

Choctaw County School Bus Routing

Investment: \$9,479

Benefits: \$70,000 per 180-day school year

Beneficiary: Choctaw County, Population 9,039

Data Used:

- Base Layer: Street Centerline File, Addressing Database, Parcels
- School Data: School Districts, Student Addresses, Existing Bus Routes

Description:

The Golden Triangle Planning Development District (GTPDD) utilized its addressing and parcel data to develop optimized routing for school buses for the Choctaw School District. The rerouting of buses, minimizing the overlap of routes, the elimination routes was able to save to save time on the distance travel, fuel, wear and tear on the buses for an annualized savings of bus fleet cost of \$70,000 per year on an investment \$9,479.

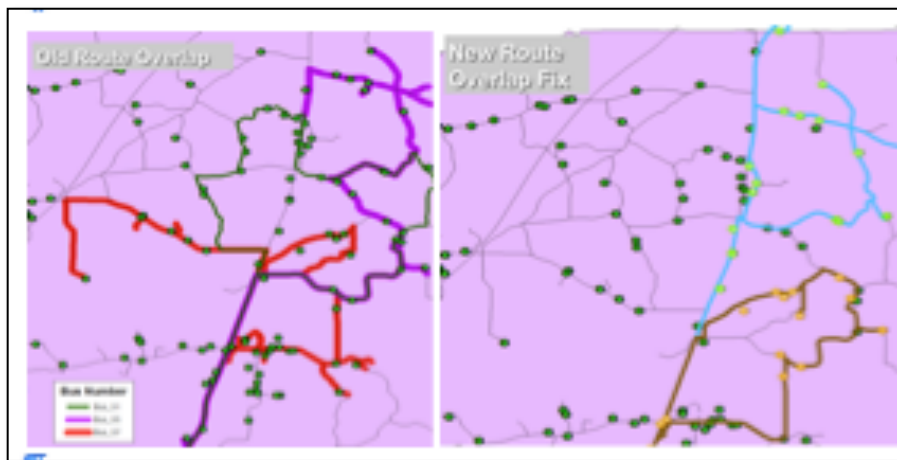


Figure 1 – Before Analysis Three Bus Routes; After Two Bus Routes

Using information on the student enrollment and the lists of students who ride the bus, the locations of all the bus-riding students were matched to the GIS site address. In addition to the routing information each bus driver had a picture of the house, directions and cumulative miles for the route. An undocumented benefit is the reduced errors and reduced training costs for route drivers.


Photo of Structure		Structure Type: Brick Bus #: 47 Location: Cho Sequence #: 11 Address: 10581 MS Hwy 413 Parents/Owner: Callahan, Thomas R / Michelle Student: Robert Callahan DOB:	Physical Address	Latitude: 33.28921164685000013 Longitude: -89.328824584699998 Cumulative Length: 7.29808323845000013	Latitude Longitude Cumulative length
		Structure Type: SWT Bus #: 47 Location: Cho Sequence #: 12 Address: 140 Hawkins Loop Parents/Owner: Algood, Lisa Student: Dalton Whitehead DOB:	Directions	Latitude: 33.2923089100000013 Longitude: -89.332463347099999 Cumulative Length: 7.6284134259399998	

Figure 2 Site address, parcel information and house photo