

WELCOME

Interstate Route H-1 Shoulder Work and
Portland Cement Concrete Pavement
Rehabilitation Project
Federal-Aid Project No. NH-H1-1(274)

Public Information Meeting
Community Noise Variance Application



Department of Transportation - Highways Division
State of Hawai'i

March 5, 2018

Introductions

Department of Transportation, Highways Division

- Ed Sniffen, P.E., Deputy Director, Highways Division
- Bob Shin, P.E., Engineering Program Manager

Kiewit Infrastructure West, Co.

- Brad Kirkpatrick, Project Manager
- L.J. Robinson, Project Engineer
- Jon Samole, Construction Manager

R. M. Towill Corporation

- Craig Luke, P.E. Senior Project Engineer
- Mike Okamoto, P.E. Project Engineer
- Jim Niermann, Project Planner
- Michele Leong, Planner

Meeting Purpose

- Provide information to the community about the planned project improvements.
- Invite comments for the Community Noise Variance Application (CNV). Comments will be used by the State Department of Health, Indoor and Radiological Health Branch (DOH-IRHB) to evaluate the noise variance request.
- Understand community concerns and answer questions so we can make the project better.

Agenda

- House Keeping
- Project Presentation
 - Project Purpose and Need
 - Planned Improvements
 - Estimated Schedule
 - Proposed Nighttime Work
- Q&A

Housekeeping

- Sign-in Sheet
- Comment Forms
- Note Taking / Meeting Record
- Restrooms
- Meeting ends at 8:30 p.m. Out of facility by 9:00 p.m.

Purpose and Need

- Segments of the existing H-1 eastbound and westbound travel way lanes have sunk due to continuous settlement, which has required numerous asphalt concrete patches and overlays; therefore a more permanent rehabilitation solution is required.
- There is a need for additional eastbound lane capacity for incident response and to alleviate traffic during peak commuting hours for automobile users travelling from the Waimalu Viaduct to the Mahiko Pedestrian Overpass.

Planned Improvements

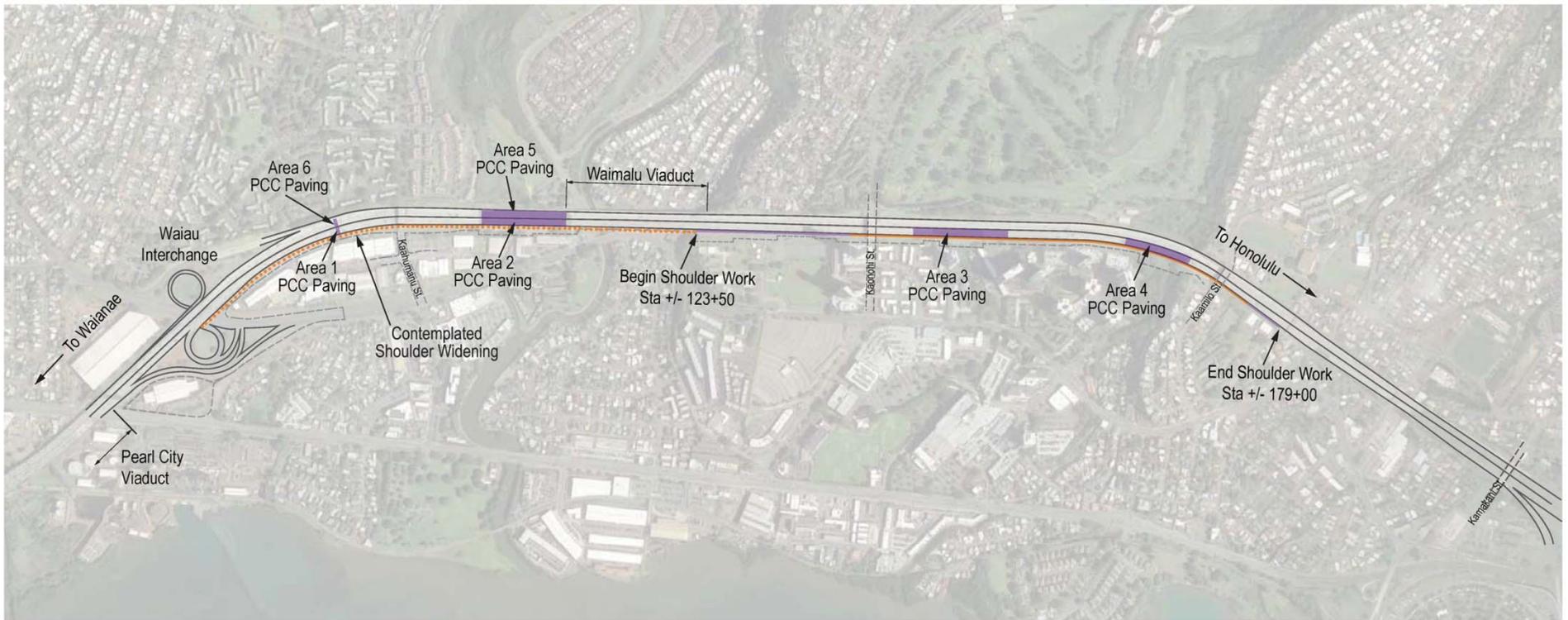
Approximately 1-3/4 miles within the H-1 ROW (both eastbound and westbound lanes), in the vicinity of Waimalu Viaduct to vicinity of Hālawā.

2 Phases of work:

- **Pavement rehabilitation**: Six (6) areas in both east-bound and west-bound travel lanes and totaling approximately 5 acres.
- **Shoulder Widening**: Approximately 5,550 LF of the existing eastbound 10-foot wide shoulder lane in five increments to create an 11-foot wide travel lane, a 13-foot wide shoulder, and concrete drainage swales ranging in width from approximately 3.5 to 8 feet.

Also contemplating future makai shoulder widening between Pearl City interchange and Kaonohi Viaduct.

Project Location



LEGEND

Phase 1:
PCC Pavement Rehabilitation
and Shoulder Widening

Phase 2:
Shoulder Widening

Contemplated Shoulder Widening

Estimated Schedule

Schedule: April 30, 2018 to February 3, 2020

Duration: 645 calendar days (Seven days per week, including non-working holidays.)

- April 2018 to September 2018 (6 months): most of the loud night work will be completed.
- September 2018 to February 2020 (17 months): intermittent night work will be conducted on weekdays and weekends.

Community Noise Variance

- Hawaii Administrative Rules (HAR), Title 11, Chapter 46-7, Community Noise Control.
- CNV is required for nighttime work activities that emit noise levels in excess of the maximum permissible sound levels listed in HAR § 11-46-4(a).
- Processed and approved by the DOH-IRHB.

Nighttime Work - What?

- **Pavement rehabilitation:**

- Mill and overlay existing pavement to achieve finished design grades,
- Sawcut pavement to remove pavement in large sections.
- Remove existing concrete and asphalt pavement in large, sawcut sections.
- Grout the pre-cast PCC panel joints. Install lane striping and restore traffic.

Nighttime Work - What?

- **Shoulder upgrades and widening**

- Remove existing asphalt concrete (AC) shoulder
- Construct PCC pavement shoulder lane and retaining wall system.
- Remove, relocate and/or upgrade existing infrastructure and utilities where needed (e.g. drainage facilities, street lighting, guardrails, traffic signs and landscaping and irrigation).

Nighttime Work - When?

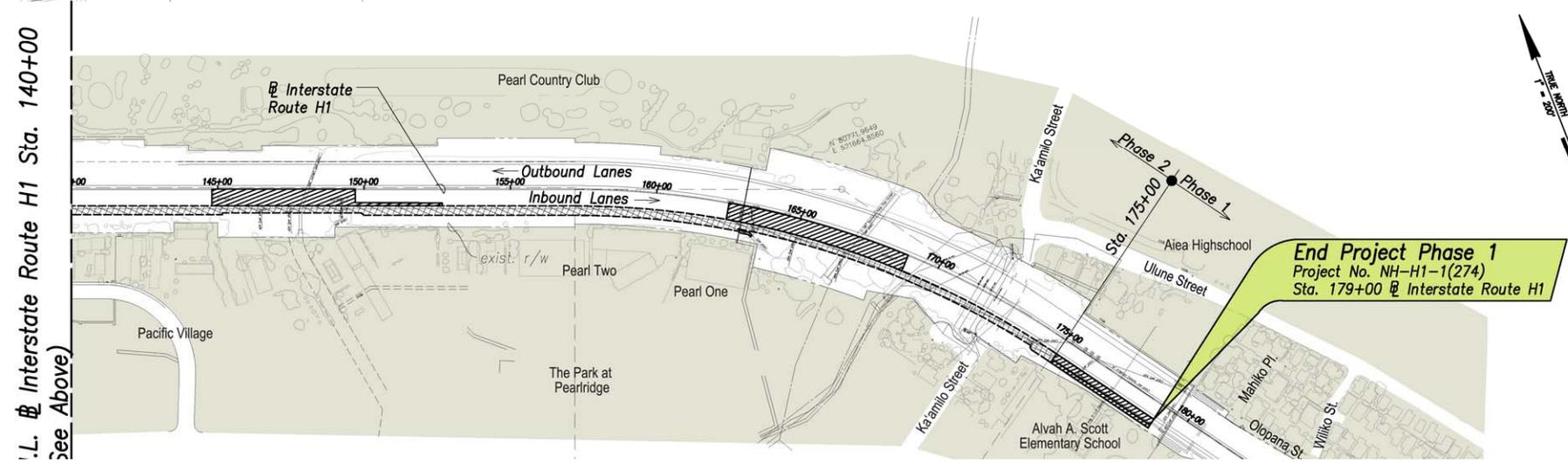
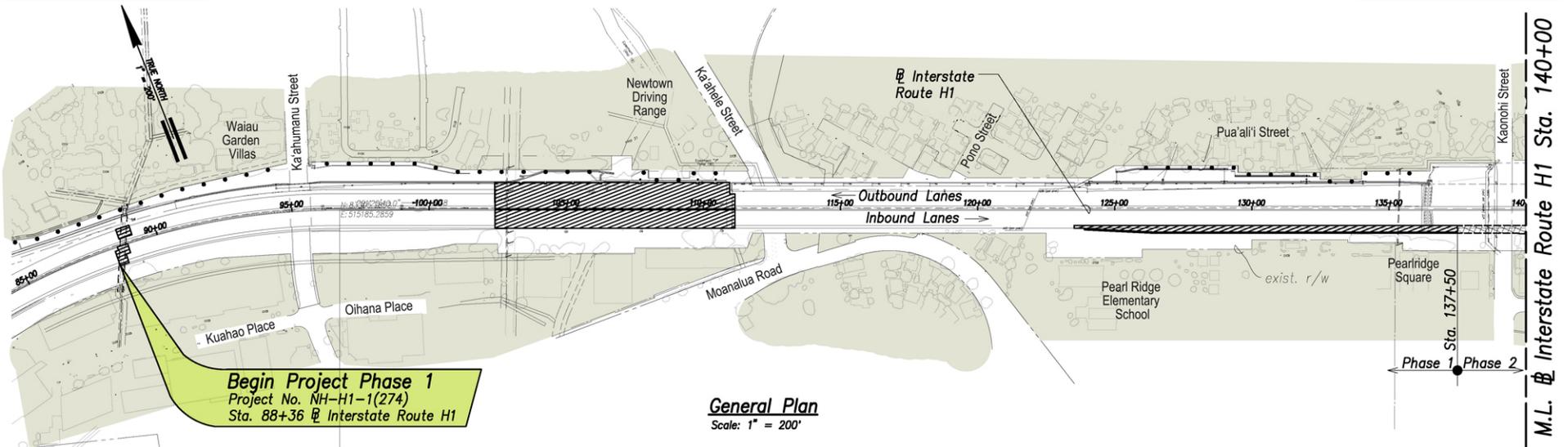
- Variance required for work during following times:
 - Mondays to Fridays: Midnight to 7AM and from 6PM to Midnight.
 - Saturdays: Midnight to 9AM and from 6PM to Midnight.
 - Sundays: Midnight to Midnight.
 - No work on holidays

Nighttime Work - When?

Table 1: H-1 Closure Hours During Construction

	Westbound H-1 Closure Hours	Eastbound H-1 Closure Hours
Sunday to Friday	<ul style="list-style-type: none"> • 1 lane closed 7:30 pm to 3:00 am • 2 lanes closed 8:00 pm to 3:00 am • 3 lanes closed 9:00 pm to 3:00 am 	<ul style="list-style-type: none"> • 1 lane closed 4:30 pm to 4:00 am • 2 lanes closed 6:30 pm to 4:00 am • 3 lanes closed 7:30 pm to 4:00 am
Friday to Saturday	<ul style="list-style-type: none"> • 1 lane closed 7:00 pm Friday to 12 noon Saturday • 2 lanes closed 7:30 pm Friday to 10:30 am Saturday • 3 lanes closed 9:00 pm Friday to 9:00 am Saturday 	<ul style="list-style-type: none"> • 1 lane closed 4:30 pm Friday to 7:30 am Saturday • 2 lanes closed 6:30 pm Friday to 6:30 am Saturday • 3 lanes closed 7:30 pm Friday to 6:00 am Saturday
Saturday to Sunday	<ul style="list-style-type: none"> • 1 lane closed 5:00 pm Saturday to 12:30 pm Sunday • 2 lanes closed 6:00 pm Saturday to 12:30 pm Sunday • 3 lanes closed 9:00 pm Saturday to 10:15 am Sunday 	<ul style="list-style-type: none"> • 1 lane closed 6:00 pm Saturday to 10:30 am Sunday • 2 lanes closed 7:00 pm Saturday to 9:00 am Sunday • 3 lanes closed 8:00 pm Saturday to 7:30 am Sunday

Nighttime Work - Where?



Nighttime Work - Why?

- Project improvements are along one of the busiest segments of the H-1 highway. Closure of a single lane during the daytime hours, when traffic volumes are highest, would result in significant congestion, traffic delays and related social and economic impacts to the public.
- Conducting the work when traffic volumes are lowest, including implementing lane closures and detours around active work areas, is safer for motorists and construction personnel.
- Conducting the work at night will shorten the overall project duration and minimize disruptions to the surrounding residents, businesses and motorists.

Equipment Sound Levels

Construction Equipment Sound Levels and Associated Work Activity						
Equipment Type	Sound Levels ¹ (dBA)	Work Activity ²				
		1	2	3	4	5
Slab Drill/ Drill Rig	75-98			✓		✓
Saw Cutter	95		✓			✓ ³
Bulldozer	73-95					✓
Skid Steer Loader	73-95			✓		✓
Fork Lift	73-95					✓
Water Truck	70-95	✓	✓	✓	✓	✓
Semi-trailer Truck	70-95	✓	✓	✓	✓	✓
Traffic Cone Truck	70-95	✓	✓	✓	✓	✓
Lube Truck	70-95	✓	✓	✓	✓	✓
Conveyer Truck	70-95			✓		✓
Paver – Asphalt	90	✓		✓		✓
Paver – Concrete	90					✓
Asphalt/Concrete Profile Grinder	90	✓		✓		✓
Hoe Ram Attachment	90			✓ ⁴		✓ ⁵
Trimmer/Placer	90					✓
Cold Planer	85-90	✓		✓		✓
Vacuum Truck	85					✓
Concrete Mixer	85			✓		✓
Rollers/Compactors (various sizes)	85			✓		✓

Equipment Sound Levels

Table 3: Construction Equipment Sound Levels and Associated Work Activity

Equipment Type	Sound Levels ¹ (dBA)	Work Activity ²				
		1	2	3	4	5
Motor Grader	85			✓		✓
Loaders (various sizes)	70-85	✓		✓		✓
Pneumatic Tools (impact wrench, driver)	65-85	✓	✓	✓	✓	✓
Tractor	84	✓	✓	✓	✓	✓
Sweeper Truck	82	✓	✓	✓		✓
Generators (various sizes)	60-82	✓	✓	✓	✓	✓
Excavators (various sizes)	81			✓		✓
Grout Pump	81			✓	✓	✓
Crane	81			✓		✓
Concrete Pump Truck	80			✓		✓
Flat Bed Trucks (various sizes)	55-80	✓	✓	✓	✓	✓
Air Compressors (various sizes)	55-80	✓	✓	✓	✓	✓
Fans, Small Power Tools	45-80	✓	✓	✓	✓	✓
Backhoes (various sizes)	78	✓		✓		✓
Pickup Trucks (various sizes)	55-70	✓	✓	✓	✓	✓
Lane Striping Equipment	55-70	✓			✓	✓

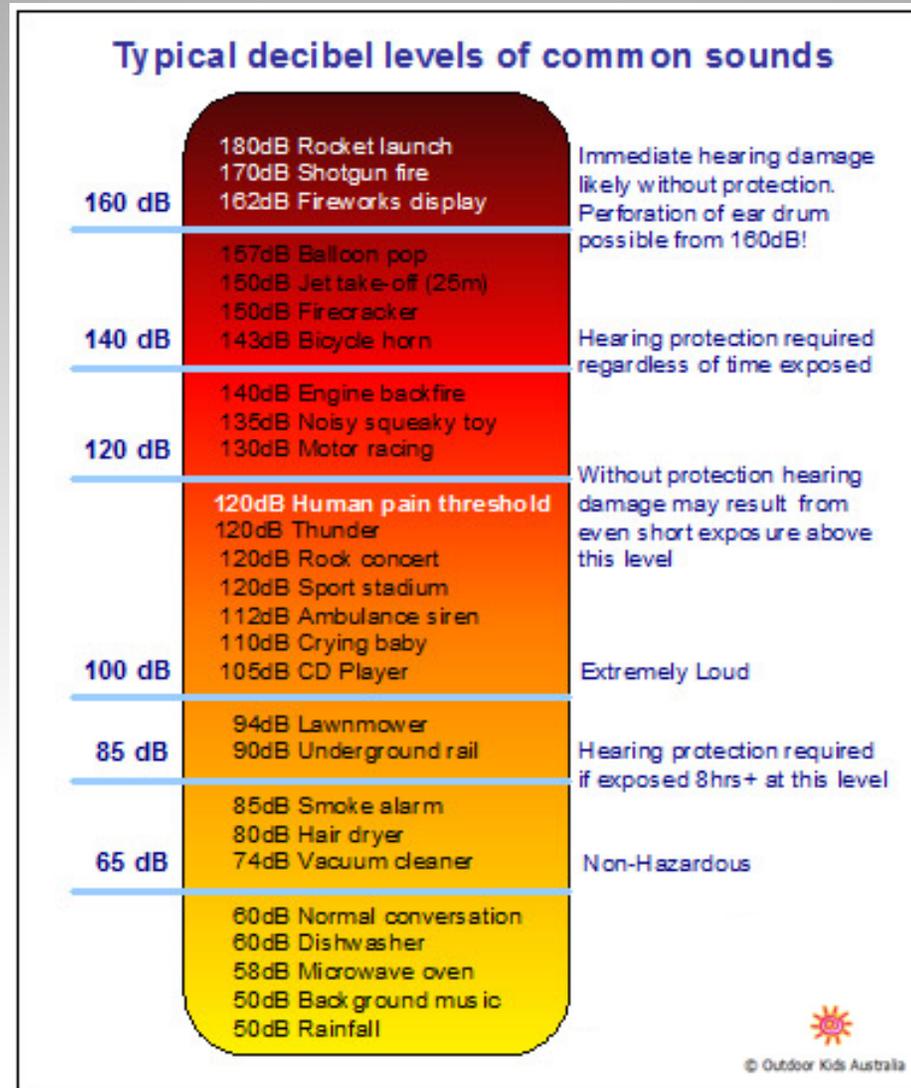
Notes:

1. Sound Levels – (dBA) From a distance of 50 Feet.
2. Work Activities 1 through 5 comprise:
 - Pavement Rehabilitation
 - Activity 1 – Mill and overlay existing pavement.
 - Activity 2 – Pre-sawcut existing pavement.
 - Activity 3 – Remove pavement, prepare subgrade and place new concrete panels.
 - Activity 4 – Grout new panels and install lane striping.
 - Shoulder Widening
 - Activity 5 – Construct new shoulder lanes, swales and retaining walls, and relocate utilities.

Equipment Sound Levels

- Hoe rams will be operated from 7:30 p.m. to midnight as necessary.
- Contractor plans to operate 1 to 2 hoe rams along the entire project corridor periodically throughout the project duration.
- Hoe rams generate approximately 90 dBA (equivalent to between a lawn mower and CD player).
- Noise mitigation through existing noise walls, significant distance to dwellings, and modifications if required.

Equivalent Sound Levels



Noise Mitigation Measures

- Jon Samole, Construction Manager, Kiewit Infrastructure West Co. can be reached at (808) 457-4500 to respond to complaints.
- **Project Hotline (808) 543-3569**, staffed 24 hours.
- Maintain all equipment in good working order.
- All equipment with an exhaust of gas or air will be equipped with mufflers.
- Noise abatement procedures will be implemented (e.g. disabling reverse alarms, voice control, use of signal callers).
- Hoe rams will not be operated after midnight.

Noise Mitigation Measures

- Use of flagmen, hand-signals – no shouting or beepers.
- Construction equipment with exposed engine compartments will not be allowed on the job site.
- Special low-noise generators will be used.
- Modify or add mitigation measures as required.
- Signs posted within the project area to provide daily status.
- Project website will be routinely updated with current project status and scheduled lane closures.

Status

- Currently conducting geotechnical analysis, completing design and permitting.
- Community noise variance – comments by March 9, 2018.
- Construction scheduled to start April 30, 2018.
- Notices will be mailed to residents and owners prior to start of construction.

Q & A

- Listen Respectfully
- Let everyone have a chance to speak
- Be considerate of the time

Contact Information

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Jim Niermann, Project Planner

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Kiewit Infrastructure West, Co

Jon Samole, Construction Manager

Kiewit Infrastructure West, Co.

707 Richards Street, Suite 750

Honolulu, HI 96813

(808) 457-4500

Project Website & Hotline:

Project information, updates and contact information:

<http://h1waimalu.com>

Hotline: (808) 543-3569

DOH Contact Information

Attn: Noise Section Supervisor
Indoor and Radiological Health Branch
Department of Health, State of Hawaii
99-945 Halawa Valley Street
Aiea, HI 96701

Phone: (808) 586-4700

Fax: (808) 586-5838

E-mail: james.toma@doh.Hawaii.gov

MAHALO!