



City of Santa Cruz  
Public Works Department  
Attn. Mr. Christophe J. Schneider  
Assistant Director/City Engineer  
cschneider@ci.santa-cruz.ca.us

Utrecht, 3 december 2008

concerns: SOQ Santa Cruz PRT project  
our ref.: 081120\_Santa Cruz  
your ref.: P:\4\PWAD\770-40.70\Personal Rapid Transit (PRT) - RFQ

Dear mister Schneider,

In reaction to the *Request for Qualifications for a Santa Cruz, California, Personal Rapid Transit (PRT) System*, please find the requested documents attached.

*2getthere* is a pioneer with regard to electronically guided Automated People Mover Systems. In 1997 our first application, a Group Rapid Transit System, was realized in the Netherlands, based on technology developed and applied in various other environments since 1984. In 2002 we installed and operated a basic functionality (two on-line stations in a line-connection) PRT application at the Floriade Exhibition.

Based on the operational experiences with these early Personal and Group Rapid Transit Systems, *2getthere* has developed 2<sup>nd</sup> generation PRT and GRT systems. The ParkShuttle (GRT) is operational at Rivium Business Park in the Netherlands. For the PRT system (CyberCab) *2getthere* has recently been awarded a project.

For the convenience of Santa Cruz please an abbreviated reference list of *2getthere* enclosed in the attached SOQ document. Should you desire to receive the full reference list, which includes examples of other application environments where the FROG technology was applied, please let me know.

*2getthere* distinguishes itself by its hands-on approach and the multiple years of experience with operational systems outside the realm of a test track. We are capable of supplying a complete system today; meeting the requirements of urban applications, individual passengers and public interest groups.

Please note that there is a misperception in the market place that *2getthere*'s systems are focused solely on at grade operations. Operations at grade are the most challenging and difficult; being able to cope with those requirements, allows *2getthere* to install its systems on any level: underground, at grade or elevated.

As flexibility – in technology, configuration, operations, delivery and installation – is the key to successful automation, *2getthere* co-operates with expert, reputable

*2getthere*

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partners in the various required disciplines to deliver PRT projects tailored to the specific requirements of the customer. Together with these partners, the supply consortium has the expertise and size to be able to supply a turn-key system. *2getthere* owns all the rights and intellectual property and has the concept knowledge to coordinate the efforts of the cooperating parties.

Note that the consortium does not include a construction company and a local engineering company. These companies still need to be selected to add their expertise to the consortium. *2getthere* prefers to work with local companies who are fully aware of local conditions and requirements, ensuring that the project is tailored to the surroundings. Working with local(ly) present companies also guarantees the most competitive pricing for the infrastructure, which represent at least 50% of the total project capital costs.

Please find enclosed a description of the project organization, detailing the project structure, project team and partners, organization chart and company resumes.

*2getthere's* systems, ParkShuttle (GRT) and CyberCab (PRT), are both 2<sup>nd</sup> generation systems; the technologies on which they are based have an even much longer development history. The ParkShuttle GRT system has been evaluated through an FMECA (Failure Mode Effect and Criticality Analysis) by an independent safety assessor prior to commencing operations, allowing it to be used as a means of public transportation in the Netherlands. *2getthere* has been in close contact with regulating authorities in the United Kingdom (HMRI), France (STRMTG) and Austria (Bundesamt für Verkehr) who have all indicated that certification based on this effort should be possible for their countries as well. *2getthere* strongly recommends an independent safety assessor being appointed for any application being installed in light of the fact that specific safety and certification guidelines for PRT are still lacking.

In 2007 *2getthere* became an independent company, focusing on project management, engineering, controls development and marketing and sales (owning an exclusive technology license for application of the FROG guidance technology in Automated People Mover applications). Through the partnerships with expert companies, *2getthere* has been able to ensure a small overhead and maintain its position in a (rapidly) growing market since the pioneering days in the early '90s. The company can realize turn-key projects based on project financing, but would require a financial partner in the consortium in case of a franchise agreement.

The PRT system will certainly be an attractive means of transit for local trips for residents, students and visitors alike. Although it will attract passengers automatically, it is vital that the operations would be supported by a marketing/communication plan and flanking policy to stimulate people to use the PRT system rather than their personal car – as the car is parked right outside it's just too easy to use it for every trip. The routing and station locations are vital in the attraction of the system to passengers. The environmental savings will be more significant when the system provides (seamless) connections with other public transit nodes and is used as an intercept parking connection for traffic heading to the beaches.

Note that the elevated sections of the PRT system will become a new element in the cityscape. To avoid the elevated guide way sections becoming 'visual pollution', appropriate measures in the (architectural) design of the guide way and its routing should be taken to minimize this impact. The electric, rubber tired vehicles are free of any rail guidance which ensures they are silent and noise pollution is not an issue.

Based on the currently available information of the Santa Cruz PRT project and trajectory, the main concern for its design and implementation will be the location of the passenger stations. The system will need to feature a high station density and accessibility to ensure maximum ridership by optimizing the catchment area; of course this depends on the existing spatial planning and the availability of space for stations. In addition the costs of the stations should not become restrictive of a high station density either – keeping it simple and affordable is key.

For the operations the location for the maintenance garage and control room would need to be established. Preferably this would be a central location, allowing short response times in case of any vehicle or system failures. *2getthere* recommends a dedicated team on-site, based on the experiences at Schiphol Airport and business park Rivium. When economically justifiable, the site team would consist of an operator (during all operational hours), a service engineer (during all operational hours) and maintenance personnel (during business hours). *2getthere* can take on the operations based on an 'operations contract', setting up a dedicated team with in-depth knowledge of all aspects of the system.

*2getthere* plans to partner with a local(ly active) US engineering and construction firm for the realization of the infrastructure, ensuring in-depth knowledge of the local circumstances and requirements (e.g. in relation to local earthquake requirements). The planning, engineering and construction of the infrastructure, with minimal disturbances for residents and local traffic is one of the most challenging and time consuming aspects of the project (having to take into account existing and future alignments of utilities at and below grade).

Please find a time-line of the activities in the realization of a Personal Rapid Transit System attached.

I trust the above provides a clear and distinct impression of *2getthere's* capabilities, competences and awareness of the aspects involved in the realization and operation of Personal Rapid Transit Systems. Should you have any additional questions, or require further clarification of specific issues, please do not hesitate to contact us.

With kind regards  
*2getthere b.v.*

Robbert Lohmann  
Marketing & Sales Manager