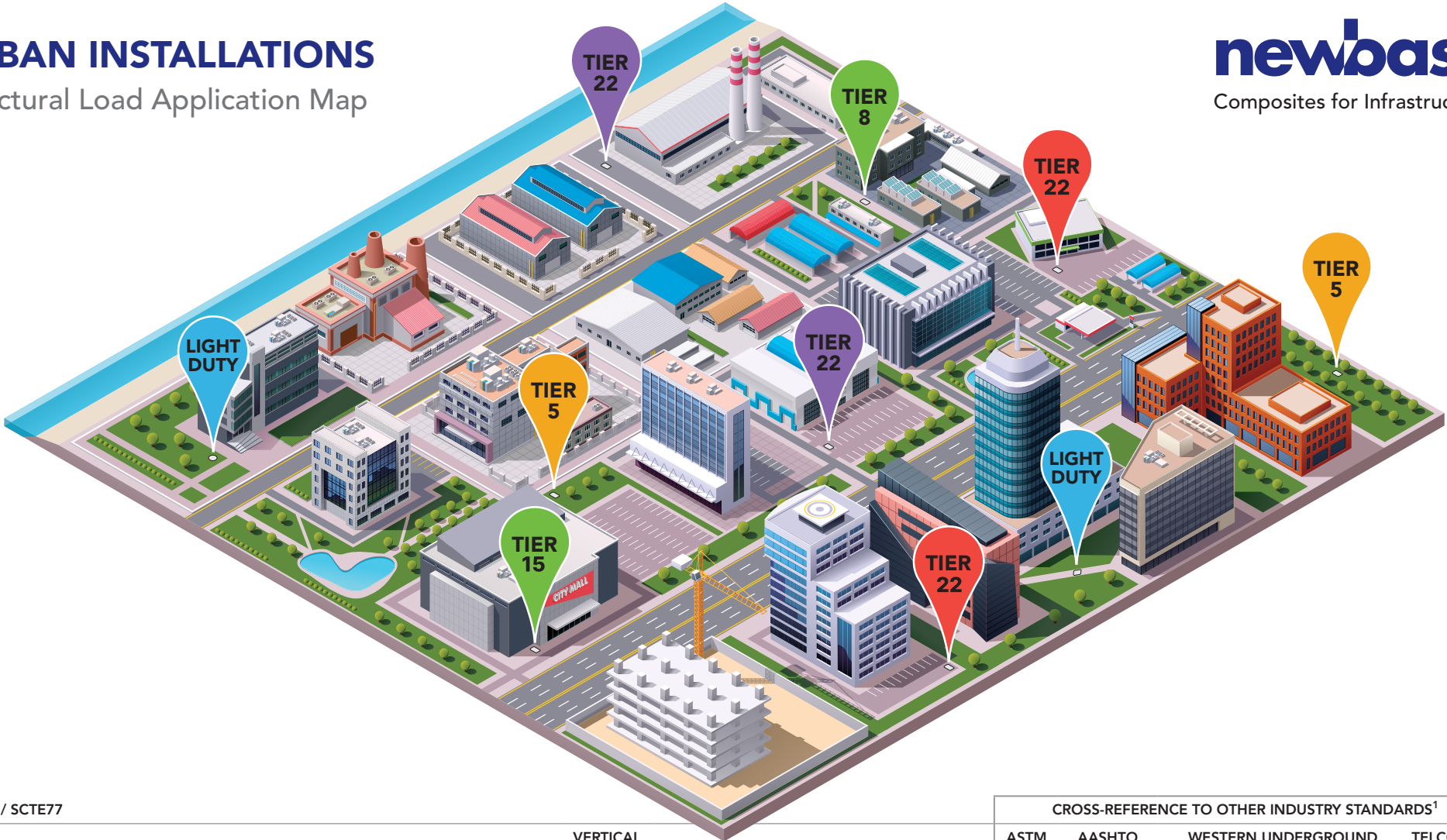


# URBAN INSTALLATIONS

## Structural Load Application Map



ANSI / SCTE77

APPLICATION	VERTICAL TEST LOAD	NEWBASIS SERIES	CROSS-REFERENCE TO OTHER INDUSTRY STANDARDS <sup>1</sup>			
			ASTM C857 <sup>2</sup>	AASHTO LRFD BDS <sup>3</sup>	WESTERN UNDERGROUND COMMITTEE GUIDE 3.6	TELCORDIA GR-902
<b>LIGHT DUTY</b> Pedestrian traffic only	3000 LBF.	N/A	A-0.3			CAT 1
<b>TIER 5</b> Sidewalk applications with a safety factor for occasional non-deliberate vehicular traffic	7,500 LBF.	Fiberglass (FCA)			5K	
<b>TIER 8</b> Sidewalk applications with a safety factor for non-deliberate vehicular traffic	12,000 LBF.	Fiberglass (FCA) & Polymer Concrete (PCA)	A-8	H10-44	10K	CAT 2
<b>TIER 15</b> Driveway, parking lot, and off-roadway applications subject to occasional non-deliberate heavy vehicular traffic	22,500 LBF.	Fiberglass (FCA) & Polymer Concrete (PCA)	A-12	HS15-44	20K	CAT 3
<b>TIER 22</b> Driveway, parking lot, and off-roadway applications subject to occasional non-deliberate heavy vehicular traffic	33,750 LBF.	Polymer Concrete (PCA)	A-16	H20-44	32K	CAT 4

<sup>1</sup> Refer to individual standards for specific load rating and performance ratings.

<sup>2</sup> NewBasis enclosures are tested using the defined practice of the ANSI/SCTE 77 protocol. By testing to the specified tiers, we meet the wheel load and live load requirements set forth by ASTM C857.

<sup>3</sup> **WARNING: Do NOT install in direct road or highway traffic. While NewBasis enclosures do meet the load requirements set forth by AASHTO, we do not claim AASHTO compliance as their standard does not recognize polymer or fiberglass as materials to be used in deliberate traffic applications. Only certified pre-cast, cast-iron or other recognized materials are acceptable.**

APPLICATION	LOADING REQUIREMENTS			
<b>LIGHT DUTY</b> Pedestrian traffic only	Vertical	Test Load	13.3kN	3000 pounds
<b>TIER 5</b> Sidewalk applications with a safety factor for occasional non-deliberate vehicular traffic	Vertical	Design Load	22.2 kN	5000 pounds
		Test Load	33.3 kN	7500 pounds
	Lateral	Design Load	28.7 kPa	600 pounds/sq. ft.
		Test Load	43.1 kPa	900 pounds/sq. ft. (1800/2700 pounds/ lateral load plate)
<b>TIER 8</b> Sidewalk applications with a safety factor for non-deliberate vehicular traffic	Vertical	Design Load	35.6 kN	8000 pounds
		Test Load	53.4 kN	12000 pounds
	Lateral	Design Load	28.7 kPa	600 pounds/sq. ft.
		Test Load	43.1 kPa	900 pounds/sq. ft. (1800/2700 pounds/ lateral load plate)
<b>TIER 15</b> Driveway, parking lot, and off-roadway applications subject to occasional non-deliberate heavy vehicular traffic	Vertical	Design Load	66.7 kN	15000 pounds
		Test Load	100.1 kN	22500 pounds
	Lateral	Design Load	38.3 kPa	800 pounds/sq. ft.
		Test Load	57.5 kPa	1200 pounds/sq. ft. (2400/3600 pounds/ lateral load plate)
<b>TIER 22</b> Driveway, parking lot, and off-roadway applications subject to occasional non-deliberate heavy vehicular traffic	Vertical	Design Load	100.1 kN	22500 pounds
		Test Load	150.1 kN	33700 pounds
	Lateral	Design Load	38.3 kPa	800 pounds/sq. ft.
		Test Load	57.5 kPa	1200 pounds/sq. ft. (2400/3600 pounds/ lateral load plate)
<b>AASHTO H-20</b> Deliberate vehicular traffic applications	Certified precast concrete, cast iron, or AASHTO recognized materials.			

Table 1 - Design / Test Loads

Deflection		
STRUCTURAL LOAD TEST	MAXIMUM VERTICAL DEFLECTION AT DESIGN LOAD	MAXIMUM LATERAL DEFLECTION AT DESIGN LOAD
Lateral Sidewall Pressure Test	N/A	21mm per meter (0.25 inches per foot) of average wall length
Vertical Sidewall Load Test	13mm (0.5 inch)	21mm per meter (0.25 inches per foot) of average wall length
Cover Vertical Load Test	13mm (0.5 inch)	N/A

**Design Load:** Greatest anticipated weight projected based on planned traffic by the engineer. Applied 10x for one minute cycles.

**Test Load:** A lab set safety factor which is 1.50% of the design load per AASHTO. Applied once for one minute.

