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Memo to: Amherst Planning Board
From: Jonathan Tucker, Planning Director
Subject: Downtown Parking Questions

Citizens and Planning Board members have inquired about different aspects of downtown parking recently, in connection with the Parking Forum and the 1 East Pleasant Street project. This memo responds to those questions.

How is Parking Provided for Other Large Downtown Housing Projects?

Information regarding parking has been requested for the Ann Whalen Apartments and the Clark House, as multi-unit buildings approximately comparable in size to the 1 East Pleasant Street project.

	<u>Dwelling</u>		<u>Reserved On-Site</u>	<u>Parking Spaces</u>	
	<u>Units</u>	<u>Bedrooms</u>	<u>Parking Spaces</u>	<u>Per Unit</u>	<u>Per Bedroom</u>
Ann Whalen Apartments	80	80	30	1/2.66	1/2.66
Clark House Apartments	100*	130	52	1/1.9	1/2.5

* Includes 75 1-bedroom, 18 2-bedroom, and 6 3-bedroom units

It should be noted that both Ann Whalen and the Clark House are subsidized housing projects, and not market rate projects. In addition to using the on-site parking provided, residents of both projects use Town Center parking permits and park on adjacent streets.

Both buildings were developed for and principally serve elderly and disabled residents, with a few low income families in the six first floor 3-bedroom units at Clark House. In the planning for the urban renewal project of which these buildings are a part, these downtown residents were not expected to need as many cars as market rate unit residents, an assumption that has in the main proven accurate. It was also expected that few of these residents would be employed (needing cars to travel to and from work)—that has proven less accurate.

As planned, Ann Whalen and Clark House residents have ready access to public transit and/or specialized van transit, and can walk or wheel to most services in the downtown. Some of the same assumptions (except for minimal employment) might reasonably be expected to apply to residents of 1 East Pleasant Street residents. Additionally, there are marked decreases in the ownership and use of private vehicles among younger citizens and those who choose to be residents of urban areas and centers. Whether those trends are temporary or

represent a permanent change has yet to be seen. It has, however, always been the case that residents of urban centers adapt their vehicle ownership and use to the availability of facilities for those vehicles.

Average Per-Space Costs for Parking Construction

The cost of building parking spaces varies with the geographic location, site conditions, and the size and nature of the parking facility. It is important to acknowledge that parking costs also include the cost of purchasing the land, grading and preparing the site, installing appropriate infiltration and drainage systems, constructing any foundations or retaining walls needed, paving, curbing, installing landscaping and plantings (including trees for shade), lighting, parking control devices, signs, and so forth. The following ‘cost range’ picture emerges from sampling a variety of current online sources. Both lower and higher cost examples can be found. These figures represent the middle of the range.

Surface parking – If built as part of parking lots according to zoning design requirements, surface parking spaces can cost anywhere from **\$2,500 - \$12,000/space or more**, depending on the size and complexity of the parking lot. In a downtown setting, parking design requirements are more stringent, so it would be safe to assume a cost on the higher end of the scale.

Structured decks (above-ground only) – Subject to the conditions of the site, design requirements, and improvements, per-space costs can vary from **\$12,000 - \$30,000/space or more** for structured parking decks that include no significant excavation or underground areas. Parking decks behind new buildings can be viable if their designated space is large enough and has the right geometry. Decks require enough room for parking spaces, circulation, and access ramps between levels.

Below-ground parking in a structure – The most expensive option, involving foundations, below-ground utilities, site drainage, and engineering. The more excavation and foundation work is involved, the greater the cost. Costs per parking space can range from 40-50% more than the same costs in above-ground parking deck structures, and can vary **from \$40,000 - \$70,000 per parking space**.

Putting Parking Underground

A September 23 parking forum participant asked Kendrick Place and 1 East Pleasant Street projects couldn't put their parking underground. As noted, this is by far the most expensive option, although it may also be a preferable option from an urban design standpoint. Its viability depends not only on issues of cost, but also on subsurface geology and groundwater conditions—trying to build in bedrock or underwater can present daunting, if not insurmountable, engineering and financial challenges.

The physical constraint in the north end of downtown Amherst is relatively high groundwater levels. This part of the downtown has developed in a low saddle between two drumlins—the land rises to the north of the East Pleasant/Triangle intersection and to the south of the Carriage Shops. Tan Brook and its tributaries flow west through this confined low point from a wider watershed to the east. During wetter times of the year, groundwater can in some locations rise within a few feet of the surface. Building underground parking in those areas is therefore not an option. The Kendrick Place design responded to this constraint by foregoing a basement and locating its Zipcar parking in a confined area of the first floor. The 1 East Pleasant Street project proposes enclosed and conditioned surface parking spaces covered by a green roof.