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## **RATIONAL DESIGN OF FRAMING FROM LIGHTWEIGHT STEEL THIN-WALL CONSTRUCTIONS WITH ACCOUNTING OF SHEATHING'S BRACING INTERACTION**

*An approach of rational design of framing from lightweight steel thin-wall constructions with bracing by low rigidity sheathing was presented. The features of definition of lightweight steel framing elements' caring ability braced by low rigidity sheathing through spring stiffness fasteners were taken into account. Also, the features of the stress strain state of the lateral force resisting system's main elements – shear walls, consisting of those structures were estimated.*

**Keywords:** *low-rise buildings' frames, cold-formed thin gauge steel members, yielding connections, braced walls, lateral force resisting system.*