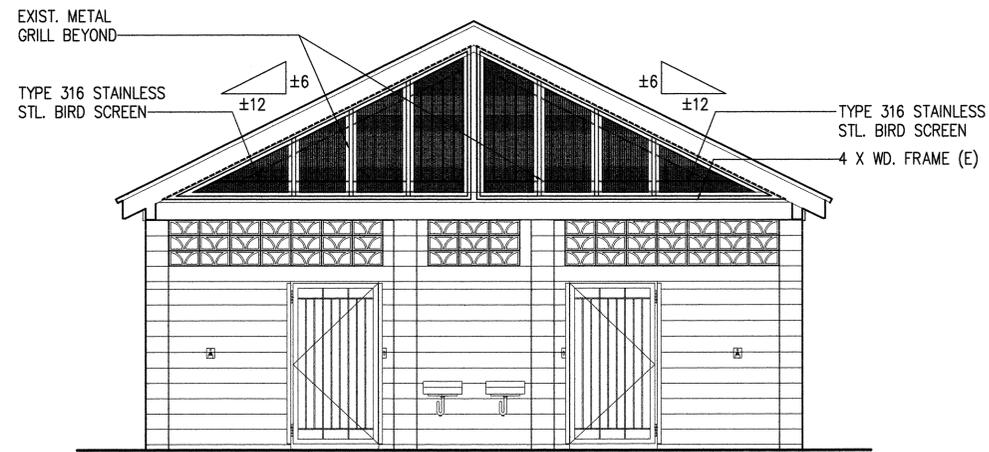
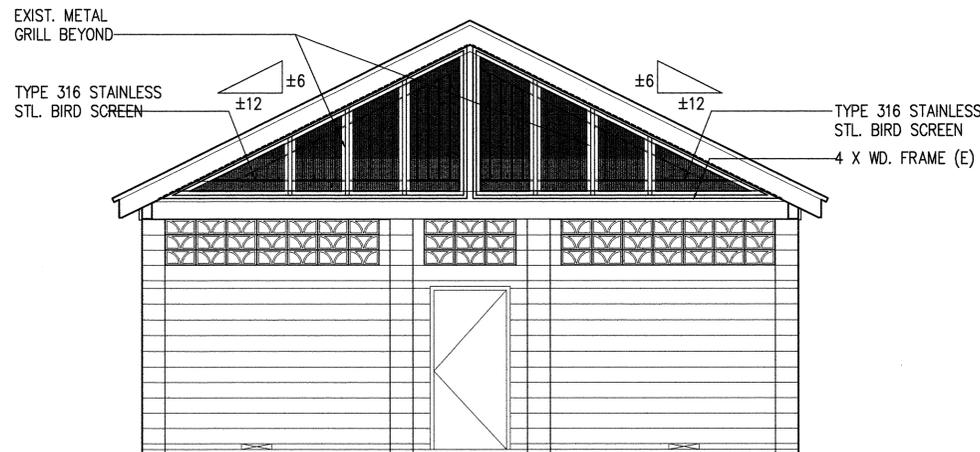


**C WOMEN'S RESTROOM - INTERIOR ELEVATIONS (MEN'S RESTROOM SIMILAR BUT REVERSED)**  
 A-12 SCALE : 1/4" = 1'-0"



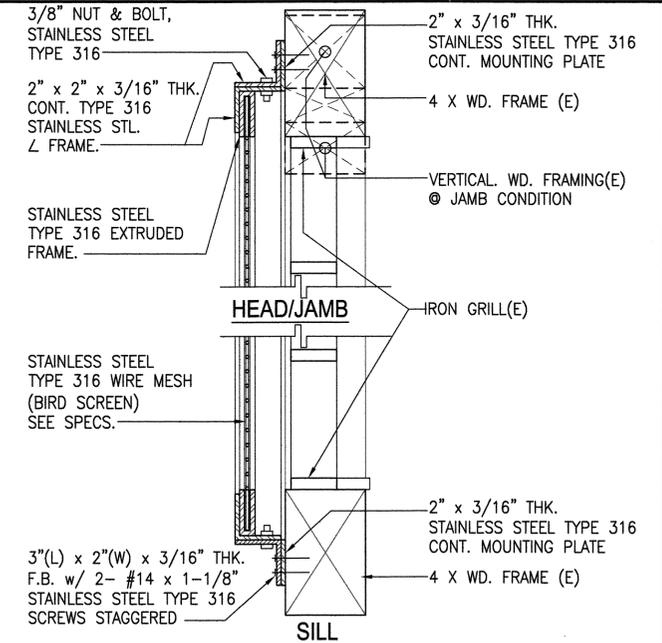
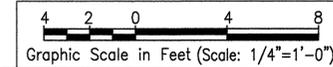
NOTE: SEE 1/A-12 FOR TYP. BIRD SCREEN ELEVATION.

**A BEACH COMFORT STATION - FRONT ELEVATION**  
 A-12 SCALE : 1/4" = 1'-0"

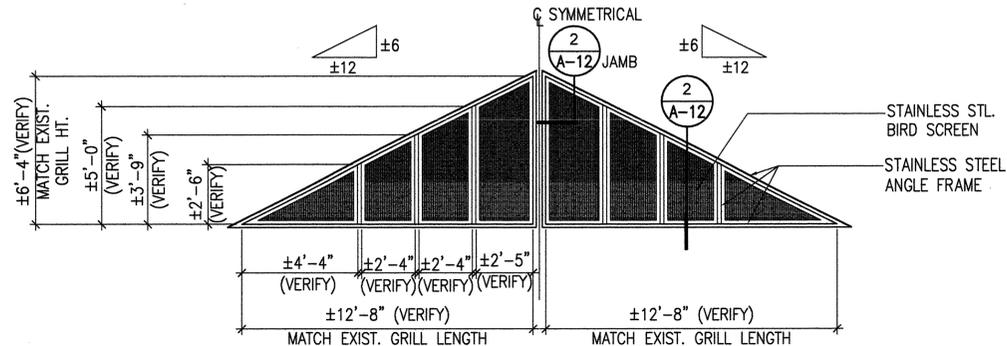
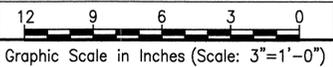


NOTE: SEE 1/A-12 FOR TYP. BIRD SCREEN ELEVATION.

**B BEACH COMFORT STATION - REAR ELEVATION**  
 A-12 SCALE : 1/4" = 1'-0"



**2 BIRD SCREEN DETAILS**  
 A-12 SCALE : 3" = 1'-0"



**1 TYP. BIRD SCREEN ELEVATION**  
 A-12 SCALE : 1/4" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED

STATE OF HAWAII  
 DEPARTMENT OF LAND AND NATURAL RESOURCES  
 ENGINEERING DIVISION

HAPUNA BEACH STATE  
 RECREATION AREA PHASE 3 PARK  
 IMPROVEMENTS AND REPAIRS

WAIALEA BEACH COMFORT STATION - BIRD SCREENS @  
 FRONT & REAR EXTERIOR ELEVATIONS, BIRD SCREEN DETAILS

DESIGNED: RA  
 DRAWN: BGJ  
 CHECKED: KS  
 APPROVED: *[Signature]*  
 EXPIRES: 4/30/2018

SUBMITTED:   
 DATE: APRIL 2016  
 SCALE:   
 DATE: MAY - 3 2016  
 CHIEF ENGINEER

**GENERAL NOTES:**

1. THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND CONDITIONS PRIOR TO STARTING WORK. ALL DISCREPANCIES SHALL BE PROMPTLY REPORTED TO THE ENGINEER.
2. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
3. UNLESS SPECIFICALLY DETAILED ELSEWHERE, CONTRACTOR SHALL FOLLOW TYPICAL DETAILS ON THIS SHEET AND ON SHEET S-2.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR JOBSITE SAFETY.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING SHORING, LAGGING, BRACING, AND PROTECTION OF ADJACENT PROPERTIES AND UTILITIES.

**REINFORCING STEEL:**

1. UNLESS OTHERWISE INDICATED ON PLANS AND/OR SCHEDULE, ALL REINFORCING STEEL SHALL BE DEFORMED BARS WHICH SHALL CONFORM TO THE STANDARD SPECIFICATION OF ASTM A615 GRADE 60, EXCEPT BARS THAT ARE WELDED. BARS THAT SEE WELDED, SHALL CONFIRM TO ASTM A706 GRADE 60.
2. ALL REINFORCING SHALL BE EPOXY COATED PER ASTM A775.
3. LOW HYDROGEN WELDING RODS SHALL BE USED FOR ALL WELDING TO REINFORCING BARS.
4. REINFORCING SHALL BE SPLICED ONLY AS SHOWN ON DRAWINGS. ALL OTHER SPLICES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
5. BARS NOTED AS "CONT." SHALL BE SPLICED A MINIMUM OF 40 BAR DIAMETERS OR 24 INCHES, WHICHEVER IS LONGER.
6. ALL REINFORCING STEEL, ANCHOR BOLTS AND OTHER INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.
7. MINIMUM CONCRETE PROTECTION FOR REINFORCING STEEL, UNLESS OTHERWISE SHOWN:
  - A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: ..... 3"
  - B. FORMED SURFACES CONCRETE EXPOSED TO EARTH OR WEATHER: NO. 5 BAR, W31, OR D31 WIRE AND SMALLER: ..... 2"
8. LAP SPLICES IN ADJACENT BARS SHALL BE STAGGERED ONE LAP LENGTH MINIMUM.

**CONCRETE:**

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318-05.
2. SLEEVES EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. PIPE MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES BUT SHALL NOT BE EMBEDDED THEREIN.
3. SECURE ALL BOLTS, ANCHORS, INSERTS, ETC. AND VERIFY ALL GROOVES, SLOTS, AND FINISHES PRIOR TO PLACING CONCRETE.
4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO THE POURING OF ANY STRUCTURAL CONCRETE SO AN INSPECTION CAN BE MADE OF ALL FORMS AND REINFORCING STEEL.
5. THE 28-DAY COMPRESSIVE STRENGTH AND MAXIMUM AGGREGATE SIZE OF CONCRETE SHALL BE AS FOLLOWS:
 

	STRENGTH (PSI)	MAX. AGGREGATE
ALL OTHER CONCRETE	4,000	3/4"
6. MAXIMUM WATER/CEMENT RATIO FOR ALL CONCRETE SHALL BE 0.42. NO WATER SHALL BE ADDED IN THE FIELD.
7. ALL CONCRETE WHICH CONTAIN REINFORCING STEEL WHETHER EPOXY COATED OR NOT SHALL CONTAIN INTEGRAL CORROSION INHIBITING ADMIXTURE KIM, KRYTON. DOSAGE RATE SHALL BE AS RECOMMENDED BY MANUFACTURER.
8. ALL WALKWAYS SHALL BE BROOMED FINISH.
9. WHERE INDICATED ON THESE PLANS AND DETAILS A/S-1, SYNTHETIC FIBER MEETING SPECIFICATION REQUIREMENTS SHALL BE THE ONLY REINFORCING IN CERTAIN SLAB-ON-GRADES.

**CONCRETE REPAIR MATERIAL:**

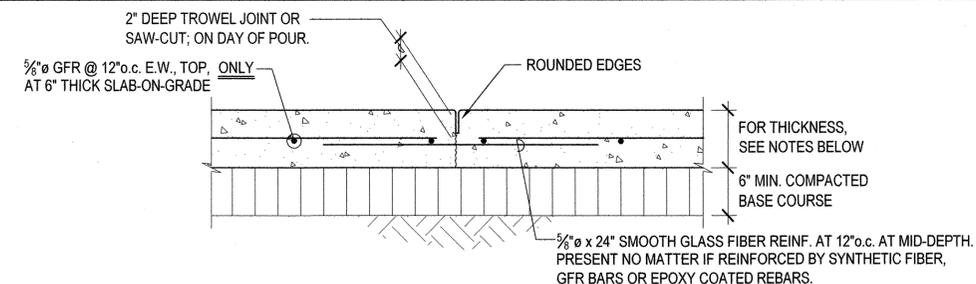
1. PATCHING MORTAR SHALL BE A FACTORY BLENDED PATCHING MATERIAL COMBINED WITH A LATEX ADMIXTURE CORROSION INHIBITOR HAVING A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS AND BE USED FOR REPAIRS WHERE FORMING IS NOT REQUIRED, AND THE MAXIMUM THICKNESS IS 2 INCHES OR LESS.
2. POLYMER MODIFIED CONCRETE SHALL BE A MIXTURE OF CEMENT, FINE AGGREGATE, LATEX ADMIXTURE, SUPER-PLASTICIZING ADMIXTURE, CORROSION INHIBITOR AND WATER. IT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS AND BE USED FOR REPAIRS WHERE FORMING IS REQUIRED.

**GLASS FIBER-REINFORCED BARS:**

1. THE FOLLOWING TERMS SHALL ALL BE INTERCHANGEABLE:
  - A) "FIBER-GLASS REINFORCING"
  - B) "GLASS FIBER-REINFORCING"
  - C) GFRP OR "GLASS FIBER-REINFORCING POLYMER BARS"
2. THE TERM "FRP" INDICATES FIBER-REINFORCED POLYMER, OF WHICH THERE ARE TWO TYPES, CFRP CARBON FIBER-REINFORCED POLYMER BARS AND GFRP GLASS FIBER-REINFORCED POLYMER BAR. IN THIS PROJECT ALL "FRP" ARE "GFRP" TYPE.
3. FIBER-GLASS REINFORCING SHALL HAVE THE FOLLOWING PROPERTIES:
  - A) GRADE F60
  - B) MODULUS OF ELASTICITY E5.7
4. FIBER-GLASS REINFORCING SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE, ACI 440.6-08, "SPECIFICATION FOR CARBON AND GLASS FIBER-REINFORCED POLYMER BARS MATERIALS FOR CONCRETE REINFORCEMENT"
5. CONSTRUCTION USING FIBER-GLASS REINFORCING SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE, ACI 440.5-08, "SPECIFICATION FOR CONSTRUCTION WITH FIBER-REINFORCED POLYMER REINFORCING BARS" AND ACI 440.1R-06.
6. CLEAR COVER FOR FIBER-GLASS REINFORCING SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
  - FORMED SURFACES EXPOSED TO EARTH OR WEATHER ..... 2-INCHES
  - CONCRETE POURED AGAINST FILL OR SUBGRADE ..... 3-INCHES

**SHORING, DEMOLITION AND RECONSTRUCTION NOTES:**

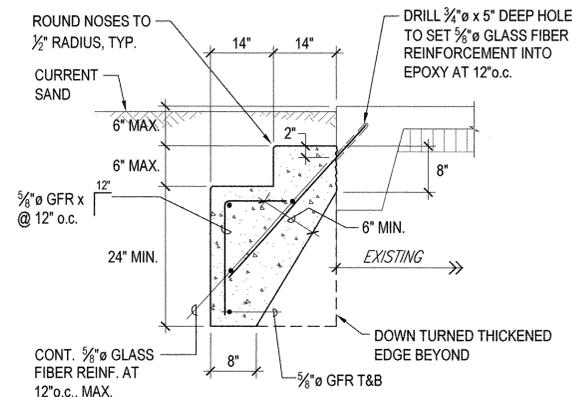
1. THE DESIGN, METHOD AND IMPLEMENTATION OF THE SHORING IN ORDER TO DEMOLISH THE REQUIRED ITEMS, INSTALL UPGRADES SUCH AS PLUMBING PIPES, ETC., AND RESTORE THOSE ITEMS TO THE ORIGINAL CONDITION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL HIRE THE EXPERTISE OF A STRUCTURAL ENGINEER AS REQUIRED.
2. THE ORIGINAL STRUCTURAL PLANS OF THE BUILDINGS IS SHOWN ON SHEETS S-6 AND S-7. THE AS-BUILTS ARE NOT TO SCALE. THE CONTRACTOR SHALL VERIFY WHETHER THE EXISTING CONDITIONS WERE BUILT IN ACCORDANCE TO THESE PLANS. SLIGHT VARIATION OF THE EXISTING CONDITION AND THESE AS-BUILT ARE POSSIBLE. ONE SUCH VARIATION IS AT THE NORTH AND SOUTH COMFORT STATIONS, WHERE THE AS-BUILT SHOWS A SINGLE CMU WALL BETWEEN THE MEN'S AND WOMEN'S TOILETS, HOWEVER IN THE FIELD, TWO CMU WALLS FORMING A CHASE WALL OCCURS. THERE SHALL BE NO ADDITIONAL COST FOR THIS CONFLICT BETWEEN THE AS-BUILTS AND ACTUAL CONDITION, FOR IT HAS BEEN BROUGHT TO THE CONTRACTOR'S ATTENTION HEREIN.
3. FOR DEMOLITION OF CMU, PRIOR TO DEMOLITION THE CMU SHALL BE SAW-CUT BEFORE CHIPPING OUT. REINFORCING DOWELED OUT OF EXISTING THE SLAB SHALL BE RETAINED AND REMAIN UNDAMAGED. SPLICES SHALL BE MADE BY EITHER LAPPING 24 INCHES OR 40 BAR DIAMETER, WHICHEVER IS GREATER OR BY MECHANICAL COUPLERS WHICH DEVELOP 100% OF THE ULTIMATE CAPACITY OF THE REINFORCING. WHERE NEW REPLACEMENT CMU ABUTS EXISTING CMU, #4 X 2'-0" DOWELS SHALL BE INSTALLED AT 16 INCHES ON CENTER. DOWEL SHALL BE INSTALLED BY DRILLING 5/8" DIAMETER HOLE X 4 INCHES DEEP AND EPOXYING INTO PLACE. IF CELL IS HOLLOW, BREAK EXISTING CELL AND SOLID GROUT.
4. FOR DEMOLITION OF CONCRETE SLAB ON GRADE AND THICKENED SLAB FOOTINGS, PRIOR TO DEMOLITION, THE SLAB SHALL BE SAW-CUT TO A DEPTH OF AT LEAST 1 INCH BUT NOT MORE THAN 1 1/2 INCHES AND CHIPPED OUT. EXISTING REINFORCING PROTRUDING OUT OF THICKENED SLAB FOOTING WHICH IS TO REMAIN, SHALL NOT BE DAMAGED DURING DEMOLITION. LONGITUDINAL BOTTOM REINFORCING MAY BE REPLACED WITH NEW STEEL UN-COATED REINFORCING OF SIMILAR SIZE. THE SIZE AND BOTTOM REINFORCING OF THE THICKENED EDGE SHALL BE RESTORED AS SHOWN ON THE AS-BUILT DRAWINGS. PRIOR TO RE-POURING THE CONCRETE FOR THE THICKENED EDGE, THE EXISTING FACE SHALL BE COATED WITH LATEX BONDING AGENT. THE SLAB PORTION OF THE CONCRETE SHALL BE CONNECTED TO THE EXISTING SHALL BE AS SHOWN ON DETAIL C/S-2. SLAB SHALL BE REINFORCED WITH GFR BARS AS SHOWN ON A/S-1.



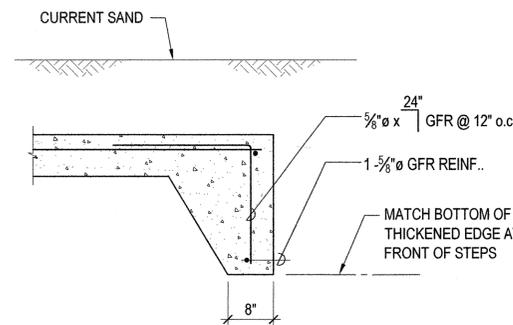
**NOTES:**

1. UNLESS OTHERWISE NOTED, C.J. SHALL BE SPACED NO GREATER THAN 5'-0" o.c., MAX. IN EACH DIRECTION, EXCEPT FOR 6'-0" WIDE SIDEWALK WHERE IT MAY BE SPACED AT 6'-0" o.c.
2. U.O.N., THICKNESS OF CONCRETE SLAB SHALL BE AS FOLLOWS:
  - 6" THICK AT 10'-0" WIDE WALKWAY THAT IS ALSO VEHICULAR TRAFFIC RATED.
  - 4" THICK AT 5'-0" AND 6'-0" WIDE WALKWAY THAT IS NON-VEHICULAR RATED.
  - 4" THICK AT ALL REMAINING NON-VEHICULAR CONCRETE SLABS.
  - 4 1/2" THICK AT EXISTING COMFORT STATION (REPLACEMENT SLAB)
3. U.O.N., ALL 4" THICK SLAB-ON-GRADE SHALL BE REINFORCED WITH SYNTHETIC FIBERS ONLY. U.O.N., ALL 6" SLAB-ON-GRADE SHALL BE REINFORCED WITH 5/8" o GFR AT 12" o.c., E.W., TOP. U.O.N., ALL 4 1/2" SLAB-ON-GRADE AT EXISTING COMFORT STATION SHALL BE REINFORCED WITH #4 EPOXY COATED REBARS AT 20" o.c., E.W., TOP.
4. FOR CROSS SLOPE AND ELEVATION, SEE CIVIL PLANS.

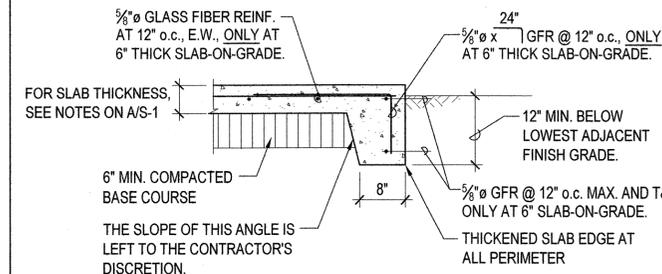
**A TYP. CRACK CONTROL JOINT (C.J.), SLAB THICKNESS AND REINFORCING**  
NOT TO SCALE



**B ADDITIONAL STEP(S) AT WASHOUT CONDITION**  
NOT TO SCALE



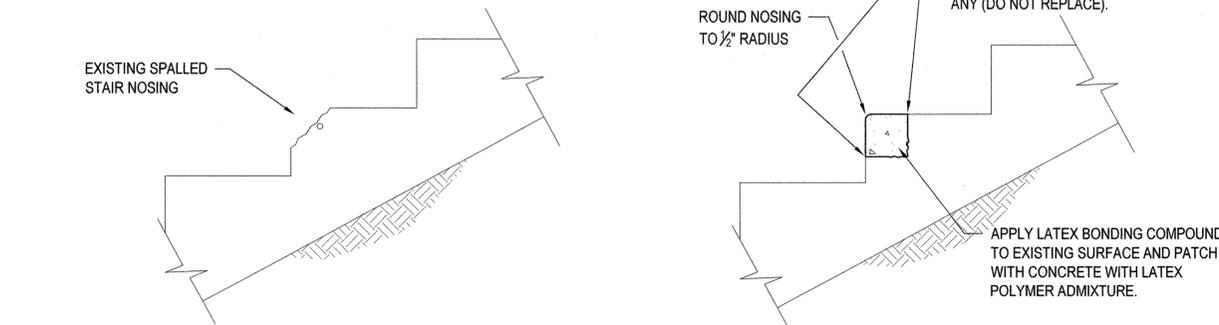
**CONDITION AT SIDES**



**NOTES:**

1. C.J. SHALL BE INSTALLED AT SPACING INDICATED ON DETAIL A/S-1
2. FOR CROSS SLOPE AND ELEVATION, SEE CIVIL PLANS.

**D TYPICAL CONCRETE SLAB AT EDGE NEXT TO GRADE**  
NOT TO SCALE

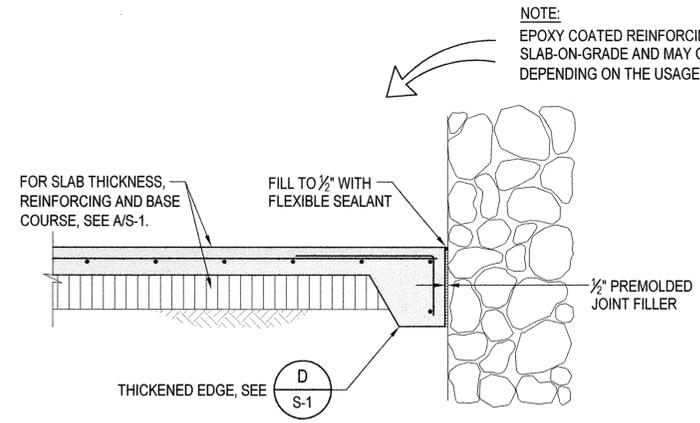


**C REPAIR OF SPALLED NOSING OF EXISTING STAIRS**  
NOT TO SCALE

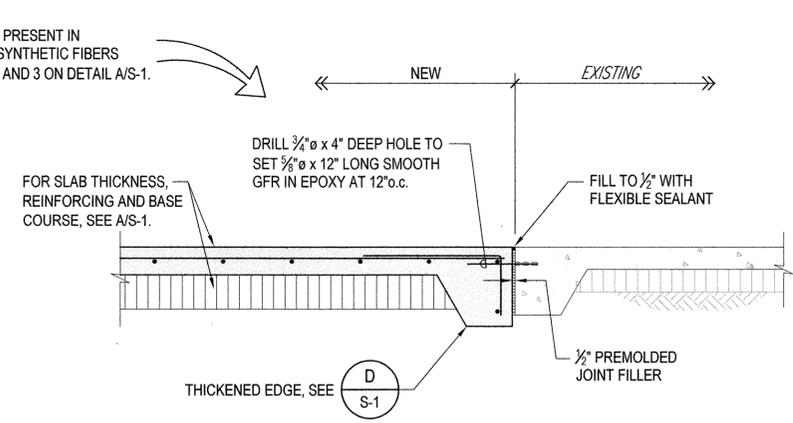
REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED

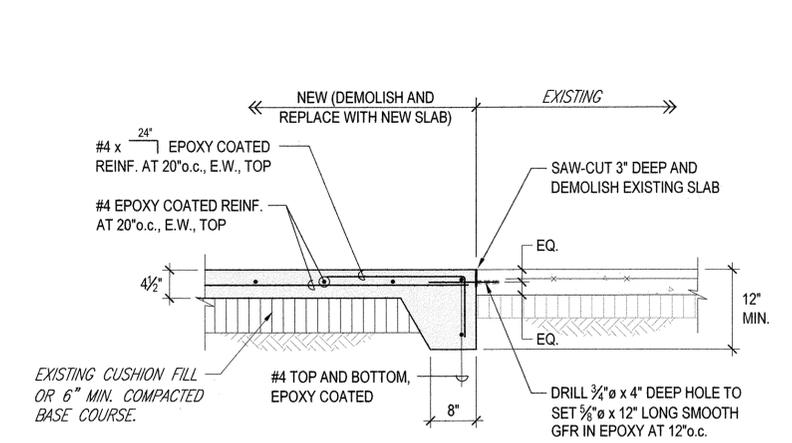
	STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION	
	HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS	
<b>GENERAL NOTES AND TYP. DETAILS</b>		
DESIGNED: C.S.	SUBMITTED: <input checked="" type="checkbox"/>	
DRAWN: M.M.	DATE: APRIL 2016	
CHECKED: C.S.	SCALE: AS NOTED	
APPROVED:	MAY - 3 2016	DRAWING NO. S-1
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.		



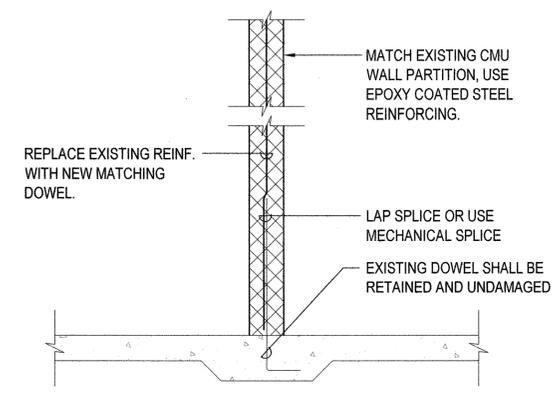
**A** TYPICAL DETAIL OF SLAB-ON-GRADE ADJACENT TO CRM, CMU, OR CONCRETE VERTICAL SURFACE  
 S-2 SCALE: 3/4" = 1'-0"



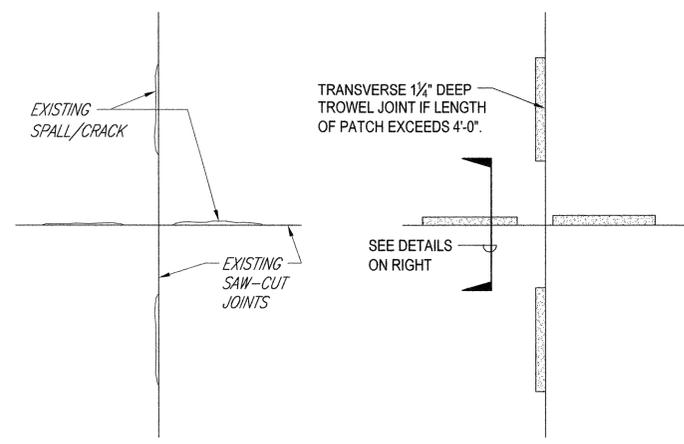
**B** TYPICAL EXPANSION JOINT AT NEW TO EXISTING SLAB-ON-GRADE AT EXTERIOR (EXPOSED TO DIRECT SUNLIGHT)  
 S-2 SCALE: 3/4" = 1'-0"



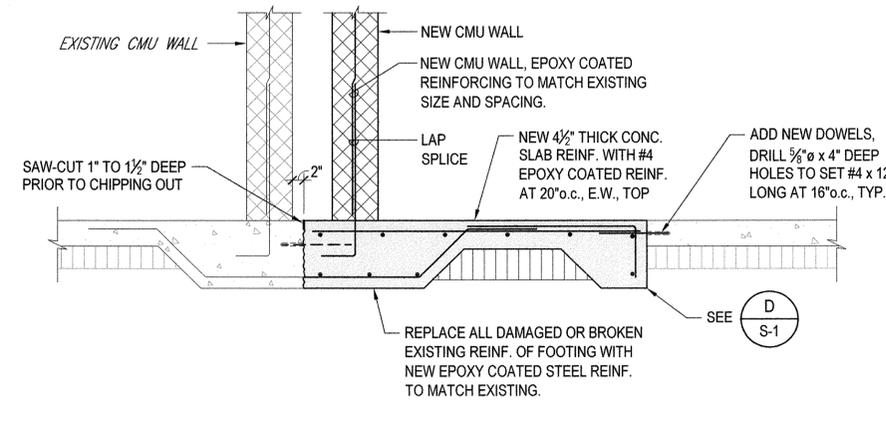
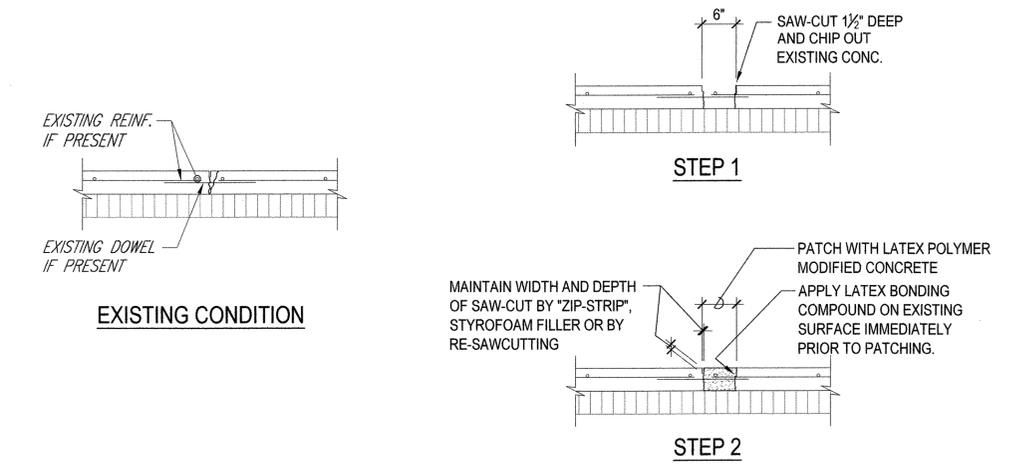
**C** SCHEMATIC DEMOLITION AND REPLACEMENT OF SLAB-ON-GRADE AT COMFORT STATION(S)  
 S-2 SCALE: 3/4" = 1'-0"



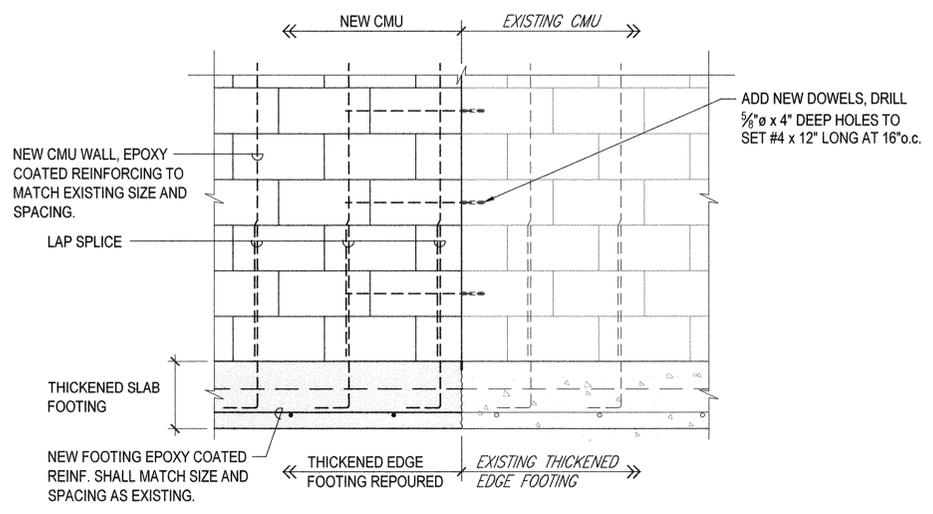
**D** SCHEMATIC DEMOLITION AND REPLACEMENT OF CMU WALL PARTITIONS AT COMFORT STATION(S)  
 S-2 SCALE: 3/4" = 1'-0"



**E** SPALL/CRACK REPAIR ALONG EXISTING CONTROL JOINTS  
 S-2 NOT TO SCALE



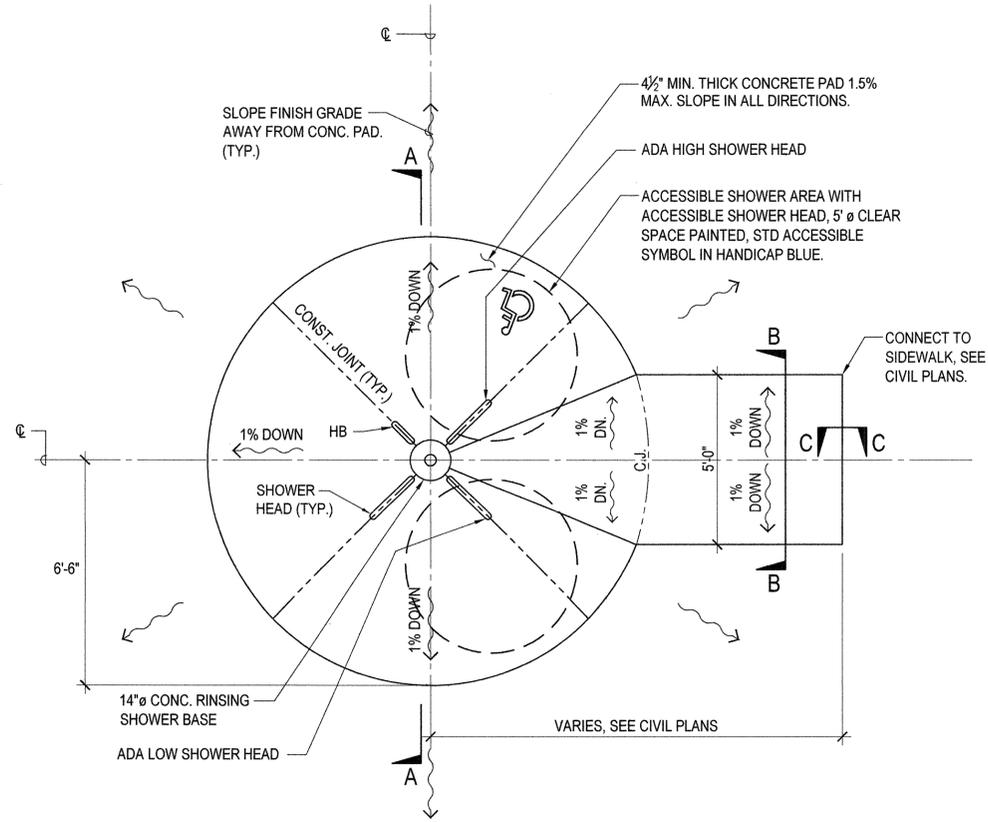
**F** SCHEMATIC CMU WALL - TRANSVERSE SECTION OF NEW REPLACEMENT WALL AT COMFORT STATION(S)  
 S-2 SCALE: 3/4" = 1'-0"



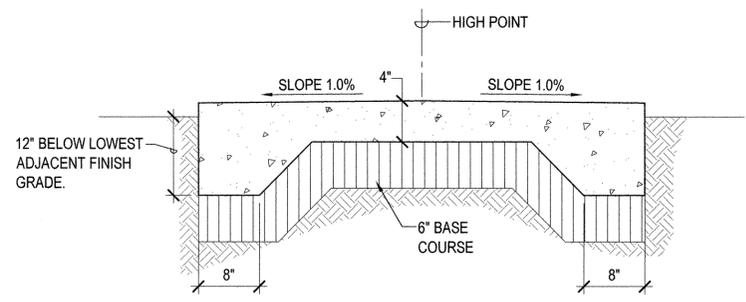
**G** SCHEMATIC CMU WALL - LONGITUDINAL ELEVATION AT NEW REPLACEMENT TO EXISTING AT COMFORT STATION(S)  
 S-2 SCALE: 3/4" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS TYPICAL DETAILS					
DESIGNED: C.S. DRAWN: M.M. CHECKED: C.S.		SUBMITTED: [Signature] DATE: APRIL 2016 SCALE: AS NOTED		EXPIRATION DATE: APRIL 30, 2018	
APPROVED: [Signature] CHIEF ENGINEER			MAY - 3 2016 DATE		DRAWING NO. <b>S-2</b>

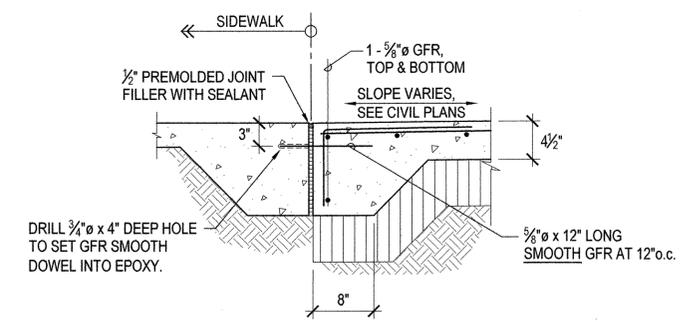
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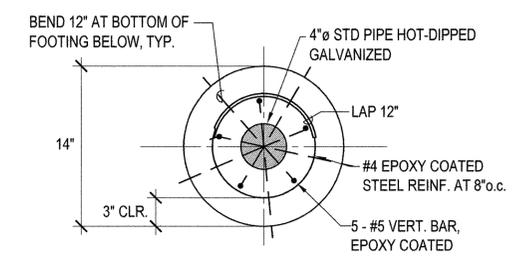
**1 RINSING SHOWER PLAN**  
S-3 NOT TO SCALE



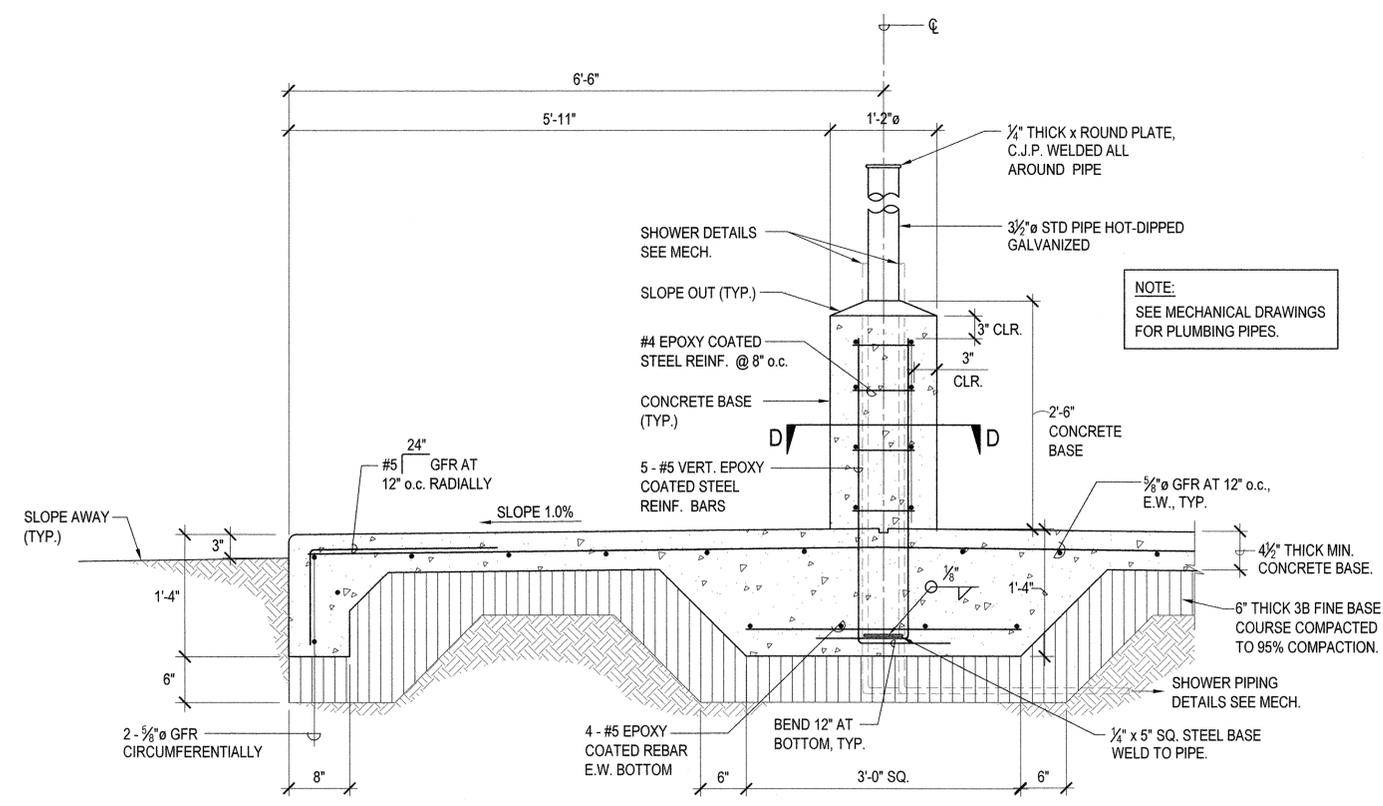
**B CONCRETE WALK - SECTION B-B**  
S-3 NOT TO SCALE



**C SECTION C-C**  
S-3 NOT TO SCALE



**D CONC. RINSING SHOWER BASE SECTION D-D**  
S-3 NOT TO SCALE



**A RINSING SHOWER - SECTION A-A**  
S-3 NOT TO SCALE

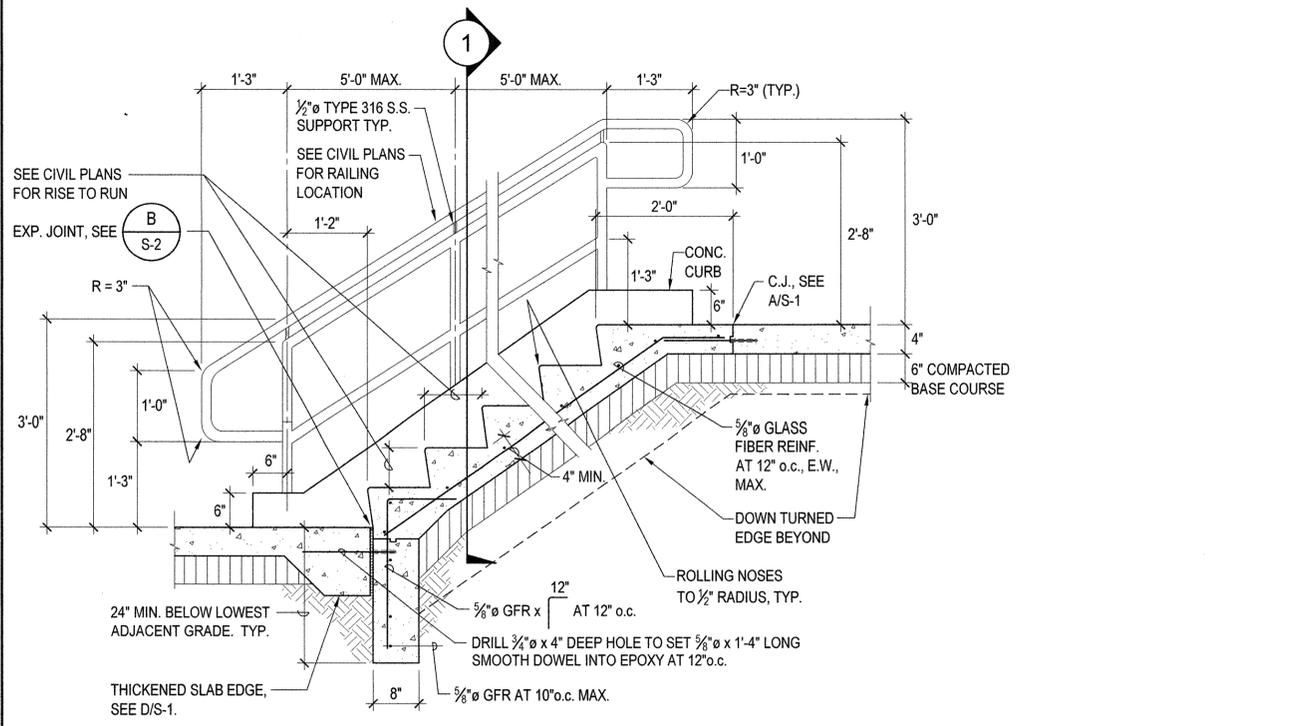
NOTE:  
SEE MECHANICAL DRAWINGS  
FOR PLUMBING PIPES.

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED

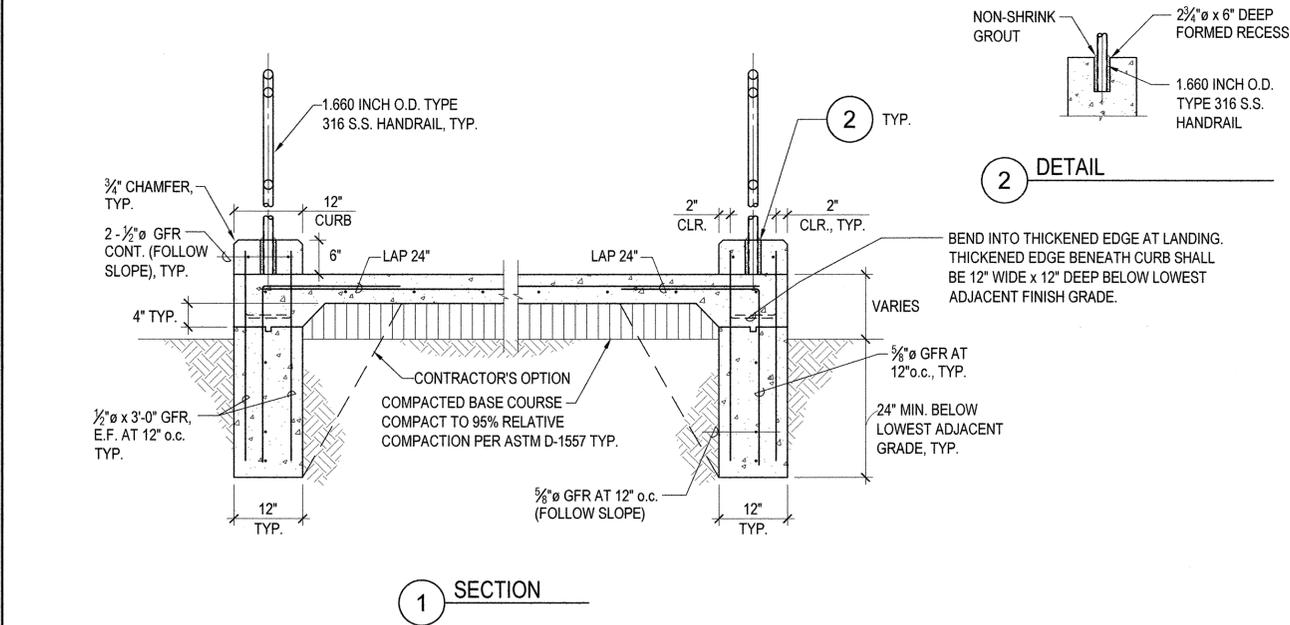
  

		STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION	
		HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS	
RINSING SHOWER PLAN AND SECTIONS			
DESIGNED: C.S.	SUBMITTED: [Signature]		
DRAWN: M.M.	DATE: APRIL 2016		
CHECKED: C.S.	SCALE: AS NOTED		
APPROVED: [Signature]	DATE: MAY - 3 2016	DRAWING NO. S-3	

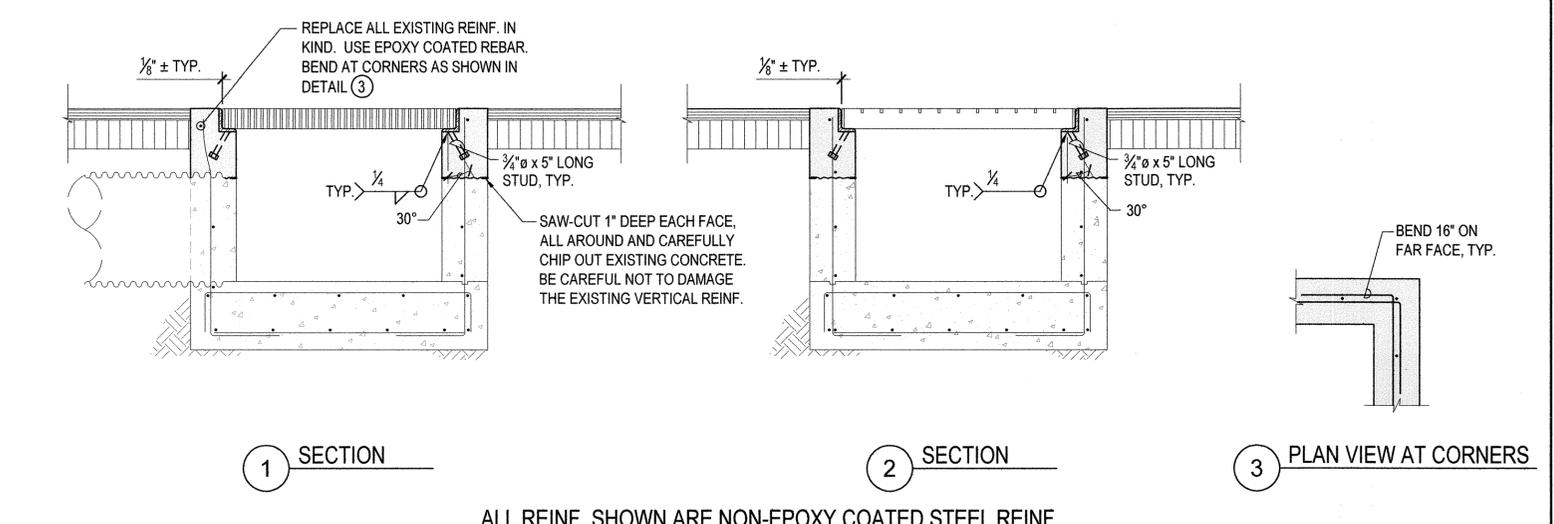
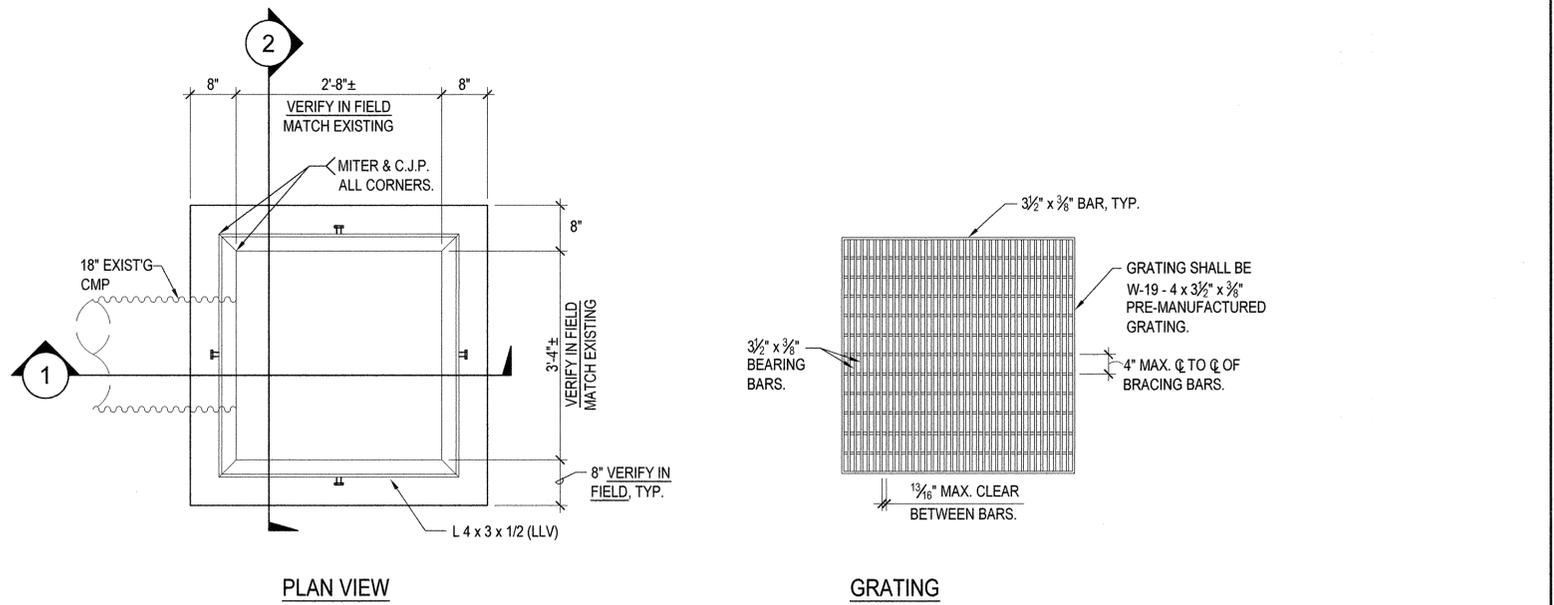
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- NOTES:**
1. ALL SURFACES EXCEPT CURBS SHALL BE BROOMED FINISH.
  2. FOR CROSS SLOPE AND ELEVATION, SEE CIVIL PLANS.



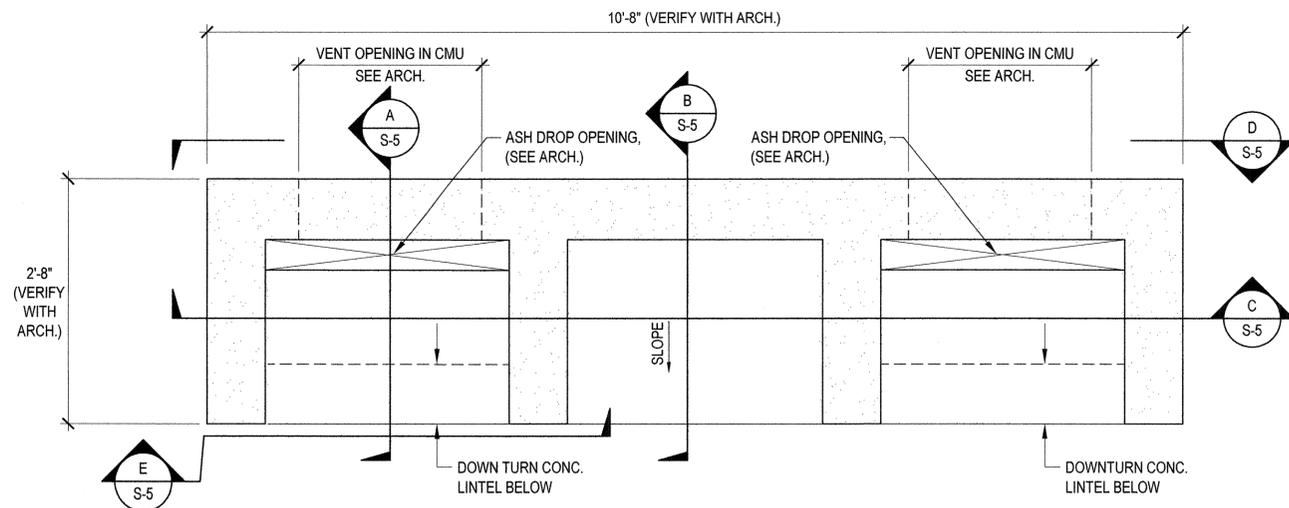
**A** TYPICAL NEW CONCRETE STAIRS  
S-4 NOT TO SCALE



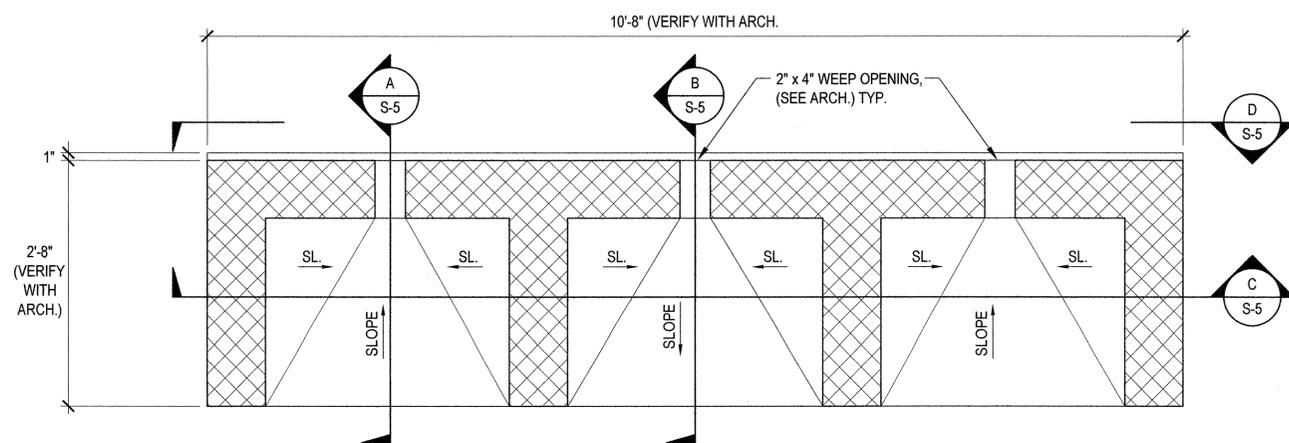
**B** DRAIN INLET  
S-4 NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS TYP. STAIRS AND DRAIN INLET DETAILS					
EXPIRATION DATE : APRIL 30, 2018					
DESIGNED:	C.S.	SUBMITTED:	✓	DATE:	APRIL 2016
DRAWN:	M.M.	CHECKED:	C.S.	SCALE:	AS NOTED
APPROVED:	MAY - 3 2016				DRAWING NO.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.				DATE	S-4

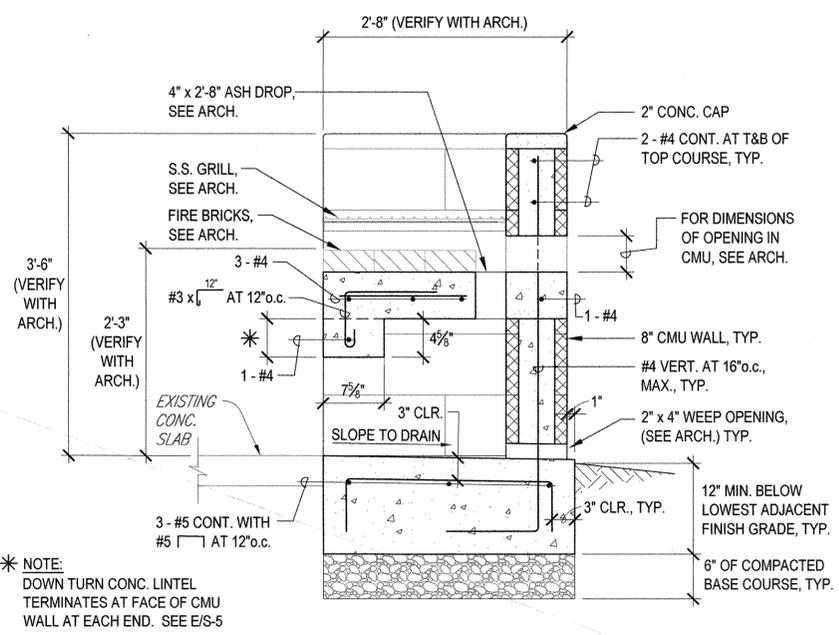
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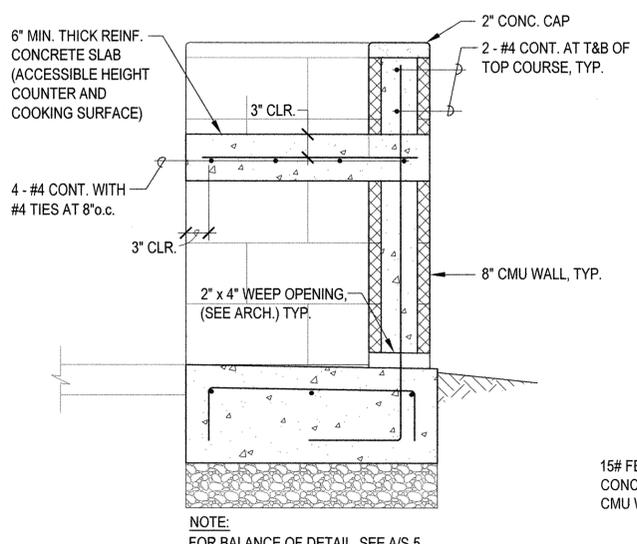
**1 PLAN - TOP VIEW**  
S-5 SCALE: 1" = 1'-0"



**2 FOUNDATION PLAN**  
S-5 SCALE: 1" = 1'-0"

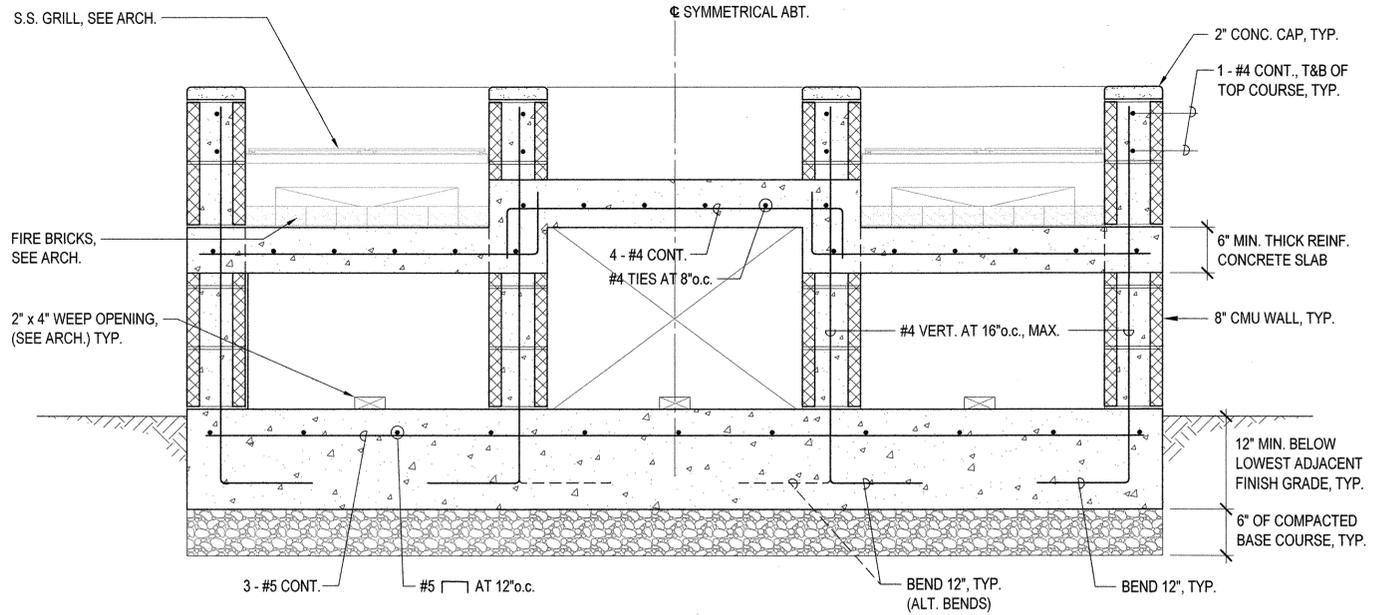


**A SECTION**  
S-5 SCALE: 1" = 1'-0"

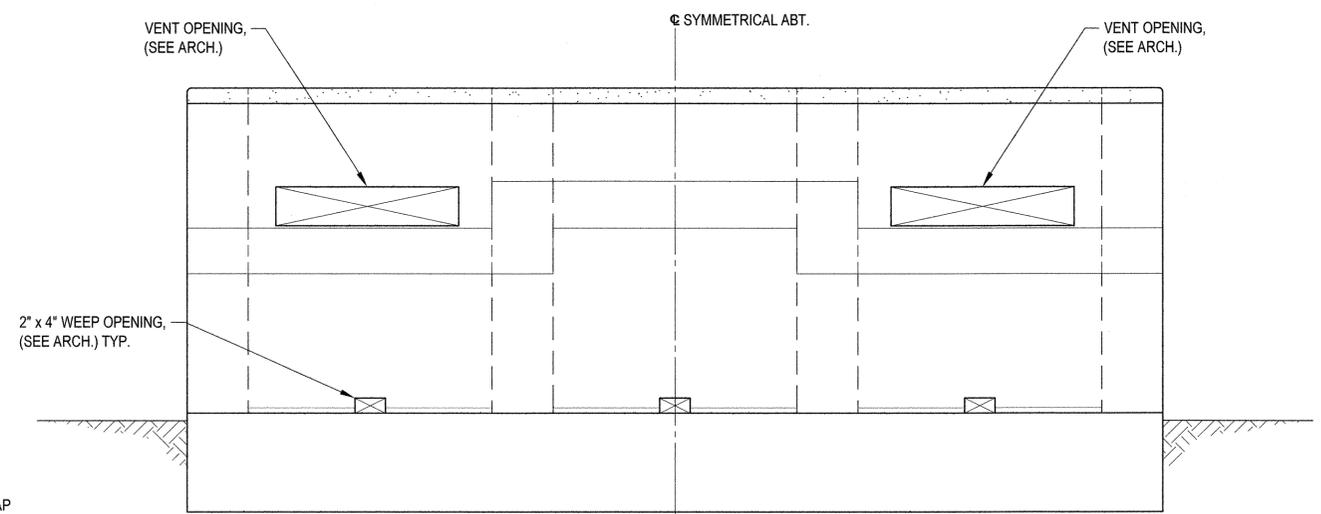


**B SECTION**  
S-5 SCALE: 1" = 1'-0"

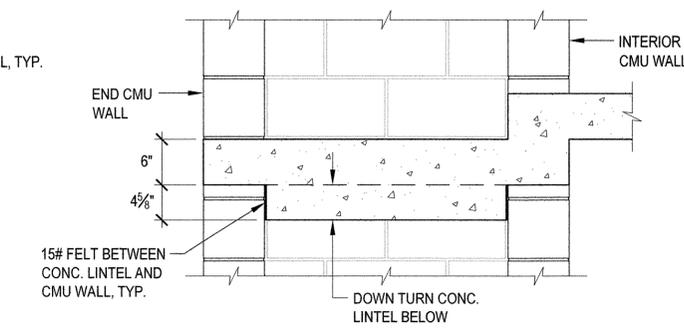
**NOTE:**  
ALL REINFORCING SHOWN FOR THE BARBEQUE GRILL SHALL BE EPOXY COATED.



**C LONGITUDINAL ELEVATION**  
S-5 SCALE: 1" = 1'-0"



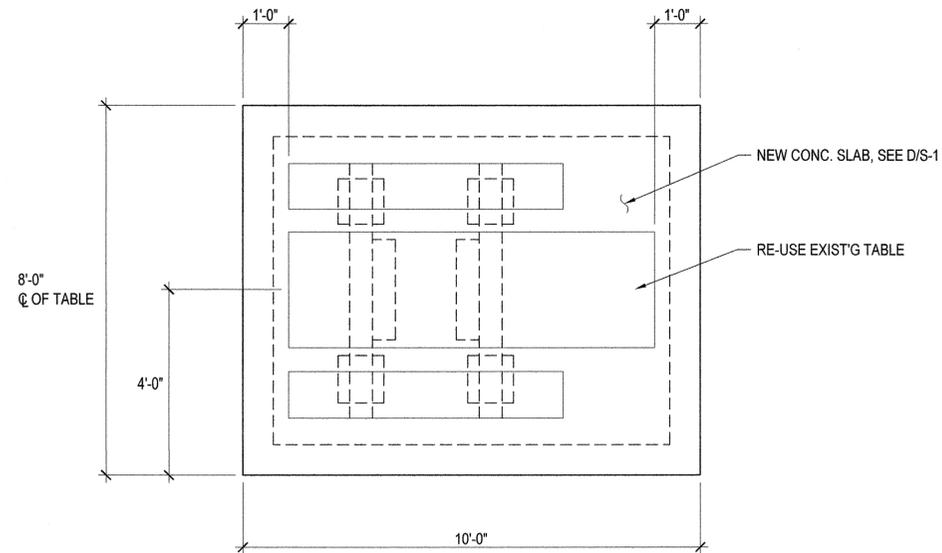
**D REAR ELEVATION**  
S-5 SCALE: 1" = 1'-0"



**E PARTIAL ELEVATION**  
S-5 SCALE: 1" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</p> <p>BAR-B-Q GRILL STRUCTURAL PLAN &amp; SECTIONS</p>					
DESIGNED: C.S.		SUBMITTED: <input checked="" type="checkbox"/>			
DRAWN: M.M.		DATE: APRIL 2016			
CHECKED: C.S.		SCALE: AS NOTED			
APPROVED:		MAY - 3 2016		DRAWING NO. S-5	
<p><b>CRIG H. SAKAMELI</b> LICENSED PROFESSIONAL ENGINEER No. 5509-S HAWAII, U.S.A.</p> <p>EXPIRATION DATE: APRIL 30, 2018</p>		<p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.</p> <p>CHIEF ENGINEER</p>			

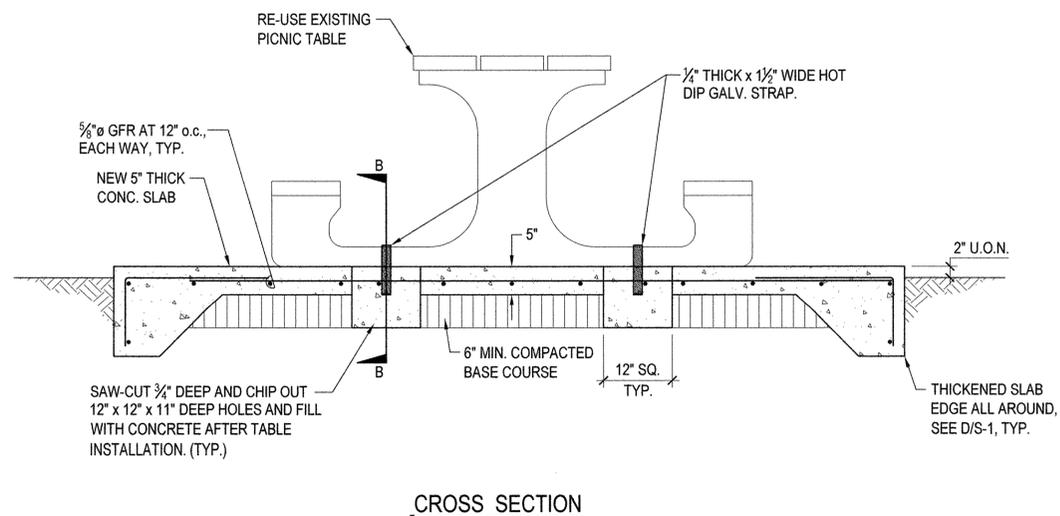
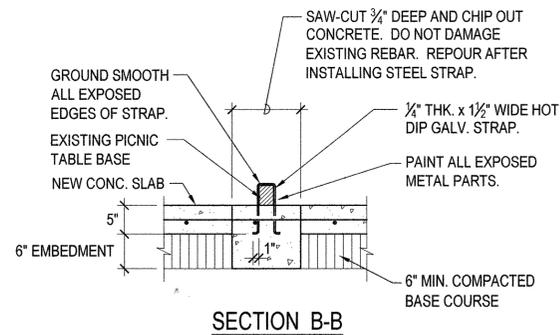
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 2/19/16



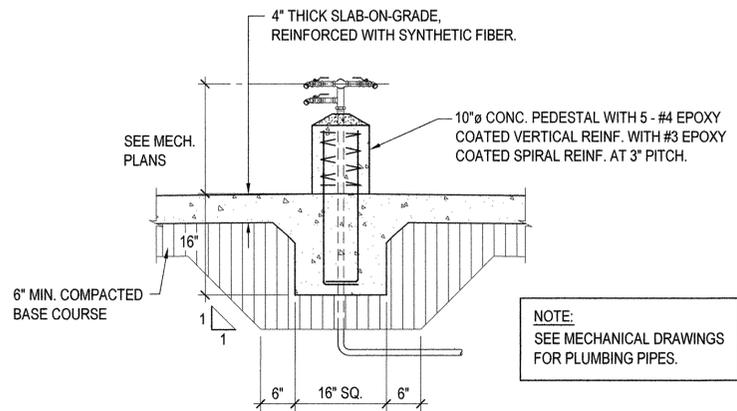
**NOTES:**

1. RE-USE EXISTING TABLE. ALL FASTENERS SHALL BE STAINLESS STEEL AND WITH THEFT RESISTANT HEADS.
2. ALL SLABS SHALL HAVE A BROOM FINISH.
3. FOR CROSS SLOPES AND FINISH ELEVATIONS, SEE CIVIL PLANS.

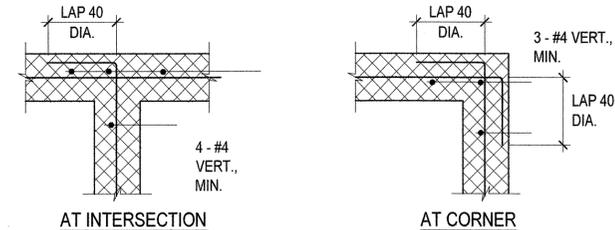
**1 RELOCATED PICNIC TABLE - PLAN**  
S-6 SCALE: NOT TO SCALE



**A PICNIC TABLE ANCHOR STRAP DETAIL**  
S-6 NOT TO SCALE



**B FOOT SHOWER DETAIL**  
S-6 NOT TO SCALE



**C TYP. CMU WALL HORIZ. DETAIL**  
S-6 NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> <b>PICNIC TABLE PLAN AND SECTIONS</b>					
EXPIRATION DATE : APRIL 30, 2018					
DESIGNED:	C.S.	SUBMITTED:	✓	DATE:	APRIL 2016
DRAWN:	M.M.	CHECKED:	C.S.	SCALE:	AS NOTED
APPROVED:			DATE:	MAY - 3 2016	DRAWING NO. S-6
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.					

Wed, 07 Apr 2016 10:29:00 AM  
 C:\2015\150408\_Hapuna\_Beach\_SBA\_Improvements\PH3\DWG\_Files\S-6.dwg





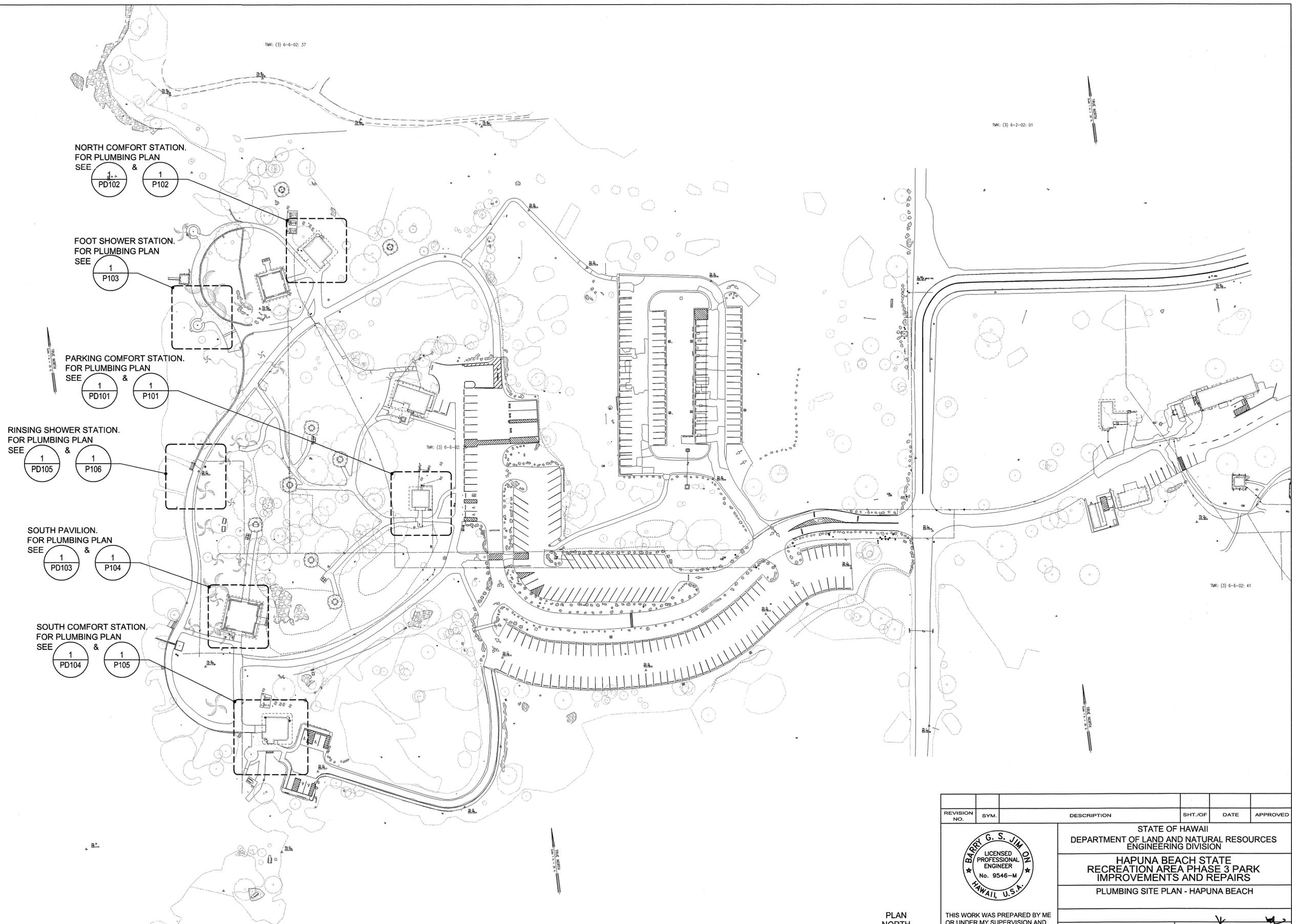
**PLUMBING GENERAL NOTES:**

1. THE EXISTING CONDITIONS SHOWN ON THE PLANS HAVE BEEN BASED UPON RECORD DRAWINGS WHICH ARE LIMITED IN ACCURACY. THE CONTRACTOR SHALL INSPECT THE PROJECT SITE BEFORE PROCEEDING WITH THE WORK AND SHALL NOTIFY AND COORDINATE WITH THE ENGINEER FOR ANY MAJOR DEVIATIONS OR DISCREPANCIES DISCOVERED IN THE PLANS AND SPECIFICATIONS DUE TO UNFORESEEN OR VARYING FIELD CONDITIONS.
2. THE ENTIRE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE BUILDING CODE OF THE COUNTY OF HAWAII, STATE DEPARTMENT OF HEALTH REGULATIONS, THE CURRENT VERSION OF THE UNIFORM PLUMBING CODE, UNIFORM FIRE CODE, NATIONAL ELECTRIC SAFETY CODE, ASME BOILER & PRESSURE VESSEL CODE, ASME PRESSURE PIPING CODE, HAWAII BUILDING ENERGY CONSERVATION CODE AND ALL OTHER AGENCIES HAVING JURISDICTION.
3. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND EQUIPMENT INCLUDING CUTTING AND PATCHING AS REQUIRED FOR COMPLETE AND OPERATING SYSTEMS. "PROVIDE" SHALL MEAN TO PROCURE ALL NECESSARY AND SPECIFIED MATERIALS AND INSTALL A COMPLETE WORKING INSTALLATION AS REFERENCED ON CONSTRUCTION DRAWINGS.
4. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER THE COMPLETE INSTALLATION OF SYSTEMS TO FUNCTION AS DESCRIBED AND SPECIFIED. THE OMISSION OF REFERENCE TO ANY NECESSARY ITEM OF LABOR OR MATERIAL SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING SUCH LABOR AND MATERIAL.
5. DRAWINGS DO NOT ATTEMPT TO SHOW EXACT DETAILS OF PIPING, AND EXISTING CONDITIONS. PROVIDE OFFSETS AS NECESSARY TO AVOID EXISTING OBSTRUCTIONS OR INTERFERENCE WITH OTHER TRADES. THE CONTRACTOR SHALL REVIEW ALL PIPING RUNS PRIOR TO FABRICATION AND SHALL NOTIFY THE ENGINEER OF ANY INTERFERENCE AND/ OR LACK OF ADEQUATE CLEARANCES IMMEDIATELY.
6. SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF WORK, THE CONTRACTOR SHALL MARK SUCH CHANGES ON RECORD DRAWINGS. IF THESE CHANGES REQUIRE ALTERNATE METHODS TO THOSE APPROVED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING THE PROPOSED ALTERNATE METHODS TO THE ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED.
7. PRIOR TO INSTALLATION PROVIDE SHOP DRAWINGS FOR THE LAYOUT OF EQUIPMENT AND PIPING SHOWING COORDINATION OF ALL WORK WITH ALL OTHER TRADES, INCLUDING PLUMBING CONTROL SYSTEMS. SUBMIT COORDINATION DRAWINGS FOR REVIEW PRIOR TO INSTALLATION TO ENSURE ADEQUATE ACCESS TO THE SPACES AND TO ALL SERVICEABLE ITEMS. COORDINATION DRAWINGS SHALL OVERLAY HVAC, PLUMBING, FIRE SPRINKLER, ELECTRICAL, AND FIRE ALARM SYSTEMS AND ALL CONFLICTS BETWEEN TRADES SHALL BE NOTED AND RESOLVED.
8. PATCH AND PAINT ALL EXPOSED MATERIALS INCLUDING PIPING TO MATCH ADJACENT SURFACES OR AS INDICATED.
9. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER BEFORE MAKING ANY PENETRATIONS THROUGH STRUCTURAL MEMBERS, WALLS, AND SLABS.
10. ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS OR PARTITIONS SHALL BE PROPERLY FIRE STOPPED WITH AN UL APPROVED SYSTEM APPROPRIATE FOR PENETRATION TYPE. ALL PENETRATIONS THROUGH WATER PROOF WALLS, FLOORS OR PARTITIONS SHALL BE PROPERLY SEALED WITH AN APPROVED SYSTEM APPROPRIATE FOR PENETRATION TYPE TO PREVENT MOISTURE PENETRATION.
11. PROVIDE ACCESS PANELS TO ALL CONCEALED VALVES, AND EQUIPMENT. PANELS SHALL BE MILCOR OR EQUAL. CONTRACTOR SHALL COORDINATE THE LOCATION OF ACCESS PANELS TO INSURE THAT THE EQUIPMENT CAN BE MAINTAINED ADEQUATELY.
12. ALL EQUIPMENT SHALL BE CAPABLE OF FITTING INTO THE SPACES ALLOCATED. THE CONTRACTOR SHALL REVIEW ALL SPACES WHERE EQUIPMENT IS TO BE INSTALLED PRIOR TO ORDERING OF EQUIPMENT AND SHALL NOTIFY THE ENGINEER OF ANY INADEQUATE CLEARANCES OR CONDITIONS THAT WILL PREVENT THE PROPER INSTALLATION AND OPERATION OF THE EQUIPMENT.

PLUMBING LEGEND		
SYMBOL	ABBRV.	DESCRIPTION
— — —	CAP	CAPPED PIPING
	CONC	CONCRETE
	CONN	CONNECTION
	CONT	CONTINUATION
	DN	DOWN
	EXIST	EXISTING
⊖	FD	FLOOR DRAIN
φ	FCO	FLOOR CLEANOUT
⊕	HB	HOSE BIBB
— — —	POC	POINT OF CONNECTION
— — —	POR	POINT OF REMOVAL
— — —		PIPE RISER UP
— — —		PIPE RISER DOWN
— — —	S	SANITARY PIPING
— — —	V	VENT PIPING
	COTG	CLEAN OUT TO GRADE
	FCO	FLOOR CLEANOUT
	FS	FOOT SHOWER
	LAV	LAVATORY
	LAV-A	LAVATORY ADA COMPLIANT
	UR-A	URINAL -ADA COMPLIANT
	WC	WATER CLOSET
	WC-A	WATER CLOSET ADA COMPLIANT
	WCO	WALL CLEAN OUT
	RS	RINSING STATION
	RS-A	RINSING STATION ADA COMPLIANT

PLUMBING FIXTURE SCHEDULE						
SYMBOL	DESCRIPTION	TRAP SIZE	WASTE	VENT	HOT WATER	COLD WATER
WC	WATER CLOSET, FLOOR MOUNTED FLUSH VALVE	INTEGRAL	4"	2"	-	1"
WC-A	WATER CLOSET, FLOOR MOUNTED FLUSH VALVE, ADA COMPLIANT	INTEGRAL	4"	2"	-	1"
LAV-A	LAVATORY, COUNTERTOP ADA COMPLIANT	1-1/4"	2"	1-1/2"	1/2"	1/2"
UR-A	URINAL, WALL MOUNTED, FLUSH VALVE, ADA COMPLIANT	INTEGRAL	2"	2"	-	1"
RS	RINSING SHOWER	-	-	-	-	1/2"
RS-A	RINSING SHOWER - ADA COMPLIANT	-	-	-	-	1/2"
FS	FOOT SHOWER	-	-	-	-	1/2"
FD	FLOOR DRAIN	2"	2"	1-1/2"	-	-
HB	HOSE BIBB	-	-	-	-	3/4"
WH	WALL HYDRANT (INSIDE COMFORT STATIONS)	-	-	-	-	3/4"
SS	SERVICE SINK	INTEGRAL	3"	2"	-	3/4"
DF	DRINKING FOUNTAIN	1-1/4"	2"	-	-	1/2"
DF-A	DRINKING FOUNTAIN - ACCESSIBLE	1-1/4"	2"	-	-	1/2"

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED
					
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> PLUMBING NOTES, LEGEND & FIXTURE SCHEDULE					
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.					
DESIGNED: EN	SUBMITTED: INSYNERGY ENG. INC.				
DRAWN: STAFF	DATE: APRIL 2016				
CHECKED: BJO	SCALE: AS-NOTED				
APPROVED: 	MAY - 3 2016		DRAWING NO. P001		
SIGNATURE	DATE				
EXPIRATION DATE OF LICENSE: APRIL 30, 2018	CHIEF ENGINEER				



1  
P002

## PLUMBING SITE PLAN - HAPUNA BEACH

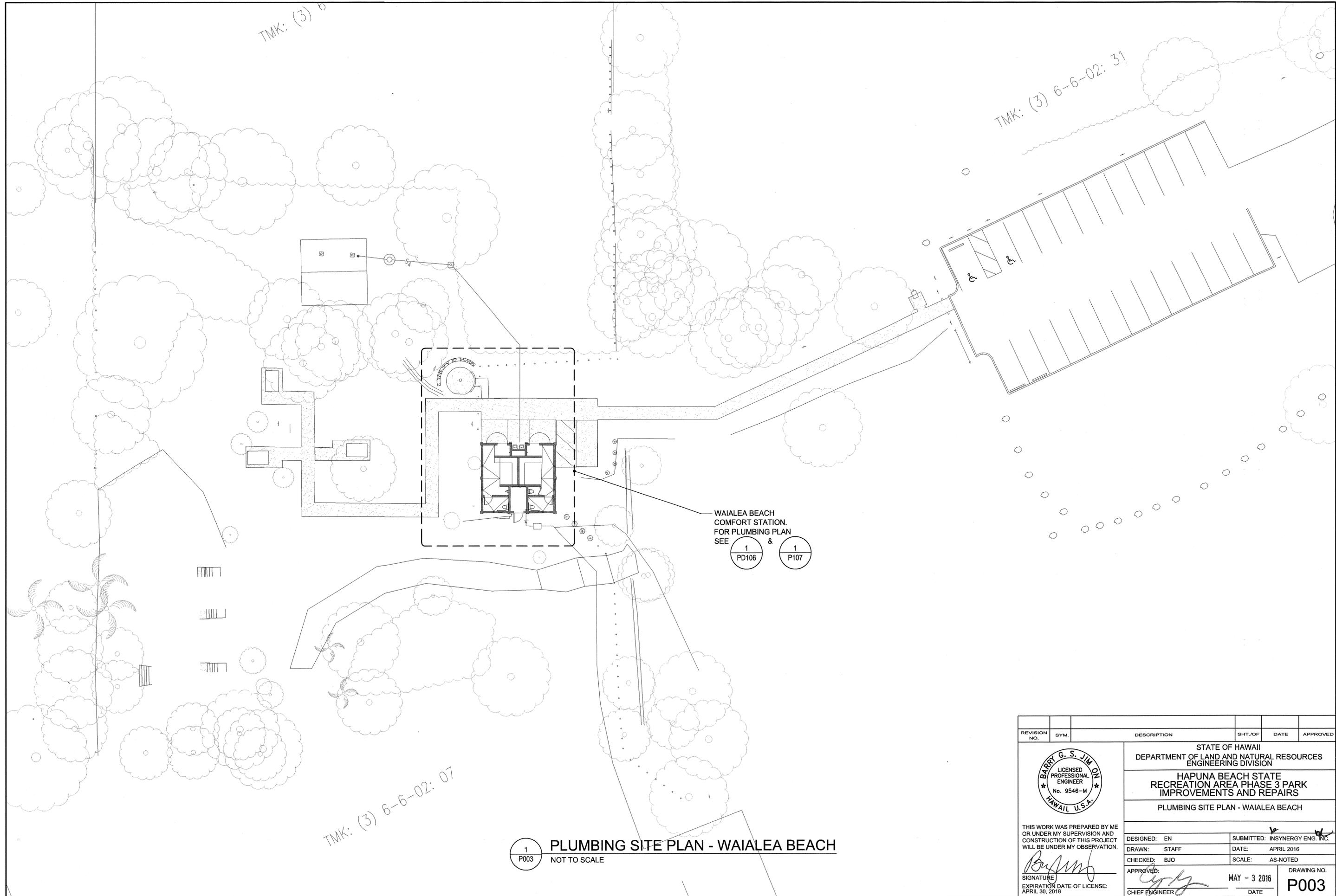
NOT TO SCALE



REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> <b>PLUMBING SITE PLAN - HAPUNA BEACH</b>					
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. <i>Barry G. S. Jim Ohi</i> SIGNATURE EXPIRATION DATE OF LICENSE: APRIL 30, 2018 CHIEF ENGINEER			
DESIGNED:	EN	SUBMITTED:	INSYNERGY ENG. INC.		
DRAWN:	STAFF	DATE:	APRIL 2016		
CHECKED:	BJO	SCALE:	AS-NOTED		
APPROVED:	<i>Barry G. S. Jim Ohi</i>	DATE:	MAY - 3 2016		DRAWING NO. P002

TMK: (3) 6-6-02: 06

TMK: (3) 6-6-02: 31



WAIALEA BEACH  
COMFORT STATION.  
FOR PLUMBING PLAN  
SEE

1  
PD106

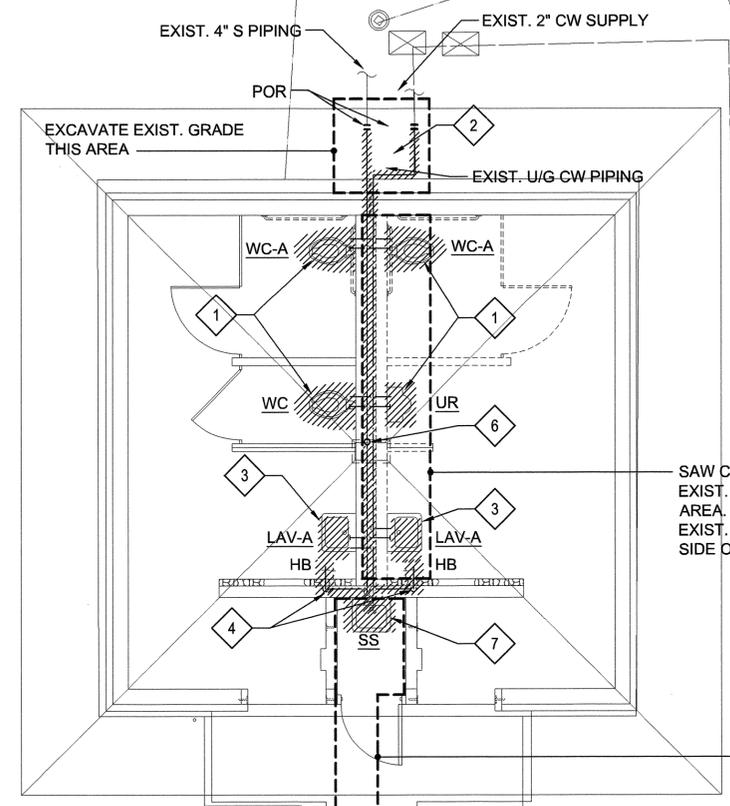
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P107

TMK: (3) 6-6-02: 07

1  
P003

**PLUMBING SITE PLAN - WAIALEA BEACH**  
NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> PLUMBING SITE PLAN - WAIALEA BEACH					
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.			
DESIGNED:	EN	SUBMITTED:	INSYNERGY ENG. INC.		
DRAWN:	STAFF	DATE:	APRIL 2016		
CHECKED:	BJO	SCALE:	AS-NOTED		
APPROVED:			DATE:	MAY - 3 2016	
SIGNATURE		CHIEF ENGINEER		DATE	DRAWING NO.
EXPIRATION DATE OF LICENSE:		APRIL 30, 2018			<b>P003</b>



**GENERAL DEMOLITION NOTES:**

1. CONTRACTOR SHALL SAW CUT AND REMOVE EXISTING SLAB AS REQUIRED TO ACCESS AND REMOVE UNDERGROUND PLUMBING PIPES. AVOID ANY STRUCTURAL FOUNDATIONS AND FOOTINGS.
2. CONTRACTOR SHALL SAW CUT AND REMOVE EXISTING CMU WALL SECTIONS TO ACCESS AND REMOVE PLUMBING PIPES. AVOID ANY STRUCTURAL WALLS OR ROOF SUPPORTS AS REQUIRED.
3. REMOVE EXISTING CMU WALL PARTITIONS IN AREAS OF CONCRETE SLAB REMOVAL.
4. REMOVE EXISTING SANITARY, VENT, & WATER PIPING ABOVE AND BELOW GROUND UP TO POR'S AS INDICATED.
5. REMOVE EXISTING PLUMBING FIXTURE SUPPORTS & CARRIERS.
6. REMOVE EXISTING PLUMBING FIXTURE VALVES & FAUCETS.
7. PATCH AND REPLACE ALL FLOOR AND WALL SURFACES TO MATCH EXISTING. FLOOR TILES SHALL MATCH EXISTING. PAINT WALL SURFACE TO MATCH EXISTING.

**DEMOLITION KEY NOTES:**

- 1 REMOVE EXISTING WATER CLOSET & URINAL.
- 2 REMOVE EXISTING WATER PIPING UP TO POR AS INDICATED.
- 3 REMOVE EXISTING LAVATORY.
- 4 REMOVE EXISTING HOSE BIBBS.
- 5 NOT USED.
- 6 REMOVE EXISTING VENT STACK PIPING UP TO 12" BELOW ROOF FOR NEW VENT CONNECTION. EXISTING VTR TO REMAIN.
- 7 REMOVE EXISTING SERVICE SINK.
- 8 EXISTING DRINKING FOUNTAIN FIXTURE AND DRINKING FOUNTAIN PEDESTAL HAVE BEEN PREVIOUSLY REMOVED. REMOVE EXISTING U/G WATER AND DRAINAGE PIPING UP TO POR AS INDICATED.

SAW CUT & EXCAVATE EXIST. CONC. SLAB THIS AREA. SAW CUT & REMOVE EXIST. CMU WALL THIS SIDE ONLY

SAW CUT & EXCAVATE EXIST. CONC. SLAB THIS AREA

SAW CUT & EXCAVATE EXIST. CONC. SLAB THIS AREA. CONC. SLAB RECONSTRUCTION SHALL PROVIDE A 2% MAX. SLOPE IN ANY DIRECTION

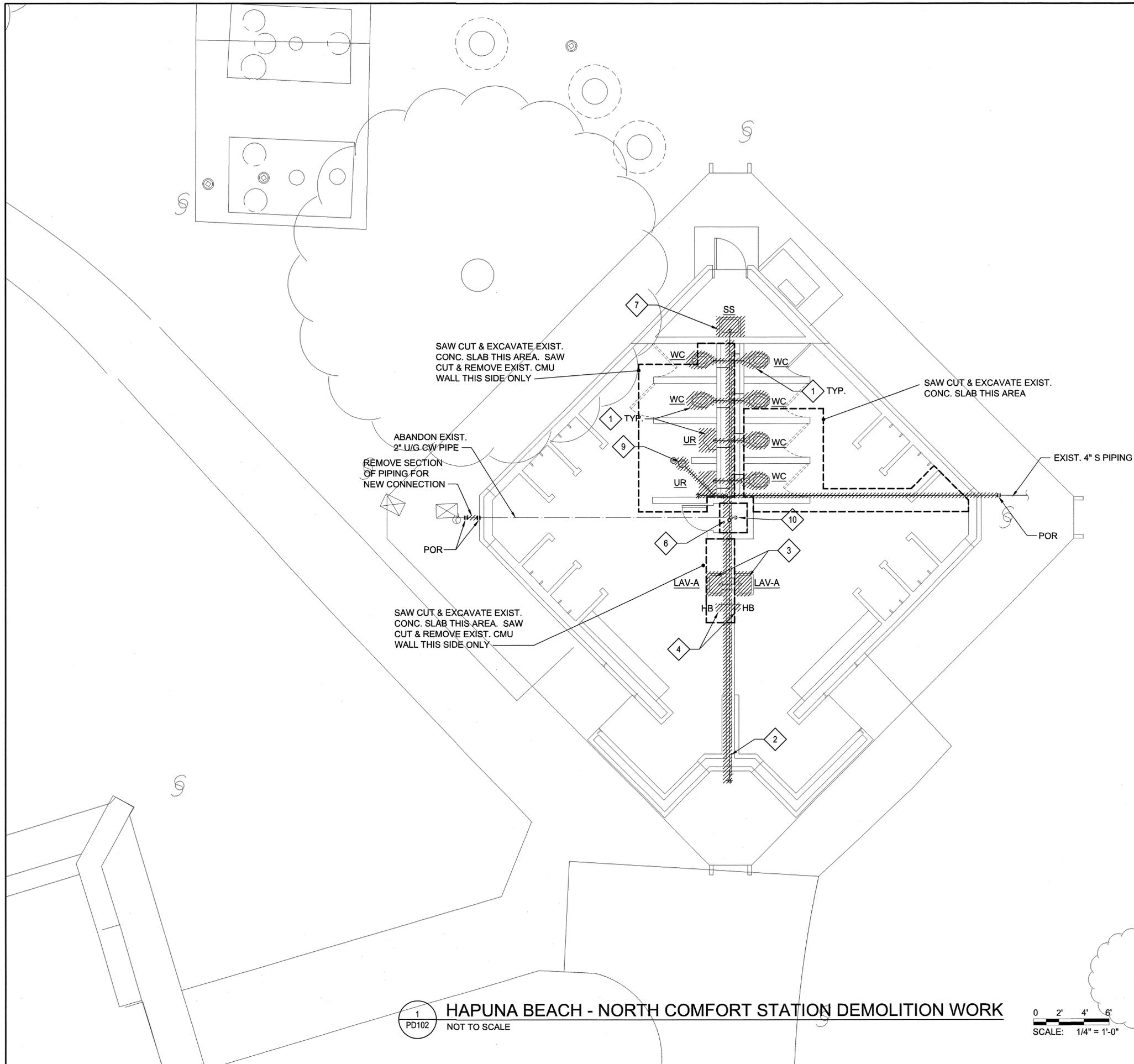
TO EXIST. DRYWELL

POR. CUT & CAP PIPING

**1 HAPUNA BEACH - PARKING COMFORT STATION DEMOLITION WORK**  
 PD101 NOT TO SCALE



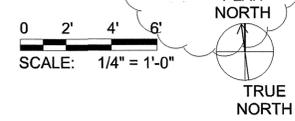
REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> HAPUNA BEACH - PARKING COMFORT STATION DEMOLITION WORK					
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.			
DESIGNED:	EN	SUBMITTED:	INSYNERGY ENG. INC.		
DRAWN:	STAFF	DATE:	APRIL 2016		
CHECKED:	BJO	SCALE:	AS-NOTED		
APPROVED:			DATE:	MAY - 3 2016	
SIGNATURE		EXPIRATION DATE OF LICENSE:		DRAWING NO.	
APRIL 30, 2018				PD101	
CHIEF ENGINEER		DATE			



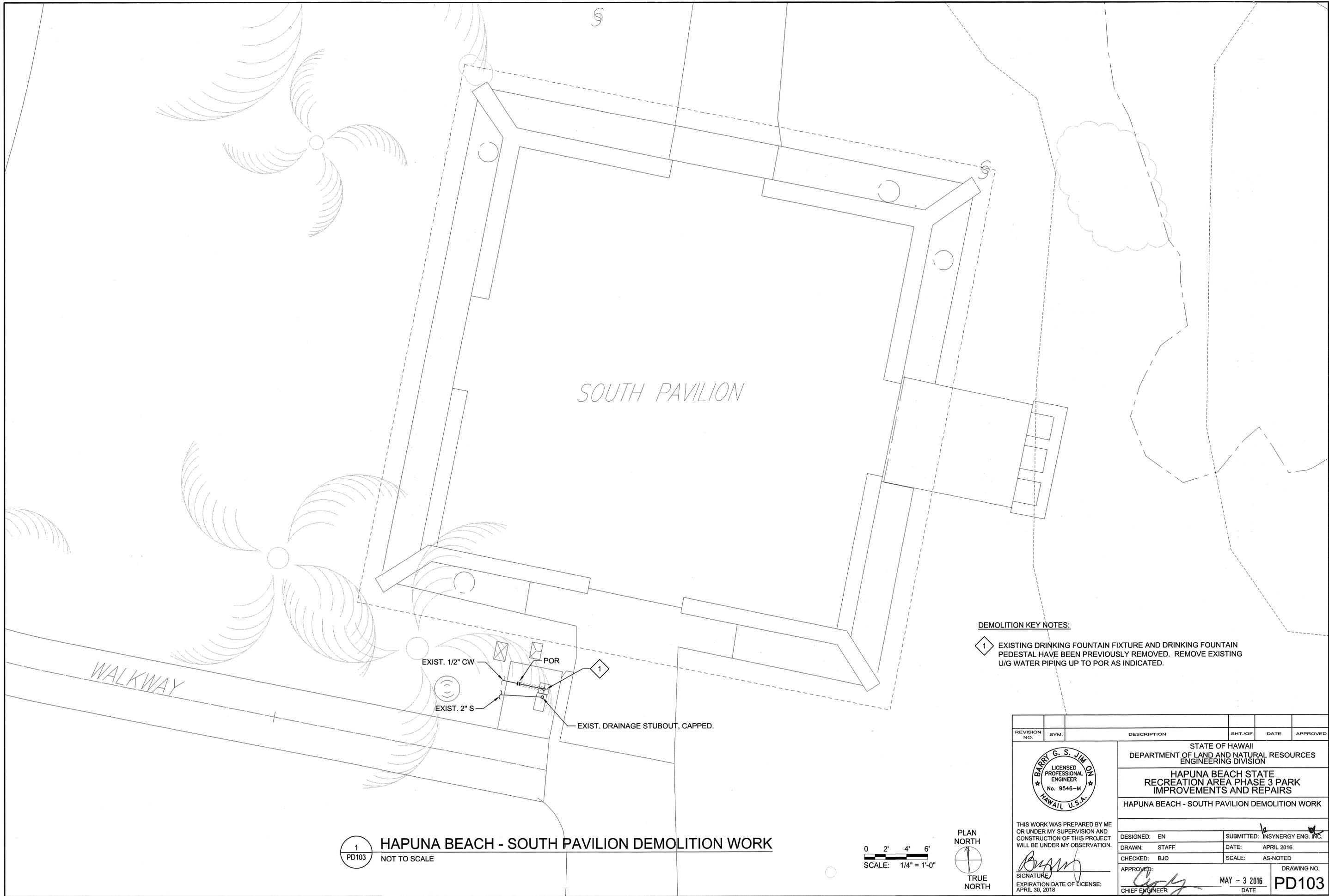
- GENERAL DEMOLITION NOTES:**
1. CONTRACTOR SHALL SAW CUT AND REMOVE EXISTING SLAB AS REQUIRED TO ACCESS AND REMOVE UNDERGROUND PLUMBING PIPES. AVOID ANY STRUCTURAL FOUNDATIONS AND FOOTINGS.
  2. CONTRACTOR SHALL SAW CUT AND REMOVE EXISTING CMU WALL SECTIONS TO ACCESS AND REMOVE PLUMBING PIPES. AVOID ANY STRUCTURAL WALLS OR ROOF SUPPORTS AS REQUIRED.
  3. REMOVE EXISTING CMU WALL PARTITIONS IN AREAS OF CONCRETE SLAB REMOVAL.
  4. REMOVE EXISTING SANITARY, VENT, & WATER PIPING ABOVE AND BELOW GROUND UP TO POR'S AS INDICATED.
  5. REMOVE EXISTING PLUMBING FIXTURE SUPPORTS & CARRIERS.
  6. REMOVE EXISTING PLUMBING FIXTURE VALVES & FAUCETS.
  7. PATCH AND REPLACE ALL FLOOR AND WALL SURFACES TO MATCH EXISTING. FLOOR TILES SHALL MATCH EXISTING. PAINT WALL SURFACE TO MATCH EXISTING. SEE STRUCTURAL DRAWINGS.

- DEMOLITION KEY NOTES:**
- 1 REMOVE EXISTING WATER CLOSET & URINAL.
  - 2 REMOVE EXISTING WATER PIPING UP TO POR AS INDICATED.
  - 3 REMOVE EXISTING LAVATORY.
  - 4 REMOVE EXISTING HOSE BIBBS.
  - 5 REMOVE EXISTING RINSING SHOWER HEAD, VALVE & PIPING UP TO POR AS INDICATED.
  - 6 REMOVE EXISTING VENT STACK PIPING UP TO 12" BELOW ROOF FOR NEW VENT CONNECTION. EXISTING VTR TO REMAIN.
  - 7 REMOVE EXISTING SERVICE SINK..
  - 8 REMOVE EXISTING DRINKING FOUNTAIN. REMOVE EXISTING U/G WATER PIPING UP TO POR AS INDICATED. EXISTING U/G DRAIN PIPING TO REMAIN.
  - 9 REMOVE EXISTING FLOOR DRAIN.
  - 10 CUT & CAP EXISTING 2" CW STUBOUT BELOW SLAB. ABANDON EXISTING UNDER SLAB PIPING IN PLACE.

**1 HAPUNA BEACH - NORTH COMFORT STATION DEMOLITION WORK**  
 PD102 NOT TO SCALE



REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> HAPUNA BEACH - NORTH COMFORT STA. DEMO WORK					
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.			
DESIGNED:	EN	SUBMITTED:	INSYNERGY ENG. INC.		
DRAWN:	STAFF	DATE:	APRIL 2016		
CHECKED:	BJO	SCALE:	AS-NOTED		
APPROVED:			DATE:	MAY - 3 2016	
EXPIRATION DATE OF LICENSE: APRIL 30, 2018		CHIEF ENGINEER	<b>PD102</b>		



**DEMOLITION KEY NOTES:**

1 EXISTING DRINKING FOUNTAIN FIXTURE AND DRINKING FOUNTAIN PEDESTAL HAVE BEEN PREVIOUSLY REMOVED. REMOVE EXISTING U/G WATER PIPING UP TO POR AS INDICATED.

1 HAPUNA BEACH - SOUTH PAVILION DEMOLITION WORK  
 PD103 NOT TO SCALE



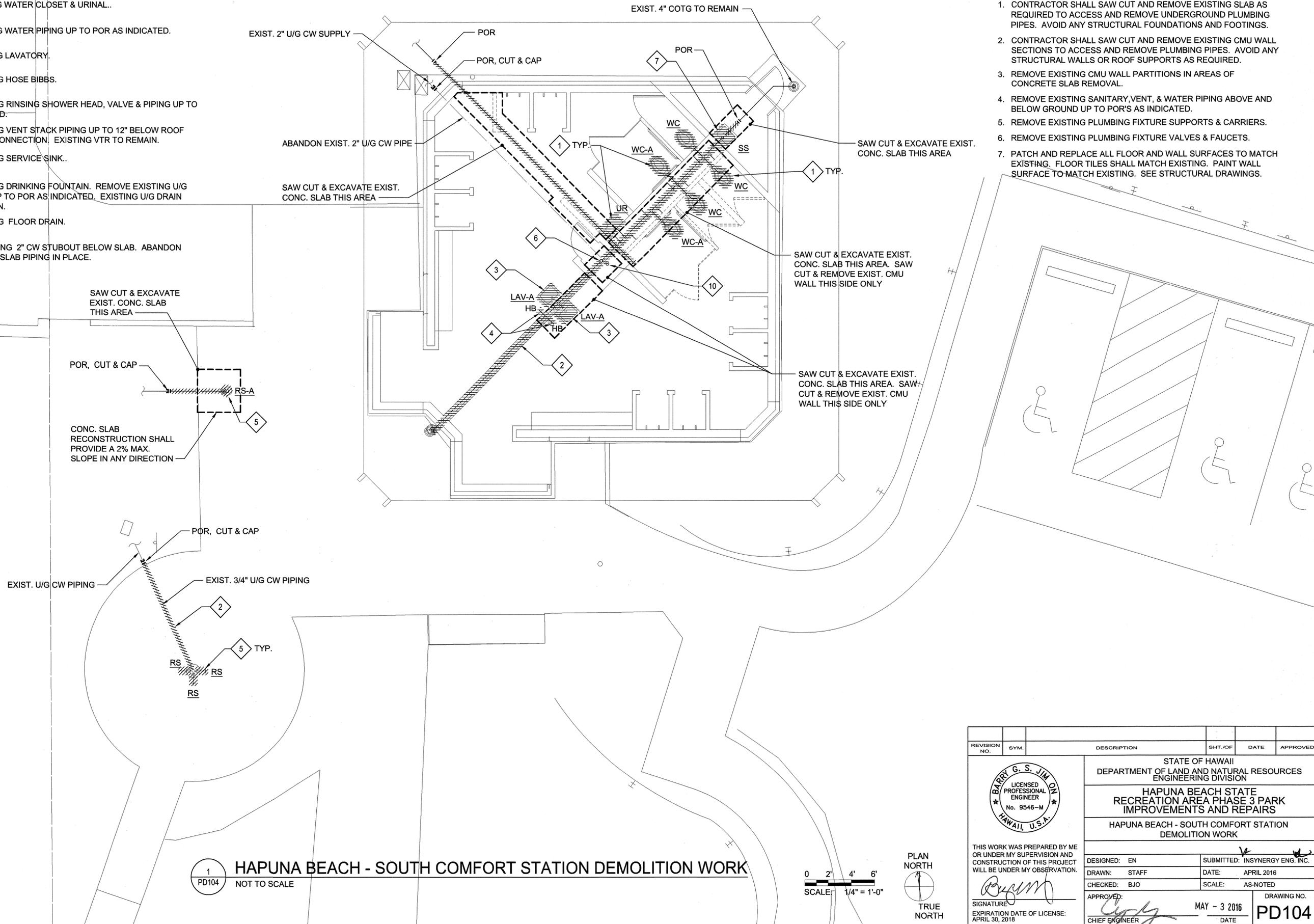
REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> HAPUNA BEACH - SOUTH PAVILION DEMOLITION WORK					
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.			
DESIGNED:	EN	SUBMITTED:	INSYNERGY ENG. INC.		
DRAWN:	STAFF	DATE:	APRIL 2016		
CHECKED:	BJO	SCALE:	AS-NOTED		
APPROVED:			DRAWING NO.	PD103	
SIGNATURE	EXPIRATION DATE OF LICENSE: APRIL 30, 2018		DATE	MAY - 3 2016	
CHIEF ENGINEER					

**DEMOLITION KEY NOTES:**

- 1 REMOVE EXISTING WATER CLOSET & URINAL..
- 2 REMOVE EXISTING WATER PIPING UP TO POR AS INDICATED.
- 3 REMOVE EXISTING LAVATORY.
- 4 REMOVE EXISTING HOSE BIBBS.
- 5 REMOVE EXISTING RINSING SHOWER HEAD, VALVE & PIPING UP TO POR AS INDICATED.
- 6 REMOVE EXISTING VENT STACK PIPING UP TO 12" BELOW ROOF FOR NEW VENT CONNECTION. EXISTING VTR TO REMAIN.
- 7 REMOVE EXISTING SERVICE SINK..
- 8 REMOVE EXISTING DRINKING FOUNTAIN. REMOVE EXISTING U/G WATER PIPING UP TO POR AS INDICATED. EXISTING U/G DRAIN PIPING TO REMAIN.
- 9 REMOVE EXISTING FLOOR DRAIN.
- 10 CUT & CAP EXISTING 2" CW STUBOUT BELOW SLAB. ABANDON EXISTING UNDER SLAB PIPING IN PLACE.

**GENERAL DEMOLITION NOTES:**

- 1. CONTRACTOR SHALL SAW CUT AND REMOVE EXISTING SLAB AS REQUIRED TO ACCESS AND REMOVE UNDERGROUND PLUMBING PIPES. AVOID ANY STRUCTURAL FOUNDATIONS AND FOOTINGS.
- 2. CONTRACTOR SHALL SAW CUT AND REMOVE EXISTING CMU WALL SECTIONS TO ACCESS AND REMOVE PLUMBING PIPES. AVOID ANY STRUCTURAL WALLS OR ROOF SUPPORTS AS REQUIRED.
- 3. REMOVE EXISTING CMU WALL PARTITIONS IN AREAS OF CONCRETE SLAB REMOVAL.
- 4. REMOVE EXISTING SANITARY VENT, & WATER PIPING ABOVE AND BELOW GROUND UP TO POR'S AS INDICATED.
- 5. REMOVE EXISTING PLUMBING FIXTURE SUPPORTS & CARRIERS.
- 6. REMOVE EXISTING PLUMBING FIXTURE VALVES & FAUCETS.
- 7. PATCH AND REPLACE ALL FLOOR AND WALL SURFACES TO MATCH EXISTING. FLOOR TILES SHALL MATCH EXISTING. PAINT WALL SURFACE TO MATCH EXISTING. SEE STRUCTURAL DRAWINGS.

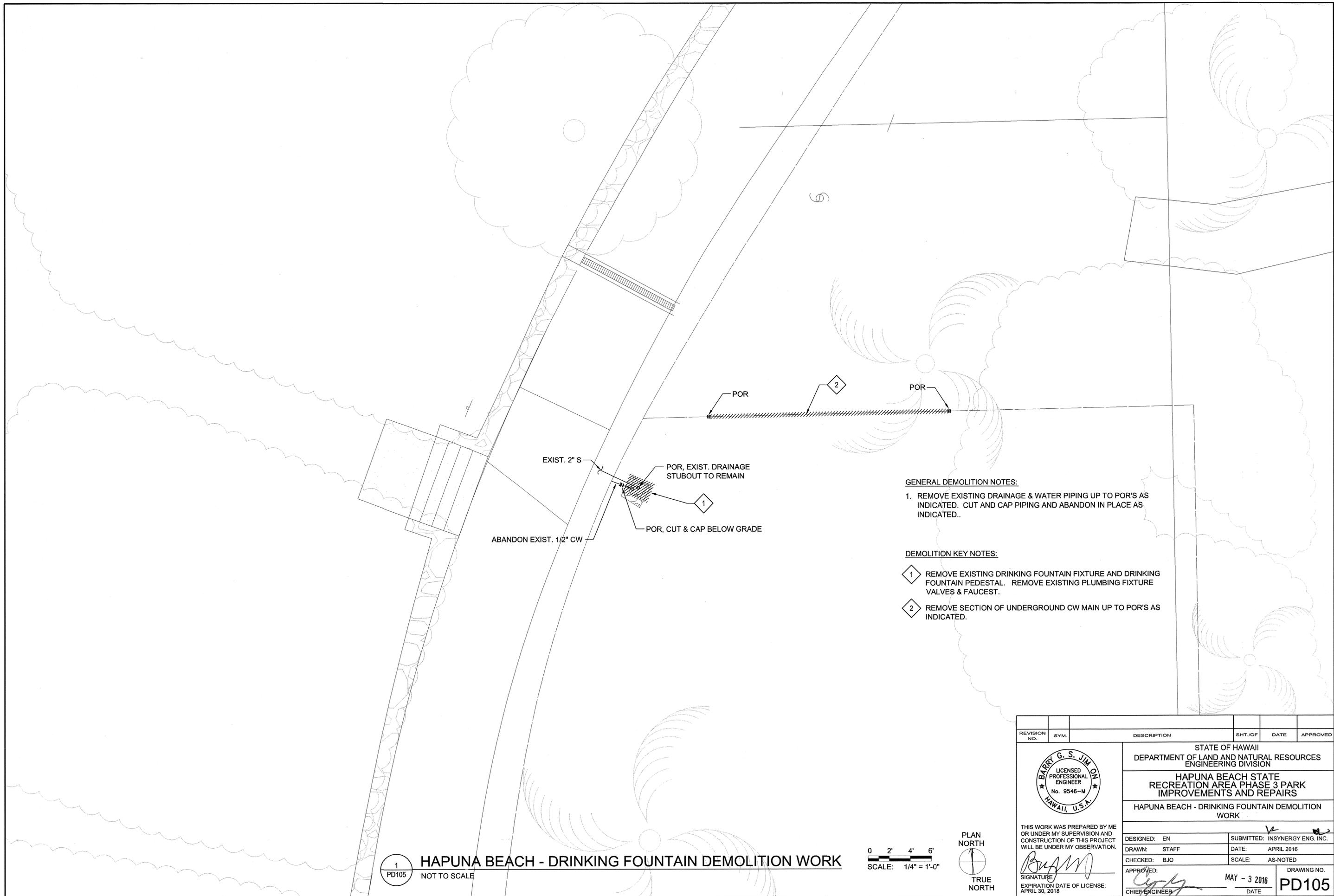


**1 HAPUNA BEACH - SOUTH COMFORT STATION DEMOLITION WORK**  
 PD104 NOT TO SCALE

0 2' 4' 6'  
 SCALE: 1/4" = 1'-0"



REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> HAPUNA BEACH - SOUTH COMFORT STATION DEMOLITION WORK					
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.			
DESIGNED:	EN	SUBMITTED:	INSYNERGY ENG. INC.		
DRAWN:	STAFF	DATE:	APRIL 2016		
CHECKED:	BJO	SCALE:	AS-NOTED		
APPROVED:			MAY - 3 2016 DATE	DRAWING NO. <b>PD104</b>	
SIGNATURE EXPIRATION DATE OF LICENSE: APRIL 30, 2018		CHIEF ENGINEER			



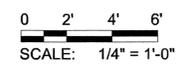
**GENERAL DEMOLITION NOTES:**

1. REMOVE EXISTING DRAINAGE & WATER PIPING UP TO POR'S AS INDICATED. CUT AND CAP PIPING AND ABANDON IN PLACE AS INDICATED.

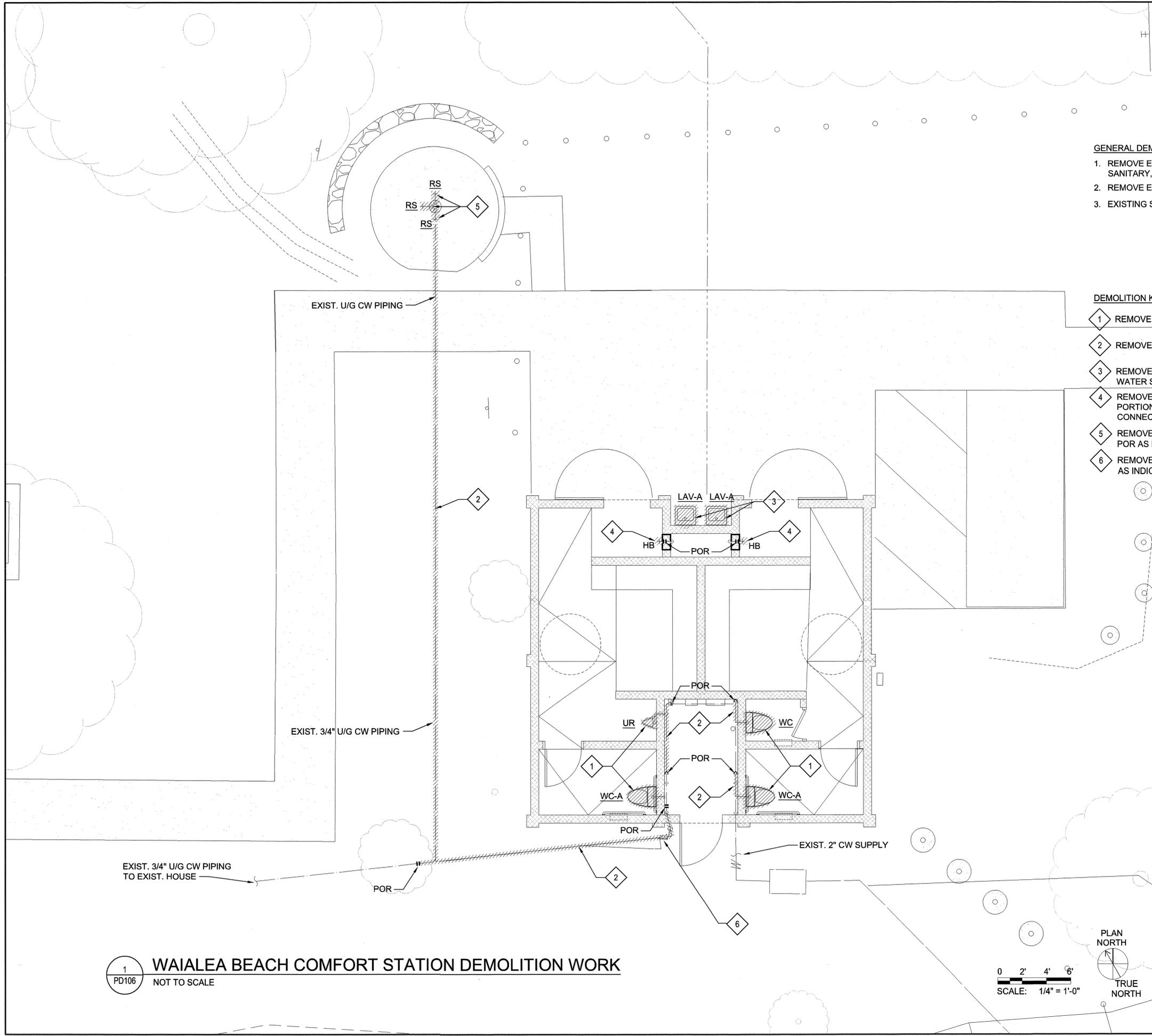
**DEMOLITION KEY NOTES:**

- 1 REMOVE EXISTING DRINKING FOUNTAIN FIXTURE AND DRINKING FOUNTAIN PEDESTAL. REMOVE EXISTING PLUMBING FIXTURE VALVES & FAUCET.
- 2 REMOVE SECTION OF UNDERGROUND CW MAIN UP TO POR'S AS INDICATED.

**1 HAPUNA BEACH - DRINKING FOUNTAIN DEMOLITION WORK**  
 PD105 NOT TO SCALE



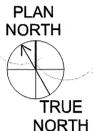
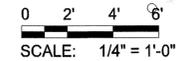
REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> <b>HAPUNA BEACH - DRINKING FOUNTAIN DEMOLITION WORK</b>					
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. <i>Barry G. S. Jim Oni</i> SIGNATURE EXPIRATION DATE OF LICENSE: APRIL 30, 2018			
DESIGNED: EN	SUBMITTED: INSYNERGY ENG. INC.				
DRAWN: STAFF	DATE: APRIL 2016				
CHECKED: BJO	SCALE: AS-NOTED				
APPROVED: <i>Barry G. S. Jim Oni</i>	DATE: MAY - 3 2016	DRAWING NO. <b>PD105</b>			
CHIEF ENGINEER					



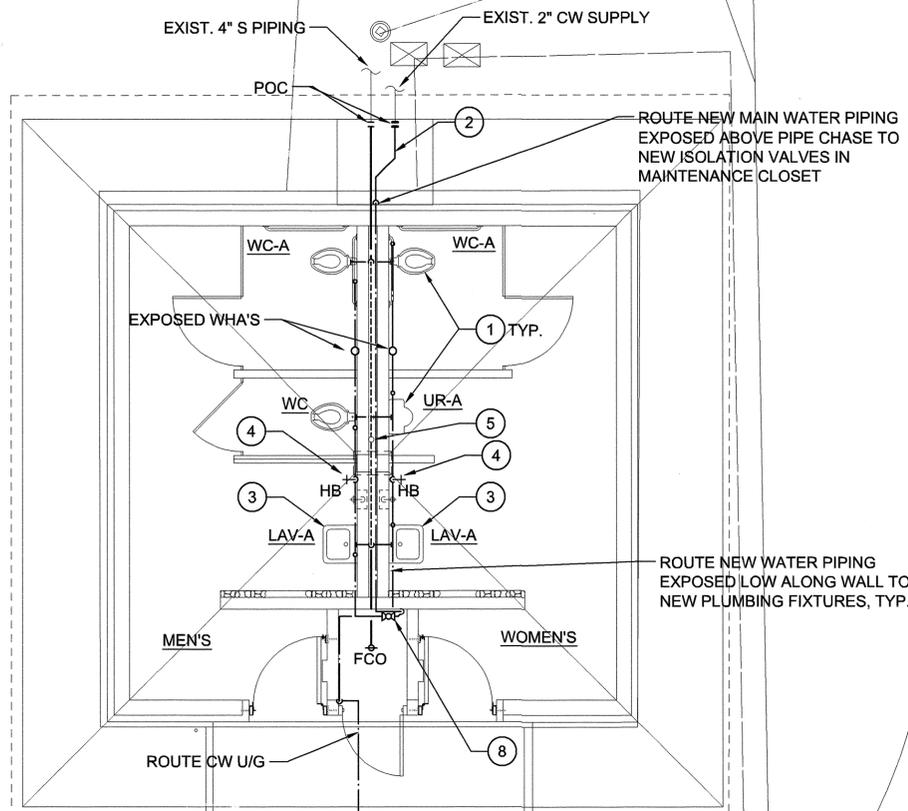
- GENERAL DEMOLITION NOTES:**
1. REMOVE EXISTING PLUMBING FIXTURES. EXISTING SANITARY, VENT, & WATER PIPING TO REMAIN AS INDICATED.
  2. REMOVE EXISTING WATER PIPING AS INDICATED.
  3. EXISTING SANITARY PIPING UNDER SLAB TO REMAIN.

- DEMOLITION KEY NOTES:**
- 1 REMOVE EXISTING PLUMBING FIXTURES.
  - 2 REMOVE EXISTING WATER PIPING UP TO POR AS INDICATED.
  - 3 REMOVE EXISTING LAVATORY & FAUCETS. EXISTING SANITARY & WATER STUB OUTS TO REMAIN.
  - 4 REMOVE EXISTING HOSE BIBBS & PIPING UP TO POR. REMOVE PORTION OF EXISTING CMU WALL FOR INSTALLATION & CONNECTION OF NEW WALL HYDRANT.
  - 5 REMOVE EXISTING RINSING SHOWER HEAD, VALVE & PIPING UP TO POR AS INDICATED.
  - 6 REMOVE EXISTING UNDER GROUND VALVE & PIPING UP TO POR AS INDICATED.

**1 WAIALEA BEACH COMFORT STATION DEMOLITION WORK**  
 PD106 NOT TO SCALE

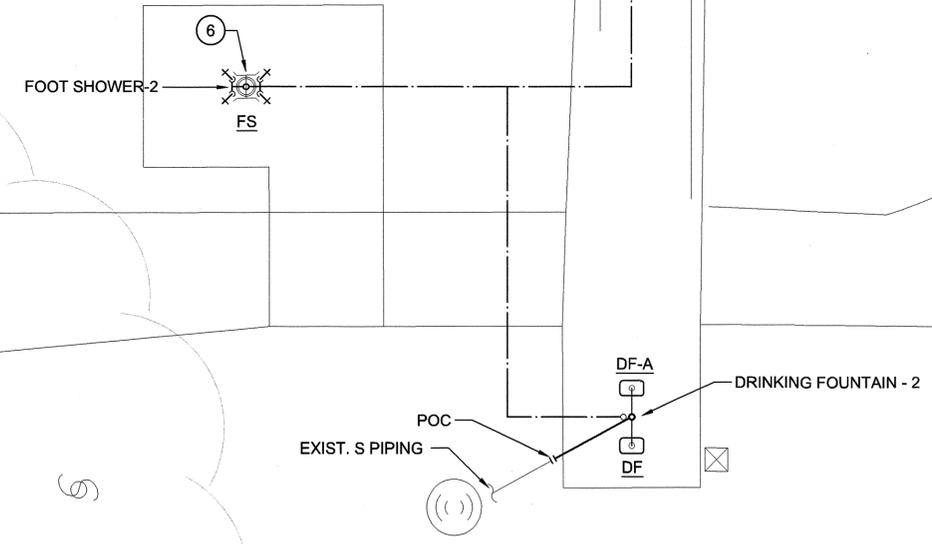
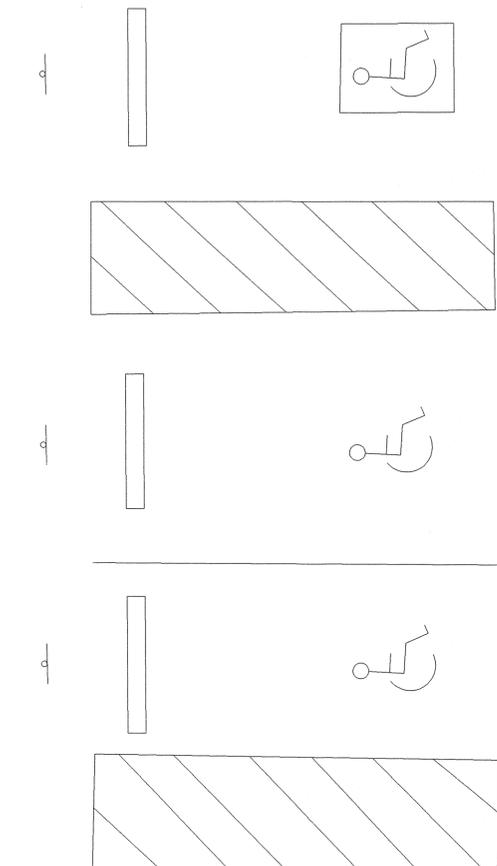


REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> WAIALEA BEACH COMFORT STATION DEMOLITION WORK					
			DESIGNED: EN DRAWN: STAFF CHECKED: BJO APPROVED: <i>[Signature]</i> SIGNATURE EXPIRATION DATE OF LICENSE: APRIL 30, 2018		
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.			SUBMITTED: INSYNERGY ENG. INC. DATE: APRIL 2016 SCALE: AS-NOTED MAY - 3 2016 DATE		
			<b>DRAWING NO. PD106</b>		

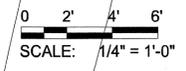


- GENERAL NEW WORK NOTES:**
1. PROVIDE NEW SANITARY, VENT, & WATER PIPING BELOW AND ABOVE GROUND UP TO POC'S AS INDICATED.
  2. PROVIDE NEW PLUMBING FIXTURE SUPPORTS & CARRIERS.
  3. PROVIDE NEW PLUMBING FIXTURE VALVES & FAUCETS.
  4. PAINT ALL EXPOSED PIPING TO MATCH WALL PAINT COLOR.

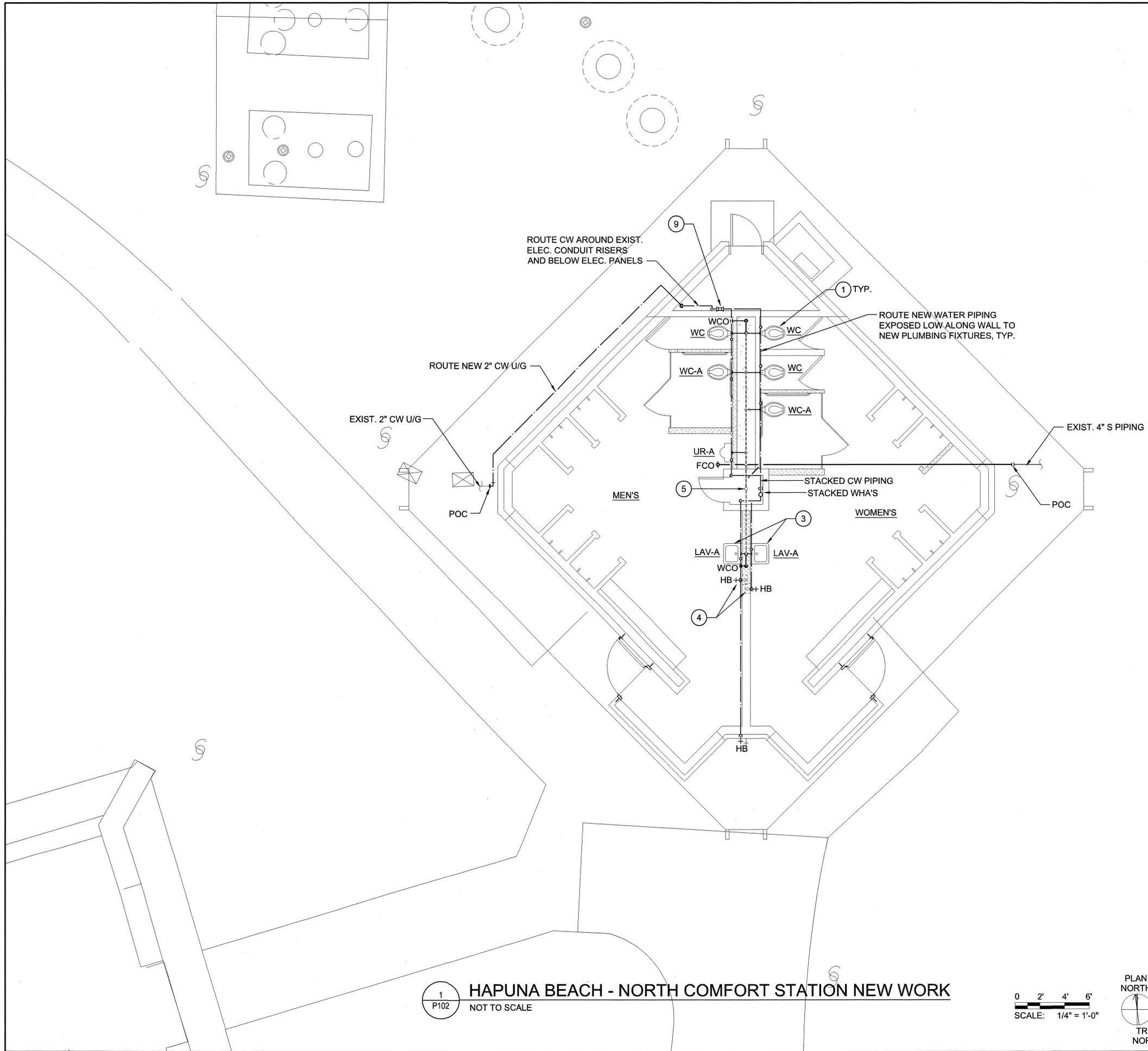
- NEW WORK KEY NOTES:**
- ① NEW WATER CLOSET & URINAL.
  - ② NEW U/G WATER PIPING UP TO POC AS INDICATED.
  - ③ PROVIDE NEW LAVATORY.
  - ④ PROVIDE NEW HOSE BIBB.
  - ⑤ PROVIDE NEW VENT PIPING & VENT STACK PIPING UP TO 12" BELOW ROOF & CONNECT TO EXISTING VTR.
  - ⑥ PROVIDE NEW FOOT SHOWER STATION.
  - ⑦ PROVIDE DRINKING FOUNTAIN. PROVIDE NEW WATER CONNECTION. CONNECT DRAIN TO NEW DRAINAGE SYSTEM.
  - ⑧ STACKED ISOLATION VALVES FOR EACH RESTROOM AND FOR FOOTWASH & DRINKING FOUNTAIN.



**1 HAPUNA BEACH - PARKING COMFORT STATION NEW WORK**  
 P101 SCALE: 1/4" = 1'-0"



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STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> HAPUNA BEACH - PARKING COMFORT STATION NEW WORK					
DESIGNED: EN		SUBMITTED: INSYNERGY ENG. INC.			
DRAWN: STAFF		DATE: APRIL 2016			
CHECKED: BJO		SCALE: AS-NOTED			
APPROVED: <i>[Signature]</i>		SIGNATURE		DRAWING NO. P101	
EXPIRATION DATE OF LICENSE: APRIL 30, 2018		CHIEF ENGINEER		MAY - 3 2016 DATE	



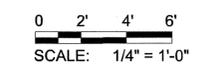
**GENERAL NEW WORK NOTES:**

1. PROVIDE NEW SANITARY, VENT, & WATER PIPING BELOW AND ABOVE GROUND UP TO POC'S AS INDICATED.
2. PROVIDE NEW PLUMBING FIXTURE SUPPORTS & CARRIERS.
3. PROVIDE NEW PLUMBING FIXTURE VALVES & FAUCETS.
4. PAINT ALL EXPOSED PIPING TO MATCH WALL PAINT COLOR.
5. CONTRACTOR TO VERIFY EXACT LOCATION OF EXISTING SANITARY PIPING BEFORE ANY SAW CUTTING IS DONE.

**NEW WORK KEY NOTES:**

- ① NEW WATER CLOSET & URINAL.
- ② NOT USED.
- ③ PROVIDE NEW LAVATORY.
- ④ PROVIDE NEW HOSE BIBB.
- ⑤ PROVIDE NEW VENT PIPING & VENT STACK PIPING UP TO 12" BELOW ROOF & CONNECT TO EXISTING VTR.
- ⑥ NOT USED.
- ⑦ NOT USED.
- ⑧ NOT USED.
- ⑨ STACKED ISOLATION VALVES FOR EACH RESTROOM.

1  
P102  
**HAPUNA BEACH - NORTH COMFORT STATION NEW WORK**  
NOT TO SCALE



REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>HAPUNA BEACH STATE RECREATION AREA PHASE 3 PARK IMPROVEMENTS AND REPAIRS</b> HAPUNA BEACH - NORTH COMFORT STATION NEW WORK					
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. SIGNATURE: <i>Barry G. S. Jim Oni</i> EXPIRATION DATE OF LICENSE: APRIL 30, 2018 CHIEF ENGINEER			
DESIGNED:	EN	SUBMITTED:	INSYNERGY ENG. INC.		
DRAWN:	STAFF	DATE:	APRIL 2016		
CHECKED:	BJO	SCALE:	AS-NOTED		
APPROVED:	<i>[Signature]</i>	DATE:	MAY - 3 2016		
		DRAWING NO.	<b>P102</b>		

NOR

NORTH PAVILION

PROVIDE NEW SHUT-OFF VALVE IN VALVE BOX FOR EXIST. NORTHERN MOST OUTDOOR SHOWER

INTERCEPT EXIST. CW SERVICE TO OUTDOOR SHOWER

EXIST. OUTDOOR SHOWER

POC TO EXIST. CW MAIN

PROVIDE NEW SHUT-OFF VALVE IN VALVE BOX FOR EXIST. OUTDOOR SHOWER

FOOT SHOWER-1

FS

WATER SHUT-OFF VALVE IN VALVE BOX FOR FOOT WASH

POC TO EXIST. CW MAIN

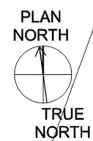
GENERAL NEW WORK NOTES:

1. PROVIDE NEW WATER PIPING AS INDICATED. CONTRACTOR TO VERIFY LOCATION OF EXISTING WATER SERVICE.
2. PROVIDE NEW SHUT-OFF VALVES TO EXISTING OUTDOOR SHOWERS AS INDICATED.
3. CONTRACTOR TO VERIFY EXISTING LOCATION OF UNDERGROUND CW SERVICE TO EXISTING OUTDOOR SHOWERS FOR NEW CONNECTION.

NEW WORK KEY NOTES:

- 1 PROVIDE NEW FOOT SHOWER STATION.

1 HAPUNA BEACH - NEW FOOT SHOWER STATION  
 P103 NOT TO SCALE



REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED
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DESIGNED:	EN	SUBMITTED:	INSYNERGY ENG. INC.		
DRAWN:	STAFF	DATE:	APRIL 2016		
CHECKED:	BJO	SCALE:	AS-NOTED		
APPROVED:		DATE:	MAY - 3 2016		
SIGNATURE		EXPIRATION DATE OF LICENSE:		DRAWING NO.	
		APRIL 30, 2018		P103	
CHIEF ENGINEER		DATE			