地震対策 Earthquake-Resistance Measures

東海道新幹線の脱線・逸脱防止対策 Implementation of derailment and deviation countermeasures (Tokaido Shinkansen)

東海道新幹線では、地震時の脱線による被害拡大を防止するため、脱線・逸脱防止対策を推進しています。車両の脱線そのものを極力防止する「脱線防止ガード」の敷設等の対策を進めており、2028年度までに全線への対策が完了する見込みで、2025年度末時点では、約937kmの工事が完了しています。なお、万が一脱線した場合に、車両の大きな逸脱を防止する「逸脱防止ストッパ」は、当社管内を走行する全車両に設置済みです。

For the Tokaido Shinkansen, we are promoting derailment and deviation countermeasures to prevent the expansion of damage from derailment caused by an earthquake. We are working to introduce such measures as installation of "derailment prevention guards" which prevent vehicle derailment to the extent possible. We expect to complete the implementation of these measures on the entire line by FY2028, and approximately 937km of construction had been completed as of the end of FY2025. "Deviation prevention stoppers", which prevent a major derailment of rolling stock in the event of a derailment, have already been installed on all of the rolling stock running in our service area.

脱線防止ガード Derailment prevention guards

構造物の強化（東海道新幹線） Reinforcement of Structures (Tokaido Shinkansen)

地震時に長期にわたり新幹線が不通にならないよう、各種土木構造物や建物の耐震化等に取り組んできました。2021年度からはプラットホーム上家の耐震補強にも着手しています。

We have been implementing earthquake-resistance measures for various civil engineering structures and buildings so as to prevent Shinkansen services from being suspended for a long period of time in the event of an earthquake. Furthermore, starting in FY2021, we are implementing seismic reinforcement of platform sheds.

実施項目と進捗状況 Measures taken and progress

実施項目 Measures taken	進捗状況（2025年度末） Progress (as of the end of FY2025)
高架橋柱・橋脚：鋼板巻補強等 **盛土：**地山補強土工等 **Elevated track columns, and bridge piers:** Reinforcement by cladding with steel plates, etc. **Embankments:** Natural ground reinforcement, etc.	完了※（高架橋柱:約19,600本、橋脚:約900基、盛土:約9.4km） Completed* (Elevated track columns: Approximately 19,600; Bridge piers: Approximately 900; Embankments: Approximately 9.4 km)
橋りょう（落橋防止）：桁座拡幅工等 **Bridge railing (fall prevention):** Widening of stringer's foundation, etc.	実施中（対象2,215連のうち、2,185連完了） Under way (completed 2,185 beams out of 2,215 target beams)
駅舎：鋼板巻補強等 **駅天井：**天井脱落対策 **プラットホーム上家：** 柱脚補強、ダンパ取付け等 **Station buildings:** Reinforcement by cladding with steel plates, etc. **Station ceilings:** Measures to prevent ceiling fall-out **Platform sheds:** Reinforcement of pedestal and damper installation, etc.	駅舎:完了※ Station buildings: Completed* 駅天井:実施中（全17駅のうち、14駅完了） Station ceilings: Under way (completed at 14 out of a total of 17 stations) プラットホーム上家:実施中（品川駅を除く16駅のうち、2駅完了） Platform sheds: Under way (completed at 2 out of 16 stations excluding Shinagawa)
車両工場等：建替 **Rolling stock workshops, etc:** Reconstruction	完了（浜松工場、各車両所の建物） Completed (Hamamatsu Workshop, buildings at rolling stock depots)

※一部の協議案件を除く *Except for some areas under discussion

構造物の強化（在来線） Reinforcement of Structures (Conventional Lines)

地震による影響を最小限とするために、各種土木構造物や建物の耐震化等を実施しています。また、新幹線と同様に、2021年度からプラットホーム上家の耐震補強にも着手しています。

In order to minimize the impact of earthquakes, we are implementing earthquake-resistance measures on various civil engineering structures and buildings. Furthermore, as with Shinkansen, starting in FY2021, we are implementing the seismic reinforcement of platform sheds.

実施項目と進捗状況 Measures taken and progress

実施項目 Measures taken	進捗状況（2025年度末） Progress (as of the end of FY2025)
高架橋柱：鋼板巻補強等 **橋脚※：**ダンパ取付け等 **Elevated track columns:** Reinforcement by cladding with steel plates, etc. **Bridge piers※:** Damper installation, etc.	高架橋柱:実施中（従前の対象5,078本は2017年度末に完了。被災時のさらなる早期復旧を目的として、2019年度より新たに3,338本を追加し、1,692本完了） Elevated track columns: Under way (completed 5,078 columns previously targeted by the end of FY2017. Since FY2019, 3,338 have been newly added and 1,692 have been completed for the purpose of further early recovery in the event of a disaster.) 橋脚:完了（対象4基） Bridge piers: Completed (4 target piers)
橋りょう※1（落橋防止）：桁座拡幅工等 **Bridge railing※1 (fall prevention):** Widening of stringer's foundation, etc.	実施中（対象1,988連のうち、1,987連完了） Under way (1,987 out of 1,988 targeted)
駅舎：建替、鉄骨ブレース補強等 **駅天井：**天井脱落対策 **プラットホーム上家：** 柱脚補強、ダンパ取付け等 **Station buildings:** Reconstruction and reinforcement with steel brace **Station ceilings:** Measures to prevent ceiling fall-out **Platform sheds:** Reinforcement of pedestal and damper installation, etc.	駅舎:実施中（利用者数5,000人/日以上となる駅について一部の協議案件を除き完了） Station buildings: Under way (completed for stations used by at least 5,000 passengers per day, excluding some areas under discussion) 駅天井:実施中（利用者数10,000人/日以上となる対象30駅のうち、28駅完了） Station ceilings: Under way (completed 28 stations of the 30 target stations used by at least 10,000 passengers per day) プラットホーム上家:実施中 （利用者数10,000人/日以上となる駅で対策不要の駅を除く24駅のうち、6駅完了） Platform sheds: Under way (completed 6 stations of the 24 stations used by at least 10,000 passengers per day, excluding stations requiring no reinforcement)
車両工場等：建替等 **Rolling stock workshops, etc:** Reconstruction, etc	名古屋工場:完了 Nagoya Workshop: Completed 名古屋車両区:検修庫の建替を実施中 Nagoya rolling stock section: Rebuilding of the repair and inspection depot is under way

※「ピーク時1時間あたり片道列車本数が10本以上の線区」及び「東海地震において強く長い地震動を受けると想定される区間」等について、対策を実施
※ Earthquake-resistance reinforcements under way in sections including those where there are at least 10 departures per peak hour and where a long, strong earthquake vibration is expected in the case of a Tokai Earthquake