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Kimley»Horn

MEMORANDUM

To:	Michael Delk and Gina Clayton, City of Clearwater
From:	HR&A Advisors, Inc. and Kimley-Horn
Date:	January 9, 2017
Re:	Clearwater Aerial Transit: Summary of Completed Analysis and Next Steps

I. Purpose of Assignment

At the direction of the Clearwater City Council, HR&A Advisors, Inc. (HR&A) and Kimley-Horn were asked to evaluate possible sites for a Downtown Clearwater location for a proposed regional aerial transit system, focusing on the potential economic development and physical planning implications for candidate sites. Two private parties have proposed aerial transit systems to City Council, both intended to link Downtown Clearwater to Clearwater Beach and potentially extend to the broader region:

- **Echelon, LLC:** Echelon, a St. Petersburg-based real estate development firm, shared a proposal with City Council for a cable-propelled transit system similar to technology current deployed in Portland, Oregon; Roosevelt Island, New York; Medellín, Colombia; Koblenz, Germany; and elsewhere, often used to facilitate transportation up and down mountainous terrain.
- **BeachTran USA, LLC:** BeachTran, a Clearwater-based firm created to bring aerial transit to the city, shared a proposal with members of City Council for a personal rapid transit system using technology under development by SkyTran, a Mountain View, California-based firm currently planning a demonstration project for the new technology in Tel Aviv, Israel.

II. Discussions with Proposers

HR&A and Kimley-Horn prepared a data request that sought information for each proposal related to the following assumptions:

- **Market demand and system operations**, including demand, ridership and capacity;
- **Sites and station requirements**, including station and pylon size/location details and parking requirements; and
- **System designs**, including any Clearwater-specific plans for potential system alignments to Clearwater Beach and to the greater region.

In addition to the transmission of the data request, the consultant team completed several in-person and telephone conversations with the two parties, including:

- **Echelon, LLC:** HR&A spoke with representatives of Echelon on August 11 and 19, 2016.
- **BeachTran USA, LLC:** HR&A and Kimley Horn met with a representative of BeachTran on August 3, 2016 in Clearwater and completed a follow-up web-based meeting on August 24, 2016. BeachTran also provided written materials addressing some of the items from the data request.

III. Summary of Data Received

The two proposers provided the consultant team with the following relevant information:

- **Echelon, LLC**
  - **Precedent locations,** as noted above.
  - **Technical characteristics and requirements,** including the need for a straight alignment, the amount of runway required on either side of a station to launch cable cars (100 meters) and projected speeds. Detailed information on potential system alignment concepts for Clearwater was not available for review.
  - **Station requirements,** including station size (75 by 75-100 feet) and location (publicly-owned sites preferred; can be located either at ground level or integrated into existing or future buildings). Specific projections of the required size of a potential ancillary parking facility or facilities and of the impact of system alignment on the area within Downtown where stations could be sited were not available for review.
  - **Capacity**, which could reach a maximum of 6,000 to 8,000 people per hour per direction, based on precedent projects. Specific ridership projections for Clearwater were not available for review.
- **BeachTran USA, LLC**
  - **Cost projections** for SkyTran proposals in Los Angeles and New York City.
  - **Technical characteristics and requirements,** including the need for loops at either end of the line, storage space for the four-passenger pods and 1,500 square feet of operational space, the ability to have a curved/flexible alignment, and projected speeds. The company also provided rendering and concept sketches of scenes of the pods and their supporting infrastructure. Detailed information on potential system alignment concepts for Clearwater was not available for review, though SkyTran noted that the system is ultimately flexible and could be accommodated on a variety of sites. Potential public right-of-way and aesthetic impacts would need to be assessed as part of an assessment of potential alignments and stations.
  - **Station requirements,** including station size (18 by 40 feet or larger for interim stations, with significantly larger loops at both ends of the line) and location (various potential locations on the Downtown waterfront and further inland). Given that BeachTran did not have specific estimates of ridership, there was not an estimate of the size of a potential ancillary parking facility available for review.

As noted above, the current lack of specific information on ridership, system alignment, and parking facility sizing makes it challenging to effectively identify and assess potential Downtown locations at this time.

IV. Potential Next Steps

Should the City seek to pursue aerial transit-based solutions to link Downtown with the Beach, we recommend that the City request technical feasibility analyses from the system proposers, which would potentially include the following:

- **Ridership projections:** Clearwater-specific studies or projections of ridership by season, time of day, etc. Further definition of the principal market(s) for each proposal is needed (e.g. whether the system is being designed to support commuting to the Beach and/or for travel by Beach visitors to Downtown) and will ultimately inform projections of siting locations and parking requirements.
- **System alignment concepts:** A closer understanding of the private operators' needs for the alignment of the system, as well as the implications for Downtown from both technical and aesthetic perspective, which would likely greatly narrow candidate sites in Downtown.
- **Parking requirements:** A concrete projection of associated parking needs, which would greatly impact the size of the required site, or alternatively identification of a location adjacent to existing and underutilized parking facilities.

Following receipt of such information, it may be advisable for the City to revisit an assessment of the pros and cons of various potential Downtown locations for stations, pylons, etc. in order to optimize the economic development and other benefits from aerial transit.