

Dynamic Message Sign Tech Sheet

Description

A Dynamic Message Sign (DMS) is an electronic sign that uses light-emitting diodes capable of displaying customizable messages using any combination of characters, numeric values, and in some instances, symbols.

DMS can display real time messages that may pertain to:

- ▶ Alerts and advisories
- ▶ Roadway closures, incidents, and crashes
- ▶ Weather or roadway surface information
- ▶ Travel time information
- ▶ AMBER alerts and emergency messages
- ▶ Special event travel information
- ▶ Work zone and alternative route information

A DMS is commonly used in conjunction with other ITS systems, such as road weather information systems ([RWIS](#)) and closed-circuit television cameras ([CCTV](#)), to share travel information on roadway and driving conditions ahead of the motorist. Most often this includes weather-related information, crashes, closures, restrictions, and other safety concerns.

There are various types of DMS installations, selection of which depends on the size of the DMS and the designation of the roadway where they are located. These include mainline walk-in, mainline front access, arterial front access, and trailblazer.

Benefits

- ▶ Share real-time travel information to the traveling public
- ▶ Report changing driving, weather, and roadway conditions in advance of a driver's decision point for possible alternative routes
- ▶ Communicate current travel times
- ▶ Alert travelers to hazards, special event conditions, or safety alerts

Operations & Maintenance

Device Operations Responsibility:

- ▶ ITS Bureau:
 - ▶ The RTMC is responsible for placing and removing messages on the DMSs. This is done in coordination with a District's Traffic, PIO staff, and NMRoads Administrators

Device Maintenance Responsibility:

- ▶ District:
 - ▶ Assist ITS Bureau in NM811 utility locating support
 - ▶ Assist ITS Bureau in first line troubleshooting diagnostics by designated staff trained by the ITS Bureau (i.e. NMDOT Patrol Yard, Area Maintenance (AMS), District Traffic Section personnel)
 - ▶ Provide traffic control when maintenance and repair work is being performed by NMDOT staff
- ▶ ITS Bureau:
 - ▶ Regular inspection, cleaning, and/or repair on an as-needed basis

Costs & Budgeting per Site

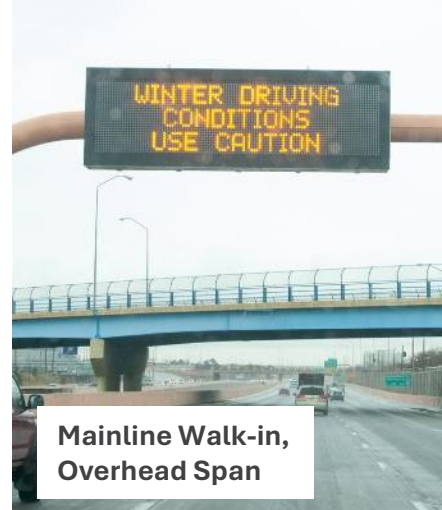
- ▶ District Costs:
 - ▶ Equipment and construction: \$30,000 - \$365,000 (+/- 15%), depending on location, use, and structure (see table below)
 - ▶ Power and communication costs (i.e. DSL): up to \$200 per month
- ▶ Other Factors:
 - ▶ Costs could include a potential markup by a prime contractor if installed on a construction project
 - ▶ Average life cycle of electronic equipment: ~15 years
 - ▶ Does the location need protection (i.e. require guardrail) or is the site accessible for maintenance?
- ▶ Funding Opportunities:
 - ▶ Inclusion into larger roadway improvement projects
 - ▶ District Highway Operations Maintenance funds using [ITS Price Agreement](#)
 - ▶ Highway Safety Improvement Program funds ([HSIP](#))



Mainline Front Access,
Offset Butterfly



See real time
examples
at [NMRoads](#)



Mainline Walk-in,
Overhead Span

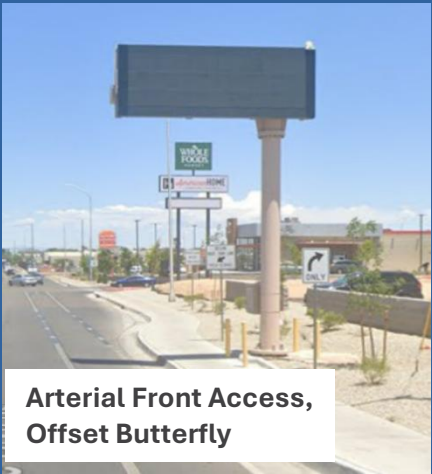
DMS Cost and Usage Table

DMS Type	Use	Message Display	DMS Cost	Structure Type	Structure Cost	Overall Cost
Mainline Walk-in	≥ 45 mph	18 inch characters, 18 per line, 3 line display	\$90,000	Overhead Span	\$275,000	\$365,000
				Offset Butterfly	\$150,000	\$240,000
Mainline Front Access	≥ 45 mph	18 inch characters, 15 per line, 3 line display	\$75,000	Overhead Span	\$275,000	\$350,000
				Offset Butterfly	\$50,000	\$125,000
				Butterfly	\$50,000	\$125,000
				I-Beam Post	\$10,000	\$85,000
Arterial Front Access	< 45 mph	12 inch characters, 15 per line, 3 line display	\$35,000	Offset Butterfly	\$50,000	\$85,000
				Cantilever	\$65,000	\$100,000
				Butterfly	\$50,000	\$85,000
				I-Beam Post	\$10,000	\$45,000
Trailblazer Front Access	Local Traffic	12 inch characters, 12 per line, 2 line display	\$20,000	I-Beam Post	\$10,000	\$30,000

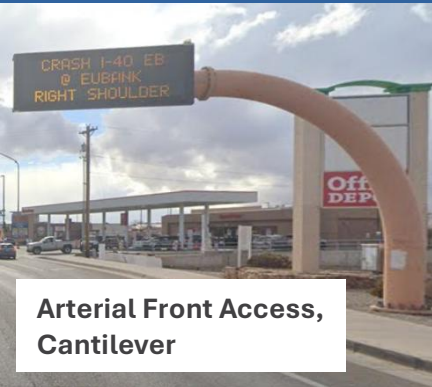
*Costs are current for 2025 and are for guideline purposes only. Costs will vary depending on previously noted circumstances in the technical sheet. Costs included equipment and construction. Roadside protection is not included.

Resources

- ▶ [Map of ITS Needs](#)
- ▶ [Special Provisions](#)
- ▶ [DMS Operations Manual](#)
- ▶ [Standard Serial Drawings](#)
- ▶ [ITS Toolbox Survey](#)



Arterial Front Access, Offset Butterfly



Arterial Front Access, Cantilever



Arterial Front Access, Butterfly



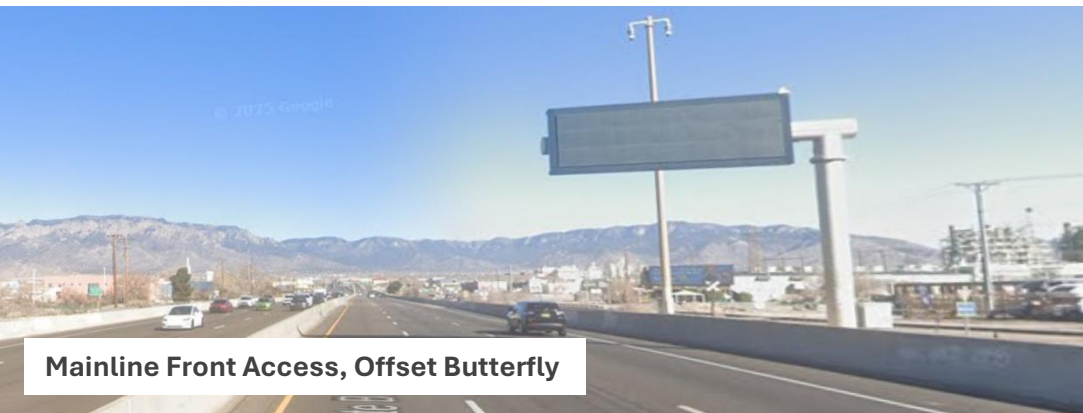
Mainline Walk-in, Overhead Span



Mainline Walk-in, Offset Butterfly



Mainline Front Access, Overhead Span



Mainline Front Access, Offset Butterfly



Mainline Front Access, Butterfly



Mainline Front Access, I-Beam Post



Trailblazer Front Access