# MEDIAN BARRIER

**Description:** Following cross-median crashes, DelDOT performed a statewide median barrier assessment for controlled-access highways. DelDOT initiated an effort to install median barrier as a strategy to reduce roadway departures outlined in the Strategic Highway Safety plan. DelDOT currently has installed 77 miles of median barrier on the 112 mile limited access highway network. An additional 35 miles of limited access highways need median barrier coverage. This SOGR sheet is intended to track DelDOT's progress toward achieving 100% coverage of limited access highway medians.

**Annual Budget:** The annual budget for guardrail repair, installs, and upgrades are about $2 million statewide, managed by the Maintenance Division. The barrier installations are stand alone projects that are administered and maintained by Maintenance. The cost for the open end median barrier contract was $8.5 million.

Unit cost comparison of barrier types:

| Barrier Type | Cost Ratio |
|---|---|
| Concrete | 15 |
| Steel W-beam | 6 |
| HTCB | 1 |

**Asset Valuation:** To be evaluated.

## STATE OF GOOD REPAIR

Currently, DelDOT defines a State of Good Repair for Median Barriers as coverage of the median of limited access highways (i.e., if Median Barrier is present, the section is considered to be in a State of Good Repair).

## TARGETS AND MEASURES

Measures:

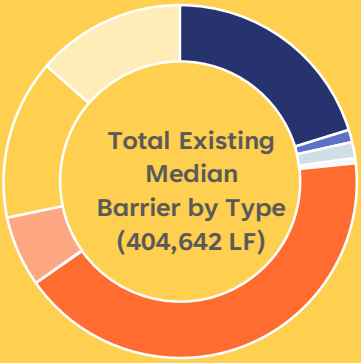
- % of Limited Access Highways with Median Barrier
- % of Limited Access Highways without Median Barrier

Targets:

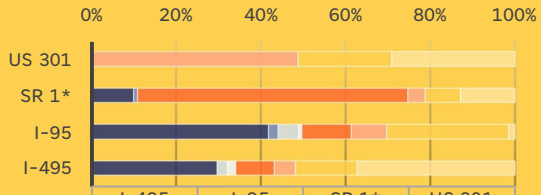
- 100% of limited access highway with Median Barrier
- i.e., 0 Linear Feet of Gaps in Median Barrier

## INVENTORY & CONDITION

The inventory of existing median barrier includes approximately 77 miles (over 404,000 linear feet) of different barrier types. The first set of charts shows the existing median barrier inventory broken out by barrier type and the limited access highway route where barrier is located. The second set of charts identifies the gaps in median barrier and the percentage of each limited access highway route that needs median barrier coverage. All distances are in linear feet.

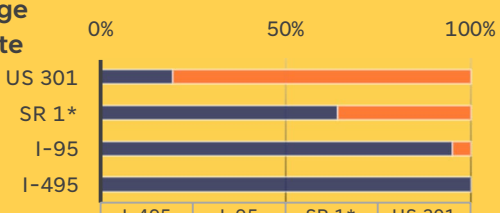



**Existing Barrier by Type**

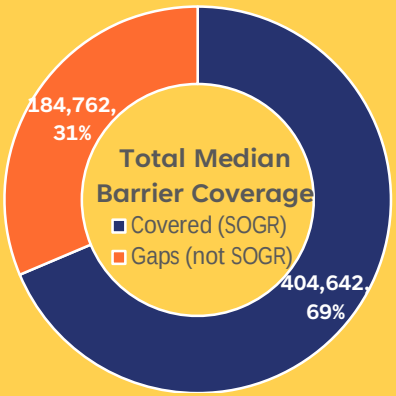



| | I-495 | I-95 | SR 1* | US 301 |
|---|---|---|---|---|
| None | 100 | | | |
| Concrete | 15694 | 42072 | 24180 | |
| Concrete + Type 1 | | 2267 | 2320 | |
| Earth Berm | 1224 | 4857 | | |
| Earth Berm + Type 1 | 1053 | 691 | | |
| HTCB | 4825 | 11650 | 153156 | |
| Type 1 One Dir | 2617 | 8503 | 9750 | 5329 |
| Type 1 Two Dir | 7708 | 28731 | 20206 | 2427 |
| Type 3 | 19765 | 1586 | 30764 | 3169 |

**Coverage by Route**



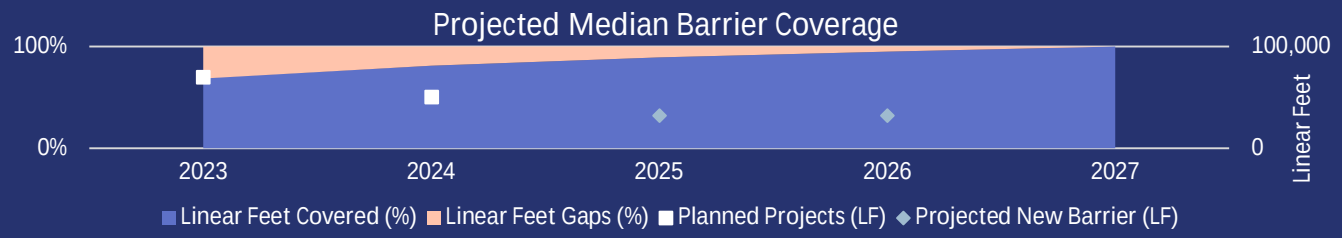

| | I-495 | I-95 | SR 1* | US 301 |
|---|---|---|---|---|
| Covered (SOGR) | 52,984 | 100,357 | 240,376 | 10,925 |
| Gaps (not SOGR) | 0 | 5,212 | 134,728 | 44,822 |



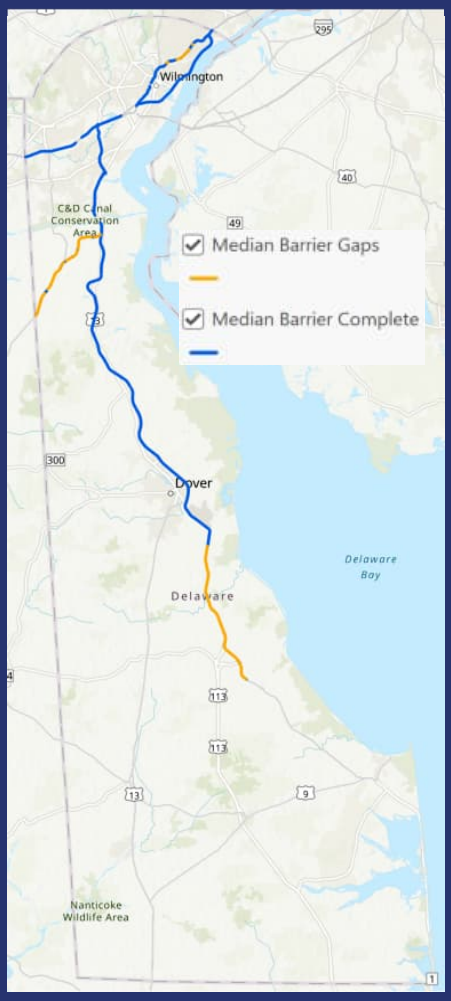

*SR 1 north of Route 30 (the southernmost grade separated interchange).

# PERFORMANCE PROJECTIONS

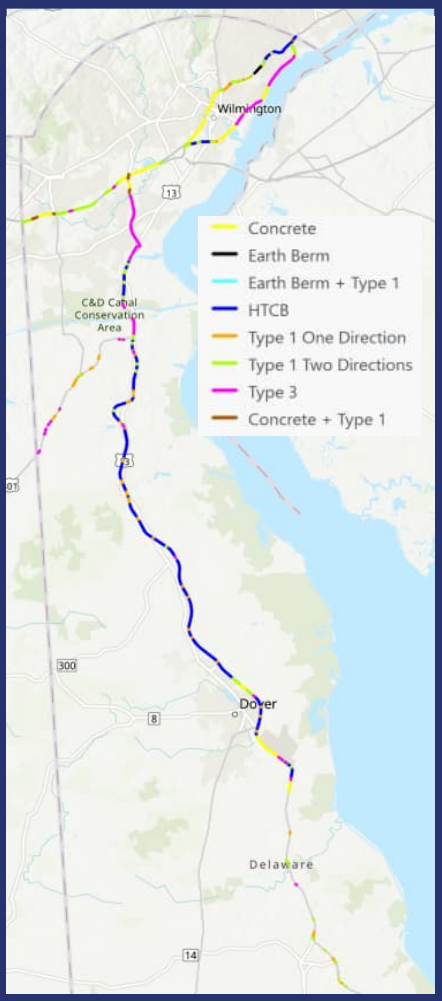
All median barrier gaps can be filled by 2027 if projects are completed on schedule and funding is available.




**Median Barrier – Current Status**




**Complete Barrier – Existing Types**




**Barrier Gaps – Planned Types**


# POTENTIAL RISKS

Traffic Impact: Barriers reduce rollover crashes and lane departures. Risks of these events increase when barriers are not in place.

Funding and Scheduling: Gaps will not be able to be filled without sufficient funding and projects being completed on time.