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SAFETY INVESTIGATION MANUAL

CHAPTER 5: SITE INVESTIGATIONS

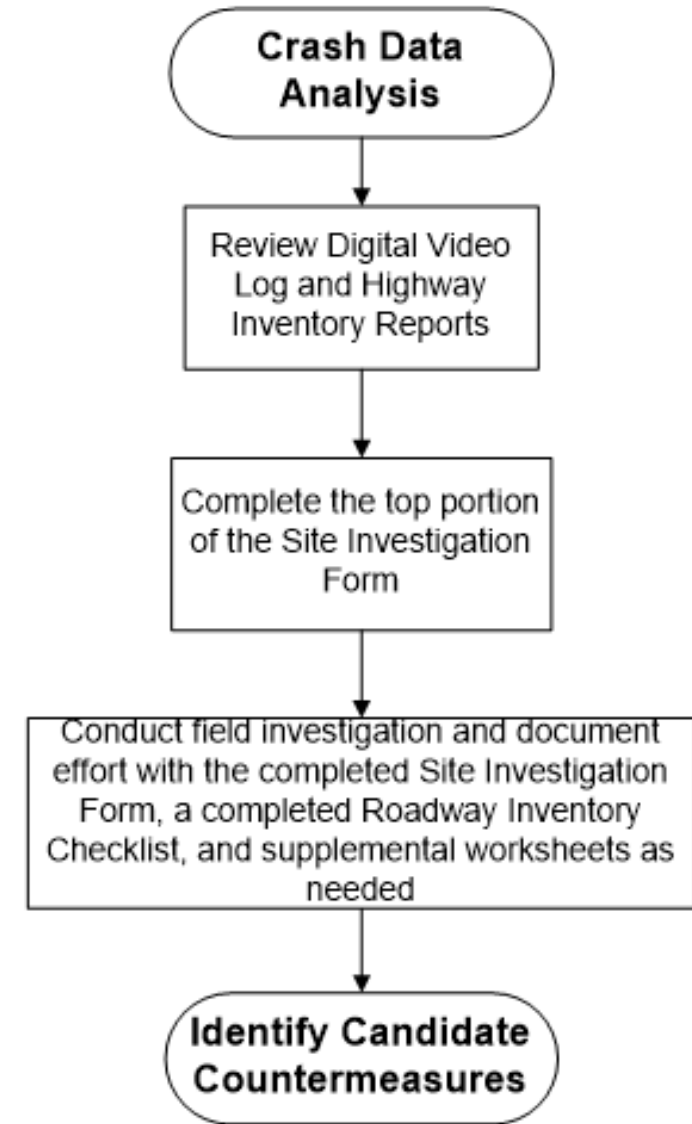
Online Training

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Site Investigations

- Essential part of safety investigations
- Evaluates physical road and roadside conditions, traffic conditions, and road user characteristics
- In-person site visits beneficial for additional perspective
- Otherwise, Digital Video Log and Highway Inventory Reports suffice



Unique Site Features

- Crucial to identify
 - May contribute to safety concerns
 - Influence appropriate study types
- Examples include:
 - Schools
 - High pedestrian volumes
 - Railroad crossings



Schools and high pedestrian volumes present unique conditions

Crash Patterns to Data Needs and Countermeasures

- Diagnosis of crash patterns divided in four categories:
 - Intersection crashes
 - Mid-block crashes
 - Fixed object and run-off-road crashes
 - Environmental condition-related crashes
- With crash patterns, investigators can identify probable cause and determine general countermeasures

Crash Pattern	Probable Cause	What to Document	General Countermeasures
Sideswipe collisions at intersections	<ul style="list-style-type: none"> • Roadway design inadequate • Poor visibility • Passing at intersection 	<ul style="list-style-type: none"> • Number of lanes / lane widths / lane usage • Location / description / measurement of median • Shoulder type / width and condition • Location and visibility of advance warning signs • Roadway type and condition 	<ul style="list-style-type: none"> • Improve pavement marking • Increase curb radii • Remove on-street parking near intersection • Install / Improve directional signing • Restrict driveway access near intersection

Example investigation and diagnosis for intersection crashes

Signalized Intersections

- Additional information regarding countermeasures for signalized intersections
 - Flashing Yellow Arrow
 - Leading Pedestrian Intervals
 - Red clearance intervals
- Additional sources include:
 - *Traffic Signal Timing Manual- Second Edition (STM)*
 - ODOT suggested practices
 - *Signalized Intersections Informational Guide*
 - *Urban Street Design Guide*



Flashing Yellow Arrow (FYA) in Oregon