




Verrazano–Narrows Bridge

Verrazano–Narrows Bridge	
<div></div>	
Carries	12 lanes (six lanes upper and six lanes lower) of  I-278
Crosses	The Narrows
Locale	New York City (Staten Island–Brooklyn), New York, U.S.
Maintained by	MTA Bridges and Tunnels
Longest span	4,260 feet (1,298 m)
Vertical clearance	15 feet (4.57 m) (upper level) 14.4 feet (4.39 m) (lower level)
Clearance below	228 feet (69.5 m) at mean high water
Construction begin	August 13, 1959
Opened	November 21, 1964 (upper level) June 28, 1969 (lower level)
Toll	\$15.00 (cash); \$10.67 (New York State E-ZPass) — westbound only
Daily traffic	189,962 (2008)
Coordinates	40°36′23″N 74°02′44″W﻿ / ﻿40°36′23″N 74°02′44″W﻿ / 40.60639°N 74.04556°W^[1]
<div></div>	

The **Verrazano–Narrows Bridge**, in the U.S. state of New York, is a double-decked suspension bridge that connects the boroughs of Staten Island and Brooklyn in New York City at the Narrows, the reach connecting the relatively protected upper bay with the larger lower bay.

The bridge is named for both the Florentine explorer Giovanni da Verrazzano who, while in the service of Francis I of France, became the first European to enter New York Harbor and the Hudson River, and for the body of water it spans: the Narrows. It has a central span of 4,260 feet (1,298 m) and was the longest suspension bridge in the world at the time of its completion in 1964, surpassing the Golden Gate Bridge by 60 feet, until it was in turn surpassed by 366 feet by the Humber Bridge in the United Kingdom in 1981. Currently, it has the eleventh longest main span in the world, while retaining its place as the longest bridge span in the Americas. Its massive towers can be seen throughout a good part of the New York metropolitan area, including from spots in all five boroughs of New York City and in New Jersey.

The bridge establishes a critical link in the local and regional highway system. Since 1976, it has been the starting point of the New York City Marathon. The bridge marks the gateway to New York Harbor; all cruise ships and most container ships arriving at the Port of New York and New Jersey must pass underneath the bridge and therefore must be built to accommodate the clearance under the bridge. This is most notable in the case of the ocean liner RMS *Queen Mary 2*.

History

The bridge is owned by the City of New York and operated by MTA Bridges and Tunnels, an affiliate agency of the Metropolitan Transportation Authority. Interstate 278 passes over the bridge, connecting the Staten Island Expressway with the Gowanus Expressway and the Belt Parkway. The Verrazano, along with the other three major Staten Island bridges, created a new way for commuters and travelers to reach Brooklyn, Long Island, and Manhattan by car from New Jersey.

The bridge was the last great public works project in New York City overseen by Robert Moses, the New York State Parks Commissioner and head of the Triborough Bridge and Tunnel Authority, who had long desired the bridge as a means of completing the expressway system which was itself largely the result of his efforts. The bridge was also the last project designed by Chief Engineer Othmar Ammann, who had also designed most of the other major crossings into and within New York City, including the George Washington Bridge, the Bayonne Bridge, the Bronx Whitestone Bridge, the Triborough Bridge, and the Throgs Neck Bridge. The plans to build the bridge caused considerable controversy in the Brooklyn neighborhood of Bay Ridge, because many families had settled in homes in the area where the bridge now stands and were forced to relocate.



Verrazano Bridge, as seen from Brooklyn.

Construction on the bridge began August 13, 1959, and the upper deck was opened on November 21, 1964, at a cost of \$320 million. Three men died building the bridge, including fifty-eight-year old Paul Bassett^[2] and nineteen-year-old Gerard McKee. The latter's death became the subject of a chapter of Gay Talese's book, *The Bridge*.

New York City Mayor Robert F. Wagner cut the ribbon at the opening ceremony, which was attended by over 5,000 people. He was the first person to be driven over the bridge. The lower deck opened on June 28, 1969. The bridge was the longest suspension bridge in the world (previously held by the Golden Gate Bridge) from 1964 until 1981,

when it was surpassed by the Humber Bridge in England.

Fort Lafayette was an island coastal fortification in New York Harbor, built next to Fort Hamilton at the southern tip of what is now Bay Ridge. It was destroyed as part of the bridge's construction in 1960; the Brooklyn-side bridge pillars now occupy the fort's former foundation.

According to the U.S. Department of Transportation:

- Each of the two towers contains 1 million bolts and 3 million rivets.



Verrazano Bridge tower and cables during construction without risers or road bed

- The diameter of each of the four suspension cables is 36 inches (914 mm). Each cable is composed of 26,108 wires amounting to a total of 143,000 miles (230,136 km) in length

- Because of the height of the towers (693 ft or 211 m) and their distance apart (4,260 ft or 1,298 m), the curvature of the Earth's surface had to be taken into account when designing the bridge—the towers are $1\frac{5}{8}$ inches (41.275 mm) farther apart at their tops than at their bases.
- Because of thermal expansion of the steel cables, the bridge roadway is 12 feet (3.66 m) lower in summer than in winter.



Queen Mary 2 RADAR mast clearance.

The bridge is affected by weather more than any other bridge in the city because of its size and isolated location close to the open ocean. It is occasionally closed (either partially or entirely) during strong wind and snow storms.

The RMS *Queen Mary 2* was designed with a flatter funnel to pass under the bridge, and has 13 feet (3.96 m) of clearance under the bridge during high tide.

The bridge has fostered more traffic on the Outerbridge Crossing and the Goethals Bridge, both of which connect Staten Island with New Jersey.

In 2009 all 262 of the mercury vapor fixtures in the bridge's necklace lighting were replaced with energy efficient light-emitting diodes.

Naming controversy

The naming of the bridge for Verrazzano was controversial. It was first proposed in 1951 by the Italian Historical Society of America, when the bridge was in the planning stage. After Robert Moses turned down the initial proposal, the society undertook a public relations campaign to re-establish the reputation of the largely forgotten Verrazzano and to promote the idea of naming the bridge for him. The campaign was largely the effort of Society director John N. LaCorte, who in 1954 successfully lobbied New York Governor W. Averell Harriman to proclaim April 17 (the anniversary of Verrazzano's arrival in the harbor) as Verrazzano Day. Subsequent efforts by LaCorte resulted in similar proclamations by governors of states along the East Coast. After these successes, LaCorte reapproached the Triborough Bridge and Tunnel Authority, but was turned down a second time. The manager of the authority, backed by Moses, said the name was too long and that he had never heard of Verrazzano.

The society later succeeded in lobbying to get a bill introduced in the New York State Assembly that would name the bridge for the explorer. After the introduction of the bill, the Staten Island Chamber of Commerce joined the



Entry monument, with unhyphenated name

society in promoting the name. The bill was signed into law in 1960 by Governor Nelson Rockefeller. Although the controversy seemed settled, the naming issue rose again in the last year of construction after the assassination of President John F. Kennedy. A petition to name the bridge for Kennedy received thousands of signatures. In response, LaCorte contacted United States Attorney General Robert Kennedy, the president's brother, who told LaCorte that he would make sure the bridge would not be named for his brother. (Idlewild Airport, New York's major international airport, was renamed after Kennedy instead.)

Even so, the official name was widely ignored by local news outlets at the time of the dedication. Some radio announcers and newspapers omitted any reference to Verrazzano, referring to the bridge as the Narrows Bridge, or the Brooklyn-Staten Island Bridge. The society continued its lobbying efforts to promote the name in the following years until the name became firmly established.

Bridge usage

In 2008, about 190,000 vehicles used the bridge per day on average.

As of March 3, 2013, the one-way toll (paid westbound into Staten Island only) in cash is \$15.00 per car or \$7.50 per motorcycle. E-ZPass users with transponders issued by the New York E-ZPass Customer Service Center pay \$10.66 per car or \$4.64 per motorcycle; a five-axle truck pays \$80, or \$52.52 with NY E-ZPass. Holders of transponders issued elsewhere get no discount.

From 1964 to 1986, the toll was collected in both directions until Staten Island residents concerned about pollution from idling vehicles called for one way tolls. However, as of 2011[3] some of the eastbound toll booths are still in place, requiring drivers to slow down.

In 2010 eight of the unused Brooklyn-bound toll booths were removed in the first phase of a project to improve traffic flow at the toll plaza; the remaining three Brooklyn-bound toll booths will be subsequently removed during the second phase of the construction project.

As the bridge was not built with a pedestrian walkway, non-motorized transportation is limited to using the bridge during special events such as the New York City Marathon and Five Boro Bike Tour. In 1993 the New York City Department of City Planning called for a footpath across the bridge as part of their "Greenway Plan for New York City." In 1997 the DCP released a feasibility study stating that two footpaths running between the suspender ropes along the upper level, separated for pedestrian and cyclist use, would cost a minimum of \$26.5 million. The MTA at the time expressed concern about the "safety and liability inherent in any strategy that introduces pedestrian and bicycle access" to the bridge. Recently, residents living on both ends of the bridge have lobbied for pedestrian access. In October 2003, Mayor Michael Bloomberg promised to look into establishing the long-awaited pedestrian and bicycle access. The Harbor Ring Committee was formed in 2011 to advocate for the completion of the Harbor Ring route - a 50 mile path around New York Harbor, including a footpath across the Verrazano. In spring 2013 they

began an on-line petition that generated more than 2,500 signatures, as well as an organizational sign-on letter with the support of 16 regional and local advocacy and planning organizations. On Oct. 2, 2013 the MTA announced as



Coast Guard on anti-terrorism patrol in Upper New York Bay. Verrazano-Narrows Bridge in distance spanning The Narrows between Brooklyn (left) and Staten Island (right).

part of its 2015-2034 Capital Needs Assessment that it would include a feasibility study for installing a pathway on the Verrazano.

The bridge has been called New York's "most dangerous bridge" because of the combination of deterioration and the 170,000 people who cross it per day.

Signs at both ends of the bridge forbid photography and video taping; however, it is not certain if the signs are intended to stop people from stopping on the bridge or ban photography and videography even from moving cars. Due to numerous suicide attempts, a sign that says "Life Is Worth Living" along with a suicide hotline has been installed on the Staten Island approach.

Public transportation

The bridge carries three local/limited-stop/Select Bus Service bus routes operated by MTA New York City Transit, the S53, S79 Select Bus Service and S93, which connect Staten Island with the R train in Bay Ridge, Brooklyn. The bridge also carries 18 express bus routes that connect Staten Island with Manhattan and are also operated by New York City Transit. They are the X1, X2, X3, X4, X5, X7, X8, X9, X10, X11, X12, X14, X15, X17A, X17C, X19, X31 and X42.



Panorama of the bay with Fort Wadsworth (foreground) on the Narrows, under the Verrazano-Narrows Bridge.

Primary individuals involved



The sign on the bridge indicating the boundary line of the two boroughs it links

Role	Name
Senior partner	Othmar Herrmann Ammann
Chief engineer	Milton Brumer
Project engineers	Herb Rothman, Frank L. Stahl
Design engineer	Leopold H. Just
Engineer of construction	John West Kinney

In popular culture



Verrazano–Narrows Bridge at night from Brooklyn

- The bridge's opening is fictionalized as the "Amerigo-Columbus Bridge" in the 1966 "The Bookworm Turns" episode of *Batman* using news footage of the actual bridge opening.
- The bridge is featured in Sidney Lumet's *Prince of the City*.
- The Verrazano–Narrows Bridge is an important location in the 1977 film *Saturday Night Fever*.
- The bridge and its proximity to the open ocean feature prominently at the end of the 2009 film *Against the Current*.
- In the special edition of the 1989 science fiction film *The Abyss*, the bridge is surrounded by a giant tsunami.
- The bridge is featured in the final shot of Terrence Malick's 2011 film *The Tree of Life*.
- In *The Avengers*, superhero Iron Man flies under, reverses course, and overflies the bridge on the way to intercepting a nuclear missile.
- The bridge is mentioned in the video game *Metal Gear Solid 2: Sons of Liberty* and featured in Microsoft Flight Simulator
- Rap artist Method Man from Wu-Tang Clan references the bridge in the lyrics to his song "PLO Style" (1994).
- The bridge is featured in the 2000 film *Requiem for a Dream*

References

- [1] http://tools.wmflabs.org/geohack/geohack.php?pagename=Verrazano%E2%80%93Narrows_Bridge¶ms=40_36_23_N_74_02_44_W_region:US-NY_type:landmark&title=Verrazano-Narrows_Bridge
- [2] Man Killed At Narrows Span. August 25, 1962. New York Times. 9.
- [3] http://en.wikipedia.org/w/index.php?title=Verrazano%E2%80%93Narrows_Bridge&action=edit

External links

- "Biggest Bridge to Span Busiest Harbor." (<http://books.google.com/books?id=biYDAAAAMBAJ&pg=PA90&dq=popular+science+1930&hl=en&sa=X&ei=I5ICT8KZKsvlgge97s22Ag&ved=0CEsQ6AEwBjhu#v=onepage&q&f=true>) *Popular Science*, June 1955, pp. 90–93/264/268.
- New York City MTA official site (<http://www.mta.info/bandt/html/veraz.html>)
- nycroads.com (<http://www.nycroads.com/crossings/verrazano-narrows/>)
- Verrazano–Narrows Bridge on bridge-info.org (<http://www.bridge-info.org/bridge/index.php?ID=87>)
- Verrazano–Narrows Bridge (<http://en.structurae.de/structures/data/index.cfm?ID=s0000085>) at *Structurae*
- U.S. Geological Survey Geographic Names Information System: Verrazano–Narrows Bridge (http://geonames.usgs.gov/pls/gnispublic/f?p=gnispq:3:::NO::P3_FID:968511)

- Historic American Engineering Record (HAER) No. NY-303, " Verrazano–Narrows Bridge (<http://loc.gov/pictures/item/ny1803>)"
 - Patrick S. O'Donnell's Verrazano–Narrows Bridge photos on bridgemeister.com (<http://www.bridgemeister.com/pic.php?pid=1127>)
 - Verrazano–Narrows Bridge Construction B+W photos by Lester Kramer (<http://www.verrazano-bridge.com>)
 - Forgotten New York: Bridge in the Back Yard (<http://forgotten-ny.com/2003/08/bridge-in-the-back-yard-construction-of-the-verrazano-narrows/>)
-

Article Sources and Contributors

Verrazano–Narrows Bridge *Source:* <http://en.wikipedia.org/w/index.php?oldid=596448960> *Contributors:* 26 Ramadan, 7&6=thirteen, 737900er, 7Train, 7mike5000, AEMoreira042281, AP1787, Abetens, Achen33, Acps110, Acroterion, Aishel, Alansohn, Alcmæonid, Alex Spade, Alex756, AlexiusHoratius, Alexs, Alfvaen, Americasroof, Anarchivist, Anaxial, Andrew c. Andy M. Wang, Andy Marchbanks, Aramgutang, ArnoldReinhold, Arturoramos, AsceticRose, Ashanda, Ashmare, Atif.t2, Attilios, Aybankamelwiki, B33R, BOARshevik, Baboo, Barbfrenz, Bcorr, Bearcat, Bender235, Bento00, Bethonewho, Beyond My Ken, Bolwerk, Bondjedi, Burgundavia, CPAScott, Cacophony, Cafemusique, Can't sleep, clown will eat me, Capricorn42, Castncoot, Cecropia, Che829, ChiefSadler, ChrisRuvolo, Cirt, Cjnyce57, Cleduc, Closedmouth, Cmprince, Comar4, CommonsDelinker, Conscious, Conti, Cosmic Latte, Courcelles, CrankyScorpion, Crazyman121, Crazywordsman, Crispy1995, Crzussian, Cumulus Clouds, Cwalters25, Cyberfyber, D6, DLand, Dale Arnett, DanMS, DanTD, DataWraith, Dav-FL-IN-AZ-id, David Koller, Decumanus, Denelson83, Dennis Bratland, Deror avi, DiamondDave, Dlenmn, Dmk5717, DocWatson42, Donald Friedman, Dough4872, Dreth, Eastlaw, Ed g2s, Efb91, Egil, Eherot, Electroboy1993, Elmesh, Elizabeth Linden Rahway, Emily Tjeuw, Epicgenius, Erianna, Eric Herboso, ErikNY, Everything counts, Exert, Faisal0926, Famartin, Finnigall, Fitnr, Flamurai, Fred Bradstadt, Fylloxera, GK tramrunner, Gildir, Gjs238, Gobeirne, Graham87, GreatBritain1843, GregU, GregorB, Gregory Arkadin, Grillage, Hackercraft, Haeinous, HappyInGeneral, Hertz1888, Heynow09, HistoryMan2008, Hmains, Hqb, Hut 8.5, Ic451uk, Imzadi1979, Init, J36miles, JER53Y, JJ2800, Jaberwockynmt, Jackehammond, Jadelaine, Janet13, Jbl1975, Jd2718, Jedicraft, Jeff02, Jgcarter, Jim.henderson, Jim1138, Jimp, Jk2q3jrklse, Jllm06, Jm51, Jmchuff, John, John Reaves, Jonathan.s.kt, Jordgubbe, Josbel 07, Jusjih, Justme89, Kacie Jane, Kal1917, Kbdank71, Kbh3rd, Keeves, Ken Gallager, Kevin12xd, KevinJWalsh, Khazar2, Kizor, Kritikos99, Larry V, Lilmissmcluvn, Longshot14, Lriofrio, Lunar Chicken, Mackerm, Magioladitis, Mapmann, Marc Shepherd, MarkHab, Markt3, Marskuzz, Mateus França, MathewTownsend, Mattpro, Maximus Rex, Mentisock, Mets7000004, Mikeo, MileyDavidA, Mlaurenti, Mlessard, Modster, Monstrocity, Morriswa, Mr. Matté, MuzikJunky, Mwanner, NE2, NJhistory, Nationalparks, NestorD, Nick L., Nikopoley, Nthomas, Nyttend, O'Dea, Oleg Alexandrov, Omnipaedista, PGWG, PRRfan, Panscient, PaulHanson, Peteap5, Peter Horn, Phantomsteve, Pharos, Pigman, Postdlf, Pseudomonas, Publicganda, Quodfui, Radarm, Rajrajmarley, Ram-Man, Raso mk, Red1001802, Remococo, RexNL, Rexwarrior, Ribonucleicacid563, Rich Farmbrough, Richard Arthur Norton (1958 -), Robert K S, Robertg9, Rockybiggs, Rojelio, Rrawpower, Russ, RussNelson, Rvollmert, Slbuff, SNlyer12, SPUI, Sam, Scetoux, Seamus the Leprechaun, Seidenstud, Sfahey, Sheepshanx, Shmaltz, Sladen, Sligocki, Snore321, Snoyes, Solarra, Sopoforic, Spykesinmahshoe, Stack, Station1, Subwayguy, Sunweb52, Susvolans, Tagishsimon, Tckma, The Interloafer, TheEgyptian, Thomas W. Newgate, Tinton5, Tman1820, Tom Caiafa, Tompot, Train2104, Transpoman, TreoBoy680, Tut74749, TwinsMetsFan, Tyciol, Useight, Vancouverguy, Vanished user 39948282, Vanjagenije, Vernon18, VerruckteDan, Vgy7ujm, Violinbd, Vnccorr, Vvnnng1, Wac01, Wasted Time R, Wavelength, WhisperToMe, WhiteOak2006, WhosAsking, Wikiuser100, Wittensa, Wopatwoman, Wrrsimone, Wskowalski, Xanzzibar, Xnatedawgx, Yongbojiang, Zigger, Zimbabweed, Zoicon5, Zytron, Zzyzx11, 389 anonymous edits

Image Sources, Licenses and Contributors

File:USS Leyte Gulf (CG 55) under the Verrazano Narrows Bridge.jpg *Source:* [http://en.wikipedia.org/w/index.php?title=File:USS_Leyte_Gulf_\(CG_55\)_under_the_Verrazano_Narrows_Bridge.jpg](http://en.wikipedia.org/w/index.php?title=File:USS_Leyte_Gulf_(CG_55)_under_the_Verrazano_Narrows_Bridge.jpg) *License:* Public Domain *Contributors:* U.S. Navy photo by Mass Communication Specialist 3rd Class Jonathan Snyder

File:I-278 (long).svg *Source:* [http://en.wikipedia.org/w/index.php?title=File:I-278_\(long\).svg](http://en.wikipedia.org/w/index.php?title=File:I-278_(long).svg) *License:* Public Domain *Contributors:* User:Vishwin60

file:USA New York City location map.svg *Source:* http://en.wikipedia.org/w/index.php?title=File:USA_New_York_City_location_map.svg *License:* GNU Free Documentation License *Contributors:* Alexrk2

Image:Verrazano Bridge 2012-12-23.jpg *Source:* http://en.wikipedia.org/w/index.php?title=File:Verrazano_Bridge_2012-12-23.jpg *License:* GNU Free Documentation License *Contributors:* Faisal0926

Image:Verrazano-Narrows Bridge circa 1960.jpg *Source:* http://en.wikipedia.org/w/index.php?title=File:Verrazano-Narrows_Bridge_circa_1960.jpg *License:* Creative Commons Attribution-Sharealike 3.0 *Contributors:* Matthew Proujansky

Image:2011-10-23-queen-mary-2-mast-under-verrazano-narrows-bridge.jpg *Source:* <http://en.wikipedia.org/w/index.php?title=File:2011-10-23-queen-mary-2-mast-under-verrazano-narrows-bridge.jpg> *License:* Creative Commons Zero *Contributors:* Paul Sladen

File:Verrazano Narrows Bridge Triboro monument SI jeh.jpg *Source:* http://en.wikipedia.org/w/index.php?title=File:Verrazano_Narrows_Bridge_Triboro_monument_SI_jeh.jpg *License:* Creative Commons Zero *Contributors:* User:Jim.henderson

File:Verrazano-Narrows Bridge-NYC.jpg *Source:* http://en.wikipedia.org/w/index.php?title=File:Verrazano-Narrows_Bridge-NYC.jpg *License:* Creative Commons Attribution-Sharealike 3.0 *Contributors:* User:7mike5000

File:Fort Wadsworth.JPG *Source:* http://en.wikipedia.org/w/index.php?title=File:Fort_Wadsworth.JPG *License:* Creative Commons Attribution-Sharealike 3.0 *Contributors:* User:Publicganda

File:Magnify-clip.png *Source:* <http://en.wikipedia.org/w/index.php?title=File:Magnify-clip.png> *License:* Public Domain *Contributors:* User:Erasoft24

Image:VerrazanoBoroughsSign.JPG *Source:* <http://en.wikipedia.org/w/index.php?title=File:VerrazanoBoroughsSign.JPG> *License:* Public Domain *Contributors:* Original uploader was JlsElsewhere at en.wikipedia

File:Verrazano-Narrows Bridge @ Night from Brooklyn.JPG *Source:* http://en.wikipedia.org/w/index.php?title=File:Verrazano-Narrows_Bridge_@_Night_from_Brooklyn.JPG *License:* Creative Commons Attribution-Sharealike 3.0 *Contributors:* User:Violinbd

License

Creative Commons Attribution-Share Alike 3.0
//creativecommons.org/licenses/by-sa/3.0/