Green Roof Design Review Checklist

Applicant: ________________________________ Date: ________________________________

Submitted By: ________________________________ Project Location: ___________________

1) Applicable codes
______________________________________________________________________________
______________________________________________________________________________

2) Plans prepared by licensed professional
Landscape Architect [   ] Botanist [   ] Structural Engineer [   ] Civil Engineer [   ]
Architect [   ] Other ________________________
   a. Is the professional a certified Green Roof Professional (GRP)?
      Yes [   ] No [   ]
   b. List any other applicable green roof professional accreditations held by the designers

3) Submit copy of plans, specifications, and design calculations.

4) Priorities for green roof design (e.g. stormwater management, water quality, recreation, energy conservation, roof longevity, habitat, etc)
______________________________________________________________________________
______________________________________________________________________________

5) Total roof area ________________________________ SF

6) Green roof area ________________________________ SF

7) Growth media depth ________________________________ inches

8) Growing media composition

9) Storage volume based on media depth ________________________________ inches

10) Total storage volume of green roof area ________________________________ CF

11) Water Quality Volume Summary
   a. WQv required for project site ________________________________ CF (attach a copy of calculations – see the Uniform Sizing Criteria from part 2b – Uniform Sizing Criteria – in the Iowa Stormwater Management Manual)
   b. Anticipated amount of WQv managed by green roof
      ________________________________ CF ________________________________% of Total Required WQv
   c. Discuss additional BMP’s used to manage remaining balance of WQv.
      ___________________________________________________________________________________

12) Discuss water quantity control facilities (stormwater detention) provided on site
______________________________________________________________________________

Revised 07/2015
13) Building Details
   a. Type of Building: Industrial [ ]  Commercial [ ]  Residential [ ]
   b. New construction [ ]  Retrofit [ ]
   c. Height of building ________________feet  _________________stories
   d. Roof substructure
      Wood [ ]  Metal Sheeting [ ]  Reinforced Concrete[ ]
      Other _____________________________________________________________
   e. Slope of roof ________________________________ %
   f. Describe roof access ________________________________________________
   g. Secondary emergency overflow drains or roof scuppers ____________________
   h. Height of parapet ________________________________feet
   i. Wind control measures ______________________________________________

   j. Provide calculations or letter certified by licensed structural engineer stating that structural loading analysis was completed and that structure can support the proposed green roof system.

14) Site considerations:
   a. Has a climate evaluation (e.g. Sun, Wind, Shade, Snow, Precipitation Rate) been completed?  Yes [ ]  No [ ]
   b. Determined Impact on Local Infrastructure (e.g. Stormwater, Energy Consumption)?  Yes [ ]  No [ ]
   c. Evaluation of Waterproofing age and condition (if Retrofit)? Yes [ ]  No [ ]
   d. Analyzed Building Infrastructure (e.g. Location of HVAC Systems, Water Storage/Supply)? Yes [ ]  No [ ]
   e. Determined means of access and occupancy limits (e.g. maintenance and occupants)? Yes [ ]  No [ ]
   f. Identified Safety Requirements (i.e. temporary or permanent fall protection measures)? Yes [ ]  No [ ]
   g. Sufficient access for HVAC and plumbing equipment? Yes [ ]  No [ ]
   h. Does the design include vegetation free zones per local codes? Yes [ ]  No [ ]
Green Roof System Design

1) Green Roof System
   a. Extensive System (less than 6” growing media) [ ]
   b. Semi-Intensive System (less than 25% of green roof over 6” of growing media) [ ]
   c. Intensive System (more than 6” of growing media [ ]

2) Green Roof Construction:
   a. Modular tray green roof system [ ]
   b. Built-in-place green roof system [ ]

3) Type of Roof Assembly:
   a. Protected Membrane Roof [ ]
   b. Conventional Built-Up Roof [ ]
   c. Cold (Vented) Roof [ ]

4) Type of roofing membrane proposed:
   a. EPDM [ ]
   b. Cold fluid applied (water)proofing [ ]
   c. Hot applied rubberized asphalt [ ]
   d. Modified bitumen [ ]
   e. PVC [ ]
   f. TPO [ ]
   g. Hybrid [ ]

5) Components incorporated in green roof design.
   Plant Cover [ ]
   Growing Media [ ]
   Filter Fabric [ ]
   Drainage Layer [ ]
   Root Barrier [ ]
   Insulation Layer [ ]
   Waterproofing Layer [ ]
   Deck Layer [ ]
   Wind Protection [ ]
   Moisture Retention Layer [ ]
   Membrane Protection [ ]
   Other [ ]

6) Type of irrigation:
   a. Overhead [ ]
   b. Drip [ ]
   c. Harvested alternative building water [ ]
   d. Other [ ]

7) Available water connections and pressure for irrigation [ ]

8) Plant selection (submit detailed planting plan) [ ]

9) Total saturated system weight ____________________________ pounds per square foot
   a. Designed Dead Load __________________ pounds per square foot
   b. Designed Live Load __________________ pounds per square foot
Staging, Scheduling, and Construction Logistics

1) How will material be conveyed to the roof (roof access points, load bearing points, material storage requirements)

2) What is the schedule for installation of plant material (normal planting season, establishment period)?

3) How will material be stored and maintained based on the structural capacity of the roof?

4) How will the roofing membrane be protected during installation (leak detection)?

5) Has the green roof grow-in, establishment, and maintenance periods been established?

FOR REVIEWERS USE ONLY

□ Design appears to comply with the standards in the Iowa Stormwater Management Manual.

□ Design does not appear to comply with the standards in the Iowa Stormwater Management Manual.

Comments:
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

Name of Reviewer: __________________________ Date: ________________

Signature: ____________________________________________________________