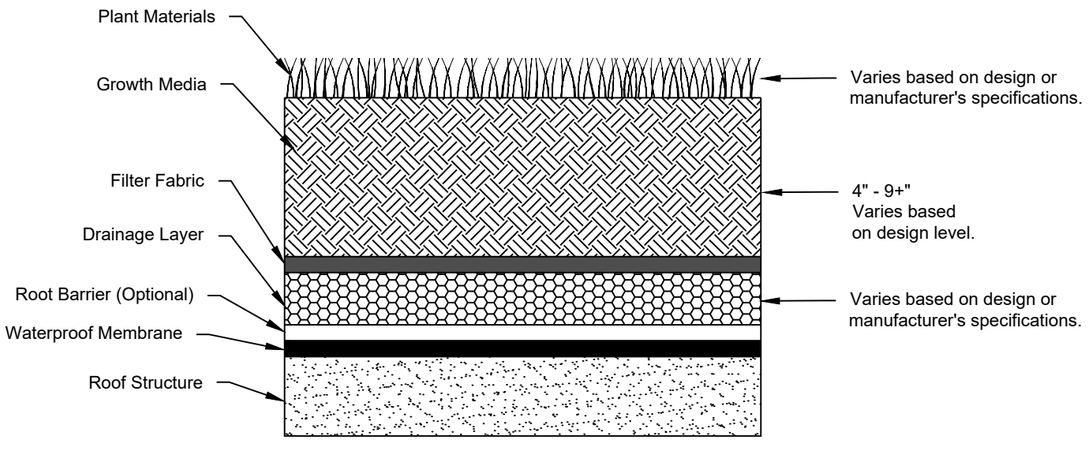
MANUFACTURER'S DETAIL
OR LANDSCAPE PLAN

I hereby certify that this green roof planting is in keeping with the requirements listed in GIP-11. This green roof system is designed to establish a full and vigorous cover.

GIP - 11
GREEN ROOF



Green Roof Number :		
	Design	As-Built
GIP Surface Area (SF)		
Media Depth		

Green Roof Material Specifications	
Material	**Specifications**
Roof	Structural Capacity should conform to ASTM E2397-05, *Practice for Determination of Live Loads and Dead Loads Associated with Green (Vegetated) Roof Systems*. In addition, use standard test methods ASTM E2398 for *Water Capture and Media Retention of Geocomposite Drain Layers for Green (Vegetated) Roof Systems*, and ASTME 2399-05 for *Maximum Media Density for Dead Load Analysis*.
Waterproof Membrane	See Chapter 6 of Weiler and Scholz-Barth (2009) for waterproofing options that are designed to convey water horizontally across the roof surface to drains or gutter. This layer may sometimes act as a root barrier.
Root Barrier (Optional)	Impermeable liner that impedes root penetration of the membrane.
Drainage Layer	1- to 2-inch layer of clean, washed granular material, such as ASTM D 448 size No. 8 stone. Roof drains and emergency overflow should be designed in accordance with Metro Codes.
Filter Fabric	Needled, non-woven, polypropylene geotextile. Density (ASTM D3776) > 16 oz./sq. yd., or approved equivalent. Puncture resistance (ASTM D4833) > 220 lbs., or approved equivalent.
Growth Media	Media should consist primarily of lightweight mineral aggregates and have an organic matter content < 15%. The silt content shall not exceed 15%. Media should provide sufficient nutrients and water holding capacity to support the proposed plant materials. Maximum medium water retention shall fall between 30% to 45% based upon ASTM E2399.
Plant Materials	Low plants such as sedum, herbaceous plants, and perennial grasses that are shallow-rooted, self-sustaining, and tolerant of direct sunlight, drought, wind, and frost are best for intensive green roofs. Plant species should be based upon the type and depth of growth media. See ASTM E2400-06, *Guide for Selection, Installation and Maintenance of Plants for Green (Vegetated) Roof Systems*.