NEW PRODUCT NEWS: NUCOR

CONSTELLATION PLACE

Building construction in high-density metropolitan areas is often filled with issues such as the proximity of other buildings, noise or vibration ordinances, or vehicular and foot traffic. In the downtown Los Angeles area, one more issue with foundation construction is Special Order No. 003-0201. This building code states that no steel tiebacks or anchors can be left in the top 20 feet of ground after the permanent wall is set in place. This is done to leave the subsurface area free from any obstruction for the purpose of installing underground utilities and City-maintained installations, such as sewers and storm drains. Also, it was implemented to eliminate any additional financial hardship on the City to remove the tiebacks or anchors.

One such project is being constructed at the corner of Avenue of the Stars and Constellation Boulevard. Constellation Place, as it is named, is a multi-use tower project, consisting of 45 floors of residential living in one tower, plus storefronts and office space in the lower floors.







The 55 feet of excavation for the project is being done by Keller NA and will include below-grade parking for the tower. In order to support the deep foundation needs of the parking area and the building itself, Keller NA worked with Nucor Skyline for their expertise in support of excavation, especially in the Los Angeles area.





Nucor Skyline manufactures their geostructural products in several mills around the country, including Cartersville, Georgia, Camp Hill, Pennsylvania, and Pomona, California. The strand anchors, bar anchors, and other accessories for this project were manufactured in Nucor Skyline's Pomona, California facility. Working on a

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very tight timeline of only three months, Nucor Skyline was able to deliver

approximately 63,000 linear feet of strand anchors and 6,000 linear feet of Gr 150 bar anchors from 1.375" to 2.5". Nucor Skyline also supplied couplers with set screws, bearing plates, hex nuts, 16,000 linear feet of regrout tube, heat shrink sleeves, and strand anchor caps. Regrout tubes allow the anchor to have a higher bond strength with the ground.





In order to meet the required loading tension of the anchors, the drill hole is often regrouted to form a grout to ground bond. Heat shrink sleeves are used to keep grout out of smooth sheathing. The contractor is able to remove the anchor because of a bond breaker (smooth sheathing). The bond breaker is kept grout-tight through heat shrink sleeves. To be able to remove the final 20 feet of anchor, a set screw is placed on one side of the coupler which stays in the ground. The upper 20 feet of bar is then twisted off and uncoupled after the permanent wall is set.

The soldier piles used for support of excavation at Constellation Place were installed using a Soilmec SR30 drilling rig, which is the smallest model in the Soilmec line up. The Nucor Skyline tiebacks were installed using a Comacchio MC22. The Comacchio MC 22 was the first drilling rig equipped with the innovative mast articulation system.



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project, visit <u>www.nucorskyline.com</u>. 🕨







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