



April 17, 2000

Metropolitan
Transportation
Authority

One Gateway Plaza
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TO: BOARD OF DIRECTORS

FROM: JAMES L. de la LOZA
EXECUTIVE OFFICER
REGIONAL TRANSPORTATION PLANNING AND
DEVELOPMENT

SUBJECT: COUNTYWIDE BUS SIGNAL PRIORITY PILOT
PROJECT- STATUS REPORT

ISSUE

At its October 22, 1998 meeting, the MTA Board awarded a consultant contract to PB Farradyne, Inc. to develop and implement a turn-key Bus Signal Priority Pilot project for Los Angeles County. At the same meeting, staff was directed to provide periodic updates on the progress of the Countywide Bus Signal Priority (BSP) Pilot project. MTA staff has been working closely with the consultant team, PB Farradyne, Inc. and the nineteen member BSP Technical Advisory Committee composed of various Los Angeles County jurisdictions and transit operators toward the development and implementation of a Bus Signal Priority system that meets both traffic and transit needs of the County.

BACKGROUND

As its first task, MTA staff, in conjunction with the BSP Advisory Committee and the consultant team undertook a rigorous assessment of thirty-nine potential corridors (Attachment A) using twenty-one criteria (Attachment B) to develop a list of candidate corridors. The Committee unanimously selected Crenshaw Boulevard from Adams to Redondo Beach Boulevards, a distance of approximately eleven miles, as the demonstration corridor for the purposes of BSP deployment. This corridor traverses several jurisdictional boundaries (City of Los Angeles, County of Los Angeles, Inglewood, Gardena and Hawthorne) and as such, provides the opportunity to develop the BSP system in coordination with various signal synchronization systems and equipment which has been one of the stated goals of the BSP project. Additionally, the bus lines that operate within Crenshaw Corridor are high ridership bus lines with short headways which can be positively impacted by BSP implementation. Crenshaw Boulevard was also selected because no major roadway construction projects were scheduled during the development, implementation and evaluation phases of the BSP project. Attachment B illustrates that this was a critical factor in selecting a

demonstration corridor to assure that any resulting benefits are directly related to the implementation of the BSP project. It is anticipated that the project development, construction and final implementation will be completed in July 2001 followed by a six month project evaluation to be completed in December 2001.

Relationship to Other TSM/ITS Transit Related Improvements

It is important to note that the development and future Countywide deployment of the BSP project is predicated upon its ability to improve bus travel speeds and reduce bus travel time without greatly affecting the cross street travel time. To ensure that the system can be appropriately evaluated, the BSP Advisory Committee as well as the participating jurisdictions have agreed that all the buses travelling along the Crenshaw demonstration corridor will receive the same level of priority. The specific conditions under which priority will be granted will be delineated and agreed to by all the participating jurisdictions and agencies prior to the implementation phase of the project.

The BSP project development is occurring in close coordination with other relevant Intelligent Transportation Systems (ITS) projects under development at the MTA such as the Advanced Transit Management Systems (ATMS) and Automated Passenger Counters projects (APC). To date, a thorough literature survey and control strategy functional requirements have been completed. Additionally, an initial assessment has been made regarding potential TSM improvements, technology evaluation as well as a project evaluation plan.

NEXT STEPS

In the upcoming months, staff will be focusing on finalizing project design, technology selection, TSM improvements, bus stop relocation, equipment selection and bid document preparation. Staff will provide periodic updates to the Board as necessary.

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Attachment A

Candidate Corridors

No. *	Main Corridor	Limit Begin	Limit End
1	Atlantic Blvd.	Main Street	Artesia Blue Line Station
2	Atlantic Blvd.-Los Robels	Colorado Blvd.	I-5
3	Chavez/Venice	S. Atlantic Blvd./Montebello	Santa Monica CBD
4	Colorado Blvd.	Pasadena (Lake Blvd.)	Hollywood/La Brea
5	Crenshaw Blvd.	Hollywood Blvd.	South Bay Galleria Transit Center
6	Crenshaw Blvd.	Wilshire Blvd.	PCH
7	Fairfax Ave.	West LA Transit Center	Hollywood and Vermont
8	Florence Blvd.	Whittier Blvd.	LAX
9	Florence Blvd.	Atlantic Blvd.	Route 405
10	Garvey Avenue	El Monte Busway	LACBD
11	Garvey Avenue	Atlantic Blvd.	Route 605
12	Glendale Blvd.	Beverly Blvd.	Route 2
13	Hawthorne Blvd.	LACBD	South Bay Galleria Transit Center
14	Hawthorne Blvd.	Century Blvd.	PCH
15	King Blvd.	Rodeo Drive	S. Central
16	Long Beach Blvd.	Ocean Blvd.	LACBD
17	Manchester-Firestone Blvd.	Studebaker	Sepulveda
18	Pico/East 1 st St.	San Vicente	Atlantic/Monterey Park
19	Roscoe Blvd.	Topanga	Glen Oaks
20	San Fernando Rd.	Sylmar Transit Center	LACBD
21	Santa Monica Blvd.	La Brea Blvd.	LACBD
22	Santa Monica Blvd.	Western Ave.	Sawtelle
23	Seventh (7th) St.	I-710	I-405
24	Sherman Way	Topanga	Lankershim
25	Soto St.	Marengo/I-10	MGL LB Blvd.
26	Sunset Blvd.	PCH	LACBD
27	Sunset Blvd.	Highland	PCH
28	Valley Blvd.	El Monte Terminal	LACBD
29	Van Nuys Blvd.	Sylmar Transit Center	Ventura Blvd.
30	Van Nuys Blvd.	Arleta	Ventura Blvd.
31	Venice Blvd.	Vermont	Sawtelle
32	Ventura Blvd.	Devonshire	I-710
33	Ventura Blvd.	Topanga Canyon	I-710
34	Vermont Ave.	Hollywood	MGL Vermont Station
35	Vermont Ave.	Los Feliz	MGL Vermont Station
36	Western Ave.	Hollywood	MGL Wilmington Station
37	Western Ave.	Los Feliz	PCH
38	Whittier/Wilshire	Santa Monica CBD	Commerce Transit Center
39	Wilshire Blvd.	Western Ave.	Westwood

* The numbers indicated do not reflect any priority ranking.

Attachment B

Corridor Evaluation Criteria

Category *	Criteria	Ranking Type
BUS -1	No. of divisions operating the buses along the corridor (prefer no more than 2)	yes or no – critical
BUS -2	Frequency of schedule changes; total weekday AM peak, base and PM peak, number of buses based on the June 6 th Shake-up Program (semi-annually expected, but need simple – not drastic - changes)	yes or no – critical
BUS -3	Average passenger volume/load factor @ maximum load point; percent of buses more than 5 minutes late	evaluation factor
BUS -4	On-time performance/schedule adherence @ maximum load point	evaluation factor
BUS -5	Near side / far side / mid block bus stops	filtering criteria
BUS -6	Bus headway (AM peak and base schedule) – defined in minutes	evaluation factor
BUS -7	Operating speed	statistical info only
BUS -8	One-way running time from the beginning of the line to the end of the line	statistical info only
BUS -9	Delay data available? (preferable)	yes or no
BUS -10	Top 20/ consent decree corridor? (preferable)	yes or no
BUS -11	Any other transit operators? (no preference)	general information only
SIGNAL-1	Lead city willing to participate?	yes or no – critical
SIGNAL-2	Number of traffic systems? (prefer no more than 2)	more than 2 - critical
SIGNAL-3	Traffic signal operations information (including, but not limited to: network, grid, timing, pre-emption, interconnect, cross street impacts)	Evaluation factor
SIGNAL-4	Number of signals	Statistical info only
SIGNAL-5	Type of signal controllers	Statistical info only
SIGNAL-6	Type of signal firmware	Statistical info only
CORRIDOR-1	Major construction planned?	yes or no – critical
CORRIDOR-2	Corridor length	Statistical info only
CORRIDOR-3	Number of lanes/center median	Statistical info only
CORRIDOR-4	Number of major cross streets	statistical info only

* The numbers indicated do not reflect any priority ranking.