Davide Bizzi consulted with many of his real estate colleagues in New York before deciding to buy a parcel on the western edge of SoHo, at the mouth of the Holland Tunnel, for a condominium development.

“In the beginning, I was afraid of the tunnel,” said Mr. Bizzi, a global developer.

But many friends, including Howard M. Lorber, the chairman of Douglas Elliman Real Estate, talked to him about the changing downtown landscape. Neighborhoods that were once considered outer fringes of Manhattan, like Hudson Square to the west, were now bleeding into SoHo and TriBeCa, they agreed, and formerly distinct neighborhood borders were being blurred.

Even the Pritzker Prize-winning architect Renzo Piano, a friend who at the time was working on the new Whitney Museum of American Art, thought the location was good, Mr. Bizzi said. Although the building would overlook tunnel traffic that is often quite heavy, units that were high enough would have a clear view of the Hudson River, because it is unlikely that the low-level tunnel entrance would ever be built over.

“Renzo’s philosophy is all about light, openness and transparency,” Mr. Bizzi said. “And that works well for this location because of the great views of the Hudson River.”

The 30-story condo, 565 Broome SoHo, on Varick Street between Watts and Broome Streets, is Mr. Piano’s first residential project in the city. Being built by Bizzi & Partners Development, Aronov Development and Halpern Real Estate Ventures, it will have 115 units, ranging from studios to full-floor four-bedrooms. Prices start at just under $1 million and go up to $20 million, according to Susan M. De França, the chief executive of Douglas Elliman Development Marketing, the firm handling sales.
“I’ve been selling real estate a long time, and I truly believe this property will be one of the top properties in the luxury market, Ms. De França said.

The building starts with a large base podium that will reach the 12th floor. The ground floor will include the lobby, a private gated driveway and some retail space, and will have tall glass windows joined together by mullions of cable wire.

The fifth, seventh and ninth floors will house many of the building's amenities, including a lounge with a wet bar, a fitness center, a 55-foot saltwater pool and a terrace.

After several floors housing the mechanical systems, the building splits into two towers from the 16th floor. This will allow light to enter the residences from all sides and will break down the scale of the building, said Elisabetta Trezzani, a partner of Renzo Piano Building Workshop.

The towers will be made from low-iron glass, which has a very high degree of transparency. The units will also have curved corners, so the view will be expansive and won’t be disrupted by a corner beam, according to Ms. Trezzani.

There will be six duplexes, two of them penthouses and the other four on the 16th floor; each duplex will have a private 25-foot saltwater pool. All residences will have six-inch white oak plank floors and kitchens with white oak cabinetry and Basaltina countertops, as well as Calacatta Caldia marble slab walls in the master bathrooms.

Ms. De França said the building, for which sales are expected to begin later this summer, will likely attract buyers who want to be close to their offices in the financial district.

“We'll also get the uptown buyer looking to be part of the revitalization going on downtown,” she said, “and European buyers who are attracted to the Renzo Piano name.”

Mr. Piano is currently working on several other projects with Bizzi & Partners, including a residential building in Miami and a large-scale mixed-use community in Milan.

Construction of 565 Broome SoHo is expected to be finished by the end of 2018, Mr. Bizzi said.