Division of Apprenticeship Standards (DAS)
Apprenticeship Program Summary Sheet

To: Adele Burnes, Chief
From: Andrea Harlin
CC: Program Planning and Review
Date: September 17, 2024

Program Name: Velocity Truck Centers Apprentice Program
Industry: Transportation
DAS File No.: 101311
Grant Awardee: ☒ No ☐ Yes

Actions:

- ☒ Proposed new apprentice program
- ☐ Existing apprenticeship program adding new occupations
- ☐ Existing apprenticeship program expanding area of operations
- ☐ Existing apprenticeship program changing work processes on approved occupations.

Labor Organizations Representing Any of the Apprentices:

None

Request for Approval under Labor Code 3075:

Velocity Truck Centers Apprentice Program is not intended to train in the building and construction trades and is not eligible to dispatch apprentices to projects with public works, prevailing wage or skilled and trained workforce requirements within the meaning of Labor Code sections 1720 and 3075 and will not train or dispatch apprentices in the building and construction trades or firefighters occupations.

Comments:

The demand for skilled diesel technicians has never been greater. The Velocity Truck Centers Apprentice Program addresses this critical need by providing comprehensive, hands-on training to the next generation of industry professionals. Our program is designed to bridge the skills gap in the diesel field, ensuring access to highly trained and proficient technicians. Through a blend of classroom instruction and on the job training, apprentices gain the expertise needed to excel in maintaining and repairing diesel engines and systems. This program not only supports the growth of the diesel industry but also offers rewarding career opportunities for aspiring technicians. Join us in shaping the future of diesel technology and securing a brighter, more efficient tomorrow.

Velocity Truck Centers Apprentice Program will oversee the apprenticeship program herein and seeks approval from the Department of Industrial Relations, Division of Apprenticeship Standards for the following:

Proposed Occupation, Wage Rate & O*Net Code:

- Diesel Technician O*Net: 49-3031.00
  Professional Worker Wage: $26.00 per hour
  Proposed Apprentice Wage: $22.00 per hour
  Proposed No. of Apprentices: 15-20

Proposed Employers:

- Velocity Truck Centers, 8471 Maple Pl., Rancho Cucamonga, CA 91730

DAS FILE # 101311

Velocity Truck Centers Apprentice Program Standards

8471 Maple Pl., Rancho Cucamonga, CA 91730
(928) 699-0591
Email: VTCAP@vvgtruck.com / Career Site: www.velocityvehiclegroup.com/career

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Article I Jurisdiction

These standards shall apply to the employer signatory hereto and to all apprentice agreements hereunder.

Area Covered by Standards: All California counties.

Article II Purpose and Policy

The parties hereto declare it to be their purpose and policy to establish an organized, planned system of apprenticeship, conducted as an education sponsored, employer-based undertaking.

These standards have, therefore, been adopted and agreed upon under the Shelley-Maloney Apprentice Labor Standards Act of 1939, as amended, to govern the employment and training of apprentices in the trade, craft or occupation defined herein, to become effective upon their approval.

Article III Craft, Trade or Occupation, Related and Supplemental Instruction, Term of Apprenticeship, Ratio, Wage Schedule and Work Training

Occupation: Diesel Technician
O*Net Code: 49-3031.00
Attachment: B

Article IV Responsibilities of Program Sponsor

The responsibilities of the apprenticeship committee shall be to:

1) supervise the administration and enforcement of these standards;
2) adopt such rules and regulations as are necessary to govern the program provided that the rules and regulations do not conflict with these standards and provide a copy of said rules and regulations to each apprentice;
3) make periodic evaluations of each apprentice's on-the-job training and related and supplemental instruction;
4) provide reasonably continuous employment to all apprentices in its employ;
5) ensure safe work site facilities, skilled workers as trainers at the work site, and safe equipment sufficient to train apprentices;
6) determine the qualifications of apprentice applicants and ensure fair and impartial treatment of applicants for apprenticeship selected through uniform selection procedures;

7) file a signed copy, written or electronic, of each apprentice agreement with the Division of Apprenticeship Standards, within 30 days of execution, with copies to all parties to the agreement;
8) establish and utilize a procedure to record and maintain all records of the apprentice's worksite job progress and progress in related and supplemental instruction;
9) establish and utilize a system for the periodic review and evaluation of the apprentice's progress in job performance and related instruction;
10) discipline apprentices, up to and including termination, for failure to fulfill their obligations on-the-job or in related instruction, including provisions for fair hearings;
11) annually prepare and submit a Self-Assessment Review as well as a Program Improvement Plan to the Chief of the Division of Apprenticeship Standards;
12) ensure training and supervision, both on the job and in related instruction, in first aid, safe working practices and the recognition of occupational health and safety hazards;
13) ensure training in the recognition of illegal discrimination and sexual harassment;
14) establish an adequate mechanism to be used for the rotation of the apprentice from work process to work process to assure the apprentice of complete training in the apprenticeable occupation;
15) ensure the program's ability, including financial ability, and commitment to meet and carry out its responsibilities under federal and state law and regulations applicable to the apprenticeable occupation and for the welfare of the apprentice;
16) ensure there is meaningful representation of the apprentice in the management of the program;
17) adopt changes to these standards, as necessary, subject to the approval of the parties hereto and the Chief of the Division of Apprenticeship Standards.
18) abide by any and all relevant California Labor Codes and California Code of Regulations regarding apprenticeship.

Article V Definition of an Apprentice

An apprentice is a person at least 18 years of age, who has met the requirements for selection under the selection procedures of participating employer, who is engaged in learning a designated craft or trade and who has entered into a written apprentice agreement under the provisions of these standards.

Article VI Duties of an Apprentice

Each apprentice shall satisfactorily perform all work and learning assignments both on the job and in related instruction and shall comply with the rules, regulations and decisions of the apprenticeship committee.

Article VII Apprentice Agreement

1) Each apprentice agreement shall conform to the State law governing apprentice agreements, shall be signed by the program sponsor and by the apprentice and shall remain in effect during a lay-off unless cancelled.
2) Each apprentice shall be furnished with a copy of or be given an opportunity to study these standards before registration. These standards shall be considered a part of the apprentice agreement as though expressly written therein.

Article VIII Termination

1) During the probationary period, an apprentice agreement shall be terminated by the apprenticeship committee at the request in writing of either party. After such probationary period, an apprentice agreement may be terminated by the Administrator by mutual agreement of all the parties thereto or cancelled by the Administrator for good and sufficient reason.
2) Disciplinary proceedings for apprentices shall be duly noticed in writing to such individuals. The Division of Apprenticeship Standards shall attend all such proceedings.

Article IX Controversies

All controversies or differences concerning apprentice agreements that cannot be adjusted locally by the program sponsor or otherwise shall be submitted to the Administrator for determination.

Article X Certificate of Completion

1) In addition to previous on-the-job training and related school instruction, which is of an approved nature, the Apprentice shall have completed not less than an additional six (6) months as an apprentice under the laws of the State of California and demonstrated mastery of the skills and knowledge of the prescribed program.
2) In recognition of unusual ability and progress, the program sponsor or apprenticeship committee may decrease the term of apprenticeship for an individual apprentice not more than twelve and one-half percent (12½%).
3) Upon evidence of satisfactory completion of apprenticeship, and upon the recommendation of the program sponsor, each apprentice will be issued a Certificate of Completion by the authority of the Chief of the Division of Apprenticeship Standards and the Interagency Advisory Committee on Apprenticeship.

Article XI Equal Opportunity in Apprenticeship

Velocity Truck Centers Apprentice Program will not discriminate against apprenticeship applicants or apprentices based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age for individuals over forty years of age, military or veteran status, or sexual orientation.

Velocity Truck Centers Apprentice Program will take affirmative steps to provide equal opportunity in apprenticeship.

Article XII Written Applications

Applications can be obtained and submitted through our career website. Visit www.velocityvehiclegroup.com/career to access open positions and applications.

Article XIII Records

All records will be maintained, in written or electronic form, for five years and kept at:

Velocity Truck Centers Apprentice Program
2429 Peck Rd.
Whittier, CA 90601

Article XIV Annual Compliance

Velocity Truck Centers Apprentice Program will submit an annual compliance report to the Division of Apprenticeship Standards as requested by the Division.

Velocity Truck Centers Apprentice Program agrees to accept electronic signatures for these Division of Apprenticeship Standards and all related Division of Apprenticeship Standards documents.

The foregoing standards are hereby agreed to and adopted by Velocity Truck Centers Apprentice Program on May 5, 2025 (Committee approval date).

Employer Organization

Velocity Truck Centers Apprentice Program

8471 Maple Pl. Rancho Cucamonga, CA 91730

_____ _____

Alexander D. Williamson, Technical Training Manager Date

The foregoing apprenticeship standards, being in conformity with the applicable California Labor Code, California Code of Regulations and Federal Regulations, are hereby approved

_____.

(DAS approval date)

_____ _____

Adele Burnes, Chief Date

Division of Apprenticeship Standards

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Attachment B

Training Schedule and Working Conditions

Velocity Truck Centers Apprentice Program

Occupation

Occupation: Diesel Technician
O*Net Code: 49-3031.00

Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency-based with 145 related and supplemental instruction (RSI) hours and completed within approximately 12 months.

The period of probation shall be reasonable in relation to the full apprenticeship term, with full credit given for such period toward completion of the apprenticeship, and in no event shall exceed the shorter of 25 percent of the length of the program or one year. The period of probation shall be three (3) months.

Article II Wage Schedule

Professional Worker Wage:

$ 26.00 per hour effective 7/26/2024.

Apprentice Wage and Advancement Schedule:

In no case shall an Apprentice receive a starting wage that is less than the applicable federal, state or local entity (city or county) minimum wage, whichever is higher for the county or city where the apprentice is working. The applicable minimum wage law shall establish the effective date of the minimum wage.

To advance from one period to the next, the apprentice shall have met the following requirements:

1st period	Starting Wage	$ 22.00 /hour
2nd period	45 % of competencies	$ 25.00 /hour
End Wage	100 % of competencies	$ 26.00 /hour

Hours of Work and Working Conditions and Overtime Provision:

Eight hours of labor constitutes a day's work. Employment beyond eight hours in any workday or more than six days in any workweek requires the employee to be compensated for the overtime at not less than one and one-half times the employee's regular rate of pay for all hours worked in excess of eight hours, up to and including 12 hours in any workday, and for the first eight hours worked on the seventh consecutive day of work in a workweek; and double the employee's regular rate of pay for all hours worked in excess of 12 hours in any workday and for all hours worked in excess of eight on the seventh consecutive day of work in a workweek. If employers utilize an alternative workweek schedule in accordance with the California Industrial Welfare Commission Orders, the overtime will be determined and paid in accordance with the applicable alternative workweek provisions.

The workday and workweek and all other conditions of employment for apprentices shall conform to all applicable laws and regulations and shall not be greater than for those of a professional worker.

Overtime shall not be allowed if it will interfere with or impair the training or be detrimental to the health and safety of the apprentice.

ARTICLE III Work-Training

1) The employer shall see that all apprentices are under the supervision of a qualified professional worker or instructor and shall provide the necessary diversified experience and training in order to develop the apprentice into a proficiently skilled worker, as outlined herein.
2) Each apprentice shall be trained in the use of new equipment, materials and processes as they come into use in the occupation.
3) The major categories in which apprentices will be trained (although not necessarily in the order listed) are as follows:

Competencies will be evaluated with the following procedures:

In the Velocity Truck Centers Apprentice Program, apprentices are evaluated using a competency-based method to ensure they meet the required standards to advance to Level 2. Upon completing each task, apprentices submit a task completion form to their mentor, who evaluates the task using a rating scale from 0 to 5. Only tasks rated 3 or above count towards the apprentice's progress. This rating system ensures that apprentices achieve a level of proficiency that meets program standards. Additionally, apprentices complete monthly self-assessments, which are reviewed by their managers during monthly meetings. These evaluations include detailed feedback and guidance from mentors, fostering a comprehensive learning experience. Individual progress is tracked through personalized dashboards, allowing apprentices to monitor their achievements and focus on areas needing improvement. This

structured evaluation method not only measures technical skills but also supports personal and professional development, ensuring readiness for advancement.

Work Process/Competency Checklist:

1) **SAFETY**
   Perform and demonstrate knowledge of basic safety procedures, workplace safety standards, emergency procedures, and proper use of safety equipment.

   a) **Demonstrate Proper Vehicle Operation:** Understand and practice the basic operation of a vehicle.
   b) **Driveline R&I:** Demonstrate mechanical skills and knowledge of vehicle drivetrains.
   c) **Jump Start, Charge & Perform Battery Safety**
   d) **Jacking, Hoisting & Blocking**
   e) **Demonstrate Proper use of steam cleaners**
   f) **Demonstrate Proper Use of Compressed Air Time**:
   g) **Earn Forklift Certification**
   h) **Safely Tow Vehicles To A Shop**
   i) **Specialty Tool Usage**: Demonstrate knowledge and proper use of various tools and understanding of different applications
   j) **Tech Assist Application Usage / Tech Lane Usage:** Operate specific software or applications for technical assistance.
   k) **Obtain 609 Certification:** Demonstrate understanding of the proper handling of refrigerants, including safety and legal aspects
   l) **Perform Procedures for Safe Oil Disposal**
   m) **Perform Procedure for Waste, Oil and Coolant Drums**
   n) **Perform Safe Above Ground Storage Tanks Management and Safety Practices**
   o) **Perform Safe Aerosol Can Disposal**
   p) **Perform Absorbent Disposal and Refill Routine Maintenance**
   q) **Perform Red and Yellow Rag Bin Maintenance**
   r) **Secondary Containment Inspections:** Demonstrate understanding of and perform safety standards and regulations. Document findings accurately.
   s) **Perform Mop Bucket Maintenance**

2) **TRAINING**
   Demonstrate knowledge of and perform a wide range of maintenance tasks

   a) **Original Equipment Manufacturer (OEM) - Repair Instructions (Print, Review, Applied):** Access, print, review, and apply OEM repair instructions.
   b) **Perform the Procede/Repair Process Concern, Cause, Correction (3C's)**
   c) **Conduct Parts Processing (P&A, Ordering, Tagging)**
   d) **Utilize Databases and Software Tools to Check for Warranty Eligibility and Coverage for Various Parts and Repairs**

e) **Warranty Core Process:** Perform the core processes involved in handling warranties, including claims submission, processing, and follow-up.
f) **Demonstrate Basic Organizational Skills, Proper Tool Handling, And Tool Room Etiquette:**
g) **Operate Basic Functions of Up Time Pro Software**

3) MAINTENANCE
Perform a wide range of maintenance tasks including removal and replacement (R&R).

a) **Replace and check for proper operation of Fuel Water Separators (Filter - CK VLV Insp.)**
b) **Differential Service** Test and replace differential fluid. Demonstrate careful handling of components and fluids
c) **Perform Air Filter Replacement**
d) **Perform Cab Air Filter Replacement**
e) **Perform Power steering Filter Replacement**
f) **Perform 5th Wheel Lube/Inspections**: Confirm proper wheel lubrication and inspection.
g) **Perform Belts (Fan & ACC R&R) Maintenance:** Demonstrate knowledge of tension and alignment
h) **Perform Preventive Maintenance (PM) Service** including comprehensive inspection of various vehicle systems and components
i) **Perform Basic Inspection of Terminals (BIT) and Department of Transportation (DOT) Inspections to Ensure Compliance with Regulations**
j) **Inspect Desiccant Filter:** Ensure the air system is free of moisture and contaminants
k) **Conduct Transmission Service including** transmission fluid change and filter replacement.
l) **Perform Diesel Particulate Filter (DPF) Service:** Handle exhaust components and demonstrate knowledge of emission control systems

4) COMPONENT R&R/R&I
Perform removal and replacement of critical vehicle components.

a) **Crankcase Breather:** Identify and locate the breather. Remove any connected hoses or clips. Extract the breather from the crankcase. Inspect and clean the area. Install the new breather, ensuring a secure fit
b) **One Box (ATS):** Disconnect the battery and secure the vehicle, remove any connected sensors and wiring, Unbolt and remove the One Box, Install the new unit and reconnect all components. Test the system for proper operation.
c) **Hood:** Disconnect any wiring (lights, sensors). Unbolt the hood hinges and struts, Remove the hood carefully with assistance. Install the new hood, aligning it properly. Reconnect all wiring and check alignment.
d) **Oil Pan:** Drain engine oil, remove any connected components or obstructions. Unbolt and remove the oil pan. Clean the mating surfaces. Install the new oil pan with a proper gasket. Refill the engine oil and check for leaks.

e) **Exhaust Pipe:** Raise the vehicle and secure it, disconnect any clamps or bolts securing the exhaust pipe. Remove the old pipe. Install the new pipe, ensuring proper alignment. Secure with clamps or bolts and check for leaks
f) **Clutch:** Secure the vehicle and disconnect the battery. Remove the transmission. Unbolt and remove the old clutch assembly. Install the new clutch, ensuring proper alignment. Reinstall the transmission and reconnect all components
g) **Transmission:** Disconnect the battery and secure the vehicle, remove driveshaft and transmission mounts, disconnect any wiring or linkages. Remove the old transmission, Install the new transmission and reconnect all components. Test for proper operation.
h) **Fuel Tank (R&I with Flush):** Drain and disconnect fuel lines, remove securing straps or bolts. Remove the fuel tank carefully. Flush the tank and inspect for damage. Install the new or flushed tank, reconnect fuel lines and fill the tank.
i) **Purge Valve R&R:** Locate and disconnect the purge valve, remove any securing bolts or clips. Install the new purge valve. Reconnect any hoses or wiring. Test for proper operation.
j) **DEF Pump:** Disconnect the battery and secure the vehicle, remove any covering panels or components. Disconnect the old DEF pump. Install the new pump and reconnect all components. Test for leaks and proper operation
k) **DEF Metering Unit:** Disconnect the battery and secure the vehicle, remove any obstructing components. Disconnect the old metering unit. Install the new unit, ensuring proper connections. Test for proper operation and check for leaks.

5) Power Steering and Steering Assembly (PSSA)
Perform Power Steering System Assembly (PSSA) service

a) **Perform Steering Gear R&R:** Properly secure the vehicle and disconnect the battery. Disconnect the steering shaft from the gear. Drain the power steering fluid, remove mounting bolts and disconnect the gear from the vehicle. Install the new gear and reconnect the steering shaft, refill with power steering fluid and bleed the system.
b) **Perform Power Steering Pump R&R:** Secure the vehicle and disconnect the battery. Drain the power steering fluid and remove the drive belt. Disconnect the pump from the mounting bracket, remove hydraulic lines and remove the pump. Install the new pump, reconnect lines, and refill the fluid. Test for leaks and proper operation.
c) **Perform P/S Reservoir R&R:** Secure the vehicle and disconnect the battery. Drain the power steering fluid. Disconnect the reservoir from its mounting and remove hoses. Install the new reservoir and reconnect hoses. Refill the system with fluid and bleed it.
d) **Perform P/S Suction Line R&R:** Secure the vehicle and disconnect the battery. Drain the power steering fluid, remove clamps, and disconnect the old suction line. Install the new line and secure with clamps. Refill and bleed the system.
e) **Perform P/S Pressure Line R&R:** Secure the vehicle and disconnect the battery. Drain the power steering fluid. Remove the old pressure line and disconnect fittings. Install the new pressure line, and ensure all connections are tight. Refill and bleed the system.
f) **Perform Steering Wheel Removal and Installation:** Remove the airbag and any steering wheel covers. Use a puller to remove the steering wheel. Install the new wheel, ensuring proper alignment. Reinstall the airbag and reconnect the battery.

g) **Perform Steering Shaft Inspection and R&R:** Secure the vehicle and disconnect the battery. Inspect the steering shaft for wear or damage. Remove any connecting bolts and separate the shaft. Install the new shaft and ensure proper alignment. Test for smooth operation.
h) **Perform Steering Linkage Inspections and R&R:** Raise the vehicle and inspect the linkage for wear or damage. Remove any worn or damaged components. Install new components and ensure proper alignment. Test for smooth operation.
i) **STI 492 Form Completed for Warranty Job:** Complete the STI 492 form with details of the work performed. Ensure all fields are accurately filled out and submit the form.
j) **Perform Axle Stops Inspections:** Raise the vehicle and inspect the axle stops for wear or damage. Ensure they are properly adjusted and functional. Replace any worn or damaged stops.
k) **Conduct Poppet Valve Procedure:** Secure the vehicle and disconnect the battery. Locate and remove the poppet valve. Clean or replace the valve as necessary. Reinstall the valve and test for proper operation.
l) **Perform Steering Alignment (Tow In/Out Check):** Raise the vehicle and secure it. Measure the toe angle using alignment tools. Adjust the tie rods to achieve the correct toe setting. Recheck the alignment and test drive the vehicle.
m) **Perform Kingpin R&R:** Raise the vehicle and secure it. Remove the wheel and any components blocking access to the kingpin. Remove the old kingpin using appropriate tools. Install the new kingpin and ensure proper lubrication. Reassemble all components and test for smooth operation.

6) BRAKES / WHEEL END / HYDRAULICS
Conduct brake, wheel end, and hydraulic system inspections, removal and replacement (R&R)

a) **Conduct Hydraulic Brake Caliper R&R:** Raise the vehicle and secure it with jack stands. Remove the wheel to access the brake caliper. Disconnect the brake hose and cap it to prevent fluid loss. Remove the caliper bolts and slide the caliper off the rotor. Install the new caliper and transfer any necessary hardware. Reconnect the brake hose and torque the bolts to specification. Bleed the brake system to remove air. Test the brakes for proper operation.
b) **Perform Drum Brake Assembly Inspections/R&R:** Raise the vehicle and remove the wheel. Remove the drum to expose the brake shoes and hardware. Inspect the drum, shoes, and hardware for wear or damage. Remove and replace any worn components. Adjust the brake shoes and reinstall the drum. Reinstall the wheel and test the brake operation.
c) **Perform Disc Brake Assembly inspections/R&R:** Disc brakes use brake pads to press against a rotor to create friction and stop the vehicle. Raise the vehicle and remove the wheel. Remove the brake caliper and support it to avoid damage to the brake hose. Inspect the brake pads, rotor, and caliper for wear or damage. Remove and replace any worn components. Reinstall the caliper and wheel. Test the brake operation.

d) **Conduct HUB Assembly Inspections/R&R:** The hub assembly contains the wheel bearings and mounts the wheel to the vehicle. Raise the vehicle and remove the wheel. Remove the brake components to access the hub. Inspect the hub assembly for wear or damage. Remove and replace the hub assembly if necessary. Reinstall the brake components and wheel. Test for smooth operation.
e) **Conduct Rotor R&R:** The rotor is part of the disc brake system and provides a surface for the brake pads to clamp onto. Raise the vehicle and remove the wheel. Remove the brake caliper and support it. Remove the rotor from the hub. Install the new rotor and ensure it is properly seated. Reinstall the caliper and wheel. Test the brake operation.
f) **Perform S-Cam Bushing (R&R):** S-Cam bushings support the S-Cam shaft in drum brake systems, allowing it to rotate and apply the brakes. Raise the vehicle and remove the wheel. Remove the drum brake components to access the S-Cam bushings. Remove the S-Cam shaft and bushings. Install new bushings and reassemble the brake components. Reinstall the wheel and test the brake operation.
g) **Conduct Wheel Bearing Inspections/ R&R:** Wheel bearings allow the wheels to rotate smoothly and support the vehicle's weight. Raise the vehicle and remove the wheel. Remove the hub assembly to access the wheel bearings. Inspect the bearings for wear or damage. Remove and replace the bearings if necessary. Reinstall the hub assembly and wheel. Test for smooth wheel rotation
h) **Perform Wheel Seal R&R:** Wheel seals prevent contaminants from entering the wheel bearings and retain the lubrication inside. Raise the vehicle and remove the wheel. Remove the hub assembly to access the wheel seal. Remove the old seal and clean the area. Install the new seal and reassemble the hub assembly. Reinstall the wheel and test for proper operation.
i) **Perform Master Cylinder R&R:** The master cylinder converts the driver's pedal pressure into hydraulic pressure for the brake system. Disconnect the battery and remove the brake lines from the master cylinder. Remove the master cylinder from the brake booster. Install the new master cylinder and reconnect the brake lines. Bleed the brake system to remove air. Test the brake operation.
j) **Perform Hydraulic Clutch Bleed**: Bleeding the hydraulic clutch removes air from the hydraulic lines, ensuring proper clutch operation. Locate the bleeder valve on the clutch slave cylinder. Attach a clear hose to the bleeder valve and place the other end in a container. Have an assistant press the clutch pedal while you open the bleeder valve. Close the valve before the pedal is released. Repeat until no air bubbles are seen in the fluid.
k) **Perform Lift gate inspections:** Inspecting the lift gate ensures it operates safely and efficiently. Visually inspect the lift gate for damage or wear. Check the hydraulic fluid levels and look for leaks. Test the lift gate's operation through its full range of motion. Inspect electrical connections and controls.
l) **Perform Brake Inspection with Parts & Accessories (P&A):** Perform a brake inspection with P&A by checking the brake system for wear and damage. Raise the vehicle and remove the wheels. Inspect the brake pads, rotors, and calipers for wear. Check the brake fluid level and condition. Inspect the brake lines and hoses for leaks or damage. Reassemble the brake components and test the brakes.

7) AIR SYSTEM

Perform vehicle air system maintenance and repair.

a) **Replace Air Lines:** Replace damaged or worn air lines that are crucial for the proper functioning of the air brake and other pneumatic systems. Identify the air line that needs replacement and relieve the air pressure from the system. Disconnect the old air line from the fittings. Measure and cut the new airline to the required length. Connect the new airline to fittings, ensuring a secure and leak-free connection. Re-pressurize the system and check for leaks.

b) **Perform Air Manifold R&R:** Remove and replace the air manifold that distributes compressed air to various components in the air system. Depressurize the air system. Label and disconnect all air lines and electrical connections from the manifold. Remove the manifold mounting bolts and take out the old manifold. Install the new manifold and reconnect all air lines and electrical connections. Pressurize the system and check for proper operation.

c) **Perform Air Tank R&R:** Replace the air tank that stores compressed air for the brake system and other pneumatic components. Depressurize and drain the air tank. Disconnect the airlines and remove the tank mounting brackets. Remove the old tank and install the new one, ensuring it is securely mounted. Reconnect the airlines and check for leaks.

d) **Perform Brake Chamber R&R:** Replace the brake chamber that converts air pressure into mechanical force to apply the brakes. Depressurize the brake system. Remove the slack adjuster and disconnect the push rod from the brake chamber. Disconnect the airlines and remove the mounting bolts. Install the new brake chamber, ensuring proper alignment. Reconnect the push rod, slack adjuster, and air lines. Test the brake system for proper operation.

e) **Perform Air Compressor R&R**: Remove and replace the air compressor that supplies compressed air to the vehicle's air system. Depressurize the air system and disconnect the battery. Disconnect the air lines and electrical connections from the compressor. Remove the compressor mounting bolts and take out the old compressor. Install the new compressor, reconnect air lines and electrical connections. Reconnect the battery and test the air system.

f) **Perform Relay Valve Assembly R&R**: Remove and replace the relay valve that controls air pressure to the brake chambers. Depressurize the air system. Disconnect the air lines and electrical connections from the relay valve. Remove the mounting bolts and take out the old valve. Install the new relay valve, ensuring proper alignment. Reconnect air lines and electrical connections. Test the system for proper operation.

g) **Diagnose and Locate Air Leaks** Pressurize the air system and listen for hissing sounds indicating leaks. Use a soapy water solution to identify leaks by observing bubbles forming at the leak site. Mark the locations of the leaks for repair. Repair or replace the components causing the leaks. Recheck the system for leaks and ensure proper operation.

h) **Quick Release Valve (QR1-C) R&R:** Remove and replace the Quick Release Valve (QR1-C) that quickly releases air from the brake chambers when the brakes are

released. Depressurize the air system. Disconnect the air lines from the QR1-C valve. Remove the valve from its mounting bracket. Install the new QR1-C valve and reconnect the airlines. Pressurize the system and test for proper operation.

i) **Perform Charge Air Cooler R&R:** Replace the charge air cooler that cools the compressed air from the turbocharger before it enters the engine. Disconnect the battery and drain the coolant. Remove the air intake and intercooler pipe. Disconnect the charge air cooler from its mounting brackets. Install the new charge air cooler and reconnect the piping. Refill the coolant and test the system for leaks and proper operation.

j) **Perform Air PSI Sensor R&R:** Replace the air pressure sensor that monitors air pressure within the vehicle's pneumatic system. Depressurize the air system and disconnect the battery. Locate and disconnect the electrical connector from the air pressure sensor. Remove the sensor and install the new one. Reconnect the electrical connector and pressurize the system. Test the system to ensure accurate pressure readings.

8) SUSPENSION

Demonstrate knowledge and perform maintenance, repairs, and replacement of various suspension components in commercial vehicles to ensure vehicle safety, stability, and ride comfort.

a) **Perform Cab Air Bag R&R:** Replace the cab airbag to ensure proper cushioning and isolation of the cab from road vibrations and shocks. Raise the cab to access the airbag and relieve air pressure from the system. Disconnect the air supply line from the airbag. Remove the mounting bolts and take out the old airbag. Install the new airbag, ensuring correct alignment and secure the mounting bolts. Reconnect the air supply line and lower the cab. Repressurize the system and check for proper operation.

b) **Perform Drive Axle Air Bag R&R:** Replace the drive axle air bag to maintain proper vehicle height and ride quality. Raise the vehicle and support it securely. Depressurize the air suspension system and remove the air supply line from the airbag. Remove the mounting bolts and take out the old airbag. Install the new airbag, ensuring proper alignment and secure the mounting bolts. Reconnect the air supply line and lower the vehicle. Repressurize the system and check for leaks and proper operation.

c) **Perform Cab Shocks R&R:** Replace the cab shocks to improve ride comfort by dampening vibrations and shocks transmitted to the cab. Raise the cab to access the shocks. Remove the mounting bolts and detach the old shocks. Install the new shocks and secure them with the mounting bolts. Lower the cab and check for proper operation.

d) **Perform Front or Rear Shocks R&R:** Replace the shock absorbers to ensure proper dampening of suspension movements and maintain ride quality. Raise the vehicle and support it securely. Remove the mounting bolts and detach the old shock absorbers. Install the new shock absorbers and secure them with the mounting bolts. Lower the vehicle and check for proper operation.

e) **Conduct Leaf Spring Replacements and Installation:** Replace the leaf springs to maintain proper ride height and support vehicle load. Raise the vehicle and support it

securely. Remove the U-bolts and other fasteners securing the leaf spring. Detach the leaf spring from the axle and chassis. Install the new leaf spring and secure it with the U-bolts and fasteners. Lower the vehicle and check for proper alignment and operation

f) **Replace Leaf Spring Hangers (Shackles):** Replace the leaf spring hangers or shackles to ensure secure mounting of the leaf springs. Raise the vehicle and support it securely. Remove the fasteners and detach the old hangers or shackles. Install the new hangers or shackles and secure them with the fasteners. Lower the vehicle and check for proper operation.
g) **Replace Leveling Valves & Linkages:** Replace the leveling valve and linkage to maintain correct vehicle ride height. Raise the vehicle and support it securely. Depressurize the air suspension system. Remove the old leveling valve and linkage. Install the new leveling valve and linkage, ensuring proper alignment. Repressurize the system and check for proper ride height adjustment.
h) **Conduct Ride Height Adjustments:** Adjust the vehicle's ride height to ensure proper suspension function and vehicle stability. Raise the vehicle and support it securely. Measure the current ride height and compare it to the manufacturer's specifications. Adjust the leveling valve or torsion bars as needed to achieve the correct ride height. Lower the vehicle and recheck the ride height.
i) **Perform U-Bolts replacements:** Replace the U-bolts to secure the leaf springs and maintain proper suspension alignment. Raise the vehicle and support it securely. Remove the old U-bolts and nuts. Install the new U-bolts and nuts, ensuring they are torqued to the manufacturer's specifications. Lower the vehicle and check for proper suspension alignment and operation.
j) **Perform Suspension Airbag R&R:** Replace the suspension airbag to maintain proper ride height and cushioning. Raise the vehicle and support it securely. Depressurize the air suspension system. Remove the air supply line and detach the old airbag. Install the new airbag and reconnect the air supply line. Repressurize the system and check for leaks and proper operation.

9) VEHICLE COOLANT SYSTEM

Maintain, diagnose, and repair vehicle coolant systems.

a) **Perform Radiator R&R:** Remove and replace the radiator assembly, including draining coolant, disconnecting hoses and electrical connections, removing mounting brackets, and installing a new radiator.
b) **Perform Coolant Reservoir R&R:** Remove and replace the coolant reservoir tank, involving draining coolant, disconnecting hoses, removing mounting bolts, and installing a new reservoir.
c) **Perform Coolant Hose R&R:** Remove and replace coolant hoses that are worn or damaged, which includes draining coolant, disconnecting clamps, removing old hoses, installing new hoses, and refilling coolant.
d) **Conduct Coolant System Pressure Tests:** Test the cooling system for leaks and pressure issues using a pressure tester. Check for leaks at hoses, connections, radiator, and reservoir under pressure conditions.

e) **Perform Water Pump R&R:** Remove and replace the water pump. Drain coolant, remove belts, hoses, and bolts to secure the water pump. Install a new water pump, and refilling coolant.
f) **Perform Thermostat R&R:** Remove and replace the thermostat, drain coolant, locate and remove the thermostat housing. Replace the thermostat, reinstall housing with a new gasket, and refill coolant.
g) **Perform Fan Clutch R&R:** Remove and replace the fan clutch assembly, which includes removing the fan assembly, disconnecting the clutch from the water pump, installing a new clutch, and reinstalling the fan assembly.
h) **Perform Coolant Flushes:** Flush the entire cooling system to remove old coolant, debris, and contaminants. Drain old coolant, flushing with water or a coolant flush solution, and refilling with fresh coolant.
i) **Perform Sensor Inspection / Replacement:** Inspect coolant temperature sensors and other related sensors for proper operation. Replace sensors if they are faulty or malfunctioning to ensure accurate temperature readings and system control.

10) Automotive Heating and Cooling Maintenance

Remove, replace, and test components to ensure proper automotive heating and cooling maintenance system function.

a) **Perform EVAC:** Evacuate old refrigerant, check for leaks, and recharge the system with new refrigerant to specified levels.
b) **Perform A/C Compressor R&R:** Remove and replace the A/C compressor, including draining refrigerant, removing belts and bolts, installing a new compressor, and recharging refrigerant.
c) **Perform A/C Line R&R:** Remove and replace A/C lines, including draining refrigerant, disconnecting fittings, removing old lines, installing new lines, and recharging refrigerant.
d) **Conduct A/C Performance Test:** Test the air conditioning system for proper operation, cooling capacity, and leaks, and verify refrigerant pressures and temperatures.
e) Perform routine maintenance on A/C service machines, including filter changes, oil changes, calibration checks, and ensuring proper functionality for accurate refrigerant handling.
f) **Perform Condenser R&R:** Remove and replace the A/C condenser, including draining refrigerant, disconnecting hoses, removing mounting bolts, installing a new condenser, and recharging refrigerant.
g) **Receiver Dryer**: Remove and replace the receiver dryer, which filters and dries refrigerant, preventing moisture and contaminants from entering the A/C system
h) **Remove and Replace the A/C Evaporator Core**: Disassemble dash components, drain refrigerant, remove old evaporator, install a new one, and recharge refrigerant.

11) SCHEMATIC READING, ALTERNATOR, STARTER AND BATTERY

Diagnose various vehicular issues, perform repairs and replacements, and maintain systems to ensure vehicle reliability and performance.

a) **Conduct and Interpret Schematic Reading:** Interpret electrical diagrams to understand circuit layouts and component connections.
b) **Perform Terminal Drag Tests**
c) **Perform Terminal R&R**
d) **Perform Connector R&R**
e) **Perform Harness R&R**
f) **Perform Light Diagnoses:** Troubleshoot and diagnose lighting issues
g) **Perform Load Tests**
h) **Conduct Autometer / Powernet Installation:** Complete installation and testing of automotive automation systems or power distribution networks.
i) **Perform Alternator R&R:** Remove and replace the alternator.
j) **Perform Starter R&R:** Remove and replace the starter motor, which initiates engine cranking.
k) **Perform Battery / Battery Pack R&R:** Remove and replace vehicle batteries or battery packs.
l) **Perform Battery Cable Inspections and R&R:** Inspect and replace battery cables, ensuring proper electrical connections and corrosion prevention.

ARTICLE IV Related Instruction

Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will not be less than 144 hours per year. Related and supplemental instruction will be provided by Velocity Truck Centers Apprentice Program as overseen by Citrus College.

Time spent on related and supplemental instruction may be compensated.

Course Number/Course Title	**Contact Hours**
CV02/DTNA Info Resources	**8 hours**

Learning Objectives:

- Identify available types of Technical Literature and Applications, locate specific information using DTNA Connect Resources and Applications, and determine which technical source/application to use based on the type of information needed.

DAS FILE # 101311

CV01/Heavy Duty Truck Systems **32 hours**

Learning Objectives:

- The Heavy-Duty Truck Systems course is the foundation of the Service Training Academy vehicle training curriculum. In this course, students will learn to access and use the DTNA and vendor service literature which underpins all troubleshooting and repair efforts. Additionally, students will learn the operation, troubleshooting, and repair of many main mechanical systems on heavy duty vehicles. Systems covered are: main and cab air suspension systems and adjustment, clutch and linkage operation and adjustment, power steering systems, and air brake/ABS systems.

CVE12/Electrical Trouble Shooting **32 hours**

Learning Objectives:

- Technicians will review electrical fundamentals as they apply to DC circuits. They will build series, parallel and series parallel circuits as well as multiple circuits with relays and multiple controls for the purpose of understanding electrical circuit operation and problem conditions. They will learn when and how and why to use the various modes of a Digital Multimeter to isolate problems circuits.

Tech Bits **12 hours**

In person instruction on how to perform tests, operate special tooling, and supplement additional training in the following areas:

- Wheel End R&R
- Brakes
- Basics of Electrical
- Power Steering System Analyzer (PSSA)
- Autometer (AMPNET)

VVGU/VVG University Online Training **16 hours**

VVG University is dedicated to providing high-quality online training resources to ensure our employees are well-equipped with the knowledge and skills necessary for a safe, ethical, and productive work environment. Our training programs are designed to cover a wide range of topics essential for compliance, personal safety, and professional development.

Learning Objectives:

- Compliance and Ethics

  - Courses designed to ensure adherence to legal standards and ethical guidelines. Employees will learn about the latest regulations, company policies, and ethical practices that promote integrity and accountability within the organization.
  - 2024 Q2 Compliance and Ethics
  - Compliance, Ethics and Integrity
  - Compliance and Ethics Framework

- Environmental, Health and Safety
  - Focused on maintaining a safe and sustainable workplace, this category provides training on essential safety protocols, environmental management practices, and health guidelines. Employees will be equipped to prevent accidents, manage hazardous materials, and comply with safety regulations.
  - Back Injury Prevention
  - Code of Conduct and Ethics
  - Cold Stress in the Workplace
  - Driver Safety
  - Electrical Safety Grounding Awareness
  - Emergency Response
  - Fall Protection Awareness Cal OSHA
  - Flammable and Combustible Liquids
  - Forklift Operator Training Cal OSHA
  - Golf Cart Safety
  - Hazard Communication
  - Hazardous Waste Awareness RCRA
  - Industrial Ergonomics Risk Factors Microlearning
  - Injury and Illness Prevention Programs IIPP
  - LockoutTagout
  - Personal Protective Equipment
  - Safety Data Sheets
  - Safety Orientation
  - Spill Prevention Control Countermeasures
  - Used Oil Management

- Human Resources
  - Aimed at fostering a supportive and compliant workplace. Training covers HR policies, employee rights, and workplace best practices to ensure a fair, inclusive, and respectful environment for all employees.
  - Benefits Information
  - Employee Harassment & Discrimination Prevention in CA – EasyLlama
  - New Hire Orientation
  - Welcome to VVG University

- I/T (Information Technology)
  - Training on cybersecurity measures, and IT best practices. Courses are designed to enhance technical skills, protect company data, and ensure the efficient use of technology in the workplace.
  - Cybersecurity Awareness
  - Payment Card Industry Data Security Standard Awareness

- Service
  - Streamline your daily operational tasks and enhance your proficiency with our systems.
  - Punch In-Out Dayforce Clock Onsite
  - Requesting Time Off
  - Review and Approve Time in Dayforce
  - Tech Time Clock Overview
  - Tech Time Portal Management
  - Zone Dayforce Time Edit Request
  - Zone Tech Time Edit Request

- Townhall
  - Company-wide town hall meetings. It serves as a platform for sharing important updates, celebrating achievements, and fostering open communication between leadership and employees.

TTC WBT/Total Truck Care Technician Program 22 hours

ARC (Aftermarket Resource Center) Chassis online training - specific training is provided through the Total Truck Care (TTC) technician program. The TTC program offers a combination of web based and instructor led training that pertains to the entire vehicle, less the power train. Training on generic vehicle systems and specialized brand vehicle-specific training

Learning Objectives:

- Core Systems Technician Orientation
  - Technician Orientation: Part 1 (WBT/Exam)
  - Technician Orientation: Part 2 (WBT/Exam)
  - Technician Orientation: Part 3 (WBT/Exam)
  - Technician Orientation, Part 3: Placement Test (Exam)

- Core Systems Heavy Duty Truck
  - Air Brake System for Heavy Duty Trucks (WBT/Exam)
  - Basic Troubleshooting Process (WBT/Exam)
  - Drivetrain System Part 1 (WBT/Exam)
  - Drivetrain System Part 2 (WBT/Exam)

  - Steering Systems Part 1 (WBT/Exam)
  - Steering Systems Part 2 (WBT/Exam)

- Core Systems eCascadia
  - eCascadia Technician Walkthrough (Video)

- Core Systems Warranty
  - The 3Cs: Complaint, Cause and Correction

- Core Systems Meritor
  - Meritor - Cam Brake and Component Identification
  - Meritor - EX225 Air Disc Brake Component Identification

- Core Systems Electrical Troubleshooting

- Core Systems eComponents
  - eComponents Tutorial (WBT)
  - Service Wiring Tutorial (WBT)
  - Datalink and Communications
  - Wiring Harness Repair vs. Replace (WBT/Exam)
  - PNDB LED Troubleshooting (WBT)
  - Introduction to DiagnosticLink: Part 1 (WBT/Exam)
  - Introduction to DiagnosticLink: Part 2 (WBT/Exam)
  - Introduction to DiagnosticLink: Part 3 (WBT/Exam)
  - Introduction to DiagnosticLink: Part 4 (WBT/Exam)

- Core Systems CEEA+
  - CEEA+ Overview
  - CEEA+ Power Distribution
  - CEEA+ Introduction
  - CEEA+ Troubleshooting Introduction
  - Electronically Controlled Pneumatics (ECP)
  - Extension Module Controllers (XMC) (WBT/Exam)
  - Detroit Assurance 5 for CEEA+

- Core Systems HVAC
  - HVAC Fundamentals (WBT/Exam)
  - Seven Steps for Refrigerant Leak Detection (WBT/Exam)
  - Introduction to ParkSmart Auxiliary HVAC Training (WBT/Exam)
  - Intro to the Battery Powered HVAC System (BPHS) (WBT/Exam)
  - Espar Heater Troubleshooting & Repair (WBT/Exam)

- Core Systems DT12
  - Introduction to the DT12 Part 1 (WBT/Exam)
  - Introduction to the DT12 Part 2 (WBT/Exam)
  - DT12 PTO (WBT/Exam)

- Core Systems Detroit Axle
  - DETROIT® Axle Differential Component Identification and Operation (WBT/Exam)
  - New Final Drive Introduction (WBT/Exam)

G2 WBT/ TTC program **23 hours**

ARC (Aftermarket Resource Center) Chassis online training - specific training is provided through the Total Truck Care (TTC) technician program. The TTC program offers a combination of web based and instructor led training that pertains to the entire vehicle, less the power train. Training on generic vehicle systems and specialized brand vehicle-specific training

Learning Objectives:

- Core Systems DETROIT Introduction
  - Welcome to DETROIT® (WBT)

- Core Systems DETROIT Heavy Duty
  - DETROIT Heavy Duty Base Engine
  - DETROIT® Heavy Duty - Air System (WBT/Exam)
  - DETROIT® Heavy Duty - Cooling System (WBT/Exam)
  - DETROIT® Heavy Duty - Lubrication System (WBT/Exam)
  - DETROIT® Heavy Duty - Fuel System (WBT/Exam)

- Core Systems DETROIT Heavy Duty Fuel
  - DETROIT® Fuel System Schematic (WBT/Exam)
  - DETROIT® Fuel Tanks and Equiflo System (WBT/Exam)
  - DETROIT® Frame Mounted Fuel Filtration (WBT/Exam)
  - DETROIT® Fuel Quality and Contamination (WBT/Exam)
  - DETROIT® Heavy Duty - Using the Fuel System Integrity Check Routine (WBT/Exam)
  - DETROIT® Heavy Duty - Fuel System Leak Test Procedures (WBT/Exam)
  - DETROIT® Fuel System Integrity Check (FSIC) Update (WBT/Exam)

- Core Systems DETROIT Aftertreatment
  - DETROIT® Introduction to the Aftertreatment System (WBT/Exam)
  - DETROIT® Aftertreatment Components Functionality and Diesel Exhaust Fluid (WBT/Exam)

  - DETROIT® Aftertreatment Diagnostics and Regenerations (WBT/Exam)
  - DETROIT® Aftertreatment On Board Diagnostics and Fault Codes (WBT/Exam)
  - DETROIT® Engine Duty Cycles and the Aftertreatment System (WBT)
  - DETROIT® Understanding Aftertreatment System Failure Modes (WBT)
  - DETROIT® Analyzing Aftertreatment System Cases (WBT)
  - DETROIT® Nox Sensor Testing (WBT)

- Core Systems DETROIT Heavy Duty Aftertreatment
  - DETROIT® DD13 Gen 5 Engine and Exhaust Gas Flap Overview (WBT/Exam)

- Core Systems General
  - Maintenance System (WBT/Exam)

- Core Systems DETROIT Medium Duty
  - DETROIT® Medium Duty Introduction (WBT/Exam)
  - DETROIT® Medium Duty Specialty Tools (WBT/Exam)
  - DETROIT® Medium Duty Maintenance (WBT/Exam)
  - DETROIT® Medium Duty Base Engine (WBT/Exam)
  - DETROIT® Medium Duty Air System (WBT/Exam)
  - DETROIT® Medium Duty Coolant and Lubrication Systems (WBT/Exam)
  - DETROIT® Medium Duty Fuel System (WBT/Exam)
  - DETROIT® Electronic Tools Part I (WBT/Exam)
  - DETROIT® Electronic Tools Part II (WBT/Exam)
  - DETROIT® DiagnosticLink Professional Programming (WBT/Exam)

TOTAL HOURS **145 Hours**

ARTICLE V Ratio

The ratio of apprentices to professional workers shall be:

1) Ratio #1: Each professional worker may supervise one (1) apprentice(s) .