



*NORTHWEST ISD*  
**Career & Technical  
Education**

# **NISD CTE Board Report**

## **New Academies**

December 9, 2024

# Career & Technical Education:

- **Equitable access** for all
- Robust, **project-based education** with industry certifications
- **Technologically advanced equipment and facilities** for a relevant industry experience
- Highly qualified and distinctive **instructors** who mentor their students
- **Work-based learning** opportunities
- Safe, inclusive, and diverse environment where students are part of the **Northwest ISD CTE family**
- Strong **community presence** and involvement

## Strategic Goal 1

Northwest ISD will provide personalized learning experiences and cultivate the growth and achievement of every student.

### **NISD PRIORITIES:**

#### Literacy

**1.1** Our students will annually increase literacy proficiency to reach or exceed grade-level standards.

#### Academic Progress

**1.2** Our students will achieve individualized academic goals to reach a year's growth or more in all content areas.

#### College, Career, Military & Life Readiness

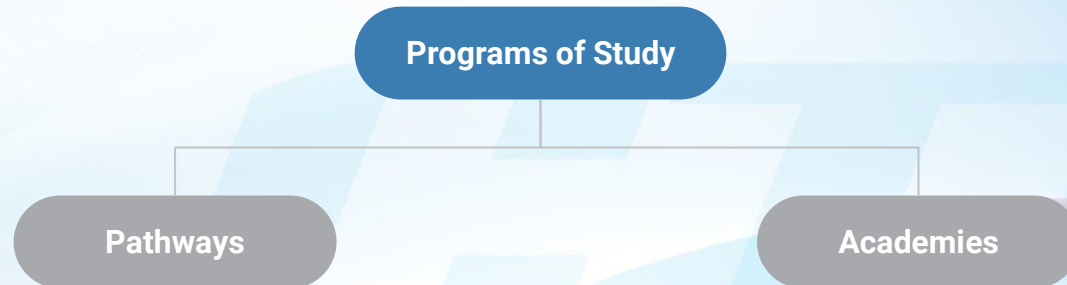
**1.3** Our students will graduate life ready and prepared for success in career, college, or military service.

# CTE Academy Development



Planning future CTE Academies includes 6 major considerations:

1. **Labor Market Data** - high growth / high wage careers
2. **Academic Rigor** - Academies should result in technical level entry to workforce and/or a competitive advantage into post-secondary beyond entry level.
3. **Student Interest & Marketability**
4. **TEA CTE Programs of Study**
5. **Facility Needs & Resource requirements** - including personnel & staffing
6. **Business & Industry Partners**



# Construction Academy

Located at Northwest High School  
*Opens Fall 2025 - Currently Enrolling!*

# NHS Construction Academy - Opens Fall 2025!

## Location:

- Next to NHS Ag Shops, shared exterior courtyard space

## Student Capacity:

- 75 - 100 Freshman, 300 - 350 total capacity

## Staffing:

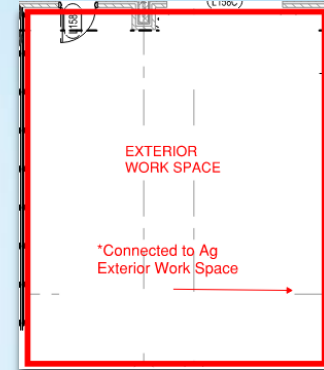
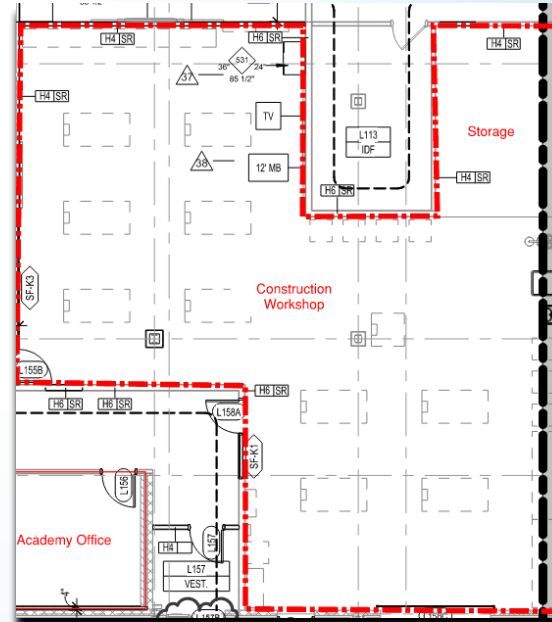
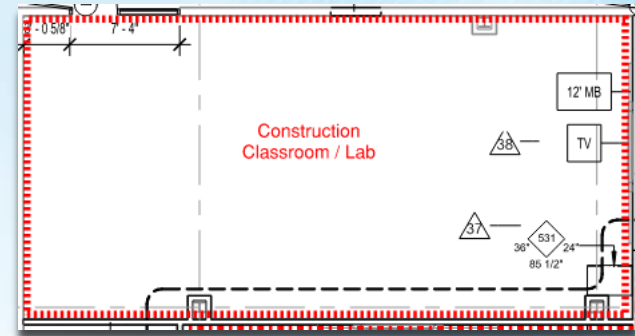
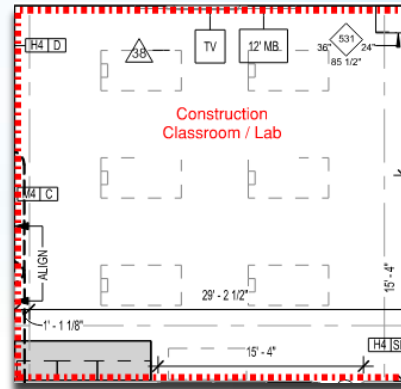
- 1 Academy Facilitator Instructor
- 1-2 Additional teachers



# Construction Spaces

## Four Main Areas:

- Classroom
  - Clean Workshop
- Construction Lab
  - Clean Workshop
- Workshop
  - Shop Space
- Outdoor Courtyard Area





# Construction Academy Programming





Students will learn hands on construction career skills in HVAC, plumbing, carpentry, electrical, job site safety & construction management.

- Blueprint Reading
- Construction Math
- Building & Framing Walls
- Drywall Installation
- Electrical Installations
- HVAC Systems
- Copper & Plastic Pipe Plumbing
- Carpentry Finishing including Cabinetry
- Install & Maintain Electrical systems
- Senior Year Internships
- Dual-Credit Opportunities
- Industry Based Certifications





# Construction Program Course Sequence

				
Recommended Course Sequence	Principles of Construction (1 credit)	Building Maintenance Technology I (2 credits) <b>Course Available in 2026-2027</b>	Building Maintenance Technology II (2 credits) <b>Course Available in 2027-2028</b>	Practicum in Construction Technology (2 credits) <b>Course Available in 2028-2029</b>

**Internship Opportunities:** NISD Construction Sites, NISD Maintenance Dept & local companies based on student's goals.

**Certifications:** NCCER Core and OSHA

# Transportation, Automation & Logistics Academy

Located at High School 4  
Opens Fall 2027

# Transportation, Automation & Logistics Academy

## Program Areas:

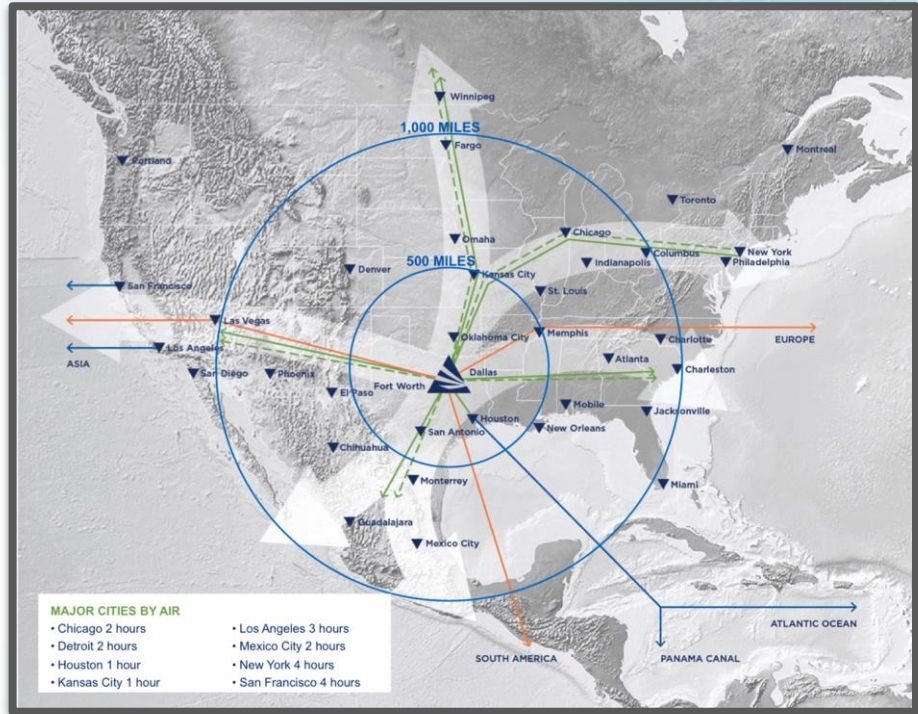
- Transportation - Automotive Tech
  - Including personal & commercial vehicles along with learning experiences in electric, hybrid & hydrogen technologies.
- Transportation - Diesel Mechanic
  - Including off road vehicles, tractor trailers & freight.
- Automation & Computer Programming
  - Innovative technologies within the logistics & supply chain sector including autonomous vehicles, robotics & computer programming.



Logistics & supply chain modules built into each program

# Why Transportation, Automation & Logistics?

1. **Location** - AllianceTexas corridor is a global logistics hub including the BNSF Intermodal port, the Mobility Innovation Zone & foreign trade zone.
2. **Student Interest & Marketability**
3. **Strong Business Partners**
4. **Labor Market Data**
5. **Postsecondary Partnership Opportunities**
6. **Pipeline to Work**



## Current Labor Market Data for our Region

Occupational Title	Growth Rate	Median Annual Wage	Annual Average Employment 2020	Annual Average Employment 2030	Total Annual Openings	Competitive Education Requirement
Service Technician & Mechanics	23%	\$47,234	5,020	6,189	664	IBC
Supervisors of Mechanics	31%	\$68,290	3,028	3,980	405	Some college, no degree
Diesel Mechanic	31%	\$55,583	1,639	2,150	223	IBC
Auto Body Repairers	29%	\$46,714	1,042	1,344	139	IBC
Mobile Heavy Equipment Mechanics	29%	\$60,981	1,234	1,589	173	IBC
Transportation, Storage, and Distribution Managers	28%	\$104,674	1,245	1,594	140	Bachelor's degree
Operating Engineers and Other Construction Equipment Operators	35%	\$47,679	2,462	3,315	386	HS diploma or GED
Heavy & Tractor-Trailer Truck Drivers	33%	\$48,624	14,398	19,158	2,301	IBC
Production, Planning, and Expediting Clerks	32%	\$49,021	2,845	3,742	422	Some college, no degree
Logisticians	59%	\$76,259	1,163	1,851	199	Bachelor's degree
Purchasing Managers	27%	\$131,423	683	866	77	Bachelor's degree
Buyers and Purchasing Agents	16%	\$66,561	2,745	3,195	336	Bachelor's degree

# Academy Facility Plan

- **Automotive Classrooms**
- **Automotive Space:**
  - Automotive Bays
    - 2 Diesel Specific Bays
  - Senior Year Employment with Industry Partners
- **Transportation Innovation Makerspace**
  - Connects computer lab with automotive shop
  - Ability to create, test and practice installation of technologies in robotics & automation such as LIDAR, RADAR and HD Camera equipment
  - Ability to host companies for guest teaching experiences
- **Computer Programming Lab**



**Student Capacity:**  
350-400 students

**Staffing Capacity:** 3 Instructors

**Questions?**

