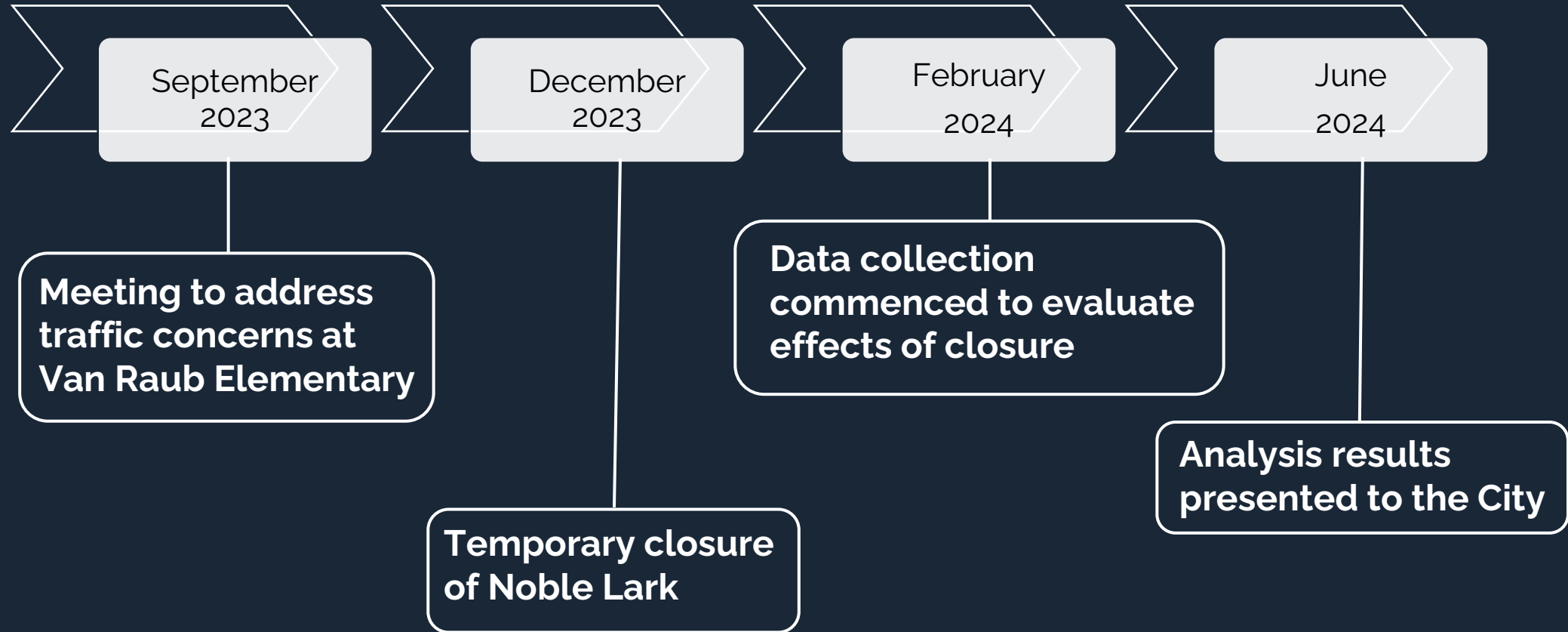




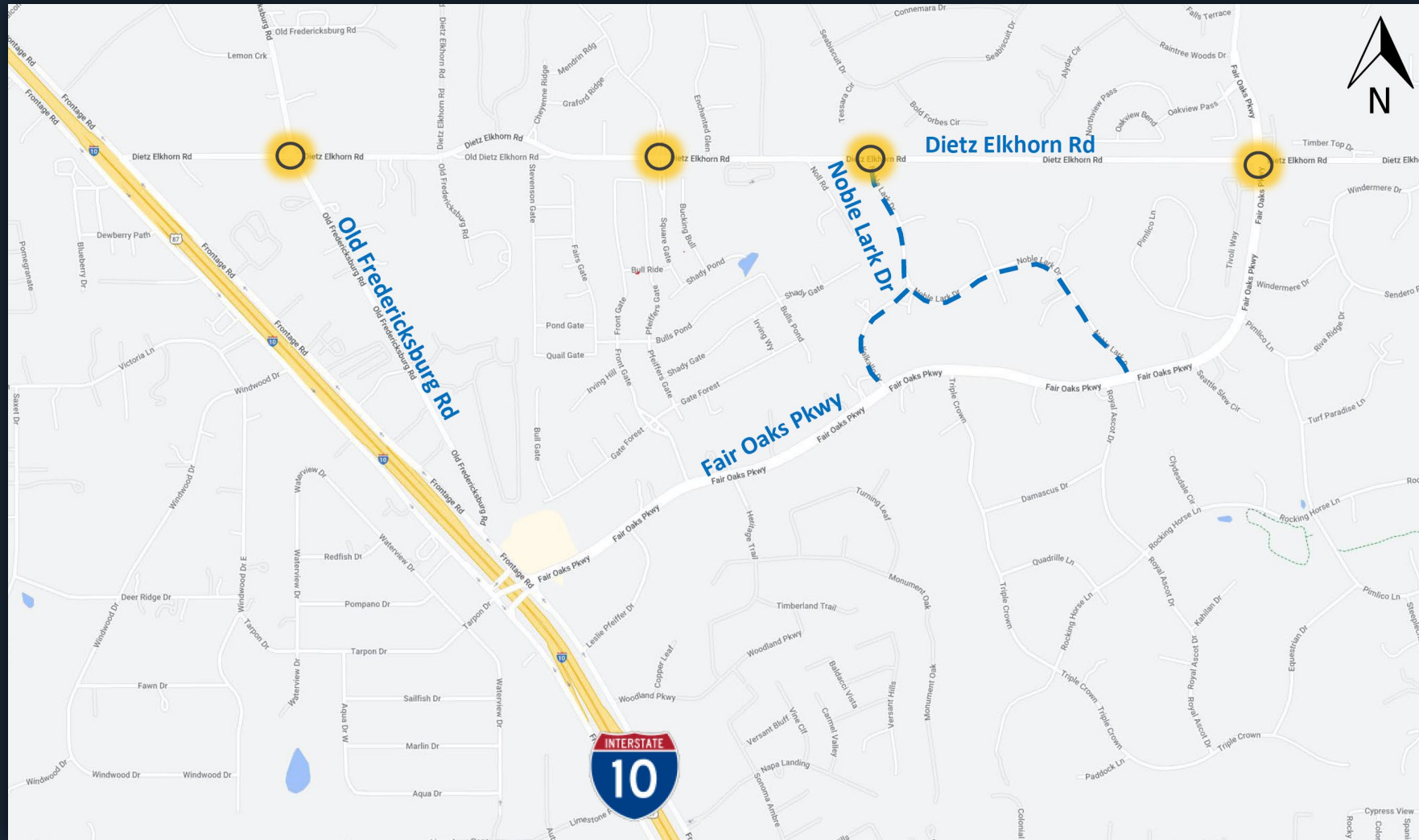
# NOBLE LARK DRIVE CLOSURE ANALYSIS

Carole Vanzant, Assistant City Manager  
Oscar Michael Garza, PE, PTOE, PTP, RSP1, City of Fair Oaks Ranch GEC

# BACKGROUND



# STUDY LOCATION





# STUDY METHODOLOGY



- Multiple Project Site Visits were conducted to observe and document existing traffic conditions.
- Travel time runs were conducted between I-10 & Fair Oaks Pkwy and Van Raub Elementary School.
- Data Collection in the form of Turning Movement Counts (TMCs) were collected and analyzed.
- An analysis of the traffic operations and travel times at four intersections along Dietz Elkhorn Road for the Pre & Post Closure of Noble Lark Drive.
- Sim Traffic was utilized to establish queuing along the corridor.



# KEY STUDY CONSIDERATIONS



- Van Raub Elementary School opened on Dietz Elkhorn Road
- I-10 Frontage Road converted to one-way system/flow
- Traffic increased on Noble Lark Road (due to cut-through)
- An all-way stop condition was installed at Dietz Elkhorn Road & Square Gate to enhance safety for students crossing
- Traffic increasing due to Lemon Creek Development
- Noble Lark Drive temporarily closed for assessment





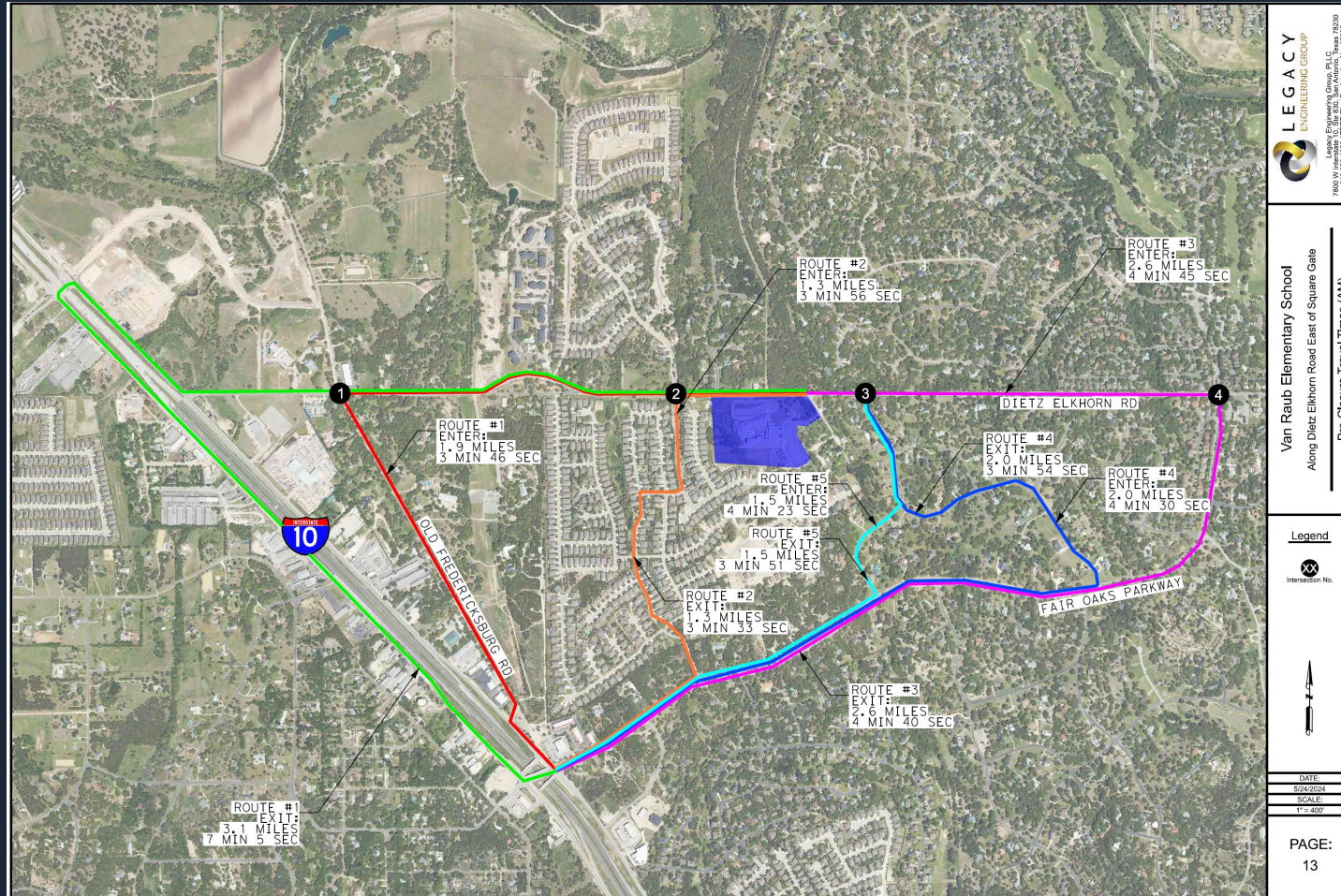
# DRONE VIDEOS



City of Fair Oaks Ranch

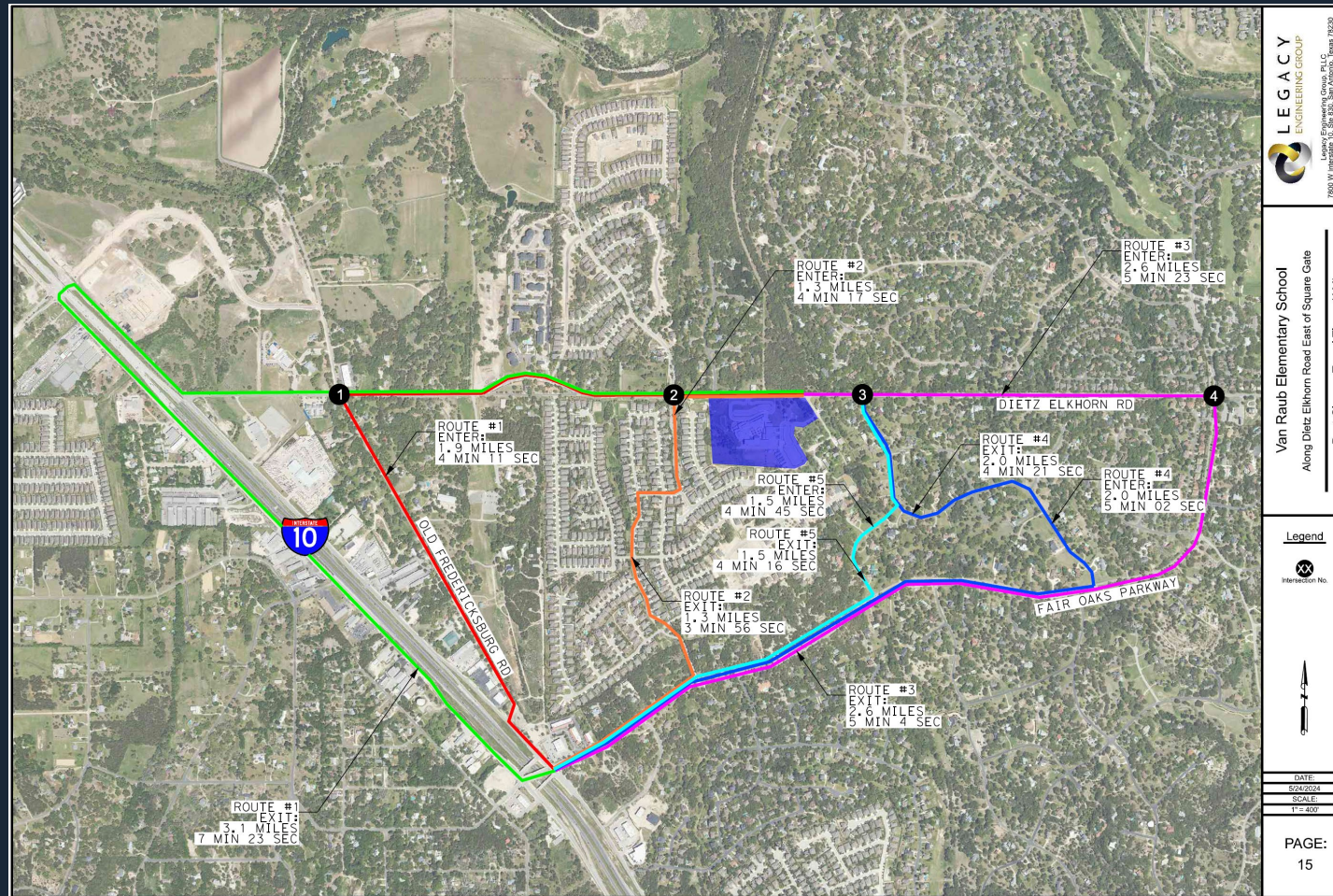


# TRAVEL TIME ANALYSIS (AM ~ PRE-CLOSURE)





# TRAVEL TIME ANALYSIS (AM ~ POST-CLOSURE)





# ALTERNATIVES CONSIDERED



- Permanently Close Noble Lark Drive at Dietz Elkhorn Road
- Re-Open Noble Lark Drive at Dietz Elkhorn Road
- Convert Noble Lark Drive to One-Way Operation (Southbound)
- Convert Noble Lark Drive to One-Way Operation (Northbound)
- Right-In/Right-Out Configuration

# ALT 1: PERMANENTLY CLOSE NOBLE LARK DRIVE



## PROS

- Enhances Safety for Noble Lark Drive
- Prevents Cut-Through Traffic Flow on Neighborhood Street
- Aligns with City Transportation Plan (Moving Traffic to Collectors)

## CONS

- Increases Travel Times / Delays on Collectors
- Requires Permanent Structure

\$ Cost is Dependent on Closure Method



# ALT 2: RE-OPEN NOBLE LARK DRIVE



## PROS

- Decreases Travel Times / Delays on Collectors

## CONS

- Impacts Safety for Noble Lark Drive
- Impacts Roadway Infrastructure
- Traffic Calming Measures May be Required
  
- \$ Cost is dependent on traffic calming measures implemented

# ALT 3: CONVERT NOBLE LARK DRIVE (SB ONLY)



## PROS

- Reduces Cut-Through Traffic Flow on Neighborhood Street

## CONS

- Impacts Safety for Noble Lark Drive
- Increases Travel Times / Delays on Collectors
- Creates Driver Confusion
- Includes Risk of Wrong-Way Driving

~\$10,000 Estimated Cost for signage and raised median



# ALT 4: CONVERT NOBLE LARK DRIVE (NB ONLY)



## PROS

- Reduces Cut-Through Traffic Flow on Neighborhood Street
- Decreases Travel Times / Delays on Collectors

## CONS

- Impacts Safety for Noble Lark Drive
- Creates Driver Confusion
- Includes Risk of Wrong-Way Driving

~\$10,000 Estimated cost for signage and raised median

# ALT 5: RIGHT OUT ONLY AT NOBLE LARK DRIVE



## PROS

- Reduces Cut-Through Traffic Flow on Neighborhood Street
- Decreases Travel Times / Delays on Collectors

## CONS

- Impacts Safety for Noble Lark Drive
- Includes Risk of U-Turns on Dietz-Elkhorn  
(See Next Slide)
- Potential Impacts to Adjacent Properties

~\$7,500 for Raised Traffic Control Island





# ALT 5: RIGHT OUT ONLY AT NOBLE LARK DRIVE





# OTHER SPECIAL CONSIDERATIONS



- ✓ Square Gate is a gated community but is being used by non-residents of Square Gate
- ✓ Pedestrian crossing at Square Gate is not represented by a crossing guard
- ✓ Lemon Creek Development impacting traffic volumes on Dietz Elkhorn Road
- ✓ Dietz Elkhorn Road & Fair Oaks Parkway intersection experiences poor LOS during peak periods with or without closure





# RECOMMENDATION



Based on this analysis, it is our recommendation to permanently close Noble Lark Drive at Dietz Elkhorn Road based on the following:

- The minor improvements in operations and travel times (~30 seconds) associated with re-opening the intersection do not supersede the safety benefits that the closure provides.
- The closure supports the City's Transportation Plan and UDC, which includes a defined breakdown of street classifications (with heavier traffic being sent to Collectors versus local neighborhood streets).
- The peak queues experienced at the study intersections are cleared within 5-10 minutes of the school drop-off and pick-up periods.

# PERMANENT CLOSURE – NEXT STEPS



If Council supports this recommendation, the following options would need to be considered for a permanent barrier:

- Extend Existing Rock Fence
- Construct an Emergency Access Gate
- Construct a Partial Hammerhead Turnaround
- Construct a Boulder Barricade



~\$1,000



~\$10,000



~\$5,000



~\$15,000





## QUESTIONS/DISCUSSION