FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	19	77

MECHANICAL NOTES

1. Contractor Shall Verify All Existing Conditions Prior To Demolition Fabrication, Installation And Commencement Of All Work To Be Done. Coordinate All Work To Be Done With Other Trades.
2. All Discrepancies Shall Be Brought To The Attention Of The Mechanical Engineer.
3. Contractor Shall Coordinate All Work With Other Trades And Field Conditions Affecting Or Affected By This Installation. Should Conflicts Occur, The Engineer Shall Be Notified Immediately.
4. Contractor Shall Coordinate Location Of New Ductwork And Piping And Make Adjustments To Avoid Interference With Existing Ductwork, Piping, Conduit, Beams, And Framing.
5. Slope All Waste, Soil And Condensate Drain Lines In The Direction Of Flow, 1/4" Per Foot Minimum Unless Otherwise Indicated.
6. Provide Dielectric Connections At All Ferrous To Copper Connections.
7. All Duct Dimensions Shown Numerically Are Net Inside Dimensions And Do Not Include Insulation Thickness. All Supply And Return Air Ducts Shall Be Wrapped With 1 1/2" Insulation Unless Otherwise Noted.
8. All Items Are New Unless Otherwise Noted. All Existing Equipment And Other Items Shall Remain Unless Otherwise Noted.
9. Mount Thermostats At 48" AFF.
10. Water Conservation – Provide Flow Restrictors Or Other Approved Flow Control Devices And Fixtures To Limit Flow On All Faucets To A Maximum Of 2 Gpm, Urinals To A Maximum Of 1.0 Gallons Per Flush And For All Water Closets To 1.6 Gallons Per Flush.
11. All Demolition And Construction Work Shall Conform With 1988 Uniform Fire Code, Article 87.
12. Provide Fire Stopping At All Existing And New Pipe And Duct Penetrations Thru Fire Rated Walls And Smoke Walls.
13. All Air Conditioning And Ventilation Systems Shall Comply With Title 11, Administrative Rules, Department Of Health, Chapter 39, Air Conditioning And Ventilation Requirements.
14. Provide Laminated Plastic Signs Which Read "Water Is From Private Catchment System. Do Not Drink". Mount Signs On Wall Adjacent To Lavatories In Both Portal Office Toilets.

WATER DEMAND INFORMATION

Domestic Water Is Supplied By A Private Catchment System.

AIR CONDITIONING LEGEND AND ABBREVIATIONS LIST

Symbols	Abbreviations	Description	Symbols	Abbreviations	Description
	ACU	Air Conditioning Unit		NO	Normally Open
	Aux	Auxiliary		OAR	Outside Air Register
	BDD	Back Draft Damper		OBVD	Opposed Blade Volume Damper
		Ball Valve		POC	Point Of Connection
	CFM	Cubic Feet Per Minute		PVC	Polyvinyl Chloride
	CD	Condensate Drain		RAR	Return Air Register
	CO	Carbon Monoxide		RHC	Reheat Coil
	Cont	Continued			Fire Damper
(M)	DA	Damper Actuator – Motorized			Combination Fire/Smoke Damper
	Dia	Diameter	(SD)		Smoke Detector
	EAG	Exhaust Air Grille		SAR	Supply Air Register
	EAR	Exhaust Air Register		SAD	Supply Air Diffuser
	EAT	Entering Air Temperature		SCC	Sensible Cooling Capacity
	EF	Exhaust Fan		SS	Stainless Steel
	ESP	External Static Pressure		TAR	Transfer Air Register
	Exst	Existing		TC	Time Clock
		Flexible Connection		TCC	Total Cooling Capacity
	FLA	Full Load Amps		Temp	Temperature
(H)		Humidity Sensor	(T)		Duct Temperature Sensor
	JB	Junction Box	(TR)		Room Temperature Sensor
	LAT	Leaving Air Temperature		Thk	Thick
	LRA	Locked Rotor Amps		Typ	Typical
	NC	Normally Closed		UPS	Uninterruptible Power Supply

SURVEY PLOTTED BY ____ DATE
SURVEY BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____
ORIGINAL PLANS
NOTEBOOK No. ____

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MECHANICAL NOTES, LEGEND & ABBREV

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

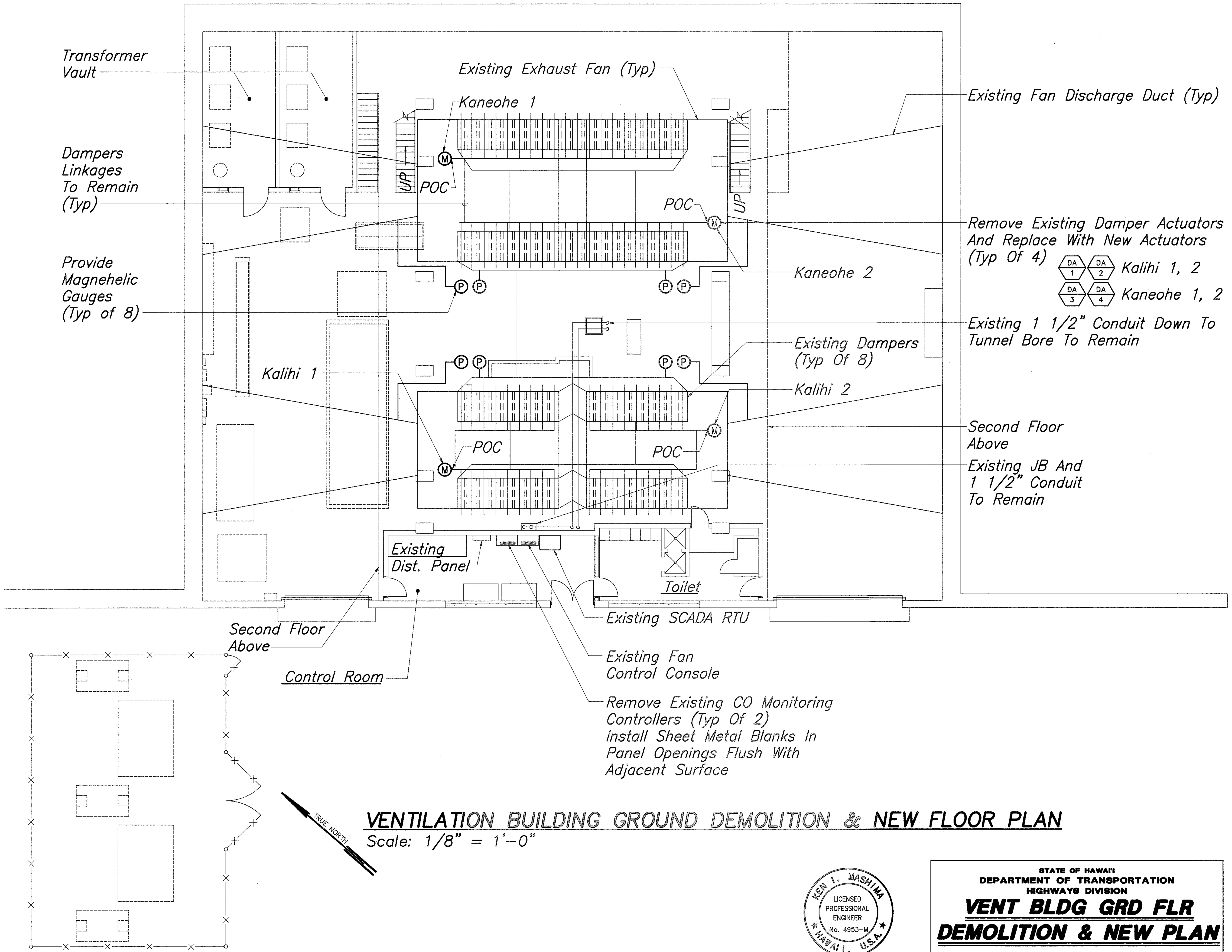
Scale: As Noted Date: JULY 2000

SHEET No. M-1 OF M-17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	20	77

PLUMBING LEGEND AND ABBREVIATIONS LIST

Symbols	Abbreviations	Description
	Abv	Above
	AFF	Above Finished Floor
		Ball Valve
	Bel	Below
	Conc	Concrete
	COTG	Cleanout To Grade
	CU	Copper
	CW	Cold Water
	Dn	Down
	Exst	Existing
	FCO	Floor Cleanout
	FD	Floor Drain
	FS	Floor Sink
	Galv	Galvanized
	HB	Hose Bibb
	LAV	Lavatory
	NPS	Nominal Pipe Size
	O.D.	Outside Diameter
		Pressure Reducing Valve
	POC	Point Of Connection
		Soil Or Waste
	Sch	Schedule
	Typ	Typical
	VT	Vent
	VTR	Vent Thru Roof
	WC	Water Closet
	WCO	Wall Cleanout
	WHA	Water Hammer Arrestor



VENTILATION BUILDING GROUND DEMOLITION & NEW FLOOR PLAN

Scale: 1/8" = 1'-0"

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VENT BLDG GRD FLR DEMOLITION & NEW PLAN

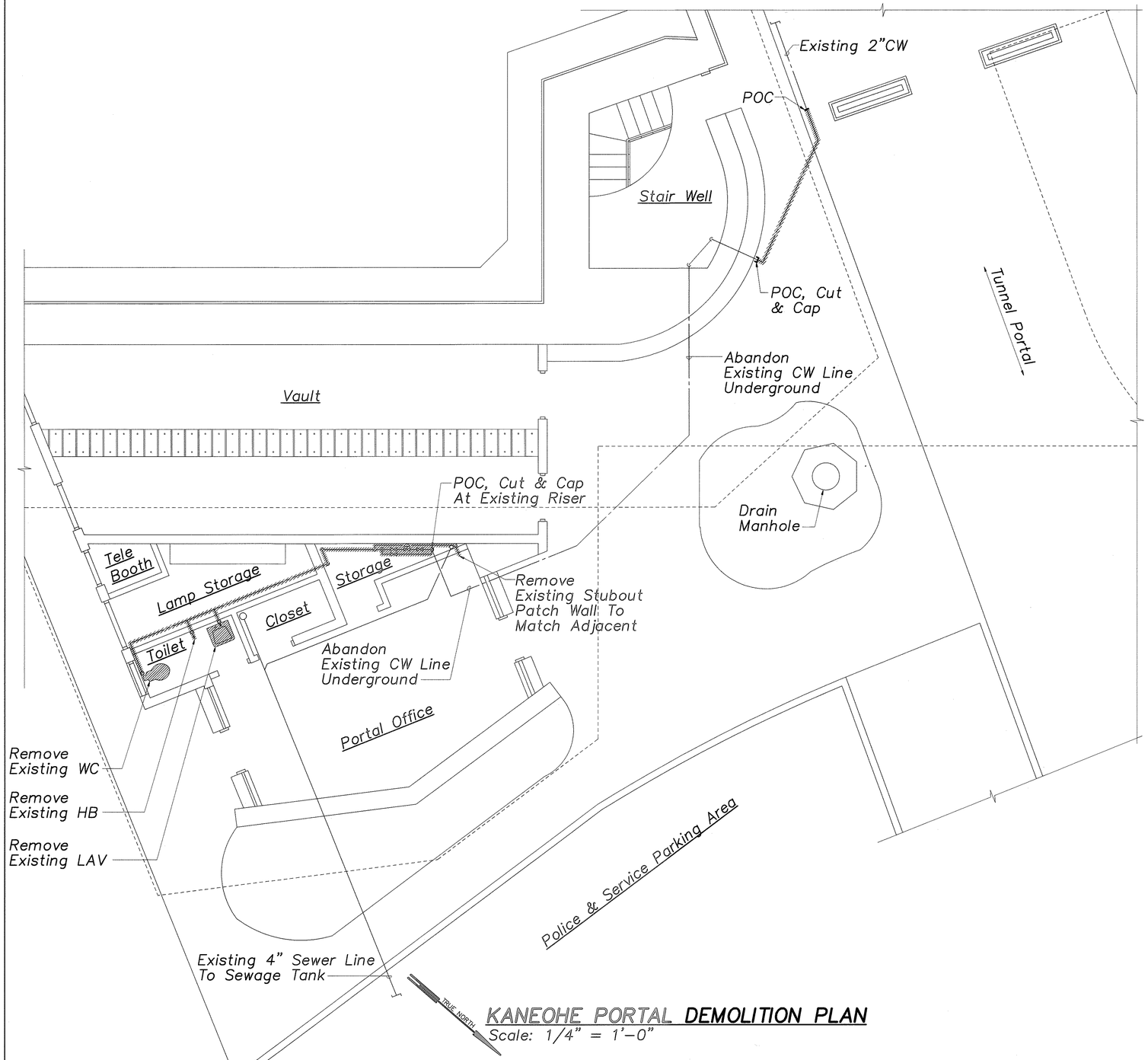
WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted   Date: JULY 2000

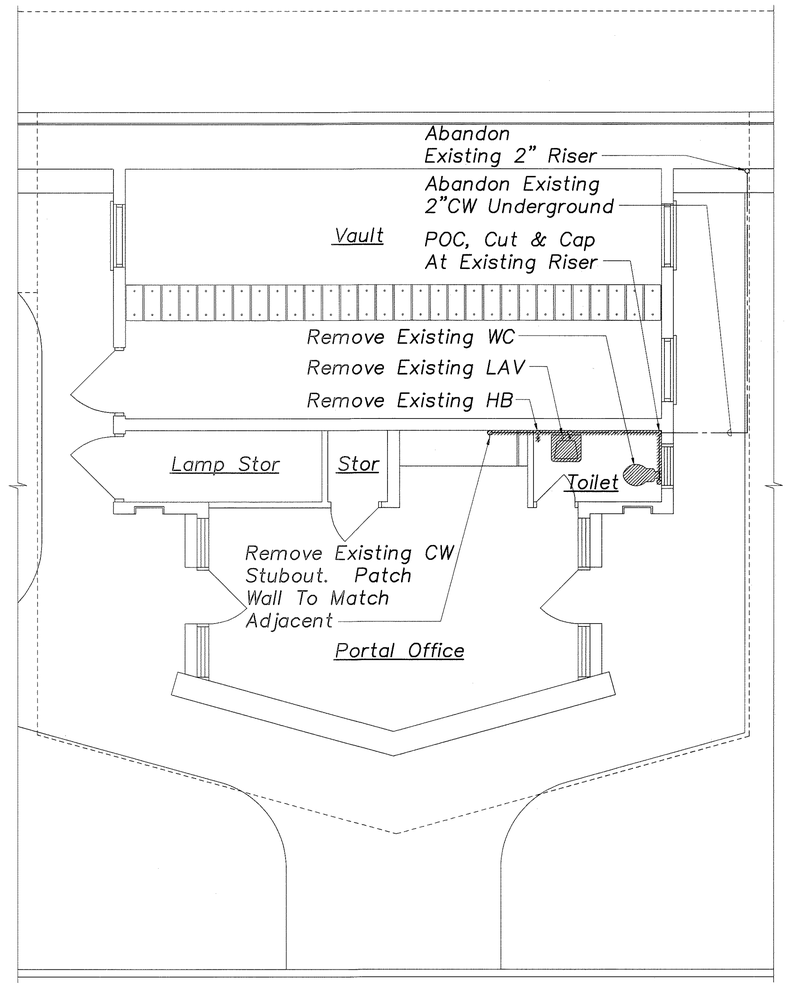
SHEET No. M-2 OF M-17 SHEETS

ORIGINAL PLAN | NOTEBOOK | No.
SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	21	77



KANEOHE PORTAL DEMOLITION PLAN
Scale: 1/4" = 1'-0"



KALIHI PORTAL DEMOLITION PLAN
Scale: 1/4" = 1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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NOTEBOOK	TRACED BY	
	DESIGNED BY	
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	CHECKED BY	

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KALIHI AND KANEOHE PORTAL DEMO PLAN

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted Date: JULY 2000

SHEET No. M-3 OF M-17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	22	77

CARBON MONOXIDE (CO) SENSOR DEMOLITION PLAN

Scale: None

NEW CARBON MONOXIDE (CO) SAMPLING SCHEMATIC PLAN

Scale: None

Notes:

1. Provide 18 Each CO Sampling Units and 18 Each CO Sensor/Trasnsmitters and Install in Tunnel Ceiling Plenum At Locations Shown.
2. Provide 6 Each Spare CO Sampling Units and 6 Each Spare CO Sensor/Transmitters and Turn Over to DOT Maintenance Personnel.

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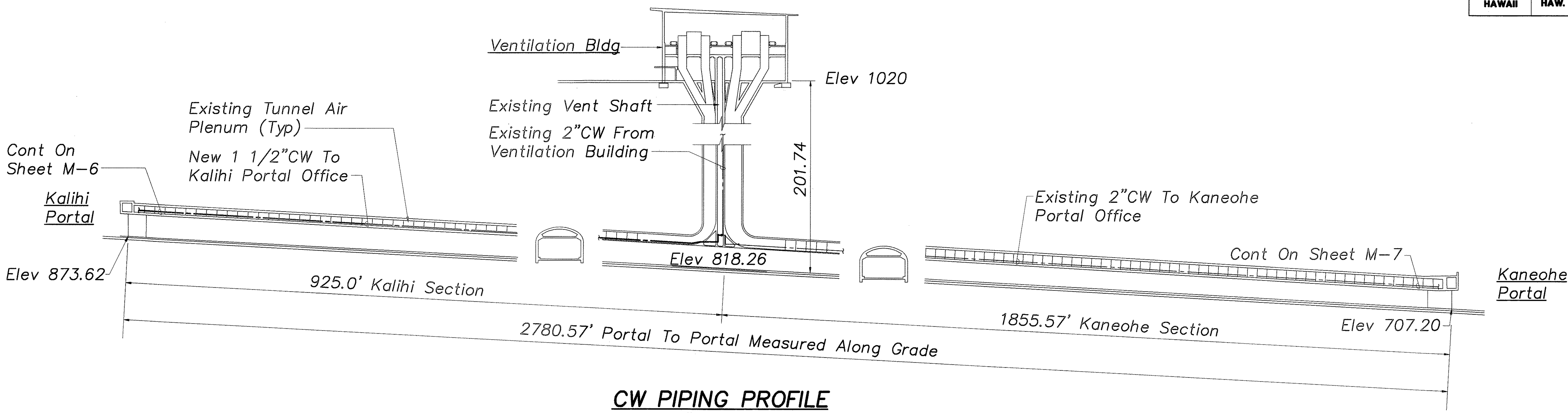
CO DEMO & NEW SCHEMATIC PLAN

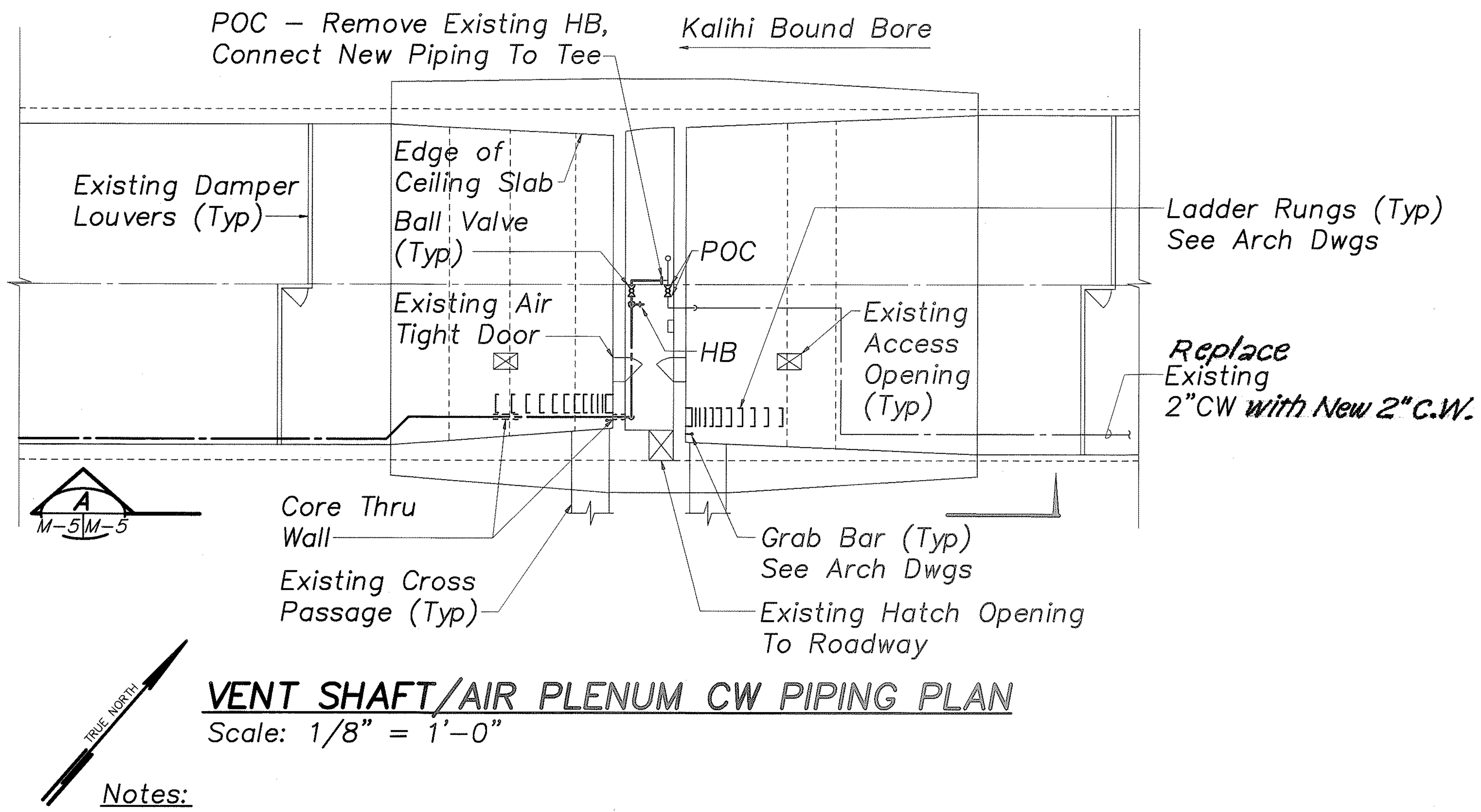
WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted — Date: JULY 2000

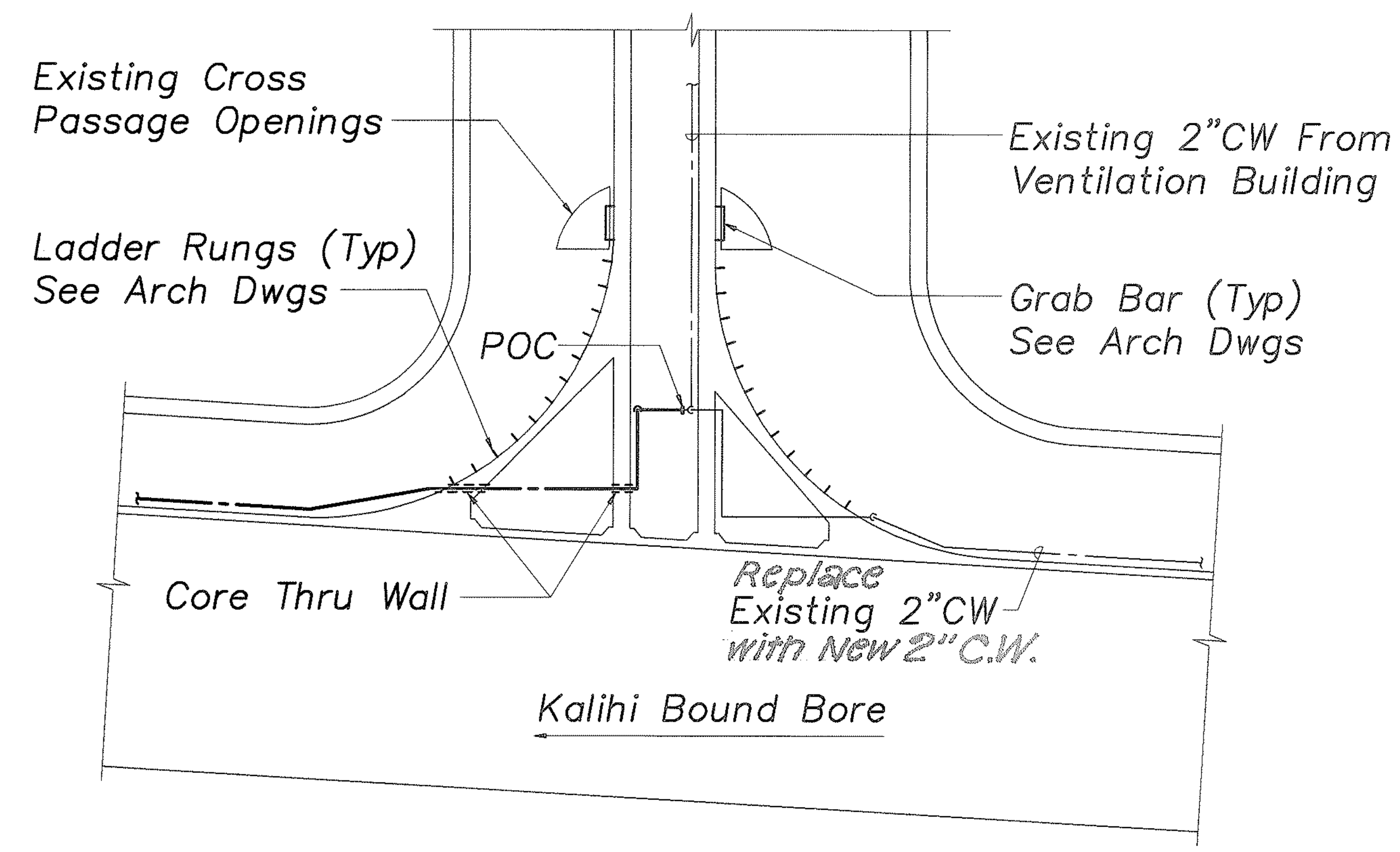
SHEET No. M-4 OF M-17 SHEETS



CW PIPING PROFILE
Scale: 1" = 40'-0"



VENT SHAFT/AIR PLENUM CW PIPING PLAN
Scale: 1/8" = 1'-0"



SECTION
A — M-5 M-5
Scale: 1/8" = 1'-0"

Notes:

1. See Architectural Drawing Sheet A-5 For New Ladder Rung and Grab Bar Installation Details.
2. Replace Deteriorated Ladder Rungs Located on the Kaneohe Bound Tunnel Wall at Each Portal. Ladder Rungs Provide Access from Roadway Surface to Tunnel Air Plenum Openings (Not Shown). See Architectural Drawings for Installation Details.

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VENT SHAFT CW PIPING PLAN, PROFILE & SECT

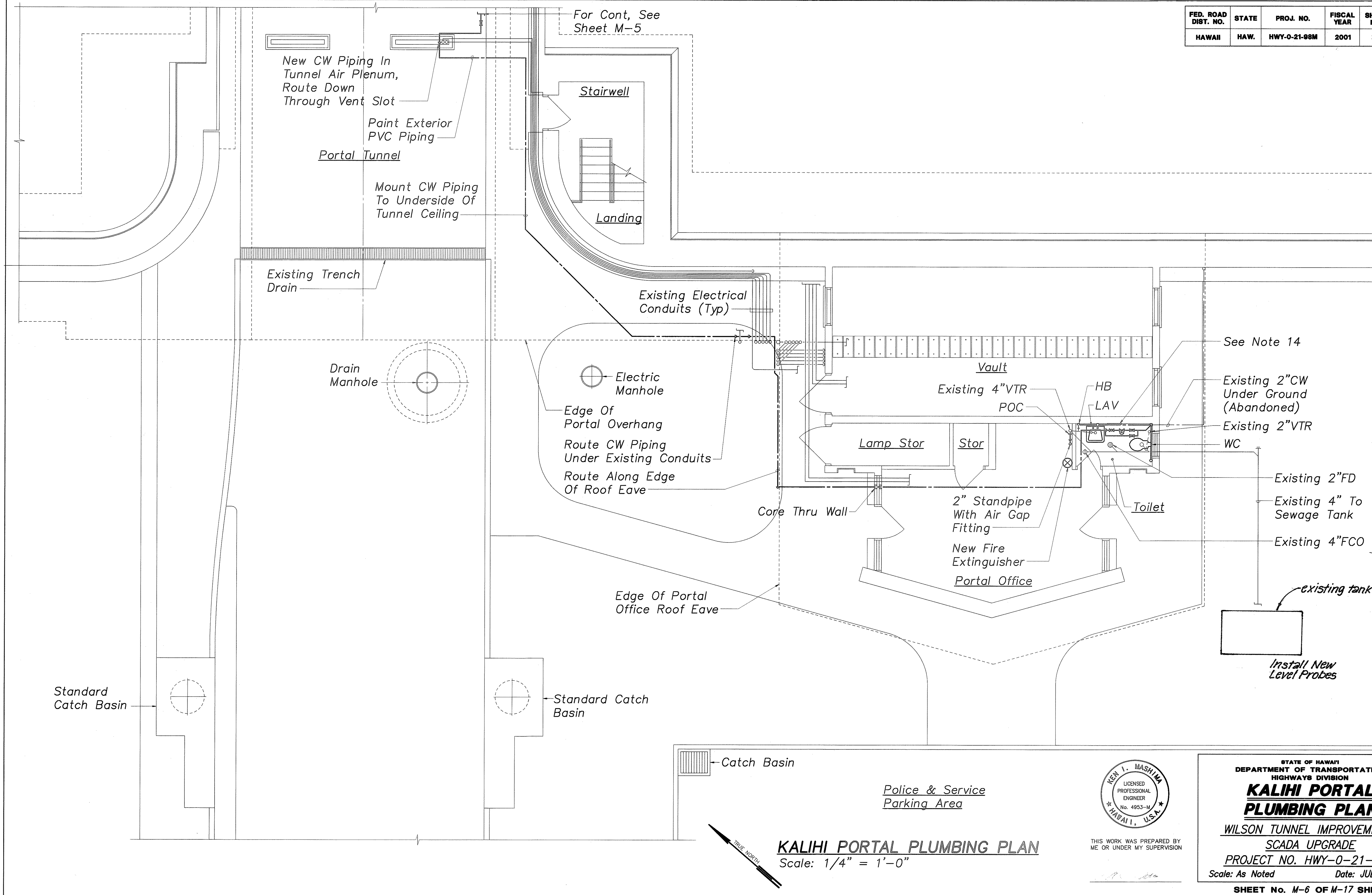
WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted — Date: JULY 2000

SHEET No. M-5 OF M-17 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	24	77



For Cont, See Sheet M-5
New CW Piping In Tunnel Air Plenum, Route Down Through Vent Slot
Paint Exterior PVC Piping
Portal Tunnel
Mount CW Piping To Underside Of Tunnel Ceiling
Stairwell
Landing
Existing Trench Drain
Existing Electrical Conduits (Typ)
Drain Manhole
Electric Manhole
Edge Of Portal Overhang
Route CW Piping Under Existing Conduits
Route Along Edge Of Roof Eave
Core Thru Wall
Vault
Lamp Stor
Stor
Existing 4"VTR
POC
HB
LAV
See Note 14
Existing 2"CW Under Ground (Abandoned)
Existing 2"VTR
WC
Existing 2"FD
Existing 4" To Sewage Tank
Existing 4"FCO
Toilet
2" Standpipe With Air Gap Fitting
New Fire Extinguisher
Portal Office
Edge Of Portal Office Roof Eave
existing tank
Install New Level Probes
Standard Catch Basin
Standard Catch Basin
Catch Basin
Police & Service Parking Area
TRUE NORTH

KALIHI PORTAL PLUMBING PLAN

Scale: 1/4" = 1'-0"

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KALIHI PORTAL PLUMBING PLAN

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted Date: JULY 2000

SHEET No. M-6 OF M-17 SHEETS

ORIGINAL PLAN
NOTEBOOK
No.
SURVEY PLOTTED BY
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"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	25	77

KANEOHE PORTAL PLUMBING PLAN

Scale: 1/4" = 1'-0"

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KANEOHE PORTAL PLUMBING PLAN

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted Date: JULY 2000

SHEET No. M-7 OF M-17 SHEETS

ORIGINAL PLAN | NOTEBOOK | No.
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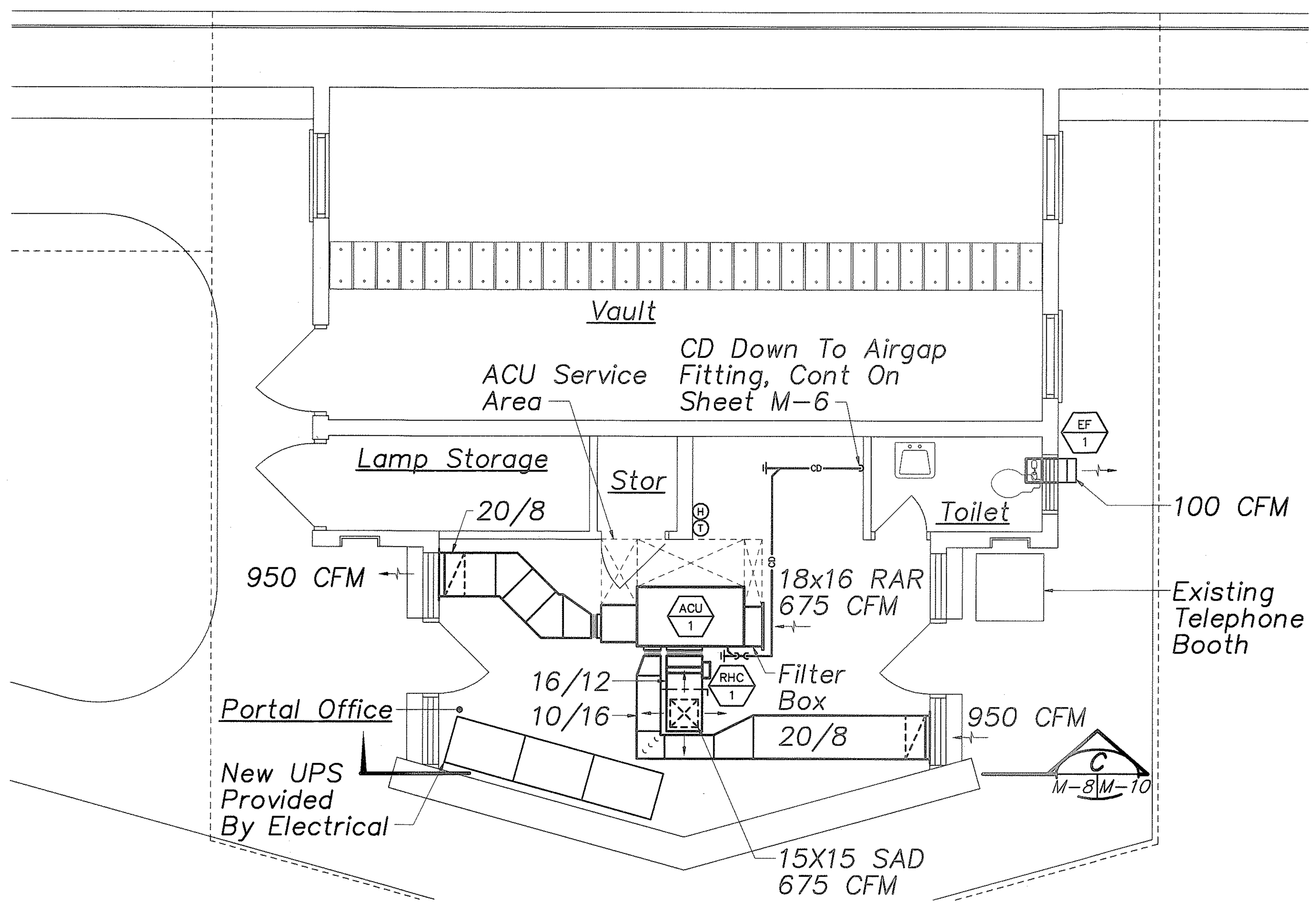
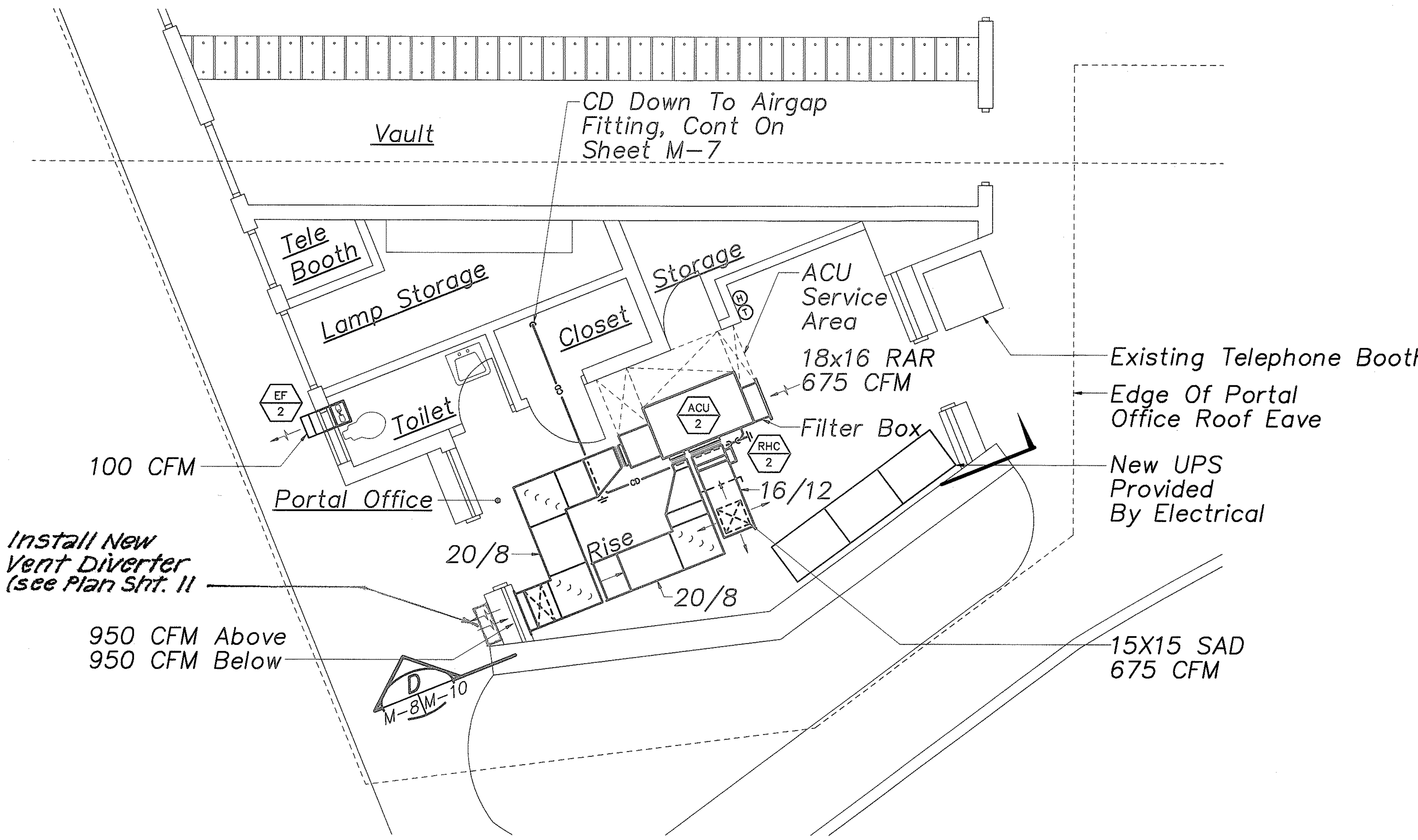
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	26	77



KALIHI PORTAL OFFICE A/C PARTIAL PLAN
Scale: 1/4" = 1'-0"



KANEOHE PORTAL OFFICE A/C PARTIAL PLAN
Scale: 1/4" = 1'-0"

ORIGINAL PLAN
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PORTAL OFFICE A/C PARTIAL PLANS

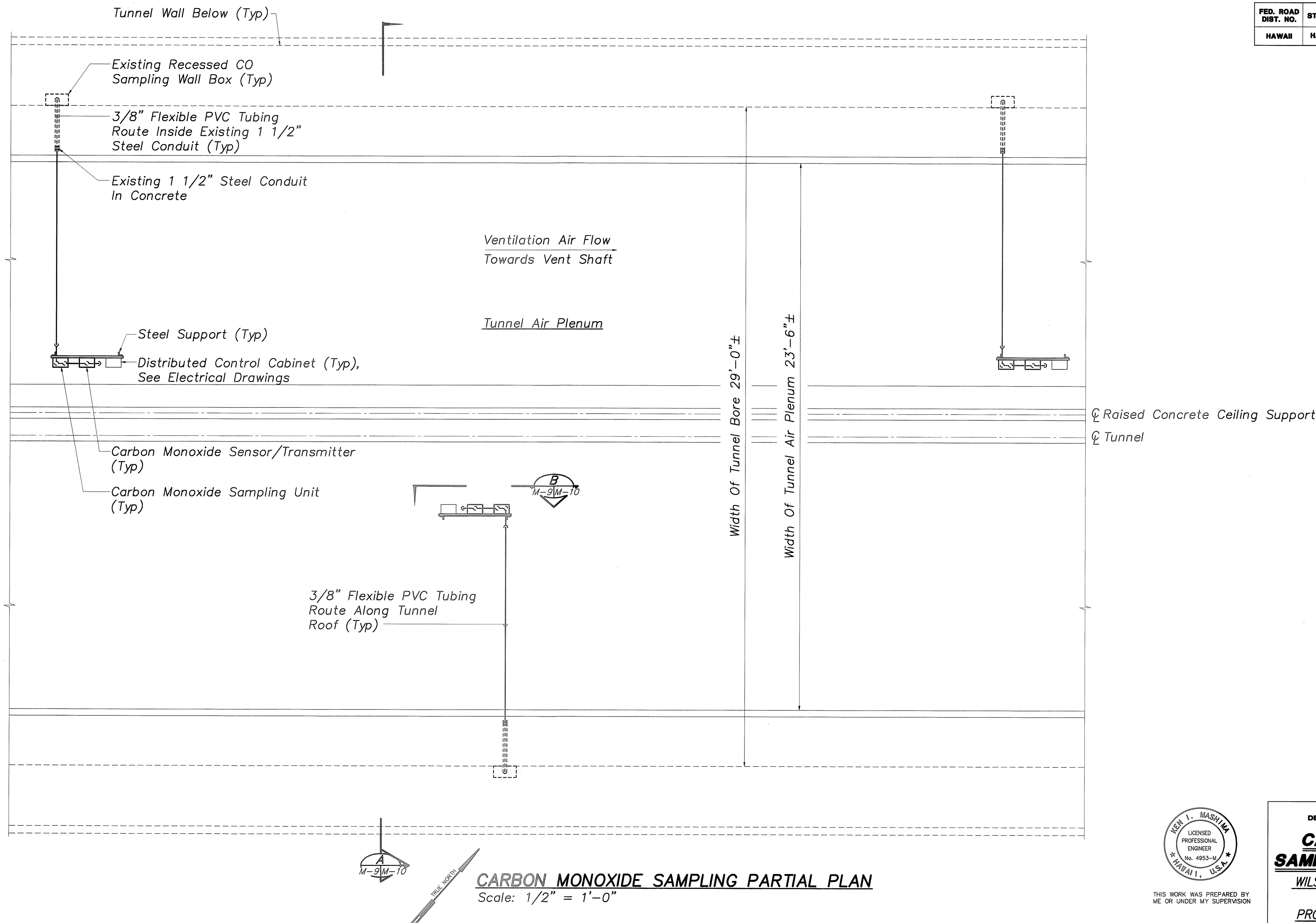
WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted   Date: JULY 2000

SHEET No. M-8 OF M-17 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	27	77



CARBON MONOXIDE SAMPLING PARTIAL PLAN

Scale: 1/2" = 1'-0"

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CARBON MONOXIDE SAMPLING PARTIAL PLAN

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted Date: JULY 2000

SHEET No. M-9 OF M-17 SHEETS

ORIGINAL PLAN
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No.
SURVEY PLOTTED BY
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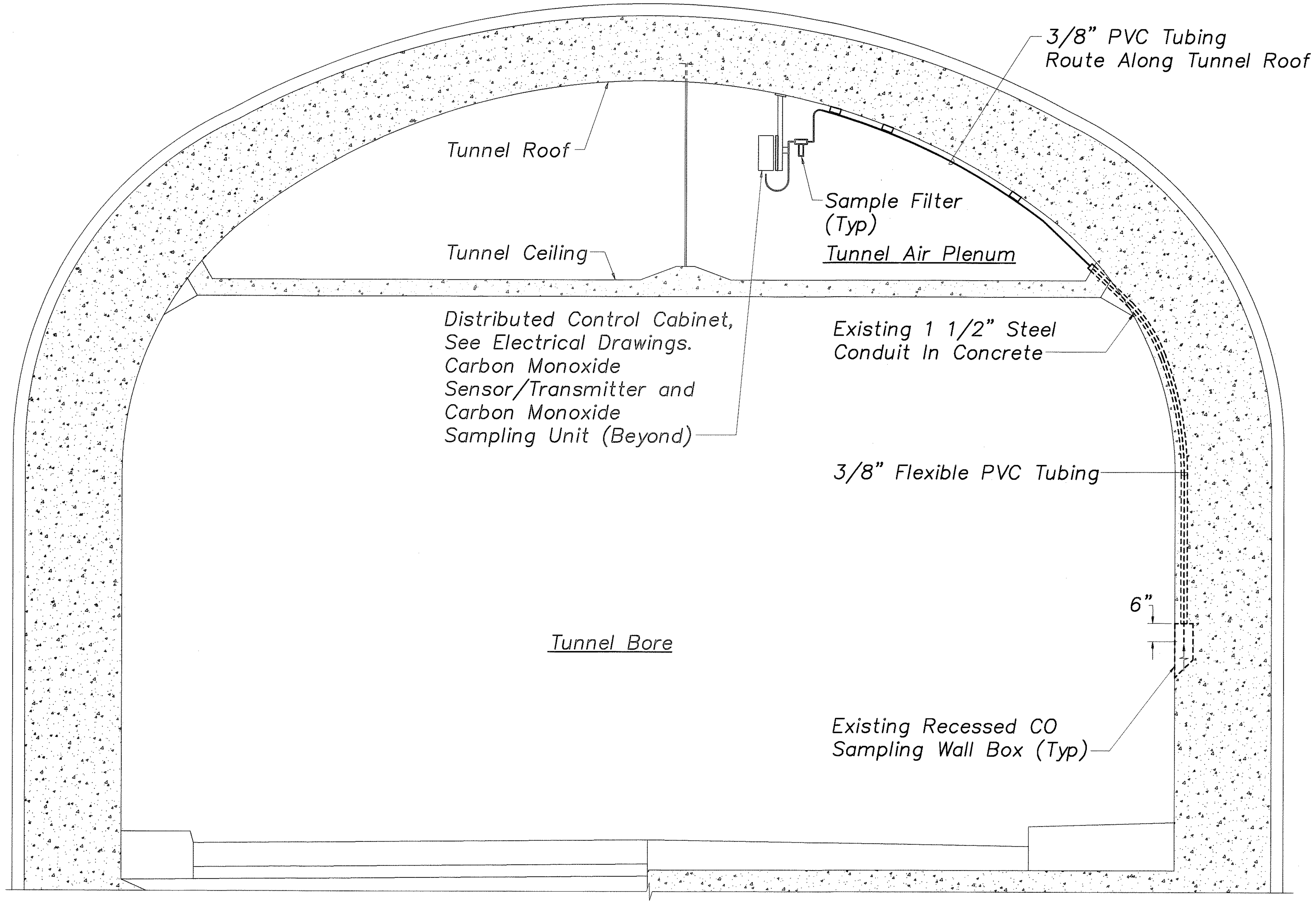
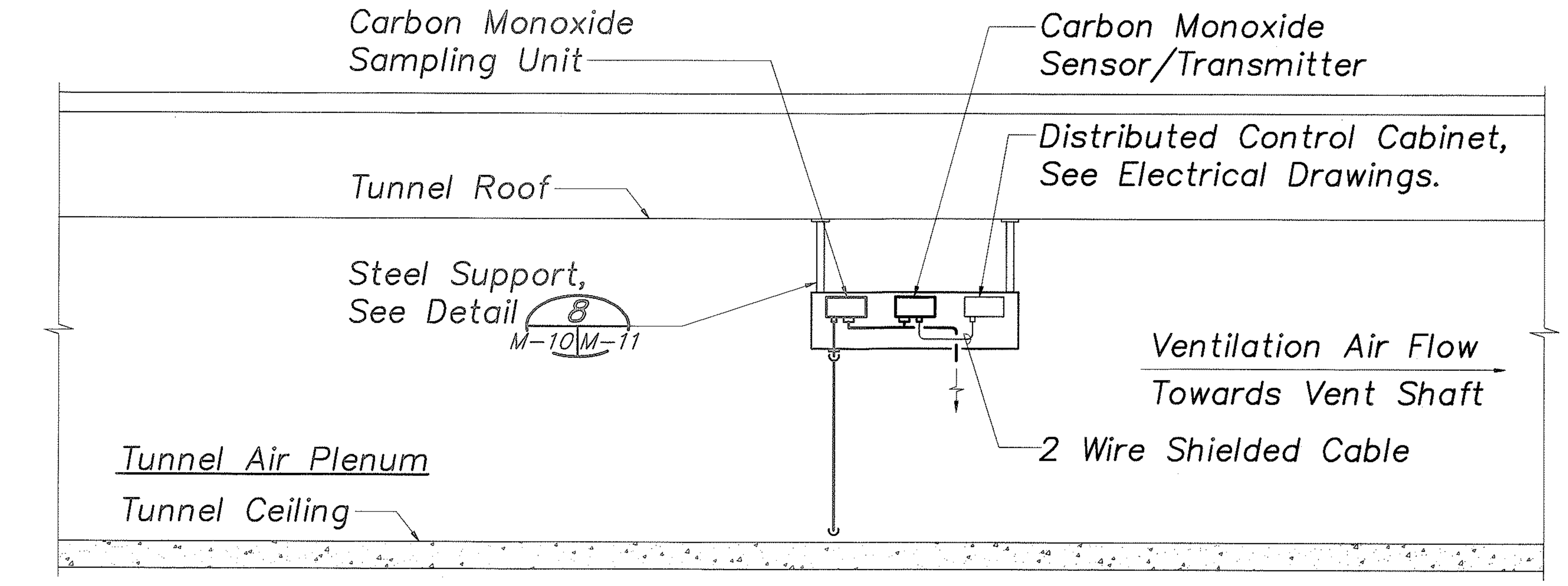
DATE

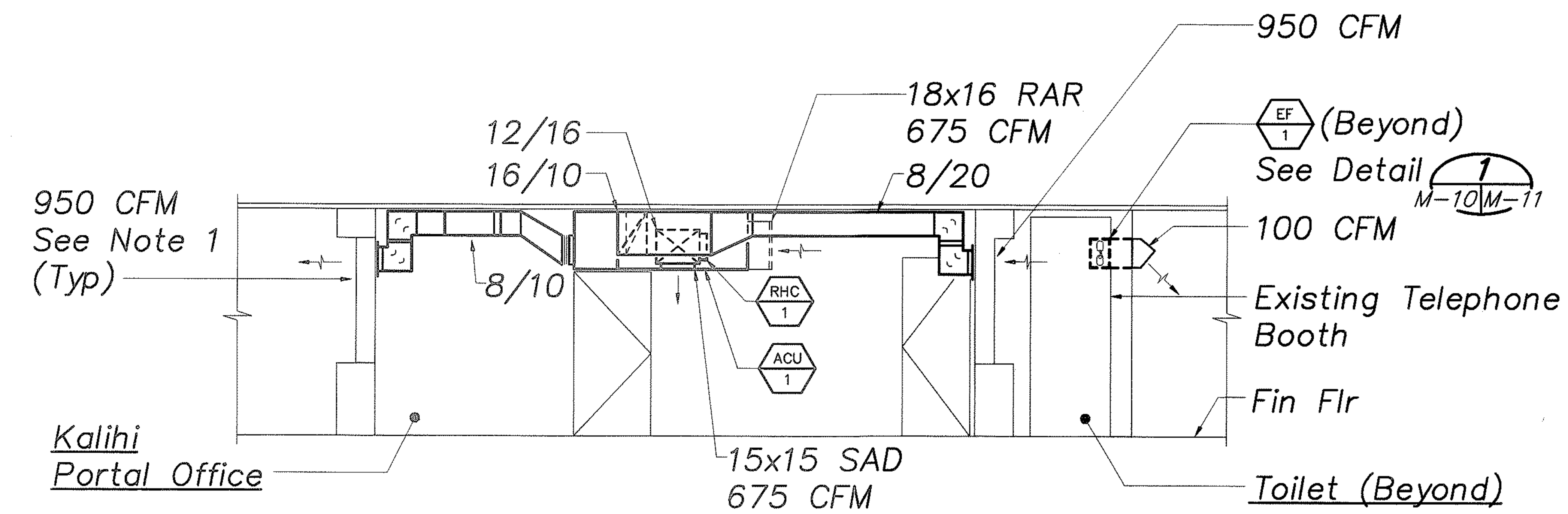
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	28	77



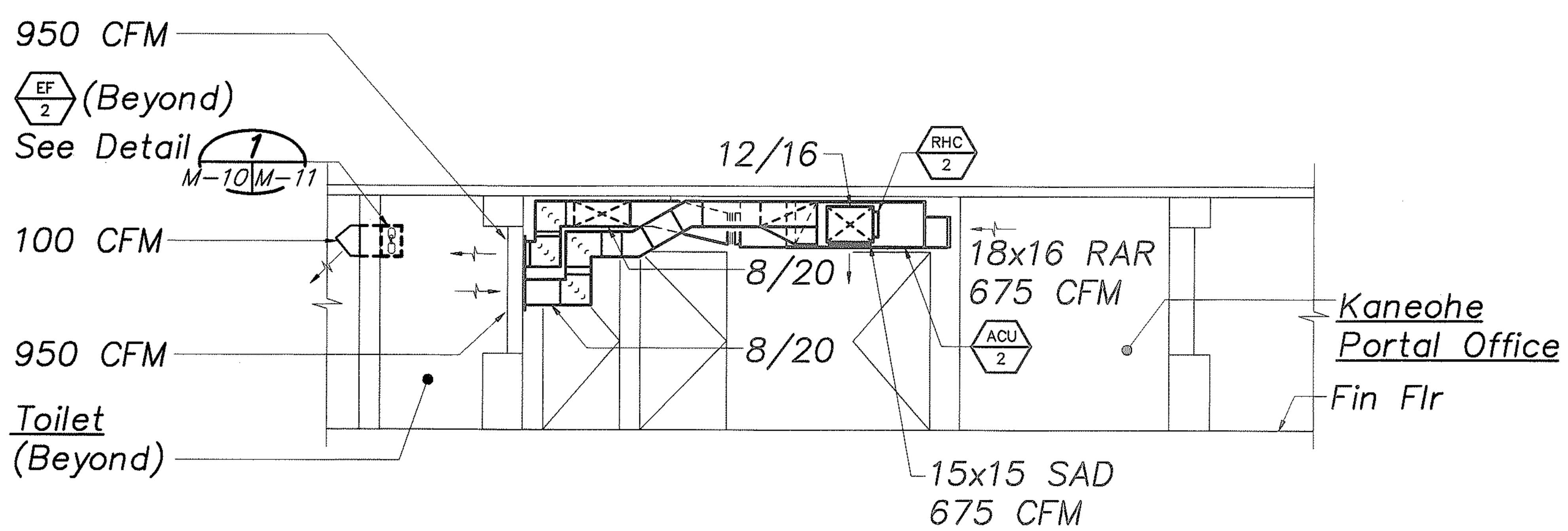
SECTION A
Scale: 1/2" = 1'-0"   M-9 | M-10



SECTION B
Scale: 1/2" = 1'-0"   M-9 | M-10



SECTION C
Scale: 1/4" = 1'-0"   M-8 | M-10



SECTION D
Scale: 1/4" = 1'-0"   M-8 | M-10

Note:

1. Cut Hole in Louver Blank-Off Plate (By Others) and Attach Duct with Sheetmetal Screws. Caulk All Around. Provide Stainless Steel Birdscreen Over Duct Openings.

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SECTIONS

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted   Date: JULY 2000

SHEET No. M-10 OF M-17 SHEETS

ORIGINAL PLAN
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No.
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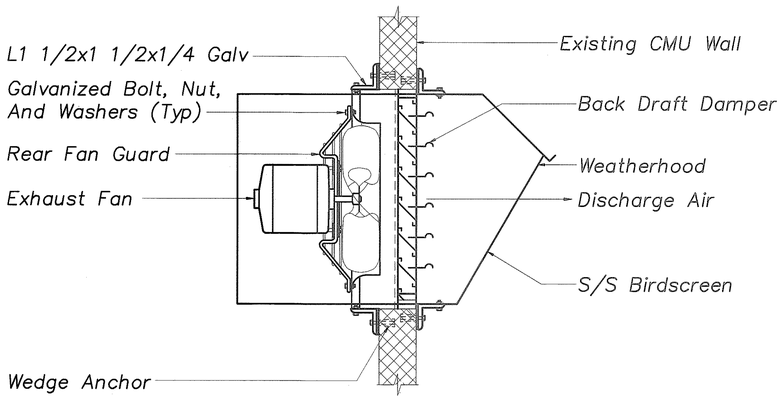
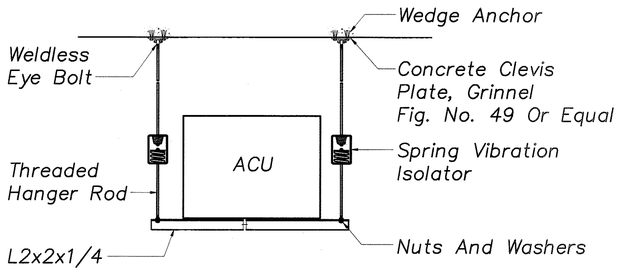
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

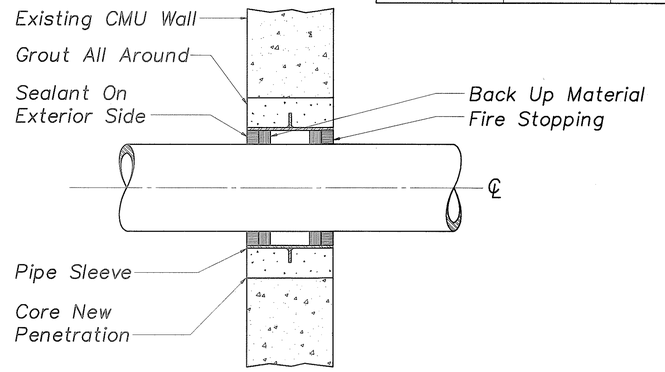
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	29	77



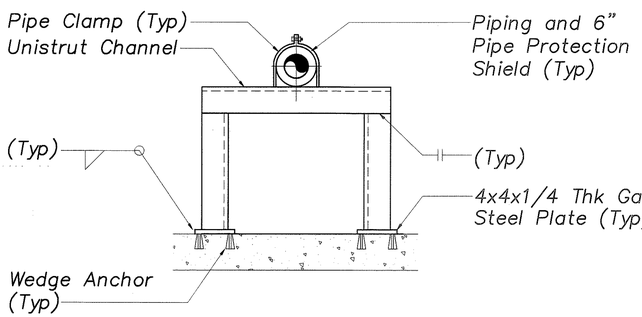
WALL EXHAUST FAN MOUNTING DETAIL 1
Scale: None — M-10|M-11



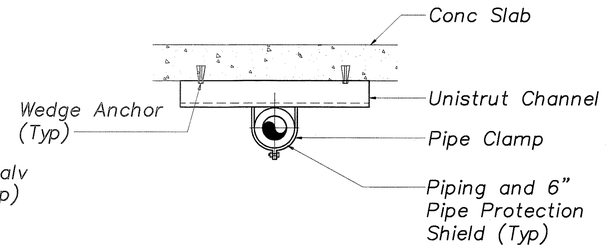
ACU HANGER DETAIL 2
Scale: None — M-10|M-11



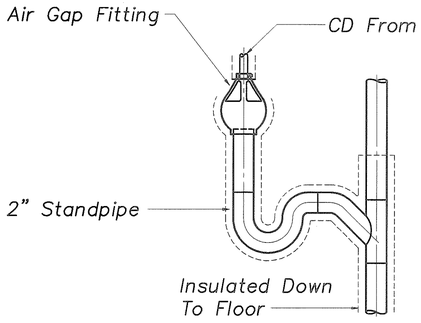
TYPICAL WALL PENETRATION DETAIL 3
Scale: None — M-12|M-11



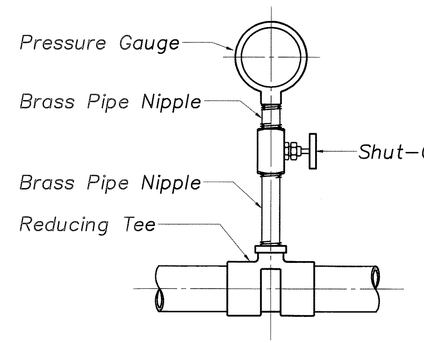
PIPE SUPPORT DETAIL 4
Scale: None — M-10|M-11



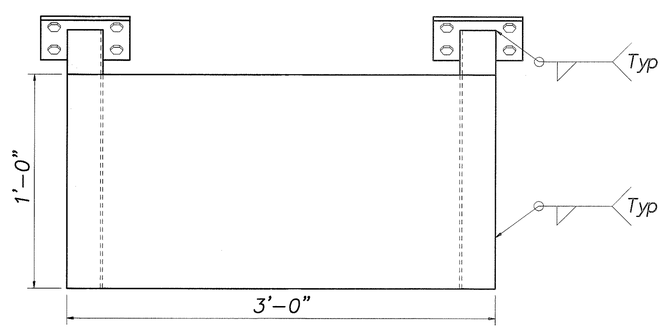
PIPE SUPPORT DETAIL 5
Scale: None — M-10|M-11

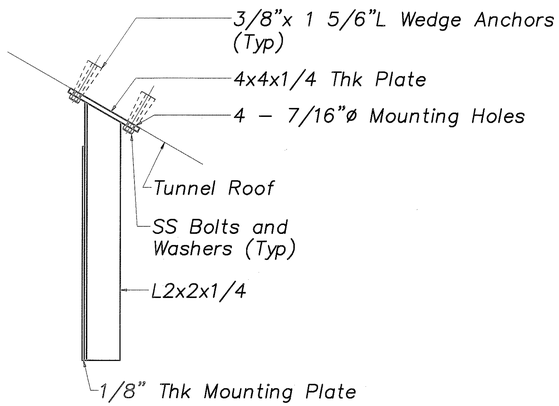


STANDPIPE DETAIL 6
Scale: None — M-13|M-11



PRESSURE GAUGE DETAIL 7
Scale: None — M-12|M-11





CO MONITORING EQUIPMENT SUPPORT DETAIL 8
Scale: None — M-10|M-11

ORIGINAL PLANS	SURVEY PLOTTED BY	DATE
	DRAWN BY	"
	TRACED BY	"
NOTEBOOK	DESIGNED BY	"
	QUANTITIES BY	"
No.	CHECKED BY	"

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HIGHWAYS DIVISION

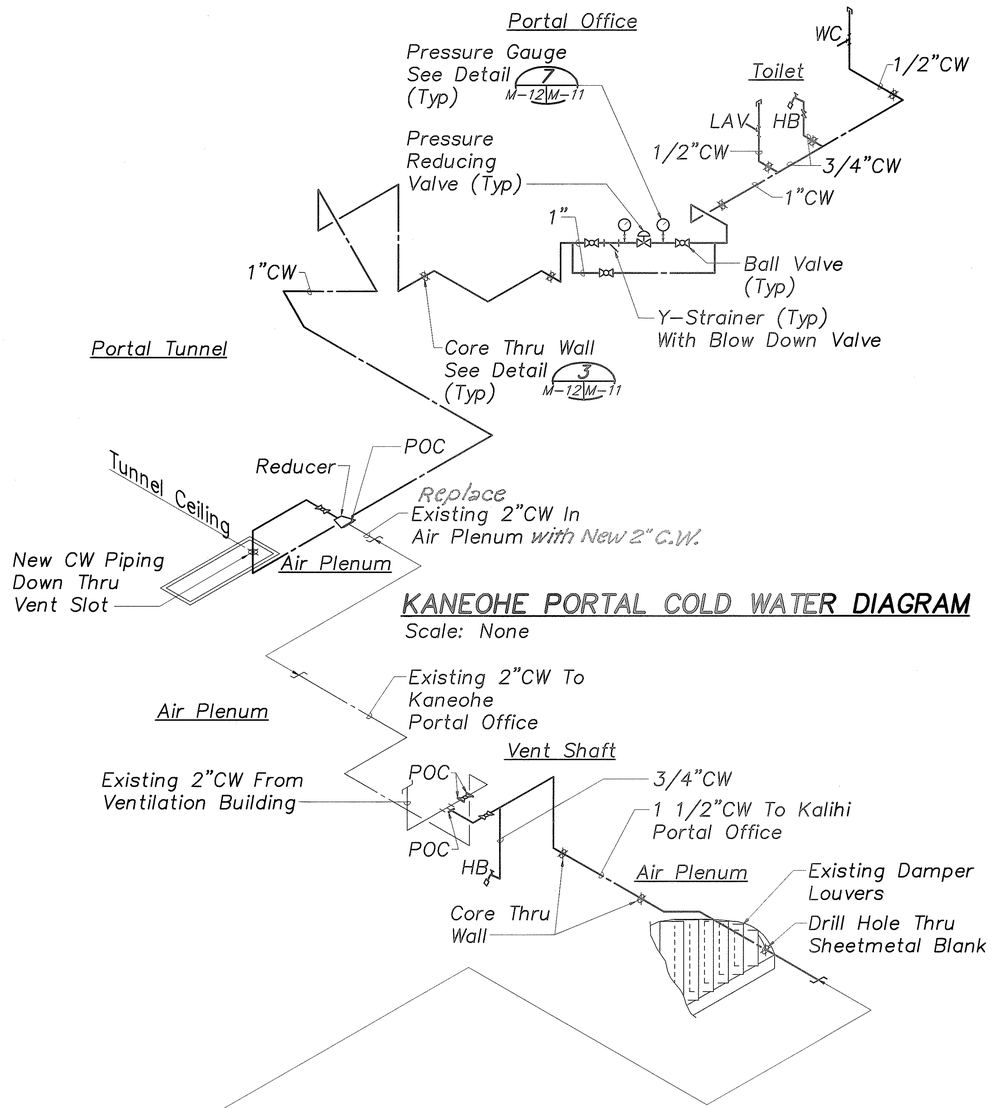
DETAILS

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted — Date: JULY 2000

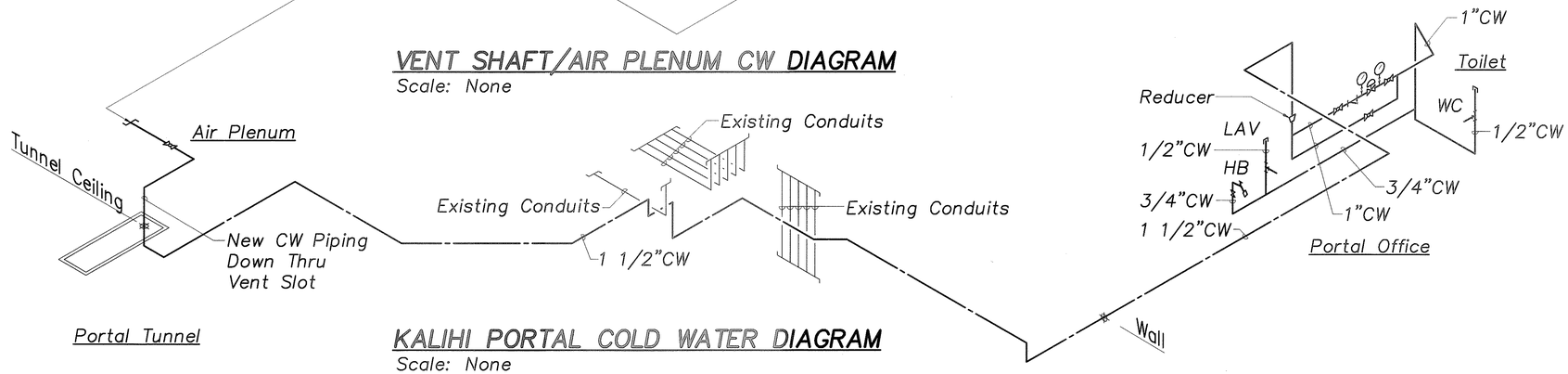
SHEET No. M-11 OF M-17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	30	77



KANEOHE PORTAL COLD WATER DIAGRAM
Scale: None

VENT SHAFT/AIR PLENUM CW DIAGRAM
Scale: None



KALIHI PORTAL COLD WATER DIAGRAM
Scale: None

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NOTEBOOK	DESIGNED BY	
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No.	CHECKED BY	

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

COLD WATER PIPING DIAGRAMS

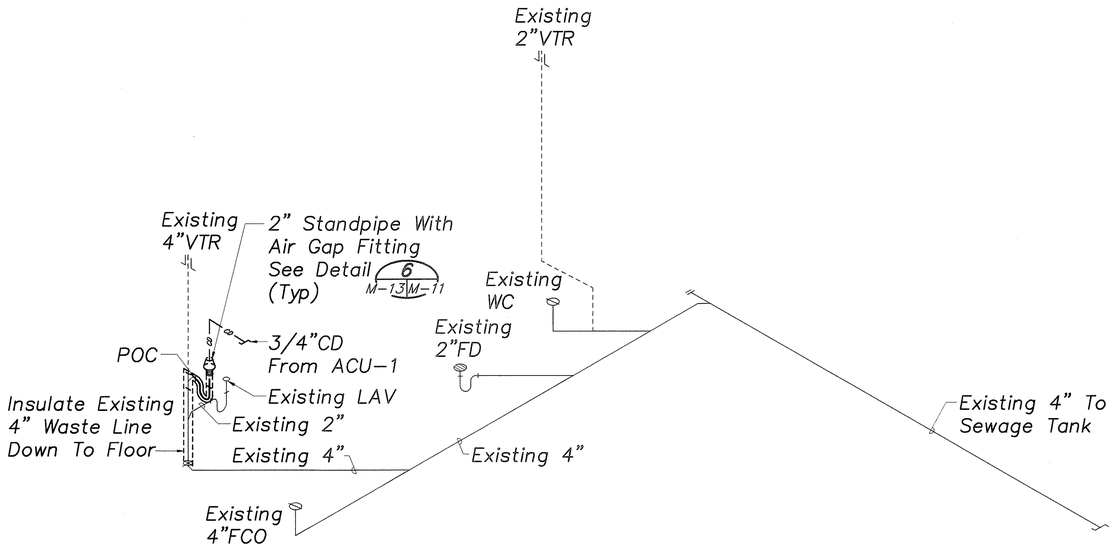
WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted Date: JULY 2000

SHEET No. M-12 OF M-17 SHEETS

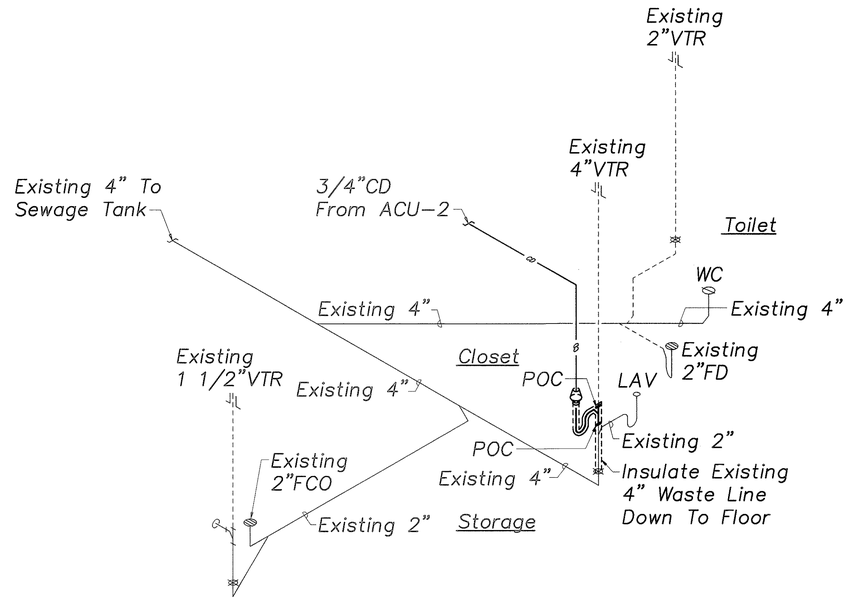
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	31	77



KALIHI PORTAL OFFICE SANITARY DIAGRAM

Scale: None



KANEOHE PORTAL OFFICE SANITARY DIAGRAM

Scale: None

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NOTEBOOK	DESIGNED BY " "
No. ____	QUANTITIES BY " "
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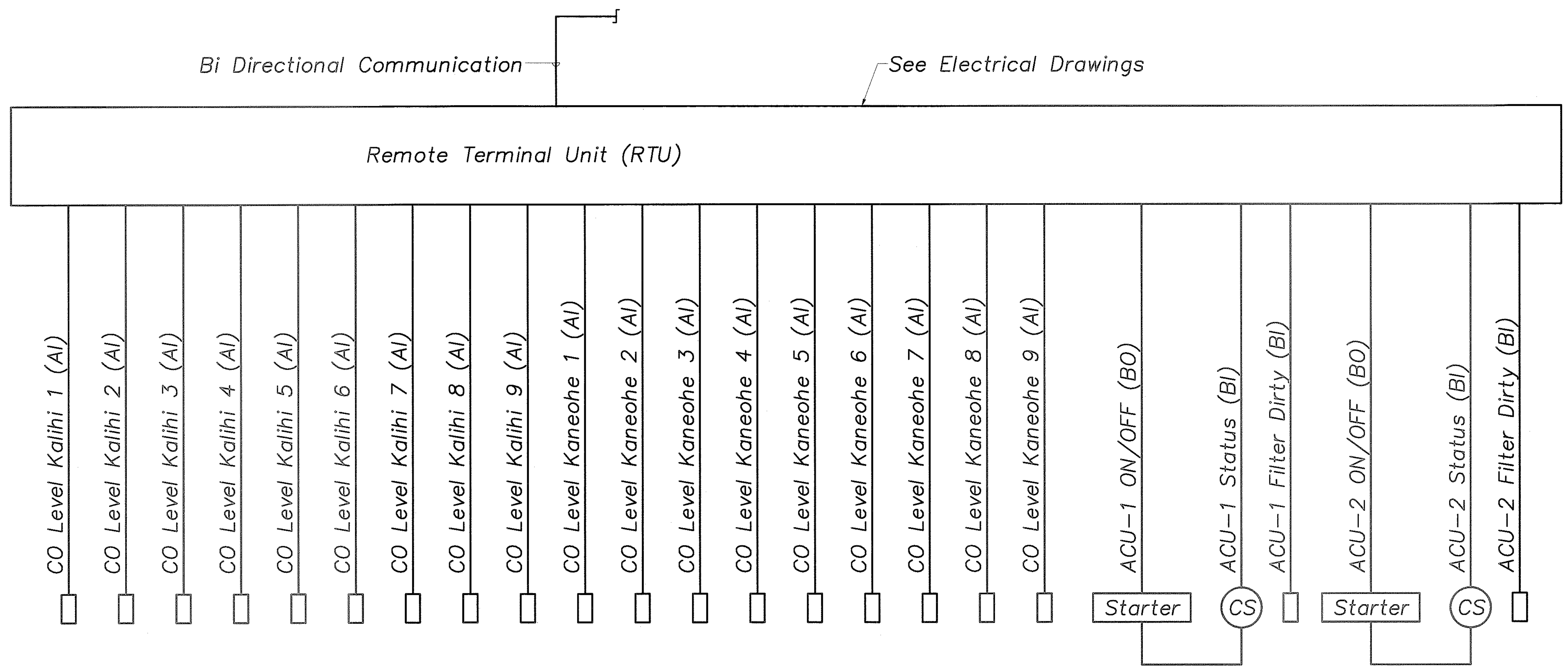
SANITARY PIPING DIAGRAMS

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted Date: JULY 2000

SHEET No. M-13 OF M-17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	32	77



BLOCK DIAGRAM

Scale: None

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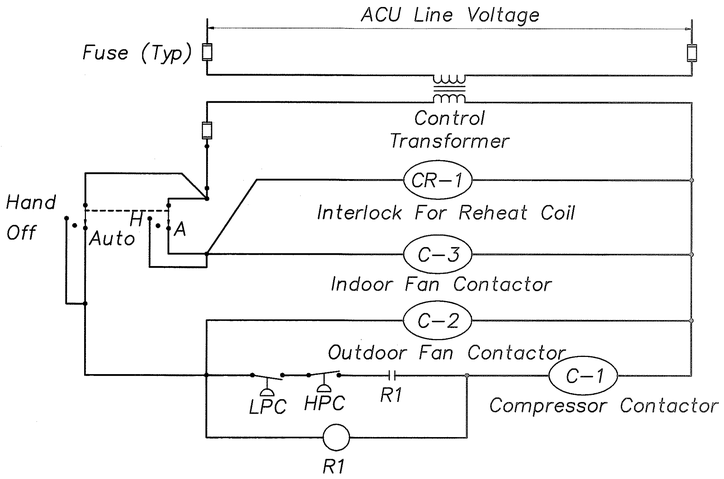
BLOCK DIAGRAM

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted Date: JULY 2000

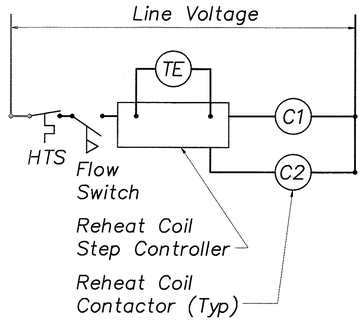
SHEET No. M-14 OF M-17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	33	77



AIR CONDITIONING UNIT CONTROL DIAGRAM

Scale: None (ACU–1 Shown, ACU–2 Similar)



RHC–1 CONTROL DIAGRAM

Scale: None (RHC–2 Similar)

SEQUENCE OF OPERATION

Normal Cooling

The Air Conditioning System Operates 24 Hours Per Day, 365 Days Per Year.

The Peak Cooling Load For The Building Is Satisfied By A Single Constant Volume ACU. When The Room Temperature Exceeds 75 Degrees F, The Room Temperature Sensor Provides An 'On' Signal To The ACU. The ACU Internal Controls Start And Stop The Compressor, Indoor Air Fan And Outdoor Air Fan To Maintain The Room Temperature Setpoint.

When The Load Is Satisfied, The Signal From The Room Temperature Sensor De–Energizes The Compressor And Outdoor Fan For The ACU. The Indoor Fan For The ACU Runs Continuously During The Prescribed Hours of Operation. If A Call For Cooling Occurs Within 3 Minutes Of The Last Compressor Shutdown, The Anti–Cycle Device Delays Starting Of The Compressor For 3 Minutes. After The 3 Minute Period, The Compressor And Outdoor Fan Are Started And Operated To Meet The Cooling Load.

The Exhaust Fan (EF) Is Energized Whenever The Toilet Room Light Is Turned 'On' And Is Shut Down When The Light Is Turned 'Off'.

Reheat Operation

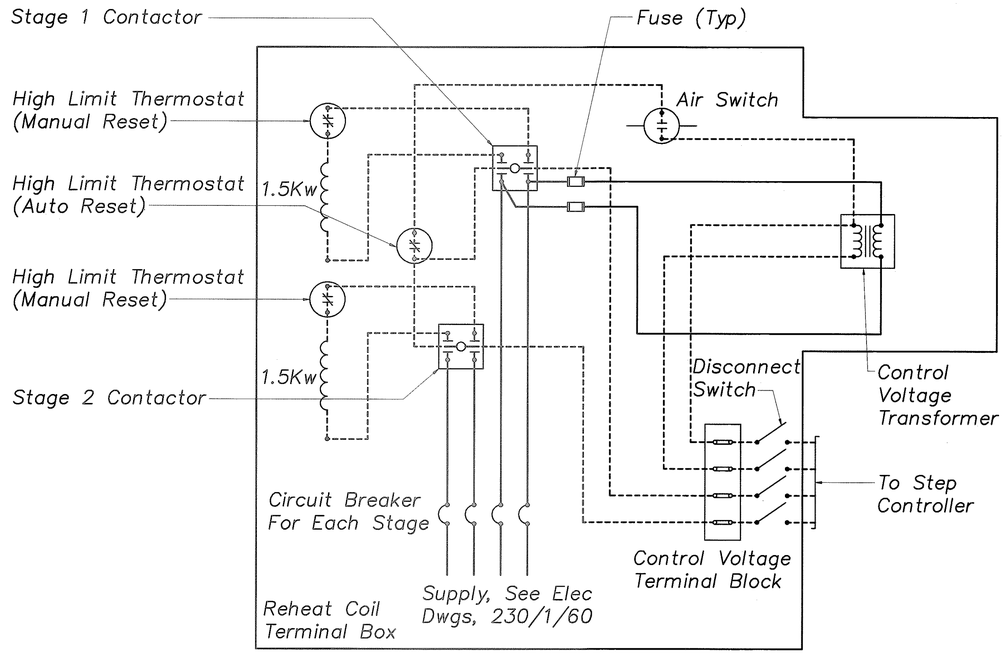
The Average Relative Humidity Level For The Portal Office Is Sensed By The Humidity Sensor And Compared To An Adjustable Setpoint. If The Average Relative Humidity Is Greater Than 60%, The System Shall Override The Room Temperature Sensor And Call For Maximum Cooling. If The Room Temperature Decreases Below 70 Degrees F, The Room Temperature Sensor Shall Signal The Reheat Controller To Energize The First Stage Of Reheat. If The Room Temperature Decreases Below 68 Degrees F, The Reheat Controller Shall Energize The Second Stage Of Reheat. The Reheat Coil Is De–Energized When The Room Temperature Rises Above 72 Degrees F. If The Room Humidity Decreases Below 60%, The System Shall Return Control To The Room Temperature Sensor.

Loss Of Normal Electrical Power Operation

Upon Loss Of Normal Electrical Power, The ACU Will Be Restarted Automatically After Normal Power Comes On Line And Allows Electrical Loads.

Control Legend

Avg	Average
C	Contactor
Comp	Compressor
CR	Contact Relay
HPC	High Pressure Contactor
HTS	High Temperature Switch
IFC	Indoor Fan Contactor
KW	Kilowatt
LPC	Low Pressure Contactor
NC	Normally Closed
RH	Relative Humidity
RHC	Reheat Coil
TE	Temperature Sensor



1. Circuit Fuses Required When Total Load Excees 48 Amps
2. Supply Wires Must Be Suitable For A Min Of 75°C

Control Voltage ---------

Supply Voltage ———

REHEAT COIL CONTROL DIAGRAM

Scale: None

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SEQUENCE OF OPERATION AND CONTROL DIAGRAM

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY–0–21–98M

Scale: As Noted Date: JULY 2000

SHEET No. M–15 OF M–17 SHEETS

ORIGINAL PLAN
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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	34	77

AIR CONDITIONING UNIT SCHEDULE

No.	Area Served	QTY	Type	Evaporator Fan Section				Evaporator Coil Section				Compressor		Condenser Fan Section			Filter Section	
				SA (CFM)	OA (CFM)	ESP (In Wg)	HP	EAT (F) (DB/WB)	Rows	TCC (MBTUH)	SCC (MBTUH)	Qty	FLA	Qty	HP	ESP (In Wg)	Thicknesss (In)	Type
ACU-1	Kalihi Portal Office	1	Integral Air Cooled Self Contained ACU	675	0	0.3	1/5	75.0/61.3	3	13.3	13.3	1	6.7	1	1/4	0.40	4"	Pleated
ACU-2	Kaneohe Portal Office	1	Integral Air Cooled Self Contained ACU	675	0	0.3	1/5	75.0/61.3	3	14.7	14.7	1	6.7	1	1/4	0.40	4"	Pleated

Power V/Ph/Hz	MCA	Max Fuse Size	Weight (Lbs)	Remarks
208-230/1/60	15	20	237	Liebert MME 018 A Or Approved Equal
208-230/1/60	15	20	237	Liebert MME 018 A Or Approved Equal

EXHAUST FAN SCHEDULE

No.	Area Served	QTY	Type	CFM	ESP (In Wg)	Drive	Motor HP	Fan RPM	Power	Sones	Weight (Lbs)	Remarks
EF-1	Kalihi Portal Tolet	1	Sidewall	100	0.3	Direct	1/25	1550	115/1ø/60 HZ	4.6	12	Greenheck SE1-8-440-D Or Approved Equal Interlock With Light Switch
EF-2	Kaneohe Portal Tolet	1	Sidewall	100	0.3	Direct	1/25	1550	115/1ø/60 HZ	4.6	12	Greenheck SE1-8-440-D Or Approved Equal Interlock With Light Switch

REHEAT COIL SCHEDULE

No.	Area Served	Electrical Data			KW	No. Of Stages	Duct Size (W x H)	Remarks
		V	Ph	Hz				
RHC-1	Kalihi Portal Office	230	1	60	3	2	16x12	Delta Flow Or Approved Equal
RHC-2	Kaneohe Portal Office	230	1	60	3	2	16x12	Delta Flow Or Approved Equal

ORIGINAL PLAN
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EQUIPMENT SCHEDULE

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted   Date: JULY 2000

SHEET No. M-16 OF M-17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	35	77

DAMPER ACTUATOR SCHEDULE

Item No.	Damper	Qty	Damper Size	Design Pressure (In Wg)	Actuator Type	HP	Input Torque (Ft Lb)	Output Torque (Ft Lb)	Closure Time (Sec)	Electrical Data				Remarks
										V	Ph	Hz	FLA	
DA-1	Kalihi No.1	1	175"x42"	10	Electric	1	58	1030	30	460	3	60	2.5	AUMA SA10.1-26/GS80.3 Or Approved Equal
DA-2	Kalihi No.2	1	175"x42"	10	Electric	1	58	1030	30	460	3	60	2.5	AUMA SA10.1-26/GS80.3 Or Approved Equal
DA-3	Kaneohe No.1	1	175"x42"	10	Electric	1	58	1030	30	460	3	60	2.5	AUMA SA10.1-26/GS80.3 Or Approved Equal
DA-4	Kaneohe No.2	1	175"x42"	10	Electric	1	58	1030	30	460	3	60	2.5	AUMA SA10.1-26/GS80.3 Or Approved Equal

ORIGINAL PLAN
SURVEY PLOTTED BY — DATE
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CHECKED BY
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WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M

Scale: As Noted Date: JULY 2000

SHEET No. M-17 OF M-17 SHEETS