

## **Appendix 5-5**

# ESRA's GR140s Workplace Safety and Health Specifications

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**GR140 – WORKPLACE SAFETY AND HEALTH SPECIFICATIONS****GR140.1 General**

- .1 This Specification covers safety and health requirements for all workers on this project.
- .2 The East Side Road Authority is committed to providing a safe and healthy workplace for workers, contractors, consultants, stakeholders, and visitors on the project and is dedicated to the continuous improvement of the Workplace Safety and Health Program.
- .3 These Contract specifications shall not be considered as inclusive of all safety and health requirements for work on the project or as set out in applicable federal or provincial legislation.
- .4 Words and phrases defined in legislation have the same meaning in this Contract, unless otherwise specified.

**GR140.2 Certificate of Recognition (COR) or Equivalent**

- .1 The Contractor shall submit annually a letter of Good Standing from the Association through whom the Contractor is COR certified, within sixty (60) days of their annual audit date.

**GR140.3 Requirement for a Written Health and Safety Program**

- .1 The Contractor shall submit a current copy of the Contractor's Safety and Health Program as defined in section 7.4 of *The Workplace Safety and Health Act* or as defined under the COR program.

**GR140.4 Prime Contractor**

- .1 The Contractor is the Prime Contractor for the Works at the Site, and, notwithstanding any of the actions of the Contract Administrator in accordance with these GRs or the Contract, shall have all of the duties and responsibilities of a Prime Contractor.
- .2 For the purposes of 7(2)(a) of *The Workplace Safety and Health Act*, the Contract entered into between the Contractor and ESRA, which incorporates these GRs, is a Contract to serve as a Prime Contractor.
- .3 In addition to his/her role as Prime Contractor, the Contractor may also be an "Employer" and "Contractor", as those roles are set out in *The Workplace Safety and Health Act*, and shall have all of the duties and responsibilities of an employer and Contractor.
- .4 The Contractor shall be solely responsible for workplace safety and health at the site and at any other locations where the Contractor's workers or Sub-Contractors undertaking the work and for compliance with all laws, rules, regulations, and practices required by the applicable construction and workplace safety legislation.
- .5 The Contractor shall ensure suitable personal protective equipment is available, used and maintained and train workers in its use, limitations, and maintenance.
- .6 The Contractor shall lead by example and promote a safe and healthy workplace.

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- .7 The Contractor shall ensure proper training for all supervisors and workers, and maintain such training records onsite.
  - .8 The Contractor shall immediately correct unsafe acts or conditions.
  - .9 The Contractor shall establish adequate communication systems (meetings, safety talks, daily pre-jobs inspections, etc.) to ensure supervisors and workers are aware of safety and health issues and maintain complete documentation regarding such communications.
  - .10 The Contractor shall evaluate and document Subcontractor safety performance.
  - .11 The Contractor shall provide competent supervision.

**GR140.5 Safe Work Plan**

- .1 The Contractor shall submit a safe work plan on the ESRA template for activities specified in the Contract a minimum of seven (7) days prior to the commencement of any work on-site.
- .2 The safe work plan shall include:
  - .1 contract for (company name)
  - .2 contract number
  - .3 location of work
  - .4 project owner
  - .5 dates of work
  - .6 Contract Administrator name and contact number(s)
  - .7 Prime Contractor and contact number(s) of:
    - (i) Project Manager
    - (ii) Site Supervisor
    - (iii) Safety Officer
    - (iv) Environment Officer
    - (v) Worker Safety and Health Representative
  - .8 scope of work / major tasks of Prime Contractor
  - .9 Subcontractor and contact number(s) of:
    - (i) Project Manager
    - (ii) Site Supervisor
    - (iii) Safety Officer
    - (iv) Environment Officer
    - (v) Work Safety and Health Representative
  - .10 scope of work / major tasks of Subcontractor
  - .11 equipment involved to complete the contract
  - .12 training requirements and qualifications

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- .13 training records availability
  - .14 personal protective equipment (ppe) required, including area / task specific ppe
  - .15 scope of work, specifically:
    - (i) work activity
    - (ii) hazards that apply to each work / task activity and ranked by severity / probability
    - (iii) control measures
    - (iv) safe work procedures availability
  - .16 control measures to protect other workers / public, specifically:
    - (i) work activity
    - (ii) hazards
    - (iii) control measures
  - .17 emergency contacts for:
    - (i) local fire department
    - (ii) ambulance service (if not, provide a procedure)
    - (iii) RCMP / band constable contact numbers
    - (iv) nearest hospital / nursing station (name and phone numbers)
    - (v) driving directions to nearest hospital / nursing station
    - (vi) map attached (map to nursing or emergency station)
    - (vii) Manitoba Conservation contact numbers
    - (viii) Workplace Safety and Health Branch contact numbers
  - .18 on-site emergency responders and equipment:
    - (i) on-site emergency coordinator
    - (ii) on-site back up emergency coordinator
    - (iii) emergency communication devices used on-site for summoning assistance and site evacuation
    - (iv) standby emergency transportation vehicle on-site
    - (v) list of all first aiders
    - (vi) location of all first aid kits
    - (vii) location of all fire extinguishers
    - (viii) location of spill kits
    - (ix) location of eye wash station
    - (x) location of material safety data sheets (msds) or safety data sheets (sds)
    - (xi) location of muster points
  - .19 approval, signature and date of:
    - (i) person drafting this safe work plan
    - (ii) Project Manager
    - (iii) Contractor's safety person
    - (iv) Contractor's worker safety representative
- .3 The Contractor shall forward copies of all requested safe work procedures to the Contract Administrator within three (3) working days of the request.

**GR140.6 Orientation and Training**

- .1 The Contractor shall ensure that every worker, including Subcontractors, visitors and all other persons attending the jobsite, attend a project specific safety orientation facilitated by the Contractor. An orientation must always be given to new workers as defined under *The Workplace Safety and Health Act*. New workers will be required to sign an attendance / acknowledgement sheet.
- .2 The Contractor shall develop an Orientation that includes, as a minimum:
  - .1 Employer and worker rights and responsibilities under *The Workplace Safety and Health Act*, and applicable regulations.
  - .2 Name and contact information of the new worker's supervisor.
  - .3 Procedure for reporting unsafe acts and conditions at the workplace.
  - .4 Procedure for exercising the right to refuse dangerous work at the workplace.
  - .5 Contact information for the Safety and Health Committee or Safety Representative.
  - .6 Any policies, programs and safe work procedures that the employer is required to develop as stated in *The Workplace Safety and Health Act* and applicable regulations that apply to the work to be done by the worker.
  - .7 Any hazards to which the worker may be exposed and the control measures undertaken to protect the worker.
  - .8 Emergency procedures (first aid, fire, evacuation, etc).
  - .9 Location of first aid facilities / means of accessing first aid / procedures for reporting illnesses and injuries.
  - .10 Emergency contacts / first aid personnel / reporting phone numbers.
  - .11 Identification of prohibited or restricted areas of activities.
  - .12 Review of the safe work plan.
  - .13 Site access (parking, haul roads, etc.).
- .3 The Contractor shall ensure that their Supervisors and Workers, including all Subcontractors have received the appropriate training and certification in safety and health to ensure they are competent to perform all required work in a safe manner. Training records must be requested and retained by the Contractor and made available to the Contract Administrator upon request. Required training may include, but is not limited to:
  - .1 *Manitoba Workplace Safety and Health Act and Regulation*
  - .2 *Manitoba Regulations 212/2011, Operation of Mines Regulation*
  - .3 Blasters certificate issued by The Manitoba Workplace Safety and Health Division
  - .4 Construction Safety Association of Manitoba (CSAM)

- .5 Manitoba Heavy Construction Association Work Safely Program
- .6 Workplace Hazardous Material Information System (WHMIS) or Global Harmonized System
- .7 Transportation of Dangerous Goods (TDG)
- .8 First Aid and CPR under the *Manitoba Regulation 217/2006, Part 5*
- .9 Flagperson certification

**GR140.7 Reporting Procedures**

- .1 The Contractor shall submit a Monthly Project Site Safety Summary on the ESRA template to the Contract Administrator.
- .2 The Summary shall be submitted to the Contract Administrator by the 15<sup>th</sup> of the following month.
- .3 The Monthly Project Site Safety Summary shall include:
  - .1 project name and number
  - .2 month and year
  - .3 type of work
  - .4 Prime Contractor
  - .5 Prime Contractor Site Representative
  - .6 Contract Administrator
  - .7 number of worker orientations conducted (attach attendance sheets)
  - .8 number of toolbox meetings conducted (attach copy of toolbox talks)
  - .9 number of jobsite inspections conducted (attach copy of reports)
  - .10 explosives inventory submitted, if applicable
  - .11 number of incidents / injuries reported, identifying:
    - (i) number of property damage(s)
    - (ii) number of near misses
    - (iii) number of injuries, specifically: first aid, medical aid and loss time
  - .12 number of incidents / injuries investigations conducted
  - .13 corrective actions recorded on incident reports
  - .14 comments
  - .15 signature and date of Prime Contractor's Site Representative

- .4 Weekly Toolbox Talks  
The Prime Contractor and Subcontractors will conduct weekly toolbox talks covering topics applicable to worksite operations. Records of the toolbox talks shall be submitted to the Contract Administrator along with the Monthly Project Safety Summary and shall include:
  - .1 topic;
  - .2 attendance (signatures);
  - .3 company and facilitators name; and
  - .4 date, time and location.

#### **GR140.8 Project Safety Information Board**

- .1 A general safety bulletin board(s) shall be erected by the Contractor to display safety legislation, specifically:
  - .1 Company Safety and Health Policy
  - .2 Harassment Prevention Policy
  - .3 Violence Prevention Policy
  - .4 Working Alone Safe Work procedure
  - .5 First Aiders List with expiration date of certification
  - .6 Emergency Procedures
  - .7 Any Improvement Order or Report, if recommended to be posted by a Safety and Health Officer of the Workplace Safety and Health Division

#### **GR140.9 Workplace Safety and Health Committee**

- .1 The Contractor shall hold regular safety and health committee meetings as specified in *The Workplace Safety and Health Act*.
- .2 Minutes of these meetings must be forwarded to the Contract Administrator within ten (10) days of the meeting.
- .3 When a Workplace Safety and Health committee exists, post the following:
  - (i) committee member names with the date of each member's office expiry date,
  - (ii) scheduled dates of committee meetings,
  - (iii) agenda for each meeting; and
  - (iv) a copy of the minutes from each meeting with required signatures until all matters resolved.
- .4 When a Safety Representative exists, post the following:
  - (i) name of the safety representative,
  - (ii) scheduled dates of meetings; and
  - (iii) an agenda for each meeting.



**GR140.10 Workplace Safety and Health Representative**

- .1 A workplace with five (5) or more workers must elect a safety and health representative.
- .2 The responsibilities of the workplace safety and health representative shall be, but are not limited to:
  - .1 attend required meetings;
  - .2 investigate workplace incident(s) and participate with inspections;
  - .3 act as the site safety contact for on-site workers; and
  - .4 must approve and sign safe work plan.

**GR140.11 Required Acts / Regulations on Site**

The Contractor shall ensure that any additional legislation required during the lifetime of the contract is available on site.

General:

- .1 The Contractor shall ensure copies of *The Workplace Safety and Health Act and Regulation(s)* are available at each work site.
- .2 The Contractor shall ensure copies of *The Canada Labour Code, Part II and Regulations* are available at each work site.

Blasting:

- .1 The Contractor shall ensure copies of the:
  - .1 *Government of Canada, Natural Resources, The Explosives Safety and Security Branch, Explosives Act*
  - .2 *Government of Canada, Natural Resources, Explosives Regulations, 2013*
  - .3 *Government of Canada, Natural Resources, Explosive Resources* (applications, forms, guidelines, directives, standards, etc.)
- .2 The Contractor shall ensure copies of *The Operation of Mines Regulation, Manitoba Regulation 212/2011* is available on site.
- .3 The Contractor shall ensure *The Quarry Minerals Regulation, 1992, Manitoba Regulation 65/92* is available on site.

**GR140.12 Contract Interface**

- .1 All Contract Interface Areas (CIA), if any, between adjacent Contracts are defined as controlled areas, and shall be shown on the drawings.
- .2 Further to GR140.4, the Contractor's Prime Contractor responsibilities shall be defined by the construction limits at the site and the Contractor shall not work outside these construction limits. When the Contractor works within fifty (50) m of his construction limits, he/she shall contact the Contract Administrator.

- .3 If any of the Contractors working on adjacent Contracts wish to request access to a particular interface area outside of their assigned dates, he/she shall notify the appropriate Contract Administrator in writing. If the responsible Prime Contractor agrees in writing to allow access to the interface area, then the Contractor working outside of his/her assigned time period shall fall under the responsibility of the Prime Contractor. The agreement to allow an adjacent Contractor access into the interface area shall be in writing prior to any work being undertaken, equipment mobilized, and materials deposited / removed, as accepted by the Contract Administrators for all affected Contracts.
- .4 When the Contractor has completed all required work within each of the interface areas, he/she shall notify the Contract Administrator in writing.
- .5 The Contractor shall notify the Contract Administrator in writing his/her intent to work within each of the interface areas a minimum of five (5) working days prior to equipment and material mobilization, even if he/she is working within his assigned time periods.

#### **GR140.13 Personal Protective Equipment**

- .1 The Contractor shall establish a Personal Protective Equipment (PPE) Program for the project to ensure the equipment is suitable for the job, maintained and used. General PPE required to be worn on the project must be put on before entering the project site. At minimum, each worker must be trained in the use, care and limitations of:
  - .1 Head Protection (Mandatory)
    - (i) must be CSA approved
    - (ii) must be Type 2, Class E with a peak
  - .2 Foot Protection (Mandatory)
    - (i) must be Grade 1 CSA approved work boot
    - (ii) must be minimum six (6) inches in height
    - (iii) must cover the ankle
  - .3 High Visibility Clothing (Mandatory)
    - (i) must be CSA approved
    - (ii) must be Class 2, Level 2
  - .4 Eye and Face Protection (Mandatory)
    - (i) CSA approved safety glasses must be worn where the hazard of eye injuries exist. Side shields must be utilized with prescription safety glasses
  - .5 Hand / Skin (Mandatory)
    - (i) gloves suitable for the hazards (chemicals, chainsaw operation, material handling)

- .6 Hearing Protection (Job Specific)
  - (i) hearing protection must be available where noise levels exceed 85 dBA
  - (ii) either plugs or muffs (or both)
  
- .7 Respiratory Protection (Job Specific)
  - (i) NIOSH approved respirator protection must be supplied to and used by all workers potentially exposed to a noxious dust, gas, vapour, mist or fume
  - (ii) respiratory equipment must be fit tested
  
- .8 Chainsaw (Job Specific)
  - (i) chainsaw hardhat complete with safety visor made of nylon or metal
  - (ii) hearing protection
  - (iii) gloves
  - (iv) chainsaw pants or chaps
  
- .9 Flagperson (Job Specific)
  - (i) CSA Class 3 Level 2, high-visibility apparel in fluorescent yellow green
  - (ii) Protective headwear in a fluorescent colour (equipped with retro-reflective tape during hours of darkness)
  - (iv) must be Grade 1 CSA approved work boot

**GR140.14 Fall Protection**

- .1 The Contractor shall ensure that workers are trained in the use of fall protection as required in *MR 217/2006, Part 14*; and *MR 212/2011 Parts 4 and 12*.

**GR140.15 First Aid and Emergency Procedures**

- .1 Emergency occurrences including incidents (i.e. people, vehicle, equipment, material or property damage) must be reported to the Contract Administrator as soon as reasonably practicable.
- .2 Emergency numbers shall be posted in site trailers, carried near satellite phones, M-Sat phones, 2-way radios, and any other form of communication used at the work site.
- .3 Workers shall be made aware of site specific emergency plans and evacuation procedures during their Prime Contractor orientation and as the job changes during the project. Evacuation procedures shall be conspicuously posted on Safety and Health Program Boards in areas that may be utilized by all workers.
- .4 Muster point signs shall be posted.

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- .5 Emergency response plans shall be prepared for:
- .1 personal injury;
  - .2 fire;
  - .3 explosion; and
  - .4 spills.
- .6 First aid trained personnel shall meet requirements as stated in *MR 217/2006, Part 5*.
- .1 Definitions:
- (i) “close workplace” means a workplace from which, under normal travel conditions and using the means of transportation used at the workplace in an emergency, an ill or injured worker can be transported to a medical facility in **thirty** (30) minutes or less.
  - (ii) “distant workplace” means a workplace from which, under normal travel conditions and using the means of transportation used at the workplace in an emergency, an ill or injured worker can be transported to a medical facility in two (2) hours or less.
  - (iii) “isolated workplace” means a workplace
    - (a) that is normally accessible only by air; or
    - (b) from which, under normal travel conditions and using the means of transportation used at the workplace in an emergency, an ill or injured worker cannot be transported from the workplace to a medical facility within two (2) hours or less.
  - (iv) “medical facility” means
    - (a) a hospital;
    - (b) a medical clinic;
    - (c) a physician’s office; or
    - (d) a nursing station operated and administered by the Government of Manitoba or Canada or both, or operated by a person or entity under an agreement with one or both governments.

- .7 The Prime Contractor shall ensure the following requirements are met with respect to required first aid trained personnel on-site:

| Table 1                     |                 |            |
|-----------------------------|-----------------|------------|
|                             | Close Workplace |            |
| Number of Workers per shift | Low hazard work | Other work |
| 1 to 10                     | -               | -          |
| 11 to 40                    | FA1             | FA2        |
| 41 to 100                   | FA1             | 2 FA2s     |
| 101 to 199                  | 2 FA1s          | 2 FA2s     |
| 200 or more                 | 3 FA1s          | 3 FA2s     |

| Table 2                     |                   |            |
|-----------------------------|-------------------|------------|
|                             | Distant Workplace |            |
| Number of Workers per shift | Low hazard work   | Other work |
| 1 to 10                     | -                 | FA1        |
| 11 to 40                    | FA1               | FA2        |
| 41 to 100                   | FA1               | 2 FA3s     |
| 101 to 199                  | 2 FA1s            | 2 FA3s     |
| 200 or more                 | 3 FA1s            | 3 FA3s     |

| Table 3                     |                    |            |
|-----------------------------|--------------------|------------|
|                             | Isolated Workplace |            |
| Number of Workers per shift | Low hazard work    | Other work |
| 1 to 10                     | FA1                | FA2        |
| 11 to 40                    | FA1                | FA3        |
| 41 to 100                   | 2 FA1s             | 2 FA3s     |
| 101 to 199                  | 2 FA1s             | 3 FA3s     |
| 200 or more                 | 3 FA1s             | 4 FA3s     |

- .8 The individuals who are acting as First Aiders on the site must meet all of the qualifications as set out in legislation, and must provide proof of their qualifications to the Contract Administrator prior to starting work on-site.
- .9 The Prime Contractor shall identify first aid trained personnel on-site.
- .10 The Contractor shall ensure the required number of first aid kits are on site.
- .11 The Contractor shall ensure drills are conducted to familiarize workers with emergency procedures.
- .12 The Contractor shall ensure the required number of fire extinguishers is on-site for emergency purposes.
- .13 Emergency eyewash station(s) shall be provided at the workplace.

**GR140.16 Incident Reporting**

- .1 The Contractor shall report all incidents including personal injury, property damage, and near misses.
- .2 The Contractor shall provide a preliminary report to the Contract Administrator within twelve (12) hours of the incident.
- .3 The Contractor shall provide a detailed incident report within twenty-four (24) hours of the occurrence to the Contract Administrator.
- .4 The Contractor's reports shall include corrective action, and a time frame to implement the corrective action.
- .5 The Contractor shall inform workers on site by the next scheduled shift of the incident particulars through a tool box talk, posted notice, or other means of communication acceptable to the Contract Administrator.
- .6 If required, the Contractor shall contact the required authorities within the time frame identified in the applicable legislation. (i.e. *The Workplace Safety and Health Act, The Workers Compensation Board*)
- .7 The following serious incidents must be reported immediately to the *Workplace Safety and Health Division* by the fastest means of communication available:
  - .1 in which a worker is killed;
  - .2 in which a worker suffers;
    - (i) an injury resulting from electrical contact,
    - (ii) unconsciousness as a result of a concussion,
    - (iii) a fracture of his or her skull, spine, pelvis, arm, leg, hand or foot,
    - (iv) amputation of an arm, leg, hand, foot, finger or toe,
    - (v) third degree burns,
    - (vi) permanent or temporary loss of sight,
    - (vii) a cut or laceration that requires medical treatment at a hospital as defined in *The Health Services Insurances Act*, or
    - (viii) asphyxiation or poisoning; or
  - .3 that involves;
    - (i) the collapse or structural failure of a building, structure, crane, hoist, lift, temporary support system or excavation,
    - (ii) an explosion, fire or flood,
    - (iii) an uncontrolled spill or escape of a hazardous substance, or

(iv) the failure of an atmosphere-supplying respirator.

.8 All incident reports shall be reviewed by the ESRA Safety Manager.

#### **GR140.17 Sanitary Facilities**

.1 The Contractor shall supply the following at each work site:

- .1 Drinking water as per *MR 217/2006*, Parts 4.6(1), 4.6(2), and 4.6(3).
- .2 Toilet facilities and washbasins as per *MR 217/2006*, Parts 4.7, 4.8(1), 4.8(2), 4.8(3), and 4.8(4).
- .3 Hand cleaning facilities as per *MR 217/2006*, Part 4.10.

#### **GR140.18 Thermal Stress**

.1 The Contractor is responsible to implement safe work procedures and control measures when a worker is exposed to conditions that create a safety and health risk with respect to heat or cold stresses in the workplace.

#### **GR140.19 Inspections**

- .1 The Prime Contractor shall be evaluated by ESRA on a regular and random basis to ensure their safety and health policies, programs, plans and procedures are being implemented to achieve compliance with the Contractor's safety and health program and applicable legislation. These reviews do not affect the autonomy of each Prime Contractor or their responsibility to ensure the project is in compliance with legislative requirements.
- .2 The evaluation / inspection shall identify physical and procedural deficiencies that must be corrected by the Contractor to ensure compliance with legislative requirements.
- .3 The Contractor shall maintain a copy of all documentation required to be kept on the project, according to applicable legislation, prior to the work commencing. This includes, but is not limited to the Contractor's safety and health policies, records of training, equipment operators manuals, log books, material safety data sheets (MSDS) or safety data sheets (SDS), engineers drawings, applicable permits, job hazard analysis (JHA's), specific procedures for hazardous work, etc. All information must be readily available on site.

#### **GR140.20 Housekeeping**

- .1 The Contractor shall ensure the work site is kept in a neat, orderly fashion.
- .2 The Contractor shall ensure lay down areas and site trailers are kept in a neat, orderly fashion to avoid hazards on the worksite.

#### **GR140.21 Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS)**

.1 The Contractor shall ensure a copy of the Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) is in a location accessible to all workers, including ESRA personnel, on the work site, for each hazardous product that is used and / or kept on site.

**GR140.22 Storage of Controlled Products**

- .1 The Contractor shall follow the storage instructions of all on-site products as stated on the Material Safety Data Sheet (MSDS) or Safety Data Sheets (SDS), and *The National Fire Code*.

**GR140.23 Compressed Gases**

- .1 No smoking shall be allowed within eight (8) metres of the compressed gas storage area. No smoking signs must be posted in the area indicating the minimum safe distance.
- .2 Cylinders shall not be in contact with the ground, ice, snow, water, salt, or subjected to high temperatures.
- .3 Bottle cylinders shall be stored and secured in an upright position in racks or welding carts with an insulated chain or non-conductive belt.
- .4 When transporting bottle cylinders in a vehicle, cylinders shall be secured to the vehicle, regulators removed, and the valve protection cap shall be installed.
- .5 Compressed gasses shall not be stored with six (6) metres of combustible or flammable materials.
- .6 Empty containers of compressed gases shall be stored separately from full or partially full containers in cylinder rack.

**GR140.24 Utilities**

- .1 The Contractor must make timely application to authorities for required permits before starting work on or near a public right-of-way.
- .2 The Contractor must obtain utility clearances for required utilities in the vicinity of the Work before starting construction.
- .3 The Contractor must advise / arrange with utilities when blasting is scheduled within three (3) m of hydro lines.
- .4 The Contractor must arrange with utilities to provide **a** Safety Watch when required during construction.
- .5 The Contractor must provide not less than seventy-two (72) hours notice to the Contract Administrator concerning:
  - .1 Proposed traffic detour implementation
  - .2 Proposed removal of traffic detours
  - .3 Proposed road closures
  - .4 Proposed road openings
  - .5 Proposed equipment working at night around utilities
- .6 The Contractor must ensure adherence as per *MR 217/2006, Part 25*.



**GR140.25 Equipment Maintenance**

- .1 The Contractor shall establish an area for conducting equipment maintenance.
- .2 The Contractor shall ensure that a written lockout / tagout procedure is established and followed during equipment maintenance.
- .3 The Contractor shall ensure workers adhere to the lockout / tagout procedure for removing defective equipment and tools from service.
- .4 The Contractor shall ensure equipment is equipped with appropriate fire extinguishers.

**GR140.26 Lockout / Tagout**

- .1 The Contractor shall develop and post a lockout / tagout procedure for all tools, equipment, and machinery.
- .2 The Contractor shall ensure that workers are trained on and adhere to the lockout / tagout procedure for all tools, equipment, and machinery.
- .3 The Contractor shall submit a copy of their lockout / tagout procedure as part of the safe work plan.

**GR140.27 Excavations**

- .1 Excavation and trenching work must be done in accordance with *MR 217/2006, Part 26*.

**GR140.28 Traffic Management**

- .1 The Contractor must supply, erect, maintain and remove applicable traffic control devices, provide flagpersons and follow traffic control procedures in accordance with the Specification, the *Manitoba Infrastructure and Transportation "Manitoba Work Zone Traffic Control Manual – Provincial Roads and Provincial Trunk Highways"* or as shown on the Drawings. Flagpersons shall be trained in the proper traffic control procedures appropriate for the prevailing conditions and shall have proof of certification from a recognized training program.
- .2 Immediately correct non-compliant traffic control signing as directed by the Contract Administrator. The Contract Administrator may suspend work until the signing is corrected. Claim for delay of work or contract extension due to this action will not be approved.
- .3 The Contractor shall prepare a traffic management plan, ensuring that traffic management is undertaken in accordance with Manitoba Infrastructure and Transportation specifications. For reference, see the website address for the *"Manitoba Work Zone Traffic Control Manual"* for Manitoba Infrastructure and Transportation.
- .4 The Contractor's traffic management plan shall also require acceptance by the Contract Administrator. The traffic plan shall address emergency access and residential / public access adjacent to the site.

- .5 The traffic management plan shall be submitted to the Contract Administrator within five (5) days prior to the start of work.
- .6 Notwithstanding and in addition to Manitoba Infrastructure and Transportation "*Manitoba Work Zone Traffic Control Manual*" Specification 200 "Traffic Control", the contractor shall adhere to the Signage Plan in the Tender Drawings.
- .7 All vehicles driving onto a construction site that is exposed to traffic must be equipped with an approved lighting system (beacon). This safety system must be in use at all times while on the construction site.

**GR140.29 Smoking**

- .1 Smoking in enclosed public places, indoor workplaces and in a vehicle used for work while carrying two or more employees is prohibited, pursuant to *The Non-Smokers Health Protection Act*.
- .2 Contractors shall ensure there are sufficient receptacles to extinguish cigarettes or other smoking materials and ensure workers are trained in preventing fires on the worksite(s).
- .3 Contractors shall ensure smoking is prohibited in designated fuelling areas and applicable signage shall be posted.

**GR140.30 Clearing**

- .1 Hand clearing shall be conducted by individuals who possess current operation of chainsaw certificates.
- .2 An emergency transport vehicle shall be present at the work site while clearing occurs.
- .3 A first aid kit that meets or exceeds *MR 217/2006* requirements shall be located at the work site.
- .4 A first aid trained person that meets or exceeds *MR 217/2006* requirements shall be present at the work site.
- .5 Required fire extinguishers and other firefighting equipment as directed by the Contract Administrator shall be located at the work site.
- .6 Emergency procedures, including equipment and the communication system shall be reviewed with workers prior to the commencement of clearing.

**GR140.31 Quarry**

- .1 The Contractor shall ensure the quarry is operated pursuant to *MR 212/2011*, Operation of Mines Regulation.
- .2 The Contractor shall ensure the appropriate signage is posted at the entrance.
- .3 The Contractor shall ensure a protective barrier is securely in place to prevent persons from entering a dangerous area.
- .4 The Contractor must ensure that all earth, clay, sand, gravel, loose rock, trees and other vegetation is removed to expose the bedrock within 2 m from the rim of working, and that the material beyond 2 m from the rim of working is sloped away from the rim, and all benches are less than 20 m in height.

- .5 The Contractor shall maintain a protective curb or ridge of material at an open pit or quarry; along the outer edge of a ramp; a roadway that is within 20 m of a hazardous slope; and a bench, when mobile equipment is working within 8 m of the bench edge.
- .6 The minimum height of the curb is one metre, or one-half (1/2) the diameter of the largest wheel of the equipment in use; and in the case of a curve, of sufficient height to stop runaway mobile equipment.
- .7 Haul routes shall be established within the quarry for hauling and inspection vehicles.
- .8 Prior to permitting a person to work near the face of an open pit or quarry, the face must be examined by the supervisor / blaster following a blast and at least daily.
- .9 The Supervisor must ensure that corrective action is taken if hazardous conditions are identified during an examination.
- .10 When working with clay, sand, gravel or other unconsolidated materials the contractor must not undercut the face or use equipment with a reach that is less than the vertical height of the working face.

#### **GR140.32 Crushing**

- .1 The crushing operation must be accessible by emergency vehicles at all times.
- .2 Electrical cables shall be buried, covered or secured above ground.
- .3 Crushed material shall not impede or block haul roads.
- .4 Restricted vehicle / pedestrian areas shall be marked.
- .5 The crusher, genset and all components must be grounded.
- .6 Footing / pads must be stable and support the load.
- .7 Emergency STOPS must be in place and tested.
- .8 Guards must be in place where there are any moving parts that create a hazard.

#### **GR140.33 Drilling**

- .1 Employers shall not allow workers to wear loose clothing, accessories, or have unconfined hair as this is an entanglement hazard when working with the machinery.
- .2 The driller / driller helper shall conduct a pre-inspection of the drilling machine.
- .3 The Contractor must not allow a worker to drill a hole or cause or permit a hole to be drilled at an open pit or quarry at a location less than 4.5 m from a hole containing explosives or from a mishole; or 300 mm from a bootleg. (a bootleg is the bottom remnant or intact portion of a hole that has been charged and blasted and contains no visible explosive.)
- .4 The Contractor must ensure that before a borehole is drilled, all loose rock or other material that may pose a risk to the safety and health of a worker or other person is scaled or removed. If blasting may have occurred previously in the area of the blast

site, the drilling face must be thoroughly cleaned in accordance with appropriate procedure.

- .5 The Contractor must ensure all drill holes are of sufficient size to permit the easy and unobstructed insertion of the explosive charge to the bottom of the hole.
- .6 Drilling must not occur within eight (8) meters of a charged hole / misfire.
- .7 Equipment shall be shut off when not in use; except in winter months.
- .8 Ensure a spill kit is in close proximity to the drilling operation.
- .9 Ensure a fire extinguisher is mounted or close to the equipment.
- .10 Adequate lighting shall be required for drilling at night. Lighting shall *meet MR 217/2006, Part 4.1, and MR 212/2011, Part 12.16.*
- .11 There shall be no drilling at night if loading of the blast has commenced.
- .12 The Contractor must adhere to *MR 212/2011, Parts 4 and 12, and MR 217/2006, Part 14*, and not allow work on the wall of an open pit or quarry or within 3.5 m of the crest when there is danger of the worker falling more than 1.5 m unless the worker:
  - .1 has adequate fall protection that meets the requirements prescribed in 14.2 to 14.23 of the Workplace Safety and Health Regulation; and
  - .2 is not working alone.

#### **GR140.34 Loading and Blasting**

- .1 The designated blaster is responsible for safety on site with respect to loading and blasting operations.
- .2 The Contractor shall submit a Blast Plan a minimum of two (2) weeks prior to any blast. The Blast Plan shall include, at a minimum:
  - .1 name of the blaster in charge with his/her credentials
  - .2 pre-notification of blast dates
  - .3 identification of hazards from blast and required controls
  - .4 types of signs to be used and location of placement
  - .5 procedure for loading
  - .6 procedure for use of explosives
  - .7 procedure for guarding loaded holes
  - .8 procedure for blasting, including a map of all entry points with guards
  - .9 warning devices to be used pre and post blast
  - .10 procedure for transporting explosives
  - .11 how explosives will be stored and licensed
  - .12 procedure for removing misholes including the type of explosives that may be washed out of the mishole and the equipment and method to be used

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- .3 The certified blaster must notify the Contract Administrator twenty-four (24) hours prior to loading.
  - .4 The blaster shall conduct a toolbox talk with all personnel involved in the blast prior to loading of the blast.
  - .5 Loading of holes and blasting must be overseen by the blaster certified by *Workplace Safety and Health, Mines Branch, Province of Manitoba*.
  - .6 A preliminary Blast Details Report including layout must be filed with the Contract Administrator prior to a blast and the completed Blast Details Report must be submitted to the Contract Administrator within four (4) hours of every blast, including misfires.
  - .7 The Contractor shall ensure signage is posted at the entry of a quarry indicating the scheduled time of a blast.
  - .8 Explosives shall not be left unguarded at the blasting site at any time.
  - .9 Unused explosives shall be returned to the magazine site prior to the blast
  - .10 Explosive packaging shall be destroyed prior to, or immediately after the blast. If packaging is burned, the following criteria must be met:
    - .1 area must be a minimum of eight (8) metres from a loaded hole
    - .2 the surface under the burning area must not have any open cracks
    - .3 area must be a minimum of ten (10) metres from the vertical edge of the pit
    - .4 must be a minimum of eight (8) metres from any vegetation
  - .11 Prior to blasting, all machinery and equipment shall be moved to a safe distance as determined by the certified blaster, prior to blasting.
  - .12 Blast mats may be required when blasting within five hundred (500) metres of any building, overhead power or electrical lines, or other stationary machinery or equipment.
  - .13 Guards shall be placed at all approaches prior to the blast.
  - .14 Radio transmitters and M-Sat phones shall be turned off when guards are posted.
  - .15 Workers shall be present at a designated muster point prior to the blast and a roll call shall be taken. A copy of the roll call shall be attached to the blast details report.
  - .15 A warning signal shall be given prior to the blast.
  - .16 The blaster must check the site for misfires or unexploded explosives. Any and all cutoffs/misfires must be reported to the Contract Administrator within four (4) hours of the occurrence by the Contractor.
  - .17 Misfires shall be marked in accordance with *MR 217/2006, Part 34.17*.
  - .18 An "all clear" warning signal shall be given after the blast area is checked.

- .19 The Contractor must notify the Contract Administrator when a blast is loaded at night, lighting requirements shall meet *MR 217/2006, Part 4.14*.
- .21 The Contractor must contact Manitoba Hydro when blasting within three (3) m of hydro lines to obtain the necessary clearance.
- .22 The Contractor must notify Nav Canada / Land Use five (5) business days prior to blasting. The Contractor shall contact East Side Road Authority for the required forms.

## **GR 140.35 Magazine License and Explosives Storage**

### **General Requirements**

- .1 Magazines must be certified complete with a serial number.
- .2 Magazines may be licensed by either Federal or Provincial authorities.
- .3 The Magazine layout must be filed with either Federal or Provincial Authorities and the appropriate distances observed.
- .4 Explosives storage may not exceed the quantity designated on the magazine license.
- .5 A copy of the Magazine License shall be posted in the magazine(s) or in an office in close proximity to the magazine(s). A copy of the license must be forwarded to the Contract Administrator within thirty (30) days of receipt from either the Provincial or Federal authorities.
- .6 If a lightning storm is approaching, immediately secure the magazines and vacate the area.
- .7 Vehicles / equipment shall not be parked within eight (8) metres of a magazine, unless loading and unloading of explosives is occurring.
- .8 The placement and distances of storage magazines must be maintained between the magazines. Distance is dependent on the amount of explosives and the required distance from the road. Follow the guidelines set out in the *Explosives Regulatory Division, Blasting Explosive and Initiation Systems – Storage, Possession, Transportation, Destruction and Sale, March 2008*, and *MR 212/2011, Part 6, Schedule A (Section 6.46) Table*.

### **Provincial Requirements**

- .1 When licensed by the Province of Manitoba, the magazine must be in the care of an authorized person, and there must be a list of the requirements in Part 6 of MR12/2011 relating to the care and use of explosives posted in or in the vicinity of the magazine.

### **Federal Requirements**

- .1 Federally, a magazine license (F060-01) must be obtained from *Natural Resources Canada, Explosives Regulatory Division*.
- .2 The Blaster in charge must be stated on the application form.
- .3 Once approved and the magazines are in place, the local RCMP must be notified with the exact location of the magazines. (Notify the RCMP detachment closest to the magazine site.)

- .4 A magazine license is required to purchase or transport explosives.
- .5 The ground area used for magazine placement must be flat and free of brush, long grass, or any readily combustible or flammable materials for at least eight (8) m around the container.
- .6 When barriers are required between magazines they shall be constructed from material free of trees, grass or other combustible materials. Barriers shall be constructed of sufficient height and width to totally block site lines from one magazine to the other magazine.
- .7 The magazine storage site must have surveillance records that are maintained and documented. Surveillance records must include the time and date of surveillance, and must be available to regulatory inspectors and the police.
- .8 The storage site must have a sturdy lockable barrier. A sign stating "Danger Explosives - No Trespassing" must be installed at the gate.
- .9 Magazines must be fifteen (15) meters from transmission lines (hydro lines).
- .10 Magazines must not be placed within thirty (30) meters of a body of water.
- .11 The Contractor shall ensure the Guideline for Security Plan May 2014 is implemented as required by Natural Resources Canada.
- .12 The Contractor shall ensure the Guideline for Fire Safety Plan April 2014 is implemented as required by Natural Resources Canada.
- .13 The Contractor shall ensure the Guideline for Key Control Plan February 2014 is implemented as required by *Natural Resources Canada's* guideline.
- .14 Magazines must be locked at all times. The blaster is responsible for the keys for the magazine.
- .15 Follow the reporting procedures of accidents and incidents as required by *Explosives Regulations Division, Natural Resources Canada*.
- .16 Magazines must be absolutely clean and explosives must not be stacked higher than the "stacking line" in the magazine. (15 centimeters from the ceiling)
- .17 Inventory records of explosives must be kept in the magazine and a copy forwarded to Contractor Administrator on a monthly basis.

#### **GR140.36 Explosives Transportation (By Ground)**

- .1 The Contract Administrator must be notified of any explosive shipment at least forty-eight (48) hours prior to shipping date.
- .2 The driver is required to have a current Transportation of Dangerous Goods (TDG) certificate.
- .3 Vehicles used to transport explosives must be registered through a Provincial or Territorial Agency.
- .4 The driver is required to have a current driver's license and must be a minimum of eighteen (18) years of age. If transporting more than 2000 kg of explosives, the driver must be a minimum of twenty-one (21) years of age.

- .5 The vehicle shall be in sound mechanical condition.
- .6 The vehicle shall be fuelled up prior to loading explosives. Refuel only if necessary.
- .7 Transportation of Dangerous Goods (TDG) placards shall be placed on all four (4) sides of the vehicle.
- .8 Explosives must not be transported with any other dangerous goods.
- .9 Explosives must not be transported in a towed vehicle or trailer, with the exception of a tractor (semi) trailer.
- .10 The vehicle transporting explosives must not carry passengers other than those persons involved in the transport.
- .11 Smoking is not allowed in an eight (8) meter radius of the vehicle carrying explosives.
- .12 The transporting vehicle compartment must be free of any metal or electrical fixtures. Iron or steel compartments must be covered with leather, wood, tarpaulin or other suitable material on either a permanent or temporary basis.
- .13 The portion of the vehicle transporting explosives shall be fully enclosed, locked, fire resistant van, tank, fixed container or compartment.
- .14 The load of explosives being transported shall not exceed eighty percent (80%) of the carrying capacity of the transport vehicle.
- .15 The vehicle transporting explosives shall be equipped with a minimum of a one (1) 5 lb ABC fire extinguisher.
- .16 The transporting vehicle shall not be left unattended once explosives have been loaded.
- .17 The driver must ensure copies of Material Safety Data Sheets (MSDS) and /or Safety Data Sheets (SDS) accompany the shipment.

**GR140.37 Explosives Transportation (By Air)**

- .1 Transport explosives by Aircraft requirements are set out in the Transportation of Dangerous Goods Regulations Part 12 Air and must be adhered to.
- .2 There shall be proof of current Transportation of Dangerous Goods Certificates on file.
- .3 A copy of the notification by the supplier of the shipping name, UN number, primary class and compatibility group of the explosives to the Air Carrier must be forwarded to the airport manager. This is required forty-eight (48) hours before explosives are loaded on the aircraft.
- .4 The airport manager must receive twenty-four (24) hours notice prior to the explosives shipment.
- .5 The Contractor shall receive an advance copy of TDG shipping document.
- .6 The shippers' declaration of Dangerous Goods shall be completed and accompany the shipment
- .7 The Contractor shall meet the shipment at the Airport to receive the explosives upon arrival.



- .8 Explosives must not remain at the airport. Explosives must be immediately transported to the magazine site.
- .9 The Contractor must determine the necessity of a guard for the explosives during the offloading of explosives to the transporting vehicle.
- .10 Explosive packaging must be marked individually with the magazine number.
- .11 The Contractor must check the shipment for open or damaged packaging. Damaged or opened packaging must be returned to the supplier with proper TDG shipping documentation immediately.
- .12 Detonators must be shipped in proper containers and must be shipped separately.
- .13 Receiving transport vehicles must be licensed by a federal or provincial agency and must be equipped with a flashing amber beacon.
- .14 The Supplier and Contractor must ensure that explosives being shipped are legal to ship.
- .15 The Contractor must ensure the supplier sends Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) with the TDG shipping documentation.

#### **GR140.38 Summary of Required Submissions**

- |     |   |          |
|-----|---|----------|
| .1  | Annual Letter of Good Standing from Association                                 | GR140.2  |
| .2  | A copy of the Contractor's Safety and Health Program                            | GR140.3  |
| .3  | Safe Work Plan  | GR140.5  |
| .4  | Reporting Procedures (Monthly Project Site Summary Report)                      | GR140.7  |
| .5  | Workplace Safety & Health Committee   | GR140.9  |
| .6  | Lock Out / Tag Out Procedure  | GR140.26 |
| .7  | Traffic Management Control Plan   | GR140.28 |
| .7  | Blast Plan  | GR140.34 |
| .8  | Blast Details Report Every Blast Including Misfires                             | GR140.34 |
| .9  | A copy of the Roll Call attached to the Blast Details Report                    | GR140.34 |
| .10 | Copy of the Designated Blaster's Workplace Safety & Health Blasters Certificate | GR140.34 |
| .11 | Copy of the Magazine(s) License   | GR140.35 |

#### **GR140.39 Measurement and Payment**

- .1 The requirements set out in GR140 are considered incidental to the Work and will not be measured for payment unless indicated otherwise in the Specifications.