



DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	1135R4	1204

REGISTERED ENGINEER - CIVIL
 12-19-08
 PLANS APPROVAL DATE
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NOTES:
 For location of Traveler Control Stations see Assembly sheets for each traveler

KEY PLAN SCHEMATIC

PARTS FOR ELEVATING PLATFORM CONTROL

Part	Description	Size	Quantity/Traveler	MIN CV
L5-L6	Elevator Platform control Limit Valve	1/4"	1 or 2	-
6A	Shuttle Valve: Will be actuated by either L5 or L6 as necessary.	1/4"	0 or 1	-
31	Pressure Regulator set to limit pressure to 620kPag (90 psig)	1 1/4"	1 or 2	21
31A	Pressure Regulator set to limit pressure to 485kPag (70 psig)	3/4"	1 or 2	21
32	Full flow throttle and reverse valve for the linear actuator air motors with built-in emergency stop button. Deadman operation. Use same valve type as is used for trolley throttles.	1 1/4"	1 or 2	25
33	Linear Actuator Air Motor. Max air consumption 183 scfm per motor		1 or 2	-
34	Exhaust Choke Throttling Valve	To suit motor port	1 or 2	-
35	Silencer	To suit motor port	1 or 2	-
36	Inline Lubricator: One Required at each air motor inlet.	3/4"	2 or 4	4
37	NOT USED			-
38	Piloted Safety Valve to allow flow only when Pedal Valve 40 is actuated. - Poppet Valve	1 1/4"	1 or 2	19
39	NOT USED			-
40	Pedal Control Valve, located at the Elevated Platform Control Station. Operation: 1. To lift Elevated Platform, Pedal must be held depressed while operating the Throttle Valve. (32)	1/4"	1 or 2	-
41	3-Way Manual Diversion Ball Valve with Latch-Lock Lever and Nut to allow isolation of Elevating Platforms for maintenance or repair without having to shut down the other air systems on the Traveler	1 1/4"	1	21

TRAVELER AIR SYSTEM NOTES:

- All double check valves shall be installed horizontally.
- All vents without silencers unless noted otherwise shall have a minimum of 300 mm of pipe and terminate with a screened downturned elbow.
- Flexible hose (not to exceed 750 mm in length unless otherwise noted or shown) may be used for final connections to equipment.
- All pipe sizes are typical for similar locations.
- On board rigid pipe to be SCHED 40.
- Provide support to 2" pipe within 150 mm of each pipe hose connection and at 1800 intervals maximum.
- Provide downturned elbow and reducer as required at each equipment connection.
- Provide sufficient flexible connection hose to accommodate traveler movement (12,000 mm length).
- Mount throttle and whistle valves so as to be accessible by hand.
- Mount main system pilot valves (Dead Man Switch) so as to be operated by foot.
- Fabricator to design and provide a steel framed, plywood sheathed control console. Provide weather cover for all controls.
- Traveler operating speed 6.1 m/min (20 fpm) fully loaded going up grade.
- Anticipated trolley air consumption at full speed is 33 scfm per motorized trolley.
- Pneumatic schematics illustrate the principles of the pneumatic systems. System manufacturer is to review pneumatic schematics; carry out detailed layout of the system; make any detailed modifications necessary to ensure the proper operation of the systems.
- For functional description of components and other requirements, see specification.
- Elevating platform drives and actuators are designed to operate with air pressure in the range from 490 to 690 kPa (70 to 100 psig). Provide pressure relief valves to avoid supply of excessive pressure to the drive motors so as to avoid excessive motor stall-out torque.
- SAS EB & WB Travelers have 4 suspension systems (12 motors) and one elevating platform each.
- E2/E3 EB & WB Travelers have 8 suspension systems (24 motors) & two elevating platforms each. These travelers change suspension systems when Hinge A is crossed.
- Quick disconnects items 11 & 12 are only on the E2/E3 Travelers. SAS Travelers are to be piped with fixed connections.
- Main system pilot valves (item 5) - 1 required for operator facing east and 1 required for operator facing west.



FOR REVISIONS ONLY

CONTRACT CHANGE ORDER NO. _____
 SHEET ____ OF ____

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE				
MARK	DATE	DESCRIPTIONS	BY	CH'D
△	02/25/11	TRAVELER MODIFICATIONS	RH	AS 183
△	02/12/10	TRAVELER MODIFICATIONS	RH	AS 245I
△	08/21/09	TRAVELER MODIFICATIONS	RH	AS 245I
△	07/20/07	RAIL CHANGE & MISCELLANEOUS DETAILS	RD	NV 24

DESIGN	BY	CHECKED
DESIGN	R. Scott	R. Henriksen
DETAILS	Z. Istre	J. Otter
QUANTITIES	R. Scott	T. Ho

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

BRIDGE NO.	34-0006L/R
KILOMETER POST	13.2/13.9

SAN FRANCISCO OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE (SUPERSTRUCTURE & TOWER)
TRAVELER AIR SYSTEM-02A

100% P&S DATE PLOTTED => 25 FEB 2011 TIME PLOTTED => 11:46:19 USERNAME => DW\inow