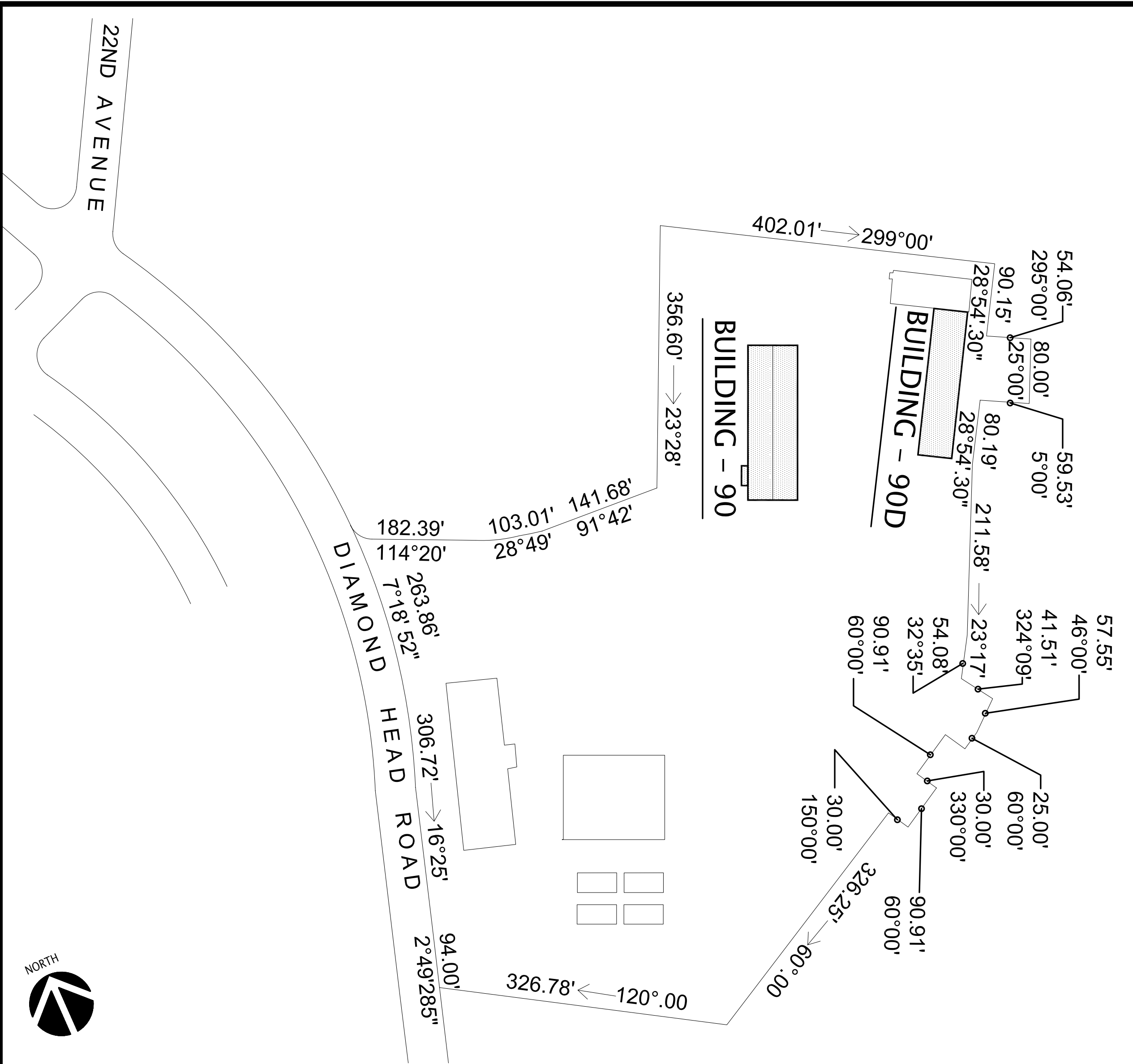
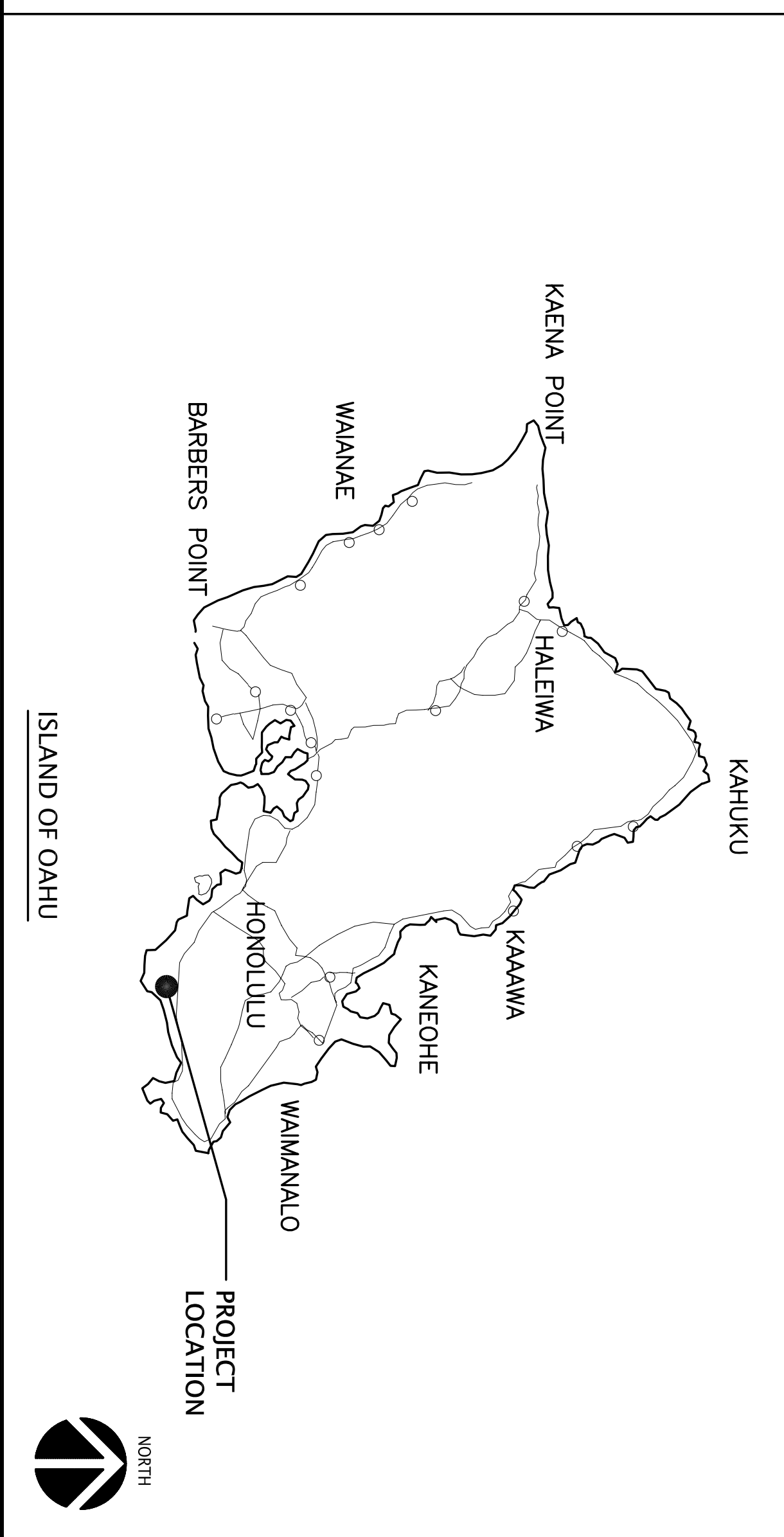


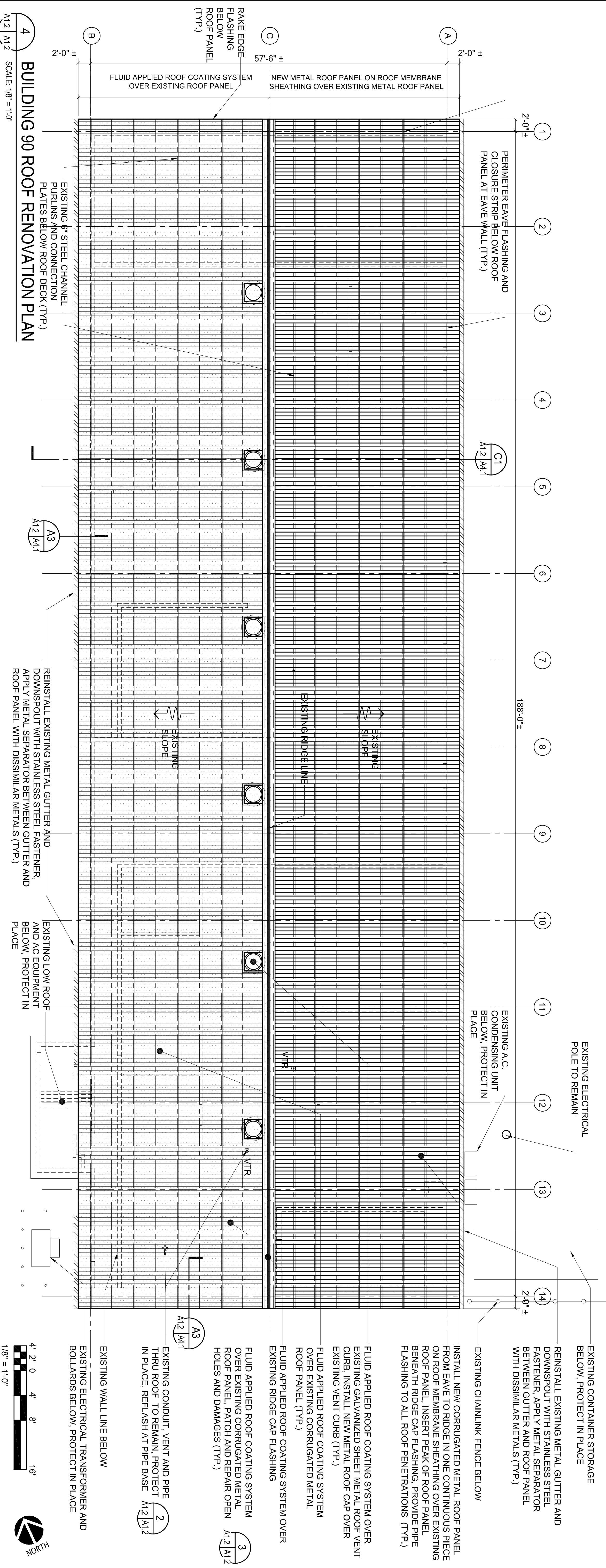
REPLACE ROOFS & REPAIR EXTERIOR WALLS BUILDINGS 90 & 90D, FORT RUGER

FOR THE
STATE OF HAWAII, DEPARTMENT OF DEFENSE
ENGINEERING OFFICE

JOB NO. CA-1326-C

| | | | | | |
|--|--|--|--|--|--|
| <div>VICINITY MAP</div> <div></div> | | <div>PROJECT DATA</div> <div><div><div><div>BUILDING FLOOR AREA</div><div>EXISTING BUILDING 90: 11,012 SF</div><div>EXISTING BUILDING 90D: 5,282 SF</div></div><div><div>CODE: INTERNATIONAL BUILDING CODE 2006</div><div>CONSTRUCTION</div><div>BUILDING 90: IIB</div><div>BUILDING 90D: IIB</div></div><div><div>OCCUPANCY:</div><div>BUILDING 90: S-2</div><div>BUILDING 90D: U</div></div><div><div>SPRINKLED:</div><div>NO</div></div><div><div>SEPARATION:</div><div>N/A</div></div><div><div>UNIFORM FACILITIES CRITERIA (UFC) NUMBERS:</div><div>3-110-03</div><div>1-200-01, INCLUDING CHANGE 1, 19 JULY 2011</div><div>3-301-01, INCLUDING CHANGE 2, 31 JANUARY 2011</div></div></div><div>LOCATION MAP</div><div></div></div> | | <div>CONSULTANTS</div> <div><div><div><div>ARCHITECT:</div><div>LOU CHAN & ASSOCIATES, INC.</div><div>725 KAPOLANI BOULEVARD, SUITE C207</div><div>HONOLULU, HAWAII 96813</div><div>PHONE: (808) 596-7551</div></div><div><div>ENVIRONMENTAL CONSULTANT:</div><div>ENVIROQUEST, INC.</div><div>98-029 HEKAHA STREET, BLDG 5, SUITE 21</div><div>AIEA, HI 96701</div><div>PHONE: (808) 486-5881</div></div></div></div> | |
| <div><div><div><div><div>Rev #</div><div>Description</div><div>Date</div><div>Approved</div></div><div><div> </div><div> </div><div> </div><div> </div></div><div><div> </div><div> </div><div> </div><div> </div></div><div><div> </div><div> </div><div> </div><div> </div></div><div><div> </div><div> </div><div> </div><div> </div></div></div></div><div><div><div><div>STATE OF HAWAII, DEPARTMENT OF DEFENSE</div><div>ENGINEERING OFFICE</div></div><div><div>REPLACE ROOFS & REPAIR EXTERIOR WALLS</div><div>BUILDINGS 90 & 90D, FORT RUGER</div><div>STATE OF HAWAII, DEPARTMENT OF DEFENSE</div></div><div><div>TITLE, CONSULTANTS, PROJECT DATA,</div><div>LOCATION & VICINITY MAPS</div></div></div><div><div><div><div><div>LOU CHAN & ASSOCIATES, INC.</div><div>DESIGNED BY: LCC</div><div>CHECKED BY: LCC</div><div>DRAWN BY: NS</div><div>DATE: APR 14, 2014</div><div>SCALE: AS INDICATED</div></div><div><div><div>LOU CHAN</div><div>LICENCED PROFESSIONAL ARCHITECT</div><div>NO. 5401</div><div>HAWAII, U.S.</div></div></div><div><div><div>JOB NO.</div><div>CA-1326-C</div><div>DATE</div><div>APR 14, 2014</div><div>SHEET</div><div>1</div><div>OF 10 SHEETS</div></div><div><div><div>DRAWING NO.</div><div>TO.1</div></div></div></div></div></div></div></div></div> | | | | | |

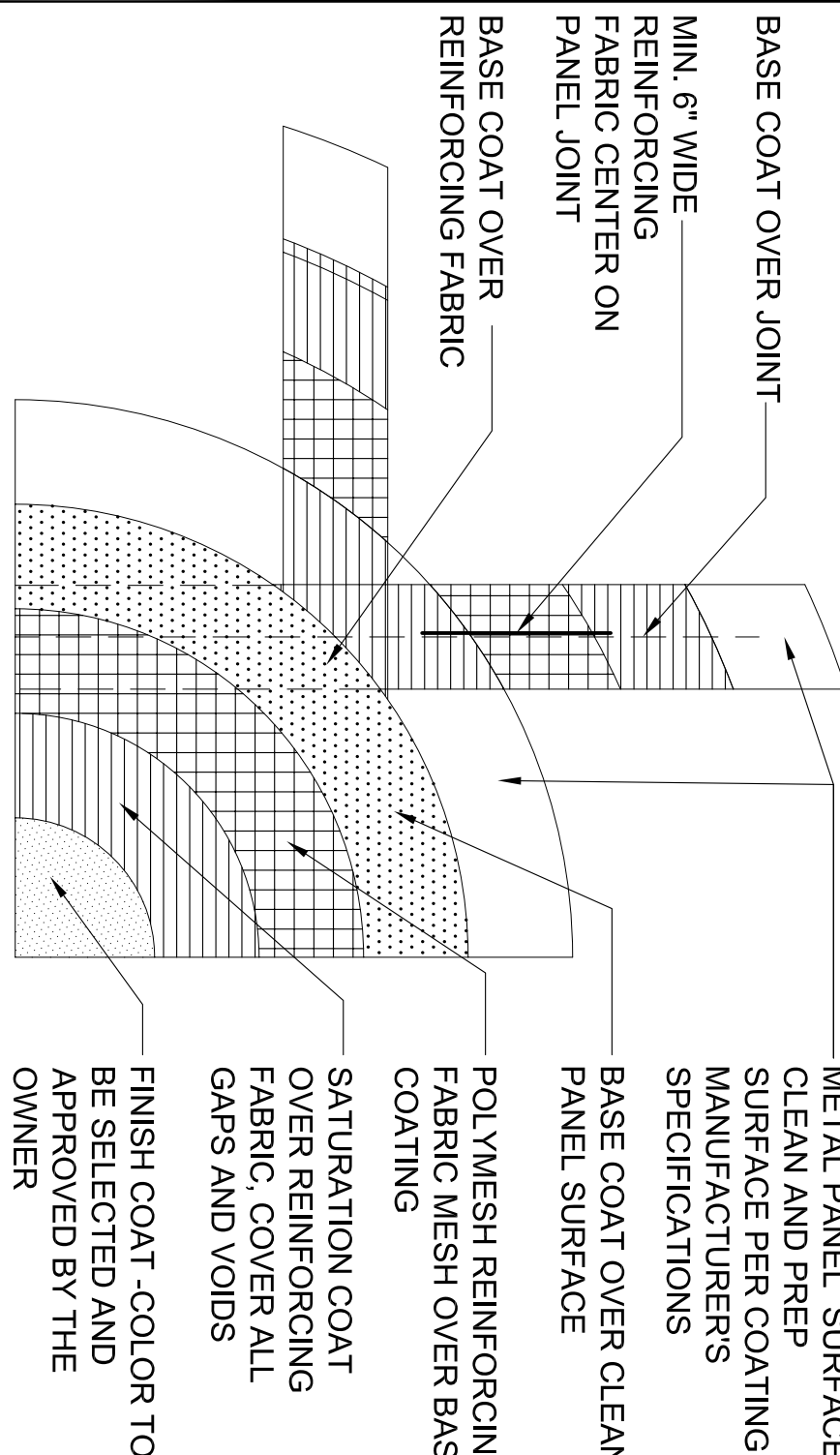
| WORK SCOPE | | GENERAL REQUIREMENTS | | HAZARDOUS MATERIALS ABATEMENT REQUIREMENTS | | INDEX TO DRAWINGS | |
|--|--|---|--|---|--|---|--|
| <p>WORK SCOPE</p> <p>WORK SCOPE GENERALLY SHALL INCLUDE BUT NOT LIMIT TO THE FOLLOWINGS.</p> <p>BASE BID</p> <p>1. SAWCUT AND REMOVE EXISTING METAL ROOF PANEL. EAVE OVERHANG ALONG BUILDING LINE 'A' AT EAST ELEVATION.</p> <p>2. INSTALL NEW METAL ROOF PANELS OVER EXISTING METAL ROOF PANELS FROM BUILDING LINE 'A' TO 'B' AND OVERHANG WITH SAME PROFILE AND PATTERN.</p> <p>3. REMOVE EXISTING ROOF EXHAUST FANS, WIRINGS AND CONDUITS, CUT AND CAP WIRING TO EXISTING ELECTRICAL PANEL. DEMOLISH EXISTING THERMAL ROTATING VENTILATORS AND FRAMES.</p> <p>4. INSTALL EAVE, RAKE AND WALL SHEETMETAL FLASHING AND ALL RELATED WORK.</p> <p>5. APPLY FLUID APPLIED ROOF COATING SYSTEM OVER EXISTING METAL ROOF PANELS, FLASHING AND ALL RELATED WORK FROM BUILDING LINE 'B' TO 'C' AND OVERHANG. .</p> <p>ADDITIVE ALTERNATE NO. 1</p> <p>1. REROOF BUILDING 90D WITH METAL ROOF AND ALL RELATED WORK.</p> <p>ADDITIVE ALTERNATE NO. 2</p> <p>1. PATCH AND REPAIR UP TO 20 DAMAGED SPOTS OF METAL WALL PANEL AT BUILDING 90 WITH MATCHING METAL WALL PANEL.</p> <p>2. REPAINT BUILDING 90 EXTERIOR WALL METAL AND WOOD SIDINGS, FLASHINGS, TRIMS, DOORS, WINDOW AND SECURITY SCREEN FRAME AND ALL RELATED WORK.</p> | | <p>1. BUILDING OPERATION</p> <p>THE BUILDING 90 AND 90D SHALL BE IN OPERATION DURING WORK DAYS. CONTRACTOR SHALL KEEP DISRUPTION TO THEIR OPERATION TO A MINIMUM. DEMOLITION WORK, LOADING AND UNLOADING OPERATION THAT SLOW DOWN OR BLOCKING VEHICULAR AND PEDESTRIAN TRAFFIC SHALL BE CONDUCTED DURING OFF HOURS AND IN NON-WORK DAYS. CLEAN AND REMOVE ALL CONSTRUCTION DEBRIS AND DUST IN THE FACILITY AT THE END OF EACH WORKING DAY. OUTAGES IN WORKING HOURS SHALL BE RESTRICTED IN SMALL ZONES AND IN SHORT DURATION. COST FOR RESET ELECTRONIC SYSTEM AND SECURITY ALARM SHALL BE BORNE BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT OUTAGE SCHEDULE TO THE PROJECT MANAGER FOR COMMENT AND APPROVAL AT LEAST TWO WEEKS PRIOR TO THE OUTAGE.</p> <p>2. CONTRACTOR WORK AND STAGING AREA</p> <p>CONTRACTOR WORK AND STAGING AREA SHALL BE DETERMINED AT PRECONSTRUCTION CONFERENCE.</p> <p>3. DEMOLITION AND RENOVATION WORK</p> <p>DEMOLITION WORK SHALL INCLUDE ALL THE WORK INDICATED ON PLANS TO BE DEMOLISHED AND REMOVAL AND ALL THE WORK NOT REQUIRED FOR RENOVATION WORK. RENOVATION WORK SHALL INCLUDE ALL THE WORK INDICATED ON PLANS TO BE RENOVATED AND REPLACED. FOR CLARITY, LOCATIONS AND QUANTITY OF WORKS TO BE DEMOLISHED AND RENOVATED WERE NOT NECESSARILY INDICATED OR TOTALLY SHOWN ON THE PLAN. CONTRACTOR SHALL THOROUGHLY EXAMINE ALL PLANS AND SPECIFICATIONS, FIELD VERIFY EXISTING CONDITIONS AND CONFIRM ALL THE WORK REQUIRED TO BE DEMOLISHED AND RENOVATED PRIOR TO COMMENCEMENT OF WORK. HAZARDOUS MATERIALS, SOLVENT, PAINT AND MASTIC REMOVAL, SEALANT, SEALER, COATING OR PAINT THAT CAN GENERATE LINGERING ODOR INSIDE THE ENCLOSED SPACE SHALL NOT BE USED IN THE PROJECT.</p> <p>4. SALVAGE AND DISMANTLE WORK</p> <p>WORKS INDICATED TO BE SALVAGED AND/OR REQUIRED TO BE SAVED FOR REINSTALLATION SHALL BE CAREFULLY DISCONNECTED, DISMANTLED AND SAVED FROM WORK AREA AND STORED IN A SECURED STORAGE SPACE DESIGNATED BY THE FACILITY FOR REINSTALLATION. PRIOR TO TRANSPORTING OF THE WORK, CONTRACTOR SHALL CONFIRM WITH PROJECT MANAGER FOR THE STORAGE LOCATION.</p> <p>5. WORK IN THE WAY OF CONSTRUCTION</p> <p>EXISTING WORK TO REMAIN SHALL BE COVERED AND PROTECTED IN PLACE. EXISTING ANCHOR, HANGER, BRACING AND SUPPORT IF REMOVED FOR NEW WORK SHALL BE PROVIDED WITH TEMPORARY BRACING AND SUPPORT DURING CONSTRUCTION. EXISTING WORK IN THE WAY OF NEW CONSTRUCTION WORK INCLUDING ELECTRICAL CONDUITS, WIRINGS, PIPINGS, ANCHORS, FIRE ALARM AND FIRE SPRINKLING SYSTEM SHALL BE DISMANTLED, TEMPORARILY REMOVED AND REINSTALLED AFTER CONSTRUCTION.</p> <p>6. OFF HOUR WORK</p> <p>WORK ACTIVITY THAT GENERATE EXCESSIVE DUST, NOISE, SMELL, ODOR AND VIBRATION, AND WORK ACTIVITY THAT MAY PREVENT THE USE OF THE FACILITY SHALL BE CONDUCTED AFTER WORKING HOURS. SECURITY PERSONNEL ACCEPTABLE TO THE PROJECT MANAGER SHALL BE REQUIRED FOR ALL OFF HOUR WORK IN THE FACILITY. COST FOR ALL OFF HOUR WORK AND SECURITY PERSONNEL SHALL BE ENTIRELY BORNE BY THE CONTRACTOR.</p> <p>7. PROTECTION OF PROPERTY AND EXISTING WORK</p> <p>CONTRACTOR SHALL REMOVE ALL REMOVABLE FURNITURE AND EQUIPMENT FROM THE WORK SPACE. WORK REMAIN IN THE RENOVATION WORK SHALL BE PROTECTED IN PLACE. INSTALL WEATHER PROOF PROTECTIVE COVER TO COVER ALL REMAINING FURNITURE, EQUIPMENT AND OTHER FINISH SURFACES.</p> <p>EXISTING ROOF, CEILING AND WALL MOUNTED ELECTRICAL, DATA AND FIRE ALARM SYSTEM, FIRE PROTECTION AND MECHANICAL WORK AFFECTED BY THE ROOFING AND WALL WORK SHALL BE DISMANTLED, REMOVED FOR REINSTALLATION. EXISTING ROOF, CEILING AND WALL MOUNTED ELECTRICAL, DATA AND FIRE ALARM SYSTEM, FIRE PROTECTION AND MECHANICAL WORK NOT DIRECTLY AFFECTED BY THE ROOFING AND WALL WORK SHALL BE COVERED, TIED AND WRAPPED. ALL ROOF AND WALL OPENINGS SHALL BE COVERED AND SEALED.</p> <p>ANY DAMAGE DUE TO CONTRACTORS WORK INCLUDING DUST, NOISE AND PHYSICAL DAMAGES SHALL BE CLEANED, REPAIRED AND/OR REPLACED AT CONTRACTOR'S SOLE EXPENSE AND TO THE SATISFACTION OF PROJECT MANAGER. PRIOR TO DEMOLITION AND REMOVAL WORK, CONTRACTOR SHALL IDENTIFY ALL PRE-EXISTING DAMAGE AND SUBMIT AN ANNOTATED SUMMARY INCLUDING PHOTOS WITH DATE IF NECESSARY TO THE PROJECT MANAGER FOR RECORD.</p> <p>8. TEMPORARY ROOF PROTECTION</p> <p>CONTRACTOR SHALL COVER AND PROTECT EXISTING BUILDING FROM WEATHER AND VANDAL DURING CONSTRUCTION. INSTALL TEMPORARY WEATHERPROOF ROOF WITH TEMPORARY ROOF FRAME AND WALL COVER OVER EXPOSED ROOF AND WALL AT THE END OF EACH WORK DAY. EXISTING ROOF TOP AND CEILING ELECTRICAL WORK TO REMAIN SHALL BE COVERED AND PROTECTED IN PLACE. CLEAN AND RESTORE TO WORKING CONDITION AFTER THE END OF THE WORK DAY. DISMANTLE AND REINSTALL AS REQUIRED FOR ROOF RENOVATION WORK. PROVIDE COVER AND PROTECTION FOR ALL WALL AND FLOOR FINISH, FURNITURE AND EQUIPMENT FOR CEILING AND SOFFIT RENOVATION WORK.</p> | | <p>PRESENCE OF HAZARDOUS MATERIALS</p> <p>HAZARDOUS MATERIALS WERE TESTED POSITIVELY AND FOUND IN BUILDING 90 AND 90D. WHENEVER THE CONFIRMED HAZARDOUS MATERIALS ARE TO BE DISTURBED DURING RENOVATION ACTIVITIES, ALL HAZARDOUS MATERIAL SHOULD BE PROPERLY REMOVED AND DISPOSED PRIOR TO GENERAL CONSTRUCTION ACTIVITIES PER CORRESPONDING SPEC SECTIONS. CONTRACTOR SHALL INSTALL TEMPORARY COVER AND PROTECTION TO ALL OPENINGS OF BUILDING EXTERIOR DUE TO THE REMOVAL OF HAZARDOUS MATERIALS. PROVIDE ALL REQUIRED AIR MONITORING WORK.</p> <p>A. ACM (ASBESTOS CONTAINING MATERIALS) : ACM WERE FOUND IN SAMPLES FROM TARGETED AREAS AS FOLLOWED. ADDITIONAL SUSPECT ACM MAY EXIST WITHIN AND OUTSIDE THE SAMPLE AREAS EXAMINED. IF SUSPECT ACM ARE DISCOVERED DURING THE PLANNED RENOVATION ACTIVITIES, CONTRACTOR SHOULD CONDUCT ADDITIONAL TESTING AND ANALYSIS OF THE SUSPECT ACM.</p> <p>1. BUILDING 90, BLACK TAR SEALANT AT ROOF VENTILATION SEALANT.</p> <p>1. BUILDING 90D, BLACK TAR AT MAINTENANCE EQUIPMENT ROOF INSULATION.</p> <p>2. BUILDING 90D, BLACK TAR AT OFFICE AREA WALL INSULATION.</p> <p>B. LBP (LEAD-BASED PAINTS), AND MATERIALS WITH LEAD : LEAD PAINT SAMPLING WAS CONDUCTED ON THE BUILDING COMPONENTS THAT MAY BE IMPACTED BY THE RENOVATION ACTIVITY. LEAD WAS IDENTIFIED IN THE VARIOUS PAINTS ON:</p> <p>1. BUILDING 90D, MAINTENANCE EQUIPMENT CARPORT METAL POST AND ROOF FRAME CREAM COLOR PAINT.</p> <p>THE CONTRACTORS EMPLOYEES REMOVING OR DISTURBING THE PAINTED MATERIAL MUST BE INFORMED THAT IT CONTAINS LEAD AND MUST HAVE RECEIVED TRAINING UNDER OSHA 29 CFR 1926.62 LEAD AND HIOSH 12-148.1 LEAD. IF ANY OTHER UNTESTED PAINTS ARE DISTURBED, THEY SHOULD BE ASSUMED TO CONTAIN LEAD.</p> <p>IF THE PAINTED COMPONENTS CONTAINING THE LEAD ARE SCHEDULED FOR DEMOLITION, COMPOSITE SAMPLES OF THE EXPECTED BUILDING WASTE GENERATED SHOULD BE COLLECTED FOR TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) ANALYSIS TO DETERMINE THE WASTE DISPOSAL CHARACTERIZATION. HAWAII ADMINISTRATIVE RULES, TITLE 11, DEPARTMENT OF HEALTH, CHAPTER 261, HAZARDOUS WASTE MANAGEMENT ALLOWS A MAXIMUM CONCENTRATION OF LEAD CONTAMINANT BY TCLP AT 5.0 MG/L. TCLP RESULTS EXCEEDING THE 5.0 MG/L THRESHOLD REQUIRES THE MATERIAL TO BE DISPOSED OF AS HAZARDOUS WASTE. RESULTS BELOW THIS THRESHOLD ALLOWS FOR THE MATERIALS TO BE DISPOSED OF AS CONSTRUCTION DEBRIS.</p> | | | |
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| STATE OF HAWAII, DEPARTMENT OF DEFENSE ENGINEERING OFFICE | | STATE OF HAWAII, DEPARTMENT OF DEFENSE ENGINEERING OFFICE | | STATE OF HAWAII, DEPARTMENT OF DEFENSE ENGINEERING OFFICE | | STATE OF HAWAII, DEPARTMENT OF DEFENSE ENGINEERING OFFICE | |
| REPLACE ROOFS & REPAIR EXTERIOR WALLS BUILDINGS 90 & 90D, FORT RUGER STATE OF HAWAII, DEPARTMENT OF DEFENSE | | REPLACE ROOFS & REPAIR EXTERIOR WALLS BUILDINGS 90 & 90D, FORT RUGER STATE OF HAWAII, DEPARTMENT OF DEFENSE | | REPLACE ROOFS & REPAIR EXTERIOR WALLS BUILDINGS 90 & 90D, FORT RUGER STATE OF HAWAII, DEPARTMENT OF DEFENSE | | REPLACE ROOFS & REPAIR EXTERIOR WALLS BUILDINGS 90 & 90D, FORT RUGER STATE OF HAWAII, DEPARTMENT OF DEFENSE | |
| WORK SCOPE, GENERAL REQUIREMENTS AND INDEX TO DRAWINGS | | WORK SCOPE, GENERAL REQUIREMENTS AND INDEX TO DRAWINGS | | WORK SCOPE, GENERAL REQUIREMENTS AND INDEX TO DRAWINGS | | WORK SCOPE, GENERAL REQUIREMENTS AND INDEX TO DRAWINGS | |
| LOU CHAN & ASSOCIATES, INC. | | LOU CHAN & ASSOCIATES, INC. | | LOU CHAN & ASSOCIATES, INC. | | LOU CHAN & ASSOCIATES, INC. | |
| DESIGNED BY: LCC | | DESIGNED BY: LCC | | DESIGNED BY: LCC | | DESIGNED BY: LCC | |
| CHECKED BY: LCC | | CHECKED BY: LCC | | CHECKED BY: LCC | | CHECKED BY: LCC | |
| DRAWN BY: NS | | DRAWN BY: LCC | | DRAWN BY: LCC | | DRAWN BY: LCC | |
| SCALE: AS INDICATED | | SCALE: AS INDICATED | | SCALE: AS INDICATED | | SCALE: AS INDICATED | |
| JOB NO. CA-1322-C | | JOB NO. CA-1322-C | | JOB NO. CA-1322-C | | JOB NO. CA-1322-C | |
| DATE APR 14, 2014 | | DATE APR 14, 2014 | | DATE APR 14, 2014 | | DATE APR 14, 2014 | |
| DRAWING NO. A01 | | DRAWING NO. A01 | | DRAWING NO. A01 | | DRAWING NO. A01 | |
| SHEET 2 | | SHEET 2 | | SHEET 2 | | SHEET 2 | |
| OF 10 SHEETS | | OF 10 SHEETS | | OF 10 SHEETS | | OF 10 SHEETS | |



4 BUILDING 90 ROOF RENOVATION PLAN

A1/2 A1/2 SCALE: 1/8" = 1'-0"

FLUID APPLIED ROOF COATING SYSTEM ASSEMBLY DETAIL



FLUID APPLIED COATING SYSTEM NOTES:

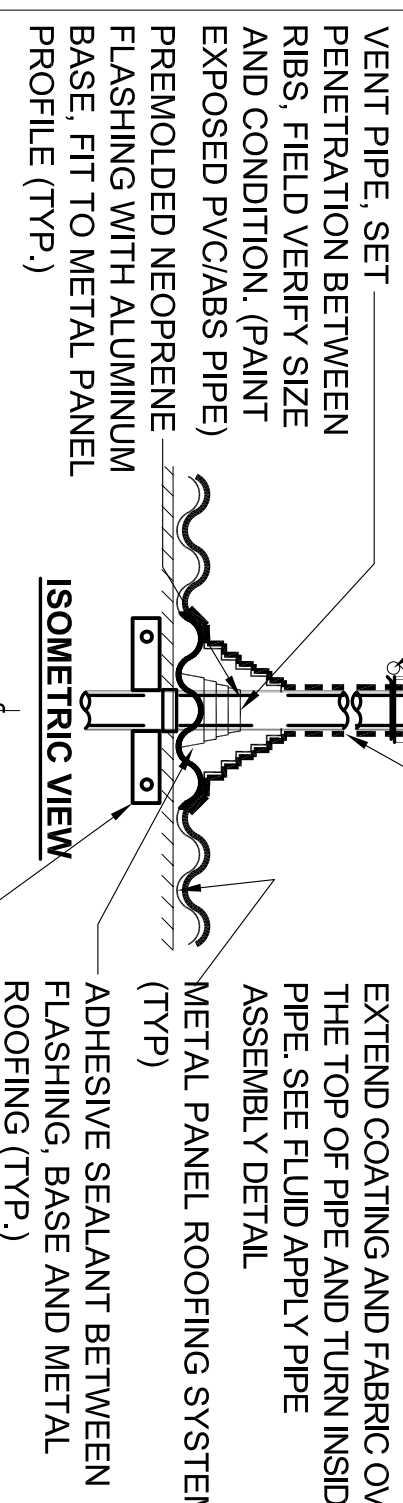
1. PRIOR TO THE APPLICATION OF FLUID APPLIED ROOF COATING SYSTEM, ALL HOLES SHALL BE FILLED AND PATCHED. SURFACES SHALL BE CLEAN AND PREPARED IN ACCORDANCE WITH THE FLUID APPLIED COATING MANUFACTURER'S REQUIREMENTS. REMOVE AND REPAIR ALL LOOSE AND DAMAGED SUBSTRATE.
2. FLUID APPLIED ROOF COATING SYSTEM SHALL BE COMPATIBLE TO EXISTING ROOF PANEL, FINISH MATERIAL, AND ROOF SUBSTRATE.
3. APPLY GAP FILLER, PRIME SLURRY PRODUCT APPROVED BY THE SAME COATING MANUFACTURER IN COATING APPLICATION IN AREAS WHERE FINISH SURFACE IS NOT SMOOTH ENOUGH FOR THE APPLICATION OF COATING SYSTEM, FINISH SURFACE SHALL BE SMOOTH FOR RUN OFF OF WATER AND DEBRIS.

1 FLUID APPLIED ROOF COATING SYSTEM

A1/2 A1/2 SCALE: 1-1/2" = 1'-0"

STAINLESS STEEL DRAW BAND WITH EPDM WASHERS

VENT PIPE



VENT PIPE, EQUIPMENT SUPPORT PIPE (EXTEND PIPE TO MINIMUM 8" ABOVE FINISH ROOF, FIELD VERIFY SIZE AND CONFIGURATION) CONTINUOUS SEALANT FLASHING 1/2" STAINLESS STEEL CLAMP DRAW BAND FLUID APPLIED ROOFING SYSTEM WITH REINFORCED FABRIC MESH, SEE ROOF COATING SYSTEM A1/2 A1/2

OUTLINE OF FLANGE OR MOUNTING ANCHOR BELOW (REPLACE DAMAGED AND CORRODED MOUNTING BRACKET AND FASTER) NOTE: LOCATION AND QUANTITY OF VENT THRU ROOF PIPE AND ROOF MOUNTED POST SHOW IN ROOF PLAN IS ONLY APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY LOCATION AND QUANTITY AND SIZE OF VENT THRU ROOF AND ROOF EXHAUST PROVIDE VENT PIPE FLASHING AND APPLIED COATING SYSTEM FOR ALL VENT PIPES

2 FLUID APPLIED FLASHING AT PIPE PENETRATION

A1/2 A1/2 SCALE: NOT TO SCALE

INSTALL NEW METAL PANEL OVER CUT OUT AND DAMAGED HOLE, FASTEN TO EXISTING METAL PANEL AT CROWN OF ALL CORNERS (PROFILE TO MATCH EXISTING ROOF PANEL)

APPLY POLY MESH REINFORCED FLUID APPLIED COATING SYSTEM OVER NEW AND EXISTING METAL PANEL WITH MINIMUM 4" OVER LAP JOINT AT PATCH (TYP.) SEE FLUID APPLIED COATING ASSEMBLY

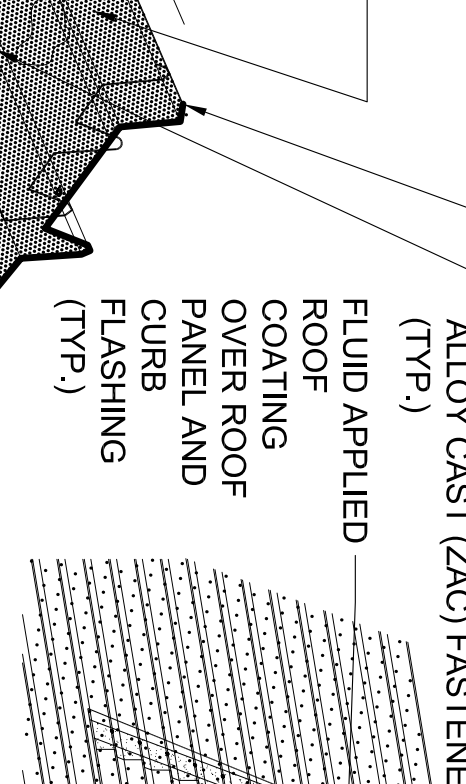
REMOVE ALL RUST AND CORROSION, APPLY RUST INHIBITED PAINT AROUND ROOF PANEL CUT OUT OR DAMAGED ROOF PANEL EXISTING CORRUGATED METAL ROOF PANEL, SAW CUT AND REMOVE DAMAGED PANEL

CONTINUOUS FLASHING TAPE ALONG JOINT (TYP.) EXTEND FLUID APPLIED COATING SYSTEM MIN. 8" OVER LAP JOINT (TYP.) NEW METAL PANEL, INSERT UNDERNEATH EXISTING METAL PANEL AT DOWN SLOPE, INSTALL ROOFING FELT BETWEEN NEW AND EXISTING PANELS (TYP.)

3 METAL ROOF PANEL DETAIL

A1/2 A1/2 SCALE: NOT TO SCALE

GASKETED ZINC ALUMINUM ALLOY CAST (ZAC) FASTENER (TYP.)

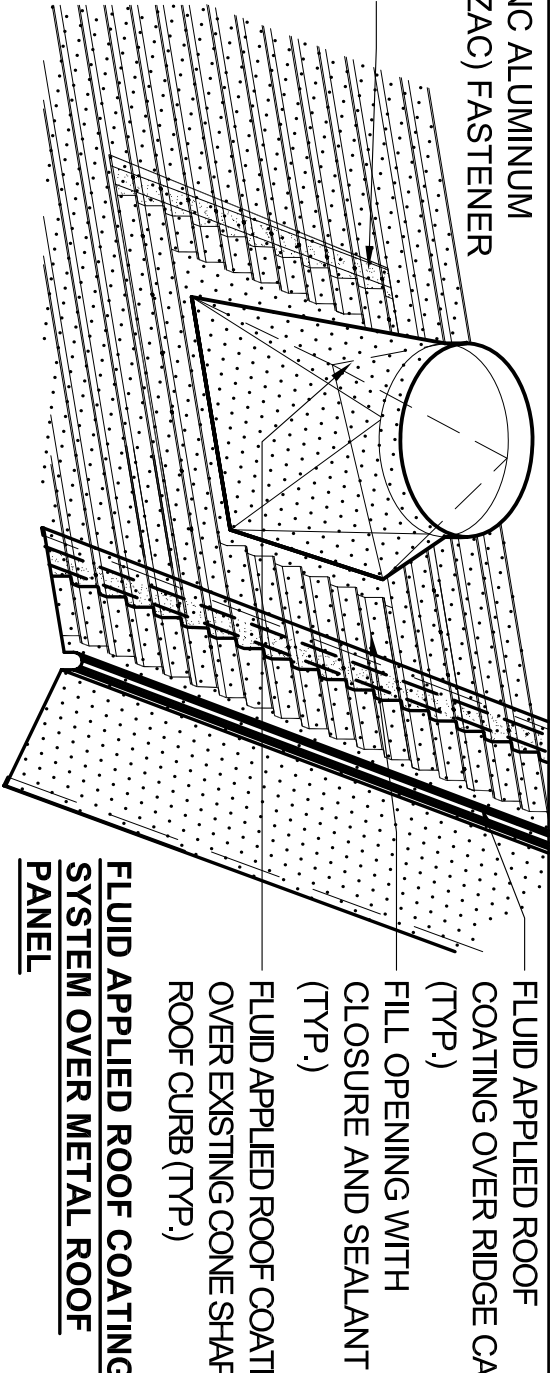
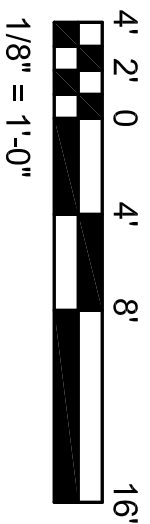


REMOVE EXISTING FASTENERS, PLY OPEN EXISTING ROOF PANEL, INSERT NEW ROOF PANEL UNDERNEATH EXISTING PANEL, WITH MINIMUM 6" OVERLAP.

FILLED OVERLAPPED BETWEEN TOP AND BOTTOM PANELS WITH SEALANT AND TWO ROWS OF CONTINUOUS SEALANT TAPE TO SEPARATE TWO PANELS FROM DIRECT CONTACT, REFASTEN PANEL AT LAP WITH ZAC FASTENER WITH NEOPRENE GASKETED AT CROWN

FLUID APPLIED ROOF COATING SYSTEM OVER METAL ROOF PANEL

A1/2 A1/2 SCALE: NOT TO SCALE

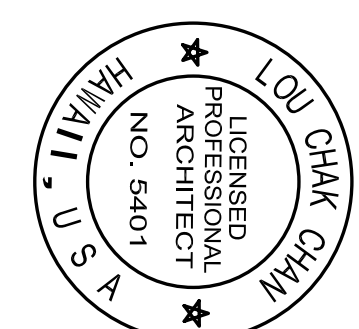


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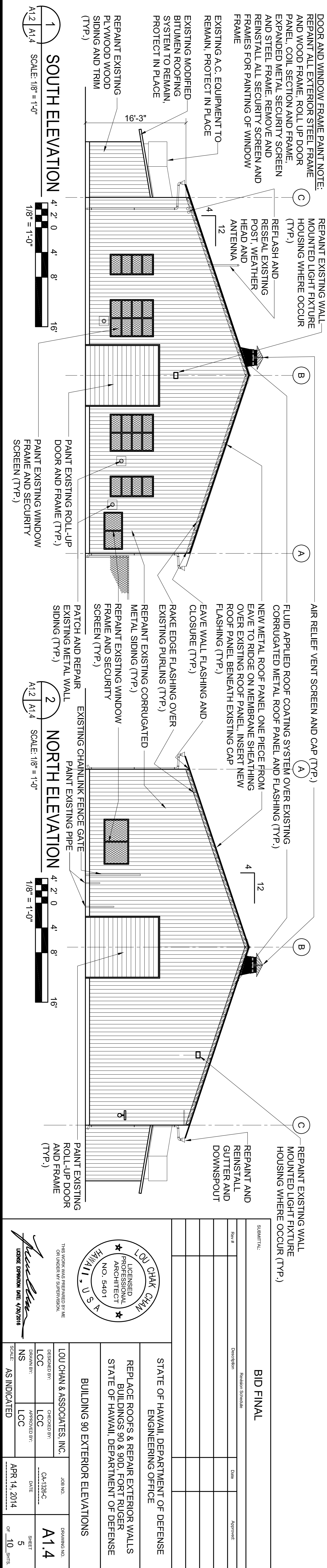
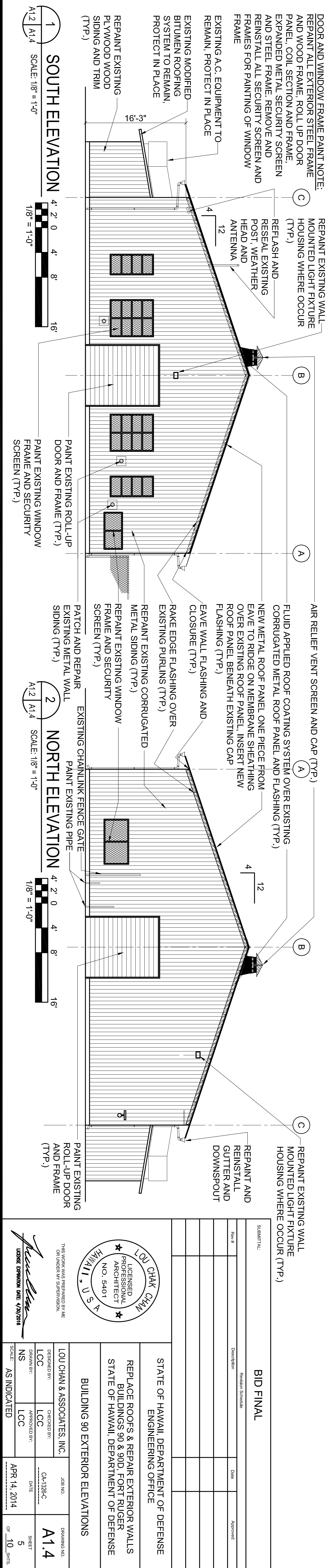
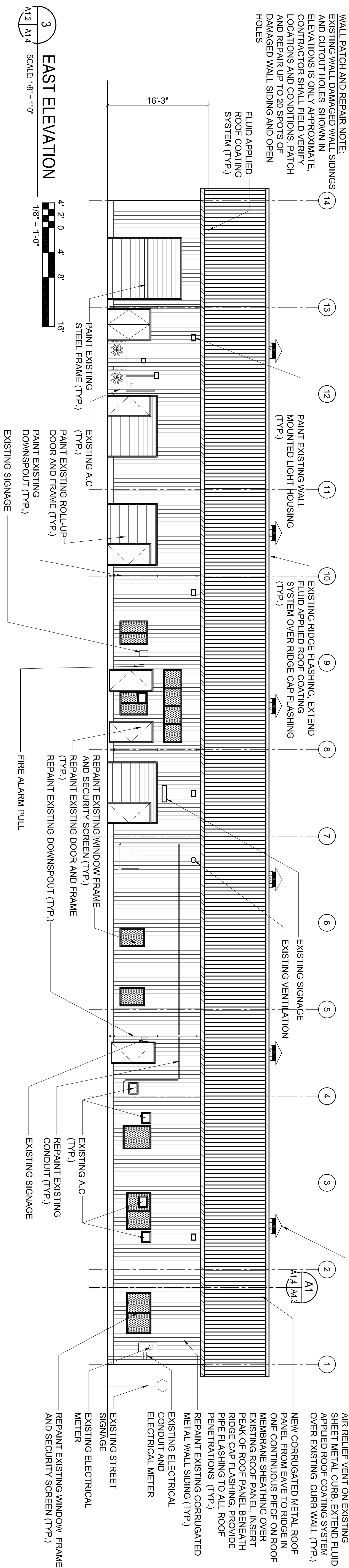
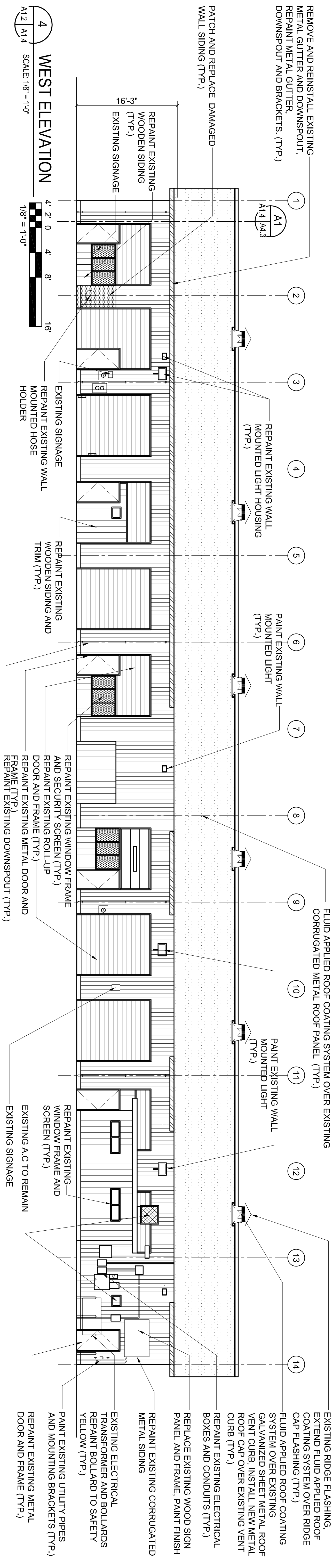
| Submittal | Revision | Description | Date | Approved |
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| State of Hawaii Department of Defense Engineering Office | State of Hawaii Department of Defense Engineering Office |
| Replace Roofs & Repair Exterior Walls Building 90 & 90D Fort Ruger State of Hawaii, Department of Defense | Replace Roofs & Repair Exterior Walls Building 90 & 90D Fort Ruger State of Hawaii, Department of Defense |

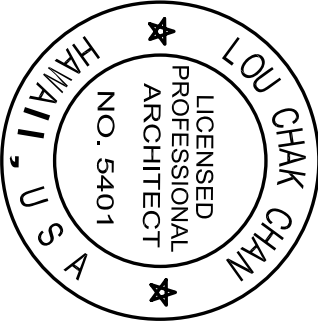
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| Building 90 Renovation Roof Plan | Building 90 Renovation Roof Plan |
| LOU CHAN & ASSOCIATES, INC. | LOU CHAN & ASSOCIATES, INC. |
| DESIGNED BY: LCC | CHECKED BY: LCC |
| DRAWN BY: NS | APPROVED BY: LCC |



THIS WORK WAS REVIEWED BY ME OR UNDER MY SUPERVISION
DATE: APR 14, 2014
SCALE: AS INDICATED




| SUBMITTAL | | | |
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| Revision Schedule | | | |
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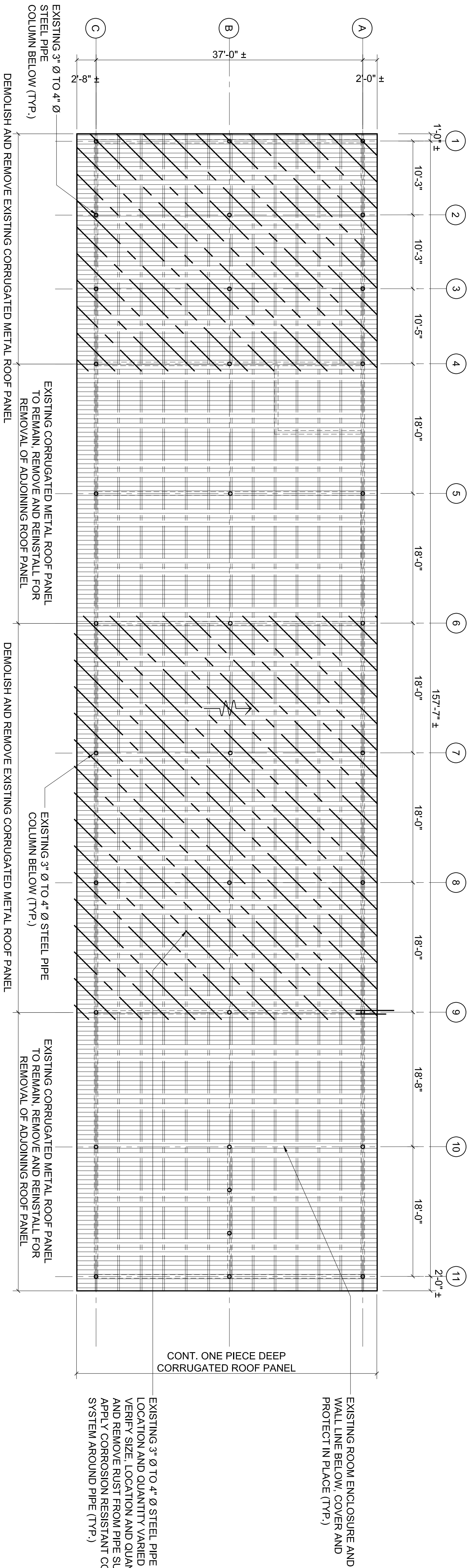
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|  | STATE OF HAWAII, DEPARTMENT OF DEFENSE ENGINEERING OFFICE |
| | REPLACE ROOFS & REPAIR EXTERIOR WALLS BUILDINGS 90 & 90D, FORT RUEGER STATE OF HAWAII, DEPARTMENT OF DEFENSE |

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| BUILDING 90 EXTERIOR ELEVATIONS | LOU CHAN & ASSOCIATES, INC. |
| | DESIGNED BY: LCC CHECKED BY: LCC DRAWN BY: LCC APPROVED BY: LCC |

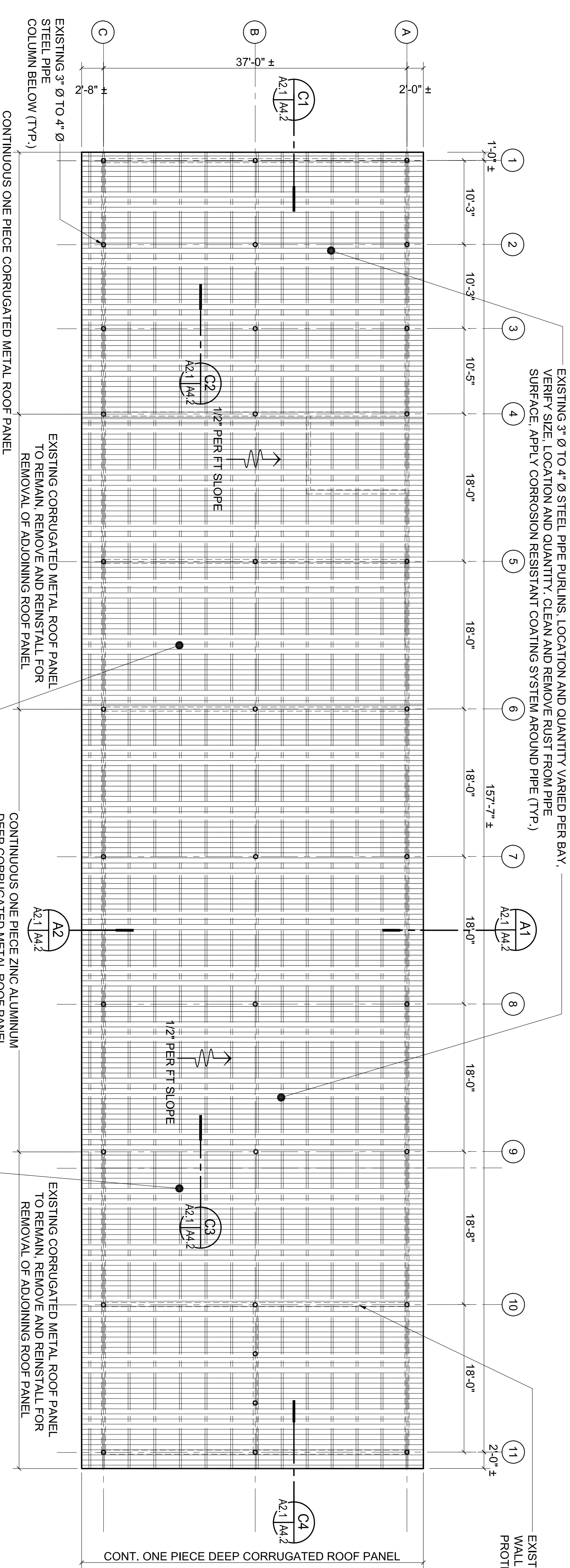
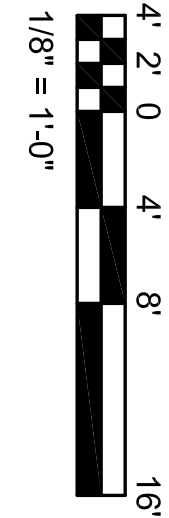
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| APR 14, 2014 | DATE | SHEET 5 |
| of 10 SHEETS | | |



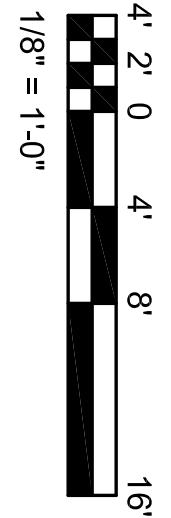
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.
LICENSE EXPIRATION DATE 4/9/2016



2
BUILDING 90D ROOF DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



1
BUILDING 90D ROOF RENOVATION PLAN
SCALE: 1/8" = 1'-0"



| | | | |
|---|---------------------|----------------------|---------------------|
| SUBMITTAL: | | | |
| BID FINAL | | | |
| Rev # | Description | Date | Approved: |
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| STATE OF HAWAII, DEPARTMENT OF DEFENSE ENGINEERING OFFICE | | | |
| REPLACE ROOFS & REPAIR EXTERIOR WALLS BUILDINGS 90 & 90D, FORT RUGER STATE OF HAWAII, DEPARTMENT OF DEFENSE | | | |
| BUILDING 90D DEMOLITION AND RENOVATION ROOF PLANS | | | |
| LOU CHAN & ASSOCIATES, INC. | | JOB NO. CA-1322-C | DRAWING NO. A2.1 |
| DESIGNED BY: LCC | CHECKED BY: LCC | DATE | SHEET 6 |
| DRAWN BY: NS | APPROVED BY: LCC | APR 14, 2014 | OF 10 SHEETS |
| SCALE: AS INDICATED | | | |

THIS WORK WAS REVIEWED BY ME
ON UNDER MY SUPERVISION.

[Signature]

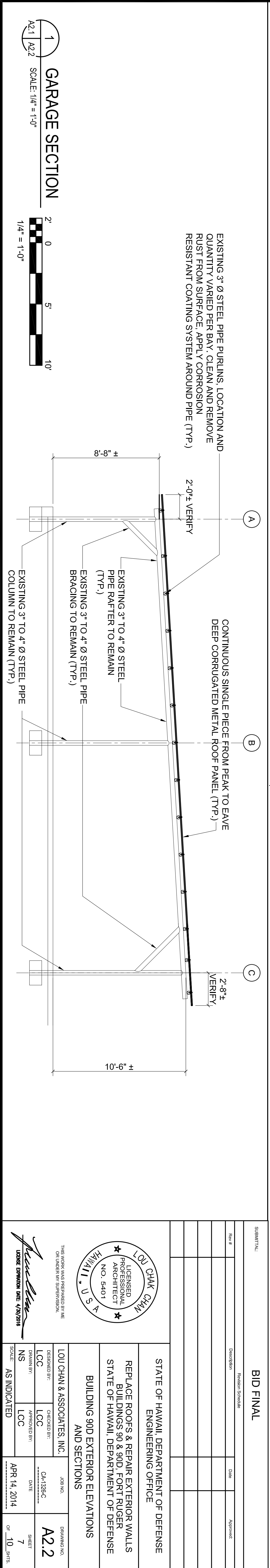
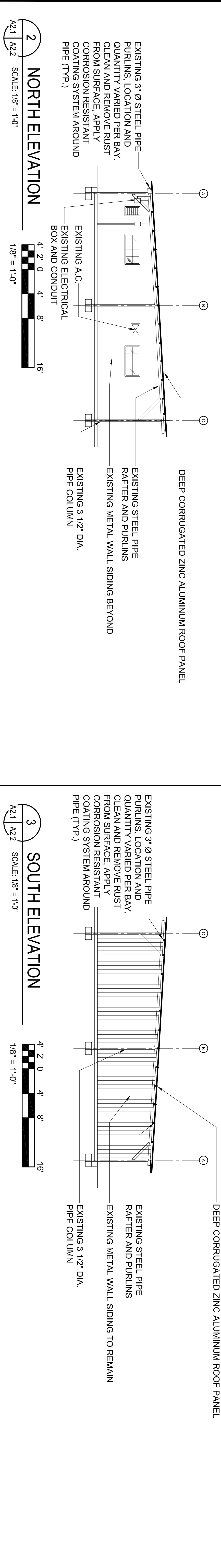
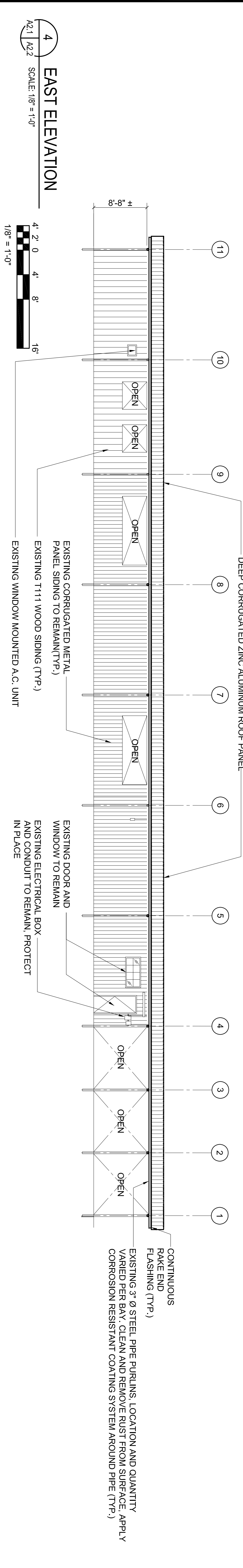
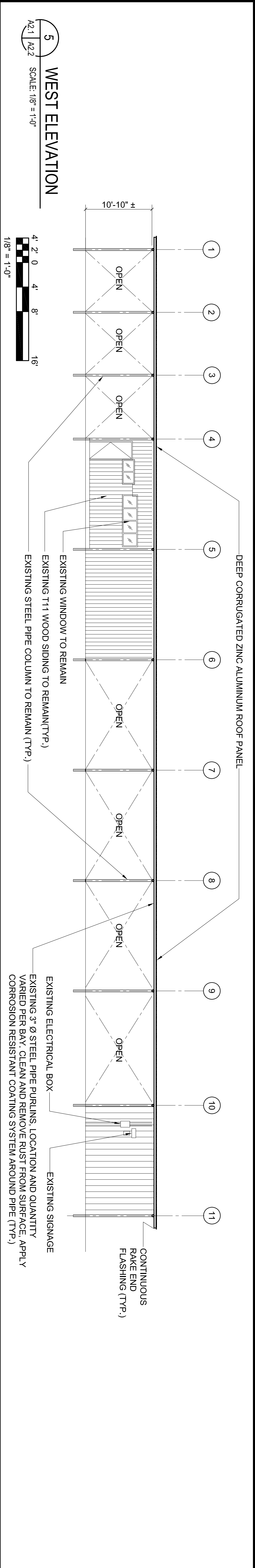
LICENSE EXPIRATION DATE: 4/30/2016

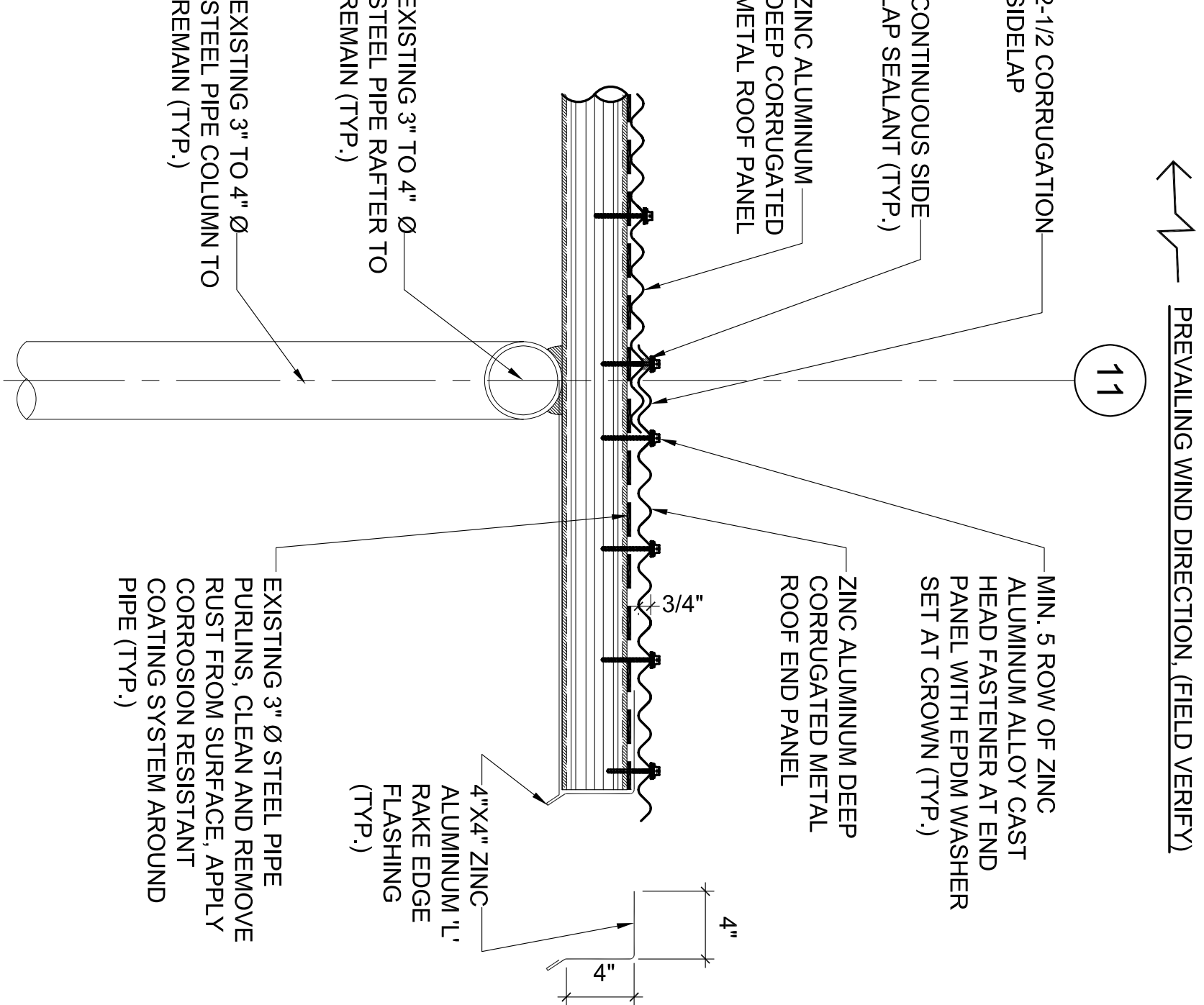
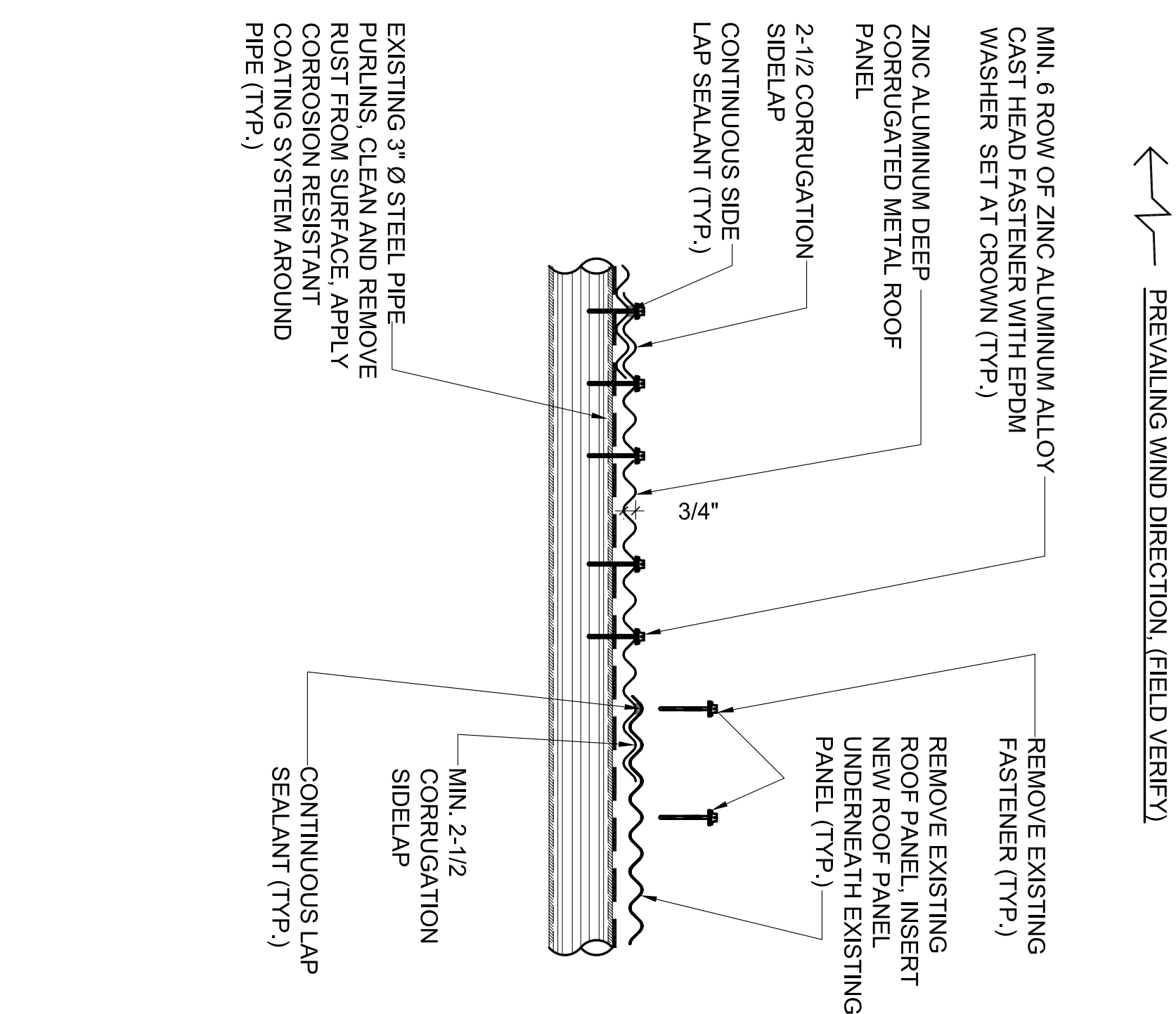
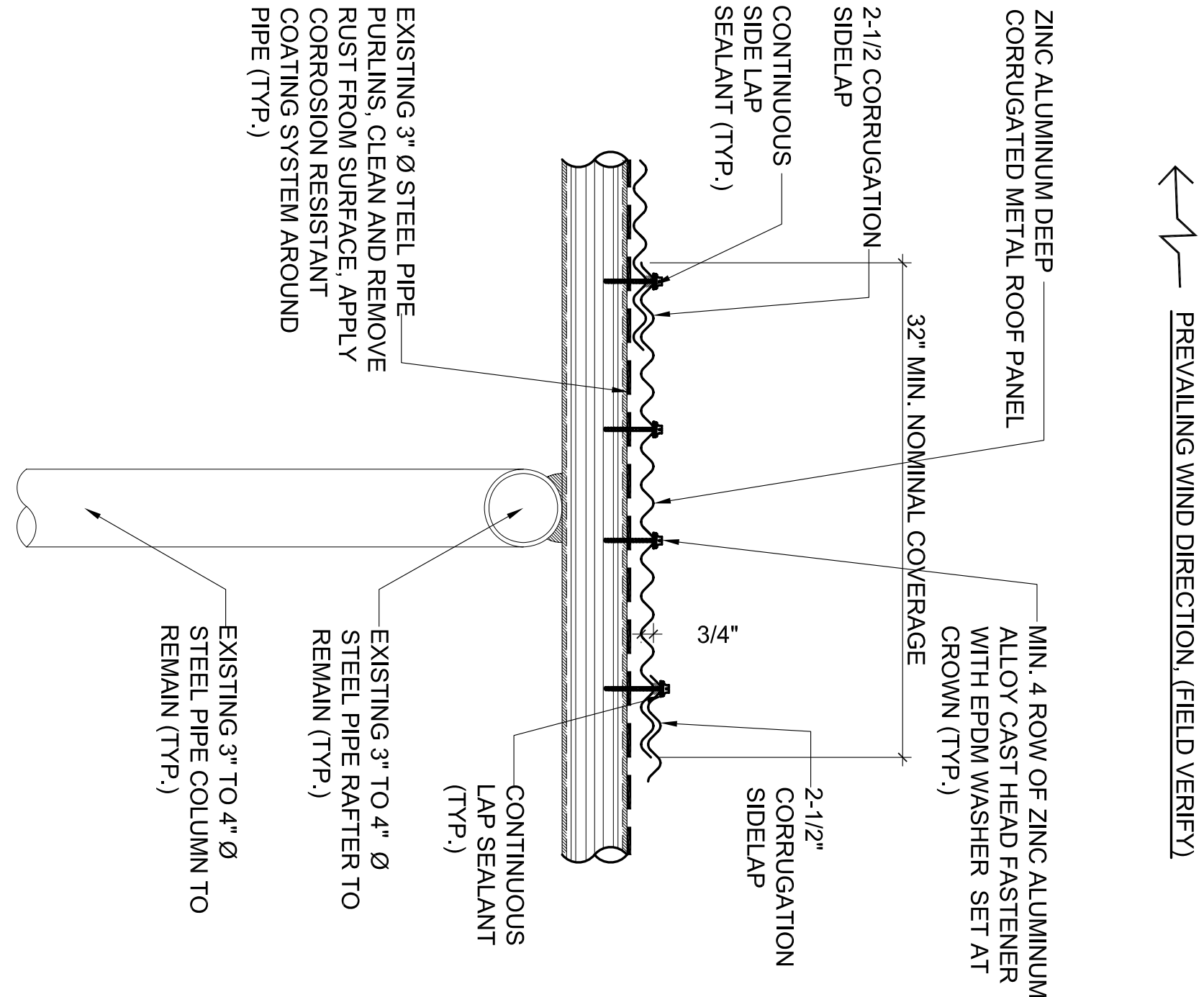
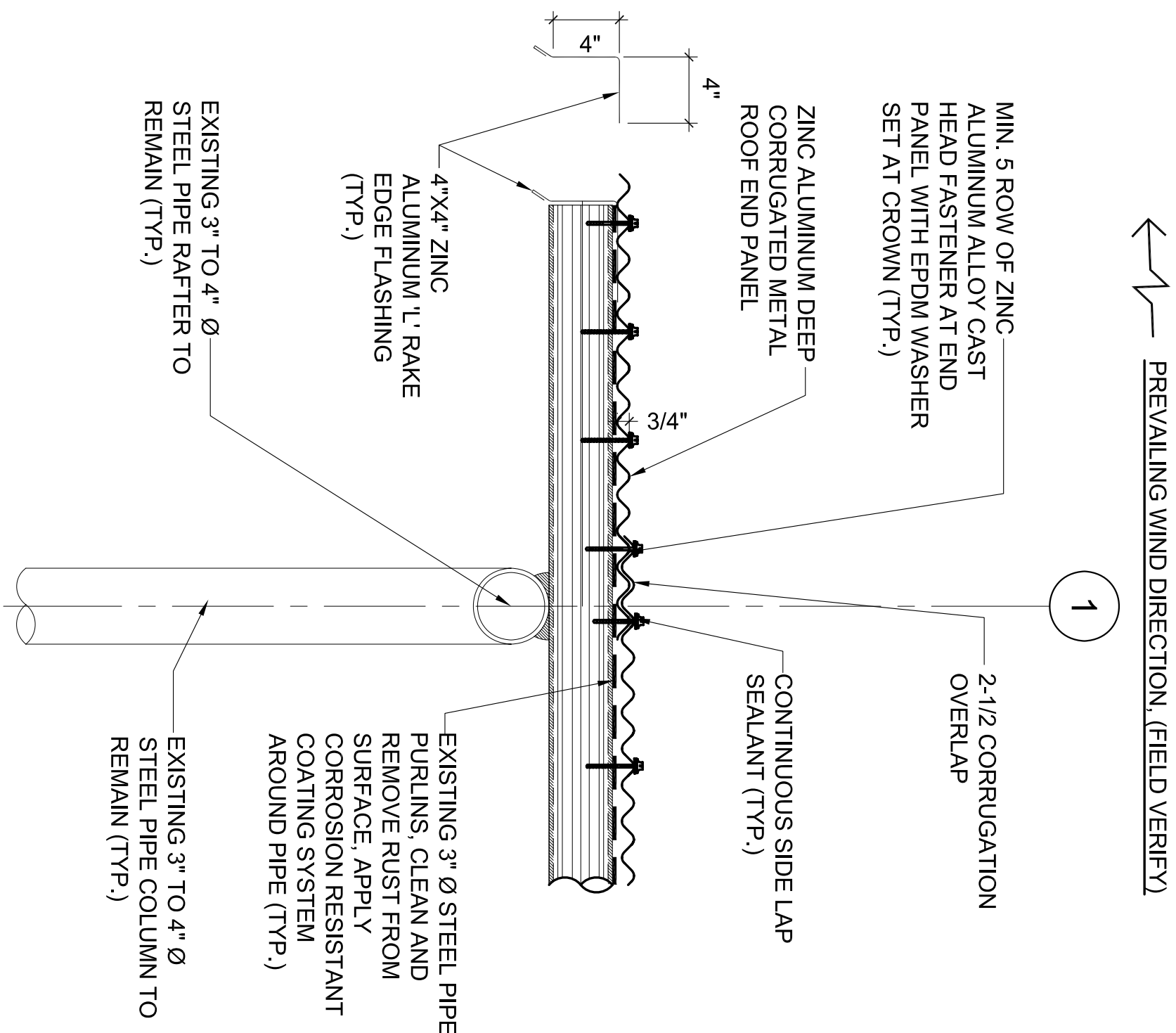
LOU CHAN & ASSOCIATES, INC.

REGISTERED PROFESSIONAL ARCHITECT

HAWAII, U.S.A.

NO. 5401





C1 RAKE END PANEL LAP AND MOUNTING DETAIL

A2.1 | A4.2 SCALE 1-1/2"=1'-0"

C2 LAP AND MOUNTING DETAIL AT MD SPAN

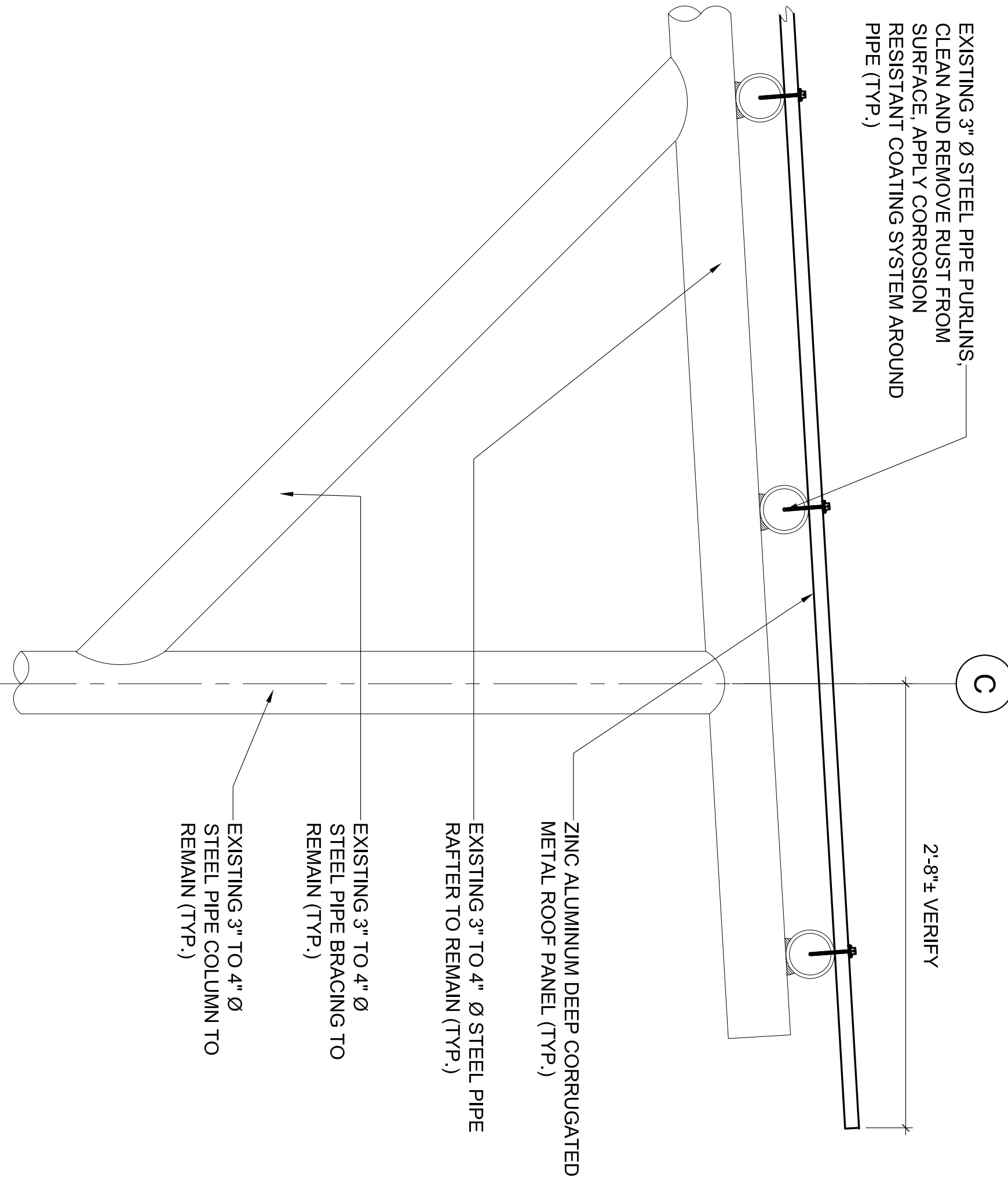
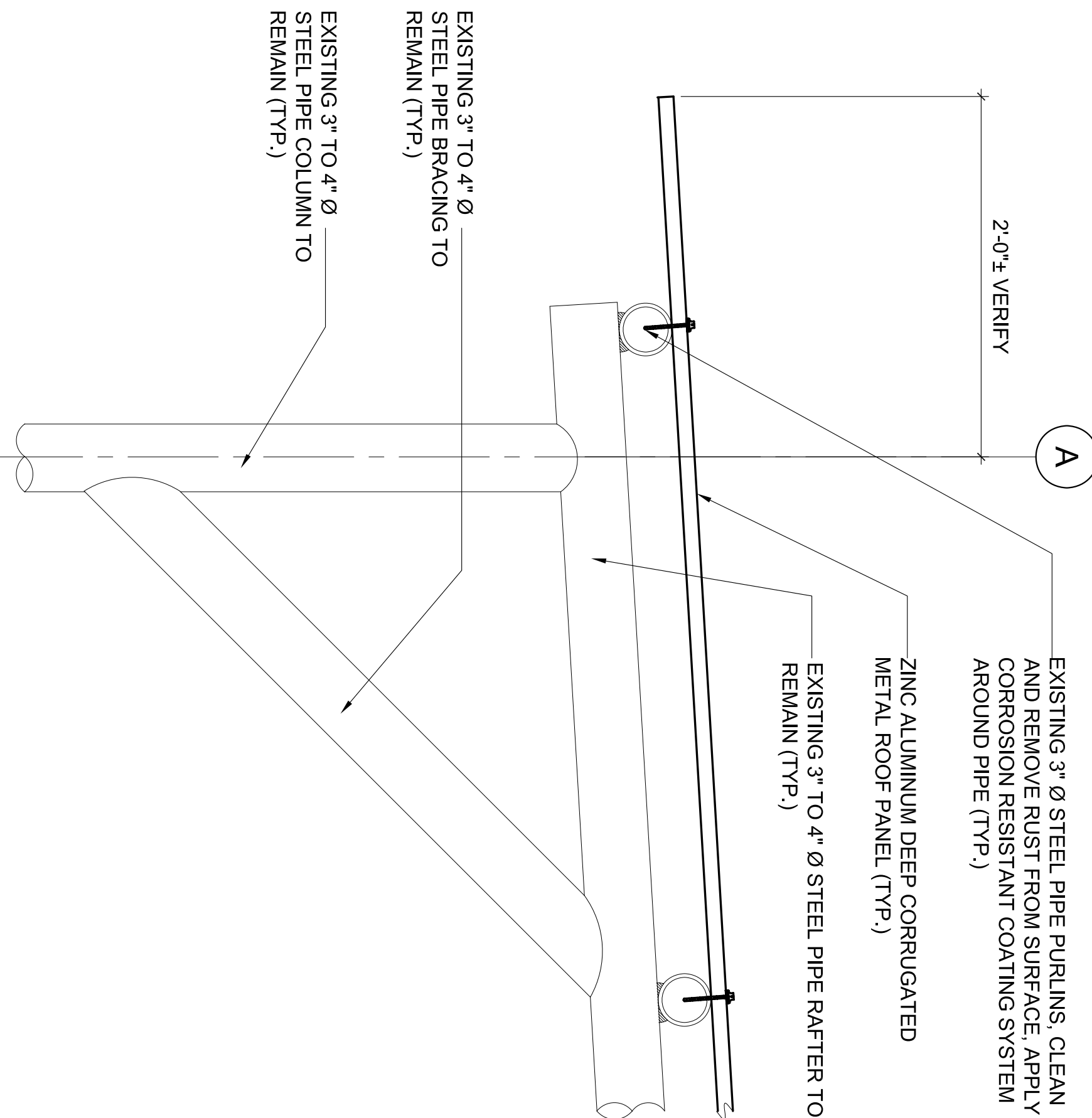
A2.1 | A4.2 SCALE 1-1/2"=1'-0"

C3 LAP BETWEEN EXISTING AND NEW PANEL

A2.1 | A4.2 SCALE 1-1/2"=1'-0"

C4 RAKE END PANEL LAP AND MOUNTING DETAIL

A2.1 | A4.2 SCALE 1-1/2"=1'-0"



A1 CORrugATE ROOF PANEL - CONDITION AT ROOF EAVE

A2.1 | A4.2 SCALE 1-1/2"=1'-0"

A2 CORrugATE ROOF PANEL - CONDITION AT ROOF PEAK

A2.1 | A4.2 SCALE 1-1/2"=1'-0"

BID FINAL

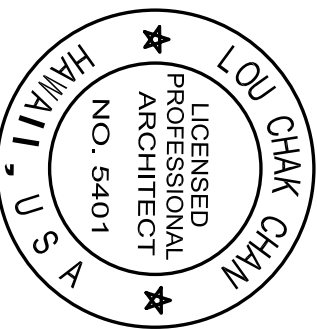
| SUBMITTAL | | |
|-------------------|------|-----------|
| Revision Schedule | Date | Approval: |
| Rev # | | |
| | | |
| | | |
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STATE OF HAWAII, DEPARTMENT OF DEFENSE
ENGINEERING OFFICE

REPLACE ROOFS & REPAIR EXTERIOR WALLS
BUILDINGS 90 & 90D, FORT RUGER
STATE OF HAWAII, DEPARTMENT OF DEFENSE

ROOFING DETAILS

| | | | |
|-----------------------------|--------------|--------------|--------------|
| LOU CHAN & ASSOCIATES, INC. | | JOB NO. | DRAWING NO. |
| DESIGNED BY: | LCC | CA-1322-C | A4.2 |
| CHECKED BY: | LCC | DATE | SHEET |
| DRAWN BY: | NS | APR 14, 2014 | 9 |
| SCALE: | AS INDICATED | | OF 10 SHEETS |



THIS WORK WAS REVIEWED BY ME
ON UNDER MY SUPERVISION

Lou Chan
LICENSE EXPIRATION DATE 4/30/2016

