STRUCTURFLEX CASE STUDY / COMMUNITY / TRAVEL

## ARCHITECTURAL PASSENGER SHELTER FOR EXPANDED TRANSIT SYSTEM

TITLE	Charlotte Area Transit System
DESCRIPTION	Station canopy
LOCATION	Charlotte, North Carolina, USA
COMPLETED IN	2007
FABRIC AREA	11,000ft <sup>2</sup>
FABRIC TYPE	ETFE – Single layer
ARCHITECT/CLIENT	Sasaki / Charlotte Area Transit System







## CHARLOTTE AREA TRANSIT SYSTEM CHARLOTTE, NORTH CAROLINA USA

## The challenge – enhance existing architecture

The newly-expanded Charlotte Area Transit System required a structure that would protect waiting travellers from the elements. Accompanying the usual constraints – tight time frame and budget – was the opportunity to add architectural merit to the station and give Charlotte a new icon for its urban core.

## The solution – a dramatic steel and ETFE structure

An elegant single-layer ETFE canopy clearly demonstrates the special qualities of the newest of the architectural membranes. While the translucent membrane provides protection from rain, the tubular structure complements the sleek architecture of the station. The total effect is both dramatic and graceful.

The membrane integrates stainless steel cables for primary resistance against wind and snow loading. Not only a structural element, the cables lace seamlessly into the membrane and become part of the architectural appeal of the structure. Silver printing on the underside of the membrane improves shading, while also providing a reflective surface for enhanced night-time illumination that's generated by an LED light system strategically positioned on the structural steel.

