Appendix C

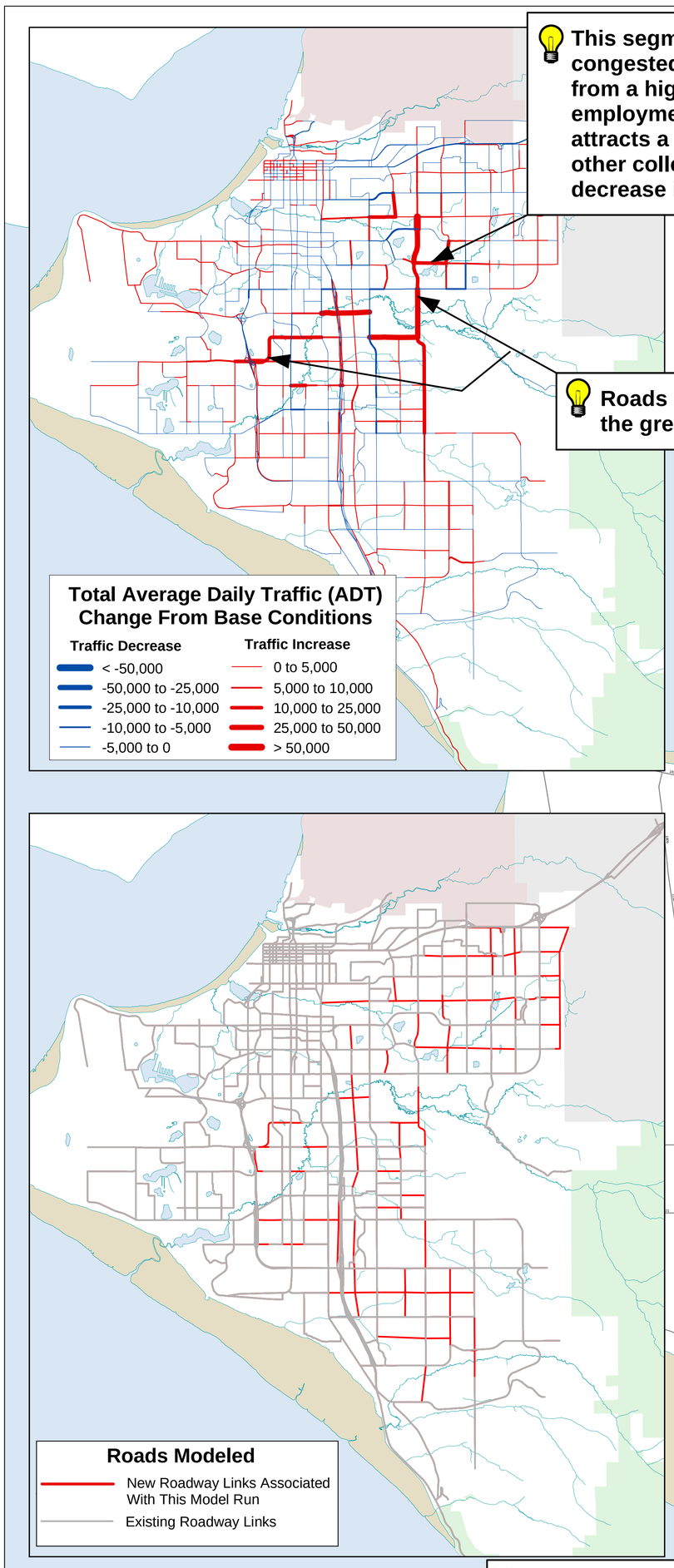
Complete the Network Model Runs

This segment of 36th Ave parallels a congested route and leads directly from a high-density area into an employment center; subsequently it attracts a higher number of trips than other collector roads. Note the decrease in traffic on Tudor Road.

Roads on the arterial grid attract the greatest number of trips.

Total Average Daily Traffic (ADT) Change From Base Conditions

Traffic Decrease	Traffic Increase
< -50,000	0 to 5,000
-50,000 to -25,000	5,000 to 10,000
-25,000 to -10,000	10,000 to 25,000
-10,000 to -5,000	25,000 to 50,000
-5,000 to 0	> 50,000



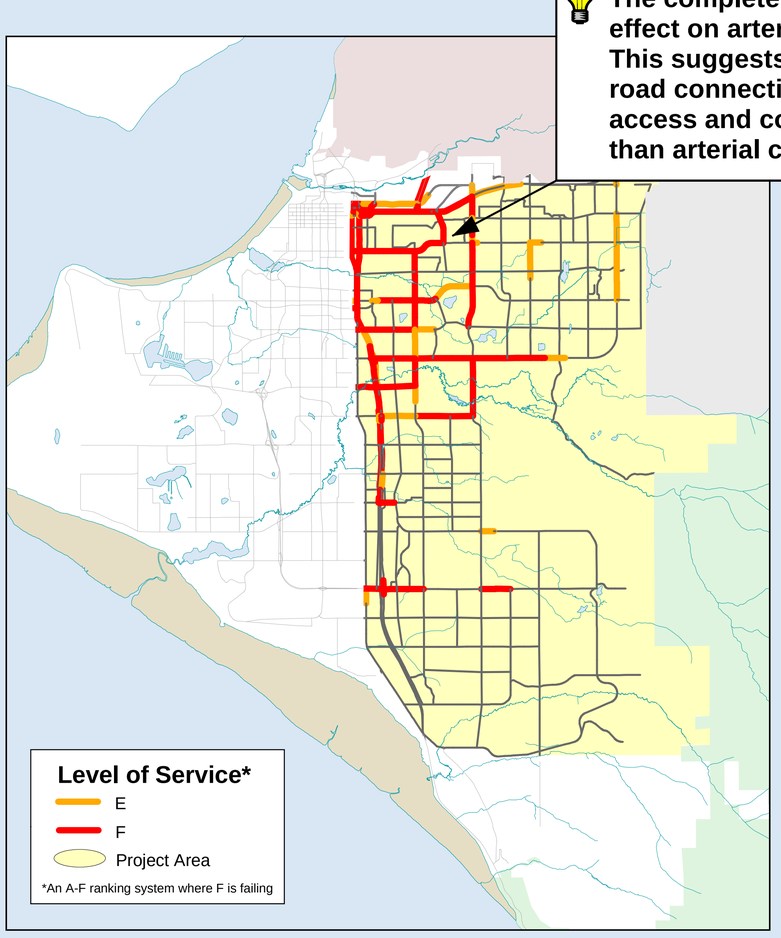
Roads Modeled

- New Roadway Links Associated With This Model Run
- Existing Roadway Links

This run shows that more access points into the University-Medical area would spread traffic, but note that it threatens to make Bragaw Street a through route.

Bold numbers suggest areas of the collector grid that would not attract a significant amount of traffic.

The complete grid road network had little effect on arterial congestion in the study area. This suggests that decisions about collector road connections hinge more on neighborhood access and connectivity for local trip purposes than arterial congestion relief.



Level of Service*

- E
- F
- Project Area

*An A-F ranking system where F is failing

If the southwest area remains lower density, the ½-mile collector grid would not be required (from a traffic perspective). This grid would, however, promote local access for fire fighting, emergency response, and school busses.

Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,553,215	2,391,923,475	184,910	67,492,150	31.9	25,739	9,394,735	429.0	156,578.9
Difference	-226,611	-82,713,015	-12,382	-4,519,430	+0.3	-9,787	-3,572,255	-163.1	-59,537.6

LEGEND

Predicted Average Daily Traffic (# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Complete the Network Solution Theme

Model Run: Full Network

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

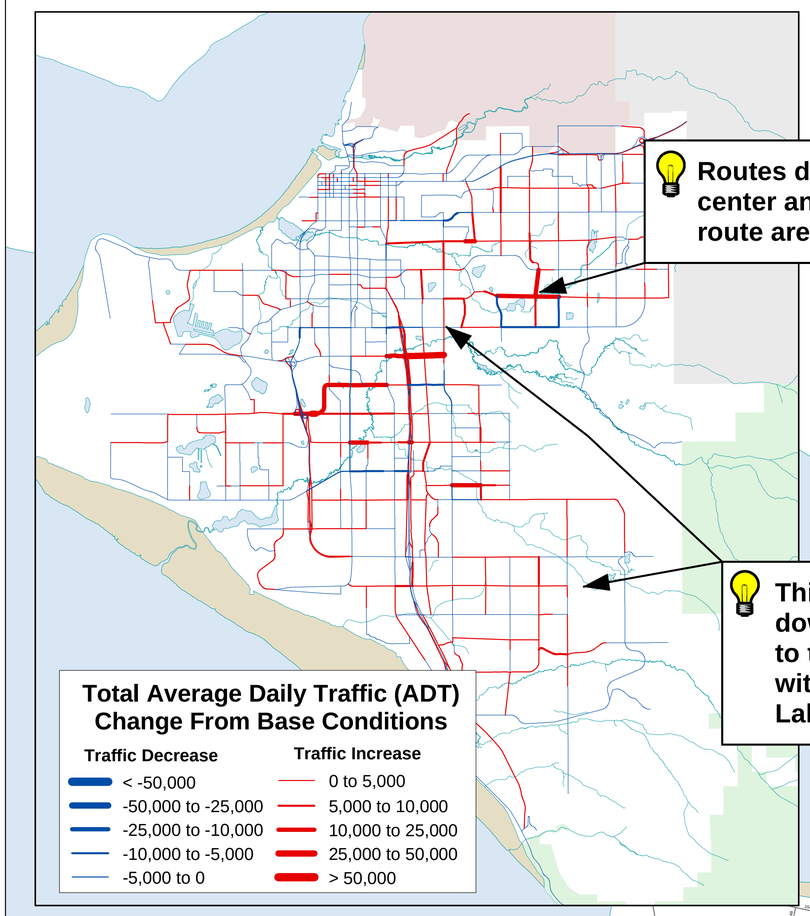
0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

C1

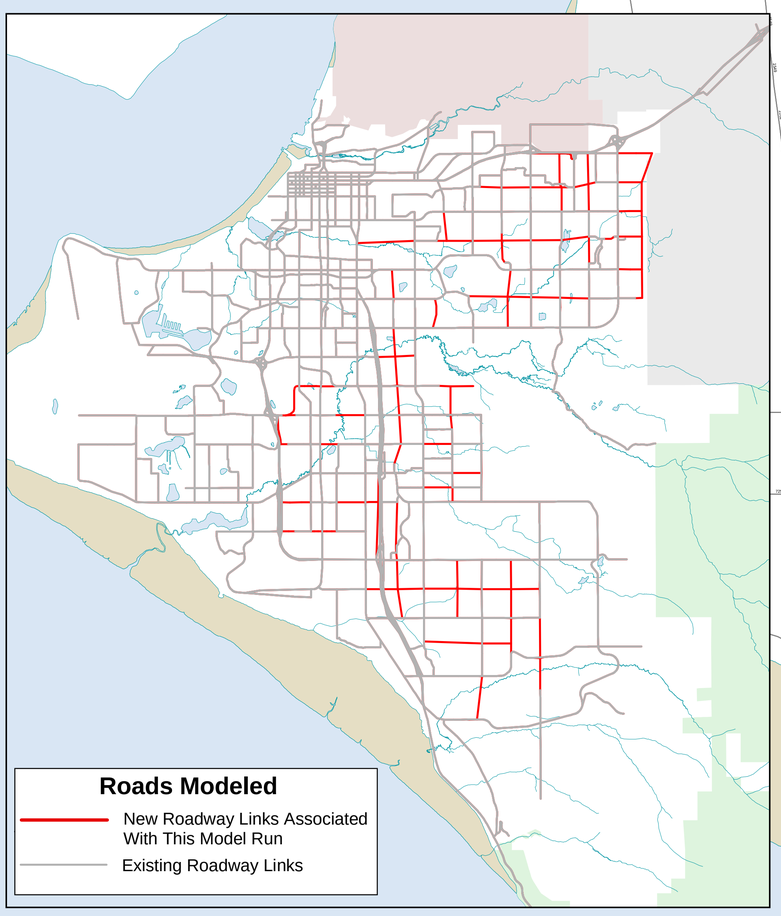


Routes directly into an employment center and that parallel a congested route are likely to attract more trips.

This run does show that trips coming down from the Hillside would filter over to the Seward Hwy and Minnesota Dr with the effect of slowing growth at Lake Otis Pkwy and Tudor Rd.

Total Average Daily Traffic (ADT) Change From Base Conditions

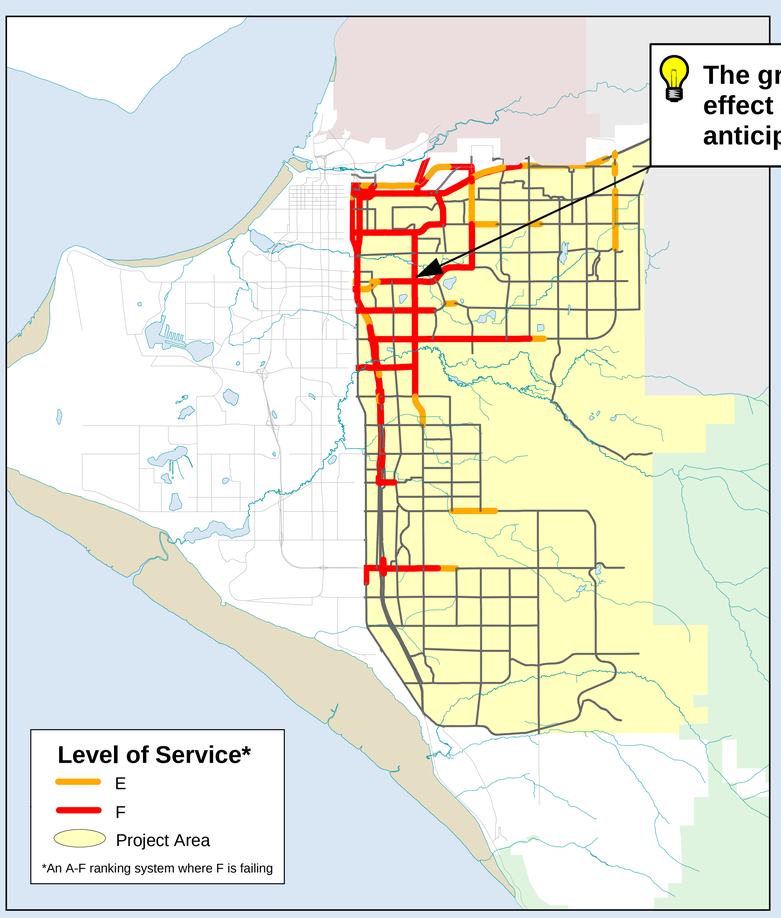
Traffic Decrease	Traffic Increase
< -50,000	0 to 5,000
-50,000 to -25,000	5,000 to 10,000
-25,000 to -10,000	10,000 to 25,000
-10,000 to -5,000	25,000 to 50,000
-5,000 to 0	> 50,000



Roads Modeled

- New Roadway Links Associated With This Model Run
- Existing Roadway Links

This run tests the effect that could be achieved with a complete grid except for the roads noted with question marks in the LRTP.



The grid connections would have little effect on the poor level of service anticipated in the study area.

Level of Service*

- E
- F
- Project Area

*An A-F ranking system where F is failing

Pt MacKenzie

Arm

Elmendorf Air Force Base

Ship Creek

GLENN HWY

Merrill Field Airport

15th AVE

Chester Creek

GAMBELL ST

INGRA ST

BRAGAW ST

PINE ST

BONIFACE PKWY

MULDOON RD

TURPIN ST

DEBARR RD

NORTHERN LIGHTS BLVD

BAXTER RD

PATTERSON ST

Goose Lake

LAKE OTIS PKWY

36th AVE

Lake Hood

Lake Spenard

TUDOR RD

INTERNATIONAL AIRPORT RD

North Fork Campbell Creek

Conners Lake

Campbell Creek

DOWLING RD

RASPBERRY RD

C ST

NEW SEWARD HWY

OLD SEWARD HWY

76th AVE

Sand Lake

MINNESOTA DR

ABBOTT LOOP RD

ABBOTT RD

Campbell Lake

O MALLEY RD

Little Campbell Creek

BIRCH RD

HILLSIDE DR

HUFFMAN RD

DEARMOUN RD

Rabbit Creek

RABBIT CREEK RD

Potter Marsh

Anchorage Coastal Wildlife Refuge

Cook Inlet

Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,740,860	2,460,413,900	190,971	69,704,415	31.9	29,824	10,885,760	497.1	181,429.3
Difference	-38,966	-14,222,590	-6,321	-2,307,165	+0.3	-5,702	-2,081,230	-95.0	-34,687.2

LEGEND

Predicted Average Daily Traffic (# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Complete the Network Solution Theme

Model Run: No Question Mark Roads

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

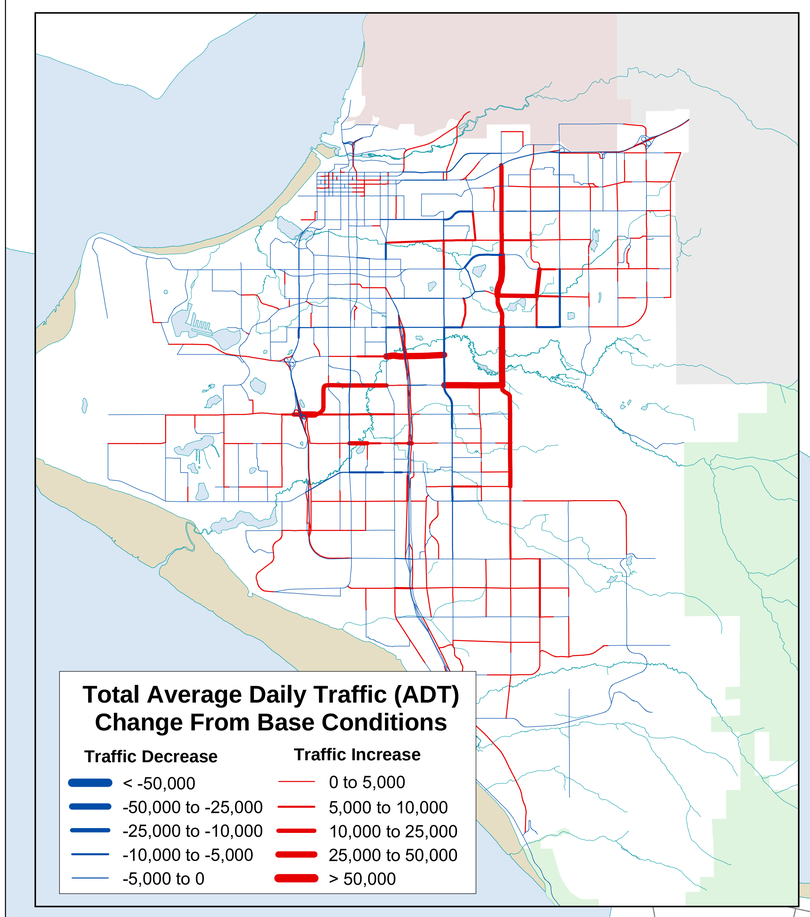
0 0.5 1 2 3 Kilometers

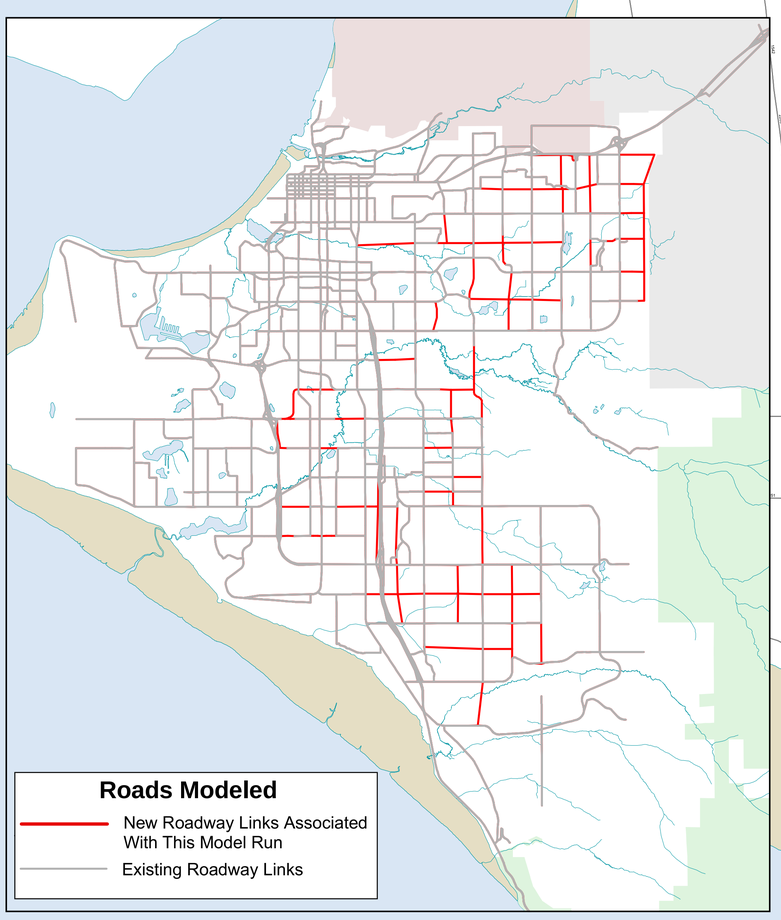
Data Sources: MOA

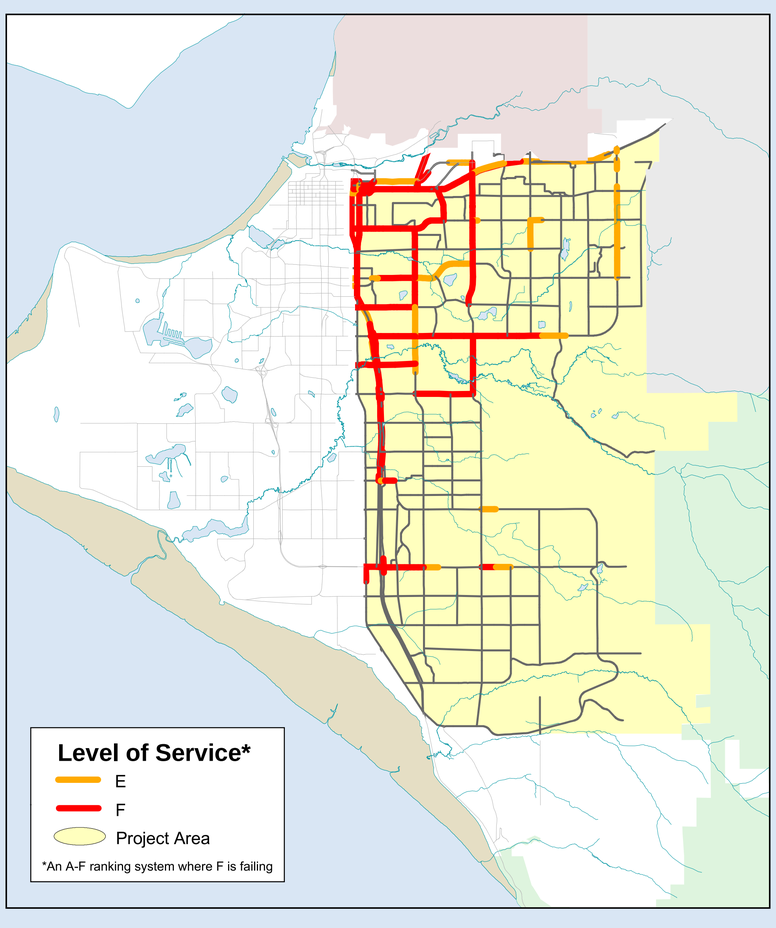
Map Date: May 2003

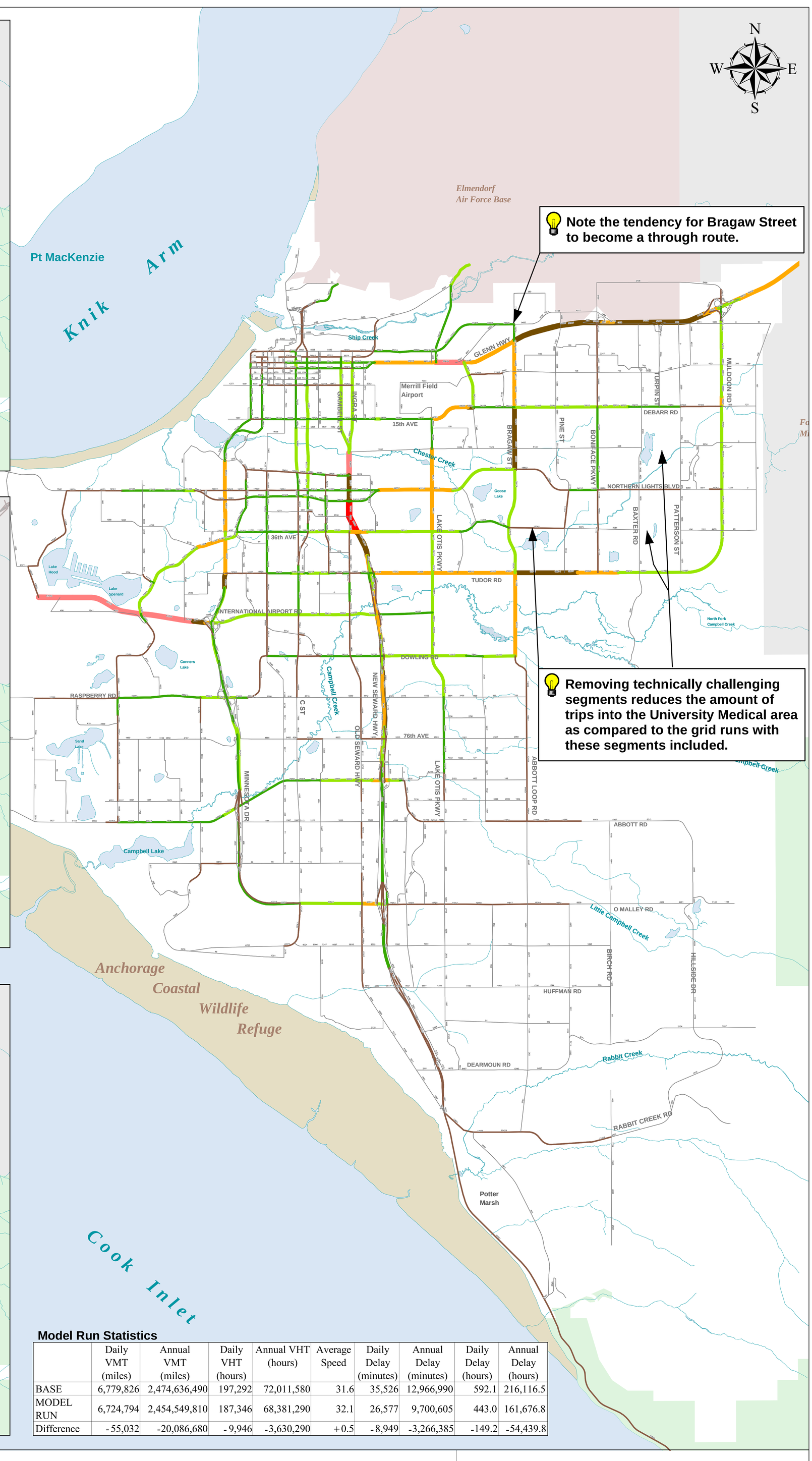
FIGURE

C2









Model Run Statistics

	Daily VMT (miles)	Annual VMT (miles)	Daily VHT (hours)	Annual VHT (hours)	Average Speed	Daily Delay (minutes)	Annual Delay (minutes)	Daily Delay (hours)	Annual Delay (hours)
BASE	6,779,826	2,474,636,490	197,292	72,011,580	31.6	35,526	12,966,990	592.1	216,116.5
MODEL RUN	6,724,794	2,454,549,810	187,346	68,381,290	32.1	26,577	9,700,605	443.0	161,676.8
Difference	-55,032	-20,086,680	-9,946	-3,630,290	+0.5	-8,949	-3,266,385	-149.2	-54,439.8

LEGEND

Predicted Average Daily Traffic
(# represents average daily traffic)

- 0 - 10,000
- 10,000 - 20,000
- 20,000 - 30,000
- 30,000 - 40,000
- 40,000 - 50,000
- 50,000 - 60,000
- 60,000 - 70,000
- 70,000 - 80,000
- 80,000 - 90,000
- > 90,000

- Roads
- Streams
- Mud Flats
- Water
- Technical Findings at a Glance

Complete the Network Solution Theme

Model Run: Technical Challenges Removed

EAST ANCHORAGE STUDY OF TRANSPORTATION

0 0.5 1 2 3 Miles

0 0.5 1 2 3 Kilometers

Data Sources: MOA

Map Date: May 2003

FIGURE

C3