

## **PART 1 - GENERAL**

### **1.1 WORK COVERED BY CONTRACT DOCUMENTS**

- .1 Work of this Contract comprises renovation of the Kingston Penitentiary Central Heating Plant located in Kingston, Ontario; and further identified as CHP; This includes demolition of:
  - .1 Steam generator #2, complete with all piping, supports, and accoutrements.
  - .2 Thermal fluid pump #2, complete with all piping, supports, and accoutrements.
  - .3 Thermal fluid boiler #2, complete with all piping, supports, and accoutrements.
  - .4 Steam generator feedwater pumps P-6, P-7, and P-8
  - .5 Exhaust breeching serving thermal fluid boilers #2 and #3
  - .6 Chemical treatment assembly for steam generator #2
  - .7 Thermal fluid loop serving thermal fluid boiler #2
  - .8 Thermal fluid expansion loops serving thermal fluid boilers #2 and #3
  - .9 Thermal fluid expansion tank serving thermal fluid boiler #2
  - .10 Steam smothering piping serving thermal fluid boilers #1, #2, and #3
  - .11 The condensate piping associated with thermal fluid boilers #1, #2, and #3
  - .12 Blowdown piping for steam generators #2 and #3
  - .13 Fuel oil piping serving thermal fluid boilers #1, #2, and #3
  - .14 Domestic cold water piping serving thermal fluid pumps #2 and #3
  - .15 Safety relief vents serving steam generators #2 and #3
  - .16 Steam supply piping from steam generators #2 and #3 to header.
  - .17 Gas piping serving thermal fluid boiler #2
  - .18 Feedwater piping for steam generators #1, #2, and #3
  - .19 Control panel for thermal fluid boiler #1

- .20 Disconnect switch for feedwater pumps P-6, P-7, and P-8, complete with conductor, conduit and junction boxes
- .21 Bailey control panels for thermal fluid boilers #1, #2, and #3
- .22 Bacon control panels for thermal fluid boilers #1, #2, and #3
- .2 The contractor is responsible for new work, including material and labour for the installation of:
  - .1 Low water volume boiler, complete with all piping, accessories, controls, and accoutrements, and including economizer (either integral or external)
  - .2 New feedwater pumps P-6 and P-7
  - .3 Boiler feedwater piping, including new orifice plate and bypass from feedwater supply to new boiler
  - .4 Blowdown piping for new boiler
  - .5 Temperature sensors in existing steam tunnel to Kingston Penitentiary, complete with programmable controller and connection to existing pager system
  - .6 Steam vent piping for new boiler
  - .7 Steam supply piping from new boiler to existing steam header, complete with electronic flowmeter with remote readout in an easily accessible location
  - .8 Gas piping for new boiler
  - .9 **New control panel for existing boiler #1, to be able to send alarm signal to existing automatic dialer using a dry contact.**
  - .10 **New controls and control panel for boiler #1**
  - .11 Gas vents for new boiler gas train
  - .12 Exhaust breeching for new boiler
  - .13 Power for new pumps P-6 and P-7, including wiring, starter, breaker, and disconnect switch
  - .14 Concrete wall to be installed where Bailey control panels were located
  - .15 Power for new boiler, including disconnect, breaker, wiring, and conduit
- .3 Contractor is responsible for ensuring boiler plant meets operational requirements of PWGSC by October 15, 2014. Contractor is to provide and

install temporary boilers to meet demand if plant is deemed by PWGSC to not meet operational requirements on this date.

## **1.2 CONTRACT METHOD**

- .1 Construct Work under stipulated price contract.

## **1.3 WORK SEQUENCE**

- .1 Construct Work in stages to accommodate Owner's continued use of premises during construction.
- .2 Co-ordinate Progress Schedule and co-ordinate with Owner Occupancy during construction.
- .3 Maintain fire access/control.

## **1.4 CONTRACTOR USE OF PREMISES**

- .1 Co-ordinate use of premises under direction of Departmental Representative.
- .2 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.
- .3 Remove or alter existing work to prevent injury or damage to portions of existing work which remain.
- .4 Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by Departmental Representative.
- .5 At completion of operations condition of existing work: equal to or better than that which existed before new work started.

## **1.5 OWNER OCCUPANCY**

- .1 Departmental Representative will occupy premises during entire construction period for execution of normal operations.
- .2 Co-operate with Departmental Representative in scheduling operations to minimize conflict and to facilitate Departmental Representative usage.

## **1.6 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING**

- .1 Execute work with least possible interference or disturbance to building operations and occupants and normal use of premises. Arrange with Departmental Representative to facilitate execution of work.

## **1.7 EXISTING SERVICES**

- .1 Notify, Departmental Representative and utility companies of intended interruption of services and obtain required permission.
- .2 Where Work involves breaking into or connecting to existing services, give Departmental Representative 48 hours notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry out work at times as directed by governing authorities with minimum disturbance to tenant operations.
- .3 Provide alternative routes for personnel.
- .4 Establish location and extent of service lines in area of work before starting Work. Notify Departmental Representative of findings.
- .5 Submit schedule to and obtain approval from Departmental Representative for any shut-down or closure of active service or facility including power and communications services. Adhere to approved schedule and provide notice to affected parties.
- .6 Provide temporary services when directed by Departmental Representative to maintain critical building and tenant systems.
- .7 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .8 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.
- .9 Record locations of maintained, re-routed and abandoned service lines.
- .10 Construct barriers in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.

## **1.8 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 List of Outstanding Shop Drawings.
  - .6 Change Orders.

- .7 Other Modifications to Contract.
- .8 Field Test Reports.
- .9 Copy of Approved Work Schedule.
- .10 Health and Safety Plan and Other Safety Related Documents.
- .11 Other documents as specified.

**PART 2 - PRODUCTS**

**2.1 NOT USED**

- .1 Not used.

**PART 3 - EXECUTION**

**3.1 NOT USED**

- .1 Not used.

**END OF SECTION**