

Apprenticeship Schedule of Training

Light Rail Overhead Contact Systems Lineperson

207S

2017

## **Apprenticeship Training Standard**

The Apprenticeship Training Standard or herein after referred to as "Logbook" is a document issued to Apprentices who sign a Registered Training Agreement in the Province of Ontario as an official record of training. It is to be used by the Apprentice and Sponsor/trainer to guide the process of skills development in a particular trade.

### Training As An Apprentice

- ✓ Ensure you, your sponsor, and your witness sign a Training Agreement with the Ministry of Labour, Immigration, Training and Skills Development. Once it is registered, you will receive a copy of the registered Training Agreement for your records.
- ✓ Notify the local Service Delivery Office immediately if any changes to contact information or training agreement, especially if you change sponsors.
- Review the Logbook regularly with your trainer and sponsor to discuss your progress, ask questions, seek feedback and have the trainer <u>sign-off on</u> <u>competencies</u>
- ✓ Keep an accurate record of the hours you work.
- Attend classroom training when it is offered.
- Apply for the financial incentives for which you are eligible.



## Completing Your Logbook

- ✓ Complete the Sponsor Record Form A form must be completed for each Sponsor/Trainer used during your apprenticeship.
- ✓ Confirm Skill Sign-off is Complete
  - You and your trainer sign-off each required skill to confirm that you have demonstrated competency in that skill.
  - Shaded boxes in your Logbook mean the skills are optional and do not have to be confirmed by your trainer or sponsor. However, you are encouraged to complete them as part of your training.

#### ✓ Confirm Skill Set Sign-off is Complete

After you and your trainer have signed-off all the required skills in a skill set, your sponsor signs the signature box on the form in Appendix C – "Skill Set Completion for Sponsors" to confirm your completion of all competencies within each skill set.

This document is the property of the apprentice named inside and represents the official record of your training. For information about completing your apprenticeship, see inside of back cover.



Apprentice Name:		
Address:		
Phone Number:		
Email Address:		
Trade:		
Training Agreement # (for Compulsory and Non-Compulsory trades):		
STO Account No. (for Compulsory trades only):		

This document is the property of the Apprentice named herein and represents the official record of their training.

If you have questions about the use of this Logbook or about your Apprenticeship program, contact your local Service Delivery Office (see Appendix D in this book) or the Employment Ontario hotline at: 1-800-387-5656.

<sup>\*</sup> For a list of trades subject to a certification examination, visit: skilledtradesontario.ca

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<u>Please Note:</u> This Standard has been revised to reflect the visual identity of Skilled Trades Ontario (STO) which replaced the Ontario College of Trades on January 1, 2022. The content of this Standard may refer to the former organization; however, all trade specific information or content remains relevant and accurate based on the original date of publishing.

Please refer to STO's website: <u>skilledtradesontario.ca</u> for the most accurate and up to date information. For information about BOSTA and its regulations, please visit <u>Building</u> Opportunities in the Skilled Trades Act, 2021 (BOSTA).

Any updates to this publication are available on-line; to download this document in PDF format, please follow the link: <u>Skilled Trades Ontario.ca.</u>

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Maintained with transfer to Skilled Trades Ontario 2017 (V100)

## Foreword: Purpose, Terms and Conditions of the registered Training Agreement

#### Purpose:

- Prior to starting official apprenticeship activities, the apprentice, sponsor and a witness are required to sign a Training Agreement.
- The Training Agreement that you have signed is an important legal document that outlines your responsibilities as an apprentice and the responsibilities of your sponsor.
- Once registered, this training agreement (or contract) marks the start of your formal agreement between the apprentice, the sponsor and the Ministry.
- For compulsory trades, the apprenticeship registration document must be accessible when working.

#### The Apprentice agrees:

- To inform the local Service Delivery Office of any change to your contact information or change in sponsor within 7 days;
- To follow the Sponsor's and Trainer's lawful instructions and make every effort to acquire the skills identified in the Logbook for the Trade which is part of the apprenticeship program established by Skilled Trades Ontario for the trade;
- To obtain written verification from the Sponsor and the Trainer(s) that the requirements in the Logbook for the trade have been met.
- When you receive an "Offer of Classroom Training", confirm your attendance by
  following the instructions in the offer. Failure to do so may result in losing your
  opportunity to attend school which delays the completion of your apprenticeship.

#### The Sponsor agrees:

- To ensure that the Apprentice is provided with the training required as part of the apprenticeship program established by Skilled Trades Ontario for this trade;
- To review the progress of training with the Apprentice, and with the Trainer(s) where the Sponsor and the Trainer are not the same party.
- Release your apprentice from work to attend in-school training without penalty to the apprentice.
- To maintain the journeyperson/apprentice ratio for your trade, if applicable.
- To monitor their apprentice(s) progress
- To ensure that the Trainer(s) verifies, in writing, when each skill identified in the Logbook for the trade has been successfully completed by the Apprentice;
- To contact the Ministry should any changes in your capacity to train, your contact information, or your apprentice's status in the program change.

#### **Trade Specific Resources and Links**

Trade Specific Resource	Link
Red Seal Program	red-seal.ca
Apprenticeship in Ontario	ontario.ca/page/apprenticeship-ontario
Employment Ontario	employmentontario.ca
Service Canada	servicecanada.gc.ca
Building Opportunities in the Skilled Trades Act, 2021	Building Opportunities in the Skilled Trades Act, 2021, S.O. 2021, c. 28 - Bill 288 (ontario.ca)
Ministry of Labour, Immigration, Training and Skills Development	Ministry of Labour, Immigration, Training and Skills Development   ontario.ca
Exam Preparation Guide	Exam Resources – Skilled Trades Ontario
Skills Zone (Ontario Skills Passport)	http://www.skillszone.ca/
Institute of Electrical and Electronics Engineers (IEEE)	www.ieee.org
Electrical Safety Authority (ESA)	www.esasafe.com
Infrastructure Health and Safety Association	www.ihsa.ca
Ministry of Transportation - Ontario	www.mto.gov.on.ca
Ontario Traffic Council	http://www.otc.org

<sup>\*</sup>Please note, all website addresses are current at time of printing

#### **Methodology-Standard Development**

A standard is developed with a broad group of trade representatives who form the initial working group. This includes subject matter experts/ tradespeople/ instructors and employers from a cross section of the sector/industry, with varying years of work experience in the field. The working group reviews, develops and recommends revision to the content of the standard. Their role also involves harmonizing and updating other supporting content for the product.

An essential part of the standard development is the validation process. This is the opportunity to have a broader representation of the sector provide feedback on the content of draft standard. This process is conducted in various ways and may include sending out a survey or the draft document (or both) directly to the sector. The comments received are reviewed by the working group and revisions are made as required based on a consensus model.

#### Introduction to the Logbook

This "on-the job" Logbook is the training standard for Light Rail Overhead Contact Systems Lineperson 207S and was developed by Skilled Trades Ontario in consultation with representatives from industry. It identifies all the skills associated with and required to learn the trade.

The Logbook is divided into skill sets, which are further divided into skills. These skill sets and skills are written in statements that describe what the Apprentice must perform and to what standard, in order to be considered competent in that skill.

The successful performance of these skills is tracked in the Logbook. Once achieved, this skills' sign-off, along with the completion of in-school program requirements or equivalent, is how the apprenticeship program is completed and apprentices receive a Certificate of Apprenticeship.

The Sponsor/trainer and Apprentice are required to sign-off and date each skill after the Apprentice has demonstrated proficiency in these skills. However, if a skill is shaded, it is optional and does not need to be signed-off, though it has been defined as a part of the scope of practice for the trade.

All practices described in this standard must be performed by the apprentice according to the specific criteria identified. In general, the standard of performance for this trade is to be performed according to all applicable jurisdictional codes and standards and all health and safety standards must be respected and observed.

All skills within the Apprenticeship Training Standard are to be performed, as applicable, according to and in compliance with the following:

- Occupational Health and Safety Legislation and Regulations;
- Other applicable legislation, regulation, codes and standards;
- Industry best practices;
- Company policies and procedures.

The information presented in this standard is, to the best of our knowledge, current at time of printing and is intended for general application. Please refer to the Skilled Trades Ontario website for the most accurate and up-to-date information: skilledtradesontario.ca

#### **Roles and Responsibilities**

Under the <u>Building Opportunities in the Skilled Trades Act</u>, <u>2021 (BOSTA)</u>

#### Skilled Trades Ontario (STO) is responsible for:

- Establishing and maintaining qualifications;
- Establishing Apprenticeship Programs and other training programs including training Standards, curriculum standards and certifying examinations;
- Issuing certificates for the purposes of this Act such as Certificates of Qualification;
- Maintaining a Public Registry for compulsory trades <u>skilledtradesontario.ca/public-register/</u>;
- Determining whether the experience and qualifications obtained by applicants for a certificate of qualification who do not complete an apprenticeship are equivalent to those received through completing an apprenticeship (Trade Equivalency Assessments)
- Promoting the skilled trades and conducting research.
- Conducting research and evaluate whether a trade should be prescribed as a trade for the purposes of this Act and to make recommendations on these matters to the Minister.

## Ministry of Labour, Immigration, Training and Skills Development (MLITSD) is responsible for:

- Classifying trades as compulsory trades;
- Prescribing scopes of practice for trades;
- Approving which persons may provide in-class training for apprenticeship programs (TDAs);
- Registering Training Agreements;
- Providing those who successfully complete an apprenticeship program with a certificate of apprenticeship (CofA);
- Administering examinations, including certifying examinations;
- Promoting the skilled trades and conducting research;
- Exercising such other powers and perform such other duties and functions as are provided for in this Act or the regulations.

For any matter related to your registered Training Agreement or completing your apprenticeship, you must contact your local Service Delivery Office.

#### Roles and Responsibilities of the Apprentice

An Apprentice is an individual who has entered into a registered Training Agreement (refer to Foreword: "Purpose, Terms and Conditions of TA" page 1) with a Sponsor to receive training in a trade as part of an apprenticeship program established by Skilled Trades Ontario. As an Apprentice, you have certain roles and responsibilities to follow throughout your apprenticeship training:

- 1. As an Apprentice, you signed the Training Agreement and have entered into a contract with the Ministry of Labour, Immigration, Training and Skills Development and your Sponsor.
- 2. If you are registered as an Apprentice in a compulsory trade, your name will automatically appear in the Skilled Trades Ontario Public Register.
- 3. You are responsible for informing the staff at your local Service Delivery Office regarding changes to the following:
  - Your Sponsor's address;
  - Your name and address; and/or,
  - Your Sponsor, including starting employment with a new Sponsor
- 4. As an Apprentice, you are responsible for completing skills or skill sets in this Logbook (as detailed in the "Eligibility for Apprenticeship Program Completion" section of this document) and ensuring that they are dated and signed by both you and your Trainer.
- Once you have demonstrated competency in all the mandatory skills and received a sign off on each skill by your sponsor/trainer, you must have the Skill Set Completion Form completed and signed by your current Sponsor.
- 6. Submit your Logbook to your local Service Delivery Office.
- 7. Present your Apprentice Completion Form (Please refer to Appendix B), along with your authorized Logbook to your local Service Delivery Office.

#### **Roles and Responsibilities of Sponsors and Trainers**

**Sponsors** are responsible for ensuring all terms are met as per the registered Training Agreement. They are named on the registered Training Agreement as the entity responsible for ensuring Apprentices receive the training required as part of an apprenticeship program. As a signatory to this agreement, they are designated as the 'Signing Authority' for the Apprentice's Skill Set Completion Form and are required to attest to successful achievement by signing the appropriate box at the completion of each skill set. Some sponsors may also act as the Trainer.

A **Trainer** is an individual who oversees the performance of a task and sets the workplace expectations and practices for the Apprentice.

In compulsory trades, a Trainer must hold a valid Certificate of Qualification and be registered with Skilled Trades Ontario.

In non-compulsory trades, a Trainer is an individual who holds one of the following:

- A Certificate of Qualification;
- A Certificate of Apprenticeship in the trade; or,
- Has completed both the workplace-based training (competencies and/or hours as applicable) and classroom training components of the trade's apprenticeship program; or,
- Has workplace experience equivalent to the apprenticeship program) and has the skills outlined in the Logbook.

Competency means being able to perform to the required standard (please refer to "Introduction to the Logbook"). Trainers/Sponsors and Apprentices are required to sign-off and date the skills in the Logbook following each successful acquisition. The Logbook forms a record of this achievement.

The Trainer must provide their signature based on their assessment and professional judgment that the apprentice is competent in the skills described above. The Trainer's signature is not a general warranty or guarantee of the apprentice's future conduct.

Sponsors participating in this training program will be designated as the Signing Authority and are required to attest to successful achievement by signing the appropriate box included at the end of each skill set.

#### **Health and Safety**

Safe working procedures and conditions, accident prevention and the preservation of health are of primary importance for apprenticeship programs in Ontario. These responsibilities are shared and require the joint efforts of government, sponsors, employers, supervisors, workers, apprentices and the public to achieve the goal of making Ontario's workplaces safe and healthy.

The Occupational Health and Safety Act (OHSA) provides us with the legal framework and the tools to do this. It sets out the rights and duties of all parties in the workplace, placing ultimate responsibility on the employer for the health and safety of workers (in this case apprentices) by ensuring procedures, controls, and training are established for dealing with workplace hazards. Therefore, it is imperative that all parties become aware of circumstances that may lead to injury, illness or harm. Safe learning experiences and environments can be created by controlling the variables and behaviours that may contribute to or cause an accident injury or illness.

A sponsor who is not the employer is reminded that the employer has legal responsibilities respecting health and safety over the apprentice who is their worker. The sponsor should encourage safe work habits and adherence to the employer's occupational health and safety requirements for the workplace.

It is generally recognized that a positive attitude about safety in partnership with health and safety competency contributes to an accident-free environment. Everyone will benefit as a result of a healthy attitude towards the prevention of accidents.

Workers and apprentices can be exposed to a multitude of hazards and, therefore, should be familiar with the Occupational Health and Safety Act and regulations.

#### The Internal Responsibility System:

One of the primary purposes of the Occupational Health and Safety Act (OHSA) is to facilitate a strong Internal Responsibility System (IRS) in the workplace. To this end, the OHSA lays out the duties of employers, supervisors, workers, apprentices, constructors and workplace owners.

Workplace parties' compliance with their respective statutory duties is essential to the establishment of a strong IRS in the workplace.

Simply put, the IRS means that everyone in the workplace has a role to play in keeping workplaces safe and healthy. Workers and apprentices in the workplace who see a health and safety problem such as a hazard or contravention of the OHSA in the workplace have a statutory duty to report the situation to the employer or a supervisor. Employers and supervisors are, in turn, required to address those situations and acquaint workers with any hazard in the work that they do.

The IRS helps support a safe and healthy workplace. In addition to the workplace parties' compliance with their legal duties, the IRS is further supported by well-defined health and safety policies and programs, including the design, control, monitoring and supervision of the work being performed.

#### Roles and Responsibilities under the Occupational Health and Safety Act

#### Employer's Responsibilities include but are not limited to the following:

- Instruct, inform and supervise workers and apprentices to protect their health and safety.
- Appoint competent persons as supervisors.
- Inform a worker, apprentice, or a person in authority, about any hazard in the workplace and train them in the handling, storage, use, disposal and transport of any equipment, substances, tools, material, etc.
- Take every precaution reasonable in the circumstances for the protection of a worker/apprentice.
- In workplaces in which more than five workers are regularly employed, prepare and post a written occupational health and safety policy and set up and maintain a program to implement it.
- Prepare and post policies with respect to workplace violence and workplace harassment and develop programs supporting workplace harassment and workplace violence policies.
- Ensure knowledge of applicable legislative, regulatory, codes and standards so requirements to be followed are clear to all workers/apprentices.

#### Trainer/Supervisor Responsibilities include but are not limited to the following:

- Ensure that a worker or apprentice works in compliance with the Act and regulations.
- Ensure that any equipment, protective device or clothing required by the employer is used or worn by the worker or apprentice.
- Advise a worker/apprentice of any potential or actual health or safety dangers known by the supervisor.
- Take every precaution reasonable in the circumstances for the protection of workers.

#### Worker/Apprentice Responsibilities include but are not limited to the following:

- Work in compliance with the Act and regulations.
- Use or wear any equipment, protective devices or clothing required by the employer.
- Report to the employer or supervisor any known missing or defective equipment or protective device that may endanger the worker or another worker.
- Report any hazard or contravention of the Act or regulations to the employer or supervisor.
- Not remove or make ineffective any protective device required by the employer or by the regulations.
- Not use or operate any equipment or work in a way that may endanger any worker.

#### Workplace Health and Safety's Responsibilities:

Workplace Health and Safety (Ontario's Ministry of Labour) will conduct periodic inspections of the workplace to ensure that safety regulations for industry are being observed.

- The Ontario Traffic Manual's Book 7 (Temporary Conditions) has been developed to provide basic uniform requirements for traffic control in work zones during roadway or utility construction and maintenance operations on or adjacent to public highways including ramps and municipal roads and streets, (as well as other public ways to which road traffic has access). Safety for workers and motorists is paramount, including workers setting up, operating, and removing traffic control. Training in Book 7 is intended for employees working for the following agencies and organizations:
  - Provincial, Municipal, and private road authorities in Ontario and their contractors.
  - Utilities, contractors, and others who may have approval to work on public roadways.
- The maintenance and continued development of knowledge, skills and competencies is critical in ensuring safety on the worksite/workforce

#### The Three Rights of Workers/Apprentices

The OHSA gives workers and apprentices three important rights:

- 1. The right to know about hazards in their work and get information, supervision and instruction to protect their health and safety on the job.
- 2. The right to participate in identifying and solving workplace health and safety problems either through a health and safety representative or a worker member of a joint health and safety committee.
- 3. The right to refuse work that they believe is dangerous to their health and safety or that of any other worker in the workplace.

#### Ministry of Labour, Immigration, Training and Skills Development

The Ministry of Labour, Immigration, Training and Skills Development conducts periodic inspections of workplaces to ensure that safety acts and regulations are being followed. Please direct any questions to the Occupational Health and Safety Contact Centre at 1-877-202-0008.

#### **Apprenticeship Program Summary/Guidelines**

#### **Scope of Practice**

The Scope of Practice for the trade of Light Rail Overhead Contact Systems Lineperson is set out in section 83 of Ontario Regulation 875/21 under BOSTA and reads as follows:

- **83.** The scope of practice for the trade of light rail overhead contact systems linesperson includes the following for a transit system:
  - 1. Building and maintaining aerial feeder systems.
  - 2. Building and maintaining contact conductor systems.
  - 3. Building and maintaining electrical track switch systems.
  - 4. Maintaining lighting systems.

\*While the Logbook draws on the scope of practice regulation (Section 83 of Ontario Regulation 875/21 under BOSTA). The Logbook does not purport to add to or modify the scope of practice as provided in regulation. \*

#### **Program Guidelines**

#### **On-the-Job Training Duration**

Industry has identified 8000 hours as the benchmark necessary for any Apprentice to become competent in the skills required. There may be circumstances in which the duration varies from this guideline.

#### **In-Class Training Duration**

Industry has identified 300 hours of in-school training as the duration necessary for an Apprentice to complete the in-school curriculum for this program.

#### **Total Training Hours**

8300 hours

#### **Journeyperson to Apprentice Ratio**

#### **Industry Recommended Ratios:**

While some of the trades regulated under BOSTA are subject to Journeyperson to Apprentice ratios set out in regulation, this trade is not one of them. Instead, **industry has recommended a Journeyperson to Apprentice ratio guideline of 1**Journeyperson (or individual who is deemed equivalent to a journeyperson) to 1 Apprentice as the ratio necessary for an Apprentice to be properly trained on the job in this program.

#### **Program Requirements**

#### **Compulsory and Non-compulsory Classification**

Regulations under the *Building Opportunities in the Skilled Trades Act, 2021,* classify each trade as either "compulsory" or non-compulsory." This trade is non-compulsory.

It is the responsibility of an Apprentice to maintain a training record in the form of a Logbook. The Sponsor and Trainer are required to sign-off when competencies in the trade are achieved.

#### **Skills for Success Summary**

Skills for Success are needed in a quickly changing world for work, learning and life. They are foundational for building other skills and important for effective social interaction. Everyone benefits from having these skills as they help individuals get a job, progress at their current job and change jobs. They also help individuals become active members of their community and succeed in learning.

Through extensive research and consultations, the Government of Canada launched the new Skills for Success model renewing the previous Essential Skills framework to better reflect the needs of the current and future labour market.

The occupational specific Essential Skills profiles are available online. These will be updated over time to align with the new Skills for Success model found here: Skills for Success model

#### **Standard of Performance**

In general, the standard of performance for the trade of Light Rail Overhead Contact Systems Lineperson are to be performed, as applicable, according to and in compliance with the following:

Industry Safety Standards which are based upon:

- Occupational Health and Safety Legislation and Regulations;
- Jurisdictional legislation and regulations, codes and standards (municipal bylaws etc.)
- Company policies and procedures
- All applicable manufacturers specifications and engineering specifications

#### Other Required Certification(s) (if applicable):

For Individuals working in this field, it is recommended and/or it may be required to obtain the following certifications and/or additional skill development in the following areas:

- Aerial work platform/lift training
- DZ License (including trailer training (maneuvering))
- First Aid and CPR C Certification
- Ontario Traffic Manual Book 7 (Temporary Conditions)
- Safe Limits of Approach
- WHMIS
- Working at Heights
- Material Handling Aerial Device
- Scissor Lift Training
- Scaffold Training
- Bucket Rescue and Practical Operation
- First Aid

#### **Training the Apprentice - Tips for Apprentices, Sponsors and Trainers**

#### **Tips for Apprentices**

Remember, it takes time to learn. The following is a list of additional tips and tools to help make the most of your apprenticeship training:

- Practice safe work procedures early to create good habits;
- Use your Logbook as a journal to keep track of the skills you have achieved;
- Review your training plan with your Training Consultant, Trainer, or Sponsor;
- Discuss your training needs with your Trainer and/or Sponsor;
- Listen to the suggestions of your Trainer;
- Ask your Trainer questions if you are unsure of any skill you need to perform or any tools or equipment you need to use to perform your duties;
- Show enthusiasm and develop good work habits; and,
- Upon demonstration of competency, ensure that you and your Trainer sign-off the individual skills.

To get the most from this mentoring experience, request exposure to the full scope of the trade; meet regularly with your Sponsor/Trainer to discuss your progress, ask questions and seek feedback.

#### **Tips for Sponsors**

- Select Trainers with good communication skills and who work well with others;
- Ensure that the Apprentice always works under the direction of or has access to a qualified Trainer;
- Encourage Trainers to take upgrading courses (e.g. Train the Trainer, Mentor, Coach, etc.);
- Set out clear expectations and involve both the Apprentice and Trainer in developing the training plan
- Encourage safe work habits;
- Allow time for the Trainer to train and demonstrate skills to the Apprentice;
- Provide opportunities and time for the Apprentice to learn the trade;
- Ensure that the Apprentice receives the varied on-the-job trade training experience outlined in this document;
- Recognize good performance;
- Observe frequently;
- Provide constructive feedback and conduct regular performance reviews involving the Apprentice and Trainer;
- Use the Logbook as a monitoring tool and a part of regular performance evaluations; and,
- Complete the Skill Set Completion Form once the Apprentice has demonstrated competency in the skills.

• The detailed content listed for each skill is not intended to represent an inclusive list; rather, it is included to illustrate the intended direction for the skill acquisition.

#### **Tips for Trainers**

Trainers are responsible for ensuring the Apprentice is developing the skills outlined in this document. Here is a list of tips and tools to help Trainers in their supervision of Apprentices:

- Demonstrate model safe work habits;
- Provide opportunities and time for the Apprentice to learn the trade;
- Treat Apprentices fairly and with respect;
- Review the Logbook with the Apprentice and develop a training plan;
- Set out clear expectations and recognize good performance;
- Expose Apprentices to the full scope of the trade by providing training on the skills outlined in this document;
- Encourage and respond to all questions;
- Be patient;
- Explain, show and demonstrate the skill;
- Meet regularly with the Apprentice to discuss the apprentice's progress
- Provide continuous feedback;
- Sign-off skills when your Apprentice demonstrates competency, and,
- Use the Logbook as a guide to evaluate competence in each skill area. By using the Logbook, Trainers will be able to guide the process to and assist Apprentices to develop skills outlined in this document.

The best mentoring experience is when an Apprentice is given as much training/exposure to the full scope of the trade as possible. If this is not possible, help them to determine other ways this may be possible.

#### **Notice of Collection of Personal Information**

- 1. At any time during your apprenticeship training, you may be required to show this Logbook to the local Service Delivery Office. You will be required to submit the signed Apprenticeship Completion form to the Service Delivery Office in order to complete your program. The Service Delivery Office will use your personal information to administer and finance Ontario's apprenticeship training system, including confirming your completion and issuing your Certificate of Apprenticeship.
- 2. The Service Delivery Office will disclose information about your program completion and your Certificate of Apprenticeship to Skilled Trades Ontario, as it is necessary for Skilled Trades Ontario to carry out its responsibilities.
- 3. Your personal information is collected, used and disclosed by the Ministry of Labour, Immigration, Training and Skills Development under the authority of the *Building Opportunities in the Skilled Trades Act, 2021 (BOSTA).*
- 4. Questions about the collection, use and disclosure of your personal information by the Ministry may be addressed to the:

Manager, Employment Ontario Contact Centre Ministry of Labour, Immigration, Training and Skills Development 33 Bloor St. E, 2nd floor, Toronto, Ontario M7A 2S3 Toll-free: 1-800-387-5656; Toronto: 416-326-5656

TTY: 1-866-533-6339 or 416-325-4084

#### **List of Trainers**

Trainer's Name (Please Print)	Trainer's Signature	Date of start with Trainer (day/month/year)

In this trade a trainer must be competent in the skills identified in order to sign off for the Apprentice. For the trade of Light Rail Overhead Contact Systems Linesperson, emergency skills should be signed off by the emergency crew leader or equivalent.

#### 6601 Apply Safe Workplace Practices

#### 6601.01

Take corrective action against potential workplace health and safety hazards such as noxious chemicals and dust, fires, elevated worksites, suspended loads, poor lighting, electrical flash, extreme weather conditions, pressurized fluids, mechanical hazards, noise, inadequate ventilation, biohazards, vehicular traffic, untidy worksites and uncontrolled power sources so that the potential for personal injury and damage to equipment and the environment are minimized in accordance with applicable manufacturers' instructions, government regulations and company policies.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.

#### Take preventive action to reduce personal injury by;

- conducting a physical demand analysis;
- lifting, lowering, pushing and pulling loads, reaching, performing repetitive tasks, and working in cramped conditions;
- selecting and using suitable tools and equipment; and,
- adapting body positions and motions to suit tasks;

in accordance with company policies and procedures and industry best practices.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

- **Select and wear personal protective equipment (PPE)** such as arcresistant clothing, boots, hard hats, goggles, face shields, glasses, respirator filters, gloves, hearing protection and fall arrest by;
  - ensuring that correct fit and optimum protection is provided to the wearer for the specific task performed;

in accordance with applicable government legislation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

- **Maintain Personal Protective Equipment** such as arc-resistant clothing, boots, hard hats, goggles, face shields, glasses, respirator filters, gloves, hearing protection and fall arrest by;
  - inspecting, cleaning, disinfecting and storing equipment;

in accordance with applicable government legislation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6601.05 Comply with safety review procedures by;

- participating in pre-job meetings;
- preparing and interpreting documentation related to pre-job planning, hazard identification, barrier determination, emergency preparedness, traffic protection and pedestrian control; and,
- taking corrective action according to the assigned tasks;

in accordance with the *Ontario Health and Safety Act (OHSA)*, Electrical Utility Safety Rules and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

## **Handle workplace hazardous materials** such as diesel, gas, propane, acids, by;

- wearing personal protective equipment;
- disposing and storing hazardous materials; and,
- preventing toxic spills/emissions;

so that individuals are protected from injury, the environment from contamination and safety practices are followed in accordance with Workplace Hazardous Materials Information System (WHMIS) guidelines, safety legislation, manufacturers' specifications and company policies and procedures.

n	mm/dd/yy	Trainer Print Name	*Trainer Signature
n	nm/dd/yy	Apprentice Print Name	Apprentice Signature

#### **6601.07 Install protective barriers** such as hoses, blankets and hoods by;

placing a covering on the structure, equipment or wire/cable;

in order to protect the worker, equipment and public from potential differences (grounds or low voltages);

in accordance with the *Ontario Health and Safety Act (OHSA)*, Electrical Utility Safety Rules and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6601.08 Conduct a job hazard analysis in emergency situations by;

- using applicable PPE;
- controlling the immediate danger;
- conducting a formal overhead safety assessment process (OSAP),
- · identifying site hazards,
- eliminating the hazard where practical,
- controlling the hazard that cannot be eliminated,
- protecting against injury if the hazard is out of control
- minimizing severity of injury or damage;
- recognizing weather and environmental conditions; and,
- completing a traffic protection plan;

according to a hazard identification risk assessment (HIRA), OHSA, legislation, regulation, company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> Emergency skills should be signed off by the emergency crew leader and/or the foreperson.

#### 6601.09 Practice good housekeeping in the workplace by;

- ensuring that the workplace is clean, organized and free of obstructions, spills or fire hazards; and,
- ensuring that materials and equipment are cleaned and sorted in designated areas after use;

so that accident or injury potential is minimized; in accordance with legislation, regulation, company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6602 Maintain Tools and Equipment

**Select tools and equipment** such as power tools, hand tools, hydraulic tools, pneumatic tools by;

- ensuring suitability for assigned tasks; and,
- · considering safe limits of approach;

in accordance with manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.

## **Operate tools and equipment** such as power tools, hand tools, hydraulic tools, pneumatic tools by;

- operating within safe limits and capabilities;
- minimizing tool and equipment failure and personal injury;
- ensuring the tools and equipment match the application; and,
- considering safe limits of approach;

in accordance with manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### **Maintain tools and equipment before and after use** by;

- visually inspecting for wear and defects;
- performing pre-operational tests;
- checking guards and safety attachments;
- effecting immediate repairs when possible;
- · reporting concerns to authorities;
- tagging the defective equipment and placing out of service; and
- cleaning and storing equipment;

in accordance with manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

## **Select live line tools and metering equipment** such as electrical meters, hotsticks, rubber cover ups by;

- identifying voltage;
- considering limits of approach; and,
- following overhead safety assessment process (OSAP);

in accordance with *Occupational Health and Safety Act (OHSA)*, legislation, regulation and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

## Operate live line tools and metering equipment in emergency situations by;

- following overhead safety assessment process (OSAP) including identifying, controlling or eliminating the hazard where applicable;
- using hotsticks to lift trolley wires to a safe location;
- applying clamp to hotsticks to extend distance and remove danger zone range to prevent arc flash and injury; and,
- protecting against and minimizing injury;

in accordance with *Occupational Health and Safety Act (OHSA)*, legislation, regulation and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> Emergency skills should be signed off by the emergency crew leader and/or the foreperson.

## **Operate aerial lift equipment** platform trucks, bucket trucks, scissor lifts by;

- positioning the equipment according to weight limits and limits of approach;
- operating within safe limits and capabilities;
- · minimizing tool and equipment failure and personal injury;
- ensuring the tools and equipment match the application;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6602.07 Maintain aerial lift equipment by;

- conducting daily inspections;
- · completing checklists; and,
- reporting problems/deficiencies to supervisor;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm	/dd/yy	Trainer Print Name	*Trainer Signature
mm	/dd/yy	Apprentice Print Name	Apprentice Signature

## **Select ropes and rigging equipment** such as blocks, slings, comealongs, shackles by;

ensuring suitability for the assigned task;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### **6602.09** Use ropes and rigging equipment by;

- operating within safe limits and capabilities;
- minimizing tool and equipment failure and personal injury; and,
- ensuring the tools and equipment match the application;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

	mm/dd/yy	Trainer Print Name	*Trainer Signature
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	mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### **Maintain ropes and rigging equipment** by;

- conducting daily inspections;
- · completing checklists; and,
- reporting problems/deficiencies to supervisor;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6603 Communicate and Access Information in The Workplace

#### **Access maintenance requirements** by;

- researching manuals, manufacturers' specifications and recommendations, and government regulations;
- identifying system and component types, capacities, tolerances and limitations, safety procedures, replacement and in-house testing and maintenance procedures;
- updating maintenance inspection routines and locating any other necessary information to complete the job;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.

#### 6603.02 Communicate by;

 using peripheral devices, operating systems, software and written documentation;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

## 6603.03 Communicate with co-workers, supervisors, company representatives and other tradespersons using personal communication, telephone and radio, ensuring that information delivered is clear, concise and accurate; in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

## **Write work reports and standard documentation** such as safety reports, injury reports, occurrence reports, environmental reports and inspection charts and reports by;

- completing them manually or using a computer system; and,
- ensuring that written reports are detailed, clear, concise, accurate and timely;

in accordance with legislation, regulation and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6603.05

**Maintain service documents** such as service call sheets, work orders, work performance sheets, job planning forms, traffic protection plans, commercial vehicle inspection reports (CVIR) by;

 ensuring that all procedures and maintenance tasks are documented, recorded and reported;

in accordance with legislation, regulation, employer's specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### **6603.06 Signal** by;

using hand signals, rap signals, and audible signals;
 in accordance with legislation, regulation and company policies and

in accordance with legislation, regulation and company policies an procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

# Communicate with controlling authority (such as transit control, power control, emergency responders) and the public in an emergency situation to secure the emergency site, implement emergency power cut, prevent injuries to public and property and notify of need for assistance from other emergency crews, utilities or other trades; in accordance with legislation, regulation, company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> Emergency skills should be signed off by the emergency crew leader and/or the foreperson.

#### **6603.08** Create a job plan in an emergency situation by;

- indicating which work standards are to be used; by designating crew and individual specific tasks (assigning work);
- selecting materials and equipment to complete task; and,
- · considering limits of approach;

in accordance with legislation, regulation, company policies and procedures.

mm/	/dd/yy	Trainer Print Name	*Trainer Signature
mm/	/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> Emergency skills should be signed off by the emergency crew leader and/or the foreperson.

### Follow and adjust the plan for maintenance and construction situations by:

- indicating which work standards are to be used;
- · designating crew and individual specific tasks (assigning work;
- selecting material and equipment to complete the tasks;
- setting up work zones;
- adjusting procedures based on circumstances at hand; and,
- · considering limits of approach;

in accordance with legislation, regulation, company policies, procedures and standard operating procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### 6604 Build and Maintain Aerial Feeder Systems

### **Install aerial feeder support brackets** on steel, wood and concrete poles and underpasses by;

- using tools and equipment that match the application;
- securing brackets and locating brackets;
- using ropes and rigging;
- · taking into account hazards and clearances; and,
- considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.

### **Install aerial feeder terminating hardware** on steel, wood and concrete poles by;

- using tools and equipment that match the application;
- securing hardware and locating hardware;
- taking into account hazards and clearances;
- using ropes and rigging; and,
- · considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **Set up and take down puller-tensioners in designated areas** by;

- extending and retracting stabilizer legs, chalking wheels;
- attaching and removing exhaust hoses;
- loading and unloading reels;
- warming up and shutting down engines;
- using grounding mats to create equi-potential zone;
- using ropes and rigging; and,
- considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **Attach stringing apparatus to aerial feeder support brackets** such as travelers, spider lines and bull ropes by;

- using work platforms and wrenches;
- · using ropes and rigging; and,
- · considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **Pull conductors** using puller-tensioners, wire grips and swivels by;

- · attaching lines to machines at both ends;
- · adjusting controls on machines;
- responding to all-stop commands;
- using ropes and rigging; and,
- · considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### 6604.06 Attach aerial conductors to terminating hardware by;

- securing conductors using hoisting equipment;
- stripping conductors using stripping tools;
- attaching conductors to terminating hardware using torque wrenches;
- cutting excess conductors using bolt cutters and feeder cutters;
- using ropes and rigging; and,
- · considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **Transfer aerial conductors to support bracket insulators** by;

- using hoisting equipment to support the aerial conductors,
- fastening and unfastening conductors,
- calculating weights and tensions,
- using ropes and rigging, and,
- · considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6604.08 Connect conductors to lateral cables and cross-feed conductors by;

- stripping conductors using stripping tools;
- testing for voltage and grounds;
- fastening connectors using wrenches;
- attaching feeder nomenclature plates to conductors using tie-wraps;
- · using ropes and rigging; and
- · considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### 6604.09 Splice conductors by;

- removing insulation using stripping tools;
- placing sleeves and heat shrink on exposed conductors;
- crimping sleeves using hydraulic presses;
- heating heat shrink using propane torches;
- using ropes and rigging; and,
- considering safe limits of approach;

in accordance with Electrical Utility Safety Rules, legislation, regulation, manufacturers' specifications and company policies and procedures.

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mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6604.10 Energize aerial feeder sections by;

- interpreting feeder maps;
- inspecting and testing for hazards;
- clearing hazards;
- contacting controlling authorities;
- verifying sections are energized;
- testing;
- using ropes and rigging; and,
- considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **6604.11** Isolate aerial feeder sections by;

- interpreting feeder maps;
- contacting controlling authorities;
- removing clamps and jumpers using wrenches and work platforms, and by verifying sections are isolated;
- using ropes and rigging; and,
- · considering safe limits of approach;

in accordance with the *Occupational Health and Safety Act (OHSA)*, Electrical Utility Safety Rules, manufacturers' specifications and company policies and procedures.

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	mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### **De-energize aerial feeder sections** by;

- · interpreting feeder maps;
- testing for isolation;
- contacting controlling authorities for authorization to proceed;
- applying de-energizing devices using live line tools; and,
- using ropes and rigging; and by considering safe limits of approach;

in accordance with the *Occupational Health and Safety Act (OHSA)*, Electrical Utility Safety Rules, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### **Remove aerial conductors** by;

- cutting using feeder cutters, hoisting devices and work platforms;
- lowering conductors safely to ground level using ropes;
- unfastening terminating hardware using hoisting equipment and wrenches;
- installing wire grips on ends of conductors; by transferring conductors into travelers;
- attaching conductors to puller-tensioner machines;
- using puller-tensioners to attach lines to machines at both ends;
- adjusting controls on the machines;
- using ropes and rigging; and,
- considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### Remove aerial feeder support brackets, terminating hardware and connectors from steel, wood and concrete poles and underpasses by:

- using tools and equipment that match the application;
- by using ropes and rigging; and,
- by considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### 6604.15 Troubleshoot aerial feeder systems by;

- interpreting feeder maps;
- visually inspecting sections for breaks, obstructions and defects;
- testing voltage and load using voltmeters and ammeters;
- effecting immediate repairs when possible;
- reporting to controlling authorities;
- · using ropes and rigging; and
- considering safe limits of approach;

for both preventative maintenance and repair purposes; in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### Reposition and repair dislodged feeders (negative or positive) in an emergency situation by;

- using bucket truck to lift and a reposition the feeder;
- positioning the work platform deck to work in conjunction with the bucket truck;
- replacing support brackets;
- using ropes and rigging; and,
- considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> Emergency skills should be signed off by the emergency crew leader and/or the foreperson.

### Raise and repair downed positive feeder cables or negative cables in an emergency situation by;

- securing the area and the emergency power cut using rigging equipment;
- securing the feeder, lifting and reinstalling on the pole/support bracket;
- using a rope block or web block to raise the feeder to the original position;
- securing into position;
- installing an emergency or temporary jumper;
- using ropes and rigging; and,
- considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> Emergency skills should be signed off by the emergency crew leader and/or the foreperson.

### 6605 Build and Maintain Overhead Contact Systems

#### **6605.01 Install trolley wires** by;

- reviewing the job plan;
- stringing the trolley wire using tension machines or reel wagons;
- taking into account hazards and clearances;
- conducting a safe voltage test;
- using ropes and rigging; and,
- considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.

### **Install tangent spans, cross feeds and equalizers** on steel, wood and concrete poles by;

- using hoisting equipment and associated hardware;
- securing steel guy wires, synthetic ropes;
- locating them;
- taking into account hazards and clearances;
- · conducting a safe voltage test;
- using ropes and rigging; and,
- · considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **6605.03 Install struts** on steel, wood and concrete poles by;

- using hoisting equipment and associated hardware;
- securing steel guy wires, synthetic ropes;
- locating them;
- taking into account hazards and clearances; by conducting a safe voltage test;
- using ropes and rigging; and,
- considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **Install troughing** (such as glass reinforced epoxy, wood and fiberglass) on underpasses, tunnels and car houses by;

- using hoisting equipment and associated attachments;
- affixing to the structure;
- locating them;
- · taking into account hazards and clearances;
- conducting a safe voltage test;
- using ropes and rigging; and,
- · considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

m	nm/dd/yy	Trainer Print Name	*Trainer Signature
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### 6605.05 Install contact conductors to support clamps and brackets by;

- using tools and equipment that match the application;
- coordinating the operation with puller-tensioner operators and work vehicle drivers;
- · using radio communication;
- conducting a safe voltage test;
- using ropes and rigging; and,
- · considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6605.06 Connect conductors by;

- using tools and equipment that match the application;
- splicing, by conducting a safe voltage test;
- using ropes and rigging; and,
- · considering safe limits of approach;

in accordance with legislation, regulation, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### 6605.07 Remove contact conductors by;

- using wrenches, hoisting equipment, cutters, and elevated work platforms;
- · conducting a safe voltage test;
- using ropes and rigging; and
- · considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6605.08 Tension contact conductors by;

- using hoisting equipment, tension gauges and work platforms;
- using ropes and rigging; and,
- · considering safe limits of approach;

in accordance with legislation, regulation, engineering specifications, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

## 6605.09 Transfer contact conductors to support clamps and fittings in a preventative maintenance situation when wires, parts or fittings are worn out by;

- plumbing and aligning contact conductors and adjusting hanger points;
- using ropes and rigging; and,
- · considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **Remove tangent spans, cross feeds and equalizers** from steel, wood and concrete poles by;

- using hoisting equipment and associated hardware;
- · taking into account hazards and clearances;
- conducting a safe voltage test;
- using ropes and rigging; and,
- considering safe limits of approach;

in accordance with legislation, regulation, manufacturer's specifications, company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### **Remove struts** from steel, wood and concrete poles by;

- using hoisting equipment and associated hardware;
- taking into account hazards and clearances;
- conducting a safe voltage test;
- using ropes and rigging; and,
- considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **Remove troughing** (such as glass reinforced epoxy, wood and fiberglass) from underpasses, tunnels and car houses by:

- using hoisting equipment and associated hardware;
- · taking into account hazards and clearances;
- conducting a safe voltage test;
- using ropes and rigging; and
- · considering safe limits of approach;

in accordance with legislation, regulation, manufacturer's specifications, company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

# Remove contact conductor support brackets, terminating hardware, connectors and fittings from steel, wood and concrete poles and underpasses by;

- conducting a safe voltage test;
- using wrenches to disassemble eye-bolts, links, pole rods, clevises, pole bands, nuts, bolts, threaded rods and washers;
- using ropes and rigging; and,
- considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6605.14 Troubleshoot contact conductor systems by;

- interpreting surface traction power map;
- visually inspecting sections for breaks, obstructions and defects;
- testing voltage and load using voltmeters and ammeters;
- effecting immediate repairs when possible;
- reporting to controlling authorities;
- using ropes and rigging; and,
- considering safe limits of approach;

in accordance with legislation, regulation, manufacturer's specifications, company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **Survey the intersections** by;

- using plumb bobs, measuring tape, track gauges, marking devices and ropes;
- interpreting engineering drawings and specifications; and,
- marking locations on track allowances;

in accordance with engineering specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6605.16 Install contact conductors manually (hand coil) by;

- using hoisting equipment and associated hardware;
- connecting to existing installations;
- taking into account hazards and clearances;
- · conducting a safe voltage test;
- using ropes and rigging; and,
- · considering safe limits of approach;

in accordance with legislation, regulation, manufacturer's specifications, company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### Raise and repair downed trolley wires in an emergency situation (temporarily) by;

- tensioning the trolley wire;
- splicing the trolley;
- powercutting;
- isolating the area;
- putting up temporary rebuilds;
- cleaning any remaining debris (after the fact) to maintain service;
- ensuring safe movement of the street car, the removal of danger to the public and the re- establishment of the overhead contact system to its required height;
- conducting a safe voltage test;
- using ropes and rigging; and,
- · considering safe limits of approach;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> Emergency skills should be signed off by the emergency crew leader and/or the foreperson.

### 6606 Build and Maintain Electrical Track Switch Systems

### **Survey loop drawings** by;

- interpreting engineering drawings; and,
- marking locations on track allowances;

in accordance with legislation, regulation, engineering specifications and company policies and procedures.

	mm/dd/yy	Trainer Print Name	*Trainer Signature
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	mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.

### 6606.02 Install loop conductors by;

- cutting using tools and equipment that match the application;
- installing conductors into loop-cuts;
- twisting conductors and inserting ends into junction boxes using fish tape and sealing cuts using road sealant; and,
- conducting a safe voltage test;

#### **Light Rail Overhead Contact Systems Lineperson**

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

## 6606.03 Install electrical track switch enclosures, conduit and components on concrete, steel and wood poles and underpasses, underground tunnels, structure walls and designated rooms by;

- using tools and equipment that match the application;
- banding housing and inserting and connecting components into the housing;
- gluing conduit to housing and existing conduit;
- banding conduit to poles; and,
- conducting a safe voltage test;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6606.04 Install track switch conductors by;

- using fish tape, rope, wire lube and electrical tape;
- feeding fish tape through conduits;
- attaching a pull rope to fish tape;
- pulling a pull rope from junction boxes to track switches; and,
- conducting a safe voltage test;

in accordance with legislation, regulation, engineering specifications, manufacturers' specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### Install power supplies to electrical track switch enclosures and components by;

- pulling conductor wire;
- securing conductor wire using tie wraps;
- attaching conductor wire to termination panels and to power sources;
- conducting a safe voltage test; and by using tools and equipment that match the application;

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

#### 6605.06 Connect track switch conductors by;

- using water proof connectors or splicing conductors;
- · connecting conductors in termination panel;
- inserting conductors in terminating blocks;
- tightening set screws;
- using tools and equipment that match the application; and,
- conducting a safe voltage test;

in accordance with legislation, regulation, engineering specifications and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### 6606.07 Maintain and Troubleshoot electrical track switch systems by;

- testing systems and system components for voltage, resistance and ground;
- using voltmeters and ohmmeters;
- visually inspecting for defects;
- performing simulations using portable transducers;
- conducting preventative maintenance as required;
- effecting immediate repairs when possible; and,
- reporting to controlling authorities;

mm/	/dd/yy	Trainer Print Name	*Trainer Signature
mm/	/dd/yy	Apprentice Print Name	Apprentice Signature

### 6606.08 Conduct an emergency switch inspection in emergency situation by;

- conducting a visual inspection of all electrical components;
- completing reporting/checklist requirements (such as a switch incident report);
- taking resistance and voltage readings of loops and the cylinder;
- replacing components and completing repairs as required; and,
- completing documentation as required;

according to legislation, regulation, controlling authority, engineering specifications, manufacturers' specifications, company policies and procedures.

mm/dd/y	y Tra	niner Print Name	*Trainer Signature
mm/dd/y	y Ap	prentice Print Name	Apprentice Signature

<sup>\*</sup> Emergency skills should be signed off by the emergency crew leader and/or the foreperson.

#### 6607 Maintain Lighting Systems

## 6607.01 Test power supply for loop lighting, yard lighting and safety island lighting

in accordance with company policies and procedures.

	mm/dd/yy	Trainer Print Name	*Trainer Signature
Ī			
	mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.

### Replace bulbs for loop lighting, yard lighting and safety island lighting by;

- removing covers, removing bulbs and inserting bulbs;
- notifying controlling authorities of effectiveness of bulb replacement; and.
- placing used bulbs in designated recycling containers;

in accordance with company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### Terminate wires for loop lighting, yard lighting and safety island lighting in an emergency situation by;

- testing for voltage using voltmeters;
- isolating wires using cutters and pliers;
- taping wire ends; and,
- notifying control authorities of conditions;

in accordance with company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> Emergency skills should be signed off by the emergency crew leader and/or the foreperson.

#### 6608 Protect The Environment

### 6608.01 Recycle materials including metals by;

placing materials in designated bins

in accordance with company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

<sup>\*</sup> A Trainer may be a Supervisor or the competent employee designated by the Apprentice's Sponsor.

### 6608.02 Contain hazardous spills by;

- using absorbent mats, absorbents and deflectors;
- notifying the controlling authority;
- completing documentation; and,
- disposing of materials as required;

in accordance with government legislation and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

**Store hazardous materials in designated facilities** in accordance with government legislation and company policies and procedures.

mm/dd/yy	Trainer Print Name	*Trainer Signature
mm/dd/yy	Apprentice Print Name	Apprentice Signature

### **Curriculum Learning Outcomes**

### What Are Learning Outcomes?

**Learning outcomes** are statements of what a learner is expected to know, understand and/or be able to demonstrate after completion of a process of **learning**.

For the purpose of this Schedule of Training, the Learning outcomes reflect what an apprentice should know and understand following the completion of the in school training requirements.

Reportable Subjects Overview
1201 Regulations, Rules and Practices
1202 Protecting Self and Others
1203 Maps, Charts, Tables and Blue Prints
1204 Access Equipment, Work Platforms and Aerial Lift Equipment
1205 Electrical Theory
1206 Electrical Awareness and Lighting Systems
1207 Job Planning and Emergency Preparedness
1208 Ropes and Rigging
1209 Power Distribution Systems
1210 Overhead Contact Systems
1211 Track Switch Systems
1212 Training, Instructing and Mentoring
1213 Selecting, Operating and Maintaining Hand and Power Tools, Measuring and Testing Devices

**Learning Outcomes** (Number of Hours in school and suggested areas of focus for each level)

Learning Outcome	Level 1	Level 2	Level 3	Level 4
<ul> <li>1201 Regulations, Rules and Practices 9.0 hours total The apprentice is able to: <ul> <li>Locate information from regulations, rulebooks and policies</li> <li>Apply regulations, rules and practices to workplace scenarios</li> <li>Explain rationales for regulations, rules and practices</li> </ul> </li> </ul>	*Rules and Standards of practice (8 hours) *Safe Limits of Approach (1.0 hours)			
<ul> <li>1202 Protecting Self and Others 48.0 hours total</li> <li>The apprentice is able to: <ul> <li>Identify workplace health and safety hazards, and describe corrective</li> <li>actions and reporting procedures</li> <li>Describe safe working habits</li> <li>Identify fire safety procedures</li> <li>Describe reporting procedures for injuries and safety incidents</li> <li>Describe basic first aid procedures</li> <li>Describe procedures for handling work site safety hazards (i.e. safe limits of approach)</li> <li>Describe procedures for working in hot and cold weather</li> <li>Describe procedures for following biohazard precautions</li> <li>Describe procedures for conducting an Overhead Safety Assessment Process (OSAP)</li> <li>Describe the purpose of a Hazardous Incident Risk Assessment (HIRA) and how to reference information from the HIRA.</li> </ul> </li></ul>	*Overhead orientation (20 hours practical) *IEEE definitions (1hr) *Protecting your safety (2 hours) *Safety Basics (2 hours) *PPE (2 hours) *Safe Limits of Approach (1.0 hours) *Traffic Protection (1 hour) *Hot Sticks (1 hour practical) *Rubber gloves (live line work) (1 hour practical) *Rubber Barriers (live line work) (2 hour practical)	*Overhead Safety Assessment Process (3 hours) *Yard etiquette (1 hour practical)	*Book 7 Review (1 hour) *Setting up ground mats and barriers (3 hours practical)	*Safety Modules – Controlling Hazards (7 hours)

Learning Outcome	Level 1	Level 2	Level 3	Level 4
<ul> <li>1203 Maps, Charts, Tables and Blue Prints 12.0 total The apprentice is able to: <ul> <li>Read and apply aerial feeder maps, surface traction power maps and section insulator maps in order to recognize and find substations, trolley wire sections, related components and verify power supply</li> <li>Read and interpret map samples including positive and negative feeder maps, section break maps and switch maps</li> <li>Read and interpret labels, charts and tables including tension charts, pole band heights, wind chill charts, safe limits of approach, conductor dimension and weights, conversion factors</li> </ul> </li> </ul>		*Introduction to Feeder maps and blue prints (2 hours)	*Feeder maps (3 hours) *Blue prints (3 hours) *Metric measurements and conversions (re blue prints) (1 hour)	*Analysing and interpreting prints and maps (3 hours)
<ul> <li>1204 Access Equipment, Work Platforms and Aerial Lift Equipment 35.0 hours         The apprentice is able to:         <ul> <li>Describe the fundamentals of setting up, using and inspecting ladders.</li> <li>Explain the fundamentals of setting up, using and inspecting mobile aerial lift equipment.</li> <li>Explain the fundamentals of setting up, using and inspecting work platforms.</li> <li>Describe the applications of different equipment and platforms for the purpose of maintenance and troubleshooting</li> </ul> </li> <li>Describe communication protocols, procedures and requirements such as         <ul> <li>Conveying information</li> <li>Describing telephone and radio protocols</li> <li>Writing safety reports, injury reports, occurrence reports, inspection reports and work reports</li> <li>Reading and interpreting manuals, manufacturers' specifications, legislation, safety procedures and testing and maintenance procedures</li> <li>Describing and demonstrating hand signals and audible signals</li> </ul> </li> </ul>	*Overhead orientation (20 hours practical) *Aerial lift orientation (8 hours practical) *safe use of ladders – use and maintenance (1 hour) *hydraulics, Insulated Aerial Devices (2 hours) *Drift check (2 hours practical)	*Bucket rescue and evacuation (2 hours)		

Learning Outcome	Level 1	Level 2	Level 3	Level 4
<ul> <li>1205 Electrical Theory 8.0 hours The apprentice is able to: <ul> <li>Understand electron theory;</li> <li>Define voltage, current and resistance, as well as electrical and mechanical power and energy</li> <li>Describe the effects of electricity on the human body</li> <li>Explain the principles of common sources of Electro-Motive Force (EMF)</li> <li>Analyze series, parallel and combination DC circuits by applying Ohm's Law</li> <li>Describe the three different forms of induced voltage (magnetic, electric and static)</li> </ul> </li></ul>	*Introduction to Electrical Theory ( 3 hours)	*Series/Parallel Circuits (3 hours) *Induction, Bonding and Grounding (2 hours)		
<ul> <li>1206 Electrical Awareness and Lighting Systems 7.0 hours The apprentice is able to: <ul> <li>Identify different types of electrical circuits</li> <li>Describe effects of electrical contact and electrical arc</li> <li>Identify limits of approach for worker and equipment</li> <li>Identify electrical hazards and barriers applied</li> <li>Describe procedures for isolation, de-energization and restoration of electrical apparatus</li> <li>Test electric apparatus using test equipment</li> <li>Inspect, maintain and report deficiencies in live line tools, rubber goods and personal protective equipment</li> <li>Describe care and maintenance of live line tools, rubber goods and personal protective equipment</li> <li>Inspect, maintain and report deficiencies in test equipment</li> <li>Identify types of lighting and their associated hazards</li> <li>Describe common defects and faults in lighting systems</li> <li>Describe causes of faults and defects in lighting systems</li> <li>Explain methods of remedying specific scenarios based on faults and defects in lighting systems</li> <li>Describe the applications of different tools and equipment for the purpose of maintenance and troubleshooting</li> </ul> </li> </ul>	*Introducing to lighting systems (3 hours)	*loop and yard lighting (3 hours)	*Beacon Lights (1 hour)	

Learning Outcome	Level 1	Level 2	Level 3	Level 4
<ul> <li>Describe temporary repair procedures for loop, yard and safety island lighting</li> <li>Describe communication protocols, procedures and requirements such as         <ul> <li>Conveying information</li> <li>Describing telephone and radio protocols</li> <li>Writing safety reports, injury reports, occurrence reports, inspection reports and work reports</li> <li>Reading and interpreting manuals, manufacturers' specifications, legislation, safety procedures and testing and maintenance procedures</li> <li>Describing and demonstrating hand signals and audible signals</li> </ul> </li> </ul>				
1207 Job Planning and Emergency Preparedness 40.0 hours  The apprentice is able to:  Participate in and conduct tailboard conferences and pre-job discussions by doing the following:  Hazard identification  Determination of barriers  Identification of major job steps  Delegation of individual responsibilities  Description of emergency plan  Clarification of understanding of participants  Describe emergency response and rescue procedures	This section captures concepts and topics that must be integrated into the learning for multiple units and levels including: 1202 Protect self and others (overhead safety assessment process and hazard analysis and Book 7); S1204 Access Equipment, Work Platforms and Aerial Lift Equipment (setting up vehicles)  No specific time is allocated for these items as it is deemed to be accounted for in the Learning Content in relation to the focus areas mentioned above.	This section captures concepts and topics that must be integrated into the learning for multiple units and levels including: 1202 Protect self and others (overhead safety assessment process and hazard analysis and Book 7); S1204 Access Equipment, Work Platforms and Aerial Lift Equipment (setting up vehicles)  No specific time is allocated for these items as it is deemed to be accounted for in the Learning Content in relation to the focus areas mentioned above.	This section captures concepts and topics that must be integrated into the learning for multiple units and levels including: 1202 Protect self and others (overhead safety assessment process and hazard analysis and Book 7); S1204 Access Equipment, Work Platforms and Aerial Lift Equipment (setting up vehicles)  No specific time is allocated for these items as it is deemed to be accounted for in the Learning Content in relation to the focus areas mentioned above.	*Practical assessment emergency situations (16 hours)  *Practical Assessment – construction (24 hours)

Learning Outcome	Level 1	Level 2	Level 3	Level 4
<ul> <li>1208 Ropes and Rigging 7.0 hours</li> <li>The apprentice is able to: <ul> <li>Describe ropes, slings and rigging equipment and their capabilities</li> <li>Describe knots and their applications</li> <li>Tie knots according to applications</li> <li>Describe procedures for inspecting and maintaining ropes, slings and rigging equipment</li> </ul> </li> </ul>	*Hoisting and Rigging (2 hours)	*Basic Rigging (2 hours)	*Conductor weights and tensions (rigging) (3 hours)	
<ul> <li>1209 Power Distribution Systems 21.00 hours</li> <li>The apprentice is able to: <ul> <li>Read and interpret maps, drawings and blue prints</li> <li>Read and interpret nomenclature</li> <li>Describe types of power distribution systems</li> <li>Describe components of power distribution systems</li> <li>Describe procedures for installing and removing power distribution conductors and cables</li> <li>Describe procedures for inspecting and maintaining power distribution systems</li> <li>Describe common defects and faults in power distribution systems</li> <li>Describe causes of faults and defects in power distribution systems</li> <li>Explain methods of remedying specific scenarios based on faults and defects in power distribution systems</li> <li>Describe the applications of different tools and equipment for the purpose of maintenance and troubleshooting</li> <li>Describe communication protocols, procedures and requirements such as</li> <li>Conveying information</li> <li>Describing telephone and radio protocols</li> <li>Writing safety reports, injury reports, occurrence reports, inspection reports and work reports</li> </ul> </li> </ul>	*Poles and Spans (0.5 hr)	*Poles and Spans (1 hr) *Double cross arm (1.50 hours practical) *Down guy and strut (1.25 practical) *Down guy (0.5 hour practical) *Head guy and back guy (1.25 hours practical)	*Conductor Stringing (1 hour) *Operating puller/tensioner (1 hour) *Setting up tensioner/puller (1.5 hours practical) *Installing pole master pilot line system (1.5 hours practical) *Installing stand-off and traveler (2 hour) *Installing feeder dead-end (3 hours practical)	*Feeder Systems (scenarios) (8 hours) *Power cuts (emergency situations) (1 hour)

Learning Outcome	Level 1	Level 2	Level 3	Level 4
<ul> <li>Reading and interpreting manuals, manufacturers' specifications, legislation, safety procedures and testing and maintenance procedures</li> <li>Describing and demonstrating hand signals and audible signals</li> </ul>				
The apprentice is able to:  Read and interpret plans and blueprints  Describe types of contact conductor systems  Describe procedures for installing and removing contact conductor and suspension in the following locations: intersections, loops, tangents, yards, underpasses, and tunnels  Describe procedures for inspecting and maintaining contact conductor systems  Describe procedures for inspecting and maintaining contact conductor systems  Describe common defects and faults in overhead contact systems  Describe causes of faults and defects in overhead contact systems  Explain methods of remedying specific scenarios based on faults and defects in overhead contact systems  Explain methods of remedying specific scenarios based on faults and defects in overhead contact systems  Describe the applications of different tools and equipment for the purpose of maintenance and troubleshooting  Describe communication protocols, procedures and requirements such as  Conveying information  Describing telephone and radio protocols  Writing safety reports, injury reports, occurrence reports, inspection reports and work reports  Reading and interpreting manuals, manufacturers' specifications, legislation, safety procedures and testing and maintenance procedures  Describing and demonstrating hand signals and audible signals	*Poles and Spans (0.5 hr)	*Poles and Spans (1 hr) *LRT Installation and Maintenance (2 hours) *Installation of down guy (1 hour) *Section Insulator – sectioner (2.5 hours practical) *Section Insulator – No Bo (2.5 hours practical) *Stich Assembly (2.5 hours practical) *Double cross arm (1.00 hours practical) *Adjustable cross over (2.5 hours practical) *Rigid Cross over (2.5 hours practical) *Down guy and strut (1.25 practical) *Down guy (0.5 hour practical) *Down guy (0.5 hour practical) *Head guy and back guy (1.25 hours practical) *Head guy and back guy (1.25 hours practical) *Head guy and back guy (1.25 hours practical) *Mechanical Ear, Double, Cap & Cone (2.5 hours practical) *Mechanical Ear, Double, Cap & Cone (2.5 hours practical) *Mechanical Ear & AGC (1 hour practical) *FPO, PO Install with Blue Clamps (2 hour practical)	*Trolley wire tensions ( 1hour) *Conductor Stringing (1 hour) *Operating puller/tensioner (1 hour) *Intersection construction (2 hours) *Setting up tensioner/puller (1.5 hours practical) *Installing pole master pilot line system (1.5 hours practical)	*Power cuts (emergency situations) (1 hour) *Overhead contact Systems (scenarios) (7 hours)

Learning Outcome	Level 1	Level 2	Level 3	Level 4
The apprentice is able to:  Describe types of track switch systems  Describe components of track switch systems  Describe procedures for installing and removing track switch system components  Describe procedures for inspecting and maintaining track switch systems  Describe common defects and faults intrack switch systems  Describe causes of faults and defects in track switch systems  Explain methods of remedying specific scenarios based on faults and defects in track switch systems  Explain methods of remedying specific scenarios based on faults and defects in track switch systems  Describe the applications of different tools and equipment for the purpose of maintenance and troubleshooting  Describe communication protocols, procedures and requirements such as  Conveying information  Describing telephone and radio protocols  Writing safety reports, injury reports, occurrence reports, inspection reports and work reports  Reading and interpreting manuals, manufacturers' specifications, legislation, safety procedures and testing and maintenance procedures  Describing and demonstrating hand signals and audible signals	*T-3M electric switch box (2 hours) *Alcatel Wayside equipment (2 hours)	*T-3M electric switch box (2 hours) *Alcatel Wayside equipment (2 hours)	*Troubleshooting SEL switch (2 hours) *Troubleshooting cylinder & loops (2 hours) *Installing AC/DC fuse and SEL boxes (3 hours practical) *Installing loop wire splice (2 hours practical) *SEL Box connections (3 hours practical) *Installing cylinder splice/plugs (2 hours practical) *Operating puller/tensioner (8 hours practical)	*SEL switches and cylinder (scenarios) (4 hours)
<ul> <li>1212 Training, Instructing and Mentoring 2.0 hours</li> <li>The apprentice is able to: <ul> <li>Describe principles of adult learning</li> <li>Describe instructing, coaching and mentoring methods and their differences</li> <li>Describe reporting and documentation approaches to employee development</li> <li>Describe differences in roles and responsibilities of apprentices and journeypersons</li> </ul> </li> </ul>				*mentorship, training and instructional techniques (2 hours)

Learning Outcome	Level 1	Level 2	Level 3	Level 4
<ul> <li>1213 Selecting, Operating and Maintaining Hand and Power Tools, Measuring and Testing Devices 6.0 hours         The apprentice is able to:         <ul> <li>Identify and describe the correct application of hand and power tools</li> <li>Identify and document defects or deficiencies in hand and power tools</li> <li>Select tools for task</li> <li>Identify and describe hand and power tool inspection, operation, maintenance and storage procedures</li> <li>Describe procedures for completing minor adjustments of tools</li> </ul> </li> <li>Describe the applications of different tools and equipment for the purpose of maintenance and troubleshooting</li> <li>Describe communication protocols, procedures and requirements such as         <ul> <li>Conveying information</li> <li>Describing telephone and radio protocols</li> <li>Writing safety reports, injury reports, occurrence reports, inspection reports and work reports</li> <li>Reading and interpreting manuals, manufacturers' specifications, legislation, safety procedures and testing and maintenance procedures Describing and demonstrating hand signals and audible signals</li> </ul> </li> </ul>	*use and maintenance of hand and power tools (2 hours) *Hot Sticks (1 hour practical) *Rubber gloves (1 hour practical)	*Torque wrenches (1 hour)	*Meter orientation (1 hour)	
Assessment and Testing – hours guidelines and recommendations 24.0 hours	8 hour level 1 testing (4 hours written and 4 hours practical)	8hour level 1 testing (4 hours written and 4 hours practical)	8 hour level 1 testing (4 hours written and 4 hours practical)	Note: The suggested teaching and assessment model for level 4 is scenario based in the theory outcomes.
Total Curriculum hours per level	100 hours	66 hours	61 hours	73 hours
Total Curriculum hours: 300 hours				

Acronyms			
CVIR	CVIR Commercial Vehicle Inspection Report		
HIRA Hazard Incident Risk Assessment			
MAESD Ministry of Advanced Education and Skills Development			
OHSA	Occupational Health and Safety Act		
OSAP	Overhead Safety Assessment Process		
PPE	Personal Protective Equipment		

### **Trade Related Glossary**

This glossary was developed for the exclusive purpose of providing consistent training in this trade.

**De-energize** Isolate and ground

Handcoil Method for the manual dispension of a small

amount of trolley wire

Physical Demand Analysis A systematic procedure to quantify, and evaluate all

of the physical and environmental demand

components of all essential and non-essential tasks

of a job

**Surface Traction Power Map** Power distribution network systems

Switch Incident Report Records values and conditions

#### **Definitions**

#### Apprentice

- An individual who, pursuant to a registered Training Agreement, is receiving or is to receive training in a trade that is required as part of an apprenticeship program
- Holds a Training Agreement in either a compulsory or non-compulsory trade;
- Are subject to any ratios that have been set out in regulation and or recommended by industry for their trade(s);
- Remain as an Apprentice until they receive their Certificate of Apprenticeship

#### **BOSTA**

Building Opportunities in the Skilled Trades Act, 2021 (BOSTA)

#### **Certificate of Apprenticeship (C of A)**

A certificate issued to individuals who have demonstrated that they have completed an apprenticeship program in Ontario.

#### **Certificate of Qualification (C of Q)**

A certificate issued to an individual who has completed an apprenticeship or equivalent AND passed the Certificate of Qualification examination.

#### Competence

The ability of an individual to perform a skill, consistently without assistance, in the workplace as set out in the Logbook.

#### **Competency Analysis Profile (CAP Chart)**

A chart that identifies the training needs of an individual trade and details the skills/skill sets that must be demonstrated during an apprenticeship program.

#### Journeyperson

Journeyperson means an individual who holds a certificate of qualification (in a compulsory or non-compulsory trade) and/or an individual who practices as a journeyperson in a non-compulsory trade who does not hold a certificate of qualification and has equivalent experience in that trade.

#### **Mandatory Skill**

Status assigned to unshaded individual skills, skill sets or general performance objectives which must be signed-off for the Apprentice to complete their program.

#### **Optional Skill**

Status assigned to shaded individual skills, skills sets or general performance objectives for which sign-off is not required for the Apprentice to complete the program.

#### **Provisional Certificates of Qualification**

- A Provisional Certificate of Qualification is issued to an individual who has
  obtained a Certificate of Apprenticeship (in both compulsory and non-compulsory
  trades) in a program that has a Certificate of Qualification examination, to which
  the individual has not yet passed the Certificate of Qualification examination.
- A Provisional Certificate of Qualification shall have the prescribed term or, if no term is prescribed, a term of one year.
- In a compulsory trade, the Provisional Certificate of Qualification allows a person to continue working legally in the trade for up to 12 months while they work to pass the certifying exam.
- Individuals with a Provisional Certificate of Qualification are subject to any ratios that have been set out for their trade(s).

#### **Ratios**

For the purpose of an Apprenticeship program, a ratio is the maximum number of Journeypersons to Apprentices. The purpose of ratios is to provide consistent supervision, training and continuity of work.

#### Sign-off

Signature of the Sponsor of record, or an individual to whom that Sponsor has delegated signing authority, (e.g. Trainer) indicating an Apprentice's demonstration of competence.

#### Skill

Individual competency/task described in the Logbook.

#### **Skill Sets**

Group or selection of individual skills found in the Logbook.

#### **Skill Set Completion for Sponsors**

Listing for all skill sets and includes space for sign-off by Sponsor of record.

#### **Sponsor**

Means a person that has entered into a registered Training Agreement under which the person is required to ensure that an individual is provided with workplace-based training in a trade as part of an apprenticeship program.

#### **Sponsor of Record**

Refers to the Sponsor documented as being signatory to the registered Training Agreement or Contract of Apprenticeship. In order for a Sponsor to be considered for the training of Apprentices, they must identify that the workplace has qualified persons or the equivalent on site, and can identify that the workplace has the tools, equipment, materials, and processes which have been identified by the Industry representatives for the trade.

#### **Trainer**

An individual who oversees the performance of a task and sets the workplace expectations and practices for the Apprentice. For a compulsory trade, a qualified Trainer is an individual who holds a Certificate of Qualification. In a non-compulsory trade, a Trainer is an individual who either holds a CofQ, CofA, or is considered equivalent.

#### Ready to Write Your Exam?

Many of the skilled trades in Ontario have a final certification examination that you must pass to become certified in your trade. Passing the examination gives you the right to hold yourself out as a Journeyperson and receive a Certificate of Qualification in your trade.

There are two types of trade certification examinations in Ontario:

- 1. Provincial (Ontario) examinations which lead to a Certificate of Qualification.
- Red Seal examinations which lead to a Certificate of Qualification with an Interprovincial Red Seal endorsement.

If a trade is designated as Red Seal in Ontario, you will be writing the Red Seal examination. To access the Red Seal preparation guide please visit: <a href="red-seal.ca">red-seal.ca</a>

#### **Ontario's Exam Preparation Guide**

Exam Resources - Skilled Trades Ontario

#### **Basic Examination Details for You to Know**

- You will have up to four hours to write your examination.
- Accommodations must be requested and approved prior to scheduling your examination.
- You can leave the examination centre if you complete the examination in less than four hours.
- Exam questions are multiple choice with four options from which you must choose the correct answer. Your examination may have between 90 and 150 multiple choice questions.
- You need a mark of 70% to pass.

#### **Scheduling Your Examination**

The examination scheduling process is currently outlined in detail on the Skilled Trades Ontario website: <a href="Exam Scheduling - Skilled Trades Ontario">Exam Scheduling - Skilled Trades Ontario</a>

#### Remember these 3 basic steps:

- 1. Confirm your eligibility to write the examination with Skilled Trades Ontario.
- 2. Contact Client Services at Skilled Trades Ontario to pay your examination fee.
- Contact the local Service Delivery Office to schedule your examination in their examination centre: <a href="https://www.ontario.ca/page/employment-ontario-apprenticeship-offices">https://www.ontario.ca/page/employment-ontario-apprenticeship-offices</a>

#### Instructions for Recording a Change in Sponsor

- 1. Record your first sponsor's information in Sponsor Record #1 this would be the sponsor who has signed your initial apprenticeship Training Agreement for this trade.
- 2. If you do change sponsors prior to completing this apprenticeship, please contact your local Service Delivery Office immediately to update your sponsor record.
- 3. Please make sure you record all the information regarding any additional sponsors of record towards your apprenticeship using the Sponsor Records on the following pages (if applicable).

You must fill out a Change of Sponsor Record each time you change your sponsor.

#### **Sponsor Record #1**

Sponsor Information	
Apprentice Name	
Training Agreement #	Date (mm/dd/yy)
Sponsor Name	
Address	
Telephone	
E-mail Address	
Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	
As the Sponsor, I hereby confirm thoest of my knowledge.	at the above information is true and accurate to the
Signature:	Date: (mm/dd/yy)

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

\*If you need additional copies of the Sponsor Record, visit <u>SkilledTradesOntario.ca</u> and search Sponsor Record Form.

#### **Change of Sponsor Record #2**

Sponsor Information	
Apprentice Name	
Training Agreement #	Date (mm/dd/yy)
Sponsor Name	
Address	
Telephone	
E-mail Address	
Summary of Training	
Employment Start Date	
Employment End Date	
Total hours of training & instruction between dates of employment.	
Skill Sets Completed	
As the Sponsor, I hereby confirm thoest of my knowledge.	at the above information is true and accurate to the
Signature:	Date: (mm/dd/yy)

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

\*If you need additional copies of the Sponsor Record, visit <u>SkilledTradesOntario.ca</u> and search Sponsor Record Form.

#### **Change of Sponsor Record #3**

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		
Summary of Training		
Employment Start Date		
Employment End Date		
Total hours of training & instruction between dates of employment.		
Skill Sets Completed		
As the Sponsor, I hereby confirm the sest of my knowledge.	hat the above information is true ar	nd accurate to the
Signature:	Date: (mm/dd/y	/y)
·	sign-off and date the skills after the	• •

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

<sup>\*</sup>If you need additional copies of the Sponsor Record, visit <u>SkilledTradesOntario.ca</u> and search Sponsor Record Form.

#### **Change of Sponsor Record #4**

Sponsor Information		
Apprentice Name		
Training Agreement #		Date (mm/dd/yy)
Sponsor Name		
Address		
Telephone		
E-mail Address		
Summary of Training		
Employment Start Date		
Employment End Date		
Total hours of training & instruction between dates of employment.		
Skill Sets Completed		
As the Sponsor, I hereby confirm thoest of my knowledge.	at the above information is true a	nd accurate to the
Signature:	Date: (mm/dd/	уу)
The Sponsor is required to	sign-off and date the skills after th	e Apprentice

The Sponsor is required to sign-off and date the skills after the Apprentice has proven competence in those skills. However, if a skill is shaded, it is optional and does not need to be signed-off.

\*If you need additional copies of the Sponsor Record, visit <u>SkilledTradesOntario.ca</u> and search Sponsor Record Form.

#### Appendix A — Instructions for Apprenticeship Program Completion

Once an Apprentice has completed all the classroom training and benchmark on-the-job hours specified for the trade and has acquired all the mandatory skills included in this Logbook.

The Apprentice and the Sponsor complete the Apprentice Completion Form and the Skill Set Completion for Sponsors Form located on the following pages.

- 1. They sign the forms and submit them to their local Service Delivery Office. To find the closest office, check the contact information at <a href="mailto:ontario.ca/page/employment-ontario-apprenticeship-offices">ontario.ca/page/employment-ontario-apprenticeship-offices</a> or call the Employment Ontario toll free number at (1-800-387-5656).
- 2. For All Trades: All mandatory skills (or the combination indicated in the completion requirements for the trade) in the Logbook must be signed-off. The recommended hours are a benchmark. If the Sponsor is completing the Apprentice before the industry recommended training hours are done, staff may request further information regarding the Apprentice's on-the-job training. An example of a request would be a letter from the Sponsor confirming the Apprentice worked for some time in the trade before the initial Training Agreement was registered, thereby acquiring some skills beforehand.

If Apprentices are submitting the completion request form and supporting documentation to their local Service Delivery Office by mail, fax, or email (as a scanned document), they should not include their Logbook; if they are presenting this form in person at the local Service Delivery Office, they should bring their Logbook with them.

After staff verifies all the information in the completion request, they may contact either the Apprentice or the Sponsor for further information or documentation. Once the completion has been confirmed, the local Service Delivery Office will issue a Certificate of Apprenticeship to the Apprentice.

Skilled Trades Ontario will receive notification of this completion.

- If the Apprentice has completed a program in a compulsory trade, Skilled Trades
  Ontario will automatically register the Apprentice for a Provisional Certificate of
  Qualification to continue to work legally for one year while preparing for the
  certification examination.
- If an Apprentice completes their apprenticeship in a non-compulsory trade and there is a Certificate of Qualification exam, they must write and pass the exam to receive a Certificate of Qualification from Skilled Trades Ontario.

For permission to schedule an exam once completion is confirmed, the individual must first contact the Skilled Trades Ontario Client Services Department at 647-847-3000 or toll free at 1-855-299-0028 to pay the certification examination fee. Once you have paid your exam fee with Skilled Trades Ontario, book your exam by contacting your nearest Employment Ontario local Service Delivery Office.

#### **Appendix B — Apprentice Completion Form**

Please fill out both sides of this form, including the Skill Set Completion for Sponsors (see back of form). Once both sides are completed, submit the form to your local Service Delivery Office (find contact information at <a href="https://ontario.ca/page/employment-ontario-apprenticeship-offices">ontario-apprenticeship-offices</a> or by calling Employment Ontario at (1-800-387-5656).

Apprentice Information				
Name (print)				
Client ID # Issued by Ministry				
Telephone Number(s)				
Sponsor Information				
Legal Name				
Address				
Telephone Number(s)				
Sponsor's Signing Authority (print name)				
E-mail Address				
Program Information				
Trade Name				
Number of hours required as per Agreement (hours-based trade	_			
Hours completed? (documentation attached)		Yes ( )	No ( )	Not applicable()
Classroom training completed or exempt? Y		Yes ( )	No ( )	Not applicable ( )
hereby confirm that the information submitted on both sides of this form is true and accurate.				
ζ	x			
X				

#### **Appendix C — Skill Set Completion for Sponsors**

You will find the skill set numbers and titles in the Logbook's Table of Contents. By signing off each skill set in the table below, you are providing final confirmation, as the Apprentice's Sponsor, that the Apprentice has demonstrated competency in all the mandatory skills included in the skill set.

Skill Set #	Skill Set Title	Signing Authority Signature
6601	Apply Safe Workplace Practices	
6602	Maintain Tools and Equipment	
6603	Communicate and Access Information in the Workplace	
6604	Build and Maintain Aerial Feeder Systems	
6605	Build and Maintain Overhead Contact Systems	
6606	Build and Maintain Electrical Track Switch Systems	
6607	Maintain Lighting Systems	
6608	Protect the Environment	

Ministry of Labour, Immigration, Training and Skills Development use only:			
Sponsor verified as most recent sponsor of record:		Yes ( )	No ( )
Documentation to support completion of hours attached:		Yes ( )	No ( )
Completion of classroom training verified:		Yes ( )	No ( )
Staff Name	Signature		<del>-</del>
Date			

### **Appendix D — Local Service Delivery Offices in Ontario**For current office listings visit: <a href="mailto:ontario.ca/page/employment-Ontario-apprenticeship-offices">ontario.ca/page/employment-Ontario-apprenticeship-offices</a>

Location	Contact	Location	Contact
<b>Barrie</b> 705-737-1431	55 Cedar Pointe Dr Unit 609, Barrie, ON L4N 5R7	<b>Marathon</b> 807-346-1550	52 Peninsula Road, Suite 103 Marathon, Ontario, P0T 2E0
<b>Belleville</b> 613-968-5558 1-800-953-6885	135 North Front St, Belleville, ON K8P 3B5	<b>Markham</b> 905-513-2695	140 Allstate Parkway, Suite 505, Markham, Ontario L3R 5Y8
<b>Brantford</b> 519-756-5197	505 Park Rd North Suite 201, Brantford, ON N3R 7K8	North Bay 705-495-8515 1-800-236-0744	200 First Ave West, North Bay, ON P1B 3B9
<b>Chatham</b> 519-354-2766 1-800-214-8284	870 Richmond St West 1st Floor, Chatham, ON N7M 5J5	Ottawa 613-731-7100 1-877-221-1220	Preston Square, 347 Preston Street, Suite 310, Ottawa, ON K1S 3H8
<b>Cornwall</b> 613-938-9702 1-877-668-6604	132 Second St East Ste 202, Cornwall, ON K6H 1Y4	Owen Sound 519-376-5790 1-800-838-9468	1450 1st Ave West, Suite 100, Owen Sound, ON N4K 6W2
<b>Dryden</b> 807-456-2665 1-800-734-9572	Provincial Government Building, 479 Government St, Dryden, ON P8N 3K9	Peel 905-279-7333 1-800-736-5520	The Emerald Centre, 10 Kingsbridge Garden Circle, Suite 404, Mississauga, ON L5R 3K6
<b>Durham</b> 905-433-0595 1-800-461-4608	78 Richmond Street West, Oshawa, ON L1G 1E1	Pembroke 613-735-3911 1-800-807-0227	615 Pembroke St East, Pembroke, ON K8A 3L7
Elliot Lake 1-800-236-8817	50 Hillside Dr North, Elliot Lake, ON P5A 1X4	Peterborough 705-745-1918 1-877-433-6555	901 Lansdowne St West, Peterborough, ON K9J 1Z5
Fort Frances 807-274-8634	922 Scott St 2nd Flr, Fort Frances, ON P9A 1J4	<b>Sarnia</b> 519-542-7705 1-800-363-8453	Bayside Mall, 150 Christina St North, Sarnia, ON N7T 7W5
<b>Geraldton</b> 807-854-1966	208 Beamish Avenue West Geraldton, Ontario P0T 1M0	<b>Sault Ste. Marie</b> 705-945-6815 1-800-236-8817	477 Queen St East 4th Flr, Sault Ste Marie, ON P6A 1Z5
<b>Halton</b> 905-842-5105 1-844-901-5105	700 Dorval Dr., Suite 201, Oakville, ON L6K 3V3	<b>St Catharines</b> 905-704-2991 1-800-263-4475	Garden City Tower, 301 St Paul St East, 10th Flr, St Catharines, ON L2R 7R4
Hamilton 905-521-7764 1-800-668-4479	Ellen Fairclough Bldg, 119 King St West 8th Flr, Hamilton, ON L8P 4Y7	<b>Sudbury</b> 705-564-3030 1-800-603-5999	159 Cedar St Ste 506, Sudbury, ON P3E 6A5
<b>Kapuskasing</b> 705-465-5785 705-235-1950	Ontario Government Complex, 122 Government Rd West, Kapuskasing, ON P5N 2X8	Thunder Bay 807-346-1550 1-800-439-5493	189 Red River Rd Suite 103, Thunder Bay, ON P7B 1A2
<b>Kenora</b> 807-468-2879 1-800-734-9572	227 1/2 Second St South, Kenora, ON P9N 1G4	<b>Timmins</b> 705-235-1950 1-877-275-5139	Ontario Government Complex, 5520 Highway 101 East Wing B, South Porcupine, ON P0N 1H0
<b>Kingston</b> 613-548-1151 1-866-973-4043	Alliance Business Centre, 299 Concession St Ste 201, Kingston, ON K7K 2B9	<b>Toronto Centre</b> 416-927-7366 1-800-387-5656	2 St Clair West, 11 <sup>th</sup> floor Toronto, ON M4A 1L5
<b>Kitchener</b> 519-653-5758 1-866-877-0099	4275 King St East, Kitchener, ON N2P 2E9	<b>Toronto South</b> 416-326-5800	625 Church St 1st FI, Toronto, ON M7A 2B5
<b>London</b> 519-675-7788 1-800-265-1050	1200 Commissioners Rd E, Unit 72, London, ON N5Z 4R3	<b>Windsor</b> 519-973-1441	Roundhouse Centre, 3155 Howard Ave 2nd Fl, Suite 200, Windsor, ON N8X 4Y8

#### **Competency Analysis Profile (CAP) Chart**

#### 6001 Apply Safe Workplace Practices

#### 6601.01

Take corrective action against potential workplace health and safety hazards

#### 6601.02

Take preventive action to reduce personal injury

#### 6601.03

Select and wear personal protective equipment

#### 6601.04

Maintain Personal Protective Equipment

#### 6601.05

Comply with safety review procedures

#### 6601.06

Handle workplace hazardous materials

#### 6601.07

Install protective barriers

#### 6601.08

Conduct job risk/ hazard analysis in an emergency situation

#### 6601.09

Practice good housekeeping in the workplace

#### 6602 Maintain Tools and Equipment

#### 6602.01

Select tools and equipment

#### 6602.02

Operate tools and equipment

#### 6602.03

Maintain tools and equipment before and after use

#### 6602.04

Select live line tools and metering equipment

#### 6602.05

Operate live line tools and metering equipment in emergency situations

#### 6602.06

Operate aerial lift equipment (platform trucks, bucket trucks, scissor)

#### 6602.07

Maintain aerial lift equipment (platform trucks, bucket trucks, scissor)

#### 6602.08

Select ropes and rigging equipment

#### 6602.09

Use ropes and rigging equipment

#### 6602.10

Maintain ropes and rigging equipment

i

6603
Communicate
and Access
Information in the
Workplace

### 6603.01 Access maintenance requirements

#### 6603.02 Communicate using computers

# 6603.03 Communicate with co-workers, supervisors, company representatives and other tradespersons

6603.04
Write work
reports and
standard
documentation

6603.05
Maintain service
documents

### **6603.06** Signal

6603.07

Communicate with controlling authority (transit control, power control, emergency responders) and public in emergency situation

6603.08
Create a job plan in an emergency situation

6603.09
Follow and
adjust a job plan
for maintenance
and construction
situation

6604 Build and Maintain Aerial Feeder Systems

6604.01 Install aerial feeder support brackets

#### 6604.02 Install aerial feeder terminating hardware

# 6604.03 Set up and take down pullertensioners in designated areas

## 6604.04 Attach stringing apparatus to aerial feeder support brackets

**6604.05** Pull conductors

## 6604.06 Attach aerial conductors to terminating hardware

6604.07
Transfer aerial conductors to support bracket insulators

# 6604.08 Connect conductors to lateral cables and cross-feed conductors

#### 6604.09 Splice conductors

### **6604.10** Energize aerial feeder sections

#### 6604.11 Isolate aerial feeder sections

### 6604.12 De-energize aerial feeder sections

#### 6604.13 Remove aerial conductors

# 6604.14 Remove aerial feeder support brackets, terminating hardware and connectors

6604.15 Troubleshoot aerial feeder systems

#### 6604.16

Reposition and repair a dislodged feeder (negative or positive) in an emergency situation

#### 6604.17

Raise and repair a downed positive feeder cable or negative cable in an emergency situation

# 6605 Build and Maintain Overhead Contact Systems

#### 6605.01 Install trolley wires

## 6605.02 Install tangent spans, cross feeds and equalizers

#### 6605.03 Install struts

### **6605.04** Install troughing

### 6605.05 Install contact conductors to support clamps and brackets

#### 6605.06 Connect contact conductors

### 6605.07 Remove contact conductors/ trolley wires

### 6605.08 Tension contact conductors

# 6605.09 Transfer contact conductors to support clamps and fittings

## 6605.10 Remove tangent spans, cross feeds and equalizers

6605.15

Lay out intersections

6606.05

Install power

supplies to

switch

components

#### 6605.11 6605.12 6605.13 6605.14 Remove struts Remove Remove contact Troubleshoot troughing conductor contact support brackets. conductor terminating systems hardware, connectors and fittings 6605.16 6605.17 Install contact Raise and repair conductors a downed trolley wire in an manually emergency situation 6606 6606.01 6606.02 6606.03 6606.04 Lay out loop Install loop Install electrical Install track **Build and** drawings conductors track switch switch Maintain electrical track **Electrical Track** enclosures, conductors conduit and **Switch Systems** enclosures and components 6606.06 6606.07 6606.08

Conduct an

emergency

switch inspection

Maintain and

troubleshoot

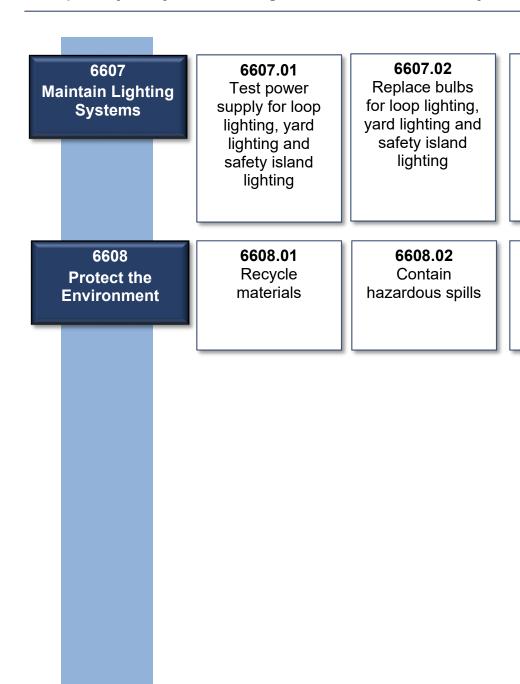
electrical track

switch systems

Connect track

switch

conductors



#### 6607.03

Terminate wires for loop lighting, yard lighting and safety island lighting in an emergency situation

#### 6608.03

Store hazardous materials in designated facilities

Notes

#### Completing Your Apprenticeship Program

Once your sponsor agrees you are competent in the required skills, your hours are complete and you have completed all the levels of classroom training required for your trade:

- ✓ Follow the completion instructions on the Completion Form (Appendix A) in the Logbook.
- Answer any questions that MLITSD staff may have and provide any additional completion documentation that may be required.
- Once completion is confirmed, MLITSD will issue you a Certificate of Apprenticeship and notify Skilled Trades Ontario.

#### After Your Apprenticeship

If you are in a trade with a certification exam, Skilled Trades Ontario will receive notice of your completion.

For compulsory trades, you will be issued a Provisional Certificate of Qualification which will allow you to work legally for up to 12 months until you write and pass your examination.

For a non-compulsory trade, once you pass your examination, you will be issued a Certificate of Qualification for your trade.

#### **Preparing For Your Exam**

- To pay for a Certificate of Qualification examination, contact Skilled Trades Ontario Client Services Department at: 647-847-3000 or toll free at 1-855-299-0028
- To schedule your exam: Once you have paid, contact your local Service Delivery Office to book your exam.
- Download Skilled Trades Ontario exam preparation guide at:
   <u>Exam Resources Skilled Trades Ontario</u> and/or view the exam preparation guide for Red Seal trades at: <u>red-seal.ca</u>



### SkilledTradesOntario.ca