



**City and County of Honolulu**  
**Department of Transportation Services**  
**Rapid Transit Division (RTD)**

**AIRPORT STATIONS DESIGN**  
**CONTRACT SV-440**

**PEARL HARBOR NAVAL BASE STATION**  
**HONOLULU INTERNATIONAL AIRPORT STATION**  
**LAGOON DRIVE STATION**

**PRELIMINARY ENGINEERING DRAWINGS**

**January 15, 2010**

Prepared for:  
**HHCTCP**

Prepared by:  
**R.M. Towill Corporation**  
&  
**Parsons Brinckerhoff**  
General Engineering Consultant (GEC)



**City and County of Honolulu**  
Department of Transportation Services  
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**CONTRACT SV-440**

# **PEARL HARBOR NAVAL BASE STATION**

## **PRELIMINARY ENGINEERING DRAWINGS**

**January 15, 2010**

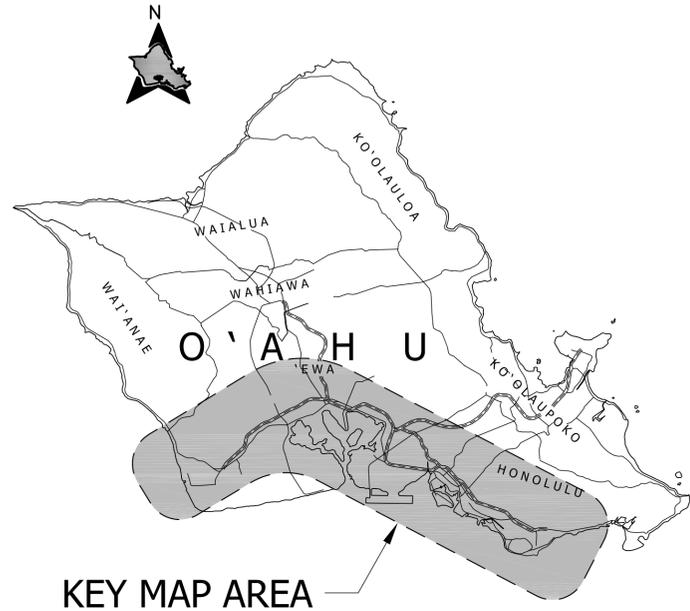
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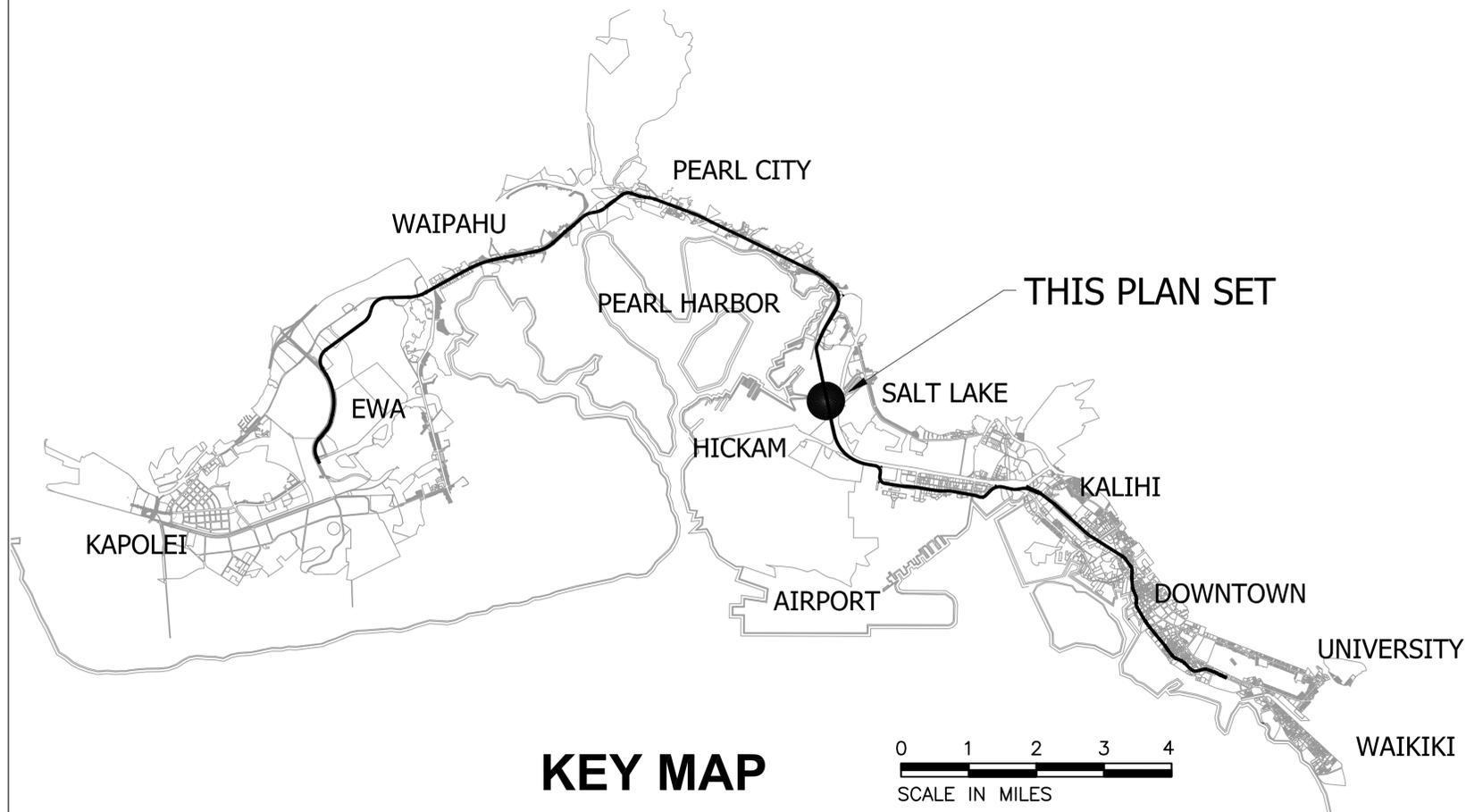
# HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

## PEARL HARBOR NAVAL BASE STATION

### PRELIMINARY ENGINEERING DRAWINGS



City and County of Honolulu  
Department of Transportation Services  
Rapid Transit Division



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Rev	By	Date	Description

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01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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PEARL HARBOR NAVAL BASE STATION

INDEX OF DRAWINGS

Contract No.: SV-440	
CADD File: SJ3-A03-GN003	
Drawing No: GN003	Rev.
Scale: N/A	
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TA009	TRACK ALIGNMENT PLAN & PROFILE EB 1040+00 TO EB 1050+00
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UP119	UTILITY RELOCATION PLAN WATER, SEWER, DRAINAGE, PETROLEUM, & GAS EB 1050+00 TO EB 1055+00
UP217	UTILITY RELOCATION PLAN ELECTRICAL & COMMUNICATIONS EB 1040+00 TO EB 1045+00
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SL018	STREET LIGHTING PLAN EB 1045+00 TO EB 1050+00

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Drawing No.	Rev. No.	Drawing Title
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CM404	A	PEARL HARBOR NAVAL BASE STATION COMMUNICATIONS PLAN CONCOURSE LEVEL
CM405	A	PEARL HARBOR NAVAL BASE STATION COMMUNICATIONS PLAN PLATFORM LEVEL

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
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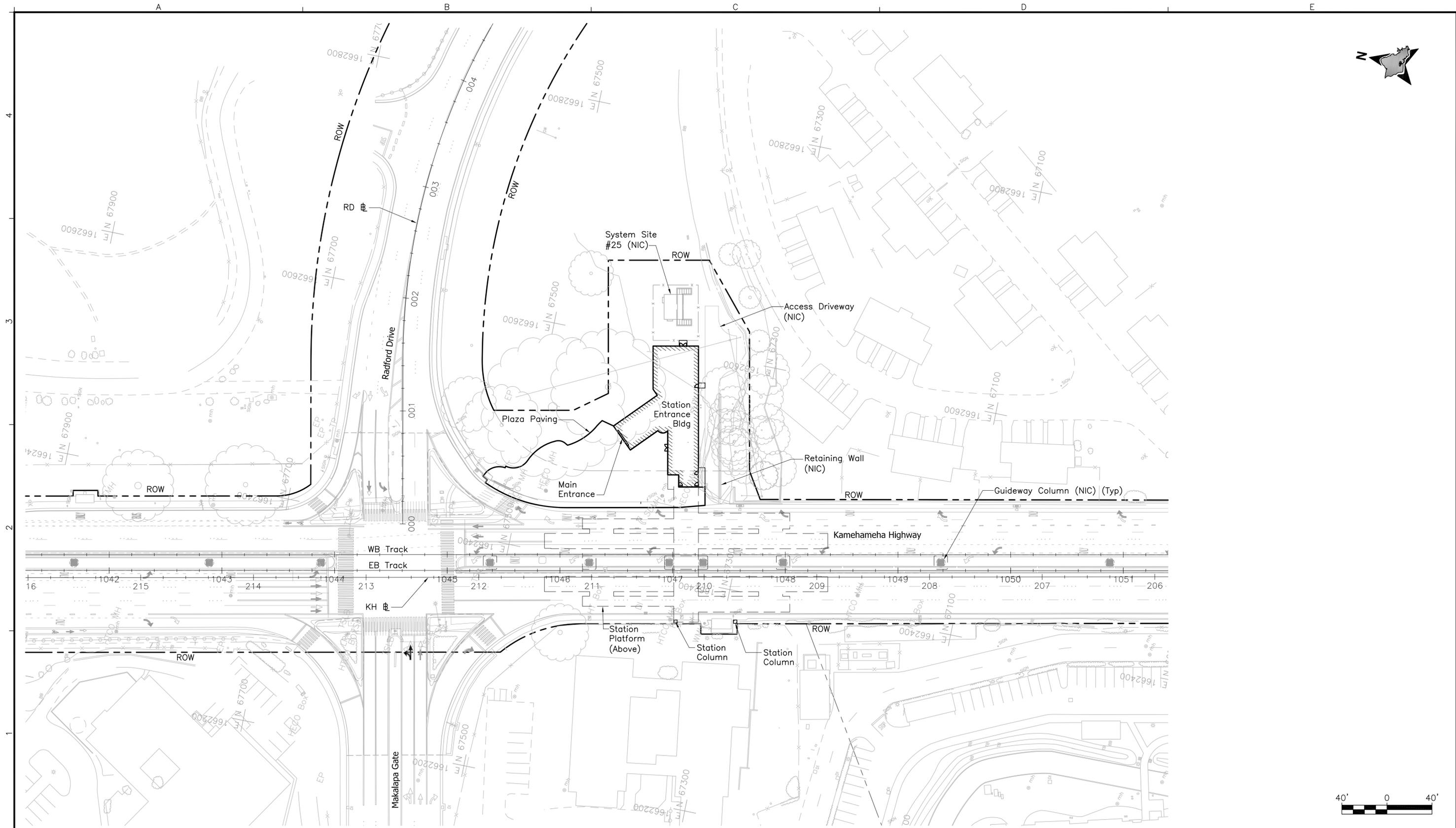
**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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PEARL HARBOR NAVAL BASE STATION  
**APPENDIX A - INFORMATIVE  
INDEX OF DRAWINGS**

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Page No. 3 of 56	



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**PEARL HARBOR NAVAL BASE STATION  
STATION AREA PLAN**

Contract No.: SV-440	
CADD File: SJ3-A03-GN005	
Drawing No: GN005	Rev.
Scale: 1"=40'	
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WS308	0		TRACKWORK STANDARD NO. 8 TURNOUT BALLASTED/ CONCRETE TIES WITH 13 FT CURVED SWITCHES (UNIFORM RISERS)
WS310	0		TRACKWORK STANDARD NO. 8 CONTOURED STEEL FROG FLANGE BEARING BALLASTED TRACK - 115 RE RAIL
WS313	0		TRACKWORK STANDARD NO. 6 CROSSOVER - BALLASTED TRACK 14'-0" TRACK CENTERS
WS321	0		TRACKWORK STANDARD PRESTRESSED TURNOUT CONCRETE SWITCH TIES 115 RE RAIL
WS340	0		TRACKWORK STANDARD NO. 10 TURNOUT - BALLASTED CONCRETE TIES WITH 19'-6" CURVED SWITCH UNIFORM RISERS
WS810	0		TRACKWORK STANDARD NO. 10 TURNOUT - DIRECT FIXATION WITH 19'-6" CURVED SWITCH PLINTH & RAIL LAYOUT
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WS812	0		TRACKWORK STANDARD 19'-6" CURVED SPLIT SWITCH DIRECT FIXATION TRACK 115RE RAIL
WS813	0		TRACKWORK STANDARD NO. 10 CONTOURED STEEL FROG FLANGE BEARING DIRECT FIXATION TRACK - 115RE RAIL
WS814	0		TRACKWORK STANDARD DIRECT FIXATION TURNOUT GUARD RAIL MOUNTING DETAILS
WS820	0		TRACKWORK STANDARD NO. 10 CROSSOVER - DIRECT FIXATION 14'-0" TRACK CENTERS
WS831	0		TRACKWORK STANDARD NO. 10 DOUBLE CROSSOVER DIRECT FIXATION 14'-0" TRACK CENTERS

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HS002	0		CORROSION CONTROL STANDARD TYPICAL CONTINUOUS-SPAN VIADUCT STEEL BONDING DETAILS
HS003	0		CORROSION CONTROL STANDARD TYPICAL STEEL BONDING DETAILS
HS004	0		CORROSION CONTROL STANDARD UTILITY BONDING DETAILS SHEET 1 OF 2
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HS009	0		CORROSION CONTROL STANDARD CATHODIC PROTECTION DETAILS SHEET 2 OF 2
HS010	0		CORROSION CONTROL STANDARD ELEVATOR CATHODIC PROTECTION DETAILS
HS011	0		CORROSION CONTROL STANDARD TESTING FACILITIES

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CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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PEARL HARBOR NAVAL BASE STATION  
**STANDARD DRAWING SUMMARY**  
CITY AND COUNTY OF HONOLULU (RTD)

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AD103	0		ARCHITECTURAL DIRECTIVE ROOF PLAN SIDE PLATFORM PROTOTYPE
AD104	0		ARCHITECTURAL DIRECTIVE REFLECTED CEILING PLAN - CONCOURSE SIDE PLATFORM PROTOTYPE
AD105	0		ARCHITECTURAL DIRECTIVE REFLECTED CEILING PLAN - PLATFORM SIDE PLATFORM PROTOTYPE
AD106	0		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - CONCOURSE SIDE PLATFORM PROTOTYPE
AD107	0		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - PLATFORM SIDE PLATFORM PROTOTYPE
AD108	0		ARCHITECTURAL DIRECTIVE LONGITUDINAL & CROSS SECTIONS SIDE PLATFORM PROTOTYPE
AD109	0		ARCHITECTURAL DIRECTIVE EXTERIOR ELEVATIONS SIDE PLATFORM PROTOTYPE SHEET 1 OF 2
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AD202	0		ARCHITECTURAL DIRECTIVE PLATFORM LEVEL PLAN CENTER PLATFORM PROTOTYPE
AD203	0		ARCHITECTURAL DIRECTIVE ROOF PLAN CENTER PLATFORM PROTOTYPE
AD204	0		ARCHITECTURAL DIRECTIVE REFLECTED CEILING PLAN - CONCOURSE CENTER PLATFORM PROTOTYPE
AD205	0		ARCHITECTURAL DIRECTIVE REFLECTED CEILING PLAN - PLATFORM CENTER PLATFORM PROTOTYPE
AD206	0		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - CONCOURSE CENTER PLATFORM PROTOTYPE
AD207	0		ARCHITECTURAL DIRECTIVE FLOOR FINISH PLAN - PLATFORM CENTER PLATFORM PROTOTYPE
AD208	0		ARCHITECTURAL DIRECTIVE LONGITUDINAL & CROSS SECTIONS CENTER PLATFORM PROTOTYPE
AD209	0		ARCHITECTURAL DIRECTIVE ELEVATIONS CENTER PLATFORM PROTOTYPE
AD210	0		ARCHITECTURAL DIRECTIVE TYPICAL END BAY DETAILS CENTER PLATFORM PROTOTYPE
AD211	0		ARCHITECTURAL DIRECTIVE TYPICAL BAY DETAILS CENTER PLATFORM PROTOTYPE
AD212	0		ARCHITECTURAL DIRECTIVE 'V' COLUMN DETAILS CENTER PLATFORM PROTOTYPE SHEET 1 OF 3
AD213	0		ARCHITECTURAL DIRECTIVE 'V' COLUMN DETAILS CENTER PLATFORM PROTOTYPE SHEET 2 OF 3
AD214	0		ARCHITECTURAL DIRECTIVE 'V' COLUMN DETAILS CENTER PLATFORM PROTOTYPE SHEET 3 OF 3
AD215	0		ARCHITECTURAL DIRECTIVE COLUMN MISC DETAILS CENTER PLATFORM PROTOTYPE
AD216	0		ARCHITECTURAL DIRECTIVE STAIR & BRIDGE CANOPY DETAILS CENTER PLATFORM PROTOTYPE

RTD DIRECTIVE DRAWINGS			
Drawing No.	Rev. No.	Applicable	Drawing Title
<b>ARCHITECTURAL</b>			
AD217	0		ARCHITECTURAL DIRECTIVE RAILING DETAILS CENTER PLATFORM PROTOTYPE SHEET 1 OF 2
AD218	0		ARCHITECTURAL DIRECTIVE RAILING DETAILS CENTER PLATFORM PROTOTYPE SHEET 1 OF 2
AD219	0		ARCHITECTURAL DIRECTIVE 3D VIEWS CENTER PLATFORM PROTOTYPE
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MD101	0		MECHANICAL DIRECTIVE HVAC SYSTEMS
MD201	0		MECHANICAL DIRECTIVE PLUMBING AND DRAINAGE SYSTEMS
MD301	0		MECHANICAL DIRECTIVE FIRE PROTECTION SYSTEMS
MD401	0		MECHANICAL DIRECTIVE SEISMIC AND WIND INDICATOR SYSTEMS
MD501	0		MECHANICAL DIRECTIVE TYPICAL TPSS AND GBS AIR CONDITIONING AND CONTROL SYSTEM
<b>ELECTRICAL</b>			
ED001	0		GENERAL ELECTRICAL NOTES
ED002	0		ELECTRICAL DIRECTIVE PASSENGER STATION ONE-LINE DIAGRAM
ED003	0		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING PLANS
ED004	0		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING DOUBLE TRACK
ED005	0		GUIDEWAY ELECTRICAL DIRECTIVE ELECTRICAL GUIDEWAY LIGHTING SINGLE TRACK
ED006	0		ELECTRICAL DIRECTIVE PASSENGER STATION SIDE PLATFORM LIGHTING
ED007	0		ELECTRICAL DIRECTIVE PASSENGER STATION CENTER PLATFORM LIGHTING
ED008	0		ELECTRICAL DIRECTIVE PASSENGER STATION ELECTRICAL, UPS, TCC ROOMS
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TD001	0		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION RACEWAY LAYOUT
TD002	0		TRACTION POWER DIRECTIVE TYPICAL DC RACEWAYS ON AERIAL GUIDEWAY SECTIONS AND DETAILS
TD003	0		TRACTION POWER DIRECTIVE TYPICAL MANHOLE/PULLBOX DETAILS
TD004	0		TRACTION POWER DIRECTIVE TYPICAL UNDERGROUND DUCTBANK SECTIONS & DETAILS
TD005	0		TRACTION POWER DIRECTIVE SUBSTATION CABLE TRENCH DETAILS
TD006	0		TRACTION POWER DIRECTIVE SUBSTATION CABLE TRENCH DETAILS ALTERNATIVE
TD050	0		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION GROUND GRID ARRANGEMENT

RTD DIRECTIVE DRAWINGS			
Drawing No.	Rev. No.	Applicable	Drawing Title
<b>TRACTION POWER</b>			
TD051	0		TRACTION POWER DIRECTIVE TYPICAL GAP BREAKER STATION GROUND GRID ARRANGEMENT
TD052	0		TRACTION POWER DIRECTIVE TYPICAL SUBSTATION GROUND GRID DETAILS
TD100	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION SPLICE JOINT ASSEMBLY
TD101	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION END-APPROACH ASSEMBLY
TD102	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION EXPANSION JOINT ASSEMBLY
TD103	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION ANCHOR ASSEMBLY DIRECT FIXATION TRACK
TD104	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION MOUNTING & PEDESTAL DETAILS
TD105	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION INSULATOR BRACKET AND ANCHOR BALLASTED TRACKS
TD106	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION COVERBOARD ASSEMBLY
TD107	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION COVERBOARD MOUNTING DETAILS
TD108	0		TRACTION POWER DIRECTIVE CONTACT RAIL INSTALLATION COVERBOARD ASSEMBLY AT EXPANSION JOINT
<b>TRAIN CONTROL</b>			
ND001	0		TRAIN CONTROL DIRECTIVE MAINLINE SWITCH MACHINE LAYOUT DIRECT FIXATION
ND002	0		TRAIN CONTROL DIRECTIVE MAINLINE SWITCH MACHINE LAYOUT BALLASTED TRACK
ND003	0		TRAIN CONTROL DIRECTIVE YARD SWITCH MACHINE LAYOUT BALLASTED TRACK
<b>SYSTEMS INTEGRATION</b>			
ID001	0		SYSTEMS INTEGRATION DIRECTIVE CONTRACT WORK DELINEATION AERIAL GUIDEWAY

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

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Approved: A Borst
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**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

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PEARL HARBOR NAVAL BASE STATION  
**DIRECTIVE DRAWING SUMMARY**  
CITY AND COUNTY OF HONOLULU (RTD)

Contract No.: SV-440	Rev.
CADD File: SJ3-A06-GN008	
Drawing No: GN008	7 of 56
Scale: N/A	
Page No.	





# STANDARD PLANS SUMMARY—STATE OF HAWAII DEPARTMENT OF TRANSPORTATION (HDOT)

STANDARD PLAN NO.	APPLICABLE	TITLE	DATE
B-01		Notes and Miscellaneous Details	R05/31/07
B-03		Backfill Details at Earth Retaining Structures	R05/31/07
B-12		Prestressed Concrete Piles and Compression Splice Can Details	R05/31/07
B-12A		Prestressed Concrete Piles, Pile and Compression Splice Can Details and Pile Notes	R05/31/07
B-12B		Pile Interaction Diagram	R05/31/07
B-13		Prestressed Concrete Pile Build-Up Details	R05/31/07
D-01		Cattle Gate	R05/31/07
D-02		Chain Link Fence with Toprail	R05/31/07
D-03		Chain Link Fence without Toprail	R05/31/07
D-04		Wire Fence with Metal Posts	R05/31/07
D-05		Typical Details of Curbs and/or Gutters	R05/31/07
D-06		Typical Detail of Reinforced Concrete Drop Driveway	R05/31/07
D-07		Centerline and Reference Survey Monument	R05/31/07
D-08		Street Survey Monument	R05/31/07
D-15		Concrete Sidewalk	R05/31/07
D-16		P.C.C. Bus Pad	R05/31/07
D-17		P.C.C. Bus Pad	R05/31/07
D-18		P.C.C. Pavement Layout	R05/31/07
D-19		P.C.C. Pavement w/ Permeable Base Joint Details	R05/31/07
D-20		P.C.C. Pavement w/ Permeable Base Joint Details	R05/31/07
D-21		P.C.C. Longitudinal Joint Details	R05/31/07
D-22		P.C.C. Connection to Curbs and Gutters	R05/31/07
D-23		Joints	R05/31/07
H-01A		Type A Catch Basin	R05/31/07
H-01B		Type B Catch Basin	R05/31/07
H-01C		Type C Catch Basin	R05/31/07
H-01D		Type D Catch Basin	R05/31/07
H-01E		Catch Basin Sections	R05/31/07
H-02A		Type A1 Catch Basin	R05/31/07
H-02B		Type B1 Catch Basin	R05/31/07
H-02C		Type C1 Catch Basin	R05/31/07
H-02D		Type D1 Catch Basin	R05/31/07
H-02E		Catch Basin Sections	R05/31/07
H-03		Type A, B, and C Storm Drain Manhole	R05/31/07
H-04		Type D Storm Drain Manhole	R05/31/07
H-05		Typical Reinforcing Details for Drainage Structures	R05/31/07
H-06		Typical Reinforcing Details for Drainage Structures	R05/31/07
H-07		Catch Basin and Manhole Castings	R05/31/07
H-08		Type 1A-9 and 1A-9P Grated Drop Inlet	R05/31/07
H-09		Type 2A-9 and 2A-9P Grated Drop Inlet	R05/31/07
H-10		Type A-9 or A-9P Steel Frames	R05/31/07
H-11		Type A-9 and A-9P Steel Grates	R05/31/07
H-12		Type 61614P and 1211214P Grated Drop Inlet	R05/31/07
H-13		Type 61616P and 1211216P Grated Drop Inlet	R05/31/07
H-14		Type 61214P Grated Drop Inlet	R05/31/07
H-15		Type 1211214, 1211214P and 1211216, 1211216P Steel Frame and Grates	R05/31/07

STANDARD PLAN NO.	APPLICABLE	TITLE	DATE
H-16		Type 61614, 61614P, 61616, 61616P Steel Frame and Grates	R05/31/07
H-17		Type 61214 Steel Frames and Grates	R05/31/07
H-18		Type 61214P Steel Grates	R05/31/07
H-19		Type 61614B Steel Frame and Grates	R05/31/07
H-20		Cement Rubble Masonry Structures	R05/31/07
H-21		Concrete and Cement Rubble Masonry Structures	R05/31/07
H-22		Inlet/Outlet Structure	R05/31/07
H-23		Inlet/Outlet Structure	R05/31/07
H-24		Flared End Section for Culverts	R05/31/07
H-25		Flared End Section for Culverts	R05/31/07
H-26		Concrete Spillway Inlet	R05/31/07
H-27		Cap Coupling Details Standard Joint	R05/31/07
H-28		Reinforced Concrete Collar & Jacket	R05/31/07
H-29		Underdrain Cleanout Steel Frame and Cover	R05/31/07
H-30		Underdrain Connection to Drainage Structure	R05/31/07
L-01		Tree Planting	R08/16/06
L-02		Tree Planting	R08/16/06
L-03		Tree Transplanting	R08/16/06
L-04		Palm Planting	R08/16/06
L-05		Shrub Planting	R08/16/06
L-06		Landscape Details	R08/16/06
L-07		Landscape Details	R08/16/06
L-08		Landscape Details	R08/16/06
L-09		Landscape Details	R08/16/06
L-10		Landscape Details	R08/16/06
L-11		Planting Notes	R08/16/06
L-12		Irrigation Details	R08/16/06
L-13		Irrigation Details	R08/16/06
L-14		Irrigation Details	R08/16/06
L-15		Irrigation Details	R08/16/06
L-16		Irrigation Details	R08/16/06
L-17		Irrigation Details	R08/16/06
L-18		Irrigation Details	R08/16/06
L-19		Irrigation Details	R08/16/06
L-20		Irrigation Details	R08/16/06
L-21		Irrigation Details	R08/16/06
L-22		Irrigation Details	R08/16/06
L-23		Irrigation Details	R08/16/06
L-24		Irrigation Notes	R08/16/06
TE-01		Sign Height and Location	07/11/08
TE-01A		Sign Installation	07/11/08
TE-02A		Galvanized Flanged Channel Sign Post Mounting	R05/31/07
TE-02B		Galvanized Flanged Channel Sign Post Mounting	R05/31/07
TE-02C		Galvanized Flanged Channel Sign Post Mounting	R05/31/07
TE-03A		Galvanized Square Tube Sign Post Mounting	R05/31/07
TE-03B		Galvanized Square Tube Sign Post Mounting	R05/31/07
TE-04		Regulatory Signs	07/11/08
TE-05		Warning Signs	07/11/08
TE-06		Miscellaneous Signs	07/11/08

STANDARD PLAN NO.	APPLICABLE	TITLE	DATE
TE-07		Construction Signs	07/11/08
TE-08		Miscellaneous Intersection Signs	07/11/08
TE-09		Bike Route Sign & Supplementary Plates	07/11/08
TE-10		Interstate Route Marker	07/11/08
TE-11		State Route Marker and Auxiliary Markers	07/11/08
TE-12		State Route Marker and Border Detail for Guide Signs	07/11/08
TE-12A		Route Sign Assemblies	07/11/08
TE-13		Street Name Sign on Mast Arm	07/11/08
TE-14		Miscellaneous Reflector Markers	07/11/08
TE-15		Object Markers	07/11/08
TE-16		Mile Posts	07/11/08
TE-17A		Cantilever Overhead Sign Elevation & Details	R05/31/07
TE-17B		Cantilever Sign Frame Detail and Sections	R05/31/07
TE-17C		Cantilever Sign Frame Detail	R05/31/07
TE-17D		Cantilever Sign Frame Sections	R05/31/07
TE-17E		Cantilever Sign Frame Details	R05/31/07
TE-18A		Two Post Overhead Sign Frame Elevations	R05/31/07
TE-18B		Two Post Sign Framing Plan Section	R05/31/07
TE-18C		Two Post Sign Framing Sections and Details	R05/31/07
TE-18D		Two Post Sign Frame Details	R05/31/07
TE-18E		Two Post Sign Frame Details	R05/31/07
TE-19A		Overhead Sign Framing Schedule	R05/31/07
TE-19B		Sign Post Drilled Shaft Foundation	R05/31/07
TE-19C		Spread Footing	R05/31/07
TE-19D		Sign Frame Foundation Schedule	R05/31/07
TE-19D.1		Sign Frame Foundation Schedule	R05/31/07
TE-19D.2		Sign Frame Foundation Schedule	R05/31/07
TE-19D.3		Sign Frame Foundation Schedule	R05/31/07
TE-19D.4		Sign Frame Foundation Schedule	R05/31/07
TE-19D.5		Sign Frame Foundation Schedule	R05/31/07
TE-19E		Anchorage Details	R05/31/07
TE-19F		Anchorage Details	R05/31/07
TE-19G		Miscellaneous Sign Frame Details	R05/31/07
TE-19H		Luminaire Walkway Support	R05/31/07
TE-19J		Fixed Message Luminaire Support	R05/31/07
TE-19K		Miscellaneous Sign Details	R05/31/07
TE-19L		Miscellaneous Sign Details	R05/31/07
TE-19M		Miscellaneous Sign Frame Details	R05/31/07
TE-20		Supports for Ground Mounted Guide Sign	R05/31/07
TE-20A		Supports for Ground Mounted Guide Sign	R05/31/07
TE-20B		Supports for Ground Mounted Guide Sign	R05/31/07
TE-20C		Supports for Ground Mounted Guide Sign	R05/31/07
TE-21A		Sign Breakaway Mounts	R05/31/07
TE-21B		Sign Breakaway Mounts	R05/31/07
TE-22		Laminated Aluminum Sign Panels (Overhead)	07/11/08
TE-23		Laminated Aluminum Sign Panels (Ground Mounted)	R05/31/07
TE-24		Solid Aluminum Extruded Sign Panel and Accessory Details	R05/31/07
TE-25		Guide Signs Luminaire Mountings	R05/31/07
TE-26		Raised Pavement Markers and Striping	07/11/08

Rev	By	Date	Description

**PRELIMINARY  
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G Tom  
Drawn:  
N Chan  
Checked:  
J Yamamoto  
Approved:  
G Takahashi  
Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:  **PARSONS BRINCKERHOFF**  
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**PEARL HARBOR NAVAL BASE STATION**  
**STANDARD PLANS SUMMARY**  
**STATE OF HAWAII (HDOT)**  
**SHEET 1 OF 2**

Contract No.:  
SV-440  
CADD File:  
SJ3-A06-GN011  
Drawing No: GN011 Rev.  
Scale:  
N/A  
Page No. 10 of 56

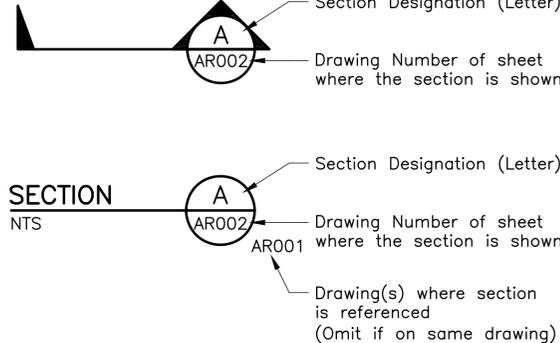
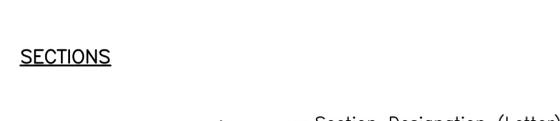
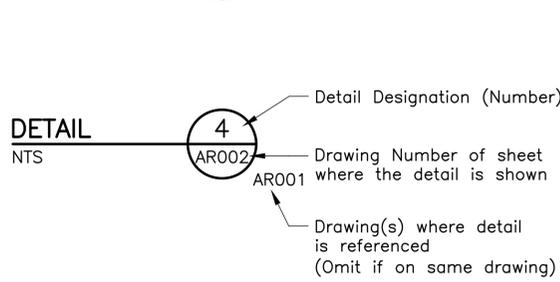
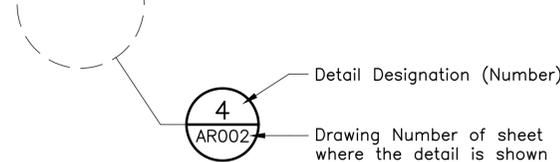


**GENERAL NOTES**

**SYMBOLS**

**ABBREVIATIONS**

- "EB Track" denotes the centerline of the Eastbound Track. "WB Track" denotes centerline of the Westbound Track.
- Origin of Coordinates: Hawaii State Plane Coordinate Grid System, Zone III with the North American Datum of 83 High Accuracy Reference Network (NAD83 HARN).
- Elevations shown on these plans are reference to Mean Sea Level (MSL).
- The proposed WB Track alignment stationing equals to the proposed EB Track alignment stationing in all parallel tangent sections. Station equations are given at the endpoint of each westbound curve.
- Underground facilities, poles, structures, and utilities have been plotted from available surveys and records. Their locations must be considered approximate only. There may be others, the existence of which is at present unknown. Verification of all the locations, shown or not shown, will be the responsibility of the contractor.
- The existing conditions shown hereon are based on aerial survey data collected in March and April of 2009, supplemental ground surveys were performed between April and September of 2009, and record information from various design projects either constructed, under construction or proposed. The selected final designer is responsible for verifying existing conditions prior to supplying advanced design documents to the RTD.
- Contact the Hawaii Department of Transportation (HDOT) and/or the City and County of Honolulu for additional plan sheet details not included in the Standard Details Summary and Standard Plans Summary plan sheets.
- For Survey Control Data see RTD STANDARD DRAWINGS.



- GENERAL SYMBOLS**
- & And
  - @ At
  - # Number
  - ∅ Diameter
  - % Percent
  - = Equal to
  - > Greater Than
  - < Less Than
  - ≥ Greater Than or Equal To
  - ≤ Less Than or Equal To

- CIVIL SYMBOLS**
- △ Point of Intersection



- SPECIAL TERMS**
- Makai Ocean
  - Mauka Mountain
- 231° 41' 16" South Azimuth

- AHD Ahead
- BK Baseline Back
- CL Centerline
- Comm Communications
- CS Curve to Spiral
- Dia Diameter
- Dwg Drawing
- E East
- Ea Actual Superelevation
- Eu Unbalanced Elevation
- EB Eastbound
- EG Existing Ground
- EI Elevation
- Elev Elevation
- Exist Existing
- H Horizontal
- HWY Highway
- KH Kamehameha Highway
- L Length
- Lc Length of Curve
- LH Left Hand
- Ls Length of Spiral
- LVC Length of Vertical Curve
- Max Maximum
- Min Minimum
- MHN Manhole, Negative
- MHP Manhole, Positive
- N North
- N/A Not Applicable
- NB Northbound
- NIC Not in Contract
- N.I.C. Not in Contract Number
- No. Number
- PC Point of Curve
- PI Point of Intersection
- PI TO Point of Intersection of Turnout
- PS Point on Switch
- PT Point of Tangent
- PVC Point of Vertical Curvature
- PVI Point of Vertical Intersection
- PVT Point of Vertical Tangency
- R Radius
- RH Right Hand
- ROW Right-of-Way
- SB Southbound
- SC Spiral to Curve
- ST Spiral to Tangent
- Sta Station
- TS Tangent to Spiral
- USACE United States Army Corps of Engineers
- V Vertical
- WB Westbound

**PRELIMINARY  
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 Approved: G Takahashi  
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**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
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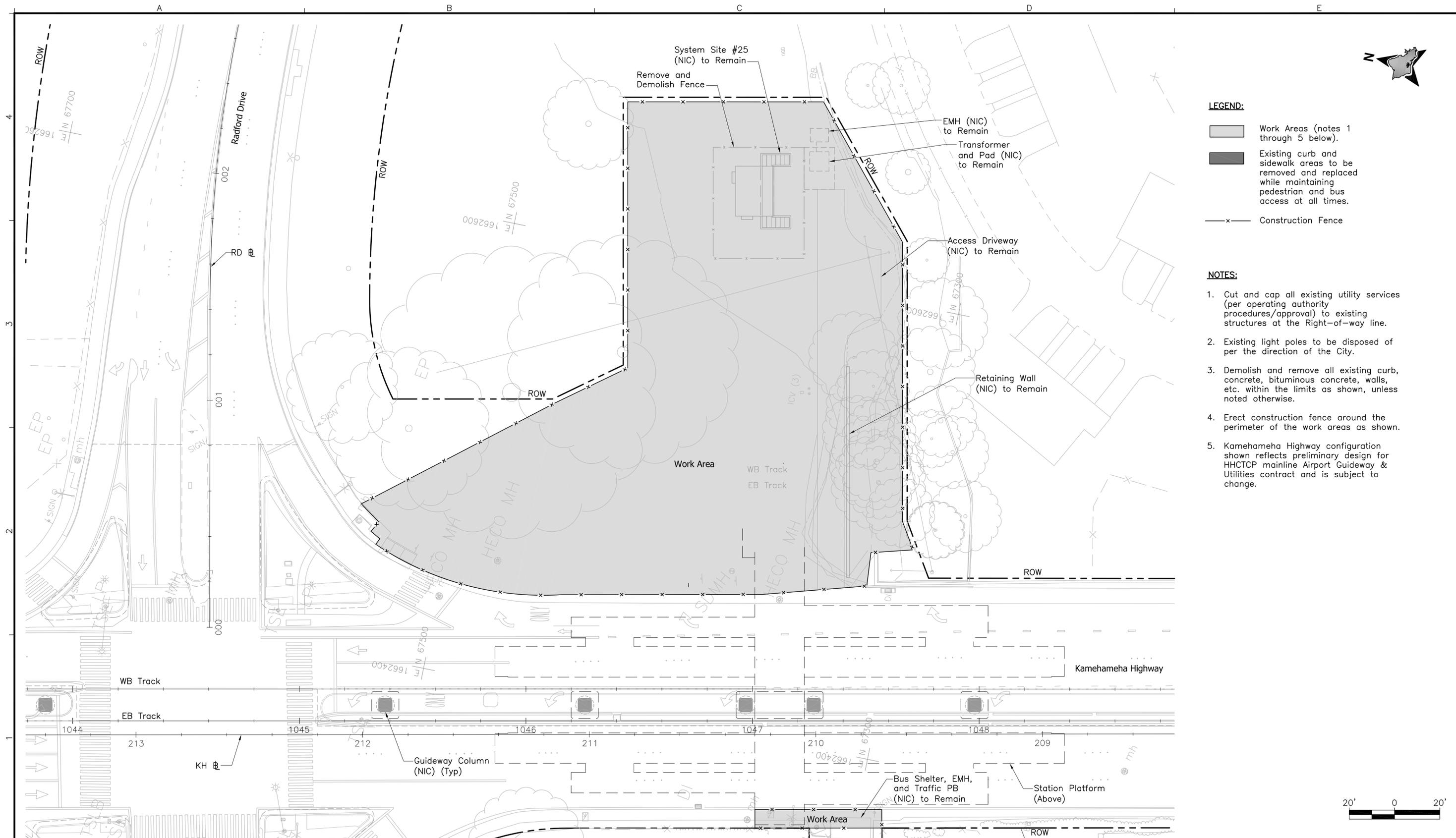
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**PEARL HARBOR NAVAL BASE STATION**

**GENERAL CIVIL NOTES,  
SYMBOLS, AND ABBREVIATIONS**

Contract No.: SV-440	
CADD File: SJ3-B01-CG001	
Drawing No: CG001	Rev.
Scale: N/A	
Page No. 12	of 56



- LEGEND:**
- Work Areas (notes 1 through 5 below).
  - Existing curb and sidewalk areas to be removed and replaced while maintaining pedestrian and bus access at all times.
  - Construction Fence

- NOTES:**
1. Cut and cap all existing utility services (per operating authority procedures/approval) to existing structures at the Right-of-way line.
  2. Existing light poles to be disposed of per the direction of the City.
  3. Demolish and remove all existing curb, concrete, bituminous concrete, walls, etc. within the limits as shown, unless noted otherwise.
  4. Erect construction fence around the perimeter of the work areas as shown.
  5. Kamehameha Highway configuration shown reflects preliminary design for HHCTCP mainline Airport Guideway & Utilities contract and is subject to change.

Rev	By	Date	Description

**PRELIMINARY  
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Designed: G Tom  
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 Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
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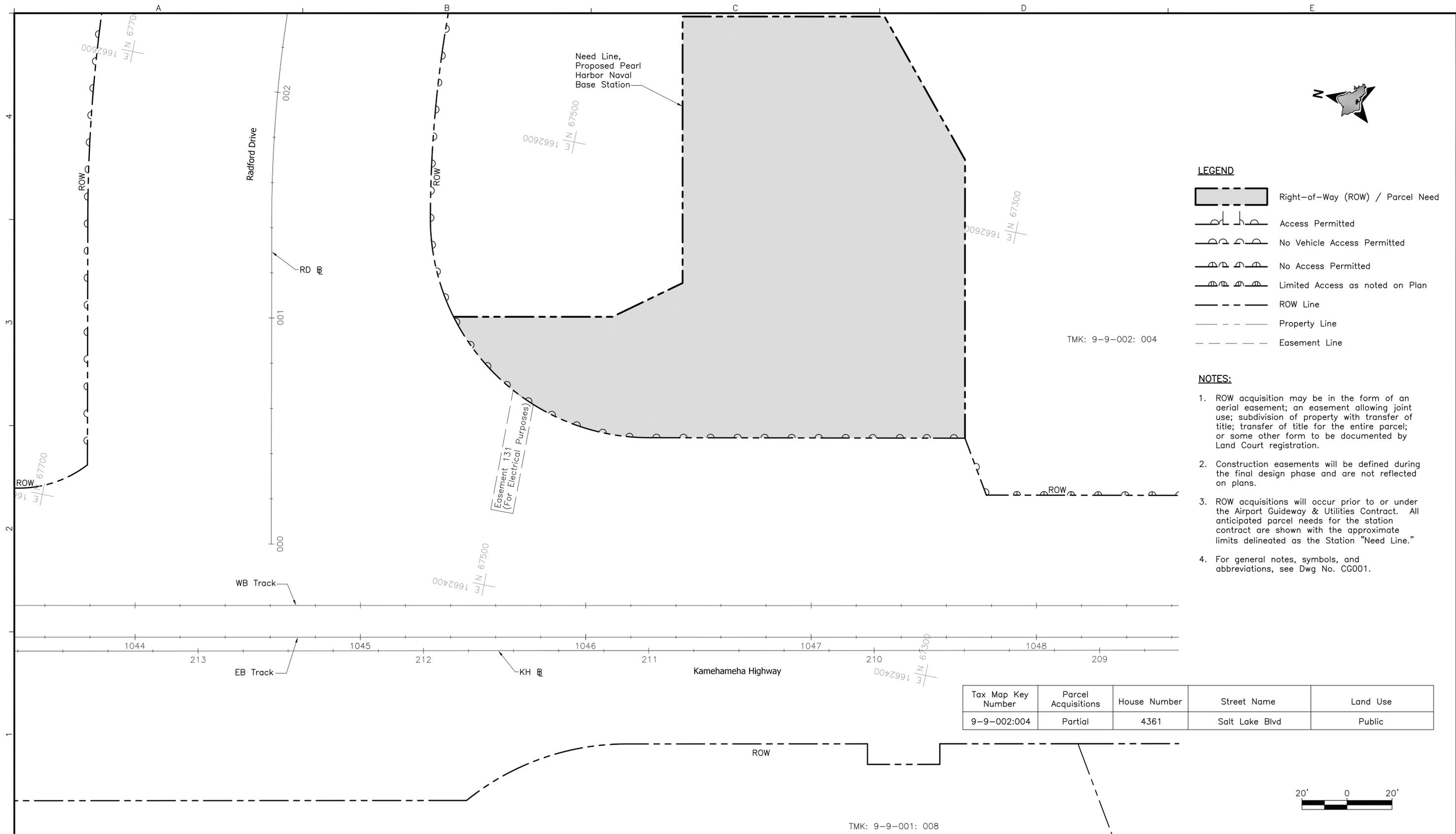
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**PEARL HARBOR NAVAL BASE STATION**

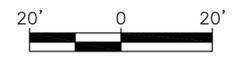
**DEMOLITION PLAN**

Contract No.: SV-440	
CADD File: SJ3-B03-TD001	
Drawing No: TD001	Rev.
Scale: 1"=20'	
Page No. 13	of 56



- LEGEND**
- Right-of-Way (ROW) / Parcel Need
  - Access Permitted
  - No Vehicle Access Permitted
  - No Access Permitted
  - Limited Access as noted on Plan
  - ROW Line
  - Property Line
  - Easement Line
- NOTES:**
- ROW acquisition may be in the form of an aerial easement; an easement allowing joint use; subdivision of property with transfer of title; transfer of title for the entire parcel; or some other form to be documented by Land Court registration.
  - Construction easements will be defined during the final design phase and are not reflected on plans.
  - ROW acquisitions will occur prior to or under the Airport Guideway & Utilities Contract. All anticipated parcel needs for the station contract are shown with the approximate limits delineated as the Station "Need Line."
  - For general notes, symbols, and abbreviations, see Dwg No. CG001.

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
9-9-002:004	Partial	4361	Salt Lake Blvd	Public



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
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 Approved: G Takahashi  
 Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

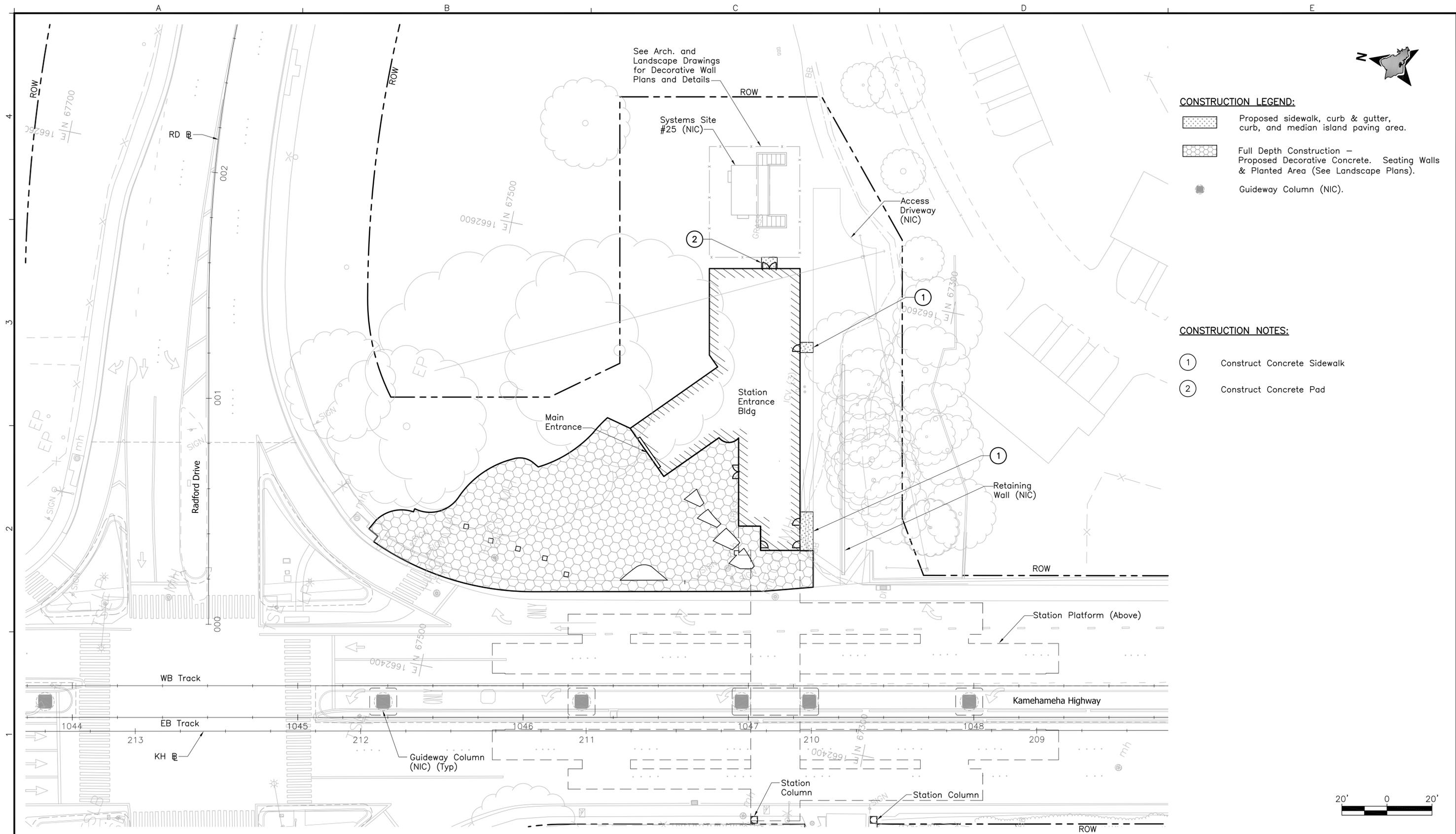
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**PEARL HARBOR NAVAL BASE STATION  
EXISTING RIGHT-OF-WAY &  
PROPOSED ACQUISITION TABULATIONS**

Contract No.: SV-440  
 CADD File: SJ3-B04-RW001  
 Drawing No: RW001 Rev.  
 Scale: 1"=20'  
 Page No. 14 of 56



- CONSTRUCTION LEGEND:**
-  Proposed sidewalk, curb & gutter, curb, and median island paving area.
  -  Full Depth Construction – Proposed Decorative Concrete. Seating Walls & Planted Area (See Landscape Plans).
  -  Guideway Column (NIC).

- CONSTRUCTION NOTES:**
- ① Construct Concrete Sidewalk
  - ② Construct Concrete Pad

Rev	By	Date	Description

**PRELIMINARY  
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Drawn:  
N Chan  
Checked:  
J Yamamoto  
Approved:  
G Takahashi  
Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

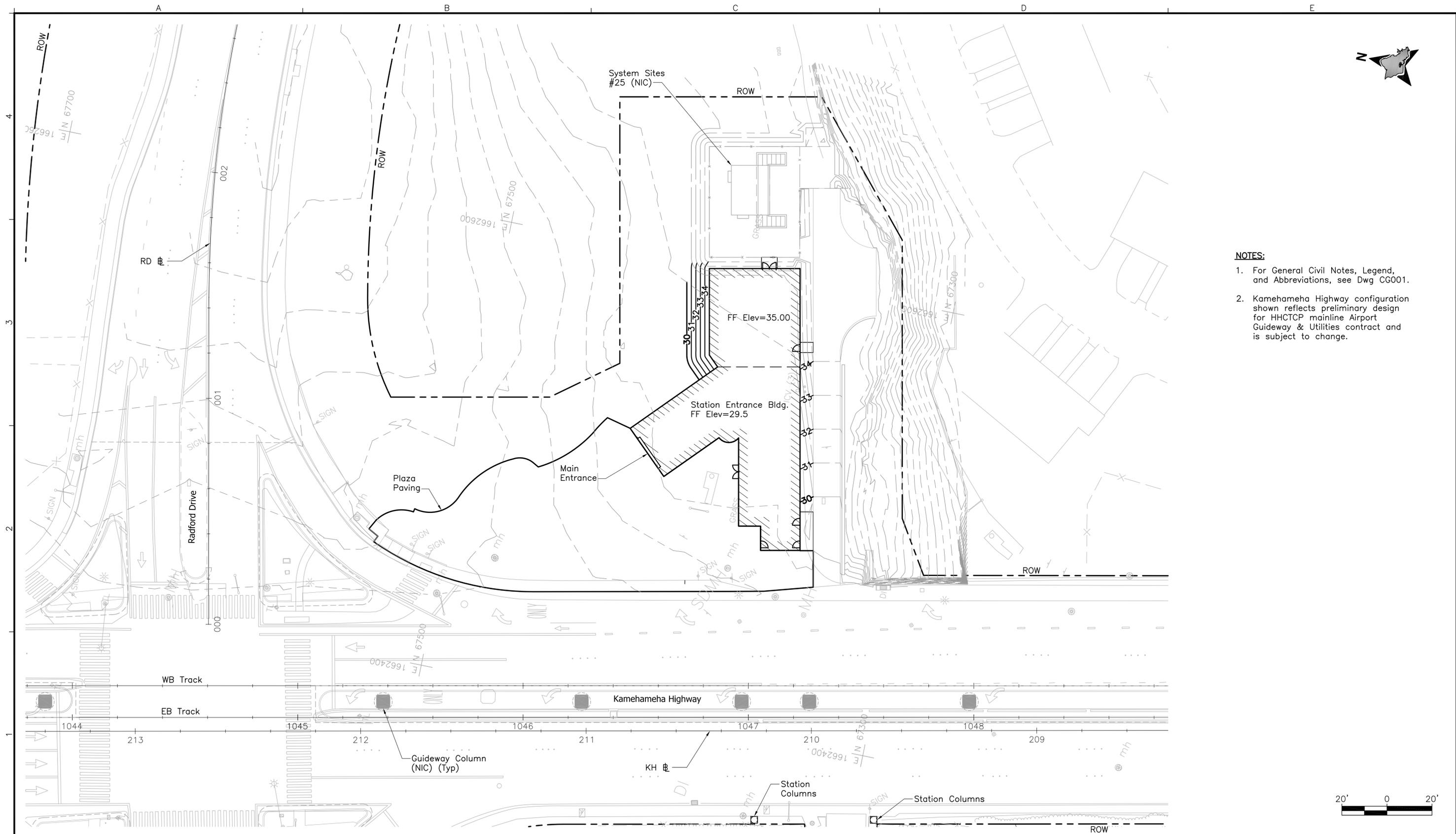
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Subconsultant: **R. M. TOWILL CORPORATION**  
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**PEARL HARBOR NAVAL BASE STATION  
CIVIL SITE PLAN**

Contract No.: SV-440	
CADD File: SJ3-B09-RP001	
Drawing No: RP001	Rev. 
Scale: 1"=20'	
Page No. 15	of 56



- NOTES:**
1. For General Civil Notes, Legend, and Abbreviations, see Dwg CG001.
  2. Kamehameha Highway configuration shown reflects preliminary design for HHCTCP mainline Airport Guideway & Utilities contract and is subject to change.

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
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Designed: G Tom  
 Drawn: N Chan  
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**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **R. M. TOWILL CORPORATION**  
 808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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**PEARL HARBOR NAVAL BASE STATION  
GRADING PLAN**

Contract No.: SV-440	
CADD File: SJ3-B17-GD001	
Drawing No: GD001	Rev.
Scale: 1"=20'	
Page No. 16	of 52

UTILITIES SYMBOLS

<p>---AT&amp;T--- Exist AT&amp;T Line</p> <p>---CTV--- Exist Cable Television</p> <p>---OCTv--- Exist Cable Television, Overhead</p> <p>---FOC--- Exist Communication Fiber Optic</p> <p>---D24--- Exist Drain Line (Size in Inches)</p> <p>---OE--- Exist Electrical Line, Overhead</p> <p>---E--- Exist Electrical Line</p> <p>---FA--- Exist Fire Alarm</p> <p>---F6--- Exist Fuel or Oil Line (Size in Inches)</p> <p>---FM12--- Exist Force Main (Size in Inches)</p> <p>---G6--- Exist Gas Line (Size in Inches)</p> <p>---NPW12--- Exist Non-Potable Water Line (Size in Inches)</p> <p>---SIC--- Exist Sandwich Isle Communications Line</p> <p>---S12--- Exist Sewer Line (Size in Inches)</p> <p>---SC--- Exist Signal Corps Line</p> <p>---SLC--- Exist Street Light Conduit</p> <p>---OT--- Exist Telephone Line, Overhead</p> <p>---T--- Exist Telephone Line</p> <p>---TSC--- Exist Traffic Signal Conduit</p> <p>---W12--- Exist Water Line (Size in Inches)</p>	<p>○ Exist Air Relief Valve</p> <p>▩ Exist AT&amp;T Box</p> <p>⊕ Exist AT&amp;T Manhole</p> <p>⊖ Exist Backflow Preventor</p> <p>□ Exist Utility Box</p> <p>⊕ Exist Catch Basin</p> <p>⊕ Exist Catch Basin</p> <p>⊕ Exist Cable TV Box</p> <p>● Exist Clean Out</p> <p>⊕ Exist Drain Inlet</p> <p>⊕ Exist Drain Manhole</p> <p>⊕ Exist Dry Standpipe</p> <p>⊕ Exist Electrical Box</p> <p>⊕ Exist Electrical Manhole</p> <p>⊕ Exist Electrical Transformer</p> <p>⊕ Exist Fire Alarm Box</p> <p>⊕ Exist Fire Hydrant</p> <p>⊕ Exist Gas Manhole</p> <p>⊕ Exist Gas Valve</p> <p>⊕ Exist Guy Wire and Anchor</p> <p>⊕ Exist Irrigation Control Valve Box</p> <p>⊕ Exist Irrigation Control Valve</p> <p>⊕ Exist Light Pole</p> <p>○ Exist Manhole</p> <p>⊕ Exist Street Monument</p> <p>○ Exist Pole (EP, U.P.)</p> <p>⊕ Exist Pedestrian Street Light</p>	<p>⊕ Exist Traffic Sensor</p> <p>⊕ Exist Street Light</p> <p>⊕ Exist Street Light Box</p> <p>⊕ Exist Sewer Manhole</p> <p>⊕ Exist Telephone Box</p> <p>⊕ Exist Telephone Manhole</p> <p>⊕ Exist Traffic/Pedestrian Street Light</p> <p>⊕ Exist Traffic Signal Box</p> <p>⊕ Exist Traffic Street Light</p> <p>⊕ Exist Water Meter</p> <p>⊕ Exist Water Manhole</p> <p>⊕ Exist Water Valve</p>	<p>---D24--- Prop Drain Line (Size in Inches)</p> <p>---F6--- Prop Fuel or Oil Line (Size in Inches)</p> <p>---G6--- Prop Gas Line (Size in Inches)</p> <p>---NPW12--- Prop Non-Potable Water Line (Size in Inches)</p> <p>---S8--- Prop Sewer Line (Size in Inches)</p> <p>---W12--- Prop Water Line (Size in Inches)</p>	<p>○ Prop Air Relief Valve</p> <p>⊕ Prop Backflow Preventor</p> <p>⊕ Prop Catch Basin</p> <p>⊕ Prop Catch Basin</p> <p>● Prop Clean Out</p> <p>⊕ Prop Drain Inlet</p> <p>⊕ Prop Drain Manhole</p> <p>⊕ Prop Swale</p> <p>⊕ Prop Fire Hydrant</p> <p>⊕ Prop Gas Manhole</p> <p>⊕ Prop Gas Valve</p> <p>⊕ Prop Sewer Manhole</p> <p>⊕ Prop Water Meter</p> <p>⊕ Prop Water Manhole</p> <p>⊕ Prop Water Valve</p> <p>⊕ Cut and Plug</p> <p>---R--- Abandon in Place</p> <p>---R--- Demolish/Remove</p>
---	---	--	--	---

UTILITIES ABBREVIATIONS

& And	EH Electrical Handhole	Hwy Highway	PPB Pedestrian Push Button	TPOL Traffic Signal Pole
Abnd Abandoned	Elec Electric, Electrical	ICB Irrigation Control Box	Prop Proposed	TRB Traffic Box
AC Asphalt Concrete	EP Electric Pole	ICV Irrigation Control Valve	PVC Polyvinyl Chloride	TS Top Stem
AF Air Force	EMH Electrical Manhole	Irr Irrigation	Pwr Power	TSB Traffic Signal Box
Approx Approximate	EV Electrical Vault	kV Kilovolt	RCP Reinforced Concrete Pipe	TSC Traffic Signal Conduit
ARV Air Relief Valve	Exist Existing	Lat Lateral	Rd Road	TSL Traffic Signal
Ave Avenue	F Fuel	Ln Lane	ROW Right-of-Way	TV Television
⊕ Baseline	FA Fire Alarm	LP Light Pole	S Sewer	UB Utility Box
BFP Backflow Preventor	FAB Fire Alarm Box	Lt Light	SC Signal Corps Line	UD Underdrain
BGGV Bevel-gated gate valve	FH Fire Hydrant, Farrington Highway	MH Manhole	SDMH Storm Drain Manhole	UMH Utility Manhole
Bldv Boulevard	FM Force Main	MHP Manhole (Positive)	SIC Sandwich Isle Communications	UP Utility Pole
BWS Board of Water Supply	FMH Fuel Manhole	MHN Manhole (Negative)	Sig Signal	USN United States Navy
⊕ Centerline	FSA Fire Safety Alarm	Misc Miscellaneous	SL Street Light	USAF United States Air Force
C&C City and County	Fwy Freeway	MTCO Mutual Telephone Company	SLB Street Light Box	Util Utility
CB Catch Basin	G Gas	MW Monitoring Well	SLC Street Light Conduit	W Water
CBMH Catch Basin Manhole	GM Gas Meter	NPW Non-Potable Water	SMH Sewer Manhole	WM Water Meter
CO Cleanout	GMH Gas Manhole	N/A Not Applicable	St Street	WMH Water Manhole
Comm Communication	GV Gas Valve, Gate Valve	NS North-South Road	St Mon Street Monument	Wtr Water
Conc Concrete	GW Guy Wire	OCTv Overhead Cable Television	T Top	WV Water Valve
CTV Cable TV	HECO Hawaiian Electric Company	OH Overhead	TBD To Be Determined	WVB Water Valve Box
D Drain	HH Handhole	OHE Overhead Electrical	TCB Traffic Control Box	WVMH Water Valve Manhole
DI Drainage Inlet	HITS Hawaii Information Transfer System	OT Overhead Telephone	Tel Telephone	
DMH Drainage Manhole	HP High Pressure	PB Pullbox	Temp Temporary	
DS Down Spout	HT Hawaiian Telcom	Pkwy Parkway	TGC The Gas Company	
Dwg Drawing	HVP High Voltage Power	PI Place	TL Traffic Light	
E Electric, Electrical	HW Headwall	PM Petroleum Marker	TMH Telephone Manhole	
EB Electrical Box		PP Power Pole	TP Telephone Pole	

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: G Tom
Drawn: N Chan
Checked: J Yamamoto
Approved: G Takahashi
Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

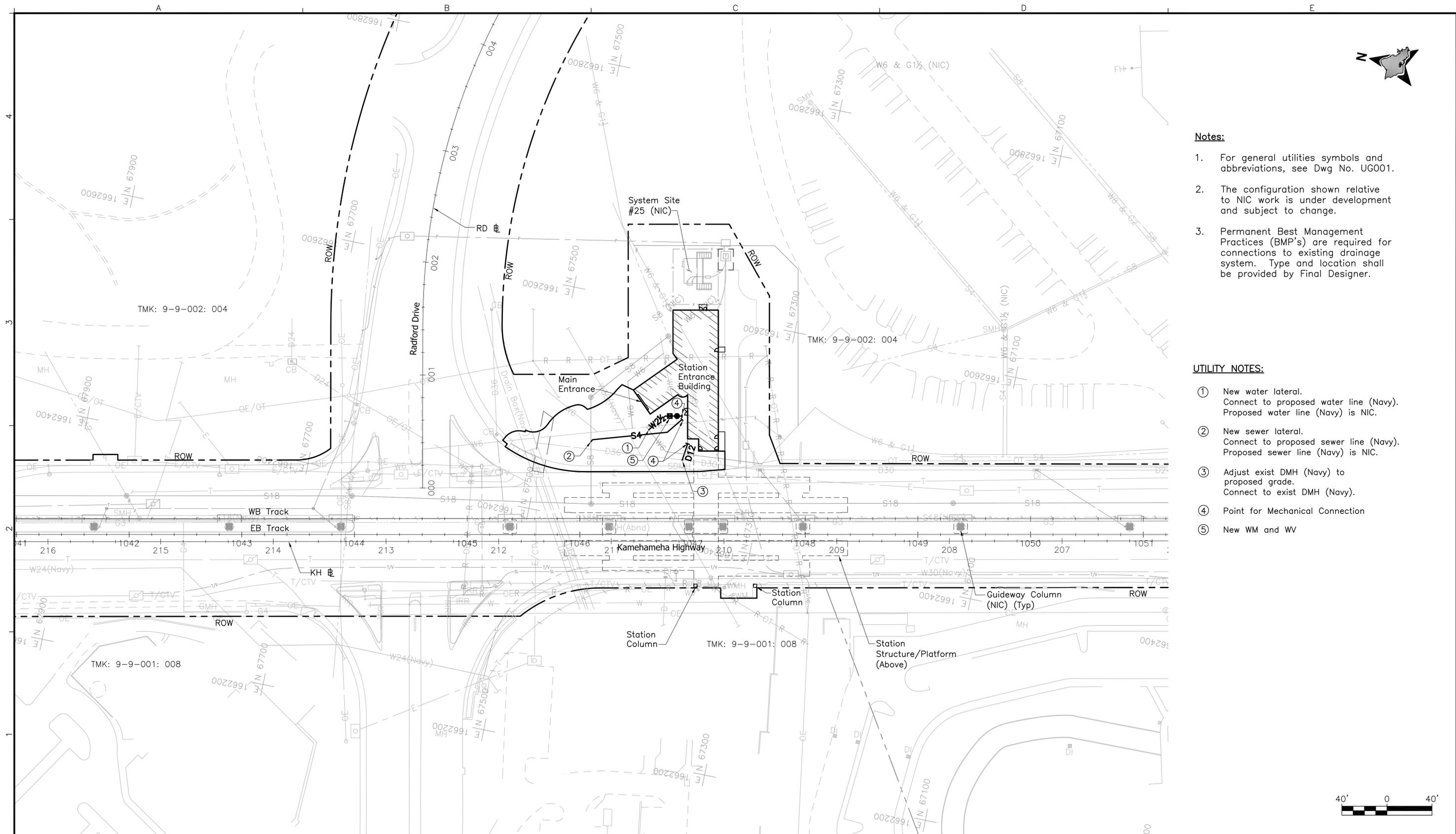
Prime Consultant: **PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **R. M. TOWILL CORPORATION**  
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

For reduced prints, original page size in inches: 0 1 2 3 4

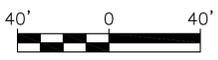
**PREAL HARBOR NAVAL BASE STATION  
GENERAL UTILITIES SYMBOLS  
AND ABBREVIATIONS**

Contract No.: SV-440	
CADD File: SJ3-D01-UG001	
Drawing No: UG001	Rev.
Scale: N/A	
Page No. 17 of 56	



- Notes:**
1. For general utilities symbols and abbreviations, see Dwg No. UG001.
  2. The configuration shown relative to NIC work is under development and subject to change.
  3. Permanent Best Management Practices (BMP's) are required for connections to existing drainage system. Type and location shall be provided by Final Designer.

- UTILITY NOTES:**
- ① New water lateral. Connect to proposed water line (Navy). Proposed water line (Navy) is NIC.
  - ② New sewer lateral. Connect to proposed sewer line (Navy). Proposed sewer line (Navy) is NIC.
  - ③ Adjust exist DMH (Navy) to proposed grade. Connect to exist DMH (Navy).
  - ④ Point for Mechanical Connection
  - ⑤ New WM and WV



Rev	By	Date	Description

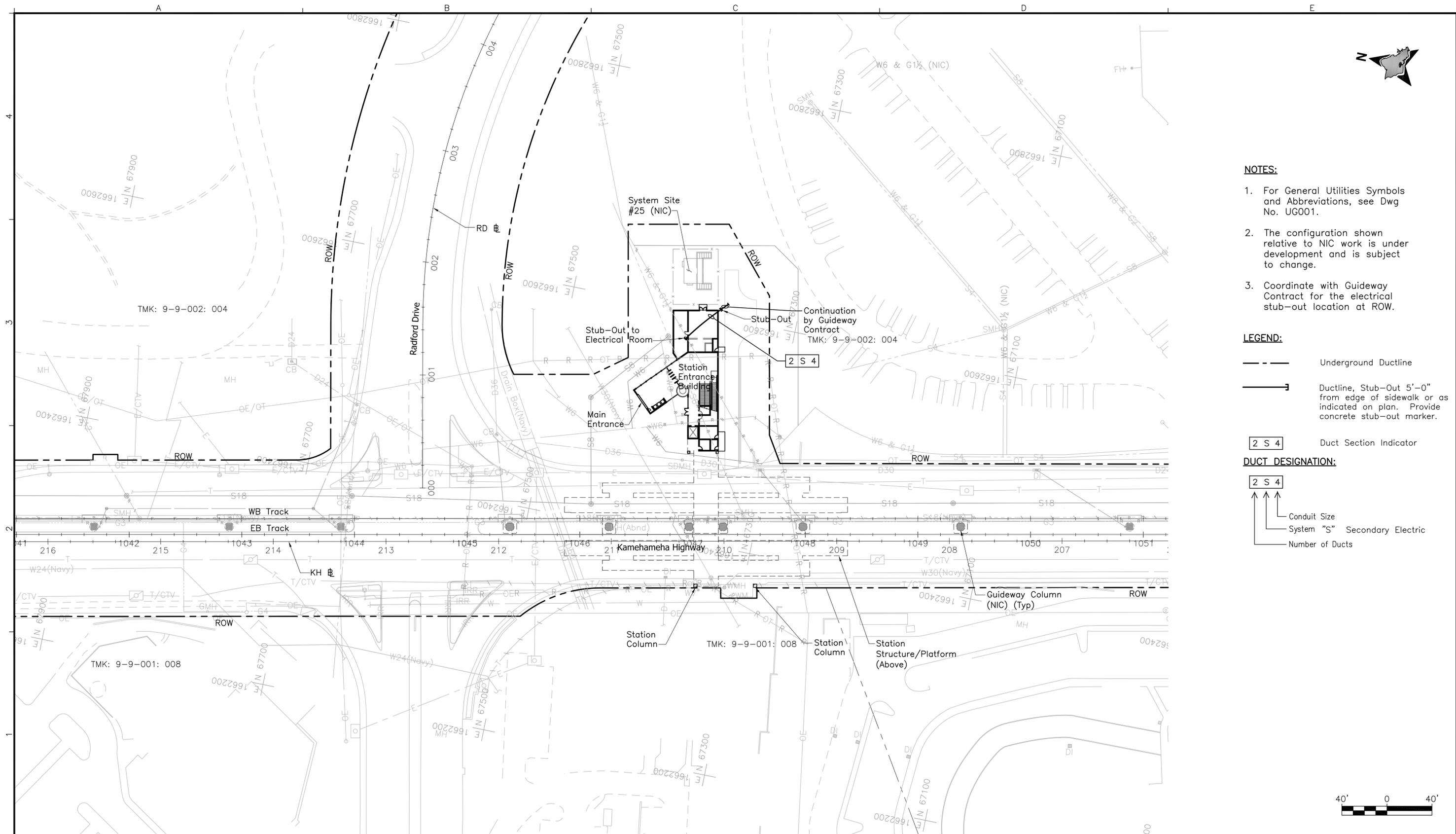
**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Designed: G Tom Drawn: N Chan Checked: J Yamamoto Approved: G Takahashi Date: 01-15-10	Prime Consultant:  1003 Bishop Street, Suite 2250 - Honolulu, HI 96813 For reduced prints, original page size in inches:	Subconsultant:  Planning - Engineering - Environmental Services - Photogrammetry - Surveying - Construction Management 808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470
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**PEARL HARBOR NAVAL BASE STATION  
UTILITIES PLAN  
WATER, SEWER, & DRAINAGE**

Contract No.: SV-440	
CADD File: SJ3-D03-UP001	
Drawing No: UP001	Rev.
Scale: 1"=40'	
Page No. 18 of 56	



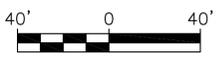
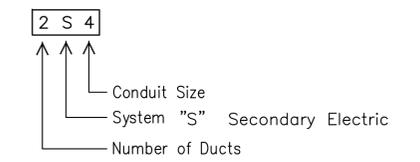
**NOTES:**

1. For General Utilities Symbols and Abbreviations, see Dwg No. UG001.
2. The configuration shown relative to NIC work is under development and is subject to change.
3. Coordinate with Guideway Contract for the electrical stub-out location at ROW.

**LEGEND:**

- Underground Ductline
- Ductline, Stub-Out 5'-0" from edge of sidewalk or as indicated on plan. Provide concrete stub-out marker.
- 2 S 4 Duct Section Indicator

**DUCT DESIGNATION:**



Rev	By	Date	Description

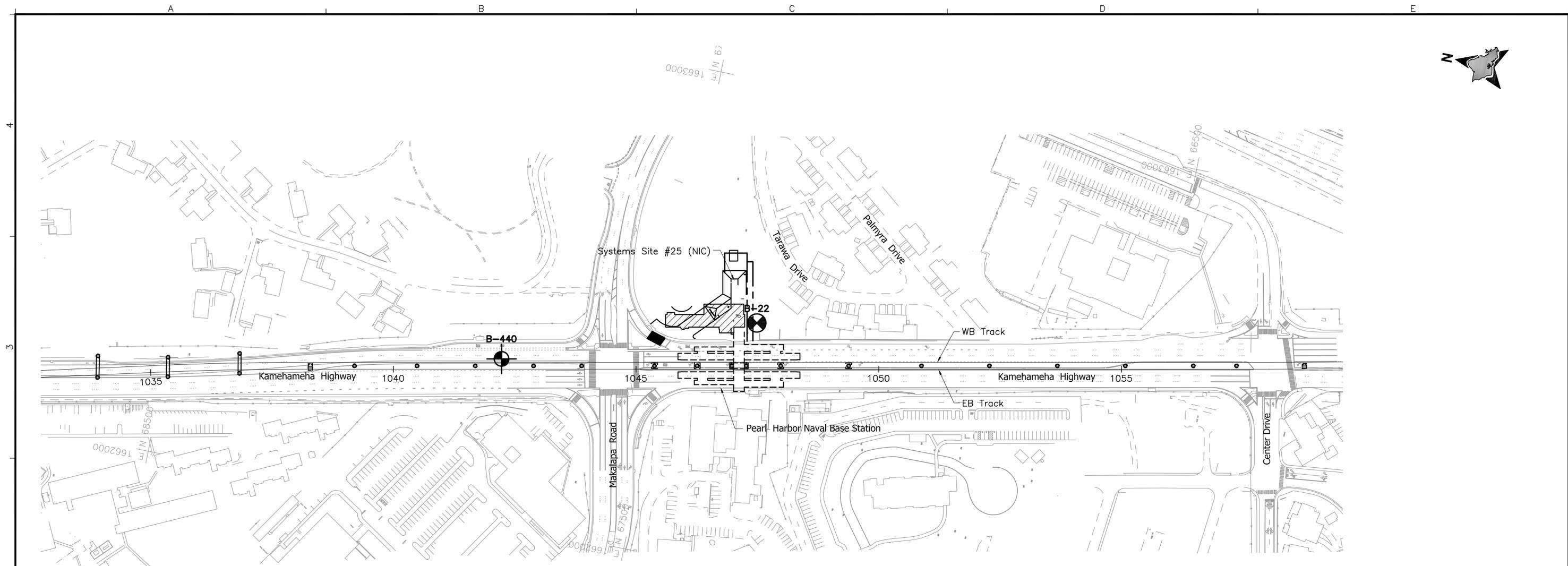
**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Designed: T Higa	Prime Consultant: <b>PARSONS BRINCKERHOFF</b>	Subconsultant: <b>ECS, INC.</b> 615 PIKOI ST., SUITE 207 HONOLULU, HI 96814
Drawn: I Pascua	1003 Bishop Street, Suite 2250 - Honolulu, HI 96813	
Checked: L Nishimura	For reduced prints, original page size in inches:	
Approved: L Nishimura	0 1 2 3 4	
Date: 01-15-10		

**PEARL HARBOR NAVAL BASE STATION  
UTILITIES PLAN  
ELECTRICAL**

Contract No.: SV-440	
CADD File: SJ3-D03-UP002	
Drawing No: UP002	Rev.
Scale: 1"=40'	
Page No. 19	of 56



**GEOTECHNICAL NOTES:**

1. Geotechnical Investigations Documents
  - a. February 2010; Geotechnical Data Report, Honolulu High-Capacity Transit Corridor Project – Airport Segment, Aiea to Middle Street, Honolulu, Oahu, Hawaii; W.O. 6000-30; Prepared for PB Americas; Geolabs, Inc.
  - b. March 1991; Honolulu Rapid Transit Development Project, System Design, Supply, Construction, and Operation & Maintenance, Geotechnical Engineering Exploration-Waialua to Waikiki and Manoa, Ewa and Honolulu, Oahu, Hawaii; W.O. 2366-00; Prepared for Department of Transportation Services, City and County of Honolulu; Geolabs-Hawaii.
2. Location of the City-provided geotechnical investigations, document 1.a above, documented in the GDR.
3. Locations of 1991 investigations, document 1.b above, shown on the plans are approximated from available plans. Locations are not surveyed.
4. Information from 1991 investigations, document 1.b above, is available to the Designer for information only as an aid to understanding general site conditions.
5. See Honolulu High-Capacity Transit Corridor Project, Design Criteria Compendium, Chapter 9 – Structural [and Geotechnical] for minimum geotechnical investigation and performance requirements.
6. In accordance with Design Criteria Subsection 9.6 – Geotechnical, Designer’s “project geotechnical engineer” is responsible for development of the necessary information to complete the civil and structural design required for development of the proposed Station in accordance with Contract requirements.

**LEGEND:**

-  B-440 – Completed Geotechnical Boring, Ref 1.a
-  B-22 – Geotechnical Boring, Ref 1.b



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: Z Batchko
Drawn: J Derosier
Checked: J Davis
Approved: Z Batchko
Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: <b>PARSONS BRINCKERHOFF</b> 1003 Bishop Street, Suite 2250 – Honolulu, HI 96813	Subconsultant:
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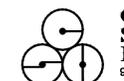
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**PEARL HARBOR NAVAL BASE STATION**  
  
**GEOTECHNICAL  
INVESTIGATIONS PLAN**

Contract No.: SV-440	
CADD File: SJ3-F02-GE001	
Drawing No: GE001	Rev.
Scale: 1"=100'	
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REINFORCING STEEL	STEEL JOISTS	METAL DECKING
<ol style="list-style-type: none"> <li>All reinforcing steel shall be deformed bars conforming to ASTM A 615 Grade 60, except ties and stirrups smaller than #4 which may be grade 40. All reinforcing steel to be welded shall conform to ASTM A 706 Grade 60.</li> <li>Plain steel welded plain wire fabric shall conform to ASTM A 185, fabricated from as-drawn steel wire into flat sheets and galvanized.</li> <li>Minimum concrete protection (cover) for reinforcement shall be provided in conformance with Chapter 7 of ACI 318-05.</li> <li>Development and splices of reinforcement shall be in conformance with Chapter 12 of ACI 318-05.</li> <li>Welding of reinforcing steel bars shall conform to Structural Welding Code-Reinforcing Steel, AWS D1.4.</li> <li>Bolster and support bars for slab and topping reinforcement (including slabs on grade) shall be a minimum of #4 at 36" o.c.</li> <li>Before placing of concrete, reinforcement placement shall be inspected to insure conformance with the drawings. All discrepancies shall be corrected prior to concrete pour or grouting.</li> </ol>	<ol style="list-style-type: none"> <li>The design, manufacture and installation of open web steel joists and joist girders shall be in accordance with the following Steel Joist Institute (SJI) specifications: <ol style="list-style-type: none"> <li>Standard specifications for joist girders, JG-1.1-05</li> <li>Standard specifications for open web steel joists, K-series, K-1.1-05</li> <li>Standard specifications for longspan steel joists, LH series and deep longspan steel joists, DLH series, LH/DLH 1.1-05</li> </ol> </li> <li>Joist manufacturer shall provide all bridging and blocking, both permanent and erection. Shop drawings and design calculations stamped by a licensed Hawaii Structural Engineer shall be submitted to the City for approval two weeks prior to fabrication.</li> <li>All roof joists, joist girders and bridging shall be designed for the net wind uplift pressures in accordance with the requirements of the 2006 International Building Code (IBC).</li> <li>Roof joist design loads: <ul style="list-style-type: none"> <li>Dead load.....Actual weight of roof system</li> <li>Additional (equipment) loads.....See roof framing plans (it shall be the responsibility of the Designer to verify the weight of all mechanical equipment.)</li> <li>Live load.....20 psf--unless noted otherwise</li> </ul> </li> <li>Floor joists design loads: <ul style="list-style-type: none"> <li>Dead load.....Actual weight of floor system</li> <li>Live load.....As noted on the drawings</li> <li>Additional (equipment) loads.....See floor framing plans (It shall be the responsibility of the Designer to verify the weight of all mechanical equipment.)</li> </ul> </li> <li>Live load deflection limits: <ul style="list-style-type: none"> <li>Floor.....Not to exceed L/360 - unless noted otherwise</li> <li>Roof.....Not to exceed L/360 - unless noted otherwise</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>Steel sheets for roof and composite floor metal deck and accessories shall conform to ASTM A 653, with minimum yield strength of 38 ksi. Decks shall be galvanized in accordance with ASTM A 653, G90.</li> <li>Metal floor deck units shall be fastened to supporting structural steel members with -inch effective diameter puddle welds. If studs are welded through the deck to the structural steel, stud welds may replace the puddle welds. Use of powder actuated mechanical fasteners (PAMF) may be considered provided the manufacturer's information of the mechanical fastener includes an ICC-ES Legacy Report.</li> <li>Roof deck units shall be fastened to supporting structural steel members with -inch effective diameter puddle welds or with ICC-ES approved powder actuated mechanical fasteners.</li> <li>Rectangular or circular openings in metal deck shall be reinforced.</li> <li>Shop drawings showing the deck unit layout and fastener locations, manufacturer's brochures and ICC-ES Legacy Report shall be submitted to the City for approval.</li> <li>Welding of metal deck to structural steel members shall conform to AWS D1.1 and AWS D1.3. Welders shall be certified prior to commencing work.</li> <li>Construction loads (including those due to storage of construction materials) shall not exceed the design live load of the roof or floor system.</li> </ol>
STRUCTURAL STEEL AND MISCELLANEOUS IRON	COLD-FORMED STEEL FRAMING	CONCRETE MASONRY UNIT
<ol style="list-style-type: none"> <li>The design, fabrication and erection of structural steel shall be in accordance with the "Specifications for Structural Steel Buildings", AISC 360-05. Seismic design of steel structures shall be in accordance with the "Seismic Provisions for Structural Steel Buildings", including Supplement No.1 dated 2006, AISC 341-05.</li> <li>W-shapes shall conform to ASTM A 992 (Fy = 50 ksi). All steel plates, bars, and other shapes shall comply with ASTM A 36 unless noted otherwise. Structural pipe shall conform to ASTM A 53, Grade B. Round HSS shall conform to ASTM A 500, Grade B, (Fy = 42 ksi). Rectangular and square HSS shall conform to ASTM A 500, Grade B (Fy = 46 ksi). All exposed steel members and assemblies shall be hot-dip galvanized after fabrication in accordance with ASTM A 123.</li> <li>Common bolts shall comply with ASTM A 307, hot-dip galvanized per ASTM A 153.</li> <li>High strength bolts shall comply with ASTM A 325N or A 325SC (where noted), Galvanized. Nuts shall conform to ASTM A 563, galvanized. Washers shall conform to ASTM F 436, Galvanized.</li> <li>Anchor rod material shall conform to ASTM F 1554, Grade 36 (Grade 55 or 105 where noted), hot-dip galvanized, per ASTM A 153.</li> <li>Shear stud connectors shall be as specified in AWS D1.1-04, Chapter 7, Type B made from ASTM A 108 material (Fu = 60 ksi).</li> <li>All welds shall be arc welded, matching the electrode to the base steel, according to AWS standards and performed by certified welders. All welds shall be ground smooth and painted with 2 coats of cold galvanizing compound.</li> <li>Unless otherwise indicated, all steel joints not detailed shall be fully welded using minimum fillet welds per AISC.</li> <li>Shop drawings shall be submitted to the City for all structural steel, fabricated brackets hardware and miscellaneous metals prior to fabrication.</li> <li>All anchor plates embedded in concrete shall be hot-dip galvanized after fabrication.</li> </ol>	<ol style="list-style-type: none"> <li>The design, fabrication, installation and construction of cold-formed light gauge structural and non-structural steel framing shall be in accordance with the North American Specification For Design of Cold-Formed Steel Structural Members, including 2004 Supplement, NAS-01 and the following American Iron and Steel Institute (AISI) standards: <ol style="list-style-type: none"> <li>Standard for Cold-Formed Steel Framing - General Provisions, General-04</li> <li>Standard for Cold-Formed Steel Framing - Header Design, Header-04</li> <li>Standard for Cold-Formed Steel Framing - Truss Design, Truss-04</li> <li>Standard for Cold-Formed Steel Framing - Wall Stud Design, WSD-04</li> </ol> </li> <li>All light gauge structural steel members, plates and angles shall be hot dip galvanized. (Minimum G90 coating) per ASTM A 924.</li> <li>All light gauge structural steel framing members shall be cold formed to shapes from structural quality sheet steel complying with the requirements of ASTM A 1003, Grade 50 for 14 and 16 gauge members; Grade 33 for 18 thru 26 gauge members.</li> <li>Shop drawings shall be submitted to the City for all fabricated connections and hardware prior to fabrication.</li> <li>Structural calculations and shop drawings stamped by a Structural Engineer licensed in the State of Hawaii shall be submitted for review to the City for all pre-engineered framing, including trusses prior to fabrication.</li> <li>Fasteners shall be self-piercing and self-drilling, power-driven screws intended for cold formed steel application and shall be zinc plated or galvanized. Screws shall not protrude through the metal decking where exposed to view. If decking is exposed on the bottom surface, welding of metal decking shall be utilized.</li> <li>All welding shall be done in accordance with Structural Welding Code, AWS D1.1 and Structural Welding Code Sheet Steel, AWS D1.3 for sheet steel and performed by certified welders.</li> <li>The Contractor shall be responsible for temporary bracing of all cold-formed metal framing including trusses.</li> </ol>	<ol style="list-style-type: none"> <li>The design, construction and quality of masonry structures shall be in accordance with the Building Code Requirements for Masonry Structures, ACI 530 - 05.</li> <li>Hollow concrete masonry units: ASTM C 90, Grade N, 1,900 psi compressive strength, medium weight. Units shall be 2-core type, 8" nominal height, 16" nominal length and width indicated on the plans.</li> <li>Mortar and grout materials: <ol style="list-style-type: none"> <li>Portland Cement: ASTM C 150, Type I or II</li> <li>Masonry Cement: ASTM C 91</li> <li>Mortar Cement: ASTM C 1329</li> <li>Aggregate for Mortar: ASTM C 144</li> <li>Aggregate for Grout: ASTM C 404, with grading per ASTM D 448, No. 10</li> <li>Hydrated Lime: ASTM C 207, Type S</li> <li>Plasticizer Additive: Powder or liquid type with current ICC acceptance as a substitute for lime in mortar.</li> <li>Water: Potable and complying with ASTM C 94.</li> </ol> </li> <li>Mortar shall be ASTM C 270 Type 'M' or 'S' with a minimum 28-day compressive strength of 1,800 psi for Type S and 2,500 psi for Type M. Use mortar within 2 hours after initial mixing.</li> <li>Grout (fine) shall be proportioned to attain a 28-day compressive strength of 2,500 psi and a slump between 8 and 11 inches. Grout shall be placed within 90 minutes after mixing.</li> <li>Reinforcing bar positioners: Commercial, non-metallic positioners that prevent displacement of reinforcing bars during construction. Install at intervals not exceeding 8 feet.</li> <li>Fill all cells solid with grout. No grouting shall commence prior to inspection by the Engineer or Special Inspector.</li> <li>Unless noted otherwise, all walls shall be constructed in running bond.</li> <li>Post-installed anchors in grouted masonry: corrosion-resistant anchors with capacity to support design shear and tension loads with a factor of safety of at least 4.0 as documented in a current ICC legacy report.</li> </ol>
	PEDESTRIAN BRIDGES	TIMBER
	<ol style="list-style-type: none"> <li>Pedestrian bridges shall be designed in accordance with Section 9.4 of the HHCTCP Design Criteria.</li> </ol>	<ol style="list-style-type: none"> <li>The design of timber framing shall be in accordance with the International Building Code (IBC).</li> <li>The design of glued-laminated (glulam) beams for the canopy system shall be in accordance with NDS National Design Specification for Wood Construction from the American Forest and Paper Association. <ol style="list-style-type: none"> <li>The allowable bending stress, F<sub>b</sub>, shall be taken as 3000 psi modified with the appropriate adjustment factors.</li> </ol> </li> </ol>

<table border="1"> <thead> <tr> <th>Rev</th> <th>By</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Rev	By	Date	Description																									<p><b>PRELIMINARY ENGINEERING SUBJECT TO REVISION</b></p>	<p>Designed: R Yamashiro</p> <p>Drawn: J Perreira</p> <p>Checked: G Suzuki</p> <p>Approved: G Suzuki</p> <p>Date: 01-15-10</p>	<p><b>HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT</b> CITY &amp; COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION</p> <p>Prime Consultant:  <b>PARSONS BRINCKERHOFF</b> 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813</p> <p>Subconsultant:  <b>CONSULTING STRUCTURAL HAWAII, INC.</b> 931 HAUSTEN STREET, SUITE 200 HONOLULU, HAWAII 96826</p> <p>For reduced prints, original page size in inches: 0 1 2 3 4</p>	<p><b>PEARL HARBOR NAVAL BASE STATION</b></p> <p><b>GENERAL STRUCTURAL NOTES, SYMBOLS, AND ABBREVIATIONS</b></p> <p><b>SHEET 2 OF 4</b></p>	<p>Contract No.: SV-440</p> <p>CADD File: SJ3-G01-SG002</p> <p>Drawing No: SG002 Rev.</p> <p>Scale: N/A</p> <p>Page No. 22 of 56</p>
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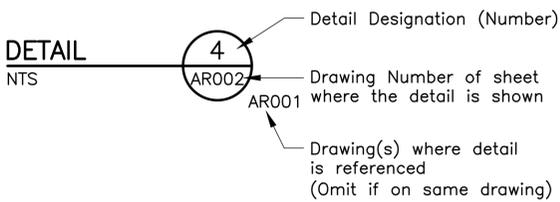
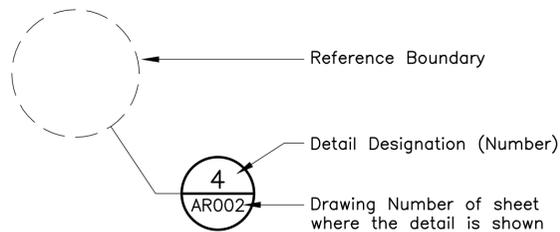
**STRUCTURAL ABBREVIATIONS**

<p>&amp; And                  @ At                  AASHTO American Association of State Highway &amp; Transportation Officials                  AB Anchor Bolt                  Abut Abutment                  AC Asphalt Concrete                  ACI American Concrete Institute                  ACU Air Conditioning Unit                  Aggr Aggregate                  AHU Air Handling Unit                  AISC American Institute of Steel Construction                  AISI American Iron and Steel Institute                  Anch Anchor                  ANSI American National Standards Institute                  Approx Approximate                  Arch. Architect, Architectural                  AREMA American Railway Engineering &amp; Maintenance-of-Way Association                  ASCE American Society of Civil Engineers                  ASTM American Society for Testing &amp; Materials                  AWS American Welding Society</p> <p>B                  Bal Balance                  BF Both Faces                  Bldg Building                  Blkg Blocking                  Bm Beam                  Bot Bottom</p> <p>C                  c Centerline                  C-C Camber                  C-C Center to Center                  CCH City and County of Honolulu                  CFS Cold-Formed Steel                  CIP Cast-in-Place                  CJ Construction Joint, Control Joint                  Clr Clear, Clearance                  CMU Concrete Masonry Unit                  Col Column                  Conc Concrete                  Conn Connect, Connection, Connector                  Cont Continuous, Continue                  Cu Cubic                  CY Cubic Yard</p> <p>D                  Dbl Double                  Dept Department                  Det Detail                  Dia Diameter                  Diag Diagonal, Diagram                  Diaph Diaphragm                  Dim Dimension                  Dir Direction                  Dist Distance                  DL Dead Load                  Dn Down                  DOT Department of Transportation                  DS Downspout                  Dwg Drawing                  Dwl Dowel</p> <p>E                  ea East                  ea Each                  EB Eastbound                  EE Each End                  EF Each Face, Exhaust Fan                  EJ Expansion Joint                  El, Elev Elevation                  Elec Electric, Electrical                  Elev Elevator                  Engr Engineer, Engineering                  EQ Earthquake                  Eq Equal                  Eqn Equation                  Est Estimate                  EW Each Way                  Exc Excavation                  Exist Existing                  Exp Expansion                  Ext Exterior, External                  Extn Extension</p>	<p>FD Floor Drain                  Fdn Foundation                  FF Finish Floor                  FFE Finish Floor Elevation                  FHWA Federal Highway Administration                  Fig. Figure                  Fin Finish                  Fl Floor                  Fr Frame                  ft Foot, Feet                  Ftg Footing                  Fu Ultimate Stress                  Fy Yield Stress</p> <p>Ga Gauge                  Galv Galvanized                  GB Grade Beam                  Gen General                  Gnd Ground                  Govt Government                  Grd Grade</p> <p>H                  HDOT Hawaii Department of Transportation                  HHCTCP Honolulu High-Capacity Transit Corridor Project                  Horiz Horizontal                  Hr Hour                  HS High Strength                  HSS Hawaii Standard Specifications for Road and Bridge Construction (Issued 2005)</p> <p>HSS Hollow Structural Shape                  Ht Height                  Hwy Highway</p> <p>IBC International Building Code                  ICC-ES International Code Council-Evaluation Service                  ID Inside Diameter                  IF Inside Face                  in. Inch                  Incl Included, Including, Inclusive                  Int Interior                  Inv Invert</p> <p>JG Joint Girders                  Jt Joint                  Jt(s) Joints</p> <p>K                  KF Kip Foot                  KLF Kips Per Linear Foot                  KSF Kips Per Square Foot                  KSI Kips Per Square Inch</p> <p>L                  LB Pound (unit of measure)                  LF Linear Foot                  Lin Linear                  LL Live Load                  LLH Long Leg Horizontal                  LLV Long Leg Vertical                  Long. Longitudinal</p> <p>Max Maximum                  Mech Mechanical                  Met Metal                  Mezz Mezzanine                  Mfr Manufacturer                  MH Manhole                  Mil One Thousandth of an inch                  Min Minimum                  Misc Miscellaneous                  mm Millimeter                  Mom Moment                  MOW Maintenance-of-Way                  Mtg Meeting                  Mtl Material</p>	<p>N North                  N/A Not Applicable                  NAS North American Specification                  NB Northbound                  NE Northeast                  Neg Negative                  NF Near Face                  NIC Not in Contract                  No.(Nos.) Number (Numbers)                  Nom Nominal                  NTS Not to Scale                  NW Northwest</p> <p>OC On Center                  OD Outside Diameter                  OF Outside Face                  Opng Opening                  Opp Opposite                  Opp Hd Opposite Hand                  oz Ounce</p> <p>PAMFP Power Actuated Mechanical Fasteners                  PCF Pounds Per Cubic Feet                  P/T Post Tensioned                  P.E. Professional Engineer                  Ped Pedestrian                  Perp Perpendicular                  Ph Phase                  Plywd Plywood                  Pos Positive                  Proj Project                  Prop Property                  PSF Pounds Per Square Feet                  PSI Pounds Per Square Inch                  PVC Polyvinyl Chloride                  Pvmt Pavement</p> <p>QA/QC Quality Assurance/Quality Control                  Qty Quantity</p> <p>R Radius                  RC Reinforced Concrete                  RD Roof Drain                  Rdwy Roadway                  Rect Rectangle                  Ref Reference                  Reinf Reinforce, Reinforcing                  Repl Replace, Replaced                  Reqd Required                  Ret Return, Retain, Retaining                  Rev Revision, Revised                  RFP Request for Proposal                  Rm Room                  RO Rough Opening                  ROW Right-of-Way                  Rt Right                  RTD Rapid Transit Division                  RW Retaining Wall</p>	<p>S South                  S1 Mapped MCE Spectral Response Acceleration at a Period of 1-sec.                  Sch Schedule                  SDS Design Spectral Response Acceleration at Short Periods                  SD1 Design Spectral Response Acceleration at a Period of 1-sec.                  SE Southeast                  Sect Section                  SF Square Foot, Square Feet                  Sgl Single                  Sht Sheet                  Sim Similar                  SJI Steel Joist Institute                  SMS Sheet Metal Screw                  Spec Specification                  Sq Square                  SRP Skylight Roof Post                  SS Stainless Steel                  Sta Station, Stationing                  Std Standard                  Stiff Stiffener                  Stl Steel                  Struct Structure                  SW Southwest                  Sym Symmetrical</p> <p>T                  T&amp;B Top and Bottom                  T&amp;G Tongue and Groove                  Temp Temporary, Temperature                  Thk Thick, Thickness                  Thru Through                  TOC Top of Concrete                  Topo Topography                  TOR Top of Rail                  TOS Top of Slab                  TO Stl Top of Steel                  Tot. Total                  TOW Top of Wall                  Typ Typical</p> <p>UNO Unless Noted Otherwise</p> <p>V                  Var Vertical                  Veh Variable, Varies                  Veh Vehicle                  Vert Vertical                  Vol Volume</p> <p>W                  w/ Wide Flange                  w/ With                  w/o Without                  WB Westbound                  WF Wall Footing                  WL Wind Load                  WP Work Point                  WSD Wall Stud Design                  Wt Weight                  WWF Welded Wire Fabric</p> <p><b>SPECIAL TERMS</b></p> <p>Makai Ocean                  Mauka Mountain</p>
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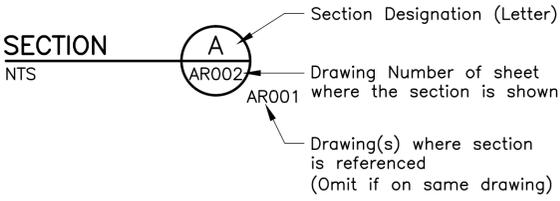
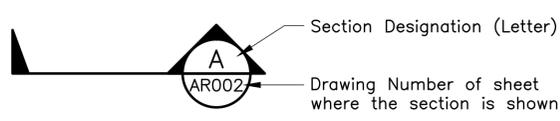
<p align="center"><b>PRELIMINARY ENGINEERING SUBJECT TO REVISION</b></p>	Designed: R Yamashiro Drawn: J Perreira Checked: G Suzuki Approved: G Suzuki Date: 01-15-10	<p><b>HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT</b>                  CITY &amp; COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION</p> <p>Prime Consultant: <b>PARSONS BRINCKERHOFF</b>                  1003 Bishop Street, Suite 2250 - Honolulu, HI 96813</p> <p>Subconsultant: <b>CONSULTING STRUCTURAL HAWAII, INC.</b>                  931 HAUSTEN STREET, SUITE 200                  HONOLULU, HAWAII 96826</p>	<p><b>PEARL HARBOR NAVAL BASE STATION</b></p> <p><b>GENERAL STRUCTURAL NOTES, SYMBOLS, AND ABBREVIATIONS</b></p> <p><b>SHEET 3 OF 4</b></p>	Contract No.: SV-440 CADD File: SJ3-G01-SG003 Drawing No: SG003 Rev. Scale: N/A Page No. 23 of 56
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**STRUCTURAL SYMBOLS**

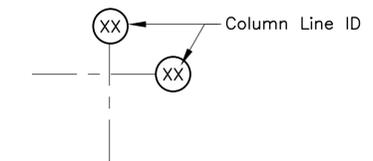
**DETAILS**



**SECTIONS**



**COLUMN LINE GRID INDICATOR**



**GENERAL SYMBOLS**

- & And
- @ At
- # Number
- ∅ Diameter
- % Percent
- = Equal to
- > Greater Than
- < Less Than
- ≥ Greater Than or Equal To
- ≤ Less Than or Equal To
- ± Plus or Minus

**HATCH**

- Metal Deck w/Conc Topping (Plan View)
- Metal Deck w/No Topping (Plan View)
- Slab on Grade (Plan View)

**LEGEND**

- Struct. Steel "X" Braced Frame (Above)
- Struct. Steel Braced Frame (Above)
- Structural Concrete Wall
- Non-Struct. Partition (See Arch. Drawings)
- Non-Struct. Shaft Wall
- Tilt-Up Wall
- CMU Wall
- Wall Below
- Indicates Steel Moment Frame Column & 6.75'(W) x 8.00'(L) x 1.5' Thk Footing
- Steel Col (6.75x8x1.5)
- Indicates Continuous Footing 3'(W) x 1.5'(T)
- Indicates Beam-to-Column Moment Connection
- Indicates Beam-to-Beam Moment Connection
- Beam Size  
W12x [8]  
Total Number of 3/4"∅ Welded Headed Studs  
C=3/4" Camber if Required

Rev	By	Date	Description

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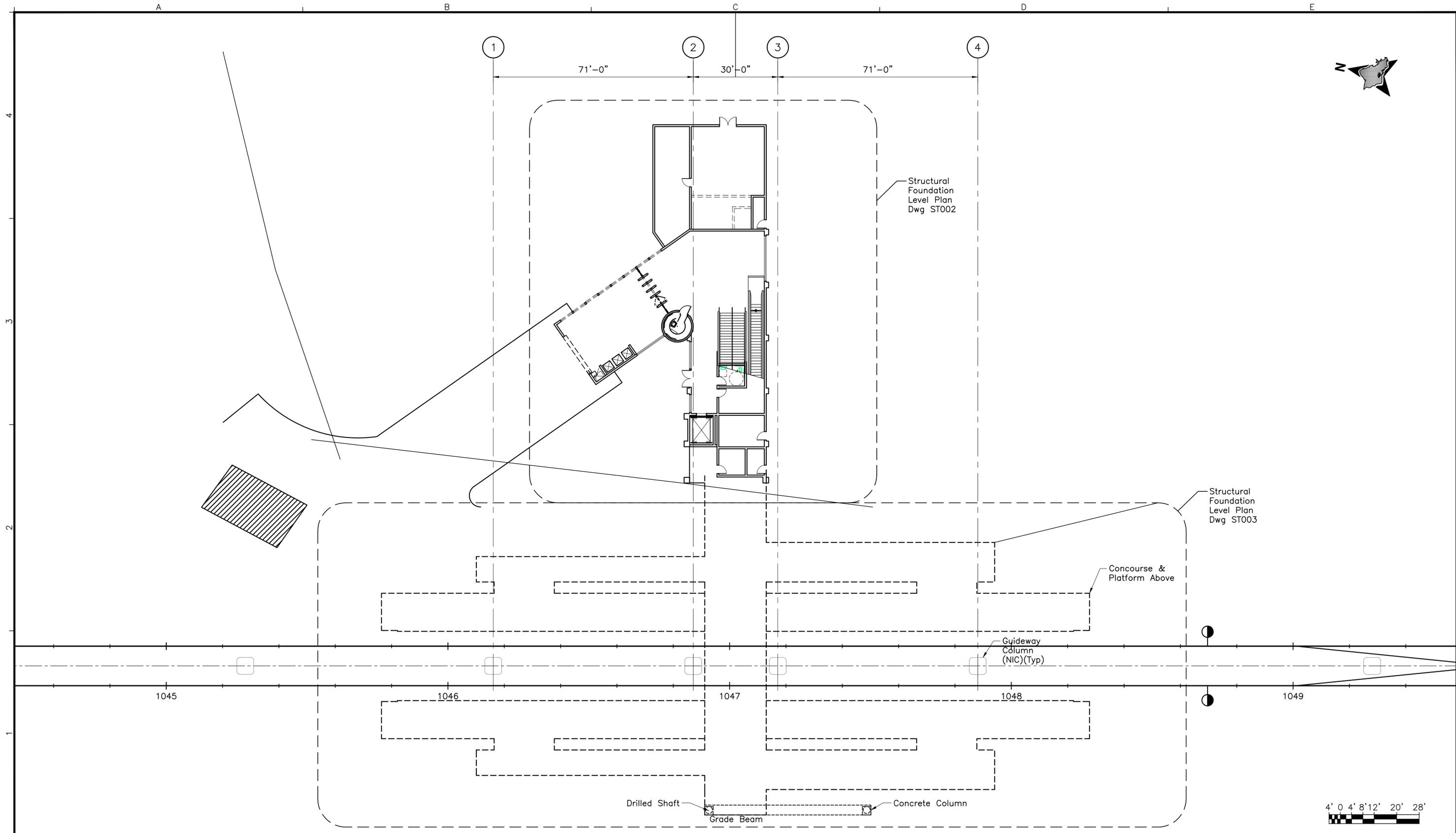
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PEARL HARBOR NAVAL BASE STATION  
**GENERAL STRUCTURAL NOTES,  
 SYMBOLS, AND ABBREVIATIONS**

SHEET 4 OF 4

Contract No.: SV-440	Rev.
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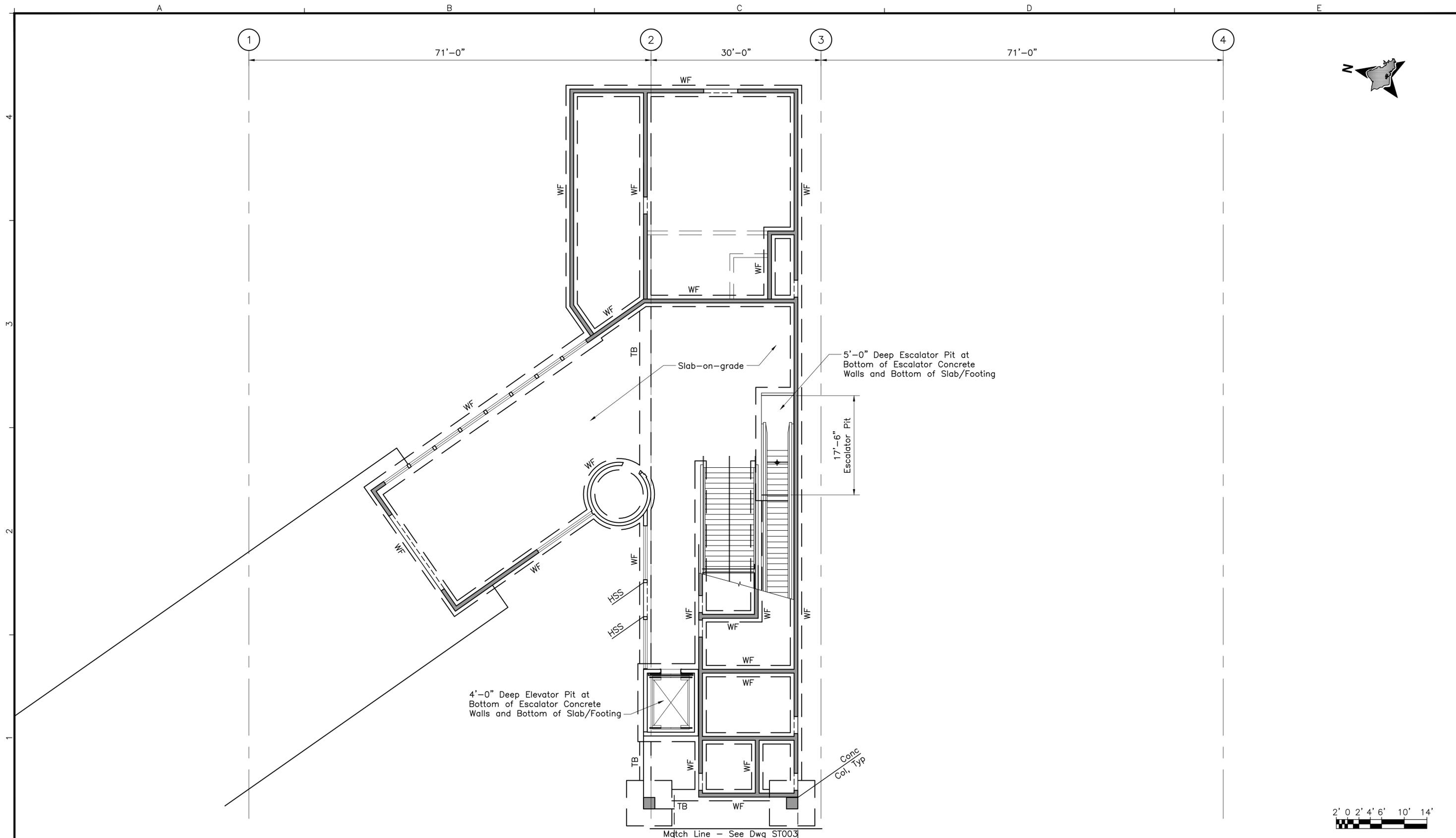
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**PEARL HARBOR NAVAL BASE STATION**  
**STRUCTURAL  
OVERALL FOUNDATION PLAN**

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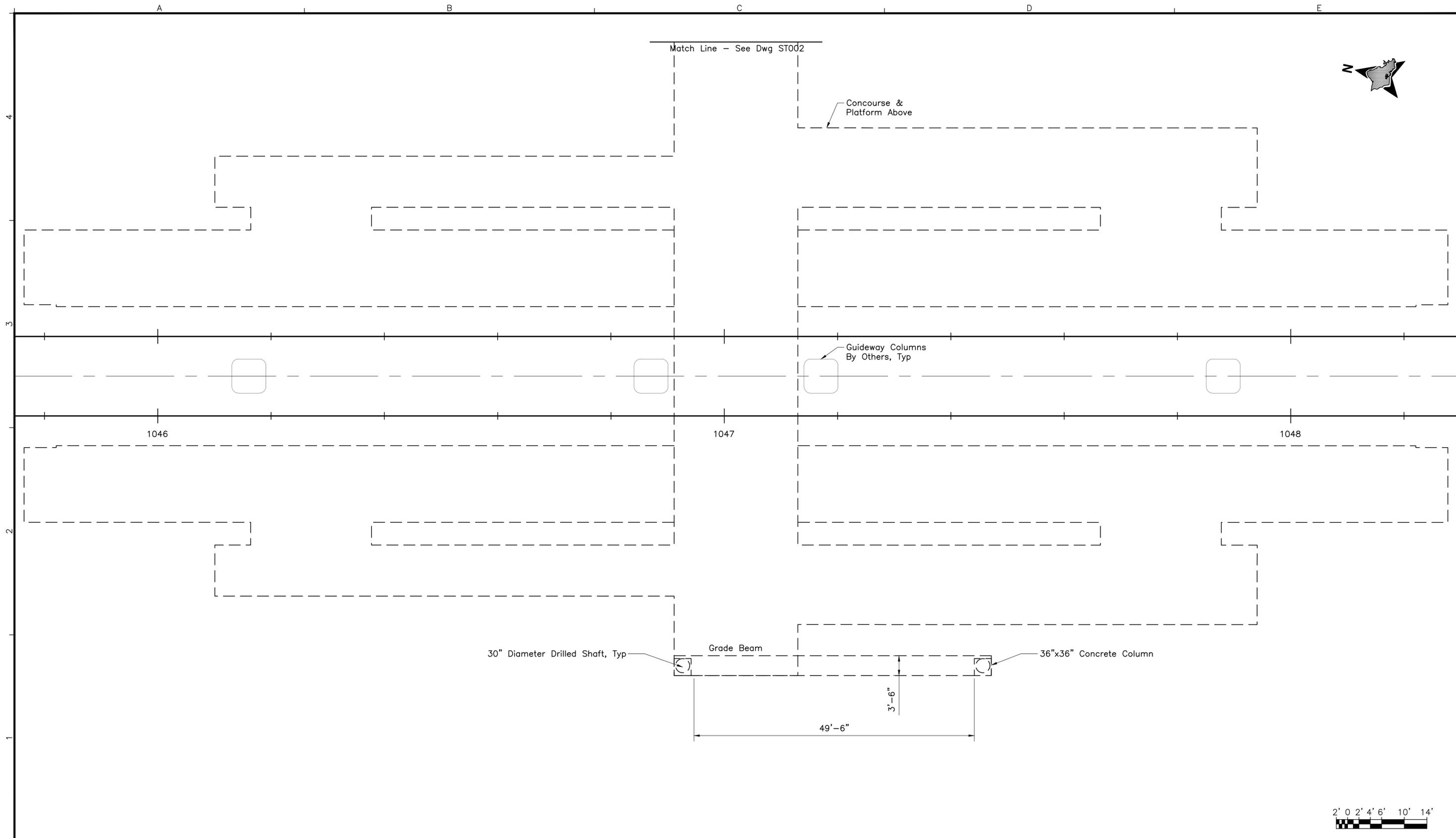
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PEARL HARBOR NAVAL BASE STATION  
**STRUCTURAL  
FOUNDATION LEVEL PLAN**  
STATION ENTRANCE BUILDING

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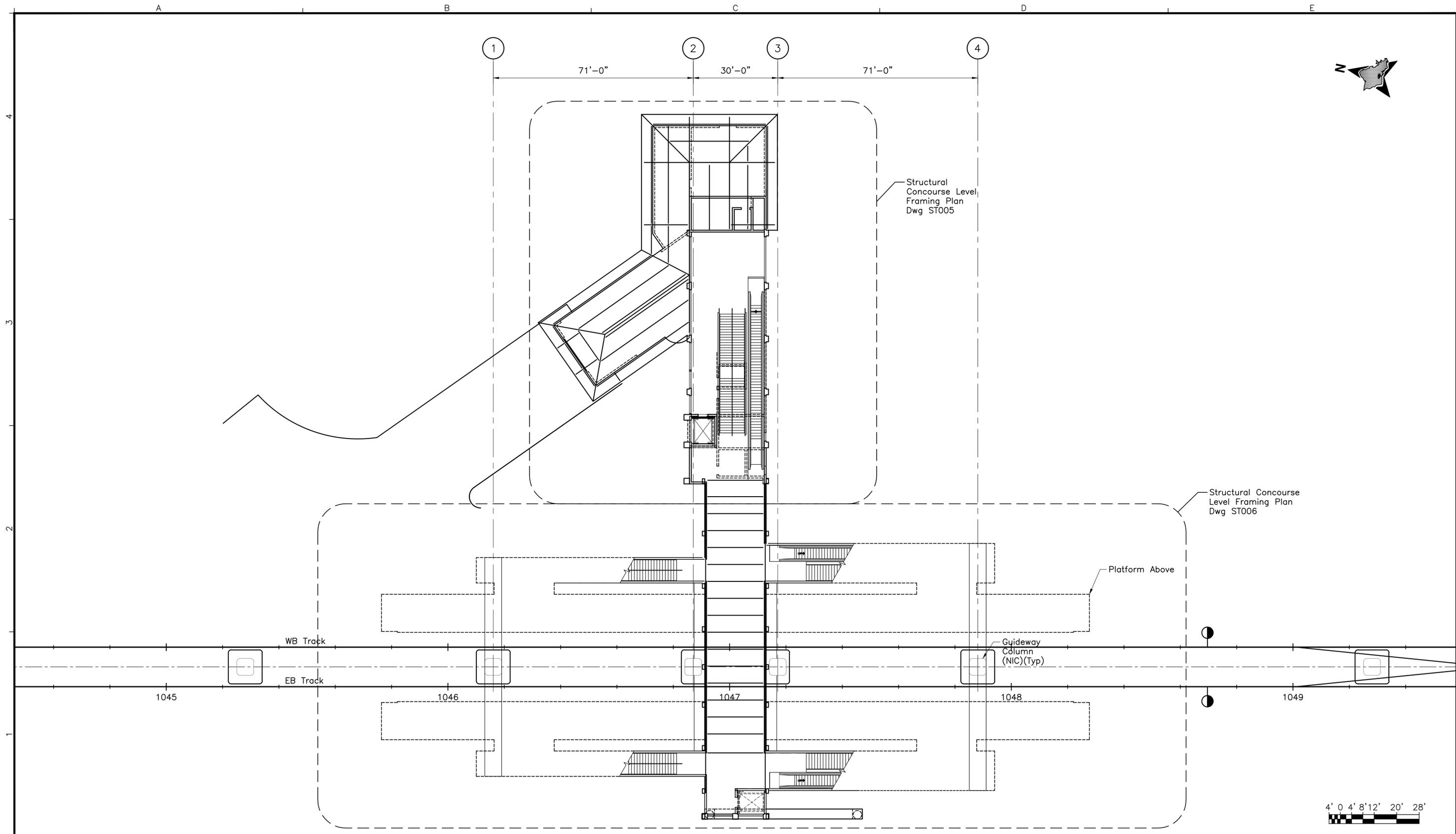
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PEARL HARBOR NAVAL BASE STATION  
**STRUCTURAL  
FOUNDATION LEVEL PLAN**  
STATION CONCOURSE AND PLATFORM

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CADD File: SJ3-G13-ST003  
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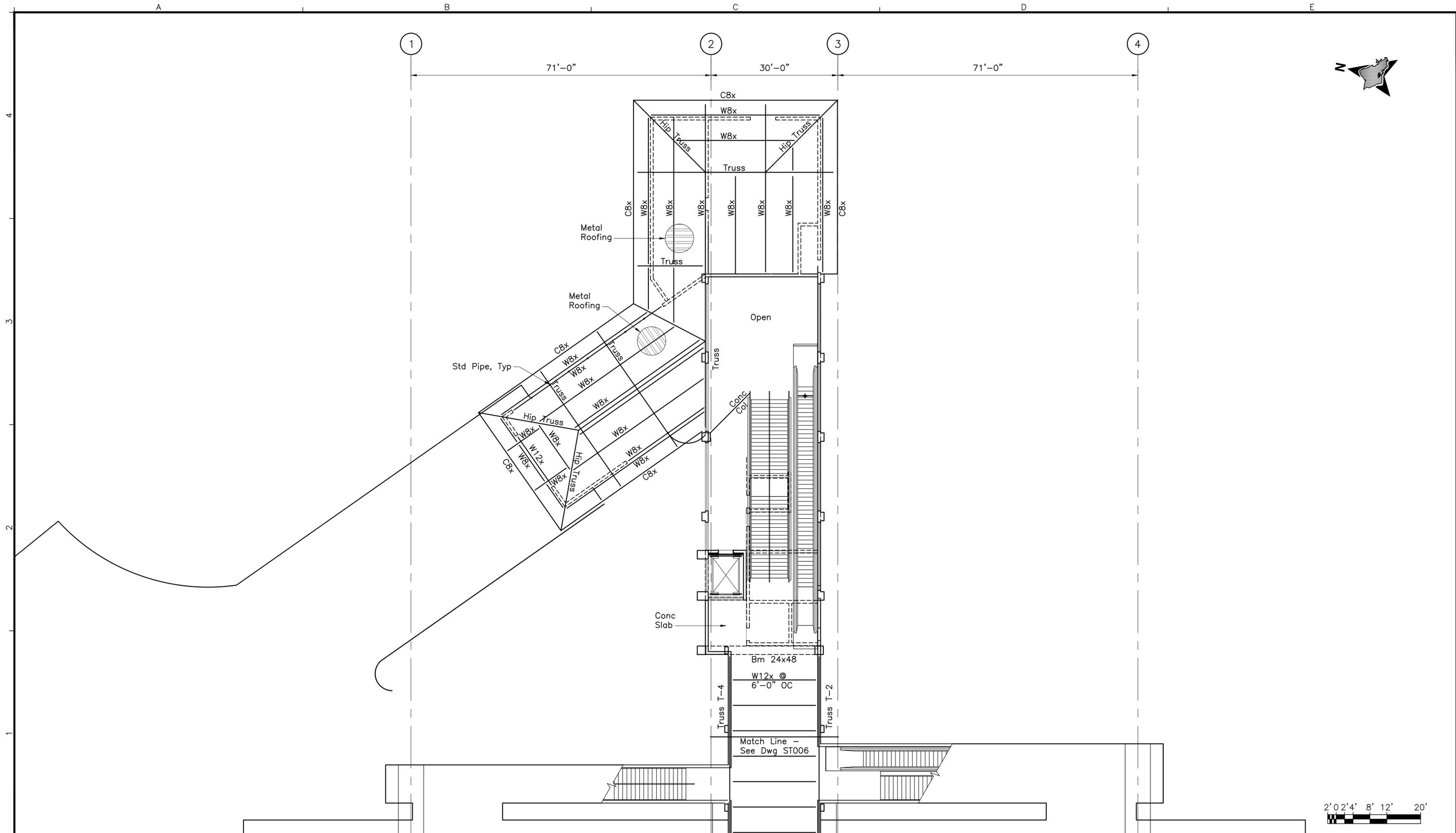
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**PEARL HARBOR NAVAL BASE STATION**  
**STRUCTURAL  
OVERALL CONCOURSE PLAN**

Contract No.: SV-440	Rev.
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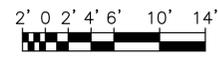
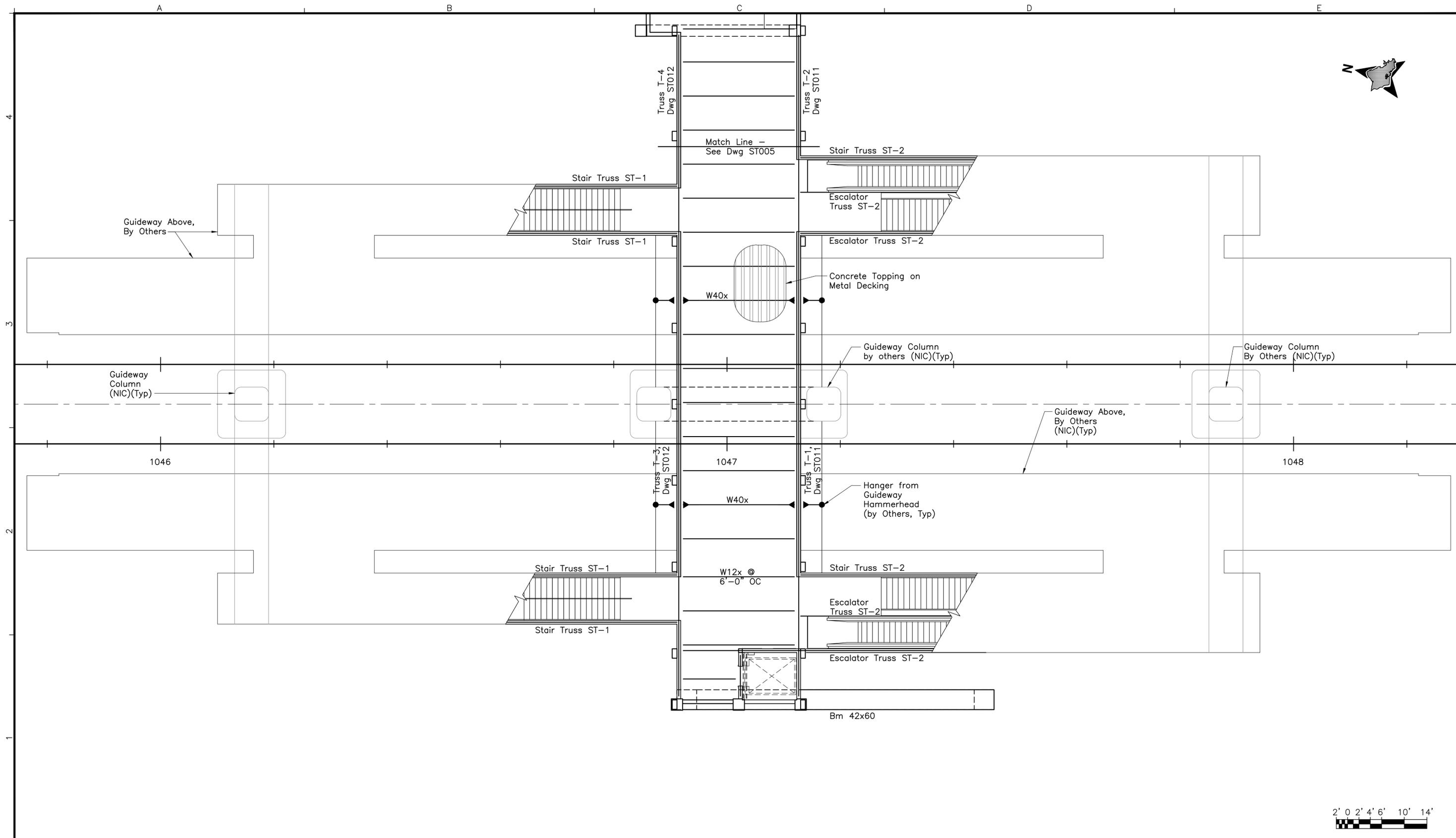
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PEARL HARBOR NAVAL BASE STATION  
**STRUCTURAL  
CONCOURSE LEVEL FRAMING PLAN**  
STATION ENTRANCE BUILDING

Contract No.:	SV-440
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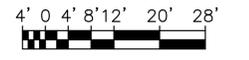
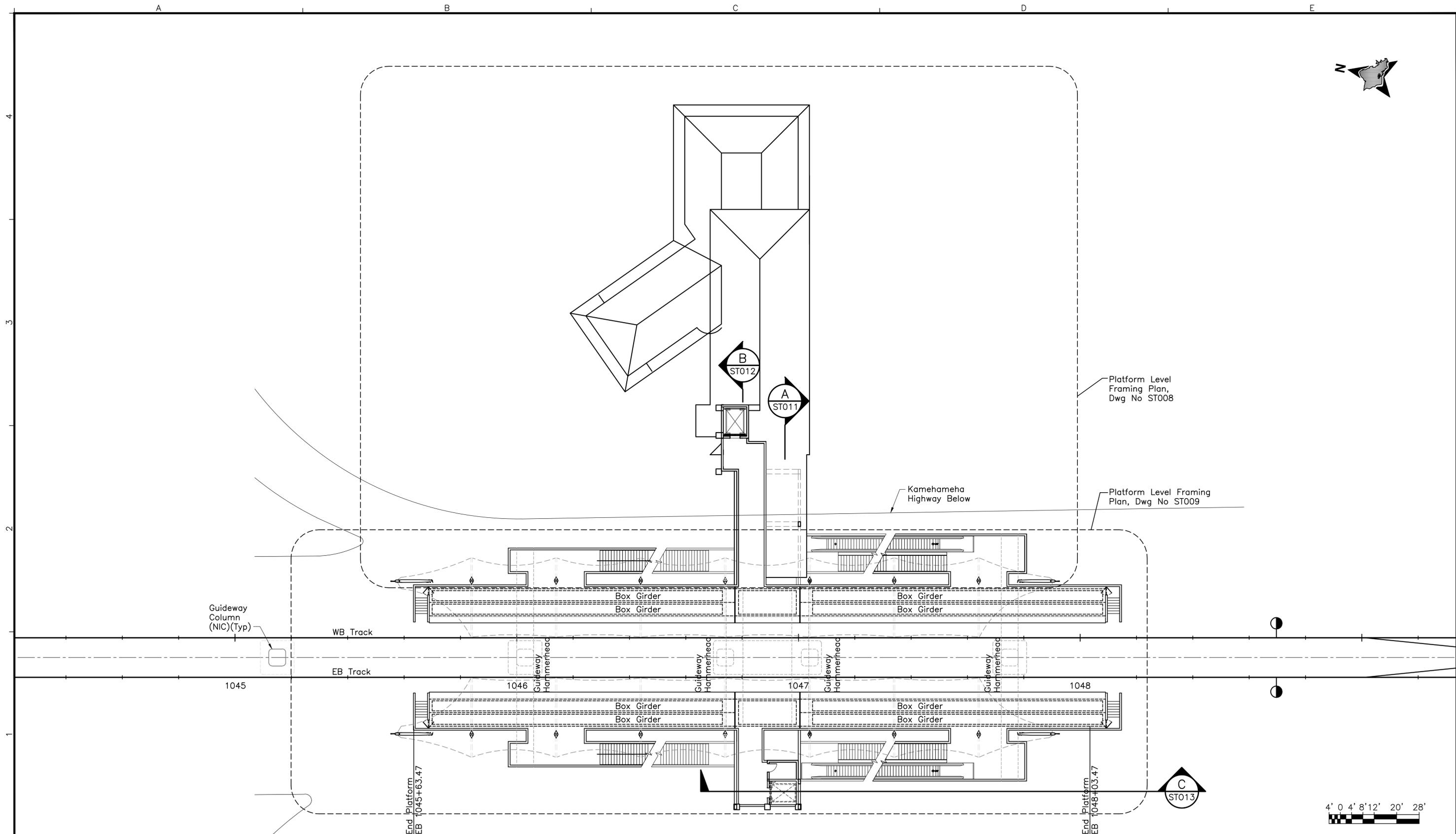
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PEARL HARBOR NAVAL BASE STATION  
**STRUCTURAL  
CONCOURSE LEVEL FRAMING PLAN**  
STATION CONCOURSE AND PLATFORM

Contract No.: SV-440  
CADD File: SJ3-G14-ST006  
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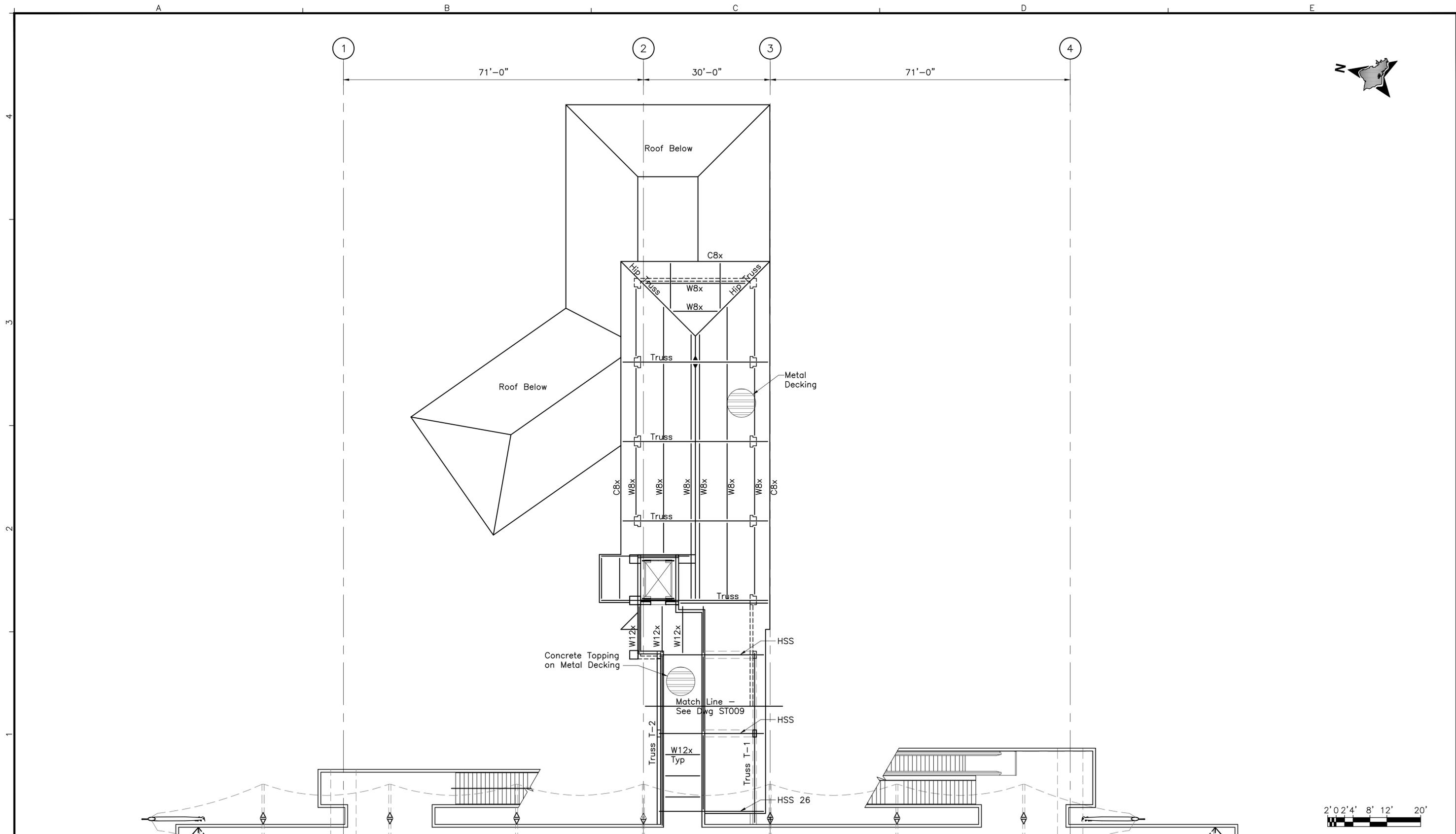
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**PEARL HARBOR NAVAL BASE STATION**

**STRUCTURAL  
OVERALL PLATFORM PLAN**

Contract No.: SV-440  
 CADD File: SJ3-G14-ST007  
 Drawing No: ST007 Rev.  
 Scale: 1/16" = 1'-0"  
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**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
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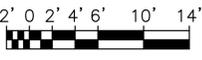
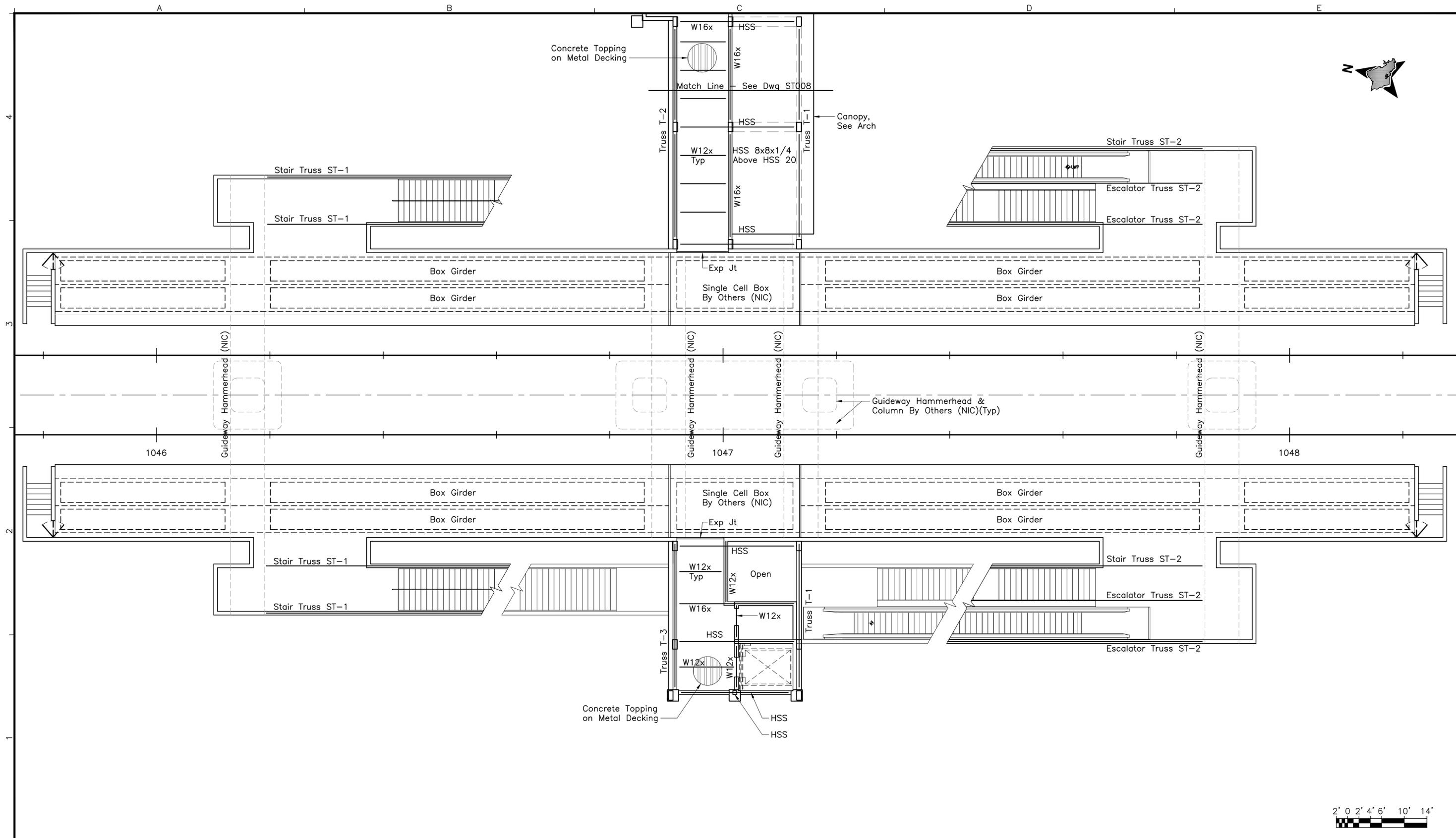
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**PEARL HARBOR NAVAL BASE STATION**  
**STRUCTURAL**  
**PLATFORM LEVEL FRAMING PLAN**  
**STATION ENTRANCE BUILDING**

Contract No.:	SV-440
CADD File:	SJ3-G14-ST008
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Scale:	3/32" = 1'-0"
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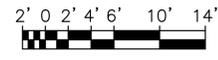
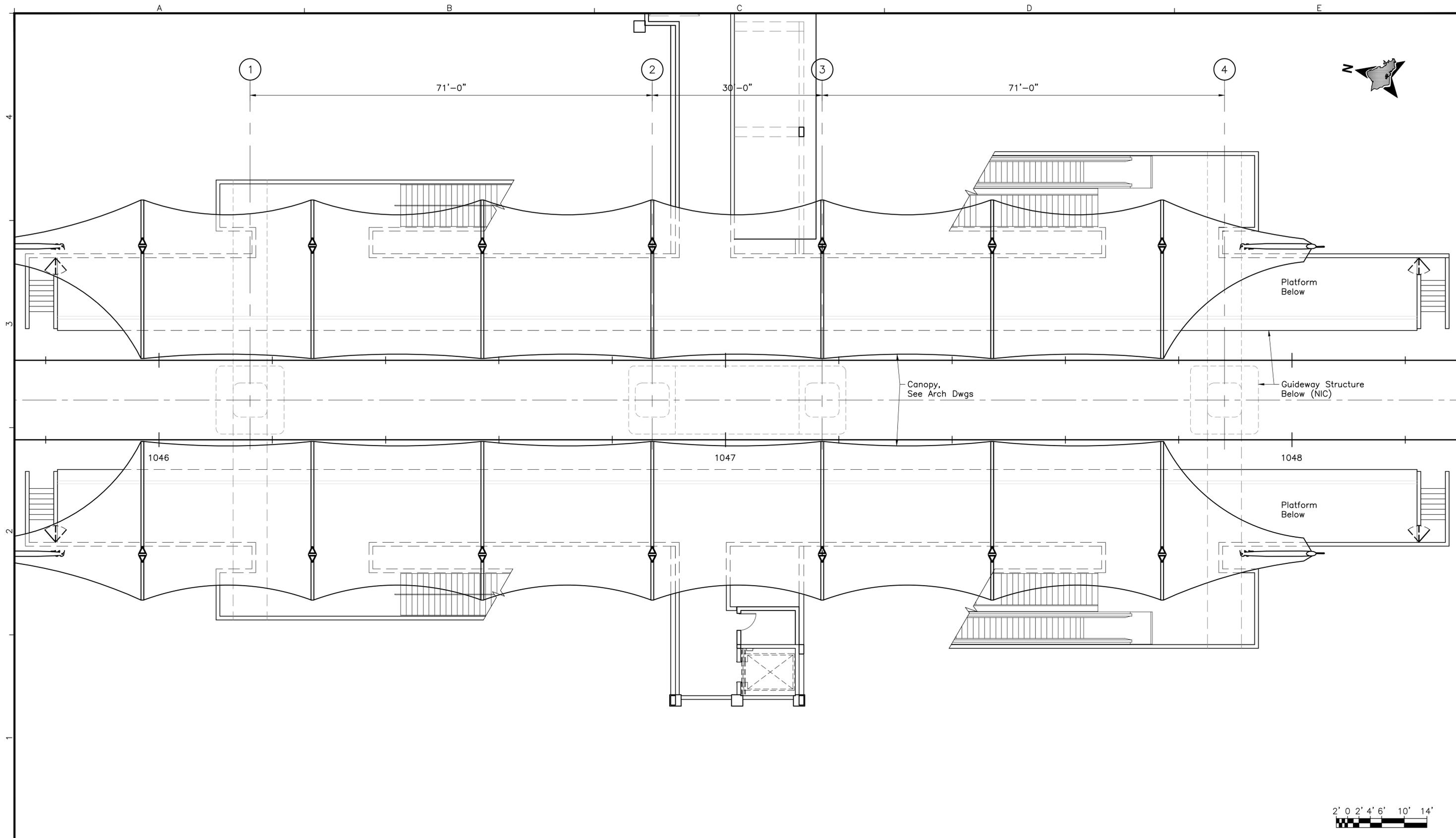
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PEARL HARBOR NAVAL BASE STATION  
**STRUCTURAL  
PLATFORM LEVEL FRAMING PLAN**  
STATION CONCOURSE AND PLATFORM

Contract No.: SV-440  
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Scale: 1/8" = 1'-0"  
Page No. 33 of 56

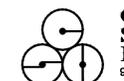


Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
R Yamashiro  
Drawn:  
J Perreira  
Checked:  
G Suzuki  
Approved:  
G Suzuki  
Date:  
01-15-10

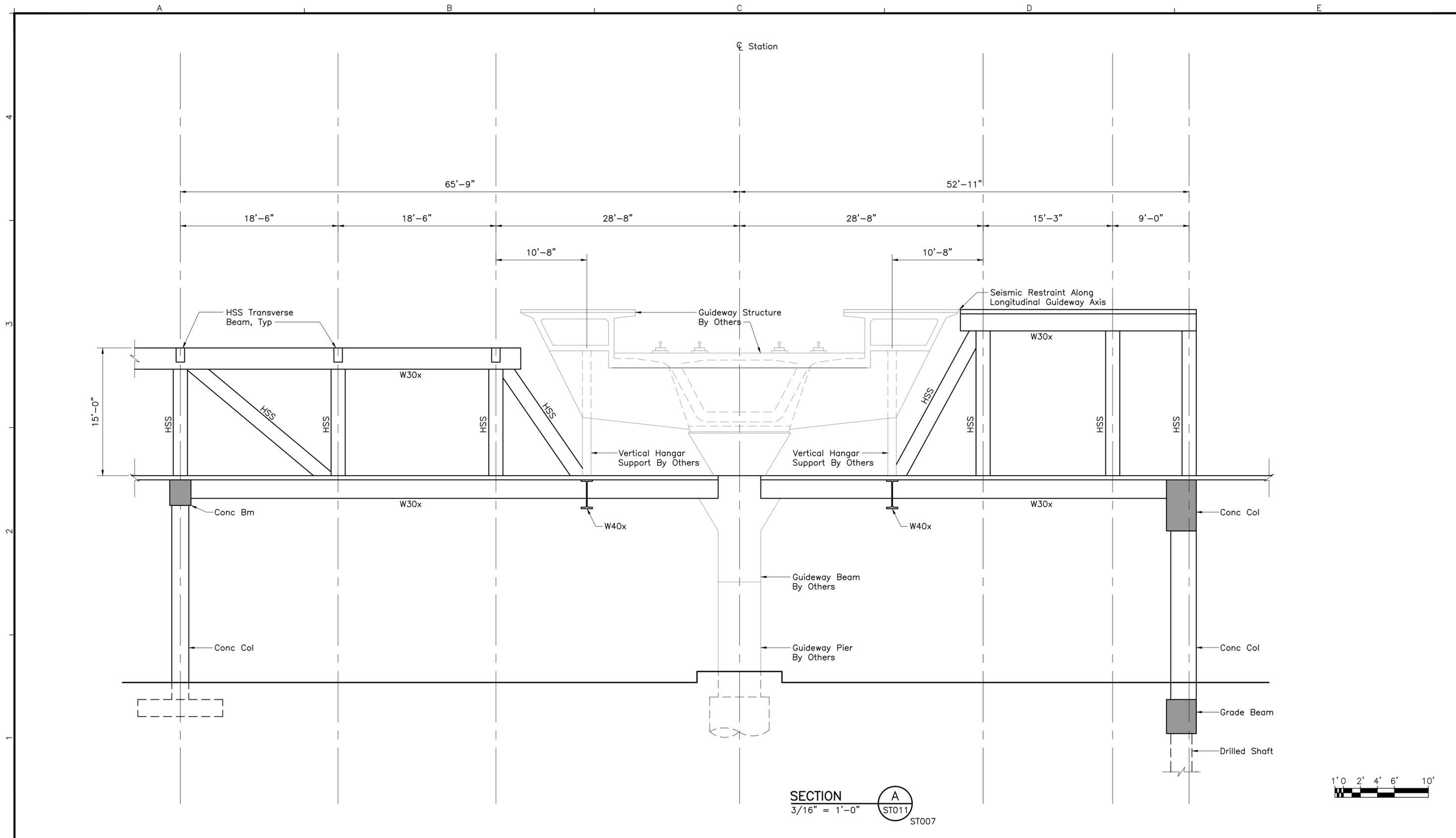
**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:  1003 Bishop Street, Suite 2250 - Honolulu, HI 96813	Subconsultant:  <b>CONSULTING STRUCTURAL HAWAII, INC.</b> 931 HAUSTEN STREET, SUITE 200 HONOLULU, HAWAII 96826
---	---

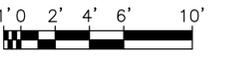
For reduced prints, original page size in inches: 0 1 2 3 4

**PEARL HARBOR NAVAL BASE STATION  
STRUCTURAL  
PLATFORM ROOF FRAMING PLAN**

Contract No.:  
SV-440  
CADD File:  
SJ3-G14-ST010  
Drawing No: ST010 Rev.  
Scale:  
1/8" = 1'-0"  
Page No. 34 of 56



SECTION A  
 3/16" = 1'-0"  
 ST011  
 ST007



Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed:  
R Yamashiro  
 Drawn:  
J Perreira  
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 Approved:  
G Suzuki  
 Date:  
01-15-10

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 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

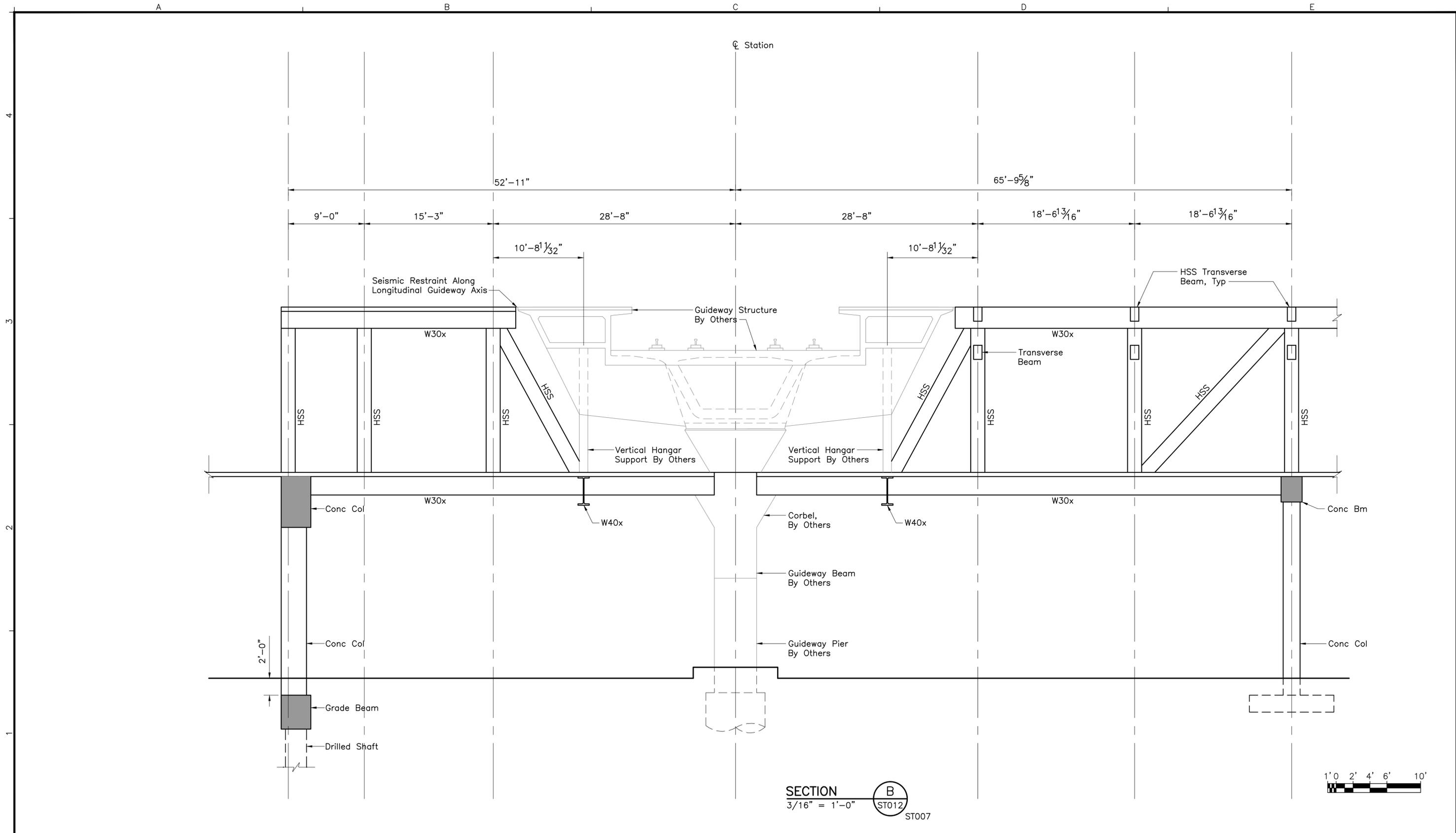
Subconsultant:  
**CONSULTING STRUCTURAL HAWAII, INC.**  
 931 HAUSTEN STREET, SUITE 200  
 HONOLULU, HAWAII 96826

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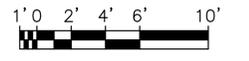
**PEARL HARBOR NAVAL BASE STATION**

**STRUCTURAL  
 SECTION AT TRUSS T-1**

Contract No.:  
SV-440  
 CADD File:  
SJ3-G15-ST011  
 Drawing No: ST011 Rev.  
 Scale:  
3/16" = 1'-0"  
 Page No. 35 of 56



SECTION B  
 3/16" = 1'-0"  
 ST012  
 ST007



Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed:  
R Yamashiro  
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G Suzuki  
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**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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**PARSONS BRINCKERHOFF**  
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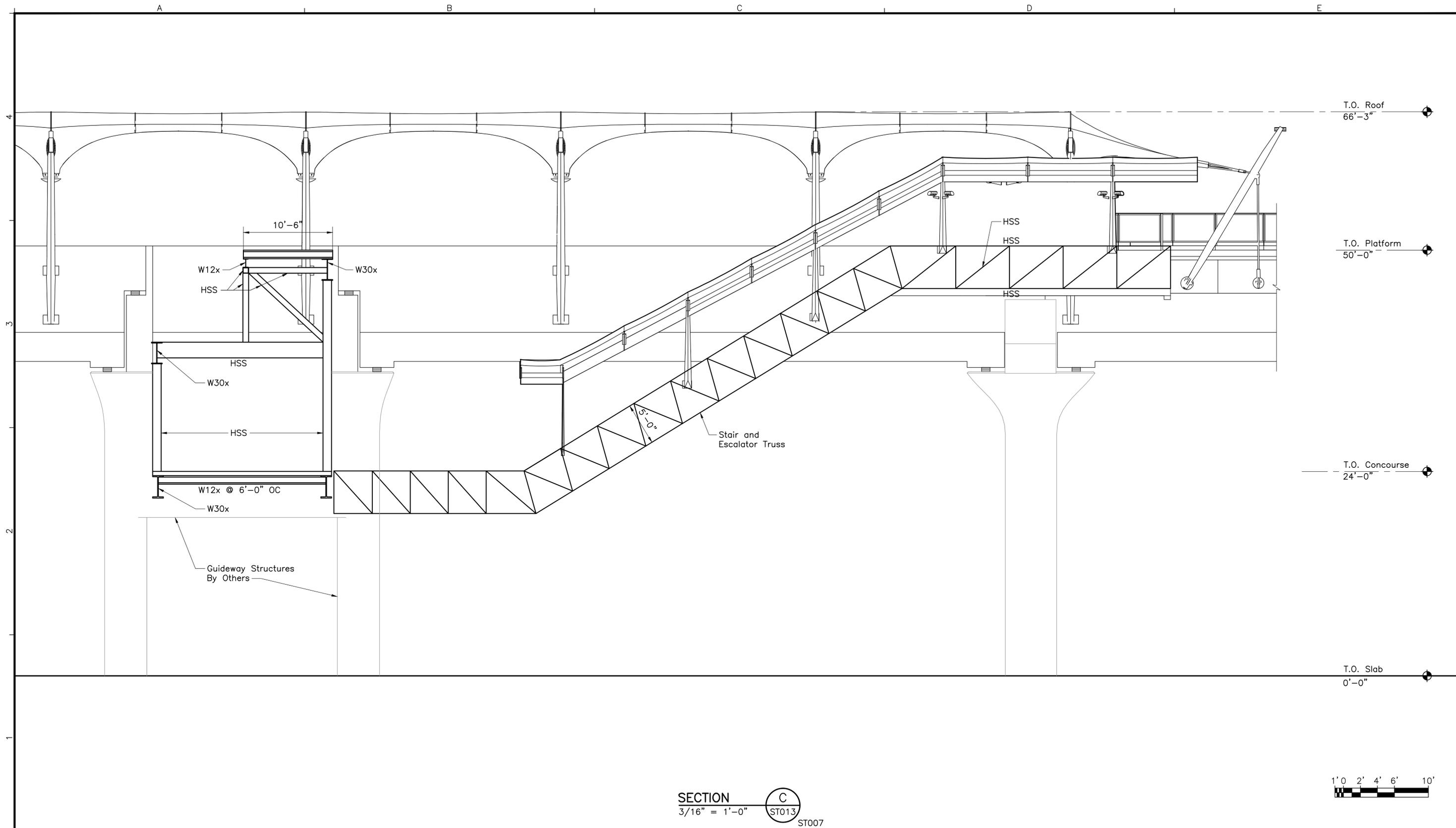
Subconsultant:  
**CONSULTING STRUCTURAL HAWAII, INC.**  
 931 HAUSTEN STREET, SUITE 200  
 HONOLULU, HAWAII 96826

For reduced prints, original page size in inches: 0 1 2 3 4

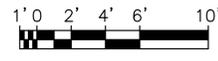
**PEARL HARBOR NAVAL BASE STATION**

**STRUCTURAL  
 SECTION AT TRUSS T-2**

Contract No.:  
SV-440  
 CADD File:  
SJ3-G15-ST012  
 Drawing No: ST012 Rev.  
 Scale:  
3/16" = 1'-0"  
 Page No. 36 of 56



SECTION C  
 3/16" = 1'-0" ST013  
 ST007



Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed: R Yamashiro  
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 Approved: G Suzuki  
 Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

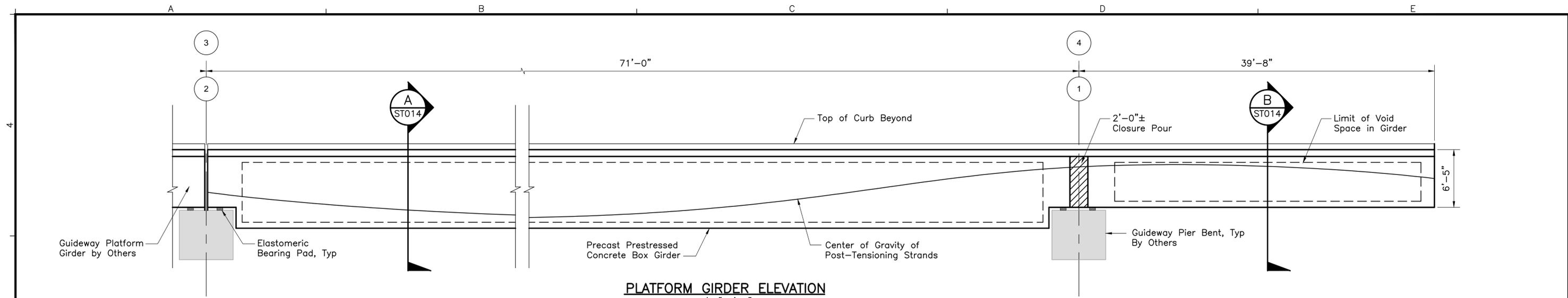
Prime Consultant: **PARSONS BRINCKERHOFF**  
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Subconsultant: **CONSULTING STRUCTURAL HAWAII, INC.**  
 931 HAUSTEN STREET, SUITE 200  
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For reduced prints, original page size in inches: 0 1 2 3 4

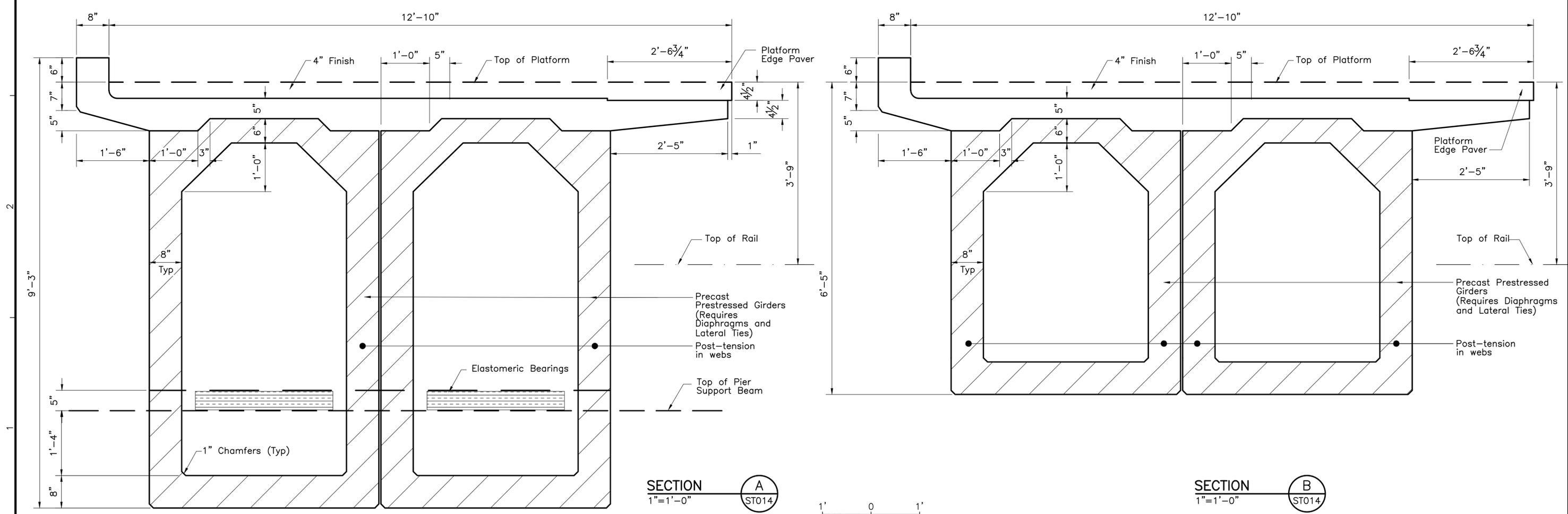
**PEARL HARBOR NAVAL BASE STATION**  
**STRUCTURAL STAIR AND ESCALATOR TRUSS ELEVATION**

Contract No.: SV-440  
 CADD File: SJ3-G15-ST013  
 Drawing No: ST013 Rev.  
 Scale: 3/16" = 1'-0"  
 Page No. 37 of 56



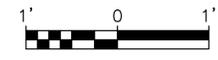
**PLATFORM GIRDER ELEVATION**  
3/16"=1'-0"

\*\* Additional splice in main girder may be necessary if the shipping weight of the main girder exceeds 100 tons and the shipping route does not allow shipment of long girders.



**SECTION A**  
1"=1'-0"  
ST014

**SECTION B**  
1"=1'-0"  
ST014



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
R Yamashiro  
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Approved:  
G Suzuki  
Date:  
01-15-10

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CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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Subconsultant: **CONSULTING STRUCTURAL HAWAII, INC.**  
931 HAUSTEN STREET, SUITE 200  
HONOLULU, HAWAII 96826

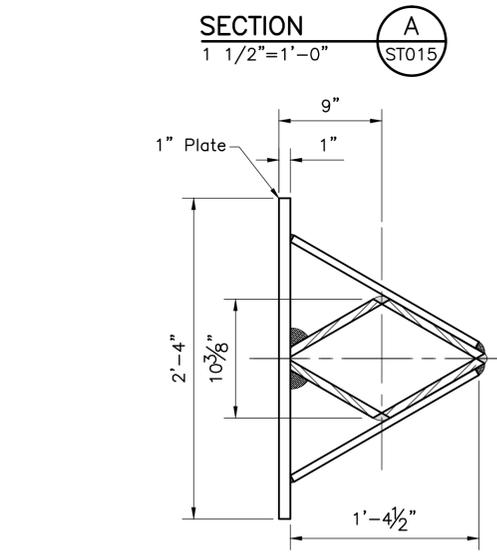
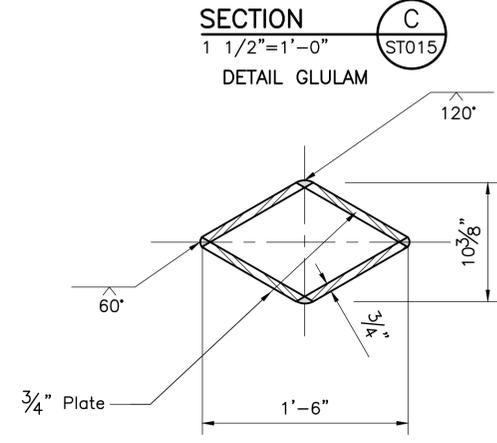
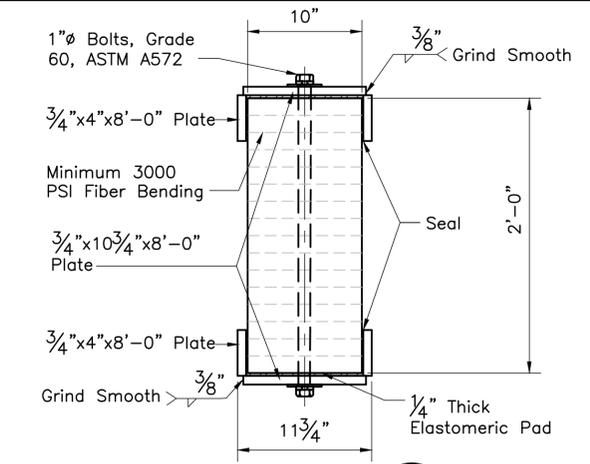
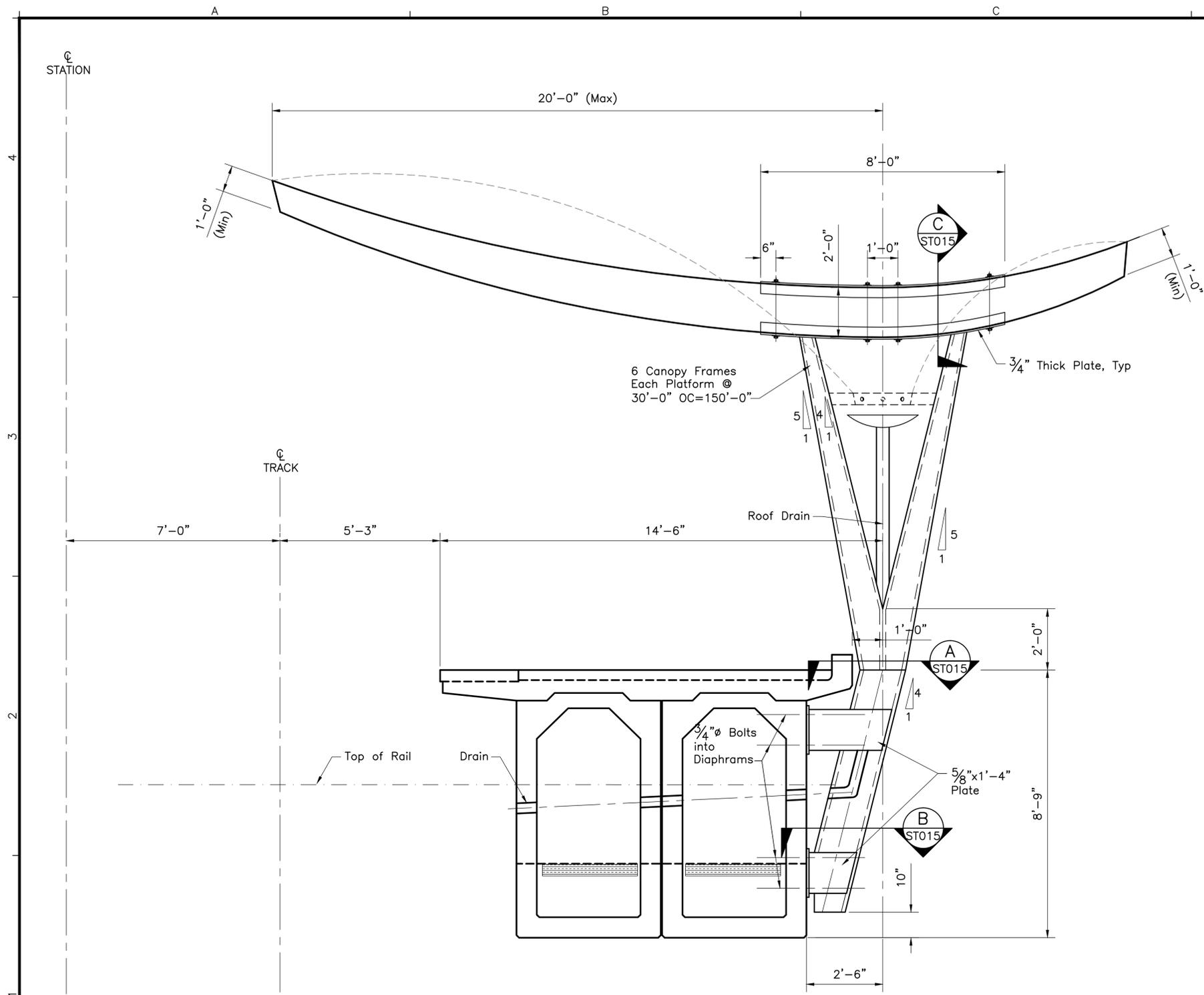
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**PEARL HARBOR NAVAL BASE STATION**

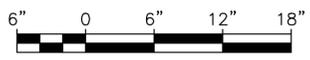
**STRUCTURAL  
PLATFORM PRECAST GIRDER**

**ELEVATION AND SECTION**

Contract No.:	SV-440
CADD File:	SJ3-G15-ST014
Drawing No.:	ST014
Scale:	As Noted
Page No.:	38 of 56



**PLATFORM CANOPY SECTION**  
1/2"=1'-0"



**NOTE:**  
1. See Architectural Directive Drawings for additional canopy details.

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
R Yamashiro  
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J Perreira  
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G Suzuki  
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01-15-10

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HONOLULU, HAWAII 96826

For reduced prints, original page size in inches: 0 1 2 3 4

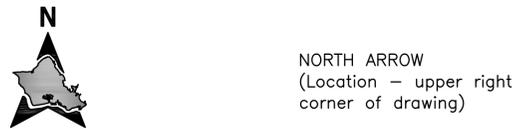
**PEARL HARBOR NAVAL BASE STATION**

**STRUCTURAL  
PLATFORM CANOPY  
DETAILS**

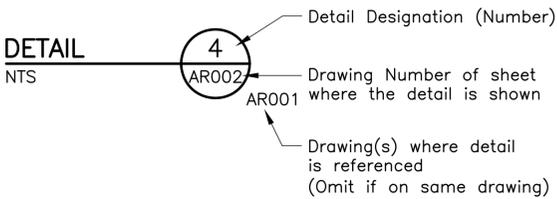
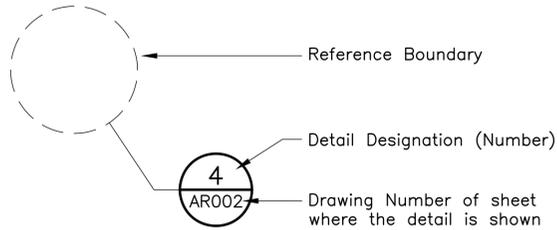
Contract No.: SV-440	Rev.
CADD File: SJ3-G15-ST015	
Drawing No: ST015	
Scale: As Noted	
Page No. 39 of 56	

**GENERAL ARCHITECTURAL NOTES**

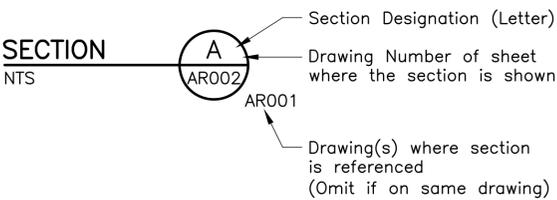
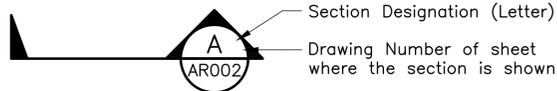
- Station Designer to Coordinate Limits of Work and Interface with the Airport Guideway Contractor.
- Refer to Appendix "A": Informative Drawings, for Work Included in the:
  - Airport Guideway Contract &
  - Core Systems Design-Build-Operate-Maintenance Contract.
- Refer to RTD Architecture Standard and Directive Drawings for Sizing, Configuration and Connections for All System Wide Components Including: Escalators, Elevators, Fare Gates and TVM
- Not in Contract Items (NIC) Include: TVM, Fare Gates, Escalators, & Elevator Cars.
- See RTD Directive Drawings Set for Canopy Details and Configuration.



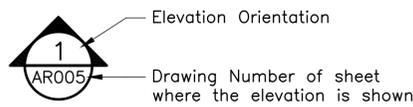
**DETAILS**



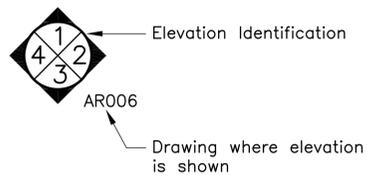
**SECTIONS**



**EXTERIOR ELEVATION(S)**

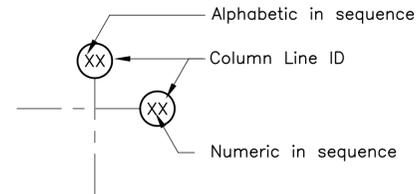


**INTERIOR ELEVATION(S)**



**ARCHITECTURAL SYMBOLS**

**COLUMN LINE GRID INDICATOR**



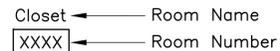
**DOOR OPENING IDENTIFIER**



**EQUIPMENT IDENTIFIER**



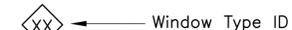
**ROOM IDENTIFICATION**



**WALL TYPE IDENTIFIER**



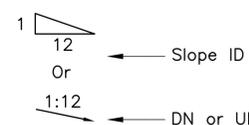
**WINDOW IDENTIFIER**



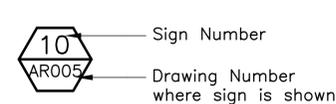
**LOUVER IDENTIFIER**



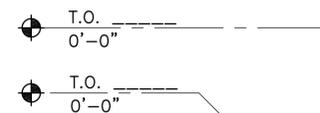
**SLOPE IDENTIFIER**



**SIGN IDENTIFICATION**



**ELEVATION IDENTIFICATION**



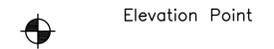
**HATCH**

- Brick
- Concrete Masonry Unit
- Concrete
- Composite Panel
- Earth
- Finished Stone
- Gravel
- Insulation (Batt)
- Insulation (Rigid)
- Metal
- Plywood
- Precast Concrete
- Sand, Grout, Mortar, Plaster
- Tile
- Glass (Elevation)

**GENERAL SYMBOLS**

- & And
- @ At
- # Number
- ∅ Diameter
- % Percent
- = Equal to
- > Greater Than
- < Less Than
- ≥ Greater Than or Equal To
- ≤ Less Than or Equal To

**Station Equation**



**SPECIAL TERMS**

- Makai Ocean
- Mauka Mountain

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: W Deguchi  
 Drawn: D Wong  
 Checked: M Leineweber  
 Approved: K Parmar  
 Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:  
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**PEARL HARBOR NAVAL BASE STATION  
 GENERAL ARCHITECTURAL NOTES  
 SYMBOLS, AND ABBREVIATIONS**

**SHEET 1 OF 3**

Contract No.: SV-440  
 CADD File: SJ3-H01-AG001  
 Drawing No: AG001 Rev.  
 Scale: N/A  
 Page No. 40 of 56

**ARCHITECTURAL ABBREVIATIONS**

<p>AB Anchor Bolt Abnd Abandoned Abt About Abv Above Ac Acre(s) Acc Access Acous Acoustical AD Area Drain ADA Americans with Disabilities Act Addl Additional Adh Adhesive Adj Adjacent, Adjust, Adjustable A/E Architect/Engineer AFC Automatic Fare Collection AFF Above Finished Floor Aggr Aggregate Ahd Ahead Alum Aluminum Alt Alternate, Alternative Anch Anchor Anod Anodized AP Access Panel App Approved Approx Approximate Arch. Architect, Architectural ARV Air Relief Valve ASC Above Suspended Ceiling Asph Asphalt Assm Assembly ASTM American Society for Testing &amp; Materials Auto Automatic Aux Auxiliary Ave Avenue Avg Average</p> <p>Ⓟ Baseline Bal Balance BC Bottom of curb Bd Board Beg Begin, Beginning Bet Between Bitum Bituminous Bldg Building Blk Block, Black Blkg Blocking Blvd Boulevard Blw Below Bk Back BM Benchmark Bm Beam Bol Bollard Bot Bottom BP Back Plaster/Plastered Br Bridge Brz Bronze BS Bottom of Slope, Both Sides Bsmt Basement Btw Between Bvl Beveled</p> <p>Ⓒ Centerline C Cable, Celsius Cab Cabinet Cal Caliper Cap Capacity CB Catch Basin CCTV Closed-circuit television Cem Cement Cer Ceramic CF Cubic Feet CG Corner Guard Cham Chamfer Chk Check CI Cast Iron CIP Cast-in-Place Circ Circle, Circular Circum Circumference CJ Construction Joint, Control Joint CL Chain Link Clg Ceiling</p>	<p>Clkg Caulking Clo Closet Clr Clear, Clearance cm Centimeter CMU Concrete Masonry Unit Cnd Conduit Cntr Counter CO Cleanout Col Column Comm Communication Comp Composite, Component, Comparable, Composition Conc Concrete Cond Condition, Conduit Conf Confirm, Confirmation, Conference Conn Connect, Connection, Connector Const Construction Cont Continuous, Continue Contd Continued Corr Correction, Corrugated, Corridor Coord Coordinate Cpr Copper CR Card Reader CT Ceramic Tile Ctr Center Ctsk Countersunk Cu Cubic CY Cubic Yard Cyl Cylinder</p> <p>D Depth D.B.G. Distance Between Guides Dbl Double DD Down Drain Deg Degree Dept Department Desc Description Det Detail DF Drinking Fountain DI Drain Inlet Dia Diameter Diag Diagonal, Diagram Diaph Diaphragm Dim Dimension Dir Direction Disp Dispenser Div Division Dn Down DO Door Opening Dr Door DS Downspout DTA Dovetail Anchor DTS Dovetail Anchor Slot Dwg Drawing Dwy Driveway</p> <p>E East, Electrical ea Each EB Expansion Joint, Eastbound EE Each End EF Each Face EJ Expansion Joint El Elevation Elec Electrical Elev Elevator Emer Emergency EMP Emergency Management Panel Encl Enclosure Eq Equal Eqmt Equipment Esc Escalator etc Et cetera EW Each Way Exh Exhaust Exist Existing Exp Expansion Expo Exposed Ext Exterior, External</p>	<p>F Fahrenheit, Front FA Fire Alarm FAB Fire Alarm Box FAC Fire Alarm Conduit FAI Fresh Air Intake FB Flat Bar FBO Furnished by Others FC Flexible Connection FCO Floor Cleanout FD Floor Drain Fdn Foundation FE Fire Extinguisher FEC Fire Extinguisher Cabinet FFE Finish Floor Elevation FFL Finish Floor Line FG Finish Grade FH Fire Hydrant, Flat Head FHC Fire Hose Cabinet FHV Fire Hose Valve Fig Figure Fin Finish Fl Floor Flex Flexible Flg Flashing Fluor Fluorescent FOC Face of Concrete FOF Face of Finish FOM Face of Masonry FOS Face of Studs FP Fire Protection Fprf Fireproof FR Fire-rated FS Full Size, Fire Service ft Foot, Feet Ftg Footing Furr Furring Fut Future Fwy Freeway</p> <p>G Gas Ga Gauge gal Gallon Galv Galvanized Gar Garage GB Gypsum Board Gen General GFRC Glass Fiber Reinforce Concrete GI Glass GM Gas Meter Gnd Ground Grl Grille Grn Granite GSM Galvanized Sheet metal Gyp Gypsum</p> <p>H High, Horizontal HB Hose Bibb HD Heavy-duty Hdcp Handicap-ADA Compliant HDOT Hawaii Department of Transportation HDPE High-Density Polyethylene (membrane) Hdr Header Hdw Hardware Hex Hexagonal HFD Honolulu Fire Department HH Handhole HM Hollow Metal Horiz Horizontal HP High Point, High Pressure HPD Honolulu Police Department HR Handrail Hr Hour Ht Height HVAC Heating, Ventilation &amp; Air Conditioning HWP High Working Point Hwy Highway Hydr Hydraulic</p>	<p>I Iron ID Inside Diameter, Identification IE Invert Elevation IF Inside Face in. Inch Incl Included, Including, Inclusive Inf Information Inst Install, Instrument Insul Insulation Int Interior, Internal Inv Invert</p> <p>Jan Janitor JB Junction Box JC Janitor's Closet Jct Junction JF Joint Filler Jt(s) Joint(s)</p> <p>kg Kilogram KP Knockout Panel KO Knock Out</p> <p>L Length LA Landscape Architect Lam Laminate Lat Latitude, Lateral Lav Lavatory LB Pound (unit of measurement) LC Landscape Contractor LF Linear Foot Lg Long LH Left Hand Lin Linear Lkr Locker Ln Lane Loc Location Long Longitude, Longitudinal LP Low Point, Light Pole Lt Light, Left Ltg Lighting Lvl Level LW Lightweight LWP Low Working Point L/T Left Track</p> <p>m Meter (unit of measure) Max Maximum MB Mailbox Mech Mechanical Med Medium Mem Membrane Met Metal Mezz Mezzanine Mfr Manufacturer MH Manhole Min Minimum Mir Mirror Misc Miscellaneous mm Millimeter MO Masonry Opening Mod Modified Mtd Mounted Mtg Meeting, Mounting Matl Material Mul Mullion</p>	<p>N North N/A Not Applicable NB Northbound NE Northeast NIC Not in Contract No. (Nos.) Number (Numbers) Nom Nominal NR Non-rated NS Near Side NTS Not to Scale NW Northwest</p> <p>OA Overall Obs Obscure OC On Center OCS Overhead Contact System OD Outside Diameter OF Outside Face OH Overhead Op Opaque Opng Opening Opp Opposite OSA Outside Supply Air oz Ounce O to O Out to Out</p> <p>PNL Panel PA Public Address, Police Alarm Par Parallel Part Partial PB Pullbox PBX Private Branch Exchange PC Precast Concrete Ped Pedestrian, Pedestal Perf Perforated Perm Permanent PG Profile Grade Pg Page PGL Profile Grade Line Ph Phase PL Property Line PI Plate Plas Plaster Platf Platform P Lam Plastic Laminate PLD Plastic Duct PLT Plastic Tile Plum Plumbing Plywd Plywood Pol Police Pr Pair Proj Project, Projection Prop Property PS Point of Switch PSF Pounds Per Square Feet PSI Pounds Per Square Inch Pt(s) Point(s) Ptd Painted PTD/R Paper Towel Dispenser &amp; Receptacle PVC Polyvinyl Chloride Pvmt Pavement Pwr Power</p> <p>QT Quarry Tile qt Quart Qty Quantity Quad Quadrant</p>
--	---	--	---	---

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
W Deguchi

Drawn:  
D Wong

Checked:  
M Leineweber

Approved:  
K Parmar

Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **DURRANT Media Five**  
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HONOLULU, HAWAII 96813

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**PEARL HARBOR NAVAL BASE STATION**  
**GENERAL ARCHITECTURAL NOTES**  
**SYMBOLS, AND ABBREVIATIONS**

SHEET 2 OF 3

Contract No.: SV-440	Rev.
CADD File: SJ3-H01-AG002	
Drawing No: AG002	N/A
Scale:	
Page No. 41 of 56	

ARCHITECTURAL ABBREVIATIONS (CONTINUED)

R Radius  
 RB Resilient Base  
 RC Reinforced Concrete  
 RCP Reinforced Concrete Pipe  
 RD Roof Drain  
 Rdwy Roadway  
 Rect Rectangle  
 Ref Reference  
 Refl Reflect, Reflected, Reflective, Reflector  
 Reinf Reinforce, Reinforcing, Reinforcement  
 Repl Replace  
 Req Required  
 Resil Resilient  
 Ret Return, Retain, Retaining  
 Rev Revised, Revision  
 Rfg Roofing  
 RH Right Hand  
 Rm Room  
 RO Rough Opening  
 ROW Right-of-Way  
 Rt Right  
 RT Resilient Tile  
 R/T Right Track  
 RW Retaining Wall

S South  
 San Sanitary  
 SB Southbound  
 SC Solid Core  
 SCD Seat Cover Dispenser  
 Sch Schedule  
 SD Soap Dispenser  
 SE Southeast  
 Sect Section  
 SF Square Foot, Square Feet  
 SFP Site Finish Plan  
 Sgl Single  
 Sht Sheet  
 Sim Similar  
 SIP Support in Place  
 SL Street Light  
 SLC Street Light Conduit  
 SLPB Street Light Pull Box  
 SND Sanitary Napkin Dispenser  
 SNR Sanitary Napkin Receptacle  
 Spa. Spaces, Spacing  
 Spec Specification  
 Spkr Speaker  
 Spr Sprinkler  
 Sq Square  
 SS Service Sink, Stainless Steel  
 St Street  
 Sta Station, Stationing  
 Std Standard  
 Stl Steel  
 Stor Storage  
 Str Structure  
 Strl Structural  
 Supv Supervisor, Supervise  
 Susp Suspended  
 SW Southwest  
 SY Square Yard  
 Sym Symmetrical  
 Sys System

T Top  
 T.O. Top of  
 T&B Top and Bottom  
 Tan. Tangent  
 TBD To Be Determined  
 TC Top of Curb  
 TCCR Train Control & Communications Room  
 TD Trench Drain  
 TDD Telecommunications Device for the Deaf  
 Tel Telephone  
 Tele Telescoping  
 Temp Temporary, Temperature  
 TG Top of Grate  
 T&G Tongue and Groove  
 Thk Thick, Thickness  
 TL Traffic Light  
 TOC Top of Concrete  
 TOR Top of Rail  
 TOS Top of Steel  
 Tot. Total  
 TOW Top of Wall  
 TP Top of Pavement  
 TPD Toilet Paper Dispenser  
 TPSS Traction Power Substation  
 Tr Tread  
 TV Television, Ticket Validator  
 TVM Ticket Vending Machine  
 Typ Typical  
 T/C Top of Curb  
 T/R Top of Rail  
 T/P Top of Platform

UB Utility Box  
 UC Undercut  
 UD Underdrain  
 Unf Unfinished  
 Unk Unknown  
 UNO Unless Noted Otherwise  
 UPE Under Platform Exhaust  
 UR Urinal  
 UST Underground Storage Tank  
 Util Utility  
 UWP Upper Working Point

V Vertical  
 Vac Vacuum  
 Var Variable, Varies  
 VCT Vinyl Composition Tile  
 Vent. Ventilate, Ventilation  
 Vert Vertical  
 Vest Vestibule  
 Vlv Valve  
 VMS Variable Message Sign  
 VoIP Voice over Internet Protocol  
 Vt Vent

W West, Wide, Width  
 w/ With  
 w/o Without  
 WB Westbound  
 WC Water Closet  
 WCR Wheel Chair Ramp  
 Wd Wood  
 Whse Warehouse  
 WI Wrought Iron  
 Wk Work  
 WL Water Line  
 WM Water Meter, Water Main  
 WP Work Point  
 Wpf Waterproof, Waterproofing  
 WSP Wet Stand Pipe  
 Wt Weight  
 Wtr Water  
 WTW Wall to Wall  
 WV Water Valve  
 WWF Welded Wire Fabric  
 WWM Welded Wire Mesh

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed:  
W Deguchi  
 Drawn:  
D Wong  
 Checked:  
M Leineweber  
 Approved:  
K Parmar  
 Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:  
  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:  
  
 345 QUEEN STREET, SUITE 901  
 HONOLULU, HAWAII 96813

PEARL HARBOR NAVAL BASE STATION  
 GENERAL ARCHITECTURAL NOTES  
 SYMBOLS, AND ABBREVIATIONS

SHEET 3 OF 3

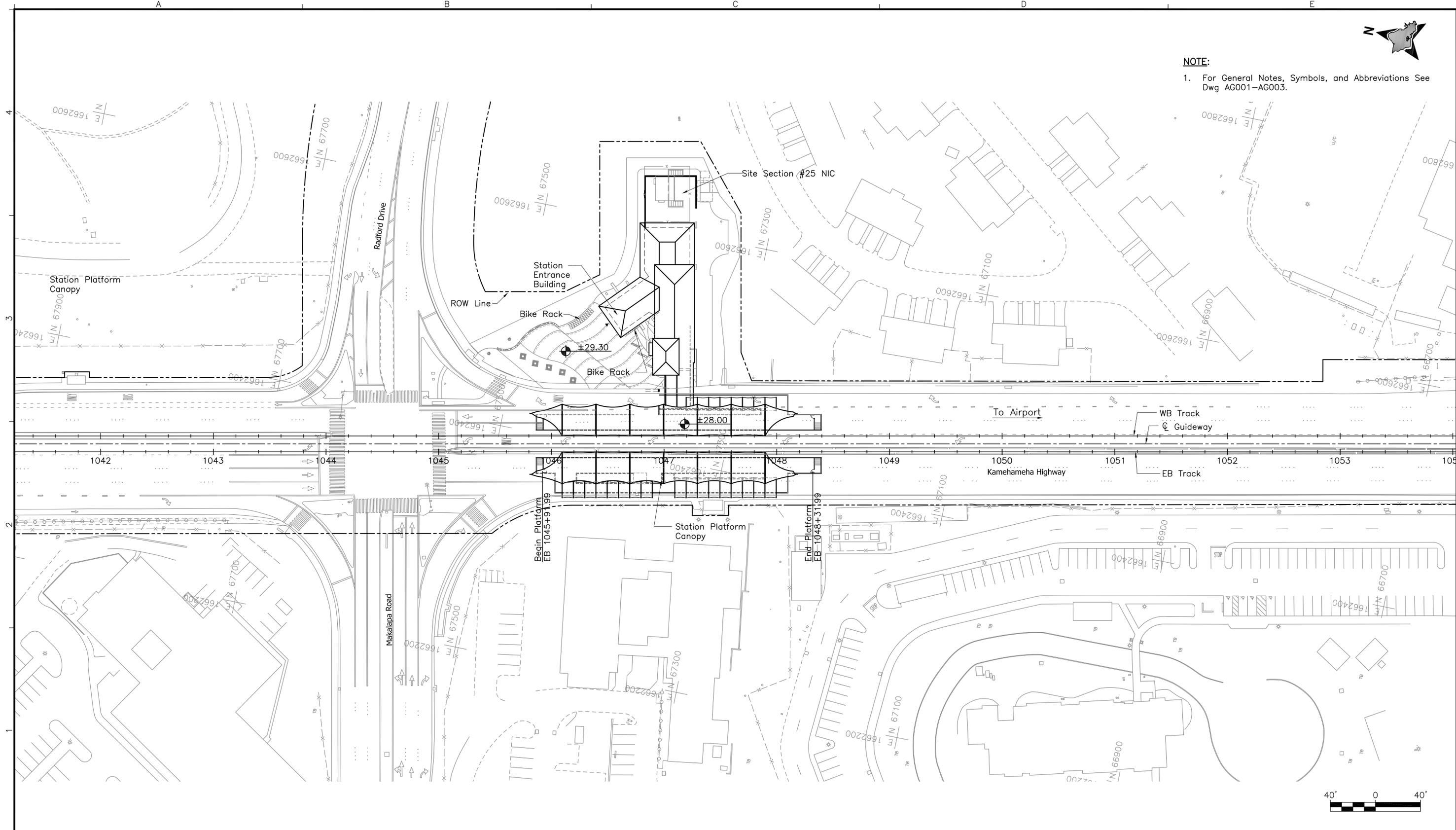
Contract No.:  
SV-440  
 CADD File:  
SJ3-H01-AG003  
 Drawing No: AG003 Rev.  
 Scale:  
N/A  
 Page No. 42 of 56

Rev	By	Date	Description

For reduced prints, original page size in inches: 0 1 2 3 4



**NOTE:**  
 1. For General Notes, Symbols, and Abbreviations See Dwg AG001-AG003.



Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed:  
W Deguchi  
 Drawn:  
D Wong  
 Checked:  
M Leineweber  
 Approved:  
K Parmar  
 Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

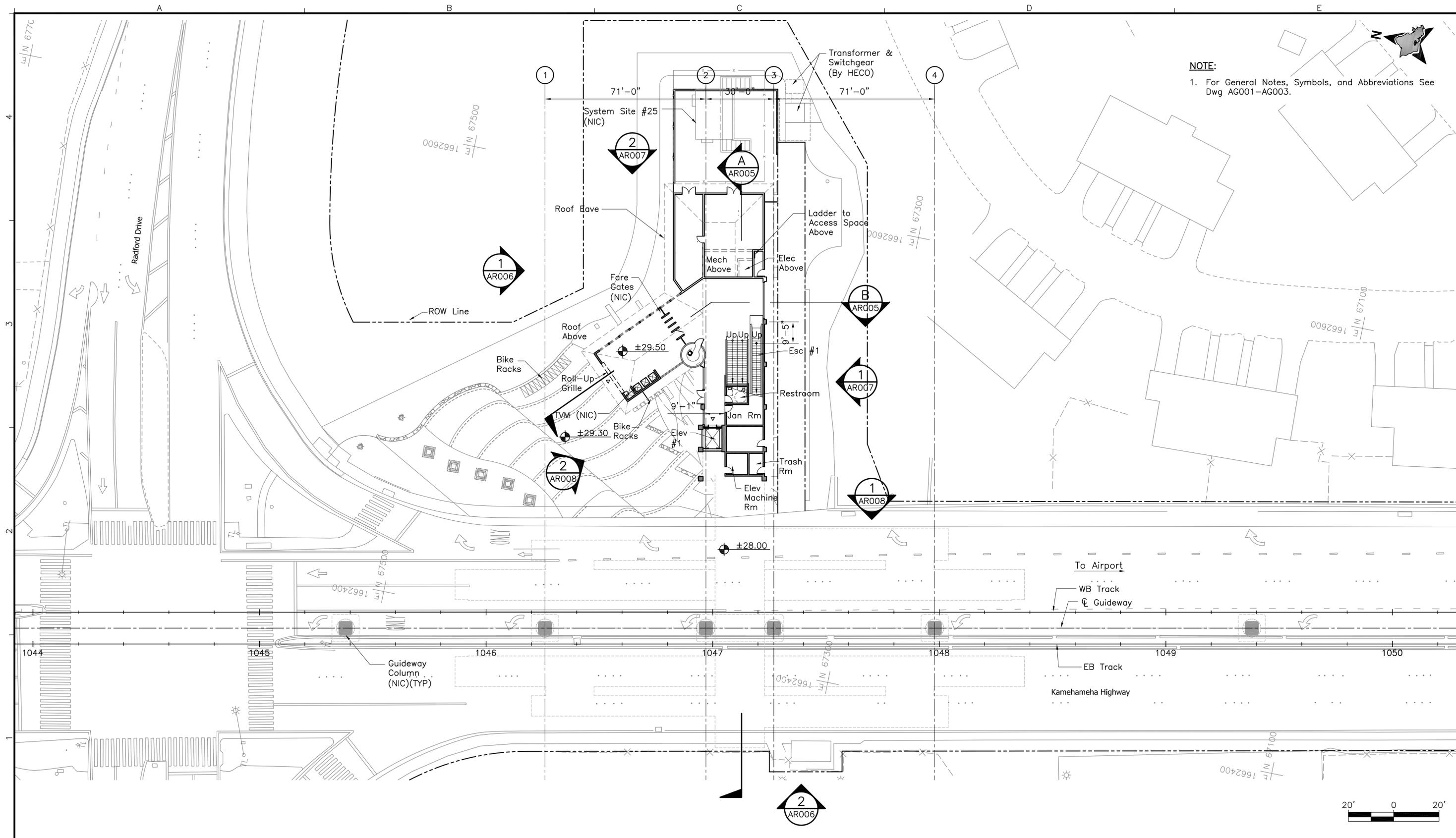
Prime Consultant:  
**PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:  
**DURRANT Media Five**  
 345 QUEEN STREET, SUITE 901  
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**PEARL HARBOR NAVAL BASE STATION  
 ARCHITECTURAL SITE PLAN**

Contract No.:  
SV-440  
 CADD File:  
SJ3-H02-AR001  
 Drawing No: AR001 Rev.  
 Scale:  
1" = 40'  
 Page No. 43 of 56



**NOTE:**  
 1. For General Notes, Symbols, and Abbreviations See Dwg AG001-AG003.



Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed: W Deguchi  
 Drawn: D Wong  
 Checked: M Leineweber  
 Approved: K Parmar  
 Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

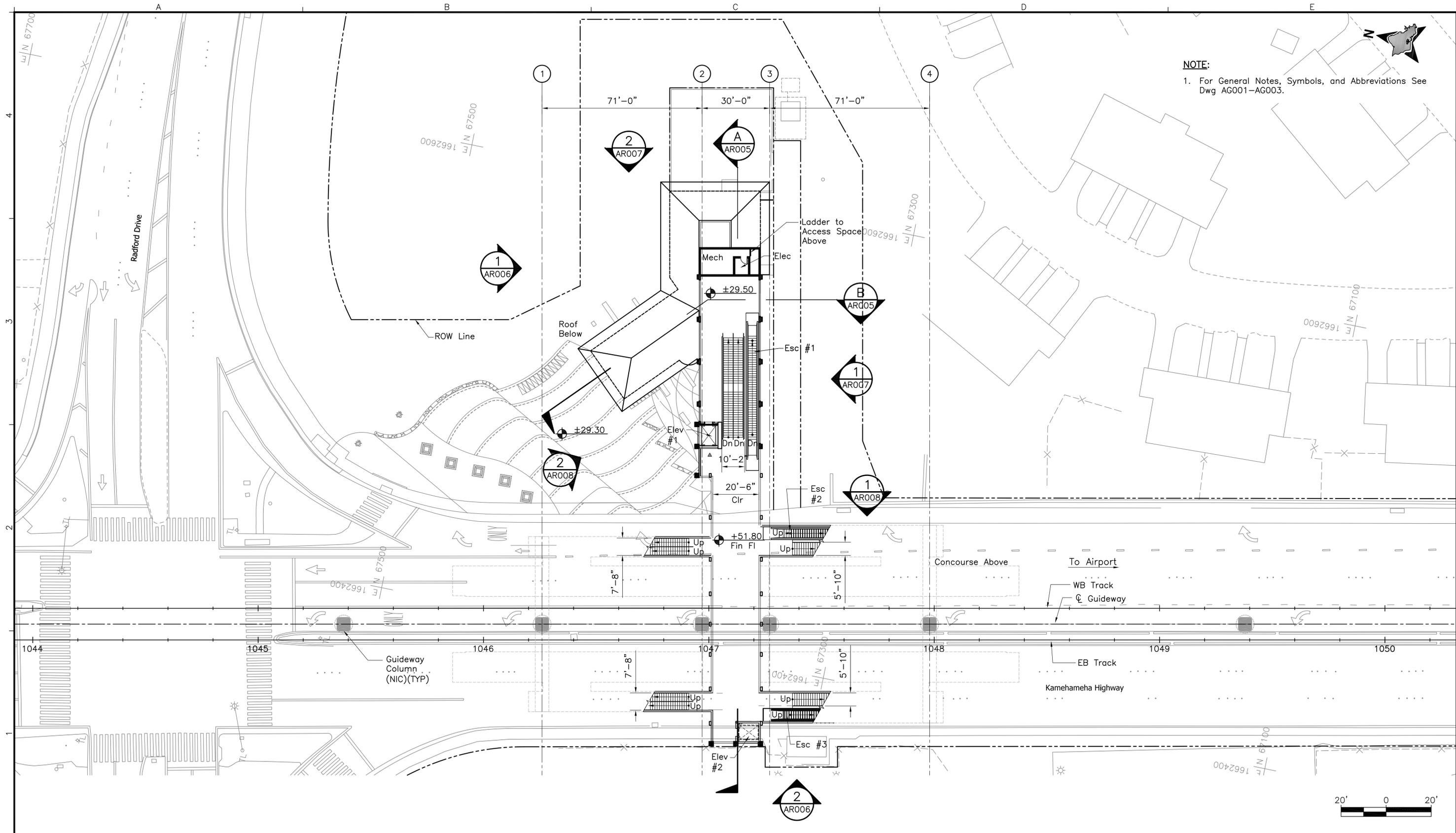
Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **DURRANT Media Five**  
 345 QUEEN STREET, SUITE 901  
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**PEARL HARBOR NAVAL BASE STATION  
 GROUND FLOOR LEVEL PLAN**

Contract No.: SV-440  
 CADD File: SJ3-H03-AR002  
 Drawing No: AR002 Rev.  
 Scale: 1" = 20'  
 Page No. 44 of 56



**NOTE:**  
 1. For General Notes, Symbols, and Abbreviations See Dwg AG001-AG003.



Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed: W Deguchi  
 Drawn: D Wong  
 Checked: M Leineweber  
 Approved: K Parmar  
 Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

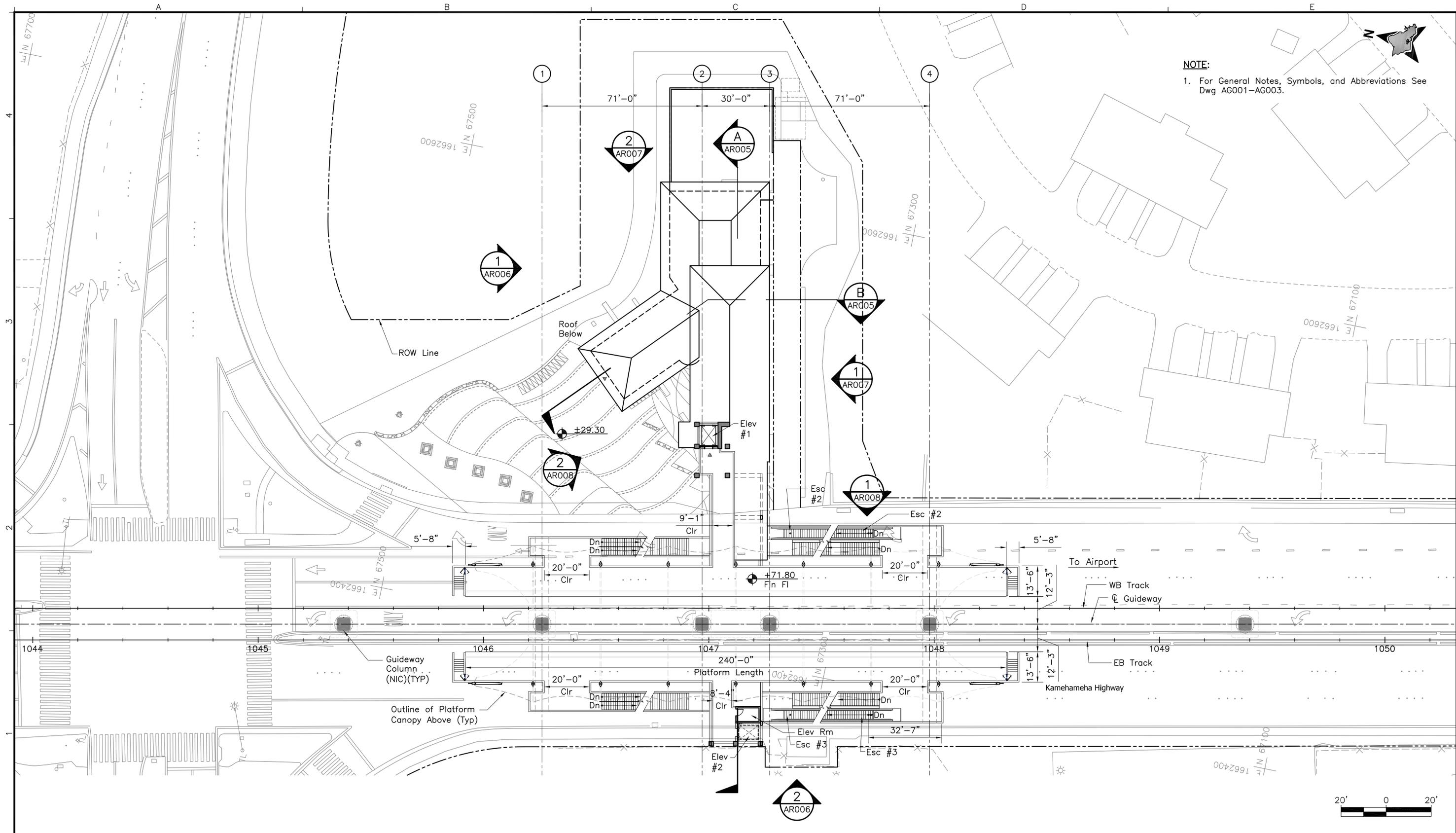
Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **DURRANT Media Five**  
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**PEARL HARBOR NAVAL BASE STATION  
 CONCOURSE LEVEL PLAN**

Contract No.: SV-440  
 CADD File: SJ3-H03-AR003  
 Drawing No: AR003 Rev.  
 Scale: 1" = 20'  
 Page No. 45 of 56



**NOTE:**  
 1. For General Notes, Symbols, and Abbreviations See Dwg AG001-AG003.

Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed: W Deguchi  
 Drawn: D Wong  
 Checked: M Leineweber  
 Approved: K Parmar  
 Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

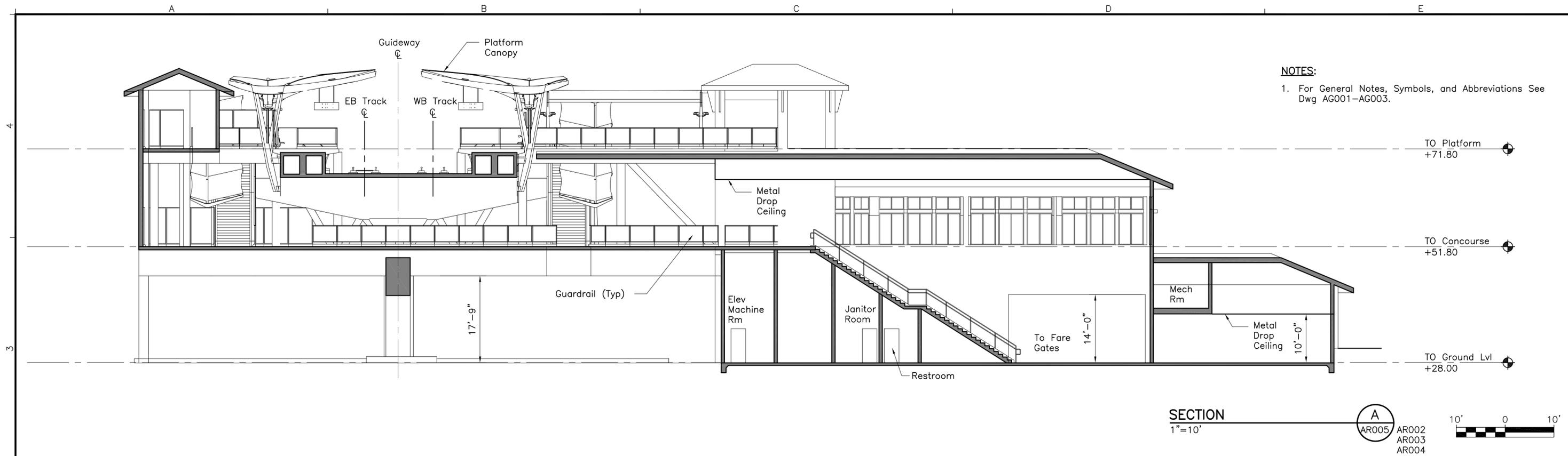
Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: **DURRANT Media Five**  
 345 QUEEN STREET, SUITE 901  
 HONOLULU, HAWAII 96813

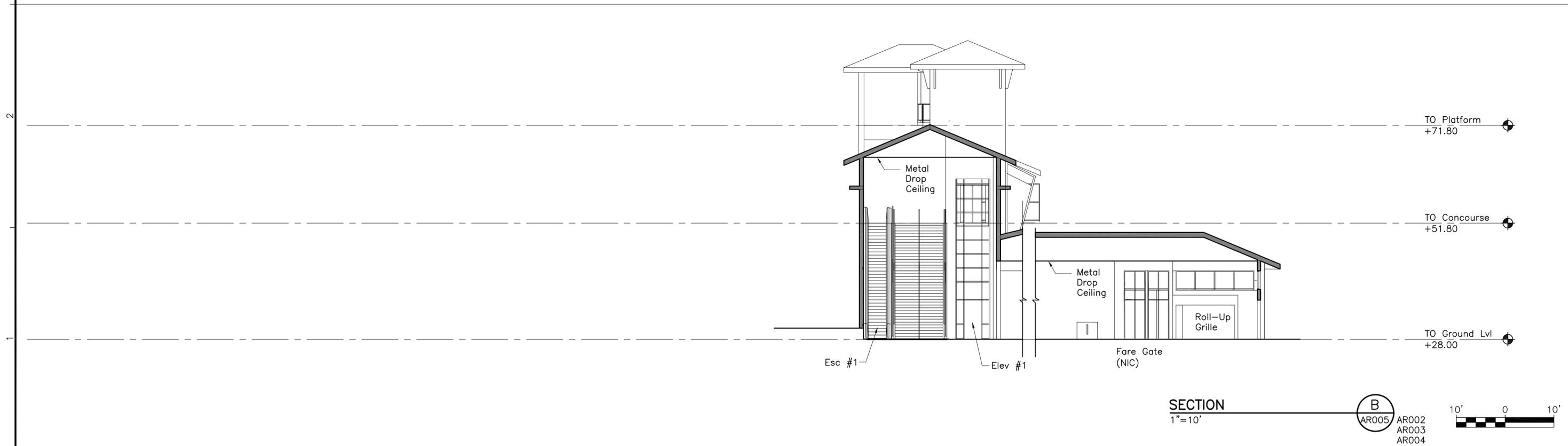
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**PEARL HARBOR NAVAL BASE STATION  
 PLATFORM LEVEL PLAN**

Contract No.: SV-440  
 CADD File: SJ3-H03-AR004  
 Drawing No: AR004 Rev.  
 Scale: 1" = 20'  
 Page No. 46 of 56



**NOTES:**  
 1. For General Notes, Symbols, and Abbreviations See Dwg AG001-AG003.



Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed:  
W Deguchi  
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D Wong  
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M Leineweber  
 Approved:  
K Parmar  
 Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

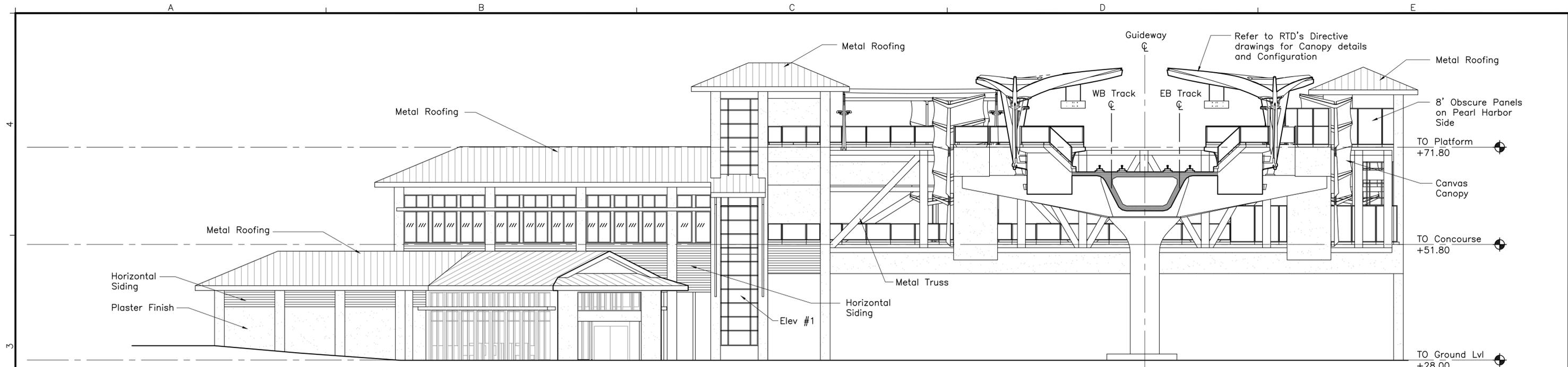
Prime Consultant:  
**PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:  
**DURRANT Media Five**  
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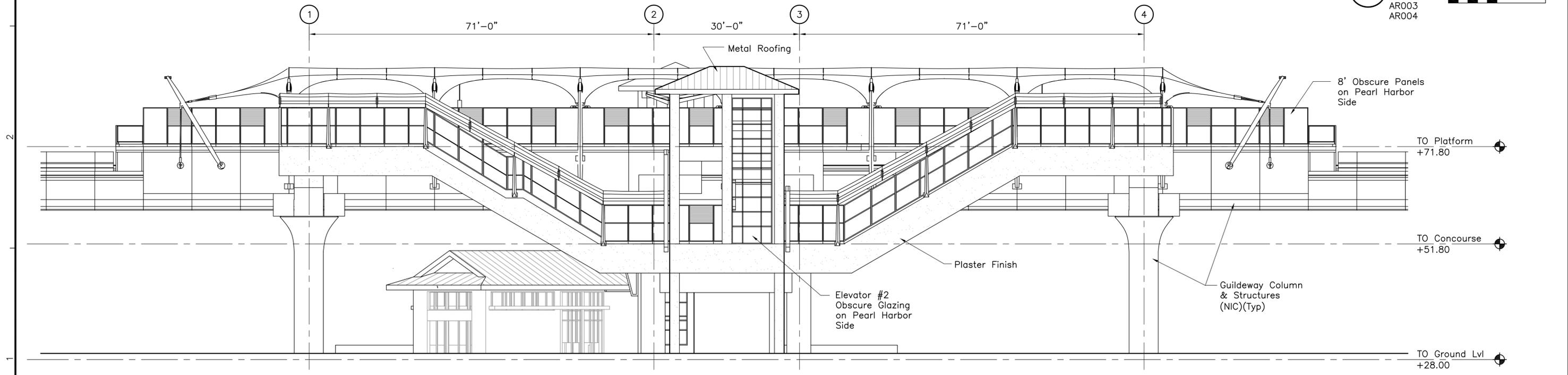
**PEARL HARBOR NAVAL BASE STATION**  
**BUILDING SECTIONS**

Contract No.:  
SV-440  
 CADD File:  
SJ3-H05-AR005  
 Drawing No:  
AR005  
 Scale:  
1" = 10'  
 Page No.  
47 of 56



**NOTE:**  
 1. For General Notes, Symbols, and Abbreviations See Dwg AG001-AG003.

**NORTH ELEVATION**  
 1"=10'  
 1 AR006 AR002 AR003 AR004



**WEST ELEVATION**  
 1"=10'  
 2 AR006 AR002 AR003 AR004

Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed: W Deguchi  
 Drawn: D Wong  
 Checked: M Leineweber  
 Approved: K Parmar  
 Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

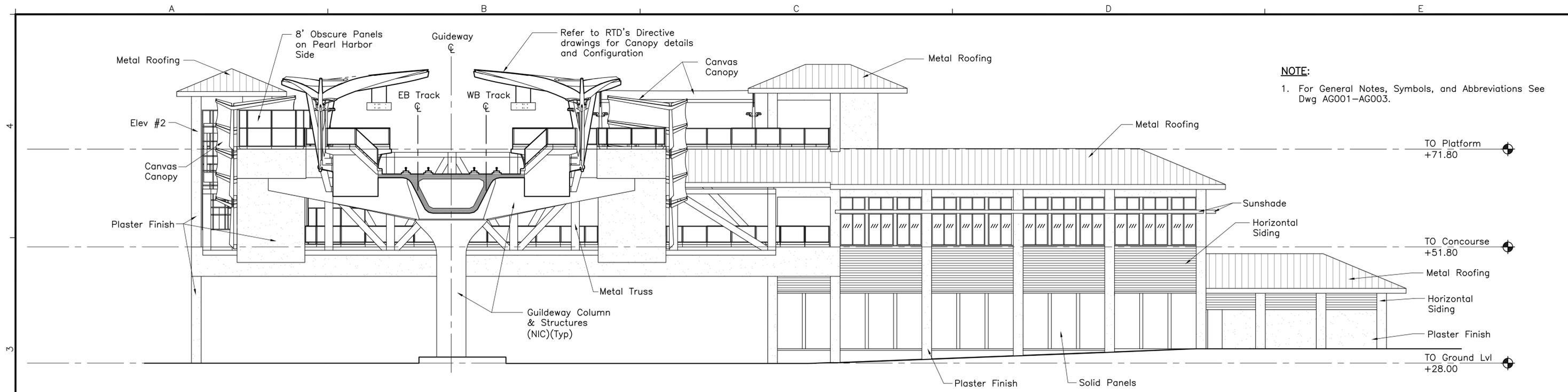
Subconsultant: **DURRANT Media Five**  
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 HONOLULU, HAWAII 96813

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**PEARL HARBOR NAVAL BASE STATION**  
**BUILDING ELEVATIONS**

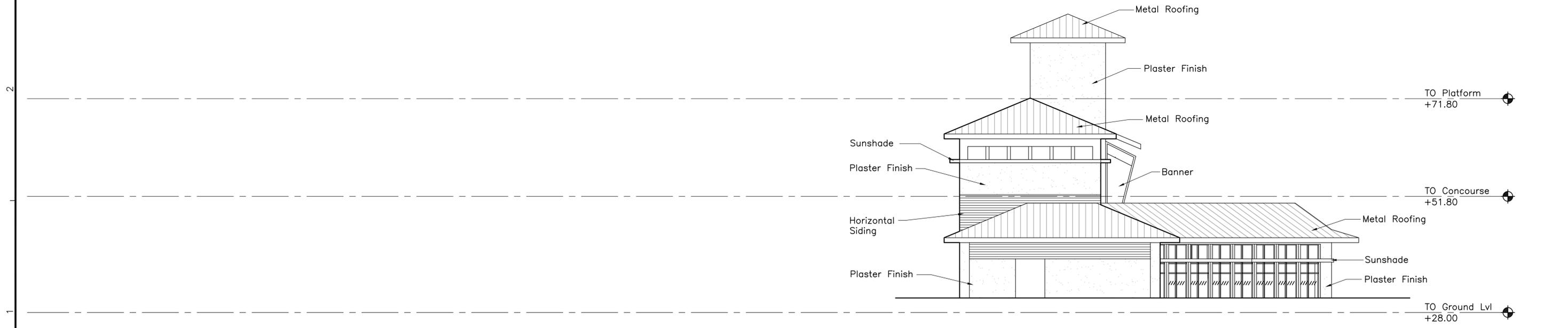
**SHEET 1 OF 3**

Contract No.: SV-440	
CADD File: SJ3-H06-AR006	
Drawing No: AR006	Rev.
Scale: 1" = 10'	
Page No. 48	of 56



**SOUTH ELEVATION**  
1"=10'

1  
AR007 AR002  
AR003 AR004



**EAST ELEVATION**  
1"=10'

2  
AR007 AR002  
AR003 AR004



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
W Deguchi  
Drawn:  
D Wong  
Checked:  
M Leineweber  
Approved:  
K Parmar  
Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:  
**PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

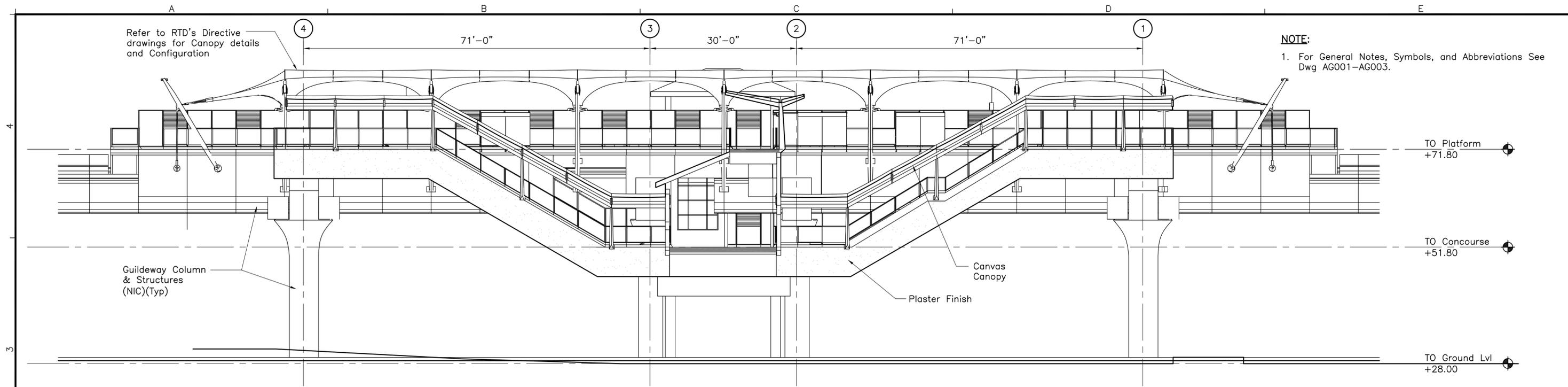
Subconsultant:  
**DURRANT Media Five**  
345 QUEEN STREET, SUITE 901  
HONOLULU, HAWAII 96813

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**PEARL HARBOR NAVAL BASE STATION  
BUILDING ELEVATIONS**

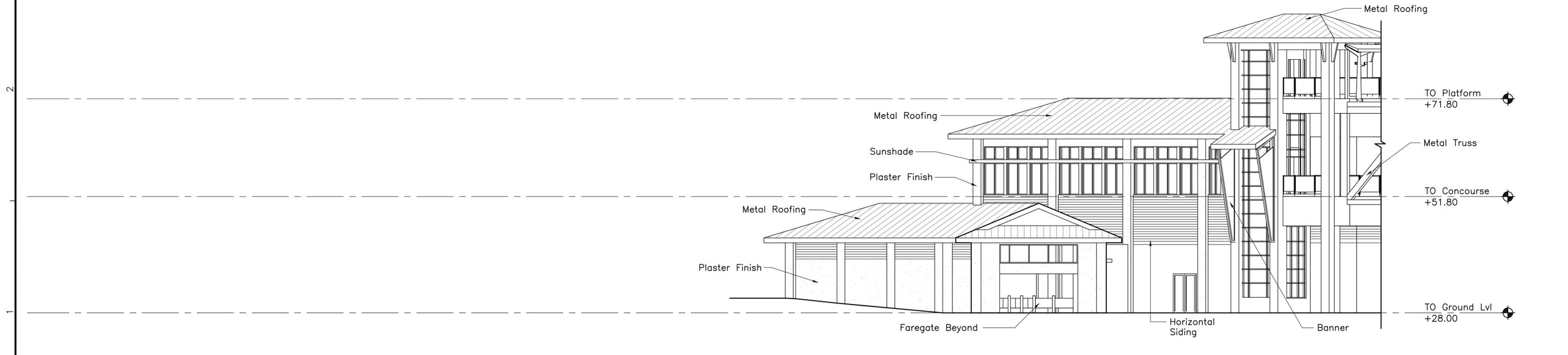
**SHEET 2 OF 3**

Contract No.: SV-440	
CADD File: SJ3-H06-AR007	
Drawing No: AR007	Rev.
Scale: 1" = 10'	
Page No. 49	of 56



**SOUTH ELEVATION**  
1"=10'

1  
AR007 AR002  
AR003 AR004



**EAST ELEVATION**  
1"=10'

2  
AR007 AR002  
AR003 AR004



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
W Deguchi  
Drawn:  
D Wong  
Checked:  
M Leineweber  
Approved:  
K Parmar  
Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
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Subconsultant: **DURRANT Media Five**  
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HONOLULU, HAWAII 96813

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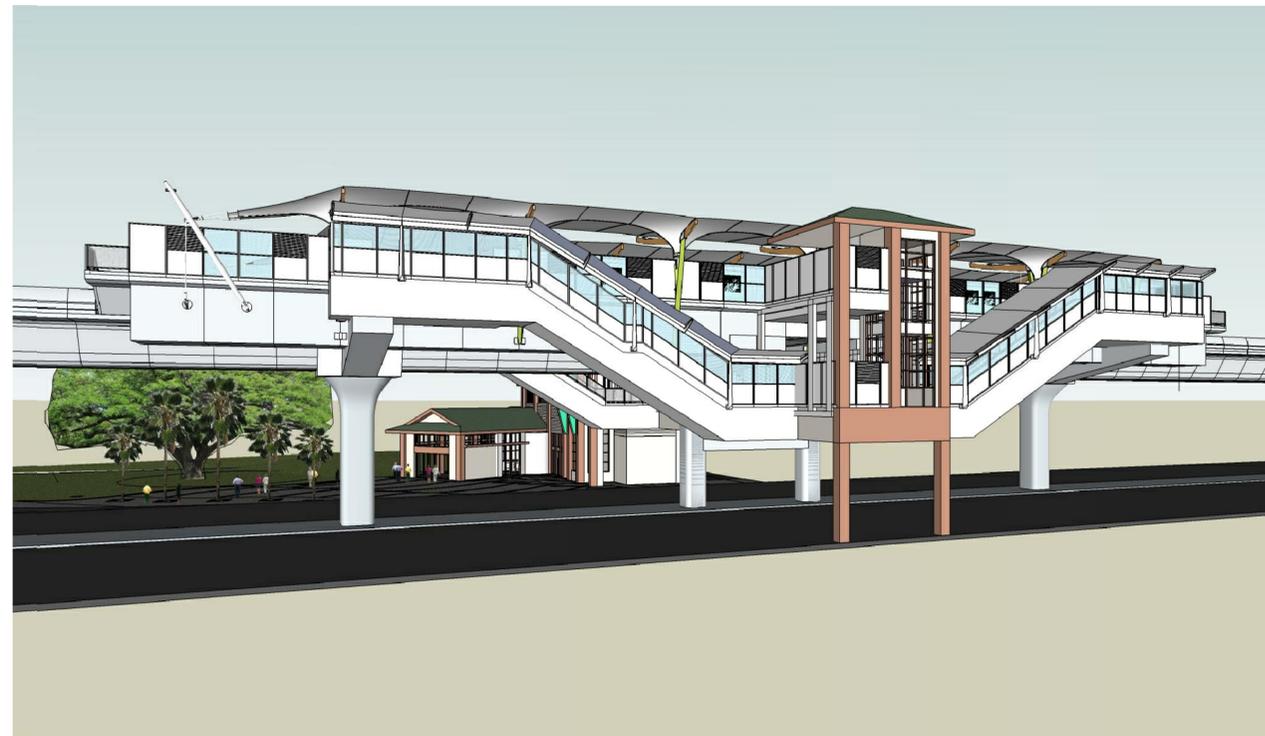
**PEARL HARBOR NAVAL BASE STATION  
BUILDING ELEVATIONS**

**SHEET 3 OF 3**

Contract No.: SV-440	Rev.
CADD File: SJ3-H06-AR008	
Drawing No: AR008	
Scale: 1" = 10'	
Page No. 50 of 56	



Back of House  
N/A



From Pearl Harbor  
N/A



Entry Aerial  
N/A



Entry Ground Level  
N/A



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
W Deguchi  
Drawn:  
D Wong  
Checked:  
M Leinweber  
Approved:  
K Parmar  
Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION  
Prime Consultant:  
**PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
Subconsultant:  
**DURRANT Media Five**  
345 QUEEN STREET, SUITE 901  
HONOLULU, HAWAII 96813  
For reduced prints, original page size in inches: 0 1 2 3 4

PEARL HARBOR NAVAL BASE STATION  
**3D VIEWS**

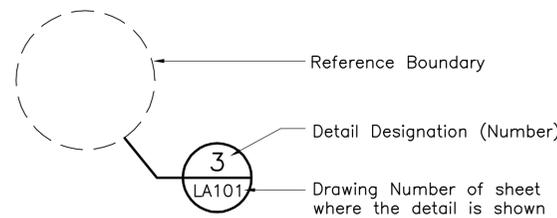
Contract No.:  
SV-440  
CADD File:  
SJ3-H06-AR009  
Drawing No: AR009 Rev.  
Scale:  
N/A  
Page No. 51 of 56

**GENERAL NOTES**

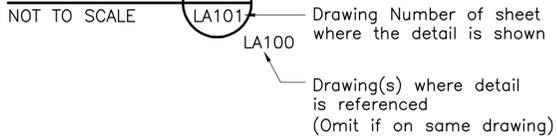
- "EB Track" denotes the centerline of the Eastbound Track. "WB Track" denotes the centerline of the Westbound Track.
- Origin of Coordinates: Hawaii State Plane Coordinate Grid System, Zone III with the North American Datum of 83 High Accuracy Reference Network (NAD83 HARN).
- The proposed WB Track alignment stationing equals to the proposed EB Track alignment stationing in all parallel tangent sections. Station equations are given at the endpoint of each westbound curve.
- Underground facilities, poles, structures, and utilities have been plotted from available surveys and records. Their locations must be considered approximate only. There may be others, the existence of which is at present unknown. Verification of all the locations, shown or not shown, will be the responsibility of the contractor.
- The existing conditions shown hereon are based on LiDAR data collected in September and October of 2007, supplemental ground surveys were performed between September of 2007 and December of 2008, and record information from various design projects either constructed, under construction, or proposed. The selected designer is responsible for verifying existing conditions prior to supplying advanced design documents to the RTD.
- Contact the Hawaii Department of Transportation (HDOT) and/or the City and County of Honolulu for additional plan sheet details not included in the Standard Details Summary and Standards Plans Summary plan sheets.
- All planting areas to receive 3 inches minimum depth crushed aggregate mulch on landscape weed barrier fabric except at ground cover areas or unless noted otherwise.

**SYMBOLS**

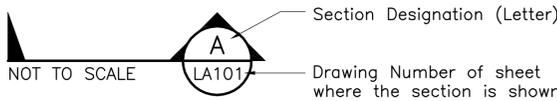
DETAILS



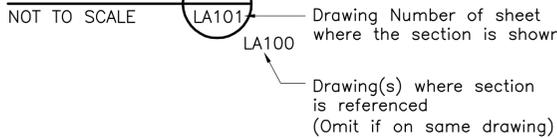
DETAIL



SECTIONS



SECTION



GENERAL SYMBOLS

- & And
- @ At
- # Number
- ∅ Diameter
- % Percent
- = Equal
- > Greater Than
- < Less Than
- ≥ Greater Than or Equal To
- ≤ Less Than or Equal To
- Guideway Column (NIC)

LANDSCAPE SYMBOLS

- Proposed Trees
- Proposed Palms
- Proposed Shrubs
- Shrub Areas
- Groundcovers
- Hedges
- Lawn
- Gravel Maintenance Strip
- Decorative Iron Tree Grate
- Seatwalls
- Tree / Shrub Bubbler
- Location of Irrigation Equipment: Controller, POC
- Low-Flow Drip Irrigated Area
- Overhead Spray Irrigated Area
- Concrete Landscape Header

**ABBREVIATIONS**

- ℄ Baseline
- ℄ Centerline
- Conc Concrete
- Dia Diameter
- Dwg Drawing
- EB Eastbound
- GB# Gap Breaker
- Max Maximum
- Min Minimum
- MH Manhole
- N/A Not Applicable
- NB Northbound
- NIC Not in Contract
- NTS Not to scale
- POC Point of Connection
- ROW Right of Way
- SB Southbound
- SR State Route
- TBD To Be Determined
- Typ Typical
- WB Westbound

SPECIAL TERMS

- Makai Ocean
- Mauka Mountain

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: K Fishman  
 Drawn: K Fishman  
 Checked: R Higa  
 Approved: R S Duncan  
 Date: 01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

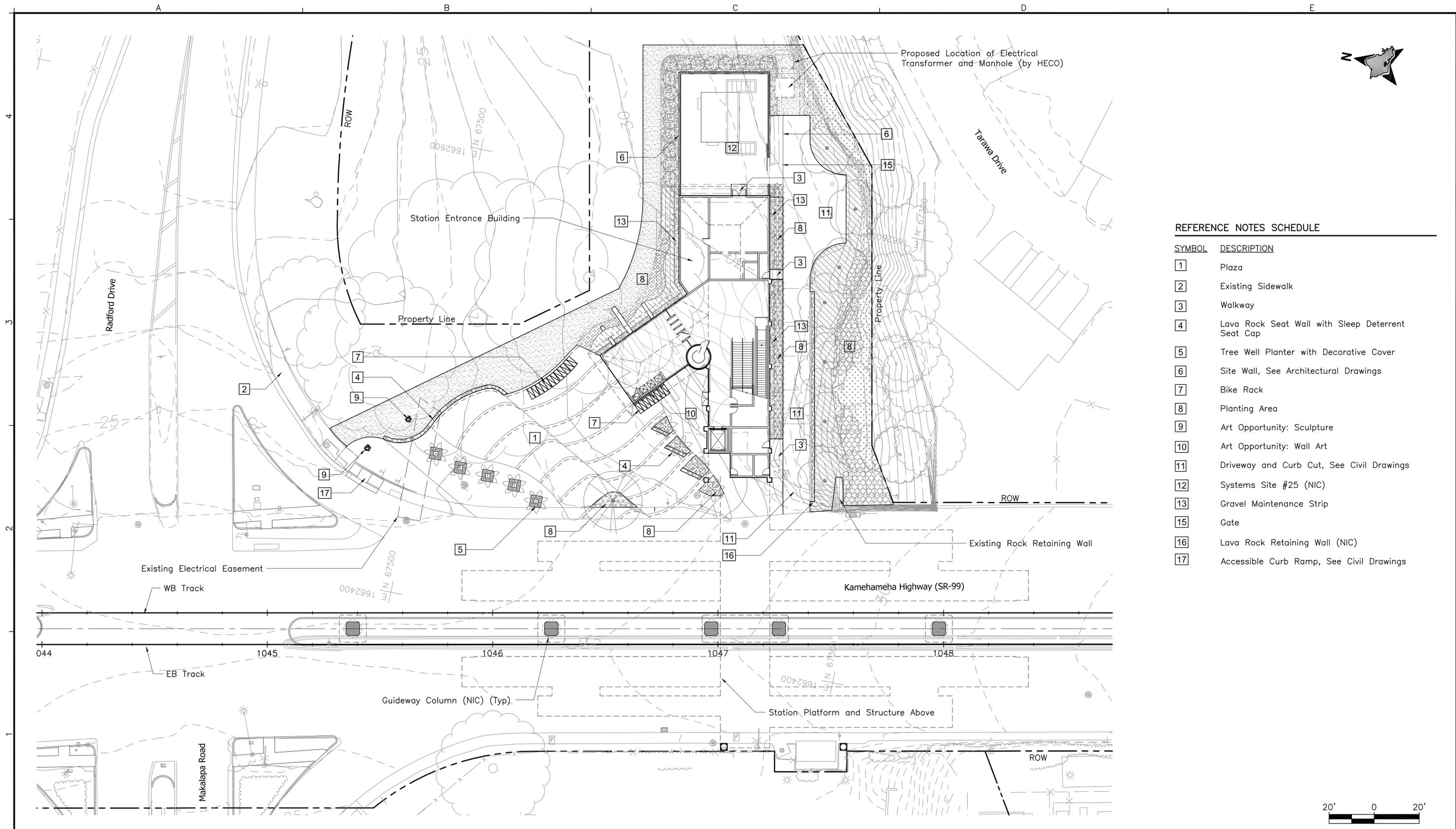
Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: Land Planning, Landscape Architecture, Environmental Studies, Graphic Design  
**PBR HAWAII & ASSOCIATES, INC.**  
 1001 Bishop Street, Suite 650  
 Honolulu, HI 96813

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**PEARL HARBOR NAVAL BASE STATION  
GENERAL LANDSCAPE NOTES,  
SYMBOLS, AND ABBREVIATIONS**

Contract No.: SV-440
CADD File: SJ3-J01-LG001
Drawing No: LG001 Rev.
Scale: N/A
Page No. 52 of 56



**REFERENCE NOTES SCHEDULE**

SYMBOL	DESCRIPTION
1	Plaza
2	Existing Sidewalk
3	Walkway
4	Lava Rock Seat Wall with Sleep Deterrent Seat Cap
5	Tree Well Planter with Decorative Cover
6	Site Wall, See Architectural Drawings
7	Bike Rack
8	Planting Area
9	Art Opportunity: Sculpture
10	Art Opportunity: Wall Art
11	Driveway and Curb Cut, See Civil Drawings
12	Systems Site #25 (NIC)
13	Gravel Maintenance Strip
15	Gate
16	Lava Rock Retaining Wall (NIC)
17	Accessible Curb Ramp, See Civil Drawings

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
K Fishman  
Drawn:  
K Fishman  
Checked:  
R Higa  
Approved:  
R S Duncan  
Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

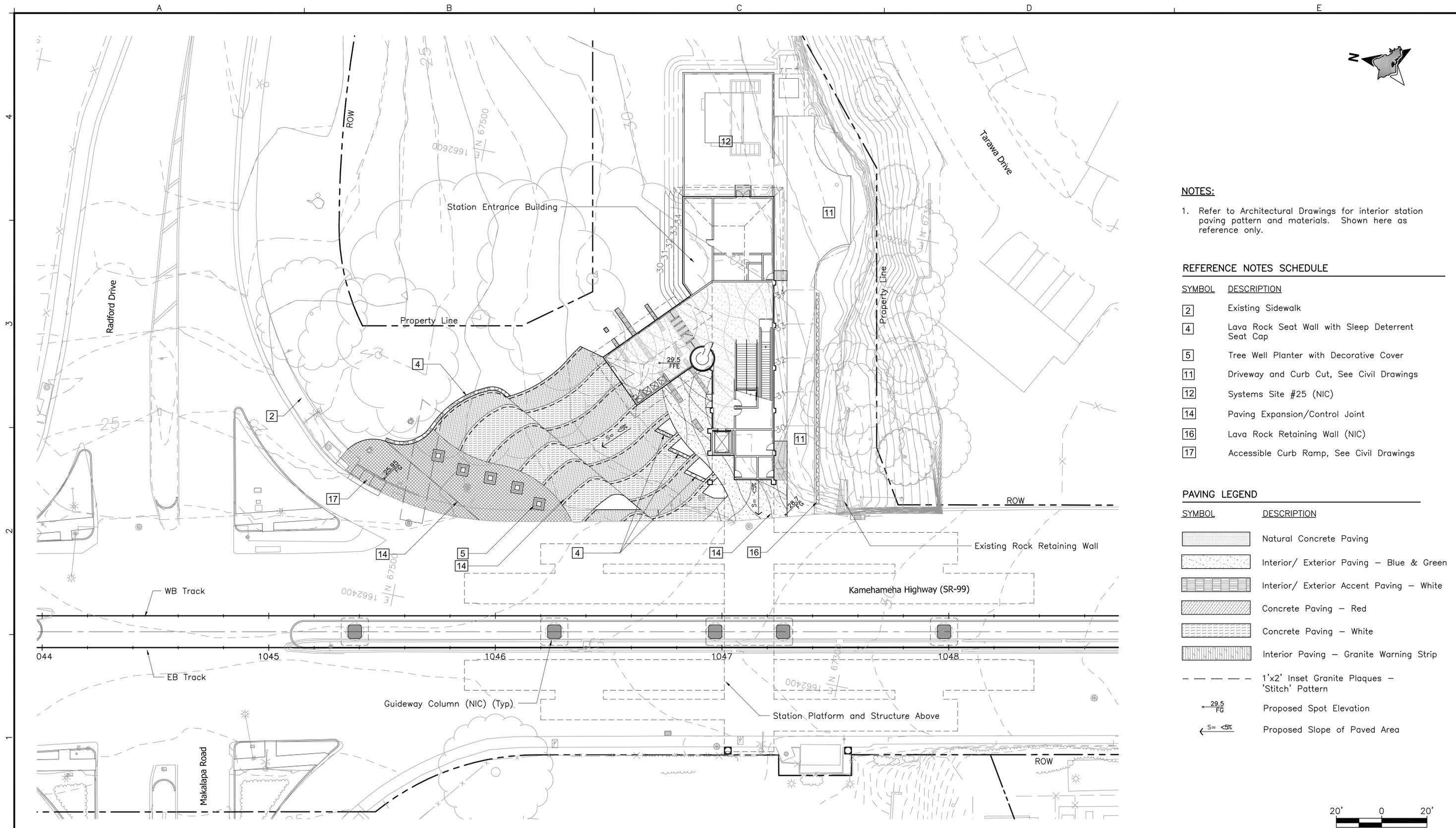
Prime Consultant: **PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:  
Land Planning, Landscape Architecture, Environmental Studies, Graphic Design  
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**PBR HAWAII & ASSOCIATES, INC.**

For reduced prints, original page size in inches: 0 1 2 3 4

**PEARL HARBOR NAVAL BASE STATION  
LANDSCAPE SITE PLAN**

Contract No.: SV-440	Rev.
CADD File: SJ3-J02-LA001	
Drawing No: LA001	
Scale: 1"=20'	
Page No. 53 of 56	



**NOTES:**

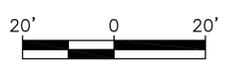
1. Refer to Architectural Drawings for interior station paving pattern and materials. Shown here as reference only.

**REFERENCE NOTES SCHEDULE**

SYMBOL	DESCRIPTION
2	Existing Sidewalk
4	Lava Rock Seat Wall with Sleep Deterrent Seat Cap
5	Tree Well Planter with Decorative Cover
11	Driveway and Curb Cut, See Civil Drawings
12	Systems Site #25 (NIC)
14	Paving Expansion/Control Joint
16	Lava Rock Retaining Wall (NIC)
17	Accessible Curb Ramp, See Civil Drawings

**PAVING LEGEND**

SYMBOL	DESCRIPTION
[Pattern]	Natural Concrete Paving
[Pattern]	Interior/ Exterior Paving - Blue & Green
[Pattern]	Interior/ Exterior Accent Paving - White
[Pattern]	Concrete Paving - Red
[Pattern]	Concrete Paving - White
[Pattern]	Interior Paving - Granite Warning Strip
[Pattern]	1'x2' Inset Granite Plaques - 'Stitch' Pattern
[Symbol]	Proposed Spot Elevation
[Symbol]	Proposed Slope of Paved Area



Rev	By	Date	Description

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 Drawn: K Fishman  
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 Approved: R S Duncan  
 Date: 01-15-10

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 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

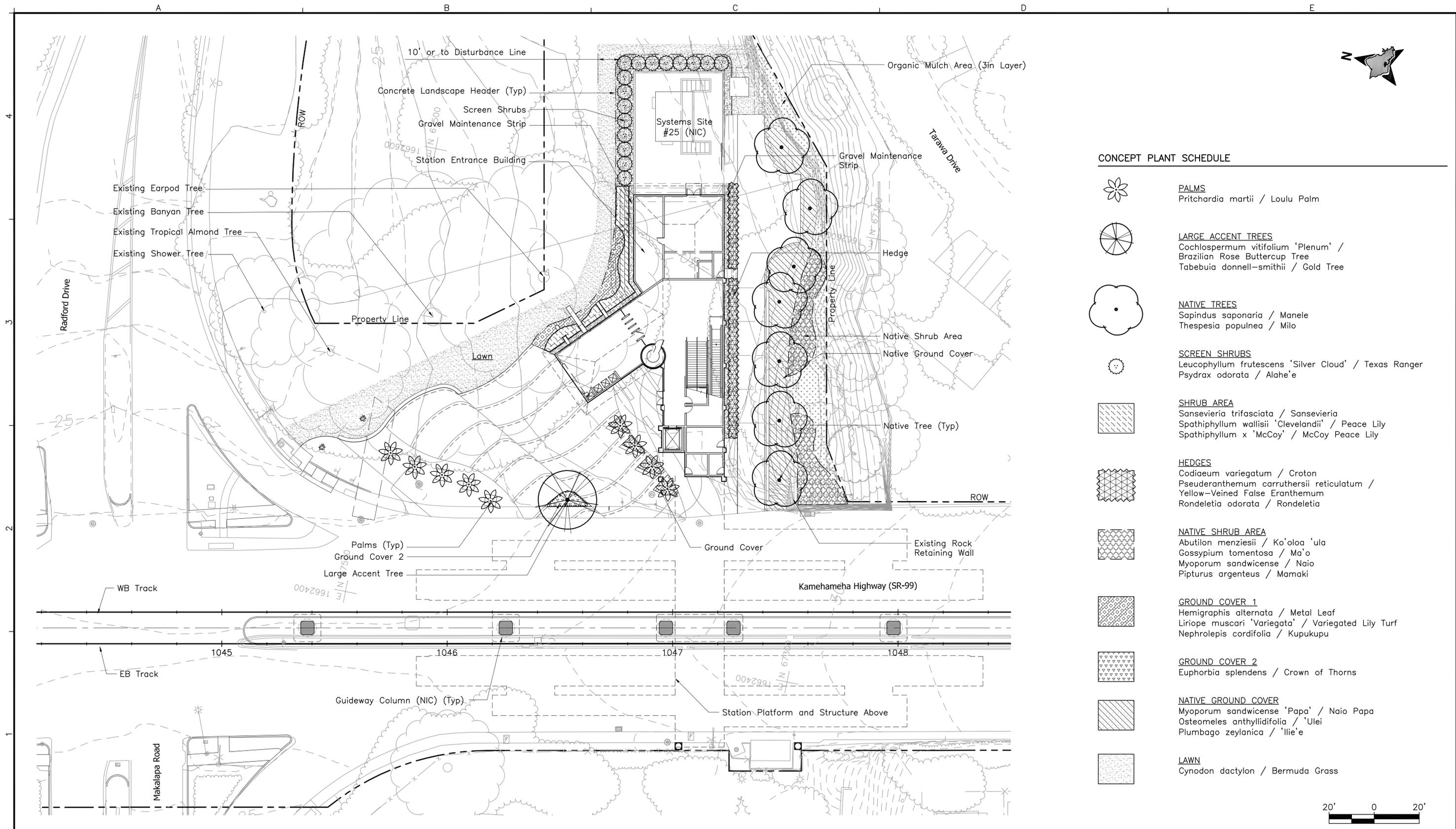
Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: Land Planning, Landscape Architecture, Environmental Studies, Graphic Design  
**PBR HAWAII & ASSOCIATES, INC.**  
 1001 Bishop Street, Suite 650 Honolulu, HI 96813

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**PEARL HARBOR NAVAL BASE STATION  
PAVING PLAN**

Contract No.: SV-440	
CADD File: SJ3-J02-LA002	
Drawing No: LA002	Rev.
Scale: 1"=20'	
Page No. 54	of 56



**CONCEPT PLANT SCHEDULE**

- 
**PALMS**  
*Pritchardia martii* / Loulu Palm
- 
**LARGE ACCENT TREES**  
*Cochlospermum vitifolium* 'Plenum' / Brazilian Rose Buttercup Tree  
*Tabebuia donnell-smithii* / Gold Tree
- 
**NATIVE TREES**  
*Sapindus saponaria* / Manele  
*Thespesia populnea* / Milo
- 
**SCREEN SHRUBS**  
*Leucophyllum frutescens* 'Silver Cloud' / Texas Ranger  
*Psychrax odorata* / Alahe'e
- 
**SHRUB AREA**  
*Sansevieria trifasciata* / Sansevieria  
*Spathiphyllum wallisii* 'Clevelandii' / Peace Lily  
*Spathiphyllum* x 'McCoy' / McCoy Peace Lily
- 
**HEDGES**  
*Codiaeum variegatum* / Croton  
*Pseuderanthemum carruthersii reticulatum* / Yellow-Veined False Eranthemum  
*Rondeletia odorata* / Rondeletia
- 
**NATIVE SHRUB AREA**  
*Abutilon menziesii* / Ko'oloa 'ula  
*Gossypium tomentosum* / Ma'o  
*Myoporum sandwicense* / Naio  
*Pipturus argenteus* / Mamaki
- 
**GROUND COVER 1**  
*Hemigraphis alternata* / Metal Leaf  
*Liriope muscari* 'Variegata' / Variegated Lily Turf  
*Nephrolepis cordifolia* / Kupukupu
- 
**GROUND COVER 2**  
*Euphorbia splendens* / Crown of Thorns
- 
**NATIVE GROUND COVER**  
*Myoporum sandwicense* 'Papa' / Naio Papa  
*Osteomeles anthyllidifolia* / 'Ulei  
*Plumbago zeylanica* / 'Ilie'e
- 
**LAWN**  
*Cynodon dactylon* / Bermuda Grass



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
K Fishman  
Drawn:  
K Fishman  
Checked:  
R Higa  
Approved:  
R S Duncan  
Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

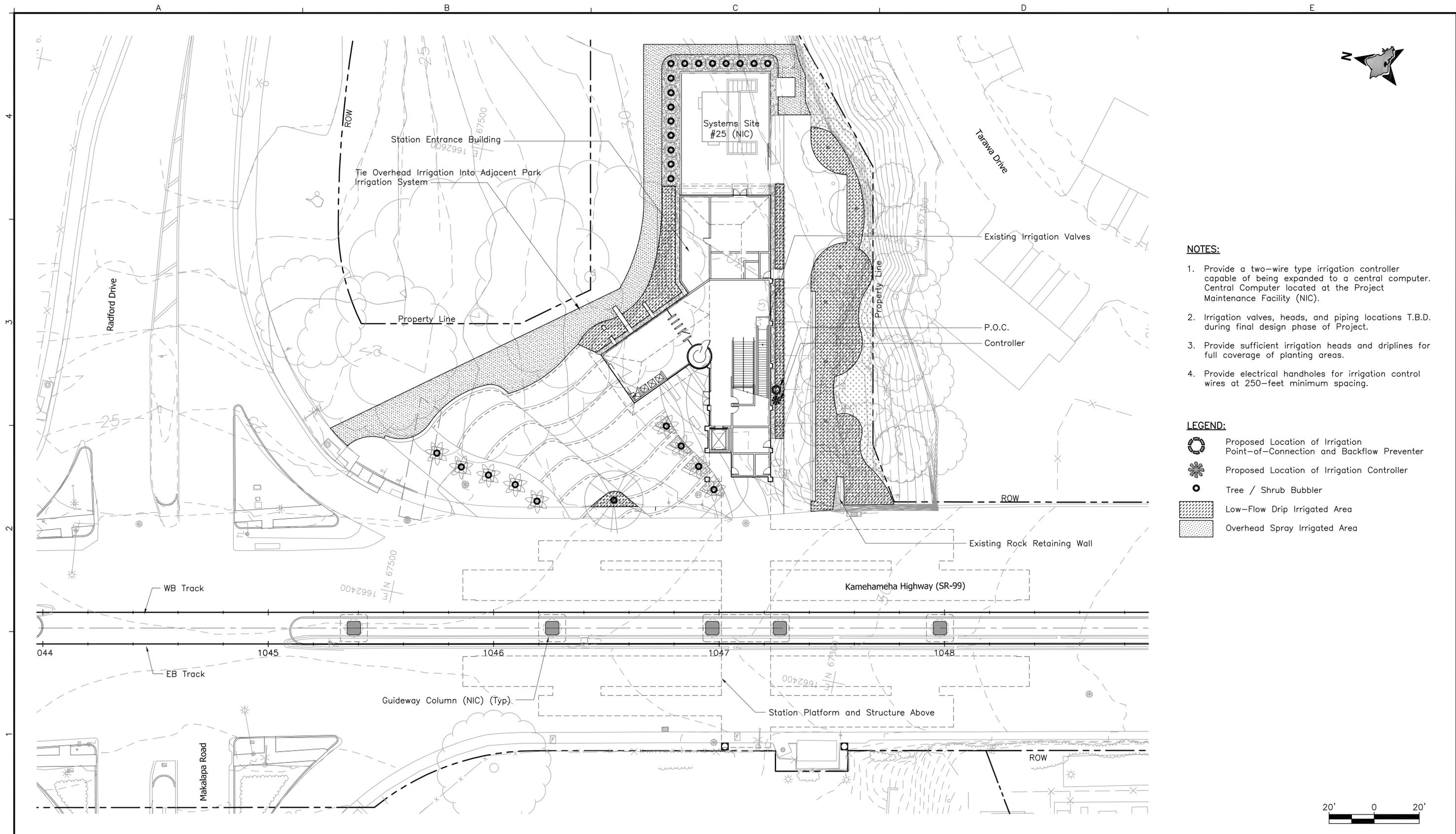
Prime Consultant:  
  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:  
 Land Planning, Landscape  
 Architecture, Environmental  
 Studies, Graphic Design  
  
 1001 Bishop Street, Suite 650  
 Honolulu, HI 96813

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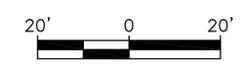
**PEARL HARBOR NAVAL BASE STATION  
PLANTING PLAN**

Contract No.: SV-440	
CADD File: SJ3-J02-LA003	
Drawing No: LA003	Rev.
Scale: 1"=20'	
Page No. 55	of 56



- NOTES:**
1. Provide a two-wire type irrigation controller capable of being expanded to a central computer. Central Computer located at the Project Maintenance Facility (NIC).
  2. Irrigation valves, heads, and piping locations T.B.D. during final design phase of Project.
  3. Provide sufficient irrigation heads and driplines for full coverage of planting areas.
  4. Provide electrical handholes for irrigation control wires at 250-foot minimum spacing.

- LEGEND:**
- Proposed Location of Irrigation Point-of-Connection and Backflow Preventer
  - Proposed Location of Irrigation Controller
  - Tree / Shrub Bubbler
  - Low-Flow Drip Irrigated Area
  - Overhead Spray Irrigated Area



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
K Fishman  
Drawn:  
K Fishman  
Checked:  
R Higa  
Approved:  
R S Duncan  
Date:  
01-15-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:  
**PARSONS BRINCKERHOFF**  
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1001 Bishop Street, Suite 650  
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**PEARL HARBOR NAVAL BASE STATION  
IRRIGATION PLAN**

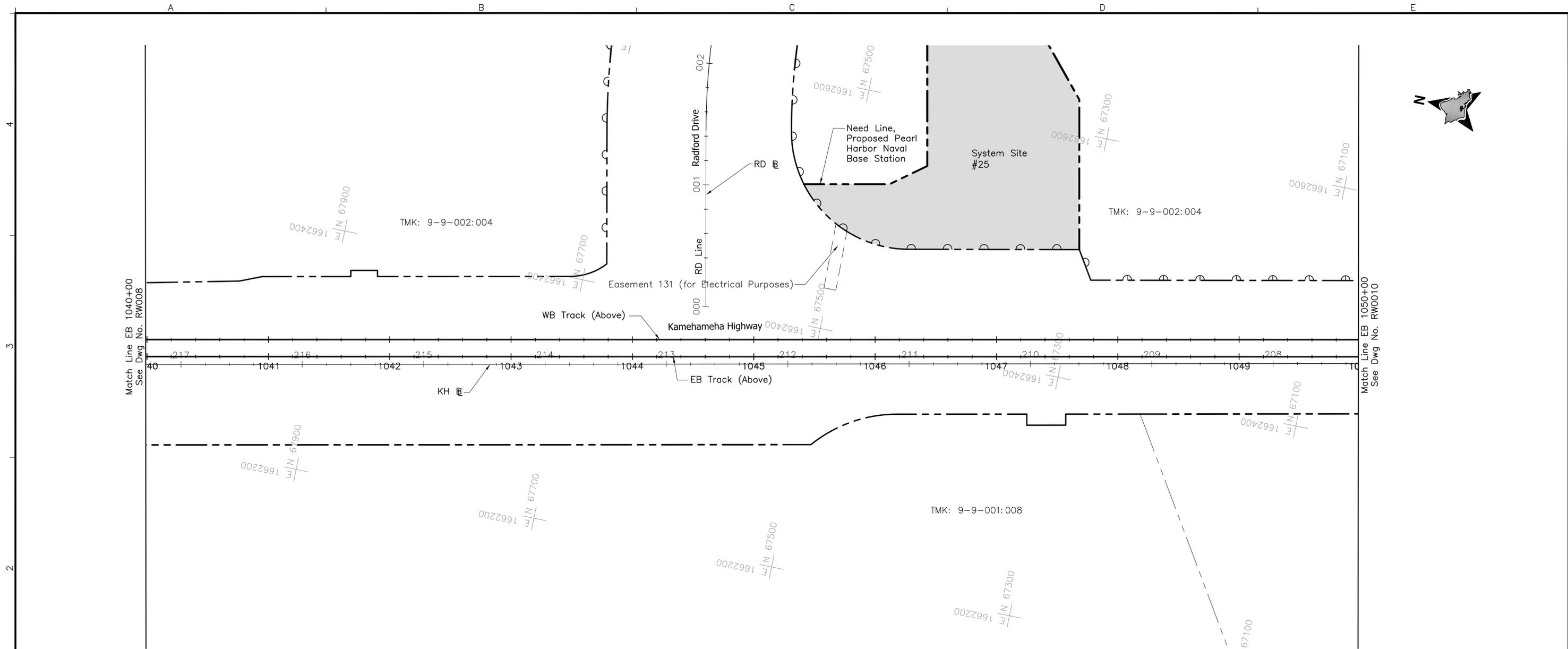
Contract No.:  
SV-440  
CADD File:  
SJ3-J02-LA004  
Drawing No: LA004 Rev.  
Scale: 1"=20'  
Page No. 56 of 56

# **PEARL HARBOR NAVAL BASE STATION**

## **APPENDIX A - INFORMATIVE DRAWINGS**

**FROM THE AIRPORT GUIDEWAY & UTILITIES PRELIMINARY ENGINEERING PLANS**

**AND THE CORE SYSTEMS RFP PLANS**



**NOTES:**

1. ROW acquisition may be in the form of an aerial easement; an easement allowing joint use; subdivision of property with transfer of title; transfer of title for the entire parcel; or some other form to be documented by Land Court registration.
2. Construction easements should be defined during the final design phase and are not reflected on plans.
3. See Dwg No. CG001 for general civil notes, legend and abbreviations.
4. See Dwg No. RW001 for Right-of-Way legend.

Tax Map Key Number	Parcel Acquisitions	House Number	Street Name	Land Use
9-9-002:004	Partial	4361	Salt Lake Blvd	Public



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: G Tom  
 Drawn: N Chan  
 Checked: J Yamamoto  
 Approved: G Takahashi  
 Date: 01-11-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

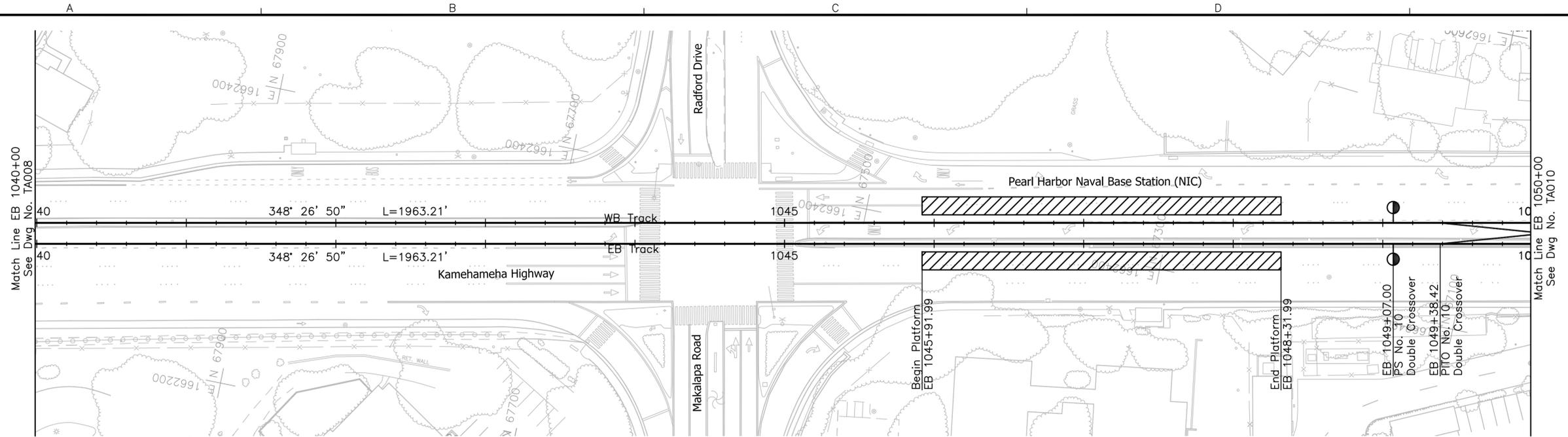
Subconsultant: **R. M. TOWILL CORPORATION**  
 808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

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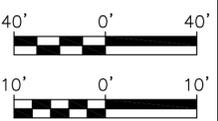
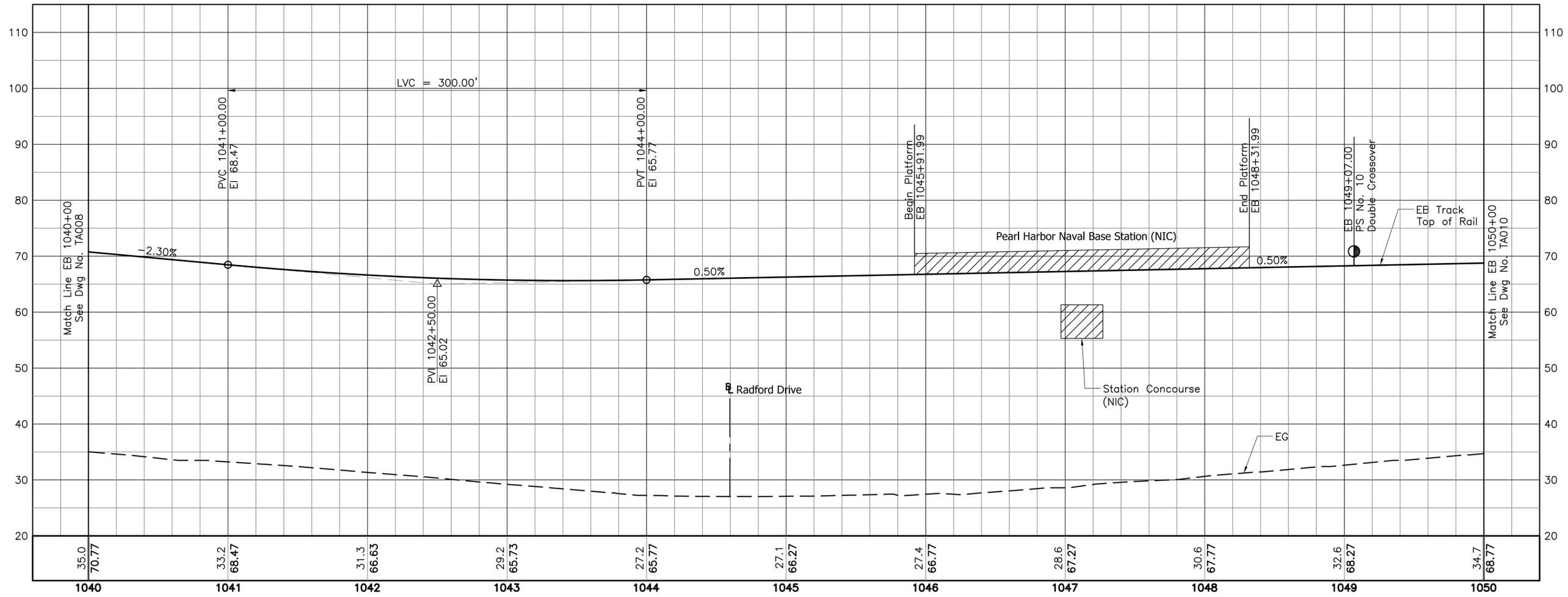
**AIRPORT GUIDEWAY & UTILITIES  
 EXISTING RIGHT-OF-WAY &  
 PROPOSED ACQUISITION TABULATIONS**

**EB 1040+00 TO EB 1050+00**

Contract No.: SV-430	
CADD File: AP-B04-RW009	
Drawing No: RW009	Rev.
Scale: 1"=40'	
Page No. 33	of 270



**NOTE:**  
See Dwg No. CG001 for General Notes, Symbols and Abbreviations.  
For Station Information, Refer to Structural Plans.



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: G Tom  
Drawn: N Chan  
Checked: J Yamamoto  
Approved: G Takahashi  
Date: 01-11-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
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**AIRPORT GUIDEWAY & UTILITIES  
TRACK ALIGNMENT  
PLAN & PROFILE  
EB 1040+00 TO EB 1050+00**

Contract No.: SV-430  
CADD File: AP-B05-TA009  
Drawing No: TA009 Rev.  
Scale: 1"=40' H, 1"=10' V  
Page No. 63 of 270

ALIGNMENT: SEG J – EB Track						
Curve No	Curve Element	Type	Station	Northing	Easting	Data
CJ4	SJ4-B	TS:	1029+22.57	69089.316	1662026.977	Ls = 62.00' Ts = 181.03' Os = 00° 15' 12.55"
		SC:	1029+84.57	69028.596	1662039.509	I = 02° 27' 11.71" R = 7007.00'
		PI:	-	68911.965	1662063.307	Lc = 238.02' Δ = 01° 56' 46.62"
	V=55 mph					Dc = 00° 49' 03.70"
	Ea=1.00"					
	Eu=0.71"					
SJ4-A	CS:	1032+22.59	68796.504	1662092.253		
	ST:	1032+84.59	68736.332	1662107.195		
						L = 191.33' Di = 345° 58' 11.68"
CJ5	SJ5-B	TS:	1034+75.92	68550.706	1662153.581	Ls = 62.00' Ts = 182.20' Os = 00° 15' 14.37"
		SC:	1035+37.92	68490.533	1662168.522	I = 02° 28' 38.21" R = 6993.00'
		PI:	-	68373.940	1662197.752	Lc = 240.35' Δ = 01° 58' 09.47"
	V=55 mph					Dc = 00° 49' 09.59"
	Ea=1.00"					
	Eu=0.71"					
SJ5-A	CS:	1037+78.28	68256.156	1662221.735		
	ST:	1038+40.28	68195.430	1662234.241		
						L = 1963.21' Di = 348° 26' 49.90"
Pearl Harbor Naval Base Station			1045+91.99	-	-	
			1048+31.99	-	-	
No. 10 Xover		PS:	1049+07.00	67150.318	1662447.88	
		PITO:	1049+38.42	67119.538	1662454.17	
No. 10 Xover		PITO:	1050+78.07	66982.715	1662482.14	
		PS:	1051+09.49	66951.935	1662488.43	
CJ6	V=55 mph	PC:	1058+03.49	66271.995	1662627.415	I = 01° 25' 14.18" R = 12014.00'
		PI:	-	66126.066	1662657.245	Lc = 297.88' Δ = 01° 25' 14.18"
	Ea=0.00"					Dc = 00° 28' 36.87"
	Eu=1.00"					
		PT:	1061+01.36	65980.921	1662690.683	L = 1193.91' Di = 347° 01' 35.71"
CJ7	SJ7-B	TS:	1072+95.28	64817.484	1662958.715	Ls = 133.00' Ts = 2104.77' Os = 01° 15' 35.92"
		SC:	1074+28.28	64688.104	1662989.522	I = 67° 57' 28.86" R = 3024.00'
		PI:	-	62766.444	1663431.233	Lc = 3453.74' Δ = 65° 26' 17.03"
	V=55 mph					Dc = 01° 53' 40.93"
	Ea=2.00"					
	Eu=1.96"					
SJ7-A	CS:	1108+82.02	62456.623	1665378.512		
	ST:	1110+15.02	62434.699	1665509.690		
						L = 90.51' Di = 279° 04' 06.85"

ALIGNMENT: SEG J – WB Track						
Curve No	Curve Element	Type	Station	Northing	Easting	Data
CJ4	SJ4-B	TS:	1029+22.57	69092.126	1662040.692	Ls = 62.00' Ts = 180.73' Os = 00° 15' 14.37"
		SC:	1029+84.57	69031.406	1662053.224	I = 02° 27' 11.71" R = 6993.00'
		PI:	-	68915.068	1662076.962	Lc = 237.42' Δ = 01° 56' 42.96"
	V=55 mph					Dc = 00° 49' 09.59"
	Ea=1.00"					
	Eu=0.71"					
SJ4-A	CS:	1032+21.99	68799.898	1662105.836		
	ST:	1032+83.99	68739.726	1662120.778		
						L = 191.33' Di = 345° 58' 11.68"
CJ5	SJ5-B	TS:	1034+75.92	68554.100	1662167.163	Ls = 62.00' Ts = 182.50' Os = 00° 15' 12.55"
		SC:	1035+37.92	68493.928	1662182.105	I = 02° 28' 38.21" R = 7007.00'
		PI:	-	68377.040	1662211.408	Lc = 240.96' Δ = 01° 58' 13.12"
	V=55 mph					Dc = 00° 49' 03.70"
	Ea=1.00"					
	Eu=0.71"					
SJ5-A	CS:	1037+78.88	68258.959	1662235.452		
	ST:	1038+40.28	68198.234	1662247.958		
						L = 1963.21' Di = 348° 26' 49.90"
Pearl Harbor Naval Base Station			1045+91.99	-	-	
			1048+31.99	-	-	
No. 10 Xover		PS:	1049+07.00	67153.122	1662461.59	
		PITO:	1049+38.42	67122.342	1662467.88	
No. 10 Xover		PITO:	1050+78.07	66985.519	1662495.85	
		PS:	1051+09.49	66954.739	1662502.14	
CJ6	V=55 mph	PC:	1058+03.49	66274.799	1662641.132	I = 01° 25' 14.18" R = 12000.00'
		PI:	-	66129.040	1662670.927	Lc = 297.53' Δ = 01° 25' 14.18"
	Ea=0.00"					Dc = 00° 28' 38.87"
	Eu=1.00"					
		PT:	1061+01.36	65984.064	1662704.326	L = 1193.91' Di = 347° 01' 35.71"
CJ7	SJ7-B	TS:	1072+95.27	64820.628	1662972.358	Ls = 133.00' Ts = 2095.33' Os = 01° 15' 57.01"
		SC:	1074+28.27	64691.249	1663003.169	I = 67° 57' 28.86" R = 3010.00'
		PI:	-	62778.782	1663442.757	Lc = 3437.13' Δ = 65° 25' 34.84"
	V=55 mph					Dc = 01° 54' 12.65"
	Ea=2.00"					
	Eu=1.98"					
SJ7-A	CS:	1108+65.41	62470.453	1665380.720		
	ST:	1110+15.02	62448.524	1665511.897		
						L = 90.51' Di = 279° 04' 06.85"

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: R Nacion  
 Drawn: R Nacion  
 Checked: E Liberman  
 Approved: A Borst  
 Date: 11-30-09

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

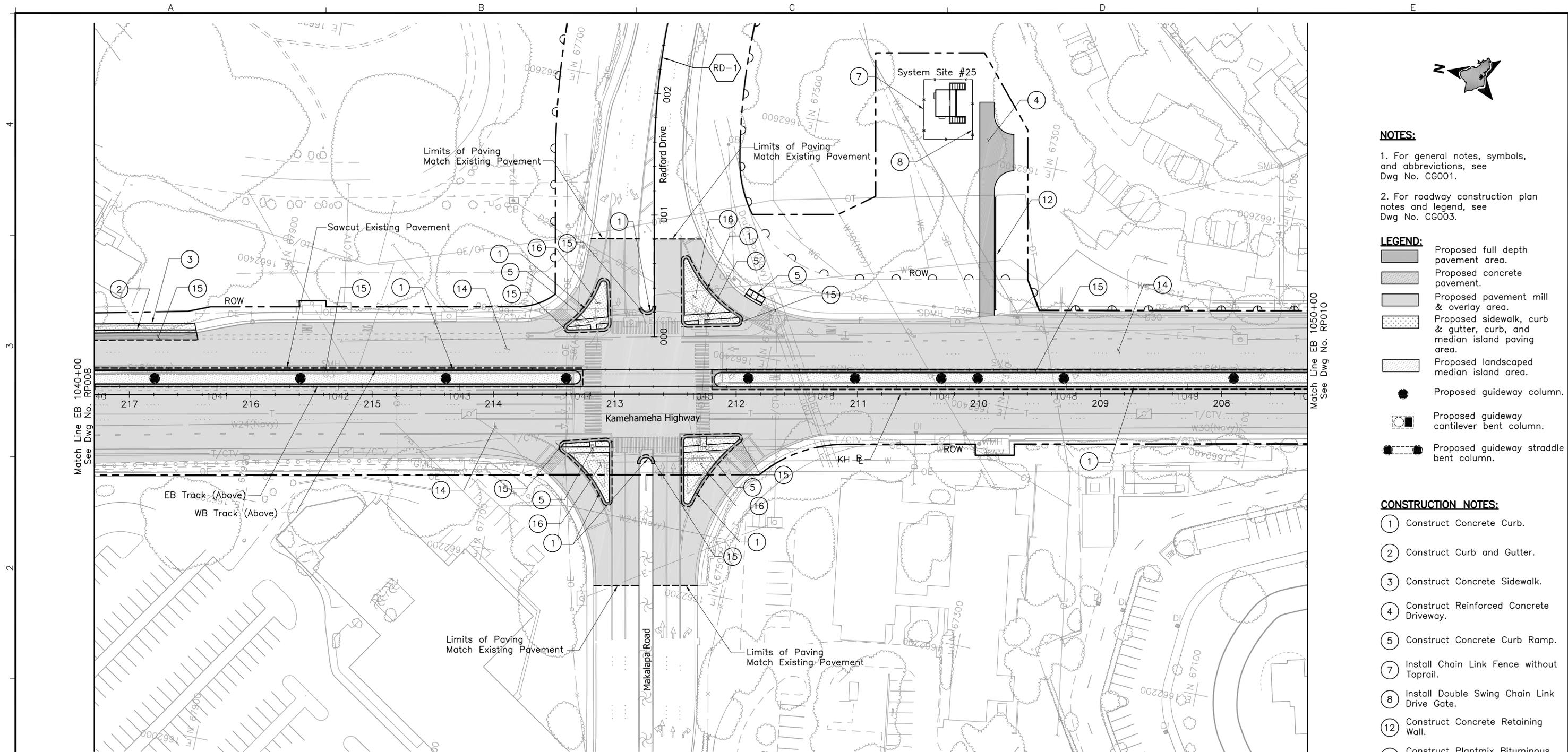
Subconsultant:

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**AIRPORT GUIDEWAY & UTILITIES  
TRACK ALIGNMENT DATA**

**SHEET 2 OF 6**

Contract No.: SV-430  
 CADD File: AP-B06-TA102  
 Drawing No: TA102 Rev.  
 Scale: N/A  
 Page No. 85 of 270

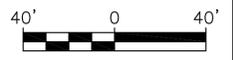


- NOTES:**
1. For general notes, symbols, and abbreviations, see Dwg No. CG001.
  2. For roadway construction plan notes and legend, see Dwg No. CG003.

- LEGEND:**
- Proposed full depth pavement area.
  - Proposed concrete pavement.
  - Proposed pavement mill & overlay area.
  - Proposed sidewalk, curb & gutter, curb, and median island paving area.
  - Proposed landscaped median island area.
  - Proposed guideway column.
  - Proposed guideway cantilever bent column.
  - Proposed guideway straddle bent column.

- CONSTRUCTION NOTES:**
- 1 Construct Concrete Curb.
  - 2 Construct Curb and Gutter.
  - 3 Construct Concrete Sidewalk.
  - 4 Construct Reinforced Concrete Driveway.
  - 5 Construct Concrete Curb Ramp.
  - 7 Install Chain Link Fence without Toprail.
  - 8 Install Double Swing Chain Link Drive Gate.
  - 12 Construct Concrete Retaining Wall.
  - 14 Construct Plantmix Bituminous Surface Overlay.
  - 15 Construct Plantmix Bituminous Pavement.
  - 16 Construct Concrete Median Island Paving.

ROADWAY CURVE DATA	
	RD-1
Δ	35° 13' 00.0"
R	600.00'
T	190.43'
C	363.01'
L <sub>c</sub>	368.79'



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: G Tom  
 Drawn: N Chan  
 Checked: J Yamamoto  
 Approved: G Takahashi  
 Date: 01-11-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

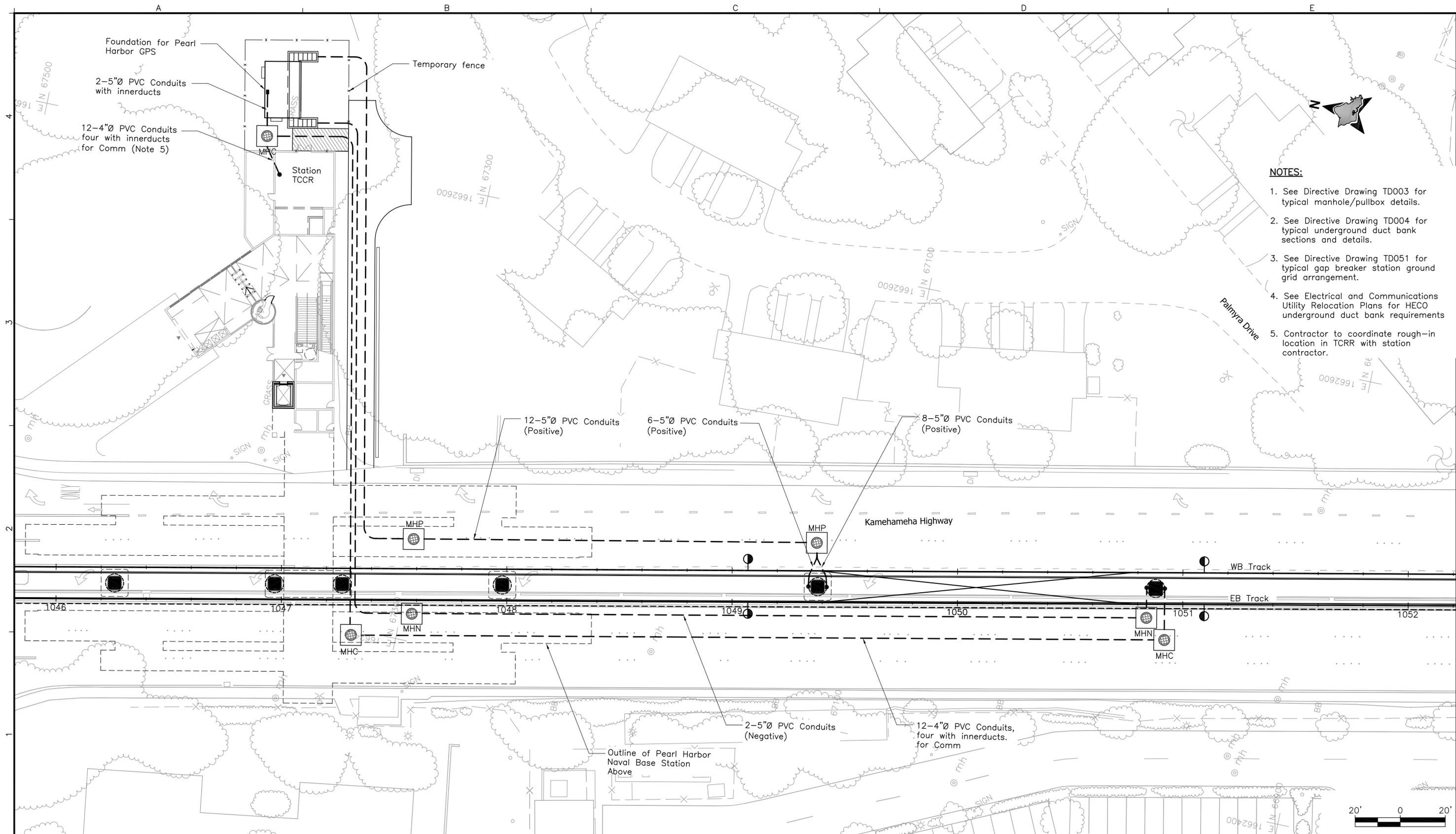
Prime Consultant: **PARSONS BRINCKERHOFF**  
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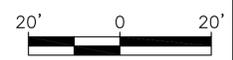
**AIRPORT GUIDEWAY AND UTILITIES  
ROADWAY CONSTRUCTION PLAN**

EB 1040+00 to EB 1050+00

Contract No.: SV-430	
CADD File: AP-B09-RP009	
Drawing No: RP009	Rev.
Scale: 1"=40'	
Page No. 97	of 270



- NOTES:**
1. See Directive Drawing TD003 for typical manhole/pullbox details.
  2. See Directive Drawing TD004 for typical underground duct bank sections and details.
  3. See Directive Drawing TD051 for typical gap breaker station ground grid arrangement.
  4. See Electrical and Communications Utility Relocation Plans for HECO underground duct bank requirements
  5. Contractor to coordinate rough-in location in TCRR with station contractor.



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
D Gobelle  
Drawn:  
C Jamison  
Checked:  
L Mayola  
Approved:  
A Borst  
Date:  
11-30-09

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:  
**PARSONS BRINCKERHOFF**  
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Subconsultant:

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**AIRPORT GUIDEWAY & UTILITIES**

**SYSTEMS SITE PLAN  
SITE # 25**

Contract No.:	SV-330
CADD File:	AP-B10-RP103
Drawing No.:	RP103
Scale:	1"=20'
Page No.:	116 of 270

SURVEYED AOOLELE STREET BASELINE – AL

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
	PDB	0+00.00	62382.96	1666716.78	8° 57' 42.3"	1079.53	-	-	-	-	-
	PC	10+79.53	61316.61	1666548.62	-	-	88°57'34.2"	50.00	49.10	77.63	AL-1
	PT	11+57.16	61259.58	1666589.32	280° 00' 08.1"	516.94	-	-	-	-	-
	PC	16+74.10	61169.80	1667098.41	-	-	14°09'15.8"	1000.00	124.15	247.04	AL-2
	PT	19+21.14	61097.43	1667333.95	294° 09' 23.8"	240.33	-	-	-	-	-
	PC	21+61.47	60999.08	1667553.23	-	-	19°42'56.5"	550.00	95.57	189.26	AL-3
	PT	23+50.73	60952.56	1667735.72	274° 26' 27.2"	193.38	-	-	-	-	-
	PC	25+44.11	60937.59	1667928.52	-	-	20°54'18.4"	300.00	55.35	109.46	AL-4
	PT	26+53.56	60909.61	1668033.72	295° 20' 45.5"	53.20	-	-	-	-	-
	PC	27+06.77	60886.84	1668081.80	-	-	16°21'28.8"	400.00	57.49	114.20	AL-5
	PT	28+20.97	60853.24	1668190.54	278° 59' 16.7"	963.58	-	-	-	-	-
	PC	37+84.55	60702.71	1669142.29	-	-	11°04'37.9"	1200.00	116.36	232.00	AL-6
	PT	40+16.55	60644.61	1669366.53	290° 03' 54.4"	86.44	-	-	-	-	-
	PC	41+02.99	60614.95	1669447.72	-	-	11°01'26.4"	1400.00	135.10	269.37	AL-7
	PT	43+72.36	60547.37	1669708.05	279° 02' 28.0"	1931.34	-	-	-	-	-
	PC	63+03.70	60243.87	1671615.39	-	-	24°53'42.0"	350.00	77.26	152.08	AL-8
	PT	64+55.78	60252.83	1671766.01	254° 08' 46.1"	162.82	-	-	-	-	-
	PC	66+18.60	60297.31	1671922.63	-	-	25°15'37.8"	350.00	78.43	154.31	AL-9
	PT	67+72.90	60305.92	1672075.45	279° 24' 24.0"	413.18	-	-	-	-	-
	PC	71+86.09	60238.39	1672483.08	-	-	1°12'24.8"	20000.00	210.65	421.28	AL-9
	PT	76+07.37	60165.16	1672897.94	280° 36' 48.8"	359.03	-	-	-	-	-
	PC	79+66.40	60099.04	1673250.83	-	-	1°41'48.1"	10000.00	148.08	296.13	AL-10
	PT	82+62.53	60048.81	1673542.65	278° 55' 00.7"	407.61	-	-	-	-	-
	PC	86+70.14	59985.63	1673945.34	-	-	10°51'31.0"	500.00	47.52	94.76	AL-11
	PT	87+64.90	59962.19	1674037.01	289° 46' 31.5"	351.57	-	-	-	-	-
	PC	91+16.47	59843.24	1674367.85	-	-	64°48'10.8"	450.00	285.60	508.96	AL-12
	PT	96+25.43	59948.65	1674838.45	224° 58' 20.7"	376.83	-	-	-	-	-
	PC	100+02.26	60215.24	1675104.78	-	-	54°05'29.8"	750.00	382.90	708.06	AL-13
	PT	107+10.32	60425.80	1675753.52	279° 03' 50.4"	206.62	-	-	-	-	-
	PDE	109+16.93	60393.25	1675957.55	-	-	-	-	-	-	-

SURVEYED H-1 FREEWAY BASELINE – H1

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
	PDB	55+00.00	68457.93	1663551.79	10° 52' 56.5"	2407.37	-	-	-	-	-
	PC	79+07.37	66093.85	1663097.30	-	-	91°51'37.1"	3000.00	3099.02	4809.79	H1-1
	PT	127+17.16	62564.59	1665572.90	279° 01' 19.5"	8282.84	-	-	-	-	-
	PDE	210+00.00	61265.71	1673753.27	-	-	-	-	-	-	-

SURVEYED H-1 (WEST) FREEWAY BASELINE – H1W

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
	PDB	210+00.03	61324.25	1673762.94	279° 35' 19.4"	1060.16	-	-	-	-	-
	PC	220+60.19	61147.65	1674808.28	-	-	5°04'37.2"	7000.06	310.34	620.28	H1W-1
	PT	226+80.47	61071.54	1675423.67	274° 30' 42.1"	1782.64	-	-	-	-	-
	PC	244+63.11	60931.32	1677200.79	-	-	41°53'37.7"	2000.02	765.61	1462.38	H1W-2
	PT	259+25.49	61335.92	1678572.38	232° 37' 04.5"	1115.72	-	-	-	-	-
	PC	270+41.21	62013.30	1679458.94	-	-	23°50'41.3"	800.01	168.92	332.94	H1W-3
	PT/PDE	273+74.15	62155.39	1679757.38	-	-	-	-	-	-	-

SURVEYED KAMEHAMEHA HIGHWAY BASELINE – KH

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
	PDB	181+07.25	64490.85	1662987.78	168° 224' 10.3"	6906.42	-	-	-	-	-
	PC	250+13.67	71256.28	1661599.39	-	-	35°04'59.9"	1228.11	388.20	752.00	KH-3
	PT	257+65.67	71992.59	1661676.23	203° 29' 59.5"	954.52	-	-	-	-	-
	PC	267+20.19	72867.94	1662056.85	-	-	5°35'30.1"	5729.65	279.81	559.17	KH-2
	PT	272+79.36	73369.05	1662304.46	209° 05' 29.5"	1798.89	-	-	-	-	-
	PC	290+78.25	74941.00	1663179.10	-	-	33°32'44.2"	1079.15	325.26	631.82	KH-1
	PT/PDE	297+10.07	75549.49	1663311.98	-	-	-	-	-	-	-

SURVEYED MAKAI FRONTAGE ROAD BASELINE – MFR

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
	PDB	229+81.19	60836.23	1675691.08	287° 25' 00.5"	411.99	-	-	-	-	-
	PC	233+93.18	60719.79	1676086.27	-	-	3°09'08.2"	5000.00	137.58	275.09	H1W-1
	PT	236+68.26	60649.34	1676352.15	283° 15' 52.3"	1013.97	-	-	-	-	-
	PC	246+82.23	60416.69	1677339.07	-	-	15°01'25.9"	2718.72	358.50	712.89	H1W-2
	PT/PDE	253+95.12	60164.54	1678003.70	-	-	-	-	-	-	-

SURVEYED MAKAI FRONTAGE ROAD BASELINE – MIF

NUMBER	TYPE	STATION	NORTHING	EASTING	BEARING	DISTANCE	Δ	R	T	Lc	CURVE NO.
	PDB	5+00.00	66188.73	1662642.18	348° 22' 59.5"	139.08	-	-	-	-	-
	PC	6+39.08	66052.50	1662670.18	-	-	13°36'02.9"	1200.00	143.10	284.86	MIF-1
	PT	9+23.94	65782.87	1662759.97	334° 46' 56.5"	172.73	-	-	-	-	-
	PC	10+96.67	65626.60	1662833.56	-	-	16°30'00.0"	1000.00	144.99	287.98	MIF-2
	PT	13+84.64	65352.11	1662917.31	351° 16' 56.5"	879.62	-	-	-	-	-
	PC	22+64.26	64482.65	1663050.63	-	-	55°04'59.9"	2000.00	1042.98	1922.77	MIF-3
	PT	41+87.04	62991.25	1664144.54	296° 11' 56.5"	252.92	-	-	-	-	-
	PDE	44+39.96	62879.59	1664371.48	-	-	-	-	-	-	-

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Date:  
01-11-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

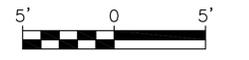
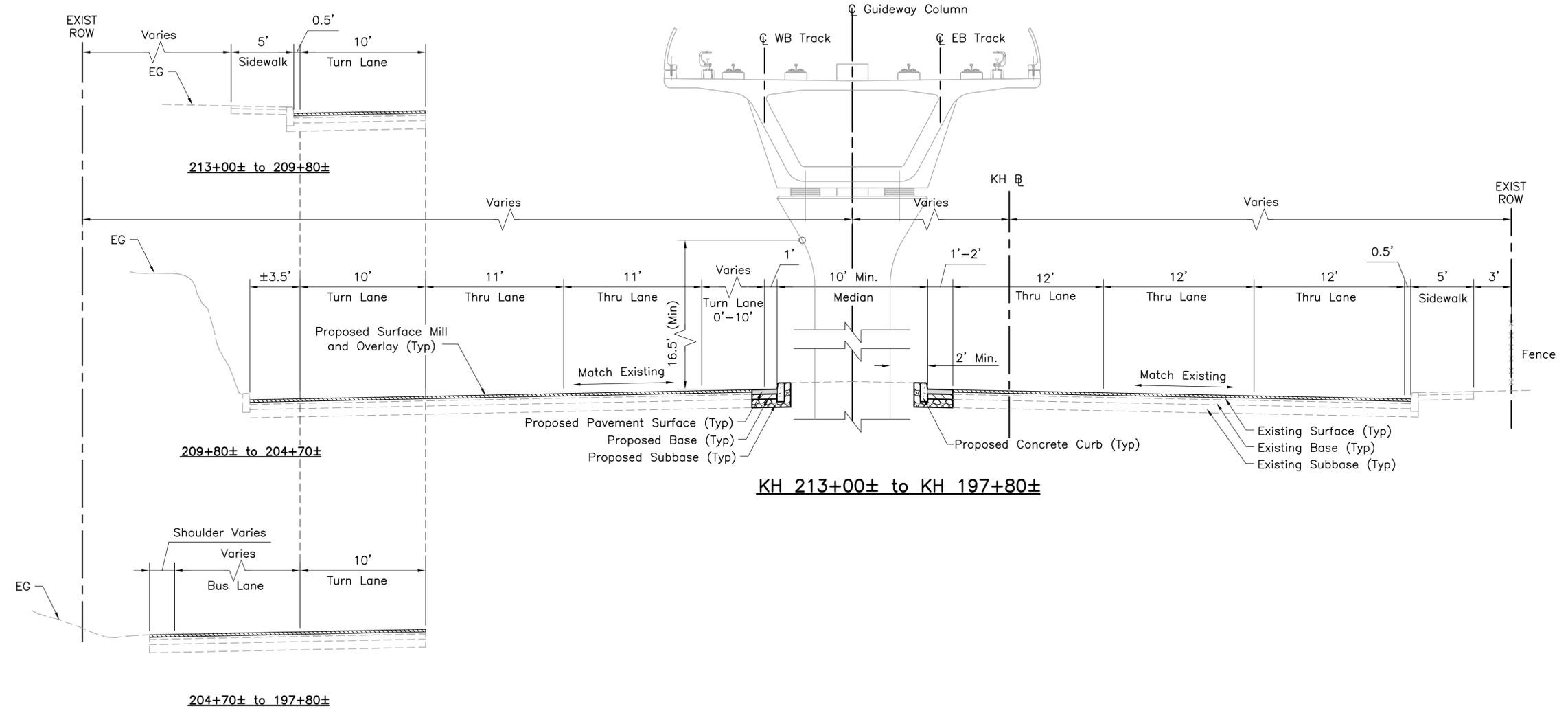
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**AIRPORT GUIDEWAY & UTILITIES  
ROADWAY HORIZONTAL  
CONTROL DATA**

SHEET 1 OF 3

Contract No.: SV-430  
CADD File: AP-B12-RP201  
Drawing No: RP201 Rev.  
Scale: N/A  
Page No. 119 of 270



Rev	By	Date	Description

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**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
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**AIRPORT GUIDEWAY & UTILITIES  
TYPICAL SECTIONS  
KAMEHAMEHA HIGHWAY**

**KH 213+00± TO KH 197+80±**

Contract No.: SV-430	
CADD File: AP-B13-RX006	
Drawing No: RX006	Rev.
Scale: 1"=5'	
Page No. 127	of 270



COLUMN APPROX	LOCATION STATION	DISCHARGE CONDITION PER GD105	REMARKS
960+52	Forward	3	Provide Underground D24 Connection to Existing CB
963+58	Backward	3	Provide Underground D8 Connection to Existing DI
966+34	Backward	3	Provide Underground D8 Connection to Existing CB
969+08	Forward	1	Splash Block w/ Channel Connection to Existing DI
970+52	Foward	2	Splash Block, No Underground Connection
972+68	Left	4	Splash Block, No Underground Connection
974+95	Foward	4	Splash Block, No Underground Connection
978+33	Foward	4	Splash Block, No Underground Connection
979+34	Forward	2	Splash Block, No Underground Connection
981+44	Forward	2	Splash Block, No Underground Connection
983+50	Forward	2	Splash Block, No Underground Connection
985+70	Forward	3	Provide Underground D8 Connection to Existing CB
987+20	Right	3	Provide Underground D8 Connection to Existing DMH
990+10	Forward	2	Splash Block, No Underground Connection
993+10	Forward	3	Provide Underground D12 Connection to Existing CB
996+69	Right	3	Provide Underground D24 Connection to Existing CB
999+84	Forward	3	Provide Underground D12 Connection to Existing CB
1003+53	Backward	3	Provide Underground D12 Connection to Existing CB
1006+30	Forward	3	Provide Underground D18 Connection to Existing DMH
1009+08	Backward	3	Provide Underground D18 Connection to Existing DMH
1011+70	Backward	3	Provide Underground D12 Connection to Existing CB
1014+50	Forward	3	Provide Underground D18 Connection to Existing DMH
1017+48	Backward	3	Provide Underground D18 Connection to Existing DMH
1020+28	Backward	3	Provide Underground D18 Connection to Existing DMH
1023+08	Backward	3	Provide Underground D18 Connection to Existing DMH
1028+65	Forward	3	Provide Underground D18 Connection to Existing DI
1031+25	Forward	3	Provide Underground D18 Connection to Existing DI
1033+90	Forward	3	Provide Underground D18 Connection to Existing DI
1036+83	Forward	3	Provide Underground D18 Connection to Existing DI
1039+20	Forward	3	Provide Underground D18 Connection to Existing DMH
1041+69	Forward	3	Provide Underground D18 Connection to Existing CB
1043+88	Backward	3	Provide Underground D18 Connection to Existing CB
1045+38	Backward	3	Provide Underground D24 Connection to Existing CB
1047+98	Left	3	Provide Underground D24 Connection to Existing DI
1050+88	Backward	3	Provide Underground D24 Connection to Existing DI

COLUMN APPROX	LOCATION STATION	DISCHARGE CONDITION PER GD105	REMARKS
1053+68	Left	3	Provide Underground D24 Connection to Existing DI
1057+37	Left	3	Provide Underground D24 Connection to Existing DI
1060+17	Backward	3	Provide Underground D8 Connection to Existing DI
1063+03	Right	2	Splash Block, No Underground Connection
1065+35	Left	2	Splash Block, No Underground Connection
1068+66	Backward	2	Splash Block, No Underground Connection
1071+22	Backward	2	Splash Block, No Underground Connection
1073+45	Forward	1	Splash Block w/ Channel Connection to Existing DI
1076+45	Backward	1	Splash Block w/ Channel Connection to Existing DI
1079+30	Left	2	Splash Block, No Underground Connection
1086+01	Right	2	Splash Block, No Underground Connection
1089+10	Right	2	Splash Block, No Underground Connection
1092+03	Right	2	Splash Block, No Underground Connection
1094+88	Backward	3	Provide Underground D12 Connection to Existing DI
1098+04	Forward	3	Provide Underground D12 Connection to Existing DMH
1100+93	Forward	3	Provide Underground D12 Connection to Existing CB
1102+35	Backward	3	Provide Underground D12 Connection to Existing CB
1103+77	Forward	2	Splash Block, No Underground Connection
1106+70	Forward	2	Splash Block, No Underground Connection
1109+60	Forward	2	Splash Block, No Underground Connection
1112+53	Right	3	Provide Underground D8 Connection to Existing DMH
1115+32	Forward	3	Provide Underground D12 Connection to Existing DI
1118+60	Left	3	Provide Underground D12 Connection to New DMH
1121+87	Forward	3	Provide Underground D12 Connection to Existing CB
1124+35	Forward	2	Splash Block, No Underground Connection
1127+32	Backward	2	Splash Block, No Underground Connection
1129+75	Forward	2	Splash Block, No Underground Connection
1132+00	Backward	3	Provide Underground D8 Connection to Existing CB
1134+28	Right	3	Provide Underground D12 Connection to Existing DI
1136+91	Left	2	Splash Block, No Underground Connection
1137+73	Left	3	Provide Underground D18 Connection to Existing DI
1139+14	Backward	3	Provide Underground D18 Connection to Existing CB
1142+54	Right	3	Provide Underground D18 Connection to Existing DI
1145+85	Backward	3	Provide Underground D18 Connection to Existing CB
1148+75	Right	3	Provide Underground D18 Connection to Existing DI

COLUMN APPROX	LOCATION STATION	DISCHARGE CONDITION PER GD105	REMARKS
1151+65	Forward	3	Provide Underground D18 Connection to Existing DMH
1153+10	Right	3	Provide Underground D12 Connection to Existing DI
1158+33	Left	1	Splash Block w/ Channel Connection to Existing DI
1161+32	Right	3	Provide Underground D12 Connection to Existing CB
1163+65	Backward	3	Provide Underground D12 Connection to Existing DI
1167+85	Backward	3	Provide Underground D12 Connection to Existing CB
1170+76	Right	3	Provide Underground D12 Connection to Existing CB
1173+82	Left	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1176+79	Left	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1179+79	Left	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1182+70	Left	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1185+69	Right	2	Splash Block, No Underground Connection, Downspout Filter to Drainage Canal
1188+66	Forward	2	Splash Block, No Underground Connection
1191+63	Forward	4	Splash Block, No Underground Connection
1194+04	Forward	3	Provide Underground D8 Connection to Proposed Headwall
1196+81	Forward	2	Splash Block, No Underground Connection
1198+23	Backward	2	Splash Block, No Underground Connection
1199+73	Backward	2	Splash Block, No Underground Connection
1201+23	Forward	2	Splash Block, No Underground Connection
1202+72	Forward	2	Splash Block, No Underground Connection
1205+32	Left	2	Splash Block, No Underground Connection
1208+32	Backward	2	Splash Block, No Underground Connection
1210+97	Left	2	Splash Block, No Underground Connection
1213+27	Left	2	Splash Block, No Underground Connection
1215+57	Left	2	Splash Block, No Underground Connection
1221+11	Backward	2	Splash Block, No Underground Connection
1224+01	Forward	2	Splash Block, No Underground Connection
1227+68	Forward	2	Splash Block, No Underground Connection
1229+19	Forward	2	Splash Block, No Underground Connection
1230+67	Backward	2	Splash Block, No Underground Connection
1233+18	Backward	2	Splash Block, No Underground Connection
1235+59	Backward	2	Splash Block, No Underground Connection
1238+15	Right	2	Splash Block, No Underground Connection, Downspout Filter to Stream
1240+44	Forward	2	Splash Block, No Underground Connection
1242+92	Right	2	Splash Block, No Underground Connection
1247+72	Left	2	Splash Block, No Underground Connection

Rev	By	Date	Description

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**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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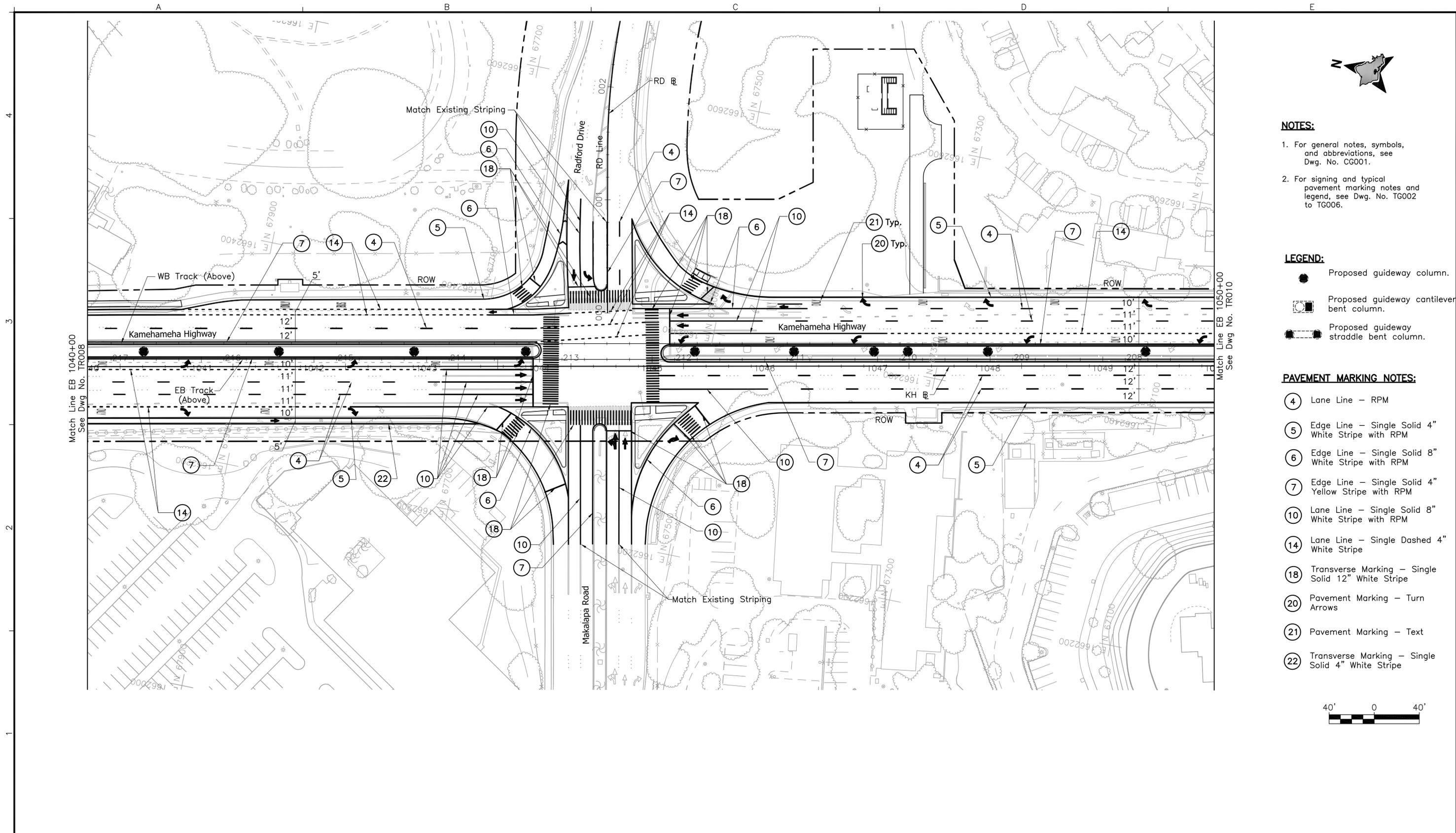
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Planning - Engineering - Environmental Services - Photogrammetry - Surveying - Construction Management

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**AIRPORT GUIDEWAY & UTILITIES  
GUIDEWAY DRAINAGE  
DOWNSPOUT SCHEDULE**

Contract No.: SV-430  
CADD File: AP-B16-GD030  
Drawing No: GD030 Rev.  
Scale: N/A  
Page No. 168 of 270



- NOTES:**
- For general notes, symbols, and abbreviations, see Dwg. No. CG001.
  - For signing and typical pavement marking notes and legend, see Dwg. No. TG002 to TG006.

- LEGEND:**
- Proposed guideway column.
  - Proposed guideway cantilever bent column.
  - Proposed guideway straddle bent column.

- PAVEMENT MARKING NOTES:**
- 4 Lane Line - RPM
  - 5 Edge Line - Single Solid 4" White Stripe with RPM
  - 6 Edge Line - Single Solid 8" White Stripe with RPM
  - 7 Edge Line - Single Solid 4" Yellow Stripe with RPM
  - 10 Lane Line - Single Solid 8" White Stripe with RPM
  - 14 Lane Line - Single Dashed 4" White Stripe
  - 18 Transverse Marking - Single Solid 12" White Stripe
  - 20 Pavement Marking - Turn Arrows
  - 21 Pavement Marking - Text
  - 22 Transverse Marking - Single Solid 4" White Stripe

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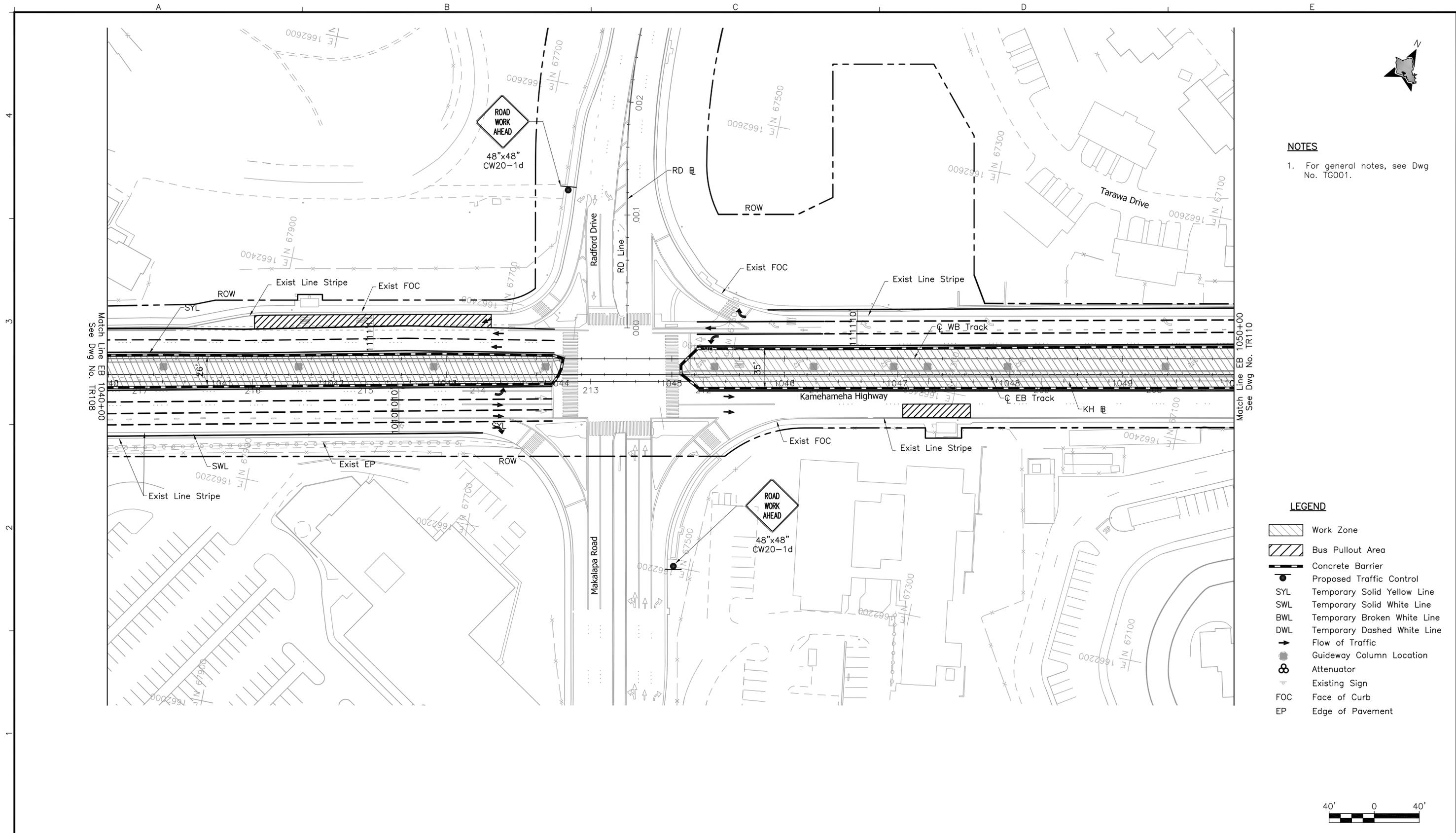
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**AIRPORT GUIDEWAY AND UTILITIES  
SIGNING AND STRIPING PLAN**

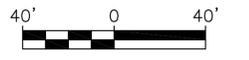
EB 1040+00 to EB 1050+00

Contract No.: SV-430	
CADD File: AP-C02-TR009	
Drawing No: TR009	Rev.
Scale: 1"=40'	
Page No. 190	of 270



**NOTES**  
 1. For general notes, see Dwg No. TG001.

- LEGEND**
- Work Zone
  - Bus Pullout Area
  - Concrete Barrier
  - Proposed Traffic Control
  - Temporary Solid Yellow Line
  - Temporary Solid White Line
  - Temporary Broken White Line
  - Temporary Dashed White Line
  - Flow of Traffic
  - Guideway Column Location
  - Attenuator
  - Existing Sign
  - FOC (Face of Curb)
  - EP (Edge of Pavement)



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**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

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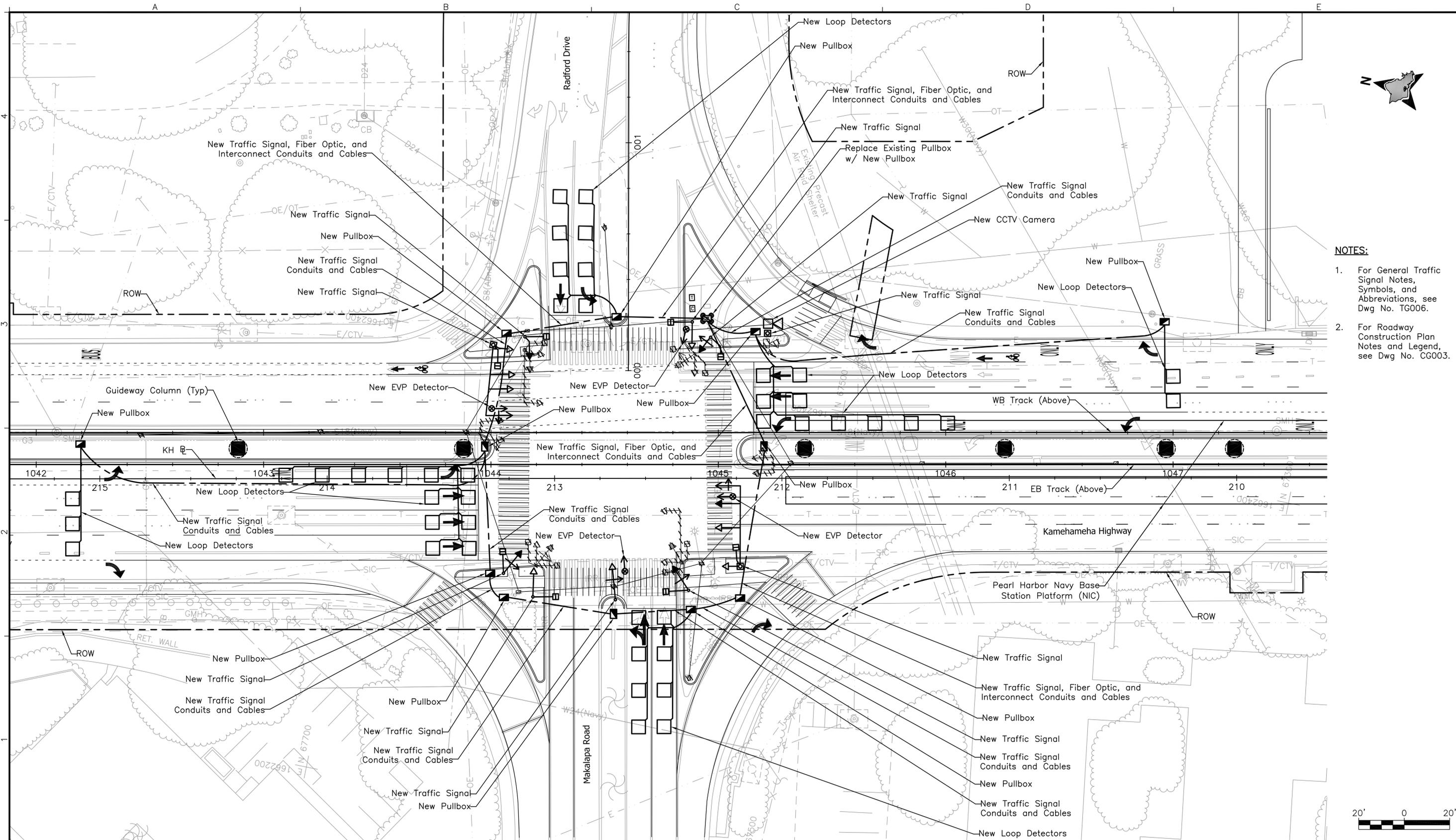
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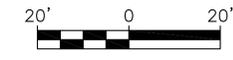
**AIRPORT GUIDEWAY & UTILITIES  
MAINTENANCE OF TRAFFIC PLAN**

**EB 1040+00 TO EB 1050+00**

Contract No.: SV-430	
CADD File: AP-C03-TR109	
Drawing No: TR109	Rev.
Scale: 1"=40'	
Page No. 209	of 270



- NOTES:**
1. For General Traffic Signal Notes, Symbols, and Abbreviations, see Dwg No. TG006.
  2. For Roadway Construction Plan Notes and Legend, see Dwg No. CG003.



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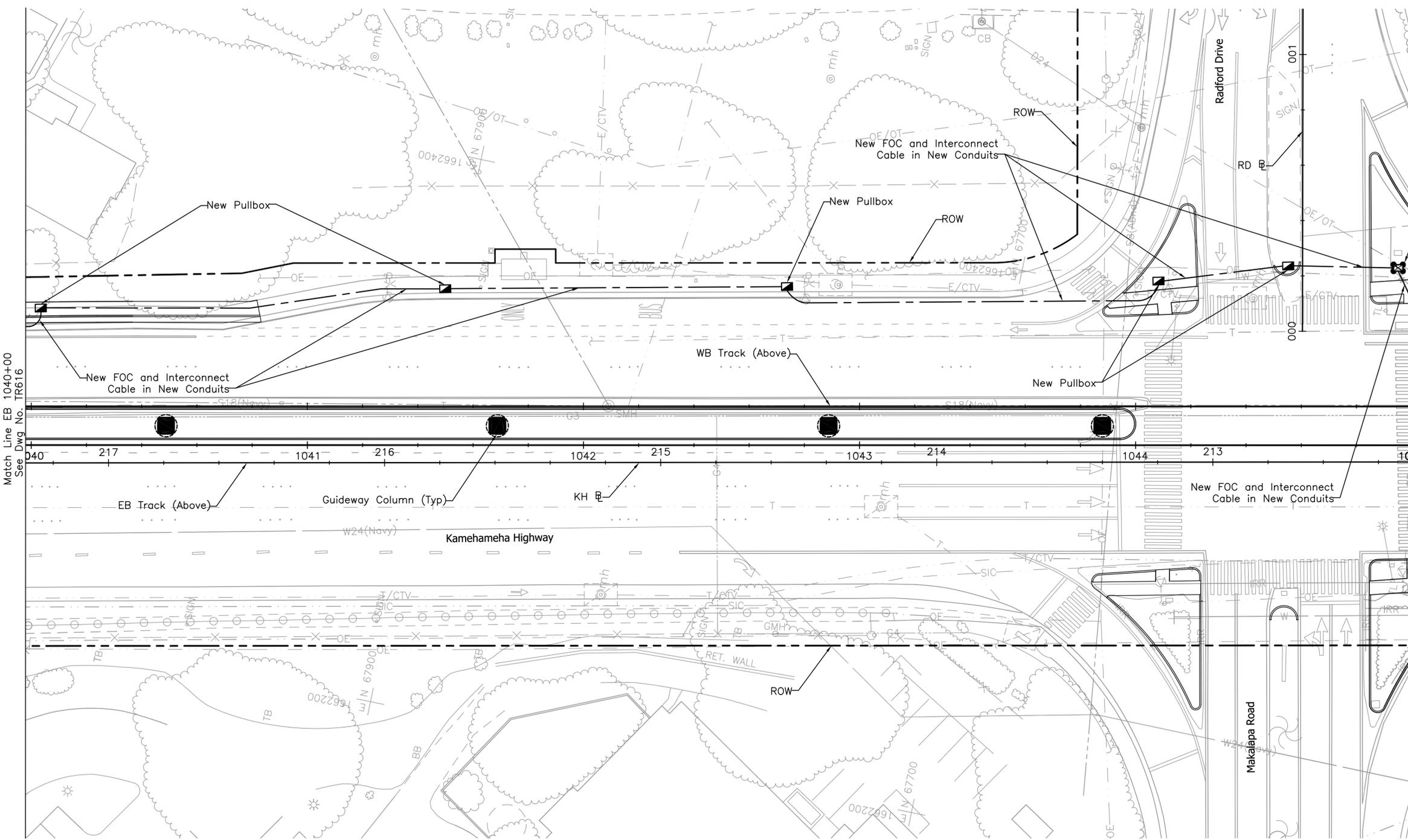
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**AIRPORT GUIDEWAY AND UTILITIES  
TRAFFIC SIGNAL PLAN  
KAMEHAMEHA HWY AT RADFORD DR**

Contract No.: SV-430  
CADD File: AP-C04-TR507  
Drawing No: TR507 Rev.  
Scale: 1" = 20'  
Page No. 235 of 270



Replace Existing Pullbox w/ New Pullbox

- NOTES:**
1. For General Traffic Signal Notes, Symbols, and Abbreviations, see Dwg No. TG006.
  2. For Roadway Construction Plan Notes and Legend, see Dwg No. CG003.
  3. For Traffic Signal Plan, see Dwg No. TR507.

Match Line EB 1040+00  
See Dwg No. TR616

Match Line EB 1045+00  
See Dwg No. TR618



Rev	By	Date	Description

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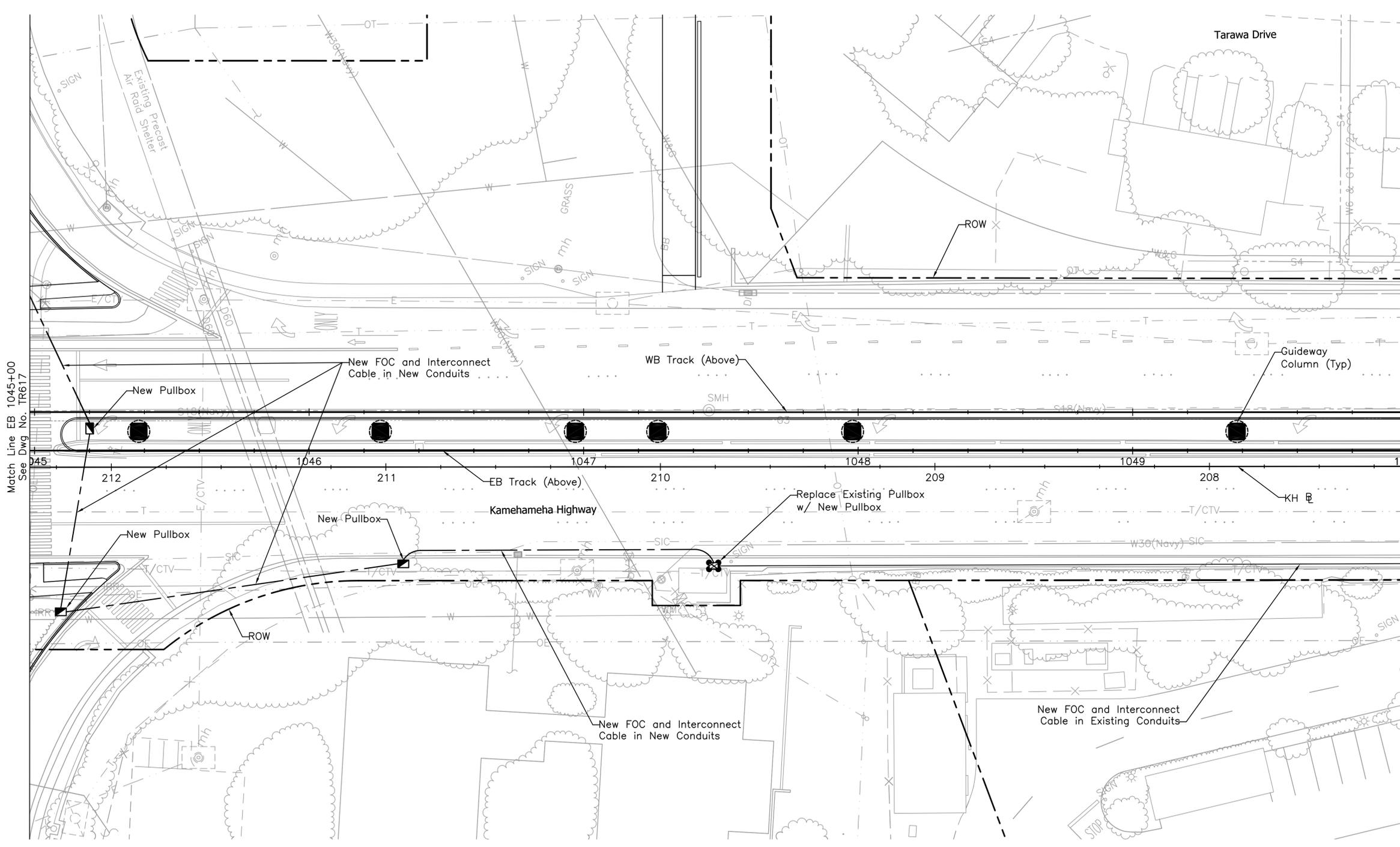
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**AIRPORT GUIDEWAY AND UTILITIES  
FIBER OPTIC & TRAFFIC SIGNAL  
INTERCONNECT PLAN**  
EB 1040+00 TO EB 1045+00

Contract No.:  
SV-430  
CADD File:  
AP-C04-TR617  
Drawing No: TR617 Rev.  
Scale:  
1" = 20'  
Page No. 253 of 270



- NOTES:**
1. For General Traffic Signal Notes, Symbols, and Abbreviations, see Dwg No. TG006.
  2. For Roadway Construction Plan Notes and Legend, see Dwg No. CG003.
  3. For Traffic Signal Plan, see Dwg No. TR507.



Rev	By	Date	Description

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Approved:  
K Niiya  
Date:  
11-18-09

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
For reduced prints, original page size in inches: 0 1 2 3 4

Subconsultant: **ATA AUSTIN, TSUTSUMI & ASSOC., INC.**  
ENGINEERS, SURVEYORS • HONOLULU, HAWAII

**AIRPORT GUIDEWAY AND UTILITIES  
FIBER OPTIC & TRAFFIC SIGNAL  
INTERCONNECT PLAN**

EB 1045+00 TO EB 1050+00

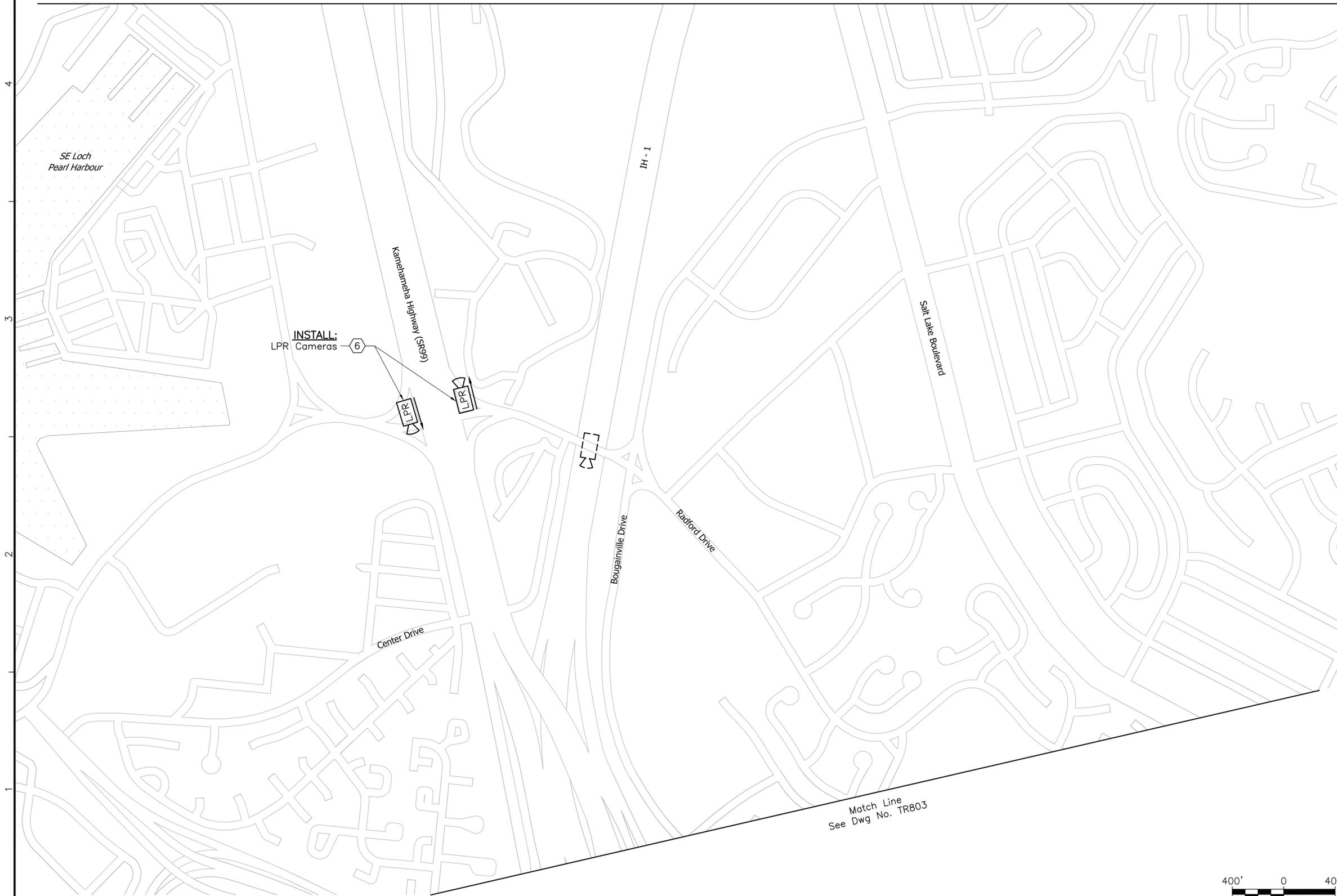
Contract No.:	SV-430
CADD File:	AP-C04-TR618
Drawing No:	TR618
Scale:	1" = 20'
Page No.	254 of 270

Match Line  
See Dwg No. TR801

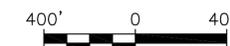


**NOTES:**

- ④ Contractor Shall Provide Portable DMS.
- ⑥ Contractor Shall Provide and Install Two (2) Temporary LPR Cameras Per Direction Of Travel During Construction. Contractor Shall Replace Temporary LPR Cameras With Two (2) Permanent LPR Cameras Per Direction of Travel As Soon As Permanent Power Can Be Accommodated.
- ⑪ Contractor Shall Provide And Install Two (2) Temporary CCTV Cameras. Mount To Existing Street Light Pole On Roadside. Contractor Shall Replace Temporary CCTV Cameras With One (1) Permanent CCTV Camera As Soon As Permanent Power Can Be Accommodated.



Match Line  
See Dwg No. TR803



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
G Kurashima  
Drawn:  
C Matias  
Checked:  
G Fromm  
Approved:  
G Fromm  
Date:  
11-27-09

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

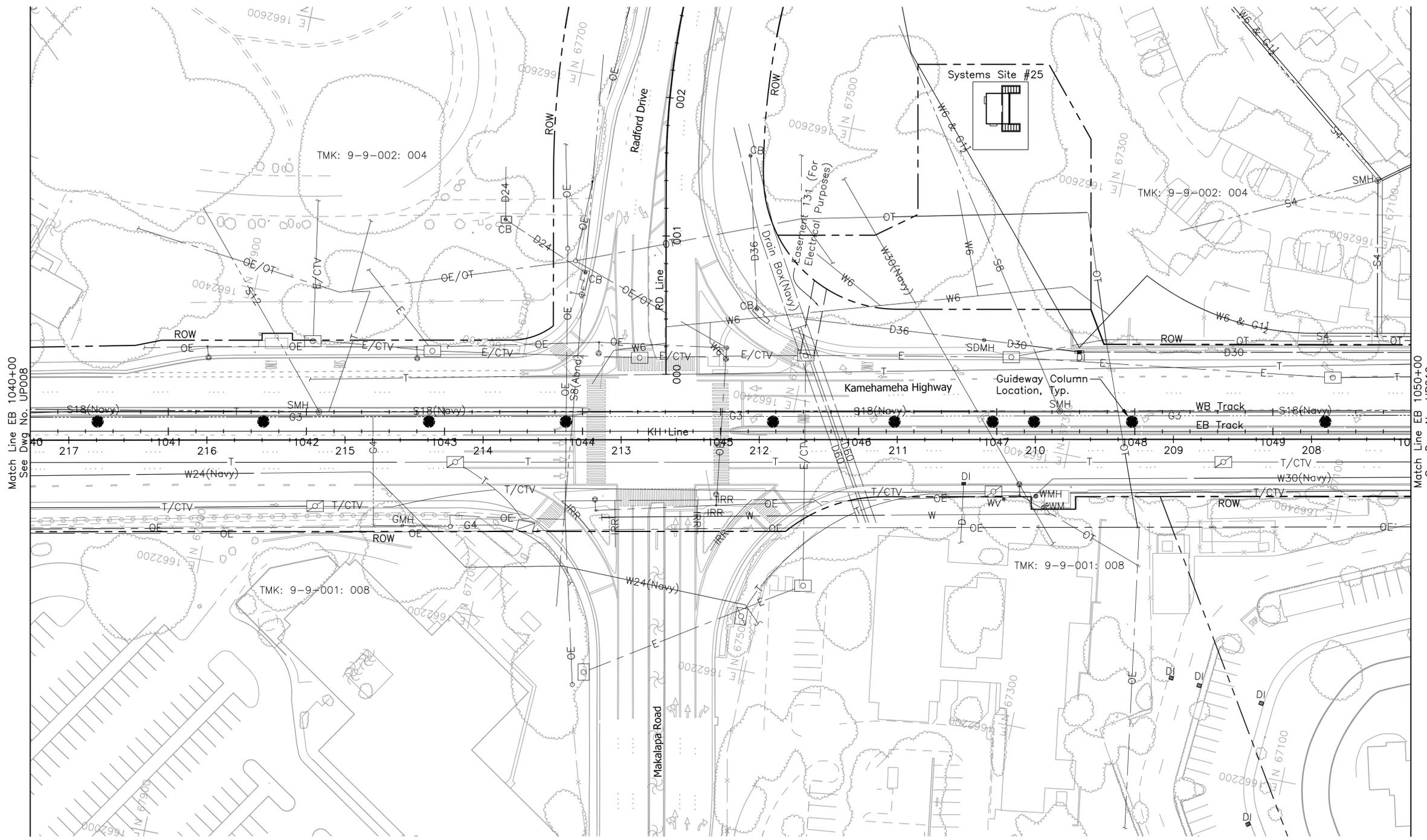
Prime Consultant:  
**PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
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Subconsultant:  
**icx**  
transportation  
1003 Bishop Street, Suite 720 - Honolulu, HI 96813

**AIRPORT GUIDEWAY & UTILITIES  
TRAFFIC MANAGEMENT PLAN  
INTELLIGENT TRANSPORTATION SYSTEMS**

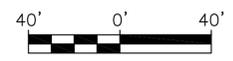
SHEET 2 OF 4

Contract No.:  
SV-430  
CADD File:  
AP-C04-TR702  
Drawing No: TR702 Rev.  
Scale:  
1" = 400'  
Page No.  
258 of 270



Match Line EB 1040+00  
See Dwg No. UP008

Match Line EB 1050+00  
See Dwg No. UP010



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
G Tom  
Drawn:  
N Chan  
Checked:  
J Yamamoto  
Approved:  
G Takahashi  
Date:  
01-11-10

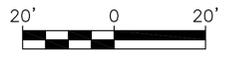
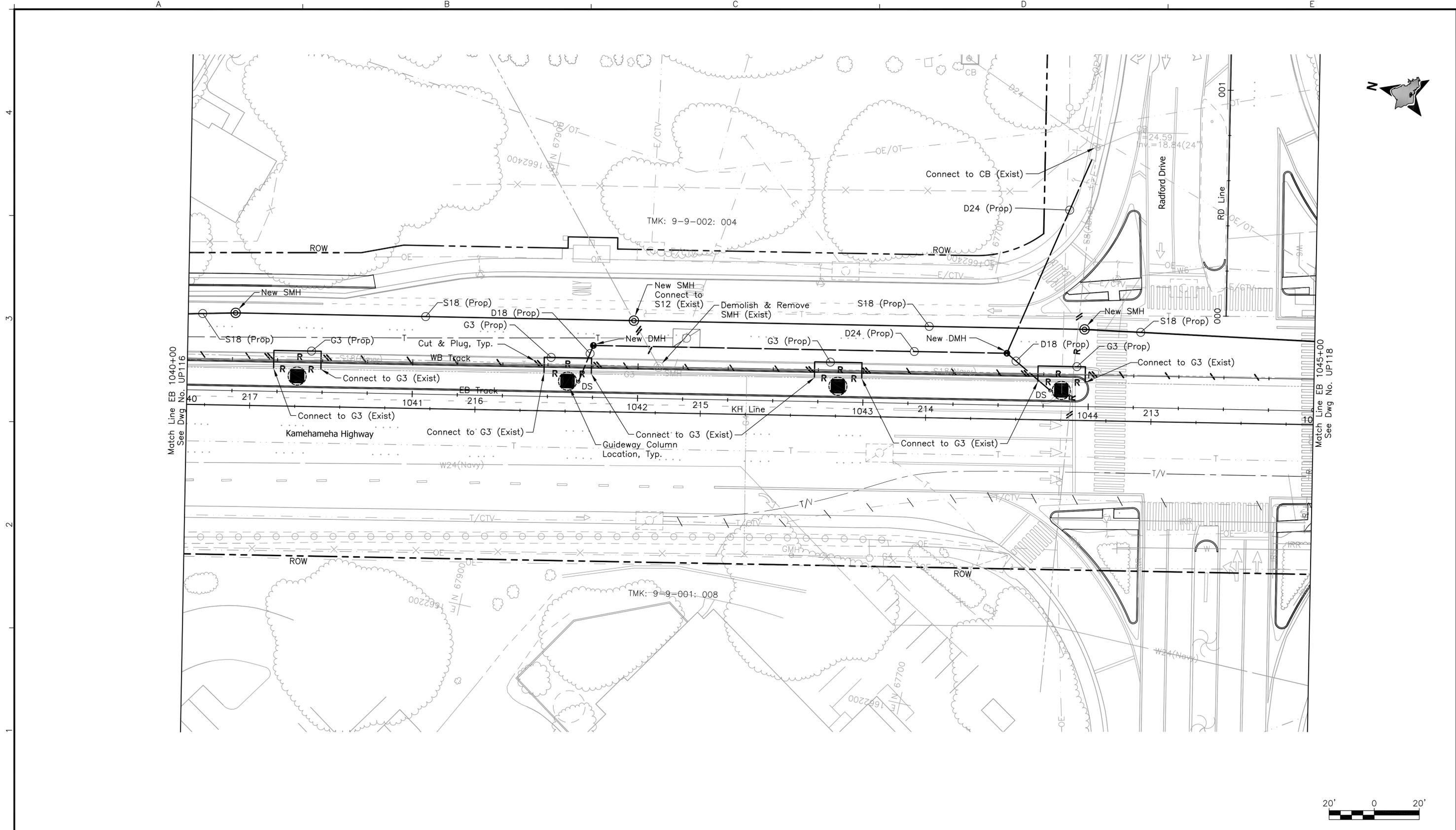
**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant:  
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Subconsultant:  
**R. M. TOWILL CORPORATION**  
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

**AIRPORT GUIDEWAY & UTILITIES  
COMPOSITE PLAN  
EXISTING UTILITIES  
EB 1040+00 TO EB 1050+00**

Contract No.:  
SV-430  
CADD File:  
AP-D02-UP009  
Drawing No: UP009 Rev.  
Scale:  
1"=40'  
Page No.  
41 of 199



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
G Tom  
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N Chan  
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J Yamamoto  
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G Takahashi  
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01-11-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

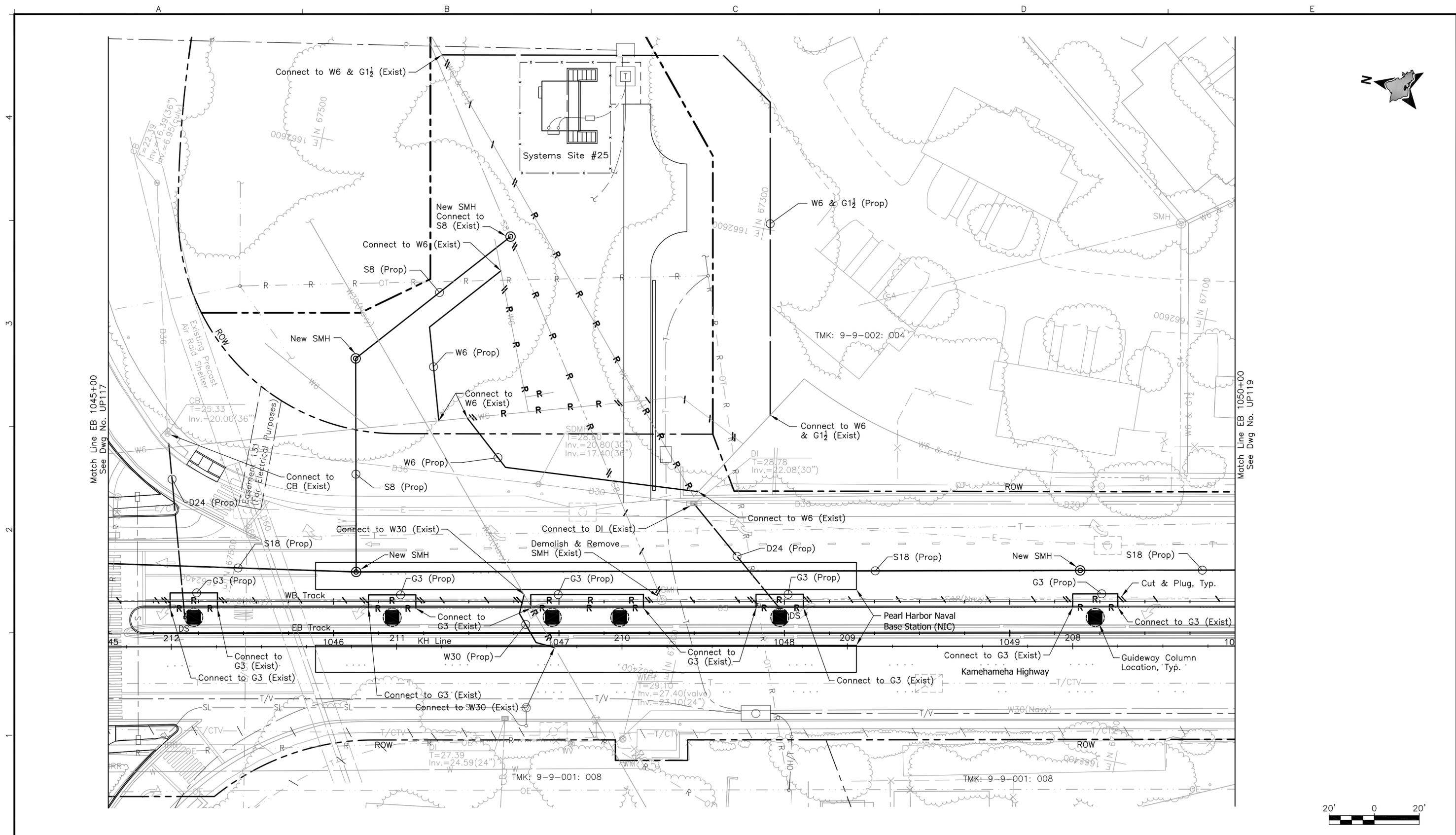
Prime Consultant:  
**PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
For reduced prints, original page size in inches: 0 1 2 3 4 5

Subconsultant:  
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**AIRPORT GUIDEWAY & UTILITIES  
UTILITY RELOCATION PLAN  
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS**

EB 1040+00 TO EB 1045+00

Contract No.:	SV-430
CADD File:	AP-D03-UP117
Drawing No:	UP117
Scale:	1"=20'
Page No.	79 of 211



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
G Tom  
Drawn:  
N Chan  
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J Yamamoto  
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G Takahashi  
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01-11-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

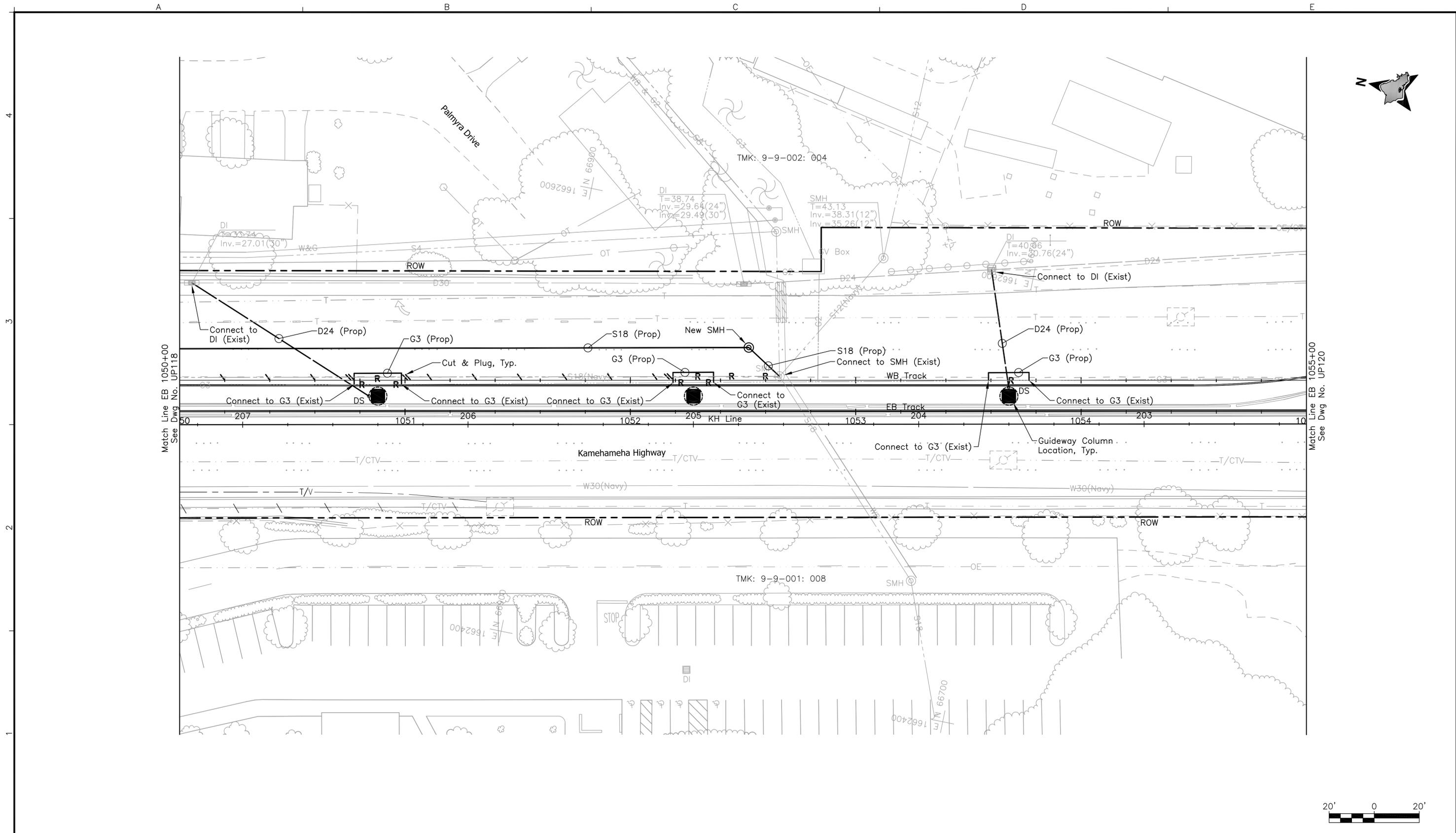
Prime Consultant: **PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
For reduced prints, original page size in inches: 0 1 2 3 4

Subconsultant: **R. M. TOWILL CORPORATION**  
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**AIRPORT GUIDEWAY & UTILITIES  
UTILITY RELOCATION PLAN  
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS**

EB 1045+00 TO EB 1050+00

Contract No.:	SV-430
CADD File:	AP-D03-UP118
Drawing No.:	UP118
Scale:	1"=20'
Page No.:	80 of 211



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
G Tom  
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Date:  
01-11-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
For reduced prints, original page size in inches: 0 1 2 3 4

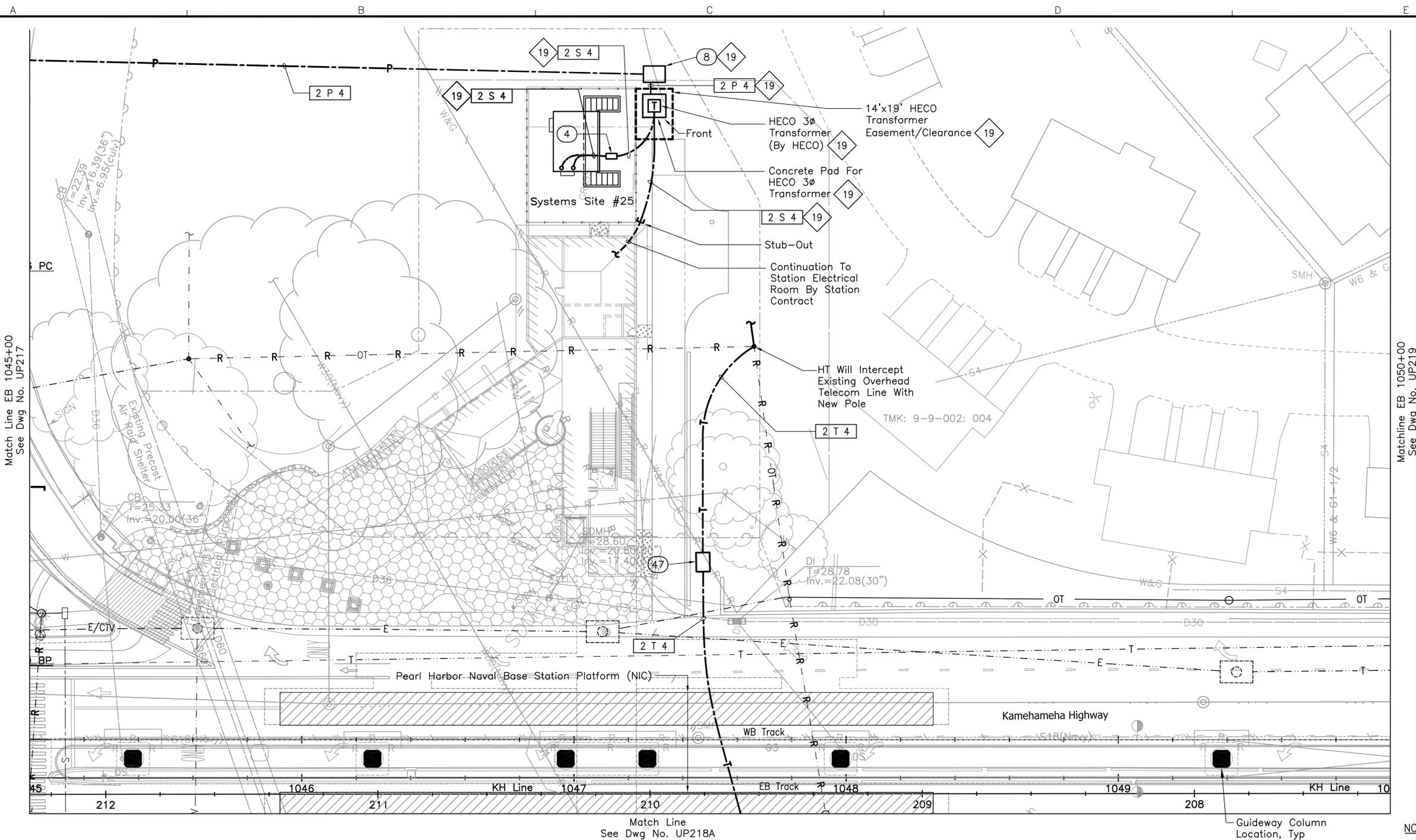
Subconsultant: **R. M. TOWILL CORPORATION**  
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3470

**AIRPORT GUIDEWAY & UTILITIES  
UTILITY RELOCATION PLAN  
WATER, SEWER, DRAINAGE, PETROLEUM, & GAS**

EB 1050+00 TO EB 1055+00

Contract No.:	SV-430
CADD File:	AP-D03-UP119
Drawing No:	UP119
Scale:	1"=20'
Page No.	81 of 211





Match Line EB 1045+00  
See Dwg No. UP217

Matchline EB 1050+00  
See Dwg No. UP219

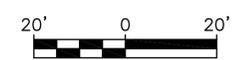
Match Line  
See Dwg No. UP218A

**NOTES:**

⬠ Preliminary new HECO service design only; to be finalized by the final design.

**NOTE:**

Sandwich Isles Communications (SIC) line is a proposed future communication utility project by others and shown for informational purposes only. Coordinate the location of this future line with SIC to avoid potential conflicts. Inform the City of all coordination efforts.



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: T Higa  
 Drawn: I Pascua  
 Checked: L Nishimura  
 Approved: L Nishimura  
 Date: 01-11-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

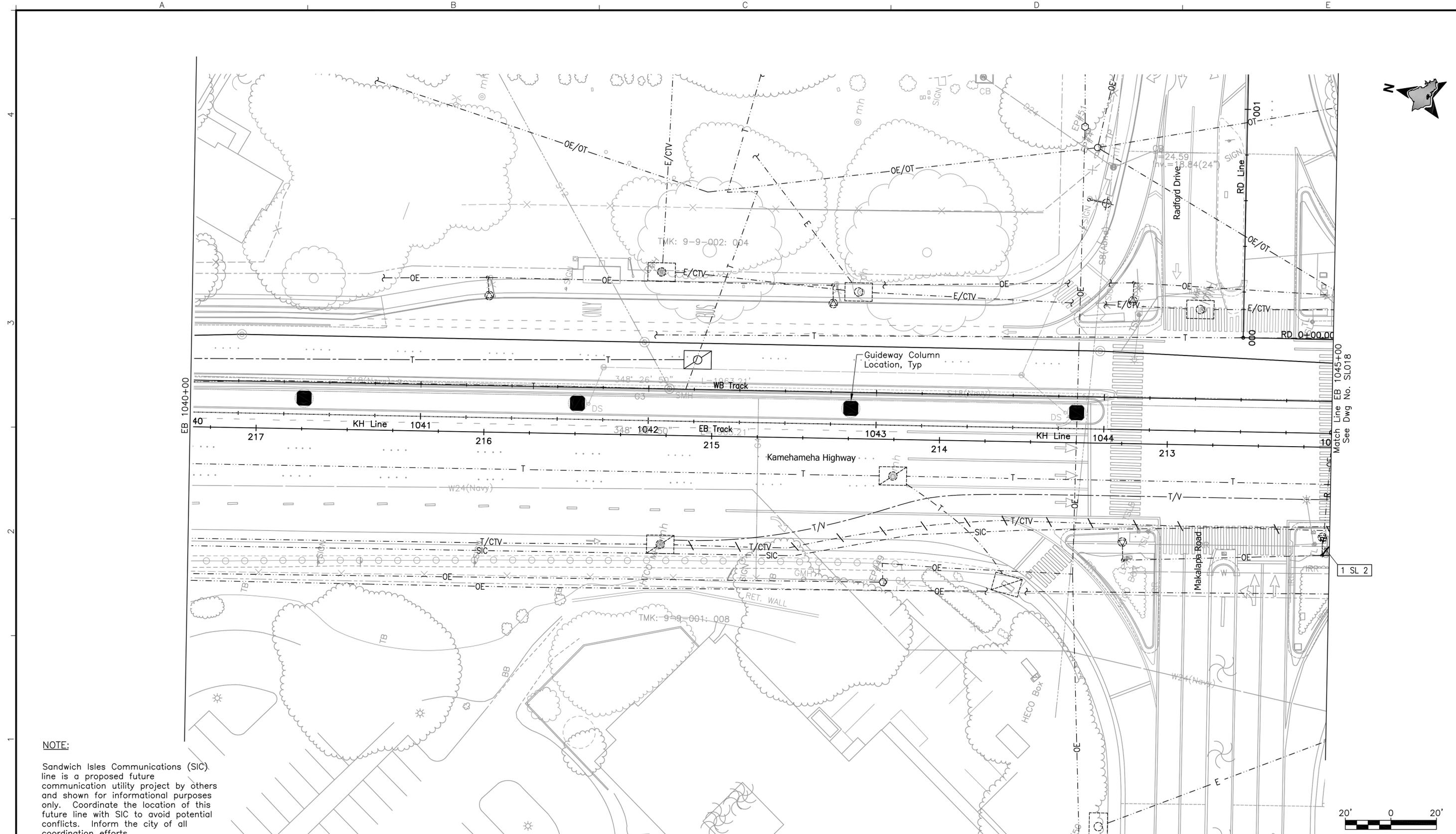
Subconsultant: **ECS, INC.**  
 615 PIKOI ST., SUITE 207  
 HONOLULU, HI 96814

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**AIRPORT GUIDEWAY & UTILITIES  
 UTILITY RELOCATION PLAN  
 ELECTRICAL & COMMUNICATIONS**

**EB 1045+00 TO EB 1050+00**

Contract No.: SV-430  
 CADD File: AP-D03-UP218  
 Drawing No: UP218 Rev.  
 Scale: 1"=20'  
 Page No. 142 of 211



**NOTE:**  
 Sandwich Isles Communications (SIC) line is a proposed future communication utility project by others and shown for informational purposes only. Coordinate the location of this future line with SIC to avoid potential conflicts. Inform the city of all coordination efforts.

Rev	By	Date	Description

**PRELIMINARY  
 ENGINEERING  
 SUBJECT TO REVISION**

Designed: T Higa  
 Drawn: I Pascua  
 Checked: L Nishimura  
 Approved: L Nishimura  
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**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

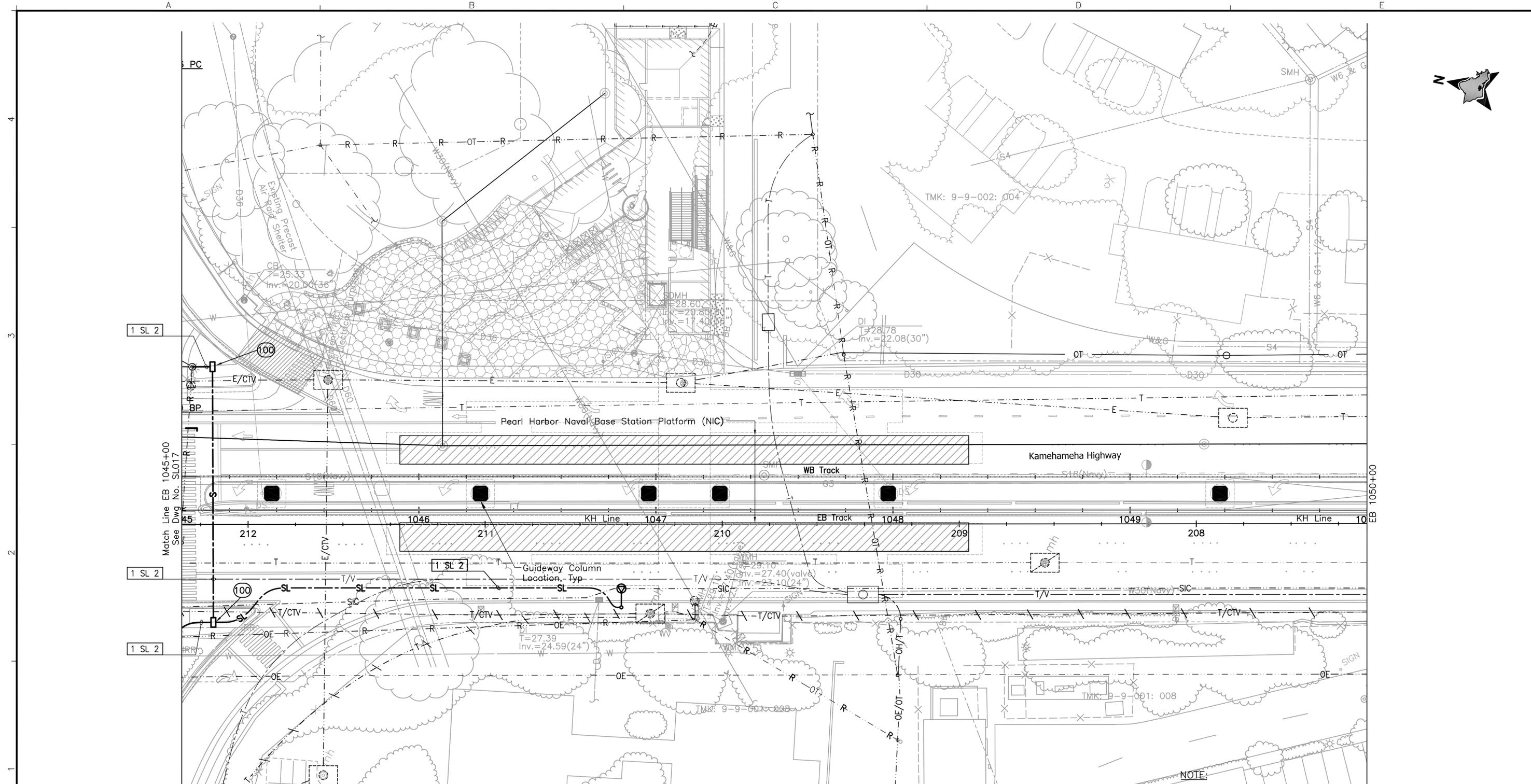
Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
 For reduced prints, original page size in inches: 0 1 2 3 4

Subconsultant: **ECS, INC.**  
 615 PIKOI ST., SUITE 207  
 HONOLULU, HI 96814

**AIRPORT GUIDEWAY & UTILITIES  
 STREET LIGHTING PLAN**

EB 1040+00 TO EB 1045+00

Contract No.: SV-430  
 CADD File: AP-D04-SL017  
 Drawing No: SL017 Rev.  
 Scale: 1"=20'  
 Page No. 186 of 211



NOTE:  
Sandwich Isles Communications (SIC) line is a proposed future communication utility project by others and shown for informational purposes only. Coordinate the location of this future line with SIC to avoid potential conflicts. Inform the city of all coordination efforts.



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
T Higa  
Drawn:  
I Pascua  
Checked:  
L Nishimura  
Approved:  
L Nishimura  
Date:  
01-11-10

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

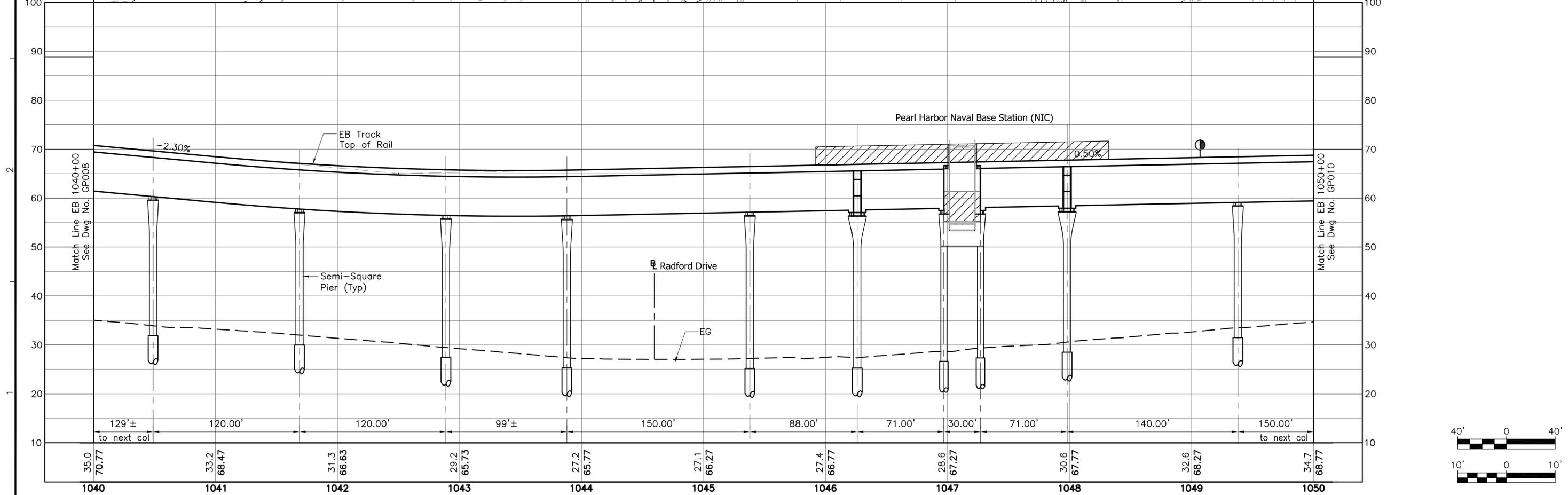
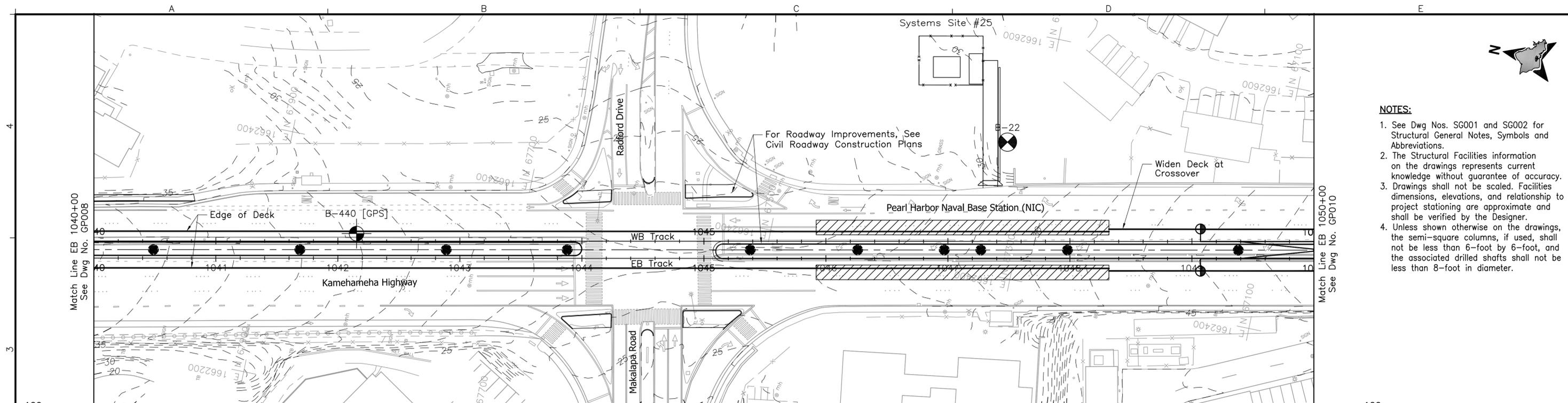
Prime Consultant:  
**PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
For reduced prints, original page size in inches:

Subconsultant:  
**ECS, INC.**  
615 PIKOI ST., SUITE 207  
HONOLULU, HI 96814

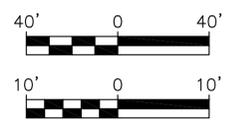
**AIRPORT GUIDEWAY & UTILITIES  
STREET LIGHTING PLAN**

EB 1045+00 TO EB 1050+00

Contract No.: SV-430	
CADD File: AP-D04-SL018	
Drawing No: SL018	Rev.
Scale: 1"=20'	
Page No. 187	of 211



- NOTES:**
1. See Dwg Nos. SG001 and SG002 for Structural General Notes, Symbols and Abbreviations.
  2. The Structural Facilities information on the drawings represents current knowledge without guarantee of accuracy.
  3. Drawings shall not be scaled. Facilities dimensions, elevations, and relationship to project stationing are approximate and shall be verified by the Designer.
  4. Unless shown otherwise on the drawings, the semi-square columns, if used, shall not be less than 6-foot by 6-foot, and the associated drilled shafts shall not be less than 8-foot in diameter.



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: D Yavorsky  
 Drawn: T Cochran  
 Checked: T Kimura  
 Approved: A Borst  
 Date: 11-30-09

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

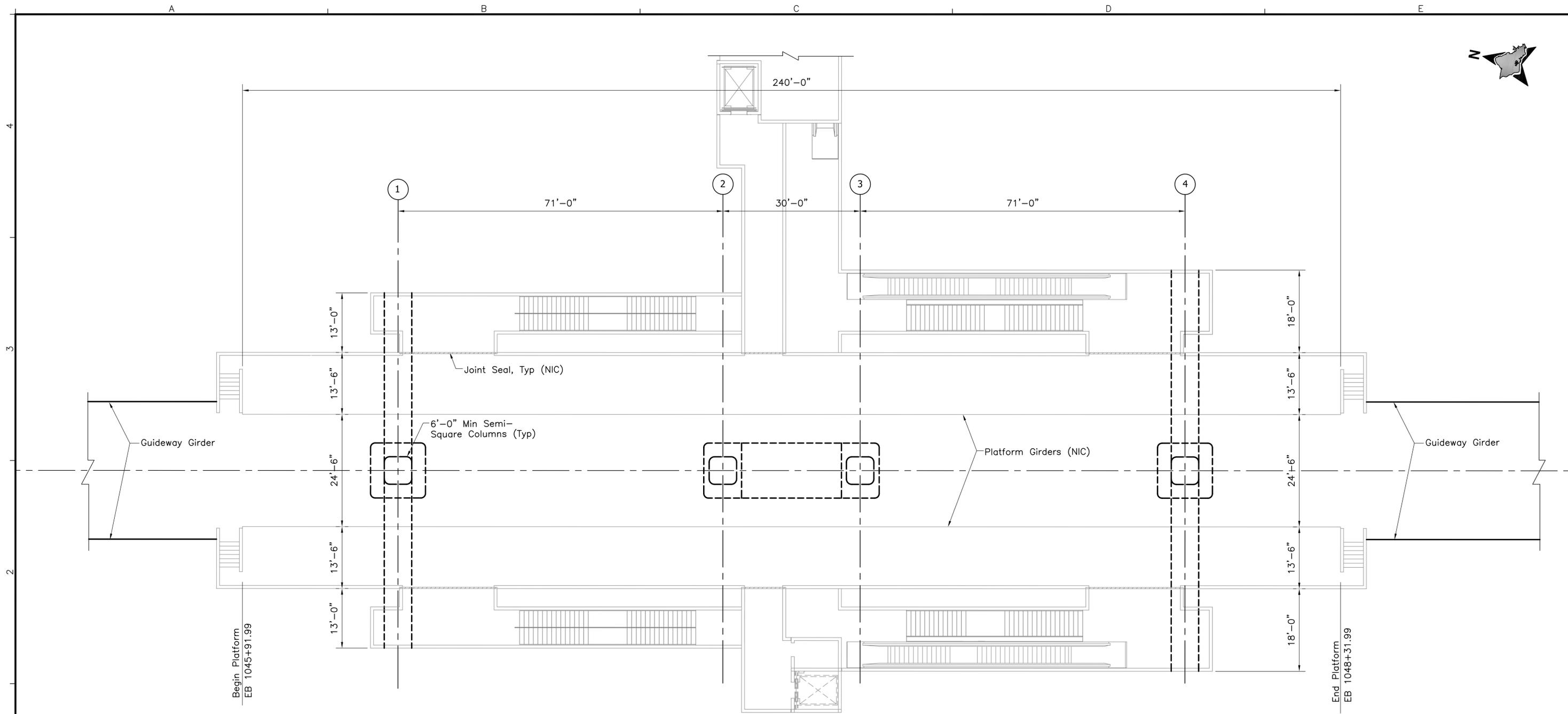
For reduced prints, original page size in inches: 0 1 2 3 4

**AIRPORT GUIDEWAY & UTILITIES**

**STRUCTURAL  
PLAN AND PROFILE**

**EB 1040+00 TO EB 1050+00**

Contract No.: SV-430  
 CADD File: AP-G04-GP009  
 Drawing No: GP009 Rev.  
 Scale: 1"=40' H, 1"=10' V  
 Page No. 32 of 186



- NOTES:**
1. Fade out lines indicate work that is not in the Contract.
  2. The configuration shown relative to NIC work and site condition is under development and subject to change.
  3. Dimensions defining clearances, heights and widths of the proposed guideway trackways, and those to existing or proposed roadways and other City and County of Honolulu facilities shall not be revised without the approval of the City and County of Honolulu, Department of Transportation Services, Rapid Transit Division (RTD). Dimensions and clearances for future station structural elements, station equipment, and passenger headroom and horizontal clearance shall not be revised without the approval of RTD.
  4. See Pearl Harbor Naval Base Station drawings for additional information.



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
D Yavorsky  
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Checked:  
T Kimura  
Approved:  
A Borst  
Date:  
11-30-09

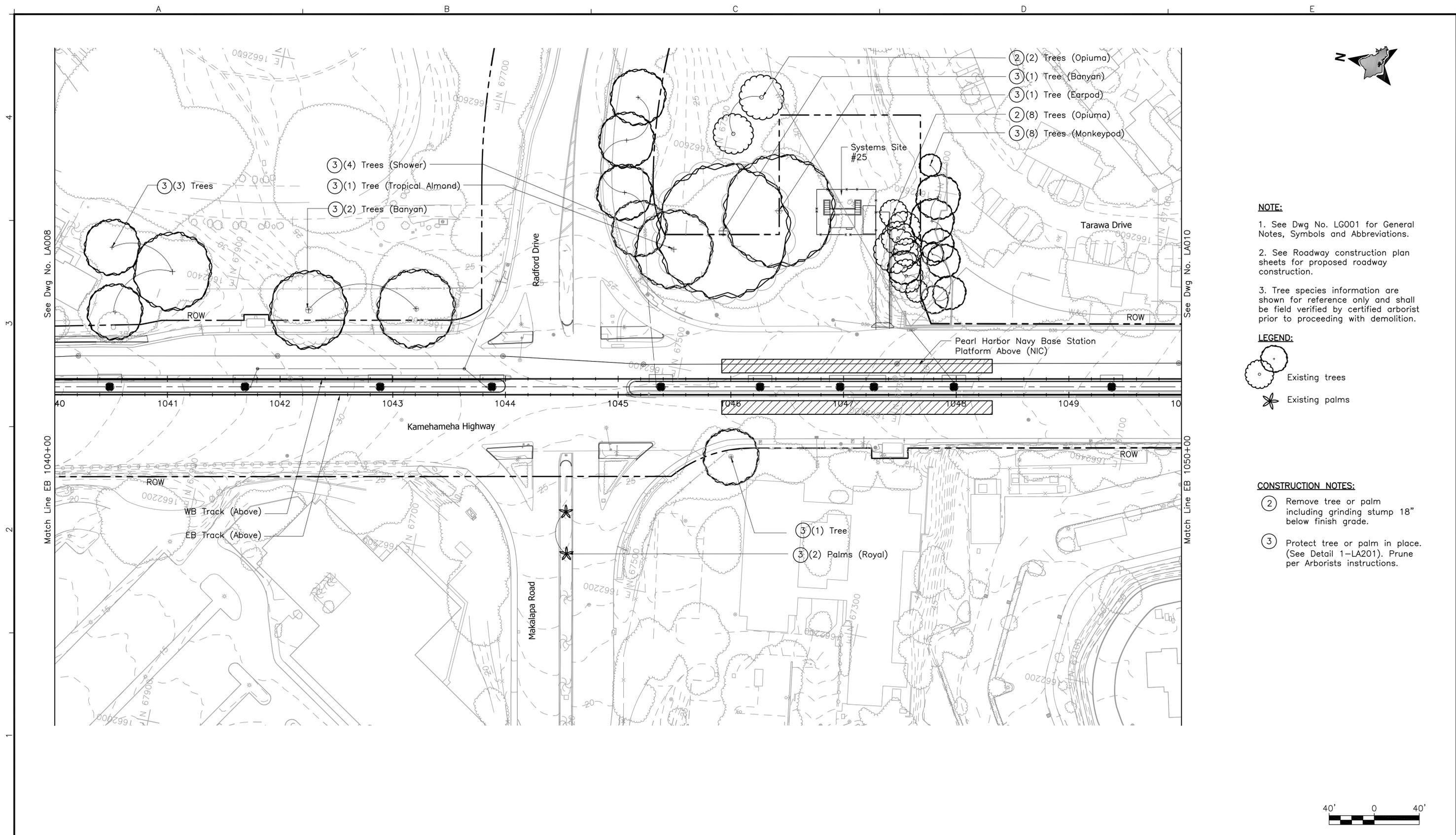
**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
Subconsultant:

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**AIRPORT GUIDEWAY & UTILITIES  
PEARL HARBOR NAVAL BASE STATION  
PLATFORM LEVEL PLAN**

Contract No.: SV-430  
CADD File: AP-G05-FP002  
Drawing No: FP002 Rev.  
Scale: 3/32"=1'-0"  
Page No. 54 of 186



- ② (2) Trees (Opiuma)
- ③ (1) Tree (Banyan)
- ③ (1) Tree (Earpod)
- ② (8) Trees (Opiuma)
- ③ (8) Trees (Monkeypod)

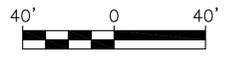
- ③ (4) Trees (Shower)
- ③ (1) Tree (Tropical Almond)
- ③ (2) Trees (Banyan)

③ (3) Trees

- NOTE:**
1. See Dwg No. LG001 for General Notes, Symbols and Abbreviations.
  2. See Roadway construction plan sheets for proposed roadway construction.
  3. Tree species information are shown for reference only and shall be field verified by certified arborist prior to proceeding with demolition.

- LEGEND:**
- Existing trees
  - Existing palms

- CONSTRUCTION NOTES:**
- ② Remove tree or palm including grinding stump 18" below finish grade.
  - ③ Protect tree or palm in place. (See Detail 1-LA201). Prune per Arborists instructions.



Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

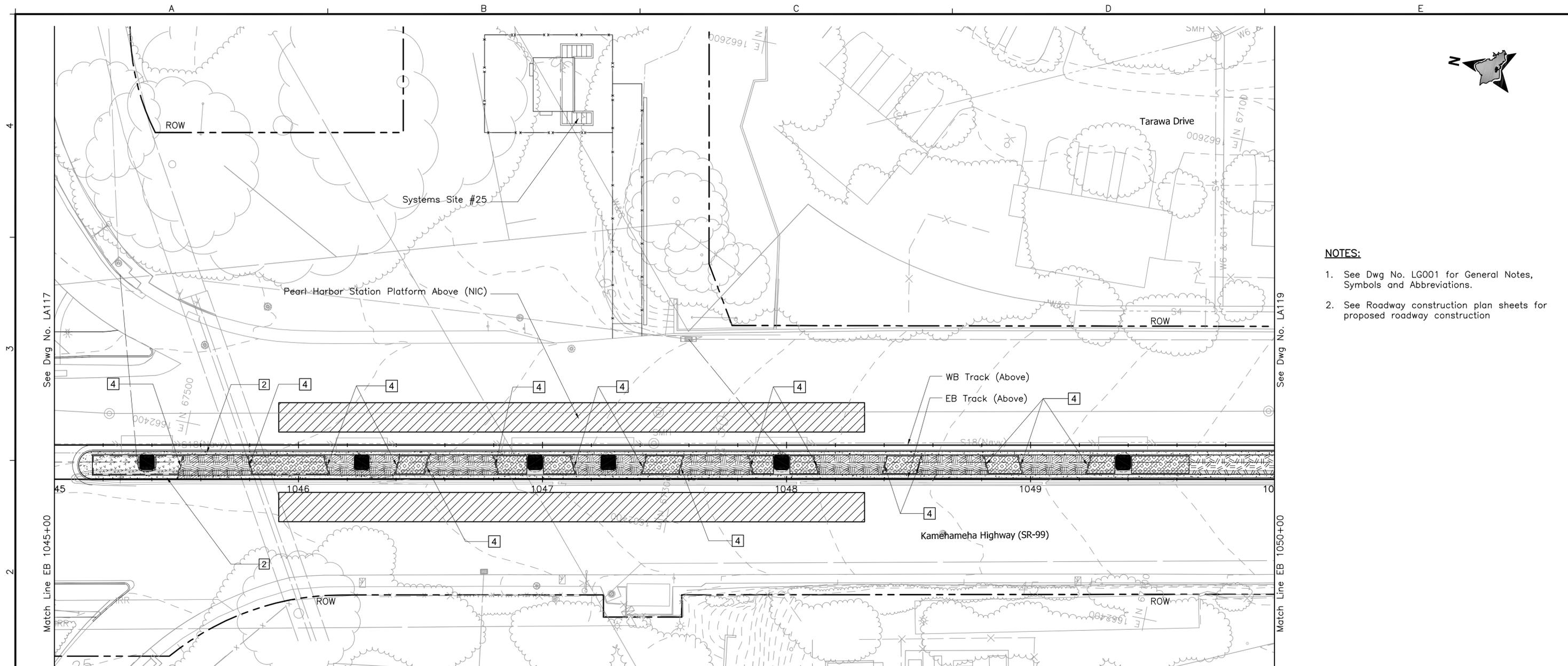
**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Designed: K Fishman Drawn: K Fishman Checked: R Higa Approved: R S Duncan Date: 11-30-09	<b>PARSONS BRINCKERHOFF</b> Prime Consultant: 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813 For reduced prints, original page size in inches:	Subconsultant: Land Planning, Landscape Architecture, Environmental Studies, Graphic Design <b>PBR HAWAII &amp; ASSOCIATES, INC.</b> 1001 Bishop Street, Suite 650 Honolulu, HI 96813	
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**AIRPORT GUIDEWAY AND UTILITIES  
LANDSCAPE DEMOLITION PLAN**

EB 1040+00 TO EB 1050+00

Contract No.: SV-430	
CADD File: AP-J02-LA009	
Drawing No: LA009	Rev.
Scale: 1"=40'	Page No. 95 of 186



- NOTES:**
1. See Dwg No. LG001 for General Notes, Symbols and Abbreviations.
  2. See Roadway construction plan sheets for proposed roadway construction

**PLANT SCHEDULE LA118**

SHRUB AREAS	BOTANICAL/COMMON	GROUND COVERS	BOTANICAL/COMMON
	Pittosporum tobira 'Wheeler's Dwarf' / Wheeler's Dwarf Pittosporum		Ophiopogon japonicus 'Variegata' / Variegated Mondo Grass
	Scaevola sericea / Naupaka Kahakai		Vitex rotundifolia / Pohinahina
	Spathiphyllum x 'Sensation' / Giant Peace Lily		

**REFERENCE NOTES SCHEDULE LA118**

SYMBOL	DESCRIPTION
[2]	Decorative Concrete Paving Equivalent to L.M. Scofield Company's: Chromix Admixture Porcelain Gray 3987; Lithotex Pavcrafters Sculptured Granite Pattern; Lithochrome Antiquing Release Blue Smoke 1138-S; Cementone Clear Sealer
[4]	Recycled Composite Header Equivalent to: Epic Plastics Epic Edge



Rev	By	Date	Description

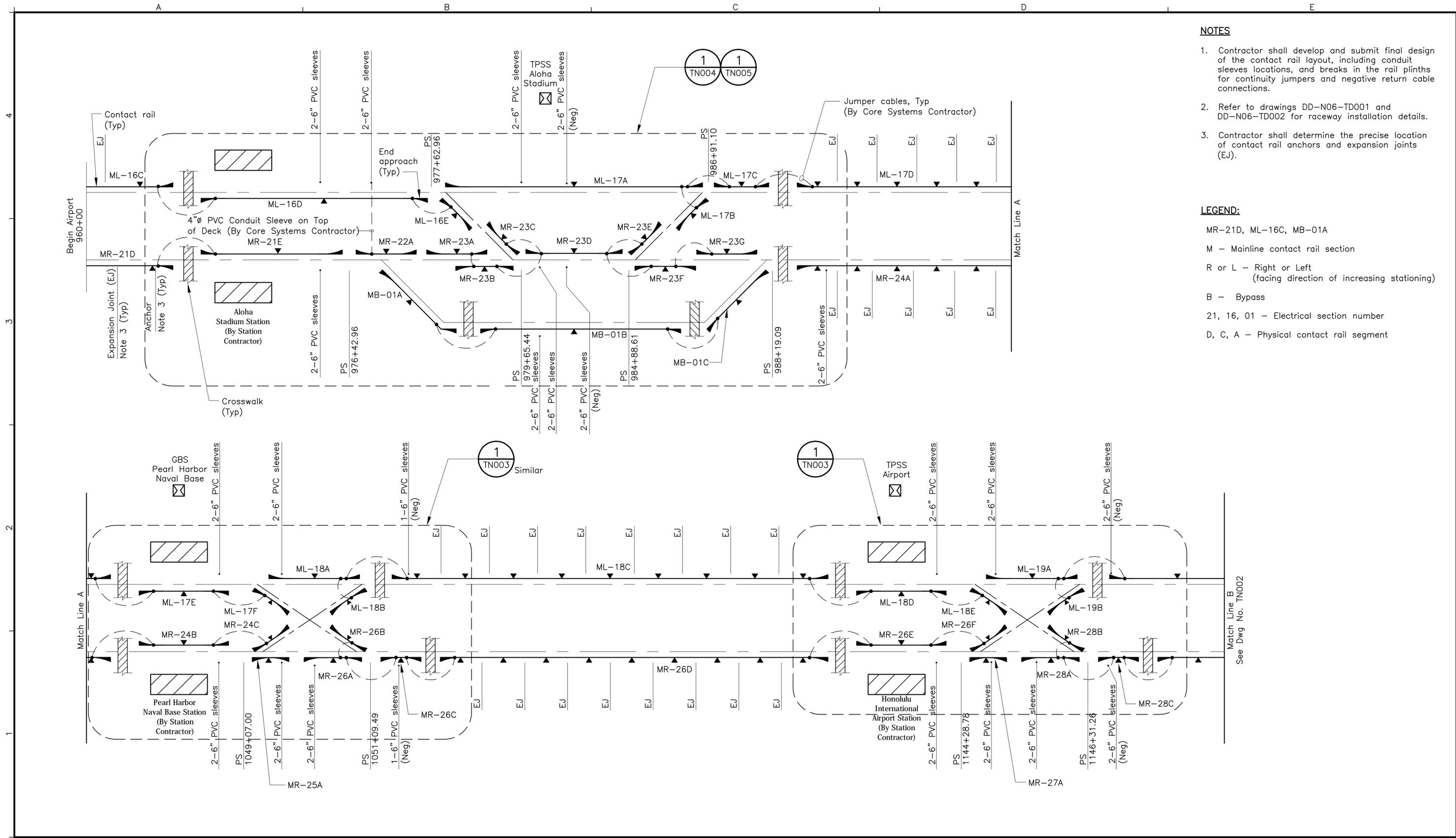
**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Designed: K Fishman Drawn: K Fishman Checked: M Shimatsu Approved: R S Duncan Date: 11-30-09	<b>PRIME CONSULTANT:</b>  1003 Bishop Street, Suite 2250 - Honolulu, HI 96813 For reduced prints, original page size in inches: 0 1 2 3 4	<b>SUBCONSULTANT:</b> Land Planning, Landscape Architecture, Environmental Studies, Graphic Design  1001 Bishop Street, Suite 650 Honolulu, HI 96813
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**AIRPORT GUIDEWAY AND UTILITIES  
LANDSCAPE PAVING AND  
PLANTING PLAN  
EB 1045+00 TO EB 1050+00**

Contract No.: SV-430	
CADD File: AP-J04-LA118	
Drawing No: LA118	Rev.
Scale: 1"=20'	
Page No. 133	of 186



- NOTES**
1. Contractor shall develop and submit final design of the contact rail layout, including conduit sleeves locations, and breaks in the rail plinths for continuity jumpers and negative return cable connections.
  2. Refer to drawings DD-N06-TD001 and DD-N06-TD002 for raceway installation details.
  3. Contractor shall determine the precise location of contact rail anchors and expansion joints (EJ).

- LEGEND:**
- MR-21D, ML-16C, MB-01A
  - M - Mainline contact rail section
  - R or L - Right or Left (facing direction of increasing stationing)
  - B - Bypass
  - 21, 16, 01 - Electrical section number
  - D, C, A - Physical contact rail segment

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed: J Sun  
 Drawn: O Kurnovskaya  
 Checked: A Patel  
 Approved: S Stoilov  
 Date: 11-30-09

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

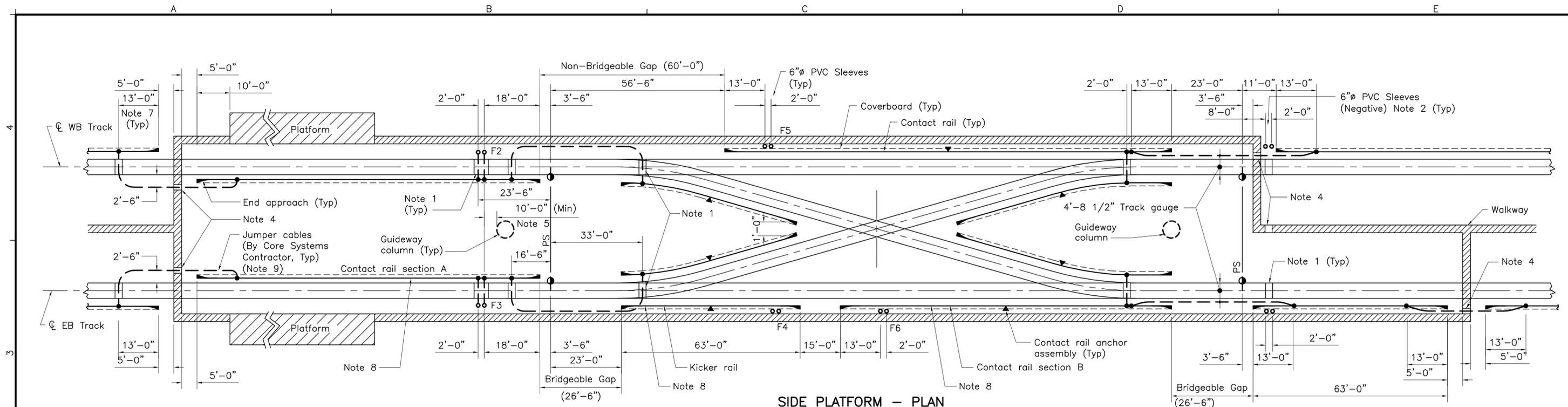
Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813  
 For reduced prints, original page size in inches: 0 1 2 3 4

**AIRPORT GUIDEWAY & UTILITIES**

**CONTACT RAIL INSTALLATION  
CONTACT RAIL SCHEMATIC LAYOUT**

SHEET 1 OF 2

Contract No.: SV-430	
CADD File: AP-N06-TN001	
Drawing No: TN001	Rev.
Scale: NTS	
Page No. 180 of 186	



**SIDE PLATFORM - PLAN**

DETAIL 1  
 NTS TN003 TN001 TN002

**NOTES**

1. Provide break in rail plinths, (10" wide) for cable way, coordinated with required cable connections to contact rail.
2. Location of sleeves and break in plinths will vary per site, refer to drawings TN001 and TN002.
3. Locations of sleeves for conduit stub-ups as shown are approximate. Contractor to determine the exact locations, coordinated with the final contact rail layout.
4. Install 2-5" PVC conduit sleeves for cable way.
5. The distance from the face of the nearest guideway column to the sleeves locations shall be 10'-0" minimum.
6. Locations for cross bonding as shown are approximate. Contractor to locate sleeves in line with the running rail concrete plinth breaks nearby to allow for cross bonding of the four running rails.
7. Shown distance from end of approach ramp to jumper connection to contact rail is approximate. Contractor to determine exact distance based on the final contact rail layout.
8. Shown distance between kicker rail and contact rail section B is preliminary. Contractor to determine exact distance in coordination with the vehicle shoe spacing so that a multi-car train does not form electrical bridge between contact rail section A and contact rail section B when kicker rail is de-energized.
9. For contact rail jumper sizes refer to Master Single Line Diagrams TN006 and TN007.

Location (Note 6)	Conduit	Remarks
961+71	1-5"	PVC Schedule 40
981+22	1-5"	PVC Schedule 40
999+57	1-5"	PVC Schedule 40
1017+92	1-5"	PVC Schedule 40
1036+27	1-5"	PVC Schedule 40
1054+62	1-5"	PVC Schedule 40
1072+97	1-5"	PVC Schedule 40
1091+32	1-5"	PVC Schedule 40
1109+67	1-5"	PVC Schedule 40
1128+02	1-5"	PVC Schedule 40
1146+39	1-5"	PVC Schedule 40
1163+30	1-5"	PVC Schedule 40
1180+21	1-5"	PVC Schedule 40
1197+14	1-5"	PVC Schedule 40
1212+15	1-5"	PVC Schedule 40
1227+16	1-5"	PVC Schedule 40
1242+17	1-5"	PVC Schedule 40

Rev	By	Date	Description

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
 CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
 1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant: \_\_\_\_\_

Designed: J Sun  
 Drawn: O Kurnovskaya  
 Checked: A Patel  
 Approved: S Stoilov  
 Date: 11-30-09

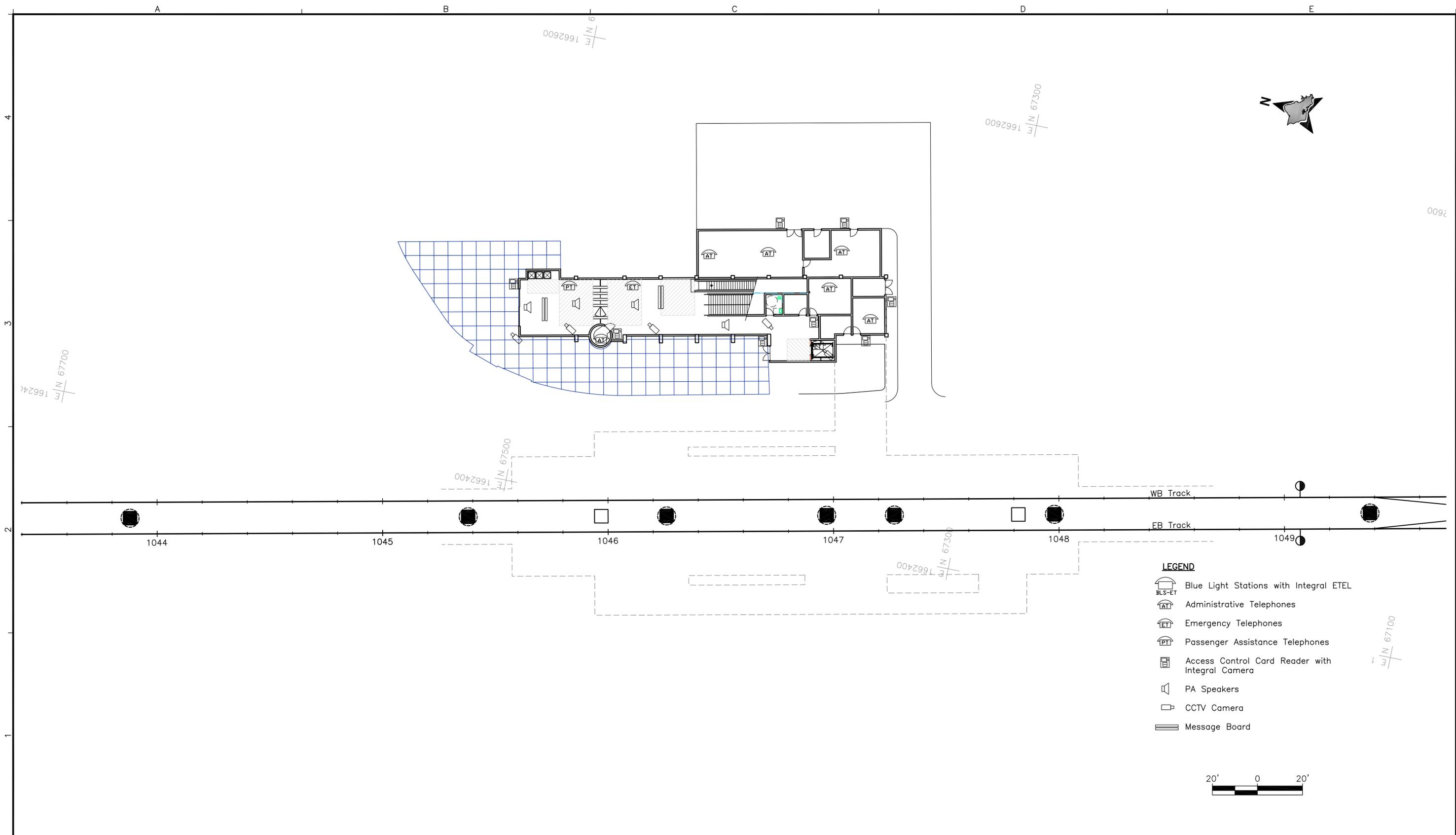
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**AIRPORT GUIDEWAY & UTILITIES**

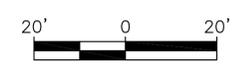
**CONTACT RAIL INSTALLATION  
TYPICAL CONTACT RAIL LAYOUT**

**AT CROSSOVERS**

Contract No.: SV-430
CADD File: AP-N06-TN003
Drawing No: TN003 Rev.
Scale: NTS
Page No. 182 of 186



- LEGEND**
-  Blue Light Stations with Integral ETEL
  -  Administrative Telephones
  -  Emergency Telephones
  -  Passenger Assistance Telephones
  -  Access Control Card Reader with Integral Camera
  -  PA Speakers
  -  CCTV Camera
  -  Message Board



Rev	By	Date	Description
A	HB	11-13-09	Issued For Addendum

**PRELIMINARY  
ENGINEERING  
SUBJECT TO REVISION**

Designed:  
H Bowie

Drawn:  
C Jamison

Checked:  
B Russo

Approved:  
H Bowie

Date:  
11-13-09

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

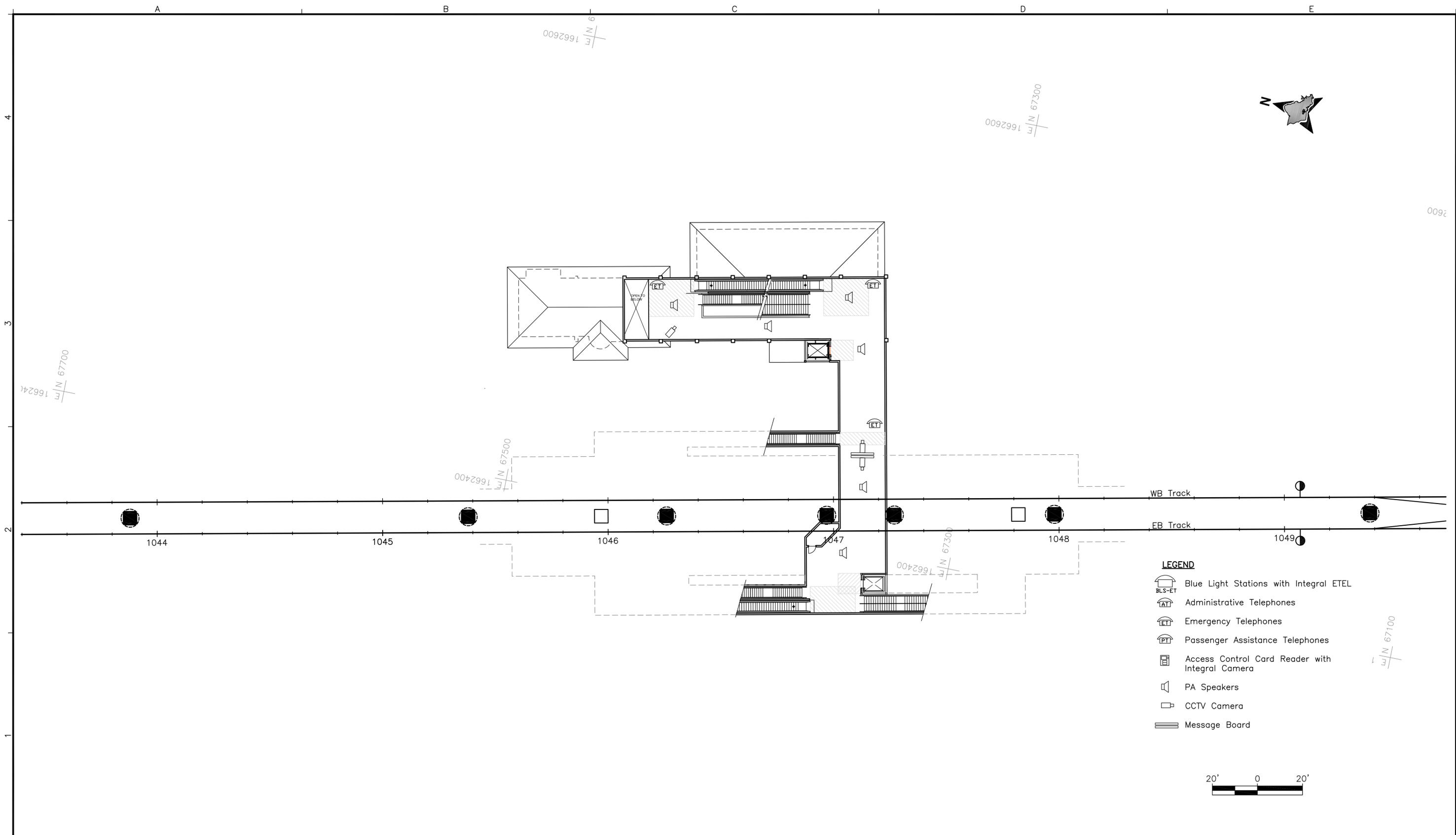
Prime Consultant: **PARSONS BRINCKERHOFF**  
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Subconsultant:

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**CORE SYSTEMS  
PEARL HARBOR NAVAL BASE STATION  
COMMUNICATIONS PLAN  
GROUND LEVEL**

Contract No.: MI-920	
CADD File: CS-R06-CM403	
Drawing No: CM403	Rev. A
Scale: 1" = 20'	
Page No. 156 of 202	



- LEGEND**
-  Blue Light Stations with Integral ETEL
  -  Administrative Telephones
  -  Emergency Telephones
  -  Passenger Assistance Telephones
  -  Access Control Card Reader with Integral Camera
  -  PA Speakers
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  -  Message Board



Rev	By	Date	Description
A	HB	11-13-09	Issued For Addendum

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Designed:  
H Bowie  
Drawn:  
C Jamison  
Checked:  
B Russo  
Approved:  
H Bowie  
Date:  
11-13-09

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

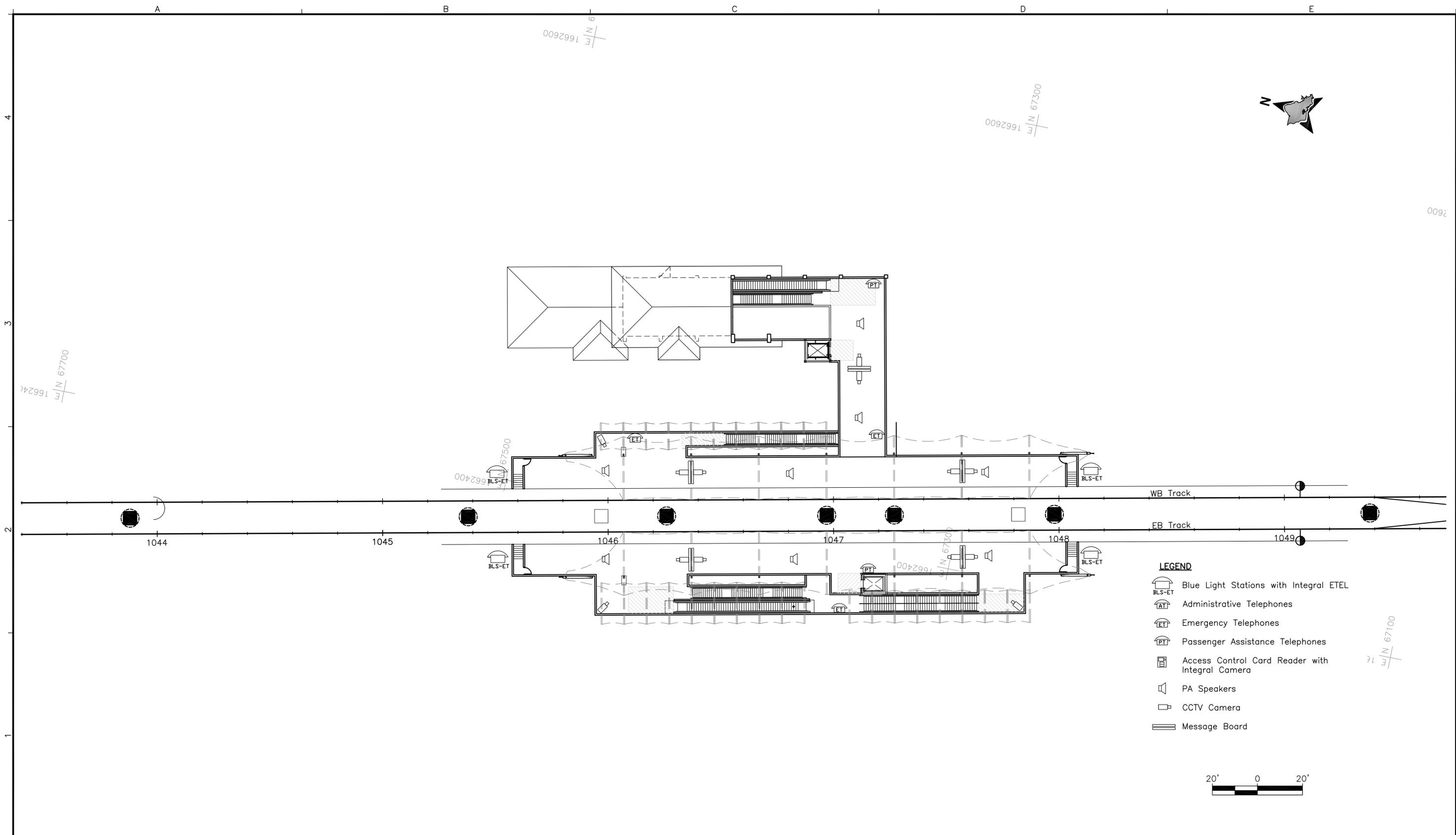
Prime Consultant: **PARSONS BRINCKERHOFF**  
1003 Bishop Street, Suite 2250 - Honolulu, HI 96813

Subconsultant:

For reduced prints, original page size in inches: 0 1 2 3 4

**CORE SYSTEMS  
PEARL HARBOR NAVAL BASE STATION  
COMMUNICATIONS PLAN  
CONCOURSE LEVEL**

Contract No.: MI-920	
CADD File: CS-R06-CM404	
Drawing No: CM404	Rev. A
Scale: 1" = 20'	
Page No. 157 of 202	



Rev	By	Date	Description
A	HB	11-13-09	Issued For Addendum

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ENGINEERING  
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Designed:  
H Bowie  
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11-13-09

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**  
CITY & COUNTY OF HONOLULU - DEPARTMENT OF TRANSPORTATION SERVICES - RAPID TRANSIT DIVISION

Prime Consultant: **PARSONS BRINCKERHOFF**  
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Subconsultant:

**CORE SYSTEMS  
PEARL HARBOR NAVAL BASE STATION  
COMMUNICATIONS PLAN  
PLATFORM LEVEL**

Contract No.: MI-920	
CADD File: CS-R06-CM405	
Drawing No: CM405	Rev. A
Scale: 1" = 20'	
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