



CMS Transportation Operationalizing the Student Experience

December 13, 2022

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Today's Objectives

Board Policy &
Transportation

Magnet
Programming &
Access

Express
Transportation

Roadmap
Implementation

Questions

1. Board Policy that Shapes Transportation Service
2. Magnet Programming and Access
3. Express Transportation
4. Roadmap to Implementation
5. Questions



Background

Board Policy &
Transportation

Magnet
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Questions

- Over the years CMS has increased the number of magnet programs offered, resulting in greater complexity and a growing demand for transportation
- School transportation services in districts across the nation have been challenged due to the lack of drivers and mechanics
- CMS staff must operationalize the adopted budget while creating improvements to overall transportation service for our students, as such, recommended changes are necessary
- In order to optimize the transportation system under the current conditions and demands of program growth, the department has explored alternative service modes to increase system efficiencies and improve the student experience, while reducing cost

The Goal

Board Policy &
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- The goal of the presentation today is to inform the board about modifications to high school magnet transportation beginning in 2023-2024
- We will focus on the current state of magnet transportation for high school students and demonstrate how modifying our service levels can support access, increase student achievement while balancing supply and demand

Alignment to Adopted Budget

Board Policy & Transportation

Magnet Programming & Access

Express Transportation

Roadmap Implementation

Questions

- Reductions and modifications to core services are considered to navigate the budget and close the budget gap.
- In 2021-2022 a \$3.2 million reduction was made which included reducing cost associated with magnet transportation.
- In 2022-2023 fund balance appropriation was used to cover operating expense since the magnet transportation changes associated with the budget cut had not been operationalized.

CHARLOTTE-MECKLENBURG BOARD OF EDUCATION 2021-22 ADOPTED PROGRAM CHANGES

Explanation of Change	Description	State Cost	Local Cost	Federal Cost
Reductions/Redirections				
Change Reference: A.				
Multiple strategies were employed to close the budget gap including utilizing other funding sources and making additional budget reductions and redirections. Transfers of costs to state funding in our school administration and non-instructional category contributed \$.3 million to close the gap. Other reductions included eliminating funds for bad debt due meals being provided at no cost to students for the 2021-2022 school year (US Department of Agriculture waiver), reducing transportation costs associated with magnet transportation, and using vacancy savings for the one-time state approved bonus.	Salaries & Benefits		(860,046)	
	Purchased Services		(345,000)	
	Supplies & Materials		(3,246,161)	
	Total Reductions/Redirections	-	(4,451,207)	-

Explanation of Change	Description	State Cost	Local Cost	Federal Cost
I. Sustaining Operations				
Change Reference: I.A.				
A. Program Continuation				
1. <u>Enterprise Resource Planning (ERP) Systems Modernization</u> Recognizing our dated technology is rapidly becoming unsustainable, the State Board of Education has commenced a multiyear project to modernize core systems (finance, payroll, human resources, capital planning) used by DPI and local school administrative units. The modernization program will improve process and data integration (e.g. state/local licensure) while increasing operational efficiency, data management, and compliance monitoring. The integrated platform will provide common state and local reporting with advanced analytics to enable more informed decisions and actionable insights. The contemporary technology (Software-as-a-Service – Cloud) will constantly evolve with new capabilities and enhancements delivered annually to improve process automation, reduce errors and deliver a better employee experience allowing CMS to reinvest efficiency gains into our core mission. Funding is included for ERP licensing and implementation support for year three of the modernization project.	Purchased Services	3,985,572		

Goals & Guiding Principals that Shape Transportation Policy

(Board Policy - ASGP Operational Efficiency) Provide choice and promote equitable access to varied and viable programmatic options for all children; Maximize efficiency in the use of school facilities, transportation and other capital and operational resources to reduce overcrowding;

(Board Policy - ASGP Operational Efficiency) Consider modifications to transportation zones and feeder patterns that are designed to provide operational efficiency and equitable access to quality educational programs.

(Board Policy - ASGP/E1 Transportation Zone) Students will have a priority for admission based on whether they live within or outside of the transportation zone for the school option to which they are applying. Students living outside of the transportation zone for a school option to which they are admitted through the lottery are not entitled to CMS transportation to the school.

(Board Policy - ASGP/R Student Assignment Plan CMS Transportation) For initial Lottery assignments, students may receive CMS transportation to schools within their Transportation Zones or magnet feeder areas. In all cases in which a student is initially admitted to a magnet program within his/her magnet feeder area and attends through the terminal grade, the student will be provided CMS transportation to magnet programs the student subsequently attends that are in the magnet feeder pattern of the original school.

(Board Policy 0 - Bus) A pupil residing in one attendance area and attending a school in another attendance area may have transportation to such school from any regular stop within the school attendance area and from the school to the same passenger stop.

Transportation Statistics

- District Area: 546 Square Miles
- District Enrollment: 141,217 Students (20th Day Enrollment Numbers)
- Assigned Students for Transportation: 2022-2023: 111,877 or 78.17 %
- Number of Buses In Operation: 853 (925 w/ Exceptional Children)
- Avg Miles Per Year: 20 million
- Total Number of Bus Runs Per Day: 4,875
- On-time Performance:
 - AM – 93.4%
 - PM – 88.0%
- Bus Driver Vacancies: 35
- Drivers on Leave: 39





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Magnet Programming and Access



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Magnet Programs and Access

Board Policy &
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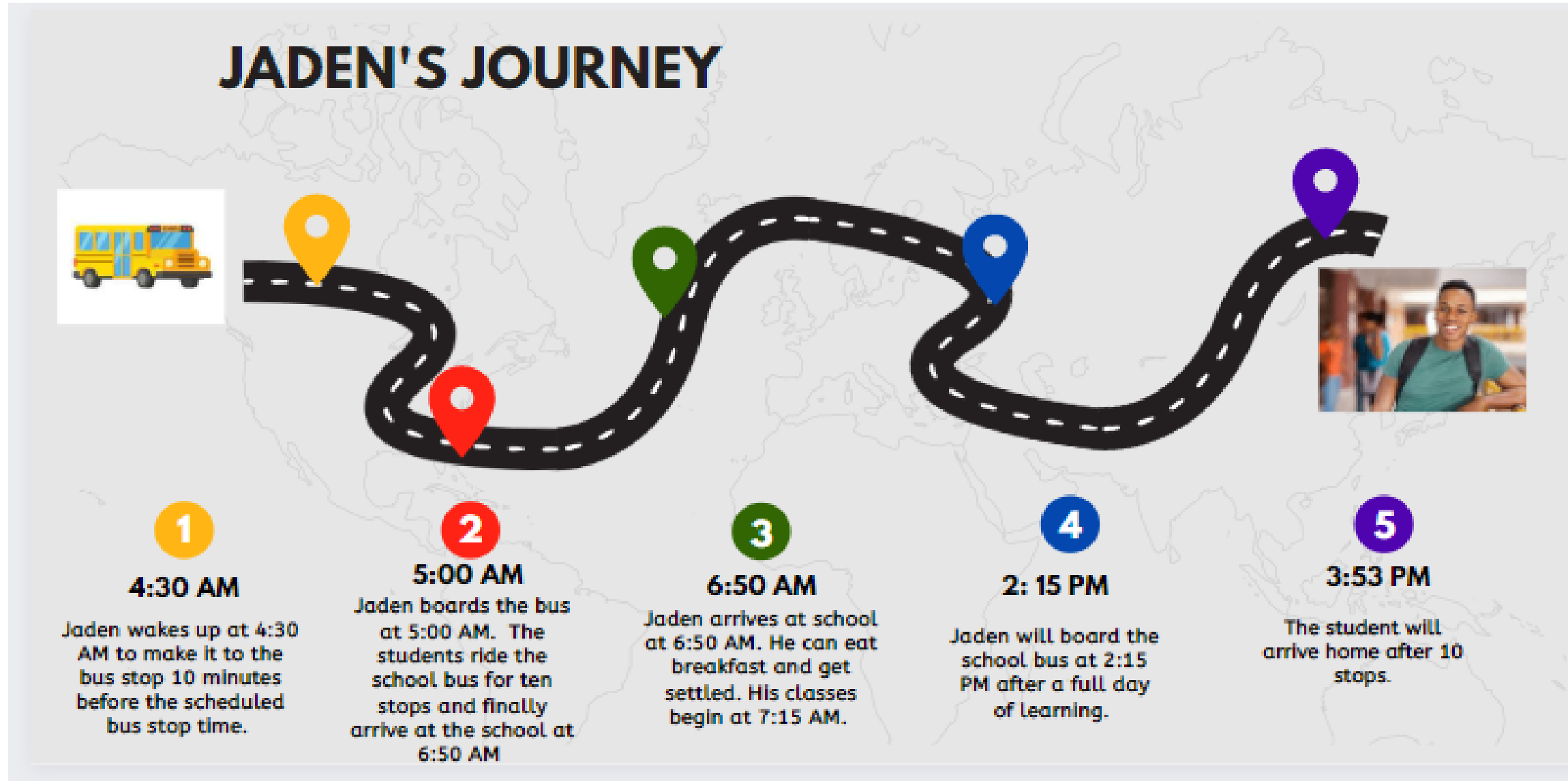
Express
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Questions

- Charlotte Mecklenburg Schools students are provided the option to access magnet programs that vary in themes and design pedagogy, to support their unique interest while promoting excellence in student achievement and growth.
- CMS believes transportation can be a lever to increase access for all families.
- Magnet students receive transportation in accordance with board policy. When new programs are created, new schools open, and boundaries are adjusted, transportation services must be provided.

Magnet Programming and Access



School Choice Magnet Themes & Transportation

CMBE policy governs and articulates that students will be provided CMS transportation to magnet programs.

1996: First year of Magnet Programs

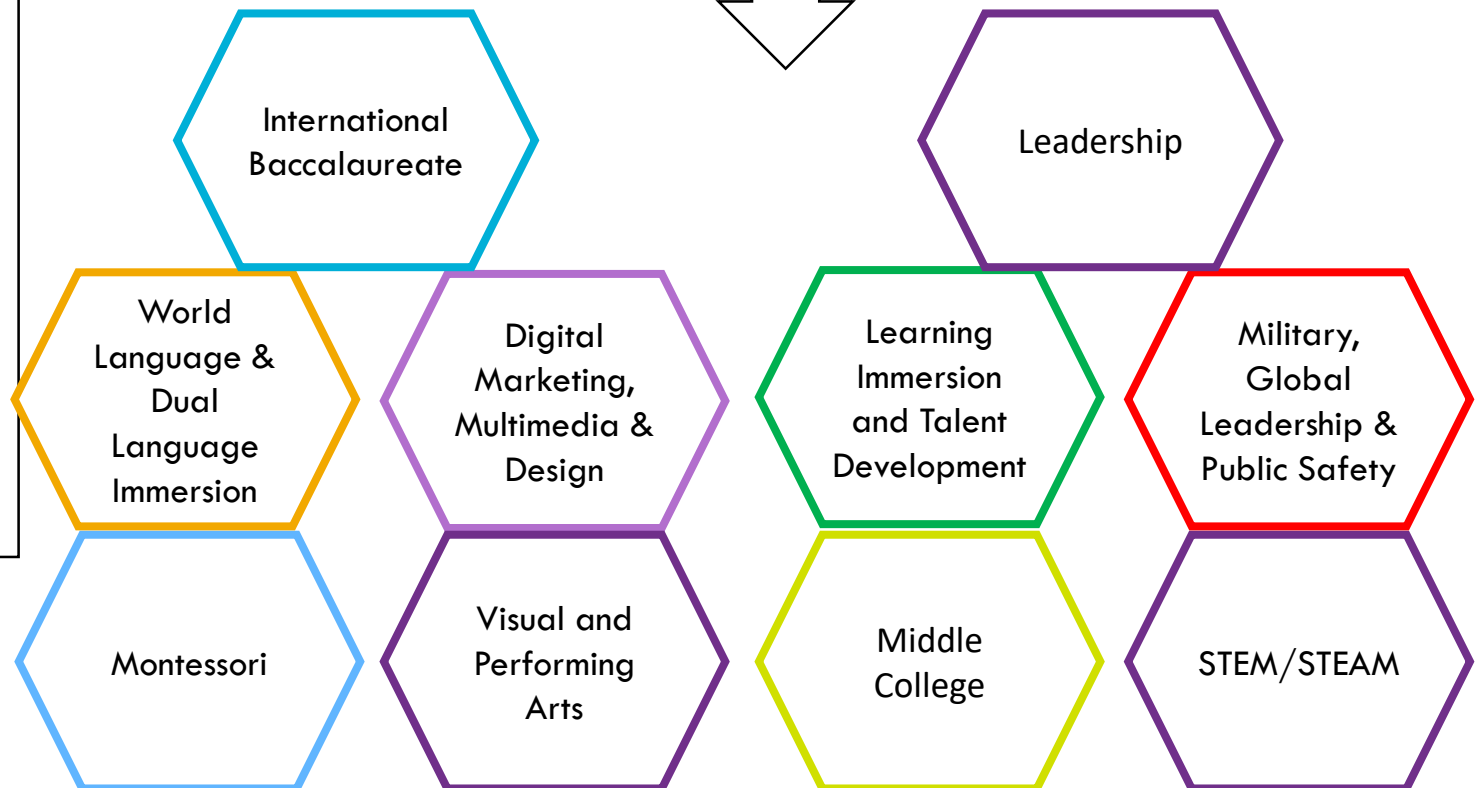
16 magnet themes; 47 schools

2010: 12 magnet themes; 43 schools

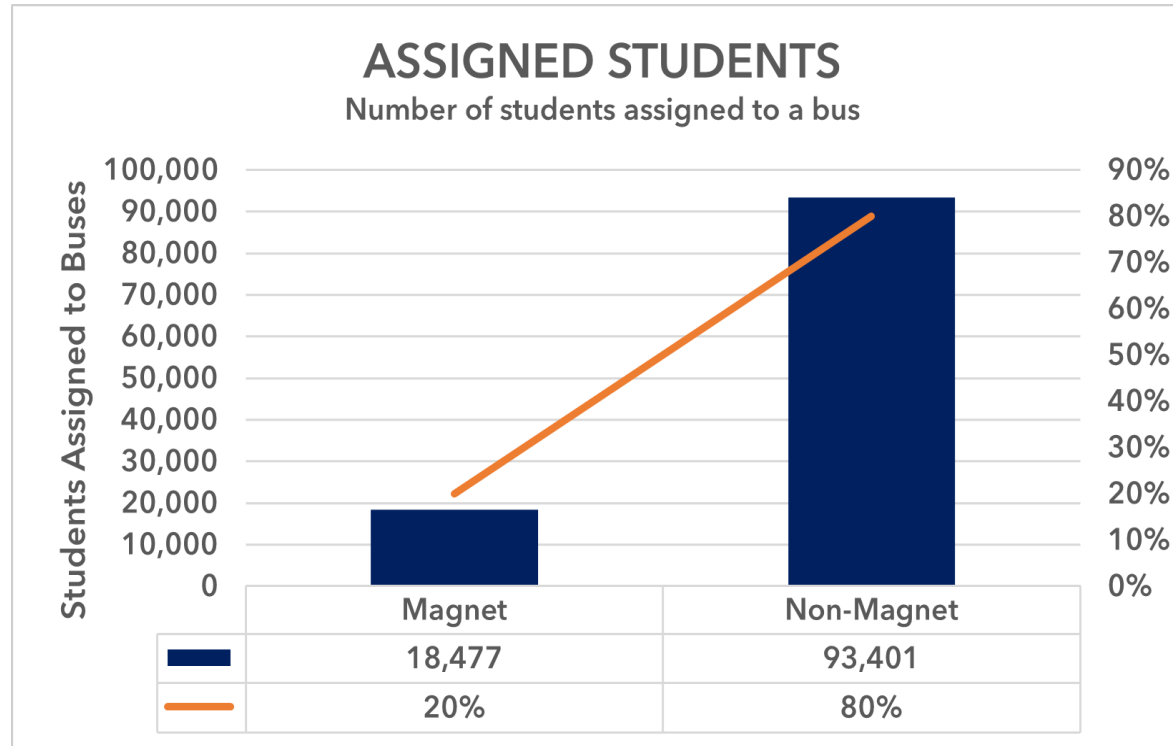
2016: 12 magnet themes; 43 schools

2022-23: 14 magnet themes at **71** schools

School Choice Magnet Themes



Magnet Students Assigned To a Bus



Definition of groupings:

- Magnet Students: All students attending a magnet program
- Non-Magnet Riders: All students attending their home school

- Magnet enrollment account for 21% of overall enrollment in the district and 20% of daily ridership
- Magnet runs account for 33% of all daily bus miles

Magnet Transportation

Express Schools 2023-2024

Total Students Impacted – 5151

1. Harding IB & Berry Technical Academy
2. East Mecklenburg High School
3. Hawthorne & Military Global Leadership
4. North Mecklenburg High School
5. Northwest School of Arts
6. Secondary Montessori @ JT Williams
7. South Mecklenburg High School
8. UNCC
9. EE Waddell
10. PACE – district wide program
11. CPCC – Central Campus

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Why were these schools chosen?

1. Alleviates impact to elementary and middle students.
2. Express stops will only be offered at the high school magnet programs listed.
3. Current magnet runs cover the largest geographic and resultant daily mileage.
4. Modifying current runs will yield improved service for all district schools.

SES from 2016-17 to 2022-23

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SES for Identified Schools	Difference in % SES of Magnet Students 2016-17 to 2022-23		
	Low SES	Mid SES	High SES
Express Route Schools			
Char Eng Early College-UNCC	-1.54%	-27.80%	29.34%
East Mecklenburg High School	-1.18%	14.13%	-13.12%
Harding University High School	-6.54%	6.24%	0.27%
* Hawthorne Academy of Health Sciences	38.35%	-48.67%	10.32%
North Mecklenburg High School	16.93%	-6.96%	-10.06%
Northwest School of the Arts	10.54%	-11.27%	0.35%
Phillip O Berry Academy of Technology	0.33%	-5.62%	5.02%
South Mecklenburg High School	-17.42%	5.64%	11.51%
Williams Secondary Montessori	23.31%	31.17%	45.26%
Charlotte Teacher Early College	30.24%	42.44%	27.32%

* SES is an index measure based on family income, adult educational attainment, homeownership, household composition, and English language ability
(Source: US Census Bureau American Community Survey, 5YR Estimates, Vintage 2020).Batavia1*
Batavia1*

* 2013-14 - Hawthorne Academy of Health Sciences experienced a 3-year phase-in. In 2018-19 the school combined with Military Global Leadership which reflect no data for the 2016-2017

A group of diverse students in a hallway, with a large 'cms' logo overlaid. The students include a young boy in a striped shirt, a boy with glasses, a girl with a backpack, a boy with curly hair, and a girl with long curly hair holding a notebook. The background is a hallway with colorful lighting.

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New Express Transportation

The lower portion of the image shows the legs and feet of several students standing in a hallway. They are wearing various styles of shoes and pants. The background is a hallway with colorful lighting.

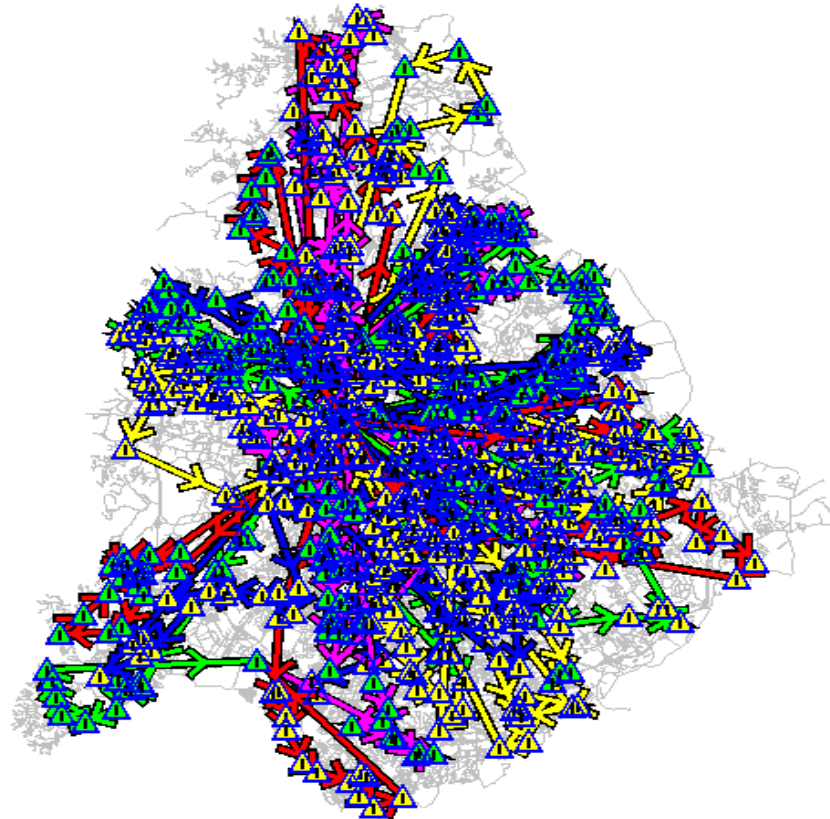
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Express Transportation

What is Express Transportation? A bus run designed to make fewer stops and provide express service to school, reducing the ride time for students and drive time for drivers.

There are numerous factors transportation considered when modifying transportation services.

- Regulatory impacts
- Environmental impacts
- Impacts to Families
- Programmatic
- Ridership
- Cost
- Efficiency



- Access to bus stops
- Impacts to families
- Hazards
- Travel paths
- Load /Unload Times
- Traffic
- Ride times
- Highways
- Distance
- Speed limits

Express Stops

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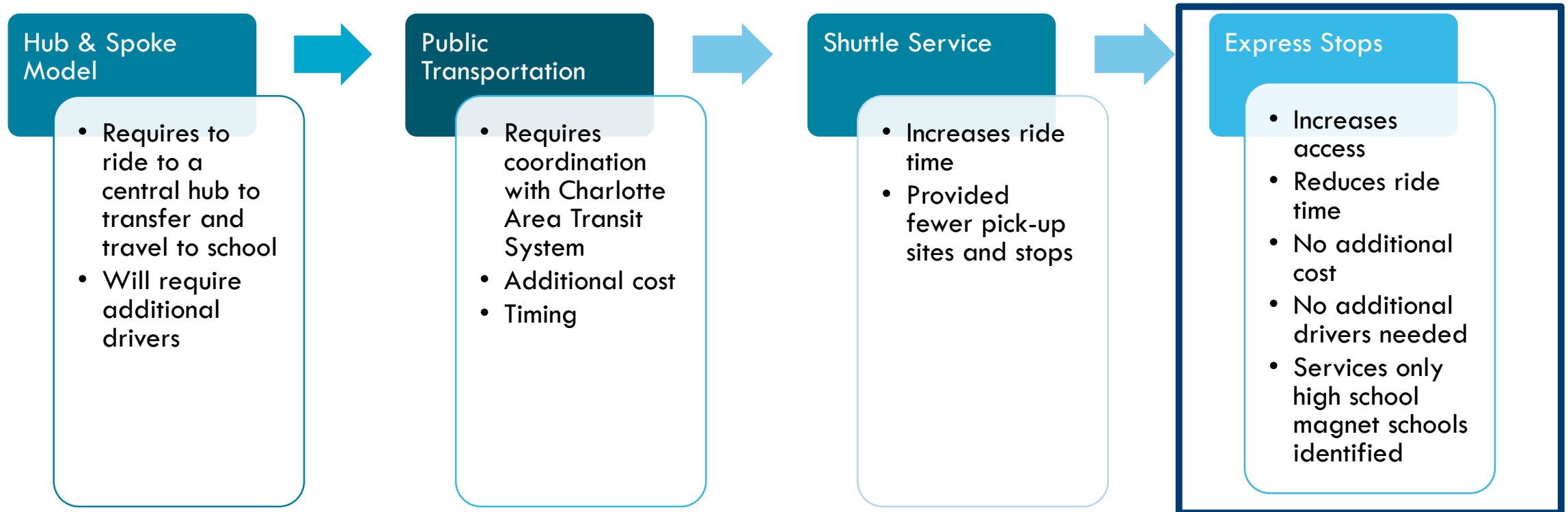
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Why Express Transportation? Given the characteristics of Charlotte Mecklenburg Schools and the goals and priorities set to provide greater access, alternative service modes were evaluated to determine how school bus services could be improved while minimizing impacts to families.

Alternative Service Modes were Evaluated



Express Stops

Board Policy & Transportation

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School Name	# PM Stops	# Students Identified	Express Stops
Harding IB & Berry Technical Academy	1232	1377	36
East Mecklenburg High School	635	715	24
Hawthorne & Military Global Leadership	405	421	18
North Mecklenburg High School	735	690	23
Northwest School of Arts	801	822	27
Secondary Montessori @ JT Williams	189	201	18
South Mecklenburg High School	759	552	19
UNCC	361	373	20

PM Stops



Number of afternoon stops

Express Stops



Number of Express Stops identified to support student riders

Total Enrollment: 11712

Total Number of PM Stops: 5117

Total Students Identified: 5151 44%

Express Stops 185

Schools included in Express Stops not listed due to 1st year

- EE. Waddell
- PACE district wide program
- CPCC – Central Campus

Express Transportation

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Impacts to families: Transportation is an important component of the district connecting students to schools and opportunity. Modifying magnet transportation allows the district increase its service while reducing student ride time, and increasing access, with minimal impacts to families.

What change can high school students expect to see?

- Change to pick up location, 2-3 miles
- Change to pick up time and drop off time
- Reduced ride time
- Stops designed with student need in mind

• What are the benefits to Express stops for high school students?

- Improves equity of ride time by 40-50%
- Reduction in the number of early pick up's
- Improves on time arrival for all district runs
- Maximizes transportation resources

The Student Experience

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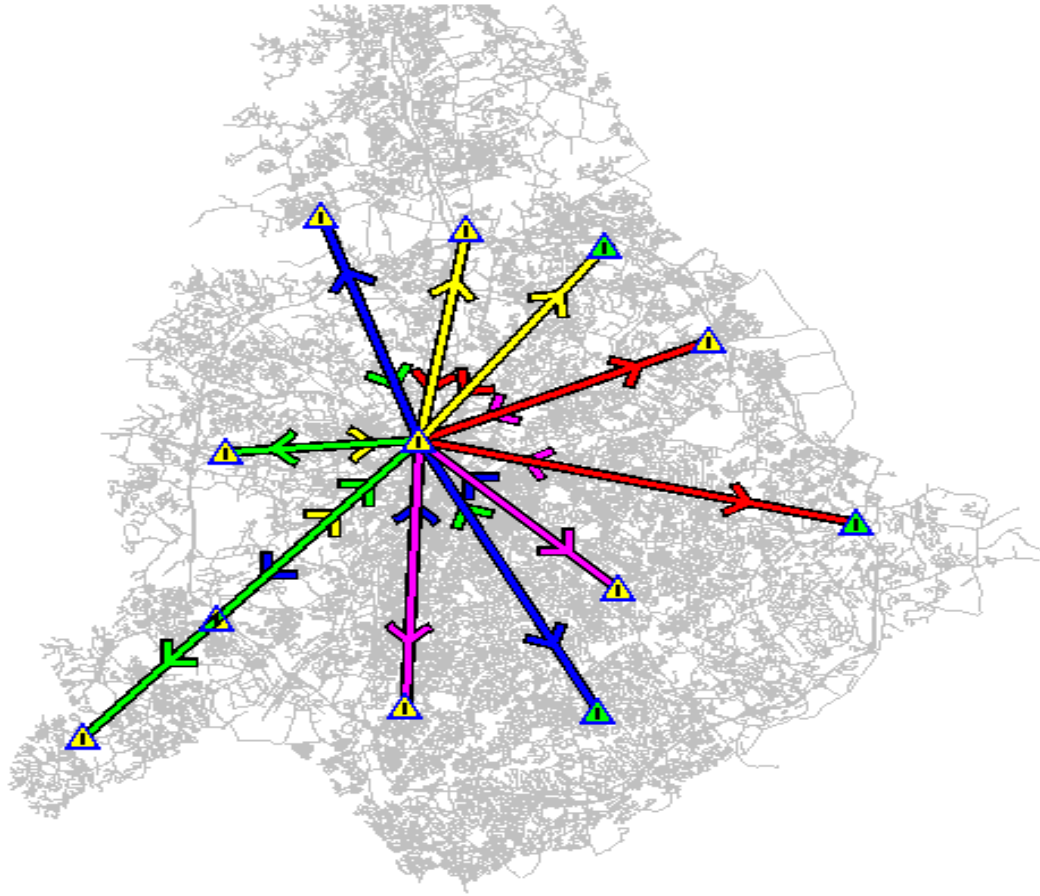
Questions

- Full magnet students eligible for transportation would be assigned to their express site closest to home. Campus Security Associates would assist in safety support.
- An estimated 2,000 fewer students, based on assigned students, will be picked up between 4:58am – 6:00am.
- An estimated 5,211 students would experience a stop change.
- Estimated 1 hour and 15-minute reduction in run length on the bus for schools that implement express stop.
- We estimate a total of 1,335,600 or 6.67% of annual miles reduced by adjusting to Express stops.
- Northwest School of the Arts would require a bell time adjustment.
- Campus Safety Associates would be on hand to support students.

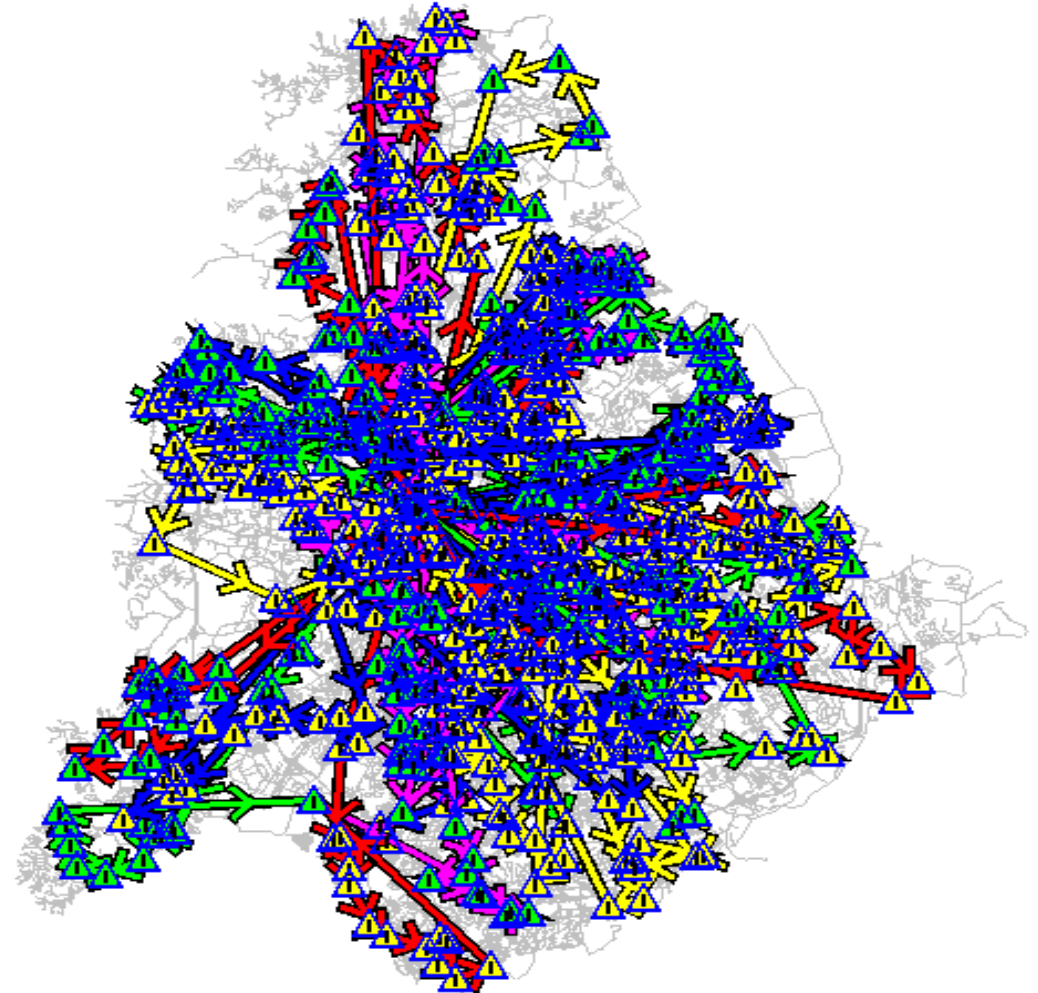


Northwest School of the Arts

2015-2016 Enrollment: 1,015



2022-2023 Enrollment: 1,041



JADEN'S JOURNEY

**1****4:30 AM**

Jaden wakes up at 4:30 AM to make it to the bus stop 10 minutes before the scheduled bus stop time.

2**5:00 AM**

Jaden boards the bus at 5:00 AM. The students ride the school bus for ten stops and finally arrive at the school at 6:50 AM

3**6:50 AM**

Jaden arrives at school at 6:50 AM. He can eat breakfast and get settled. His classes begin at 7:15 AM.

4**2: 15 PM**

Jaden will board the school bus at 2:15 PM after a full day of learning.

5**3:53 PM**

The student will arrive home after 10 stops.



Jaden's Journey

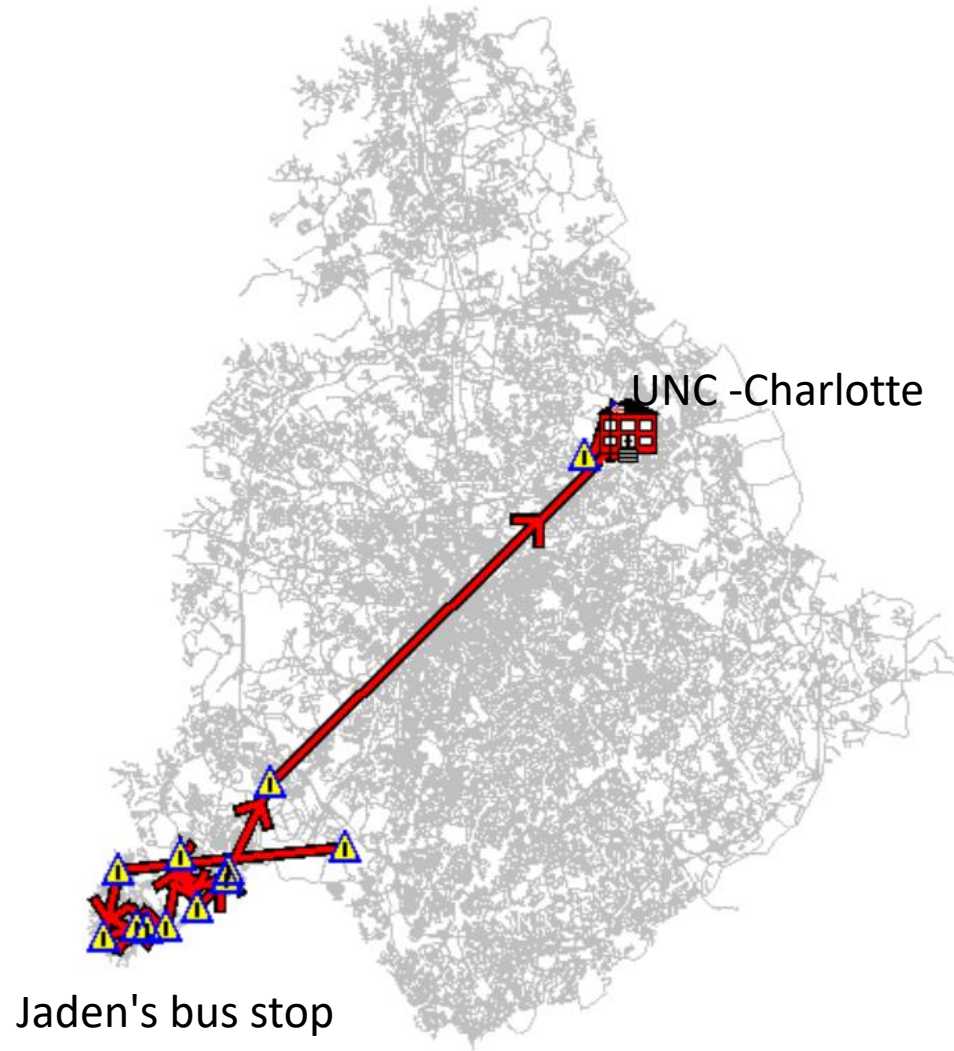
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Time:

AM Ride Time: 1 hour 44 minutes

PM Ride Time: 2 hours

3 hours 44 minutes per day

653 hours per school year

Miles Traveled

Daily: 92 Daily Miles

Monthly: $92 \times 20 \text{ days} = 1,840 \text{ miles}$

Annually: $92 \times 175 = 16,100 \text{ miles}$

Jaden's Express Journey

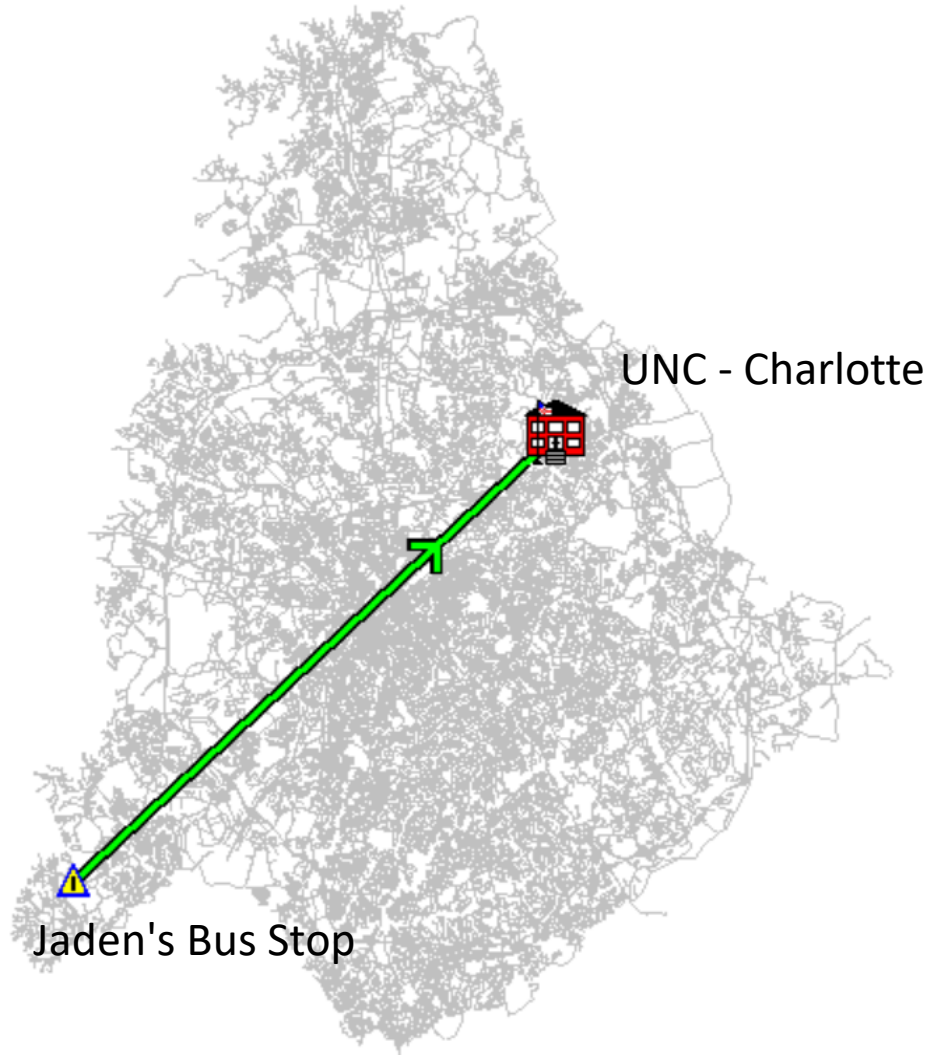
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Time:

AM Ride Time: 35 minutes

PM Ride Time: 35 minutes

1 hour 10 minutes per day

204 hours per school year

Miles Traveled:

Daily: 46 Daily Miles

Monthly: $46 \times 20 \text{ days} = 920 \text{ miles}$

Annually: $46 \times 175 = 8,050 \text{ miles}$

MRS. JACKSON'S JOURNEY

**1****3:30 AM**

Mrs. Tracey Jackson has been a CMS bus driver for 27 years. She starts her day off at 3:30 AM. She arrives at work at 4:15 AM to start her bus and begin her AM Trip.

2**9:30 AM**

Mrs. Jackson has a long day. She drives from 4:30 AM to 9:30 AM every morning.

3**10:00AM- 1:00 PM**

Mrs. Jackson drives home and eats a quick bite before returning to work.

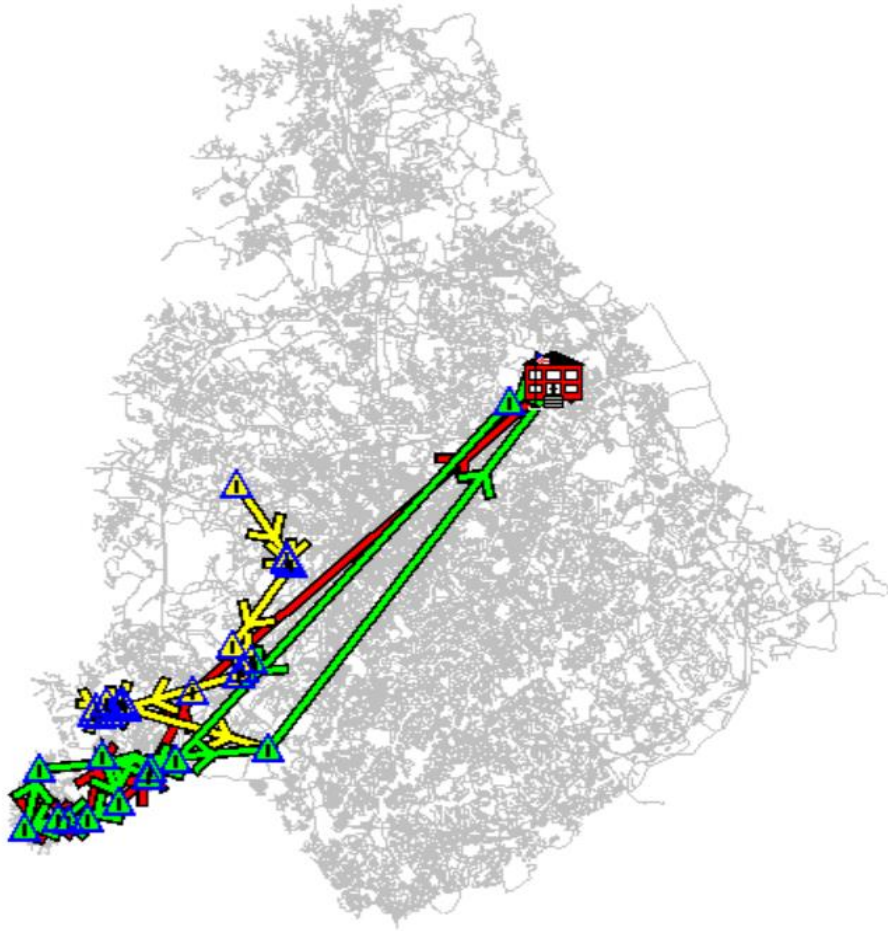
4**2:15 PM- 5:30 PM**

Mrs. Jackson begins her afternoon route. She arrives at UNC Charlotte at 1:30 PM and doesn't finish dropping her last student off until 5:30

5**6:00 PM**

Mrs. Jackson returns home from a long workday.

Mrs. Jackson's Journey



Time:

AM Start Time: 4:30 AM

AM End Time: 9:30 AM

PM Start Time: 1:00 PM

PM End Time: 5:30 PM

9.5 hours per day

1,662 hours per school year

Miles Traveled:

Daily: 200 Miles

Monthly: $200 \times 20 \text{ days} = 4,000 \text{ miles}$

Annually: $200 \times 175 = 35,000 \text{ miles}$

Ms. Jackson's Express Journey

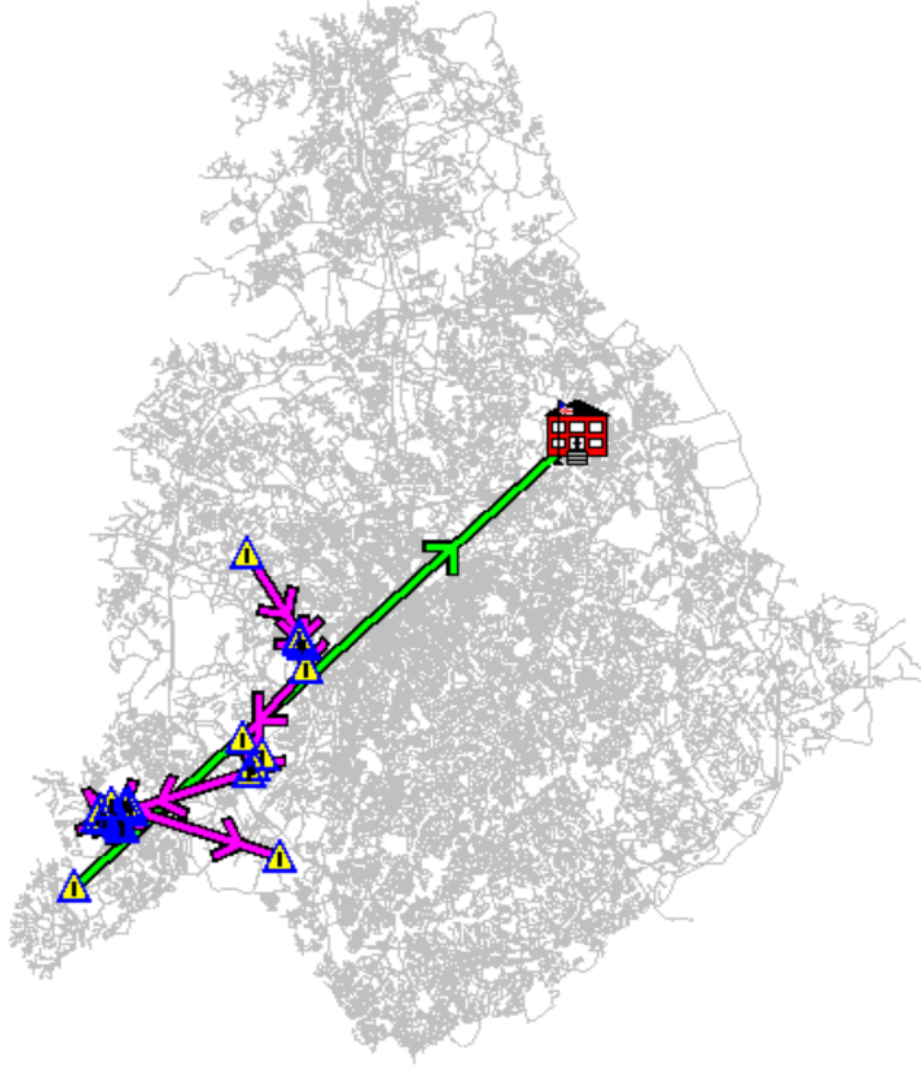
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Time:

AM Start Time: 5:51 AM

AM End Time: 9:30 AM

PM Start Time: 1:00 PM

PM End Time: 5:30 PM

8.0 hours per day

1,400 hours per school year

Miles Traveled:

Daily: 125 Miles

Monthly: $125 \times 20 \text{ days} = 2,500 \text{ miles}$

Annually: $125 \times 175 = 21,875 \text{ miles}$

Neighborhood Stop vs. Express Stops

Jaden:Time

3 hours 44 minutes per day
653 hours per school year

Miles Traveled

Day 92 miles
Year $92 \times 175 \text{ days} = 16,100 \text{ miles}$

Mrs. Jackson:Time

AM start time: 4:30 AM
9.5 hours per day
1,662 hours per school year

Miles Traveled

Day 200 miles
Year $200 \times 175 = 35,000 \text{ miles}$

Jaden:Time

1 hour 10 minutes per day
204 hours per school year

Miles Traveled

Day 46 miles
Year $46 \times 175 = 8,050 \text{ miles}$

Mrs. Jackson:Time

AM start time: 5:51 AM
8 hours per day
1,400 hours per school year

Miles Traveled

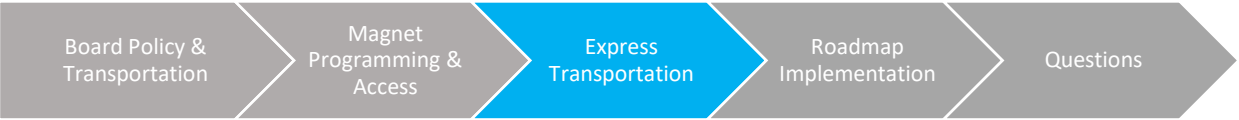
Day 125 miles
Year $125 \times 175 = 21,875 \text{ miles}$

Summary of time Jaden spends on the bus

Magnet 27 Days
Express 9 Days

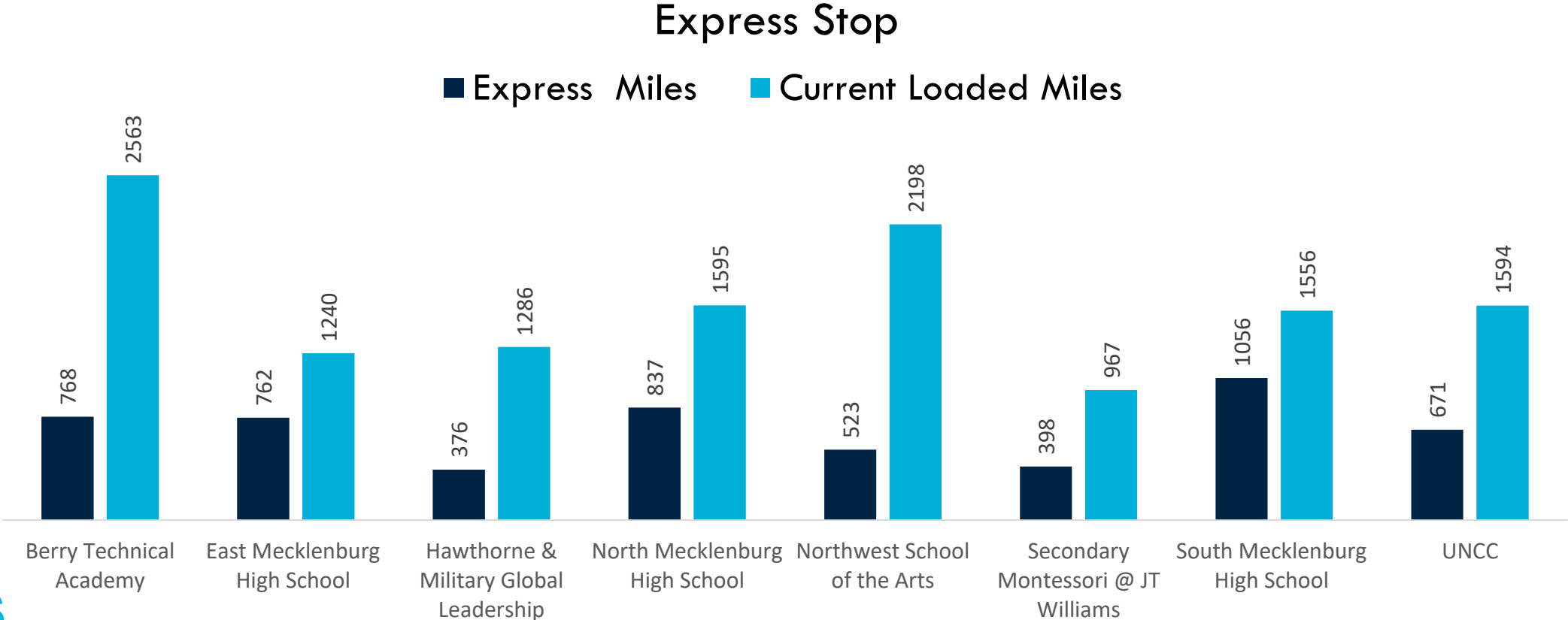
Jaden will spend 18 fewer
days on the bus with his
express run.

Express Stops Miles



Implementing Express stops reduces miles by 40-50%

- Data compares current miles traveled in comparison to projected Express miles
- Data does not account for new programs at EE. Waddell, PACE program, and CPCC



In Summary

Board Policy - ASGP Operational Efficiency- Consider modifications to transportation zones and feeder patterns that are designed to provide operational efficiency and equitable access to quality educational programs.

Current State

- Vacancies - 35
- On-Time Arrival – 93% AM , 88% PM
- Mileage Reduction - None
- Ride Time – Up to 2 hours
- Budget - None
- Bell Times - None

Projected With Express Stops

- Vacancies - 0
- On-Time Arrival - 96.5% AM, 95% PM
- Mileage Reduction - 1,335,600
- Ride Time - 30 minutes or less
- Budget - No additional dollars needed
- Bell Time Change – Northwest School of Arts
- Policy Change – None



Roadmap to Implementation Engagement and Communication Plan

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Roadmap to Implementation

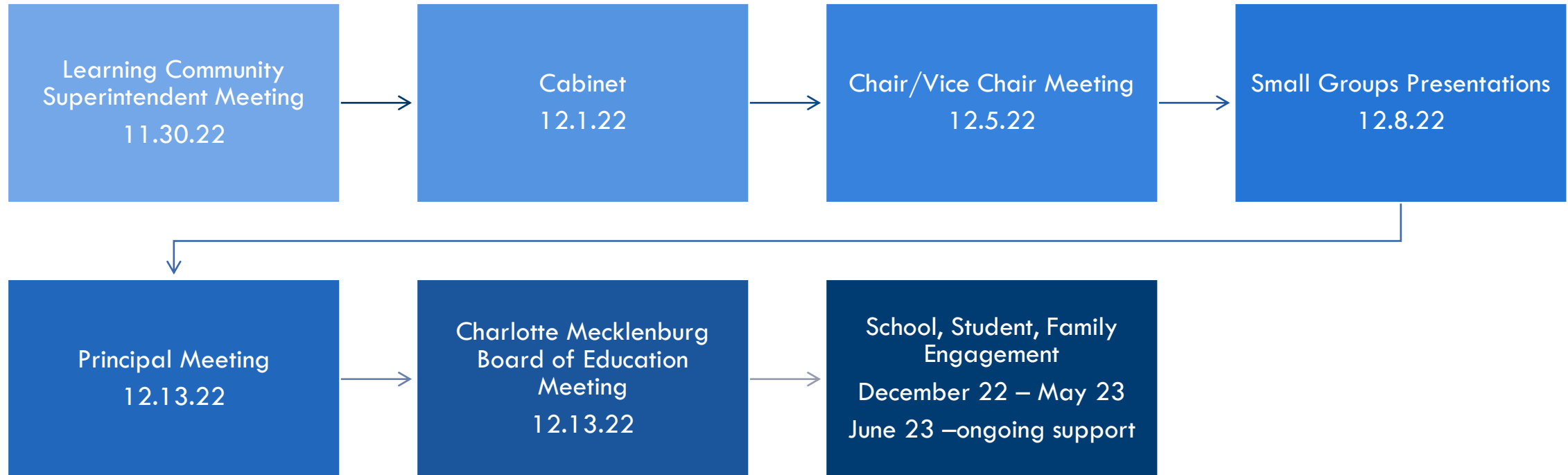
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Communication and Engagement Plan

KEY MESSAGING

EXTERNAL AUDIENCES | STUDENTS & FAMILIES

MESSAGE:

CMS strives to provide every student with access to high-quality education and is excited to announce that some magnet high schools will now be provided Express stops. By decreasing ride time for students attending their magnet program, CMS can increase on time arrival, and reduce ride time. Families will receive additional information in December on how Express stops will impact their schools.

INTERNAL AUDIENCES | DISTRICT, LEARNING COMMUNITIES, PRINCIPALS, DEPARTMENTS

MESSAGE:

CMS is excited to announce that Express stops to high school magnet students attending (schools listed). Schools will receive additional information in December on how this new service will impact their schools. With the increase in efficiency, we will ensure all student have access.

COMMUNICATIONS CHANNELS

EXTERNAL AUDIENCES| STUDENTS & FAMILIES

WEBSITES | cmsk12.org

SOCIAL MEDIA | District & Transportation Facebook & Twitter

MEDIA RELATIONS | Feature story web, print, television

NEWSLETTERS | Our CMS Weekly Newsletter

COLLATERAL MATERIALS | Flier for distribution by transportation

Lottery Process | Include updates in magnet collateral, website updates

Email | Parent and Student Survey

Bus App | Here Comes the Bus

INTERNAL AUDIENCES| DISTRICT

WEBSITES | cmsk12.org

NEWSLETTERS | Principal Updates

EMAIL | sent by transportation

COLLATERAL MATERIALS | Flier for distribution by transportation

Engaging Students on Express Stops

Social media

- Twitter
- Facebook
- Instagram

School Based Outreach

- Collaborating with Staff on how to advise students

Utilizing Technology

- Blackboard/Connect Ed messaging system
- Interactive CMS website
- Here Comes the Bus Application
- Carpool Applications





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Questions?

Thank You



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