



B.U.R., Modified, & Steep Slope Roofing Systems

1. Table of Contents

SECTION 1. TABLE OF CONTENTS

SECTION 2. GENERAL REQUIREMENTS

PART 1. RESPONSIBILITIES..... 2-1

 2.1.1 Manufacturer 2-1

 2.1.2 Roofer..... 2-1

 2.1.3 Architects, Specifiers, Consultants,
 & Design Professionals 2-1

 2.1.4 General Contractor..... 2-1

PART 2. GENERAL SPECIFICATION
REQUIREMENTS..... 2-1

PART 3. GENERAL DESIGN CONSIDERATIONS..... 2-1

 2.3.1 Intended Uses and Occupancy
 of the Building..... 2-1

PART 4. ROOF DECK REQUIREMENTS 2-1

 2.4.1 Slope & Drainage: New Construction 2-1

 2.4.2 Low Slope Membrane Installations with slope of
 1" or greater..... 2-2

 2.4.3 All Other Buildings 2-2

PART 5. ROOF DECKS..... 2-2

 2.5.1 Plywood/OSB (Oriented Strand Board)..... 2-2

 2.5.2 Wood Board Decks..... 2-3

 2.5.3 Concrete/Pre-cast Concrete Decks 2-3

 2.5.4 Poured Gypsum Decks..... 2-4

 2.5.5 Insulating Lightweight Concrete Decks 2-4

 2.5.6 Steel Decks 2-4

 2.5.7 Structural Wood Fiber Decks..... 2-5

PART 6. RECOVER ROOF SYSTEMS 2-5

PART 7. EXPANSION JOINTS..... 2-5

PART 8. AREA DIVIDERS 2-5

PART 9. METAL FLASHINGS..... 2-6

PART 10. GRAVEL AND AGGREGATE SURFACING.... 2-6

PART 11. REFLECTIVE ROOF COATINGS 2-6

 2.11.1 Acrylic Coatings..... 2-6

 2.11.2 Aluminum Coatings 2-6

PART 12. FLASHING ASSEMBLIES/
BASE FLASHING 2-6

PART 13. ADHESIVES..... 2-7

 2.13.1 Asphalt (Type III & IV)..... 2-7

 2.13.2 SEBS Asphalt..... 2-7

PART 14. COLD ADHESIVE

(MODIFIED AND STANDARD)..... 2-7

 2.14.1 Modified Flashing Grade Adhesive 709..... 2-7

 2.14.2 Plastic Roof Cement 703..... 2-7

 2.14.3 Field Grade Standard Cold Adhesive 705 2-7

 2.14.4 Modified Bitumen Cold Adhesive 727 2-7

PART 15. PARAPET AND WALL COVERINGS..... 2-8

PART 16. CRICKETS AND SADDLES 2-8

PART 17. ROOF INSULATION TAPE..... 2-8

PART 18. SHEET METAL FLANGES 2-8

PART 19. PITCH PANS 2-8

PART 20. VAPOR RETARDER/BARRIER..... 2-8

 2.20.1 Nailable Decks..... 2-8

 2.20.2 Non-nailable Decks 2-8

PART 21. COLD WEATHER PRECAUTIONS 2-9

**SECTION 3. LOW SLOPE ROOFING
INSTALLATION INSTRUCTIONS**

PART 1. STORAGE & HANDLING 3-1

PART 2. SAFETY..... 3-1

PART 3. INSULATION 3-1

 3.3.1 Polyisocyanurate 3-1

 3.3.2 Expanded Polystyrene (EPS)..... 3-2

 3.3.3 Perlite 3-2

 3.3.4 Wood Fiber 3-2

 3.3.5 Gypsum Roof Boards 3-2

 3.3.6 Rigid Insulation with Factory Laminated
 Nailable Substrate 3-2

PART 4. INSULATION ATTACHMENT REQUIREMENTS
FOR SPECIFIC DECK TYPES..... 3-2

 3.4.1 Structural Concrete Decks..... 3-2

 3.4.2 Pre-Cast Concrete Decks..... 3-2

 3.4.3 Wood Decks 3-2

 3.4.4 Poured Gypsum Decks..... 3-3

 3.4.5 Lightweight Concrete Decks..... 3-3

 3.4.6 Steel Decks 3-3

 3.4.7 Structural Wood Fiber Decks..... 3-3

PART 5. INSULATION FASTENING PATTERNS 3-3

 3.5.1 Mechanical Attachment 3-3

 3.5.2 Asphalt Attachment of a Single Layer
 Roof Insulation..... 3-3

 3.5.3 Adhesive Attachment..... 3-4

 3.5.4 Additional Insulation Requirements 3-4

PART 6. MEMBRANE INSTALLATION..... 3-4

 3.6.1 General Rules..... 3-4

PART 7. BASE SHEET FASTENING PATTERNS 3-5

 3.7.1 Base Sheet Fastening with 1" Cap Nails 3-5

 3.7.2 Base Sheet Fastening Pattern Using Plates & Screws 3-5

 3.7.3 Base Sheet Attachment Using Tape & Staples 3-5

 3.7.4 Base Sheet Attachment Using Hot Asphalt & Cold Adhesive 3-5

 3.7.5 Thermally Adhered Base Sheets 3-6

 3.7.6 Inter-ply Hot & Cold Adhesive Attachment..... 3-6

 3.7.7 Inter-ply Torch Installation..... 3-6

 3.7.8 Cap Sheet Torch Installation..... 3-7

 3.7.9 Cap Sheet Hot/Cold Adhesive Attachment 3-7

PART 8. LOW SLOPE MEMBRANE INSTALLATION WITH SLOPES 1" OR GREATER 3-7

PART 9. PHASING 3-8

PART 10. COLD WEATHER INSTALLATIONS 3-8

SECTION 4. LOW SLOPE ROOFING SYSTEM SPECIFICATIONS

Understanding Malarkey Roofing System Specifications .. 4-1

System Specifications Table of Contents4-2

System Specification Plates..... 4-4

SECTION 5. LOW SLOPE ROOFING DETAILS

6.A Low Wood Wall Base Flashing 5-1

6.B Low Concrete/CMU Wall Base Flashing 5-1

6.C High Wood Wall Base Flashing 5-2

6.D High Concrete/CMU Wall Base Flashing..... 5-3

6.E Base Flashing with Surface Mount Counter-Flashing 5-4

6.F Curb Mounted Area Divider/Expansion Joint .. 5-4

6.G Pyramid Base Flashing..... 5-5

6.H Roof Hatch..... 5-6

6.I Skylight..... 5-6

6.J Membrane Wall Coverings 5-7

6.K Shingled Wall Coverings 5-7

6.L Sheet Metal Hood Flashings 5-8

6.M Inside Corners 5-8

6.N Roofed in Sleepers 5-9

6.O Uni-Strut Support..... 5-9

6.P Lead Pipe Flashing..... 5-10

6.Q Pitch-Pan Flashing 5-10

6.R Scupper 5-11

6.S Scupper With Crickets 5-12

6.T Clamping Drain & Overflow 5-12

6.U Edge Metal 5-13

6.V End Cap..... 5-13

6.W Edge Metal (strapped)..... 5-14

6.X Header Termination (Strapped) 5-14

6.Y Head-Lap Termination (Strapped) 5-14

6.Z Panel Joint Detail..... 5-15

SECTION 6. STEEP SLOPE SYSTEMS

PART 1. HANDLING & STORAGE REQUIREMENTS .. 6-1

PART 2. SAFETY..... 6-1

PART 3. GENERAL REQUIREMENTS 6-1

PART 4. WARRANTY 6-2

PART 5. DECK REQUIREMENTS..... 6-2

 6.5.1 Plywood/Oriented Strand Board (OSB)..... 6-2

 6.5.2 Wood Board Decks..... 6-3

PART 6. SLOPE REQUIREMENTS..... 6-3

PART 7. VENTILATION 6-3

PART 8. RIGID INSULATION & VENTING 6-4

PART 9. UNDERLAYMENTS..... 6-4

PART 10. ICE-DAMMING MEMBRANES..... 6-5

PART 11. EAVE & RAKE METAL 6-5

PART 12. FASTENING SHINGLES 6-5

 6.12.1 Hand Sealing..... 6-6

 6.12.2 Standard Attachment of 3-Tab Shingles 6-6

 6.12.3 Steep Slope Nailing 6-6

 6.12.4 Standard Attachment of Laminated Shingles 6-6

 6.12.5 Steep Slope Nailing of Laminated Shingles 6-6

PART 13. SHINGLE PATTERN LAYOUT 6-6

 6.13.1 3-Tab Shingles..... 6-6

 6.13.2 Laminate Shingles 6-7

PART 14. STEP FLASHING 6-7

PART 15. ROOF JACKS..... 6-8

PART 16. APRONS, CHIMNEY SADDLES, ROOF TO WALL METAL 6-8

PART 17. VALLEY MATERIALS 6-8

PART 18. HIGH PROFILE RIDGE SHINGLES..... 6-8

PART 19. STANDARD RIDGE..... 6-8

PART 20. 3-TAB SHINGLE USED FOR RIDGE..... 6-8

PART 21. VALLEYS..... 6-9

6.21.1	Woven	6-8	7.7.1	Sample Your Choice Warranty Program™	7-3
6.21.2	Closed Cut.....	6-9	7.7.2	Sample 10-year Material Warranty	7-9
6.21.3	Metal.....	6-9	7.7.3	Sample 12-year Material Warranty	7-10
6.21.4	Membrane	6-9	7.7.4	Sample 3-Tab Shingle Warranty	7-11
PART 22. MANSARD OR STEEP SLOPE		6-10	7.7.5	Sample Hip & Ridge Shingle Warranty.....	7-12
PART 23. RESIDENTIAL ROOFING DETAILS			7.7.6	Sample Low Slope System Warranty	7-13
7.A	Low Slope (2"- 4") Underlayment Layout.....	6-11	7.7.7	Sample Steep Slope System Warranty	7-14
7.B	Steep Slope (4" +) Underlayment Layout.....	6-11	7.7.8	Sample Rooftop Drawing Form	7-15
7.C	Standard Venting	6-12	7.7.9	Sample Technical Variance Detail Form.....	7-16
7.D	Ridge Venting Airflow.....	6-12	7.7.10	Sample Low Slope Warranty Application.....	7-17
7.E	Ice Dams	6-13	7.7.11	Sample Steep Slope Warranty Application..	7-18
7.F	Roof Edge & Rake Metal	6-13	7.7.12	Maintenance and Repair Guidelines	7-19
7.G	3-Tab Standard Nailing	6-14	SECTION 9. ADDITIONAL DOCUMENTS		
7.H	3-Tab Steep Slope Nailing	6-14			
7.I	3-Tab Hand Sealing	6-14			
7.J	3-Tab Layout Pattern	6-15			
7.K	Laminate Standard Nailing	6-16			
7.L	Laminate Steep Slope Nailing	6-16			
7.M	Laminate Hand Sealing	6-16			
7.N	Laminate Layout Patterns.....	6-17			
7.O	3-Tab Woven Valley	6-18			
7.P	Closed Cut Valley	6-18			
7.Q	'W' Metal Valley	6-19			
7.R	Membrane Valley.....	6-19			
7.S	Step Flashing for Chimney or Roof to Wall Transitions	6-20			
7.T	Pipe Flashings	6-21			
7.U	Other Flanged Flashings	6-21			
7.V	Ridge Shingles	6-22			
SECTION 7. WARRANTIES AND APPLICATIONS					
PART 1. WARRANTY INFORMATION		7-1			
7.1.1	Limited Material Only Warranty	7-1			
7.1.2	Limited Sum Warranty	7-1			
7.1.3	No Dollar Limit Roof System Warranty	7-1			
PART 2. MALARKEY STEEP & LOW SLOPE WARRANTY PROGRAM.....		7-1			
PART 3. MALARKEY APPROVED ROOFING CONTRACTORS		7-1			
PART 4. WARRANTY CHARGES		7-1			
PART 5. THE WARRANTY PROCESS		7-1			
PART 6. INSPECTIONS		7-1			
PART 7. SAMPLE WARRANTIES					

THIS PAGE INTENTIONALLY LEFT BLANK