Flood Risk Assessment: Holding No 6 Chapel Farm Extension, PE11 3DS

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1. Development Site and Location
a. Location: Holding No 6 Chapel Farm, Main Road, Hop Pole, Spalding, PE11 3DS.
b. Current Use: Residential property.
c. Flood Zone: The site is in Flood Zone 3, which has a high probability of flooding.
d. Other Sources of Flooding: Potential risks include fluvial flooding from nearby watercourses and surface water flooding during heavy rainfall, as identified in the Strategic Flood Risk Assessment (SFRA).

2. Development Proposals
a. Description: Construction of a single-story extension, consistent with the architectural style of the existing property, including tiled roofing, block-and-render walls, and Velux windows.
b. Vulnerability Classification: The development falls under the "More Vulnerable" category as it pertains to residential property.
c. Expected Lifetime: 100 years, in line with planning guidelines for residential developments.

3. Sequential Test
a. Search Area: The development is an extension of an existing property, so alternative sites are not applicable.
b. Flood Risk Justification: Mitigation measures ensure the development will not increase risk to occupants or neighboring properties.
c. Sustainability: The proposal enhances the utility of the existing property, minimizing land use and impact elsewhere.

4. Climate Change
Flood risk will be managed using design standards that account for increased flood levels due to climate change, ensuring safety over the building's lifetime. This includes raised floor levels and improved drainage systems.

5. Site-Specific Flood Risk
a. Main Flood Sources: Nearby watercourses (fluvial) and potential surface water accumulation.
b. Probability of Flooding: High, per the Flood Zone 3 designation.
c. Design Flood Levels: Refer to Environment Agency flood models for site-specific levels. Finished floor levels will be set at least 300mm above the anticipated flood level.
d. Safety Measures: Waterproof materials for construction, ACO drains for surface water, and barriers for openings ensure safety.
e. Impact: Measures are designed to prevent increased flood risk to the site or adjacent areas.

6. Surface Water Management
A sustainable drainage strategy will be implemented, incorporating ACO drains and permeable landscaping to manage surface water effectively and reduce runoff.

7. Occupants and Users
a. Occupancy Increase: Minimal, as this is an extension to the existing residence.
b. Vulnerable Users: Bedrooms and critical living spaces will be located in areas least affected by potential flooding.

8. Exception Test
a. Sustainability Benefits: The development supports housing sustainability by enhancing existing property use without additional land take.
b. Safety: Flood mitigation measures ensure the development remains safe without increasing off-site flood risks.

9. Residual Risk
a. Risks: Residual risk from extreme flood events remains.
b. Management: Emergency plans, regular maintenance of drainage systems, and adherence to flood warnings will manage residual risks.

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