

September 1, 2012

To: Ajay Kumar, Sam Zimmerman

From: Jack Reilly, Professor, Department of Civil and Environmental Engineering, Rensselaer Polytechnic Institute, New York

Re: Document Review:

Project Appraisal Document – Cebu Bus Rapid Transit System (version dated June 6)

Cebu BRT Feasibility Study D6: First Draft Conceptual Design Report, March 2012

You asked if I would review the captioned documents to determine if they present a reasonable plan for transitioning between the current transit structure in Cebu to a more formal bus rapid transit system. I think that the technical work is very good. However, I think that some additional description of the transition from the current framework to the proposed one would be very helpful.

Project Appraisal Document – Cebu Bus Rapid Transit System (version dated June 6)

This report describes a logically-derived institutional framework for the implementation including a clear role for private commercial firms and government agencies. As I understand the operating scheme, the price would be established by the LTFRB and service contracts would be awarded to commercial firms.

This document provides a risk assessment of implementation for a BRT system in Cebu as well as an evaluation plan for the system once implemented. Successful BRT implementation, as you are aware, involves the assembly of capital, managerial and human resources in a suitable institutional environment. The authors clearly recognize this as well as the role of a political climate which includes leaders willing to champion the BRT system. The authors state this is in place (*p.8. Why Cebu First?*)

The role of an important existing stakeholder group, the jeepney drivers, is not clear. However, two possible roles (1) operation of feeder service to the BRT corridors and (2) development of drivers' associations as possible providers of service within the BRT corridor. It would appear that more consultation with the important stakeholder group is required. Specifically, the idea to assist in the development of drivers' association requires some thought. Two very specific questions should be answered:

What should the scale of these associations be? – If they are to have a role in providing BRT services along the corridor, then the scale (size) should be comparable to the size of the service packages to be bid by the contracting authority.

Is the physical capital, primarily rolling stock, suitable for operation in the BRT corridor? I suspect that it is not. If larger buses will be required, some review of credit capacity of individual jeepney owners is necessary. I think it is essential that this stakeholder group

which can bring considerable expertise in transit operations should be involved in key decisions, if for no other reason than to avoid the political risk of alienating this group.

At a minimum, the plan should more clearly identify the role of drivers and owner-operators in the proposed BRT system. This might involve the development of associations, operator training insofar as the newer buses will require additional skill and licensing, and improving the credit capacity of small firms to enable them to purchase newer vehicles.

There are also a number of key strategic choices in service delivery which should be made. While answers to all of these may **not** be necessary at this time, a method of determining how the BRT system will be organized at its inception and how individual elements (such as feeder and line haul) relate to each other is very important. I recognize that these can be complex questions and there is a rational desire to implement BRT as soon as practical. I also recognize that institutional reforms take time for consensus building. I would suggest that the implementing parties not aim for perfection in the methods of developing a service plan and framework for solicitation of potential offerors but rather develop a rational plan suitable for adaptation in the future. Changes in how services are contracted for can be altered over time and upon recompetition for transit services.

Analysis of demand has defined an open service plan. Within the Draft Final Report 8 BRT services are defined. The report includes an assessment of the impact upon the PUJ sector and which PUJ services could be modified to form feeder services. The task of defining how the operator or operators are procured and what role the displaced PUJ industry actors play in these is a task which is being performed by CCG. The suggested potential modes of operation are appropriate and will be explored as part of the on-going preparation.

The interim contracting framework should focus on these core decisions:

1. What model of contract award is anticipated? Will it be a single concessionaire or will there be an award of multiple contracts? **The services are not expected to operate by late-2015, when BRT infrastructure is fully in place. The exact form of contract arrangement is currently being discussed by the franchise regulatory Board. The potential for multiple operators has been retained to enable PUJ industry participation in single services.**
2. What is the basis of award? Will vendors bid the right to operate certain service packages? Will non financial criteria be part of the assessment of offers? **Not yet determined. This is still evolving.**
3. If multiple contracts, how will service packages be assembled? There are 4 routes proposed. This might be a natural partitioning of services. **As (1)**
4. Are market conditions such that there is a competitive market for the provision of bus (BRT) service? Will some government intervention be necessary to increase the pool of vendors, particularly at the initiation of BRT service given the requirement (as I understand it) that operators will be responsible for supplying vehicles? **Not yet known – Only a single bus operator in Cebu but many large bus operators in Luzon.**

Over time, a framework which considers the following can be adopted.

1. What are the risk and reward structures in the contract or contracts? Specifically, do offerors (bidders) propose a gross cost per hour with fare revenue deposited into the LTFRB account or –will operators retain revenue? Will there be penalties/bonuses associated with the quality of service offered.
2. Allied with the above question, how are service standards (frequency, capacity) to be enforced? Will LTFRB establish service standards and monitor enforcement or will LTFRB develop proposed service schedules?
3. Is it possible that federations of owner-operators may propose on all or part of the system?
4. Will the term (duration) of contracts be such that operators will be able to amortize the cost of vehicles efficiently?
5. What are the contingencies of lower or higher levels of ridership than forecast? Who takes the risk associated with that contingency: the operators or the government?
6. Will terms of contracts, if there are more than one, be staggered?
7. Will the transition to the new scheme be gradual or all done at one time? (Santiago, Chile did a similar transition at one time (the Big Bang) with not very satisfactory results)

Not having all documents associated with this project, it is likely that some or all of these decisions may have already been made.

All are good suggestions and will be explored as part of the discussions by LTFRB/CCG and the jeepney operators. Fortunately, as you point out, there is considerable international experience from past applications and lessons learnt will all be used in further development of the regulatory arrangement. Enforcement of service standards for the BRT is being proposed by setting up a specialized technical support group. Fare collection arrangements are also being explored and a possible arrangement currently under discussion is to set up a TransCebu JV responsible for overall management and coordination of all services required for BRT operation.

TransCebu JV will procure all BRT transport and support services from the private sector, retaining only core business, coordination and supervisory functions. All system revenue will accrue to TransCebu JV. Bus services will be provided by private sector operator(s) who will acquire, finance, operate and maintain their own buses. Bus operators will be paid on the basis of per-kilometer and availability payments. All other support and maintenance services will be provided by private sector suppliers, and will be based on availability payments. TransCebu JV is the focal point for all contracts and supply of services relating to the ongoing operations of Cebu BRT.

Annex

BRT Feasibility Study

This report focused exclusively on the civil works associated with the project. My comments include:

- p. 21. Platform geometry (40-60 m x 4 meter platforms) are likely satisfactory. Is the proposed waiting space sufficient for peak operating times? (Bogota, Colombia gets very congested even

with relatively wide stations.) Station size has been matched to peak demand. This is reported in the Draft Final Report (DFR).

- Will the multiple berths be able to be accessed randomly. That is, if a bus occupies berth 2, can an arriving bus bypass this and go to berth 1. Allied with this, will the various routes be pre-assigned to bus berths. (This is an operating detail which may be covered in another document).
Yes. Each stop has a passing lane.
- p. 31. Depot location. A single operating base is proposed and is well described in the report. With a fleet this large, authors should consider a second operating base, perhaps for storage and running repair. A simple calculation to determine the additional cost of a second facility weighed against reduced deadhead cost would be useful. This can be deferred until later. Note that a single operating base suggests a particular management and governance structure with a single operator. I have added some comments on this in the next section in which I discuss the PAD. **This is a good and appropriate suggestion. The identified terminal at Talamban would allow for a second smaller operating depot.**
- p.33 Depot Conceptual Layout –The fundamental layout is appropriate. I have some concern about the location of the servicing facility. It is possible that buses awaiting service might queue up into the entrance road, particularly during the time after the afternoon peak when service frequencies are being reduced. Relocation of the servicing facility on the site should be considered. **This will be considered through detailed design**
- p.30 Terminal station – Preliminary designs for terminal station layouts appear on p. 30. These are quite complex facilities and a more detailed requirements assessment should be done in the future with a clear description of passenger flows, potential vehicle-pedestrian conflicts and space requirements for connecting buses and taxis. **This has been further developed in the Draft Final Report.**

Needless to say, I'd be willing to discuss this with you or others associated with the project.