



BLEACHERS

21

Seventh Ave
Fashion Ave

STATION B

PENN 2: PAVING A DISTRICT

BY MdeAS ARCHITECTS, MNLA, FOSTER + PARTNERS

Penn Station on 33rd Street
Photo by Arthur Osipyan on Unsplash



Don't just call it a "floor". This example in THE PENN DISTRICT is a meticulous renovation work by architects, engineers and designers, engineers and designers who – with the valuable contribution of Henraux in the selection of blocks – have covered the heart of New York City with the versatile Petit Granit, a Belgian stone.

Paving is the foundation for placemaking. From Sampietrini in Rome, to the cobbled Bluestone streets of SoHo in New York City, a distinctive stone pavement can set a neighborhood apart from the rest of the city. This was the inspiration for the collaborative team led by Vornado Realty Trust as they redefined THE PENN DISTRICT.

Situated in the heart of New York City where Penn Station transports over 650,000 people per day, the redeveloped commercial district offers state-of-the-art workspaces, entertainment, and pedestrian areas.

The paving plan for the district was envisioned as the foundation for all of these activities; flexible in scale, coursing, and finish, while maintaining a consistent brand identity.

The civic quality of the district was carefully considered in the selection of the stone type and size. It was intended to evoke a timeless, quintessentially New York feel that would transcend the present moment. Specifying the right stone requires an expertise and deep knowledge of sourcing and suitability. Working closely with stone expert Swenson Stone Consultants, the team analyzed a wide range of options, taking into consideration color, durability, longevity, safety, and appearance. Most critically, the stone needed to withstand the heavy traffic of the train station and surrounding area. Mock-ups of numerous stones, primarily granites, were reviewed. It was ultimately decided that Belgian Petit Granit limestone provided diverse architectural and aesthetic effects, while maintaining strength and resistance to decay, which was confirmed by specific stone testing and compliance with ASTM standards. Multiple cut-to-size mockups were installed with varying finishes to determine the ideal color and appearance. A textured, non-reflective finish was chosen not only as an essential safety

measure, but also because the lighter color allowed the natural pattern of the stone to become more subdued. Petit Granit, renowned for its presence in grand civic spaces in Europe, is actually a limestone, though it does have the relative hardness and sparkling characteristics of granite.

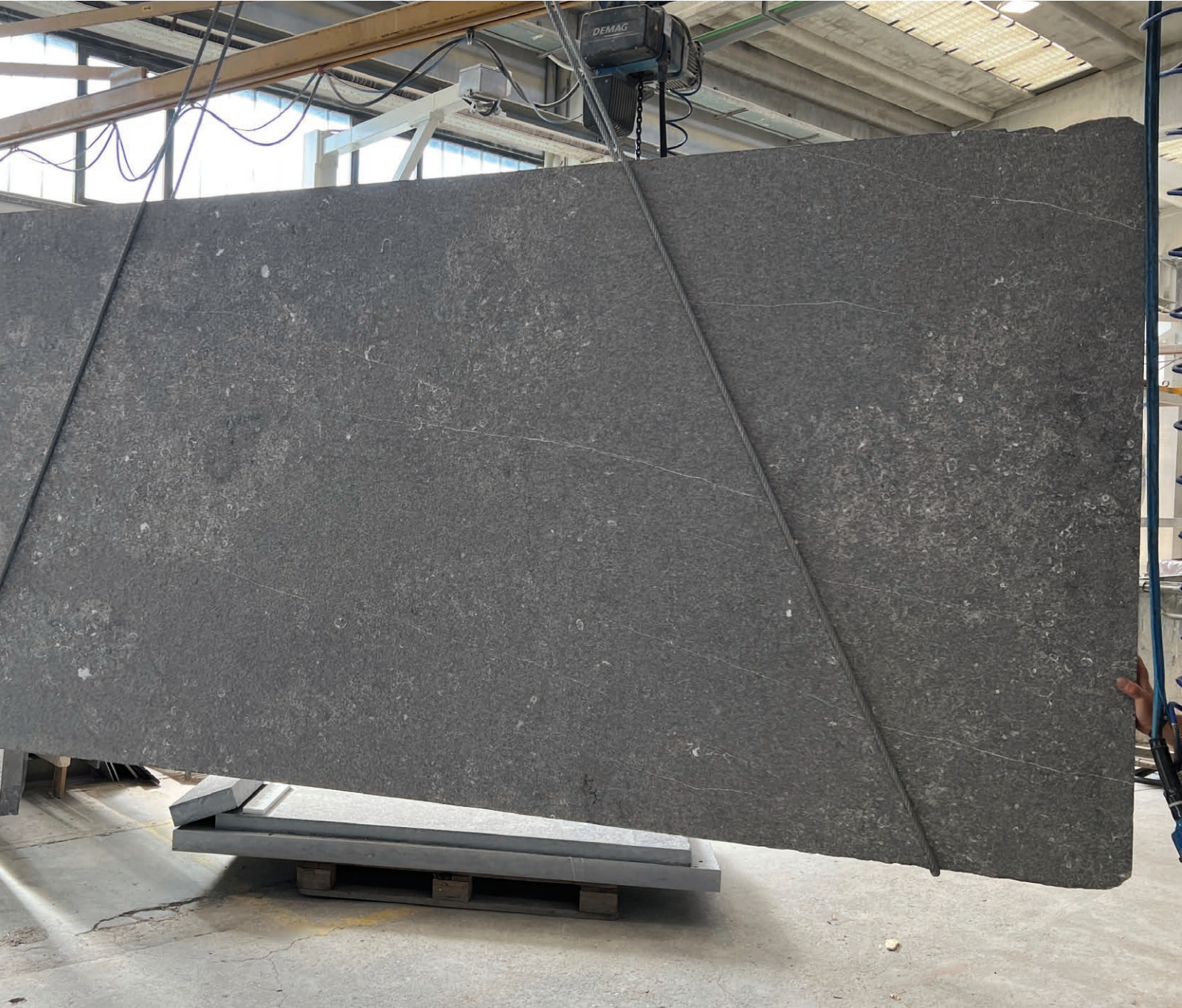
Its veining of calcite provides a natural variation and texture and its warm blue-gray color recalls and complements the existing materials of the city's streets, allowing THE PENN DISTRICT to feel very much an authentic part of New York City.

Henraux facilitated the selection of blocks from the Carrieres du Hainaut quarry in Belgium before they were shipped to their facilities in Querceta, sliced to slabs and displayed for review. The stone range was then established by the design team. Thanks to Henraux's cutting-edge fabrication technology, the team was able to maximize the use of each slab, while avoiding undesired stone properties. The fabrication of the custom size pavers and cladding elements was documented in stages and dry laid for final approval prior to shipping to New York and ultimate delivery to the site.

Due to the complexity of the project and high standard of quality held by ownership, a skilled and experienced installer was required. The team's collaboration with Vespa Stone was critical to the success of the project. The distinctive paving area connects the individual sites of PENN 1, PENN 2, Plaza 33, and adjacent public transportation entrances. This required respect for pre-established grade elevations, existing drain locations, and varying assembly depths. A combination of mud set and pedestal installation techniques allowed for proper drainage across the site while maintaining equitable access and a consistent paving experience throughout the block. This approach also anticipates future expansion to include



Petit Granit slab in the Henraux factory in Querceta.
Photo by Daniela Petrushev





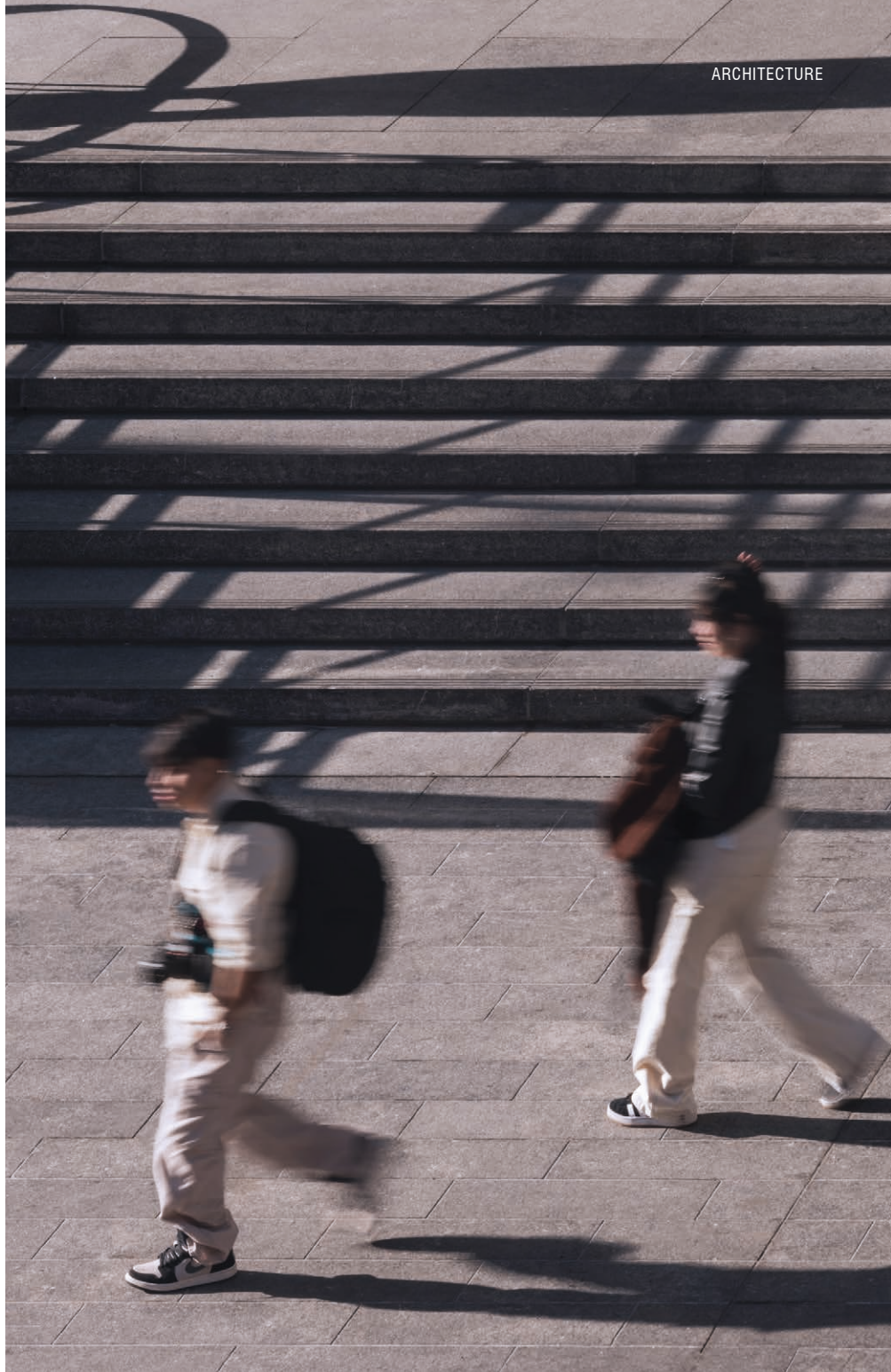
neighboring properties, using the same palette to create a unified and cohesive visual aesthetic for the entire district.

The stone is laid lengthwise and parallel to the Manhattan block, continuous and adaptable to the unique conditions of the site. It accentuates the length of the block in the East-West direction

and runs perpendicular to the path of travel along sidewalks in the shorter North-South direction. The sidewalk thus becomes the unifying field, setting the stage for the unique raised plazas and other public spaces to be highlighted within the district. Adjacent to the buildings and public

The flooring in the transit area to the wide staircase in the raised square of PENN 2. Photo by Ivane Katamashvili

Left, the raised square of PENN 2 connects to Plaza 33 at Penn Station on 33rd Street. Photo by Ivane Katamashvili



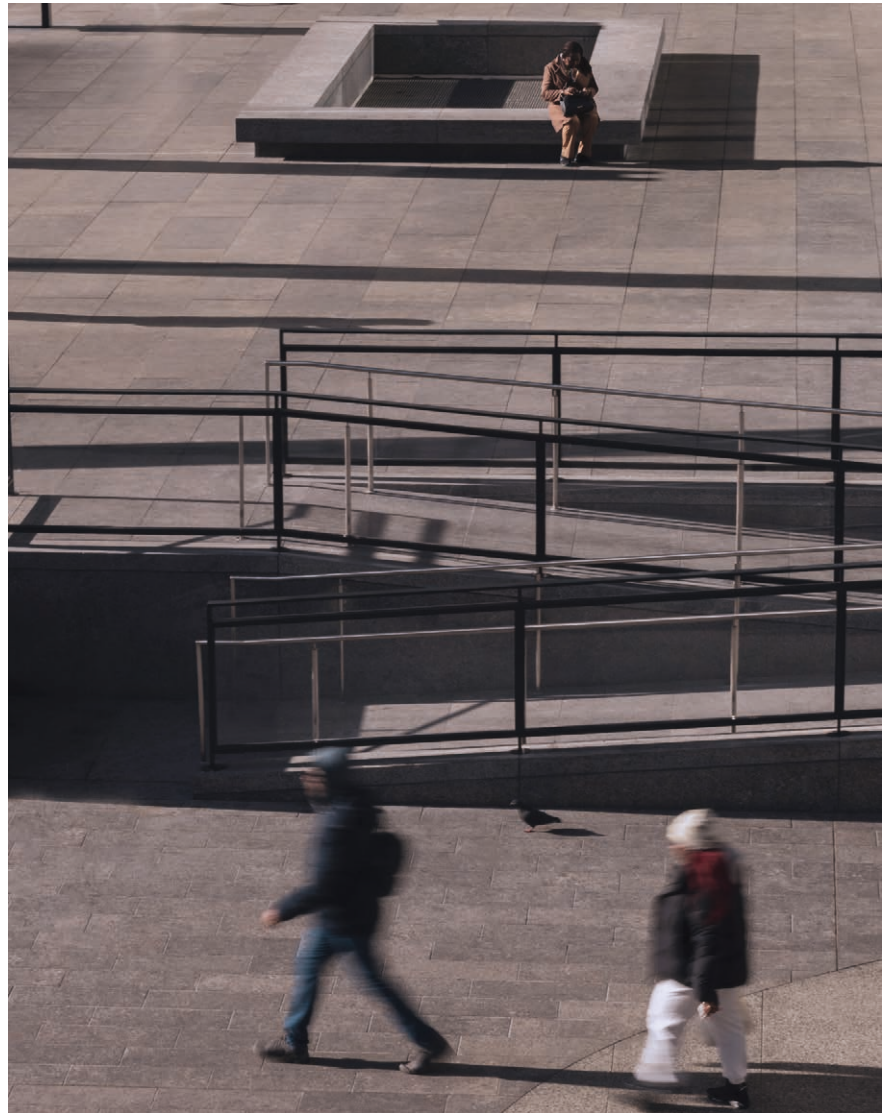
plazas, the sidewalk zone is composed of Petit Granit stone in a 1/3 staggered running bond pattern. The stone size of the sidewalk paving is inspired by that of the Metropolitan Museum of Art. This long rectangular shape conveys a contemporary grandeur while also providing a sense of scale to pedestrians. Known as “Field

Paving”, these areas of 10"×30" pavers contrast with the larger slabs of the adjacent raised building plazas and curb edges. The Petit Granit stone is ideal for a paving pattern composed of a singular paver size, as its inherent variation adds a subtle visual interest across the uniform paving field.



THE PENN DISTRICT offers an urban oasis away from the hectic city traffic.
Photo by Ivane Katamashvili





Various paved areas of the
THE PENN DISTRICT.
Photo by Ivane Katamashvili

The purpose of the square is also to counter the fragmentation and noise present in the neighbourhood, allowing moments of calm and rest.

Blue stone pavement on a street in Soho, New York City.
Photo by Arthur Osipyan on Unsplash



To complement the Field Paving, a distinctive zone of Petit Granit stone along the curb known as the “Urban Edge” organizes the street furnishings along the edge of the sidewalk. This zone averages 5'-0" wide from the face of the curb but varies slightly to account for specific existing conditions. It organizes street elements such as street trees, lighting, bollards, bike parking, signage, etc. The stone sizes in this zone are 2'-6"×3'-9", with wide 15" curbs in the same Petit Granit. This generosity of scale provides a sense of quality similar to other major New York public spaces, recalling Times Square, the World Trade Center, and the Time Warner Center.

At Plaza 33, the street-level plaza nestled between the PENN 1 and PENN 2 buildings, it was crucial to seamlessly integrate this public space with its neighborhood context, utilizing visual cues and materiality to achieve this goal. Located above the roof of the subterranean train station, the plaza

accommodates various transit entrances, generating significant pedestrian flows in multiple directions and necessitating emergency vehicle and utility access along its northern edge. The plaza's design also aims to counter the existing disjointedness and clamor within the district, offering a moment of calm and respite. The plaza design features circular bench planters with large red maple trees and movable furnishings that provide spaces to pause. Here, the Field Paving of the district sidewalks flows into the plaza, punctuated by Petit Granit “clouds” of 6"×6" accent cobble pavers arranged in concentric patterns that radiate outward from the base of the planters, highlighting the special, more intimate nature of this area. The interplay between the consistent use of the Petit Granit stone and the subtle shift in paving pattern and scale creates layers that invite visitors to look closer, reinforcing the district's overarching theme of unique moments that reveal themselves within a cohesive context.