psi Elastizell with Zell-Crete Fibers	-	-	JM PVC FB	RSUA applied 6-inch o.c.	-97.5 (Lim. 9)
LS-A-11	G33	Min. 310 psi Elastizell with Zell-Crete Fibers	Min. 1.5-inch ENRGY 3	2-Part UIA ribbons spaced 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC)	-130 (Lim. 9)
LS-A-12	G33	Min. 310 psi Elastizell with Zell-Crete Fibers	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECURROCK	2-Part UIA ribbons spaced 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC)	-130 (Lim. 9)

Mechanically Attached Lightweight Concrete Assemblies over Steel Deck (New, Existing, or Recover)							
System No.	Deck Detail	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-M-1	G33, P, L5, S15	Min. 475 psi Celcore MF with HS Rheology	-	-	JM PVC FB/ DynaFast	1.8" Twin Loc-Nail without integrated plate fastened 6-inch o.c. along Straight Line Batten Bar within min. 4-inch heat welded side laps and in one intermediate row centered between side laps	-60 (Lim. 9)

Adhered Recover Assemblies						
System No.	Deck Detail	Insulation	Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
R-A-1	BUR or Mod-Bit Roofing with mineral surfacing	-	-	JM PVC FB	RSUA applied 12-inch o.c.	-45 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Adhered Recover Assemblies						
System No.	Deck Detail	Insulation	Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
R-A-2	Concrete Deck	OPTIONAL INSULATION under min. 1.5-inch E3	UltraFast Fasteners and Plates (Square) or UltraFast Fasteners and Plates (Square) secured 1 fastener per 2ft ²	JM PVC FB	JM PVC Membrane Adhesive (Water Based); Applied 1 gal/100ft ² or ASTM D 312 Type IV Asphalt	-45 (Lim. 7)
R-A-3	Concrete Deck	OPTIONAL INSULATION under min. 1.5-inch E3	UltraFast Fasteners and Plates (Square) or UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.78ft ²	JM PVC FB or JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 1.67 gal/100ft ² with JM PVC only or JM PVC Membrane Adhesive (Water Based); Applied 1 gal/100ft ² with JM PVC FB only or ASTM D 312 Type IV Asphalt with JM PVC FB only	-52.5 (Lim. 7)
R-A-4	BUR over Concrete Deck	Base Layer: Min. 1.5-inch E3 (no FR) Top Layer: Optional JM Invinsa	Base Layer: 2-Part UIA at 12-inch o.c. Top Layer: 2-Part UIA at 12-inch o.c.	JM PVC FB or JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 1.67 gal/100ft ² with JM PVC only or JM PVC Membrane Adhesive (Water Based); Applied 1 gal/100ft ² or ASTM D 312 Type IV Asphalt with JM PVC FB only	-105 (Lim. 9)
R-A-5	BUR over Concrete Deck	JM Invinsa	JM MBR Bonding Adhesive	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-112.5 (Lim. 9)
R-A-6	BUR over Concrete Deck	Base Layer: Min. 1.5-inch E3 (no FR) Top Layer: JM Invinsa	Base Layer: UIA at 6-inch o.c. or 2-Part UIA at 12-inch o.c. Top Layer: UIA at 12-inch o.c.	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 0.83 gal/100ft ² or JM PVC Membrane Adhesive (Water Based); Applied 0.67 gal/100ft ²	-112.5 (Lim. 9)
R-A-7	BUR over Concrete Deck	Min. 1.5-inch E3 (no FR)	2-Part UIA at 12-inch o.c.	JM PVC FB or JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 1.67 gal/100ft ² with JM PVC only or ASTM D 312 Type IV Asphalt with JM PVC FB only	-217.5 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Mechanically Fastened Recover Assemblies								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
R-M-1	Steel Deck (G33, P, L6, S24) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC SD Plus	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
R-M-2	Steel Deck (G33, F1, L6, S24) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC SD Plus	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 54-inch o.c.	-45 (Lim. 7)
R-M-3	Steel Deck (G33, F1, L6) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC FB/ DynaFast	HL Fasteners & Plates spaced 6-inch o.c. within each min. 4-inch heat welded side laps in rows max. 70-inch o.c.	-52.5 (Lim. 9)
R-M-4	Steel Deck (G33, F1, L6, S24) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC SD Plus	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 54-inch o.c.	-60 (Lim. 7)
R-M-5	LWIC over Steel Deck (G33, F1, L5, S12) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL INSULATION	Preliminarily Secured	JM PVC FB (min. 60 mil)	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
R-M-6	Steel Deck (G33, P, L6)	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC FB/ DynaFast	High Load LH Fasteners and Polymer Membrane Batten OR High Load Fasteners and Deep Well Batten strip spaced 6-inch o.c. within min. 4-inch heat welded side laps in rows max. 71-inch o.c.	-60 (Lim. 9)
R-M-7	Steel Deck (G33, F1, L6) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC FB/ DynaFast	APB Fasteners & Plates spaced 6-inch o.c. within each min. 4-inch heat welded side lap.	-60 (Lim. 9)
R-M-8	Steel Deck (G33, F1 or P, L6) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC FB/ DynaFast	HL Fasteners & Plates spaced 12-inch o.c. within each min. 4-inch heat welded side lap.	-60 (Lim. 9)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Induction Welded Recover Assemblies								
System No.	Existing Roof	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
R-W-1	Steel Deck (G33, L6) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates placed max. 12" o.c. in rows max. 72" o.c.	-37.5 (Lim. 7; Non-HVHZ)
R-W-2	Steel Deck (G33, F1, L6, S24) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates placed max. 12" o.c. in rows max. 60" o.c.	-45 (Lim. 7)
R-W-3	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch E3, or Cover Board	JM Purlin Fasteners and JM PVC RhinoPlates secured to structural supports 6-inch o.c.; Fastener rows max. 120-inch o.c.	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-45 (Lim. 7)
R-W-4	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch E3, or Cover Board	JM Purlin Fasteners and JM PVC RhinoPlates secured to structural supports 18-inch o.c.; Fastener rows max. 60-inch o.c.	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-45 (Lim. 7)
R-W-5	Steel Deck (G33, F1, L6, S24) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Attached with High Load Fasteners and JM PVC RhinoPlates at a rate of 8 per 4-ft x 8-ft board (staggered) (1 fastener per 4.0-ft ²)	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-52.5 (Lim. 7)
R-W-6	Concrete Deck	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Optional SECUROCK	JM All Purpose Fasteners and JM PVC RhinoPlates secured at a rate of 8 per 4-ft x 8-ft board (1 fastener per 4.0-ft ²)	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-67.5 (Lim. 7)
R-W-7	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch E3, or Cover Board	JM Purlin Fasteners and JM PVC RhinoPlates secured to structural supports 12-inch o.c.; Fastener rows max. 60-inch o.c.	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-67.5 (Lim. 7)
R-W-8	Steel Deck (G33, F1, L6, S24) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates placed max. 6" o.c. in rows max. 72" o.c.	-82.5 (Lim. 7)
R-W-9	Steel Deck (G33, F1, L6, S24) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3, or Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates placed max. 6" o.c. in rows max. 60" o.c.	-90 (Lim. 7)
R-W-10	Existing metal roof having Min. 16 ga. steel purlins at max. 5ft o.c.	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	Min. 1-inch E3, or Cover Board	JM Purlin Fasteners and JM PVC RhinoPlates secured to structural supports 6-inch o.c.; Fastener rows max. 60-inch o.c.	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-120 (Lim. 7)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-1	G33	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch Fesco Foam	UltraFast Fasteners and Plates secured 1 fastener per 5.3ft ²	JM PVC or JM PVC FB	JM PVC: PVC Bonding Adhesive JM PVC FB: JM PVC Membrane Bonding Adhesive (Water Based)	-37.5 (Lim. 9; Non-HVHZ)
S-AM-2	G33	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch Invinsa Foam	UltraFast Fasteners and Plates secured 1 fastener per 5.3ft ²	JM PVC, JM PVC FB or JM PVC SD Plus	PVC Bonding Adhesive	-45 (Lim. 7; Non-HVHZ)
S-AM-3	G33, F1, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.33ft ²	Base Ply: DynaBase HW Membrane: JM PVC FB	Base Ply: Torch Adhered Membrane: RSUA applied 12-inch o.c.	-52.5 (Lim. 7)
S-AM-4	G33, F1, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.33ft ²	JM PVC or JM PVC FB	JM PVC Membrane Adhesive (Low VOC); Applied 1-1.1 gal/100ft ² with JM PVC only or JM PVC Membrane Adhesive (Water Based); Applied 0.8-1.2 gal/100ft ² with JM PVC FB only	-52.5 (Lim. 7)
S-AM-5	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1.33ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	JM PVC or JM PVC FB	JM PVC Membrane Adhesive (Low VOC); Applied 1-1.1 gal/100ft ² with JM PVC only or JM PVC Membrane Adhesive (Water Based); Applied 0.8-1 gal/100ft ²	-52.5 (Lim. 7)
S-AM-6	G33, F2, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1.33ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 12-inch o.c.	Base Ply: DynaBase HW Membrane: JM PVC FB	Base Ply: Torch Adhered Membrane: RSUA applied 12-inch o.c.	-52.5 (Lim. 7)



APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-7	G33, F2, L6, S18	-	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1.78ft ²	JM PVC FB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
S-AM-8	G33, F2W, L6, S24	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.00ft ²	JM PVC or JM PVC FB	JM PVC Membrane Adhesive (Low VOC); Applied 1-1.1 gal/100ft ² with JM PVC only or JM PVC Membrane Adhesive (Water Based); Applied 0.8-1.2 gal/100ft ² with JM PVC FB only	-60 (Lim. 7)
S-AM-9	G33, F1, L6, S30	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners & Plates secured at a rate of 1 fastener per 1.78ft ²	Min 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	Base Ply: DynaBase HW Membrane: JM PVC FB	Base Ply: Torch Adhered Membrane: RSUA applied 12-inch o.c.	-60 (Lim. 7)
S-AM-10	G33, F1, L6, S30	-	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	UltraFast Fasteners & Plates secured at a rate of 1 fastener per 1.78ft ²	Min 1/2-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM PVC or JM PVC FB	JM PVC Membrane Adhesive (Low VOC); Applied 1-1.1 gal/100ft ² with JM PVC only or JM PVC Membrane Adhesive (Water Based); Applied 0.8-1.2 gal/100ft ² with JM PVC FB only	-60 (Lim. 7)
S-AM-11	G40, P, L6, S20	-	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	UltraFast Fasteners and Plates (Square) secured 1 fastener per 1.78ft ²	Base Ply: DynaBase HW Membrane: JM PVC FB	Base Ply: Torch Adhered Membrane: RSUA applied 12-inch o.c.	-60 (Lim. 7)
S-AM-12	G33, F2W, L6, S18	-	OPTIONAL INSULATION under min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1ft ²	SECUROCK, RetroPlus, or JM InvinSA	RSUA or 2-Part UIA; Applied 6-inch o.c.	JM PVC FB	RSUA applied 12-inch o.c.	-67.5 (Lim. 7)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Assemblies with Adhered Membranes over Insulated Steel Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier and Vapor Retarder	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
S-AM-13	G33, F2W, L6, S18	-	OPTIONAL INSULATION under min. 1.5-inch E3	UltraFast Fasteners and Plates secured 1 fastener per 1ft ²	SECUROCK	OSFA, RSUA or 2-Part UIA; Applied 6-inch o.c.	Base Ply: DynaBase HW Membrane: JM PVC FB	Base Ply: Torch Adhered Membrane: RSUA applied 12-inch o.c.	-67.5 (Lim. 7)
S-AM-14	G80, F1W, L6, S24	Min. 0.5-inch DEXcell FA; UltraFast Fasteners and Plates secured 1 fastener per 1.0ft ² ; JM Vapor Barrier SA self-adhered over SA Primer	Min. 1.5-inch E3	RSUA or 2-Part UIA; Applied 6-inch o.c.	Min. 0.5-inch DEXcell FA	RSUA applied 6-inch o.c.	JM PVC FB (Min. 60 mil)	RSUA applied 6-inch o.c.	-82.5 (Lim. 7)
S-AM-15	G33, F2, L6, S24	Min. 0.5-inch DEXcell FA secured with top layer; JM Vapor Barrier SA self-adhered	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	UltraFast Fasteners and Plates secured 1 fastener per 1.0ft ²	JM PVC FB (Min. 60 mil)	RSUA applied 4-inch o.c.	-82.5 (Lim. 7)
S-AM-16	G80, F2, L6, S24	Min. 0.5-inch DEXcell FA secured with top layer; JM Vapor Barrier SA self-adhered	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	UltraFast Fasteners and Plates secured 1 fastener per 1.0ft ²	JM PVC FB	RSUA applied 4-inch o.c.	-142.5 (Lim. 7)

Mechanically Fastened Assemblies over Steel Deck (New, Existing, or Recover)								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
S-M-1	G33, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 6-inch o.c. with Extra HL Fastener & Plates; Min. 6-inch wide side laps; Fastener rows max. 114-inch o.c.	-37.5 (Lim. 7; Non-HVHZ)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Mechanically Fastened Assemblies over Steel Deck (New, Existing, or Recover)								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
S-M-2	G33, F1 or P, L6, S24	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC or JM PVC SD Plus	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
S-M-3	G33, F1, L6, S24	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC SD Plus	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 54-inch o.c.	-45 (Lim. 7)
S-M-4	G33, F1 or P, L6, S24	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
S-M-5	G80, F1, L6, S30	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Min. 5-inch wide side laps; Fastener rows max. 73-inch o.c.	-45 (Lim. 7)
S-M-6	G33, P, L6	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 72-inch o.c.	-45 (Lim. 7)
S-M-7	G80, F1, L6, S30	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC (Min. 60 mil)	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Min. 5-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 73-inch o.c.	-52.5 (Lim. 7)
S-M-8	G33, F1, L6, S24	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC FB/ DynaFast	HL Fasteners & Plates spaced 6-inch o.c. within each min. 4-inch heat welded side laps in rows max. 70-inch o.c.	-52.5 (Lim. 9)
S-M-9	G33, F1, L6, S24	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC SD Plus	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps; Fastener rows max. 54-inch o.c.	-60 (Lim. 7)
S-M-10	G80, F1, L6, S30	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 5-inch wide side laps; Fastener rows max. 73-inch o.c.	-60 (Lim. 7)
S-M-11	G80, F1, L6, S30	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC or JM PVC FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 4.5-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Mechanically Fastened Assemblies over Steel Deck (New, Existing, or Recover)								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
S-M-12	G80, F1, L6, S24	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 5.5-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
S-M-13	G80, F1, L6, S24	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 6-inch o.c. with Extra High Load Fasteners & OMG Super XHD 2-3/4 Barbed Plates; Min. 5.5-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
S-M-14	G33, P, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC FB/ DynaFast	APB Fasteners & Plates spaced 6-inch o.c within each min. 4-inch heat welded side lap.	-60 (Lim. 9)
S-M-15	G33, P, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC FB/ DynaFast	HL Fasteners & Plates spaced 12-inch o.c within each min. 4-inch heat welded side lap.	-60 (Lim. 9)
S-M-16	G33, P, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC FB/ DynaFast	High Load LH Fasteners and Polymer Membrane Batten OR High Load Fasteners and Deep Well Batten strip spaced 6-inch o.c. within min. 4-inch heat welded side laps in rows max. 71-inch o.c.	-60 (Lim. 9)
S-M-17	G80, F1, L6, S30	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC (Min. 60 mil)	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Min. 6-inch wide side laps with min. 2-inch wide heat welds; Fastener rows max. 72-inch o.c.	-75 (Lim. 7)

Induction Welded Assemblies over Steel Deck (New, Existing, or Recover)								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
S-W-1	G33, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates with High Load Fasteners placed max. 12" o.c. in rows max. 72" o.c.	-37.5 (Lim. 7; Non-HVHZ)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Induction Welded Assemblies over Steel Deck (New, Existing, or Recover)								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
S-W-2	G33, F1, L6, S24	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates with High Load Fasteners placed max. 12" o.c. in rows max. 60" o.c.	-45 (Lim. 7)
S-W-3	G33, P, L6, S24	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with High Load Fasteners and JM PVC RhinoPlates in a 2-ft x 2-ft staggered grid pattern	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-52.5 (Lim. 7)
S-W-4	G33, F1, L6, S18	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with High Load Fasteners and JM PVC RhinoPlates at a rate of 8 per 4-ft x 8-ft board (1 fastener per 4.0-ft ²)	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-67.5 (Lim. 7)
S-W-5	G33, F1, L6, S24	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates with High Load Fasteners placed max. 6" o.c. in rows max. 72" o.c.	-82.5 (Lim. 7)
S-W-6	G33, F1, L6, S24	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC SD Plus (Min. 60 mil)	Induction welded to JM PVC RhinoPlates with High Load Fasteners placed max. 6" o.c. in rows max. 60" o.c.	-90 (Lim. 7)
S-W-7	G33, F2W, L6	OPTIONAL INSULATION under min. 1-inch E3	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with High Load Fasteners and JM PVC RhinoPlates at a rate of 15 per 4-ft x 8-ft board (1 fastener per 2.13-ft ²)	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-90 (Lim. 7)

Assemblies with Adhered Membranes over Insulated Wood Deck (New, Existing, or Recover)								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment	MDP (psf)
W-AM-1	T19/32O, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	DEXcell FA	AP Fasteners & Plates (Square) at a rate of 6 per 4-ft x 4-ft board (1 fastener per 2.67-ft ²)	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 1.67 gal/100ft ²	-37.5 (Lim. 7; Non-HVHZ)
W-AM-2	T7/16O or T15/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 1.5-inch ENRGY 3	AP Fasteners & Plates (Square) at a rate of 16 per 4-ft x 8-ft board (1 fastener per 2-ft ²)	JM PVC	JM PVC Membrane Adhesive (Low VOC); Applied 1.67 gal/100ft ²	-45 (Lim. 7; Non-HVHZ)

APPENDIX D – APPROVED ASSEMBLIES FOR JM PVC SINGLE-PLY MEMBRANES

Mechanically Fastened Assemblies over Wood Deck (New or Existing)									
System No.	Deck Detail	Thermal Barrier	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
W-M-1	T19/32P, L25	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 72-inch o.c.	-37.5 (Lim. 7; Non-HVHZ)
W-M-2	T15/32P, L24, N6	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM PVC	Attached in-lap 12-inch o.c. with All Purpose Fasteners and High Load Plates through deck into wood supports; Fastener shall have sufficient length to penetrate min. 1.5-inch into wood supports; Fastener rows max. 72-inch o.c.	-45 (Lim. 7)

Induction Welded Assemblies over Wood Deck (New or Existing)									
System No.	Deck Detail	Thermal Barrier	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment	MDP (psf)
W-W-1	T15/32P, L24, N6	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Min. 2.25-inch JM All Purpose Fastener and JM PVC RhinoPlates secured max. 24-inch o.c. through sheathing into wood structural supports in rows max. 24" o.c.	JM PVC (Min. 60 mil)	Induction welded to JM PVC RhinoPlates	-52.5 (Lim. 7)

END OF REPORT