



10-4 Engineering, PLLC

Wednesday, October 23
11:00am to 4:30pm
Wood Commons
Come talk to us!

Location: Chicago, IL

Email: hemal.patel@10-4eng.com

Job Posting: LinkedIn & Handshake

Website: www.10-4eng.com

Company Overview:

10-4 Engineering is a Chicago-based engineering firm recently founded by three licensed structural engineers: Hemal Patel, Gary Powell and Vinod Patel, who have a combined 100 years of experience in bridge inspections and bridge design.

We've delivered large and complex infrastructure projects, such as highway corridors, interchanges, public-transit networks, and river crossings. Many of our projects have been award-winning designs recognized by the clients and the industry.

We're looking for an entry-level structural engineer to join our team and work on cool projects here in Chicago and Illinois!



The Opportunity:

Our name is derived from the widely used term "10-4," which signifies "message received, taking action". It represents our principles of clear communication and decisive action in designing and delivering infrastructure projects. Welcome to a place where every challenge is met with a resounding "10-4".

This is a rare opportunity to join and grow with a high-potential startup. Both Gary and Vinod, in their 40+ years' career, have mentored many aspiring engineers to become excellent structural engineers, project managers and business leaders. You will be mentored by three highly experienced engineers with the goal of developing into a well-rounded engineer and project lead. You will receive the proper experience, guidance and mentoring to obtain PE and SE licenses early in your career.

Entry-Level Structural Engineer:

- Starting pay = \$35/hour (regular and overtime)
- Days off = 3 weeks PTO and 7 paid holidays
- Benefits = Health, dental, vision, 401k, etc.
- MS in Structural Engineering is highly preferred
- EIT (Engineer-in-Training) certificate required

Primary Job Responsibilities:

- conduct bridge inspections and write condition reports
- evaluate repair and reconstruction alternatives & costs
- perform structural analysis using a variety of software
- perform design calculations using MathCAD, Excel, etc.
- use Microstation & OBM to prepare drawings & 3D models
- coordinate with other disciplines on structure layout/details





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Some of our past project experience (at previous firms)

CTA Red-Purple Bypass

Gary and Vinod were lead structural engineers on the Red-Purple Bypass (RPB), at the junction between the Brown, Red and Purple lines, just north of Belmont Station. The old junction was supported by a deteriorated 120-year-old riveted steel structure and was a major bottleneck that limited the system's overall capacity.

The RPB involved complete reconstruction of the old junction's track structure starting just north of the Belmont station and spanning three city blocks. Its signature component is a new single flyover track that carries the NB Brown Line over the four mainline tracks and eliminates the bottleneck.



WS-130 over Wisconsin River

This project replaces three functionally obsolete and structurally deficient truss bridges, constructed in the 1940s, carrying WS-130 over the Wisconsin River, approximately 50 miles west of Madison. The project proposes two new bridges to carry WS-130 on a new alignment approximately 1000' from the existing.

Hemal designed the new bridges including – a 920' long PPC-beam bridge over the main river channel and a 1,100' long PPC-beam bridge over the side channel. This project featured challenges designing the foundations to account for the extreme hydraulic scour and native weak fractured sandstone.

I-490 to I-90 Interchange

Vinod was Project Structural Engineer for this proposed interchange, just northwest of O'Hare International Airport. The project includes design of two 1200' long tollway bridges over MWRD detention basin and Higgins Creek.

These complex bridges have multiple ramps converging and diverging on them; super elevation transitions on the bridge deck; and unique substructures due to the large grade differential. They are highly curved with varying widths. The complexities of its construction, including access and erection, were anticipated and addressed during the design phase.

