

Part 1 General

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- .1 Work of this Contract comprises structural modifications to the roof structures, installation of access, fall protection, and material lifting equipment at Winnipeg Transit garages located at 421 Osborne Street, 600 Brandon Avenue, and 1520 Main Street; and further identified as the Roof Fall Arrest Measures.

1.2 CONTRACT METHOD

- .1 Construct Work under a Purchase Order issued by the City of Winnipeg with fixed prices identified.

1.3 REFERENCES AND CODES

- .1 Perform Work in accordance with the National Building Code of Canada (NBC) including all amendments up to tender closing date and other codes of provincial or local application provided that in case of conflict or discrepancy, more stringent requirements apply.
- .2 Meet or exceed requirements of contract documents, specifications, as specified standards, codes and referenced documents, latest editions.

1.4 WORK SEQUENCE

- .1 Construct Work in stages to accommodate The City's continued use of adjacent garage areas during construction.
- .2 Co-ordinate Progress Schedule and co-ordinate with The City occupancy during construction.
- .3 Contractor is to allow for time in his schedule for the City to vacate areas adjacent to construction, areas affected by construction activities.

1.5 CONTRACTOR USE OF PREMISES

- .1 Limit use of premises for Work, for storage, and for access, to allow:
 - .1 The city occupancy and continuous garage operations.
- .2 Co-ordinate use of premises under direction of Contract Administrator.
- .3 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.
- .4 Remove or alter existing work to prevent injury or damage to portions of existing work which remain.
- .5 Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by Contract Administrator.

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- .6 At completion of operations condition of existing work: equal to or better than that which existed before new work started.

1.6 CITY OCCUPANCY

- .1 The City will occupy premises during entire construction period for execution of normal operations.
- .2 Co-operate with the City in scheduling operations to minimize conflict and to facilitate the City's usage.

1.7 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING

- .1 Execute work with least possible interference or disturbance to garage operations and normal use of premises. Arrange with Contract Administrator to facilitate execution of work.

1.8 EXISTING SERVICES

- .1 Notify, the City and utility companies of intended interruption of services and obtain required permission.
- .2 Where Work involves connecting to existing services, give the City minimum 48 hours notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions.
- .3 Where unknown services are encountered, immediately advise Contract Administrator and confirm findings in writing.
- .4 Protect, relocate or maintain existing active services.

1.9 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed Shop Drawings.
 - .5 Change Orders.
 - .6 Other Modifications to Contract.
 - .7 Field Test Reports.
 - .8 Copy of Approved Work Schedule.
 - .9 Health and Safety Plan and Other Safety Related Documents including:
 - .1 Material data sheets (MSDS) on all products used in Project.
 - .10 Other documents as specified.

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Part 2 Products

2.1 NOT USED

.1 Not used.

Part 3 Execution

3.1 NOT USED

.1 Not used.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work.

1.2 ACCESS AND EGRESS

- .1 Design, construct and maintain temporary "access to" and "egress from" work areas, in accordance with relevant municipal, provincial and other regulations.

1.3 USE OF SITE AND FACILITIES

- .1 Execute work with least possible interference or disturbance to normal use of premises. Arrange with Facilities Manager (the City) and Contract Administrator to facilitate work as stated.
- .2 Maintain existing services to building and provide for personnel and vehicle access.
- .3 Where security is reduced by work provide temporary means to maintain security.
- .4 Ensure that Contractor personnel employed on site become familiar with and obey regulations including safety, fire, traffic and security regulations.
- .5 Keep within limits of work and avenues of ingress and egress.

1.4 WORKING HOURS

- .1 421 Osborne Street, Maintenance Building A:
 - .1 Working hours for work process deemed to be excessively noisy or disruptive will be restricted to between 2:00 p.m. and 7:00 a.m. Monday through Friday.
 - .2 Working hours for all other work process will be allowed to take place at all hours of day Monday through Friday, subject to allowing for continual operation within the premises.
- .2 421 Osborne Street, Maintenance Building B:
 - .1 Working hours for all work processes will be restricted to between 7:00 a.m. and 4:00 p.m. Monday through Sunday:
 - .2 Every day, by 4:00 p.m. all equipment, material, and contractor personnel shall be removed from the work area and drive-through facilities returned to normal operations.
- .3 1520 Main Street, North Garage:
 - .1 Working hours will be restricted to between 7:30 a.m. and 2:30 p.m. Monday through Friday.
- .4 600 Brandon Ave, Brandon Garage:
 - .1 Working hours will be restricted to between 7:00 a.m. and 5:00 p.m. Monday through Friday.
- .5 Working Hours outside of the established hours may be negotiated with the City of Winnipeg on a case-by-case basis.

- .6 Notwithstanding the above, all Work shall be completed in conformance with City of Winnipeg Neighbourhood Liveability By-Law No. 1/2008.
- .7 Notwithstanding the above, all Work shall be completed in conformance with the City of Winnipeg Noise Control By-Law No. 2480/79.

1.5 SPECIAL REQUIREMENTS

- .1 Coordinate work with City of Winnipeg operations to provide for continuous City of Winnipeg usage. Do not close off access to facilities until proper notification has been provided to both the Contract Administrator and written City of Winnipeg, and approval received from City of Winnipeg.
- .2 All work which interferes with the normal operation of the facility and/or require closures will have to be precisely coordinated with City of Winnipeg.
- .3 Ensure that Contractor personnel employed on site become familiar with and obey regulations including safety, fire, traffic and security regulations.
- .4 Keep within limits of work and avenues of ingress and egress.

1.6 BUILDING SMOKING ENVIRONMENT

- .1 Smoking is not allowed.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 PRECONSTRUCTION MEETING

- .1 Within 5 working days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- .2 Senior representatives of the City, Contract Administrator, Contractor, major Subcontractors, field inspectors and supervisors will be in attendance.
- .3 Establish time and location of meeting and notify parties concerned minimum 5 days before meeting.
- .4 Incorporate mutually agreed variations to Contract Documents into Agreement, prior to signing.
- .5 Agenda to include:
 - .1 Appointment of official representative of participants in the Work.
 - .2 Schedule of Work: in accordance with Section 01 32 16 - Construction Progress Schedule.
 - .3 Submission of shop drawings or product data. Submit submittals in accordance with Section 01 33 00 - Submittal Procedures.
 - .4 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with Section 01 52 00 - Construction Facilities.
 - .5 Site security in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.
 - .6 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.
 - .7 Delivery schedule of specified materials.
 - .8 Maintenance manuals in accordance with Section 01 78 00 - Closeout Submittals.
 - .9 Monthly progress claims, administrative procedures, photographs, hold backs.
 - .10 Appointment of inspection and testing agencies or firms.
 - .11 Insurances, transcript of policies.

1.2 PROGRESS MEETINGS

- .1 During course of Work schedule progress meetings at biweekly intervals.
- .2 Contractor, major Subcontractors involved in Work, Contract Administrator and the City's representative are to be in attendance.
- .3 Contract Administrator will be responsible for recording minutes of meetings and circulate to attending parties and affected parties not in attendance within 5 working days after meeting.
- .4 Agenda to include the following:
 - .1 Review, approval of minutes of previous meeting.
 - .2 Review of Work progress since previous meeting.

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- .3 Field observations, problems, conflicts.
- .4 Problems which impede construction schedule.
- .5 Review of off-site fabrication delivery schedules.
- .6 Corrective measures and procedures to regain projected schedule.
- .7 Revision to construction schedule.
- .8 Progress schedule, during succeeding work period.
- .9 Review submittal schedules: expedite as required.
- .10 Maintenance of quality standards.
- .11 Review proposed changes for affect on construction schedule and on completion date.
- .12 Other business.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 REQUIREMENTS

- .1 Ensure Schedule is practical and remain within specified Contract duration.
- .2 Plan to complete Work in accordance with prescribed milestones and time frame.

1.2 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit to Contract Administrator within 5 working days of Award of Contract Bar (GANTT) Chart for planning, monitoring and reporting of project progress.

1.3 MASTER PLAN

- .1 Structure schedule to allow orderly planning, organizing and execution of Work as Bar Chart (GANTT).
- .2 Contract Administrator will review and return revised schedules within 5 working days.
- .3 Revise impractical schedule and resubmit within 5 working days.
- .4 Accepted revised schedule will be used as baseline for updates.

1.4 PROJECT SCHEDULE

- .1 Ensure detailed Project Schedule includes as minimum milestone and activity types as follows:
 - .1 Award.
 - .2 Equipment delivery time.
 - .3 Mobilization to buildings.
 - .4 Equipment installation.

1.5 PROJECT SCHEDULE REPORTING

- .1 Update Project Schedule on biweekly basis reflecting activity changes and completions, as well as activities in progress.
- .2 Include as part of Project Schedule, narrative report identifying Work status to date, comparing current progress to baseline, presenting current forecasts, defining problem areas, anticipated delays and impact with possible mitigation.

1.6 PROJECT MEETINGS

- .1 Discuss Project Schedule at regular site meetings, identify activities that are behind schedule and provide measures to regain slippage. Activities considered behind schedule are those with projected start or completion dates later than current approved dates shown on baseline schedule.

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.2 Weather related delays with their remedial measures will be discussed and negotiated.

Part 2 Products

2.1 NOT USED

.1 Not used.

Part 3 Execution

3.1 NOT USED

.1 Not used.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 017800 – Closeout Submittals

1.2 ADMINISTRATIVE

- .1 Submit to Contract Administrator submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete.
- .3 Review submittals prior to submission to Contract Administrator. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .4 Notify Contract Administrator, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .5 Verify field measurements and affected adjacent Work are co-ordinated.
- .6 Contractor's responsibility for errors and omissions in submission is not relieved by Contract Administrator's review of submittals.
- .7 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Contract Administrator review.
- .8 Keep one reviewed copy of each submission on site.

1.3 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Submit shop drawings bearing stamp and signature of qualified professional engineer registered or licensed in Province of Manitoba, Canada.
- .3 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .4 Allow 5 working days for Contract Administrator's review of each submission.

- .5 Adjustments made on shop drawings by Contract Administrator are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Contract Administrator prior to proceeding with Work.
- .6 Make changes in shop drawings as Contract Administrator may require, consistent with Contract Documents. When resubmitting, notify Contract Administrator in writing of revisions other than those requested.
- .7 After Contract Administrator's review, distribute copies.
- .8 Submit electronic copy in PDF format of shop drawings for each requirement requested in specification Sections and as Contract Administrator may reasonably request.
- .9 Submit [electronic copy in PDF format of product data sheets or brochures for requirements requested in specification Sections and as requested by Contract Administrator where shop drawings will not be prepared due to standardized manufacture of product.
- .10 Delete information not applicable to project.
- .11 Supplement standard information to provide details applicable to project.
- .12 If upon review by Contract Administrator, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

1.4 CERTIFICATES AND TRANSCRIPTS

- .1 Immediately after award of Contract, submit Workers' Compensation Board status.
- .2 Submit transcription of insurance immediately after award of Contract.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .3 Province of Manitoba
 - .1 The Workers Compensation Act RSM 1987 - Updated 2006.
 - .2 Manitoba Regulation 217/2006 – Workplace Safety and Health Regulation.

1.2 SUBMITTALS

- .1 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit copies of incident and accident reports.
- .3 Submit WHMIS MSDS - Material Safety Data Sheets on all products used in conjunction with the Work.
- .4 W.H.I.M.I.S. Training: Provide copies of valid certification/training for all employees (regular or temporary) including all subcontractors.
 - .1 All individuals involved in the application of any product shall meet all WHMIS/provincial standards safety/protection requirements at all times.
- .5 Upon request submit Letter of Good Standing or C.O.R. Certificate.

1.3 GENERAL REQUIREMENTS

- .1 Contractors to be C.O.R. Registered or C.O.R. Certified.
- .2 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.

1.4 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- .1 All employees (regular or temporary) of contractor and subcontractors shall wear PPE in accordance with Manitoba Regulation 217/2006.
- .2 Fall Protection: Provide fall protection in accordance with Manitoba Regulation 217/2006.

1.6 EMBEDDED ELECTRICAL CONDUIT

- .1 When the presence of embedded electrical conduits are known:
 - .1 Prior to demolition ensure circuits feeding conduit within repair areas are disconnected, de-energized, or abandon.
 - .2 Coordinate shutdowns with the City.
- .2 When the presence of embedded electrical conduits is unknown or are known but locations cannot be determined:
 - .1 Prior to demolition of concrete repairs, scan existing concrete structures for embedded electrical conduit.
 - .2 Ensure circuits feeding conduit within repair areas are disconnected, de-energized, or abandon.
 - .3 Coordinate shutdowns with the City.
 - .4 Costs of scanning to be paid for via the testing cash allowance.

1.7 FIRE PROTECTION

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction, governing codes, regulations and bylaws.

1.8 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

Part 1 General

1.1 RELATED SECTIONS

.1 N/A

1.2 REFERENCES

.1 City of Winnipeg General Conditions for Construction.

1.3 INSPECTION

.1 Allow Contract Administrator access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.

.2 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Contract Administrator instructions, or law of Place of Work.

.3 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.

.4 Contract Administrator will order part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction.

1.4 ACCESS TO WORK

.1 Allow inspection/testing agencies access to Work.

.2 Co-operate to provide reasonable facilities for such access.

1.5 PROCEDURES

.1 Notify appropriate agency in advance of requirement for tests, in order that attendance arrangements can be made.

.2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in Work.

.3 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

1.6 REJECTED WORK

.1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Contract Administrator as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.

- .2 Make good other Contractor's work damaged by such removals or replacements promptly.
- .3 If in opinion of the Contract Administrator it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, the City will deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which will be determined by Contract Administrator.

1.7 REPORTS

- .1 Submit copies of inspection and test reports to the City and Contract Administrator.
- .2 Provide copies to manufacturer or fabricator of material being inspected or tested.
- .3 Provide copies of concrete test results to Concrete Supplier.

1.8 TESTS AND MIX DESIGNS

- .1 Furnish test results and mix designs as requested.
- .2 Cost of tests and mix designs beyond those called for in Contract Documents or beyond those required by law of Place of Work will be appraised by Contract Administrator and may be authorized as recoverable.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 INSTALLATION AND REMOVAL

- .1 Provide temporary utilities controls in order to execute work expeditiously.
- .2 Remove from site all such work after use.

1.2 WATER SUPPLY

- .1 The City will make available, for the extent that it is available, a supply of potable water for construction use at no charge to the Contractor
- .2 Arrange for connection with appropriate utility company and pay costs for installation, maintenance and removal.
- .3 The Contractor shall provide all necessary hoses, lines, connections, and other ancillary hardware which may be required.
- .4 The services are to be returned to their original condition at the temporary locations, or left in an altered condition only as approved by the City.

1.3 TEMPORARY HEATING AND VENTILATION

- .1 Provide temporary heating required during construction period, including attendance, maintenance and fuel.
- .2 Construction heaters used inside building must be vented to outside or be flameless type. Solid fuel salamanders are not permitted.
- .3 Provide temporary heat and ventilation in enclosed areas as required to:
 - .1 Facilitate progress of Work.
 - .2 Protect Work and products against dampness and cold.
 - .3 Prevent moisture condensation on surfaces.
 - .4 Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
 - .5 Provide adequate ventilation to meet health regulations for safe working environment.
- .4 Maintain temperatures of minimum 10 degrees C in areas where construction is in progress.
- .5 Ventilating:
 - .1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
 - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.

- .4 Ventilate storage spaces containing hazardous or volatile materials.
- .5 Ventilate temporary sanitary facilities.
- .6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
- .6 Permanent heating system of building may be used for heating. Be responsible for damage to heating system if use is permitted.
- .7 Maintain strict supervision of operation of temporary heating and ventilating equipment to:
 - .1 Conform with applicable codes and standards.
 - .2 Enforce safe practices.
 - .3 Prevent abuse of services.
 - .4 Prevent damage to finishes.
 - .5 Vent direct-fired combustion units to outside.
- .8 Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

1.4 TEMPORARY POWER AND LIGHT

- .1 The City will make available, for the extent and capacity that it is available temporary power during construction for temporary lighting and operating of power tools.
- .2 Connect to existing power supply in accordance with Canadian Electrical Code.
- .3 Arrange for connection with appropriate utility company. Pay costs for installation, maintenance and removal.
- .4 Temporary power for equipment requiring in excess of that available on-site is responsibility of the Contractor.
- .5 Provide and maintain temporary lighting throughout project.

1.5 TEMPORARY COMMUNICATION FACILITIES

- .1 Provide and pay for cellular telephone for site superintendent and use of Contract Administrator

1.6 TEMPORARY COMMUNICATION FACILITIES

- .1 Provide and pay for cellular telephone for site superintendent and use of Contract Administrator

1.7 FIRE PROTECTION

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.
- .2 Burning rubbish and construction waste materials is not permitted on site.

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Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 City of Winnipeg General Conditions for Construction.
- .2 Canadian Standards Association (CSA International)
 - .1 CSA-A23.1/A23.2-14, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
 - .2 CSA O121-08, Douglas Fir Plywood.

1.2 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.3 SCAFFOLDING

- .1 Provide and maintain scaffolding, swingstage(s), access lift(s) as required for access throughout duration of the Work.
- .2 Scaffolding shall be design and erected in accordance with Manitoba Regulation 217/2006 and CAN/CSA S269.2.
 - .1 Where Manitoba Regulation 217/2006 requires scaffolds to be designed by a professional engineer. Submit shop drawings bearing the seal of professional engineer registered in the Province of Manitoba.

1.4 SITE STORAGE/LOADING

- .1 Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
- .2 Do not load or permit to load any part of Work with weight or force that will endanger Work.

1.5 CONSTRUCTION PARKING

- .1 Parking, as available, will be permitted on site provided it does not interfere with normal operations, access buy tenants or the public, or disrupt performance of Work.

1.6 EQUIPMENT, TOOL AND MATERIALS STORAGE

- .1 Provide and maintain, in clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof sheds on site in manner to cause least interference with work activities.

1.7 SANITARY FACILITIES

- .1 The Contractor may use on-site facilities for the duration of the project. The facilities must be maintained in a neat condition or use will be revoked.

1.8 POLLUTION CONTROL

- .1 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures and/or other control methods. If necessary, arrange for shutdown of air handling units which have air intakes in the vicinity of the work. Dust can trigger fire alarm smoke detectors and can plug ducts and filters. Dust and suspended particles can damage air-cooled mechanical and electrical equipment. If necessary, arrange for shutdown of this equipment. Contractor shall be responsible for all damages. Prior to start of work, identify locations of air intakes and air-cooled mechanical and electrical equipment within and adjacent to the area of work.
- .2 Control noxious and hazardous gases. Prevent hazardous accumulations. Control emission from equipment and plant to local authority's emission requirements.
- .3 On exterior, cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

1.9 CLEAN-UP

- .1 Remove construction debris, waste materials, packaging material from work site daily.
- .2 Clean dirt or mud tracked onto paved or surfaced roadways.
- .3 Store materials resulting from demolition activities that are salvageable.
- .4 Stack stored new or salvaged material not in construction facilities.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use.

1.2 HOARDING

- .1 The Contractor must barricade off the area under construction to prevent improper access to the construction area. Suitable barricades and protection systems include:
 - .1 Stanchions with a minimum of three (3) horizontal bands of fluorescent warning tape and/or snow fencing around perimeter of work area. Spacing of stanchions not to exceed 20'.
 - .2 Cover all openings not able to be completed prior to days end with ¾" plywood, secured to deck to prevent shifting. Ensure coverings are capable of supporting a construction load of 20 psf.
 - .3 Barricade areas below openings prior to commencement of demolition.
- .2 Repair surface coatings and/or finishes which are damaged by temporary hoardings and barricades.
- .3 Provide adequate signage, fencing, etc. to inform the public of the work being undertaken.

1.3 WEATHER ENCLOSURES

- .1 Provide weather tight closures to unfinished door and window openings, tops of shafts and other openings in floors and roofs.
- .2 Close off floor areas where walls are not finished; seal off other openings; enclose building interior work for temporary heat.

1.4 DUST TIGHT SCREENS

- .1 Provide dust tight screens to localize dust generating activities, and for protection of workers, finished areas of Work and public.
- .2 Maintain and relocate protection until such work is complete.

1.5 FIRE ROUTES

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

1.6 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

1.7 PROTECTION OF BUILDING FINISHES

- .1 Provide protection for finished and partially finished building finishes and equipment during performance of Work.
- .2 Provide necessary screens, covers, and hoardings.
- .3 Be responsible for damage incurred due to lack of or improper protection.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Within text of each specifications section, reference may be made to reference standards. Conform to these reference standards, in whole or in part as specifically requested in specifications.
- .2 Conform to latest date of issue of referenced standards in effect on date of submission of Bids, except where specific date or issue is specifically noted.
- .3 If there is question as to whether products or systems are in conformance with applicable standards, Contract Administrator reserves right to have such products or systems tested to prove or disprove conformance.
- .4 The Cost for such testing will be borne by the Contractor or Supplier.

1.2 QUALITY

- .1 Products, materials, equipment and articles incorporated in Work shall be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .2 Procurement policy is to acquire, in cost effective manner, items containing highest percentage of recycled and recovered materials practicable consistent with maintaining satisfactory levels of competition. Make reasonable efforts to use recycled and recovered materials and in otherwise utilizing recycled and recovered materials in execution of work.
- .3 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .4 Should disputes arise as to quality or fitness of products, decision rests strictly with Contract Administrator based upon requirements of Contract Documents.
- .5 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
- .6 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.3 AVAILABILITY

- .1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for items. If delays in supply of products are foreseeable, notify Contract Administrator of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.
- .2 In event of failure to notify Contract Administrator at commencement of Work and should it subsequently appear that Work may be delayed for such reason, Contract Administrator

reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

1.4 STORAGE, HANDLING AND PROTECTION

- .1 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.
- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .3 Store products subject to damage from weather in weatherproof enclosures.
- .4 Store cementitious products clear of earth or concrete floors, and away from walls.
- .5 Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.
- .6 Store sheet materials, lumber on flat, solid supports and keep clear of ground. Slope to shed moisture.
- .7 Store and mix paints in heated and ventilated room. Remove oily rags and other combustible debris from site daily. Take every precaution necessary to prevent spontaneous combustion.
- .8 Remove and replace damaged products at own expense and to satisfaction of Contract Administrator.
- .9 Touch-up damaged factory finished surfaces to Contract Administrator's satisfaction. Use touch-up materials to match original. Do not paint over name plates.

1.5 TRANSPORTATION

- .1 Pay costs of transportation of products required in performance of Work.

1.6 MANUFACTURER'S INSTRUCTIONS

- .1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.
- .2 Notify Contract Administrator in writing, of conflicts between specifications and manufacturer's instructions, so that Contract Administrator will establish course of action. Where conflicts exist, the more stringent instruction will be enforced.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes Contract Administrator to require removal and re-installation at no increase in Contract Price or Contract Time.

1.7 QUALITY OF WORK

- .1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Contract Administrator if required Work is such as to make it impractical to produce required results.
- .2 Do not employ anyone unskilled in their required duties. Contract Administrator reserves right to require dismissal from site, workers deemed incompetent or careless.
- .3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Contract Administrator, whose decision is final.

1.8 CO-ORDINATION

- .1 Ensure co-operation of workers in laying out Work. Maintain efficient and continuous supervision.
- .2 Be responsible for coordination and placement of openings, sleeves and accessories.

1.9 REMEDIAL WORK

- .1 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Co-ordinate adjacent affected Work as required.
- .2 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.10 PROTECTION OF WORK IN PROGRESS

- .1 Prevent overloading of parts of building. Do not cut, drill or sleeve load bearing structural member, unless specifically indicated without written approval of Contract Administrator.

1.11 EXISTING UTILITIES

- .1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work, and/or building occupants.
- .2 Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

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Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 N/A

1.2 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, other than that caused by the City or other Contractors.
- .2 Remove waste materials from site at daily regularly scheduled times. Do not burn waste materials on site.
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Provide on-site containers for collection of waste materials and debris.
- .5 Dispose of waste materials and debris off site.
- .6 Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .7 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .8 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .9 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .10 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

1.3 FINAL CLEANING

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .3 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste products and debris other than that caused by the City or other Contractors.

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- .5 Remove waste materials from site at regularly scheduled times. Do not burn waste materials on site.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .7 Remove stains, spots, marks and dirt from existing surfaces, fixtures, and finishes within the work area or affected by the affected by the Work.
- .8 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .9 Remove dirt and other disfiguration from exterior surfaces.
- .10 Sweep and power wash clean all work areas.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 City of Winnipeg General Conditions for Construction.

1.2 ADMINISTRATIVE REQUIREMENTS

- .1 Acceptance of Work Procedures:
 - .1 Contractor's Inspection: Contractor: conduct inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify Contract Administrator in writing of satisfactory completion of Contractor's inspection and submit verification that corrections have been made.
 - .2 Request Contract Administrator's inspection.
 - .2 Contract Administrator's Inspection:
 - .1 Contract Administrator and Contractor to inspect Work and identify defects and deficiencies.
 - .2 Contractor to correct Work as directed.
 - .3 Completion Tasks: submit written certificates that tasks have been performed as follows:
 - .1 Work: completed and inspected for compliance with Contract Documents.
 - .2 Defects: corrected and deficiencies completed.
 - .3 Work: complete and ready for final inspection.
 - .4 Final Inspection:
 - .1 When completion tasks are done, request final inspection of Work by Contract Administrator, and Contractor.
 - .2 When Work incomplete according to Contract Administrator, complete outstanding items and request re-inspection.
 - .5 Declaration of Substantial Performance: when Contract Administrator considers deficiencies and defects corrected and requirements of Contract substantially performed, make application for Certificate of Substantial Performance.
 - .6 Commencement of Lien and Warranty Periods: date of the City's acceptance of submitted declaration of Substantial Performance to be date for commencement for warranty period and commencement of lien period unless required otherwise by lien statute of Place of Work.
 - .7 Final Payment:
 - .1 When Contract Administrator considers final deficiencies and defects corrected and requirements of Contract met, make application for final payment.
 - .2 When Work deemed incomplete by Contract Administrator, complete outstanding items and request re-inspection.
 - .8 Payment of Holdback: after issuance of Certificate of Substantial Performance of Work, submit application for payment of holdback amount in accordance with contractual agreement.

1.3 FINAL CLEANING

- .1 Clean in accordance with Section 01 74 11 – Cleaning.
- .1 Remove surplus materials, excess materials, rubbish, tools and equipment.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Operation and maintenance data.
- .2 As-built drawings, samples, and specifications.
- .3 Product data, materials and finishes, and related information.
- .4 Record documents.
- .5 Final site survey.
- .6 Equipment and systems.
- .7 Spare parts, special tools and maintenance materials.
- .8 Warranties and bonds.

1.2 SUBMISSION

- .1 Prepare instructions and data using personnel experienced in maintenance and operation of described products.
- .2 Copy will be returned with Contract Administrator's comments.
- .3 Revise content of documents as required prior to final submittal.
- .4 Two weeks prior to Substantial Performance of the Work, submit to the Contract Administrator, four final copies of operating and maintenance manuals in English.
- .5 Ensure spare parts, maintenance materials and special tools provided are new, undamaged or defective, and of same quality and manufacture as products provided in Work.
- .6 If requested, furnish evidence as to type, source and quality of products provided.
- .7 Defective products will be rejected, regardless of previous inspections. Replace products at own expense.
- .8 Pay costs of transportation.

1.3 OPERATION AND MAINTENANCE MANUAL FORMAT

- .1 Organize data in the form of an instructional manual.
- .2 Binders: vinyl, hard covered, 3 'D' ring, loose leaf 219 x 279 mm with spine and face pockets.

- .3 When multiple binders are used, correlate data into related consistent groupings. Identify contents of each binder on spine.
- .4 Cover: Identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
- .5 Arrange content by systems under Section numbers and sequence of Table of Contents.
- .6 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .7 Text: Manufacturer's printed data, or typewritten data.
- .8 Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

1.4 CONTENTS - EACH VOLUME

- .1 Table of Contents: provide title of project;
 - .1 date of submission;
 - .2 names, addresses, and telephone numbers of Contract Administrator and Contractor with name of responsible parties; and
 - .3 schedule of products and systems, indexed to content of volume.
- .2 For each product or system, list names, addresses and telephone numbers of Subcontractors and Suppliers, including local source of supplies and replacement parts.
- .3 Product Data: mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information.
- .4 Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- .5 Typewritten Text: as required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section 01 45 00 - Quality Control.
- .6 Certificates of Acceptance: relevant certificates issued by authorities having jurisdiction, including code compliance certificate.

1.5 WARRANTIES AND BONDS

- .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
- .2 List Subcontractor, Supplier, and manufacturer, with name, address, and telephone number of a responsible principal.
- .3 Obtain warranties and bonds, executed in duplicate by Subcontractors, Suppliers, and manufacturers, within ten days after completion of the applicable item of work.

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- .4 Except for items put into use with The City's permission, leave date of beginning of time of warranty until the Date of Substantial Performance is determined.
- .5 Verify that documents are in proper form, contain full information, and are notarized.
- .6 Co-execute submittals when required.
- .7 Retain warranties and bonds until time specified for submittal.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 – Submittal Procedures

1.2 REFERENCES

- .1 ASTM International Inc.
 - .1 ASTM A36/A36M-14, Standard Specification for Carbon Structural Steel.
 - .2 ASTM A193/A193M-17, Standard Specification for Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature or High-Pressure Service and Other Special Purpose Applications.
 - .3 ASTM A307-14e1, Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
 - .4 ASTM F3125/F3125M, Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-85.10-99, Protective Coatings for Metals.
- .3 Canadian Institute of Steel Construction (CISC)/Canadian Paint Manufacturer's Association (CPMA)
 - .1 CISC/CPMA 2-75, Quick-Drying, Primer for Use on Structural Steel.
 - .2 CISC/CPMA 1-73a, Quick-Drying, One-Coat Paint for Use on Structural Steel.
- .4 Canadian Standards Association (CSA International)
 - .1 CSA G40.20/G40.21-13, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
 - .2 CAN/CSA-G164-18, Hot Dip Galvanizing of Irregularly Shaped Articles.
 - .3 CAN/CSA-S16-14, Limit States Design of Steel Structures.
 - .4 CAN/CSA-S136-16, North American Specifications for the Design of Cold Formed Steel Structural Members.
 - .5 CSA W47.1-09, Certification of Companies for Fusion Welding of Steel.
 - .6 CSA W48-18, Filler Metals and Allied Materials for Metal Arc Welding.
 - .7 CSA W55.3-08(R2018), Resistance Welding Qualification Code for Fabricators of Structural Members Used in Buildings.
 - .8 CSA W59-18, Welded Steel Construction (Metal Arc Welding).
- .5 The Society for Protective Coatings (SSPC) and National Association of Corrosion Engineers (NACE) International

- .1 SSPC SP-2, SP-7.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
 - .1 Provide drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba, Canada.
- .3 Erection drawings:
 - .1 Submit erection drawings indicating details and information necessary for assembly and erection purposes including:
 - .1 Description of methods.
 - .2 Sequence of erection.
 - .3 Type of equipment used in erection.
 - .4 Temporary bracings.
- .4 Fabrication drawings:
 - .1 Submit fabrication drawings showing designed assemblies, components and connections are stamped and signed by qualified professional engineer licensed in the Province of Manitoba, Canada.
- .5 Fabricator Reports:
 - .1 Upon request, provide structural steel fabricator's affidavit stating that materials and products used in fabrication conform to applicable material and products standards specified and indicated.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver materials in manufacturer's original, undamaged containers with identification labels intact.

Part 2 Products

2.1 DESIGN REQUIREMENTS

- .1 Design details and connections in accordance with requirements of CAN/CSA-S16 and CAN/CSA-S136 with CSA-S136.1 to resist forces, moments, shears and allow for movements indicated.
- .2 Shear connections:

- .1 Select framed beam shear connections from an industry accepted publication such as "Handbook of the Canadian Institute of Steel Construction" when connection for shear only (standard connection) is required.
- .2 Select or design connections to support reaction from maximum uniformly distributed load that can be safely supported by beam in bending, provided no point loads act on beam, when shears are not indicated.
- .3 For composite construction select or design minimum end connection to resist reaction resulting from factored movement resistance as tabulated in the "Handbook of the Canadian Institute of Steel Construction" assuming 100% shear connection with depth of steel deck and/or slab shown on drawings.
- .4 Upon request, Submit sketches and design calculations stamped and signed by qualified professional engineer licensed in Province of Manitoba, Canada for non standard connections.

2.2 MATERIALS

- .1 Structural steel: All rolled or steel structural sections shall be G40.21-350W. All Hollow structural sections to be G40.21-350W class C. All angles, channels and plates shall be G40.21-300W.
- .2 Anchor bolts: to CSA-G40.20/G40.21, Grade 300W.
- .3 Bolts, nuts and washers: to ASTM A307, ASTM A325M, and ASTM A490/A490M as required.
- .4 Welding materials: to CSA W59 and certified by Canadian Welding Bureau.
- .5 Shop paint primer:
 - .1 Steel not receiving finish painting: one coat of CISC/CPMA 1-73A quick drying shop primer
 - .2 Steel receiving finish painting: one coat of CISC/CPMA 2-75 quick drying shop primer.
- .6 Hot dip galvanizing: galvanize steel, where indicated, to CAN/CSA-G164, minimum zinc coating of 600 g/m².
- .7 Shear studs: to CSA W59, Appendix H.

2.3 FABRICATION

- .1 Fabricate structural steel in accordance with CAN/CSA-S16, CAN/CSA-S136, and in accordance with reviewed shop drawings.
- .2 Install shear studs in accordance with CSA W59.
- .3 Continuously seal members by continuous welds where indicated. Grind smooth.

2.4 SHOP PAINTING

- .1 Clean, prepare surfaces and shop prime structural steel as follows:
 - .1 Steel not receiving finish painting: One coat of CISC / CPMA 1-73a quick drying shop primer. Steel to be cleaned in conformance with SSPC-SP2.
 - .2 Steel receiving finish painting: One coat of CISC / CPMA 2-75 quick drying shop primer. Steel to be cleaned in conformance with SSPC-SP7.
 - .3 Exterior structural steel: All exterior structural steel shall be hot-dipped galvanized unless noted.
- .2 Clean members, remove loose mill scale, rust, oil, dirt and foreign matter.
- .3 Apply one coat of primer in shop to steel surfaces, except:
 - .1 Surfaces to be encased in concrete.
 - .2 Surfaces to receive field installed stud shear connections.
 - .3 Surfaces and edges to be field welded.
 - .4 Faying surfaces of slip-critical connections.
 - .5 Below grade surfaces in contact with soil.
- .4 Apply paint under cover, on dry surfaces when surface and air temperatures are above 5 degrees C.
- .5 Maintain dry condition and 5 degrees C minimum temperature until paint is thoroughly dry.
- .6 Strip paint from bolts, nuts, sharp edges and corners before prime coat is dry.

Part 3 Execution

3.1 APPLICATION

- .1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 GENERAL

- .1 Structural steel work: in accordance with CAN/CSA-S16, CAN/CSA-S136.
- .2 Welding: in accordance with CSA W59.
- .3 Companies to be certified under Division 1 or 2.1 of CSA W47.1 for fusion welding of steel structures and/or CSA W55.3 for resistance welding of structural components.

3.3 CONNECTION TO EXISTING WORK

- .1 Verify dimensions and condition of existing work, report discrepancies and potential problem areas to Contract Administrator for direction before commencing fabrication.

3.4 MARKING

- .1 Mark materials in accordance with CSA G40.20/G40.21. Do not use die stamping. When steel is to be left in unpainted condition, place marking at locations not visible from exterior after erection.
- .2 Match marking: shop mark bearing assemblies and splices for fit and match.

3.5 ERECTION

- .1 Erect structural steel, as indicated and in accordance with CAN/CSA-S16, CAN/CSA-S136, and in accordance with reviewed erection drawings.
- .2 Field cutting or altering structural members: to approval of Contract Administrator.
- .3 Clean with mechanical brush and touch up shop primer to bolts, rivets, welds and burned or scratched surfaces at completion of erection.
- .4 Continuously seal members by continuous welds where indicated. Grind smooth.

3.6 FIELD QUALITY CONTROL

- .1 Inspection and testing of materials and workmanship will be carried out by testing laboratory designated by Contract Administrator.
- .2 Provide safe access and working areas for testing on site, as required by testing agency and as authorized by Contract Administrator.
- .3 Submit test reports to Contract Administrator within 2 weeks of completion of inspection.
- .4 The City will pay costs of tests as specified in Section 01 21 00 – Allowances.
- .5 Test shear studs in accordance with CSA W59.

3.7 FIELD PAINTING

- .1 Paint in accordance with Section 09 91 00 - Painting.
 - .1 Touch up damaged surfaces and surfaces without shop coat with primer to SSPC-SP7 except as specified otherwise. Apply in accordance: MPI Architectural Painting Specification Manual.

3.8 CLEANING

- .1 Clean in accordance with Section 01 74 00 – Project Clean-Up.

END OF SECTION