# 安全で安心なまちづくり臨海副都心

*Tokyo Waterfront City – Creating a Safe and Secure Town*

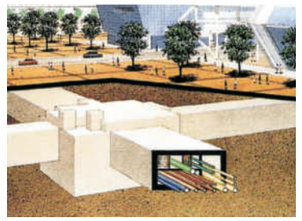
臨海副都心は「災害に強いまち」をまちづくりのコンセプトとして、必要な防災対策が施されています。

2011年３月に発生した東日本大震災においても、臨海副都心内の建物や施設に大きな損傷をもたらす液状化被害等は無く、これまでの防災対策の効果が確認されました。

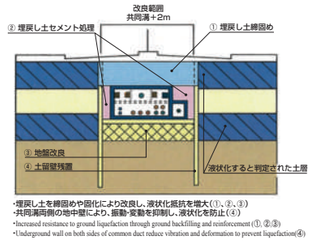
## ■ 都市インフラの耐震対策と共同溝

ゆりかもめの橋脚や公共施設などの建造物は、関東大震災級の地震にも耐えられるように造られています。

また、上下水道・電気・ガス・情報通信・地域冷暖房用熱供給などを収容する共同溝が、地中壁の打設や地盤改良による液状化対策を行った上、道路、公園などの地下に整備されており、地震時のライフラインの安全性が確保されています。



共同溝システムのイメージ図
Common duct system image diagram



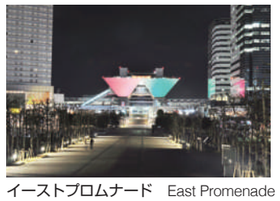

液状化のイメージ図
Liquefaction countmeasure image diagram

## ■ 津波・高潮への対応

東京港における最大の想定津波の高さは、元禄型関東地震において最大 T.P.+2.61m と予測されていますが、臨海副都心では日本で過去最大級の台風に備えた高さ T.P.+5.37 ～ 6.87m の防潮堤が整備されており、十分な安全性が確保されています。

## ■ ゆとりある土地利用計画

臨海副都心ではゆとりある土地利用計画を推進しており、公園・緑地等の多くのオープンスペースは災害発生時には一時的な避難地、仮設住宅の建設場所、物資の集積地となります。



イーストプロムナード　East Promenade

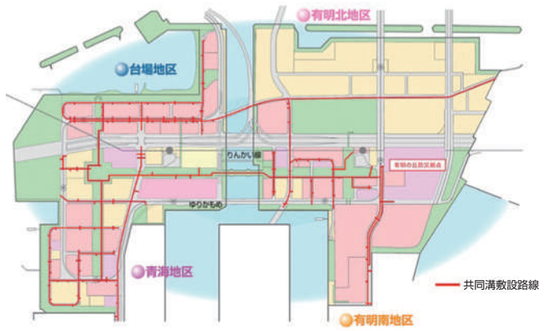
セントラル広場　Central Plaza

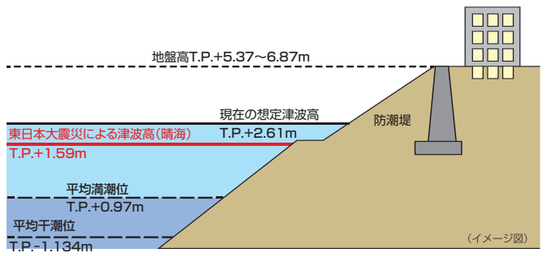
臨海副都心　Tokyo Waterfront City

Tokyo Waterfront City has embraced an urban planning concept of “strong against disasters” and has established necessary disaster prevention countermeasures.

The buildings and facilities within Tokyo Waterfront City were largely undamaged by the liquefaction brought on by the Great East Japan Earthquake of March 2011, which served to confirm the efficacy of the disaster prevention measures implemented thus far.

臨海副都心に整備された共同溝　Common ducts mithin Tokyo Waterfront City




T.P.(Tokyo Peil)…東京湾平均海面(海抜)

想定津波高と東日本大震災による津波高の比較
Comparison between estimated tsunami hight and tsunami hight caused by the Great East Japan Earthquake

### Urban infrastructure earthquake resistance measures and common duct

Buildings and structures such as the Yurikamome support structure and other public facilities are designed to withstand earthquakes equivalent to the size of the Great Konto Earthquake.

Furthermore, a common duct containing waterworks lines, electricity, gas, communications lines and district heat supply has been constructed below roads and parks.

The duct has been designed with concrete casts and subterranean reinforcement to ensure the stability of city lifelines in the event of an earthquake.

### Response to tsunami and storm surge

The estimated maximum height of a tsunami in the Port of Tokyo is estimated at a maximum T.P. + 2.61m in the event of a Genroku earthquake. However, Tokyo Waterfront City includes storm surge prevention walls designed for a height of T.P. +5.37 ~6.37m, which could withstand the most destructive typhoon in Japan, and ensures sufficient safety.

### Relaxed land use planning

Tokyo Waterfront City promotes a land usage plan that stresses reasonable land usages and calls for the construction of many parks, greenery, and open spaces, which in the event of a disaster can be used as temporary evacuation sites, construction sites for temporary housing, and as collection sites for relief supplies.



# 大地震に備える港湾施設

*Port facilities in preparation for a large earthquake*

阪神・淡路大震災の被災経験を踏まえ、東京港では災害時における人や緊急物資の安全な輸送を確保し、また、首都圏の経済活動を支える物流機能を確保するために、内貿ふ頭や国際コンテナターミナルなど、港湾施設の耐震強化を進めています。

また、災害時に人や物資を運河等の水上からも輸送できるよう、護岸の整備等に合わせて、緊急時に船舶が利用できる船着場（東京港防災船着場）を整備していきます。

## ■ 海上輸送基地と耐震強化岸壁

震災時において、他県等からの緊急物資の受入や帰宅困難者の広域輸送の拠点となる海上輸送基地として、東京都地域防災計画において、18 箇所のふ頭を位置づけています。この海上輸送基地としての役割を果たすとともに、復旧までの間にも一定の物流機能を確保し、経済活動の維持と復興の迅速化が図れるよう、港内のふ頭に耐震強化岸壁を位置づけています。耐震強化岸壁は、東京港第８次改訂港湾計画において、48 バースが計画されています。

## ■ 東京港防災船着場

災害時において、傷病者や医療従事者、帰宅困難者の人員輸送や医療・緊急物資といった物資輸送など、東京港における水上輸送拠点となる施設として、内部護岸の切下げ部など 38 箇所（うち新規整備は７箇所）を位置づけています。

## ■ 東京湾臨海部における基幹的広域防災拠点

平成 22 年７月に、東京臨海広域防災公園（基幹的広域防災拠点有明の丘地区）が開園しました。本公園は首都圏で大規模な地震災害等が発生したときに、公園全体が広域的な指令機能を受け持つヘッドクォーターとなるとともに、平常時には、東京臨海部の緑の拠点として臨海副都心におけるにぎわいと交流の空間を提供しています。

「有明の丘地区」は、被災時に、国・地方公共団体等の合同現地対策本部を設置し、広域支援のコア部隊等のベースキャンプ、災害時医療の支援基地として機能します。


We are proceeding with the reinforcement of domestic trade terminals, international trade container terminals and other port facilities to improve their earthquake resistance with the aim of assuring the safe transport of people and emergency relief supplies during a disaster and assuring the continuation of the distribution functions that support the economic activities of metropolitan Tokyo taking into account the experiences of disaster damage resulting from the Great Hanshin-Awaji Island Earthquake in the recent past.

In addition, along canal banks, to enable transportation of peoples and goods at the time of disaster, development of wharfs (Tokyo Port Disaster Prevention Wharfs) for small boats for emergency use shall be executed, together with canal bank protection works.

### Maritime transportation bases and earthquake-proof reinforced quays

The Tokyo Metropolitan Area Disaster Prevention Plan designates 18 port terminals to serve as marine transport bases for the acceptance of emergency supplies from other prefectures and as large-scale evacuation centers in the event of a disaster. In addition to serving as marine transport bases, to ensure these terminals also serve to provide a certain level of distribution functionality during disaster recovery, thus supporting economic activity and speeding up the recovery process, the plan calls for the construction of earthquake resistant walls at these terminals. The plan for earthquake resistant walls is included in the 8th Edition of the Port of Tokyo Port and Harbors Plan, which plans for the construction of 48 berths.

### Tokyo Port Disaster Prevention Wharfs

In the Port of Tokyo, 38 sites, of which 7 sites were newly constructed, including cut-down portion of internal protection bank walls, are prepared to provide with bases of water transportation at the time of disaster. Such transportation includes transportation of sick persons and medical staff, transportation of stranded commuters at the time of disaster and transportation of such cargoes as medical goods and emergency goods.

### Backbone Wide-Area Disaster Prevention Facilities along the Waterfront Area in Tokyo Bay

In July 2010, the Tokyo Rinkai Disaster Prevention Park (backbone wide-area disaster prevention base, Ariake district) was opened. This park is designed so that, in the event of a large-scale disaster, the entire park can serve as a disaster management headquarters while during normal conditions functioning as a center of lush greenery, providing a space for fun and interaction for Tokyo Waterfront City.

During a disaster, the Ariake area will be the location where national and laocal government can establish a local disaster response headquarters and serve as a base camp for core personnel providing wide-area support. The area will also function as a support base for disaster medical relief.