SECTION 07 28 00
WEATHER-RESISTANT BARRIERS

PART 1 - GENERAL

1.01 SUMMARY

A. This Section includes the following:
   1. Building wrap.
   2. Weather-resistant barriers.
   3. Flexible flashing at openings in sheathing.

1.02 COORDINATION

A. Coordinate sequence of installation of sheathing, windows, doors, EIFS, masonry, trim and other materials to allow proper installation of weather-resistant barriers as recommended by the weather-resistant barrier manufacturer.

1.03 SUBMITTALS

A. Product Data: For each type product.
   1. For building wrap, include data on air-/moisture-infiltration protection based on testing according to referenced standards.

B. Research/Evaluation Reports: For building wrap showing compliance with building code in effect for Project:

C. Quality Assurance Submittals
   1. Test Reports: Manufacturer test reports indicating compliance with indicated requirements.
   2. Manufacturer’s Field Service Reports: Site reports from authorized field service representative, indicating observation of weather barrier assembly installation.

1.04 QUALITY ASSURANCE

A. Installer Qualifications: A qualified firm that is approved by weather-resistant barrier manufacturer to install manufacturer's product.

B. Source Limitations: Provide weather-resistant barrier components and accessories manufactured or approved by weather-resistant barrier manufacturer comprising a complete weather-resistant barrier system.

C. Mock-up
   1. Install mock-up using approved weather barrier assembly including fasteners, flashing, tape and related accessories per manufacturer’s current printed instructions and recommendations.
      a. Mock-up size: 10 feet by 10 feet.
      b. Mock-up may remain as part of the completed Work.

2. Contact manufacturer's authorized field service representative prior to weather barrier assembly installation, to perform required mock-up visual inspection and analysis as required for warranty.

D. Pre-installation Conference: Conduct conference at Project Site minimum of two weeks prior to start of installation of weather-resistant barriers. Required attendees include Contractor, installer, and building wrap manufacturer's technical representative.
1. Notify the Architect a minimum of 72 hours in advance of conference time to permit the Architect to attend if desired.
2. Comply with manufacturer's requirements for notification and conduct of conference.

E. Manufacturer's Field Visits: Provide minimum of one site visit during installation by building wrap manufacturer's authorized field service representative.

1.05 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of weather-resistant barrier that fail in materials or workmanship within specified warranty period.
1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 WEATHER-RESISTANT BARRIER MATERIALS

A. Building Wrap: ASTM E 1677, Type I air retarder; with flame-spread and smoke-developed indexes of less than 25 and 450, respectively, when tested according to ASTM E 84; UV stabilized; and acceptable to authorities having jurisdiction.
1. Product: DuPont (E. I. du Pont de Nemours and Company); Tyvek CommercialWrap.

B. Drainage Building Wrap: ASTM E 1677, Type I air retarder; with flame-spread and smoke-developed indexes of less than 25 and 450, respectively, when tested according to ASTM E 84; UV stabilized; and acceptable to authorities having jurisdiction.
1. Product: DuPont (E. I. du Pont de Nemours and Company); Tyvek CommercialWrap D.

2.02 ACCESSORY MATERIALS

A. Self-Adhering Flashing and Sheet Membrane: Self-adhesive butyl membrane with compatible backer sheet; nominal 0.040 inch thick.
1. Flexible Flashing: Stretchable material suitable for detailing around openings and penetrations.
   a. Product: Dupont; FlexWrap.
2. Flashing and Sheet Membrane: Suitable for flashing openings and penetrations, in width appropriate to application condition.
   a. Product: Dupont; StraightFlash.
3. Double-Faced Flashing: Flashing with adhesive on both sides for flashing to non-flanged windows and doors.
   a. Product: Dupont; StraightFlash VF.

B. Building-Wrap Tape: Pressure-sensitive plastic tape recommended by building-wrap manufacturer for sealing joints and penetrations in building wrap.

C. Fasteners: Nail, staple or screw with cap, suitable for substrate, and as approved by building wrap manufacturer.

D. Sealant: Non-skinning butyl sealant approved by building wrap manufacturer.

E. Primer: Building wrap manufacturer's standard primer for substrate indicated.

PART 3 - EXECUTION

3.01 INSTALLATION, GENERAL

A. Coordinate wall sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.

3.02 WEATHER-RESISTANT SHEATHING-PAPER INSTALLATION

A. Comply with the recommendations of the manufacturer, including the publication "Dupont Flashing Systems Commercial Installation Guidelines."

B. Building Wrap: Comply with manufacturer's written instructions.
1. Install horizontally starting at lower wall surface, with subsequent layers installed in shingled manner, overlapping lower layers by 4 inches minimum.
2. Maintain weather barrier plumb and level.
3. Seal seams, edges, fasteners, and penetrations with tape.
4. Extend into jambs of openings and seal corners with tape.

C. Drainage Building Wrap: Install drainage building wrap in locations to receive EIFS, and where indicated. At Contractor's option, drainage building wrap may be used in locations where standard building wrap is required.

D. Attachment: Attach weather barrier to studs through exterior sheathing with fasteners recommended by building wrap manufacturer. Space fasteners 12 to 18 inches vertically on center along stud line, and 24 inch on center, maximum horizontally.

E. Seaming: Apply building wrap tape to seams.

F. Openings: Comply with ASTM E2112 and building wrap manufacturer's recommendations.

G. Penetrations: Detail according to manufacturer's recommendations. Shingle building wrap and seal with flexible flashing or butyl sealant.

3.03 FLEXIBLE FLASHING INSTALLATION

A. Flash window and door openings and other penetrations to exclude water.

B. Apply flexible flashing where indicated to comply with manufacturers written instructions.
   1. Prime substrates as recommended by flashing manufacturer.
   2. Lap seams and junctures with other materials at least 4 inches, except that at flashing flanges of other construction, laps need not exceed flange width.
   3. Lap flashing over weather-resistant building paper at bottom and sides of openings.
   4. Lap weather-resistant building paper over flashing at heads of openings.
   5. After flashing has been applied, roll surfaces with a hard rubber or metal roller to ensure that flashing is completely adhered to substrates.

3.04 FIELD QUALITY CONTROL

A. Notify manufacturer's authorized field service representative to obtain periodic observations of weather barrier assembly installation.

END OF SECTION 06 16 00