PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

E1.1 These Specifications shall apply to the Work.

E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.

E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at http://www.winnipeg.ca/matmgt.

E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.

E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.

E1.3 The following are applicable to the Work:

Sheet No.	Drawing Name/Title	Drawing (Original) Sheet Size
--	Cover Sheet	A1
1	Pembina Corridor – Pembina Hwy @ University Cres	A1
2	Pembina Corridor – Pembina Hwy @ Bishop Grandin Blvd E/B Off Ramp	A1
3	Pembina Corridor – Pembina Hwy @ Jubilee Ave	A1
4	Pembina Corridor – Osborne St @ Corydon Ave	A1
5	St Mary's Corridor – St Mary's Rd @ Bishop Grandin Blvd	A1
6	St Mary's Corridor – St Mary's Rd @ Bishop Grandin Blvd	A1
7	St Mary's Corridor – St Mary's Rd @ Bishop Grandin Blvd	A1
8	St Mary's Corridor – St Mary's Rd @ Dunkirk/Dakota	A1
9	St Anne's Corridor – St Anne's Rd @ Bishop Grandin Blvd	A1
10	St Anne's Corridor – St Anne's Rd @ Fermor Ave	A1
11	St Anne's Corridor – St Anne's Rd @ Kingswood Ave	A1
12	Standard Details – Cross Sections	A1
13	Balanced Aluminum Shoulder Barrier – Layout	A1
14	Balanced Aluminum Shoulder Barrier – Standard Detail	A1

E2. PROTECTION OF EXISTING TREES

E2.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:

(a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.

(b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400mm wood planks, or suitably protected as approved by the Contract Administrator.

(c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.

(d) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface

directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.

(e) Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

E2.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his designate.

E2.3 No separate measurement or payment will be made for the protection of trees.

E2.4 Except as required in clause E2.1(c) and E2.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

E3. TRAFFIC CONTROL

E3.1 Further to clauses 3.6 and 3.7 of CW 1130-R1:

(a) Where directed, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. No measurement for payment will be made for this work.

(b) In accordance with the Manual of Temporary Traffic Control, the Contractor ("Agency" in the manual) shall make arrangements with the Traffic Services Section of the City of Winnipeg to place all temporary regulatory signs. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by the Traffic Services Section of the City of Winnipeg in connection with the works undertaken by the Contractor.

E4. TRAFFIC MANAGEMENT

E4.1 Further to clause 3.7 of CW 1130-R1:

E4.1.1 The Contractor may close the lane adjacent to the lane under construction to facilitate equipment staging and loading except as follows:

(a) Part A: No restriction on adjacent lane closure.

(b) Part B: The Bishop Grandin Off Ramp must be open to traffic at all times. The bus stop "jug handle" must be open to buses at all times.

(c) Part C: The adjacent lane shall not be closed between 0700 – 0900 hours.

(d) Part D: The adjacent northbound lane shall not be closed between 0700 – 0900 hours. The adjacent southbound lane shall not be closed between 1530 – 1730 hours. The bus bay shall be completely closed to all bus traffic for the duration of the project.

(e) Part E: No restriction on adjacent lane closure.

(f) Part F: No restriction on adjacent lane closure.

(g) Part G: At least 35 metres of storage from the bullnose shall be maintained in the adjacent left turn storage lane at all times, except for short durations as approved by the Contract Administrator.

(h) Part H: No restriction on adjacent lane closure.

(i) Part I: No restriction on adjacent lane closure.

(j) Part J: No restriction on adjacent lane closure, unless otherwise instructed by the Contract Administrator.

E4.1.2 When no work is being performed on a particular Part of the project, and providing it is safe for vehicles, adjacent lane closures will not be permitted, unless written consent is given by

the Contract Administrator. It is expected that most Parts of the work should have the adjacent lane open when no work is being performed.

E4.1.3 The Contractor shall review access from the three affected private approaches in Part A to University Crescent with the residents and take reasonable measures to minimize the impact. The Contractor shall provide a minimum of 24 hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.

E4.1.4 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.

E5. PEDESTRIAN SAFETY

E5.1 During the project, a temporary snow fence shall be installed if necessary in locations where open excavations are adjacent to pedestrian facilities.. The Contractor shall be responsible for maintaining the snow fence in a proper working condition. No measurement for payment shall be made for this work.

E6. WATER USED BY CONTRACTOR

E6.1 Further to clause 3.7 of CW 1120-R1, the Contractor shall pay for all costs associated with obtaining water in accordance with the Waterworks By-law. Sewer charges will not be assessed for water obtained from a hydrant.

E7. SURFACE RESTORATIONS

E7.1 Further to clause 3.3 of CW 1130-R1, when Total Performance is not achieved in the year the Contract is commenced, the Contractor shall temporarily repair any Work commenced and not completed to the satisfaction of the Contract Administrator. The Contractor shall maintain the temporary repairs in a safe condition as determined by the Contract Administrator until permanent repairs are completed. The Contractor shall bear all costs associated with temporary repairs and their maintenance.

E8. OPERATING CONSTRAINTS FOR WORK IN CLOSE PROXIMITY TO THE FORT GARRY-ST.VITAL FEEDERMAIN

E8.1 Description

E8.1.1 This Section details operating constraints for all work to be carried out in close proximity to the Fort Garry-St. Vital Feedermain. Close proximity shall be deemed to be any construction activity within a 5 m offset from the centreline of the feedermain.

E8.2 General Considerations for Work in Close Proximity to the Fort Garry-St. Vital Feedermain

E8.2.1 The Fort Garry-St. Vital Feedermain is a critical component of the City of Winnipeg Regional Water Supply System and work in proximity to it shall be undertaken with an abundance of caution. The pipe cannot be taken out of service to facilitate construction and inadvertent damage caused to the pipe would likely have catastrophic consequences.

Work around the Feedermain shall be planned and implemented to minimize the time period that work is carried out in close proximity to it and to ensure that the pipelines are not subjected to excessive construction related loads, including excessive vibrations and/or concentrated or asymmetrical lateral loads during backfill placement.

E8.2.2 The Fort Garry Feedermain is constructed of Prestressed Concrete Cylinder Pipe conforming to AWWA Standard C301, which was manufactured and installed in 1988. AWWA C301 pipe has limited ability to withstand increased earth and live loading. Therefore, every precaution must be undertaken to ensure that applied loading during all phases of construction is within accepted loading parameters.

Loading limitations and calculated loads associated with typical construction equipment is attached to this specification as Appendix A. The loading calculations shall be interpreted

with caution, however, as many factors can cause applied loads to vary considerably, such as unbalanced loading, variations in wheel base or track width, payload, impact factors due to excessive speed or vibration, etc.

E8.3 Submittals

E8.3.1 Submit proposed construction equipment specifications to the Contract Administrator for review seven (7) days prior to construction. Submittal shall include;

(a) Equipment operating weight and dimensions including wheel or track base, track length or axle spacings, track widths or wheel configurations

(b) Payload weights

(c) Load distributions in the intended operating configuration

E8.3.2 Submit a Construction Method Statement with proposed construction plan including haul routes, excavation equipment locations, loading positioning and base construction sequencing to the Contract Administrator for review seven (7) days prior to construction. Do not commence construction until Method Statement has been reviewed and accepted by the Contract Administrator.

E8.4 Protection of the Feedermain During Construction

E8.4.1 Contractors carrying out repair work or working in the vicinity of feedermains shall meet the following conditions and technical requirements:

(a) Planning and General Execution

(i) No work shall commence at the Site until the Construction Method Statement has been accepted and the feedermain location has been clearly delineated in the field.

(ii) Work shall only be carried out with equipment that has been reviewed and quantified in terms of its loading implications by the Contract Administrator.

(iii) For transverse crossing of the feedermain, designate crossing locations and confine equipment crossing the pipe(s) to these location. Reduce equipment speeds to levels that minimize the impacts of impact loading.

(iv) For construction work activities either longitudinally or transverse to the alignment of the feedermain, work only with equipment and in the manner stipulated in the accepted Construction Method Statement and the supplemental requirements noted herein.

(v) Subgrade, subbase and base construction shall be kept in a rut free condition at all times. Construction equipment is prohibited from crossing pipelines if the grade is insufficient to support the equipment without rutting.

(vi) Granular material, construction material, soil or other material shall not stockpiled on the pipelines or within 5 metres of the pipe centerline.

(vii) Stage construction such that the feedermain is not subjected to significant asymmetrical loading at any time.

(viii) Where work is in proximity to the feedermain, utilize construction practices and procedures that do not impart excessive vibration loads on the feedermain or that would cause settlement of the subgrade below the feedermain.

(b) Excavation

(i) Where there is less than 1.5 metres of earth cover over the feedermain and further excavation is required either adjacent to or over the feedermain, utilize only smooth edged excavation buckets, soft excavation or hand excavation techniques.

(ii) Where there is less than 2.0 m of cover over the feedermain, offset backhoe from feedermain a minimum of 2.5 m from feedermain centerline, to carry out excavation.

(iii) Excavated materials intended for reuse shall not be dumped directly on pipelines, but shall be carefully bladed in place.

(c) Subgrade Construction

(i) Subgrade compaction shall be limited to static compaction methods and only with equipment that are well within the rated loading superimposed loading capacity of the feedermain.

(ii) Stage work activities to minimize the time period that unprotected subgrade is exposed to the environment and protect the subgrade against the impacts of adverse weather if subbase/ base course construction activities are not sequential with excavation.

(d) Subbase and Base Course Construction

(i) Subbase, base or excavation materials shall not be dumped directly on pipelines but shall be carefully bladed in-place.

(ii) Subbase compaction shall be either carried out by static methods without vibration or with smaller approved equipment such as hand held plate packers or smaller roller equipment.

E8.4.2 The Contractor shall ensure that all work crew members understand and observe the requirements of this specification. Prior to commencement of on-site work, the Contractor shall jointly conduct an orientation meeting with the Contractor Administrator with all superintendents, foremen and heavy equipment operators to make all workers on Site fully cognizant of the limitations of altered loading on the feedermain, the ramifications of inadvertent damage to the pipe, the constraints associated with work in close proximity to the feedermain and the specific details of the Construction Method Statement in instances where a Construction Method Statement is in effect.

E8.4.3 Employees of the Contractor or any Subcontractor that fail to comply with the conditions for working in close proximity to the feedermain shall be promptly removed from the Site.

E9. REMOVAL OF INTERLOCKING PAVING STONES AND LEAN CONCRETE BASE

E9.1 Description

E9.1.1 General

(a) This specification covers the removal of existing interlocking paving stones and the underlying lean concrete base.

(b) Referenced Standard Construction Specifications

(i) CW 3235 – Renewal of Existing Miscellaneous Concrete Slabs

(ii) CW 3335 – Installation of Interlocking Paving Stones on a Lean Concrete Base

E9.2 Materials and Equipment

E9.2.1 Not Applicable

E9.3 Construction Methods

E9.3.1 Removing Existing Interlocking Paving Stones

(a) Salvage intact existing interlocking paving stones that are clean and free of markings. Only full size, uncut stone shall be salvaged.

(b) Remove and salvage paving stones to location shown on drawings or as directed by Contract Administrator.

(c) Stockpile paving stones in stacked piles for future reinstallation Wrap piles with plastic film or other methods to maintain site cleanliness.

(d) Dispose of unused paving stones after reinstallation.

E9.3.2 Removing Existing Lean Concrete Base

(a) Remove as per Section 3.1 of CW 3235.

E9.4 Measurement and Payment

E9.4.1 Removing Existing Interlocking Paving Stones

(a) Removing Existing Interlocking Paving Stones will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Removing Existing Interlocking Paving Stones". The area to be paid for will be the total area of paving stones removed and stockpiled in accordance with this specification and accepted by the Contract Administrator.

E9.4.2 Removing Existing Lean Concrete Base

(a) Removing Existing Lean Concrete Base will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Removing Existing Lean Concrete Base". The area to be paid for will be the total area of lean concrete base removed and disposed of in accordance with this specification and accepted by the Contract Administrator.

E10. UNIT PAVER INSERT AND BUS STOP FLAG FOUNDATION

E10.1 Description

E10.1.1 General

(a) This specification covers the construction of paving stone insert in concrete sidewalk to delineate a Transit bus stop and construction of a concrete pile foundation to support a bus stop sign (supplied by others).

(b) Referenced Standard Construction Specifications

(i) CW 3310 – Portland Cement Concrete Pavement Works

(ii) CW 3335 – Installation of Interlocking Paving Stones on a Lean Concrete Base

E10.2 Materials and Equipment

E10.2.1 Flag Foundation Concrete

(a) Cement: Type 50

(b) Min Compressive Strength at 28 days: +25 MPa

(c) Class of Exposure: S-2

(d) Slump: 90 mm +/- 20 mm

(e) Air Content: 5 – 8%

E10.2.2 Flag Foundation Materials

(a) Other materials as per Drawing in Appendix B.

E10.2.3 Unit Pavers (Interlocking Paving Stones)

(a) Blue Holland Stone Pavers 105*210*60 mm

E10.2.4 Bedding and Filler Sand

(a) As per Section 5 of CW 3335.

E10.3 Construction Methods

E10.3.1 Flag Foundation

(a) Construct flag foundation as detailed on the drawings and Appendix B.

(b) Excavate sub-grade to line and grade as shown on the drawings and Appendix B.

(c) The reinforcing cage shall be placed in the foundation excavation prior to placement of concrete. Spacers shall be provided to keep the reinforcing cage in its correct location. Reinforcement shall be formed accurately and secured in foundation shaft to its correct location.

(d) Reinforcement shall be clean, and free form all coatings including ice, loose rust, dried concrete, or soil.

(e) Reinforcing bars kinked, twisted, bent past a right angle, or reduced in cross section will be rejected.

(f) Concrete consistency shall be such that concrete works readily into corners and around reinforcement without segregation of materials or the collection of free water on the surface.

(g) Do not place concrete until foundation has been inspected.

(h) Concrete placing shall be continuous from bottom to top of foundation, and puddling or rodding or mechanical vibration carried on constantly to remove voids and produce a uniform, homogenous structure.

(i) Install anchor bolts supplied by Contract Administrator during concrete placement. Ensure correct bolt spacing is maintained.

(j) Finish exposed foundation top smooth and level.

(k) Exposed surface of foundation to be kept moist for seven days after placement and temperature of the concrete maintained above 10 C.

(l) The protection of concrete and concreting operations during extreme cold or hot weather as per CSA A23.1.

(m) Protect the top of the foundation and anchor bolts from damage by backfilling top of foundation with bedding sand or base course until flag is installed by others.

E10.3.2 Unit Pavers (Interlocking Paving Stones)

(a) Construct concrete sidewalk and unit pavers as per the drawings and CW 3335.

(b) Construct concrete sidewalk monolithically with adjacent concrete sidewalk.

(c) Natural Holland Pavers over the flag foundation to be supplied and installed by others.

E10.4 Measurement and Payment

E10.4.1 Unit Paver Insert and Bus Stop Flag Foundation

(a) Unit Paver Insert and Bus Stop Flag Foundation will be measured on a unit basis and paid for at the Contract Unit Price for each “Unit Paver Insert and Bus Stop Flag Foundation ”. The number to be paid for will be the total number constructed in accordance with this specification and accepted by the Contract Administrator.

E11. CONSTRUCTION OF TINTED CONCRETE

E11.1 Description

E11.1.1 General

(a) This specification covers the construction of “red” tinted concrete pavement, intended to delineate Transit only lanes at various locations in this project. The tinted concrete is finished at grade and is the width of the travel lane. Care must be taken with consistency in water/cement ratio and finishing as the color can be affected load to load.

(b) Referenced Standard Construction Specifications

(i) CW 3310 – Portland Cement Concrete Pavement Works

E11.2 Materials and Equipment

E11.2.1 Concrete Materials

(a) The Contractor shall base the tinted concrete mix on a mix design that has been approved for the 2007 construction season by the City of Winnipeg Research and Standards Engineer.

(b) The base mix design shall conform to Section 6 of CW 3310 with the following alterations:

(i) Type 1 mix as per Section 6.2 of CW 3310.

(ii) Slump for hand placement shall be 80 mm +/- 20 mm prior to adding superplasticizers (if needed) to facilitate finishing without adding water to the surface.

(c) Alterations to the base mix design will be considered by the Contract Administrator if necessary to account for the concrete tint material and finishing operations.

E11.2.2 Concrete Tint

(a) "Red" coloured metal oxide pigment used to permanently color ready-mix concrete.

(b) Approved product list:

(i) Lafarge Red (Premium) supplied through L.M. Scofield Company

(ii) SG160-2 Sunrise Red supplied through L.M. Scofield Company

(iii) RG-2827R Baja Red (1 bag) supplied through Interstar

(iv) Baja Red supplied through Davis Colors

(c) Contractor to cast one colored concrete sample minimum 200 mm * 200 mm in area using base concrete mix for approval by Contract Administrator. Sample to be cured a minimum of 7 days before presentation to Contract Administrator.

(d) Tinted concrete shall not be placed until sample color has been accepted by the Contract Administrator. The Contractor shall demonstrate that the sample will achieve the approximate color advertised by the pigment supplier using local concrete mix materials.

E11.2.3 Superplasticizers

(a) Superplasticizers shall conform to the requirements of CSA CAN3-A266.5 and CAN3-A266.6, but must be compatible with the air-entraining agent. The agent shall be free of chlorides and shall not affect the air-entraining agent's ability to produce a satisfactory air-void system.

E11.2.4 Liquid Membrane-Forming Curing Compound

(a) Curing compound shall be clear (no pigment), and water based conforming to the requirements of ASTM C309.

E11.2.5 Other Materials

(a) All other materials as per CW 3310.

E11.2.6 Floating and Finishing Equipment

(a) Use only wood or magnesium floats. Bull floats used for initial finishing shall be constructed of wood only.

E11.2.7 Other Equipment

(a) All other equipment as per CW 3310.

E11.3 Construction Methods

E11.3.1 General

(a) Concrete formwork, steel reinforcement, placement, curing, and joint sealing as per CW 3310 except as modified in the following clauses.

(b) As shown on the drawings, construct formed 50 mm headers to define the lane edge and transverse termination of at-grade coloured concrete.

(c) Clean finishing tools and equipment and let dry prior to finishing. Wet tools will fade the coloring. Wetting of tools during finishing operation is not permitted.

(d) Place concrete at a consistent slump. No water shall be added on Site. Superplasticizer may be added at a rate suggested by the concrete supplier if additional workability is needed.

(e) No localized water spray or fogging is permitted to assist in finishing as this will locally fade the color.

(f) Clear curing compound only shall be used. The use of water curing or plastic film is not allowed. Plastic film for insulation in cold weather must be approved by the Contract Administrator.

E11.4 Measurement and Payment

E11.4.1 Construction of Tinted Concrete

(a) Construction of Tinted Concrete will be measured on an area basis and paid for at the Contract Unit Price per square metre for the "Items of Work" listed below. The area to be paid for will be the total number of square metres of tinted concrete supplied and placed at grade, or below an asphalt overlay in accordance with this specification and accepted by the Contract Administrator.

Items of Work:

Concrete Pavements, Median Slabs, Bull-noses, and Safety Medians

(i) Construction of 230 mm Concrete Pavement (Plain-Dowelled, Tinted)

(ii) Construction of 200 mm Concrete Pavement (Plain-Dowelled, Tinted)

E12. ASPHALT TIE-INS AND PATCHING ADJACENT TO AT GRADE TINTED CONCRETE

E12.1 Description

E12.1.1 General

(a) This specification alters the scope of tie-ins and approaches to include asphalt patching next to at-grade tinted concrete. This patching is required to restore the riding surface adjacent to headers constructed as shown in the drawings.

(b) Referenced Standard Construction Specifications

(i) CW 3410 – Asphaltic Concrete Pavement Works

E12.2 Materials and Equipment

E12.2.1 Asphalt Materials

(a) Type 1A as per Section 5 and 6 of CW 3410.

E12.2.2 Equipment

(a) Equipment as per Section 8 of CW 3410.

E12.3 Construction Methods

E12.3.1 General

(a) Placement of asphalt tie-ins as per Section 9 of CW 3410.

(b) Place asphalt overlay patches adjacent to at grade colored concrete using construction methods in Section 9 of CW 3410 in locations generally shown on the construction drawings.

(c) Asphalt overlay patches shall be placed by hand methods and compacted with mechanical rollers.

E12.4 Measurement and Payment

E12.4.1 Asphalt Tie-Ins and Patching Adjacent to At Grade Tinted Concrete

(a) Asphalt Tie-Ins and Patching Adjacent to At Grade Tinted Concrete will be measured on a weight basis and paid for at the Contract Unit Price per tonne for "Tie-Ins and Patches". The weight to be paid for will be the total number of tonnes of asphalt

placed and compacted in accordance with this specification and accepted by the Contract Administrator, as measured on a certified weigh scale.

E13. RELOCATE PLANTERS

E13.1 Description

E13.1.1 General

(a) This specification covers the temporary removal, storage, and replacement of existing frangible planters for Part C of the Work.

E13.2 Materials and Equipment

E13.2.1 Not applicable

E13.3 Construction Methods

E13.3.1 General

(a) Prior to bullnose removal, relocate existing frangible planters to grassed area on Jubilee traffic island away from work area. Care should be taken to retain as much soil in the planters as possible.

(b) After construction of bullnose is complete and concrete has a minimum compressive strength of 20 MPa, place frangible planters to approximate location shown on the drawings. Care should be taken not to drag planters over the concrete surface.

E13.4 Measurement and Payment

E13.4.1 Relocate Planters

(a) Relocating Planters will be measured on a unit basis and paid for at the Contract Unit Price per unit for “Relocate Planters”. The number to be paid for will be the total number of units temporarily removed and replaced in accordance with this specification and accepted by the Contract Administrator.

E14. RENEWAL OF LEAN CONCRETE BASE

E14.1 Description

E14.1.1 General

(a) This specification covers the removal and installation of new lean concrete base for use under interlocking paving stones.

(b) Referenced Standard Construction Specifications

(i) CW 3235 – Renewal of Existing Miscellaneous Concrete Slabs

(ii) CW 3335 – Installation of Interlocking Paving Stones on a Lean Concrete Base

E14.2 Materials and Equipment

E14.2.1 Lean Concrete Mix

(a) As per Section 5 of CW 3335.

E14.3 Construction Methods

E14.3.1 Removal of Existing Lean Concrete Base

(a) After removal of existing paving stones, excavate the lean concrete base as per Section 3.1 of CW 3235.

E14.3.2 Lean Concrete Base Installation

(a) Install lean concrete base as per Section 9 of CW 3335.

E14.4 Measurement and Payment

E14.4.1 Renewal of Lean Concrete Base

(a) Renewal of Lean Concrete Base will be measured on an area basis and paid for at the Contract Unit Price per square metre for “Renewal of Lean Concrete Base”. The weight to be paid for will be the total area of lean concrete base removed and replaced in accordance with this specification and accepted by the Contract Administrator.