TNT Development

Legacy Builders

TNT EcoMaterials COMPANY

TNT Business Summary

November 2024

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1. Executive Summary

Since 2000, TNT Development has used traditional materials to build housing and other structures in Wake County, NC and nearby areas. It is a Certified General Contractor in NC, SC, TN, GA, and LA. In recent years it began investing in and refining technologies related to 3D Concrete Printing (3DCP) and eco-friendly materials, products, and processes. TNT's progress in both areas is listed in *section 2*.

TNT's primary business remains the construction and sale of homes for developers and private property owners, though the product line now includes industry-leading 3DCP and eco-friendly materials. The Eco-Materials market provides revenue opportunities beyond that of traditional construction; therefore, a separate business entity named "TNT Eco-Materials Company" has been established. TNT will also offer smaller-scale products such as 3DCP-produced indoor and outdoor furniture, décor, and facades. These products are appealing supplements for development projects and standalone purchase options for developers and private homeowners.

TNT's values and philosophies have made it a leader in community development, one distinguished by its commitment, investment in sustainable workforce development, and philanthropy. This is facilitated by TNT's relationships with other developers, universities, and government organizations such as the NC Department of Health & Human Services, typically facilitated via TNT's Plan Room *(see Accomplishments*. TNT provides vocational opportunities for individuals with relevant skills and career aspirations by partnering with entities like the Ed Fitts Charitable Foundation, GAF, Centimark, and Marvin Windows as suppliers, employer, and other key community stakeholders.

TNT has been contracted to develop the Odell Village Project in Littleton, NC - an innovative housing development that will transform the real estate industry. The project will consist of 64 3DCP units after two phases of construction. Both phases will introduce unique features and design elements, with the second aiming to create a sustainable and vibrant community. Phase I will feature 20 micro-units, creating a cozy and modern bungalow village. Phase II will include 44 single-family units, providing families with comfortable and affordable living spaces. *(see Odell Village Project)*

TNT is now well positioned to expand its business and enhance community impact. TNT has acquired a state-of-the-art 3DCP device - the RD20. In collaboration with North Carolina State University (NCSU), TNT has developed a market-leading Eco-Materials binding agent, and in collaboration with Virginia Tech, co-developed a HUD-funded a 3DCP curriculum. Wake Technical Community College (Wake Tech) recognizes the efforts of TNT Companies to bring not only resources, training, and workforce opportunities to the community for traditional construction career paths, but also non-traditional methodologies such as 3DCP Printing. Wake Tech understands and welcomes the further exploration of 3DCP equipment and curriculum pathways in its offerings, and anticipates TNT's delivery of license rights to use the TNT/VA Tech open-sourced 3DCP Curriculum.

2. Key Accomplishments to Date

TNT has over two decades of notable accomplishments in traditional construction. Below are some highlights of recent achievements that have set the stage for a focus on 3DCP-produced homes featuring Eco-Materials and 3DCP furniture, décor, and facades:

- Co-development w/Tvasta the 3DCP Model RC20 machine, a $650k investment *(pictured)*
- Ongoing 3DCP curriculum development with VT
- Development of Eco-Materials technology, IP, and product catalog ($600k TNT investment)
- Development of Intellectual Property (IP) for calcium carbonate mineralization of hemp fiber (*"Fibre Grow")* via R&D contract with NC State University (NCSU).
- Development of IP for a solution to minimize cracking in cementitious applications via an R&D contract with Ohio State University (OSU)
- Execution of contracts to develop and build 64 3D-printed homes in Littleton, NC, with Ed Fitts / El Brio Shores (Odell Village Project)

3. The Market

TNT caters to multiple commercial markets, and though this document does not seek to quantify these markets individually or collectively, it describes them in a context that directly aligns with TNT's business and community development priorities. Note that the following summaries consider only residential and home markets, not commercial ones. It is worth pointing out that TNT also has a successful track record in commercial developments.

3.1 Market Segments

3.1.1 3DCP Homes Market

The market for 3DCP is growing rapidly because of increasing demand for affordable, sustainable, and quickly constructed homes. Companies like Icon and Alquist 3D are leveraging this technology to tackle global housing shortages by decreasing construction time, materials usage, and labor costs. The need and potential for automation in the construction industry and the impact of 3DCP on construction costs is substantial and well-documented, some of which is presented in *Appendix A*. The following are 3DCP housing market characteristics, followed by characteristics of other markets:

- **Cost Efficiency:** 3DCP can substantially reduce labor costs and material waste and its precision ensures that only the necessary material is used, leading to substantial savings[1].
- **Speed of Construction**: 3DCP can build homes much faster. While traditional construction can take months or even years, 3DCP homes can be completed in days or weeks.
- **Design Flexibility**: 3DCP allows for intricate and customized designs that are often difficult or impossible to achieve with traditional methods. This flexibility enables unique architectural features and personalized layouts[1].

- **Sustainability**: 3DCP's precision minimizes construction waste, making it a more sustainable option. Additionally, many 3D-printed homes use eco-friendly or recycled materials[1].
- **Durability and Strength:** 3DCP's layering process creates robust structures that can withstand stresses better than traditional construction, making them more durable and long-lasting[1].
- E**nergy Efficiency:** 3DCP homes can be designed with superior insulation, improving their thermal properties and lowering energy consumption[1].
- **Rapid Response to Housing Needs**: 3DCP can quickly provide housing in response to natural disasters or housing shortages, offering immediate shelter and addressing urgent needs[2]**.**

3.1.2 3DCP Furniture, Décor, & Facades Market

This market segment is growing rapidly because of rising interest in custom, durable, and sustainable designs. The range of 3DCP applications includes indoor and outdoor uses with innovations such as modular furniture, facade elements, and decorative pieces that are highly customizable and more eco-friendly than traditional manufacturing. Manufacturers use 3DCP to create intricate designs that are difficult or cost-prohibitive to achieve with standard concrete casting methods. *(see Appendix B)*

- **Customization**: 3DCP allows for highly customized designs, enabling unique and intricate furniture pieces that can be tailored to individual preferences and needs[1].
- **Sustainability:** This method can use recycled materials and produce less waste than traditional manufacturing processes, making it more environmentally friendly[1].
- **Cost Efficiencies** 3DCP can be a more cost-effective way to produce furniture by reducing material waste and labor costs.
- **Speed:** The design to finished product process is much faster than traditional manufacturing[1].
- **Complex Designs**: 3DCP can easily create complex geometries that would be difficult or impossible to achieve with traditional manufacturing methods[1].

3.1.3 3DCP Retaining Walls Market

- **Durability:** Can be made from solid, durable materials providing excellent structural integrity[2].
- **Efficiency:** 3DCP's precision reduces material waste and ensures that the walls are built to exact specifications, improving overall efficiency[2].
- **Cost Savings:** Like furniture, 3D-printed retaining walls can reduce labor and material costs.
- **Speed of Construction:** Faster than traditional methods, allowing for quicker completion[2].
- **Design Flexibility:** Allows for innovative and flexible designs ideal for various landscapes[2].

3.1.4 Modular Homes Market

- **Cost Efficiency**: Can be more affordable due to bulk purchasing of materials and reduced labor costs[1]. They typically save around 15% compared to site-built homes[2].
- **Faster Construction**: Are built in a factory setting, so the process is faster and less affected by weather delays. A typical modular home can be move-in ready in as little as three months.

- **Quality Control:** Building in a controlled factory environment improves quality control and adherence to building codes[2], resulting in higher overall build quality.
- **Environmental Benefits**: Modular homes produce about half as much construction waste as site-built homes, making them more environmentally friendly[3].
- **Energy Efficiency**: Often have better insulation and energy-efficiencies, saving on utility bills[4].
- **Resilience**: Built to withstand transportation and assembly, often making them more durable.

3.1.5 Container Homes Market

- **Cost-Effective:** Shipping containers are inexpensive, ranging from $1,500 to $5,000 depending on size and condition[1], costing less than traditional building materials.
- **Quick Construction**: Can be built much faster than traditional homes. The basic structure being in place substantially reducing construction time[2].
- **Durability**: Made from strong, weather-resistant steel, shipping containers are designed to withstand harsh conditions, making them extremely durable[2].
- **Eco-Friendly**: Using repurposed shipping containers reduces waste and conserves resources, contributing to a lower environmental impact[3].
- **Customizable**: Containers can be easily modified and combined to create various layouts and designs, offering flexibility in customization[1].
- **Portability:** Can be relocated if necessary, providing mobility that traditional houses lack.
- **Reduced Carbon Footprint**: Recycling containers helps reduce the demand for new building materials, which in turn lowers carbon footprints.[3]

3.1.6 Upfit and Renovation Market

- **Customization:** Allows businesses to tailor space to operational needs, whether creating open office layouts, private offices, or specialized areas like conference rooms and break rooms.
- **Improved Functionality:** Optimizing layout and design results in more operational efficiency.
- **Enhanced Aesthetics:** Can substantially improve appearance of commercial spaces, helping attract clients and creating positive impressions.
- **Increased Property Value:** Well-executed upfits can increase property value, making it more attractive to future tenants or buyers.
- **Compliance and Safety:** Can ensure that space meets current building codes and safety regulations, which is crucial for employee safety and legal compliance.
- **Energy Efficiency:** Modern upfits often include energy-efficient lighting, HVAC systems, and insulation, which can reduce operating costs and environmental impact.
- **Brand Representation:** Customizing space to reflect company branding and culture can enhance employee morale and client perception.

3.1.7 Eco-Materials in Housing Market

The market for Eco-Materials in home construction is growing quickly as sustainability becomes a primary focus for consumers, builders, and policymakers. TNT and its partners continue to compile first-hand and other industry information, the latest of which TNT can make available on request. Using eco-friendly materials in construction offers numerous advantages, including:

- **Reduced Environmental Impact:** Eco-friendly materials, such as recycled steel and bamboo, help reduce the depletion of natural resources and minimize waste.
- **Energy Efficiency:** Many sustainable materials, like insulated concrete forms and low-E glass, improve energy efficiency, resulting in lower energy consumption and reduced utility bills.
- **Improved Indoor Air Quality:** Materials such as low-VOC (volatile organic compounds) paints and finishes contribute to healthier indoor environments by reducing harmful emissions.
- **Durability and Longevity:** Sustainable materials often have superior durability, extending the lifespan of buildings and reducing the need for frequent repairs and replacements.
- **Resource Conservation:** Using reclaimed wood and recycled metal conserves natural resources and reduces construction projects' environmental footprint.
- **Enhanced Property Value:** Buildings constructed with eco-friendly materials can have higher market value and appeal to environmentally conscious buyers.
- **Green Building Certifications:** Using sustainable materials can help buildings qualify for certifications like LEED (Leadership in Energy and Environmental Design), enhancing marketability and demonstrating a commitment to sustainability.

3.2 Competition

3.2.1 Overview

Most commercial and residential developers rely on conventional technology and materials, with few incorporating 3DCP and Eco-Materials. In many ways, TNT's main challenge is not competition from other companies that use 3DCP and Eco-Materials, but rather its own ability to deliver timely, affordable development projects compared to traditional construction methods and materials. This is why TNT has invested so heavily in related equipment, IP, technical refinements, and partners.

TNT Development has for decades successfully competed in the crowded conventional construction sector, and it applies the same enterprising spirit and business expertise to its new 3DCP and Eco-Materials initiatives. Rather than conducting an extensive competitive analysis, TNT has focused on monitoring technical developments and studying how a few notable companies have adopted and implemented them. Many of these companies, rather than constituting “competition," actually have and continue to serve as models for TNT, and provide valuable lessons learned.

3.2.2 Icon Build

The Austin, TX company focuses on large-scale and tech-forward projects such as the 100-home community in Georgetown, TX, and partners with SpatiaX and NASA to explore space-based projects. Known for durable, energy-efficient homes, Icon collaborates with major developers. It partners with Lenore Homes and is one of the US’s two most prominent 3DCP builders. www.iconbuild.com

3.3.3 Alquist 3D

Based in Greely, CO, Alquist is the first in the US to build a lived-in 3D-printed home. Via partnership with Walmart, it has also built the largest 3DCP commercial building in the US. This 8k ft^2 addition to a Walmart Supercenter in Athens, TN, has 19'4" high walls, and is among the tallest 3DCP structures in the world. Like TNT, Alquist emphasizes affordable housing for underserved areas, such as its project in Williamsburg, VA. Alquist focuses on rapid, low-cost builds, completing 3DCP walls in about 12 hours and incorporating energy-saving features to lower costs. *www.alquist3d.com*

4. Leadership, Structure, & Operations

4.1 Leadership

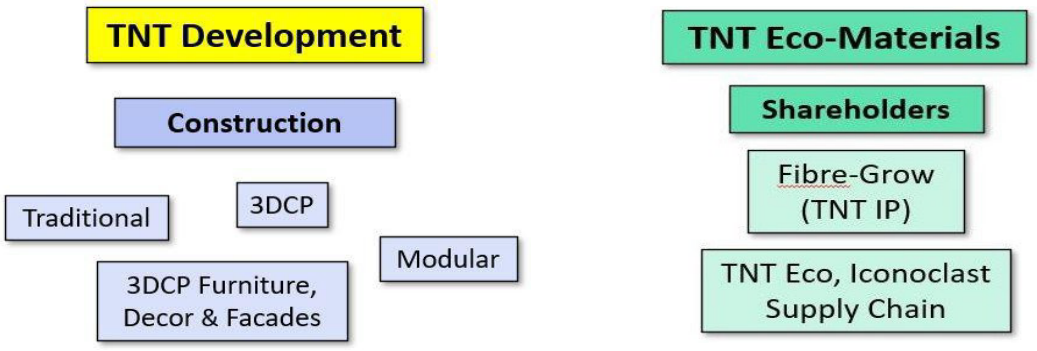
Antonio Terrell

Since 2000, TNT's President & CEO Antonio Terrell has been recognized as a driving force in the housing and construction field in Wake and surrounding counties. His experience includes:

- Land Developer, Licensed General Contractor #86180
- Master Carpenter, Field Engineer, Superintendent, Project Manager, Assisted Living Facilitator and Investor
- Widespread Involvement in the Community
- Served on the Adult Care Home Community Advisory Board of Wake Co., a member of the Wake Area Business Advisory Council, former Co-Colonel for the Triangle Area YMCA's We Build People Campaign
- Served on steering committee for the Wake, Durham, and Orange Counties Coalition for the 100,000 Homes Campaign and as Co-chair for the Housing Action Team for Raleigh/Wake Partnership to End and Prevent Homelessness
- Member of the NC Family Care Home Association, NC Home Builders Association, and National Home Builders Association
- Mentoring Program curriculum writer and facilitator

4.2 Structure

TNT's two business entities and their sections:



4.2.1 TNT Development

TNT Development has been successful in the housing and construction industry since 2000. In the past four years, it has invested in and improved technology related to 3D Cement Printing (3DCP) and eco-friendly materials. This has already produced significant advancements in both areas.

TNT Development has a Philanthropic Division that reinvests time and resources into communities, promoting sustainable growth and success principles. Additionally, it has a Technical Assistance and Training Division that offers vocational opportunities across various skill sets and career paths. The TNT Plan Room is a hub for advanced technology, strategic business planning, and training activities.

4.2.2 TNT Eco-Materials Company

The eco-friendly materials market presents additional revenue opportunities beyond home construction, prompting the establishment of a separate business entity for TNT. TNT has already invested $600,000 in Eco-Materials intellectual property (IP) and 3DCP technology. TNT's Eco-Materials Company and TNT Development operations are complementary in objectives and core values.

It is worth noting that a new product in the Eco-Materials sector, developed by TNT in collaboration with NCSU and OSU, is being marketed to QUIKRETE and Heidelberg Materials - two leading suppliers in the materials industry. Additionally, the US Department of Defense has issued a Request for Information (RFI) for an Eco-Materials provider, signaling substantial and high-profile market interest.

4.3 Operations

4.3.1 New TNT 3DCP Facility

TNT plans to establish a climate-controlled production facility (TNT Facility) to address the affordable housing crisis in NC. Various stakeholders interested in the project's business and housing aspects and its potential positive impact on NC's public relations are proposing multiple locations for the facility. TNT estimates that it will take approximately one month to operationalize it fully.

Once the TNT Facility is up and running, TNT intends to produce 3DCP houses and related products, which will be delivered to customer-owned land parcels for installation. It will also enable increasing the production of furniture, décor, and facades.

4.3.2 TNT Plan Room

The TNT Plan Room is a hub for integrating technology and construction, and a testimony to TNT's dedication to sustainable community development, environmental stewardship, and social welfare. Establishing the TNT Plan Room, operated through our Philanthropic Division, further emphasizes our commitment to facilitating workforce objectives for public and private entities while preserving the environment. *(see TNT Plan Room Financials)*

5. Partners and Alliances

5.1 TNT and NCSU Intellectual Property

On 3/2022, TNT paid NCSU for R&D effort, resulting in an IP for Calcium Carbonate Mineralization of Hemp Fiber, known as "*Fibre Grow*." The IP was submitted to the US Patent Office on June 13, 2024, and applies to drywall, stucco, cement, and numerous fiber-based products. TNT and NCSU created additive materials for sustainable building. Commercialization is underway for the TNT Eco-Materials Company and its IP, which TNT Development owns and operates. *(see NSCU IP Notification Letter)*

5.2 TNT and OSU Intellectual Property

On 4/2023, TNT paid OSU for an R&D effort to optimize IP in cementitious applications. This produced findings that the IP minimally reduces cracking in concrete in cementitious applications, and NCSU's findings confirm increased tensile strength. *(see OSU Support Letter)*

5.3 TNT and Virginia Tech

TNT, Tvasta, and Virginia Tech are currently involved in a collaborative HUD-funded effort to create and facilitate an open-sourced 3DCP curriculum that will be implemented at the university, community college, and community interest levels. TNT needs the TNT Facility built and operational in order to finalize its contribution to the curriculum.

5.4 TNT and Wake Tech

Wake Technical Community College (Wake Tech) is NC's largest community college, serving over 72,000 students annually, and offering more than 250 associate degrees, diploma, and certificate programs. Wake Tech recognizes TNT's efforts to bring not only resources, training, and workforce opportunities to the community for traditional construction career paths, but also non-traditional methodologies such as 3DCP Printing and robotics. As a result, Wake Tech has formed alliances and partnerships with stand-up curriculums supporting this effort which include:

- 3DCP Printing equipment (robotic) Tvasta (OAM)
- HUD curriculum – Multiple levels
- SIC Codes - progression to this level of 3D code
- Recruitment/Hiring and ReEntry Training / Upskill to employment (public safety and health)
- CAWD
- Law/Codes
- Industry Partners and Manufacturing partners (GAF/Cinemark) Roofing Academy

Wake Tech welcomes the further exploration of 3DCP equipment and curricula in its offerings and anticipates TNT's delivery of license rights to use the TNT/VA Tech Open-Sourced 3DCP Curriculum.

5.5 TNT and Ed Fitts Charitable Foundation / El Brio Shores LLC

In December 2023, TNT and Ed Fitts/El Brio Shores (NCSU alumni and donor), executed contracts to develop and build 64 3D-printed homes in Littleton, NC, using a TNT's 3DCP printer - the RC20. *(see Fitts Support Letter)*

5.6 TNT, CSI, and Wake County

On December 7, 2019, CSI was certified and commissioned by the NC Department of Health and Human Services to operate as the CSI-Integrated Care Collaborative Care Model. This CSI Division coordinates grants, business training, technical assistance services, business development services, and licensing. It aligns with CSI's mission to support eligible persons returning home from prison, jail, and court who need housing, job readiness training, job placement, mental health, business, and other indirect and direct services.

Under an Memorandum of Agreement between TNT Developers and CSI, CSI will utilize its applicable network to facilitate and leverage support on behalf of TNT's "Nonprofit Services for Applied Sciences Division," and CSI will not connect to another TNT Division. *(see CSI and Wake County Support Letter)*

5.7 TNT and NBAN

NBAN's mission promotes prevention and intervention programming of law literacy with referral partners who support eligible marginalized populations to avoid slipping into our nation's prison pipeline. *(see NBAN Support Letter)*

5.8 TNT and LUX Energy

LUX Energy offers customized residential solar solutions to reduce energy costs and promote global sustainability. In late 2024, LUX entered into a formal agreement with TNT, designating TNT as an authorized dealer of its energy-related products and the General Contractor of record. This allows TNT to provide contractor services and building products, and has the first right of refusal for projects. TNT will actively promote and sell LUX products in specified regions, and LUX will supply TNT with marketing materials and training.

5.9 TNT and Tvasta

On August 8, 2024, TNT and Tvasta completed commissioning the FIRST-EVER Tvasta MOBILE ROBOTIC ARM SYSTEM deployed in the United States - the RD20.

TNT has established direct operational support from its Global OEM, Tvasta, headquartered in Chani, India, and domestically from its USA headquarters in Wichita, Kansas. Once TNT identifies a suitable location for the TNT Facility, Tvasta will facilitate the initial equipment and production oversight. Additionally, Tvasta will infuse and test TNT's binding IP for real-world cementitious applications.

5.10 TNT and Crain Company

Crain Company, a stakeholder of Tvasta and TNT's OEM, is dedicated to TNT's continued success and evolution of the 3DCP industry. Crain has developed a well-rounded leadership team that drives value at every stage of the acquisition and development process. The team brings diverse expertise in finance, real estate, and asset management, all united by a shared vision of unlocking potential in value-add and distressed assets. Through collaboration, innovation, and strategic execution, it continuously strives to deliver exceptional outcomes for investors and communities. *(see Crain Support Letter)*

6. Marketing

6.1 Overview

3DCP and Eco-Materials are generating significant industry and market buzz because of their appeal for sustainable growth. These technologies enable faster, waste-reducing construction and complex, eco-friendly designs that align with affordable housing goals. Their potential to transform infrastructure and reduce environmental impact has sparked broad interest, making them highly marketable and sought-after in today's environmentally conscious landscape.

TNT's marketing efforts will focus on fulfilling its current and future contractual obligations to build 3D-printed homes. These homes are designed to address the needs of municipalities facing housing shortages and a lack of affordable housing while also providing custom attention for novice clients. Additionally, the Department of Transportation (retaining walls), Department of Defense, and military installations have shown interest in incorporating TNT's products into various applications. TNT will emphasize meeting the growing demand for 3D-printed indoor and outdoor furniture, décor, and hardscape, including in parks and recreation areas.

TNT enhances and leverages the above by being at the forefront and engaging with public and private organizations, many of which are directly involved in TNT technology, developments, and planning. TNT's focus on these lends itself to popular news and other media exposure, such as follows:

6.2 TNT in the Media

WRAL TNT Fitts 3D Printed Homes Littleton, NC Interview
www.wral.com/first-3d-printing__housing-development-in-nc-blueprint-for-%20sustainability%20affordability/20718895/

TNT Development Odell-Littleton NC 3D Printed Homes Project Highlights
www.youtube.com/watch?v=_QP8xD6jD68&list=PLHv9g9qQR_blkNiT3iiKk0yFrgTOOLOry&index=3

WRAL The future is here: Take a look at the first 3D-printed housing development in NC
http://www.wral.com/story/the-future-is-here-take-a-look-at-the-first-3d-printed-housing-development-in-nc/20718655/

TNT Facebook Page
www.facebook.com/LetsBuildLegacy

7. TNT Company

7.1 Overview

TNT has profitably built and developed homes and commercial properties since 2000, with some of that profit now invested in 3DCP and Eco-Materials. These investments include equipment, intellectual property (IP), and curriculum development. Other financial particulars include:

- TNT Development has invested $650,000 to acquire its 3DCP RC20 device and its product catalog
- TNT Eco-Materials has invested $600,000 in developing its Eco-Material's intellectual property (IP)

7.2 Expansion

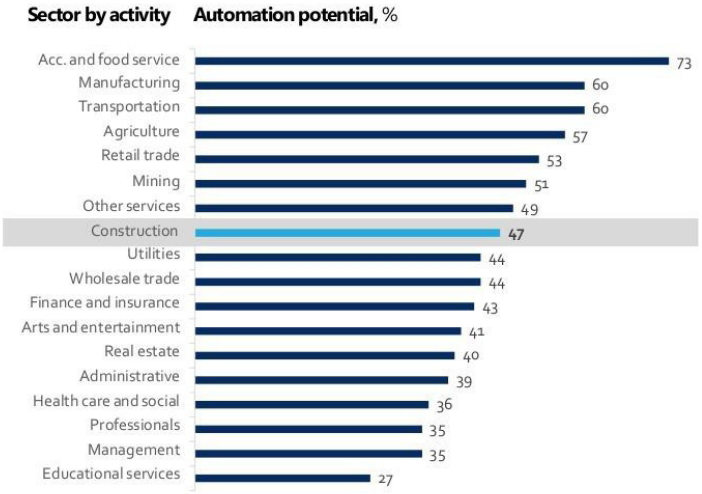
- $250,000.00 will be allocated to acquiring a facility to produce 3D-printed homes and products.
- $500,000 will be allocated to payroll for the five team members who are essential for advancing the technology and production efforts, maintaining operations, and training the workforce for future growth.
- $250,000 will be allocated to working capital and operations, including a marketing campaign for 3D printed furniture and Décor, vehicles, and supporting equipment acquisitions.

"Together, we will accelerate growth and create a future where our shared goals are realized." *– Antonio Terrell, TNT President & CEO*

Appendix A: Market for Construction Automation and 3DCP

There is an urgent need for automation in the global construction industry

Technical potential for automation across sectors (US)



Source: McKinsey Global Institute, 2017

4 drivers for automation

~50% of activities in the US construction can be automated according to a 2017 McKinsey & Company report

Global shortage of skilled labor in the construction industry, made more extreme by increased demand for construction work

Worldwide increase in the cost of materials (e.g., steel and timber)

Global shortage of affordable housing, including a 4 million home deficit in the US

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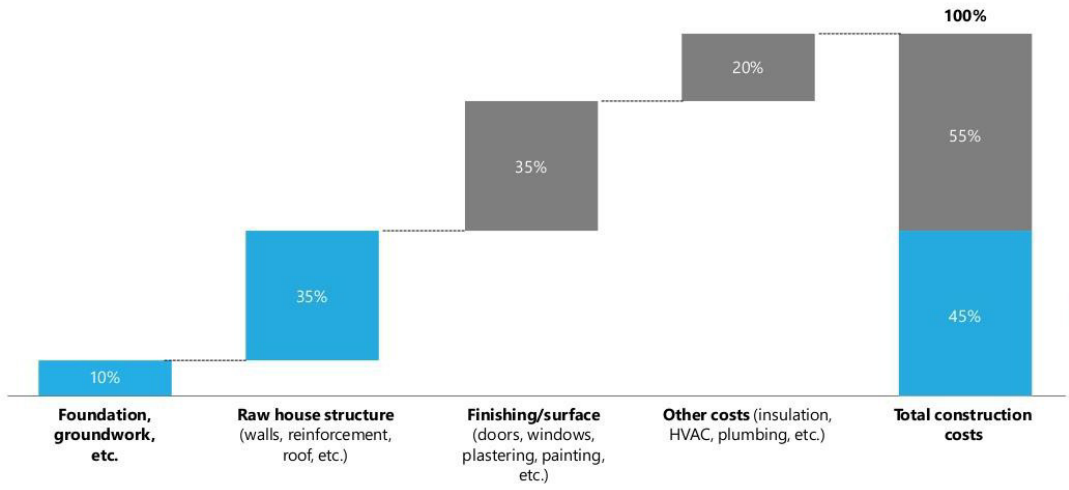
3D printing addresses up to 45% of construction costs for residential housing

Construction cost breakdown by share, %



Work completed by

Conventional trades

3D print technology

Source: COBOD internal estimates

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Appendix B: *3DCP Comparative Production Costs and Value*

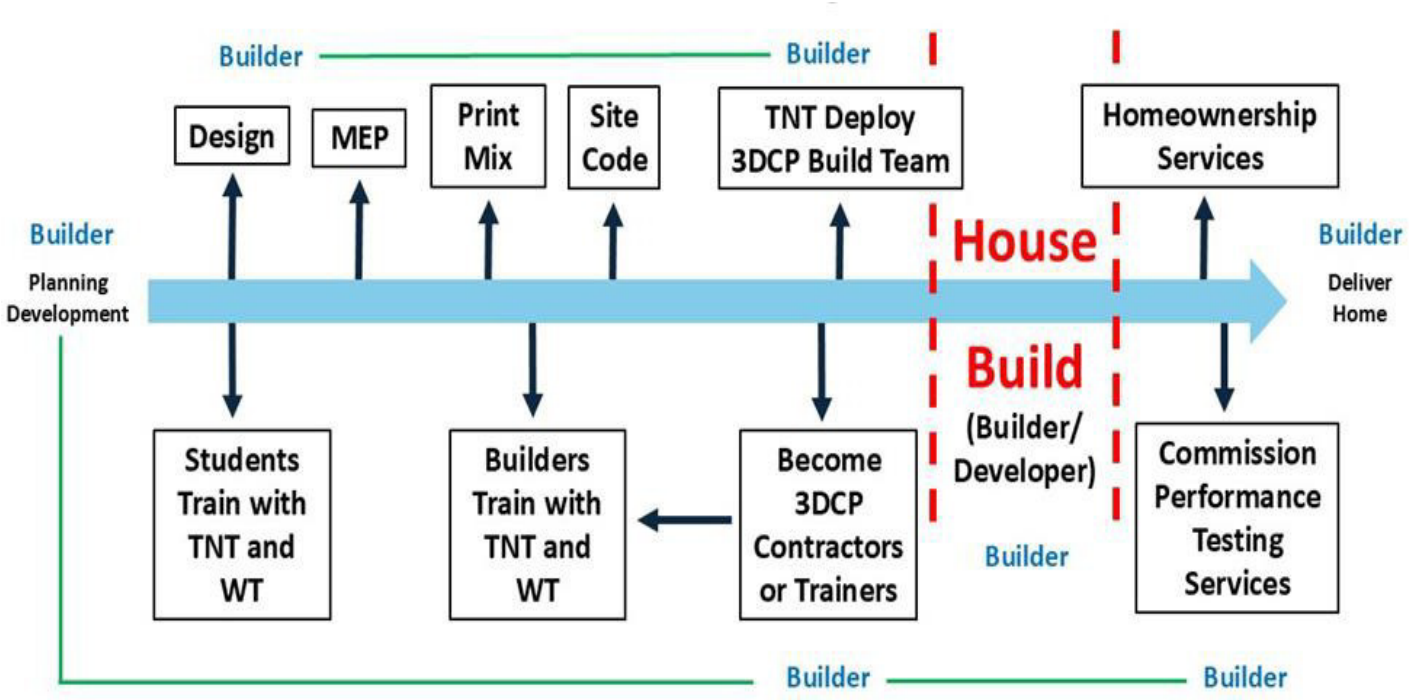
Comparative Housing Costs at 1250sf

3DCP Cost 2024 Breakdowns-	NAHB	%	RS MEANS	%	NN 3DCP	%	NN Brick	%	NN Vinyl	%
SF	1250		1200		1250		1250		1250	
INDIRECT COSTS	Joist		SOG		3" Concrete		SOG		SOG	
General Conditions, Misc. Items and Logistics	$ 12,012	6%	$ 21,106	11%	$ 26,000	3%	$ 7,450	4%	$ 7,450	3%
DIRECT COSTS										
Site Work	$ 2,585	1%	$ 2,080	10%	$ 12,500	3%	$ 6,900	2%	$ 6,900	4%
Foundation	$ 21,543	11%	$ 18,292	11%	$ -	0%	$ 22,800	12%	$ 26,300	14%
3DCP		0%		0%	$ 20,599	20%		0%		0%
Framing	$ 40,140	20%	$ 25,260	11%	$ 4,334	11%	$ 24,500	12%	$ 24,500	13%
Exteriors	$ 17,307	9%	$ 32,808	9%	$ 22,750	10%	$ 33,100	17%	$ 20,100	11%
Roofing	$ 5,748	3%	$ 5,786	3%	$ 8,000	2%	$ 5,650	3%	$ 5,650	3%
Interiors	$ 35,131	18%	$ 31,101	17%	$ 44,140	21%	$ 30,750	16%	$ 30,750	16%
Specialties	$ 12,019	7%	$ 32,939	12%	$ 13,000	6%	$ 13,000	7%	$ 13,000	7%
Major Systems	$ 35,075	18%	$ 23,043	16%	$ 26,500	16%	$ 33,100	17%	$ 33,100	18%
Landscaping, Hardscaping, and Porches	$ 14,562	7%		0%	$ 14,579	8%	$ 20,750	10%	$ 20,750	11%
		100%		100%		100%		100%		100%
TOTAL COSTS	**$ 196,121**		**$ 192,414**		$ 192,402		**$ 198,000**		**$ 188,500**	
$/SF	**$ 157**		**$ 160**		**$ 154**		**$ 158**		**$ 151**	

Production Values Using the 3DCP Across 44 1250 SF Houses

3DCP Cost 2024 Breakdowns	NAHB		RS MEANS		NN 3DCP		NN Brick		NN Vinyl
SF	$ 2,561		$ 1,200		$ 1,250		$ 1,250		$ 1,250
INDIRECT COSTS	Joist		SOG		3" Concrete		SOG		SOG
General Conditions, Misc. Items and Logistics	$ 528,528	6%	$ 928,673	11%	$ 1,144,000	3%	$ 327,800	4%	$ 327,800
DIRECT COSTS									
Site Work	$ 113,718	1%	$ 91,530	10%	$ 550,000	3%	$ 303,600	2%	$ 303,600
Foundation	$ 947,892	11%	$ 804,858	11%	$ -	0%	$ 1,003,200	12%	$ 1,157,200
3DCP	$ -	0%	$ -	0%	$ 906,356	20%	$ -	0%	$ -
Framing	$ 1,766,160	20%	$ 1,111,430	11%	$ 190,696	11%	$ 1,078,000	12%	$ 1,078,000
Exteriors	$ 761,486	9%	$ 1,443,534	9%	$ 1,001,000	10%	$ 1,456,400	17%	$ 884,400
Roofing	$ 252,912	3%	$ 254,562	3%	$ 352,000	2%	$ 248,600	3%	$ 248,600
Interiors	$ 1,545,764	18%	$ 1,368,440	17%	$ 1,942,160	21%	$ 1,353,000	16%	$ 1,353,000
Specialties	$ 528,836	7%	$ 1,449,300	12%	$ 572,000	6%	$ 572,000	7%	$ 572,000
Major Systems	$ 1,543,300	18%	$ 1,013,900	16%	$ 1,166,000	16%	$ 1,456,400	17%	$ 1,456,400
Landscaping, Hardscaping, and Porches	$ 640,728	7%	$ -	0%	$ 641,476	8%	$ 913,000	10%	$ 913,000
		100%		100%		100%		100%	
AVG. TOTAL COSTS	**$ 8,629,324**		**$ 8,466,227**		**$ 8,465,688**		**$ 8,712,000**		**$ 8,294,000**
AVG. $/SF									

Appendix C : *3DCP Construction Timeline & Process*

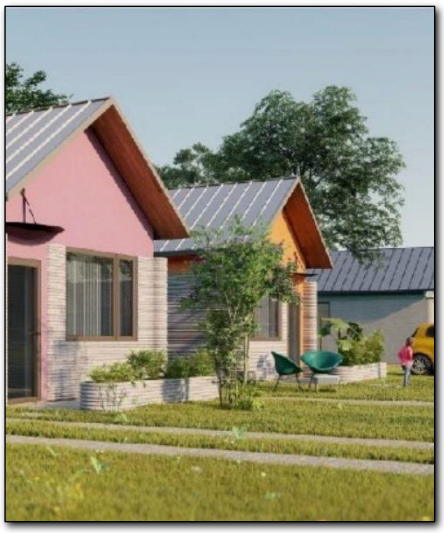


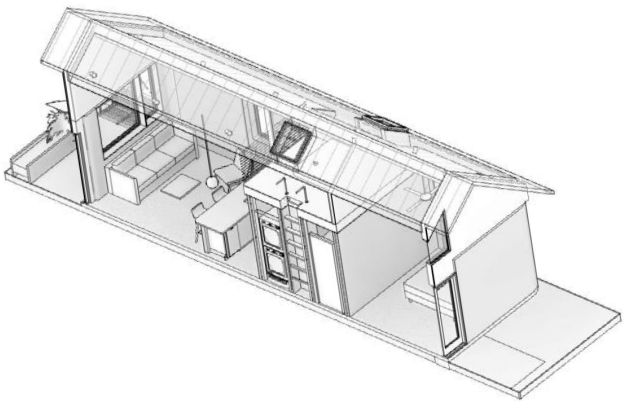
Appendix D: *Odell Village Project*

Odell Village is a groundbreaking housing development project in Littleton, NC designed to transform the real estate industry. This development will consist of 64 concrete units that are 3D-printed and constructed in three phases.

Phase I will feature 20 micro-units, creating a cozy and innovative bungalow village. Phase II will include 44 single-family units, providing families with comfortable and affordable living spaces.

The project utilizes the Tvasta RD20 3D printer and incorporates sustainable, eco-friendly materials to minimize its carbon footprint. The units are designed to be functional, innovative, and aesthetically pleasing, making them perfect for modern living.





Appendix E: *3DCP Furniture, Décor, & Facades*

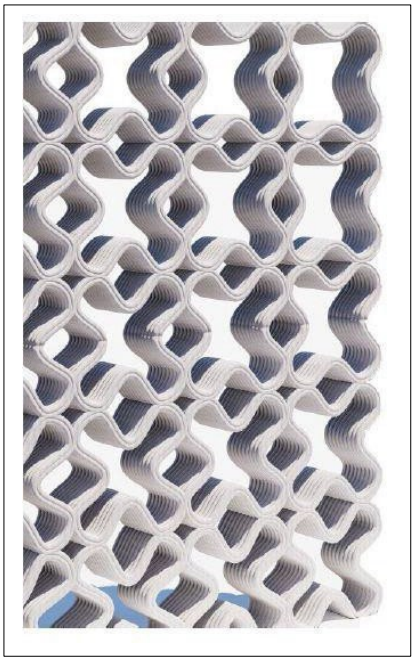
Limited sample shown here. *(see Metrics and Financials next page)*

TABLES

PLANTERS

SEATERS

FACADES



Appendix F: *From TNT's Modular Homes Catalog*

Appendix G: *NCSU IP Notification Letter*

NC STATE UNIVERSITY

Office of Research Commercialization
www.research.ncsu.edu/commercialization

Campus Box 8210
1021 Main Campus
Drive Raleigh, NC
27695-8210
P: 919.515.7199

Courier Address:
1021 Main Campus
Drive Raleigh, NC 27606

March 2, 2023

Antonio Terrell CEO
TNT Development
2011 Raleigh Blvd St 105
Raleigh NC 27604

Fax: 919 573 9375
Email: terrell@tntdevelopers.com

RE: NCSU File 2023-122 "[redacted]"

The NCSU Office of Research Commercialization has recently received invention disclosure NCSU File # 2023-122, "[redacted]" developed during the research sponsored by TNT Development and governed by the Research Agreement #2022-2317.

Pursuant to Article 6.d, TNT Development is granted a fully paid-up, non-exclusive, non-transferable, royalty-free license (without the right to sub-license) to use all results of the Research owned by N.C. State University for your internal research and development.

Pursuant to Article 6.d, TNT Development has the first right to negotiate for a royalty-bearing exclusive license or fee-bearing option. TNT Development has two months from notification to exercise the said option.

For this invention, your notification date is **March 3, 2023,** with your notification period for exercising your option ending on
May 3, 2023.

Furthermore, if you would like additional information or if you would like to schedule a meeting with the inventors or me to discuss the technical details of the inventions further, please feel free to contact me at 919-515-7199 or via email at brian_eller@ncsu.edu.

Sincerely,

Brian Eller
Assistant Director of Licensing

Appendix H: *Letters Supporting*

TNT H:1 OSU Support Letter

College of Engineering

THE OHIO STATE UNIVERSITY

Center for Design and Manufacturing Excellence

1314 Kinnear Road Suite 1533
Columbus, OH 43212
614-292-6888 cdme@osu.edu
cdme.osu.edu

May 19th, 2023

Subject: Letter of Support for Pantheon Innovative Builders and TNT Development's Joint Venture to create the Odell Littleton Road Village Automated Construction Training Academy

Dear Review Committee:

Please consider this letter in support of Pantheon Innovative Builders and their effort to establish a mobile training academy focused on automated construction technology and sustainable building materials/designs. Our team at OSU has been working with Pantheon to better understand and research of 3D printed construction technology.

Pantheon Innovative Builders has shared with us their vision for a joint venture between TNT Development to create a pilot Automated Construction Training Academy at the Odell Littleton Road Village development in Littleton, North Carolina. We believe Pantheon's effort is aligned to our strategic interests and furthermore unlocks opportunity to expand the Additive Construction ecosystem in the United States. This effort between Pantheon and TNT can serve as a powerful framework for future collaboration within the 3DCP industry.

The Ohio State University's Center for Design and Manufacturing Excellence (CDME) works with companies and researchers to translate new technologies into real-world, market-ready manufactured solutions. These projects give student employees at CDME hands-on experience integrating new technology while providing our customers with the workforce advantage necessary to compete in a global marketplace. The center executes this innovative approach to technology translation and workforce development while shaping the national conversation on advanced manufacturing innovation.

Please reach out directly to my email or phone number listed below for any questions pertaining to this letter or project.

Best Regards,

Benedict DiMarco

Ben DiMarco
Principal Engineer - Additive Manufacturing
College of Engineering | Center for Design and Manufacturing Excellence
1314 Kinnear Road, Columbus, OH 43212
+1 (614) 400-8166 (mobile phone) or dimarco.24@osu.edu (email)

H:2 CRAIN Company Support Letter

CRAIN IMPACT

+1 (860)550-3800
mwhite@crainco.com
7676 E Polo Dr, Wichita, KS 67206

Tuesday, September 10th, 2024

Dear Mr. Terrell,

Crain Company, along with its subsidiaries, Crain Impact and Crain Co 3D, (henceforth "Crain") is pleased to provide you this letter of support for the collective leadership roles in the 3D Technology Industry through TNT Development and TNT Eco Materials Company.

Crain endorses the effort of TNT Companies to challenge the 3D Technology Industry by utilizing your existing credentials as a NC Community College System Graduate, an Unlimited General Contractor, and a Disabled Veteran-owned business. These credentials resulted in competitive advantages to optimize purchases of license rights to Tvasta equipment and software. We support your plan to formalize partnerships with the state of North Carolina's UNC System Schools, NC Community Colleges and municipalities.

The states of Kentucky, North Dakota and Virginia are following TNT Companies' trajectory with HUD's national 3D Technology Industry open-source responsibilities. At this time, there are no practical reasons for other states to lead NC in 3D Technology for homes and structures.

We are also impressed that TNT Companies have committed to community engagement activities that will challenge other sectors and markets involving 3D Technology to bring provide innovative and simultaneous solutions in education, training, and workforce development.

We understand that NCSU's goals include commercialized steps with the Tvasta Equipment and software to extrude TNT-NCSU's IP Fibre Grow, for existing testing procedures under your optimization agreement with The Ohio State University. Over time, our research team should be aligned to coordinate field tests to assist in these efforts.

Currently, your Community Engagement 3D Technology Partners are exceeding expectations by operating in rural jurisdictions. NC schools and students will enhance resumes with state-of-the-art research outcomes, field protocols, building codes modifications, under the US Standard Industrial Codes.

Collectively, TNT's team is positioning direct accelerations to significantly impact the nation's housing crisis which will reflect on North Carolina's original investments in 3D Technolgy.

Please advise Crain how we may be more involved helping our nation's premiere collegiate systems by affording 3D Technology equipment and software for campus housing and research.

Sincerely,

Michael D. White
CEO, Crain Impact
CIO, Crain Companies

I:3 NC Senator Tillis Support Letter

Senator Thom Tillis
North Carolina

U.S. Senate
Washington D.C. 20510

November 26, 2024

Mr. Tone Terrell
Chief Executive Officer
TNT Development
3501 Capital Boulevard, Suite 103
Raleigh, North Carolina 27604

Dear Mr. Terrell,

I am pleased to extend my sincerest appreciation to you and your team at TNT Development, the GAF Roofing Academy, and the Fitts Charitable Foundation for your outstanding contributions to North Carolina. Your devotion to your community is evident, and I sincerely thank you for your service.

I am proud to hear about extraordinary North Carolinians making a positive impact in our state. Thank you for your dedication to advancing new technologies and promoting inclusive workforce planning. I look forward to hearing about your continued success.

Please feel free to contact my office if I can ever be of assistance.

Sincerely,

Thom Tillis
U.S. Senator

H:4 Fitts Foundation Support Letter

411 Mosby Avenue
Littleton, NC 27850
(843)-696-6703

June 7, 2023

Antonio Terrell
President
Cross N Crown Ventures, LLC dba TNT Development, TNT Eco Materials Company
2011 Raleigh Blvd St 105
Raleigh NC 27604

Subject: Army SBIR funding opportunity for United States-based small businesses

Dear Mr. Terrell:

I am delighted to write this letter in support of your Army SBIR funding opportunity. Our support comes from my ownership and contract with you to develop the largest 3D Technology Housing Project in the nation and as a committed Veteran to aid the Department of Défense's (DOD) goals, which include the simultaneous support of the military and global environmental preservation standards.

I serve as Executive Director at Ed Fitts Charitable Foundation, which provides help to rural citizens in need of workforce housing and other social determinants of health. Our commitment to Cross N Crown Ventures, LLC includes the testing, marketing, teaching, and production of environmentally sustainable materials that decrease deforestation and reduces our carbon footprint.

As an investor in research and development to preserve our resources for future generations, I applaud the convening of North Carolina State University and The Ohio State University. Their endorsements and proven commitment to TNT Eco Materials continues the research and testing that is currently underway. Both universities were selected because of their research and testing prominence to furnish data that has been authorized to provide for the DOD's uses. Ultimately, our team would supply better structures for our nation's public safety and health goals.

The Ed Fitts Charitable Foundation selected Cross N Crown Ventures, LLC's licenses, and certifications to build over 100 3D Technology Printed Homes using cementitious materials. The foundation has authorized Cross N Crown Ventures, LLC to build the "SBIR Prototype" on the 42-acre housing site. Another benefit from this DOD Project is that Littleton Academy will serve the public and private schools as an Institute for principals, teachers, and emerging student leaders on how to apply science and technology to help people and our planet.

The Veterans and other trainees who will be selected for 3D Technology Curriculum training opportunities will join our new workforce that will become certified to work and grow within the 3D Technology building and roofing industries. This industry will eventually train to work and meet the demands of the US Army, other branches, and the Veteran's Administration.

TNT is a Disabled Veteran-owned, Historically Underutilized Business, Small Business Enterprise, SWUC, Small Business Administration Certified Builder, with an Unlimited General Contractor's License, and meets the stated qualifications to meet the DOD's eligibility criteria to build the prototype to the specifications of the University Research Partners. The universities are performing work and services to produce the first Bio-Based Building Materials of this type and will abide by reporting procedures required by the DOD. We look forward to working closely with the DOD to meet the objectives of Phase I and subsequent requirement. I am available to work directly with your representatives and may be contacted on my cell at 843.696.6703.

Sincerely,

Stacy Woodhouse
Executive Director
The Ed Fitts Charitable Foundation

H:5 NBAN Support Letter *(first page)*

NATIONAL BUSINESS ALLIANCE NETWORK, INC.
AGREEMENT WITH TNT DEVELOPMENT, AGENTS, AND HOSTS

This National Business Alliance Network, Inc. licenses TNT Development through this Agreement. The Agreement is entered into by and between National Business Alliance Network, Inc. (NBAN) (the Licensor) and TNT Development (the TNT Workforce Licensee) as of the date set out on the parties' signature page below.

Services. The services to be performed by the TNT Workforce Licensee under this Agreement, as set forth below and fully incorporated into this Agreement by reference, are hereafter referred to as the "Services." The TNT Workforce Licensee agrees to perform the Services diligently, timely, and professionally, with the level of care and skill accepted at the direction of the NBAN Public Education Outreach Office (PEOO).

A. The NBAN Market Segment Designation is "Workforce." The description will be followed by the Licensee and its agents performing services on behalf of the TNT Philanthropic Division, where all Workforce activities will be formally organized and coordinated by the TNT Virtual Business Incubator and Plan Room (VBI-PR).

B. The Licensor's Market Segment Designation and the TNT VBI-PR Model met NBAN's scalability, profitability, and repeatability criterion for participating NBAN members. Three VBI-PR Advisory Committee Members.

C. The TNT VBI-PR Model was initiated at the Licensee's rural Workforce Project in Littleton, NC, Halifax, and Warren Counties, including the Community Success Initiative (CSI), Fitts Charitable Foundation, and NBAN.

D. The TNT Insurance Company Risk Management Services recognizes positive public safety and health activities and benefits to enhance hiring opportunities for marginalized people who earn a Law Literacy Certificate of Achievement during their 90-day probation period.

E. Elements of the TNT Insurer's procedure include Law Literacy Scholarships sent to participating Law Enforcement Officials who award eligible VBI-PR job candidates. The community engagement process rebuilds trust between Law Enforcement and marginalized community members. Employees become rebranded as leaders for contributing measurable public safety and health hours, thereby strengthening the community to become safer and healthier.

F. The TNT Insurer Risk Managers use this public safety and health campaign to reduce TNT's monthly insurance premium, thereby making it profitable for TNT to rebuild trust between Law Enforcement and marginalized communities.

G. The work in Halifax County (The Littleton Project) will attract the media and highlight how this rural community is building and restoring the area. The Littleton Project investment is approximately $24M. It represents 150 units as residential homes and short-term stays for eco-tourism in Downtown Littleton. The project includes The Littleton Academy Patrons, Project Trainers and Trainees, NC State/ Ohio State University Research Partners, and prospective development customers. Nearly all units will be built with state-of-the-art 3D Technology, making this rural project the largest 3D Technology Development in the nation.

H:5 *NBAN Support Letter* *(final page)*

14. **Severability**. Should a court determine that any provision of this Agreement is invalid or unenforceable, such provision will be modified, amended, or limited only to the extent necessary to render it valid and enforceable.

15. **Survival**. Sections 5 through 15 of this Agreement will survive the termination of the TNT Workforce Licensee's engagement hereunder, regardless of the party terminating the engagement and the manner or cause of such termination.

IN WITNESS, the Licensor and the TNT Workforce Licensee have executed this TNT Workforce Licensee Agreement as of the date set forth below.

LICENSOR	LICENSEE
National Business Alliance Network, Inc.	TNT Development
Address: 2809 Spring Forest Road, Suite 201	Address: 3501 Capital Blvd St 103
Raleigh, NC 27616	Raleigh NC 27604
By: Melvin L. Wilkins, Jr.	By: antonio terrell
Melvin L. Wilkins Jr., Chairman	Antonio Terrell, CEO
Date: August 24, 2023	Date: 8/24/23

H:6 *CSI and Wake County Support Letter*

November 23, 2021

Dennis Gaddy, Executive Director
Community Success Initiative 1830-B Tillery Place
Raleigh, NC 27604

Tone Terrell
TNT Development CEO 2011 Raleigh Blvd Suite 105
Raleigh NC 27604

tel 9198565689
fax 9198565594

Director'sOffice
Wake County Office Bldg., 336 Fayetteville St., Suite 440
P.O. Box 550• Raleigh, NC 27602
www.wakegov.com

Subject: Support Letter for the TNT Development 3D Printed Housing Initiative Dear Mr. Gaddy and Mr. Terrell, Wake County appreciates the 17 years of service provided by Community Success Initiative (CSI) as a premier specialist in helping people returning home from prison and jail. CSI serves over 325 county residents annually, with most needing housing resources. CSI's approach has tailored wrap-around services to help meet citizens' needs, including a partnership with the NCWorks Career Center.

We support CSI's partnership with TNT Development to provide additional affordable housing in Wake County. The proposed type of building from the TNT Development 3D Printed Homes Initiative will assist in creating a new housing type that offers an affordable housing solution.
Thank you for focusing on providing affordable housing for our communities' needy people. Sincerely,

DocuSigned by:
Ed Barberio
A2831CD5EE354B4...

Edward Barberio, Deputy Director Wake County Housing Affordability and Community Revitalization