This form is intended to guide projects through the steps and procedures required to successfully coordinate with UBC EWS and obtain approval for various construction activities/stages. A copy of this form should be provided at the Pre-Construction Meeting and the form should be completed and submitted to UBC EWS prior to final completion and acceptance of the project.

Note that this form addresses coordination with the DES only. Coordination for all other EWS utilities is not outlined in this form and should be addressed separately.

PART 1 – Project Information

<table>
<thead>
<tr>
<th>Project Name: __________________________</th>
<th>Location: __________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Owner: ________________________</td>
<td>Contact: __________________________</td>
</tr>
<tr>
<td>Phone Number: _________________________</td>
<td>Email: ______________________________</td>
</tr>
<tr>
<td>Project # ____________________________</td>
<td>PO# ________________________________</td>
</tr>
</tbody>
</table>

PART 2 – UBC EWS DES Utilities Key Contacts

People and Process Manager- Plant Ops, BRDF and CEC, Jason Rako – 604-827-0038 – jason.rako@ubc.ca
Senior Manager, Thermal Utilities, Clayton Mullen– 604-827-0038 - clayton.mullen@ubc.ca
Utility Systems Specialist, Joshua Wauthy – 604-822-1131 – joshua.wauthy@ubc.ca
District Energy System Process Specialist, Kevin Phelan – 604-827-4415 – kevin.phelan@ubc.ca
People and Process Manager, Russell Neal – 604-839-6790 – russell.neal@ubc.ca
Project Coordinator, Brennan Sekora – 604-822-0098 – brennan.sekora@ubc.ca
Energy and Water Services Head Steamfitter, Michael Carroll - 604-822-3895 - mike.carroll@ubc.ca

PART 3 – DES Construction Checklist

Total Length of DES Pipe Installed: ________ m  Number of Connections to UBC System: ________
Pipe Diameter: ________ mm  Pipe Material: ________________ Outside primary or ETS Piping ___________

ALL CHECKLIST ITEMS MUST BE COMPLETE FOR UBC EWS FINAL ACCEPTANCE OF INSTALLATION.

<table>
<thead>
<tr>
<th>Construction Activity and Coordination Required</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-construction Activities and Documents</td>
<td></td>
</tr>
<tr>
<td>1. Consultant to submit Utility Service Connection Application</td>
<td>□ YES</td>
</tr>
<tr>
<td>2. Consultant Design Registration</td>
<td>□ YES</td>
</tr>
<tr>
<td>• Stress Calculations</td>
<td></td>
</tr>
<tr>
<td>• TSBC Design Registration</td>
<td></td>
</tr>
</tbody>
</table>
### 3. Consultant IFC Drawings

- **Contractor to submit following documentation:**
  - a. Copy of “A” contractors TSBC accepted QCM (Quality Control Manual) □ YES
  - b. Registered Welding Procedure used (WPS) and (PQR) □ YES
  - c. Welders Procedure Qualification (WPQ) □ YES
  - d. Copy of the Welders LOG BOOK
    - i. Registration Page □ YES
    - ii. Procedures qualified to use □ YES
    - iii. Welders continuity (work history) □ YES
  - e. Copy of TSBC Contractors License □ YES
  - f. Copy of the Logstor/Brugg Training Certificate □ YES

- **Email to TSBC and CC EWS. – Notifying TSBC of the planned DES registered piping construction, and the construction schedule.** □ YES

### 2. DES Energy Meter Order

- **YES**

### Constructing Registered Piping System

#### 1. Traveller
- a. Contractor hold points □ YES
- b. Owners Inspector hold points □ YES
- c. BSO hold points □ YES

#### 2. All open ends of the piping have been capped during construction and transportation keeping any debris from entering the piping. □ YES

#### 3. Submit DES Flushing and cleaning plan for approved by EOR □ YES

#### 4. Submit planned discharge form for approval. Min 1 week prior to Planned flushing work. [https://riskmanagement.sites.olt.ubc.ca/files/2021/05/UBC-Planned-Discharge-to-Sanitary-Form-2021.pdf](https://riskmanagement.sites.olt.ubc.ca/files/2021/05/UBC-Planned-Discharge-to-Sanitary-Form-2021.pdf) □ YES

#### 5. Contractor to notify UBC EWS a minimum 48 hours prior to DES pipe installation. UBC EWS shall be provided access to inspect the pipe installation prior to backfilling or covering. Inspection of all welded joints and BX and C2L kits is required. □ YES

#### 6. NDE and visual inspections □ YES

#### 7. Perform flushing and cleaning as per approved Flushing and planned discharge plan. Scheduled with EWS minimum 48 hours in advance. □ YES

#### 8. Hydro Testing using a Certified Guage. Provide copy of the guage certification from testing agency prior to Hydro test. Hydro testing to be scheduled with TSBC and EWS a minimum of a week in advance. □ YES

#### 9. All field changes to design must be signed off by the Engineer of Record and approved in writing by UBC EWS prior to installation. Field changes should also be reflected in redline drawings. □ YES

#### 10. If a DES shutdown is required for a connection, notify UBC EWS and submit a System Shutdown Application Form to UBC Building Operations a minimum 10 working days prior to shutdown date. Form found here: [https://buildingoperations.ubc.ca/files/2017/05/Shutdowns_V4.pdf](https://buildingoperations.ubc.ca/files/2017/05/Shutdowns_V4.pdf) □ YES □ N/A

#### 11. Prior to final service activation Contractor to arrange for a UBC EWS final walkthrough site inspection with the Engineer of Record to confirm that surface features (valve boxes, manholes □ YES
etc.) are correctly installed, located as per redline drawings and brought up to finished grade elevations. All valve boxes to be clear of rocks and be installed so valves have clear access to operate with the proper size valve box piping.

12. Submit a Service Activation Request signed by EOR min 48 hours prior to requested service activation date. □ YES

Close out documentation

1. Survey new infrastructure at key points (bends, valves, etc.) to be included in redline drawing information. □ YES
2. Provide UBC EWS with redline drawings of DES piping within 2 weeks of activation. □ YES
3. Contractor/Project Manager to submit following documentation to EWS:
   a. Copy of “A” contractors TSBC accepted QCM (Quality Control Manual) □ YES
   b. Registered Welding Procedure used (WPS) and (PQR) □ YES
   c. Welders Procedure Qualification (WPQ) □ YES
   d. Copy of the Welders LOG BOOK
      I. Registration Page □ YES
      II. Procedures qualified to use □ YES
      III. Welders continuity (work history) □ YES
   e. Copy of TSBC “A” Contractors License □ YES
   f. Copy of the Logstor/Brugg Training Certificate □ YES
4. Weld maps □ YES
5. NDE Reports and visual examination report for the DES piping □ YES
6. Testing Reports – Hydrostatic/and or in-service Test Report - co-signed by TSBC Inspector OR Owner's Rep □ YES
7. Hydro testing Certified Gauge certification from an approved testing agency □ YES
8. TSBC "Construction Data Report for Piping Systems" or “Repair and Alteration” form and notification to TSBC worked has been completed. □ YES
9. Copy of TSBC Contractors “A” License □ YES
10. MDR for all material used in construction □ YES
11. As-Built Photos □ YES

NOTE THAT ALL UTILITY SYSTEM VALVES ARE TO BE OPERATED BY UBC EWS STAFF ONLY.

PART 4 – Submission Confirmation

ALL CHECKLIST ITEMS MUST BE COMPLETE FOR UBC EWS FINAL ACCEPTANCE OF INSTALLATION.

<table>
<thead>
<tr>
<th>Checklists to be Completed</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirm that checklist (including the final walkthrough inspection with UBC EWS and relevant Engineer of Record) for DES has been completed.</td>
<td>□ YES □ N/A</td>
</tr>
</tbody>
</table>

Submitted by: ___________________________ Submission Date: ___________________________

PART 10 – FOR UBC ENERGY & WATER SERVICES OFFICE USE ONLY

Received by: ___________________________ Date Received: ___________________________
Approved by: ___________________________ Date Approved: ___________________________
Comments: ____________________________________________