

# SENATE STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: Community Affairs Committee

BILL: SB 1022

INTRODUCER: Senator Bullard

SUBJECT: Guardrails and Canals

DATE: April 20, 2006

REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Woods	Meyer	TR	<b>Fav/1 Amendment</b>
2.	Vickers	Yeatman	CA	<b>Favorable</b>
3.	_____	_____	TA	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____

**Please see last section for Summary of Amendments**

- Technical amendments were recommended
- Amendments were recommended
- Significant amendments were recommended

**I. Summary:**

This bill provides for the erection of guardrails or other barriers between a highway and an adjacent canal or other body of water. The Department of Transportation (FDOT) is directed to establish and adopt standards relating to safety, size, and location requirements. In addition, this bill specifies the maintenance of the barriers to be the responsibility of the governmental entity responsible for the road or highway adjacent to the body of water or canal.

**II. Present Situation:**

Public and private research on guard rails, cable barriers, clay beams, and other types of structural highway barriers indicates, if properly placed and maintained, these systems improve the safety of public roads. The Federal Highway Administration, with assistance from the American Association of State Highway and Transportation Officials (AASHTO), other engineering associations, and state transportation agencies, continue to research and modify existing requirements for barrier systems.

The need for well-engineered guardrail and other highway barrier structures varies from state-to-state, as well as by the road's type, speed limit, and surrounding topographical features. One such feature common to Florida roadways is the location of natural water bodies, canals, or drainage ditches adjacent to highways.

National and statewide statistics for traffic fatalities caused by, or related to, the absence or failure of highway barrier systems and involving water are not readily available. However, the FDOT was able to collect specific data on traffic fatalities on the State Highway System involving vehicles submerged in water. In 2004, 28 fatal crashes occurred where the vehicles ran off the road and into an adjacent body of water in which 36 people died, including 20 whose deaths may have been caused by being submerged in water. In 2003, there were 34 crashes where the vehicles ran off the road and into an adjacent body of water. These crashes resulted in 49 fatalities, 28 of which were possibly caused or influenced by the vehicle being submerged.

According to the accident reports, some of these accidents were caused by drunken, medicated, speeding, or careless drivers. The reports also show, in some accidents, the vehicle went over, under, or through guardrails or fences before going into the water.

Federal Highway Administration research reports dating back to 1987 indicate the value of guardrail and other barrier systems in preventing traffic accidents and fatalities. These barrier systems can take many forms – metal guardrails, thick metal cables, concrete barricades, and earthen berms – and to be effective must be engineered to address a highway’s particular features and the type of traffic comprising the majority of use. AASHTO has developed a number of nationally accepted standards for barrier systems for federal and state transportation agencies. These standards are continually being tested and updated.

FDOT has an active highway-barrier installation program, installing more than 2,645.5 miles of guardrails along state highways and the Florida Turnpike and 552 miles of barrier walls. The Turnpike has committed by 2007 that guardrails will run the Turnpike’s entire length from Wildwood to Homestead. Typically the guardrails or cable systems are installed as part of a construction or maintenance project.

### **III. Effect of Proposed Changes:**

SB 1022 requires each highway adjacent to a canal or other water body to have a system of guard rails, barrier cables, or other barrier installed between the highway and the water body. The guardrail or barrier system must be installed and maintained pursuant to FDOT standards, which must be designed to protect against loss of life from out-of-control vehicles running off highways and into water. The standards should take into account such factors as the width, depth, or proximity of the water body to the highway.

The term highway is defined as “road, street, or other way open to the public for travel by motor vehicles and whose maintenance is the responsibility of a municipality, a county, or the Department of Transportation.”

SB 1022 provides an effective date of July 1, 2006.

**IV. Constitutional Issues:****A. Municipality/County Mandates Restrictions:**

SB1022 mandates municipalities and counties to erect and maintain guardrails and barriers on highways, as defined in the bill, adjacent to canals or other bodies of water.

**B. Public Records/Open Meetings Issues:**

None.

**C. Trust Funds Restrictions:**

None.

**V. Economic Impact and Fiscal Note:****A. Tax/Fee Issues:**

None.

**B. Private Sector Impact:**

None.

**C. Government Sector Impact:**

According to FDOT staff, the cost of implementing SB 1022 is an estimated \$5.3 million, which already is included in the FY 2006-2011 Five-Year Work Program. The effects on city and county governments are indeterminate.

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

None.



## VIII. Summary of Amendments:

### **Barcode 820928 by Transportation:**

This amendment deletes all language in SB 1022 and adds language which:

- Provides for each limited access facility in Miami-Dade County adjacent to a canal or body of water to have a system of guardrails, retention cables, or other barriers between a highway and canal or other body of water.
- Provides for installation of barriers by December 31, 2009 for any limited access facility in existence as of July 1, 2006.
- Provides for this pilot program to be repealed on December 31, 2011 unless reviewed and saved by the Legislature.
- Provides for an effective date of July 1, 2006.

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This Senate staff analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.

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