

Red Line Bus Rapid Transit (BRT) Operations: Emergency Vehicle Interaction Procedures

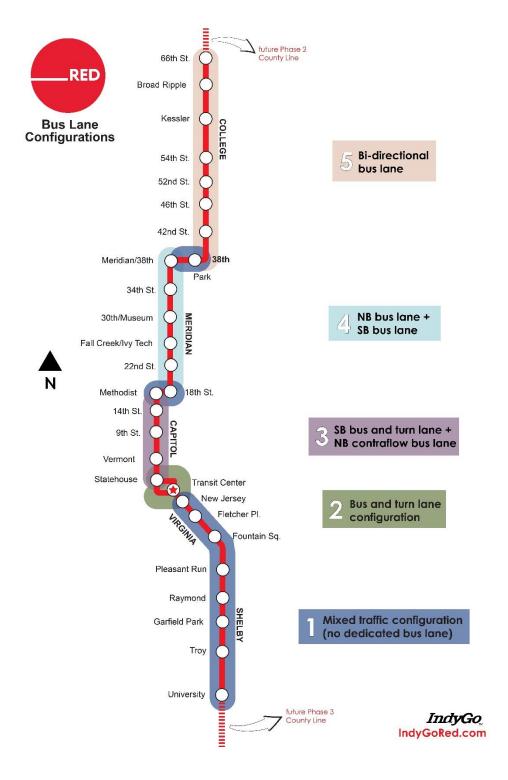
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Purpose:

• The purpose of this document is to communicate how IndyGo's Red Line Bus Rapid Transit (BRT) operators are to respond to and interact with emergency vehicles along the full length of the Red Line BRT. The document defines the procedures that bus operators are to follow within each unique segment of the Red Line, due to the varying bus lane configurations and traffic patterns along the route. The map below shows the different bus lane configurations along the full Red Line route.

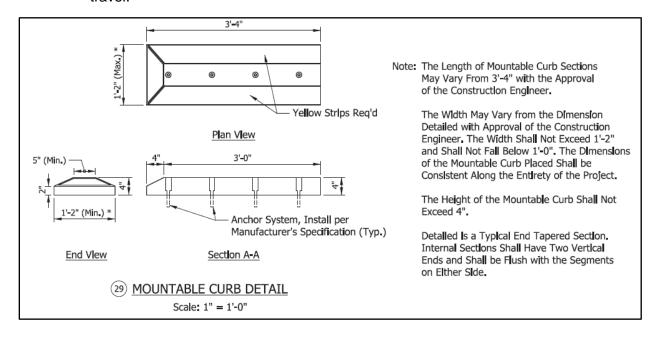


General procedures:

- In all situations, IndyGo operators will be instructed to <u>stop and remain in their position until the emergency vehicle has passed</u>. After stopping the bus, operators will be instructed to turn on their four-way flashers to indicate to the emergency vehicle operator that they have seen the emergency vehicle approaching.
- It is assumed that <u>emergency vehicles will use general traffic lanes when the lanes are clear</u> and will use dedicated bus lanes as needed to bypass any congested general traffic lanes
- IndyGo bus operators will be instructed to follow the operation procedures as outlined in this document, but many BRT and emergency vehicle interaction situations will be unique and unpredictable. In these situations, bus operators will need to react appropriately to emergency vehicle maneuvers in order to allow for passage of emergency vehicles, while at all times maintaining a safe environment for IndyGo's passengers.

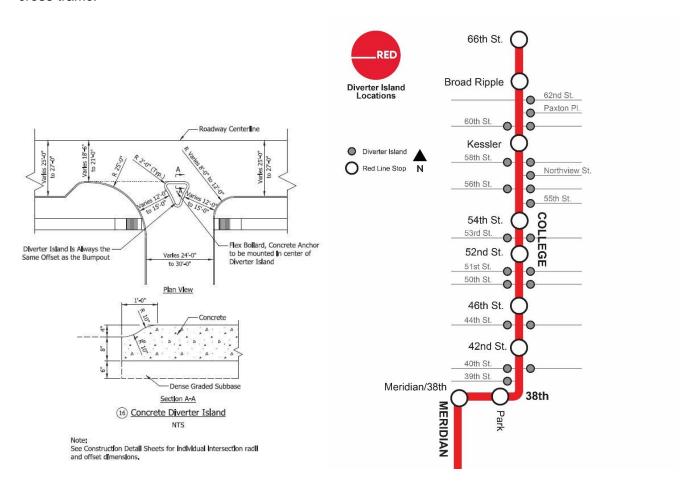
Mountable curb details:

- A mountable curb will be included for sections of the Red Line along Meridian Street and College Avenue.
 - For the section along Meridian Street, the median will serve as a divider between the northbound and southbound dedicated bus lanes.
 - For the section along College Avenue, the median will be positioned along the centerline of the single, bi-directional dedicated bus lane used for both northbound and southbound travel.



Diverter island details:

Diverter islands will be placed at specific intersections along College Avenue to restrict left turns and cross traffic.



Emergency vehicles at stations:

- If an emergency vehicle is parked at the docking platform at a BRT station in order to attend to an emergency situation, BRT bus operators will be instructed to bypass the stop and proceed to the next stop. (Bus operator will announce this to passengers using the onboard announcement system)
 - Passengers who need to get to the bypassed stop will be instructed by the bus operator
 to exit the bus at the next stop and board a bus in the opposite direction to get to
 previously closed stop (if the stop is accessible traveling in the opposite direction)
- When there is no way for the bus operator to pass a parked emergency vehicle without going
 into the opposite direction traffic lane(s), the bus operator is instructed to:
 - Stop the bus
 - Report the blockage of the lane/stop to dispatch

- Coordinate with emergency services personnel on the scene and, if possible, have an emergency responder stop traffic to allow safe passage of the parked emergency vehicle
- o Wait for a response from dispatch and assigned supervisor for further instructions

Shelby Street (University of Indianapolis to Virginia Ave)

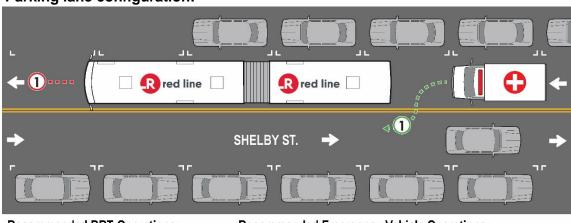
Bus lane configuration: Mixed-traffic lane (non-exclusive, shared with general traffic)

Stations: Curbside, with exception of University of Indianapolis station which is center-running (median)

Recommended BRT operations:

Stop and remain in position until emergency vehicles have passed

Parking lane configuration:



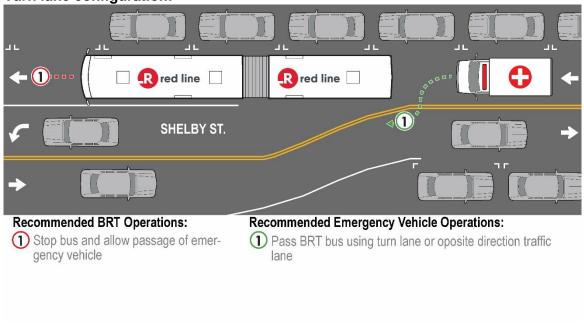
Recommended BRT Operations:

① Stop bus and allow passage of emergency vehicle

Recommended Emergency Vehicle Operations:

1 Pass BRT bus using oposite direction traffic lane

Turn lane configuration:



Virginia Ave (Shelby St to Delaware St)

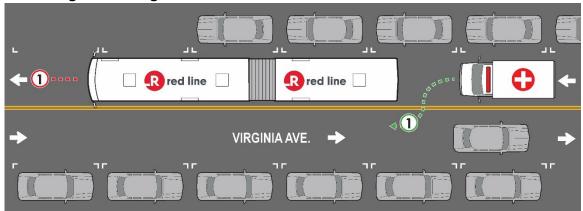
Bus lane configuration: Mixed-traffic lane (non-exclusive, shared with general traffic)

Stations: Curbside

Recommended BRT operations:

• Stop and remain in position until emergency vehicles have passed

Parking lane configuration:



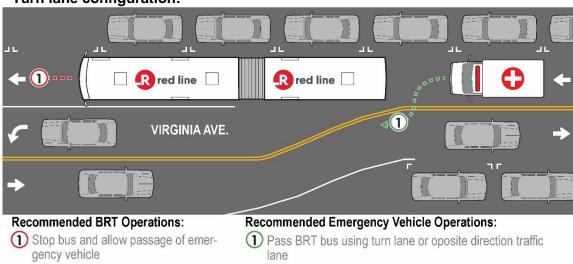
Recommended BRT Operations:

1 Stop bus and allow passage of emergency vehicle

Recommended Emergency Vehicle Operations:

1 Pass BRT bus using oposite direction traffic lane

Turn lane configuration:



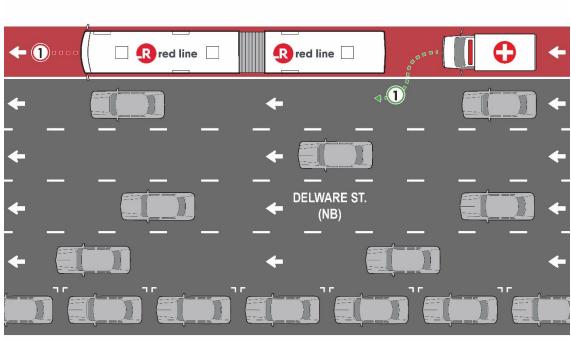
Delaware Street (Virginia Ave to Washington St)

Bus lane configuration: Bus-only lane

Stations: Curbside (Downtown Transit Center, Bay G)

Recommended BRT operations:

• Stop and remain in position until emergency vehicles have passed



Recommended BRT Operations:

1 Stop bus in dedicated bus lane and allow passage of emergency vehicle using general traffic lane

Recommended Emergency Vehicle Operations:

1 Pass BRT bus using general traffic lanes

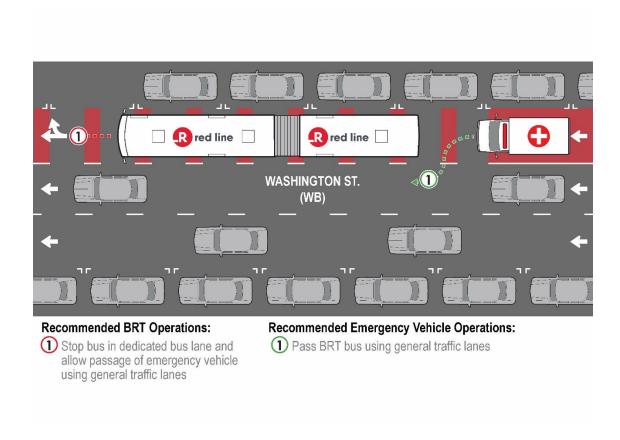
Washington Street (Delaware St to Capitol Ave)

Bus lane configuration: Shared bus and turn lane (adjacent to curbside parking)

Stations: No stations

Recommended BRT operations:

Stop and remain in position until emergency vehicles have passed



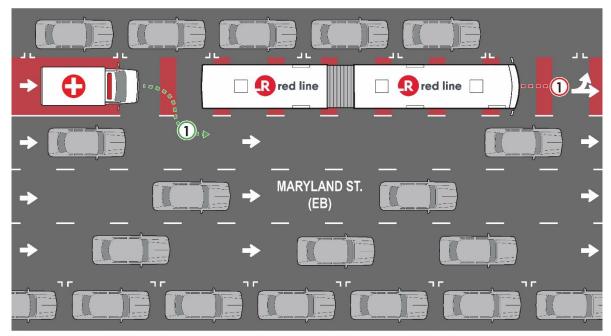
Maryland Street (Capitol Ave to Delaware St)

Bus lane configuration: Shared bus and turn lane (adjacent to curbside parking)

Stations: No stations

Recommended BRT operations:

Stop and remain in position until emergency vehicles have passed



Recommended BRT Operations:

1 Stop bus in dedicated bus lane and allow passage of emergency vehicle using general traffic lanes

Recommended Emergency Vehicle Operations:

1 Pass BRT bus using general traffic lanes

Capitol Ave - Northbound (Washington St to 18th St)

Bus lane configuration: Dedicated contraflow bus lane (adjacent to east curb)

Stations: Center-running (shared north and southbound stations)

Recommended BRT operations:

Stop to allow passage of northbound emergency vehicles

Challenges of bus lane configuration:

- Contraflow lane limits the options that coach operators have:
 - o There will be no curbside parking lane on the east side of Capitol Ave.
 - Bus operators cannot safely exit bus-only lane and enter opposite direction BAT lane to allow passage of emergency vehicles using northbound dedicated bus lane
 - Bus operators cannot safely pas

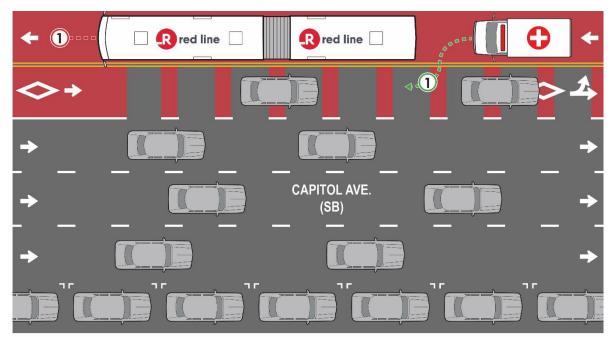
IndyGo proposal to discourage northbound emergency operations along Capitol Ave

- Emergency services/vehicles should be discouraged from using the northbound contraflow BRT lane for emergency routing:
 - IndyGo understands that in an emergency situation, emergency operations take priority over IndyGo's bus operations
 - If contraflow northbound lane is used by emergency vehicles, emergency vehicle operators will need to pass stopped BRT buses using the southbound bus and turn (BAT) lane, which is a potentially dangerous maneuver
 - When at all possible, emergency vehicles should be <u>encouraged to use Illinois St</u> for all northbound travel instead of using the northbound bus lane on Capitol Ave

IndyGo proposal to discourage emergency vehicle parking in the northbound bus lane

- Emergency vehicles should be discouraged from parking in northbound contraflow bus lane:
 - IndyGo understands that in an emergency situation, emergency operations take priority over IndyGo's bus operations
 - Use of northbound contraflow lane for emergency vehicle parking will require northbound Red Line buses to wait until the lane is clear, which will temporarily halt IndyGo Red Line operations, causing a major disruption to bus service throughout the system
 - The process of passing emergency vehicles parked in the northbound lane will require Red Line buses to use the southbound BAT lane, which is a very dangerous maneuver
 - It is recommended that IndyGo's Transportation Department implement a policy requiring Red Line bus operators to get permission before attempting to pass any emergency vehicles parked in the northbound BRT lane. Dispatch should notify Transportation Supervisors or Transit Police of lane blockage. Transportation Supervisor, Transit Police or emergency personnel at the scene should stop traffic to allow the Red Line bus to pass the Emergency vehicle.
 - When at all possible, Emergency vehicles should be <u>encouraged to park within</u> the southbound bus lane or along perpendicular side streets when responding to emergency response situations along the east side of Capitol Ave.

Capitol Ave. (Northbound)



Recommended BRT Operations:

1 Stop bus and allow passage of emergency vehicle

Recommended Emergency Vehicle Operations:

1 Pass BRT bus using southbound general traffic lanes

NOTE: IndyGo recommends that emergency vehicles be discouraged from using NB dedicated bus lane due to the need to pass buses using the SB bus and turn lane, a potentially dangerous maneuver.

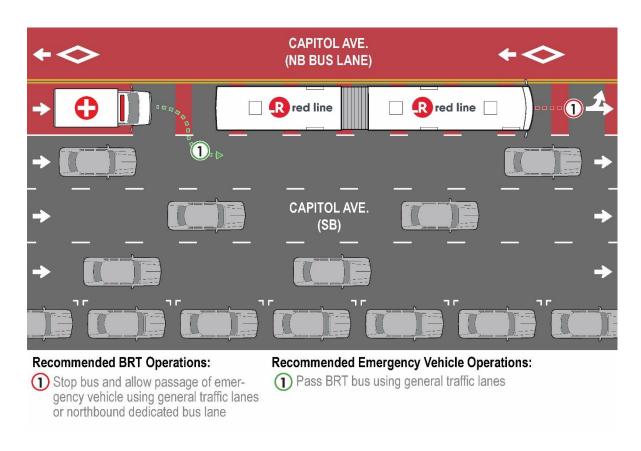
Capitol Ave - Southbound (18th St to Maryland St.)

Bus lane configuration: Shared bus and turn lane (adjacent to northbound dedicated bus lane)

Stations: Center-running (shared north and southbound stations)

Recommended BRT operations:

• Bus operator should stop bus within southbound dedicated bus lane and allow passage of emergency vehicle using general traffic lanes



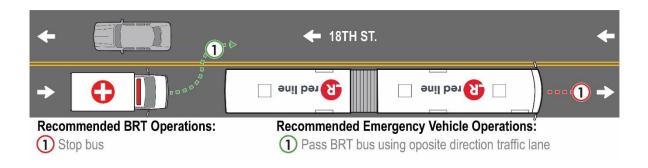
18th Street (Capitol Ave to Meridian St)

Bus lane configuration: Mixed-traffic lane (non-exclusive, shared with general traffic)

Stations: No stations

Recommended BRT operations:

• Stop and remain in position until emergency vehicles have passed



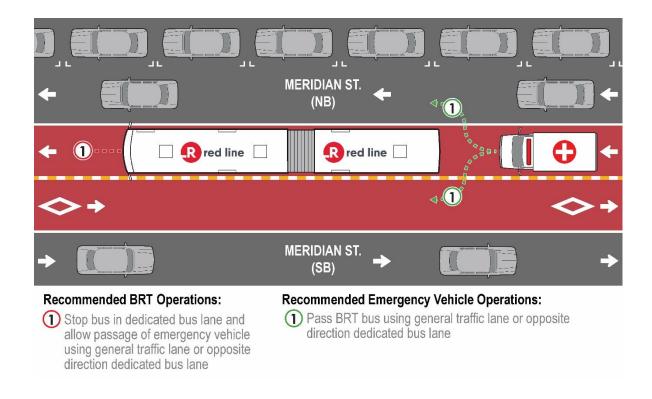
Meridian Street (18th St to 38th St)

Bus lane configuration: Dedicated bus lanes, center-running (with rubber mountable curb dividing north and southbound dedicated bus lanes)

Stations: Center-running (shared north and southbound stations)

Recommended BRT operations:

 Stop in dedicated bus lane and allow emergency vehicles to pass stopped BRT coach using general traffic lane or opposite direction dedicated bus lane



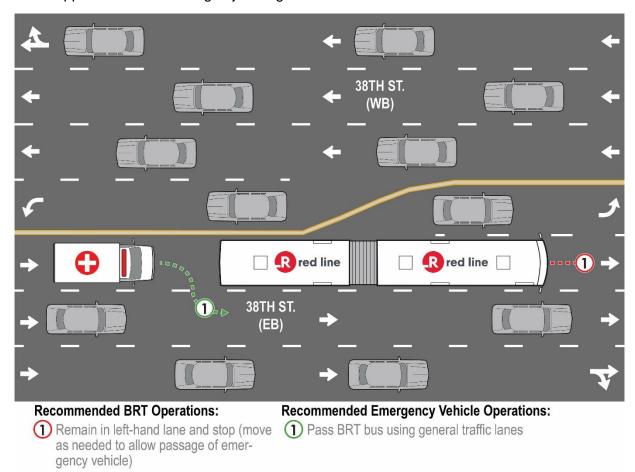
38th Street (Meridian St to College Ave)

Bus lane configuration: Mixed-traffic lane (non-exclusive, shared with general traffic)

Stations: Center-running (shared east and westbound)

Recommended BRT operations:

• Bus operator should remain in left-side lane and stop to allow emergency vehicles to pass stopped BRT coach using adjacent general traffic lanes



College Avenue (38th St to 64th St)

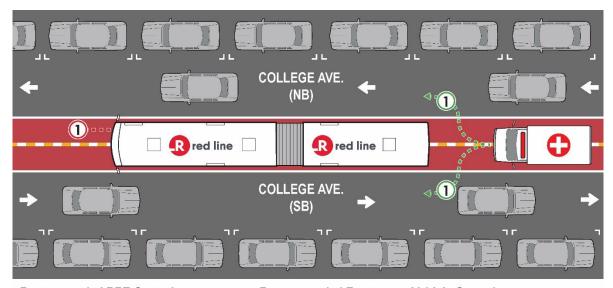
Bus lane configuration: Bi-directional dedicated bus lane, center-running (used for both north and southbound BRT buses)

Stations: Center-running (shared north and southbound stations)

Recommended BRT operations:

 If emergency vehicle is approaching from either behind or ahead using the adjacent general traffic lane, bus operator should stop the bus within the dedicated bus lane and remained stopped until emergency vehicle passes

College Ave. - Emergency vehicle approaching from behind (same direction)



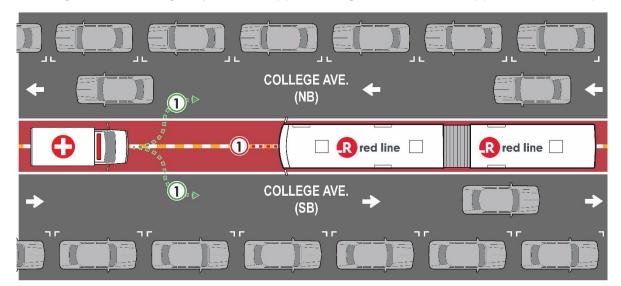
Recommended BRT Operations:

1 If emergency vehicle is approaching from behind or ahead using the general traffic lane, bus operator should stop bus in dedicated bus lane and remain stopped until emergency vehicle passes

Recommended Emergency Vehicle Operations:

1 Pass BRT bus using general traffic lane or opposite direction general traffic lane

College Ave. – Emergency vehicle approaching from the front (opposite direction)



Recommended BRT Operations:

If emergency vehicle is approaching from ahead (in the opposite direction of the bus) using the the dedicated bus lane, bus operator should stop bus in dedicated bus lane and remain stopped until emergency vehicle passes using the adjacent general traffic lane

Recommended Emergency Vehicle Operations:

1 Pass BRT bus using general traffic lane or opposite direction general traffic lane

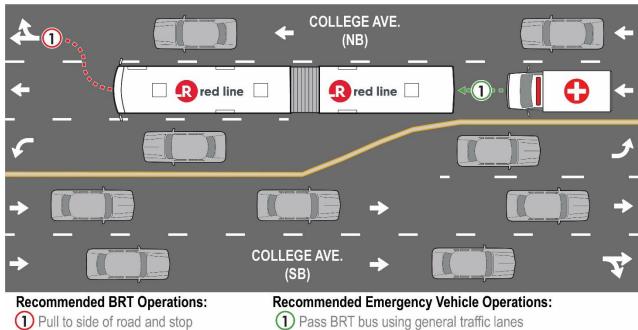
College Avenue (64th St to 66th St)

Bus lane configuration: Mixed-traffic lane (non-exclusive, shared with general traffic)

Stations: Curbside

Recommended BRT operations:

Stop and remain in position until emergency vehicles have passed



1 Pull to side of road and stop