

	Title: YALE OFFICE OF FACILITIES PROCEDURE MANUAL Chapter: 01—Yale Design Standard Division: 03 00 00 Concrete	Section: 03 00 00 Requirements for Concrete
		Date: September 2022
		Author: Office of Facilities, University Planning

PART 1: INTRODUCTION

1.1 PURPOSE

- A. Meet project specific performance criteria while reducing the greenhouse gas emissions of concrete.

PART 2: GENERAL DESIGN REQUIREMENTS

2.1 STRUCTURAL CONCRETE

- A. Project engineer specifies the use of low-carbon concrete made with blended cements and supplementary cementitious materials (SCM).
- B. Project engineer specifies the use of carbon-absorbing and carbon capture technologies.
- C. The consultant submits a cradle-to-gate Type III environmental product declaration (EPD) for each concrete mix design specified in the contract and used at the project. The consultant is required to use NSF International’s [product category rule for concrete](#).

PART 3: MINIMUM PRODUCT REQUIREMENTS

These requirements apply to all projects that use at least 10 cubic yards of concrete. Meet the requirement for federal projects as outlined in the “Low Embodied Carbon Concrete Standards for all GSA Projects—March 2022 version”: <https://www.gsa.gov/real-estate/design-and-construction/engineering-and-architecture/facilities-standards-p100-overview>.

Specified compressive strength (f _c in PSI)	Maximum Global Warming Potential Limits for GSA Low Embodied Carbon Concrete (kilograms of carbon dioxide equivalent per cubic meter - CO ₂ e kg/m ³)		
	Standard Mix	High Early Strength	Lightweight
up to 2499	242	326	462
2500-3499	306	413	462
3500-4499	346	466	501
4500-5499	385	519	540
5500-6499	404	546	N/A
6500 and up	414	544	N/A

These numbers reflect a 20% reduction from GWP (CO₂e) limits in proposed code language: [“Lifecycle GHG Impacts in Building Codes”](#) by the New Buildings Institute, January 2022.

Date	Description of Change	Pages / Sections Modified	ID
7/2022	New document	N/A	Cathy Jackson