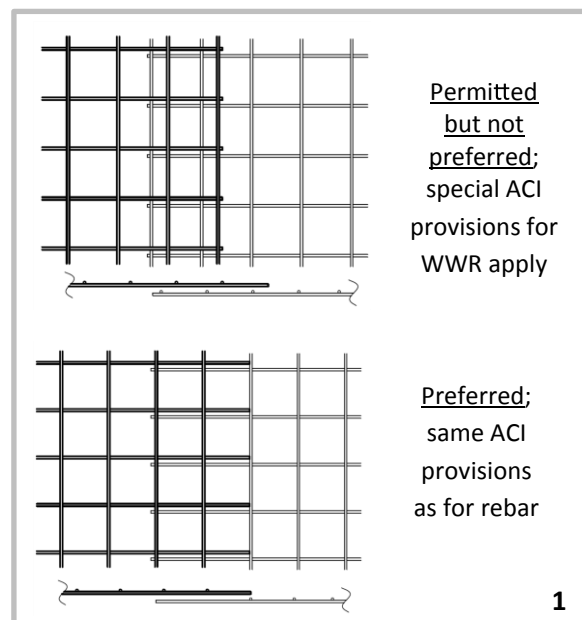
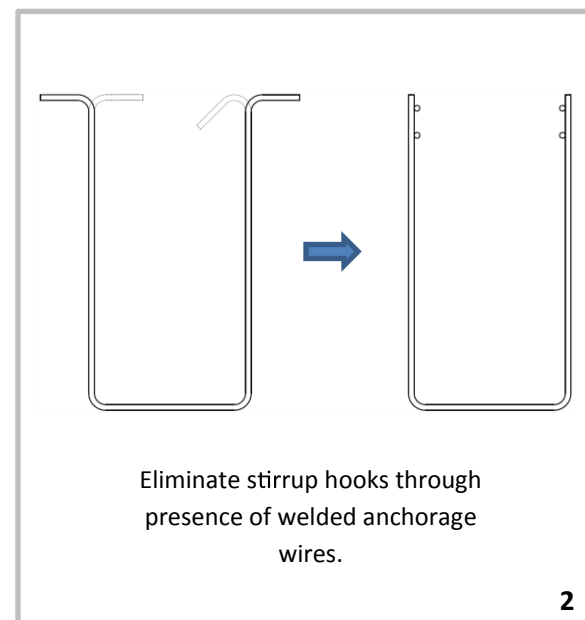


Item	Design Attribute	Description	Relevant Code Sections	Remarks
			ACI 318-19	
1	<b>Tension Development Length and Lap Splice</b>	ACI 318 allows the Engineer-of-Record to rely on strength of welded intersections in WWR, potentially reducing the tensile development length and lap splice lengths to dimensions less than those associated with rebar.	25.4.6.1 → 25.4.6.4 25.5.2.1 → 25.5.3.1.1	While permitted by ACI 318, reliance on welded intersections in lap splice regions is sometimes discouraged due to reinforcement build-up that results from “stacking” of the overlapping WWR mats.  The Engineer-of-Record is given the flexibility to ignore the “benefit” of the referenced provision and can instead treat curtailment and lap splice of WWR using the same exact equations as for deformed bars/wires.
2	<b>Development of Transverse Reinforcement</b>	In lieu of hooked curtailment of U-stirrups, ACI 318 allows the Engineer-of-Record to rely on the strength of welded intersections located near the compression face of the member.	25.7.1.1 → 25.7.1.7	This lesser-known provision can prove valuable in gravity beam applications
3	<b>Special Seismic Systems – Axial and Flexure Usage</b>	WWR is not permitted for axial or flexural usage in Special Seismic Systems (Special Moment Frames and Special Structural Walls)	20.2.2.4 → 20.2.2.5	From a manufacturing standpoint, usage of WWR as axial/flexural reinforcement in Special Moment Frames and Special Structural Walls (shear walls) is generally a non-starter given the very large cross-sectional area of steel required in a relatively confined member region.
4	<b>Special Seismic Systems – Welded Intersections</b>	Welded intersections of WWR are not to be relied upon to resist stresses in response to confinement, lateral support of longitudinal bars, or shear in Special Seismic Systems	Table 20.2.2.4(a)	WWR used as components of transverse reinforcement (hoops) in Special Seismic Systems should be configured with hooked curtailment.
5	<b>Reinforcement Usage in Topping Slabs</b>	For WWR used in topping slabs over precast systems in Seismic Design Categories D, E, or F, ACI dictates a minimum spacing requirement of 10” for wires in the direction parallel to joints between precast elements.	18.12.7.1	The referenced provision is based on maintaining sufficient strain distribution length between welds. WWR mats with the 10” prescriptive minimum spacing are commonly produced.

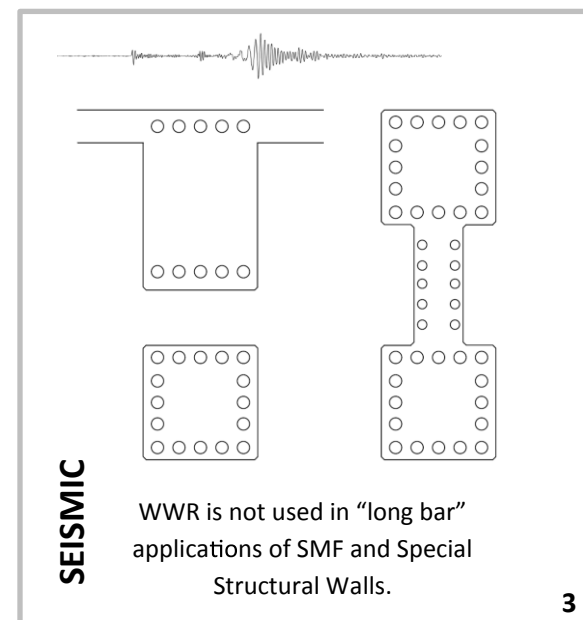


**1**



Eliminate stirrup hooks through presence of welded anchorage wires.

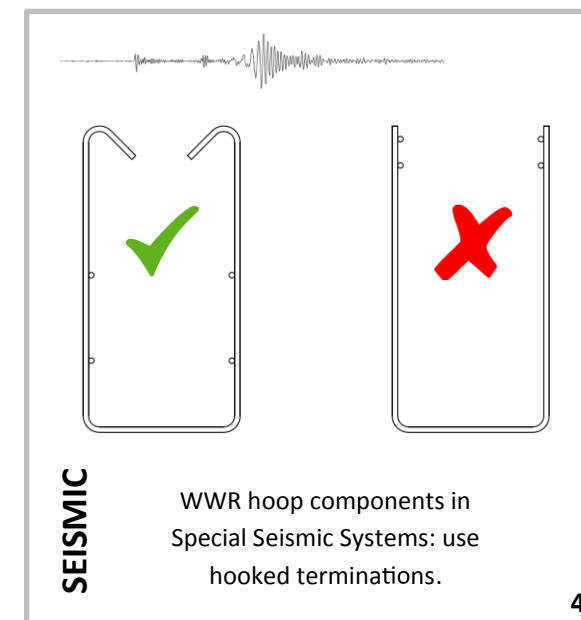
**2**



**SEISMIC**

WWR is not used in “long bar” applications of SMF and Special Structural Walls.

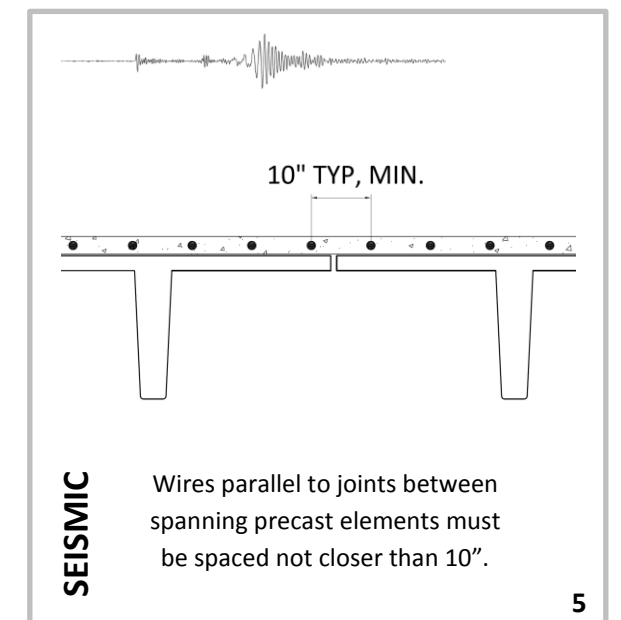
**3**



**SEISMIC**

WWR hoop components in Special Seismic Systems: use hooked terminations.

**4**



10" TYP, MIN.

**SEISMIC**

Wires parallel to joints between spanning precast elements must be spaced not closer than 10”.

**5**