The Columbia River Crossing has five piers to support the tied arches with two piers in the Columbia River and three on Dry Land. They are off equal length to simplify fabrication and spaced at 820’ each.

From pier to pier we have three identical arches in order to carry the weight. Specific arch design not defined at this point.

After that we have smaller columns going north with spacing’s of 280’ on the average till the end points.

Des by R.N.
Not fully to scale
HSR _S_Vancouver_perspective_02
South Vancouver area with existing Amtrak Station, Skywalk to the Commuter Trains and the general view of the CHSR corridor.

Enclosed Skywalk Elv 80' with elevators, escalators and people mover belt.

Enclosed commuter platform Elv 140' > 820' long.

Track Elv 140' > 550' long.

Motorway Elv 168'.

Vancouver Amtrak Station.

Arch Bridge segments Note: there are three Arches per segment.

Pier spacing 280'
Just south off Mill Plain Blvd, note the tracks emerging from below the motorways.
From the Mill Plain Bridge north wards to 4th plain Blvd. Note; the motorway will now decline in elevations to accommodate the interchanges at 4th Plain and the much lesser curve for the CHSR.

Motorway Elv 167' grade 6%

Building Elv 65'

CHSR Elv 111' Grade 1.2%

Pier spacing is 280' average

Motorway Elv 167' grade 6%

HSR S Vanc_03a
North of Mill Plain Blvd. Note; the CHSR overpass of the 4th Plain Blvd, reason is elevation conflict with the 4th Plain bridge. Note; the roadway interchanges...
4th Plain Blvd with CHSR corridor and roadway interchanges. Note; the roadway underpass and overpass at 4th Plain Blvd. Two of the CHSR tracks will intersect with BNSF freight tracks just south of 39th Street.
North of 4th Plain Blvd. Some Industrial Buildings need to be re-designed or re-located to the west.
39th Street area. Here the CHSR tracks will pass under the 39th St Bridge and the freight tracks will merge with the existing freight line tracks.
The arch bridge design abbreviated in example and not to scale.

Illustrative arch segment designs; note the center column, they will occur at each transition point. The arches will be in multiples to provide the crossing of the Columbia River. There will be ample room for Ship passage. The overall elevation does not interfere with the PDX air traffic, but will require verification.