



Title VI Service Equity Analysis for October 2019 Service Change

July 2019



Purpose

In compliance with Title VI of the Civil Rights Act of 1964, the Federal Transit Administration (FTA) requires all transit agencies receiving federal funding to monitor the performance of their systems, ensuring services are made available and/or distributed equitably. Each transit agency must develop a Title VI Program to document its policies and procedures for meeting FTA requirements. The DART Title VI Program (last updated in May 2019) stipulates that any major service change must be evaluated to determine its impact on minority (race, ethnicity or national origin) and low-income populations.

The Des Moines Area Regional Transit Authority (DART) is the primary fixed-route transit operator serving the Des Moines Metropolitan Area and the largest public transit agency in Iowa. The agency serves 11 cities and other parts of Polk County. Member communities include: Altoona, Ankeny, Bondurant, Clive, Des Moines, Grimes, Johnston, Pleasant Hill, Urbandale, West Des Moines, and Windsor Heights. DART operates Local, Express, Shuttle, and On-Call services.

DART has proposed service changes to several services. Changes are proposed to improve efficiency and productivity of DART's services. These changes are scheduled to take effect in October 2019, pending DART Commission approval. This Title VI analysis will perform the following functions:

- Describe the proposed changes
- Determine whether the proposed changes constitute a "major service change" or not,
- Evaluate how the proposed changes may impact low-income and minority populations, and
- Identify strategies to avoid, minimize, or mitigate any disproportionate burdens, disparate impacts or any potentially negative outcomes.

Relevant Policies

DART's Service and Fare Equity Policy (approved by the Commission in March, 2019 and included in DART's 2019 Title VI Program Update) outlines how Title VI analysis should be performed for any major service change. The following definition apply to this service change Title VI analysis:

- **Major Service Change:** A major service change is when 25 percent or more of a route's revenue hours or revenue miles is added or reduced, or when the total revenue hours for the system are expanded or reduced by 10 or more percent."(DART 2019 Title VI Program Update, Service and Fare Equity Policy)
- **Disparate Impact:** DART will consider a proposed major service change to have a disparate impact if the affected route's minority population is more than 5 percentage points greater than the system average.
- **Disproportionate Burden:** DART will consider a proposed major service change to have a disproportionate burden if the affected route's low-income population is more than 5 percentage points greater than the system average.



Proposed Changes

DART is continually evaluating its schedules and services to improve efficiency and optimize resources. In review of system and route performance since the August 2018 service changes, DART determined productivity was falling below service standards on some routes. The proposed service changes for October 2019 include trip consolidation, route realignments, route elimination, service reductions, and service enhancements. Table 1 summarizes the proposed service changes for October 2019.

Table 1: Proposed Service Changes for October 2019

Route	Proposed Service Change for October 2019
10 – East University	Remove Midday service due to low ridership and sunset of funding partnership
11 – Ingersoll Age	Extend route to multi-family housing complex to improve productivity of route
52 – Valley West / Jordan Creek	Realign route to improve operation of service and legibility for riders
72 – West Des Moines / Clive Flex	Remove inefficient “Flex” portion of service Realign route to create loop that serves more parts of the communities
73 – Urbandale / Windsor Heights	Discontinue Service Replace with Mobility on Demand Pilot
74 – Urbandale Flex	Discontinue “Flex” Service Extend Route to Windsor Heights via University Ave.
92 – Hickman Express	Consolidate underutilized afternoon trips to increase efficiency
93 – NW 86 th Express	Extend route to Grimes Walmart Adjust service schedule Consolidate underutilized trips to increase efficiency
95 – Vista Express	Consolidate underutilized trips to increase efficiency
96 – EP True Express	Adjust Trip Times
98 – Ankeny Express	Consolidate underutilized midday trips Realign service to no longer serve DMACC Urban Campus
Ankeny on Call Shuttle	Expand hours of service Expand Service Zone
Grimes On Call Shuttle	Discontinue Service Replace with Route 93 extension
Deer Ridge Shuttle	Discontinue Service Replace with Route 11 extension
Mobility on Demand Pilot	Introduce Mobility on Demand Pilot to replace Route 73

Impact of Proposed Changes

DART policy requires that all major service changes be evaluated for any potential disproportionate burden or disparate impact. The impacts of proposed changes must be calculated to determine whether or not the change is a "major service change." Route-by-route changes in annual revenue hours and miles is summarized in Table 2 located in the appendix.

Result: DART defines a "major service change" as when 25 percent or more of a route's revenue hours or revenue miles is added or reduced, or when the total revenue hours for the system are expanded or reduced by 10 percent". Analysis of DART's October 2019 planned service changes compared to existing revenue miles and hours found the following changes meet the criteria of a major service change: Routes 10, 11, 52, 72, 73, 92, 95, Ankeny On-Call, Deer Ridge Shuttle, and Grimes On-Call (See Appendix Table 2). Thus, changes to these routes will be the focus for the remainder of the report. Changes to remaining impacted routes are not considered a major service change by DART's policy.

Proposed Changes that will disproportionately impact minority and/or low income populations

Route 10 Midday Service Reduction

DART created Local Route 10 in 2016 as a partnership with Broadlawns Medical Center to provide all day service to its East University Clinic. Previously, there was an extension of Route 1 that traveled along East University to Pleasant Hill during peak hours only. After several years in service, ridership along Route 10 still does not meet DART's service standards, and Broadlawns isn't able to continue subsidizing the service. Therefore, DART is proposing to discontinue Route 10 midday service, essentially returning service to the level it was at prior to the partnership with Broadlawns. Route 10 would continue to operate with the same alignment and schedule during the peak hours.

This change reduces revenue miles and hours by more than 25%, the threshold for being a major service change. Route 10 also has a finding of being a route serving an area of above average minority population compared to the DART service area as a whole. The analysis of the service reduction and affected demographics can be found in the appendix. While the reduction in service hours and miles is significant, Route 10 does not meet DART service standards and has been identified for remedial action.

A potential mitigation to the disparate impact of reducing service on Route 10 would be to identify additional revenues or savings from other routes so that midday service could be retained. There are not other major businesses or institutions along the route that might be interested in partnering to continue midday service. Also, midday ridership does not justify transferring resources from another route.

The change to Route 10 is therefore recommended since it reverts service back to 2016 levels and is the result of an attempt to improve service along the corridor and none of the identified mitigation measures were feasible or advisable.

Other major service changes where minority and low income populations were not disproportionately impacted.

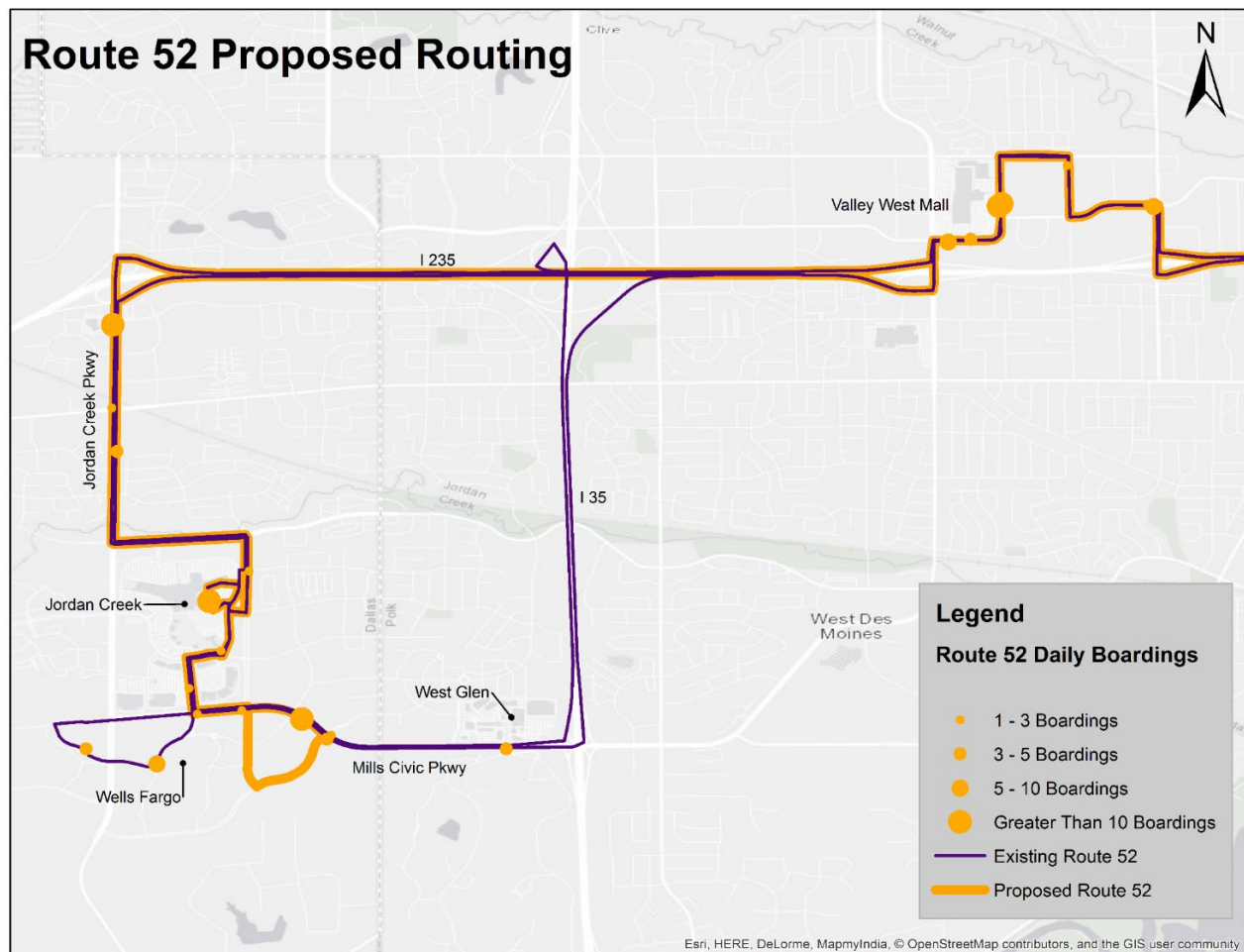
DART Route 11

DART proposes alignment changes in order to improve the productivity of the route and in order to serve the Deer Ridge multifamily housing complex. Service hours and miles will be increased as a result of the alignment change. Schedule changes are also proposed in order to increase the span of service to offer improved access to the transit network. The increase in span will come at a cost to frequency of AM and PM peak trips.

DART Route 52

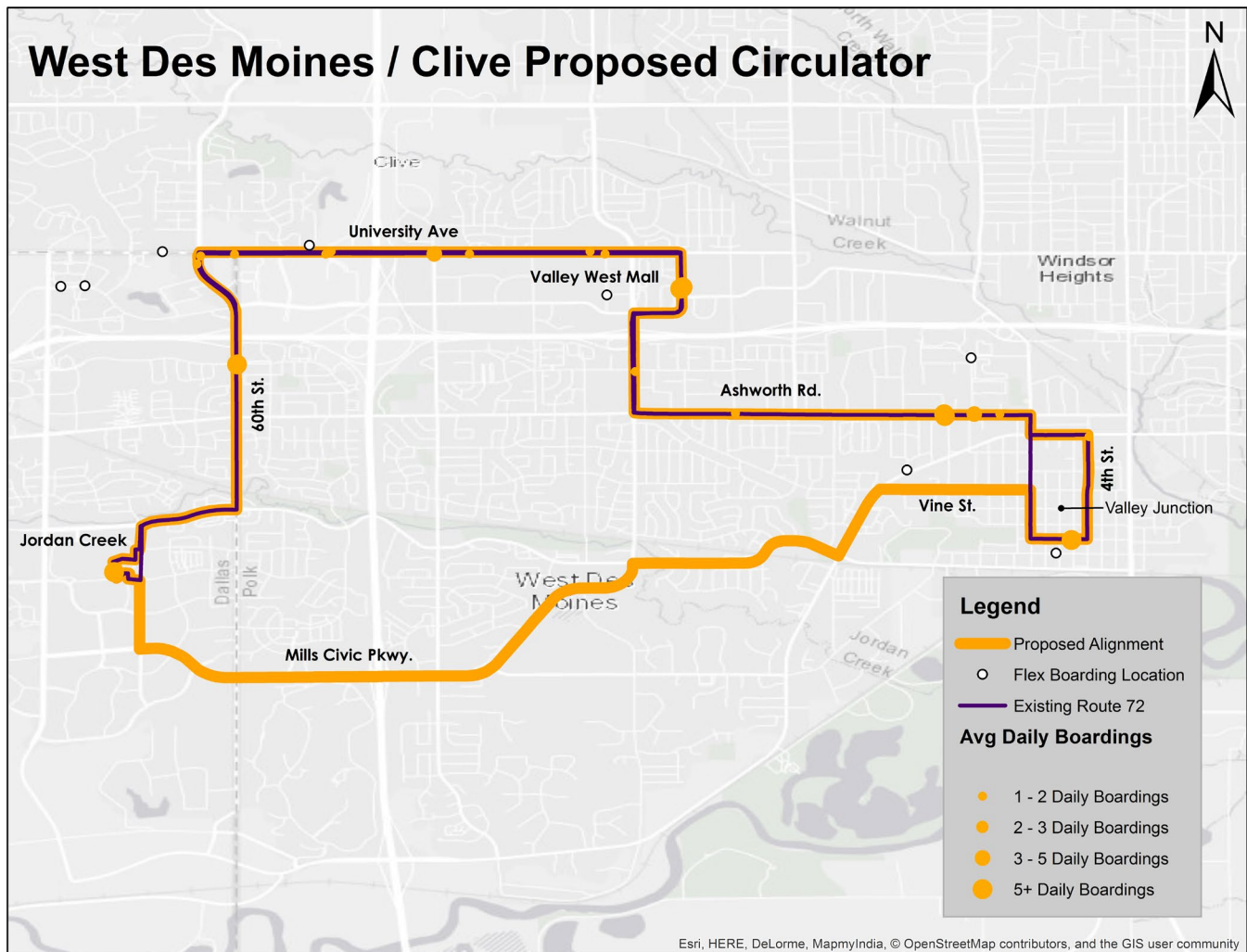
DART proposes changes in the alignment of the existing route. The current alignment for Route 52 includes a one-way loop along Mills Civic Parkway and I-35 which changes direction depending on time of day. DART proposes to eliminate this loop, as it does not contribute to route productivity and legibility of the service. Proposed alignment will create a bi-directional line to improve the usability of the service. This change causes an increase in revenue miles by more than 25%.

Proposed Route 52 Alignment



DART Route 72

DART proposes to discontinue the Flex 72 route in order to realign the service into a fixed route circulator to increase the usefulness of the route. Existing flex ridership is very low which causes the bus to sit for extended periods of time when no flex trips are scheduled. The proposed route will extend service to Mills Civic Parkway in West Des Moines to create a bi-directional loop. Much of the existing fixed portion of the route will remain. While service hours only slightly increase, revenue miles will increase significantly as an increased number of trips have been added to the route with the time saved from discontinuing the flex portion of the route.



DART Route 73

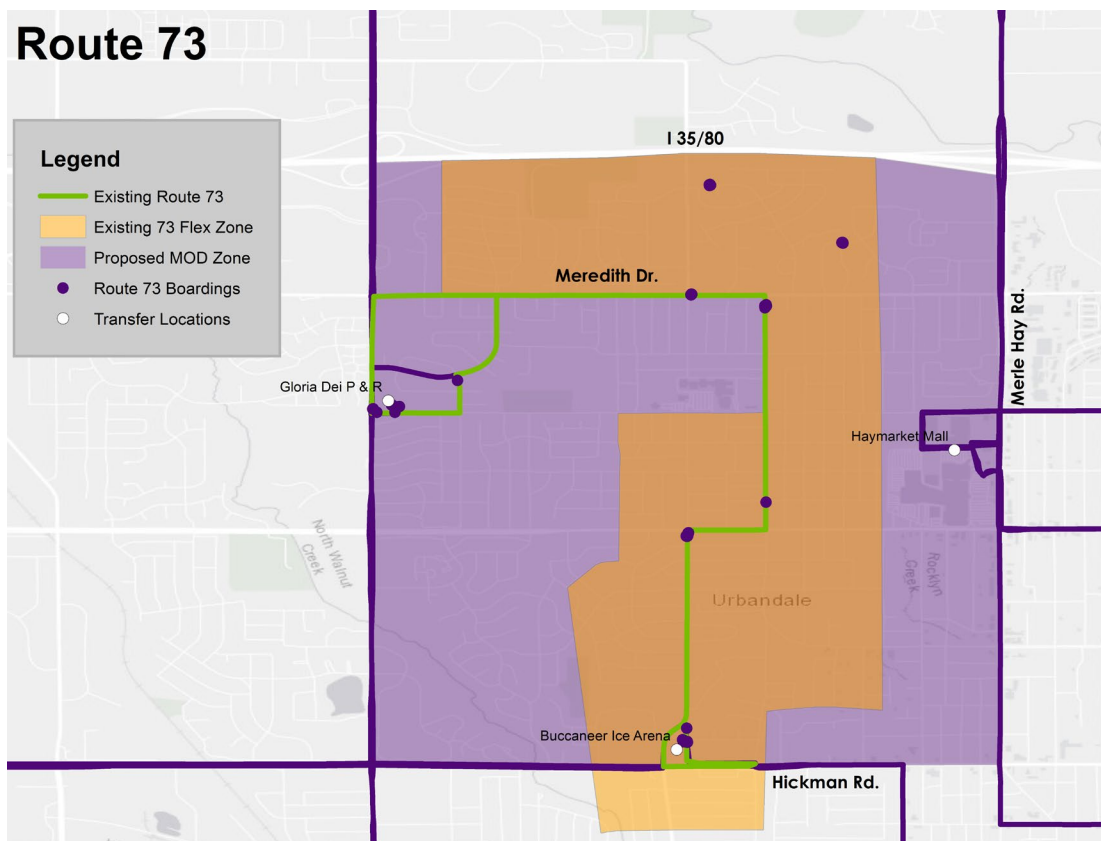
DART proposes to discontinue service on Flex Route 73 and replace it with a pilot project for Mobility on Demand (MOD) service. Currently, Route 73 operates during peak travel commute times on weekdays, connecting residents to Express Routes 93 and 92 at the Gloria Dei and Buccaneer Ice Arena Park & Ride lots. Route 73 averages approximately five boardings per day.

The MOD pilot would allow DART to partner with one or more private transportation companies, such as local taxis, Uber or Lyft, to provide service within a designated zone. Qualifying trips

would have to start or end at either the Gloria Dei (Route 93) or Buccaneer Ice Arena (Route 92) Park & Ride lots, or at Merle Hay Mall (Routes 5, 14, 16 and 50).

Under this service model, a rider would request a trip using a smart phone app or call-in number from their home or one of those three locations. DART would subsidize the full cost of the trip as long as customers were transferring to a DART bus route. This type of service allows for more transfer opportunities for those currently using Flex Route 73, including to popular local routes. Additionally, the service will be available from 5:30 a.m. to 8 p.m. every weekday, expanding opportunities to utilize DART.

DART will design the service to ensure that there are options to accommodate people with a mobility device that require a vehicle with a ramp or lift, customers who can't or choose not to pay by credit card, or people without smart phones or those who wish to book a trip over the phone. The pilot nature of the program allows DART to adjust the service as necessary to meet the needs of our customers.



DART Route 75 Grimes On-Call

DART proposes to eliminate the Grimes On-Call route due to the low use and efficiency of the service. Instead, DART will serve the area with an extension on the route 93 NW 86th Street.

DART Route 76 Deer Ridge Shuttle

DART proposes to eliminate the Deer Ridge Shuttle. This service was put in place as a temporary measure while a long term solution was planned and implemented. Currently, the shuttle operates just two days a week with limited access to just one stop at the Windsor Heights

WalMart. This area will instead be served by a weekday service fixed route 11. The proposed service extension on the Route 11 will provide expanded access to the transit network and a direct route into downtown Des Moines.

DART Route 92

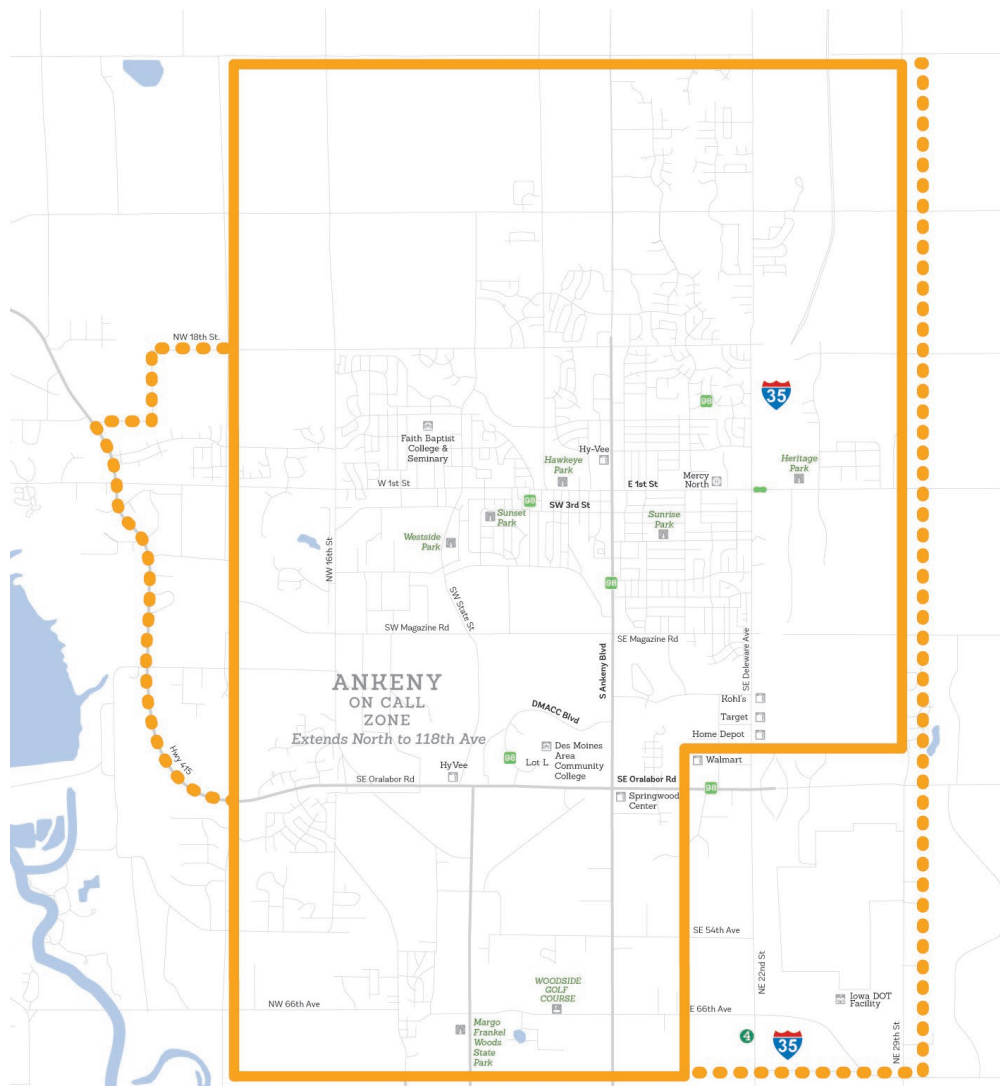
DART has proposed consolidating two PM peak trips with low ridership on Route 92. The proposed schedule consolidates those trips into five outbound trips and two inbound trips. Morning trips are not affected by this change.

DART Route 95

DART Proposes to consolidate trips in both the AM and PM peak commute times. Existing AM trips will be reduced from four to three trips and PM trips will be reduced from four to three trips. Trips times were also adjusted slightly to improve departure and arrival times downtown.

Ankeny On-Call Service

DART is proposing to increase the span of service hours from the current schedule of three days a week with limited hours to operating all weekdays from 9 a.m. to 4 p.m. DART also proposes to increase the service zone to include the Iowa DOT.





Public Participation Plan and Outreach

DART staff designed a Public Participation Plan in accordance with the agency's Title VI Program guidelines to share proposed service changes with the public and gather meaningful feedback. DART has offered early and continuous opportunities for the public to be involved in the identification of social, economic, and environmental impacts of the proposed service changes. Outreach efforts occurred in the Fall of Winter of 2018 to collect feedback on existing conditions as well as in Spring of 2019 to share recommended changes and collect feedback.

Information about the proposed changes was shared online (www.ridedart.com/2019), on board affected routes, on social media, and through two rounds of public meetings in each of the following member communities: Ankeny, Clive, Des Moines, Grimes, Urbandale, and West Des Moines. The meetings were publicized in advance via on-board and email messages to riders. For those unable to attend the meetings, notices made customers aware that comments could be directed to DART Customer Service by phone or email. A video overview of the changes and opportunity to ask questions and provide feedback was streamed on Facebook Live and made available thereafter.

Public feedback has been mostly supportive of the proposed changes, however some customers have expressed concerns about reductions to services that they rely on, or that DART is not going far enough to improve services in some areas. In particular, DART received a number of concerns about proposed alignment changes from customers who ride Route 52 to the Wells Fargo and Athene campuses near Jordan Creek in West Des Moines. Additionally, DART was responsive to concerns raised by customers of the Grimes/NW Johnston On Call and Grimes City council to ensure that the alignment for the extension of Route 93 best served area residents. DART also received several comments from customers who would like to see the midday service on Route 10 maintained.

Conclusion

Since implementing substantial schedule changes in August 2018 and additional changes in January 2019, DART has evaluated the effectiveness of those changes and developed the proposed October 2019 changes to make necessary adjustments to improve the efficiency and effectiveness of the transit network. The proposed changes are considered "major service changes" under DART's policy for routes 10, 11, 52, 72, 73, 92, 95, Ankeny On-Call, Grimes On-Call, and the Deer Ridge Shuttle. Route 10 was the only "major service change" route to possibly cause a disparate impact on minority populations.

A potential mitigation to the disparate impact of reducing service on Route 10 would be to identify additional revenues or savings from other routes so that midday service could be retained. There are no other major businesses or institutions along the route that might be interested in partnering to continue midday service. Also, low midday ridership does not justify transferring resources from another route.



APPENDIX

Methodology and Analysis



Title VI Service Equity Analysis

Data Sources and Definitions

Data from the American Community Survey (ACS), DART ridership reporting, and customer surveys were used to perform the Title VI analysis.

2017 ACS five-year estimates provided block-group-level population data for the existing network demographic analysis. For purposes of this analysis, the following origin by race categories were defined as minority:

- Black or African American alone
- American Indian or Alaska Native alone
- Asian alone
- Native Hawaiian or Other Pacific Islander alone
- Hispanic or Latino alone
- "Other" race alone
- Two or more races

Individuals who reported in the ACS that their income over the previous 12 months fell below the federal poverty line were defined as low-income for the geographic analysis.

Results from the 2018 DART Customer Satisfaction on-board survey informed the Title VI evaluation of whether proposed service changes created a potential for a disparate impact or disproportionate burden. Survey respondents were asked to identify their race or ethnicity from the following categories and could select all that applied:

- Caucasian/White
- African American/Black
- Hispanic/Latino
- Native American
- Asian/Pacific Islander
- Middle Eastern/North African
- Other

Respondents who selected any combination of answers other than only Caucasian/White were considered minority riders.

The survey also asked respondents to provide their household income before taxes among the following income brackets:

- Less than \$10,000
- \$10,000 - \$14,999
- \$15,000 - \$24,999
- \$25,000 - \$34,999
- \$35,000 - \$49,999

- \$50,000 - \$74,999
- \$75,000 or More

DART utilizes the federal poverty guideline updated each year by the U.S. Department of Health and Human Services to define low-income populations. See [Table 6](#). The survey data did not include information on respondents' household sizes. Assuming an average household size of four people, incomes under \$25,750 fall below the poverty guideline. Thus, all DART survey respondents who selected "Less than \$10,000," "\$10,000 - \$14,999," and "\$15,000 - \$24,999" were considered low-income for purposes of this analysis.

Table 1: 2019 Poverty Guideline for Determining Low-Income Status

HHS Poverty Guideline for 2019	
Household Size	Income
1	\$12,490
2	\$16,910
3	\$21,330
4	\$25,750
5	\$30,170
6	\$34,590
7	\$39,010
8	\$43,430

Source: U.S. Department of Health and Human Services, 2019.

Magnitude of Service Changes

A major service change is when 25 percent or more of a route's revenue hours or revenue miles is added or reduced, or when the total revenue hours for the system are expanded or reduced by 10 or more percent." (DART 2019 Title VI Program Update, Service and Fare Equity Policy).

[Table 2](#) below shows the magnitude of the proposed change by each affected route. Highlighted routes are identified as major service changes.



Table 2: Service Change Hours and Miles Comparison

October 2019 Service Change Revenue Hours / Miles Comparison							
Route	Route Description	Existing Revenue Hours	Existing Revenue Miles	Proposed Revenue Hours	Proposed Revenue Miles	% change in Revenue Hours	% change in Revenue Miles
10	EAST UNIVERSITY	3,562	56,880	1,586	26,421	-55%	-54%
11	INGERSOLL AVE	2,150	22,037	2,576	28,823	19.8%	30.8%
14	BEAVER AVE	8,354	132,008	8,925	124,853	6.8%	-5.4%
52	VALLEY WEST/JORDAN CREEK	9,574	244,141	12,138	292,232	26.8%	19.7%
72	WEST DES MOINES/CLIVE FLEX	10,248	102,790	10,684	170,337	4.3%	65.7%
73	URBANDALE/WINDSOR HTS FLEX	2,499	30,416	0	0	-100.0%	-100.0%
74	NW URBANDALE FLEX	989	17,281	1,020	19,890	3.1%	15.1%
75	GRIMES ON CALL	1,239	12,250	0	0	-100.0%	-100.0%
76	DEER RIDGE SHUTTLE	179	2,438	0	0	-100.0%	-100.0%
92	HICKMAN EXPRESS	3,154	65,438	2,295	48,139	-27.2%	-26.4%
93	GRIMES/NW JOHNSTON	3,613	86,287	3,769	86,621	4.3%	0.4%
95	VISTA EXPRESS	1,245	23,695	898	18,199	-27.9%	-23.2%
98	ANKENY EXPRESS	7,170	180,517	5,661	136,425	-21.0%	-24.4%
OC-ANK	ANKENY ON CALL	858	8,419	2,040	27,540	137.8%	227.1%
MOD Pilot	MOBILITY ON DEMAND PILOT	NA	NA	NA	NA	100.0%	NA
Total		54,834	984,598	51,591	979,480	-5.9%	-0.5%

*Actual impact on DART's operating budget is neutral since revenue from the Broadlawns partnership on Route 10 will decrease proportionately to the service decrease, and the MOD Pilot will incur costs not reflected in this table.



Geographic Concentrations of Minority and Low-Income Populations

Methodology: To evaluate which demographic groups would be impacted by the proposed service changes, geographic concentrations of minority and low-income populations were identified using Geographic Information Systems (GIS) analysis. All Census block groups were joined with 2017 ACS demographic data. All people living within a half-mile of the DART network were included in the analysis. The percentage of minority and low-income riders for each route were compared to the percentages for the total system, per DART policy. A route with a major service change that serves a population that is 5 percentage points or more above the system average minority population or low income population would indicate a disparate impact or disproportionate burden, respectively.

Result: Table 3 includes the population and minority and low-income percentages for each route with above-average routes highlighted. Above-average block groups are also identified in Map 1 and Map 2. Upon analysis, Route 10 serves an area with above average minority population. The midday service reduction could therefore have a disparate impact on minority populations.

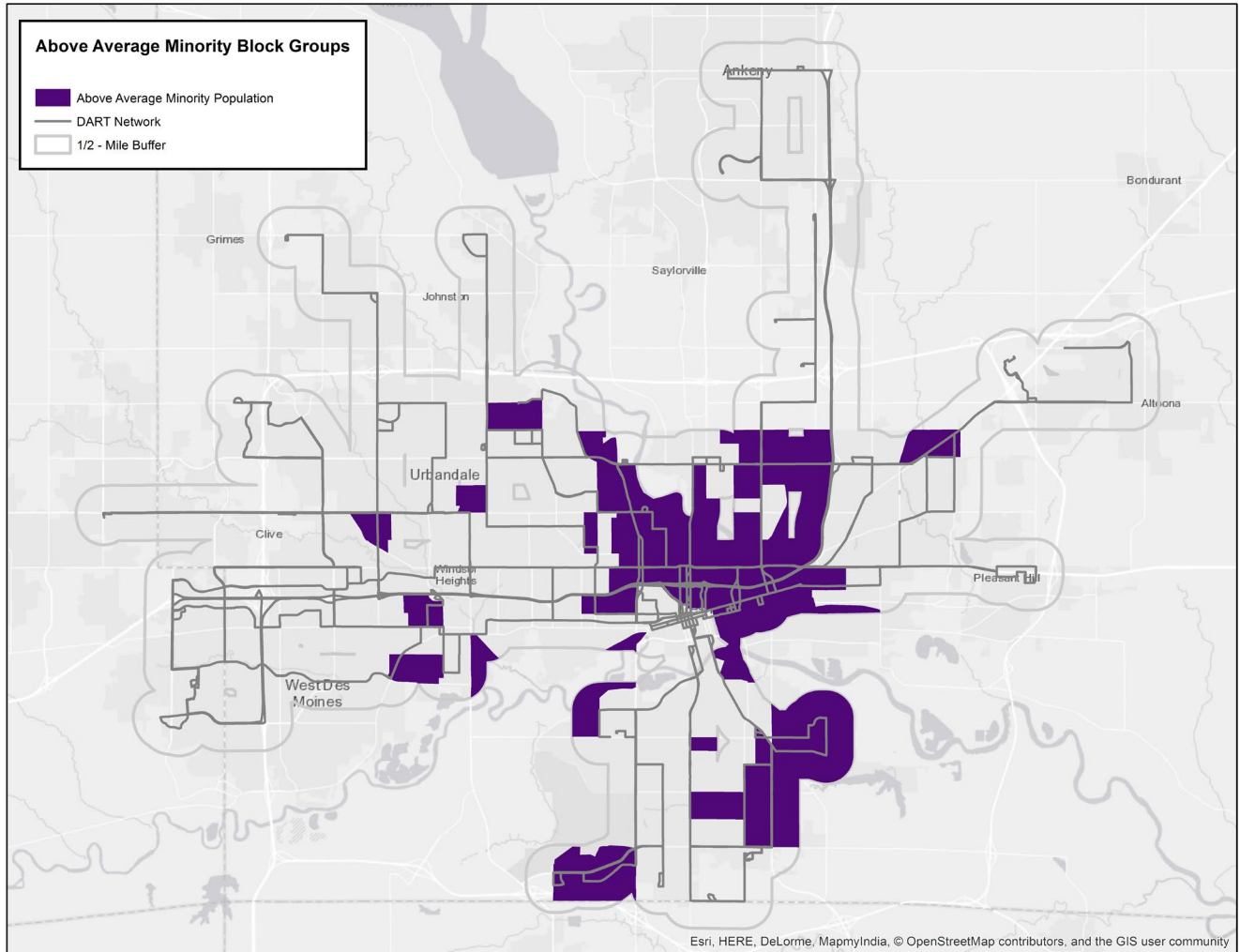


Table 3: DART Network Demographics, ACS 2017 5-Year Average

Minority and Low Income Population by Route					
Current Route	Total Population	Low-Income Population	Low-Income Percentage	Minority Population	Minority Percentage of the Population
1	29,438	6,329	21.50%	9,990	33.93%
3	33,674	7,380	21.92%	12,137	36.04%
4	29,970	5,452	18.19%	13,144	43.86%
5	43,706	6,773	15.50%	9,974	22.82%
6	23,286	5,143	22.09%	7,389	31.73%
7	22,664	3,647	16.09%	5,013	22.12%
8	21,081	3,026	14.36%	4,395	20.85%
10	26,129	5,664	21.68%	11,099	42.48%
11	23,416	2,974	12.70%	4,925	21.03%
13	10,692	2,820	26.38%	5,260	49.20%
14	37,457	7,511	20.05%	14,356	38.33%
15	21,235	4,891	23.03%	9,777	46.04%
16	37,711	7,401	19.63%	15,998	42.42%
17	32,918	7,749	23.54%	14,370	43.65%
50	38,653	6,274	16.23%	11,505	29.76%
52	54,893	7,570	13.79%	14,225	25.92%
60	33,062	7,800	23.59%	12,398	37.50%
72	25,429	1,701	6.69%	4,723	18.57%
73	19,750	1,742	8.82%	3,089	15.64%
74	9,945	487	4.90%	1,458	14.66%
92	50,207	7,911	15.76%	12,916	25.72%
93	48,902	7,769	15.89%	13,327	27.25%
94	40,979	6,999	17.08%	12,073	29.46%
95	42,578	6,153	14.45%	10,951	25.72%
96	46,578	6,100	13.10%	11,434	24.55%
98	42,072	7,696	18.29%	13,596	32.32%
99	33,963	6,632	19.53%	12,015	35.38%
D-LINE	8,625	2,159	25.03%	3,726	43.20%
LINK	3,907	1,051	26.91%	1,452	37.15%
System Total	892,921	154,803	17.34%	276,713	30.99%
Finding Threshold			22.34%		35.99%



Map 1: DART Service Area: Areas of Above Average Minority Populations



Map 2: DART Service Area: Areas of Above Average Poverty

