

Automated Construction

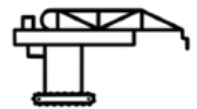
Resilient affordable housing faster than ever before



Founded 2014



Print Material
Supplier



OEM Printer
Manufacturer
1

APIS COR 3D PRINTER “FRANK”



TRADITIONAL CONSTRUCTION

10-25% of project costs
due to **HUMAN ERROR**.



92% of US homes
are wood-framed



Median **DELAY** is
more than **200 days**



C&D WASTE is the largest
contributor to landfills



Designs **LIMITED** to
straight lines & corners



3D PRINTED CONSTRUCTION



Superior **QUALITY**
with robotic precision



33% STRONGER
than concrete block



Up to 9X **FASTER**
than block construction



ZERO WASTE
all electric and fully recyclable



DESIGN FREEDOM
with AutoCAD or REVIT



DURABLE. RESILIENT. SAFE.



AUTOMATE CONCRETE BLOCK



Reinforcement



Insulation



Roof



Windows



Doors



Electrical

COPY THE GOLD STANDARD

Concrete block construction is well-documented, widely practiced, and universally accepted.

That's why we proudly copy it.

Finishing our homes is easy because every secondary trade does exactly the same work

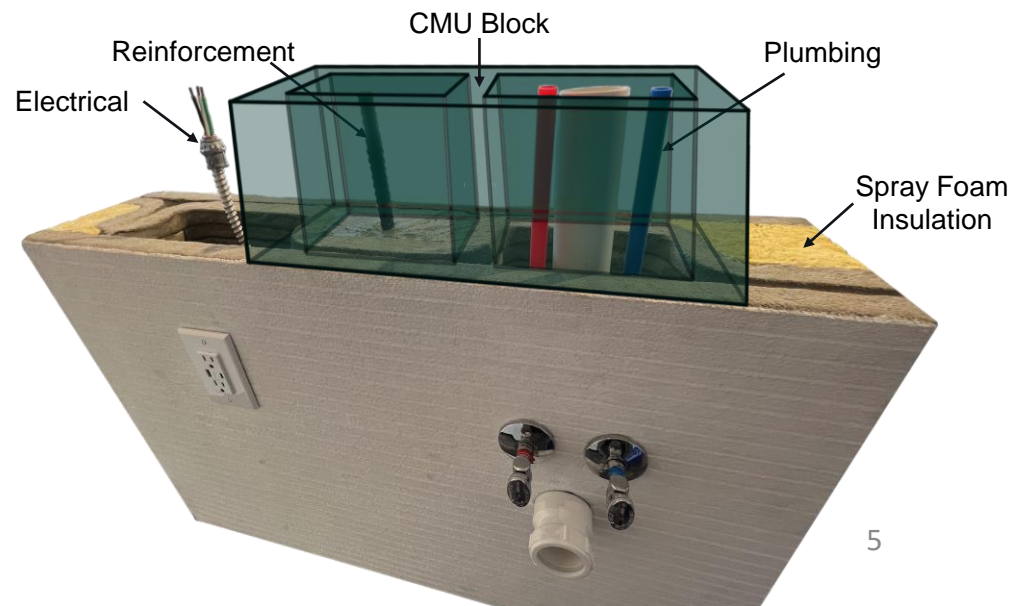
work in exactly the same way as standard concrete block construction.

Doors – MEP – Roof – Slab – etc...

No retraining. No new standards.

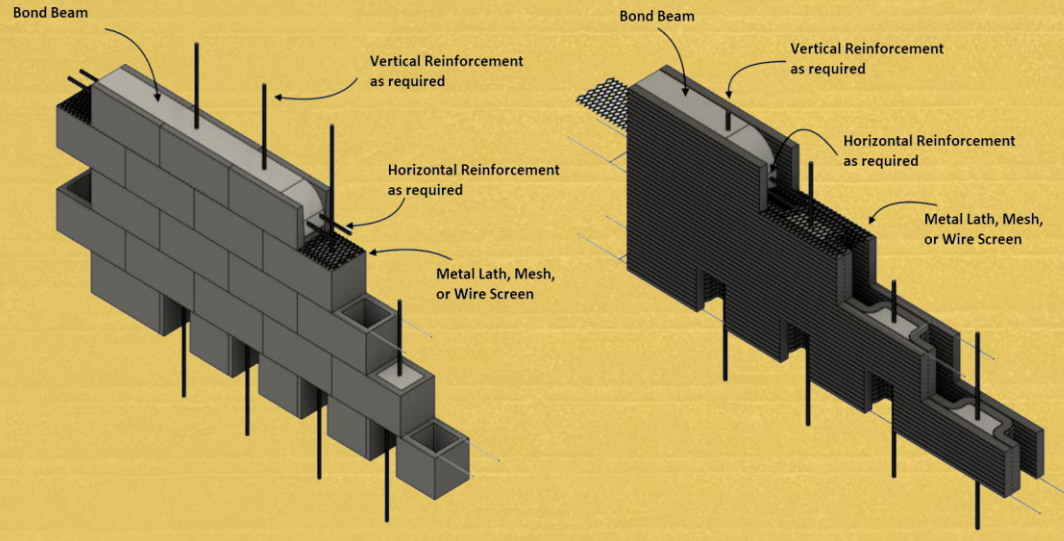
Just the same great homes

at a fraction of the cost.



CODE COMPLIANT CONSTRUCTION

3D Printed Concrete Masonry Unit (CMU)



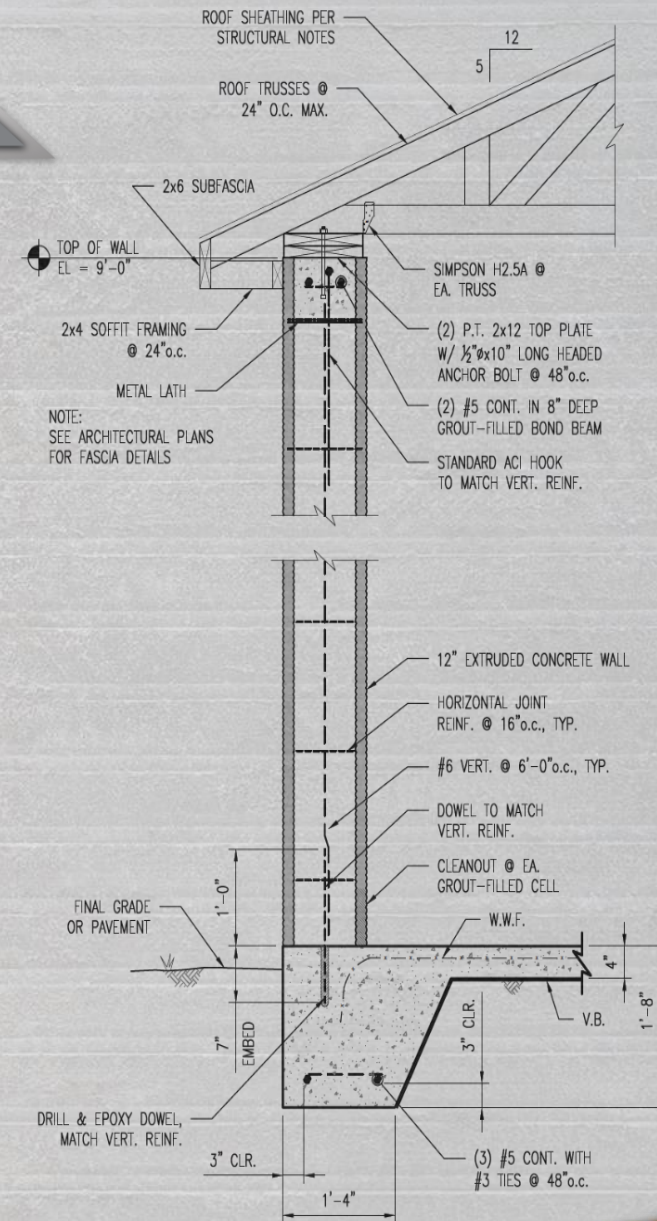
- IBC Chapter 7 compliance for structural fire resistance (2.25 hrs).
- IBC Chapter 7 compliance for equivalent thickness (4.5 in.)
- IBC 722.2.4 compliance – Reinforced column size (8 in. X10 in.)
- IBC 722.2.4.2 compliance – Reinforced column coverage (>2 in.)



- NCMA TEK 12-04D compliance for bar size (Max No. 8,9,11 for 8",10",12" walls respectively)
- NCMA TEK 12-6 compliance for Corrosion Resistance (>2in coverage for bars >No.5)
- NCMA TEK 12-6 compliance for Joint Reinforcement (>5/8" coverage for exposed wire)



- ASTM C39 compliance for print material cylinder compressive strength (3,627 psi)
- ASTM C1314 compliance for printed CMU block compressive strength (2,350 psi)
- ASTM C642 compliance for absorption and density (17.1%, 101.3 pcf respectively)
- ASTM C293 compliance for flexural strength (2.8 Mpa)





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