SPECIAL PROVISIONS

SP:1 METRIC UNITS

Tenderers shall note that all measurements in this Contract are in SI Units (Metric Units) unless otherwise noted.

SP:2 WORKING DAYS

This contract shall be completed in every respect within **forty (40)** working days. All working days shall be defined as any calendar day from Monday to Friday inclusive, excluding statutory holidays, on which, in the opinion of the Engineer, the Contractor can achieve sixty percent (60%) efficiency in the particular phase of the work to be completed.

SP:3 WATER LEVELS

Water levels are shown on the Contract Drawings for the general information and convenience of Tenderers, and are based on published reports. Notwithstanding, the Tenderer's attention is drawn to the fact that water level oscillations of various durations and amplitudes are common on Toronto Harbour and Lake Ontario due to different natural causes. The Tenderer will obtain all the information on the water levels he deems necessary for his proper assessment of the effect the water levels may have on the work and its progress and completion.

No claims or changes in the plans, arising out of variations in the water level during construction or out of the variation between the actual water levels and those shown on the drawings, will be allowed.

Chart Datum on Lake Ontario is 74.2 metres IGLD 1985.

SP:4 SITE OFFICE

Not required.

SP:5 CONTINGENCY ALLOWANCE

In regard to the Contingency Allowance contained in the Tender, it is understood and agreed by the Contractor that such Contingency Allowance is merely for the convenience of accounting by the Owner, and the Contractor is not entitled to payment thereof except for extra or additional work carried out by him as directed by the Engineer in writing and in accordance with the Contract and only to the extent of such extra or additional work.

SP:6 CONSTRUCTION BUDGET

The Tenderer shall note that the Owner has a firm, established budget for work to be completed under this Contract. The Owner reserves the right to reduce or increase the amount of work included under the Contract to suit the established budget.

SP:7 SCHEDULE OF WORK

The Contractor shall submit a schedule of work to the Engineer indicating anticipated progress stages within time of completion. Do not change schedule without notifying the Engineer.

The work schedule shall comply with the City of Toronto noise By-Laws.

No in water work or work that may impact fish habitat shall be completed between April 1 and June 30. Work under the contract shall be carried out between 7:00 AM and 7:00 PM Monday to Friday.

The timely completion of the project by the completion date indicated in the Form of Tender is of extreme importance to the Owner. It is the responsibility of the Contractor to ensure that the appropriate equipment and manpower are allocated to the project in order to complete the project within the specified time.

SP:8 PROGRESS AND COORDINATION MEETINGS

The Contractor shall attend Progress and Coordination Meetings as directed by the Engineer from time to time, during the course of the project. The Contractor's representative at these meetings shall be empowered to make decisions on the Contractor's behalf. These meeting are expected to be held weekly.

SP:9 PAYMENT FOR DELAYED WORK

Should any portion of the work not be completed within the specified time on account of climatic conditions, the Contractor shall not be entitled to additional payment for re-mobilization or any other activity associated with completion of the work when climatic conditions allow.

SP:10 ADDITIONAL SITE INFORMATION

The Contractor shall make his own assessment of the geotechnical conditions and price and plan the work accordingly.

Details of buried structures are not known. Outlines provided on the contract drawings are anticipated approximation only and are not guaranteed. Contractor shall make his own assessment and price removals accordingly.

SP:11 BATHYMETRY

Lake bottom elevations shown on the contract drawings are approximate only. The contractor shall perform his own survey of the lake bottom if he wishes detailed information. Elevations are in IGLD 1985. Chart datum is at elevation 74.2 m IGLD 1985.

SP:12 APPROVALS

The owner is currently seeking approval for the project from regulatory agencies. Award of the contract and Notification to begin Work is subject to obtaining these approvals. The approval process may influence the start of the contract. Contractor shall not claim any additional compensation due to delayed start of contract. **The Owner reserves the right not to award the contract for any reason including if all approvals are not obtained.**

Contractor shall provide authorities with jurisdiction with information as and when requested, furnish certificates and permits when requested and comply with all conditions of approvals.

SP:13 STORAGE OF MATERIALS

No material or equipment shall be stored outside the area defined by the contract limit line indicated on the contract drawings or any part of the public roadway in the area. Contractor shall provide all necessary traffic controls for day use of pathways and roadways and shall comply with any direction provided by police or requirements of the traffic department of the municipality.

SP:14 CO-OPERATION AND PROTECTION

Execute work with minimum disturbance to normal use of working areas. Maintain access and exits. All work to be carried out within the area indicated on the Contract Drawings

SP:15 INSPECTION AND TESTING

Where required by the Engineer, the Contractor shall supply certified copies of all tests upon all materials to be used in the construction of the works, indicating that materials comply with the specifications. Such tests shall be made by an approved or designated testing company and shall be at no additional cost to the Owner.

Quality control tests on the works, such as concrete cylinder compression test, compaction tests, asphalt extraction tests, etc. shall be carried out by the Engineer at the expense of the Owner. However, any re-testing to verify the quality of the work from previously failed test results shall be paid by the Contractor.

SP:16 SHOP DRAWINGS AND TESTING SUBMISSIONS

Submit to Engineer submittals listed for review in the specifications. 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. Do not proceed with Work affected by submittal until review is complete. Provide three (3) copies of each submission for review.

Present all information requested in SI Metric units. Where items or information is not produced in SI Metric units converted values are acceptable.

Review submittals prior to submission to Engineer. 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 (where required), signed, dated and identified as to specific project will be returned without being examined and considered rejected.

LIST OF SPECIFICATIONS

SECTION 01005 – GENERAL INSTRUCTIONS

Part 1 GENERAL

1.1 GENERAL DESCRIPTION

.1 Work under this contract will consist of modifications to the west pier of the eastern gap in Toronto Harbour, sorting of material from excavation works, stockpiling of acceptable material at the Leslie Street Spit, and other associated work as shown on the contract drawings and described in the specifications.

1.2 STARTUP SITE MEETING

.1 After the tender has been awarded, a meeting will be arranged between the Contractor, PortsToronto and the Project Manager to confirm details of construction methods and schedules.

1.3 COMMENCEMENT OF WORK

.1 Complete mobilization of plant and equipment to site no later than seven (7) days after the date of award.

1.4 WORK LIMITS

.1 Restrict operations to the work area and access routes shown on drawings. Minimize area requirements for stockpiling of materials.

1.5 SCHEDULE OF WORK

.1 Submit to the Project Manager, within two (2) weeks after award of contract, a schedule of work including time periods during which each operation involved in the work will be undertaken.

1.6 SITE ACCESS

.1 All access to the Eastern Gap site and the Leslie Street Spit site shall be from water. Additional access will be provided through port lands for removed material to be disposed. Details of this location will be provided upon award of tender.

1.7 DATUM

.1 Elevations shown on contract drawings are in metres I.G.L.D. 1985.

.2 Chart Datum for Lake Ontario is 74.2 metres I.G.L.D. 1985.

1.8 COOPERATION AND PROTECTION

.1 Execute work with minimum disturbance to occupants, public, other Contractors, and normal users of premises. Make arrangements with PortsToronto to facilitate execution of work.

.2 Provide necessary barriers, warning lights and signs. Protect work from damage.

1.9 SETTING OUT OF THE WORK

.1 The contractor shall employ a competent surveyor to set out the limits of the work to the approval of the Project Manager.

.2 The contractor shall verify all levels and dimensions shown on the contract drawings and those provided by the Project Manager. The contractor shall report any errors, omissions, or inconsistencies in the above to the Project Manager before commencing work.

.3 If the Contractor fails to report any such errors, omissions or inconsistencies, the Contractor will be responsible for the results and cost of rectifying same.

1.10 WORK BY OTHERS

.1 Procurement and placement of proposed buoys detailed on drawing to be completed by others.

1.11 REGULATORY REQUIREMENTS

.1 Comply with municipal, provincial and national codes and regulations relating to project. These agencies include, but are not limited to:

Transport Canada – Canadian Coast Guard
Department of Fisheries and Oceans
Toronto Region Conservation Authority
Toronto Region Public Works Department
Ministry of Natural Resources

.2 Notify Canadian Coast Guard Marine Communications, Harbour Master and Traffic Services Centre of the day on which construction is expected to start.

.3 Ensure vessels can safely navigate through and around the work site.

.4 Mark floating equipment with lights from dusk to dawn and during periods of reduced visibility with yellow flashing lights and in accordance with Collision Regulations of the Canada Shipping Act; and maintain radio watch on board.

END OF SECTION 01005

SECTION 01560 – ENVIRONMENTAL PROTECTION

Part 1 GENERAL

1.1 REFERENCE

.1 Management and Disposal of Waste OPSS 180

1.2 FISH HABITAT RESTRICTION

.1 No in water work between April 1 and June 30

.2 Comply with all conditions of the permits and approvals.

.3 All in-water work shall be carried out within turbidity curtains. The turbidity curtain shall be installed around work area before commencement of the work.

.4 Contractor to notify Engineer 48 hours before turbidity curtain installation is complete.

1.3 DISPOSAL OF WASTES

.1 Do not bury rubbish and waste materials on site.

.2 Do not dispose of waste or volatile materials, such as mineral spirits, oil, or paint thinner into waterways, storm or sanitary sewers.

.3 Recycle or dispose of all waste materials in a legal manner at a site approved by the Project Manager.

.4 Do not allow deleterious substances to enter the waterway.

1.4 POLLUTION CONTROL

.1 Contractor to prepare an Emergency Response and Environmental Protection Plans. Submit plans to Project Manager and Engineer for information purposes only.

.2 Maintain temporary erosion control and pollution control features installed under this contract. Additional erosion and sediment control materials are to be kept on site for emergencies and repairs.

.3 Erosion control measures are to be continuously monitored and properly maintained. Upgrades are to be implemented when necessary or as directed by the Engineer or Project Manager.

.4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

.5 Control emissions from equipment and plant to local authorities emission requirements.

.6 Bring machinery to the site in a clean condition, free of fluid leaks. Keep an emergency spill kit on site in case of fluid leeks or spills from machinery.

.7 Exercise care in handling of fuels to minimize the potential for fuel spills. Report immediately any fuel spills to the Engineer and Project Manager.

.8 Refuelling of machinery should be carried out on hardtop surfaces at a minimum of 30 metres distance from the water at a site designated by the Project Manager. Areas equipment refuelling and maintenance should be equipped with adequate containers for the disposal of wastes produced from upkeep and repair.

.9 Spills of deleterious substances should be immediately contained and cleaned up in accordance with provincial regulatory requirements. Spills should be reported to Ontario Spills Action Centre at telephone 1-800-268-6060 and the Project Manager. Contractor is responsible for any cleanup or repair resulting from any spills.

.10 An after-hours contact number is to be visibly posted on site in case of emergencies.

.11 Abide by local noise by-laws. Provide adequate mufflers on equipment and other noise-reduction measures as necessary to minimize noise levels during hours of work and adhere to local by-laws.

.12 No disruptions of the lakebed other than in the areas designated on the contract drawings are to occur.

1.5 NOTIFICATION

.1 Engineer or Project Manager will notify Contractor of observed noncompliance with Federal, Provincial, or Municipal environmental law or regulations, and other elements of the Contractor's Environmental Protection Plan. Contractor, after receipt of such notice, shall inform Project Manager and Engineer of proposed corrective action and take such action for approval by Engineer or Project Manager. Engineer or Project Manager will issue stop order of work until satisfactory corrective action has been taken. No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

END OF SECTION 01560

SECTION 02070 – SITE PREPARATION, DEMOLITION AND RESTORATION

Part 1 GENERAL

1.1 DESCRIPTION

.1 Work Included: Preparation of the access to the site; demolition, sorting, stockpiling and/or removal of items indicated on the Contract Drawings including existing shore structures and concrete rubble; supply and erection of safety fences; provision and maintenance of access to the site; traffic control including vehicular, pedestrian and marine traffic; dust and mud control; provision, installation, maintenance and removal of silt barriers; protection of existing surfaces and access route(s); miscellaneous other site preparation tasks within the limit of contract noted on the drawings; and the restoration of the site and access route(s) to existing conditions according to PortsToronto standards unless specified otherwise in the Contract.

1.2 RELATED SECTIONS

Excavation and Stone Fill Placement	Section 02223

1.3 REFERENCES

Management of Excess Material	OPSS 180
Grading	OPSS 260
Erosion Control	OPSS 860
Light Duty Silt Barrier	OPSD 219.110
Heavy Duty Silt Barrier	OPSD 219.130
Turbidity Curtain	OPSD 219.260 and 219.261

1.4 REGULATIONS AND APPROVALS

.1 Comply with the regulations under the Occupational Health and Safety Act as in effect at the time of construction.

.2 Approvals: Comply with conditions of approvals and/or permits from regulatory agencies.

.3 Protection: Prime consideration must be given to the protection of the environment. Cooperate fully with the Engineer and Project Manager and other authorities to protect the natural environment. Prevent uncontrolled loss of materials from the work being demolished particularly losses into Toronto Harbour.

1.5 PAYMENT

.1 Payment: as described in the Basis of Payment in the Form of Tender

Part 2 PRODUCTS

2.1 MATERIALS

.1 Silt Barrier: as per OPSD 219.110

.2 Turbidity Curtain: as per OPSD 219.260 and 219.261.

.3 Snow fencing shall be not less than 1.2 metres high with supports not more than 2.4 metres apart.

.4 Safety fencing shall be Modu-loc, Fast Fence or approved equal.

.5 Other Materials: Contractor shall supply other necessary materials to Engineer's approval

Part 3 EXECUTION

3.1 ACCESS TO SITE AND STORAGE

.1 Access points to the Eastern Gap and Leslie Street Spit sites should be limited to water access. On site storage areas are not provided and not required. Limit any access by land to existing roadways and pathways.

.2 Protect roadway, pathways, curbs, and sidewalks from damage.

.3 Clean road whenever requested by the Engineer or Project Manager or meet requirements of local municipal bylaws or standards.

.4 Control dust by application of water spray or calcium chloride.

.5 Install and maintain safety fencing minimum 1800 mm high around work and staging area as shown on the Contract Drawings.

.6 No storage of material outside of designated contract area is permitted.

.7 The storage of fuels or other deleterious materials is not permitted.

.8 Contractor assumes all liability and risk for vandalism, theft and loss. Contractor is responsible for securing stockpile location with modular fence. Valuables are not recommended to be left overnight, over weekends or over holidays.

3.2 EXAMINATION

.1 Carry out examination of the site and structures and materials to be removed.

.2 Provide Engineer with written description of proposed method of removal for review. Assume full responsibility for removal method and safety.

3.3 REMOVALS

.1 Remove items identified on the Contract Drawings and any other miscellaneous items at the request of the Engineer or Project Manager.

.2 Dispose of all derived material off site in a legal manner. Pay any costs associated with disposal of materials at no extra cost to the Contract.

.3 Maintain positive drainage on the site, access route and storage areas. Control direct loss of soil material through the use of stone barriers, straw bales, and/or filter berms as required.

.4 Remove all debris generated by construction during the project when requested by the PortsToronto Representative and upon completion of the project. Burial or burning of debris at the site is not permitted.

3.4 TREE PROTECTION

.1 Take all necessary steps to protect existing trees identified by the Project Manager at or beyond the drip line within and near the work site and specified details.

.2 Do not remove any trees unless specifically directed by the Project Manager.

3.5 REFUELING

.1 Refuel only in areas 30 metres away from Lake Ontario and Toronto Harbour where potential spills can be controlled.

.2 Be prepared at all times to intercept and control any spills.

3.6 SITE RESTORATION

.1 Restore the work site and access route to existing conditions unless specified otherwise within the Contract.

.2 Any path, curb or sidewalk damaged during construction shall be graded to match adjacent surface restored to current PortsToronto standard.

3.7 TRAFFIC CONTROL

.1 Provide traffic control for the duration of the contract as required to provide safe conditions for marine traffic, motorists and pedestrians and to meet requirements of PortsToronto.

.2 Provide and install adequate temporary barricades, warning signs and lights for the protection of the public.

3.8 TURBIDITY CURTAIN AND SILT BARRIERS

.1 Install turbidity curtains and silt barriers to prevent material entering Lake Ontario and Toronto Harbour, as shown on the Contract Drawings.

.2 Turbidity Curtain to be installed to enclose all in-water works, as shown on the Contract Drawings.

.3 Turbidity curtain to be monitored and maintained during construction.

.4 Remove sediment control systems by the completion of the contract as directed by the Project Manager or Engineer.

3.9 PROTECTION

.1 Protect existing items designated to remain. In the event of damage to such items, immediately replace or make repairs to the satisfaction of the Engineer or Project Manager and at no cost to the Contract.

.2 The Contractor is responsible to establish the location of all existing underground services, sewers and utility lines before commencing any excavation or demolition work. The Contractor is to preserve in operating condition, active utilities, traversing the site. The Contractor is to assume all costs to locate and protect the existing services, sewers and utility lines and is deemed to have done so in the price bid for the work.

END OF SECTION 02070

SECTION 02071 - TURBIDITY CURTAIN

Part 1 GENERAL

1.1 DESCRIPTION

.1 Work Included: all necessary labour, materials and equipment require for the supply, install, maintain and remove the turbidity curtain during in water work.

1.2 SUBMITTALS

.1 Submit details of the turbidity curtain system to the Engineer prior to the start of the work

.2 Submit to Engineer details of geotextile material and seam at least 2 weeks prior to commencing work.

.3 Submit to Contract Administrator CQ Plan for monitoring turbidity.

1.3 DELIVERY AND STORAGE

.1 During delivery and storage, protect geotextiles from direct sunlight, ultraviolet rays, excessive heat, mud, dirt, dust, debris and rodents.

Part 2 PRODUCTS

2.1 MATERIALS

.1 Turbidity curtain: as per OPSD 219.260 and OPSD 219.261 and OPSS 805.

.2 Turbidity curtain hardware includes:

- .1 Floatation: sufficient buoyancy to provide the curtain with continuous support and minimum 300 mm freeboard.
- .2 Load Lines: minimum 8 mm steel cable or 19 mm nylon or polypropylene rope.
- .3 Ballast: 8 mm steel chain.
- .4 Anchors: designed to withstand site conditions.
- .5 Mooring buoys: provision for mooring line to be securely attached and be sufficiently buoyant to remain afloat under normal load conditions.
- .6 Mooring lines: 19mm nylon or polypropylene rope.
- .7 Adjustment lines: 13 mm nylon or polypropylene rope.

EXECUTION

3.1 GENERAL

.1 Supply, install, maintain and remove turbidity curtain for in-water work.

3.2 INSTALLATION

.1 Turbidity curtain shall be constructed with the entire top edge above water surface.

.2 Free from tears and gaps and bottom edge of the curtain shall be continuously in contact with the watercourse bed so that sediment passage from the enclosed area is prevented.

.3 Turbidity curtain shall be constructed as follows:

- .1 A sleeve shall be formed and heat sealed or sewn along the entire bottom edge of the turbidity curtain geosynthetic to contain the ballast in the sleeve. Breaks may be made in the sleeve to facilitate pulling, provided they are a minimum 100 mm in size and spaced at minimum 3 m intervals.
- .2 Where turbidity curtain geosynthetic is joined to provide a continuous run, the sections shall be connected to provide a continuous seal and prevent escape of turbid water between the sections.
- .3 The turbidity curtain shall be of sufficient width to account for water depth and wave action.
- .4 The turbidity curtain shall be sufficient length to permit work inside the area enclosed by the curtain without restricting equipment operations, and personnel from working.
- .5 Seal ends of the turbidity curtain where it terminates at the existing structure face.

.4 Contractor to ensure bottom of turbidity curtain is in full contact with the lake bottom to prevent sediment migration under turbidity curtain.

3.3 OPERATION AND MAINTENANCE

.1 Turbidity curtains shall be installed to prevent sediment passage from the area enclosed by the curtain to the remaining body of water.

.2 If equipment is permitted in the work area enclosed by the turbidity curtains, turbidity curtains shall be installed and maintained in a manner to allow entry and movement of Contractor within the work area.

.3 Turbidity curtains shall be installed and maintained such that they do not restrict access to the remaining body of water.

.4 Turbidity curtains shall be operated and maintained in the location for all in-water work, with entire top edge above the water.

.5 The curtain shall be free from tears and gaps, and the bottom edge of the curtain is to be continuously in contact with the water course bed so that sediment passage from the area enclosed is prevented.

.6 Any folds in the turbidity curtain which form next to the flotation collar shall be regularly monitored and freed of collected sediment.

.7 Monitor and maintain the turbidity curtain booms both during and outside normal working shifts as required. Provide all personnel, materials and equipment necessary to maintain, repair or relocate the turbidity curtain system.

.8 Carry out construction operation to minimize impact on fish habitat from both disturbed sediments and fill materials.

.9 Replace damaged or deteriorated geotextile to approval of Engineer.

.10 Remove turbidity curtain when authorized by Engineer after completion of the work**.**

3.4 WATER QUALITY

.1 Turbidity:

.1 If background levels are below 8 NTU's, a maximum increase is 8 NTU's from background levels for short term exposure (i.e., 24 hour period) and a maximum average increase is 2 NTUs from background levels for a longer term exposure (i.e. 30 day period) at a distance of 100 metres away from the in-water work.

.2 If background levels are between 8 and 80 NTUs, a maximum increase is 8 NTUs from background level at any one time at a distance of 100 metres away from the in-water work area.

.3 If background level is greater than 80 NTUs, a maximum increase is 10% from background levels at a distance of 100 metres away from the in water work.

.2 When water quality is not in compliance with the required water quality performance criteria limits, stop in-water work and adjust operations to minimize turbidity. Make no claims for delays or adjustment to operation resulting from water quality exceedances.

END OF SECTION 02071

SECTION 02223 – EXCAVATION AND STONE FILL PLACEMENT

Part 1 GENERAL

1.1 GENERAL REQUIREMENTS

.1 General Conditions, Information for Tenderers and Special Provisions shall govern work of this Section.

1.2 DESCRIPTION

.1 Work Included: Excavation or removal, sorting of material, transport of excavated materials, stone fill placement and disposal of unsuitable materials as required for the removal of the existing timber piers and other site features as indicated on Contract Drawings.

1.3 RELATED SECTIONS

Site Preparation, Demolition and Restoration Section 02070

1.4 DEFINITIONS

.1 Unclassified Excavation: excavation of deposits of whatever character encountered in work including miscellaneous structures located above or below ground level and below and above water level within area being excavated.

1.5 PROTECTION OF EXISTING FEATURES

.1 Existing buried utilities and structures.

.1 Size, depth and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.

.2 Prior to commencing any excavation work, notify owner and applicable authorities establish location and state of use of buried utilities and structures. Clearly mark such locations to prevent disturbance during work.

.3 Confirm locations of buried utilities by careful test excavations.

.4 Maintain and protect from damage, water, sewer, gas, electric, telephone and other utilities and structures encountered. Obtain direction of Engineer before moving or otherwise disturbing utilities or structures.

.2 Surface Features: Protect surface features which may be affected by work from damage while work is in progress and repair damage resulting from work.

.3 Shore and brace excavations in accordance with the Occupational Health and Safety Act, latest edition and Regulations for Construction Projects, latest amendments, and applicable local regulations.

1.6 SUBMITTALS

.1 Disposal Site: inform Engineer of the location of disposal site for unsuitable material at least one week prior to disposal.

1.7 PAYMENT

.1 Payment: as described in Basis of Payment in the Form of Tender

Part 2 PRODUCTS

2.1 STONE FILL MATERIALS

.1 Re-use of Suitable Excavated Stone Fill Material: Excavated material to be re-used at Leslie Street Spit should be concrete rubble and natural stone material that meets the requirements of large rubble type B or C. It should be free of roots and other foreign objects and materials including timber crib material. Material should be sorted and must be reviewed and approved by Engineer prior to use.

2.2 OTHER MATERIAL

.1 All other materials not specifically described but required for a complete and proper installation, shall be selected by the Contractor subject to the review of the Engineer.

Part 3 EXECUTION

3.1 SURFACE CONDITIONS

.1 Inspection: Inspect the existing work of all other trades on which the work of this Section is dependent, and verify that all such work is complete to the extent that the excavation or backfill may commence.

.2 Site Preparation: Remove obstructions from surfaces to be excavated within limits indicated.

3.2 EXCAVATION

.1 Excavate to lines, grades, elevations and dimensions indicated. Remove any obstructions.

.2 If required, temporarily stockpile any excavated material, to be later used as Stone Fill Material, at a safe place selected and maintained by the Contractor and approved by the Project Manager.

.3 Dispose of surplus and suitable excavated material off site in a legal manner.

.4 Dispose of unsuitable material or debris at an appropriately approved landfill site that accepts this material at no additional cost to the contract.

.5 Remove unsuitable material from excavation bottom to extent and depth directed by Engineer.

.6 Where required due to unauthorized over-excavation, correct as directed by Engineer at own cost.

3.3 STONE FILL PLACEMENT

.1 The stone material retrieved from the removal of the East Pier shall be deposited within the Hardpoint J area of the Leslie Street Spit identified on the Contract drawing.

.2 Do not place stone fill during unfavourable weather.

.3 Place stone material within the designated area only. Distribute the material uniformly over the lake bottom within the identified area. Obtain Engineers approval of the placement method.

.4 Complete a bathymetric survey of the placed fill material upon completion of fill placement.

3.4 OTHER STONE OR EARTH MATERIAL PLACEMENT

.1 Any material not meeting Type 2 specification shall be disposed of by the contractor at a suitable disposal facility.

3.5 CLEAN UP

.1 Upon completion, remove all material and debris and dispose of it outside the site limits in a disposal area approved by the Project Manager.

.2 Leave the site in a neat and orderly condition, acceptable to the Project Manager.

3.6 QUALITY CONTROL

.1 The Contractor is responsible for carrying out all grade checks required to ensure that horizontal and vertical grading tolerances are met.

.2 The Owner may conduct grade checks to verify horizontal and vertical grading tolerances.

.3 Where the finished grade or cross-section does not meet the acceptance criteria, the grade surface shall be brought to grade within the specified tolerances.

.4 An underwater dive review of the excavation area, including video recordings, shall be completed and submitted to the Owner for review within one week (7 days) of completion of work.

END OF SECTION 02223