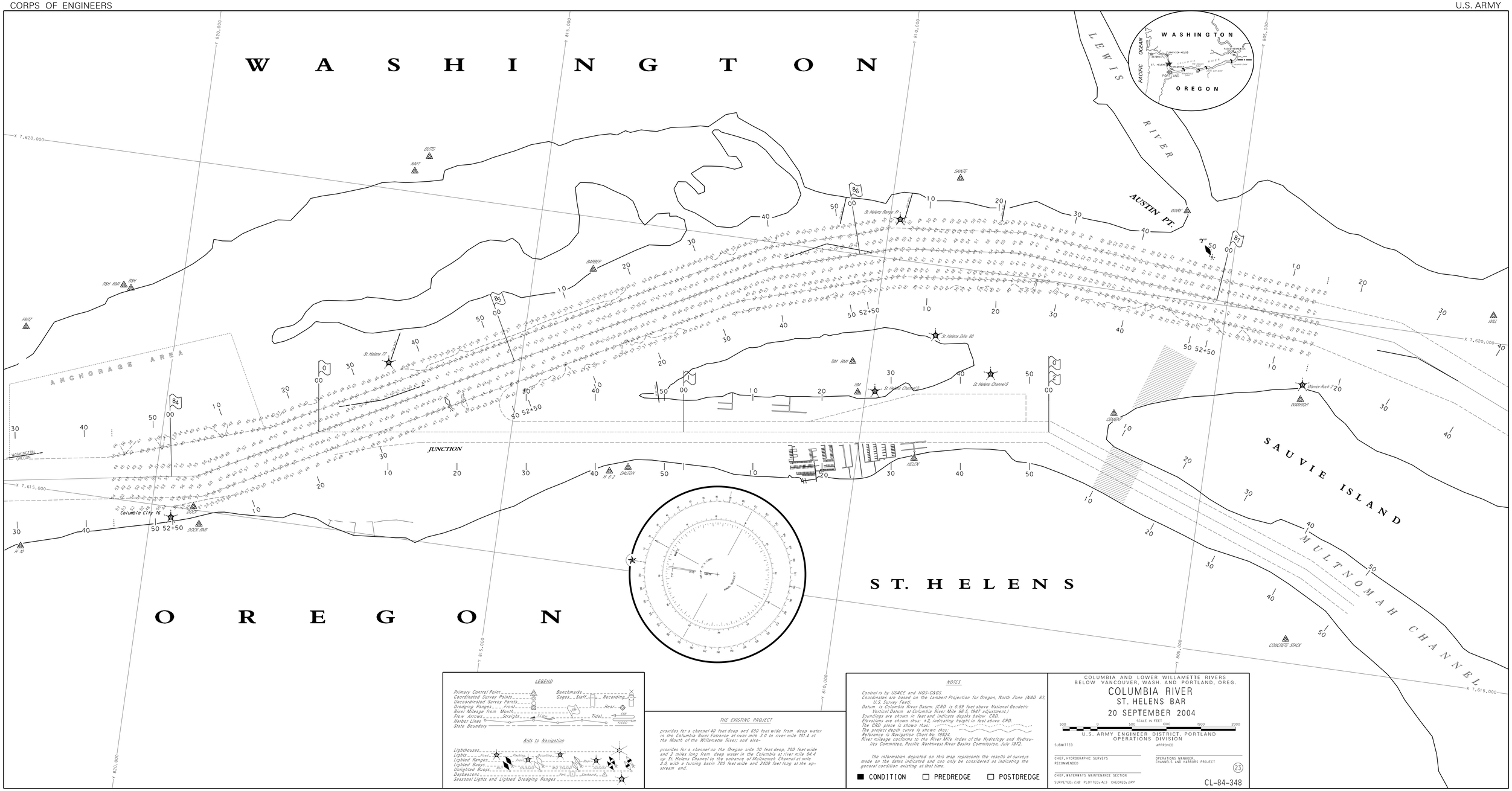


## LEGEND

Primary Control Point
Coordinated Survey Points
Uncoordinated Survey Points
Dredging Ranges — Front
River Mileage from Mouth
Flow Arrows — Straight
Harbor Lines
State Boundary
Benchmarks
Gages — Staff — Recording
Rear
Tidal
Aids to Navigation
Lighthouses
Lights — Fixed — Flashing
Lighted Ranges
Lighted Buoys
Unlighted Buoys
Daybeacons
Seasonal Lights and Lighted Dredging Ranges

## THE EXISTING PROJECT

provides for a channel 40 feet deep and 600 feet wide from deep water in the Columbia River Entrance at river mile 3.0 to river mile 101.4 at the Mouth of the Willamette River; and also-

provides for a channel on the Oregon side 30 feet deep, 300 feet wide and 2 miles long from deep water in the Columbia at river mile 84.4 up St. Helens Channel to the entrance of Multnomah Channel at mile 2.0, with a turning basin 700 feet wide and 2400 feet long at the upstream end.

## NOTES

Control is by USACE and NOS-C&GS.
Coordinates are based on the Lambert Projection for Oregon, North Zone (NAD 83, U.S. Survey Feet).
Datum is Columbia River Datum. (CRD is 0.99 feet above National Geodetic Vertical Datum at Columbia River Mile 86.5, 1947 adjustment.)
Soundings are shown in feet and indicate depths below CRD.
Elevations are shown thus: +2 indicating height in feet above CRD.
The CRD plane is shown thus:
The project depth curve is shown thus:
Reference is Navigation Chart No. 18524.
River mileage conforms to the River Mile Index of the Hydrology and Hydraulics Committee, Pacific Northwest River Basins Commission, July 1972.

The information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as indicating the general condition existing at that time.

■ CONDITION ☐ PREDREDGE ☐ POSTDREDGE

COLUMBIA AND LOWER WILLAMETTE RIVERS
BELOW VANCOUVER, WASH. AND PORTLAND, OREG.

# COLUMBIA RIVER
## ST. HELENS BAR
## 20 SEPTEMBER 2004

SCALE IN FEET
500 0 500 1000 1500 2000

U.S. ARMY ENGINEER DISTRICT, PORTLAND
OPERATIONS DIVISION

SUBMITTED
APPROVED
CHIEF, HYDROGRAPHIC SURVEYS
RECOMMENDED
OPERATIONS MANAGER, CHANNELS AND HARBORS PROJECT
CHIEF, WATERWAYS MAINTENANCE SECTION
SURVEYED: CJB PLOTTED: ALS CHECKED: DRP

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