

APPENDIX 4.3-B

CEQA EVACUATION ANALYSIS

Memorandum

Date: May 2, 2024
To: Sandra Meyer, City of Calistoga
From: Ashlee Takushi and Ian Barnes, PE, Fehr & Peers
Subject: **CEQA Evacuation Analysis for Three Projects in Calistoga, California**

WC23-4006

This memorandum documents the assumptions, analysis, and results for the evacuation time estimate assessments for three proposed residential projects (Kortum Ranch, Yellow Rose Ranch, and 2565 Grant Street) in the City of Calistoga, California. The Kortum Ranch project, located at 500 Kortum Canyon Road, includes 23 single-family housing units and six accessory dwelling units (ADU). The Yellow Rose Ranch project, located at 2650 Foothill Boulevard, includes 46 single family-housing units and 46 ADUs. The 2565 Grant Street project, located at 2565 Grant Street, includes 35 multi-family housing units and 35 ADUs. The analysis includes CEQA project-level evaluation of each projects' effect on evacuation time estimates (ETEs) considering two no-notice, large-scale wildfire evacuation scenarios in the City of Calistoga.

The primary purpose of this evaluation is to document the effect of the proposed projects on evacuation times for areas along the State Route 29 (SR 29), Silverado Trail, Foothill Boulevard/State Route 128 (SR 128), and Petrified Forest Road corridors during potential wildfire events. This quantitative analysis was performed to address wildfire requirements that were added to Appendix G of the CEQA Guidelines in December of 2018. As is typical, the revisions to Appendix G resulted in several court decisions, only one of which is binding. The only binding court decision held that quantitative evacuation travel time assessments may satisfy the need to study a project's effect on wildfire evacuation times for the surrounding area. As this is a new area of study under CEQA, few studies of this type have been completed for CEQA purposes, and as wildfire behavior is unpredictable, this analysis is not an exhaustive review of all potential wildfire and evacuation scenarios in the study area. Rather, the analysis was based on early evacuation recommendations and scenarios developed through conversations with the project team's local



experts in wildfire behavior and evacuation events¹ that represent scenarios that are based on actual wildfire and evacuation history in the study area and provide a good faith effort at the disclosure of the projects' impacts on study area evacuation times for CEQA purposes.

Project Elements and Project Evacuation Demand

Using household unit information, trips evacuating from proposed projects were forecasted based on household demographic data, and conservatively assuming that 100% of the households would be at home and evacuating. The total number of evacuation trips assumed to be generated by all fully-occupied, proposed projects under a full evacuation scenario is 283 trips, of which 136 are from Yellow Rose Ranch, 43 are from Kortum Ranch, and 104 are from 2565 Grant Street².

Background, Study Area, and Study Scenarios

The following study elements were collaboratively developed with wildfire and evacuation experts.

Background

The analysis of project effect on evacuation time estimates is based (in part) on the recent court decisions in Lake, Placer, Sonoma, and San Diego Counties that have established a clear need to quantitatively evaluate the Project's effect on evacuation travel times, for projects located in or near high fire hazard severity zones, and for surrounding area population groups. This need has been affirmed by the Attorney General's office in its recently-published guidance on the topic³; the AG's office was a party to several lawsuits in the State regarding deficiencies in CEQA documents related to evacuation travel time estimate analysis. Many projects in Wine Country are taking steps to comply with the implication of the court decisions by completing analyses that are in alignment with the guidance released by the AG's office.

Based on previous conversations with the project team's local experts, Fehr & Peers has analyzed two wildfire related emergency event scenarios: a "Northeast Fire" scenario assuming a fire starting near Mt. Saint Helena and a "South Fire" scenario assuming a fire starting along the west and east ridge in the south of the City. **Figure 1**, presented at the end of this memorandum,

¹ These experts include: Captain Michael Bartlett (Napa County Sheriff), Captain Brian Ham (Cal Fire) Captain Michael McClellin (CHP), Chief Jed Matcham (Calistoga Fire), Chief Mitchell Celaya (Calistoga Police), Dave Cardwell (Napa County/Former Napa Fire Lieutenant), and Steve Stangland (Napa County)

² These trips were determined using socioeconomic and vehicle ownership data from the US Census combined with land use data from the Napa Solano Activity-Based Model.

³ Bonta, Rob, *Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act*, California: Office of the Attorney General, October 10, 2022.
<https://oag.ca.gov/system/files/attachments/press-docs/Wildfire%20guidance%20final%20%283%29.pdf>



shows the perimeters of some of the major fires that have occurred in recent years in the vicinity of the City of Calistoga.

Study Area

The study area, as shown in **Figure 2**, is defined as the area generally bound by Foothill Boulevard/State Route 128 (SR 128) and Tubbs Lane, State Route 29 (SR 29) and Tubbs Lane, State Route 29 (SR 29) and Dunaweal Lane, and Silverado Trail and Dunaweal Lane. It is assumed that this area would receive an evacuation order during a wildfire event.

Study Scenarios

Based on the wildfire history in the project area, the locations of key bottlenecks, and the need to understand the benefits of early and phased evacuation of the project sites (should conditions provide an opportunity for early evacuation), the project team defined the following study scenarios for the analysis of the projects' effects on evacuation times. The analysis used the latest Napa Solano Activity-Based Model (ABM) that was prepared using the Metropolitan Transportation Commission's 2019 Regional Transportation Plan and forecasts were prepared for a 2040 future year scenario. The following project scenarios were analyzed for Year 2019 and Year 2040 buildout conditions, both with and without the projects.

- No Projects (i.e. none of the 3 projects are built yet)
- No Yellow Rose Ranch Project (i.e. Kortum Ranch and 2565 Grant Street are built)
- No Kortum Ranch Project (i.e. Yellow Rose Ranch and 2565 Grant Street are built)
- No 2565 Grant Street Project (i.e. Kortum Ranch and Yellow Rose Ranch are built)
- Plus Projects (i.e. all 3 projects are built)

The Year 2040 scenario analysis included General Plan buildout assumptions and the confirmed and permitted project list provided to Fehr & Peers by the City (Status of Entitlement Applications & City Projects, July 6, 2023). To maximize the potential for the projects to impact evacuation times, Fehr & Peers assumed that an evacuation order would be issued on the Friday before Labor Day and the Saturday during Labor Day weekend (when wineries are in the harvest period and during a major holiday weekend coinciding with fire season). The traffic and evacuation demand resulting from visitors was included in the analysis, and the number of visitors was estimated based on available visitor volume data (Napa Valley Visitor Profile 2018, May 2019) in the area as well as mobile device location-based services "Big Data" (Streetlight Data, November 2023).

Friday Before Labor Day Weekend Scenario

In the Friday Before Labor Day weekend scenario, it was assumed that evacuation orders would be issued at 4:30 PM (the weekday afternoon peak hour of travel). This timing was determined to



be conservative as it considers a combination of a significant number of tourists and visitors as well as the presence of peak weekday commuter traffic.

Background traffic demand is applied from 4:30 PM to 6:00 PM. It is noted that background traffic demand would probably end shortly after the evacuation orders are issued as it is unlawful to enter an area under an Evacuation Order. However, it cannot be guaranteed that background through traffic would end immediately. Thus, the analysis includes background traffic far beyond what is expected.

Saturday During Labor Day Weekend Scenario

In the Saturday During Labor Day Weekend scenario, it was assumed that evacuation orders would be issued at 12:30 PM (the weekend midday peak hour of travel). Similar to the Friday Before Labor Day Weekend scenario, a combination of a high number of visitors/tourists and background travel would be present.

Similar to the Friday Before Labor Day Weekend scenario, the background traffic demand for this weekend scenario was applied from 12:30 PM to 2:00 PM to account for background traffic that may unlawfully enter the evacuation area.

Approach and Methodology

The emergency evacuation operations analysis was conducted using the EVAC+ tool developed by Fehr & Peers. This model extracts the study area from Napa Solano ABM to estimate vehicle demand, and analyzes levels of congestion in 15-minute intervals during an evacuation. The EVAC+ workflow can be broken down into three modules:

1. Subarea module: Preparing the sub-area network representing the study area and the associated background trip tables.
2. Evacuation module: Estimating evacuation trips during the evacuation scenarios.
3. Dynamic traffic assignment (DTA) module: Assigning trips (dynamically) to the sub-area network and simulating congestion patterns.

The following key assumptions were used in the development of background and evacuation traffic demand used in the EVAC+ tool. All assumptions follow typical traffic engineering practice for supersaturated/congested conditions and were verified as appropriate by the project team's experts.

Background Traffic

- Background traffic data for the study area was based on outputs from the Napa Solano ABM. Background trip volumes are shown in **Table 1**. This data includes trips originating outside the City that would pass through the City in the hours leading up to when the evacuation starts, and includes their trip through the city until 1.5 hours after evacuation



orders begin. A 15% reduction in capacity was applied to account for the various incidents that could occur during an emergency scenario that might limit or reduce the capacities of these roadways (i.e. presence of debris or other hazards). Free-flow speeds of roadways were set as their speed limits.

- Year 2019 scenario background traffic data were developed by straight-line interpolation between Year 2015 and Year 2040. Adjustments were made using location-based services (LBS)⁴ “Big Data” (Streetlight, November 2023) to reflect traffic conditions more accurately around a holiday weekend. In detail, traffic counts from August 30, 2019 and August 31, 2019 (the last Labor Day weekend prior to the COVID-19 pandemic), as well as 2019 weekday average traffic counts were analyzed.
- Year 2040 background traffic data were developed based on applying a 0.8% and a 0.7% per year straight-line growth factor to Year 2019 background traffic data, for Friday and Saturday respectively. The growth factors were developed using information from the Napa Solano ABM.

Table 1: Estimated Total Background Trips for All Scenarios

Day of Week	Year 2019 “Near Term”	Year 2040 “Far Term”
Friday	11,587	13,672
Saturday	13,264	15,386

Source: Napa Solano ABM and Fehr & Peers, 2024.

Note: Background trips are distributed in the model from 2:00 PM – 6:00 PM for Friday and from 9:00 AM – 2:00 PM for Saturday.

Evacuation Trips

Evacuation trip data for residents and workers were calculated from socioeconomic data from the U.S. Census and land use data from Napa Solano ABM. Visitor volumes were estimated based on available visitor volume data (The Napa Valley Visitor Profile 2018, May 2019) in the area as well as location-based big data (Streetlight, November 2023). The evacuation trips under each scenario are listed below.

- No Projects
 - 9,719 evacuation vehicles for Year 2019
 - 10,191 evacuation vehicles for Year 2040
- No Yellow Rose Ranch Project
 - 9,866 evacuation vehicles for Year 2019
 - 10,338 evacuation vehicles for Year 2040

⁴ LBS data is provided from devices, primarily smart phones, which run applications and connect to cellular, WiFi, and/or GPS networks. LBS data is carrier-neutral and uses multiple location technologies, providing few gaps in coverage and high spatial precision.



- No Kortum Ranch Project
 - 9,959 evacuation vehicles for Year 2019
 - 10,431 evacuation vehicles for Year 2040
- No 2565 Grant Street Project
 - 9,898 evacuation vehicles for Year 2019
 - 10,371 evacuation vehicles for Year 2040
- Plus Projects scenario
 - 10,002 evacuation vehicles for Year 2019
 - 10,474 evacuation vehicles for Year 2040

A high amount of background trip volume was present during the holiday weekend, which led to congestion on the roadway network. The evacuation trips were loaded on the EVAC+ model in a phased distribution to account for evacuation of the whole area. It is noted that these are the assumed loading of demand in the EVAC+ model based on limited network capacity and high traffic volumes. In actual emergency scenarios, the loading patterns are often unpredictable, and driver behavior can be disorderly.

Under the “Northeast Fire” scenario, the evacuation was presumed to travel along SR 29 and the Silverado Trail southwards towards the City of Napa. The list of evacuation destinations and percentage distributions (derived based on expert opinion) are as follows:

- Southbound on Silverado Trail – 50%
- Southbound on SR 29 – 50%

In the Plus Project scenarios under the “Northeast Fire” scenario, the following vehicle demand and their share of the maximum hourly flow rate exiting the study area (“hourly bottleneck capacity”) would be added to the study area:

- Yellow Rose Ranch: 136 vehicles, or about 6% of hourly bottleneck capacity
- Kortum Ranch: 43 vehicles, or about 2% of hourly bottleneck capacity
- 2565 Grant St: 104 vehicles, or about 5% of hourly bottleneck capacity

Under the “South Fire” scenario, the evacuation was presumed to travel east along SR 29 towards Mount St. Helena, north along SR 128 towards Healdsburg, and west along Petrified Forest Road towards Santa Rosa. The list of evacuation destinations and percentage distributions are as follows:

- Northbound on SR 128 – 50%
- Eastbound on SR 29 – 25%
- Westbound on Petrified Forest Road – 25%



In the Plus Project scenarios under the “South Fire” scenario, the following vehicle demand and their share of the maximum hourly flow rate exiting the study area (“hourly bottleneck capacity”) would be added to the study area:

- Yellow Rose Ranch: 136 vehicles, or about 5% of hourly bottleneck capacity
- Kortum Ranch: 43 vehicles, or about 1% of hourly bottleneck capacity
- 2565 Grant St: 104 vehicles, or about 4% of hourly bottleneck capacity

This analysis assumed the evacuation elapsed time ends when the roadway network within the evacuation area returns to an uncongested state (all links with 15-minute volume-to-capacity ratio of 0.75 or less); this uncongested state occurs when most vehicles have finished evacuating the study area due to vehicle demand exhaustion.

Results

“Northeast Fire” Scenario

As noted previously, the “Northeast Fire” scenario assumes an evacuation of the entire study area for the Friday and Saturday during Labor Day weekend. Most of the evacuation demand will travel along SR 29 and the Silverado Trail southwards towards the City of Napa. The EVAC+ tool, as described in the Approach and Methodology section, was used to estimate traffic conditions and operations during each of the evacuation scenarios.

The DTA model runs indicate substantial congestion in the study area in the event of a mass evacuation, for Years 2019 and 2040 as well as Friday and Saturday. In all scenarios, the two routes would carry extremely heavy flows of traffic as compared to their capacity. The evacuation time results are presented in **Tables 2 and 3**, while key network traffic flow maps for each scenario are presented in **Appendix A**.

The results of the analysis indicate that the modeled time to clear the study area of evacuation demand under the No Project and All Plus Projects scenarios (All Plus Project scenarios are referring to No Yellow Rose Ranch Project, No Kortum Ranch Project, No 2565 Grant Street, and Plus Projects scenarios) would be the same 15 minute interval, regardless of near or far term, as well as Friday or Saturday. The Plus Project scenario at a maximum adds an additional 191 housing units, which is equivalent to approximately 283 evacuation trips. In comparison to the background trips and evacuation trips in place, this created marginal affects to the City-wide evacuation time. It is noted that the estimates are based on assumptions (as previously described) and given the unpredictable nature of fire behavior, should not be taken as an evacuation time standard for the study area.



The Friday before Labor Day Scenario

For the Friday scenarios, the Year 2019 analysis indicates that evacuation area roadways would return to uncongested operations about 3.5 hours after the evacuation begins. The Year 2040 analysis indicates that study area roadways would return to uncongested operations about 4.5 hours after commencement of the evacuation.

Table 2: Northeast Fire Friday Scenario Evacuation Time Results

Scenario	Total Elapsed Time to Evacuate Study Area (min)		
	No Project	All Plus Projects	Delta
Year 2019	210 (3hrs 30 mins)	210 (3hrs 30 mins)	<15 min
Year 2040	270 (4hrs 30 mins)	270 (4hrs 30 mins)	<15 min

Source: Fehr & Peers, 2024.

The Saturday before Labor Day Scenario

For the Saturday scenarios, the Year 2019 analysis indicates that evacuation area roadways would return to uncongested operations about 3.5 hours after the evacuation begins. The Year 2040 analysis indicates that study area roadways would return to uncongested operations about 4.5 hours after commencement of the evacuation.

Table 3: Northeast Fire Saturday Scenario Evacuation Time Results

Scenario	Total Elapsed Time to Evacuate Study Area (min)		
	No Project	All Plus Projects	Delta
Year 2019	210 (3hrs 30 mins)	210 (3hrs 30 mins)	<15 min
Year 2040	270 (4hrs 30 mins)	270 (4hrs 30 mins)	<15 min

Source: Fehr & Peers, 2024.

“South Fire” Scenario

Similar to the “Northeast Fire” scenario, “South Fire” assumes an evacuation of the entire study area for the Friday and Saturday during Labor Day weekend. Most of the evacuation is presumed to travel along SR 128 towards Healdsburg, SR 29 towards Mount St Helena, and Petrified Forest Road towards Santa Rosa. The EVAC+ tool, as described in the Approach and Methodology section, was used to estimate traffic conditions and operations during each of the evacuation scenarios.



The DTA model runs indicate substantial congestion in the study area in the event of a mass evacuation, for Years 2019 and 2040 as well as Friday and Saturday. In all scenarios, the three routes would carry extremely congested flows of traffic as compared to their capacity. The evacuation time results are presented in **Tables 4 and 5**, while key network traffic flow maps for each scenario are presented in **Appendix A**.

The results of the analysis indicate that the modeled time to clear the study area of evacuation demand under the No Project and All Plus Project scenarios (All Plus Project scenarios are inclusive of the No Yellow Rose Ranch Project, No Kortum Ranch Project, No 2565 Grant Street, and Plus Projects scenarios) would also be the same 15 min interval, regardless of near or far term, as well as Friday or Saturday. The Plus Projects scenario at a maximum adds an additional 191 housing units, which is equivalent to approximately 283 evacuation trips. In comparison to the background trips and evacuation trips in place, this created marginal affects to the City-wide evacuation time. It is noted that the estimates are based on assumptions (as previously described) and given the unpredictable nature of fire behavior, should not be taken as an evacuation time standard for the study area.

The Friday before Labor Day Scenario

For the Friday scenarios, the Year 2019 analysis indicates that evacuation area roadways would return to uncongested operations about 4 hours after the evacuation begins. The Year 2040 analysis indicates that study area roadways would return to uncongested operations about 5 hours after commencement of the evacuation.

Table 4: Northeast Fire Friday Scenario Evacuation Time Results

Scenario	Total Elapsed Time to Evacuate Study Area (min)		
	No Project	All Plus Projects	Delta
Year 2019	240 (4hrs 0 mins)	240 (4hrs 0 mins)	<15 min
Year 2040	300 (5hrs 0 mins)	300 (5hrs 0 mins)	<15 min

Source: Fehr & Peers, 2024.

The Saturday before Labor Day Scenario

For the Saturday scenarios, the Year 2019 analysis indicates that evacuation area roadways would return to uncongested operations about 4 hours after the evacuation begins. The Year 2040 analysis indicates that study area roadways would return to uncongested operations about 5 hours after commencement of the evacuation.



Table 5: Northeast Fire Saturday Scenario Evacuation Time Results

Scenario	Total Elapsed Time to Evacuate Study Area (min)		
	No Project	All Plus Projects	Delta
Year 2019	240 (4hrs 0mins)	240 (4hrs 0mins)	< 15 min
Year 2040	300 (5hrs 0mins)	300 (5hrs 0mins)	< 15 min

Source: Fehr & Peers, 2024.

Conclusions

The results of the Plus Project scenarios indicate that any combination of the three proposed projects in all analyzed scenarios would have less than a 15-minute effect on the overall time to clear the study area of evacuation demand. The existing evacuation demand without additional projects is high compared to the supply of roadway capacity, therefore the project-generated evacuation trips would create marginal effect to the City-wide evacuation times which range from three hours and 30 minutes to five hours. If the early evacuation procedure is not in place, the projects' travel demand would occur at the same time that other nearby land uses (including Saint Helena) would be under an evacuation order, and thus the project would likely increase evacuation travel times.

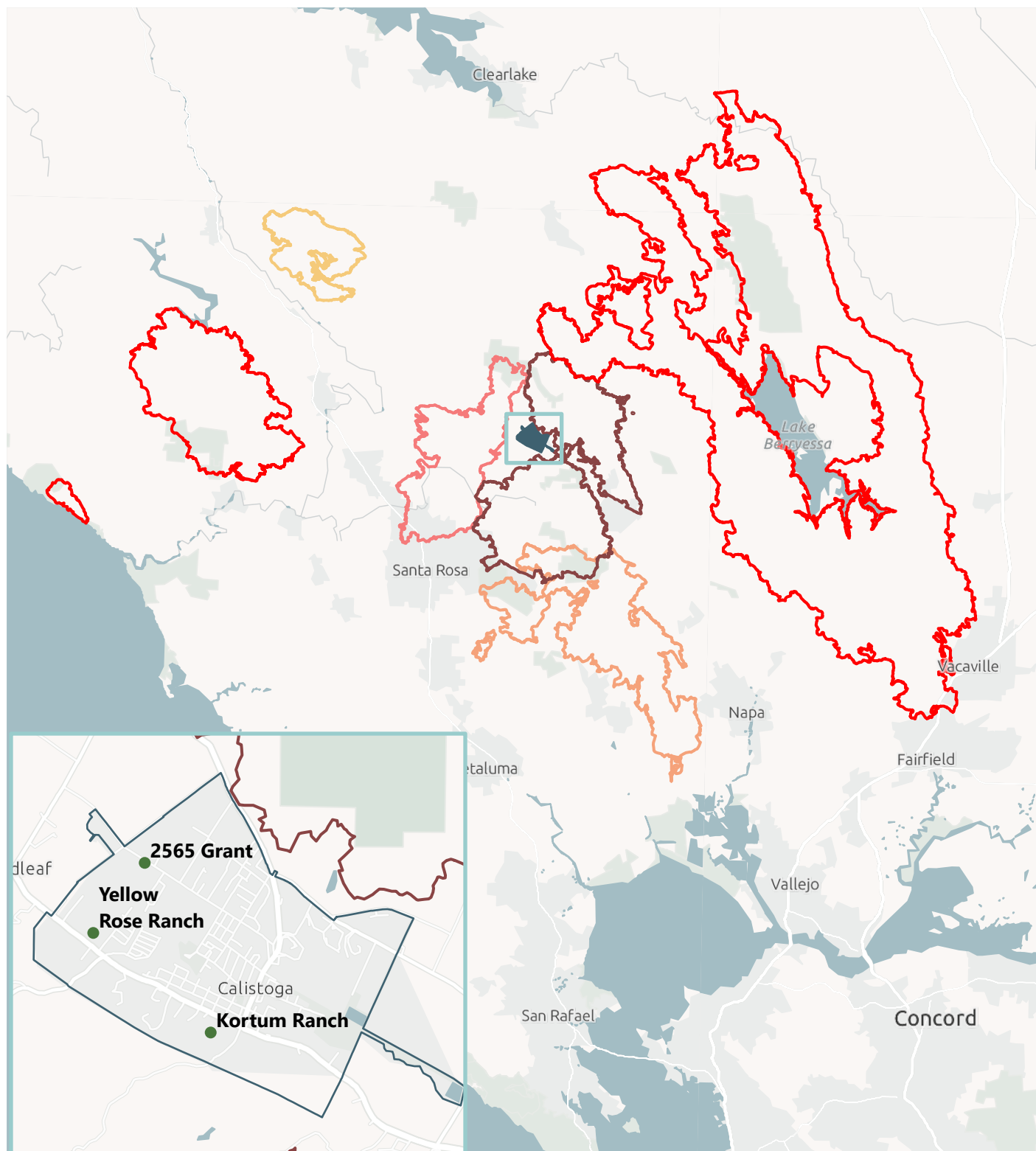
The evacuation scenarios analyzed highlight the importance of evacuation management from collaborations of all agencies including City of Calistoga, Napa County's Office of Emergency Services (OES), County departments, Napa Valley Community Organization Active in Disasters (COAD), external agencies, and other involved community partners. Planning efforts and mitigation strategies may improve the efficiency of evacuation operations. Based on the modeling results, a few of the recommendations include:

- Encourage residents to evacuate in a timely manner, or in a phased evacuation, to reduce last-minute evacuations and concentrated demand on the roadway network.
- Encourage residents to take only one or two vehicles (based on household size) to reduce the number of evacuating vehicles.
- Adhere to Napa County Fire Prevention Division's trainings and work with them to strategically stage emergency response vehicles in coordination with the evacuation warnings/orders.
- Coordinate with agencies such as Napa Valley Community Organization Active in Disasters (COAD) to provide Community Emergency Response Training (CERT) to increase disaster preparedness at the city level.
- Establish a redundant and resilient public communications system that builds on existing communications tools and system (Napa Valley COAD Facebook page and dedicated



- Gmail account) to ensure uninterrupted emergency communications such as solar photovoltaic systems and battery storage, phone/text alerts, radio, sirens/loudspeaker, and signage. Consider evaluating the locations/range of the existing warning sirens and placing an additional emergency siren in the northern portion of the town to expand the City's alert system.
- Consider countywide evacuation drills for residents so that they are aware of what to expect during an evacuation event and are prepared in such a scenario. Conduct regular evacuation training with HOAs and residents.
 - Adhere to the Napa Valley Emergency Operations Plan (EOP)

This completes our evacuation travel time assessment for the proposed three projects in Calistoga, California. Please call Ashlee Takushi at (707) 582-0039 with any questions.



Project Area

Calistoga

Sites

Past Wildfires

Glass

Nuns

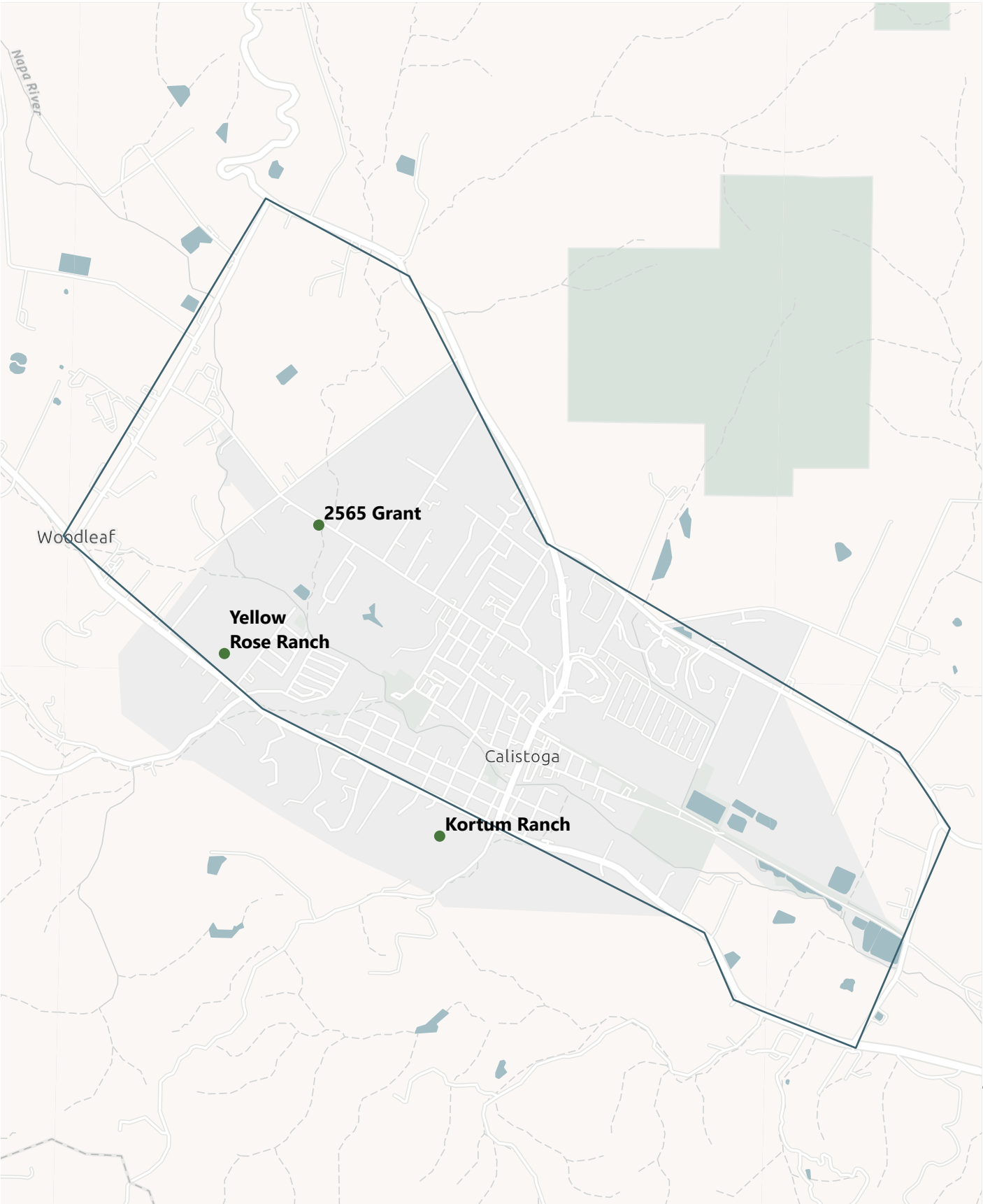
Pocket

Tubbs

LNU Lightning Complex

Perimeters of Selected Major Past Wildfire Events

Figure 1



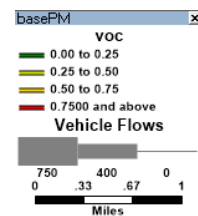
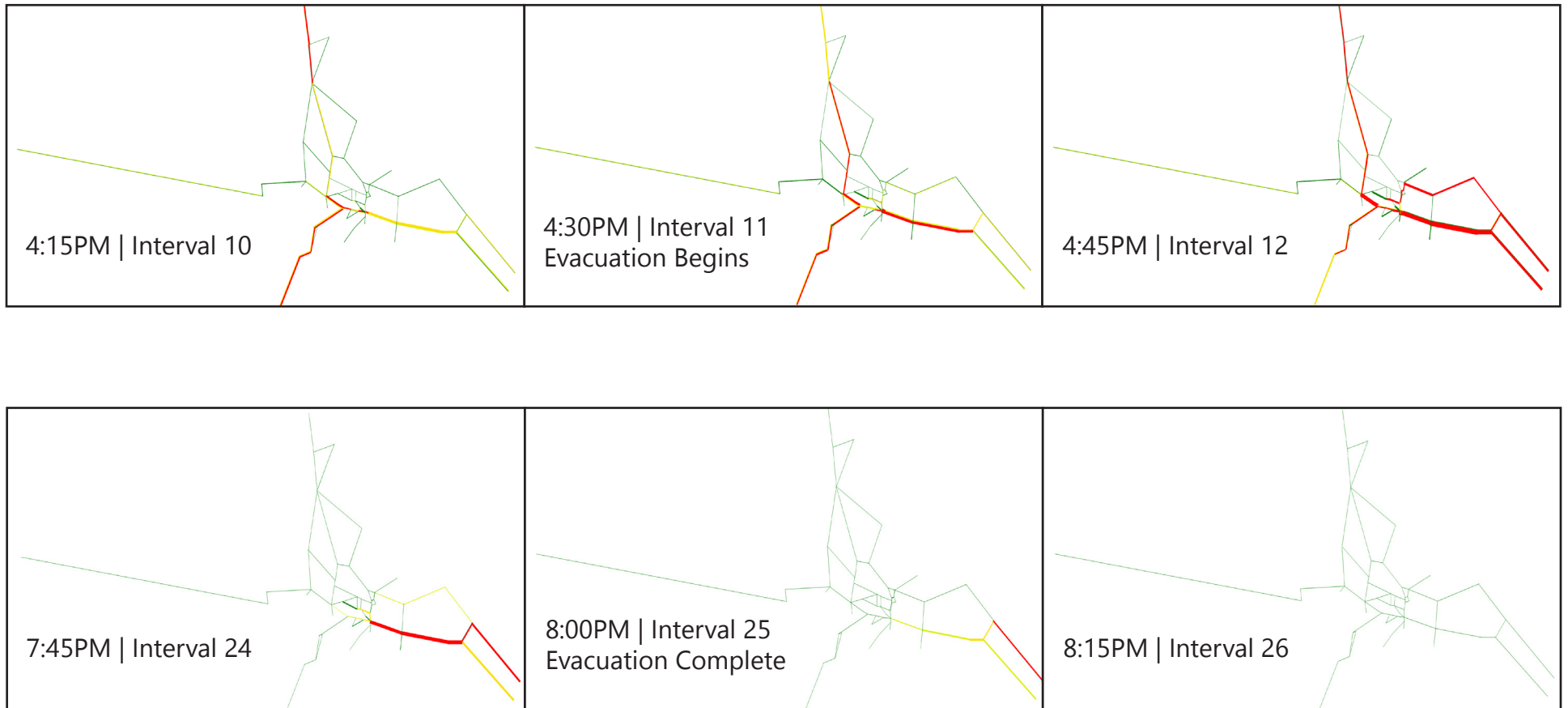
- Sites
- StudyArea

Figure 2

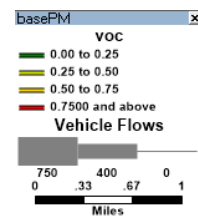
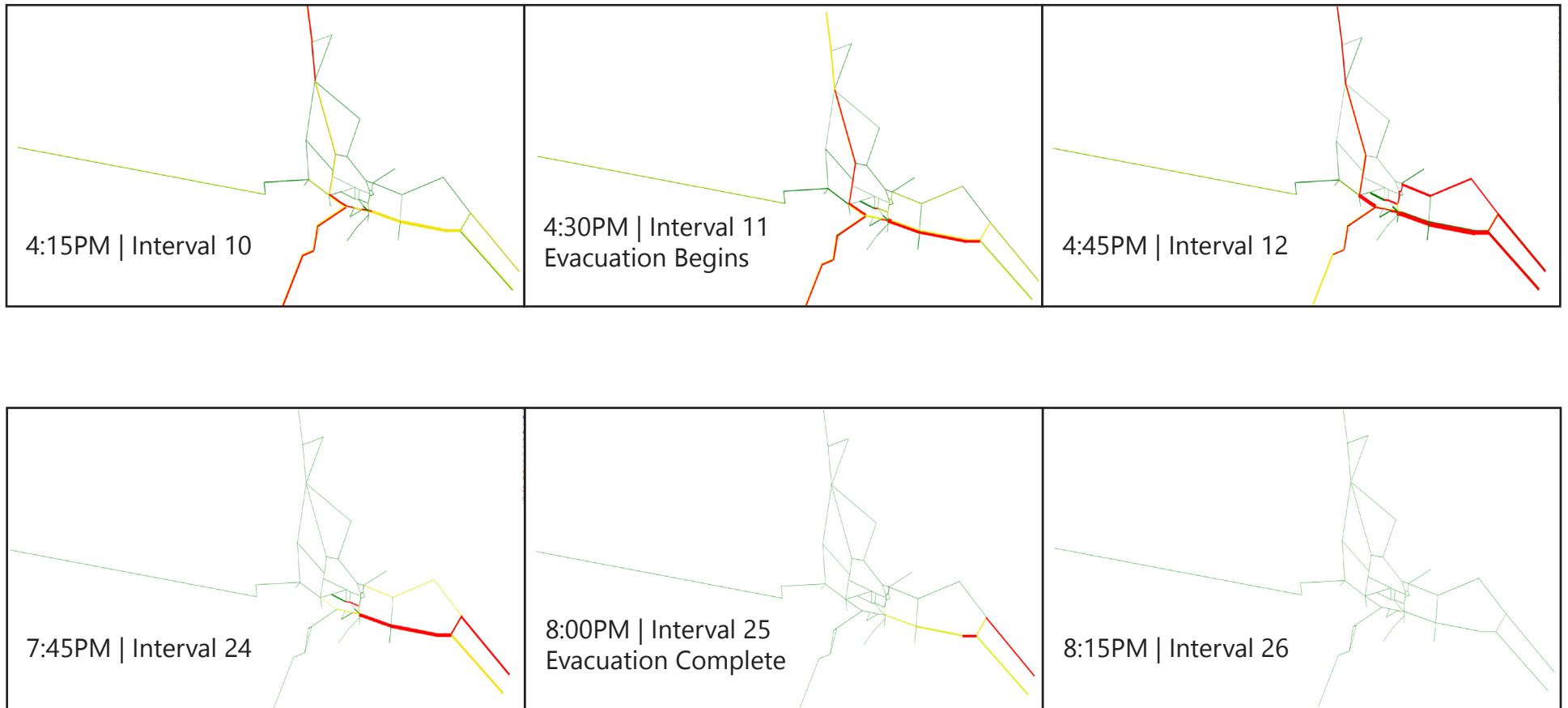
Study Area

Appendix A

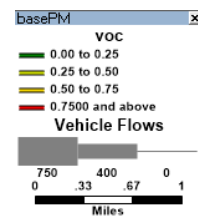
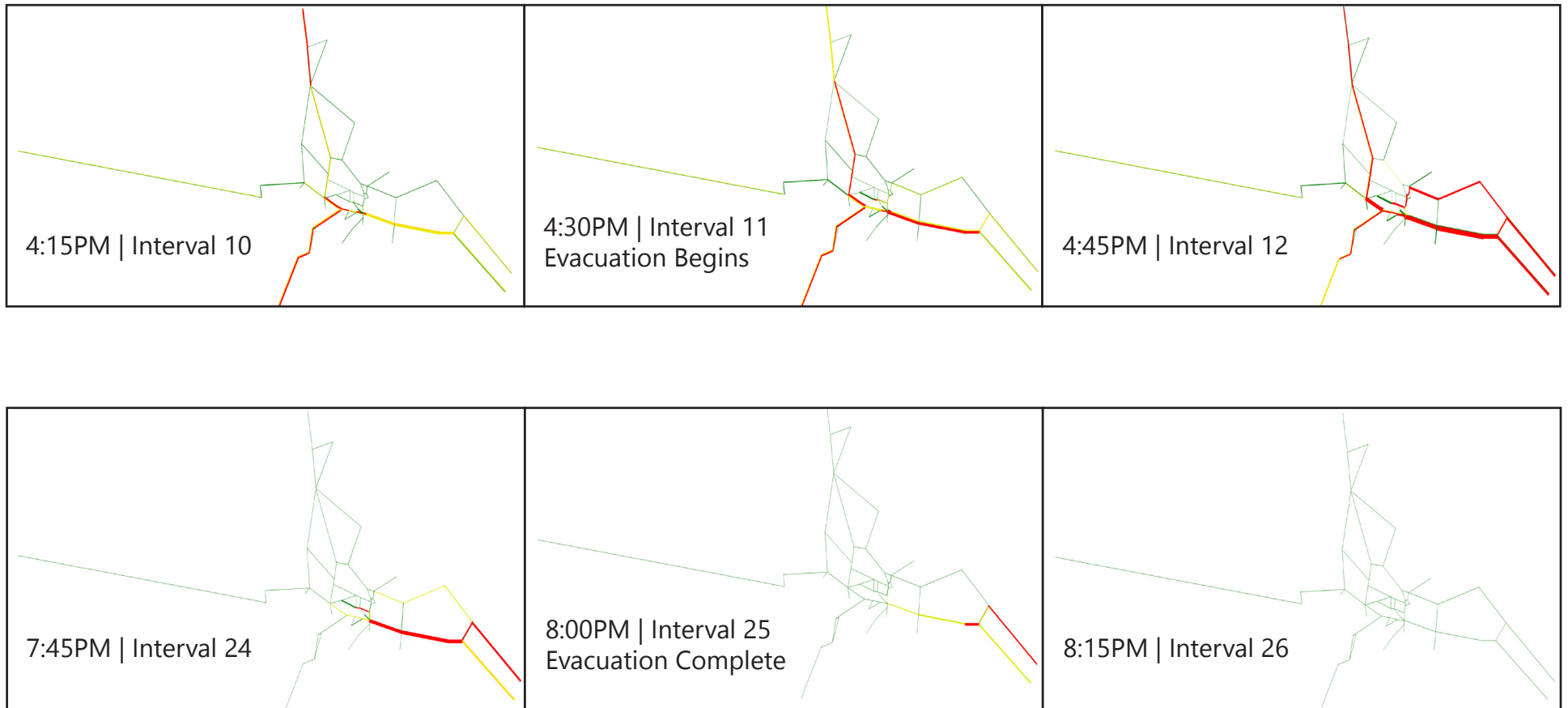
Northeast Fire Scenario 1 Base Friday



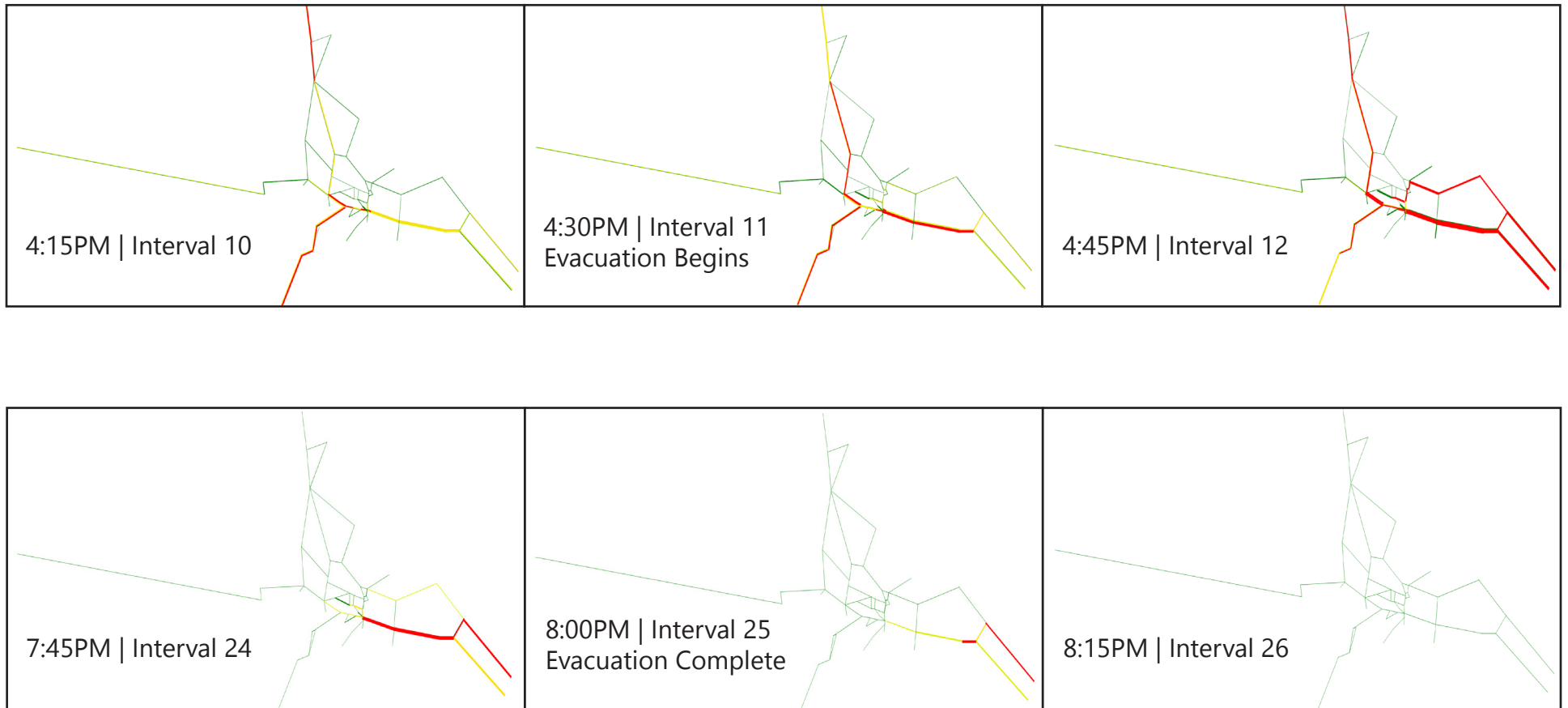
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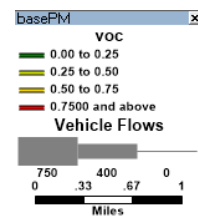
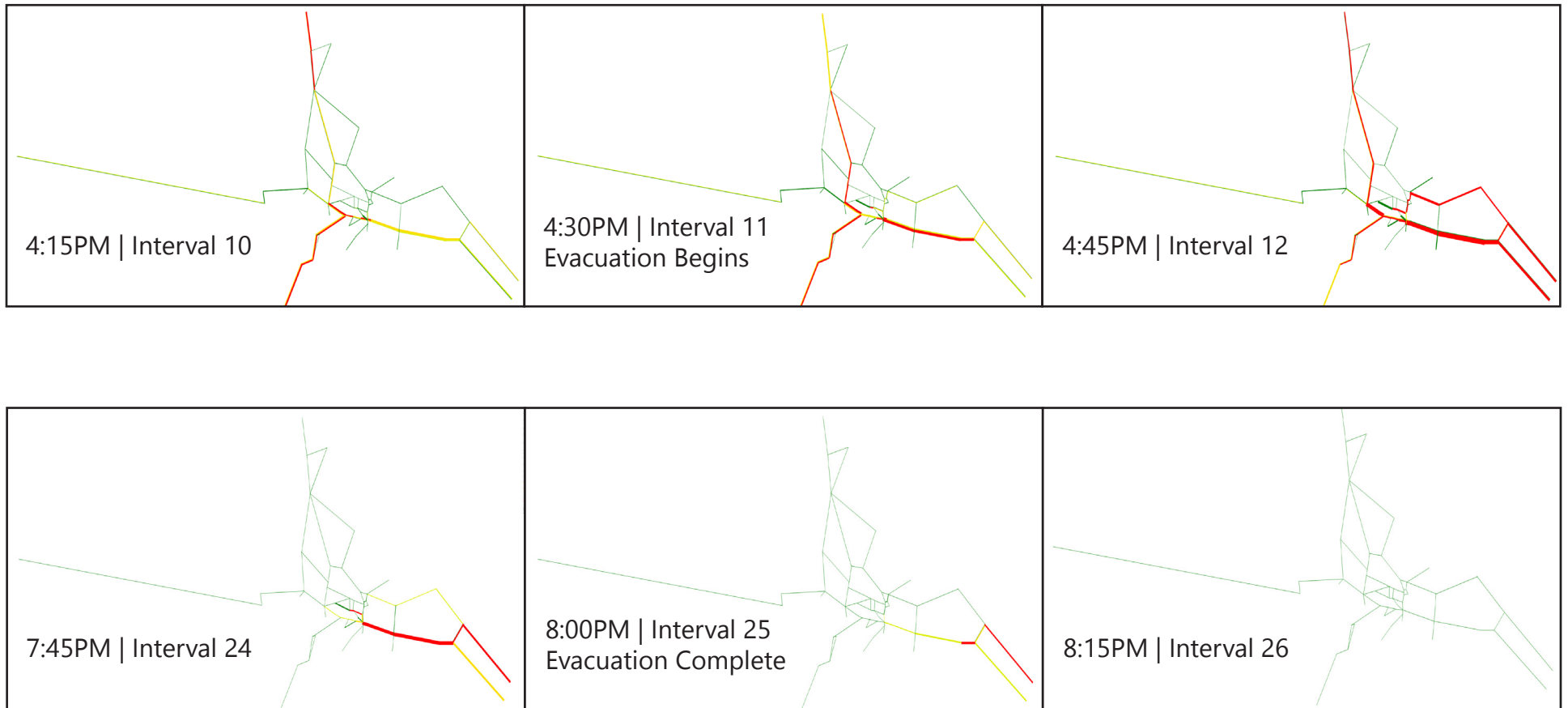
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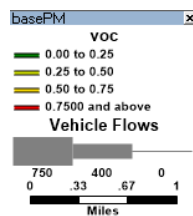
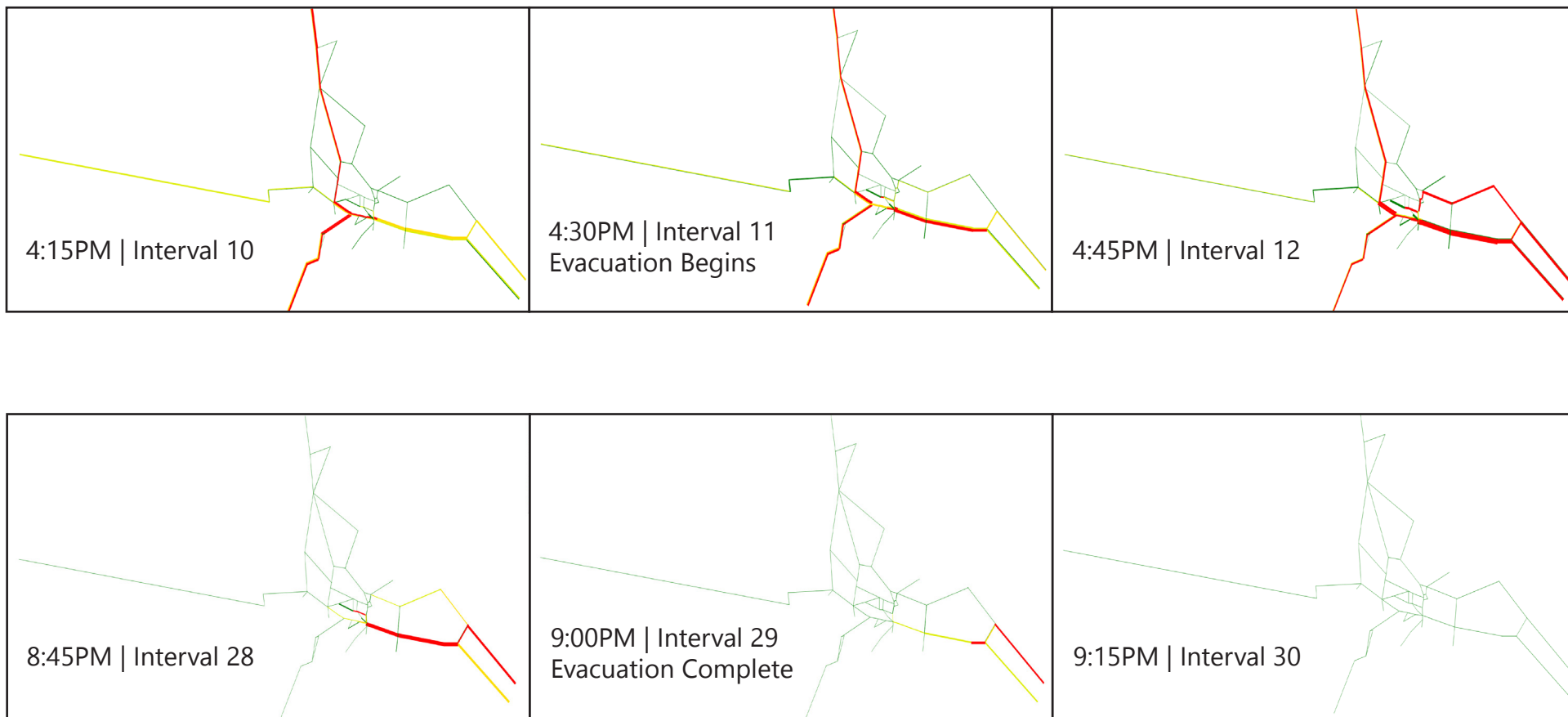
Northeast Fire Scenario 4 Base Friday



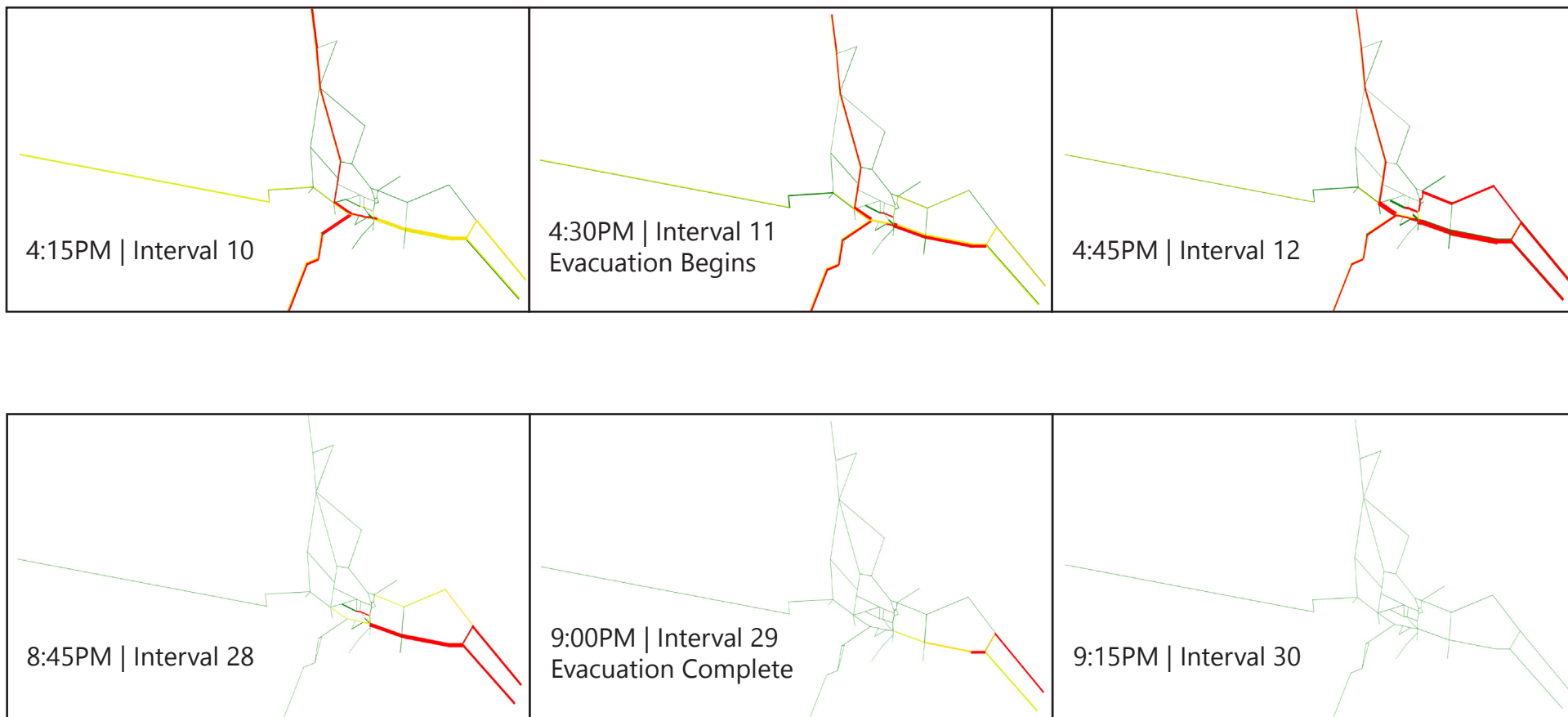
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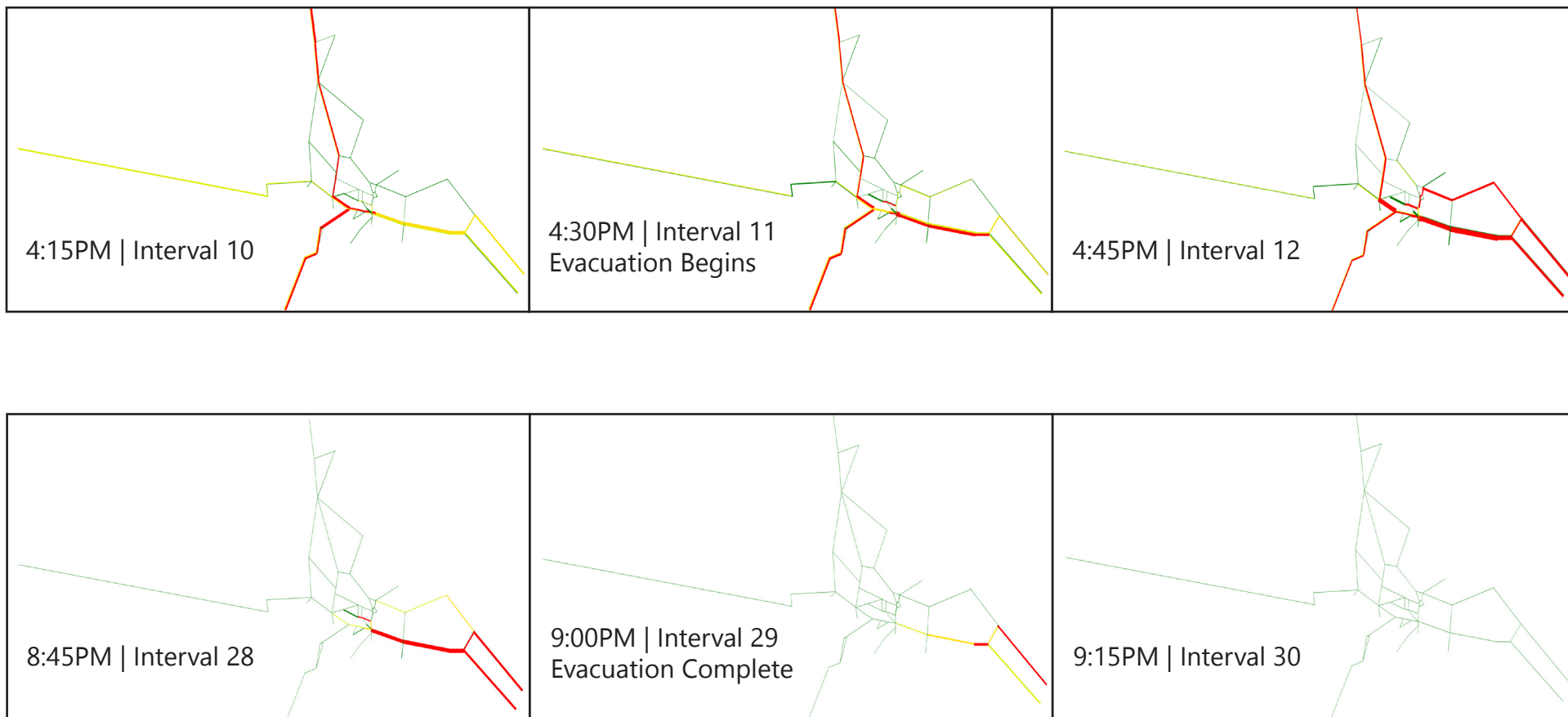
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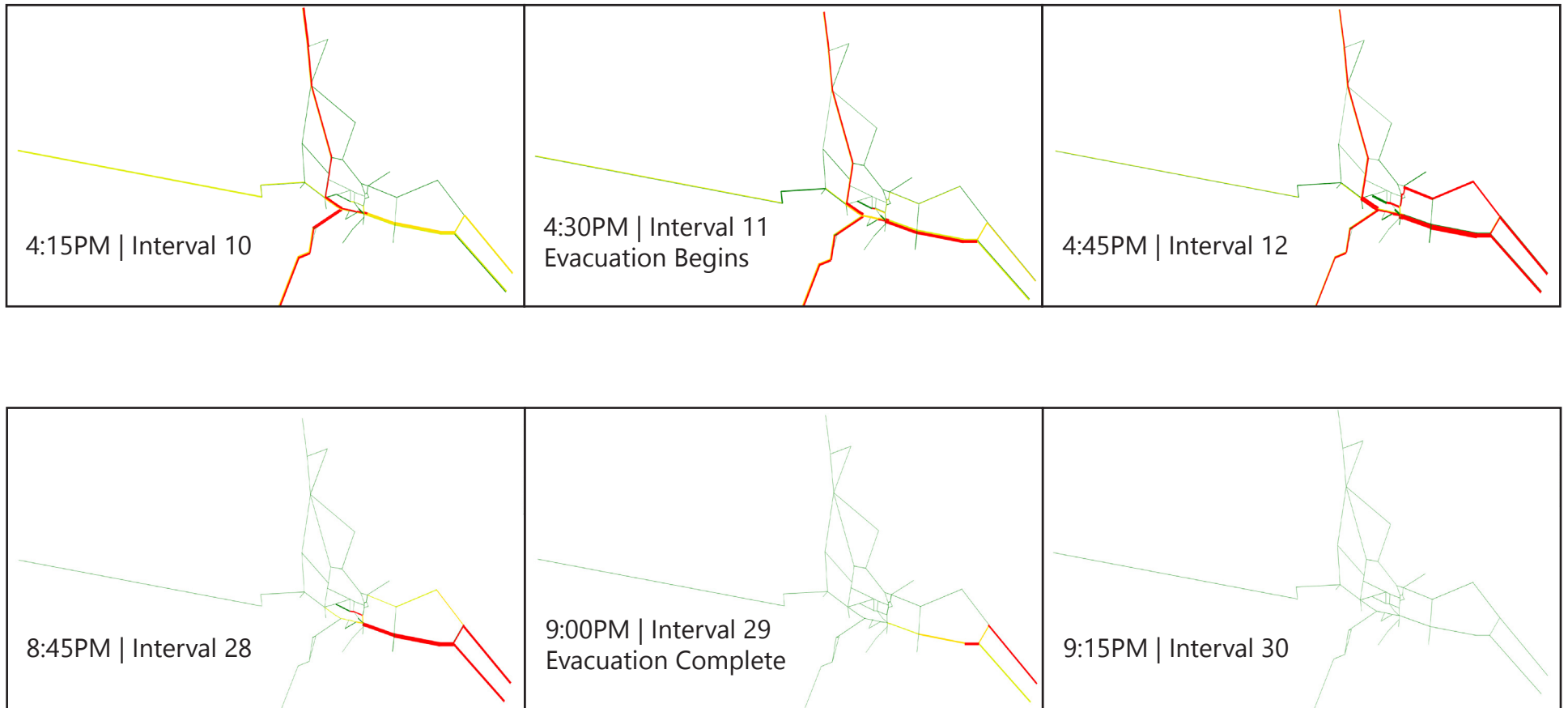
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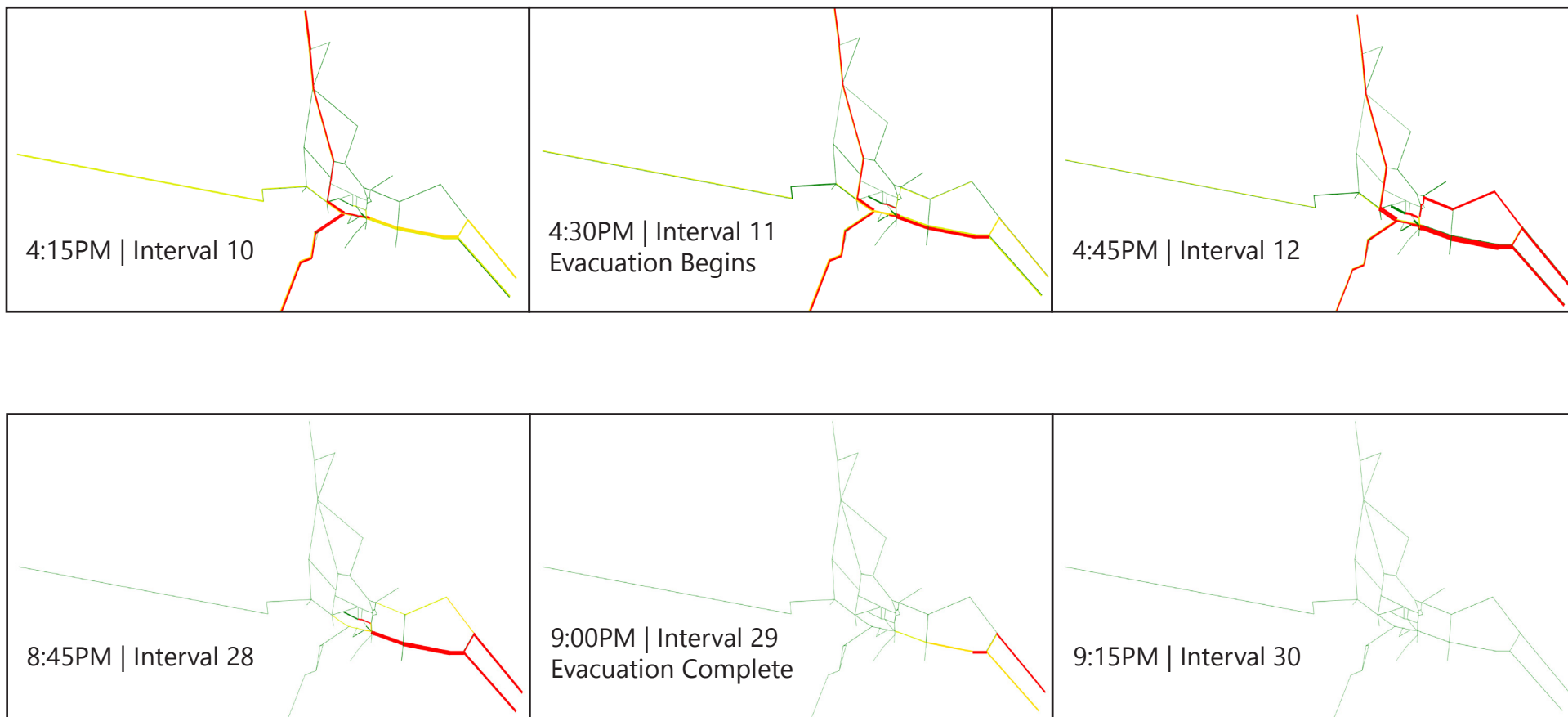
Northeast Fire Scenario 3 Future Friday



Northeast Fire Scenario 4 Future Friday

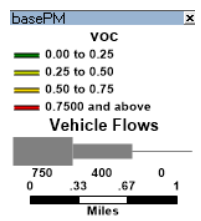
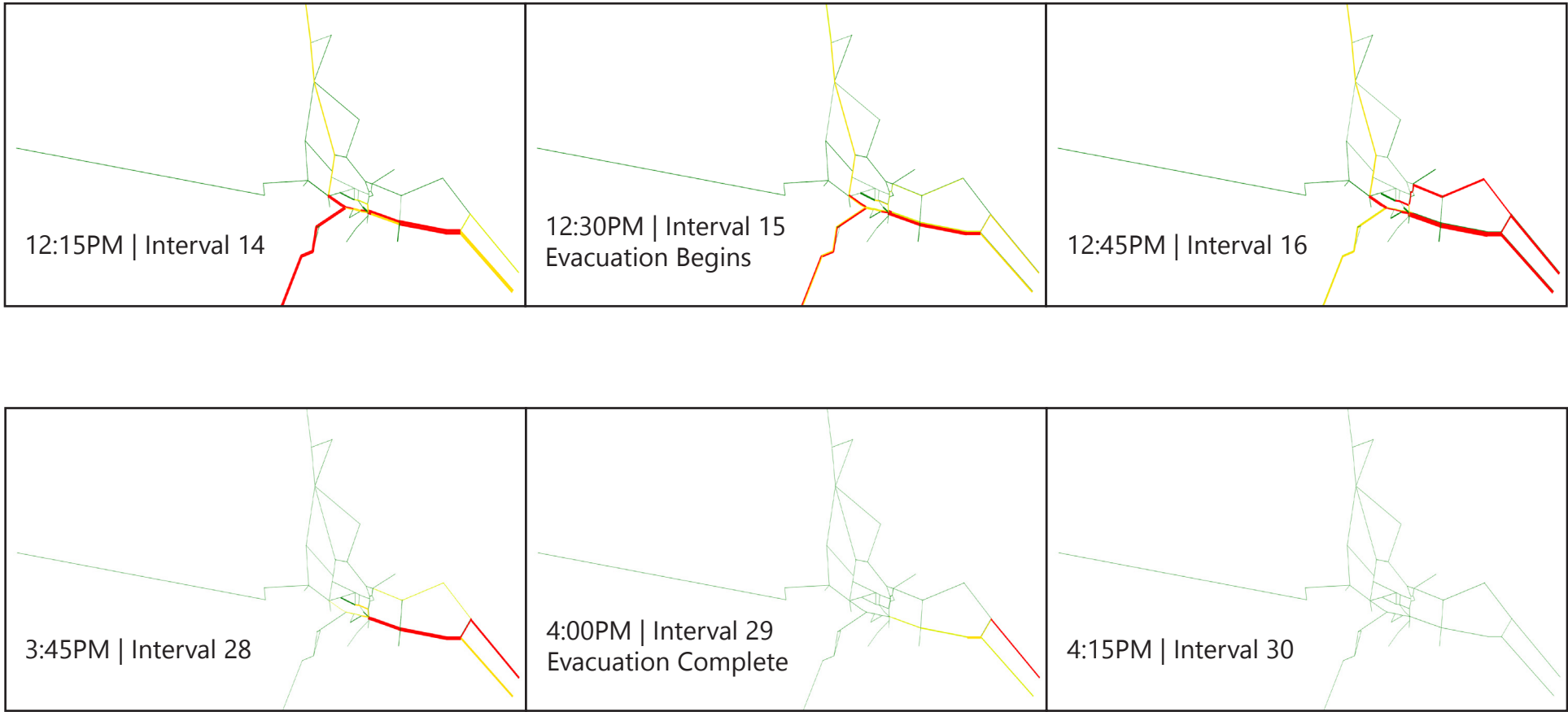


Northeast Fire Scenario 5 Future Friday



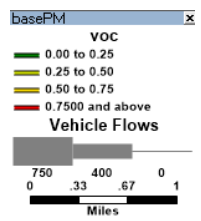
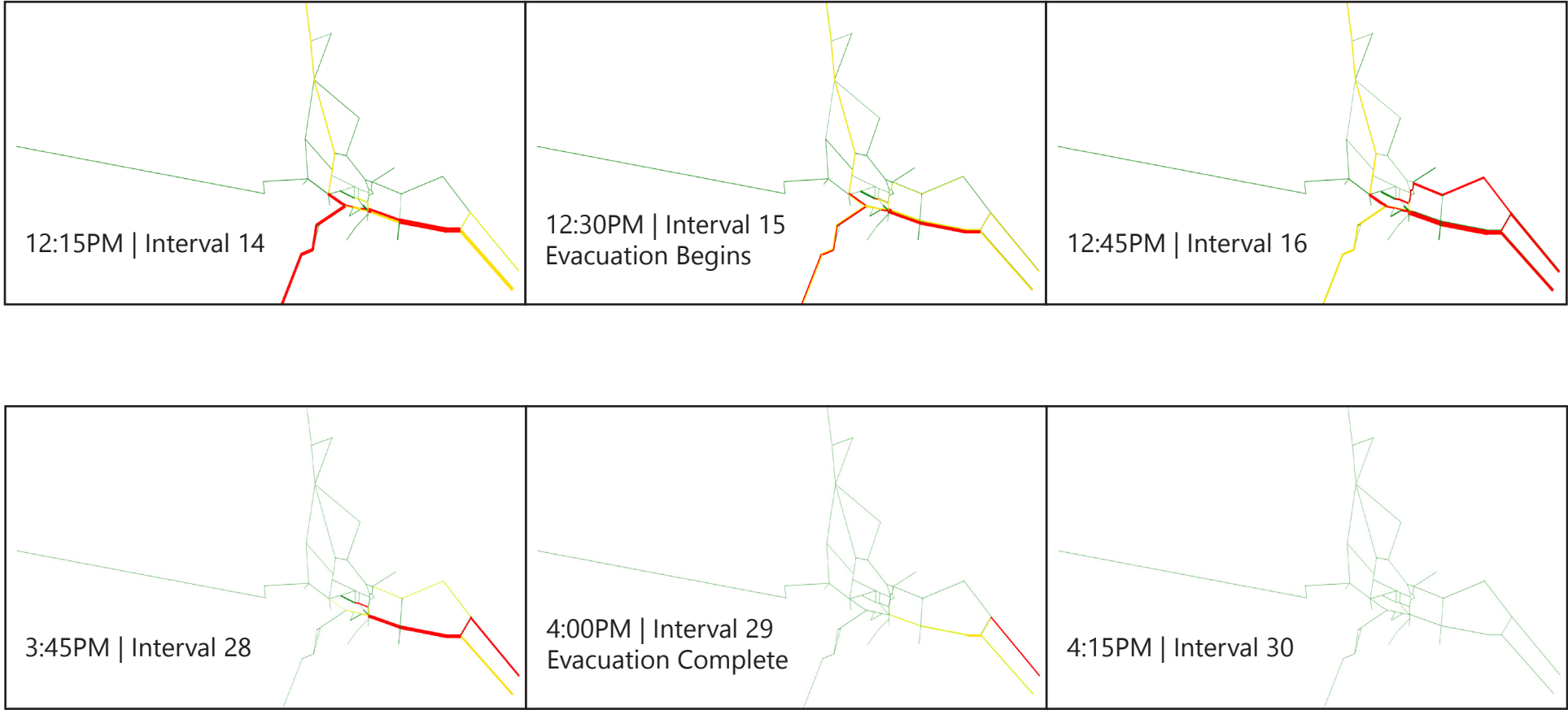
Northeast Fire

Scenario 1 Base Saturday



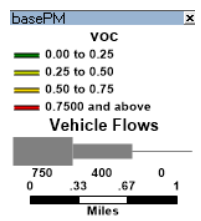
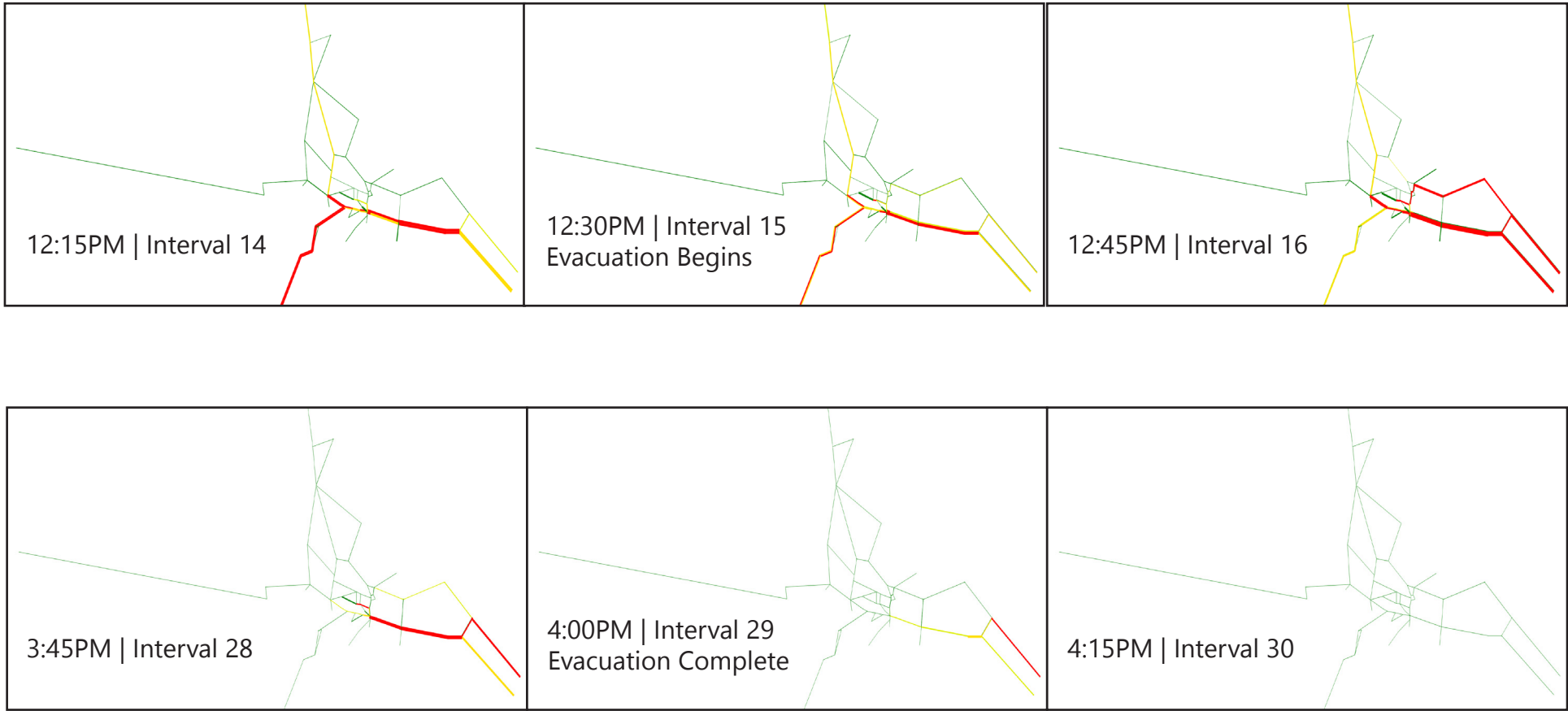
Northeast Fire

Scenario 2 Base Saturday



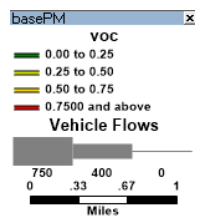
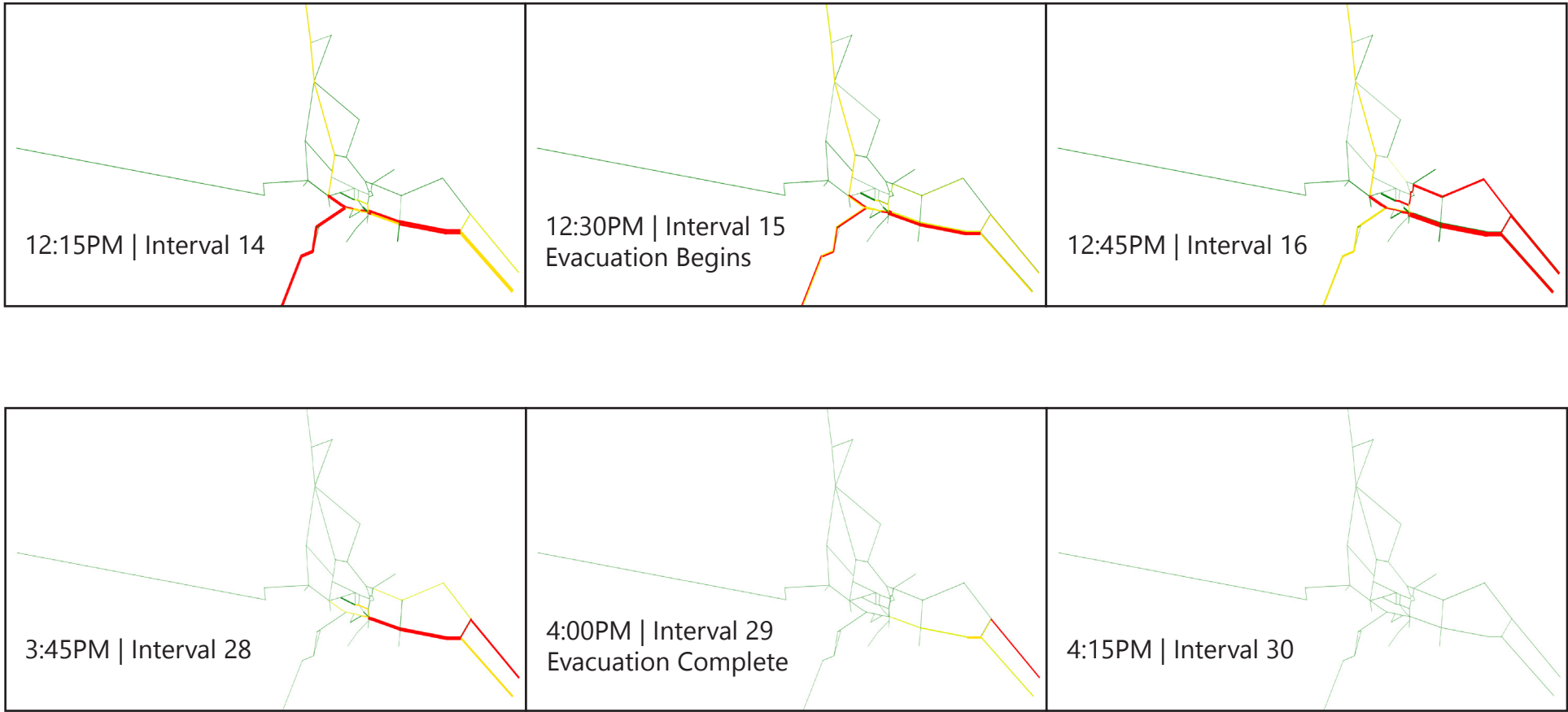
Northeast Fire

Scenario 3 Base Saturday

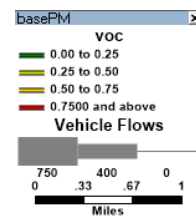
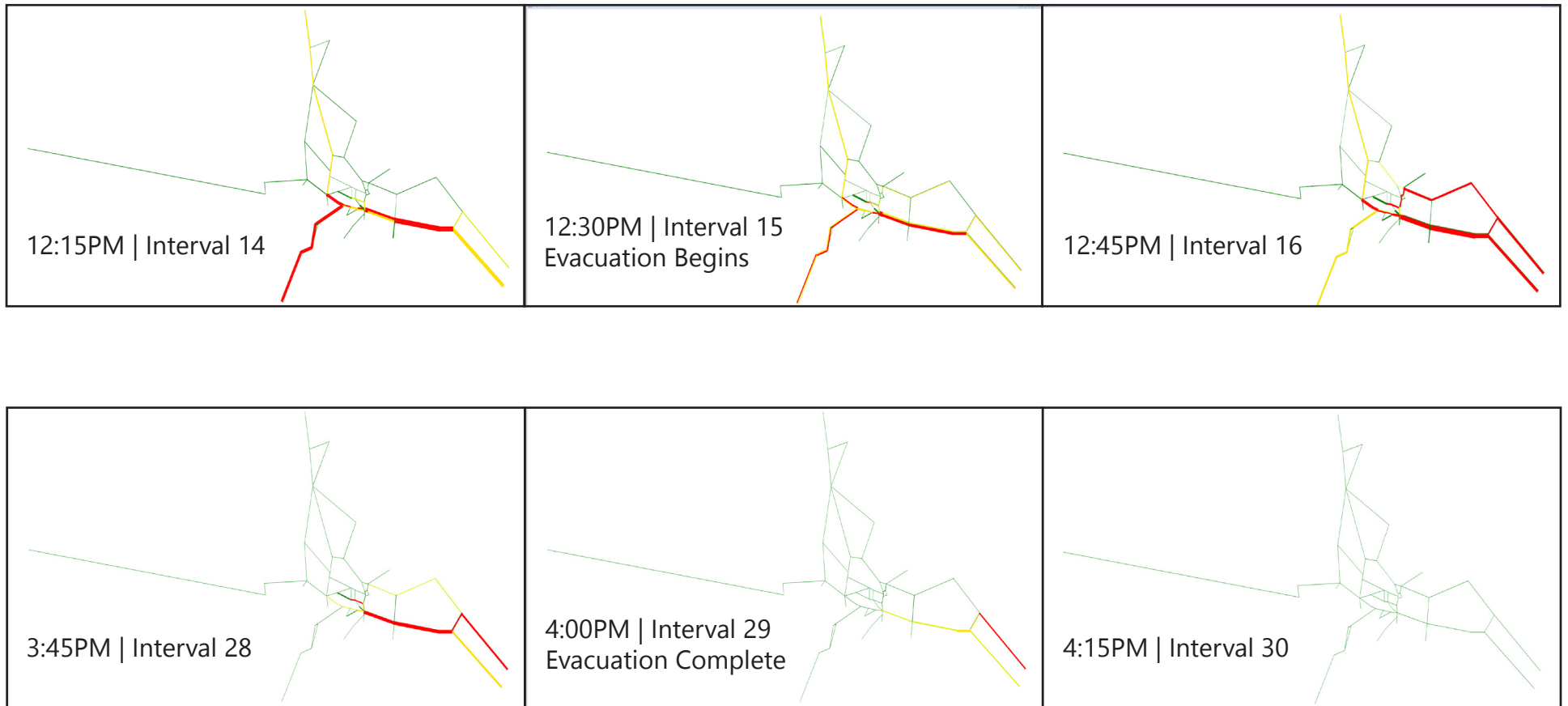


Northeast Fire

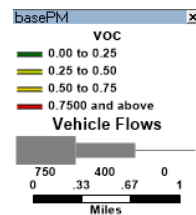
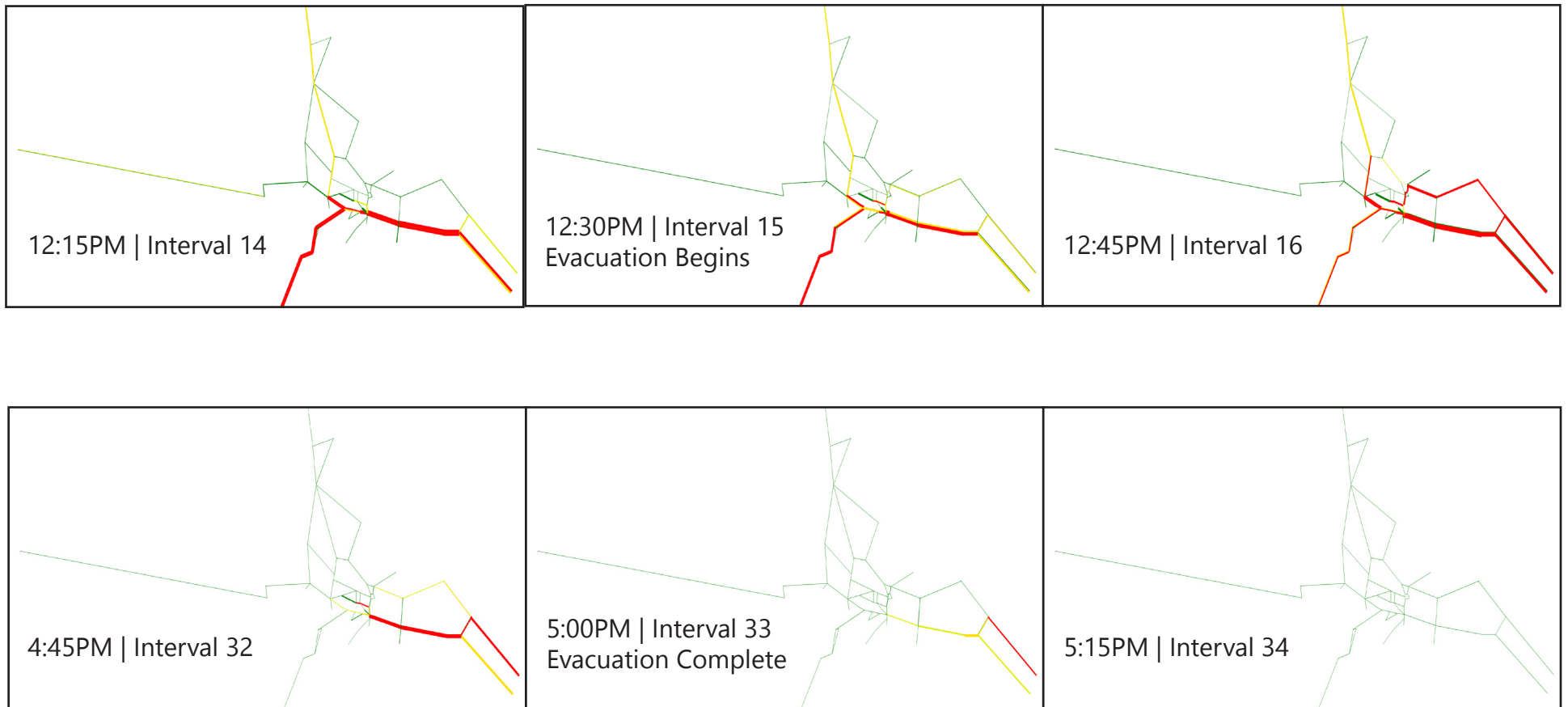
Scenario 4 Base Saturday



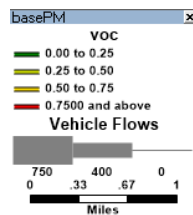
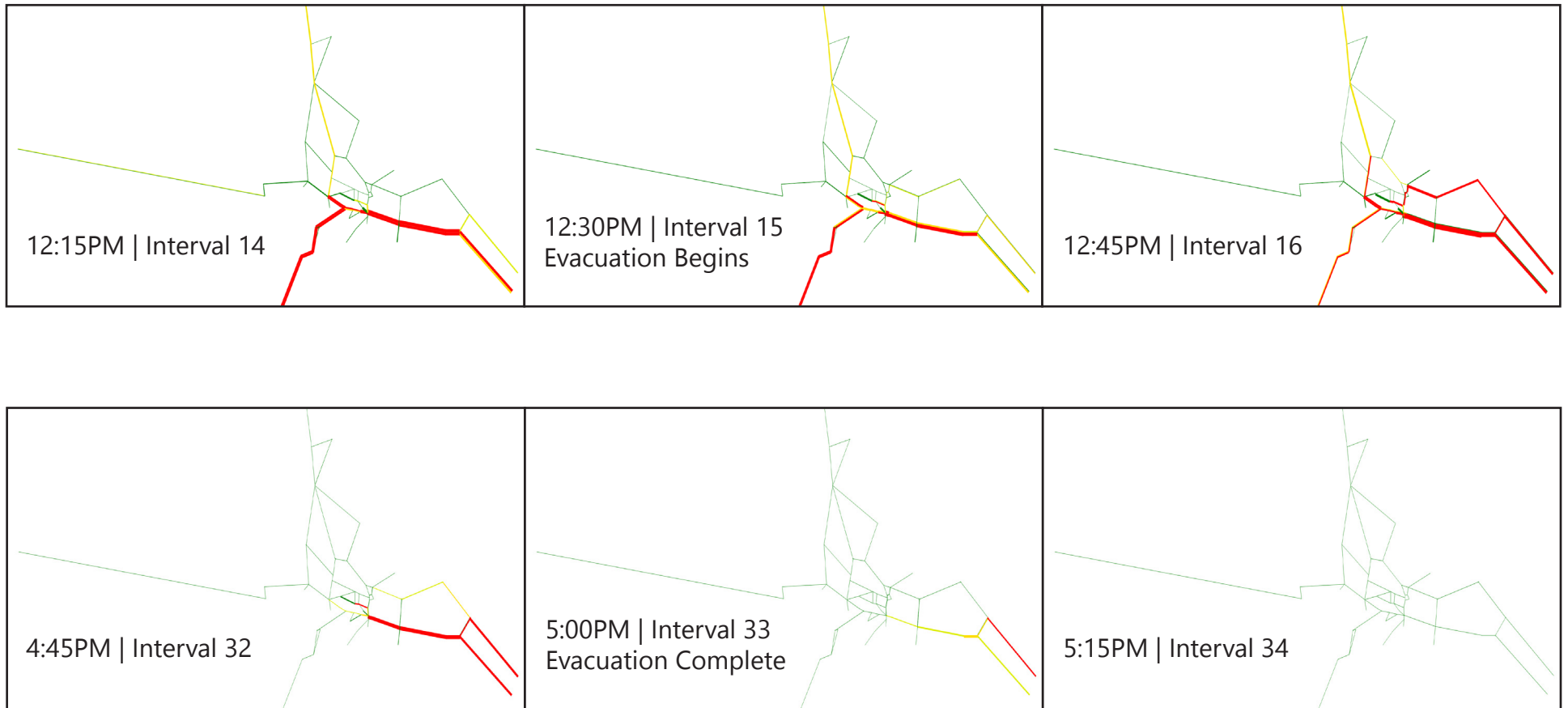
Northeast Fire Scenario 5 Base Saturday



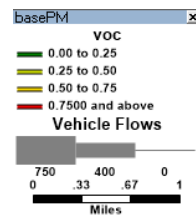
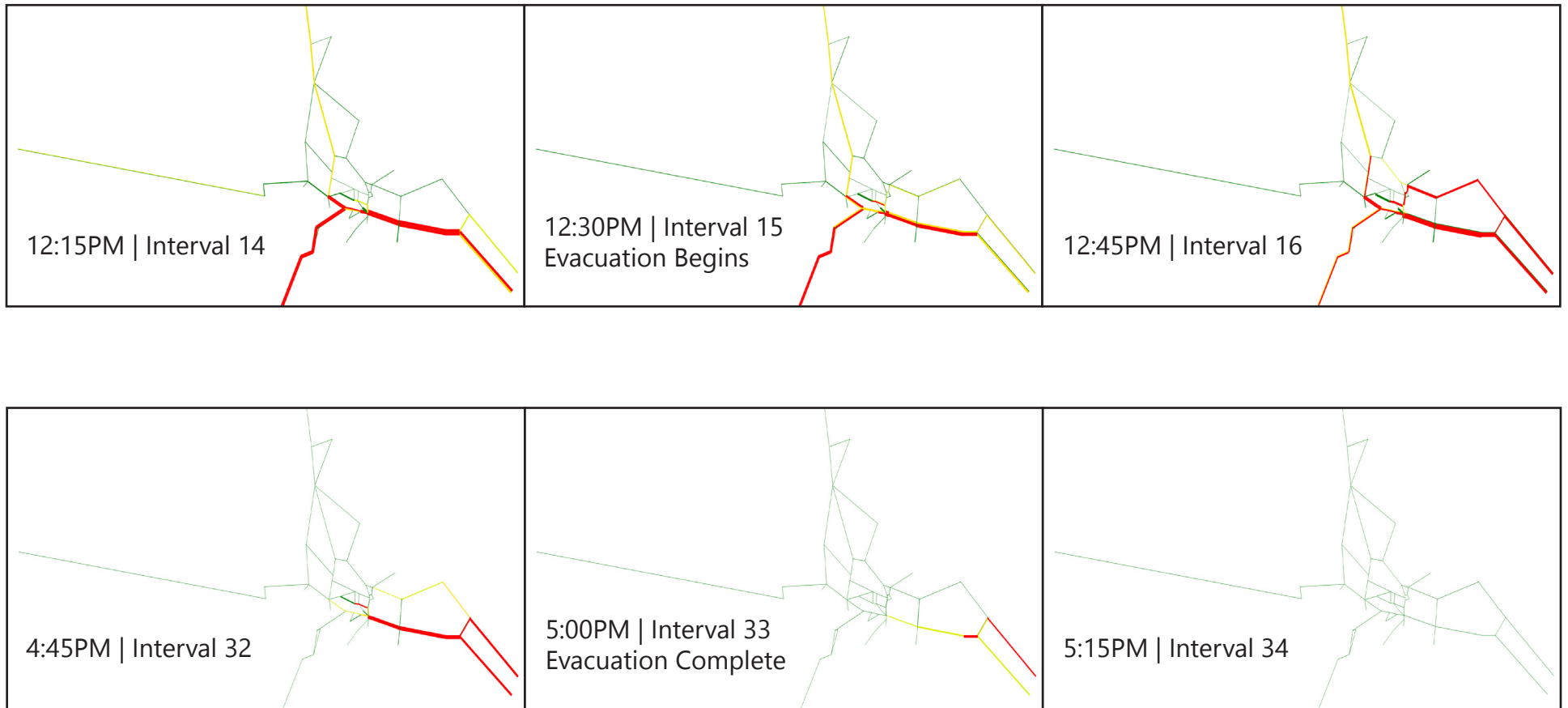
Northeast Fire Scenario 1 Future Saturday



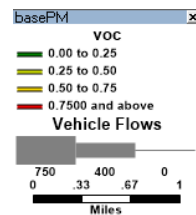
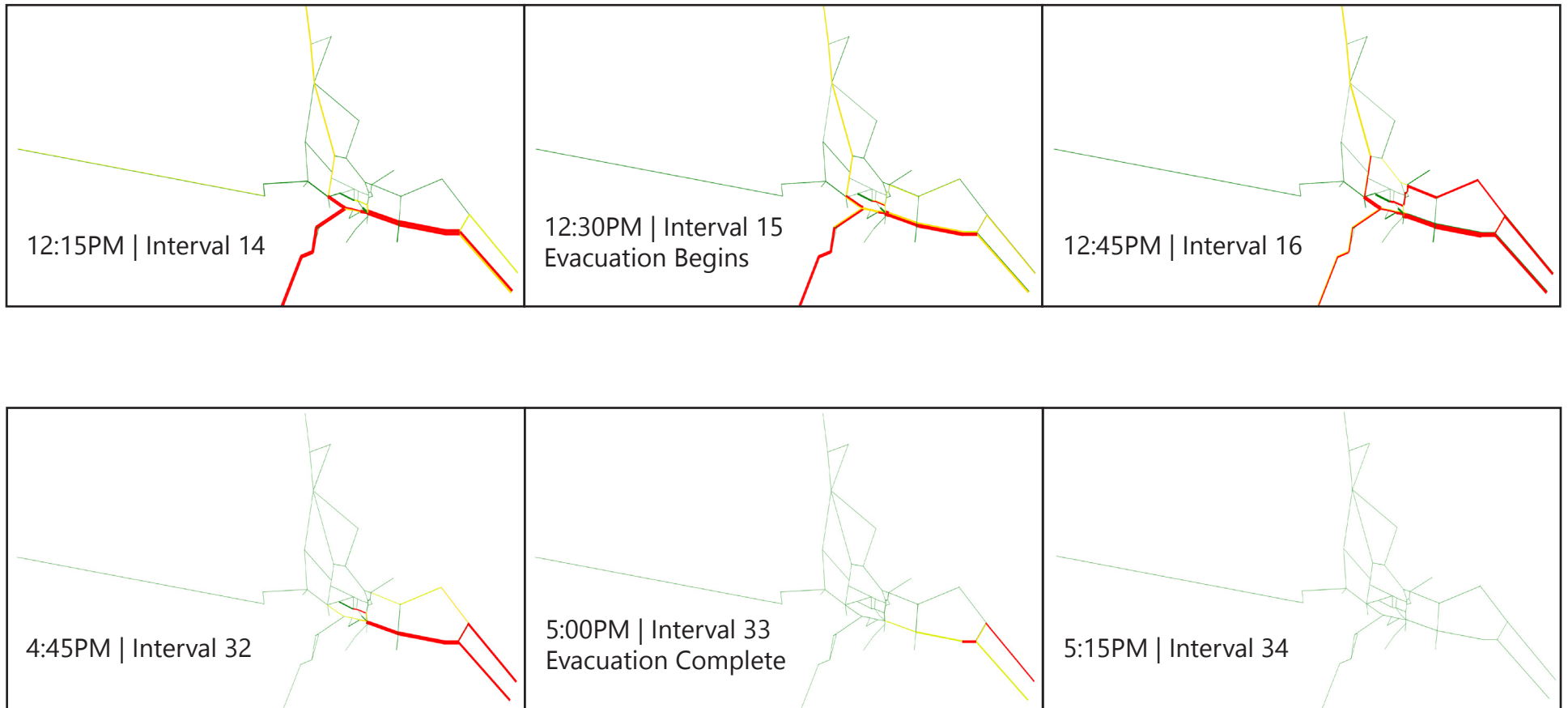
Northeast Fire Scenario 2 Future Saturday



Northeast Fire Scenario 3 Future Saturday

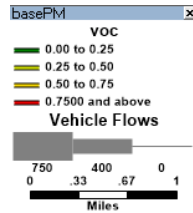
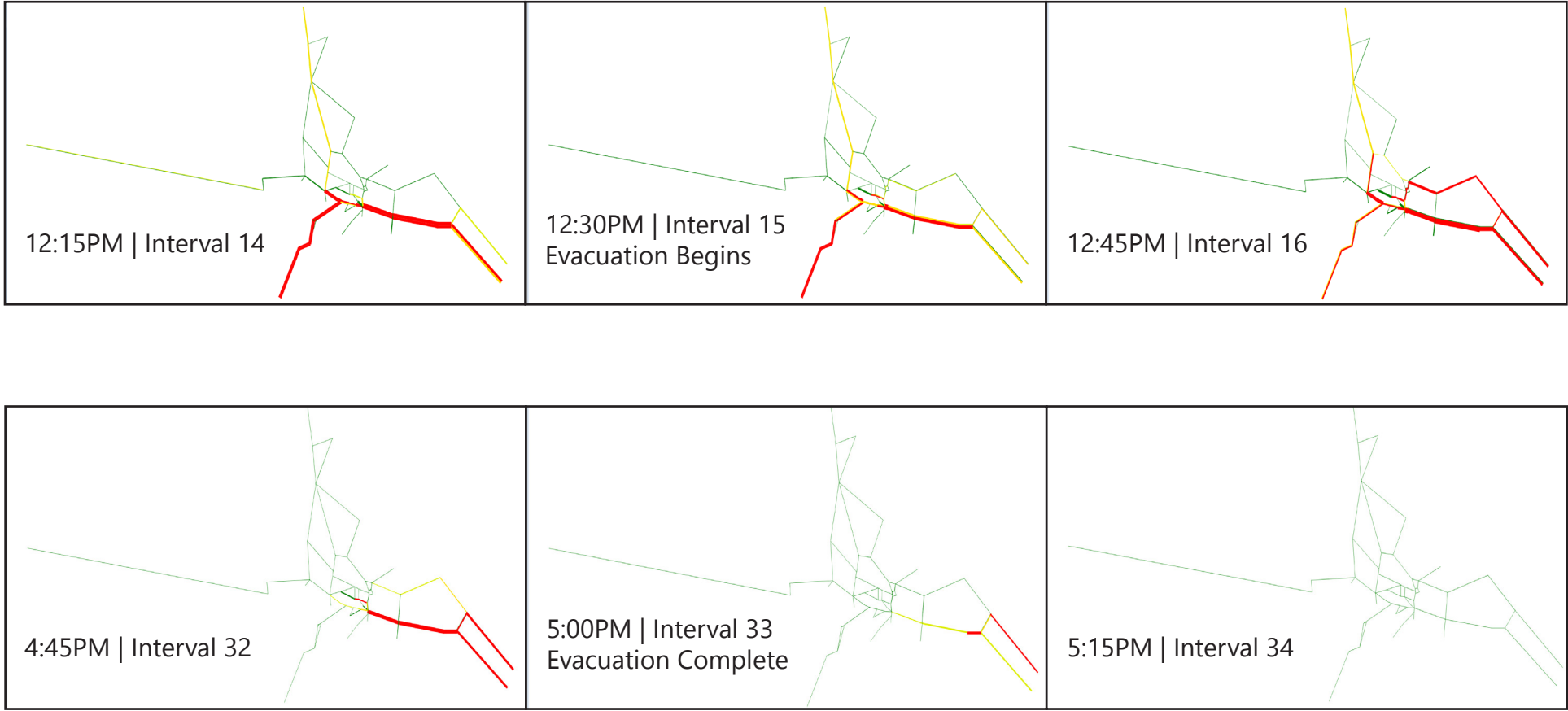


Northeast Fire Scenario 4 Future Saturday



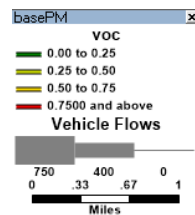
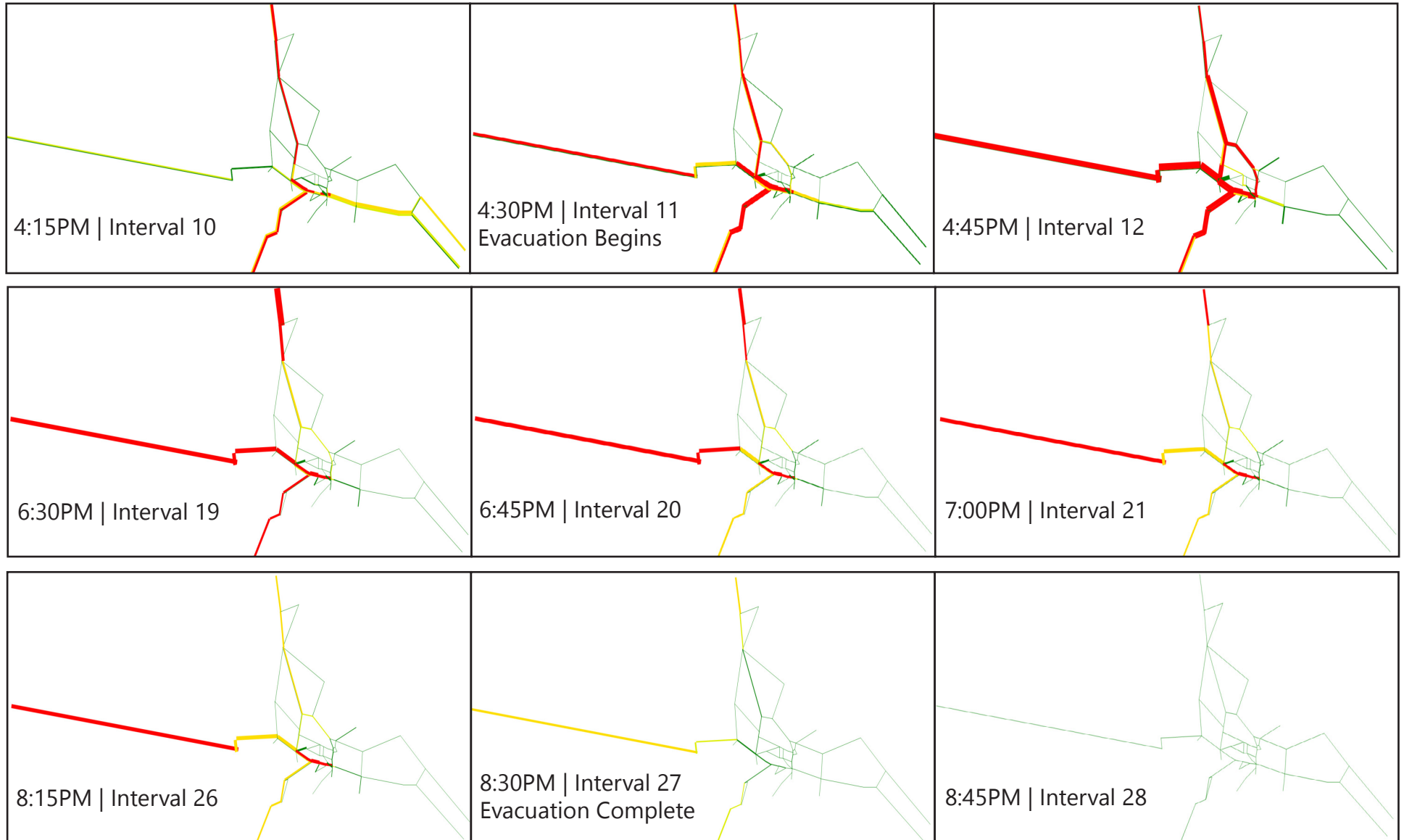
Northeast Fire

Scenario 5 Future Saturday

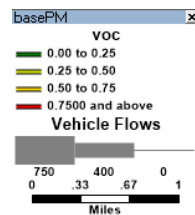
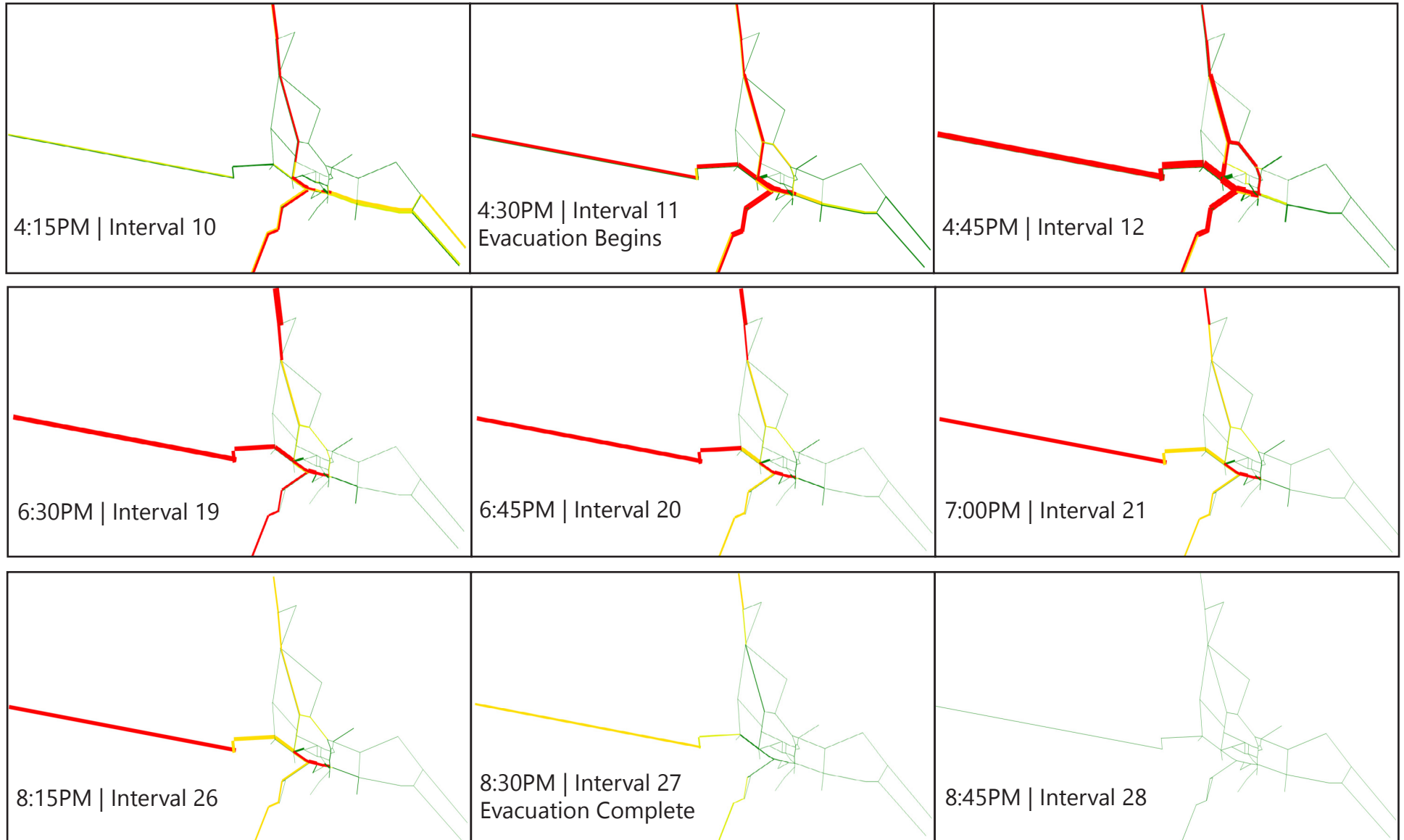


South Fire

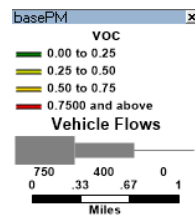
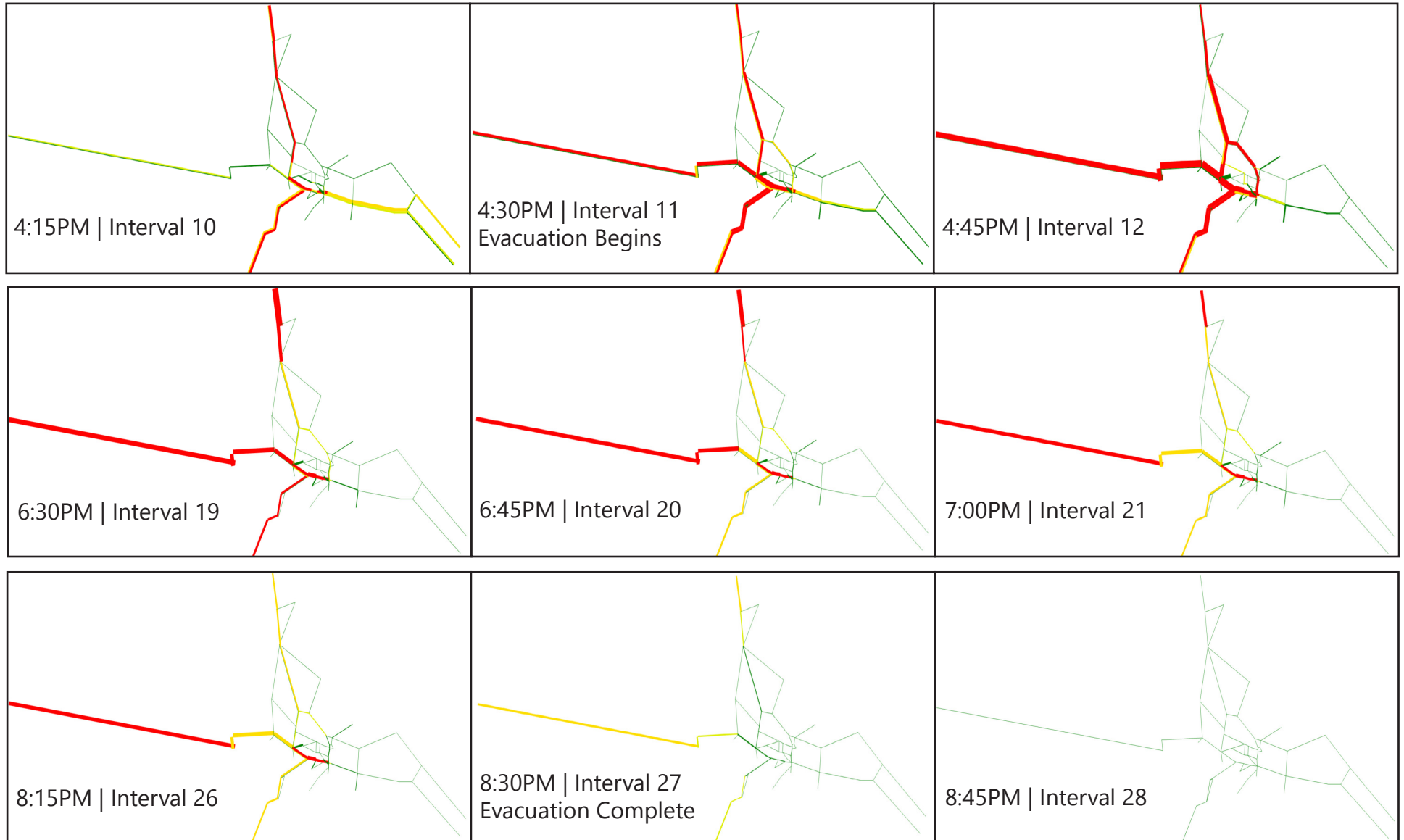
Scenario 1 Base Friday



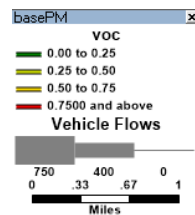
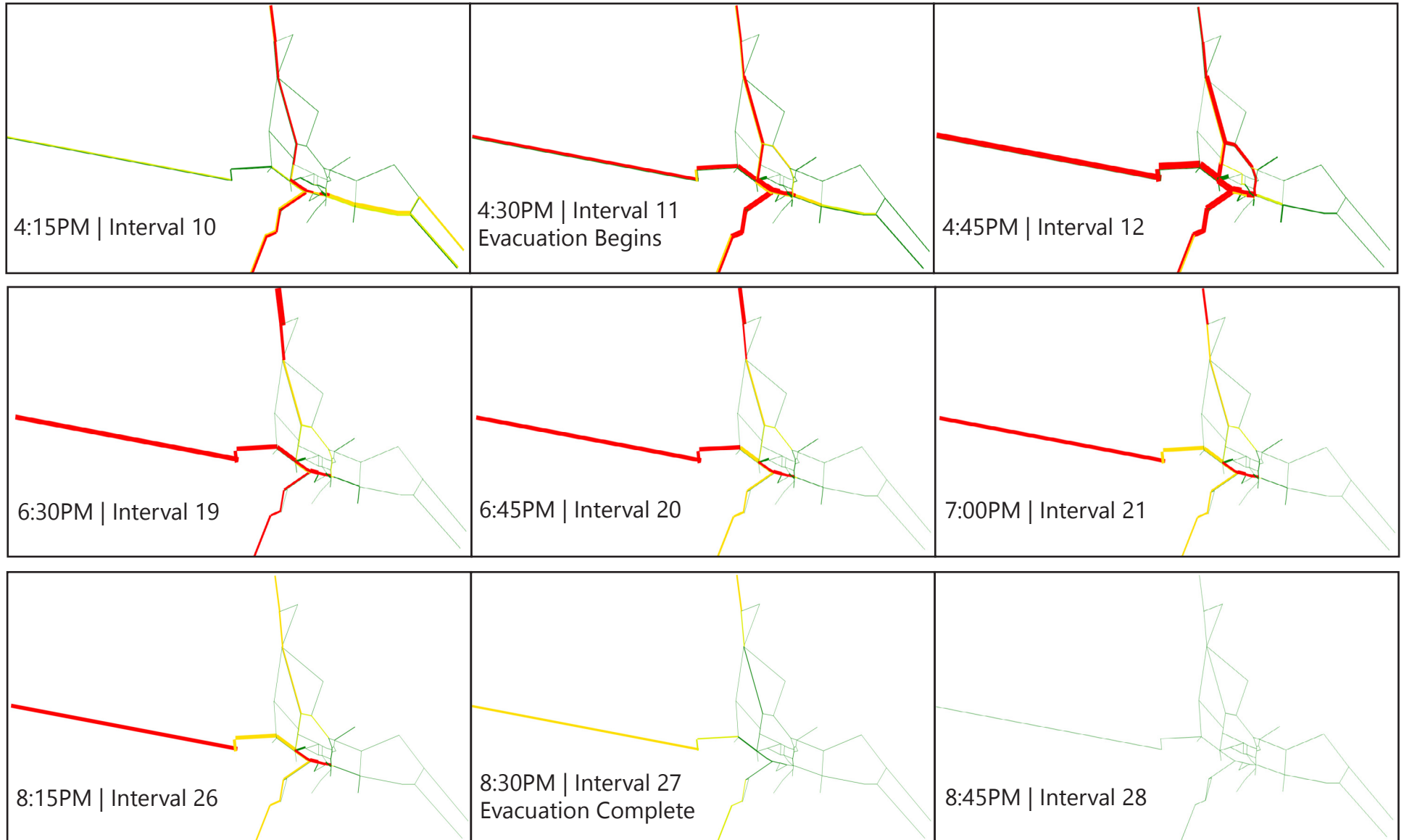
South Fire Scenario 2 Base Friday



South Fire Scenario 3 Base Friday

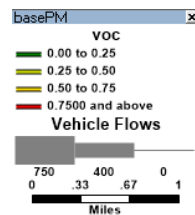
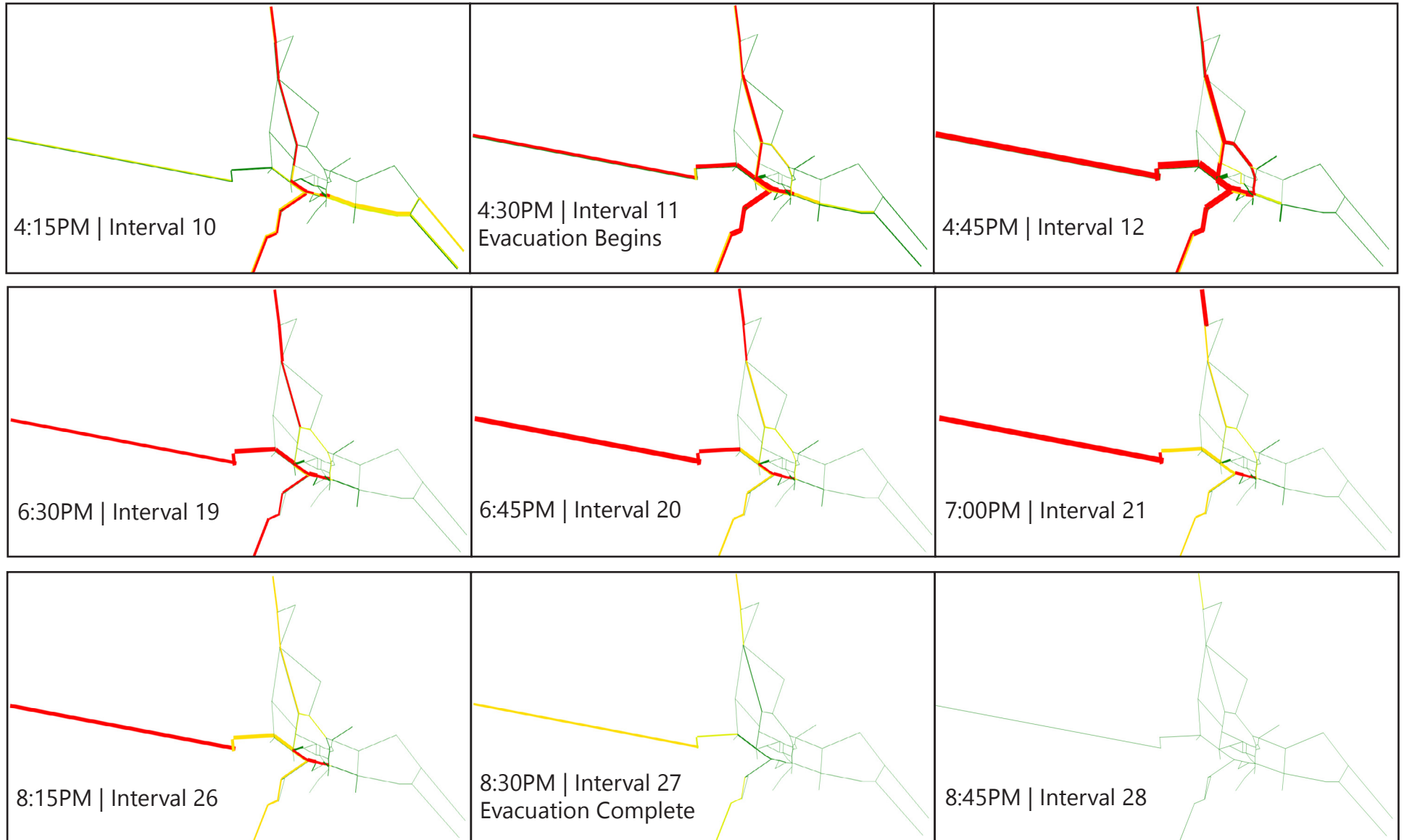


South Fire Scenario 4 Base Friday



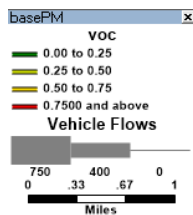
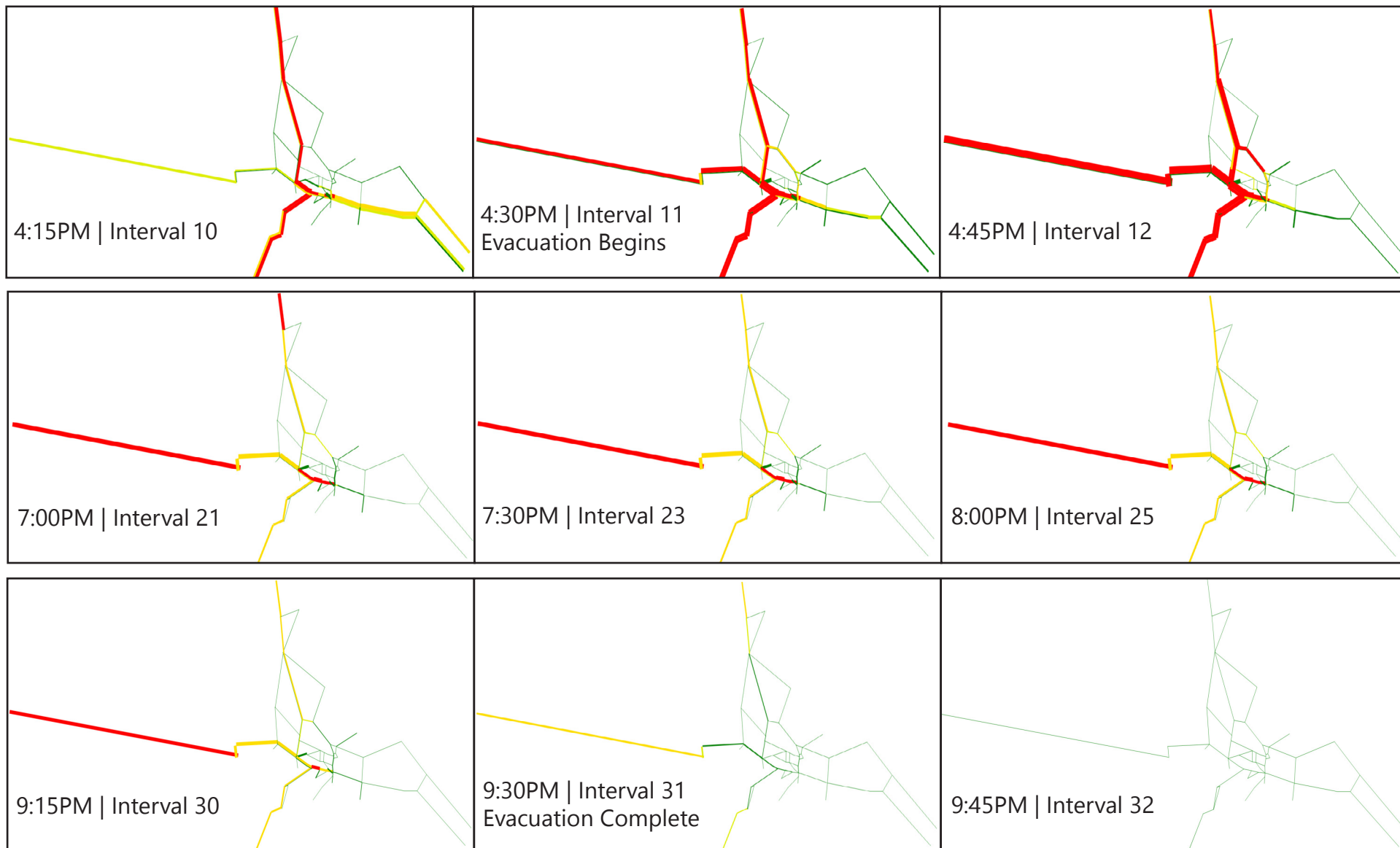
South Fire

Scenario 5 Base Friday



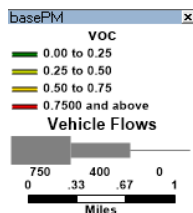
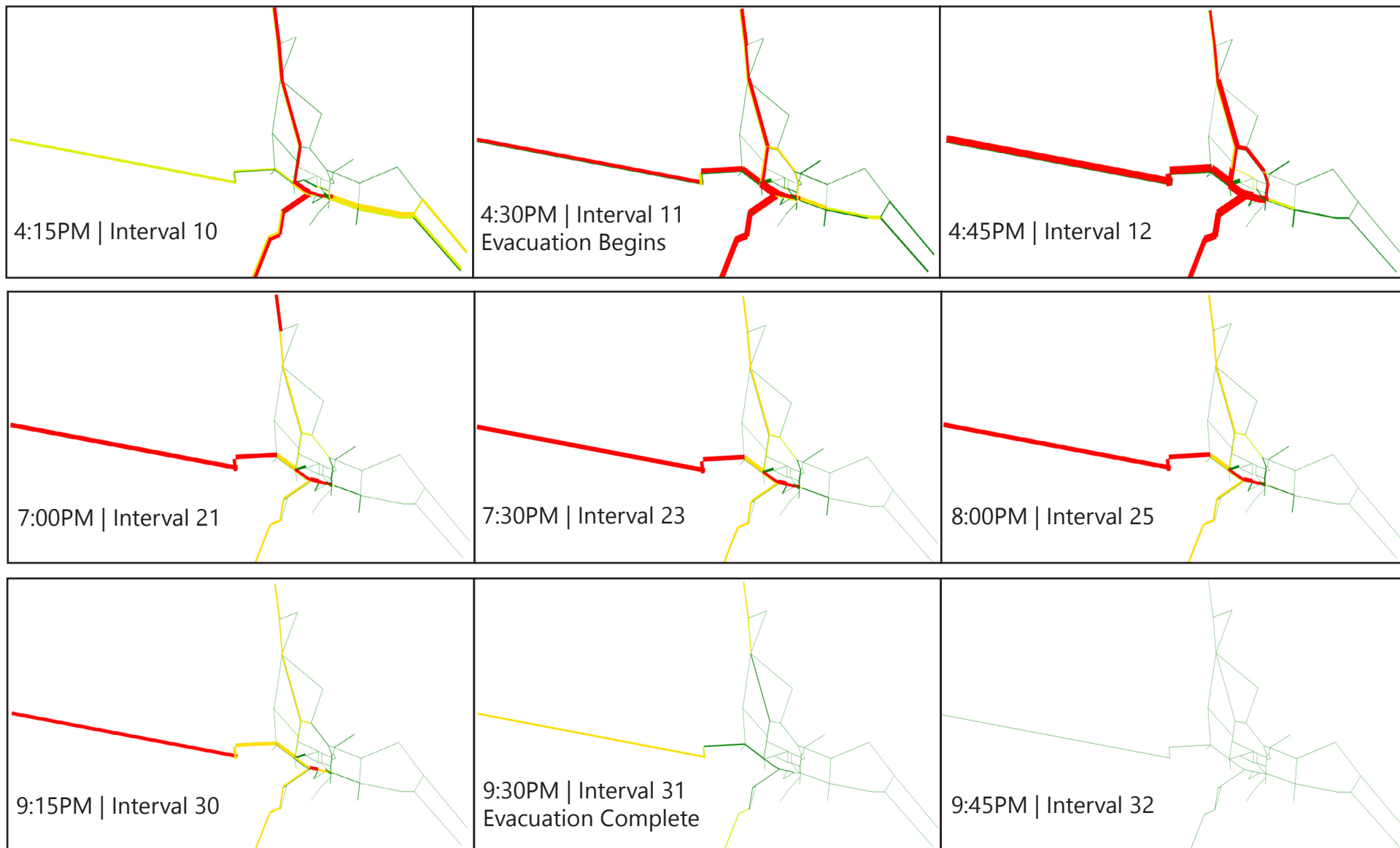
South Fire

Scenario 1 Future Friday



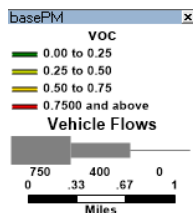
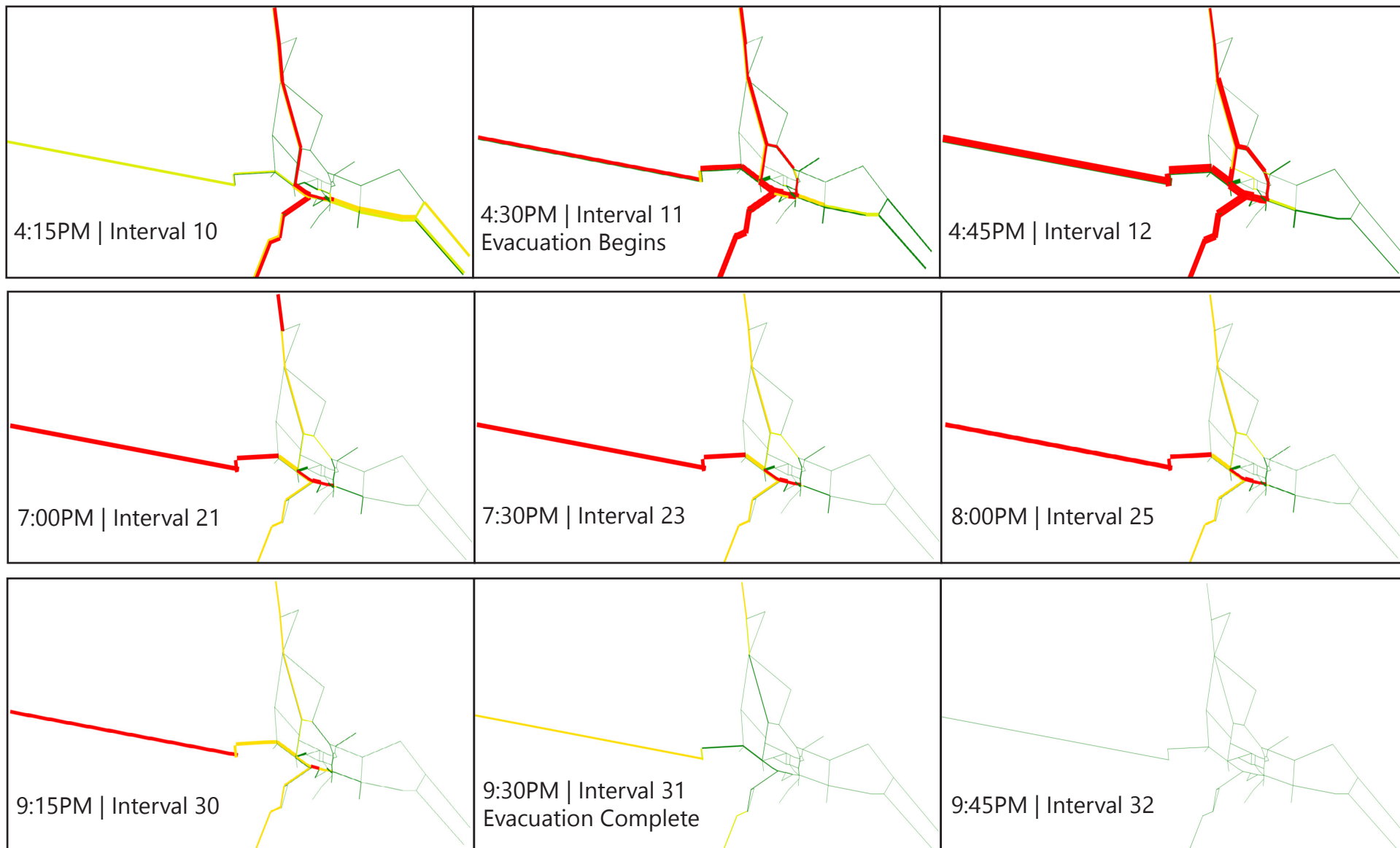
South Fire

Scenario 2 Future Friday



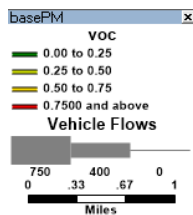
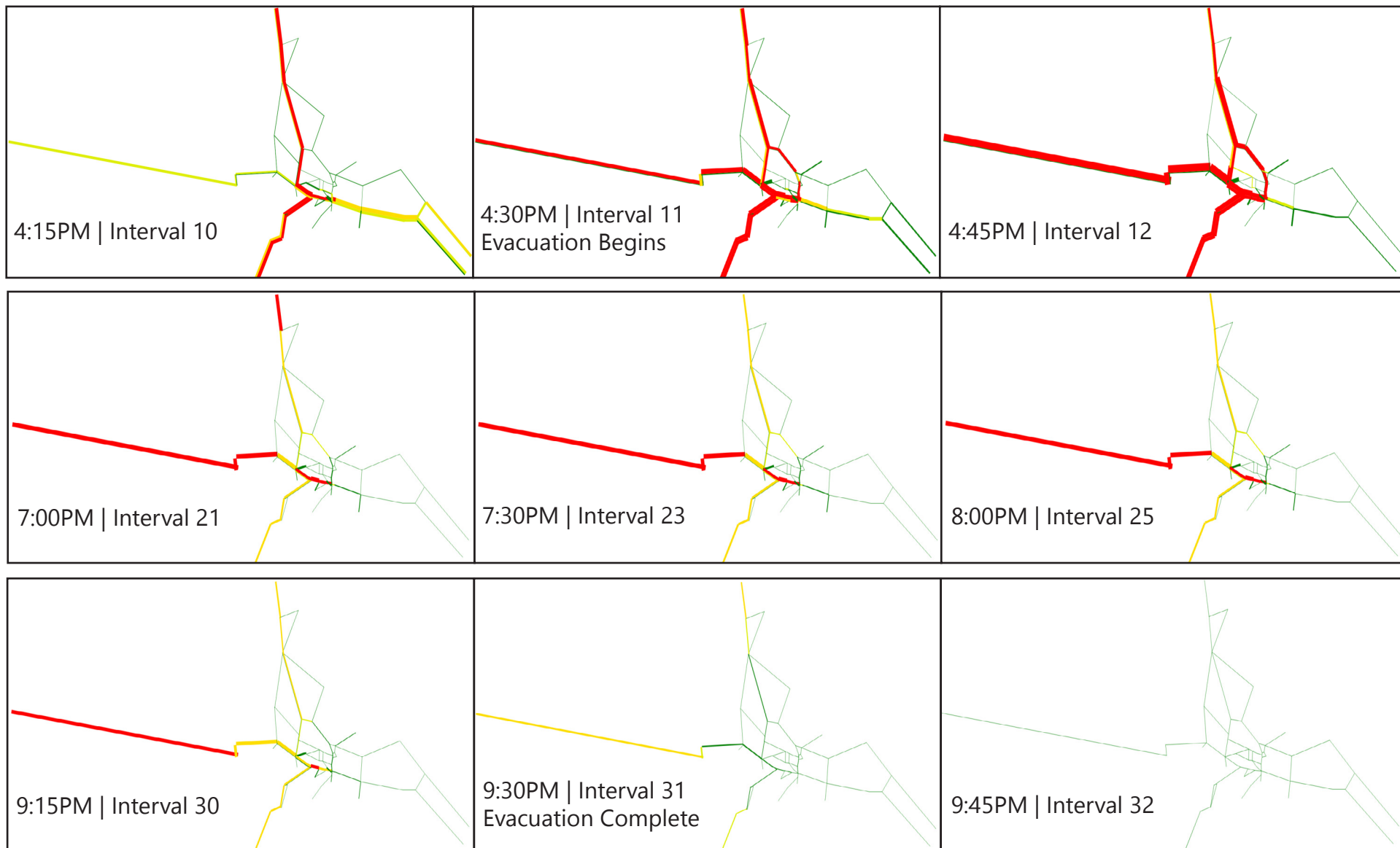
South Fire

Scenario 3 Future Friday



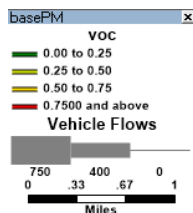
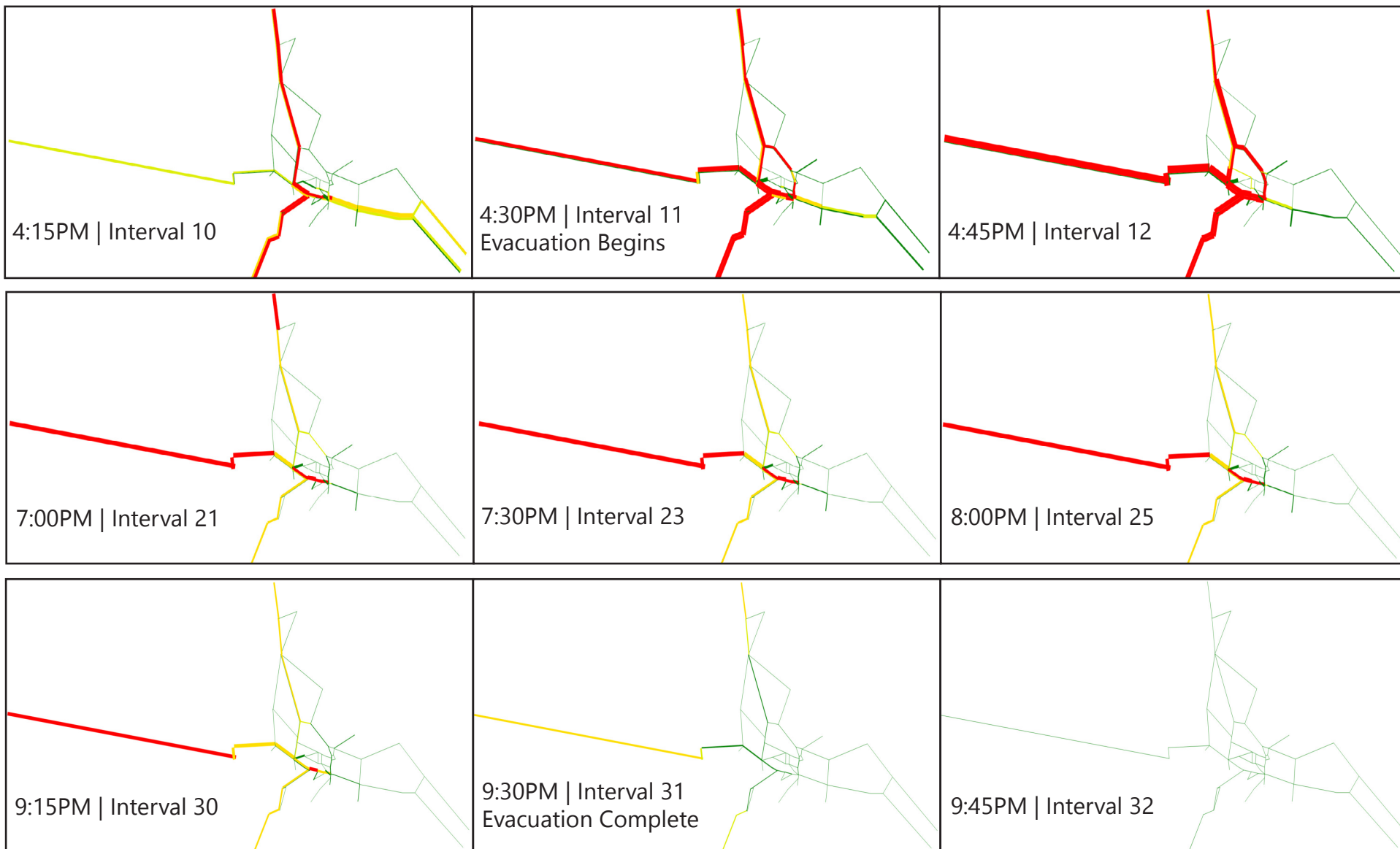
South Fire

Scenario 4 Future Friday



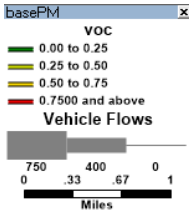
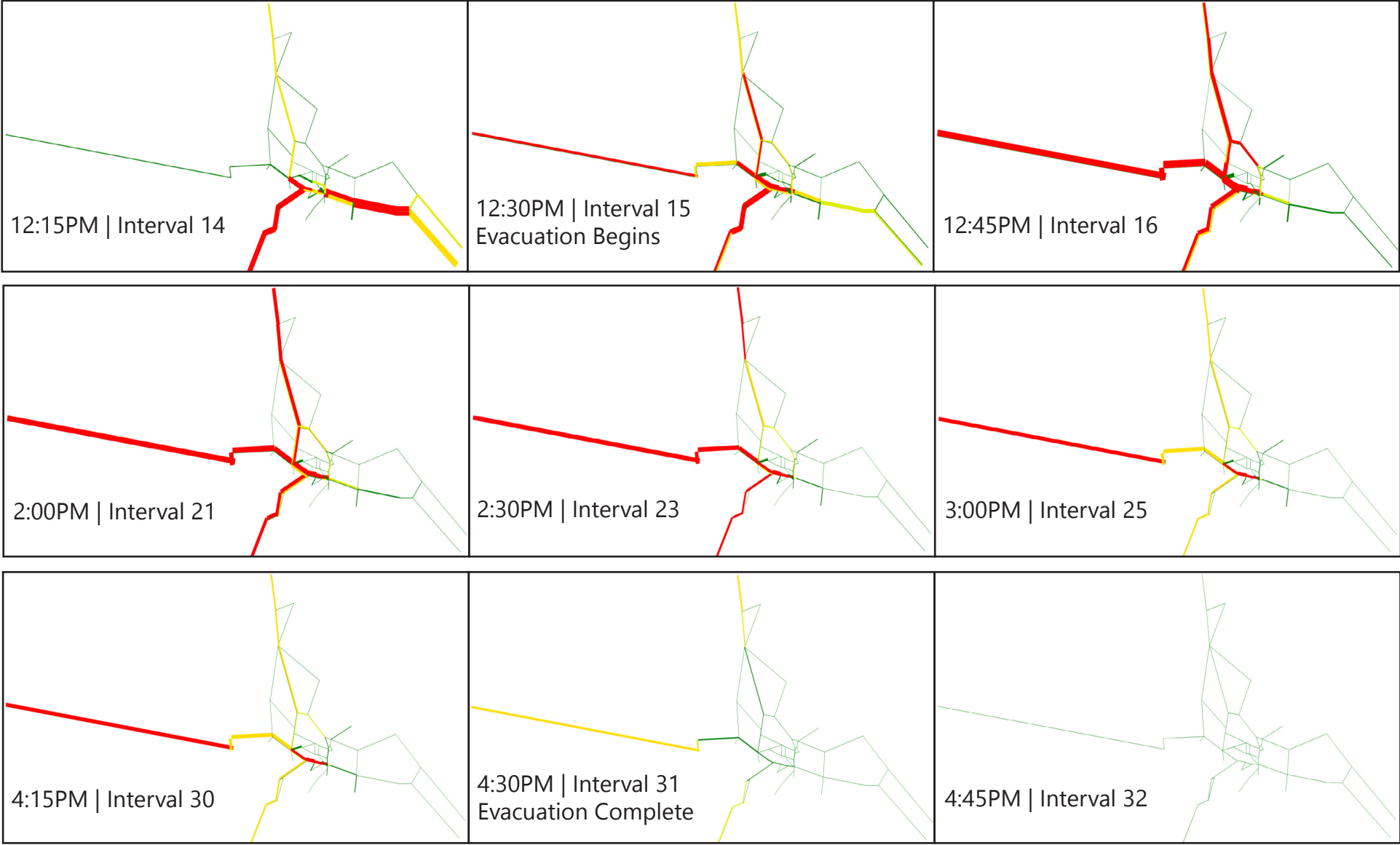
South Fire

Scenario 5 Future Friday



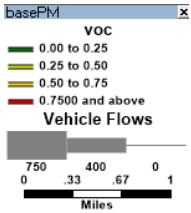
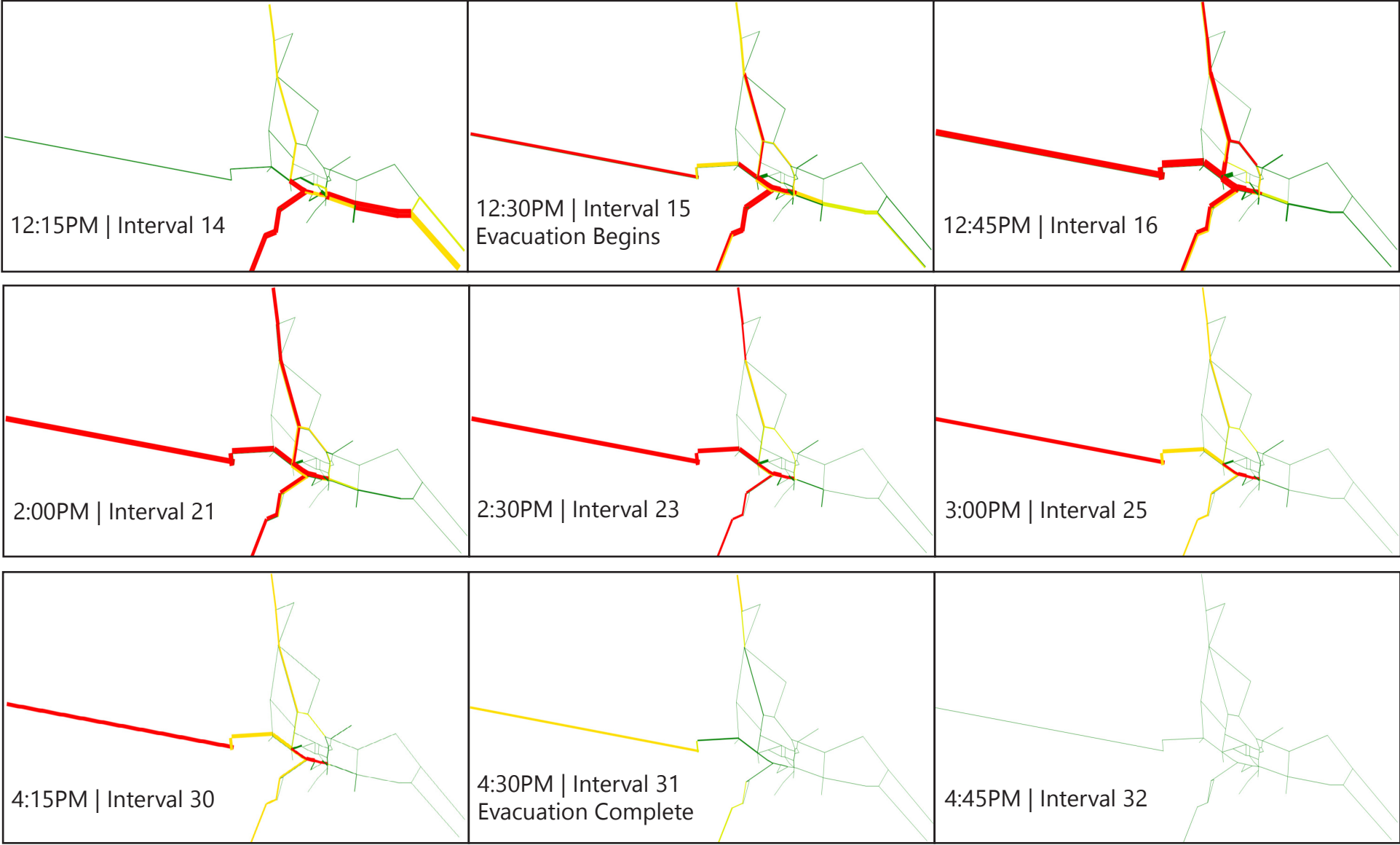
South Fire

Scenario 1 Base Saturday



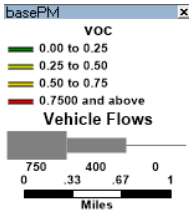
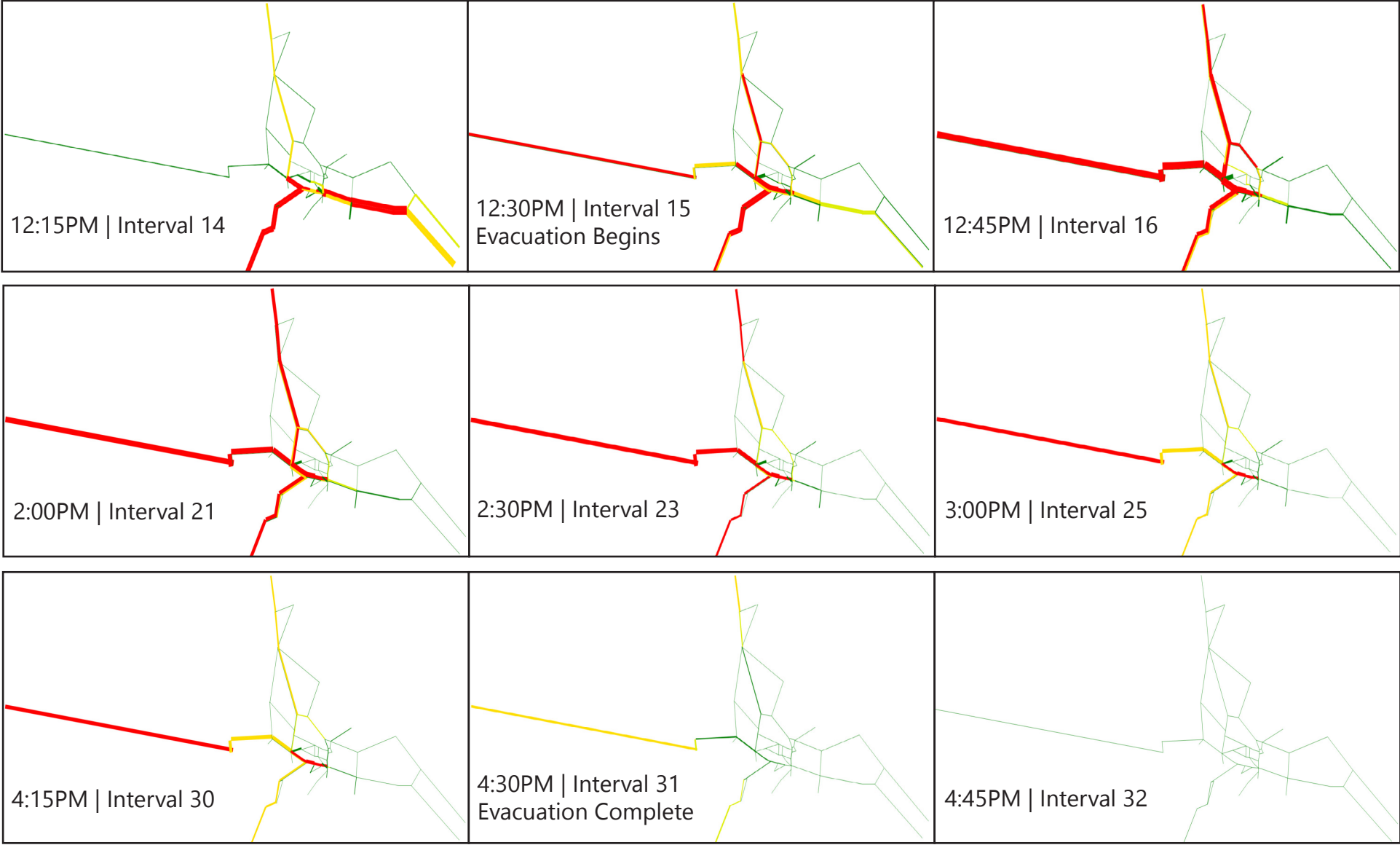
South Fire

Scenario 2 Base Saturday



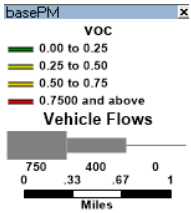
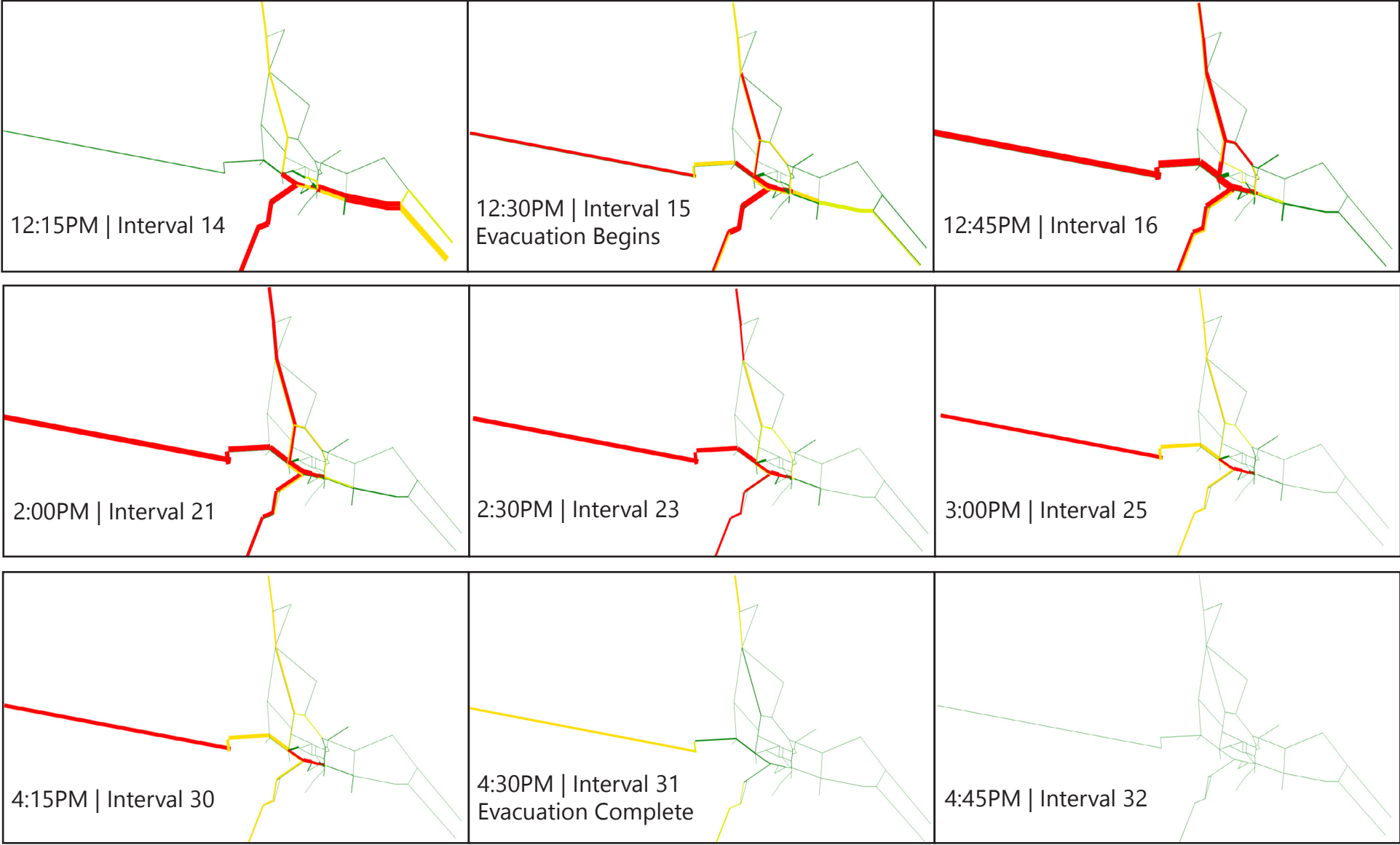
South Fire

Scenario 3 Base Saturday



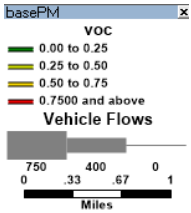
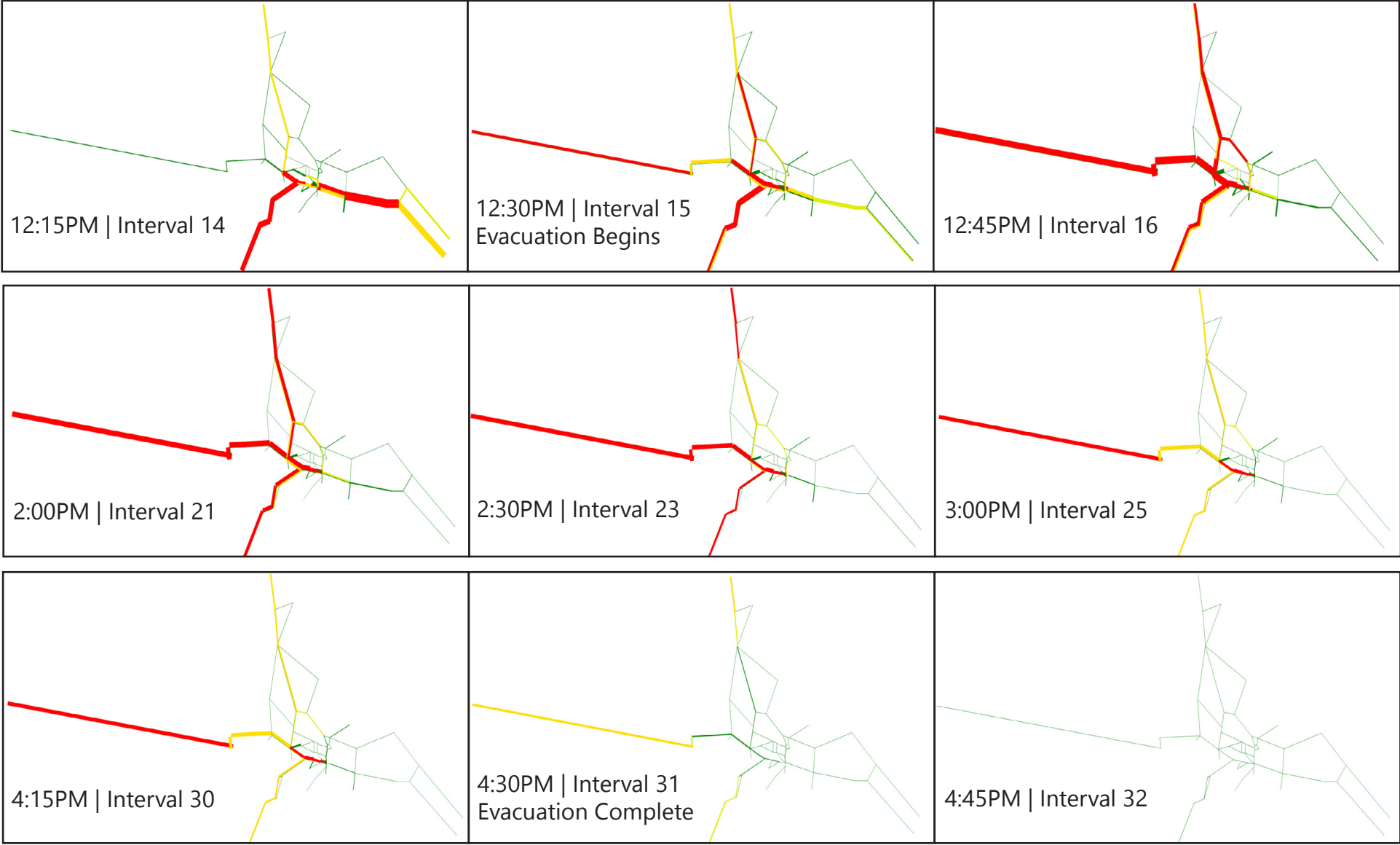
South Fire

Scenario 4 Base Saturday



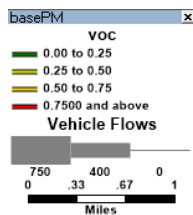
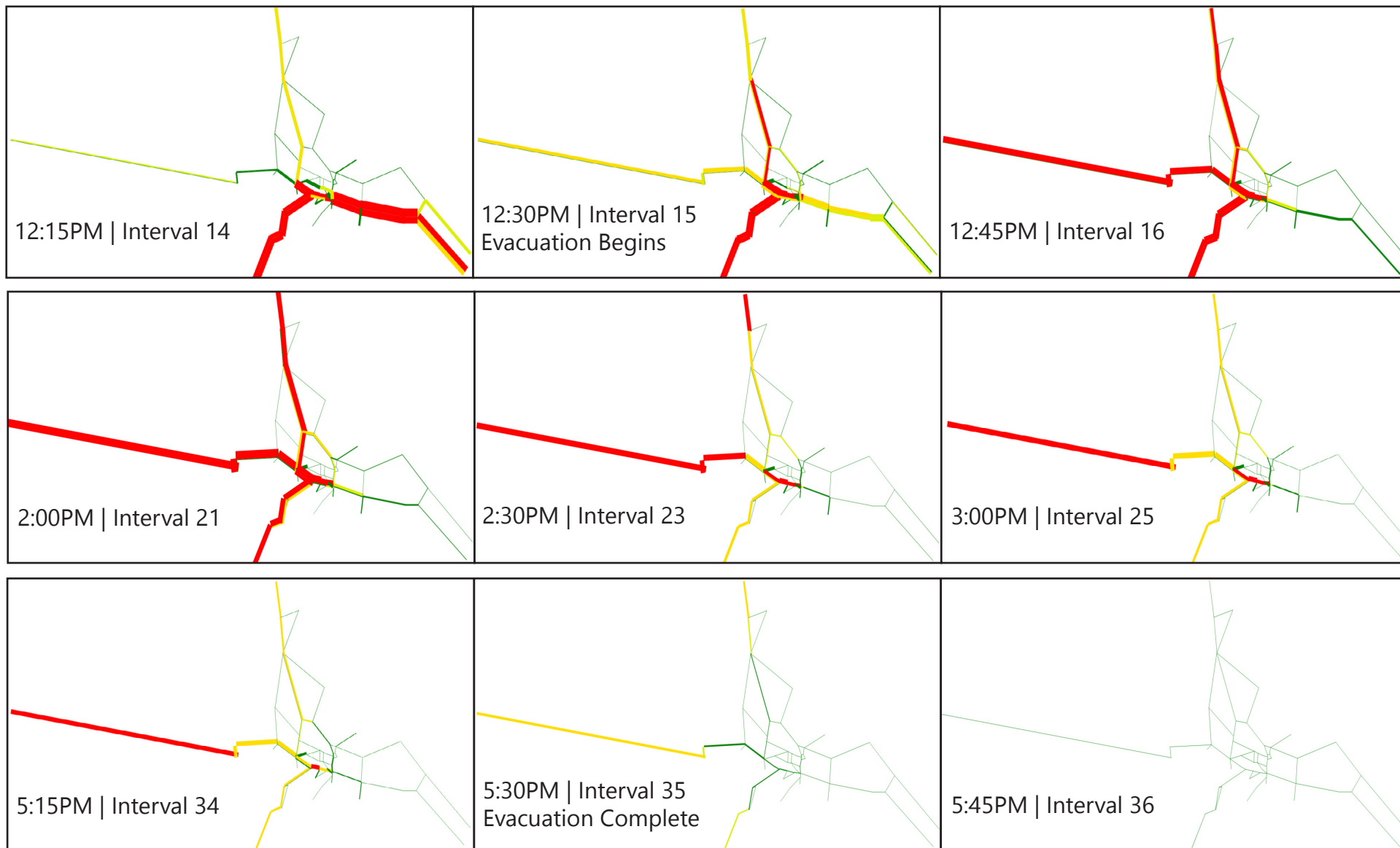
South Fire

Scenario 5 Base Saturday



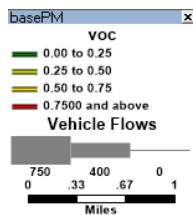
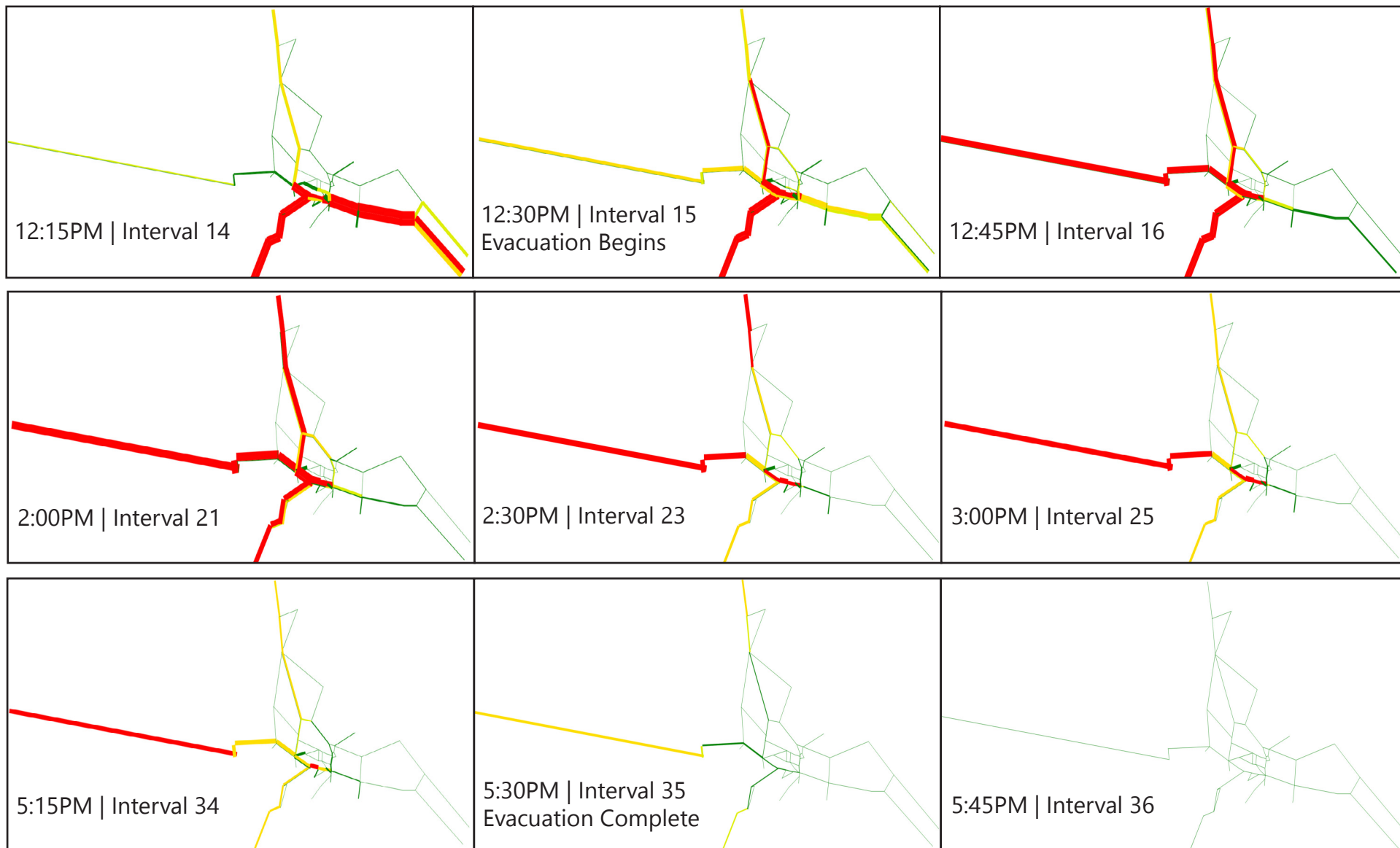
South Fire

Scenario 1 Future Saturday



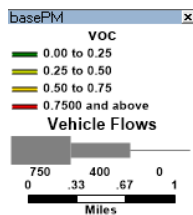
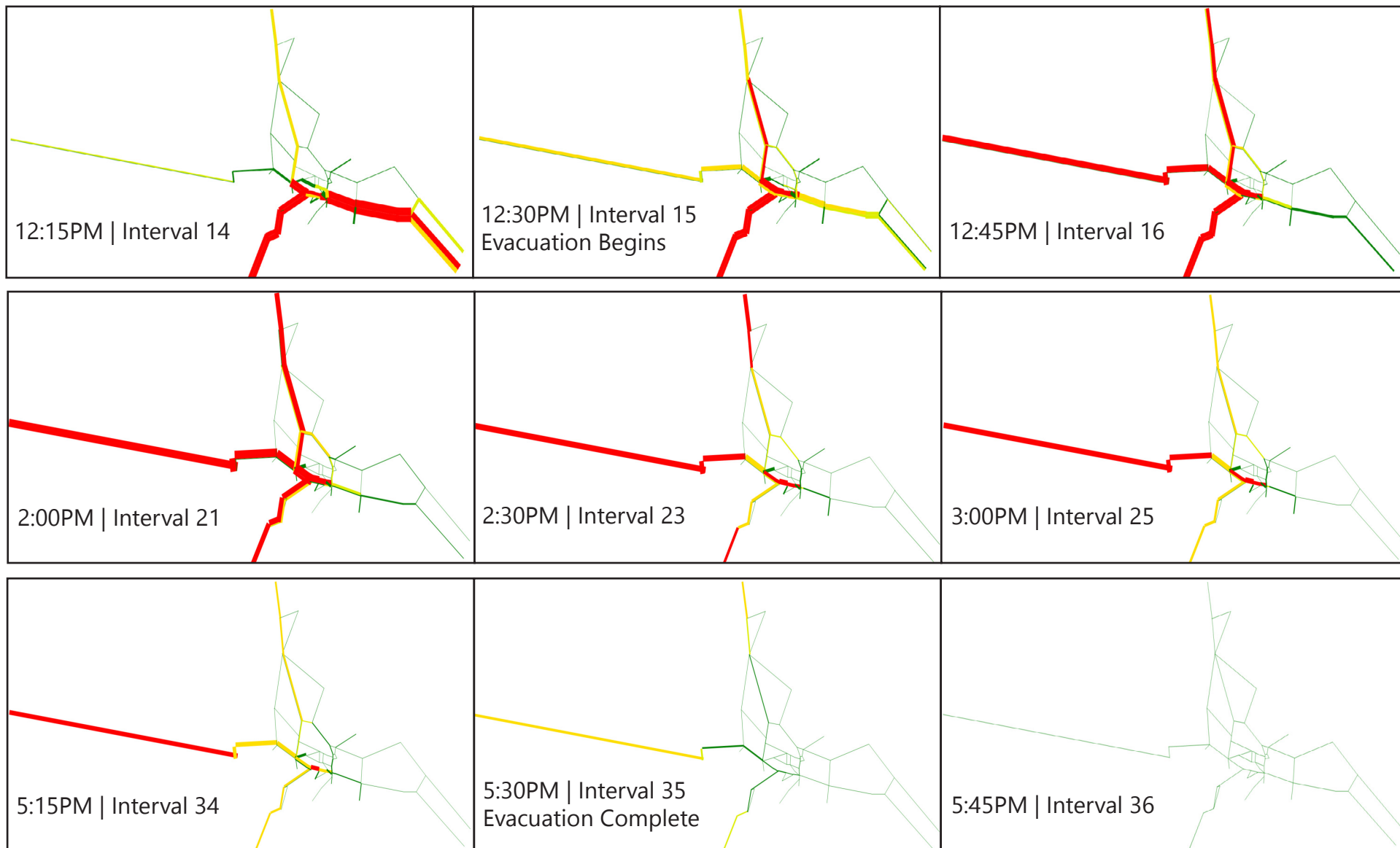
South Fire

Scenario 2 Future Saturday



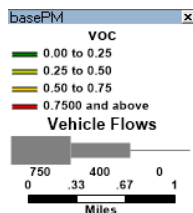
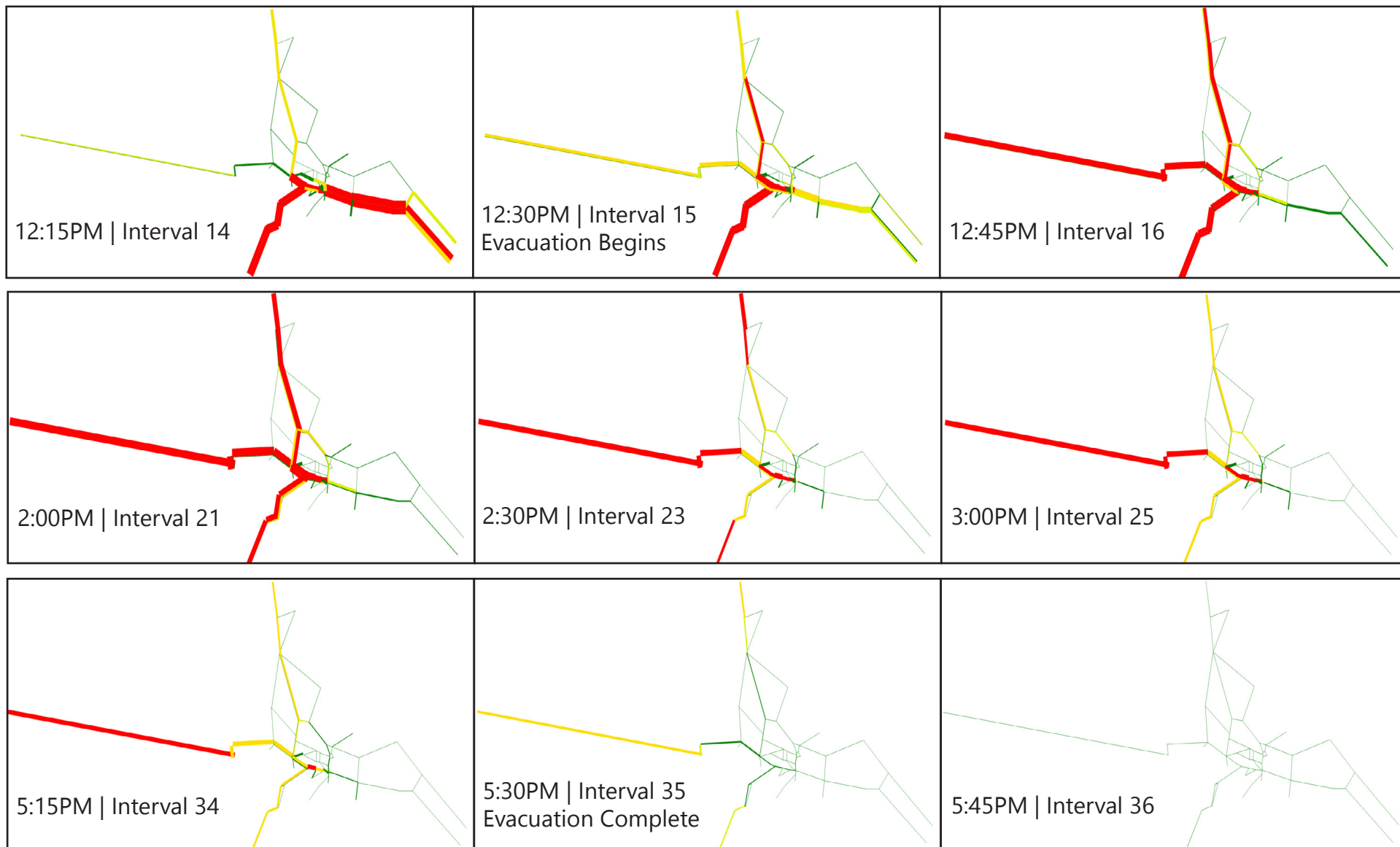
South Fire

Scenario 3 Future Saturday



South Fire

Scenario 4 Future Saturday



South Fire Scenario 5 Future Saturday

