

Communication from Public

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Comments for Public Posting: We are writing to share our support letter for the proposed Embodied Carbon Code for the City of Los Angeles.



February 13, 2024

Los Angeles City Councilmembers
Los Angeles City Hall
200 North Spring Street
Los Angeles, CA 90012

Re: The Los Angeles Embodied Carbon Code - SUPPORT

Dear Councilmembers,

On behalf of The Low Carbon Initiative, we are writing to share our support for the proposed Embodied Carbon Code for the City of Los Angeles.

We are especially supportive of the code's measures to tackle the embodied carbon emissions of concrete whose main component, Portland cement, accounts for about 8% of global CO₂ emissions.¹

In addition, the use of low carbon concrete can increase housing affordability due to its lower cost. Concrete mixes with supplementary cementitious materials (SCMs) should cost the same or less than 100% Portland cement concrete as noted in the Rocky Mountain Institute report.² And page 26 of the recent Department of Energy's Low-Carbon Cement Liftoff Report notes significant cost savings are available when using SCMs instead of Portland cement.³

Performance wise, low carbon concrete is more structurally desirable due to its many superior characteristics. Especially when mixed with pozzolans (fly ash, slag, natural pozzolans, calcined clays, etc.), concrete performance includes higher long-term strength, more resistance to corrosive soils, less permeability, increased durability and more strength enhancing C-S-H reaction. According to the U.S. Department of Transportation, fly-ash increases ultimate strength and continues to gain strength over time.⁴ And in a scientific study, it was found that natural pozzolans, a component of age-old Roman concrete and which is prevalent in the American West, improves the durability of concrete.⁵

Structures of significance including the One World Trade Center, Oroville Dam, net zero homes and the San Francisco-Oakland Bay Bridge have all utilized concrete with pozzolans due to the benefits of added durability and decreased carbon footprint.

¹ Miller et al. [2018](#); Lehne et.al. [2018](#); Habert et al. [2020](#); Zhang et al. [2022](#)

² Esau et al. [2021](#)

³ Chan et al. [2023](#)

⁴ "[Fly Ash in Portland Cement Concrete](#)" by Robert Spragg

⁵ Rodriguez-Camacho & Uribe-Afif [2002](#)

We cannot overstate the importance of building decarbonization at this critical time. We know that in order to effectively address climate change, we must go beyond building operations and address embodied carbon — phasing out carbon emissions in building materials and construction as soon as possible.

We truly respect and applaud your leadership on this initiative.

Truly yours,

Scott Morris

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