

# HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

## IMPROVED TRAFFIC SIGNALS AND INTERSECTIONS

March 17, 2016

H O N O L U L U   R A I L   T R A N S I T   P R O J E C T

[www.HONOLULUTRANSIT.ORG](http://www.HONOLULUTRANSIT.ORG)

**HART**

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# BENEFITS TO THE COMMUNITY

- Safer intersections built in one effort. “Once and Done!”
- Minimizes traffic impacts to the traveling public.
- HDOT and HART working to leverage economy of scale in the best interest of the public.
- Keep HART moving toward serving the community.
- Allows DTS maintenance forces to focus on other needs on Oahu.

# TRAFFIC IMPROVEMENT BACKGROUND

- Contract base scope addresses signals in direct physical conflict with rail construction only. Other signals in same intersections not included.
- New HDOT policy requires upgrades of all signals in intersections with any rail conflicts.
- Severely dated traffic signal equipment along the WOFH and KHG construction corridor. Several intersections have shorted out during construction (flashing mode).
- HDOT and DTS both recognize that traffic improvements are needed to maintain a functioning system.
- HDOT has requested that this work be done concurrent with rail construction and will provide funds for this work.

# HDOT AND HART WORKING AGREEMENTS

- **MASTER AGREEMENT**
  - WOFH MASTER AGREEMENT EXECUTED ON OCTOBER 27,2010
  - KHG MASTER AGREEMENT EXECUTED ON OCTOBER 11, 2013
    - **Sets the overarching working agreement between HDOT and HART**
    - **Allows HDOT to request highway improvements for inclusion with the rail construction.**
    - **Obligates HDOT to fund all costs of requested improvements.**
- **JOINT USE AND OCCUPANCY AGREEMENT (JUOA)**
  - WOFH JUOA EXECUTED ON APRIL 5, 2012
  - KHG JUOA EXECUTED ON OCTOBER 11, 2013
    - **Identifies each parties' responsibilities within the state right of way during and after construction.**
    - **Requires HART to maintain state highways until HDOT accepts facilities back**
- **HIGHWAY IMPROVEMENT MOU**
  - EXECUTED ON FEBRUARY 29, 2016
    - **Summarizes the requested highway work and funding mechanisms for the work.**

# NEW HDOT POLICY/CODE REQUIRED UPGRADES

- Foundations, Poles, and Mast arms more robust to meet new wind load requirements.
- Signal head placement centered over driving lanes.
- Signal head backplates now included.
- Curb ramp and pedestrian push button placement improved.

# EXISTING TYPE II SIGNAL POLE AT MCGREW (KHG)

- 10-20 YEAR OLD SIGNAL POLE
- SIGNAL HEAD REQUIRED OVER THE LEFT LANE
- BACKPLATES REQUIRED
- MASTARM EXTENSION REQUIRED
- MASTARM, POLE AND FOUNDATION STRENGTHENING REQUIRED



# EXISTING TYPE II SIGNAL POLE AT PUPUKAHI (WOFH)



- >30 YEAR OLD TRUSS MAST ARM
- SIGNAL HEAD REQUIRED TO BE CENTERED OVER EACH OF THE LANES
- BACKPLATES REQUIRED
- MASTARM EXTENSION REQUIRED
- MASTARM, POLE AND FOUNDATION STRENGTHENING REQUIRED



# NEW TYPE I AND II SIGNAL POLE AT HONOMANU (KHG)



TYPE I

TYPE II

# NEW TYPE II SIGNAL POLE AT ACACIA ROAD (PEARL CITY)



# IMPACTS OF SEPARATING WORK

- Rework will be required on newly installed HART work.
- Disruption to the public after initial HART installation is completed.
- HDOT's construction moratorium for one year after resurfacing.
- Potentially delays acceptance of HART modified intersections by HDOT.

# REQUESTED ACTION

- Issue unilateral change orders for \$8,440,000 for WOFH and \$7,703,000 for KHG to have KIWC complete the work on the traffic control devices to meet current HDOT policy.

# *Mahalo!*

