ENTRA CONSULTANTS

Bloomington Public Transportation Corporation

Transit Development Program Update

Executive Summary

September 2009

Excellence in Transportation Planning

Bloomington Public Transportation Corporation

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Exceutive Summary

The Bloomington Public Transit Corporation (BPTC) provides public transit services, including both fixed route bus service and BT Access, a specialized van service for persons with disabilities, to Bloomington residents. In addition to Bloomington Transit (BT), Indiana University (IU) operates its own transit system within the campus serving internal trips of students and employees and Rural Transit offers bus service in the county connecting rural communities to the city of Bloomington.

Following the 2002 Transit Development Program Update, ridership has grown significantly with more than a 40 percent increase from 2002 to 2008. This remarkable growth is attributable to many factors including rising fuel prices, new development within the City, and increased IU student and faculty/staff ridership. In addition, land use and travel demand have also experienced significant changes since the 2002 update.

The objective of this study is to develop a longer-term plan for Bloomington Transit to accommodate the city's growth and reflect the change of land use and travel patterns in the next five to 10 years (2014-2018).

Existing Transit Services

The individual route performances were reviewed in terms of boardings per hour by route direction and time periods of a typical weekday based on the most recent passenger on/off counts (fall 2006). The best performing routes tend to be IU campus focused services operating at higher service frequencies and carrying approximately 70 percent of the total ridership.

Current service and ridership statistics show that approximately 63 percent of total passenger trips are from the east and carried by 34 percent of bus trips. This is expected due to the high student population and activities in this area. Based on our observations, buses are often crowded on routes serving this area, which indicates that the service may not provide sufficient capacity to match the strong transit demand in this area. However, in the south, approximately one third of the total bus trips generate only 20 percent of the total ridership, which indicates that the service may oversupply the demand. The transit ridership, as well as service supply, is relatively low in the rest of the city, especially the southwest with only 6 percent of the total ridership.

In addition to the fixed route service, Bloomington Transit provides curb-to-curb specialized van service to people with disabilities who are unable to use BT's fixed route service. The service is currently operated by a private contractor using a fleet of 10

accessible vans owned by the contractor, under contract to Bloomington Transit. In 2008, BT Access carried approximately 31,500 passenger trips. With 18,900 revenue hours provided, this represents approximately 1.7 passengers per hour.

Customer Surveys and Consultation

Three different types of surveys, including an on-board passenger survey, BT Access riders' survey and an online survey were conducted for this study and all survey results are summarized and analyzed as input to the development of the service plans.

According to the survey results, most transit users are satisfied with the overall service of Bloomington Transit while both on-board and online user surveys show that more weekend service, more service earlier in the day or later in the evening, and more frequent service during A.M. and P.M. peak hours are required for future improvements.

To solicit input from the general public and stakeholders, stakeholder meetings and Community Charrettes were held in the community during the study process. Feedback was used to develop service plans to ensure that transit services are reviewed and implemented in a manner that best meets the needs of the community.

Market Analysis

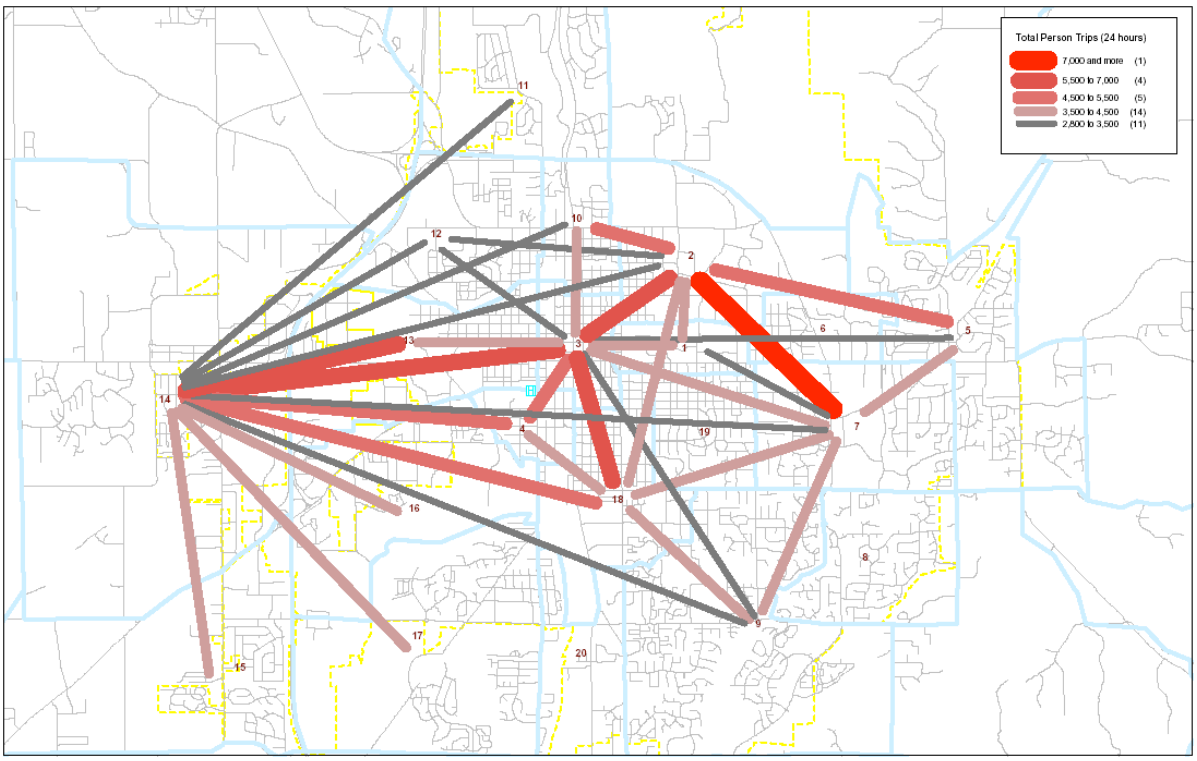
The majority of the residents currently live in the central area of the city and most growth within the city limits is in the southwest part of the city and the areas south of Hillside Drive. Strong growth is expected in the west and north areas beyond the city boundary. The growth in most developed areas such as the central and east is not significant.

Current and projected employment figures show that most jobs are currently located in the central area including downtown Bloomington and the IU campus. Other significant employment areas include the major commercial development areas such as College Mall and the rapid growing area west of SR 37. While downtown Bloomington and the IU campus area within the city will still account for a significant portion of total jobs, most job growth is anticipated in areas west of SR 37 beyond the current city limits.

As expected, the future travel demand projections indicate the significant growth in total person trips will occur in the area west of SR 37 both within and beyond city limits. Travel demand in the southwest part of the city will also experience great increases due to proposed new development. The rest areas of the city will have moderate increases in travel demand.

Exhibit 1 illustrates the projected travel patterns in Bloomington. This map shows the total person trips of the most popular trips between aggregated zones within Bloomington and nearby urbanized areas. Not surprisingly the greatest density of trips are to and from the IU campus and downtown Bloomington with far fewer trips between surrounding communities. However, urban growth and a changing economy have created additional travel patterns in Bloomington and surrounding urbanized areas.

Exhibit 1 – Travel Patterns in 2030



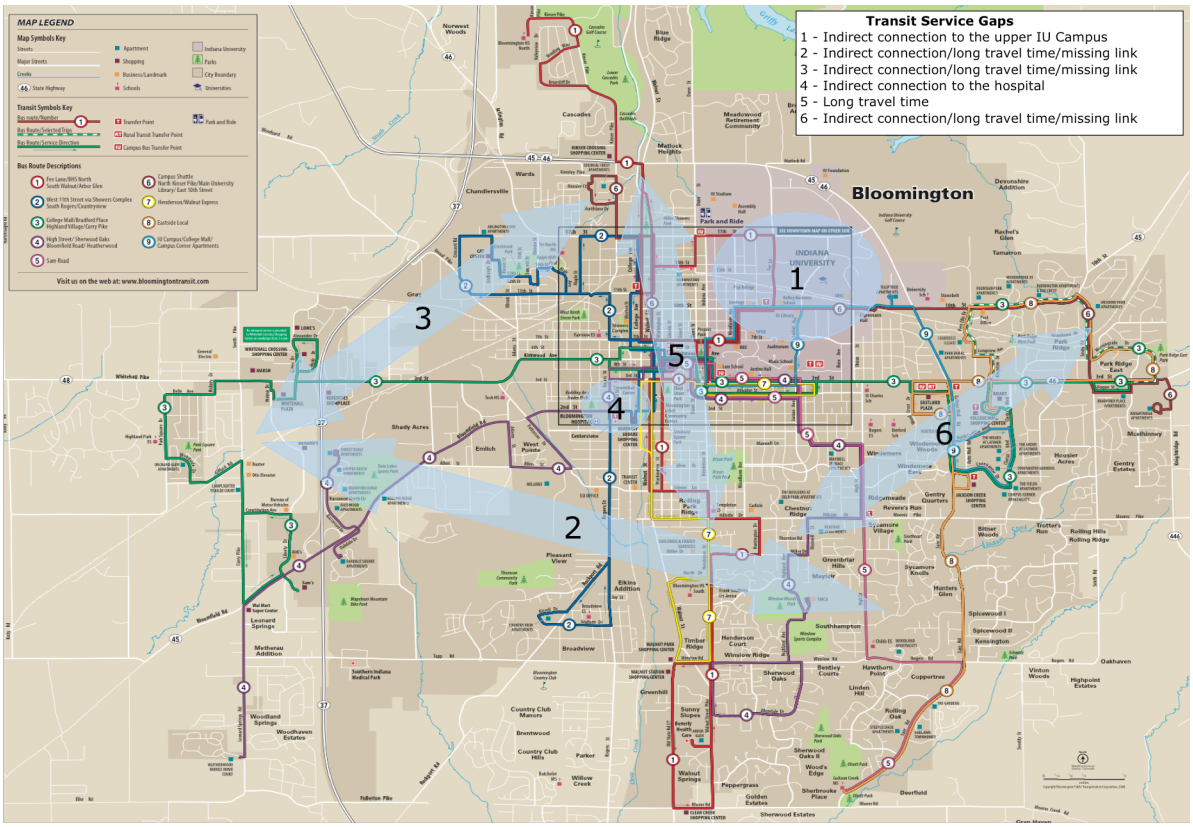
Needs and Opportunities

Exhibit 2 summarizes the existing and anticipated transit service gaps and needs for the future service improvements based on the market and service analysis and the survey results as well as the stakeholder and public consultations.

1. The travel demand is expected to experience a significant increase between the IU campus north zone, where main destinations for the IU students such as the IMU building and the IU library are located, and the south, north and west areas of the city. However, the existing transit service is indirect and lengthy from these areas to the upper IU campus.
2. Based on a comparison of overall travel patterns, it is clear that BT provides a good service to and from the central downtown and IU campus area. However, as significant travel growth is projected between the outlying communities, especially between the west and south, the emerging patterns are not well served. A direct transit connection would be required to meet the future travel demand within and between these areas.
3. There is no direct transit connection between major destinations in the west and the north of the city and no service is provided to the rapidly growing communities northwest of SR 37 beyond the city boundary.
4. A transfer is required to the Bloomington Hospital from most areas in the city, especially from the east including the upper IU campus.

5. Service along the main north-south travel corridor is lengthy and indirect due to service diversion to the IU campus and currently low service frequency (60 minutes) on Route 1N.
6. There is no direct transit service from the south area of the city to the east where there is a substantial density of shopping and commercial development.

Exhibit 2 – Transit Service Gaps



Service Concepts

Three base route network concepts were developed based on the results from the existing service review, stakeholder and public consultations, the public on-line survey, the passenger on-board survey and the market analysis.

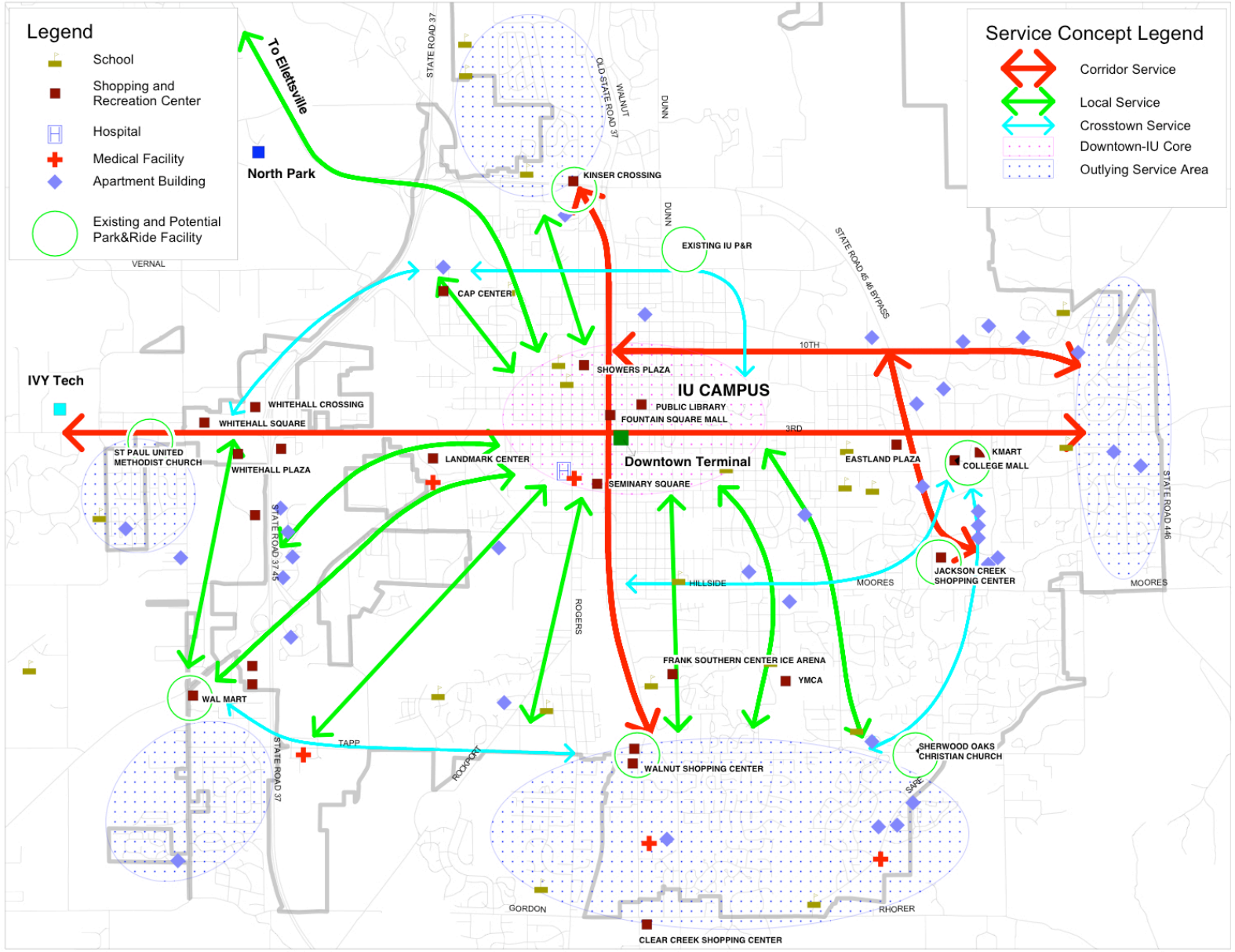
Building on the strengths of the existing transit system, all three concepts were developed to bridge specific service gaps, especially some developed areas and proposed large new developments located outside of the city boundary.

Capital and operating requirements as well as travel time for typical trips were estimated for each concept for comparison purpose. The proposed concepts were reviewed with the Steering Committee and the general public through a Community Charrette. A hybrid version of three concepts was developed based on the results of the alternative analysis and the comments received from the Steering Committee and the general public.

Recommendations

As shown in Exhibit 3, the recommended five to 10 year service plan includes significant changes in service levels with additional service area, increased service frequency and extended service span in most service periods. The plan would require significant investment in transit in the next five to 10 years with an additional nine vehicles and approximately 41,000 service hours compared to the 2008 operations or an additional five vehicles and approximately 27,000 service hours compared to the proposed five-year service plan.

Exhibit 3 – Preferred Service Improvement Plan



For BT Access service, Bloomington Transit should continue to improve and promote the accessibility of its fixed route system to divert as many BT Access trips as possible to the fixed route service. In addition to the ongoing programs such as travel training, trip planning integration between the fixed-route system and BT Access and free travel on Bloomington Transit for registered BT Access riders, other initiatives such as improving stop and neighborhood accessibility and expanding use of communication technology should be considered to further increase use of the fixed route system by BT Access riders.

Financial Plan

Exhibit 4 shows the projected 5-to ten-year financial summary for the preferred service plan and implementation. Financial figures for 2013 were based on the Fixed Route Operational Analysis Study (2007). Ridership was estimated based on the existing trend and the proposed future service improvements.

Exhibit 4 – Financial Plan

	2008	2013 (1)	2014	2015	2016	2017	2018
Operating Cost and Revenue							
Operating Cost							
Total Vehicle-hours	88,000	102,000	108,000	114,000	120,000	126,000	129,000
Cost/hr (2)	$58	$71	$72	$74	$76	$78	$80
Operating Costs	$5,135,429	$7,220,000	$7,827,000	$8,475,000	$9,143,000	$9,837,000	$10,321,000
Ridership and Revenue							
Annual Ridership	2,829,950	3,353,000	3,512,000	3,742,000	4,005,000	4,220,000	4,376,000
Average Fare (3)	$0.54	$0.62	$0.64	$0.66	$0.68	$0.70	$0.72
Passenger Fare Revenue	$1,514,682	$2,080,474	$2,245,000	$2,463,000	$2,715,000	$2,947,000	$3,148,000
Performance Indicators							
Passengers per Hour	32.2	32.9	32.5	32.8	33.4	33.5	33.9
Cost Recovery	29%	29%	29%	29%	30%	30%	31%
Net Operating Cost	$3,620,747	$5,139,526	$5,582,000	$6,012,000	$6,428,000	$6,890,000	$7,173,000
Federal Share - 25% (5)			$1,396,000	$1,503,000	$1,607,000	$1,723,000	$1,793,000
State Share - 45% (5)			$1,675,000	$1,804,000	$1,928,000	$2,067,000	$2,152,000
Local Share - 30% (5)			$2,512,000	$2,705,000	$2,893,000	$3,101,000	$3,228,000
Capital Cost							
Vehicles							
Expansion Vehicles			2	1	1		
Expansion Vehicle Cost (4)			$1,100,000	$550,000	$550,000		
Replacement Vehicles			3	4	3	5	2
Replacement Vehicle Cost (4)			$1,650,000	$2,200,000	$1,650,000	$2,750,000	$1,100,000
Other Capital Costs							
ITS			$100,000	$100,000	$100,000	$100,000	$100,000
Transit Priority Measures			$100,000	$100,000	$100,000	$100,000	$100,000
Park and Ride Facilities (6)			$50,000	$25,000	$25,000	$25,000	$50,000
Bus Stops/Shelters			$25,000	$25,000	$25,000	$25,000	$25,000
Bus Storage Expansion (7)			$300,000	$250,000			
Total Capital Costs			$3,325,000	$3,250,000	$2,450,000	$3,000,000	$1,375,000
Federal Share - 80% (5)			$2,660,000	$2,600,000	$1,960,000	$2,400,000	$1,100,000
Local Share - 20% (5)			$665,000	$650,000	$490,000	$600,000	$275,000

Notes:

(1) 2013 estimates are based on the Fixed Route Operational Analysis Study (2007) with an adjusted average fare to include a 3% annual inflation rate

(2) Operating cost estimated based a assumed 3% annual inflation rate with consideration of fuel savings due to use of hybrid vehicles

(3) Budget price for hybrid vehicle estmated at $550,000

(4) Average fare includes an assumed inflation rate of 3%

(5) The assumptions of operating and capital cost contributions by each level of government are based on Fixed Route Operational Analysis Study (2007)

(6) cost includes passenger pick-up/drop-off, bus stops/shelters, signs and pavement marking

(7) excluding land acquisition cost

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