

Transportation Update

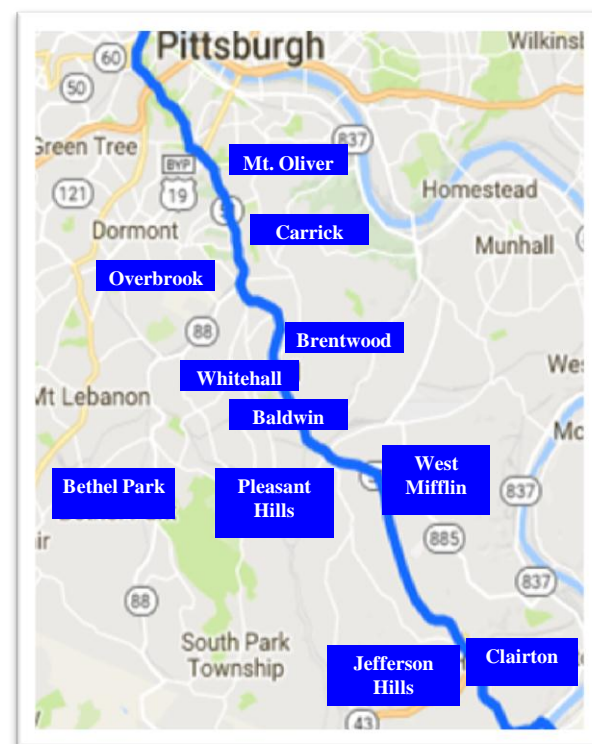
Lynn Colosi Delta Development Group &
Greg Jones Economic Development South



ROUTE 51 CORRIDOR

ROUTE 51 CORRIDOR TRANSPORTATION ALTERNATIVES PROJECT

August 30, 2017



PROJECT RECAP - PREVIOUS WORK AND COMMUNITY INPUT



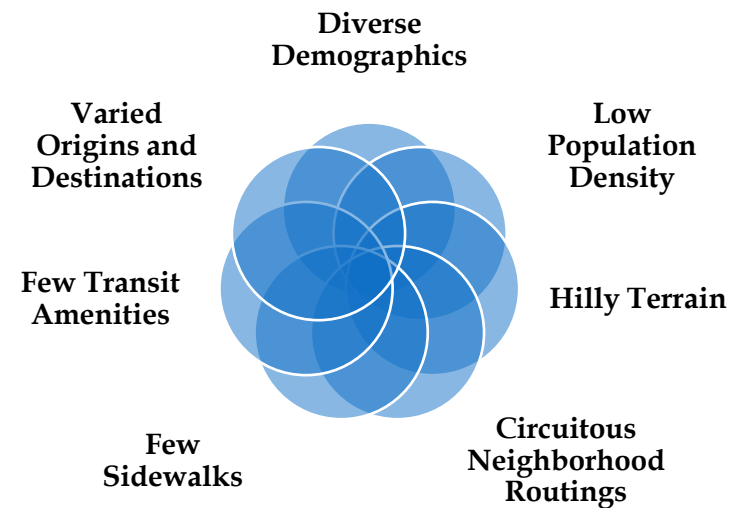
- ✓ **Stakeholder Steering Committee**
 - Advisory, Direction, Feedback
- ✓ **Reviewed Previous Reports and Studies**
- ✓ **Researched Best Practices**
- ✓ **Public Outreach**
 - Survey, Meetings, Follow-Up Calls



PROJECT RECAP - MARKET AND SERVICE AREA CONDITIONS



- **Majority of Residential Areas Are Not Conducive to Operating Traditional Transportation Services**



PROJECT RECAP - MARKET AND SERVICE AREA CONDITIONS



- Current Transportation Services in the Corridor



PROJECT RECAP - MARKET AND SERVICE AREA CONDITIONS



EXAMPLES OF PASSENGER FARES

FROM	TO	PAAC	LYFT	UBER	FLITWAYS	SHARED RIDE SENIOR OR PERSON WITH A DISABILITY	SHARED RIDE NON- SPONSORED
Large	Downtown Pittsburgh	\$2.75*	\$22	\$20-\$27	\$51 - \$104	\$5.25	\$35
Clairton	Jefferson Hospital	\$2.75*	\$10	\$8-\$11	Not Available	\$3.15	\$21
Brentwood	Jefferson Hospital	\$2.75*	\$13	\$11-\$15	\$24 - \$42	\$3.90	\$26
Brentwood	Downtown Pittsburgh	\$2.75*	\$12	\$11-\$14	\$30 - \$55	\$3.15	\$21

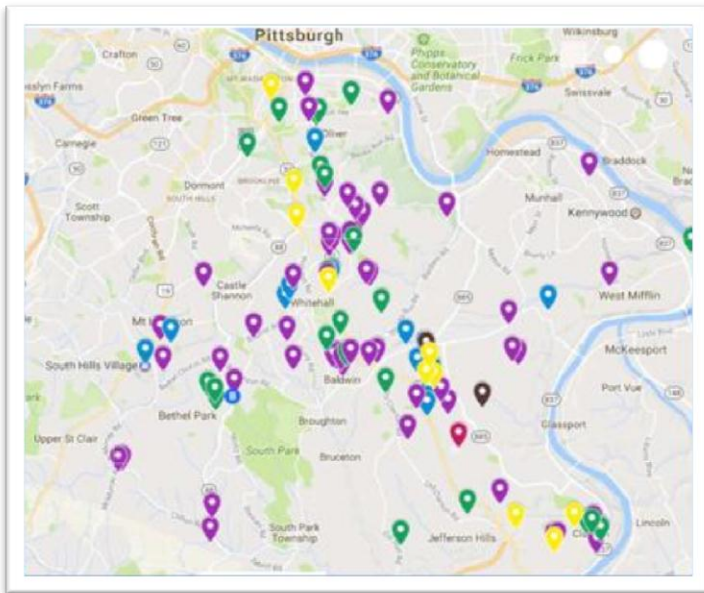
**The fare for PAAC riders using a ConnectCard is \$2.50.*



PROJECT RECAP - MARKET AND SERVICE AREA CONDITIONS



- Non-Centralized Origins and Destinations



- Diverse Demographics

DEMOGRAPHIC	RANGE AMONG COMMUNITIES	
Population	3,403	32,322
Median Age	36.2	47.0
Senior Population	10.9%	23.8%
Minority Population	3.6%	40.2%
Disabled Population	7.8%	23.7%
Limited English Proficient Population	0.2%	6.4%
Median Household Income	\$ 28,155	\$ 77,854
High School Graduate or Higher	65.0%	97.0%
Below Poverty Level	3.5%	36.6%
Work in Place of Residence	1.5%	21.6%
Mean Travel to Work	27.9 minutes	32.0 minutes
No Vehicle Available	0.9%	11.8%
Drive Alone	56.3%	80.8%
Carpool	7.0%	11.9%
Public Transit	3.4%	27.3%
Walk	0.4%	5.0%
Bike	0.0%	0.5%
Other	0.4%	3.0%
Work at Home	0.9%	6.2%

PROJECT RECAP - PROBLEMS WITH FIXED ROUTE SERVICE



- **Current Fixed Route Services Can be Problematic**



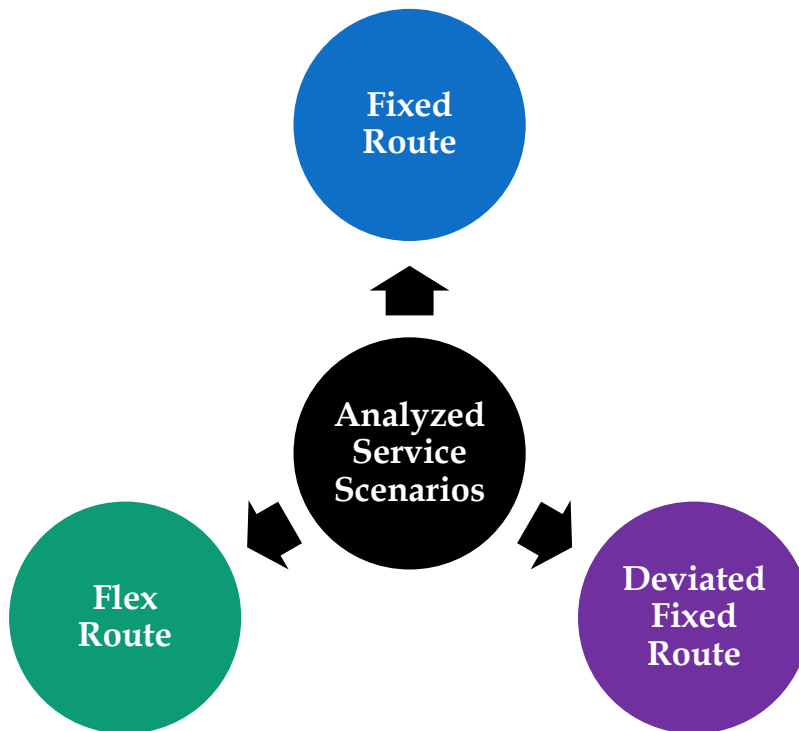
- majority of routes radial
- service primarily designed to serve downtown Pittsburgh
- operates primarily on Route 51 and Brownsville Road
- may be required to drive to a park-n-ride
- access to stops can be problematic
 - distance
 - terrain
 - lack of sidewalks
 - narrow pathways
 - limited sight distance
 - poor lighting
 - safety/

SERVICE ANALYSIS- OTHER KINDS OF TRANSIT SERVICES



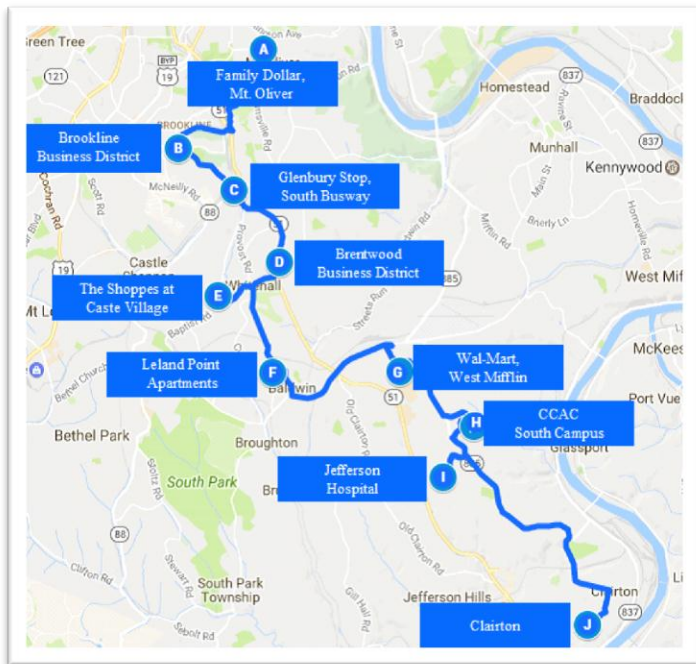
SERVICE TYPE	DESCRIPTION	VEHICLE CAPACITY
Fixed Route	Transit service that operates a prescribed base route with fixed bus stops and on a designated fixed schedule	50+ passengers
Deviated Fixed Route	Transit service that operates a prescribed base route on a designated fixed schedule but can deviate off course to destinations and origins as ordered/reserved by rider	12-25 passengers
Flex Route	Shuttle service that serves a few main destinations on a fixed schedule; rider orders/reserves pick up and at destination rider tells the shuttle driver the return pick up location	12 to 25 passengers
Demand Response	Point to point pick up and drop off; typically implemented in lower demand or rural areas; riders call 48 hours in advance to schedule pick up and drop off	2 to 12 passengers
Ride-Share (Uber, Lyft)	Social network based; on-demand taxi-like service; rides are scheduled by using mobile phone connected to web service to set up rides; mostly uses professional drivers; riders pay for trip by setting up account with credit card	1 to 6 passengers
Ride-App	Social network, ride sourcing application; on-demand service; app users sign up as drivers and app coordinates rides with drivers and those headed in the same direction or going to similar destination	1-6 passengers

SERVICE ANALYSIS- DELIVERY TYPES EXAMINED



SERVICE ANALYSIS- DELIVERY TYPES EXAMINED

FIXED ROUTE EXAMPLE

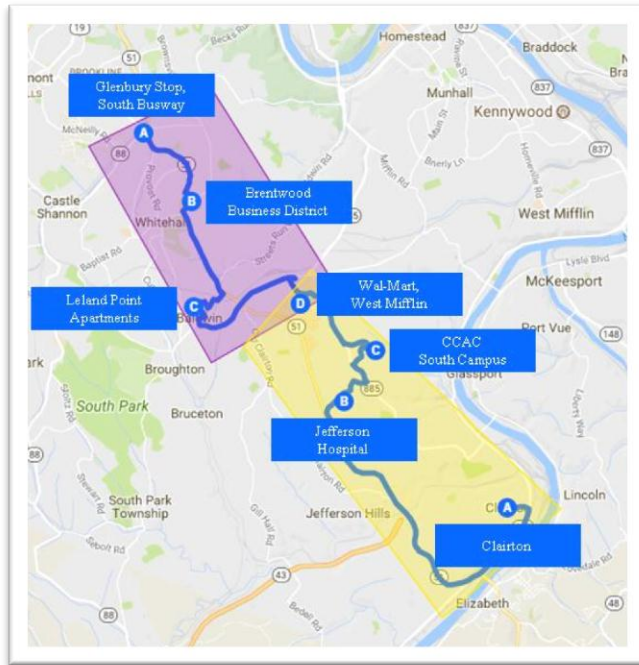


CHARACTERISTICS

- Designated route
- Specific bus stops
- Fixed trip times and schedules
- Always to/from the same destinations
- Port Authority's service type

SERVICE ANALYSIS- DELIVERY TYPES EXAMINED

DEVIATED FIXED ROUTE EXAMPLE



CHARACTERISTICS

- Service operates along fixed alignment or base route
- Specific bus stops on base route
- Fixed trip times and schedules
- Can “deviate” from base route within pre-defined distance to pick up or drop off riders who request a deviation
- ACTA’s service type

SERVICE ANALYSIS- DELIVERY TYPES EXAMINED



FLEX ROUTE EXAMPLE



CHARACTERISTICS

- Route always serves specific major destinations
- Fixed trip times and schedules
- Between destinations routing can be flexible based on pre-defined distance for additional pick ups and drop offs
- ACTA's service type

SERVICE ANALYSIS- DELIVERY TYPES EXAMINED



Compare

COMPARISON SUMMARY OF SERVICE SCENARIOS					
	Fixed Route Basic	Fixed Route Enhanced	Fixed Route Revised	Deviated Fixed Route	Flex Route
Service Span	6:00 a.m. to 9:00 p.m.	6:00 a.m. to 10:00 p.m.	6:00 a.m. to 9:00 p.m.	6:00 a.m. to 10:00 p.m.	6:00 a.m. to 10:00 p.m.
Number of Routes	1	1	2	2	3
Number of Daily Trips	28	28	56	32	48
Riders per Trip	1	2	2	3	2
Number of Vehicles	4	6	4	2	3
Daily Revenue Hours	56	84	56	32	48

SERVICE ANALYSIS- DELIVERY TYPES EXAMINED



COMPARISON SUMMARY OF SERVICE SCENARIOS					
	Fixed Route Basic	Fixed Route Enhanced	Fixed Route Revised	Deviated Fixed Route	Flex Route
Daily Ridership	28	56	112	96	96
Annual Ridership	7,280	14,560	29,120	24,960	24,960
Daily Cost	\$3,640	\$5,460	\$3,640	\$2,080	\$3,120
Annual Cost	\$946,400	\$1,419,600	\$946,400	\$540,800	\$811,200
Daily Revenue	\$35	\$70	\$140	\$120	\$120
Annual Revenue	\$9,100	\$18,200	\$36,400	\$31,200	\$31,200
Daily Net Cost	\$3,605	\$5,390	\$3,500	\$1,960	\$3,000
Annual Net Cost	\$937,300	\$1,401,400	\$910,000	\$509,600	\$780,000
Break Even Fare/ Cost per Passenger	\$130	\$98	\$33	\$22	\$33
Assumptions: Fare \$2.00/Average Fare \$1.25. Operating Cost per Revenue Hour \$65.					

Compare

RECOMMENDED SERVICE TYPE



Deviated Fixed Route

DEVIATED FIXED ROUTE

- Service can meet majority of the communities' needs
- Provides customers with fixed timepoints as well as on-demand door-to-door service
- Most economical (least amount of required vehicles, revenue hours, cost and cost per passenger)
- Highest passenger per trip forecast
- Combines fixed and flexible routings
- All timepoints have connections with PAAC
- Easier to understand and communicate

RECOMMENDED SERVICE TYPE

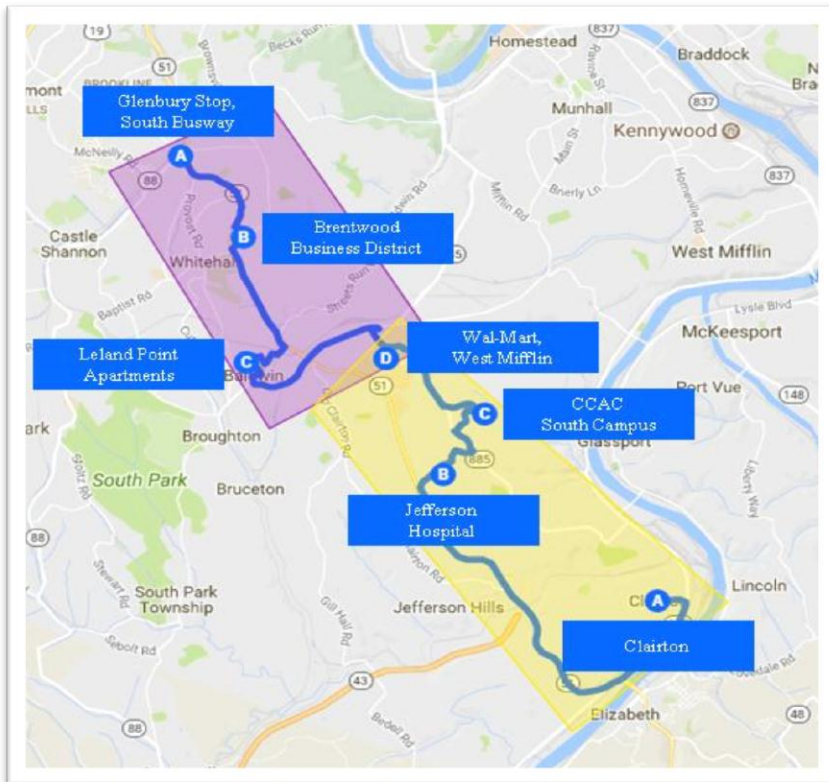


HOW TO RIDE DEVIATED FIXED ROUTE SERVICE

- **2 WAYS TO RIDE THE SERVICE**

1. Go to a designated bus stop, get on the vehicle and get off at a destination along the route
2. If a rider can't get to a designated bus stop or if their desired destination is not on the route then:
 - a. Rider calls the transit office to schedule pick up at their location, gets on the vehicle, tells driver desired destination
 - b. Prior to getting off the vehicle at desired destination rider tells the driver what time they want to be picked up and where they want to be dropped off

RECOMMENDED SERVICE TYPE - POTENTIAL ROUTES AND SERVICE SPANS



DEVIATED FIXED ROUTE

DEVIATED FIXED ROUTE SERVICE SCENARIO SUMMARY					
	Service Span	Hourly Trip Start Time	Number of Trips	Number of Vehicles	Revenue Hours
Route 1 Purple	6:00 a.m. to 10:00 p.m.	6:00 a.m. to 9:00 p.m.	16	1	16
Route 2 Yellow	6:00 a.m. to 10:00 p.m.	6:00 a.m. to 9:00 p.m.	16	1	16

RECOMMENDED SERVICE TYPE - POTENTIAL ROUTES AND SERVICE SPANS



ROUTE 1 - PURPLE (POTENTIAL ROUTING)

From- Glenbury Street
R- Route 51
L- Towne Square Way
R- Brownsville Road
L- Clairton Blvd (Route 51)
R- Grace Street
R- Macassar Drive
L- Holdsworth Drive
R- Wolfe Drive (Wolfe becomes Knoedler)
L- Keepport Drive
L- Youngridge Drive (Youngridge becomes Travis)
L- Keepport Drive
L- Curry Hollow
Continue- to Lebanon Church Road
R- Mountain View Drive
L- Century Drive
R- WalMart

ROUTE 2 - YELLOW (POTENTIAL ROUTING)

From- 3rd Street (Clairton)
L- Clair Avenue
R- State Street
Merge- Route 51N ramp
R- Coal Valley Road
R- Jefferson Hospital
R- Coal Valley Road
L- Clairton Road
R- South Campus Way
R- College Drive/CCAC South
R- Clairton Rd
L- Century III Mall
R- Mountain View Drive
L- Century Drive
L- WalMart

RECOMMENDED SERVICE TYPE - POTENTIAL ROUTES AND SCHEDULES



ROUTE 1 PURPLE (P.M. TIMES ARE IN BOLD)							
Glenbury South Busway Stop	Brentwood Business District	Leland Point Apartments	Wal-Mart	Wal-Mart	Leland Point Apartments	Brentwood Business District	Glenbury South Busway Stop
6:00	6:20	6:40	7:00	7:00	7:20	7:40	8:00
8:00	8:20	8:40	9:00	9:00	9:20	9:40	10:00
10:00	10:20	10:40	11:00	11:00	11:20	11:40	12:00
12:00	12:20	12:40	1:00	1:00	1:20	1:40	2:00
2:00	12:20	12:40	3:00	3:00	3:20	3:40	4:00
4:00	4:20	4:40	5:00	5:00	5:20	5:40	6:00
6:00	6:20	6:40	7:00	7:00	7:20	7:40	8:00
8:00	8:20	8:40	9:00	9:00	9:20	9:40	10:00
ROUTE 2 YELLOW (P.M. TIMES ARE IN BOLD)							
Clairton	Jefferson Hospital	CCAC South Campus	Wal-Mart	Wal-Mart	CCAC South Campus	Jefferson Hospital	Clairton
6:00	6:20	6:40	7:00	7:00	7:20	7:40	8:00
8:00	8:20	8:40	9:00	9:00	9:20	9:40	10:00
10:00	10:20	10:40	11:00	11:00	11:20	11:40	12:00
12:00	12:20	12:40	1:00	1:00	1:20	1:40	2:00
2:00	12:20	12:40	3:00	3:00	3:20	3:40	4:00
4:00	4:20	4:40	5:00	5:00	5:20	5:40	6:00
6:00	6:20	6:40	7:00	7:00	7:20	7:40	8:00
8:00	8:20	8:40	9:00	9:00	9:20	9:40	10:00

RECOMMENDED SERVICE TYPE - POTENTIAL CONNECTIONS



DEVIATED FIXED ROUTE TIMEPOINTS AND PAAC ROUTE CONNECTIONS								
		Glenbury Stop	Brentwood Business District	Leland Point Apartments	Wal-Mart	CCAC South Campus	Jefferson Hospital	Clairton
Y1	LARGE FLYER	✓	✓					
Y45	BALDWIN MANOR FLYER	✓						
Y46	ELIZABETH FLYER	✓	✓					✓
Y47	CURRY FLYER	✓		✓	✓	✓		
Y49	PROSPECT FLYER	✓	✓		✓	✓		
51	CARRICK		✓		✓			
51L	CARRICK LIMITED		✓					
53	HOMESTEAD				✓			
53L	HOMESTEAD PARK LIMITED				✓			
55	GLASSPORT				✓	✓	✓	✓
59	MON VALLEY				✓			



RECOMMENDED SERVICE TYPE - RIDERSHIP FORECASTS AND COST ESTIMATES

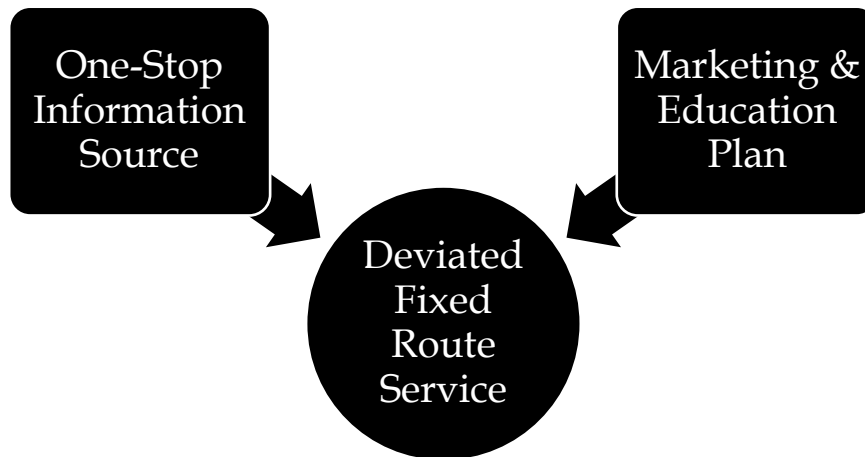


Projected Deviated Fixed Route Ridership							
	Ridership per Trip	Daily	Daily	Weekdays Only Service		7 Days a Week Service	
		Trips	Ridership	Weekly	Annual	Weekly	Annual
Total	3	32	96	480	24,960	672	34,944
Estimated Costs for Deviated Fixed Route Service Scenario							
				Weekday Only Service		7 Days a Week Service	
	Daily Revenue Hours	Hourly Cost		Weekly	Annual	Weekly	Annual
Total	32	\$65		\$10,400	\$540,800	\$14,560	\$757,120
Projected Deviated Fixed Route Revenue							
	Base Fare	Average Fare	Weekdays Only Service		7 Days a Week Service		
			Weekly	Annual	Weekly	Annual	
Total	\$2.00	\$1.25	\$600	\$31,200	\$840	\$43,680	
Net Cost							
	Weekdays Only Service			7 Days a Week Service			
	Weekly	Annual		Weekly		Annual	
Total	\$9,800	\$509,600		\$13,720		\$713,440	

RECOMMENDED SERVICE TYPE - VEHICLES TYPES AND SIZES



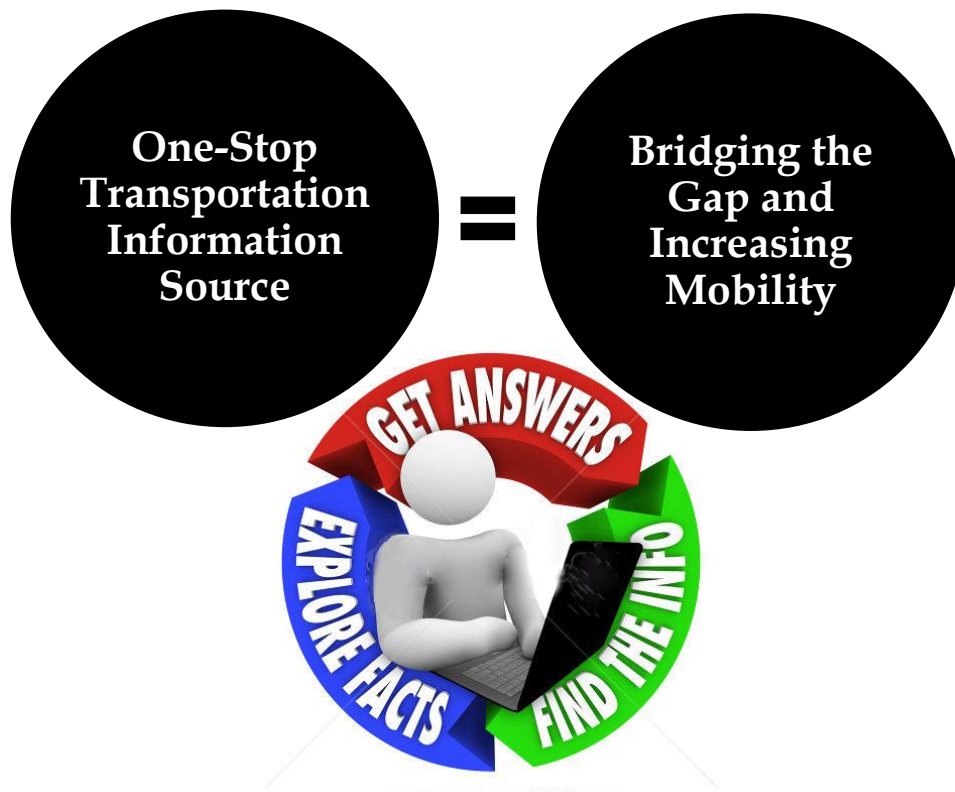
IMPORTANT ELEMENTS - SUPPORTING THE SERVICE RECOMMENDATION



RECOMMENDED

**MULTI-FACETED
APPROACH**

ONE-STOP INFORMATION SOURCE

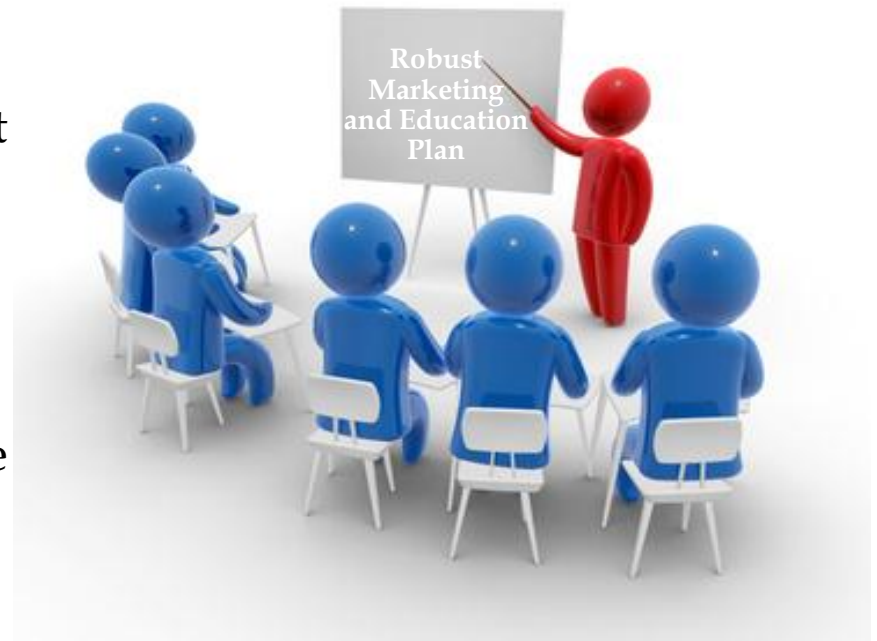


- ✓ One place where customers can learn about all transportation options available to them
- ✓ Information by phone or technology platform (website, app)
- ✓ All services, modes – public or private - including trip planning and connections
- ✓ Cost of trip, length of time, and return service and connections

GRASS ROOTS MARKETING & EDUCATION PLAN



- Identify goals and objectives
- Identify target markets
- Determine strategies to advertise, market and promote new service
- Create information and marketing materials, social media platforms
- Develop metrics to measure success
- Meet with stakeholders, agencies and the public about service
- Measure success
- Modify plans as needed



KEYS TO SUCCESS



Stakeholder guidance

Process to keep all
transportation
information current

Marketing, education
and branding to
attract diverse
demographics

Comprehensive grass
roots marketing and
education plan

Monitor, measure and
adjust

Outreach before
launch to confirm
information and stops

Service provider that
can deliver
exceptional customers
service

Bus stop locations
with as many transit
amenities as possible

Meeting with PAAC

Technology for
service delivery and
customers

Environmentally
friendly vehicle

Flexible service

Connections with
PAAC

Safe, secure, reliable
and affordable

NEXT STEPS - IMPLEMENTATION



- **NEXT STEPS**

- Identify project point person
- Convene partners
- Refine service plan
- Identify and obtain funding
- Finalize implementation, and marketing & education plans
- Kick-off and implement new service
- Measure, monitor, and adjust



WRAP-UP



QUESTIONS AND ANSWERS

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