

Partie 1 General

1.1 RELATED SECTIONS

- .1 Section [01 33 00 Documents and samples to be submitted].
- .2 Section [01 74 21 - Management and elimination of construction/demolition waste].
- .3 Section [05 21 00 Steel joist framing].
- .4 Section [05 31 00 Steel decking].

1.2 REFERENCES

- .1 American Society for Testing and Materials International, (ASTM)
 - .1 ASTM A36/A36M[01], Specifications for Structural Steel.
 - .2 ASTM A193/A193M[01b], Specifications for Alloy Steel and Stainless Steel Bolting Materials for High Temperature Service.
 - .3 ASTM A307[00], Specifications for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
 - .4 ASTM A325[02], Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
 - .5 ASTM A325M[00], Specifications for High Strength Bolts for Structural Steel Joints [Metric].
 - .6 ASTM A490M[00], Specifications for High Strength Steel Bolts, Classes 10.9 and 10.9.3, for Structural Steel Joints (Metric).
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB85.10[99], Protective Coating for Metals
- .3 Canadian Institute for Steel Construction (CISC)/The Canadian Paint and Coatings Association (formerly the Canadian Paint Manufacturers Association (CPMA)).
 - .1 ICCA/AFPC 1[73b], A Quick-drying One-coat Paint for Use on Structural Steel
 - .2 ICCA/AFPC 2[73b], A Quick-drying Primer for Use on Structural Steel
- .4 Canadian Standards Association (CSA)/CSA International
 - .1 CAN/CSAG40.20/G40.21[F98], General Requirements for Rolled or Welded Structural Quality Steel / Structural Quality Steel=.
 - .2 CAN/CSAG164[FM92(C1998)], Hot Dip Galvanizing of Irregularly Shaped Articles
 - .3 CAN/CSAS16[01], Limit States Design of Steel Structures (Règles de calcul aux états limites des charpentes en acier).
 - .4 CAN/CSAS136[F94(C2001)], Limit States Design of Steel Structures (Éléments de charpente en acier formés à froid).
 - .5 CSAS136.1[95(R2001)], Commentary on CSA Standard S136.

- .6 CSA W47.1[F92(C2001)], CSA W47.1 Fusion Welding of Steel, Company Certification
- .7 CSA W48[F01], Electrode and Filler Metals Certification
- .8 CSA W55.3[1965(R1998)], Resistance Welding Qualification Code for Fabricators of Structural Members Used in Buildings.
- .9 CSA W59[FM1989(C2001)], Welded Steel Construction (metal arc welding) (metric).
- .5 Master Painters Institute
 - .1 MPIINT 5.1[98], Structural Steel and Metal Fabrications.
 - .2 MPIEXT 5.1[98], Structural Steel and Metal Fabrications.
- .6 The Society for Protective Coatings (SSPC)
 - .1 SSPC SP6/NACE No. 3[00], Commercial Blast Cleaning.

1.3 CALCULATION CRITERIA

- .1 The details provided for the assembly and work must be calculated in compliance with [CAN/CSAS16] [,] [and] [CAN/CSAS136] [and CSAS136.1] standards regarding force resistance, given moments and limitations of shear stresses and take into consideration predicted thermal movement.
- .2 Assemblies subjected to shear stresses.
 - .1 Stipulate triangulated shear resistant structural steel assemblies (standard assemblies) in compliance with the guidelines of a recognized industry publication such as the* Handbook of the Canadian Institute of Steel Construction +.
 - .2 If the shear stresses are not directly stated, stipulate or calculate the assemblies so that they are resistant to the stresses exerted by an evenly distributed maximum load that can be supported by the flexional beams on the condition that they are not submitted to any concentrated loads.
- .3 For non-standard assemblies, submit sketches and calculations bearing the signature and seal of a competent professional engineer who is legally able to practise their profession in the province of Quebec, Canada.

1.4 SHOP DRAWINGS

- .1 Submit the required shop drawings, including the assembly and erection documents as well as the list of materials as stated in Section [01 33 00 Documents and samples to be submitted].
- .2 Installation drawings: must include all the details and information required for the assembly and erection of elements including:
 - .1 Working methods
 - .2 Assembly order
 - .3 The types of material to be used for the assembly
 - .4 Temporary bracing devices for structural steel elements

- .3 Ensure that the drawings submitted for the assemblies, their competent parts and the components developed by a fabricator bear the seal and signature of a competent professional engineer who is legally able to practise their profession in the province of Quebec, Canada

1.5 SAMPLES

- .1 Submit the samples in accordance with [Section 01 33 00 Submittal Procedures]
- .2 Test a sample of each exposed assembly in compliance with the [AISC Specifications of Architecturally Exposed Structural Steel] and have them approved by the Consultant. These samples are to be evaluated after the surfaces are properly and evenly aligned and once the finished welding is continuous and even. The approved samples will be used as reference models to judge the acceptability of materials, the quality of the execution of work and the appearance of the work as a whole.

1.6 QUALITY ASSURANCE

- .1 Submit one bench trial report sample four weeks before the structural steel assembly is erected.
 - .1 The bench trial report must indicate the chemical and physical properties of the steel before its used in the present work as well as any other relevant details.
 - .2 The bench trials must be certified by a metallurgist who is legally able to practise their profession in the province of Quebec, Canada.
- .2 An affidavit from the fabricator of the structural steel to be used in the construction must also be provided, certifying that the products, and materials used for this work meet the relevant standards for recommended and/or required products and materials.

1.7 WASTE MANAGEMENT AND DISPOSAL

- .1 Sort and recycle the waste in compliance with the stipulations of [section [01 74 21 - Management and elimination of construction/demolition waste].
- .2 Remove all packaging materials from the worksite and send them to the appropriate recycling facilities.
- .3 Recover and sort all the paper packaging materials and put it into the proper onsite recycling bins in compliance with the waste management plan.
- .4 Send all unused paint products to a metal recycling facility approved by the Ministerial representative.
- .5 Send all unused paint products to a hazardous materials collection facility approved by the Ministerial representative.
- .6 Pouring any unused paint products into drains or bodies of water, onto the ground, or any other area which may endanger health or the environment, is strictly forbidden.

Partie 2 Products

2.1 MATERIALS

- .1 Structural steel: in compliance with CAN/CSAG40.20/G40.21, guideline dependent.
- .2 Anchor bolts: in compliance with CAN/CSAG40.20/G40.21, 300W or ASTM A36/A36M dependant.
- .3 Bolts, screws and washers: in compliance with ASTM A325.
- .4 Welding materials: in compliance with CSA W48 and certified by the Canadian Welding Bureau
- .5 Shop applied primer: in compliance with ICCA/AFPC 1
- .6 Hot-dip galvanization: following guidelines for galvanized steel elements in compliance with CAN/CSAG164 with a 600 g/m² minimum for the zinc coating.
- .7 Shear Studs: in compliance with CSA W59, appendix H standard

2.2 FABRICATION

- .1 The steel elements must be fabricated in compliance with CAN/CSAS16 standards and the guidelines given in the approved shop drawings.
- .2 The joints must be sealed with continuous welding. The welds must be then be ground smooth.

2.3 PAINT APPLIED IN SHOP

- .1 Structural steel elements must be cleaned, prepared and primed in the shop in compliance with CAN/CSAS16 with the exception of elements that are to be embedded in concrete.
- .2 Elements must be cleaned, and all mill scale, rust, oil or dust and any other foreign matter must be removed. Surfaces must be prepared according to the methods given in SSPCSP6.
- .3 The primer layer must be applied in shop to obtain a dry film thickness of between 0.065 and 0,080 mils on all steel surfaces with the following exceptions:
 - .1 Surfaces to be embedded in concrete
 - .2 Surfaces that will have shear studs applied onsite
 - .3 Surfaces and edges that are to be welded onsite
 - .4 Contact surfaces for friction assemblies
 - .5 Surfaces located below ground level and that are in direct contact with the ground.
- .4 Paint must be applied in a sheltered area to a dry surface when the temperature of the ambient air and the surfaces are above 5 degrees Celsius.
- .5 Painted elements must be kept dry and above 5 degrees Celsius until the paint is fully dried.

- .6 Any paint on the bolts, nuts, sharp edges and angles must be removed before it is dry.

Partie 3 Execution

3.1 GENERAL

- .1 The structural steel work must be done in compliance with the CAN/CSAS16 standard.
- .2 Welding work must be done in compliance with the CSA W59 standard.
- .3 Welding companies must be certified according to the terms of Division 1 of the present specification or article 2.1 of the CSA W47.1 standard regarding the fusion welding of steel and/or the W55.3 CSA standard regarding resistance welding of framing elements.

3.2 ATTACHMENT TO AN EXISTING WORK

- .1 Before undertaking the fabrication of elements, verify the dimension and state of the existing work and then advise the Consultant of any sizing discrepancy or any possible connection issues before obtaining new guidelines.

3.3 MARKING

- .1 All elements must be marked in compliance with the CAN/CSA G40.20/G40.21 standard. The use of stamping to mark elements is forbidden. In the case of steel elements that are not to be painted, the marks must be placed so that they are not readily visible once the assembly is finished.
- .2 Assembly guideline markings: mark the joints and bearing elements in the shop to ensure that the assemblies are properly adjusted.

3.4 ERECTION

- .1 Erect all the structural steel elements according to the guidelines in compliance with the CAN/CSAS16 standard as well as approved drawings.
- .2 Modifying or cutting structural components on the worksite requires prior approval from the Consultant.
- .3 Once the assembly is complete, clean and touch up any surfaces where the primer coat has been burned or scratched with a mechanical brush including all bolts, rivets and welds.
- .4 Seal the joints using continuous welding at the indicated areas. These welds must then be ground smooth.

3.5 ONSITE QUALITY ASSURANCE

- .1 The inspection and verification (of materials and the quality of work performed) will be conducted by the designated testing laboratory by the ministerial representative.

- .2 Set aside work areas and points of access for onsite trials in accordance with the needs of the organization tasked with the trials in compliance with the guidelines established by the Consultant.
- .3 Submit the trial test reports to the Consultant within four (4) weeks following the testing.
- .4 Test the shear studs in compliance with the CSA W59 standard.

3.6 ONSITE PAINTING

- .1 Perform the painting work in accordance with industry standards.
 - .1 Unless indicated otherwise, touch up the paint using a primer that meets SSPCSP6 the standard as well as any other surfaces that have been damaged and any surfaces that were not painted in the shop. Apply the paint in compliance with the CAN/CGSB 85.10 standard.

END OF SECTION

Partie 1 General

1.1 RELATED SECTIONS

- .1 Section [01 29 83 Payment - Laboratory testing services].
- .2 Section [01 33 00 Documents and samples to be submitted].
- .3 Section [01 74 21 - Management and elimination of construction/demolition waste].
- .4 Section [04 05 00 - Masonry- General requirements for work results] for anchor installation.
- .5 Section [05 31 00 Steel decking].
- .6 Section [09 91 23 Interior painting - New work].

1.2 REFERENCES

- .1 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB1.40[97], Anticorrosive Structural Steel Alkyd Primer.
 - .2 CAN/CGSB1.105[M91], Quick-Drying Primer.
 - .3 CAN/CGSB85.10[99], Protective Coating for Metals
 - .4 CAN/CGSB85.100[93], Painting.
- .2 Canadian Institute for Steel Construction (CISC)/The Canadian Paint and Coatings Association (CPCA) (formerly the Canadian Paint Manufacturers Association (CPMA))
 - .1 ICCA/AFPC 2[73b], A Quick-drying Primer for Use on Structural Steel
 - .2 ICCA/AFPC 1[73b], A Quick-drying One-coat Paint for Use on Structural Steel
- .3 Canadian Standards Association (CSA)/CSA International
 - .1 CAN/CSAG40.20/G40.21[F98], General Requirements for Rolled or Welded Structural Quality Steel / Structural Quality Steel.
 - .2 CAN/CSAS16[01], Limit States Design of Steel Structures (Règles de calcul aux états limites des charpentes en acier).
 - .3 CSAS136[F94(C2001)] Cold-Formed Steel Structural Members
 - .4 CSAW47.1[F92(C2001)], CSA W47.1 Fusion Welding of Steel, Company Certification
 - .5 CSAW55.3[1965(R1998)], Resistance Welding Qualification Code for Fabricators of Structural Members Used in Buildings.
 - .6 CSAW59[FM1989(C2001)], Welded Steel Construction (metal arc welding) (metric).
 - .7 CSAW59S1[FM1989(C1998)] Supplement No. 1-M1989 to W47.1-1983, Certification of Companies for Fusion Welding of Steel Structures.

1.3 QUALITY ASSURANCE

- .1 Submit one (1) bench trial report sample four (4) weeks before the structural steel assembly is erected. The reports submitted must include the following information:
 - .1 The physical and chemical properties of the steel
 - .2 Other details regarding the steel before being used for the present work
 - .3 Certificates prepared by competent metallurgist confirming that the tests were performed following the CSA G40.20/G40.2 standard.
- .2 Also to be provided, is an affidavit from the fabricator of the structural steel joists to be used in the construction, certifying that the products, and materials used for this work meet the relevant standards in this section.

1.4 CALCULATIONS FOR THE STEEL JOISTS AND BRACES

- .1 Steel joists and braces must be designed to support the loads given in the classifications given for the joists as per the drawings in compliance with the CAN/CSAS16 standard.
- .2 The joists and anchors must be calculated to resist raising in accordance with the indicated uplift.
- .3 The joists must be fabricated so as to resist the stresses exerted during fabrication, handling and assembly.
- .4 The vibration frequency of the joist/flooring system must fall between 3 Hz and 8 Hz.
- .5 Perform a floor vibration analysis according to the Consultant's guidelines.
- .6 Flexion of the roofing joists caused by the stated overload must not surpass 1/360 of the span and flexion caused by the total stated load must not surpass 1/240 of the span.
- .7 Flexion of the floor joists due to the given overload must not surpass 1/360 of the span and flex caused by the total stated load must not surpass 1/240 of the span.
- .8 At least four (4) weeks before the joists are fabricated and/or delivered, a minimum of one (1) sample of the calculations and concept drawings for the types of joists must be sent to the Consultant.

1.5 SHOP DRAWINGS

- .1 Submittals: in accordance with Section 01 33 00 Documents and samples to be submitted].
- .2 The drawings submitted must bear the seal and signature of a competent professional engineer who is legally able to practise their profession in the province of Quebec, Canada.
- .3 The shop drawings must provide the relevant details including: markings, depth and placement of the joists, bracing lines, supports and anchors.
- .4 The shop drawings must also provide characteristics regarding the geometry of joists, framing, supports, joints and anchors as well as the dimensions and properties of the

elements and their constraining forces and limitations, both specified and estimated, given the various loads and flexion of the camber.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 Sort and recycle the waste in compliance with the stipulations of [section [01 74 21 - Management and elimination of construction/demolition waste].
- .2 Remove all packaging materials from the worksite and send them to the appropriate recycling facilities.
- .3 Recover and sort all the paper packaging materials and put it into the proper onsite recycling bins in compliance with the waste management plan.
- .4 Send all unused metal components to a metal recycling facility approved by the Ministerial representative.
- .5 Send all unused paint products to a hazardous materials collection facility approved by the Ministerial representative.
- .6 Pouring any unused paint products into drains, bodies of water, onto the ground or any other area which may endanger health, or the environment is strictly forbidden.

Partie 2 Products

2.1 MATERIALS

- .1 Steel truss girders:
 - .1 Acceptable products: All fabricators must comply with the following:
- .2 Structural steel: in compliance with CAN/CSAG40.20/G40.21, guideline dependent.
- .3 Welding materials: in compliance with CSAW59 and supplement CSAW59S1.
- .4 Shop applied primer: in compliance with ICCA/CGSB1.40
- .5 Shear Studs: in compliance with CSAW59, appendix H standard and its supplement CSAW59S1.

2.2 FABRICATION

- .1 The joists and steel accessory parts must be fabricated according to the stipulations of the CAN/CSAS16.1 standard and in accordance with the approved shop drawings.
- .2 The welding work must be done in compliance with the CSAW59 standard and its supplement CSAW59S1.
- .3 The upper and lower members must be extended in the areas indicated.
- .4 Provide and install the horizontal brace the transversal brace and the anchors as indicated.

- .5 The studs must be welded to the upper members so that they can be fitted.
- .6 The welding work must be done in compliance with the CSAW59 standard and its supplement CSAW59S1.

2.3 PAINT APPLIED IN SHOP

- .1 in the shop in compliance with the CAN/CSAS16 standard.
- .2 Elements must be properly cleaned, and all mill scale, rust, oil or dust and any other foreign matter must be removed and prepared in compliance with the SSPC SP1 standard on brush stripping.
- .3 The steel surfaces must be primed according to the CISC/AFPC 2 standard in order to obtain a dry film thickness of between 0.065 and 0,080 mm on all surfaces with the following exceptions:
 - .1 Surfaces to be embedded in concrete
 - .2 Surfaces that will have shear studs and steel decking applied onsite
 - .3 Surfaces and edges that are to be welded onsite
 - .4 Contact surfaces for friction assemblies
 - .5 Surfaces located below ground level and that are in direct contact with the ground.
- .4 Paint must be applied in a sheltered area to a dry surface when the temperature of the ambient air and the surfaces are above 5 degrees Celsius.
- .5 Painted elements must be kept dry and above 5 degrees Celsius until the paint is fully dried.
- .6 All bolts, screws, sharp edges and corners must have all traces of paint removed before it has dried.

Partie 3 Execution

3.1 GENERAL

- .1 The structural steel work must be done in compliance with the CAN/CSAS16 standard.
- .2 Welding work must be done in compliance with the CSA CSAW59S1 standard.
- .3 Welding companies must be certified according to the terms of Division 1 of the present specification or article 2.1 of the CSAW47.1 standard regarding the fusion welding of steel and/or the CSAW55.3 standard regarding resistance welding of framing elements.
- .4 Provide a certificate that stated that welded joints comply with the qualifying rules of the Canadian Welding Bureau.

3.2 ATTACHMENT TO AN EXISTING WORK

- .1 Before undertaking the fabrication of elements, verify the dimension and state of the existing work and then advise the Consultant of any sizing discrepancy or any possible connection issues before obtaining new guidelines.

3.3 ONSITE QUALITY ASSURANCE

- .1 The inspection and verification (of materials and the quality of work performed) will be conducted by the designated testing laboratory by the ministerial representative.
- .2 The testing laboratory will inspect the representative joists to ensure their integrity and the precision of fabrication and their welding resistance. The laboratory will also monitor the loading tests performed on the joists by the fabricator to verify the calculations for the structure and a given number of representative assemblies done onsite. The Consultant will determine the nature and extent of the inspections required.
- .3 Submit the test reports to the Consultant within five (5) days of the inspection.
- .4 Test the shear studs in compliance with the CSAW59 standard.

3.4 ERECTION

- .1 Erect all the structural steel joists and braces according to the guidelines in compliance with the CAN/CSAS16 standard as well as approved drawings.
- .2 Finish the installation of the braces and anchors before submitting the joists to the permanent loads that they will be supporting.
- .3 Modifications or cuts to the joists and/or braces performed onsite that are not indicated on the shop drawings must be approved in advance by the Consultant.
- .4 Once the assembly is complete, clean and touch up any surfaces where the primer coat has been burned or scratched with a mechanical brush including all bolts, rivets and welds.

3.5 ONSITE PAINTING

- .1 Paint work must be done in compliance with the stipulations of Section [09 91 23 Interior painting New work].
- .2 Using a paint that complies with CAN/CGSB1.105 and CAN/CGSB1.40 standards, touch up and damaged surfaces as well as the surfaces that were not painted in the shop according to the recommendations of the fabricator and in compliance with the CAN/CGSB85.10 standard.

END OF SECTION

Partie 1 General

1.1 RELATED SECTIONS

- .1 Section [01 33 00 Documents and samples to be submitted].
- .2 Section [01 74 21 - Management and elimination of construction/demolition waste].
- .3 Section [09 91 23 Interior painting New work].
- .4 Section [05 12 23 Structural steel for buildings].
- .5 Section [05 21 00 Steel joist framing].

1.2 REFERENCES

- .1 American Society for Testing and Materials International, (ASTM)
 - .1 ASTM A653/A653M[01a], Specifications for Steel Sheet, Zinc Coated (Galvanized) or Zinc Iron Alloy Coated (Galvannealed) by the Hot Dip Process.
 - .2 ASTM A792/A792M[01a], Specification for Steel Sheet, 55% Aluminum Zinc Alloy Coated by the Hot Dip Process.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB1.181[99], Ready-Mixed Organic Zinc-Rich Coating
- .3 Canadian Standards Association (CSA)/CSA International
 - .1 CSA C22.2 No. 79[1978(R1999)], Cellular Metal and Cellular Concrete Floor Raceways and Fittings.
 - .2 CAN/CSAS16.1[F94(C2000)], Limit States Design of Steel Structures
 - .3 CSAS136[F94(C2001)] Cold-Formed Steel Structural Members
 - .4 CSA W47.1[F92(C2001)], CSA W47.1 Fusion Welding of Steel, Company Certification
 - .5 CSA W55.3[1965(R1998)], Resistance Welding Qualification Code for Fabricators of Structural Members Used in Buildings.
 - .6 CSA W59F[FM1989(C2001)], Welded Steel Construction (metal arc welding) (metric).
- .4 Canadian Sheet Steel Building Institute (CSSBI)
 - .1 CSSBI 10M[96], Standard for Steel Roof Deck.
 - .2 CBBSI 12M[96], Standard for Composite Deck.

1.3 CALCULATION CRITERIA

- .1 Calculate the steel decking according to the limit states method given in the CSA S136, CSSBI 10M and CSSBI 12M standards.
- .2 Steel decking, and their assembly elements for structural steel in buildings, must resist permanent loads and dynamic loads as well as other limits and forces including lateral

loads, the diaphragm effect, the forming reinforcement composite effect and uplift according to specifications.

- .3 Deformation (flexion) caused by the specified dynamic loads must not surpass 1/240 of the span. In the case of drywall ceilings which are suspended directly from the decking, the deformation caused by dynamic loads must not surpass 1/360 of the span
- .4 Regarding limiting the effects of vibration according to the indications, the dynamic characteristics of the decking system must be calculated in accordance with CAN/CSAS16.1, appendix G.

1.4 SHOP DRAWINGS

- .1 Submit the required shop drawings, including the bracing and erection documents as stated in Section [01 33 00 Documents and samples to be submitted].
- .2 Each drawing must bear the seal and signature of a competent professional engineer who is legally able to practise their profession in the province of Quebec, Canada.
- .3 Submit the design calculations if they are requested by the Consultant.
- .4 The shop drawings must indicate, present or include the plan, profile and dimensions of the decking, the thickness of the base metal, the designation of the metal covering, any projections, openings, fastening elements for the supports as well as their spacing, details and any accessories.
- .5 In the case of decking covered by concrete, the shop drawings must indicate, present or include relevant details regarding temporary supports for the steel decking, particularly the placement of the braces, when they need to be put into place and removed, as well as the stated duration for each of these operations.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Sort and recycle the waste in compliance with the stipulations of [section [01 74 21 - Management and elimination of construction/demolition waste].
- .2 Send all unused metal to a metal recycling facility approved by the Ministerial representative.
- .3 Send all unused paint products to a hazardous materials collection facility approved by the Ministerial representative.
- .4 Pouring any unused paint products into drains, bodies of water, onto the ground or any other area which may endanger health, or the environment is strictly forbidden.
- .5 Send all unused caulking products to a hazardous materials collection facility approved by the Ministerial representative.

Partie 2 Products

2.1 MATERIALS

- .1 Steel sheets covered with a Zinc-iron alloy: structural steel sheets must comply with ASTM A653/A653M, minimum of 230, and be fabricated using a base metal with a thickness of 0.762 mm. They must have a ZF75 zinc coating and be unpainted for all interior surfaces that are not exposed to the elements.
- .2 Decking to be painted: zinc-iron decking should be covered with a finishing layer of paint.
- .3 Acoustic insulation: Fiberglas with a mass of 17.5 kg/m³, joining the fluted decking.
- .4 Closures: must comply with the manufacturer's recommendations.
- .5 Cover plates, cell closures and flashing: steel sheets with a minimum thickness of 0.76 mm with a finish for the metal covering that is the same as the decking.
- .6 Primer: Ready-Mixed Organic Zinc-Rich Coating in compliance with ICCA/CGSB1.181.
- .7 Caulking: in compliance with section 07
- .8 Shear Studs: in compliance with CSA W59, appendix H

2.2 DECKING TYPES

- .1 Steel decking [roof]: steel decking fabricated using a base metal with a minimum thickness of 35 mm, a profile of 40 mm in depth, cells and interlocking sides; flat sheeting fabricated using a base metal with a minimum thickness of 0.76 mm for the cellular decking.
- .2 Composite steel decking [roof]: steel decking fabricated using a base metal with a minimum thickness of 0.76 mm, a profile of 38 mm in depth, cells, vertical channels or inverted relief, interlocking sides; flat sheeting fabricated with a minimum thickness of 0.76 mm for cellular decking.
- .3 Cellular decking for electrical channels: in accordance with the CSA C22.2 No. 79 standard.

Partie 3 Execution

3.1 GENERAL

- .1 Steel decking work is to be done in compliance with CAN/CSAS136, CSSBI 10M and CSSBI 12M standards.
- .2 Welding work must be done in compliance with the CSA W59 standard.
- .3 Welding companies must be certified according to the terms of Division 1 of the present specification, or article 2.1 of the CSA W47.1 standard regarding the fusion welding of steel, and/or the W55.3 CSA standard regarding resistance welding of framing elements.

3.2 ERECTION

- .1 Mount the steel decking as indicated and in compliance with the CAN/CSA S136, CSSBI 10M and CSSBI 12M standards and according to the verified assembly drawings.
- .2 Abut the ends of the decking sheets leaving a free space of 1.5 to 3 mm. Close the 3 mm spaces with the steel cover plates.
- .3 The edges of the decking sheets must overlap by at least 50 mm.
- .4 Weld the post shear studs through the decking as far as the underlying steel beams and submit the weld to testing in compliance with the requirements of CSA W59.
- .5 As soon as the decking is permanently fixed, touch it up using primer compatible paint on the top of the decking and on areas where the metal covering was burned during welding.
- .6 The steel decking must have all dirt, debris, standing water, mill scale and other foreign matter removed before the concrete is put into place.
- .7 The temporary supports, where applicable, must be calculated to resist construction overload and to support wet cement as well as the equipment used for the execution of work. Do not remove the temporary supports before the concrete footing has reached 75% of the compression resistance at the 28 day mark as prescribed.
- .8 Position the steel reinforcing steel and support them as indicated.

3.3 STOP ENDS

- .1 Install the stop ends in compliance with the approved details.

3.4 OPENINGS AND SURFACES SUBMITTED TO CONCENTRATED LOADS

- .1 No support is required for openings of less than 150 mm on the practical side of the decking.
- .2 Unless otherwise indicated, reinforce all openings when one of the sides measures between 150 and 300 mm, according to the recommendations of the fabricator.
- .3 Unless otherwise indicated, reinforce the surfaces submitted to concentrated loads as well as any overages where one of the sides measures 300 in compliance with the shop drawings.

3.5 ASSEMBLY

- .1 Install the assembly elements in compliance with the recommendations of the CSSBI as indicated.

END OF SECTION