PART 1 – GENERAL INFORMATION & POLICIES

1.0 GENERAL POLICIES

A. This Manual contains the most recent and relevant information we have relating to the application of IB (IBRS) Coating Systems and is based on our years of experience in the roofing industry. They have been prepared and are offered as a general guide to assist architects, consultants, engineers, roofing contractors, and owners in the design and application of roofing systems.

B. IB Roof Systems does not practice engineering, design, or architecture. Neither the issuance of these guidelines, nor the review of any building construction, nor the inspection of roof plans by IBRS representatives shall constitute any warranty by IBRS of such plans, specifications, and construction, nor in any way constitute any acceptance by IBRS of same.

C. The design responsibility remains with the architect, consultant, engineer, roofing contractor or owner. The construction details illustrated and described herein are furnished solely for guidance purposes and are provided for consideration by the designer and/or the roofing contractor. These guidelines should not be construed as being all-inclusive, nor should they be considered as a substitute for good roofing design and application practices.

D. IBRS will, under no circumstances, accept responsibility for the performance of its products when damage results from such things as improper building design, construction faults, or defects in workmanship. IBRS does not manufacture roof decks and is not responsible for their performance.

E. All IBRS products are asbestos free. Under no circumstances shall IBRS have any liability for expenses arising out of or associated with the pre-existing presence of asbestos-containing materials or any other allegedly hazardous substance or material upon the roof to which the new IBRS roofing system is being applied.

F. Under no circumstances shall IBRS have any liability for expenses arising out of or associated with failure or problems related to the existing roof or existing substrate or moisture within the existing roof system, or existing substrate to which the new IBRS coating system is being applied.

G. IBRS coatings are manufactured within customary industry tolerances. The physical properties and material specifications indicated in this Manual for IBRS' coatings are averages in accordance with related standard practice.

H. IBRS reserves the right to change or modify, at its discretion and without prior notice, the physical properties and characteristics of its products and application specifications, warranty terms and/or policies contained herein. Please contact the IB Technical Services department with any specific concerns.

I. The IBRS Coating System as described in IB Coating Limited Material Warranty, IB Coating Warranty Plus, and IB Coating System Warranty, includes the IBRS brand coating, primers, and base coats, and other IBRS branded accessories as referenced within the Coating System Specification.

J. The IBRS Coating System does not include, among other things, roof deck, vapor barrier/retarder, thermal insulation / cover boards, existing roof surfaces, existing coatings, repair materials on the existing roof, fastening components, support blocking, roof curbs or penetrations, roof accessories, metal work or metal terminations and any materials used but not sold by IBRS.

K. Good workmanship is essential in applying any roof system; therefore, qualified supervision of the roof application should be exercised. The coating applicator has the sole responsibility for the quality of the application of the IB Coating System.

L. General Requirements, including Design and Safety Considerations and Warnings, and Installation Requirements are a part of and must be used in conjunction with all IBRS Coating System specifications.

M. IBRS Coating Limited Material Warranties are available only when the IB coating is installed in accordance with the terms and conditions set forth in this Manual, and by an IBRS Authorized Coating Applicator, IB Coating Pro or Master Pro Applicator.

N. IBRS Coating Warranty Plus Limited Material Warranties are available only when the IB coating is installed in accordance with the terms and conditions set forth in this Manual, and by an IBRS Authorized Coating Applicator, IB Coating Pro or Master Pro Applicator.

O. IBRS Coating System Warranties are available only when the IB coating system is installed in accordance with the terms and conditions set forth in this Manual, and by an IBRS Coating Pro or Master Pro Applicator.

P. IBRS reserves the right to refuse to make available our Warranty on projects which are not acceptable to IB Roof Systems, Inc., or where job site conditions or procedures used do not comply with IBRS's published requirements.

Q. Refer to the IB Coating Warranty Program for additional Warranty requirements.

R. IBRS will not write any letters regarding the installation or application of a coating system that is not to be covered by an IB Coating System Warranty, nor will it write a letter regarding information that is not published in this Application and Specification Manual or other IB product literature.

S. Unless otherwise informed in writing by the IBRS Technical Services Manager, only the materials and procedures referenced in this Manual are to be employed in the application of IBRS's roofing systems, including flashing details. The use or misuse of any materials and methods not approved by IB Roof Systems, Inc. is in no way the responsibility of IBRS.

T. No IBRS Warranty will be valid regardless of issuance, when the IBRS membrane has been installed over excluded conditions or exceptions as described in IB Warranty Exceptions within this Manual.

U. IBRS does not use or maintain a building's owner's roof and it is not responsible for its routine maintenance and care. IBRS is not responsible for consequential damages in case of roof / coating system failure.

V. IBRS has no control over or responsibility for a building's contents, type, quantity, positioning, or protection.

W. Information contained in this Manual is presented in good faith and to the best of IB Roof System's knowledge, does not infringe upon any patents, foreign or domestic.

X. IBRS reserves the right to change or modify, at its discretion, and without prior notice, any of the information, requirements, specifications, or policies contained herein. This Manual supersedes all catalogs and previous manuals.

1.1 STATEMENT OF WARRANTY AND LIMITATION OF LIABILITY

LIMITED PRODUCT WARRANTY
THE FOLLOWING PRODUCT WARRANTY IS APPLICABLE FOR THIS PRODUCT UNLESS AN IB LIMITED MATERIAL WARRANTY OR IB TOTAL SYSTEM WARRANTY IS ISSUED IN LIEU OF THIS LIMITED PRODUCT WARRANTY. IB Roof Systems, ("IBRS"), warrants that, subject to the terms, conditions, and limitations below, the IB Coating ("Product") will not leak as the result of a product manufacturing defect for a period of twelve (12) months from the date of purchase if applied by an IBRS authorized applicator in conformance to IBRS specifications. THIS WARRANTY SUPERSEDES AND REPLACES ALL OTHER EXPRESSED (WRITTEN OR ORAL) AND IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED. THIS WARRANTY IS THE OWNER'S SOLE AND EXCLUSIVE REMEDY. IBRS SHALL NOT BE LIABLE UNDER ANY THEORY OF LAW OR EQUITY (INCLUDING BUT NOT LIMITED TO NEGLIGENCE, BREACH OF WARRANTY OR STRICT LIABILITY) FOR ANY GENERAL, SPECIAL CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO LOST PROFITS, INJURY OR DAMAGE TO ANY BUILDING OR STRUCTURE, ITS CONTENTS, OR ANY PERSON DUE TO ANY CAUSE, INCLUDING WITHOUT LIMITATION PRODUCT FAILURE, LEAKS, MOISTURE, CONDENSATION, MOLD, ORGANISMS, CHANGE IN APPEARANCE, LOSS OF REFLECTIVITY, VAPOR OR ODORS. Inspection(s) (if any) of the installation or condition of a roof are solely for IBRS' information and convenience, and any such inspection(s) shall not create any additional duty, liability, or warranty by IBRS, express or implied, nor any additional remedy for the Owner or any other person. The owner is solely responsible for the investigation and remedy of any non-covered leaks or conditions. This Warranty is governed by the laws of the State of Texas. Purchase of the IB Coating constitutes irrevocable consent to the exclusive jurisdiction and venue in state or federal courts in Dallas or Tarrant County, Texas in all disputes against IBRS arising out of or relating to the purchase, use or warranty of this product. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR LIMITATION OR EXCLUSION OF IMPLIED WARRANTIES, SO THESE EXCLUSIONS AND LIMITATIONS MAY NOT APPLY TO YOU. NO REPRESENTATIVE, EMPLOYEE, OR AGENT OF IBRS IS AUTHORIZED TO MODIFY THIS WARRANTY except in writing as authorized by IBRS' Technical Services Director.

1.2 PROJECT SCOPE

A. Applicator will provide all labor, equipment, and materials necessary to install the IB Coating system. Work includes surface preparation, sealing of joints, flashings, transitions, valleys, and roof accessories as well as the installation of the IB Base Coat and IB Finish Coat. All workmanship shall conform to IB Coatings' most current Product Data Sheets, installation instructions and accepted industry standards in conjunction with this specification.

B. Excluded work under this scope is structural roof repair, the replacement of roof accessories such as gutters, drains, vents and other penetrations.

1.3 APPLICATORS

A. Applicator must be an Authorized Applicator for IB Coatings to be eligible to receive an IB Coating Warranty.

B. IBRS recommends that a pre-bid meeting be held to review the project requirements for installing IB Coating system. An IBRS representative should be part of the project meeting, when possible, to provide technical assistance/support.

C. Immediately after contract award, Applicator Firm shall submit the appropriate section of the IB Coating Warranty Registration to the IBRS Technical Services Department. The applicator shall provide a copy of the roof drawing, plus a minimum of 5 photographs which include descriptions of the roof and all unusual flashing details with the form.

D. The applicator shall provide the IBRS Technical Services Department at least two (2) weeks' notice for scheduling of onsite technical support / inspections.

1.4 SUBMITTALS

A. Submit Product Data Sheets confirming physical and performance properties of the products.

B. Submit Material Safety Data Sheets for all products to be used in the assembly.

C. For alternates, submit third party test reports listings and approvals as required by section 1.04.

D. Submit a roof survey including measurements and descriptions of the condition of seams, penetrations, drains, gutters, known leaks and a moisture scan or test cuts with an indication of moisture content. Photographs of all shall be included in the submission.

E. Contractor shall furnish all insurance, licenses, permits and certifications as required by local authorities and/or the property owner.

F. A Coating Notice of Award form is required prior to the installation of the Labor & Material warranted systems.

G. Submit approved warranty terms and conditions.

1.5 QUALITY ASSURANCE

A. Supplier shall be IB Roof Systems – 506 E. Dallas Rd #300 Grapevine, TX 76051. No substitute products from other manufacturers shall be accepted.

Exceptions – where ancillary products are proposed, must be approved by the manufacturer prior to use. Products not supplied by IBRS which are not approved prior to use will be rejected.

B. Contractor shall ensure that all work performed at the site shall be in accordance with National Roofing Contractors Association (NRCA) Low Slope Roofing Manual's recommendations and all other pertinent guidelines issued.

1.6 DELIVERY AND STORAGE

A. Deliver materials in manufacturer's original unopened packaging with all tags and labels intact and legible.

B. Stored materials shall be protected from weather and abuse to ensure that there is no possibility of contamination.

C. Store in a cool, weathertight place at temperatures between 65°F and 85°F until product is ready to be applied. Keep from freezing.

D. Moisture sensitive products shall be maintained in a dry storage area or properly covered.

E. Pallets of plastic buckets, and/or totes cannot be double stacked, as weight will crack bottom buckets. Do not stack material pallets of metal containers more than two (2) high.

F. No storage of materials shall be permitted on roof areas other than those materials that are to be installed the same day.

G. Materials should be maintained at a minimum temperature of 50°F (10°C) for 24 hours prior to application to ensure the optimal application qualities.

H. Coatings may require mixing immediately prior to application. All containers shall be thoroughly mixed with a mechanical mixing device for a minimum of five minutes each. Coatings shall be mixed no more than four hours prior to use. Remixing is permitted as is necessary.

1.7 JOB CONDITIONS

A. The IB Coating Systems are intended to be applied over sound, dry, existing properly prepared roof systems. Do not apply it over brittle or heavily rusted roof surfaces, or over roofs which have reached its useful life. The roof must be free of areas of ponding water, ice, snow, rain or dew, dirt, dust, grease, oil, foreign contaminants, or other debris. If such conditions exist, the roof surfaces should be thoroughly cleaned using the specified cleaning solution (diluted with water) to receive the new coating system.

B. It is highly recommended that a moisture scan be conducted. If 20% or more of the roof is considered wet this coating system should not be installed. Other reroofing options should be considered. If wet areas encompass less than 20%, all wet insulation and roofing materials should be removed and replaced with like materials prior to installation.

C. Note: New asphaltic, concrete, and single ply membranes are not candidates for a coating system.

D. Roof must have positive drainage. Coatings should only be installed on substrates with positive drainage. Per NRCA (National Roofing Contractors Association) “The criteria for judging proper slope for drainage is that there be no evidence of standing water on the roof deck 48 hours after it stops raining.”

E. Adhesion of the coatings should be tested over all applicable roof surfaces prior to the system application. Always contact the IBRS Technical Services Department concerning questionable substrates, required additional information and recommended test patch materials.

F. Surfaces with existing coatings should be tested prior to the system application. IB Roof Cleaner is required as a primer coat over existing coated surfaces. Always contact the IBRS Technical Services Department concerning questionable substrates, required additional information and recommended test patch materials.

G. Application of materials with power spray equipment will require some masking and erection of wind screens to prevent overspray occurrences and damage to surrounding structures, surfaces, vehicles, property, or persons.

H. All work environments should comply with current OSHA regulations. Applicable full protection, safety harness, and lines should be provided. A wet surface or a surface that is not thoroughly cured can be very slippery.

1.8 ENIVIRONMENTAL CONDITIONS

Proceed with roofing work only when existing and forecasted weather conditions will permit work to be performed in accordance with IB Coating specifications, recommendations and warranty requirements as follows:

A. Rain is not expected within twenty-four (24) hours of application, or if temperatures are expected to fall below 45°F (7.2°C) during the duration of the job.

B. The roof surface is at least 10°F (6°C) above the dew point. (Dew point is the temperature at which moisture will condense on surface.) No coatings should be applied unless the ambient and surface temperature is a minimum of 5° above this point. Temperature must be maintained during dry through.

C. Upper temperature restriction (both air and substrate) for application of IB Coating products is 120°F (49°C). If the substrate temperature exceeds 120°F (49°C), IB Coating products should be applied during cooler periods of the day. No coating should be applied unless the surface temperature is 40°F minimum and 120°F (49°C) maximum. Certain IB Coatings may have different requirements for high and low temperature application – consult IBRS Technical Services Department. If using a custom color, read the IB Coatings Custom Color Application Guide.

D. IB Acrylic Coatings and flashing materials require complete evaporation of carrier to cure. Lower temperatures and higher humidity prolong drying time. Allow for sufficient daylight hours necessary for curing of materials. **CAUTION**: Other weather and environmental conditions to consider are mist, dew, condensation, and relative humidity. These factors can lengthen IB Acrylic Coating System drying times. If various IB Acrylic Coating products are exposed to rain or moisture before they are completely dry, the product may “wash-off” the roof or release from the substrate. Extreme caution should be used especially during the months of October – February as the temperatures can fall to within 5°F of the dew point within 6 hours of application which can cause the product to release from the substrate.

E. IB Silicone and Urethane Coatings and flashing materials cure by reacting with air moisture. Lower temperatures will prolong drying time, while higher humidity conditions will accelerate curing. Allow for sufficient daylight hours necessary for curing of materials. **CAUTION**: Other weather and environmental conditions to consider are mist, dew, condensation, and relative humidity. These factors can lengthen IB Urethane Coating System drying times. If various IB Urethane Coating products are exposed to rain or moisture before they are completely dry, the product may “wash-off” the roof or release from the substrate. Extreme caution should be used especially during the months of October – February as the temperatures can fall to within 5°F of the dew point within 6 hours of application which can cause the product to release from the substrate.

PART 2 – GENERAL BUILDING DESIGN

2.0 INSPECTION

A. Prior to commencing work, the roof shall be re-inspected, and any conditions not included in the original roof survey shall be added and noted. All new information must be communicated to the manufacturer prior to starting work.

2.1 CONDITIONS & REMEDIES

A. The substrate should be in sound condition, dry, and free of untreated rust, loose/peeling paint, dirt, debris, greases, oils, asphalts, mastics, mildew, and other foreign materials that may affect coating adhesion.

Any serious defects must be remedied prior to installation of the coating system. All wet insulation should be removed and replaced with like materials. New repair materials of like kind of roof system must age a minimum of 30-90 days before coating.

B. Positive drainage must be established so that no areas shall retain water for more than 48 hours or at depths exceeding ¼ inch at any time. Areas that exhibit a lack of positive drainage or pond water, exceed ¼" depth, or have constant water drainage cannot be included in the IB Coating Warranty.

C. Fasteners shall be inspected and tightened where loose. Replace as necessary using an oversize fastener according to original manufacturer or NRCA guidelines. Add an additional fastener next to stripped fastener locations.

D. Curbs and penetrations must not impede the flow of water from the roof. If defects are present, install crickets to divert water around the high side of all curb units and large penetrations.

E. Flashings shall be properly terminated according to NRCA guidelines. Improper terminations shall be remedied prior to the installation of the coating system.

2.2 DRAINAGE

A. Areas exhibiting a lack of positive drainage or ponding water will adversely affect performance of any roofing system and will be excluded from warranty. Where positive drainage does not exist, water removal from the roof surface must be facilitated by lowering drains and/or taking other corrective action. Additional maintenance inspections, repair work, the addition or use of primers and/or higher system mil-build may be required in these areas to extend coating life.

2.3 SURFACE PREPARATION

A. Defects such as blisters, cracks, buckles, split or wrinkles must be repaired using materials compatible with the existing roof system.

B. On metal panels, defects such as buckles, dents, open or loose seams, missing or stripped fasteners, and damaged panels must be repaired using materials compatible with the existing roof system.

C. Once repairs have been made, the roof should now be able to receive thorough pressure cleaning. The roof surface must be thoroughly cleaned, dry, smooth, and free of sharp objects, foreign materials, oils, grease, debris, loose coating, or any other contaminants that may affect the bonding of the coating.

D. Mechanically remove all loose coatings and/or patching materials as is possible. Wire brush to remove any areas of scaly rust.

E. For heavily soiled areas, the roof surface should be cleaned with IB Roof Cleaner Wash Concentrate. Dilute the material with water at the rate of nine (9) parts water to one (1) part concentrate. Apply to the roof with a mop, pump sprayer or other suitable low-pressure sprayer in sufficient quantity to wet out the surface for a minimum of 15 minutes without drying. The solution should then be thoroughly power washed from the roof. Power wash and clean with a minimum 2000 psi water rinse or orbital scrubber for metal panels.

1. On metal panels, a roto-spray tip is necessary when pressure washing to proper metal panel cleaning. All existing asphaltic and silicone-based sealants must be completely removed from roof substrate prior to installation of the coating system.

2. It may be necessary to use a sand injection system to remove bond inhibiting or incompatible materials.

Note: Take all necessary precautions to avoid damage to the roof system. Although all efforts have been made to reduce the effect, this product will cause the roof surface to become more slippery. All necessary precautions should be taken by the applicator to avoid injury. Take all necessary precautions to avoid damage to the roof system.

F. Mildew must be removed by power washing and scrubbing with a bleach solution of 1 part bleach and 2 parts water. Repeat if necessary. Rinse thoroughly and allow it to dry.

G. Rinse the roof surface with clean water until no residue remains. Rinse completely. Water should be clear with no soapy bubbles.

H. New single-ply repairs should be primed with IB Uni-Prime at the rate of 0.4 to 0.5 gallons (1.51 – 1.89 L) per 100 square feet area to achieve a total dry film thickness of 4 mils, (minimum 3). Under normal drying conditions, IB Uni-Prime may be re-coated within 2-3 hours. Once completely dry, the substrate may be coated with the appropriate IB base coat at the specified rates.

I. Adhesion Test: Adhesion of the IB Coating should always be checked. Apply 12" x 6" area of the coating and embed a 12" x 1" strip of IB Fabric into the coating, leaving a minimum 2" tail of the fabric exposed. Allow 3-5 days for the coating to cure and perform a 90° pull test of the fabric tail to test adhesion of the coating to the substrate.

J. Do not proceed with installation of the IB Coating until all unsatisfactory conditions have been corrected in a manner acceptable to the manufacturer.

K. The roof must be completely dry before application of the IB Coating.

2.4 SEAM AND FLASHING TREATMENT

A. All flashing details, field and vertical seams, penetrations, and curb flanges must be treated.

B. Fasteners in Metal Panels: Tighten or replace all fasteners, as necessary. In no case shall metal seam joints be allowed to separate greater than 1/16 inch. Secure with oversize fasteners or stitch screw any large gaps over overlaps that cause greater than 1/16-inch opening. Apply appropriate system compatible sealer or flashing grade at the rate of 48-64 wet mils (system varies) over the fastener extending 1.5" in all directions around the fastener head to completely encapsulate the screw. Allow to dry for least 24 hours before proceeding with coating application. Achieve system specified minimum dry mil thickness.

C. Seam Treatment: Seal all field seams, etc. by applying appropriate system compatible sealer or flashing grade over the seam and feather in with a stiff chip brush or notched spatula to an approximate width of 3” wide. Vertical seams are sealed in the same manner as field seams (3” wide). Achieve a smooth 48-64 wet mil application (1/16") thick directly over the seam area. Two coats may be required in some areas to achieve the specified dry film thickness. The coating must be feathered at least 1” beyond each side of the fabric to allow water to flow over the seam. Allow to dry for least 24 hours before proceeding with coating application. Achieve system specified minimum dry mil thickness.

D. Flashings & Penetrations: Seal all flashings, penetrations, ridge caps, etc. by applying appropriate system compatible sealer or flashing grade in a 60-65 wet mils thickness for 3" to 4" around the base of the penetration and feather in with a stiff chip brush or notched spatula. IB Fabric may be embedded in the sealant or flashing grade to bridge gaps and reinforce the membrane. Embed IB Fabric of the appropriate width, brush or roll and apply an additional 48-64 wet mil thickness of sealant or flashing grade over the fabric, making certain all wrinkles are rolled out of the fabric. Allow to dry for least 24 hours before proceeding with coating application. Achieve system specified minimum dry mil thickness.

E. Gutters & Valleys: Seal by applying system compatible sealer or flashing grade in a 48-64 wet mils application (1/16") thick directly over the area to be sealed and for 3" to 4" up and beyond the area to be sealed. IB Fabric may be embedded in the sealant or flashing grade to bridge gaps and reinforce the membrane. Embed IB Fabric of the appropriate width, brush or roll and apply an additional 48-64 wet mil thickness of sealant or flashing grade over the fabric, making certain all wrinkles are rolled out of the fabric. Allow to dry for least 24 hours before proceeding with coating application. Achieve system specified minimum dry mil thickness.

F. Alternative Seam Treatment or any condition that is not secure or watertight: Requires a 3-course application of 32-64 wet mils of system compatible coating or flashing grade (in two coats) and IB Fabric of the appropriate width, and embed fabric of the appropriate width, brush or roll and apply an additional 32-64 wet mil thickness of coating or flashing grade over the fabric, making certain all wrinkles are rolled out of the fabric. Allow to dry for least 24 hours before proceeding with coating application. Achieve system specified minimum dry mil thickness.