

'EXHIBIT A'

# QUEEN STREET CATCH BASIN REPAIR

## HONOLULU, OAHU, HAWAII

## CONSTRUCTION DOCUMENTS



1907 South Beretania Street Suite 400  
Honolulu, Hawaii, U.S.A. 96826  
PH 808-946-2277 FX 808-946-2253  
www.wilsonokamoto.com

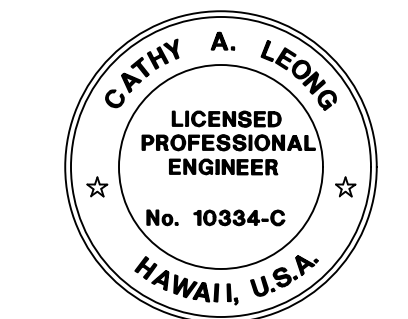
PROJECT ID

QUEEN STREET CATCH  
BASIN REPAIR  
HONOLULU, HAWAII

PREPARED FOR

HAWAII COMMUNITY  
DEVELOPMENT  
AUTHORITY

CONSULTANT



This work was prepared by me or under my supervision and control and I am a duly licensed Professional Engineer under Section 16-115-2 of Hawaii Administrative Rules, Professional Engineers, Architects, Surveyors, and Landscape Architects.  
*Cathy A. Leong*  
Signature Date: APRIL 30, 2024  
Note: Contractor shall check and verify all dimensions at job before proceeding with work.

DESIGNED BY: CD	SUPERVISED BY: CL
DRAWN BY: CD	CHECKED BY: CL
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SCALE: AS NOTED	DATE: AUGUST 2024

REV DATE DESCRIPTION

SHEET TITLE  
**TITLE SHEET  
WITH LOCATION  
MAP VICINITY  
MAP**

DRAWING NO.

**T-01**

1 of 5 sheets

### PROJECT TEAM

OWNER	CIVIL ENGINEER
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### ENGINEER'S CONSULTANTS

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COFFMAN ENGINEERS, INC. 745 FORT STREET #400 HONOLULU, HI 96813 TEL: 808.687.8884	CONTROL POINT SURVEYING, INC. 615 PIKIOI STREET, SUITE 700 HONOLULU, HI 96814 TEL: 808.591.2022 FAX: 808.591.8333

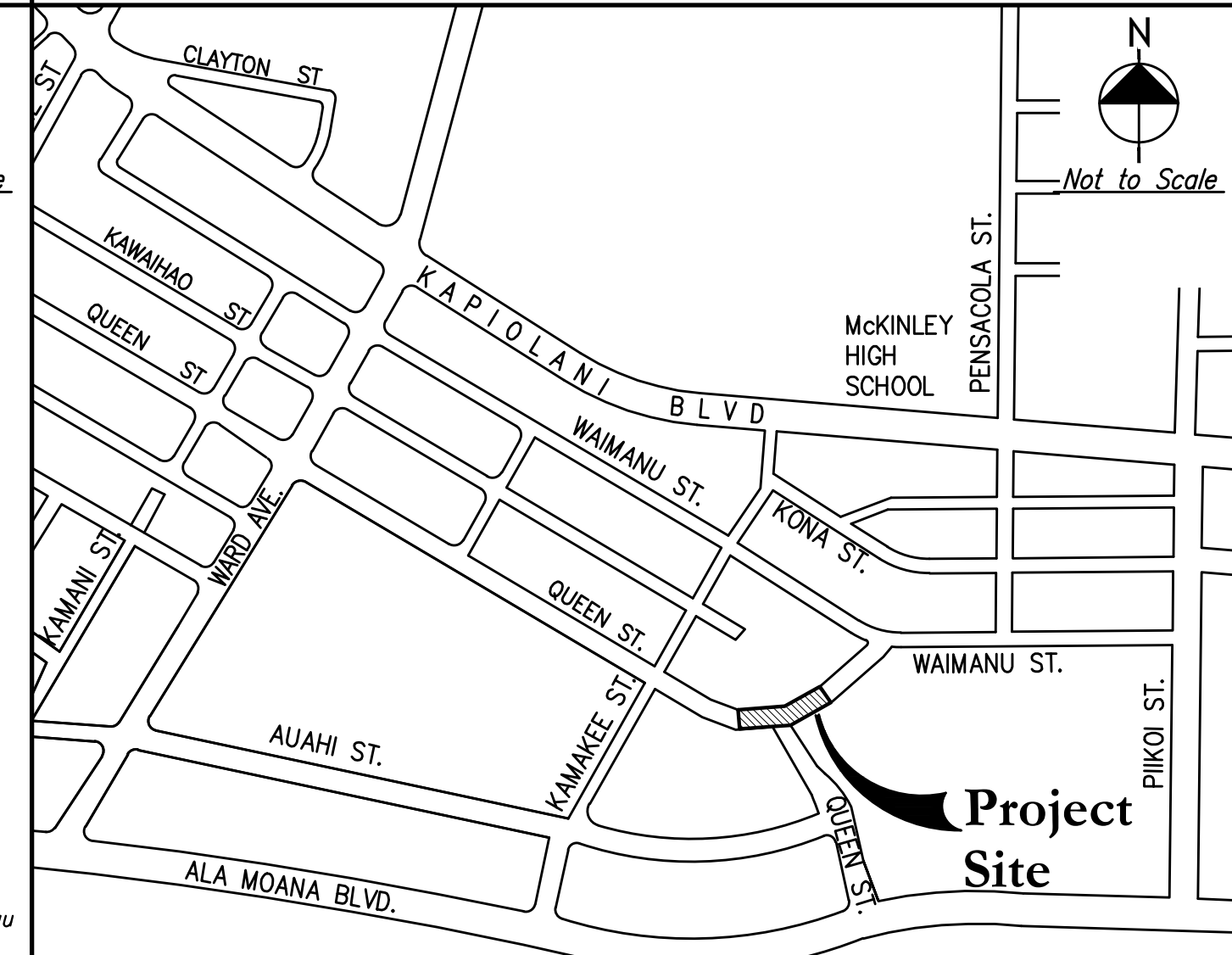
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### VICINITY MAP



### LOCATION MAP



**EROSION PREVENTION/ SEDIMENT CONTROL NOTES:**

- MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY CONSTRUCTION IS INITIATED.
- PERMANENT STABILIZATION  
ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED USING VEGETATIVE COVERING, PAVEMENT, OR EQUIVALENT, PRIOR TO REMOVING EROSION AND SEDIMENT MEASURES. TRAPPED SEDIMENT AND AREAS OF DISTURBED SOIL WHICH RESULT FROM THE REMOVAL OF THE TEMPORARY MEASURES SHALL BE IMMEDIATELY AND PERMANENTLY STABILIZED.
- PERIMETER CONTROLS  
PERIMETER CONTROLS ARE REQUIRED DOWNSLOPE OF EQUIPMENT/VEHICLE STAGING AREAS AT THE END OF EACH BUSINESS DAY AND AROUND MATERIAL STOCKPILES THAT ARE NOT ACTIVELY BEING USED. STOCKPILES ARE NOT ALLOWED IN THE CITY RIGHT-OF-WAY.
- INLET PROTECTION
  - ALL STORM DRAIN INLETS ONSITE AND THOSE OFFSITE WHICH MAY RECEIVE RUNOFF FROM THE SITE SHALL USE AN INLET PROTECTION DEVICE UNLESS THEY ARE DIRECTED TO A SEDIMENT BASIN.
  - SEDIMENT LEVELS MAY NOT EXCEED ONE THIRD OF THE HEIGHT OF A SEDIMENT BARRIER OR INLET PROTECTION DEVICE AT ANY POINT ALONG THE LENGTH OF THE SEDIMENT BARRIER OR THE INLET PROTECTION DEVICE.
  - SEDIMENT BARRIERS AND INLET PROTECTION DEVICES MUST BE UNCLOGGED AND CLEANED WHEN PERFORMANCE IS COMPROMISED.
  - TORN, WEATHERED OR SAGGING SEDIMENT BARRIERS OR INLET PROTECTION DEVICES MUST BE REPAIRED OR REPLACED IMMEDIATELY.
- TRACKING CONTROL
  - MINIMIZE SEDIMENT TRACK-OUT ONTO OFF-SITE STREETS, OTHER PAVED AREAS, AND SIDEWALKS FROM VEHICLES EXITING THE CONSTRUCTION SITE BY RESTRICTING VEHICLE TRAFFIC TO PROPERLY DESIGNATED AREAS AND USING ADDITIONAL CONTROLS TO REMOVE SEDIMENT FROM VEHICLE TIRES PRIOR TO EXITING THE SITE.
  - VEHICULAR PARKING AND MOVEMENTS ON PROJECT SITES MUST BE CONFINED TO PAVED SURFACES OR PREDEFINED PARKING AREAS AND VEHICLE PATHS, WHICH SHALL BE MARKED WITH FLAGS OR BOUNDARY FENCING.
  - ALL POLLUTANTS AND MATERIALS THAT ARE DROPPED, WASHED, TRACKED, SPILLED, OR OTHERWISE DISCHARGED FROM A PROJECT SITE TO OFF-SITE STREETS, OTHER PAVED AREAS, SIDEWALKS OR THE MS4 MUST BE CLEANED USING DRY METHODS SUCH AS SWEEPING OR VACUUMING.
  - WASHING POLLUTANTS AND MATERIALS THAT ARE DISCHARGED FROM THE PROJECT SITE TO THE MS4 INTO DRAIN INLETS OR CATCH BASINS IS PROHIBITED UNLESS THE MATERIAL IS SEDIMENT AND THE INLETS ARE DIRECTED TO A SEDIMENT BASIN OR SEDIMENT TRAP.
- BEST MANAGEMENT PRACTICES (BMPS) SHALL NOT BE REMOVED UNTIL FINAL STABILIZATION IS COMPLETE FOR THAT PHASE.
- THE FOLLOWING BMPS WERE DETERMINED TO BE NOT APPLICABLE BASED ON THE SPECIFIC SITE CONDITIONS. AS CONSTRUCTION PROGRESSES, REVISIONS MAY BE NECESSARY AND WILL BE PROVIDED TO DPP INSPECTORS.
  - DEWATERING OPERATIONS: GROUNDWATER IS NOT ANTICIPATED.
- REGULARLY INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROLS TO ENSURE CONTINUED PERFORMANCE.

**GOOD HOUSEKEEPING BMPS**

- STREET SWEEPING AND VACUUMING. ALL POLLUTANTS DISCHARGED FROM CONSTRUCTION SITE TO OFF-SITE AREAS MUST BE SWEEPED OR VACUUMED EACH DAY BEFORE LEAVING THE JOB SITE.
- MATERIALS DELIVERY, STORAGE AND USE MANAGEMENT. PREVENT, REDUCE, OR ELIMINATE THE DISCHARGE OF POLLUTANTS FROM MATERIAL DELIVERY, STORAGE, AND USE TO THE STORM WATER SYSTEM OR WATERCOURSES BY MINIMIZING THE STORAGE OF HAZARDOUS MATERIALS ONSITE, STORING MATERIALS IN A DESIGNATED AREA, INSTALLING SECONDARY CONTAINMENT. CONSTRUCTION MATERIALS, WASTE, TOXIC AND HAZARDOUS SUBSTANCES, STOCKPILES AND OTHER SOURCES OF POLLUTION SHALL NOT BE STORED IN BUFFER AREAS, NEAR AREAS OF CONCENTRATED FLOW, OR AREAS ABUTTING THE MS4, RECEIVING WATERS, OR DRAINAGE IMPROVEMENTS THAT DISCHARGE OFF-SITE. PRIMARY AND SECONDARY CONTAINMENT CONTROLS AND COVERS SHALL BE IMPLEMENTED TO THE MEP.
- SPILL PREVENTION AND CONTROL. CREATE AND IMPLEMENT SPILL PREVENTION AND RESPONSE PLANS TO ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO THE MS4 AND RECEIVING WATERS FROM LEAKS AND SPILLS BY REDUCING THE CHANCE FOR SPILLS, ABSORBING, CONTAINING, AND CLEANING UP SPILLS AND PROPERLY DISPOSING OF SPILL MATERIALS. AT A MINIMUM, ALL PROJECTS SHALL CLEANUP ALL LEAKS AND SPILLS IMMEDIATELY.
- HAZARDOUS MATERIALS. PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM HAZARDOUS WASTE THROUGH PROPER MATERIAL USE AND WASTE DISPOSAL. IN THE EVENT THAT HAZARDOUS MATERIALS ARE DISCHARGED TO THE MS4, THE PROPERTY OWNER SHALL IMMEDIATELY NOTIFY THE HONOLULU FIRE DEPARTMENT AND HONOLULU POLICE DEPARTMENT OF THE DISCHARGE BY TELEPHONE.
- VEHICLE AND EQUIPMENT CLEANING. ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM VEHICLE AND EQUIPMENT CLEANING OPERATIONS BY USING OFF-SITE FACILITIES WHEN FEASIBLE, WASHING IN DESIGNATED, CONTAINED AREAS ONLY, AND ELIMINATING DISCHARGES TO THE STORM DRAIN SYSTEM BY EVAPORATING AND/OR TREATING WASH WATER, AS APPROPRIATE OR INFILTRATING WASH WATER FOR EXTERIOR CLEANING ACTIVITIES THAT USE WATER ONLY.
- VEHICLE AND EQUIPMENT FUELING. PREVENT FUEL SPILLS AND LEAKS BY USING OFF-SITE FACILITIES, FUELING ONLY IN DESIGNATED AREAS, ENCLOSING OR COVERING STORED FUEL, AND IMPLEMENTING SPILL CONTROLS SUCH AS SECONDARY CONTAINMENT AND ACTIVE MEASURES USING SPILL RESPONSE KITS.
- VEHICLE AND EQUIPMENT MAINTENANCE. ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM VEHICLE AND EQUIPMENT MAINTENANCE OPERATIONS BY USING OFF-SITE FACILITIES WHEN FEASIBLE, PERFORMING WORK IN DESIGNATED AREAS ONLY, USING SPILL PADS UNDER VEHICLES AND EQUIPMENT, CHECKING FOR LEAKS AND SPILLS, AND CONTAINING AND CLEANING UP SPILLS IMMEDIATELY.
- SOLID WASTE MANAGEMENT. PREVENT OR REDUCE DISCHARGE OF POLLUTANTS TO THE LAND, GROUNDWATER, AND IN STORM WATER FROM SOLID WASTE OR CONSTRUCTION AND DEMOLITION WASTE BY PROVIDING DESIGNATED WASTE COLLECTION AREAS, COLLECT SITE TRASH DAILY, AND ENSURING THAT CONSTRUCTION WASTE IS COLLECTED, REMOVED, AND DISPOSED OF ONLY AT AUTHORIZED DISPOSAL AREAS.
- SANITARY/SEPTIC WASTE MANAGEMENT. TEMPORARY AND PORTABLE SANITARY AND SEPTIC WASTE SYSTEMS SHALL BE MOUNTED OR STAKED IN, WELL-MAINTAINED AND SCHEDULED FOR REGULAR WASTE DISPOSAL AND SERVICING. SOURCES OF SANITARY AND/OR SEPTIC WASTE SHALL NOT BE STORED NEAR THE MS4 OR RECEIVING WATERS.
- STOCKPILE MANAGEMENT. STOCKPILES SHALL NOT BE LOCATED IN DRAINAGE WAYS, WITHIN 50 FEET FROM AREAS OF CONCENTRATED FLOWS, AND ARE NOT ALLOWED IN THE CITY RIGHT-OF-WAY. SEDIMENT BARRIERS OR SILT FENCES SHALL BE USED AROUND THE BASE OF ALL STOCKPILES. STOCKPILES SHALL NOT EXCEED 15 FEET IN HEIGHT. STOCKPILES MUST BE COVERED WITH PLASTIC SHEETING OR A COMPARABLE MATERIAL IF THEY WILL NOT BE ACTIVELY USED WITHIN 7 DAYS.
- LIQUID WASTE MANAGEMENT. LIQUID WASTE SHALL BE CONTAINED IN A CONTROLLED AREA SUCH AS A HOLDING PIT, SEDIMENT BASIN, ROLL-OFF BIN, OR PORTABLE TANK OF SUFFICIENT VOLUME AND TO CONTAIN THE LIQUID WASTES GENERATED. CONTAINMENT AREAS OR DEVICES MUST BE IMPERMEABLE AND LEAK FREE AND SHOULD NOT BE LOCATED WHERE ACCIDENTAL RELEASE OF THE CONTAINED LIQUID CAN DISCHARGE TO WATER BODIES, CHANNELS, OR STORM DRAINS.
- CONCRETE WASTE MANAGEMENT. PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFFSITE OR PERFORMING ONSITE WASHOUT IN A DESIGNATED AREA CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MILLIMETER POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL. CONTAINMENT AREAS OR DEVICES SHOULD NOT BE LOCATED WHERE ACCIDENTAL RELEASE OF THE CONTAINED LIQUID CAN DISCHARGE TO WATER BODIES, CHANNELS, OR STORM DRAINS. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75 PERCENT FULL. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF AS SOLID WASTES.
- CONTAMINATED SOIL MANAGEMENT. AT MINIMUM CONTAIN CONTAMINATED MATERIAL SOIL BY SURROUNDING WITH IMPERMEABLE LINED BERMS OR COVER EXPOSED CONTAMINATED MATERIAL WITH PLASTIC SHEETING. CONTAMINATED SOIL SHOULD BE DISPOSED OF PROPERLY IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- DUST CONTROL. DUST FROM THE PROJECT SITE SHALL NOT BE TRANSPORTED OR DISCHARGED TO OFF-SITE AREAS.

**PROJECT SEQUENCE**

- INSTALL INLET PROTECTION AND PERIMETER CONTROLS AROUND STAGING AREAS AND MATERIAL STOCKPILES AS NEEDED.
- PROCEED WITH CONSTRUCTION WITH LEAST POSSIBLE DISTURBANCE OF VEGETATIVE AND TEMPORARY STRUCTURES.
- INSTALL PERIMETER CONTROLS AROUND ACTIVE WORK AREAS AT THE END OF EACH BUSINESS DAY IF NOT STABILIZED.
- PLANT PERMANENT GROUND COVER ACCORDING TO THE LANDSCAPING PLAN AS SOON AS POSSIBLE.
- REMOVE OR DISMANTLE TEMPORARY EROSION CONTROL STRUCTURES AFTER PERMANENT STABILIZATION.

**RAIN RESPONSE PLAN**

THE FOLLOWING WILL BE PERFORMED WHEN RAIN IS IMMINENT OR IS FORECASTED IN THE NEXT 48 HOURS:

- INSPECT ALL PERIMETER CONTROLS AND INLET PROTECTION DEVICES, AND MAINTAIN AS NEEDED. REINSTALL ANY PERIMETER CONTROLS THAT WERE REMOVED DUE TO ACTIVE WORK IN THE AREA. IF A SEVERE STORM IS EXPECTED, REMOVE INLET PROTECTION DEVICES TO PREVENT FLOODING ON SURROUNDING STREETS.
- COVER OR RELOCATE MATERIAL STOCKPILES AND LIQUID MATERIAL CONTAINERS TO AVOID CONTACT WITH RAINWATER.
- PLACE SPILL PANS OR OIL-ONLY SPILL PADS UNDER CONSTRUCTION VEHICLES TO PREVENT RUNOFF FROM CONTACTING ANY SPILLED PETROLEUM PRODUCTS. PROPERLY DISPOSE OF ANY ACCUMULATED OILY WATER AFTER THE RAIN EVENT.
- RE-INSPECT AFTER THE RAIN EVENT AND REPLACE OR MAINTAIN BMPS AS NEEDED.



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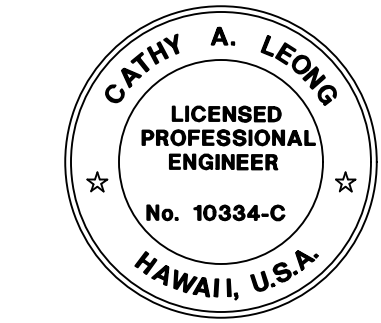
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BASIN REPAIR  
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PREPARED FOR

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AUTHORITY

CONSULTANT



This work was prepared by me or under my supervision and constitutes my best professional judgment. I am not responsible for any errors or omissions in this work or for any consequences arising therefrom. I warrant that this work complies with the applicable laws, rules, regulations, and standards of the State of Hawaii. I warrant that this work complies with the applicable laws, rules, regulations, and standards of the State of Hawaii. I warrant that this work complies with the applicable laws, rules, regulations, and standards of the State of Hawaii.

*Cathy A. Leong* APRIL 30, 2026  
Signature Date  
Note: Contractor shall check and verify all dimensions at job before proceeding with work.

DESIGNED BY: CD	SUPERVISED BY: CL
DRAWN BY: CD	CHECKED BY: CL
CAD FILE:	PROJECT NO.: 10736-01
SCALE: AS NOTED	DATE: AUGUST 2024


REV	DATE	DESCRIPTION
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SHEET TITLE

EROSION AND  
SEDIMENT  
CONTROL NOTES

DRAWING NO.

**T-02**

2 of 5 sheets

## GENERAL NOTES

- VERIFY ALL FIELD DIMENSIONS AND CONDITIONS PRIOR TO STARTING WORK. DISCREPANCIES MUST BE PROMPTLY REPORTED IN WRITING TO THE ENGINEER FOR RESOLUTION OR CLARIFICATION.
- OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE DRAWINGS AND/OR SPECIFICATIONS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- CONTRACTOR MUST BE RESPONSIBLE FOR ERECTING SAFETY BARRIERS, WARNING SIGNS, CONTROLLING TRAFFIC, AND ALL OTHER ISSUES RELATED TO JOBSITE SAFETY.
- CONTRACTOR MUST BE RESPONSIBLE FOR THE DESIGN AND PROVISION OF ALL FORM WORK, TEMPORARY BRACING, SHORING, ETC.
- WHEN FINE CRACKS OR HAIR CHECKS APPEAR IN NEWLY PLACED CONCRETE BEFORE IT IS THOROUGHLY SET, IMMEDIATE STEPS SHALL BE TAKEN BY THE CONTRACTOR TO REMEDY THE CONDITION.
- SIDEWALKS WHICH IS NOT ACCEPTABLE BY THE ENGINEER BECAUSE OF DAMAGE OR DEFACEMENT SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.

## CONCRETE REPAIR NOTES:

### 1. CONCRETE REPAIR MATERIAL

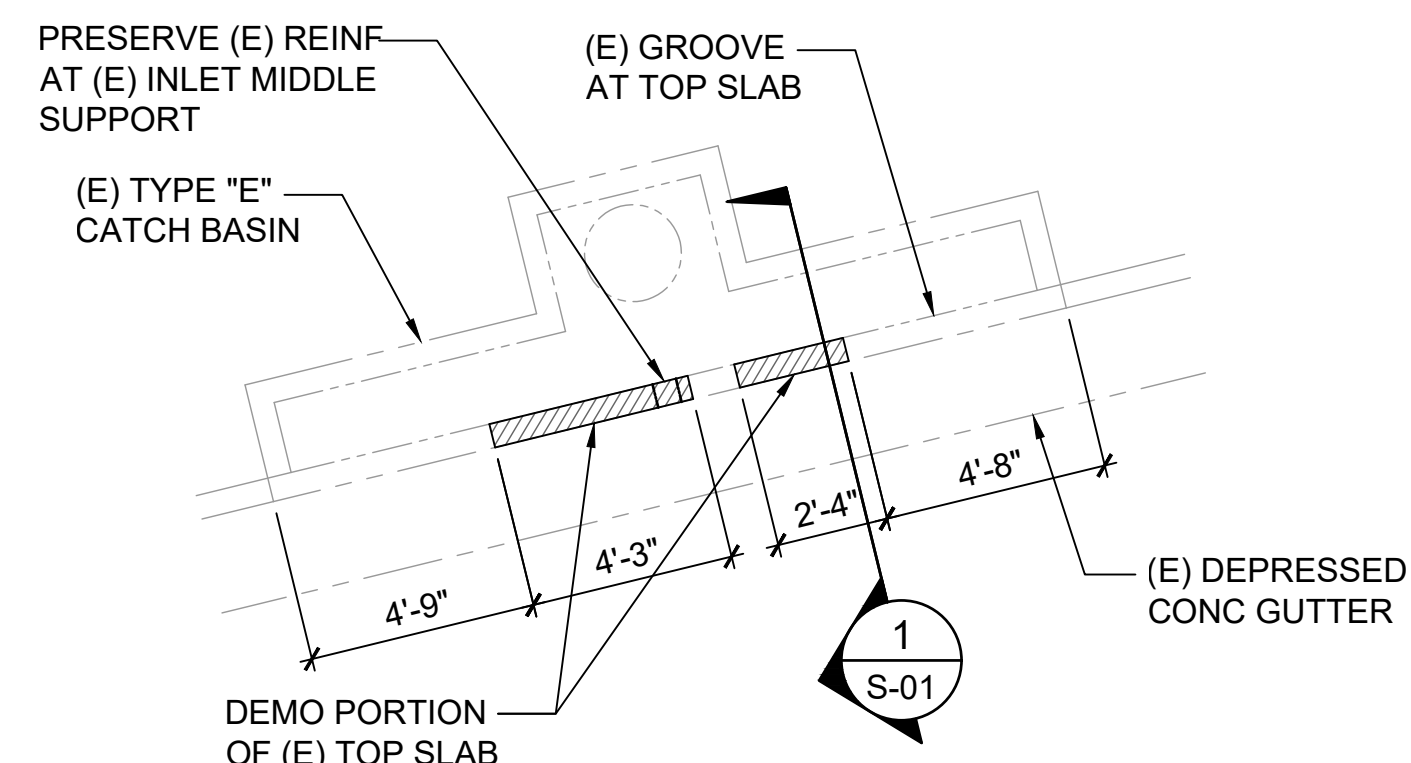
- USE PRODUCTS FOR CONCRETE SPALL REPAIR THAT ARE SPECIFICALLY DESIGNED FOR THE STRUCTURAL REPAIR OF DAMAGED CONCRETE. SUBMIT ALL PRODUCTS FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIAL.
- SUBMIT PRODUCT DATA, INCLUDING MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, FOR REVIEW BY THE ENGINEER PRIOR TO ORDERING MATERIAL.
- CONCRETE REPAIR MATERIAL SHALL BE A FACTORY BLENDED PATCHING MATERIAL CONTAINING LATEX POLYMER TYPE ADMIXTURE, SYNTHETIC FIBER AND CORROSION INHIBITOR, HAVING A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS AND MAXIMUM WATER/CEMENT RATIO OF 0.40.
- STRICTLY FOLLOW THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS ON THE AMOUNT OF WATER TO BE ADDED.
- WHEN RECOMMENDED BY THE MANUFACTURER FOR LARGER REPAIRS, ADD AGGREGATE TO THE MIX. THE APPROPRIATE AGGREGATE SIZE MUST BE SPECIFIED BY THE MANUFACTURER.
- AFTER MIXING, THE REPAIR MATERIAL MUST HAVE THE APPROPRIATE WORKABILITY FOR PLACEMENT IN FORMS. SUPERPLASTICIZER ADMIXTURE MUST NOT BE ADDED UNLESS SPECIFICALLY ALLOWED BY PATCHING MORTAR MANUFACTURER.

### 2. REINFORCING STEEL:

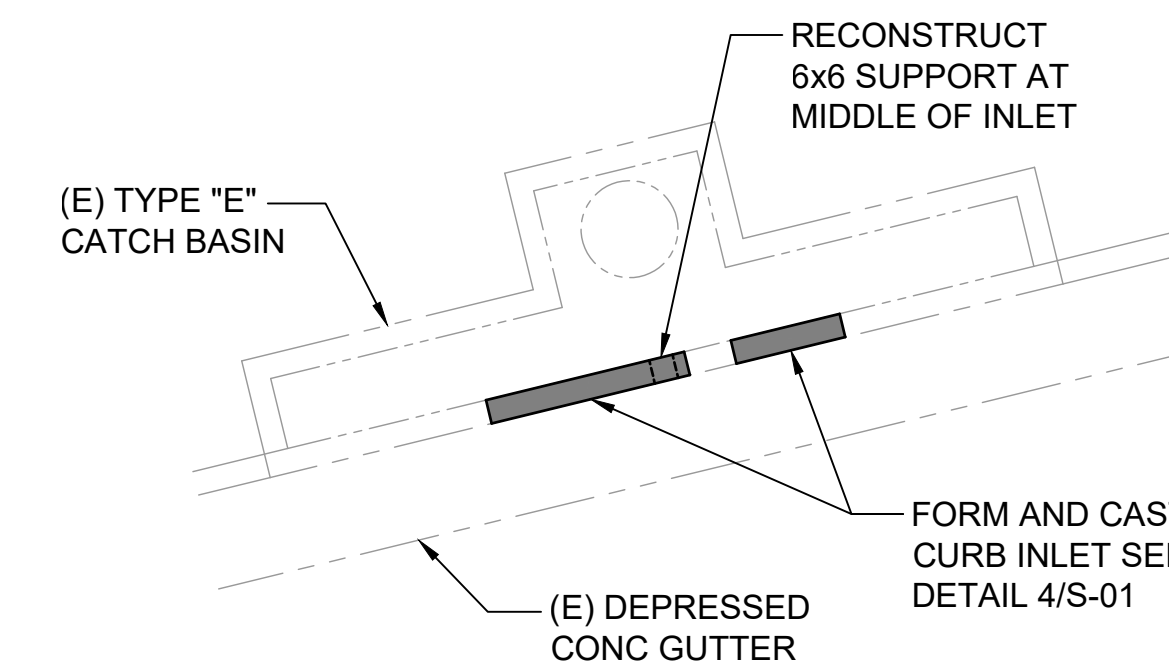
- STEEL REINFORCEMENT USED IN CONCRETE REPAIRS MUST BE DEFORMED BAR CONFORMING TO ASTM A615 OR A706, GRADE 60.
- STEEL REINFORCEMENT MUST BE FREE OF LOOSE RUST OR ANY SUBSTANCE THAT WILL INHIBIT BONDING WITH EPOXY OR CONCRETE REPAIR MATERIAL.

### 3. CONCRETE REPAIR PROCEDURE:

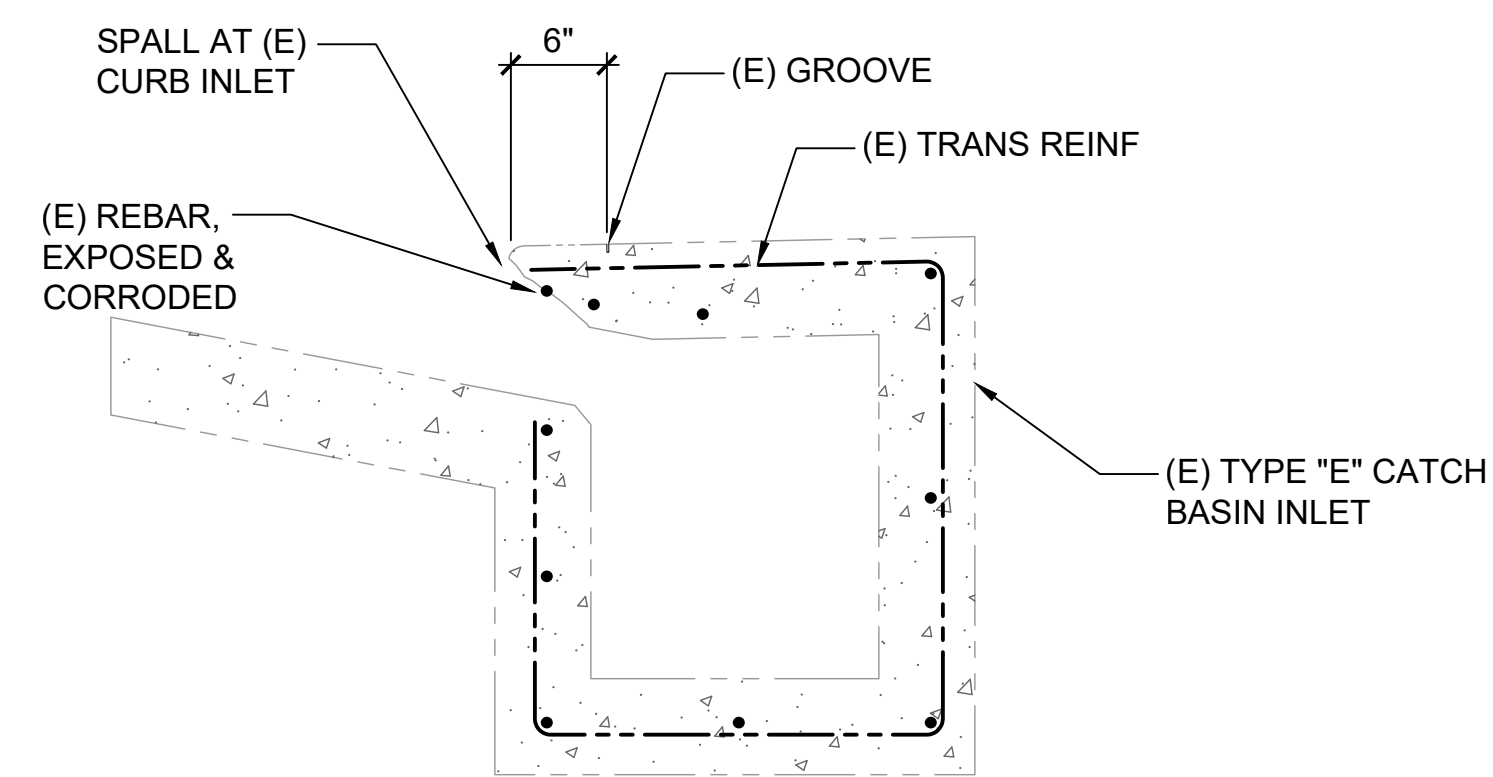
- CONTRACTOR SHALL USE MATERIAL SUPPLIERS AND EXPERIENCED PERSONNEL FAMILIAR IN CONCRETE REPAIR AND RESTORATION WORK. MANUFACTURER OF REPAIR PRODUCTS MUST HAVE A REPRESENTATIVE IN HAWAII THAT CAN ADVISE AS TO THE PROPER USE OF THEIR PRODUCT.
- PRIOR TO STARTING ANY DEMOLITION WORK, PERFORM A VISUAL SURVEY OF THE TOP AND SOFFIT OF THE CATCH BASIN TOP SLAB. DELAMINATED OR SPALLED CONCRETE IN AREAS BEYOND WHAT IS SHOWN ON THE DEMOLITION PLAN, AND CRACKS IN THE CONCRETE WIDER THAN 0.03-INCH MUST BE REPORTED TO THE ENGINEER. ADDITIONAL REPAIRS WILL ONLY BECOME A PART OF THE WORK UPON APPROVAL BY OWNER'S REPRESENTATIVE.
- ON-SITE OBSERVATION BY THE CONTRACTOR AND MATERIAL MANUFACTURER'S REPRESENTATIVE MUST ALSO BE INCLUDED AS NEEDED. ANY REVISIONS OR RECOMMENDATIONS TO IMPROVE REPAIR MATERIALS OR METHODS MUST BE SUBMITTED IN WRITING TO THE ENGINEER PRIOR TO STARTING THE WORK.
- BEFORE ANY DEMOLITION, CHIPPING, JACK HAMMERING, DRILLING, CORING, OR ANY OTHER DESTRUCTIVE REMOVAL WORK BEGINS, CONTRACTOR MUST VERIFY THAT THE OPERATION WILL NOT INJURE, OVERSTRESS, CRACK AND BREAK OR OTHERWISE DAMAGE EXISTING WORK TO REMAIN. PROVIDE SHORING, AS NEEDED, FOR THE SLAB PRIOR TO DEMOLITION WORK, AND LEAVE IN PLACE UNTIL REPAIR MATERIAL HAS PROPERLY CURED.
- REMOVE DAMAGED, DETERIORATED, LOOSENED (DELAMINATED), OR UNBONDED PORTIONS OF EXISTING CONCRETE UNTIL SOUND CONCRETE IS ENCOUNTERED. SOUND CONCRETE IS THE CONDITION WHERE THE EXPOSED SURFACE IS FIRMLY BONDED TO THE SURROUNDING CONCRETE AND DEVOID OF LOOSE PIECES, CRACKS, AND DELAMINATIONS (UNBONDED CONDITION BELOW THE SURFACE.) WHEN STRUCK WITH A HAMMER, SOUND CONCRETE WILL NOT PRODUCE A HOLLOW SOUND. IF A HOLLOW SOUND IS HEARD WHEN THE SURFACE IS STRUCK WITH A HAMMER, THE SURFACE CONCRETE IS NOT BONDED TO THE CONCRETE BELOW.
- CHIPPED OUT REPAIR AREA MUST NOT BE LESS THAN 3/4 INCH CLEAR BELOW, ABOVE, AND BEHIND EXPOSED, CORRODED REINFORCING BARS.
- EDGES OF THE CHIPPED OUT AREA MUST BE SAW CUT PERPENDICULAR TO THE CONCRETE SURFACE FOR A MINIMUM DEPTH OF AT LEAST 3/4 INCH OR TO THE MINIMUM THICKNESS REPAIR MATERIAL MAY BE APPLIED, WHICHEVER IS GREATER. DO NOT SAW CUT THROUGH EXISTING REINFORCING BARS. DO NOT FEATHEREDGE THE REPAIR MATERIAL.
- EXPOSED EXISTING STEEL REINFORCEMENT SHALL BE CLEANED OF ALL SCALE, RUST, DIRT, OIL OR ANY OTHER DELETERIOUS MATERIAL.
- AFTER CLEANED BY HAND TOOLS OR WIRE BRUSH, MEASURE THE DIAMETER OF THE EXPOSED TRANSVERSE REBAR AT THE EDGE OF THE CHIPPED OUT AREA. WHERE TRANSVERSE BARS HAVE DIAMETERS OF LESS THAN 7/16-INCH, ADD EPOXY DOWEL NEXT TO EXISTING LONGITUDINAL BAR. SEE TYPICAL DETAIL.
- IF NEEDED, MECHANICALLY ROUGHEN CONCRETE SURFACE TO PROMOTE BONDING OF THE REPAIR MATERIAL. THOROUGHLY CLEAN THE REPAIR ARE OF ALL DUST AND DEBRIS FROM THE CONCRETE AND STEEL SURFACES.
- FORM REPAIR AREA TO MATCH STANDARD CURB INLET SHOWN IN THE CITY AND COUNTY OF HONOLULU, DEPARTMENT OF PUBLIC WORKS, STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION.
- APPLY LATEX POLYMER BONDING AGENT TO SURFACE OF EXISTING CONCRETE PRIOR TO PLACING CONCRETE REPAIR MATERIAL. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR SURFACE PREPARATION AND USAGE OF THE BONDING AGENT. APPLY CORROSION INHIBITOR SUCH AS "DURALPREP A.C." BY EUCLID CHEMICAL, "ARMATEC 1C" BY SIKA, OR "MAPEFER 1K" BY MAPEI, DIRECTLY TO ALL REINFORCING PRIOR TO PLACEMENT OF CONCRETE. PLACE REPAIR MATERIAL WITHIN THE OPEN TIME OF THE BONDING AGENT.
- PLACE CONCRETE REPAIR MATERIAL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CONSOLIDATE WITH MECHANICAL VIBRATION AS NEEDED TO CONSOLIDATE MATERIAL.
- FINISH SURFACE OF CONCRETE REPAIRS TO MATCH EXISTING SURFACE FINISH IMMEDIATELY ADJACENT TO REPAIR.
- FOLLOW MANUFACTURER'S INSTRUCTIONS FOR CURING OF THE REPAIR MATERIAL. PROTECT REPAIR FROM DAMAGE OR LOADING UNTIL THE MATERIAL HAS ACHIEVED ITS DESIGN STRENGTH.
- CAREFULLY REMOVE FORMWORK TO AVOID DAMAGE TO THE SURFACE OF THE REPAIR. HONEYCOMBS OR OTHER SURFACE DEFECTS SHALL BE PATCHED PER THE MANUFACTURER'S INSTRUCTION.



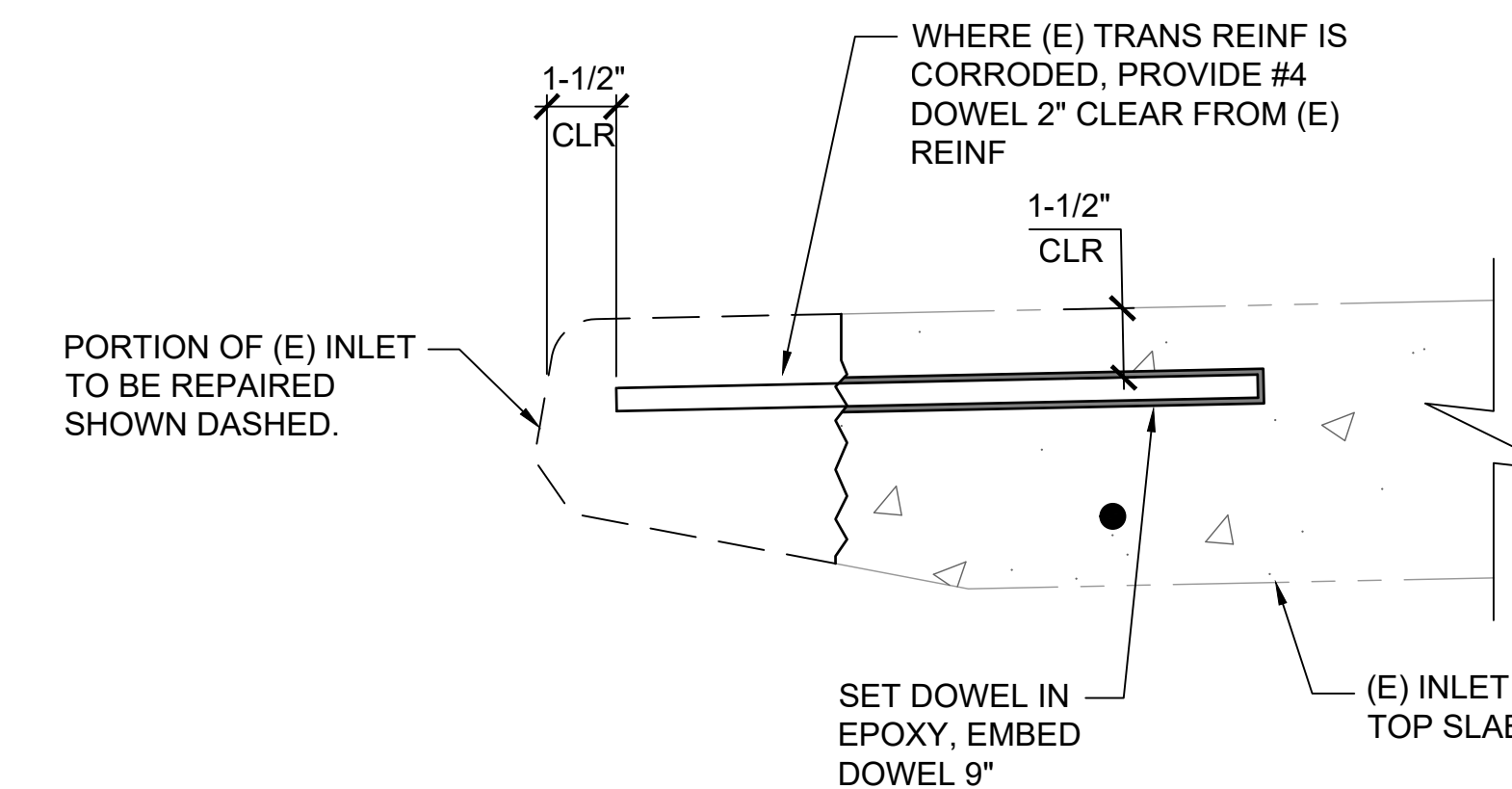
**A** EXISTING CATCH BASIN DEMO PLAN  
S-01 SCALE: 1/4" = 1'-0"



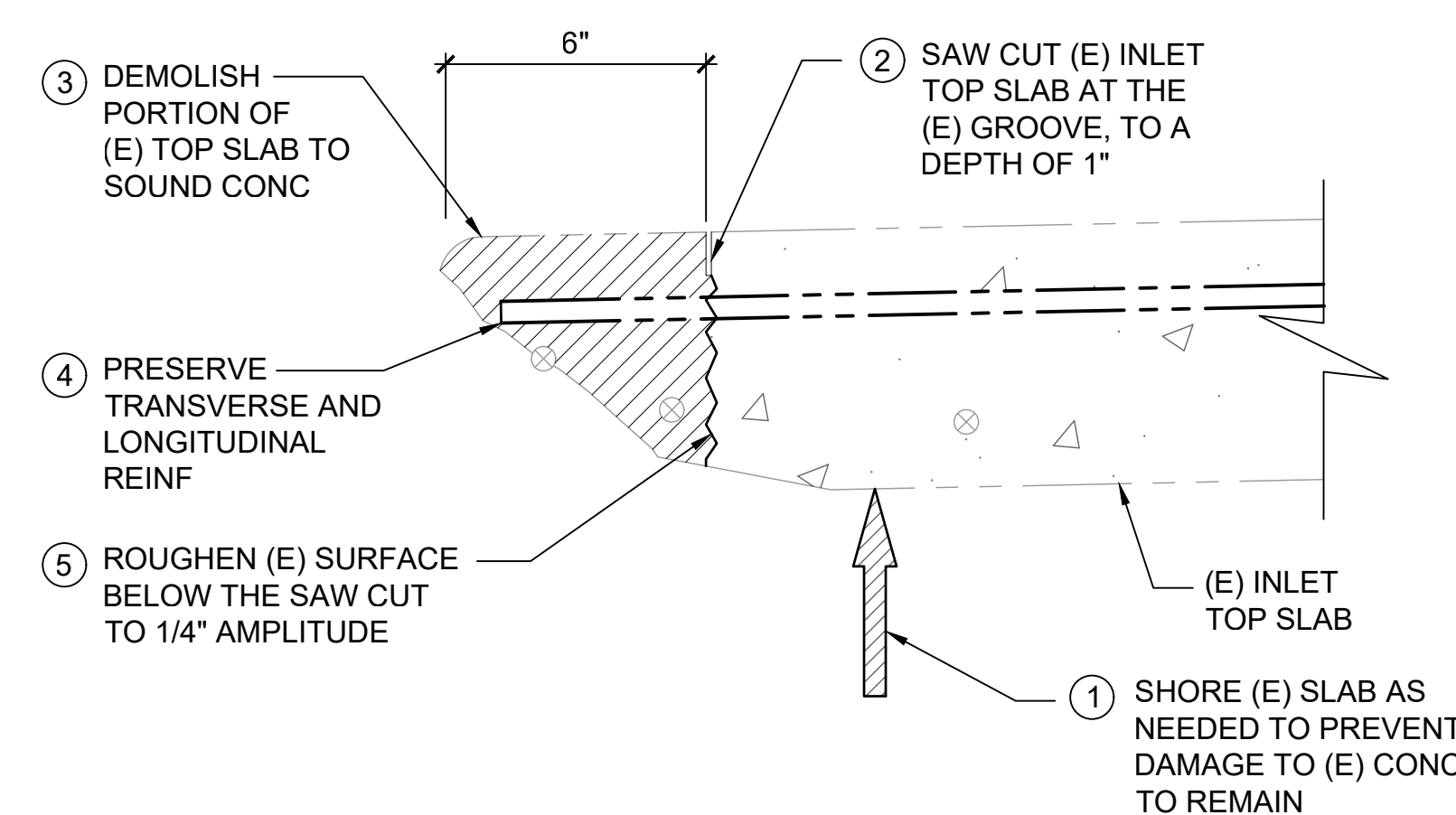
**B** EXISTING CATCH BASIN REPAIR PLAN  
S-01 SCALE: 1/4" = 1'-0"



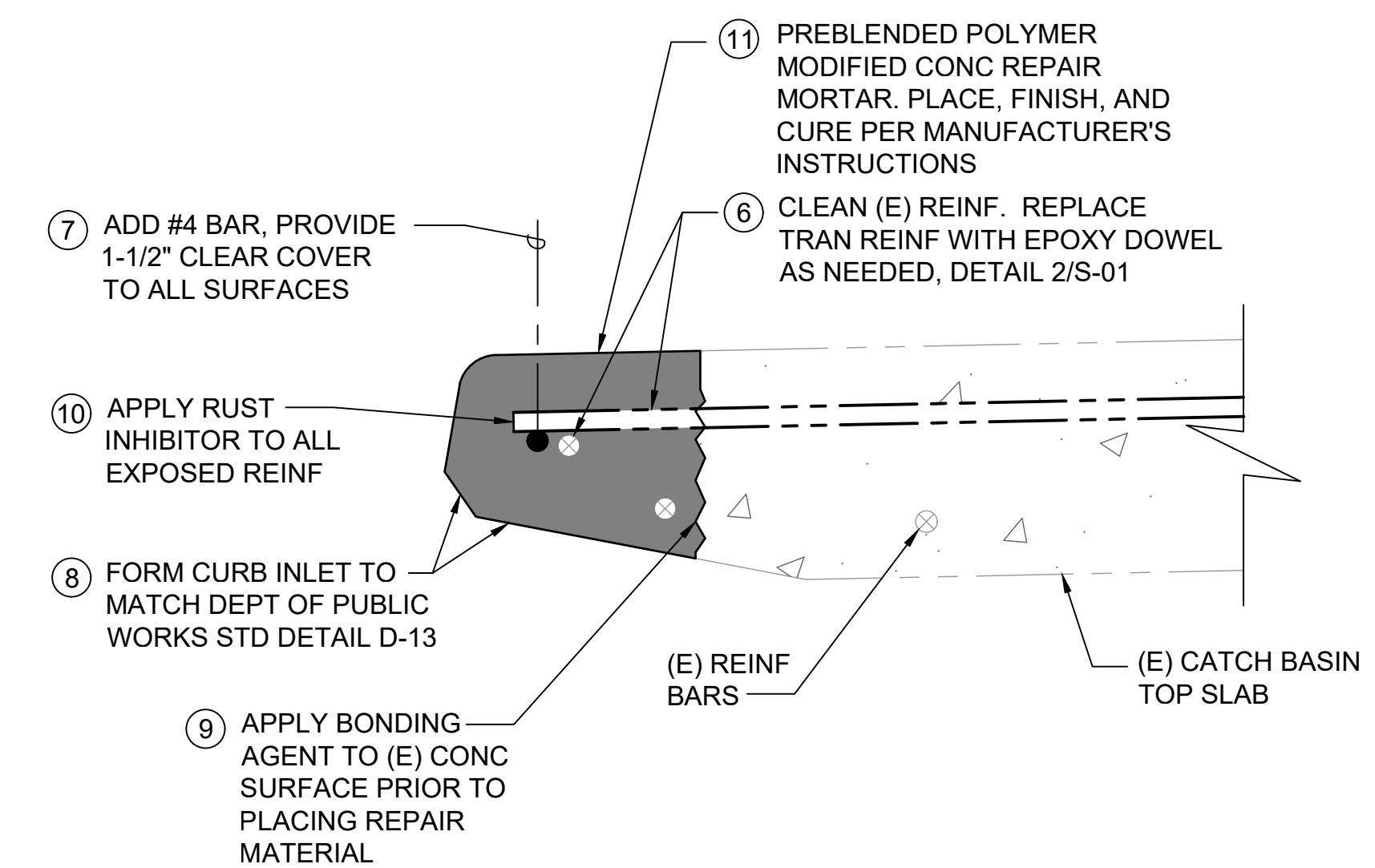
**1** EXISTING DRAIN INLET SECTION  
S-01 SCALE: 1" = 1'-0"



**2** TYP EPOXY DOWEL DETAIL  
S-01 SCALE: 3" = 1'-0"



**3** DEMO OF DAMAGED CONCRETE  
S-01 SCALE: 3" = 1'-0"



**4** REPAIR OF INLET  
S-01 SCALE: 3" = 1'-0"



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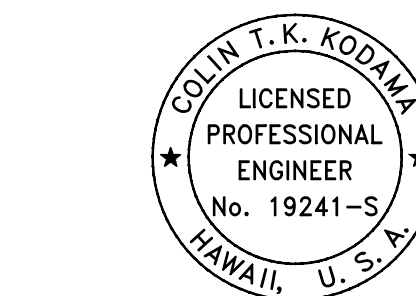
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THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION AND  
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WILL BE UNDER MY OBSERVATION.

Signature Expires: 04/30/2026

DESIGNED BY: MWM	SUPERVISED BY:
DRAWN BY: MTMMWM	CHECKED BY: CTK
CAD FILE:	PROJECT NO.:
SCALE: AS NOTED	DATE: AUGUST 2024

REV	DATE	DESCRIPTION

SHEET TITLE  
EXISTING CATCH  
BASIN DEMO AND  
REPAIR NOTES,  
PLANS AND DETAILS

DRAWING NO.

S-01

3 of 5 sheets

**GENERAL NOTES FOR TRAFFIC CONTROL PLAN**

1. THE PERMITTEE SHALL MAKE MINOR ADJUSTMENTS AT INTERSECTIONS, DRIVEWAYS, BRIDGES, STRUCTURES, ETC., TO FIT FIELD CONDITIONS.
2. CONES OR DELINEATORS SHALL BE EXTENDED TO POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
3. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED SUCH THAT THE SIGN OR DEVICE FARTHEST FROM THE WORK AREA IS PLACED FIRST. THE OTHERS SHALL THEN BE PLACED PROGRESSIVELY TOWARD THE WORK AREA.
4. REGULATORY AND WARNING SIGNS WITHIN THE CONSTRUCTION ZONE THAT ARE IN CONFLICT WITH THE TRAFFIC CONTROL PLANS SHALL BE REMOVED OR COVERED.
5. FLAGGERS AND/OR POLICE OFFICERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
6. WHEN REQUIRED BY THE ISSUING OFFICE, THE PERMITTEE SHALL INSTALL A FLASHING ARROW SIGNAL AS SHOWN ON THE TRAFFIC CONTROL PLANS.
7. ALL TRAFFIC LANES SHALL BE A MINIMUM OF 10 FEET WIDE.
8. ALL CONSTRUCTION WARNING SIGNS SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.
9. THE BACKS OF ALL SIGNS USED FOR TRAFFIC CONTROL SHALL BE APPROPRIATELY COVERED TO PRECLUDE THE DISPLAY OF INAPPLICABLE SIGN MESSAGES (I.E., WHEN SIGNS HAVE MESSAGES ON BOTH FACES).
10. LANE CLOSURE SHALL BE LIMITED ONLY TO THE EXTENT OF ACCOMPLISHING EACH DAY'S WORK. AS SOON AS EACH DAY'S WORK IS COMPLETED, THE PERMITTEE SHALL REMOVE ALL TRAFFIC CONTROL DEVICES NO LONGER NEEDED TO PERMIT FREE AND SAFE PASSAGE OF PUBLIC TRAFFIC. REMOVAL SHALL BE IN THE REVERSE ORDER OF INSTALLATION. EXISTING FADED OR OBLITERATED PAVEMENT MARKINGS THAT ARE NECESSARY FOR SAFE TRAFFIC FLOW IN THE CONSTRUCTION AREA SHALL BE REPLACED WITH TEMPORARY OR PERMANENT MARKINGS BEFORE OPENING THE ROADWAY TO PUBLIC TRAFFIC EACH DAY.
11. PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNS SHALL BE REPLACED UPON COMPLETION OF EACH PHASE OF WORK.
12. CONES AND DELINEATORS SHALL BE SPACED AT A MAXIMUM DISTANCE OF 20 FEET APART. A MINIMUM OF SIX CHANNELIZING DEVICES SHALL BE USED FOR EACH TAPER LENGTH.
13. DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THE DRIVEWAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY. FURTHER, THE PERMITTEE SHALL CONTROL TRAFFIC GOING INTO AND OUT OF DRIVEWAYS.
14. BUFFER AND TAPER AREA ON APPROACH TO ANY WORK AREA SHALL BE KEPT CLEAR OF VEHICLES AND EQUIPMENT.
15. A HIGH LEVEL WARNING DEVICE (FLAG TREE) SHALL BE INSTALLED ON APPROACH TO ALL WORK AREAS.
16. "NO PARKING" SIGNS SHALL BE POSTED WITHIN ANY WORK AREA AND FOR THE BUFFER AND TAPER AREAS APPROACHING THE WORK AREA.
17. WHERE AN ACCESSIBLE AN PEDESTRIAN ROUTE IS CLOSED OR BLOCKED DURING CONSTRUCTION, CONTRACTOR TO PROVIDE TEMPORARY, ACCESSIBLE PEDESTRIAN ROUTE.
18. IN CASE OF THE 8:30 AM – 3:30 PM WORK, AT NO TIME PRIOR TO 8:30 AM SHALL LANES BE OBSTRUCTED EITHER TEMPORARILY OR MOMENTARILY THAT PREVENTS THE FREE MOVEMENT OF TRAFFIC BY ANY EQUIPMENT, VEHICLE, TRAFFIC CONTROL DEVICE, SIGNAGE OR PERSON CONTROLLED BY THE CONTRACTOR.
19. ALL CONSTRUCTION WARNING SIGNS SHALL BE PLACED TO PROVIDE ROOM FOR BICYCLES AND PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE.

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B  
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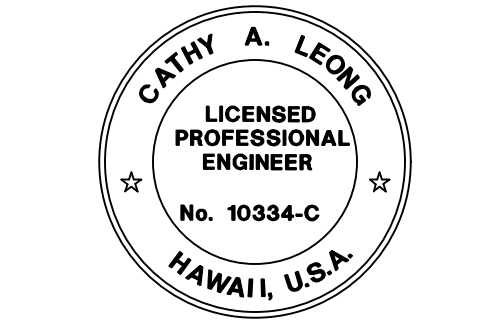


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PROJECT ID  
**QUEEN STREET CATCH  
BASIN REPAIR  
HONOLULU, HAWAII**

PREPARED FOR  
**HAWAII COMMUNITY  
DEVELOPMENT  
AUTHORITY**

CONSULTANT



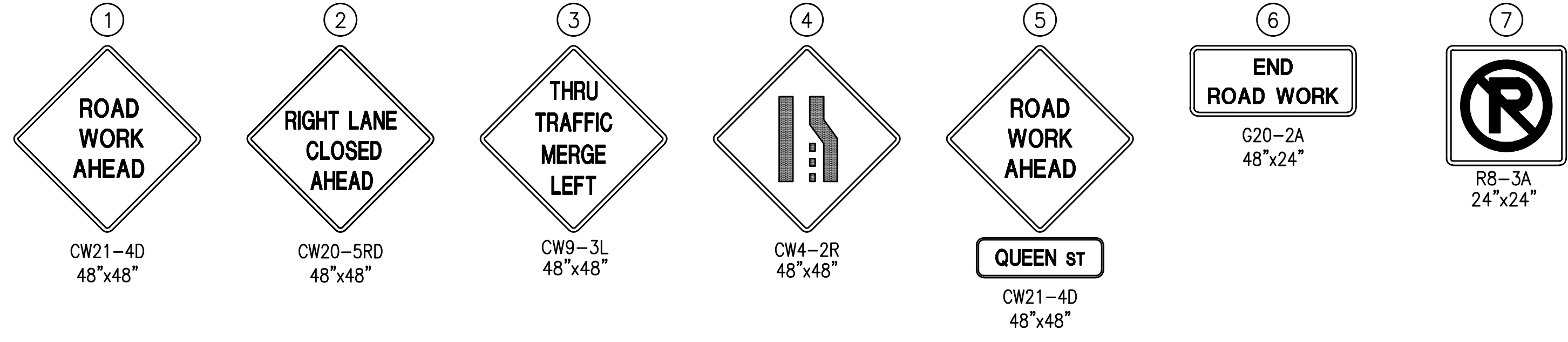
This work was prepared by me or under my supervision and construction of this project will be under my observation. ("Observation of construction" as defined under Section 16-115-2 of Hawaii Administrative Rules, Professional Engineers, Architects, Surveyors and Landscape Architects)  
*Cathy A. Leong*  
 Signature                      Expiration Date: 8/31/2026  
Note: Contractor shall check and verify all dimensions at job before proceeding with work.

DESIGNED BY: CD	SUPERVISED BY: CL
DRAWN BY: CD	CHECKED BY: CL
CAD FILE:	PROJECT NO.: 10736-01
SCALE: AS NOTED	DATE: AUGUST 2024

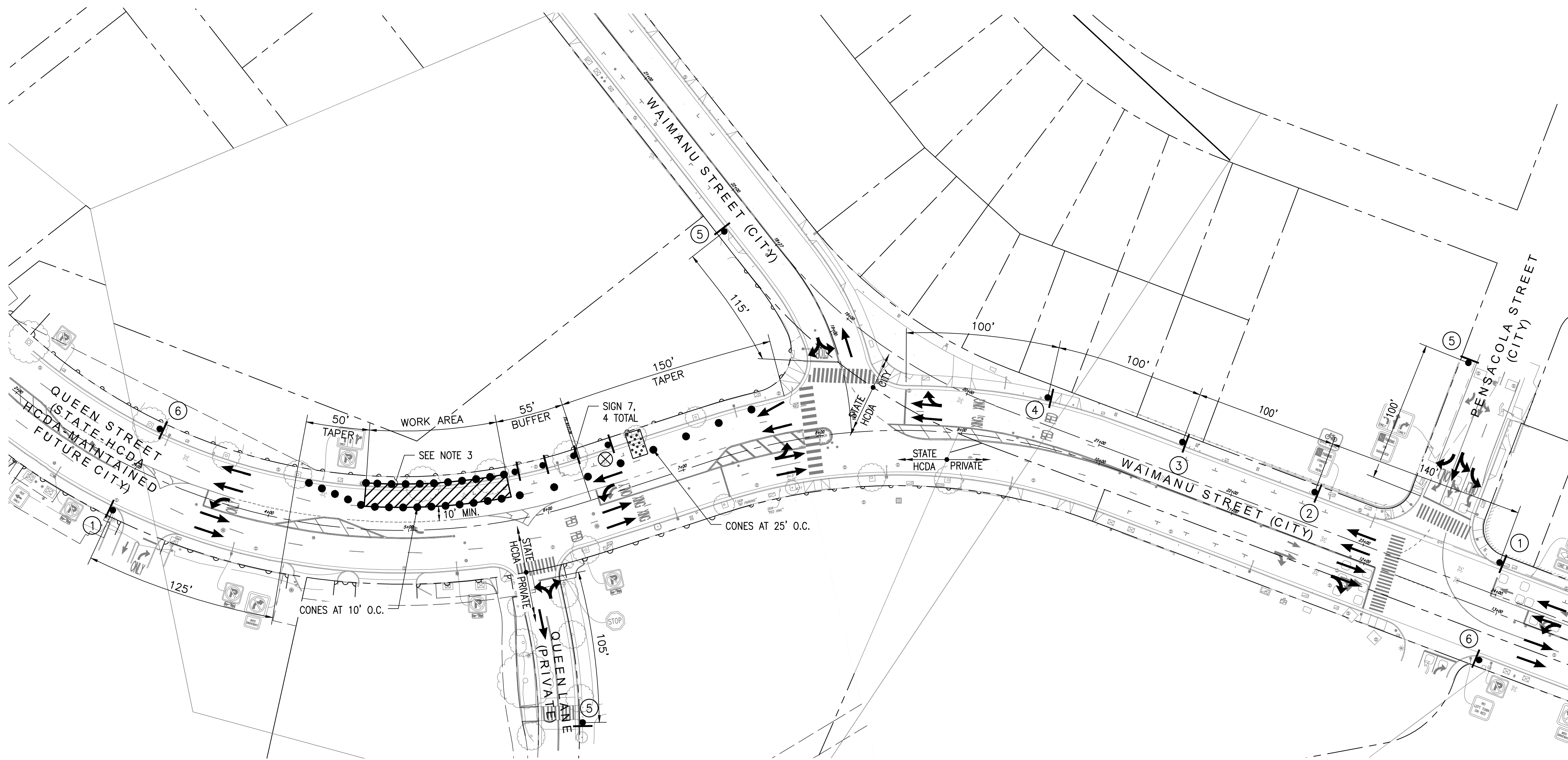

REV	DATE	DESCRIPTION

SHEET TITLE  
**TRAFFIC CONTROL NOTES**

DRAWING NO.  
**TC-01**  
4 of 5 sheets

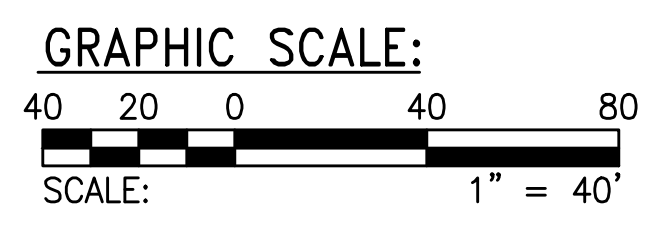


TRUE NORTH  
SCALE: 1" = 40'



- LEGEND:**
- CONE
  - SIGN
  - FLOW OF TRAFFIC
  - ▨ WORK AREA
  - ⊗ SPECIAL DUTY OFFICER
  - ▤ ARROW BOARD PANEL

- NOTES:**
1. POSTED SPEED LIMIT = 25 MPH (HCDA & CITY)
  2. MINIMUM TRAVEL LANE WIDTH = 10'-0"
  3. CONTRACTOR TO MAINTAIN 5' MINIMUM PEDESTRIAN PATH.



**TRAFFIC CONTROL PLAN 1**  
 WORK HOURS: 8:30 A.M. TO 3:30 PM  
 DURATION: 1 WEEK  
 SCALE : 1"=40'

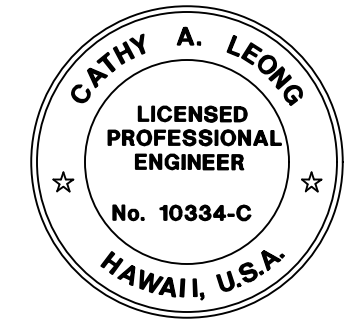


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PROJECT ID  
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PREPARED FOR  
**HAWAII COMMUNITY DEVELOPMENT AUTHORITY**

CONSULTANT



This work was prepared by me or under my supervision and control and I am a duly Licensed Professional Engineer in the State of Hawaii. I am not providing any professional services in any other state or jurisdiction.  
 Signature: *Cathy A. Leong* Date: 08/20/2024  
 Note: Contractor shall check and verify all dimensions at job before proceeding with work.

DESIGNED BY: CD	SUPERVISED BY: CL
DRAWN BY: CD	CHECKED BY: CL
CAD FILE:	PROJECT NO.: 10736-01
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SHEET TITLE  
**TRAFFIC CONTROL PLAN 1**

DRAWING NO.

**TC-02**