## Approach 1: Using guardrail line features for data collection

This approach has the Guardrails as a single line feature class. In collector you edit the GuardRails and the GuardRailInspections. GuardRails are related to GuardRailInspections using the relationship class GuardRailsToInspections. This allows you to store point locations for each inspection along the guardrail related to the appropriate guardrail feature. The GuardRailInspections also have attachments enabled (which use the relationship class GuardRailInspections\_\_ATTACHREL) so that the field editor can store pictures or documents with the inspection. To associate the appropriate RouteID to the GuardRails they have a relationship to LRSN\_CountyLog (routes) using the relationship class CountyLogToGuardRails. LRSE\_GuardRail is the event feature class managed by Roads and Highways along with LRSN\_CountyLog. LRSE\_GuardRail is related to GuardRails by the EventID. When a guardrail is collected in the field the GuardRails feature class is updated. A script then creates the LRS event feature in LRSE\_GuardRail using the Roads and Highways web services and adds the event ID from the new event to the GuardRails feature. Using the relationship you can always navigate from the GuardRail feature collected in the field to the LRS Event.

GuardRailInspections\_\_ATTACH

(Table)

GuardRailInspections

(Points)

LRSE\_GuardRail

(R&H Line Events)

LRSN\_CountyLog

(R&H Routes)

GuardRails

(Lines)

GuardRailInspections\_ATTACHREL

GuardRailsToInspections

CountyLogToGuardRails

GuardRailEventsToGuardRails

## Approach 2: Using guardrail end point features for data collection

This approach has the ends as a point feature class for data collection. In collector you edit the GuardRailsEnds. To associate the appropriate RouteID to the GuardRailEnds they have a relationship to LRSN\_CountyLog (routes) using the relationship class CountyLogToGuardRailEnds. LRSE\_GuardRail is the event feature class managed by Roads and Highways along with LRSN\_CountyLog. LRSE\_GuardRail is related to GuardRailEnds by the EventID. When guardrail ends are collected in the field the GuardRailEnds feature class is updated. A script then creates the LRS event feature in LRSE\_GuardRail using the Roads and Highways web services and adds the event ID from the new event to the GuardRailEnds features. Using the relationship you can always navigate from the GuardRailEnds features collected in the field to the LRS Event. This approach would be useful if the field editor only want to collect the start and end of the guard rail. This approach could have also used inspections like approach one but they would likely be related to LRSE\_GuardRail instead of GuardRailEnds.

CountyLogToGuardRailEnds

GuardRailEventsToGuardRailEnds

GuardRailEnds

(Points)

LRSN\_CountyLog

(R&H Routes)

LRSE\_GuardRail

(R&H Line Events)