



EVALUATION REPORT

FLORIDA BUILDING CODE, 8TH EDITION (2023)

Manufacturer: JOHNS MANVILLE CORPORATION
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Manufacturing Plants: Scottsboro, AL

Quality Assurance: UL LLC (QUA9625)

SCOPE

Category: Roofing
Subcategory: Single Ply Roof System
Code Edition: Florida Building Code, 8th Edition (2023)
Code Sections: 1504.3.1, 1504.6, 1504.7, 1507.12
Properties: Wind Resistance, Physical Properties, Impact Resistance

PRODUCT DESCRIPTION

Products	Specification	Description
JM TPO-45	ASTM D 6878 TAS 110	Nominal 45-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement
JM TPO-60	ASTM D 6878 TAS 110	Nominal 60-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement
JM TPO-80	ASTM D 6878 TAS 110	Nominal 80-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement
JM TPO FB 115	ASTM D 6878 TAS 110	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 110	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 110	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 110	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 110	Nominal 60-mil thick thermoplastic polyolefin, heat-weldable, single-ply roof membrane with polyester scrim reinforcement and a self-adhesive backing

REFERENCES

<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-026	TAS 114(D) (2011)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-027	TAS 114(D) (2011)
Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-028	TAS 114(D) (2011)
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Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-031	TAS 114(D) (2011)
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Atlantic & Caribbean Roof Consulting (TST4671)	ACRC 14-035	TAS 114(D) (2011)
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FM Approvals (TST1867)	3012321	FM 4470 (2016)
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FM Approvals (TST1867)	3025168	FM 4470 (2016)
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FM Approvals (TST1867)	3037540	FM 4450 (1989)
FM Approvals (TST1867)	3039813	FM 4470 (2016)
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FM Approvals (TST1867)	3043824	FM 4470 (2016)
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FM Approvals (TST1867)	3046174	FM 4470 (2016)
FM Approvals (TST1867)	3051609	FM 4470 (2016)
FM Approvals (TST1867)	3052787	FM 4470 (2016)
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FM Approvals (TST1867)	3056677	FM 4470 (2016)
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FM Approvals (TST1867)	3059030	FM 4470 (2016)
FM Approvals (TST1867)	3059662	FM 4470 (2016)

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FM Approvals (TST1867)	3060614	FM 4470 (2016)
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FM Approvals (TST1867)	PR451160	FM 4470 (2016)
FM Approvals (TST1867)	PR451795	FM 4470 (2016)
FM Approvals (TST1867)	PR452385	FM 4470 (2016)
FM Approvals (TST1867)	PR452580	FM 4470 (2016)
FM Approvals (TST1867)	PR453724	FM 4470 (2016)
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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(A&B) (1995); TAS 114(C) (1995)
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PRI Construction Materials Technologies (TST5878)	JMC-306-02-03	FM 4474(D) (2011); UL 1897 (2015)
PRI Construction Materials Technologies (TST5878)	JMC-311-02-01	FM 4474(B) (2011)
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PRI Construction Materials Technologies (TST5878)	507T0426	FM 4474(C) (2011)
PRI Construction Materials Technologies (TST5878)	507T0428	FM 4474(D) (2011)
PRI Construction Materials Technologies (TST5878)	507T0429	FM 4474(B) (2011)
Robert J.M. Nieminen, P.E.	Compliance Letter 02/09/2017	TAS 114 (2011)
Trinity ERD (TST6049)	JM-SC11190.03.16	FM 4474 (2011)
Trinity ERD (TST6049)	SC4910	FM 4474 (2011)
Trinity ERD (TST6049)	SFS-SC10010.02.16-R1	FM 4474(D) (2011); UL 1897 (2015)



Entity

Trinity|ERD (TST6049)
 Trinity|ERD (TST6049)
 Trinity|ERD (TST6049)

Report No.

JM-SC13465.04.17
 JM-SC13465.08.17
 J30820.09.10-2

Standard

FM 4474 (2011)
 FM 4474 (2011)
 FM 4474 (2011)



LIMITATIONS

1. This report is not for use in the HVHZ.
2. Fire classification is not within the scope of this evaluation.
3. Foam plastic insulation shall be separated from the building interior in accordance with the FBC 2603.4 and 2603.6.
4. The roof deck, structural supports, and the roof deck attachment information are provided based on testing. FBC requirements for the rational design of the roof deck, including the attachment, are not within the scope of this evaluation.
5. 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.
6. The minimum roof slope shall be 1/4:12 for new construction.
7. For assemblies containing mechanical attachment or adhered in ribbon-applied adhesive, 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. The attachment density may be increased by a qualified design professional, as necessary, to meet the design pressure requirements in the periphery zones. Calculations shall be conducted in compliance with RAS 117, RAS 137, or Section 2.2.10.1 FM LPDS 1-29 (July 2022).
8. Reroofing applications shall be examined in accordance with FBC Section 1511. For mechanically fastened systems, a field withdrawal resistance test (ANSI/SPRI FX-1 or TAS 105) 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 (ASTM E 907, FM LPDS 1-52, ANSI/SPRI IA-1, or TAS 124) shall be conducted to confirm conformance of the existing to the minimum design loads.
9. For assemblies adhered in ribbon-applied adhesive, 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. The attachment density may be increased by a qualified design professional, as necessary, to meet the design pressure requirements in the periphery zones. Calculations shall be conducted in compliance with Section 2.2.10.1 FM LPDS 1-29 (July 2022).
10. 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, 8th Edition (2023) as evidenced in the referenced documents submitted by the named manufacturer.



This item has been digitally signed and sealed by Zachary R. Priest, PE, on 5/6/2024.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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 (11 pages)
- 2) [APPENDIX B](#) – Nomenclature (7 pages)
- 3) [APPENDIX C](#) – Approved Assemblies for JM TPO Single-Ply Membranes (107 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 TPO 10" Reinforced Perimeter Strip	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 Metal Plate (Round) or UltraFast Plate Metal Recessed	3-inch diameter round; Galvalume steel plate; Only for use with the following products: ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR, ENRGY 3 C1, ENRGY 3 C1 CGF, Retro-Fit, SeparatoR, SeparatoR CGF, SeparatoR CGF FR, DuraBoard, DuraFoam, Fesco, and Fesco Foam
	JM UltraFast Metal Plate (Square) or UltraFast Plate Metal Flat	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 Structural Concrete Deck Fastener	Concrete deck only; Min. 1-inch penetration into concrete deck
	JM TPO RhinoPlate	Min. 3-inch diameter for TPO membranes; Induction welded in the field of membrane; welds not permitted at lap seams; For use only with min. 60 mil thick bareback membrane
	JM 90 Seam Plate	3-inch diameter; Galvalume steel plate with barbs
	JM TPO 10" Reinforced Perimeter Strip (RPS)	45mil reinforced TPO with self-adhesive; Membrane shall be primed with JM TPO Primer or JM Single Ply Membrane Primer (Low VOC) prior to adhering to RPS
	OMG 3 in. Ribbed Galvalume Plate (Flat)	3-inch diameter round; Galvalume steel plate
	OMG #12 Standard Roofgrip	#12 fastener; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck
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.	
OMG XHD	#15 fastener; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck	
SFS Intec Dekfast DF-#12-PH3 Fastener	#12 fasteners; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck	
SFS Intec Dekfast DF-#14-PH3 Fastener	#15 fasteners; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck; Min. 1-inch penetration into concrete deck	

APPENDIX A - INSTALLATION

Component	Product	Installation Detail
Fasteners, Battens, Plates, & JM TPO 10" Reinforced Perimeter Strip (Cont'd)	SFS Intec Dekfast DF-#15-PH3 Fastener	#15 fasteners; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck; Min. 1-inch penetration into concrete deck
	SFS Intec Dekfast PLT-H-2-7/8	2-7/8" hexagonal galvalume steel stress plate
	SFS Intec Dekfast PLT-R-3	3-inch diameter round; Galvalume steel plate
	SFS Intec FI-P-6.8-TPO	Min. 3-inch diameter for TPO membranes; Induction welded in the field of membrane; welds not permitted at lap seams; For use only with min. 60 mil thick bareback membrane
	SFS Intec <i>isofast</i> PLT-R-2-3/8-BL	2 3/8-inch diameter; Galvalume steel plate
	Trufast 2.4" Barbed Metal Seam Plate	2.4-inch diameter; Galvalume steel plate
	Trufast 2.4" Barbed Metal Seam Plate (14-Barb)	
	Trufast 2.4" Scoop Seam Plate	
	Trufast 3" Metal Insulation Plate	3-inch diameter round; Galvalume steel plate
	Trufast #12 Purlin Fastener	Installed into min. 16ga. steel purlins
	Trufast #12 DP Fastener	#12 fasteners; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck
	Trufast #14 HD 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
	Trufast #15 EHD Fastener	#15 fasteners; Min. 3/4-inch penetration through the top rib of the steel deck or wood deck
	Trufast Fluted Concrete Nails	Concrete deck only; Min. 1-inch penetration into concrete deck
	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 TPO IW Plates	Min. 3-inch diameter for TPO membranes; Induction welded in the field of membrane; welds not permitted at lap seams; For use only with min. 60 mil thick bareback membrane
Trufast Twin Loc-Nail	Min. 1.4-inch shank; Base sheet fastener with and without integrated 2.7-inch diameter plate	
Trufast VERSA-FAST fastener	Min. 2 1/4-inch length; Min. 3/4-inch penetration through wood deck	
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	Ribbon adhered in 3/4 to 1-inch wide beads
	JM Two-Part Urethane Insulation Adhesive Canister or JM Two-Part UIA Canister	
	JM Two-Part Urethane Insulation Adhesive or JM Two-Part UIA	
	JM Roofing System Urethane Adhesive	
	JM Urethane Insulation Adhesive	Ribbon adhered in 1/2-inch wide beads
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. 1/2-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
	Georgia-Pacific DensDeck Prime	
	Georgia-Pacific DensDeckStorm X Prime	Min. 5/8-inch thick
	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 C1	
JM ENRGY 3 AGF		



APPENDIX A - INSTALLATION

Component	Product	Installation Detail
Insulation/Cover Boards (Cont'd)	JM ENRGY 3 CGF	Min. 1/2-inch thick; Min. 20 psi; Adhered boards shall be a maximum 4 ft x 4 ft
	JM ENRGY 3 C1 CGF	
	JM ENRGY 3 FR	
	JM Fesco Board	Min. 3/4-inch thick; Min. 20 psi
	JM Fesco Foam	Min. 1 1/2-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	1/4-inch thick; Adhered boards shall be a maximum 4 ft x 4 ft
	JM ProtectoR Foam	Min. 2-inch thick; Min. 80psi top layer; Min. 20psi bottom layer; Adhered boards shall be a maximum 4 ft x 4 ft
	JM ProtectoR HD	1/2-inch thick; Min. 80 psi; Adhered boards shall be a maximum 4 ft x 4 ft
	JM ProtectoR HD FR	
	JM 1/2" 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	
	JM SeparatoR	1/2-inch thick; Min. 25 psi; Adhered boards shall be a maximum 4 ft x 4 ft
	JM SeparatoR CGF	
JM SeparatoR FR		
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		
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 only
	JM All Season Sprayable Bonding Adhesive	For JM TPO smooth backed membranes, the adhesive is applied at a total rate of 1,000ft ² /canister; Applied simultaneously to underside of membrane and substrate; For JM TPO fleece backed membranes the adhesive is applied both to the substrate and the underside of the membrane at a rate of 0.21-0.23 gal/100ft ² for a total application rate of 0.41-0.47gal/100ft ²
	JM Roofing System Urethane Adhesive	Ribbon adhered in 3/4 to 1-inch wide beads; "Spatter" application applied at 0.55 to 0.75 gal/100ft ² ; For use only with JM TPO Fleece Backed membranes only
	JM Membrane Bonding Adhesive (TPO & EPDM)	Fully adhered at rate of 50-90 ft ² /gal(1.1-2.0 gal/100ft ²); Applied simultaneously to underside of membrane and substrate; For use with JM TPO smooth backed membranes only
	JM LVOC Membrane Adhesive (TPO & EPDM)	Fully adhered at rate of 50-90 ft ² /gal(1.1-2.0 gal/100ft ²); Applied simultaneously to underside of membrane and substrate; For use with JM TPO smooth backed membranes only
	JM TPO 1168 Membrane Adhesive	Fully adhered at rate of 50-90 ft ² /gal(1.1-2.0 gal/100ft ²); Applied simultaneously to underside of membrane and substrate; For use with JM TPO smooth backed membranes only
	JM TPO Water Based Membrane Adhesive	Bareback TPO shall be fully adhered in two-sided application at a combined rate of 0.6-0.8 gal/100ft ² or one-sided application applied to the substrate at a rate of 0.4-0.5 gal/100ft ² ; Fleeceback TPO shall be fully adhered in one-sided application applied to the substrate at a rate of 0.6-0.8 gal/100ft ²

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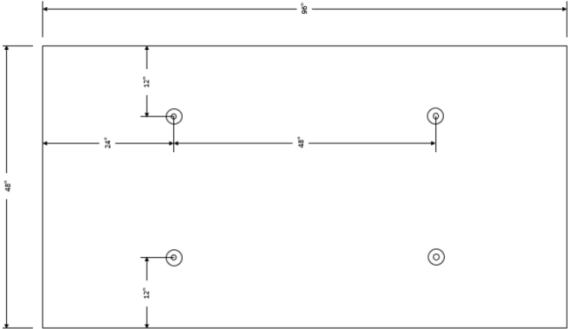
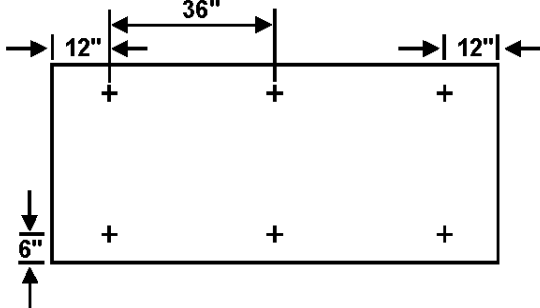
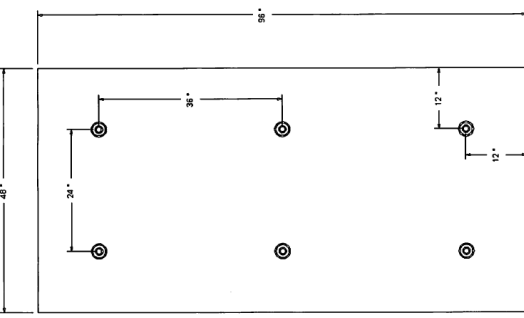
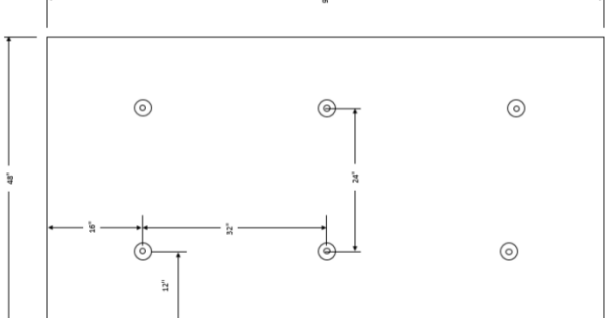
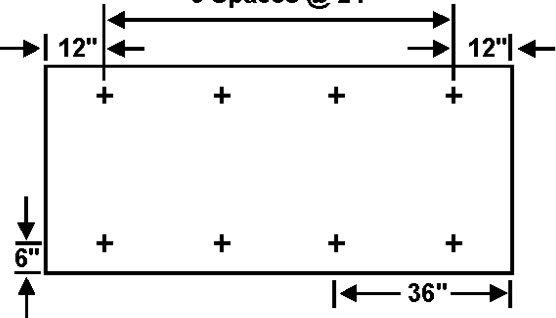
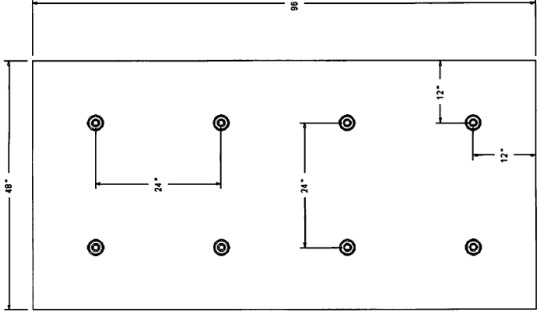
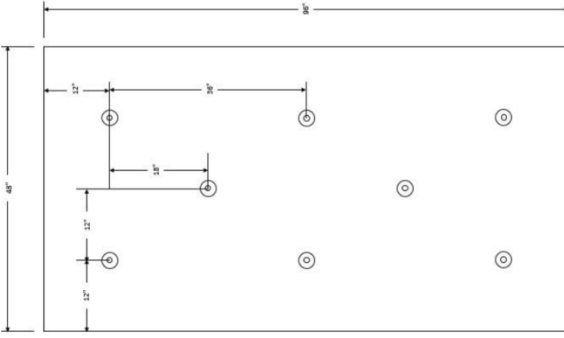
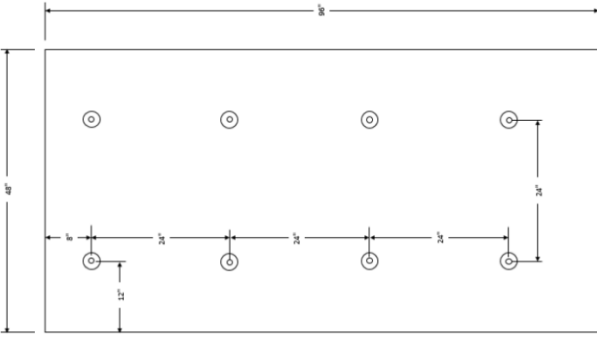
TPO Membrane Adhesives (Cont'd)	JM Two-Part Urethane Insulation Adhesive, JM Two-Part UIA, JM Two-Part Urethane Insulation Adhesive Canister, or JM Two-Part UIA Canister	Applied in spatter pattern at a rate of 0.32 gal/100ft ² or 1/2-inch wide beads; For use only with JM TPO Fleece Backed membranes only
Board Primer	Detec Systems TruGround Conductive Primer	Applied at rate of 250ft ² /gal
SA Primer	JM SA Primer Low VOC	Applied at rate of 0.5 gal/100ft ²
	JM SA Primer	Applied 0.75-1.25 gal/100ft ² on porous surfaces and 0.25-0.75 gal/100ft ² on nonporous surfaces
	JM All Season Sprayable Bonding Adhesive	Applied at rate of 500 ft ² /canister
Vapor Barriers	JM DynaBase HW	Min. 3-inch wide side-laps; Min. 6-inch end laps; Torch adhered ; Concrete decks primed prior to torch
	JM DynaWeld Base	
	JM DynaWeld Cap	
	JM DynaBase	Min. 3-inch wide side-laps; Min. 6-inch end laps; Applied with hot or cold <i>approved</i> adhesives
	JM DynaBase PR	
	JM DynaLastic 180	
	JM DynaLastic 180 FR	
	JM DynaLastic 180 S	
	JM DynaLastic 250	
	JM DynaLastic 250 FR	
	JM DynaLastic 250 S	
	JM DynaMax	Min. 3-inch wide side-laps; Min. 6-inch end laps; Applied with hot or cold <i>approved</i> adhesives
	JM DynaMax FR	
JM DynaFast 180 S	Min. 3-inch wide side-laps; Min. 6-inch end laps; Applied with hot or cold <i>approved</i> adhesives	
JM DynaGrip Base SD/SA	Min. 3-inch wide side-laps; Min. 6-inch end laps; Self-adhered	
JM DynaGrip Base PR SD/SA		
JM Vapor Barrier SA	Self-adhered to primed wood, gypsum or concrete decks; Min. 3-inch sides laps; Min. 6-inch end laps	
JM Vapor Barrier SAR	Self-adhered to primed wood, gypsum or concrete decks; Min. 3-inch sides laps; Min. 6-inch end laps	
Vapor Barrier Adhesives	DynaSet 1k	Min. 4-inch laps sealed at a rate of 1.5-2.0gal/100ft ² ; Applied to substrate in 0.5-0.75-inch wide continuous ribbons
	DynaSet 2k	
Base Plies/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
	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
	JM Ventsulation Felt	Min. 4-inch wide side-laps; Min. 6-inch end laps
Base Ply Adhesives	JM MBR Cold Application Adhesive	Fully adhered at a rate of 1.5-2.0 gal/100 ft2
	JM MBR Bonding Adhesive	
	JM DynaSet 1k	
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		
Cellular Lightweight Insulating 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



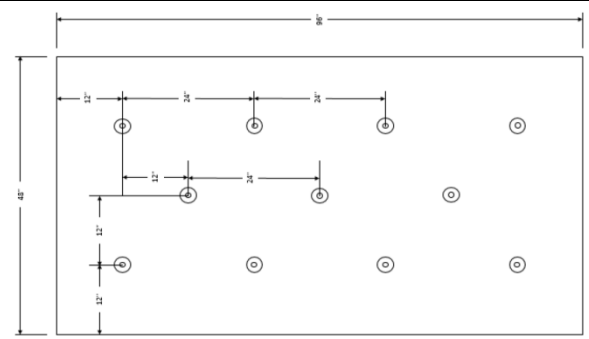
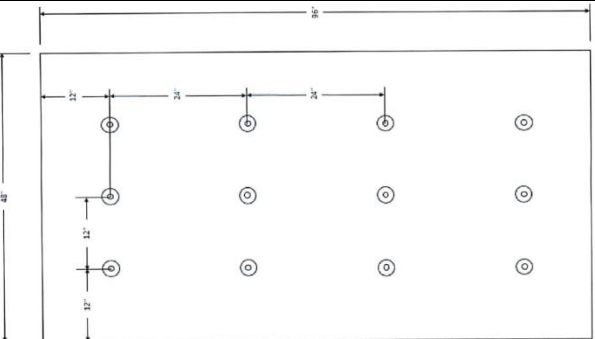
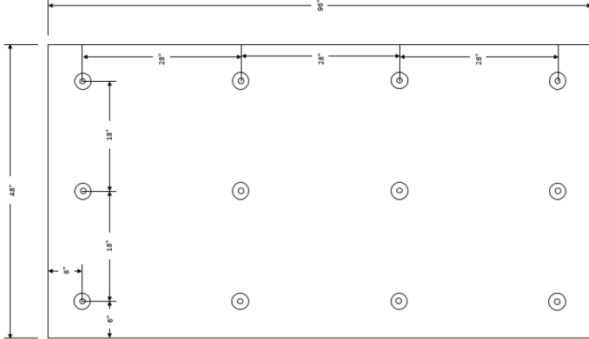
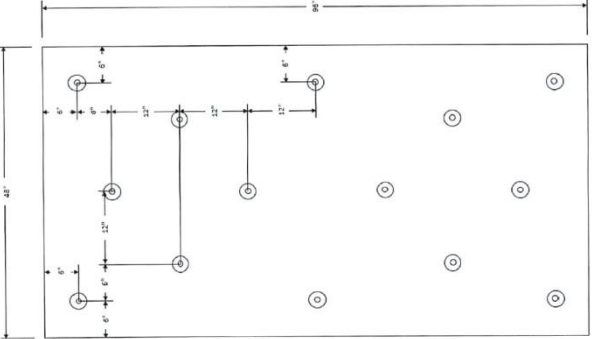
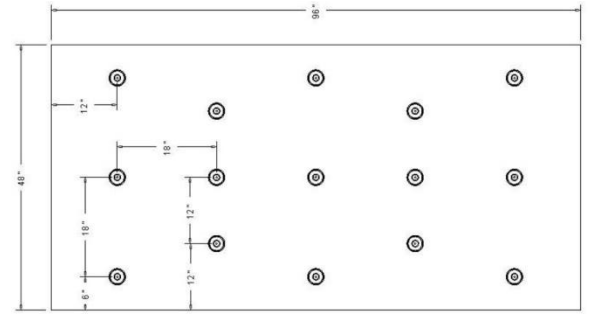
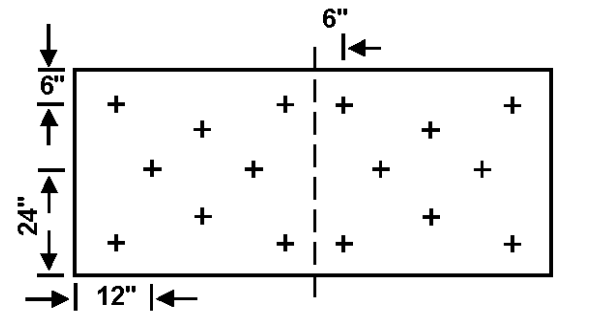
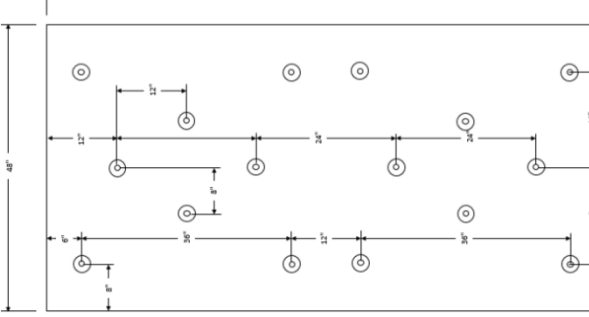
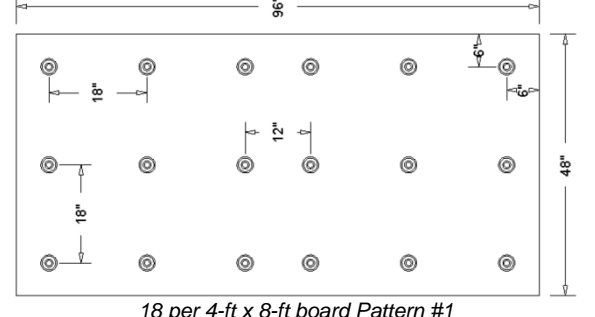
APPENDIX A - INSTALLATION

Cellular Lightweight Insulating Concrete (Cont'd)	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	

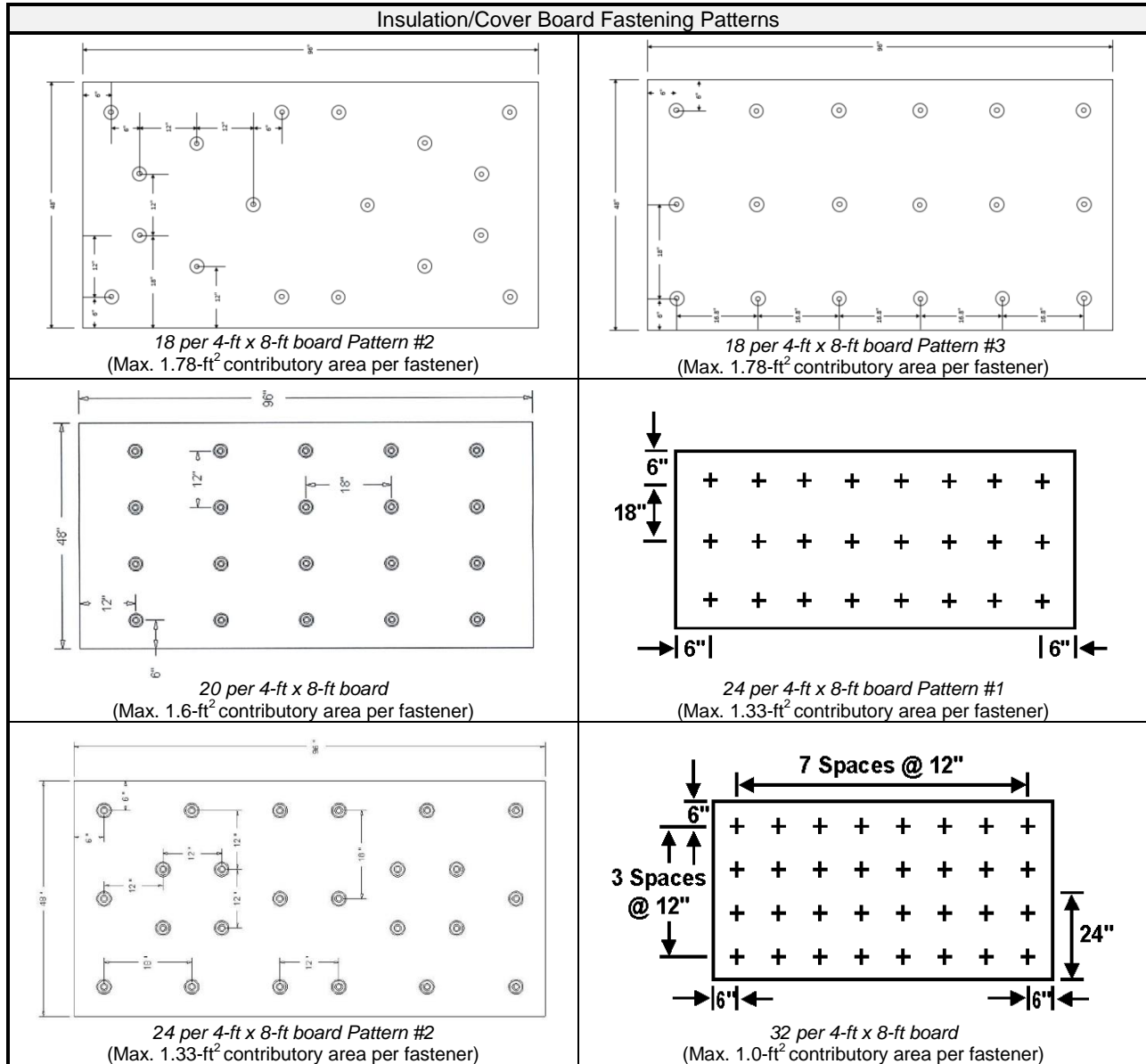
APPENDIX A - INSTALLATION

Insulation/Cover Board Fastening Patterns	
 <p>4 per 4-ft x 8-ft board (Max. 8.0-ft² contributory area per fastener)</p>	 <p>6 per 4-ft x 8-ft board Pattern #1 (Max. 5.33-ft² contributory area per fastener)</p>
 <p>6 per 4-ft x 8-ft board Pattern #2 (Max. 5.33-ft² contributory area per fastener)</p>	 <p>6 per 4-ft x 8-ft Type N (Max. 5.33-ft² contributory area per fastener)</p>
 <p>8 per 4-ft x 8-ft board Pattern #1 (Max. 4.0-ft² contributory area per fastener)</p>	 <p>8 per 4-ft x 8-ft board Pattern #2 (Max. 4.0-ft² contributory area per fastener)</p>
 <p>8 per 4-ft x 8-ft board Pattern #3 (Max. 4.0-ft² contributory area per fastener)</p>	 <p>8 per 4-ft x 8-ft board Type N (Max. 4.0-ft² contributory area per fastener)</p>

APPENDIX A - INSTALLATION

Insulation/Cover Board Fastening Patterns	
 <p><i>11 per 4-ft x 8-ft board</i> (Max. 2.9-ft² contributory area per fastener)</p>	 <p><i>12 per 4-ft x 8-ft board Pattern #1</i> (Max. 2.67-ft² contributory area per fastener)</p>
 <p><i>12 per 4-ft x 8-ft board Pattern #2</i> (Max. 2.67-ft² contributory area per fastener)</p>	 <p><i>14 per 4-ft x 8-ft board</i> (Max. 2.29-ft² contributory area per fastener)</p>
 <p><i>15 per 4-ft x 8-ft board</i> (Max. 2.13-ft² contributory area per fastener)</p>	 <p><i>16 per 4-ft x 8-ft board</i> (Max. 2.0-ft² contributory area per fastener)</p>
 <p><i>16 per 4-ft x 8-ft board Type N</i> (Max. 2.0-ft² contributory area per fastener)</p>	 <p><i>18 per 4-ft x 8-ft board Pattern #1</i> (Max. 1.78-ft² contributory area per fastener)</p>

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APPENDIX A - INSTALLATION

Alternate Fastener Patterns for Induction Weld Assemblies Only	
Description	Fastening Array Repeated Using the Geometric Grid Shown Below
<p>1.5-ft x 2-ft staggered grid</p> <p>← Direction of steel deck flutes</p>	
<p>2-ft x 2-ft staggered grid</p> <p>← Direction of steel deck flutes</p>	
<p>2-ft x 3-ft staggered grid</p> <p>← Direction of steel deck flutes</p>	

APPENDIX A - INSTALLATION

VERSAs-FAST Metal Plate Fastening Pattern	
Description	Fastening Pattern
2 Fasteners/ Plate	
3 Fasteners/ Plate	<p>Direction of fastener row within lap</p> <p>VERSAs-FAST Fasteners located on the side of the plate that is in closest proximity to the weld seam</p>
4 Fasteners (Wedge)/ Plate	<p>Direction of fastener row within lap</p> <p>VERSAs-FAST Fasteners located on the side of the plate that is in closest proximity to the weld seam</p>

APPENDIX A - INSTALLATION

VERSAs-FAST Metal Plate Fastening Pattern	
Description	Fastening Pattern
<p>4 Fasteners (Trapezoid)/ Plate</p>	<p>Direction of fastener row within lap</p> <p>VERSAs-FAST Fasteners located on the side of the plate that is in closest proximity to the weld seam</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
1168	JM 1168 Membrane Adhesive
2-Part UIA	JM Two-Part Urethane Insulation Adhesive, JM Two-Part UIA, JM Two-Part Urethane Insulation Adhesive Canister, or JM Two-Part UIA Canister
2-Part UIA(S)	JM Two-Part Urethane Insulation Adhesive, JM Two-Part UIA, JM Two-Part Urethane Insulation Adhesive Canister, or JM Two-Part UIA Canister applied in spatter application at a rate of 3.5-3.9 lbs/100ft ²
2-Part UIA-C(B)	JM Two-Part Urethane Insulation Adhesive Canister or JM Two-Part UIA Canister applied in 1/2-inch wide beads
AP Fasteners & Plates	All Purpose Fastener, Trufast #14 HD Fastener or Structural Concrete Deck Fastener (concrete only) and UltraFast Metal Plate (Round) or UltraFast Metal Plate (Square) or UltraFast Plate Metal Flat
AP Fasteners & Plates (Square)	All Purpose Fastener, Trufast #14 HD Fastener or Structural Concrete Deck Fastener (concrete only) and UltraFast Metal Plate (Square) or UltraFast Plate Metal Flat
AP Fasteners & Trufast Plates	All Purpose Fastener, Trufast #14 HD Fastener or Structural Concrete Deck Fastener (concrete only) and Trufast 3" Metal Insulation 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>)
ASBA	JM All Season Sprayable Bonding Adhesive
Cover Board	One layer of any of the following products: -Georgia-Pacific DensDeck -Georgia-Pacific DensDeck Prime -Georgia-Pacific DensDeck StormX Prime-JM Invinsa Roof Board -JM Invinsa FR Roof Board -JM ProtectorR HD -JM ProtectorR HD FR -JM 1/2" Retro-Fit Board -JM RetroPlus Roof Board -JM SECUROCK Glass-Mat Roof Board -JM SECUROCK Gypsum-Fiber Roof Board -JM SeparatoR -JM SeparatoR CGF -JM SeparatoR FR -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>Concrete Deck</i> Min. $f'_c = 2,500$ psi at 28 days
	<i>CWF Deck</i> Min. 2.5-inch thick Tectum I cementitious wood fiber panels

APPENDIX B – NOMENCLATURE

Name	Definition	
<i>Deck Detail (Cont'd)</i>	<i>Steel Deck</i> Min. 22 ga, Wide Rib Deck (Type WR) conforming to ANSI/SDI-RD1.0 & FBC; 0.5% Vented for <i>LWIC</i> applications only. Shall conform with ASTM A653 for S-A-# type assemblies. <i>G<#></i> Min. Grade <#> of <i>Steel Deck</i>	
	<i>Wood Deck</i>	APA Span-Rated sheathing.
		<i>T<#>O</i> Min. <#>-inch thickness of the OSB sheathing complying with PS 2-18
		<i>T<#>P</i> Min. <#>-inch thickness of the plywood sheathing complying with PS 1-19
		<i>L<#></i> Max. span of <#> inches
<i>DF</i>	Dekfast DF-#12-PH3 <i>Steel Deck</i> , or <i>Wood Deck</i>), Dekfast DF-#14-PH# (<i>Concrete Deck</i> , <i>Steel Deck</i> , or <i>Wood Deck</i>), or Dekfast DF-#15-PH3 (<i>Steel Deck</i> , or <i>Wood Deck</i>) with Dekfast PLT-R-3	
<i>DensDeck</i>	Min. 1/4-inch Georgia-Pacific DensDeck	
<i>DensDeck Prime</i>	Min. 1/4-inch Georgia-Pacific DensDeck Prime; or Georgia-Pacific DensDeck StormX Prime	
<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 or JM ENRGY 3 CGF	
<i>E3 C1</i>	JM ENRGY 3 C1 or JM ENRGY 3 C1 CGF	
<i>EPS</i>	ASTM C 578 expanded polystyrene insulation board, min. Type IX in HVHZ	
<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>FASTENERS</i>	JM UltraFast Fastener, Trufast #12 DP Fastener, Dekfast DF-#12-PH3, JM All Purpose Fastener, Trufast #14 HD Fastener, Dekfast DF-#14-PH3, JM High Load Fastener, Dekfast DF-#15-PH3, or Trufast #15 EHD Fastener	

APPENDIX B – NOMENCLATURE

Name	Definition																																																
Fasteners & Plates	Choose one of the following fastener and plate combinations for the given conditions: <table border="1"> <thead> <tr> <th>Board or Base Sheet</th> <th>Fastener</th> <th>Plate</th> <th>Roof Deck</th> </tr> </thead> <tbody> <tr> <td>Any</td> <td>JM All Purpose Fastener, JM Structural Concrete Deck Fastener, Dekfast DF-#14-PH3, or Trufast #14 HD Fastener</td> <td>JM UltraFast Metal Plate (Square), UltraFast Plate Metal Flat, UltraFast Metal Plate (Round), or UltraFast Plate Metal Recessed</td> <td>Concrete</td> </tr> <tr> <td>Any</td> <td>JM UltraFast Fastener, Trufast #12 DP Fastener, Trufast #14 HD Fastener, JM High Load Fastener, Dekfast DP-#15-PH3, or Trufast #15 EHD Fastener</td> <td>JM UltraFast Metal Plate (Square), UltraFast Plate Metal Flat, UltraFast Metal Plate (Round), or UltraFast Plate Metal Recessed</td> <td>Steel</td> </tr> <tr> <td>Any</td> <td>JM UltraFast Fastener, Trufast #12 DP Fastener, Dekfast DF-#12-PH3, JM All Purpose Fastener, Dekfast DF-#14-PH3, JM High Load Fastener, Dekfast DF-#15-PH3, or Trufast #15 EHD Fastener</td> <td>JM UltraFast Metal Plate (Square), UltraFast Plate Metal Flat, UltraFast Metal Plate (Round), or UltraFast Plate Metal Recessed</td> <td>Plywood or OSB</td> </tr> <tr> <td>Any</td> <td>Dekfast DF-#14-PH3</td> <td>Dekfast PLT-R-3</td> <td>Concrete</td> </tr> <tr> <td>Any</td> <td>Dekfast DF-#12-PH3 or Dekfast DP-#15-PH3</td> <td>Dekfast PLT-R-3</td> <td>Steel</td> </tr> <tr> <td>Any</td> <td>Dekfast DF-#12-PH3, Dekfast DF-#14-PH#, or Dekfast DF-#15-PH3</td> <td>Dekfast PLT-R-3</td> <td>Plywood or OSB</td> </tr> <tr> <td>Any</td> <td>JM All Purpose Fastener, JM Structural Concrete Deck Fastener, or Trufast #14 HD Fastener</td> <td>Trufast 3" Metal Insulation Plates</td> <td>Concrete</td> </tr> <tr> <td>ENRGY 3, SeparatoR CGF, DensDeck Prime, DEXcell FA, or SECUROCK</td> <td>JM UltraFast Fastener or JM High Load Fastener</td> <td>Trufast 3" Metal Insulation Plates</td> <td>Steel</td> </tr> <tr> <td>ENRGY 3, SeparatoR CGF, DensDeck Prime, DEXcell FA, or SECUROCK</td> <td>JM UltraFast Fastener, JM All Purpose Fastener or JM High Load Fastener</td> <td>Trufast 3" Metal Insulation Plates</td> <td>Plywood or OSB</td> </tr> <tr> <td>Any</td> <td>Trufast #12 DP Fastener, Trufast #14 HD Fastener, or Trufast #15 EHD Fastener</td> <td>Trufast 3" Metal Insulation Plates</td> <td>Steel or OSB</td> </tr> <tr> <td>Any</td> <td>Trufast #12 DP Fastener or Trufast #15 EHD Fastener</td> <td>Trufast 3" Metal Insulation Plates</td> <td>Plywood</td> </tr> </tbody> </table>	Board or Base Sheet	Fastener	Plate	Roof Deck	Any	JM All Purpose Fastener, JM Structural Concrete Deck Fastener, Dekfast DF-#14-PH3, or Trufast #14 HD Fastener	JM UltraFast Metal Plate (Square), UltraFast Plate Metal Flat, UltraFast Metal Plate (Round), or UltraFast Plate Metal Recessed	Concrete	Any	JM UltraFast Fastener, Trufast #12 DP Fastener, Trufast #14 HD Fastener, JM High Load Fastener, Dekfast DP-#15-PH3, or Trufast #15 EHD Fastener	JM UltraFast Metal Plate (Square), UltraFast Plate Metal Flat, UltraFast Metal Plate (Round), or UltraFast Plate Metal Recessed	Steel	Any	JM UltraFast Fastener, Trufast #12 DP Fastener, Dekfast DF-#12-PH3, JM All Purpose Fastener, Dekfast DF-#14-PH3, JM High Load Fastener, Dekfast DF-#15-PH3, or Trufast #15 EHD Fastener	JM UltraFast Metal Plate (Square), UltraFast Plate Metal Flat, UltraFast Metal Plate (Round), or UltraFast Plate Metal Recessed	Plywood or OSB	Any	Dekfast DF-#14-PH3	Dekfast PLT-R-3	Concrete	Any	Dekfast DF-#12-PH3 or Dekfast DP-#15-PH3	Dekfast PLT-R-3	Steel	Any	Dekfast DF-#12-PH3, Dekfast DF-#14-PH#, or Dekfast DF-#15-PH3	Dekfast PLT-R-3	Plywood or OSB	Any	JM All Purpose Fastener, JM Structural Concrete Deck Fastener, or Trufast #14 HD Fastener	Trufast 3" Metal Insulation Plates	Concrete	ENRGY 3, SeparatoR CGF, DensDeck Prime, DEXcell FA, or SECUROCK	JM UltraFast Fastener or JM High Load Fastener	Trufast 3" Metal Insulation Plates	Steel	ENRGY 3, SeparatoR CGF, DensDeck Prime, DEXcell FA, or SECUROCK	JM UltraFast Fastener, JM All Purpose Fastener or JM High Load Fastener	Trufast 3" Metal Insulation Plates	Plywood or OSB	Any	Trufast #12 DP Fastener, Trufast #14 HD Fastener, or Trufast #15 EHD Fastener	Trufast 3" Metal Insulation Plates	Steel or OSB	Any	Trufast #12 DP Fastener or Trufast #15 EHD Fastener	Trufast 3" Metal Insulation Plates	Plywood
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HL Fasteners & Plates	Any one of the following fastener and plate combinations: 1) JM High Load Fasteners (<i>Wood Deck</i> or <i>Steel Deck</i>), Trufast #15 EHD Fasteners (<i>Steel Deck</i>) or JM All Purpose Fasteners (<i>Concrete Deck</i>) and JM High Load Plates 2) Trufast #15 EHD Fasteners (<i>Steel Deck</i>) or Trufast #14 HD Fasteners (<i>Concrete Deck</i>) and 2.4" Scoop Seam Plate, 2.4" Barbed Metal Seam Plate, or 2.4" Barbed Metal Seam Plate (14-Barb) 3) JM High Load Fasteners (<i>Wood Deck</i> or <i>Steel Deck</i>) or Dekfast DF-#14-PH3 (<i>Concrete Deck</i>) and <i>isofast</i> PLT-R-2-3/8-6B-B plates																																																

APPENDIX B – NOMENCLATURE

Name	Definition																					
INSULATION	One of more layers in any combination of the following products: <table border="0"> <tr> <td>-Approved EPS board</td> <td>-FESCO Board</td> <td>-1/2" Retro-Fit Board</td> </tr> <tr> <td>-ENRGY 3</td> <td>-Fesco Foam</td> <td>-RetroPlus Roof Board</td> </tr> <tr> <td>-ENRGY 3 AGF</td> <td>-Invinsa Roof Board</td> <td>-SECUROCK Glass-Mat Roof Board</td> </tr> <tr> <td>-ENRGY 3 CGF</td> <td>-Invinsa FR Roof Board</td> <td>-SECUROCK Gypsum-Fiber Roof Board</td> </tr> <tr> <td>-ENRGY 3 FR</td> <td>-ProtectoR Foam</td> <td>-SeparatoR</td> </tr> <tr> <td>-ENRGY 3 C1</td> <td>-ProtectoR HD</td> <td>-SeparatoR CGF</td> </tr> <tr> <td>-ENRGY 3 C1 CGF</td> <td>-ProtectoR HD FR</td> <td>-SeparatoR FR</td> </tr> </table>	-Approved EPS board	-FESCO Board	-1/2" Retro-Fit Board	-ENRGY 3	-Fesco Foam	-RetroPlus Roof Board	-ENRGY 3 AGF	-Invinsa Roof Board	-SECUROCK Glass-Mat Roof Board	-ENRGY 3 CGF	-Invinsa FR Roof Board	-SECUROCK Gypsum-Fiber Roof Board	-ENRGY 3 FR	-ProtectoR Foam	-SeparatoR	-ENRGY 3 C1	-ProtectoR HD	-SeparatoR CGF	-ENRGY 3 C1 CGF	-ProtectoR HD FR	-SeparatoR FR
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-ENRGY 3 C1 CGF	-ProtectoR HD FR	-SeparatoR FR																				
INVINSA	JM Invinsa or JM Invinsa FR Roof Board																					
ISOWELD-#15	isoweld FI-P-6.8-TPO plates and DEKFAST DF-#15-PH3 Fasteners																					
ISOWELD-#12	isoweld FI-P-6.8-TPO plates and DEKFAST DF-#12-PH3 Fasteners																					
IW	Any one of the following fastener and plate combinations: 1) JM All Purpose Fasteners, JM High Load Fasteners, JM Structural Concrete Deck Fasteners, Dekfast DF-#14-PH3, Dekfast DF-#15-PH3, Trufast #14 HD Fasteners, or Trufast #15 EHD Fasteners and JM TPO RhinoPlates 2) Trufast #14 HD Fasteners, Trufast #15 EHD Fasteners or Trufast Fluted Concrete Nails and Trufast TPO IW Plates 3) JM All Purpose Fasteners, JM High Load Fasteners, Dekfast DF-#14-PH3, Dekfast DF-#15-PH3 and isoweld FI-P-6.8-TPO plates																					
IW #15	Any one of the following fastener and plate combinations: 1) JM High Load Fasteners, JM Structural Concrete Deck Fasteners, Dekfast DF-#15-PH3, or Trufast #15 EHD Fasteners and JM PVC RhinoPlates 2) Trufast #15 EHD Fasteners or Trufast Fluted Concrete Nails and Trufast PVC IW Plates 3) JM High Load Fasteners or Dekfast DF-#15-PH3 and isoweld FI-P-6.8-PVC plates																					
JM TPO	One ply of any one of the following products: JM TPO-45, JM TPO-60, or JM TPO-80																					
JM TPO FB	One ply of any one of the following products: JM TPO FB 115 or JM TPO FB 135																					
JM TPO FB w/DynaBase HW	JM TPO FB 115 or JM TPO FB 135 adhered over a torch applied DynaBase HW base ply																					
JM TPO FB w/DynaWeld Base	JM TPO FB 115 or JM TPO FB 135 adhered over a torch applied DynaWeld Base base ply																					
JM TPO FB w/SBS	JM TPO FB 115 or JM TPO FB 135 adhered JM Roofing System Urethane Adhesive applied in "spatter" to any one of the following base plies as indicated below.																					
	<table border="1"> <thead> <tr> <th>Base Ply</th> <th>Allowable Base Ply Adhesives</th> <th>Allowable Substrates</th> </tr> </thead> <tbody> <tr> <td>DynaBase or DynaBase PR</td> <td>JM MBR Bonding Adhesive, or DynaSet 1k</td> <td>ENRGY 3, ProtectoR HD, DEXcell FA Glass Mat Roof Board, DensDeck Prime Roof Board, SECUROCK Gypsum-Fiber Roof Board, or DEXcell Cement Roof Board</td> </tr> <tr> <td>DynaWeld Base or DynaBase HW</td> <td>Torch applied</td> <td>DEXcell FA Glass Mat Roof Board, DensDeck Prime Roof Board, or DEXcell Cement Roof Board</td> </tr> </tbody> </table>	Base Ply	Allowable Base Ply Adhesives	Allowable Substrates	DynaBase or DynaBase PR	JM MBR Bonding Adhesive, or DynaSet 1k	ENRGY 3, ProtectoR HD, DEXcell FA Glass Mat Roof Board, DensDeck Prime Roof Board, SECUROCK Gypsum-Fiber Roof Board, or DEXcell Cement Roof Board	DynaWeld Base or DynaBase HW	Torch applied	DEXcell FA Glass Mat Roof Board, DensDeck Prime Roof Board, or DEXcell Cement Roof Board												
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DynaWeld Base or DynaBase HW	Torch applied	DEXcell FA Glass Mat Roof Board, DensDeck Prime Roof Board, or DEXcell Cement Roof Board																				
JM TPO HFB	One ply of any one of the following products: JM TPO FB 150 or JM TPO FB 175																					
JM TPO SA	One ply of any one of the following products: JM TPO SA-60 mil																					
LVOC MA	JM LVOC Membrane Adhesive (TPO & EPDM)																					
LWIC	Poured-in-place Cellular Lightweight Insulating Concrete with encapsulated insulation board																					
MBA	JM Membrane Bonding Adhesive (TPO & EPDM)																					
MCRF	Minimum Characteristic Resistance Force as determined by TAS 105 for the named fastener in the selected assembly																					

APPENDIX B – NOMENCLATURE

Name	Definition
<i>MDP</i>	Maximum Design Pressure
<i>OMG Fasteners & Plates</i>	OMG XHD fasteners and 3 in. Ribbed Galvalume Plates (Flat)
<i>OSFA</i>	JM One-Step Foamable Adhesive
<i>PLT-R-3</i>	Dekfast PLT-R-3 plates
<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>ProtectoR</i>	JM ProtectoR HD or JM ProtectoR HD FR Roof Board
<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. 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>Retro-Fit</i>	JM 1/2" Retro-Fit Board
<i>RhinoPlates</i>	Any one of the following fastener and plate combinations: 1) JM High Load Fasteners (<i>Steel or Wood Deck</i>), Trufast #15 EHD Fasteners (<i>Steel Deck</i>), or JM All Purpose Fasteners (<i>Concrete Deck</i>) and JM TPO RhinoPlates 2) Trufast #15 EHD Fasteners (<i>Steel Deck</i>), Trufast #14 HD Fasteners (<i>Concrete Deck</i>), or Trufast Fluted Concrete Nails (<i>Concrete Deck</i>) and Trufast TPO IW Plates 3) JM High Load Fasteners (<i>Steel or Wood Deck</i>), JM All Purpose Fasteners (<i>Concrete Deck</i>), Dekfast DF-#14-PH3 (<i>Concrete Deck</i>) and isoweld FI-P-6.8-TPO plates
<i>RS Nails & Tin Caps</i>	Min. 0.120-inch x 1.25-inch galvanized ring shank roofing nails and min. 32ga. x 1-5/8-inch diameter galvanized steel tin caps
<i>RSUA</i>	JM Roofing System Urethane Adhesive
<i>RSUA(S)</i>	JM Roofing System Urethane Adhesive applied in "spatter"
<i>SECUROCK</i>	Min. 1/4-inch JM SECUROCK Gypsum-Fiber Roof Board
<i>StormX</i>	DensDeck StormX Prime
<i>TF</i>	Trufast #12 DP Fastener (<i>Steel Deck or Wood Deck</i>), Trufast #14 HD Fastener (<i>Concrete Deck, Steel Deck, or Wood Deck</i>), or Trufast #15 EHD Fasteners (<i>Concrete Deck, Steel Deck or Wood Deck</i>) with Trufast 3" Metal Insulation Plate
<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>TPO WBMA</i>	JM TPO Water Based Membrane Adhesive
<i>Trufast Seam Plates</i>	Trufast 2.4" Scoop Seam Plates and Trufast #15 EHD Fasteners
<i>Trufast IW Plates</i>	Trufast TPO IW Plates and Trufast #15 EHD Fasteners (steel deck only), Trufast #14 HD Fasteners (concrete deck only), or Trufast Fluted Concrete Nails (concrete deck only)
<i>UF</i>	JM UltraFast Fasteners (<i>Steel Deck or Wood Deck</i>), JM All Purpose Fasteners (<i>Concrete Deck, Steel Deck, or Wood Deck</i>), or JM High Load Fasteners (<i>Wood Deck or Steel Deck</i>) with JM UltraFast Metal Plate (Square), UltraFast Plate Metal Flat, UltraFast Metal Plate (Round), or UltraFast Plate Metal Recessed
<i>UIA</i>	JM Urethane Insulation Adhesive
<i>UltraFast Fasteners & Trufast Plates</i>	JM UltraFast Fasteners (<i>Steel Deck and Wood Deck</i>), Trufast #12 DP Fasteners, JM All Purpose Fasteners (<i>Concrete Deck</i>), or Trufast #14 HD Fasteners and Trufast 3" Metal Insulation Plates
<i>UltraFast Plates</i>	UltraFast Metal Plate (Square), UltraFast Plate Metal Flat, UltraFast Metal Plates (Round), or UltraFast Plate Metal Recessed
<i>UltraFast Plates (Square)</i>	UltraFast Metal Plate (Square) or UltraFast Plate Metal Flat

APPENDIX B – NOMENCLATURE

Name	Definition																																																																																															
Vapor Barrier	One of the following vapor barriers installed over the deck: -4mil or 6mil Polyethylene, loose laid -JM Vapor Barrier SA or JM Vapor Barrier SAR, self-adhered to minimum 0.5-inch thick SECUROCK Gypsum-Fiber Roof Board, DEXcell FA Glass Mat Roof Board or DEXcell Cement Roof Board. The thermal barrier may be primed with JM SA Primer Low VOC, or SA Primer -DynaGrip Base SD/SA, self-adhered to minimum 0.5-inch thick SECUROCK Gypsum-Fiber Roof Board or DEXcell FA Glass Mat Roof Board -DynaBase HW, torch applied to minimum 0.5-inch thick DEXcell FA Glass Mat Roof Board																																																																																															
Vapor Barriers for Adhered Assemblies over Concrete Deck	<p>One of the following options may be utilized as allowed by the <i>Approved Assembly</i>. The <i>MDP</i> shall be limited to the lesser of rating of the <i>Approved Assembly</i> and the <i>MDP</i> for the chosen vapor barrier.</p> <table border="1"> <thead> <tr> <th>Primer</th> <th>Vapor Barrier</th> <th>VB Application</th> <th>Insulation Adhesive</th> <th>MDP (psf)</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>DynaBase HW</td> <td>Torch adhered</td> <td>OSFA 12-inch o.c.</td> <td>-172.5</td> </tr> <tr> <td>None</td> <td>DynaBase HW</td> <td>Torch adhered</td> <td>2-Part UIA 12-inch o.c.</td> <td>-135</td> </tr> <tr> <td>None</td> <td>DynaBase HW</td> <td>Torch adhered</td> <td>RSUA 12-inch o.c.</td> <td>-195</td> </tr> <tr> <td>ASTM D 41</td> <td>DynaGrip Base SD/SA</td> <td>Self-adhered</td> <td>OSFA 12-inch o.c.</td> <td>-90</td> </tr> <tr> <td>ASTM D 41</td> <td>DynaGrip Base SD/SA</td> <td>Self-adhered</td> <td>2-Part UIA 12-inch o.c.</td> <td>-97.5</td> </tr> <tr> <td>ASTM D 41</td> <td>DynaGrip Base SD/SA</td> <td>Self-adhered</td> <td>RSUA 12-inch o.c.</td> <td>-82.5</td> </tr> <tr> <td>ASTM D 41</td> <td>DynaGrip Base PR SD/SA</td> <td>Self-adhered</td> <td>RSUA 12-inch o.c.</td> <td>-202.5</td> </tr> <tr> <td>ASTM D 41</td> <td>DynaGrip Base PR SD/SA</td> <td>Self-adhered</td> <td>2-Part UIA 12-inch o.c.</td> <td>-262.5</td> </tr> <tr> <td>None</td> <td>DynaLastic 180 S, DynaLastic 250 S, DynaFast 180 S, or DynaBase PR; Laps sealed with DynaSet 1k</td> <td>DynaSet 1k 12-inch o.c.</td> <td>OSFA, 2-Part UIA, or RSUA 12-inch o.c.</td> <td>-232.5</td> </tr> <tr> <td>None</td> <td>DynaLastic 180 S, DynaLastic 250 S, DynaFast 180 S, or DynaBase PR; Laps sealed with DynaSet 1k</td> <td>DynaSet 1k 12-inch o.c.</td> <td>ASTM D 312, Type IV Asphalt</td> <td>-337.5</td> </tr> <tr> <td>None</td> <td>DynaLastic 180, DynaLastic 180 FR, DynaLastic 250, DynaLastic 250 FR, DynaMax, or DynaMax FR; Laps sealed with DynaSet 1k</td> <td>DynaSet 1k 12-inch o.c.</td> <td>OSFA, 2-Part UIA, or RSUA 12-inch o.c.</td> <td>-232.5</td> </tr> <tr> <td>None</td> <td>DynaLastic 180 S, DynaLastic 250 S, DynaFast 180 S, or DynaBase PR; Laps sealed with DynaSet 2k</td> <td>DynaSet 2k 12-inch o.c.</td> <td>OSFA, 2-Part UIA, or RSUA 12-inch o.c.</td> <td>-97.5</td> </tr> <tr> <td>None</td> <td>DynaLastic 180 S, DynaLastic 250 S, DynaFast 180 S, or DynaBase PR; Laps sealed with DynaSet 2k</td> <td>DynaSet 2k 12-inch o.c.</td> <td>ASTM D 312, Type IV Asphalt</td> <td>-75</td> </tr> <tr> <td>ASTM D 41</td> <td>DynaWeld Base</td> <td>Torch adhered</td> <td>OSFA 12-inch o.c.</td> <td>-150</td> </tr> <tr> <td>ASTM D 41</td> <td>DynaWeld Base</td> <td>Torch adhered</td> <td>2-Part UIA 12-inch o.c.</td> <td>-120</td> </tr> <tr> <td>ASTM D 41</td> <td>DynaWeld Base</td> <td>Torch adhered</td> <td>RSUA 12-inch o.c.</td> <td>-285</td> </tr> <tr> <td>JM SA Primer Low VOC or SA Primer</td> <td>JM Vapor Barrier SA or SAR</td> <td>Self-adhered</td> <td>OSFA or RSUA 12-inch o.c.</td> <td>-135</td> </tr> <tr> <td>JM SA Primer Low VOC or SA Primer</td> <td>JM Vapor Barrier SA or SAR</td> <td>Self-adhered</td> <td>2-Part UIA 12-inch o.c.</td> <td>-82.5</td> </tr> </tbody> </table>	Primer	Vapor Barrier	VB Application	Insulation Adhesive	MDP (psf)	None	DynaBase HW	Torch adhered	OSFA 12-inch o.c.	-172.5	None	DynaBase HW	Torch adhered	2-Part UIA 12-inch o.c.	-135	None	DynaBase HW	Torch adhered	RSUA 12-inch o.c.	-195	ASTM D 41	DynaGrip Base SD/SA	Self-adhered	OSFA 12-inch o.c.	-90	ASTM D 41	DynaGrip Base SD/SA	Self-adhered	2-Part UIA 12-inch o.c.	-97.5	ASTM D 41	DynaGrip Base SD/SA	Self-adhered	RSUA 12-inch o.c.	-82.5	ASTM D 41	DynaGrip Base PR SD/SA	Self-adhered	RSUA 12-inch o.c.	-202.5	ASTM D 41	DynaGrip Base PR SD/SA	Self-adhered	2-Part UIA 12-inch o.c.	-262.5	None	DynaLastic 180 S, DynaLastic 250 S, DynaFast 180 S, or DynaBase PR; Laps sealed with DynaSet 1k	DynaSet 1k 12-inch o.c.	OSFA, 2-Part UIA, or RSUA 12-inch o.c.	-232.5	None	DynaLastic 180 S, DynaLastic 250 S, DynaFast 180 S, or DynaBase PR; Laps sealed with DynaSet 1k	DynaSet 1k 12-inch o.c.	ASTM D 312, Type IV Asphalt	-337.5	None	DynaLastic 180, DynaLastic 180 FR, DynaLastic 250, DynaLastic 250 FR, DynaMax, or DynaMax FR; Laps sealed with DynaSet 1k	DynaSet 1k 12-inch o.c.	OSFA, 2-Part UIA, or RSUA 12-inch o.c.	-232.5	None	DynaLastic 180 S, DynaLastic 250 S, DynaFast 180 S, or DynaBase PR; Laps sealed with DynaSet 2k	DynaSet 2k 12-inch o.c.	OSFA, 2-Part UIA, or RSUA 12-inch o.c.	-97.5	None	DynaLastic 180 S, DynaLastic 250 S, DynaFast 180 S, or DynaBase PR; Laps sealed with DynaSet 2k	DynaSet 2k 12-inch o.c.	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APPENDIX B – NOMENCLATURE

Name	Definition													
<i>Vapor Barriers for Adhered Assemblies over CWF Deck</i>	One of the following options may be utilized as allowed by the <i>Approved Assembly</i> . The <i>MDP</i> shall be limited to the lesser of rating of the <i>Approved Assembly</i> and the <i>MDP</i> for the chosen vapor barrier.													
	<table border="1"> <thead> <tr> <th data-bbox="527 321 730 345">Thermal Barrier</th> <th data-bbox="735 321 953 345">TB Adhesive</th> <th data-bbox="957 321 1108 345">Primer</th> <th data-bbox="1113 321 1318 345">Vapor Barrier</th> <th data-bbox="1323 321 1528 345">VB Application</th> <th data-bbox="1533 321 1751 345">Insulation Adhesive</th> <th data-bbox="1755 321 1898 345">MDP (psf)</th> </tr> </thead> <tbody> <tr> <td data-bbox="527 349 730 370">SECUROCK</td> <td data-bbox="735 349 953 370">RSUA 12-inch o.c.</td> <td data-bbox="957 349 1108 370">ASTM D 41</td> <td data-bbox="1113 349 1318 370">DynaWeld Cap</td> <td data-bbox="1323 349 1528 370">Torch adhered</td> <td data-bbox="1533 349 1751 370">RSUA 12-inch o.c.</td> <td data-bbox="1755 349 1898 370">-250</td> </tr> </tbody> </table>	Thermal Barrier	TB Adhesive	Primer	Vapor Barrier	VB Application	Insulation Adhesive	MDP (psf)	SECUROCK	RSUA 12-inch o.c.	ASTM D 41	DynaWeld Cap	Torch adhered	RSUA 12-inch o.c.
Thermal Barrier	TB Adhesive	Primer	Vapor Barrier	VB Application	Insulation Adhesive	MDP (psf)								
SECUROCK	RSUA 12-inch o.c.	ASTM D 41	DynaWeld Cap	Torch adhered	RSUA 12-inch o.c.	-250								
<i>VERSA-FAST</i>	Trufast VERSA-FAST Plates and VERSA-FAST Fasteners													

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. Items *italicized* refer to specific nomenclature used in this report.
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. Prior to application of the approved assembly an optional vapor barrier may be installed over concrete, steel, or wood decks when the approved assembly contains insulation or the membrane fastened through to the deck.
6. ENRGY 3, ENRGY 3 CGF, ENRGY 3 C1, or ENRGY 3 C1 CGF base insulation in assemblies with All Layers Adhered may be installed in one or more layers.
7. Steel deck utilized in System Nos. S-A-# shall be ASTM A653, G90 galvanized steel.
8. For systems C-AM-#, C-M-#, S-AM-#, and S-M-#, it is permissible to install over or substitute loose fill insulation with minimum 200psi, minimum 2-inch FBC approved lightweight insulating concrete applied over the concrete or steel deck. Fasteners shall be installed through the lightweight insulating concrete anchoring into the structural deck.
9. As noted in the assembly tables below, prior to adhering the membrane, TruGround Conductive Primer may be applied to the following board substrates when using the following membrane adhesives up to a *MDP* less than or equal to **-285psf**.
 - a. JM All Season Sprayable Bonding Adhesive – ENRGY 3, ENRGY 3 CGF, Protector HD, DEXcell FA Glass Mat Roof Board, or DensDeck Prime Roof Board
 - b. JM LVOC Membrane Adhesive (TPO & EPDM) – ENRGY 3, ENRGY 3 CGF, Protector HD, DEXcell FA Glass Mat Roof Board, or DensDeck Prime Roof Board
 - c. JM Membrane Bonding Adhesive (TPO & EPDM) – ENRGY 3, Protector HD, DEXcell FA Glass Mat Roof Board, or DensDeck Prime Roof Board
10. As noted in the assembly tables below, prior to adhering the membrane, TruGround Conductive Primer may be applied to the following board substrates when using the following membrane adhesives up to a *MDP* less than or equal to **-37.5psf**.
 - a. JM All Season Sprayable Bonding Adhesive – ENRGY 3, ENRGY 3 CGF, Protector HD, DEXcell FA Glass Mat Roof Board, or DensDeck Prime Roof Board
 - b. JM LVOC Membrane Adhesive (TPO & EPDM) – ENRGY 3, ENRGY 3 CGF, Protector HD, DEXcell FA Glass Mat Roof Board, or DensDeck Prime Roof Board
 - c. JM Membrane Bonding Adhesive (TPO & EPDM) – ENRGY 3, Protector HD, DEXcell FA Glass Mat Roof Board, or DensDeck Prime Roof Board
11. As noted in the assembly tables below, FESCO Board, FESCO Foam, DuraBoard, 1/2" Retro-Fit Board, or RetroPlus Roof Board may be substituted for *E3*.
12. As noted in the tables below, TruGround Conductive Primer may optionally applied to the board surface, existing roof, or deck surface prior to mechanically attaching the membrane.

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

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 <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 Cementitious Wood Fiber Decks (New or Existing)
CW-AM-#	Assemblies with Adhered Membranes 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 <i>Recover</i>)
LC-W-#	Induction Welded 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-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 <i>Recover</i>)
LS-W-#	Induction Welded 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-A-#	Adhered Assemblies over <i>Steel Deck</i> (New or Existing)
S-AM-#	Assemblies with Adhered Membranes over Insulated <i>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-A-#	Adhered Assemblies over <i>Wood Deck</i> (New or Existing)
W-AM-#	Assemblies with Adhered Membranes over Insulated <i>Wood Deck</i> (New, Existing, or <i>Recover</i>)
W-M-#	Mechanically Fastened Assemblies over <i>Wood Deck</i> (New, Existing, or <i>Recover</i>)
W-W-#	Induction Welded Assemblies over <i>Wood Deck</i> (New, Existing, or <i>Recover</i>)

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

Adhered Assemblies over Concrete Deck (New or Existing)						
System No.	Vapor Barrier	Base Insulation (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
C-A-1	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch ENRGY 3 in RSUA, OSFA or 2-Part UIA applied 12-inch o.c.	<i>DensDeck Prime</i> or StormX in RSUA applied 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c.	-45 (Lim. 9)
C-A-2	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch E3 in RSUA or 2-Part UIA applied 12-inch o.c.	OPTIONAL SECUROCK or JM InvinSA in RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c. or 2-Part UIA(S)	-67.5 (Lim. 9)
C-A-3	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch E3 in RSUA or 2-Part UIA applied 12-inch o.c.	OPTIONAL SECUROCK, JM InvinSA or ProtectoR HD in RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-67.5 (Lim. 9)
C-A-4	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch ENRGY 3 in OSFA or 2-Part UIA applied 12-inch o.c.	OPTIONAL JM InvinSA or ProtectoR HD in 2-Part UIA applied 12-inch o.c.	JM TPO	MBA applied at 0.83 gal/100ft ² to both membrane and substrate, TPO WBMA, ASBA	-105 (Lim. 9)
C-A-5	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch ENRGY 3 in OSFA or 2-Part UIA applied 12-inch o.c.	OPTIONAL JM InvinSA or ProtectoR HD in 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-105 (Lim. 9)
C-A-6	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	-	INVINSA in 2-Part UIA, OSFA, or RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-105 (Lim. 9)
C-A-7	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch E3 or ProtectoR Foam in OSFA, RSUA or 2-Part UI applied 12-inch o.c.	-	JM TPO SA	Self-adhered	-105 (Lim. 9)
C-A-8	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch E3 or ProtectoR Foam in OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	-	JM TPO FB	RSUA applied 4-inch o.c.; RSUA(S) or 2-Part UIA(S)	-112.5 (Lim. 9)
C-A-9	DynaBase PR in DynaSet 1k applied 12-inch o.c.	-	-	JM TPO FB	DynaSet 1k applied 12-inch o.c.	-112.5 (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 (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
C-A-10	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch ENRGY 3 in RSUA, OSFA or 2-Part UIA applied 12-inch o.c.	<i>DensDeck Prime</i> or StormX in RSUA applied 12-inch o.c.	JM TPO FB	RSUA applied 4-inch o.c. or RSUA(S)	-135 (Lim. 9)
C-A-11	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 0.5-inch ENRGY 3 CGF, ENRGY 3 FR or ProtectoR Foam in 2-Part UIA applied 12-inch o.c.	-	JM TPO	TPO WBMA, ASBA, or MBA	-142.5 (Lim. 9)
C-A-12	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch ENRGY 3 in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	Min. 1-inch ENRGY 3 in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	JM TPO	ASBA or MBA	-157.5 (Lim. 9)
C-A-13	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 0.5-inch ENRGY 3 or ProtectoR Foam applied in 2-Part UIA at 12-inch o.c.	-	JM TPO	TPO WBMA or ASBA	-165 (Lim. 9)
C-A-14	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1-inch ENRGY 3 in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	<i>DensDeck Prime</i> in OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO FB w/DynaBase HW	RSUA applied 12-inch o.c. or RSUA(S)	-165 (Lim. 9)
C-A-15	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 0.5-inch E3 or ProtectoR Foam in 2-Part UIA applied 12-inch o.c.	-	JM TPO	LVOC MA	-172.5 (Lim. 9)
C-A-16	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	OPTIONAL Min. 1.5-inch ENRGY 3, ENRGY 3 CGF or ENRGY 3 FR in 2-Part UIA applied 12-inch o.c.	SECUROCK in 2-Part UIA applied 12-inch o.c.	JM TPO	TPO WBMA, ASBA, 1168, or MBA	-180 (Lim. 9)
C-A-17	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	OPTIONAL Min. 1.5-inch ENRGY 3, ENRGY 3 CGF or ENRGY 3 FR in 2-Part UIA applied 12-inch o.c.	DEXcell CB or DEXcell FA in 2-Part UIA applied 12-inch o.c.	JM TPO	TPO WBMA or ASBA	-180 (Lim. 9)
C-A-18	OPTIONAL <i>Vapor Barriers for Adhered Assemblies over Concrete Deck</i>	Min. 1.5-inch ENRGY 3 in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	DEXcell CB in 2-Part UIA or RSUA applied 12-inch o.c.	JM TPO FB w/DynaBase HW	RSUA applied 12-inch o.c. or RSUA(S)	-180 (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 (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
C-A-19	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 1-inch ENRGY 3, in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	ProtectoR in OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO	TPO WBMA, ASBA, or MBA	-187.5 (Lim. 9)
C-A-20	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 0.5-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR, or ProtectoR Foam in 2-Part UIA applied 12-inch o.c.	-	JM TPO FB	TPO WBMA	-187.5 (Lim. 9)
C-A-21	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 0.5-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR, or ProtectoR Foam in 2-Part UIA applied 12-inch o.c.	-	JM TPO	TPO WBMA (Two-sided application only) or ASBA	-195 (Lim. 9)
C-A-22	DynaWeld Base over deck primed with ASTM D 41 primer	Min. 0.5-inch E3 C1 or E3 (less ENRGY 3 FR) in 2-Part UIA, RSUA, or OSFA applied 12-inch o.c.	DensDeck Prime in 2-Part UIA, OSFA or RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-195 (Lim. 9)
C-A-23	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 1.5-inch ENRGY 3, in OSFA or RSUA applied 12-inch o.c.	ProtectoR in OSFA or RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: LVOC MA or MBA JM TPO FB: 2-Part UIA(S)	-210 (Lim. 9)
C-A-24	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 1.5-inch ENRGY 3, in OSFA or RSUA applied 12-inch o.c.	ProtectoR in OSFA or RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-210 (Lim. 9)
C-A-25	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 1.5-inch ENRGY 3 in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	DEXcell FA in OSFA or RSUA; applied 12-inch o.c.	JM TPO	ASBA	-217.5 (Lim. 9)
C-A-26	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 1.5-inch ENRGY 3 in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	DEXcell FA in OSFA or RSUA; applied 12-inch o.c.	JM TPO FB w/DynaBase HW	RSUA applied 12-inch o.c. or RSUA(S)	-217.5 (Lim. 9)
C-A-27	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 1.5-inch ENRGY 3 in RSUA, OSFA or 2-Part UIA applied 12-inch o.c.	DensDeck Prime or StormX in RSUA applied 12-inch o.c.	JM TPO FB	RSUA applied 4-inch o.c. or RSUA(S)	-217.5 (Lim. 9)
C-A-28	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 1.5-inch ENRGY 3 in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	ProtectoR HD in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	JM TPO	ASBA or MBA	-225 (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 (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
C-A-29	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 1-inch ENRGY 3 in OSFA, RSUA or 2-Part UIA; applied 12-inch o.c.	DensDeck Prime in OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO	TPO WBMA, ASBA, or 1168	-232.5 (Lim. 9)
C-A-30	DynaBase HW	-	SECUROCK in RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-247.5 (Lim. 9)
C-A-31	DynaBase HW torch adhered over deck primed with ASTM D 41 primer	Min. 1.5-inch ENRGY 3 CGF in RSUA applied 12-inch o.c.	SECUROCK in RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-247.5 (Lim. 9)
C-A-32	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	-	SECUROCK in 2-Part UIA, OSFA, or RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-247.5 (Lim. 9)
C-A-33	DynaWeld Cap over deck primed with ASTM D 41 primer	Min. 0.5-inch E3 C1 or E3 (less ENRGY 3 FR) in 2-Part UIA, RSUA, or OSFA applied 12-inch o.c.	DensDeck Prime in 2-Part UIA, OSFA or RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-247.5 (Lim. 9)
C-A-34	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	-	INVINSA in 2-Part UIA, OSFA, or RSUA applied 12-inch o.c.	JM TPO	TPO WBMA (Two-sided application only) or ASBA	-255 (Lim. 9)
C-A-35	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	Min. 1.5-inch ENRGY 3 in 2-Part UIA applied 12-inch o.c.	DEXcell FA in 2-Part UIA applied 12-inch o.c.	JM TPO FB w/DynaWeld Base	2-Part UIA(S) at 6lbs/100ft ²	-255 (Lim. 9)
C-A-36	OPTIONAL Vapor Barriers for Adhered Assemblies over Concrete Deck	-	INVINSA in 2-Part UIA, OSFA or RSUA applied 12-inch o.c.	JM TPO FB	TPO WBMA	-277.5 (Lim. 9)
C-A-37	-	Min. 1.5-inch ENRGY 3 in 2-Part UIA-C(B) applied 12-inch o.c.	-	JM TPO FB	2-Part UIA(S)	-277.5 (Lim. 9)
C-A-38	DynaBase HW	-	SECUROCK in RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA (Two-sided application only), LVOC MA, ASBA, or 1168 JM TPO FB: TPO WBMA or 2-Part UIA(S)	-292.5 (Lim. 9)
C-A-39	DynaBase HW torch adhered over deck primed with ASTM D 41 primer	Min. 1.5-inch ENRGY 3 CGF in RSUA applied 12-inch o.c.	SECUROCK in RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA (Two-sided application only), LVOC MA, ASBA, or 1168 JM TPO FB: TPO WBMA or 2-Part UIA(S)	-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 (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
C-A-40	-	Min. 1.5-inch E3 or ProtectorR Foam in 2-Part UIA applied 12-inch o.c.	-	JM TPO	MBA	-322.5 (Lim. 9)
C-A-41	-	-	DEXcell CB in 2-Part UIA or OlyBond 500 applied 12-inch o.c.	JM TPO FB	TPO WBMA	-322.5 (Lim. 9)
C-A-42	OPTIONAL DynaGrip SD/SA over deck primed with ASTM D 41 primer	Min. 1-inch E3 C1 or E3 (less ENRGY 3 FR) in 2-Part UIA, RSUA, or OSFA applied 12-inch o.c.	DensDeck Prime in 2-Part UIA, OSFA or RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-337.5 (Lim. 9)
C-A-43	-	-	SECUROCK in 2-Part UIA, OSFA or RSUA applied 12-inch o.c.	JM TPO FB	TPO WBMA or 2-Part UIA(S)	-345 (Lim. 9)
C-A-44	-	-	SECUROCK in 2-Part UIA, OSFA or RSUA applied 12-inch o.c.	JM TPO	LVOC MA	-360 (Lim. 9)
C-A-45	-	-	DEXcell CB or DEXcell FA in 2-Part UIA or OlyBond 500 applied 12-inch o.c.	JM TPO	LVOC MA, TPO WBMA (Two-sided application only), MBA, or 1168 (DEXcell FA only)	-390 (Lim. 9)
C-A-46	-	-	DEXcell FA in 2-Part UIA or OlyBond 500 applied 12-inch o.c.	JM TPO SA	Self-adhered	-390 (Lim. 9)
C-A-47	-	-	DEXcell FA in 2-Part UIA or OlyBond 500 applied 12-inch o.c.	JM TPO	ASBA	-390 (Lim. 9)
C-A-48	-	-	DEXcell FA in 2-Part UIA or OlyBond 500 applied 12-inch o.c.	JM TPO FB	TPO WBMA or 2-Part UIA(S)	-390 (Lim. 9)
C-A-49	-	-	DEXcell FA in 2-Part UIA or OlyBond 500 applied 12-inch o.c.	JM TPO HFB	ASTM D 312, Type IV Asphalt	-390 (Lim. 9)
C-A-50	-	-	-	JM TPO FB	2-Part UIA(S)	-457.5 (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 (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
C-A-51	-	-	SECUROCK in 2-Part UIA, OSFA or RSUA applied 12-inch o.c.	JM TPO	TPO WBMA	-465 (Lim. 9)
C-A-52	-	-	INVINSA in 2-Part UIA, OSFA or RSUA applied 12-inch o.c.	JM TPO	MBA applied 0.83 gal/100ft ²	-465 (Lim. 9)
C-A-53	-	-	SECUROCK in 2-Part UIA, OSFA or RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-465 (Lim. 9)
C-A-54	-	-	SECUROCK in 2-Part UIA, OSFA, or RSUA applied 12-inch o.c.	JM TPO	MBA applied 0.83 gal/100ft ²	-495 (Lim. 9)
C-A-55	DynaWeld Base torch adhered over deck primed with ASTM D 41 primer	-	-	JM TPO FB	RSUA(S) or 2-Part UIA(S)	-502.5 (Lim. 9)
C-A-56	-	-	-	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-502.5 (Lim. 9)

Assemblies with Adhered Membranes over Insulated Concrete Deck (New, Existing, or Recover)								
System No.	Thermal/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-1	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.375-inch SECUROCK	Fasteners & Plates secured 1 fastener per 2.67ft ²	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83-1.10 gal/100ft ² or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-45 (Lim. 7)
C-AM-2	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates secured 1 fastener per 4.0ft ²	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-45 (Lim. 7)
C-AM-3	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	AP Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO	MBA applied at 0.83 gal/100ft ² , TPO WBMA, ASBA or LVOC MA	-45 (Lim. 7)

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

Assemblies with Adhered Membranes over Insulated <i>Concrete Deck</i> (New, Existing, or Recover)								
System No.	Thermal/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-4	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	Fasteners & Plates secured 1 fastener per 2.67ft ²	ProtectoR HD	RSUA or 2-Part UIA applied 12-inch o.c	JM TPO SA	Self-adhered	-45 (Lim. 7)
C-AM-5	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	Fasteners & Plates secured 1 fastener per 2.67ft ²	ProtectoR HD	RSUA or 2-Part UIA applied 12-inch o.c	JM TPO or JM TPO FB	JM TPO: TPO WBMA; MBA applied at 0.83 gal/100ft ² ; LVOC MA or ASBA JM TPO FB: RSUA applied 12-inch o.c., 2-Part UIA(S) or TPO WBMA	-45 (Lim. 7)
C-AM-6	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	ProtectoR	Fasteners & Plates secured 1 fastener per 4ft ²	JM TPO SA	Self-adhered	-45 (Lim. 9)
C-AM-7	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	ProtectoR	Fasteners & Plates secured 1 fastener per 4ft ²	JM TPO (Min. 60 mil) or JM TPO FB	JM TPO: TPO WBMA; MBA applied at 0.83 gal/100ft ² ; LVOC MA or ASBA JM TPO FB: RSUA applied 12-inch o.c., 2-Part UIA(S) or TPO WBMA	-45 (Lim. 9)
C-AM-8	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	AP Fasteners & 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: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., or 2-Part UIA(S)	-45 (Lim. 7)
C-AM-9	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	AP Fasteners & 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-10	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR or E3 C1	AP Fasteners & Plates secured 1 fastener per 1ft ²	Min. 1.5-inch ENRGY 3	OSFA, RSUA or 2-Part UIA applied 4-inch o.c.	JM TPO FB	TPO WBMA or RSUA applied 12-inch o.c.	-45 (Lim. 7)
C-AM-11	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	Fasteners & Plates secured 8 per 4-ft x 8-ft board Pattern 2	JM TPO FB w/DynaBase HW	RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-45 (Lim. 7)

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

Assemblies with Adhered Membranes over Insulated <i>Concrete Deck</i> (New, Existing, or Recover)								
System No.	Thermal/ Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-12	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i> under min. 1.5-inch <i>E3</i>	Simultaneously secured with top layer	<i>SECUROCK</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	<i>JM TPO</i> or <i>JM TPO FB</i>	<i>JM TPO</i> : <i>MBA</i> applied at 0.83-1.10 gal/100ft ² , <i>LVOC MA</i> , or <i>ASBA</i> <i>JM TPO FB</i> : <i>TPO WBMA</i> , <i>ASBA</i> or <i>2-Part UIA(S)</i>	-52.5 (Lim. 7)
C-AM-13	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i> under min. 1.5-inch <i>E3</i>	Simultaneously secured with top layer	<i>SECUROCK</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	<i>JM TPO SA</i>	Self-adhered	-52.5 (Lim. 7)
C-AM-14	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i> under min. 1.5-inch <i>ENRGY 3</i>	<i>AP Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	<i>SECUROCK</i>	<i>OSFA</i> , <i>RSUA</i> or <i>2-Part UIA</i> applied 12-inch o.c.	<i>JM TPO</i> or <i>JM TPO FB</i>	<i>JM TPO</i> : <i>MBA</i> applied at 0.83-1.10 gal/100ft ² , <i>LVOC MA</i> , or <i>ASBA</i> <i>JM TPO FB</i> : <i>TPO WBMA</i> , <i>ASBA</i> , <i>RSUA</i> applied 12-inch o.c., or <i>2-Part UIA(S)</i>	-52.5 (Lim. 7)
C-AM-15	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i> under min. 1.5-inch <i>ENRGY 3</i>	<i>AP Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	<i>SECUROCK</i>	<i>OSFA</i> , <i>RSUA</i> or <i>2-Part UIA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-52.5 (Lim. 7)
C-AM-16	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i> under min 1.5-inch <i>ENRGY 3</i>	<i>AP Fasteners & Plates</i> secured at a rate of 1 fastener per 1.45ft ²	<i>JM Invinsa</i>	<i>RSUA</i> or <i>2-Part UIA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>RSUA</i> applied 12-inch o.c. or <i>RSUA(S)</i>	-52.5 (Lim. 7)
C-AM-17	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i> under min 1.5-inch <i>ENRGY 3</i>	<i>AP Fasteners & Plates</i> secured at a rate of 1 fastener per 1.45ft ²	<i>JM Invinsa</i> or <i>ProtectoR HD</i>	<i>RSUA</i> or <i>2-Part UIA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-52.5 (Lim. 7)
C-AM-18	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i>	Simultaneously secured with top layer	Min. 2-inch <i>ENRGY 3 CGF</i> or <i>ENRGY 3 FR</i>	<i>Fasteners & Plates</i> secured 1 fastener per 2.67ft ²	<i>JM TPO</i>	<i>MBA</i> applied 0.83 gal/100ft ² to both membrane and substrate, <i>TPO WBMA</i> or <i>ASBA</i>	-52.5 (Lim. 7)
C-AM-19	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i>	Simultaneously secured with top layer	Min. 2-inch <i>ENRGY 3 CGF</i> or <i>ENRGY 3 FR</i>	<i>Fasteners & Plates</i> secured 1 fastener per 2.67ft ²	<i>JM TPO FB</i>	<i>2-Part UIA(S)</i>	-52.5 (Lim. 7)

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

Assemblies with Adhered Membranes over Insulated <i>Concrete Deck</i> (New, Existing, or Recover)								
System No.	Thermal/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-20	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.67ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
C-AM-21	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.67ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-52.5 (Lim. 7)
C-AM-22	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.67ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
C-AM-23	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO	MBA applied 0.83 gal/100ft ² to both membrane and substrate or TPO WBMA	-52.5 (Lim. 7)
C-AM-24	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	Fasteners & Plates secured 1 fastener per 1.33ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
C-AM-25	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	Fasteners & Plates 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-26	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners & 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: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., or 2-Part UIA-C(S)	-52.5 (Lim. 7)
C-AM-27	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners & 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-28	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners & 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)

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

Assemblies with Adhered Membranes over Insulated <i>Concrete Deck</i> (New, Existing, or Recover)								
System No.	Thermal/ Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-29	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners & 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)
C-AM-30	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3 or ProtectorR Foam	AP Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
C-AM-31	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3 or ProtectorR Foam	AP Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO FB	2-Part UIA(S)	-52.5 (Lim. 7)
C-AM-32	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3 or ProtectorR Foam	AP Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO	LVOC MA or MBA applied at 0.55 gal/100ft ²	-52.5 (Lim. 7)
C-AM-33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Protector HD	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
C-AM-34	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Protector HD	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA applied at 0.83 gal/100ft ² ; LVOC MA, or ASBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-52.5 (Lim. 7)
C-AM-35	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DensDeck Prime	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-52.5 (Lim. 7)
C-AM-36	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DensDeck Prime	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
C-AM-37	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DensDeck Prime	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)

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

Assemblies with Adhered Membranes over Insulated <i>Concrete Deck</i> (New, Existing, or Recover)								
System No.	Thermal/ Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-38	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners & Plates secured at a rate of 1 fastener per 1.78ft ²	Min 0.5-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83-1.10 gal/100ft, LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-60 (Lim. 7)
C-AM-39	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	AP Fasteners & Plates secured at a rate of 1 fastener per 1.78ft ²	Min 0.5-inch SECUROCK	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-60 (Lim. 7)
C-AM-40	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-60 (Lim. 7)
C-AM-41	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	Fasteners & Plates secured 1 fastener per 1.00ft ²	JM TPO SA	Self-adhered	-60 (Lim. 7)
C-AM-42	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3 or ProtectoR Foam	AP Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO	LVOC MA	-60 (Lim. 7)
C-AM-43	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-60 (Lim. 7)
C-AM-44	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-60 (Lim. 7)
C-AM-45	OPTIONAL Vapor Barrier	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.78ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-60 (Lim. 7)
C-AM-46	OPTIONAL Vapor Barrier	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.78ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-60 (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.	Thermal/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-47	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	ProtectoR HD	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-60 (Lim. 7)
C-AM-48	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	ProtectoR HD	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-60 (Lim. 7)
C-AM-49	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.6ft ²	Min. 1.5-inch E3 or E3 C1	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO FB	2-Part UIA(S)	-60 (Lim. 7)
C-AM-50	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3	Fasteners & Plates secured 1 fastener per 1.6ft ²	JM TPO FB	2-Part UIA(S)	-60 (Lim. 7)
C-AM-51	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates secured 1 fastener per 2.00ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-60 (Lim. 7)
C-AM-52	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Fasteners & 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)
C-AM-53	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min 1.5-inch ENRGY 3	Fasteners & Plates secured at a rate of 24 per 4-ft x 8-ft Board	Min. 0.5-inch SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	TPO WBMA or ASBA	-67.5 (Lim. 7)
C-AM-54	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min 1.5-inch ENRGY 3	Fasteners & Plates secured at a rate of 24 per 4-ft x 8-ft Board	Min. 0.5-inch SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
C-AM-55	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO	MBA applied at 0.83 gal/100ft ² to both membrane and substrate, TPO WBMA or ASBA	-67.5 (Lim. 7)
C-AM-56	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	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 Concrete Deck (New, Existing, or Recover)								
System No.	Thermal/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-57	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-67.5 (Lim. 7)
C-AM-58	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
C-AM-59	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 2ft ²	JM TPO	MBA or LVOC MA applied at 1.1 gal/100ft ² , TPO WBMA (two-sided application only) or ASBA	-67.5 (Lim. 7)
C-AM-60	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3	Fasteners & Plates secured 1 fastener per 2ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-67.5 (Lim. 7)
C-AM-61	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO	TPO WBMA, ASBA, or MBA	-67.5 (Lim. 7)
C-AM-62	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.6ft ²	Min. 0.5-inch ProtectoR HD, DEXcell FA, or SECUROCK	OSFA, RSUA, 2-Part UIA-C(B) or 2-Part UIA applied 6-inch o.c.	JM TPO FB	RSUA 6-inch o.c. or RSUA(S)	-67.5 (Lim. 7)
C-AM-63	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.5-inch DensDeck Prime	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA, or 1168 JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-67.5 (Lim. 7)
C-AM-64	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.5-inch DensDeck Prime	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-67.5 (Lim. 7)
C-AM-65	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.5-inch DensDeck Prime	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
C-AM-66	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	ProtectoR HD	Fasteners & Plates at a rate of 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-75 (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.	Thermal/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-67	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	ProtectoR HD	Fasteners & Plates at a rate of 1 fastener per 1.33ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA applied 0.83 gal/100ft ² , LVOC MA or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-75 (Lim. 7)
C-AM-68	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3, E3 C1, or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 1.6ft ²	JM TPO	MBA, LVOC MA applied at 1.1 gal/100ft ² , TPO WBMA (two-sided application only) or ASBA	-75 (Lim. 7)
C-AM-69	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.6ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-75 (Lim. 7)
C-AM-70	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch Invinsa Foam	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA, or ASBA	-75 (Lim. 7)
C-AM-71	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch Invinsa Foam	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO SA	Self-adhered	-75 (Lim. 7)
C-AM-72	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates (Square) secured 1 fastener per 1.0ft ²	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA, or ASBA	-75 (Lim. 7)
C-AM-73	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates (Square) secured 1 fastener per 1.0ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-75 (Lim. 7)
C-AM-74	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates (Square) secured 1 fastener per 1.0ft ²	JM TPO	TPO WBMA, ASBA, or MBA	-82.5 (Lim. 7)
C-AM-75	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates (Square) secured 1 fastener per 1.0ft ²	JM TPO FB	2-Part UIA(S)	-82.5 (Lim. 7)
C-AM-76	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates (Square) secured 1 fastener per 1.0ft ²	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
C-AM-77	OPTIONAL Vapor Barrier	Min. 1-inch E3	Simultaneously secured with top layer	ProtectoR HD	Fasteners & Plates secured 1 fastener per 1.33ft ²	JM TPO	MBA, LVOC MA, or ASBA	-82.5 (Lim. 7)

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

Assemblies with Adhered Membranes over Insulated <i>Concrete Deck</i> (New, Existing, or Recover)								
System No.	Thermal/ Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-78	OPTIONAL <i>Vapor Barrier</i>	Min. 1-inch E3	Simultaneously secured with top layer	ProtectoR HD	<i>Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
C-AM-79	OPTIONAL <i>Vapor Barrier</i>	Min. 1-inch E3	Simultaneously secured with top layer	ProtectoR HD	<i>Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	JM TPO FB	2-Part UIA(S)	-82.5 (Lim. 7)
C-AM-80	OPTIONAL <i>Vapor Barrier</i>	Min. 2-inch E3 or E3 C1	<i>Fasteners & Plates</i> secured 1 fastener per 1.6ft ²	ProtectoR HD	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO	TPO WBMA, MBA, LVOC MA, or ASBA	-82.5 (Lim. 7)
C-AM-81	OPTIONAL <i>Vapor Barrier</i>	Min. 2-inch E3 or E3 C1	AP <i>Fasteners & Plate</i> secured 1 fastener per 1.6ft ²	ProtectoR HD	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
C-AM-82	OPTIONAL <i>Vapor Barrier</i>	Min. 2-inch E3 or E3 C1	AP <i>Fasteners & Plate</i> secured 1 fastener per 1.6ft ²	ProtectoR HD	OSFA, RSUA, 2-Part UIA-C(B) or 2-Part UIA applied 6-inch o.c.	JM TPO FB	2-Part UIA(S)	-82.5 (Lim. 7)
C-AM-83	OPTIONAL <i>Vapor Barrier</i>	Min. 2-inch E3 or E3 C1	AP <i>Fasteners & Plate</i> secured 1 fastener per 1.6ft ²	Min. 0.5-inch <i>DensDeck Prime</i> , <i>DEXcell FA</i> , or <i>SECUROCK</i>	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-82.5 (Lim. 7)
C-AM-84	OPTIONAL <i>Vapor Barrier</i>	Min. 2-inch E3 or E3 C1	AP <i>Fasteners & Plate</i> secured 1 fastener per 1.6ft ²	Min. 0.5-inch <i>DensDeck Prime</i> , <i>DEXcell FA</i> , or <i>SECUROCK</i>	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
C-AM-85	OPTIONAL <i>Vapor Barrier</i>	Min. 2-inch E3 or E3 C1	AP <i>Fasteners & Plate</i> secured 1 fastener per 1.6ft ²	Min. 1.5-inch E3 or E3 C1	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-82.5 (Lim. 7)
C-AM-86	OPTIONAL <i>Vapor Barrier</i>	Min. 2-inch E3 or E3 C1	AP <i>Fasteners & Plate</i> secured 1 fastener per 1.6ft ²	Min. 1.5-inch E3 or E3 C1	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
C-AM-87	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.625-inch <i>DensDeck Prime</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA, or 1168 JM TPO FB: TPO WBMA or ASBA	-90 (Lim. 7)

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

Assemblies with Adhered Membranes over Insulated <i>Concrete Deck</i> (New, Existing, or Recover)								
System No.	Thermal/ Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-88	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i> under min. 1.5-inch <i>E3</i>	Simultaneously secured with top layer	Min 0.625-inch <i>DensDeck Prime</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	<i>JM TPO HFB</i>	ASTM D 312 Type IV Asphalt	-90 (Lim. 7)
C-AM-89	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i> under min. 1.5-inch <i>E3</i>	Simultaneously secured with top layer	Min 0.625-inch <i>DensDeck Prime</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	<i>JM TPO SA</i>	Self-adhered	-90 (Lim. 7)
C-AM-90	OPTIONAL <i>Vapor Barrier</i>	Min. 2-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR or <i>E3 C1</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1ft ²	Min. 1.5-inch ENRGY 3	<i>RSUA</i> or <i>2-Part UIA</i> applied 6-inch o.c.	<i>JM TPO</i> or <i>JM TPO FB</i>	<i>JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168</i> <i>JM TPO FB: 2-Part UIA(S)</i>	-90 (Lim. 7)
C-AM-91	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i>	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	<i>Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	<i>JM TPO</i>	<i>MBA</i> applied at 0.83 gal/100ft ² to both membrane and substrate or <i>TPO WBMA</i>	-105 (Lim. 7)
C-AM-92	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i>	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	<i>Fasteners & Plates</i> secured 1 fastener per 1.33ft ²	<i>JM TPO SA</i>	Self-adhered	-105 (Lim. 7)
C-AM-93	OPTIONAL <i>Vapor Barrier</i>	Min. 1.5-inch <i>E3</i>	Simultaneously secured with top layer	Min. 0.5-inch <i>DEXcell FA</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.0ft ²	<i>JM TPO</i>	<i>MBA, LVOC MA</i> applied at 1.67 gal/100ft ² , <i>TPO WBMA</i> , or <i>ASBA</i>	-105 (Lim. 7)
C-AM-94	OPTIONAL <i>Vapor Barrier</i>	Min. 1.5-inch <i>E3</i>	Simultaneously secured with top layer	Min. 0.5-inch <i>DensDeck Prime</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.0ft ²	<i>JM TPO</i>	<i>MBA, LVOC MA</i> applied at 1.67 gal/100ft ² , <i>TPO WBMA, ASBA,</i> or <i>1168</i>	-112.5 (Lim. 7)
C-AM-95	OPTIONAL <i>Vapor Barrier</i>	Min. 1.5-inch <i>E3</i>	Simultaneously secured with top layer	Min. 0.5-inch <i>DensDeck Prime</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.0ft ²	<i>JM TPO SA</i>	Self-adhered	-112.5 (Lim. 7)
C-AM-96	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i>	Simultaneously secured with top layer	Min. 2-inch <i>E3,</i> <i>E3 C1,</i> or <i>ProtectoR Foam</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.0ft ²	<i>JM TPO</i>	<i>MBA, LVOC MA</i> applied at 1.1 gal/100ft ² or <i>TPO WBMA</i> (Two-sided application only)	-120 (Lim. 7)
C-AM-97	OPTIONAL <i>Vapor Barrier</i>	OPTIONAL <i>INSULATION</i>	Simultaneously secured with top layer	Min. 2-inch <i>E3</i> or <i>E3 C1</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1.0ft ²	<i>JM TPO HFB</i>	ASTM D 312 Type IV Asphalt	-120 (Lim. 7)
C-AM-98	OPTIONAL <i>Vapor Barrier</i>	Min. 2-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR or <i>E3 C1</i>	<i>Fasteners & Plates</i> secured 1 fastener per 1ft ²	Min. 1.5-inch ENRGY 3	<i>OSFA, RSUA</i> or <i>2-Part UIA</i> applied 4-inch o.c.	<i>JM TPO</i>	<i>TPO WBMA</i> (rate 0.6-0.8 gal/100-ft ² for one-sided and two-sided application), <i>MBA</i> , or <i>LVOC MA</i>	-120 (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.	Thermal/ Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Base Sheet	Top Insulation or Base Sheet Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
C-AM-99	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1ft ²	ProtectoR HD	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 4-inch o.c.	JM TPO	TPO WBMA, MBA, LVOC MA, or ASBA	-120 (Lim. 7)
C-AM-100	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR or E3 C1	Fasteners & Plates secured 1 fastener per 1ft ²	Min. 1.5-inch ENRGY 3	OSFA, RSUA or 2-Part UIA applied 4-inch o.c.	JM TPO	ASBA or MBA	-127.5 (Lim. 7)
C-AM-101	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	Fasteners & Plates secured 1 fastener per 1ft ²	JM TPO FB	2-Part UIA(S)	-135 (Lim. 7)
C-AM-102	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO or JM TPO FB	TPO WBMA (Two-sided application only for JM TPO)	-150 (Lim. 7)
C-AM-103	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO SA	Self-adhered	-150 (Lim. 7)

Mechanically Fastened Assemblies over Concrete Deck (New or Existing)							
System No.	Base Insulation (Note 11)	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	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)
C-M-2	OPTIONAL INSULATION under min. 1.5-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 HL Fasteners & Plates; Fastener rows max. 138-inch o.c.	-30 (Lim. 7)
C-M-3	OPTIONAL INSULATION under min. 1.5-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 Trufast Seam Plates; Fastener rows max. 90-inch o.c.	-30 (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 (Note 11)	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 90-inch o.c.	-37.5 (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 TPO or JM TPO FB	Attached in-lap 18-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 66-inch o.c.	-30 (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 TPO	Attached in-lap 12-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 114-inch o.c.	-37.5 (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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 66-inch o.c.	(-45 Lim. 7)
C-M-8	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 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-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 TPO or JM TPO FB	Attached in-lap 12-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 114-inch o.c.	-45 (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 TPO or JM TPO FB	Attached in-lap 12-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 66-inch o.c.	-45 (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 TPO or JM TPO FB	Attached in-lap 6-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
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 TPO or JM TPO FB	Attached in-lap 6-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 114-inch o.c.	-52.5 (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 TPO	Adhered to JM TPO 10" RPS spaced 114-inch o.c. and attached with <i>HL Fasteners & Plates</i> spaced 6-inch o.c.	-52.5 (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 (Note 11)	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
C-M-14	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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-52.5 (Lim. 7)
C-M-15	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 TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
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 TPO or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
C-M-17	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 TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 138-inch o.c.	(-60 Lim. 7)
C-M-18	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 TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with Trufast Seam Plates; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
C-M-19	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 HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-75 (Lim. 7)
C-M-20	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 TPO or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 66-inch o.c.	-90 (Lim. 7)
C-M-21	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 or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-97.5 (Lim. 7)
C-M-22	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 TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 66-inch o.c.	(-105 Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO 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 (Note 12)	MDP (psf)
C-W-1	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>RhinoPlates at a rate of 8 per 4-ft x 8-ft board Pattern #1 (1 fastener per 4.0-ft²)</i>	JM TPO (Min. 60 mil)	Induction welded to weld plates	-45 (Lim. 7)
C-W-2	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>RhinoPlates 12-inch o.c. with rows max. 72-inch o.c.</i>	JM TPO (Min. 60 mil)	Induction welded to weld plates	-45 (Lim. 7)
C-W-3	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>Attached with ISOWELD-#14 or ISOWELD-#15 at a rate of 1 fastener per 4.0-ft²</i>	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
C-W-4	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>Attached with ISOWELD-#14 or ISOWELD-#15 spaced 24" o.c. in rows 24" o.c.</i>	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
C-W-5	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>Attached with ISOWELD-#14 or ISOWELD-#15 spaced 12" o.c. in rows 60" o.c.</i>	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
C-W-6	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>Attached with ISOWELD-#14 or ISOWELD-#15 spaced in a 2-ft x 3-ft staggered grid</i>	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
C-W-7	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>Trufast IW Plates attached 1 fastener per 5.33ft²; End joints offset 12-inches between board rows</i>	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
C-W-8	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>RhinoPlates at a rate of 6 per 4-ft x 8-ft board Pattern #2 (1 fastener per 5.33-ft²); Board installed with 6-inch stagger from preceding course</i>	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-52.5 (Lim. 7)
C-W-9	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>Trufast IW Plates attached 1 fastener per 4.0ft²; End joints offset 12-inches between board rows</i>	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-52.5 (Lim. 7)
C-W-10	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>Attached with ISOWELD-#14 or ISOWELD-#15 spaced in a 2-ft x 2-ft staggered grid</i>	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-60 (Lim. 7)

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

Induction Welded Assemblies over <i>Concrete Deck (New, Existing, or Recover)</i>							
System No.	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
C-W-11	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>RhinoPlates</i> at a rate of 8 per 4-ft x 8-ft board <i>Pattern #2</i> (1 fastener per 4.0-ft ²); Board installed with 6-inch stagger from preceding course	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-67.5 (Lim. 7)
C-W-12	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>RhinoPlates</i> at a rate of 12 per 4-ft x 8-ft board <i>Pattern #1</i> (1 fastener per 2.67-ft ²)	JM TPO (Min. 60 mil)	Induction welded to weld plates	-75 (Lim. 7)
C-W-13	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	Attached with <i>ISOWELD-#14</i> or <i>ISOWELD-#15</i> at a rate of 1 fastener per 3.2-ft ²	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-75 (Lim. 7)
C-W-14	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	Attached with <i>ISOWELD-#14</i> or <i>ISOWELD-#15</i> spaced in a 1.5-ft x 2-ft staggered grid	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-82.5 (Lim. 7)
C-W-15	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>RhinoPlates</i> in a 24-inch by 16-inch grid pattern	JM TPO (Min. 60 mil)	Induction welded to weld plates	-90 (Lim. 7)
C-W-16	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>RhinoPlates</i> 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 weld plates	-90 (Lim. 7)
C-W-17	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>RhinoPlates</i> at a rate of 12 per 4-ft x 8-ft board <i>Pattern #1</i> (1 fastener per 2.67-ft ²); Board installed with 6-inch stagger from preceding course	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-90 (Lim. 7)
C-W-18	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	<i>Trufast IW Plates</i> attached 6-inch o.c. in rows 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-90 (Lim. 7)
C-W-19	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	Attached with <i>ISOWELD-#14</i> or <i>ISOWELD-#15</i> spaced 18" o.c. in rows 18" o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-97.5 (Lim. 7)
C-W-20	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL <i>Cover Board</i>	Attached with <i>ISOWELD-#14</i> or <i>ISOWELD-#15</i> spaced 6" o.c. in rows 60" o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-97.5 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO 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 (Note 12)	MDP (psf)
C-W-21	INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Trufast IW Plates attached 1 fastener per 2.0ft ² ; End joints offset 12-inches between board rows	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-105 (Lim. 7)

Adhered Assemblies over Cementitious Wood Fiber Deck (New or Existing)								
System No.	Vapor Barrier	Base Insulation (Note 6)	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
CW-A-1	OPTIONAL Vapor Barriers for Adhered Assemblies over CWF Deck	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA or RSUA applied 12-inch o.c.	JM Invinso or Protector R HD	OSFA, 2-Part UIA, or RSUA applied 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c., TPO WBMA	-122.5 (Lim. 9)
CW-A-2	OPTIONAL Vapor Barriers for Adhered Assemblies over CWF Deck	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: TPO WBMA, LVOC MA, ASBA, or MBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-135 (Lim. 9)
CW-A-3	OPTIONAL Vapor Barriers for Adhered Assemblies over CWF Deck	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: LVOC MA, ASBA, 1168, or MBA JM TPO FB: RSUA applied 12-inch o.c. or RSUA(S)	-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	OPTIONAL Vapor Barriers for Adhered Assemblies over CWF Deck	Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC, ASBA, or MBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-150 (Lim. 9)

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

Adhered Assemblies over Cementitious Wood Fiber Deck (New or Existing)								
System No.	Vapor Barrier	Base Insulation (Note 6)	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
CW-A-7	OPTIONAL Vapor Barriers for Adhered Assemblies over CWF Deck	SECUROCK	RSUA, OSFA, or 2-Part UIA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: TPO WBMA LVOC MA, ASBA, 1168, or MBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-157.5 (Lim. 9)
CW-A-8	OPTIONAL Vapor Barriers for Adhered Assemblies over CWF Deck	SECUROCK	RSUA, OSFA, or 2-Part UIA applied 12-inch o.c.	-	-	JM TPO SA	Self-adhered	-157.5 (Lim. 9)
CW-A-9	-	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	OSFA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC, ASBA, or MBA JM TPO FB: TPO WBMA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-157.5 (Lim. 9)
CW-A-10	OPTIONAL Vapor Barriers for Adhered Assemblies over CWF Deck	Min. 1.5-inch ENRGY 3	OSFA or RSUA applied 12-inch o.c.	Protector R HD	OSFA or RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: LVOC MA, ASBA or MBA JM TPO FB: 2-Part UIA(S)	-157.5 (Lim. 9)
CW-A-11	OPTIONAL Vapor Barriers for Adhered Assemblies over CWF Deck	Min. 1.5-inch ENRGY 3	OSFA or RSUA applied 12-inch o.c.	DensDeck Prime	OSFA or RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, ASBA, 1168 or MBA JM TPO FB: 2-Part UIA(S)	-157.5 (Lim. 9)
CW-A-12	OPTIONAL Vapor Barriers for Adhered Assemblies over CWF Deck	JM Invinsa	RSUA applied 12-inch o.c.	-	-	JM TPO FB	TPO WBMA	-160 (Lim. 9)
CW-A-13	-	Min. 475 psi Celcore MF with HS Rheology Admixture installed	Poured-in-place	-	-	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-167.5 (Lim. 9)
CW-A-14	-	Min. 475 psi Celcore MF with HS Rheology Admixture installed	Poured-in-place	-	-	JM TPO FB	RSUA applied 4-inch o.c. or RSUA(S)	-197.5 (Lim. 9)

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

Assemblies with Adhered Membranes over Cementitious Wood Fiber Deck (New or Existing)							
System No.	Base Insulation/Sheet	Base Insulation/Sheet Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
CW-AM-1	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	Min. 0.5-inch E3 or E3 C1	2-Part UIA, applied 12-inch o.c.	JM TPO	TPO WBMA, LVOC MA, ASBA, 1168 or MBA	-45 (Lim. 7)
CW-AM-2	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	Min. 0.5-inch ENRGY 3	2-Part UIA, applied 12-inch o.c.	JM TPO FB	TPO WBMA	-45 (Lim. 7)
CW-AM-3	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	Min. 0.5-inch E3 or E3 C1	2-Part UIA, applied 12-inch o.c.	JM TPO FB	RSUA(S) or 2-Part UIA(S)	-45 (Lim. 7)
CW-AM-4	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	Min. 0.5-inch E3 or E3 C1	2-Part UIA, applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
CW-AM-5	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: ProtectoR HD, StormX, or DensDeck Prime	2-Part UIA, applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, ASBA, 1168 or MBA JM TPO FB: TPO WBMA, RSUA(S) or 2-Part UIA-C(S)	-45 (Lim. 7)
CW-AM-6	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: Invinsa	2-Part UIA, applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, ASBA, or 1168 JM TPO FB: TPO WBMA	-45 (Lim. 7)

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

Assemblies with Adhered Membranes over Cementitious Wood Fiber Deck (New or Existing)							
System No.	Base Insulation/Sheet	Base Insulation/Sheet Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
CW-AM-7	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: SeparatoR CGF or SECUROCK	2-Part UIA, applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: ASBA JM TPO FB: TPO WBMA, RSUA(S) or 2-Part UIA-C(S)	-45 (Lim. 7)
CW-AM-8	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: DensDeck Prime, StormX, or SECUROCK	2-Part UIA, applied 12-inch o.c.	JM TPO FB HFB	ASTM D 312 Type IV Asphalt	-45 (Lim. 7)
CW-AM-9	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: DEXcell FA	2-Part UIA, applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)

Assemblies with All Layers Adhered over Gypsum Deck (New or Existing)							
System No.	Base Sheet or Insulation (Note 6)	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
G-A-1	OPTIONAL Min. 0.5-inch E3 over OPTIONAL GlasPly IV, GlasPly Premier, PermaPly 28, or DynaBase in ASTM D 312, Type IV asphalt	2-Part UIA applied 12-inch o.c.	ProtectoR HD	2-Part UIA, RSUA or OSFA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, ASBA, or MBA JM TPO FB: TPO WBMA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-45 (Lim. 9)
G-A-2	OPTIONAL Min. 0.5-inch E3 over OPTIONAL GlasPly IV, GlasPly Premier, PermaPly 28, or DynaBase in ASTM D 312, Type IV asphalt	2-Part UIA applied 12-inch o.c.	ProtectoR HD	2-Part UIA, RSUA or OSFA applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (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 (Note 6)	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
G-A-3	Min. 1.5-inch E3 or ProtectoR Foam	2-Part UIA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, ASBA, or MBA JM TPO FB: TPO WBMA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-75 (Lim. 9)
G-A-4	OPTIONAL Min. 1.5-inch E3	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: MBA applied at 0.83 gal/100ft ² to both membrane and substrate or ASBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-75 (Lim. 9)
G-A-5	OPTIONAL Min. 1.5-inch E3	2-Part UIA applied 12-inch o.c.	ProtectoR HD	2-Part UIA applied 12-inch o.c.	JM TPO	MBA applied at 0.83 gal/100ft ² to both membrane and substrate or ASBA	-75 (Lim. 9)
G-A-6	OPTIONAL Min. 1.5-inch E3	2-Part UIA applied 12-inch o.c.	JM Invinsa or ProtectoR HD	2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-75 (Lim. 9)
G-A-7	OPTIONAL Min. 1.5-inch E3	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: TPO WBMA, LVOC MA, ASBA, 1168, or MBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-75 (Lim. 9)
G-A-8	OPTIONAL Min. 1.5-inch E3	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-9	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	OSFA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, ASBA, or MBA JM TPO FB: TPO WBMA, RSUA applied 12-inch o.c., RSUA(S) or 2-Part UIA(S)	-77.5 (Lim. 9)
G-A-10	OPTIONAL 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: MBA applied at 0.83 gal/100ft ² to both membrane and substrate JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-77.5 (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 (Note 6)	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
G-A-11	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	ProtectoR HD	OSFA applied 12-inch o.c.	JM TPO	MBA applied at 0.83 gal/100ft ² to both membrane and substrate or ASBA	-77.5 (Lim. 9)
G-A-12	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	JM Invinsa or ProtectoR HD	OSFA applied 12-inch o.c.	JM TPO SA	Self-adhered	-77.5 (Lim. 9)
G-A-13	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: TPO WBMA, LVOC MA, ASBA, 1168, or MBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-77.5 (Lim. 9)
G-A-14	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-15	-	-	-	-	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-85 (Lim. 9)
G-A-16	Min. 1.5-inch E3 or ProtectoR Foam	2-Part UIA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, ASBA, or MBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-90 (Lim. 9)
G-A-17	JM Invinsa	OSFA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83 gal/100ft ² or ASBA JM TPO FB: TPO WBMA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-92.5 (Lim. 9)
G-A-18	Min. 1.5-inch E3 or ProtectoR Foam	OSFA applied 12-inch o.c.	-	-	JM TPO FB	TPO WBMA or 2-Part UIA(S)	-150 (Lim. 9)
G-A-19	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	OSFA applied 12-inch o.c.	-	-	JM TPO	MBA applied at 0.55 gal/100ft ²	-150 (Lim. 9)
G-A-20	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	ProtectoR	OSFA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, MBA or ASBA JM TPO FB: 2-Part UIA(S)	-150 (Lim. 9)
G-A-21	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	ProtectoR	OSFA applied 12-inch o.c.	JM TPO SA	Self-adhered	-150 (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 (Note 6)	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
G-A-22	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>DensDeck Prime</i>	OSFA applied 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	<i>JM TPO: TPO WBMA, LVOC MA, MBA, ASBA, or 1168</i> <i>JM TPO FB: 2-Part UIA(S)</i>	-150 (Lim. 9)
G-A-23	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>DensDeck Prime</i>	OSFA applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-150 (Lim. 9)
G-A-24	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>DensDeck Prime</i>	OSFA applied 12-inch o.c.	<i>JM TPO HFB</i>	ASTM D 312, Type IV Asphalt	-150 (Lim. 9)
G-A-25	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>SECUROCK</i>	OSFA applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-150 (Lim. 9)
G-A-26	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>SECUROCK</i>	OSFA applied 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	<i>JM TPO: TPO WBMA, LVOC MA, ASBA, 1168, or MBA</i> <i>JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)</i>	-150 (Lim. 9)
G-A-27	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>SECUROCK</i>	OSFA applied 12-inch o.c.	<i>JM TPO HFB</i>	ASTM D 312, Type IV Asphalt	-150 (Lim. 9)
G-A-28	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>INVINSA</i>	OSFA applied 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	<i>JM TPO: MBA applied at 0.83 gal/100ft²</i> <i>JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)</i>	-150 (Lim. 9)
G-A-29	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>DEXcell CB</i>	OSFA applied 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	<i>JM TPO: TPO MA (LowVOC), LVOC MA, TPO WBMA, MBA or ASBA</i> <i>JM TPO FB: TPO WBMA</i>	-150 (Lim. 9)
G-A-30	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>DEXcell FA</i>	OSFA applied 12-inch o.c.	<i>JM TPO or JM TPO FB</i>	<i>JM TPO: TPO MA (LowVOC), LVOC MA, TPO WBMA, MBA, ASBA, or 1168</i> <i>JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)</i>	-150 (Lim. 9)
G-A-31	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>DEXcell FA</i>	OSFA applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-150 (Lim. 9)
G-A-32	OPTIONAL Min. 1.5-inch ENRGY 3	OSFA applied 12-inch o.c.	<i>DEXcell FA</i>	OSFA applied 12-inch o.c.	<i>JM TPO HFB</i>	ASTM D 312, Type IV Asphalt	-150 (Lim. 9)
G-A-33	-	-	-	-	<i>JM TPO FB</i>	<i>RSUA applied 6-inch o.c. or RSUA(S)</i>	-155 (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 (Note 6)	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
G-A-34	Min. 1.5-inch E3 or ProtectoR Foam	RSUA applied 12-inch o.c.	-	-	JM TPO FB	TPO WBMA or 2-Part UIA(S)	-187.5 (Lim. 9)
G-A-35	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	ProtectoR	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, MBA or ASBA JM TPO FB: 2-Part UIA(S)	-187.5 (Lim. 9)
G-A-36	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	ProtectoR	RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-187.5 (Lim. 9)
G-A-37	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	DensDeck Prime	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, MBA, ASBA, or 1168 JM TPO FB: 2-Part UIA(S)	-210 (Lim. 9)
G-A-38	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	DensDeck Prime	RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-210 (Lim. 9)
G-A-39	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	DensDeck Prime	RSUA applied 12-inch o.c.	JM TPO HFB	ASTM D 312, Type IV Asphalt	-210 (Lim. 9)
G-A-40	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	SECUROCK	RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-210 (Lim. 9)
G-A-41	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	SECUROCK	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA (Two-sided application only), LVOC MA, ASBA, 1168, or MBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-210 (Lim. 9)
G-A-42	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	SECUROCK	RSUA applied 12-inch o.c.	JM TPO HFB	ASTM D 312, Type IV Asphalt	-210 (Lim. 9)
G-A-43	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	INVINSA	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83 gal/100ft ² JM TPO FB: TPO WBMA	-210 (Lim. 9)
G-A-44	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	DEXcell CB	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO MA (LowVOC), LVOC MA, TPO WBMA (Two-sided application only) or MBA JM TPO FB: TPO WBMA	-210 (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 (Note 6)	Base Sheet or Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
G-A-45	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	DEXcell FA	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO MA (LowVOC), LVOC MA, TPO WBMA (Two-sided application only), MBA, ASBA, or 1168 JM TPO FB: TPO WBMA or 2-Part UIA(S)	-210 (Lim. 9)
G-A-46	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	DEXcell FA	RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-210 (Lim. 9)
G-A-47	OPTIONAL Min. 1.5-inch ENRGY 3	RSUA applied 12-inch o.c.	DEXcell FA	RSUA applied 12-inch o.c.	JM TPO HFB	ASTM D 312, Type IV Asphalt	-210 (Lim. 9)
G-A-48	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	RSUA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.55 gal/100ft ² JM TPO FB: 2-Part UIA(S)	-210 (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 (Note 10)	MDP (psf)
G-AM-1	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	Min. 0.5-inch E3 or E3 C1	2-Part UIA, applied 12-inch o.c.	JM TPO	TPO WBMA, LVOC MA, ASBA, 1168 or MBA	-45 (Lim. 7)
G-AM-2	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	Min. 0.5-inch ENRGY 3	2-Part UIA, applied 12-inch o.c.	JM TPO FB	TPO WBMA	-45 (Lim. 7)

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

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 (Note 10)	MDP (psf)
G-AM-3	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	Min. 0.5-inch E3 or E3 C1	2-Part UIA, applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-45 (Lim. 7)
G-AM-4	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	Min. 0.5-inch E3 or E3 C1	2-Part UIA, applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
G-AM-5	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: ProtectoR HD, StormX, or DensDeck Prime	2-Part UIA, applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, ASBA, 1168 or MBA JM TPO FB: TPO WBMA	-45 (Lim. 7)
G-AM-6	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: Invinsa	2-Part UIA, applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, ASBA, or 1168 JM TPO FB: TPO WBMA	-45 (Lim. 7)
G-AM-7	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: SeparatoR CGF or SECUROCK	2-Part UIA, applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: ASBA JM TPO FB: TPO WBMA	-45 (Lim. 7)

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

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 (Note 10)	MDP (psf)
G-AM-8	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: DensDeck Prime, StormX or SECUROCK	2-Part UIA, applied 12-inch o.c.	JM TPO FB HFB	ASTM D 312 Type IV Asphalt	-45 (Lim. 7)
G-AM-9	DynaBase or Ventsulation Felt	OlyLok Fasteners spaced 9-inch o.c. at the min. 2-inch wide laps and 18-inch o.c. in two staggered rows in the field of the roll	OPTIONAL Base layer: Min. 0.5-inch E3 or E3 C1 Top layer: DEXcell FA	2-Part UIA, applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
G-AM-10	-	-	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	ASTM D 312, Type IV hot asphalt	-52.5 (Lim. 7)

Adhered Lightweight Concrete Assemblies over Concrete Deck (New or Existing)							
System No.	LWIC	Insulation/Cover Board (Note 6)	Insulation/Cover Board Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)	
LC-A-1	Min. 350psi Celcore MF with HS Rheology Admixture	SeparatoR CGF over OPTIONAL min. 0.5-inch ENRGY 3	OSFA or RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-45 (Lim. 9)	
LC-A-2	Min. 350psi Celcore MF with HS Rheology Admixture	DensDeck Prime over OPTIONAL min. 0.5-inch ENRGY 3	OSFA or RSUA applied 12-inch o.c.	JM TPO FB	TPO WBMA	-45 (Lim. 9)	
LC-A-3	Min 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83 gal/100ft ² , TPO WBMA (two-sided application only), LVOC MA or ASBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-77.5 (Lim. 9)	
LC-A-4	Min 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	RSUA applied 12-inch o.c.	JM TPO SA	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 (Note 6)	Insulation/Cover Board Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
LC-A-5	Min 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Base Layer (OPTIONAL): Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF Top Layer: <i>SECUROCK</i>	Base and Top layer secured with <i>RSUA</i> applied 12-inch o.c.	<i>JM TPO</i> or <i>JM TPO FB</i>	<i>JM TPO</i> : <i>TPO WBMA, LVOC MA ASBA, 1168, or MBA</i> <i>JM TPO FB</i> : <i>TPO WBM, ASBA or 2-Part UIA(S)</i>	-77.5 (Lim. 9)
LC-A-6	Min 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	Base Layer (OPTIONAL): Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF Top Layer: <i>SECUROCK</i>	Base and Top layer secured with <i>RSUA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-77.5 (Lim. 9)
LC-A-7	Min. 300psi LWIC	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	<i>2-Part UIA</i> applied 12-inch o.c.	<i>JM TPO</i> or <i>JM TPO FB</i>	<i>JM TPO</i> : <i>MBA</i> applied at 0.83 gal/100ft ² , <i>TPO WBMA, LVOC MA</i> or <i>ASBA</i> <i>JM TPO FB</i> : <i>TPO WBMA</i> or <i>2-Part UIA(S)</i>	-80 (Lim. 9)
LC-A-8	Min. 300psi LWIC	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	<i>2-Part UIA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-80 (Lim. 9)
LC-A-9	Min. 300psi LWIC	Base Layer (OPTIONAL): Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: <i>SECUROCK</i>	<i>2-Part UIA</i> applied 12-inch o.c.	<i>JM TPO</i> or <i>JM TPO FB</i>	<i>JM TPO</i> : <i>TPO WBMA, LVOC MA, ASBA, 1168, or MBA</i> <i>JM TPO FB</i> : <i>TPO WBMA, ASBA</i> or <i>2-Part UIA(S)</i>	-80 (Lim. 9)
LC-A-10	Min. 300psi LWIC	Base Layer: Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: <i>SECUROCK</i>	<i>2-Part UIA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-80 (Lim. 9)
LC-A-11	Min. 350psi Celcore MF with HS Rheology Admixture	<i>DEXcell FA, SECUROCK, ProtectoR HD</i> or <i>SeparatoR CGF</i> over OPTIONAL min. 0.5-inch ENRGY 3	<i>OSFA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>TPO WBMA</i>	-90 (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 (Note 6)	Insulation/Cover Board Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
LC-A-12	Min. 350psi Celcore MF with HS Rheology Admixture	ProtectoR HD, SECUROCK, or StormX over OPTIONAL min. 0.5-inch ENRGY 3	OSFA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-90 (Lim. 9)
LC-A-13	Min. 350psi Celcore MF with HS Rheology Admixture	DensDeck Prime over OPTIONAL min. 0.5-inch ENRGY 3	OSFA applied 12-inch o.c.	JM TPO HFB	ASTM D 312 Type IV Asphalt	-90 (Lim. 9)
LC-A-14	Min. 350psi Celcore MF with HS Rheology Admixture	DEXcell FA or SECUROCK over OPTIONAL min. 0.5-inch ENRGY 3	RSUA applied 12-inch o.c.	JM TPO FB	TPO WBMA	-105 (Lim. 9)
LC-A-15	Min. 390psi Celcore MF with HS Rheology Admixture installed over OPTIONAL JM Vapor Barrier SA, DynaBase HW, or DynaWeld 180 S over ASTM D 41 primed concrete	-	-	JM TPO FB	RSUA applied 6-inch o.c. or RSUA(S)	-112.5 (Lim. 9)
LC-A-16	Min. 350psi Celcore MF with HS Rheology Admixture	ProtectoR HD or SECUROCK over OPTIONAL min. 0.5-inch ENRGY 3	RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-112.5 (Lim. 9)
LC-A-17	Min. 350psi Celcore MF with HS Rheology Admixture	DensDeck Prime over OPTIONAL min. 0.5-inch ENRGY 3	RSUA applied 12-inch o.c.	JM TPO HFB	ASTM D 312 Type IV Asphalt	-112.5 (Lim. 9)
LC-A-18	Min. 310psi Elastizell with Zell-Crete Fibers	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83 gal/100ft ² , TPO WBMA, LVOC MA or ASBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-130 (Lim. 9)
LC-A-19	Min. 310psi Elastizell with Zell-Crete Fibers	Min. 1.5-inch ENRGY 3 or ProtectoR Foam	2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-130 (Lim. 9)
LC-A-20	Min. 310psi Elastizell with Zell-Crete Fibers	Base Layer (OPTIONAL): Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, LVOC MA, ASBA, 1168, or MBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-130 (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 (Note 6)	Insulation/Cover Board Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
LC-A-21	Min. 310psi Elastizell with Zell-Crete Fibers	Base Layer (OPTIONAL): Min. 1.5-inch ENRGY 3 or ENRGY 3 AGF Top Layer: SECUROCK	2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-130 (Lim. 9)
LC-A-22	Min. 380psi Concrecel	-	-	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-147.5 (Lim. 9)
LC-A-23	Min. 300psi Concrecel	DynaBase PR	DynaSet 1k applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-165 (Lim. 9)
LC-A-24	Min. 400psi Celcore MF with HS Rheology Admixture with DynaBase PR adhered in DynaSet 1k applied 12-inch o.c.	-	-	JM TPO FB	2-Part UIA(S)	-157.5 (Lim. 9)
LC-A-25	Min. 480psi Celcore MF with HS Rheology Admixture installed over OPTIONAL DynaBase HW	-	-	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-167.5 (Lim. 9)
LC-A-26	Min. 400psi Celcore MF with HS Rheology Admixture	DynaBase PR under Min. 1.5-inch ENRGY 3	DynaBase PR applied in DynaSet 1k 12-inch o.c.; ENERGY 3 applied in RSUA 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, 1168, ASBA, or TPO WBMA (Two-sided application only) JM TPO FB: TPO WBMA, or 2-Part UIA(S)	-170 (Lim. 9)
LC-A-27	Min. 380psi Concrecel	-	-	JM TPO FB	RSUA applied 6-inch o.c. or RSUA(S)	-172.5 (Lim. 9)
LC-A-28	Min. 700psi cellular lightweight concrete (MCRF = 152lbf with JM Lightweight Concrete (LWC) CR Base Fasteners)	-	-	JM TPO FB	ASBA, 2-Part UIA(S) or TPO WBMA	-180 (Lim. 9)
LC-A-29	Min. 400psi Celcore MF with HS Rheology Admixture with DynaBase PR adhered in DynaSet 1k applied 12-inch o.c.	ProtectoR HD or SeparatoR CGF over OPTIONAL min. 0.5-inch ENRGY 3	RSUA applied 12-inch o.c.	JM TPO FB	TPO WBMA	-180 (Lim. 9)
LC-A-30	Min. 350psi Celcore MF with HS Rheology Admixture	ProtectoR HD or SeparatoR CGF over OPTIONAL min. 0.5-inch ENRGY 3	RSUA applied 12-inch o.c.	JM TPO FB	TPO WBMA	-187.5 (Lim. 9)
LC-A-31	Min. 300psi Celcore MF with HS Rheology Admixture installed over torch adhered DynaWeld 180 S	-	-	JM TPO FB	ASBA or TPO WBMA	-202.5 (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 (Note 6)	Insulation/Cover Board Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
LC-A-32	Min. 360psi Celcore MF with HS Rheology Admixture installed over torch adhered DynaWeld 180 S	-	-	JM TPO FB	RSUA applied 8-inch o.c. or RSUA(S)	-202.5 (Lim. 9)
LC-A-33	Min. 300psi Celcore MF with HS Rheology Admixture installed over torch adhered DynaWeld 180 S	-	-	JM TPO	ASBA, LVOC MA, or MBA	-202.5 (Lim. 9)
LC-A-34	Min. 400psi Celcore MF with HS Rheology Admixture	-	-	JM TPO FB	2-Part UIA(S), ASBA, or TPO WBMA	-210 (Lim. 9)
LC-A-35	Min. 360psi Celcore MF with HS Rheology Admixture	-	-	JM TPO	ASBA or LVOC MA	-222.5 (Lim. 9)
LC-A-36	Min. 350psi Celcore MF with HS Rheology Admixture	StormX over OPTIONAL min. 0.5-inch ENRGY 3	RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-240 (Lim. 9)
LC-A-37	Min. 380psi Concrecel	-	-	JM TPO	LVOC MA or MBA	-257.5 (Lim. 9)
LC-A-38	Min. 480psi Celcore MF with HS Rheology Admixture installed over OPTIONAL DynaBase HW	-	-	JM TPO FB	RSUA applied 4-inch o.c. or RSUA(S)	-257.5 (Lim. 9)
LC-A-39	Min. 220psi Elastizell with Zell-Crete Fibers (no EPS Board)	-	-	JM TPO FB	RSUA applied 6-inch o.c. or RSUA(S)	-290 (Lim. 9)
LC-A-40	Min. 300psi Celcore MF with HS Rheology Admixture installed over torch adhered DynaWeld Cap 180 FR treated with Celcore S-1	-	-	JM TPO	ASBA, LVOC MA, or MBA	-305 (Lim. 9)
LC-A-41	Min. 300psi Celcore MF with HS Rheology Admixture installed over torch adhered DynaWeld Cap 180 FR treated with Celcore S-1	-	-	JM TPO FB	ASBA or TPO WBMA	-305 (Lim. 9)
LC-A-42	Min. 360psi Celcore MF with HS Rheology Admixture installed over torch adhered DynaWeld Cap 180 FR treated with Celcore S-1	-	-	JM TPO FB	RSUA applied 8-inch o.c. or RSUA(S)	-305 (Lim. 9)
LC-A-43	Min. 290psi Celcore MF with HS Rheology Admixture	DynaBase PR	DynaSet 1k applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-322.5 (Lim. 9)
LC-A-44	Min. 360psi Celcore MF with HS Rheology Admixture	-	-	JM TPO	MBA	-337.5 (Lim. 9)
LC-A-45	Min. 290psi Celcore MF with HS Rheology Admixture	-	-	JM PVC FB	2-Part UIA-C(B) applied 12-inch o.c.	-345 (Lim. 9)
LC-A-46	Min. 360psi Celcore MF with HS Rheology Admixture	-	-	JM TPO FB	RSUA applied 8-inch o.c. or RSUA(S)	-502.5 (Lim. 9)
LC-A-47	Min. 290psi Celcore MF with HS Rheology Admixture	-	-	JM TPO FB	2-Part UIA(S), ASBA, or TPO WBMA	-502.5 (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 (Note 6)	Insulation/Cover Board Attachment	Membrane	Membrane Attachment (Note 9)	MDP (psf)
LC-A-48	Min. 290psi Celcore MF with HS Rheology Admixture	-	-	JM TPO	ASBA, LVOC MA, or MBA	-502.5 (Lim. 9)
LC-A-49	Min. 300psi Concrecel	-	-	JM TPO	ASBA, LVOC MA, or MBA	-502.5 (Lim. 9)
LC-A-50	Min. 300psi Concrecel	-	-	JM TPO FB	RSUA(S), 2-Part UIA(S), ASBA, or TPO WBMA	-502.5 (Lim. 9)

Lightweight Concrete Assemblies with Adhered Membranes over Concrete Deck (New or Existing)						
System No.	LWIC	Base Sheet	Insulation	Cover Board	Membrane (Note 10)	MDP (psf)
LC-AM-1	Min. 200psi Elastizell with Zell-Crete Fibers	PermaPly 28 secured with 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)
LC-AM-2	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with Min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	Min. 0.5-inch ENRGY 3 or ENRGY 3 CGF adhered in 2-Part UIA applied 12-inch o.c.	-	JM TPO adhered in TPO WBMA, MBA, ASBA, LVOC MA, or 1168	-45 (Lim. 7)
LC-AM-3	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with Min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	Min. 0.5-inch ENRGY 3 or ENRGY 3 CGF adhered in 2-Part UIA applied 12-inch o.c.	-	JM TPO SA	-45 (Lim. 7)
LC-AM-4	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with Min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	Min. 0.5-inch ENRGY 3 or ENRGY 3 CGF adhered in 2-Part UIA applied 12-inch o.c.	-	JM TPO FB adhered in 2-Part UIA(S)	-45 (Lim. 7)

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

Lightweight Concrete Assemblies with Adhered Membranes over <i>Concrete Deck (New or Existing)</i>						
System No.	LWIC	Base Sheet	Insulation	Cover Board	Membrane (Note 10)	MDP (psf)
LC-AM-5	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	-	JM Invinsa, ProtectoR HD, SeparatoR CGF, <i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in 2-Part <i>UIA</i> applied 12-inch o.c.	<i>JM TPO</i> adhered in <i>TPO WBMA</i>	-45 (Lim. 7)
LC-AM-6	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	-	<i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in 2-Part <i>UIA</i> applied 12-inch o.c.	<i>JM TPO HFB</i> adhered in ASTM D 312 hot asphalt	-45 (Lim. 7)
LC-AM-7	Min. 430psi Concrecel; or Existing <i>LWIC</i> with <i>MCRF</i> = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch <i>DensDeck Prime</i> attached secured with <i>VERSA-FAST</i> at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	<i>JM TPO</i> adhered in <i>TPO WBMA, MBA, LVOC MA, ASBA</i> or 1168	-52.5 (Lim. 7)
LC-AM-8	Min. 430psi Concrecel; or Existing <i>LWIC</i> with <i>MCRF</i> = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch <i>DensDeck Prime</i> attached secured with <i>VERSA-FAST</i> at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	<i>JM TPO FB</i> adhered in <i>TPO WBMA, ASBA</i> or 2-Part <i>UIA(S)</i>	-52.5 (Lim. 7)
LC-AM-9	Min. 430psi Concrecel; or Existing <i>LWIC</i> with <i>MCRF</i> = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch <i>DensDeck Prime</i> attached secured with <i>VERSA-FAST</i> at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	<i>JM TPO HFB</i> adhered in ASTM D 312 hot asphalt	-52.5 (Lim. 7)
LC-AM-10	Min. 430psi Concrecel; or Existing <i>LWIC</i> with <i>MCRF</i> = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch <i>DensDeck Prime</i> attached secured with <i>VERSA-FAST</i> at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	<i>JM TPO SA</i>	-52.5 (Lim. 7)
LC-AM-11	Min. 430psi Concrecel; or Existing <i>LWIC</i> with <i>MCRF</i> = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch <i>DensDeck Prime</i> attached secured with <i>VERSA-FAST</i> at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	<i>JM TPO FB w/SBS</i>	-52.5 (Lim. 7)

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

Lightweight Concrete Assemblies with Adhered Membranes over <i>Concrete Deck (New or Existing)</i>						
System No.	LWIC	Base Sheet	Insulation	Cover Board	Membrane (Note 10)	MDP (psf)
LC-AM-12	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 120lbf using Trufast VERAS-FAST Fastener	-	Min. 2-inch E3 secured with min. 4.5-inch <i>VERSA-FAST</i> at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	-	JM TPO adhered in MBA, LVOC MA or 1168	-60 (Lim. 7)
LC-AM-13	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 120lbf using Trufast VERAS-FAST Fastener	-	Min. 2-inch E3 secured with min. 4.5-inch <i>VERSA-FAST</i> at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	-	JM TPO SA	-60 (Lim. 7)
LC-AM-14	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 120lbf using Trufast VERAS-FAST Fastener	-	Min. 2-inch E3 secured with min. 4.5-inch <i>VERSA-FAST</i> at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	-	JM TPO FB adhered in 2-Part UIA(S)	-60 (Lim. 7)
LC-AM-15	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 120lbf using Trufast VERAS-FAST Fastener	-	Min. 2-inch E3 secured with min. 4.5-inch <i>VERSA-FAST</i> at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	-	JM TPO FB w/SBS	-60 (Lim. 7)
LC-AM-16	Min. 340psi Celcore MF with HS Rheology Admixture; or Existing LWIC with MCRF = 73lbf using min. 1.8-inch Trufast Twin Loc-Nail	PermaPly 28 secured with min. 1.8-inch Trufast Twin Loc-Nails secured 6-inch o.c. at the 4-inch side laps and 6-inch o.c. in two (2) equally spaced rows in the field	-	Min. 0.5-inch <i>DensDeck Prime</i> or <i>SECUROCK</i> adhered in RSUA applied over fasteners rows (approx. 10.7-inch o.c.)	JM TPO adhered in TPO WBMA, MBA, LVOC MA, or ASBA	-82.5 (Lim. 7)
LC-AM-17	Min. 340psi Celcore MF with HS Rheology Admixture; or Existing LWIC with MCRF = 73lbf using min. 1.8-inch Trufast Twin Loc-Nail	PermaPly 28 secured with min. 1.8-inch Trufast Twin Loc-Nails secured 6-inch o.c. at the 4-inch side laps and 6-inch o.c. in two (2) equally spaced rows in the field	-	Min. 0.5-inch <i>DensDeck Prime</i> or <i>SECUROCK</i> adhered in RSUA applied over fasteners rows (approx. 10.7-inch o.c.)	JM TPO SA	-82.5 (Lim. 7)

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

Lightweight Concrete Assemblies with Adhered Membranes over <i>Concrete Deck (New or Existing)</i>						
System No.	LWIC	Base Sheet	Insulation	Cover Board	Membrane (Note 10)	MDP (psf)
LC-AM-18	Min. 340psi Celcore MF with HS Rheology Admixture; or Existing LWIC with MCRF = 73lbf using min. 1.8-inch Trufast Twin Loc-Nail	PermaPly 28 secured with min. 1.8-inch Trufast Twin Loc-Nails secured 6-inch o.c. at the 4-inch side laps and 6-inch o.c. in two (2) equally spaced rows in the field	-	Min. 0.5-inch <i>DensDeck Prime</i> or <i>SECUROCK</i> adhered in <i>RSUA</i> applied over fasteners rows (approx. 10.7-inch o.c.)	JM TPO FB w/SBS	-82.5 (Lim. 7)
LC-AM-19	Min. 340psi Celcore MF with HS Rheology Admixture; or Existing LWIC with MCRF = 73lbf using min. 1.8-inch Trufast Twin Loc-Nail	PermaPly 28 secured with min. 1.8-inch Trufast Twin Loc-Nails secured 6-inch o.c. at the 4-inch side laps and 6-inch o.c. in two (2) equally spaced rows in the field	-	Min. 0.5-inch <i>SECUROCK</i> adhered in <i>RSUA</i> applied over fasteners rows (approx. 10.7-inch o.c.)	JM TPO FB adhered in 2-Part UIA(S)	-82.5 (Lim. 7)

Mechanically Fastened Lightweight Concrete Assemblies over <i>Concrete Deck (New, Existing, or Recover)</i>						
System No.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LC-M-1	Min. 270psi Celcore MF with HS Rheology Admixture; or Existing LWIC with MCRF = 96lbf using Trufast VERAS-FAST Fastener	-	-	JM TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with <i>VERSA-FAST</i> at a rate of 4 Fasteners (Trapezoid) /Plate; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
LC-M-2	Min. 200psi Elastizell with Zell-Crete Fibers	-	-	JM TPO	Attached in-lap 6-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 90-inch o.c.	-67.5 (Lim. 7)
LC-M-3	Min. 270psi Celcore MF with HS Rheology Admixture; or Existing LWIC with MCRF = 96lbf using Trufast VERAS-FAST Fastener	-	-	JM TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with <i>VERSA-FAST</i> at a rate of 4 Fasteners (Trapezoid) /Plate; Fastener rows max. 66-inch o.c.	-67.5 (Lim. 7)
LC-M-4	Min. 270psi Celcore MF with HS Rheology Admixture; or Existing LWIC with MCRF = 96lbf using Trufast VERAS-FAST Fastener	-	-	JM TPO	JM Polymer Membrane Batten spaced 30-inch o.c. and secured with Trufast <i>VERSA-FAST</i> fasteners spaced 3-inch o.c.; Battens covered with min. 5-inch wide JM TPO cover strip	-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.	LWIC	Insulation/Cover Board	Insulation/Cover Board Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
LC-W-1	Min. 200psi Elastizell with Zell-Crete Fibers	-	JM TPO RhinoPlates and JM All Purpose Fasteners secured (into Concrete Deck) 6-inch o.c. in rows spaced 96-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to plates	-60 (Lim. 7)

Adhered Lightweight Concrete Assemblies over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Insulation/Cover Board (Note 6)	Insulation/Cover Board Attachment	Membrane	Membrane Attachment	MDP (psf)
LS-A-1	G33	Min. 700psi cellular lightweight concrete (MCRF = 121lbf with JM Lightweight Concrete (LWC) CR Base Fasteners)	-	-	JM TPO FB	2-Part UIA(S)	-52.5 (Lim. 9)
LS-A-2	G33	Min. 290psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	-	-	JM TPO FB	2-Part UIA(S), ASBA, or TPO WBMA	-90 (Lim. 9)
LS-A-3	G33	Min. 290psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1	-	-	JM TPO	ASBA, LVOC MA, or MBA	-90 (Lim. 9)
LS-A-4	G80	Min. 250psi Elastizell with Zell-Crete Fibers	-	-	JM TPO FB	RSUA applied 6-inch o.c. or RSUA(S)	-97.5 (Lim. 9)
LS-A-5	G80	Min. 250psi Elastizell with Zell-Crete Fibers	-	-	JM TPO	LVOC MA	-97.5 (Lim. 9)

Lightweight Concrete Assemblies with Adhered Membranes over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Base Sheet	Insulation	Cover Board	Membrane (Note 10)	MDP (psf)
LS-AM-1	G33	Min. 200psi Elastizell with Zell-Crete Fibers	PermaPly 28 secured with 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 adhered in ASTM D 312 hot asphalt	-45 (Lim. 7)

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

Lightweight Concrete Assemblies with Adhered Membranes over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Base Sheet	Insulation	Cover Board	Membrane (Note 10)	MDP (psf)
LS-AM-2	G33	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	Min. 0.5-inch ENRGY 3 or ENRGY 3 CGF adhered in 2-Part UIA applied 12-inch o.c.	-	JM TPO adhered in TPO WBMA, MBA, ASBA, LVOC MA, or 1168	-45 (Lim. 7)
LS-AM-3	G33	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	Min. 0.5-inch ENRGY 3 or ENRGY 3 CGF adhered in 2-Part UIA applied 12-inch o.c.	-	JM TPO SA	-45 (Lim. 7)
LS-AM-4	G33	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	Min. 0.5-inch ENRGY 3 or ENRGY 3 CGF adhered in 2-Part UIA applied 12-inch o.c.	-	JM TPO FB adhered in 2-Part UIA(S)	-45 (Lim. 7)
LS-AM-5	G33	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	Min. 0.5-inch ENRGY 3 or ENRGY 3 CGF adhered in 2-Part UIA, OSFA, or RSUA applied 12-inch o.c.	-	JM TPO FB adhered in RSUA applied 4-inch o.c. or RSUA(S)	-45 (Lim. 7)
LS-AM-6	G33	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	Min. 0.5-inch ENRGY 3 adhered in 2-Part UIA, OSFA, or RSUA applied 12-inch o.c.	-	JM TPO HFB adhered in ASTM D 312 hot asphalt	-45 (Lim. 7)

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

Lightweight Concrete Assemblies with Adhered Membranes over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Base Sheet	Insulation	Cover Board	Membrane (Note 10)	MDP (psf)
LS-AM-7	G33	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	-	JM InvinSA, Protector HD, SeparatoR CGF, SECUROCK or DensDeck Prime adhered in 2-Part UIA applied 12-inch o.c.	JM TPO adhered in TPO WBMA	-45 (Lim. 7)
LS-AM-8	G33	Min. 350psi Celcore MF with HS Rheology Admixture	DynaBase, DynaLastic 180 S, GlasBase Plus, or Ventsulation Felt secured with min. 1.7-inch LWC CR Base Sheet Fasteners secured 7-inch o.c. at the 3-inch side laps and 7-inch o.c. in two (2) equally spaced staggered rows in the field	-	SECUROCK or DensDeck Prime adhered in 2-Part UIA applied 12-inch o.c.	JM TPO HFB adhered in ASTM D 312 hot asphalt	-45 (Lim. 7)
LS-AM-9	G33	Min. 430psi Concrecel; or Existing LWIC with MCRF = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch DensDeck Prime attached secured with VERSA-FAST at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	JM TPO adhered in TPO WBMA, MBA, LVOC MA, ASBA or 1168	-52.5 (Lim. 7)
LS-AM-10	G33	Min. 430psi Concrecel; or Existing LWIC with MCRF = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch DensDeck Prime attached secured with VERSA-FAST at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	JM TPO FB adhered in TPO WBMA, ASBA or 2-Part UIA(S)	-52.5 (Lim. 7)
LS-AM-11	G33	Min. 430psi Concrecel; or Existing LWIC with MCRF = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch DensDeck Prime attached secured with VERSA-FAST at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	JM TPO HFB adhered in ASTM D 312 hot asphalt	-52.5 (Lim. 7)
LS-AM-12	G33	Min. 430psi Concrecel; or Existing LWIC with MCRF = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch DensDeck Prime attached secured with VERSA-FAST at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	JM TPO SA	-52.5 (Lim. 7)

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

Lightweight Concrete Assemblies with Adhered Membranes over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Base Sheet	Insulation	Cover Board	Membrane (Note 10)	MDP (psf)
LS-AM-13	G33	Min. 430psi Concrete; or Existing LWIC with MCRF = 105lbf using Trufast VERAS-FAST Fastener	-	-	Min. 0.5-inch DensDeck Prime attached secured with VERSA-FAST at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	JM TPO FB w/SBS	-52.5 (Lim. 7)
LS-AM-14	G33	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 120lbf using Trufast VERAS-FAST Fastener	-	Min. 2-inch E3 secured with min. 4.5-inch VERSA-FAST at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	-	JM TPO adhered in MBA, LVOC MA or 1168	-60 (Lim. 7)
LS-AM-15	G33	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 120lbf using Trufast VERAS-FAST Fastener	-	Min. 2-inch E3 secured with min. 4.5-inch VERSA-FAST at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	-	JM TPO SA	-60 (Lim. 7)
LS-AM-16	G33	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 120lbf using Trufast VERAS-FAST Fastener	-	Min. 2-inch E3 secured with min. 4.5-inch VERSA-FAST at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	-	JM TPO FB adhered in 2-Part UIA(S)	-60 (Lim. 7)
LS-AM-17	G33	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 120lbf using Trufast VERAS-FAST Fastener	-	Min. 2-inch E3 secured with min. 4.5-inch VERSA-FAST at a rate of 2 Fasteners/Plate and 16 per 4-ft x 8-ft board	-	JM TPO FB w/SBS	-60 (Lim. 7)

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

Lightweight Concrete Assemblies with Adhered Membranes over Steel Deck (New or Existing)							
System No.	Deck Detail	LWIC	Base Sheet	Insulation	Cover Board	Membrane (Note 10)	MDP (psf)
LS-AM-18	G33	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 73lbf using min. 1.8-inch Trufast Twin Loc-Nail	PermaPly 28 secured with min. 1.8-inch Trufast Twin Loc-Nails secured 6-inch o.c. at the 4-inch side laps and 6-inch o.c. in two (2) equally spaced rows in the field	-	Min. 0.5-inch <i>DensDeck Prime</i> or <i>SECUROCK</i> adhered in <i>RSUA</i> applied over fasteners rows (approx. 10.7-inch o.c.)	JM TPO adhered in TPO WBMA, MBA, LVOC MA, or ASBA	-82.5 (Lim. 7)
LS-AM-19	G33	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 73lbf using min. 1.8-inch Trufast Twin Loc-Nail	PermaPly 28 secured with min. 1.8-inch Trufast Twin Loc-Nails secured 6-inch o.c. at the 4-inch side laps and 6-inch o.c. in two (2) equally spaced rows in the field	-	Min. 0.5-inch <i>DensDeck Prime</i> or <i>SECUROCK</i> adhered in <i>RSUA</i> applied over fasteners rows (approx. 10.7-inch o.c.)	JM TPO SA	-82.5 (Lim. 7)
LS-AM-20	G33	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 73lbf using min. 1.8-inch Trufast Twin Loc-Nail	PermaPly 28 secured with min. 1.8-inch Trufast Twin Loc-Nails secured 6-inch o.c. at the 4-inch side laps and 6-inch o.c. in two (2) equally spaced rows in the field	-	Min. 0.5-inch <i>DensDeck Prime</i> or <i>SECUROCK</i> adhered in <i>RSUA</i> applied over fasteners rows (approx. 10.7-inch o.c.)	JM TPO FB w/SBS	-82.5 (Lim. 7)
LS-AM-21	G33	Min. 340psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 73lbf using min. 1.8-inch Trufast Twin Loc-Nail	PermaPly 28 secured with min. 1.8-inch Trufast Twin Loc-Nails secured 6-inch o.c. at the 4-inch side laps and 6-inch o.c. in two (2) equally spaced rows in the field	-	Min. 0.5-inch <i>SECUROCK</i> adhered in <i>RSUA</i> applied over fasteners rows (approx. 10.7-inch o.c.)	JM TPO FB adhered in 2-Part UIA(S)	-82.5 (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 (Note 12)	MDP (psf)
LS-M-1	G33	Min. 290psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 96lb/ft using Trufast VERAS-FAST Fastener	-	-	JM TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with <i>VERSA-FAST</i> at a rate of 4 Fasteners (Trapezoid) /Plate; Fastener rows max. 114-inch o.c.	-37.5 (Lim. 7)
LS-M-2	G33	Min. 270psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 96lb/ft using Trufast VERAS-FAST Fastener	-	-	JM TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with <i>VERSA-FAST</i> at a rate of 4 Fasteners (Trapezoid) /Plate; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
LS-M-3	G33	Min. 200psi Elastizell with Zell-Crete Fibers	-	-	<i>JM TPO</i>	Attached in-lap 6-inch o.c. with <i>HL Fastener & Plates</i> ; Fastener rows max. 90-inch o.c.	-67.5 (Lim. 7)
LS-M-4	G33	Min. 270psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 96lb/ft using Trufast VERAS-FAST Fastener	-	-	JM TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with <i>VERSA-FAST</i> at a rate of 4 Fasteners (Trapezoid) /Plate; Fastener rows max. 66-inch o.c.	-67.5 (Lim. 7)
LS-M-5	G33	Min. 270psi Celcore MF with HS Rheology Admixture over deck treated with Celcore S-1; or Existing LWIC with MCRF = 96lb/ft using Trufast VERAS-FAST Fastener	-	-	<i>JM TPO</i>	JM Polymer Membrane Batten spaced 30-inch o.c. and secured with Trufast <i>VERSA-FAST</i> fasteners spaced 3-inch o.c.; Battens covered with min. 5-inch wide <i>JM TPO</i> cover strip	-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	G33	Min. 200psi Elastizell with Zell-Crete Fibers	-	JM TPO RhinoPlates and High Load Fasteners (into <i>Steel Deck</i>) secured 6-inch o.c. in rows spaced 96-inch o.c.-	JM TPO (Min. 60 mil)	Induction welded to plates	-60 (Lim. 7)

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

Adhered Recover Assemblies						
System No.	Existing Roof	Base Insulation (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
R-A-1	BUR or Mod-Bit Roofing with mineral surfacing	-	-	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-45 (Lim. 9)
R-A-2	BUR or Granular Mod-Bit Roofing over Steel Deck, cementitious panel, gypsum, or treated wood	-	DensDeck Prime in RSUA applied 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-45 (Lim. 9)
R-A-3	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 1.5-inch ENRGY 3 in RSUA, OSFA or 2-Part UIA applied 12-inch o.c.	DensDeck Prime or StormX in RSUA applied 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-45 (Lim. 9)
R-A-4	BUR or Granular Mod-Bit Roofing over cementitious panel, gypsum, or treated wood	-	DensDeck Prime in 2-Part UIA or RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-45 (Lim. 9)
R-A-5	BUR or Granular Mod-Bit Roofing over Steel Deck, cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in RSUA, 2-Part UIA, 2-Part UIA-C(B), or OSFA applied 12-inch o.c.	SeparatoR CGF or SeparatoR FR adhered in RSUA, 2-Part UIA, 2-Part UIA-C(B), or OSFA applied 12-inch o.c.	JM TPO SA	Self adhered	-90 (Lim. 9)
R-A-6	BUR or Granular Mod-Bit Roofing over Steel Deck, cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in RSUA, 2-Part UIA, 2-Part UIA-C(B), or OSFA applied 12-inch o.c.	SeparatoR CGF or SeparatoR FR adhered in RSUA, 2-Part UIA, 2-Part UIA-C(B), or OSFA applied 12-inch o.c.	JM TPO	LVOC MA or 1168	-105 (Lim. 9)
R-A-7	BUR or Granular Mod-Bit Roofing over Steel Deck, cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in RSUA, 2-Part UIA, 2-Part UIA-C(B), or OSFA applied 12-inch o.c.	ProtectoR HD adhered in RSUA, 2-Part UIA, 2-Part UIA-C(B), or OSFA applied 12-inch o.c.	JM TPO FB	TPO WBMA or 2-Part UIA(S)	-105 (Lim. 9)
R-A-8	BUR or Granular Mod-Bit Roofing over Steel Deck, cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in RSUA, 2-Part UIA, 2-Part UIA-C(B), or OSFA applied 12-inch o.c.	ProtectoR HD adhered in RSUA, 2-Part UIA, 2-Part UIA-C(B), or OSFA applied 12-inch o.c.	JM TPO	MBA, LVOC MA, ASBA, 1168, or TPO WBMA	-105 (Lim. 9)

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

Adhered Recover Assemblies						
System No.	Existing Roof	Base Insulation (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
R-A-9	BUR or Granular Mod-Bit Roofing over <i>Steel Deck</i> , cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	ProtectoR HD adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self adhered	-105 (Lim. 9)
R-A-10	BUR or Granular Mod-Bit Roofing over <i>Steel Deck</i> , cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>DEXcell FA</i> adhered in <i>RSUA</i> or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>TPO WBMA</i> or <i>ASBA</i>	-105 (Lim. 9)
R-A-11	BUR or Granular Mod-Bit Roofing over <i>Steel Deck</i> , cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>DEXcell FA</i> adhered in <i>RSUA</i> or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>2-Part UIA(S)</i>	-105 (Lim. 9)
R-A-12	BUR or Granular Mod-Bit Roofing over <i>Steel Deck</i> , cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>DEXcell FA</i> adhered in <i>RSUA</i> or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO HFB</i>	ASTM D 312 Type IV Asphalt	-105 (Lim. 9)
R-A-13	BUR or Granular Mod-Bit Roofing over <i>Steel Deck</i> , cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>TPO WBMA</i> , <i>LVOC MA</i> , <i>TPO WBMA</i> , <i>ASBA</i> , or <i>1168</i>	-105 (Lim. 9)
R-A-14	BUR or Granular Mod-Bit Roofing over <i>Steel Deck</i> , cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self adhered	-105 (Lim. 9)
R-A-15	BUR or Granular Mod-Bit Roofing over <i>Steel Deck</i> , cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>2-Part UIA(S)</i>	-105 (Lim. 9)
R-A-16	BUR or Granular Mod-Bit Roofing over <i>Steel Deck</i> , cementitious panel, or treated wood	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO HFB</i>	ASTM D 312 Type IV Asphalt	-105 (Lim. 9)

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

Adhered Recover Assemblies						
System No.	Existing Roof	Base Insulation (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
R-A-17	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	SeparatoR CGF or SeparatoR FR adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>RSUA</i> applied 4-inch o.c. or <i>RSUA(S)</i>	-112.5 (Lim. 9)
R-A-18	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	SeparatoR CGF or SeparatoR FR adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self adhered	-120 (Lim. 9)
R-A-19	BUR or Granular Mod-Bit Roofing over over Concrete Deck, Steel Deck, cementitious panel, or treated wood	Min. 1-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	-	<i>JM TPO</i>	<i>MBA</i> , <i>LVOC MA</i> , <i>ASBA</i> , <i>1168</i> , or <i>TPO WBMA</i>	-157.5 (Lim. 9)
R-A-20	BUR or Granular Mod-Bit Roofing over Concrete Deck, Steel Deck, cementitious panel, or treated wood	Min. 1-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	-	<i>JM TPO SA</i>	Self adhered	-157.5 (Lim. 9)
R-A-21	BUR or Granular Mod-Bit Roofing over over Concrete Deck, Steel Deck, cementitious panel, or treated wood	Min. 1-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	-	<i>JM TPO FB</i>	<i>2-Part UIA(S)</i> , <i>RSUA</i> applied 12-inch o.c., or <i>RSUA(S)</i>	-157.5 (Lim. 9)
R-A-22	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>DEXcell FA</i> adhered in <i>RSUA</i> or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>TPO WBMA</i>	-180 (Lim. 9)
R-A-23	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>TPO WBMA</i> , <i>LVOC MA</i> , <i>TPO WBMA</i> , <i>ASBA</i> , or <i>1168</i>	-180 (Lim. 9)
R-A-24	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or applied 12-inch o.c.	<i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self adhered	-180 (Lim. 9)

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

Adhered Recover Assemblies						
System No.	Existing Roof	Base Insulation (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
R-A-25	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>2-Part UIA(S)</i>	-180 (Lim. 9)
R-A-26	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>SECUROCK</i> or <i>DensDeck Prime</i> adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO HFB</i>	ASTM D 312 Type IV Asphalt	-180 (Lim. 9)
R-A-27	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	SeparatoR CGF or SeparatoR FR adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>TPO WBMA</i>	-187.5 (Lim. 9)
R-A-28	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	ProtectoR HD adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>TPO WBMA</i>	-187.5 (Lim. 9)
R-A-29	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	ProtectoR HD adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>TPO WBMA</i>	-187.5 (Lim. 9)
R-A-30	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	SeparatoR CGF or SeparatoR FR adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>TPO WBMA</i>	-195 (Lim. 9)
R-A-31	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	ProtectoR HD adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>2-Part UIA(S)</i>	-210 (Lim. 9)
R-A-32	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	ProtectoR HD adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>LVOC MA</i>	-210 (Lim. 9)

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

Adhered Recover Assemblies						
System No.	Existing Roof	Base Insulation (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
R-A-33	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	ProtectoR HD adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO SA</i>	Self-adhered	-210 (Lim. 9)
R-A-34	BUR over Concrete Deck	Min. 1.5-inch <i>E3</i> adhered in <i>2-Part UIA</i> applied 12-inch o.c.	-	<i>JM TPO HFB</i>	ASTM D 312 Type IV Asphalt	-217.5 (Lim. 9)
R-A-35	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	SeparatoR CGF or SeparatoR FR adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>LVOC MA</i> or 1168	-217.5 (Lim. 9)
R-A-36	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>DEXcell FA</i> adhered in <i>RSUA</i> or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>ASBA</i>	-217.5 (Lim. 9)
R-A-37	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>DEXcell FA</i> adhered in <i>RSUA</i> or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>2-Part UIA(S)</i>	-217.5 (Lim. 9)
R-A-38	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>DEXcell FA</i> adhered in <i>RSUA</i> or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO HFB</i>	ASTM D 312 Type IV Asphalt	-217.5 (Lim. 9)
R-A-39	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 1.5-inch ENRGY 3 in <i>RSUA</i> , <i>OSFA</i> or <i>2-Part UIA</i> applied 12-inch o.c.	<i>DensDeck Prime</i> or <i>StormX</i> in <i>RSUA</i> applied 12-inch o.c.	<i>JM TPO FB</i>	<i>RSUA</i> applied 4-inch o.c. or <i>RSUA(S)</i>	-217.5 (Lim. 9)
R-A-40	BUR or Granular Mod-Bit Roofing over Concrete Deck	OPTIONAL Min. 0.5-inch ENRGY 3 adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	ProtectoR HD adhered in <i>RSUA</i> , <i>2-Part UIA</i> , <i>2-Part UIA-C(B)</i> , or <i>OSFA</i> applied 12-inch o.c.	<i>JM TPO</i>	<i>ASBA</i> or <i>MBA</i>	-225 (Lim. 9)
R-A-41	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	Min. 1.5-inch ENRGY 3 adhered in <i>RSUA</i> applied 12-inch o.c.	-	<i>JM TPO</i>	<i>MBA</i> or 1168	-210 (Lim. 9)

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

Adhered Recover Assemblies						
System No.	Existing Roof	Base Insulation (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
R-A-42	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	Min. 1.5-inch ENRGY 3 adhered in RSUA applied 12-inch o.c.	-	JM PVC FB	2-Part UIA(S)	-210 (Lim. 9)
R-A-43	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	Min. 1.5-inch ENRGY 3 adhered in RSUA applied 12-inch o.c.	DensDeck Prime adhered in RSUA applied 12-inch o.c.	JM TPO	MBA or LVOC MA	-210 (Lim. 9)
R-A-44	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	Min. 1.5-inch ENRGY 3 adhered in RSUA applied 12-inch o.c.	DensDeck Prime adhered in RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-210 (Lim. 9)
R-A-45	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	Min. 1.5-inch ENRGY 3 adhered in RSUA applied 12-inch o.c.	DensDeck Prime adhered in RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-210 (Lim. 9)
R-A-46	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	-	DensDeck Prime adhered in RSUA applied 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c.	-247.5 (Lim. 9)
R-A-47	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	-	DensDeck Prime adhered in RSUA applied 12-inch o.c.	JM TPO	MBA or LVOC MA	-285 (Lim. 9)
R-A-48	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	-	DensDeck Prime adhered in RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-285 (Lim. 9)
R-A-49	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	-	DensDeck Prime adhered in RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-285 (Lim. 9)
R-A-50	BUR or Granular Mod-Bit Roofing over Steel Deck or Concrete Deck	-	DensDeck Prime in 2-Part UIA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-337.5 (Lim. 9)
R-A-51	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	-	ProtectoR HD adhered in RSUA applied 12-inch o.c.	JM TPO	MBA or LVOC MA	-400 (Lim. 9)

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

Adhered Recover Assemblies						
System No.	Existing Roof	Base Insulation (Note 6)	Top Insulation or Base Ply	Membrane	Membrane Attachment (Note 9)	MDP (psf)
R-A-52	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	-	ProtectoR HD adhered in RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-400 (Lim. 9)
R-A-53	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	-	ProtectoR HD adhered in RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-400 (Lim. 9)
R-A-54	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	-	-	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-440 (Lim. 9)
R-A-55	Granular Mod-Bit Roofing or Granular BUR over Concrete Deck	-	-	JM TPO FB	2-Part UIA(S) at 6lbs/100ft ²	-502.5 (Lim. 9)

Mechanically Fastened Recover Assemblies								
System No.	Deck Detail	Base Insulation	Base Insulation Attachment	Top Insulation (Note 11)	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	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 (Insulation is OPTIONAL with JM TPO FB)	Preliminarily Secured	JM TPO or JM TPO FB	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)
R-M-2	Steel Deck (G80) 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)
R-M-3	Wood Deck (T19/32P)	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board (Insulation is OPTIONAL with JM TPO FB)	Preliminarily Secured	JM TPO or JM TPO FB	Attached in-lap 4-inch o.c. with APB Fasteners & Plates; Fastener rows max. 114-inch o.c.	-37.5 (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 (Note 11)	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
R-M-4	Existing metal roof having Min. 16 ga. steel purlins	-	-	OPTIONAL INSULATION	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. 114-inch o.c.	-37.5 (Lim. 7)
R-M-5	Existing metal roof having Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 or Cover Board	Preliminarily Secured	JM TPO or JM TPO FB	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)
R-M-6	Existing metal roof having Min. 14 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 or Cover Board	Preliminarily Secured	JM TPO or JM TPO FB	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-7	Steel Deck (G80) 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-8	Steel Deck (G80) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board (Insulation is OPTIONAL with JM TPO FB)	Preliminarily Secured	JM TPO or JM TPO FB	Attached in-lap 12-inch o.c. with Extra HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
R-M-9	Steel Deck (G80) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board (Insulation is OPTIONAL with JM TPO FB)	Preliminarily Secured	JM TPO or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
R-M-10	Existing metal roof having Min. 16 ga. steel purlins	-	-	OPTIONAL INSULATION	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. 114-inch o.c.	-45 (Lim. 7)
R-M-11	Steel Deck (G80) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board (Insulation is OPTIONAL with JM TPO FB)	Preliminarily Secured	JM TPO or JM TPO FB	Attached in-lap 6-inch o.c. with Extra HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-52.5 (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 (Note 11)	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
R-M-12	Wood Deck (T19/32P, L24)	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board (Insulation is OPTIONAL with JM TPO FB)	Preliminarily Secured	JM TPO or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-60 (Lim. 7)
R-M-13	Steel Deck (G80) 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-14	Steel Deck (G33) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board (Insulation is OPTIONAL with JM TPO FB)	Preliminarily Secured	JM TPO or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
R-M-15	Existing metal roof having Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 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. 114-inch o.c.	-60 (Lim. 7)
R-M-16	Existing metal roof over Min. 16 ga. steel purlins	-	-	OPTIONAL INSULATION	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. 90-inch o.c.	-60 (Lim. 7)
R-M-17	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 or Cover Board	Preliminarily Secured	JM TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with JM Purlin Fasteners and High Load Plates to structural supports; Fastener rows max. 138-inch o.c.	-67.5 (Lim. 7)
R-M-18	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 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-75 (Lim. 7)
R-M-19	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 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. 90-inch o.c.	-75 (Lim. 7)
R-M-20	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 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)

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 (Note 11)	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
R-M-21	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 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. 54-inch o.c.	-97.5 (Lim. 7)
R-M-22	Steel Deck (G33) or Concrete Deck	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board (Insulation is OPTIONAL with JM TPO FB)	Preliminarily Secured	JM TPO or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-97.5 (Lim. 7)
R-M-23	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 or Cover Board	Preliminarily Secured	JM TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with JM Purlin Fasteners and High Load Plates to structural supports; Fastener rows max. 66-inch o.c.	-105 (Lim. 7)

Induction Welded Recover Assemblies								
System No.	Existing Roof	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
R-W-1	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured 18-inch o.c. along the purlins with fastener rows max. 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-45 (Lim. 7)
R-W-2	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	Min. 1-inch E3 or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured 6-inch o.c. along the purlins with fastener rows max. 120-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-45 (Lim. 7)
R-W-3	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Attached with ISOWELD-#12 or ISOWELD-#15 spaced 12-inch o.c. along the purlins with fastener rows max. 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
R-W-4	Steel Deck (G33) or Concrete Deck	OPTIONAL Min. 1.5-inch 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, Trufast TPO IW Plates, or isoweld FI-P-6.8-TPO plates at a rate of 8 per 4-ft x 8-ft board Pattern #1 (1 fastener per 4.0-ft ²)	JM TPO (Min. 60 mil)	Induction welded to weld plates	-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 (Note 12)	MDP (psf)
R-W-5	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	<i>Preliminarily Secured</i> or secured with top layer	Min. 1-inch E3 or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured 12-inch o.c. along the purlins with fastener rows max. 72-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-45 (Lim. 7)
R-W-6	Wood Deck (T15/32P, L24)	OPTIONAL INSULATION	<i>Preliminarily Secured</i> 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, Trufast TPO IW Plates, or <i>isoweld</i> FI-P-6.8-TPO plates 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 weld plates	-52.5 (Lim. 7)
R-W-7	Wood Deck (T15/32P, L24)	OPTIONAL INSULATION	<i>Preliminarily Secured</i> 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, Trufast TPO IW Plates, or <i>isoweld</i> FI-P-6.8-TPO plates 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 weld plates	-60 (Lim. 7)
R-W-8	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	<i>Preliminarily Secured</i> or secured with top layer	Min. 1-inch E3 or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured 12-inch o.c. along the purlins with fastener rows max. 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-67.5 (Lim. 7)
R-W-9	Steel Deck (G33) or Concrete Deck	OPTIONAL INSULATION	<i>Preliminarily Secured</i> or secured with top layer	Min. 0.5-inch E3 or Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates, Trufast TPO IW Plates, or <i>isoweld</i> FI-P-6.8-TPO plates at a rate of 12 per 4-ft x 8-ft board Pattern #1 (1 fastener per 2.67-ft ²)	JM TPO (Min. 60 mil)	Induction welded to weld plates	-75 (Lim. 7)
R-W-10	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	<i>Preliminarily Secured</i> or secured with top layer	Min. 1-inch E3 or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured 6-inch o.c. along the purlins with fastener rows max. 72-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-82.5 (Lim. 7)
R-W-11	Steel Deck (G33) or Concrete Deck	OPTIONAL INSULATION	<i>Preliminarily Secured</i> or secured with top layer	Min. 0.5-inch E3 or Cover Board	Attached with High Load Fasteners and JM TPO RhinoPlates, Trufast TPO IW Plates, or <i>isoweld</i> FI-P-6.8-TPO plates 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 weld plates	-90 (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 (Note 12)	MDP (psf)
R-W-12	Existing metal roof over Min. 16 ga. steel purlins	Min. 1-inch E3 or EPS placed between ribs	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL INSULATION	Attached with Trufast TPO IW Plates and Trufast #12 Purlin Fasteners spaced 6-inch o.c. along the purlins with fastener rows max. 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-90 (Lim. 7)
R-W-13	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	<i>Preliminarily Secured or secured with top layer</i>	Min. 1-inch E3 or Cover Board	Attached with ISOWELD-#12 or ISOWELD-#15 spaced 6-inch o.c. along the purlins with fastener rows max. 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-97.5 (Lim. 7)
R-W-14	Wood Deck (T15/32P, L24)	OPTIONAL INSULATION	<i>Preliminarily Secured or secured with top layer</i>	Min. 0.5-inch E3 or Cover Board	Min. 2.25-inch JM All Purpose Fastener and JM TPO RhinoPlates, Trufast TPO IW Plates, or isoweld FI-P-6.8-TPO plates 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 weld plates	-112.5 (Lim. 7)
R-W-15	Existing metal roof over Min. 16 ga. steel purlins	Min. 1.5-inch E3 or EPS placed between ribs	<i>Preliminarily Secured or secured with top layer</i>	Min. 1-inch E3 or Cover Board	JM Purlin Fasteners and JM TPO RhinoPlates secured 6-inch o.c. along the purlins with fastener rows max. 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-120 (Lim. 7)

Adhered Assemblies over Steel Deck (New or Existing)								
System No.	Deck	Vapor Barrier	Base Insulation (Note 6)	Middle Insulation	Top Insulation/ Cover Board	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-A-1	G33	Optional JM Vapor Barrier SA	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	OPTIONAL Min. 1-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	Min. 1-inch ENRGY 3 applied in 2-Part UIA or RSUA spaced 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-45 (Lim. 9)
S-A-2	G33	JM Vapor Barrier SAR	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in RSUA spaced 12-inch o.c.	OPTIONAL Min. 1-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	Min. 1-inch ENRGY 3 applied in 2-Part UIA or RSUA spaced 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-45 (Lim. 9)

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

Adhered Assemblies over Steel Deck (New or Existing)								
System No.	Deck	Vapor Barrier	Base Insulation (Note 6)	Middle Insulation	Top Insulation/ Cover Board	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-A-3	G33	Optional JM Vapor Barrier SA	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	OPTIONAL Min. 1-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	Min. 1-inch ENRGY 3 applied in 2-Part UIA or RSUA spaced 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-A-4	G33	JM Vapor Barrier SAR	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in RSUA spaced 12-inch o.c.	OPTIONAL Min. 1-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	Min. 1-inch ENRGY 3 applied in 2-Part UIA or RSUA spaced 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-A-5	G33	Optional JM Vapor Barrier SA	OPTIONAL Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	-	Min. 1.5-inch ENRGY 3 applied in 2-Part UIA or RSUA spaced 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-45 (Lim. 9)
S-A-6	G33	JM Vapor Barrier SAR	OPTIONAL Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in RSUA spaced 12-inch o.c.	-	Min. 1.5-inch ENRGY 3 applied in 2-Part UIA or RSUA spaced 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-45 (Lim. 9)
S-A-7	G33	Optional JM Vapor Barrier SA	OPTIONAL Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	-	Min. 1.5-inch ENRGY 3 applied in 2-Part UIA or RSUA spaced 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-A-8	G33	JM Vapor Barrier SAR	OPTIONAL Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in RSUA spaced 12-inch o.c.	-	Min. 1.5-inch ENRGY 3 applied in 2-Part UIA or RSUA spaced 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-A-9	G33	Optional JM Vapor Barrier SA	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	OPTIONAL Min. 1-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	ProtectoR HD, SECUROCK, or DensDeck Prime applied in 2-Part UIA, OSFA, or RSUA spaced 12" o.c.	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-45 (Lim. 9)
S-A-10	G33	JM Vapor Barrier SAR	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in RSUA spaced 12-inch o.c.	OPTIONAL Min. 1-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	ProtectoR HD, SECUROCK, or DensDeck Prime applied in 2-Part UIA, OSFA, or RSUA spaced 12" o.c.	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-45 (Lim. 9)

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

Adhered Assemblies over Steel Deck (New or Existing)								
System No.	Deck	Vapor Barrier	Base Insulation (Note 6)	Middle Insulation	Top Insulation/ Cover Board	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-A-11	G33	Optional JM Vapor Barrier SA	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	OPTIONAL Min. 1-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	ProtectoR HD, DEXcell FA, SECUROCK, or DensDeck Prime applied in 2-Part UIA, OSFA, or RSUA spaced 12" o.c.	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-A-12	G33	JM Vapor Barrier SAR	Min. 1.5-inch ENRGY 3 or ENRGY 3 CGF applied in RSUA spaced 12-inch o.c.	OPTIONAL Min. 1-inch ENRGY 3 or ENRGY 3 CGF applied in 2-Part UIA or RSUA spaced 12-inch o.c.	ProtectoR HD, DEXcell FA, SECUROCK, or DensDeck Prime applied in 2-Part UIA, OSFA, or RSUA spaced 12" o.c.	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-A-13	G33	OPTIONAL JM Vapor Barrier SA or SAR	-	-	Min. 1.5-inch ENRGY 3, ENRGY 3 CGF, or ProtectoR Foam applied in RSUA spaced 12-inch o.c.	JM TPO	MBA, LVOC MA, TPO WBMA or ASBA	-45 (Lim. 9)
S-A-14	G33	OPTIONAL JM Vapor Barrier SA or SAR	-	-	Min. 1.5-inch ENRGY 3, ENRGY 3 CGF, or ProtectoR Foam applied in RSUA spaced 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-45 (Lim. 9)
S-A-15	G33	OPTIONAL JM Vapor Barrier SA or SAR	-	-	Min. 1.5-inch ENRGY 3, ENRGY 3 CGF, or ProtectoR Foam applied in RSUA spaced 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-A-16	G33	JM Vapor Barrier SAR; Deck primed with SA Primer Low VOC	-	-	Min. 1.5-inch E3 applied in RSUA spaced 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-52.5 (Lim. 9)
S-A-17	G33	JM Vapor Barrier SAR; Deck primed with SA Primer Low VOC	-	-	Min. 1.5-inch E3 applied in RSUA spaced 6-inch o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 9)
S-A-18	G33	-	-	-	Min. 1.5-inch E3 applied in RSUA spaced 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-82.5 (Lim. 9)
S-A-19	G33	-	-	-	Min. 1.5-inch E3 applied in RSUA spaced 6-inch o.c.	JM TPO SA	Self-adhered	-82.5 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-1	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	ProtectoR HD	Fasteners & Plates at a rate of 1 fastener per 2.67ft ²	JM TPO SA	Self-adhered	-30 (Lim. 7)
S-AM-2	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	ProtectoR HD	Fasteners & Plates at a rate of 1 fastener per 2.67ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA; MBA applied at 0.83 gal/100ft ² ; LVOC MA or ASBA JM TPO FB: RSUA applied 12-inch o.c., RSUA(S), 2-Part UIA(S), ASBA or TPO WBMA	-30 (Lim. 7)
S-AM-3	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 2-inch Fesco Foam	Fasteners & Plates secured 1 fastener per 5.3ft ²	JM TPO	MBA, or LVOC MA	-37.5 (Lim. 7)
S-AM-4	G33	ProtectoR attached with Fasteners & Plates at 8 per 4-ft x 8-ft board Pattern #2; JM Vapor SA or JM Vapor Barrier SAR with JM SA Primer or JM SA Primer Low VOC	ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 C1, or ENRGY 3 C1 CGF	OSFA, RSUA, or 2-Part UIA applied 12-inch o.c.	ProtectoR, Retro-Fit, SeparatorR CGF, Separator FR, INVINSA, DensDeck, DensDeck Prime, DEXcell FA, or SECUROCK	OSFA, RSUA, or 2-Part UIA applied 12-inch o.c.	JM TPO, JM TPO FB, JM TPO SA, or JM TPO HFB	JM TPO: TPO WBMA, MBA LVOC MA, or ASBA JM TPO FB: RSUA applied 12-inch o.c., RSUA(S), 2-Part UIA(S), ASBA or TPO WBMA JM TPO SA: self-adhered JM TPO HFB: ASTM D 312 Type IV Asphalt	-37.5 (Lim. 7)
S-AM-5	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DensDeck Prime	OMG #12 Standard Roofgrip or UltraFast Fastener and OMG 3 in. Ribbed Galvalume Plate (Flat) or UltraFast Plate Metal Flat secured 8 per 4-ft x 8-ft board Pattern 3	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-37.5 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-6	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DensDeck Prime	OMG #12 Standard Roofgrip or UltraFast Fastener and OMG 3 in. Ribbed Galvalume Plate (Flat) or UltraFast Plate Metal Flat secured 8 per 4-ft x 8-ft board Pattern 3	JM TPO HFB	ASTM D 312 Type IV Asphalt	-37.5 (Lim. 7)
S-AM-7	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DensDeck Prime	OMG #12 Standard Roofgrip or UltraFast Fastener and OMG 3 in. Ribbed Galvalume Plate (Flat) or UltraFast Plate Metal Flat secured 8 per 4-ft x 8-ft board Pattern 3	JM TPO SA	Self-adhered	-37.5 (Lim. 7)
S-AM-8	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	Fasteners & Plates at a rate of 1 fastener per 2.67ft ²	ProtectoR HD	RSUA or 2-Part UIA applied 12-inch o.c	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-9	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	Fasteners & Plates at a rate of 1 fastener per 2.67ft ²	ProtectoR HD	RSUA or 2-Part UIA applied 12-inch o.c	JM TPO or JM TPO FB	JM TPO: TPO WBMA; MBA applied at 0.83 gal/100ft ² ; LVOC MA or ASBA JM TPO FB: RSUA applied 12-inch o.c., RSUA(S), 2-Part UIA(S), TPO WBMA, or ASBA	-45 (Lim. 7)
S-AM-10	G33	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	ProtectoR	Fasteners & Plates secured 1 fastener per 4ft ²	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-AM-11	G33	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	ProtectoR	Fasteners & Plates secured 1 fastener per 4ft ²	JM TPO (Min. 60 mil) or JM TPO FB	JM TPO: TPO WBMA; MBA applied at 0.83 gal/100ft ² ; LVOC MA or ASBA JM TPO FB: RSUA applied 12-inch o.c., RSUA(S), 2-Part UIA(S), TPO WBMA, or ASBA	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-12	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 2-inch Invinso Foam	Fasteners & Plates secured 1 fastener per 5.3ft ²	JM TPO	MBA, TPO WBMA, LVOC MA, or ASBA	-45 (Lim. 7)
S-AM-13	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 2-inch Invinso Foam	Fasteners & Plates secured 1 fastener pr 5.3ft ²	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-14	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.375-inch SECUROCK	Fasteners & Plates secured 1 fastener per 2.67ft ²	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83-1.10 gal/100ft ² or ASBA JM TPO FB: TPO WBMA or ASBA	-45 (Lim. 7)
S-AM-15	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.375-inch SECUROCK	Fasteners & Plates secured 1 fastener per 2.67ft ²	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-16	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 4.0ft ²	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-45 (Lim. 9)
S-AM-17	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 4.0ft ²	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-AM-18	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 or Protector Foam	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO	MBA applied at 0.83 gal/100ft ² to both membrane and substrate, TPO WBMA, ASBA or LVOC MA	-45 (Lim. 9)
S-AM-19	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 or Protector Foam	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO SA	Self-adhered	-45 (Lim. 9)
S-AM-20	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	Fasteners & 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: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA or ASBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-45 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-21	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	Fasteners & 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)
S-AM-22	22 GA Type N; G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3	JM All Purpose Fasteners and Dekfast PLT-H-2-7/8 Plates secured at a rate of 16 per 4-ft x 8-ft board Type N	JM TPO	ASBA, LVOC MA or MBA	-45 (Lim. 7)
S-AM-23	22 GA Type N; G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3	JM All Purpose Fasteners and Dekfast PLT-H-2-7/8 Plates secured at a rate of 16 per 4-ft x 8-ft board Type N	JM TPO FB	2-Part UIA(S)	-45 (Lim. 7)
S-AM-24	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 4 per 4-ft x 8-ft board	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-45 (Lim. 7)
S-AM-25	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 4 per 4-ft x 8-ft board	JM TPO HFB	ASTM D 312 Type IV Asphalt	-45 (Lim. 7)
S-AM-26	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 4 per 4-ft x 8-ft board	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-27	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Fasteners & Plates secured 1 fastener per 2.67ft ²	DensDeck Prime or StormX	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-45 (Lim. 7)
S-AM-28	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Fasteners & Plates secured 1 fastener per 2.67ft ²	DensDeck Prime or StormX	RSUA applied 12-inch o.c.	JM TPO HFB	ASTM D 312 Type IV Asphalt	-45 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-29	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Fasteners & Plates secured 1 fastener per 2.67ft ²	DensDeck Prime or StormX	RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-30	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	Fasteners & Plates secured 8 per 4-ft x 8-ft board Pattern 2	JM TPO FB w/DynaBase HW	RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-45 (Lim. 7)
S-AM-31	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	Fasteners & Plates secured at a rate of 1 fastener per 4ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA MBA, LVOC MA, or ASBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-45 (Lim. 7)
S-AM-32	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	Fasteners & Plates secured at a rate of 1 fastener per 4ft ²	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-33	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DEXcell FA	Fasteners & Plates secured at a rate of 1 fastener per 3.2ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA MBA, LVOC MA, or ASBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-45 (Lim. 7)
S-AM-34	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DEXcell FA	Fasteners & Plates secured at a rate of 1 fastener per 3.2ft ²	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-35	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DEXcell CB	UF secured at a rate of 1 fastener per 3.2ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA JM TPO FB: TPO WBMA	-45 (Lim. 7)
S-AM-36	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	Fasteners & Plates secured 1 fastener per 4.0ft ²	DEXcell FA	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA MBA, LVOC MA, or ASBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-45 (Lim. 7)
S-AM-37	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	Fasteners & Plates secured 1 fastener per 4.0ft ²	DEXcell FA	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-38	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 2-inch ENRGY 3	Fasteners & Plates secured 1 fastener per 4.0ft ²	DEXcell CB	2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA JM TPO FB: TPO WBMA	-45 (Lim. 7)
S-AM-39	G33	Min. 0.5-inch DEXcell FA secured with Fasteners & Plates secured 1 fastener per 4ft ² ; Primed with JM SA Primer Low VOC followed by JM Vapor Barrier SA or Vapor Barrier SAR	Min. 1.5-inch E3	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	DEXcell FA	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA MBA, LVOC MA, or ASBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-45 (Lim. 7)
S-AM-40	G33	Min. 0.5-inch DEXcell FA secured with Fasteners & Plates secured 1 fastener per 4ft ² ; Primed with JM SA Primer Low VOC followed by JM Vapor Barrier SA or Vapor Barrier SAR	Min. 1.5-inch E3	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	DEXcell FA	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-41	G33	Min. 0.5-inch DEXcell FA secured with Fasteners & Plates secured 1 fastener per 4ft ² ; Primed with JM SA Primer Low VOC followed by JM Vapor Barrier SA or Vapor Barrier SAR	Min. 1.5-inch E3	OSFA, RSUA or 2-Part UIA applied 12-inch o.c.	DEXcell CB	2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA JM TPO FB: TPO WBMA	-45 (Lim. 7)
S-AM-42	G33	Min. 0.5-inch DensDeck Prime secured with DF or TF at 1 fastener per 4ft ² over OPTIONAL Vapor Barrier	Min. 1.5-inch ENRGY 3	2-Part UIA, OSFA, or RSUA applied 12" o.c.	OPTIONAL ProtectoR HD, SECUROCK, or DensDeck Prime	2-Part UIA, OSFA, or RSUA applied 12" o.c.	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-45 (Lim. 7)
S-AM-43	G33	Min. 0.5-inch DensDeck Prime secured with DF or TF at 1 fastener per 4ft ² over OPTIONAL Vapor Barrier	Min. 1.5-inch ENRGY 3	2-Part UIA, OSFA, or RSUA applied 12" o.c.	OPTIONAL ProtectoR HD, DEXcell FA, SECUROCK, or DensDeck Prime	2-Part UIA, OSFA, or RSUA applied 12" o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-44	G33	Optional Vapor Barrier	Min. 1.5-inch E3	Fasteners & Plates secured 1 fastener per 2.67ft ²	Min. 1-inch E3	2-Part UIA or RSUA applied 12" o.c.	JM TPO	ASBA, LVOC MA or MBA	-45 (Lim. 7)
S-AM-45	G33	Optional Vapor Barrier	Min. 1.5-inch E3	Fasteners & Plates secured 1 fastener per 2.67ft ²	Min. 1-inch E3	2-Part UIA or RSUA applied 12" o.c.	JM TPO FB	2-Part UIA(S)	-45 (Lim. 7)
S-AM-46	G33	Optional Vapor Barrier	Min. 1.5-inch E3	Fasteners & Plates secured 1 fastener per 2.67ft ²	Min. 1-inch ENRGY 3 CGF	2-Part UIA or RSUA applied 12" o.c.	JM TPO SA	Self-adhered	-45 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-47	G33	Optional Vapor Barrier	Min. 2-inch E3	Fasteners & Plates secured 1 fastener per 4ft ²	Min. 1-inch E3	2-Part UIA or RSUA applied 12" o.c.	JM TPO	ASBA, LVOC MA or MBA	-45 (Lim. 7)
S-AM-48	G33	Optional Vapor Barrier	Min. 2-inch E3	Fasteners & Plates secured 1 fastener per 4ft ²	Min. 1-inch E3	2-Part UIA or RSUA applied 12" o.c.	JM TPO FB	2-Part UIA(S)	-45 (Lim. 7)
S-AM-49	G33	Optional Vapor Barrier	Min. 2-inch E3	Fasteners & Plates secured 1 fastener per 4ft ²	Min. 1-inch E3	2-Part UIA or RSUA applied 12" o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-50	G33	-	Min. 0.5-inch DEXcell FA, SECUROCK, DEXcell CB, or Protector; Primed with JM SA Primer Low VOC or JM SA Primer followed by JM Vapor Barrier SA or Vapor Barrier SAR	Fasteners & Plates secured 1 fastener per 4ft ²	Min. 1.5-inch E3	2-Part UIA applied 12" o.c.	JM TPO	ASBA, LVOC MA or MBA	-45 (Lim. 7)
S-AM-51	G33	-	Min. 0.5-inch DEXcell FA, SECUROCK, DEXcell CB, or Protector; Primed with JM SA Primer Low VOC or JM SA Primer followed by JM Vapor Barrier SA or Vapor Barrier SAR	Fasteners & Plates secured 1 fastener per 4ft ²	Min. 1.5-inch E3	2-Part UIA applied 12" o.c.	JM TPO FB	2-Part UIA(S)	-45 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-52	G33	-	Min. 0.5-inch DEXcell FA, SECUROCK, DEXcell CB, or ProtectoR; Primed with JM SA Primer Low VOC or JM SA Primer followed by JM Vapor Barrier SA or Vapor Barrier SAR	Fasteners & Plates secured 1 fastener per 4ft ²	Min. 1.5-inch E3	2-Part UIA applied 12" o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-53	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.625-inch DEXcell FA	Fasteners & Plates secured at a rate of 1 fastener per 5.33ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA MBA, LVOC MA, or ASBA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-45 (Lim. 7)
S-AM-54	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.625-inch DEXcell FA	Fasteners & Plates secured at a rate of 1 fastener per 5.33ft ²	JM TPO SA	Self-adhered	-45 (Lim. 7)
S-AM-55	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DEXcell CB	Fasteners & Plates secured at a rate of 1 fastener per 5.33ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA JM TPO FB: TPO WBMA	-45 (Lim. 7)
S-AM-56	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	DF or Fasteners & Plates secured 1 fastener per 1.33ft ²	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-52.5 (Lim. 7)
S-AM-57	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	DF or Fasteners & Plates secured 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-58	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	Fasteners & Plates 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: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA, RSUA applied 12-inch o.c., RSUA(S), or 2-Part UIA(S)	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-59	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	Fasteners & Plates 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-60	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	Fasteners & Plates secured at a rate of 1 fastener per 1.45ft ²	JM Invinsa	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO FB	RSUA applied 12-inch o.c. or RSUA(S)	-52.5 (Lim. 7)
S-AM-61	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	Fasteners & Plates secured at a rate of 1 fastener per 1.45ft ²	JM Invinsa or Protector HD	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-62	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO	MBA applied at 0.83 gal/100ft ² to both membrane and substrate or TPO WBMA or ASBA	-52.5 (Lim. 7)
S-AM-63	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.67ft ²	JM TPO	MBA applied at 0.83 gal/100ft ² to both membrane and substrate, TPO WBMA or ASBA	-52.5 (Lim. 7)
S-AM-64	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.67ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-65	G33	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.67ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-52.5 (Lim. 7)
S-AM-66	G33	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.67ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-67	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	DF or Fasteners & Plates 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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-68	G33, F1, L6, S24	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	DF or Fasteners & Plates secured 1 fastener per 1.33ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
S-AM-69	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	Fasteners & 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-70	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	Fasteners & 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-71	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3 or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
S-AM-72	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3 or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO FB	2-Part UIA(S)	-52.5 (Lim. 7)
S-AM-73	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3 or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO	LVOC MA or MBA applied at 0.55 gal/100ft ²	-52.5 (Lim. 7)
S-AM-74	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	ProtectoR HD	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-75	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	ProtectoR HD	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA applied at 0.83 gal/100ft ² , LVOC MA applied at 0.83 gal/100ft ² or ASBA JM TPO FB: TPO WBMA or ASBA	-52.5 (Lim. 7)
S-AM-76	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.78ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-77	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
S-AM-78	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-79	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 8 per 4-ft x 8-ft board Pattern #3	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-52.5 (Lim. 7)
S-AM-80	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 8 per 4-ft x 8-ft board Pattern #3	JM TPO HFB	ASTM D 312 Type IV Asphalt	-52.5 (Lim. 7)
S-AM-81	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 8 per 4-ft x 8-ft board Pattern #3	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
S-AM-82	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	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: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-60 (Lim. 7)
S-AM-83	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	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-84	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	DF or Fasteners & Plates secured 1 fastener per 1.00ft ²	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-85	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	DF or Fasteners & Plates secured 1 fastener per 1.00ft ²	JM TPO or JM TPO FB	JM TPO: MBA applied at 0.83-1.10 gal/100ft ² , LVOC MA, or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-60 (Lim. 7)
S-AM-86	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	SECUROCK	DF or Fasteners & Plates secured 1 fastener per 1.00ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-60 (Lim. 7)
S-AM-87	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3 or Protector Foam	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO	LVOC MA or MBA applied at 0.55 gal/100ft ²	-60 (Lim. 7)
S-AM-88	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-60 (Lim. 7)
S-AM-89	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 1.5-inch E3 or Protector Foam	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-60 (Lim. 7)
S-AM-90	G33	OPTIONAL Vapor Barrier	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.78ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-60 (Lim. 7)
S-AM-91	G33	OPTIONAL Vapor Barrier	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.78ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-60 (Lim. 7)
S-AM-92	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Protector HD	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-60 (Lim. 7)
S-AM-93	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Protector HD	Fasteners & Plates secured 1 fastener per 1.78ft ²	JM TPO or JM TPO FB	JM TPO: MBA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-94	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 or Protector Foam	Fasteners & Plates secured 1 fastener per 1.6ft ²	JM TPO FB	2-Part UIA(S)	-60 (Lim. 7)
S-AM-95	G33	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	UltraFast Fasteners & Plate) 1 fastener per 1.6ft ²	Min. 1.5-inch E3 or E3 C1	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO FB	2-Part UIA(S)	-60 (Lim. 7)
S-AM-96	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.5-inch DensDeck Prime	OMG #12 Standard Roofgrip fasteners and OMG 3 in. Ribbed Galvalume Plate (Flat) or UltraFast Plate Metal Flat secured 16 per 4-ft x 8-ft board	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-60 (Lim. 7)
S-AM-97	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.5-inch DensDeck Prime	OMG #12 Standard Roofgrip fasteners and OMG 3 in. Ribbed Galvalume Plate (Flat) or UltraFast Plate Metal Flat secured 16 per 4-ft x 8-ft board	JM TPO HFB	ASTM D 312 Type IV Asphalt	-60 (Lim. 7)
S-AM-98	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.5-inch DensDeck Prime	OMG #12 Standard Roofgrip fasteners and OMG 3 in. Ribbed Galvalume Plate (Flat) or UltraFast Plate Metal Flat secured 16 per 4-ft x 8-ft board	JM TPO SA	Self-adhered	-60 (Lim. 7)
S-AM-99	G33	JM Vapor Barrier SA or SAR adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 2.0ft ² and primed with JM SA Primer Low VOC	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DEXcell FA	OSFA, or RSUA applied 6" o.c.	JM TPO	JM TPO: TPO WBMA, MBA, LVOC MA, or ASBA	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-100	G33	JM Vapor Barrier SA or SAR adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 2.0ft ² and primed with JM SA Primer Low VOC	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DEXcell FA	OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-60 (Lim. 7)
S-AM-101	G33	JM Vapor Barrier SA or SAR adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 2.0ft ² and primed with JM SA Primer Low VOC	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DensDeck Prime or SECURROCK	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA, or 1168	-60 (Lim. 7)
S-AM-102	G33	JM Vapor Barrier SA or SAR adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 2.0ft ² and primed with JM SA Primer Low VOC	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DensDeck Prime	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-103	G33	DynaBase HW adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 2.0ft ²	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DEXcell FA	OSFA, or RSUA applied 6" o.c.	JM TPO	JM TPO: TPO WBMA, MBA, LVOC MA, or ASBA	-60 (Lim. 7)
S-AM-104	G33	DynaBase HW adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 2.0ft ²	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DEXcell FA	OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-60 (Lim. 7)
S-AM-105	G33	DynaBase HW adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 2.0ft ²	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DensDeck Prime or SECUROCK	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA, or 1168	-60 (Lim. 7)
S-AM-106	G33	DynaBase HW adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 2.0ft ²	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DensDeck Prime	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-60 (Lim. 7)
S-AM-107	G40	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates secured 1 fastener per 2.00ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-60 (Lim. 7)
S-AM-108	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Fasteners & 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. or RSUA(S)	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-109	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	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	TPO WBMA	-67.5 (Lim. 7)
S-AM-110	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	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 FB	TPO WBMA, ASBA or 2-Part UIA(S)	-67.5 (Lim. 7)
S-AM-111	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch ENRGY 3	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)
S-AM-112	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO	MBA applied at 0.83 gal/100ft ² to both membrane and substrate, TPO WBMA or ASBA	-67.5 (Lim. 7)
S-AM-113	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
S-AM-114	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO	TPO WBMA or ASBA	-67.5 (Lim. 7)
S-AM-115	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 or Protector Foam	Fasteners & Plates secured 1 fastener per 2ft ²	JM TPO	MBA, LVOC MA applied at 1.1 gal/100ft ² , TPO WBMA (two-sided application only) or ASBA	-67.5 (Lim. 7)
S-AM-116	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 or Protector Foam	Fasteners & Plates secured 1 fastener per 2ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-67.5 (Lim. 7)
S-AM-117	G33	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-118	G33	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 2.0ft ²	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 CGF	OSFA, RSUA, or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
S-AM-119	G33	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	UltraFast Fasteners & Plate secured 1 fastener per 1.6ft ²	Min. 0.5-inch ProtectoR HD, DEXcell FA, or SECUROCK	OSFA, RSUA, 2-Part UIA-C(B) or 2-Part UIA applied 6-inch o.c.	JM TPO FB	RSUA 6-inch o.c.	-67.5 (Lim. 7)
S-AM-120	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.5-inch DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.78ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-67.5 (Lim. 7)
S-AM-121	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.5-inch DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.78ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-67.5 (Lim. 7)
S-AM-122	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.5-inch DensDeck Prime	Fasteners & Plates secured or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.78ft ²	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
S-AM-123	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 12 per 4-ft x 8-ft board	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-67.5 (Lim. 7)
S-AM-124	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 12 per 4-ft x 8-ft board	JM TPO HFB	ASTM D 312 Type IV Asphalt	-67.5 (Lim. 7)
S-AM-125	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 12 per 4-ft x 8-ft board	JM TPO SA	Self-adhered	-67.5 (Lim. 7)
S-AM-126	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	ProtectoR HD	Fasteners & Plates at a rate of 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-75 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-127	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	ProtectoR HD	Fasteners & Plates at a rate of 1 fastener per 1.33ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA applied at 0.83 gal/100ft ² , LVOC MA or ASBA JM TPO FB: TPO WBMA, ASBA or 2-Part UIA(S)	-75 (Lim. 7)
S-AM-128	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3, E3 C1, or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 1.6ft ²	JM TPO	MBA, LVOC MA applied at 1.1 gal/100ft ² , TPO WBMA (two-sided application only) or ASBA	-75 (Lim. 7)
S-AM-129	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.6ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-75 (Lim. 7)
S-AM-130	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch InvinSA Foam	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA or ASBA	-75 (Lim. 7)
S-AM-131	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch InvinSA Foam	Fasteners & Plates secured 1 fastener per 2.0ft ²	JM TPO SA	Self-adhered	-75 (Lim. 7)
S-AM-132	G33	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.0ft ²	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA or ASBA	-75 (Lim. 7)
S-AM-133	G33	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.0ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-75 (Lim. 7)
S-AM-134	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 14 per 4-ft x 8-ft board	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA or ASBA	-75 (Lim. 7)
S-AM-135	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 14 per 4-ft x 8-ft board	JM TPO HFB	ASTM D 312 Type IV Asphalt	-75 (Lim. 7)
S-AM-136	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 14 per 4-ft x 8-ft board	JM TPO SA	Self-adhered	-75 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-137	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.0ft ²	JM TPO FB	2-Part UIA(S)	-82.5 (Lim. 7)
S-AM-138	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.0ft ²	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-139	G80	Min. 0.5-inch DEXcell FA; Fasteners & 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. or RSUA(S)	-82.5 (Lim. 7)
S-AM-140	G33	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	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO FB	RSUA applied 4-inch o.c. or RSUA(S)	-82.5 (Lim. 7)
S-AM-141	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3, E3 C1, or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO	MBA or LVOC MA applied at 1.1 gal/100ft ² or TPO WBMA (two-sided application only)	-82.5 (Lim. 7)
S-AM-142	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-82.5 (Lim. 7)
S-AM-143	G33	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA, or ASBA	-82.5 (Lim. 7)
S-AM-144	G33	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.0ft ²	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA, or ASBA	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-145	G33	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & TruFast Plates secured 1 fastener per 1.0ft ²	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-146	G33	OPTIONAL Vapor Barrier	Min. 1-inch E3	Simultaneously secured with top layer	ProtectoR HD	Fasteners & Plates 1 fastener per 1.33ft ²	JM TPO	MBA, LVOC MA, or ASBA	-82.5 (Lim. 7)
S-AM-147	G33	OPTIONAL Vapor Barrier	Min. 1-inch E3	Simultaneously secured with top layer	ProtectoR HD	Fasteners & Plates 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-148	G33	OPTIONAL Vapor Barrier	Min. 1-inch E3	Simultaneously secured with top layer	ProtectoR HD	Fasteners & Plates 1 fastener per 1.33ft ²	JM TPO FB	2-Part UIA(S)	-82.5 (Lim. 7)
S-AM-149	G33	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.6ft ²	ProtectoR HD	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO	TPO WBMA, MBA, LVOC MA, or ASBA	-82.5 (Lim. 7)
S-AM-150	G33	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	UltraFast Fasteners & Plate secured 1 fastener per 1.6ft ²	ProtectoR HD	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-151	G33	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	UltraFast Fasteners & Plate secured 1 fastener per 1.6ft ²	ProtectoR HD	OSFA, RSUA, 2-Part UIA-C(B) or 2-Part UIA applied 6-inch o.c.	JM TPO FB	2-Part UIA(S)	-82.5 (Lim. 7)
S-AM-152	G33	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.6ft ²	Min. 0.5-inch DensDeck Prime, DEXcell FA, or SECUROCK	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-82.5 (Lim. 7)
S-AM-153	G33	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.6ft ²	Min. 0.5-inch DensDeck Prime, DEXcell FA, or SECUROCK	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-154	G33	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.6ft ²	Min. 1.5-inch E3 or E3 C1	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-155	G33	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.6ft ²	Min. 1.5-inch E3 or E3 C1	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 6-inch o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-156	G33	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR or E3 C1	Fasteners & Plates secured 1 fastener per 1ft ²	Min. 1.5-inch ENRGY 3	OSFA, RSUA, 2-Part UIA-C(B) or 2-Part UIA applied 4-inch o.c.	JM TPO	TPO WBMA (rate 0.6-0.8 gal/100-ft ² for one-sided and two-sided application), MBA, ASBA, or LVOC MA	-82.5 (Lim. 7)
S-AM-157	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 or Protector Foam	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO	TPO WBMA (rate 0.6-0.8 gal/100-ft ² for one-sided and two-sided application), MBA, or LVOC MA	-82.5 (Lim. 7)
S-AM-158	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3, E3 C1, or Protector Foam	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO	ASBA or MBA	-82.5 (Lim. 7)
S-AM-159	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 12 per 4-ft x 8-ft board Pattern #2	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-160	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 12 per 4-ft x 8-ft board Pattern #2	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA or ASBA	-82.5 (Lim. 7)
S-AM-161	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 12 per 4-ft x 8-ft board Pattern #2	JM TPO HFB	ASTM D 312 Type IV Asphalt	-82.5 (Lim. 7)
S-AM-162	G33	JM Vapor Barrier SA or SAR adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 1.33ft ² and primed with JM SA Primer Low VOC	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DEXcell FA	OSFA, or RSUA applied 6" o.c.	JM TPO	JM TPO: TPO WBMA, MBA, LVOC MA, or ASBA	-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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-163	G33	JM Vapor Barrier SA or SAR adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 1.33ft ² and primed with JM SA Primer Low VOC	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DEXcell FA	OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-164	G33	JM Vapor Barrier SA or SAR adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 1.33ft ² and primed with JM SA Primer Low VOC	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DensDeck Prime or SECUROCK	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA, or 1168	-82.5 (Lim. 7)
S-AM-165	G33	JM Vapor Barrier SA or SAR adhered to min. 0.5-inch DEXcell FA secured with UF at 1 fastener per 1.33ft ² and primed with JM SA Primer Low VOC	Min. 1.5-inch ENRGY 3	2-Part UIA or RSUA applied 6" o.c.	Min. 0.5-inch DensDeck Prime	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
S-AM-166	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.625-inch DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.33ft ²	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: TPO WBMA or ASBA	-90 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-167	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.625-inch DensDeck Prime	Fasteners & Plates secured 1 fastener per 1.33ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-90 (Lim. 7)
S-AM-168	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min 0.625-inch DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-90 (Lim. 7)
S-AM-169	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3 or E3 C1	FASTENERS and PLT-R-3 or UltraFast Plates (Square) secured 24 per 4-ft x 8-ft board Pattern #2	JM TPO	MBA or LVOC MA applied at 1.1 gal/100ft ² or TPO WBMA (two-sided application only)	-90 (Lim. 7)
S-AM-170	G33	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR or E3 C1	Fasteners & Plates secured 1 fastener per 1ft ²	Min. 1.5-inch ENRGY 3	RSUA or 2-Part UIA applied 6-inch o.c.	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA, LVOC MA, ASBA or 1168 JM TPO FB: 2-Part UIA(S)	-90 (Lim. 7)
S-AM-171	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	JM TPO FB w/SBS	RSUA(S)	-90 (Lim. 7)
S-AM-172	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 18 per 4-ft x 8-ft board Pattern #1	JM TPO SA	Self-adhered	-97.5 (Lim. 7)
S-AM-173	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 18 per 4-ft x 8-ft board Pattern #1	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA (two-sided application only), or ASBA	-97.5 (Lim. 7)
S-AM-174	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.33ft ²	JM TPO	MBA applied at 0.83 gal/100ft ² to both membrane and substrate or TPO WBMA	-105 (Lim. 7)
S-AM-175	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 1 fastener per 1.33ft ²	JM TPO SA	Self-adhered	-105 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-176	G80	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA, or ASBA	-105 (Lim. 7)
S-AM-177	G80	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.0ft ²	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA (two-sided application only), or ASBA	-112.5 (Lim. 7)
S-AM-178	G80	OPTIONAL Vapor Barrier	Min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DensDeck Prime	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.0ft ²	JM TPO SA	Self-adhered	-112.5 (Lim. 7)
S-AM-179	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3, E3 C1, or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO	TPO WBMA (rate 0.6-0.8 gal/100-ft ² for one-sided and two-sided application), MBA, or LVOC MA	-112.5 (Lim. 7)
S-AM-180	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3, E3 C1, or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO	ASBA or MBA	-112.5 (Lim. 7)
S-AM-181	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 20 per 4-ft x 8-ft board or 18 per 4-ft x 8-ft board Pattern #2	JM TPO SA	Self-adhered	-112.5 (Lim. 7)
S-AM-182	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	StormX	OMG Fasteners & Plates secured 20 per 4-ft x 8-ft board or 18 per 4-ft x 8-ft board Pattern #2	JM TPO	MBA, LVOC MA applied at 1.67 gal/100ft ² , TPO WBMA (two-sided application only), or ASBA	-112.5 (Lim. 7)
S-AM-183	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3, E3 C1, or ProtectoR Foam	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO	MBA or LVOC MA applied at 1.1 gal/100ft ² or TPO WBMA (two-sided application only)	-120 (Lim. 7)
S-AM-184	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION	Simultaneously secured with top layer	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO HFB	ASTM D 312 Type IV Asphalt	-120 (Lim. 7)
S-AM-185	G33	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	ProtectoR HD	Fasteners & Plates at a rate of 1 fastener per 1ft ²	JM TPO	MBA or ASBA	-120 (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/Vapor Barrier	Base Insulation	Base Insulation Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
S-AM-186	G80	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR or E3 C1	Fasteners & Plates secured 1 fastener per 1ft ²	Min. 1.5-inch ENRGY 3	OSFA, RSUA or 2-Part UIA applied 4-inch o.c.	JM TPO	TPO WBMA (rate 0.6-0.8 gal/100-ft ² for one-sided and two-sided application), MBA, or LVOC MA	-120 (Lim. 7)
S-AM-187	G80	OPTIONAL Vapor Barrier	Min. 2-inch E3 or E3 C1	Fasteners & Plates secured 1 fastener per 1ft ²	ProtectoR HD	OSFA, RSUA, 2-Part UIA-C(B), or 2-Part UIA applied 4-inch o.c.	JM TPO	TPO WBMA, MBA, LVOC MA, or ASBA	-120 (Lim. 7)
S-AM-188	G80	OPTIONAL Vapor Barrier	Min. 2-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR or E3 C1	Fasteners & Plates secured 1 fastener per 1ft ²	Min. 1.5-inch ENRGY 3	OSFA, RSUA or 2-Part UIA applied 4-inch o.c.	JM TPO	ASBA or MBA	-127.5 (Lim. 7)
S-AM-189	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch DEXcell FA	Fasteners & Plates secured 1 fastener per 1ft ²	JM TPO FB	2-Part UIA(S)	-135 (Lim. 7)
S-AM-190	G80	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	Fasteners & Plates secured 1 fastener per 1.0ft ²	JM TPO FB	RSUA applied 4-inch o.c.	-142.5 (Lim. 7)
S-AM-191	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.00ft ²	JM TPO or JM TPO FB	TPO WBMA (two-sided application only for JM TPO)	-150 (Lim. 7)
S-AM-192	G80	OPTIONAL Vapor Barrier	OPTIONAL INSULATION under min. 1.5-inch E3	Simultaneously secured with top layer	Min. 0.5-inch SECUROCK	Fasteners & Plates or UltraFast Fasteners & Trufast Plates secured 1 fastener per 1.00ft ²	JM TPO SA	Self-adhered	-150 (Lim. 7)

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 (Note 11)	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
S-M-1	G33	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 or JM TPO FB	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)
S-M-2	G33	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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Fastener rows max. 138-inch o.c.	-30 (Lim. 7)
S-M-3	G33	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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with Extra HL Fasteners & Plates; Fastener rows max. 138-inch o.c.	-30 (Lim. 7)
S-M-4	G33	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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with Trufast Seam Plates; Fastener rows max. 90-inch o.c.	-30 (Lim. 7)
S-M-5	G33	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 TPO or JM TPO FB	Attached in-lap 18-inch o.c. with HL Fasteners & Plates; Fastener rows max. 66-inch o.c.	-30 (Lim. 7)
S-M-6	G80	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 TPO	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Fastener rows max. 138-inch o.c.	-30 (Lim. 7)
S-M-7	G80	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 (Min. 60 mil)	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-37.5 (Lim. 7)
S-M-8	G33	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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-37.5 (Lim. 7)
S-M-9	G33	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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-37.5 (Lim. 7)
S-M-10	G80	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 TPO	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-37.5 (Lim. 7)

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 (Note 11)	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
S-M-11	G33	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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 66-inch o.c.	-45 (Lim. 7)
S-M-12	G80	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 12-inch o.c. with High Load Fasteners and JM High Load Plus Plates or OMG XHD Fasteners and JM 90 Seam Plates; Fastener rows max. 90-inch o.c.	-45 (Lim. 7)
S-M-13	G80	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 TPO or JM TPO FB	Attached in-lap 12-inch o.c. with <i>Extra HL Fasteners & Plates</i> ; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
S-M-14	G80	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 TPO or JM TPO FB	Attached in-lap 6-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
S-M-15	22 GA Type N; G80	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 TPO (Min. 60 mil)	Attached in-lap 8-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 138-inch o.c.	-45 (Lim. 7)
S-M-16	G33	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 TPO or JM TPO FB	Attached in-lap 12-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 66-inch o.c.	-45 (Lim. 7)
S-M-17	G80	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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with High Load Fasteners and JM 90 Seam Plates; Fastener rows max. 114-inch o.c.	-45 (Lim. 7)
S-M-18	G80	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 TPO or JM TPO FB	Attached in-lap 6-inch o.c. with <i>Extra HL Fasteners & Plates</i> ; Fastener rows max. 114-inch o.c.	-52.5 (Lim. 7)
S-M-19	G33	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 or JM TPO FB	Attached in-lap 6-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 114-inch o.c.	-52.5 (Lim. 7)
S-M-20	G80	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 TPO	Attached in-lap 6-inch o.c. with <i>HL Fasteners & Plates</i> ; Fastener rows max. 138-inch o.c.	-52.5 (Lim. 7)

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 (Note 11)	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
S-M-21	G33	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 TPO	Adhered to JM TPO 10" RPS spaced 114-inch o.c. and attached with HL Fasteners & Plates spaced 6-inch o.c.	-52.5 (Lim. 7)
S-M-22	G33	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 TPO (Min. 60 mil)	Attached in-lap 12-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-52.5 (Lim. 7)
S-M-23	22 GA Type N; G80	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 TPO (Min. 60 mil)	Attached in-lap 8-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
S-M-24	G80	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 TPO	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
S-M-25	G33	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 or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 114-inch o.c.	-60 (Lim. 7)
S-M-26	G33	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 TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 138-inch o.c.	-60 (Lim. 7)
S-M-27	G33	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 TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 138-inch o.c.	-60 (Lim. 7)
S-M-28	G33	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 TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with Trufast Seam Plates; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
S-M-29	G80	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 TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 138-inch o.c.	-67.5 (Lim. 7)
S-M-30	G33	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 TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with Extra HL Fasteners & Plates; Fastener rows max. 138-inch o.c.	-67.5 (Lim. 7)

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 (Note 11)	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
S-M-31	G33	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 HL Fasteners & Plates; Fastener rows max. 90-inch o.c.	-75 (Lim. 7)
S-M-32	G33	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 TPO or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 66-inch o.c.	-90 (Lim. 7)
S-M-33	G33	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 or JM TPO FB	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-97.5 (Lim. 7)
S-M-34	G33	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 TPO (Min. 60 mil)	Attached in-lap 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 66-inch o.c.	(-105 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 (Note 12)	MDP (psf)
S-W-1	G33	INSULATION	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with All Purpose Fasteners and JM TPO RhinoPlates at a rate of 6 per 4-ft x 8-ft board Pattern #2	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-37.5 (Lim. 7)
S-W-2	22 GA Type N; G80	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with RhinoPlates at a rate of 6 per 4-ft x 8-ft board Type N; Insulation/Cover Boards laid perpendicular to deck flutes; Boards ends offset 8-inch from previous row	JM TPO	Induction welded to Weld plates	-37.5 (Lim. 7)
S-W-3	G33	INSULATION	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with RhinoPlates at a rate of 8 per 4-ft x 8-ft board Pattern #1 (1 fastener per 4.0-ft ²)	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
S-W-4	G33	INSULATION	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with RhinoPlates fastened 12-inch o.c.; Fastener rows max. 72-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO 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 (Note 12)	MDP (psf)
S-W-5	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with ISOWELD-#15 at a rate of 1 fastener per 4.0-ft ²	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
S-W-6	G80	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with ISOWELD-#15 spaced 24" o.c. in rows 24-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
S-W-7	G80	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with ISOWELD-#12 or ISOWELD-#15 spaced 12-inch o.c. in rows 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
S-W-8	G80	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with ISOWELD-#12 or ISOWELD-#15 spaced in a 2-ft x 3-ft staggered grid	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
S-W-9	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Trufast IW Plates attached 1 fastener per 5.33ft ² ; Boards placed perpendicular to deck ribs; End joints offset 12-inches between board rows	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-45 (Lim. 7)
S-W-10	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with RhinoPlates at a rate of 6 per 4-ft x 8-ft board Pattern #2 (1 fastener per 5.33-ft ²); Board length perpendicular to deck flutes with 6-inch stagger from preceding course	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-52.5 (Lim. 7)
S-W-11	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Trufast IW Plates attached 1 fastener per 4.0ft ² ; Boards placed perpendicular to deck ribs; End joints offset 12-inches between board rows	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-52.5 (Lim. 7)
S-W-12	22 GA Type N; G80	OPTIONAL INSULATION under min. 1.5-inch E3	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with RhinoPlates at a rate of 8 per 4-ft x 8-ft board Type N; Insulation/Cover Boards laid perpendicular to deck flutes; Boards ends offset 8-inch from previous row	JM TPO	Induction welded to Weld plates	-52.5 (Lim. 7)
S-W-13	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with ISOWELD-#15 spaced in a 2-ft x 2-ft staggered grid	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-60 (Lim. 7)
S-W-14	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Trufast IW Plates attached 6-inch o.c. in rows 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-60 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO 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 (Note 12)	MDP (psf)
S-W-15	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with <i>RhinoPlates</i> at a rate of 8 per 4-ft x 8-ft board <i>Pattern #2</i> (1 fastener per 4.0-ft ²); Board length perpendicular to deck flutes with 6-inch stagger from preceding course	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-67.5 (Lim. 7)
S-W-16	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with <i>RhinoPlates</i> at a rate of 8 per 4-ft x 8-ft board <i>Pattern #1</i> (1 fastener per 4.0-ft ²)	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-67.5 (Lim. 7)
S-W-17	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with <i>RhinoPlates</i> 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 Weld plates	-75 (Lim. 7)
S-W-18	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with <i>ISOWELD-#15</i> at a rate of 1 fastener per 3.2-ft ²	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-75 (Lim. 7)
S-W-19	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with <i>RhinoPlates</i> in a 24-inch by 16-inch grid pattern	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-82.5 (Lim. 7)
S-W-20	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with <i>ISOWELD-#15</i> spaced in a 1.5-ft x 2-ft <i>staggered grid</i>	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-82.5 (Lim. 7)
S-W-21	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	<i>Trufast IW Plates</i> attached 1 fastener per 2.0ft ² ; Boards placed perpendicular to deck ribs; End joints offset 12-inches between board rows	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-82.5 (Lim. 7)
S-W-22	G80	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with <i>RhinoPlates</i> in a 24-inch by 16-inch grid pattern	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-90 (Lim. 7)
S-W-23	G33	INSULATION	<i>Preliminarily Secured or secured with top layer</i>	OPTIONAL Cover Board	Attached with <i>RhinoPlates</i> 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 Weld plates	-90 (Lim. 7)

APPENDIX C – APPROVED ASSEMBLIES FOR JM TPO 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 (Note 12)	MDP (psf)
S-W-24	G33	INSULATION	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with <i>RhinoPlates</i> at a rate of 12 per 4-ft x 8-ft board Pattern #1 (1 fastener per 2.67-ft ²); Board length perpendicular to deck flutes with 6-inch stagger from preceding course	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-90 (Lim. 7)
S-W-25	G33	INSULATION	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with <i>ISOWELD-#15</i> spaced 6-inch o.c. in rows 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-90 (Lim. 7)
S-W-26	G80	INSULATION	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Trufast IW Plates</i> attached 6-inch o.c. in rows 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-90 (Lim. 7)
S-W-27	G80	INSULATION	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with <i>ISOWELD-#15</i> spaced 18-inch o.c. in rows 18-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-97.5 (Lim. 7)
S-W-28	G80	INSULATION	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	Attached with <i>ISOWELD-#12</i> or <i>ISOWELD-#15</i> spaced 6-inch o.c. in rows 60-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-97.5 (Lim. 7)
S-W-29	G80	INSULATION	<i>Preliminarily Secured</i> or secured with top layer	OPTIONAL Cover Board	<i>Trufast IW Plates</i> attached 1 fastener per 2.0ft ² ; Boards placed perpendicular to deck ribs; End joints offset 12-inches between board rows	JM TPO (Min. 60 mil)	Induction welded to Weld plates	-105 (Lim. 7)

Adhered Assemblies over Wood Deck (New or Existing)								
System No.	Deck Detail	Base Insulation/Sheet (Note 6)	Base Insulation/Sheet Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
W-A-1	T7/160, L24	PermaPly 28	<i>RS Nails & Tin Caps</i> attached 8-inch o.c. at the 3-inch wide side laps and 8-inch o.c. in two equally spaced rows in the field	Min. 1.5-inch E3	<i>RSUA</i> applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: ASBA, TPO WBMA, MBA or LVOC MA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-37.5 (Lim. 7)

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

Adhered Assemblies over Wood Deck (New or Existing)								
System No.	Deck Detail	Base Insulation/Sheet (Note 6)	Base Insulation/Sheet Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
W-A-2	T7/160, L24	PermaPly 28	RS Nails & Tin Caps attached 8-inch o.c. at the 3-inch wide side laps and 8-inch o.c. in two equally spaced rows in the field	Min. 1.5-inch E3	RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-37.5 (Lim. 7)
W-A-3	T7/160, L24	PermaPly 28	RS Nails & Tin Caps attached 8-inch o.c. at the 3-inch wide side laps and 8-inch o.c. in two equally spaced rows in the field	DensDeck Prime, DEXcell FA, or SECUROCK over OPTIONAL Min. 1.5-inch E3	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: ASBA, TPO WBMA, MBA or LVOC MA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-37.5 (Lim. 7)
W-A-4	T7/160, L24	PermaPly 28	RS Nails & Tin Caps attached 8-inch o.c. at the 3-inch wide side laps and 8-inch o.c. in two equally spaced rows in the field	DensDeck Prime, DEXcell FA, or SECUROCK over OPTIONAL Min. 1.5-inch E3	RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-37.5 (Lim. 7)
W-A-5	T7/160, L24	PermaPly 28	RS Nails & Tin Caps attached 8-inch o.c. at the 3-inch wide side laps and 8-inch o.c. in two equally spaced rows in the field	DensDeck Prime, DEXcell FA, or SECUROCK over OPTIONAL Min. 1.5-inch E3	RSUA applied 12-inch o.c.	JM TPO HFB	ASTM D 312 Type IV Asphalt	-37.5 (Lim. 7)
W-A-6	T7/160, L24	Min. 1.5-inch E3	RSUA or 2-Part UIA applied 12-inch o.c.	DensDeck Prime, DEXcell FA, or SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: ASBA, TPO WBMA, MBA or LVOC MA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-45 (Lim. 9)
W-A-7	T7/160, L24	Min. 1.5-inch E3	RSUA or 2-Part UIA applied 12-inch o.c.	DensDeck Prime, DEXcell FA, or SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 9)
W-A-8	T7/160, L24	Min. 1.5-inch E3	RSUA or 2-Part UIA applied 12-inch o.c.	DensDeck Prime, DEXcell FA, or SECUROCK	RSUA or 2-Part UIA applied 12-inch o.c.	JM TPO HFB	ASTM D 312 Type IV Asphalt	-45 (Lim. 9)

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

Adhered Assemblies over Wood Deck (New or Existing)								
System No.	Deck Detail	Base Insulation/Sheet (Note 6)	Base Insulation/Sheet Attachment	Top Insulation or Coverboard	Top Insulation or Coverboard Attachment	Membrane	Membrane Attachment (Note 10)	MDP (psf)
W-A-9	T7/16O, L24	Min. 1.5-inch E3	RSUA or 2-Part UIA applied 12-inch o.c.	-	-	JM TPO or JM TPO FB	JM TPO: ASBA, TPO WBMA, MBA or LVOC MA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-45 (Lim. 9)
W-A-10	T7/16O, L24	Min. 1.5-inch E3	RSUA or 2-Part UIA applied 12-inch o.c.	-	-	JM TPO SA	Self-adhered	-45 (Lim. 9)

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 (Note 10)	MDP (psf)
W-AM-1	T7/16O, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 1.5-inch E3 or E3 C1	Trufast VERSA-FAST fastener and UltraFast Metal Plate (Round) secured 12 per 4-ft x 8-ft board Pattern #1	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-30 (Lim. 7)
W-AM-2	T7/16O, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 1.5-inch E3 or E3 C1	Trufast VERSA-FAST fastener and UltraFast Metal Plate (Round) secured 12 per 4-ft x 8-ft board Pattern #1	JM TPO SA	Self-adhered	-30 (Lim. 7)
W-AM-3	T7/16O, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	JM All Purpose Fasteners and UltraFast Plates (Square) secured at a rate of 12 per 4-ft x 8-ft board Pattern #1	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA applied at 0.83 gal/100ft ² , LVOC MA or ASBA JM TPO FB: 2-Part UIA(S), TPO WBMA or ASBA	-30 (Lim. 7)
W-AM-4	T7/16O, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	JM All Purpose Fasteners and UltraFast Plates (Square) secured at a rate of 12 per 4-ft x 8-ft board Pattern #1	JM TPO SA	Self-adhered	-30 (Lim. 7)

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

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 (Note 10)	MDP (psf)
W-AM-5	T7/16O, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	Trufast VERSA-FAST fastener and PLT-R-3 secured at a rate of 11 per 4-ft x 8-ft board	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA applied at 0.83 gal/100ft ² , LVOC MA or ASBA JM TPO FB: 2-Part UIA(S), TPO WBMA or ASBA	-30 (Lim. 7)
W-AM-6	T15/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	Trufast VERSA-FAST fastener or FASTENERS and PLT-R-3 secured at a rate of 11 per 4-ft x 8-ft board	JM TPO or JM TPO FB	JM TPO: TPO WBMA, MBA applied at 0.83 gal/100ft ² , LVOC MA or ASBA JM TPO FB: 2-Part UIA(S), TPO WBMA or ASBA	-30 (Lim. 7)
W-AM-7	T7/16O, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	Trufast VERSA-FAST fastener and PLT-R-3 secured at a rate of 11 per 4-ft x 8-ft board	JM TPO SA	Self-adhered	-30 (Lim. 7)
W-AM-8	T15/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	Trufast VERSA-FAST fastener or FASTENERS and PLT-R-3 secured at a rate of 11 per 4-ft x 8-ft board	JM TPO SA	Self-adhered	-30 (Lim. 7)
W-AM-9	T7/16O, L24	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	ProtectoR	Fasteners & Plates at a rate of 1 fastener per 2-ft ²	JM TPO SA	Self-adhered	-37.5 (Lim. 7)
W-AM-10	T7/16O, L24	OPTIONAL INSULATION under min. 1.5-inch E3	Preliminarily Secured or secured with top layer	ProtectoR	Fasteners & Plates at a rate of 1 fastener per 2-ft ²	JM TPO (Min. 60 mil) or JM TPO FB	JM TPO: TPO WBMA, MBA applied at 0.83 gal/100ft ² , LVOC MA or ASBA JM TPO FB: RSUA applied 12-inch o.c. or 2-Part UIA(S)	-37.5 (Lim. 7)
W-AM-11	T7/16O, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	Fasteners & Plates secured at a rate of 1 per 2.13ft ²	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S), TPO WBMA or ASBA	-37.5 (Lim. 7)
W-AM-12	T7/16O, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	Fasteners & Plates secured at a rate of 1 per 2.13ft ²	JM TPO SA	Self-adhered	-37.5 (Lim. 7)

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

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 (Note 10)	MDP (psf)
W-AM-13	T15/32P, L24	-	-	ProtectoR HD	RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-37.5 (Lim. 7)
W-AM-14	T15/32P, L24	-	-	ProtectoR HD	RSUA applied 12-inch o.c.	JM TPO	MBA, LVOC MA, TPO WBMA or ASBA	-37.5 (Lim. 7)
W-AM-15	T15/32P, L24	-	-	ProtectoR HD	RSUA applied 12-inch o.c.	JM TPO FB	2-Part UIA(S)	-37.5 (Lim. 7)
W-AM-16	19/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	DF, TF or UF secured 1 fastener per 4ft ²	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-37.5 (Lim. 7)
W-AM-17	19/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	DF, TF or UF secured 1 fastener per 4ft ²	JM TPO SA	Self-adhered	-37.5 (Lim. 7)
W-AM-18	T7/16O, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	DensDeck Prime	Trufast VERSA-FAST fastener and UltraFast Metal Plate (Square) secured 12 per 4-ft x 8-ft board Pattern #1	JM TPO or JM TPO FB	JM TPO: ASBA, TPO WBMA, MBA or LVOC MA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-37.5 (Lim. 7)
W-AM-19	T7/16O, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	DensDeck Prime	Trufast VERSA-FAST fastener and UltraFast Metal Plate (Square) secured 12 per 4-ft x 8-ft board Pattern #1	JM TPO SA	Self-adhered	-37.5 (Lim. 7)
W-AM-20	T7/16O, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	DensDeck Prime	Trufast VERSA-FAST fastener and UltraFast Metal Plate (Square) secured 12 per 4-ft x 8-ft board Pattern #1	JM TPO HFB	ASTM D 312 Type IV Asphalt	-37.5 (Lim. 7)
W-AM-21	T7/16O, L24	-	-	ProtectoR HD	RSUA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S), TPO WBMA or ASBA	-45 (Lim. 7)

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

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 (Note 10)	MDP (psf)
W-AM-22	T7/16O, L24	-	-	ProtectoR HD	RSUA applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
W-AM-23	T7/16O, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	JM All Purpose Fasteners and UltraFast Plates (Square) secured at a rate of 15 per 4-ft x 8-ft board	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S), TPO WBMA or ASBA	-45 (Lim. 7)
W-AM-24	T7/16O, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	JM All Purpose Fasteners and UltraFast Plates (Square) secured at a rate of 15 per 4-ft x 8-ft board	JM TPO SA	Self-adhered	-45 (Lim. 7)
W-AM-25	19/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 1.5-inch E3 or E3 C1	DF or TF secured 12 per 4-ft x 8-ft board Pattern #1	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-45 (Lim. 7)
W-AM-26	19/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	DF or TF secured 12 per 4-ft x 8-ft board Pattern #1	JM TPO SA	Self-adhered	-45 (Lim. 7)
W-AM-27	T7/16O, L24	OPTIONAL INSULATION under min. 1.5-inch E3 or E3 C1	JM High Load Fasteners and UltraFast Plates secured at a rate of 16 per 4-ft x 8-ft board	DensDeck Prime, DEXcell FA, or SECUROCK	OSFA, RSUA, or 2-Part UIA applied 12-inch o.c.	JM TPO or JM TPO FB	JM TPO: ASBA, TPO WBMA, MBA or LVOC MA JM TPO FB: TPO WBMA or 2-Part UIA(S)	-45 (Lim. 7)
W-AM-28	T7/16O, L24	OPTIONAL INSULATION under min. 1.5-inch E3 or E3 C1	JM High Load Fasteners and UltraFast Plates secured at a rate of 16 per 4-ft x 8-ft board	DensDeck Prime, DEXcell FA, or SECUROCK	OSFA, RSUA, or 2-Part UIA applied 12-inch o.c.	JM TPO SA	Self-adhered	-45 (Lim. 7)
W-AM-29	T7/16O, L24	OPTIONAL INSULATION under min. 1.5-inch E3 or E3 C1	JM High Load Fasteners and UltraFast Plates secured at a rate of 16 per 4-ft x 8-ft board	DensDeck Prime, DEXcell FA, or SECUROCK	OSFA, RSUA, or 2-Part UIA applied 12-inch o.c.	JM TPO HFB	ASTM D 312 Type IV Asphalt	-45 (Lim. 7)

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

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 (Note 10)	MDP (psf)
W-AM-30	T15/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	Trufast VERSA-FAST fastener or FASTENERS and PLT-R-3 secured at a rate of 18 per 4-ft x 8-ft board Pattern #3	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S), TPO WBMA or ASBA	-45 (Lim. 7)
W-AM-31	T15/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	ProtectoR	Trufast VERSA-FAST fastener or FASTENERS and PLT-R-3 secured at a rate of 18 per 4-ft x 8-ft board Pattern #3	JM TPO SA	Self-adhered	-45 (Lim. 7)
W-AM-32	T19/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	SECUROCK or DensDeck Prime	All Purpose Fasteners and UltraFast Plates (Square) secured 1 fastener per 1.45ft ²	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-45 (Lim. 7)
W-AM-33	T19/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	SECUROCK or DensDeck Prime	All Purpose Fasteners and UltraFast Plates (Square) secured 1 fastener per 1.45ft ²	JM TPO FB	TPO WBMA, ASBA or 2-Part UIA(S)	-45 (Lim. 7)
W-AM-34	T19/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	SECUROCK or DensDeck Prime	All Purpose Fasteners and UltraFast Plates (Square) secured 1 fastener per 1.45ft ²	JM TPO SA	Self-adhered	-45 (Lim. 7)
W-AM-35	T19/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	DensDeck Prime	All Purpose Fasteners and UltraFast Plates (Square) secured 1 fastener per 1.45ft ²	JM TPO FB	ASTM D 312 Type IV Asphalt	-45 (Lim. 7)
W-AM-36	T15/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 2-inch ENRGY 3	Fasteners & Plates secured 16 per 4-ft x 8-ft board	JM TPO or JM TPO FB	JM TPO: LVOC MA or MBA JM TPO FB: 2-Part UIA(S)	-52.5 (Lim. 7)
W-AM-37	T15/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 16 per 4-ft x 8-ft board	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-52.5 (Lim. 7)
W-AM-38	T15/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 2-inch ENRGY 3 CGF or ENRGY 3 FR	Fasteners & Plates secured 16 per 4-ft x 8-ft board	JM TPO SA	Self-adhered	-52.5 (Lim. 7)

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

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 (Note 10)	MDP (psf)
W-AM-39	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 16 per 4-ft x 8-ft board	Min. 1.5-inch ENRGY 3	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO or JM TPO FB	JM TPO: LVOC MA or MBA JM TPO FB: 2-Part UIA(S)	-52.5 (Lim. 7)
W-AM-40	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 16 per 4-ft x 8-ft board	Min. 1.5-inch ENRGY 3 CGF	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-52.5 (Lim. 7)
W-AM-41	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 16 per 4-ft x 8-ft board	Min. 1.5-inch ENRGY 3 CGF	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
W-AM-42	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 16 per 4-ft x 8-ft board	ProtectoR HD	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO	TPO WBMA, MBA, LVOC MA, or ASBA	-52.5 (Lim. 7)
W-AM-43	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 16 per 4-ft x 8-ft board	ProtectoR HD	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
W-AM-44	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 16 per 4-ft x 8-ft board	ProtectoR HD	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO FB	2-Part UIA(S)	-52.5 (Lim. 7)
W-AM-45	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 16 per 4-ft x 8-ft board	Min. 0.5-inch DEXcell FA, SECUROCK, or DensDeck Prime	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-52.5 (Lim. 7)
W-AM-46	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 16 per 4-ft x 8-ft board	Min. 0.5-inch DEXcell FA, SECUROCK, or DensDeck Prime	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-52.5 (Lim. 7)
W-AM-47	T19/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	FASTENERS (no UltraFast Fastener) with UltraFast Plates (Square) secured at a rate of 18 per 4-ft x 8-ft board Pattern #1	JM TPO or JM TPO FB	JM TPO: MBA, TPO WBMA, LVOC MA, or ASBA JM TPO FB: 2-Part UIA(S)	-60 (Lim. 7)

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

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 (Note 10)	MDP (psf)
W-AM-48	T19/32P, L24	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 1.5-inch ENRGY 3 CGF or ENRGY 3 FR	FASTENERS (no UltraFast Fastener) with UltraFast Plates (Square) secured at a rate of 18 per 4-ft x 8-ft board Pattern #1	JM TPO SA	Self-adhered	-60 (Lim. 7)
W-AM-49	T15/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 0.5-inch DEXcell FA	JM UltraFast Plate Metal Flat and All Purpose Fastener secured 24 per 4-ft x 8-ft board Pattern #2	JM TPO or JM TPO FB	JM TPO: ASBA, TPO WBMA, MBA or LVOC MA JM TPO FB: 2-Part UIA(S)	-75 (Lim. 7)
W-AM-50	T15/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 0.5-inch DEXcell FA	JM UltraFast Plate Metal Flat and All Purpose Fastener secured 24 per 4-ft x 8-ft board Pattern #2	JM TPO SA	Self-adhered	-75 (Lim. 7)
W-AM-51	T19/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 0.5-inch DEXcell FA	JM UltraFast Plate Metal Flat and All Purpose Fastener secured 24 per 4-ft x 8-ft board Pattern #2	JM TPO or JM TPO FB	JM TPO: ASBA, TPO WBMA, MBA or LVOC MA JM TPO FB: 2-Part UIA(S)	-82.5 (Lim. 7)
W-AM-52	T19/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 0.5-inch DEXcell FA	JM UltraFast Plate Metal Flat and All Purpose Fastener secured 24 per 4-ft x 8-ft board Pattern #2	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
W-AM-53	T15/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 2-inch E3	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-82.5 (Lim. 7)
W-AM-54	T15/32P, L24	Optional INSULATION and/or Vapor Barrier	Preliminarily Secured or secured with top layer	Min. 2-inch E3	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
W-AM-55	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	Min. 1.5-inch E3 or E3 C1	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-82.5 (Lim. 7)
W-AM-56	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	Min. 1.5-inch E3 or E3 C1	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)

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

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 (Note 10)	MDP (psf)
W-AM-57	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	ProtectoR HD	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO	TPO WBMA, MBA, LVOC MA, or ASBA	-82.5 (Lim. 7)
W-AM-58	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	ProtectoR HD	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)
W-AM-59	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	ProtectoR HD	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO FB	2-Part UIA(S)	-82.5 (Lim. 7)
W-AM-60	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	Min. 0.5-inch DEXcell FA, SECUROCK, or DensDeck Prime	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO	ASBA, TPO WBMA, MBA or LVOC MA	-82.5 (Lim. 7)
W-AM-61	T15/32P, L24	Min. 2-inch E3	Fasteners & Plates secured 24 per 4-ft x 8-ft board Pattern #2	Min. 0.5-inch DEXcell FA, SECUROCK, or DensDeck Prime	2-Part UIA, OSFA, or RSUA applied 6" o.c.	JM TPO SA	Self-adhered	-82.5 (Lim. 7)

Mechanically Fastened Assemblies over Wood Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	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)
W-M-2	T7/16O, L24	As required	Min. 0.5-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with VERSA-FAST at a rate of 4 Fasteners (Wedge)/Plate; Fastener rows max. 138-inch o.c.	-37.5 (Lim. 7)
W-M-3	T19/32P, L24	As required	Min. 0.5-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	Preliminarily Secured	JM TPO	Attached in-lap 6-inch o.c. with VERSA-FAST at a rate of 3 Fasteners/Plate; Fastener rows max. 138-inch o.c.	-52.5 (Lim. 7)

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

Mechanically Fastened Assemblies over Wood Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
W-M-4	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 6-inch o.c. with HL Fasteners & Plates; Fastener rows max. 54-inch o.c.	-60 (Lim. 7)
W-M-5	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 6-inch o.c. with All Purpose Fasteners and High Load Plates; Fastener rows max. 90-inch o.c.	-60 (Lim. 7)
W-M-6	T19/32P, L24	As required	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.25-inch DensDeck, DensDeck Prime, DEXcell FA, or SECUROCK	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)

Induction Welded Assemblies over Wood Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
W-W-1	T7/16O or T15/32P, L24	As required	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	Min. 0.5-inch E3 or Cover Board	JM All Purpose Fasteners (min. 1-inch embedment into wood supports) and JM TPO Rhino Plates, Trufast TPO IW Plates, or isoweld FI-P-6.8-TPO plates secured max. 12-inch o.c. through sheathing into wood structural supports in rows max. 8-ft o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-37.5 (Lim. 7)
W-W-2	T7/16O or T15/32P, L24	As required	OPTIONAL INSULATION	Loose laid	ProtectoR	JM All Purpose Fasteners (min. 1-inch embedment into wood supports) and JM TPO Rhino Plates, Trufast TPO IW Plates, or isoweld FI-P-6.8-TPO plates secured max. 24-inch o.c. through sheathing into wood structural supports in rows max. 48-inch" o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-37.5 (Lim. 7)

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

Induction Welded Assemblies over Wood Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
W-W-3	T15/32P, L24	As required	Min. 0.5-inch INSULATION	Loose laid	OPTIONAL Cover Board	Trufast VERSA-FAST or FASTENERS and JM TPO Rhino Plates secured at a rate of 1 fastener per 4ft ²	JM TPO (Min. 60 mil)	Induction welded to weld plates	-37.5 (Lim. 7)
W-W-4	T19/32P, L24	As required	Min. 0.5-inch INSULATION	Loose laid	OPTIONAL Cover Board	IW secured at a rate of 1 fastener per 4ft ²	JM TPO (Min. 60 mil)	Induction welded to weld plates	-37.5 (Lim. 7)
W-W-5	T15/32P, L24	As required	Min. 0.25-inch INSULATION	Loose laid	OPTIONAL Cover Board	JM All Purpose Fasteners and JM TPO RhinoPlates secured 16-inch o.c. in rows 24-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-37.5 (Lim. 7)
W-W-6	T1/20, L24	As required	Min. 0.5-inch INSULATION	Loose laid	OPTIONAL Cover Board	JM High Load Fasteners and JM TPO Rhino Plates, Trufast TPO IW Plates, or isoweld FI-P-6.8-TPO plates secured at a rate of 1 fastener per 4ft ²	JM TPO	Induction welded to weld plates	-37.5 (Lim. 7)
W-W-7	T15/32, L24	As required	Min. 0.25-inch INSULATION	Loose laid	OPTIONAL Cover Board	JM All Purpose Fasteners and JM TPO RhinoPlates secured at a rate of 1 fastener per 4ft ²	JM TPO (Min. 60 mil)	Induction welded to weld plates	-45 (Lim. 7)
W-W-8	T7/160 or T15/32P, L24	As required	Min. 1-inch E3 or E3 C1	Loose laid	OPTIONAL Cover Board	JM All Purpose Fasteners (min. 1.5-inch embedment into wood supports) and JM TPO Rhino Plates, Trufast TPO IW Plates, or isoweld FI-P-6.8-TPO plates secured max. 24-inch o.c. through sheathing into wood structural supports in rows max. 48-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-45 (Lim. 7)
W-W-9	T7/160 or T15/32P, L24	As required	OPTIONAL INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	JM All Purpose Fasteners (min. 1.75-inch embedment into wood supports) and JM TPO Rhino Plates, Trufast TPO IW Plates, or isoweld FI-P-6.8-TPO plates secured max. 18-inch o.c. through sheathing into wood structural supports in rows max. 4-ft o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-45 (Lim. 7)
W-W-10	T19/32P, L24	As required	Min. 0.5-inch INSULATION	Loose laid	OPTIONAL Cover Board	IW #15 secured at a rate of 1 fastener per 5.33ft ²	JM TPO	Induction welded to weld plates	-45 (Lim. 7)
W-W-11	T7/160, L24 or T15/32P, L24	As required	Min. 0.5-inch INSULATION	Loose laid	OPTIONAL Cover Board	JM High Load Fasteners and JM TPO Rhino Plates, Trufast TPO IW Plates, or isoweld FI-P-6.8-TPO plates secured at a rate of 1 fastener per 2.67ft ²	JM TPO	Induction welded to weld plates	-45 (Lim. 7)

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

Induction Welded Assemblies over Wood Deck (New, Existing, or Recover)									
System No.	Deck Detail	Thermal Barrier	Base Insulation	Base Insulation Attachment	Top Insulation	Top Insulation Attachment	Membrane	Membrane Attachment (Note 12)	MDP (psf)
W-W-12	T15/32P, L24	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	JM All Purpose Fasteners (min. 1.5-inch embedment into wood supports) and JM TPO Rhino Plates, Trufast TPO IW Plates, or <i>isoweld</i> FI-P-6.8-TPO plates secured max. 24-inch o.c. through sheathing into wood structural supports in rows max. 24-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-52.5 (Lim. 7)
W-W-13	T15/32P, L24	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	JM All Purpose Fasteners (min. 1.5-inch embedment into wood supports) and JM TPO Rhino Plates, Trufast TPO IW Plates, or <i>isoweld</i> FI-P-6.8-TPO plates secured max. 9-inch o.c. through sheathing into wood structural supports in rows max. 48-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-60 (Lim. 7)
W-W-14	T15/32P, L24	As required	Min. 0.25-inch INSULATION	Preliminarily Secured or secured with top layer	OPTIONAL Cover Board	JM All Purpose Fasteners (min. 1.5-inch embedment into wood supports) and JM TPO Rhino Plates, Trufast TPO IW Plates, or <i>isoweld</i> FI-P-6.8-TPO plates secured max. 6-inch o.c. through sheathing into wood structural supports in rows max. 48-inch o.c.	JM TPO (Min. 60 mil)	Induction welded to weld plates	-112.5 (Lim. 7)

END OF REPORT