This is a comprehensive but not an exhaustive list of suggestions for easing traffic congestion on Oahu, and some of the actions suggested below may be in planning, engineering or contracting stages by transportation agencies.

**TRAFFIC CONGESTION: IMMEDIATE SOLUTIONS** (implementation in 1 to 4 years)

- **Save over $30 million by scrapping the proposed BRT** because it does not address our needs, it creates more congestion and it is taxpayer-subsidized competition both for *TheBus* and for private transportation providers. *TheBus* month-long strike in fall 2003 hurt students, the elderly and the disadvantaged the most – the BRT does nothing for them. Instead, these funds can be used to improve the City’s extensive traffic signal system, the Traffic Control Center and the neglected signs, pavements and markings on city streets.

- **Improvements to the H-1 freeway (UH to Middle Street)**
  - **Kokohead bound**
    - Continue the fourth freeway lane from Middle Street merge under Kalihi St. to the Vineyard Blvd off-ramp (i.e., remove the 3-lane bottleneck under Kalihi St.)
    - Add a lane between the Liliha St. on ramp and the Pali Hwy. off-ramp.
    - Control the inflow of the Vineyard Blvd. and Ward Ave. on-ramps with temporary closure or ramp-metering.
  - **Ewa bound**
    - Divert the Lunalilo St. on ramp traffic to Vineyard Blvd. and from there to the Punchbowl St. on-ramp during the morning peak.
    - Ramp-meter the Alexander St. on ramp during the afternoon peak period.
    - Add a lane under the Kalihi St. overpass to relieve the 3-lane bottleneck under it.

- **Contraflow along Dillingham Blvd.** Traffic simulation in 1991 estimated a road capacity gain from the existing level of 1,440 vehicles per hour to 2,160 vph with the conversion of the median lane into a town-bound lane along Dillingham Blvd.

- **Improve traffic signal timings and coordination** – a 10% to 50% reduction in delay can be obtained and this would also bring proportional savings in fuel consumption and emissions.

- **Add express buses** and/or subscription buses from Kapolei, Mililani, Wahiawa, and Waianae to town with limited stop service in town (downtown, Ala Moana, Waikiki, UH) for a fast commute.

- **Plan for a PM zipper lane** to facilitate departures from the city to central and leeward Oahu.

- **Encourage or mandate 4x10 work shifts** for a 10% to 20% reduction in peak hour traffic.

- **Clear accidents faster, manage accident scenes more efficiently and use intelligent transportation systems (ITS) to manage major disruptions to traffic flow.** Also collect and analyze traffic data to develop reliable databases and learn from past successes and failures.
TRAFFIC CONGESTION: LONGER TERM SOLUTIONS  (implementation in 5 to 10 years)

- **Improvements to the H-1 freeway.**
  - **Kokohead bound**
    - Add a lane from Ward Ave. on-ramp to the Punahou St. off-ramp.
    - Close the Piikoi St. on-ramp and replace it with a new Punahou St. on-ramp.
    - Improve the University Ave. interchange.
  - **Ewa bound**
    - Add a lane between the Old Waialae Ave. on-ramp and the University Ave. off ramp.
    - Permanently divert the Lunalilo St. on ramp traffic to Vineyard Blvd.
    - Improve the University Ave. interchange.

- **Improvements to Nimitz Hwy. from Keehi interchange to town.**
  - Construct a 2-lane plus shoulder reversible flow viaduct (approx. 30 ft. width).
  - Consider a toll application for this viaduct (free for buses and HOV→HOT).
  - If the above viaduct can’t be done, then re-design the Sand Island Access Road intersection with Nimitz Hwy. (i.e., using a short tunnel or a short overpass.) This will remove a major bottleneck for commuters and facilitate truck traffic.

- **Deploy a PM zipper lane.** Consider a toll for both AM and PM zipper lanes for single occupant vehicles (HOT concept: provides faster service to HOV vehicles and allows single occupant vehicles to save travel time by paying a modest toll such as $2 per trip.)

- **Grade separation at over-capacity intersections:** Kapiolani/Kalakaua, Vineyard/Punchbowl, Kapiolani/Date/Kamoku intersections can benefit tremendously by grade separation. In preparation for the 2004 Olympics, Athens, Greece built six such underpasses in one year on an arterial street similar to Kapiolani Blvd. (6-lane arterial). In the U.S., the nation’s capital makes extensive use of urban underpasses.

- There are signs that development in central Oahu is tapering off and large developments in Honolulu are picking up. However, **if growth in central Oahu is sustained, then deployment of a major capacity addition from leeward Oahu to town would be required.** Best bets include: (1) an exclusive busway like the *O-Bahn* system in Adelaide, Australia and Essen, Germany – an advantage of *O-Bahn* is that if the system fails to attract commuters, then the buses can be used as regular units on the streets and, with proper planning, the exclusive busway can be converted into a regular traffic lane; or, (2) a vehicular tollway and more frequent, high capacity, express buses on the zipper lane which may be limited to buses, 4+ occupant private vehicles, vans and taxis.

- **Express buses from windward side to town via Pali-Nuuuanu running on temporary (with cones) contraflow lane on Pali Hwy.:** Waokanaka to Beretania - AM only. Other high occupancy vehicles may be permitted if safety issues can be addressed.

- **Improve the capacity of the Castle junction** with a grade separation for the two Kaneohe-bound left turn lanes on Pali Hwy. using a short tunnel or a short overpass. This will improve intersection capacity by over 30%. An underpass would also benefit the Castle Hospital intersection in Kailua.
SAFETY (Very short list because I have not analyzed safety issues on Oahu)

- **There are acute congestion and safety issues on Farrington Hwy. along the leeward coast.** Install directional separation with barriers and provide a medium capacity alternative to it because it is essential for crisis management (e.g., hurricane, tsunami, other closure of Farrington Hwy.)

- **Reduce the risk of speeding by (mostly) young people by providing legal racing venues.** Add at least one more race track on Oahu and improve the dilapidated Hawaii Raceway Park in Kapolei. Allow car control clinics and sanctioned low speed races at Aloha Stadium parking lots when they are unused. (All “Stick” solutions are failing. Try some “Carrots” instead.)

- **Follow the lead of Australia, Canada, New Zealand and several states including California, Connecticut, Florida, Kentucky, Michigan, North Carolina and Ohio which have instituted graduated driver’s licenses.** Young drivers with speeding violations could be denied a permanent license. Some or all could be mandated to participate in car control clinics at race tracks where they can safely experience the consequences of loss of car control at moderate speeds.

EFFICIENCY (One sample item)

Although Honolulu uses reversible flow lanes extensively, unlike most U.S. and international cities, it uses a labor intensive, expensive, inefficient and risky manual reversing process with trucks, crews and traffic cones. Cones often are hit and they become both a safety risk (projectile) and an impediment to the flow on the lanes in which they land. The manual placement of cones exposes the crews to traffic accident risk and, of course, it is a major daily expense borne by the taxpayers.

Major arterials such as the wide and winding Sheridan Road in Chicago, the Harbour Bridge in Sydney, Australia and numerous other applications worldwide use overhead lane control signals such as the ones pictured below. Our only sample of lane control signals is in the H-3 tunnels, but those are used only for emergency management and other non-routine operations.

![Lane control signals](image)

Lane control signals are fully approved by the U.S. DOT for use on our roadways (with proper engineering and installation). This is a technology of the past century; hopefully Honolulu will adopt it in this one.