Mansfield Fire Department GIS Analysis

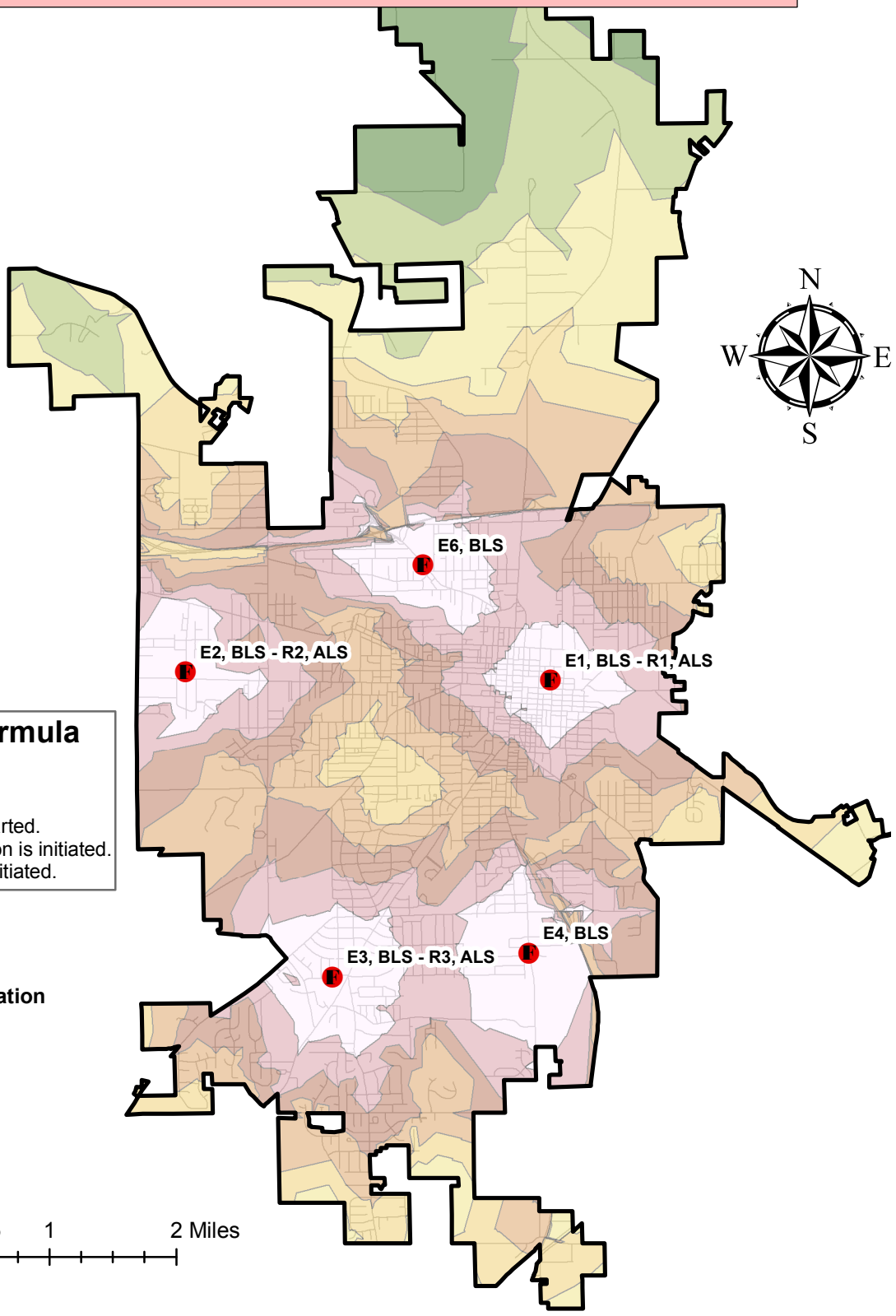
Cardiac Arrest Survival Rates - Current

This map depicts predicted cardiac arrest survival rates under the current EMS deployment. The coverage areas were calculated using the Eisenberg Formula. This formula assumes the maximum out of hospital survival rate is 67%, less calculated decreases in the predicted survival rate based on anticipated delays. The Eisenberg Formula is a standard for measuring the effectiveness in the delivery of prehospital emergency medical services and is particularly useful because it links response time with the probability of survival.

The Eisenberg Formula

Survival Rate = 67%

Less 2.3% per minute until CPR is started.
Less 1.1% per minute until defibrillation is initiated.
Less 2.1% per minute until ACLS is initiated.



Legend

- Fire Stations

Predicted Survival Rate, Population

- 0, 16
- 1-10%, 63
- 11-20%, 919
- 21-25%, 5666
- 26-30%, 11610
- 31-35%, 13047
- 36-40%, 11178
- 41-45%, 8539
- Road Network

Projection = NAD_1983_StatePlane_Ohio_North_FIPS_3401_Feet
Boundary files obtained from the Richland County GIS Consortium.
Road Network files obtained from the U.S. Census Bureau.