

AMENDMENT

OFFERED BY MR. BEGICH OF ALASKA

At the end of title I, insert the following:

1 **SEC. 13___ . NATURAL POZZOLAN STUDY AND PILOT**
2 **PROJECT.**

3 (a) STUDY AND REPORT ON CONCRETE RESIL-
4 IENCE.—

5 (1) IN GENERAL.—The Secretary of Transpor-
6 tation shall engage the Transportation Research Bu-
7 reau of the National Academy of Sciences to under-
8 take and complete a study and submit a report to
9 the Secretary and Congress on the use of natural
10 pozzolans as an additive to or replacement of cement
11 to improve concrete used in Federal-aid highway
12 projects.

13 (2) STUDY AND REPORT.—The study and re-
14 port shall include—

15 (A) a review of performance standards and
16 standard test methods, including the length of
17 time of required for such test methods, used by
18 the Federal Highway Administration and State
19 departments of transportation to determine the
20 optimum performance of concrete suitable and

1 appropriate for use in highway construction and
2 rehabilitation as it relates to the expanded use
3 of Supplementary Cementitious Materials
4 (SCM's), such as natural pozzolans;

5 (B) the extent to which addition of natural
6 pozzolans to concrete will make concrete more
7 resilient, stronger, and more durable over the
8 lifetime of the structure (testing age of 56 days
9 or greater);

10 (C) the extent to which addition of natural
11 pozzolans to concrete will improve the long-term
12 cost-effectiveness of concrete;

13 (D) the extent to which addition of natural
14 pozzolans to concrete will extend the service life
15 of highway structures and pavement;

16 (E) the extent to which development and
17 utilization of natural pozzolan in concrete en-
18 hances United States construction material sup-
19 ply chain independence from foreign construc-
20 tion material supply chains;

21 (F) the extent to which the addition of
22 natural pozzolans to concrete is more energy-ef-
23 ficient since natural pozzolans need not be
24 super-heated like other concrete ingredients;
25 and

1 (G) such other information as may be rel-
2 evant.

3 (3) CONSULTATION.—The Secretary and the
4 Transportation Research Board shall consult with
5 relevant stakeholders, including State departments
6 of transportation, commercial suppliers and users of
7 natural pozzolans.

8 (4) REPORT.—Not later than 18 months after
9 the date of enactment of this section, the Secretary
10 shall submit a report on the results of the study
11 to—

12 (A) the Committee on Transportation and
13 Infrastructure of the House of Representatives;

14 (B) the Committee on Environment and
15 Public Works of the Senate;

16 (C) the Federal Highway Administration;
17 and

18 (D) the American Association of State
19 Highway and Transportation Officials.

20 (b) PILOT PROGRAM ON CONCRETE RESILIENCE.—

21 (1) ESTABLISHMENT.—The Secretary of Trans-
22 portation shall establish a pilot program within 9
23 months of the effective date of this section to test
24 the use of natural pozzolans as an addition to or re-
25 placement of cement to improve concrete used in

1 Federal-aid highway projects, including for roads,
2 abutments, bridges, and other highway related struc-
3 tures.

4 (2) ACTIVITIES.—The pilot program shall be in
5 conjunction with 2 or more State departments of
6 transportation to test the improved durability, long-
7 term compressive strength, and resilience to alkali-
8 silica reactions (ASR) of highway pavement and
9 other highway related structures with the addition of
10 natural pozzolans. The pilot program shall test and
11 analyze actual pavement and highway related struc-
12 tures used with the addition of natural pozzolans
13 and shall take into consideration short-term costs
14 and long-term savings.

15 (3) CONSULTATION.—The Secretary shall con-
16 sult with relevant stakeholders, including State de-
17 partments of transportation, suppliers of natural
18 pozzolans, commercial suppliers and producers of ce-
19 ment and concrete, and users of natural pozzolans.

20 (4) REPORT.—Not later than 3 years after the
21 effective date of this section, the Secretary shall sub-
22 mit a report on the results of the pilot program to—

23 (A) the Committee on Transportation and
24 Infrastructure of the House of Representatives;

1 (B) the Committee on Environment and
2 Public Works of the Senate;

3 (C) the Federal Highway Administration;
4 and

5 (D) the American Association of State
6 Highway and Transportation Officials.

